Peace River Area Monitoring Program

NOVEMBER 2023

Monthly Ambient Air Quality Monitoring Report

PRAMP-202311

Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Peace River Area Monitoring Program

December 18, 2023

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Table of Contents

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

Peace River Area Monitoring Program
Suite 91, 305 – 4625 Varity Drive NW
Calgary, AB, T3A 0Z9
Phone #: 780-226-7068 / 587-225-2248
E-mail: pramptech@prampairshed.ca
www.prampairshed.ca

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

December 18, 2023

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

Enclosed is the November 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
Suite 91, 305 – 4625 Varity Drive NW
Calgary, AB, T3A 0Z9
Phone #: 780-226-7068 / 587-225-2248
E-mail: pramptech@prampairshed.ca

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 November 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 November 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.
- **THC/CH4/NMHC**: On November 7, BV's Thermo 55i analyzer, s/n: 1022143392, was removed and replaced by PRAMP's Thermo 55i analyzer, s/n: 12208316589. The newly installed analyzer was allowed time to stabilize overnight. A successful installation calibration was complete don November 8. Twenty-one hours of downtime were recorded due to this event.

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.
- **THC/CH4/NMHC**: On November 8, BV's Thermo 55i analyzer, s/n: 1314057759, was removed and replaced by PRAMP's Thermo 55i analyzer, s/n: 1501663728. The newly installed analyzer was allowed time to stabilize overnight. A successful installation calibration was complete don November 9. Nineteen hours of downtime were recorded due to this event.
- **All parameters**: On November 17, BV's Ultimate datalogger, s/n: ACI0000208, was removed, and PRAMP's Ultimate datalogger, s/n: ACL1000105, was installed following maintenance / testing. One hour of downtime was recorded due to this event.

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.
- **TRS:** The analyzer failed due to a failed converter on October 26. The CNRL's CD Nova CDN-101 convertor, s/n: 506, was replaced with BV's CD Nova CDN-101 convertor, s/n: 516, on October 31. Maintenance was completed on November 1. The convertor was allowed time to stabilize overnight. A successful post-repair calibration was completed on November 2. Thirty-four of downtime were recorded due to this event.

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 and two 24-hour PM2.5 exceedances were recorded this month. The recorded exceedances were believed to be the result of local buildup of emissions, given the low wind speeds recorded at the time.

Date	Time (MST)	Parameter	Average Period	Concentration (µg/m3)	Wind speed (km/hr)	Wind Direction	Reference #
2-Nov	-	PM2.5	24-Hour	33	5.8	33°(NNE)	EDGE00421585
3-Nov	-	PM2.5	24-Hour	37	2.7	355°(N)	EDGE00421626
23-Nov	5	PM2.5	1-Hour	108	1.1	249°(WSW)	DINC0002591

- No major operational issues were recorded this month.

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.
- There were no canister events recorded this month. The canister system was triggered at the Reno-B station on November 30 at 06:40 due to an analyzer/carrier gas issue. The event is not valid.

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).

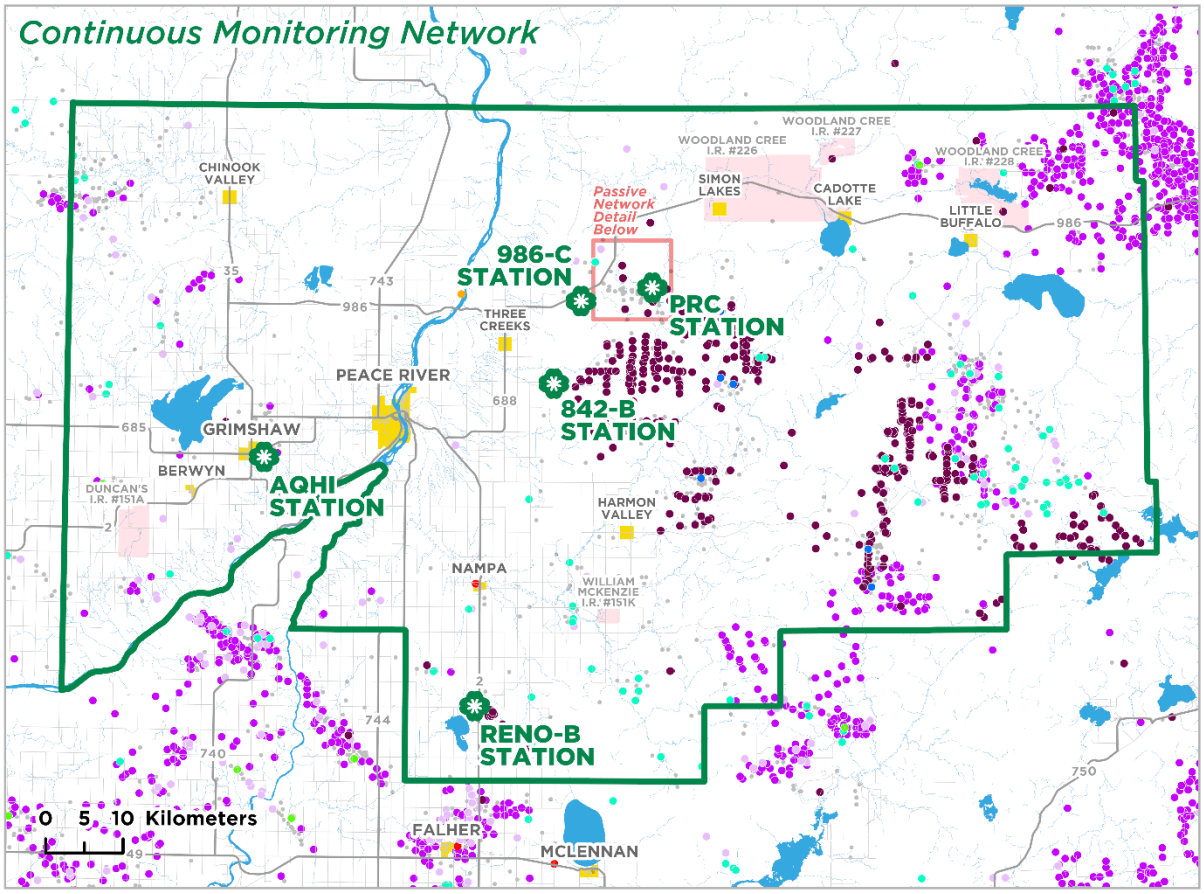
Lily Lin, Technical Program Manager, PRAMP Airshed

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

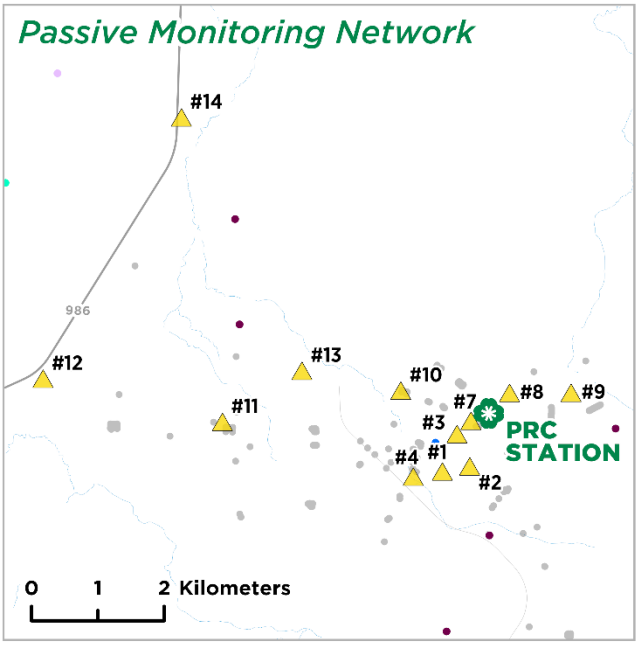


Legend

- 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)



Service Layer Credits: Esri, CGIAR, USGS, Esri, USGS

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 November 7. • No operational issues were identified this month.
TRS Thermo 43iQTL #1191833341 TRS convertor CD Nova CDN-101 #530 (BV-supplied)	• A successful shut-down calibration was completed on November 7 to replace the SO2 scrubber material. The analyzer was allowed time to stabilize overnight. A successful post-repair calibration was completed on November 8. Twenty-one hours of downtime were recorded due to this event. • No operational issues were identified this month.
THC/CH4/NMHC Thermo 55i #1022143392 #12208316589 H2 Generator HG300 #191267063	• On November 7, BV's Thermo 55i analyzer, s/n: 1022143392, was removed and replaced by PRAMP's Thermo 55i analyzer, s/n: 12208316589. The newly installed analyzer was allowed time to stabilize overnight. A successful installation calibration was complete don November 8. Twenty-one hours of downtime were recorded due to this event. • Bad injections were recorded on November 16 due to unstable station temperatures, which was due to the trailer's heater failure. An additional space heater was added to maintain the station temperature on November 17. Data collected between November 15 and November 17 were reviewed and discarded if data quality was affected by the station temperature issue. No hourly data were invalidated as the hourly data completeness requirement was met.
RH Rotronic HC2-S3 #20626912	• The RH probe was checked on November 7. The probe passed the check requirements. • Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.
BP MetOne 092 #Y23358	• The BP sensor was checked on November 7. The sensor passed the check requirements. • Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.

Parameter	Equipment Operational Summary
AT Rotronic HC2-S3 #20626912	• The AT probe was checked on November 7. The probe passed the check requirements. • Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.
ST COMET #18961918	• No operational issues were identified this month.
Precipitation RM Young 52202 #TB 16325	• The precipitation gauge was checked on November 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 November 7. The wind system passed the check requirements. • Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.
Station HVAC	• The AQM station's HVAC failed on November 3. The shelter temperature was slightly unstable for the first half of the month as the heating was dependent on s space heater. Analyzer performance was either no or minimize affected by this issue. An additional heater was added on November 17 to keep the station temperature more stable.

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	0.0	0	1	Nov 12 at hr 18	6	ESE	0.1	Nov 18	100.0	94.8
TRS (ppb)	-	-	-	-	-	-	0.51	0.10	2.87	Nov 4 at hr 1	0.3	SE	0.80	Nov 12	97.4	92.1
THC (ppm)	-	-	-	-	-	-	2.04	1.93	2.20	Nov 30 at hr 8	6.8	SSE	2.11	Nov 30	97.1	91.9
CH4 (ppm)	-	-	-	-	-	-	2.04	1.93	2.20	Nov 30 at hr 8	6.8	SSE	2.11	Nov 30	97.1	91.9
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.02	Nov 12 at hr 13	9.3	W	0.00	Nov 12	97.1	91.9
RH (%)	-	-	-	-	-	-	83.8	38	100	Nov 1 at hr 7	6.9	E	100.0	Nov 5	99.6	99.6
BP (millibar)	-	-	-	-	-	-	938	918	955	Nov 20 at hr 13	1.7	WSW	952	Nov 23	99.6	99.6
Ext. Temp. (°C)	-	-	-	-	-	-	-1.0	-14.7	9.3	Nov 18 at hr 15	11.6	SSW	5.8	Nov 18	99.6	99.6
Stn. Temp. (°C)	-	-	-	-	-	-	22.6	14.9	27.5	Nov 18 at hr 14	11.9	S	26.0	Nov 18	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	3.9	0.0	1.3	Nov 12 at hr 5	13.4	W	2.0	Nov 5	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	4.9	0.1	31.5	Nov 19 at hr 22	31.5	NW	18.3	Nov 10	99.6	99.6
WDV (sector)	-	-	-	-	-	-	210 (SSW)	-	-	-	-	-	-	-	99.6	99.6

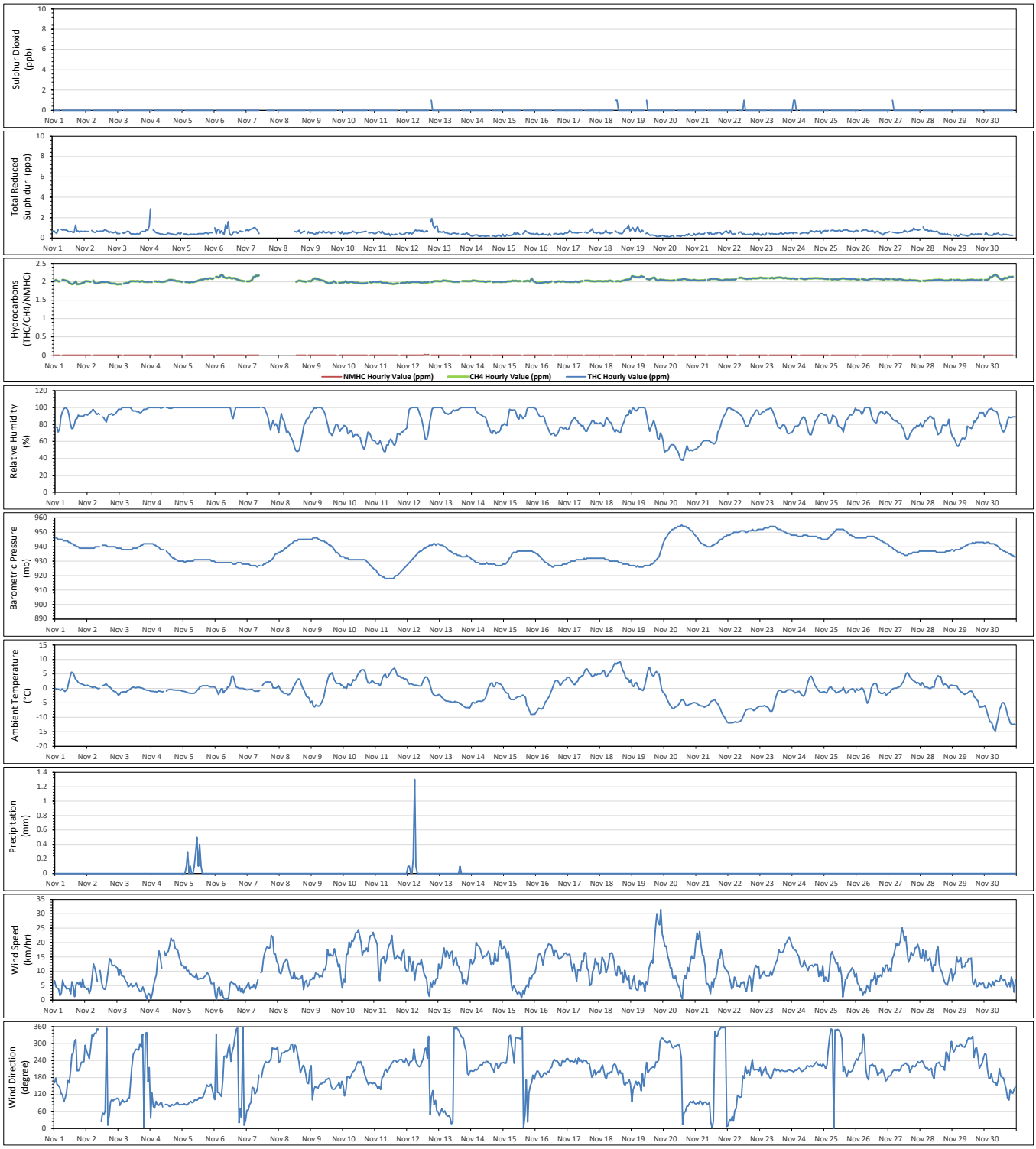
1- Date/ Time given is the first minimum and maximum value that was recorded

* 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 Nov 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 November 9. • One hour of downtime was recorded on November 17 due to datalogger swap; BV's Ultimate datalogger, s/n: ACI0000208, was removed and replaced with PRAMP's Ultimate datalogger, s/n: ACL1000105. As this event happened during the time the scheduled daily zero-span check ran, a repeat zero-span check was completed afterwards.
TRS Thermo 43iQTL #1200736630 TRS Convertor CD Nova CDN-101 #583	• A successful shut-down calibration was completed on November 8 to replace the SO2 scrubber material. The analyzer was allowed time to stabilize overnight. A successful post-repair calibration was completed on November 9. Eighteen hours of downtime were recorded due to this event. • One hour of downtime was recorded on November 17 due to datalogger swap; BV's Ultimate datalogger, s/n: ACI0000208, was removed and replaced with PRAMP's Ultimate datalogger, s/n: ACL1000105. As this event happened during the time the scheduled daily zero-span check ran, a repeat zero-span check was completed afterwards.
THC/CH4/NMHC Thermo 55i #1314057759 #1501663728 H2 Generator HG300 #190567058	• On November 8, BV's Thermo 55i analyzer, s/n: 1314057759, was removed and replaced by PRAMP's Thermo 55i analyzer, s/n: 1501663728. The newly installed analyzer was allowed time to stabilize overnight. A successful installation calibration was complete don November 9. Nineteen hours of downtime were recorded due to this event. • One hour of downtime was recorded on November 17 due to datalogger swap; BV's Ultimate datalogger, s/n: ACI0000208, was removed and replaced with PRAMP's Ultimate datalogger, s/n: ACL1000105. As this event happened during the time the scheduled daily zero-span check ran, a repeat zero-span check was completed afterwards.
RH Rotronic HC2-S3 #20370767	• The RH probe was checked on November 9. The probe passed the check requirements. • One hour of downtime was recorded on November 17 due to datalogger swap; BV's Ultimate datalogger, s/n: ACI0000208, was removed and replaced with PRAMP's Ultimate datalogger, s/n: ACL1000105.

Parameter	Equipment Operational Summary
AT Rotronic HC2-S3 #20370767	• The AT probe was checked on November 9. The probe passed the check requirements. • One hour of downtime was recorded on November 17 due to datalogger swap; BV's Ultimate datalogger, s/n: ACI0000208, was removed and replaced with PRAMP's Ultimate datalogger, s/n: ACL1000105.
BP MetOne 092 #Y23362	• The BP sensor was checked on November 9. The sensor passed the check requirements. • One hour of downtime was recorded on November 17 due to datalogger swap; BV's Ultimate datalogger, s/n: ACI0000208, was removed and replaced with PRAMP's Ultimate datalogger, s/n: ACL1000105.
ST COMET #20790297	• One hour of downtime was recorded on November 17 due to datalogger swap; BV's Ultimate datalogger, s/n: ACI0000208, was removed and replaced with PRAMP's Ultimate datalogger, s/n: ACL1000105.
Precipitation RM Young 52202 #TB 15878	• The precipitation gauge was checked on November 9. The sensor passed the check requirements. • One hour of downtime was recorded on November 17 due to datalogger swap; BV's Ultimate datalogger, s/n: ACI0000208, was removed and replaced with PRAMP's Ultimate datalogger, s/n: ACL1000105.
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 November 9. Both the wind speed sensor and wind direction sensor passed the check requirements. • One hour of downtime was recorded on November 17 due to datalogger swap; BV's Ultimate datalogger, s/n: ACI0000208, was removed and replaced with PRAMP's Ultimate datalogger, s/n: ACL1000105.

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	Nov 14 at hr 13	14.7	SW	0.2	Nov 23	99.9	94.7
TRS (ppb)	-	-	-	-	-	-	0.54	0.28	1.15	Nov 9 at hr 15	14.1	SSE	0.69	Nov 12	97.5	92.1
THC (ppm)	-	-	-	-	-	-	1.93	1.85	2.16	Nov 6 at hr 4	3.8	SE	2.09	Nov 6	97.4	92.2
CH4 (ppm)	-	-	-	-	-	-	1.93	1.85	2.16	Nov 6 at hr 4	3.8	SE	2.09	Nov 6	97.4	92.2
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	Nov 1 at hr 0	1.5	SE	0.00	Nov 1	97.4	92.2
RH (%)	-	-	-	-	-	-	83.8	34	99	Nov 1 at hr 6	3.3	ENE	99.0	Nov 5	99.9	99.9
BP (millibar)	-	-	-	-	-	-	936	917	953	Nov 20 at hr 10	8.2	NW	951	Nov 23	99.9	99.9
Ext. Temp. (°C)	-	-	-	-	-	-	-0.9	-14.6	9.6	Nov 18 at hr 14	8	S	5.8	Nov 18	99.9	99.9
Stn. Temp. (°C)	-	-	-	-	-	-	22.3	21.1	23.1	Nov 30 at hr 7	3.3	ESE	22.7	Nov 30	99.9	99.9
Precipitation (mm)*	-	-	-	-	-	-	7.5	0.0	0.9	Nov 5 at hr 7	3.8	E	5.5	Nov 5	99.9	99.9
WSV (km/hr)	-	-	-	-	-	-	4.2	0.1	27.3	Nov 19 at hr 19	27.3	WSW	14.3	Nov 27	99.9	99.9
WDV (sector)	-	-	-	-	-	-	213 (SSW)	-	-	-	-	-	-	-	99.9	99.9

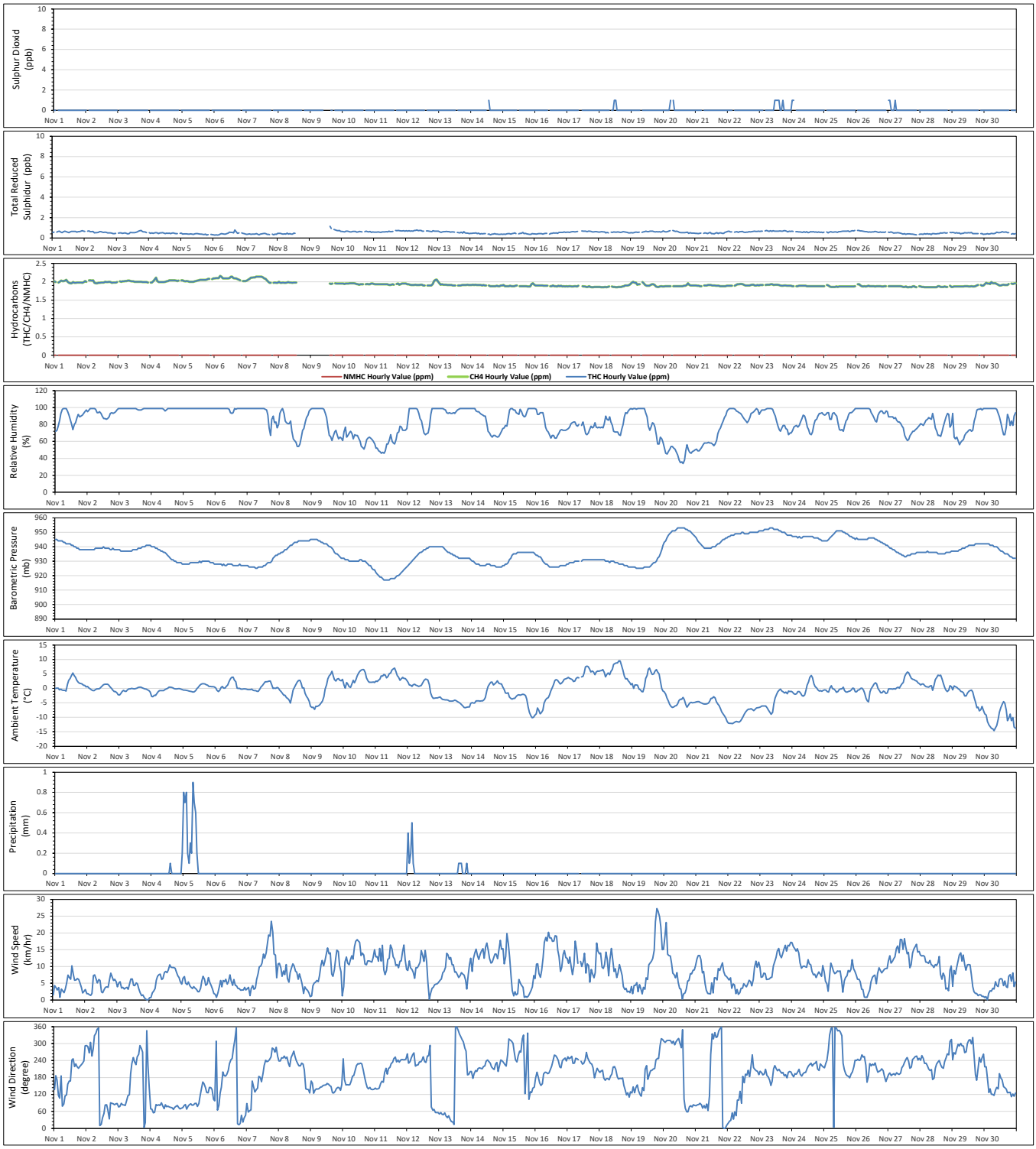
1- Date/ Time given is the first minimum and maximum value that was recorded

* 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 Nov 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 November 2. • 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 November 2. • No operational issues were identified this month.
THC/CH4/NMHC Thermo 55i #12101910497 H2 Generator HG300 #210467069	• A successful monthly calibration was performed on November 2. • The analyzer failed the daily span check between November 26 and November 30 due to the span gas depletion. The span gas cylinder was replaced on November 30. This issue only affected the zero-span system. Data quality was not compromised by this issue. • The analyzer failed due to the N2 gas depletion on November 29. The gas cylinder was replaced following a successful zero-span check on November 30. Twenty-one hours of downtime were recorded due to this event. • Due to datalogger polling errors, seven hours of downtime were recorded as the hourly data completeness requirement did not meet.
RH Rotronic HC2-S3 #20467597	• The RH probe was checked on November 2. 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 #A17940	• The BP sensor was checked on November 2. 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.

Parameter	Equipment Operational Summary
AT Rotronic HC2-S3 #20467597	• The AT probe was checked on November 2. 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	• No operational issues were identified this month.
Precipitation RM Young 52202 #TB 15877	• The precipitation gauge was checked and tested on November 2. The unit passed the check requirements. • Due to datalogger polling errors, six hours of downtime were 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 November 2. The wind sensors 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 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	2	Nov 10 at hr 13	20.6	WSW	0.2	Nov 23	100.0	94.8
TRS (ppb)	-	-	-	-	-	-	0.29	0.14	0.94	Nov 6 at hr 20	8.1	NE	0.41	Nov 6	100.0	94.8
THC (ppm)	-	-	-	-	-	-	1.99	1.91	2.36	Nov 4 at hr 0	2.8	E	2.06	Nov 6	96.8	91.8
CH4 (ppm)	-	-	-	-	-	-	1.99	1.91	2.36	Nov 4 at hr 0	2.8	E	2.06	Nov 6	96.8	91.8
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	Nov 1 at hr 0	3	ESE	0.00	Nov 1	96.8	91.8
RH (%)	-	-	-	-	-	-	82.9	38	100	Nov 3 at hr 20	2.3	ENE	100.0	Nov 5	99.0	99.0
BP (millibar)	-	-	-	-	-	-	936	917	953	Nov 20 at hr 10	3	NNW	951	Nov 23	99.0	99.0
Ext. Temp. (°C)	-	-	-	-	-	-	-1.0	-13.4	9.7	Nov 18 at hr 13	11	S	5.1	Nov 18	99.0	99.0
Stn. Temp. (°C)	-	-	-	-	-	-	23.1	22.3	24.1	Nov 2 at hr 18	10.5	E	23.4	Nov 30	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	5.6	0.0	1.5	Nov 4 at hr 23	11.2	E	3.1	Nov 4	99.2	99.2
WSV (km/hr)	-	-	-	-	-	-	5.0	0.7	42.6	Nov 7 at hr 18	42.6	W	18.5	Nov 27	99.0	99.0
WDV (sector)	-	-	-	-	-	-	216 (SW)	-	-	-	-	-	-	-	99.0	99.0

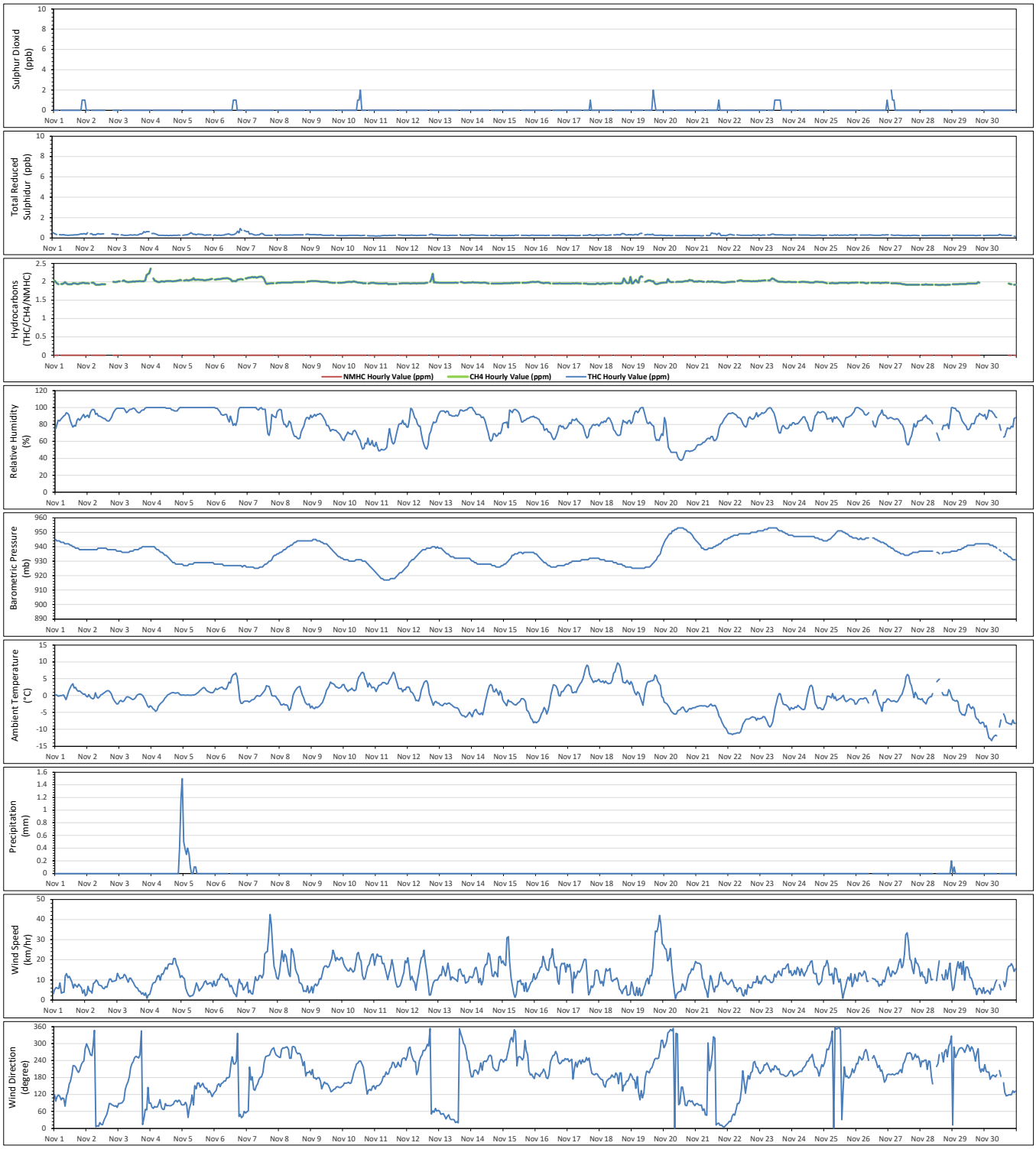
1- Date/ Time given is the first minimum and maximum value that was recorded

* 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 Nov 2023 - Reno-B Station



PRC Station

Equipment Operation Summary

Parameter	Equipment Operational Summary
SO2 Thermo 43i #1034746225	• A successful monthly calibration was performed on November 1. • No operational issues were identified this month.
H2S Thermo 450i #1308857354	• A successful monthly calibration was performed on November 1. • No operational issues were identified this month.
TRS Thermo 450i #1034746224 TRS Convertor CD Nova CDN-101 #516	• The analyzer failed due to a failed converter on October 26. The CNRL's CD Nova CDN-101 convertor, s/n: 506, was replaced with BV's CD Nova CDN-101 convertor, s/n: 516, on October 31. Maintenance was completed on November 1. The convertor was allowed time to stabilize overnight. A successful post-repair calibration was completed on November 2. Thirty-four of downtime were recorded due to this event.
THC/CH4/NMHC Thermo 55i #1034745845 H2 Generator HG300 #211067076	• A successful monthly calibration was performed on November 1. • No operational issues were identified this month.
RH Rotronic HC2-S3 #20558318	• The RH sensor was checked on November 1. The sensor passed the check requirements. • No operational issues were identified.
BP MetOne 092 #B19577	• The BP sensor was checked on November 1. The sensor passed the check requirements. • No operational issues were identified.
AT Rotronic HC2-S3 #20558318	• The AT sensor was checked on November 1. The sensor passed the check requirements. • No operational issues were identified.

Parameter	Equipment Operational Summary
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 November 1. The sensors passed the check requirements. • No operational issues were identified.

Monitored Data Summary for Peace River Complex (PRC) Station

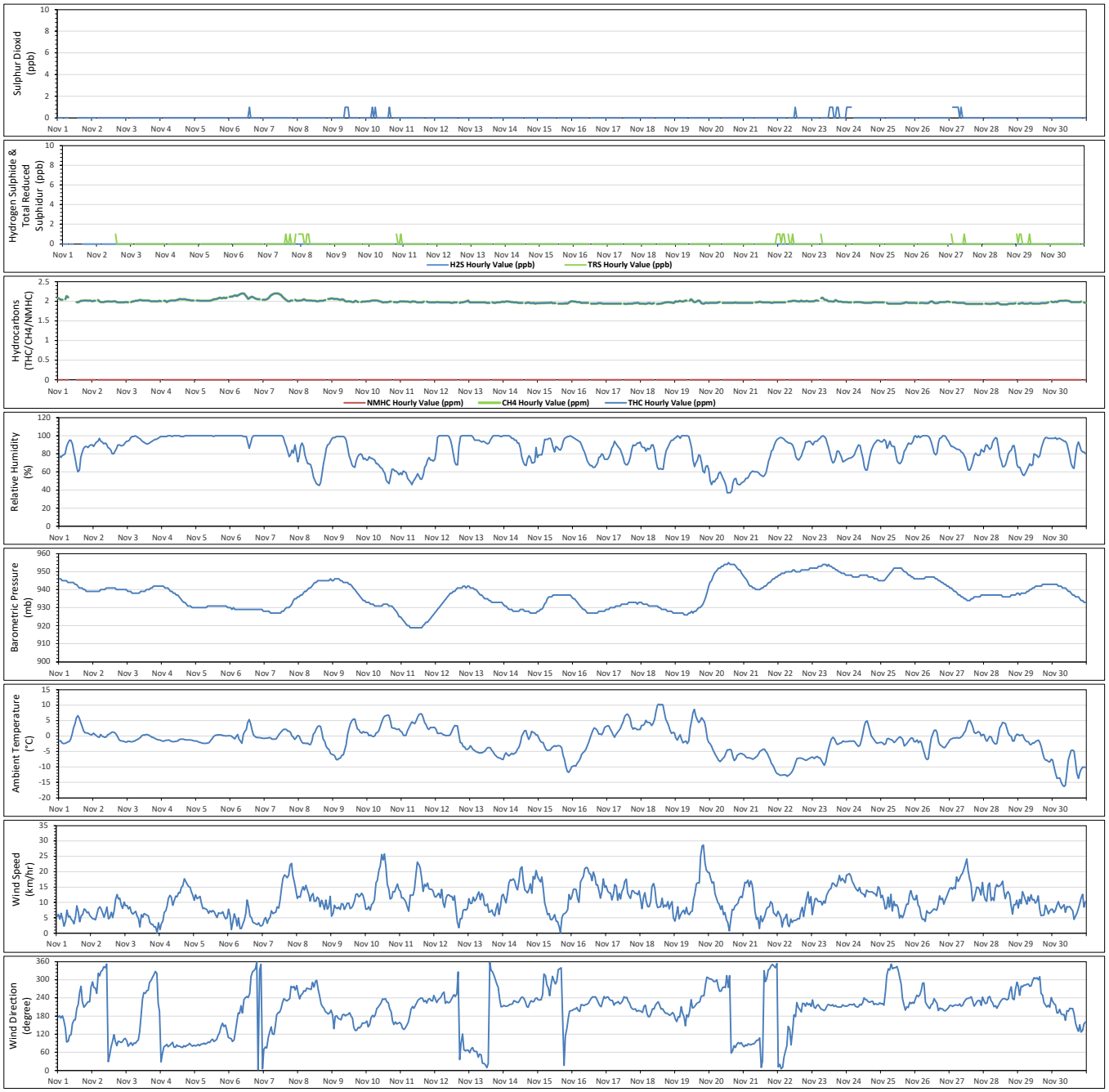
Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	1	Nov 6 at hr 14	8.5	WSW	0.3	Nov 27	100.0	94.7
H2S (ppb)	10	3	-	0	0	-	0.0	0	0	Nov 1 at hr 0	5.4	S	0.0	Nov 2	100.0	94.7
TRS (ppb)	-	-	-	-	-	-	0.0	0	1	Nov 2 at hr 13	5.1	ENE	0.3	Nov 22	95.3	90.7
THC (ppm)	-	-	-	-	-	-	1.99	1.92	2.20	Nov 6 at hr 9	1.5	S	2.12	Nov 6	100.0	94.8
CH4 (ppm)	-	-	-	-	-	-	1.99	1.92	2.20	Nov 6 at hr 9	1.5	S	2.12	Nov 6	100.0	94.8
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	Nov 1 at hr 0	5.4	S	0.00	Nov 1	100.0	94.8
RH (%)	-	-	-	-	-	-	83.6	37	100	Nov 3 at hr 5	6.2	E	100.0	Nov 5	100.0	100.0
BP (millibar)	-	-	-	-	-	-	938	919	955	Nov 20 at hr 13	3.5	W	952	Nov 23	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	-1.6	-16.3	10.3	Nov 18 at hr 12	8.3	SW	5.2	Nov 18	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	23.2	17.8	30.1	Nov 3 at hr 17	3.6	WNW	29.7	Nov 3	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	5.8	0.0	28.7	Nov 19 at hr 20	28.7	WSW	16.4	Nov 27	100.0	100.0
WDV (sector)	-	-	-	-	-	-	218 (SW)	-	-	-	-	-	-	-	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 Nov 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 November 15. • No operational issues were identified this month.
TRS Teledyne T100U #132 TRS Convertor CD Nova CDN-101 #576	• A successful monthly calibration was performed on November 15. • No operational issues were identified this month.
NOx/NO/NO2 API 200E #594 Teledyne T200 #837	• The analyzer failed both scheduled and repeat zero-span check on November 1 and the scheduled zero-span check on November 2 because the expected span value was not updated after the October 31's multi-point calibration. New expected values were entered on November 2. This issue did not affect the data quality. One hour of downtime was recorded due to the additional quality check. • Following a successful shut-down calibration on November 15, the analyzer was shut-down to allow replacement of moly convertor and O3 dryer. The analyzer was allowed time to stabilize overnight. A successful post-repair calibration was completed on November 16. Twenty-one hours of downtime were recorded due to this event.
O3 Teledyne T400 #824	• The channel was put offline to obtain calibration points for the NOx analyzer calibration on November 15. One hour of downtime was recorded as a result. • A successful monthly calibration was performed on November 16. • No operational issues were identified this month.
THC/CH4/NMHC Thermo 55i #1191032505 H2 Generator AMA HG300 #190567059	• Following a successful shut-down calibration on November 15, the analyzer was shut-down for H2 generator maintenance. A successful post-repair calibration was completed afterwards. Four hours of downtime were recorded as a result. • No operational issues were identified this month.

Parameter	Equipment Operational Summary
PM2.5 Teledyne T640 #318	• A successful monthly audit was performed on November 16. • No operational issues were identified this month.
RH Vaisala HMP155 #N2910506	• The RH probe was checked on November 15. The Probe passed the check requirements. • No operational issues were identified this month.
BP MetOne 092 #A2397	• The BP sensor was checked on November 15. The sensor passed the check requirements. • No operational issues were identified this month.
AT Vaisala HMP155 #N2910506	• The AT prober was checked on November 15. The probe passed the check requirements. • No operational issues were identified this month.
ST COMET #NA	• No operational issues were identified this month.
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 November 15. Both the wind speed sensor and wind direction sensor passed the check requirements. • No operational issues were identified this month.

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	0.0	0	1	Nov 1 at hr 6	1.7	NNE	0.1	Nov 24	100.0	94.7
TRS (ppb)	-	-	-	-	-	-	0.12	0.00	0.98	Nov 11 at hr 6	2	ESE	0.38	Nov 6	100.0	94.7
NOx (ppb)	-	-	-	-	-	-	5.5	1	53	Nov 1 at hr 6	1.7	NNE	14.1	Nov 30	96.9	91.4
NO (ppb)	-	-	-	-	-	-	1.2	0	33	Nov 1 at hr 6	1.7	NNE	5.0	Nov 9	96.9	91.4
NO2 (ppb)	159	-	-	0	-	-	4.3	1	25	Nov 1 at hr 8	2.5	NE	10.1	Nov 30	96.9	91.4
O3 (ppb)	76	-	-	0	-	-	20.0	0.0	36.7	Nov 16 at hr 14	23.3	W	30.0	Nov 29	99.9	94.7
THC (ppm)	-	-	-	-	-	-	2.05	1.96	2.41	Nov 3 at hr 23	3.3	N	2.15	Nov 6	99.4	94.3
CH4 (ppm)	-	-	-	-	-	-	2.05	1.96	2.29	Nov 3 at hr 23	3.3	N	2.14	Nov 6	99.4	94.3
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.33	Nov 8 at hr 17	8.1	WNW	0.02	Nov 19	99.4	94.3
PM2.5 (µg/m3)	80	29	-	1	2	-	11.8	1	108	Nov 23 at hr 5	1.1	WSW	36.6	Nov 3	100.0	99.6
RH (%)	-	-	-	-	-	-	78.5	39	100	Nov 5 at hr 15	3.7	SSE	99.1	Nov 5	100.0	100.0
BP (millibar)	-	-	-	-	-	-	938	919	955	Nov 20 at hr 10	3.8	NW	953	Nov 23	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	-0.9	-11.6	9.9	Nov 18 at hr 12	7.4	WSW	4.8	Nov 18	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	22.1	20.9	23.7	Nov 27 at hr 14	29.5	W	22.6	Nov 28	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	8.1	0.2	29.5	Nov 19 at hr 21	29.5	NW	15.8	Nov 27	100.0	100.0
WDV (sector)	-	-	-	-	-	-	266 (W)	-	-	-	-	-	-	-	100.0	100.0

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

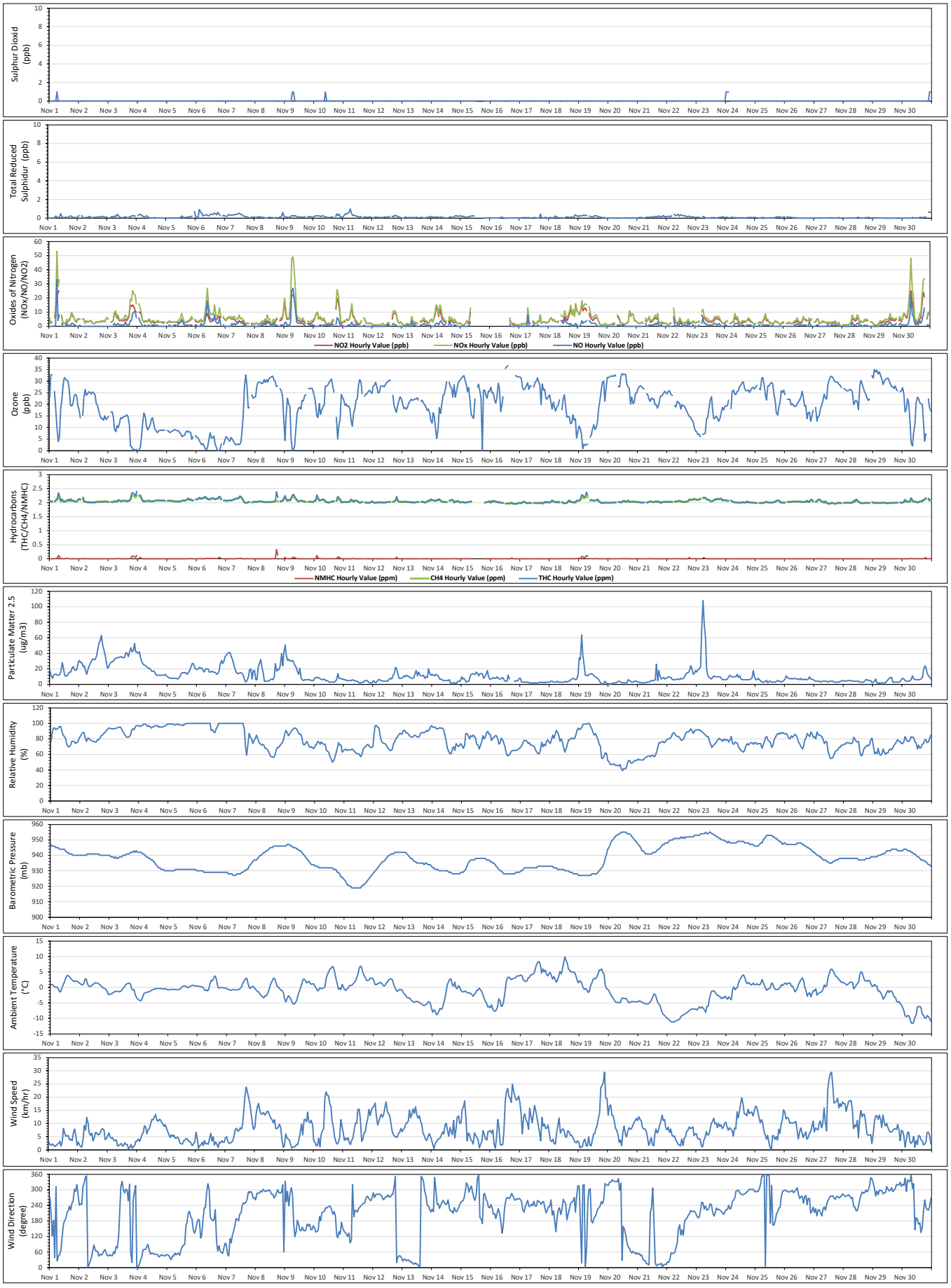
Alberta Ambient Air Quality Objectives (AAAQOs) and/or Alberta Ambient Air Quality Guidelines (AAAQGs) Exceedances

The following exceedances of AAAQO and AAAQG were observed at the AQHI - Grimshaw Station.

Date	Time (MST)	Parameter	Average Period	AAAQOs / AAAQGs	Concentration	Wind speed	Wind Direction	Reference #
Nov 2	-	PM2.5	24-Hour	29 µg/m3	33 µg/m3	5.8 km/hr	33° (NNE)	421585
Nov 3	-	PM2.5	24-Hour	29 µg/m3	37 µg/m3	2.7 km/hr	355° (N)	421626
Nov 23	5	PM2.5	1-Hour	80 µg/m3	108 µg/m3	1.1 km/hr	249° (WSW)	DINC0002591

The source of the exceedance of the PM2.5 objective and guideline were believed to be the result of local buildup of emissions, given the low wind speeds recorded at the time.

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



TABLES, CHARTS AND WIND ROSES

986-C STATION

Peace River Area Monitoring Program

986-C Station - November 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

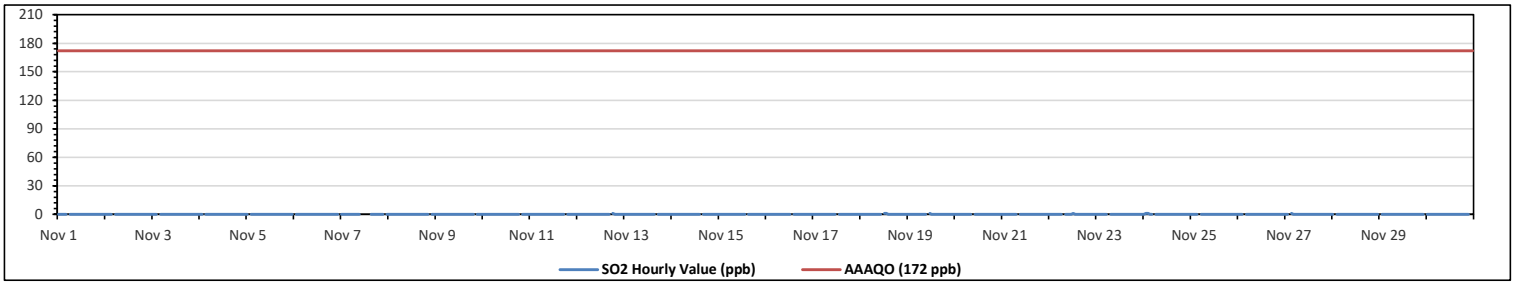
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

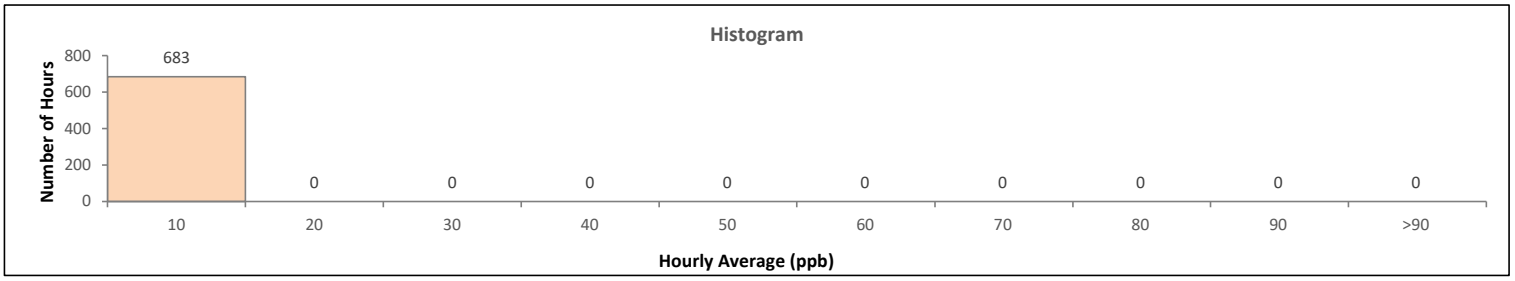
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0	
Maximum Hourly Value:	1	ppb	on Nov 12 at hr 18	Hours in Service:	720	
Maximum Daily Value:	0.1	ppb	on Nov 18	Hours of Data:	683	
Minimum Hourly Value:	0	ppb	on Nov 1 at hr 0	Hours of Missing Data:	0	
Minimum Daily Value:	0.0	ppb	on Nov 1	Hours of Calibration:	37	
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			
Nov 1	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
Nov 2	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
Nov 3	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
Nov 4	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
Nov 5	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
Nov 6	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
Nov 7	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	S	0	0	0	0.0
Nov 8	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
Nov 9	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
Nov 10	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
Nov 11	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
Nov 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	0	0	1	0.0
Nov 13	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
Nov 14	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
Nov 15	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
Nov 16	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
Nov 17	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
Nov 18	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Nov 19	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Nov 20	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
Nov 21	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
Nov 22	0	0	0	0	0	0	0	S	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Nov 23	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
Nov 24	0	1	1	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
Nov 25	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
Nov 26	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
Nov 27	0	0	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Nov 28	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
Nov 29	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
Nov 30	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
Diurnal Maximum	0	1	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	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	0.1	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.



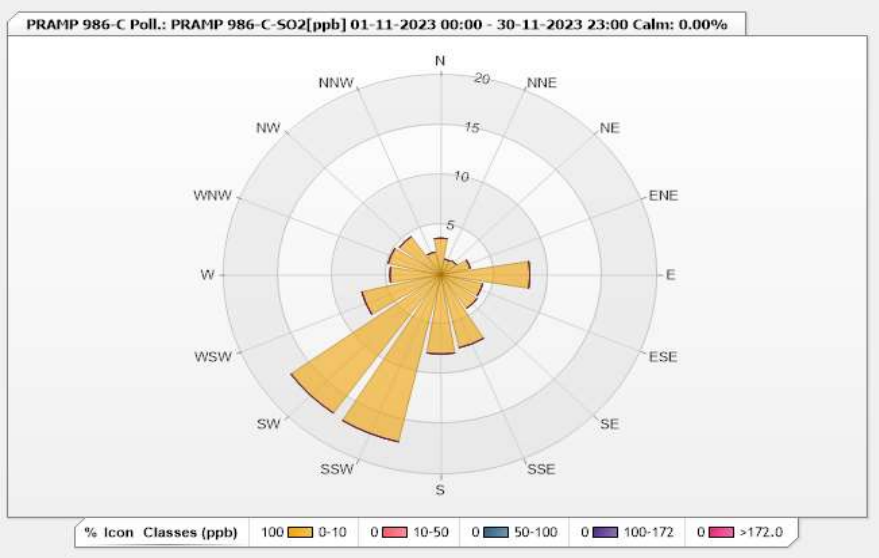


Station: PRAMP 986-C Poll.: PRAMP 986-C-SO2[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.58% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	3.67	0	0	0	0	3.67
NNE	1.62	0	0	0	0	1.62
NE	1.76	0	0	0	0	1.76
ENE	2.79	0	0	0	0	2.79
E	8.22	0	0	0	0	8.22
ESE	3.96	0	0	0	0	3.96
SE	4.11	0	0	0	0	4.11
SSE	7.49	0	0	0	0	7.49
S	7.93	0	0	0	0	7.93
SSW	17.18	0	0	0	0	17.18
SW	17.03	0	0	0	0	17.03
WSW	7.49	0	0	0	0	7.49
W	4.7	0	0	0	0	4.7
WNW	4.99	0	0	0	0	4.99
NW	4.7	0	0	0	0	4.7
NNW	2.35	0	0	0	0	2.35
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

986-C Station - November 2023

Summary of Hourly Averages

TOTAL REDUCED SULPHUR (TRS) in ppb

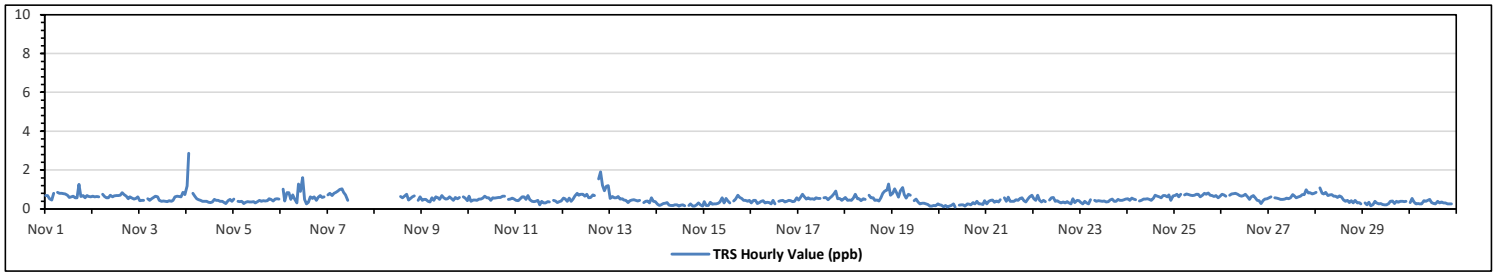
Maximum Hourly Value:	2.87	ppb	on Nov 4 at hr 1	Hours in Service:	720	
Maximum Daily Value:	0.80	ppb	on Nov 12	Hours of Data:	663	
Minimum Hourly Value:	0.10	ppb	on Nov 20 at hr 4	Hours of Missing Data:	19	
Minimum Daily Value:	0.21	ppb	on Nov 14	Hours of Calibration:	38	
Monthly Average:	0.51	ppb		Operational Uptime:	97.4	

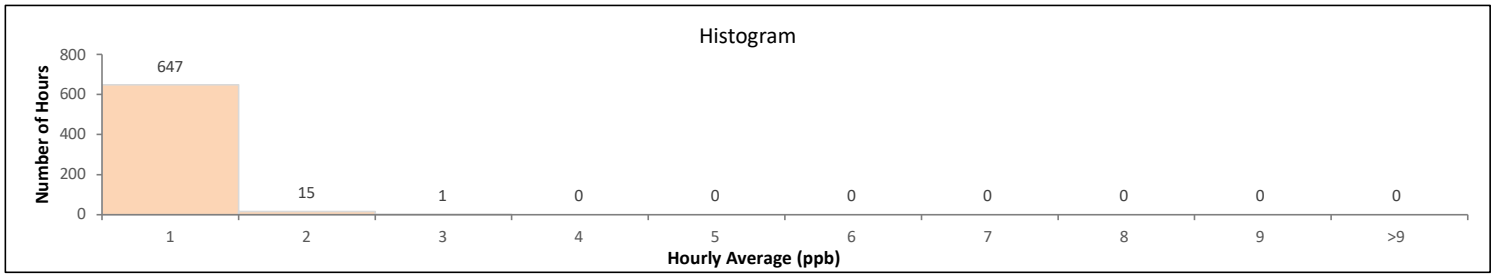
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Nov 1	0.69	0.69	0.53	0.46	0.81	S	0.86	0.8	0.79	0.78	0.77	0.71	0.59	0.62	0.65	0.56	0.56	1.26	0.64	0.69	0.57	0.68	0.64	0.63	0.46	1.26	0.69
Nov 2	0.66	0.63	0.64	0.63	S	0.74	0.64	0.56	0.56	0.7	0.62	0.67	0.68	0.68	0.71	0.83	0.73	0.66	0.52	0.61	0.55	0.5	0.54	0.62	0.50	0.83	0.64
Nov 3	0.42	0.43	0.44	S	0.52	0.45	0.53	0.59	0.66	0.63	0.43	0.38	0.41	0.38	0.37	0.42	0.39	0.44	0.62	0.65	0.64	0.61	0.86	0.73	0.37	0.86	0.52
Nov 4	1.18	**2.87**	S	0.79	0.66	0.53	0.47	0.45	0.4	0.39	0.39	0.34	0.33	0.35	0.48	0.44	0.43	0.39	0.39	0.33	0.28	0.42	0.48	0.38	0.28	**2.87**	0.57
Nov 5	0.5	S	0.4	0.37	0.4	0.28	0.34	0.37	0.35	0.35	0.37	0.31	0.37	0.43	0.4	0.42	0.41	0.42	0.53	0.49	0.41	0.5	0.53	0.5	0.28	0.53	0.41
Nov 6	S	1.01	0.41	0.83	0.84	0.48	0.72	0.5	0.3	1.29	0.9	1.61	0.48	0.27	0.34	0.61	0.54	0.61	0.45	0.6	0.69	0.59	0.61	S	0.27	1.61	0.67
Nov 7	0.72	0.81	0.69	0.8	0.86	0.91	1	1.03	0.85	0.72	0.44	C	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	0.44	1.03	NA
Nov 8	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	0.64	0.58	0.65	0.76	0.46	0.52	0.61	0.67	S	0.43	0.63	0.43	0.76	NA
Nov 9	0.45	0.49	0.48	0.38	0.36	0.57	0.44	0.63	0.58	0.49	0.69	0.56	0.51	0.53	0.63	0.53	0.44	0.59	0.52	0.59	S	0.62	0.55	0.42	0.36	0.69	0.52
Nov 10	0.65	0.38	0.46	0.46	0.43	0.5	0.51	0.55	0.66	0.57	0.57	0.43	0.58	0.55	0.56	0.59	0.59	0.65	0.65	S	0.49	0.5	0.55	0.5	0.38	0.66	0.54
Nov 11	0.43	0.42	0.51	0.63	0.62	0.48	0.68	0.47	0.39	0.37	0.38	0.44	0.22	0.39	0.31	0.3	0.37	0.36	S	0.45	0.41	0.32	0.37	0.41	0.22	0.68	0.42
Nov 12	0.55	0.53	0.4	0.55	0.39	0.51	0.67	0.79	0.7	0.75	0.74	0.65	0.75	0.58	0.59	0.72	0.68	S	1.54	1.91	1.21	0.93	1.17	1.2	0.39	1.91	**0.80**
Nov 13	0.54	0.64	0.57	0.58	0.64	0.5	0.52	0.46	0.44	0.32	0.42	0.46	0.47	0.44	0.41	0.44	S	0.33	0.38	0.41	0.31	0.56	0.39	0.37	0.31	0.64	0.46
Nov 14	0.24	0.18	0.22	0.28	0.29	0.32	0.19	0.17	0.18	0.22	0.21	0.14	0.19	0.22	0.16	S	0.17	0.25	0.14	0.15	0.21	0.3	0.21	0.15	0.14	0.32	0.21
Nov 15	0.37	0.18	0.17	0.34	0.24	0.27	0.25	0.29	0.36	0.57	0.3	0.54	0.41	0.31	S	0.41	0.5	0.71	0.59	0.54	0.45	0.44	0.4	0.44	0.17	0.71	0.39
Nov 16	0.31	0.44	0.45	0.28	0.33	0.39	0.42	0.31	0.34	0.33	0.27	0.44	0.26	S	0.38	0.42	0.44	0.35	0.39	0.43	0.42	0.37	0.4	0.56	0.26	0.56	0.38
Nov 17	0.46	0.56	0.75	0.62	0.51	0.56	0.5	0.52	0.48	0.56	0.54	0.54	S	0.56	0.59	0.47	0.55	0.65	0.77	0.92	0.52	0.54	0.45	0.52	0.45	0.92	0.57
Nov 18	0.59	0.43	0.46	0.45	0.55	0.75	0.52	0.53	0.42	0.52	0.49	S	0.71	0.57	0.58	0.44	0.46	0.41	0.56	0.81	0.92	0.98	1.27	0.7	0.41	1.27	0.61
Nov 19	0.8	1.03	0.83	0.6	0.93	1.11	0.73	0.55	0.76	0.7	S	0.42	0.51	0.36	0.25	0.29	0.29	0.26	0.23	0.15	0.14	0.18	0.16	0.25	0.14	1.11	0.50
Nov 20	0.21	0.19	0.11	0.18	0.1	0.15	0.18	0.25	0.1	S	0.19	0.22	0.2	0.15	0.26	0.24	0.21	0.33	0.27	0.4	0.27	0.25	0.23	0.42	0.10	0.42	0.22
Nov 21	0.27	0.38	0.44	0.46	0.34	0.41	0.36	0.47	S	0.56	0.39	0.6	0.39	0.38	0.38	0.47	0.44	0.54	0.58	0.42	0.36	0.53	0.62	0.7	0.27	0.70	0.46
Nov 22	0.52	0.45	0.71	0.44	0.36	0.44	0.37	S	0.46	0.57	0.59	0.38	0.42	0.36	0.3	0.36	0.31	0.37	0.31	0.25	0.52	0.33	0.44	0.42	0.25	0.71	0.42
Nov 23	0.34	0.26	0.4	0.31	0.25	0.47	S	0.45	0.38	0.42	0.41	0.39	0.41	0.35	0.37	0.46	0.5	0.39	0.4	0.49	0.45	0.44	0.47	0.51	0.25	0.51	0.41
Nov 24	0.52	0.44	0.55	0.5	0.47	S	0.41	0.45	0.51	0.51	0.52	0.48	0.44	0.55	0.71	0.66	0.62	0.58	0.69	0.68	0.62	0.72	0.45	0.67	0.41	0.72	0.55
Nov 25	0.69	0.75	0.61	0.74	S	0.72	0.77	0.73	0.7	0.69	0.7	0.75	0.74	0.63	0.71	0.81	0.76	0.82	0.71	0.69	0.64	0.68	0.58	0.66	0.58	0.82	0.71
Nov 26	0.75	0.72	0.65	S	0.7	0.77	0.78	0.81	0.76	0.68	0.65	0.68	0.75	0.62	0.48	0.62	0.68	0.57	0.45	0.42	0.28	0.45	0.5	0.53	0.28	0.81	0.62
Nov 27	0.58	0.62	S	0.58	0.55	0.53	0.49	0.48	0.51	0.55	0.53	0.57	0.73	0.67	0.58	0.62	0.66	0.73	0.73	0.99	0.82	0.84	0.77	0.8	0.48	0.99	0.65
Nov 28	0.85	S	1.08	0.81	0.77	0.86	0.68	0.72	0.73	0.65	0.66	0.59	0.67	0.63	0.46	0.4	0.44	0.32	0.42	0.3	0.44	0.3	0.33	0.26	0.26	1.08	0.58
Nov 29	S	0.31	0.22	0.34	0.16	0.23	0.38	0.31	0.27	0.28	0.23	0.2	0.22	0.28	0.4	0.41	0.28	0.4	0.34	0.4	0.38	0.37	0.38	S	0.16	0.41	0.31
Nov 30	0.32	0.54	0.35	0.27	0.28	0.27	0.27	0.42	0.39	0.43	0.48	0.33	0.28	0.27	0.39	0.3	0.35	0.3	0.31	0.27	0.27	0.25	S	0.78	0.25	0.78	0.35
Diurnal Maximum	1.18	2.87	1.08	0.83	0.93	1.11	1.00	1.03	0.85	1.29	0.90	1.61	0.75	0.68	0.71	0.83	0.76	1.26	1.54	1.91	1.21	0.98	1.27	1.20			
Diurnal Average	0.54	0.61	0.50	0.51	0.49	0.53	0.52	0.52	0.50	0.56	0.50	0.51	0.47	0.46	0.47	0.50	0.48	0.51	0.52	0.56	0.50	0.51	0.53	0.55			

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.



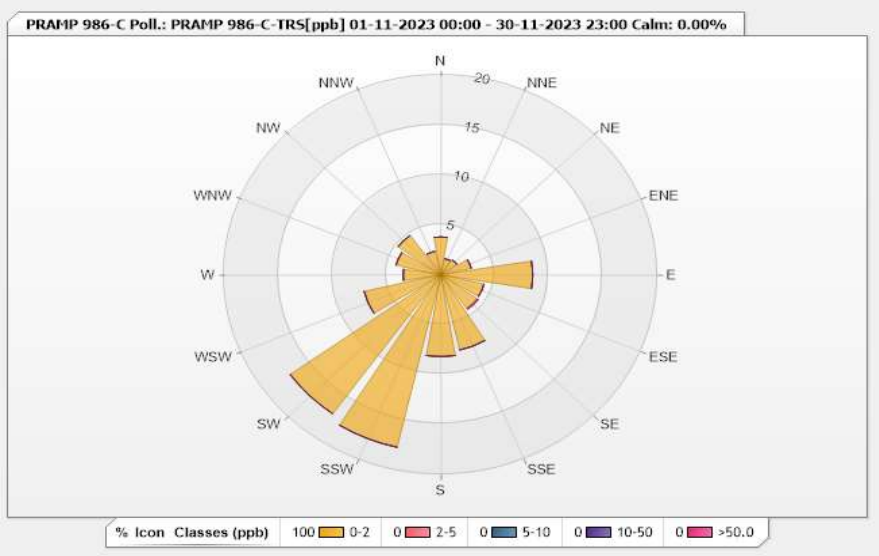


Station: PRAMP 986-C Poll.: PRAMP 986-C-TRS[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.67% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	3.79	0	0	0	0	3.79
NNE	1.67	0	0	0	0	1.67
NE	1.82	0	0	0	0	1.82
ENE	2.88	0	0	0	0	2.88
E	8.48	0	0	0	0	8.48
ESE	4.09	0	0	0	0	4.09
SE	4.09	0.15	0	0	0	4.24
SSE	7.73	0	0	0	0	7.73
S	8.18	0	0	0	0	8.18
SSW	17.73	0	0	0	0	17.73
SW	17.12	0	0	0	0	17.12
WSW	7.27	0	0	0	0	7.27
W	3.48	0	0	0	0	3.48
WNW	4.24	0	0	0	0	4.24
NW	4.85	0	0	0	0	4.85
NNW	2.42	0	0	0	0	2.42
Summary	100	0.15	0	0	0	100



Peace River Area Monitoring Program

986-C Station - November 2023

Summary of Hourly Averages

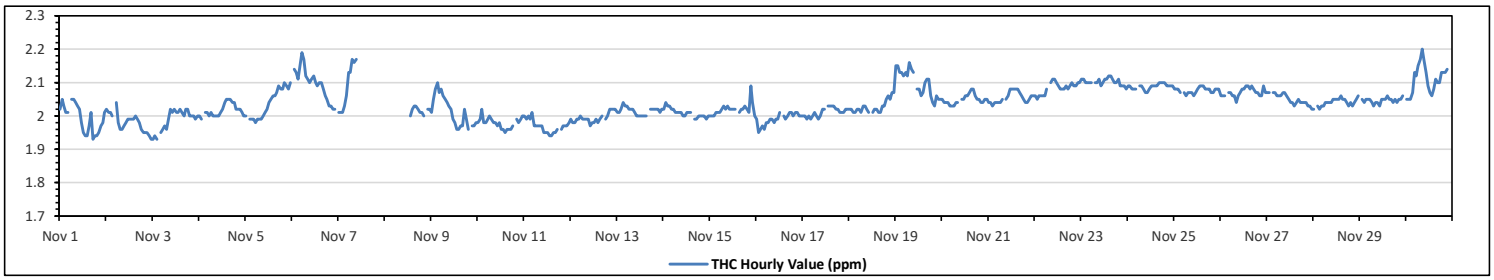
TOTAL HYDROCARBONS (THC) in ppm

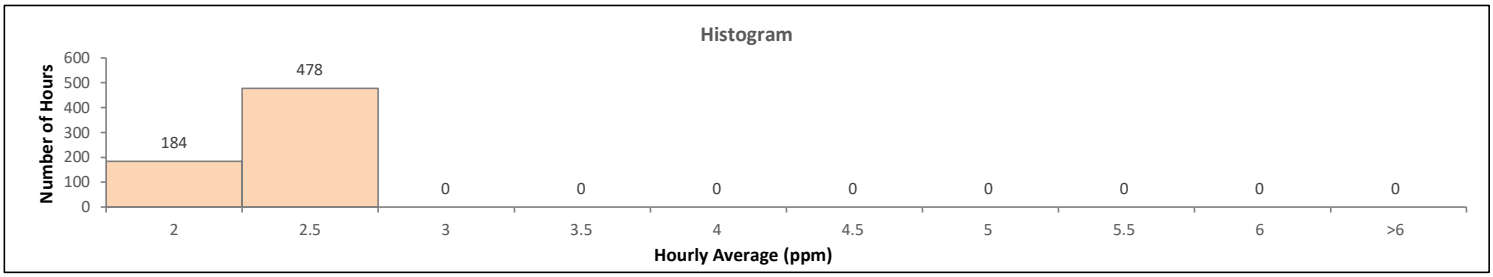
Maximum Hourly Value:	2.20	ppm	on Nov 30 at hr 8	Hours in Service:	720
Maximum Daily Value:	2.11	ppm	on Nov 30	Hours of Data:	662
Minimum Hourly Value:	1.93	ppm	on Nov 1 at hr 17	Hours of Missing Data:	21
Minimum Daily Value:	1.97	ppm	on Nov 11	Hours of Calibration:	37
Monthly Average:	2.04	ppm		Operational Uptime:	97.1

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			
Nov 1	2.02	2.05	2.03	2.01	2.01	S	2.05	2.05	2.04	2.03	2.02	1.98	1.95	1.94	1.94	1.97	2.01	1.93	1.94	1.94	1.95	1.97	1.98	2.01	1.93	2.05	1.99
Nov 2	2.02	2.01	2.01	2.00	S	2.04	1.98	1.96	1.96	1.97	1.98	1.99	1.99	1.99	1.99	2.00	1.99	1.98	1.96	1.95	1.95	1.95	1.94	1.93	1.93	2.04	1.98
Nov 3	1.93	1.94	1.93	S	1.95	1.96	1.97	1.96	1.99	2.02	2.01	2.02	2.01	2.01	2.02	2.01	2.00	2.02	2.02	2.00	2.00	2.00	1.99	2.00	1.93	2.02	1.99
Nov 4	2.00	1.99	S	2.01	2.01	2.00	2.01	2.00	2.00	2.00	2.00	2.01	2.02	2.04	2.05	2.05	2.05	2.04	2.04	2.02	2.02	2.02	2.01	2.00	1.99	2.05	2.02
Nov 5	2.00	S	1.99	1.99	1.99	1.98	1.99	1.99	1.99	2.00	2.01	2.02	2.04	2.05	2.06	2.06	2.07	2.09	2.08	2.08	2.10	2.09	2.08	2.10	1.98	2.10	2.04
Nov 6	S	2.14	2.13	2.11	2.15	2.19	2.17	2.12	2.11	2.10	2.11	2.12	2.10	2.09	2.10	2.10	2.08	2.06	2.05	2.03	2.03	2.02	2.02	S	2.02	2.19	2.10
Nov 7	2.01	2.01	2.01	2.03	2.06	2.13	2.13	2.17	2.16	2.17	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	2.01	2.17	NA
Nov 8	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	2.00	2.02	2.03	2.03	2.02	2.01	2.01	2.00	S	2.02	2.02	2.00	2.03	NA
Nov 9	2.01	2.05	2.08	2.10	2.07	2.08	2.06	2.05	2.04	2.03	2.02	1.99	1.98	1.96	1.96	1.97	1.97	2.02	1.99	1.96	S	1.97	1.97	1.98	1.96	2.10	2.01
Nov 10	1.98	1.99	2.02	1.98	1.98	1.99	2.00	1.99	1.98	1.98	1.97	1.98	1.96	1.96	1.95	1.96	1.96	1.96	1.97	S	1.99	1.98	1.99	2.00	1.95	2.02	1.98
Nov 11	2.00	1.99	2.00	1.99	2.01	1.97	1.97	1.97	1.97	1.97	1.95	1.95	1.95	1.94	1.94	1.95	1.95	1.96	S	1.96	1.97	1.97	1.97	1.98	1.94	2.01	1.97
Nov 12	1.99	1.98	1.98	1.99	1.99	2.00	1.99	1.99	1.99	1.99	1.97	1.98	1.98	1.99	1.98	1.99	2.00	S	1.99	2.00	2.02	2.02	2.02	2.02	1.97	2.02	1.99
Nov 13	2.01	2.01	2.02	2.04	2.03	2.03	2.02	2.02	2.02	2.01	2.00	2.00	2.00	2.00	2.00	2.00	S	2.02	2.02	2.02	2.02	2.02	2.01	2.02	2.00	2.04	2.01
Nov 14	2.02	2.04	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.01	2.00	2.00	2.01	2.01	2.01	S	1.99	1.99	2.00	2.00	2.00	2.00	1.99	2.00	1.99	2.04	2.01
Nov 15	2.00	2.00	2.00	2.01	2.01	2.01	2.02	2.03	2.02	2.03	2.02	2.02	2.02	2.02	S	2.01	2.02	2.02	2.03	2.02	2.01	2.09	2.04	2.00	2.00	2.09	2.02
Nov 16	1.99	1.95	1.96	1.97	1.96	1.98	1.98	1.99	1.99	1.98	1.99	1.99	2.01	S	2.00	1.99	2.00	2.01	2.01	2.00	2.01	2.01	2.00	2.00	1.95	2.01	1.99
Nov 17	2.00	2.00	1.99	2.00	1.99	2.00	2.01	2.00	1.99	2.00	2.02	2.02	S	2.03	2.03	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.02	2.02	1.99	2.03	2.01
Nov 18	2.02	2.02	2.01	2.01	2.02	2.02	2.01	2.03	2.03	2.02	2.01	S	2.01	2.02	2.02	2.01	2.01	2.03	2.03	2.05	2.06	2.05	2.07	2.07	2.01	2.07	2.03
Nov 19	2.15	2.15	2.13	2.13	2.12	2.13	2.12	2.16	2.14	2.13	S	2.08	2.08	2.06	2.07	2.10	2.11	2.11	2.06	2.04	2.03	2.06	2.05	2.05	2.03	2.16	2.10
Nov 20	2.05	2.04	2.04	2.04	2.03	2.03	2.03	2.04	2.04	S	2.05	2.05	2.06	2.06	2.07	2.08	2.08	2.06	2.05	2.05	2.04	2.04	2.05	2.05	2.03	2.08	2.05
Nov 21	2.04	2.04	2.03	2.04	2.04	2.04	2.04	2.05	S	2.05	2.06	2.08	2.08	2.08	2.08	2.08	2.07	2.06	2.05	2.04	2.04	2.05	2.06	2.06	2.03	2.08	2.05
Nov 22	2.06	2.05	2.06	2.06	2.06	2.06	2.08	S	2.10	2.11	2.11	2.10	2.09	2.08	2.08	2.08	2.09	2.08	2.09	2.10	2.09	2.09	2.10	2.10	2.05	2.11	2.08
Nov 23	2.11	2.11	2.10	2.10	2.10	2.10	S	2.10	2.10	2.11	2.09	2.10	2.11	2.11	2.12	2.12	2.11	2.10	2.10	2.11	2.09	2.09	2.09	2.08	2.08	2.12	2.10
Nov 24	2.09	2.09	2.08	2.08	2.08	S	2.09	2.09	2.08	2.07	2.07	2.08	2.09	2.09	2.09	2.09	2.10	2.10	2.10	2.10	2.09	2.09	2.09	2.09	2.07	2.10	2.09
Nov 25	2.08	2.08	2.08	2.07	S	2.07	2.06	2.07	2.07	2.07	2.06	2.07	2.08	2.09	2.09	2.09	2.08	2.08	2.08	2.07	2.07	2.08	2.08	2.08	2.06	2.09	2.08
Nov 26	2.06	2.06	2.06	S	2.07	2.07	2.06	2.06	2.04	2.06	2.07	2.08	2.08	2.09	2.09	2.08	2.09	2.08	2.07	2.07	2.06	2.06	2.09	2.07	2.04	2.09	2.07
Nov 27	2.07	2.07	S	2.07	2.07	2.06	2.06	2.06	2.07	2.07	2.06	2.05	2.04	2.04	2.03	2.04	2.05	2.04	2.04	2.04	2.04	2.03	2.03	2.02	2.02	2.07	2.05
Nov 28	2.02	S	2.03	2.02	2.03	2.03	2.04	2.04	2.04	2.04	2.05	2.05	2.05	2.05	2.06	2.05	2.05	2.04	2.03	2.04	2.03	2.04	2.05	2.06	2.02	2.06	2.04
Nov 29	S	2.05	2.04	2.05	2.05	2.05	2.04	2.03	2.04	2.04	2.03	2.05	2.05	2.05	2.06	2.05	2.05	2.04	2.05	2.04	2.05	2.05	2.06	S	2.03	2.06	2.05
Nov 30	2.05	2.05	2.05	2.07	2.13	2.12	2.15	2.17	**2.20**	2.17	2.13	2.09	2.07	2.06	2.08	2.11	2.10	2.10	2.13	2.13	2.13	2.14	S	2.12	2.05	**2.20**	**2.11**
Diurnal Maximum	2.15	2.15	2.13	2.13	2.15	2.19	2.17	2.17	2.20	2.17	2.13	2.12	2.11	2.11	2.12	2.12	2.11	2.11	2.13	2.13	2.13	2.14	2.10	2.12			
Diurnal Average	2.03	2.04	2.03	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.03	2.04	2.03	2.03	2.04	2.04	2.04	2.04	2.04	2.03	2.03	2.04	2.03	2.03			

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.



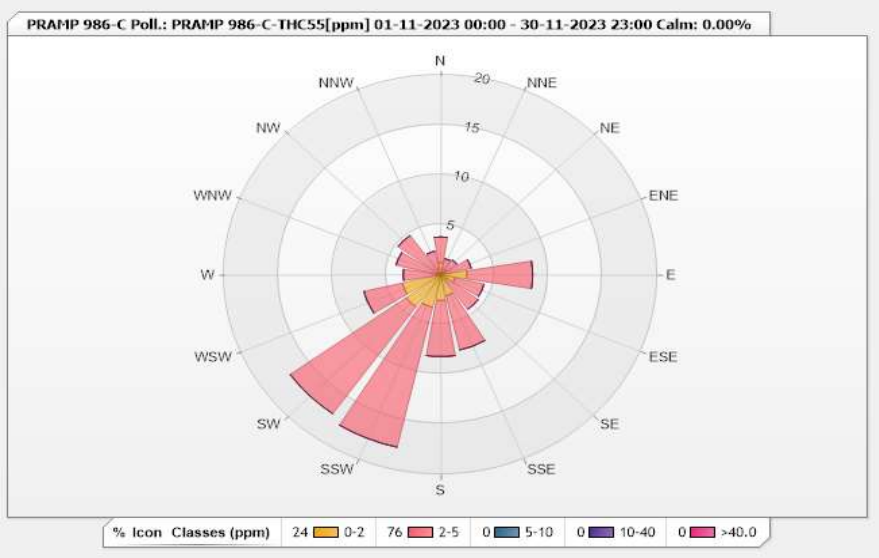


Station: PRAMP 986-C Poll.: PRAMP 986-C-THC55[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.67% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	1.21	2.58	0	0	0	3.79
NNE	0.15	1.52	0	0	0	1.67
NE	0.61	1.21	0	0	0	1.82
ENE	0.3	2.58	0	0	0	2.88
E	2.42	6.06	0	0	0	8.48
ESE	1.36	2.73	0	0	0	4.09
SE	0.61	3.64	0	0	0	4.25
SSE	2.12	5.61	0	0	0	7.73
S	2.58	5.61	0	0	0	8.19
SSW	3.33	14.39	0	0	0	17.72
SW	3.94	13.18	0	0	0	17.12
WSW	3.64	3.64	0	0	0	7.28
W	0.45	3.03	0	0	0	3.48
WNW	0.3	3.94	0	0	0	4.24
NW	0.15	4.7	0	0	0	4.85
NNW	0.61	1.82	0	0	0	2.43
Summary	23.78	76.24	0	0	0	100



Peace River Area Monitoring Program

986-C Station - November 2023

Summary of Hourly Averages

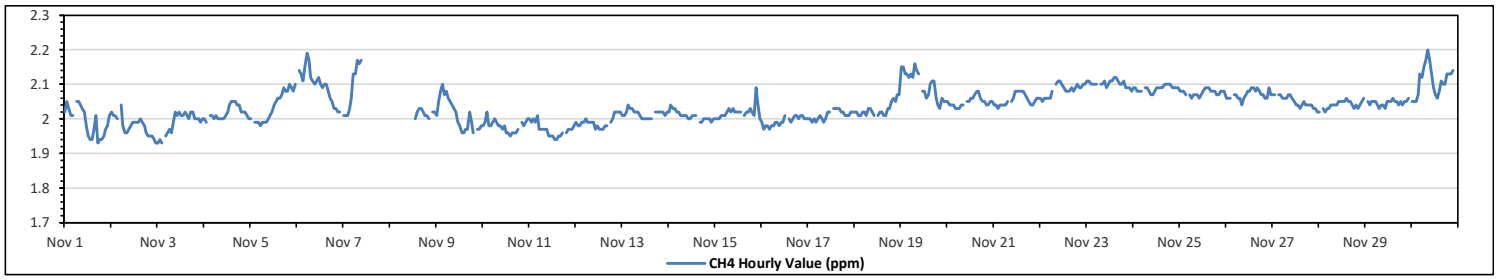
METHANE (CH4) in ppm

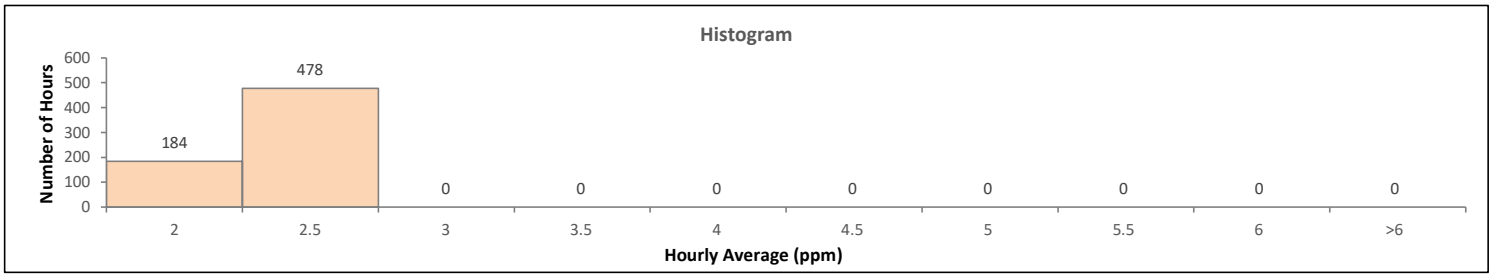
Maximum Hourly Value:	2.20	ppm	on Nov 30 at hr 8	Hours in Service:	720	
Maximum Daily Value:	2.11	ppm	on Nov 30	Hours of Data:	662	
Minimum Hourly Value:	1.93	ppm	on Nov 1 at hr 17	Hours of Missing Data:	21	
Minimum Daily Value:	1.97	ppm	on Nov 11	Hours of Calibration:	37	
Monthly Average:	2.04	ppm		Operational Uptime:	97.1	

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			
Nov 1	2.02	2.05	2.03	2.01	2.01	S	2.05	2.05	2.04	2.03	2.02	1.98	1.95	1.94	1.94	1.97	2.01	1.93	1.94	1.94	1.95	1.97	1.98	2.01	1.93	2.05	1.99
Nov 2	2.02	2.01	2.01	2.00	S	2.04	1.98	1.96	1.96	1.97	1.98	1.99	1.99	1.99	1.99	2.00	1.99	1.98	1.96	1.95	1.95	1.95	1.94	1.93	1.93	2.04	1.98
Nov 3	1.93	1.94	1.93	S	1.95	1.96	1.97	1.96	1.99	2.02	2.01	2.02	2.01	2.01	2.02	2.01	2.00	2.02	2.02	2.00	2.00	2.00	1.99	2.00	1.93	2.02	1.99
Nov 4	2.00	1.99	S	2.01	2.01	2.00	2.01	2.00	2.00	2.00	2.00	2.01	2.02	2.04	2.05	2.05	2.05	2.04	2.04	2.02	2.02	2.02	2.01	2.00	1.99	2.05	2.02
Nov 5	2.00	S	1.99	1.99	1.99	1.98	1.99	1.99	1.99	2.00	2.01	2.02	2.04	2.05	2.06	2.06	2.07	2.09	2.08	2.08	2.10	2.09	2.08	2.10	1.98	2.10	2.04
Nov 6	S	2.14	2.13	2.11	2.15	2.19	2.17	2.12	2.11	2.10	2.11	2.12	2.10	2.09	2.10	2.10	2.08	2.06	2.05	2.03	2.03	2.02	2.02	S	2.02	2.19	2.10
Nov 7	2.01	2.01	2.01	2.03	2.06	2.13	2.13	2.17	2.16	2.17	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	2.01	2.17	NA
Nov 8	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	2.00	2.02	2.03	2.03	2.02	2.01	2.01	2.00	S	2.02	2.02	2.00	2.03	NA
Nov 9	2.01	2.05	2.08	2.10	2.07	2.08	2.06	2.05	2.04	2.03	2.02	1.99	1.98	1.96	1.96	1.97	1.97	2.02	1.99	1.96	S	1.97	1.97	1.98	1.96	2.10	2.01
Nov 10	1.98	1.99	2.02	1.98	1.98	1.99	2.00	1.99	1.98	1.98	1.97	1.98	1.96	1.96	1.95	1.96	1.96	1.96	1.97	S	1.99	1.98	1.99	2.00	1.95	2.02	1.98
Nov 11	2.00	1.99	2.00	1.99	2.01	1.97	1.97	1.97	1.97	1.97	1.95	1.95	1.95	1.94	1.94	1.95	1.95	1.96	S	1.96	1.97	1.97	1.97	1.98	1.94	2.01	1.97
Nov 12	1.99	1.98	1.98	1.99	1.99	2.00	1.99	1.99	1.99	1.99	1.97	1.98	1.97	1.97	1.97	1.98	1.98	S	1.99	2.00	2.02	2.02	2.02	2.02	1.97	2.02	1.99
Nov 13	2.01	2.01	2.02	2.04	2.03	2.03	2.02	2.02	2.02	2.01	2.00	2.00	2.00	2.00	2.00	2.00	S	2.02	2.02	2.02	2.02	2.02	2.01	2.02	2.00	2.04	2.01
Nov 14	2.02	2.04	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.01	2.00	2.00	2.01	2.01	2.01	S	1.99	1.99	2.00	2.00	2.00	2.00	1.99	2.00	1.99	2.04	2.01
Nov 15	2.00	2.00	2.00	2.01	2.01	2.01	2.02	2.03	2.02	2.03	2.02	2.02	2.02	2.02	S	2.01	2.02	2.02	2.03	2.02	2.01	2.09	2.04	2.00	2.00	2.09	2.02
Nov 16	1.99	1.97	1.98	1.98	1.97	1.98	1.98	1.99	1.99	1.98	1.99	1.99	2.01	S	2.00	1.99	2.00	2.01	2.01	2.00	2.01	2.01	2.00	2.00	1.97	2.01	1.99
Nov 17	2.00	2.00	1.99	2.00	1.99	2.00	2.01	2.00	1.99	2.00	2.02	2.02	S	2.03	2.03	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.02	2.02	1.99	2.03	2.01
Nov 18	2.02	2.02	2.01	2.01	2.02	2.02	2.01	2.03	2.03	2.02	2.01	S	2.01	2.02	2.02	2.01	2.01	2.03	2.03	2.05	2.06	2.05	2.07	2.07	2.01	2.07	2.03
Nov 19	2.15	2.15	2.13	2.13	2.12	2.13	2.12	2.16	2.14	2.13	S	2.08	2.08	2.06	2.07	2.10	2.11	2.11	2.06	2.04	2.03	2.06	2.05	2.05	2.03	2.16	2.10
Nov 20	2.05	2.04	2.04	2.04	2.03	2.03	2.03	2.04	2.04	S	2.05	2.05	2.06	2.06	2.07	2.08	2.08	2.06	2.05	2.05	2.04	2.04	2.05	2.05	2.03	2.08	2.05
Nov 21	2.04	2.04	2.03	2.04	2.04	2.04	2.04	2.05	S	2.05	2.06	2.08	2.08	2.08	2.08	2.08	2.07	2.06	2.05	2.04	2.04	2.05	2.06	2.06	2.03	2.08	2.05
Nov 22	2.06	2.05	2.06	2.06	2.06	2.06	2.08	S	2.10	2.11	2.11	2.10	2.09	2.08	2.08	2.08	2.09	2.08	2.09	2.10	2.09	2.09	2.10	2.10	2.05	2.11	2.08
Nov 23	2.11	2.11	2.10	2.10	2.10	2.10	S	2.10	2.10	2.11	2.09	2.10	2.11	2.11	2.12	2.12	2.11	2.10	2.10	2.11	2.09	2.09	2.09	2.08	2.08	2.12	2.10
Nov 24	2.09	2.09	2.08	2.08	2.08	S	2.09	2.09	2.08	2.07	2.07	2.08	2.09	2.09	2.09	2.09	2.10	2.10	2.10	2.10	2.09	2.09	2.09	2.09	2.07	2.10	2.09
Nov 25	2.08	2.08	2.08	2.07	S	2.07	2.06	2.07	2.07	2.07	2.06	2.07	2.08	2.09	2.09	2.09	2.08	2.08	2.08	2.07	2.07	2.08	2.08	2.08	2.06	2.09	2.08
Nov 26	2.06	2.06	2.06	S	2.07	2.07	2.06	2.06	2.04	2.06	2.07	2.08	2.08	2.09	2.09	2.08	2.09	2.08	2.07	2.07	2.06	2.06	2.09	2.07	2.04	2.09	2.07
Nov 27	2.07	2.07	S	2.07	2.07	2.06	2.06	2.06	2.07	2.07	2.06	2.05	2.04	2.04	2.03	2.04	2.05	2.04	2.04	2.04	2.04	2.03	2.03	2.02	2.02	2.07	2.05
Nov 28	2.02	S	2.03	2.02	2.03	2.03	2.04	2.04	2.04	2.04	2.05	2.05	2.05	2.05	2.06	2.05	2.05	2.04	2.03	2.04	2.03	2.04	2.05	2.06	2.02	2.06	2.04
Nov 29	S	2.05	2.04	2.05	2.05	2.05	2.04	2.03	2.04	2.04	2.03	2.05	2.05	2.05	2.06	2.05	2.05	2.04	2.05	2.04	2.05	2.05	2.06	S	2.03	2.06	2.05
Nov 30	2.05	2.05	2.05	2.07	2.13	2.12	2.15	2.17	**2.20**	2.17	2.13	2.09	2.07	2.06	2.08	2.11	2.10	2.10	2.13	2.13	2.13	2.14	S	2.12	2.05	**2.20**	**2.11**
Diurnal Maximum	2.15	2.15	2.13	2.13	2.15	2.19	2.17	2.17	2.20	2.17	2.13	2.12	2.11	2.11	2.12	2.12	2.11	2.11	2.13	2.13	2.13	2.14	2.10	2.12			
Diurnal Average	2.03	2.04	2.03	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.03	2.04	2.03	2.03	2.04	2.04	2.04	2.04	2.04	2.03	2.03	2.04	2.03	2.03			

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.



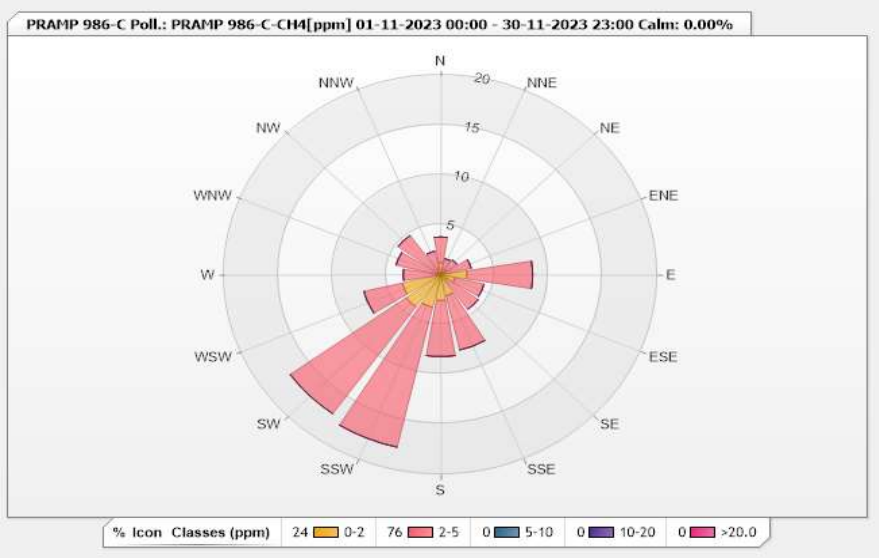


Station: PRAMP 986-C Poll.: PRAMP 986-C-CH4[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.67% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	1.21	2.58	0	0	0	3.79
NNE	0.15	1.52	0	0	0	1.67
NE	0.61	1.21	0	0	0	1.82
ENE	0.3	2.58	0	0	0	2.88
E	2.42	6.06	0	0	0	8.48
ESE	1.36	2.73	0	0	0	4.09
SE	0.61	3.64	0	0	0	4.25
SSE	2.12	5.61	0	0	0	7.73
S	2.58	5.61	0	0	0	8.19
SSW	3.33	14.39	0	0	0	17.72
SW	3.94	13.18	0	0	0	17.12
WSW	3.64	3.64	0	0	0	7.28
W	0.45	3.03	0	0	0	3.48
WNW	0.3	3.94	0	0	0	4.24
NW	0.3	4.55	0	0	0	4.85
NNW	0.61	1.82	0	0	0	2.43
Summary	23.93	76.09	0	0	0	100



Peace River Area Monitoring Program

986-C Station - November 2023

Summary of Hourly Averages

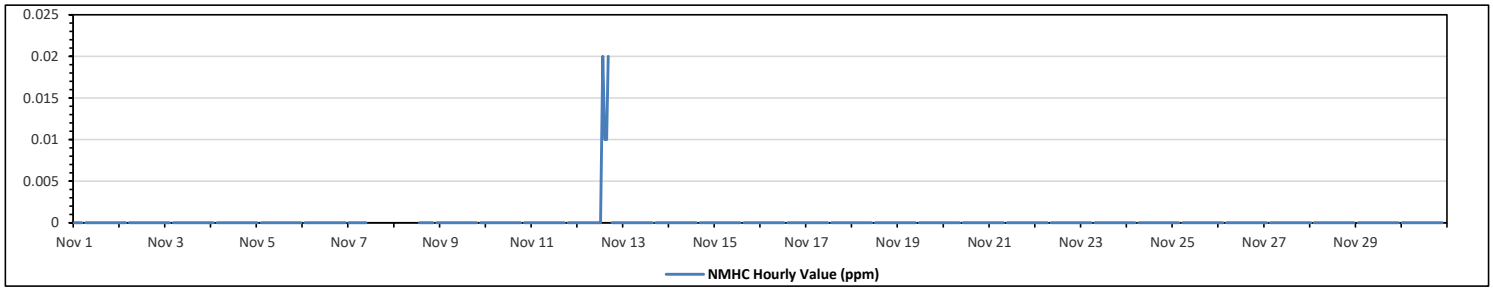
NON-METHANE HYDROCARBONS (NMHC) in ppm

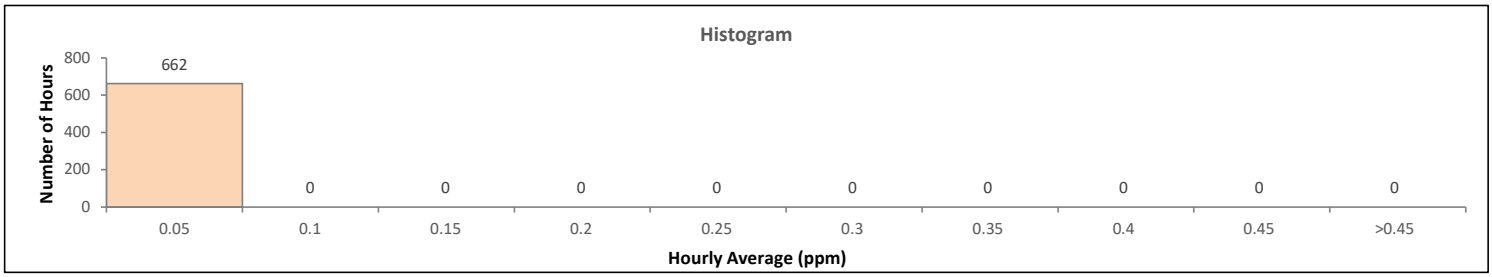
Maximum Hourly Value:	0.02	ppm	on Nov 12 at hr 13	Hours in Service:	720
Maximum Daily Value:	0.00	ppm	on Nov 12	Hours of Data:	662
Minimum Hourly Value:	0.00	ppm	on Nov 1 at hr 0	Hours of Missing Data:	21
Minimum Daily Value:	0.00	ppm	on Nov 1	Hours of Calibration:	37
Monthly Average:	0.00	ppm		Operational Uptime:	97.1

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			
Nov 1	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
Nov 2	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
Nov 3	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
Nov 4	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
Nov 5	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
Nov 6	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
Nov 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	0.00	0.00	NA
Nov 8	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	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	NA
Nov 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	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
Nov 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	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
Nov 11	0.00	0.00	0.00	0.00	0.00	0.00	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
Nov 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.02**	0.01	0.01	**0.02**	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.02**	**0.00**
Nov 13	0.00	0.00	0.00	0.00	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
Nov 14	0.00	0.00	0.00	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
Nov 15	0.00	0.00	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
Nov 16	0.00	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
Nov 17	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
Nov 18	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
Nov 19	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
Nov 20	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
Nov 21	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
Nov 22	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
Nov 23	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
Nov 24	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
Nov 25	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
Nov 26	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
Nov 27	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
Nov 28	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
Nov 29	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
Nov 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	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	0.02	0.01	0.01	0.02	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.



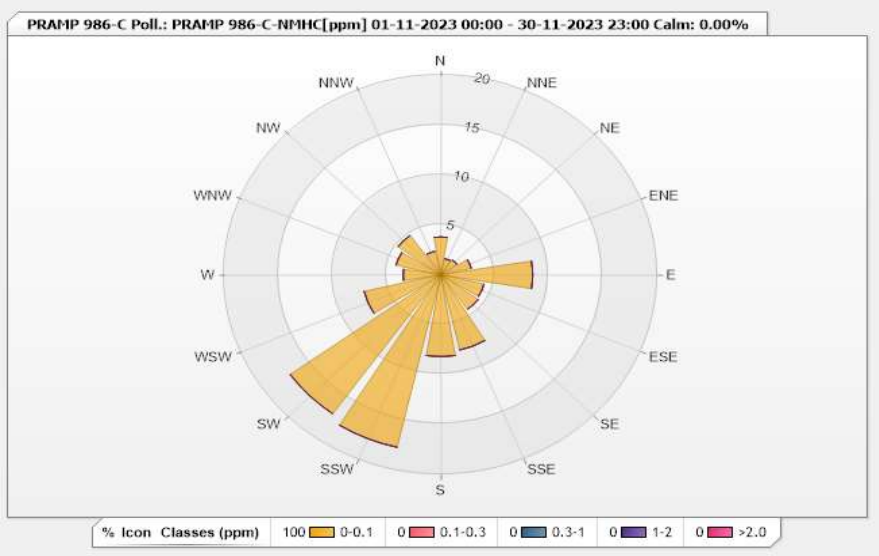


Station: PRAMP 986-C Poll.: PRAMP 986-C-NMHC[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.67% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	3.79	0	0	0	0	3.79
NNE	1.67	0	0	0	0	1.67
NE	1.82	0	0	0	0	1.82
ENE	2.88	0	0	0	0	2.88
E	8.48	0	0	0	0	8.48
ESE	4.09	0	0	0	0	4.09
SE	4.24	0	0	0	0	4.24
SSE	7.73	0	0	0	0	7.73
S	8.18	0	0	0	0	8.18
SSW	17.73	0	0	0	0	17.73
SW	17.12	0	0	0	0	17.12
WSW	7.27	0	0	0	0	7.27
W	3.48	0	0	0	0	3.48
WNW	4.24	0	0	0	0	4.24
NW	4.85	0	0	0	0	4.85
NNW	2.42	0	0	0	0	2.42
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

986-C Station - November 2023

Summary of Hourly Averages

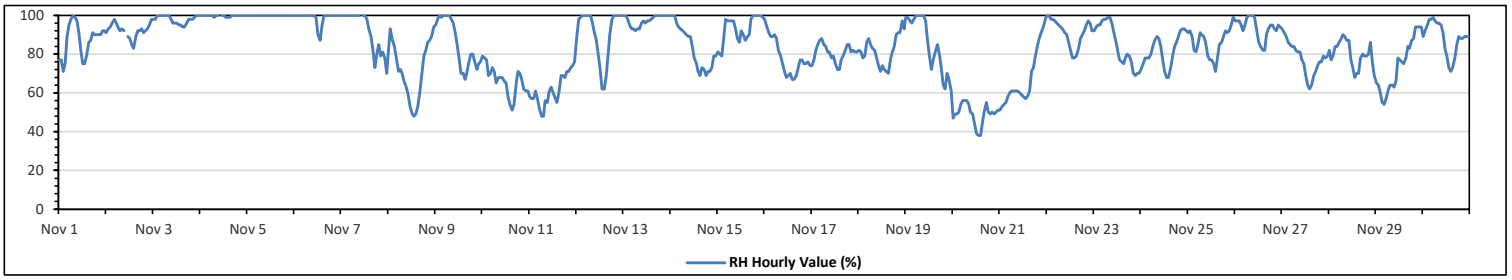
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	100	%	on Nov 1 at hr 7	Hours in Service:	720	
Maximum Daily Value:	100.0	%	on Nov 5	Hours of Data:	717	
Minimum Hourly Value:	38	%	on Nov 20 at hr 13	Hours of Missing Data:	3	
Minimum Daily Value:	49.0	%	on Nov 20	Hours of Calibration:	0	
Monthly Average:	83.8	%		Operational Uptime:	99.6	

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
Nov 1	77	77	71	75	89	95	98	**100**	99	97	91	82	75	75	80	86	87	91	90	90	90	90	92	92	71	**100**	87.0
Nov 2	91	93	94	96	98	96	94	92	93	92	K	89	88	85	83	89	92	92	93	91	92	93	95	98	83	98	92.1
Nov 3	98	98	**100**	**100**	**100**	**100**	**100**	**100**	**100**	98	96	96	96	95	95	94	94	96	98	98	98	99	**100**	**100**	94	**100**	97.9
Nov 4	**100**	**100**	**100**	**100**	**100**	**100**	**100**	99	**100**	**100**	K	**100**	**100**	99	99	99	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	99	**100**	99.8
Nov 5	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	100	**100**	**100.0**
Nov 6	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	99	90	87	95	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	87	**100**	98.8
Nov 7	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	K	**100**	**100**	98	93	89	82	73	80	85	79	81	78	70	70	**100**	91.7
Nov 8	83	93	87	84	78	71	72	70	66	63	59	53	49	48	49	53	61	70	79	82	86	87	89	94	48	94	71.9
Nov 9	95	98	**100**	99	**100**	**100**	**100**	**100**	98	96	91	85	78	70	70	67	70	76	80	80	76	72	75	76	67	**100**	85.5
Nov 10	79	78	77	69	70	73	71	65	68	68	68	66	65	58	54	51	54	64	71	70	67	62	61	61	51	79	66.3
Nov 11	58	57	57	61	57	52	48	48	56	55	61	63	60	57	55	60	69	69	68	71	71	73	74	76	48	76	61.5
Nov 12	89	98	99	**100**	**100**	**100**	**100**	**100**	96	91	87	80	72	62	62	69	80	90	98	**100**	**100**	**100**	**100**	**100**	62	**100**	90.5
Nov 13	**100**	**100**	98	95	93	93	92	93	93	96	97	96	97	97	98	99	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	92	**100**	97.4
Nov 14	**100**	**100**	**100**	96	94	93	92	91	90	89	89	84	78	75	71	69	73	72	69	71	71	73	79	79	69	**100**	83.3
Nov 15	81	80	79	88	98	97	97	97	97	93	88	86	92	90	87	89	90	98	**100**	**100**	**100**	**100**	**100**	99	79	**100**	92.8
Nov 16	98	94	91	89	89	90	88	82	79	75	71	68	69	70	67	67	69	73	77	77	75	75	76	74	67	98	78.5
Nov 17	74	77	82	85	87	88	85	84	81	81	78	79	75	72	72	77	79	82	85	85	81	82	81	81	72	88	80.5
Nov 18	82	81	78	79	86	88	85	83	82	78	74	71	74	72	71	70	77	81	84	90	91	91	97	93	70	97	81.6
Nov 19	99	99	97	96	98	**100**	**100**	**100**	**100**	**100**	97	87	79	72	77	81	85	80	73	64	62	70	67	61	61	**100**	85.2
Nov 20	47	49	49	50	54	56	56	56	54	50	49	44	39	**38**	**38**	44	50	55	50	49	50	49	50	51	**38**	56	**49.0**
Nov 21	51	53	54	55	58	60	61	61	61	61	60	59	58	57	58	61	71	73	78	84	88	91	94	98	51	98	66.9
Nov 22	**100**	**100**	98	98	97	96	95	94	93	91	90	86	82	78	78	79	83	88	90	92	95	97	96	92	78	**100**	91.2
Nov 23	92	94	95	95	97	98	98	99	99	96	92	87	82	77	76	75	78	80	79	76	70	69	70	70	69	99	85.2
Nov 24	72	75	78	78	78	80	84	87	89	88	84	77	71	68	68	73	79	84	86	89	92	93	93	92	68	93	81.6
Nov 25	91	92	89	82	81	85	91	90	89	86	79	77	77	75	71	78	85	86	89	92	91	92	95	99	71	99	85.9
Nov 26	97	97	97	95	92	95	99	**100**	**100**	**100**	99	92	86	84	82	82	90	93	95	95	93	92	95	94	82	**100**	93.5
Nov 27	93	91	89	86	85	84	84	82	81	81	77	75	69	64	62	64	69	71	74	76	76	79	78	79	62	93	77.9
Nov 28	82	77	79	84	84	86	88	90	89	87	87	77	73	68	70	70	78	80	79	79	80	86	76	69	68	90	79.9
Nov 29	65	64	60	55	54	57	61	64	64	63	66	78	77	76	75	78	84	83	87	88	94	94	94	94	54	94	74.0
Nov 30	89	92	95	98	98	99	97	96	96	95	91	83	79	73	71	73	78	85	89	88	88	89	89	89	71	99	88.3
Diurnal Maximum	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100			
Diurnal Average	86.1	86.9	86.4	86.3	87.2	87.7	87.9	87.4	87.1	85.7	82.3	80.6	77.7	74.7	74.2	76.2	80.2	82.8	84.7	85.4	85.2	86.0	86.5	86.0			

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 - November 2023

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	955	mb	on Nov 20 at hr 13	Hours in Service:	720
Maximum Daily Value:	952	mb	on Nov 23	Hours of Data:	717
Minimum Hourly Value:	918	mb	on Nov 11 at hr 7	Hours of Missing Data:	3
Minimum Daily Value:	921	mb	on Nov 11	Hours of Calibration:	0
Monthly Average:	938	mb		Operational Uptime:	99.6

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
Nov 1	946	946	945	945	945	945	944	944	944	944	943	943	942	942	941	941	940	940	939	939	939	939	939	939	939	946	942
Nov 2	939	939	939	939	939	939	940	940	940	940	K	941	941	941	941	940	940	940	940	940	940	940	939	939	939	941	940
Nov 3	939	939	938	938	938	938	938	938	938	938	939	939	939	939	940	940	941	941	942	942	942	942	942	942	938	942	940
Nov 4	942	942	941	941	940	940	939	938	938	938	K	937	936	935	934	933	932	932	931	931	930	930	930	930	930	942	936
Nov 5	930	929	930	930	930	930	930	930	931	931	931	931	931	931	931	931	931	931	931	931	931	930	930	930	929	931	931
Nov 6	929	929	929	929	929	929	929	929	929	929	929	929	929	928	928	928	929	929	929	929	928	928	928	928	928	929	929
Nov 7	928	928	927	927	927	927	927	926	927	927	K	927	928	928	929	929	930	930	931	932	934	935	935	936	926	936	929
Nov 8	936	937	937	938	939	939	940	941	942	942	943	944	944	944	945	945	945	945	945	945	945	945	945	945	936	945	942
Nov 9	945	946	946	946	946	945	945	944	944	944	943	943	942	941	941	940	939	938	936	936	935	934	933	933	933	946	941
Nov 10	933	932	932	932	931	931	931	931	931	931	931	931	931	931	931	931	931	930	929	928	927	926	925	924	924	933	930
Nov 11	924	922	921	920	920	919	919	**918**	**918**	**918**	**918**	**918**	**918**	**918**	919	920	920	921	922	923	924	925	926	927	**918**	927	**921**
Nov 12	928	929	930	931	932	933	934	935	936	937	937	938	939	939	940	940	941	941	941	942	942	941	942	942	928	942	937
Nov 13	941	941	941	940	940	939	938	937	937	936	935	935	935	934	934	934	933	933	933	933	934	933	933	932	932	941	936
Nov 14	931	931	930	929	929	929	928	928	928	928	928	929	928	928	928	928	928	928	927	927	927	927	927	928	927	931	928
Nov 15	928	928	929	930	932	933	935	936	936	936	937	937	937	937	937	937	937	937	937	937	937	937	936	936	928	937	935
Nov 16	935	935	934	933	932	931	930	929	929	928	927	927	926	926	927	927	927	927	927	927	928	928	928	928	926	935	929
Nov 17	929	929	930	930	930	930	931	931	931	931	931	931	932	931	932	932	932	932	932	932	932	932	932	932	929	932	931
Nov 18	932	932	932	932	931	931	931	930	930	930	930	930	930	930	929	929	929	928	928	928	928	928	927	927	927	932	930
Nov 19	927	927	927	926	927	926	926	926	926	927	927	927	927	927	928	928	929	930	931	932	933	936	939	942	926	942	929
Nov 20	944	946	947	949	950	951	952	952	953	953	954	954	954	**955**	954	954	954	953	953	952	951	951	949	948	944	**955**	951
Nov 21	947	946	944	943	942	942	941	941	940	940	940	940	941	941	942	942	943	944	945	945	946	947	947	948	940	948	943
Nov 22	948	948	949	949	950	950	950	950	950	951	951	951	951	950	950	951	951	951	952	951	951	951	952	952	948	952	950
Nov 23	952	952	952	953	953	953	953	954	954	954	954	954	953	952	952	952	951	951	950	950	949	949	949	948	948	954	**952**
Nov 24	948	948	948	948	947	947	947	947	948	948	948	948	947	947	947	947	947	947	947	946	946	946	945	945	945	948	947
Nov 25	945	945	945	946	947	948	949	950	951	952	952	952	952	952	952	951	951	950	949	948	948	947	947	946	945	952	949
Nov 26	946	946	946	946	946	946	946	946	947	947	947	947	947	947	946	946	945	945	944	944	943	943	942	942	942	947	945
Nov 27	941	940	940	939	938	938	937	936	936	936	935	935	934	934	934	935	935	935	936	936	936	936	936	937	934	941	936
Nov 28	937	937	937	937	937	937	937	937	937	937	937	937	936	936	936	936	936	936	936	937	937	937	937	938	936	938	937
Nov 29	938	937	938	938	938	938	939	939	940	940	941	941	942	942	942	943	942	943	943	943	943	943	943	943	937	943	941
Nov 30	942	943	943	943	942	942	942	942	941	941	940	939	938	938	937	937	936	936	935	935	934	934	933	933	933	943	939
Diurnal Maximum	952	952	952	953	953	953	953	954	954	954	954	954	954	955	954	954	954	953	953	952	951	951	952	952			
Diurnal Average	938	938	938	938	938	938	938	938	938	938	938	938	938	937	938	938	938	937	937	937	937	937	937	937			

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
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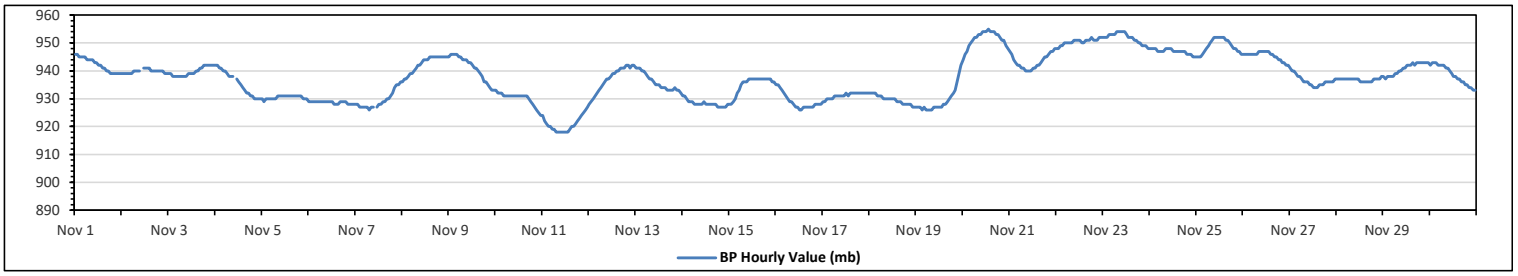


