



Peace River Area Monitoring Program

OCTOBER 2023

Monthly Ambient Air Quality Monitoring Report

PRAMP-202310

Operation and Maintenance:

Bureau Veritas Canada

Data Validation and Report:

Peace River Area Monitoring Program

November 21, 2023

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LIST OF ACRONYMS

AAAQOs	Alberta Ambient Air Quality Objectives
AEP	Alberta Environment and Parks
AMD	Air Monitoring Directive
AT	Ambient Temperature
BP	Barometric Pressure
CH ₄	Methane
EPEA	Environmental Protection and Enhancement Act
H ₂ S	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
SO ₂	Sulphur Dioxide
ST	Station Temperature
THC	Total Hydrocarbons
TRS	Total Reduced Sulphur
VWD	Vector Wind Direction
VWS	Vector Wind Speed
WD	Wind Direction
WS	Wind Speed
°C	Degrees Celsius



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November 21, 2023

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

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

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

NETWORK STATION SUMMARY

Listing of Continuous Monitoring Stations

The PRAMP continuous ambient air quality monitoring network stations are:

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

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

Listing of Intermittent Monitoring Stations

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

Listing of PRAMP member with EPEA Facility Operating Approval

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

Calibration and Data Submission

Hourly data and calibration reports for October 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 October 2023

986-C Station

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

842-B Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement, except BP (61.7%).
- No major operational issues were recorded this month.

Reno-B Station

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

PRC Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement, except TRS (73.4%). **DINC 0002366.**
- **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. The channel was brought back online after a successful post-repair calibration on November 2. Data were invalidated back to the last valid calibration check, which was October 25 hour 11. One hundred fifty-seven hours of downtime were recorded due to this event.
- **Station HVAC unit:** Between October 19 and October 26, the station's temperature rose due to issues with the HVAC system; this caused the temperatures to rise above the manufacturer's recommended/ EPA-designated operating ranges for most gas analyzers (US EPA designation for TRS, H2S and THC/CH4/NMHC < 35°C and for SO2 < 30 °C). Data quality collected during this period could have been affected by the issue and therefore were discarded. Forty-three of downtime were recorded as a result.

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. Three 1-hour PM2.5 exceedances and one 24-hour PM2.5 exceedance 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 ($\mu\text{g}/\text{m}^3$)	Wind speed (km/hr)	Wind Direction	Reference #
10-Oct	9	PM2.5	1-Hour	99	2.4	358°(N)	EDGE00420845
10-Oct	10	PM2.5	14-Hour	100	1.0	312°(NW)	EDGE00420845
10-Oct	11	PM2.5	1-Hour	88	4.0	320°(NW)	EDGE00420845
11-Oct	-	PM2.5	24-Hour	32	6.9	355°(N)	EDGE00420845

- **NO_x/NO/NO₂**: On October 17, BV's API 200E analyzer, s/n: 594, was removed following a successful shut-down calibration, and PRAMP's Teledyne T200 analyzer, s/n: 837, was installed. The analyzer was allowed time to stabilize overnight. A successful installation calibration was completed on October 18. Twenty-one hours of downtime were recorded due to this activity.
- **O₃**: On October 17, BV's API 400A analyzer, s/n: 445, was removed following a successful shut-down calibration, and PRAMP's Teledyne T400 analyzer, s/n: 824, was installed. The analyzer was allowed time to stabilize. A successful installation calibration was completed on October 19. Forty-six hours of downtime were recorded due to this activity.

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.

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

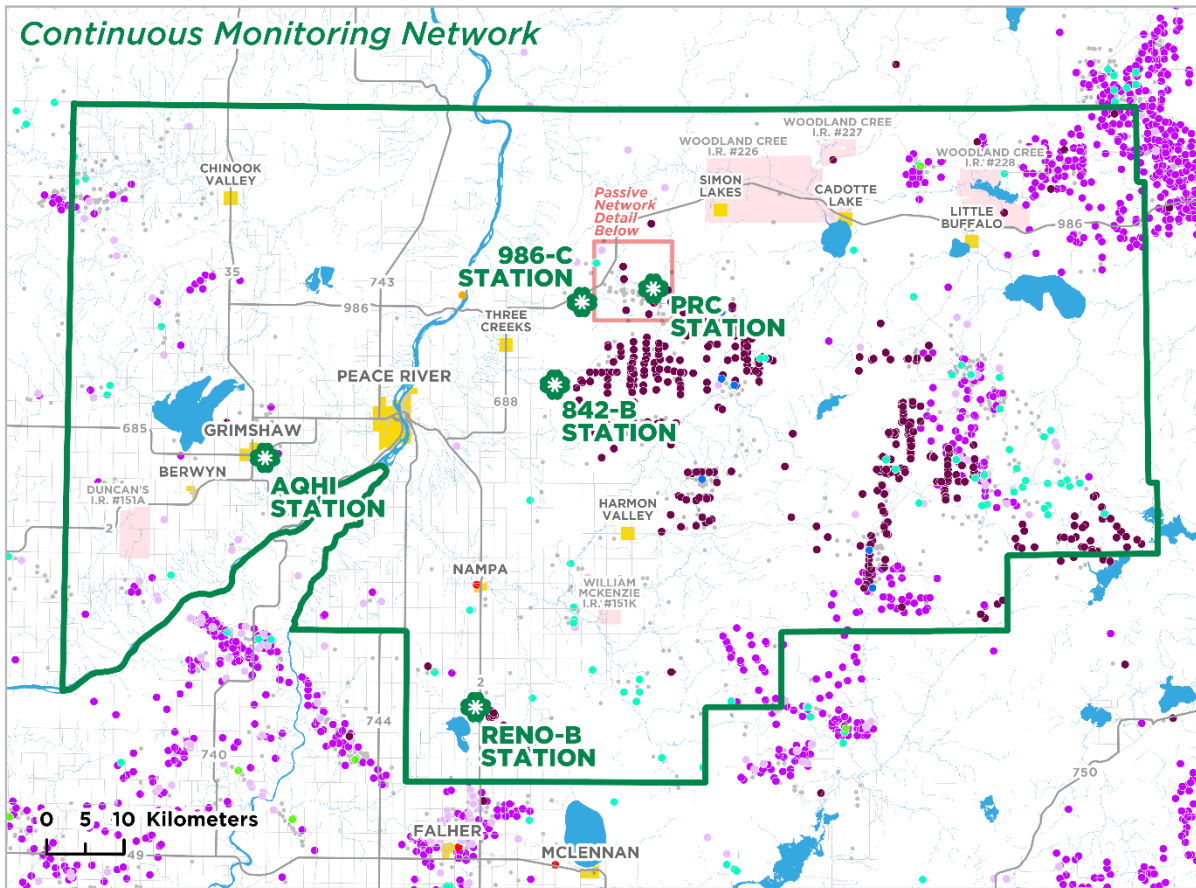
This report was reviewed by Michael Bisaga in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

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

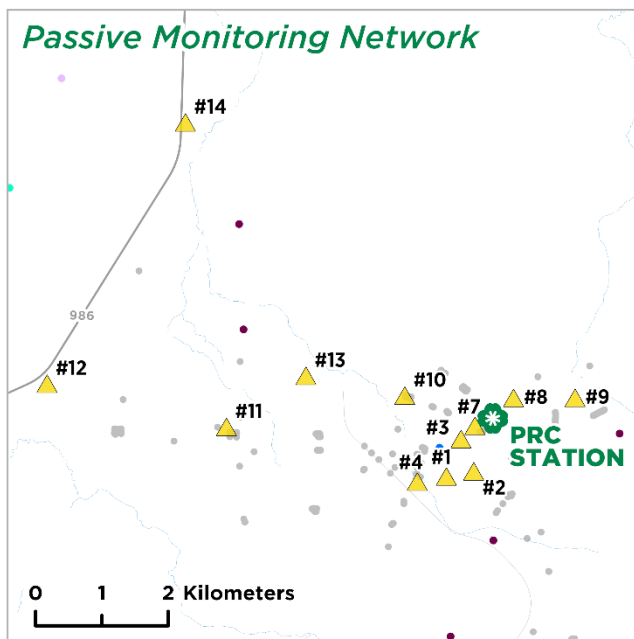


Legend

- 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 Credit: 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	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 3. • No operational issues were identified this month.
TRS Thermo 43iQTL #1191833341 TRS convertor CD Nova CDN-101 #530 (BV-supplied)	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 3. • No operational issues were identified this month.
THC/CH4/NMHC Thermo 55i #1022143392	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 3. • Hourly data collected on October 25 hour 21 was discarded due to injection issues. • The analyzer failed the daily span checks on October 30 and 31 due to depleted span gas cylinder. The gas bottle was replaced on October 31. As the issue only affected the zero-span system, data quality was not affected. Therefore, no data were invalidated due to this event.
RH Rotronic HC2-S3 #20626912	<ul style="list-style-type: none"> • The RH probe was checked on October 3. The probe passed the check requirements. • Due to datalogger polling issues, hourly data collected on October 7 hour 10 was invalid as the hourly data completeness requirement did not meet.
BP MetOne 092 #Y23358	<ul style="list-style-type: none"> • The BP sensor was checked on October 3. The sensor passed the check requirements. • Due to datalogger polling issues, hourly data collected on October 7 hour 10 was invalid as the hourly data completeness requirement did not meet.
AT Rotronic HC2-S3 #20626912	<ul style="list-style-type: none"> • The AT probe was checked on October 3. The probe passed the check requirements. • Due to datalogger polling issues, hourly data collected on October 7 hour 10 was invalid as the hourly data completeness requirement did not meet.

Parameter	Equipment Operational Summary
ST COMET #18961918	<ul style="list-style-type: none"> No operational issues were identified this month.
Precipitation RM Young 52202 #TB 16325	<ul style="list-style-type: none"> The precipitation gauge was checked on October 3. The gauge's functionality passed the check requirements.
WS/ WD RM Young 05305AQ #180340	<ul style="list-style-type: none"> 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 October 3. The wind system passed the check requirements. Due to datalogger polling issues, hourly data collected on October 7 hour 10 was invalid as the hourly data completeness requirement did not meet.

Monitored Data Summary for 986-C Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.1	0	2	Oct 8 at hr 23	18.3	ESE	0.4	Oct 9	100.0	95.0
TRS (ppb)	-	-	-	-	-	-	0.45	0.04	2.82	Oct 17 at hr 8	1.9	SSW	1.00	Oct 10	100.0	95.0
THC (ppm)	-	-	-	-	-	-	1.99	1.90	2.30	Oct 10 at hr 7	6.3	ESE	2.07	Oct 30	99.9	94.9
CH4 (ppm)	-	-	-	-	-	-	1.99	1.90	2.30	Oct 10 at hr 7	6.3	ESE	2.07	Oct 30	99.9	94.9
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	Oct 1 at hr 0	16.7	SSE	0.00	Oct 1	99.9	94.9
RH (%)	-	-	-	-	-	-	73.6	22	100	Oct 3 at hr 1	5.1	WSW	93.3	Oct 17	99.9	99.9
BP (millibar)	-	-	-	-	-	-	942	922	959	Oct 5 at hr 9	13.3	NW	956	Oct 5	99.9	99.9
Ext. Temp. (°C)	-	-	-	-	-	-	4.4	-17.5	24.7	Oct 9 at hr 14	13.3	SW	15.8	Oct 8	99.9	99.9
Stn. Temp. (°C)	-	-	-	-	-	-	23.9	23.3	25.0	Oct 5 at hr 13	12.5	NW	24.2	Oct 19	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	1.1	0.0	0.3	Oct 2 at hr 1	9.4	SW	0.4	Oct 2	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	4.5	0.2	30.4	Oct 18 at hr 11	30.4	SW	19.8	Oct 19	99.9	99.9
WDV (sector)	-	-	-	-	-	-	201 (SSW)	-	-	-	-	-	-	-	99.9	99.9

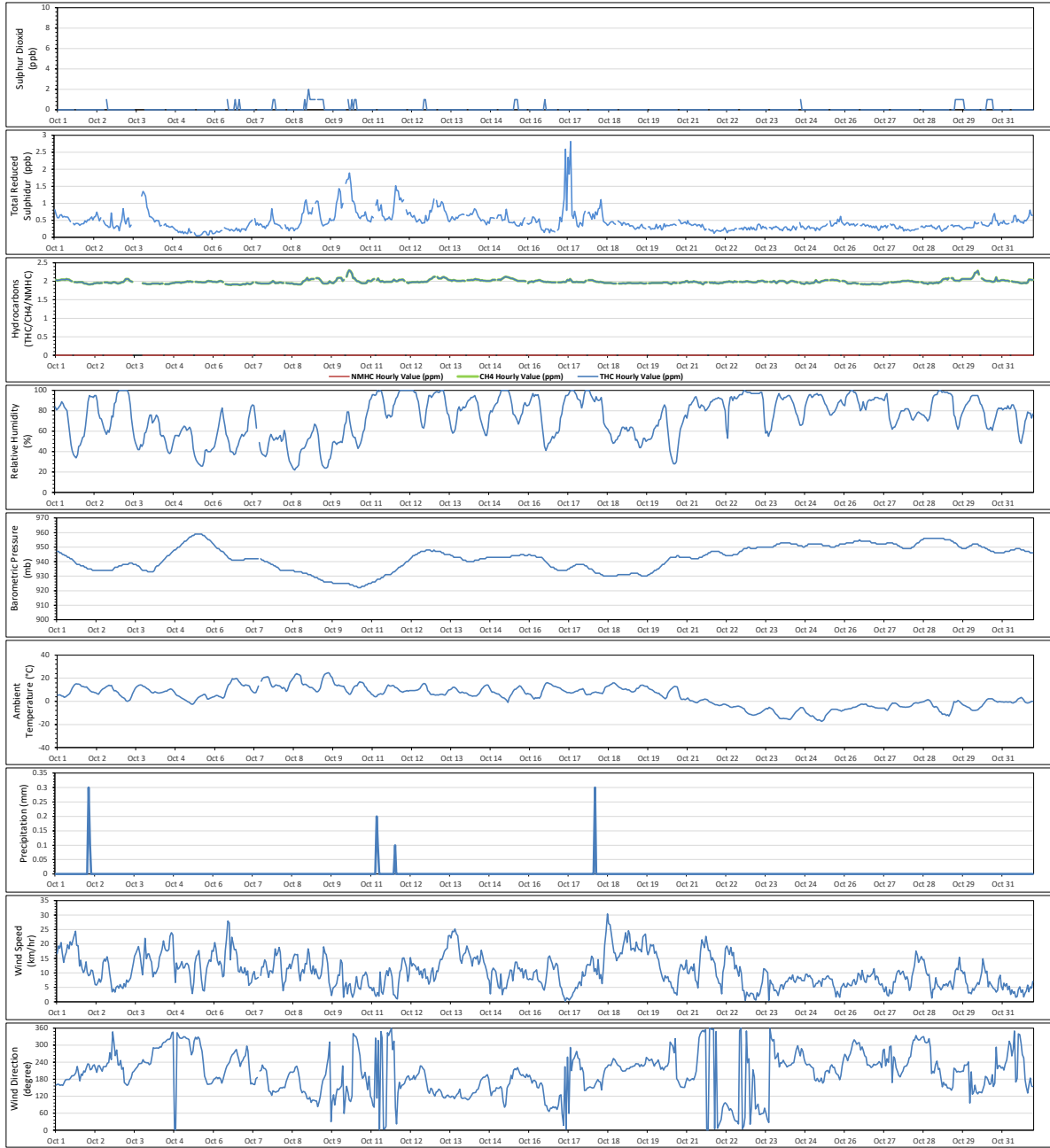
1- Date/ Time given is the first minimum and maximum value that was recorded

* 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 Oct 2023 - 986-C Station



842-B Station

Equipment Operation Summary

Parameter	Equipment Operational Summary
SO2 Thermo 43iQTL #1200736629	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 4. • The scheduled daily zero-span check was interrupted by a transient power failure on October 9 hour 2. A successful repeat zero-span check was completed at hour 7 to confirm the analyzer's functionality. One hour of downtime was recorded as a result.
TRS Thermo 43iQTL #1200736630 TRS Convertor CD Nova CDN-101 #583	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 4. • The scheduled daily zero-span check was interrupted by a transient power failure on October 9 hour 2. A successful repeat zero-span check was completed at hour 7 to confirm the analyzer's functionality. One hour of downtime was recorded as a result.
THC/CH4/NMHC Thermo 55i #1314057759 H2 Generator HG300 #190567058	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 4. • The scheduled daily zero-span check was interrupted by a transient power failure on October 9 hour 2. A successful repeat zero-span check was completed at hour 7 to confirm the analyzer's functionality. One hour of downtime was recorded as a result.
RH Rotronic HC2-S3 #20370767	<ul style="list-style-type: none"> • The RH probe was checked on October 4. The probe passed the check requirements. • No operational issues were identified this month.
AT Rotronic HC2-S3 #20370767	<ul style="list-style-type: none"> • The AT probe was checked on October 4. The probe passed the check requirements. • No operational issues were identified this month.
BP MetOne 092 #Y23362	<ul style="list-style-type: none"> • The BP sensor was checked on October 4. The sensor passed the check requirements. • No operational issues were identified this month.
ST COMET #20790297	<ul style="list-style-type: none"> • No operational issues were identified this month.

Parameter	Equipment Operational Summary
<p>Precipitation</p> <p>RM Young 52202 #TB 15878</p>	<ul style="list-style-type: none"> • The precipitation gauge was checked on October 4. The sensor passed the check requirements. • No operational issues were identified this month.
<p>WS/ WD</p> <p>RM Young 05305AQ #174802</p>	<ul style="list-style-type: none"> • 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 October 4. Both the wind speed sensor and wind direction sensor passed the check requirements. • No operational issues were identified this month.

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	0.1	0	1	Oct 3 at hr 10	12.9	SSW	0.3	Oct 29	99.9	94.9
TRS (ppb)	-	-	-	-	-	-	0.5	0	2	Oct 11 at hr 21	8.1	SE	0.8	Oct 11	99.9	94.9
THC (ppm)	-	-	-	-	-	-	2.00	1.90	2.45	Oct 10 at hr 8	2.8	ENE	2.06	Oct 30	99.9	94.9
CH4 (ppm)	-	-	-	-	-	-	2.00	1.91	2.44	Oct 10 at hr 8	2.8	ENE	2.06	Oct 30	99.9	94.9
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.02	Oct 27 at hr 6	1.4	WSW	0.00	Oct 27	99.9	94.9
RH (%)	-	-	-	-	-	-	74.0	22	99	Oct 2 at hr 23	0.6	ESE	97.2	Oct 17	100.0	100.0
BP (millibar)	-	-	-	-	-	-	941	921	958	Oct 5 at hr 9	12.2	NW	955	Oct 5	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	4.7	-18.4	25.8	Oct 9 at hr 12	14.2	S	17.5	Oct 8	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	22.3	21.2	23.7	Oct 10 at hr 11	5.2	NNW	22.7	Oct 25	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	1.7	0.0	0.2	Oct 2 at hr 1	7	WSW	0.5	Oct 22	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	3.4	0.0	29.5	Oct 6 at hr 13	29.5	W	16.9	Oct 19	100.0	100.0
WDV (sector)	-	-	-	-	-	-	208 (SSW)	-	-	-	-	-	-	-	100.0	100.0

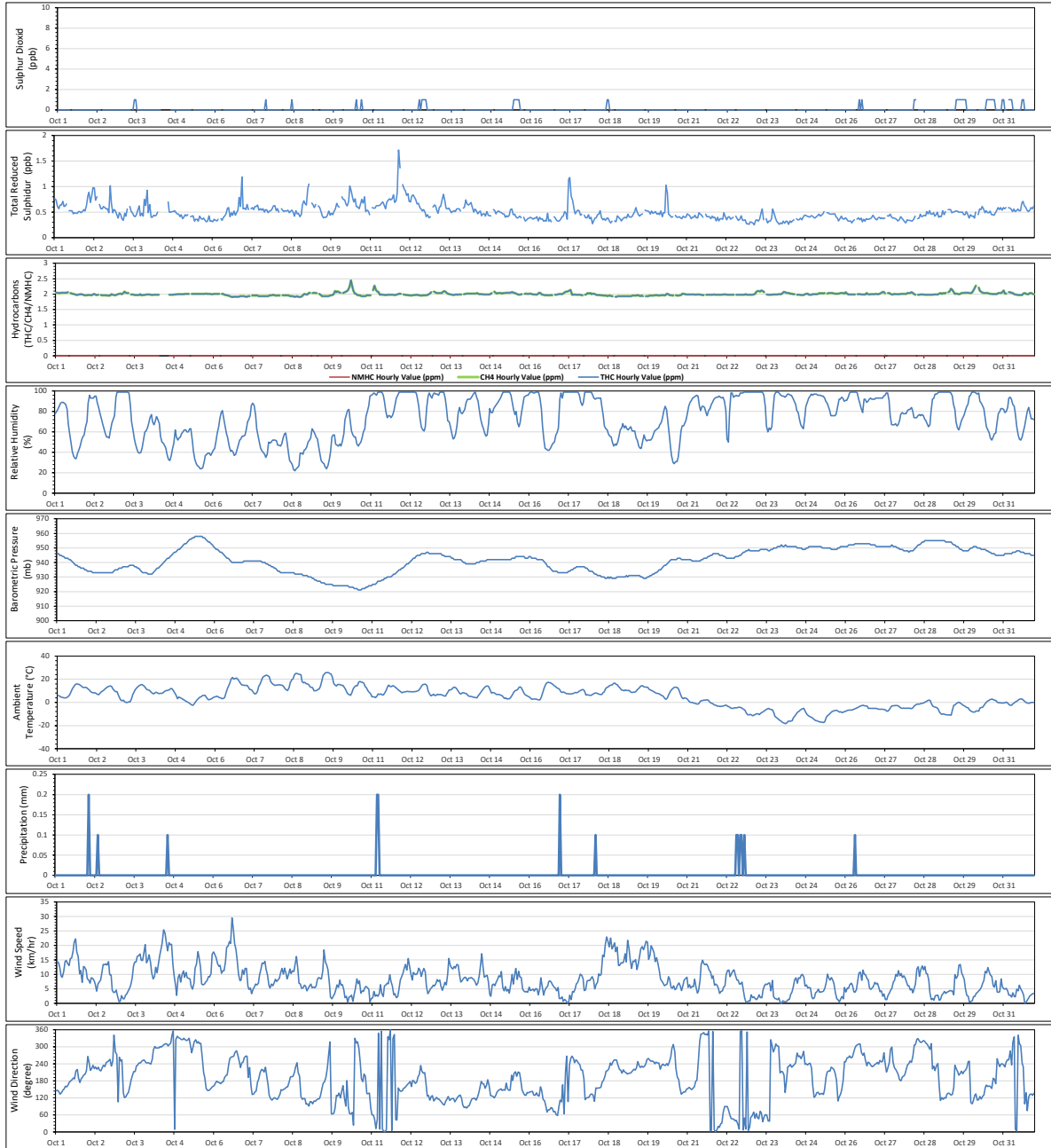
1- Date/ Time given is the first minimum and maximum value that was recorded

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

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances

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

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



Reno-B Station

Equipment Operation Summary

Parameter	Equipment Operational Summary
SO2 Thermo 43iQTL #12101910505	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 5. • No operational issues were identified this month.
TRS Thermo 43iQTL #12101910504 TRS Convertor CD Nova CDN-101 #590	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 5. • No operational issues were identified this month.
THC/CH4/NMHC Thermo 55i #12101910497 H2 Generator HG300 #210467069	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 5. • Due to datalogger polling errors, hourly data collected on October 19 hour 10 was invalid as as the hourly data completeness requirement did not meet. • The N2 gas cylinder was replaced on October 19. • Following the N2 gas bottle replacement on October 19, a noticeable negative drift was noted for the daily zero-span checks. A repeat zero-span check was conducted on October 20 hour 5 and hour 6 to assess the drift. Diagnostics were reviewed, and no issues could be found beyond the change in span results. It was suspected that the span gas pressure was inadvertently altered. This will be confirmed at November’s visit. At this point, data collected after October 19 were considered valid. Two hours of downtime were recorded due to the additional quality check.
RH Rotronic HC2-S3 #20467597	<ul style="list-style-type: none"> • The RH probe was checked on October 5. 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 #A17940	<ul style="list-style-type: none"> • The BP sensor was checked on October 5. 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 #20467597	<ul style="list-style-type: none"> • The AT probe was checked on October 5. 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 #NA	<ul style="list-style-type: none"> • No operational issues were identified this month.
Precipitation RM Young 52202 #TB 15877	<ul style="list-style-type: none"> • The precipitation gauge was checked and tested on October 5. The unit passed the check requirements. • Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.
WS/ WD RM Young 05305AQ #174795	<ul style="list-style-type: none"> • 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 October 5. The wind sensors passed the check requirements. • Due to datalogger polling errors, three 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	0.1	0	1	Oct 1 at hr 23	18.5	WSW	0.3	Oct 15	100.0	94.9
TRS (ppb)	-	-	-	-	-	-	0.35	0.20	1.24	Oct 11 at hr 18	6.5	SW	0.73	Oct 11	100.0	94.9
THC (ppm)	-	-	-	-	-	-	1.96	1.87	2.81	Oct 10 at hr 21	4.2	ENE	2.00	Oct 25	99.6	94.5
CH4 (ppm)	-	-	-	-	-	-	1.96	1.87	2.81	Oct 10 at hr 21	4.2	ENE	2.00	Oct 25	99.6	94.5
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.01	Oct 10 at hr 22	4.6	NE	0.00	Oct 10	99.6	94.5
RH (%)	-	-	-	-	-	-	72.7	20	100	Oct 11 at hr 7	3.7	WNW	93.3	Oct 17	99.6	99.6
BP (millibar)	-	-	-	-	-	-	941	921	958	Oct 5 at hr 8	14.2	NW	955	Oct 5	99.6	99.6
Ext. Temp. (°C)	-	-	-	-	-	-	4.4	-16.6	24.6	Oct 8 at hr 14	15.8	SW	17.7	Oct 9	99.6	99.6
Stn. Temp. (°C)	-	-	-	-	-	-	23.2	22.2	24.1	Oct 2 at hr 10	17.1	WSW	23.5	Oct 24	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	2.8	0.0	0.6	Oct 11 at hr 16	4.3	NNW	1.1	Oct 11	99.6	99.6
WSV (km/hr)	-	-	-	-	-	-	4.4	0.4	44.9	Oct 6 at hr 12	44.9	WSW	22.3	Oct 4	99.6	99.6
WDV (sector)	-	-	-	-	-	-	208 (SSW)	-	-	-	-	-	-	-	99.6	99.6

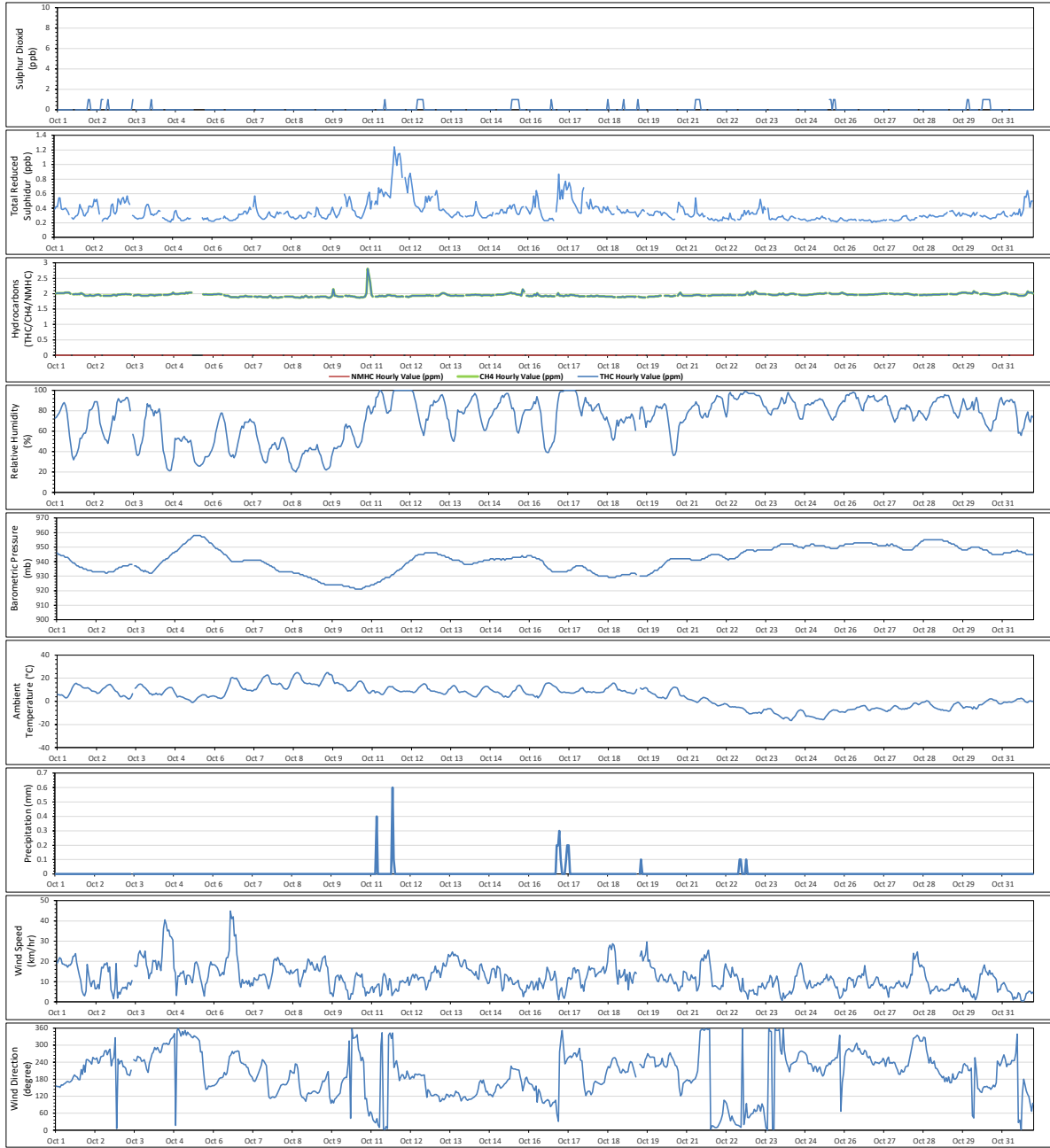
1- Date/ Time given is the first minimum and maximum value that was recorded

* 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 Oct 2023 - Reno-B Station



Equipment Operation Summary

Parameter	Equipment Operational Summary
<p>SO2</p> <p>Thermo 43i #1034746225</p>	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 2. • Between October 19 and October 26, the station’s temperature rose due to issues with HVAC system; the caused the temperatures rise above the manufacturer’s recommended/ EPA designated operating temperature range of 30 °C. Data quality collected during this period could have been affected by the issue and therefore were discarded. Forty-three of downtime were recorded as a result.
<p>H2S</p> <p>Thermo 450i #1308857354</p>	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 2. • Between October 19 and October 26, the station’s temperature rose due to issues with HVAC system; the caused the temperatures rise above the manufacturer’s recommended/ EPA designated operating temperature range of 35 °C. Data quality collected during this period could have been affected by the issue and therefore were discarded. Forty-three of downtime were recorded as a result.
<p>TRS</p> <p>Thermo 450i #1034746224</p> <p>TRS Convertor CD Nova CDN-101 #506</p>	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 2. • Between October 19 and October 26, the station’s temperature rose due to issues with HVAC system; the caused the temperatures rise above the manufacturer’s recommended/ EPA designated operating temperature range of 35 °C. Data quality collected during this period could have been affected by the issue and therefore were discarded. Forty-one of downtime were recorded as a result. • 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. The channel was brought back online after a successful post-repair calibration on November 2. Data were invalidated back to the last valid calibration check, which was October 25 hour 11. One hundred fifty-seven hours of downtime were recorded due to this event.
<p>THC/CH4/NMHC</p> <p>Thermo 55i #1034745845</p> <p>H2 Generator HG300 #211067076</p>	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 2. • The analyzer failed due to running empty of carrier (N2) gas on October 18. The gas bottle was replaced later the day. Five hours of downtime were recorded due to this event. • Between October 19 and October 26, the station’s temperature rose due to issues with HVAC system; the caused the temperatures rise above the manufacturer’s recommended/ EPA designated operating temperature range of 35 °C. Data quality collected during this period could have been affected by the issue and therefore were discarded. Forty-three of downtime were recorded as a result.

Parameter	Equipment Operational Summary
RH Rotronic HC2-S3 #20558318	<ul style="list-style-type: none"> • The RH sensor was checked on October 2. The sensor passed the check requirements. • No operational issues were identified.
BP MetOne 092 #B19577	<ul style="list-style-type: none"> • The BP sensor was checked on October 2. The sensor passed the check requirements. • No operational issues were identified.
AT Rotronic HC2-S3 #20558318	<ul style="list-style-type: none"> • The AT sensor was checked on October 2. The sensor passed the check requirements. • No operational issues were identified.
ST Canadian Natural #NA	<ul style="list-style-type: none"> • No operational issues were identified.
WS/ WD RM Young 05305VK #129612	<ul style="list-style-type: none"> • 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 October 2. 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	2	Oct 29 at hr 14	12.2	SSW	0.3	Oct 29	94.2	89.6
H2S (ppb)	10	3	-	0	0	-	0.0	0	1	Oct 8 at hr 20	13.2	SE	0.0	Oct 1	94.2	89.6
TRS (ppb)	-	-	-	-	-	-	NA	0	2	Oct 10 at hr 0	8.6	SE	0.7	Oct 10	73.4	69.7
THC (ppm)	-	-	-	-	-	-	2.01	1.92	2.65	Oct 3 at hr 11	15.3	SSW	2.11	Oct 10	93.5	88.7
CH4 (ppm)	-	-	-	-	-	-	2.01	1.92	2.39	Oct 10 at hr 8	2.9	SE	2.11	Oct 10	93.5	88.7
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.40	Oct 3 at hr 11	15.3	SSW	0.02	Oct 3	93.5	88.7
RH (%)	-	-	-	-	-	-	73.1	23	100	Oct 2 at hr 7	9.9	SSW	91.2	Oct 17	100.0	100.0
BP (millibar)	-	-	-	-	-	-	943	923	960	Oct 5 at hr 11	12.8	NW	957	Oct 5	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	4.0	-19.1	25.2	Oct 9 at hr 14	14.7	SSW	16.7	Oct 9	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	23.8	11.4	36.4	Oct 19 at hr 19	20.6	WSW	35.0	Oct 20	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	5.2	0.2	30.2	Oct 18 at hr 13	30.2	SW	20.8	Oct 19	100.0	100.0
WDV (sector)	-	-	-	-	-	-	208 (SSW)	-	-	-	-	-	-	-	100.0	100.0

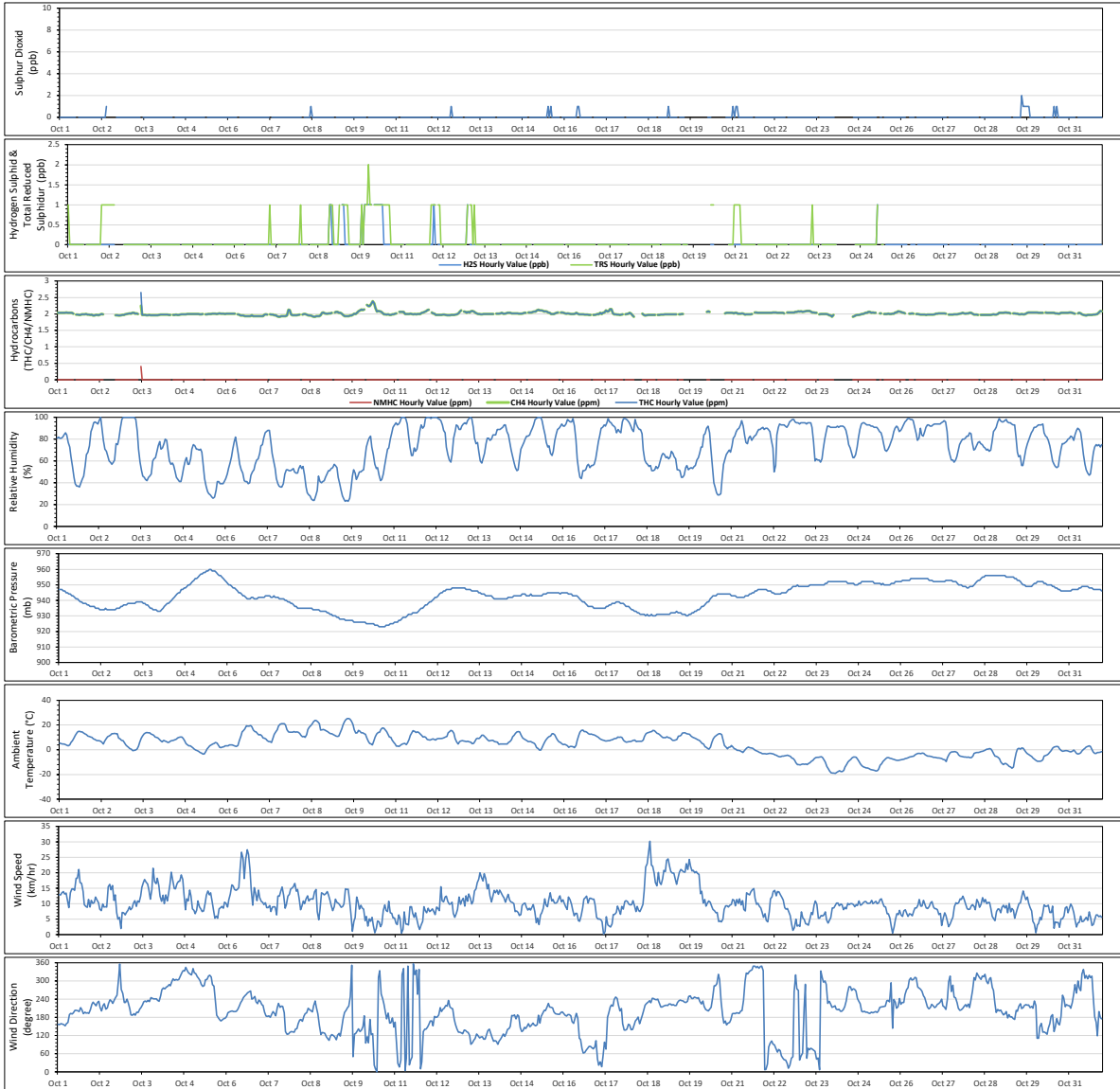
1- Date/ Time given is the first minimum and maximum value that was recorded

NA - Monthly data not available as less than 75% of valid data in the monthly were collected

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 Oct 2023 - Peace River Complex (PRC) Station



Equipment Operation Summary

Parameter	Equipment Operational Summary
<p>SO2</p> <p>Teledyne T100 #722</p>	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 17. • No operational issues were identified this month.
<p>TRS</p> <p>Teledyne T100U #132</p> <p>TRS Convertor CD Nova CDN-101 #576</p>	<ul style="list-style-type: none"> • A repeat zero-span check was conducted on October 10 hour 6 to assess the span drift. The check result was within the calibration acceptable range. One hour of downtime was recorded due to the additional quality check. • The monthly calibration was attempted on October 17. However, the analyzer failed the adjusted low-point check. Maintenance was performed on October 18, including the scrubber material change, the convertor’s quartz tube cleaning, and the UV lamp ratio calibration. A successful post-repair calibration was completed on October 19. Data were invalidated back to the last valid calibration check, which was October 16 hour 20. Sixty-seven hours of downtime were recorded due to this event.
<p>NOx/NO/NO2</p> <p>API 200E #594</p> <p>Teledyne T200 #837</p>	<ul style="list-style-type: none"> • On October 17, BV’s API 200E analyzer, s/n: 594, was removed following a successful shut-down calibration, and PRAMP’s Teledyne T200 analyzer, s/n: 837, which was recently repaired, was installed. The analyzer was allowed time to stabilize overnight. A successful installation calibration was completed on October 18. Twenty-one hours of downtime were recorded due to this activity. • The analyzer failed the October 18’s scheduled daily zero-span check and the October 19’s repeat zero-span check. An as-found point check was completed to verify the span drift on October 19. The analyzer passed the as-found points check, which confirmed the analyzer’s functionality. Five hours of downtime were recorded due to the additional quality checks. • The analyzer failed the daily span check on October 30 and October 31. A successful repeat multi-point calibration was completed on October 31 to correct the drift. Seven hours of downtime were recorded due to this event.
<p>O3</p> <p>API 400A #445</p> <p>Teledyne T400 #824</p>	<ul style="list-style-type: none"> • On October 17, BV’s API 400A analyzer, s/n: 445, was removed following a successful shut-down calibration, and PRAMP’s Teledyne T400 analyzer, s/n: 824, which was recently repaired, was installed. The analyzer was allowed time to stabilize. A successful installation calibration was completed on October 19. Forty-six hours of downtime were recorded due to this activity.