Peace River Area Monitoring Program

986-C Station - November 2023

Summary of Hourly Averages

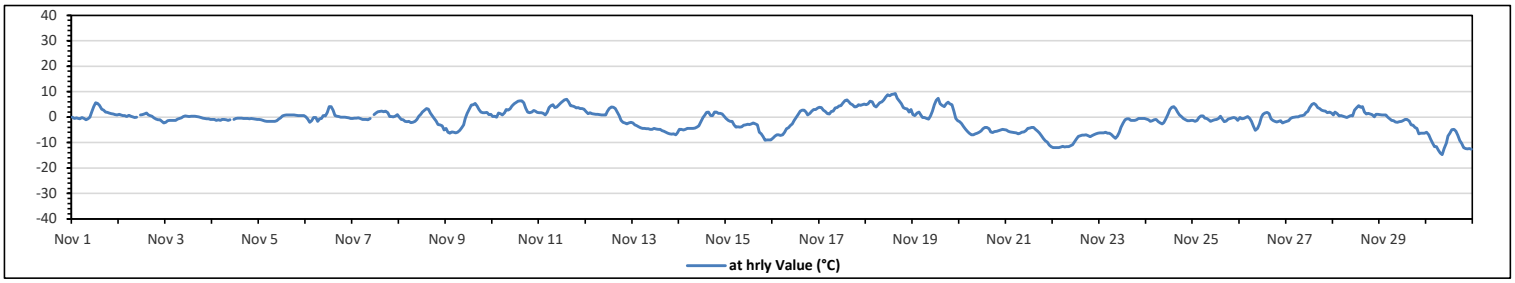
AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	9.3	°C	on Nov 18 at hr 15	Hours in Service:	720	
Maximum Daily Value:	5.8	°C	on Nov 18	Hours of Data:	717	
Minimum Hourly Value:	-14.7	°C	on Nov 30 at hr 8	Hours of Missing Data:	3	
Minimum Daily Value:	-9.9	°C	on Nov 30	Hours of Calibration:	0	
Monthly Average:	-1.0	°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			
Nov 1	0	-0.5	-0.3	-0.5	-0.7	-0.2	-0.6	-1.1	-0.7	0	2.1	4.1	5.6	5.4	4.6	3.1	2.8	2	1.8	1.6	1.4	1.3	1	0.9	-1.1	5.6	1.4
Nov 2	1.1	0.9	0.6	0.5	0.2	0.7	0.3	0.1	-0.1	0	K	0.8	1	1.3	1.6	0.9	0.5	0.3	-0.3	-0.8	-1.1	-1.1	-1.6	-2.3	-2.3	1.6	0.2
Nov 3	-2.1	-1.4	-1.3	-1.2	-1.2	-1.3	-0.8	-0.6	-0.3	0.2	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.1	-0.2	-0.4	-0.6	-0.7	-0.7	-0.9	-2.1	0.4	-0.5
Nov 4	-1	-1	-1.2	-1.1	-1.3	-0.9	-0.9	-1.1	-1.2	-1.1	K	-0.9	-0.6	-0.4	-0.4	-0.4	-0.5	-0.6	-0.6	-0.7	-0.6	-0.7	-0.8	-0.9	-1.3	-0.4	-0.8
Nov 5	-1	-1.1	-1.3	-1.5	-1.6	-1.7	-1.7	-1.7	-1.7	-1.4	-0.8	-0.3	0.4	0.7	0.8	0.9	0.8	0.9	0.9	0.7	0.5	0.5	0.5	0.5	-1.7	0.9	-0.3
Nov 6	0.1	-0.8	-2.1	-1.4	-0.2	-0.1	-1.6	-0.7	-0.6	0.6	0.4	1.8	4.1	4.2	2.7	0.6	0.3	0.2	0	0	0	-0.1	-0.3	-0.5	-2.1	4.2	0.3
Nov 7	-0.5	-0.4	-0.4	-0.3	-0.6	-0.9	-1	-0.9	-1.1	-0.6	K	1	1.6	2.1	2.2	2.3	2.1	2.3	1.7	0.2	0.2	0.1	0.3	1	-1.1	2.3	0.5
Nov 8	0	-0.9	-1.1	-1.7	-1.8	-1.7	-2.2	-2.1	-1.7	-0.9	0.3	1.1	2	2.8	3.3	3.1	1.6	0.3	-0.5	-1.5	-2.9	-3	-3.4	-5.1	-5.1	3.3	-0.7
Nov 9	-4.4	-5.9	-6.4	-5.8	-6	-6.2	-5.9	-5.2	-4.2	-3	-0.5	1.5	3.2	4.7	4.8	5.4	4.3	2.9	2	1.7	1.7	1.8	1	1.1	-6.4	5.4	-0.7
Nov 10	0.2	0.3	0	1.6	1.4	0.8	1.7	3	2.7	3.2	4.3	5.2	5.7	6.3	6.4	6.4	5.6	3.5	1.9	1.7	2	2.6	2.4	1.8	0.0	6.4	2.9
Nov 11	1.7	1.7	1.5	0.8	1.8	3.7	4.5	4.9	3.7	4	4.8	5.6	6.3	6.8	7	6	4.5	4.3	4.1	3.6	3.7	3.3	3.3	3.1	0.8	7.0	3.9
Nov 12	2.1	1.4	1.7	1.4	1.3	1.1	1.1	1	0.8	0.8	0.9	2.2	3.3	4	3.9	3.4	2	0.5	-1.3	-2.1	-2.4	-2.6	-2.4	-2.1	-2.6	4.0	0.8
Nov 13	-2.3	-3	-3.3	-3.8	-4.2	-4.4	-4.4	-4.6	-4.6	-4.8	-4.9	-4.5	-4.7	-4.8	-4.9	-5.3	-5.5	-6	-6.3	-6.6	-6.7	-6.6	-6.9	-6.2	-6.9	-2.3	-5.0
Nov 14	-4.9	-4.8	-5.1	-4.9	-4.5	-4.4	-4.4	-4.5	-4.3	-3.9	-3.5	-1.9	-0.1	0.8	1.8	1.9	0.6	0.6	2	1.9	1.5	1.5	1.2	0.3	-5.1	2.0	-1.5
Nov 15	-0.6	-1.3	-1.6	-1.7	-3.1	-3.9	-3.8	-3.9	-3.8	-3.2	-3	-2.8	-2.9	-2.6	-2.3	-2.6	-3.1	-5.9	-6.5	-7.7	-9.1	-9	-9	-9	-9.1	-0.6	-4.3
Nov 16	-8.2	-7.5	-6.9	-7	-7.2	-6.9	-5.9	-4.6	-4.2	-3.3	-2.6	-1.2	-0.2	1	2.4	2.8	2.7	2	0.9	1.5	2.3	2.9	2.9	3.6	-8.2	3.6	-1.7
Nov 17	3.9	3.7	2.8	2.2	1.4	1.3	2.2	2.4	3.6	3.7	4.3	4.4	5.5	6.5	6.8	6.1	5.3	4.8	4	4.1	4.9	4.6	4.9	5.1	1.3	6.8	4.1
Nov 18	4.9	5.2	6.2	6	4.4	4	4.8	5.6	6	6.8	7.9	8.8	8.4	8.9	9	**9.3**	7.4	6.2	5.3	3.7	3.4	3.2	1.9	3	1.9	**9.3**	**5.8**
Nov 19	1	0.6	1.6	2	1	-0.2	-0.2	-0.5	-0.8	0.4	2.3	4.9	6.7	7.3	5.3	4.6	4.1	5.2	5.8	5.3	4.8	2.3	-0.5	-1.4	-1.4	7.3	2.6
Nov 20	-1.8	-2.5	-3.7	-4.7	-5.6	-6.3	-6.9	-7	-6.5	-6.3	-6	-5.4	-4.6	-4	-4	-4.6	-5.8	-6.1	-5.7	-5.5	-5.3	-5.1	-4.9	-5	-7.0	-1.8	-5.1
Nov 21	-5.1	-5.5	-5.8	-6	-6.1	-6.2	-6.5	-6.3	-6	-5.8	-5.3	-4.5	-4.3	-4	-4.1	-4.8	-5.4	-6.2	-7.2	-8.5	-9.3	-9.9	-10.9	-11.7	-11.7	-4.0	-6.5
Nov 22	-11.9	-11.9	-11.9	-11.9	-11.8	-11.5	-11.8	-11.7	-11.6	-11.3	-10.8	-9.7	-8.6	-7.6	-7.3	-7.1	-7.1	-7	-7.4	-7.7	-7.4	-6.9	-6.5	-6.3	-11.9	-6.3	-9.4
Nov 23	-6.2	-6.2	-6.2	-5.9	-6.3	-6.4	-6.8	-7.8	-8.3	-7.5	-5.9	-4.1	-2.3	-1.1	-0.7	-0.7	-1.2	-1.3	-1.3	-1.1	-0.5	-0.5	-0.5	-0.5	-8.3	-0.5	-3.7
Nov 24	-0.8	-1.1	-1.6	-1.4	-1.1	-1	-1.8	-2.3	-2.7	-2.2	-0.8	1.1	2.9	3.9	4.2	3.3	1.9	0.8	0.2	-0.5	-1.1	-1.4	-1.4	-1.2	-2.7	4.2	-0.2
Nov 25	-1.2	-1.6	-1.2	-0.1	0.4	0.4	-0.4	-0.6	-1.1	-1.6	-1.3	-1.1	-0.9	-0.6	0.3	-0.8	-1.8	-1.5	-0.8	-0.5	-0.3	-0.1	-0.4	-1.3	-1.8	0.4	-0.8
Nov 26	-0.2	-0.7	-0.6	-0.2	0.2	-0.4	-1.6	-3.6	-5.2	-4.5	-2.7	0	1.1	1.6	1.8	1.4	-0.7	-1.3	-1.7	-1.9	-1.6	-1.4	-2.4	-2	-5.2	1.8	-1.1
Nov 27	-1.6	-1.4	-0.6	-0.2	0	0.1	0.1	0.4	0.5	0.8	1.7	2.2	3.7	5	5.4	4.9	3.8	3.4	2.8	2.5	2.3	1.7	2	1.6	-1.6	5.4	1.7
Nov 28	0.8	2	1.4	0.4	0.5	0.3	0.1	-0.1	0.2	0.5	0.4	2.7	3.7	4.4	3.9	4.1	2	1.2	1.5	1.3	1	0.1	1.1	1.1	-0.1	4.4	1.4
Nov 29	1	0.9	0.9	0.9	0	-0.7	-1.2	-1.4	-1.9	-2.1	-1.8	-1.7	-1.2	-1	-0.9	-1.5	-3	-3.2	-4	-4.5	-6.5	-6.4	-6.4	-6.3	-6.5	1.0	-2.2
Nov 30	-5.9	-7	-8.7	-10.3	-11.7	-11.7	-13	-14.2	**-14.7**	-12.4	-10.2	-7.5	-6.3	-5	-4.9	-5.6	-7.2	-9.2	-10.4	-11.9	-12.4	-12.5	-12.4	-12.6	**-14.7**	-4.9	**-9.9**
Diurnal Maximum	4.9	5.2	6.2	6.0	4.4	4.0	4.8	5.6	6.0	6.8	7.9	8.8	8.4	8.9	9.0	9.3	7.4	6.2	5.8	5.3	4.9	4.6	4.9	5.1			
Diurnal Average	-1.4	-1.7	-1.8	-1.9	-2.1	-2.2	-2.3	-2.3	-2.3	-1.8	-1.1	0.1	1.0	1.6	1.6	1.2	0.4	-0.2	-0.6	-1.1	-1.3	-1.4	-1.6	-1.7			

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 - November 2023

Summary of Hourly Averages

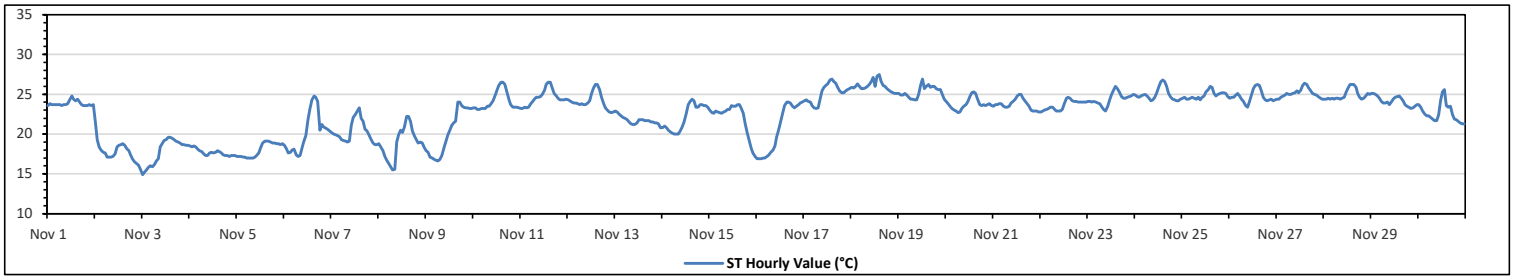
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	27.5	°C	on Nov 18 at hr 14	Hours in Service:	720
Maximum Daily Value:	26.0	°C	on Nov 18	Hours of Data:	720
Minimum Hourly Value:	14.9	°C	on Nov 3 at hr 0	Hours of Missing Data:	0
Minimum Daily Value:	17.7	°C	on Nov 4	Hours of Calibration:	0
Monthly Average:	22.6	°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
Nov 1	23.6	23.8	23.7	23.7	23.7	23.7	23.7	23.6	23.7	23.7	23.8	24.3	24.8	24.4	24.2	24.4	24.0	23.7	23.6	23.6	23.6	23.7	23.6	23.7	23.6	24.8	23.8
Nov 2	21.6	19.3	18.4	18.0	17.7	17.6	17.1	17.1	17.1	17.2	17.5	18.4	18.6	18.7	18.8	18.6	18.2	17.9	17.3	16.8	16.5	16.3	16.1	15.5	15.5	21.6	17.8
Nov 3	**14.9**	15.2	15.5	15.8	16.0	15.9	16.2	16.6	16.9	18.4	18.8	19.2	19.3	19.6	19.6	19.5	19.3	19.1	19.0	18.9	18.7	18.7	18.6	18.6	**14.9**	19.6	17.8
Nov 4	18.5	18.4	18.5	18.4	18.1	17.9	17.8	17.5	17.3	17.3	17.6	17.7	17.6	17.7	17.9	17.8	17.6	17.4	17.3	17.3	17.2	17.3	17.3	17.3	17.2	18.5	**17.7**
Nov 5	17.2	17.2	17.2	17.1	17.1	17.0	17.0	17.0	17.0	17.1	17.3	17.6	18.3	18.9	19.1	19.1	19.1	19.0	18.9	18.9	18.8	18.8	18.7	18.8	17.0	19.1	18.0
Nov 6	18.6	18.2	17.6	17.7	18.0	18.1	17.4	17.2	17.3	18.4	19.1	19.8	21.9	23.2	24.3	24.8	24.6	24.1	20.5	21.2	20.9	20.7	20.6	20.4	17.2	24.8	20.2
Nov 7	20.2	20.0	19.9	19.8	19.7	19.3	19.2	19.1	19.0	19.1	21.1	22.1	22.4	22.9	23.3	22.0	21.6	20.6	20.4	19.9	19.3	18.9	18.7	18.7	18.7	23.3	20.3
Nov 8	18.8	18.4	17.9	17.2	16.7	16.3	15.9	15.5	15.6	19.0	19.9	20.5	20.2	20.9	22.2	22.2	21.6	20.4	19.8	19.3	18.9	19.0	18.9	18.3	15.5	22.2	18.9
Nov 9	17.9	17.7	17.1	17.0	16.8	16.7	16.6	16.8	17.3	18.3	19.1	19.9	20.5	21.1	21.4	21.6	24.0	24.0	23.6	23.4	23.3	23.3	23.2	23.2	16.6	24.0	20.2
Nov 10	23.3	23.3	23.1	23.1	23.2	23.2	23.2	23.5	23.5	23.8	24.2	24.9	25.6	26.1	26.5	26.5	26.2	25.2	24.3	23.7	23.4	23.4	23.4	23.3	23.1	26.5	24.2
Nov 11	23.2	23.2	23.4	23.3	23.4	23.8	24.1	24.4	24.6	24.6	24.7	25.0	25.5	26.2	26.5	26.5	25.8	25.1	24.8	24.5	24.3	24.3	24.3	24.4	23.2	26.5	24.6
Nov 12	24.3	24.2	24.0	23.9	23.9	23.8	23.7	23.8	23.7	23.7	23.9	24.2	25.1	25.8	26.2	26.2	25.6	24.6	23.9	23.3	23.0	22.8	22.7	22.8	22.7	26.2	24.1
Nov 13	22.9	22.8	22.5	22.3	22.1	22.0	21.8	21.5	21.3	21.2	21.2	21.4	21.8	21.8	21.8	21.7	21.7	21.7	21.5	21.5	21.4	21.4	21.3	20.8	20.8	22.9	21.7
Nov 14	20.8	21.0	20.8	20.5	20.3	20.1	20.0	20.0	20.0	20.4	20.9	21.5	22.6	23.7	24.1	24.4	24.2	23.4	23.4	23.7	23.7	23.6	23.6	23.4	20.0	24.4	22.1
Nov 15	23.0	22.7	22.6	22.9	22.8	22.7	22.6	22.8	22.9	23.1	23.1	23.6	23.5	23.5	23.7	23.7	23.3	22.6	21.3	20.2	19.1	18.2	17.6	17.2	17.2	23.7	22.0
Nov 16	16.9	16.9	16.9	17.0	17.0	17.2	17.4	17.7	18.0	18.5	19.6	20.6	21.6	22.6	23.6	24.0	24.0	23.9	23.5	23.3	23.5	23.7	23.9	24.0	16.9	24.0	20.6
Nov 17	24.2	24.3	24.1	24.0	23.6	23.3	23.2	23.3	24.4	25.4	25.9	26.1	26.3	26.8	26.9	26.6	26.4	25.9	25.4	25.2	25.2	25.4	25.6	25.7	23.2	26.9	25.1
Nov 18	25.9	25.8	26.0	26.3	26.0	25.7	25.7	25.8	26.0	26.2	26.6	27.1	26.0	27.3	**27.5**	26.6	26.1	26.0	25.7	25.5	25.3	25.2	25.1	25.1	25.1	**27.5**	**26.0**
Nov 19	25.1	24.9	24.9	25.1	24.9	24.6	24.4	24.4	24.3	24.3	25.0	26.1	26.9	25.7	26.0	26.2	25.9	26.0	26.0	25.7	25.6	25.6	25.0	24.4	24.3	26.9	25.3
Nov 20	24.1	23.8	23.5	23.2	23.0	22.9	22.7	22.8	23.2	23.5	23.7	24.1	24.7	25.2	25.3	25.1	24.3	23.7	23.6	23.7	23.6	23.7	23.8	23.6	22.7	25.3	23.8
Nov 21	23.5	23.7	23.7	23.8	23.8	23.5	23.4	23.4	23.5	23.9	24.1	24.4	24.8	25.0	25.0	24.5	24.2	23.8	23.5	23.0	22.9	22.9	22.9	22.8	22.8	25.0	23.8
Nov 22	22.8	22.9	23.0	23.1	23.2	23.4	23.4	23.1	22.9	22.9	22.9	23.1	23.9	24.5	24.6	24.5	24.2	24.1	24.1	24.0	24.0	24.0	24.0	24.0	22.8	24.6	23.6
Nov 23	24.1	24.1	24.0	24.1	24.0	23.9	23.8	23.4	23.1	22.9	23.5	24.3	25.0	25.5	26.0	25.7	25.3	24.7	24.5	24.5	24.6	24.7	24.8	25.0	22.9	26.0	24.4
Nov 24	24.9	24.7	24.6	24.8	24.9	25.0	24.8	24.5	24.2	24.3	24.6	25.2	26.0	26.6	26.8	26.6	26.0	25.1	24.6	24.4	24.3	24.2	24.2	24.4	24.2	26.8	25.0
Nov 25	24.5	24.6	24.4	24.4	24.5	24.6	24.5	24.4	24.6	24.3	24.6	24.8	25.3	25.6	26.0	25.9	25.1	24.8	25.0	25.1	25.2	25.2	25.1	24.7	24.3	26.0	24.9
Nov 26	24.5	24.6	24.6	24.9	25.1	24.8	24.4	24.1	23.6	23.4	24.1	24.9	25.7	26.1	26.2	26.1	25.4	24.6	24.3	24.2	24.3	24.4	24.2	24.3	23.4	26.2	24.7
Nov 27	24.4	24.4	24.6	24.8	24.9	25.1	25.0	25.0	25.1	25.2	25.4	25.2	25.5	26.1	26.4	26.2	25.8	25.5	25.1	25.0	24.9	24.7	24.5	24.4	24.4	26.4	25.1
Nov 28	24.4	24.4	24.5	24.4	24.5	24.4	24.5	24.5	24.4	24.5	24.6	25.2	25.7	26.2	26.2	26.2	25.9	25.1	24.6	24.4	24.5	24.8	25.1	25.0	24.4	26.2	24.9
Nov 29	25.1	25.1	25.0	24.8	24.5	24.1	23.9	23.9	24.0	23.7	24.0	24.4	24.6	24.7	24.8	24.5	24.2	23.7	23.5	23.4	23.2	23.3	23.5	23.7	23.2	25.1	24.2
Nov 30	23.7	23.4	22.9	22.5	22.3	22.3	22.1	21.9	21.7	21.7	22.4	24.2	25.3	25.6	23.6	23.4	23.5	22.5	21.9	21.8	21.6	21.4	21.3	21.3	21.3	25.6	22.7
Diurnal Maximum	25.9	25.8	26.0	26.3	26.0	25.7	25.7	25.8	26.0	26.2	26.6	27.1	26.9	27.3	27.5	26.6	26.4	26.0	26.0	25.7	25.6	25.6	25.6	25.7			
Diurnal Average	22.2	22.1	22.0	21.9	21.9	21.8	21.7	21.6	21.7	22.0	22.4	23.0	23.5	23.9	24.2	24.0	23.8	23.3	22.8	22.6	22.5	22.5	22.4	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

986-C Station - November 2023

Summary of Hourly Averages

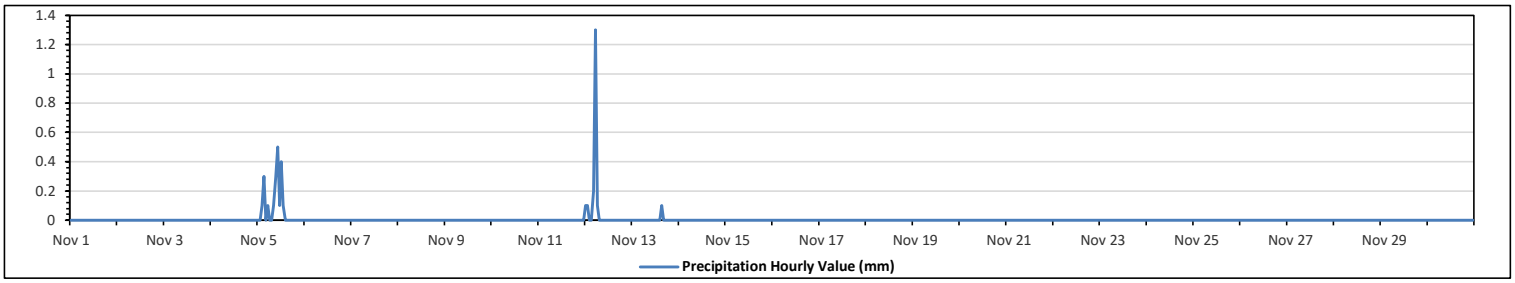
PRECIPITATION in mm

Maximum Hourly Value:	1.3	mm	on Nov 12 at hr 5	Hours in Service:	720		
Maximum Daily Value:	2.0	mm	on Nov 5	Hours of Data:	720		
Minimum Hourly Value:	0.0	mm	on Nov 1 at hr 0	Hours of Missing Data:	0		
Minimum Daily Value:	0.0	mm	on Nov 1	Hours of Calibration:	0		
Monthly Total:	3.9	mm		Operational Uptime:	100.0		

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Nov 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
Nov 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 5	0	0	0.1	0.3	0	0.1	0	0	0.1	0.3	0.5	0.1	0.4	0.1	0	0	0	0	0	0	0	0	0	0	0.0	0.5	**2.0**
Nov 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	0.0	0.0
Nov 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 12	0.1	0.1	0	0	0.2	**1.3**	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	**1.3**	1.8
Nov 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0.0	0.1	0.1
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Diurnal Maximum	0.1	0.1	0.1	0.3	0.2	1.3	0.1	0.0	0.1	0.3	0.5	0.1	0.4	0.1	0.0	0.1	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 - November 2023

Summary of Hourly Averages

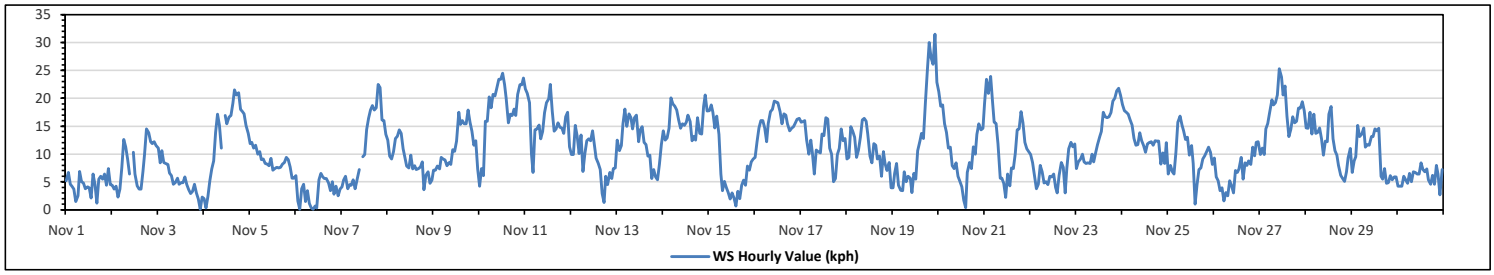
VECTOR WIND SPEED (VWS) in km/hr

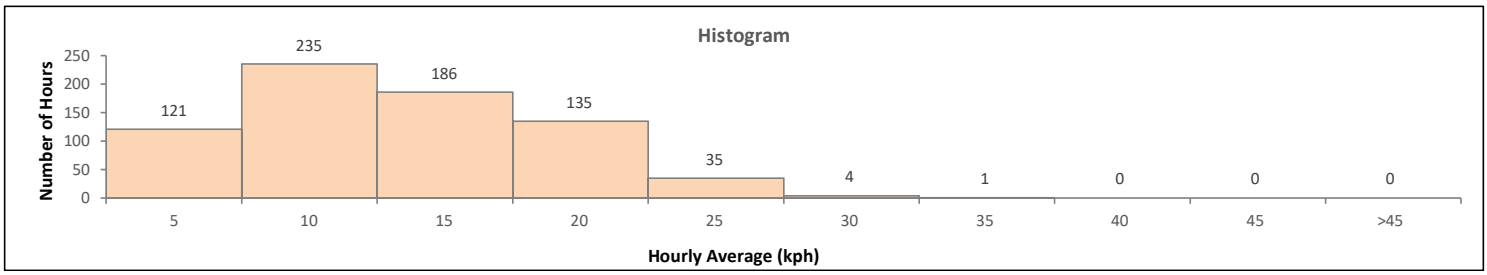
Maximum Hourly Value:	31.5	kph	on Nov 19 at hr 22	Hours in Service:	720	
Maximum Daily Value:	18.3	kph	on Nov 10	Hours of Data:	717	
Minimum Hourly Value:	0.1	kph	on Nov 3 at hr 22	Hours of Missing Data:	3	
Minimum Daily Value:	3.3	kph	on Nov 6	Hours of Calibration:	0	
Monthly Average:	4.9	kph		Operational 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			
Nov 1	5.2	6.7	4.6	4.2	3.7	1.5	2.5	6.9	5.0	4.8	3.8	4.1	3.9	2.1	6.4	4.6	1.2	5.5	6.0	5.5	6.4	4.4	7.4	4.5	1.2	7.4	4.6
Nov 2	4.4	3.7	4.2	2.3	3.7	7.6	12.6	11.3	9.1	6.4	K	10.3	6.4	4.3	3.7	3.7	6.9	10.0	14.5	13.8	12.2	11.9	12.2	11.5	2.3	14.5	8.1
Nov 3	11.1	8.4	10.6	8.5	8.3	8.1	6.6	6.1	4.6	4.9	5.7	4.6	4.9	4.9	5.9	4.5	3.6	2.9	3.3	4.6	3.0	1.9	**0.1**	2.3	**0.1**	11.1	5.4
Nov 4	2.0	0.3	2.4	5.2	7.3	8.8	13.9	17.1	15.1	11.1	K	16.9	15.4	16.6	16.9	19.1	21.5	20.6	21.0	18.0	17.6	17.2	15.1	13.7	0.3	21.5	13.6
Nov 5	11.9	12.1	11.1	11.6	10.0	10.4	9.0	9.1	8.3	8.2	7.9	9.2	7.1	7.4	7.6	7.5	7.6	8.2	8.5	9.4	9.0	7.7	5.7	5.7	5.7	12.1	8.8
Nov 6	6.1	1.6	**0.1**	3.8	4.6	1.5	3.4	1.1	0.3	**0.1**	0.7	0.3	5.4	6.5	5.9	5.6	5.6	4.8	3.4	5.0	2.8	4.2	2.5	3.7	**0.1**	6.5	**3.3**
Nov 7	4.1	5.3	6.0	3.8	4.5	4.4	5.4	3.8	5.4	7.2	K	9.5	9.9	14.4	16.4	17.9	18.7	17.9	18.3	22.5	21.9	16.1	16.0	13.5	3.8	22.5	11.4
Nov 8	12.5	9.6	9.1	10.4	12.8	13.2	14.3	13.7	10.9	9.3	7.8	7.5	9.8	7.3	7.9	7.2	7.4	7.7	8.6	3.6	6.2	6.8	4.7	5.3	3.6	14.3	8.9
Nov 9	7.1	7.1	7.8	7.3	9.4	9.1	8.9	7.9	8.5	8.1	10.8	10.5	12.3	17.5	15.3	16.0	15.4	15.4	17.9	15.7	14.1	11.6	12.4	7.3	7.1	17.9	11.4
Nov 10	4.2	7.4	6.1	15.9	15.9	20.2	18.3	20.7	20.4	21.6	23.4	23.4	24.5	22.5	20.0	15.6	17.1	16.9	18.1	16.9	20.7	22.4	22.4	23.6	4.2	24.5	**18.3**
Nov 11	21.7	20.9	19.2	10.1	6.7	14.3	14.5	15.2	12.7	14.0	17.4	19.2	19.9	22.5	17.7	14.1	14.5	15.6	14.8	14.7	13.7	16.7	17.5	11.3	6.7	22.5	15.8
Nov 12	9.9	9.9	15.1	13.2	10.1	13.4	6.9	10.1	12.4	12.7	12.4	14.2	11.5	9.3	8.3	7.2	2.9	1.3	6.0	4.5	6.7	5.6	7.4	7.5	1.3	15.1	9.1
Nov 13	12.5	10.6	11.5	15.4	18.1	15.0	17.2	16.5	14.5	16.5	17.0	12.2	14.3	14.9	12.1	11.7	9.6	9.8	5.6	7.2	5.9	5.4	8.2	11.7	5.4	18.1	12.2
Nov 14	14.2	12.5	12.9	14.6	20.1	19.0	18.6	17.9	16.1	14.6	15.4	15.1	15.7	17.0	15.8	12.4	13.2	12.5	16.5	13.7	13.6	18.5	20.6	17.7	12.4	20.6	15.8
Nov 15	17.8	18.8	17.5	14.7	16.8	13.5	6.4	3.4	5.1	4.0	3.1	1.9	3.0	2.1	0.7	3.3	2.0	4.4	5.3	4.4	7.8	7.1	8.6	9.1	0.7	18.8	7.5
Nov 16	9.4	12.2	14.7	16.0	16.0	14.7	12.2	15.5	17.6	18.0	19.5	19.3	19.2	17.6	15.4	17.2	17.0	15.4	14.2	14.6	14.9	15.5	16.2	16.4	9.4	19.5	15.8
Nov 17	15.7	15.8	16.0	12.5	10.0	12.5	10.2	6.4	10.7	10.4	10.2	13.6	13.3	16.5	16.3	11.1	10.0	5.0	5.6	9.9	11.0	14.5	12.4	12.8	5.0	16.5	11.8
Nov 18	9.1	9.4	14.9	14.1	13.0	9.4	10.7	13.0	16.1	16.4	15.9	13.6	9.6	8.4	11.9	11.6	9.1	9.6	6.0	10.4	8.3	7.0	8.5	3.9	3.9	16.4	10.8
Nov 19	3.9	6.5	8.3	4.4	3.5	3.4	6.8	5.0	6.0	5.7	3.1	6.5	5.5	10.6	12.3	13.7	12.8	19.1	24.8	30.0	27.2	26.1	**31.5**	22.9	3.1	**31.5**	12.5
Nov 20	21.2	18.6	18.8	15.4	13.9	11.1	11.2	7.9	7.4	8.4	6.0	5.1	4.1	1.7	0.4	6.7	8.5	7.4	11.3	10.0	13.5	15.4	14.3	14.6	0.4	21.2	10.5
Nov 21	19.1	23.4	20.9	23.9	19.3	15.7	15.5	11.8	5.7	5.7	4.7	2.2	6.4	4.3	7.5	7.4	10.1	14.3	14.5	17.6	15.6	12.1	10.9	10.4	2.2	23.9	12.5
Nov 22	9.9	8.5	6.1	3.8	4.6	8.0	6.8	4.8	5.0	4.5	6.0	5.9	6.4	4.0	3.0	6.2	8.5	7.6	3.0	7.4	10.9	12.1	11.3	11.8	3.0	12.1	6.9
Nov 23	7.4	8.6	9.1	10.0	8.6	8.3	8.4	8.3	10.0	8.6	10.2	11.7	13.1	14.0	17.5	16.7	16.5	16.7	17.4	19.5	20.0	21.3	21.8	20.5	7.4	21.8	13.5
Nov 24	18.9	17.8	17.5	17.1	16.1	15.2	12.8	11.6	11.7	13.8	12.4	11.5	10.3	11.8	12.0	12.2	11.6	12.4	12.3	12.3	8.2	10.2	8.3	12.0	8.2	18.9	12.9
Nov 25	6.4	8.0	6.8	6.4	10.3	15.7	16.8	15.2	14.2	12.6	13.0	9.8	11.5	8.3	1.0	4.5	7.2	7.5	9.1	9.7	10.4	11.2	10.3	8.1	1.0	16.8	9.8
Nov 26	9.3	5.9	5.2	3.4	3.9	1.6	3.1	2.5	5.2	4.3	3.0	7.0	6.7	7.3	9.4	5.5	8.4	8.0	8.8	8.1	11.2	9.7	12.1	12.2	1.6	12.2	6.7
Nov 27	9.9	11.1	9.9	14.5	15.5	17.5	19.7	18.8	19.2	20.6	25.3	23.8	20.6	22.2	16.8	13.1	14.4	16.7	15.6	15.9	18.2	18.2	19.4	17.8	9.9	25.3	17.3
Nov 28	14.7	14.6	17.5	13.6	17.1	13.7	13.9	14.7	12.7	9.8	12.3	12.2	17.1	18.5	12.7	10.6	9.8	8.0	6.2	5.6	5.1	6.8	9.3	11.0	5.1	18.5	12.0
Nov 29	6.7	8.8	9.5	15.1	13.1	13.6	14.7	11.2	11.7	11.6	13.1	13.1	14.5	14.2	14.6	6.0	5.5	7.4	4.7	4.9	6.1	5.4	5.9	5.9	4.7	15.1	9.9
Nov 30	4.2	4.2	4.2	6.0	5.4	4.7	6.5	5.0	6.8	6.7	6.4	6.4	8.4	7.2	6.8	7.3	5.4	4.6	6.2	4.6	8.0	6.4	2.7	7.2	2.7	8.4	5.9
Diurnal Maximum	21.7	23.4	20.9	23.9	20.1	20.2	19.7	20.7	20.4	21.6	25.3	23.8	24.5	22.5	20.0	19.1	21.5	20.6	24.8	30.0	27.2	26.1	31.5	23.6			
Diurnal Average	10.4	10.3	10.6	10.6	10.7	10.8	10.9	10.4	10.3	10.0	10.6	10.7	11.0	11.2	10.6	10.0	10.1	10.4	10.9	11.3	11.7	11.6	11.9	11.2			

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.



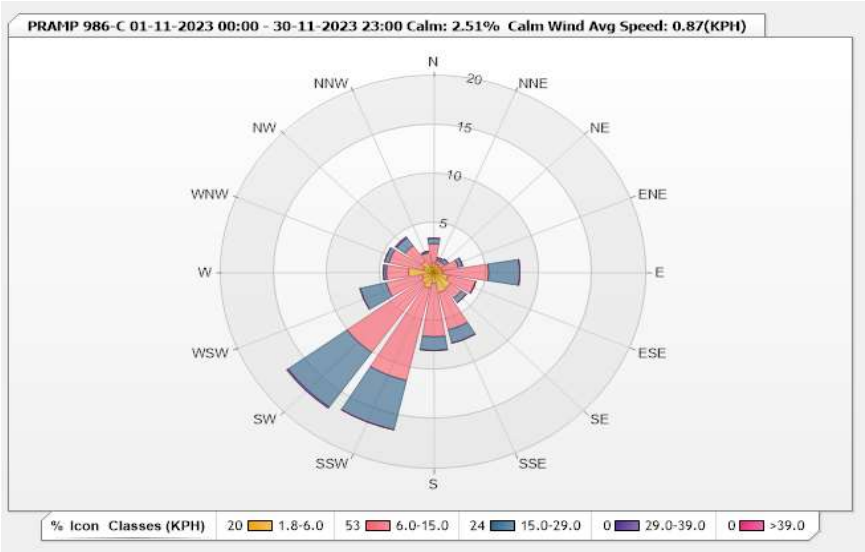


Station: PRAMP 986-C Monitor: WDS [KPH] Monthly: 11-2023

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

Calm (WS<1.8kph): 2.51% Valid Data: 99.58%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.98	1.95	0.56	0	0	3.49
NNE	0.84	0.42	0.28	0	0	1.54
NE	0.7	0.56	0.42	0	0	1.68
ENE	0.84	1.53	0.42	0	0	2.79
E	0.84	4.32	2.93	0	0	8.09
ESE	1.39	2.65	0	0	0	4.04
SE	1.95	1.26	0.56	0	0	3.77
SSE	2.09	3.91	1.39	0	0	7.39
S	1.12	5.44	1.39	0	0	7.95
SSW	1.67	9.62	5.16	0	0	16.45
SW	1.39	8.65	6.83	0.14	0	17.01
WSW	1.12	3.49	2.51	0	0	7.12
W	2.37	2.09	0.28	0	0	4.74
WNW	0.98	3.35	0.42	0	0	4.75
NW	1.39	1.95	0.98	0.14	0	4.46
NNW	0.56	1.53	0.14	0	0	2.23
Summary	20.23	52.72	24.27	0.28	0	97.5



Peace River Area Monitoring Program

986-C Station - November 2023

Summary of Hourly Averages

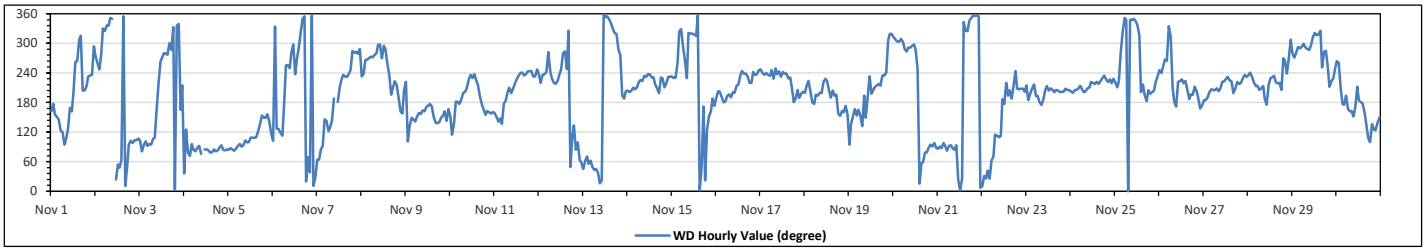
WIND DIRECTION (VWD) in sector

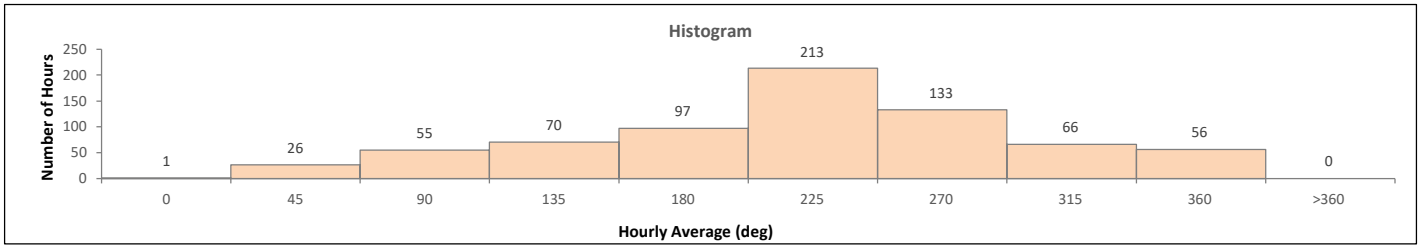
Monthly Average:	210 (SSW)	degree	
Hours in Service:	720		
Hours of Data:	717		
Hours of Missing Data:	3		
Hours of Calibration:	0		
Operational Uptime:	99.6		

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
Nov 1	SSE	S	SSE	SSE	SE	ESE	ESE	E	ESE	SE	SSE	SSE	SSW	W	W	NW	NW	SSW	SSW	SSW	SW	SW	SW	WNW	191	S
Nov 2	W	W	WSW	W	NNW	NW	NNW	NNW	N	N	K	NNE	NE	NE	ENE	N	NNE	NE	E	E	E	ESE	ESE	ESE	46	NE
Nov 3	ESE	E	E	E	E	E	E	ESE	ESE	SSE	SW	W	W	W	W	W	WNW	WNW	NNW	N	NNW	NNW	SSE	SSW	95	E
Nov 4	NE	SE	ENE	ENE	E	E	E	E	E	ENE	K	E	E	E	ENE	ENE	E	E	E	E	E	E	E	E	84	E
Nov 5	E	E	E	E	E	E	E	E	E	ESE	E	E	ESE	ESE	ESE	ESE	ESE	SE	SSE	SSE	SSE	SSE	SE	ESE	108	ESE
Nov 6	E	NNW	SE	SE	ESE	ESE	S	WSW	WSW	WSW	W	WNW	SW	W	WNW	NW	N	N	NNE	ENE	NE	N	NNE	NNE	0	N
Nov 7	ENE	ENE	E	E	SE	SE	ESE	SE	SE	S	K	S	SSW	SW	SW	SW	SW	WSW	WSW	WNW	W	W	W	WNW	243	WSW
Nov 8	SW	WSW	W	W	W	W	W	W	W	WNW	WNW	W	WNW	WNW	WSW	SW	SSW	SSW	SW	SW	S	SSE	SSE	SSW	255	WSW
Nov 9	SW	E	SE	SSE	SE	SE	SSE	SSE	SSE	SSE	SSE	S	S	S	S	SSE	SE	SE	SE	SSE	SSE	SSE	SE	SSE	154	SSE
Nov 10	SSE	ESE	SE	S	S	S	S	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	S	S	SSE	SSE	SSE	SSE	SSE	SSE	191	S
Nov 11	SSE	SSE	SE	SE	SE	S	S	SSW	SSW	SSW	SSW	SW	SW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	SW	SW	WSW	211	SSW
Nov 12	SW	SW	SW	SW	WSW	W	WSW	SW	SW	SW	SW	SW	WSW	W	WNW	WSW	NW	NE	ESE	SE	E	E	ENE	ENE	236	SW
Nov 13	NE	ENE	ENE	NE	ENE	NE	NE	NE	NE	NNE	NNE	N	N	N	NNW	NNW	NNW	NW	NW	WNW	W	SSW	S	SSW	21	NNE
Nov 14	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SSW	SW	SW	SW	221	SW
Nov 15	SW	SW	SW	W	NW	NNW	WNW	W	SW	NW	NW	NW	NW	NW	N	N	NE	S	NNE	SE	SSE	SSE	S	S	251	WSW
Nov 16	S	SSW	SSW	S	S	S	S	SSW	S	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	SW	SW	SW	WSW	SW	SW	WSW	215	SSW
Nov 17	WSW	WSW	SW	WSW	SW	SW	WSW	SW	WSW	SW	WSW	SW	WSW	WSW	WSW	SW	SW	SSW	S	S	SSW	S	SSW	SSW	228	SW
Nov 18	SSW	SSW	SW	SSW	S	S	SSW	SSW	SSW	SSW	SW	SW	SW	SSW	S	SSW	SSW	SSW	SSE	SSE	SSE	SSE	S	SSE	196	SSW
Nov 19	E	SE	SSE	SSE	SSE	SSE	SSE	SE	SSW	SSE	S	SW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	WSW	NW	NW	NW	236	SW
Nov 20	NW	NW	WNW	WNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WSW	NNE	ENE	ENE	ENE	ENE	E	E	E	E	E	342	NNW
Nov 21	E	E	E	E	E	E	E	E	E	E	E	NNE	N	NNE	NNW	NW	NW	NNW	N	N	N	N	N	N	49	NE
Nov 22	N	NNE	NNE	NE	NNE	ENE	ENE	ESE	ESE	ESE	ESE	S	S	SW	SSW	SSW	S	SSW	WSW	SSW	SSW	SSW	SSW	SSW	173	S
Nov 23	SSW	S	SSW	SSW	SW	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	202	SSW
Nov 24	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	214	SSW
Nov 25	SW	SSW	SW	WNW	NW	N	NNW	N	NNW	NNW	N	NNW	NNW	NW	SSW	SW	SSW	S	SSW	SSW	SSW	SSW	SW	SW	293	WNW
Nov 26	WSW	WSW	WSW	W	W	NNW	NW	SSW	S	S	SW	SW	SW	SW	SW	SSW	S	SSW	SSW	SSW	SSW	S	SSE	S	209	SSW
Nov 27	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	SW	215	SSW
Nov 28	SW	WSW	SW	SW	SSW	SSW	SSW	SSW	SSW	S	S	SW	SW	SW	SW	SW	SW	SW	SSW	W	W	WSW	W	NW	225	SW
Nov 29	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	WSW	W	WNW	WSW	SSW	SW	SW	WSW	290	WNW
Nov 30	W	W	SSW	S	S	SSW	SSE	SSE	SSE	SSE	S	SSW	S	S	S	SSE	SE	ESE	E	SE	SE	ESE	SE	SSE	164	SSE

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 - November 2023

Summary of Hourly Averages

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

WIND SPEED

Maximum Hourly Value:	31.5	kph	on Nov 19 at hr 22	Hours in Service:	720
Maximum Daily Value:	18.3	kph	on Nov 10	Hours of Data:	717
Minimum Hourly Value:	0.1	kph	on Nov 3 at hr 22	Hours of Missing Data:	3
Minimum Daily Value:	3.3	kph	on Nov 6	Hours of Calibration:	0
Monthly Average:	4.9	kph		Operational Uptime:	99.6

WIND DIRECTION

Monthly Average: 210 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			
Nov 1	5.2	6.7	4.6	4.2	3.7	1.5	2.5	6.9	5.0	4.8	3.8	4.1	3.9	2.1	6.4	4.6	1.2	5.5	6.0	5.5	6.4	4.4	7.4	4.5	1.2	7.4	4.6
	SSE	S	SSE	SSE	SE	ESE	ESE	E	ESE	SE	SSE	SSE	SSW	W	W	NW	NW	SSW	SSW	SSW	SW	SW	SW	WNW			191(S)
Nov 2	4.4	3.7	4.2	2.3	3.7	7.6	12.6	11.3	9.1	6.4	K	10.3	6.4	4.3	3.7	3.7	6.9	10.0	14.5	13.8	12.2	11.9	12.2	11.5	2.3	14.5	8.1
	W	W	WSW	W	NNW	NW	NNW	NNW	N	N	K	NNE	NE	NE	ENE	N	NNE	NE	E	E	E	ESE	ESE	ESE			46(NE)
Nov 3	11.1	8.4	10.6	8.5	8.3	8.1	6.6	6.1	4.6	4.9	5.7	4.6	4.9	4.9	5.9	4.5	3.6	2.9	3.3	4.6	3.0	1.9	**0.1**	2.3	**0.1**	11.1	5.4
	ESE	E	E	E	E	E	E	ESE	ESE	SSE	SW	W	W	W	W	W	WNW	WNW	NNW	N	NNW	NNW	SSE	SSW			95(E)
Nov 4	2.0	0.3	2.4	5.2	7.3	8.8	13.9	17.1	15.1	11.1	K	16.9	15.4	16.6	16.9	19.1	21.5	20.6	21.0	18.0	17.6	17.2	15.1	13.7	0.3	21.5	13.6
	NE	SE	ENE	ENE	E	E	E	E	E	ENE	K	E	E	E	ENE	ENE	E	E	E	E	E	E	E	E			84(E)
Nov 5	11.9	12.1	11.1	11.6	10.0	10.4	9.0	9.1	8.3	8.2	7.9	9.2	7.1	7.4	7.6	7.5	7.6	8.2	8.5	9.4	9.0	7.7	5.7	5.7	5.7	12.1	8.8
	E	E	E	E	E	E	E	E	E	ESE	E	E	ESE	ESE	ESE	ESE	ESE	SE	SSE	SSE	SSE	SSE	SE	ESE			108(ESE)
Nov 6	6.1	1.6	**0.1**	3.8	4.6	1.5	3.4	1.1	0.3	**0.1**	0.7	0.3	5.4	6.5	5.9	5.6	5.6	4.8	3.4	5.0	2.8	4.2	2.5	3.7	**0.1**	6.5	**3.3**
	E	NNW	SE	SE	ESE	ESE	S	WSW	WSW	WSW	W	WNW	SW	W	WNW	NW	N	N	NNE	ENE	NE	N	NNE	NNE			0(N)
Nov 7	4.1	5.3	6.0	3.8	4.5	4.4	5.4	3.8	5.4	7.2	K	9.5	9.9	14.4	16.4	17.9	18.7	17.9	18.3	22.5	21.9	16.1	16.0	13.5	3.8	22.5	11.4
	ENE	ENE	E	E	SE	SE	ESE	SE	SE	S	K	S	SSW	SW	SW	SW	SW	WSW	WSW	WNW	W	W	W	WNW			243(WSW)
Nov 8	12.5	9.6	9.1	10.4	12.8	13.2	14.3	13.7	10.9	9.3	7.8	7.5	9.8	7.3	7.9	7.2	7.4	7.7	8.6	3.6	6.2	6.8	4.7	5.3	3.6	14.3	8.9
	SW	WSW	W	W	W	W	W	W	W	WNW	WNW	W	WNW	WNW	WSW	SW	SSW	SSW	SW	SW	S	SSE	SSE	SSW			255(WSW)
Nov 9	7.1	7.1	7.8	7.3	9.4	9.1	8.9	7.9	8.5	8.1	10.8	10.5	12.3	17.5	15.3	16.0	15.4	15.4	17.9	15.7	14.1	11.6	12.4	7.3	7.1	17.9	11.4
	SW	E	SE	SSE	SE	SE	SSE	SSE	SSE	SSE	SSE	S	S	S	S	SSE	SE	SE	SE	SSE	SSE	SSE	SE	SSE			154(SSE)
Nov 10	4.2	7.4	6.1	15.9	15.9	20.2	18.3	20.7	20.4	21.6	23.4	23.4	24.5	22.5	20.0	15.6	17.1	16.9	18.1	16.9	20.7	22.4	22.4	23.6	4.2	24.5	**18.3**
	SSE	ESE	SE	S	S	S	S	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	S	S	SSE	SSE	SSE	SSE	SSE	SSE			191(S)
Nov 11	21.7	20.9	19.2	10.1	6.7	14.3	14.5	15.2	12.7	14.0	17.4	19.2	19.9	22.5	17.7	14.1	14.5	15.6	14.8	14.7	13.7	16.7	17.5	11.3	6.7	22.5	15.8
	SSE	SSE	SE	SE	SE	S	S	SSW	SSW	SSW	SSW	SW	SW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	SW	SW	WSW			211(SSW)
Nov 12	9.9	9.9	15.1	13.2	10.1	13.4	6.9	10.1	12.4	12.7	12.4	14.2	11.5	9.3	8.3	7.2	2.9	1.3	6.0	4.5	6.7	5.6	7.4	7.5	1.3	15.1	9.1
	SW	SW	SW	SW	WSW	W	WSW	SW	SW	SW	SW	SW	WSW	W	WNW	WSW	NW	NE	ESE	SE	E	E	ENE	ENE			236(SW)
Nov 13	12.5	10.6	11.5	15.4	18.1	15.0	17.2	16.5	14.5	16.5	17.0	12.2	14.3	14.9	12.1	11.7	9.6	9.8	5.6	7.2	5.9	5.4	8.2	11.7	5.4	18.1	12.2
	NE	ENE	ENE	NE	ENE	NE	NE	NE	NE	NNE	NNE	N	N	N	NNW	NNW	NNW	NW	NW	WNW	W	SSW	S	SSW			21(NNE)
Nov 14	14.2	12.5	12.9	14.6	20.1	19.0	18.6	17.9	16.1	14.6	15.4	15.1	15.7	17.0	15.8	12.4	13.2	12.5	16.5	13.7	13.6	18.5	20.6	17.7	12.4	20.6	15.8
	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SSW	SW	SW	SW			221(SW)
Nov 15	17.8	18.8	17.5	14.7	16.8	13.5	6.4	3.4	5.1	4.0	3.1	1.9	3.0	2.1	0.7	3.3	2.0	4.4	5.3	4.4	7.8	7.1	8.6	9.1	0.7	18.8	7.5
	SW	SW	SW	W	NW	NNW	WNW	W	SW	NW	NW	NW	NW	NW	N	N	NE	S	NNE	SE	SSE	SSE	S	S			251(WSW)
Nov 16	9.4	12.2	14.7	16.0	16.0	14.7	12.2	15.5	17.6	18.0	19.5	19.3	19.2	17.6	15.4	17.2	17.0	15.4	14.2	14.6	14.9	15.5	16.2	16.4	9.4	19.5	15.8
	S	SSW	SSW	S	S	S	S	SSW	S	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	SW	SW	SW	WSW	SW	SW	WSW			215(SSW)
Nov 17	15.7	15.8	16.0	12.5	10.0	12.5	10.2	6.4	10.7	10.4	10.2	13.6	13.3	16.5	16.3	11.1	10.0	5.0	5.6	9.9	11.0	14.5	12.4	12.8	5.0	16.5	11.8
	WSW	WSW	SW	WSW	SW	SW	WSW	SW	WSW	SW	WSW	SW	WSW	WSW	WSW	SW	SW	SSW	S	S	SSW	S	SSW	SSW			228(SW)
Nov 18	9.1	9.4	14.9	14.1	13.0	9.4	10.7	13.0	16.1	16.4	15.9	13.6	9.6	8.4	11.9	11.6	9.1	9.6	6.0	10.4	8.3	7.0	8.5	3.9	3.9	16.4	10.8
	SSW	SSW	SW	SSW	S	S	SSW	SSW	SSW	SSW	SW	SW	SW	SSW	S	SSW	SSW	SSW	SSE	SSE	SSE	SSE	S	SSE			196(SSW)
Nov 19	3.9	6.5	8.3	4.4	3.5	3.4	6.8	5.0	6.0	5.7	3.1	6.5	5.5	10.6	12.3	13.7	12.8	19.1	24.8	30.0	27.2	26.1	**31.5**	22.9	3.1	**31.5**	12.5
	E	SE	SSE	SSE	SSE	SSE	SSE	SE	SSW	SSE	S	SW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	WSW	NW	NW	NW			236(SW)
Nov 20	21.2	18.6	18.8	15.4	13.9	11.1	11.2	7.9	7.4	8.4	6.0	5.1	4.1	1.7	0.4	6.7	8.5	7.4	11.3	10.0	13.5	15.4	14.3	14.6	0.4	21.2	10.5
	NW	NW	WNW	WNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WSW	NNE	ENE	ENE	ENE	ENE	E	E	E	E	E			342(NNW)
Nov 21	19.1	23.4	20.9	23.9	19.3	15.7	15.5	11.8	5.7	5.7	4.7	2.2	6.4	4.3	7.5	7.4	10.1	14.3	14.5	17.6	15.6	12.1	10.9	10.4	2.2	23.9	12.5
	E	E	E	E	E	E	E	E	E	E	E	NNE	N	NNE	NNW	NW	NW	NNW	N	N	N	N	N	N			49(NE)
Nov 22	9.9	8.5	6.1	3.8	4.6	8.0	6.8	4.8	5.0	4.5	6.0	5.9	6.4	4.0	3.0	6.2	8.5	7.6	3.0	7.4	10.9	12.1	11.3	11.8	3.0	12.1	6.9
	N	NNE	NNE	NE	NNE	ENE	ENE	ESE	ESE	ESE	ESE	S	S	SW	SSW	SSW	S	SSW	WSW	SSW	SSW	SSW	SSW	SSW			173(S)
Nov 23	7.4	8.6	9.1	10.0	8.6	8.3	8.4	8.3	10.0	8.6	10.2	11.7	13.1	14.0	17.5	16.7	16.5	16.7	17.4	19.5	20.0	21.3	21.8	20.5	7.4	21.8	13.5
	SSW	S	SSW	SSW	SW	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW			202(SSW)
Nov 24	18.9	17.8	17.5	17.1	16.1	15.2	12.8	11.6	11.7	13.8	12.4	11.5	10.3	11.8	12.0	12.2	11.6	12.4	12.3	12.3	8.2	10.2	8.3	12.0	8.2	18.9	12.9
	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW			214(SSW)
Nov 25	6.4	8.0	6.8	6.4	10.3	15.7	16.8	15.2	14.2	12.6	13.0	9.8	11.5	8.3	1.0	4.5	7.2	7.5	9.1	9.7	10.4	11.2	10.3	8.1	1.0	16.8	9.8
	SW	SSW	SW	WNW	NW	N	NNW	N	NNW	NNW	N	NNW	NNW	NW	SSW	SW	SSW	S	SSW	SSW	SSW	SSW	SW	SW			293(WNW)
Nov 26	9.3	5.9	5.2	3.4	3.9	1.6	3.1	2.5	5.2	4.3	3.0	7.0	6.7	7.3	9.4	5.5	8.4	8.0	8.8	8.1	11.2	9.7	12.1	12.2	1.6	12.2	6.7
	WSW	WSW	WSW	W	W	NNW	NW	SSW	S	S	SW	SW	SW	SW	SW	SSW	S	SSW	SSW	SSW	SSW	S	SSE	S			209(SSW)
Nov 27	9.9	11.1	9.9	14.5	15.5	17.5	19.7	18.8	19.2	20.6	25.3	23.8	20.6	22.2	16.8	13.1	14.4	16.7	15.6	15.9	18.2	18.2	19.4	17.8	9.9	25.3	17.3
	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	SW			215(SSW)
Nov 28	14.7	14.6	17.5	13.6	17.1	13.7	13.9	14.7	12.7	9.8	12.3	12.2	17.1	18.5	12.7	10.6	9.8	8.0	6.2	5.6	5.1	6.8	9.3	11.0	5.1	18.5	12.0
	SW	WSW	SW	SW	SSW	SSW	SSW	SSW	SSW	S	S	SW	SW	SW	SW	SW	SW	SW	SSW	W	W	WSW	W	NW			225(SW)
Nov 29	6.7	8.8	9.5	15.1	13.1	13.6	14.7	11.2	11.7	11.6	13.1	13.1	14.5	14.2	14.6	6.0	5.5	7.4	4.7	4.9	6.1	5.4	5.9	5.9	4.7	15.1	9.9
	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	WSW	W	WNW	WSW	SSW	SW	SW	WSW			290(WNW)
Nov 30	4.2	4.2	4.2	6.0	5.4	4.7	6.5	5.0	6.8	6.7	6.4	6.4	8.4	7.2	6.8	7.3	5.4	4.6	6.2	4.6	8.0	6.4	2.7	7.2	2.7	8.4	5.9
	W	W	SSW	S	S	SSW	SSE	SSE	SSE	SSE	S	SSW	S	S	S	SSE	SE	ESE	E	SE	SE	ESE	SE	SSE			164(SSE)

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 - November 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

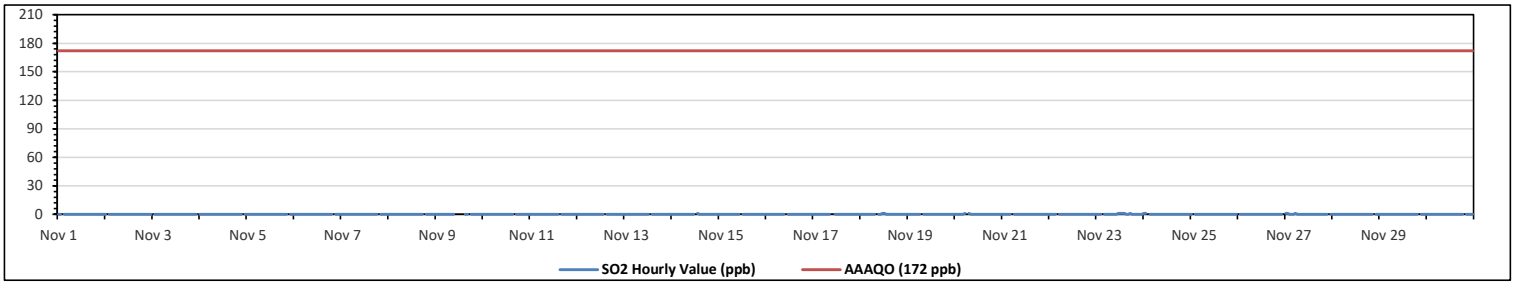
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

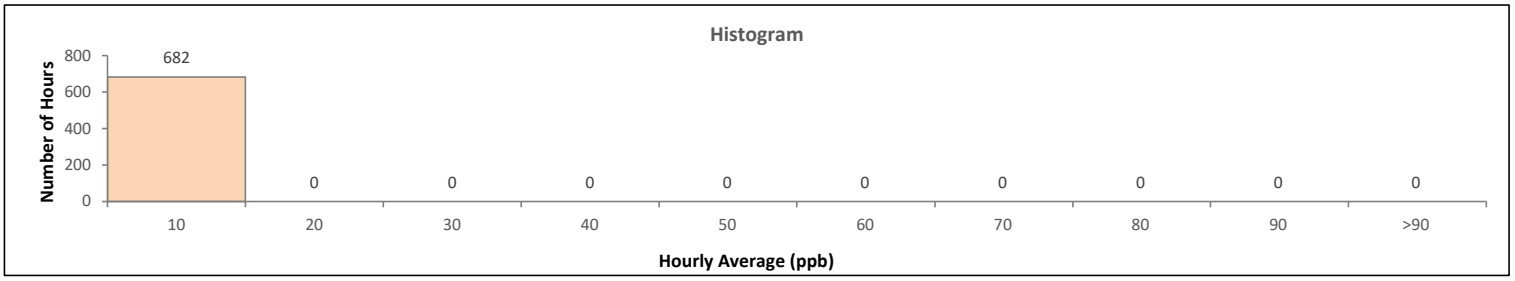
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0	
Maximum Hourly Value:	1	ppb	on Nov 14 at hr 13	Hours in Service:	720	
Maximum Daily Value:	0.2	ppb	on Nov 23	Hours of Data:	682	
Minimum Hourly Value:	0	ppb	on Nov 1 at hr 0	Hours of Missing Data:	1	
Minimum Daily Value:	0.0	ppb	on Nov 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			
Nov 1	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
Nov 2	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
Nov 3	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
Nov 4	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
Nov 5	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
Nov 6	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
Nov 7	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
Nov 8	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
Nov 9	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	S	0	0	0	0	0	0	0	0	0.0
Nov 10	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
Nov 11	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
Nov 12	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
Nov 13	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
Nov 14	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Nov 15	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
Nov 16	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
Nov 17	0	0	0	0	0	0	0	0	0	NRM	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Nov 18	0	0	0	0	0	0	0	0	S	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Nov 19	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
Nov 20	0	0	0	0	0	1	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Nov 21	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
Nov 22	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
Nov 23	0	0	0	S	0	0	0	0	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	1	0.2
Nov 24	1	1	S	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
Nov 25	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
Nov 26	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
Nov 27	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0.1
Nov 28	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
Nov 29	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
Nov 30	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
Diurnal Maximum	1	1	0	0	0	1	0	1	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0			
Diurnal Average	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	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.



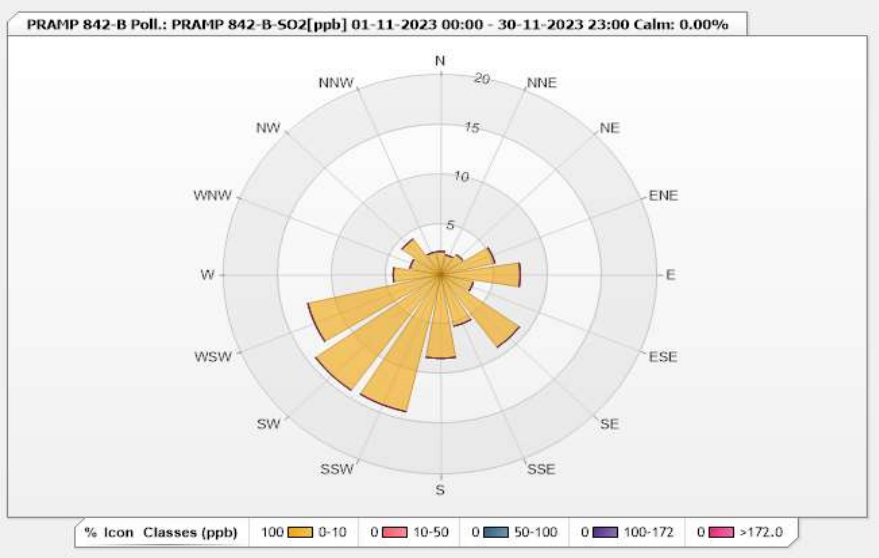


Station: PRAMP 842-B Poll.: PRAMP 842-B-SO2[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.72% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	2.35	0	0	0	0	2.35
NNE	2.05	0	0	0	0	2.05
NE	2.49	0	0	0	0	2.49
ENE	5.13	0	0	0	0	5.13
E	7.33	0	0	0	0	7.33
ESE	3.08	0	0	0	0	3.08
SE	8.94	0	0	0	0	8.94
SSE	5.28	0	0	0	0	5.28
S	8.36	0	0	0	0	8.36
SSW	14.08	0	0	0	0	14.08
SW	14.22	0	0	0	0	14.22
WSW	12.61	0	0	0	0	12.61
W	4.4	0	0	0	0	4.4
WNW	2.93	0	0	0	0	2.93
NW	4.4	0	0	0	0	4.4
NNW	2.35	0	0	0	0	2.35
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

842-B Station - November 2023

Summary of Hourly Averages

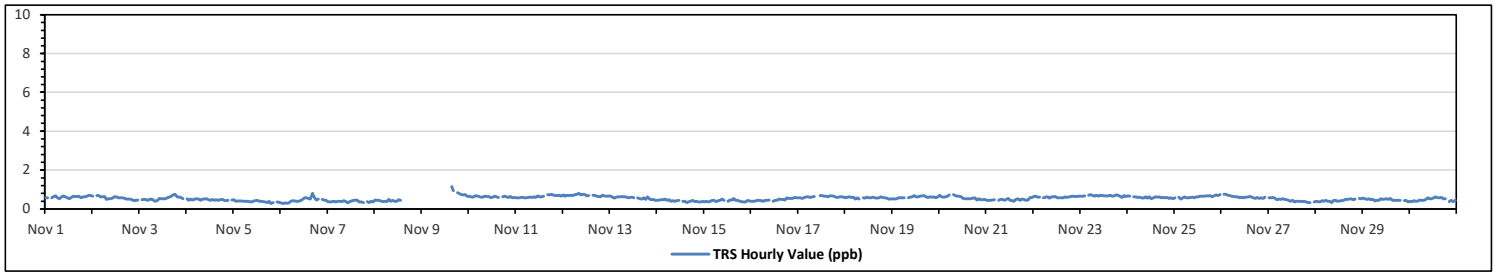
TOTAL REDUCED SULPHUR (TRS) in ppb

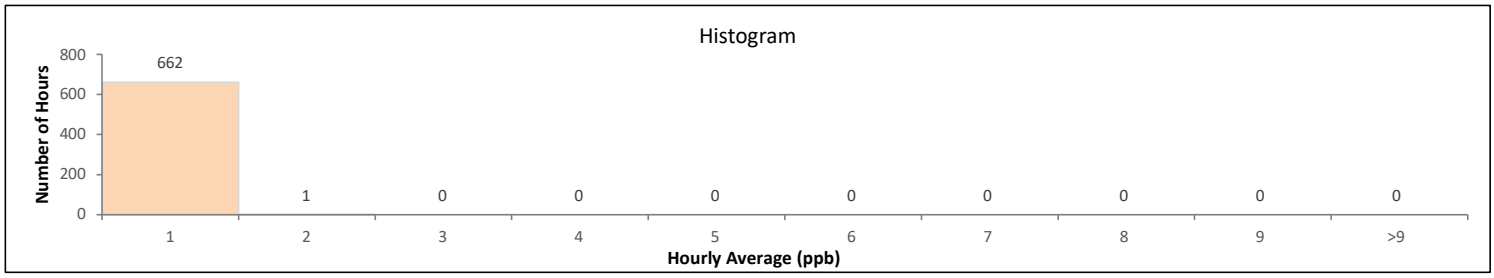
Maximum Hourly Value:	1.15	ppb	on Nov 9 at hr 15	Hours in Service:	720	
Maximum Daily Value:	0.69	ppb	on Nov 12	Hours of Data:	663	
Minimum Hourly Value:	0.28	ppb	on Nov 5 at hr 19	Hours of Missing Data:	18	
Minimum Daily Value:	0.38	ppb	on Nov 7	Hours of Calibration:	39	
Monthly Average:	0.54	ppb		Operational Uptime:	97.5	

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			
Nov 1	0.56	0.57	S	0.58	0.64	0.67	0.58	0.53	0.61	0.67	0.61	0.57	0.52	0.59	0.65	0.64	0.64	0.65	0.57	0.61	0.62	0.66	0.71	0.68	0.52	0.71	0.61
Nov 2	0.65	S	0.68	0.69	0.62	0.61	0.64	0.49	0.52	0.53	0.55	0.63	0.62	0.58	0.56	0.58	0.55	0.5	0.5	0.5	0.47	0.42	0.44	0.46	0.42	0.69	0.56
Nov 3	S	0.47	0.49	0.49	0.45	0.48	0.5	0.45	0.4	0.44	0.54	0.53	0.53	0.53	0.56	0.6	0.66	0.72	0.74	0.61	0.6	0.59	0.53	S	0.40	0.74	0.54
Nov 4	0.52	0.45	0.5	0.46	0.5	0.53	0.51	0.44	0.5	0.51	0.53	0.47	0.44	0.48	0.45	0.47	0.44	0.47	0.49	0.45	0.42	0.43	S	0.46	0.42	0.53	0.47
Nov 5	0.47	0.38	0.41	0.41	0.41	0.38	0.39	0.4	0.37	0.36	0.41	0.42	0.44	0.4	0.38	0.37	0.35	0.33	0.38	0.28	0.33	S	0.35	0.34	0.28	0.47	0.38
Nov 6	0.31	0.28	0.31	0.29	0.31	0.39	0.42	0.41	0.38	0.39	0.42	0.48	0.58	0.56	0.54	0.5	0.79	0.6	0.46	0.5	S	0.49	0.46	0.44	0.28	0.79	0.45
Nov 7	0.37	0.36	0.37	0.4	0.35	0.38	0.38	0.37	0.42	0.39	0.31	0.37	0.41	0.44	0.46	0.44	0.35	0.35	0.33	S	0.37	0.32	0.38	0.36	0.31	0.46	0.38
Nov 8	0.46	0.45	0.45	0.41	0.37	0.4	0.37	0.48	0.38	0.43	0.39	0.39	0.47	0.45	C	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	0.37	0.48	NA
Nov 9	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	C	1.15	0.94	S	0.84	0.78	0.73	0.72	0.73	0.64	0.64	1.15	NA
Nov 10	0.65	0.62	0.6	0.67	0.67	0.64	0.6	0.6	0.65	0.64	0.64	0.57	0.6	0.65	0.62	0.59	S	0.62	0.66	0.63	0.59	0.64	0.56	0.59	0.56	0.67	0.62
Nov 11	0.58	0.58	0.57	0.6	0.57	0.56	0.59	0.6	0.59	0.61	0.59	0.67	0.63	0.62	0.65	S	0.73	0.72	0.74	0.71	0.69	0.69	0.71	0.66	0.56	0.74	0.64
Nov 12	0.72	0.66	0.71	0.68	0.7	0.68	0.73	0.74	0.79	0.72	0.74	0.73	0.67	0.68	S	0.7	0.7	0.66	0.64	0.61	0.71	0.67	0.66	0.66	0.61	0.79	0.69
Nov 13	0.67	0.6	0.55	0.6	0.63	0.62	0.64	0.62	0.63	0.57	0.59	0.6	0.57	S	0.56	0.53	0.51	0.58	0.48	0.61	0.51	0.47	0.48	0.43	0.43	0.67	0.57
Nov 14	0.45	0.46	0.47	0.47	0.5	0.44	0.47	0.39	0.42	0.4	0.42	0.44	S	0.38	0.39	0.32	0.37	0.38	0.43	0.37	0.38	0.35	0.36	0.39	0.32	0.50	0.41
Nov 15	0.36	0.38	0.35	0.4	0.43	0.44	0.37	0.42	0.45	0.51	0.44	S	0.4	0.46	0.46	0.54	0.43	0.45	0.4	0.37	0.35	0.36	0.44	0.41	0.35	0.54	0.42
Nov 16	0.4	0.39	0.41	0.44	0.43	0.42	0.39	0.44	0.45	0.46	S	0.39	0.45	0.45	0.5	0.48	0.49	0.46	0.56	0.54	0.54	0.54	0.59	0.56	0.39	0.59	0.47
Nov 17	0.58	0.58	0.54	0.59	0.61	0.63	0.59	0.61	0.64	NRM	S	0.69	0.68	0.66	0.66	0.63	0.67	0.67	0.65	0.6	0.59	0.63	0.61	0.6	0.54	0.69	0.62
Nov 18	0.58	0.6	0.62	0.59	0.6	0.51	0.56	0.5	S	0.58	0.55	0.6	0.57	0.57	0.6	0.58	0.55	0.58	0.62	0.59	0.58	0.55	0.5	0.51	0.50	0.62	0.57
Nov 19	0.52	0.51	0.52	0.58	0.58	0.56	0.58	S	0.56	0.6	0.62	0.68	0.63	0.61	0.66	0.67	0.68	0.63	0.59	0.62	0.6	0.62	0.58	0.62	0.51	0.68	0.60
Nov 20	0.7	0.61	0.6	0.61	0.66	0.72	S	0.73	0.69	0.65	0.66	0.63	0.54	0.53	0.52	0.53	0.53	0.55	0.57	0.46	0.52	0.47	0.47	0.48	0.46	0.73	0.58
Nov 21	0.45	0.45	0.43	0.46	0.47	S	0.45	0.49	0.48	0.43	0.49	0.54	0.44	0.42	0.4	0.48	0.52	0.44	0.51	0.49	0.45	0.46	0.56	0.59	0.40	0.59	0.47
Nov 22	0.64	0.66	0.6	0.6	S	0.58	0.6	0.61	0.55	0.61	0.61	0.64	0.58	0.56	0.57	0.58	0.63	0.59	0.61	0.64	0.66	0.64	0.64	0.66	0.55	0.66	0.61
Nov 23	0.65	0.66	0.67	S	0.7	0.73	0.69	0.65	0.71	0.65	0.71	0.68	0.67	0.67	0.67	0.7	0.66	0.67	0.72	0.71	0.66	0.59	0.68	0.64	0.59	0.73	0.68
Nov 24	0.67	0.65	S	0.61	0.63	0.59	0.6	0.58	0.55	0.63	0.55	0.62	0.53	0.56	0.62	0.6	0.61	0.57	0.59	0.56	0.59	0.54	0.58	0.52	0.52	0.67	0.59
Nov 25	0.57	S	0.6	0.51	0.58	0.62	0.57	0.58	0.59	0.6	0.56	0.62	0.63	0.65	0.66	0.66	0.67	0.67	0.69	0.63	0.67	0.72	0.69	0.73	0.51	0.73	0.63
Nov 26	S	0.75	0.74	0.7	0.69	0.66	0.64	0.62	0.61	0.57	0.6	0.57	0.6	0.6	0.64	0.62	0.58	0.54	0.59	0.54	0.58	0.54	0.6	S	0.54	0.75	0.62
Nov 27	0.57	0.56	0.59	0.55	0.47	0.5	0.49	0.53	0.49	0.47	0.43	0.38	0.43	0.35	0.4	0.4	0.4	0.37	0.38	0.36	0.33	0.32	S	0.36	0.32	0.59	0.44
Nov 28	0.39	0.37	0.36	0.42	0.38	0.43	0.39	0.4	0.33	0.43	0.44	0.4	0.41	0.42	0.44	0.49	0.48	0.5	0.53	0.47	0.51	S	0.54	0.52	0.33	0.54	0.44
Nov 29	0.55	0.52	0.48	0.53	0.47	0.49	0.41	0.45	0.45	0.52	0.49	0.5	0.52	0.49	0.54	0.43	0.44	0.43	0.44	0.43	S	0.42	0.43	0.35	0.35	0.55	0.47
Nov 30	0.38	0.37	0.42	0.39	0.41	0.46	0.44	0.44	0.48	0.58	0.53	0.53	0.56	0.61	0.58	0.58	0.59	0.52	0.52	S	0.37	0.44	0.37	0.44	0.37	0.61	0.48
Diurnal Maximum	0.72	0.75	0.74	0.70	0.70	0.73	0.73	0.74	0.79	0.72	0.74	0.73	0.68	0.68	0.67	1.15	0.94	0.72	0.84	0.78	0.73	0.72	0.73	0.73			
Diurnal Average	0.53	0.52	0.52	0.53	0.53	0.54	0.52	0.52	0.52	0.53	0.53	0.55	0.54	0.53	0.55	0.57	0.57	0.54	0.56	0.54	0.53	0.53	0.54	0.52			

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.



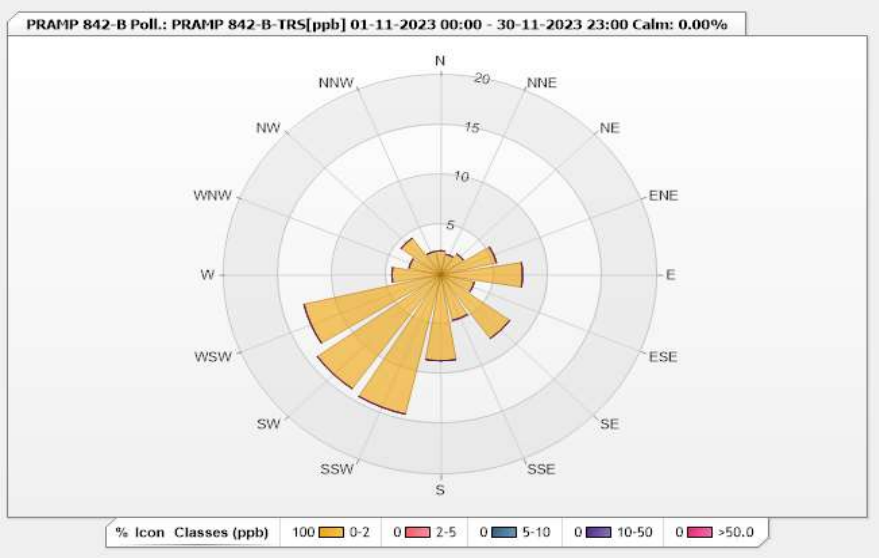


Station: PRAMP 842-B Poll.: PRAMP 842-B-TRS[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 92.08% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	2.41	0	0	0	0	2.41
NNE	2.11	0	0	0	0	2.11
NE	2.56	0	0	0	0	2.56
ENE	5.28	0	0	0	0	5.28
E	7.54	0	0	0	0	7.54
ESE	3.17	0	0	0	0	3.17
SE	7.84	0	0	0	0	7.84
SSE	4.68	0	0	0	0	4.68
S	8.6	0	0	0	0	8.6
SSW	14.33	0	0	0	0	14.33
SW	14.03	0	0	0	0	14.03
WSW	12.97	0	0	0	0	12.97
W	4.52	0	0	0	0	4.52
WNW	3.02	0	0	0	0	3.02
NW	4.52	0	0	0	0	4.52
NNW	2.41	0	0	0	0	2.41
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

842-B Station - November 2023

Summary of Hourly Averages

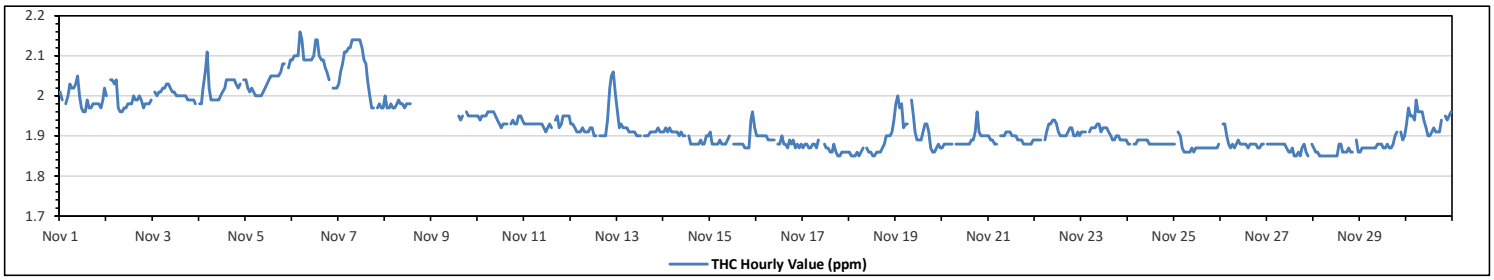
TOTAL HYDROCARBONS (THC) in ppm

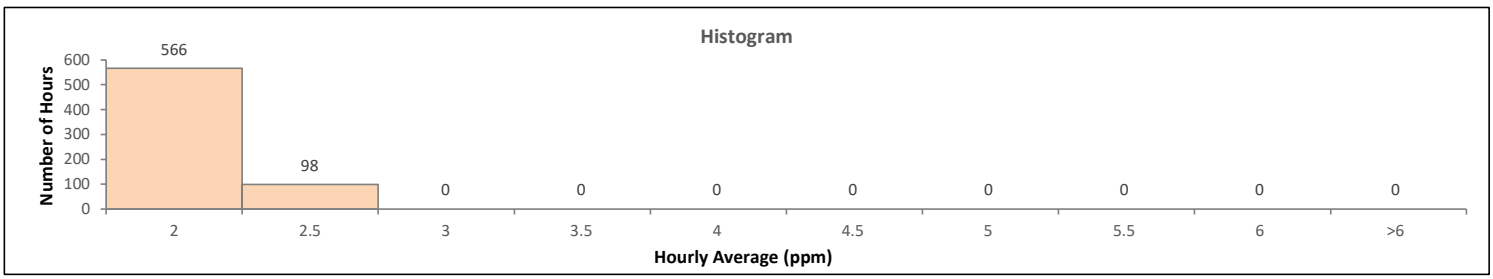
Maximum Hourly Value:	2.16	ppm	on Nov 6 at hr 4	Hours in Service:	720	
Maximum Daily Value:	2.09	ppm	on Nov 6	Hours of Data:	664	
Minimum Hourly Value:	1.85	ppm	on Nov 17 at hr 18	Hours of Missing Data:	19	
Minimum Daily Value:	1.86	ppm	on Nov 28	Hours of Calibration:	37	
Monthly Average:	1.93	ppm		Operational 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			
Nov 1	2.01	1.99	S	1.98	2.00	2.03	2.02	2.02	2.03	2.05	2.00	1.97	1.96	1.96	1.99	1.97	1.97	1.98	1.98	1.98	1.98	1.97	1.99	2.02	1.96	2.05	1.99
Nov 2	2.00	S	2.04	2.04	2.03	2.04	1.97	1.96	1.96	1.97	1.97	1.98	1.98	1.98	2.00	1.99	1.99	2.00	1.99	1.97	1.98	1.98	1.98	1.99	1.96	2.04	1.99
Nov 3	S	2.01	2.00	2.01	2.01	2.02	2.02	2.03	2.03	2.02	2.01	2.01	2.00	2.00	2.00	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.98	S	1.98	2.03	2.01
Nov 4	1.98	1.98	2.02	2.06	2.11	2.02	1.99	1.99	1.99	1.99	1.99	2.00	2.01	2.02	2.04	2.04	2.04	2.04	2.04	2.03	2.02	2.03	S	2.04	1.98	2.11	2.02
Nov 5	2.04	2.02	2.01	2.02	2.01	2.00	2.00	2.00	2.00	2.01	2.02	2.03	2.04	2.05	2.05	2.05	2.05	2.05	2.06	2.08	2.08	S	2.07	2.09	2.00	2.09	2.04
Nov 6	2.09	2.10	2.10	2.10	**2.16**	2.14	2.09	2.09	2.09	2.09	2.09	2.10	2.14	2.14	2.10	2.09	2.09	2.07	2.06	2.04	S	2.02	2.02	2.02	2.02	**2.16**	**2.09**
Nov 7	2.03	2.06	2.08	2.11	2.11	2.12	2.12	2.14	2.14	2.14	2.14	2.14	2.12	2.09	2.08	2.04	2.00	1.97	1.97	S	1.97	1.98	1.97	1.97	1.97	2.14	2.06
Nov 8	2.00	1.97	1.97	1.98	1.97	1.97	1.98	1.99	1.98	1.98	1.97	1.98	1.98	1.98	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	1.97	2.00	NA
Nov 9	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	1.95	1.94	1.95	S	1.96	1.95	1.95	1.95	1.95	1.95	1.94	1.96	NA
Nov 10	1.95	1.94	1.95	1.95	1.95	1.96	1.96	1.96	1.96	1.95	1.94	1.93	1.92	1.93	1.93	1.93	S	1.93	1.94	1.93	1.93	1.95	1.95	1.94	1.92	1.96	1.94
Nov 11	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.91	1.92	1.93	1.92	S	1.94	1.95	1.92	1.93	1.95	1.95	1.95	1.95	1.91	1.95	1.93
Nov 12	1.93	1.93	1.92	1.91	1.91	1.91	1.92	1.91	1.91	1.91	1.92	1.92	1.90	1.90	S	1.90	1.90	1.90	1.90	1.94	2.02	2.05	2.06	2.01	1.90	2.06	1.93
Nov 13	1.96	1.92	1.93	1.92	1.92	1.92	1.91	1.91	1.91	1.91	1.90	1.90	1.90	S	1.90	1.90	1.90	1.91	1.91	1.91	1.91	1.92	1.91	1.91	1.90	1.96	1.91
Nov 14	1.91	1.92	1.91	1.92	1.91	1.91	1.91	1.91	1.90	1.91	1.90	1.90	S	1.90	1.88	1.88	1.88	1.88	1.88	1.89	1.88	1.88	1.90	1.90	1.88	1.92	1.90
Nov 15	1.91	1.88	1.88	1.88	1.88	1.89	1.88	1.88	1.88	1.89	1.90	S	1.88	1.88	1.88	1.88	1.88	1.88	1.87	1.87	1.87	1.94	1.96	1.92	1.87	1.96	1.89
Nov 16	1.90	1.90	1.90	1.90	1.90	1.90	1.89	1.89	1.89	1.89	S	1.88	1.88	1.90	1.88	1.88	1.87	1.89	1.88	1.89	1.87	1.88	1.87	1.88	1.87	1.90	1.89
Nov 17	1.87	1.88	1.88	1.87	1.87	1.88	1.88	1.87	1.89	NRM	S	1.88	1.87	1.87	1.86	1.86	1.88	1.86	1.85	1.85	1.86	1.86	1.86	1.86	1.85	1.89	1.87
Nov 18	1.86	1.85	1.85	1.85	1.86	1.85	1.86	1.87	S	1.87	1.86	1.86	1.85	1.85	1.86	1.86	1.86	1.87	1.88	1.90	1.90	1.90	1.91	1.94	1.85	1.94	1.87
Nov 19	1.98	2.00	1.97	1.98	1.92	1.93	1.93	S	1.99	1.95	1.91	1.89	1.89	1.89	1.91	1.93	1.93	1.91	1.93	1.91	1.87	1.86	1.86	1.87	1.88	1.87	1.86	2.00	1.92
Nov 20	1.87	1.88	1.88	1.88	1.88	1.88	S	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.89	1.89	1.91	1.96	1.91	1.90	1.90	1.90	1.90	1.87	1.96	1.89
Nov 21	1.90	1.89	1.89	1.88	1.88	S	1.90	1.90	1.90	1.91	1.91	1.91	1.90	1.90	1.90	1.89	1.89	1.89	1.88	1.88	1.88	1.88	1.88	1.89	1.88	1.91	1.89
Nov 22	1.89	1.89	1.89	1.89	S	1.89	1.91	1.93	1.93	1.94	1.94	1.93	1.91	1.90	1.90	1.90	1.90	1.91	1.92	1.92	1.90	1.90	1.91	1.90	1.89	1.94	1.91
Nov 23	1.91	1.91	1.91	S	1.91	1.92	1.92	1.92	1.93	1.93	1.91	1.92	1.92	1.92	1.91	1.90	1.89	1.89	1.90	1.90	1.89	1.89	1.89	1.89	1.89	1.93	1.91
Nov 24	1.88	1.88	S	1.88	1.88	1.89	1.89	1.89	1.89	1.89	1.89	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.89	1.88
Nov 25	1.88	S	1.91	1.90	1.87	1.86	1.86	1.86	1.86	1.87	1.86	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.88	1.86	1.91	1.87
Nov 26	S	1.93	1.93	1.90	1.88	1.87	1.88	1.87	1.88	1.89	1.88	1.88	1.88	1.88	1.87	1.88	1.88	1.88	1.88	1.87	1.87	1.88	1.88	S	1.87	1.93	1.88
Nov 27	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.87	1.86	1.86	1.87	1.85	1.85	1.86	1.85	1.87	1.88	1.86	1.85	S	1.88	1.85	1.88	1.87
Nov 28	1.87	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.88	1.88	1.86	1.86	1.87	1.86	1.86	S	1.89	1.86	1.85	1.89	1.86
Nov 29	1.86	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.88	1.88	1.88	1.87	1.87	1.88	1.87	1.87	1.88	1.90	1.91	S	1.91	1.89	1.90	1.86	1.91	1.88
Nov 30	1.93	1.97	1.95	1.95	1.94	1.99	1.96	1.96	1.96	1.94	1.92	1.90	1.90	1.91	1.92	1.91	1.91	1.91	1.94	S	1.95	1.94	1.95	1.96	1.90	1.99	1.94
Diurnal Maximum	2.09	2.10	2.10	2.11	2.16	2.14	2.12	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.10	2.09	2.09	2.07	2.06	2.08	2.08	2.05	2.07	2.09			
Diurnal Average	1.93	1.93	1.94	1.94	1.94	1.94	1.94	1.93	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.92	1.92	1.92	1.92	1.92	1.92	1.93	1.93	1.93			

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.



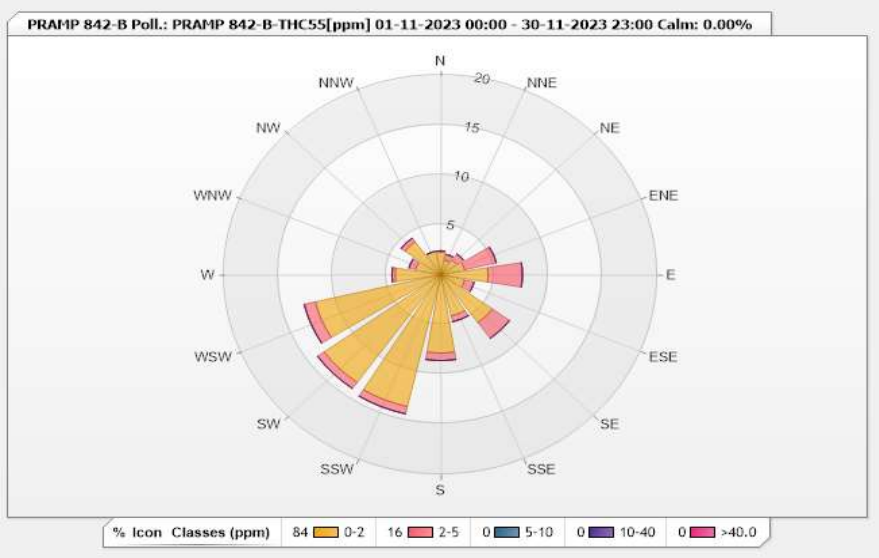


Station: PRAMP 842-B Poll.: PRAMP 842-B-THC55[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 92.22% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	2.26	0.15	0	0	0	2.41
NNE	1.51	0.6	0	0	0	2.11
NE	1.81	0.75	0	0	0	2.56
ENE	2.26	3.01	0	0	0	5.27
E	4.37	3.16	0	0	0	7.53
ESE	2.26	0.9	0	0	0	3.16
SE	5.87	1.96	0	0	0	7.83
SSE	4.22	0.6	0	0	0	4.82
S	7.83	0.75	0	0	0	8.58
SSW	13.55	0.75	0	0	0	14.3
SW	13.25	0.75	0	0	0	14
WSW	11.9	1.05	0	0	0	12.95
W	4.22	0.3	0	0	0	4.52
WNW	2.41	0.6	0	0	0	3.01
NW	4.07	0.45	0	0	0	4.52
NNW	2.41	0	0	0	0	2.41
Summary	84.2	15.78	0	0	0	100



Peace River Area Monitoring Program

842-B Station - November 2023

Summary of Hourly Averages

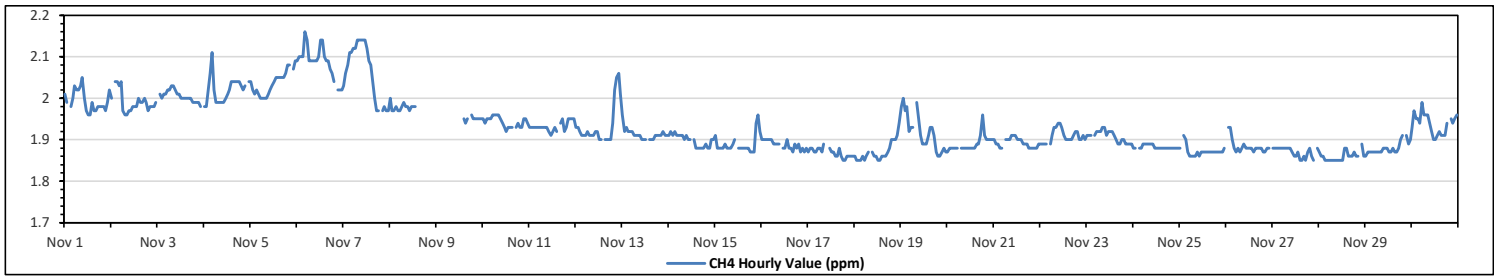
METHANE (CH4) in ppm

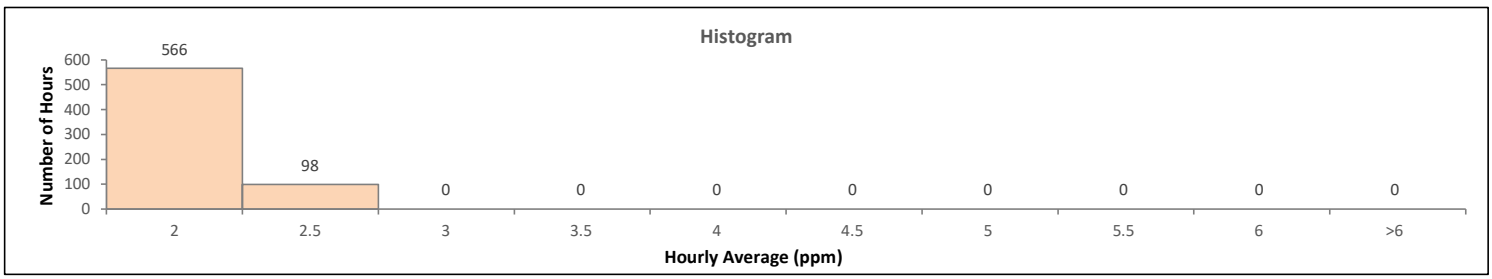
Maximum Hourly Value:	2.16	ppm	on Nov 6 at hr 4	Hours in Service:	720
Maximum Daily Value:	2.09	ppm	on Nov 6	Hours of Data:	664
Minimum Hourly Value:	1.85	ppm	on Nov 17 at hr 18	Hours of Missing Data:	19
Minimum Daily Value:	1.86	ppm	on Nov 28	Hours of Calibration:	37
Monthly Average:	1.93	ppm		Operational 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			
Nov 1	2.01	1.99	S	1.98	2.00	2.03	2.02	2.02	2.03	2.05	2.00	1.97	1.96	1.96	1.99	1.97	1.97	1.98	1.98	1.98	1.98	1.97	1.99	2.02	1.96	2.05	1.99
Nov 2	2.00	S	2.04	2.04	2.03	2.04	1.97	1.96	1.96	1.97	1.97	1.98	1.98	1.98	2.00	1.99	1.99	2.00	1.99	1.97	1.98	1.98	1.98	1.99	1.96	2.04	1.99
Nov 3	S	2.01	2.00	2.01	2.01	2.02	2.02	2.03	2.03	2.02	2.01	2.01	2.00	2.00	2.00	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.98	S	1.98	2.03	2.01
Nov 4	1.98	1.98	2.02	2.06	2.11	2.02	1.99	1.99	1.99	1.99	1.99	2.00	2.01	2.02	2.04	2.04	2.04	2.04	2.04	2.03	2.02	2.03	S	2.04	1.98	2.11	2.02
Nov 5	2.04	2.02	2.01	2.02	2.01	2.00	2.00	2.00	2.00	2.01	2.02	2.03	2.04	2.05	2.05	2.05	2.05	2.05	2.06	2.08	2.08	S	2.07	2.09	2.00	2.09	2.04
Nov 6	2.09	2.10	2.10	2.10	**2.16**	2.14	2.09	2.09	2.09	2.09	2.09	2.10	2.14	2.14	2.10	2.09	2.09	2.07	2.06	2.04	S	2.02	2.02	2.02	2.02	**2.16**	**2.09**
Nov 7	2.03	2.06	2.08	2.11	2.11	2.12	2.12	2.14	2.14	2.14	2.14	2.14	2.12	2.09	2.08	2.04	2.00	1.97	1.97	S	1.97	1.98	1.97	1.97	1.97	2.14	2.06
Nov 8	2.00	1.97	1.97	1.98	1.97	1.97	1.98	1.99	1.98	1.98	1.97	1.98	1.98	1.98	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	1.97	2.00	NA
Nov 9	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	1.95	1.94	1.95	S	1.96	1.95	1.95	1.95	1.95	1.95	1.94	1.96	NA
Nov 10	1.95	1.94	1.95	1.95	1.95	1.96	1.96	1.96	1.96	1.95	1.94	1.93	1.92	1.93	1.93	1.93	S	1.93	1.94	1.93	1.93	1.95	1.95	1.94	1.92	1.96	1.94
Nov 11	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.91	1.92	1.93	1.92	S	1.94	1.95	1.92	1.93	1.95	1.95	1.95	1.95	1.91	1.95	1.93
Nov 12	1.93	1.93	1.92	1.91	1.91	1.91	1.92	1.91	1.91	1.91	1.92	1.92	1.90	1.90	S	1.90	1.90	1.90	1.90	1.94	2.02	2.05	2.06	2.01	1.90	2.06	1.93
Nov 13	1.96	1.92	1.93	1.92	1.92	1.92	1.91	1.91	1.91	1.91	1.90	1.90	1.90	S	1.90	1.90	1.90	1.91	1.91	1.91	1.91	1.92	1.91	1.91	1.90	1.96	1.91
Nov 14	1.91	1.92	1.91	1.92	1.91	1.91	1.91	1.91	1.90	1.91	1.90	1.90	S	1.90	1.88	1.88	1.88	1.88	1.88	1.89	1.88	1.88	1.90	1.90	1.88	1.92	1.90
Nov 15	1.91	1.88	1.88	1.88	1.88	1.89	1.88	1.88	1.88	1.89	1.90	S	1.88	1.88	1.88	1.88	1.88	1.88	1.87	1.87	1.87	1.94	1.96	1.92	1.87	1.96	1.89
Nov 16	1.90	1.90	1.90	1.90	1.90	1.90	1.89	1.89	1.89	1.89	S	1.88	1.88	1.90	1.88	1.88	1.87	1.89	1.88	1.89	1.87	1.88	1.87	1.88	1.87	1.90	1.89
Nov 17	1.87	1.88	1.88	1.87	1.87	1.88	1.88	1.87	1.89	NRM	S	1.88	1.87	1.87	1.86	1.86	1.88	1.86	1.85	1.85	1.86	1.86	1.86	1.86	1.85	1.89	1.87
Nov 18	1.86	1.85	1.85	1.85	1.86	1.85	1.86	1.87	S	1.87	1.86	1.86	1.85	1.85	1.86	1.86	1.86	1.87	1.88	1.90	1.90	1.90	1.91	1.94	1.85	1.94	1.87
Nov 19	1.98	2.00	1.97	1.98	1.92	1.93	1.93	S	1.99	1.95	1.91	1.89	1.89	1.89	1.91	1.93	1.93	1.91	1.91	1.87	1.86	1.86	1.87	1.88	1.86	2.00	1.92
Nov 20	1.87	1.88	1.88	1.88	1.88	1.88	S	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.89	1.89	1.91	1.96	1.91	1.90	1.90	1.90	1.90	1.87	1.96	1.89
Nov 21	1.90	1.89	1.89	1.88	1.88	S	1.90	1.90	1.90	1.91	1.91	1.91	1.90	1.90	1.90	1.89	1.89	1.89	1.88	1.88	1.88	1.88	1.88	1.89	1.88	1.91	1.89
Nov 22	1.89	1.89	1.89	1.89	S	1.89	1.91	1.93	1.93	1.94	1.94	1.93	1.91	1.90	1.90	1.90	1.90	1.91	1.92	1.92	1.90	1.90	1.91	1.90	1.89	1.94	1.91
Nov 23	1.91	1.91	1.91	S	1.91	1.92	1.92	1.92	1.93	1.93	1.91	1.92	1.92	1.92	1.91	1.90	1.89	1.89	1.90	1.90	1.89	1.89	1.89	1.89	1.89	1.93	1.91
Nov 24	1.88	1.88	S	1.88	1.88	1.89	1.89	1.89	1.89	1.89	1.89	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.89	1.88
Nov 25	1.88	S	1.91	1.90	1.87	1.86	1.86	1.86	1.86	1.87	1.86	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.88	1.86	1.91	1.87
Nov 26	S	1.93	1.93	1.90	1.88	1.87	1.88	1.87	1.88	1.89	1.88	1.88	1.88	1.88	1.87	1.88	1.88	1.88	1.88	1.87	1.87	1.88	1.88	S	1.87	1.93	1.88
Nov 27	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.87	1.86	1.86	1.87	1.85	1.85	1.86	1.85	1.87	1.88	1.86	1.85	S	1.88	1.85	1.88	1.87
Nov 28	1.87	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.88	1.88	1.86	1.86	1.86	1.87	1.86	1.86	S	1.89	1.86	1.85	1.89	1.86
Nov 29	1.86	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.88	1.88	1.88	1.87	1.87	1.88	1.87	1.87	1.88	1.90	1.91	S	1.91	1.89	1.90	1.86	1.91	1.88
Nov 30	1.93	1.97	1.95	1.95	1.94	1.99	1.96	1.96	1.96	1.94	1.92	1.90	1.90	1.91	1.92	1.91	1.91	1.91	1.94	S	1.95	1.94	1.95	1.96	1.90	1.99	1.94
Diurnal Maximum	2.09	2.10	2.10	2.11	2.16	2.14	2.12	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.10	2.09	2.09	2.07	2.06	2.08	2.08	2.05	2.07	2.09			
Diurnal Average	1.93	1.93	1.94	1.94	1.94	1.94	1.94	1.93	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.92	1.92	1.92	1.92	1.92	1.92	1.93	1.93	1.93			

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.



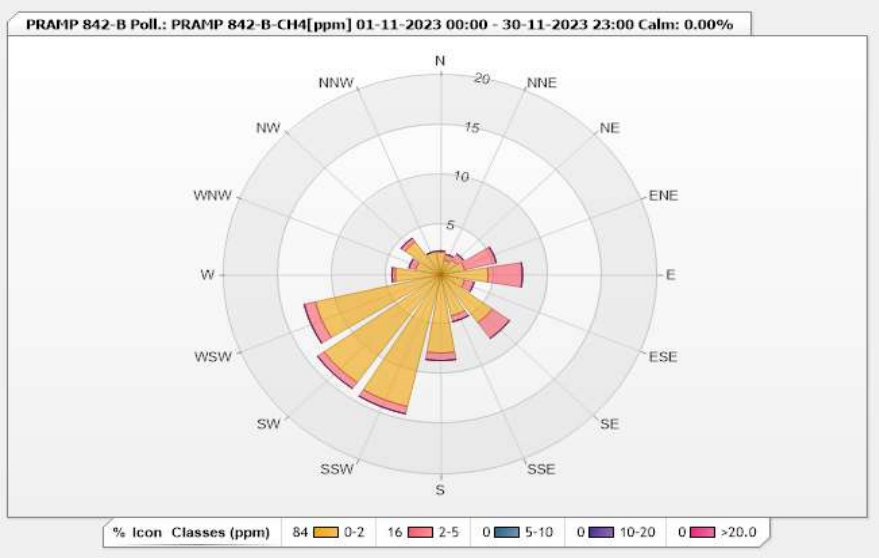


Station: PRAMP 842-B Poll.: PRAMP 842-B-CH4[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 92.22% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	2.26	0.15	0	0	0	2.41
NNE	1.51	0.6	0	0	0	2.11
NE	1.81	0.75	0	0	0	2.56
ENE	2.26	3.01	0	0	0	5.27
E	4.37	3.16	0	0	0	7.53
ESE	2.26	0.9	0	0	0	3.16
SE	5.87	1.96	0	0	0	7.83
SSE	4.22	0.6	0	0	0	4.82
S	7.83	0.75	0	0	0	8.58
SSW	13.55	0.75	0	0	0	14.3
SW	13.25	0.75	0	0	0	14
WSW	11.9	1.05	0	0	0	12.95
W	4.22	0.3	0	0	0	4.52
WNW	2.41	0.6	0	0	0	3.01
NW	4.07	0.45	0	0	0	4.52
NNW	2.41	0	0	0	0	2.41
Summary	84.2	15.78	0	0	0	100



Peace River Area Monitoring Program

842-B Station - November 2023

Summary of Hourly Averages

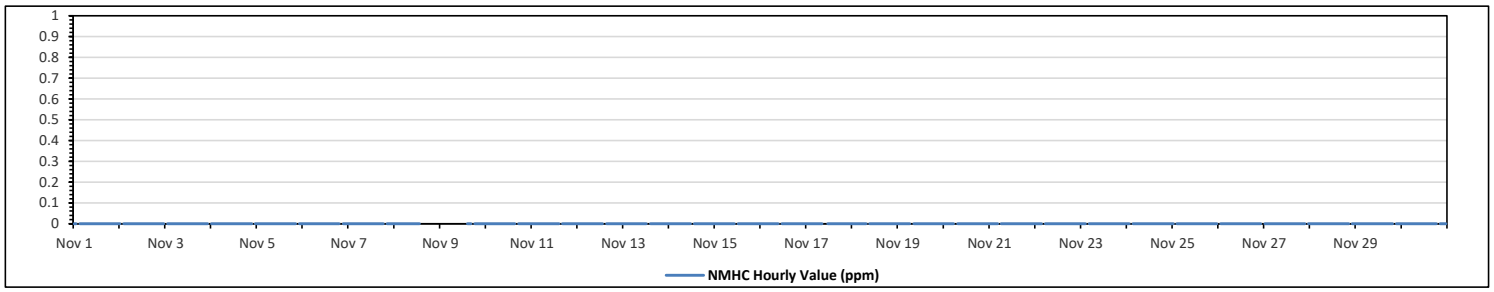
NON-METHANE HYDROCARBONS (NMHC) in ppm

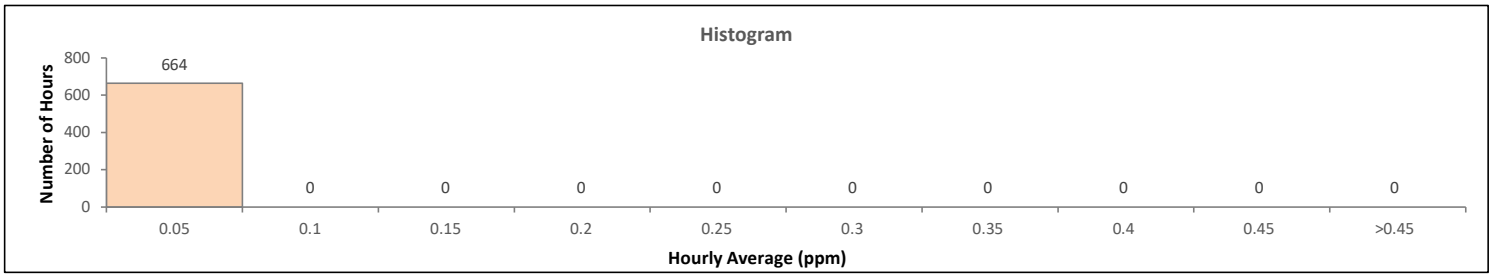
Maximum Hourly Value:	0.00	ppm	on Nov 1 at hr 0	Hours in Service:	720	
Maximum Daily Value:	0.00	ppm	on Nov 1	Hours of Data:	664	
Minimum Hourly Value:	0.00	ppm	on Nov 1 at hr 0	Hours of Missing Data:	19	
Minimum Daily Value:	0.00	ppm	on Nov 1	Hours of Calibration:	37	
Monthly Average:	0.00	ppm		Operational 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			
Nov 1	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
Nov 2	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
Nov 3	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
Nov 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	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Nov 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	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Nov 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	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Nov 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	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
Nov 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	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	0.00	0.00	NA
Nov 9	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA
Nov 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	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
Nov 11	0.00	0.00	0.00	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
Nov 12	0.00	0.00	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
Nov 13	0.00	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
Nov 14	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
Nov 15	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
Nov 16	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
Nov 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NRM	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
Nov 18	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
Nov 19	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
Nov 20	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
Nov 21	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
Nov 22	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
Nov 23	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
Nov 24	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
Nov 25	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
Nov 26	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
Nov 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	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Nov 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	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Nov 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	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Nov 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	0.00	0.00	0.00	0.00	S	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.



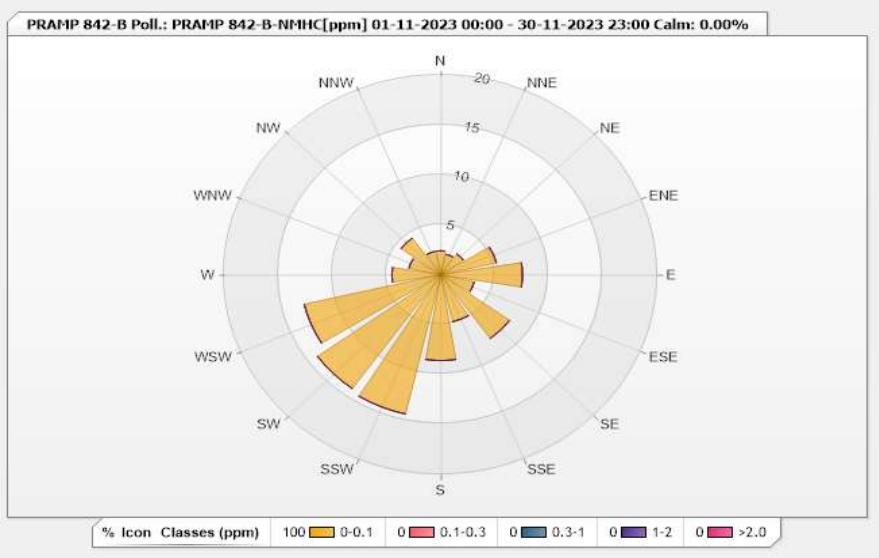


Station: PRAMP 842-B Poll.: PRAMP 842-B-NMHC[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 92.22% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	2.41	0	0	0	0	2.41
NNE	2.11	0	0	0	0	2.11
NE	2.56	0	0	0	0	2.56
ENE	5.27	0	0	0	0	5.27
E	7.53	0	0	0	0	7.53
ESE	3.16	0	0	0	0	3.16
SE	7.83	0	0	0	0	7.83
SSE	4.82	0	0	0	0	4.82
S	8.58	0	0	0	0	8.58
SSW	14.31	0	0	0	0	14.31
SW	14.01	0	0	0	0	14.01
WSW	12.95	0	0	0	0	12.95
W	4.52	0	0	0	0	4.52
WNW	3.01	0	0	0	0	3.01
NW	4.52	0	0	0	0	4.52
NNW	2.41	0	0	0	0	2.41
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

842-B Station - November 2023

Summary of Hourly Averages

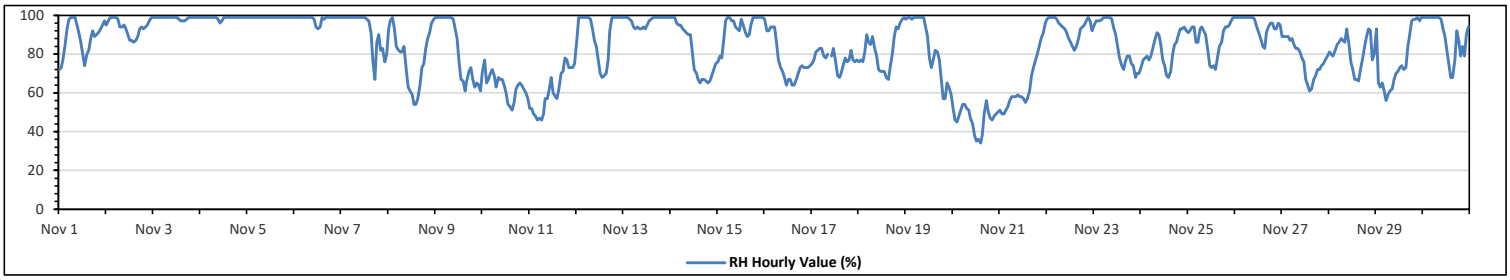
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	99	%	on Nov 1 at hr 6	Hours in Service:	720	
Maximum Daily Value:	99.0	%	on Nov 5	Hours of Data:	719	
Minimum Hourly Value:	34	%	on Nov 20 at hr 14	Hours of Missing Data:	1	
Minimum Daily Value:	46.7	%	on Nov 20	Hours of Calibration:	0	
Monthly Average:	83.8	%		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
Nov 1	72	73	78	85	93	98	**99**	**99**	**99**	95	91	86	80	74	80	82	88	92	89	90	91	93	95	97	72	**99**	88.3
Nov 2	95	97	**99**	**99**	**99**	**99**	98	94	94	95	93	90	87	87	86	87	89	93	94	93	94	95	97	**99**	86	**99**	93.9
Nov 3	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	98	97	97	97	98	**99**	**99**	**99**	**99**	**99**	**99**	97	**99**	98.7
Nov 4	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	98	96	97	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	96	**99**	98.8
Nov 5	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	99	**99**	**99.0**
Nov 6	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	98	94	93	94	**99**	98	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	93	**99**	98.3
Nov 7	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	98	97	91	76	67	86	90	82	83	76	80	67	**99**	92.2
Nov 8	93	97	**99**	93	84	82	81	81	84	72	63	61	59	54	54	57	64	73	75	83	88	91	96	98	54	**99**	78.4
Nov 9	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	98	93	88	76	67	66	61	66	71	73	67	63	65	64	61	61	**99**	82.1
Nov 10	71	77	65	67	70	72	69	63	68	67	67	64	60	54	53	51	55	62	64	65	64	62	60	57	51	77	63.6
Nov 11	52	52	49	48	46	47	46	49	57	57	62	68	60	58	57	62	70	71	78	77	73	73	73	75	46	78	60.8
Nov 12	87	**99**	**99**	**99**	**99**	**99**	**99**	98	93	87	84	77	70	68	69	70	77	92	**99**	**99**	**99**	**99**	**99**	**99**	68	**99**	90.0
Nov 13	**99**	**99**	**99**	98	97	94	93	94	93	93	94	93	95	97	98	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	93	**99**	97.0
Nov 14	**99**	**99**	**99**	96	95	95	93	92	91	90	90	81	72	70	67	65	67	67	66	65	66	69	72	75	65	**99**	80.9
Nov 15	76	79	78	87	97	**99**	**99**	97	97	94	93	92	98	95	91	89	90	95	**99**	**99**	**99**	**99**	**99**	**99**	76	**99**	93.3
Nov 16	98	92	92	94	94	94	86	77	73	71	68	64	67	67	64	64	67	70	73	74	73	73	73	74	64	98	76.8
Nov 17	75	77	81	82	83	83	79	78	80	**NRM**	79	83	77	69	68	70	74	78	76	77	82	77	76	77	68	83	77.4
Nov 18	76	77	76	81	90	86	85	89	83	79	72	71	71	71	68	67	74	80	89	94	93	96	98	**99**	67	**99**	81.9
Nov 19	98	**99**	**99**	98	**99**	**99**	**99**	**99**	**99**	**99**	94	89	78	73	77	82	81	77	67	57	57	65	63	59	57	**99**	83.6
Nov 20	52	46	45	48	51	54	54	52	51	47	44	38	35	36	**34**	38	49	56	50	47	46	48	49	50	**34**	56	**46.7**
Nov 21	51	49	49	51	53	56	58	58	58	59	58	58	57	55	57	61	69	73	76	80	84	88	91	96	49	96	64.4
Nov 22	98	**99**	**99**	**99**	**99**	98	96	95	94	93	91	88	86	84	82	84	88	93	94	95	97	**99**	97	92	82	**99**	93.3
Nov 23	95	97	97	97	98	**99**	**99**	**99**	**99**	98	94	90	84	78	74	72	76	79	79	75	74	68	70	70	68	**99**	85.9
Nov 24	73	77	78	79	77	79	83	87	91	90	85	77	74	69	68	71	80	85	86	90	93	93	94	92	68	94	82.1
Nov 25	91	92	94	94	86	86	93	94	92	90	82	74	73	74	72	78	84	86	92	94	94	95	97	**99**	72	**99**	87.8
Nov 26	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	98	94	91	88	84	83	91	94	96	96	93	93	96	95	83	**99**	95.1
Nov 27	89	89	89	89	87	88	85	83	83	81	78	76	67	64	61	62	67	69	72	72	74	75	77	79	61	89	77.3
Nov 28	81	80	79	82	85	86	88	87	86	93	85	76	72	67	67	66	72	78	84	89	93	92	77	80	66	93	81.0
Nov 29	93	65	63	65	61	56	59	61	62	67	70	71	73	74	72	73	84	89	97	98	98	**99**	97	**99**	56	**99**	76.9
Nov 30	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	98	93	89	82	75	68	68	77	92	87	79	84	79	90	94	68	**99**	89.4
Diurnal Maximum	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99			
Diurnal Average	86.9	86.8	86.6	87.4	87.8	88.0	87.8	87.3	87.3	86.4	83.7	80.9	77.8	75.2	74.3	74.9	78.9	82.5	84.5	84.7	85.0	85.5	85.7	86.3			

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

842-B Station - November 2023

Summary of Hourly Averages

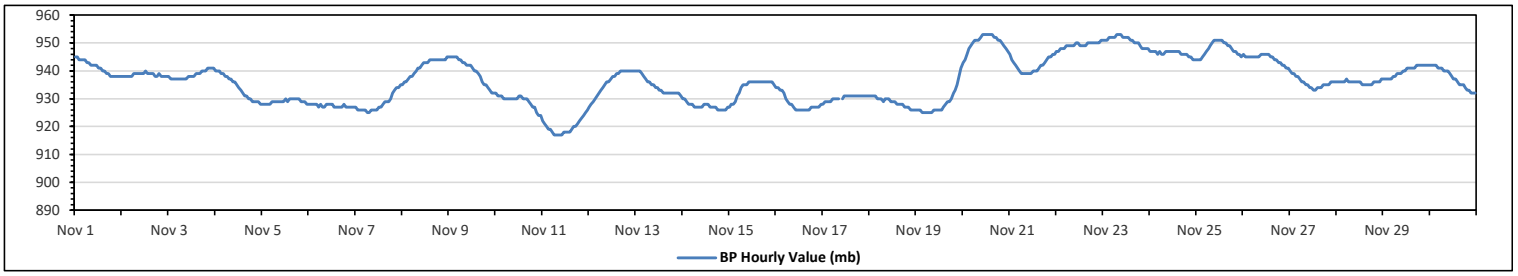
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	953	mb	on Nov 20 at hr 10	Hours in Service:	720	
Maximum Daily Value:	951	mb	on Nov 23	Hours of Data:	719	
Minimum Hourly Value:	917	mb	on Nov 11 at hr 6	Hours of Missing Data:	1	
Minimum Daily Value:	920	mb	on Nov 11	Hours of Calibration:	0	
Monthly Average:	936	mb		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
Nov 1	945	945	944	944	944	944	943	943	942	942	942	942	941	941	940	940	939	939	938	938	938	938	938	938	938	945	941
Nov 2	938	938	938	938	938	938	939	939	939	939	939	939	940	939	939	939	939	938	938	939	938	938	938	938	938	940	939
Nov 3	938	937	937	937	937	937	937	937	937	937	938	938	938	938	939	939	939	940	940	940	941	941	941	941	937	941	939
Nov 4	940	940	940	939	939	938	938	937	937	936	936	935	934	933	932	931	931	930	930	929	929	929	929	928	928	940	934
Nov 5	928	928	928	928	928	929	929	929	929	929	929	929	930	929	930	930	930	930	930	930	929	929	929	928	928	930	929
Nov 6	928	928	928	928	928	927	928	927	927	928	928	928	928	927	927	927	927	927	928	927	927	927	927	927	927	928	927
Nov 7	927	926	926	926	926	926	925	925	926	926	926	926	927	927	928	929	929	929	930	932	933	934	934	935	925	935	928
Nov 8	935	936	936	937	938	938	939	940	941	941	942	943	943	943	944	944	944	944	944	944	944	944	944	945	935	945	941
Nov 9	945	945	945	945	945	944	944	943	943	942	942	942	941	940	940	939	938	936	935	935	934	933	932	932	932	945	940
Nov 10	932	931	931	931	930	930	930	930	930	930	930	931	931	931	930	930	930	929	928	927	927	925	924	924	924	932	929
Nov 11	922	921	920	919	919	918	**917**	**917**	**917**	**917**	**917**	918	918	918	918	919	920	920	921	922	923	924	925	926	**917**	926	**920**
Nov 12	927	928	929	930	931	932	933	934	935	936	936	937	938	938	939	939	940	940	940	940	940	940	940	940	927	940	936
Nov 13	940	940	940	939	938	937	936	936	935	935	934	934	933	933	932	932	932	932	932	932	932	932	932	931	931	940	935
Nov 14	930	930	929	928	928	928	927	927	927	927	927	928	928	928	927	927	927	927	926	926	926	926	926	927	926	930	927
Nov 15	927	928	928	929	931	932	934	935	935	935	936	936	936	936	936	936	936	936	936	936	936	936	936	935	927	936	934
Nov 16	934	934	933	933	932	930	929	928	928	927	926	926	926	926	926	926	926	926	927	927	927	927	927	928	926	934	928
Nov 17	928	929	929	929	929	930	930	930	930	**NRM**	930	931	931	931	931	931	931	931	931	931	931	931	931	931	928	931	930
Nov 18	931	931	931	931	930	930	930	929	930	930	930	929	929	929	928	928	928	928	927	927	927	926	926	926	926	931	929
Nov 19	926	926	926	925	925	925	925	925	925	926	926	926	926	926	927	928	929	929	930	932	933	935	938	941	925	941	928
Nov 20	943	944	946	948	949	950	951	951	951	952	**953**	**953**	**953**	**953**	**953**	**953**	952	952	951	951	950	949	948	947	943	**953**	950
Nov 21	946	944	943	942	941	940	939	939	939	939	939	939	940	940	940	941	942	942	943	944	945	945	946	946	939	946	942
Nov 22	947	947	948	948	948	949	949	949	949	949	950	950	949	949	949	949	950	950	950	950	950	950	950	951	947	951	949
Nov 23	951	951	951	952	952	952	952	**953**	**953**	**953**	952	952	952	952	951	951	950	950	950	949	948	948	948	948	948	**953**	**951**
Nov 24	947	947	947	947	946	947	946	946	947	947	947	947	947	947	947	947	946	946	946	946	945	945	944	944	944	947	946
Nov 25	944	944	944	945	946	947	948	949	950	951	951	951	951	951	950	950	949	949	948	947	947	946	946	945	944	951	948
Nov 26	946	945	945	945	945	945	945	945	945	946	946	946	946	946	945	945	944	944	943	943	942	942	941	941	941	946	944
Nov 27	940	939	939	938	938	937	936	936	935	935	934	934	933	933	934	934	934	935	935	935	935	936	936	936	933	940	936
Nov 28	936	936	936	936	936	937	936	936	936	936	936	936	936	935	935	935	935	935	935	936	936	936	936	937	935	937	936
Nov 29	937	937	937	937	937	938	938	939	939	939	940	940	941	941	941	941	941	942	942	942	942	942	942	942	937	942	940
Nov 30	942	942	942	942	941	941	941	940	940	940	939	938	937	937	936	935	935	935	934	933	933	932	932	932	932	942	937
Diurnal Maximum	951	951	951	952	952	952	952	953	953	953	953	953	953	953	953	953	952	952	951	951	950	950	950	951			
Diurnal Average	937	937	937	937	937	937	936	936	937	937	937	937	937	937	936	937	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

842-B Station - November 2023

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

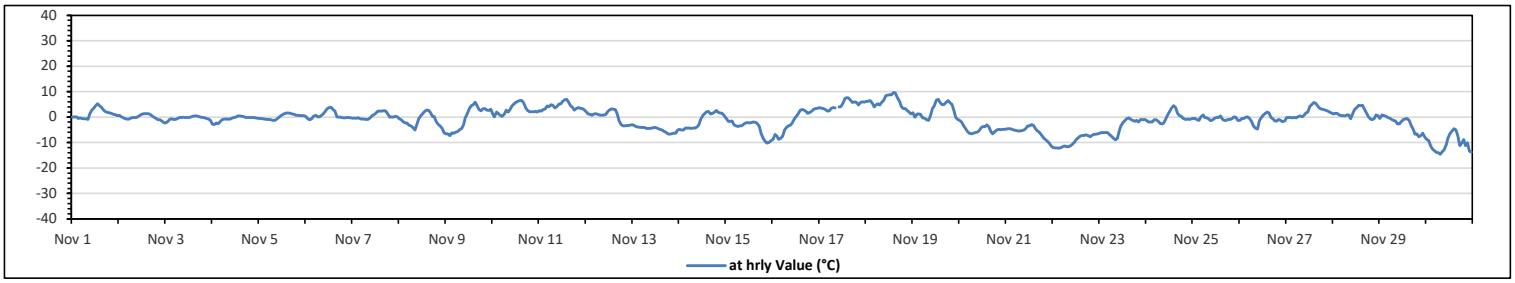
Maximum Hourly Value:	9.6	°C	on Nov 18 at hr 14	Hours in Service:	720	
Maximum Daily Value:	5.8	°C	on Nov 18	Hours of Data:	719	
Minimum Hourly Value:	-14.6	°C	on Nov 30 at hr 7	Hours of Missing Data:	1	
Minimum Daily Value:	-10.5	°C	on Nov 30	Hours of Calibration:	0	
Monthly Average:	-0.9	°C		Operational 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			
Nov 1	0	0.1	0.1	-0.5	-0.3	-0.6	-0.7	-0.7	-0.9	1.4	2.8	3.5	4.4	5.3	4.5	3.8	2.8	2.1	1.8	1.7	1.5	1.1	1	0.5	-0.9	5.3	1.4
Nov 2	0.7	0.2	-0.2	-0.5	-0.8	-0.8	-0.4	-0.2	-0.2	-0.1	0.3	0.8	1.3	1.4	1.4	1.4	1.1	0.4	0	-0.6	-1.1	-1.1	-1.5	-2.2	-2.2	1.4	0.0
Nov 3	-2.3	-1.8	-1	-0.7	-1	-1	-0.5	-0.2	-0.2	0	-0.1	-0.2	-0.1	0.1	0.3	0.4	0.4	0.2	0	-0.2	-0.3	-0.5	-0.8	-1.3	-2.3	0.4	-0.5
Nov 4	-2.8	-2.9	-2.4	-2.5	-1.7	-1.1	-0.8	-0.8	-0.8	-0.8	-0.4	-0.2	0	0.4	0.4	0.3	0.2	-0.1	-0.2	-0.2	-0.1	-0.1	-0.3	-0.4	-2.9	0.4	-0.7
Nov 5	-0.6	-0.6	-0.7	-0.8	-0.9	-1	-1.1	-1.3	-1.2	-0.8	-0.1	0.4	1	1.4	1.6	1.6	1.5	1.3	1.1	0.7	0.7	0.6	0.6	0.5	-1.3	1.6	0.2
Nov 6	0.2	-0.7	-1.1	-0.7	0.3	0.7	0.1	0.1	0.7	1.2	2.3	3.3	3.8	3.9	2.9	2.3	0.1	0	0	-0.3	-0.3	-0.2	-0.2	-0.3	-1.1	3.9	0.8
Nov 7	-0.4	-0.4	-0.4	-0.3	-0.7	-0.8	-0.8	-1	-1	-0.3	0.5	1	1.6	2.3	2.3	2.4	2.5	2.5	1.2	0	0.1	0	0.3	0.1	-1.0	2.5	0.4
Nov 8	-0.7	-1.1	-1.8	-2.4	-2.4	-3.2	-3.5	-4.1	-5.1	-2.8	-0.6	0.4	1.3	2.2	2.7	2.8	1.8	0.2	0.2	-1.7	-2.8	-3.4	-4.5	-6.2	-6.2	2.8	-1.4
Nov 9	-6.6	-6.5	-7.3	-6.2	-6.3	-6	-5.7	-5	-4.4	-2.9	-0.3	1.3	3.3	4.4	4.8	5.9	4.4	3	2.5	3.2	3.4	2.8	2.6	3.1	-7.3	5.9	-0.5
Nov 10	1.2	0.1	2	1.4	0.6	0.3	1.4	2.8	1.9	3	4.3	5.3	5.9	6.3	6.5	6.5	5.5	3.6	2.6	2.1	2.1	2.1	2.2	2	0.1	6.5	3.0
Nov 11	2.5	2.4	2.9	3.2	4.3	4.2	4.8	4.6	3.6	4.1	5.1	5.3	6.3	6.8	7	5.9	4.4	3.9	2.8	3.3	3.8	3.5	3.4	2.9	2.4	7.0	4.2
Nov 12	2.1	1.2	1.1	0.7	1.3	1.4	1.1	0.9	0.7	0.8	1	1.9	2.7	3.2	3.1	2.9	1.3	-1.5	-2.9	-3.5	-3.4	-3.3	-3.3	-3.1	-3.5	3.2	0.3
Nov 13	-3	-3.5	-3.8	-3.9	-4	-4	-4.1	-4.4	-4.4	-4.4	-4.3	-4.1	-4.2	-4.6	-4.8	-5.1	-5.6	-6	-6.6	-6.7	-6.5	-6.4	-6.4	-5.2	-6.7	-3.0	-4.8
Nov 14	-4.9	-5.1	-5.1	-4.3	-4.3	-4.3	-4.4	-4.3	-4.3	-3.9	-3.1	-0.8	0.7	1.5	2.1	2.2	1.2	1.5	2	2.6	1.8	1.6	1.5	0.5	-5.1	2.6	-1.2
Nov 15	-0.4	-1.6	-1.7	-1.5	-3	-3.5	-3.7	-3.5	-3.5	-2.8	-2.4	-2.2	-2.4	-2.2	-2	-2.1	-2.5	-3.7	-6.5	-8.3	-9.5	-10.2	-10	-9.3	-10.2	-0.4	-4.1
Nov 16	-8.8	-6.8	-7.5	-8.8	-8.4	-7.5	-5.1	-4	-3.5	-3.2	-2.3	-0.8	0.2	1.2	2.7	3	2.8	2.2	1.5	1.8	2.4	3.1	3.3	3.5	-8.8	3.5	-1.6
Nov 17	3.8	3.5	3.3	3	2.4	2.5	3.5	3.8	3.6	NRM	4	4.1	5.4	7.4	7.7	7.5	6.7	5.7	6	5.7	4.7	5.7	6	5.9	2.4	7.7	4.9
Nov 18	6.1	6.2	6.5	5.5	4	4.9	5.3	4.7	5.8	6.6	8.3	8.6	8.8	8.8	**9.6**	9.5	7.8	6.3	4.2	3.3	3.4	2.6	2	1.3	1.3	**9.6**	**5.8**
Nov 19	1.7	0	1.2	1.2	1.1	-0.3	-0.4	-1.1	-1.2	0.6	3.4	4.5	6.6	7	5.7	4.8	5	5.9	6.5	5.7	5	2.6	-0.1	-0.9	-1.2	7.0	2.7
Nov 20	-1.2	-2	-3.3	-4.4	-5.5	-6.3	-6.6	-6.4	-6.1	-5.9	-5.3	-4.2	-3.7	-3.8	-3.1	-3.9	-5.6	-6.5	-5.8	-5.1	-4.8	-5	-4.9	-4.8	-6.6	-1.2	-4.8
Nov 21	-4.7	-4.6	-4.6	-4.9	-5.1	-5.3	-5.4	-5.4	-5.3	-5.1	-4.4	-3.5	-3.4	-2.9	-3.3	-4.6	-5.4	-5.9	-7	-8.1	-8.9	-9.5	-10.3	-11.4	-11.4	-2.9	-5.8
Nov 22	-12	-12.1	-12.1	-12.2	-11.9	-11.6	-11.4	-11.6	-11.7	-11.3	-10.6	-9.8	-8.8	-8.1	-7.5	-7.2	-7.2	-7	-7.4	-7.7	-7.2	-6.8	-6.7	-6.6	-12.2	-6.6	-9.4
Nov 23	-6.4	-6.1	-6.1	-6.1	-6.1	-6.8	-7.5	-8.3	-9	-8.3	-5.3	-3.4	-2.1	-1.2	-0.6	-0.3	-0.9	-1.2	-1.6	-1.3	-1.9	-0.9	-1.1	-1	-9.0	-0.3	-3.9
Nov 24	-1.3	-1.9	-2	-1.9	-1.1	-1.1	-1.6	-2.5	-2.7	-2.3	-0.8	1.1	2.3	3.8	4.5	3.7	1.5	0.6	0.2	-0.5	-0.9	-0.8	-1	-0.7	-2.7	4.5	-0.2
Nov 25	-0.5	-0.6	-1.1	-1.3	0.1	0.9	-0.1	-0.3	-0.7	-1.4	-1.1	-0.4	-0.2	-0.2	0.4	-0.8	-1.3	-1.3	-1	-0.9	-0.5	0.1	0	-1.2	-1.4	0.9	-0.6
Nov 26	-1.2	-0.6	-0.5	0	0.1	-0.5	-1.6	-3.5	-4.3	-4.7	-1.2	-0.1	0.7	1.4	1.9	1.6	-0.1	-0.7	-1.5	-1.5	-0.9	-1.2	-1.8	-1.5	-4.7	1.9	-0.9
Nov 27	-0.2	-0.2	-0.2	-0.3	-0.1	-0.3	0.2	0.4	0.1	0.8	1.6	2	4.1	5	5.7	5.4	4.3	3.5	3.1	3	2.7	2.5	1.9	1.6	-0.3	5.7	1.9
Nov 28	1.2	1.5	1.5	0.9	0.6	0.5	0.4	0.8	0.9	-0.7	1.2	3	3.8	4.6	4.4	4.6	3.1	1.7	0.2	-0.7	-1.1	-0.6	0.9	0.6	-1.1	4.6	1.4
Nov 29	-0.5	0.8	0.6	0.3	-0.1	-0.4	-1	-1.2	-1.5	-2.6	-2.6	-1.7	-1	-0.8	-0.6	-1.3	-3.3	-4.7	-6.7	-6.5	-7.8	-7.4	-6.3	-7.7	-7.8	0.8	-2.7
Nov 30	-8.8	-9.2	-11.4	-12.6	-13.2	-13.9	-14	**-14.6**	-13.6	-12.9	-10.7	-8.2	-6.6	-5.6	-4.6	-5.1	-7.5	-11.2	-10.2	-8.9	-11.2	-10.1	-13.4	-13.8	**-14.6**	-4.6	**-10.5**
Diurnal Maximum	6.1	6.2	6.5	5.5	4.3	4.9	5.3	4.7	5.8	6.6	8.3	8.6	8.8	8.8	9.6	9.5	7.8	6.3	6.5	5.7	5.0	5.7	6.0	5.9			
Diurnal Average	-1.6	-1.7	-1.8	-2.0	-2.1	-2.2	-2.1	-2.2	-2.3	-2.0	-0.7	0.2	1.1	1.6	1.9	1.6	0.6	-0.2	-0.7	-1.0	-1.3	-1.3	-1.6	-1.8			

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 - November 2023

Summary of Hourly Averages

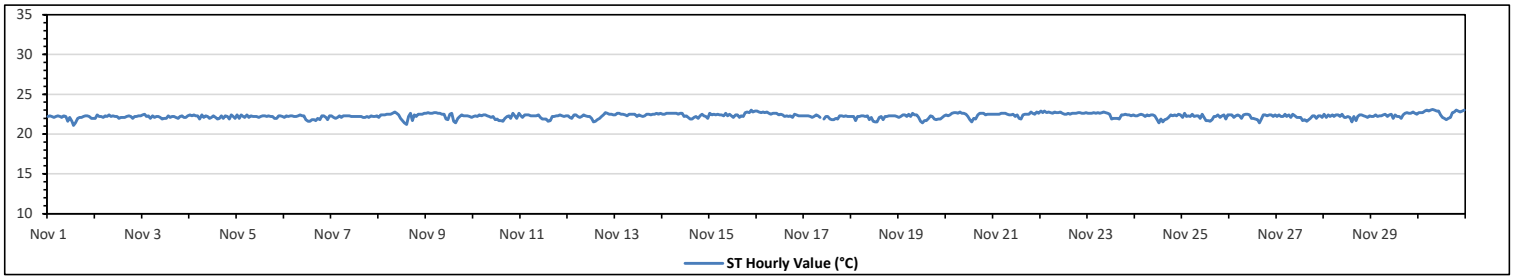
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	23.1	°C	on Nov 30 at hr 7	Hours in Service:	720	
Maximum Daily Value:	22.7	°C	on Nov 30	Hours of Data:	719	
Minimum Hourly Value:	21.1	°C	on Nov 1 at hr 13	Hours of Missing Data:	1	
Minimum Daily Value:	22.0	°C	on Nov 1	Hours of Calibration:	0	
Monthly Average:	22.3	°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
Nov 1	22.2	22.3	22.2	22.1	22.2	22.3	22.2	22.1	22.3	22.2	21.6	22.1	21.6	**21.1**	21.4	22.0	22.1	22.1	22.2	22.3	22.3	22.2	22.0	22.0	**21.1**	22.3	**22.0**
Nov 2	22.0	22.4	22.2	22.2	22.1	22.3	22.2	22.4	22.2	22.3	22.2	22.2	22.0	22.1	22.1	22.1	22.2	22.3	22.2	22.0	22.2	22.2	22.3	22.3	22.0	22.4	22.2
Nov 3	22.4	22.5	22.2	22.3	22.0	22.3	22.1	22.2	22.2	22.1	21.9	22.0	22.0	22.3	22.1	22.2	22.2	22.1	22.0	22.2	22.3	22.1	22.1	22.3	21.9	22.5	22.2
Nov 4	22.4	22.3	22.4	22.3	22.3	21.9	22.4	22.1	22.3	22.2	22.0	22.1	22.3	22.1	21.9	22.0	22.3	22.0	22.3	22.2	21.9	22.4	22.2	22.0	21.9	22.4	22.2
Nov 5	22.4	22.0	22.4	22.2	22.1	22.4	22.1	22.3	22.2	22.2	22.2	22.1	22.2	22.3	22.3	22.2	22.3	22.2	22.2	22.0	22.0	22.3	22.3	22.2	22.0	22.4	22.2
Nov 6	22.1	22.3	22.2	22.3	22.3	22.2	22.2	22.3	22.4	22.3	22.3	21.8	21.6	21.6	21.8	21.8	21.7	22.0	21.8	22.3	22.3	22.1	21.8	22.3	21.6	22.4	22.1
Nov 7	22.3	22.1	22.0	22.1	22.3	22.1	22.3	22.3	22.3	22.3	22.2	22.2	22.2	22.2	22.2	22.2	22.1	22.1	22.2	22.1	22.3	22.2	22.2	22.3	22.0	22.3	22.2
Nov 8	22.1	22.4	22.4	22.4	22.5	22.5	22.5	22.6	22.8	22.6	22.4	22.0	21.7	21.4	21.2	22.2	22.6	21.7	22.4	22.2	22.5	22.5	22.5	22.6	21.2	22.8	22.3
Nov 9	22.6	22.7	22.6	22.6	22.7	22.7	22.6	22.6	22.5	22.5	21.9	21.8	22.5	22.6	21.6	21.4	22.0	22.2	22.4	22.3	22.3	22.3	22.2	22.1	21.4	22.7	22.3
Nov 10	22.2	22.3	22.2	22.4	22.3	22.4	22.4	22.3	22.2	22.1	22.2	21.8	21.9	21.7	21.7	21.6	22.0	22.2	22.3	22.0	22.6	22.3	22.0	22.6	21.6	22.6	22.2
Nov 11	22.3	22.1	22.4	22.4	22.4	22.3	22.3	22.3	22.3	22.4	22.1	21.9	21.9	21.9	21.6	21.7	22.2	22.2	22.3	22.3	22.4	22.3	22.2	22.3	21.6	22.4	22.2
Nov 12	22.3	22.1	22.0	22.4	22.4	22.2	22.1	22.2	22.4	22.3	22.2	22.2	22.0	21.5	21.6	21.8	22.0	22.2	22.4	22.7	22.6	22.5	22.5	22.4	21.5	22.7	22.2
Nov 13	22.4	22.6	22.6	22.5	22.5	22.4	22.3	22.5	22.5	22.5	22.5	22.2	22.4	22.3	22.2	22.3	22.5	22.5	22.4	22.5	22.5	22.6	22.5	22.6	22.2	22.6	22.5
Nov 14	22.5	22.5	22.6	22.6	22.6	22.6	22.6	22.6	22.5	22.6	22.6	22.2	22.3	22.1	21.9	21.9	22.1	22.2	22.0	22.3	22.5	22.3	22.2	22.0	21.9	22.6	22.3
Nov 15	22.6	22.4	22.5	22.4	22.5	22.4	22.4	22.3	22.6	22.3	22.5	22.3	22.1	22.4	22.4	22.1	22.3	22.2	22.7	22.8	22.7	23.0	22.8	22.9	22.1	23.0	22.5
Nov 16	22.9	22.8	22.7	22.8	22.7	22.8	22.6	22.5	22.6	22.6	22.6	22.4	22.5	22.4	22.2	22.3	22.2	22.3	22.1	22.5	22.4	22.3	22.3	22.3	22.1	22.9	22.5
Nov 17	22.3	22.3	22.3	22.2	22.1	22.2	22.4	22.3	22.1	**NRM**	21.9	22.2	22.2	21.9	21.8	21.8	22.0	21.9	22.3	22.3	22.2	22.3	22.2	22.2	21.8	22.4	22.1
Nov 18	22.2	22.2	21.7	22.2	22.2	22.3	22.3	22.2	22.3	21.8	22.1	21.6	21.5	21.5	22.1	22.2	21.8	22.2	22.2	22.3	22.3	22.3	22.3	22.2	21.5	22.3	22.1
Nov 19	22.1	22.2	22.4	22.4	22.2	22.5	22.2	22.6	22.4	22.4	22.1	21.6	21.4	21.7	21.7	22.0	22.3	22.2	21.9	21.8	21.9	21.9	22.1	22.3	21.4	22.6	22.1
Nov 20	22.4	22.3	22.4	22.6	22.7	22.7	22.6	22.8	22.6	22.6	22.5	22.2	21.8	21.5	22.0	21.9	22.4	22.6	22.6	22.6	22.4	22.5	22.5	22.5	21.5	22.8	22.4
Nov 21	22.5	22.5	22.5	22.5	22.6	22.6	22.6	22.5	22.4	22.4	22.5	22.2	22.4	22.0	21.9	22.4	22.5	22.5	22.5	22.8	22.6	22.5	22.8	22.6	21.9	22.8	22.5
Nov 22	22.9	22.7	22.9	22.7	22.8	22.7	22.6	22.8	22.7	22.7	22.8	22.6	22.5	22.5	22.6	22.5	22.6	22.6	22.6	22.7	22.7	22.6	22.6	22.7	22.5	22.9	22.7
Nov 23	22.6	22.6	22.6	22.7	22.6	22.7	22.6	22.7	22.8	22.7	22.6	22.5	21.9	22.0	22.0	22.0	21.9	22.4	22.4	22.5	22.4	22.4	22.3	22.4	21.9	22.8	22.4
Nov 24	22.3	22.3	22.4	22.5	22.4	22.2	22.4	22.3	22.4	22.4	22.3	21.9	21.4	21.9	21.5	21.8	21.9	22.1	22.4	22.3	22.4	22.3	22.5	22.4	21.4	22.5	22.2
Nov 25	22.1	22.6	22.2	22.3	22.2	22.5	22.2	22.3	22.3	22.0	22.5	22.1	21.7	21.7	21.6	21.8	22.2	22.2	22.4	22.1	22.3	22.4	21.9	22.4	21.6	22.6	22.2
Nov 26	22.4	22.4	22.1	22.3	22.4	22.3	22.0	22.4	22.5	22.5	22.4	22.0	22.0	21.9	21.8	21.4	21.9	22.4	22.4	22.3	22.4	22.4	22.2	22.4	21.4	22.5	22.2
Nov 27	22.2	22.4	22.2	22.2	22.5	22.2	22.4	22.1	22.5	22.3	22.1	22.1	22.1	21.7	21.8	21.6	21.8	22.0	22.3	22.3	22.0	22.3	22.3	22.1	21.6	22.5	22.1
Nov 28	22.5	22.1	22.4	22.2	22.4	22.2	22.4	22.4	22.2	22.5	22.1	22.1	22.2	22.1	21.5	22.2	21.7	22.2	22.4	22.4	22.3	22.2	22.1	22.3	21.5	22.5	22.2
Nov 29	22.2	22.2	22.4	22.2	22.3	22.3	22.4	22.5	22.2	22.4	22.5	22.0	22.4	22.2	22.2	22.0	22.4	22.6	22.7	22.6	22.6	22.8	22.6	22.5	22.0	22.8	22.4
Nov 30	22.7	22.7	22.7	22.9	23.0	22.9	23.0	**23.1**	23.0	22.9	22.9	22.4	22.1	22.0	21.8	22.0	22.1	22.7	22.8	23.0	22.9	22.8	22.9	23.0	21.8	**23.1**	**22.7**
Diurnal Maximum	22.9	22.8	22.9	22.9	23.0	22.9	23.0	23.1	23.0	22.9	22.9	22.6	22.5	22.6	22.6	22.5	22.6	22.7	22.8	23.0	22.9	23.0	22.9	23.0			
Diurnal Average	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.3	22.1	22.0	22.0	21.9	22.0	22.1	22.2	22.3	22.4	22.4	22.4	22.3	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 - November 2023

Summary of Hourly Averages

PRECIPITATION in mm

Maximum Hourly Value:	0.9	mm	on Nov 5 at hr 7	Hours in Service:	720	
Maximum Daily Value:	5.5	mm	on Nov 5	Hours of Data:	719	
Minimum Hourly Value:	0.0	mm	on Nov 1 at hr 0	Hours of Missing Data:	1	
Minimum Daily Value:	0.0	mm	on Nov 1	Hours of Calibration:	0	
Monthly Total:	7.5	mm		Operational Uptime:	99.9	

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Nov 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
Nov 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0.2	0.0	0.2	0.3
Nov 5	0.8	0.7	0.8	0.2	0.1	0.3	0.2	**0.9**	0.7	0.6	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	**0.9**	**5.5**
Nov 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	0.0	0.0
Nov 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 12	0.4	0.1	0.2	0.5	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5	1.3
Nov 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0.1	0	0	0	0.0	0.1	0.4
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 17	0	0	0	0	0	0	0	0	0	**NRM**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Diurnal Maximum	0.8	0.7	0.8	0.5	0.1	0.3	0.2	0.9	0.7	0.6	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.2			
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)					

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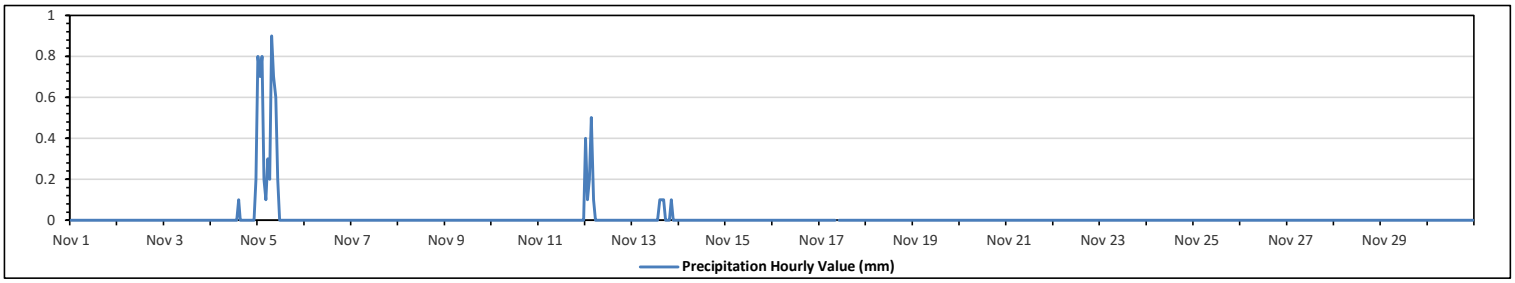


Peace River Area Monitoring Program

842-B Station - November 2023

Summary of Hourly Averages

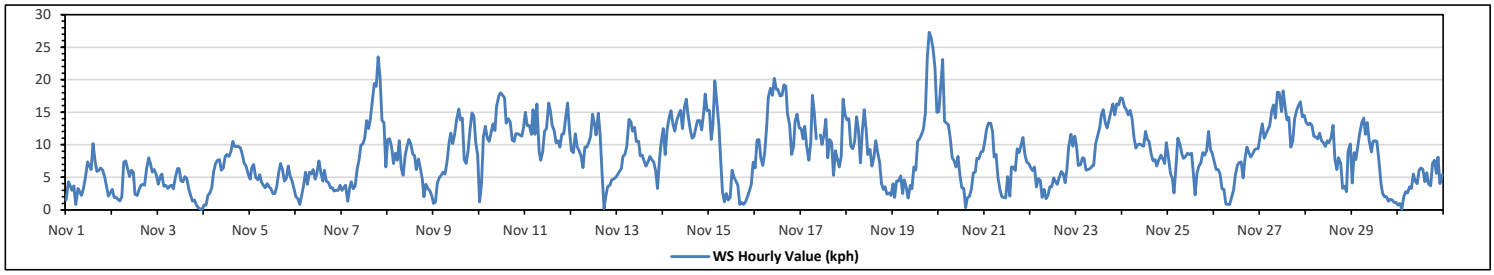
VECTOR WIND SPEED (VWS) in km/hr

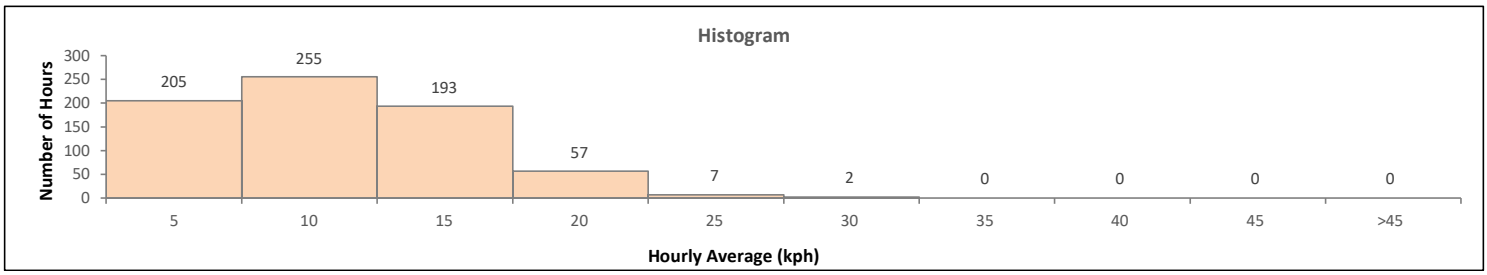
Maximum Hourly Value:	27.3	kph	on Nov 19 at hr 19	Hours in Service:	720
Maximum Daily Value:	14.3	kph	on Nov 27	Hours of Data:	719
Minimum Hourly Value:	0.1	kph	on Nov 3 at hr 22	Hours of Missing Data:	1
Minimum Daily Value:	3.4	kph	on Nov 3	Hours of Calibration:	0
Monthly Average:	4.2	kph		Operational 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			
Nov 1	1.5	4.3	3.7	3.0	3.7	0.8	3.3	2.8	2.2	3.3	4.9	7.4	6.8	6.2	10.2	7.6	5.9	6.0	6.4	6.1	5.1	3.7	2.1	2.6	0.8	10.2	4.6
Nov 2	3.1	1.9	1.9	1.6	1.4	2.0	7.3	7.5	6.3	5.1	6.1	5.8	2.4	2.2	3.1	3.8	3.9	3.8	6.2	8.0	7.0	5.8	6.2	5.5	1.4	8.0	4.5
Nov 3	3.9	5.1	5.5	3.6	3.8	3.3	3.6	3.8	3.2	4.9	6.3	6.3	4.4	4.3	5.1	4.8	3.2	2.2	1.3	1.5	0.7	0.3	**0.1**	**0.1**	**0.1**	6.3	**3.4**
Nov 4	0.7	0.7	2.2	2.6	3.4	5.9	7.1	7.6	7.7	6.1	6.4	8.2	8.5	8.2	9.0	10.5	9.8	9.7	9.7	9.5	8.4	7.2	6.7	5.5	0.7	10.5	6.7
Nov 5	4.7	6.5	7.0	5.0	4.6	5.4	4.3	3.8	3.4	4.0	3.5	3.2	2.5	2.5	3.5	5.7	7.1	6.2	4.4	4.8	6.7	5.2	4.4	3.2	2.5	7.1	4.7
Nov 6	2.0	1.7	0.8	2.2	3.8	5.8	3.9	5.8	5.5	6.2	4.7	5.5	7.5	5.7	4.4	6.1	4.4	4.2	3.4	3.4	2.9	3.0	3.0	3.8	0.8	7.5	4.2
Nov 7	3.0	3.4	3.8	1.3	3.4	4.3	3.2	3.6	6.1	7.9	9.9	10.1	11.0	13.7	12.5	14.1	16.8	19.4	19.0	23.5	20.3	13.7	13.4	6.6	1.3	23.5	10.2
Nov 8	10.8	10.9	9.6	7.1	8.7	7.6	10.6	6.4	5.3	8.2	9.5	10.8	10.2	8.6	8.3	6.2	7.8	6.3	4.7	2.0	3.9	3.2	2.9	2.1	2.0	10.9	7.2
Nov 9	1.0	1.2	4.2	5.0	5.3	5.8	5.5	7.3	10.4	11.8	10.2	11.6	13.8	15.5	13.8	14.1	7.7	7.1	9.1	12.3	14.9	14.4	10.3	8.4	1.0	15.5	9.2
Nov 10	1.2	4.0	11.3	12.8	11.0	10.5	11.9	13.2	12.2	15.9	17.5	18.0	17.6	17.2	13.3	14.0	13.4	10.7	10.5	11.7	11.7	11.5	11.3	12.6	1.2	18.0	12.3
Nov 11	15.0	12.9	12.9	11.6	15.4	11.6	16.3	9.0	7.6	8.9	12.1	12.5	16.4	15.3	12.9	12.2	10.3	10.6	9.6	11.6	11.7	14.2	16.4	12.1	7.6	16.4	12.5
Nov 12	9.1	8.8	11.7	9.6	9.1	8.3	6.5	9.6	9.6	10.3	11.3	14.7	13.2	11.5	14.8	11.3	5.3	0.2	2.0	3.5	3.8	4.6	4.7	4.9	0.2	14.8	8.3
Nov 13	5.3	5.9	6.3	8.2	8.5	9.8	13.9	13.5	12.1	12.7	10.5	10.5	8.3	8.4	7.5	6.7	7.3	8.2	7.7	7.4	6.0	3.3	7.6	10.6	3.3	13.9	8.6
Nov 14	12.5	8.5	12.3	14.1	15.2	13.2	12.1	13.7	14.6	15.3	12.5	15.8	17.0	14.7	12.4	11.0	11.3	12.4	13.7	13.7	12.3	14.8	17.8	15.2	8.5	17.8	13.6
Nov 15	15.3	10.8	13.0	19.8	16.7	12.8	7.1	2.8	1.2	2.5	1.5	1.9	6.1	5.0	4.4	3.8	0.8	1.1	0.8	1.2	2.0	2.9	3.9	7.3	0.8	19.8	6.0
Nov 16	6.4	10.7	10.8	7.9	6.8	8.8	12.7	17.2	18.7	17.6	20.2	18.5	18.5	17.5	17.6	19.2	19.0	14.8	13.0	8.5	9.7	13.6	14.7	12.6	6.4	20.2	14.0
Nov 17	12.5	10.9	12.8	9.8	7.6	10.4	17.6	14.8	10.9	**NRM**	11.5	10.0	11.4	13.9	8.0	10.8	10.3	5.3	9.1	7.8	6.6	8.2	17.0	14.6	5.3	17.6	10.9
Nov 18	13.8	14.0	9.8	9.4	10.5	14.3	12.2	7.2	12.1	15.4	12.3	8.5	9.3	6.7	8.0	10.6	9.1	7.3	4.0	3.1	3.5	2.4	2.6	2.2	2.2	15.4	8.7
Nov 19	4.0	1.9	4.4	4.4	5.2	2.5	4.6	3.5	1.8	3.8	3.2	6.6	6.1	10.5	11.0	11.6	12.4	14.8	23.3	**27.3**	26.5	24.8	21.9	15.0	1.8	**27.3**	10.5
Nov 20	15.1	19.0	23.1	13.6	13.3	13.1	10.9	8.0	7.5	6.6	8.2	5.3	3.4	3.3	0.3	1.8	2.1	3.2	5.7	5.8	7.9	7.8	8.9	9.0	0.3	23.1	8.5
Nov 21	10.3	12.3	13.3	13.3	12.0	8.1	8.5	4.9	2.9	2.0	1.9	1.8	5.1	2.1	6.6	6.6	6.0	9.4	8.8	9.9	11.1	8.5	7.3	7.1	1.8	13.3	7.5
Nov 22	6.5	6.0	6.6	3.5	4.8	4.5	1.9	3.1	1.7	2.2	3.5	3.5	4.9	4.3	3.9	4.9	5.9	5.5	4.2	6.1	9.7	11.6	9.8	11.3	1.7	11.6	5.4
Nov 23	9.9	6.8	6.9	8.0	7.9	6.1	6.2	6.3	6.7	6.8	10.1	11.3	12.7	14.6	15.4	13.4	12.6	13.8	15.1	16.3	14.6	16.3	16.1	17.2	6.1	17.2	11.3
Nov 24	17.1	15.9	15.4	14.6	15.3	14.0	11.1	9.5	10.0	10.1	9.9	9.8	12.0	10.8	10.5	8.5	7.5	7.7	6.7	7.6	8.4	7.8	7.1	10.3	6.7	17.1	10.7
Nov 25	8.3	5.6	4.8	2.6	6.5	11.0	10.0	8.5	7.9	8.2	8.7	8.5	8.7	5.9	2.3	5.7	6.7	7.2	8.8	8.4	9.1	12.0	9.3	8.6	2.3	12.0	7.6
Nov 26	7.4	6.2	6.2	5.5	3.2	3.1	0.9	0.8	0.8	1.9	3.0	5.4	6.8	7.2	7.4	4.9	7.9	9.6	8.9	8.1	8.6	9.2	9.4	9.4	0.8	9.6	5.9
Nov 27	11.6	13.2	11.0	11.6	12.3	12.9	15.4	16.1	14.1	18.1	18.0	15.1	18.3	15.9	13.8	14.2	9.6	10.5	14.0	15.2	16.0	16.6	14.3	14.5	9.6	18.3	**14.3**
Nov 28	13.4	13.1	13.3	13.0	11.3	11.2	10.9	11.8	10.6	10.3	9.7	10.6	10.3	11.1	13.0	7.7	6.2	8.0	7.1	3.3	3.6	2.8	9.0	10.1	2.8	13.4	9.6
Nov 29	4.1	8.8	7.7	9.6	11.7	13.4	14.1	11.6	13.4	10.6	8.9	10.5	10.6	10.5	7.7	4.0	2.5	2.0	2.0	1.3	1.6	1.5	1.1	1.1	1.1	14.1	7.1
Nov 30	0.7	1.0	**0.1**	2.0	2.8	2.6	3.5	3.3	5.5	4.4	4.0	6.1	6.4	6.2	4.3	5.7	4.0	3.7	7.1	7.6	5.6	8.1	4.0	5.4	**0.1**	8.1	4.3
Diurnal Maximum	17.1	19.0	23.1	19.8	16.7	14.3	17.6	17.2	18.7	18.1	20.2	18.5	18.5	17.5	17.6	19.2	19.0	19.4	23.3	27.3	26.5	24.8	21.9	17.2			
Diurnal Average	7.7	7.7	8.4	7.9	8.2	8.1	8.6	7.9	7.7	8.3	8.7	9.1	9.7	9.3	8.8	8.7	7.9	7.7	8.2	8.6	8.7	8.6	8.8	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.



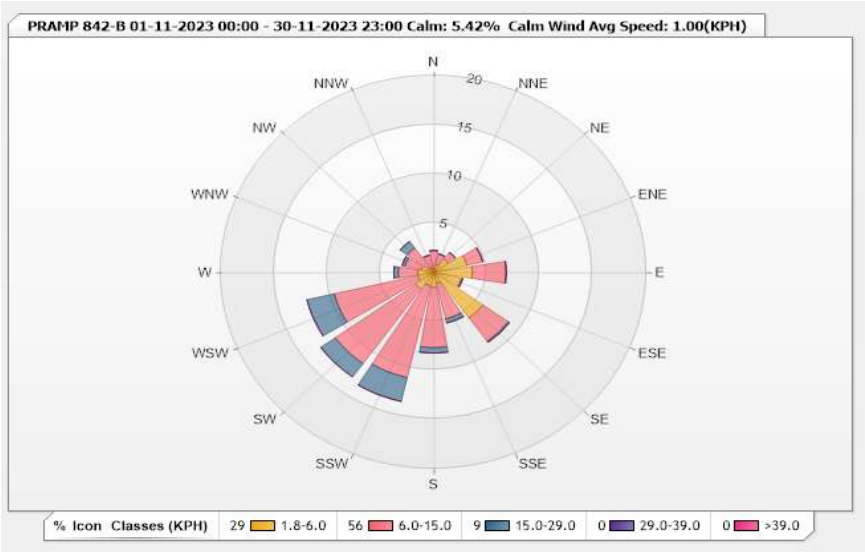


Station: PRAMP 842-B Monitor: WDS [KPH] Monthly: 11-2023

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

Calm (WS<1.8kph): 5.42% Valid Data: 99.86%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.28	1.95	0	0	0	2.23
NNE	0.83	1.11	0	0	0	1.94
NE	1.67	0.83	0	0	0	2.5
ENE	3.2	1.53	0	0	0	4.73
E	3.62	3.2	0	0	0	6.82
ESE	2.64	0.14	0	0	0	2.78
SE	5.7	2.92	0.14	0	0	8.76
SSE	1.11	3.76	0.42	0	0	5.29
S	1.53	6.12	0.56	0	0	8.21
SSW	1.39	9.6	2.5	0	0	13.49
SW	2.09	9.32	1.67	0	0	13.08
WSW	1.53	8.07	2.64	0	0	12.24
W	1.53	1.81	0.42	0	0	3.76
WNW	1.25	1.53	0.28	0	0	3.06
NW	0.56	2.5	0.83	0	0	3.89
NNW	0.42	1.39	0	0	0	1.81
Summary	29.35	55.78	9.46	0	0	94.59



Peace River Area Monitoring Program

842-B Station - November 2023

Summary of Hourly Averages

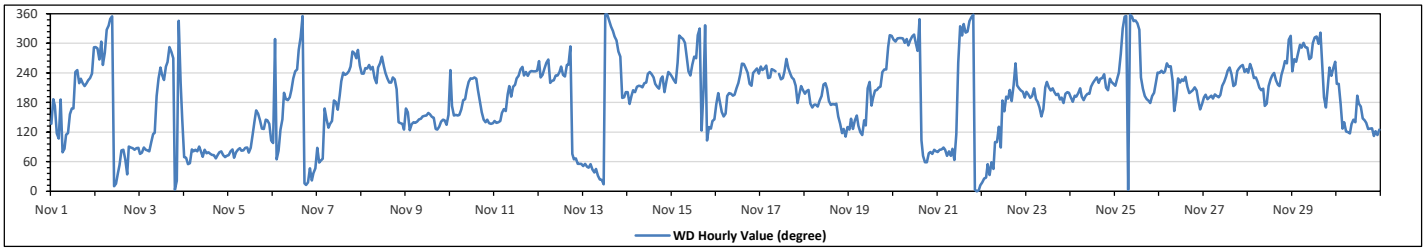
WIND DIRECTION (VWD) in sector

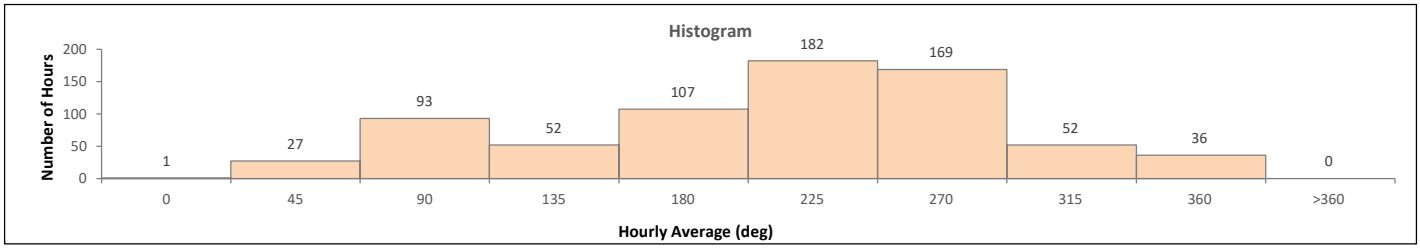
Monthly Average:	213 (SSW)	degree	
Hours in Service:	720		
Hours of Data:	719		
Hours of Missing Data:	1		
Hours of Calibration:	0		
Operational Uptime:	99.9		

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
Nov 1	SE	S	S	ESE	ESE	S	ENE	E	ESE	ESE	SSE	SSE	SSE	WSW	WSW	SW	SW	SW	SSW	SW	SW	SW	WSW	WNW	198	SSW
Nov 2	WNW	WNW	W	WNW	WSW	W	NNW	NNW	N	N	N	NNE	NE	NE	E	E	ENE	NE	E	E	E	E	E	E	37	NE
Nov 3	ENE	ENE	E	E	E	E	E	ESE	ESE	S	SW	WSW	SW	SW	WSW	W	WNW	W	W	N	NNE	NNW	SW	SE	178	S
Nov 4	ENE	ENE	NE	ENE	E	E	E	E	E	E	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	ENE	ENE	ENE	76	ENE
Nov 5	ENE	E	E	ENE	ENE	E	E	E	E	E	E	ENE	E	ESE	SE	SSE	SSE	SE	SE	SE	SE	SE	SE	ESE	109	ESE
Nov 6	E	NW	ENE	E	SE	SE	SSW	S	S	S	SSW	SW	WSW	WSW	WNW	NW	N	NNE	NNE	NNE	NE	NNE	NE	NE	226	SW
Nov 7	E	ENE	ENE	ENE	SSE	SE	SE	SE	SE	S	S	SSE	SSW	SW	WSW	SW	WSW	WSW	WSW	WNW	W	W	WNW	WSW	238	SW
Nov 8	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	W	WSW	WSW	SW	SW	SW	SW	SW	SSW	SE	SE	SE	SE	239	WSW
Nov 9	SSE	SSE	ESE	SE	SE	SE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SSE	146	SE
Nov 10	WSW	S	SSE	SSE	SSE	SSE	SSE	S	S	SSW	SW	SW	SW	SW	SW	SSW	S	SSE	SE	SE	SE	SE	SE	SE	182	S
Nov 11	SE	SE	SE	SE	SSE	SSE	SSE	SSW	SSW	S	SSW	SW	SW	SW	WSW	WSW	SW	WSW	SW	WSW	WSW	WSW	WSW	WSW	209	SSW
Nov 12	W	SW	SW	WSW	W	W	SW	SW	SW	SW	SW	WSW	WSW	SW	SW	WSW	WSW	WNW	ENE	ENE	ENE	NE	NE	NE	242	WSW
Nov 13	NE	NE	NE	NE	NE	NE	NE	NE	NNE	NNE	NNE	NNE	N	N	NNW	NNW	NW	NW	NW	WNW	W	S	S	SSW	14	NNE
Nov 14	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	WSW	SW	SW	SW	SSW	SSW	SW	SW	SSW	SW	WSW	WSW	219	SW
Nov 15	SW	SW	SW	W	NW	NW	NW	WNW	W	WSW	SW	WSW	W	W	NW	NNW	ESE	SSW	NNW	ESE	SE	SE	SE	SE	262	W
Nov 16	S	SSW	S	SSE	SSE	SSE	S	SSW	SSW	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	SW	SSW	WSW	WSW	WSW	WSW	217	SW
Nov 17	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	WSW	NRM	SW	SW	SW	WSW	W	WSW	WSW	SW	SW	SSW	S	SSW	SSW	SSW	235	SW
Nov 18	SSW	SSW	SSW	S	SSE	S	S	S	S	S	SW	SW	SSW	S	S	S	S	S	SSE	SE	ESE	SE	ESE	SE	185	S
Nov 19	SE	SE	SE	SE	SSE	SE	ESE	ESE	SE	SE	SSW	SW	S	S	SSW	SSW	SSW	SSW	WSW	WSW	WSW	WNW	NW	NW	235	SW
Nov 20	NW	WNW	NW	NW	NW	NW	WNW	NW	WNW	NW	NW	NW	WNW	WNW	NNW	ESE	ENE	ENE	ENE	ENE	E	ENE	E	E	326	NW
Nov 21	E	E	E	E	E	ENE	E	ENE	E	ENE	ESE	W	NNW	NW	NNW	NW	NW	NNW	N	N	N	N	N	NNE	37	NE
Nov 22	NNE	NNE	NNE	NE	NNE	ENE	NE	E	E	SE	E	S	SSE	S	S	SSW	S	SSW	WSW	SSW	SSW	SSW	SSW	S	180	S
Nov 23	SSW	SSW	S	S	SSW	S	S	SSE	SSE	SSE	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	SSW	SSW	SSW	196	SSW
Nov 24	S	S	SSW	S	SSW	SSW	S	S	S	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SW	206	SSW
Nov 25	SSW	SW	WSW	W	NNW	N	N	N	N	N	NNW	NNW	NNW	NNW	SW	SSW	S	S	S	S	S	SSW	SW	WSW	269	W
Nov 26	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSE	S	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	S	213	SSW
Nov 27	S	SSW	S	S	SSW	S	SSW	S	S	SSW	SSW	SW	SW	WSW	WSW	SW	SSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	220	SW
Nov 28	WSW	WSW	WSW	SW	SW	SW	SSW	SSW	SSW	S	S	SSW	SW	SW	WSW	SW	SW	SSW	SW	WSW	W	WSW	NW	NW	231	SW
Nov 29	WSW	W	W	W	WNW	WNW	WNW	WNW	WNW	W	W	WNW	NW	NW	WNW	NW	W	S	SSE	SSW	WSW	SW	WSW	W	286	WNW
Nov 30	SW	SW	S	SE	SE	ESE	ESE	ESE	SE	SE	SE	SSW	S	S	SE	SE	SE	SE	SE	SE	ESE	ESE	ESE	SE	139	SE

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 - November 2023

Summary of Hourly Averages

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

WIND SPEED

Maximum Hourly Value:	27.3	kph	on Nov 19 at hr 19	Hours in Service:	720
Maximum Daily Value:	14.3	kph	on Nov 27	Hours of Data:	719
Minimum Hourly Value:	0.1	kph	on Nov 3 at hr 22	Hours of Missing Data:	1
Minimum Daily Value:	3.4	kph	on Nov 3	Hours of Calibration:	0
Monthly Average:	4.2	kph		Operational Uptime:	99.9

WIND DIRECTION

Monthly Average: 213 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			
Nov 1	1.5	4.3	3.7	3.0	3.7	0.8	3.3	2.8	2.2	3.3	4.9	7.4	6.8	6.2	10.2	7.6	5.9	6.0	6.4	6.1	5.1	3.7	2.1	2.6	0.8	10.2	4.6
	SE	S	S	ESE	ESE	S	ENE	E	ESE	ESE	SSE	SSE	SSE	WSW	WSW	SW	SW	SW	SSW	SW	SW	SW	WSW	WNW			198(SSW)
Nov 2	3.1	1.9	1.9	1.6	1.4	2.0	7.3	7.5	6.3	5.1	6.1	5.8	2.4	2.2	3.1	3.8	3.9	3.8	6.2	8.0	7.0	5.8	6.2	5.5	1.4	8.0	4.5
	WNW	WNW	W	WNW	WSW	W	NNW	NNW	N	N	N	NNE	NE	NE	E	E	ENE	NE	E	E	E	E	E	E			37(NE)
Nov 3	3.9	5.1	5.5	3.6	3.8	3.3	3.6	3.8	3.2	4.9	6.3	6.3	4.4	4.3	5.1	4.8	3.2	2.2	1.3	1.5	0.7	0.3	**0.1**	**0.1**	**0.1**	6.3	**3.4**
	ENE	ENE	E	E	E	E	E	ESE	ESE	S	SW	WSW	SW	SW	WSW	W	WNW	W	W	N	NNE	NNW	SW	SE			178(S)
Nov 4	0.7	0.7	2.2	2.6	3.4	5.9	7.1	7.6	7.7	6.1	6.4	8.2	8.5	8.2	9.0	10.5	9.8	9.7	9.7	9.5	8.4	7.2	6.7	5.5	0.7	10.5	6.7
	ENE	ENE	NE	ENE	E	E	E	E	E	E	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	ENE	ENE	ENE			76(ENE)
Nov 5	4.7	6.5	7.0	5.0	4.6	5.4	4.3	3.8	3.4	4.0	3.5	3.2	2.5	2.5	3.5	5.7	7.1	6.2	4.4	4.8	6.7	5.2	4.4	3.2	2.5	7.1	4.7
	ENE	E	E	ENE	ENE	E	E	E	E	E	E	ENE	E	ESE	SE	SSE	SSE	SE	SE	SE	SE	SE	SE	ESE			109(ESE)
Nov 6	2.0	1.7	0.8	2.2	3.8	5.8	3.9	5.8	5.5	6.2	4.7	5.5	7.5	5.7	4.4	6.1	4.4	4.2	3.4	3.4	2.9	3.0	3.0	3.8	0.8	7.5	4.2
	E	NW	ENE	E	SE	SE	SSW	S	S	S	SSW	SW	WSW	WSW	WNW	NW	N	NNE	NNE	NNE	NE	NNE	NE	NE			226(SW)
Nov 7	3.0	3.4	3.8	1.3	3.4	4.3	3.2	3.6	6.1	7.9	9.9	10.1	11.0	13.7	12.5	14.1	16.8	19.4	19.0	23.5	20.3	13.7	13.4	6.6	1.3	23.5	10.2
	E	ENE	ENE	ENE	SSE	SE	SE	SE	SE	S	S	SSE	SSW	SW	WSW	SW	WSW	WSW	WSW	WNW	W	W	WNW	WSW			238(SW)
Nov 8	10.8	10.9	9.6	7.1	8.7	7.6	10.6	6.4	5.3	8.2	9.5	10.8	10.2	8.6	8.3	6.2	7.8	6.3	4.7	2.0	3.9	3.2	2.9	2.1	2.0	10.9	7.2
	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	W	WSW	WSW	SW	SW	SW	SW	SW	SSW	SE	SE	SE	SE			239(WSW)
Nov 9	1.0	1.2	4.2	5.0	5.3	5.8	5.5	7.3	10.4	11.8	10.2	11.6	13.8	15.5	13.8	14.1	7.7	7.1	9.1	12.3	14.9	14.4	10.3	8.4	1.0	15.5	9.2
	SSE	SSE	ESE	SE	SE	SE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SSE			146(SE)
Nov 10	1.2	4.0	11.3	12.8	11.0	10.5	11.9	13.2	12.2	15.9	17.5	18.0	17.6	17.2	13.3	14.0	13.4	10.7	10.5	11.7	11.7	11.5	11.3	12.6	1.2	18.0	12.3
	WSW	S	SSE	SSE	SSE	SSE	SSE	S	S	SSW	SW	SW	SW	SW	SW	SSW	S	SSE	SE	SE	SE	SE	SE	SE			182(S)
Nov 11	15.0	12.9	12.9	11.6	15.4	11.6	16.3	9.0	7.6	8.9	12.1	12.5	16.4	15.3	12.9	12.2	10.3	10.6	9.6	11.6	11.7	14.2	16.4	12.1	7.6	16.4	12.5
	SE	SE	SE	SE	SSE	SSE	SSE	SSW	SSW	S	SSW	SW	SW	SW	WSW	WSW	SW	WSW	SW	WSW	WSW	WSW	WSW	WSW			209(SSW)
Nov 12	9.1	8.8	11.7	9.6	9.1	8.3	6.5	9.6	9.6	10.3	11.3	14.7	13.2	11.5	14.8	11.3	5.3	0.2	2.0	3.5	3.8	4.6	4.7	4.9	0.2	14.8	8.3
	W	SW	SW	WSW	W	W	SW	SW	SW	SW	SW	WSW	WSW	SW	SW	WSW	WSW	WNW	ENE	ENE	ENE	NE	NE	NE			242(WSW)
Nov 13	5.3	5.9	6.3	8.2	8.5	9.8	13.9	13.5	12.1	12.7	10.5	10.5	8.3	8.4	7.5	6.7	7.3	8.2	7.7	7.4	6.0	3.3	7.6	10.6	3.3	13.9	8.6
	NE	NE	NE	NE	NE	NE	NE	NE	NNE	NNE	NNE	NNE	N	N	NNW	NNW	NW	NW	NW	WNW	W	S	S	SSW			14(NNE)
Nov 14	12.5	8.5	12.3	14.1	15.2	13.2	12.1	13.7	14.6	15.3	12.5	15.8	17.0	14.7	12.4	11.0	11.3	12.4	13.7	13.7	12.3	14.8	17.8	15.2	8.5	17.8	13.6
	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	WSW	SW	SW	SW	SSW	SSW	SW	SW	SSW	SW	WSW	WSW			219(SW)
Nov 15	15.3	10.8	13.0	19.8	16.7	12.8	7.1	2.8	1.2	2.5	1.5	1.9	6.1	5.0	4.4	3.8	0.8	1.1	0.8	1.2	2.0	2.9	3.9	7.3	0.8	19.8	6.0
	SW	SW	SW	W	NW	NW	NW	WNW	W	WSW	SW	WSW	W	W	NW	NNW	ESE	SSW	NNW	ESE	SE	SE	SE	SE			262(W)
Nov 16	6.4	10.7	10.8	7.9	6.8	8.8	12.7	17.2	18.7	17.6	20.2	18.5	18.5	17.5	17.6	19.2	19.0	14.8	13.0	8.5	9.7	13.6	14.7	12.6	6.4	20.2	14.0
	S	SSW	S	SSE	SSE	SSE	S	SSW	SSW	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	SW	SSW	WSW	WSW	WSW	WSW			217(SW)
Nov 17	12.5	10.9	12.8	9.8	7.6	10.4	17.6	14.8	10.9	**NRM**	11.5	10.0	11.4	13.9	8.0	10.8	10.3	5.3	9.1	7.8	6.6	8.2	17.0	14.6	5.3	17.6	10.9
	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	WSW	**NRM**	SW	SW	SW	WSW	W	WSW	WSW	SW	SW	SSW	S	SSW	SSW	SSW			235(SW)
Nov 18	13.8	14.0	9.8	9.4	10.5	14.3	12.2	7.2	12.1	15.4	12.3	8.5	9.3	6.7	8.0	10.6	9.1	7.3	4.0	3.1	3.5	2.4	2.6	2.2	2.2	15.4	8.7
	SSW	SSW	SSW	S	SSE	S	S	S	S	S	SW	SW	SSW	S	S	S	S	S	SSE	SE	ESE	SE	ESE	SE			185(S)
Nov 19	4.0	1.9	4.4	4.4	5.2	2.5	4.6	3.5	1.8	3.8	3.2	6.6	6.1	10.5	11.0	11.6	12.4	14.8	23.3	**27.3**	26.5	24.8	21.9	15.0	1.8	**27.3**	10.5
	SE	SE	SE	SE	SSE	SE	ESE	ESE	SE	SE	SSW	SW	S	S	SSW	SSW	SSW	SSW	WSW	WSW	WSW	WNW	NW	NW			235(SW)
Nov 20	15.1	19.0	23.1	13.6	13.3	13.1	10.9	8.0	7.5	6.6	8.2	5.3	3.4	3.3	0.3	1.8	2.1	3.2	5.7	5.8	7.9	7.8	8.9	9.0	0.3	23.1	8.5
	NW	WNW	NW	NW	NW	NW	WNW	NW	WNW	NW	NW	NW	WNW	WNW	NNW	ESE	ENE	ENE	ENE	ENE	E	ENE	E	E			326(NW)
Nov 21	10.3	12.3	13.3	13.3	12.0	8.1	8.5	4.9	2.9	2.0	1.9	1.8	5.1	2.1	6.6	6.6	6.0	9.4	8.8	9.9	11.1	8.5	7.3	7.1	1.8	13.3	7.5
	E	E	E	E	E	ENE	E	ENE	E	ENE	ESE	W	NNW	NW	NNW	NW	NW	NNW	N	N	N	N	N	NNE			37(NE)
Nov 22	6.5	6.0	6.6	3.5	4.8	4.5	1.9	3.1	1.7	2.2	3.5	3.5	4.9	4.3	3.9	4.9	5.9	5.5	4.2	6.1	9.7	11.6	9.8	11.3	1.7	11.6	5.4
	NNE	NNE	NNE	NE	NNE	ENE	NE	E	E	SE	E	S	SSE	S	S	SSW	S	SSW	WSW	SSW	SSW	SSW	SSW	S			180(S)
Nov 23	9.9	6.8	6.9	8.0	7.9	6.1	6.2	6.3	6.7	6.8	10.1	11.3	12.7	14.6	15.4	13.4	12.6	13.8	15.1	16.3	14.6	16.3	16.1	17.2	6.1	17.2	11.3
	SSW	SSW	S	S	SSW	S	S	SSE	SSE	SSE	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	SSW	SSW	SSW			196(SSW)
Nov 24	17.1	15.9	15.4	14.6	15.3	14.0	11.1	9.5	10.0	10.1	9.9	9.8	12.0	10.8	10.5	8.5	7.5	7.7	6.7	7.6	8.4	7.8	7.1	10.3	6.7	17.1	10.7
	S	S	SSW	S	SSW	SSW	S	S	S	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SW			206(SSW)
Nov 25	8.3	5.6	4.8	2.6	6.5	11.0	10.0	8.5	7.9	8.2	8.7	8.5	8.7	5.9	2.3	5.7	6.7	7.2	8.8	8.4	9.1	12.0	9.3	8.6	2.3	12.0	7.6
	SSW	SW	WSW	W	NNW	N	N	N	N	N	NNW	NNW	NNW	NNW	SW	SSW	S	S	S	S	S	SSW	SW	WSW			269(W)
Nov 26	7.4	6.2	6.2	5.5	3.2	3.1	0.9	0.8	0.8	1.9	3.0	5.4	6.8	7.2	7.4	4.9	7.9	9.6	8.9	8.1	8.6	9.2	9.4	9.4	0.8	9.6	5.9
	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSE	S	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	S			213(SSW)
Nov 27	11.6	13.2	11.0	11.6	12.3	12.9	15.4	16.1	14.1	18.1	18.0	15.1	18.3	15.9	13.8	14.2	9.6	10.5	14.0	15.2	16.0	16.6	14.3	14.5	9.6	18.3	**14.3**
	S	SSW	S	S	SSW	S	SSW	S	S	SSW	SSW	SW	SW	WSW	WSW	SW	SSW	SW	WSW	WSW	WSW	WSW	WSW	WSW			220(SW)
Nov 28	13.4	13.1	13.3	13.0	11.3	11.2	10.9	11.8	10.6	10.3	9.7	10.6	10.3	11.1	13.0	7.7	6.2	8.0	7.1	3.3	3.6	2.8	9.0	10.1	2.8	13.4	9.6
	WSW	WSW	WSW	SW	SW	SW	SSW	SSW	SSW	S	S	SSW	SW	SW	WSW	SW	SW	SSW	SW	WSW	W	WSW	NW	NW			231(SW)
Nov 29	4.1	8.8	7.7	9.6	11.7	13.4	14.1	11.6	13.4	10.6	8.9	10.5	10.6	10.5	7.7	4.0	2.5	2.0	2.0	1.3	1.6	1.5	1.1	1.1	1.1	14.1	7.1
	WSW	W	W	W	WNW	WNW	WNW	WNW	WNW	W	W	WNW	NW	NW	WNW	NW	W	S	SSE	SSW	WSW	SW	WSW	W			286(WNW)
Nov 30	0.7	1.0	**0.1**	2.0	2.8	2.6	3.5	3.3	5.5	4.4	4.0	6.1	6.4	6.2	4.3	5.7	4.0	3.7	7.1	7.6	5.6	8.1	4.0	5.4	**0.1**	8.1	4.3
	SW	SW	S	SE	SE	ESE	ESE	ESE	SE	SE	SE	SSW	S	S	SE	SE	SE	SE	SE	SE	ESE	ESE	ESE	SE			139(SE)

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 - November 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

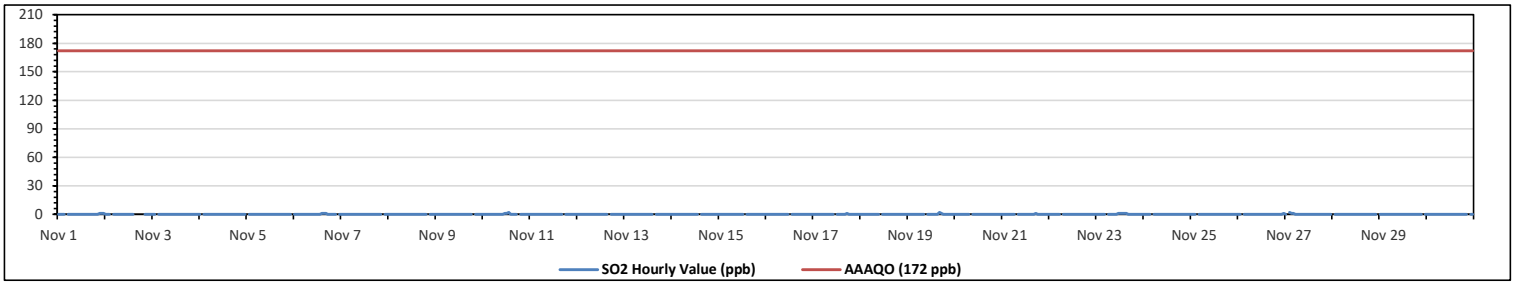
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

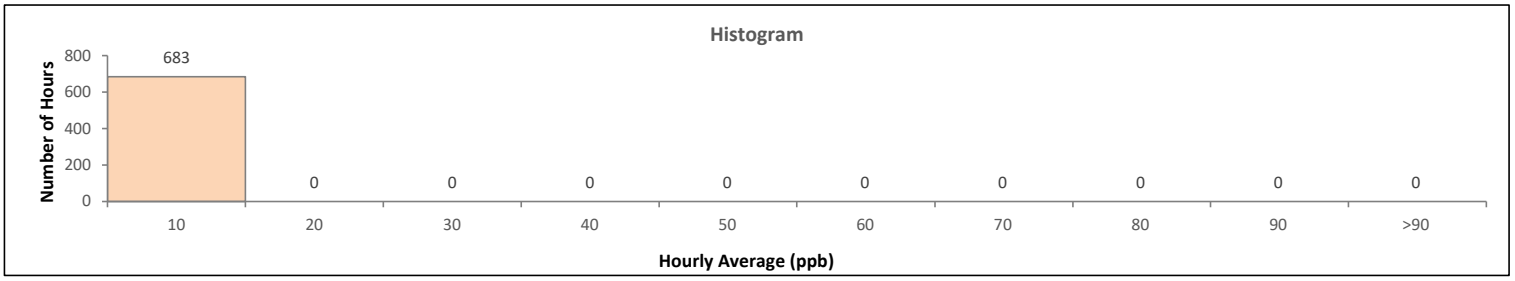
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0	
Maximum Hourly Value:	2	ppb	on Nov 10 at hr 13	Hours in Service:	720	
Maximum Daily Value:	0.2	ppb	on Nov 23	Hours of Data:	683	
Minimum Hourly Value:	0	ppb	on Nov 1 at hr 0	Hours of Missing Data:	0	
Minimum Daily Value:	0.0	ppb	on Nov 2	Hours of Calibration:	37	
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			
Nov 1	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0.1
Nov 2	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0.0
Nov 3	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
Nov 4	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
Nov 5	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
Nov 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	S	0	0	1	0.1
Nov 7	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
Nov 8	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
Nov 9	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
Nov 10	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	S	0	0	0	0	0	0	2	0.2
Nov 11	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
Nov 12	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
Nov 13	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
Nov 14	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
Nov 15	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
Nov 16	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
Nov 17	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.0
Nov 18	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
Nov 19	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	2	0.1
Nov 20	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
Nov 21	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
Nov 22	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
Nov 23	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
Nov 24	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
Nov 25	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
Nov 26	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.0
Nov 27	0	S	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2
Nov 28	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
Nov 29	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
Nov 30	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
Diurnal Maximum	0	0	2	1	1	0	0	0	0	0	1	1	2	1	1	2	1	0	0	0	0	1	1	1			
Diurnal Average	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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.



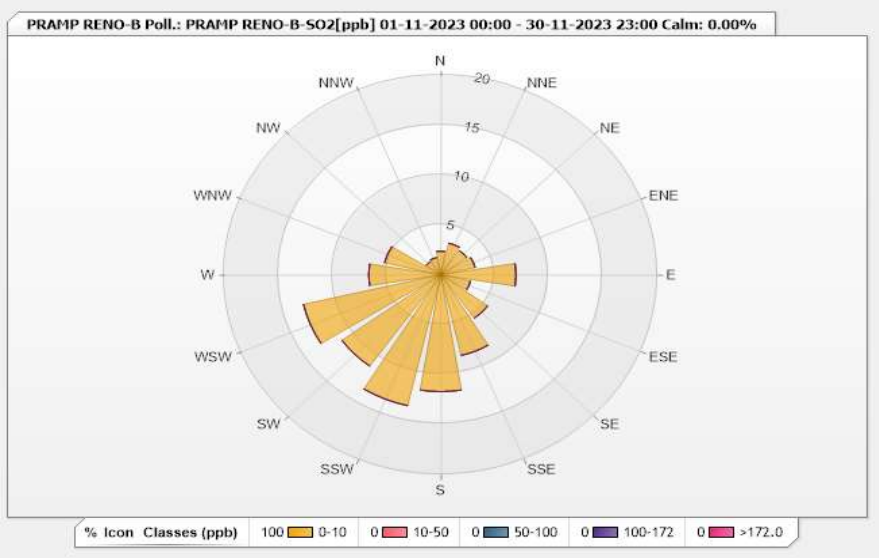


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-SO2[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 93.89% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	2.37	0	0	0	0	2.37
NNE	3.25	0	0	0	0	3.25
NE	2.96	0	0	0	0	2.96
ENE	3.25	0	0	0	0	3.25
E	6.95	0	0	0	0	6.95
ESE	2.81	0	0	0	0	2.81
SE	5.33	0	0	0	0	5.33
SSE	8.28	0	0	0	0	8.28
S	11.69	0	0	0	0	11.69
SSW	13.46	0	0	0	0	13.46
SW	11.24	0	0	0	0	11.24
WSW	13.02	0	0	0	0	13.02
W	6.66	0	0	0	0	6.66
WNW	5.33	0	0	0	0	5.33
NW	1.63	0	0	0	0	1.63
NNW	1.78	0	0	0	0	1.78
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - November 2023

Summary of Hourly Averages

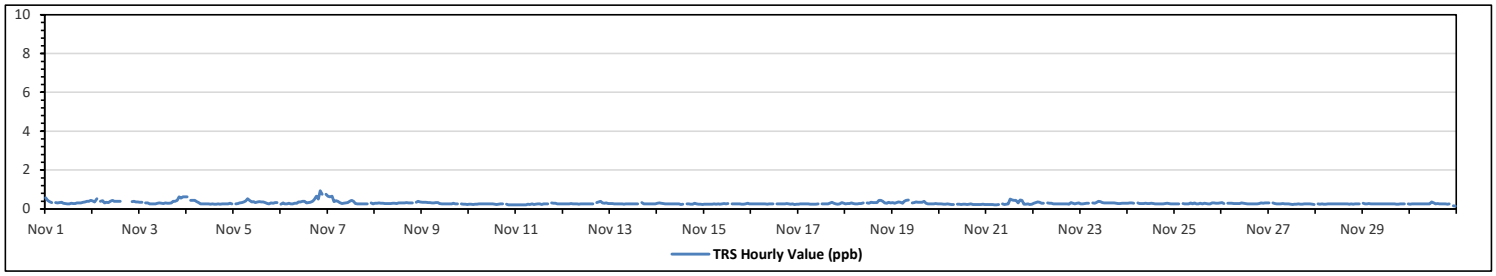
TOTAL REDUCED SULPHUR (TRS) in ppb

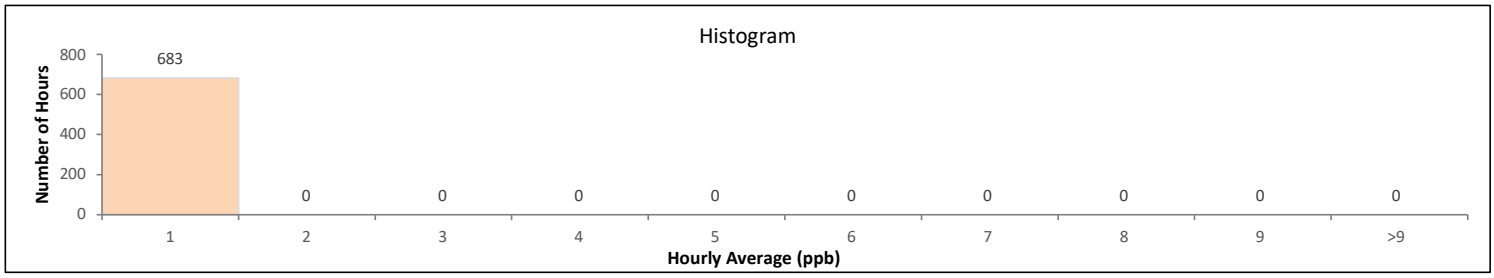
Maximum Hourly Value:	0.94	ppb	on Nov 6 at hr 20	Hours in Service:	720	
Maximum Daily Value:	0.41	ppb	on Nov 6	Hours of Data:	683	
Minimum Hourly Value:	0.14	ppb	on Nov 30 at hr 23	Hours of Missing Data:	0	
Minimum Daily Value:	0.24	ppb	on Nov 20	Hours of Calibration:	37	
Monthly Average:	0.29	ppb		Operational 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			
Nov 1	0.56	0.45	0.37	0.33	S	0.33	0.31	0.32	0.34	0.29	0.28	0.26	0.27	0.29	0.28	0.28	0.31	0.3	0.31	0.34	0.35	0.4	0.38	0.43	0.26	0.56	0.34
Nov 2	0.41	0.36	0.52	S	0.4	0.42	0.31	0.34	0.32	0.38	0.43	0.38	0.38	0.4	0.4	C	C	C	C	C	0.37	0.4	0.35	0.36	0.31	0.52	0.39
Nov 3	0.34	0.34	S	0.31	0.3	0.27	0.27	0.26	0.27	0.29	0.3	0.29	0.28	0.3	0.29	0.29	0.31	0.4	0.38	0.45	0.63	0.55	0.63	0.63	0.26	0.63	0.36
Nov 4	0.62	S	0.43	0.45	0.43	0.37	0.33	0.27	0.25	0.26	0.26	0.25	0.24	0.25	0.24	0.24	0.25	0.24	0.25	0.25	0.25	0.27	0.29	0.27	0.24	0.62	0.30
Nov 5	S	0.27	0.28	0.3	0.32	0.35	0.41	0.52	0.45	0.36	0.37	0.32	0.35	0.37	0.36	0.35	0.33	0.28	0.27	0.3	0.29	0.32	0.32	S	0.27	0.52	0.34
Nov 6	0.24	0.3	0.27	0.25	0.29	0.25	0.27	0.29	0.29	0.35	0.36	0.4	0.39	0.31	0.32	0.34	0.38	0.47	0.66	0.51	**0.94**	0.74	S	0.75	0.24	**0.94**	**0.41**
Nov 7	0.66	0.62	0.65	0.37	0.42	0.38	0.33	0.28	0.29	0.3	0.32	0.38	0.45	0.4	0.28	0.25	0.25	0.25	0.26	0.26	0.27	S	0.3	0.27	0.25	0.66	0.36
Nov 8	0.29	0.29	0.3	0.29	0.29	0.28	0.28	0.28	0.28	0.29	0.29	0.28	0.3	0.3	0.3	0.3	0.32	0.31	0.31	0.31	S	0.34	0.38	0.35	0.28	0.38	0.30
Nov 9	0.34	0.34	0.34	0.33	0.33	0.31	0.31	0.32	0.33	0.28	0.27	0.26	0.27	0.26	0.26	0.27	0.29	0.27	0.26	S	0.25	0.24	0.24	0.23	0.23	0.34	0.29
Nov 10	0.24	0.24	0.23	0.24	0.24	0.26	0.25	0.26	0.27	0.26	0.26	0.25	0.26	0.24	0.23	0.24	0.26	0.27	S	0.24	0.22	0.22	0.21	0.21	0.21	0.27	0.24
Nov 11	0.21	0.2	0.2	0.21	0.2	0.21	0.24	0.23	0.25	0.23	0.24	0.27	0.26	0.23	0.25	0.27	0.26	S	0.3	0.29	0.29	0.26	0.27	0.26	0.20	0.30	0.24
Nov 12	0.26	0.25	0.27	0.27	0.28	0.27	0.25	0.26	0.24	0.26	0.26	0.26	0.25	0.25	0.26	0.26	S	0.32	0.36	0.38	0.3	0.29	0.3	0.28	0.24	0.38	0.28
Nov 13	0.28	0.28	0.27	0.25	0.25	0.26	0.26	0.24	0.25	0.26	0.26	0.26	0.26	0.25	0.25	S	0.33	0.27	0.26	0.26	0.25	0.27	0.27	0.27	0.24	0.33	0.26
Nov 14	0.29	0.3	0.29	0.28	0.27	0.27	0.25	0.25	0.25	0.25	0.25	0.25	0.23	0.24	S	0.27	0.26	0.24	0.24	0.29	0.25	0.24	0.24	0.23	0.23	0.30	0.26
Nov 15	0.24	0.24	0.24	0.24	0.24	0.26	0.24	0.25	0.24	0.26	0.28	0.27	0.28	S	0.26	0.25	0.27	0.27	0.25	0.24	0.24	0.26	0.29	0.26	0.24	0.29	0.26
Nov 16	0.26	0.26	0.27	0.25	0.25	0.26	0.25	0.25	0.24	0.25	0.26	0.25	S	0.27	0.26	0.25	0.25	0.26	0.28	0.26	0.24	0.25	0.23	0.24	0.23	0.28	0.25
Nov 17	0.24	0.25	0.25	0.25	0.25	0.25	0.24	0.24	0.24	0.24	0.25	S	0.26	0.25	0.25	0.26	0.29	0.34	0.29	0.25	0.24	0.26	0.32	0.29	0.24	0.34	0.26
Nov 18	0.27	0.28	0.28	0.3	0.28	0.26	0.27	0.28	0.28	0.3	S	0.31	0.29	0.34	0.33	0.32	0.32	0.44	0.44	0.39	0.3	0.29	0.34	0.31	0.26	0.44	0.31
Nov 19	0.33	0.29	0.32	0.36	0.34	0.29	0.4	0.45	0.46	S	0.31	0.32	0.36	0.34	0.34	0.34	0.38	0.29	0.26	0.27	0.26	0.27	0.28	0.25	0.25	0.46	0.33
Nov 20	0.26	0.26	0.24	0.24	0.25	0.24	0.23	0.23	S	0.24	0.24	0.23	0.24	0.24	0.23	0.24	0.27	0.23	0.23	0.23	0.23	0.23	0.24	0.23	0.23	0.27	0.24
Nov 21	0.23	0.23	0.23	0.23	0.22	0.22	0.23	S	0.25	0.23	0.24	0.26	0.5	0.46	0.43	0.44	0.3	0.46	0.45	0.24	0.24	0.25	0.23	0.24	0.22	0.50	0.30
Nov 22	0.29	0.33	0.36	0.34	0.29	0.29	S	0.3	0.29	0.29	0.27	0.26	0.26	0.26	0.25	0.25	0.26	0.25	0.24	0.32	0.29	0.25	0.29	0.3	0.24	0.36	0.28
Nov 23	0.27	0.27	0.28	0.29	0.29	S	0.3	0.29	0.32	0.38	0.37	0.33	0.3	0.31	0.3	0.31	0.31	0.31	0.29	0.28	0.28	0.29	0.29	0.29	0.27	0.38	0.30
Nov 24	0.29	0.31	0.3	0.29	S	0.3	0.28	0.28	0.28	0.29	0.28	0.28	0.29	0.28	0.27	0.27	0.27	0.27	0.27	0.28	0.29	0.28	0.26	0.27	0.26	0.31	0.28
Nov 25	0.27	0.27	0.26	S	0.28	0.26	0.26	0.26	0.3	0.27	0.3	0.26	0.27	0.29	0.27	0.29	0.28	0.27	0.27	0.31	0.3	0.29	0.29	0.31	0.26	0.31	0.28
Nov 26	0.32	0.28	S	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.3	0.29	0.28	0.27	0.27	0.26	0.27	0.27	0.26	0.28	0.31	0.29	0.3	0.31	0.26	0.32	0.28
Nov 27	0.3	S	0.3	0.28	0.27	0.27	0.27	0.28	0.27	0.26	0.25	0.24	0.23	0.24	0.24	0.25	0.24	0.24	0.25	0.25	0.25	0.25	0.24	0.23	0.23	0.30	0.26
Nov 28	S	0.26	0.24	0.25	0.24	0.24	0.26	0.26	0.27	0.27	0.25	0.25	0.27	0.26	0.25	0.25	0.25	0.24	0.25	0.24	0.25	0.26	0.27	S	0.24	0.27	0.25
Nov 29	0.29	0.27	0.27	0.28	0.27	0.27	0.27	0.26	0.26	0.25	0.25	0.25	0.26	0.26	0.25	0.25	0.25	0.24	0.24	0.27	0.26	0.26	S	0.25	0.24	0.29	0.26
Nov 30	0.24	0.26	0.26	0.25	0.26	0.25	0.27	0.25	0.26	0.26	0.26	0.35	0.3	0.26	0.28	0.27	0.27	0.26	0.25	0.24	0.26	S	0.16	0.14	0.14	0.35	0.25
Diurnal Maximum	0.66	0.62	0.65	0.45	0.43	0.42	0.41	0.52	0.46	0.38	0.43	0.40	0.50	0.46	0.43	0.44	0.38	0.47	0.66	0.51	0.94	0.74	0.63	0.75			
Diurnal Average	0.32	0.30	0.30	0.29	0.29	0.28	0.28	0.29	0.29	0.28	0.28	0.28	0.30	0.29	0.28	0.28	0.29	0.30	0.30	0.29	0.31	0.30	0.29	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.



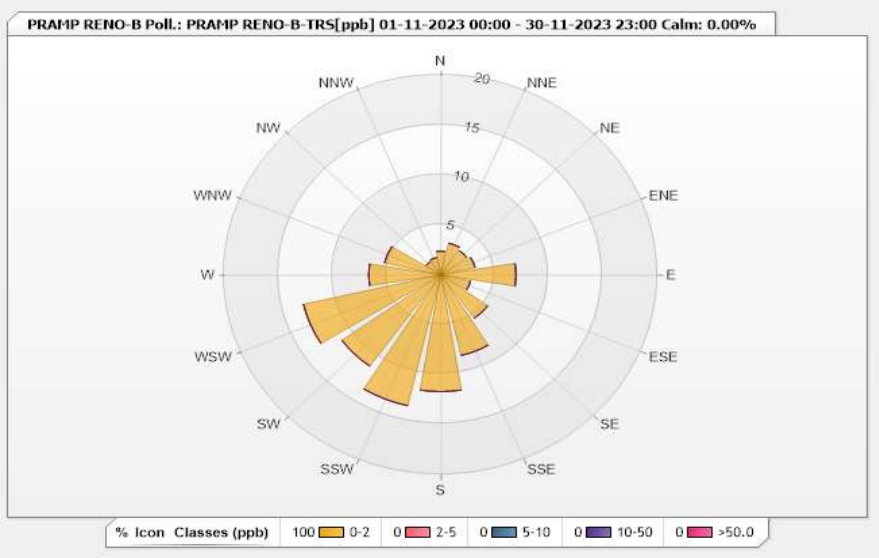


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-TRS[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 93.89% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	2.37	0	0	0	0	2.37
NNE	3.25	0	0	0	0	3.25
NE	2.96	0	0	0	0	2.96
ENE	3.25	0	0	0	0	3.25
E	6.95	0	0	0	0	6.95
ESE	2.81	0	0	0	0	2.81
SE	5.33	0	0	0	0	5.33
SSE	8.28	0	0	0	0	8.28
S	11.69	0	0	0	0	11.69
SSW	13.46	0	0	0	0	13.46
SW	11.24	0	0	0	0	11.24
WSW	13.02	0	0	0	0	13.02
W	6.66	0	0	0	0	6.66
WNW	5.33	0	0	0	0	5.33
NW	1.63	0	0	0	0	1.63
NNW	1.78	0	0	0	0	1.78
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - November 2023

Summary of Hourly Averages

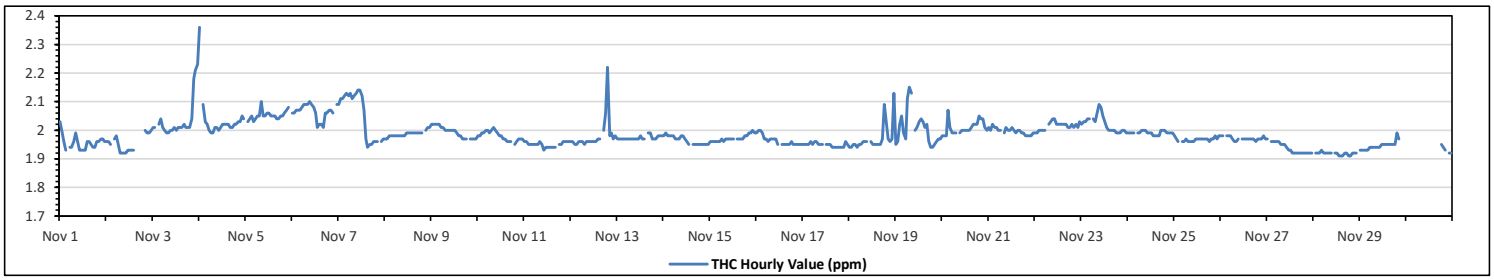
TOTAL HYDROCARBONS (THC) in ppm

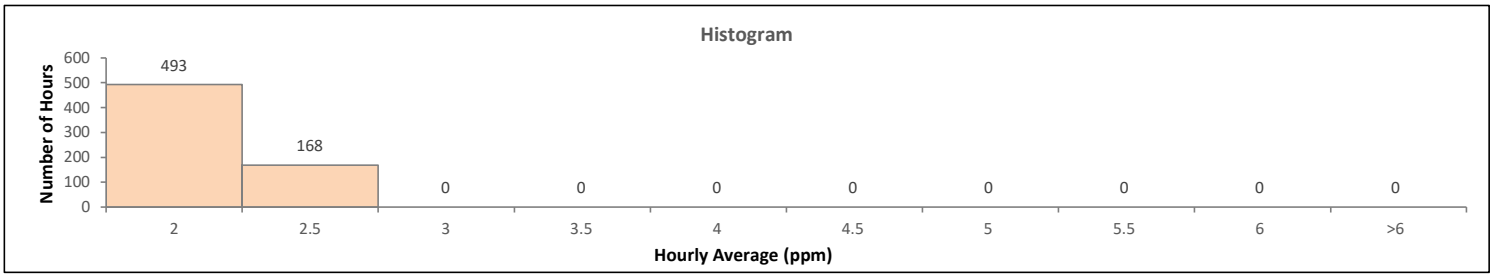
Maximum Hourly Value:	2.36	ppm	on Nov 4 at hr 0	Hours in Service:	720	
Maximum Daily Value:	2.06	ppm	on Nov 6	Hours of Data:	661	
Minimum Hourly Value:	1.91	ppm	on Nov 28 at hr 13	Hours of Missing Data:	23	
Minimum Daily Value:	1.92	ppm	on Nov 28	Hours of Calibration:	36	
Monthly Average:	1.99	ppm		Operational Uptime:	96.8	

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			
Nov 1	2.03	1.99	1.96	1.93	S	1.94	1.94	1.96	1.99	1.96	1.93	1.93	1.93	1.93	1.96	1.96	1.95	1.94	1.94	1.96	1.96	1.97	1.97	1.96	1.93	2.03	1.96
Nov 2	1.96	1.96	1.95	S	1.97	1.98	1.95	1.92	1.92	1.92	1.92	1.93	1.93	1.93	1.93	C	C	C	C	C	2.00	1.99	1.99	2.00	1.92	2.00	1.95
Nov 3	2.01	2.01	S	2.02	2.04	2.01	2.00	1.99	1.99	2.00	2.00	2.01	2.00	2.01	2.01	2.01	2.02	2.01	2.01	2.01	2.04	2.18	2.21	2.23	1.99	2.23	2.04
Nov 4	**2.36**	S	2.09	2.03	2.02	2.00	1.99	1.99	2.01	2.01	2.00	2.01	2.02	2.02	2.02	2.02	2.01	2.01	2.02	2.02	2.03	2.03	2.05	2.04	1.99	**2.36**	2.03
Nov 5	S	2.03	2.04	2.05	2.03	2.04	2.05	2.05	2.10	2.05	2.05	2.06	2.06	2.05	2.05	2.05	2.04	2.04	2.05	2.05	2.06	2.07	2.08	S	2.03	2.10	2.05
Nov 6	2.06	2.06	2.07	2.07	2.07	2.08	2.09	2.09	2.09	2.10	2.09	2.08	2.06	2.01	2.02	2.02	2.01	2.06	2.06	2.07	2.07	2.06	S	2.09	2.01	2.10	**2.06**
Nov 7	2.09	2.11	2.11	2.12	2.13	2.12	2.13	2.11	2.12	2.13	2.14	2.14	2.12	2.07	1.97	1.94	1.95	1.95	1.96	1.96	1.96	S	1.96	1.97	1.94	2.14	2.05
Nov 8	1.97	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	S	2.00	2.01	2.01	1.97	2.01	1.99
Nov 9	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.00	2.00	2.00	2.00	2.00	2.00	1.99	1.98	1.98	1.97	1.97	1.97	S	1.97	1.97	1.97	1.97	1.97	2.02	1.99
Nov 10	1.98	1.98	1.99	1.99	2.00	2.00	1.99	2.00	2.01	2.00	1.99	1.98	1.98	1.97	1.97	1.96	1.96	1.96	S	1.95	1.96	1.97	1.97	1.97	1.95	2.01	1.98
Nov 11	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.95	1.96	1.95	1.93	1.94	1.94	1.94	1.94	1.94	1.94	S	1.95	1.95	1.96	1.96	1.96	1.96	1.93	1.96	1.95
Nov 12	1.96	1.96	1.95	1.95	1.96	1.96	1.96	1.95	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	S	2.00	2.06	2.22	1.98	1.99	1.97	1.98	1.95	2.22	1.98
Nov 13	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.97	1.97	S	1.99	1.99	1.97	1.97	1.97	1.98	1.98	1.98	1.97	1.99	1.97
Nov 14	1.98	1.99	1.98	1.98	1.98	1.98	1.97	1.97	1.97	1.98	1.98	1.97	1.96	1.95	S	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.99	1.96
Nov 15	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.96	1.97	1.97	1.97	1.97	1.97	S	1.97	1.97	1.97	1.97	1.98	1.98	1.99	1.99	2.00	1.99	1.96	2.00	1.97
Nov 16	1.99	2.00	2.00	1.99	1.97	1.97	1.96	1.97	1.97	1.97	1.97	1.95	S	1.95	1.95	1.95	1.95	1.95	1.96	1.95	1.95	1.95	1.95	1.95	1.95	2.00	1.96
Nov 17	1.95	1.95	1.95	1.95	1.96	1.95	1.96	1.96	1.95	1.95	1.95	S	1.95	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.96	1.95	1.94	1.96	1.95
Nov 18	1.94	1.94	1.95	1.95	1.94	1.95	1.95	1.96	1.96	1.96	S	1.96	1.95	1.95	1.95	1.95	1.95	1.97	2.09	2.03	1.97	1.96	1.97	2.13	1.94	2.13	1.97
Nov 19	1.95	1.96	2.02	2.05	1.99	1.97	2.11	2.15	2.13	S	2.00	2.01	2.03	2.04	2.03	2.01	2.02	1.96	1.94	1.94	1.95	1.96	1.97	1.97	1.94	2.15	2.01
Nov 20	1.98	1.98	1.98	2.07	2.01	1.99	1.99	1.99	S	1.99	2.00	2.00	2.00	2.00	2.00	2.01	2.02	2.02	2.02	2.05	2.04	2.04	2.01	2.00	1.98	2.07	2.01
Nov 21	2.01	2.00	2.02	2.01	2.01	2.00	2.00	S	1.99	2.01	2.00	2.00	2.01	2.00	1.99	2.00	2.00	1.99	1.99	1.98	1.98	1.98	1.98	1.99	1.98	2.02	2.00
Nov 22	1.99	1.99	2.00	2.00	2.00	2.00	S	2.02	2.03	2.04	2.04	2.02	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.02	2.01	2.02	2.01	2.03	1.99	2.04	2.01
Nov 23	2.02	2.03	2.03	2.04	2.04	S	2.04	2.03	2.06	2.09	2.08	2.05	2.03	2.01	2.00	2.00	2.00	2.00	1.99	1.99	1.99	2.00	2.00	1.99	1.99	2.09	2.02
Nov 24	1.99	1.99	1.99	1.99	S	1.99	1.99	2.00	2.00	2.00	1.99	1.99	1.99	1.98	1.98	1.98	1.98	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.98	2.00	1.99
Nov 25	1.98	1.97	1.96	S	1.96	1.96	1.97	1.96	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.97	1.97	1.98	1.97	1.98	1.96	1.98	1.97
Nov 26	1.98	1.98	S	1.98	1.98	1.98	1.97	1.96	1.96	1.97	K	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.97	1.97	1.97	1.98	1.97	1.96	1.98	1.97
Nov 27	1.97	S	1.96	1.96	1.96	1.96	1.96	1.95	1.95	1.95	1.94	1.93	1.93	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.97	1.94
Nov 28	S	1.92	1.92	1.92	1.93	1.92	1.92	1.92	1.92	1.92	K	1.92	1.92	1.91	1.91	1.91	1.92	1.92	1.91	1.91	1.92	1.92	1.92	S	1.91	1.93	1.92
Nov 29	1.93	1.93	1.93	1.93	1.93	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.99	1.97	X	X	X	1.93	1.99	1.95
Nov 30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NRM	1.95	1.94	1.93	S	1.92	1.92	1.92	1.95	NA
Diurnal Maximum	2.36	2.11	2.11	2.12	2.13	2.12	2.13	2.15	2.13	2.13	2.14	2.14	2.12	2.07	2.05	2.05	2.04	2.06	2.09	2.22	2.07	2.18	2.21	2.23			
Diurnal Average	2.00	1.99	1.99	1.99	1.99	1.98	1.99	1.99	2.00	1.99	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.98	1.99	1.99	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.



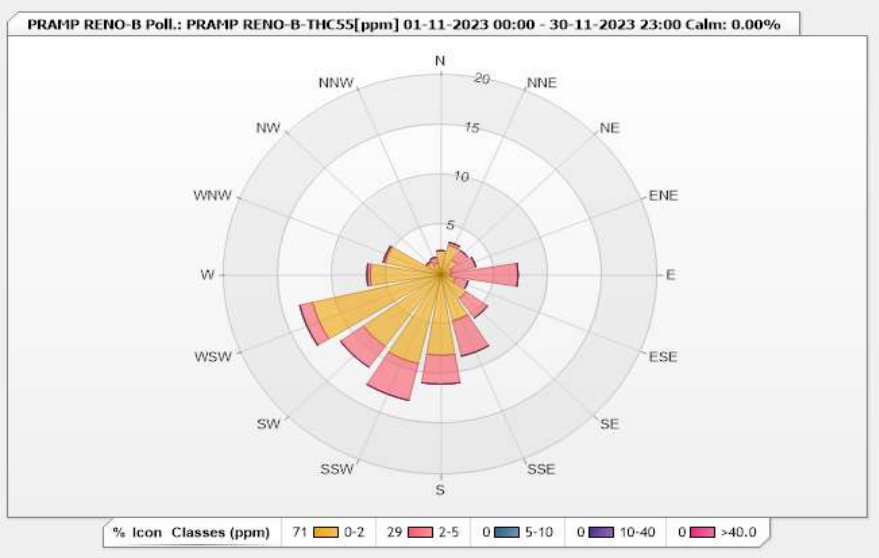


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-THC55[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.39% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	2.43	0	0	0	0	2.43
NNE	3.04	0.3	0	0	0	3.34
NE	1.82	1.22	0	0	0	3.04
ENE	1.06	2.28	0	0	0	3.34
E	0.91	6.23	0	0	0	7.14
ESE	1.37	1.22	0	0	0	2.59
SE	2.89	2.43	0	0	0	5.32
SSE	4.71	3.65	0	0	0	8.36
S	8.05	2.89	0	0	0	10.94
SSW	9.12	3.8	0	0	0	12.92
SW	8.81	2.58	0	0	0	11.39
WSW	12.16	1.22	0	0	0	13.38
W	6.53	0.3	0	0	0	6.83
WNW	5.32	0.15	0	0	0	5.47
NW	1.52	0.15	0	0	0	1.67
NNW	1.22	0.61	0	0	0	1.83
Summary	70.96	29.03	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - November 2023

Summary of Hourly Averages

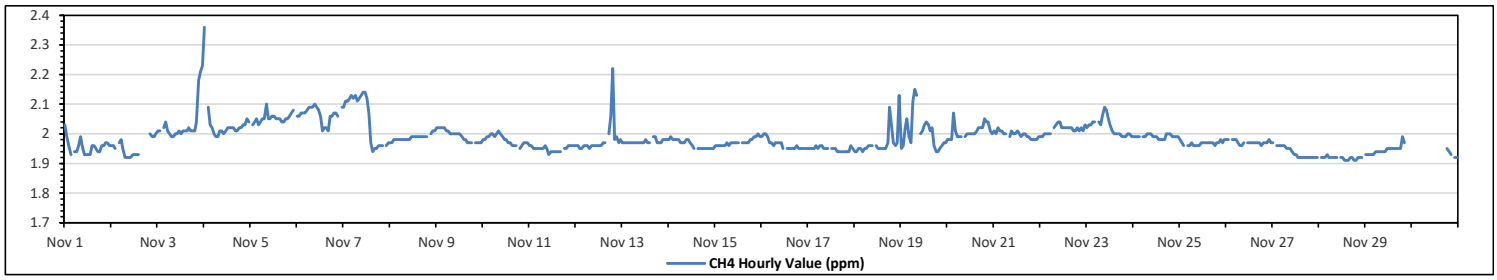
METHANE (CH4) in ppm

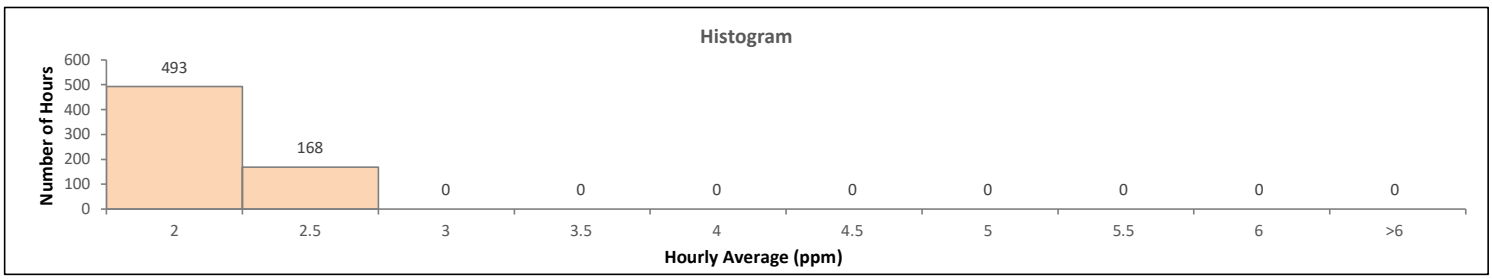
Maximum Hourly Value:	2.36	ppm	on Nov 4 at hr 0	Hours in Service:	720	
Maximum Daily Value:	2.06	ppm	on Nov 6	Hours of Data:	661	
Minimum Hourly Value:	1.91	ppm	on Nov 28 at hr 13	Hours of Missing Data:	23	
Minimum Daily Value:	1.92	ppm	on Nov 28	Hours of Calibration:	36	
Monthly Average:	1.99	ppm		Operational Uptime:	96.8	

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			
Nov 1	2.03	1.99	1.96	1.93	S	1.94	1.94	1.96	1.99	1.96	1.93	1.93	1.93	1.93	1.96	1.96	1.95	1.94	1.94	1.96	1.96	1.97	1.97	1.96	1.93	2.03	1.96
Nov 2	1.96	1.96	1.95	S	1.97	1.98	1.95	1.92	1.92	1.92	1.92	1.93	1.93	1.93	1.93	C	C	C	C	C	2.00	1.99	1.99	2.00	1.92	2.00	1.95
Nov 3	2.01	2.01	S	2.02	2.04	2.01	2.00	1.99	1.99	2.00	2.00	2.01	2.00	2.01	2.01	2.01	2.02	2.01	2.01	2.01	2.04	2.18	2.21	2.23	1.99	2.23	2.04
Nov 4	**2.36**	S	2.09	2.03	2.02	2.00	1.99	1.99	2.01	2.01	2.00	2.01	2.02	2.02	2.02	2.02	2.01	2.01	2.02	2.02	2.03	2.03	2.05	2.04	1.99	**2.36**	2.03
Nov 5	S	2.03	2.04	2.05	2.03	2.04	2.05	2.05	2.10	2.05	2.05	2.06	2.06	2.05	2.05	2.05	2.04	2.04	2.05	2.05	2.06	2.07	2.08	S	2.03	2.10	2.05
Nov 6	2.06	2.06	2.07	2.07	2.07	2.08	2.09	2.09	2.09	2.10	2.09	2.08	2.06	2.01	2.02	2.02	2.01	2.06	2.06	2.07	2.07	2.06	S	2.09	2.01	2.10	**2.06**
Nov 7	2.09	2.11	2.11	2.12	2.13	2.12	2.13	2.11	2.12	2.13	2.14	2.14	2.12	2.07	1.97	1.94	1.95	1.95	1.96	1.96	1.96	S	1.96	1.97	1.94	2.14	2.05
Nov 8	1.97	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	S	2.00	2.01	2.01	1.97	2.01	1.99
Nov 9	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.00	2.00	2.00	2.00	2.00	2.00	1.99	1.98	1.98	1.97	1.97	1.97	S	1.97	1.97	1.97	1.97	1.97	2.02	1.99
Nov 10	1.98	1.98	1.99	1.99	2.00	2.00	1.99	2.00	2.01	2.00	1.99	1.98	1.98	1.97	1.97	1.96	1.96	1.96	S	1.95	1.96	1.97	1.97	1.97	1.95	2.01	1.98
Nov 11	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.95	1.96	1.95	1.93	1.94	1.94	1.94	1.94	1.94	1.94	S	1.95	1.95	1.96	1.96	1.96	1.96	1.93	1.96	1.95
Nov 12	1.96	1.96	1.95	1.95	1.96	1.96	1.96	1.95	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	S	2.00	2.06	2.22	1.98	1.99	1.97	1.98	1.95	2.22	1.98
Nov 13	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.97	1.97	S	1.99	1.99	1.97	1.97	1.97	1.98	1.98	1.98	1.97	1.99	1.97
Nov 14	1.98	1.99	1.98	1.98	1.98	1.98	1.97	1.97	1.97	1.98	1.98	1.97	1.96	1.95	S	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.99	1.96
Nov 15	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.96	1.97	1.97	1.97	1.97	1.97	S	1.97	1.97	1.97	1.97	1.98	1.98	1.99	1.99	2.00	1.99	1.96	2.00	1.97
Nov 16	1.99	2.00	2.00	1.99	1.97	1.97	1.96	1.97	1.97	1.97	1.97	1.95	S	1.95	1.95	1.95	1.95	1.95	1.96	1.95	1.95	1.95	1.95	1.96	1.95	2.00	1.96
Nov 17	1.95	1.95	1.95	1.95	1.96	1.95	1.96	1.96	1.95	1.95	1.95	S	1.95	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.96	1.95	1.94	1.96	1.95
Nov 18	1.94	1.94	1.95	1.95	1.94	1.95	1.95	1.96	1.96	1.96	S	1.96	1.95	1.95	1.95	1.95	1.95	1.97	2.09	2.03	1.97	1.96	1.97	2.13	1.94	2.13	1.97
Nov 19	1.95	1.96	2.02	2.05	1.99	1.97	2.11	2.15	2.13	S	2.00	2.01	2.03	2.04	2.03	2.01	2.02	1.96	1.94	1.94	1.95	1.96	1.97	1.97	1.94	2.15	2.01
Nov 20	1.98	1.98	1.98	2.07	2.01	1.99	1.99	1.99	S	1.99	2.00	2.00	2.00	2.00	2.00	2.01	2.02	2.02	2.02	2.05	2.04	2.04	2.01	2.00	1.98	2.07	2.01
Nov 21	2.01	2.00	2.02	2.01	2.01	2.00	2.00	S	1.99	2.01	2.00	2.00	2.01	2.00	1.99	2.00	2.00	1.99	1.99	1.98	1.98	1.98	1.98	1.99	1.98	2.02	2.00
Nov 22	1.99	1.99	2.00	2.00	2.00	2.00	S	2.02	2.03	2.04	2.04	2.02	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.02	2.01	2.02	2.01	2.03	1.99	2.04	2.01
Nov 23	2.02	2.03	2.03	2.04	2.04	S	2.04	2.03	2.06	2.09	2.08	2.05	2.03	2.01	2.00	2.00	2.00	2.00	1.99	1.99	1.99	2.00	2.00	1.99	1.99	2.09	2.02
Nov 24	1.99	1.99	1.99	1.99	S	1.99	1.99	2.00	2.00	2.00	1.99	1.99	1.99	1.98	1.98	1.98	1.98	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.98	2.00	1.99
Nov 25	1.98	1.97	1.96	S	1.96	1.96	1.97	1.96	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.97	1.97	1.98	1.97	1.98	1.96	1.98	1.97
Nov 26	1.98	1.98	S	1.98	1.98	1.98	1.97	1.96	1.96	1.97	K	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.97	1.97	1.97	1.98	1.97	1.96	1.98	1.97
Nov 27	1.97	S	1.96	1.96	1.96	1.96	1.96	1.95	1.95	1.95	1.94	1.93	1.93	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.97	1.94
Nov 28	S	1.92	1.92	1.92	1.93	1.92	1.92	1.92	1.92	1.92	K	1.92	1.92	1.91	1.91	1.91	1.92	1.92	1.91	1.91	1.92	1.92	1.92	S	1.91	1.93	1.92
Nov 29	1.93	1.93	1.93	1.93	1.93	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.99	1.97	X	X	X	1.93	1.99	1.95
Nov 30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NRM	1.95	1.94	1.93	S	1.92	1.92	1.92	1.95	NA
Diurnal Maximum	2.36	2.11	2.11	2.12	2.13	2.12	2.13	2.15	2.13	2.13	2.14	2.14	2.12	2.07	2.05	2.05	2.04	2.06	2.09	2.22	2.07	2.18	2.21	2.23			
Diurnal Average	2.00	1.99	1.99	1.99	1.99	1.98	1.99	1.99	2.00	1.99	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.98	1.99	1.99	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.



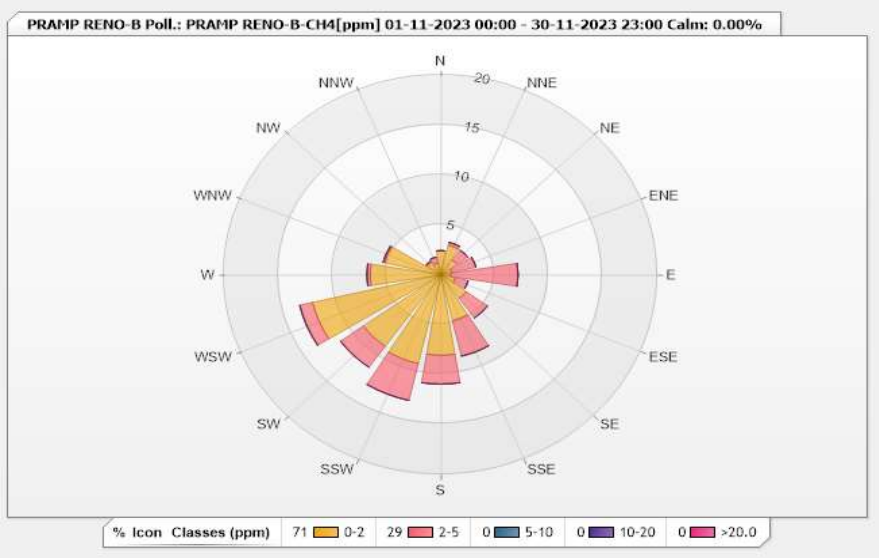


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-CH4[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.39% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	2.43	0	0	0	0	2.43
NNE	3.04	0.3	0	0	0	3.34
NE	1.82	1.22	0	0	0	3.04
ENE	1.06	2.28	0	0	0	3.34
E	0.91	6.23	0	0	0	7.14
ESE	1.37	1.22	0	0	0	2.59
SE	2.89	2.43	0	0	0	5.32
SSE	4.71	3.65	0	0	0	8.36
S	8.05	2.89	0	0	0	10.94
SSW	9.12	3.8	0	0	0	12.92
SW	8.81	2.58	0	0	0	11.39
WSW	12.16	1.22	0	0	0	13.38
W	6.53	0.3	0	0	0	6.83
WNW	5.32	0.15	0	0	0	5.47
NW	1.52	0.15	0	0	0	1.67
NNW	1.22	0.61	0	0	0	1.83
Summary	70.96	29.03	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - November 2023

Summary of Hourly Averages

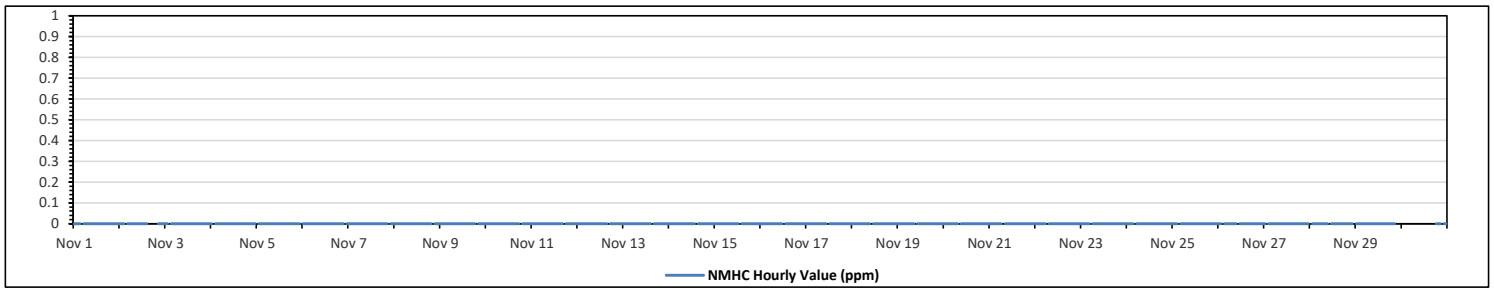
NON-METHANE HYDROCARBONS (NMHC) in ppm

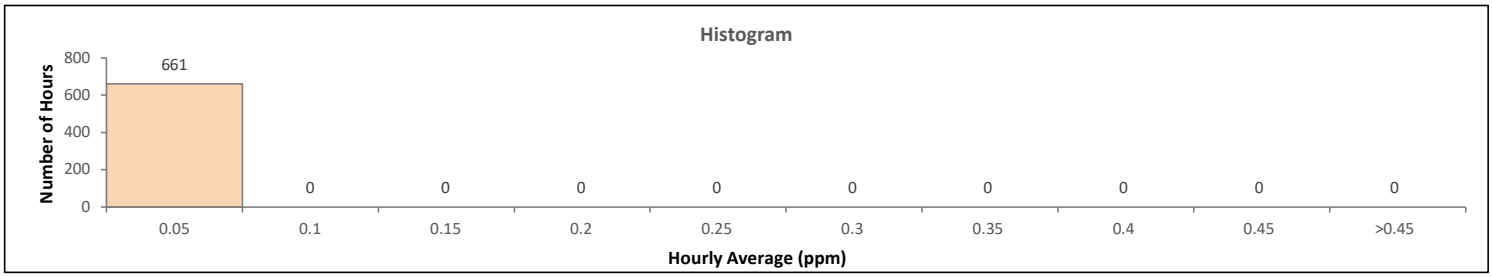
Maximum Hourly Value:	0.00	ppm	on Nov 1 at hr 0	Hours in Service:	720	
Maximum Daily Value:	0.00	ppm	on Nov 1	Hours of Data:	661	
Minimum Hourly Value:	0.00	ppm	on Nov 1 at hr 0	Hours of Missing Data:	23	
Minimum Daily Value:	0.00	ppm	on Nov 1	Hours of Calibration:	36	
Monthly Average:	0.00	ppm		Operational Uptime:	96.8	

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			
Nov 1	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
Nov 2	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	C	C	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov 3	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
Nov 4	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
Nov 5	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
Nov 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	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Nov 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	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
Nov 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	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
Nov 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	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
Nov 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	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
Nov 11	0.00	0.00	0.00	0.00	0.00	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
Nov 12	0.00	0.00	0.00	0.00	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
Nov 13	0.00	0.00	0.00	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
Nov 14	0.00	0.00	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
Nov 15	0.00	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
Nov 16	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
Nov 17	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
Nov 18	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
Nov 19	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
Nov 20	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
Nov 21	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
Nov 22	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
Nov 23	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
Nov 24	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
Nov 25	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
Nov 26	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov 27	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
Nov 28	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	K	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
Nov 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	0.00	0.00	0.00	0.00	0.00	X	X	X	0.00	0.00	0.00
Nov 30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NRM	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	NA
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.