Parameter	Equipment Operational Summary
<p>THC/CH4/NMHC</p> <p>Thermo 55i #1191032505</p> <p>H2 Generator AMA HG300 #190567059</p>	<ul style="list-style-type: none"> • A successful monthly calibration was performed on October 20. • No operational issues were identified this month.
<p>PM2.5</p> <p>Teledyne T640 #318</p>	<ul style="list-style-type: none"> • A successful monthly audit was performed on October 20. • No operational issues were identified this month.
<p>RH</p> <p>Vaisala HMP155 #N2910506</p>	<ul style="list-style-type: none"> • The RH probe was checked on October 17. The Probe passed the check requirements. • No operational issues were identified this month.
<p>BP</p> <p>MetOne 092 #A2397</p>	<ul style="list-style-type: none"> • The BP sensor was checked on October 17. The sensor passed the check requirements. • No operational issues were identified this month.
<p>AT</p> <p>Vaisala HMP155 #N2910506</p>	<ul style="list-style-type: none"> • The AT prober was checked on October 17. The probe passed the check requirements. • No operational issues were identified this month.
<p>ST</p> <p>COMET #NA</p>	<ul style="list-style-type: none"> • No operational issues were identified this month.
<p>WS/ WD</p> <p>RM Young 05305AQ #174801</p>	<ul style="list-style-type: none"> • 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 October 17. 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	2	Oct 16 at hr 6	1.3	NW	0.3	Oct 16	100.0	94.9
TRS (ppb)	-	-	-	-	-	-	0.16	0.00	3.05	Oct 10 at hr 21	2	N	0.48	Oct 13	90.9	86.4
NOx (ppb)	-	-	-	-	-	-	5.3	0	83	Oct 16 at hr 6	1.3	NW	15.0	Oct 16	95.6	89.8
NO (ppb)	-	-	-	-	-	-	1.6	0	61	Oct 16 at hr 6	1.3	NW	8.1	Oct 16	95.6	89.8
NO2 (ppb)	159	-	-	0	-	-	3.7	0	23	Oct 8 at hr 20	3.1	NNE	8.3	Oct 9	95.6	89.8
O3 (ppb)	76	-	-	0	-	-	21.7	0.0	38.6	Oct 20 at hr 14	3.3	SW	28.8	Oct 28	93.8	89.0
THC (ppm)	-	-	-	-	-	-	2.05	1.93	3.04	Oct 8 at hr 20	3.1	NNE	2.14	Oct 30	100.0	95.0
CH4 (ppm)	-	-	-	-	-	-	2.04	1.93	2.54	Oct 24 at hr 0	7.1	NW	2.14	Oct 30	100.0	95.0
NMHC (ppm)	-	-	-	-	-	-	0.01	0.00	0.89	Oct 8 at hr 20	3.1	NNE	0.09	Oct 8	100.0	95.0
PM2.5 (µg/m3)	80	29	-	3	1	-	11.0	1	100	Oct 10 at hr 10	1	NW	31.5	Oct 11	100.0	99.9
RH (%)	-	-	-	-	-	-	68.1	23	100	Oct 12 at hr 0	6.4	SSE	89.4	Oct 17	100.0	100.0
BP (millibar)	-	-	-	-	-	-	943	922	961	Oct 5 at hr 11	9.5	NNW	957	Oct 5	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	5.0	-14.0	23.6	Oct 8 at hr 14	18.9	SW	14.6	Oct 7	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	21.4	19.2	22.5	Oct 20 at hr 14	3.3	SW	22.1	Oct 31	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	8.2	0.2	32.2	Oct 6 at hr 12	32.2	WSW	16.6	Oct 4	100.0	100.0
WDV (sector)	-	-	-	-	-	-	284 (WNW)	-	-	-	-	-	-	-	100.0	100.0

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

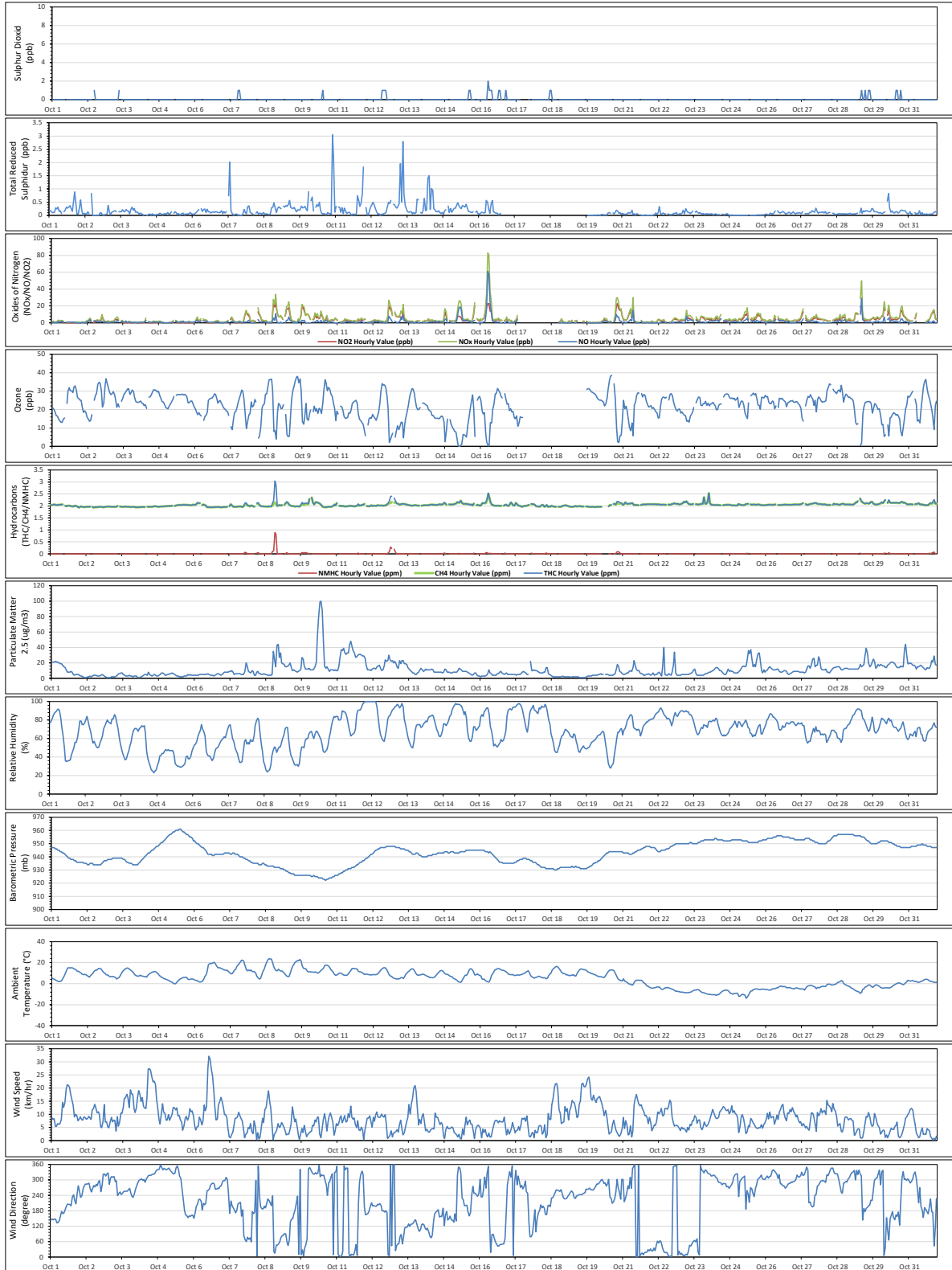
Alberta Ambient Air Quality Objectives (AAQOs) and/or Alberta Ambient Air Quality Guidelines (AAQGs) Exceedances

The following exceedances of AAQO and AAQG were observed at the AQHI - Grimshaw Station.

Date	Time (MST)	Parameter	Average Period	AAQOs / AAQGs	Concentration	Wind speed	Wind Direction	Reference #
Oct 10	9	PM2.5	1-Hour	80 µg/m3	99 µg/m3	2.4 km/hr	358° (N)	EDGE00420845
Oct 10	10	PM2.5	1-Hour	80 µg/m3	100 µg/m3	1.0 km/hr	312° (NW)	EDGE00420845
Oct 10	11	PM2.5	1-Hour	80 µg/m3	88 µg/m3	4.0 km/hr	320° (NW)	EDGE00420845
Oct 11	-	PM2.5	24-Hour	29 µg/m3	32 µg/m3	6.9 km/hr	355° (N)	EDGE00420845

- The exceedances of the PM2.5 objective and guideline on October 10 and October 11 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 Oct 2023 - AQHI - Grimshaw Station



TABLES, CHARTS AND WIND ROSES

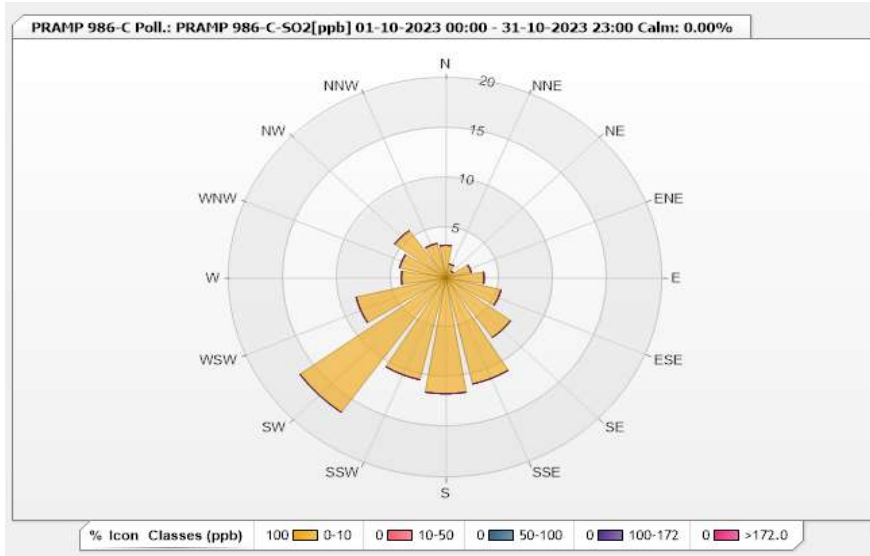
986-C STATION

Station: PRAMP 986-C Poll.: PRAMP 986-C-SO2[ppb] Monthly: 10-2023

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

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

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	3.26	0	0	0	0	3.26
NNE	1.42	0	0	0	0	1.42
NE	0.85	0	0	0	0	0.85
ENE	2.41	0	0	0	0	2.41
E	3.54	0	0	0	0	3.54
ESE	5.24	0	0	0	0	5.24
SE	7.37	0	0	0	0	7.37
SSE	10.91	0	0	0	0	10.91
S	11.61	0	0	0	0	11.61
SSW	10.48	0	0	0	0	10.48
SW	16.57	0	0	0	0	16.57
WSW	8.5	0	0	0	0	8.5
W	4.11	0	0	0	0	4.11
WNW	4.39	0	0	0	0	4.39
NW	5.81	0	0	0	0	5.81
NNW	3.54	0	0	0	0	3.54
Summary	100	0	0	0	0	100



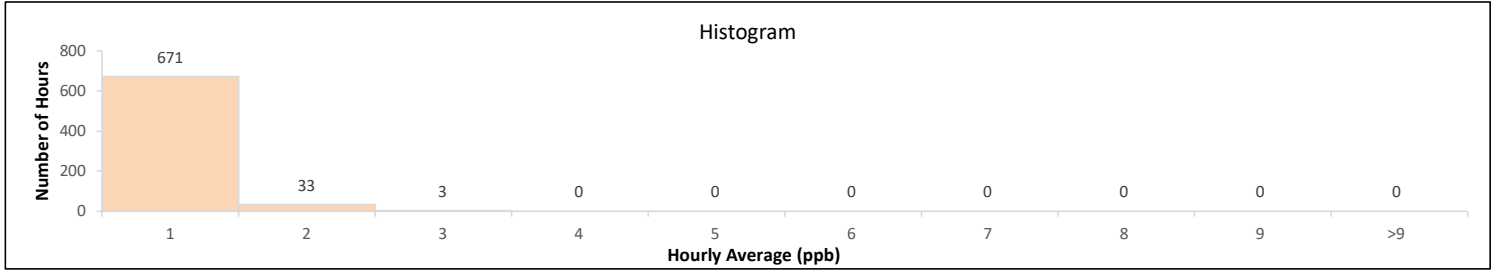
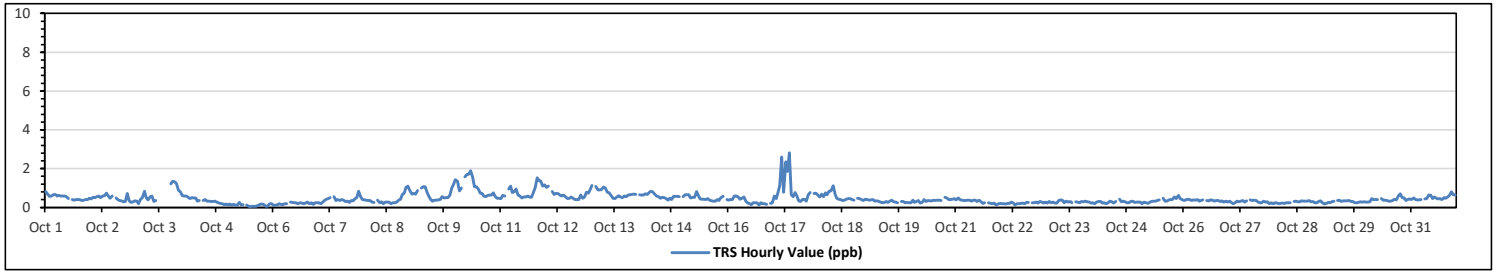
Peace River Area Monitoring Program
986-C Station - October 2023
Summary of Hourly Averages
TOTAL REDUCED SULPHUR (TRS) in ppb

Maximum Hourly Value:	2.82 ppb	on Oct 17 at hr 8	Hours in Service:	744
Maximum Daily Value:	1.00 ppb	on Oct 10	Hours of Data:	707
Minimum Hourly Value:	0.04 ppb	on Oct 5 at hr 12	Hours of Missing Data:	0
Minimum Daily Value:	0.12 ppb	on Oct 5	Hours of Calibration:	37
Monthly Average:	0.45 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
Oct 1	0.81	0.68	0.57	0.58	0.65	0.67	0.59	0.62	0.6	0.6	0.59	0.53	0.46	S	0.41	0.37	0.41	0.41	0.4	0.35	0.38	0.4	0.4	0.48	0.35	0.81	0.52
Oct 2	0.44	0.52	0.5	0.56	0.6	0.51	0.6	0.61	0.74	0.6	0.48	0.58	S	0.49	0.4	0.35	0.34	0.29	0.3	0.72	0.34	0.26	0.29	0.34	0.26	0.74	0.47
Oct 3	0.32	0.19	0.4	0.5	0.84	0.51	0.39	0.53	0.58	0.3	0.36	S	0.34	C	C	C	C	C	1.22	1.35	1.3	1.21	0.88	0.8	0.19	1.35	0.67
Oct 4	0.61	0.6	0.58	0.53	0.45	0.5	0.49	0.49	0.33	0.35	S	0.36	0.4	0.32	0.33	0.3	0.3	0.32	0.29	0.25	0.21	0.2	0.14	0.17	0.14	0.61	0.37
Oct 5	0.13	0.17	0.11	0.16	0.12	0.11	0.26	0.13	0.15	S	0.13	0.07	0.04	0.05	0.05	0.07	0.11	0.16	0.17	0.15	0.07	0.07	0.19	0.19	0.04	0.26	0.12
Oct 6	0.11	0.11	0.13	0.18	0.16	0.15	0.19	0.2	S	0.28	0.26	0.24	0.24	0.19	0.23	0.22	0.18	0.22	0.27	0.19	0.24	0.16	0.25	0.24	0.11	0.28	0.20
Oct 7	0.25	0.2	0.28	0.35	0.43	0.46	0.51	S	0.55	0.36	0.42	0.35	0.4	0.37	0.3	0.32	0.26	0.35	0.34	0.44	0.51	0.84	0.56	0.4	0.20	0.84	0.40
Oct 8	0.39	0.38	0.36	0.35	0.28	0.26	S	0.37	0.25	0.29	0.19	0.27	0.27	0.27	0.19	0.25	0.28	0.28	0.37	0.43	0.68	0.73	1.03	1.1	0.19	1.10	0.40
Oct 9	0.84	0.68	0.73	0.68	0.87	S	1	1.07	1.06	0.77	0.55	0.39	0.33	0.37	0.38	0.39	0.42	0.56	0.49	0.51	0.5	0.62	1	1.16	0.33	1.16	0.67
Oct 10	1.43	1.34	0.86	1	S	1.58	1.69	1.72	1.89	1.57	1.07	1.06	0.96	0.74	0.71	0.59	0.55	0.62	0.63	0.63	0.75	0.56	0.48	0.48	0.48	1.89	1.00
Oct 11	0.45	0.62	0.58	S	0.94	1.1	0.78	0.8	0.96	0.63	0.6	0.49	0.54	0.54	0.6	0.53	0.52	0.71	1.04	1.52	1.38	1.37	1.1	1.16	0.45	1.52	0.82
Oct 12	1.04	1.1	S	0.81	0.67	0.72	0.73	0.63	0.59	0.64	0.55	0.45	0.48	0.53	0.48	0.41	0.42	0.42	0.64	0.48	0.53	0.79	0.74	0.89	0.41	1.10	0.64
Oct 13	1.13	S	1.08	0.89	0.91	0.92	1.05	0.99	0.79	0.75	0.64	0.48	0.46	0.53	0.61	0.54	0.51	0.59	0.56	0.63	0.65	0.67	0.68	0.67	0.46	1.13	0.73
Oct 14	S	0.65	0.63	0.64	0.7	0.67	0.75	0.84	0.8	0.68	0.6	0.55	0.48	0.52	0.5	0.45	0.37	0.47	0.41	0.57	0.57	0.57	0.56	S	0.37	0.84	0.59
Oct 15	0.56	0.66	0.65	0.66	0.49	0.52	0.52	0.82	0.63	0.44	0.43	0.43	0.42	0.46	0.38	0.34	0.33	0.33	0.42	0.35	0.5	0.57	S	0.41	0.33	0.82	0.49
Oct 16	0.38	0.41	0.42	0.6	0.59	0.53	0.43	0.47	0.54	0.33	0.22	0.21	0.14	0.25	0.24	0.24	0.13	0.24	0.18	0.18	0.16	S	0.21	0.25	0.13	0.60	0.32
Oct 17	0.59	0.46	0.74	1.13	2.59	0.79	2.35	1.86	2.82	0.65	0.56	0.77	0.57	0.34	0.3	0.43	0.41	0.33	0.65	0.77	S	0.71	0.74	0.63	0.30	2.82	0.92
Oct 18	0.53	0.69	0.55	0.75	0.66	0.84	0.85	1.11	0.68	0.47	0.43	0.4	0.35	0.38	0.43	0.46	0.46	0.41	0.38	S	0.48	0.45	0.42	0.35	0.35	1.11	0.54
Oct 19	0.43	0.42	0.37	0.39	0.4	0.32	0.34	0.33	0.28	0.23	0.26	0.3	0.26	0.33	0.38	0.29	0.27	0.25	S	0.31	0.31	0.23	0.26	0.25	0.23	0.43	0.31
Oct 20	0.25	0.38	0.26	0.3	0.35	0.22	0.26	0.4	0.31	0.36	0.34	0.34	0.37	0.36	0.38	0.38	0.35	S	0.52	0.49	0.4	0.41	0.43	0.45	0.22	0.52	0.36
Oct 21	0.39	0.49	0.39	0.38	0.35	0.36	0.38	0.38	0.33	0.37	0.37	0.3	0.38	0.29	0.21	0.24	S	0.24	0.21	0.18	0.22	0.12	0.17	0.21	0.12	0.49	0.30
Oct 22	0.19	0.18	0.17	0.21	0.21	0.28	0.22	0.13	0.2	0.19	0.21	0.22	0.2	0.26	0.26	S	0.25	0.25	0.27	0.22	0.3	0.28	0.22	0.28	0.13	0.30	0.23
Oct 23	0.22	0.31	0.23	0.28	0.22	0.22	0.36	0.39	0.35	0.25	0.32	0.28	0.3	0.24	S	0.29	0.28	0.23	0.3	0.29	0.32	0.29	0.27	0.22	0.22	0.39	0.28
Oct 24	0.23	0.19	0.27	0.31	0.3	0.22	0.24	0.19	0.23	0.33	0.29	0.22	0.31	S	0.43	0.29	0.33	0.29	0.24	0.24	0.31	0.33	0.26	0.28	0.19	0.43	0.28
Oct 25	0.27	0.27	0.19	0.28	0.25	0.21	0.27	0.3	0.32	0.32	0.35	0.39	S	0.48	0.33	0.33	0.39	0.42	0.4	0.53	0.46	0.62	0.45	0.4	0.19	0.62	0.36
Oct 26	0.36	0.39	0.43	0.41	0.35	0.39	0.37	0.4	0.33	0.36	0.39	S	0.35	0.34	0.39	0.38	0.32	0.36	0.36	0.31	0.34	0.28	0.32	0.27	0.27	0.43	0.36
Oct 27	0.33	0.26	0.2	0.23	0.33	0.29	0.32	0.35	0.27	0.34	S	0.39	0.35	0.38	0.36	0.28	0.25	0.25	0.33	0.27	0.29	0.18	0.23	0.2	0.18	0.39	0.29
Oct 28	0.23	0.22	0.18	0.21	0.22	0.21	0.24	0.24	0.25	S	0.31	0.33	0.29	0.29	0.34	0.32	0.33	0.32	0.36	0.29	0.3	0.25	0.24	0.31	0.18	0.36	0.27
Oct 29	0.34	0.25	0.17	0.21	0.26	0.24	0.29	0.33	S	0.35	0.37	0.31	0.34	0.34	0.34	0.35	0.3	0.3	0.24	0.23	0.26	0.29	0.28	0.29	0.17	0.37	0.29
Oct 30	0.27	0.28	0.29	0.46	0.4	0.4	0.42	S	0.45	0.37	0.37	0.35	0.33	0.32	0.36	0.43	0.39	0.6	0.7	0.5	0.49	0.35	0.4	0.44	0.27	0.70	0.41
Oct 31	0.41	0.49	0.41	0.39	0.39	0.41	S	0.44	0.45	0.63	0.64	0.46	0.53	0.48	0.44	0.46	0.41	0.5	0.48	0.54	0.62	0.8	0.65	0.64	0.39	0.80	0.51
Diurnal Maximum	1.43	1.34	1.08	1.13	2.59	1.58	2.35	1.86	2.82	1.57	1.07	1.06	0.96	0.74	0.71	0.59	0.55	0.71	1.22	1.52	1.38	1.37	1.10	1.16			
Diurnal Average	0.46	0.45	0.42	0.48	0.53	0.49	0.58	0.59	0.61	0.48	0.42	0.40	0.38	0.37	0.37	0.36	0.34	0.37	0.44	0.46	0.46	0.49	0.46	0.47			

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

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.

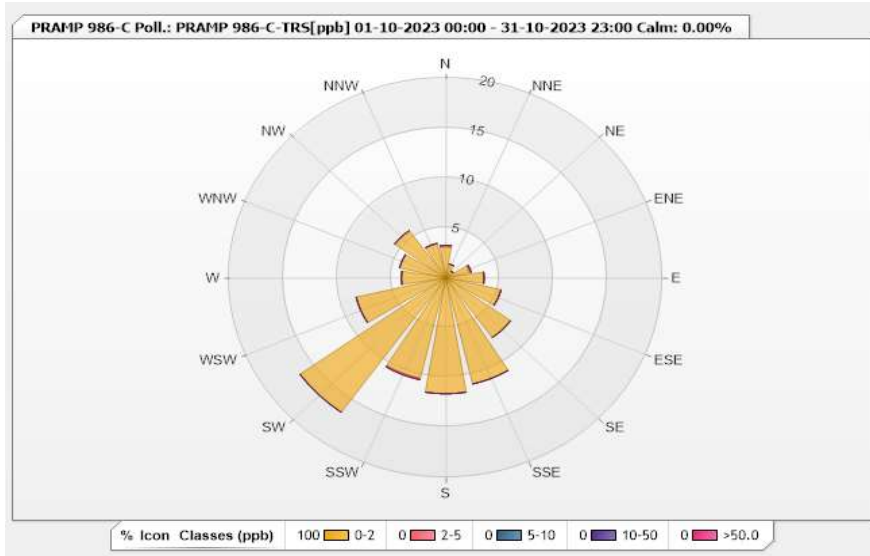


Station: PRAMP 986-C Poll.: PRAMP 986-C-TRS[ppb] Monthly: 10-2023

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

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

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	3.12	0.14	0	0	0	3.26
NNE	1.42	0	0	0	0	1.42
NE	0.85	0	0	0	0	0.85
ENE	2.27	0.14	0	0	0	2.41
E	3.54	0	0	0	0	3.54
ESE	5.24	0	0	0	0	5.24
SE	7.37	0	0	0	0	7.37
SSE	10.91	0	0	0	0	10.91
S	11.61	0	0	0	0	11.61
SSW	10.34	0.14	0	0	0	10.48
SW	16.57	0	0	0	0	16.57
WSW	8.5	0	0	0	0	8.5
W	4.11	0	0	0	0	4.11
WNW	4.39	0	0	0	0	4.39
NW	5.81	0	0	0	0	5.81
NNW	3.54	0	0	0	0	3.54
Summary	100	0.42	0	0	0	100

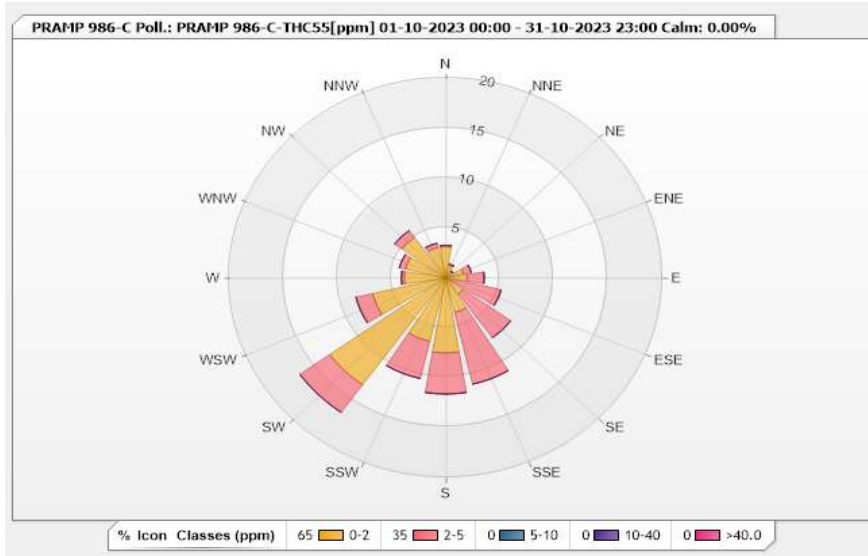


Station: PRAMP 986-C Poll.: PRAMP 986-C-THC55[ppm] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 94.76% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	3.12	0.14	0	0	0	3.26
NNE	1.28	0.14	0	0	0	1.42
NE	0.71	0.14	0	0	0	0.85
ENE	1.7	0.71	0	0	0	2.41
E	1.99	1.56	0	0	0	3.55
ESE	0.57	4.68	0	0	0	5.25
SE	1.99	5.39	0	0	0	7.38
SSE	3.55	7.38	0	0	0	10.93
S	7.52	4.11	0	0	0	11.63
SSW	6.52	3.83	0	0	0	10.35
SW	13.19	3.4	0	0	0	16.59
WSW	6.95	1.56	0	0	0	8.51
W	3.83	0.28	0	0	0	4.11
WNW	3.83	0.57	0	0	0	4.4
NW	4.96	0.85	0	0	0	5.81
NNW	3.12	0.43	0	0	0	3.55
Summary	64.83	35.17	0	0	0	100

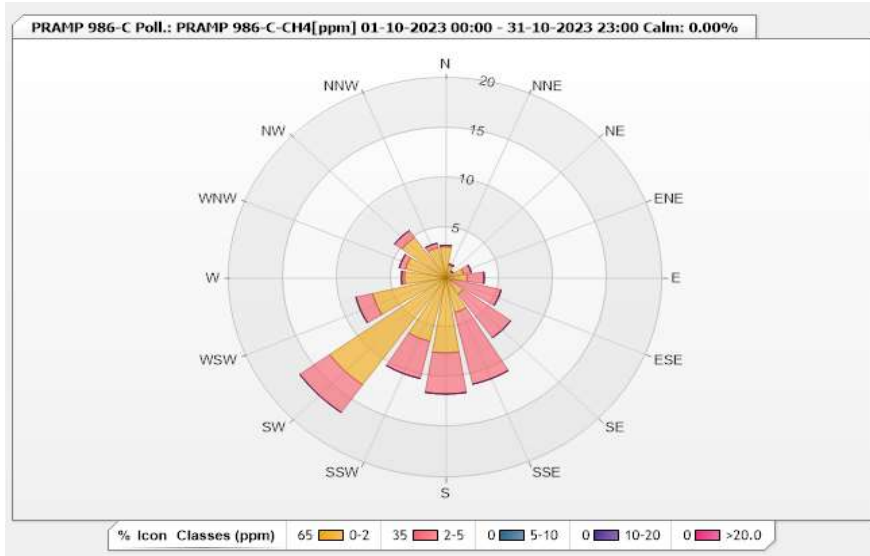


Station: PRAMP 986-C Poll.: PRAMP 986-C-CH4[ppm] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 94.76% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	3.12	0.14	0	0	0	3.26
NNE	1.28	0.14	0	0	0	1.42
NE	0.71	0.14	0	0	0	0.85
ENE	1.7	0.71	0	0	0	2.41
E	1.99	1.56	0	0	0	3.55
ESE	0.57	4.68	0	0	0	5.25
SE	1.99	5.39	0	0	0	7.38
SSE	3.55	7.38	0	0	0	10.93
S	7.52	4.11	0	0	0	11.63
SSW	6.52	3.83	0	0	0	10.35
SW	13.19	3.4	0	0	0	16.59
WSW	6.95	1.56	0	0	0	8.51
W	3.83	0.28	0	0	0	4.11
WNW	3.83	0.57	0	0	0	4.4
NW	4.96	0.85	0	0	0	5.81
NNW	3.12	0.43	0	0	0	3.55
Summary	64.83	35.17	0	0	0	100

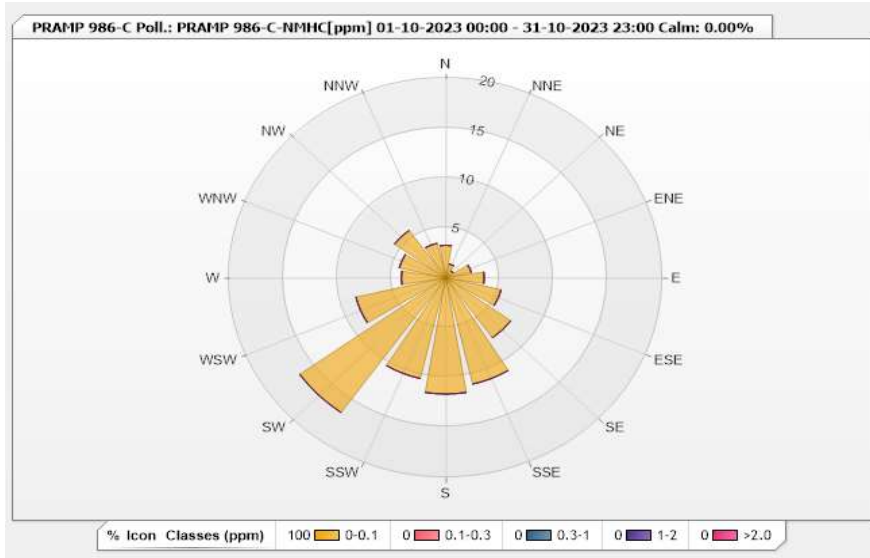


Station: PRAMP 986-C Poll.: PRAMP 986-C-NMHC[ppm] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 94.76% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	3.26	0	0	0	0	3.26
NNE	1.42	0	0	0	0	1.42
NE	0.85	0	0	0	0	0.85
ENE	2.41	0	0	0	0	2.41
E	3.55	0	0	0	0	3.55
ESE	5.25	0	0	0	0	5.25
SE	7.38	0	0	0	0	7.38
SSE	10.92	0	0	0	0	10.92
S	11.63	0	0	0	0	11.63
SSW	10.35	0	0	0	0	10.35
SW	16.6	0	0	0	0	16.6
WSW	8.51	0	0	0	0	8.51
W	4.11	0	0	0	0	4.11
WNW	4.4	0	0	0	0	4.4
NW	5.82	0	0	0	0	5.82
NNW	3.55	0	0	0	0	3.55
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

986-C Station - October 2023

Summary of Hourly Averages

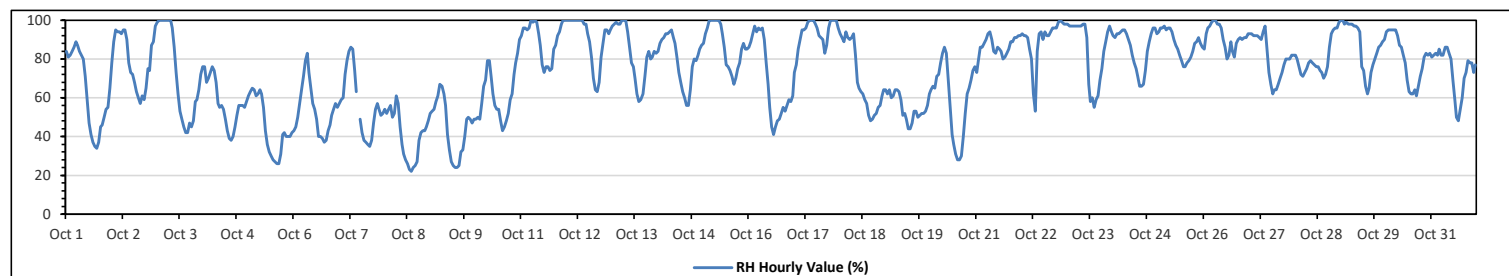
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	100	%	on Oct 3 at hr 1	Hours in Service:	744
Maximum Daily Value:	93.3	%	on Oct 17	Hours of Data:	743
Minimum Hourly Value:	22	%	on Oct 8 at hr 14	Hours of Missing Data:	1
Minimum Daily Value:	40.9	%	on Oct 8	Hours of Calibration:	0
Monthly Average:	73.6	%		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
Oct 1	84	81	82	84	86	89	87	84	82	80	71	59	47	41	37	35	34	37	45	46	50	54	55	65	34	89	63.1
Oct 2	78	89	95	94	94	93	95	95	90	78	73	72	68	63	60	57	61	59	65	75	74	87	89	97	57	97	79.2
Oct 3	99	100	100	100	100	100	100	100	96	86	73	62	53	49	45	42	42	47	45	48	58	59	64	72	42	100	72.5
Oct 4	76	76	68	70	73	76	74	68	57	55	56	54	49	43	39	38	40	45	51	56	56	56	55	58	38	76	57.9
Oct 5	61	63	65	64	61	62	64	62	55	43	36	32	30	28	27	26	26	31	41	42	40	40	40	42	26	65	45.0
Oct 6	43	45	50	57	64	71	79	83	73	65	57	54	49	40	40	39	37	38	43	46	51	54	57	55	37	83	53.8
Oct 7	57	59	60	72	79	84	86	85	74	63	K	49	42	38	37	36	35	38	47	54	57	54	51	52	35	86	56.9
Oct 8	54	52	54	56	50	52	61	57	45	36	31	28	26	23	22	24	25	27	38	42	43	43	45	48	22	61	40.9
Oct 9	52	53	54	58	61	67	66	62	56	41	33	27	25	24	24	25	32	33	40	49	50	49	47	49	24	67	44.9
Oct 10	49	50	49	57	66	69	79	79	70	62	56	54	54	48	43	45	48	52	59	62	72	78	83	90	43	90	61.4
Oct 11	92	96	96	95	96	100	99	100	99	93	87	77	73	76	76	74	75	85	87	92	94	98	100	100	73	100	90.0
Oct 12	100	100	100	100	100	100	100	100	100	98	98	93	89	81	70	64	63	68	81	88	95	95	93	95	63	100	90.5
Oct 13	97	98	99	98	98	100	100	100	94	86	78	76	70	62	58	59	62	71	81	84	80	81	84	83	58	100	83.3
Oct 14	84	88	90	91	93	93	94	95	91	88	81	73	68	63	60	56	56	64	76	80	79	82	85	87	56	95	79.9
Oct 15	88	93	96	100	100	100	100	100	100	98	93	86	77	76	74	71	67	70	75	78	85	88	85	85	67	100	86.9
Oct 16	86	89	93	97	94	96	95	96	90	78	67	55	45	41	45	48	49	52	55	53	56	59	58	61	41	97	69.1
Oct 17	73	77	85	90	95	95	96	99	100	100	100	98	96	92	91	90	83	87	96	100	100	100	100	96	73	100	93.3
Oct 18	93	91	89	94	91	90	91	93	82	68	65	63	62	59	57	51	48	49	51	52	55	56	61	64	48	94	69.8
Oct 19	64	62	64	60	61	64	64	63	59	51	52	49	44	44	47	53	53	50	51	52	52	53	56	62	44	64	55.4
Oct 20	64	66	65	71	72	78	83	86	83	69	55	41	36	31	28	28	30	40	52	62	65	69	74	76	28	86	59.3
Oct 21	73	79	86	86	88	90	93	94	90	84	83	86	85	84	80	81	83	85	89	89	91	91	92	92	73	94	86.4
Oct 22	93	92	92	91	85	80	62	53	84	93	94	90	94	92	92	94	96	96	99	100	99	98	98	98	53	100	90.1
Oct 23	98	97	97	97	97	97	97	97	98	98	91	67	58	60	55	59	61	69	75	84	89	94	97	94	55	98	84.4
Oct 24	92	91	93	93	94	95	95	93	90	87	82	78	75	71	66	66	67	74	84	89	93	96	96	93	66	96	85.5
Oct 25	94	96	96	97	95	96	96	94	90	87	85	82	79	76	76	78	79	81	84	88	89	91	88	86	76	97	87.6
Oct 26	85	93	96	97	99	100	100	98	98	96	90	86	80	82	89	84	81	88	90	91	90	91	91	93	80	100	91.2
Oct 27	93	93	92	92	92	91	90	94	97	85	73	67	62	64	64	67	70	73	77	80	80	80	82	82	62	97	80.8
Oct 28	82	80	76	72	71	73	75	78	79	78	77	76	76	74	73	70	72	76	86	93	95	96	99	70	99	80.1	
Oct 29	100	100	98	99	98	98	98	97	97	96	94	76	74	66	62	65	73	77	80	83	86	87	89	90	62	100	86.8
Oct 30	94	95	95	95	95	95	92	87	86	82	78	69	63	62	62	64	61	66	71	75	81	83	82	83	61	95	79.8
Oct 31	81	82	83	82	85	82	82	86	86	83	80	69	59	50	48	54	60	70	73	79	78	78	73	77	48	86	74.2
Diurnal Maximum	100	100	100	100	100	100	100	100	100	100	100	98	96	92	92	94	96	96	96	100	100	100	100	100			
Diurnal Average	80.0	81.5	82.5	84.2	84.9	86.3	86.9	86.4	83.6	77.6	73.0	66.1	61.5	58.2	56.4	56.2	57.1	61.2	67.2	71.3	73.7	75.5	76.3	78.2			

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

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



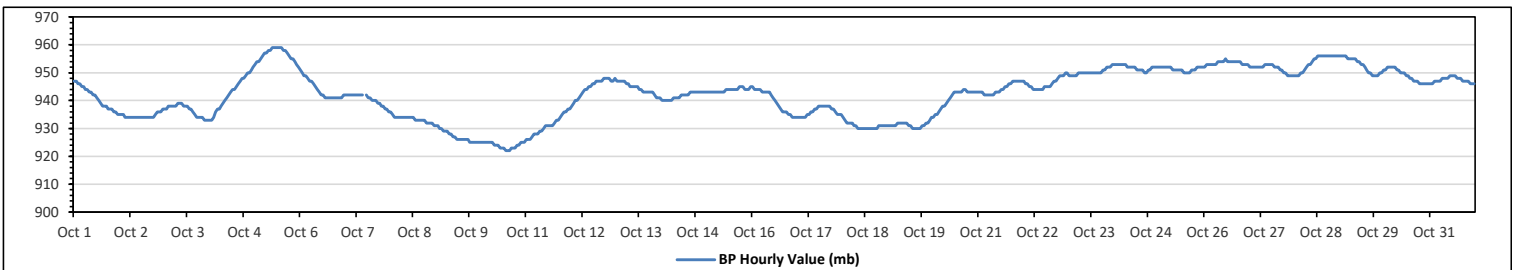
Peace River Area Monitoring Program
986-C Station - October 2023
Summary of Hourly Averages
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	959	mb	on Oct 5 at hr 9	Hours in Service:	744
Maximum Daily Value:	956	mb	on Oct 5	Hours of Data:	743
Minimum Hourly Value:	922	mb	on Oct 10 at hr 13	Hours of Missing Data:	1
Minimum Daily Value:	924	mb	on Oct 10	Hours of Calibration:	0
Monthly Average:	942	mb		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Oct 1	947	947	946	946	945	945	944	944	943	943	942	942	941	940	939	938	938	938	937	937	937	936	936	935	935	947	941	941
Oct 2	935	935	935	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	935	936	936	936	937	937	937	937	935
Oct 3	937	937	938	938	938	938	938	939	939	939	938	938	938	937	937	936	935	934	934	934	934	933	933	933	933	933	939	936
Oct 4	933	933	934	936	937	937	938	939	940	941	942	943	944	944	945	946	947	948	948	949	950	950	951	952	952	952	952	943
Oct 5	953	954	954	955	956	957	957	958	958	959	959	959	959	959	959	958	958	957	956	955	955	954	953	952	952	952	959	956
Oct 6	951	950	949	949	948	947	947	946	945	944	943	942	942	941	941	941	941	941	941	941	941	941	941	941	941	941	941	944
Oct 7	942	942	942	942	942	942	942	942	942	942	K	942	941	941	940	940	940	939	939	938	938	937	936	936	936	936	942	940
Oct 8	936	935	934	934	934	934	934	934	934	934	934	934	934	933	933	933	933	933	933	932	932	932	932	932	931	931	936	933
Oct 9	931	931	930	930	929	929	929	928	928	927	927	926	926	926	926	926	926	926	926	925	925	925	925	925	925	925	931	927
Oct 10	925	925	925	925	925	925	924	924	924	924	923	923	923	922	922	922	923	923	923	923	924	924	925	925	925	925	924	924
Oct 11	926	926	926	927	928	928	928	929	929	930	931	931	931	931	931	932	933	933	934	935	936	936	937	937	937	937	937	931
Oct 12	938	939	940	940	941	942	943	944	944	945	945	946	946	947	947	947	947	948	948	948	948	947	947	947	947	947	948	945
Oct 13	947	947	947	947	947	946	946	945	945	945	945	945	944	944	943	943	943	943	943	943	942	941	941	941	941	941	947	944
Oct 14	940	940	940	940	940	941	941	941	941	941	942	942	942	942	942	943	943	943	943	943	943	943	943	943	943	943	943	942
Oct 15	943	943	943	943	943	943	943	943	943	943	944	944	944	944	944	944	944	945	945	945	945	944	944	944	944	944	944	944
Oct 16	945	944	944	944	944	943	943	943	943	943	942	941	940	939	938	937	936	936	936	935	935	934	934	934	934	934	945	940
Oct 17	934	934	934	934	934	935	935	936	936	937	937	938	938	938	938	938	938	938	937	937	936	935	935	935	935	935	938	936
Oct 18	934	933	932	932	932	932	931	931	930	930	930	930	930	930	930	930	930	930	930	931	931	931	931	931	931	931	934	931
Oct 19	931	931	931	931	931	932	932	932	932	932	932	931	931	930	930	930	930	930	931	931	932	932	932	932	932	932	934	931
Oct 20	934	935	935	936	937	938	938	939	940	941	942	943	943	943	943	943	944	944	943	943	943	943	943	943	943	943	944	941
Oct 21	943	943	943	942	942	942	942	942	943	943	943	944	944	944	945	945	946	946	947	947	947	947	947	947	947	947	947	944
Oct 22	947	946	946	945	945	944	944	944	944	944	944	945	945	945	945	946	947	947	948	949	949	949	950	950	950	950	946	
Oct 23	949	949	949	949	949	950	950	950	950	950	950	950	950	950	950	950	950	950	951	951	952	952	952	952	952	952	950	950
Oct 24	953	953	953	953	953	953	953	952	952	952	952	952	951	951	951	951	950	950	951	951	952	952	952	952	952	952	952	952
Oct 25	952	952	952	952	952	952	952	951	951	951	951	951	951	951	950	950	950	951	951	951	952	952	952	952	952	952	952	951
Oct 26	952	953	953	953	953	953	953	954	954	954	954	955	954	954	954	954	954	954	954	954	953	953	953	953	953	953	953	954
Oct 27	952	952	952	952	952	952	952	952	953	953	953	953	953	952	952	952	951	951	950	949	949	949	949	949	949	949	949	946
Oct 28	949	949	949	950	950	951	952	953	953	954	955	955	956	956	956	956	956	956	956	956	956	956	956	956	956	956	956	954
Oct 29	956	956	956	956	955	955	955	955	954	954	953	953	952	951	950	949	949	949	949	949	949	950	950	951	951	951	951	953
Oct 30	951	952	952	952	952	951	951	950	950	950	949	949	948	948	947	947	946	946	946	946	946	946	946	946	946	946	949	949
Oct 31	946	946	947	947	947	947	948	948	948	948	949	949	949	949	948	948	948	947	947	947	947	946	946	946	946	946	949	947
Diurnal Maximum	956	956	956	956	956	957	957	958	958	959	959	959	959	959	959	958	958	957	956	956	956	956	956	956	956	956	956	956
Diurnal Average	942	942	942	942	942	943	943	943	943	943	943	943	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942

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

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.



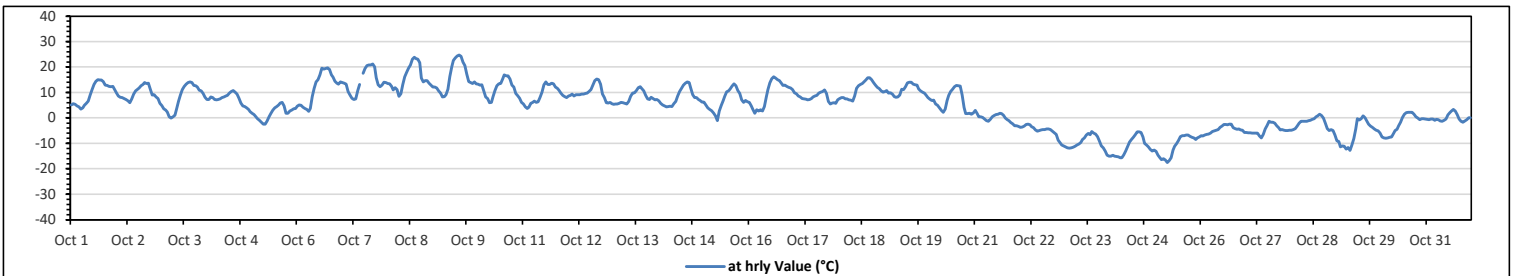
Peace River Area Monitoring Program
986-C Station - October 2023
Summary of Hourly Averages
AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	24.7 °C	on Oct 9 at hr 14	Hours in Service:	744
Maximum Daily Value:	15.8 °C	on Oct 8	Hours of Data:	743
Minimum Hourly Value:	-17.5 °C	on Oct 25 at hr 6	Hours of Missing Data:	1
Minimum Daily Value:	-11.3 °C	on Oct 24	Hours of Calibration:	0
Monthly Average:	4.4 °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
Oct 1	5.2	5.6	5.3	4.7	4.4	3.5	3.9	5	5.7	6.6	9	11.2	13.2	14.5	15.1	14.9	14.9	14.3	13	12.8	12.4	12.3	12.4	11.3	3.5	15.1	9.6
Oct 2	9.9	8.7	8.1	8	7.7	7.3	6.7	6	7.5	9.3	10.6	11.1	11.8	12.7	13.2	13.9	13.5	13.7	11.3	9.1	9.2	8.3	7.7	5.7	5.7	13.9	9.6
Oct 3	4.9	3.7	3.1	2.4	0.4	-0.1	0.4	1.1	3.9	6.5	9.1	11.1	12.4	13.3	13.9	14.2	13.9	12.8	12.7	12.1	10.9	10.6	9.6	8.1	-0.1	14.2	8.0
Oct 4	7.3	7.2	8.3	7.9	7.3	7.1	7.3	7.5	7.9	8.3	8.7	8.9	9.7	10.4	10.7	10.1	9.3	7.8	5.9	4.8	4.5	3.9	3.3	2.5	2.5	10.7	7.4
Oct 5	1.9	1.3	0.5	-0.2	-0.9	-1.7	-2.4	-2.4	-1.2	0.5	1.8	3.1	3.9	4.5	5.2	5.9	6.1	4.7	1.8	1.8	2.7	3.1	3.7	3.8	-2.4	6.1	2.0
Oct 6	4.6	5.2	5	4.2	3.8	3.3	2.6	3.8	8.4	11.7	14.2	15.1	16.9	19.6	19.2	19.4	19.8	19	17	16	14.5	13.7	13.3	14.2	2.6	19.8	11.9
Oct 7	13.9	13.6	13.3	10.4	9	7.8	7.3	7.5	10.6	13.2	K	17.5	19.5	20.6	20.8	20.9	21.2	20	15.8	13.1	12.2	12.9	14.1	13.9	7.3	21.2	14.3
Oct 8	13.5	13.4	12.4	11	11.9	11.1	8.5	9.5	13.2	16.2	17.9	19.6	20.8	23.1	23.9	23.3	23.1	21.7	15.7	14.2	14.6	14.6	13.7	12.9	8.5	23.9	15.8
Oct 9	12.1	12.1	11.8	10.6	9.7	8.3	8.4	9.2	11.3	16.3	20	22.6	23.6	24.3	24.7	24.2	21.9	20.6	17.2	14.3	13.9	13.5	14.2	13.4	8.3	24.7	15.8
Oct 10	13.3	12.9	13.1	10.6	8.2	7.6	6	6.1	8.4	10.7	12.6	13.4	13.5	15.3	16.9	16.5	16.5	15.3	13	12.1	9.6	8.8	7.8	6.2	6.0	16.9	11.4
Oct 11	5.5	4.3	3.8	4.2	5.7	6.1	6.6	6.2	6.4	8.1	10.2	13.1	14.2	13.2	13.2	13.6	13.4	12.1	11.7	10.9	9.8	8.9	8.4	7.9	3.8	14.2	9.1
Oct 12	8.6	8.9	9.4	8.7	9.2	9.2	9.2	9.3	9.3	9.6	9.7	10.4	11.2	12.9	14.6	15.3	15.1	13.3	9.3	8	6	5.9	6.2	5.6	5.6	15.3	9.8
Oct 13	5.3	5.5	5.4	5.8	6.1	6	5.7	5.4	6.5	8.5	8.8	9.9	10.8	11.9	12.3	11.5	10.6	8.9	7.5	7.3	8.1	7.6	7.1	7.2	5.3	12.3	7.9
Oct 14	6.7	5.7	5.2	4.8	4.3	4.5	4.6	4.5	5.6	6.5	8.6	10.5	11.7	12.9	13.7	14.2	13.9	11.7	9.2	7.9	8	7.3	6.8	6.3	4.3	14.2	8.1
Oct 15	6.3	5.2	3.9	3.3	2.8	2	0.9	-1	2.7	4.9	6.7	8.5	10.3	10.6	11.4	12.5	13.4	12.6	10.8	9.6	7.1	6.1	6.8	6.4	-1.0	13.4	6.8
Oct 16	6.1	4.8	3.3	1.8	3.2	2.7	3.2	2.7	4.5	8.3	11.1	13.8	15.5	16.1	15.7	15.1	14.6	13.6	12.8	12.9	12.4	12	11.8	11.2	1.8	16.1	9.6
Oct 17	9.9	9.5	8.7	8.2	7.6	7.5	7.4	7.1	7.2	7.7	8.3	8.7	8.9	9.8	10.2	10.4	11	9.6	6.5	5.5	5.9	6	5.8	7.1	5.5	11.0	8.1
Oct 18	7.6	7.9	8	7.5	7.5	7.1	7	6.6	8.7	11.7	12.6	13.2	13.5	14.3	14.9	15.8	15.8	15.1	13.9	13	12	11.5	10.6	10.2	6.6	15.8	11.1
Oct 19	10.5	10.7	9.8	9.9	9.3	8.4	8.1	8.2	9.1	11.3	11.1	12.3	13.8	14	14	13.3	13.1	12.9	11.4	10.6	10.1	9.8	9.1	7.9	7.9	14.0	10.8
Oct 20	7.4	6.9	7	5.5	5	4	2.9	2.3	3.5	6.8	8.9	10.4	11.3	12.2	12.8	12.7	12.5	9.1	4.1	1.7	1.7	1.8	1.4	2	1.4	12.8	6.4
Oct 21	3	1.7	0.4	0.4	0.2	-0.4	-1	-1.3	-0.5	0.5	1	1.3	1.5	1.9	1.7	1.1	-0.1	-0.7	-1.1	-1.8	-2.3	-3	-3	-3.3	-3.3	3.0	-0.2
Oct 22	-3.7	-3.5	-3.1	-2.6	-2.5	-2.7	-3.4	-3.8	-4.7	-5.2	-5	-4.7	-4.6	-4.5	-4.3	-4.3	-4.6	-5.2	-5.8	-6.5	-8.7	-9.7	-10.6	-11	-11.0	-2.5	-5.2
Oct 23	-11.4	-11.7	-11.9	-11.8	-11.5	-11.1	-10.6	-10.2	-9.6	-8.5	-7.8	-6.8	-6.1	-6.6	-5.3	-5.9	-6.3	-7.3	-9.1	-10.9	-11.8	-13	-14.6	-14.9	-14.9	-5.3	-9.8
Oct 24	-15	-14.6	-14.9	-15.1	-15.2	-15.6	-15.7	-14.5	-13	-11.2	-9.5	-8.5	-7.6	-6.6	-5.5	-5.5	-5.6	-7.5	-9.9	-10.6	-11.4	-12.3	-13	-12.6	-15.7	-5.5	-11.3
Oct 25	-13.1	-14.7	-15.7	-16.4	-16	-16.5	-17.5	-16.8	-15.7	-12.6	-11.1	-10.1	-8.8	-7.3	-6.9	-6.9	-6.8	-6.8	-7.2	-7.6	-7.8	-8.5	-7.8	-7.5	-17.5	-6.8	-11.1
Oct 26	-6.9	-7	-6.7	-6.5	-6.3	-6	-5.3	-5.1	-4.8	-4.5	-3.7	-3.2	-2.6	-2.6	-2.7	-2.4	-2.5	-3.9	-4.2	-4.4	-4.3	-4.7	-4.8	-5.6	-7.0	-2.4	-4.6
Oct 27	-5.6	-5.8	-5.8	-5.9	-6	-5.9	-6	-7.1	-7.9	-6.5	-4.3	-2.9	-1.4	-1.7	-1.6	-2	-3	-3.9	-4.7	-4.6	-4.8	-4.9	-5	-4.8	-7.9	-1.4	-4.7
Oct 28	-4.8	-4.6	-4.2	-3.2	-2	-1.4	-1.3	-1.4	-1.4	-1.1	-0.9	-0.5	-0.2	0.4	0.9	1.5	1	-0.1	-2.1	-4.2	-5	-4.5	-5	-6.8	-6.8	1.5	-2.1
Oct 29	-9	-9.2	-11.4	-11	-11.1	-12.2	-11.6	-12.7	-10.6	-8.1	-4.3	-0.3	-0.8	-0.2	0.8	0	-1.3	-2.4	-3.2	-3.7	-4.3	-4.8	-5.1	-5.9	-12.7	0.8	-5.9
Oct 30	-7.4	-7.9	-8	-7.9	-7.6	-7.4	-6.3	-5	-4.4	-3	-1.6	0.2	1.5	2.1	2.3	2.2	2.3	1.5	0.5	-0.1	-0.7	-0.3	-0.2	-0.4	-8.0	2.3	-2.3
Oct 31	-0.5	-0.7	-0.4	-0.4	-0.9	-0.5	-0.6	-1.2	-1.4	-0.9	-0.4	1.2	2.1	2.7	3.4	2.7	1.3	-0.4	-1.3	-1.6	-1.2	-0.7	0	0	-1.6	3.4	0.0
Diurnal Maximum	13.9	13.6	13.3	11.0	11.9	11.1	9.2	9.5	13.2	16.3	20.0	22.6	23.6	24.3	24.7	24.2	23.1	21.7	17.2	16.0	14.6	14.6	14.2	14.2			
Diurnal Average	2.8	2.4	2.1	1.6	1.4	1.0	0.8	0.8	2.1	3.9	5.1	6.8	7.7	8.5	9.0	9.0	8.6	7.5	5.6	4.6	4.0	3.6	3.4	2.9			

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

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



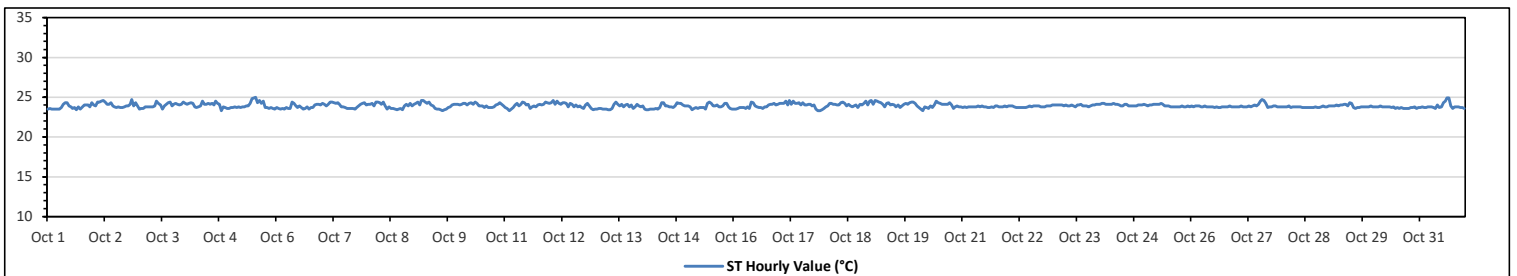
Peace River Area Monitoring Program
986-C Station - October 2023
Summary of Hourly Averages
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	25.0	°C	on Oct 5 at hr 13	Hours in Service:	744
Maximum Daily Value:	24.2	°C	on Oct 19	Hours of Data:	744
Minimum Hourly Value:	23.3	°C	on Oct 4 at hr 19	Hours of Missing Data:	0
Minimum Daily Value:	23.7	°C	on Oct 30	Hours of Calibration:	0
Monthly Average:	23.9	°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	
Oct 1	23.5	23.6	23.5	23.5	23.5	23.5	23.5	23.7	24.1	24.3	24.3	23.9	23.8	23.6	23.7	23.4	23.8	23.5	23.8	24.0	24.0	24.0	23.8	24.3	23.4	24.3	23.8	
Oct 2	24.0	23.9	24.4	24.4	24.5	24.6	24.4	24.1	24.1	24.3	23.9	23.8	23.7	23.8	23.7	23.7	23.8	23.9	23.9	24.1	24.7	23.9	24.3	23.9	23.7	24.7	24.1	
Oct 3	23.5	23.6	23.6	23.8	23.8	23.8	23.8	23.8	23.9	24.5	24.2	24.0	23.5	23.9	24.1	24.3	24.4	23.9	24.1	24.2	24.1	24.0	24.1	24.4	23.5	24.5	24.0	
Oct 4	24.2	24.1	24.2	24.3	24.2	23.8	23.7	23.8	23.9	24.5	24.1	24.1	24.2	24.1	24.2	24.0	24.5	24.2	24.1	23.3	23.8	23.7	23.6	23.6	23.3	24.5	24.0	
Oct 5	23.7	23.7	23.8	23.7	23.8	23.7	23.8	23.8	23.9	23.9	24.2	24.8	24.9	25.0	24.3	24.6	24.2	24.5	23.7	23.7	23.6	23.7	23.6	23.5	23.5	25.0	24.0	
Oct 6	23.7	23.6	23.5	23.6	23.5	23.7	23.6	23.6	24.4	24.2	23.9	23.7	23.9	23.7	23.5	23.6	23.8	23.5	23.7	23.7	24.0	24.1	24.1	24.0	23.5	24.4	23.8	
Oct 7	24.2	24.1	23.9	24.1	24.4	24.4	24.3	24.2	24.3	24.1	23.8	23.8	23.7	23.6	23.6	23.6	23.6	23.5	23.7	23.9	24.1	24.2	24.3	24.0	23.5	24.4	24.0	
Oct 8	24.1	24.1	24.2	23.9	24.4	24.4	24.3	24.1	24.4	23.9	23.5	23.8	23.6	23.6	23.5	23.4	23.5	23.6	23.4	23.9	24.1	23.9	24.2	23.9	23.4	24.4	23.9	
Oct 9	24.1	24.2	24.4	24.0	24.6	24.6	24.4	24.2	24.4	24.0	23.9	23.6	23.5	23.5	23.4	23.3	23.4	23.5	23.7	23.8	24.0	24.1	24.1	24.1	23.3	24.6	24.0	
Oct 10	24.0	24.1	24.2	24.2	24.0	24.2	24.3	24.1	24.4	24.2	23.9	23.9	23.9	23.7	23.9	23.7	23.7	23.7	23.8	24.0	24.1	24.3	24.1	23.9	23.7	24.4	24.0	
Oct 11	23.7	23.6	23.3	23.5	23.7	24.0	24.2	23.9	24.1	24.4	24.3	24.0	24.1	23.6	23.8	23.9	23.8	24.0	24.1	24.0	24.1	24.4	24.3	24.2	23.3	24.4	24.0	
Oct 12	24.3	24.6	24.1	24.5	24.2	24.1	24.3	24.3	24.2	23.8	24.2	24.1	23.8	24.0	23.8	23.8	23.9	23.7	23.6	24.0	24.2	23.9	23.6	23.4	23.5	23.4	24.6	24.0
Oct 13	23.5	23.6	23.6	23.5	23.5	23.5	23.4	23.4	23.6	24.1	24.4	24.1	23.9	24.1	23.8	24.0	24.1	23.8	24.0	23.6	23.8	24.1	23.9	23.8	23.4	24.4	23.8	
Oct 14	23.9	23.5	23.4	23.4	23.5	23.5	23.5	23.6	23.5	23.7	24.3	24.3	23.9	23.9	23.8	23.8	23.7	23.9	24.3	24.2	24.2	24.0	23.9	23.9	23.4	24.3	23.8	
Oct 15	23.9	23.8	23.4	23.6	23.7	23.6	23.7	23.7	23.7	23.5	24.2	24.4	24.2	23.9	23.9	24.0	23.8	23.8	23.9	24.2	24.2	23.8	23.6	23.5	23.4	24.4	23.8	
Oct 16	23.5	23.5	23.6	23.7	23.7	23.7	23.6	23.8	23.6	24.4	24.3	23.9	23.8	23.7	23.7	23.6	23.8	23.8	24.0	24.1	24.1	24.2	24.0	24.1	23.5	24.4	23.8	
Oct 17	24.2	24.2	24.2	24.5	24.0	24.6	24.1	24.5	24.2	24.2	24.3	24.0	24.3	24.0	24.0	24.1	24.1	23.9	24.0	23.5	23.3	23.3	23.4	23.6	23.3	24.6	24.0	
Oct 18	23.8	23.9	24.2	24.2	24.1	24.1	24.0	24.0	24.3	24.4	24.2	23.9	24.1	23.9	23.8	23.9	24.0	23.7	24.1	24.0	24.2	24.5	24.0	24.5	23.7	24.5	24.1	
Oct 19	24.6	24.1	24.6	24.5	24.4	24.3	24.1	23.8	24.2	24.3	24.0	24.1	24.0	23.8	24.0	23.7	23.9	24.1	24.2	24.1	24.3	24.4	24.4	24.2	23.7	24.6	24.2	
Oct 20	23.9	23.7	23.5	23.3	23.8	23.7	23.6	23.9	23.7	24.0	24.5	24.3	24.2	24.1	24.1	24.1	24.1	24.3	24.0	23.6	23.8	23.9	23.8	23.8	23.3	24.5	23.9	
Oct 21	23.7	23.8	23.7	23.8	23.8	23.8	23.8	23.8	23.9	23.8	23.9	23.8	23.8	23.7	23.7	23.8	23.7	23.9	23.9	23.8	23.8	23.8	23.8	23.9	23.8	23.7	23.9	23.8
Oct 22	23.9	23.9	23.9	23.8	23.8	23.7	23.7	23.7	23.7	23.7	23.8	23.9	23.8	23.9	23.9	23.9	23.9	23.8	23.8	23.8	23.9	23.9	23.9	24.0	23.7	24.0	23.8	
Oct 23	24.0	24.0	24.0	24.0	24.0	23.9	24.0	23.9	23.9	24.0	23.9	23.8	24.0	24.0	24.1	23.9	23.9	23.9	23.8	23.9	24.0	24.0	24.1	24.1	23.8	24.1	24.0	
Oct 24	24.1	24.2	24.2	24.1	24.1	24.1	24.1	24.2	24.1	24.1	24.0	23.9	23.9	24.1	24.1	23.9	23.9	23.9	23.9	23.9	24.0	24.0	24.0	24.1	23.9	24.2	24.0	
Oct 25	24.0	23.9	24.0	24.0	24.1	24.1	24.1	24.1	24.2	24.1	23.9	23.9	23.9	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.9	23.8	23.8	23.9	23.8	24.2	23.9	
Oct 26	23.9	23.8	23.9	23.9	23.9	23.8	23.8	23.9	23.8	23.8	23.8	23.8	23.7	23.8	23.7	23.7	23.8	23.8	23.8	23.8	23.8	23.9	23.8	23.8	23.7	23.9	23.8	
Oct 27	23.8	23.8	23.9	23.8	23.8	23.8	23.8	23.8	23.9	24.0	23.9	24.1	24.5	24.7	24.6	24.2	23.7	23.8	23.8	23.8	23.9	23.9	23.8	23.8	23.7	24.7	24.0	
Oct 28	23.8	23.8	23.8	23.9	23.7	23.8	23.8	23.8	23.8	23.8	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.8	23.7	23.7	23.8	23.9	23.8	23.8	23.7	23.9	23.8	
Oct 29	23.9	23.9	23.9	23.9	24.0	23.9	24.0	24.0	24.1	24.1	23.9	24.3	24.2	23.7	23.6	23.7	23.7	23.8	23.8	23.8	23.8	23.8	23.8	23.9	23.8	23.6	24.3	23.9
Oct 30	23.8	23.8	23.8	23.9	23.8	23.8	23.8	23.8	23.8	23.7	23.8	23.6	23.7	23.6	23.7	23.6	23.6	23.6	23.6	23.7	23.7	23.8	23.6	23.7	23.6	23.9	23.7	
Oct 31	23.7	23.8	23.7	23.7	23.8	23.8	23.8	23.7	23.6	24.0	23.7	23.8	24.3	24.5	24.9	24.9	23.9	23.6	23.8	23.8	23.7	23.7	23.6	23.6	23.6	24.9	23.9	
Diurnal Maximum	24.6	24.6	24.6	24.5	24.6	24.6	24.4	24.5	24.4	24.5	24.5	24.8	24.9	25.0	24.9	24.9	24.5	24.5	24.3	24.2	24.7	24.5	24.4	24.5	23.6	24.9	23.9	
Diurnal Average	23.9	23.9	23.9	23.9	23.9	23.9	23.9	24.0	24.1	24.0	24.0	24.0	23.9	23.9	23.9	23.9	23.8	23.8	23.9	23.9	24.0	23.9	23.9	23.9	23.9	24.9	23.9	

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

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per days 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 - October 2023

Summary of Hourly Averages

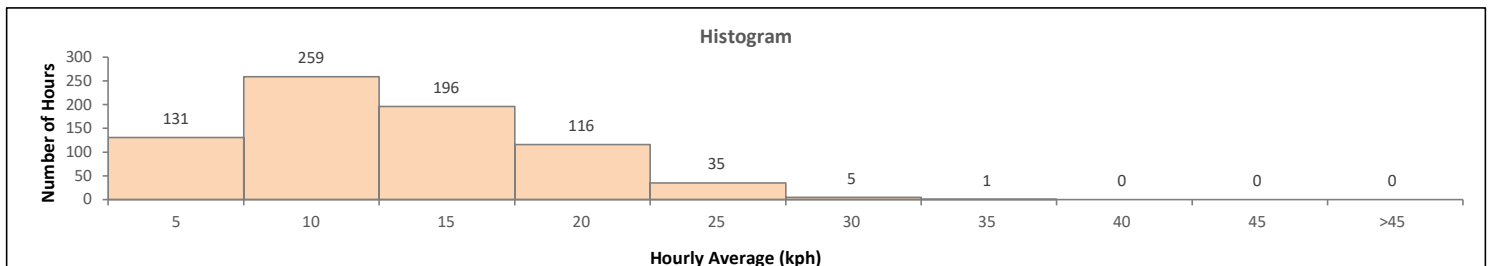
VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	30.4 kph	on Oct 18 at hr 11	Hours in Service:	744
Maximum Daily Value:	19.8 kph	on Oct 19	Hours of Data:	743
Minimum Hourly Value:	0.2 kph	on Oct 17 at hr 3	Hours of Missing Data:	1
Minimum Daily Value:	4.1 kph	on Oct 31	Hours of Calibration:	0
Monthly Average:	4.5 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
Oct 1	16.7	19.3	18.6	20.5	17.0	13.6	16.0	17.1	19.7	18.3	20.8	19.6	21.4	22.9	24.4	19.5	19.4	12.4	14.4	11.5	10.1	11.0	13.8	10.3	10.1	24.4	17.0
Oct 2	9.0	9.4	11.0	10.8	8.1	6.0	5.8	6.8	7.9	6.8	8.1	13.6	14.8	14.0	15.6	13.5	10.1	6.7	3.4	4.4	3.3	5.0	5.5	4.7	3.3	15.6	8.5
Oct 3	6.0	5.1	4.6	6.2	5.2	7.5	6.8	7.5	8.2	10.9	13.4	15.8	16.9	17.9	19.1	16.5	13.3	9.3	15.3	22.0	14.9	16.6	16.6	14.7	4.6	22.0	12.1
Oct 4	13.7	8.6	10.3	9.7	10.8	12.0	15.4	16.8	18.2	21.1	18.5	17.7	17.6	18.1	22.7	24.0	23.2	14.1	6.7	13.5	11.3	11.8	12.6	13.9	6.7	24.0	15.1
Oct 5	11.7	11.8	13.1	13.3	12.6	10.0	5.8	2.8	6.8	13.3	15.8	16.4	17.8	12.5	7.6	4.0	3.7	7.9	11.8	13.5	14.5	13.9	17.7	17.4	2.8	17.8	11.5
Oct 6	20.5	18.5	14.3	12.8	14.0	12.7	8.6	9.0	17.6	21.4	28.0	27.3	14.5	22.4	20.1	18.0	18.1	16.3	10.6	10.3	12.0	10.1	9.9	11.8	8.6	28.0	15.8
Oct 7	9.2	10.7	5.7	6.3	6.7	9.4	10.5	7.8	8.1	8.4	K	9.1	12.1	12.0	10.1	14.5	13.8	10.8	8.4	10.7	9.9	12.9	18.3	16.0	5.7	18.3	10.5
Oct 8	16.9	18.8	17.1	8.9	3.8	6.4	7.2	11.6	11.5	13.0	11.5	13.4	15.5	16.5	16.3	16.4	10.8	7.2	10.0	11.2	9.9	13.2	13.0	18.3	3.8	18.8	12.4
Oct 9	16.7	11.1	9.7	12.5	9.5	11.4	9.4	8.1	8.0	9.3	13.1	19.0	16.9	16.4	13.3	6.7	4.8	2.1	4.7	5.1	5.6	6.4	9.3	9.1	2.1	19.0	9.9
Oct 10	14.5	13.5	1.5	5.0	6.7	2.7	5.7	6.3	3.2	1.5	2.9	5.1	8.7	5.4	4.6	4.3	7.5	9.1	9.2	10.3	9.1	5.6	4.8	5.0	1.5	14.5	6.3
Oct 11	3.8	4.9	2.5	1.8	3.2	1.9	10.3	3.4	2.6	5.1	8.8	10.8	9.0	11.8	10.9	8.7	2.4	2.3	1.4	1.0	6.3	10.4	11.2	15.1	1.0	15.1	6.2
Oct 12	15.2	13.7	11.9	7.1	9.3	15.3	12.3	13.2	12.8	12.3	11.0	12.1	9.4	10.7	8.2	11.1	11.4	8.0	8.6	6.1	7.1	10.5	11.8	7.1	6.1	15.3	10.7
Oct 13	8.1	10.7	10.5	13.2	14.7	14.6	16.1	17.5	18.1	18.6	22.8	23.0	22.1	24.4	24.2	25.2	23.5	22.8	19.0	14.5	13.3	15.9	16.7	17.0	8.1	25.2	17.8
Oct 14	19.3	17.9	16.6	15.1	12.4	15.0	15.4	14.8	15.9	12.9	13.9	17.9	15.8	13.7	12.5	10.6	8.2	7.4	2.7	10.6	11.7	11.2	10.5	7.4	2.7	19.3	12.9
Oct 15	5.1	4.6	9.6	2.4	4.5	4.8	4.6	7.3	8.6	11.0	10.9	7.2	11.2	13.7	13.7	11.4	11.8	10.5	11.5	8.2	10.5	11.1	7.9	7.6	2.4	13.7	8.7
Oct 16	8.0	7.7	7.6	10.2	10.5	11.1	7.8	6.9	6.9	6.3	4.6	4.0	6.7	10.8	15.3	15.9	14.6	13.2	11.2	12.0	13.3	12.6	9.1	5.5	4.0	15.9	9.7
Oct 17	4.6	2.6	1.5	0.2	1.4	1.1	0.6	1.2	1.9	3.1	3.8	5.0	4.6	6.4	7.0	5.6	10.4	8.8	9.1	12.3	12.9	12.8	12.6	15.8	0.2	15.8	6.1
Oct 18	15.0	10.5	11.5	9.4	14.6	8.0	9.4	6.2	12.1	19.5	24.3	30.4	27.1	26.7	23.3	20.3	17.0	16.9	14.2	15.4	15.6	17.0	16.6	19.2	6.2	30.4	16.7
Oct 19	21.6	23.9	20.5	24.6	23.4	17.9	18.4	18.5	17.5	20.7	19.0	18.0	18.1	17.3	22.5	23.0	23.4	17.9	16.3	17.9	19.8	19.3	19.7	16.8	16.3	24.6	19.8
Oct 20	17.4	15.4	14.6	11.7	9.7	8.2	7.1	9.0	8.2	8.7	7.0	7.0	4.8	4.9	3.0	3.1	2.3	8.9	11.2	12.9	12.3	11.1	11.6	14.4	2.3	17.4	9.4
Oct 21	10.0	9.7	11.2	12.2	10.8	13.1	7.5	6.8	4.8	11.8	17.5	21.5	20.0	18.7	22.7	20.0	17.8	17.8	14.4	15.3	14.1	13.2	8.8	7.8	4.8	22.7	13.6
Oct 22	6.4	6.2	2.7	10.2	12.6	18.4	19.3	17.7	16.4	18.8	16.0	17.1	11.4	12.6	11.0	8.8	12.2	9.9	3.9	3.9	0.5	3.3	2.4	1.8	0.5	19.3	10.1
Oct 23	2.9	2.9	2.6	1.0	0.6	3.1	2.0	2.8	5.2	6.8	11.5	11.3	10.7	10.1	0.5	7.5	6.3	6.0	3.8	4.1	3.5	2.1	3.9	5.8	0.5	11.5	4.9
Oct 24	5.9	4.4	6.1	7.1	6.9	8.1	8.5	7.7	9.3	7.4	6.6	7.8	8.8	8.1	8.3	7.4	7.4	7.2	9.5	9.5	8.6	9.1	8.2	7.8	4.4	9.5	7.7
Oct 25	5.1	5.3	6.4	6.4	7.4	6.9	5.4	8.1	7.7	7.9	8.7	9.0	8.2	7.8	7.8	5.8	4.5	1.7	3.6	2.5	1.6	4.9	5.7	6.4	1.6	9.0	6.0
Oct 26	5.1	5.1	6.5	6.0	5.6	5.6	7.2	7.7	6.0	7.2	9.9	9.3	7.6	10.9	8.5	7.1	6.6	9.2	8.7	8.7	9.4	9.8	11.5	7.6	5.1	11.5	7.8
Oct 27	8.9	8.4	6.3	5.8	6.3	4.7	3.4	5.2	2.4	2.0	4.2	2.7	3.1	6.9	6.8	9.4	10.5	10.9	9.4	10.0	10.6	9.2	7.7	8.7	2.0	10.9	6.8
Oct 28	7.5	3.9	5.2	8.8	10.9	12.7	17.6	16.2	13.6	14.6	15.7	14.5	14.6	11.9	9.9	9.1	9.5	4.9	1.3	4.4	4.4	8.3	6.3	5.3	1.3	17.6	9.6
Oct 29	5.1	4.1	4.9	6.0	5.6	6.2	5.4	6.7	7.2	5.6	4.3	7.0	10.8	11.6	11.1	15.4	10.8	10.8	9.7	10.3	6.8	5.8	3.0	3.2	3.0	15.4	7.4
Oct 30	2.7	4.6	3.9	5.0	5.7	6.6	6.0	8.1	10.4	14.9	12.0	9.9	10.6	5.2	6.9	6.1	5.3	4.6	4.3	3.3	4.0	7.9	9.2	5.5	2.7	14.9	6.8
Oct 31	4.1	6.5	5.4	6.2	4.1	5.4	2.5	4.1	2.9	3.5	1.6	1.8	4.2	5.2	3.2	4.1	1.7	3.0	3.7	5.8	3.4	5.2	4.7	7.1	1.6	7.1	4.1
Diurnal Maximum	21.6	23.9	20.5	24.6	23.4	18.4	19.3	18.5	19.7	21.4	28.0	30.4	27.1	26.7	24.4	25.2	23.5	22.8	19.0	22.0	19.8	19.3	19.7	19.2			
Diurnal Average	10.2	9.7	8.8	8.9	8.9	9.0	9.0	9.1	9.7	11.1	12.2	13.0	12.7	13.1	12.8	12.0	10.9	9.6	8.8	9.7	9.4	10.2	10.3	10.1			

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

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.