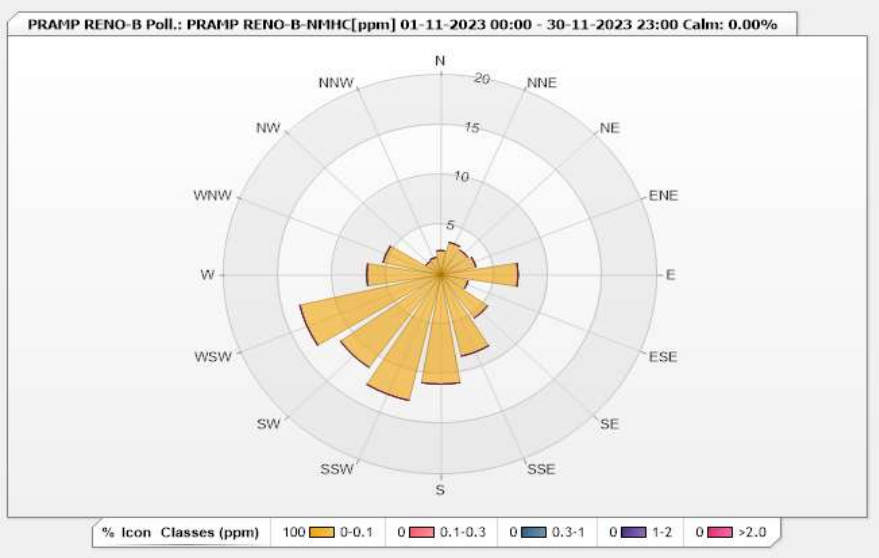


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-NMHC[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.39% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	2.43	0	0	0	0	2.43
NNE	3.34	0	0	0	0	3.34
NE	3.04	0	0	0	0	3.04
ENE	3.34	0	0	0	0	3.34
E	7.14	0	0	0	0	7.14
ESE	2.58	0	0	0	0	2.58
SE	5.32	0	0	0	0	5.32
SSE	8.36	0	0	0	0	8.36
S	10.94	0	0	0	0	10.94
SSW	12.92	0	0	0	0	12.92
SW	11.4	0	0	0	0	11.4
WSW	13.37	0	0	0	0	13.37
W	6.84	0	0	0	0	6.84
WNW	5.47	0	0	0	0	5.47
NW	1.67	0	0	0	0	1.67
NNW	1.82	0	0	0	0	1.82
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - November 2023

Summary of Hourly Averages

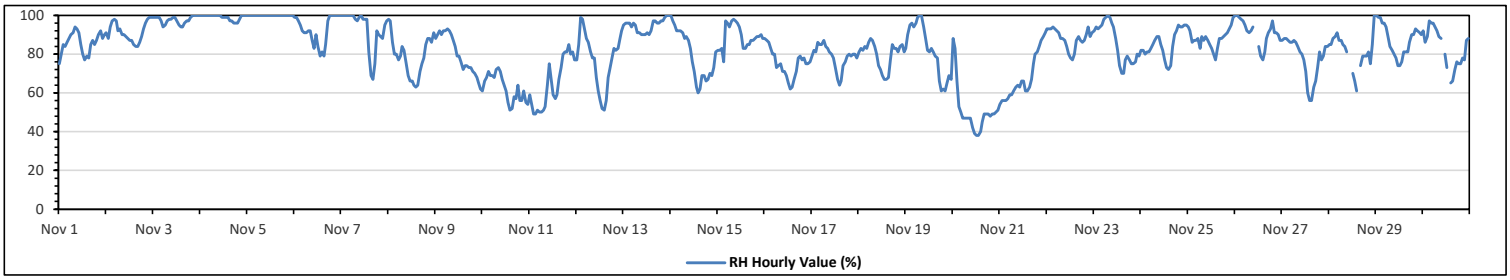
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	100	%	on Nov 3 at hr 20	Hours in Service:	720	
Maximum Daily Value:	100.0	%	on Nov 5	Hours of Data:	713	
Minimum Hourly Value:	38	%	on Nov 20 at hr 12	Hours of Missing Data:	7	
Minimum Daily Value:	50.5	%	on Nov 20	Hours of Calibration:	0	
Monthly Average:	82.9	%		Operational Uptime:	99.0	

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
Nov 1	75	80	85	84	86	88	90	91	94	93	91	85	80	77	79	78	85	87	85	87	90	92	88	90	75	94	85.8
Nov 2	91	88	94	97	98	97	92	93	90	90	89	88	87	87	85	84	84	86	89	93	96	98	99	99	84	99	91.4
Nov 3	99	99	99	99	97	94	95	97	98	98	99	99	97	95	94	94	96	97	97	99	**100**	**100**	**100**	**100**	94	**100**	97.6
Nov 4	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	99	99	99	99	97	97	96	96	96	98	**100**	**100**	**100**	96	**100**	99.0
Nov 5	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	100	**100**	**100.0**
Nov 6	99	99	97	95	92	91	91	92	92	87	83	90	84	79	81	79	85	97	**100**	**100**	**100**	**100**	**100**	**100**	79	**100**	92.2
Nov 7	**100**	**100**	**100**	**100**	**100**	**100**	**100**	98	97	99	**100**	98	98	98	81	69	67	75	92	90	89	88	95	97	67	**100**	93.0
Nov 8	98	97	86	80	80	77	79	84	82	75	69	66	66	64	63	64	71	75	78	85	88	88	86	91	63	98	78.8
Nov 9	88	90	92	90	92	92	93	92	90	87	84	79	79	76	72	74	74	73	73	71	70	68	65	62	62	93	80.3
Nov 10	61	66	68	71	69	69	68	72	73	71	67	64	61	55	51	52	58	57	64	56	56	61	55	54	51	73	62.5
Nov 11	59	54	49	49	51	50	50	51	53	64	75	67	59	57	59	67	73	80	81	81	85	80	81	77	49	85	64.7
Nov 12	77	85	99	98	93	88	86	81	78	78	68	61	56	52	51	56	68	72	78	83	82	83	88	92	51	99	77.2
Nov 13	95	96	96	96	94	96	95	91	91	90	90	90	91	90	92	97	97	96	96	97	97	99	**100**	**100**	90	**100**	94.7
Nov 14	**100**	97	95	92	92	92	91	88	89	87	83	76	71	63	60	62	69	69	66	67	70	69	73	81	60	**100**	79.3
Nov 15	82	82	83	76	97	96	94	97	98	97	96	94	90	83	83	85	85	87	87	88	89	89	90	88	76	98	89.0
Nov 16	88	87	86	83	80	80	73	74	75	71	71	69	65	62	63	67	71	78	79	77	78	75	75	76	62	88	75.1
Nov 17	79	82	81	86	85	85	87	84	83	81	80	78	73	67	64	66	74	76	79	80	79	80	80	78	64	87	78.6
Nov 18	81	83	82	84	83	86	88	87	84	80	74	72	69	67	67	68	77	85	83	83	81	84	85	81	67	88	79.8
Nov 19	83	90	95	96	94	96	99	**100**	**100**	94	88	82	81	83	81	79	78	66	61	62	61	65	69	67	61	**100**	82.1
Nov 20	88	83	66	53	50	47	47	47	47	47	42	39	**38**	**38**	40	45	49	49	49	48	49	49	50	51	**38**	88	**50.5**
Nov 21	54	56	56	56	57	59	59	61	63	64	63	66	66	61	61	63	67	75	80	81	84	87	89	91	54	91	67.5
Nov 22	93	93	93	94	93	92	91	88	88	87	84	80	78	77	80	87	89	87	86	87	90	94	89	91	77	94	88.0
Nov 23	92	94	93	94	95	98	99	**100**	99	96	94	88	82	74	70	70	77	79	77	75	75	76	80	79	70	**100**	85.7
Nov 24	82	82	80	81	81	83	85	87	89	89	85	82	77	73	72	74	84	90	92	95	94	94	95	95	72	95	85.0
Nov 25	94	92	86	87	87	88	83	89	87	89	87	85	83	80	77	83	88	88	89	90	91	93	95	99	77	99	87.9
Nov 26	**100**	**100**	99	98	97	95	92	91	92	94	**K**	**K**	84	79	77	81	88	91	93	97	91	91	90	87	77	**100**	91.2
Nov 27	87	88	88	87	86	86	87	86	84	81	80	77	71	60	56	56	63	66	73	81	77	79	84	84	56	88	77.8
Nov 28	85	85	88	89	91	87	87	85	84	81	**K**	**K**	70	66	61	**K**	74	79	79	79	81	75	85	**100**	61	**100**	81.5
Nov 29	**100**	99	99	96	96	94	89	84	82	80	78	74	74	76	81	81	81	86	90	90	93	92	91	90	74	**100**	87.3
Nov 30	92	86	89	97	96	96	94	92	89	88	**K**	80	73	**K**	65	66	72	76	75	75	78	77	87	88	65	97	83.2
Diurnal Maximum	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100			
Diurnal Average	87.4	87.8	87.5	86.9	87.1	86.7	86.1	86.1	85.7	84.6	82.2	79.6	76.7	73.7	72.2	73.9	78.0	80.6	82.2	83.1	83.7	84.2	85.5	86.3			

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

Reno-B Station - November 2023

Summary of Hourly Averages

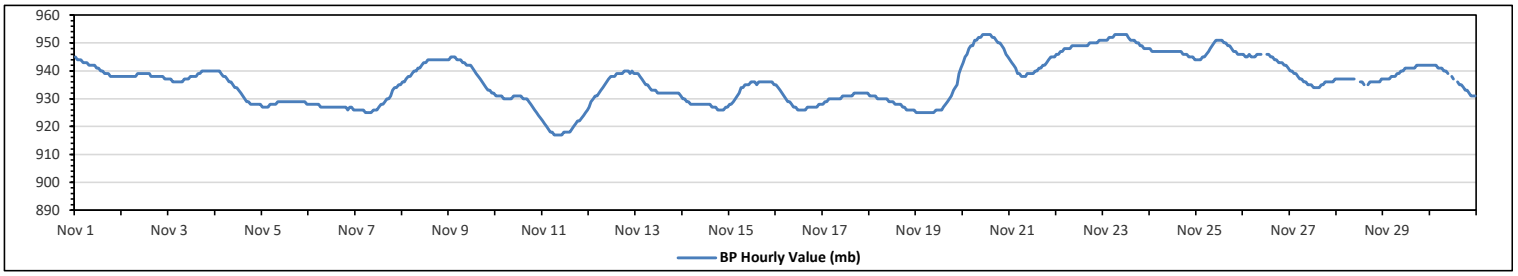
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	953	mb	on Nov 20 at hr 10	Hours in Service:	720
Maximum Daily Value:	951	mb	on Nov 23	Hours of Data:	713
Minimum Hourly Value:	917	mb	on Nov 11 at hr 6	Hours of Missing Data:	7
Minimum Daily Value:	920	mb	on Nov 11	Hours of Calibration:	0
Monthly Average:	936	mb		Operational Uptime:	99.0

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
Nov 1	945	944	944	944	943	943	943	942	942	942	942	941	941	940	940	939	939	939	938	938	938	938	938	938	938	945	941
Nov 2	938	938	938	938	938	938	938	938	939	939	939	939	939	939	939	938	938	938	938	938	938	938	937	937	937	939	938
Nov 3	937	937	936	936	936	936	936	936	937	937	937	938	938	938	938	939	939	940	940	940	940	940	940	940	936	940	938
Nov 4	940	940	940	939	938	938	937	936	936	935	934	934	933	932	931	930	929	929	928	928	928	928	928	928	928	940	933
Nov 5	927	927	927	927	928	928	928	928	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	928	927	929	928
Nov 6	928	928	928	928	928	928	927	927	927	927	927	927	927	927	927	927	927	927	927	927	926	927	927	926	926	928	927
Nov 7	926	926	926	926	926	925	925	925	925	926	926	926	927	928	928	929	930	930	931	933	934	934	935	935	925	935	928
Nov 8	936	936	937	938	938	939	940	940	941	941	942	943	943	944	944	944	944	944	944	944	944	944	944	944	936	944	942
Nov 9	944	945	945	945	944	944	944	943	943	942	942	942	941	940	939	938	937	936	935	934	933	933	932	932	932	945	940
Nov 10	931	931	931	931	930	930	930	930	930	931	931	931	931	931	930	930	930	929	928	927	926	925	924	923	923	931	929
Nov 11	922	921	920	919	918	918	**917**	**917**	**917**	**917**	**917**	918	918	918	918	919	920	921	922	922	923	924	925	926	**917**	926	**920**
Nov 12	927	929	930	931	931	932	933	934	935	936	937	938	938	938	939	939	939	939	940	940	940	939	940	939	927	940	936
Nov 13	939	939	938	937	936	935	935	934	933	933	933	932	932	932	932	932	932	932	932	932	932	932	932	931	931	939	934
Nov 14	930	930	929	929	928	928	928	928	928	928	928	928	928	928	928	927	927	927	926	926	926	926	927	927	926	930	928
Nov 15	928	928	929	930	931	932	934	934	935	935	935	936	936	936	935	936	936	936	936	936	936	936	936	935	928	936	934
Nov 16	935	934	933	932	931	930	929	929	928	927	927	926	926	926	926	926	927	927	927	927	927	927	928	928	926	935	928
Nov 17	928	929	929	930	930	930	930	930	930	930	931	931	931	931	931	931	932	932	932	932	932	932	932	932	928	932	931
Nov 18	931	931	931	931	930	930	930	930	930	930	929	929	929	928	928	928	928	927	927	926	926	926	926	926	926	931	929
Nov 19	925	925	925	925	925	925	925	925	925	925	926	926	926	926	927	928	929	930	931	933	934	935	939	941	925	941	928
Nov 20	943	945	946	948	949	949	951	951	952	952	**953**	**953**	**953**	**953**	**953**	952	952	951	950	950	949	948	946	945	943	**953**	950
Nov 21	944	943	942	941	939	939	938	938	938	939	939	939	939	940	940	941	941	942	942	943	944	945	945	945	938	945	941
Nov 22	946	946	947	947	948	948	948	948	949	949	949	949	949	949	949	949	949	950	950	950	950	950	951	951	946	951	949
Nov 23	951	951	951	952	952	952	**953**	**953**	**953**	**953**	**953**	**953**	**953**	952	951	951	951	950	950	949	949	948	948	948	948	**953**	**951**
Nov 24	948	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	946	946	946	945	945	945	944	944	948	947
Nov 25	944	944	944	945	945	946	947	948	949	950	951	951	951	951	950	950	949	949	948	947	947	946	946	946	944	951	948
Nov 26	946	945	945	946	945	945	945	946	946	946	K	K	946	946	945	945	944	944	943	943	943	942	942	941	941	946	945
Nov 27	940	940	939	939	938	937	937	936	936	935	935	935	934	934	934	934	935	935	936	936	936	936	936	937	934	940	936
Nov 28	937	937	937	937	937	937	937	937	937	937	K	K	936	936	935	K	935	936	936	936	936	936	936	937	935	937	936
Nov 29	937	937	937	937	938	938	938	939	939	940	940	941	941	941	941	941	941	942	942	942	942	942	942	942	937	942	940
Nov 30	942	942	942	942	941	941	941	940	940	939	K	938	937	K	936	935	935	934	933	933	932	931	931	931	931	942	937
Diurnal Maximum	951	951	951	952	952	952	953	953	953	953	953	953	953	953	953	952	952	951	950	950	950	950	951	951			
Diurnal Average	937	937	936	937	936	936	936	936	937	937	936	936	937	937	936	936	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

Reno-B Station - November 2023

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

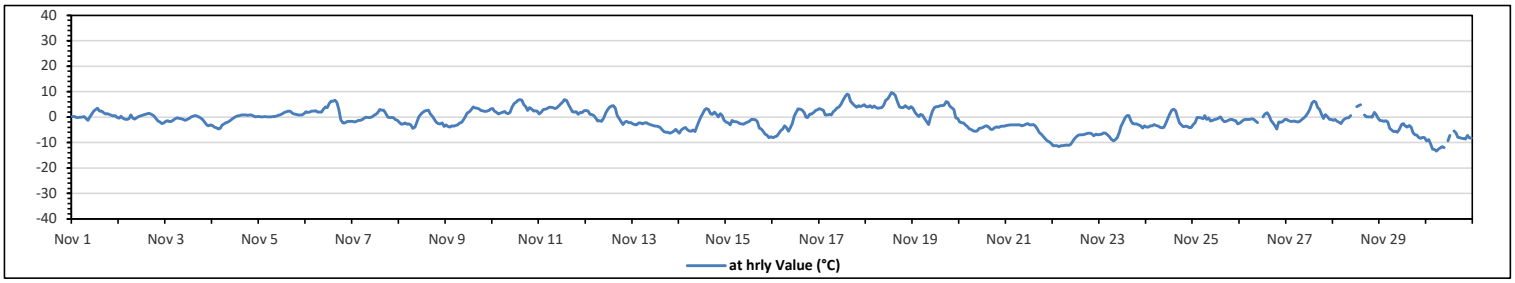
Maximum Hourly Value:	9.7	°C	on Nov 18 at hr 13	Hours in Service:	720	
Maximum Daily Value:	5.1	°C	on Nov 18	Hours of Data:	713	
Minimum Hourly Value:	-13.4	°C	on Nov 30 at hr 5	Hours of Missing Data:	7	
Minimum Daily Value:	-9.5	°C	on Nov 30	Hours of Calibration:	0	
Monthly Average:	-1.0	°C		Operational Uptime:	99.0	

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
Nov 1	0.2	0.2	-0.2	-0.1	0	0	0.2	-0.5	-1.2	0.1	1.3	2.3	3	3.5	2.3	2.4	1.7	1.3	1.4	1.1	0.7	0.4	0.5	-0.1	-1.2	3.5	0.9
Nov 2	-0.4	0.3	-0.4	-0.8	-1	-0.7	0.8	-0.4	-0.8	-0.3	0.2	0.4	0.7	1	1.3	1.5	1.4	1	0.4	-0.7	-1.5	-2	-2.5	-2.4	-2.5	1.5	-0.2
Nov 3	-1.6	-1.4	-1.8	-1.7	-1.1	-0.5	-0.3	-0.5	-0.7	-1	-1.2	-1	-0.6	0.1	0.3	0.5	0.4	0.1	-0.4	-1.1	-2.1	-3	-3.5	-3	-3.5	0.5	-1.0
Nov 4	-3.3	-3.9	-4.2	-4.7	-4.3	-3.2	-2.7	-2.2	-1.9	-1.4	-0.8	-0.3	0.2	0.4	0.6	0.8	0.9	0.8	0.7	0.8	0.8	0.4	0.1	0.2	-4.7	0.9	-1.1
Nov 5	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.4	0.7	1	1.4	1.8	2.1	2.4	2.2	1.6	1.3	1.1	0.9	0.8	0.9	1.4	0.1	2.4	0.9
Nov 6	2.1	1.8	2	2.3	2.4	2.5	2	1.9	1.9	2.9	4	3.7	5.4	6.2	6.3	6.7	5.7	3	-1.1	-2.3	-2.3	-1.8	-1.6	-1.6	-2.3	6.7	2.2
Nov 7	-1.6	-1.9	-1.6	-1.3	-1.2	-1	-0.4	0	-0.1	-0.2	0.1	0.7	1.1	1.8	2.9	2.8	2.7	1.6	0	-0.1	-0.1	-0.2	-0.9	-1.3	-1.9	2.9	0.1
Nov 8	-2.1	-2.8	-2.7	-2.4	-2.8	-2.7	-3.1	-4.4	-3.9	-2	0.1	1.1	1.7	2.3	2.6	2.7	1.3	0.2	-0.8	-1.9	-2.5	-2.7	-2.4	-3.7	-4.4	2.7	-1.3
Nov 9	-3.1	-3.7	-3.9	-3.4	-3.6	-3.3	-3	-2.4	-2.1	-0.9	0.1	1.6	2.1	3	4	3.6	3.5	3.2	2.6	2.5	2.2	2.3	2.6	3.2	-3.9	4.0	0.3
Nov 10	3.3	2.3	1.8	1.2	1.6	1.8	2.2	1.6	1.4	1.8	3.9	5.4	5.9	6.7	6.9	6.6	4.8	4.2	2.6	3.7	3.1	2.3	2.5	2.3	1.2	6.9	3.3
Nov 11	1.2	2	3	3.1	3.3	3.9	3.9	3.7	3.4	3.6	4.5	5.2	6	6.9	6.5	4.9	3.5	2.1	2	2.1	1.1	1.8	1.7	2.5	1.1	6.9	3.4
Nov 12	2.6	2.4	1.1	1	0.5	-0.4	-1.5	-1.4	-1.6	-0.3	1.6	2.7	3.8	4.3	4.4	3.5	0.5	-0.5	-1.8	-2.9	-1.9	-1.7	-2.2	-2.2	-2.9	4.4	0.4
Nov 13	-2.7	-2.9	-3	-2.4	-2.3	-2.6	-2.3	-2.2	-2.6	-2.9	-3.2	-3.5	-3.6	-3.7	-4.1	-5	-5.7	-6	-6	-6.4	-6.1	-5.6	-4.9	-5.5	-6.4	-2.2	-4.0
Nov 14	-6.3	-5.1	-4.4	-4.1	-5	-5.4	-5.6	-5.1	-5.7	-3.7	-1.8	0	1.6	2.9	3.3	2.9	1.2	1.1	2	1.1	0.1	1.4	0.6	-1.3	-6.3	3.3	-1.5
Nov 15	-2	-2.4	-3	-1.3	-1.8	-1.8	-2.1	-2.5	-2.7	-2.8	-2.3	-2	-1.6	-0.9	-0.9	-1.1	-1.8	-4.3	-4.7	-5.5	-6.7	-7.1	-8.1	-7.7	-8.1	-0.9	-3.2
Nov 16	-8.1	-7.8	-7.5	-6.5	-5.4	-4.7	-3.5	-4.2	-5.5	-4.2	-2.5	0.3	1.8	3.2	3.1	2.8	1.8	0	-0.1	1.2	1.2	1.8	2.6	2.9	-8.1	3.2	-1.6
Nov 17	3.3	2.9	2.7	0.9	0.8	1.1	0.9	2.1	2.8	3.6	4	5	6.5	8	9	8.7	6.3	5.4	4.5	3.9	4.4	4.2	4.5	4.9	0.8	9.0	4.2
Nov 18	4.2	4	4.4	3.7	4.3	3.8	3.5	3.6	3.7	4.7	6.6	7.1	8.5	**9.7**	9.3	8.5	6.2	4	3.8	3.7	4.5	3.9	3.3	4.2	3.3	**9.7**	**5.1**
Nov 19	3.5	1.9	0.8	0.2	1.1	0.7	-0.5	-1.8	-2.9	0	2.3	3.7	4.2	4.1	4.4	4.4	4.7	6.1	5.7	4.3	3.6	3	-0.3	-0.6	-2.9	6.1	2.2
Nov 20	-1.9	-2.2	-2.4	-3.1	-3.7	-4.6	-5	-5.4	-5.5	-5.4	-4.5	-4.3	-4.1	-3.6	-3.4	-4	-4.8	-4.8	-4.2	-3.8	-4	-3.7	-3.6	-3.6	-5.5	-1.9	-4.0
Nov 21	-3.3	-3.2	-3.1	-3	-3	-3.1	-3	-3.1	-3.4	-3.2	-2.8	-2.5	-3.1	-3	-2.9	-3.6	-4.7	-6.1	-6.7	-7.7	-8.6	-9.3	-9.7	-10.4	-10.4	-2.5	-4.7
Nov 22	-11.2	-11.3	-11.3	-11.6	-11.3	-11.3	-11.1	-11	-11.1	-10.7	-9.6	-8.4	-7.7	-7.1	-6.9	-7	-6.8	-6.5	-6.3	-6.4	-6.6	-7.4	-6.7	-7	-11.6	-6.3	-8.8
Nov 23	-6.8	-6.7	-6.2	-6.3	-6.9	-7.8	-8.8	-9.3	-8.9	-7.9	-6	-3.7	-2	-0.3	0.6	0.5	-1.4	-2.5	-2.7	-2.7	-3.1	-3.5	-4.3	-3.5	-9.3	0.6	-4.6
Nov 24	-3.9	-3.9	-3.4	-3.5	-2.9	-3.3	-3.6	-4	-4.2	-4	-2.5	-0.4	1.4	2.7	3.1	2.5	0	-2.3	-3.1	-3.8	-3.6	-3.7	-4.2	-4.1	-4.2	3.1	-2.3
Nov 25	-3.1	-2.2	-0.2	-0.2	-0.3	-0.7	0.6	-0.9	-0.3	-1.5	-1.2	-1	-0.8	-0.4	0.1	-1.1	-1.8	-1.6	-1.3	-1	-1	-1.3	-1.4	-2.6	-3.1	0.6	-1.1
Nov 26	-2.4	-1.6	-1.1	-0.9	-1	-1	-0.7	-0.8	-1.4	-2.2	**K**	**K**	0.1	1.2	1.7	0.6	-1.3	-2.4	-3.3	-4.7	-2	-2.1	-1.8	-1	-4.7	1.7	-1.3
Nov 27	-1	-1.4	-1.7	-1.6	-1.5	-1.8	-1.9	-1.5	-0.8	-0.1	0.4	1.6	3	5.5	6.3	5.9	3.8	3	1.1	-0.6	1	0.2	-0.9	-1	-1.9	6.3	0.7
Nov 28	-1.2	-0.9	-1.7	-2.1	-2.5	-1.2	-0.7	-0.3	-0.3	0.6	**K**	**K**	4.1	4.5	4.9	**K**	0.9	0.1	0.1	0.1	0	1.8	1.1	-0.3	-2.5	4.9	0.3
Nov 29	-1.2	-1.4	-1.6	-1.4	-1.9	-4.5	-5.1	-5.7	-5.6	-5.9	-4.8	-2.9	-2.5	-3.4	-3.9	-3.3	-3.9	-6.2	-6.9	-7.1	-8	-8.3	-7.9	-8	-8.3	-1.2	-4.6
Nov 30	-9.3	-8.9	-10.6	-12.6	-12.7	**-13.4**	-12.6	-12.1	-11.7	-11.9	**K**	-9.3	-7.2	**K**	-5.4	-6.2	-7.9	-8.1	-8.3	-8.4	-8.6	-7.2	-8.2	-8.2	**-13.4**	-5.4	**-9.5**
Diurnal Maximum	4.2	4.0	4.4	3.7	4.3	3.9	3.9	3.7	3.7	4.7	6.6	7.1	8.5	9.7	9.3	8.7	6.3	6.1	5.7	4.3	4.5	4.2	4.5	4.9			
Diurnal Average	-1.9	-1.9	-2.0	-2.1	-2.1	-2.2	-2.1	-2.3	-2.4	-1.8	-0.5	0.1	1.0	2.0	2.0	1.5	0.4	-0.4	-1.0	-1.4	-1.5	-1.5	-1.8	-1.9			

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

Reno-B Station - November 2023

Summary of Hourly Averages

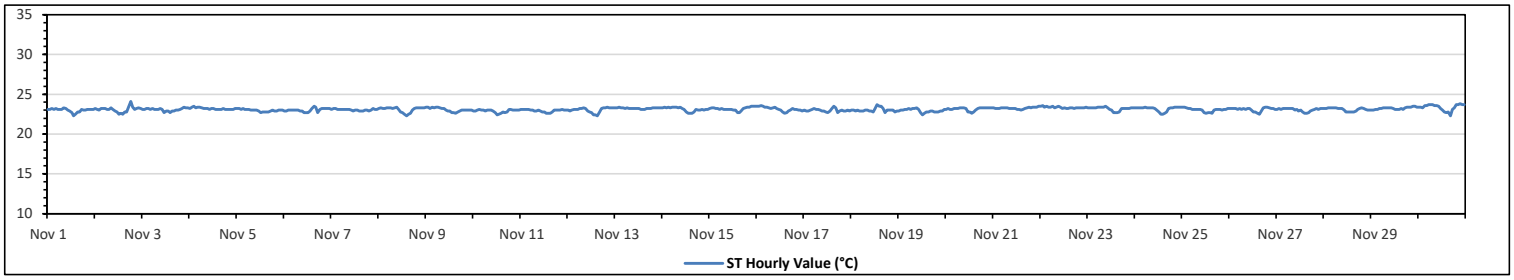
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	24.1	°C	on Nov 2 at hr 18	Hours in Service:	720	
Maximum Daily Value:	23.4	°C	on Nov 30	Hours of Data:	720	
Minimum Hourly Value:	22.3	°C	on Nov 1 at hr 13	Hours of Missing Data:	0	
Minimum Daily Value:	22.9	°C	on Nov 10	Hours of Calibration:	0	
Monthly Average:	23.1	°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			
Nov 1	23.1	23.1	23.2	23.1	23.2	23.1	23.1	23.1	23.3	23.2	23.0	22.9	22.7	**22.3**	22.5	22.8	22.8	23.1	23.0	23.0	23.1	23.1	23.1	23.1	**22.3**	23.3	23.0
Nov 2	23.2	23.1	23.0	23.2	23.2	23.2	23.1	23.1	23.3	23.1	22.9	22.8	22.5	22.6	22.5	22.8	22.8	23.5	**24.1**	23.4	23.1	23.2	23.3	23.2	22.5	**24.1**	23.1
Nov 3	23.1	23.1	23.2	23.2	23.1	23.2	23.1	23.1	23.1	23.2	23.1	22.7	22.9	22.9	22.7	22.9	22.9	23.0	23.0	23.1	23.2	23.4	23.3	23.3	22.7	23.4	23.1
Nov 4	23.2	23.4	23.5	23.3	23.4	23.4	23.3	23.2	23.2	23.2	23.1	23.2	23.2	23.1	23.1	23.1	23.1	23.2	23.1	23.1	23.1	23.1	23.1	23.2	23.1	23.5	23.2
Nov 5	23.2	23.2	23.1	23.2	23.1	23.1	23.1	23.0	23.0	23.0	23.0	22.9	22.7	22.8	22.8	22.8	22.8	22.9	23.0	22.9	22.9	23.0	23.0	23.0	22.7	23.2	23.0
Nov 6	22.9	22.9	23.0	23.0	23.0	23.0	23.0	23.0	22.9	22.9	22.7	22.7	22.7	22.9	23.2	23.5	23.4	22.7	23.1	23.2	23.2	23.2	23.2	23.2	22.7	23.5	23.0
Nov 7	23.1	23.2	23.2	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.0	22.9	23.0	23.0	22.9	22.9	22.9	23.0	23.0	22.9	23.0	23.2	23.1	23.1	22.9	23.2	23.0
Nov 8	23.2	23.3	23.2	23.2	23.3	23.3	23.3	23.2	23.3	23.4	23.1	22.8	22.7	22.5	**22.3**	22.5	22.6	23.0	23.2	23.3	23.3	23.3	23.3	23.3	**22.3**	23.4	23.1
Nov 9	23.4	23.4	23.2	23.4	23.3	23.4	23.4	23.3	23.2	23.2	23.0	22.9	22.9	22.7	22.7	22.6	22.8	22.9	23.0	23.0	23.0	23.0	23.0	23.0	22.6	23.4	23.1
Nov 10	22.9	22.9	23.0	23.1	23.0	23.0	22.9	23.0	23.0	23.0	22.9	22.7	22.4	22.5	22.6	22.8	22.7	22.8	23.1	23.1	23.0	23.0	23.0	23.0	22.4	23.1	**22.9**
Nov 11	23.1	23.1	23.1	23.1	23.1	23.0	23.0	22.9	22.9	23.0	22.9	22.8	22.8	22.6	22.6	22.6	22.8	23.0	23.0	23.0	23.0	23.1	23.0	23.0	22.6	23.1	22.9
Nov 12	23.0	22.9	23.0	23.1	23.1	23.1	23.2	23.2	23.3	23.2	22.9	22.8	22.7	22.4	22.4	**22.3**	22.8	23.2	23.3	23.3	23.4	23.3	23.3	23.3	**22.3**	23.4	23.0
Nov 13	23.3	23.3	23.4	23.3	23.3	23.2	23.3	23.2	23.2	23.2	23.2	23.2	23.2	23.1	23.1	23.1	23.2	23.2	23.2	23.3	23.3	23.3	23.3	23.3	23.1	23.4	23.2
Nov 14	23.3	23.4	23.3	23.4	23.3	23.4	23.4	23.4	23.3	23.4	23.2	23.1	22.8	22.6	22.6	22.6	22.8	23.1	23.0	23.0	23.1	23.0	23.1	23.1	22.6	23.4	23.1
Nov 15	23.2	23.3	23.3	23.2	23.2	23.1	23.2	23.1	23.1	23.1	23.1	23.1	23.0	23.0	22.7	22.7	22.9	23.2	23.3	23.4	23.4	23.5	23.5	23.5	22.7	23.5	23.2
Nov 16	23.5	23.5	23.6	23.5	23.4	23.4	23.3	23.2	23.3	23.4	23.2	23.1	23.0	22.8	22.6	22.7	22.9	23.0	23.2	23.1	23.1	23.0	23.0	22.9	22.6	23.6	23.2
Nov 17	23.0	22.9	22.9	23.0	23.1	23.2	23.1	23.1	23.0	22.9	22.9	22.8	22.7	22.9	23.2	23.5	23.3	22.7	22.9	23.0	22.9	22.9	23.0	22.9	22.7	23.5	23.0
Nov 18	23.0	23.0	22.9	23.0	22.9	22.9	22.9	23.0	23.0	22.9	22.9	22.8	23.2	23.7	23.5	23.5	23.2	22.7	23.0	23.0	23.0	23.0	22.8	22.9	22.7	23.7	23.0
Nov 19	22.9	23.0	23.0	23.1	23.1	23.2	23.1	23.2	23.2	23.3	23.1	22.7	22.4	22.6	22.8	22.8	22.9	22.9	22.8	22.8	22.8	22.9	22.9	23.1	22.4	23.3	22.9
Nov 20	23.1	23.2	23.1	23.1	23.2	23.2	23.2	23.3	23.3	23.3	23.2	22.8	22.8	22.6	22.8	23.0	23.2	23.3	23.3	23.3	23.3	23.3	23.3	23.3	22.6	23.3	23.1
Nov 21	23.3	23.2	23.2	23.2	23.3	23.3	23.3	23.3	23.2	23.2	23.2	23.2	23.1	23.1	23.0	23.1	23.2	23.3	23.4	23.3	23.4	23.4	23.4	23.5	23.0	23.5	23.3
Nov 22	23.5	23.6	23.4	23.5	23.4	23.4	23.5	23.3	23.4	23.5	23.4	23.2	23.3	23.2	23.2	23.3	23.3	23.2	23.3	23.3	23.3	23.3	23.3	23.4	23.2	23.6	23.4
Nov 23	23.3	23.3	23.3	23.3	23.3	23.4	23.4	23.4	23.4	23.5	23.3	23.1	23.0	22.7	22.7	22.7	22.8	23.2	23.2	23.2	23.2	23.2	23.3	23.3	22.7	23.5	23.2
Nov 24	23.3	23.3	23.3	23.3	23.3	23.4	23.3	23.3	23.3	23.3	23.2	23.0	22.8	22.5	22.5	22.6	22.8	23.2	23.3	23.3	23.4	23.4	23.4	23.4	22.5	23.4	23.2
Nov 25	23.4	23.4	23.3	23.2	23.2	23.1	23.1	23.1	23.1	23.1	23.0	22.7	22.6	22.7	22.7	22.6	23.0	23.1	23.1	23.1	23.0	23.1	23.1	23.2	22.6	23.4	23.0
Nov 26	23.2	23.2	23.2	23.2	23.1	23.2	23.1	23.2	23.1	23.2	23.2	23.0	22.8	22.8	22.6	22.5	22.9	23.3	23.4	23.4	23.3	23.2	23.2	23.1	22.5	23.4	23.1
Nov 27	23.1	23.2	23.1	23.2	23.2	23.2	23.2	23.2	23.2	23.0	23.1	22.9	23.0	22.8	22.6	22.6	22.7	22.9	23.0	23.1	23.2	23.1	23.2	23.2	22.6	23.2	23.0
Nov 28	23.2	23.2	23.3	23.3	23.3	23.3	23.3	23.2	23.2	23.2	23.0	22.8	22.8	22.8	22.8	22.8	22.9	23.1	23.2	23.3	23.2	23.1	23.0	23.0	22.8	23.3	23.1
Nov 29	23.0	23.0	23.1	23.1	23.2	23.2	23.3	23.3	23.3	23.3	23.3	23.2	23.1	23.1	23.1	23.2	23.1	23.3	23.4	23.4	23.4	23.5	23.5	23.4	23.0	23.5	23.2
Nov 30	23.4	23.4	23.3	23.6	23.6	23.7	23.7	23.7	23.6	23.6	23.5	23.2	23.0	22.8	22.7	22.8	**22.3**	23.1	23.3	23.7	23.7	23.8	23.7	23.7	**22.3**	23.8	**23.4**
Diurnal Maximum	23.5	23.6	23.6	23.6	23.6	23.7	23.7	23.7	23.6	23.6	23.5	23.2	23.3	23.7	23.5	23.5	23.4	23.5	24.1	23.7	23.7	23.8	23.7	23.7			
Diurnal Average	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.1	22.9	22.9	22.8	22.8	22.9	22.9	23.1	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 - November 2023

Summary of Hourly Averages

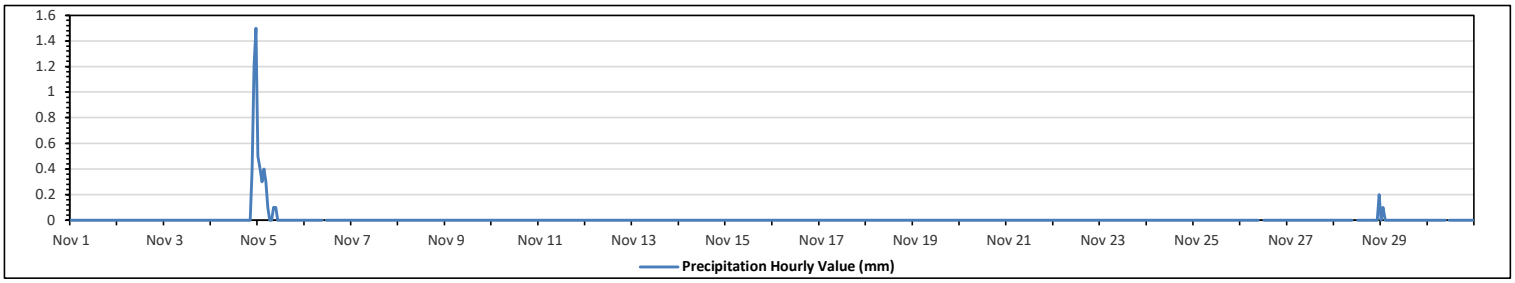
PRECIPITATION in mm

Maximum Hourly Value:	1.5	mm	on Nov 4 at hr 23	Hours in Service:	720	
Maximum Daily Value:	3.1	mm	on Nov 4	Hours of Data:	714	
Minimum Hourly Value:	0.0	mm	on Nov 1 at hr 0	Hours of Missing Data:	6	
Minimum Daily Value:	0.0	mm	on Nov 1	Hours of Calibration:	0	
Monthly Total:	5.6	mm		Operational Uptime:	99.2	

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Nov 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
Nov 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2	**1.5**	0.0	**1.5**	**3.1**
Nov 5	0.5	0.4	0.3	0.4	0.3	0.1	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5	2.2
Nov 6	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	0.0	0.0
Nov 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 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	0.0	0.0
Nov 26	0	0	0	0	0	0	0	0	0	0	K	K	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Nov 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	0.0	0.0
Nov 28	0	0	0	0	0	0	0	0	0	0	K	K	0	0	0	0	0	0	0	0	0	0	0	0.2	0.0	0.2	0.2
Nov 29	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.1
Nov 30	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	0.0	0.0
Diurnal Maximum	0.5	0.4	0.3	0.4	0.3	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	1.5			
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	0.1			

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 - November 2023

Summary of Hourly Averages

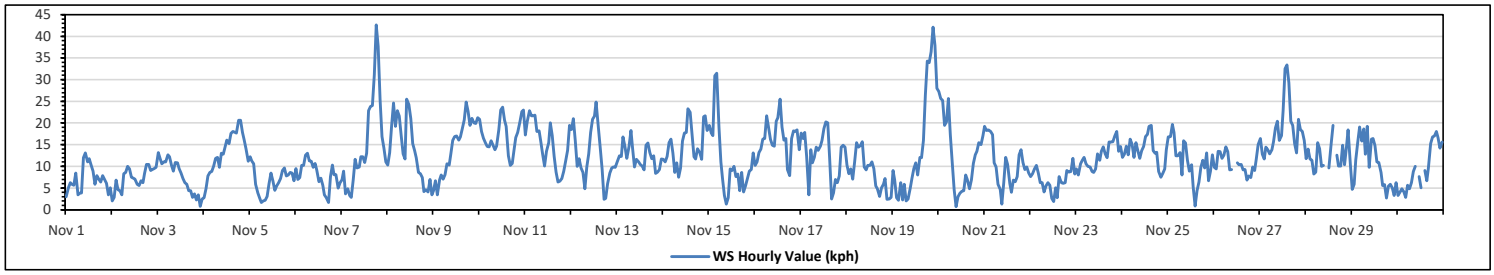
VECTOR WIND SPEED (VWS) in km/hr

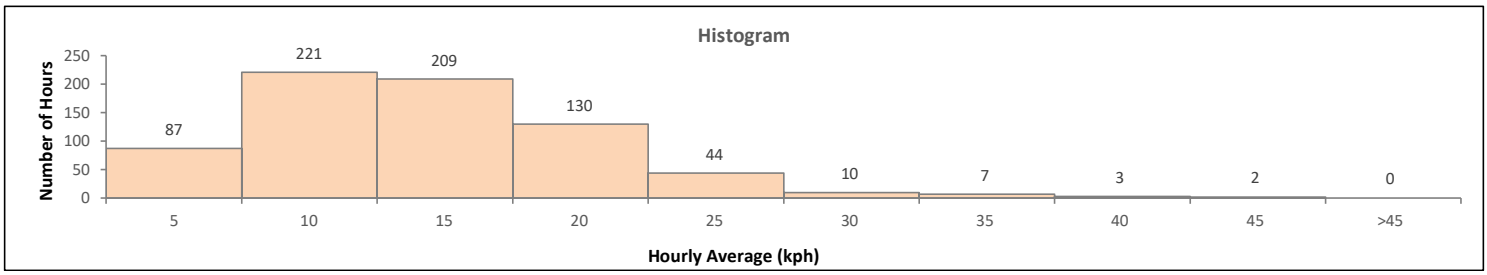
Maximum Hourly Value:	42.6	kph	on Nov 7 at hr 18	Hours in Service:	720
Maximum Daily Value:	18.5	kph	on Nov 27	Hours of Data:	713
Minimum Hourly Value:	0.7	kph	on Nov 20 at hr 9	Hours of Missing Data:	7
Minimum Daily Value:	6.6	kph	on Nov 5	Hours of Calibration:	0
Monthly Average:	5.0	kph		Operational Uptime:	99.0

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			
Nov 1	3.0	5.1	6.2	5.9	5.7	8.5	3.4	3.8	3.9	12.0	13.1	11.0	11.8	10.3	8.9	5.9	7.9	7.1	6.4	7.9	7.0	6.1	3.4	5.1	3.0	13.1	7.1
Nov 2	2.0	2.9	6.8	4.6	4.4	3.4	8.3	8.6	10.0	9.4	7.5	7.3	7.1	5.9	5.6	6.7	6.3	8.4	10.5	10.5	9.1	9.3	9.5	9.8	2.0	10.5	7.2
Nov 3	13.2	11.7	10.6	11.1	11.1	12.7	12.2	10.3	8.9	10.9	10.8	9.5	8.5	7.2	6.2	5.9	4.4	4.4	2.9	3.7	2.3	3.5	0.8	2.5	0.8	13.2	7.7
Nov 4	2.8	4.9	7.8	8.6	8.8	10.1	11.9	12.1	9.8	13.0	12.8	14.6	16.1	15.3	17.6	18.1	17.9	17.7	20.6	20.6	17.8	16.2	14.1	11.2	2.8	20.6	13.4
Nov 5	12.2	11.3	10.6	5.9	3.9	2.6	1.7	2.0	2.2	3.1	6.0	8.5	6.7	4.5	5.5	6.2	7.2	9.0	9.6	7.8	8.0	8.6	8.5	6.7	1.7	12.2	**6.6**
Nov 6	9.5	7.0	7.4	10.2	10.2	12.6	13.0	11.3	11.2	9.8	10.7	9.2	6.5	7.3	5.7	3.5	2.8	1.7	7.6	10.3	8.1	8.1	5.0	6.2	1.7	13.0	8.1
Nov 7	6.9	8.9	3.7	4.9	3.3	2.9	6.8	11.6	9.7	9.9	12.2	12.2	10.9	13.0	22.9	23.8	24.0	31.1	**42.6**	37.7	25.4	16.9	14.2	11.0	2.9	**42.6**	15.3
Nov 8	10.3	13.2	19.3	24.6	19.2	22.9	21.6	17.1	12.9	11.7	25.5	24.2	21.0	15.3	13.6	12.0	8.6	8.3	7.4	4.2	4.6	4.1	7.0	3.5	3.5	25.5	13.8
Nov 9	4.4	6.7	3.5	6.9	8.0	7.1	8.1	10.6	10.3	12.8	16.0	16.9	17.0	16.1	16.8	18.7	20.7	24.8	22.7	19.4	21.1	20.0	19.9	21.2	3.5	24.8	14.6
Nov 10	20.9	18.0	16.5	15.5	14.6	14.5	15.9	14.9	13.9	14.7	18.4	23.0	23.7	20.6	19.2	12.5	10.2	10.7	14.0	16.6	17.8	20.3	22.6	23.0	10.2	23.7	17.2
Nov 11	17.2	20.4	22.9	21.7	21.7	21.8	18.1	18.2	15.8	12.8	10.1	13.5	15.5	20.0	17.1	12.3	8.7	6.4	6.6	7.2	8.9	11.3	13.7	19.4	6.4	22.9	15.1
Nov 12	18.5	21.0	15.9	10.0	11.8	9.7	8.6	4.9	9.9	12.9	17.8	20.9	21.6	24.8	19.1	14.3	9.3	2.4	2.6	6.0	8.5	9.7	9.9	9.8	2.4	24.8	12.5
Nov 13	11.0	12.5	12.3	16.8	14.7	11.9	14.6	18.3	14.2	9.9	11.6	11.0	10.5	10.1	9.2	14.9	15.4	13.2	11.8	12.4	8.4	8.7	9.3	11.7	8.4	18.3	12.3
Nov 14	11.6	11.1	12.3	15.5	16.3	13.1	8.6	10.8	7.5	9.7	15.8	17.7	17.8	23.3	22.5	17.3	12.2	11.7	14.1	13.2	11.6	21.4	21.7	18.3	7.5	23.3	14.8
Nov 15	19.5	17.7	17.1	30.9	31.5	19.1	11.1	7.3	3.3	1.3	2.8	9.4	9.1	10.0	7.7	8.2	4.4	8.6	4.1	5.5	7.2	8.9	9.3	13.1	1.3	31.5	11.1
Nov 16	10.2	11.1	13.2	14.0	16.3	16.4	21.7	19.4	16.2	14.9	14.7	20.4	21.2	25.5	19.1	16.1	16.4	9.3	7.9	16.4	18.2	18.0	18.4	13.8	7.9	25.5	16.2
Nov 17	17.7	16.4	17.8	12.3	3.5	13.9	10.8	12.1	14.4	13.7	14.7	16.0	18.7	20.3	20.0	11.7	2.5	3.9	7.0	6.2	7.8	14.4	14.9	14.4	2.5	20.3	12.7
Nov 18	10.3	8.3	9.4	7.1	11.0	15.5	14.4	14.8	15.7	9.9	9.2	10.2	10.2	11.0	9.5	5.5	4.8	3.1	5.1	5.9	7.2	2.4	2.5	2.9	2.4	15.7	8.6
Nov 19	9.0	6.9	2.8	2.2	6.3	2.3	5.9	2.0	2.5	5.1	7.2	9.5	10.8	8.0	12.1	12.0	16.0	26.5	34.3	33.9	36.4	42.1	37.9	28.0	2.0	42.1	15.0
Nov 20	27.3	25.7	25.2	19.4	20.3	25.6	17.3	10.9	4.6	**0.7**	3.0	3.8	4.3	4.4	8.0	7.0	4.9	6.9	10.7	12.7	13.5	15.5	15.0	17.1	**0.7**	27.3	12.7
Nov 21	19.2	18.3	18.4	18.1	17.3	10.8	9.9	5.9	4.7	1.3	6.2	12.1	10.5	6.0	4.0	6.8	6.5	7.6	12.7	13.8	10.9	9.3	9.9	8.5	1.3	19.2	10.4
Nov 22	7.6	8.3	9.4	10.2	8.5	6.2	6.2	4.1	5.5	6.2	5.7	2.6	1.9	5.1	2.8	7.6	6.3	6.1	6.2	9.0	8.7	8.8	11.9	8.2	1.9	11.9	6.8
Nov 23	9.4	8.0	10.6	11.5	12.1	10.6	10.0	9.9	8.8	8.6	9.4	12.9	11.4	13.5	14.5	12.9	12.0	15.6	15.6	15.7	17.0	18.0	13.5	14.6	8.0	18.0	12.3
Nov 24	12.1	12.8	14.7	12.7	16.3	15.1	12.1	15.5	13.6	11.9	13.6	14.6	16.9	17.4	19.2	19.5	13.6	13.0	13.3	8.8	7.5	8.4	9.4	13.8	7.5	19.5	13.6
Nov 25	16.8	16.9	19.7	17.8	12.4	12.4	13.2	8.0	15.9	15.4	11.4	8.9	10.4	5.2	0.9	4.4	6.4	9.8	11.4	9.7	13.1	6.7	8.9	12.7	0.9	19.7	11.2
Nov 26	9.8	9.4	13.5	13.4	11.9	12.6	14.5	13.4	9.2	9.3	**K**	**K**	10.8	10.4	10.5	9.2	9.3	6.8	7.8	7.4	9.9	9.0	11.6	15.0	6.8	15.0	10.7
Nov 27	16.4	12.8	11.7	14.4	13.9	12.9	13.8	15.7	18.9	20.4	16.0	17.1	22.8	32.5	33.4	29.3	20.4	19.5	15.2	13.1	20.8	18.5	18.0	16.0	11.7	33.4	**18.5**
Nov 28	11.8	14.0	11.7	11.4	8.2	8.7	15.5	14.1	10.0	10.2	**K**	**K**	9.6	15.1	19.5	**K**	12.6	10.1	10.1	14.9	10.4	14.5	18.4	10.6	8.2	19.5	12.4
Nov 29	4.7	5.9	11.5	15.5	19.1	15.8	18.6	12.8	19.2	9.8	16.3	16.4	14.8	11.1	10.9	8.6	5.6	5.8	2.7	5.4	5.9	5.1	3.3	6.2	2.7	19.2	10.5
Nov 30	3.3	4.0	4.9	4.2	2.9	5.7	4.8	6.2	8.8	10.0	**K**	7.7	5.1	**K**	9.1	6.7	9.7	15.3	16.8	17.0	18.1	16.6	14.2	15.6	2.9	18.1	9.4
Diurnal Maximum	27.3	25.7	25.2	30.9	31.5	25.6	21.7	19.4	19.2	20.4	25.5	24.2	23.7	32.5	33.4	29.3	24.0	31.1	42.6	37.7	36.4	42.1	37.9	28.0			
Diurnal Average	11.6	11.7	12.2	12.6	12.2	11.9	11.8	10.9	10.4	10.0	11.8	12.9	12.8	13.4	13.0	11.6	10.2	10.8	12.0	12.4	12.4	12.7	12.6	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.



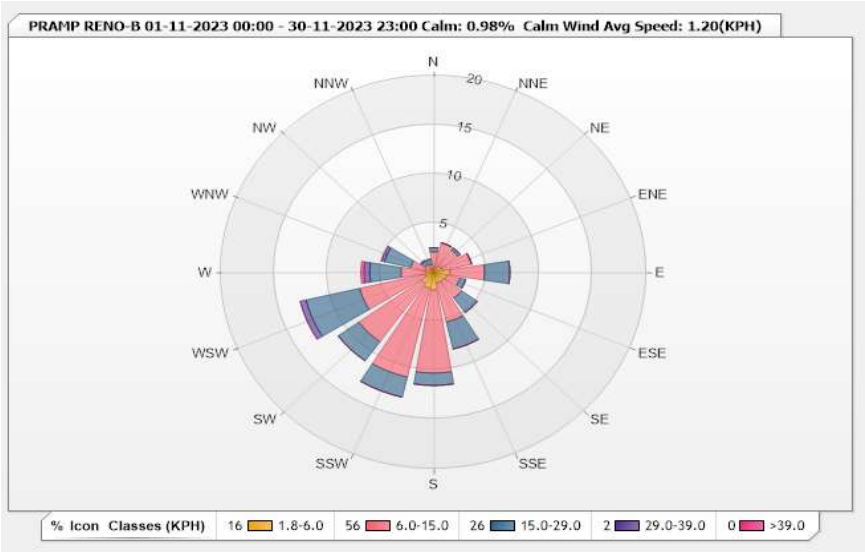


Station: PRAMP RENO-B Monitor: WDS [KPH] Monthly: 11-2023

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

Calm (WS<1.8kph): 0.98% Valid Data: 99.03%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.42	1.68	0.42	0	0	2.52
NNE	0.56	2.52	0	0	0	3.08
NE	0.84	1.96	0.28	0	0	3.08
ENE	0.84	2.81	0	0	0	3.65
E	1.54	3.23	2.38	0	0	7.15
ESE	1.26	1.26	0.56	0	0	3.08
SE	1.12	2.1	1.82	0	0	5.04
SSE	1.12	4.07	2.81	0	0	8
S	1.82	8.42	1.26	0	0	11.5
SSW	1.68	9.26	2.1	0	0	13.04
SW	1.4	7.29	2.38	0	0	11.07
WSW	0.84	6.31	5.19	0.56	0	12.9
W	0.7	2.38	2.95	0.56	0.28	6.87
WNW	0.84	1.4	2.52	0.28	0	5.04
NW	0.42	0.56	0.42	0.14	0	1.54
NNW	0.28	0.56	0.56	0	0	1.4
Summary	15.68	55.81	25.65	1.54	0.28	98.96



Peace River Area Monitoring Program

Reno-B Station - November 2023

Summary of Hourly Averages

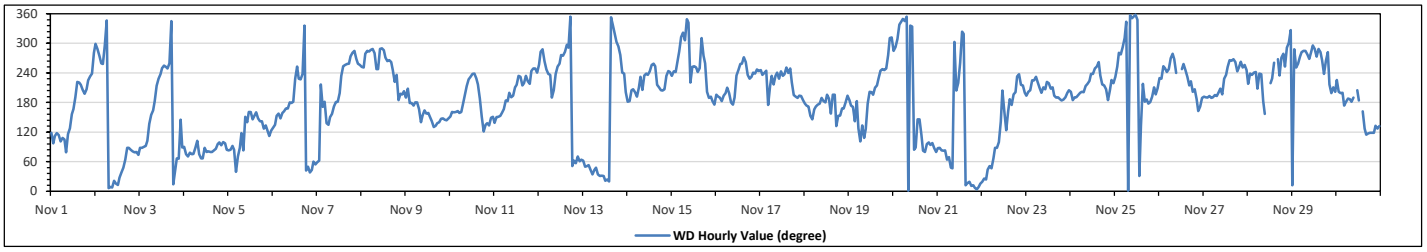
WIND DIRECTION (VWD) in sector

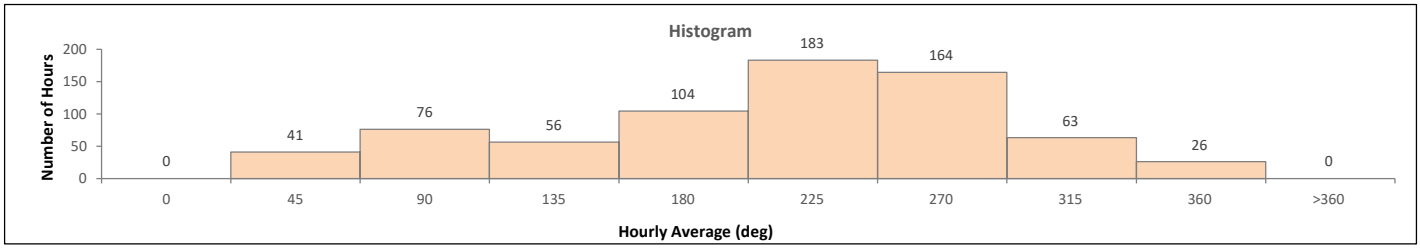
Monthly Average:	216 (SW)	degree	
Hours in Service:	720		
Hours of Data:	713		
Hours of Missing Data:	7		
Hours of Calibration:	0		
Operational Uptime:	99.0		

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
Nov 1	ESE	E	ESE	ESE	ESE	E	ESE	ESE	ENE	ESE	SE	SSE	SSE	S	SW	SW	SW	SSW	SSW	SSW	SW	SW	WSW	W	165	SSE
Nov 2	WNW	WNW	W	WSW	WSW	WNW	NNW	N	N	N	NNE	NNE	NNE	NNE	NE	NE	ENE	E	E	E	E	ENE	E	ENE	39	NE
Nov 3	E	E	E	E	E	SE	SSE	SSE	S	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	NNW	NNE	NE	ENE	ENE	SE	E	153	SSE
Nov 4	E	ENE	ENE	ENE	ENE	ENE	E	E	ENE	ENE	ENE	E	E	E	E	E	E	E	E	E	E	E	E	E	85	E
Nov 5	E	E	E	E	NE	ENE	E	ESE	E	SSE	SE	SSE	SSE	SE	SSE	SSE	SE	SE	SE	SE	SE	ESE	ESE	ESE	122	ESE
Nov 6	SE	SE	SSE	SSE	SE	SSE	SSE	SSE	SSE	S	S	S	SW	WSW	SW	SW	SW	NNW	NE	NE	NE	ENE	NE		152	SSE
Nov 7	ENE	ENE	SW	S	S	SE	SE	SSE	SSE	S	S	S	SSW	SW	WSW	WSW	WSW	WSW	W	W	WNW	W	WSW	WSW	248	WSW
Nov 8	WSW	WSW	W	WNW	WNW	WNW	WNW	W	WSW	WSW	WNW	WNW	WNW	W	W	W	W	WSW	SW	SW	S	SSW	SSW	SSW	271	W
Nov 9	S	SSW	S	S	S	S	S	SSE	SE	SSE	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	151	SSE
Nov 10	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSW	SSW	SW	SW	SW	WSW	SW	SW	S	SSE	ESE	SE	SE	SE	SSE	SSE	177	S
Nov 11	SE	SSE	SSE	SSE	SSE	SSE	S	S	SSW	S	SSW	SSW	SW	SW	SW	SSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	195	SSW
Nov 12	WSW	W	WNW	W	WSW	SW	SW	S	SSW	SW	WSW	WSW	W	W	W	WNW	WNW	N	NE	ENE	ENE	ENE	ENE	ENE	271	W
Nov 13	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NNE	NNE	NNE	NNE	NNE	NNE	N	NNW	NW	WNW	WNW	W	WSW	WSW	SSW	17	NNE
Nov 14	S	S	SSW	SSW	SSW	S	SSW	SW	SSW	SW	WSW	SW	WSW	WSW	WSW	WSW	SW	SSW	SSW	SSW	SSW	SW	WSW	WSW	226	SW
Nov 15	SW	WSW	WSW	W	WNW	NW	NW	NW	NNW	NNW	SW	WSW	WSW	WSW	WSW	WSW	NW	W	WSW	SSW	S	S	S	S	256	WSW
Nov 16	SSW	S	S	S	SSW	SSW	SSW	SSW	S	S	S	SW	WSW	WSW	WSW	W	W	SW	SW	SW	WSW	WSW	WSW	WSW	224	SW
Nov 17	WSW	SW	WSW	WSW	S	SSW	SW	SW	SW	WSW	SW	WSW	SW	SW	WSW	WSW	WSW	SW	SSW	S	S	SSW	S	S	227	SW
Nov 18	S	S	S	SSE	SE	SSE	S	S	S	S	S	S	SSW	S	SSE	SSW	SSW	SE	SSE	SSE	SSE	SSE	S	SSW	174	S
Nov 19	S	S	S	SE	S	SE	E	SE	ESE	SE	S	SSW	SSW	SSW	SSW	SSW	SW	WSW	WSW	WSW	WSW	W	NW	NW	246	WSW
Nov 20	WNW	WNW	NW	NNW	NNW	N	NNW	N	N	NNW	NNW	E	E	SE	SE	ESE	E	E	E	E	E	E	E	E	11	NNE
Nov 21	E	E	E	E	E	ENE	ENE	NE	NE	WNW	SSW	SW	W	NW	NW	NNE	NNE	NNE	NNE	NNE	N	N	N	NNE	47	NE
Nov 22	NNE	NNE	NNE	NE	NE	NE	ENE	E	E	E	SE	SSW	SSE	ESE	SSE	S	S	SSW	SSW	SW	SW	SW	SSW	SSW	143	SE
Nov 23	SSW	SSW	SSW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SSW	SSW	SSW	S	S	S	S	S	S	SSW	SSW	203	SSW
Nov 24	SSW	S	S	S	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	WSW	WSW	W	SW	SW	SSW	SSW	S	SSW	SW	SW	218	SW
Nov 25	SW	WSW	W	W	WNW	NW	NNW	N	N	N	N	N	NNW	NNE	SE	SW	S	S	S	S	S	SSW	SSW	SSW	276	W
Nov 26	SW	SW	WSW	WSW	WSW	WSW	W	W	W	WSW	K	K	WSW	WSW	WSW	SW	SSW	SW	SSW	SSW	S	SSE	S	S	233	SW
Nov 27	S	S	S	S	S	S	SSW	S	SSW	SSW	SSW	SW	SW	WSW	W	W	W	W	WSW	WSW	W	WSW	WSW	WSW	233	SW
Nov 28	SW	WSW	SW	WSW	WSW	SSW	WSW	SW	S	SSE	K	K	SW	SW	W	K	W	SW	W	W	WSW	WNW	WNW	NW	248	WSW
Nov 29	NNE	WNW	WSW	WSW	W	W	WNW	WNW	W	W	W	WNW	WNW	W	WNW	W	W	SW	W	W	SW	SSW	SSW	SSW	274	W
Nov 30	SW	SSW	SSW	SSW	S	S	S	S	S	S	K	SSW	S	K	SSE	SE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	146	SE

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 - November 2023

Summary of Hourly Averages

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

WIND SPEED

Maximum Hourly Value:	42.6	kph	on Nov 7 at hr 18	Hours in Service:	720
Maximum Daily Value:	18.5	kph	on Nov 27	Hours of Data:	713
Minimum Hourly Value:	0.7	kph	on Nov 20 at hr 9	Hours of Missing Data:	7
Minimum Daily Value:	6.6	kph	on Nov 5	Hours of Calibration:	0
Monthly Average:	5.0	kph		Operational Uptime:	99.0

WIND DIRECTION

Monthly Average: 216 degree (SW)

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			
Nov 1	3.0	5.1	6.2	5.9	5.7	8.5	3.4	3.8	3.9	12.0	13.1	11.0	11.8	10.3	8.9	5.9	7.9	7.1	6.4	7.9	7.0	6.1	3.4	5.1	3.0	13.1	7.1
	ESE	E	ESE	ESE	ESE	E	ESE	ESE	ENE	ESE	SE	SSE	SSE	S	SW	SW	SW	SSW	SSW	SSW	SW	SW	WSW	W			165(SSE)
Nov 2	2.0	2.9	6.8	4.6	4.4	3.4	8.3	8.6	10.0	9.4	7.5	7.3	7.1	5.9	5.6	6.7	6.3	8.4	10.5	10.5	9.1	9.3	9.5	9.8	2.0	10.5	7.2
	WNW	WNW	W	WSW	WSW	WNW	NNW	N	N	N	NNE	NNE	NNE	NNE	NE	NE	ENE	E	E	E	E	ENE	E	ENE			39(NE)
Nov 3	13.2	11.7	10.6	11.1	11.1	12.7	12.2	10.3	8.9	10.9	10.8	9.5	8.5	7.2	6.2	5.9	4.4	4.4	2.9	3.7	2.3	3.5	0.8	2.5	0.8	13.2	7.7
	E	E	E	E	E	SE	SSE	SSE	S	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	NNW	NNE	NE	ENE	ENE	SE	E			153(SSE)
Nov 4	2.8	4.9	7.8	8.6	8.8	10.1	11.9	12.1	9.8	13.0	12.8	14.6	16.1	15.3	17.6	18.1	17.9	17.7	20.6	20.6	17.8	16.2	14.1	11.2	2.8	20.6	13.4
	E	ENE	ENE	ENE	ENE	ENE	E	E	ENE	ENE	ENE	E	E	E	E	E	E	E	E	E	E	E	E	E			85(E)
Nov 5	12.2	11.3	10.6	5.9	3.9	2.6	1.7	2.0	2.2	3.1	6.0	8.5	6.7	4.5	5.5	6.2	7.2	9.0	9.6	7.8	8.0	8.6	8.5	6.7	1.7	12.2	**6.6**
	E	E	E	E	NE	ENE	E	ESE	E	SSE	SE	SSE	SSE	SE	SSE	SSE	SE	SE	SE	SE	SE	ESE	ESE	ESE			122(ESE)
Nov 6	9.5	7.0	7.4	10.2	10.2	12.6	13.0	11.3	11.2	9.8	10.7	9.2	6.5	7.3	5.7	3.5	2.8	1.7	7.6	10.3	8.1	8.1	5.0	6.2	1.7	13.0	8.1
	SE	SE	SSE	SSE	SE	SSE	SSE	SSE	SSE	S	S	S	SW	WSW	SW	SW	SW	NNW	NE	NE	NE	NE	ENE	NE			152(SSE)
Nov 7	6.9	8.9	3.7	4.9	3.3	2.9	6.8	11.6	9.7	9.9	12.2	12.2	10.9	13.0	22.9	23.8	24.0	31.1	**42.6**	37.7	25.4	16.9	14.2	11.0	2.9	**42.6**	15.3
	ENE	ENE	SW	S	S	SE	SE	SSE	SSE	S	S	S	SSW	SW	WSW	WSW	WSW	WSW	W	W	WNW	W	WSW	WSW			248(WSW)
Nov 8	10.3	13.2	19.3	24.6	19.2	22.9	21.6	17.1	12.9	11.7	25.5	24.2	21.0	15.3	13.6	12.0	8.6	8.3	7.4	4.2	4.6	4.1	7.0	3.5	3.5	25.5	13.8
	WSW	WSW	W	WNW	WNW	WNW	WNW	W	WSW	WSW	WNW	WNW	WNW	W	W	W	W	WSW	SW	SW	S	SSW	SSW	SSW			271(W)
Nov 9	4.4	6.7	3.5	6.9	8.0	7.1	8.1	10.6	10.3	12.8	16.0	16.9	17.0	16.1	16.8	18.7	20.7	24.8	22.7	19.4	21.1	20.0	19.9	21.2	3.5	24.8	14.6
	S	SSW	S	S	S	S	S	SSE	SE	SSE	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE			151(SSE)
Nov 10	20.9	18.0	16.5	15.5	14.6	14.5	15.9	14.9	13.9	14.7	18.4	23.0	23.7	20.6	19.2	12.5	10.2	10.7	14.0	16.6	17.8	20.3	22.6	23.0	10.2	23.7	17.2
	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSW	SSW	SW	SW	SW	WSW	SW	SW	S	SSE	ESE	SE	SE	SE	SSE	SSE			177(S)
Nov 11	17.2	20.4	22.9	21.7	21.7	21.8	18.1	18.2	15.8	12.8	10.1	13.5	15.5	20.0	17.1	12.3	8.7	6.4	6.6	7.2	8.9	11.3	13.7	19.4	6.4	22.9	15.1
	SE	SSE	SSE	SSE	SSE	SSE	S	S	SSW	S	SSW	SSW	SW	SW	SW	SSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW			195(SSW)
Nov 12	18.5	21.0	15.9	10.0	11.8	9.7	8.6	4.9	9.9	12.9	17.8	20.9	21.6	24.8	19.1	14.3	9.3	2.4	2.6	6.0	8.5	9.7	9.9	9.8	2.4	24.8	12.5
	WSW	W	WNW	W	WSW	SW	SW	S	SSW	SW	WSW	WSW	W	W	W	WNW	WNW	N	NE	ENE	ENE	ENE	ENE	ENE			271(W)
Nov 13	11.0	12.5	12.3	16.8	14.7	11.9	14.6	18.3	14.2	9.9	11.6	11.0	10.5	10.1	9.2	14.9	15.4	13.2	11.8	12.4	8.4	8.7	9.3	11.7	8.4	18.3	12.3
	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NNE	NNE	NNE	NNE	NNE	NNE	N	NNW	NW	WNW	WNW	W	WSW	WSW	SSW			17(NNE)
Nov 14	11.6	11.1	12.3	15.5	16.3	13.1	8.6	10.8	7.5	9.7	15.8	17.7	17.8	23.3	22.5	17.3	12.2	11.7	14.1	13.2	11.6	21.4	21.7	18.3	7.5	23.3	14.8
	S	S	SSW	SSW	SSW	S	SSW	SW	SSW	SW	WSW	SW	WSW	WSW	WSW	WSW	SW	SSW	SSW	SSW	SSW	SW	WSW	WSW			226(SW)
Nov 15	19.5	17.7	17.1	30.9	31.5	19.1	11.1	7.3	3.3	1.3	2.8	9.4	9.1	10.0	7.7	8.2	4.4	8.6	4.1	5.5	7.2	8.9	9.3	13.1	1.3	31.5	11.1
	SW	WSW	WSW	W	WNW	NW	NW	NW	NNW	NNW	SW	WSW	WSW	WSW	WSW	WSW	NW	W	WSW	SSW	S	S	S	S			256(WSW)
Nov 16	10.2	11.1	13.2	14.0	16.3	16.4	21.7	19.4	16.2	14.9	14.7	20.4	21.2	25.5	19.1	16.1	16.4	9.3	7.9	16.4	18.2	18.0	18.4	13.8	7.9	25.5	16.2
	SSW	S	S	S	SSW	SSW	SSW	SSW	S	S	S	SW	WSW	WSW	WSW	W	W	SW	SW	SW	WSW	WSW	WSW	WSW			224(SW)
Nov 17	17.7	16.4	17.8	12.3	3.5	13.9	10.8	12.1	14.4	13.7	14.7	16.0	18.7	20.3	20.0	11.7	2.5	3.9	7.0	6.2	7.8	14.4	14.9	14.4	2.5	20.3	12.7
	WSW	SW	WSW	WSW	S	SSW	SW	SW	SW	WSW	SW	WSW	SW	SW	WSW	WSW	WSW	SW	SSW	S	S	SSW	S	S			227(SW)
Nov 18	10.3	8.3	9.4	7.1	11.0	15.5	14.4	14.8	15.7	9.9	9.2	10.2	10.2	11.0	9.5	5.5	4.8	3.1	5.1	5.9	7.2	2.4	2.5	2.9	2.4	15.7	8.6
	S	S	S	SSE	SE	SSE	S	S	S	S	S	S	SSW	S	SSE	SSW	SSW	SE	SSE	SSE	SSE	SSE	S	SSW			174(S)
Nov 19	9.0	6.9	2.8	2.2	6.3	2.3	5.9	2.0	2.5	5.1	7.2	9.5	10.8	8.0	12.1	12.0	16.0	26.5	34.3	33.9	36.4	42.1	37.9	28.0	2.0	42.1	15.0
	S	S	S	SE	S	SE	E	SE	ESE	SE	S	SSW	SSW	SSW	SSW	SSW	SW	WSW	WSW	WSW	WSW	W	NW	NW			246(WSW)
Nov 20	27.3	25.7	25.2	19.4	20.3	25.6	17.3	10.9	4.6	**0.7**	3.0	3.8	4.3	4.4	8.0	7.0	4.9	6.9	10.7	12.7	13.5	15.5	15.0	17.1	**0.7**	27.3	12.7
	WNW	WNW	NW	NNW	NNW	N	NNW	N	N	NNW	NNW	E	E	SE	SE	ESE	E	E	E	E	E	E	E	E			11(NNE)
Nov 21	19.2	18.3	18.4	18.1	17.3	10.8	9.9	5.9	4.7	1.3	6.2	12.1	10.5	6.0	4.0	6.8	6.5	7.6	12.7	13.8	10.9	9.3	9.9	8.5	1.3	19.2	10.4
	E	E	E	E	E	ENE	ENE	NE	NE	WNW	SSW	SW	W	NW	NW	NNE	NNE	NNE	NNE	NNE	N	N	N	NNE			47(NE)
Nov 22	7.6	8.3	9.4	10.2	8.5	6.2	6.2	4.1	5.5	6.2	5.7	2.6	1.9	5.1	2.8	7.6	6.3	6.1	6.2	9.0	8.7	8.8	11.9	8.2	1.9	11.9	6.8
	NNE	NNE	NNE	NE	NE	NE	ENE	E	E	E	SE	SSW	SSE	ESE	SSE	S	S	SSW	SSW	SW	SW	SW	SSW	SSW			143(SE)
Nov 23	9.4	8.0	10.6	11.5	12.1	10.6	10.0	9.9	8.8	8.6	9.4	12.9	11.4	13.5	14.5	12.9	12.0	15.6	15.6	15.7	17.0	18.0	13.5	14.6	8.0	18.0	12.3
	SSW	SSW	SSW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SSW	SSW	SSW	S	S	S	S	S	S	SSW	SSW			203(SSW)
Nov 24	12.1	12.8	14.7	12.7	16.3	15.1	12.1	15.5	13.6	11.9	13.6	14.6	16.9	17.4	19.2	19.5	13.6	13.0	13.3	8.8	7.5	8.4	9.4	13.8	7.5	19.5	13.6
	SSW	S	S	S	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	WSW	WSW	W	SW	SW	SSW	SSW	S	SSW	SW	SW			218(SW)
Nov 25	16.8	16.9	19.7	17.8	12.4	12.4	13.2	8.0	15.9	15.4	11.4	8.9	10.4	5.2	0.9	4.4	6.4	9.8	11.4	9.7	13.1	6.7	8.9	12.7	0.9	19.7	11.2
	SW	WSW	W	W	WNW	NW	NNW	N	N	N	N	N	NNW	NNE	SE	SW	S	S	S	S	S	SSW	SSW	SSW			276(W)
Nov 26	9.8	9.4	13.5	13.4	11.9	12.6	14.5	13.4	9.2	9.3	K	K	10.8	10.4	10.5	9.2	9.3	6.8	7.8	7.4	9.9	9.0	11.6	15.0	6.8	15.0	10.7
	SW	SW	WSW	WSW	WSW	WSW	W	W	W	WSW	K	K	WSW	WSW	WSW	SW	SSW	SW	SSW	SSW	S	SSE	S	S			233(SW)
Nov 27	16.4	12.8	11.7	14.4	13.9	12.9	13.8	15.7	18.9	20.4	16.0	17.1	22.8	32.5	33.4	29.3	20.4	19.5	15.2	13.1	20.8	18.5	18.0	16.0	11.7	33.4	**18.5**
	S	S	S	S	S	S	SSW	S	SSW	SSW	SSW	SW	SW	WSW	W	W	W	W	WSW	WSW	W	WSW	WSW	WSW			233(SW)
Nov 28	11.8	14.0	11.7	11.4	8.2	8.7	15.5	14.1	10.0	10.2	K	K	9.6	15.1	19.5	K	12.6	10.1	10.1	14.9	10.4	14.5	18.4	10.6	8.2	19.5	12.4
	SW	WSW	SW	WSW	WSW	SSW	WSW	SW	S	SSE	K	K	SW	SW	W	K	W	SW	W	W	WSW	WNW	WNW	NW			248(WSW)
Nov 29	4.7	5.9	11.5	15.5	19.1	15.8	18.6	12.8	19.2	9.8	16.3	16.4	14.8	11.1	10.9	8.6	5.6	5.8	2.7	5.4	5.9	5.1	3.3	6.2	2.7	19.2	10.5
	NNE	WNW	WSW	WSW	W	W	WNW	WNW	W	W	W	WNW	WNW	W	WNW	W	W	SW	W	W	SW	SSW	SSW	SSW			274(W)
Nov 30	3.3	4.0	4.9	4.2	2.9	5.7	4.8	6.2	8.8	10.0	K	7.7	5.1	K	9.1	6.7	9.7	15.3	16.8	17.0	18.1	16.6	14.2	15.6	2.9	18.1	9.4
	SW	SSW	SSW	SSW	S	S	S	S	S	S	K	SSW	S	K	SSE	SE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE			146(SE)

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 - November 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

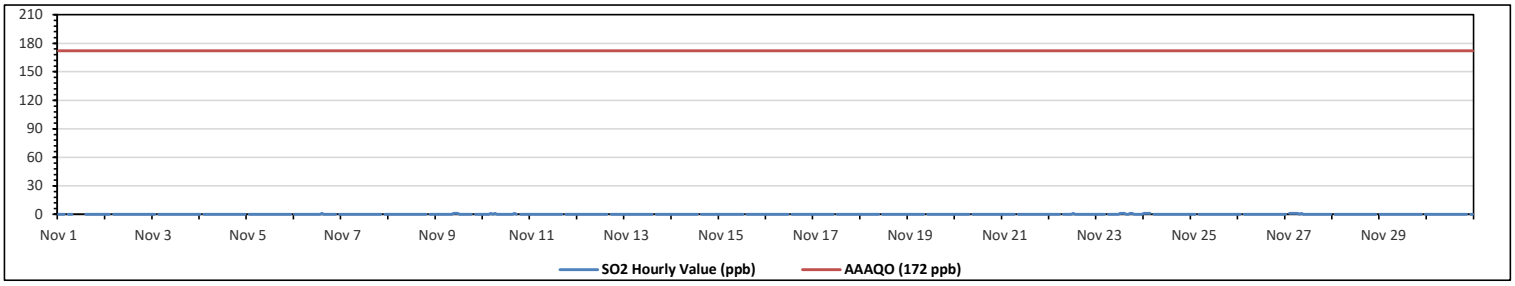
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

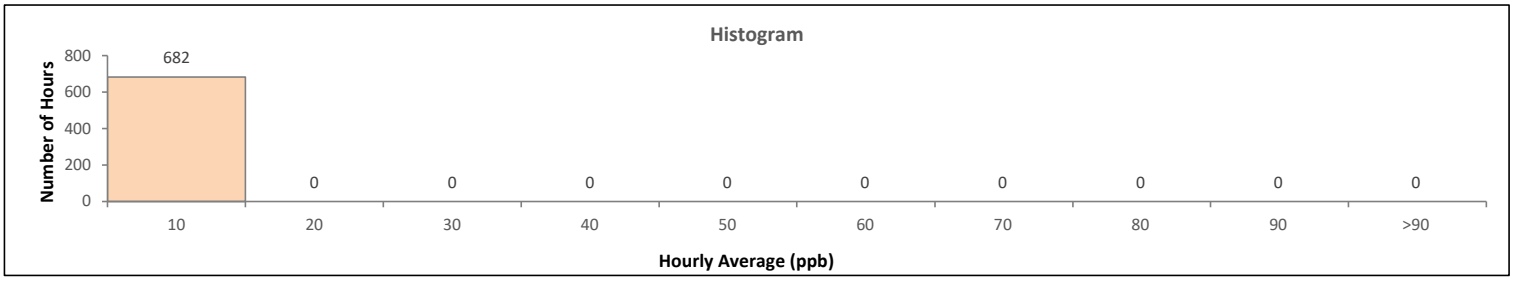
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0		
Maximum Hourly Value:	1	ppb	on Nov 6 at hr 14	Hours in Service:	720		
Maximum Daily Value:	0.3	ppb	on Nov 27	Hours of Data:	682		
Minimum Hourly Value:	0	ppb	on Nov 1 at hr 0	Hours of Missing Data:	0		
Minimum Daily Value:	0.0	ppb	on Nov 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			
Nov 1	0	0	0	0	S	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	NA
Nov 2	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
Nov 3	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
Nov 4	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
Nov 5	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
Nov 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	S	0	0	1	0.0
Nov 7	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
Nov 8	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
Nov 9	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	S	0	0	0	0	0	1	0.1
Nov 10	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	S	0	0	0	0	0	0	1	0.1
Nov 11	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
Nov 12	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
Nov 13	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
Nov 14	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
Nov 15	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
Nov 16	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
Nov 17	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
Nov 18	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
Nov 19	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
Nov 20	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
Nov 21	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
Nov 22	0	0	0	0	0	0	S	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Nov 23	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	1	0	0	0	0	0	0	1	0.2
Nov 24	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2
Nov 25	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
Nov 26	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
Nov 27	0	S	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3
Nov 28	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
Nov 29	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
Nov 30	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
Diurnal Maximum	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0			
Diurnal Average	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	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.



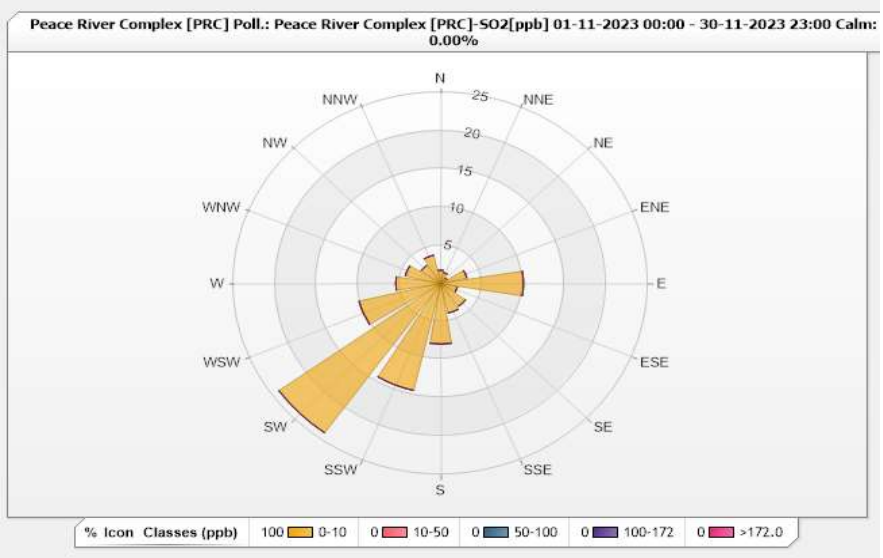


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-SO2[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.72% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	1.76	0	0	0	0	1.76
NNE	1.47	0	0	0	0	1.47
NE	0.88	0	0	0	0	0.88
ENE	3.23	0	0	0	0	3.23
E	9.97	0	0	0	0	9.97
ESE	2.05	0	0	0	0	2.05
SE	3.67	0	0	0	0	3.67
SSE	3.96	0	0	0	0	3.96
S	7.92	0	0	0	0	7.92
SSW	14.37	0	0	0	0	14.37
SW	24.05	0	0	0	0	24.05
WSW	10.12	0	0	0	0	10.12
W	5.43	0	0	0	0	5.43
WNW	4.4	0	0	0	0	4.4
NW	2.93	0	0	0	0	2.93
NNW	3.81	0	0	0	0	3.81
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - November 2023

Summary of Hourly Averages

HYDROGEN SULPHIDE (H_2S) in ppb

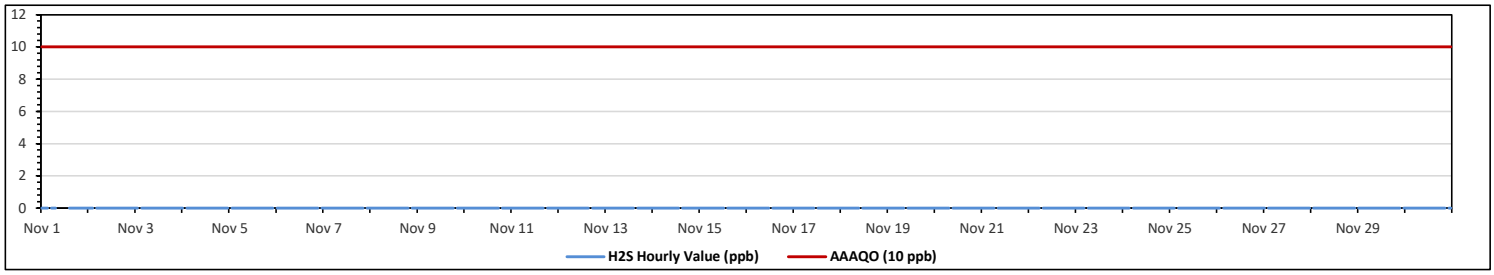
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 10 ppb, 24-Hour 3 ppb

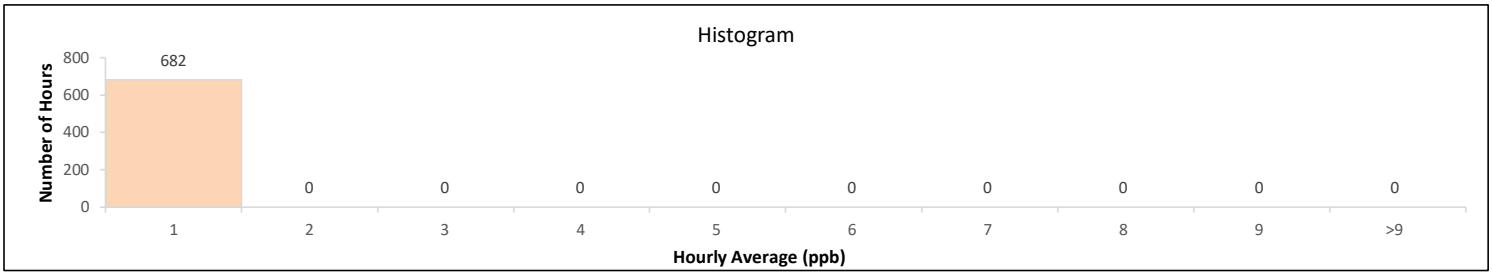
Number of 1-Hour Exceedances:	0		Number of 24-Hour Exceedances:	0		
Maximum Hourly Value:	0	ppb	on Nov 1 at hr 0	Hours in Service:	720	
Maximum Daily Value:	0.0	ppb	on Nov 2	Hours of Data:	682	
Minimum Hourly Value:	0	ppb	on Nov 1 at hr 0	Hours of Missing Data:	0	
Minimum Daily Value:	0.0	ppb	on Nov 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			
Nov 1	0	0	0	0	S	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	-
Nov 2	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
Nov 3	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
Nov 4	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
Nov 5	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
Nov 6	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
Nov 7	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
Nov 8	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
Nov 9	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
Nov 10	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
Nov 11	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
Nov 12	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
Nov 13	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
Nov 14	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
Nov 15	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
Nov 16	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
Nov 17	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
Nov 18	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
Nov 19	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
Nov 20	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
Nov 21	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
Nov 22	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
Nov 23	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
Nov 24	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
Nov 25	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
Nov 26	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
Nov 27	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
Nov 28	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
Nov 29	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
Nov 30	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
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			
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.



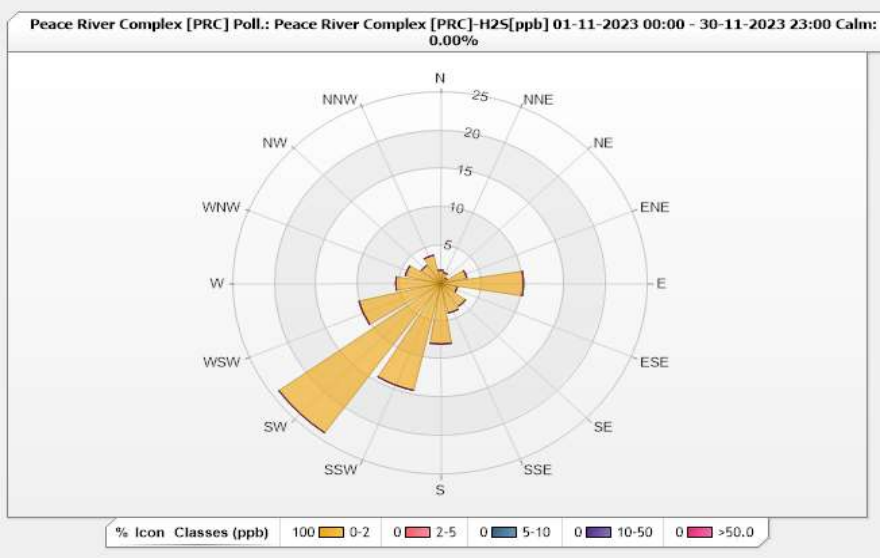


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-H2S[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.72% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	1.76	0	0	0	0	1.76
NNE	1.47	0	0	0	0	1.47
NE	0.88	0	0	0	0	0.88
ENE	3.23	0	0	0	0	3.23
E	9.97	0	0	0	0	9.97
ESE	2.05	0	0	0	0	2.05
SE	3.67	0	0	0	0	3.67
SSE	3.96	0	0	0	0	3.96
S	7.92	0	0	0	0	7.92
SSW	14.37	0	0	0	0	14.37
SW	24.05	0	0	0	0	24.05
WSW	10.12	0	0	0	0	10.12
W	5.43	0	0	0	0	5.43
WNW	4.4	0	0	0	0	4.4
NW	2.93	0	0	0	0	2.93
NNW	3.81	0	0	0	0	3.81
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - November 2023

Summary of Hourly Averages

TOTAL REDUCED SULPHUR (TRS) in ppb

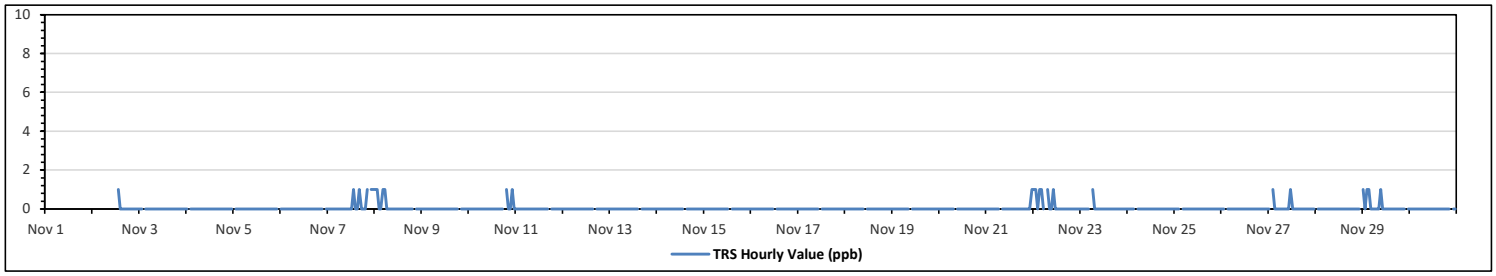
Maximum Hourly Value:	1	ppb	on Nov 2 at hr 13	Hours in Service:	720	
Maximum Daily Value:	0.3	ppb	on Nov 22	Hours of Data:	653	
Minimum Hourly Value:	0	ppb	on Nov 2 at hr 14	Hours of Missing Data:	34	
Minimum Daily Value:	0.0	ppb	on Nov 3	Hours of Calibration:	33	
Monthly Average:	0.0	ppb		Operational Uptime:	95.3	

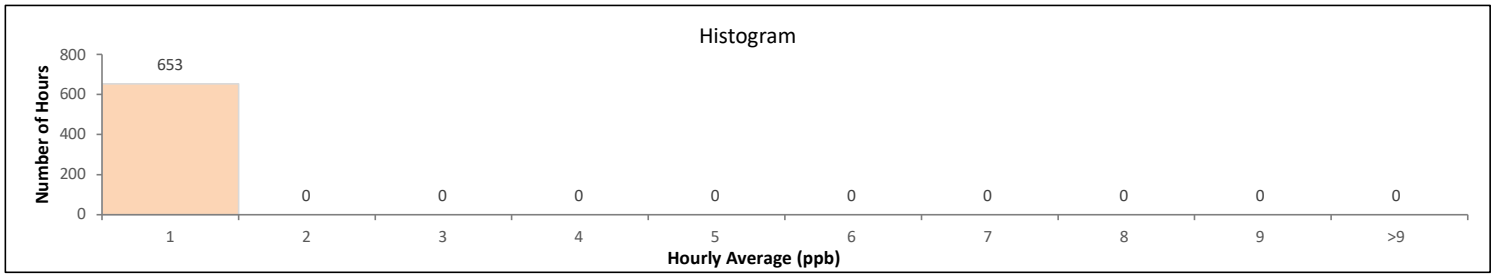
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Nov 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
Nov 2	X	X	X	X	X	X	X	X	X	X	C	C	C	1	0	0	0	0	0	0	0	0	0	0	0	1	NA
Nov 3	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Nov 4	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
Nov 5	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
Nov 6	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
Nov 7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	S	1	1	0	1	0.2
Nov 8	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	0.2
Nov 9	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
Nov 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	1	0	0	1	0.1
Nov 11	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
Nov 12	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
Nov 13	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
Nov 14	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
Nov 15	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
Nov 16	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
Nov 17	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
Nov 18	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
Nov 19	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
Nov 20	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
Nov 21	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.0
Nov 22	1	1	0	1	1	0	S	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3
Nov 23	0	0	0	0	0	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Nov 24	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
Nov 25	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
Nov 26	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
Nov 27	0	S	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Nov 28	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
Nov 29	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0.2
Nov 30	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
Diurnal Maximum	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0	0.0	1.0	1.0			
Diurnal Average	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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.



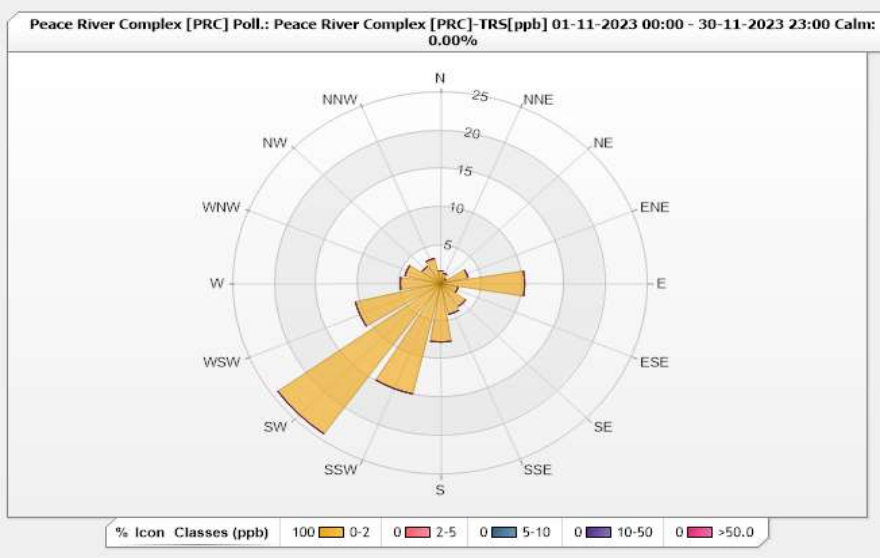


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-TRS[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 90.69% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	1.68	0	0	0	0	1.68
NNE	1.38	0	0	0	0	1.38
NE	0.77	0	0	0	0	0.77
ENE	3.37	0	0	0	0	3.37
E	10.11	0	0	0	0	10.11
ESE	2.14	0	0	0	0	2.14
SE	3.68	0	0	0	0	3.68
SSE	4.13	0	0	0	0	4.13
S	7.66	0	0	0	0	7.66
SSW	14.85	0	0	0	0	14.85
SW	24.2	0	0	0	0	24.2
WSW	10.57	0	0	0	0	10.57
W	4.9	0	0	0	0	4.9
WNW	4.44	0	0	0	0	4.44
NW	2.76	0	0	0	0	2.76
NNW	3.37	0	0	0	0	3.37
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - November 2023

Summary of Hourly Averages

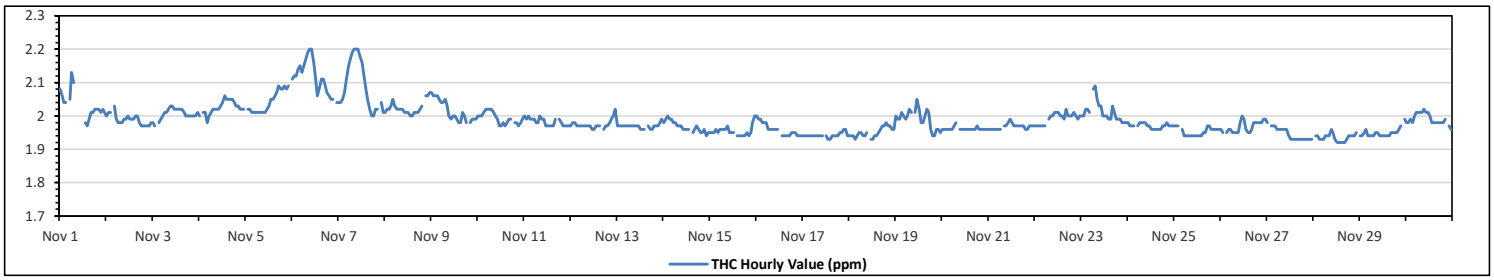
TOTAL HYDROCARBONS (THC) in ppm

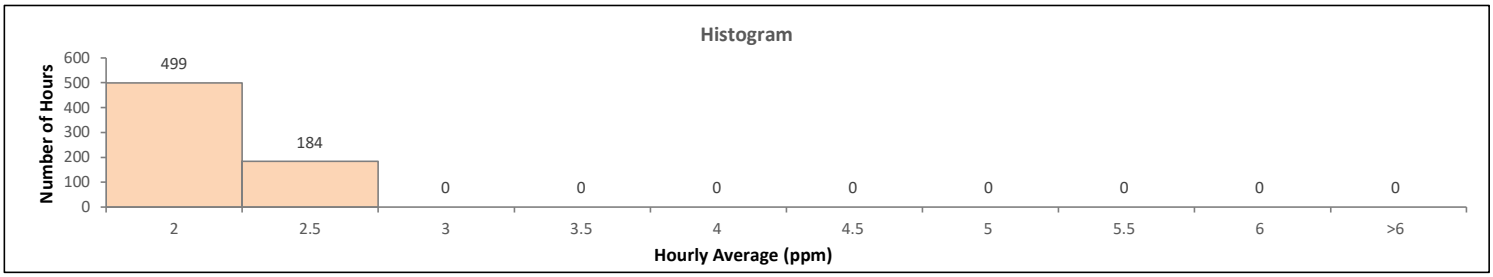
Maximum Hourly Value:	2.20	ppm	on Nov 6 at hr 9	Hours in Service:	720	
Maximum Daily Value:	2.12	ppm	on Nov 6	Hours of Data:	683	
Minimum Hourly Value:	1.92	ppm	on Nov 28 at hr 12	Hours of Missing Data:	0	
Minimum Daily Value:	1.94	ppm	on Nov 28	Hours of Calibration:	37	
Monthly Average:	1.99	ppm		Operational 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			
Nov 1	2.08	2.06	2.04	2.04	S	2.05	2.13	2.10	C	C	C	C	C	1.98	1.97	1.99	2.01	2.01	2.02	2.02	2.02	2.01	2.02	2.01	1.97	2.13	2.03
Nov 2	2.00	2.01	2.01	S	2.03	1.99	1.98	1.98	1.98	1.99	1.99	2.00	1.99	1.99	1.99	2.00	2.00	1.98	1.97	1.97	1.97	1.97	1.97	1.98	1.97	2.03	1.99
Nov 3	1.98	1.97	S	1.98	1.99	2.00	2.01	2.01	2.02	2.03	2.03	2.02	2.02	2.02	2.02	2.02	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.01	1.97	2.03	2.01
Nov 4	2.00	S	2.01	2.01	1.98	2.00	2.01	2.02	2.02	2.02	2.02	2.03	2.04	2.06	2.05	2.05	2.05	2.05	2.04	2.03	2.03	2.02	2.02	2.02	1.98	2.06	2.03
Nov 5	S	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.03	2.05	2.05	2.06	2.07	2.09	2.08	2.08	2.09	2.08	2.09	S	2.01	2.09	2.04
Nov 6	2.11	2.12	2.12	2.14	2.15	2.13	2.15	2.17	2.19	**2.20**	**2.20**	2.16	2.11	2.06	2.08	2.11	2.11	2.09	2.07	2.06	2.05	2.05	S	2.04	2.04	**2.20**	**2.12**
Nov 7	2.04	2.04	2.05	2.07	2.11	2.15	2.17	2.19	**2.20**	**2.20**	**2.20**	2.18	2.16	2.12	2.08	2.05	2.02	2.00	2.00	2.02	2.02	S	2.04	2.01	2.00	**2.20**	2.09
Nov 8	2.01	2.02	2.02	2.03	2.05	2.03	2.02	2.02	2.02	2.02	2.01	2.01	2.01	2.00	2.00	2.01	2.01	2.01	2.02	2.03	S	2.06	2.06	2.07	2.00	2.07	2.02
Nov 9	2.07	2.06	2.06	2.06	2.05	2.04	2.04	2.05	2.03	2.00	1.99	2.00	2.00	1.99	1.98	1.98	2.01	2.00	1.98	S	1.98	1.99	1.99	1.99	1.98	2.07	2.01
Nov 10	2.00	2.00	2.00	2.01	2.02	2.02	2.02	2.02	2.01	2.00	1.99	1.97	1.97	1.98	1.97	1.98	1.99	1.99	S	1.98	1.98	1.97	1.98	1.99	1.97	2.02	1.99
Nov 11	2.00	1.99	2.00	1.99	1.99	1.99	1.98	1.98	2.00	1.99	1.99	1.97	1.97	1.97	1.97	1.97	1.99	S	1.99	1.98	1.97	1.97	1.97	1.97	1.97	2.00	1.98
Nov 12	1.97	1.98	1.98	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.96	1.97	1.97	1.97	S	1.96	1.97	1.97	1.98	1.99	2.00	2.02	1.96	2.02	1.97
Nov 13	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.96	1.96	S	1.97	1.96	1.96	1.97	1.97	1.97	1.98	1.99	1.96	1.99	1.97
Nov 14	1.98	1.99	2.00	1.99	1.99	1.98	1.98	1.97	1.97	1.97	1.96	1.96	1.96	1.96	S	1.95	1.96	1.97	1.96	1.95	1.95	1.96	1.94	1.95	1.94	2.00	1.97
Nov 15	1.95	1.95	1.95	1.96	1.95	1.96	1.96	1.96	1.96	1.97	1.95	1.95	1.95	S	1.94	1.94	1.94	1.94	1.94	1.95	1.94	1.95	1.98	2.00	1.94	2.00	1.95
Nov 16	2.00	1.99	1.99	1.98	1.98	1.98	1.96	1.96	1.96	1.96	1.96	1.96	S	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.94	1.94	1.94	1.94	2.00	1.96
Nov 17	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	S	1.94	1.93	1.93	1.94	1.94	1.94	1.94	1.95	1.95	1.96	1.96	1.94	1.93	1.96	1.94
Nov 18	1.94	1.94	1.94	1.93	1.94	1.95	1.95	1.94	1.94	1.95	S	1.93	1.93	1.94	1.94	1.95	1.96	1.97	1.97	1.98	1.97	1.97	1.96	1.96	1.93	1.98	1.95
Nov 19	2.00	1.99	1.99	2.01	2.00	1.99	2.00	2.02	2.01	S	2.01	2.05	2.02	1.98	1.98	2.00	2.02	2.01	1.96	1.94	1.94	1.96	1.96	1.95	1.94	2.05	1.99
Nov 20	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.98	S	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.98	1.96
Nov 21	1.96	1.96	1.96	1.96	1.96	1.96	1.96	S	1.97	1.97	1.98	1.99	1.98	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.96	1.97	1.97	1.97	1.96	1.99	1.97
Nov 22	1.97	1.97	1.97	1.97	1.97	1.97	S	1.99	2.00	2.00	2.01	2.01	2.01	2.00	2.00	1.99	2.02	2.00	2.00	2.00	2.01	2.00	1.99	2.00	1.97	2.02	1.99
Nov 23	2.00	2.00	2.02	2.02	2.01	S	2.08	2.09	2.05	2.03	2.03	2.00	2.00	2.00	1.99	1.99	2.03	2.01	1.99	1.99	1.99	1.98	1.98	1.98	1.98	2.09	2.01
Nov 24	1.98	1.97	1.97	1.97	S	1.97	1.98	1.98	1.98	1.98	1.97	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.98	1.97	1.97	1.97	1.96	1.98	1.97
Nov 25	1.97	1.97	1.97	S	1.96	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.97	1.97	1.96	1.96	1.96	1.96	1.96	1.94	1.97	1.95
Nov 26	1.96	1.95	S	1.95	1.96	1.96	1.95	1.95	1.95	1.95	1.98	2.00	1.99	1.96	1.95	1.95	1.96	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.95	2.00	1.97
Nov 27	1.98	S	1.97	1.97	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.98	1.95
Nov 28	S	1.94	1.94	1.93	1.93	1.93	1.94	1.94	1.94	1.96	1.95	1.93	1.92	1.92	1.92	1.92	1.92	1.93	1.94	1.94	1.94	1.94	1.95	S	1.92	1.96	1.94
Nov 29	1.94	1.94	1.95	1.96	1.94	1.94	1.94	1.94	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.96	1.97	S	1.99	1.94	1.99	1.95
Nov 30	1.98	1.98	1.99	1.98	2.00	2.01	2.01	2.01	2.01	2.02	2.01	2.01	2.00	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	S	1.97	1.96	1.96	2.02	1.99
Diurnal Maximum	2.11	2.12	2.12	2.14	2.15	2.15	2.17	2.19	2.20	2.20	2.20	2.18	2.16	2.12	2.08	2.11	2.11	2.09	2.08	2.08	2.09	2.08	2.09	2.07			
Diurnal Average	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00	1.99	1.99	1.98	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98			

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.



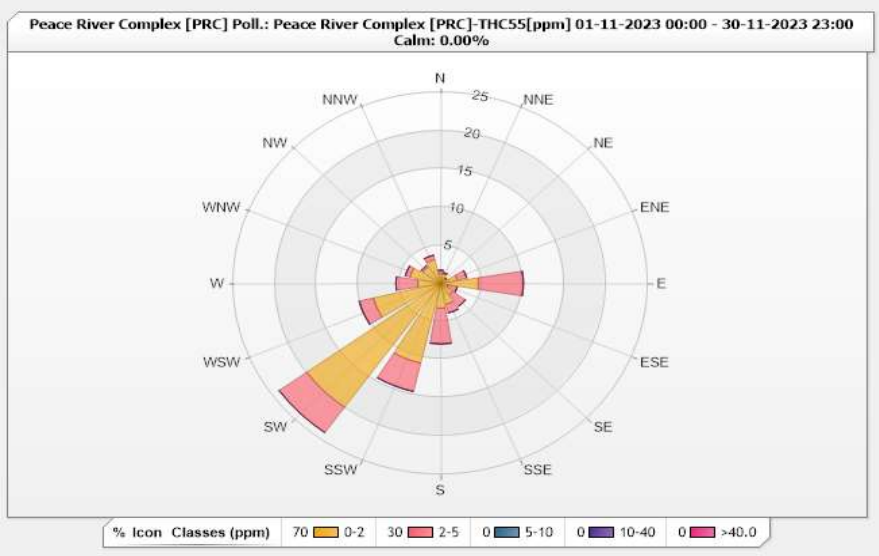


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-THC55[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.86% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	1.32	0.44	0	0	0	1.76
NNE	1.32	0.15	0	0	0	1.47
NE	0.88	0	0	0	0	0.88
ENE	2.05	1.17	0	0	0	3.22
E	4.54	5.42	0	0	0	9.96
ESE	0.88	1.17	0	0	0	2.05
SE	1.76	1.9	0	0	0	3.66
SSE	2.78	1.17	0	0	0	3.95
S	3.22	4.69	0	0	0	7.91
SSW	10.69	3.81	0	0	0	14.5
SW	19.91	4.1	0	0	0	24.01
WSW	8.35	1.76	0	0	0	10.11
W	2.78	2.64	0	0	0	5.42
WNW	3.81	0.59	0	0	0	4.4
NW	2.64	0.29	0	0	0	2.93
NNW	3.22	0.59	0	0	0	3.81
Summary	70.15	29.89	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - November 2023

Summary of Hourly Averages

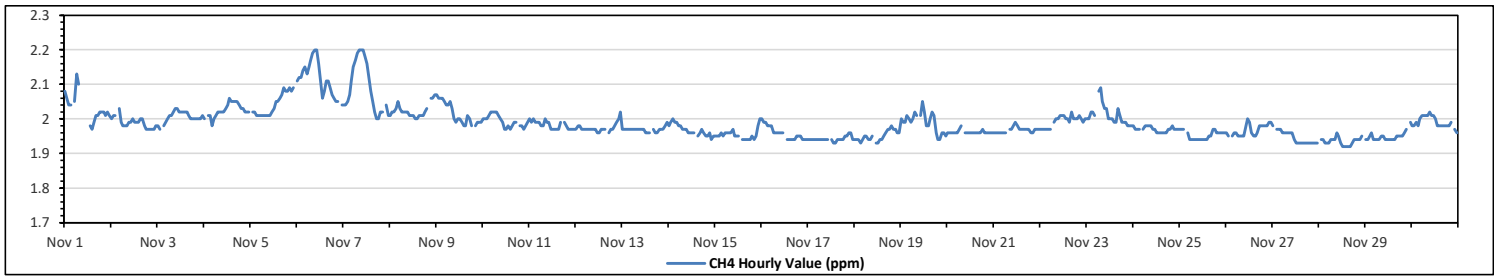
METHANE (CH4) in ppm

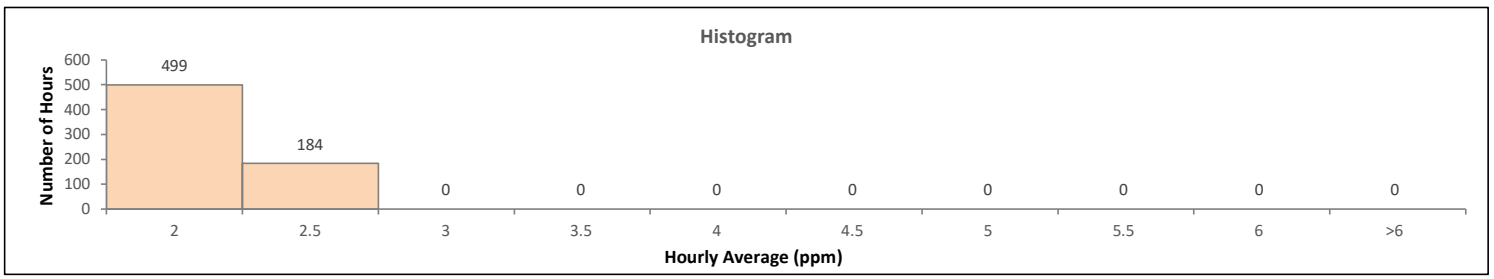
Maximum Hourly Value:	2.20	ppm	on Nov 6 at hr 9	Hours in Service:	720	
Maximum Daily Value:	2.12	ppm	on Nov 6	Hours of Data:	683	
Minimum Hourly Value:	1.92	ppm	on Nov 28 at hr 12	Hours of Missing Data:	0	
Minimum Daily Value:	1.94	ppm	on Nov 28	Hours of Calibration:	37	
Monthly Average:	1.99	ppm		Operational 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			
Nov 1	2.08	2.06	2.04	2.04	S	2.05	2.13	2.10	C	C	C	C	C	1.98	1.97	1.99	2.01	2.01	2.02	2.02	2.02	2.01	2.02	2.01	1.97	2.13	2.03
Nov 2	2.00	2.01	2.01	S	2.03	1.99	1.98	1.98	1.98	1.99	1.99	2.00	1.99	1.99	1.99	2.00	2.00	1.98	1.97	1.97	1.97	1.97	1.97	1.98	1.97	2.03	1.99
Nov 3	1.98	1.97	S	1.98	1.99	2.00	2.01	2.01	2.02	2.03	2.03	2.02	2.02	2.02	2.02	2.02	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.01	1.97	2.03	2.01
Nov 4	2.00	S	2.01	2.01	1.98	2.00	2.01	2.02	2.02	2.02	2.02	2.03	2.04	2.06	2.05	2.05	2.05	2.05	2.04	2.03	2.03	2.02	2.02	2.02	1.98	2.06	2.03
Nov 5	S	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.03	2.05	2.05	2.06	2.07	2.09	2.08	2.08	2.09	2.08	2.09	S	2.01	2.09	2.04
Nov 6	2.11	2.12	2.12	2.14	2.15	2.13	2.15	2.17	2.19	**2.20**	**2.20**	2.16	2.11	2.06	2.08	2.11	2.11	2.09	2.07	2.06	2.05	2.05	S	2.04	2.04	**2.20**	**2.12**
Nov 7	2.04	2.04	2.05	2.07	2.11	2.15	2.17	2.19	**2.20**	**2.20**	**2.20**	2.18	2.16	2.12	2.08	2.05	2.02	2.00	2.00	2.02	2.02	S	2.04	2.01	2.00	**2.20**	2.09
Nov 8	2.01	2.02	2.02	2.03	2.05	2.03	2.02	2.02	2.02	2.02	2.01	2.01	2.01	2.00	2.00	2.01	2.01	2.01	2.02	2.03	S	2.06	2.06	2.07	2.00	2.07	2.02
Nov 9	2.07	2.06	2.06	2.06	2.05	2.04	2.04	2.05	2.03	2.00	1.99	2.00	2.00	1.99	1.98	1.98	2.01	2.00	1.98	S	1.98	1.99	1.99	1.99	1.98	2.07	2.01
Nov 10	2.00	2.00	2.00	2.01	2.02	2.02	2.02	2.02	2.01	2.00	1.99	1.97	1.97	1.98	1.97	1.98	1.99	1.99	S	1.98	1.98	1.97	1.98	1.99	1.97	2.02	1.99
Nov 11	2.00	1.99	2.00	1.99	1.99	1.99	1.98	1.98	2.00	1.99	1.99	1.97	1.97	1.97	1.97	1.97	1.99	S	1.99	1.98	1.97	1.97	1.97	1.97	1.97	2.00	1.98
Nov 12	1.97	1.98	1.98	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.96	1.97	1.97	1.97	S	1.96	1.97	1.97	1.98	1.99	2.00	2.02	1.96	2.02	1.97
Nov 13	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.96	1.96	S	1.97	1.96	1.96	1.97	1.97	1.97	1.98	1.99	1.96	1.99	1.97
Nov 14	1.98	1.99	2.00	1.99	1.99	1.98	1.98	1.97	1.97	1.97	1.96	1.96	1.96	1.96	S	1.95	1.96	1.97	1.96	1.95	1.95	1.96	1.94	1.95	1.94	2.00	1.97
Nov 15	1.95	1.95	1.95	1.96	1.95	1.96	1.96	1.96	1.96	1.97	1.95	1.95	1.95	S	1.94	1.94	1.94	1.94	1.94	1.95	1.94	1.95	1.98	2.00	1.94	2.00	1.95
Nov 16	2.00	1.99	1.99	1.98	1.98	1.98	1.96	1.96	1.96	1.96	1.96	1.96	S	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.94	1.94	1.94	1.94	2.00	1.96
Nov 17	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	S	1.94	1.93	1.93	1.94	1.94	1.94	1.94	1.95	1.95	1.96	1.96	1.94	1.93	1.96	1.94
Nov 18	1.94	1.94	1.94	1.93	1.94	1.95	1.95	1.94	1.94	1.95	S	1.93	1.93	1.94	1.94	1.95	1.96	1.97	1.97	1.98	1.97	1.97	1.96	1.96	1.93	1.98	1.95
Nov 19	2.00	1.99	1.99	2.01	2.00	1.99	2.00	2.02	2.01	S	2.01	2.05	2.02	1.98	1.98	2.00	2.02	2.01	1.96	1.94	1.94	1.96	1.96	1.95	1.94	2.05	1.99
Nov 20	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.98	S	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.98	1.96
Nov 21	1.96	1.96	1.96	1.96	1.96	1.96	1.96	S	1.97	1.97	1.98	1.99	1.98	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.96	1.97	1.97	1.97	1.96	1.99	1.97
Nov 22	1.97	1.97	1.97	1.97	1.97	1.97	S	1.99	2.00	2.00	2.01	2.01	2.01	2.00	2.00	1.99	2.02	2.00	2.00	2.00	2.01	2.00	1.99	2.00	1.97	2.02	1.99
Nov 23	2.00	2.00	2.02	2.02	2.01	S	2.08	2.09	2.05	2.03	2.03	2.00	2.00	2.00	1.99	1.99	2.03	2.01	1.99	1.99	1.99	1.98	1.98	1.98	1.98	2.09	2.01
Nov 24	1.98	1.97	1.97	1.97	S	1.97	1.98	1.98	1.98	1.98	1.97	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.98	1.97	1.97	1.97	1.96	1.98	1.97
Nov 25	1.97	1.97	1.97	S	1.96	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.97	1.97	1.96	1.96	1.96	1.96	1.96	1.94	1.97	1.95
Nov 26	1.96	1.95	S	1.95	1.96	1.96	1.95	1.95	1.95	1.95	1.98	2.00	1.99	1.96	1.95	1.95	1.96	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.95	2.00	1.97
Nov 27	1.98	S	1.97	1.97	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.98	1.95
Nov 28	S	1.94	1.94	1.93	1.93	1.93	1.94	1.94	1.94	1.96	1.95	1.93	1.92	1.92	1.92	1.92	1.92	1.93	1.94	1.94	1.94	1.94	1.95	S	1.92	1.96	1.94
Nov 29	1.94	1.94	1.95	1.96	1.94	1.94	1.94	1.94	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.96	1.97	S	1.99	1.94	1.99	1.95
Nov 30	1.98	1.98	1.99	1.98	2.00	2.01	2.01	2.01	2.01	2.02	2.01	2.01	2.00	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	S	1.97	1.96	1.96	2.02	1.99
Diurnal Maximum	2.11	2.12	2.12	2.14	2.15	2.15	2.17	2.19	2.20	2.20	2.20	2.18	2.16	2.12	2.08	2.11	2.11	2.09	2.08	2.08	2.09	2.08	2.09	2.07			
Diurnal Average	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00	1.99	1.99	1.98	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98			

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.



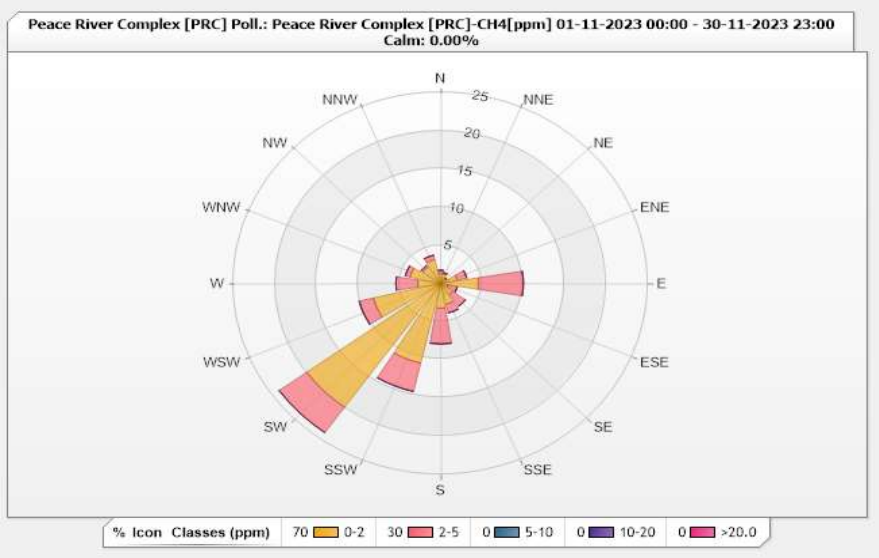


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-CH4[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.86% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	1.32	0.44	0	0	0	1.76
NNE	1.32	0.15	0	0	0	1.47
NE	0.88	0	0	0	0	0.88
ENE	2.05	1.17	0	0	0	3.22
E	4.54	5.42	0	0	0	9.96
ESE	0.88	1.17	0	0	0	2.05
SE	1.76	1.9	0	0	0	3.66
SSE	2.78	1.17	0	0	0	3.95
S	3.22	4.69	0	0	0	7.91
SSW	10.69	3.81	0	0	0	14.5
SW	19.91	4.1	0	0	0	24.01
WSW	8.35	1.76	0	0	0	10.11
W	2.78	2.64	0	0	0	5.42
WNW	3.81	0.59	0	0	0	4.4
NW	2.64	0.29	0	0	0	2.93
NNW	3.22	0.59	0	0	0	3.81
Summary	70.15	29.89	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - November 2023

Summary of Hourly Averages

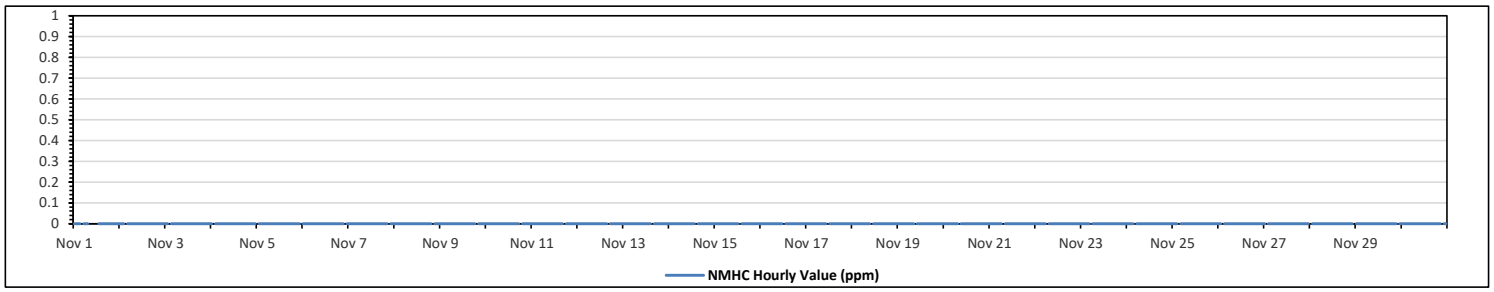
NON-METHANE HYDROCARBONS (NMHC) in ppm

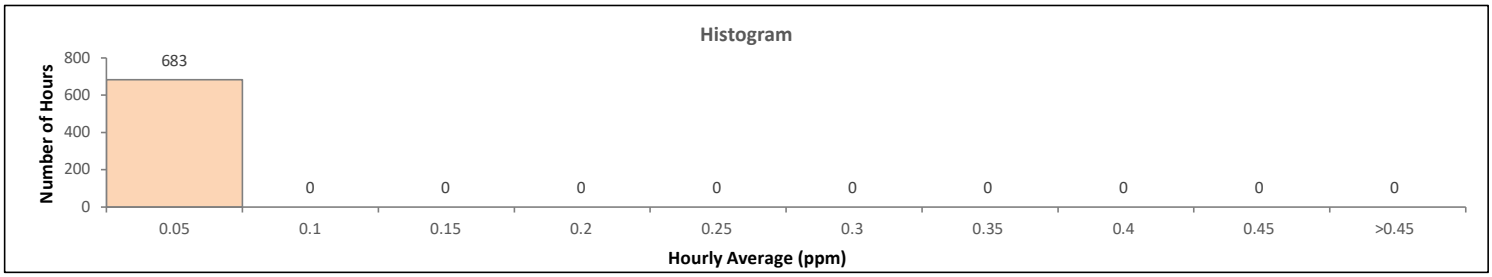
Maximum Hourly Value:	0.00	ppm	on Nov 1 at hr 0	Hours in Service:	720
Maximum Daily Value:	0.00	ppm	on Nov 1	Hours of Data:	683
Minimum Hourly Value:	0.00	ppm	on Nov 1 at hr 0	Hours of Missing Data:	0
Minimum Daily Value:	0.00	ppm	on Nov 1	Hours of Calibration:	37
Monthly Average:	0.00	ppm		Operational 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
Nov 1	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	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	0.00	0.00	0.00
Nov 2	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
Nov 3	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
Nov 4	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
Nov 5	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
Nov 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	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Nov 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	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
Nov 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	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
Nov 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	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
Nov 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	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
Nov 11	0.00	0.00	0.00	0.00	0.00	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
Nov 12	0.00	0.00	0.00	0.00	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
Nov 13	0.00	0.00	0.00	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
Nov 14	0.00	0.00	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
Nov 15	0.00	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
Nov 16	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
Nov 17	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
Nov 18	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
Nov 19	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
Nov 20	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
Nov 21	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
Nov 22	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
Nov 23	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
Nov 24	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
Nov 25	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
Nov 26	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
Nov 27	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
Nov 28	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
Nov 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	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Nov 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	0.00	0.00	0.00	0.00	0.00	0.00	S	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.