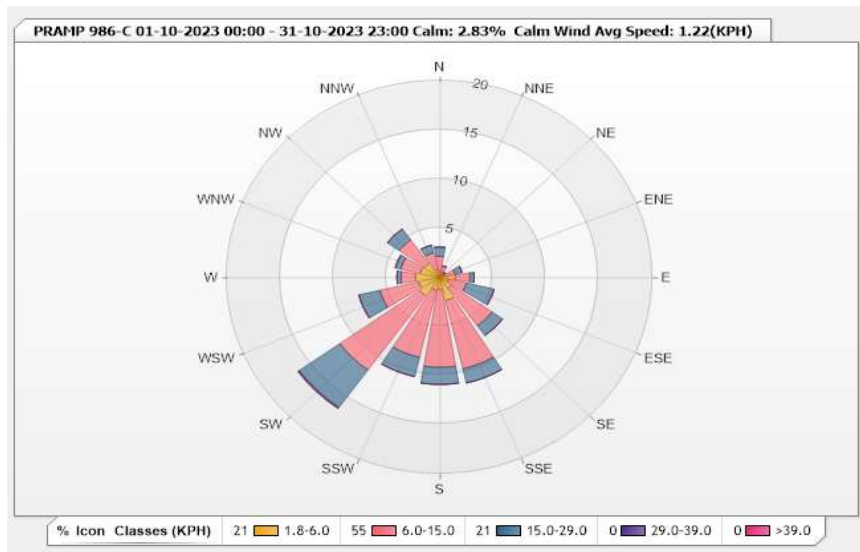


Station: PRAMP 986-C Monitor: WDS [KPH] Monthly: 10-2023

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

Calm (WS<1.8kph): 2.83% Valid Data: 99.87%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.54	1.62	0.94	0	0	3.1
NNE	0.4	0.81	0	0	0	1.21
NE	0.27	0.27	0.13	0	0	0.67
ENE	0.4	1.08	0.67	0	0	2.15
E	1.48	1.35	0.4	0	0	3.23
ESE	0.81	1.75	2.69	0	0	5.25
SE	1.35	4.71	1.21	0	0	7.27
SSE	2.42	7.13	1.48	0	0	11.03
S	1.21	7.94	1.75	0	0	10.9
SSW	1.35	7	2.02	0	0	10.37
SW	2.29	9.29	4.71	0.13	0	16.42
WSW	2.02	3.77	2.02	0	0	7.81
W	2.29	1.35	0.4	0	0	4.04
WNW	1.88	1.88	0.54	0	0	4.3
NW	1.75	2.96	1.35	0	0	6.06
NNW	0.81	1.75	0.81	0	0	3.37
Summary	21.27	54.66	21.12	0.13	0	97.18



Peace River Area Monitoring Program

986-C Station - October 2023

Summary of Hourly Averages

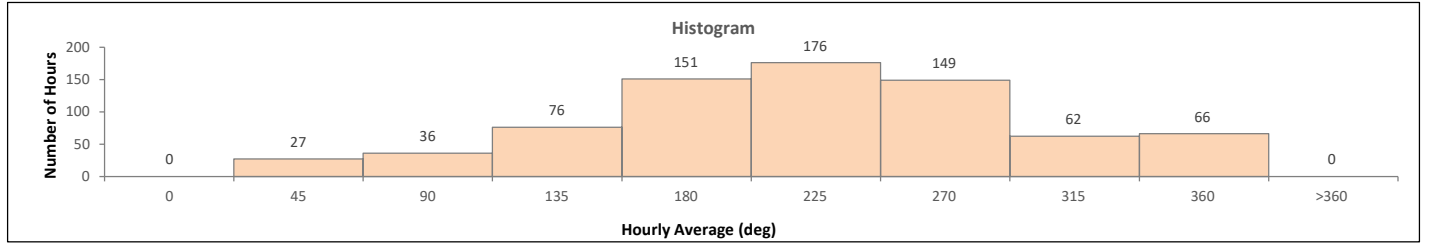
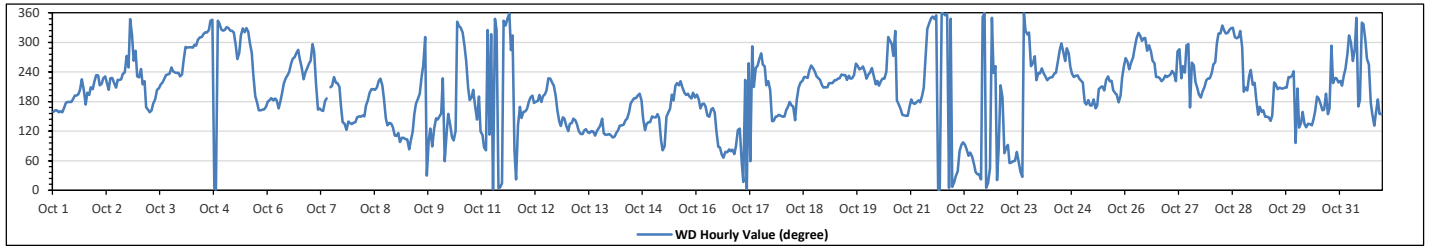
WIND DIRECTION (VWD) in sector

Monthly Average:	201 (SSW) degree	Hours in Service:	744
		Hours of Data:	743
		Hours of Missing Data:	1
		Hours of Calibration:	0
		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Oct 1	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	S	S	S	S	SSW	SSW	SW	SSW	S	SSW	S	SSW	SSW	SW	183	S
Oct 2	SW	SW	SSW	SW	SW	SW	SW	SSW	SW	SW	SSW	SW	SW	SW	WSW	W	WSW	NNW	NW	W	W	W	W	W	231	SW
Oct 3	SW	WSW	SSW	SW	SSE	SSE	SSE	SSE	S	S	SSW	SSW	SSW	SW	SW	SW	SW	WSW	WSW	WSW	SW	SW	SW	SW	221	SW
Oct 4	SW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NNW	NNW	N	N	NNW	NNW	NW	NW	314	NW
Oct 5	NW	NNW	NNW	NW	NW	NW	NNW	W	W	NW	NNW	NW	NNW	NW	WNW	W	SW	S	S	SSE	SSE	SSE	SSE	SSE	288	WNW
Oct 6	S	S	S	S	S	S	SSE	S	SSW	SW	SW	WSW	WSW	W	W	WNW	W	WSW	W	WSW	SW	WSW	WSW	WSW	227	SW
Oct 7	W	WNW	W	SSW	SSE	SSE	SSE	SSE	S	S	K	SSW	SSW	SW	SW	SW	SSW	SSE	SE	SE	ESE	SE	SE	SE	181	S
Oct 8	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SE	SE	SE	SE	SE	SE	169	SSE
Oct 9	ESE	ESE	E	ESE	ESE	ESE	ESE	E	E	ESE	SSE	S	S	SSW	SW	WSW	NW	NNE	E	SE	E	SE	SE	SE	136	SE
Oct 10	SSE	SSE	SW	ESE	ESE	SSE	SE	ESE	E	ESE	NNW	NNW	NNW	NNW	NNW	W	SSW	S	S	SSW	S	SE	S	ESE	166	SSE
Oct 11	ESE	E	E	NW	ESE	NW	N	NNW	NW	N	N	NNE	NNW	NNW	NNW	N	WNW	NW	E	NNE	SE	SSE	SE	SSE	23	NNE
Oct 12	SSE	SSE	S	S	S	S	S	S	S	S	S	S	SSW	SSW	SW	SW	SW	SSW	S	SSE	SE	SE	SE	SE	181	S
Oct 13	ESE	SE	SE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	ESE	ESE	ESE	122	ESE
Oct 14	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SE	SSE	S	S	S	S	S	SSW	S	SE	ESE	SE	SE	SE	SSE	144	SE
Oct 15	SE	SE	SSE	SE	E	E	E	SSE	SSE	SSW	S	SSW	SW	SSW	SW	SSW	SSW	S	SSW	S	S	SSW	S	SSW	186	S
Oct 16	SSW	S	SSE	S	S	SSE	SSE	SSE	SSE	SSE	ESE	E	E	ENE	ENE	ENE	ENE	E	ENE	E	ENE	E	ESE	E	112	ESE
Oct 17	SE	ENE	NNE	SW	N	WSW	ENE	WNW	SSW	WSW	WSW	W	W	WSW	WSW	SSW	SW	SSW	SE	SE	SSE	SSE	SSE	SSE	179	S
Oct 18	SSE	SSE	SSE	SSE	S	S	SSE	SE	S	SSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SSW	214	SSW
Oct 19	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	230	SW
Oct 20	SW	WSW	WSW	SW	SSW	SW	SSW	SW	SW	SW	WSW	NW	WNW	WNW	W	NW	S	S	SSE	SSE	SSE	SSE	SSE	SSE	209	SSW
Oct 21	S	S	S	S	S	S	S	SSW	W	NW	NNW	NNW	N	NNW	N	N	N	N	N	N	N	N	NNW	N	347	NNW
Oct 22	NNE	NNE	NE	E	E	E	E	ENE	ENE	ENE	NE	NE	NNE	NNE	NNE	N	N	N	NNE	NE	N	SW	WSW	56	NE	
Oct 23	NNE	E	SSW	S	ENE	E	E	NE	NE	ENE	ENE	ENE	NE	NNE	N	NW	NW	NW	WSW	WSW	W	SW	SW	35	NE	
Oct 24	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	W	WNW	WNW	W	W	WNW	W	WSW	SW	SW	SW	SW	SW	SW	246	WSW
Oct 25	SW	S	S	S	S	S	SSE	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	SW	WSW	200	SSW		
Oct 26	W	WSW	WSW	WSW	W	WNW	NW	NW	NW	WNW	NW	NW	W	WNW	W	W	WSW	SW	SW	SW	SW	SW	SW	SW	266	W
Oct 27	SW	SW	WSW	SW	SW	W	WNW	SW	WSW	WSW	NNW	NNW	SSE	WSW	WSW	SW	SSW	SSW	S	SSW	SSW	SW	SW	SW	226	SW
Oct 28	SW	WSW	WSW	WNW	NW	NW	NNW	NW	NW	NW	NNW	NNW	NNW	NW	NW	NW	NNW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	306	NW
Oct 29	SW	S	SSE	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	E	195	SSW
Oct 30	SSW	SE	SE	SSE	SE	SE	SE	SE	SE	SE	SSE	S	S	SSE	SSE	SSW	SSE	SSW	SSE	WNW	SW	SW	SW	SW	168	SSE
Oct 31	SW	SSW	SW	WSW	W	NW	WNW	N	SSE	S	NNW	NNW	WNW	W	WSW	S	SSE	SE	SE	SSE	S	SSE	SSE	231	SW	

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

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



Peace River Area Monitoring Program

986-C Station - October 2023

Summary of Hourly Averages

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

WIND SPEED					
Maximum Hourly Value:	30.4	kph	on Oct 18 at hr 11	Hours in Service:	744
Maximum Daily Value:	19.8	kph	on Oct 19	Hours of Data:	743
Minimum Hourly Value:	0.2	kph	on Oct 17 at hr 3	Hours of Missing Data:	1
Minimum Daily Value:	4.1	kph	on Oct 31	Hours of Calibration:	0
Monthly Average:	4.5	kph		Operational Uptime:	99.9

WIND DIRECTION			
Monthly Average:	201 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
Oct 1	16.7	19.3	18.6	20.5	17.0	13.6	16.0	17.1	19.7	18.3	20.8	19.6	21.4	22.9	24.4	19.5	19.4	12.4	14.4	11.5	10.1	11.0	13.8	10.3	10.1	24.4	17.0
Oct 2	9.0	9.4	11.0	10.8	8.1	6.0	5.8	6.8	7.9	6.8	8.1	13.6	14.8	14.0	15.6	13.5	10.1	6.7	3.4	4.4	3.3	5.0	5.5	4.7	3.3	15.6	8.5
Oct 3	6.0	5.1	4.6	6.2	5.2	7.5	6.8	7.5	8.2	10.9	13.4	15.8	16.9	17.9	19.1	16.5	13.3	9.3	15.3	22.0	14.9	16.6	16.6	14.7	4.6	22.0	231(SW)
Oct 4	13.7	8.6	10.3	9.7	10.8	12.0	15.4	16.8	18.2	21.1	18.5	17.7	17.6	18.1	22.7	24.0	23.2	14.1	6.7	13.5	11.3	11.8	12.6	13.9	6.7	24.0	221(SW)
Oct 5	11.7	11.8	13.1	13.3	12.6	10.0	5.8	2.8	6.8	13.3	15.8	16.4	17.8	12.5	7.6	4.0	3.7	7.9	11.8	13.5	14.5	13.9	17.7	17.4	2.8	17.8	314(NW)
Oct 6	20.5	18.5	14.3	12.8	14.0	12.7	8.6	9.0	17.6	21.4	28.0	27.3	14.5	22.4	20.1	18.0	18.1	16.3	10.6	10.3	12.0	10.1	9.9	11.8	8.6	28.0	288(WNW)
Oct 7	9.2	10.7	5.7	6.3	6.7	9.4	10.5	7.8	8.1	8.4	K	9.1	12.1	12.0	14.5	13.8	10.8	8.4	10.7	10.7	9.9	12.9	18.3	16.0	5.7	18.3	227(SW)
Oct 8	16.9	18.8	17.1	8.9	3.8	6.4	7.2	11.6	11.5	13.0	11.5	13.4	15.5	16.5	16.3	16.4	10.8	7.2	10.0	11.2	9.9	13.2	13.0	18.3	3.8	18.8	181(S)
Oct 9	SE	SE	SE	SSE	SSE	SSE	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SE	SE	SE	SE	SE	SE	ESE	2.1	19.0	169(SSE)
Oct 10	16.7	11.1	9.7	12.5	9.5	11.4	9.4	8.1	8.0	9.3	13.1	19.0	16.9	16.4	13.3	6.7	4.8	2.1	4.7	5.1	5.6	6.4	9.3	9.1	1.5	14.5	136(SE)
Oct 11	14.5	13.5	1.5	5.0	6.7	2.7	5.7	6.3	3.2	1.5	2.9	5.1	8.7	5.4	4.6	4.3	7.5	9.1	9.2	10.3	9.1	5.6	4.8	5.0	1.0	15.1	166(ESE)
Oct 12	3.8	4.9	2.5	1.8	3.2	1.9	10.3	3.4	2.6	5.1	8.8	10.8	9.0	11.8	10.9	8.7	2.4	2.3	1.4	1.0	6.3	10.4	11.2	15.1	1.0	15.1	23(NNE)
Oct 13	15.2	13.7	11.9	7.1	9.3	15.3	12.3	13.2	12.8	12.3	11.0	12.1	9.4	10.7	8.2	11.1	11.4	8.0	8.6	6.1	7.1	10.5	11.8	7.1	6.1	15.3	10.7
Oct 14	SE	SSE	S	S	S	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	S	SSE	SE	SE	SE	SE	SE	SE	8.1	25.2	181(S)
Oct 15	8.1	10.7	10.5	13.2	14.7	14.6	16.1	17.5	18.1	18.6	22.8	23.0	22.1	24.4	24.2	25.2	23.5	22.8	19.0	14.5	13.3	15.9	16.7	17.0	8.1	25.2	17.8
Oct 16	ESE	SE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	2.7	19.3	122(ESE)
Oct 17	19.3	17.9	16.6	15.1	12.4	15.0	15.4	14.8	15.9	12.9	13.9	17.9	15.8	13.7	12.5	10.6	8.2	7.4	2.7	10.6	11.7	11.2	10.5	7.4	2.7	19.3	12.9
Oct 18	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SE	S	S	S	S	S	SSW	S	SE	ESE	SE	SE	SE	SE	ESE	2.4	13.7	144(SE)
Oct 19	5.1	4.6	9.6	2.4	4.5	4.8	4.6	7.3	8.6	11.0	10.9	7.2	11.2	13.7	13.7	11.4	11.8	10.5	11.5	8.2	10.5	11.1	7.9	7.6	2.4	13.7	8.7
Oct 20	SE	SE	SSE	SE	E	E	E	SSE	SSE	SSE	SSW	S	SSW	SSW	SSW	SSW	SSW	S	SSW	S	S	SSW	S	SSW	4.0	15.9	186(S)
Oct 21	8.0	7.7	7.6	10.2	10.5	11.1	7.8	6.9	6.9	6.3	4.6	4.0	6.7	10.8	15.3	15.9	14.6	13.2	11.2	12.0	13.3	12.6	9.1	5.5	4.0	15.9	9.7
Oct 22	SSW	S	SSE	S	S	SSE	SSE	SSE	SSE	SSE	SSE	ESE	E	ENE	ENE	ENE	ENE	ENE	E	ENE	E	ENE	E	ESE	0.2	15.8	112(ESE)
Oct 23	4.6	2.6	1.5	0.2	1.4	1.1	0.6	1.2	1.9	3.1	3.8	5.0	4.6	6.4	7.0	5.6	10.4	8.8	9.1	12.3	12.9	12.8	12.6	15.8	0.2	15.8	6.1
Oct 24	SE	ENE	NNE	SW	N	WSW	ENE	WNW	SSW	WSW	WSW	W	W	WSW	WSW	SSW	SSW	SSW	SE	SE	SSE	SSE	SSE	SSE	6.2	30.4	179(S)
Oct 25	15.0	10.5	11.5	9.4	14.6	8.0	9.4	6.2	12.1	19.5	24.3	30.4	27.1	26.7	23.3	20.3	17.0	16.9	14.2	15.4	15.6	17.0	16.6	19.2	6.2	30.4	16.7
Oct 26	SSE	SSE	SSE	SSE	S	S	SSE	SE	S	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	SW	SW	SW	SSW	SSW	16.3	24.6	214(SSW)
Oct 27	21.6	23.9	20.5	24.6	23.4	17.9	18.4	18.5	17.5	20.7	19.0	18.0	18.1	17.3	22.5	23.0	23.4	17.9	16.3	17.9	19.8	19.3	19.7	16.8	16.3	24.6	19.8
Oct 28	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	2.3	17.4	230(SSW)
Oct 29	17.4	15.4	14.6	11.7	9.7	8.2	7.1	9.0	8.2	8.7	7.0	7.0	4.8	4.9	3.0	3.1	2.3	8.9	11.2	12.9	12.3	11.1	11.6	14.4	2.3	17.4	9.4
Oct 30	SW	WSW	WSW	WSW	WSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	4.8	22.7	209(SSW)
Oct 31	10.0	9.7	11.2	12.2	10.8	13.1	7.5	6.8	4.8	11.8	17.5	21.5	20.0	18.7	22.7	20.0	17.8	17.8	14.4	15.3	14.1	13.2	8.8	7.8	4.8	22.7	13.6
Oct 1	S	S	S	S	S	S	S	SSW	W	NW	NNW	NNW	N	NNW	N	N	N	N	N	N	N	N	NNW	N	0.5	19.3	347(NNW)
Oct 2	6.4	6.2	2.7	10.2	12.6	18.4	19.3	17.7	16.4	18.8	16.0	17.1	11.4	12.6	11.0	8.8	12.2	9.9	3.9	3.9	0.5	3.3	2.4	1.8	0.5	19.3	10.1
Oct 3	NNE	NNE	NE	E	E	E	E	E	ENE	ENE	ENE	NE	NNE	NNE	NNE	NNE	N	N	N	NNE	NE	N	SW	WSW	0.5	11.5	56(NE)
Oct 4	2.9	2.9	2.6	1.0	0.6	3.1	2.0	2.8	5.2	6.8	11.5	11.3	10.7	10.1	0.5	7.5	6.3	6.0	3.8	4.1	3.5	2.1	3.9	5.8	0.5	11.5	4.9
Oct 5	NNE	E	SSW	S	ENE	E	E	NE	NE	ENE	ENE	ENE	ENE	NE	NNE	N	NW	NW	NW	WSW	WSW	W	SW	SW	4.4	9.5	35(NE)
Oct 6	5.9	4.4	6.1	7.1	6.9	8.1	8.5	7.7	9.3	7.4	6.6	7.8	8.8	8.1	8.3	7.4	7.4	7.2	9.5	9.5	8.6	9.1	8.2	7.8	4.4	9.5	7.7
Oct 7	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	W	WNW	WNW	W	W	WNW	W	WSW	SW	SW	SW	SW	SW	SW	1.6	9.0	246(WSW)
Oct 8	5.1	5.3	6.4	6.4	7.4	6.9	5.4	8.1	7.7	7.9	8.7	9.0	8.2	7.8	7.8	5.8	4.5	1.7	3.6	2.5	1.6	4.9	5.7	6.4	1.6	9.0	6.0
Oct 9	SW	S	S	S	S	S	S	SSE	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	SW	WSW	5.1	11.5	200(SSW)	
Oct 10	5.1	5.1	6.5	6.0	5.6	5.6	7.2	7.7	6.0	7.2	9.9	9.3	7.6	10.9	8.5	7.1	6.6	9.2	8.7	8.7	9.4	9.8	11.5	7.6	5.1	11.5	7.8
Oct 11	W	WSW	WSW	WSW	W	WNW	NW	NW	NW	WNW	NW	NW	W	WNW	W	W	WSW	SW	SW	SW	SW	SW	SW	SW	2.0	10.9	266(W)
Oct 12	8.9	8.4	6.3	5.8	6.3	4.7	3.4	5.2	2.4	2.0	4.2	2.7	3.1	6.9	6.8	9.4	10.5	10.9	9.4	10.0	10.6	9.2	7.7	8.7	2.0	10.9	6.8
Oct 13	SW	SW	WSW	SW	SW	W	WNW	SW	WSW	WSW	WNW	WNW	SSE	WSW	WSW	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	1.3	17.6	226(SSW)
Oct 14	7.5	3.9	5.2	8.8	10.9	12.7	17.6	16.2	13.6	14.6	15.7	14.5	14.6	11.9	9.9	9.1	9.5	4.9	1.3	4.4	4.4	8.3	6.3	5.3	1.3	17.6	9.6
Oct 15	SW	WSW	WSW	WNW	NW	NW	NNW	NW	NW	NNW	NNW	NNW	NNW	NW	NW	NNW	NNW	NNW	NNW	SSW	SSW	SSW	SSW	SSW	1.3	17.6	306(NW)
Oct 16	5.1	4.1	4.9	6.0	5.6	6.2	5.4	6.7	7.2	5.6	4.3	7.0	10.8	11.6	11.1	15.4	10.8	10.8	9.7	10.3	6.8	5.8	3.0	3.2	3.0	15.4	7.4
Oct 17	SW	S	SSE	SSE	SSE	SSE	SSE	SE	SE	SSE	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	E	2.7	14.9	195(SSW)
Oct 18	2.7	4.6	3.9	5.0	5.7	6.6	6.0	8.1	10.4	14.9	12.0	9.9	10.6	5.2	6.9	6.1	5.3	4.6	4.3	3.3	4.0	7.9	9.2	5.5	2.7	14.9	6.8
Oct 19	SSW	SE	SE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	S	S	SSE	SSE	SSW	SSE	SSE	WNW	SW	SW	SW	SW	1.6	7.1	168(SSE)
Oct 20																											

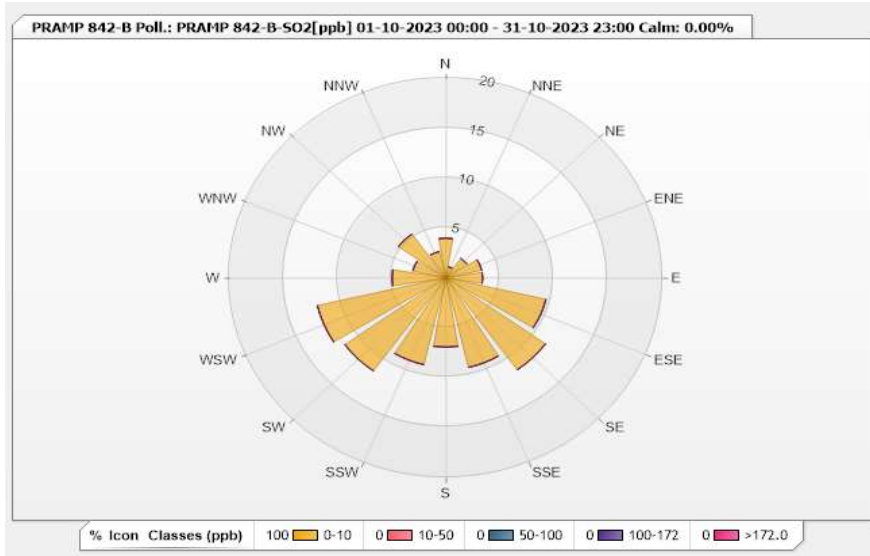
842-B STATION

Station: PRAMP 842-B Poll.: PRAMP 842-B-SO2[ppb] Monthly: 10-2023

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

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

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	3.97	0	0	0	0	3.97
NNE	1.13	0	0	0	0	1.13
NE	2.41	0	0	0	0	2.41
ENE	3.4	0	0	0	0	3.4
E	3.4	0	0	0	0	3.4
ESE	9.49	0	0	0	0	9.49
SE	11.33	0	0	0	0	11.33
SSE	9.21	0	0	0	0	9.21
S	6.94	0	0	0	0	6.94
SSW	8.92	0	0	0	0	8.92
SW	11.47	0	0	0	0	11.47
WSW	12.18	0	0	0	0	12.18
W	4.96	0	0	0	0	4.96
WNW	3.12	0	0	0	0	3.12
NW	5.38	0	0	0	0	5.38
NNW	2.69	0	0	0	0	2.69
Summary	100	0	0	0	0	100



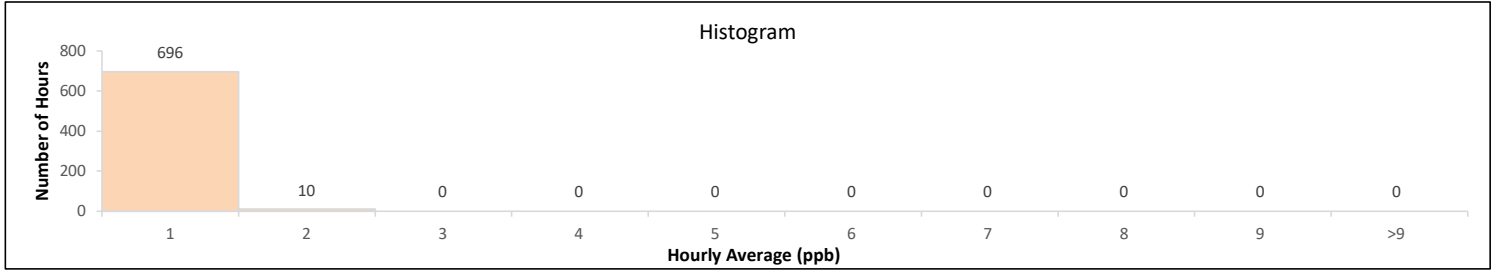
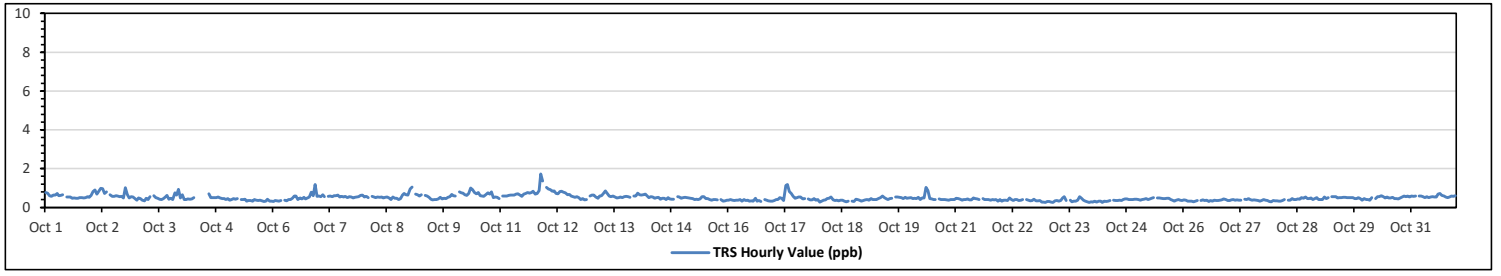
Peace River Area Monitoring Program
842-B Station - October 2023
Summary of Hourly Averages
TOTAL REDUCED SULPHUR (TRS) in ppb

Maximum Hourly Value:	1.72	ppb	on Oct 11 at hr 21	Hours in Service:	744
Maximum Daily Value:	0.76	ppb	on Oct 11	Hours of Data:	706
Minimum Hourly Value:	0.25	ppb	on Oct 23 at hr 3	Hours of Missing Data:	1
Minimum Daily Value:	0.35	ppb	on Oct 23	Hours of Calibration:	37
Monthly Average:	0.49	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	
Oct 1	0.76	0.74	0.61	0.57	0.64	0.64	0.71	0.61	0.62	0.66	S	0.53	0.53	0.53	0.47	0.49	0.48	0.48	0.51	0.51	0.49	0.51	0.55	0.52	0.47	0.76	0.57	
Oct 2	0.62	0.82	0.89	0.69	0.83	0.98	0.97	0.73	0.8	S	0.65	0.57	0.57	0.61	0.59	0.56	0.57	0.49	1.02	0.67	0.49	0.55	0.53	0.45	0.45	1.02	0.68	
Oct 3	0.38	0.49	0.45	0.37	0.34	0.48	0.42	0.56	S	0.61	0.51	0.48	0.43	0.41	0.46	0.54	0.62	0.43	0.48	0.42	0.75	0.63	0.93	0.49	0.34	0.93	0.51	
Oct 4	0.65	0.4	0.4	0.44	0.43	0.44	0.44	0.5	S	0.5	C	C	C	C	0.7	0.5	0.5	0.51	0.51	0.53	0.49	0.46	0.46	0.41	0.40	0.70	0.49	
Oct 5	0.45	0.37	0.4	0.45	0.43	0.45	S	0.41	0.42	0.43	0.32	0.36	0.36	0.32	0.42	0.37	0.36	0.38	0.34	0.31	0.33	0.43	0.32	0.33	0.31	0.45	0.38	
Oct 6	0.31	0.36	0.34	0.33	0.36	S	0.37	0.34	0.4	0.42	0.47	0.58	0.59	0.41	0.49	0.44	0.52	0.44	0.49	0.54	0.79	0.61	1.19	0.57	0.31	1.19	0.49	
Oct 7	0.58	0.55	0.65	0.55	S	0.57	0.59	0.55	0.61	0.61	0.64	0.54	0.57	0.54	0.57	0.5	0.55	0.54	0.49	0.52	0.53	0.56	0.62	0.63	0.49	0.65	0.57	
Oct 8	0.53	0.57	0.5	S	0.57	0.54	0.51	0.53	0.52	0.54	0.49	0.52	0.54	0.49	0.42	0.53	0.47	0.48	0.41	0.45	0.64	0.72	0.66	0.64	0.41	0.72	0.53	
Oct 9	0.96	1.05	S	0.68	0.65	0.59	0.65	NRM	0.62	0.59	0.52	0.43	0.39	0.4	0.4	0.44	0.52	0.44	0.48	0.45	0.52	0.56	0.67	0.61	0.39	1.05	0.57	
Oct 10	0.6	S	0.8	0.75	0.74	0.65	0.62	0.71	1.01	0.92	0.78	0.7	0.76	0.61	0.6	0.57	0.66	0.75	0.68	0.8	0.51	0.54	0.52	0.45	0.45	1.01	0.68	
Oct 11	S	0.59	0.58	0.58	0.62	0.63	0.63	0.64	0.68	0.7	0.64	0.57	0.69	0.73	0.76	0.74	0.76	0.84	0.69	0.72	0.87	1.72	1.37	S	0.57	1.72	0.76	
Oct 12	1.04	0.96	0.92	0.83	0.86	0.71	0.7	0.81	0.84	0.79	0.75	0.66	0.67	0.59	0.56	0.52	0.55	0.5	0.41	0.45	0.39	0.41	S	0.6	0.39	1.04	0.67	
Oct 13	0.64	0.63	0.53	0.48	0.6	0.61	0.73	0.85	0.72	0.58	0.56	0.58	0.54	0.49	0.51	0.53	0.51	0.56	0.57	0.56	0.52	S	0.58	0.6	0.48	0.85	0.59	
Oct 14	0.74	0.66	0.64	0.66	0.69	0.59	0.5	0.56	0.53	0.47	0.5	0.52	0.43	0.47	0.47	0.42	0.51	0.44	0.43	0.43	S	0.55	0.53	0.47	0.42	0.74	0.53	
Oct 15	0.51	0.52	0.5	0.49	0.47	0.46	0.4	0.43	0.41	0.44	0.55	0.56	0.45	0.46	0.41	0.38	0.4	0.42	0.39	S	0.4	0.33	0.34	0.37	0.33	0.56	0.44	
Oct 16	0.38	0.4	0.38	0.36	0.38	0.38	0.41	0.33	0.4	0.36	0.37	0.32	0.34	0.32	0.48	0.32	0.35	0.31	S	0.41	0.38	0.34	0.32	0.33	0.31	0.48	0.36	
Oct 17	0.36	0.41	0.42	0.51	0.48	0.36	1.14	1.18	0.81	0.73	0.57	0.47	0.51	0.54	0.53	0.44	0.46	S	0.44	0.39	0.39	0.45	0.37	0.4	0.36	1.18	0.54	
Oct 18	0.27	0.33	0.38	0.39	0.45	0.47	0.53	0.39	0.35	0.37	0.34	0.38	0.38	0.32	0.29	0.32	S	0.33	0.31	0.43	0.4	0.37	0.33	0.36	0.27	0.53	0.37	
Oct 19	0.39	0.4	0.38	0.46	0.41	0.4	0.41	0.46	0.5	0.59	0.51	0.45	0.42	0.45	0.47	S	0.54	0.53	0.52	0.51	0.46	0.52	0.48	0.49	0.38	0.59	0.47	
Oct 20	0.51	0.46	0.48	0.45	0.52	0.41	0.49	0.49	1.03	0.87	0.46	0.44	0.4	0.41	S	0.44	0.4	0.4	0.41	0.39	0.37	0.42	0.4	0.4	0.37	1.03	0.48	
Oct 21	0.47	0.45	0.43	0.37	0.4	0.4	0.44	0.39	0.39	0.49	0.46	0.44	0.4	S	0.46	0.41	0.41	0.41	0.37	0.42	0.39	0.4	0.33	0.4	0.33	0.49	0.41	
Oct 22	0.33	0.37	0.37	0.36	0.49	0.41	0.35	0.4	0.41	0.36	0.38	0.4	S	0.42	0.37	0.34	0.36	0.43	0.34	0.34	0.35	0.27	0.27	0.26	0.26	0.49	0.36	
Oct 23	0.31	0.3	0.28	0.25	0.34	0.35	0.32	0.36	0.49	0.56	0.35	S	0.37	0.29	0.32	0.32	0.37	0.56	0.48	0.38	0.32	0.29	0.26	0.29	0.25	0.56	0.35	
Oct 24	0.27	0.32	0.28	0.32	0.32	0.26	0.33	0.3	0.33	0.35	S	0.37	0.35	0.35	0.38	0.35	0.4	0.44	0.44	0.42	0.41	0.4	0.43	0.43	0.26	0.44	0.36	
Oct 25	0.4	0.38	0.41	0.43	0.46	0.42	0.44	0.47	0.51	S	0.49	0.49	0.47	0.46	0.46	0.47	0.47	0.41	0.38	0.33	0.37	0.42	0.37	0.36	0.33	0.51	0.43	
Oct 26	0.39	0.37	0.33	0.32	0.33	0.29	0.33	0.35	S	0.36	0.39	0.35	0.38	0.31	0.36	0.32	0.37	0.36	0.36	0.37	0.39	0.44	0.4	0.36	0.29	0.44	0.36	
Oct 27	0.35	0.39	0.4	0.37	0.39	0.37	0.38	S	0.43	0.42	0.46	0.41	0.41	0.38	0.39	0.37	0.36	0.33	0.35	0.41	0.38	0.35	0.31	0.29	0.35	0.29	0.46	0.38
Oct 28	0.34	0.34	0.33	0.33	0.36	0.42	S	0.37	0.38	0.46	0.41	0.42	0.44	0.43	0.51	0.47	0.53	0.46	0.46	0.49	0.42	0.45	0.5	0.4	0.33	0.53	0.42	
Oct 29	0.42	0.41	0.53	0.45	0.51	S	0.55	0.55	0.55	0.49	0.5	0.51	0.52	0.52	0.5	0.5	0.5	0.5	0.45	0.45	0.51	0.46	0.38	0.45	0.38	0.55	0.49	
Oct 30	0.42	0.42	0.38	0.5	S	0.45	0.56	0.55	0.61	0.56	0.49	0.53	0.49	0.49	0.52	0.45	0.45	0.44	0.49	0.53	0.59	0.55	0.59	0.54	0.38	0.61	0.50	
Oct 31	0.59	0.57	0.59	S	0.59	0.58	0.56	0.51	0.56	0.51	0.53	0.56	0.53	0.53	0.68	0.71	0.62	0.6	0.54	0.51	0.54	0.59	0.57	0.61	0.51	0.71	0.57	
Diurnal Maximum	1.04	1.05	0.92	0.83	0.86	0.98	1.14	1.18	1.03	0.92	0.78	0.70	0.76	0.73	0.76	0.74	0.76	0.84	1.02	0.80	0.87	1.72	1.37	0.64				
Diurnal Average	0.50	0.50	0.49	0.47	0.51	0.49	0.54	0.53	0.57	0.54	0.50	0.49	0.48	0.46	0.48	0.46	0.48	0.47	0.48	0.47	0.48	0.51	0.52	0.45				

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

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.