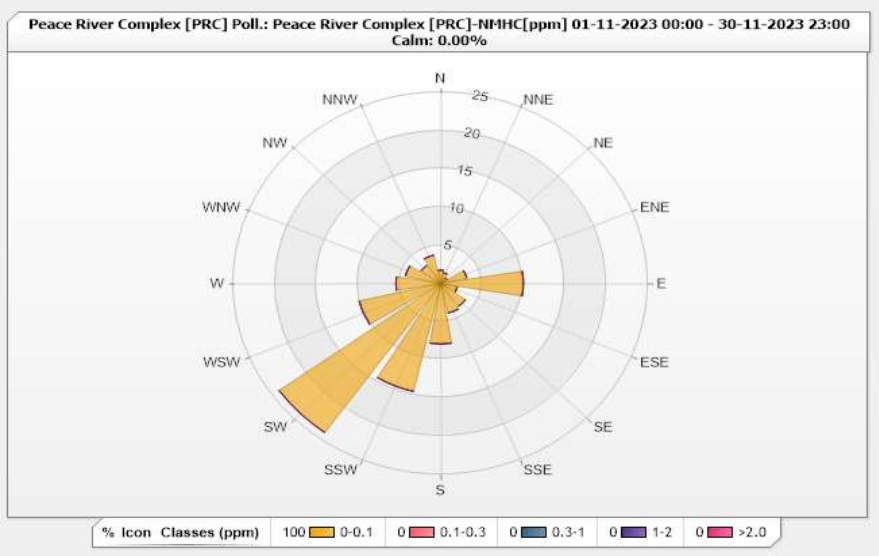


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-NMHC[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.86% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	1.76	0	0	0	0	1.76
NNE	1.46	0	0	0	0	1.46
NE	0.88	0	0	0	0	0.88
ENE	3.22	0	0	0	0	3.22
E	9.96	0	0	0	0	9.96
ESE	2.05	0	0	0	0	2.05
SE	3.66	0	0	0	0	3.66
SSE	3.95	0	0	0	0	3.95
S	7.91	0	0	0	0	7.91
SSW	14.49	0	0	0	0	14.49
SW	24.01	0	0	0	0	24.01
WSW	10.1	0	0	0	0	10.1
W	5.42	0	0	0	0	5.42
WNW	4.39	0	0	0	0	4.39
NW	2.93	0	0	0	0	2.93
NNW	3.81	0	0	0	0	3.81
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - November 2023

Summary of Hourly Averages

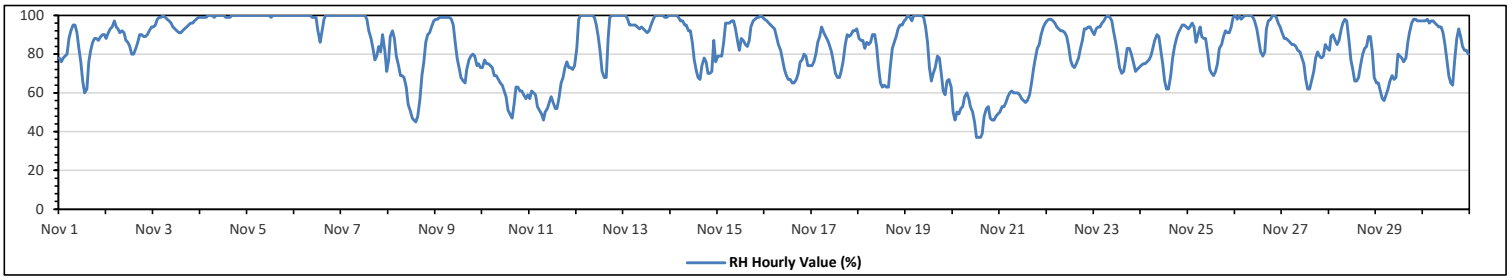
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	100	%	on Nov 3 at hr 5	Hours in Service:	720	
Maximum Daily Value:	100.0	%	on Nov 5	Hours of Data:	720	
Minimum Hourly Value:	37	%	on Nov 20 at hr 12	Hours of Missing Data:	0	
Minimum Daily Value:	48.4	%	on Nov 20	Hours of Calibration:	0	
Monthly Average:	83.6	%		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
Nov 1	78	76	78	79	80	88	92	95	95	91	83	76	66	60	62	76	82	86	88	88	87	89	90	90	60	95	82.3
Nov 2	88	91	93	94	97	94	93	91	92	91	87	86	84	80	80	83	86	90	90	89	89	90	92	94	80	97	89.3
Nov 3	94	95	98	99	99	**100**	99	98	97	96	94	93	92	91	91	92	93	94	95	96	96	97	98	99	91	**100**	95.7
Nov 4	99	99	99	99	**100**	**100**	**100**	99	**100**	**100**	**100**	**100**	**100**	99	99	99	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	99	**100**	99.7
Nov 5	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	99	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	99	**100**	**100.0**
Nov 6	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	99	99	99	92	86	92	98	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	86	**100**	98.5
Nov 7	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	98	92	88	83	77	79	84	81	90	82	71	71	**100**	92.7
Nov 8	77	89	92	88	79	74	69	69	68	63	54	51	47	46	45	48	57	69	76	86	90	91	94	97	45	97	71.6
Nov 9	98	98	99	99	99	99	99	99	98	95	86	78	73	68	66	65	72	77	79	80	79	74	75	73	65	99	84.5
Nov 10	73	77	75	75	74	73	69	69	67	65	64	61	58	51	49	47	54	63	63	61	61	59	57	59	47	77	63.5
Nov 11	57	61	60	59	53	51	49	46	50	52	55	58	55	52	52	57	65	68	73	76	73	73	72	74	46	76	60.0
Nov 12	83	98	**100**	**100**	**100**	**100**	**100**	**100**	**100**	99	95	89	81	71	68	68	88	99	**100**	**100**	**100**	**100**	**100**	**100**	68	**100**	93.3
Nov 13	**100**	**100**	98	95	95	95	95	94	93	94	93	92	91	92	95	98	**100**	**100**	**100**	**100**	**100**	99	99	**100**	91	**100**	96.6
Nov 14	**100**	**100**	**100**	**100**	99	97	97	95	95	92	92	86	77	71	68	67	74	78	76	70	70	71	87	76	67	**100**	84.9
Nov 15	79	79	79	86	96	96	96	97	97	93	87	82	88	87	85	84	87	94	97	98	99	99	**100**	99	79	**100**	91.0
Nov 16	98	97	96	95	94	93	89	85	82	77	72	69	67	67	65	65	67	70	76	77	80	79	74	74	65	98	79.5
Nov 17	74	76	80	86	89	94	91	89	87	85	81	76	70	68	68	71	76	85	90	89	90	92	92	93	68	94	83.0
Nov 18	88	87	87	83	86	85	86	90	90	84	73	65	63	64	63	63	74	83	86	89	93	95	95	97	63	97	82.0
Nov 19	98	**100**	99	97	**100**	**100**	**100**	**100**	**100**	99	94	86	73	66	70	73	79	78	70	61	59	66	67	63	59	**100**	83.3
Nov 20	50	46	50	49	52	53	58	60	57	53	50	45	**37**	**37**	**37**	39	48	52	53	47	46	46	48	49	**37**	60	**48.4**
Nov 21	50	53	53	55	58	60	61	60	60	60	59	57	56	55	56	59	65	72	77	83	85	90	94	96	50	96	65.6
Nov 22	97	98	98	97	96	94	93	92	92	91	89	84	77	74	73	75	78	83	87	93	93	94	94	92	73	98	88.9
Nov 23	90	93	94	94	96	97	99	**100**	99	97	92	86	80	73	70	71	76	83	83	80	76	71	72	73	70	**100**	85.2
Nov 24	74	75	75	76	77	79	83	87	90	89	82	75	66	62	62	69	78	84	88	91	93	95	95	94	62	95	80.8
Nov 25	93	94	96	94	86	90	94	89	88	88	80	72	70	69	71	75	83	85	89	92	91	91	94	99	69	99	86.4
Nov 26	**100**	98	**100**	98	99	**100**	**100**	**100**	**100**	99	97	93	87	81	79	81	93	97	98	**100**	**100**	99	96	94	79	**100**	95.4
Nov 27	91	88	88	87	86	85	85	84	82	81	78	75	67	62	62	66	71	78	81	79	78	79	85	83	62	91	79.2
Nov 28	82	89	90	87	85	87	93	96	98	97	87	77	72	66	66	68	74	80	83	84	89	89	81	68	66	98	82.8
Nov 29	65	65	61	57	56	59	62	66	69	67	68	80	79	78	76	78	86	91	96	98	98	97	97	97	56	98	76.9
Nov 30	97	97	98	96	97	97	96	95	94	94	91	85	77	69	65	64	78	88	93	89	84	82	82	80	64	98	87.0
Diurnal Maximum	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100			
Diurnal Average	85.8	87.3	87.9	87.5	87.6	88.0	88.3	88.2	88.0	86.4	82.7	79.2	74.8	71.4	70.9	72.9	78.9	83.5	85.5	86.0	86.0	86.6	87.1	86.1			

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

Peace River Complex (PRC) Station - November 2023

Summary of Hourly Averages

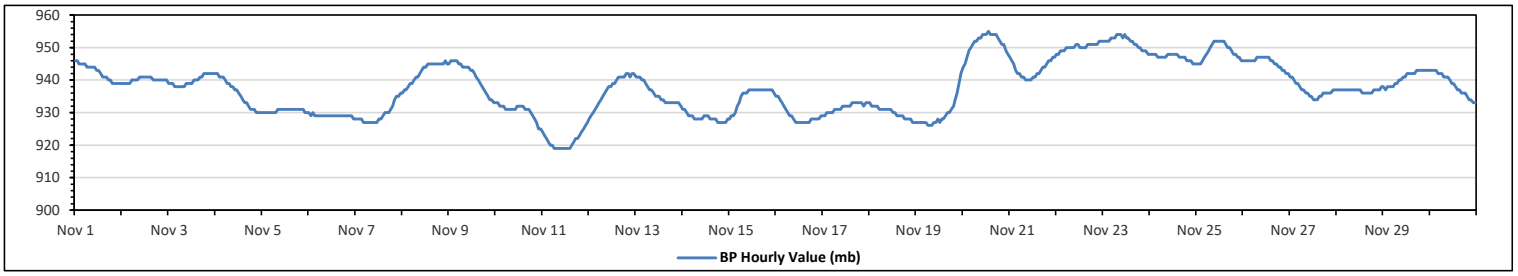
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	955	mb	on Nov 20 at hr 13	Hours in Service:	720	
Maximum Daily Value:	952	mb	on Nov 23	Hours of Data:	720	
Minimum Hourly Value:	919	mb	on Nov 11 at hr 6	Hours of Missing Data:	0	
Minimum Daily Value:	921	mb	on Nov 11	Hours of Calibration:	0	
Monthly Average:	938	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
Nov 1	946	946	945	945	945	945	944	944	944	944	944	943	943	942	941	941	941	940	940	939	939	939	939	939	939	946	942
Nov 2	939	939	939	939	939	940	940	940	940	941	941	941	941	941	941	941	940	940	940	940	940	940	940	940	939	941	940
Nov 3	939	939	939	938	938	938	938	938	938	939	939	939	939	940	940	940	941	941	942	942	942	942	942	942	938	942	940
Nov 4	942	942	941	941	941	940	939	939	938	938	937	937	936	935	934	933	933	932	931	931	931	930	930	930	930	942	936
Nov 5	930	930	930	930	930	930	930	930	931	931	931	931	931	931	931	931	931	931	931	931	931	931	930	930	930	931	931
Nov 6	930	929	930	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	928	928	930	929
Nov 7	928	928	928	928	927	927	927	927	927	927	927	927	928	928	929	930	930	930	931	932	934	935	935	936	927	936	929
Nov 8	936	937	937	938	939	939	940	941	941	942	943	944	944	945	945	945	945	945	945	945	945	945	946	945	936	946	942
Nov 9	945	946	946	946	946	945	945	944	944	944	944	943	943	942	941	940	939	938	937	936	935	934	934	933	933	946	941
Nov 10	933	933	932	932	932	931	931	931	931	931	932	932	932	932	932	931	931	931	930	929	928	927	925	925	925	933	931
Nov 11	924	923	922	921	920	920	**919**	**919**	**919**	**919**	**919**	**919**	**919**	**919**	**919**	920	921	922	922	923	924	925	926	927	**919**	927	**921**
Nov 12	928	929	930	931	932	933	934	935	936	937	938	938	939	939	940	941	941	941	941	942	942	941	942	942	928	942	937
Nov 13	941	941	941	940	940	939	938	937	937	936	935	935	935	934	934	933	933	933	933	933	933	933	933	932	932	941	936
Nov 14	931	931	930	929	929	929	928	928	928	928	928	929	929	929	928	928	928	928	927	927	927	927	927	928	927	931	928
Nov 15	928	929	929	930	932	933	935	936	936	936	937	937	937	937	937	937	937	937	937	937	937	937	937	936	928	937	935
Nov 16	935	935	934	933	932	931	930	929	929	928	927	927	927	927	927	927	927	927	928	928	928	928	928	929	927	935	929
Nov 17	929	929	930	930	930	930	931	931	931	931	932	932	932	932	932	933	933	933	933	933	933	932	933	933	929	933	932
Nov 18	933	932	932	932	932	931	931	931	931	931	931	931	930	930	929	929	929	929	928	928	928	928	927	927	927	933	930
Nov 19	927	927	927	927	927	927	926	926	926	927	927	928	927	928	928	929	930	930	931	932	934	936	939	942	926	942	930
Nov 20	944	945	947	949	950	951	952	952	953	953	954	954	954	**955**	954	954	954	954	953	952	951	951	949	948	944	**955**	951
Nov 21	947	946	945	943	942	942	941	941	940	940	940	940	941	941	942	942	943	944	944	945	946	946	947	947	940	947	943
Nov 22	948	948	949	949	949	950	950	950	950	950	951	951	950	950	950	950	951	951	951	951	951	951	952	952	948	952	950
Nov 23	952	952	952	952	953	953	953	954	954	954	953	954	953	953	952	952	951	951	950	950	949	949	949	948	948	954	**952**
Nov 24	948	948	948	948	947	947	947	947	947	948	948	948	948	948	948	947	947	947	947	946	946	946	945	945	945	948	947
Nov 25	945	945	945	946	947	948	949	950	951	952	952	952	952	952	952	951	950	950	949	948	948	947	947	946	945	952	949
Nov 26	946	946	946	946	946	946	946	947	947	947	947	947	947	947	946	946	945	945	944	944	943	943	942	942	942	947	945
Nov 27	941	941	940	939	939	938	937	937	936	936	935	935	934	934	934	935	935	936	936	936	936	936	937	937	934	941	937
Nov 28	937	937	937	937	937	937	937	937	937	937	937	937	937	936	936	936	936	936	936	937	937	937	937	938	936	938	937
Nov 29	938	937	938	938	938	938	939	939	940	940	941	941	942	942	942	942	942	943	943	943	943	943	943	943	937	943	941
Nov 30	943	943	943	943	942	942	942	941	941	941	940	939	939	938	937	937	936	936	936	935	934	934	933	933	933	943	939
Diurnal Maximum	952	952	952	952	953	953	953	954	954	954	954	954	954	955	954	954	954	954	953	952	951	951	952	952			
Diurnal Average	938	938	938	938	938	938	938	938	938	938	938	938	938	938	938	938	938	938	938	937	937	937	937	937			

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 - November 2023

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

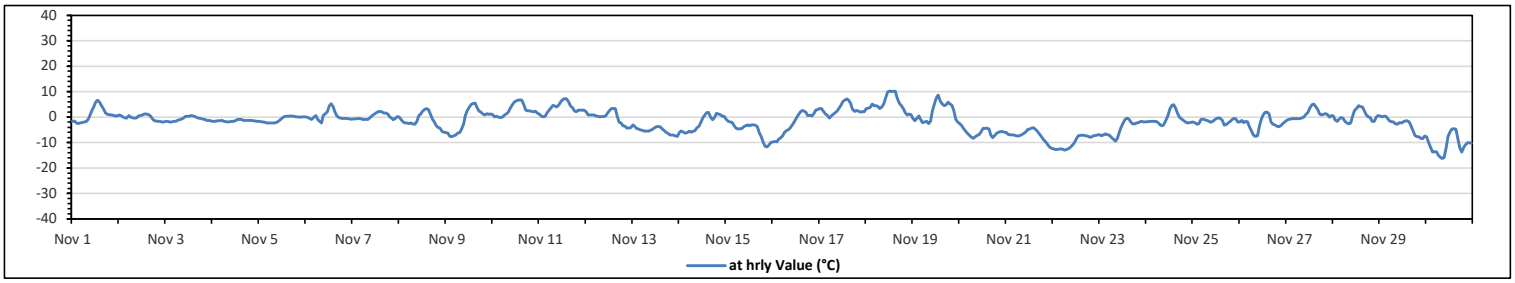
Maximum Hourly Value:	10.3	°C	on Nov 18 at hr 12	Hours in Service:	720		
Maximum Daily Value:	5.2	°C	on Nov 18	Hours of Data:	720		
Minimum Hourly Value:	-16.3	°C	on Nov 30 at hr 8	Hours of Missing Data:	0		
Minimum Daily Value:	-10.9	°C	on Nov 30	Hours of Calibration:	0		
Monthly Average:	-1.6	°C		Operational 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			
Nov 1	-1.6	-1.5	-2.3	-2.5	-2.4	-2.2	-1.9	-1.8	-1.1	0.6	2.5	4	5.8	6.6	5.8	4.3	3.1	1.6	1.1	1	0.9	0.7	0.4	0.4	-2.5	6.6	0.9
Nov 2	0.9	0.5	0.1	-0.3	-0.4	0.5	0	-0.3	-0.4	-0.3	0.4	0.6	0.9	1.3	1.3	1	0.5	-0.4	-1.3	-1.5	-1.6	-1.7	-1.9	-2	-2.0	1.3	-0.2
Nov 3	-1.7	-1.7	-1.9	-1.9	-1.7	-1.6	-1.3	-1.1	-0.8	-0.4	0.2	0.3	0.3	0.5	0.4	0.2	-0.1	-0.4	-0.5	-0.8	-1	-1.2	-1.3	-1.4	-1.9	0.5	-0.8
Nov 4	-1.6	-1.7	-1.5	-1.4	-1.4	-1.3	-1.6	-1.8	-1.9	-1.8	-1.7	-1.6	-1.2	-1	-1	-1	-1.2	-1.3	-1.3	-1.3	-1.3	-1.4	-1.5	-1.6	-1.9	-1.0	-1.4
Nov 5	-1.6	-1.8	-2	-2.1	-2.3	-2.4	-2.4	-2.4	-2.3	-2.1	-1.5	-0.9	-0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.1	0.1	0	0.1	0.1	-2.4	0.4	-0.9
Nov 6	0.1	-0.2	-0.6	-0.9	-0.1	0.5	-1	-1.7	-2.4	0.6	1.4	2.1	4.3	5.3	4.1	1.9	0.4	-0.1	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-2.4	5.3	0.4
Nov 7	-0.8	-0.7	-0.7	-0.5	-0.6	-1	-1	-1	-0.9	-0.2	0.5	1.1	1.6	2.1	2.2	2.1	1.6	1.6	1.2	0.1	-0.4	-1.1	-0.5	0.2	-1.1	2.2	0.2
Nov 8	0	-1.1	-2	-2.4	-2.3	-2.5	-2.3	-2.7	-2.8	-1.6	0.5	1.2	2.2	3	3.3	3	1.2	-1	-1.8	-3.3	-4.1	-4.3	-5.7	-5.9	-5.9	3.3	-1.3
Nov 9	-6.1	-6.4	-7.6	-7.7	-7.3	-7.1	-6.3	-6.1	-4.6	-2.7	0.4	2.5	4	5	5.4	5.5	3.7	2.3	1.9	1.2	0.9	1.4	1.1	1.2	-7.7	5.5	-1.1
Nov 10	1	0.1	0.3	0	-0.2	0	0.9	1.2	1.8	3.3	4.6	5.8	6.4	6.6	6.8	6.7	4.9	2.7	2.5	2.5	2.2	2.1	2.3	1.6	-0.2	6.8	2.8
Nov 11	1.3	0.3	0.1	0.3	1.7	2.7	3.6	4.6	4.3	4	4.8	6.1	6.9	7.2	7.1	6	4.3	3.7	2.5	2.1	2.8	2.7	2.8	2.8	0.1	7.2	3.5
Nov 12	2.1	0.8	0.8	0.9	0.8	0.4	0.3	0.1	0.2	0.2	0.4	1.5	2.5	3.4	3.3	3.3	0.3	-2.1	-2.3	-3.4	-3.6	-4.3	-4.3	-4	-4.3	3.4	-0.1
Nov 13	-3.1	-3.7	-4.4	-4.7	-5.1	-5.2	-5.5	-5.4	-5.5	-5.2	-5	-4.3	-3.8	-3.7	-3.8	-4.6	-5.2	-5.9	-6.4	-6.9	-7.1	-7.1	-7.5	-7.6	-7.6	-3.1	-5.3
Nov 14	-6.1	-5.4	-6	-6.4	-6.1	-5.6	-5.9	-5.6	-5.3	-4.2	-3.7	-2.2	-0.1	0.9	1.7	1.8	0	-1.1	-0.1	1.5	1.2	1	0.3	0.3	-6.4	1.8	-2.3
Nov 15	-0.8	-1.6	-2	-2.1	-3.3	-4.3	-4.7	-4.6	-4.6	-3.8	-3.5	-3.1	-3.4	-3.1	-3.1	-3.2	-3.8	-6.2	-7.7	-9.9	-11.5	-11.8	-10.9	-10	-11.8	-0.8	-5.1
Nov 16	-9.7	-9.6	-9.7	-8.7	-8.2	-7.3	-6	-5.3	-5	-4.2	-3.1	-1.9	-0.5	0.7	2	2.6	2.3	1.8	0.6	0.7	0.4	1.2	2.7	3	-9.7	3.0	-2.6
Nov 17	3.3	3.3	2.4	1.4	0.5	-0.4	0.4	1.1	1.7	2.4	3.5	4.6	6.1	6.8	7.1	6.6	5.5	3.1	2.2	2.6	2.4	2	2.1	2.1	-0.4	7.1	3.0
Nov 18	3.4	3.5	3.8	5.1	4.4	4.4	4.2	3.4	4	5.3	7.7	9.9	**10.3**	10	10.2	10.1	7.4	5.4	4.4	3.3	1.7	0.8	1.2	1	0.8	**10.3**	**5.2**
Nov 19	-0.6	-1.4	-0.4	0.4	-1	-2.2	-1.9	-1.6	-2.5	-1.6	2.5	5.1	7.5	8.6	6.4	5.3	4.4	4.8	5.9	5.3	4.6	2.5	-0.9	-2	-2.5	8.6	2.0
Nov 20	-2.5	-3.3	-4.4	-5.4	-6.3	-7.1	-7.9	-8.3	-7.8	-7.2	-6.8	-5.8	-4.5	-4.5	-4.3	-4.7	-6.9	-8	-7.4	-6.3	-5.9	-5.7	-5.7	-5.9	-8.3	-2.5	-5.9
Nov 21	-6.1	-6.8	-7	-7	-7.1	-7.3	-7.5	-7.2	-6.9	-6.4	-5.8	-4.9	-4.7	-4.3	-4.2	-4.9	-5.6	-6.6	-7.6	-8.9	-9.6	-10.5	-11.7	-12.2	-12.2	-4.2	-7.1
Nov 22	-12.4	-12.7	-12.7	-12.6	-12.5	-12.6	-13	-12.7	-12.4	-11.8	-11	-10	-8.4	-7.3	-7.2	-7.1	-7.2	-7.4	-7.6	-7.9	-7.7	-7.4	-7.2	-6.9	-13.0	-6.9	-9.8
Nov 23	-6.9	-7.3	-6.9	-6.6	-7	-7.1	-7.9	-8.8	-9.5	-8.3	-6	-4.2	-2.4	-1	-0.4	-0.8	-1.9	-2.7	-2.6	-2.3	-2.2	-1.6	-1.8	-1.9	-9.5	-0.4	-4.5
Nov 24	-1.8	-1.8	-1.6	-1.7	-1.6	-1.7	-2.3	-3	-3.4	-2.9	-1.4	0.6	3.2	4.6	4.9	3.5	1.5	0	-0.7	-1.3	-2	-2.4	-2.2	-2.1	-3.4	4.9	-0.7
Nov 25	-2	-2.3	-2.8	-2.5	-0.9	-0.8	-1.1	-1.2	-1.5	-2.1	-1.7	-1.1	-0.6	-0.3	-0.6	-1.2	-3.2	-2.9	-2.3	-1.7	-1	-0.6	-0.7	-1.9	-3.2	-0.3	-1.5
Nov 26	-1.9	-1.3	-2.2	-1.6	-2	-3.9	-5.4	-7.1	-7.6	-7.4	-3.4	-0.8	0.7	1.8	1.9	1.2	-1.9	-2.8	-3.1	-3.6	-3.8	-3.5	-2.7	-2	-7.6	1.9	-2.6
Nov 27	-1.3	-0.9	-0.8	-0.6	-0.7	-0.5	-0.7	-0.6	-0.3	0.2	1.1	1.7	3.5	4.8	5.1	4.2	2.9	1.2	0.8	1.1	1.4	1.1	0	0.5	-1.3	5.1	1.0
Nov 28	0.4	-1.1	-1.7	-0.8	-0.1	-0.4	-1.6	-2.3	-2.6	-2.4	0.3	2.6	3.5	4.4	4.2	4	2.3	0.8	0.1	-0.1	-1.6	-1.6	-0.1	0.6	-2.6	4.4	0.3
Nov 29	0.4	0.1	0.3	0.3	-0.7	-1.5	-1.8	-1.9	-2.7	-2.8	-2.2	-2.3	-1.8	-1.5	-1.4	-2	-3.6	-5.4	-7.2	-7.8	-7.8	-8.3	-8.4	-7.5	-8.4	0.4	-3.2
Nov 30	-7.8	-10.1	-11.9	-13.7	-13.6	-13.6	-15	-15.8	**-16.3**	-15.9	-11.6	-7.8	-6	-4.7	-4.6	-4.9	-8.6	-12.1	-13.7	-11.9	-10.8	-10.1	-10.1	-10.2	**-16.3**	-4.6	**-10.9**
Diurnal Maximum	3.4	3.5	3.8	5.1	4.4	4.4	4.2	4.6	4.3	5.3	7.7	9.9	10.3	10.0	10.2	10.1	7.4	5.4	5.9	5.3	4.6	2.7	2.8	3.0			
Diurnal Average	-2.1	-2.5	-2.8	-2.9	-2.9	-3.0	-3.2	-3.3	-3.3	-2.6	-1.3	0.0	1.1	1.7	1.8	1.3	-0.1	-1.2	-1.7	-1.9	-2.2	-2.3	-2.4	-2.4			

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 - November 2023

Summary of Hourly Averages

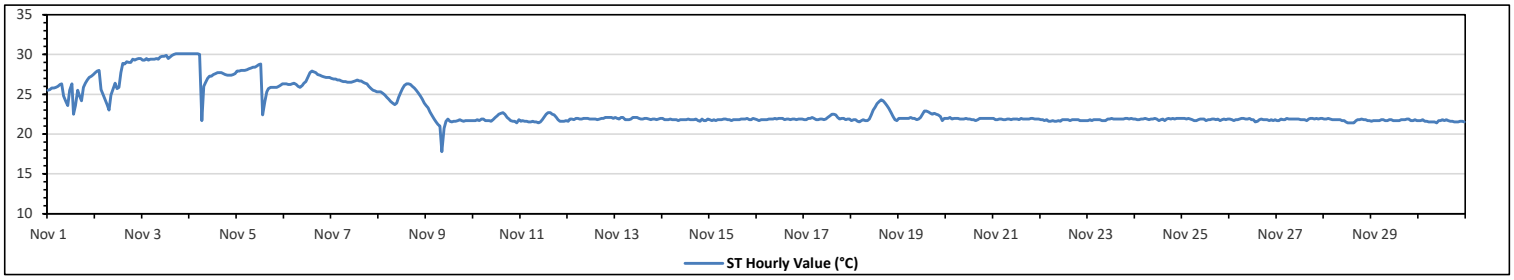
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	30.1	°C	on Nov 3 at hr 17	Hours in Service:	720	
Maximum Daily Value:	29.7	°C	on Nov 3	Hours of Data:	720	
Minimum Hourly Value:	17.8	°C	on Nov 9 at hr 8	Hours of Missing Data:	0	
Minimum Daily Value:	21.6	°C	on Nov 30	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
Nov 1	25.5	25.6	25.8	25.8	25.9	26.0	26.2	26.3	24.8	24.1	23.6	25.5	26.3	22.5	23.6	25.5	24.8	24.2	25.9	26.4	26.8	27.1	27.3	27.5	22.5	27.5	25.5
Nov 2	27.7	27.9	28.0	25.6	24.9	24.3	23.7	23.0	24.9	25.6	26.4	25.7	25.9	27.7	28.9	28.8	29.1	29.0	29.0	29.4	29.3	29.4	29.5	29.5	23.0	29.5	27.2
Nov 3	29.3	29.3	29.5	29.3	29.4	29.4	29.4	29.5	29.4	29.7	29.8	29.8	29.9	29.5	29.7	29.9	30.0	**30.1**	**30.1**	**30.1**	**30.1**	**30.1**	**30.1**	**30.1**	29.3	**30.1**	**29.7**
Nov 4	**30.1**	**30.1**	**30.1**	**30.1**	**30.1**	30.0	21.7	26.0	26.5	27.0	27.3	27.3	27.5	27.6	27.7	27.7	27.7	27.6	27.5	27.4	27.4	27.4	27.5	27.6	21.7	**30.1**	27.8
Nov 5	27.9	27.9	28.0	28.0	28.0	28.1	28.2	28.3	28.4	28.4	28.5	28.7	28.8	22.4	24.1	25.3	25.7	25.9	25.9	25.9	25.9	26.0	26.1	26.3	22.4	28.8	26.9
Nov 6	26.3	26.3	26.2	26.2	26.3	26.4	26.2	26.0	25.9	26.1	26.4	26.6	27.2	27.7	27.9	27.8	27.7	27.5	27.4	27.3	27.2	27.1	27.1	27.1	25.9	27.9	26.8
Nov 7	27.0	26.9	26.9	26.8	26.8	26.7	26.6	26.6	26.5	26.5	26.5	26.6	26.7	26.8	26.7	26.7	26.5	26.4	26.3	26.0	25.7	25.5	25.4	25.3	25.3	27.0	26.4
Nov 8	25.3	25.3	25.1	24.9	24.6	24.4	24.1	23.9	23.7	23.9	24.6	25.2	25.7	26.1	26.3	26.3	26.2	26.0	25.8	25.5	25.2	24.8	24.4	23.9	23.7	26.3	25.1
Nov 9	23.6	23.3	22.8	22.3	21.9	21.5	21.2	21.0	**17.8**	20.7	21.6	21.9	21.6	21.5	21.6	21.6	21.7	21.8	21.7	21.6	21.7	21.7	21.7	21.7	**17.8**	23.6	21.6
Nov 10	21.7	21.7	21.8	21.7	21.9	21.9	21.7	21.7	21.7	21.6	21.8	22.1	22.3	22.5	22.6	22.7	22.5	22.1	21.9	21.7	21.6	21.6	21.4	21.8	21.4	22.7	21.9
Nov 11	21.6	21.7	21.6	21.6	21.5	21.5	21.6	21.5	21.5	21.4	21.5	21.8	22.2	22.5	22.7	22.7	22.5	22.4	22.1	21.8	21.6	21.6	21.6	21.7	21.4	22.7	21.8
Nov 12	21.6	21.9	21.9	21.8	22.0	22.0	21.9	21.9	22.0	22.0	22.0	21.9	21.9	21.9	21.9	21.8	21.9	22.0	22.0	22.1	22.1	22.1	22.1	22.0	21.6	22.1	21.9
Nov 13	22.1	22.0	21.9	22.1	22.1	21.8	21.8	21.8	21.9	22.1	22.1	22.1	22.0	21.9	21.9	22.0	22.0	21.9	21.8	21.9	21.9	21.8	21.9	22.0	21.8	22.1	22.0
Nov 14	22.0	21.8	21.8	21.8	21.9	21.8	21.8	21.8	21.7	21.8	21.8	21.8	21.8	21.9	21.8	21.8	21.8	21.9	21.7	21.6	21.9	21.7	21.7	21.9	21.6	22.0	21.8
Nov 15	21.8	21.7	21.8	21.7	21.8	21.8	21.8	21.9	21.9	21.8	21.8	21.7	21.8	21.8	21.8	21.8	21.9	21.9	21.9	22.0	21.8	21.8	22.0	21.9	21.7	22.0	21.8
Nov 16	21.8	21.7	21.8	21.8	21.8	21.8	21.9	21.9	21.9	22.0	21.9	22.0	22.0	22.0	21.8	21.9	21.9	21.8	21.9	21.9	21.8	21.9	21.9	21.9	21.7	22.0	21.9
Nov 17	21.8	21.8	22.0	22.0	22.1	22.0	21.8	21.8	21.9	21.9	21.8	21.9	22.1	22.3	22.5	22.5	22.4	22.1	21.9	22.0	22.0	21.8	21.9	21.9	21.8	22.5	22.0
Nov 18	21.7	21.8	21.8	21.6	21.5	21.7	21.8	21.7	21.7	21.9	22.4	23.0	23.4	23.8	24.1	24.3	24.2	23.9	23.6	23.2	22.7	22.2	21.8	21.7	21.5	24.3	22.6
Nov 19	22.0	22.0	22.0	22.0	22.0	22.0	22.1	22.0	22.0	21.8	21.9	22.1	22.5	22.9	22.9	22.8	22.6	22.5	22.6	22.5	22.4	22.2	21.7	22.0	21.7	22.9	22.2
Nov 20	22.0	22.0	22.1	21.9	22.0	22.0	22.0	21.9	21.9	21.9	22.0	21.9	21.9	21.8	21.8	21.7	21.8	22.0	22.0	22.0	22.0	22.0	22.0	22.0	21.7	22.1	21.9
Nov 21	22.0	21.8	21.8	21.9	21.9	21.8	21.8	21.9	21.9	21.8	21.9	21.9	21.9	21.8	22.0	21.9	21.9	21.9	21.9	22.0	22.0	21.9	21.9	21.9	21.8	22.0	21.9
Nov 22	21.8	21.8	21.7	21.8	21.6	21.6	21.7	21.6	21.6	21.7	21.6	21.8	21.8	21.8	21.8	21.7	21.8	21.8	21.8	21.8	21.7	21.7	21.7	21.7	21.6	21.8	21.7
Nov 23	21.7	21.8	21.7	21.8	21.8	21.8	21.8	21.7	21.7	21.7	21.9	21.9	22.0	21.9	21.9	21.9	21.9	21.9	21.9	22.0	22.0	21.9	22.0	21.9	21.7	22.0	21.9
Nov 24	21.9	21.8	21.8	21.9	21.9	22.0	21.9	21.8	21.9	21.9	22.0	21.9	21.7	21.8	21.9	21.7	21.9	22.0	21.9	22.0	21.9	22.0	22.0	22.0	21.7	22.0	21.9
Nov 25	22.0	22.0	21.9	22.0	21.9	21.8	21.7	21.7	21.8	21.9	21.9	21.9	21.7	21.8	21.8	21.9	21.9	21.8	21.9	21.7	21.8	21.9	21.8	21.9	21.7	22.0	21.9
Nov 26	21.9	21.8	21.7	21.8	21.8	21.9	22.0	22.0	21.9	21.9	22.0	21.8	21.8	21.5	21.6	21.8	21.9	21.8	21.8	21.8	21.7	21.8	21.7	21.8	21.5	22.0	21.8
Nov 27	21.7	21.7	21.9	21.8	21.8	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.8	21.7	21.9	22.0	22.0	21.9	22.0	21.9	22.0	22.0	21.7	22.0	21.9
Nov 28	21.9	21.9	22.0	21.9	21.8	21.8	21.8	21.8	21.8	21.7	21.7	21.5	21.4	21.4	21.4	21.4	21.7	21.8	21.8	21.9	21.8	21.8	21.7	21.7	21.4	22.0	21.7
Nov 29	21.6	21.7	21.7	21.7	21.7	21.8	21.8	21.7	21.7	21.8	21.8	21.7	21.7	21.7	21.7	21.8	21.8	21.8	21.9	21.9	21.7	21.7	21.8	21.7	21.6	21.9	21.7
Nov 30	21.7	21.7	21.8	21.6	21.6	21.5	21.5	21.5	21.5	21.4	21.7	21.7	21.8	21.7	21.8	21.7	21.6	21.6	21.5	21.5	21.5	21.6	21.6	21.5	21.4	21.8	**21.6**
Diurnal Maximum	30.1	30.1	30.1	30.1	30.1	30.0	29.4	29.5	29.4	29.7	29.8	29.8	29.9	29.5	29.7	29.9	30.0	30.1	30.1	30.1	30.1	30.1	30.1	30.1			
Diurnal Average	23.4	23.4	23.4	23.2	23.2	23.2	22.8	22.9	22.9	23.0	23.1	23.3	23.4	23.1	23.3	23.4	23.4	23.4	23.4	23.4	23.3	23.3	23.2	23.3			

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

Peace River Complex (PRC) Station - November 2023

Summary of Hourly Averages

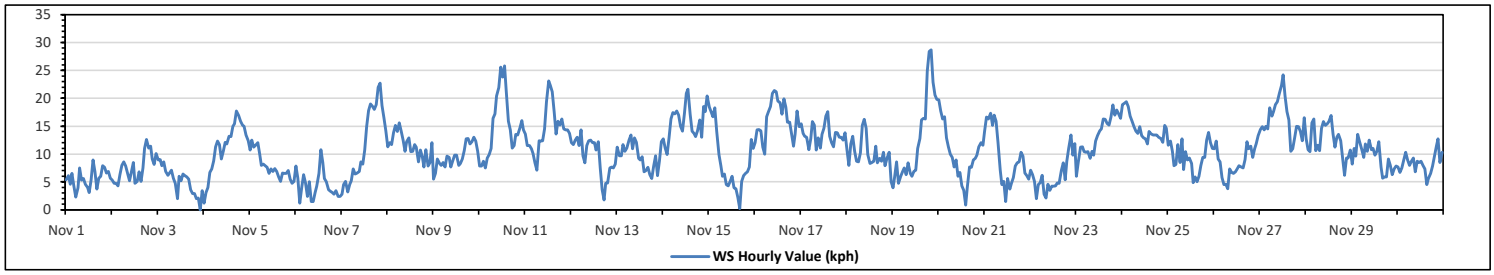
VECTOR WIND SPEED (VWS) in km/hr

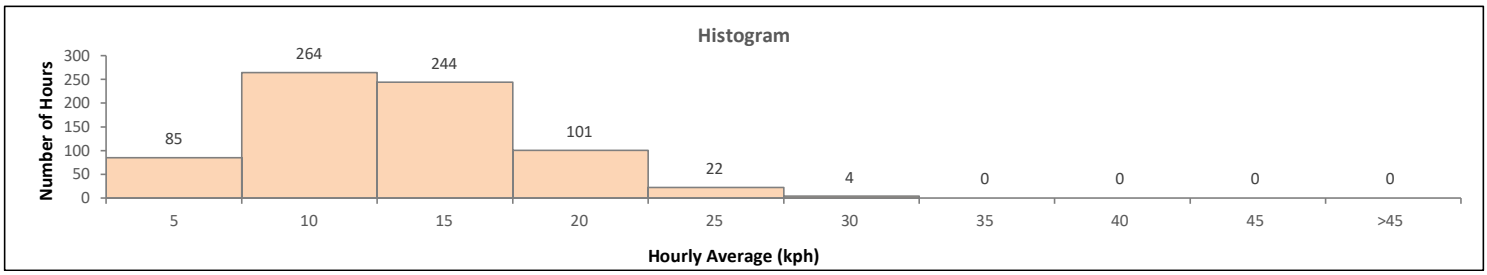
Maximum Hourly Value:	28.7	kph	on Nov 19 at hr 20	Hours in Service:	720	
Maximum Daily Value:	16.4	kph	on Nov 27	Hours of Data:	720	
Minimum Hourly Value:	0.0	kph	on Nov 3 at hr 22	Hours of Missing Data:	0	
Minimum Daily Value:	4.4	kph	on Nov 6	Hours of Calibration:	0	
Monthly Average:	5.8	kph		Operational 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			
Nov 1	5.4	6.1	4.6	6.5	4.3	2.3	3.9	7.5	5.3	5.6	4.6	4.0	3.1	5.4	8.9	6.8	3.7	5.7	6.0	7.9	7.6	6.6	6.9	5.7	2.3	8.9	5.6
Nov 2	5.3	4.7	4.7	4.3	6.3	8.0	8.6	7.8	6.5	5.2	6.8	8.5	4.7	5.1	6.8	5.1	7.5	11.0	12.6	11.1	11.4	9.1	8.1	10.1	4.3	12.6	7.5
Nov 3	8.9	9.0	7.9	8.6	6.9	6.2	6.6	7.1	5.7	4.7	2.0	6.0	5.2	6.4	6.1	5.9	5.5	3.6	2.9	2.9	2.0	2.1	**0.0**	3.4	**0.0**	9.0	5.2
Nov 4	1.2	3.1	4.0	6.7	7.3	8.8	11.3	12.3	11.7	9.1	10.5	12.1	11.8	13.2	13.1	15.0	15.4	17.7	16.9	15.9	15.2	15.0	13.4	12.4	1.2	17.7	11.4
Nov 5	10.7	12.5	11.2	11.6	12.0	9.9	8.0	8.2	7.9	7.6	6.5	7.3	6.9	7.4	6.9	5.9	5.1	6.6	6.5	6.5	7.0	5.5	4.7	5.1	4.7	12.5	7.8
Nov 6	7.8	5.7	1.2	3.9	6.3	4.8	2.4	5.0	1.5	1.5	3.1	4.2	6.5	10.8	8.5	5.6	5.0	3.6	3.3	3.1	2.8	3.4	2.4	2.4	1.2	10.8	**4.4**
Nov 7	2.8	4.5	5.1	3.2	4.5	5.2	7.3	6.4	6.6	6.9	8.6	8.2	10.7	14.9	17.8	19.0	18.6	18.0	18.9	22.0	22.7	18.7	16.5	14.2	2.8	22.7	11.7
Nov 8	11.3	12.0	11.7	13.8	15.1	14.0	15.6	14.1	12.5	10.5	12.2	12.9	10.4	10.5	11.7	11.2	8.6	10.7	9.5	7.7	10.8	7.8	8.5	12.0	7.7	15.6	11.5
Nov 9	5.5	6.5	9.1	8.3	8.0	8.5	7.7	9.6	9.4	7.7	8.8	9.8	9.8	8.0	8.3	9.1	10.6	12.7	12.8	11.8	12.2	13.0	12.3	10.5	5.5	13.0	9.6
Nov 10	7.8	7.8	8.7	7.5	9.3	9.9	11.0	16.4	17.2	20.4	21.9	25.6	23.8	25.8	21.5	15.9	14.3	11.1	11.5	13.5	13.4	14.7	16.0	14.3	7.5	25.8	15.0
Nov 11	13.6	11.5	11.5	10.9	10.1	8.4	7.1	12.4	12.3	12.4	14.5	19.4	23.1	22.3	21.2	17.6	13.6	15.9	15.2	16.3	14.5	14.3	14.3	13.7	7.1	23.1	14.4
Nov 12	12.0	11.7	12.5	13.0	11.5	14.3	9.7	8.4	11.5	12.4	12.5	12.0	12.0	10.7	12.2	7.5	3.6	1.8	4.7	4.8	7.5	7.7	7.5	8.2	1.8	14.3	9.6
Nov 13	11.2	9.7	9.7	11.7	10.5	11.1	12.5	13.4	10.9	12.9	12.1	9.2	8.9	9.5	6.8	7.0	7.6	6.3	5.6	7.8	9.7	6.1	8.8	12.2	5.6	13.4	9.6
Nov 14	12.7	11.1	9.9	12.9	16.3	17.4	17.2	17.7	17.0	15.0	14.1	17.2	20.9	21.6	17.1	14.1	13.7	13.1	14.2	16.1	13.0	18.5	17.6	20.4	9.9	21.6	15.8
Nov 15	18.4	17.5	16.7	18.3	14.0	9.9	7.9	6.0	6.4	4.5	4.3	5.1	6.0	3.9	3.8	2.2	0.2	5.1	6.1	6.5	6.8	7.7	12.6	11.0	0.2	18.4	8.4
Nov 16	12.0	14.3	14.4	14.2	11.2	10.0	16.7	17.5	18.5	20.9	21.4	21.2	19.5	19.2	17.1	19.9	18.4	15.7	15.7	13.6	11.4	13.6	17.7	14.9	10.0	21.4	16.2
Nov 17	15.4	13.7	13.2	13.0	10.8	12.8	15.8	15.2	10.7	12.9	11.1	13.5	14.6	16.8	17.6	13.2	12.0	11.3	13.9	13.8	13.0	13.0	12.5	13.8	10.7	17.6	13.5
Nov 18	10.8	8.0	11.8	13.2	10.5	8.7	8.6	10.2	15.1	16.2	14.6	9.9	8.3	8.5	8.7	11.4	8.4	9.2	8.7	10.3	7.9	9.2	10.3	5.0	5.0	16.2	10.1
Nov 19	3.9	5.9	8.6	4.7	6.0	6.9	7.5	6.3	8.4	6.5	6.0	6.9	7.1	11.0	12.8	16.1	16.4	16.3	24.9	28.4	**28.7**	22.9	20.6	19.8	3.9	**28.7**	12.6
Nov 20	19.7	17.7	16.3	16.7	12.9	11.3	10.0	9.4	7.7	8.9	6.0	6.7	4.3	3.5	0.8	4.0	7.7	7.6	8.9	9.2	9.8	11.3	12.0	11.6	0.8	19.7	9.8
Nov 21	14.0	16.6	16.3	17.3	15.1	17.0	15.9	12.1	7.1	4.5	5.1	1.5	5.6	3.7	4.7	5.8	7.8	8.4	8.6	10.3	9.6	6.6	6.1	5.5	1.5	17.3	9.4
Nov 22	7.1	6.3	5.1	2.0	4.5	4.9	6.2	2.8	2.1	4.6	3.5	4.2	4.2	4.3	4.8	4.7	7.0	8.4	5.4	8.7	11.1	13.4	9.8	11.9	2.0	13.4	6.1
Nov 23	6.0	8.6	11.2	11.3	10.4	10.3	10.4	9.2	10.5	9.8	12.3	13.3	14.2	14.5	16.3	16.2	15.5	15.2	16.6	18.8	17.0	17.9	17.2	16.4	6.0	18.8	13.3
Nov 24	18.9	19.1	19.4	18.5	16.8	15.9	14.9	14.1	13.7	14.9	13.3	12.9	12.7	11.8	14.0	13.6	13.4	13.4	13.4	13.0	12.8	12.1	15.1	14.6	11.8	19.4	14.7
Nov 25	11.6	12.3	10.5	7.9	8.1	11.7	8.5	12.7	7.2	10.4	8.9	9.3	8.3	4.9	5.9	5.0	6.0	8.0	9.4	9.4	12.5	13.9	12.0	11.0	4.9	13.9	9.4
Nov 26	10.9	12.3	9.1	8.6	5.8	4.5	4.6	3.8	7.3	6.7	6.5	6.8	7.4	7.9	7.7	7.5	9.0	12.2	10.9	11.4	9.4	10.9	11.9	13.3	3.8	13.3	8.6
Nov 27	14.4	14.9	14.3	15.0	14.5	18.3	16.8	17.6	18.9	19.4	20.8	22.3	24.2	20.4	17.6	16.1	10.5	10.9	12.9	15.0	14.9	14.0	12.4	16.5	10.5	24.2	**16.4**
Nov 28	12.7	10.8	10.4	15.6	16.3	10.6	11.6	10.6	14.6	15.8	15.1	15.4	15.8	16.9	13.6	11.2	13.0	13.5	12.4	9.2	6.2	9.3	9.3	10.7	6.2	16.9	12.5
Nov 29	8.2	11.0	9.6	13.5	12.2	10.8	9.4	11.8	10.5	12.5	10.8	11.0	9.8	10.5	12.2	7.7	5.7	5.9	5.9	9.1	8.0	6.3	7.3	7.8	5.7	13.5	9.5
Nov 30	7.7	6.7	7.5	8.9	10.3	8.9	8.0	8.7	9.3	6.8	8.7	8.5	8.7	8.0	7.3	4.5	5.6	6.5	7.8	9.6	11.4	12.7	8.5	10.3	4.5	12.7	8.4
Diurnal Maximum	19.7	19.1	19.4	18.5	16.8	18.3	17.2	17.7	18.9	20.9	21.9	25.6	24.2	25.8	21.5	19.9	18.6	18.0	24.9	28.4	28.7	22.9	20.6	20.4			
Diurnal Average	10.3	10.4	10.2	10.7	10.3	10.0	10.1	10.5	10.1	10.2	10.2	10.8	11.0	11.2	11.1	10.2	9.6	10.2	10.7	11.5	11.3	11.2	11.1	11.3			

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.



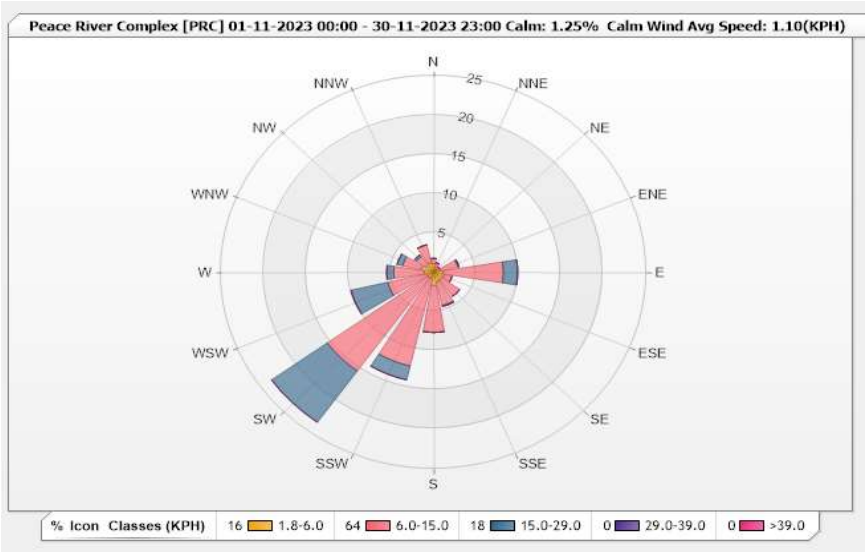


Station: Peace River Complex [PRC] Monitor: WDS [KPH] Monthly: 11-2023

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

Calm (WS<1.8kph): 1.25% 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	1.11	0.69	0	0	0	1.8
NNE	0.14	1.11	0	0	0	1.25
NE	0.42	0.42	0	0	0	0.84
ENE	0.83	2.08	0.14	0	0	3.05
E	1.11	7.08	1.67	0	0	9.86
ESE	1.25	0.97	0	0	0	2.22
SE	1.11	2.64	0	0	0	3.75
SSE	1.25	3.06	0.14	0	0	4.45
S	1.67	5.97	0	0	0	7.64
SSW	0.69	11.53	1.81	0	0	14.03
SW	0.83	14.58	8.06	0	0	23.47
WSW	0.83	4.72	4.44	0	0	9.99
W	1.11	3.61	0.83	0	0	5.55
WNW	1.53	2.22	0.69	0	0	4.44
NW	1.11	1.39	0.28	0	0	2.78
NNW	1.25	2.36	0	0	0	3.61
Summary	16.24	64.43	18.06	0	0	98.73



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - November 2023

Summary of Hourly Averages

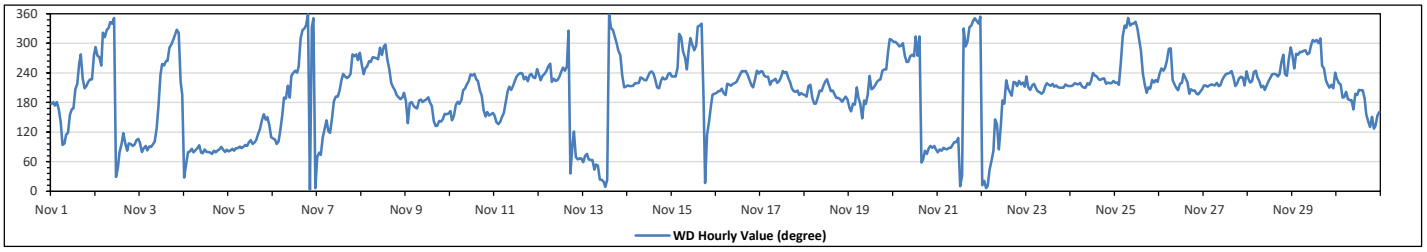
WIND DIRECTION (VWD) in sector

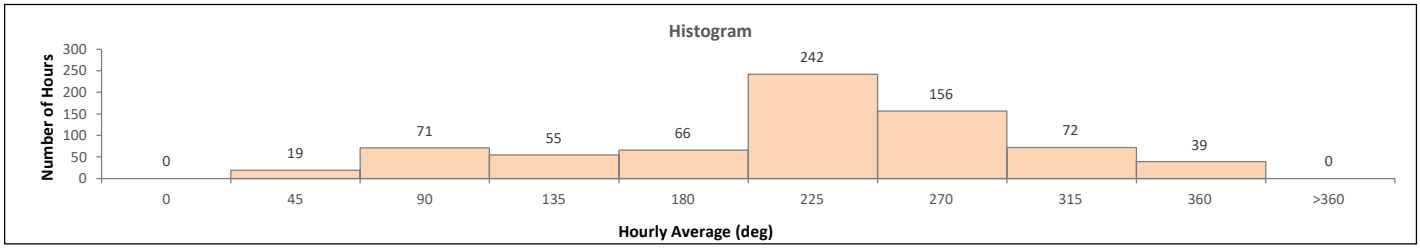
Monthly Average:	218 (SW)	degree	
Hours in Service:	720		
Hours of Data:	720		
Hours of Missing Data:	0		
Hours of Calibration:	0		
Operational Uptime:	100.0		

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
Nov 1	S	S	S	S	SSE	SE	E	E	ESE	ESE	SSE	SSE	SSE	SSW	SW	WSW	W	SW	SSW	SSW	SW	SW	SW	W	195	SSW
Nov 2	WNW	W	W	WSW	NW	NW	NW	NNW	NNW	NNW	N	NNE	NE	ENE	E	ESE	E	E	E	E	E	E	ESE	ESE	55	NE
Nov 3	E	E	E	E	E	E	E	E	E	SE	S	SW	WSW	WSW	W	W	WNW	WNW	NW	NW	NNW	NW	SW	SSW	101	E
Nov 4	NNE	NE	ENE	E	E	ENE	E	E	E	ENE	ENE	E	E	E	ENE	ENE	E	ENE	E	E	E	E	E	E	82	E
Nov 5	E	E	E	E	E	E	E	E	E	E	E	E	ESE	E	E	ESE	ESE	SE	SE	SSE	SE	SSE	SE	ESE	101	E
Nov 6	ESE	ESE	E	E	SE	SSE	S	S	SSW	S	SW	WSW	WSW	WSW	WSW	NW	NW	NNW	NNW	N	N	NNW	N	N	243	WSW
Nov 7	ENE	ENE	ENE	ESE	SE	SE	ESE	ESE	SE	S	S	S	SSW	SW	SW	SW	SW	SW	SW	W	W	W	W	W	235	SW
Nov 8	WSW	SW	WSW	WSW	W	W	W	W	W	W	WNW	W	WNW	WNW	W	WSW	SW	SSW	SSW	SSW	S	S	S	SSW	250	WSW
Nov 9	S	SE	S	S	S	SSE	SSE	S	S	S	S	S	S	S	S	SE	SE	SE	SE	SE	SE	SSE	SSE	SSE	163	SSE
Nov 10	SSE	SE	SSE	S	S	S	S	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSE	SSE	SSE	SSE	SSE	SSE	199	SSW
Nov 11	SSE	SE	SE	SE	SSE	SSE	S	SSW	SSW	SSW	SSW	SW	SW	SW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	WSW	215	SSW
Nov 12	SW	SW	SW	SW	WSW	WSW	WSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	NW	NE	E	ESE	ENE	ENE	ENE	ENE	235	SW
Nov 13	ENE	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	NNE	NNE	NNE	N	NNE	N	NNW	NW	NW	WNW	WNW	W	SW	SSW	SSW	27	NNE
Nov 14	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	WSW	227	SW
Nov 15	SW	SW	SW	WSW	NW	NW	WNW	W	WSW	W	NW	WNW	WNW	WNW	NNW	NNW	NNW	S	NNE	ESE	SE	S	SSW	SSW	249	WSW
Nov 16	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	SW	SW	SSW	SSW	SW	WSW	WSW	223	SW
Nov 17	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	223	SW
Nov 18	SSW	S	SSW	SW	S	S	S	S	SSW	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	199	SSW
Nov 19	SSE	SSE	S	S	SSW	S	S	SE	S	S	SSW	SW	SSW	SSW	SSW	SW	SW	SW	WSW	WSW	WSW	WNW	NW	NW	234	SW
Nov 20	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	W	W	NW	W	NW	ENE	ENE	E	ENE	E	E	E	E	E	316	NW
Nov 21	ENE	E	E	E	E	E	E	E	E	E	E	ESE	N	NNE	NNW	WNW	WNW	NNW	NNW	NNW	N	NNW	NNW	N	55	NE
Nov 22	NNE	NNE	N	NNE	NE	ENE	E	SE	SE	E	SE	S	S	SW	SSW	SSW	SSW	SW	SW	SSW	SW	SW	SW	SSW	201	SSW
Nov 23	SW	SSW	SSW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SSW	212	SSW
Nov 24	SSW	SSW	SW	SW	SW	SW	SSW	SSW	SSW	SW	SW	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	221	SW
Nov 25	SW	SW	SW	W	NW	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	WNW	WNW	WSW	SW	SSW	SSW	SSW	SW	SW	SW	SW	264	W
Nov 26	SW	WSW	WSW	WSW	W	WNW	WNW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	221	SW
Nov 27	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	SSW	SSW	SW	SW	SW	WSW	WSW	WSW	SW	SSW	SW	SW	SW	SW	SSW	WSW	225	SW
Nov 28	SW	SW	SW	WSW	WSW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	W	W	SW	SW	W	WNW	234	SW
Nov 29	W	WSW	W	W	W	W	WNW	WNW	W	W	WNW	NW	WNW	NW	WNW	NW	WSW	WSW	SW	SW	SSW	SW	SSW	WSW	273	W
Nov 30	SW	SW	SW	S	S	SSW	S	S	S	SSE	SSW	SSW	SSW	SSW	SSW	S	SSE	SE	SE	SSE	SE	SE	SSE	SSE	179	S

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 - November 2023

Summary of Hourly Averages

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

WIND SPEED					
Maximum Hourly Value:	28.7	kph	on Nov 19 at hr 20	Hours in Service:	720
Maximum Daily Value:	16.4	kph	on Nov 27	Hours of Data:	720
Minimum Hourly Value:	0.0	kph	on Nov 3 at hr 22	Hours of Missing Data:	0
Minimum Daily Value:	4.4	kph	on Nov 6	Hours of Calibration:	0
Monthly Average:	5.8	kph		Operational Uptime:	100.0
WIND DIRECTION					
Monthly Average:	218	degree	(SW)		

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			
Nov 1	5.4	6.1	4.6	6.5	4.3	2.3	3.9	7.5	5.3	5.6	4.6	4.0	3.1	5.4	8.9	6.8	3.7	5.7	6.0	7.9	7.6	6.6	6.9	5.7	2.3	8.9	5.6
	S	S	S	S	SSE	SE	E	E	ESE	ESE	SSE	SSE	SSE	SSW	SW	WSW	W	SW	SSW	SSW	SW	SW	SW	W			195(SSW)
Nov 2	5.3	4.7	4.7	4.3	6.3	8.0	8.6	7.8	6.5	5.2	6.8	8.5	4.7	5.1	6.8	5.1	7.5	11.0	12.6	11.1	11.4	9.1	8.1	10.1	4.3	12.6	7.5
	WNW	W	W	WSW	NW	NW	NW	NNW	NNW	NNW	N	NNE	NE	ENE	E	ESE	E	E	E	E	E	E	ESE	ESE			55(NE)
Nov 3	8.9	9.0	7.9	8.6	6.9	6.2	6.6	7.1	5.7	4.7	2.0	6.0	5.2	6.4	6.1	5.9	5.5	3.6	2.9	2.9	2.0	2.1	**0.0**	3.4	**0.0**	9.0	5.2
	E	E	E	E	E	E	E	E	E	SE	S	SW	WSW	WSW	W	W	WNW	WNW	NW	NW	NNW	NW	SW	SSW			101(E)
Nov 4	1.2	3.1	4.0	6.7	7.3	8.8	11.3	12.3	11.7	9.1	10.5	12.1	11.8	13.2	13.1	15.0	15.4	17.7	16.9	15.9	15.2	15.0	13.4	12.4	1.2	17.7	11.4
	NNE	NE	ENE	E	E	ENE	E	E	E	ENE	ENE	E	E	E	ENE	ENE	E	ENE	E	E	E	E	E	E			82(E)
Nov 5	10.7	12.5	11.2	11.6	12.0	9.9	8.0	8.2	7.9	7.6	6.5	7.3	6.9	7.4	6.9	5.9	5.1	6.6	6.5	6.5	7.0	5.5	4.7	5.1	4.7	12.5	7.8
	E	E	E	E	E	E	E	E	E	E	E	E	ESE	E	E	ESE	ESE	SE	SE	SSE	SE	SSE	SE	ESE			101(E)
Nov 6	7.8	5.7	1.2	3.9	6.3	4.8	2.4	5.0	1.5	1.5	3.1	4.2	6.5	10.8	8.5	5.6	5.0	3.6	3.3	3.1	2.8	3.4	2.4	2.4	1.2	10.8	**4.4**
	ESE	ESE	E	E	SE	SSE	S	S	SSW	S	SW	WSW	WSW	WSW	WSW	NW	NW	NNW	NNW	N	N	NNW	N	N			243(WSW)
Nov 7	2.8	4.5	5.1	3.2	4.5	5.2	7.3	6.4	6.6	6.9	8.6	8.2	10.7	14.9	17.8	19.0	18.6	18.0	18.9	22.0	22.7	18.7	16.5	14.2	2.8	22.7	11.7
	ENE	ENE	ENE	ESE	SE	SE	ESE	ESE	SE	S	S	S	SSW	SW	SW	SW	SW	SW	SW	W	W	W	W	W			235(SW)
Nov 8	11.3	12.0	11.7	13.8	15.1	14.0	15.6	14.1	12.5	10.5	12.2	12.9	10.4	10.5	11.7	11.2	8.6	10.7	9.5	7.7	10.8	7.8	8.5	12.0	7.7	15.6	11.5
	WSW	SW	WSW	WSW	W	W	W	W	W	W	WNW	W	WNW	WNW	W	WSW	SW	SSW	SSW	SSW	S	S	S	SSW			250(WSW)
Nov 9	5.5	6.5	9.1	8.3	8.0	8.5	7.7	9.6	9.4	7.7	8.8	9.8	9.8	8.0	8.3	9.1	10.6	12.7	12.8	11.8	12.2	13.0	12.3	10.5	5.5	13.0	9.6
	S	SE	S	S	S	SSE	SSE	S	S	S	S	S	S	S	S	SE	SE	SE	SE	SE	SE	SSE	SSE	SSE			163(SSE)
Nov 10	7.8	7.8	8.7	7.5	9.3	9.9	11.0	16.4	17.2	20.4	21.9	25.6	23.8	25.8	21.5	15.9	14.3	11.1	11.5	13.5	13.4	14.7	16.0	14.3	7.5	25.8	15.0
	SSE	SE	SSE	S	S	S	S	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSE	SSE	SSE	SSE	SSE	SSE			199(SSW)
Nov 11	13.6	11.5	11.5	10.9	10.1	8.4	7.1	12.4	12.3	12.4	14.5	19.4	23.1	22.3	21.2	17.6	13.6	15.9	15.2	16.3	14.5	14.3	14.3	13.7	7.1	23.1	14.4
	SSE	SE	SE	SE	SSE	SSE	S	SSW	SSW	SSW	SSW	SW	SW	SW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	WSW			215(SSW)
Nov 12	12.0	11.7	12.5	13.0	11.5	14.3	9.7	8.4	11.5	12.4	12.5	12.0	12.0	10.7	12.2	7.5	3.6	1.8	4.7	4.8	7.5	7.7	7.5	8.2	1.8	14.3	9.6
	SW	SW	SW	SW	WSW	WSW	WSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	NW	NE	E	ESE	ENE	ENE	ENE	ENE			235(SW)
Nov 13	11.2	9.7	9.7	11.7	10.5	11.1	12.5	13.4	10.9	12.9	12.1	9.2	8.9	9.5	6.8	7.0	7.6	6.3	5.6	7.8	9.7	6.1	8.8	12.2	5.6	13.4	9.6
	ENE	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	NNE	NNE	NNE	N	NNE	N	NNW	NW	NW	WNW	WNW	W	SW	SSW	SSW			27(NNE)
Nov 14	12.7	11.1	9.9	12.9	16.3	17.4	17.2	17.7	17.0	15.0	14.1	17.2	20.9	21.6	17.1	14.1	13.7	13.1	14.2	16.1	13.0	18.5	17.6	20.4	9.9	21.6	15.8
	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	WSW			227(SW)
Nov 15	18.4	17.5	16.7	18.3	14.0	9.9	7.9	6.0	6.4	4.5	4.3	5.1	6.0	3.9	3.8	2.2	0.2	5.1	6.1	6.5	6.8	7.7	12.6	11.0	0.2	18.4	8.4
	SW	SW	SW	WSW	NW	NW	WNW	W	WSW	W	NW	WNW	WNW	WNW	NNW	NNW	NNW	S	NNE	ESE	SE	S	SSW	SSW			249(WSW)
Nov 16	12.0	14.3	14.4	14.2	11.2	10.0	16.7	17.5	18.5	20.9	21.4	21.2	19.5	19.2	17.1	19.9	18.4	15.7	15.7	13.6	11.4	13.6	17.7	14.9	10.0	21.4	16.2
	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	SW	SW	SSW	SSW	SW	WSW	WSW			223(SW)
Nov 17	15.4	13.7	13.2	13.0	10.8	12.8	15.8	15.2	10.7	12.9	11.1	13.5	14.6	16.8	17.6	13.2	12.0	11.3	13.9	13.8	13.0	13.0	12.5	13.8	10.7	17.6	13.5
	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW			223(SW)
Nov 18	10.8	8.0	11.8	13.2	10.5	8.7	8.6	10.2	15.1	16.2	14.6	9.9	8.3	8.5	8.7	11.4	8.4	9.2	8.7	10.3	7.9	9.2	10.3	5.0	5.0	16.2	10.1
	SSW	S	SSW	SW	S	S	S	S	SSW	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S			199(SSW)
Nov 19	3.9	5.9	8.6	4.7	6.0	6.9	7.5	6.3	8.4	6.5	6.0	6.9	7.1	11.0	12.8	16.1	16.4	16.3	24.9	28.4	**28.7**	22.9	20.6	19.8	3.9	**28.7**	12.6
	SSE	SSE	S	S	SSW	S	S	SE	S	S	SSW	SW	SSW	SSW	SSW	SW	SW	SW	WSW	WSW	WSW	WNW	NW	NW			234(SW)
Nov 20	19.7	17.7	16.3	16.7	12.9	11.3	10.0	9.4	7.7	8.9	6.0	6.7	4.3	3.5	0.8	4.0	7.7	7.6	8.9	9.2	9.8	11.3	12.0	11.6	0.8	19.7	9.8
	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	W	W	NW	W	NW	ENE	ENE	E	ENE	E	E	E	E	E			316(NW)
Nov 21	14.0	16.6	16.3	17.3	15.1	17.0	15.9	12.1	7.1	4.5	5.1	1.5	5.6	3.7	4.7	5.8	7.8	8.4	8.6	10.3	9.6	6.6	6.1	5.5	1.5	17.3	9.4
	ENE	E	E	E	E	E	E	E	E	E	E	ESE	N	NNE	NNW	WNW	WNW	NNW	NNW	NNW	N	NNW	NNW	N			55(NE)
Nov 22	7.1	6.3	5.1	2.0	4.5	4.9	6.2	2.8	2.1	4.6	3.5	4.2	4.2	4.3	4.8	4.7	7.0	8.4	5.4	8.7	11.1	13.4	9.8	11.9	2.0	13.4	6.1
	NNE	NNE	N	NNE	NE	ENE	E	SE	SE	E	SE	S	S	SW	SSW	SSW	SSW	SW	SW	SSW	SW	SW	SW	SSW			201(SSW)
Nov 23	6.0	8.6	11.2	11.3	10.4	10.3	10.4	9.2	10.5	9.8	12.3	13.3	14.2	14.5	16.3	16.2	15.5	15.2	16.6	18.8	17.0	17.9	17.2	16.4	6.0	18.8	13.3
	SW	SSW	SSW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SW	SSW			212(SSW)
Nov 24	18.9	19.1	19.4	18.5	16.8	15.9	14.9	14.1	13.7	14.9	13.3	12.9	12.7	11.8	14.0	13.6	13.4	13.4	13.4	13.0	12.8	12.1	15.1	14.6	11.8	19.4	14.7
	SSW	SSW	SW	SW	SW	SW	SSW	SSW	SSW	SW	SW	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW			221(SW)
Nov 25	11.6	12.3	10.5	7.9	8.1	11.7	8.5	12.7	7.2	10.4	8.9	9.3	8.3	4.9	5.9	5.0	6.0	8.0	9.4	9.4	12.5	13.9	12.0	11.0	4.9	13.9	9.4
	SW	SW	SW	W	NW	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	WNW	WNW	WSW	SW	SSW	SSW	SSW	SW	SW	SW	SW			264(W)
Nov 26	10.9	12.3	9.1	8.6	5.8	4.5	4.6	3.8	7.3	6.7	6.5	6.8	7.4	7.9	7.7	7.5	9.0	12.2	10.9	11.4	9.4	10.9	11.9	13.3	3.8	13.3	8.6
	SW	WSW	WSW	WSW	W	WNW	WNW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW			221(SW)
Nov 27	14.4	14.9	14.3	15.0	14.5	18.3	16.8	17.6	18.9	19.4	20.8	22.3	24.2	20.4	17.6	16.1	10.5	10.9	12.9	15.0	14.9	14.0	12.4	16.5	10.5	24.2	**16.4**
	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	SSW	SSW	SW	SW	SW	WSW	WSW	WSW	SW	SSW	SW	SW	SW	SW	SSW	WSW			225(SW)
Nov 28	12.7	10.8	10.4	15.6	16.3	10.6	11.6	10.6	14.6	15.8	15.1	15.4	15.8	16.9	13.6	11.2	13.0	13.5	12.4	9.2	6.2	9.3	9.3	10.7	6.2	16.9	12.5
	SW	SW	SW	WSW	WSW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	W	W	SW	SW	W	WNW			234(SW)
Nov 29	8.2	11.0	9.6	13.5	12.2	10.8	9.4	11.8	10.5	12.5	10.8	11.0	9.8	10.5	12.2	7.7	5.7	5.9	5.9	9.1	8.0	6.3	7.3	7.8	5.7	13.5	9.5
	W	WSW	W	W	W	W	WNW	WNW	W	W	WNW	NW	WNW	NW	WNW	NW	WSW	WSW	SW	SW	SSW	SW	SSW	WSW			273(W)
Nov 30	7.7	6.7	7.5	8.9	10.3	8.9	8.0	8.7	9.3	6.8	8.7	8.5	8.7	8.0	7.3	4.5	5.6	6.5	7.8	9.6	11.4	12.7	8.5	10.3	4.5	12.7	8.4
	SW	SW	SW	S	S	SSW	S	S	S	SSE	SSW	SSW	SSW	SSW	SSW	S	SSE	SE	SE	SSE	SE	SE	SSE	SSE			179(S)

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.

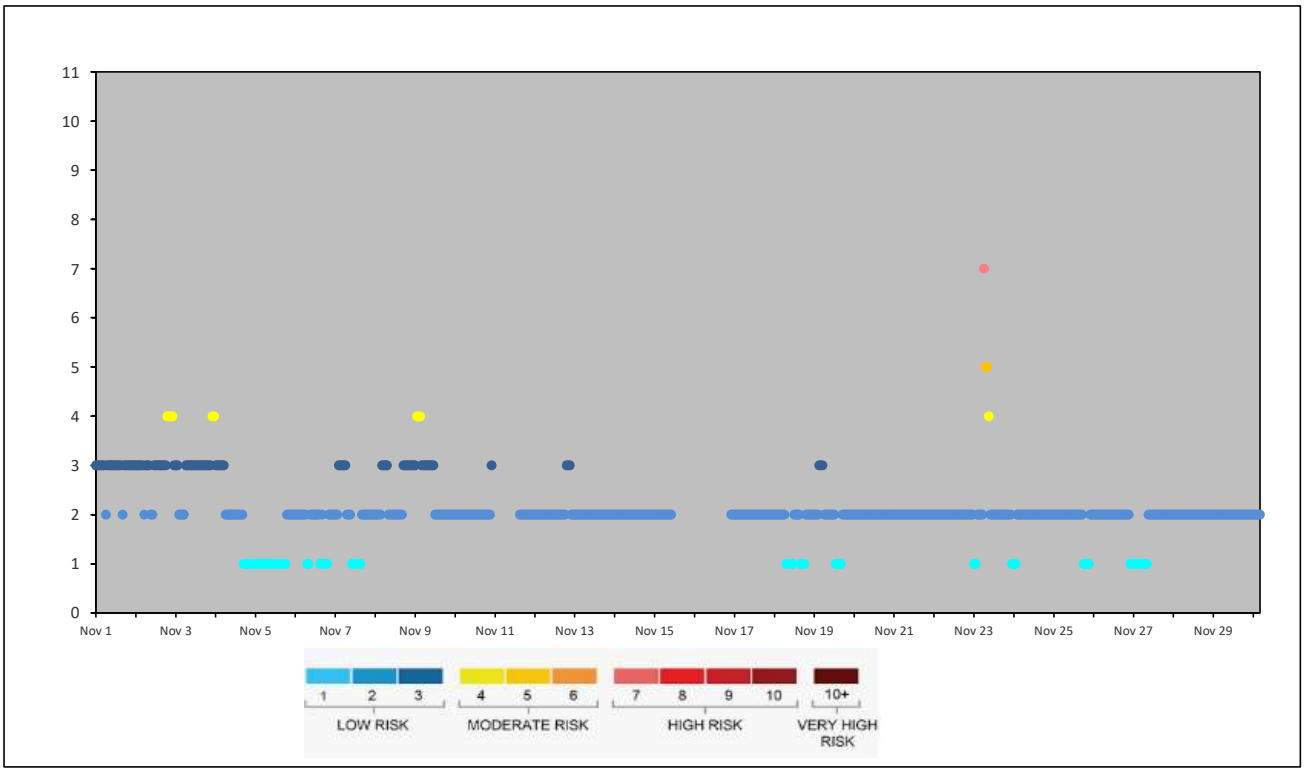
AQHI GRIMSHAW STATION

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

AQHI - Grimshaw Station - November 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
Nov 1	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3
Nov 2	3	3	3	3	3	2	3	3	3	2	2	3	3	3	3	3	3	3	3	4	4	4	4	3
Nov 3	3	3	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4
Nov 4	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1
Nov 5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
Nov 6	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	1	2	1	1	1	2	2	2	1
Nov 7	2	2	3	3	3	3	3	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2
Nov 8	2	2	2	2	3	3	3	3	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3
Nov 9	3	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
Nov 10	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	
Nov 11																2	2	2	2	2	2	2	2	2
Nov 12	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2	2
Nov 13	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nov 14	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nov 15	2	2	2	2	2	2	2	2	2	2	2													
Nov 16																							2	2
Nov 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
Nov 18	2	2	2	2	2	2	2	1	1	1	1	1	2	2	2	2	1	1	1	2	2	2	2	2
Nov 19	2	2	2	3	3	3	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2
Nov 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
Nov 21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nov 22	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nov 23	1	1	2	2	2	2	7	5	5	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Nov 24	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nov 25	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2
Nov 26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1
Nov 27	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nov 28	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nov 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
Nov 30	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	2



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

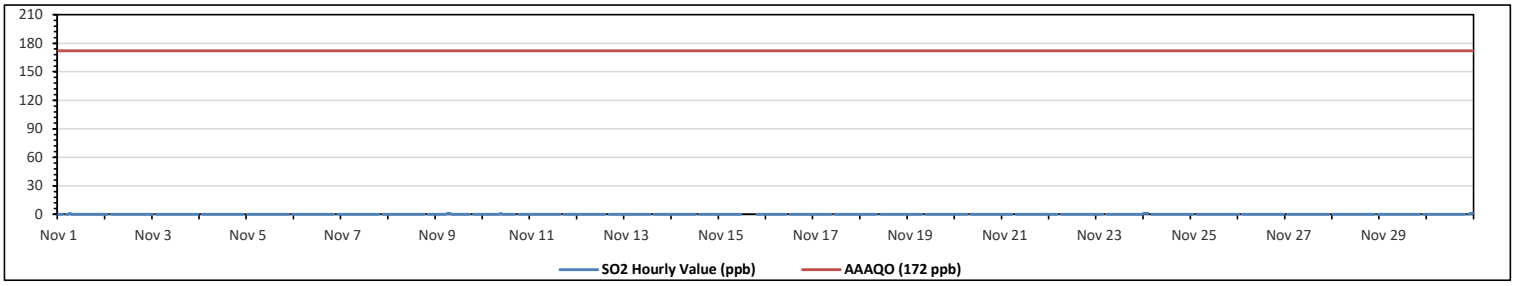
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

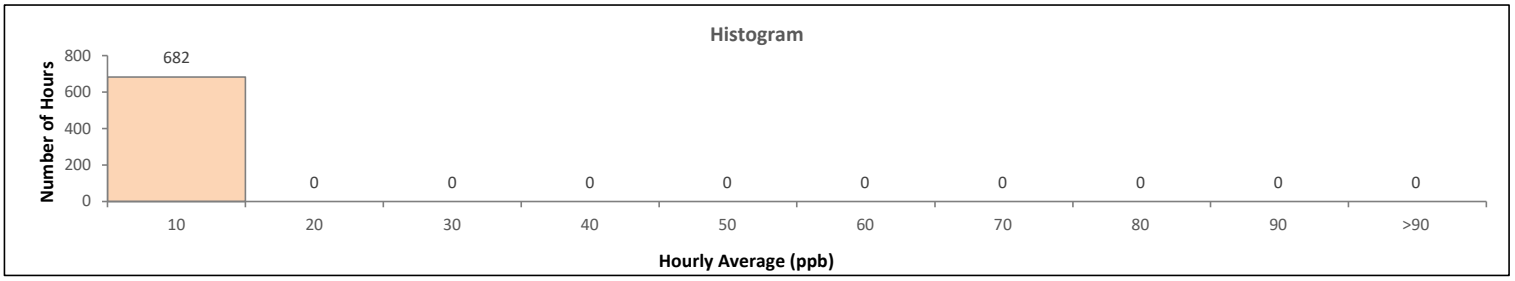
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0		
Maximum Hourly Value:	1	ppb	on Nov 1 at hr 6	Hours in Service:	720		
Maximum Daily Value:	0.1	ppb	on Nov 24	Hours of Data:	682		
Minimum Hourly Value:	0	ppb	on Nov 1 at hr 0	Hours of Missing Data:	0		
Minimum Daily Value:	0.0	ppb	on Nov 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			
Nov 1	0	0	0	S	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Nov 2	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
Nov 3	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
Nov 4	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
Nov 5	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
Nov 6	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
Nov 7	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
Nov 8	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
Nov 9	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	0.1
Nov 10	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	1	0.0
Nov 11	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
Nov 12	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
Nov 13	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
Nov 14	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
Nov 15	0	0	0	0	0	0	0	0	0	0	0	0	S	C	C	C	C	C	C	0	0	0	0	0	0	0	NA
Nov 16	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
Nov 17	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
Nov 18	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
Nov 19	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
Nov 20	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
Nov 21	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
Nov 22	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
Nov 23	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
Nov 24	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Nov 25	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
Nov 26	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
Nov 27	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
Nov 28	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
Nov 29	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
Nov 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	1	1	0	1	0.1
Diurnal Maximum	1	1	1	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1			
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

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.



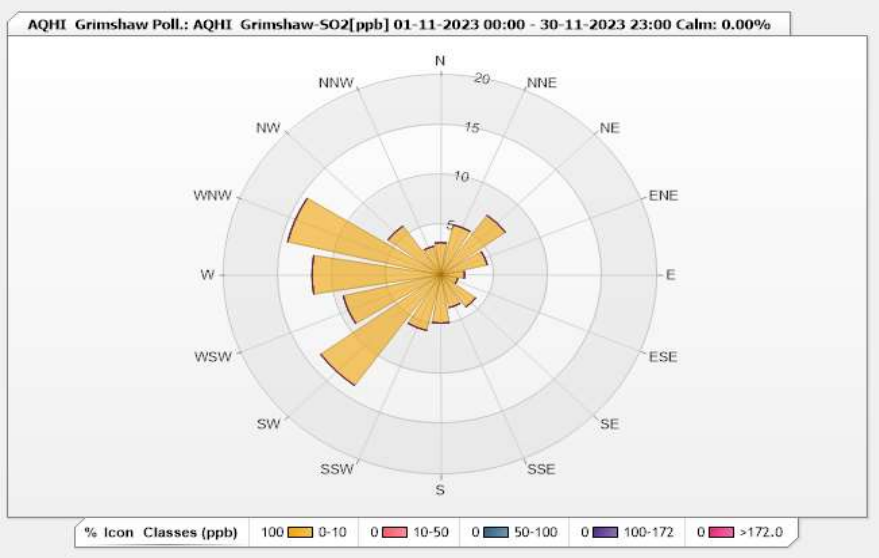


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-SO2[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.72% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	3.23	0	0	0	0	3.23
NNE	5.13	0	0	0	0	5.13
NE	7.33	0	0	0	0	7.33
ENE	4.4	0	0	0	0	4.4
E	2.2	0	0	0	0	2.2
ESE	1.61	0	0	0	0	1.61
SE	3.96	0	0	0	0	3.96
SSE	3.37	0	0	0	0	3.37
S	4.84	0	0	0	0	4.84
SSW	5.72	0	0	0	0	5.72
SW	13.64	0	0	0	0	13.64
WSW	9.24	0	0	0	0	9.24
W	11.88	0	0	0	0	11.88
WNW	14.52	0	0	0	0	14.52
NW	6.01	0	0	0	0	6.01
NNW	2.93	0	0	0	0	2.93
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

TOTAL REDUCED SULPHUR (TRS) in ppb

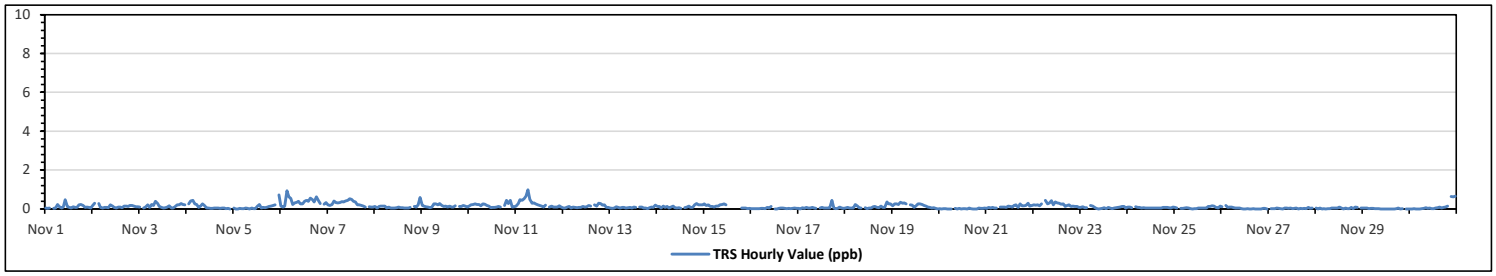
Maximum Hourly Value:	0.98	ppb	on Nov 11 at hr 6	Hours in Service:	720
Maximum Daily Value:	0.38	ppb	on Nov 6	Hours of Data:	682
Minimum Hourly Value:	0.00	ppb	on Nov 4 at hr 22	Hours of Missing Data:	0
Minimum Daily Value:	0.01	ppb	on Nov 29	Hours of Calibration:	38
Monthly Average:	0.12	ppb		Operational Uptime:	100.0

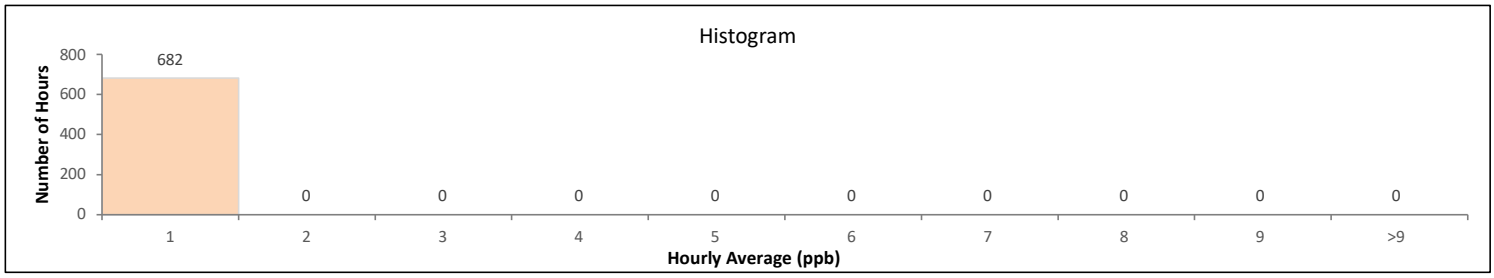
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Nov 1	0.04	0.02	0.03	S	0.02	0.05	0.23	0.11	0.04	0.09	0.47	0.11	0.08	0.04	0.11	0.07	0.07	0.2	0.23	0.18	0.08	0.09	0.08	0.05	0.02	0.47	0.11
Nov 2	0.17	0.29	S	0.28	0.07	0.05	0.07	0.07	0.06	0.2	0.15	0.07	0.03	0.1	0.09	0.06	0.15	0.14	0.12	0.18	0.18	0.14	0.11	0.11	0.03	0.29	0.13
Nov 3	0.1	S	0.05	0.1	0.2	0.08	0.23	0.17	0.4	0.28	0.12	0.07	0.05	0.06	0.1	0.16	0.04	0.05	0.11	0.22	0.22	0.28	0.23	0.21	0.04	0.40	0.15
Nov 4	S	0.26	0.41	0.44	0.27	0.23	0.08	0.15	0.25	0.17	0.03	0.04	0.02	0.02	0.04	0.05	0.03	0.02	0.03	0.03	0.01	0.02	0	S	0.00	0.44	0.12
Nov 5	0.04	0	0	0.02	0.01	0.01	0.04	0.02	0	0.05	0.01	0.01	0.15	0.23	0.05	0.08	0.06	0.1	0.13	0.15	0.17	0.21	S	0.72	0.00	0.72	0.10
Nov 6	0.15	0.09	0.15	0.93	0.62	0.54	0.23	0.31	0.34	0.38	0.25	0.27	0.4	0.44	0.38	0.55	0.47	0.36	0.61	0.44	0.28	S	0.24	0.32	0.09	0.93	**0.38**
Nov 7	0.21	0.18	0.23	0.41	0.33	0.3	0.33	0.37	0.35	0.41	0.44	0.52	0.48	0.38	0.35	0.21	0.2	0.17	0.14	0.09	S	0.11	0.1	0.09	0.09	0.52	0.28
Nov 8	0.13	0.03	0.12	0.14	0.14	0.14	0.04	0.1	0.04	0.03	0.03	0.06	0.09	0.06	0.06	0.04	0.03	0.05	0.08	S	0.12	0.1	0.21	0.59	0.03	0.59	0.11
Nov 9	0.18	0.14	0.11	0.09	0.06	0.1	0.26	0.25	0.21	0.28	0.18	0.12	0.14	0.1	0.15	0.09	0.1	0.16	S	0.12	0.13	0.18	0.15	0.09	0.06	0.28	0.15
Nov 10	0.14	0.21	0.23	0.27	0.23	0.23	0.16	0.25	0.24	0.17	0.15	0.06	0.07	0.08	0.09	0.12	0.1	S	0.17	0.45	0.28	0.43	0.1	0.11	0.06	0.45	0.19
Nov 11	0.15	0.28	0.47	0.44	0.52	0.65	**0.98**	0.48	0.29	0.3	0.25	0.22	0.18	0.14	0.1	0.19	S	0.1	0.14	0.1	0.1	0.09	0.16	0.09	0.09	**0.98**	0.28
Nov 12	0.05	0.04	0.09	0.13	0.04	0.09	0.08	0.06	0.07	0.07	0.13	0.09	0.11	0.17	0.14	S	0.21	0.15	0.29	0.28	0.19	0.21	0.07	0.07	0.04	0.29	0.12
Nov 13	0.03	0.02	0.04	0.11	0.08	0.04	0.07	0.07	0.04	0.06	0.08	0.04	0.09	0.08	S	0.1	0.1	0.05	0.04	0.01	0.06	0.09	0.08	0.19	0.01	0.19	0.07
Nov 14	0.13	0.13	0.04	0.15	0.08	0.13	0.05	0.09	0.15	0.06	0.04	0.06	0.02	S	0.06	0.09	0.14	0.08	0.08	0.2	0.28	0.22	0.21	0.21	0.02	0.28	0.12
Nov 15	0.25	0.17	0.22	0.13	0.12	0.09	0.14	0.14	0.21	0.23	0.25	0.21	S	C	C	C	C	C	C	0.03	0.03	0.03	0.01	0.02	0.01	0.25	NA
Nov 16	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.08	0.04	0.13	S	0	0	0.02	0.03	0.03	0.02	0.01	0.02	0.01	0.02	0.03	0.02	0.00	0.13	0.02
Nov 17	0.02	0	0.06	0.02	0.07	0.05	0.04	0.07	0.03	0.02	S	0.04	0.07	0.04	0.03	0.03	0.03	0.44	0.05	0.01	0.02	0.09	0.05	0.02	0.00	0.44	0.06
Nov 18	0.05	0.07	0.04	0.04	0.04	0.23	0.15	0.06	0.04	S	0.06	0.01	0.03	0.04	0.11	0.13	0.08	0.06	0.15	0.08	0.07	0.36	0.26	0.27	0.01	0.36	0.11
Nov 19	0.16	0.26	0.25	0.23	0.34	0.29	0.3	0.27	S	0.21	0.19	0.08	0.16	0.25	0.25	0.23	0.17	0.15	0.09	0.08	0.05	0.06	0.02	0	0.00	0.34	0.18
Nov 20	0.01	0	0.01	0.01	0	0	0	S	0.02	0	0.02	0	0.01	0.01	0	0.04	0.01	0	0	0	0.04	0.02	0.02	0.03	0.00	0.04	0.01
Nov 21	0.02	0.07	0.04	0.07	0.04	0.03	S	0.1	0.09	0.1	0.07	0.15	0.12	0.1	0.17	0.2	0.08	0.27	0.16	0.16	0.17	0.29	0.14	0.17	0.02	0.29	0.12
Nov 22	0.2	0.19	0.21	0.16	0.27	S	0.43	0.27	0.31	0.42	0.22	0.36	0.3	0.29	0.24	0.25	0.13	0.18	0.21	0.12	0.14	0.13	0.12	0.08	0.08	0.43	0.23
Nov 23	0.07	0.11	0.06	0.06	S	0.18	0.15	0.07	0.02	0	0.01	0.02	0.06	0.01	0.07	0.04	0.01	0.03	0.06	0.07	0.1	0.13	0.13	0.05	0.00	0.18	0.07
Nov 24	0.09	0.09	0.06	S	0.11	0.07	0.08	0.05	0.06	0.03	0.05	0.04	0.03	0.05	0.05	0.05	0.03	0.04	0.07	0.07	0.08	0.06	0.05	0.09	0.03	0.11	0.06
Nov 25	0.08	0.04	S	0.02	0.02	0.05	0.06	0.05	0.01	0	0.01	0.01	0.04	0.03	0.04	0.04	0.03	0.13	0.12	0.16	0.14	0.07	0.05	0.14	0.00	0.16	0.06
Nov 26	0.11	S	0.18	0.07	0.09	0.1	0.06	0.04	0.04	0.04	0.01	0	0	0.01	0	0	0.01	0	0	0	0	0.02	0.02	0	0.00	0.18	0.03
Nov 27	S	0.01	0.01	0.01	0.04	0.02	0.01	0	0.03	0.03	0.02	0.03	0.01	0.02	0.05	0	0.02	0.01	0.02	0.01	0.07	0.02	0.03	S	0.00	0.07	0.02
Nov 28	0.03	0	0.03	0	0.01	0	0.01	0.01	0.03	0.03	0.04	0.05	0.1	0.05	0	0.03	0.01	0.01	0.08	0.01	0.09	0.08	S	0.05	0.00	0.10	0.03
Nov 29	0.03	0.03	0.05	0.01	0.02	0.02	0.01	0.01	0.01	0	0	0	0	0	0	0	0	0.01	0.03	0	0.01	S	0	0	0.00	0.05	0.01
Nov 30	0	0	0.01	0	0	0	0.01	0.02	0.06	0.02	0.05	0.01	0.01	0.03	0.06	0.1	0.05	0.08	0.1	0.14	S	0.64	0.62	0.66	0.00	0.66	0.12
Diurnal Maximum	0.25	0.29	0.47	0.93	0.62	0.65	0.98	0.48	0.40	0.42	0.47	0.52	0.48	0.44	0.38	0.55	0.47	0.44	0.61	0.45	0.28	0.64	0.62	0.72			
Diurnal Average	0.09	0.10	0.11	0.16	0.13	0.13	0.15	0.13	0.12	0.13	0.12	0.09	0.10	0.10	0.10	0.11	0.09	0.11	0.12	0.12	0.11	0.15	0.12	0.16			

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.



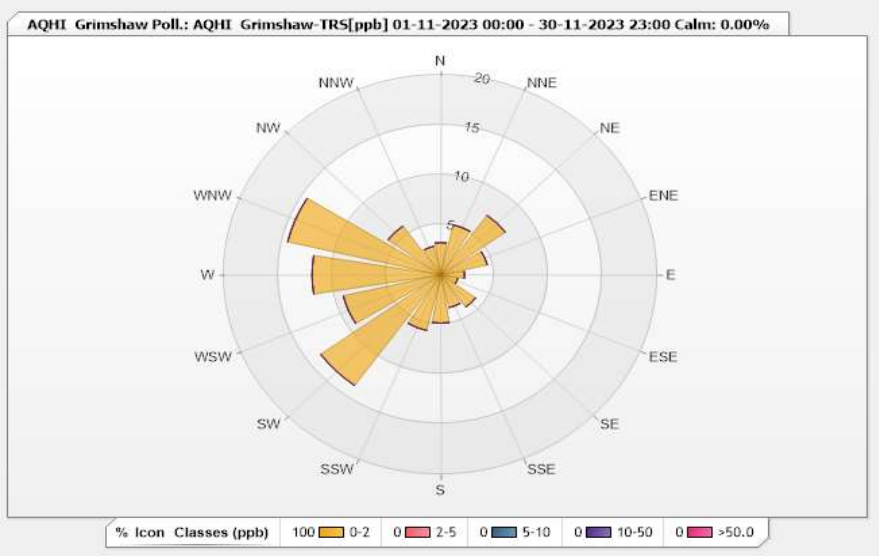


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-TRS[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.72% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	3.23	0	0	0	0	3.23
NNE	5.13	0	0	0	0	5.13
NE	7.33	0	0	0	0	7.33
ENE	4.4	0	0	0	0	4.4
E	2.2	0	0	0	0	2.2
ESE	1.61	0	0	0	0	1.61
SE	3.96	0	0	0	0	3.96
SSE	3.37	0	0	0	0	3.37
S	4.84	0	0	0	0	4.84
SSW	5.72	0	0	0	0	5.72
SW	13.64	0	0	0	0	13.64
WSW	9.24	0	0	0	0	9.24
W	11.88	0	0	0	0	11.88
WNW	14.52	0	0	0	0	14.52
NW	6.01	0	0	0	0	6.01
NNW	2.93	0	0	0	0	2.93
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

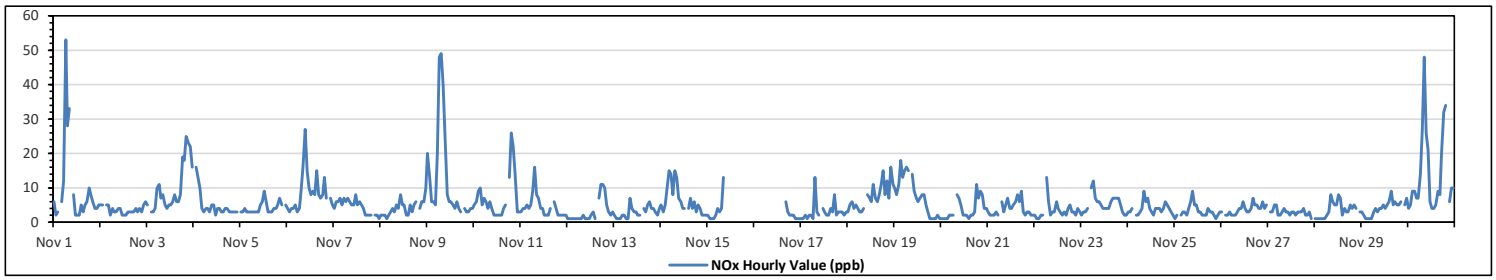
OXIDES OF NITROGEN (NOx) in ppb

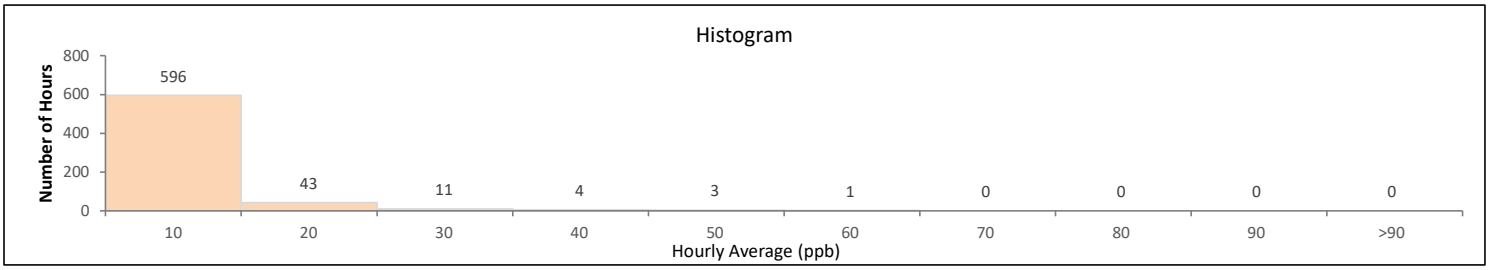
Maximum Hourly Value:	53	ppb	on Nov 1 at hr 6	Hours in Service:	720	
Maximum Daily Value:	14.1	ppb	on Nov 30	Hours of Data:	658	
Minimum Hourly Value:	1	ppb	on Nov 7 at hr 23	Hours of Missing Data:	22	
Minimum Daily Value:	2.9	ppb	on Nov 27	Hours of Calibration:	40	
Monthly Average:	5.5	ppb		Operational Uptime:	96.9	

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			
Nov 1	6	2	3	S	6	12	53	28	33	NRM	8	2	2	2	5	3	5	6	10	8	6	4	4	5	2	53	9.7
Nov 2	5	5	S	5	5	2	4	3	3	4	4	2	2	2	3	3	3	3	4	3	4	3	5	6	2	6	3.6
Nov 3	5	S	3	3	4	10	11	7	8	5	4	5	5	6	8	6	6	8	19	18	25	23	22	16	3	25	9.9
Nov 4	S	16	13	10	4	3	4	4	3	5	5	2	4	4	3	3	4	4	3	3	3	3	3	S	2	16	4.8
Nov 5	3	3	4	3	3	3	3	3	3	3	5	6	9	6	3	3	3	4	4	5	7	5	S	5	3	9	4.2
Nov 6	4	3	4	4	5	3	4	9	16	27	15	10	8	9	8	15	8	7	8	13	7	S	7	5	3	27	8.7
Nov 7	4	6	6	7	5	7	6	7	6	5	5	8	5	6	5	4	2	2	2	2	S	2	2	1	1	8	4.6
Nov 8	2	2	2	1	2	3	4	3	5	4	8	5	5	2	2	5	3	5	6	S	4	6	6	10	1	10	4.1
Nov 9	20	13	6	6	5	20	48	49	40	25	8	6	6	5	4	6	4	3	S	4	3	3	4	4	3	49	12.7
Nov 10	5	6	9	10	5	7	6	4	6	4	2	2	2	2	2	4	5	S	13	26	22	14	3	3	2	26	7.0
Nov 11	3	4	4	5	4	5	9	16	8	7	4	4	2	2	2	4	S	6	4	2	2	2	2	2	2	16	4.5
Nov 12	1	1	1	1	1	1	1	1	2	1	1	1	2	3	1	S	7	11	11	10	5	3	2	3	1	11	3.1
Nov 13	2	1	1	1	2	2	1	1	7	4	3	3	2	2	S	4	3	5	6	4	4	3	2	4	1	7	2.9
Nov 14	5	3	5	10	15	14	8	15	13	7	6	4	4	S	4	7	4	6	3	5	4	2	2	2	2	15	6.4
Nov 15	2	1	1	1	2	4	3	4	13	C	C	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	1	13	NA
Nov 16	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	C	C	6	3	2	2	2	1	1	1	1	6	NA
Nov 17	1	1	2	1	2	2	1	13	3	2	S	4	3	2	2	4	3	8	2	3	3	3	2	3	1	13	3.0
Nov 18	3	5	6	4	5	4	3	3	4	S	8	7	6	11	7	6	8	11	15	8	12	7	16	11	3	16	7.4
Nov 19	10	8	11	18	13	15	16	15	S	14	9	7	6	7	8	8	5	3	1	1	1	1	2	1	1	18	7.8
Nov 20	1	1	1	1	2	2	2	S	8	7	5	2	2	2	1	2	2	3	11	7	9	8	4	4	1	11	3.8
Nov 21	3	2	2	2	3	2	S	6	3	5	7	4	4	5	6	8	6	9	3	2	3	3	2	2	2	9	4.0
Nov 22	2	1	1	2	2	S	13	6	2	3	3	6	4	3	2	3	2	4	5	3	3	2	4	3	1	13	3.4
Nov 23	2	3	3	4	S	10	12	7	6	6	5	4	4	4	4	6	7	7	7	7	5	3	2	2	2	12	5.2
Nov 24	3	3	4	S	2	2	3	4	9	6	7	4	3	2	4	4	4	3	4	6	5	4	3	2	2	9	4.0
Nov 25	1	2	S	2	3	3	2	4	6	9	5	5	3	3	2	2	2	4	3	3	2	1	2	3	1	9	3.1
Nov 26	3	S	2	2	3	2	2	2	3	4	4	6	4	3	3	4	7	5	5	4	4	6	4	5	2	7	3.8
Nov 27	S	3	3	5	5	2	2	3	4	3	3	2	3	3	2	3	3	3	4	2	2	3	1	S	1	5	2.9
Nov 28	1	1	1	1	1	1	2	3	8	6	5	5	8	7	2	4	3	3	5	4	5	4	S	3	1	8	3.6
Nov 29	3	2	1	1	1	1	3	4	3	4	4	5	4	5	6	9	5	6	5	5	6	S	5	7	1	9	4.1
Nov 30	4	5	9	9	7	7	14	27	48	26	21	6	4	4	5	9	8	20	32	34	S	6	10	10	4	48	14.1
Diurnal Maximum	20	16	13	18	15	20	53	49	48	27	21	10	9	11	8	15	8	20	32	34	25	23	22	16			
Diurnal Average	3.9	3.8	4.0	4.4	4.2	5.3	8.6	9.0	9.8	7.5	6.1	4.5	4.1	4.1	3.9	5.1	4.6	5.8	7.0	6.9	5.9	4.6	4.5	4.6			

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.



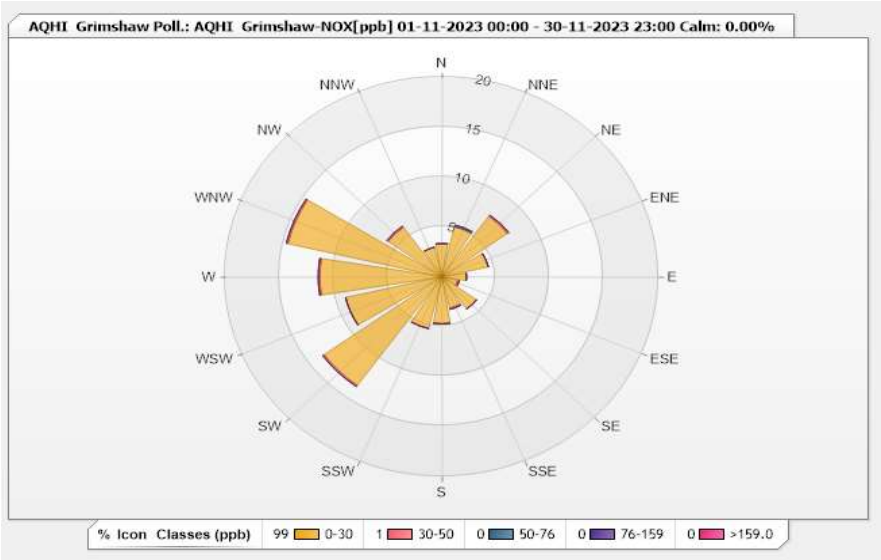


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NOX[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.39% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	3.34	0	0	0	0	3.34
NNE	5.17	0	0.15	0	0	5.32
NE	7.45	0.15	0	0	0	7.6
ENE	4.41	0	0	0	0	4.41
E	2.28	0	0	0	0	2.28
ESE	1.52	0.15	0	0	0	1.67
SE	3.95	0	0	0	0	3.95
SSE	3.19	0.15	0	0	0	3.34
S	4.71	0	0	0	0	4.71
SSW	5.32	0	0	0	0	5.32
SW	13.37	0.15	0	0	0	13.52
WSW	9.12	0	0	0	0	9.12
W	11.25	0.15	0	0	0	11.4
WNW	14.59	0.15	0	0	0	14.74
NW	6.08	0.15	0	0	0	6.23
NNW	3.04	0	0	0	0	3.04
Summary	98.79	1.05	0.15	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

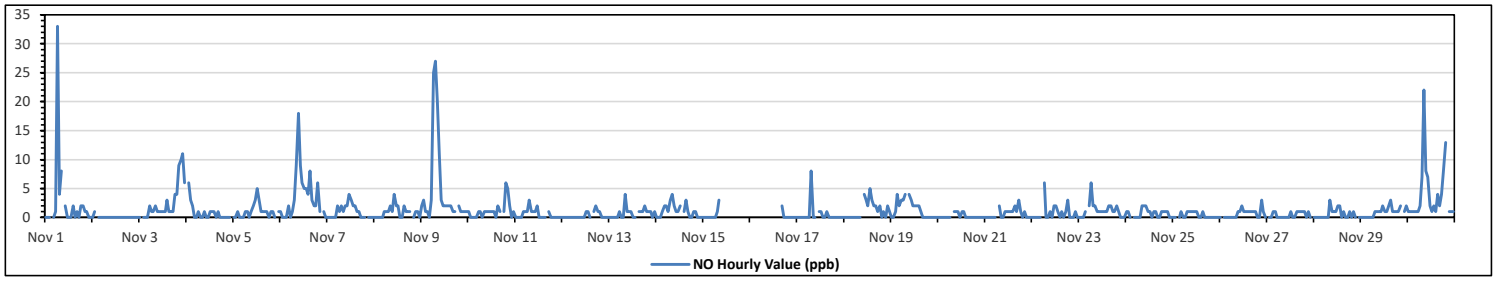
NITRIC OXIDE (NO) in ppb

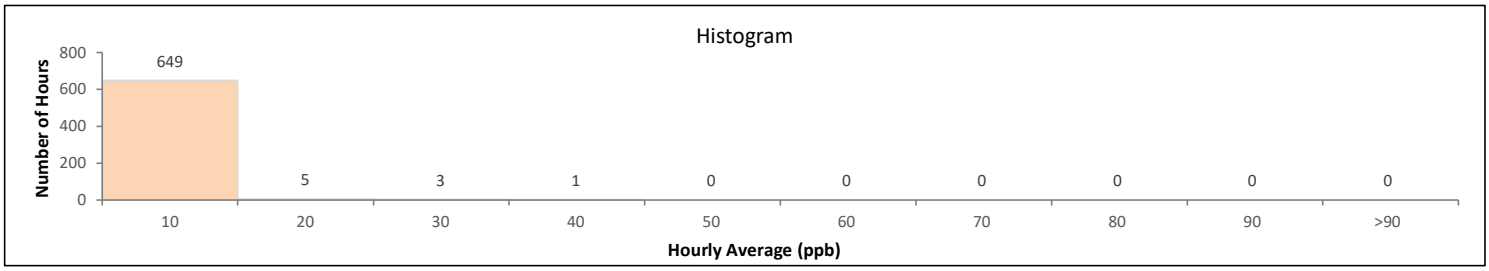
Maximum Hourly Value:	33	ppb	on Nov 1 at hr 6	Hours in Service:	720	
Maximum Daily Value:	5.0	ppb	on Nov 9	Hours of Data:	658	
Minimum Hourly Value:	0	ppb	on Nov 1 at hr 0	Hours of Missing Data:	22	
Minimum Daily Value:	0.0	ppb	on Nov 2	Hours of Calibration:	40	
Monthly Average:	1.2	ppb		Operational Uptime:	96.9	

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			
Nov 1	0	0	0	S	0	1	33	4	8	NRM	2	0	0	0	2	0	1	0	2	2	1	1	0	0	0	33	2.6
Nov 2	0	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Nov 3	0	S	0	0	0	2	1	1	2	1	1	1	1	1	3	1	1	1	4	4	9	10	11	6	0	11	2.7
Nov 4	S	6	3	2	0	0	1	0	0	1	0	0	1	1	1	0	1	0	0	0	0	0	0	S	0	6	0.8
Nov 5	0	0	1	0	0	0	1	1	0	1	2	3	5	3	1	1	1	1	0	1	1	0	S	1	0	5	1.0
Nov 6	1	0	0	0	2	0	1	3	9	18	9	6	5	5	4	8	3	2	2	6	1	S	1	0	0	18	3.7
Nov 7	0	0	0	0	0	2	1	2	1	2	2	4	3	2	2	1	1	0	0	0	S	0	0	0	0	4	1.0
Nov 8	0	0	0	0	0	1	1	1	2	1	4	2	2	0	0	2	1	1	1	S	0	1	1	0	0	4	0.9
Nov 9	2	3	1	1	0	3	25	27	20	11	3	2	2	2	2	2	1	1	S	2	1	1	1	1	0	27	5.0
Nov 10	1	0	0	0	0	1	1	0	1	1	1	1	1	1	0	2	1	S	1	6	5	2	0	1	0	6	1.2
Nov 11	0	0	0	0	1	1	1	3	1	1	1	2	0	0	0	0	S	1	0	0	0	0	0	0	0	3	0.5
Nov 12	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	S	1	2	1	1	0	0	0	0	0	2	0.3
Nov 13	0	0	0	0	0	1	0	0	4	1	1	1	0	0	S	1	1	1	2	1	1	1	0	1	0	4	0.7
Nov 14	0	0	0	1	2	2	1	3	4	2	1	1	2	S	1	3	1	0	0	1	1	0	0	0	0	4	1.1
Nov 15	0	0	0	0	0	0	0	1	3	C	C	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	0	3	NA
Nov 16	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	C	C	2	0	0	0	0	0	0	0	0	2	NA
Nov 17	0	0	0	0	0	0	0	8	0	0	S	1	1	0	0	1	0	0	0	0	0	0	0	0	0	8	0.5
Nov 18	0	0	0	0	0	0	0	0	0	S	4	3	2	5	3	2	2	1	2	0	1	0	2	1	0	5	1.2
Nov 19	0	0	1	4	2	3	3	4	S	4	3	2	2	2	2	1	0	0	0	0	0	0	0	0	0	4	1.4
Nov 20	0	0	0	0	0	0	0	S	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.2
Nov 21	0	0	0	0	0	0	S	2	0	0	1	1	1	1	1	2	1	3	1	0	1	0	0	0	0	3	0.7
Nov 22	0	0	0	0	0	S	6	0	0	1	0	2	2	1	0	1	0	1	3	0	0	0	1	0	0	6	0.8
Nov 23	0	0	0	1	S	2	6	2	2	1	1	1	1	1	1	2	2	1	1	2	1	0	0	0	0	6	1.2
Nov 24	1	1	0	S	0	0	0	0	2	2	2	1	1	0	1	1	0	0	1	1	1	1	0	0	0	2	0.7
Nov 25	0	0	S	0	1	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0.3
Nov 26	0	S	0	0	0	0	0	0	0	1	1	2	1	1	1	1	1	1	1	0	0	3	1	0	0	3	0.7
Nov 27	S	0	0	1	1	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	0	S	0	1	0.4
Nov 28	0	0	0	0	0	0	0	0	3	1	1	1	2	2	0	1	0	0	1	0	1	0	S	0	0	3	0.6
Nov 29	0	0	0	0	0	0	0	1	1	1	1	2	1	1	2	3	1	1	1	1	2	S	1	2	0	3	1.0
Nov 30	1	1	1	1	1	1	2	7	22	8	7	2	1	2	1	4	2	4	8	13	S	1	1	1	1	22	4.0
Diurnal Maximum	2	6	3	4	2	3	33	27	22	18	9	6	5	5	4	8	3	4	8	13	9	10	11	6			
Diurnal Average	0.2	0.4	0.3	0.4	0.4	0.7	3.0	2.5	3.1	2.3	1.9	1.5	1.5	1.2	1.0	1.6	0.9	0.8	1.2	1.5	1.0	0.8	0.7	0.5			

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.



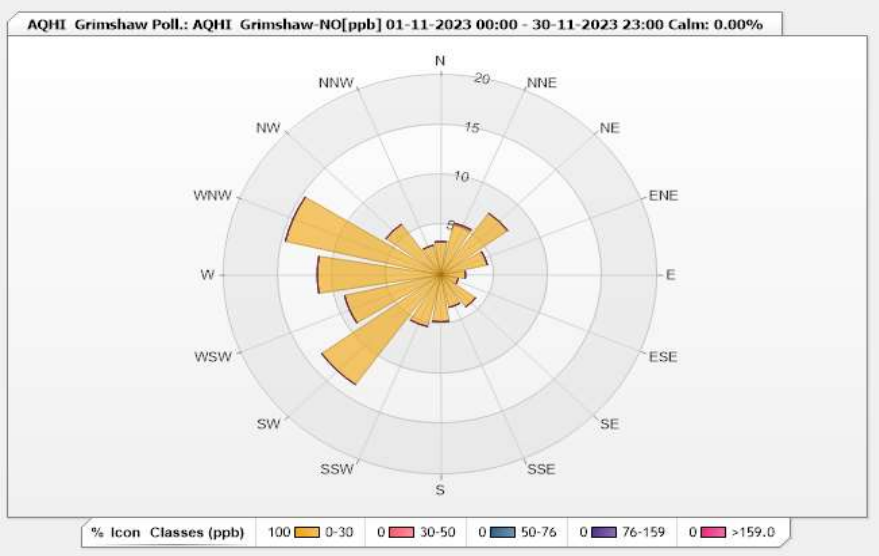


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NO[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.39% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	3.34	0	0	0	0	3.34
NNE	5.17	0.15	0	0	0	5.32
NE	7.6	0	0	0	0	7.6
ENE	4.41	0	0	0	0	4.41
E	2.28	0	0	0	0	2.28
ESE	1.67	0	0	0	0	1.67
SE	3.95	0	0	0	0	3.95
SSE	3.34	0	0	0	0	3.34
S	4.71	0	0	0	0	4.71
SSW	5.32	0	0	0	0	5.32
SW	13.53	0	0	0	0	13.53
WSW	9.12	0	0	0	0	9.12
W	11.4	0	0	0	0	11.4
WNW	14.74	0	0	0	0	14.74
NW	6.23	0	0	0	0	6.23
NNW	3.04	0	0	0	0	3.04
Summary	100	0.15	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 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

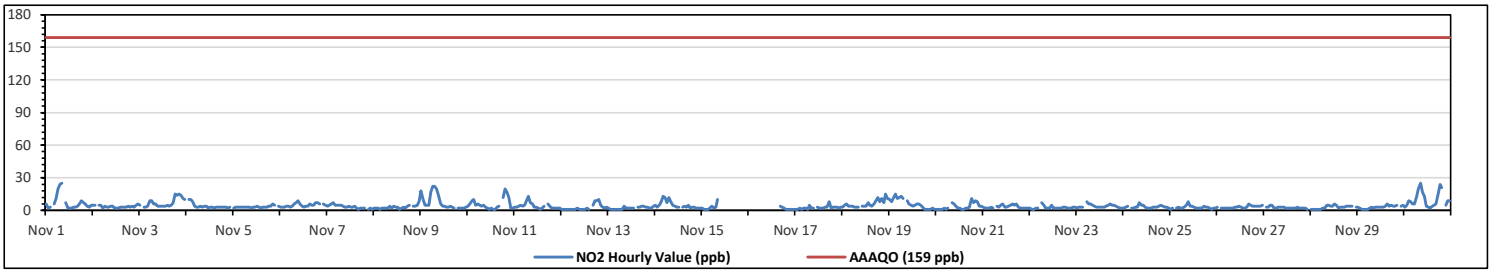
Maximum Hourly Value:	25	ppb	on Nov 1 at hr 8	Hours in Service:	720
Maximum Daily Value:	10.1	ppb	on Nov 30	Hours of Data:	658
Minimum Hourly Value:	1	ppb	on Nov 7 at hr 16	Hours of Missing Data:	22
Minimum Daily Value:	2.2	ppb	on Nov 13	Hours of Calibration:	40
Monthly Average:	4.3	ppb		Operational Uptime:	96.9

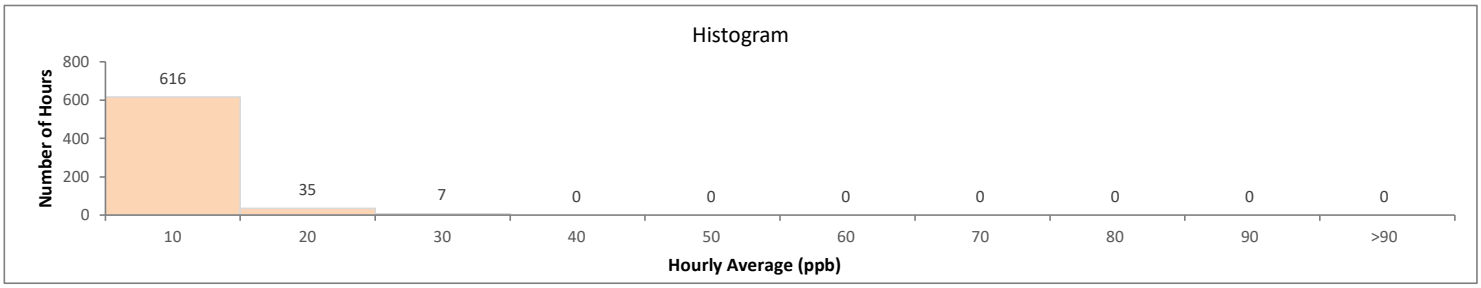
Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Nov 1	6	2	3	S	6	11	20	24	25	NRM	7	2	2	2	3	3	4	6	9	7	6	4	3	5	2	25	7.3
Nov 2	5	5	S	5	5	2	4	3	3	4	4	2	2	2	3	3	3	3	4	3	4	3	5	6	2	6	3.6
Nov 3	5	S	3	3	4	9	9	6	6	4	4	4	4	4	5	4	5	7	15	14	15	14	11	10	3	15	7.2
Nov 4	S	10	10	8	4	3	3	4	3	4	4	2	3	3	2	3	3	3	3	3	3	2	3	S	2	10	3.9
Nov 5	2	3	3	3	3	3	3	3	3	2	3	3	4	3	2	3	3	3	4	4	6	5	S	4	2	6	3.3
Nov 6	3	3	3	4	4	3	4	6	7	9	6	4	3	4	4	6	5	5	7	7	6	S	6	5	3	9	5.0
Nov 7	4	5	6	7	5	5	5	5	4	3	3	4	3	3	4	2	1	2	2	2	S	1	2	1	1	7	3.4
Nov 8	2	2	2	1	2	2	2	2	4	2	4	3	3	1	2	3	2	4	5	S	4	4	5	9	1	9	3.0
Nov 9	18	10	5	5	5	17	22	22	20	14	6	4	4	3	3	4	3	2	S	2	2	2	2	3	2	22	7.7
Nov 10	4	6	9	10	5	6	5	4	5	3	2	1	2	1	1	3	4	S	12	20	17	12	2	2	1	20	5.9
Nov 11	3	3	4	5	4	5	9	13	7	6	3	3	2	1	2	4	S	6	4	2	2	2	2	2	1	13	4.1
Nov 12	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	S	5	9	9	10	5	3	2	3	1	10	2.7
Nov 13	2	1	1	1	1	1	1	1	4	2	2	2	2	2	S	3	3	4	4	3	3	2	2	4	1	4	2.2
Nov 14	5	3	5	8	13	12	7	12	8	5	4	3	3	S	3	4	3	5	2	3	3	2	2	2	2	13	5.1
Nov 15	2	1	1	1	2	4	2	3	10	C	C	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	1	10	NA
Nov 16	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	C	C	4	3	2	1	1	1	1	1	1	4	NA
Nov 17	1	1	2	1	2	2	1	5	2	2	S	3	2	2	2	3	3	8	2	3	3	3	2	3	1	8	2.5
Nov 18	3	5	6	4	4	4	3	3	3	S	4	4	4	7	5	4	6	9	12	8	11	7	15	11	3	15	6.2
Nov 19	10	8	11	15	11	12	13	11	S	9	6	5	4	5	6	6	5	3	1	1	1	1	2	1	1	15	6.4
Nov 20	1	1	1	1	2	1	2	S	7	6	4	2	2	1	1	2	2	3	11	7	9	8	4	4	1	11	3.6
Nov 21	3	2	2	2	3	2	S	4	3	5	6	3	3	4	5	6	5	6	3	2	2	2	2	2	2	6	3.3
Nov 22	2	1	1	2	2	S	7	5	2	2	2	5	2	2	2	2	2	3	3	2	2	2	3	3	1	7	2.6
Nov 23	2	3	3	3	S	8	6	6	5	4	3	3	3	3	3	4	5	6	5	5	4	3	2	2	2	8	4.0
Nov 24	2	3	4	S	2	2	3	3	7	5	5	3	2	2	2	3	3	3	4	5	4	3	3	2	2	7	3.3
Nov 25	1	2	S	2	3	2	2	3	5	8	4	4	3	2	2	2	2	4	3	3	2	1	2	2	1	8	2.8
Nov 26	3	S	2	2	2	2	2	2	2	3	3	4	3	2	2	3	6	5	4	4	4	4	4	5	2	6	3.2
Nov 27	S	3	3	5	5	2	2	3	3	3	3	2	2	2	2	2	2	3	2	2	2	2	1	S	1	5	2.5
Nov 28	1	1	1	1	1	1	2	2	5	5	4	4	6	5	2	3	3	3	4	4	4	4	S	3	1	6	3.0
Nov 29	3	2	1	1	1	1	2	3	2	3	3	3	3	3	4	6	4	5	4	4	5	S	4	5	1	6	3.1
Nov 30	3	5	9	8	6	6	13	20	25	17	13	4	3	2	4	5	6	15	24	21	S	5	9	9	2	25	10.1
Diurnal Maximum	18	10	11	15	13	17	22	24	25	17	13	5	6	7	6	6	6	15	24	21	17	14	15	11			
Diurnal Average	3.6	3.4	3.8	4.0	3.9	4.6	5.5	6.4	6.5	5.0	4.2	3.1	2.9	2.7	2.9	3.6	3.6	4.9	5.9	5.4	4.8	3.8	3.7	4.0			

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.