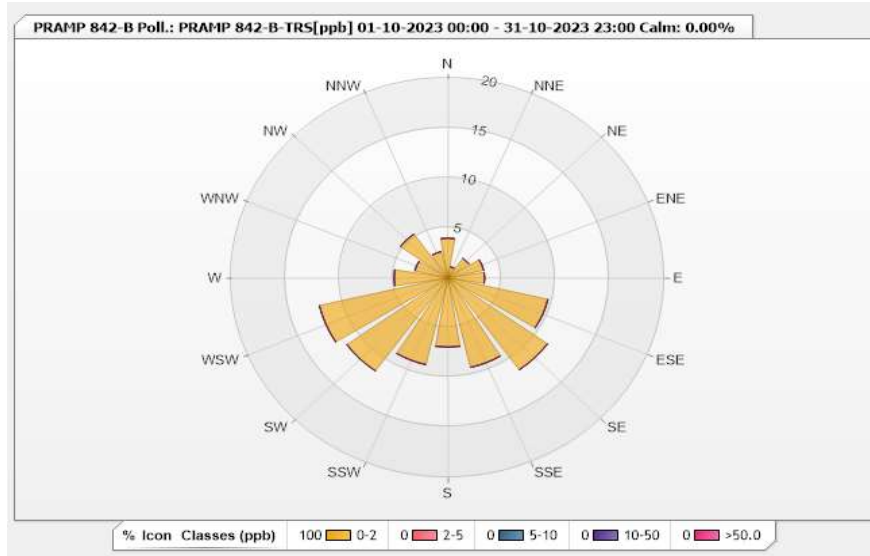


Station: PRAMP 842-B Poll.: PRAMP 842-B-TRS[ppb] Monthly: 10-2023

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

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

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	3.97	0	0	0	0	3.97
NNE	1.13	0	0	0	0	1.13
NE	2.41	0	0	0	0	2.41
ENE	3.4	0	0	0	0	3.4
E	3.4	0	0	0	0	3.4
ESE	9.49	0	0	0	0	9.49
SE	11.33	0	0	0	0	11.33
SSE	9.21	0	0	0	0	9.21
S	6.94	0	0	0	0	6.94
SSW	8.92	0	0	0	0	8.92
SW	11.47	0	0	0	0	11.47
WSW	12.18	0	0	0	0	12.18
W	4.96	0	0	0	0	4.96
WNW	3.12	0	0	0	0	3.12
NW	5.38	0	0	0	0	5.38
NNW	2.69	0	0	0	0	2.69
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

842-B Station - October 2023

Summary of Hourly Averages

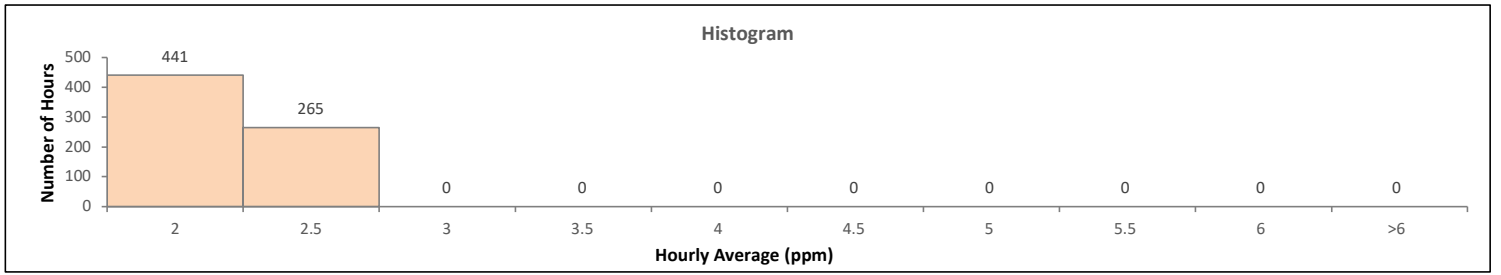
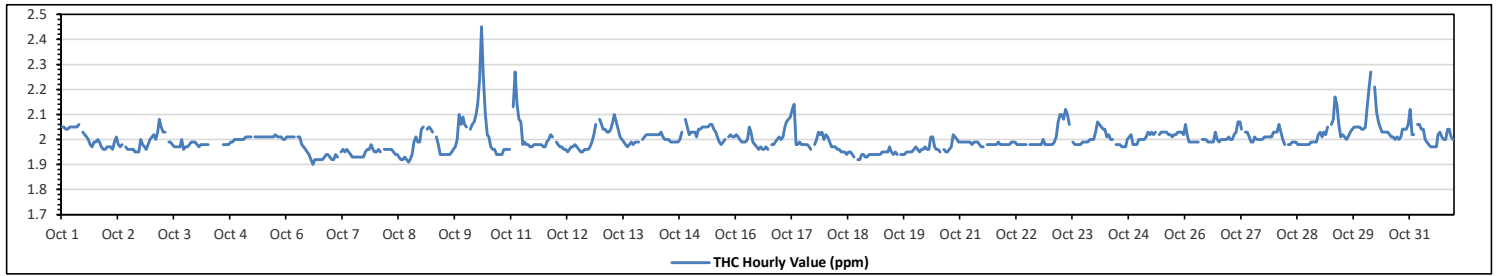
TOTAL HYDROCARBONS (THC) in ppm

Maximum Hourly Value:	2.45 ppm	on Oct 10 at hr 8	Hours in Service:	744
Maximum Daily Value:	2.06 ppm	on Oct 30	Hours of Data:	706
Minimum Hourly Value:	1.90 ppm	on Oct 6 at hr 14	Hours of Missing Data:	1
Minimum Daily Value:	1.94 ppm	on Oct 7	Hours of Calibration:	37
Monthly Average:	2.00 ppm		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Oct 1	2.05	2.05	2.04	2.04	2.05	2.05	2.05	2.05	2.05	2.06	S	2.03	2.02	2.01	2.00	1.98	1.97	1.99	1.99	2.00	1.99	1.97	1.96	1.96	1.96	2.06	2.02	2.02
Oct 2	1.97	1.97	1.97	1.96	1.99	2.01	1.98	1.97	1.98	S	1.97	1.96	1.96	1.96	1.96	1.95	1.95	1.95	2.00	1.98	1.97	1.96	1.98	2.00	1.95	2.01	1.97	
Oct 3	2.01	2.02	2.00	2.03	2.08	2.05	2.03	2.03	S	1.99	1.99	1.98	1.97	1.97	1.97	1.97	2.00	1.96	1.97	1.97	1.98	1.99	1.99	1.99	1.96	2.08	2.00	
Oct 4	1.98	1.97	1.98	1.98	1.98	1.98	1.98	S	1.99	C	C	C	C	C	1.98	1.98	1.98	1.98	1.99	1.99	2.00	2.00	2.00	2.00	1.97	2.00	1.99	
Oct 5	2.00	2.00	2.01	2.01	2.01	2.01	S	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.01	2.01	2.01	2.00	2.00	2.00	2.02	2.01	
Oct 6	2.01	2.01	2.01	2.01	S	2.01	2.01	1.98	1.97	1.96	1.95	1.94	1.92	1.90	1.92	1.92	1.92	1.92	1.92	1.92	1.93	1.94	1.94	1.93	1.90	2.01	1.96	
Oct 7	1.92	1.92	1.94	1.93	S	1.95	1.96	1.95	1.96	1.95	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.95	1.96	1.96	1.98	1.96	1.95	1.92	1.98	1.94	
Oct 8	1.95	1.96	1.95	S	1.96	1.96	1.96	1.96	1.96	1.95	1.94	1.94	1.93	1.92	1.92	1.93	1.92	1.91	1.92	1.94	1.99	2.01	1.99	1.99	1.91	2.01	1.95	
Oct 9	2.04	2.05	S	2.04	2.05	2.04	2.03	NRM	2.01	1.98	1.94	1.94	1.94	1.94	1.94	1.95	1.96	1.97	2.00	2.10	2.06	2.09	2.06	1.94	2.10	2.00		
Oct 10	2.05	S	2.04	2.06	2.07	2.10	2.14	2.24	2.45	2.24	2.10	2.02	2.01	1.97	1.96	1.96	1.94	1.94	1.94	1.96	1.96	1.96	1.96	1.94	2.45	2.04		
Oct 11	S	2.13	2.27	2.14	2.08	2.07	1.98	1.99	1.98	1.98	1.97	1.97	1.98	1.98	1.98	1.98	1.98	1.97	1.97	1.99	2.00	2.02	2.01	S	1.97	2.27	2.02	
Oct 12	1.99	1.98	1.97	1.97	1.96	1.96	1.95	1.96	1.97	1.97	1.98	1.97	1.96	1.95	1.95	1.96	1.96	1.96	1.97	1.99	2.02	2.06	S	2.08	1.95	2.08	1.98	
Oct 13	2.06	2.04	2.04	2.03	2.03	2.04	2.07	2.10	2.07	2.04	2.01	2.00	1.99	1.98	1.97	1.98	1.99	1.98	1.99	1.99	1.99	1.99	S	2.00	2.01	1.97	2.10	2.02
Oct 14	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.01	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.03	S	2.08	2.05	2.02	1.99	2.08	2.01	
Oct 15	2.03	2.03	2.03	2.01	2.04	2.04	2.05	2.05	2.05	2.05	2.06	2.06	2.04	2.03	2.01	1.99	1.98	1.99	2.00	S	2.01	2.02	2.01	2.01	1.98	2.06	2.03	
Oct 16	2.02	2.01	2.00	1.99	1.99	1.99	2.00	2.05	2.03	1.99	1.98	1.97	1.96	1.97	1.96	1.96	1.97	1.96	S	1.98	1.98	1.99	2.00	2.01	1.96	2.05	1.99	
Oct 17	2.00	2.01	2.05	2.07	2.08	2.09	2.12	2.14	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.97	1.96	S	1.98	2.00	2.03	2.02	2.03	2.00	1.96	2.14	2.02	
Oct 18	2.02	2.01	1.99	1.97	1.97	1.97	1.96	1.96	1.95	1.95	1.95	1.94	1.95	1.95	1.94	1.93	S	1.92	1.92	1.94	1.94	1.93	1.93	1.94	1.92	2.02	1.95	
Oct 19	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.97	1.95	1.94	1.95	1.94	S	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.96	1.94	1.97	1.95	
Oct 20	1.97	1.96	1.95	1.96	1.96	1.97	1.96	1.96	2.01	2.01	1.97	1.96	1.96	1.95	S	1.96	1.95	1.95	1.96	1.97	2.02	2.01	2.00	1.99	1.95	2.02	1.97	
Oct 21	1.99	1.99	1.99	1.99	1.99	1.99	1.98	1.99	1.99	1.98	1.97	1.97	S	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.97	1.99	1.98
Oct 22	1.98	1.98	1.98	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.98	S	1.98	1.98	1.98	1.98	1.98	1.98	1.98	2.00	1.98	1.98	1.98	1.98	2.00	1.98	
Oct 23	1.98	1.98	1.99	2.01	2.07	2.10	2.10	2.08	2.12	2.10	2.06	S	1.99	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	2.00	2.00	2.00	1.98	2.12	2.02	
Oct 24	2.03	2.07	2.06	2.05	2.04	2.04	2.01	2.02	2.00	2.00	S	1.98	1.98	1.98	1.97	1.97	1.97	2.00	2.01	2.02	1.98	1.98	1.98	1.98	1.97	2.07	2.01	
Oct 25	2.00	2.00	2.00	2.01	2.03	2.02	2.03	2.02	2.03	S	2.02	2.03	2.03	2.03	2.03	2.02	2.02	2.01	2.02	2.02	2.03	2.03	2.03	2.02	2.00	2.03	2.02	
Oct 26	2.06	2.02	1.99	1.99	1.99	1.99	1.99	1.99	S	2.00	2.00	2.00	1.99	1.99	1.99	1.99	2.02	2.00	1.99	2.00	2.00	2.00	2.00	2.01	1.99	2.06	2.02	
Oct 27	2.00	2.00	2.02	2.03	2.07	2.07	2.04	S	2.03	2.03	2.01	1.99	1.99	2.01	2.00	2.00	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	1.99	2.07	2.02	
Oct 28	2.03	2.03	2.06	2.03	2.00	1.98	S	1.98	1.98	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.99	2.02	1.98	2.06	2.00	
Oct 29	2.03	2.01	2.03	2.02	2.05	S	2.06	2.08	2.17	2.14	2.06	2.01	2.02	2.01	2.00	2.01	2.03	2.04	2.05	2.05	2.05	2.05	2.04	2.04	2.00	2.17	2.05	
Oct 30	2.05	2.12	2.20	2.27	S	2.21	2.11	2.07	2.05	2.03	2.03	2.03	2.03	2.02	2.01	2.01	2.00	2.01	2.00	2.01	2.04	2.04	2.04	2.04	2.06	2.00	2.27	2.06
Oct 31	2.12	2.02	2.02	S	2.06	2.06	2.04	2.04	2.00	1.99	1.98	1.97	1.97	1.97	1.97	2.02	2.03	2.01	2.00	2.00	2.04	2.04	2.01	2.00	1.97	2.12	2.02	
Diurnal Maximum	2.12	2.13	2.27	2.27	2.08	2.21	2.14	2.24	2.45	2.24	2.10	2.06	2.04	2.03	2.03	2.02	2.03	2.04	2.05	2.05	2.10	2.08	2.09	2.08				
Diurnal Average	2.01	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.01	1.99	1.98	1.98	1.98	1.97	1.97	1.98	1.97	1.98	1.99	2.00	2.00	2.00	2.00				

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

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.

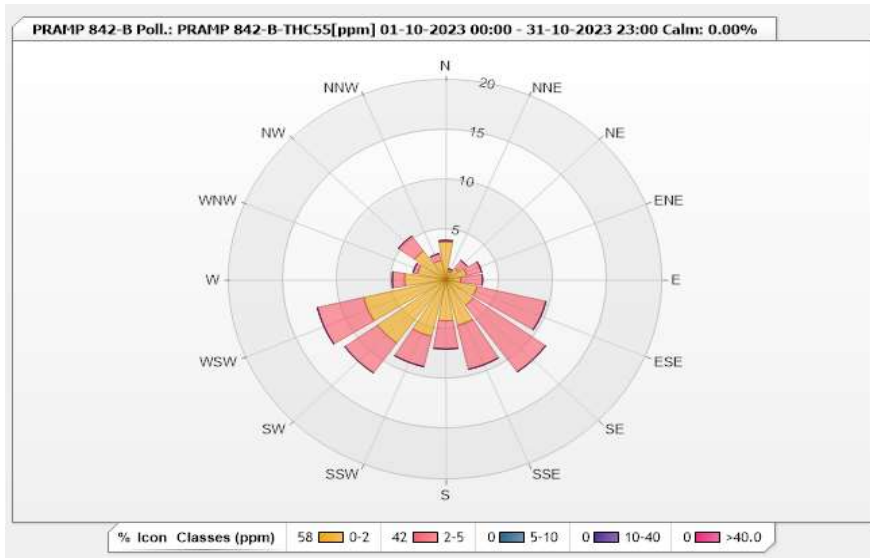


Station: PRAMP 842-B Poll.: PRAMP 842-B-THC55[ppm] Monthly: 10-2023

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

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

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	3.82	0.14	0	0	0	3.96
NNE	0.85	0.28	0	0	0	1.13
NE	1.42	0.99	0	0	0	2.41
ENE	1.98	1.42	0	0	0	3.4
E	1.42	1.98	0	0	0	3.4
ESE	2.97	6.52	0	0	0	9.49
SE	3.12	8.22	0	0	0	11.34
SSE	4.67	4.53	0	0	0	9.2
S	4.11	2.83	0	0	0	6.94
SSW	5.81	3.12	0	0	0	8.93
SW	7.79	3.68	0	0	0	11.47
WSW	7.79	4.39	0	0	0	12.18
W	3.82	1.13	0	0	0	4.95
WNW	2.69	0.42	0	0	0	3.11
NW	3.54	1.84	0	0	0	5.38
NNW	1.98	0.71	0	0	0	2.69
Summary	57.78	42.2	0	0	0	100



Peace River Area Monitoring Program

842-B Station - October 2023

Summary of Hourly Averages

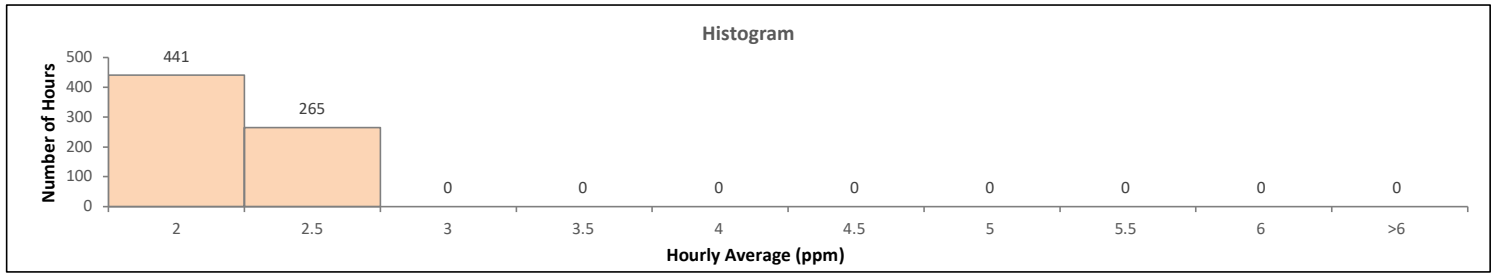
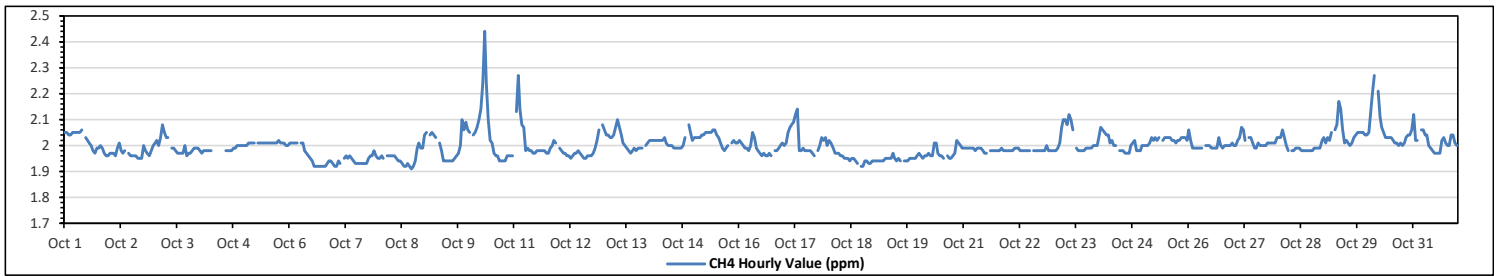
METHANE (CH4) in ppm

Maximum Hourly Value:	2.44	ppm	on Oct 10 at hr 8	Hours in Service:	744
Maximum Daily Value:	2.06	ppm	on Oct 30	Hours of Data:	706
Minimum Hourly Value:	1.91	ppm	on Oct 8 at hr 17	Hours of Missing Data:	1
Minimum Daily Value:	1.94	ppm	on Oct 7	Hours of Calibration:	37
Monthly Average:	2.00	ppm		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23		
Oct 1	2.05	2.05	2.04	2.04	2.05	2.05	2.05	2.05	2.05	2.06	S	2.03	2.02	2.01	2.00	1.98	1.97	1.99	1.99	2.00	1.99	1.97	1.96	1.96	1.96	2.06	2.02	2.02	
Oct 2	1.97	1.97	1.97	1.96	1.99	2.01	1.98	1.97	1.98	S	1.97	1.96	1.96	1.96	1.96	1.95	1.95	1.95	2.00	1.98	1.97	1.96	1.98	2.00	1.95	2.01	1.97	2.00	
Oct 3	2.01	2.02	2.00	2.03	2.08	2.05	2.03	2.03	S	1.99	1.99	1.98	1.97	1.97	1.97	1.97	2.00	1.96	1.97	1.97	1.98	1.99	1.99	1.99	1.96	2.08	2.00	2.00	
Oct 4	1.98	1.97	1.98	1.98	1.98	1.98	1.98	S	1.99	C	C	C	C	C	1.98	1.98	1.98	1.98	1.99	1.99	2.00	2.00	2.00	2.00	1.97	2.00	1.99	2.00	
Oct 5	2.00	2.00	2.01	2.01	2.01	2.01	S	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.01	2.01	2.01	2.00	2.00	2.00	2.02	2.01	2.01	
Oct 6	2.01	2.01	2.01	2.01	2.01	S	2.01	2.01	1.98	1.97	1.96	1.95	1.94	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.93	1.94	1.94	1.93	1.92	2.01	1.96	
Oct 7	1.92	1.92	1.94	1.93	S	1.95	1.96	1.95	1.96	1.95	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.96	1.96	1.98	1.96	1.95	1.92	1.98	1.94	
Oct 8	1.95	1.96	1.95	S	1.96	1.96	1.96	1.96	1.96	1.95	1.94	1.94	1.93	1.92	1.92	1.93	1.92	1.91	1.92	1.94	1.99	2.01	1.99	1.99	1.91	2.01	1.95	2.00	
Oct 9	2.04	2.05	S	2.04	2.05	2.04	2.03	NRM	2.01	1.98	1.94	1.94	1.94	1.94	1.94	1.95	1.96	1.97	2.00	2.10	2.06	2.09	2.06	1.94	2.10	2.00	1.95	2.00	
Oct 10	2.05	S	2.04	2.05	2.07	2.10	2.14	2.24	2.44	2.24	2.10	2.02	2.01	1.97	1.96	1.96	1.94	1.94	1.94	1.96	1.96	1.96	1.96	1.94	2.44	2.04	1.94	2.04	
Oct 11	S	2.13	2.27	2.14	2.08	2.07	1.98	1.99	1.98	1.98	1.97	1.97	1.98	1.98	1.98	1.98	1.98	1.97	1.97	1.99	2.00	2.02	2.01	S	1.97	2.27	2.02	2.00	
Oct 12	1.99	1.98	1.97	1.97	1.96	1.96	1.95	1.96	1.97	1.97	1.98	1.97	1.96	1.95	1.95	1.96	1.96	1.96	1.97	1.99	2.02	2.06	S	2.08	1.95	2.08	1.98	1.98	
Oct 13	2.06	2.04	2.04	2.03	2.03	2.04	2.07	2.10	2.07	2.04	2.01	2.00	1.99	1.98	1.97	1.98	1.99	1.98	1.99	1.99	1.99	1.99	S	2.00	1.97	2.10	2.02	2.01	
Oct 14	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.01	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.03	S	2.08	2.05	2.02	1.99	2.08	2.01	2.00	
Oct 15	2.03	2.03	2.03	2.03	2.04	2.04	2.05	2.05	2.05	2.05	2.06	2.06	2.04	2.03	2.01	1.99	1.98	1.99	2.00	S	2.01	2.02	2.01	2.01	1.98	2.06	2.03	2.00	
Oct 16	2.02	2.01	2.00	1.99	1.99	1.98	2.00	2.05	2.03	1.99	1.98	1.97	1.96	1.97	1.96	1.96	1.97	1.96	S	1.98	1.98	1.99	2.00	2.01	1.96	2.05	1.99	2.00	
Oct 17	2.00	2.01	2.05	2.07	2.08	2.09	2.12	2.14	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.97	1.96	S	1.98	2.00	2.03	2.02	2.03	2.00	1.96	2.14	2.02	2.00	
Oct 18	2.02	2.01	1.99	1.97	1.97	1.97	1.96	1.96	1.95	1.95	1.95	1.94	1.95	1.95	1.94	1.93	S	1.92	1.92	1.94	1.94	1.93	1.93	1.94	1.92	2.02	1.95	1.95	
Oct 19	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.97	1.95	1.94	1.95	1.94	S	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.96	1.94	1.97	1.95	1.95
Oct 20	1.97	1.96	1.95	1.96	1.96	1.97	1.96	1.96	2.01	2.01	1.97	1.96	1.96	1.95	S	1.96	1.95	1.95	1.96	1.97	2.02	2.01	2.00	1.99	1.95	2.02	1.97	1.97	
Oct 21	1.99	1.99	1.99	1.99	1.99	1.99	1.98	1.99	1.99	1.98	1.97	1.97	S	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.97	1.99	1.98	1.98
Oct 22	1.98	1.98	1.98	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.98	S	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	2.00	1.98	1.98	1.98	1.98	2.00	1.98	1.98
Oct 23	1.98	1.98	1.99	2.01	2.07	2.10	2.10	2.08	2.12	2.10	2.06	S	1.99	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	2.00	2.00	2.00	1.98	2.12	2.02	2.00	
Oct 24	2.03	2.07	2.06	2.05	2.04	2.04	2.01	2.02	2.00	2.00	S	1.98	1.98	1.98	1.97	1.97	1.97	2.00	2.01	2.02	1.98	1.98	1.98	1.98	1.97	2.07	2.01	2.01	
Oct 25	2.00	2.00	2.00	2.01	2.03	2.02	2.03	2.02	S	2.02	2.03	2.03	2.03	2.03	2.02	2.02	2.01	2.02	2.02	2.02	2.03	2.03	2.03	2.02	2.00	2.03	2.02	2.00	
Oct 26	2.06	2.02	1.99	1.99	1.99	1.99	1.99	1.99	S	2.00	2.00	2.00	1.99	1.99	1.99	1.99	2.02	2.00	1.99	2.00	2.00	2.00	2.00	2.01	1.99	2.06	2.02	2.00	
Oct 27	2.00	2.00	2.02	2.03	2.07	2.06	S	2.03	2.03	2.01	1.99	1.99	2.01	2.00	2.00	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.01	1.99	2.07	2.01	2.01	
Oct 28	2.03	2.03	2.06	2.03	2.00	1.98	S	1.98	1.98	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.99	2.01	1.99	1.99	2.02	1.98	2.06	2.00
Oct 29	2.03	2.01	2.03	2.02	2.05	S	2.06	2.08	2.17	2.14	2.06	2.01	2.02	2.01	2.00	2.01	2.03	2.04	2.05	2.05	2.05	2.05	2.04	2.04	2.00	2.17	2.05	2.00	
Oct 30	2.05	2.12	2.20	2.27	S	2.21	2.11	2.07	2.05	2.03	2.03	2.03	2.03	2.02	2.01	2.01	2.00	2.01	2.00	2.01	2.03	2.04	2.04	2.04	2.06	2.00	2.27	2.06	2.00
Oct 31	2.12	2.02	2.02	S	2.06	2.06	2.04	2.04	2.00	1.99	1.98	1.97	1.97	1.97	1.97	2.02	2.03	2.01	2.00	2.00	2.04	2.04	2.01	2.00	1.97	2.12	2.02	2.00	
Diurnal Maximum	2.12	2.13	2.27	2.27	2.08	2.21	2.14	2.24	2.44	2.24	2.10	2.06	2.04	2.03	2.03	2.02	2.03	2.04	2.05	2.05	2.10	2.08	2.09	2.08	2.00	2.08	2.02	2.00	
Diurnal Average	2.01	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.01	1.99	1.98	1.98	1.98	1.97	1.97	1.98	1.97	1.98	1.99	2.00	2.00	2.00	2.00	1.97	2.12	2.02	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
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

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.

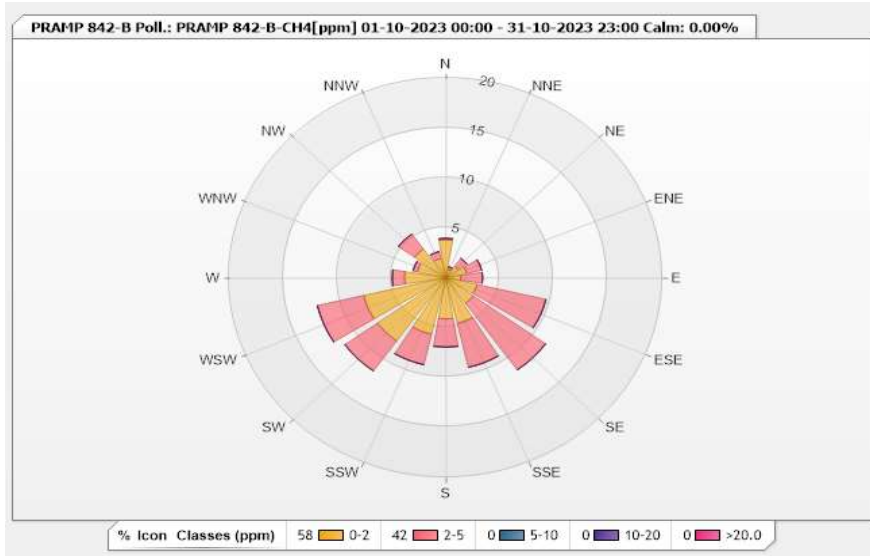


Station: PRAMP 842-B Poll.: PRAMP 842-B-CH4[ppm] Monthly: 10-2023

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

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

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	3.82	0.14	0	0	0	3.96
NNE	0.85	0.28	0	0	0	1.13
NE	1.42	0.99	0	0	0	2.41
ENE	1.98	1.42	0	0	0	3.4
E	1.42	1.98	0	0	0	3.4
ESE	2.97	6.52	0	0	0	9.49
SE	3.12	8.22	0	0	0	11.34
SSE	4.67	4.53	0	0	0	9.2
S	4.11	2.83	0	0	0	6.94
SSW	5.81	3.12	0	0	0	8.93
SW	7.79	3.68	0	0	0	11.47
WSW	7.79	4.39	0	0	0	12.18
W	3.82	1.13	0	0	0	4.95
WNW	2.69	0.42	0	0	0	3.11
NW	3.54	1.84	0	0	0	5.38
NNW	1.98	0.71	0	0	0	2.69
Summary	57.78	42.2	0	0	0	100

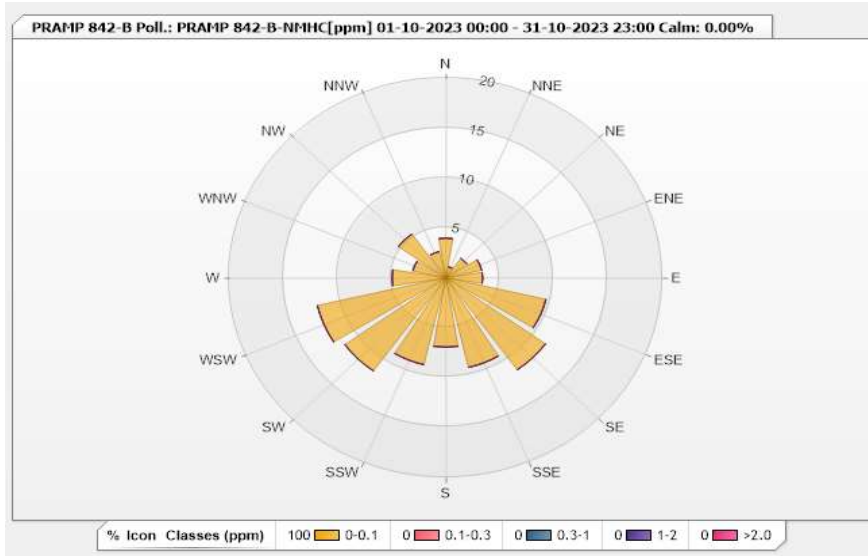


Station: PRAMP 842-B Poll.: PRAMP 842-B-NMHC[ppm] Monthly: 10-2023

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

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

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	3.97	0	0	0	0	3.97
NNE	1.13	0	0	0	0	1.13
NE	2.41	0	0	0	0	2.41
ENE	3.4	0	0	0	0	3.4
E	3.4	0	0	0	0	3.4
ESE	9.49	0	0	0	0	9.49
SE	11.33	0	0	0	0	11.33
SSE	9.21	0	0	0	0	9.21
S	6.94	0	0	0	0	6.94
SSW	8.92	0	0	0	0	8.92
SW	11.47	0	0	0	0	11.47
WSW	12.18	0	0	0	0	12.18
W	4.96	0	0	0	0	4.96
WNW	3.12	0	0	0	0	3.12
NW	5.38	0	0	0	0	5.38
NNW	2.69	0	0	0	0	2.69
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