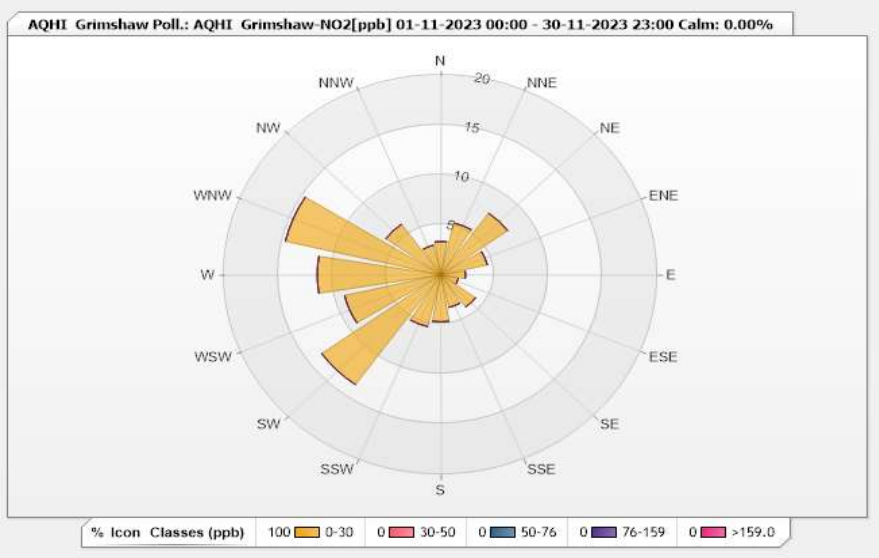


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NO2[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 91.39% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	3.34	0	0	0	0	3.34
NNE	5.32	0	0	0	0	5.32
NE	7.6	0	0	0	0	7.6
ENE	4.41	0	0	0	0	4.41
E	2.28	0	0	0	0	2.28
ESE	1.67	0	0	0	0	1.67
SE	3.95	0	0	0	0	3.95
SSE	3.34	0	0	0	0	3.34
S	4.71	0	0	0	0	4.71
SSW	5.32	0	0	0	0	5.32
SW	13.53	0	0	0	0	13.53
WSW	9.12	0	0	0	0	9.12
W	11.4	0	0	0	0	11.4
WNW	14.74	0	0	0	0	14.74
NW	6.23	0	0	0	0	6.23
NNW	3.04	0	0	0	0	3.04
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

OZONE (O_3) in ppb

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

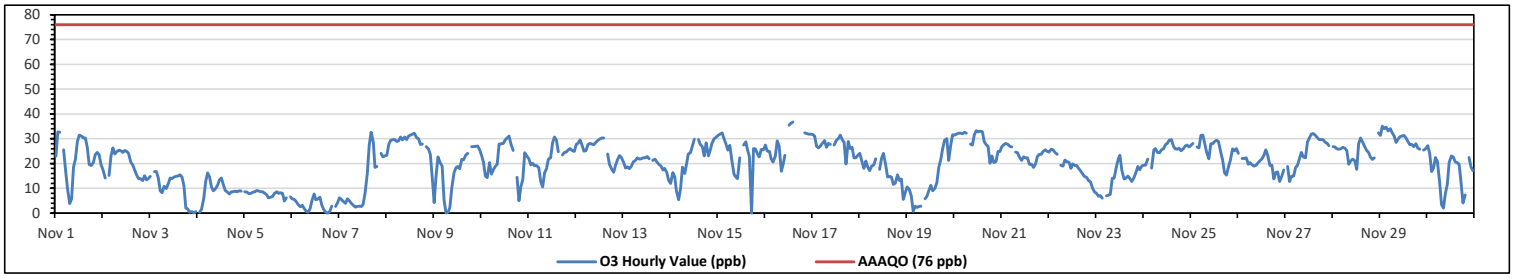
Number of 1-Hour Exceedances: 0

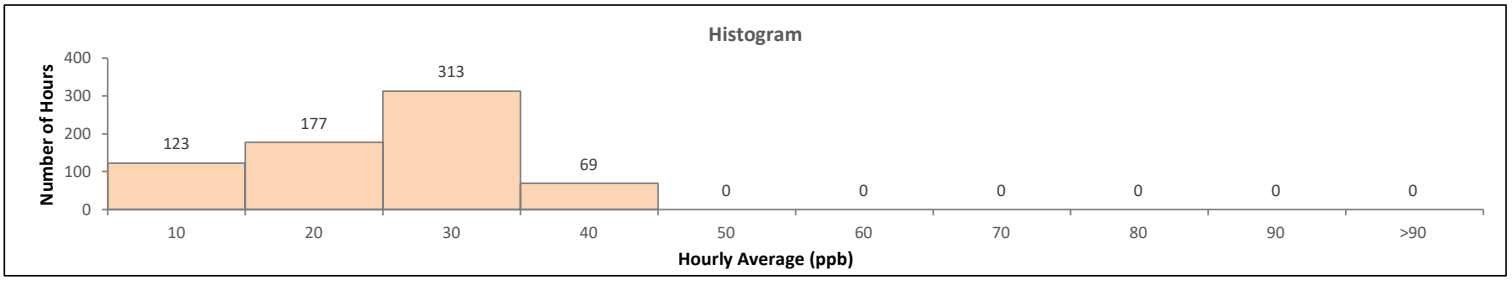
Maximum Hourly Value:	36.7	ppb	on Nov 16 at hr 14	Hours in Service:	720
Maximum Daily Value:	30.0	ppb	on Nov 29	Hours of Data:	682
Minimum Hourly Value:	0.0	ppb	on Nov 6 at hr 18	Hours of Missing Data:	1
Minimum Daily Value:	3.3	ppb	on Nov 6	Hours of Calibration:	37
Monthly Average:	20.0	ppb		Operational 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			
Nov 1	22.9	32.8	32.7	S	25.6	17.6	10.1	3.9	5.8	18.5	21.8	28.8	31.5	31.1	30.3	30.3	26.5	19.6	19.2	20.3	23.6	24.4	23.6	19.6	3.9	32.8	22.6
Nov 2	17.6	14.2	S	15.2	22.9	26.4	23.9	24.7	25.4	25.1	24.5	25.3	24.9	24.1	20.5	19.5	17.4	15.5	13.9	13.9	13.1	15.1	13.4	13.9	13.1	26.4	19.6
Nov 3	14.8	S	16.7	16.8	14.2	9.1	8.2	10.8	9.9	11.8	14.2	13.9	14.5	14.8	14.9	15.5	14.6	11.1	2	1.6	0.4	0.6	0.1	0.7	0.1	16.8	10.1
Nov 4	S	0.4	1.5	5.9	12.8	16.2	14.7	10.5	9	9.9	11.2	13.4	14.2	11.5	9.2	8.5	7.7	8.6	8.7	8.9	8.7	9	8.9	S	0.4	16.2	9.5
Nov 5	8.7	8.5	7.8	8	8.5	8.7	9.2	8.9	8.6	8.7	7.9	7.3	6.1	6.5	6.7	7.9	8.6	8	8.2	7.9	4.9	6.1	S	6.6	4.9	9.2	7.8
Nov 6	5.7	5.5	4.6	3.4	2.6	3.1	2.1	0.8	0.4	1.6	5	7.7	5.4	5.6	6.4	3.1	1.3	0.2	0	0.5	2.9	S	2.7	4.5	**0.0**	7.7	**3.3**
Nov 7	6.1	5.5	4.6	4	5.7	4.9	4	3.1	2.5	2.7	2.9	2.7	3.6	7.9	15.8	27.3	32.7	28.5	18.4	18.8	S	24.2	22.6	23.1	2.5	32.7	11.8
Nov 8	23.3	27.6	29.4	29.6	29.6	28.9	29.1	30.7	29.5	30.7	29.6	31.1	31.5	31.9	32.2	30.5	30	27.8	27.9	S	26.8	25.9	23.7	14.4	14.4	32.2	28.3
Nov 9	4.3	15.1	22.6	20.2	19	5.1	0.1	0.2	2.2	10	16.2	18.3	18.8	17.9	21.7	21.5	23.5	24.2	S	26.8	26.8	26.9	27	25.7	0.1	27.0	17.1
Nov 10	23.4	20.6	15	14.3	20.3	15.7	17.6	18.8	19.8	27.9	28	28.2	29.5	30.3	31	27.9	25.2	S	14.4	5	10.7	13.6	24.3	22.9	5.0	31.0	21.1
Nov 11	21.9	19.5	20.1	19.1	19.2	18.3	12.8	10.6	16.2	17.9	21.8	22.3	28.4	30.7	29.5	24.7	S	23.5	24.5	24.6	25.5	26.1	25.3	24.8	10.6	30.7	22.1
Nov 12	27.8	28.3	29.5	27.5	25	25.1	27.8	28.1	27.9	27.6	28.5	29.3	29.9	30.4	30.4	S	23.9	19.6	17.7	16.5	19.3	21.6	23.2	22.4	16.5	30.4	25.5
Nov 13	20.4	18.2	18.7	17.9	18.8	20.6	21.3	22.2	21.8	22	22.3	22.2	22.8	21.9	S	21.3	21.8	20.6	19.8	18.9	17.4	18	16.3	13.1	13.1	22.8	19.9
Nov 14	11.9	16.4	14.5	9	5.3	9.9	18.6	16	20	23.9	24.3	27.1	29.8	S	29.6	27.9	26.8	23.1	28.4	23.1	25.6	28.2	30	30.6	5.3	30.6	21.7
Nov 15	31.3	31.9	32.4	30.4	28.3	25.4	27.3	21.5	15.7	14.7	13.9	22.3	S	27.4	28.7	25.7	22.8	Y	26.1	26	23.8	22.6	25.7	25.5	13.9	32.4	25.0
Nov 16	27.4	25	24.9	22	20.6	22.9	29.1	27.1	16.9	19.4	23.3	S	35.5	36.3	**36.7**	C	C	C	C	C	32.4	32.1	31.8	31.9	16.9	**36.7**	27.5
Nov 17	31.7	31.1	26.9	26.3	27	28.1	29.3	26.5	28.1	27.8	S	27.5	29.4	30	31.4	29.7	28.6	19.9	28.8	26.1	26.5	22.3	22.3	23.3	19.9	31.7	27.3
Nov 18	24.1	20.7	18	21	18.5	17.1	19	19.5	22	S	17.7	22.1	24.1	19.5	14.5	14.8	14.5	11.6	12.1	15.5	13.1	13.7	5.5	8.2	5.5	24.1	16.8
Nov 19	10.6	9.5	7	0.8	2.8	2.3	2.7	2.8	S	5.8	6.9	9.2	11.2	9.1	10	12.3	18.4	21.6	25.9	29.4	30.1	21.3	27.2	31.6	0.8	31.6	13.4
Nov 20	31.5	31.8	32.2	32.2	32	32.7	32.2	S	27.9	27.5	31.6	33.3	32.8	33	32.9	28.9	27.6	26.9	20.1	23.1	20.3	20.9	24.9	24.8	20.1	33.3	28.7
Nov 21	26.8	27.6	28.1	27.7	26.9	26.7	S	24.6	24.3	22.2	21.3	22.7	22.2	22.2	19.8	19.8	18.4	19.8	22.8	23.7	23.8	25	25.6	24.8	18.4	28.1	23.8
Nov 22	24.6	25.8	25.6	24.4	23.8	S	19.4	18.9	21.4	20.8	20.5	18	19.9	19.2	19.2	18	16.9	15.7	14.8	14.4	13.2	12.6	9.9	8.5	8.5	25.8	18.5
Nov 23	8.1	6.9	7.1	6	S	7	7.2	7.5	14	14.2	18.7	21.9	23.3	17.3	13.7	14.2	15	13.8	12.7	14	16.4	18.8	17.6	19.1	6.0	23.3	13.7
Nov 24	19.3	19.4	21.8	S	18.2	25.6	26.1	24.4	24.3	25.5	25.9	27.7	28.2	29.4	29.7	27	25.9	25.8	26.2	25.1	25.9	27.1	27.4	26.6	18.2	29.7	25.3
Nov 25	27.3	28.2	S	26.7	26.3	31.3	31.5	28.1	24.4	21.9	28	28	28.9	29.4	28.9	24.6	21.4	16.2	15.4	18.6	21.3	25.9	25.1	26.1	15.4	31.5	25.4
Nov 26	24.2	S	22.1	22.1	22.2	19.7	20.3	19.5	19	19.3	20.3	21.1	22	23.3	25.6	23.2	19.2	19.4	13.8	16.3	16.6	12.7	14.9	17.4	12.7	25.6	19.7
Nov 27	S	18.8	12.8	14.8	15	18.4	19.4	21.9	24.4	22.7	22.2	28.6	30.3	31.9	32.1	31.5	30.5	29.7	29.6	29.6	28.6	28.3	27.2	S	12.8	32.1	24.9
Nov 28	26.8	26.6	25.9	25.8	25.9	26.5	26.2	25.3	19.8	21	21.8	21.1	17.7	28	30.3	28.7	27	25.2	24.5	22.5	21.7	22.3	S	32.4	17.7	32.4	24.9
Nov 29	31.3	35	34	34.7	33.1	34.1	32.4	31.1	28.5	29.8	30.8	31.1	31.3	30.3	28.9	27.6	27.7	26.8	28	26.2	25.8	S	25.4	25.9	25.4	35.0	**30.0**
Nov 30	27.2	24.1	16.7	18.1	22.4	20.9	12.6	3.4	2	7.8	11.5	20.5	23.1	22.5	20.6	20.3	19.8	12.4	4.1	7.3	S	22.4	18.7	17.1	2.0	27.2	16.3
Diurnal Maximum	31.7	35.0	34.0	34.7	33.1	34.1	32.4	31.1	29.5	30.7	31.6	33.3	35.5	36.3	36.7	31.5	32.7	29.7	29.6	29.6	32.4	32.1	31.8	32.4			
Diurnal Average	20.8	20.5	19.8	18.7	19.7	18.9	18.4	16.9	17.6	18.6	19.7	21.8	23.1	23.2	23.5	21.9	21.2	19.1	18.1	18.0	19.5	20.3	20.4	20.2			

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.



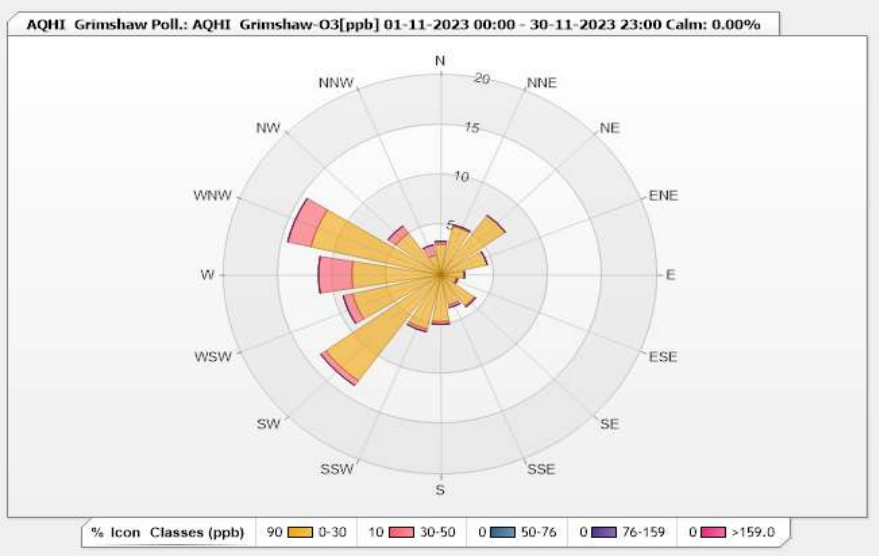


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-O3[ppb] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.72% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	3.08	0.29	0	0	0	3.37
NNE	4.99	0.15	0	0	0	5.14
NE	7.33	0	0	0	0	7.33
ENE	4.4	0	0	0	0	4.4
E	2.2	0	0	0	0	2.2
ESE	1.47	0.15	0	0	0	1.62
SE	3.81	0.15	0	0	0	3.96
SSE	3.08	0.29	0	0	0	3.37
S	4.69	0.29	0	0	0	4.98
SSW	5.57	0.29	0	0	0	5.86
SW	13.05	0.59	0	0	0	13.64
WSW	8.36	0.88	0	0	0	9.24
W	8.21	3.08	0	0	0	11.29
WNW	12.32	2.2	0	0	0	14.52
NW	5.13	0.88	0	0	0	6.01
NNW	2.05	1.03	0	0	0	3.08
Summary	89.74	10.27	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

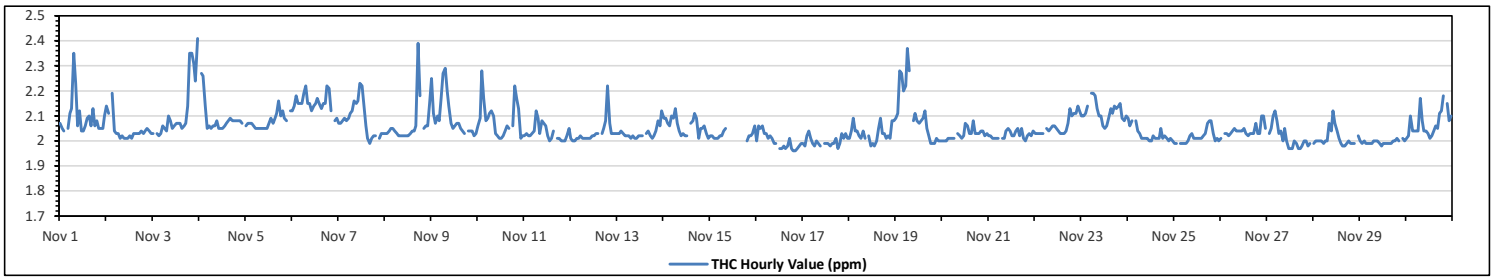
TOTAL HYDROCARBONS (THC) in ppm

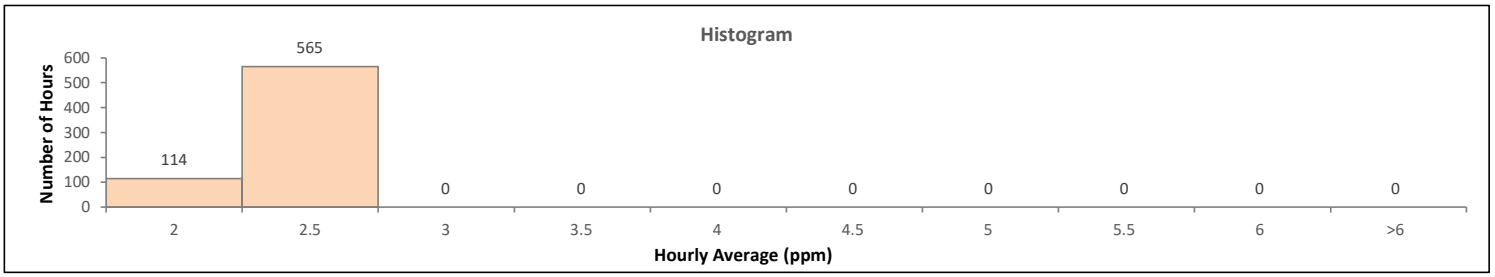
Maximum Hourly Value:	2.41	ppm	on Nov 3 at hr 23	Hours in Service:	720
Maximum Daily Value:	2.15	ppm	on Nov 6	Hours of Data:	679
Minimum Hourly Value:	1.96	ppm	on Nov 16 at hr 19	Hours of Missing Data:	4
Minimum Daily Value:	2.00	ppm	on Nov 29	Hours of Calibration:	37
Monthly Average:	2.05	ppm		Operational Uptime:	99.4

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			
Nov 1	2.07	2.05	2.04	S	2.05	2.11	2.13	2.35	2.23	2.06	2.12	2.04	2.04	2.06	2.09	2.10	2.06	2.13	2.06	2.08	2.05	2.05	2.05	2.10	2.04	2.35	2.09
Nov 2	2.14	2.11	S	2.19	2.04	2.03	2.03	2.01	2.02	2.01	2.01	2.01	2.02	2.01	2.03	2.03	2.03	2.03	2.04	2.03	2.04	2.05	2.04	2.03	2.01	2.19	2.04
Nov 3	2.03	S	2.03	2.02	2.03	2.06	2.05	2.04	2.10	2.08	2.05	2.06	2.07	2.07	2.07	2.05	2.06	2.07	2.14	2.35	2.35	2.31	2.24	**2.41**	2.02	**2.41**	2.12
Nov 4	S	2.27	2.26	2.14	2.05	2.06	2.05	2.06	2.06	2.08	2.05	2.05	2.05	2.06	2.07	2.08	2.09	2.08	2.08	2.08	2.08	2.08	2.07	S	2.05	2.27	2.09
Nov 5	2.06	2.07	2.07	2.07	2.06	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.07	2.09	2.07	2.09	2.11	2.16	2.10	2.12	2.09	2.08	S	2.12	2.05	2.16	2.08
Nov 6	2.12	2.14	2.18	2.15	2.15	2.15	2.19	2.22	2.15	2.15	2.12	2.14	2.15	2.17	2.15	2.13	2.15	2.15	2.22	2.21	2.12	S	2.08	2.09	2.08	2.22	**2.15**
Nov 7	2.07	2.07	2.08	2.09	2.08	2.09	2.11	2.12	2.16	2.15	2.16	2.23	2.22	2.14	2.06	2.01	1.99	2.01	2.02	2.02	S	2.01	2.03	2.03	1.99	2.23	2.08
Nov 8	2.03	2.03	2.04	2.05	2.05	2.04	2.03	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.04	2.04	2.06	2.39	2.18	S	2.05	2.06	2.06	2.15	2.02	2.39	2.06
Nov 9	2.25	2.11	2.07	2.10	2.08	2.17	2.27	2.29	2.20	2.14	2.07	2.05	2.06	2.07	2.07	2.05	2.04	2.03	S	2.04	2.04	2.04	2.02	2.03	2.02	2.29	2.10
Nov 10	2.06	2.09	2.28	2.17	2.08	2.09	2.11	2.12	2.10	2.03	2.02	2.01	2.01	2.02	2.04	2.06	2.05	S	2.06	2.22	2.17	2.13	2.01	2.02	2.01	2.28	2.08
Nov 11	2.02	2.03	2.02	2.02	2.03	2.04	2.12	2.09	2.03	2.08	2.07	2.06	2.02	2.00	2.01	2.04	S	2.01	2.01	2.00	2.00	2.00	2.02	2.05	2.00	2.12	2.03
Nov 12	2.01	2.00	2.00	2.01	2.01	2.02	2.01	2.01	2.01	2.01	2.01	2.02	2.02	2.03	2.03	S	2.03	2.05	2.08	2.22	2.07	2.03	2.03	2.03	2.00	2.22	2.03
Nov 13	2.03	2.03	2.04	2.03	2.02	2.02	2.02	2.01	2.02	2.01	2.01	2.02	2.02	2.02	S	2.03	2.04	2.02	2.01	2.02	2.04	2.08	2.06	2.12	2.01	2.12	2.03
Nov 14	2.09	2.09	2.07	2.06	2.10	2.09	2.13	2.07	2.04	2.02	2.03	2.02	2.02	S	2.07	2.08	2.11	2.09	2.01	2.05	2.05	2.06	2.03	2.01	2.01	2.13	2.06
Nov 15	2.02	2.02	2.01	2.01	2.01	2.02	2.02	2.04	2.05	C	C	NRM	NRM	NRM	NRM	C	C	C	C	2.00	2.02	2.02	2.03	2.06	2.00	2.06	NA
Nov 16	2.00	2.06	2.05	2.06	2.03	2.03	2.01	2.02	2.01	1.99	1.99	S	1.97	1.97	1.98	1.97	1.98	2.01	1.97	1.96	1.96	1.97	1.98	1.99	1.96	2.06	2.00
Nov 17	1.99	1.98	2.02	2.04	2.01	1.99	1.98	2.00	1.99	1.98	S	1.99	1.99	1.99	1.98	1.99	1.99	2.01	1.97	1.99	2.03	2.01	2.03	2.01	1.97	2.04	2.00
Nov 18	2.01	2.04	2.09	2.04	2.04	2.02	2.01	2.04	2.01	S	2.02	1.98	1.99	1.98	2.00	2.05	2.09	2.03	2.03	2.01	2.02	2.01	2.08	2.08	1.98	2.09	2.03
Nov 19	2.09	2.11	2.28	2.27	2.20	2.22	2.37	2.28	S	2.08	2.11	2.08	2.07	2.08	2.09	2.12	2.05	2.02	1.99	1.99	1.99	2.01	2.00	2.00	1.99	2.37	2.11
Nov 20	2.00	2.00	2.00	2.01	2.01	2.01	2.01	S	2.03	2.02	2.01	2.02	2.07	2.06	2.03	2.03	2.08	2.03	2.03	2.03	2.04	2.04	2.02	2.03	2.00	2.08	2.03
Nov 21	2.02	2.02	2.01	2.01	2.01	2.01	S	2.01	2.01	2.04	2.05	2.04	2.02	2.02	2.04	2.05	2.02	2.05	2.01	2.00	2.02	2.03	2.02	2.04	2.00	2.05	2.02
Nov 22	2.03	2.03	2.03	2.03	S	2.05	2.04	2.05	2.06	2.06	2.05	2.04	2.03	2.03	2.03	2.03	2.04	2.07	2.13	2.10	2.11	2.11	2.14	2.12	2.03	2.14	2.06
Nov 23	2.10	2.10	2.11	2.14	S	2.19	2.19	2.18	2.13	2.10	2.10	2.06	2.05	2.06	2.09	2.13	2.11	2.14	2.13	2.14	2.15	2.09	2.08	2.10	2.05	2.19	2.12
Nov 24	2.09	2.06	2.08	S	2.08	2.04	2.03	2.01	2.01	2.01	2.01	2.00	2.00	2.02	2.01	2.01	2.01	2.05	2.01	2.02	2.01	2.00	2.01	2.00	2.00	2.09	2.02
Nov 25	1.99	1.99	S	1.99	1.99	1.99	1.99	2.00	2.02	2.03	2.01	2.01	2.01	2.01	2.01	2.02	2.03	2.07	2.08	2.08	2.03	2.00	2.01	2.00	1.99	2.08	2.02
Nov 26	2.01	S	2.03	2.03	2.02	2.03	2.04	2.05	2.04	2.04	2.04	2.04	2.05	2.03	2.02	2.03	2.03	2.03	2.07	2.03	2.03	2.10	2.10	2.05	2.01	2.10	2.04
Nov 27	S	2.03	2.05	2.10	2.12	2.08	2.03	2.04	2.00	2.05	2.00	1.97	1.97	1.97	2.00	1.99	1.97	1.97	1.98	2.00	2.00	1.98	1.99	S	1.97	2.12	2.01
Nov 28	1.99	2.00	2.00	2.00	2.00	1.99	2.00	2.00	2.07	2.04	2.12	2.07	2.04	2.01	1.99	1.98	1.98	1.99	2.00	1.99	1.99	1.99	S	2.02	1.98	2.12	2.01
Nov 29	2.00	1.99	2.00	1.99	1.99	1.99	1.99	2.00	2.00	2.00	1.99	1.98	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.01	2.00	S	2.01	2.00	1.98	2.01	2.00
Nov 30	2.01	2.02	2.10	2.04	2.04	2.04	2.04	2.17	2.08	2.04	2.04	2.03	2.01	2.02	2.04	2.06	2.05	2.11	2.12	2.18	S	2.15	2.08	2.10	2.01	2.18	2.07
Diurnal Maximum	2.25	2.27	2.28	2.27	2.20	2.22	2.37	2.35	2.23	2.15	2.16	2.23	2.22	2.17	2.15	2.13	2.15	2.39	2.22	2.35	2.35	2.31	2.24	2.41			
Diurnal Average	2.05	2.06	2.07	2.07	2.05	2.06	2.07	2.08	2.06	2.05	2.05	2.04	2.04	2.04	2.04	2.04	2.04	2.06	2.05	2.07	2.06	2.05	2.05	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.



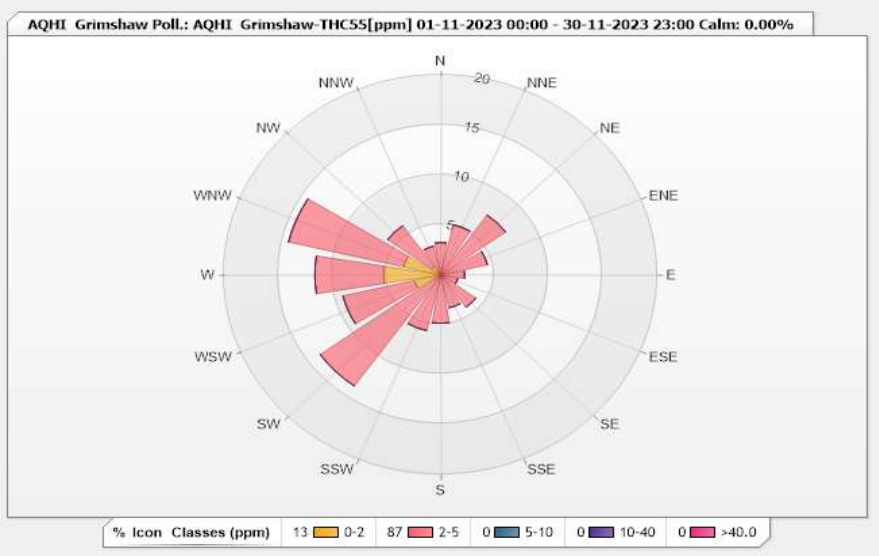


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-THC55[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.31% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.29	2.95	0	0	0	3.24
NNE	0	5.15	0	0	0	5.15
NE	0	7.36	0	0	0	7.36
ENE	0	4.42	0	0	0	4.42
E	0	2.21	0	0	0	2.21
ESE	0	1.62	0	0	0	1.62
SE	0.15	3.83	0	0	0	3.98
SSE	0.15	3.24	0	0	0	3.39
S	0.15	4.71	0	0	0	4.86
SSW	0	5.74	0	0	0	5.74
SW	0	13.7	0	0	0	13.7
WSW	2.5	6.77	0	0	0	9.27
W	5.3	6.33	0	0	0	11.63
WNW	3.53	10.9	0	0	0	14.43
NW	1.03	5.01	0	0	0	6.04
NNW	0	2.95	0	0	0	2.95
Summary	13.1	86.89	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

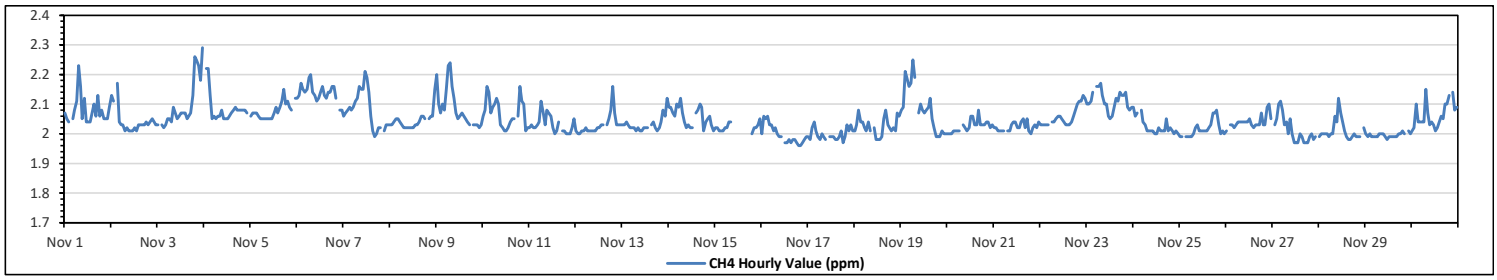
METHANE (CH4) in ppm

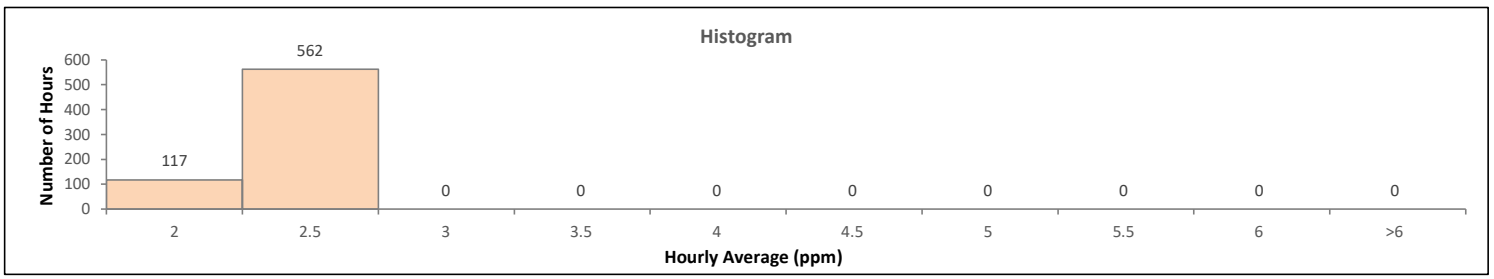
Maximum Hourly Value:	2.29	ppm	on Nov 3 at hr 23	Hours in Service:	720
Maximum Daily Value:	2.14	ppm	on Nov 6	Hours of Data:	679
Minimum Hourly Value:	1.96	ppm	on Nov 16 at hr 19	Hours of Missing Data:	4
Minimum Daily Value:	2.00	ppm	on Nov 29	Hours of Calibration:	37
Monthly Average:	2.05	ppm		Operational Uptime:	99.4

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			
Nov 1	2.07	2.05	2.04	S	2.05	2.08	2.11	2.23	2.16	2.05	2.12	2.04	2.04	2.04	2.07	2.10	2.06	2.13	2.06	2.08	2.05	2.05	2.05	2.09	2.04	2.23	2.08
Nov 2	2.13	2.11	S	2.17	2.04	2.03	2.03	2.01	2.02	2.01	2.01	2.01	2.02	2.01	2.03	2.03	2.03	2.03	2.04	2.03	2.04	2.05	2.04	2.03	2.01	2.17	2.04
Nov 3	2.03	S	2.03	2.02	2.03	2.05	2.05	2.04	2.09	2.07	2.05	2.06	2.07	2.07	2.07	2.05	2.06	2.07	2.13	2.26	2.25	2.23	2.18	**2.29**	2.02	**2.29**	2.10
Nov 4	S	2.22	2.22	2.13	2.05	2.06	2.05	2.06	2.06	2.08	2.05	2.05	2.05	2.06	2.07	2.08	2.09	2.08	2.08	2.08	2.08	2.08	2.07	S	2.05	2.22	2.08
Nov 5	2.06	2.07	2.07	2.07	2.06	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.07	2.09	2.07	2.09	2.11	2.15	2.10	2.11	2.09	2.08	S	2.12	2.05	2.15	2.08
Nov 6	2.12	2.13	2.17	2.15	2.14	2.15	2.19	2.20	2.14	2.13	2.11	2.12	2.14	2.16	2.13	2.12	2.14	2.14	2.16	2.16	2.12	S	2.08	2.08	2.08	2.20	**2.14**
Nov 7	2.06	2.07	2.08	2.09	2.08	2.09	2.11	2.12	2.16	2.15	2.15	2.21	2.19	2.14	2.06	2.01	1.99	2.00	2.02	2.02	S	2.01	2.03	2.03	1.99	2.21	2.08
Nov 8	2.03	2.03	2.04	2.05	2.05	2.04	2.03	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.03	2.04	2.06	2.06	2.05	S	2.05	2.06	2.06	2.15	2.02	2.15	2.04
Nov 9	2.20	2.10	2.07	2.10	2.08	2.15	2.23	2.24	2.16	2.12	2.07	2.05	2.06	2.07	2.06	2.05	2.04	2.03	S	2.03	2.03	2.03	2.02	2.03	2.02	2.24	2.09
Nov 10	2.06	2.08	2.16	2.14	2.07	2.09	2.10	2.12	2.10	2.03	2.02	2.01	2.01	2.02	2.04	2.05	2.05	S	2.06	2.16	2.11	2.10	2.01	2.02	2.01	2.16	2.07
Nov 11	2.02	2.03	2.02	2.02	2.03	2.04	2.11	2.07	2.03	2.08	2.07	2.06	2.02	2.00	2.01	2.04	S	2.01	2.01	2.00	2.00	2.00	2.02	2.05	2.00	2.11	2.03
Nov 12	2.01	2.00	2.00	2.01	2.01	2.02	2.01	2.01	2.01	2.01	2.01	2.02	2.02	2.03	2.03	S	2.03	2.05	2.08	2.16	2.07	2.03	2.03	2.03	2.00	2.16	2.03
Nov 13	2.03	2.03	2.04	2.03	2.02	2.02	2.02	2.01	2.02	2.01	2.01	2.02	2.02	2.02	S	2.03	2.04	2.02	2.01	2.02	2.04	2.08	2.06	2.12	2.01	2.12	2.03
Nov 14	2.09	2.09	2.07	2.06	2.10	2.09	2.12	2.07	2.04	2.02	2.03	2.02	2.02	S	2.07	2.08	2.10	2.09	2.01	2.04	2.05	2.06	2.03	2.01	2.01	2.12	2.06
Nov 15	2.02	2.02	2.01	2.01	2.01	2.02	2.02	2.04	2.04	C	C	NRM	NRM	NRM	NRM	C	C	C	C	2.00	2.02	2.02	2.03	2.05	2.00	2.05	NA
Nov 16	2.00	2.06	2.05	2.06	2.03	2.03	2.01	2.02	2.00	1.99	1.99	S	1.97	1.97	1.98	1.97	1.98	1.98	1.97	1.96	1.97	1.98	1.99	1.96	2.06	2.00
Nov 17	1.99	1.98	2.02	2.04	2.01	1.99	1.98	2.00	1.99	1.98	S	1.99	1.99	1.99	1.98	1.98	1.99	2.01	1.97	1.99	2.03	2.01	2.03	2.01	1.97	2.04	2.00
Nov 18	2.01	2.03	2.08	2.04	2.04	2.02	2.01	2.04	2.01	S	2.02	1.98	1.98	1.98	1.99	2.05	2.08	2.03	2.02	2.01	2.02	2.01	2.07	2.06	1.98	2.08	2.03
Nov 19	2.08	2.09	2.21	2.19	2.16	2.17	2.25	2.19	S	2.07	2.10	2.08	2.07	2.08	2.09	2.12	2.05	2.02	1.99	1.99	1.99	2.01	2.00	2.00	1.99	2.25	2.09
Nov 20	2.00	2.00	2.00	2.01	2.01	2.01	2.01	S	2.03	2.02	2.01	2.02	2.06	2.06	2.03	2.03	2.08	2.03	2.03	2.03	2.04	2.04	2.02	2.03	2.00	2.08	2.03
Nov 21	2.02	2.02	2.01	2.01	2.01	2.01	S	2.01	2.01	2.03	2.04	2.04	2.02	2.02	2.04	2.05	2.02	2.05	2.01	2.00	2.02	2.03	2.02	2.04	2.00	2.05	2.02
Nov 22	2.03	2.03	2.03	2.03	S	2.04	2.04	2.05	2.06	2.06	2.05	2.04	2.03	2.03	2.03	2.03	2.04	2.06	2.08	2.10	2.11	2.11	2.13	2.12	2.03	2.13	2.06
Nov 23	2.10	2.10	2.11	2.14	S	2.16	2.16	2.17	2.13	2.10	2.10	2.06	2.05	2.06	2.09	2.12	2.11	2.14	2.13	2.13	2.14	2.09	2.08	2.09	2.05	2.17	2.11
Nov 24	2.09	2.06	2.07	S	2.08	2.04	2.03	2.01	2.01	2.01	2.01	2.00	2.00	2.02	2.01	2.01	2.01	2.05	2.01	2.02	2.01	2.00	2.01	2.00	2.00	2.09	2.02
Nov 25	1.99	1.99	S	1.99	1.99	1.99	1.99	2.00	2.02	2.03	2.01	2.01	2.01	2.01	2.01	2.02	2.03	2.07	2.07	2.08	2.03	2.00	2.01	2.00	1.99	2.08	2.02
Nov 26	2.01	S	2.03	2.03	2.02	2.03	2.04	2.04	2.04	2.04	2.04	2.04	2.05	2.03	2.02	2.03	2.03	2.03	2.07	2.03	2.03	2.09	2.10	2.05	2.01	2.10	2.04
Nov 27	S	2.03	2.05	2.10	2.11	2.08	2.03	2.04	2.00	2.05	2.00	1.97	1.97	1.97	2.00	1.99	1.97	1.97	1.97	1.99	2.00	1.98	1.99	S	1.97	2.11	2.01
Nov 28	1.99	2.00	2.00	2.00	2.00	1.99	2.00	2.00	2.06	2.04	2.12	2.07	2.04	2.01	1.99	1.98	1.98	1.99	2.00	1.99	1.99	1.99	S	2.02	1.98	2.12	2.01
Nov 29	2.00	1.99	2.00	1.99	1.99	1.99	1.99	2.00	2.00	2.00	1.99	1.98	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.01	2.00	S	2.01	2.00	1.98	2.01	2.00
Nov 30	2.01	2.02	2.10	2.04	2.04	2.04	2.04	2.15	2.07	2.03	2.04	2.03	2.01	2.02	2.04	2.06	2.05	2.10	2.10	2.13	S	2.14	2.08	2.09	2.01	2.15	2.06
Diurnal Maximum	2.20	2.22	2.22	2.19	2.16	2.17	2.25	2.24	2.16	2.15	2.15	2.21	2.19	2.16	2.13	2.12	2.14	2.15	2.16	2.26	2.25	2.23	2.18	2.29			
Diurnal Average	2.04	2.05	2.06	2.06	2.05	2.05	2.06	2.07	2.05	2.05	2.05	2.04	2.03	2.04	2.04	2.04	2.04	2.05	2.04	2.06	2.05	2.05	2.04	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.



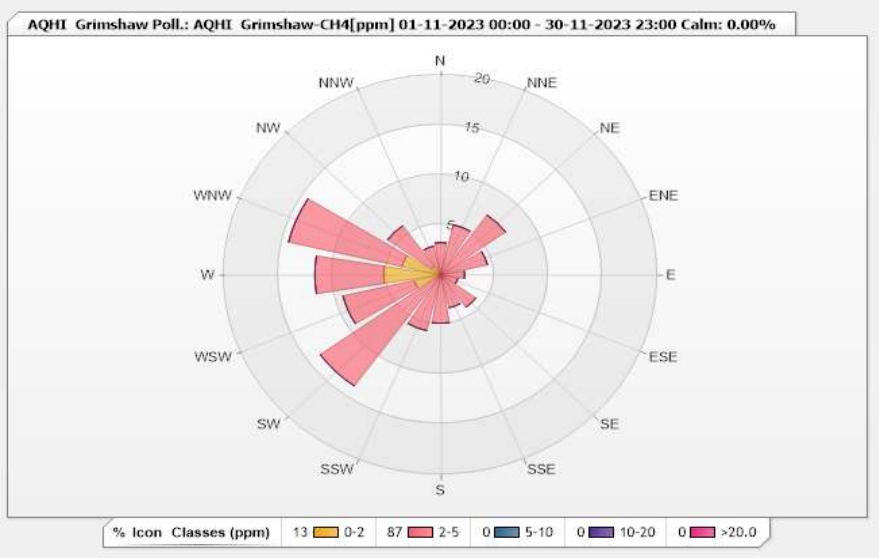


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-CH4[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.31% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.29	2.95	0	0	0	3.24
NNE	0	5.15	0	0	0	5.15
NE	0	7.36	0	0	0	7.36
ENE	0	4.42	0	0	0	4.42
E	0	2.21	0	0	0	2.21
ESE	0	1.62	0	0	0	1.62
SE	0.15	3.83	0	0	0	3.98
SSE	0.15	3.24	0	0	0	3.39
S	0.15	4.71	0	0	0	4.86
SSW	0	5.74	0	0	0	5.74
SW	0	13.7	0	0	0	13.7
WSW	2.5	6.77	0	0	0	9.27
W	5.3	6.33	0	0	0	11.63
WNW	3.68	10.75	0	0	0	14.43
NW	1.03	5.01	0	0	0	6.04
NNW	0	2.95	0	0	0	2.95
Summary	13.25	86.74	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

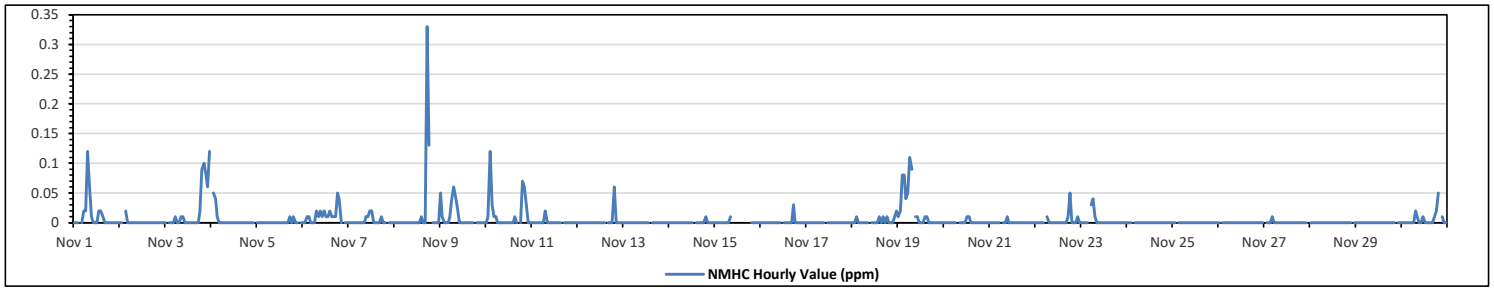
NON-METHANE HYDROCARBONS (NMHC) in ppm

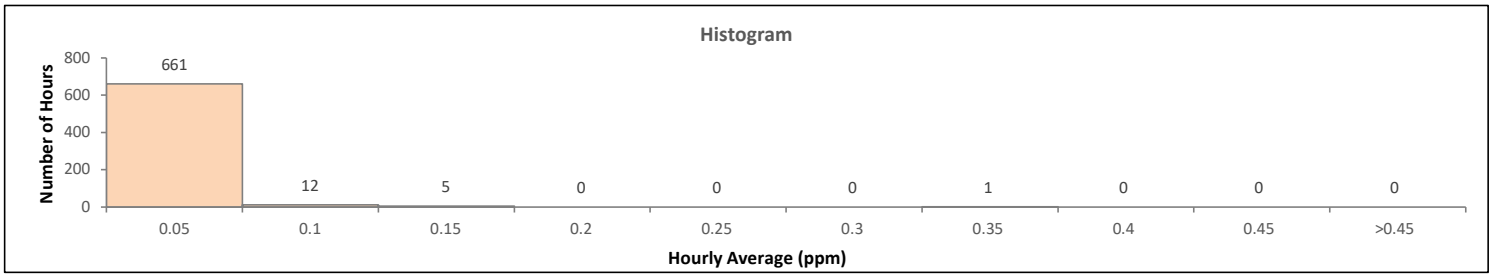
Maximum Hourly Value:	0.33	ppm	on Nov 8 at hr 17	Hours in Service:	720	
Maximum Daily Value:	0.02	ppm	on Nov 19	Hours of Data:	679	
Minimum Hourly Value:	0.00	ppm	on Nov 1 at hr 0	Hours of Missing Data:	4	
Minimum Daily Value:	0.00	ppm	on Nov 13	Hours of Calibration:	37	
Monthly Average:	0.00	ppm		Operational Uptime:	99.4	

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			
Nov 1	0.00	0.00	0.00	S	0.00	0.02	0.02	0.12	0.07	0.01	0.00	0.00	0.00	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.01
Nov 2	0.00	0.00	S	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	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Nov 3	0.00	S	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.09	0.10	0.08	0.06	0.12	0.00	0.12	0.02
Nov 4	S	0.05	0.04	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	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.05	0.00
Nov 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	0.01	0.00	0.01	0.00	0.00	S	0.00	0.00	0.01	0.00
Nov 6	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.02	0.01	0.02	0.01	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.05	0.04	0.00	S	0.00	0.00	0.00	0.05	0.01
Nov 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	S	0.00	0.00	0.00	0.00	0.02	0.00
Nov 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	0.01	0.00	0.00	**0.33**	0.13	S	0.00	0.00	0.00	0.00	0.00	**0.33**	0.02
Nov 9	0.05	0.01	0.00	0.00	0.00	0.01	0.04	0.06	0.04	0.02	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	0.06	0.01
Nov 10	0.00	0.01	0.12	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	S	0.00	0.07	0.06	0.03	0.00	0.00	0.00	0.12	0.02
Nov 11	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	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Nov 12	0.00	0.00	0.00	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	0.06	0.00	0.00	0.00	0.00	0.00	0.06	0.00
Nov 13	0.00	0.00	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
Nov 14	0.00	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	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Nov 15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	C	C	NRM	NRM	NRM	NRM	C	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.01	NA
Nov 16	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	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
Nov 17	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
Nov 18	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.02	0.00	0.02	0.00
Nov 19	0.01	0.02	0.08	0.08	0.04	0.05	0.11	0.09	S	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	**0.02**
Nov 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Nov 21	0.00	0.00	0.00	0.00	0.00	0.00	S	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	0.00	0.00	0.00	0.01	0.00
Nov 22	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	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.05	0.00
Nov 23	0.00	0.00	0.00	0.00	S	0.03	0.04	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	0.00	0.00	0.00	0.00	0.04	0.00
Nov 24	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
Nov 25	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
Nov 26	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
Nov 27	S	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.01	0.00
Nov 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	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Nov 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	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Nov 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.05	S	0.01	0.00	0.00	0.00	0.05	0.01
Diurnal Maximum	0.05	0.05	0.12	0.08	0.04	0.05	0.11	0.12	0.07	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.33	0.13	0.09	0.10	0.08	0.06	0.12			
Diurnal Average	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01			

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.



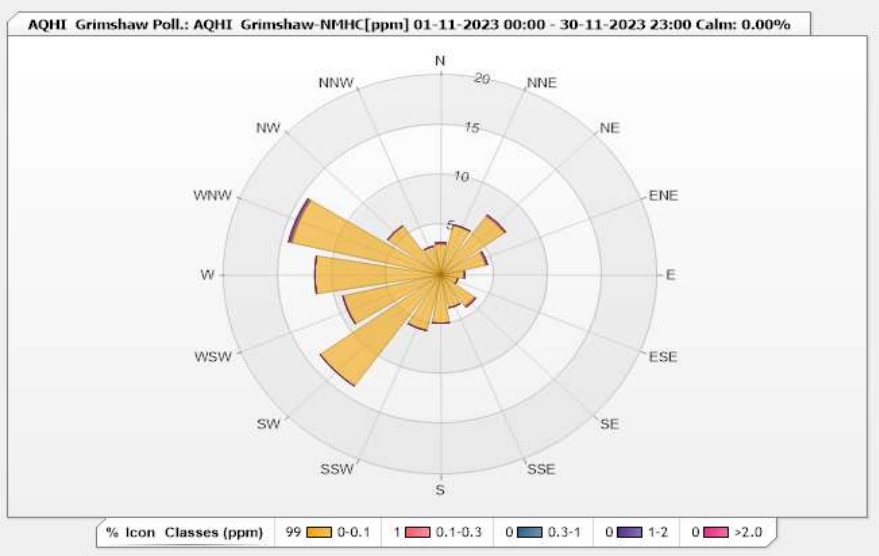


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NMHC[ppm] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 94.31% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	3.09	0.15	0	0	0	3.24
NNE	5.15	0	0	0	0	5.15
NE	7.22	0.15	0	0	0	7.37
ENE	4.27	0.15	0	0	0	4.42
E	2.21	0	0	0	0	2.21
ESE	1.62	0	0	0	0	1.62
SE	3.83	0.15	0	0	0	3.98
SSE	3.39	0	0	0	0	3.39
S	4.86	0	0	0	0	4.86
SSW	5.74	0	0	0	0	5.74
SW	13.7	0	0	0	0	13.7
WSW	9.28	0	0	0	0	9.28
W	11.63	0	0	0	0	11.63
WNW	14.14	0.15	0.15	0	0	14.44
NW	6.04	0	0	0	0	6.04
NNW	2.95	0	0	0	0	2.95
Summary	99.12	0.75	0.15	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 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

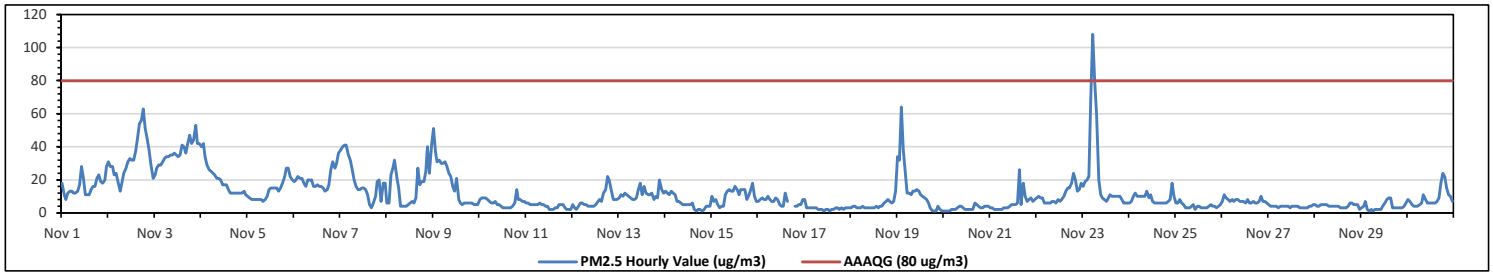
Number of 1-Hour Exceedances: 1 Number of 24-Hour Exceedances: 2

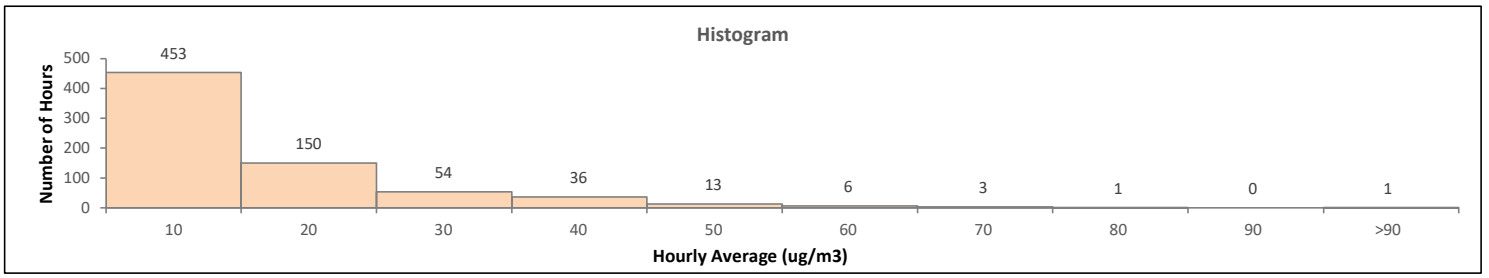
Maximum Hourly Value:	108	µg/m^3 on Nov 23 at hr 5	Hours in Service:	720	
Maximum Daily Value:	36.6	µg/m^3 on Nov 3	Hours of Data:	717	
Minimum Hourly Value:	1	µg/m^3 on Nov 14 at hr 16	Hours of Missing Data:	0	
Minimum Daily Value:	3	µg/m^3 on Nov 17	Hours of Calibration:	3	
Monthly Average:	11.8	µg/m^3	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			
Nov 1	18	11	8	12	13	13	12	12	13	17	28	21	11	11	11	14	16	16	21	23	19	18	20	28	8	28	16.1
Nov 2	31	28	28	23	24	18	13	19	24	27	31	33	32	32	37	45	54	56	63	51	45	38	29	21	13	63	33.4
Nov 3	23	27	29	29	31	33	34	34	35	35	36	35	34	35	41	40	36	42	47	42	44	53	42	42	23	53	**36.6**
Nov 4	40	42	34	29	26	25	24	23	21	21	20	17	17	17	14	12	12	12	12	12	12	12	13	11	11	42	19.9
Nov 5	10	9	8	8	8	8	8	8	7	8	10	14	15	15	15	15	13	15	18	22	27	27	22	20	7	27	13.8
Nov 6	19	20	22	21	21	18	16	20	20	20	16	16	17	16	16	15	13	14	17	26	31	27	30	36	13	36	20.3
Nov 7	38	40	41	41	35	32	26	20	16	14	14	15	15	14	11	5	3	6	10	19	20	7	18	18	3	41	19.9
Nov 8	6	6	23	27	32	22	15	4	4	4	4	5	6	7	6	9	27	17	19	19	25	40	24	41	4	41	16.3
Nov 9	51	37	31	32	30	30	31	28	24	22	16	13	21	8	6	5	6	6	6	6	6	5	5	5	5	51	17.9
Nov 10	8	9	9	9	8	7	6	6	7	5	5	4	3	3	3	3	3	4	6	14	8	8	7	7	3	14	6.3
Nov 11	6	6	5	5	5	5	5	6	5	5	4	4	2	2	2	3	3	5	5	5	3	2	2	2	2	6	4.0
Nov 12	5	3	2	4	6	6	5	5	4	4	4	4	5	7	8	7	12	14	22	20	14	8	8	8	2	22	7.7
Nov 13	9	11	10	12	11	10	9	8	8	9	14	18	11	16	12	11	11	12	8	10	9	20	14	12	8	20	11.5
Nov 14	13	12	11	13	12	11	7	7	6	5	5	5	5	5	6	2	1	2	2	1	2	4	4	4	**1**	13	6.0
Nov 15	10	7	8	5	3	4	4	11	13	14	13	13	16	14	11	14	14	14	8	10	13	18	10	7	3	18	10.6
Nov 16	7	8	9	8	8	10	8	7	7	9	8	5	4	4	12	7	C	C	C	4	4	5	5	8	4	12	7.0
Nov 17	8	3	3	3	3	3	3	2	2	2	1	2	2	1	2	2	3	3	2	3	2	3	3	3	**1**	8	**2.7**
Nov 18	3	4	4	3	3	3	4	3	3	3	3	3	3	4	3	4	4	6	7	8	7	6	7	13	3	13	4.6
Nov 19	34	32	64	38	25	12	12	11	13	13	14	13	11	10	9	8	6	3	1	1	1	4	2	1	**1**	64	14.1
Nov 20	1	1	1	1	2	2	2	3	4	4	3	2	2	2	2	2	6	5	4	3	3	4	4	4	**1**	6	2.8
Nov 21	3	3	2	2	2	2	2	3	3	3	4	5	5	5	6	26	5	18	10	7	8	9	7	8	2	26	6.2
Nov 22	9	10	9	9	6	6	6	6	7	7	6	8	7	8	10	13	15	15	18	24	20	13	14	18	6	24	11.0
Nov 23	16	19	20	22	70	**108**	80	60	20	11	9	8	7	9	11	10	10	10	10	10	8	6	6	6	6	**108**	22.8
Nov 24	6	7	10	12	10	10	10	10	10	13	9	11	7	6	6	6	6	6	6	6	7	8	18	10	6	18	8.8
Nov 25	6	6	8	6	5	3	3	3	4	5	2	4	4	3	3	3	3	4	5	4	4	3	4	5	2	8	4.2
Nov 26	7	11	9	8	7	8	7	8	8	7	7	7	6	8	6	6	7	6	6	7	10	7	7	6	6	11	7.3
Nov 27	5	4	4	4	4	3	4	4	4	4	4	3	4	4	4	4	3	3	3	3	3	4	4	5	3	5	3.8
Nov 28	5	4	4	5	5	5	5	4	4	4	4	4	4	3	3	3	3	4	6	6	5	5	5	2	2	6	4.3
Nov 29	3	4	7	2	1	2	1	2	2	2	2	4	6	8	9	9	3	3	3	3	3	3	4	6	**1**	9	3.8
Nov 30	8	7	5	4	4	4	5	6	11	8	6	6	6	6	6	7	9	18	24	22	15	11	10	7	4	24	9.0
Diurnal Maximum	51	42	64	41	70	108	80	60	35	35	36	35	34	35	41	45	54	56	63	51	45	53	42	42			
Diurnal Average	13.6	13.0	14.3	13.2	14.0	14.1	12.2	11.4	10.3	10.2	10.1	10.1	9.6	9.4	9.7	10.3	10.6	11.7	12.7	13.0	12.6	12.6	11.6	12.1			

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.



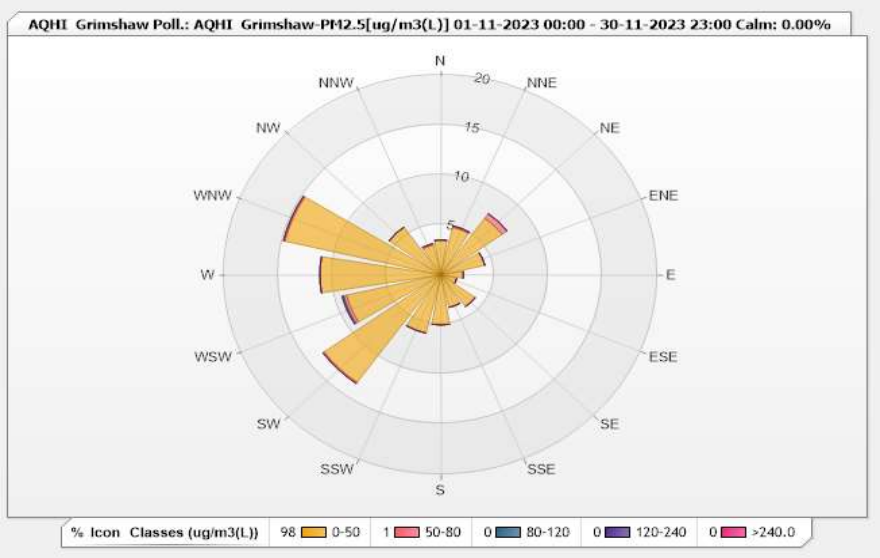


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-PM2.5[ug/m3(L)] Monthly: 11-2023

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

Calm: 0.00% Valid Data: 99.58% Calm Avg: 0.00 [ug/m3(L)]

Direction	0-50	50-80	80-120	120-240	>240.0	Total
N	3.49	0	0	0	0	3.49
NNE	4.88	0.14	0	0	0	5.02
NE	6.97	0.56	0	0	0	7.53
ENE	4.18	0	0	0	0	4.18
E	2.09	0	0	0	0	2.09
ESE	1.53	0	0	0	0	1.53
SE	3.91	0	0	0	0	3.91
SSE	3.35	0	0	0	0	3.35
S	5.02	0	0	0	0	5.02
SSW	6	0	0	0	0	6
SW	13.25	0.14	0	0	0	13.39
WSW	8.93	0.28	0.14	0	0	9.35
W	11.16	0	0	0	0	11.16
WNW	14.78	0.14	0	0	0	14.92
NW	5.86	0	0	0	0	5.86
NNW	3.07	0.14	0	0	0	3.21
Summary	98.47	1.4	0.14	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

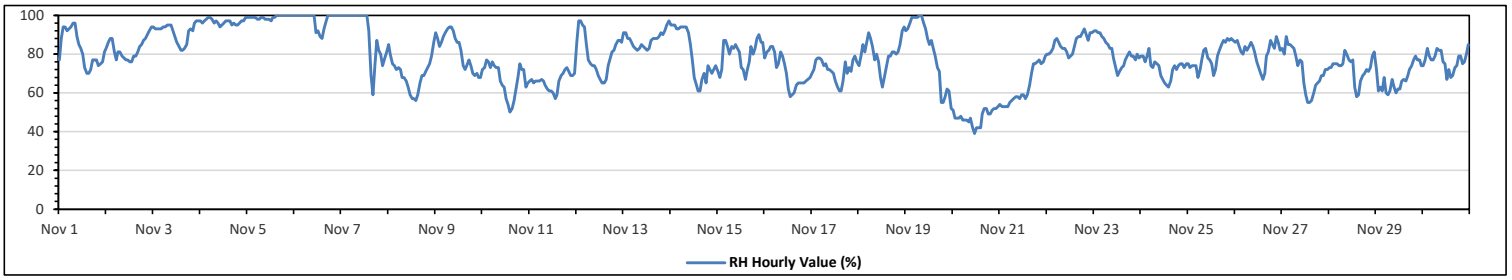
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	100	%	on Nov 5 at hr 15	Hours in Service:	720	
Maximum Daily Value:	99.1	%	on Nov 5	Hours of Data:	720	
Minimum Hourly Value:	39	%	on Nov 20 at hr 11	Hours of Missing Data:	0	
Minimum Daily Value:	47.3	%	on Nov 20	Hours of Calibration:	0	
Monthly Average:	78.5	%		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			
Nov 1	77	88	94	94	92	93	94	96	96	89	85	83	80	73	70	70	72	77	77	77	74	75	76	81	70	96	82.6
Nov 2	83	86	88	88	81	77	81	81	79	78	77	77	76	76	79	79	81	84	85	87	88	90	92	94	76	94	82.8
Nov 3	94	93	93	93	93	94	94	95	95	95	92	89	86	84	82	82	83	85	92	93	92	96	97	97	82	97	91.2
Nov 4	97	96	97	98	99	99	98	96	97	96	94	95	96	97	97	97	95	96	95	95	96	97	97	99	94	99	96.6
Nov 5	99	99	99	99	99	98	98	99	99	98	98	98	97	99	99	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	97	**100**	**99.1**
Nov 6	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	91	92	89	88	93	96	**100**	**100**	**100**	**100**	**100**	**100**	**100**	88	**100**	97.9
Nov 7	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	92	69	59	74	87	82	80	74	78	81	59	**100**	90.7
Nov 8	85	80	75	74	72	73	72	68	68	66	63	59	57	57	56	59	65	69	69	71	73	75	79	86	56	86	69.6
Nov 9	91	88	84	86	89	91	93	94	94	92	88	86	86	82	74	72	74	77	74	70	69	70	68	68	68	94	81.7
Nov 10	72	73	77	76	73	76	74	73	73	66	64	63	57	54	50	52	56	62	68	75	72	72	63	65	50	77	66.9
Nov 11	66	67	65	66	66	66	67	66	64	62	61	61	60	57	59	66	69	70	72	73	71	69	69	70	57	73	65.9
Nov 12	86	97	97	95	94	85	77	75	74	74	72	69	67	65	65	67	74	77	81	82	85	87	87	86	65	97	79.9
Nov 13	91	91	88	88	86	84	83	82	83	85	84	83	82	83	87	88	88	88	89	91	90	92	95	97	82	97	87.4
Nov 14	95	95	95	93	93	94	94	94	94	91	85	77	68	64	61	61	67	70	65	74	72	70	72	74	61	95	79.9
Nov 15	71	68	72	87	87	84	80	84	83	85	83	81	73	72	67	72	76	84	80	83	88	90	86	86	67	90	80.1
Nov 16	78	81	82	84	84	81	73	75	81	79	75	70	62	58	59	60	64	65	65	65	65	66	67	68	58	84	71.1
Nov 17	70	72	77	78	78	77	74	75	72	72	71	70	66	63	61	61	66	76	70	73	71	77	79	76	61	79	71.9
Nov 18	74	79	85	81	86	91	88	84	77	80	76	68	63	68	73	79	79	81	81	80	81	85	92	94	63	94	80.2
Nov 19	92	93	96	99	99	99	99	**100**	**100**	96	93	88	85	87	83	79	73	71	55	55	58	62	61	52	52	**100**	82.3
Nov 20	51	47	47	47	48	46	46	46	45	47	42	**39**	42	42	42	49	52	52	49	49	51	52	52	53	**39**	53	**47.3**
Nov 21	54	53	53	53	53	55	56	57	58	58	57	59	59	57	59	64	70	75	75	76	77	75	76	79	53	79	62.8
Nov 22	80	80	81	83	87	88	86	84	83	83	81	78	79	80	84	88	89	89	91	93	90	87	91	91	78	93	85.3
Nov 23	92	92	91	91	89	88	86	85	83	83	78	73	69	71	73	74	77	79	81	79	79	77	80	78	69	92	81.2
Nov 24	79	79	76	79	83	74	73	76	75	74	69	67	65	64	63	66	72	74	72	74	75	75	73	75	63	83	73.0
Nov 25	75	73	74	74	74	68	72	77	82	83	78	77	75	69	72	79	82	85	87	86	88	87	88	87	68	88	78.8
Nov 26	86	87	84	81	80	84	82	84	86	84	81	76	73	70	67	70	79	81	87	85	83	89	86	82	67	89	81.1
Nov 27	83	80	89	85	85	84	83	79	74	77	76	65	59	55	55	56	60	64	65	66	69	69	72	72	55	89	71.8
Nov 28	73	73	75	75	75	74	74	75	82	80	77	76	77	63	58	59	66	69	70	72	71	73	79	81	58	82	72.8
Nov 29	72	61	63	61	68	60	59	61	67	63	60	62	62	66	67	66	69	72	74	77	79	77	77	74	59	79	67.4
Nov 30	74	77	83	79	77	77	79	83	82	82	76	75	67	72	68	69	73	74	79	79	75	76	80	85	67	85	76.7
Diurnal Maximum	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100	100			
Diurnal Average	81.3	81.6	82.7	82.9	83.0	82.0	81.2	81.5	81.5	80.6	77.9	75.2	72.7	71.2	70.3	71.5	74.2	77.3	77.8	78.7	78.7	79.5	80.4	81.0			

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

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

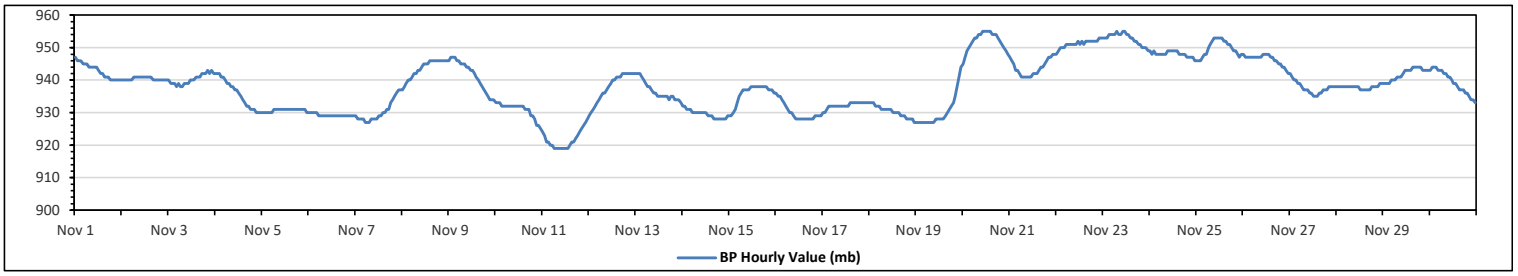
Maximum Hourly Value:	955 mb	on Nov 20 at hr 10	Hours in Service:	720	
Maximum Daily Value:	953 mb	on Nov 23	Hours of Data:	720	
Minimum Hourly Value:	919 mb	on Nov 11 at hr 6	Hours of Missing Data:	0	
Minimum Daily Value:	922 mb	on Nov 11	Hours of Calibration:	0	
Monthly Average:	938 mb		Operational 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
Nov 1	947	946	946	946	945	945	945	944	944	944	944	944	943	942	942	941	941	941	940	940	940	940	940	940	940	947	943
Nov 2	940	940	940	940	940	940	941	941	941	941	941	941	941	941	941	941	940	940	940	940	940	940	940	940	940	941	940
Nov 3	940	939	939	939	938	939	938	938	939	939	939	940	940	940	941	941	941	942	942	942	943	942	943	942	938	943	940
Nov 4	942	942	942	941	941	940	939	939	938	938	937	937	936	935	934	933	932	932	931	931	931	930	930	930	930	942	936
Nov 5	930	930	930	930	930	930	931	931	931	931	931	931	931	931	931	931	931	931	931	931	931	931	931	930	930	931	931
Nov 6	930	930	930	930	930	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	930	929
Nov 7	929	928	928	928	928	927	927	927	928	928	928	928	929	929	930	930	931	931	933	934	935	936	937	937	927	937	930
Nov 8	937	938	939	940	940	941	942	942	943	943	944	945	945	945	946	946	946	946	946	946	946	946	946	946	937	946	944
Nov 9	946	947	947	947	946	946	945	945	945	944	944	943	943	942	941	940	939	938	937	936	935	934	934	934	934	947	942
Nov 10	933	933	933	932	932	932	932	932	932	932	932	932	932	932	932	931	931	931	929	929	928	926	926	925	925	933	931
Nov 11	924	923	921	921	920	920	**919**	**919**	**919**	**919**	**919**	**919**	**919**	**919**	920	921	921	922	923	924	925	926	927	928	**919**	928	**922**
Nov 12	929	930	931	932	933	934	935	936	936	937	938	939	940	940	941	941	941	942	942	942	942	942	942	942	929	942	938
Nov 13	942	942	942	941	940	939	938	938	937	936	936	935	935	935	935	935	935	934	935	935	934	934	934	933	933	942	937
Nov 14	932	932	931	931	931	930	930	930	930	930	930	930	930	929	929	929	928	928	928	928	928	928	928	929	928	932	930
Nov 15	929	929	930	931	933	935	936	937	937	937	937	938	938	938	938	938	938	938	938	938	937	937	937	936	929	938	936
Nov 16	936	935	935	934	933	932	931	930	930	929	928	928	928	928	928	928	928	928	928	928	929	929	929	929	928	936	930
Nov 17	930	930	931	932	932	932	932	932	932	932	932	932	932	932	933	933	933	933	933	933	933	933	933	933	930	933	932
Nov 18	933	933	933	932	932	932	931	931	931	931	931	931	930	930	930	930	929	929	929	928	928	928	928	927	927	933	930
Nov 19	927	927	927	927	927	927	927	927	927	927	928	928	928	928	928	929	930	931	932	933	935	938	941	944	927	944	930
Nov 20	945	947	949	950	951	952	953	953	954	954	**955**	**955**	**955**	**955**	**955**	954	954	954	953	952	951	950	949	948	945	**955**	952
Nov 21	947	946	945	943	943	942	941	941	941	941	941	941	942	942	942	943	944	944	945	946	947	947	948	948	941	948	944
Nov 22	948	949	950	950	950	951	951	951	951	951	951	952	951	952	951	952	952	952	952	952	952	952	953	953	948	953	951
Nov 23	953	953	953	954	954	954	954	**955**	954	954	**955**	**955**	954	954	954	953	953	952	952	951	951	950	950	949	949	**955**	**953**
Nov 24	949	948	949	948	948	948	948	948	948	949	949	949	949	949	949	948	948	948	948	947	947	947	947	946	946	949	948
Nov 25	946	946	946	947	948	948	950	951	952	953	953	953	953	953	952	952	951	951	950	949	949	948	947	948	946	953	950
Nov 26	948	947	947	947	947	947	947	947	947	947	948	948	948	948	947	947	946	946	945	945	944	944	943	942	942	948	946
Nov 27	942	941	940	940	939	939	938	937	937	937	936	936	935	935	935	936	936	937	937	937	938	938	938	938	935	942	938
Nov 28	938	938	938	938	938	938	938	938	938	938	938	938	937	937	937	937	937	937	938	938	938	938	939	939	937	939	938
Nov 29	939	939	939	939	940	940	940	941	941	941	942	943	943	943	943	944	944	944	944	944	943	943	943	943	939	944	942
Nov 30	943	944	944	944	943	943	943	942	942	941	941	940	939	939	938	937	937	937	936	936	935	934	934	933	933	944	939
Diurnal Maximum	953	953	953	954	954	954	954	955	954	954	955	955	955	955	955	954	954	954	953	952	952	952	953	953			
Diurnal Average	938	938	939	938	938	938	938	938	938	938	939	939	939	938	938	938	938	938	938	938	938	938	938	938			

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 - November 2023

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

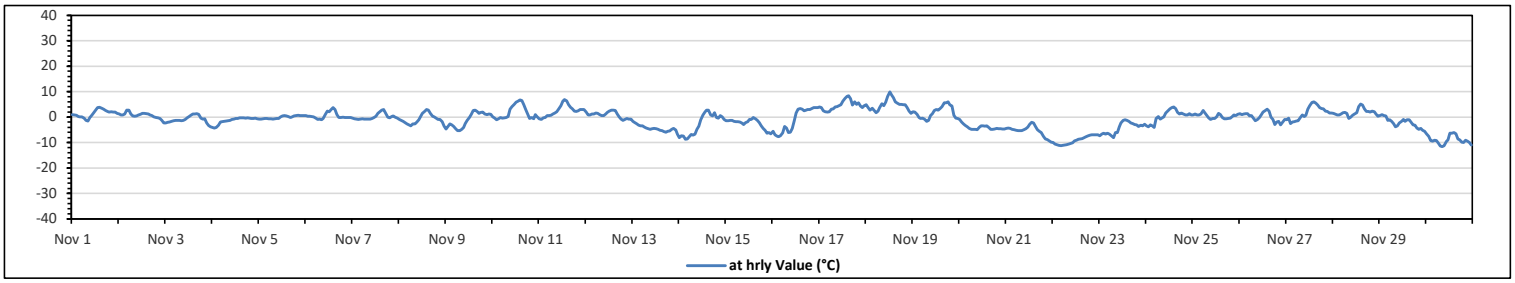
Maximum Hourly Value:	9.9	°C	on Nov 18 at hr 12	Hours in Service:	720	
Maximum Daily Value:	4.8	°C	on Nov 18	Hours of Data:	720	
Minimum Hourly Value:	-11.6	°C	on Nov 30 at hr 8	Hours of Missing Data:	0	
Minimum Daily Value:	-9.2	°C	on Nov 22	Hours of Calibration:	0	
Monthly Average:	-0.9	°C		Operational 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
Nov 1	1	0.9	0.7	0.2	0.1	0.1	-0.4	-1.3	-1.5	-0.2	0.7	1.7	2.8	3.7	3.9	3.5	3.1	2.6	2.2	1.9	2.1	2	1.9	1.5	-1.5	3.9	1.4
Nov 2	1.3	0.9	0.8	1.3	2.8	2.7	1.2	0.4	0.3	0.4	0.8	1.1	1.5	1.5	1.4	1.2	0.9	0.5	0.1	-0.2	-0.3	-0.6	-1.3	-2.3	-2.3	2.8	0.7
Nov 3	-2.3	-2.1	-2	-1.6	-1.4	-1.2	-1.3	-1.3	-1.4	-1.3	-0.9	-0.3	0.2	0.8	1.2	1.3	1.4	1.1	-0.4	-0.8	-0.7	-2.3	-3.3	-3.8	-3.8	1.4	-0.9
Nov 4	-4	-4.3	-4.1	-3.2	-1.9	-1.8	-1.6	-1.5	-1.4	-1.3	-1	-0.8	-0.6	-0.5	-0.3	-0.3	-0.3	-0.4	-0.3	-0.4	-0.5	-0.5	-0.4	-0.7	-4.3	-0.3	-1.3
Nov 5	-0.8	-0.8	-0.7	-0.6	-0.6	-0.7	-0.7	-0.8	-0.7	-0.6	-0.5	0.1	0.4	0.5	0.4	0.2	-0.1	0.1	0.4	0.6	0.7	0.6	0.5	0.5	-0.8	0.7	-0.1
Nov 6	0.5	0.3	0.3	0.2	0.1	-0.4	-1	-0.8	-1.1	-0.6	1.1	2.3	2.1	2.9	3.7	3	1	-0.2	-0.1	0	-0.1	-0.1	-0.2	-0.2	-1.1	3.7	0.5
Nov 7	-0.4	-0.7	-0.8	-0.9	-0.8	-0.7	-0.8	-0.8	-0.8	-0.8	-0.6	-0.2	0.3	1.5	2.1	2.8	3	1.6	0	-0.3	0.2	0.4	0	-0.4	-0.9	3.0	0.1
Nov 8	-1	-1.3	-1.6	-2.2	-2.6	-3.1	-3.4	-2.7	-2.7	-2	-1.1	0.3	1.5	2.2	3	2.7	1.5	0.3	0.1	-0.4	-0.9	-1	-1.8	-3.6	-3.6	3.0	-0.8
Nov 9	-4.7	-3.7	-2.7	-3.1	-3.7	-4.6	-5.3	-5.3	-4.9	-4	-2.5	-1.3	-0.2	1.1	2.6	2.7	2.2	1.5	1.8	2	1.3	1	1.2	1.1	-5.3	2.7	-1.1
Nov 10	0.1	-0.3	-1.1	-0.7	-0.1	-0.4	-0.3	-0.1	0.2	3.1	4.2	5	5.8	6.3	6.8	6.5	4.8	2.9	1.2	-0.6	-0.2	-0.7	1	0.1	-1.1	6.8	1.8
Nov 11	-0.7	-1	-0.3	-0.2	0.6	0.6	0.7	1.2	1.6	2.1	3.3	4.4	6.3	6.9	6.4	4.9	3.9	3.2	2.3	2.2	2.5	3	3	2.9	-1.0	6.9	2.5
Nov 12	2	0.9	0.9	1.3	1.3	1.6	1.5	1	0.5	0.6	1.3	1.8	2.4	2.7	2.8	2.6	1.2	0.1	-0.8	-1.3	-1	-0.6	-0.8	-0.8	-1.3	2.8	0.9
Nov 13	-1.7	-2.2	-2.5	-3.2	-3.4	-3.4	-3.9	-4.3	-4.6	-4.8	-4.6	-4.5	-4.6	-4.9	-5.2	-5.3	-5.7	-5.9	-5.6	-5.4	-4.9	-4.5	-5.1	-6.7	-6.7	-1.7	-4.5
Nov 14	-8	-7.3	-7.5	-8.8	-8.6	-7.8	-6.8	-7.1	-6.7	-4.9	-3.6	-1.1	0.9	1.9	2.7	2.7	0.9	0.4	1.7	-0.1	-0.4	0.6	0.1	-0.9	-8.8	2.7	-2.8
Nov 15	-1.4	-1.4	-1.3	-1.2	-1.6	-1.8	-1.8	-1.9	-2.3	-2.9	-2.2	-1.8	-0.9	-0.9	-0.2	-0.7	-1.3	-2.2	-3.5	-4.4	-5.2	-6.3	-6.1	-6.6	-6.6	-0.2	-2.5
Nov 16	-5.6	-7	-7.5	-7.7	-7.3	-6.2	-3.7	-4.3	-6.1	-5.9	-4.4	-1.5	1.6	3.1	3.4	3.1	2.5	2.7	2.9	3	3.3	3.7	3.7	3.8	-7.7	3.8	-1.3
Nov 17	4	3.7	2.5	2.1	1.9	2.1	3.1	3.2	4	4.1	4.4	4.8	6.3	7.4	8.2	8.4	7.2	4.7	6	5	5.6	4.3	3.7	4.4	1.9	8.4	4.6
Nov 18	4.9	3.8	2.7	3.5	2.6	1.7	2.4	3.7	5.2	4.4	5.8	8.2	**9.9**	8.7	7.7	6	5.5	5	5	4.9	4.8	3.8	2.3	1.5	1.5	**9.9**	**4.8**
Nov 19	2.1	2	1.1	-0.2	-0.6	-0.4	-0.8	-1.6	-1.3	0.6	1.4	2.6	2.9	2.8	3.4	4.2	5.6	5.6	6	4.8	4.3	0.7	-0.4	-0.6	-1.6	6.0	1.8
Nov 20	-1	-2	-2.6	-3.3	-3.8	-4.5	-4.8	-4.8	-4.9	-5	-4.1	-3.4	-3.5	-3.6	-3.5	-4.2	-4.9	-4.9	-4.7	-4.5	-4.6	-4.6	-4.7	-4.7	-5.0	-1.0	-4.0
Nov 21	-4.5	-4.3	-4.5	-4.8	-5	-5.2	-5.3	-5.3	-5.3	-5	-4.6	-3.9	-2.8	-2.1	-2.4	-3.7	-5	-5.5	-6.1	-7.6	-8.6	-8.9	-9.3	-9.8	-9.8	-2.1	-5.4
Nov 22	-10	-10.5	-10.8	-11.1	-11.2	-11.1	-11	-10.8	-10.6	-10.4	-10.1	-9.3	-9.1	-8.8	-8.6	-8.4	-8	-7.7	-7.4	-7.1	-6.9	-7	-7	-7	-11.2	-6.9	**-9.2**
Nov 23	-7.3	-6.7	-6.3	-6.7	-6.3	-6.7	-7.3	-8	-6.1	-6.1	-3.8	-2.3	-1.2	-1.1	-1.2	-1.6	-2.4	-2.5	-2.9	-3.1	-3.7	-3.2	-3.4	-2.8	-8.0	-1.1	-4.3
Nov 24	-3.4	-3.8	-3	-3.5	-4	-0.6	0.2	-0.8	-0.3	0.1	1.6	2.5	3.2	3.8	4	3.3	1.8	1.2	1.6	1.3	0.8	0.9	1.4	0.9	-4.0	4.0	0.4
Nov 25	0.9	1.2	0.8	0.8	1.2	2.6	1.7	0.7	-0.3	-0.9	-0.5	-0.5	0.1	1.5	1	-0.1	-0.7	-0.7	-0.6	-0.4	0.2	0.9	0.6	1.1	-0.9	2.6	0.4
Nov 26	1.4	1	1.3	1.4	1.4	0.4	0.5	-0.4	-1.4	-1	-0.2	1	1.9	2.5	3.1	2.3	0	-0.9	-2.9	-1.9	-1.7	-3	-2.1	-1	-3.0	3.1	0.1
Nov 27	-1.1	-0.4	-2.5	-1.9	-1.8	-1.5	-1.4	-0.3	0.8	0.2	0.7	3.1	4.5	5.7	6	5.5	4.7	3.8	3.4	3.2	2.4	2.2	1.6	1.6	-2.5	6.0	1.6
Nov 28	1.5	1.3	0.8	0.9	1.3	1.7	1.8	1.5	-0.5	0	0.7	1.3	1.7	4.2	5.1	4.7	3.2	2.2	2.2	1.9	2.3	2.1	1.3	0.3	-0.5	5.1	1.8
Nov 29	0.5	1	0.5	0.4	-1.2	-1.1	-1.7	-2.5	-3.8	-3.4	-2.4	-1.6	-1	-1.6	-1.1	-1.1	-2.1	-3	-3.2	-4.3	-4.8	-4.5	-5.2	-5.6	-5.6	1.0	-2.2
Nov 30	-6.5	-7.6	-9.2	-9.5	-9.1	-9.2	-10.2	-11.4	**-11.6**	-11.3	-9.6	-9	-6.3	-6.3	-6.1	-6.6	-8.6	-9	-9.9	-10	-9.1	-9.4	-10	-11	**-11.6**	-6.1	-9.0
Diurnal Maximum	4.9	3.8	2.7	3.5	2.8	2.7	3.1	3.7	5.2	4.4	5.8	8.2	9.9	8.7	8.2	8.4	7.2	5.6	6.0	5.0	5.6	4.3	3.7	4.4			
Diurnal Average	-1.5	-1.7	-2.0	-2.1	-2.1	-2.0	-2.0	-2.2	-2.3	-1.9	-1.0	0.0	0.9	1.4	1.7	1.3	0.5	-0.1	-0.4	-0.7	-0.8	-1.0	-1.3	-1.6			

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.



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

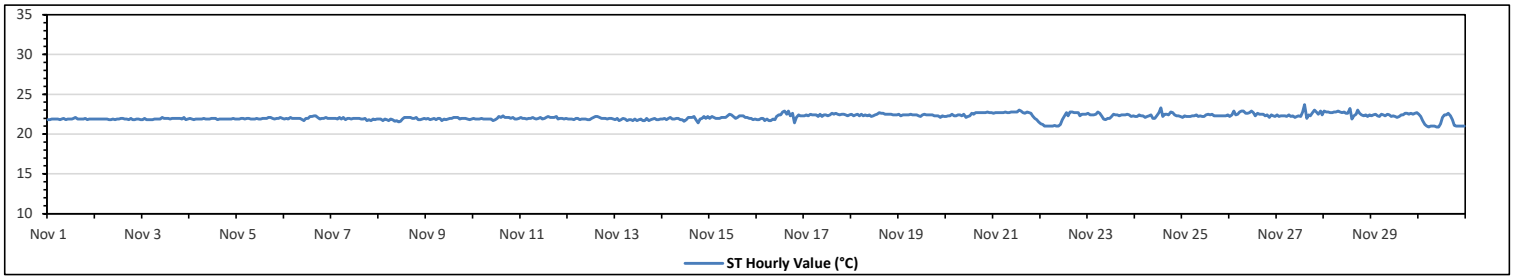
Maximum Hourly Value:	23.7	°C	on Nov 27 at hr 14	Hours in Service:	720
Maximum Daily Value:	22.6	°C	on Nov 28	Hours of Data:	720
Minimum Hourly Value:	20.9	°C	on Nov 30 at hr 5	Hours of Missing Data:	0
Minimum Daily Value:	21.5	°C	on Nov 30	Hours of Calibration:	0
Monthly Average:	22.1	°C		Operational 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
Nov 1	21.8	21.8	21.9	21.9	21.9	21.9	21.8	21.9	22.0	21.8	21.9	21.9	21.9	22.0	22.1	21.9	21.9	21.9	21.9	22.0	21.8	21.9	21.9	21.9	21.8	22.1	21.9
Nov 2	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.9	21.8	21.9	21.9	22.0	22.0	21.9	21.9	21.8	22.0	21.8	21.8	21.9	21.9	21.8	21.8	22.0	21.9
Nov 3	21.8	22.0	21.8	21.8	21.8	21.8	21.9	21.9	21.9	21.9	22.1	22.0	22.0	22.0	21.9	22.0	22.0	22.0	22.0	22.0	21.9	22.1	21.8	21.9	21.8	22.1	21.9
Nov 4	22.0	21.9	21.8	21.9	21.9	21.9	21.9	22.0	21.9	21.9	21.9	22.0	22.0	22.0	21.8	21.9	21.9	21.9	21.9	21.9	21.9	21.9	22.0	21.9	21.8	22.0	21.9
Nov 5	21.9	21.9	22.0	22.0	21.9	22.0	22.0	21.9	21.9	21.9	22.0	21.9	21.9	22.0	22.0	22.0	22.1	22.1	22.0	21.9	22.0	22.0	22.1	22.0	21.9	22.1	22.0
Nov 6	21.9	22.0	21.9	22.1	22.0	22.0	22.0	22.0	22.0	21.8	21.7	22.0	22.0	22.2	22.2	22.3	22.3	22.1	21.9	22.0	22.0	22.1	22.0	22.0	21.7	22.3	22.0
Nov 7	22.0	22.0	22.0	21.9	22.1	21.9	22.1	21.8	22.0	22.0	21.9	22.0	22.0	22.0	22.0	21.9	21.9	22.0	21.7	21.8	21.7	21.9	21.8	21.9	21.7	22.1	21.9
Nov 8	21.9	21.9	21.7	21.9	21.8	21.7	21.9	21.8	21.6	21.7	21.5	21.6	21.9	22.1	22.1	22.1	22.1	22.0	22.0	22.1	21.8	21.8	21.9	22.0	21.5	22.1	21.9
Nov 9	21.9	22.0	21.8	21.9	22.0	21.8	22.0	22.0	21.7	21.9	21.8	21.9	22.0	22.0	22.1	22.1	22.1	21.9	22.0	22.0	22.0	21.9	21.8	21.9	21.7	22.1	21.9
Nov 10	22.0	21.9	21.9	21.9	22.0	21.9	21.9	21.9	21.9	21.9	21.7	21.8	22.0	22.2	22.1	22.3	22.1	22.1	22.1	22.0	22.1	21.9	21.9	22.0	21.7	22.3	22.0
Nov 11	22.1	22.0	22.0	21.9	22.0	22.0	22.1	22.0	21.9	22.0	22.1	21.9	22.0	22.1	22.2	22.1	22.1	22.1	22.2	21.9	22.0	22.0	21.9	22.0	21.9	22.2	22.0
Nov 12	21.9	21.9	21.9	21.8	22.0	22.0	21.8	21.9	21.9	21.9	21.8	21.8	22.0	22.1	22.2	22.2	22.1	22.0	22.0	22.0	21.9	22.0	22.0	21.9	21.8	22.2	22.0
Nov 13	21.8	22.0	21.7	21.8	22.0	21.9	21.7	21.8	21.8	21.7	21.9	21.7	21.8	21.9	21.7	21.7	22.0	21.7	21.8	21.9	22.0	21.8	21.8	21.9	21.7	22.0	21.8
Nov 14	21.9	22.0	21.8	22.0	22.1	21.9	21.9	22.0	22.0	21.8	21.8	21.6	21.8	22.1	22.1	22.1	22.2	21.8	21.4	21.9	22.0	22.2	22.0	22.2	21.4	22.2	21.9
Nov 15	22.0	22.2	22.1	22.0	22.0	22.0	22.1	22.1	22.1	22.3	22.5	22.4	22.2	22.0	22.1	22.3	22.3	22.3	22.1	22.1	22.0	22.0	21.8	21.9	21.8	22.5	22.1
Nov 16	21.8	21.8	22.0	22.0	21.7	21.9	21.7	21.7	21.9	21.8	22.2	22.4	22.4	22.8	22.9	22.5	22.9	22.3	22.6	21.4	22.1	22.4	22.3	22.3	21.4	22.9	22.2
Nov 17	22.3	22.4	22.3	22.5	22.4	22.4	22.4	22.2	22.5	22.2	22.4	22.4	22.3	22.4	22.6	22.5	22.6	22.5	22.4	22.5	22.5	22.4	22.3	22.4	22.2	22.6	22.4
Nov 18	22.5	22.3	22.4	22.5	22.3	22.5	22.3	22.4	22.3	22.4	22.2	22.3	22.4	22.5	22.7	22.6	22.6	22.5	22.5	22.5	22.5	22.4	22.4	22.4	22.2	22.7	22.4
Nov 19	22.5	22.3	22.4	22.4	22.4	22.4	22.5	22.4	22.4	22.4	22.3	22.2	22.4	22.5	22.4	22.4	22.4	22.4	22.3	22.3	22.3	22.1	22.3	22.2	22.1	22.5	22.4
Nov 20	22.2	22.3	22.3	22.5	22.3	22.3	22.4	22.4	22.3	22.5	22.1	22.2	22.3	22.6	22.5	22.7	22.7	22.7	22.7	22.7	22.7	22.8	22.7	22.7	22.1	22.8	22.5
Nov 21	22.6	22.7	22.7	22.7	22.7	22.7	22.8	22.7	22.7	22.8	22.8	22.8	22.8	23.0	22.9	22.7	22.6	22.8	22.7	22.6	22.3	22.0	21.8	21.5	21.5	23.0	22.6
Nov 22	21.3	21.2	21.0	21.0	21.0	21.0	21.0	21.1	21.0	21.0	21.2	21.8	22.3	22.7	22.3	22.8	22.8	22.7	22.7	22.7	22.3	22.5	22.5	22.5	21.0	22.8	21.9
Nov 23	22.6	22.4	22.4	22.4	22.5	22.8	22.6	22.2	21.9	21.8	22.0	22.0	22.2	22.5	22.4	22.4	22.3	22.4	22.4	22.4	22.5	22.4	22.2	22.3	21.8	22.8	22.3
Nov 24	22.2	22.2	22.4	22.3	22.3	22.1	22.2	22.3	22.4	22.0	22.0	22.3	22.7	23.3	22.2	22.5	22.5	22.4	22.8	22.7	22.4	22.3	22.3	22.2	22.0	23.3	22.4
Nov 25	22.1	22.3	22.2	22.2	22.2	22.3	22.3	22.4	22.2	22.3	22.2	22.2	22.4	22.5	22.4	22.5	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.4	22.1	22.5	22.3
Nov 26	22.2	22.4	22.9	22.4	22.5	22.8	22.9	22.9	22.6	22.6	22.7	22.9	22.7	22.3	22.6	22.5	22.5	22.5	22.3	22.4	22.1	22.4	22.3	22.2	22.1	22.9	22.5
Nov 27	22.4	22.2	22.3	22.3	22.3	22.2	22.4	22.2	22.3	22.1	22.2	22.3	22.2	22.8	**23.7**	22.0	22.4	22.3	22.7	23.0	22.8	22.5	22.9	22.4	22.0	**23.7**	22.5
Nov 28	22.9	22.8	22.8	22.7	22.7	22.8	22.8	22.9	22.8	22.7	22.8	22.6	22.6	23.2	21.9	22.3	22.5	23.0	22.6	22.4	22.3	22.4	22.2	22.4	21.9	23.2	**22.6**
Nov 29	22.3	22.4	22.5	22.3	22.2	22.5	22.4	22.3	22.5	22.4	22.2	22.3	22.2	22.1	22.2	22.4	22.4	22.6	22.6	22.5	22.6	22.5	22.6	22.7	22.1	22.7	22.4
Nov 30	22.5	22.2	21.7	21.2	21.0	**20.9**	21.0	21.0	21.0	**20.9**	**20.9**	21.3	22.1	22.4	22.4	22.6	22.3	21.8	21.1	21.0	21.0	21.0	21.0	21.0	**20.9**	22.6	**21.5**
Diurnal Maximum	22.9	22.8	22.9	22.7	22.7	22.8	22.9	22.9	22.8	22.8	22.8	22.9	22.8	23.3	23.7	22.8	22.9	23.0	22.8	23.0	22.8	22.8	22.9	22.7			
Diurnal Average	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.1	22.2	22.3	22.3	22.3	22.3	22.2	22.2	22.2	22.1	22.1	22.1	22.1			

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

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

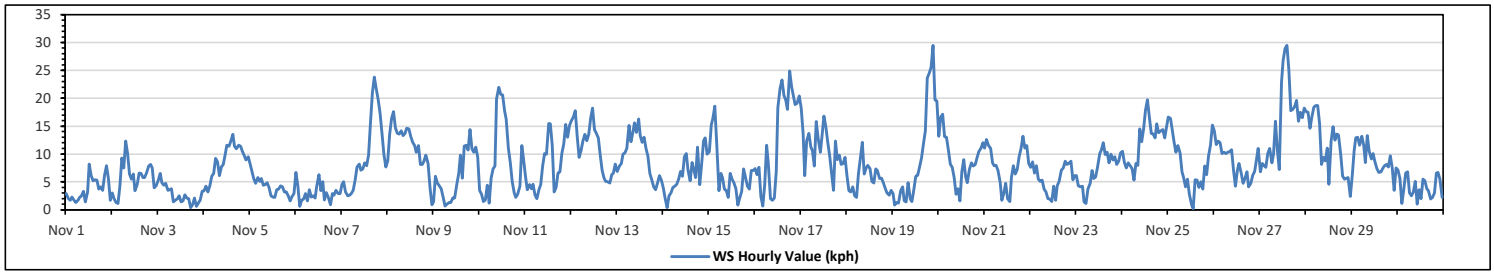
VECTOR WIND SPEED (VWS) in km/hr

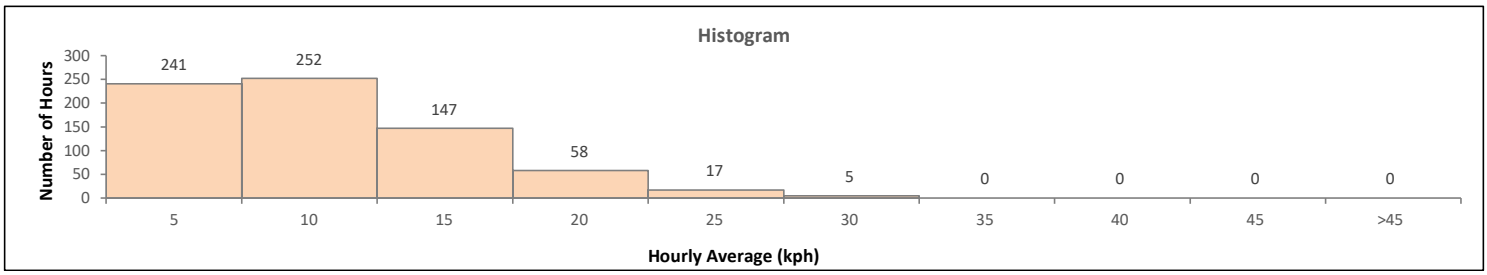
Maximum Hourly Value:	29.5	kph	on Nov 19 at hr 21	Hours in Service:	720	
Maximum Daily Value:	15.8	kph	on Nov 27	Hours of Data:	720	
Minimum Hourly Value:	0.2	kph	on Nov 25 at hr 13	Hours of Missing Data:	0	
Minimum Daily Value:	2.7	kph	on Nov 3	Hours of Calibration:	0	
Monthly Average:	8.1	kph		Operational 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
Nov 1	2.9	2.0	1.7	2.3	1.8	1.3	1.7	2.2	2.5	3.3	1.4	3.2	8.2	6.2	5.2	5.4	5.3	3.7	4.1	3.5	6.2	7.9	5.6	1.7	1.3	8.2	3.7
Nov 2	3.0	1.9	1.3	1.1	4.3	9.3	7.5	12.3	10.1	6.4	5.5	6.4	3.4	4.5	6.6	6.5	5.8	5.8	6.6	7.8	8.1	7.5	3.9	4.3	1.1	12.3	5.8
Nov 3	5.3	6.5	4.9	4.4	4.7	3.5	3.6	3.8	1.4	1.7	2.0	2.5	1.4	1.6	2.7	2.1	2.0	0.4	0.9	2.1	0.6	1.2	1.8	3.3	0.4	6.5	**2.7**
Nov 4	3.4	4.2	3.2	4.3	6.0	6.5	9.2	8.6	6.1	7.7	8.1	9.9	11.6	11.4	12.4	13.5	11.4	10.9	11.6	11.4	10.4	9.8	8.9	9.5	3.2	13.5	8.8
Nov 5	8.2	7.0	5.6	4.7	5.8	5.1	5.6	4.4	4.5	4.9	4.0	2.5	2.3	2.2	3.6	3.7	4.3	4.1	3.2	3.2	2.5	1.6	2.4	2.9	1.6	8.2	4.1
Nov 6	6.7	4.3	0.6	1.7	1.9	2.9	1.6	3.6	2.3	2.5	2.1	4.2	6.3	3.4	5.0	1.8	3.1	2.1	0.9	2.9	2.6	3.5	2.9	2.9	0.6	6.7	3.0
Nov 7	4.6	5.0	3.2	2.5	2.6	2.9	3.5	5.3	7.7	8.2	7.1	7.3	8.4	7.9	9.8	15.6	21.0	23.8	21.7	19.8	17.3	13.7	9.9	7.7	2.5	23.8	9.9
Nov 8	8.8	13.6	16.4	17.6	14.7	13.7	13.6	14.2	13.3	13.7	14.6	14.5	13.1	12.1	11.5	10.3	11.5	8.1	8.1	8.7	9.8	8.3	4.0	0.9	0.9	17.6	11.5
Nov 9	1.4	6.0	4.8	4.2	3.8	2.3	0.7	1.0	1.3	1.3	2.1	2.1	4.3	6.6	9.8	5.7	11.4	11.6	10.7	14.4	10.9	10.3	11.2	9.5	0.7	14.4	6.1
Nov 10	3.5	2.8	1.5	1.8	4.4	1.2	5.7	7.3	7.8	19.9	22.0	20.7	20.6	17.8	16.3	11.0	8.4	5.0	3.1	2.2	2.8	4.2	11.5	9.2	1.2	22.0	8.8
Nov 11	6.2	3.6	4.5	3.8	4.6	2.7	2.0	3.7	4.5	7.8	10.1	10.0	15.5	15.4	11.6	3.2	4.0	6.6	6.8	10.1	11.8	15.3	13.0	15.1	2.0	15.5	8.0
Nov 12	16.0	16.6	17.8	13.2	9.4	10.6	12.4	13.5	12.4	13.5	16.4	18.2	14.4	13.8	12.9	9.8	7.0	5.7	5.1	5.0	4.8	6.3	6.6	8.2	4.8	18.2	11.2
Nov 13	6.9	7.8	8.3	10.0	10.2	11.0	15.1	12.2	13.6	15.6	13.9	16.3	13.3	12.1	13.0	11.0	9.6	6.5	5.4	4.1	3.6	4.8	6.1	5.3	3.6	16.3	9.8
Nov 14	3.9	2.0	0.4	2.5	3.0	4.0	4.2	4.6	5.5	6.9	6.0	9.5	10.1	7.2	5.2	8.5	7.0	5.8	11.2	4.5	8.3	12.4	12.9	10.0	0.4	12.9	6.5
Nov 15	10.4	15.2	16.4	18.6	11.9	3.4	6.5	5.8	3.7	3.4	2.2	6.5	5.5	4.8	3.8	0.8	2.1	3.3	7.3	5.8	4.2	3.7	7.0	7.0	0.8	18.6	6.6
Nov 16	7.4	6.3	7.6	2.4	0.7	4.5	11.6	8.5	2.0	1.7	2.1	6.8	18.3	21.8	23.3	20.5	19.6	18.0	24.9	22.1	20.3	18.9	19.1	20.4	0.7	24.9	12.9
Nov 17	18.2	13.7	6.1	12.3	13.7	11.3	10.6	7.8	15.8	12.8	10.3	13.2	16.8	14.9	12.1	9.7	6.5	3.5	12.3	9.0	9.8	8.1	8.3	9.4	3.5	18.2	11.1
Nov 18	6.1	3.4	3.2	4.1	2.5	2.2	6.5	9.3	12.1	6.4	7.5	8.0	7.4	5.1	4.8	7.3	7.0	5.6	5.7	4.8	3.9	3.0	2.6	3.5	2.2	12.1	5.5
Nov 19	2.9	0.8	1.3	1.2	3.4	4.1	1.6	1.4	4.9	1.9	1.5	3.6	6.0	6.2	8.0	9.3	11.8	14.2	23.6	24.5	25.6	**29.5**	19.7	19.5	0.8	**29.5**	9.4
Nov 20	13.2	16.6	17.1	13.1	13.0	10.7	8.2	7.6	5.8	2.8	3.8	1.6	6.8	9.0	5.9	4.9	7.3	8.4	7.8	8.1	9.2	10.4	11.1	12.0	1.6	17.1	8.9
Nov 21	11.1	12.6	11.6	11.0	8.4	7.9	8.0	7.0	4.9	1.7	2.9	4.7	2.0	1.5	5.8	7.9	6.4	7.2	9.5	11.0	13.2	11.1	11.5	8.3	1.5	13.2	7.8
Nov 22	7.6	8.6	6.6	7.9	5.5	5.1	5.3	3.7	3.2	2.0	1.9	1.5	4.2	1.7	4.3	5.1	7.1	7.5	8.7	8.1	8.3	8.7	5.4	6.1	1.5	8.7	5.6
Nov 23	6.1	4.3	4.1	4.2	1.4	1.1	3.7	4.7	7.0	5.6	5.9	7.6	10.1	10.7	12.0	9.9	10.3	8.4	10.0	8.9	9.5	8.1	8.7	10.2	1.1	12.0	7.2
Nov 24	10.5	8.5	7.5	8.4	7.9	7.4	5.3	8.3	8.0	14.5	12.2	14.5	17.9	19.7	17.1	13.7	13.6	12.9	15.4	13.8	14.2	14.4	12.9	14.6	5.3	19.7	12.2
Nov 25	16.6	16.4	14.2	12.2	10.3	11.5	10.2	6.8	5.8	4.1	5.5	2.8	0.9	**0.2**	5.4	5.3	4.0	5.0	3.7	7.8	6.3	9.7	11.6	15.2	**0.2**	16.6	8.0
Nov 26	14.2	11.7	12.3	12.0	10.1	10.3	10.1	10.3	10.4	10.8	7.1	4.2	7.0	8.3	6.6	4.7	5.7	6.8	4.1	4.7	6.2	6.9	8.7	11.0	4.1	14.2	8.5
Nov 27	6.8	8.3	7.9	7.6	10.1	11.0	8.4	10.0	15.9	10.7	7.2	22.9	26.8	28.9	**29.5**	25.0	17.8	18.0	18.5	19.6	15.9	17.5	16.5	18.2	6.8	**29.5**	**15.8**
Nov 28	17.6	17.5	14.6	16.7	18.4	18.7	18.7	15.4	8.1	9.4	8.8	11.1	4.6	12.3	14.9	12.5	13.6	13.4	9.9	6.0	5.5	5.7	5.8	2.4	2.4	18.7	11.7
Nov 29	6.1	10.6	12.9	13.0	11.6	13.2	11.5	8.5	13.3	10.5	9.1	10.1	8.6	7.4	6.7	6.8	7.4	7.9	8.1	7.7	9.7	7.5	3.5	7.5	3.5	13.3	9.1
Nov 30	7.1	5.6	1.1	3.6	6.6	6.8	3.0	2.5	3.2	5.1	1.0	3.6	2.0	5.5	5.2	3.8	3.4	1.9	2.2	3.0	6.6	6.7	5.5	2.2	1.0	7.1	4.1
Diurnal Maximum	18.2	17.5	17.8	18.6	18.4	18.7	18.7	15.4	15.9	19.9	22.0	22.9	26.8	28.9	29.5	25.0	21.0	23.8	24.9	24.5	25.6	29.5	19.7	20.4			
Diurnal Average	8.1	8.1	7.3	7.4	7.1	6.9	7.2	7.1	7.2	7.2	6.8	8.3	9.3	9.3	9.7	8.5	8.5	8.1	9.0	8.8	8.9	9.2	8.6	8.6			

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.



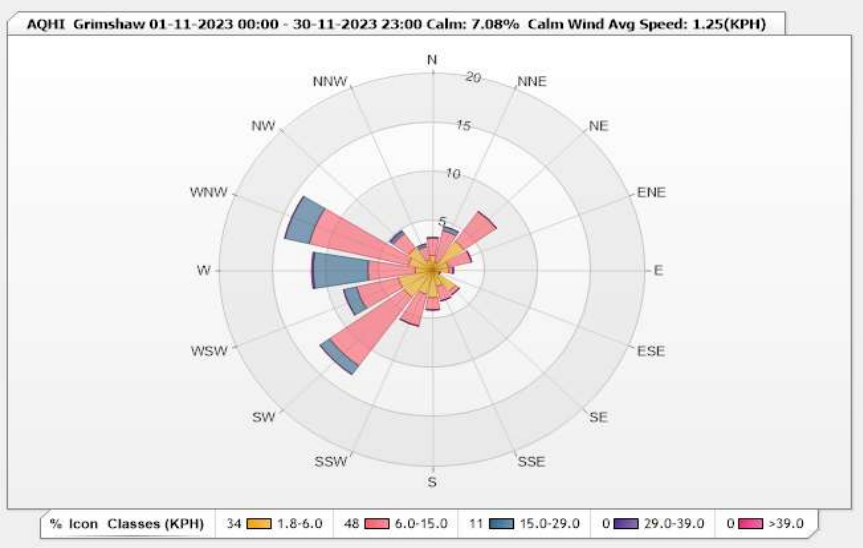


Station: AQHI Grimshaw Monitor: WDS [KPH] Monthly: 11-2023

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

Calm (WS<1.8kph): 7.08% 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	1.53	1.81	0	0	0	3.34
NNE	0.83	3.33	0.42	0	0	4.58
NE	3.61	3.75	0	0	0	7.36
ENE	1.53	2.22	0	0	0	3.75
E	1.53	0.42	0	0	0	1.95
ESE	0.69	0	0	0	0	0.69
SE	2.64	0.42	0	0	0	3.06
SSE	1.67	1.53	0	0	0	3.2
S	2.78	1.25	0	0	0	4.03
SSW	2.5	3.33	0	0	0	5.83
SW	3.33	8.61	1.11	0	0	13.05
WSW	3.33	4.03	1.25	0	0	8.61
W	1.67	4.44	5.14	0.14	0	11.39
WNW	2.36	9.58	2.36	0	0	14.3
NW	2.78	1.81	0.28	0.14	0	5.01
NNW	1.11	1.39	0.28	0	0	2.78
Summary	33.89	47.92	10.84	0.28	0	92.93



Peace River Area Monitoring Program

AQHI - Grimshaw Station - November 2023

Summary of Hourly Averages

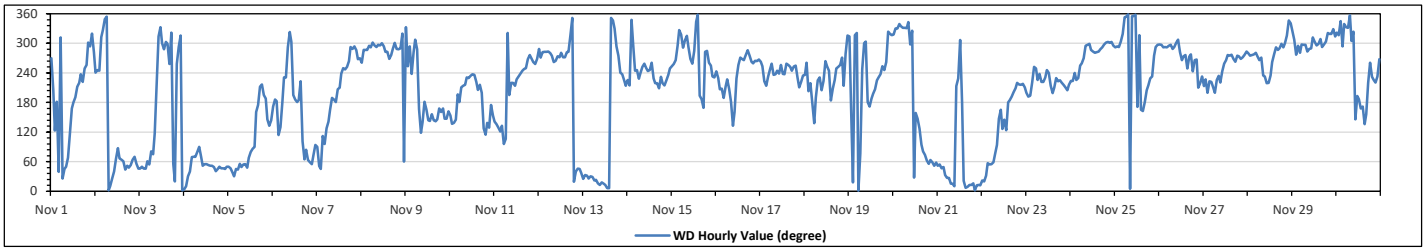
WIND DIRECTION (VWD) in sector

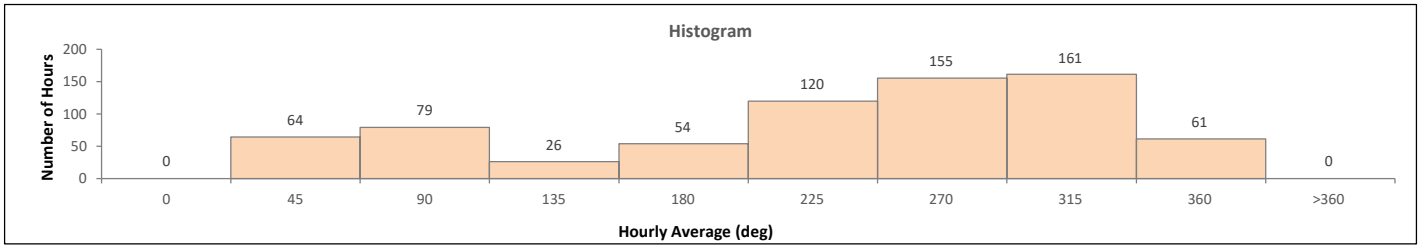
Monthly Average:	266 (W)	degree	
Hours in Service:	720		
Hours of Data:	720		
Hours of Missing Data:	0		
Hours of Calibration:	0		
Operational Uptime:	100.0		

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
Nov 1	W	SSW	ESE	S	NE	NW	NNE	NE	NE	ENE	ESE	SSE	S	S	SSW	SW	SW	SW	WSW	WSW	WNW	WNW	NW	W	236	SW
Nov 2	WSW	WSW	WSW	NW	NW	NNW	N	N	NNE	NNE	NE	ENE	E	ENE	ENE	ENE	NE	NE	NE	NE	ENE	ENE	NE	NE	33	NNE
Nov 3	NE	NE	NE	NE	ENE	NE	E	ENE	ESE	SW	NW	NNW	WNW	WNW	WNW	WNW	WSW	NW	NE	NNE	WSW	WNW	NW	N	355	N
Nov 4	N	N	NNE	NE	ENE	ENE	ENE	E	E	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	51	NE
Nov 5	NE	NE	NE	NNE	NE	NE	NE	NE	NE	NE	NE	ENE	E	E	E	SSE	S	SSW	SW	SSW	S	SE	SE	SE	89	E
Nov 6	S	S	S	ESE	SE	S	SW	SW	WNW	NW	WNW	SSW	S	S	S	SW	E	ENE	E	ENE	ENE	NE	ENE	E	151	SSE
Nov 7	E	NE	NE	ESE	E	SE	SE	SSE	S	S	S	SSW	SSW	WSW	WSW	WSW	WSW	W	WNW	WNW	WNW	WNW	W	W	220	SW
Nov 8	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	WNW	WNW	WNW	WNW	WNW	NW	ENE	292	WNW
Nov 9	NNW	WSW	WNW	SW	W	NW	WNW	SSE	ESE	SE	S	SSE	SE	SE	SSE	SE	SE	SE	SSE	SSE	SSE	SE	SE	SSE	173	S
Nov 10	SSE	SE	SE	SE	SSW	S	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SSW	SW	SSW	SE	ESE	SE	SE	S	SSE	186	S
Nov 11	SE	SE	SE	ESE	SE	E	ESE	NW	SSW	SW	SW	SSW	SW	SW	WSW	WSW	WSW	WSW	W	W	W	W	WSW	W	221	SW
Nov 12	WNW	W	W	W	W	WNW	W	W	W	W	W	W	W	W	W	W	W	NW	N	NNE	NE	NE	NE	NE	298	WNW
Nov 13	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	N	N	NNW	NNW	WNW	W	WSW	SW	SW	SSW	358	N
Nov 14	SW	SSW	NNW	WNW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W	SW	SW	SW	SSW	SW	SW	SSW	SW	SW	WSW	240	WSW
Nov 15	WSW	WSW	W	WNW	NW	NW	WNW	NW	NW	WNW	W	WSW	WNW	NNW	N	SSW	S	SSE	W	WNW	W	WSW	SW	SW	275	W
Nov 16	WSW	SW	SSW	SSW	S	SSW	SW	SSW	S	SE	SSE	SW	WSW	W	W	W	W	WNW	W	W	WSW	W	W	W	238	SW
Nov 17	W	WSW	SW	SSW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSW	SW	SW	242	WSW
Nov 18	SW	W	SSW	SW	S	SE	S	SW	SW	SSW	SW	W	WSW	WSW	S	SSW	SW	WSW	WSW	WSW	W	SSW	W	NW	231	SW
Nov 19	NW	S	NNE	NW	NW	N	ENE	WSW	WNW	WNW	S	S	S	SSW	SSW	SW	SW	SW	WSW	WSW	W	NW	NW	NW	264	W
Nov 20	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	WNW	NW	NNE	SSE	SE	SE	E	E	ENE	ENE	NE	ENE	ENE	NE	ENE	22	NNE
Nov 21	NE	NE	NE	NE	NNE	NNE	NNE	NNE	NNE	N	SSW	SW	NW	S	NNE	N	N	NNE	NNE	NNE	N	NNE	NNE	NNE	18	NNE
Nov 22	NNE	NNE	NNE	ENE	NE	NE	ENE	ENE	E	SE	SSE	SE	SE	ESE	S	S	S	SSW	SSW	SW	SW	SW	SW	SSW	144	SE
Nov 23	SSW	S	SSW	SW	WSW	WSW	SW	SW	SW	SW	SW	WSW	WSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SSW	SSW	SW	221	SW
Nov 24	SW	SW	WSW	SW	SW	WSW	WSW	W	WNW	WNW	WNW	WNW	WNW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	277	W
Nov 25	WNW	WNW	WNW	WNW	NW	N	N	N	N	N	N	N	S	NW	SSE	SSE	S	SSW	SSW	SW	SW	W	WNW	WNW	293	WNW
Nov 26	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	W	W	W	W	WSW	W	W	WSW	W	W	SSW	SW	SW	276	W
Nov 27	SSW	SW	SSW	SW	SW	SSW	SSW	SW	SW	SW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	WNW	249	WSW
Nov 28	W	W	W	W	W	W	W	W	SW	SW	SW	SW	SW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	NW	NNW	NNW	277	W
Nov 29	NW	NW	W	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	WNW	NW	WNW	WNW	WNW	NW	NW	NW	NNW	NW	302	WNW
Nov 30	NW	NW	NNW	WNW	NNW	NNW	NNW	N	WNW	NW	SE	S	S	SSE	S	SE	SSE	SW	W	SW	SW	SW	SW	W	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 - November 2023

Summary of Hourly Averages

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

WIND SPEED					
Maximum Hourly Value:	29.5	kph	on Nov 19 at hr 21	Hours in Service:	720
Maximum Daily Value:	15.8	kph	on Nov 27	Hours of Data:	720
Minimum Hourly Value:	0.2	kph	on Nov 25 at hr 13	Hours of Missing Data:	0
Minimum Daily Value:	2.7	kph	on Nov 3	Hours of Calibration:	0
Monthly Average:	8.1	kph		Operational Uptime:	100.0
WIND DIRECTION					
Monthly Average:	266	degree (W)			

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			
Nov 1	2.9	2.0	1.7	2.3	1.8	1.3	1.7	2.2	2.5	3.3	1.4	3.2	8.2	6.2	5.2	5.4	5.3	3.7	4.1	3.5	6.2	7.9	5.6	1.7	1.3	8.2	3.7
	W	SSW	ESE	S	NE	NW	NNE	NE	NE	ENE	ESE	SSE	S	S	SSW	SW	SW	SW	WSW	WSW	WNW	WNW	NW	W			236(SW)
Nov 2	3.0	1.9	1.3	1.1	4.3	9.3	7.5	12.3	10.1	6.4	5.5	6.4	3.4	4.5	6.6	6.5	5.8	5.8	6.6	7.8	8.1	7.5	3.9	4.3	1.1	12.3	5.8
	WSW	WSW	WSW	NW	NW	NNW	N	N	NNE	NNE	NE	ENE	E	ENE	ENE	ENE	NE	NE	NE	NE	ENE	ENE	NE	NE			33(NNE)
Nov 3	5.3	6.5	4.9	4.4	4.7	3.5	3.6	3.8	1.4	1.7	2.0	2.5	1.4	1.6	2.7	2.1	2.0	0.4	0.9	2.1	0.6	1.2	1.8	3.3	0.4	6.5	**2.7**
	NE	NE	NE	NE	ENE	NE	E	ENE	ESE	SW	NW	NNW	WNW	WNW	WNW	WNW	WSW	NW	NE	NNE	WSW	WNW	NW	N			355(N)
Nov 4	3.4	4.2	3.2	4.3	6.0	6.5	9.2	8.6	6.1	7.7	8.1	9.9	11.6	11.4	12.4	13.5	11.4	10.9	11.6	11.4	10.4	9.8	8.9	9.5	3.2	13.5	8.8
	N	N	NNE	NE	ENE	ENE	ENE	E	E	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			51(NE)
Nov 5	8.2	7.0	5.6	4.7	5.8	5.1	5.6	4.4	4.5	4.9	4.0	2.5	2.3	2.2	3.6	3.7	4.3	4.1	3.2	3.2	2.5	1.6	2.4	2.9	1.6	8.2	4.1
	NE	NE	NE	NNE	NE	NE	NE	NE	NE	NE	NE	ENE	E	E	E	SSE	S	SSW	SW	SSW	S	SE	SE	SE			89(E)
Nov 6	6.7	4.3	0.6	1.7	1.9	2.9	1.6	3.6	2.3	2.5	2.1	4.2	6.3	3.4	5.0	1.8	3.1	2.1	0.9	2.9	2.6	3.5	2.9	2.9	0.6	6.7	3.0
	S	S	S	ESE	SE	S	SW	SW	WNW	NW	WNW	SSW	S	S	S	SW	E	ENE	E	ENE	ENE	NE	ENE	E			151(SSE)
Nov 7	4.6	5.0	3.2	2.5	2.6	2.9	3.5	5.3	7.7	8.2	7.1	7.3	8.4	7.9	9.8	15.6	21.0	23.8	21.7	19.8	17.3	13.7	9.9	7.7	2.5	23.8	9.9
	E	NE	NE	ESE	E	SE	SE	SSE	S	S	S	SSW	SSW	WSW	WSW	WSW	WSW	W	WNW	WNW	WNW	WNW	W	W			220(SW)
Nov 8	8.8	13.6	16.4	17.6	14.7	13.7	13.6	14.2	13.3	13.7	14.6	14.5	13.1	12.1	11.5	10.3	11.5	8.1	8.1	8.7	9.8	8.3	4.0	0.9	0.9	17.6	11.5
	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	WNW	WNW	WNW	WNW	WNW	NW	ENE			292(WNW)
Nov 9	1.4	6.0	4.8	4.2	3.8	2.3	0.7	1.0	1.3	1.3	2.1	2.1	4.3	6.6	9.8	5.7	11.4	11.6	10.7	14.4	10.9	10.3	11.2	9.5	0.7	14.4	6.1
	NNW	WSW	WNW	SW	W	NW	WNW	SSE	ESE	SE	S	SSE	SE	SE	SSE	SE	SE	SE	SSE	SSE	SSE	SE	SE	SSE			173(S)
Nov 10	3.5	2.8	1.5	1.8	4.4	1.2	5.7	7.3	7.8	19.9	22.0	20.7	20.6	17.8	16.3	11.0	8.4	5.0	3.1	2.2	2.8	4.2	11.5	9.2	1.2	22.0	8.8
	SSE	SE	SE	SE	SSW	S	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SSW	SW	SSW	SE	ESE	SE	SE	S	SSE			186(S)
Nov 11	6.2	3.6	4.5	3.8	4.6	2.7	2.0	3.7	4.5	7.8	10.1	10.0	15.5	15.4	11.6	3.2	4.0	6.6	6.8	10.1	11.8	15.3	13.0	15.1	2.0	15.5	8.0
	SE	SE	SE	ESE	SE	E	ESE	NW	SSW	SW	SW	SSW	SW	SW	WSW	WSW	WSW	WSW	W	W	W	W	WSW	W			221(SW)
Nov 12	16.0	16.6	17.8	13.2	9.4	10.6	12.4	13.5	12.4	13.5	16.4	18.2	14.4	13.8	12.9	9.8	7.0	5.7	5.1	5.0	4.8	6.3	6.6	8.2	4.8	18.2	11.2
	WNW	W	W	W	W	WNW	W	W	W	W	W	W	W	W	W	W	W	NW	N	NNE	NE	NE	NE	NE			298(WNW)
Nov 13	6.9	7.8	8.3	10.0	10.2	11.0	15.1	12.2	13.6	15.6	13.9	16.3	13.3	12.1	13.0	11.0	9.6	6.5	5.4	4.1	3.6	4.8	6.1	5.3	3.6	16.3	9.8
	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	N	N	NNW	NNW	WNW	W	WSW	SW	SW	SSW			358(N)
Nov 14	3.9	2.0	0.4	2.5	3.0	4.0	4.2	4.6	5.5	6.9	6.0	9.5	10.1	7.2	5.2	8.5	7.0	5.8	11.2	4.5	8.3	12.4	12.9	10.0	0.4	12.9	6.5
	SW	SSW	NNW	WNW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W	SW	SW	SW	SSW	SW	SW	SSW	SW	SW	WSW			240(WSW)
Nov 15	10.4	15.2	16.4	18.6	11.9	3.4	6.5	5.8	3.7	3.4	2.2	6.5	5.5	4.8	3.8	0.8	2.1	3.3	7.3	5.8	4.2	3.7	7.0	7.0	0.8	18.6	6.6
	WSW	WSW	W	WNW	NW	NW	WNW	NW	NW	WNW	W	WSW	WNW	NNW	N	SSW	S	SSE	W	WNW	W	WSW	SW	SW			275(W)
Nov 16	7.4	6.3	7.6	2.4	0.7	4.5	11.6	8.5	2.0	1.7	2.1	6.8	18.3	21.8	23.3	20.5	19.6	18.0	24.9	22.1	20.3	18.9	19.1	20.4	0.7	24.9	12.9
	WSW	SW	SSW	SSW	S	SSW	SW	SSW	S	SE	SSE	SW	WSW	W	W	W	W	WNW	W	W	WSW	W	W	W			238(SW)
Nov 17	18.2	13.7	6.1	12.3	13.7	11.3	10.6	7.8	15.8	12.8	10.3	13.2	16.8	14.9	12.1	9.7	6.5	3.5	12.3	9.0	9.8	8.1	8.3	9.4	3.5	18.2	11.1
	W	WSW	SW	SSW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSW	SW	SW			242(WSW)
Nov 18	6.1	3.4	3.2	4.1	2.5	2.2	6.5	9.3	12.1	6.4	7.5	8.0	7.4	5.1	4.8	7.3	7.0	5.6	5.7	4.8	3.9	3.0	2.6	3.5	2.2	12.1	5.5
	SW	W	SSW	SW	S	SE	S	SW	SW	SSW	SW	W	WSW	WSW	S	SSW	SW	WSW	WSW	WSW	W	SSW	W	NW			231(SW)
Nov 19	2.9	0.8	1.3	1.2	3.4	4.1	1.6	1.4	4.9	1.9	1.5	3.6	6.0	6.2	8.0	9.3	11.8	14.2	23.6	24.5	25.6	**29.5**	19.7	19.5	0.8	**29.5**	9.4
	NW	S	NNE	NW	NW	N	ENE	WSW	WNW	WNW	S	S	S	SSW	SSW	SW	SW	SW	WSW	WSW	W	NW	NW	NW			264(W)
Nov 20	13.2	16.6	17.1	13.1	13.0	10.7	8.2	7.6	5.8	2.8	3.8	1.6	6.8	9.0	5.9	4.9	7.3	8.4	7.8	8.1	9.2	10.4	11.1	12.0	1.6	17.1	8.9
	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	WNW	NW	NNE	SSE	SE	SE	E	E	ENE	ENE	NE	ENE	ENE	NE	ENE			22(NNE)
Nov 21	11.1	12.6	11.6	11.0	8.4	7.9	8.0	7.0	4.9	1.7	2.9	4.7	2.0	1.5	5.8	7.9	6.4	7.2	9.5	11.0	13.2	11.1	11.5	8.3	1.5	13.2	7.8
	NE	NE	NE	NE	NNE	NNE	NNE	NNE	NNE	N	SSW	SW	NW	S	NNE	N	N	NNE	NNE	NNE	N	NNE	NNE	NNE			18(NNE)
Nov 22	7.6	8.6	6.6	7.9	5.5	5.1	5.3	3.7	3.2	2.0	1.9	1.5	4.2	1.7	4.3	5.1	7.1	7.5	8.7	8.1	8.3	8.7	5.4	6.1	1.5	8.7	5.6
	NNE	NNE	NNE	ENE	NE	NE	ENE	ENE	E	SE	SSE	SE	SE	ESE	S	S	S	SSW	SSW	SW	SW	SW	SW	SSW			144(SE)
Nov 23	6.1	4.3	4.1	4.2	1.4	1.1	3.7	4.7	7.0	5.6	5.9	7.6	10.1	10.7	12.0	9.9	10.3	8.4	10.0	8.9	9.5	8.1	8.7	10.2	1.1	12.0	7.2
	SSW	S	SSW	SW	WSW	WSW	SW	SW	SW	SW	SW	WSW	WSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SSW	SSW	SW			221(SW)
Nov 24	10.5	8.5	7.5	8.4	7.9	7.4	5.3	8.3	8.0	14.5	12.2	14.5	17.9	19.7	17.1	13.7	13.6	12.9	15.4	13.8	14.2	14.4	12.9	14.6	5.3	19.7	12.2
	SW	SW	WSW	SW	SW	WSW	WSW	W	WNW	WNW	WNW	WNW	WNW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW			277(W)
Nov 25	16.6	16.4	14.2	12.2	10.3	11.5	10.2	6.8	5.8	4.1	5.5	2.8	0.9	**0.2**	5.4	5.3	4.0	5.0	3.7	7.8	6.3	9.7	11.6	15.2	**0.2**	16.6	8.0
	WNW	WNW	WNW	WNW	NW	N	N	N	N	N	N	N	S	NW	SSE	SSE	S	SSW	SSW	SW	SW	W	WNW	WNW			293(WNW)
Nov 26	14.2	11.7	12.3	12.0	10.1	10.3	10.1	10.3	10.4	10.8	7.1	4.2	7.0	8.3	6.6	4.7	5.7	6.8	4.1	4.7	6.2	6.9	8.7	11.0	4.1	14.2	8.5
	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	W	W	W	W	WSW	W	W	WSW	W	W	SSW	SW	SW			276(W)
Nov 27	6.8	8.3	7.9	7.6	10.1	11.0	8.4	10.0	15.9	10.7	7.2	22.9	26.8	28.9	**29.5**	25.0	17.8	18.0	18.5	19.6	15.9	17.5	16.5	18.2	6.8	**29.5**	**15.8**
	SSW	SW	SSW	SW	SW	SSW	SSW	SW	SW	SW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	WNW			249(WSW)
Nov 28	17.6	17.5	14.6	16.7	18.4	18.7	18.7	15.4	8.1	9.4	8.8	11.1	4.6	12.3	14.9	12.5	13.6	13.4	9.9	6.0	5.5	5.7	5.8	2.4	2.4	18.7	11.7
	W	W	W	W	W	W	W	W	SW	SW	SW	SW	SW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	NW	NNW	NNW			277(W)
Nov 29	6.1	10.6	12.9	13.0	11.6	13.2	11.5	8.5	13.3	10.5	9.1	10.1	8.6	7.4	6.7	6.8	7.4	7.9	8.1	7.7	9.7	7.5	3.5	7.5	3.5	13.3	9.1
	NW	NW	W	WNW	W	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	WNW	NW	WNW	WNW	WNW	NW	NW	NW	NNW	NW			302(WNW)
Nov 30	7.1	5.6	1.1	3.6	6.6	6.8	3.0	2.5	3.2	5.1	1.0	3.6	2.0	5.5	5.2	3.8	3.4	1.9	2.2	3.0	6.6	6.7	5.5	2.2	1.0	7.1	4.1
	NW	NW	NNW	WNW	NNW	NNW	NNW	N	WNW	NW	SE	S	S	SSE	S	SE	SSE	SW	W	SW	SW	SW	SW	W			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 November 2023 Monthly Ambient Air Quality Monitoring Report.

Peace River Area Monitoring Program

NOVEMBER 2023

Ambient Air Monitoring Calibration Report

- 842-B STATION-

CAL-PRAMP-202311-01561

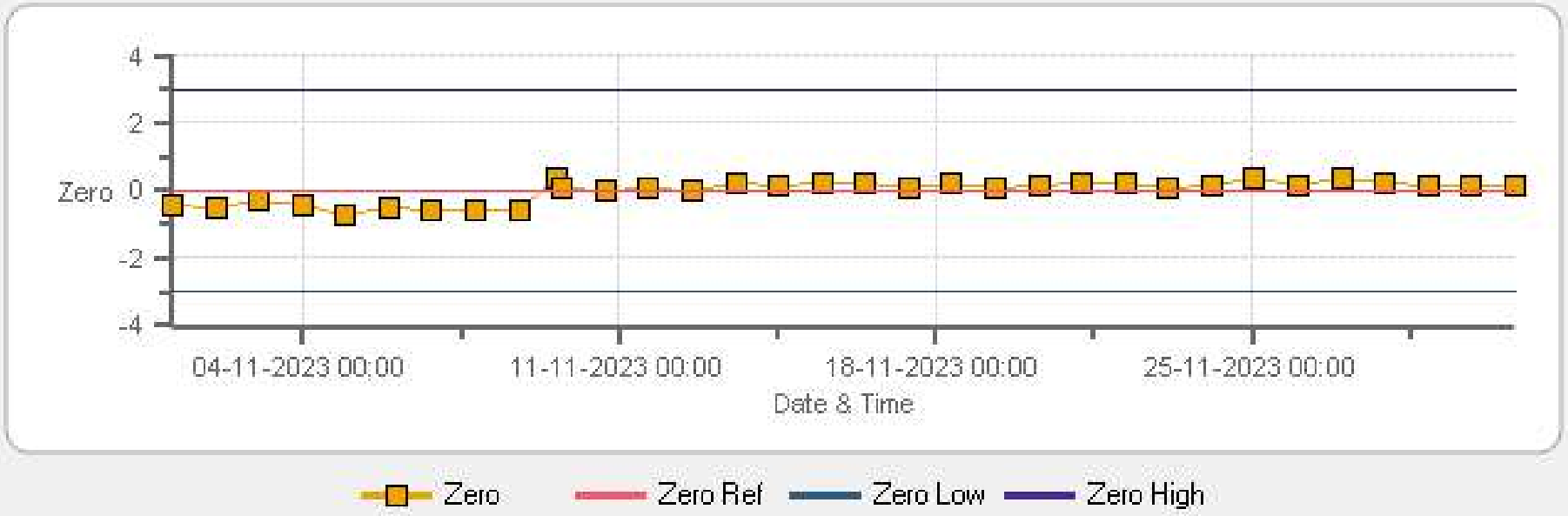
Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Bureau Veritas Canada

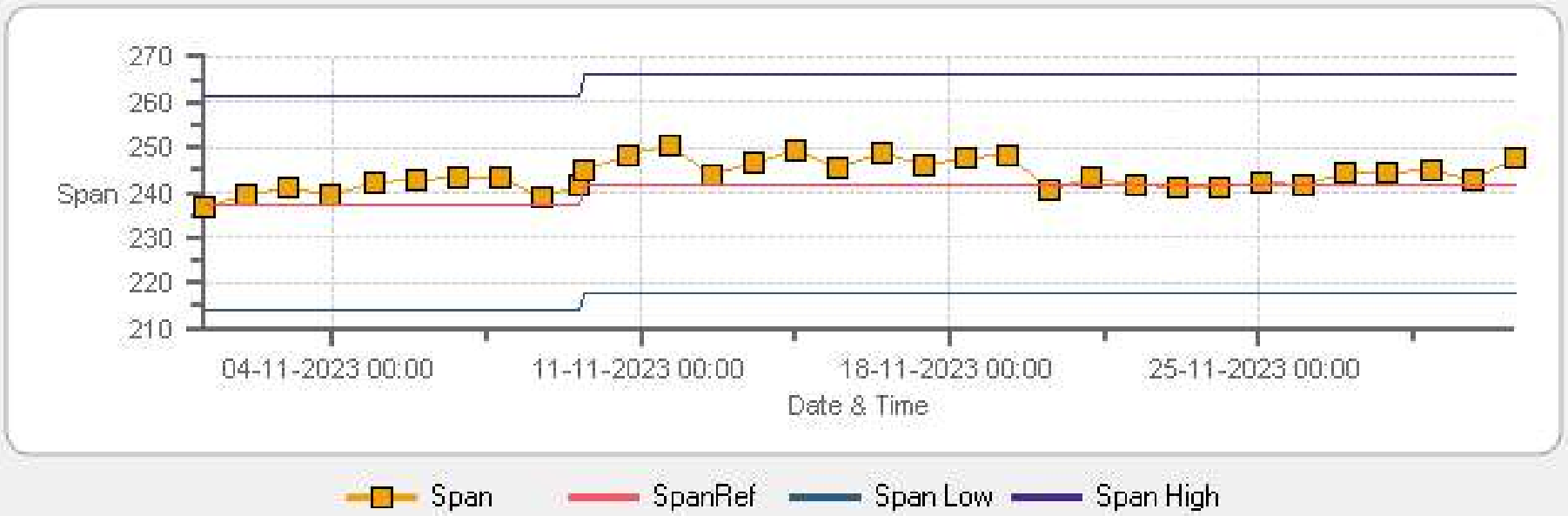
December 18, 2023

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

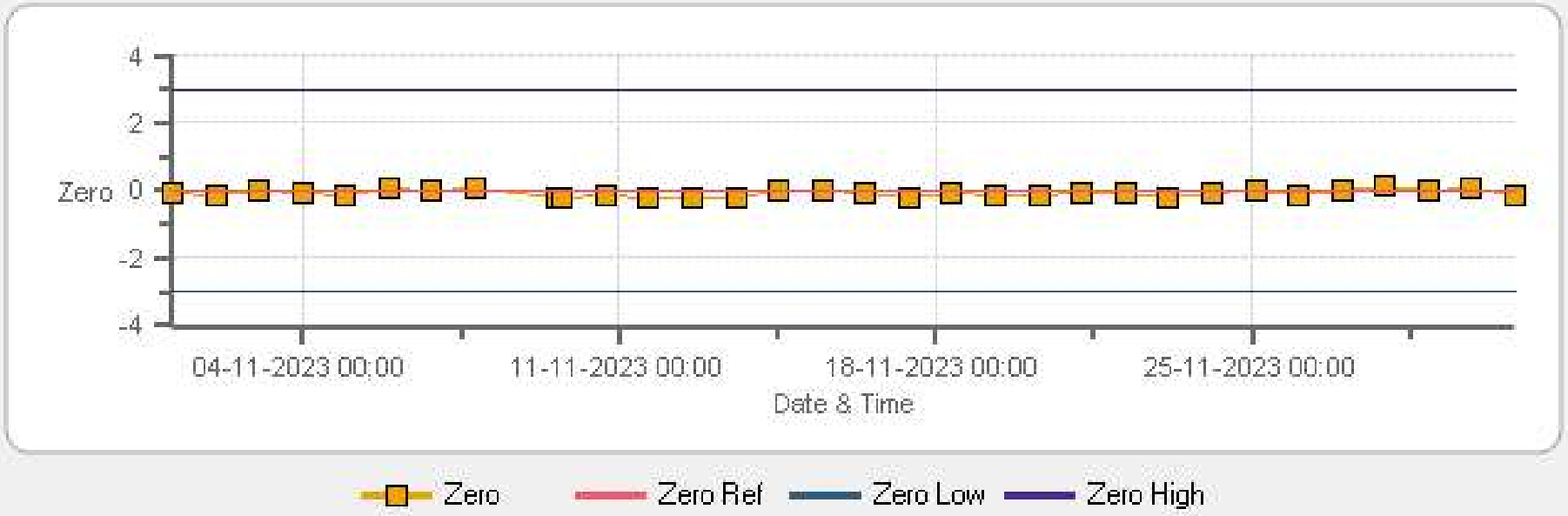
SO2[ppb] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Zero



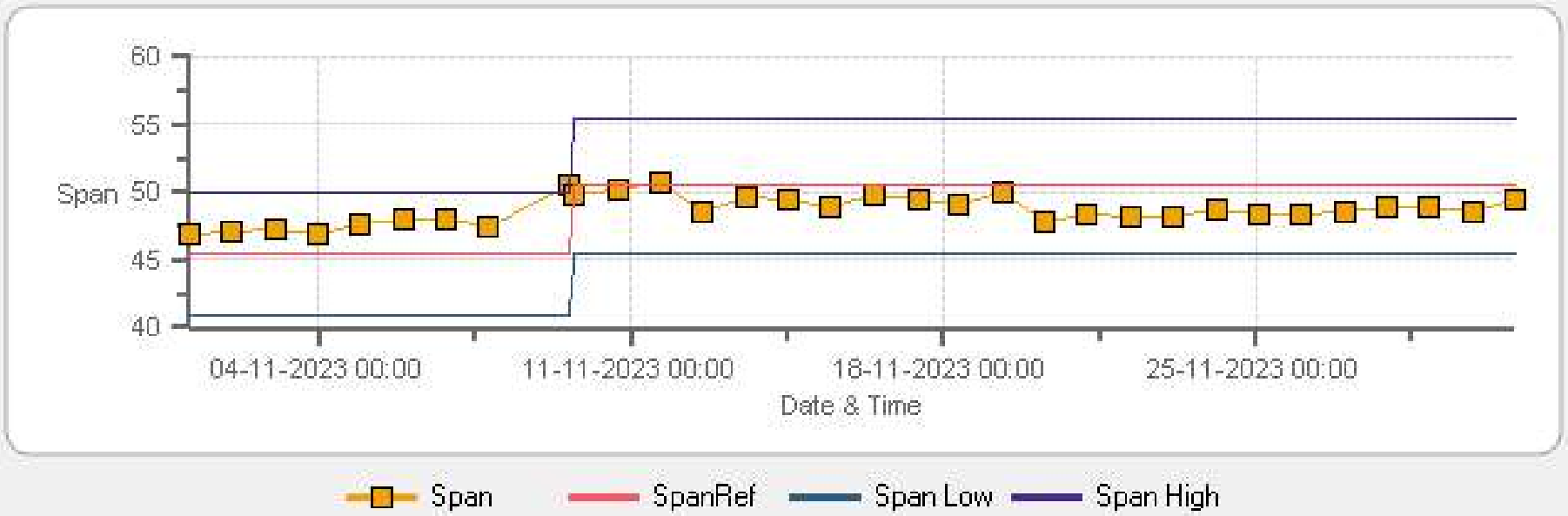
SO2[ppb] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Span



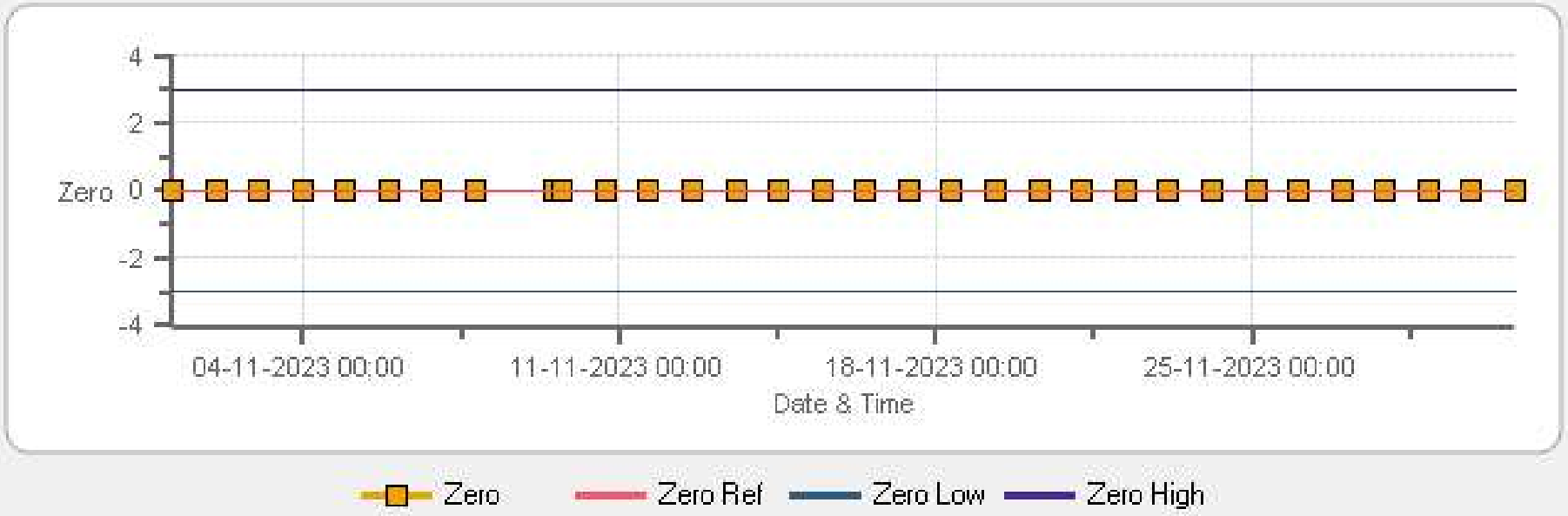
TRS[ppb] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Zero



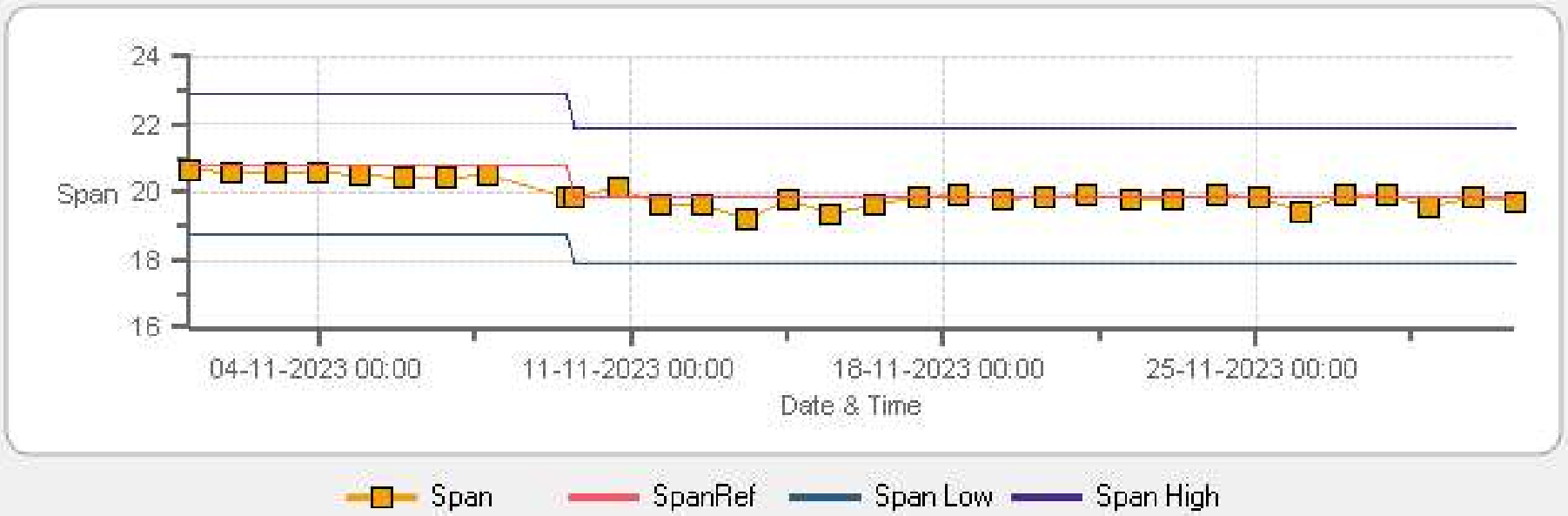
TRS[ppb] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Span



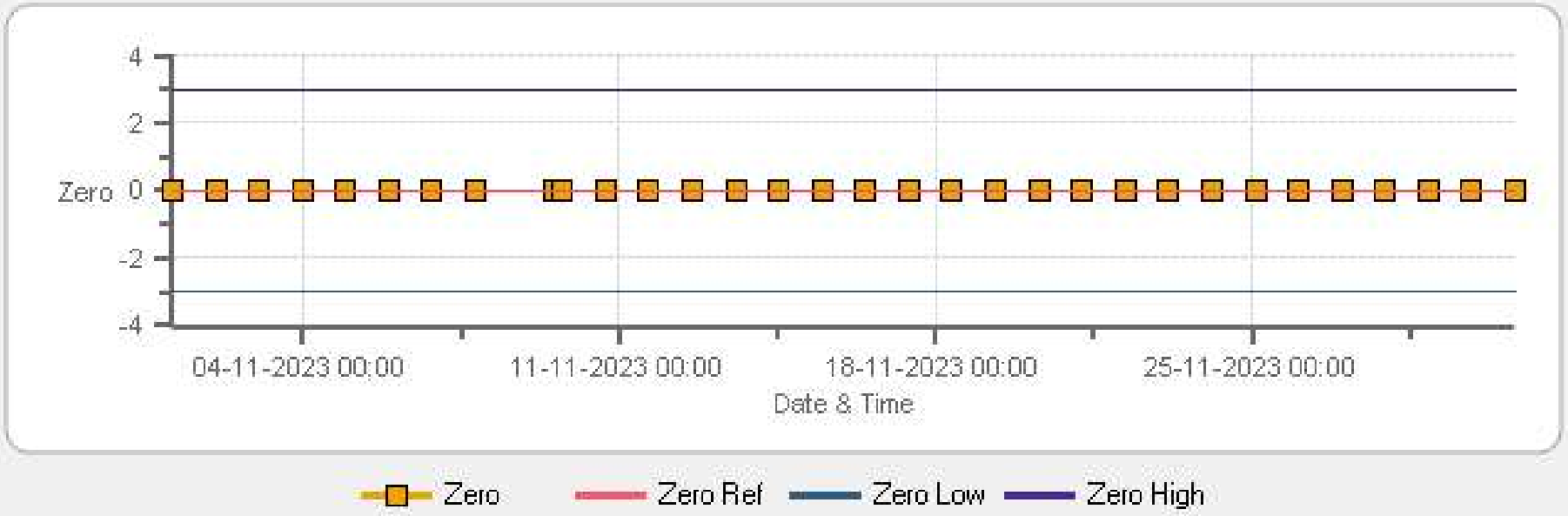
THC55[ppm] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Zero



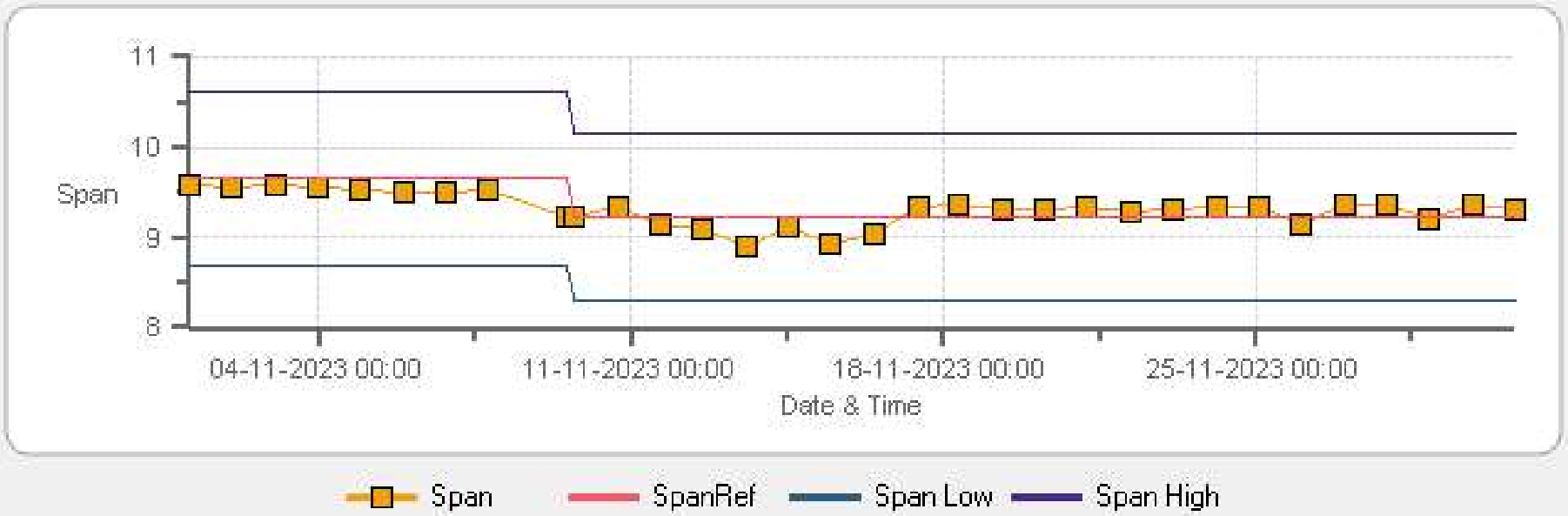
THC55[ppm] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Span



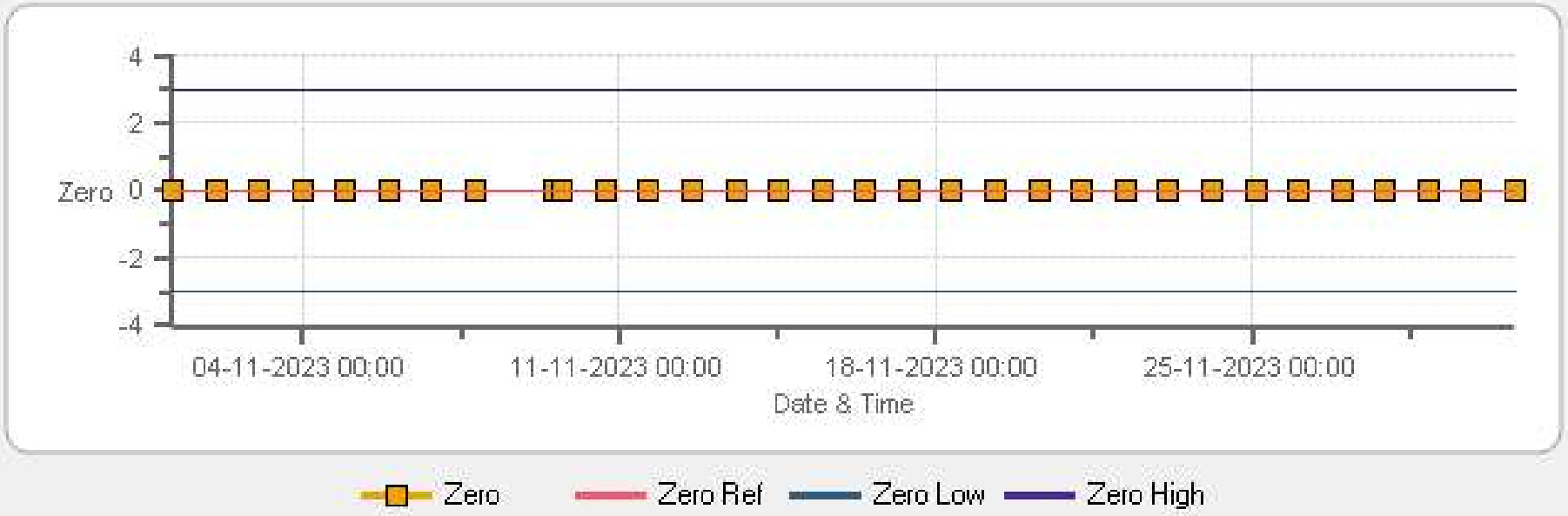
CH4[ppm] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Zero



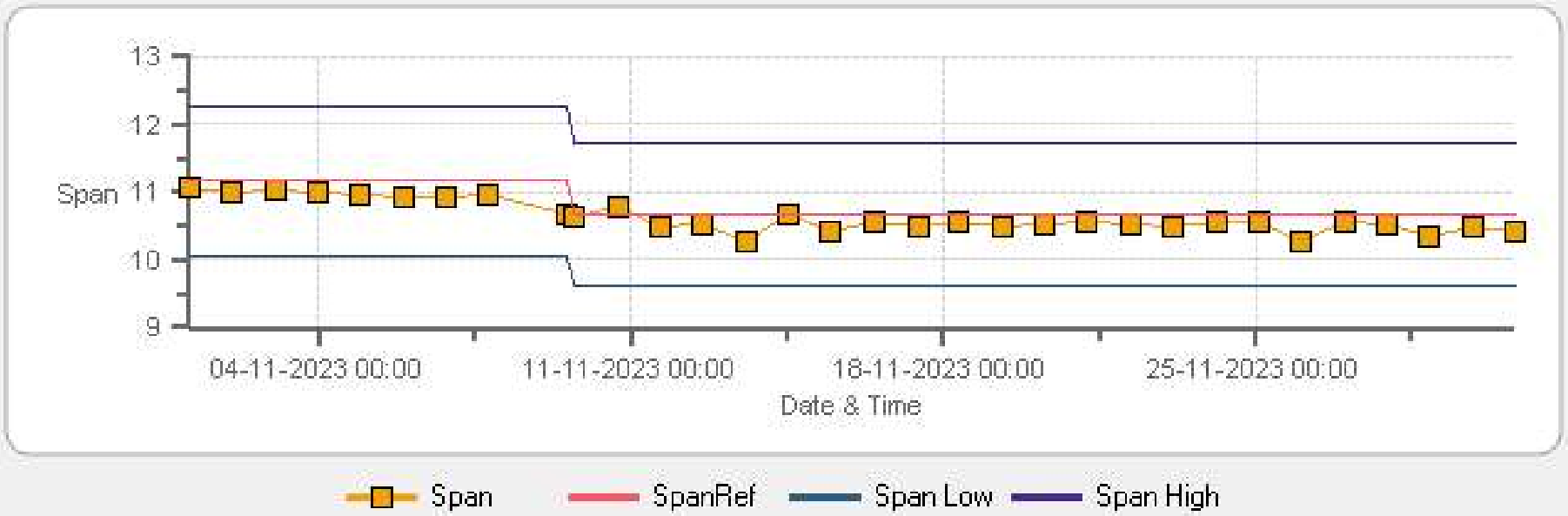
CH4[ppm] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Span



NMHC[ppm] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Zero



NMHC[ppm] Calibration: PRAMP 842-B Monthly: 11-2023 Type: SpanAndZero - Span



MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	09-Nov-2023	PREVIOUS CALIBRATION DATE:	04-Oct-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.001
CLIENT:	PRAMP	TEMPERATURE (°C):	21.0
LOCATION:	842b	BAROMETRIC (mBar):	942
PURPOSE	Routine	START TIME (MST):	10:18
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	14:38

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1200736629	FLOW (mL/min)	425
INITIAL		FINAL	
BKG/OFFSET	9.2	BKG/OFFSET	8.6
COEF/SLOPE	1.11	COEF/SLOPE	1.126
Expected (reference) Value	237.5	Expected (reference) Value	241.8

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	T701
ID:	58100720	ID:	5004
MFC CALIBRATION DATE:	12-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		
4000		4000	0.00	-0.5	0		
3940	60.80	4001	379.91	372.7	379.2	1.018	1.002
3971	28.80	4000	180.00	n/a	180.4	n/a	0.998
3990	14.40	4004	89.91	n/a	90.3	n/a	0.996

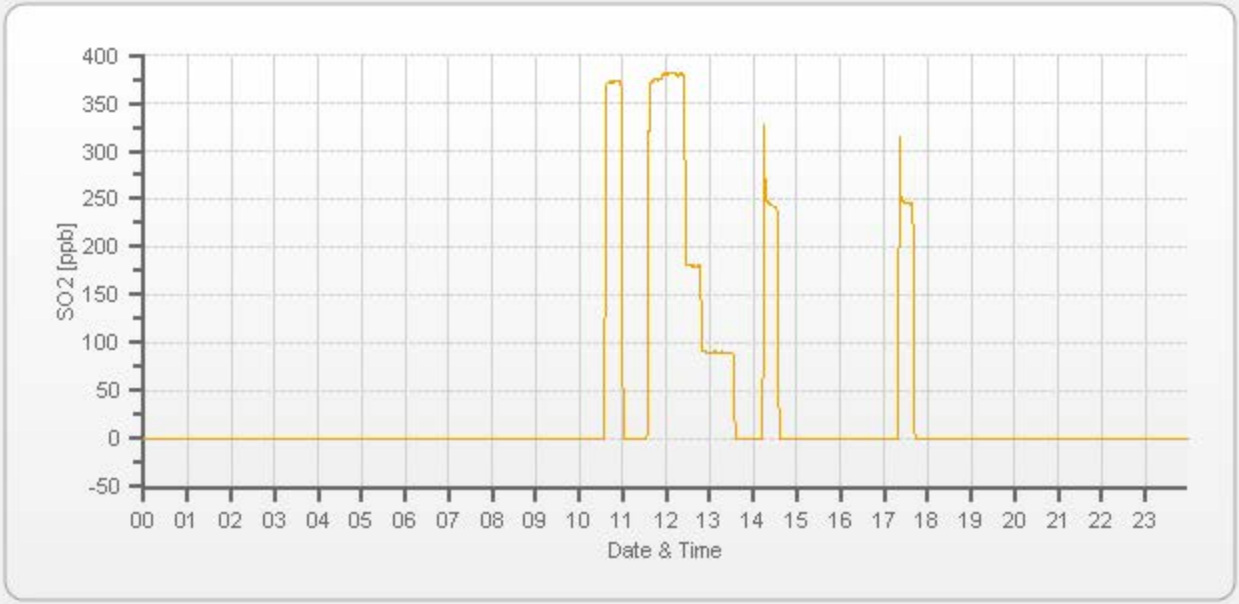
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.998	0.1%

COMMENTS:

Sample filter changed.

SO2[ppb] Station: PRAMP 842-B Daily: 09-11-2023 Type: AVG 1 Min. [1 Min.]



TRS Analyzer Calibration by Dilution

DATE:	08-Nov-2023	PREVIOUS CALIBRATION DATE:	04-Oct-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.001
CLIENT:	PRAMP	TEMPERATURE (°C):	20.9
LOCATION:	842b	BAROMETRIC (mBar):	943
PURPOSE	Removal/Shut-down	START TIME (MST):	14:30
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	16:28

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1200736630	FLOW (mL/min)	376
INITIAL		FINAL	
BKG/OFFSET	13.5	BKG/OFFSET	n/a
COEF/SLOPE	0.874	COEF/SLOPE	n/a
Expected (reference) Value	45.45	Expected (reference) Value	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	T701
ID:	58100720	ID:	5004
MFC CALIBRATION DATE:	12-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		
4000		4000	0.00	0.1	n/a		
3971	30.90	4002	77.91	72.4	n/a	1.078	n/a
3988	15.10	4003	38.06	35.04	n/a	1.089	n/a
3996	7.50	4003	18.90	17.29	n/a	1.100	n/a

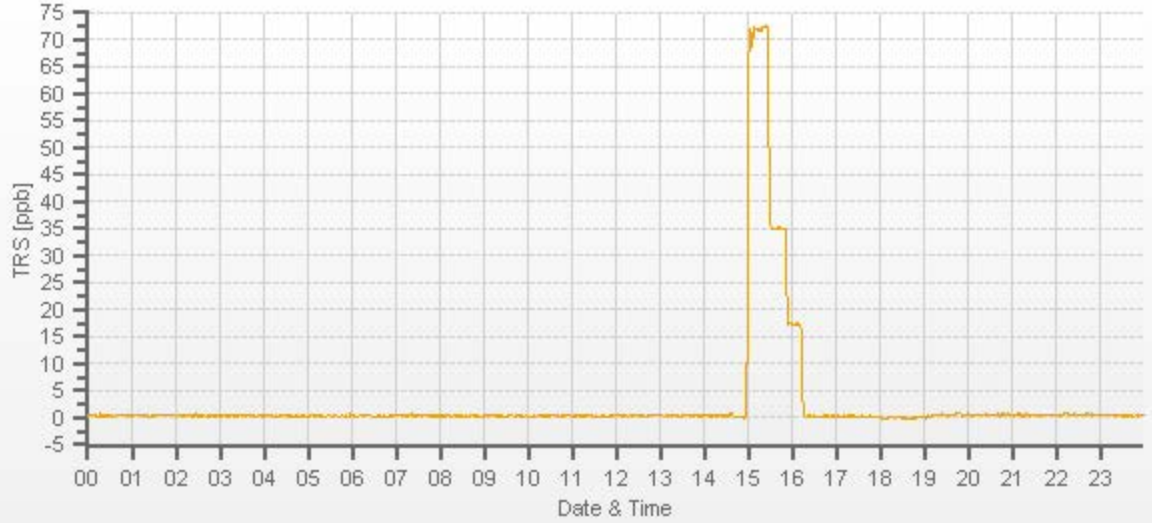
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.929	-0.1%

COMMENTS:

TRS Converter CDNOVA CDN #583.
Shutdown to replace scrubber beads

TRS[ppb] Station: PRAMP 842-B Daily: 08-11-2023 Type: AVG 1 Min. [1 Min.]



TRS Analyzer Calibration by Dilution

DATE:	09-Nov-2023	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	20.8
LOCATION:	842b	BAROMETRIC (mBar):	942
PURPOSE	Install/Post-Repair	START TIME (MST):	09:38
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	14:41

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1200736630	FLOW (mL/min)	376
INITIAL		FINAL	
BKG/OFFSET	n/a	BKG/OFFSET	13.5
COEF/SLOPE	n/a	COEF/SLOPE	0.874
Expected (reference) Value	n/a	Expected (reference) Value	50.46

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	T701
ID:	58100720	ID:	5004
MFC CALIBRATION DATE:	12-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:	09:59	SO2 Conc (ppb)	380
END TIME:	10:14	Analyzer Response (ppb)	0.2

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
4000		4000	0.00	n/a	0		
3970	30.90	4001	77.93	n/a	77.97	n/a	0.999
3985	15.10	4000	38.09	n/a	39.03	n/a	0.976
3997	7.50	4004	18.90	n/a	19.85	n/a	0.952

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.998	0.6%

COMMENTS:

TRS Converter CDNOVA CDN #583.
Sample filter changed.


TRS[ppb] Station: PRAMP 842-B Daily: 09-11-2023 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:	08-Nov-2023	PREVIOUS CALIBRATION DATE:	04-Oct-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	20.8
LOCATION:	842b	BAROMETRIC (mBar):	943
PURPOSE	Removal/Shut-down	START TIME (MST):	14:29
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	16:16

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1314057759	1232
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	0.999	0.998	0.999

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:	5004	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
	9.66	11.17	20.83		n/a	n/a	n/a

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	n/a	n/a	n/a						
3048	50.30	3098	14.56	13.44	28.00	14.57	13.45	28.03	n/a	n/a	n/a	1.000	0.999	0.999	n/a	n/a	n/a
3074	25.20	3099	7.29	6.73	14.03	7.30	6.74	14.04	n/a	n/a	n/a	0.999	0.999	0.999	n/a	n/a	n/a
3086	12.60	3099	3.65	3.37	7.01	3.67	3.40	7.06	n/a	n/a	n/a	0.994	0.990	0.993	n/a	n/a	n/a

LINEAR REGRESSION ANALYSIS:

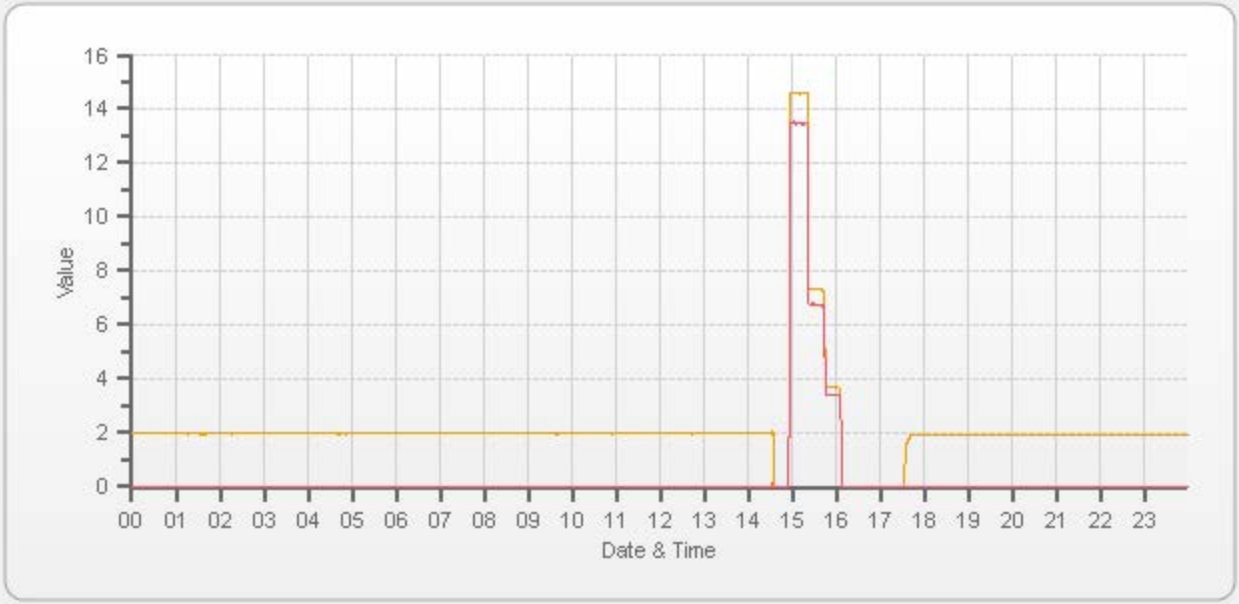
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.000	0.0%
NMHC	1.000	1.000	0.1%
THC	1.000	1.000	0.0%

Comments:

H2 = AMA HG300 #190567058
BV analyzer.

Use Zero Chrom? **No**

Station: PRAMP 842-B Daily: 08-11-2023 Type: AVG 1 Min. [1 Min.]



Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	09-Nov-2023	PREVIOUS CALIBRATION DATE:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	20.5
LOCATION:	842b	BAROMETRIC (mBar):	942
PURPOSE	Install/Post-Repair	START TIME (MST):	09:43
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:38

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1501663728	1208
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:	5004	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		9.22	10.67	19.89

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
3098		3098	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00						
3048	50.30	3098	14.56	13.44	28.00	n/a	n/a	n/a	14.57	13.43	28.00	n/a	n/a	n/a	1.000	1.001	1.000
3074	25.10	3099	7.27	6.70	13.97	n/a	n/a	n/a	7.22	6.70	13.92	n/a	n/a	n/a	1.006	1.001	1.004
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.61	3.35	6.99	n/a	n/a	n/a	1.011	1.005	1.004

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.001	-0.1%
NMHC	1.000	1.000	0.0%
THC	1.000	1.000	0.0%

Comments:

H2 = AMA HG300 #190567058
PRAMP analyzer. Sample filter changed.

Use Zero Chrom? **No**

Station: PRAMP 842-B Daily: 09-11-2023 Type: AVG 1 Min. [1 Min.]

Meteorological System Checklist

Date:	November 9, 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:	October 4, 2023	
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	yes	test time: 10:39-10:45
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:	October 4, 2023
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	F.S. 181341226 expires July 17, 2024
Reference Temperature (^{o}C):	4.2
Station - Ambient Temperature (^{o}C):	4.0
Temperature Difference (^{o}C):	0.2

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	October 4, 2023	
Reference Barometer ID:	Brunton 05535 Expires July 17, 2024	
Reference Pressure - Units/Reading:	millibar	942.6
Station Pressure - Units/Reading:	millibar	940.7
Pressure Tolerance +/- 15% of error:	801 - 1084	0.20%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	October 4, 2023	
Reference Hygrometer ID:	F.S. 181341226 expires July 17, 2024	
Reference Hygrometer % RH- Reading:	67.80	
Station Hygrometer % RH- Reading:	71.10	
RH Tolerance +/- 15% of difference:	57.63 - 77.97	-4.9%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	October 4, 2023	Previous check date:	October 4, 2023
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	SE
Wind speed on Data Logger (kph):	17	Wind Direction on Data Logger:	SE
		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

NOVEMBER 2023

Ambient Air Monitoring Calibration Report

- 986-C STATION-

CAL-PRAMP-202311-01562

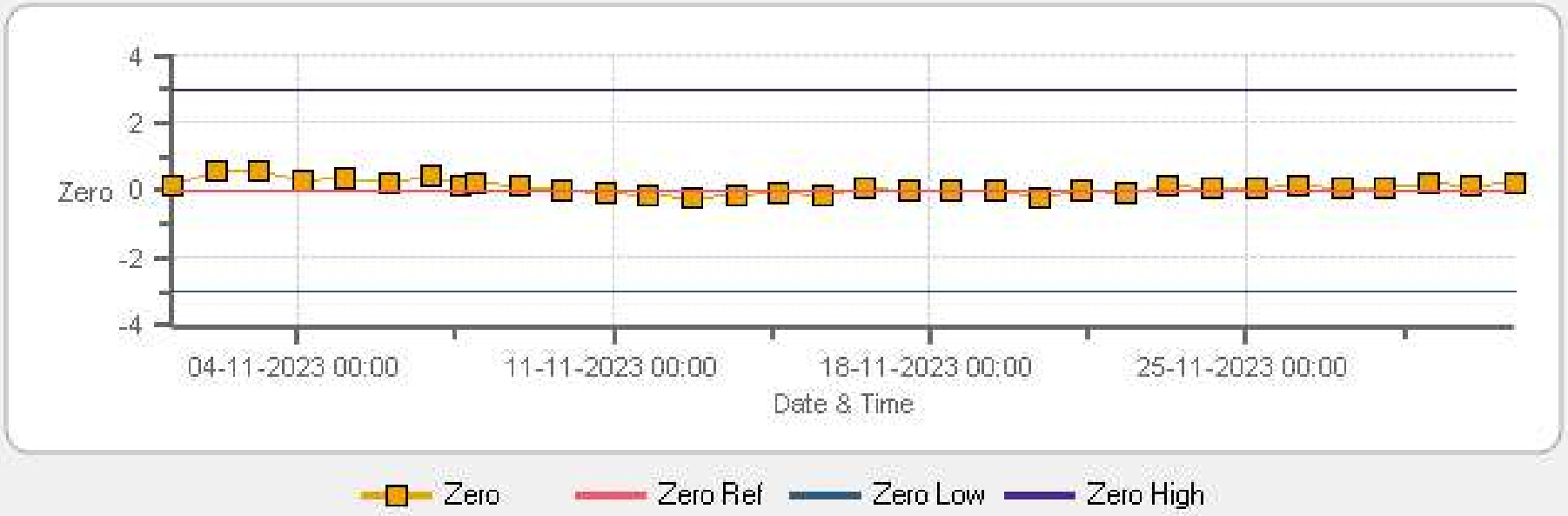
Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Bureau Veritas Canada

December 18, 2023

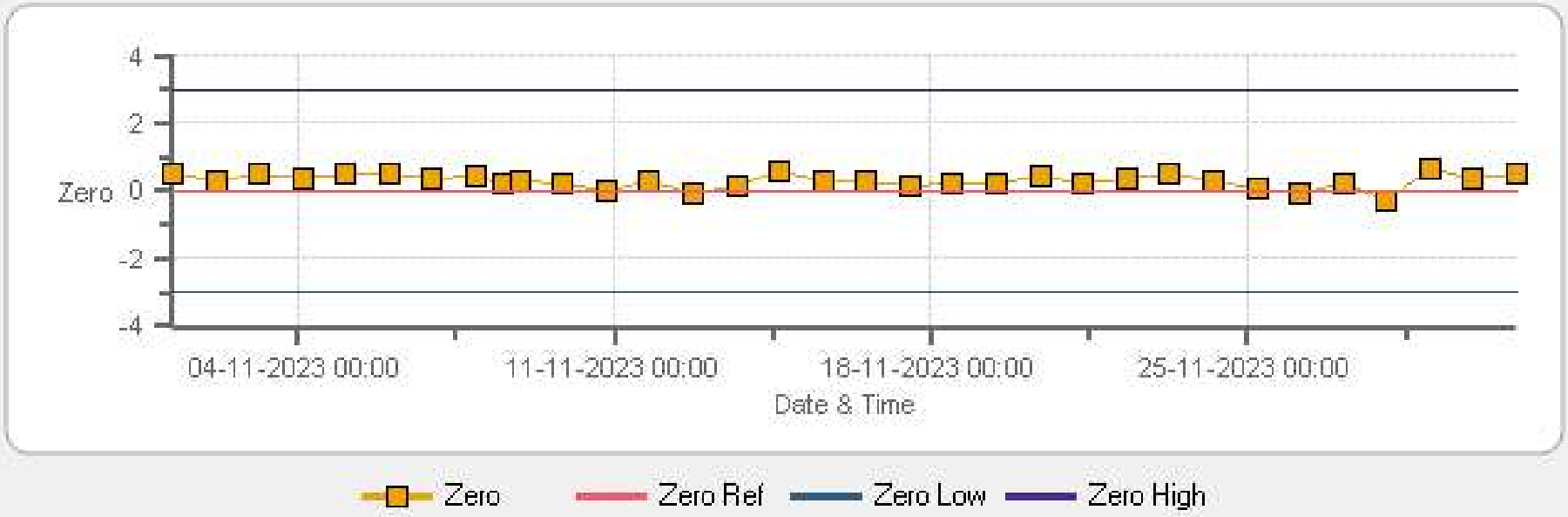
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Zero

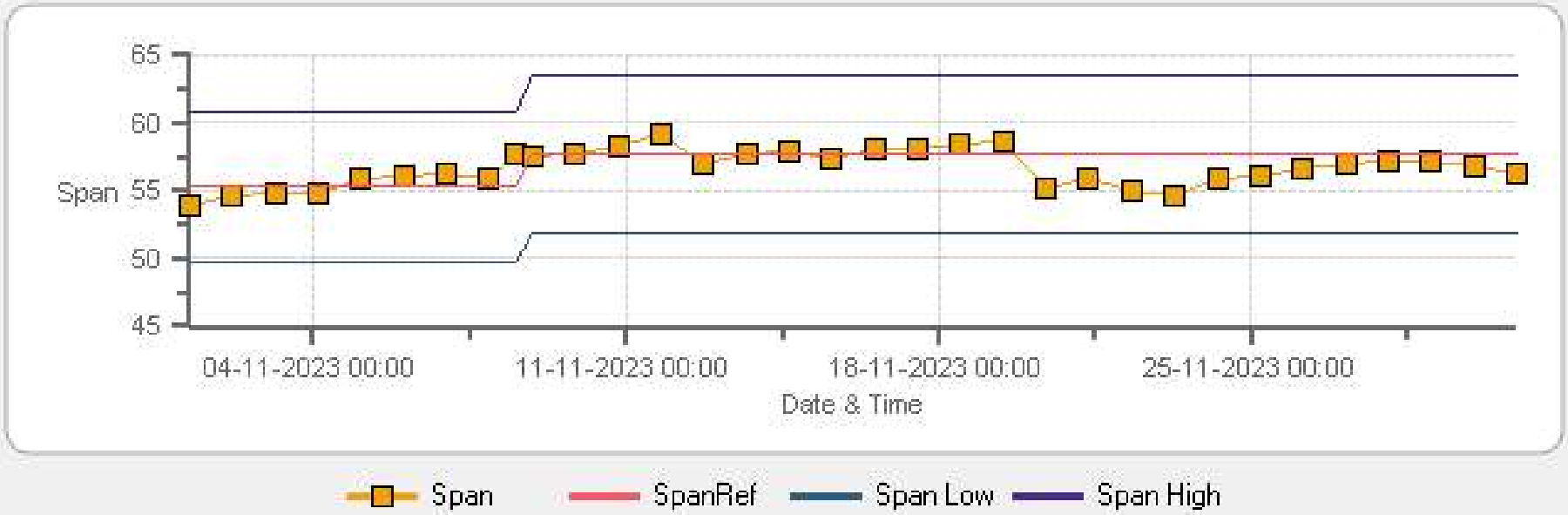


SO2[ppb] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Span

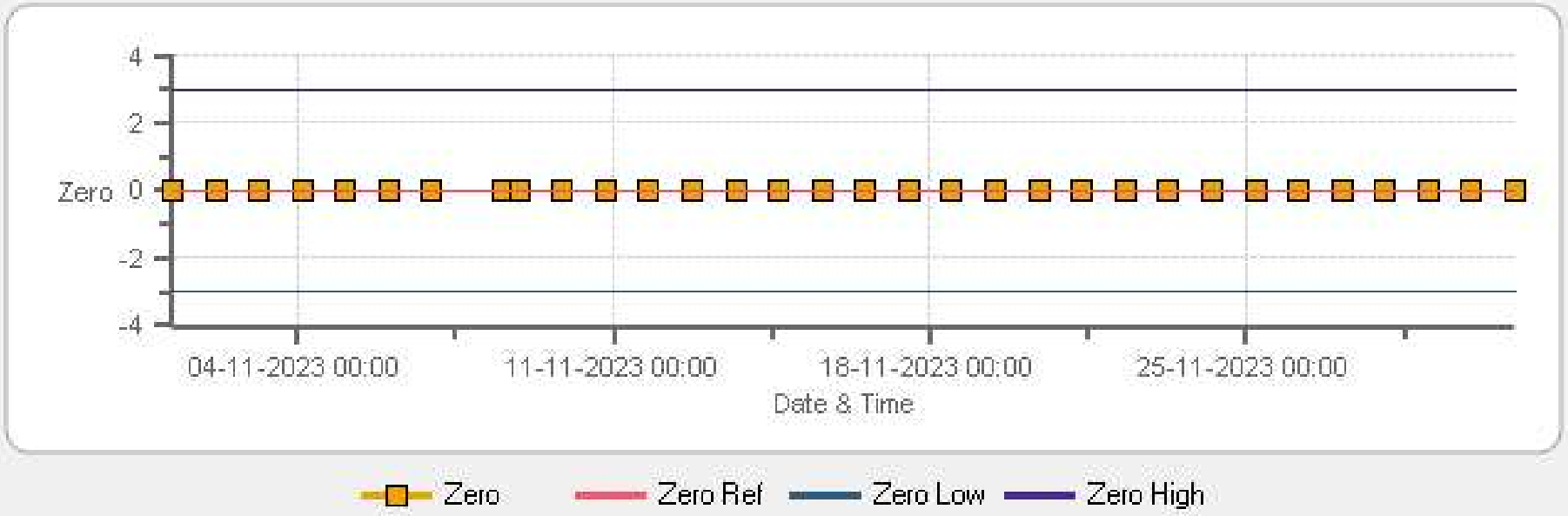
TRS[ppb] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Zero



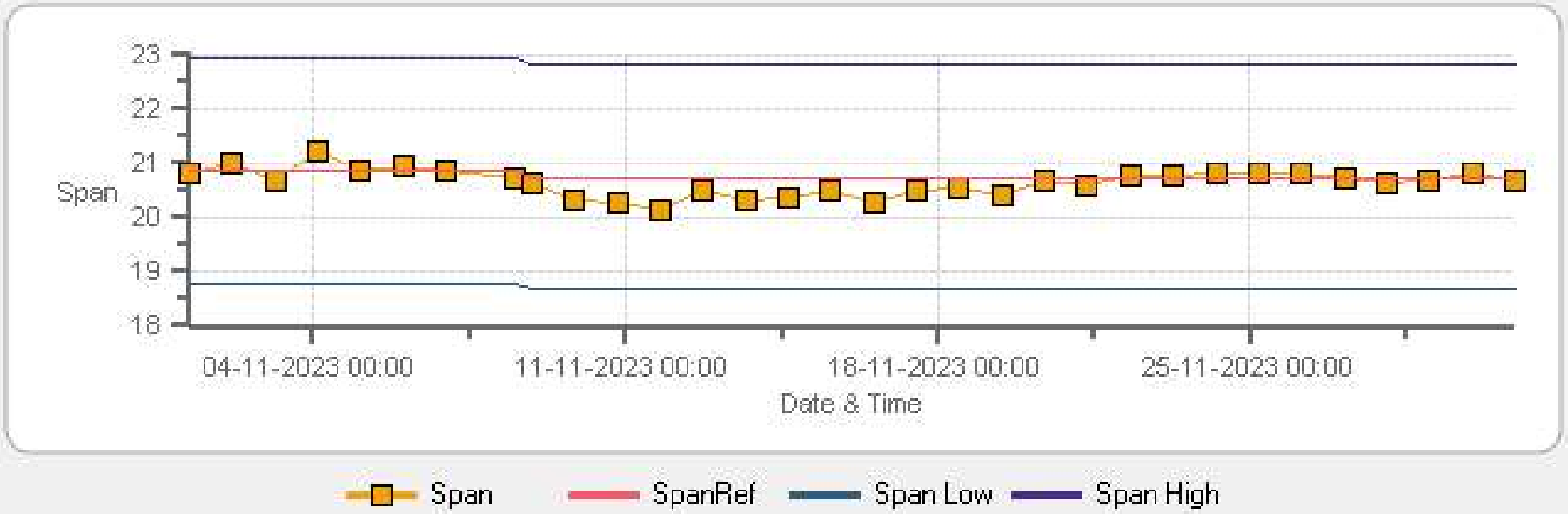
TRS[ppb] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Span



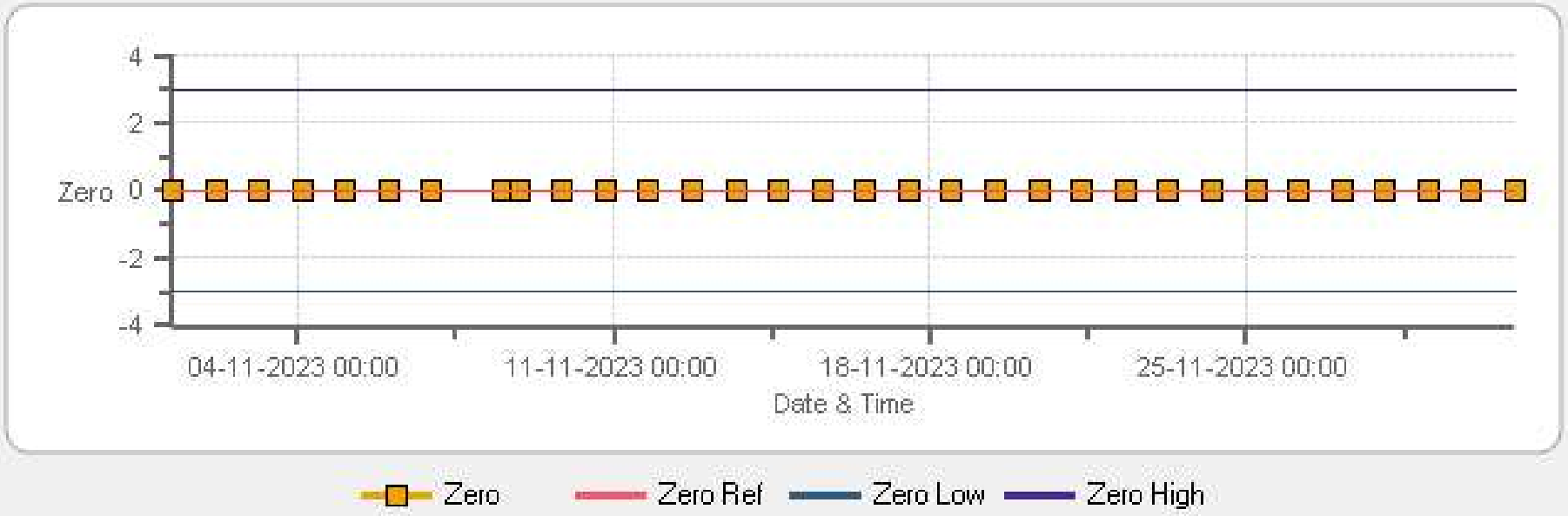
THC55[ppm] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Zero



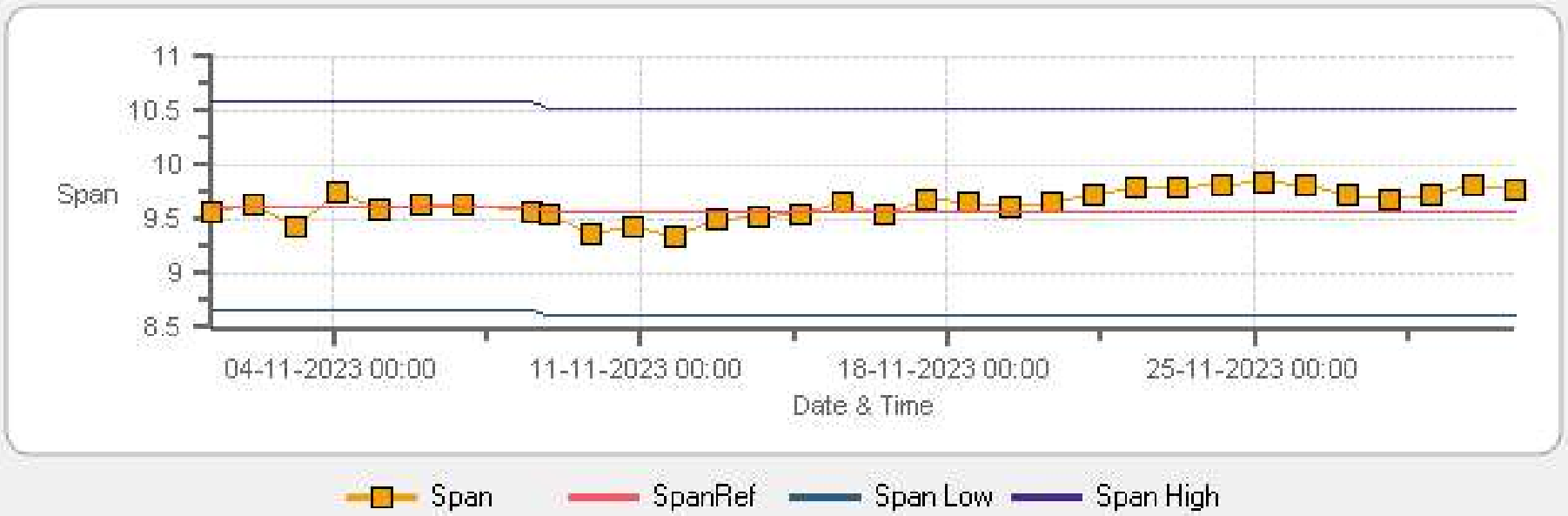
THC55[ppm] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Span



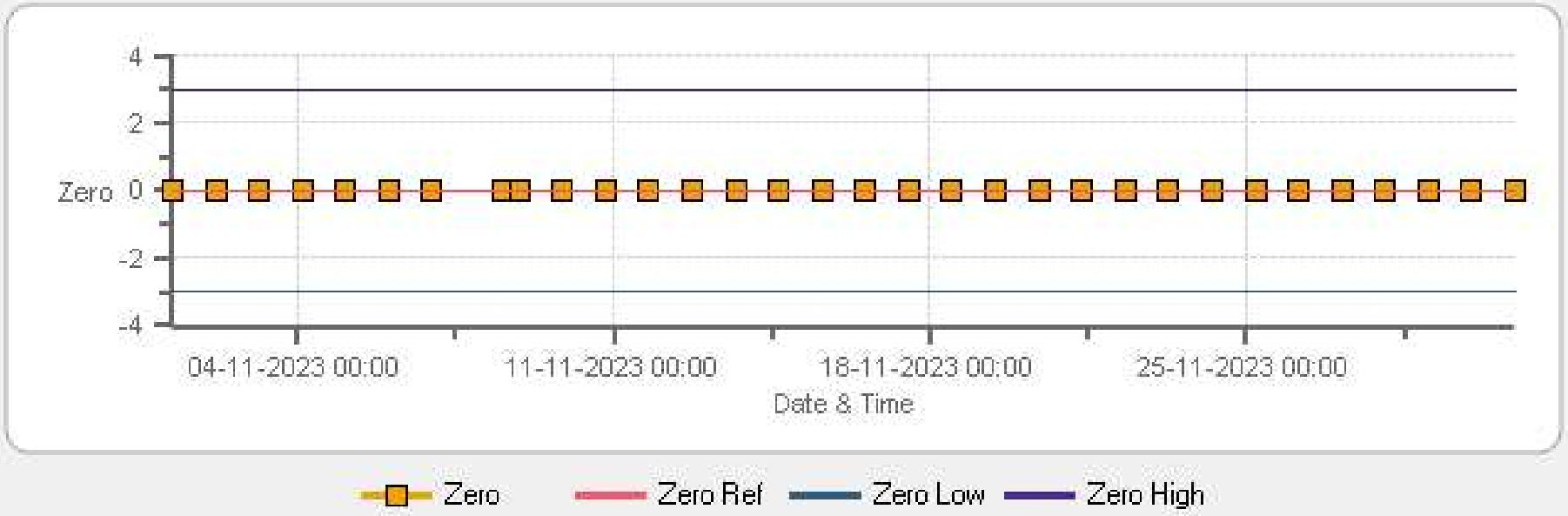
CH4[ppm] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Zero



CH4[ppm] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Span



NMHC[ppm] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Zero



NMHC[ppm] Calibration: PRAMP 986-C Monthly: 11-2023 Type: SpanAndZero - Span

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	07-Nov-2023	PREVIOUS CALIBRATION DATE:	03-Oct-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.002
CLIENT:	PRAMP	TEMPERATURE (°C):	19.2
LOCATION:	986c	BAROMETRIC (mBar):	926
PURPOSE	Routine	START TIME (MST):	09:54
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	14:39

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1193585646	FLOW (mL/min)	421
INITIAL		FINAL	
BKG/OFFSET	17.8	BKG/OFFSET	18
COEF/SLOPE	1.038	COEF/SLOPE	1.037
Expected (reference) Value	251.8	Expected (reference) Value	251.1

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	58100720	ID:	5004
MFC CALIBRATION DATE:	12-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:

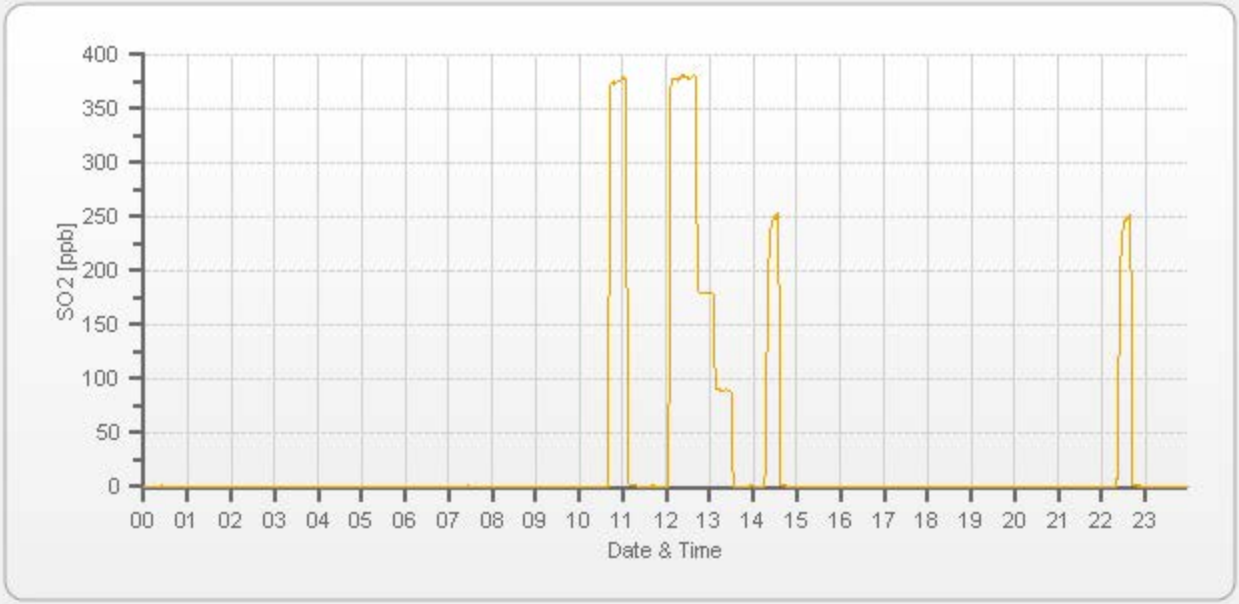
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
4001		4001	0.00	0.1	0		
3939	60.80	4000	380.00	377.2	378.5	1.008	1.004
3971	28.80	4000	180.00	n/a	179.6	n/a	1.002
3987	14.40	4001	89.98	n/a	89.6	n/a	1.004

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.996	0.0%

COMMENTS:

Sample filter changed.


SO2[ppb] Station: PRAMP 986-C Daily: 07-11-2023 Type: AVG 1 Min. [1 Min.]
SO2 [ppb]
400
350
300
250
200
150
100
50
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
SO2 [ppb]

TRS Analyzer Calibration by Dilution

DATE:	07-Nov-2023	PREVIOUS CALIBRATION DATE:	03-Oct-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.003
CLIENT:	PRAMP	TEMPERATURE (°C):	19.2
LOCATION:	986C	BAROMETRIC (mBar):	926
PURPOSE	Removal/Shut-down	START TIME (MST):	11:17
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:53

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1191833341	FLOW (mL/min)	417
INITIAL		FINAL	
BKG/OFFSET	14.9	BKG/OFFSET	n/a
COEF/SLOPE	0.921	COEF/SLOPE	n/a
Expected (reference) Value	55.3	Expected (reference) Value	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	58100720	ID:	5004
MFC CALIBRATION DATE:	12-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:

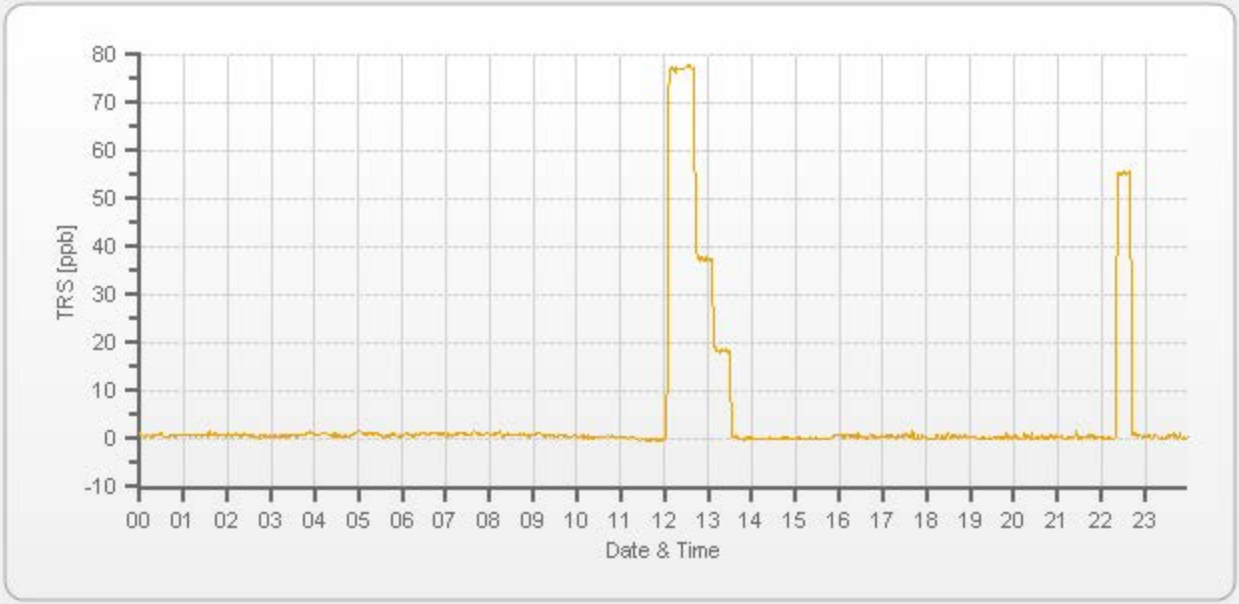
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
4001		4001	0.00	0	n/a		
3970	30.90	4001	77.93	77.65	n/a	1.004	n/a
3986	15.10	4001	38.08	37.78	n/a	1.008	n/a
3993	7.50	4000	18.92	18.4	n/a	1.028	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.998	-0.2%

COMMENTS:

TRS Converter CDNOVA CDN101 #530
Shutdown to replace scrubber beads


TRS[ppb] Station: PRAMP 986-C Daily: 07-11-2023 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]

TRS Analyzer Calibration by Dilution

DATE:	08-Nov-2023	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	17.6
LOCATION:	986C	BAROMETRIC (mBar):	942
PURPOSE	Install/Post-Repair	START TIME (MST):	09:02
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:52

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1191833341	FLOW (mL/min)	423
INITIAL		FINAL	
BKG/OFFSET	n/a	BKG/OFFSET	14.5
COEF/SLOPE	n/a	COEF/SLOPE	0.948
Expected (reference) Value	n/a	Expected (reference) Value	57.72

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	58100720	ID:	5004
MFC CALIBRATION DATE:	12-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:	09:20	SO2 Conc (ppb)	380
END TIME:	09:35	Analyzer Response (ppb)	0.3

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
4003		4003	0.00	n/a	0		
3970	30.90	4001	77.93	n/a	78.18	n/a	0.997
3987	15.10	4002	38.07	n/a	38.05	n/a	1.001
3993	7.50	4000	18.92	n/a	19.24	n/a	0.983

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	0.1%

COMMENTS:

TRS Converter CDNOVA CDN101 #530 10:18,
10:31. Regulator flushed due to low response.


TRS[ppb] Station: PRAMP 986-C Daily: 08-11-2023 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-Nov-2023	PREVIOUS CALIBRATION DATE:	03-Oct-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	19.2
LOCATION:	986C	BAROMETRIC (mBar):	926
PURPOSE	Removal/Shut-down	START TIME (MST):	09:54
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:08

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1022143392	1024
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	1.001	1.003	1.002

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:	5004	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	11.23	20.85		n/a	n/a	n/a

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
3098		3098	0.00	0.00	0.00	0.00	0.00	0.00	n/a	n/a	n/a						
3048	50.30	3098	14.56	13.44	28.00	14.76	13.66	28.41	n/a	n/a	n/a	0.987	0.984	0.986	n/a	n/a	n/a
3074	25.10	3099	7.27	6.70	13.97	7.39	6.81	14.20	n/a	n/a	n/a	0.983	0.984	0.984	n/a	n/a	n/a
3085	12.60	3098	3.65	3.37	7.01	3.71	3.42	7.13	n/a	n/a	n/a	0.983	0.984	0.984	n/a	n/a	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.013	0.1%
NMHC	1.000	1.016	0.0%
THC	1.000	1.014	0.0%

Comments:

H2 = AMA HG300 #191267063

Shutdown to remove BV analyzer

Use Zero Chrom? **No**

Station: PRAMP 986-C Daily: 07-11-2023 Type: AVG 1 Min. [1 Min.]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	08-Nov-2023	PREVIOUS CALIBRATION DATE:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	17.6
LOCATION:	986C	BAROMETRIC (mBar):	942
PURPOSE	Install/Post-Repair	START TIME (MST):	09:02
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:30

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	12208316589	1088
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:	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:	5004	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		9.57	11.17	20.74

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
3098		3098	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00						
3048	50.30	3098	14.56	13.44	28.00	n/a	n/a	n/a	14.53	13.51	28.03	n/a	n/a	n/a	1.002	0.995	0.999
3073	25.20	3098	7.30	6.73	14.03	n/a	n/a	n/a	7.24	6.82	14.06	n/a	n/a	n/a	1.008	0.987	0.998
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.71	3.50	7.20	n/a	n/a	n/a	0.983	0.962	0.974

LINEAR REGRESSION ANALYSIS:

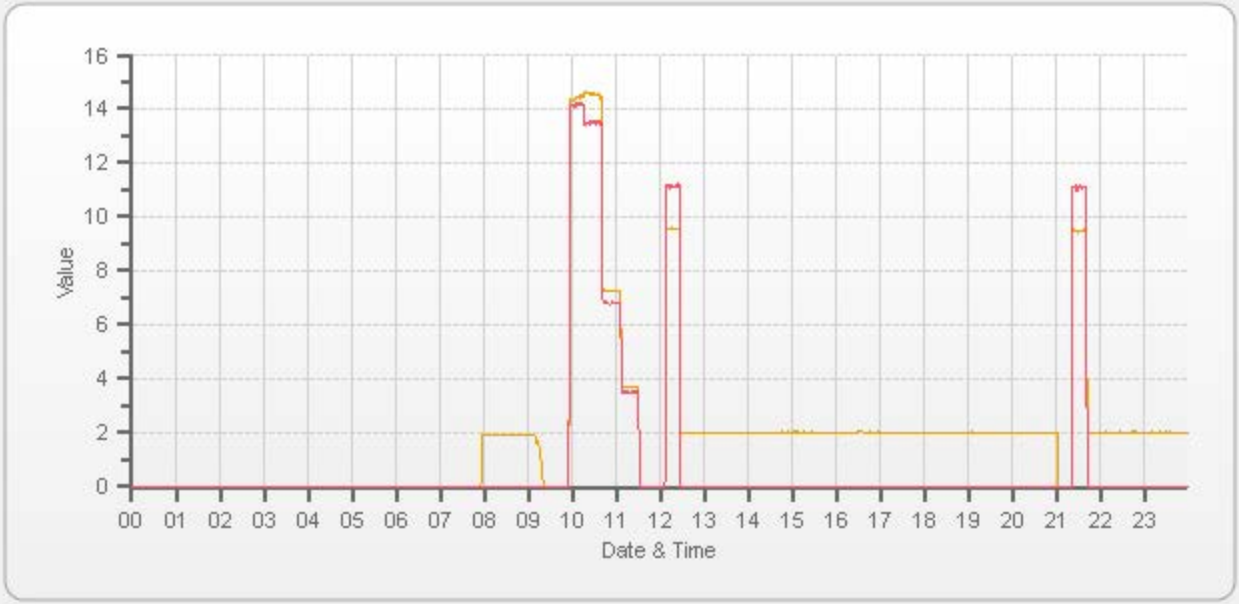
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	0.996	0.1%
NMHC	1.000	1.003	0.3%
THC	1.000	0.999	0.2%

Comments:

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

Use Zero Chrom? **Yes**

Station: PRAMP 986-C Daily: 08-11-2023 Type: AVG 1 Min. [1 Min.]



Meteorological System Checklist

Date:	November 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:	October 3, 2023	
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	yes	Tested 14:49-14:53
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:	October 3, 2023	
Parameter:	Temperature @ 2 metres	
Reference Thermometer ID:	FS 181341226 expires July 17, 2024	
Reference Temperature (^{o}C):	1.9	
Station - Ambient Temperature (^{o}C):	2.1	
Temperature Difference (^{o}C):	-0.2	

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	October 3, 2023	
Reference Barometer ID:	Brunton 05535 expires July 17, 2024	
Reference Pressure - Units/Reading:	millibar	930
Station Pressure - Units/Reading:	millibar	929.7
Pressure Tolerance +/- 15% of error:	791 - 1070	0.03%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	October 3, 2023	
Reference Hygrometer ID:	FS 181341226 expires July 17, 2024	
Reference Hygrometer % RH- Reading:	82.80	
Station Hygrometer % RH- Reading:	83.70	
RH Tolerance +/- 15% of difference:	70.38 - 95.22	-1.1%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	October 3, 2023	Previous check date:	October 3, 2023
Wind Speed Observed (kph):	0~5	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	2.2	Wind Direction on Data Logger:	W
		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

NOVEMBER 2023

Ambient Air Monitoring Calibration Report

- RENO-B STATION-

CAL-PRAMP-202311-01563

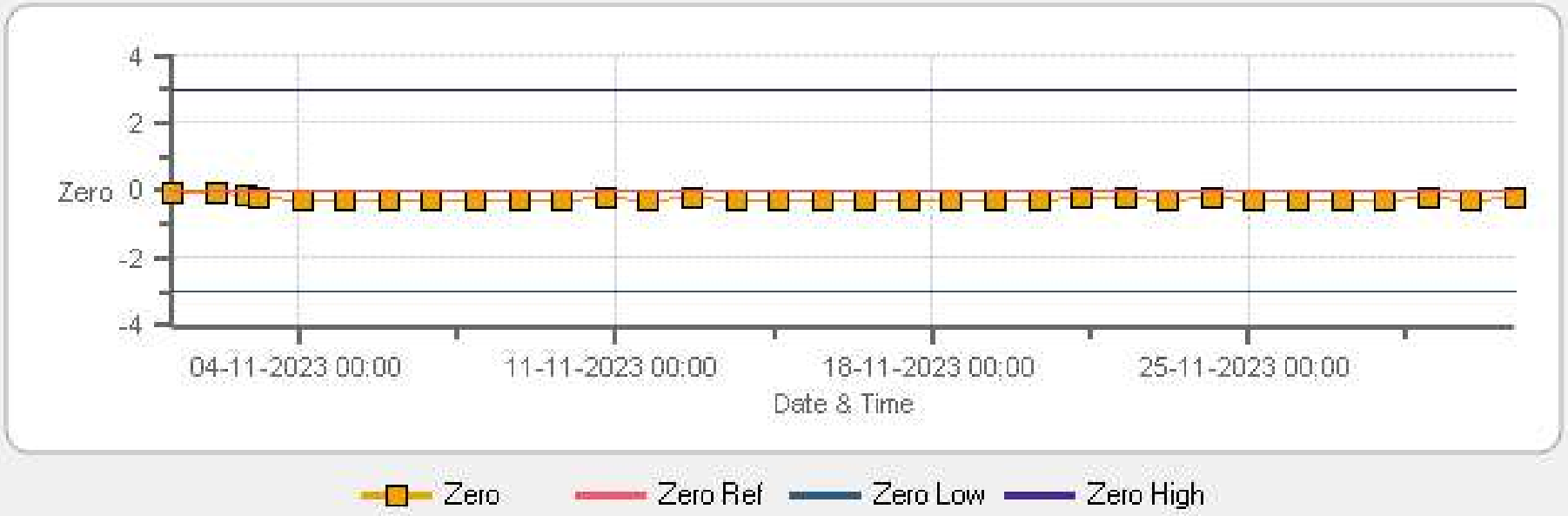
Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Bureau Veritas Canada

December 18, 2023

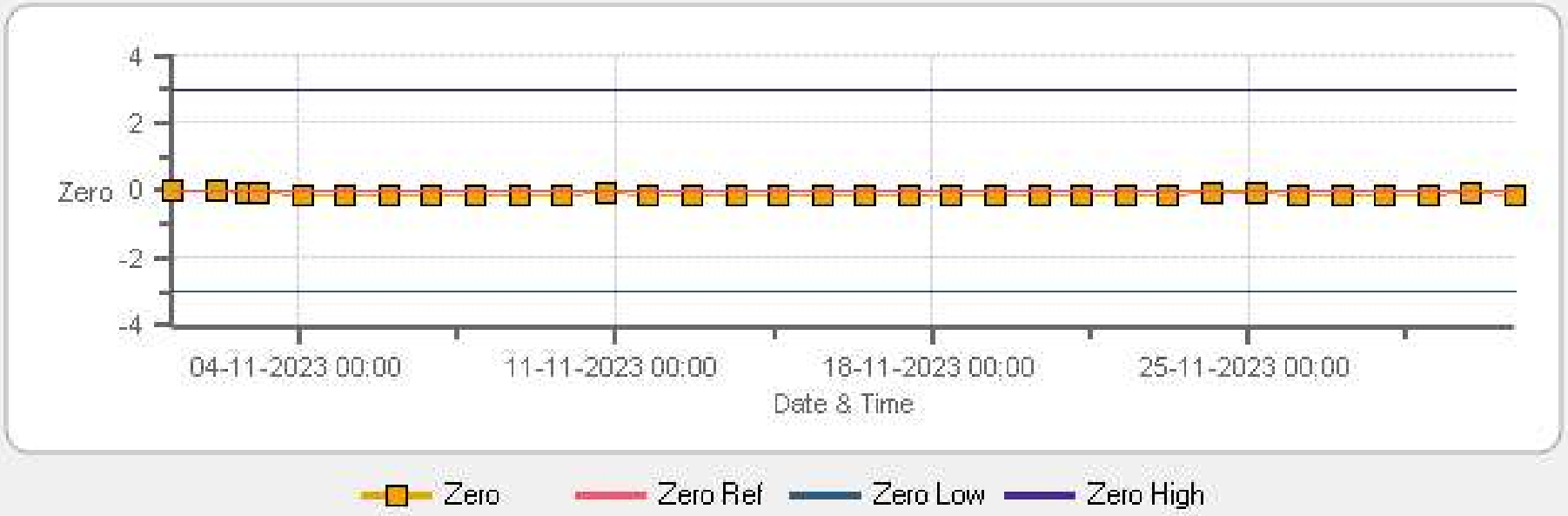
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Zero

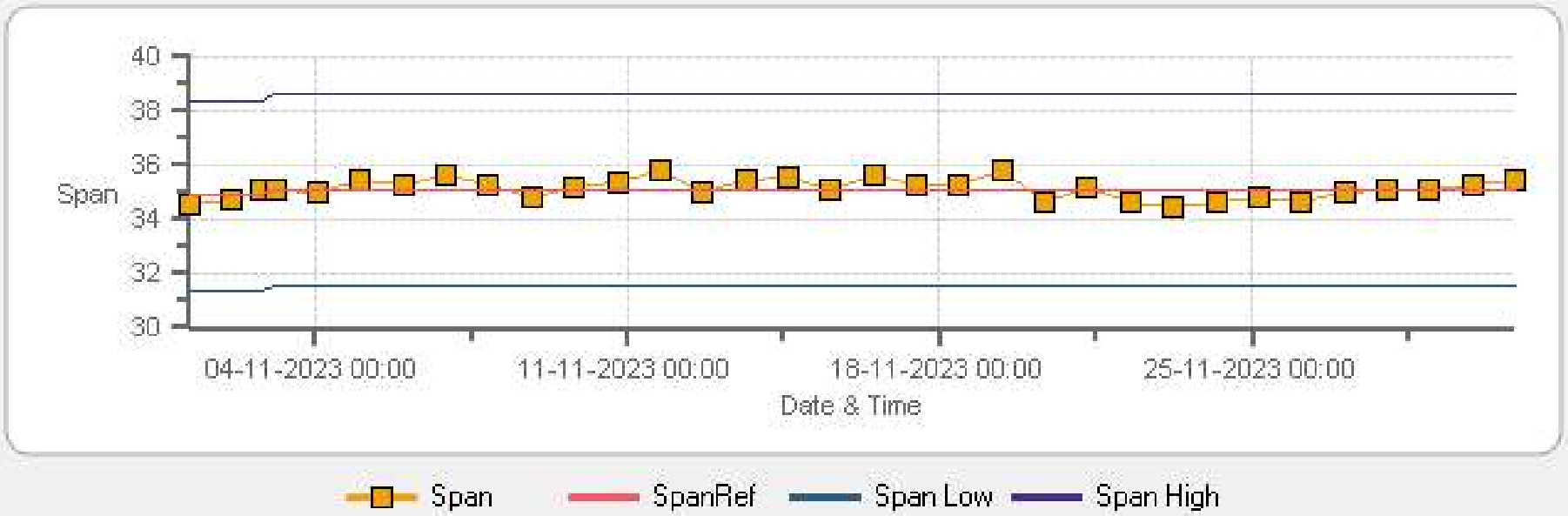


SO2[ppb] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Span

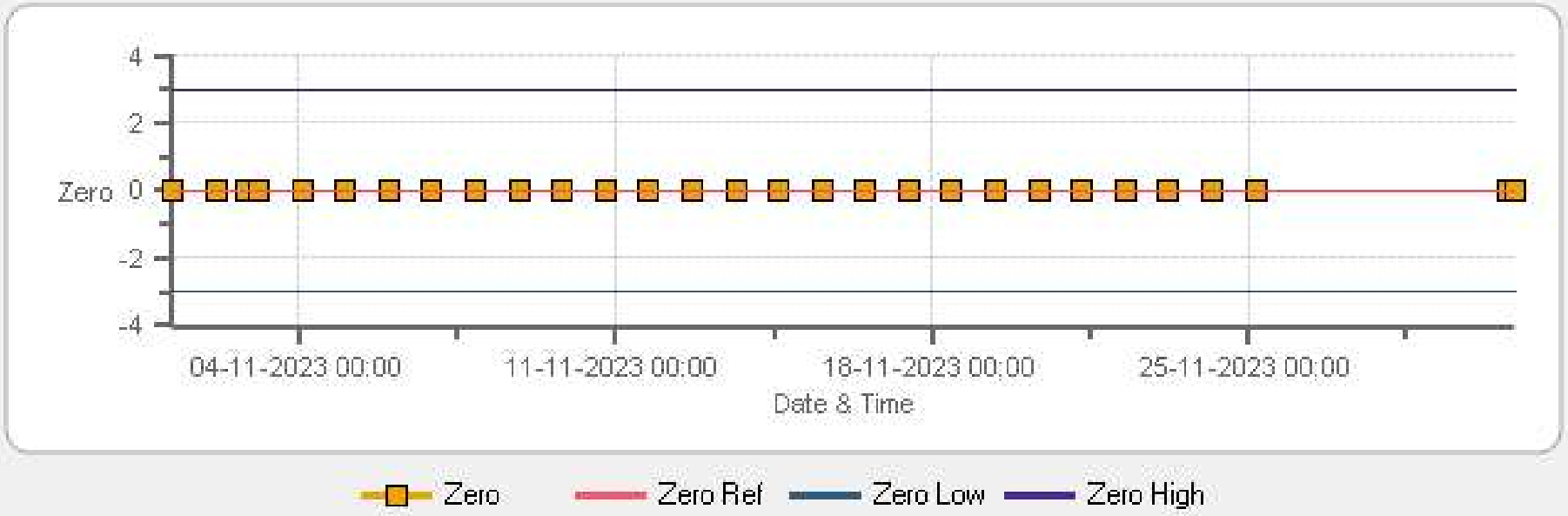
TRS[ppb] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Zero



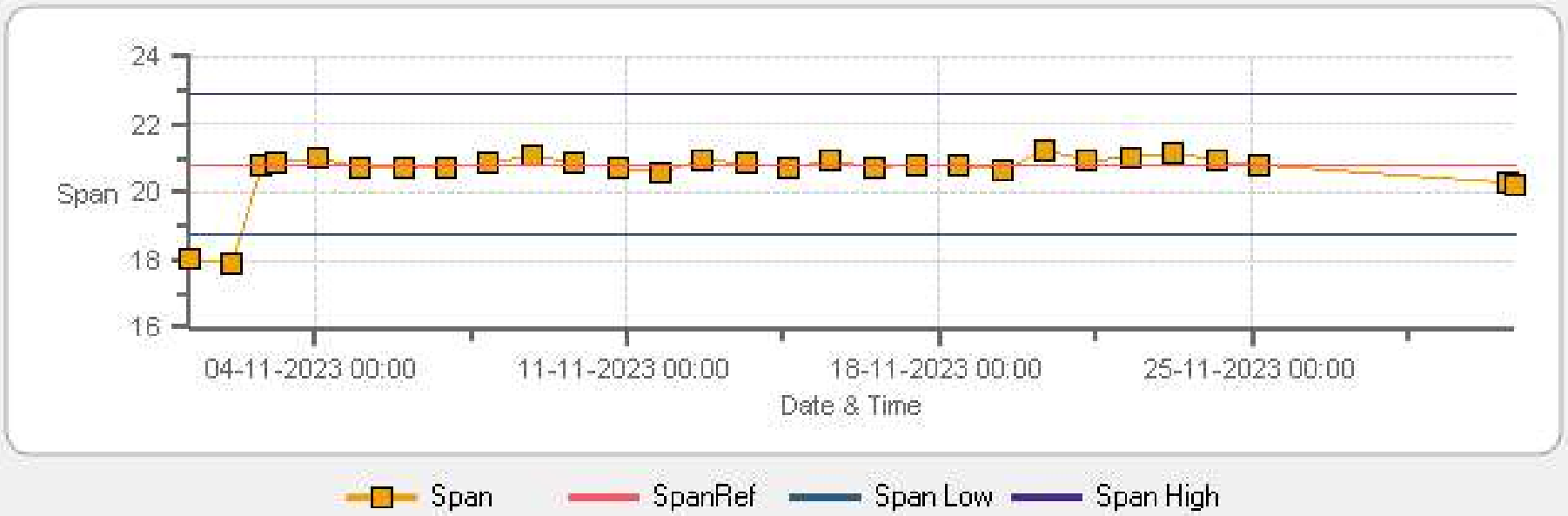
TRS[ppb] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Span



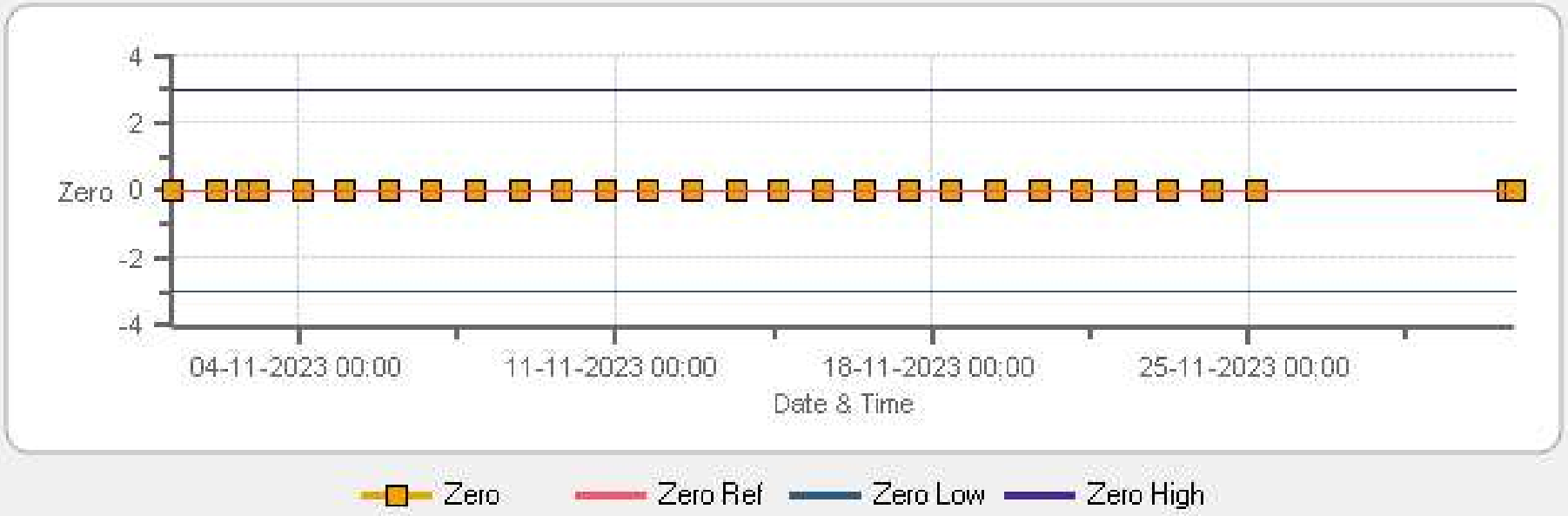
THC55[ppm] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Zero



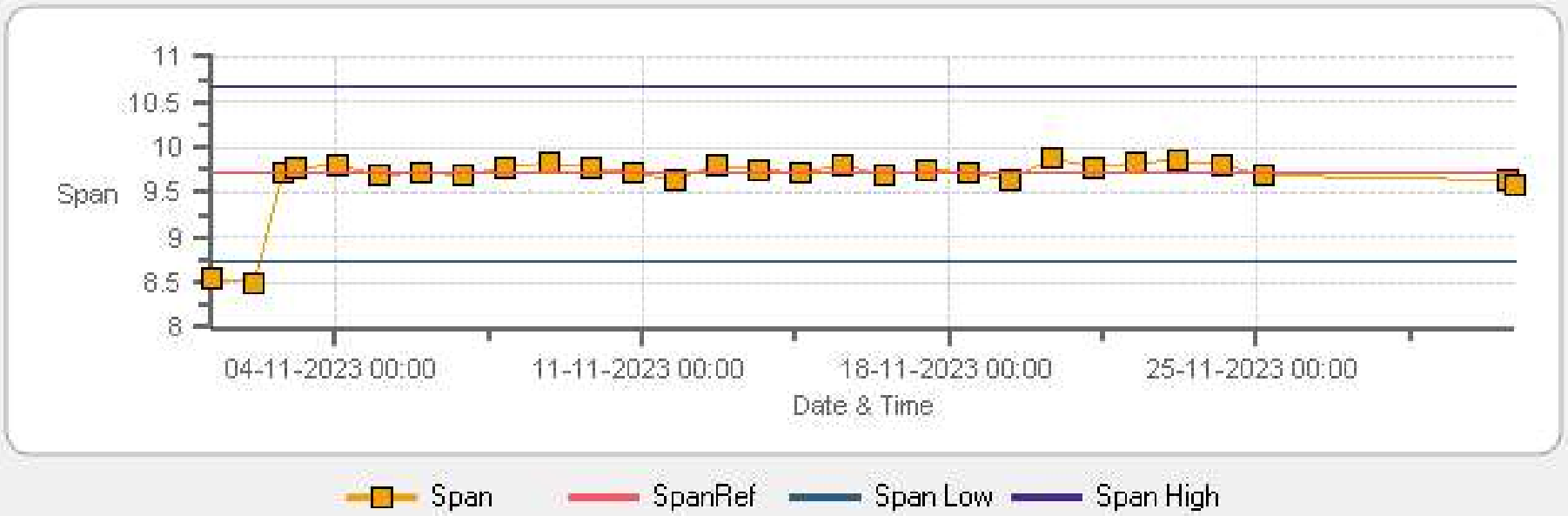
THC55[ppm] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Span



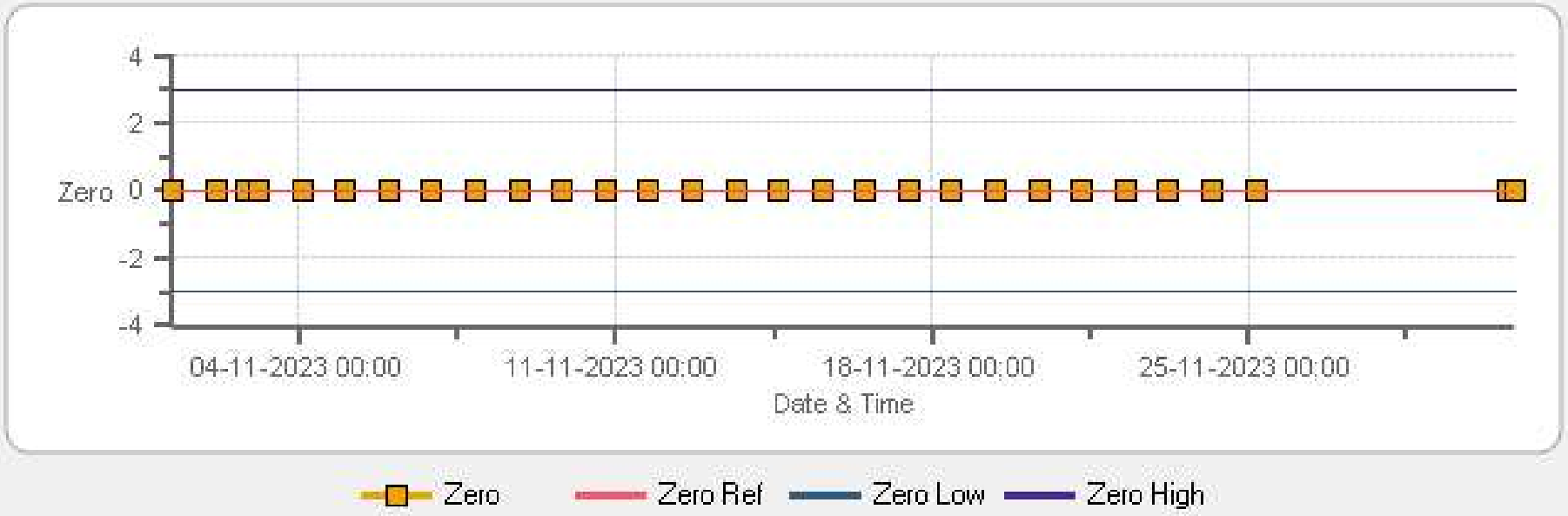
CH4[ppm] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Zero



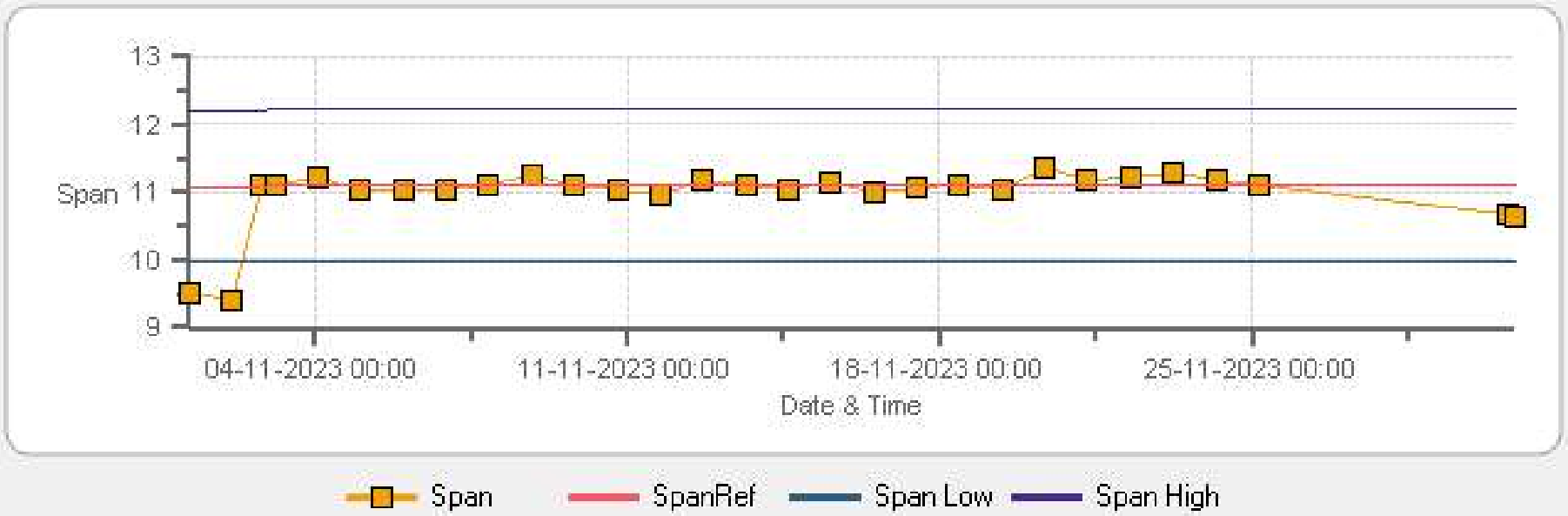
CH4[ppm] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Span



NMHC[ppm] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Zero



NMHC[ppm] Calibration: PRAMP RENO-B Monthly: 11-2023 Type: SpanAndZero - Span



MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	02-Nov-2023	PREVIOUS CALIBRATION DATE:	05-Oct-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	PRAMP	TEMPERATURE (°C):	22.9
LOCATION:	Reno-B	BAROMETRIC (mBar):	938
PURPOSE	Routine	START TIME (MST):	15:18
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	19:24

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	12101910505	FLOW (mL/min)	436
INITIAL		FINAL	
BKG/OFFSET	1.17	BKG/OFFSET	1.4
COEF/SLOPE	0.931	COEF/SLOPE	0.949
Expected (reference) Value	207.2	Expected (reference) Value	217.8

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):	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		
4001		4001	0.00	0	0		
3938	60.80	3999	380.10	370	380.9	1.027	0.998
3970	28.80	3999	180.05	n/a	181.1	n/a	0.994
3986	14.40	4000	90.00	n/a	90	n/a	1.000

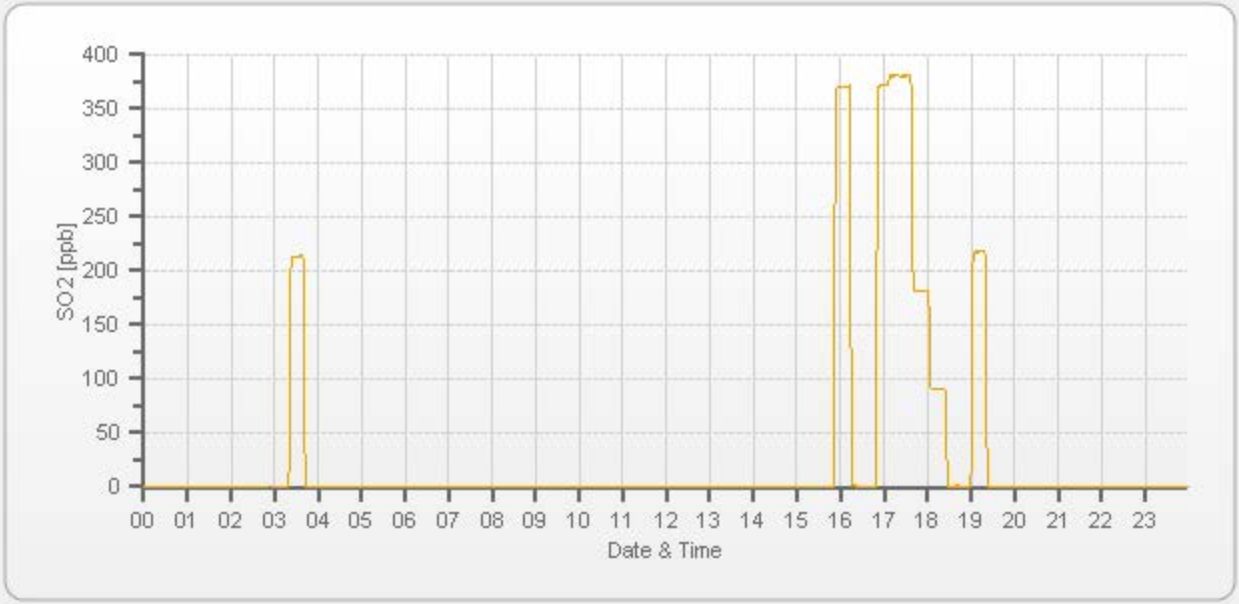
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	0.0%

COMMENTS:

Sample filter changed

SO2[ppb] Station: PRAMP RENO-B Daily: 02-11-2023 Type: AVG 1 Min. [1 Min.]