842-B Station - October 2023

Summary of Hourly Averages

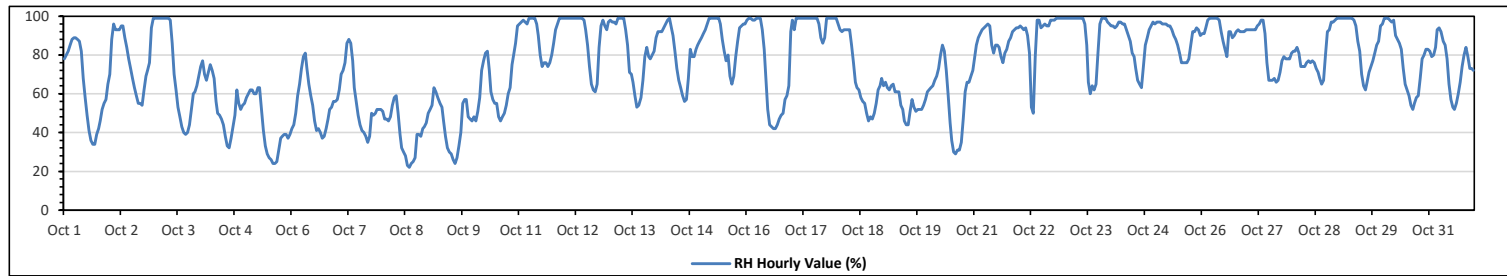
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	99 %	on Oct 2 at hr 23	Hours in Service:	744
Maximum Daily Value:	97.2 %	on Oct 17	Hours of Data:	744
Minimum Hourly Value:	22 %	on Oct 8 at hr 14	Hours of Missing Data:	0
Minimum Daily Value:	39.8 %	on Oct 8	Hours of Calibration:	0
Monthly Average:	74.0 %		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
Oct 1	78	80	82	85	88	89	89	88	87	82	68	58	49	41	36	34	34	39	42	46	52	55	57	65	34	89	63.5
Oct 2	70	88	96	93	93	93	95	95	89	84	78	73	68	63	59	55	54	62	69	72	76	94	99	54	99	78.0	
Oct 3	99	99	99	99	99	99	99	99	98	86	70	62	53	48	43	40	39	40	44	52	60	61	64	69	39	99	71.7
Oct 4	74	77	70	67	71	75	72	68	56	50	49	47	44	38	33	32	37	43	49	62	55	52	54	55	32	77	55.4
Oct 5	58	60	62	62	60	60	63	63	52	41	33	29	27	26	24	25	31	37	38	39	39	37	39	24	63	42.9	
Oct 6	42	44	50	59	65	73	79	81	73	65	59	54	46	41	42	40	37	38	42	47	52	53	56	56	37	81	53.9
Oct 7	57	62	70	72	76	86	88	86	77	63	56	49	44	41	40	38	35	38	50	49	50	52	52	52	35	88	57.6
Oct 8	51	47	47	46	48	54	58	59	50	39	32	30	28	23	22	24	25	27	39	39	38	42	43	45	22	59	39.8
Oct 9	50	52	54	63	61	58	55	53	46	38	32	30	29	26	24	27	33	40	55	57	57	48	47	46	24	63	45.0
Oct 10	48	46	51	58	72	77	81	82	72	61	57	55	55	48	46	48	50	54	60	63	75	80	86	95	46	95	63.3
Oct 11	96	97	98	97	96	99	99	99	99	96	90	80	74	76	76	74	76	80	86	93	96	99	99	99	74	99	90.6
Oct 12	99	99	99	99	99	99	99	99	99	99	98	93	85	74	65	62	61	65	84	95	98	95	93	97	61	99	89.8
Oct 13	98	97	97	96	99	99	99	99	93	85	71	70	66	59	53	54	58	67	79	84	79	78	80	82	53	99	80.9
Oct 14	89	92	92	92	94	96	98	99	94	90	82	73	67	63	59	56	57	68	83	79	79	83	85	87	56	99	81.5
Oct 15	89	91	93	96	99	99	99	99	99	99	96	88	82	77	80	69	65	69	79	87	94	95	96	96	65	99	89.0
Oct 16	98	99	99	98	98	99	99	99	93	83	66	52	44	43	42	42	44	47	49	50	57	59	64	92	42	99	71.5
Oct 17	98	93	99	99	99	99	99	99	99	99	99	99	99	99	96	89	86	89	99	99	99	99	99	99	86	99	97.2
Oct 18	96	93	92	93	93	93	93	85	76	66	63	62	58	56	55	50	46	48	47	50	55	62	64	68	46	96	69.3
Oct 19	64	66	63	62	64	65	61	61	61	54	52	46	44	44	51	57	53	51	52	52	52	54	57	61	44	66	56.1
Oct 20	62	63	64	67	69	73	80	85	82	72	59	45	36	30	29	31	31	35	47	61	66	66	69	72	29	85	58.1
Oct 21	79	85	89	91	93	94	95	96	95	85	81	85	85	84	79	76	81	83	87	89	92	93	94	94	76	96	87.7
Oct 22	95	94	93	94	90	81	53	50	79	98	98	94	95	96	95	95	98	98	98	99	99	99	99	99	50	99	91.2
Oct 23	99	99	99	99	99	99	99	99	99	99	96	85	66	60	64	62	65	81	96	99	99	99	97	96	60	99	89.8
Oct 24	95	95	94	95	97	97	96	96	93	90	87	81	79	73	67	65	63	74	85	89	93	95	97	96	63	97	87.2
Oct 25	97	97	97	96	96	96	95	95	93	90	88	85	81	76	76	76	76	78	85	92	92	94	93	90	76	97	88.9
Oct 26	91	91	94	98	99	99	99	99	99	98	92	87	83	79	92	92	89	90	92	93	92	92	92	93	79	97	92.7
Oct 27	93	93	93	93	93	95	96	98	98	91	76	67	67	67	68	66	67	71	77	79	78	78	78	81	66	98	81.8
Oct 28	82	82	84	81	74	74	74	76	77	76	77	76	73	71	68	65	67	80	92	93	97	97	98	99	65	99	80.5
Oct 29	99	99	99	99	99	99	99	99	98	95	87	82	70	64	62	66	71	74	77	81	85	87	95	96	62	99	86.8
Oct 30	99	99	99	98	97	98	90	88	86	83	73	65	62	59	54	52	55	58	59	68	78	80	83	83	52	99	77.8
Oct 31	82	79	80	84	93	94	92	87	85	78	65	57	53	52	55	60	66	74	80	84	79	73	73	72	52	94	74.9
Diurnal Maximum	99	99	99	99	99	99	99	99	99	99	99	99	99	99	96	95	98	98	99	99	99	99	99	99	99	99	99
Diurnal Average	81.5	82.5	83.8	84.9	86.2	87.5	86.9	86.5	83.8	78.5	66.4	61.7	58.0	56.6	55.5	56.3	60.8	68.2	72.2	74.5	75.3	77.3	79.8				

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

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



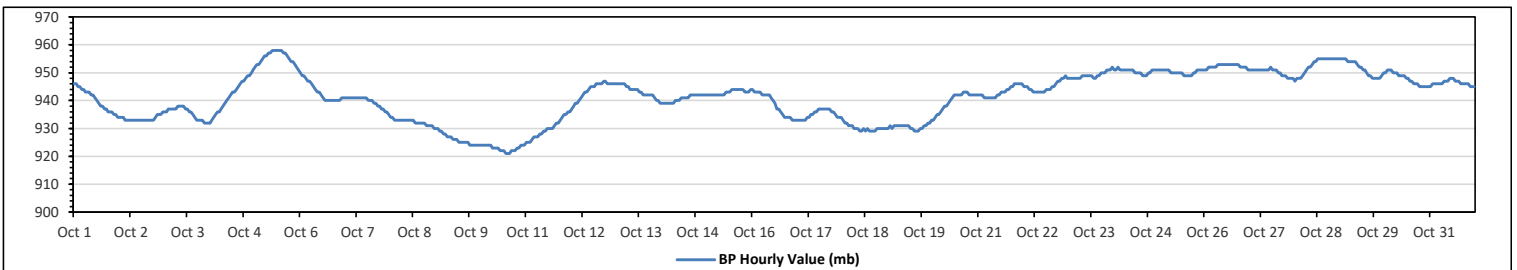
Peace River Area Monitoring Program
842-B Station - October 2023
Summary of Hourly Averages
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	958	mb	on Oct 5 at hr 9	Hours in Service:	744
Maximum Daily Value:	955	mb	on Oct 5	Hours of Data:	744
Minimum Hourly Value:	921	mb	on Oct 10 at hr 13	Hours of Missing Data:	0
Minimum Daily Value:	923	mb	on Oct 10	Hours of Calibration:	0
Monthly Average:	941	mb		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
Oct 1	946	946	945	945	944	944	943	943	943	942	942	941	940	939	938	938	937	937	936	936	935	935	934	934	946	946	940
Oct 2	934	934	934	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	934	935	935	935	936	933	936	934
Oct 3	936	936	937	937	937	937	937	938	938	938	938	937	937	936	936	935	934	933	933	933	932	932	932	932	932	938	936
Oct 4	932	933	934	935	936	936	937	938	939	940	941	942	943	943	944	945	946	947	947	948	949	949	950	951	932	951	942
Oct 5	952	953	953	954	955	956	956	957	957	958	958	958	958	958	958	957	957	956	955	954	953	952	951	951	958	955	955
Oct 6	950	949	949	948	947	947	946	945	944	943	943	942	941	940	940	940	940	940	940	940	940	941	941	940	950	943	943
Oct 7	941	941	941	941	941	941	941	941	941	941	941	941	940	940	940	939	939	938	938	937	937	936	935	935	941	939	939
Oct 8	934	934	933	933	933	933	933	933	933	933	933	933	933	932	932	932	932	932	932	931	931	931	931	930	934	932	932
Oct 9	930	930	929	929	928	928	927	927	927	926	926	926	925	925	925	925	925	925	924	924	924	924	924	924	930	926	926
Oct 10	924	924	924	924	924	923	923	923	923	922	922	922	921	921	921	922	922	922	922	923	923	924	924	924	921	924	923
Oct 11	925	925	925	926	927	927	927	928	928	929	929	930	930	930	930	931	932	932	933	934	935	935	936	936	925	936	930
Oct 12	937	938	939	939	940	941	942	943	943	944	945	945	945	946	946	946	946	947	947	946	946	946	946	946	937	947	944
Oct 13	946	946	946	946	946	945	945	944	944	944	944	944	943	943	942	942	942	942	942	942	941	940	940	939	946	943	943
Oct 14	939	939	939	939	939	939	939	940	940	940	941	941	941	941	941	942	942	942	942	942	942	942	942	942	939	942	941
Oct 15	942	942	942	942	942	942	942	942	942	942	943	943	943	944	944	944	944	944	944	944	943	943	943	944	942	944	943
Oct 16	944	943	943	943	943	942	942	942	942	942	941	940	939	937	937	936	935	934	934	934	934	933	933	933	933	944	939
Oct 17	933	933	933	933	933	934	934	935	935	936	936	937	937	937	937	937	937	937	936	936	935	934	934	934	933	937	935
Oct 18	933	932	932	931	931	931	930	930	930	929	929	930	930	930	929	929	929	929	930	930	930	930	930	930	929	933	930
Oct 19	930	931	930	931	931	931	931	931	931	931	931	931	930	930	929	929	929	930	930	931	931	932	932	933	929	933	931
Oct 20	933	934	935	935	936	937	938	938	939	940	941	942	942	942	942	942	943	943	943	942	942	942	942	942	933	943	940
Oct 21	942	942	942	941	941	941	941	941	941	942	942	943	943	943	944	944	944	945	945	946	946	946	946	946	941	946	943
Oct 22	945	945	945	944	944	943	943	943	943	943	943	943	944	944	944	945	945	946	947	947	948	948	949	948	943	949	945
Oct 23	948	948	948	948	948	948	948	949	949	949	949	949	948	948	949	949	950	950	950	951	951	951	951	952	948	952	949
Oct 24	951	951	952	951	951	951	951	951	951	951	951	950	950	950	950	949	949	949	949	950	951	951	951	951	949	952	951
Oct 25	951	951	951	951	951	951	950	950	950	950	950	950	950	949	949	949	949	949	950	951	951	951	951	951	949	951	950
Oct 26	951	951	952	952	952	952	952	953	953	953	953	953	953	953	953	953	953	953	952	952	952	952	951	951	953	952	952
Oct 27	951	951	951	951	951	951	951	951	951	951	951	951	951	951	951	950	950	949	949	949	948	948	948	948	948	952	950
Oct 28	947	948	948	948	949	950	951	952	952	953	954	955	955	955	955	955	955	955	955	955	955	955	955	947	955	953	
Oct 29	955	955	955	955	954	954	954	954	954	953	952	952	951	951	950	949	949	948	948	948	948	948	948	948	948	955	952
Oct 30	950	951	951	951	950	950	949	949	949	949	949	948	948	947	947	946	946	946	945	945	945	945	945	945	945	951	948
Oct 31	945	946	946	946	946	946	946	947	947	947	948	948	948	947	947	947	946	946	946	946	945	945	945	945	945	948	946
Diurnal Maximum	955	955	955	955	955	956	956	957	957	958	958	958	958	958	958	957	957	956	955	955	955	955	955	955	945	948	946
Diurnal Average	941	941	941	941	941	941	941	942	942	942	942	942	941	941	941	941	941	941	941	941	941	941	941	941	945	948	946

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

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.



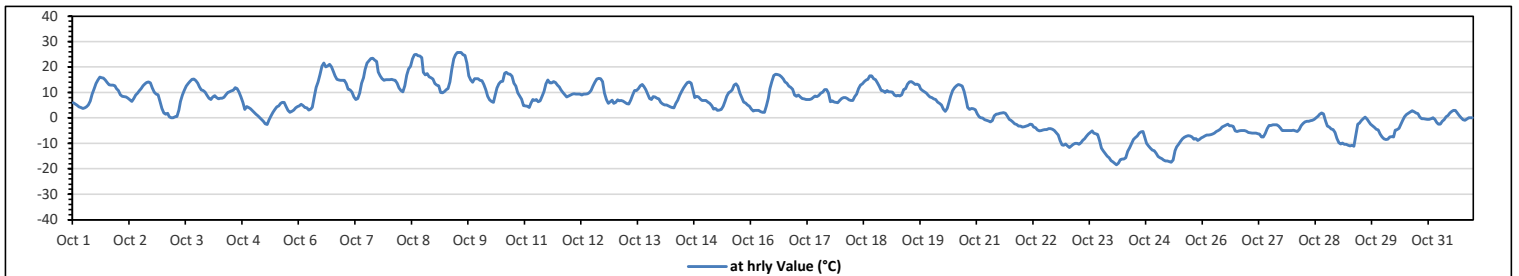
Peace River Area Monitoring Program
842-B Station - October 2023
Summary of Hourly Averages
AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	25.8 °C	on Oct 9 at hr 12	Hours in Service:	744
Maximum Daily Value:	17.5 °C	on Oct 8	Hours of Data:	744
Minimum Hourly Value:	-18.4 °C	on Oct 24 at hr 2	Hours of Missing Data:	0
Minimum Daily Value:	-12.1 °C	on Oct 24	Hours of Calibration:	0
Monthly Average:	4.7 °C		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
Oct 1	6	5.5	5	4.3	4.1	3.8	3.9	4.3	5.1	6.6	9.4	11.4	13.5	14.9	16	15.9	15.7	14.9	13.9	13.1	12.9	12.9	12.6	11.6	3.8	16.0	9.9
Oct 2	10.7	9.2	8.5	8.4	8.2	7.8	7.1	6.5	7.7	9	9.7	10.6	11.6	12.7	13.4	13.9	14.2	13.8	11.8	10.2	9.4	9.2	6.5	3.8	3.8	14.2	9.7
Oct 3	2	1.4	1.9	0.5	0	0	0.5	0.6	3.1	6.5	9	10.9	12.5	13.5	14.4	15.2	15.3	14.6	13.6	12.2	11	10.8	10.2	8.9	0.0	15.3	7.9
Oct 4	7.8	7.3	8.3	8.8	8	7.5	7.8	7.8	8.1	9.2	10	10.3	10.6	10.9	11.9	11.6	10.1	8.2	6.2	3.3	4.5	4.1	3.6	3	3.0	11.9	7.9
Oct 5	2.3	1.5	0.8	0.2	-0.5	-1.4	-2.3	-2.6	-0.7	0.8	2.3	3.3	4.3	4.8	5.8	6.1	6.1	4.5	2.9	2.3	2.6	3.1	4	4.5	-2.6	6.1	2.3
Oct 6	4.8	5.3	4.9	4.1	4	3.1	3.5	4.2	8.3	12	14.2	17.1	20.3	21.5	20.1	20.5	21.1	20.1	18.2	16.5	15.2	14.9	14.7	14.8	3.1	21.5	12.6
Oct 7	14.8	13.5	11.3	11	10.2	8.2	7.2	7.6	9.8	13.7	15.9	19.1	21.5	22.5	23.3	23.5	22.7	22.3	18.1	16.5	15.5	14.7	15	15	7.2	23.5	15.5
Oct 8	15.1	15.2	14.9	14.7	13.7	11.8	10.7	10.3	12.6	16.8	19.3	20.3	23.2	24.9	25	24.5	24.3	23.7	17.9	16.9	17.4	16.1	15.8	15.3	10.3	25.0	17.5
Oct 9	13.5	12.9	12.7	10	9.9	10.4	11.2	11.5	14.2	19.2	23.2	24.7	25.8	25.7	25.7	24.9	24.6	21.6	16.6	14.9	14.1	15.4	15.4	15.4	9.9	25.8	17.2
Oct 10	14.7	14.6	13.2	11.2	8.5	7.1	6.5	6.1	8.8	11.8	13.4	14.3	14.4	17.5	18	17.3	17.2	16.4	13.7	12.5	9.9	8.7	7.4	4.9	4.9	18.0	12.0
Oct 11	4.8	4.6	4.1	5.7	7.2	6.9	7.2	6.4	6.7	8.5	10.4	13.4	14.9	13.8	13.8	14.3	13.9	13	12.1	11	10	9.2	8.3	8.7	4.1	14.9	9.5
Oct 12	9	9.3	9.5	9.4	9.3	9.3	9.1	9.3	9.3	9.5	9.9	10.8	12.5	14.1	15.3	15.6	15.5	14.3	9.8	7.2	5.7	6.4	7	5.8	5.7	15.6	10.1
Oct 13	6.1	7.1	6.7	6.9	6.6	6.2	5.6	5.4	7	9.1	10.7	10.7	11.5	12.7	13.2	12.4	11.2	9.4	7.7	7.3	8.4	8.3	7.8	7.5	5.4	13.2	8.6
Oct 14	6.1	5.4	5.1	5.2	4.7	4.3	4.1	4	5.7	7	8.9	10.4	11.8	13	13.9	14.2	13.7	11.1	8	8.5	8.2	7.4	6.9	6.8	4.0	14.2	8.1
Oct 15	6.8	6.3	5.8	4.9	3.5	3.8	2.9	3.1	3.3	4.6	6.6	8.5	9.9	10.5	11	12.9	13.4	12.4	9.8	7.9	6.3	5.9	5.1	4.6	2.9	13.4	7.1
Oct 16	3.5	2.7	3	2.9	2.9	2.5	2.3	2.2	4.7	7.8	11.6	14.3	16.7	17.2	17.1	16.8	16.1	15.3	14.2	13.7	12.5	12	11.3	9.1	2.2	17.2	9.7
Oct 17	8.5	9	8.2	7.6	7.5	7.3	7.2	7.2	7.5	8.1	8.6	8.4	8.9	9.7	10.2	11.1	11.1	9.8	6.4	6.7	6.3	6.1	6	6.8	6.0	11.1	8.1
Oct 18	7.6	8	8	7.6	7.1	6.8	6.9	8.4	9.4	11.6	13	13.4	14.3	14.9	15.2	16.5	16.6	15.5	15.1	13.8	12.4	10.7	10.6	10	6.8	16.6	11.4
Oct 19	10.8	10.3	10.3	10.1	9	8.6	8.9	8.7	9.2	11.1	11.6	13.3	14.2	14.3	13.8	13.2	13.3	12.9	11.4	10.8	10.3	9.7	9	8.2	8.2	14.3	11.0
Oct 20	7.9	7.5	7.2	6.3	5.8	5.1	3.5	2.6	3.8	6.4	8.7	10.7	11.9	12.7	13.2	13	12.5	10.5	7.1	4.1	3.3	3.8	3.6	3.2	2.6	13.2	7.3
Oct 21	1.6	0.5	0	-0.1	-0.6	-0.9	-1.2	-1.5	-1	0.9	1.4	1.6	1.8	2	2.1	1.9	0.7	-0.5	-0.9	-1.5	-2.3	-2.6	-3.1	-3.2	-3.2	2.1	-0.2
Oct 22	-3.5	-3.4	-3.2	-2.9	-2.4	-2.6	-3.5	-3.8	-4.7	-5.1	-5	-4.7	-4.6	-4.6	-4.2	-4.2	-4.4	-5	-5.8	-6.7	-9	-10.7	-10.8	-10.2	-10.8	-2.4	-5.2
Oct 23	-10.9	-11.6	-11	-10.3	-9.9	-9.9	-10.4	-9.7	-8.7	-8.2	-7.2	-6.4	-5.7	-5.1	-6	-6.2	-6.5	-8.9	-11.9	-13	-14	-14.9	-15.7	-16.8	-16.8	-5.1	-10.0
Oct 24	-17.3	-17.9	-18.4	-17.8	-16.3	-16.2	-16.2	-15.6	-13.1	-11.8	-10.1	-8.5	-7.7	-7	-6	-5.5	-5.3	-7.9	-10	-11	-11.9	-12.6	-12.9	-13.9	-18.4	-5.3	-12.1
Oct 25	-15.1	-15.6	-16	-16.5	-16.9	-16.9	-17.2	-17.4	-16.5	-12.8	-11.4	-10.4	-9.2	-8.2	-7.6	-7.2	-6.9	-7	-7.5	-8.3	-8.1	-8.8	-8.4	-7.9	-17.4	-6.9	-11.6
Oct 26	-7.5	-7	-6.7	-6.7	-6.6	-6.3	-6	-5.4	-4.9	-4.4	-3.6	-3.1	-2.8	-2.5	-3	-3	-3.3	-5.1	-5.3	-5.1	-5	-5	-5	-5.2	-7.5	-2.5	-4.9
Oct 27	-5.6	-5.8	-5.9	-6	-6	-6.2	-6.3	-7.5	-7.4	-6.1	-4.2	-2.9	-2.9	-2.7	-2.7	-2.7	-3.2	-4.1	-4.9	-5	-4.9	-5	-4.9	-5	-7.5	-2.7	-4.9
Oct 28	-4.8	-5.1	-5.4	-4.5	-3	-2.2	-1.5	-1.4	-1.4	-1.1	-0.9	-0.5	0.1	0.7	1.5	2	1.6	-1	-3.1	-3.6	-4.3	-4.5	-5.6	-8.1	-8.1	2.0	-2.3
Oct 29	-9.7	-10.2	-9.8	-10.3	-10.4	-10.8	-10.9	-10.8	-11.1	-6.8	-2.5	-2.1	-1.1	-0.3	0.3	-0.4	-1.5	-2.4	-3	-3.7	-4.4	-4.7	-6.4	-7.4	-11.1	0.3	-5.9
Oct 30	-8.2	-8.4	-8.3	-7.4	-7.3	-7.5	-4.8	-4.5	-4.1	-2.7	-1	0.4	1.3	1.8	2.4	2.8	2.5	2	1.7	0.3	-0.3	-0.3	-0.4	-0.5	-8.4	2.8	-2.1
Oct 31	-0.5	-0.3	0.1	-0.5	-1.8	-2.4	-2.4	-1.3	-0.6	0.4	1	2	2.6	2.9	2.9	2	1	0	-0.6	-0.9	-0.4	0	0	0	-2.4	2.9	0.1
Diurnal Maximum	15.1	15.2	14.9	14.7	13.7	11.8	11.2	11.5	14.2	19.2	23.2	24.7	25.8	25.7	25.7	24.9	24.6	23.7	18.2	16.9	17.4	16.1	15.8	15.4			
Diurnal Average	2.6	2.3	2.1	1.8	1.6	1.2	1.1	1.1	2.3	4.2	5.9	7.1	8.3	9.0	9.4	9.4	9.1	7.9	5.9	4.9	4.2	3.9	3.5	2.9			

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

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



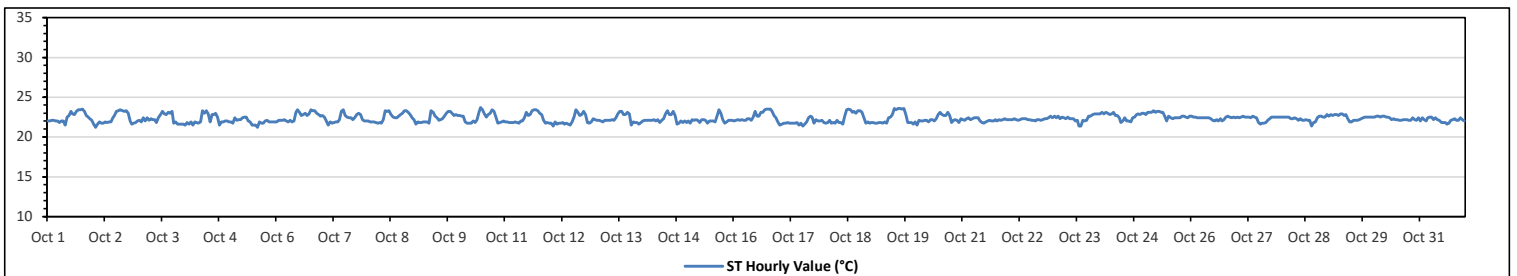
Peace River Area Monitoring Program
842-B Station - October 2023
Summary of Hourly Averages
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	23.7 °C	on Oct 10 at hr 11	Hours in Service:	744
Maximum Daily Value:	22.7 °C	on Oct 25	Hours of Data:	744
Minimum Hourly Value:	21.2 °C	on Oct 2 at hr 1	Hours of Missing Data:	0
Minimum Daily Value:	21.8 °C	on Oct 17	Hours of Calibration:	0
Monthly Average:	22.3 °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
Oct 1	22.0	22.0	22.1	22.1	22.0	22.0	21.8	22.0	22.0	21.5	22.5	22.7	23.2	22.9	22.8	23.2	23.4	23.4	23.5	23.2	22.7	22.5	22.3	22.1	21.5	23.5	22.5
Oct 2	21.6	21.2	21.6	21.9	21.7	21.7	21.9	21.8	21.9	21.9	22.4	22.7	23.2	23.3	23.4	23.3	23.2	23.3	23.0	22.0	21.6	21.7	21.8	22.0	21.2	23.4	22.3
Oct 3	22.1	21.9	22.4	22.0	22.4	22.1	22.3	22.2	22.2	21.8	22.4	22.8	23.2	22.9	22.8	23.1	23.0	23.2	21.7	21.9	21.6	21.6	21.6	21.6	21.6	23.2	22.3
Oct 4	21.5	21.8	21.6	21.9	21.5	21.9	21.8	21.7	21.9	23.3	23.0	23.3	22.9	21.9	22.8	22.8	23.0	22.5	21.5	21.9	21.9	22.0	22.0	21.9	21.5	23.2	22.2
Oct 5	21.9	21.7	22.4	22.1	22.2	22.2	22.4	22.5	22.5	22.0	21.9	21.5	21.5	21.5	21.2	21.9	21.7	21.7	22.0	22.1	21.9	21.9	21.9	21.9	21.2	22.5	21.9
Oct 6	21.9	22.1	22.1	22.1	22.2	22.0	21.9	22.1	21.9	22.0	23.1	23.4	23.1	22.7	22.8	23.0	22.7	22.9	23.4	23.3	23.3	23.0	22.8	22.6	21.9	23.4	22.6
Oct 7	22.7	22.5	22.0	21.5	21.9	21.7	21.8	21.9	21.9	22.2	23.2	23.4	22.7	22.5	22.4	22.4	22.2	22.5	22.8	23.0	22.8	22.2	22.0	22.0	21.5	23.4	22.3
Oct 8	22.0	21.9	21.9	21.9	21.8	21.7	21.8	21.7	22.2	23.3	23.2	23.3	22.8	22.5	22.4	22.4	22.6	22.8	23.0	23.3	23.3	23.1	22.8	22.4	21.7	23.3	22.5
Oct 9	22.2	21.6	21.9	21.8	21.8	21.9	21.9	21.9	21.7	23.3	23.1	22.6	22.4	22.1	22.2	22.3	22.6	23.0	23.2	23.2	23.0	22.7	22.8	22.7	21.6	23.3	22.4
Oct 10	22.7	22.6	22.6	21.9	21.7	21.7	21.7	22.0	21.8	22.2	23.1	23.7	23.4	22.9	22.5	22.8	23.0	23.4	23.2	22.5	21.7	21.8	21.9	22.0	21.7	23.7	22.5
Oct 11	21.9	21.9	21.8	21.8	21.8	21.9	21.8	21.7	22.0	22.0	22.4	23.1	22.7	22.8	23.3	23.4	23.4	23.3	23.0	22.8	22.1	21.7	21.8	21.7	21.7	23.4	22.3
Oct 12	21.7	21.4	21.9	21.6	21.7	21.7	21.8	21.6	21.7	21.6	21.5	21.9	22.5	23.4	23.1	22.7	22.8	23.2	22.8	21.8	21.7	21.9	22.3	22.2	21.4	23.4	22.1
Oct 13	22.1	22.1	22.0	21.9	22.1	22.1	22.1	22.1	22.2	22.1	22.4	22.9	23.2	23.2	22.8	22.8	23.1	22.9	21.5	21.9	21.8	21.8	21.6	21.8	21.5	23.2	22.3
Oct 14	22.0	22.1	22.1	22.1	22.1	22.1	22.2	22.0	22.2	21.8	22.1	22.3	22.9	23.3	22.8	22.8	23.2	22.7	21.6	21.7	22.0	21.8	22.0	21.8	21.6	23.2	22.2
Oct 15	22.0	21.7	22.2	22.1	22.2	22.1	21.8	22.2	22.2	22.1	21.7	22.0	22.0	22.0	21.9	22.6	23.4	23.0	22.2	21.7	21.9	22.1	22.1	22.1	21.7	23.4	22.1
Oct 16	22.0	22.1	22.2	22.1	22.2	22.1	22.1	22.3	22.3	22.1	22.5	23.2	22.6	22.6	23.1	23.1	23.4	23.5	23.5	23.2	22.7	22.4	21.9	21.9	21.9	23.5	22.6
Oct 17	21.5	21.6	21.7	21.7	21.8	21.7	21.7	21.7	21.7	21.8	21.5	21.7	21.4	21.6	21.9	22.4	22.6	22.5	21.7	22.2	22.0	22.0	22.1	21.8	21.4	22.6	21.8
Oct 18	21.7	21.8	22.1	21.7	21.8	21.7	22.1	21.8	21.8	21.6	22.6	23.4	23.5	23.4	23.1	23.2	23.0	23.3	23.3	23.1	22.4	21.7	21.9	21.7	21.6	23.5	22.4
Oct 19	21.8	21.8	21.7	21.7	21.8	21.8	21.7	21.9	21.7	22.4	22.5	22.8	23.6	23.4	23.6	23.6	23.5	23.6	22.8	21.8	21.8	21.8	21.6	21.9	21.6	23.6	22.4
Oct 20	21.5	22.1	22.0	22.0	22.1	22.1	21.9	22.2	22.2	22.0	22.3	22.8	23.1	22.8	22.7	22.7	23.1	22.7	21.8	22.1	22.2	22.1	21.8	22.3	21.5	23.1	22.3
Oct 21	22.2	22.1	22.3	22.4	22.2	22.3	22.4	22.4	22.0	21.8	21.7	21.9	22.0	22.1	22.0	22.0	22.2	22.0	22.2	22.0	22.2	22.1	22.2	22.3	21.7	22.4	22.1
Oct 22	22.2	22.2	22.2	22.3	22.2	22.1	22.2	22.3	22.3	22.2	22.2	22.2	22.1	22.1	22.0	22.2	22.2	22.1	22.2	22.3	22.3	22.4	22.6	22.4	22.0	22.6	22.2
Oct 23	22.6	22.4	22.6	22.3	22.5	22.4	22.3	22.5	22.3	22.3	22.3	22.0	22.1	21.4	21.4	22.1	22.0	22.1	22.6	22.6	22.8	22.9	22.9	22.9	21.4	22.9	22.3
Oct 24	22.9	23.1	22.9	23.1	23.0	22.8	22.9	23.1	22.7	22.4	21.8	22.0	22.4	22.0	22.0	21.9	22.4	22.5	22.8	22.9	22.8	23.0	23.0	21.8	21.8	23.1	22.6
Oct 25	22.8	23.1	23.1	23.1	23.3	23.1	23.2	23.2	23.1	23.1	22.6	22.0	22.6	22.4	22.3	22.4	22.4	22.4	22.4	22.6	22.6	22.5	22.4	22.6	22.0	23.3	22.7
Oct 26	22.6	22.5	22.5	22.4	22.4	22.4	22.4	22.4	22.4	22.3	22.1	22.0	22.0	22.2	22.0	22.3	22.0	22.2	22.5	22.6	22.5	22.4	22.5	22.4	22.0	22.6	22.4
Oct 27	22.5	22.4	22.5	22.6	22.5	22.5	22.5	22.4	22.6	22.5	22.4	21.8	21.6	21.7	21.7	21.8	22.1	22.3	22.5	22.5	22.5	22.5	22.5	21.6	22.6	22.3	
Oct 28	22.5	22.5	22.5	22.5	22.3	22.3	22.4	22.3	22.1	22.3	22.1	22.2	22.1	22.1	22.1	21.4	21.8	21.9	22.4	22.6	22.6	22.5	22.5	22.8	21.4	22.8	22.3
Oct 29	22.6	22.8	22.7	22.8	22.8	22.7	22.9	22.9	22.7	22.8	22.3	21.9	21.9	22.1	22.1	22.1	22.2	22.3	22.4	22.5	22.5	22.5	22.5	21.9	22.9	22.5	
Oct 30	22.5	22.6	22.6	22.5	22.6	22.6	22.5	22.5	22.4	22.2	22.3	22.2	22.2	22.1	22.1	22.2	22.2	22.2	22.1	22.1	22.4	22.2	22.1	22.4	22.1	22.6	22.3
Oct 31	22.0	22.4	22.2	22.0	22.4	22.5	22.5	22.2	22.4	22.2	22.1	21.8	21.8	21.8	21.6	21.7	22.1	22.2	22.3	22.1	22.1	22.4	22.2	22.0	21.6	22.5	22.1
Diurnal Maximum	22.9	23.1	23.1	23.1	23.3	23.1	23.2	23.2	23.1	23.3	23.2	23.7	23.6	23.4	23.6	23.6	23.5	23.6	23.5	23.5	23.3	23.1	23.0	23.0	21.6	22.5	22.1
Diurnal Average	22.1	22.1	22.2	22.1	22.2	22.1	22.2	22.2	22.2	22.3	22.4	22.5	22.5	22.5	22.4	22.5	22.6	22.7	22.5	22.4	22.3	22.2	22.2	22.2	21.6	22.5	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
X InValid Data (Equipment Malfunction /Recovery)	NRM UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P Power Failure

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 - October 2023

Summary of Hourly Averages

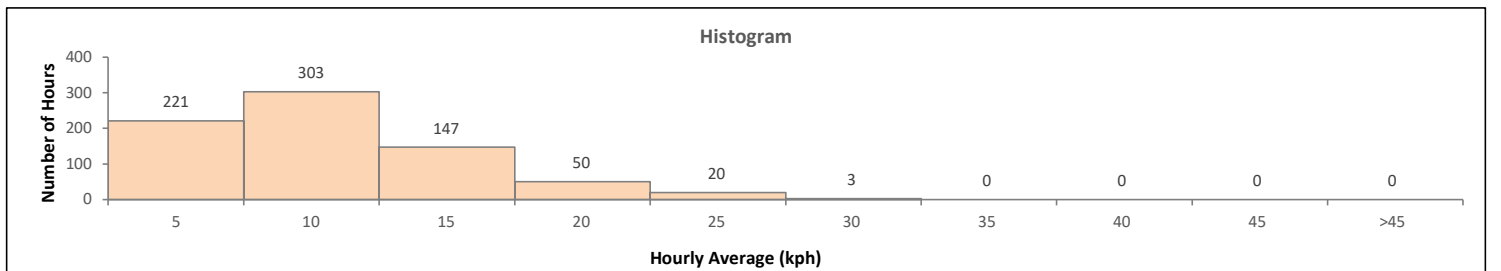
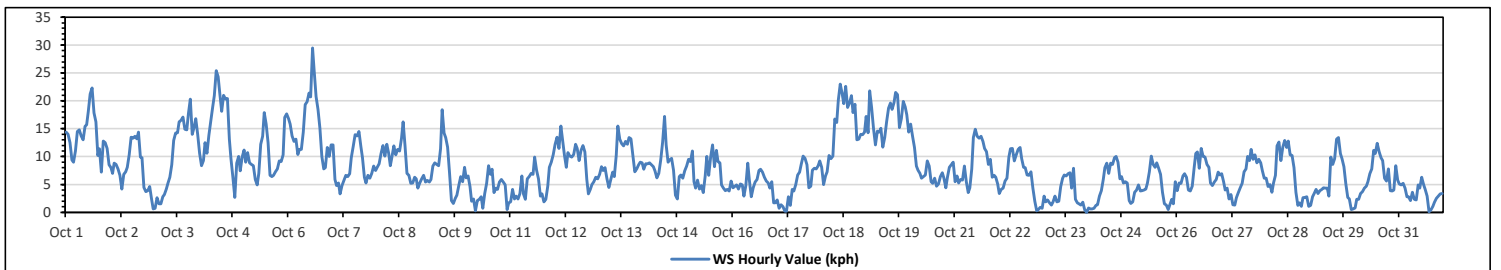
VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	29.5 kph	on Oct 6 at hr 13	Hours in Service:	744
Maximum Daily Value:	16.9 kph	on Oct 19	Hours of Data:	744
Minimum Hourly Value:	0.0 kph	on Oct 23 at hr 23	Hours of Missing Data:	0
Minimum Daily Value:	3.2 kph	on Oct 23	Hours of Calibration:	0
Monthly Average:	3.4 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
Oct 1	14.4	14.0	12.5	9.4	9.0	11.0	14.5	14.8	13.7	13.0	15.4	15.7	18.0	21.2	22.3	17.8	16.2	10.2	11.4	7.2	12.8	12.5	11.5	8.5	7.2	22.3	13.6
Oct 2	8.0	7.0	8.8	8.6	7.8	6.6	4.2	6.8	7.3	8.1	10.3	13.5	13.3	13.6	13.2	14.4	9.9	9.8	4.5	3.7	3.9	4.6	2.3	0.6	0.6	14.4	8.0
Oct 3	0.7	2.6	1.5	1.5	2.8	3.2	4.2	5.2	6.3	8.5	12.9	14.2	14.3	16.2	16.5	17.1	14.9	14.8	17.7	20.3	14.0	15.1	16.8	14.0	0.7	20.3	10.6
Oct 4	10.6	8.4	9.3	12.5	10.6	13.8	16.4	18.9	20.9	25.4	24.3	21.4	18.1	21.0	20.3	20.4	13.1	9.6	6.3	2.7	8.8	10.0	7.4	9.9	2.7	25.4	14.2
Oct 5	11.2	9.0	10.7	8.9	8.6	8.4	5.9	4.9	7.0	12.2	13.6	17.9	15.8	12.5	6.6	6.4	6.6	7.3	7.8	9.2	9.1	10.3	17.0	17.7	4.9	17.9	10.2
Oct 6	16.8	15.8	13.7	12.7	13.1	10.4	11.3	11.3	14.4	19.3	19.8	21.4	20.7	29.5	25.4	20.8	18.5	15.1	10.0	7.8	8.0	11.6	10.0	12.1	7.8	29.5	15.4
Oct 7	12.1	5.9	4.8	5.3	3.3	4.8	5.7	6.6	6.4	6.9	9.8	11.8	13.9	13.7	14.5	11.8	9.8	6.3	5.3	6.6	6.1	7.0	8.3	7.5	3.3	14.5	8.1
Oct 8	8.1	8.7	10.5	12.0	10.1	12.2	10.5	8.4	9.9	11.9	10.3	11.3	11.0	13.3	16.2	11.9	7.0	6.6	5.2	5.3	6.3	6.0	4.3	5.3	4.3	16.2	9.3
Oct 9	6.0	6.6	5.4	5.7	5.4	5.9	8.3	8.9	8.6	8.4	11.4	18.4	14.2	13.4	11.7	7.1	2.1	1.6	2.5	3.1	4.8	6.4	5.5	8.1	1.6	18.4	7.5
Oct 10	6.2	6.5	4.6	2.0	2.4	0.3	2.1	2.3	2.8	0.7	3.4	5.2	8.4	6.8	7.7	3.5	4.3	4.1	5.4	5.9	5.4	4.9	0.5	1.7	0.3	8.4	4.0
Oct 11	1.9	4.1	2.4	2.9	2.4	3.4	6.5	3.3	2.3	6.0	6.4	7.0	6.8	9.9	7.6	6.0	2.9	3.3	1.9	2.3	4.7	8.1	9.0	10.3	1.9	10.3	5.1
Oct 12	12.2	13.5	11.5	15.5	13.1	10.3	8.1	10.7	10.1	9.9	10.4	12.2	11.5	9.3	11.1	12.0	10.8	5.9	3.3	4.1	5.0	5.5	6.3	6.0	3.3	15.5	9.5
Oct 13	6.8	8.2	7.5	8.0	6.0	4.5	5.9	7.2	6.4	10.2	15.5	13.1	12.3	11.9	12.7	12.2	13.4	13.2	10.2	7.3	7.8	8.5	9.0	8.9	4.5	15.5	9.4
Oct 14	7.7	8.7	8.7	8.9	8.5	8.2	7.4	6.2	7.0	9.4	12.6	17.2	12.1	9.0	9.4	9.7	7.6	3.1	2.4	6.4	6.7	6.1	7.4	8.3	2.4	17.2	8.3
Oct 15	9.5	9.1	11.0	5.5	4.3	5.8	4.2	4.8	3.5	6.5	10.0	6.6	9.9	12.1	8.2	11.1	9.1	8.9	4.9	4.3	3.9	4.1	3.8	5.6	3.5	12.1	6.9
Oct 16	4.4	4.6	4.9	4.2	5.1	4.9	2.9	4.8	8.8	5.8	2.8	4.4	5.4	5.9	7.5	7.7	7.2	6.3	5.6	5.3	4.3	5.5	1.7	1.7	1.7	8.8	5.1
Oct 17	2.2	0.7	1.4	1.0	0.2	0.2	2.8	1.2	4.1	3.8	5.0	6.7	7.2	8.6	10.1	9.7	8.5	4.4	4.7	7.6	7.9	7.8	8.4	9.2	0.2	10.1	5.1
Oct 18	8.1	5.0	6.5	7.3	10.2	9.6	10.1	16.7	16.1	20.1	23.0	21.3	19.5	22.6	18.8	19.6	20.9	17.9	19.4	13.0	13.1	14.0	13.9	14.4	5.0	23.0	15.0
Oct 19	17.2	14.3	21.8	18.8	15.0	12.1	14.6	14.4	15.1	11.7	13.4	16.3	18.7	19.6	18.5	19.7	21.5	21.1	15.2	16.8	19.9	18.9	17.5	14.4	11.7	21.8	16.9
Oct 20	15.8	13.6	11.6	8.3	7.6	7.0	6.1	6.4	6.7	9.2	8.3	5.5	5.2	6.1	4.7	5.1	6.4	7.1	6.1	4.4	6.3	8.1	8.5	9.0	4.4	15.8	7.6
Oct 21	5.5	6.5	5.3	5.9	5.8	8.3	5.5	3.5	4.4	7.8	13.4	14.9	13.6	13.3	13.6	12.7	11.5	10.9	8.6	9.5	6.3	6.6	6.3	5.1	3.5	14.9	8.5
Oct 22	3.4	4.1	4.3	5.6	6.1	9.9	11.4	11.5	9.2	10.3	11.3	11.6	9.6	8.1	8.0	6.7	6.6	7.3	4.3	2.0	0.3	0.5	0.9	0.7	0.3	11.6	6.4
Oct 23	2.9	1.9	2.2	1.7	1.3	1.9	2.9	1.9	2.0	4.6	6.1	6.7	6.5	6.9	7.1	4.3	7.9	2.3	1.7	1.5	1.3	1.8	0.4	0.0	0.0	7.9	3.2
Oct 24	0.8	0.6	0.6	0.7	1.2	1.4	2.9	3.9	5.9	8.0	8.8	7.0	8.8	8.6	9.8	10.0	9.0	6.0	6.4	5.3	5.5	5.3	2.1	1.6	0.6	10.0	5.0
Oct 25	1.9	3.6	4.0	4.9	3.8	3.9	4.0	4.2	5.3	7.3	10.1	8.6	8.1	8.9	7.9	6.8	3.6	1.5	1.3	0.5	1.4	2.3	1.5	5.5	0.5	10.1	4.6
Oct 26	3.9	5.3	5.2	6.5	6.9	6.3	4.0	3.8	4.7	8.0	10.5	10.8	7.9	11.5	10.0	9.9	8.6	8.1	5.3	4.8	5.4	5.9	7.2	6.7	3.8	11.5	7.0
Oct 27	6.9	5.5	4.0	4.3	2.4	3.2	1.4	1.3	2.6	3.5	4.4	5.2	7.3	7.8	10.0	9.3	11.3	9.5	10.3	8.9	9.5	8.9	7.5	6.1	1.3	11.3	6.3
Oct 28	6.1	4.6	5.0	3.6	5.3	6.6	11.9	12.6	9.3	11.7	12.9	11.6	12.8	10.3	10.2	8.0	3.6	1.2	1.7	1.1	2.6	2.7	2.8	1.1	1.1	12.9	6.6
Oct 29	1.2	2.8	3.4	4.1	3.4	3.9	4.1	4.4	4.3	4.3	2.9	9.9	8.6	9.6	13.1	13.4	10.5	9.6	8.2	5.1	2.7	2.4	0.5	0.6	0.5	13.4	5.5
Oct 30	0.8	2.3	2.3	3.4	3.7	4.3	4.7	5.5	6.9	7.8	11.1	10.5	12.4	10.9	9.8	9.3	6.1	5.6	7.8	3.9	3.8	4.0	8.4	5.8	0.8	12.4	6.3
Oct 31	5.1	4.9	5.2	4.3	2.8	2.8	2.1	3.6	2.3	2.2	4.9	4.3	6.3	5.0	4.1	2.9	0.1	0.4	1.1	1.8	2.5	2.9	3.3	3.4	0.1	6.3	3.3
Diurnal Maximum	17.2	15.8	21.8	18.8	15.0	13.8	16.4	18.9	20.9	25.4	24.3	21.4	20.7	29.5	25.4	20.8	21.5	21.1	19.4	20.3	19.9	18.9	17.5	17.7			
Diurnal Average	7.0	6.7	6.8	6.6	6.1	6.3	6.7	7.1	7.6	9.1	10.8	11.7	11.6	12.2	11.8	10.9	9.3	7.7	6.7	6.1	6.5	7.0	6.8	6.8			

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

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.

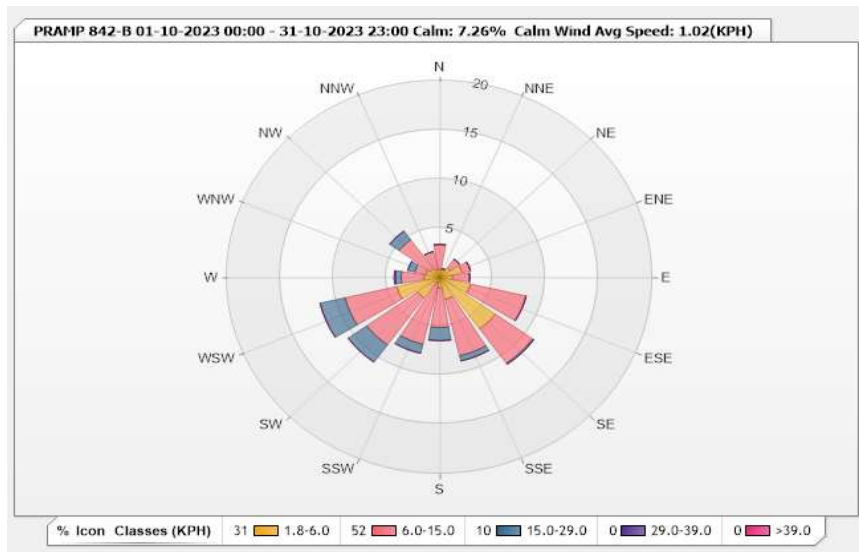


Station: PRAMP 842-B Monitor: WDS [KPH] Monthly: 10-2023

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

Calm (WS<1.8kph): 7.26% Valid Data: 100.00%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.81	2.55	0	0	0	3.36
NNE	0.81	0.13	0	0	0	0.94
NE	1.21	1.08	0	0	0	2.29
ENE	2.15	0.81	0	0	0	2.96
E	1.21	1.61	0	0	0	2.82
ESE	2.96	5.38	0	0	0	8.34
SE	6.45	4.3	0.13	0	0	10.88
SSE	2.28	5.91	0.54	0	0	8.73
S	1.08	4.03	1.34	0	0	6.45
SSW	0.54	6.45	0.94	0	0	7.93
SW	2.55	5.91	2.15	0	0	10.61
WSW	4.17	4.97	2.42	0	0	11.56
W	1.48	2.15	0.54	0.13	0	4.3
WNW	1.34	1.08	0.67	0	0	3.09
NW	1.08	3.63	1.08	0	0	5.79
NNW	0.81	1.88	0	0	0	2.69
Summary	30.93	51.87	9.81	0.13	0	92.74



Peace River Area Monitoring Program

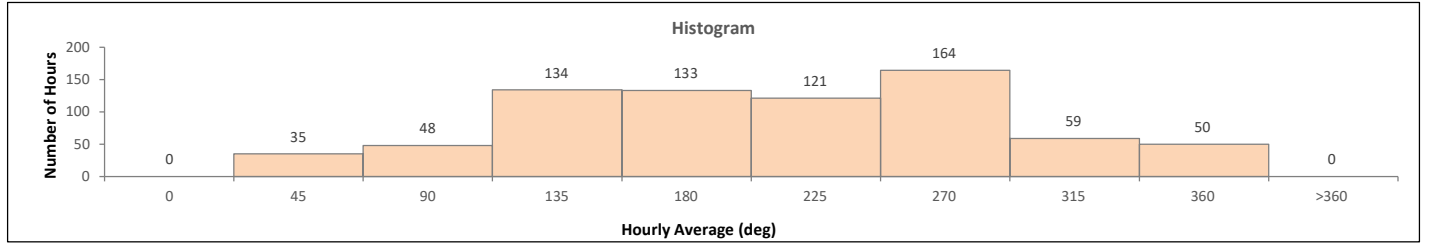
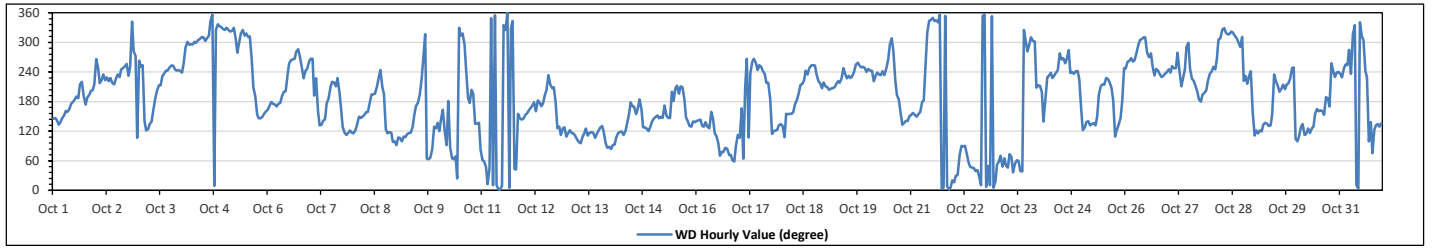
842-B Station - October 2023

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		208 (SSW) degree															Hours in Service:		744																																												
																	Hours of Data:		744																																												
																	Hours of Missing Data:		0																																												
																	Hours of Calibration:		0																																												
																	Operational Uptime:		100.0																																												
Day	Hourly Period Starting at (MST)																							Daily Average																																							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant																																					
Oct 1	SE	SE	SE	SE	SE	SE	SSE	SSE	SSE	SSE	S	S	S	S	S	SSW	SW	S	S	S	S	SSW	SSW	SSW	177	S																																					
Oct 2	W	WSW	SW	SW	SW	SW	SW	SW	SW	SSW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	NNW	W	W	ESE	238	SW																																						
Oct 3	W	WSW	WSW	SE	ESE	ESE	SE	SE	SSE	S	SSW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	231	SW																																					
Oct 4	WSW	WSW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	WNW	NW	NW	NNW	N	N	NW	NNW	NNW	NNW	NW	308	NW																																					
Oct 5	NW	NNW	NW	NW	NW	NNW	NW	W	WNW	NW	NW	NW	NW	NW	W	SSW	S	SSE	SE	SE	SSE	SSE	SSE	293	WNW																																						
Oct 6	SSE	S	S	S	SSE	S	S	S	SSW	SSW	SW	WSW	W	W	W	WNW	W	WSW	SW	WSW	WSW	WSW	W	227	SW																																						
Oct 7	W	W	S	SW	SSE	SE	SE	SE	SE	S	S	SSW	SW	SW	SSW	SW	SSW	SSE	SE	ESE	ESE	ESE	ESE	185	S																																						
Oct 8	ESE	ESE	ESE	SSE	SE	SSE	SSE	SSE	SSE	S	SSW	SSW	SSW	SSW	SW	WSW	SSW	ESE	ESE	ESE	ESE	ESE	E	167	SSE																																						
Oct 9	E	ESE	ESE	E	ESE	ESE	ESE	ESE	ESE	SE	SSE	S	S	SW	W	NW	ENE	ENE	ENE	E	SE	SE	SE	141	SE																																						
Oct 10	ESE	SE	SSE	ESE	E	S	E	ENE	ENE	ENE	NNE	NNW	NW	NNW	WNW	WSW	S	S	SSW	SSW	SE	SE	SE	165	SSE																																						
Oct 11	ENE	ENE	NE	NNE	NE	NNW	N	N	N	N	N	NNW	NW	N	N	NNW	NNW	NE	NE	SSE	SE	SE	SE	22	NNE																																						
Oct 12	SSE	SSE	SSE	SSE	S	S	SSE	S	S	S	S	S	SSW	SW	SSW	SSW	SSW	S	SE	SE	ESE	SE	ESE	174	S																																						
Oct 13	ESE	ESE	ESE	ESE	ESE	ESE	E	E	ESE	ESE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	ESE	E	E	113	ESE																																						
Oct 14	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	SE	SSE	S	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	ESE	SE	ESE	137	SE																																						
Oct 15	SE	SSE	SSE	SE	SSE	SE	S	SSE	SE	SE	SSW	S	SSW	SSW	SSW	SSW	SSW	S	SE	SE	SE	SE	SE	171	S																																						
Oct 16	SE	SE	SE	SE	SE	SE	SE	SE	SSE	SE	ESE	ESE	E	ENE	ENE	ENE	E	E	ENE	ENE	ENE	E	ESE	105	ESE																																						
Oct 17	ESE	SSE	ENE	SSW	W	ESE	SW	WSW	W	WSW	WSW	WSW	WSW	WSW	SW	SW	S	ESE	ESE	ESE	ESE	SE	ESE	194	SSW																																						
Oct 18	SE	ESE	SSE	SSE	SSE	SSE	SSE	S	S	SSW	SSW	SW	SW	WSW	SW	WSW	WSW	WSW	WSW	SW	SW	SW	SSW	214	SSW																																						
Oct 19	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	WSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	231	SW																																						
Oct 20	WSW	WSW	WSW	SW	SW	WSW	SW	SW	WSW	SW	WSW	W	WNW	NW	W	SW	S	SSE	SE	SE	SE	SE	SE	222	SW																																						
Oct 21	SSE	SSE	SSE	SSE	SSE	SSE	S	S	WSW	NW	NNW	NNW	N	NNW	NNW	NNW	N	N	N	N	N	N	NNE	354	N																																						
Oct 22	NNE	NNE	NNE	ENE	E	E	E	ENE	ENE	NE	NE	NE	NE	NE	NNE	N	N	N	N	NE	N	N	NNE	47	NE																																						
Oct 23	NE	ENE	ENE	NE	ENE	NE	ENE	ENE	ENE	NE	NE	ENE	ENE	NE	NW	WNW	W	WNW	NW	WNW	WNW	WNW	SSW	30	NNE																																						
Oct 24	SSW	SSW	SE	S	SW	SW	SW	SW	SW	WSW	W	W	WSW	W	WNW	SW	WSW	SW	WSW	WSW	WSW	WSW	SSE	250	WSW																																						
Oct 25	ESE	SE	SE	SE	SE	SE	SE	SE	SSE	S	SSW	SSW	SSW	SW	SW	SSW	S	ESE	ESE	SE	SE	S	WSW	187	S																																						
Oct 26	WSW	W	W	W	W	W	W	WNW	WNW	NW	NW	NW	W	W	W	WSW	SW	WSW	WSW	SW	SW	SW	WSW	266	W																																						
Oct 27	WSW	WSW	WSW	WSW	WSW	W	WSW	SSW	SW	WSW	WNW	WNW	WSW	SW	SW	SSW	SSW	S	S	SSW	SSW	SSW	SW	221	SW																																						
Oct 28	WSW	WSW	WSW	W	NW	NW	NNW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NW	SW	SW	SW	WSW	SSE	304	WNW																																							
Oct 29	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	SE	SSE	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	WSW	ESE	192	S																																						
Oct 30	E	ESE	SE	SE	ESE	ESE	SE	ESE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	SSE	WSW	SW	WSW	WSW	163	SSE																																						
Oct 31	SW	SW	WSW	WSW	WSW	WNW	SW	NW	NNW	N	N	NNW	NW	WNW	WSW	SW	E	SE	ENE	ESE	SE	SE	SE	269	W																																						
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 - October 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 Oct 6 at hr 13	Hours in Service:	744
Maximum Daily Value:	16.9 kph	on Oct 19	Hours of Data:	744
Minimum Hourly Value:	0.0 kph	on Oct 23 at hr 23	Hours of Missing Data:	0
Minimum Daily Value:	3.2 kph	on Oct 23	Hours of Calibration:	0
Monthly Average:	3.4 kph		Operational Uptime:	100.0

WIND DIRECTION			
Monthly Average:	208 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
Oct 1	14.4	14.0	12.5	9.4	9.0	11.0	14.5	14.8	13.7	13.0	15.4	15.7	18.0	21.2	22.3	17.8	16.2	10.2	11.4	7.2	12.8	12.5	11.5	8.5	7.2	22.3	13.6
Oct 2	8.0	7.0	8.8	8.6	7.8	6.6	4.2	6.8	7.3	8.1	10.3	13.5	13.3	13.6	13.2	14.4	9.9	9.8	4.5	3.7	3.9	4.6	2.3	0.6	0.6	14.4	8.0
Oct 3	0.7	2.6	1.5	1.5	2.8	3.2	4.2	5.2	6.3	8.5	12.9	14.2	14.3	16.2	16.5	17.1	14.9	14.8	17.7	20.3	14.0	15.1	16.8	14.0	0.7	20.3	10.6
Oct 4	10.6	8.4	9.3	12.5	10.6	13.8	16.4	18.9	20.9	25.4	24.3	21.4	18.1	21.0	20.3	20.4	13.1	9.6	6.3	2.7	8.8	10.0	7.4	9.9	2.7	25.4	14.2
Oct 5	11.2	9.0	10.7	8.9	8.6	8.4	5.9	4.9	7.0	12.2	13.6	17.9	15.8	12.5	6.6	6.4	6.6	7.3	7.8	9.2	9.1	10.3	17.0	17.7	4.9	17.9	10.2
Oct 6	16.8	15.8	13.7	12.7	13.1	10.4	11.3	11.3	14.4	19.3	19.8	21.4	20.7	29.5	25.4	20.8	18.5	15.1	10.0	7.8	8.0	11.6	10.0	12.1	7.8	29.5	15.4
Oct 7	12.1	5.9	4.8	5.3	3.3	4.8	5.7	6.6	6.4	6.9	9.8	11.8	13.9	13.7	14.5	11.8	9.8	6.3	5.3	6.6	6.1	7.0	8.3	7.5	3.3	14.5	8.1
Oct 8	8.1	8.7	10.5	12.0	10.1	12.2	10.5	8.4	9.9	11.9	10.3	11.3	11.0	13.3	16.2	11.9	7.0	6.6	5.2	5.3	6.3	6.0	4.3	5.3	4.3	16.2	9.3
Oct 9	6.0	6.6	5.4	5.7	5.4	5.9	8.3	8.9	8.6	8.4	11.4	18.4	14.2	13.4	11.7	7.1	2.1	1.6	2.5	3.1	4.8	6.4	5.5	8.1	1.6	18.4	7.5
Oct 10	6.2	6.5	4.6	2.0	2.4	0.3	2.1	2.3	2.8	0.7	3.4	5.2	8.4	6.8	7.7	3.5	4.3	4.1	5.4	5.9	5.4	4.9	0.5	1.7	0.3	8.4	4.0
Oct 11	1.9	4.1	2.4	2.9	2.4	3.4	6.5	3.3	2.3	6.0	6.4	7.0	6.8	9.9	7.6	6.0	2.9	3.3	1.9	2.3	4.7	8.1	9.0	10.3	1.9	10.3	5.1
Oct 12	12.2	13.5	11.5	15.5	13.1	10.3	8.1	10.7	10.1	9.9	10.4	12.2	11.5	9.3	11.1	12.0	10.8	5.9	3.3	4.1	5.0	5.5	6.3	6.0	3.3	15.5	9.5
Oct 13	6.8	8.2	7.5	8.0	6.0	4.5	5.9	7.2	6.4	10.2	15.5	13.1	12.3	11.9	12.7	12.2	13.4	13.2	10.2	7.3	7.8	8.5	9.0	8.9	4.5	15.5	9.4
Oct 14	7.7	8.7	8.7	8.9	8.5	8.2	7.4	6.2	7.0	9.4	12.6	17.2	12.1	9.0	9.4	7.6	3.1	2.4	6.4	6.7	6.1	7.4	8.3	2.4	17.2	8.3	
Oct 15	9.5	9.1	11.0	5.5	4.3	5.8	4.2	4.8	3.5	6.5	10.0	6.6	9.9	12.1	8.2	11.1	9.1	8.9	4.9	4.3	3.9	4.1	3.8	5.6	3.5	12.1	6.9
Oct 16	4.4	4.6	4.9	4.2	5.1	4.9	2.9	4.8	8.8	5.8	2.8	4.4	5.4	5.9	7.5	7.7	7.2	6.3	5.6	5.3	4.3	5.5	1.7	1.7	1.7	8.8	5.1
Oct 17	2.2	0.7	1.4	1.0	0.2	0.2	2.8	1.2	4.1	3.8	5.0	6.7	7.2	8.6	10.1	9.7	8.5	4.4	4.7	7.6	7.9	7.8	8.4	9.2	0.2	10.1	5.1
Oct 18	8.1	5.0	6.5	7.3	10.2	9.6	10.1	16.7	16.1	20.1	23.0	21.3	19.5	22.6	18.8	19.6	20.9	17.9	19.4	13.0	13.1	14.0	13.9	14.4	5.0	23.0	15.0
Oct 19	17.2	14.3	21.8	18.8	15.0	12.1	14.6	14.4	15.1	11.7	13.4	16.3	18.7	19.6	18.5	19.7	21.5	21.1	15.2	16.8	19.9	18.9	17.5	14.4	11.7	21.8	16.9
Oct 20	15.8	13.6	11.6	8.3	7.6	7.0	6.1	6.4	6.7	9.2	8.3	5.5	5.2	6.1	4.7	5.1	6.4	7.1	6.1	4.4	6.3	8.1	8.5	9.0	4.4	15.8	7.6
Oct 21	5.5	6.5	5.3	5.9	5.8	8.3	5.5	3.5	4.4	7.8	13.4	14.9	13.6	13.3	13.6	12.7	11.5	10.9	8.6	9.5	6.3	6.6	6.3	5.1	3.5	14.9	8.5
Oct 22	3.4	4.1	4.3	5.6	6.1	9.9	11.4	11.5	9.2	10.3	11.3	11.6	9.6	8.1	8.0	6.7	6.6	7.3	4.3	2.0	0.3	0.5	0.9	0.7	0.3	11.6	6.4
Oct 23	2.9	1.9	2.2	1.7	1.3	1.9	2.9	1.9	2.0	4.6	6.1	6.7	6.5	6.9	7.1	4.3	7.9	2.3	1.7	1.5	1.3	1.8	0.4	0.0	0.0	7.9	3.2
Oct 24	0.8	0.6	0.6	0.7	1.2	1.4	2.9	3.9	5.9	8.0	8.8	7.0	8.8	8.6	9.8	10.0	9.0	6.0	6.4	5.3	5.5	5.3	2.1	1.6	0.6	10.0	5.0
Oct 25	1.9	3.6	4.0	4.9	3.8	3.9	4.0	4.2	5.3	7.3	10.1	8.6	8.1	8.9	7.9	6.8	3.6	1.5	1.3	0.5	1.4	2.3	1.5	5.5	0.5	10.1	4.6
Oct 26	3.9	5.3	5.2	6.5	6.9	6.3	4.0	3.8	4.7	8.0	10.5	10.8	7.9	11.5	10.0	9.9	8.6	8.1	5.3	4.8	5.4	5.9	7.2	6.7	3.8	11.5	7.0
Oct 27	6.9	5.5	4.0	4.3	2.4	3.2	1.4	1.3	2.6	3.5	4.4	5.2	7.3	7.8	10.0	9.3	11.3	9.5	10.3	8.9	9.5	8.9	7.5	6.1	1.3	11.3	6.3
Oct 28	6.1	4.6	5.0	3.6	5.3	6.6	11.9	12.6	9.3	11.7	12.9	11.6	12.8	10.3	10.2	8.0	3.6	1.2	1.7	1.1	2.6	2.7	2.8	1.1	1.1	12.9	6.6
Oct 29	1.2	2.8	3.4	4.1	3.4	3.9	4.1	4.4	4.3	4.3	2.9	9.9	8.6	9.6	13.1	13.4	10.5	9.6	8.2	5.1	2.7	2.4	0.5	0.6	0.5	13.4	5.5
Oct 30	0.8	2.3	2.3	3.4	3.7	4.3	4.7	5.5	6.9	7.8	11.1	10.5	12.4	10.9	9.8	9.3	6.1	5.6	7.8	3.9	3.8	4.0	8.4	5.8	0.8	12.4	6.3
Oct 31	5.1	4.9	5.2	4.3	2.8	2.8	2.1	3.6	2.3	2.2	4.9	4.3	6.3	5.0	4.1	2.9	0.1	0.4	1.1	1.8	2.5	2.9	3.3	3.4	0.1	6.3	3.3
	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW			269(W)

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

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

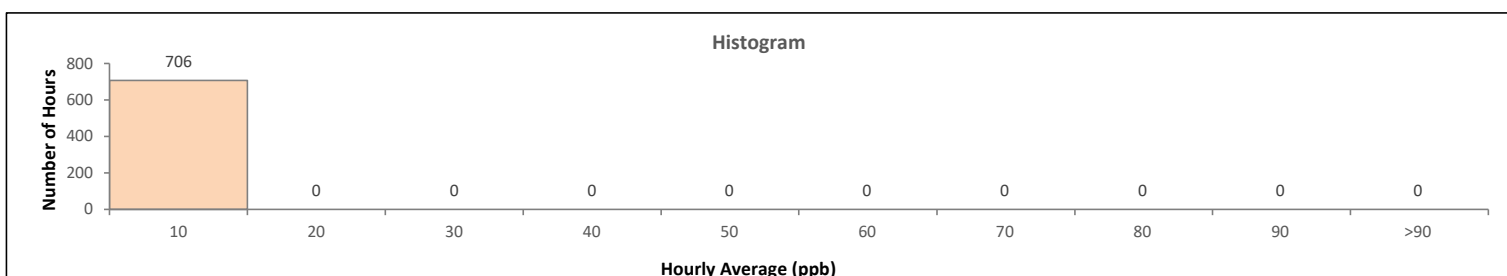
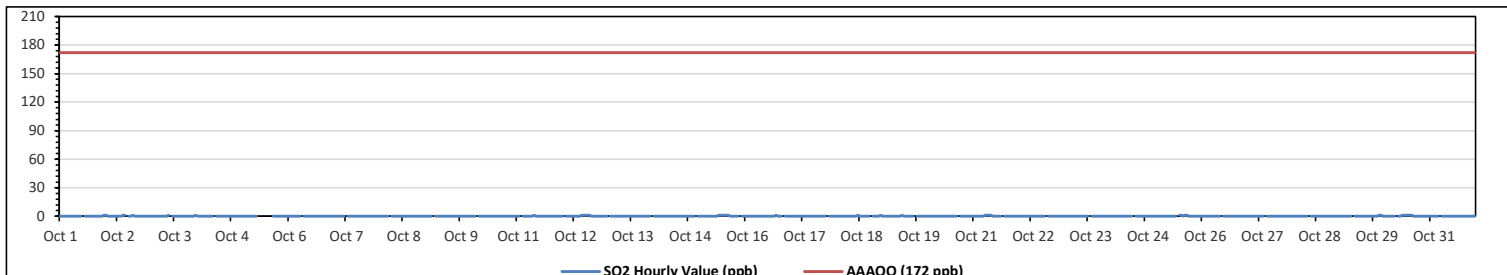
Peace River Area Monitoring Program

Reno-B Station - October 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO₂) 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 Exceedance: 0																		
Maximum Hourly Value: 1 ppb on Oct 1 at hr 23					Hours in Service: 744																							
Maximum Daily Value: 0.3 ppb on Oct 15					Hours of Data: 706																							
Minimum Hourly Value: 0 ppb on Oct 1 at hr 0					Hours of Missing Data: 0																							
Minimum Daily Value: 0.0 ppb on Oct 4					Hours of Calibration: 38																							
Monthly Average: 0.1 ppb					Operational Uptime: 100.0																							
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
Oct 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.0	
Oct 2	1	0	0	0	0	0	0	0	0	0	1	1	S	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.2
Oct 3	0	0	0	0	0	0	0	0	0	0	1	S	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.1
Oct 4	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	0.0
Oct 5	0	0	0	0	0	0	0	0	0	0	S	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	NA
Oct 6	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	0.0
Oct 7	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	0.0
Oct 8	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	0.0
Oct 9	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 10	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 11	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 12	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	0.0
Oct 13	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	0.0
Oct 14	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	0.0
Oct 15	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	0.0
Oct 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	0.0
Oct 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	0.0
Oct 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	0.0
Oct 19	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	0.0
Oct 20	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	0.0
Oct 21	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	0.0
Oct 22	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	0.0
Oct 23	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	0.0
Oct 24	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	0.0
Oct 25	0	0	0	0	0	0	0	0	0	0	S	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2
Oct 26	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	0.0
Oct 27	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	0.0
Oct 28	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	0.0
Oct 29	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	0.0
Oct 30	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	0.0
Oct 31	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	0.0
Diurnal Maximum	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1

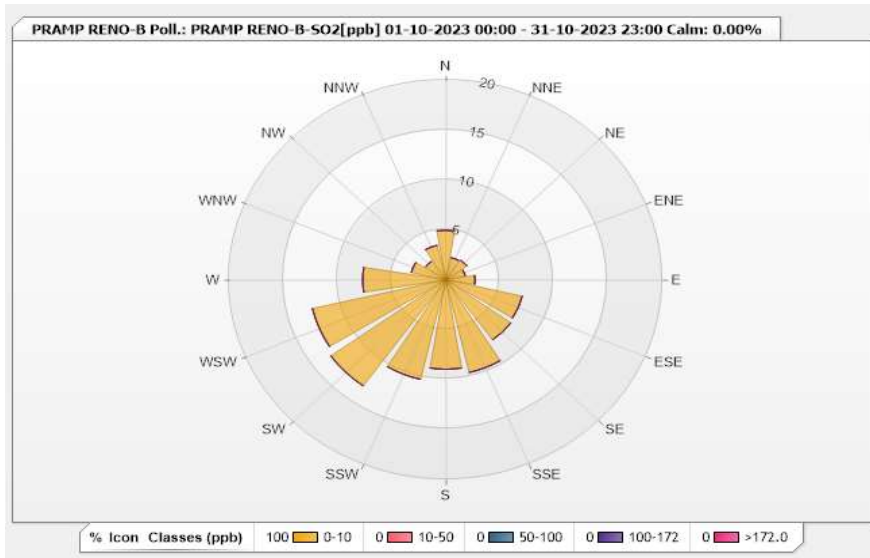


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-SO2[ppb] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 94.62% Calm Avg: 0.00 [ppm]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	4.97	0	0	0	0	4.97
NNE	2.27	0	0	0	0	2.27
NE	2.41	0	0	0	0	2.41
ENE	1.85	0	0	0	0	1.85
E	2.7	0	0	0	0	2.7
ESE	7.24	0	0	0	0	7.24
SE	7.39	0	0	0	0	7.39
SSE	9.52	0	0	0	0	9.52
S	8.95	0	0	0	0	8.95
SSW	10.23	0	0	0	0	10.23
SW	13.07	0	0	0	0	13.07
WSW	12.64	0	0	0	0	12.64
W	7.67	0	0	0	0	7.67
WNW	3.27	0	0	0	0	3.27
NW	2.27	0	0	0	0	2.27
NNW	3.55	0	0	0	0	3.55
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - October 2023

Summary of Hourly Averages

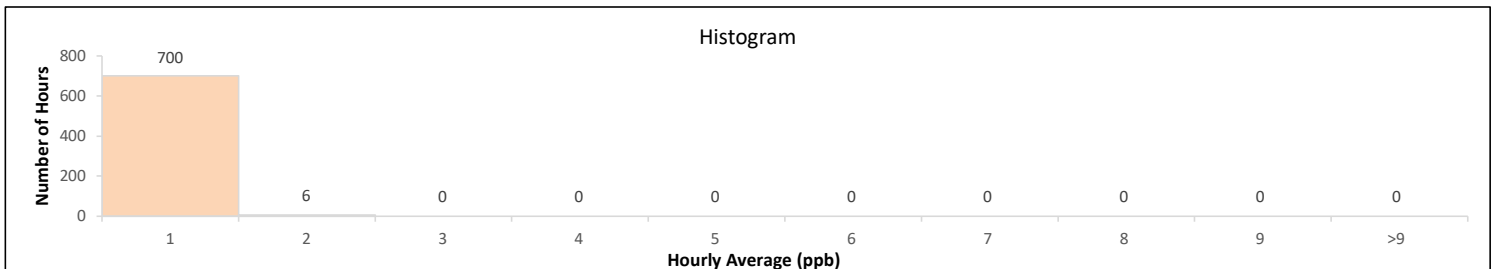
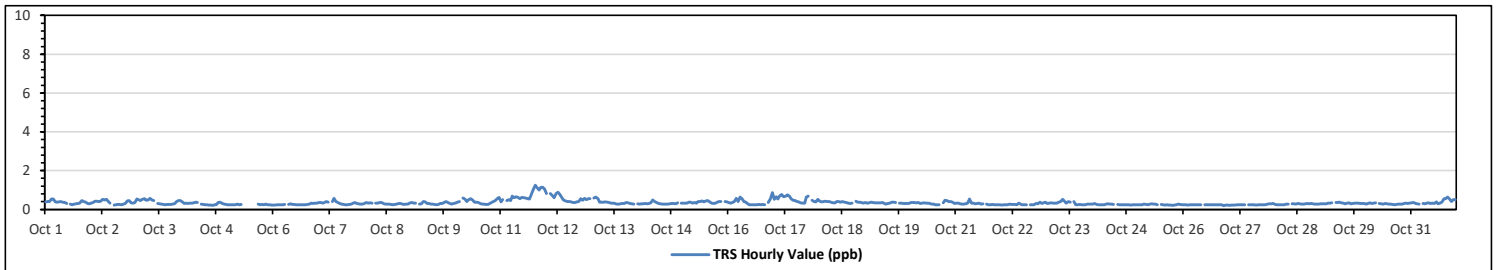
TOTAL REDUCED SULPHUR (TRS) in ppb