TRS Analyzer Calibration by Dilution

DATE:	02-Nov-2023	PREVIOUS CALIBRATION DATE:	05-Oct-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.997
CLIENT:	PRAMP	TEMPERATURE (°C):	22.9
LOCATION:	Reno-B	BAROMETRIC (mBar):	938
PURPOSE	Routine	START TIME (MST):	15:19
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	19:24

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	12101910504	FLOW (mL/min)	398
INITIAL		FINAL	
BKG/OFFSET	0.92	BKG/OFFSET	1.05
COEF/SLOPE	0.854	COEF/SLOPE	0.859
Expected (reference) Value	34.89	Expected (reference) Value	35.1

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:	EY0002519	HIGH ID	n/a
CONC (ppm):	9.41	EXPIRY DATE	n/a
CYLINDER (psi):	400	LOW ID	n/a
EXPIRY DATE	10-Nov-2023	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		
4001		4001	0.00	0	0		
3966	33.20	3999	78.12	77.44	77.95	1.009	1.002
3983	16.20	3999	38.12	n/a	37.74	n/a	1.010
3992	8.10	4000	19.06	n/a	18.64	n/a	1.022

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.999	-0.2%

COMMENTS:

TRS Converter CDNOVA CDN-101 #590.
Sample Filter Changed

TRS[ppb] Station: PRAMP RENO-B Daily: 02-11-2023 Type: AVG 1 Min. [1 Min.]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	02-Nov-2023	PREVIOUS CALIBRATION DATE:	05-Oct-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	22.9
LOCATION:	Reno-B	BAROMETRIC (mBar):	938
PURPOSE	Routine	START TIME (MST):	15:18
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	19:32

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	12101910497	1072
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	1.000	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:	26701218	ID:	5004	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	11.09	20.81		9.71	11.11	20.83

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
3500		3500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
3443	56.80	3500	14.56	13.43	27.99	14.09	13.06	27.15	14.59	13.45	28.04	1.033	1.029	1.031	0.998	0.999	0.998
3472	28.40	3500	7.28	6.72	14.00	n/a	n/a	n/a	7.24	6.72	13.96	n/a	n/a	n/a	1.005	0.999	1.003
3487	14.20	3501	3.64	3.36	7.00	n/a	n/a	n/a	3.61	3.39	7.00	n/a	n/a	n/a	1.008	0.990	0.999

LINEAR REGRESSION ANALYSIS:

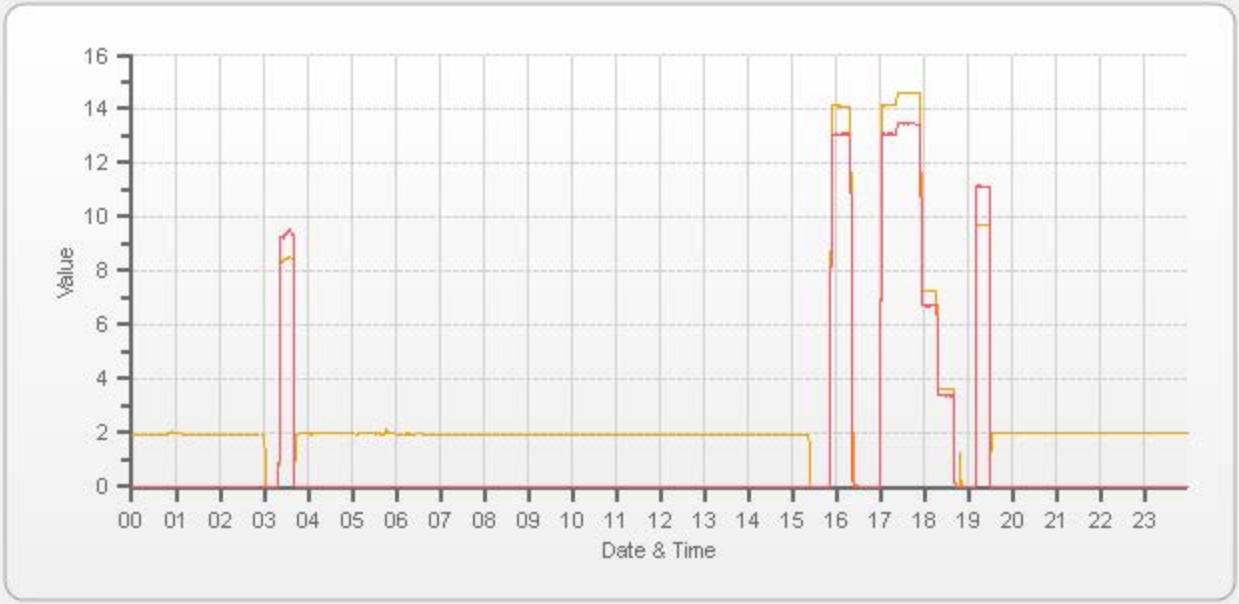
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.003	-0.1%
NMHC	1.000	1.000	0.1%
THC	1.000	1.002	0.0%

Comments:

Sample filter changed

Use Zero Chrom? **No**

Station: PRAMP RENO-B Daily: 02-11-2023 Type: AVG 1 Min. [1 Min.]



Meteorological System Checklist

Date:	November 2, 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: 16:00-16:08
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:	October 5, 2023
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	FS 181341226 expires July 17, 2024
Reference Temperature (^{o}C):	0.4
Station - Ambient Temperature (^{o}C):	0.3
Temperature Difference (^{o}C):	0.1

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	October 5, 2023	
Reference Barometer ID:	Equipment ID - 05535 Brunton Expiry - July 17 2024	
Reference Pressure - Units/Reading:	millibar	937
Station Pressure - Units/Reading:	millibar	938
Pressure Tolerance +/- 15% of error:	796 - 1078	-0.11%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	October 5, 2023	
Reference Hygrometer ID:	FS 181341226 expires July 17, 2024	
Reference Hygrometer % RH- Reading:	88.80	
Station Hygrometer % RH- Reading:	89.70	
RH Tolerance +/- 15% of difference:	75.48 - 102.12	-1.0%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	October 5, 2023	Previous check date:	October 5, 2023
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	E
Wind speed on Data Logger (kph):	12.7	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:	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

NOVEMBER 2023

Ambient Air Monitoring Calibration Report

- AQHI - GRIMSHAW STATION-

CAL-PRAMP-202311-01689

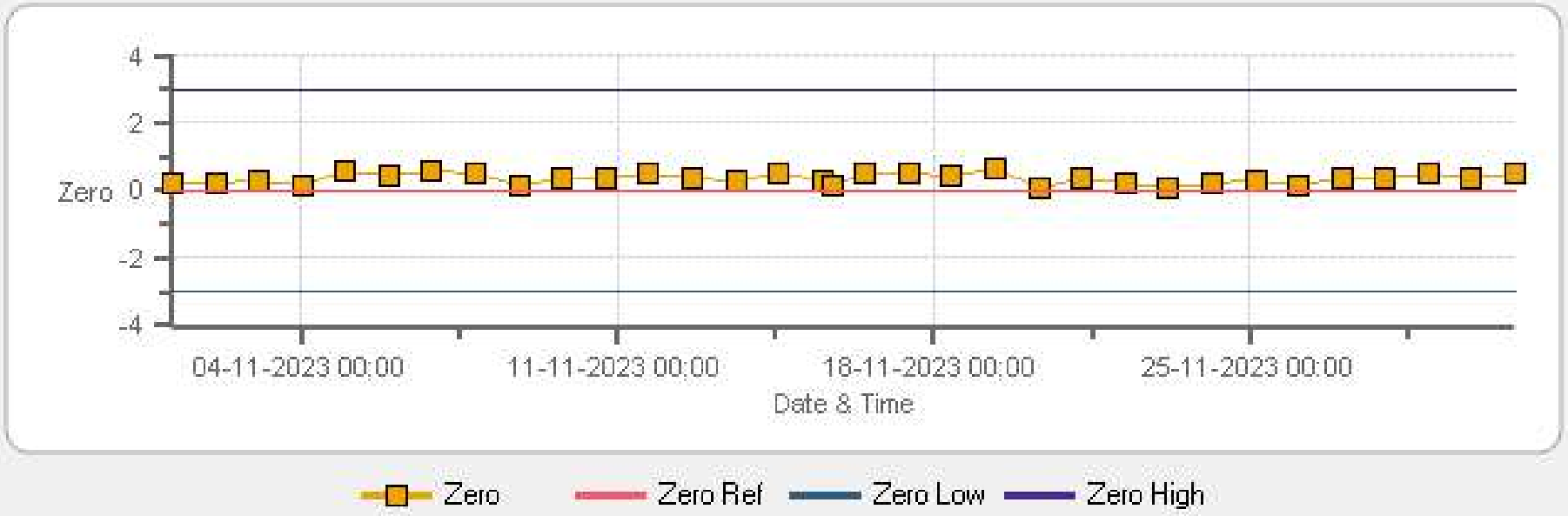
Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Bureau Veritas Canada

December 18, 2023

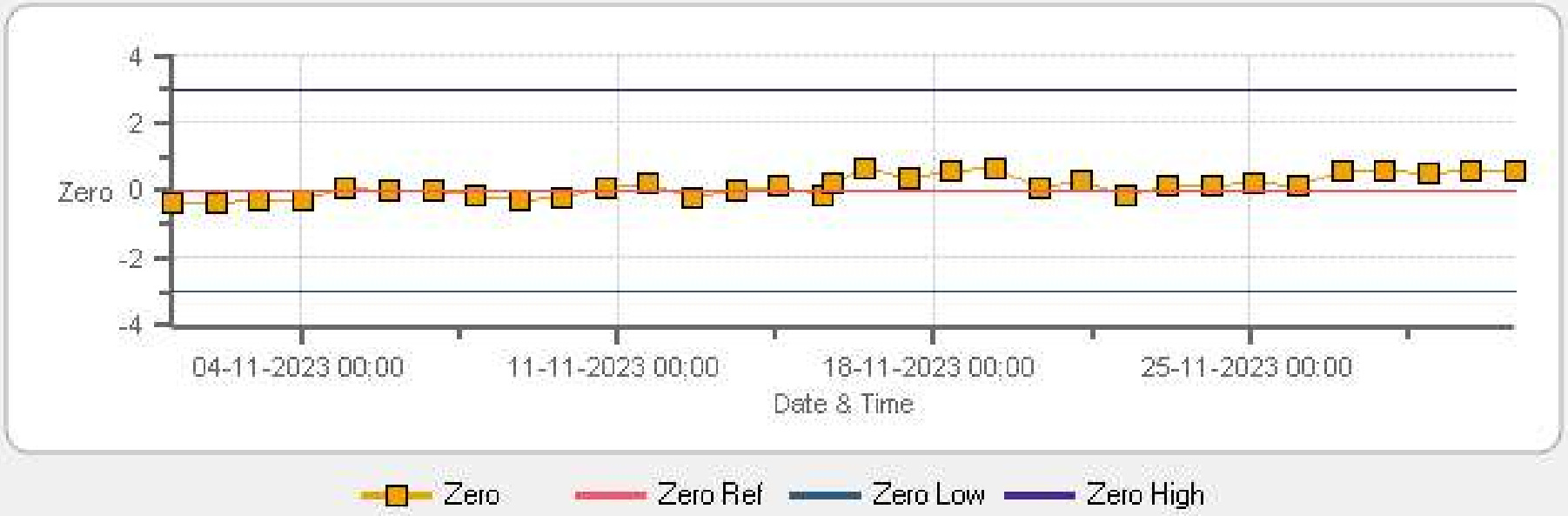
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Zero

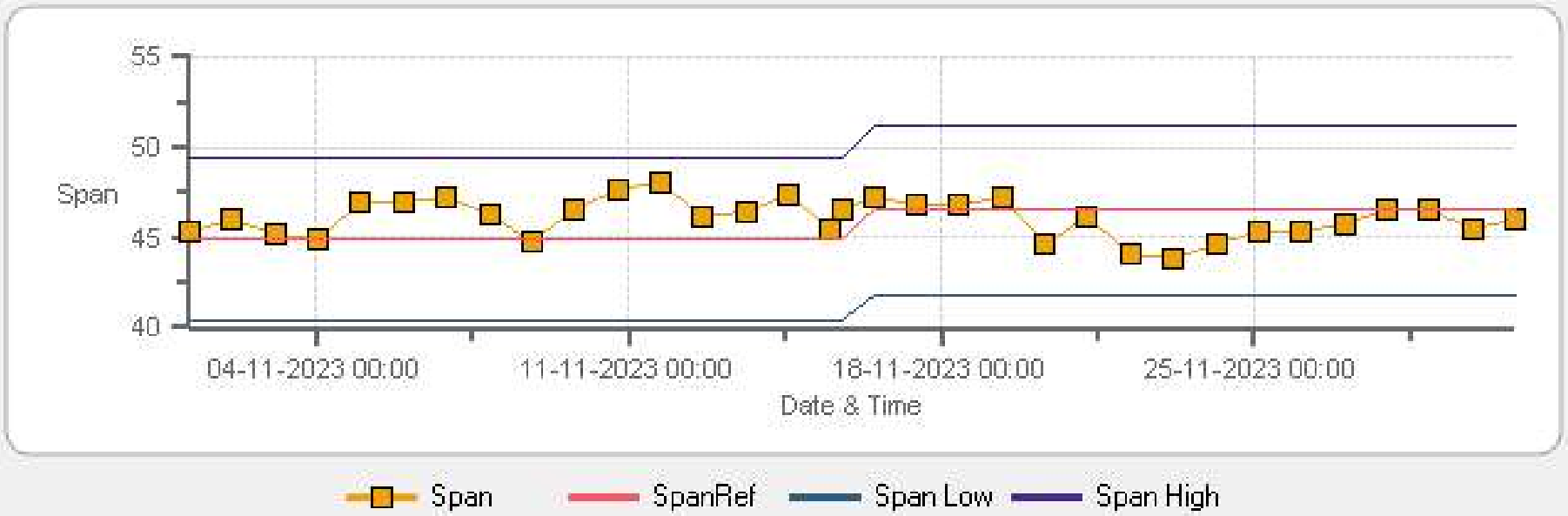


SO2[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Span

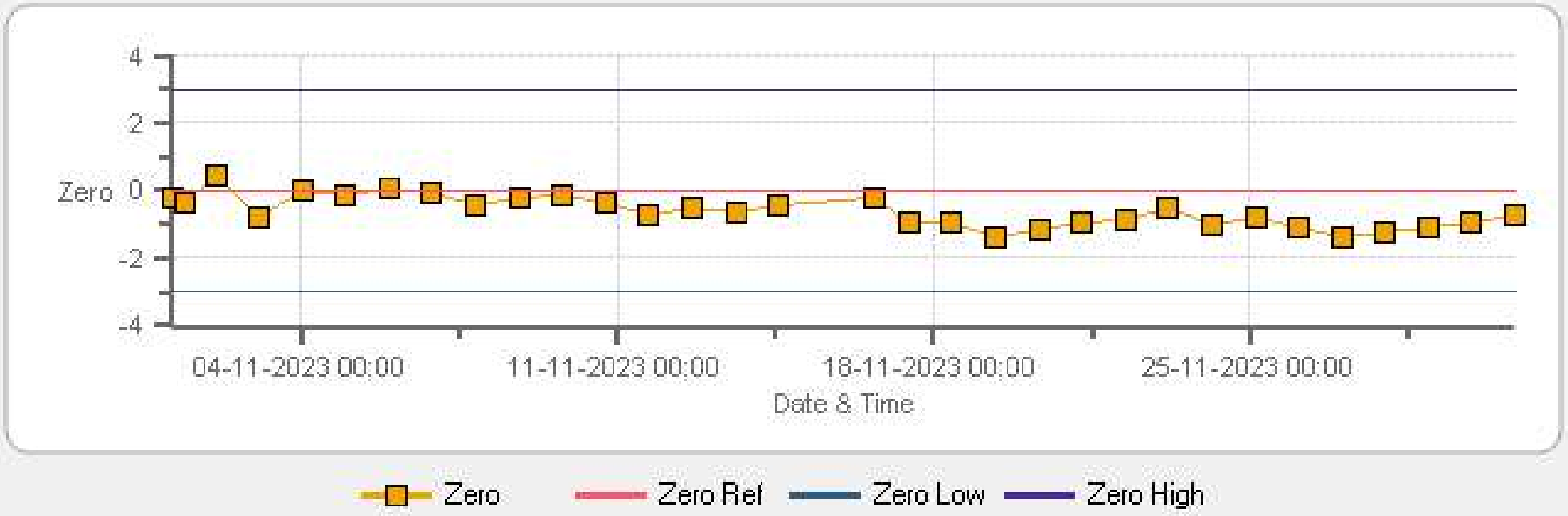
TRS[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Zero



TRS[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Span

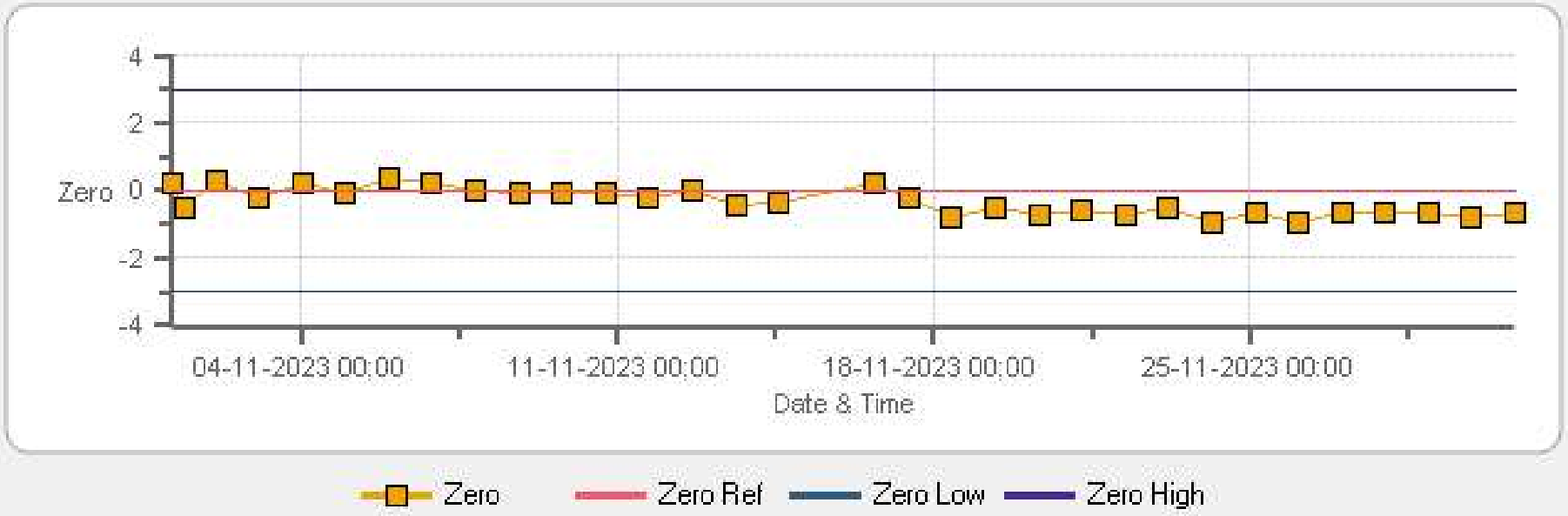


NOX[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Zero

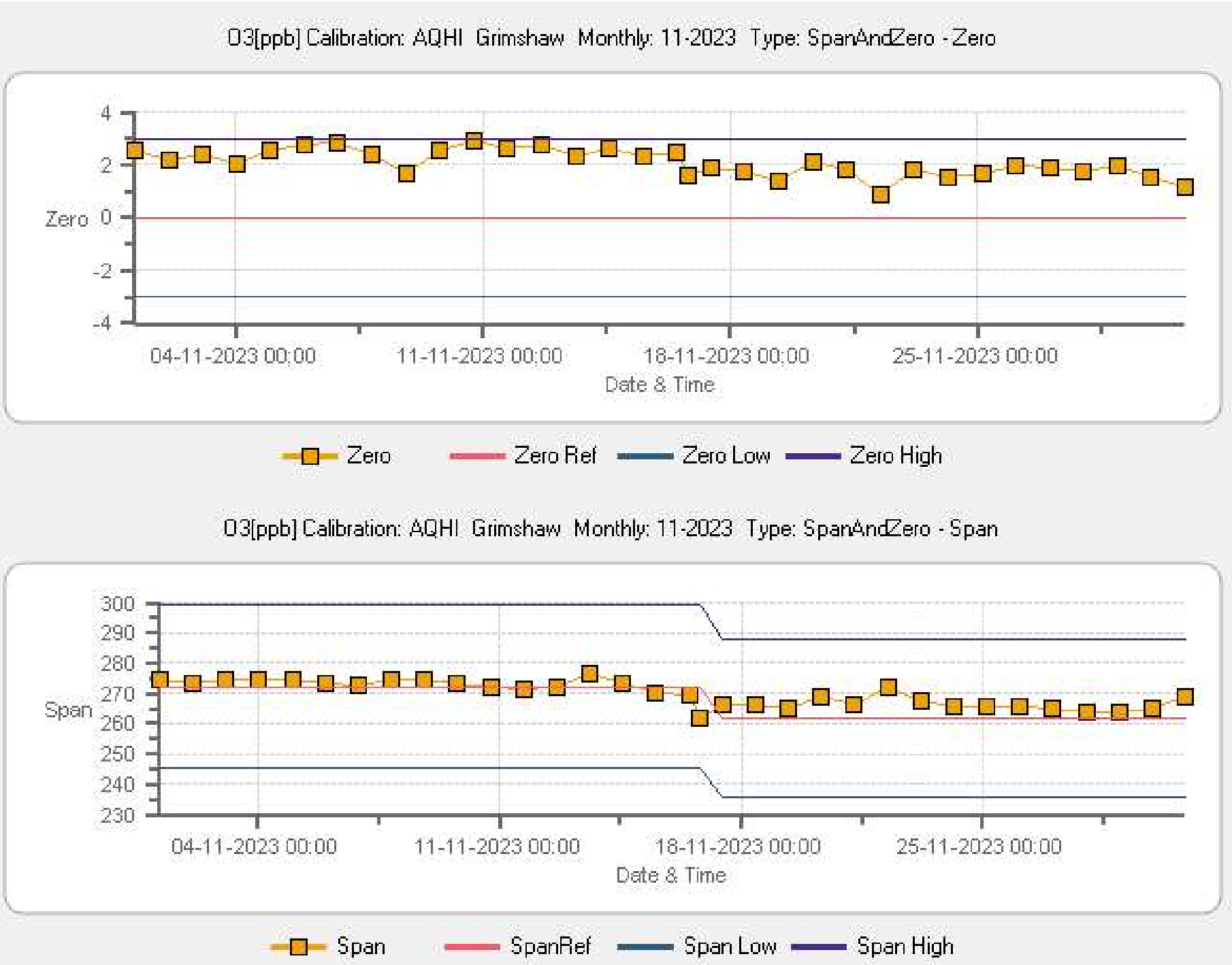


NOX[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Span

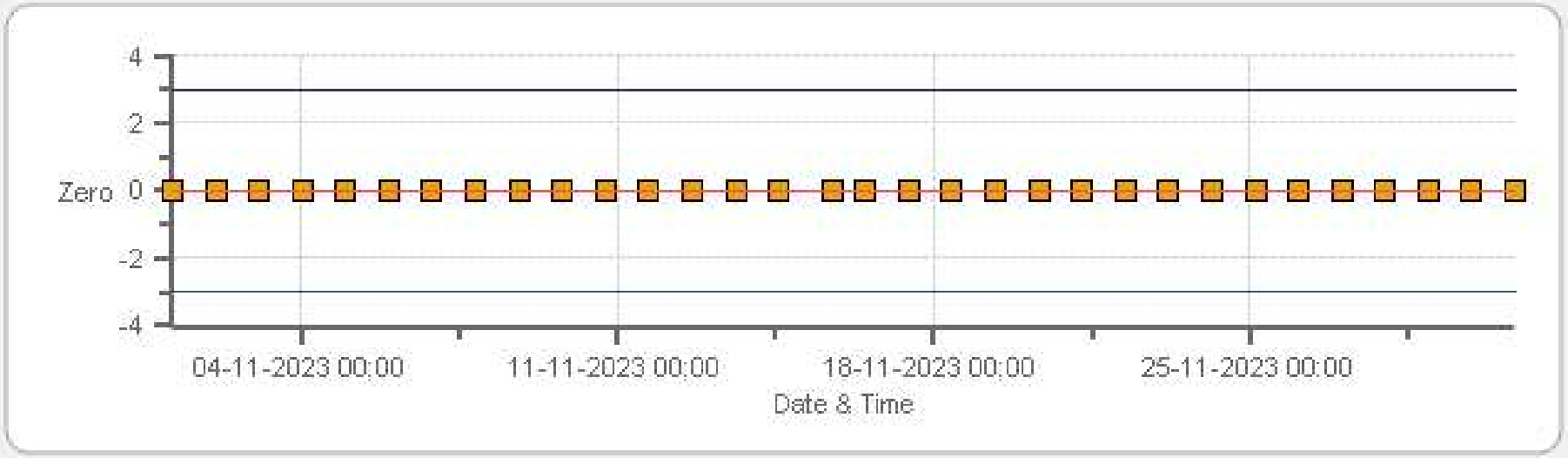
NO2[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Zero



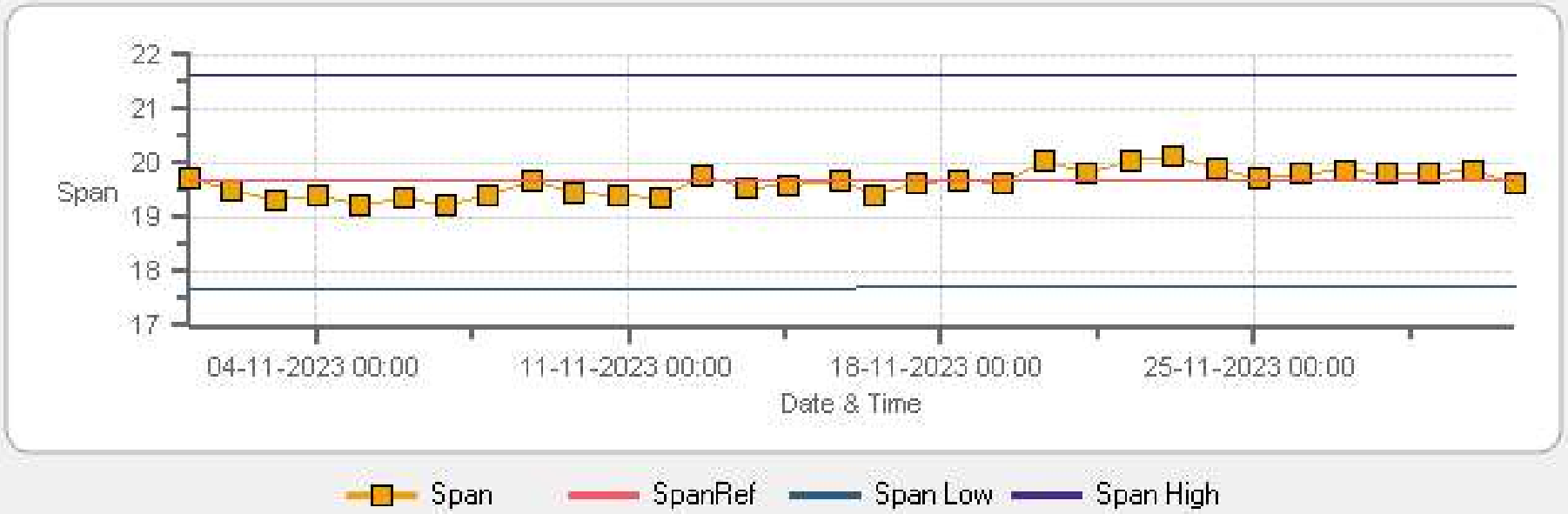
NO2[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Span

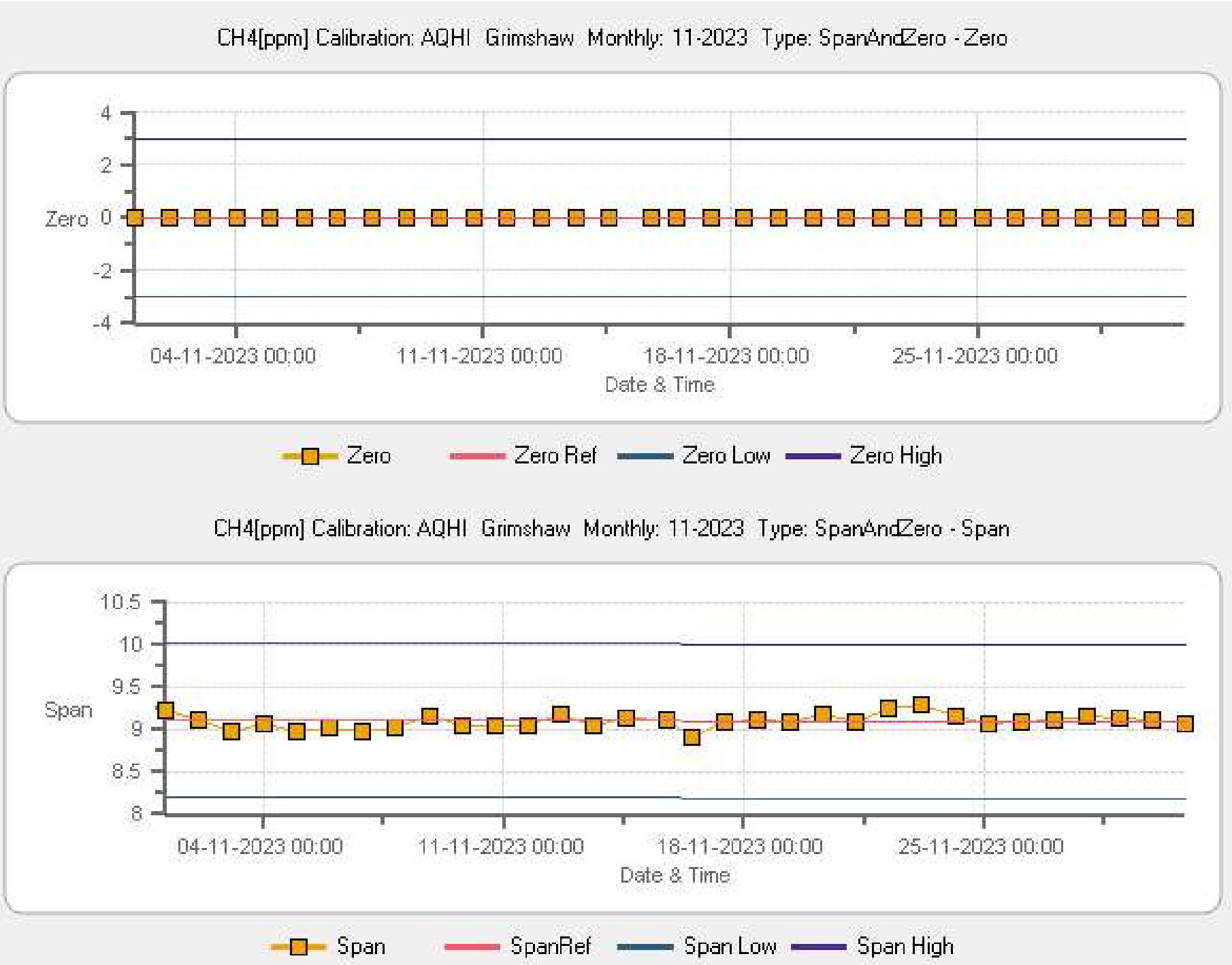

O3[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
04-11-2023 00:00
11-11-2023 00:00
18-11-2023 00:00
25-11-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
O3[ppb] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Span
300
290
280
Span 270
260
250
240
230
04-11-2023 00:00
11-11-2023 00:00
18-11-2023 00:00
25-11-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

THC55[ppm] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Zero

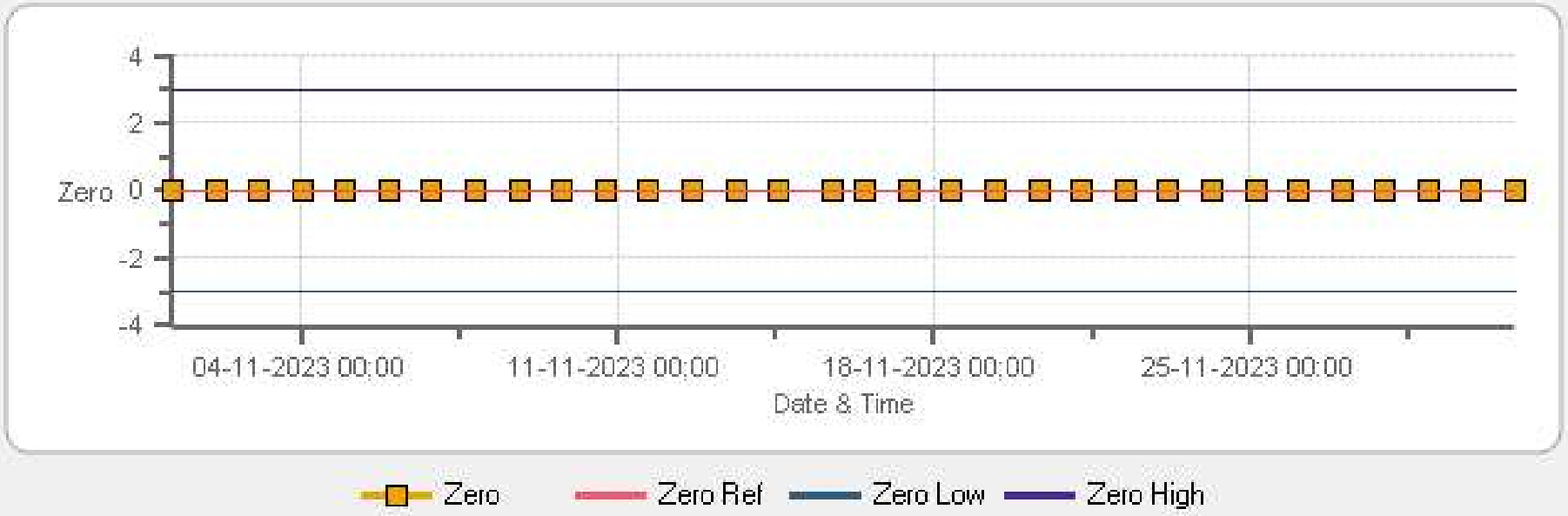


THC55[ppm] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Span

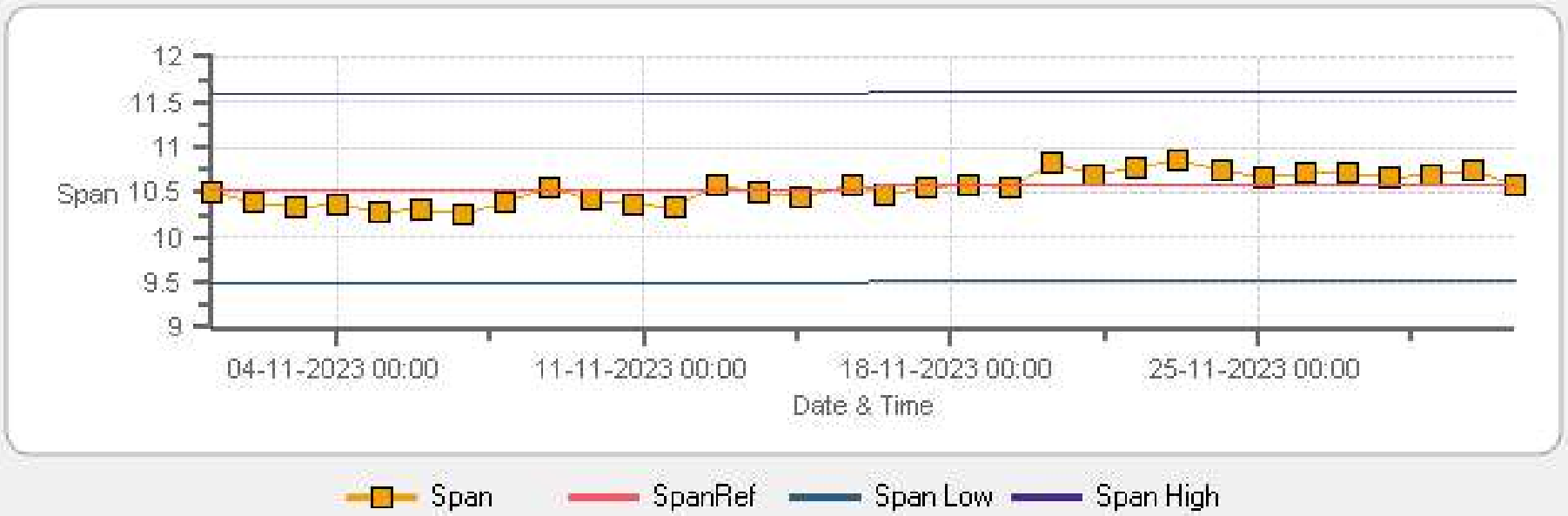



CH4[ppm] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
04-11-2023 00:00
11-11-2023 00:00
18-11-2023 00:00
25-11-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
CH4[ppm] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Span
10.5
10
9.5
Span 9
8.5
8
04-11-2023 00:00
11-11-2023 00:00
18-11-2023 00:00
25-11-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Zero



NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 11-2023 Type: SpanAndZero - Span



MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	15-Nov-2023	PREVIOUS CALIBRATION DATE:	17-Oct-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	PRAMP	TEMPERATURE (°C):	23.7
LOCATION:	Grimshaw	BAROMETRIC (mBar):	938
PURPOSE	Routine	START TIME (MST):	13:29
PERFORMED BY:	Chris Wesson	END TIME (MST):	18:23

ANALYZER:

MAKE/MODEL	Teledyne T100	RANGE	500 ppb
SERIAL #	722	FLOW (mL/min)	493
INITIAL		FINAL	
BKG/OFFSET	32.3	BKG/OFFSET	32.3
COEF/SLOPE	0.928	COEF/SLOPE	0.894
Expected (reference) Value	252.4	Expected (reference) Value	244.4

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Sabio
MODEL:	2010	MODEL:	2020EXP
ID:	58100720	ID:	18700921
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL107286	HIGH ID	n/a
CONC (ppm):	25.10	EXPIRY DATE	n/a
CYLINDER (psi):	700	LOW ID	n/a
EXPIRY DATE	27-Jan-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		
4002		4002	0.00	0.1	0		
3941	60.80	4002	381.33	394.3	381.4	0.967	1.000
3974	28.80	4003	180.58	n/a	179.3	n/a	1.007
3989	14.40	4003	90.29	n/a	89.9	n/a	1.004

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	-0.1%

COMMENTS:

Sample filter changed.
16:18-16:19 = user error. Adjusted high restarted.


SO2[ppb] Station: AQHI Grimshaw Daily: 15-11-2023 Type: AVG 1 Min. [1 Min.]
SO2 [ppb]
400
350
300
250
200
150
100
50
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
SO2 [ppb]

TRS Analyzer Calibration by Dilution

DATE:	15-Nov-2023	PREVIOUS CALIBRATION DATE:	19-Oct-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.001
CLIENT:	PRAMP	TEMPERATURE (°C):	23.7
LOCATION:	Grimshaw	BAROMETRIC (mBar):	938
PURPOSE	Routine	START TIME (MST):	13:29
PERFORMED BY:	Chris Wesson	END TIME (MST):	18:23

ANALYZER:

MAKE/MODEL	Teledyne T100U	RANGE	100 ppb
SERIAL #	132	FLOW (mL/min)	538
INITIAL		FINAL	
BKG/OFFSET	59	BKG/OFFSET	58.6
COEF/SLOPE	0.724	COEF/SLOPE	0.708
Expected (reference) Value	44.9	Expected (reference) Value	46.48

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Sabio
MODEL:	2010	MODEL:	2020EXP
ID:	58100720	ID:	18700921
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002455	HIGH ID	n/a
CONC (ppm):	9.70	EXPIRY DATE	n/a
CYLINDER (psi):	2000	LOW ID	n/a
EXPIRY DATE	29-Sep-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		
4002		4002	0.00	-0.1	0		
3970	32.20	4002	78.05	78.11	77.62	0.998	1.005
3987	15.70	4003	38.04	n/a	38.01	n/a	1.001
3995	7.80	4003	18.90	n/a	18.59	n/a	1.017

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.996	0.0%

COMMENTS:

Converter, CDNova CDN-101 #576.
14:24-14:26 , 14:44-14:46= flush regulator. AF high restarted
16:16-16:19=user error. Adjusted high restarted.

TRS[ppb] Station: AQHI Grimshaw Daily: 15-11-2023 Type: AVG 1 Min. [1 Min.]

NOx Calibration by Dilution/Gas-Phase Titration

CALIBRATION:

				ANALYZER:			
DATE:	15-Nov-2023	PREVIOUS CALIBRATION DATE:	31-Oct-2023	MAKE/MODEL:	Teledyne T200	PREVIOUS CF.	
CLIENT:	PRAMP	TEMPERATURE (°C):	23.7	SERIAL #:	837	NOx	0.998
LOCATION:	Grimshaw	BAROMETRIC (mBar):	937	FLOW (mL/min)	441	NO	1.001
PURPOSE	Removal/Shut-down	START TIME (MST):	08:55	RANGE (ppb)	500	NO2	0.998
PERFORMED BY:	Chris Wesson	END TIME (MST):	13:06	GPT FOR O3?		No	

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Sabio	CYLINDER ID:	EY0001013		HIGH ID:	n/a
MODEL:	2010	MODEL:	2020EXP	NO/NOx (PPM):	49.2	49.4	HIGH EXPIRY:	n/a
ID:	26701218	ID:	18700921	CYLINDER (psi):	1100		LOW ID:	n/a
MFC CALIBRATION DATE:	08-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:	0.5	-0.4	n/a	BKG/OFFSET:	n/a	n/a	n/a
SLOPE/COEF/CE:	0.923	0.968	1.0088	SLOPE/COEF/CE:	n/a	n/a	n/a

EXPECTED (REFERENCE) VALUE:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	303.1	2.6	300.5		n/a	n/a	n/a

CALIBRATION PARAMETERS:

POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
HIGH	380	250	230-265	n/a
MID	180	125	115-150	n/a
LOW	90	45	40-55	n/a
EXTRA 1	n/a	n/a	n/a	n/a

NO/NOx CALIBRATION:

FLOW RATE			CONCENTRATION (ppb)									CORRECTION FACTOR (CF.)					
(mL/min)			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	0.0	-0.5	-0.5	n/a	n/a	n/a						
4959	38.60	4998	380.0	381.5	1.5	384.0	384.9	0.8	n/a	n/a	n/a	0.990	0.990		n/a	n/a	
4982	18.30	5000	180.1	180.8	0.7	180.4	180.5	0.1	n/a	n/a	n/a	0.998	0.999		n/a	n/a	
4990	9.10	4999	89.6	89.9	0.4	90.2	90.4	0.2	n/a	n/a	n/a	0.993	0.989		n/a	n/a	

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	38.60	4999	0	382.6	383.3	0.8				
AS-FOUND HIGH	38.60	4999	250	141.6	382.6	241.0	241	240.2	1.003	99.67%
ADJUSTED HIGH	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a
MID	38.60	4999	135	251.9	382.0	130.1	130.7	129.3	1.011	98.93%
LOW	38.60	4999	48	335.4	383.3	47.9	47.2	47.1	1.002	99.79%
NO2 adjustment not required.									AVERAGE:	99.46%

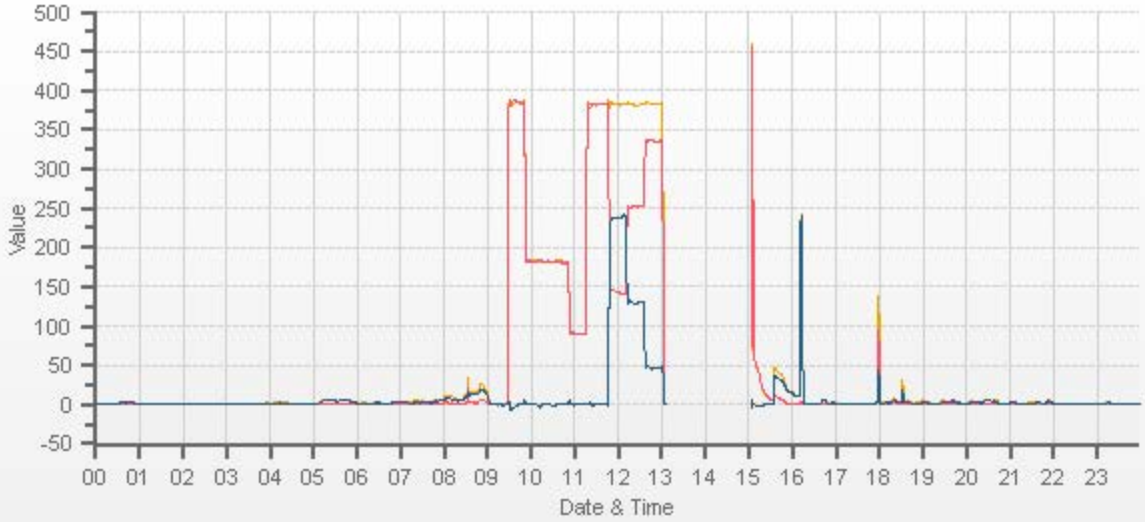
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
NO	1.000	1.011	-0.09%
NOx	1.000	1.010	-0.17%
NO2	1.000	0.997	-0.07%

COMMENTS:

Shutdown to replace converter.

Station: AQHI Grimshaw Daily: 15-11-2023 Type: AVG 1 Min. [1 Min.]



NOx Calibration by Dilution/Gas-Phase Titration

CALIBRATION:

DATE:	16-Nov-2023	PREVIOUS CALIBRATION DATE:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	21.8
LOCATION:	Grimshaw	BAROMETRIC (mBar):	929
PURPOSE	Install/Post-Repair	START TIME (MST):	09:41
PERFORMED BY:	Chris Wesson	END TIME (MST):	16:00

ANALYZER:

MAKE/MODEL:	Teledyne T200	PREVIOUS CF.	
SERIAL #:	837	NOx	n/a
FLOW (mL/min)	437	NO	n/a
RANGE (ppb)	500	NO2	n/a
GPT FOR O3?		Yes	

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Sabio	CYLINDER ID:	EY0001013	HIGH ID:	n/a
MODEL:	2010	MODEL:	2020EXP	NO/NOx (PPM):	49.2 49.4	HIGH EXPIRY:	n/a
ID:	26701218	ID:	18700921	CYLINDER (psi):	1100	LOW ID:	n/a
MFC CALIBRATION DATE:	08-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:	2.8	1.9	n/a	BKG/OFFSET:	2	-0.5	n/a
SLOPE/COEF/CE:	1.011	1.016	1	SLOPE/COEF/CE:	1	1	0.996

EXPECTED (REFERENCE) VALUE:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	n/a	n/a	n/a		308.4	2.3	306.1

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			CONCENTRATION (ppb)									CORRECTION FACTOR (CF.)					
(mL/min)			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	n/a	n/a	n/a	0.0	0.0	0.0						
4960	40.10	5000	394.6	396.2	1.6	n/a	n/a	n/a	395.5	397.2	1.7	n/a	n/a		0.998	0.997	
4983	18.30	5001	180.0	180.8	0.7	n/a	n/a	n/a	179.1	179.1	0.0	n/a	n/a		1.005	1.009	
4990	9.10	4999	89.6	89.9	0.4	n/a	n/a	n/a	89.2	89.7	0.5	n/a	n/a		1.004	1.003	

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	393.5	395.9	2.4				
AS-FOUND HIGH	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a
ADJUSTED HIGH	40.10	5000	270	132.9	395.6	262.7	260.6	260.3	1.001	99.88%
MID	40.10	5000	160	241.7	396.9	155.2	151.8	152.8	0.993	100.66%
LOW	40.10	5000	60	337.3	396.5	59.2	56.2	56.8	0.989	101.07%
NO2 COEF/CONVERTER EFFICIENCY ADJUSTED									AVERAGE:	100.54%

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
NO	1.000	1.003	-0.11%
NOx	1.000	1.003	-0.13%
NO2	1.000	0.995	0.23%

COMMENTS:

Post-repair after moly, dryer and pump swap.
11:00 = daily ZS. Mid-point restarted
Extra O3 point: Setpoint = 380, Conc = 375.5

Station: AQHI Grimshaw Daily: 16-11-2023 Type: AVG 1 Min. [1 Min.]

Ozone Calibration by Direct GPT

DATE:	16-Nov-2023	PREVIOUS CALIBRATION DATE:	19-Oct-2023
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	PRAMP	TEMPERATURE (°C):	20.5
LOCATION:	Grimshaw	BAROMETRIC (mBar):	927
PURPOSE	Routine	START TIME (MST):	15:16
PERFORMED BY:	Chris Wesson	END TIME (MST):	19:33

ANALYZER:

MAKE/MODEL	Teledyne T400	RANGE	500 ppb
SERIAL #	824	FLOW (mL/min)	739
INITIAL		FINAL	
BKG/OFFSET	-2.5	BKG/OFFSET	-1.8
COEF/SLOPE	0.993	COEF/SLOPE	0.987
Expected (reference) Value	272.2	Expected (reference) Value	262

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Sabio
MODEL:	2010	MODEL:	2020EXP
ID:	26701218	ID:	18700921
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
	CALIBRATION METHOD:	Direct GPT	
GPT DATE:	16-Nov-2023	GPT END TIME:	15:10

CALIBRATION PARAMETERS:

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

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
5000		5000	0.0	1.1	0.0		
5000		5000	375.5	376.8	376.2	0.999	0.998
5000		5000	151.8	n/a	153.2	n/a	0.991
5000		5000	56.2	n/a	56.3	n/a	0.998

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	0.1%

COMMENTS:

Sample filter changed


O3[ppb] Station: AQHI Grimshaw Daily: 16-11-2023 Type: AVG 1 Min. [1 Min.]
400
350
300
250
200
150
100
50
0
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:	15-Nov-2023	PREVIOUS CALIBRATION DATE:	20-Oct-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	23.7
LOCATION:	Grimshaw	BAROMETRIC (mBar):	937
PURPOSE	Removal/Shut-down	START TIME (MST):	08:55
PERFORMED BY:	Chris Wesson	END TIME (MST):	11:19

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1191032505	1092
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	1.001	1.002	1.002

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Sabio	CYLINDER ID:	LL68768		HIGH ID:	n/a
MODEL:	2010	MODEL:	2020EXP	CH_4/C_3H_8 (ppm):	897.0	301.0	HIGH EXPIRY:	n/a
ID:	58100720	ID:	18700921	CYLINDER (psi):	1600		LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	115	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
	9.12	10.54	19.67		n/a	n/a	n/a

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
3255		3255	0.00	0.00	0.00	0.02	0.00	0.02	n/a	n/a	n/a						
3201	52.80	3254	14.55	13.43	27.99	14.65	13.48	28.13	n/a	n/a	n/a	0.994	0.996	0.995	n/a	n/a	n/a
3229	26.40	3255	7.28	6.71	13.99	7.39	6.77	14.16	n/a	n/a	n/a	0.984	0.992	0.988	n/a	n/a	n/a
3240	13.20	3253	3.64	3.36	7.00	3.72	3.45	7.16	n/a	n/a	n/a	0.978	0.974	0.977	n/a	n/a	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.005	0.2%
NMHC	1.000	1.002	0.2%
THC	1.000	1.003	0.2%

Comments:

H2 = AMA HG300 #190567059
Shutdown for H2 maintenance

Use Zero Chrom? **No**

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	15-Nov-2023	PREVIOUS CALIBRATION DATE:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	24.2
LOCATION:	Grimshaw	BAROMETRIC (mBar):	938
PURPOSE	Install/Post-Repair	START TIME (MST):	15:25
PERFORMED BY:	Chris Wesson	END TIME (MST):	18:15

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1191032505	1094
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:	Sabio	CYLINDER ID:	LL68768		HIGH ID:	n/a
MODEL:	2010	MODEL:	2020EXP	CH_4/C_3H_8 (ppm):	897.0	301.0	HIGH EXPIRY:	n/a
ID:	26701218	ID:	18700921	CYLINDER (psi):	1600		LOW ID:	n/a
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	115	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		9.10	10.57	19.68

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
3501		3501	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00						
3443	56.80	3500	14.56	13.43	27.99	n/a	n/a	n/a	14.54	13.42	27.96	n/a	n/a	n/a	1.001	1.001	1.001
3473	28.40	3501	7.28	6.71	13.99	n/a	n/a	n/a	7.27	6.78	14.05	n/a	n/a	n/a	1.001	0.990	0.996
3487	14.20	3501	3.64	3.36	7.00	n/a	n/a	n/a	3.67	3.42	7.09	n/a	n/a	n/a	0.991	0.982	0.987

LINEAR REGRESSION ANALYSIS:

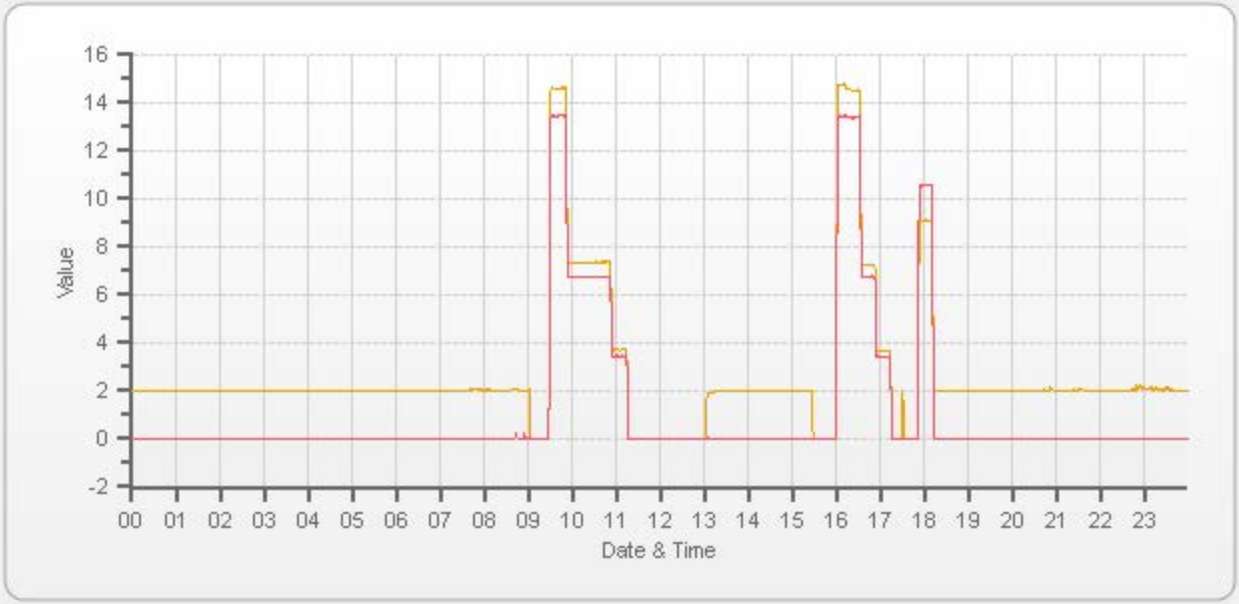
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	0.998	0.1%
NMHC	1.000	0.998	0.2%
THC	1.000	0.998	0.1%

Comments:

H2 = AMA HG300 #190567059

Use Zero Chrom? **No**

Station: AQHI Grimshaw Daily: 15-11-2023 Type: AVG 1 Min. [1 Min.]



Teledyne T640 Audit/Calibration

Date/Previous Audit Date:	November 16, 2023	October 20, 2023	**Weather Conditions:**	Cloudy/Overcast	
Company:	PRAMP		**Start Time (mst):**	15:48	
Station:	Grimshaw		**End Time (mst):**	18:48	
Parameter:	PM 2.5		**Performed By/Reviewer:**	Chris Wesson	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 #201587, Exp Dec 12, 2023 **Temperature:** Deltacal DC1 #201587, Exp Dec 12, 2023

Digital Manometer: Deltacal DC1 #201587, Exp Dec 12, 2023 **Pressure:** Deltacal DC1 #201587, Exp Dec 12, 2023

DIAGNOSTICS:

Ambient Pressure (mmHg)	698.0	Ambient Temp (°C)	3.6	ASC Heater Duty (%)	0.0
Box Temp (°C)	27.7	Current PMT HV (V)	1542	LED Temp (°C)	35.82
P3 Value	38	PMT Setting (V)	1546	Pump PWM (%)	41
Sample Flow (L/min)	4.99	Sample RH (%RH)	15.5	Sample Temp (°C)	25.5

Item:	**As-found**		**As-left**		**Tolerance**
	Reference	**T640x**	**Reference**	**T640x**	
Zero Test (Leak Check)	PM10	114.0	0	0.0	0.0 to 0.2
	PM2.5	0.0	0	0.0	
Ambient Pressure (mmHg)	697.0	698.0	696.4	698	+/- 10 mm Hg
Ambient Temperature (°C)	3.20	3.4	n/a		+/- 2°C
Sample Flow (L/min)	5.05	5	5.02	4.99	+/-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	5-10-2025

Item:	**Verification:**		**Calibration (if needed):**		**Tolerance**
	Reference	**T640x**	**Reference**	**T640x**	
Peak Channel	10.9	11.9	10.9	10.9	± 0.5
PMT Setting (V)	n/a	1546	n/a	1532	n/a
Peak Channel Counts:	n/a	1014	n/a	1032	n/a

Additional Checks and Maintenance:		***Completed***
Every 6 Months	1. Clean Optical Chamber	Yes
	2. Clean RH Sensor	Yes
	3. Clean Temp Sensor	Yes
Every 12 months (or if valve or pump PWM value approaches 80%)	1. New internal Disposable Filter Unit (DFU) [inside front panel]	Yes

Comments:

Alert: 10/25/2023: Perform span dust check.
AF leak check failed - PM10 value higher than ambient. Subsequent tests showed similar or higher result.
Problem traced to fluff/fibres in measurement cell - suspect these were introduced when zero filter added (hence high reading).
Cleaned sample path and cell. Replaced DFU. Completed PMT adjust after cleaning.
No further issues

Meteorological System Checklist

Date:	November 15, 2023		
Technician:	Chris Wesson		
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:	October 17, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	Traceable 20250-21 #230557122 Exp: Aug 17, 2025		
Reference Temperature (^{o}C):	-0.8		
Station - Ambient Temperature (^{o}C):	-1.0		
Temperature Difference (^{o}C):	0.2		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	October 17, 2023		
Reference Barometer ID:	Brunton ADC #231010, Exp: Oct 10, 2024		
Reference Pressure - Units/Reading:	millibar	938	
Station Pressure - Units/Reading:	millibar	937.8	
Pressure Tolerance +/- 15% of error:	797 - 1079	0.02%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	October 17, 2023		
Reference Hygrometer ID:	Traceable 20250-21 #230557122 Exp: Aug 17, 2025		
Reference Hygrometer % RH- Reading:	67.50		
Station Hygrometer % RH- Reading:	72.30		
RH Tolerance +/- 15% of difference:	57.38 - 77.63	-7.1%	

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	October 17, 2023	Previous check date:	October 17, 2023
Wind Speed Observed (kph):	5~10	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	6.9	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

NOVEMBER 2023

Ambient Air Monitoring Calibration Report

- PEACE RIVER COMPLEX (PRC) STATION-

CAL-PRAMP-202311-01698

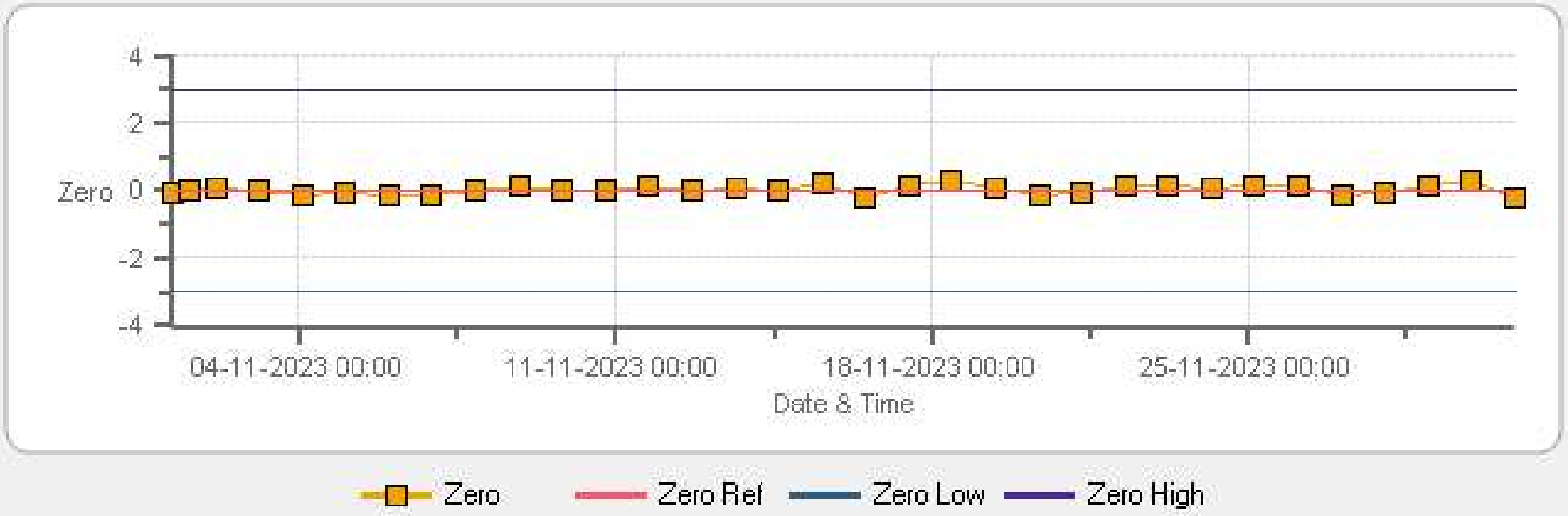
Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Bureau Veritas Canada

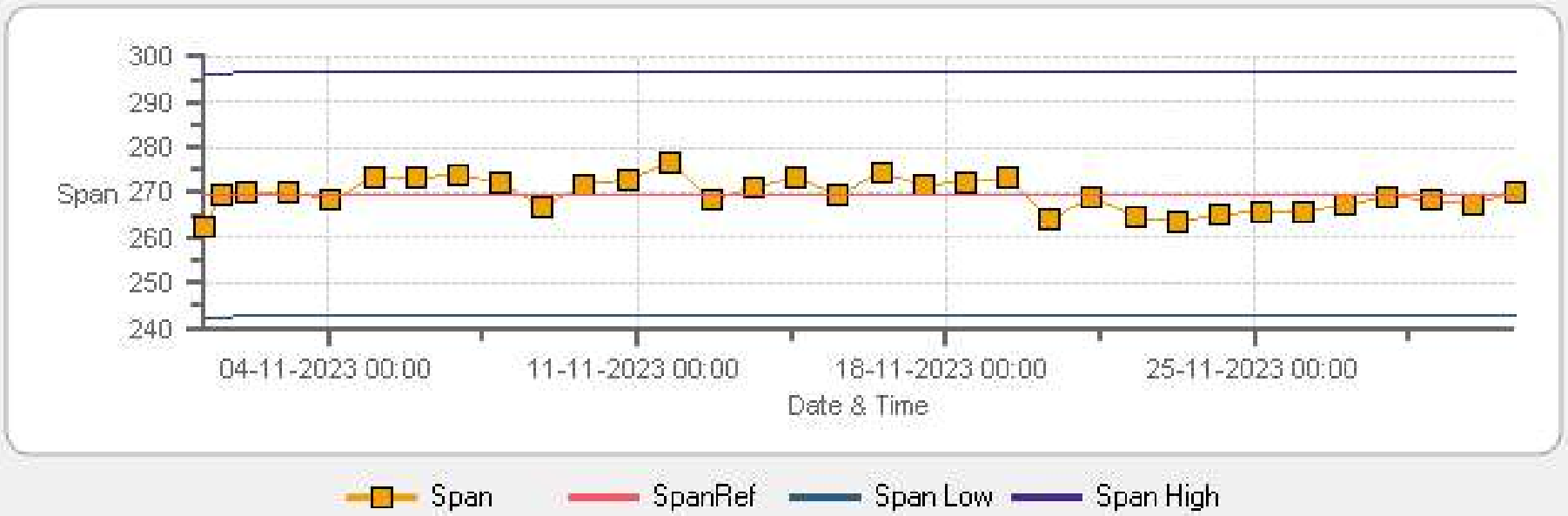
December 18, 2023

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

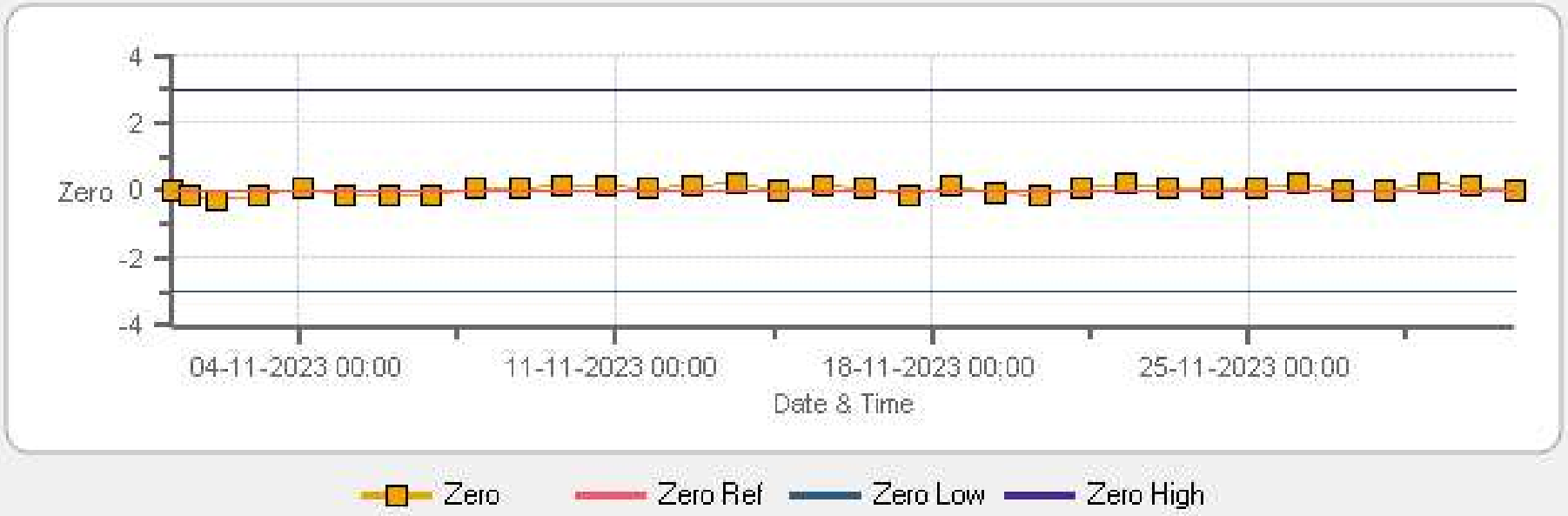
SO2[ppb] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Zero



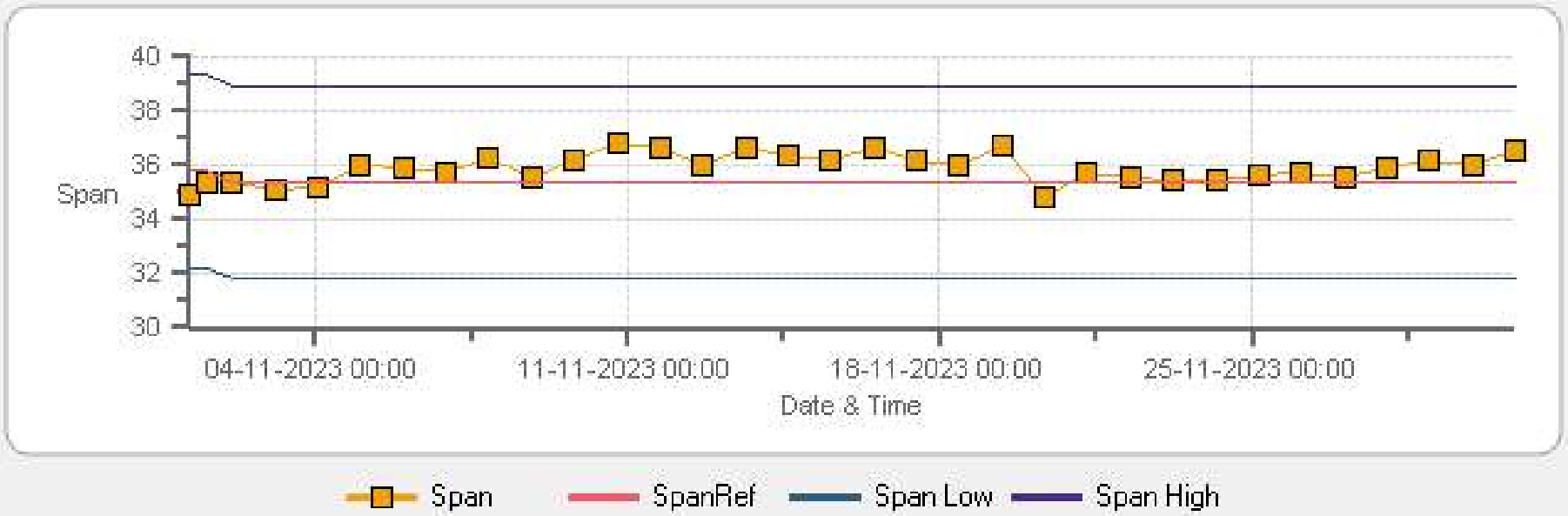
SO2[ppb] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Span



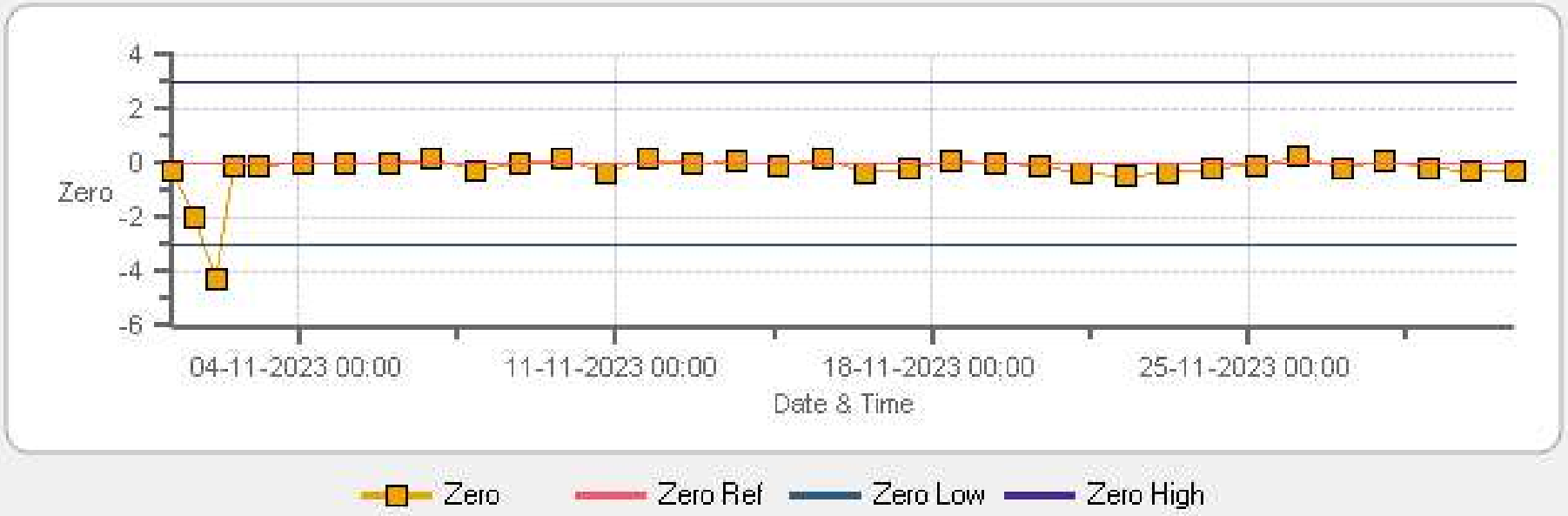
H2S[ppb] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Zero



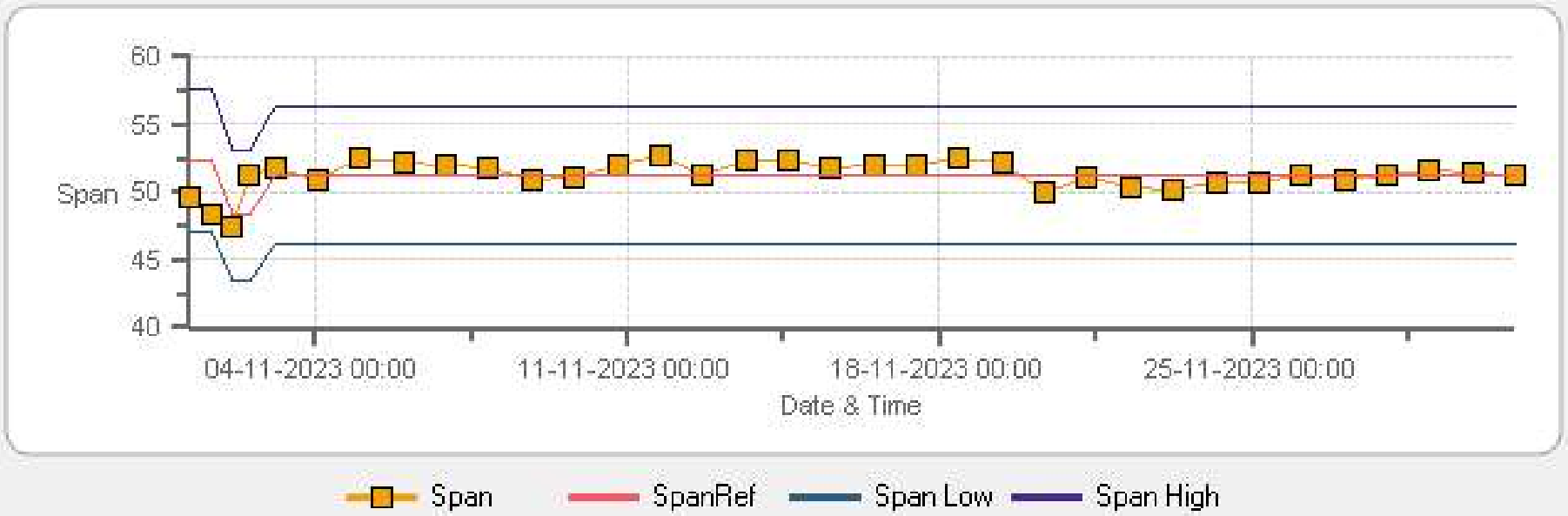
H2S[ppb] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Span

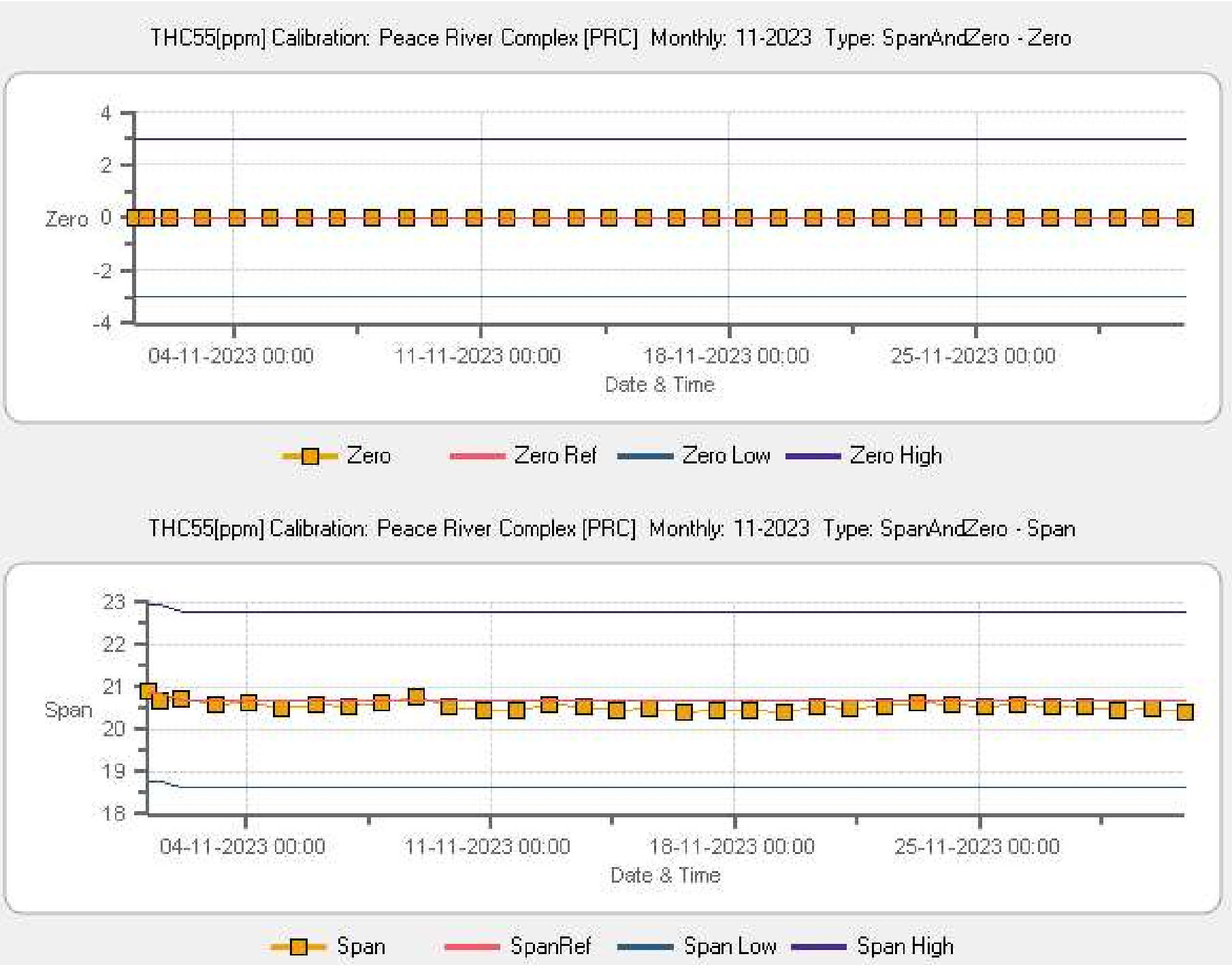


TRS[ppb] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Zero

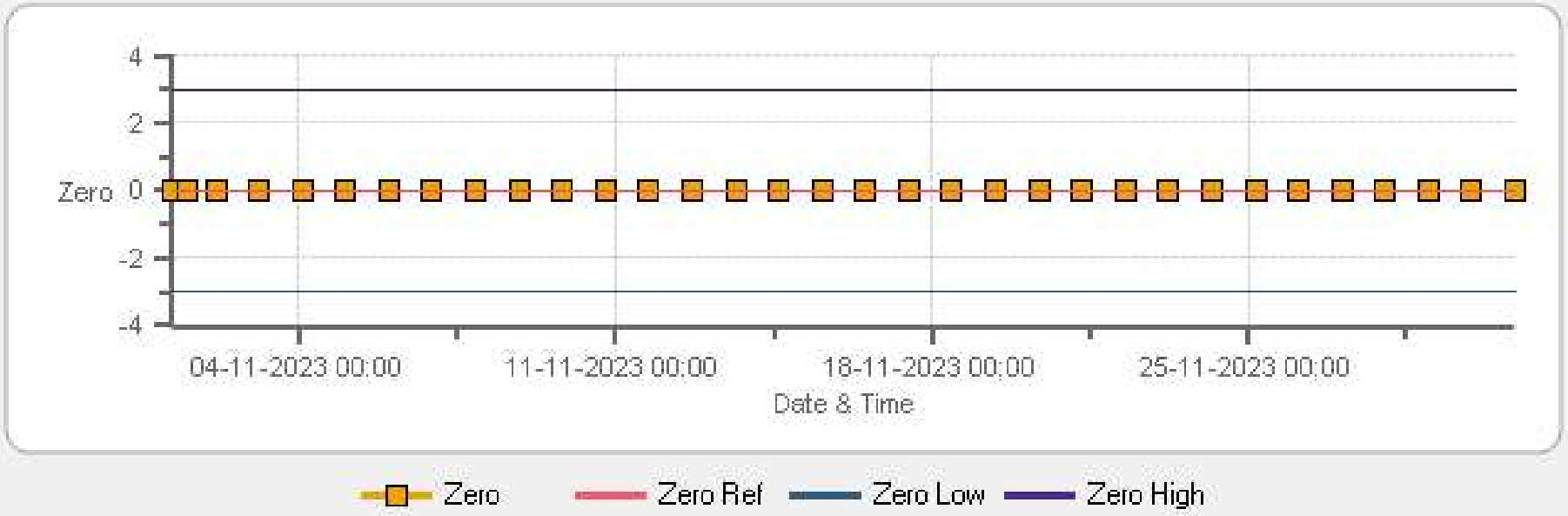


TRS[ppb] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Span

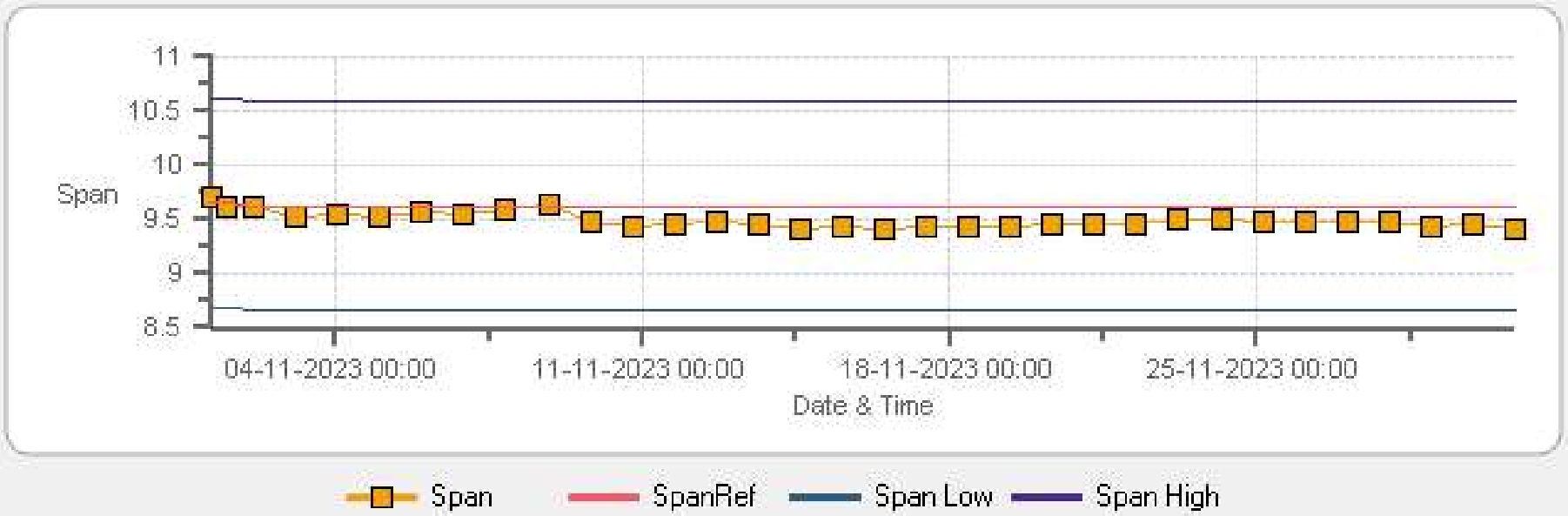


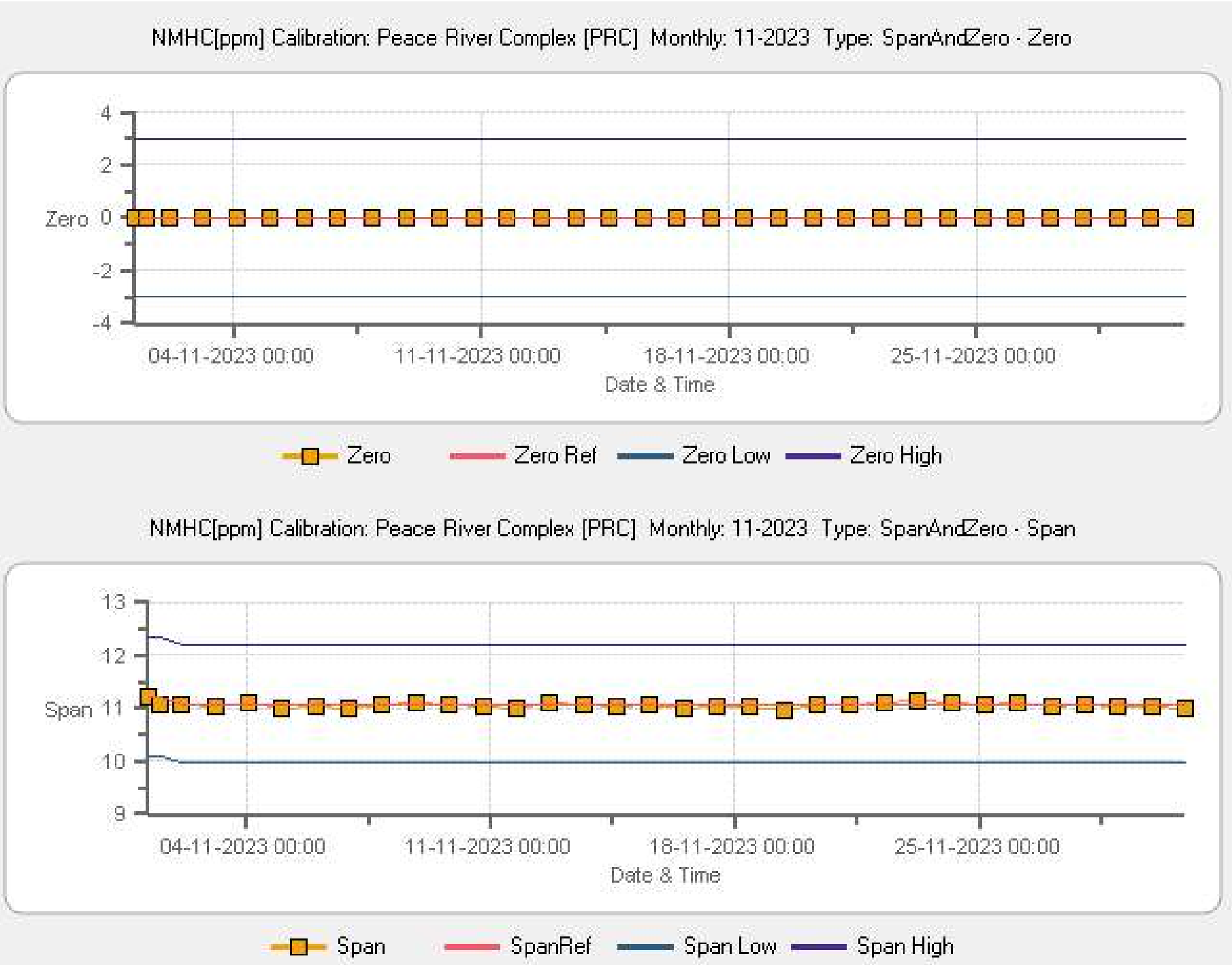

THC55[ppm] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
04-11-2023 00:00
11-11-2023 00:00
18-11-2023 00:00
25-11-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
THC55[ppm] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Span
23
22
21
Span
20
19
18
04-11-2023 00:00
11-11-2023 00:00
18-11-2023 00:00
25-11-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

CH4[ppm] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Zero



CH4[ppm] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Span




NMHC[ppm] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
04-11-2023 00:00
11-11-2023 00:00
18-11-2023 00:00
25-11-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
NMHC[ppm] Calibration: Peace River Complex [PRC] Monthly: 11-2023 Type: SpanAndZero - Span
13
12
Span 11
10
9
04-11-2023 00:00
11-11-2023 00:00
18-11-2023 00:00
25-11-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	01-Nov-2023	PREVIOUS CALIBRATION DATE:	02-Oct-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.002
CLIENT:	PRAMP	TEMPERATURE (°C):	23.5
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	944
PURPOSE	Routine	START TIME (MST):	08:33
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:28

ANALYZER:

MAKE/MODEL	Thermo 43i	RANGE	500 ppb
SERIAL #	1034746225	FLOW (mL/min)	440
INITIAL		FINAL	
BKG/OFFSET	19.5	BKG/OFFSET	19.9
COEF/SLOPE	1.125	COEF/SLOPE	1.147
Expected (reference) Value	269.2	Expected (reference) Value	269.6

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	-0.1	0		
3939	60.80	4000	380.00	369	380.2	1.030	0.999
3970	28.80	3999	180.05	n/a	180.5	n/a	0.997
3985	14.40	3999	90.02	n/a	89	n/a	1.011

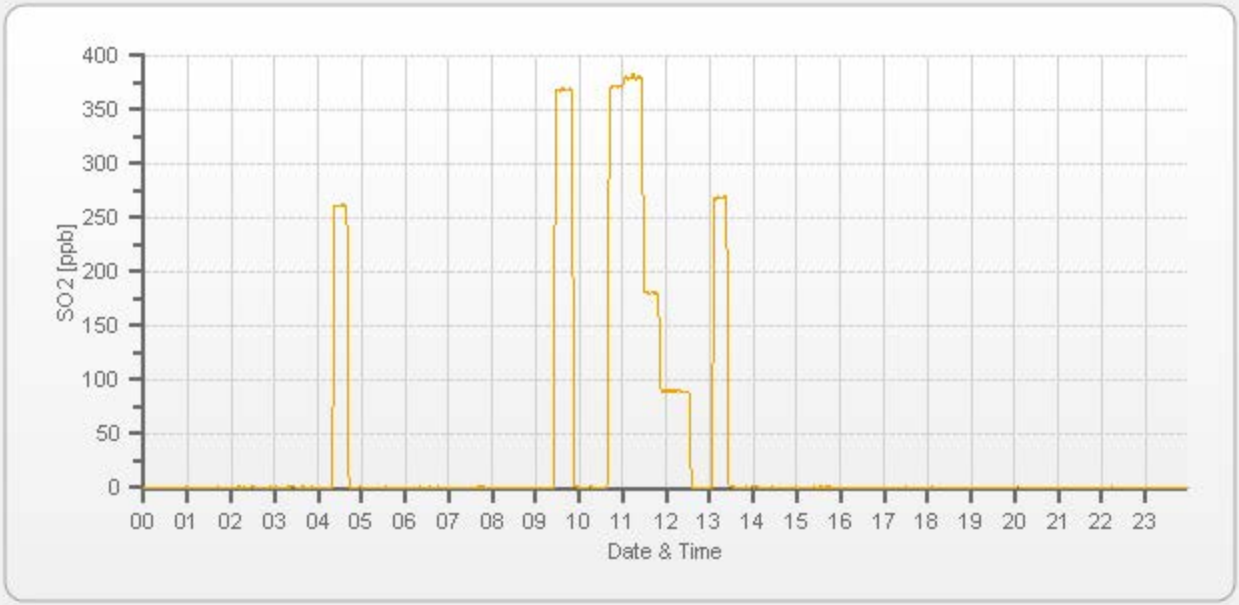
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.1%

COMMENTS:

Sample filter changed.

SO2[ppb] Station: Peace River Complex [PRC] Daily: 01-11-2023 Type: AVG 1 Min. [1 Min.]



H2S Analyzer Calibration by Dilution

DATE:	01-Nov-2023	PREVIOUS CALIBRATION DATE:	02-Oct-2023
PARAMETER:	H2S	PREVIOUS CORRECTION FACTOR:	0.994
CLIENT:	PRAMP	TEMPERATURE (°C):	23.5
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	944
PURPOSE	Routine	START TIME (MST):	08:33
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:27

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1308857354	FLOW (mL/min)	933
INITIAL		FINAL	
BKG/OFFSET	15	BKG/OFFSET	14.9
COEF/SLOPE	1.051	COEF/SLOPE	1.045
Expected (reference) Value	35.8	Expected (reference) Value	35.4

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	10-Nov-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002519	HIGH ID	n/a
CONC (ppm):	9.41	EXPIRY DATE	n/a
CYLINDER (psi):	600	LOW ID	n/a
EXPIRY DATE	10-Nov-2023	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		
3967	33.20	4000	78.10	77	78.2	1.012	0.999
3983	16.20	3999	38.12	n/a	37.4	n/a	1.019
3991	8.10	3999	19.06	n/a	18.6	n/a	1.025

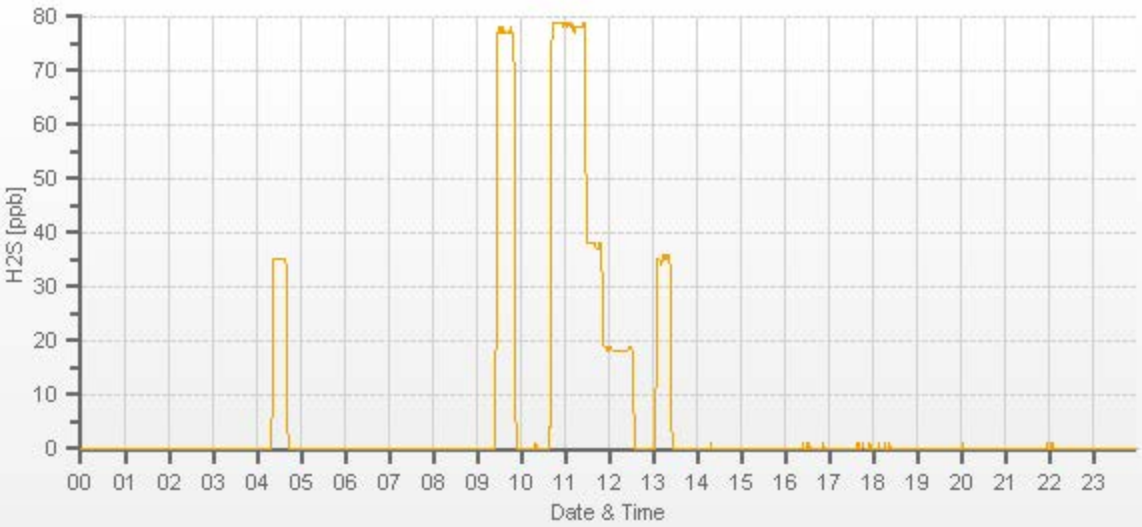
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.4%

COMMENTS:

Sample filter changed

H2S[ppb] Station: Peace River Complex [PRC] Daily: 01-11-2023 Type: AVG 1 Min. [1 Min.]



TRS Analyzer Calibration by Dilution

DATE:	02-Nov-2023	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	24.3
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	940
PURPOSE	Install/Post-Repair	START TIME (MST):	09:56
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:10

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1034746224	FLOW (mL/min)	702
INITIAL		FINAL	
BKG/OFFSET	n/a	BKG/OFFSET	26.4
COEF/SLOPE	n/a	COEF/SLOPE	1.023
Expected (reference) Value	n/a	Expected (reference) Value	51.25

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:	EY0002519	HIGH ID	n/a
CONC (ppm):	9.41	EXPIRY DATE	n/a
CYLINDER (psi):	600	LOW ID	n/a
EXPIRY DATE	10-Nov-2023	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:	09:56	SO2 Conc (ppb)	380
END TIME:	10:11	Analyzer Response (ppb)	0.0

CALIBRATION:

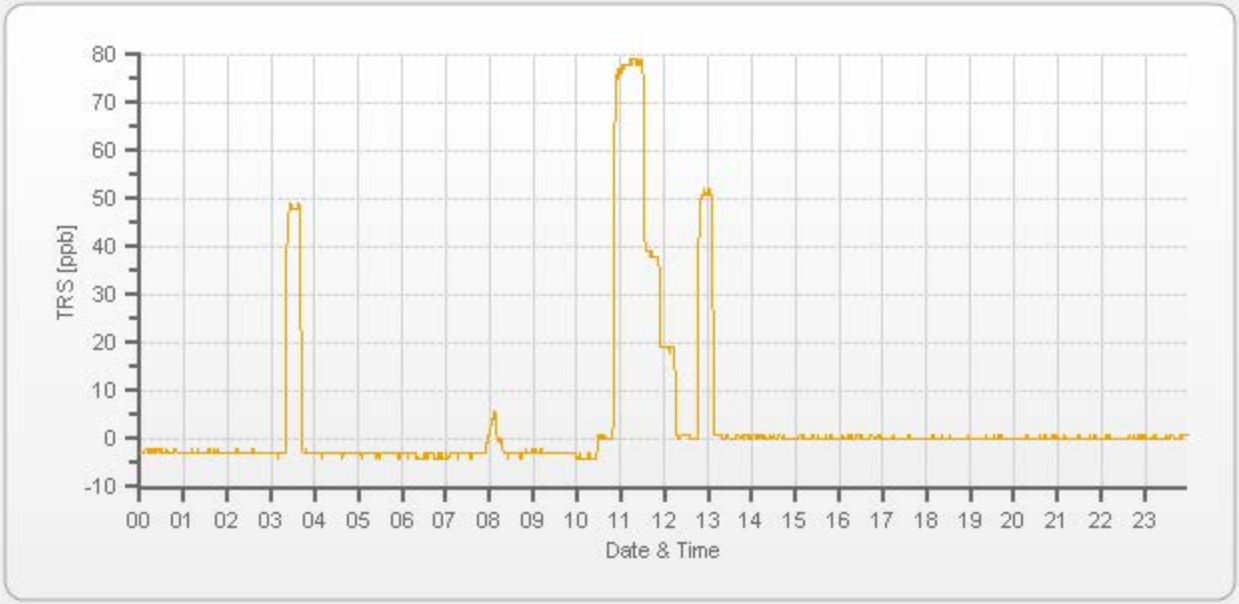
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	n/a	0		
3967	33.20	4000	78.10	n/a	78.4	n/a	0.996
3983	16.20	3999	38.12	n/a	37.78	n/a	1.009
3991	8.10	3999	19.06	n/a	18.49	n/a	1.031

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.006	-0.4%

COMMENTS:

Converter replaced = BV's CDNOVA CDN-101 #516
Scrubber beads Replaced Post
Repair Calibration


TRS[ppb] Station: Peace River Complex [PRC] Daily: 02-11-2023 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:	01-Nov-2023	PREVIOUS CALIBRATION DATE:	02-Oct-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	23.4
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	944
PURPOSE	Routine	START TIME (MST):	08:33
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:12

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1034745845	1002
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	1.000	0.999	1.000

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:	916	CYLINDER (psi):	1700		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
	9.65	11.21	20.86		9.62	11.08	20.70

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
3500		3500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
3444	56.80	3501	14.55	13.43	27.98	14.66	13.53	28.19	14.54	13.41	27.95	0.993	0.993	0.993	1.001	1.001	1.001
3472	28.40	3500	7.28	6.72	14.00	n/a	n/a	n/a	7.26	6.69	13.96	n/a	n/a	n/a	1.003	1.004	1.003
3487	14.20	3501	3.64	3.36	7.00	n/a	n/a	n/a	3.63	3.35	6.98	n/a	n/a	n/a	1.002	1.002	1.002

LINEAR REGRESSION ANALYSIS:

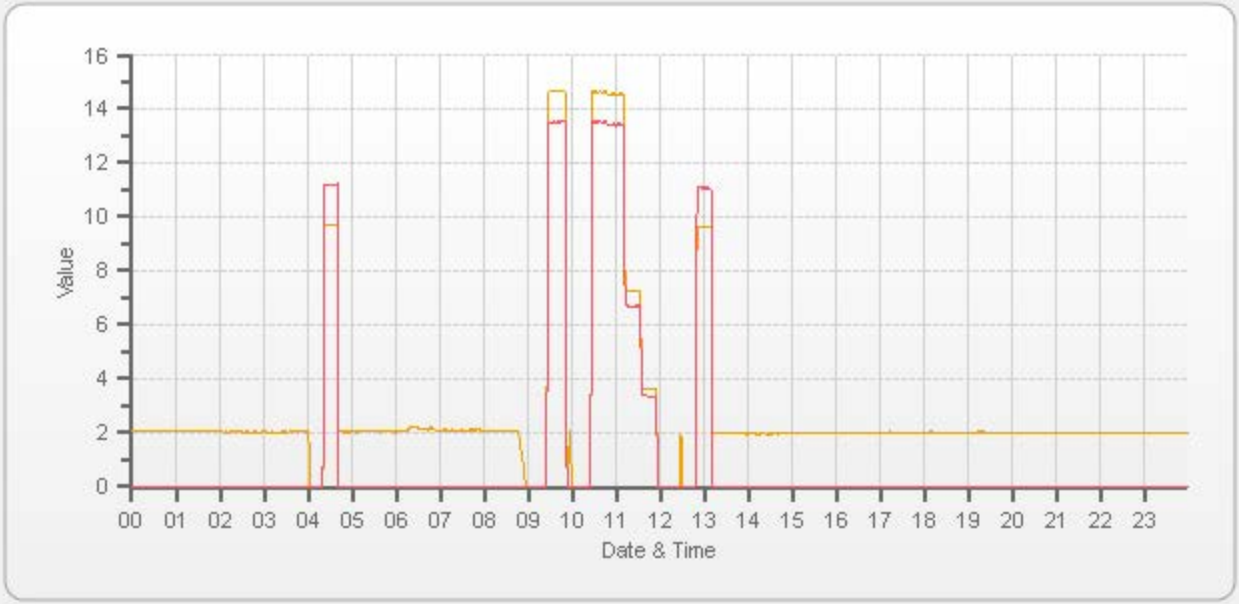
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	0.999	0.0%
NMHC	1.000	0.998	0.0%
THC	1.000	0.999	0.0%

Comments:

Filter Change - No Issues

Use Zero Chrom? **No**

Station: Peace River Complex [PRC] Daily: 01-11-2023 Type: AVG 1 Min. [1 Min.]



Meteorological System Checklist

Date:	November 1, 2023		
Technician:	Kevin Sebastian		
Station:	Peace River Compliance		
Unit:	**Make:**	**Model:**	**Serial #:**
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:	October 2, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Temperature (^{o}C):	7.3		
Station - Ambient Temperature (^{o}C):	7.0		
Temperature Difference (^{o}C):	0.3		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	October 2, 2023		
Reference Barometer ID:	Brunton 05535 Expires July 17, 2024		
Reference Pressure - Units/Reading:	millibar	939	
Station Pressure - Units/Reading:	millibar	942	
Pressure Tolerance +/- 15% of error:	798 - 1080	-0.32%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	October 2, 2023		
Reference Hygrometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	58.80		
Station Hygrometer % RH- Reading:	59.20		
RH Tolerance +/- 15% of difference:	49.98 - 67.62	-0.7%	

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	October 2, 2023	Previous check date:	October 2, 2023
Wind Speed Observed (kph):	5~10	Wind Direction Observed:	SW
Wind speed on Data Logger (kph):	6	Wind Direction on Data Logger:	SW
		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

NOVEMBER 2023

Monthly Ambient Air Quality Monitoring Integrated Sampling Report

PRAMP-202311-INTEGRATED

December 18, 2023

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Table of Contents

Peace River Area Monitoring Program
Suite 91, 305 – 4625 Varity Drive NW
Calgary, AB, T3A 0Z9
Phone #: 780-226-7068 / 587-225-2248
E-mail: pramptech@prampairshed.ca
www.prampairshed.ca

December 18, 2023

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

RE: PRAMP –November 2023 Monthly Ambient Air Quality Monitoring Integrated Sampling Report

Enclosed is the November 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 November 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 canister events recorded this month. The canister system was triggered at the Reno-B station on November 30 at 06:40 due to an analyzer/carrier gas 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 are scheduled to be removed by the end of December.

- **Passives H_2S and SO_2 Sampling Program**
  - The passive sample filters were installed at the stations on November 1 and were removed on December 1.

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

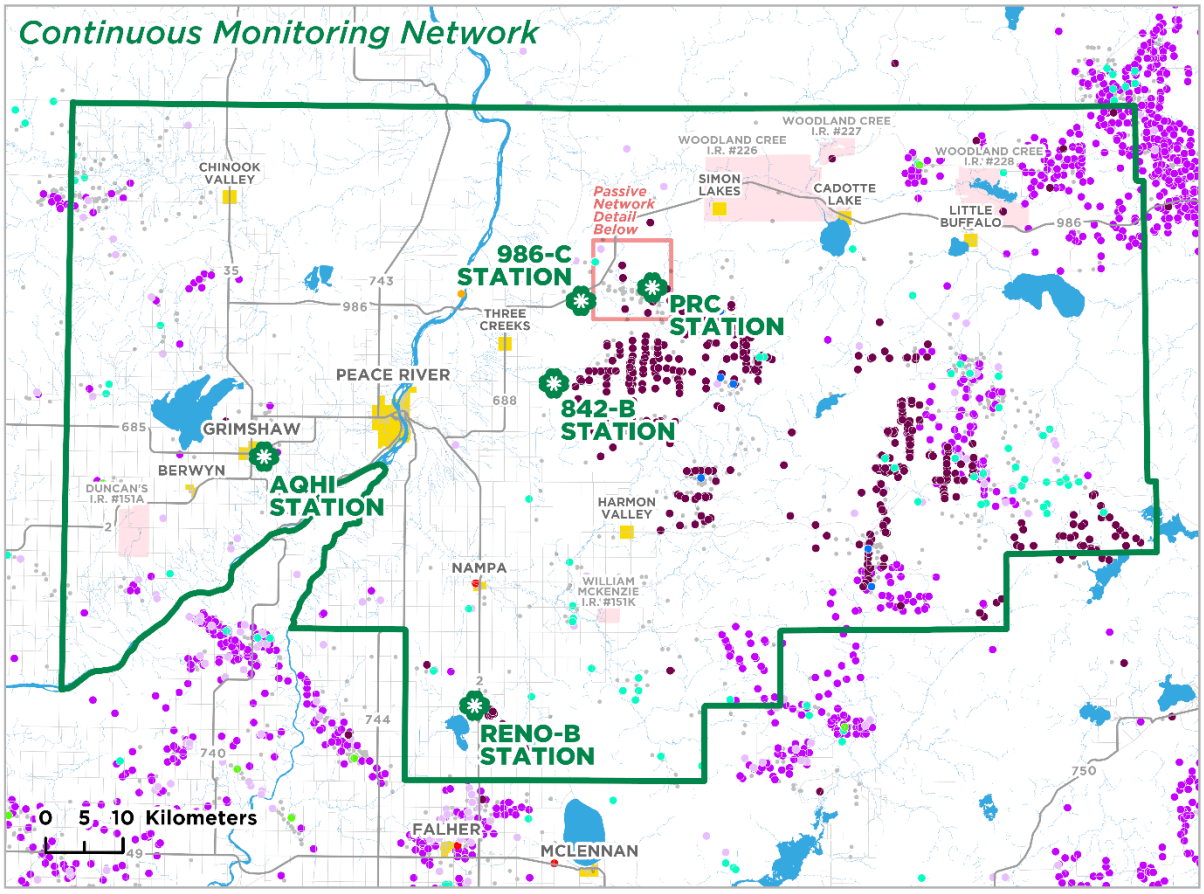
The report was reviewed by Mike Bisaga in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

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

December 18, 2023

Map of PRAMP Continuous Monitoring and Integrated Sampling Network

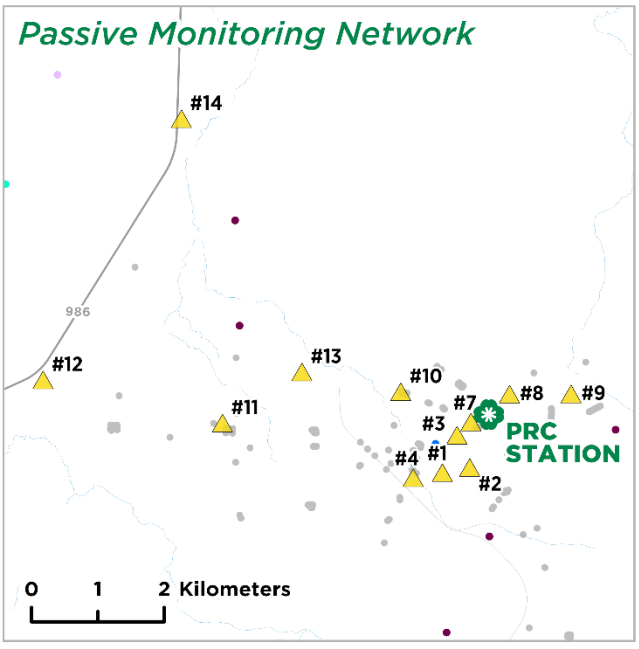


Legend

- 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)	0.11	#4	<0.1	#9
Maximum (ppb)	0.20	#1	0.3	#3
Average (ppb)	0.14	-	0.20	-

ANALYTICAL SAMPLING RESULTS

Passives

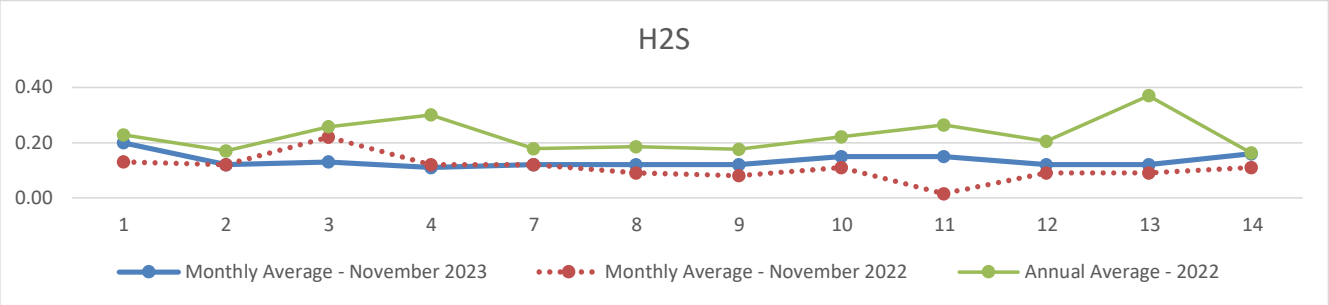
PEACE RIVER AREA MONITORING PROGRAM

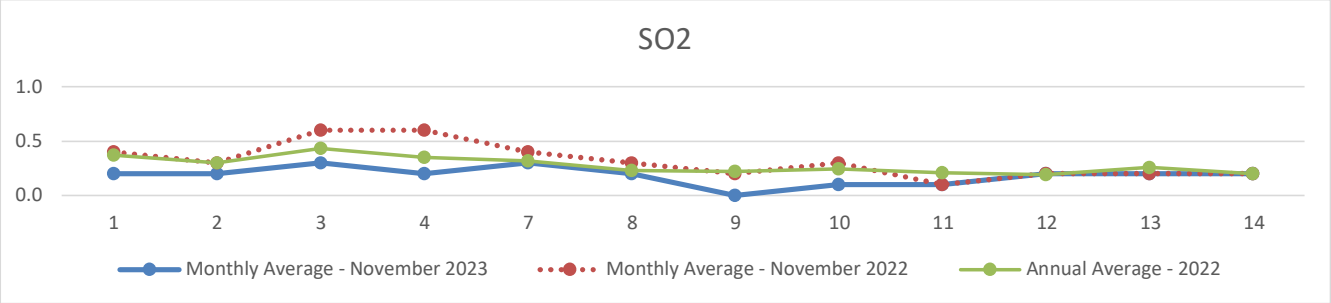
PRC Site - November 2023

Passive Results

	H_2S		SO_2	
Minimum (ppb)	0.11	#4	<0.1	#9
Maximum (ppb)	0.20	#1	0.3	#3
Average (ppb)	0.14	-	0.20	-

No.	Calculated Value	Calculated Value
1	0.20	0.2
2	0.12	0.2
3	0.13	0.3
4	0.11	0.2
7	0.12	0.3
8	0.12	0.2
9	0.12	<0.1
10	0.15	0.1
11	0.15	0.1
12	0.12	0.2
13	0.12	0.2
14	0.16	0.2
Reportable Detection Limit (RDL)	**0.02**	**0.1**





End of Report

Peace River Area Monitoring Program

NOVEMBER 2023

Ambient Air Monitoring

Certified Laboratory Analysis Report

LAB-PRAMP-202311

Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Peace River Area Monitoring Program

December 18, 2023

Table of Contents

Passive Sampling Analytical Results

6744 - 50 St. Edmonton AB Canada T6B 3M9

Ph (780) 378-8500, Toll free (800) 386-7247, Fax (780) 378-8699

Bureau Veritas Job Number:

PASSIVE AIR CHAIN OF CUSTODY

Page ___ of ___

Invoice To		Report To	Service Requested	Company Name / Project Name/LSD
Company Name		Name & Email Address	☐ RUSH (Please contact for TAT)	Company Name: Peace River
Contact Name			☐ REGULAR	Project Name/LSD: Peace River
Address				
City/Postal Code				
Phone/Fax#				

ANALYTICAL INFORMATION

Analysis Required

Sample ID or Location (LSD)	Sample Start Date (DD/MM/YY)	Time (24 hrs) (HH:MM)	Sample End Date (DD/MM/YY)	Time (HH:MM)	Volume (m3) *PM/TSP Only*	SO2	H2S	NO2	O3	NH3	PM2.5	PM10	TSP	Dustfall				
1	01/11/23	8 am	01/12/23	7:30 am		X	X											
2						X	X											
3						X	X											
4						X	X											
7						X	X											
8						X	X											
9						X	X											
10						X	X											
11						X	X											
12						X	X											
13						X	X											
14		10:30 am		9:30 am		X	X											
Blank						X	X											
Blank						X	X											

Notes/Comments: Client 12521 / Scenario 18009

Sampled By: Kevin Mercredi Phone/Email: ___ Received By: ___ Date/Time: ___ Project #: 14502 14465

Date Shipped: ___ Signature: ___ PO#: AB 23-12-05 08200

PTC FCD-00457/4

Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas Laboratories' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgment and acceptance of our terms available at http://www.bvlabs.com/terms-and-conditions.

Your Project #: 2023/11/01-2023/12/01
Site Location: PEACE RIVER COMPLEX

Attention: Michael and Lily

Peace River Area Monitoring Program Committee
Three Creeks
Suite 91, 305 –
4625 Varsity Drive NW
Calgary, AB
CANADA T3A0Z9

Report Date: 2023/12/14
Report #: R3440828
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C399340
Received: 2023/12/05, 08:00

Sample Matrix: Air
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis	12	2023/12/07	2023/12/11	PTC SOP-00150	Passive H2S in ATM
SO2 Passive Analysis	12	2023/12/06	2023/12/11	PTC SOP-00149	Passive SO2 in ATM

This report shall not be reproduced except in full, without the written approval of the laboratory.
Results relate only to the items tested.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Rowena Geron
Project Manager Assistant
14 Dec 2023 09:45:25

Please direct all questions regarding this Certificate of Analysis to:
Customer Service Passives,
Email: PassiveAir@bureauveritas.com
Phone# (780) 378-8500

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Branko Banjac, General Manager responsible for Alberta Petroleum laboratory operations.

Bureau Veritas Edmonton: 6744 - 50th Street, T6B 3M9 Telephone (780) 378-8500 Fax (780) 378-8699

Bureau Veritas Job #: C399340
Report Date: 2023/12/14

Peace River Area Monitoring Program Committee
Client Project #: 2023/11/01-2023/12/01
Site Location: PEACE RIVER COMPLEX
Sampler Initials: BG

RESULTS OF CHEMICAL ANALYSES OF AIR

Bureau Veritas ID		CGA951	CGA952	CGA953	CGA954	CGA955	CGA956	CGA957		
Sampling Date		2023/11/01 08:00	2023/11/01 08:00	2023/11/01 08:00	2023/11/01 08:00	2023/11/01 08:00	2023/11/01 08:00	2023/11/01 08:00		
	UNITS	1	2	3	4	7	8	9	RDL	QC Batch
Passive Monitoring										
Calculated H2S	ppb	0.20	0.12	0.13	0.11	0.12	0.12	0.12	0.02	B226452
Calculated SO2	ppb	0.2	0.2	0.3	0.2	0.3	0.2	<0.1 (1)	0.1	B223400

RDL = Reportable Detection Limit
(1) V7

Bureau Veritas ID		CGA958	CGA959	CGA960	CGA961	CGA962		
Sampling Date		2023/11/01 08:00	2023/11/01 08:00	2023/11/01 08:00	2023/11/01 08:00	2023/11/01 10:30		
	UNITS	10	11	12	13	14	RDL	QC Batch
Passive Monitoring								
Calculated H2S	ppb	0.15	0.15	0.12	0.12	0.16	0.02	B226452
Calculated SO2	ppb	0.1	0.1	0.2	0.2	0.2	0.1	B223400

RDL = Reportable Detection Limit

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GENERAL COMMENTS

Results relate only to the items tested.

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Bureau Veritas Job #: C399340
Report Date: 2023/12/14

Peace River Area Monitoring Program Committee
Client Project #: 2023/11/01-2023/12/01
Site Location: PEACE RIVER COMPLEX
Sampler Initials: BG

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
B223400	OZ	Spiked Blank	Calculated SO2			100	%	90 - 110
B223400	OZ	Method Blank	Calculated SO2		<0.1		ppb	
B226452	YYA	Spiked Blank	Calculated H2S			99	%	90 - 110

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

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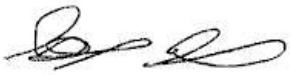
Bureau Veritas Job #: C399340
Report Date: 2023/12/14

Peace River Area Monitoring Program Committee
Client Project #: 2023/11/01-2023/12/01
Site Location: PEACE RIVER COMPLEX
Sampler Initials: BG

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Steven Gloux, Senior Analyst

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End of Report