Maximum Hourly Value:	1.24	ppb	on Oct 11 at hr 18	Hours in Service:	744
Maximum Daily Value:	0.73	ppb	on Oct 11	Hours of Data:	706
Minimum Hourly Value:	0.20	ppb	on Oct 26 at hr 21	Hours of Missing Data:	0
Minimum Daily Value:	0.23	ppb	on Oct 26	Hours of Calibration:	38
Monthly Average:	0.35	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	
Oct 1	0.39	0.42	0.42	0.54	0.54	0.39	0.38	0.39	0.4	0.38	0.35	0.31	S	0.27	0.25	0.27	0.29	0.3	0.33	0.45	0.4	0.37	0.3	0.29	0.25	0.54	0.37	
Oct 2	0.33	0.35	0.43	0.43	0.41	0.43	0.52	0.49	0.52	0.41	0.32	S	0.22	0.25	0.26	0.26	0.25	0.28	0.3	0.44	0.46	0.34	0.32	0.36	0.22	0.52	0.36	
Oct 3	0.53	0.5	0.45	0.52	0.55	0.47	0.49	0.57	0.49	0.45	S	0.3	0.29	0.27	0.26	0.25	0.26	0.26	0.27	0.3	0.41	0.45	0.45	0.25	0.57	0.39		
Oct 4	0.39	0.31	0.32	0.3	0.32	0.32	0.34	0.37	0.36	S	0.27	0.26	0.24	0.24	0.22	0.22	0.21	0.25	0.24	0.35	0.37	0.3	0.27	0.26	0.21	0.39	0.29	
Oct 5	0.23	0.23	0.23	0.24	0.25	0.27	0.25	0.26	S	0.25	C	C	C	C	C	C	0.27	0.24	0.26	0.25	0.27	0.23	0.23	0.22	0.22	0.27	NA	
Oct 6	0.22	0.22	0.24	0.25	0.25	0.25	0.26	S	0.26	0.29	0.26	0.26	0.24	0.23	0.23	0.23	0.24	0.24	0.26	0.27	0.32	0.31	0.32	0.32	0.22	0.32	0.26	
Oct 7	0.36	0.36	0.32	0.35	0.41	0.38	S	0.42	0.57	0.41	0.35	0.3	0.28	0.26	0.25	0.25	0.26	0.28	0.32	0.35	0.3	0.29	0.28	0.27	0.25	0.57	0.33	
Oct 8	0.31	0.35	0.32	0.34	0.33	S	0.32	0.33	0.35	0.36	0.3	0.28	0.27	0.28	0.26	0.25	0.26	0.27	0.3	0.3	0.27	0.26	0.27	0.28	0.25	0.36	0.30	
Oct 9	0.34	0.35	0.33	0.32	S	0.28	0.29	0.41	0.39	0.31	0.3	0.27	0.27	0.26	0.25	0.26	0.31	0.31	0.35	0.41	0.35	0.31	0.27	0.3	0.25	0.41	0.31	
Oct 10	0.32	0.38	0.41	S	0.59	0.54	0.42	0.51	0.56	0.49	0.38	0.37	0.36	0.3	0.28	0.28	0.26	0.26	0.3	0.35	0.4	0.46	0.56	0.62	0.26	0.62	0.41	
Oct 11	0.39	0.5	S	0.45	0.5	0.45	0.68	0.61	0.66	0.62	0.56	0.62	0.61	0.58	0.56	0.54	0.79	1.01	1.24	1.11	0.99	1.14	1.15	1.05	0.39	1.24	0.73	
Oct 12	0.82	S	0.82	0.73	0.61	0.81	0.88	0.78	0.64	0.49	0.44	0.42	0.41	0.39	0.36	0.35	0.39	0.41	0.56	0.48	0.57	0.5	0.55	0.56	0.35	0.88	0.56	
Oct 13	S	0.58	0.64	0.56	0.38	0.37	0.37	0.39	0.37	0.35	0.33	0.32	0.3	0.28	0.27	0.29	0.31	0.31	0.35	0.34	0.3	0.29	0.28	S	0.27	0.64	0.36	
Oct 14	0.29	0.28	0.29	0.29	0.3	0.29	0.3	0.34	0.49	0.4	0.35	0.31	0.29	0.27	0.27	0.27	0.27	0.29	0.3	0.31	0.29	0.34	S	0.32	0.27	0.49	0.31	
Oct 15	0.33	0.32	0.33	0.38	0.38	0.33	0.35	0.33	0.4	0.4	0.44	0.39	0.44	0.45	0.39	0.33	0.31	0.32	0.38	0.41	0.42	S	0.42	0.39	0.31	0.45	0.38	
Oct 16	0.36	0.32	0.36	0.42	0.57	0.41	0.64	0.56	0.4	0.37	0.29	0.25	0.23	0.23	0.23	0.23	0.26	0.25	0.26	0.23	S	0.35	0.55	0.87	0.23	0.87	0.38	
Oct 17	0.52	0.65	0.53	0.7	0.77	0.65	0.69	0.75	0.68	0.53	0.48	0.46	0.42	0.39	0.34	0.33	0.33	0.63	0.68	S	0.48	0.42	0.39	0.52	0.33	0.77	0.54	
Oct 18	0.43	0.39	0.41	0.43	0.42	0.41	0.37	0.34	0.34	0.42	0.4	0.37	0.42	0.37	0.36	0.32	0.31	0.32	S	0.43	0.38	0.38	0.35	0.33	0.31	0.43	0.38	
Oct 19	0.35	0.33	0.34	0.38	0.35	0.34	0.34	0.34	0.34	0.35	0.31	0.28	0.31	0.33	0.37	0.38	0.36	S	0.33	0.32	0.3	0.31	0.3	0.3	0.28	0.38	0.33	
Oct 20	0.35	0.36	0.36	0.34	0.35	0.3	0.33	0.34	0.33	0.32	0.3	0.28	0.27	0.25	0.24	0.25	S	0.34	0.48	0.45	0.42	0.42	0.38	0.31	0.24	0.48	0.34	
Oct 21	0.32	0.32	0.29	0.28	0.28	0.29	0.32	0.54	0.33	0.32	0.29	0.31	0.33	0.28	0.29	S	0.27	0.25	0.24	0.26	0.24	0.23	0.25	0.24	0.23	0.54	0.29	
Oct 22	0.22	0.23	0.24	0.23	0.28	0.26	0.26	0.26	0.24	0.33	0.26	0.25	0.25	0.23	S	0.25	0.24	0.25	0.31	0.29	0.37	0.31	0.34	0.37	0.22	0.37	0.27	
Oct 23	0.31	0.33	0.34	0.32	0.32	0.32	0.37	0.4	0.52	0.44	0.33	0.42	0.38	S	0.4	0.25	0.24	0.26	0.25	0.25	0.24	0.27	0.28	0.28	0.24	0.52	0.33	
Oct 24	0.28	0.3	0.26	0.25	0.24	0.23	0.25	0.28	0.29	0.28	0.27	0.26	S	0.26	0.25	0.24	0.24	0.25	0.25	0.23	0.22	0.23	0.23	0.24	0.22	0.30	0.25	
Oct 25	0.24	0.24	0.25	0.27	0.26	0.25	0.27	0.29	0.27	0.27	0.25	S	0.26	0.24	0.22	0.23	0.22	0.22	0.21	0.22	0.24	0.27	0.26	0.24	0.21	0.29	0.25	
Oct 26	0.23	0.23	0.22	0.24	0.24	0.25	0.24	0.24	0.25	0.23	S	0.24	0.23	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.24	0.23	0.2	0.22	0.22	0.20	0.25	0.23
Oct 27	0.21	0.22	0.22	0.22	0.23	0.23	0.24	0.23	0.24	S	0.24	0.24	0.24	0.23	0.22	0.23	0.23	0.23	0.23	0.24	0.25	0.28	0.29	0.29	0.3	0.21	0.30	0.24
Oct 28	0.26	0.24	0.23	0.24	0.24	0.24	0.27	S	0.29	0.29	0.28	0.3	0.29	0.28	0.27	0.29	0.31	0.29	0.3	0.29	0.28	0.28	0.28	0.28	0.23	0.31	0.27	
Oct 29	0.29	0.29	0.29	0.29	0.32	0.32	0.34	S	0.36	0.36	0.37	0.34	0.32	0.29	0.32	0.34	0.29	0.3	0.33	0.32	0.32	0.31	0.3	0.3	0.29	0.37	0.32	
Oct 30	0.28	0.31	0.34	0.3	0.32	0.34	S	0.3	0.29	0.28	0.3	0.29	0.28	0.27	0.26	0.25	0.26	0.27	0.27	0.27	0.31	0.32	0.31	0.32	0.25	0.34	0.29	
Oct 31	0.34	0.36	0.3	0.29	0.28	S	0.3	0.29	0.32	0.34	0.31	0.33	0.31	0.39	0.29	0.32	0.38	0.56	0.55	0.64	0.54	0.41	0.5	0.5	0.28	0.64	0.38	
Diurnal Maximum	0.82	0.65	0.82	0.73	0.77	0.81	0.88	0.78	0.68	0.62	0.56	0.62	0.61	0.58	0.56	0.54	0.79	1.01	1.24	1.11	0.99	1.14	1.15	1.05				
Diurnal Average	0.34	0.34	0.35	0.36	0.38	0.36	0.38	0.40	0.40	0.37	0.33	0.32	0.31	0.30	0.29	0.28	0.29	0.32	0.36	0.36	0.36	0.35	0.36	0.38				

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

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.

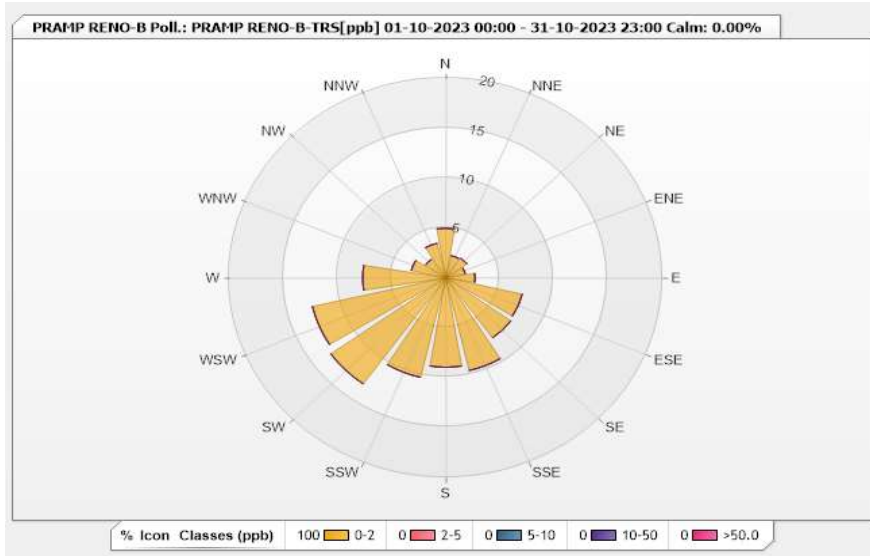


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-TRS[ppb] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 94.62% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	4.97	0	0	0	0	4.97
NNE	2.27	0	0	0	0	2.27
NE	2.41	0	0	0	0	2.41
ENE	1.85	0	0	0	0	1.85
E	2.7	0	0	0	0	2.7
ESE	7.24	0	0	0	0	7.24
SE	7.39	0	0	0	0	7.39
SSE	9.52	0	0	0	0	9.52
S	8.95	0	0	0	0	8.95
SSW	10.23	0	0	0	0	10.23
SW	13.07	0	0	0	0	13.07
WSW	12.64	0	0	0	0	12.64
W	7.67	0	0	0	0	7.67
WNW	3.27	0	0	0	0	3.27
NW	2.27	0	0	0	0	2.27
NNW	3.55	0	0	0	0	3.55
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - October 2023

Summary of Hourly Averages

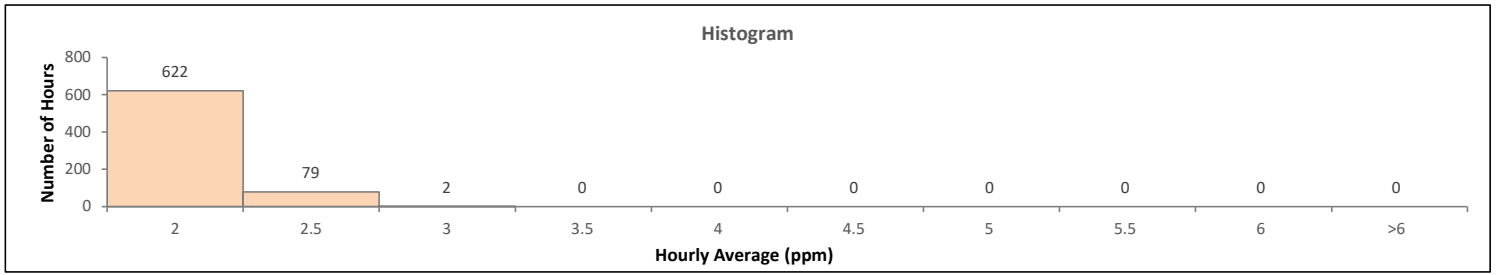
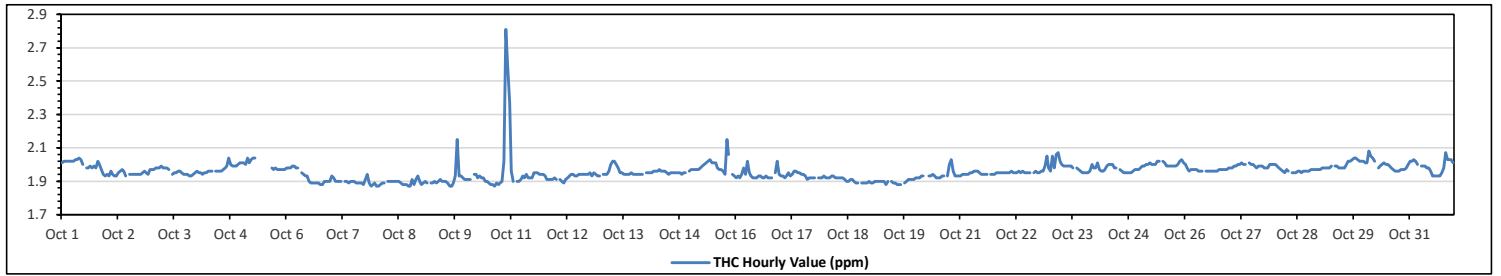
TOTAL HYDROCARBONS (THC) in ppm

Maximum Hourly Value:	2.81	ppm	on Oct 10 at hr 21	Hours in Service:	744
Maximum Daily Value:	2.00	ppm	on Oct 25	Hours of Data:	703
Minimum Hourly Value:	1.87	ppm	on Oct 7 at hr 21	Hours of Missing Data:	3
Minimum Daily Value:	1.89	ppm	on Oct 8	Hours of Calibration:	38
Monthly Average:	1.96	ppm		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	
Oct 1	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.03	2.04	2.03	2.00	S	1.98	1.98	1.99	1.98	1.99	1.98	2.02	2.00	1.97	1.94	1.93	1.93	2.04	2.00	
Oct 2	1.94	1.93	1.96	1.94	1.93	1.93	1.95	1.96	1.97	1.96	1.93	S	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.96	1.95	1.94	1.97	1.93	1.97	1.95
Oct 3	1.97	1.97	1.98	1.98	1.98	1.99	1.98	1.98	1.98	1.97	S	1.94	1.95	1.95	1.96	1.96	1.95	1.94	1.94	1.94	1.93	1.93	1.94	1.95	1.93	1.99	1.96	
Oct 4	1.96	1.95	1.95	1.94	1.95	1.95	1.96	1.96	1.96	S	1.96	1.96	1.96	1.96	1.97	1.98	1.99	2.04	2.00	1.99	1.99	1.99	2.00	2.01	1.94	2.04	1.97	
Oct 5	2.01	2.01	2.00	2.04	2.01	2.03	2.04	2.04	S	2.03	C	C	C	C	C	C	1.98	1.97	1.98	1.97	1.97	1.97	1.97	1.97	1.97	2.04	NA	
Oct 6	1.98	1.98	1.98	1.99	1.99	1.98	1.98	S	1.95	1.94	1.93	1.93	1.90	1.89	1.89	1.89	1.89	1.89	1.88	1.88	1.90	1.90	1.90	1.90	1.88	1.99	1.93	
Oct 7	1.93	1.92	1.90	1.90	1.90	1.90	S	1.90	1.90	1.89	1.90	1.90	1.90	1.89	1.89	1.89	1.89	1.88	1.91	1.94	1.89	1.87	1.88	1.89	1.87	1.94	1.90	
Oct 8	1.87	1.87	1.88	1.89	1.89	S	1.90	1.90	1.90	1.90	1.90	1.90	1.89	1.88	1.88	1.88	1.87	1.87	1.91	1.88	1.91	1.93	1.90	1.87	1.93	1.89	1.81	
Oct 9	1.88	1.89	1.90	1.89	S	1.89	1.89	1.90	1.89	1.90	1.91	1.90	1.90	1.89	1.87	1.87	1.89	1.93	2.15	1.93	1.93	1.92	1.91	1.87	2.15	1.91	1.81	
Oct 10	1.91	1.91	1.91	S	1.94	1.94	1.92	1.93	1.92	1.92	1.90	1.90	1.89	1.88	1.88	1.87	1.89	1.88	1.89	2.02	2.81	2.58	2.37	1.87	2.81	2.00	2.00	
Oct 11	1.96	1.90	S	1.90	1.90	1.91	1.93	1.92	1.94	1.92	1.92	1.92	1.95	1.95	1.94	1.94	1.94	1.93	1.91	1.91	1.91	1.91	1.91	1.92	1.90	1.96	1.93	
Oct 12	1.91	S	1.91	1.90	1.89	1.91	1.92	1.93	1.94	1.94	1.93	1.93	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.93	1.95	1.94	1.93	1.93	1.89	1.95	1.93	
Oct 13	S	1.94	1.94	1.94	1.96	2.00	2.02	2.02	2.00	1.98	1.95	1.95	1.94	1.94	1.94	1.94	1.95	1.94	1.94	1.94	1.94	1.94	1.94	S	1.94	2.02	1.96	
Oct 14	1.95	1.95	1.95	1.95	1.96	1.96	1.96	1.97	1.96	1.96	1.96	1.95	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.95	1.95	S	1.96	1.94	1.95	
Oct 15	1.97	1.97	1.97	1.97	1.97	1.98	1.99	2.00	2.01	2.02	2.03	2.01	2.01	2.01	1.98	1.97	1.97	1.96	1.94	2.15	2.06	S	1.94	1.93	1.93	2.15	1.99	
Oct 16	1.92	1.93	1.92	1.94	1.98	1.94	2.02	1.95	1.93	1.92	1.92	1.92	1.93	1.93	1.92	1.92	1.93	1.92	1.92	1.92	S	1.95	2.02	1.94	1.92	2.02	1.94	
Oct 17	1.93	1.93	1.92	1.93	1.95	1.93	1.94	1.96	1.96	1.95	1.95	1.94	1.94	1.93	1.91	1.92	1.92	1.92	1.92	S	1.92	1.92	1.92	1.93	1.91	1.96	1.93	
Oct 18	1.92	1.92	1.92	1.93	1.93	1.92	1.92	1.92	1.92	1.92	1.91	1.90	1.90	1.91	1.91	1.90	1.89	1.89	S	S	1.89	1.89	1.89	1.89	1.90	1.89	1.91	
Oct 19	1.89	1.89	1.90	1.90	1.90	1.90	1.90	1.90	1.88	1.90	K	1.90	1.89	1.89	1.88	1.88	1.88	S	1.89	1.90	1.91	1.91	1.91	1.91	1.88	1.91	1.90	
Oct 20	1.92	1.92	1.92	1.93	1.93	NRM	NRM	1.93	1.93	1.94	1.93	1.92	1.92	1.92	1.93	1.93	S	1.93	2.00	2.03	1.96	1.93	1.93	1.93	1.92	2.03	1.94	
Oct 21	1.93	1.94	1.94	1.94	1.94	1.95	1.95	1.96	1.96	1.96	1.95	1.94	1.94	1.94	1.94	S	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.93	1.96	1.95	
Oct 22	1.95	1.95	1.95	1.96	1.95	1.95	1.95	1.96	1.95	1.96	1.95	1.95	1.95	1.95	S	1.95	1.96	1.95	1.95	1.96	1.96	1.99	2.05	1.98	1.95	2.05	1.96	
Oct 23	1.96	2.05	1.98	2.06	2.07	2.02	2.00	1.99	1.99	1.99	1.99	1.99	1.98	S	1.98	1.97	1.96	1.95	1.95	1.95	1.96	2.00	1.98	1.95	2.07	1.99	1.99	
Oct 24	1.98	2.01	1.97	1.96	1.96	1.97	1.99	2.00	2.00	2.00	1.98	1.98	S	1.97	1.96	1.95	1.95	1.95	1.95	1.95	1.96	1.97	1.97	1.97	1.95	2.01	1.97	
Oct 25	1.98	1.99	1.99	2.00	2.00	2.01	2.00	2.00	2.00	2.02	2.02	S	2.02	2.01	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.02	2.03	2.01	1.98	2.03	2.00	
Oct 26	2.00	1.98	1.96	1.97	1.97	1.97	1.97	1.96	1.96	1.96	S	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.97	1.98	2.00	1.97	
Oct 27	1.98	1.98	1.99	1.99	2.00	2.00	2.01	2.00	2.00	S	2.01	2.00	2.00	1.99	1.98	1.99	1.99	1.99	1.98	1.98	1.98	2.00	2.00	2.00	1.98	2.01	1.99	
Oct 28	2.00	1.99	1.98	1.97	1.96	1.95	1.97	1.96	S	1.95	1.95	1.95	1.96	1.96	1.95	1.96	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.97	1.95	2.00	1.96	
Oct 29	1.97	1.98	1.98	1.98	1.98	1.98	1.99	S	1.99	1.99	1.98	1.98	1.98	1.98	2.00	2.02	2.02	2.03	2.04	2.04	2.03	2.02	2.02	2.02	1.97	2.04	2.00	
Oct 30	2.01	2.01	2.08	2.05	2.04	2.02	S	1.98	1.99	2.00	2.01	2.00	2.00	1.99	1.98	1.97	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.98	2.00	1.96	2.08	2.00
Oct 31	2.02	2.02	2.03	2.02	2.00	S	1.99	1.99	1.99	1.98	1.98	1.96	1.93	1.93	1.93	1.93	1.93	1.95	1.98	2.07	2.03	2.03	2.03	2.01	1.93	2.07	1.99	
Diurnal Maximum	2.02	2.05	2.08	2.06	2.07	2.03	2.04	2.04	2.03	2.04	2.03	2.01	2.02	2.01	2.00	2.02	2.02	2.04	2.04	2.15	2.06	2.81	2.58	2.37	1.98	2.03	2.00	
Diurnal Average	1.95	1.96	1.96	1.96	1.96	1.96	1.97	1.96	1.96	1.96	1.95	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.95	1.97	1.96	1.98	1.98	1.97	1.94	1.97	1.97	

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

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.

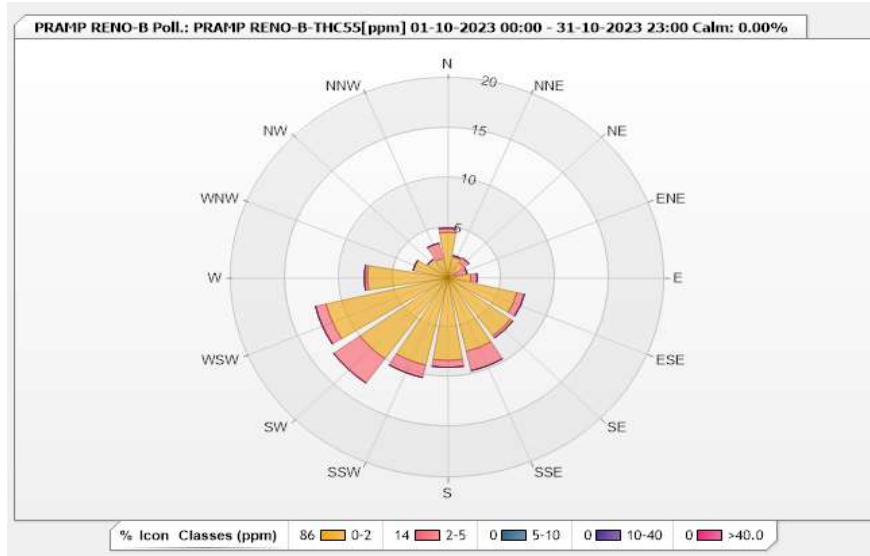


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-THC55[ppm] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 94.35% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	4.56	0.43	0	0	0	4.99
NNE	2.14	0.14	0	0	0	2.28
NE	1.85	0.57	0	0	0	2.42
ENE	0.71	1.14	0	0	0	1.85
E	2.14	0.57	0	0	0	2.71
ESE	6.55	0.71	0	0	0	7.26
SE	7.12	0.28	0	0	0	7.4
SSE	7.55	1.99	0	0	0	9.54
S	8.26	0.71	0	0	0	8.97
SSW	8.97	1.28	0	0	0	10.25
SW	9.97	2.99	0	0	0	12.96
WSW	11.54	1	0	0	0	12.54
W	7.41	0.28	0	0	0	7.69
WNW	3.28	0	0	0	0	3.28
NW	2.28	0	0	0	0	2.28
NNW	1.99	1.57	0	0	0	3.56
Summary	86.32	13.66	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - October 2023

Summary of Hourly Averages

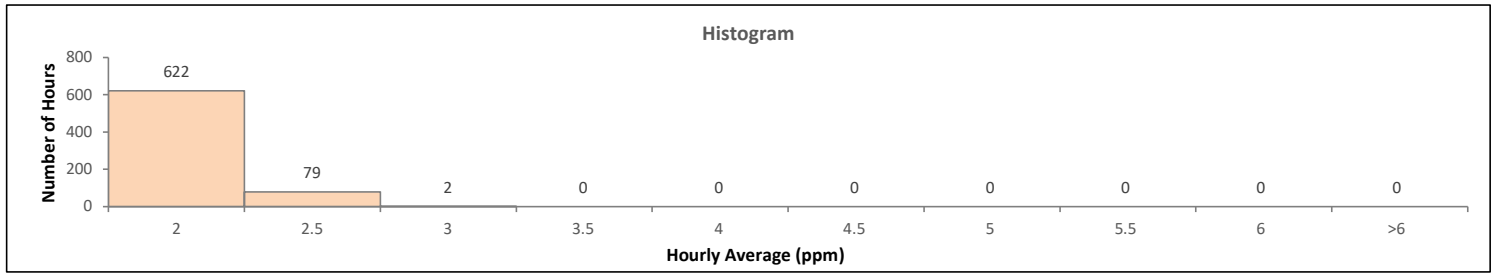
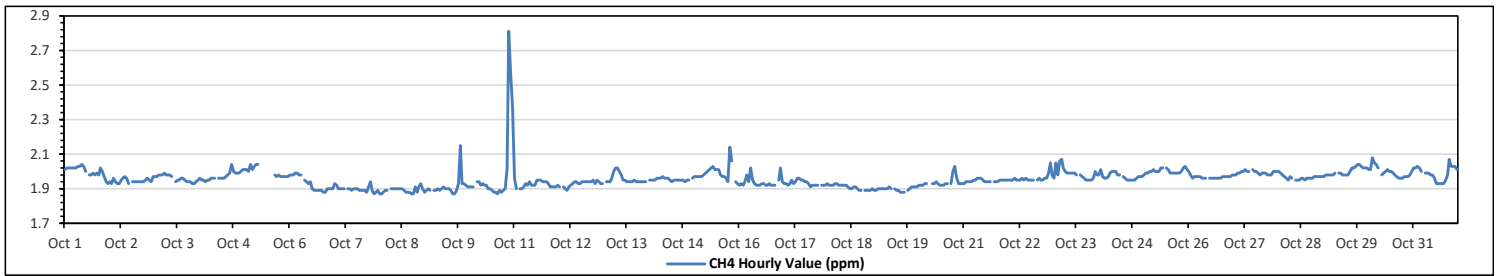
METHANE (CH4) in ppm

Maximum Hourly Value:	2.81	ppm	on Oct 10 at hr 21	Hours in Service:	744
Maximum Daily Value:	2.00	ppm	on Oct 25	Hours of Data:	703
Minimum Hourly Value:	1.87	ppm	on Oct 7 at hr 21	Hours of Missing Data:	3
Minimum Daily Value:	1.89	ppm	on Oct 8	Hours of Calibration:	38
Monthly Average:	1.96	ppm		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	
Oct 1	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.03	2.04	2.03	2.00	S	1.98	1.98	1.99	1.98	1.99	1.98	2.02	2.00	1.97	1.94	1.93	1.93	2.04	2.00	
Oct 2	1.94	1.93	1.96	1.94	1.93	1.93	1.95	1.96	1.97	1.96	1.93	S	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.96	1.95	1.94	1.97	1.93	1.97	1.95
Oct 3	1.97	1.97	1.98	1.98	1.98	1.99	1.98	1.98	1.98	1.97	S	1.94	1.95	1.95	1.96	1.96	1.95	1.94	1.94	1.94	1.93	1.93	1.94	1.95	1.93	1.99	1.96	
Oct 4	1.96	1.95	1.95	1.94	1.95	1.95	1.96	1.96	1.96	S	1.96	1.96	1.96	1.96	1.97	1.98	1.99	2.04	2.00	1.99	1.99	1.99	2.00	2.01	1.94	2.04	1.97	
Oct 5	2.01	2.01	2.00	2.04	2.01	2.03	2.04	2.04	S	2.03	C	C	C	C	C	C	C	1.98	1.97	1.98	1.97	1.97	1.97	1.97	1.97	2.04	1.97	
Oct 6	1.98	1.98	1.98	1.99	1.99	1.98	1.98	S	1.95	1.94	1.93	1.94	1.90	1.89	1.89	1.89	1.89	1.89	1.88	1.88	1.90	1.90	1.90	1.90	1.88	1.89	1.93	
Oct 7	1.93	1.92	1.90	1.90	1.90	1.90	S	1.90	1.90	1.89	1.90	1.90	1.90	1.89	1.89	1.89	1.89	1.88	1.91	1.94	1.89	1.87	1.88	1.89	1.87	1.94	1.90	
Oct 8	1.87	1.87	1.88	1.89	1.89	S	1.90	1.90	1.90	1.90	1.90	1.90	1.89	1.88	1.88	1.88	1.88	1.87	1.87	1.91	1.88	1.91	1.93	1.90	1.87	1.93	1.89	
Oct 9	1.88	1.89	1.90	1.89	S	1.89	1.89	1.90	1.89	1.90	1.91	1.90	1.90	1.90	1.89	1.87	1.87	1.89	1.93	2.15	1.93	1.93	1.92	1.91	1.87	2.15	1.91	
Oct 10	1.91	1.91	1.91	S	1.94	1.94	1.92	1.93	1.92	1.92	1.90	1.90	1.89	1.88	1.88	1.87	1.89	1.88	1.89	1.90	2.02	2.81	2.57	2.37	1.87	2.81	2.00	
Oct 11	1.96	1.90	S	1.90	1.90	1.91	1.93	1.92	1.94	1.92	1.92	1.92	1.95	1.95	1.95	1.94	1.94	1.94	1.93	1.91	1.91	1.91	1.91	1.92	1.90	1.96	1.93	
Oct 12	1.91	S	1.91	1.90	1.89	1.91	1.92	1.93	1.94	1.94	1.93	1.93	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.93	1.95	1.94	1.93	1.93	1.89	1.95	1.93	
Oct 13	S	1.94	1.94	1.94	1.96	2.00	2.02	2.02	2.00	1.98	1.95	1.95	1.94	1.94	1.94	1.94	1.95	1.94	1.94	1.94	1.94	1.94	1.94	S	1.94	2.02	1.96	
Oct 14	1.95	1.95	1.95	1.95	1.96	1.96	1.96	1.97	1.96	1.96	1.96	1.95	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.95	1.95	1.95	S	1.96	1.94	1.97	1.95
Oct 15	1.97	1.97	1.97	1.97	1.97	1.98	1.99	2.00	2.01	2.02	2.03	2.01	2.01	2.01	1.98	1.97	1.97	1.96	1.94	2.14	2.06	S	1.94	1.93	1.93	2.14	1.99	
Oct 16	1.92	1.93	1.92	1.94	1.98	1.94	2.02	1.95	1.93	1.92	1.92	1.92	1.93	1.93	1.92	1.92	1.93	1.92	1.92	1.92	S	1.95	2.02	1.94	1.92	2.02	1.94	
Oct 17	1.93	1.93	1.92	1.93	1.95	1.93	1.94	1.96	1.96	1.95	1.95	1.94	1.94	1.93	1.91	1.92	1.92	1.92	1.92	S	1.92	1.92	1.92	1.93	1.91	1.96	1.93	
Oct 18	1.92	1.92	1.92	1.93	1.93	1.92	1.92	1.92	1.92	1.92	1.91	1.90	1.90	1.91	1.91	1.90	1.89	1.89	S	1.89	1.89	1.89	1.89	1.89	1.89	1.91	1.91	
Oct 19	1.89	1.89	1.90	1.90	1.90	1.90	1.90	1.90	1.91	1.90	K	1.90	1.89	1.89	1.88	1.88	1.88	1.88	S	1.89	1.90	1.91	1.91	1.91	1.91	1.88	1.91	1.90
Oct 20	1.92	1.92	1.92	1.93	1.93	NRM	NRM	1.93	1.93	1.94	1.93	1.92	1.92	1.92	1.93	1.93	S	1.93	2.00	2.03	1.96	1.93	1.93	1.93	1.92	2.03	1.94	
Oct 21	1.93	1.94	1.94	1.94	1.94	1.95	1.95	1.96	1.96	1.96	1.95	1.94	1.94	1.94	1.94	S	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.93	1.96	1.95
Oct 22	1.95	1.95	1.95	1.96	1.95	1.95	1.95	1.96	1.95	1.96	1.95	1.95	1.95	1.95	S	1.95	1.96	1.95	1.95	1.96	1.96	1.99	2.05	1.98	1.95	2.05	1.96	
Oct 23	1.96	2.05	1.98	2.06	2.07	2.02	2.00	1.99	1.99	1.99	1.99	1.99	1.98	S	1.98	1.97	1.96	1.95	1.95	1.95	1.95	1.96	2.00	1.98	1.95	2.07	1.99	
Oct 24	1.98	2.01	1.97	1.96	1.96	1.97	1.99	2.00	2.00	2.00	1.98	1.98	S	1.97	1.96	1.95	1.95	1.95	1.95	1.95	1.95	1.96	1.97	1.97	1.95	2.01	1.97	
Oct 25	1.98	1.99	1.99	2.00	2.00	2.01	2.00	2.00	2.00	2.02	2.02	S	2.02	2.01	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.02	2.03	2.01	1.98	2.03	2.00	
Oct 26	2.00	1.98	1.96	1.97	1.97	1.97	1.97	1.96	1.96	1.96	S	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.97	1.98	2.00	1.97	
Oct 27	1.98	1.98	1.99	1.99	2.00	2.00	2.01	2.00	2.00	S	2.01	2.00	2.00	1.99	1.98	1.99	1.99	1.99	1.98	1.98	1.98	2.00	2.00	2.00	1.98	2.01	1.99	
Oct 28	2.00	1.99	1.98	1.97	1.96	1.95	1.97	1.96	S	1.95	1.95	1.95	1.96	1.96	1.95	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.97	1.97	1.96	
Oct 29	1.97	1.98	1.98	1.98	1.98	1.98	1.99	S	1.99	1.99	1.98	1.98	1.98	1.98	2.00	2.02	2.02	2.03	2.04	2.04	2.03	2.02	2.02	2.02	1.97	2.04	2.00	
Oct 30	2.01	2.01	2.08	2.05	2.04	2.02	S	1.98	1.99	2.00	2.01	2.00	2.00	1.99	1.98	1.97	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.98	2.00	1.96	2.08	2.00
Oct 31	2.02	2.02	2.03	2.02	2.00	S	1.99	1.99	1.99	1.98	1.98	1.96	1.93	1.93	1.93	1.93	1.93	1.93	1.95	1.98	2.07	2.03	2.03	2.03	2.01	1.93	2.07	1.99
Diurnal Maximum	2.02	2.05	2.08	2.06	2.07	2.03	2.04	2.04	2.03	2.04	2.03	2.01	2.02	2.01	2.00	2.02	2.02	2.04	2.04	2.15	2.06	2.81	2.57	2.37				
Diurnal Average	1.95	1.96	1.96	1.96	1.96	1.96	1.97	1.96	1.96	1.96	1.95	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.95	1.97	1.96	1.98	1.98	1.97				

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

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.

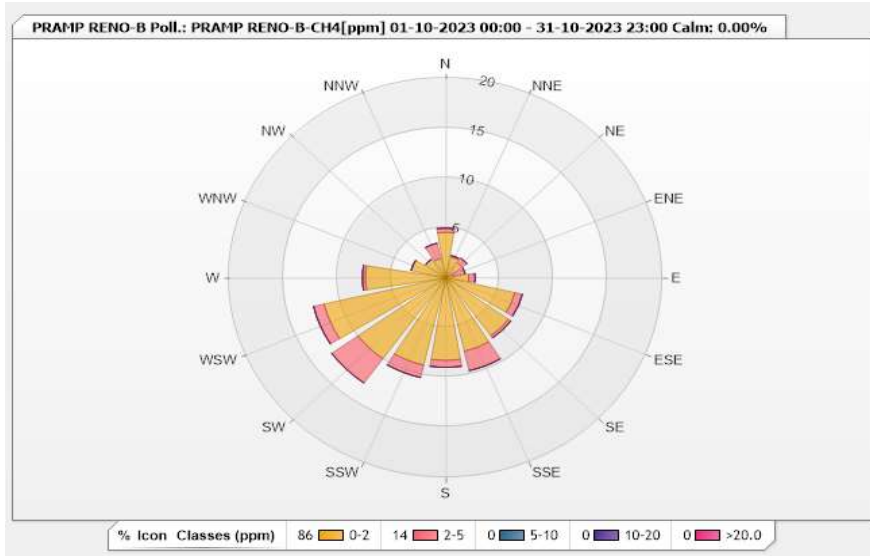


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-CH4[ppm] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 94.35% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	4.56	0.43	0	0	0	4.99
NNE	2.14	0.14	0	0	0	2.28
NE	1.85	0.57	0	0	0	2.42
ENE	0.71	1.14	0	0	0	1.85
E	2.14	0.57	0	0	0	2.71
ESE	6.55	0.71	0	0	0	7.26
SE	7.12	0.28	0	0	0	7.4
SSE	7.55	1.99	0	0	0	9.54
S	8.26	0.71	0	0	0	8.97
SSW	8.97	1.28	0	0	0	10.25
SW	9.97	2.99	0	0	0	12.96
WSW	11.54	1	0	0	0	12.54
W	7.41	0.28	0	0	0	7.69
WNW	3.28	0	0	0	0	3.28
NW	2.28	0	0	0	0	2.28
NNW	1.99	1.57	0	0	0	3.56
Summary	86.32	13.66	0	0	0	100

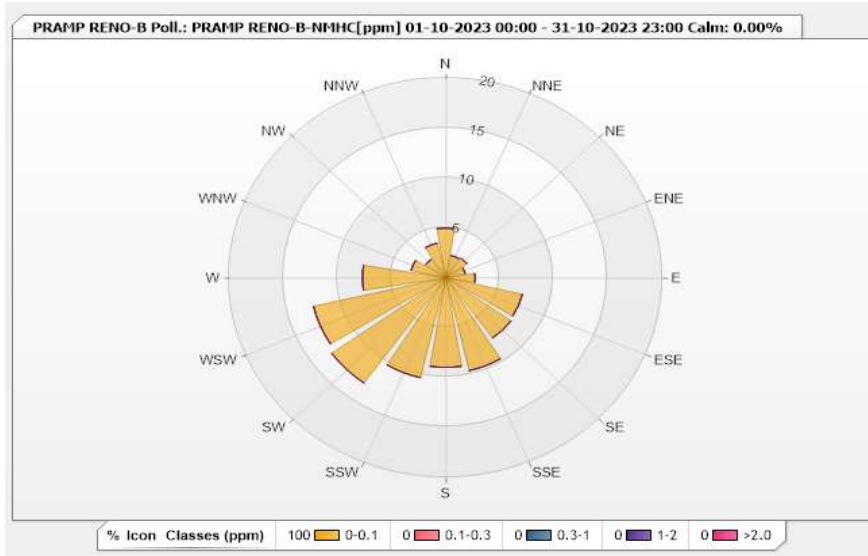


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-NMHC[ppm] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 94.35% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	4.99	0	0	0	0	4.99
NNE	2.28	0	0	0	0	2.28
NE	2.42	0	0	0	0	2.42
ENE	1.85	0	0	0	0	1.85
E	2.71	0	0	0	0	2.71
ESE	7.26	0	0	0	0	7.26
SE	7.41	0	0	0	0	7.41
SSE	9.54	0	0	0	0	9.54
S	8.97	0	0	0	0	8.97
SSW	10.26	0	0	0	0	10.26
SW	12.96	0	0	0	0	12.96
WSW	12.54	0	0	0	0	12.54
W	7.69	0	0	0	0	7.69
WNW	3.28	0	0	0	0	3.28
NW	2.28	0	0	0	0	2.28
NNW	3.56	0	0	0	0	3.56
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - October 2023

Summary of Hourly Averages

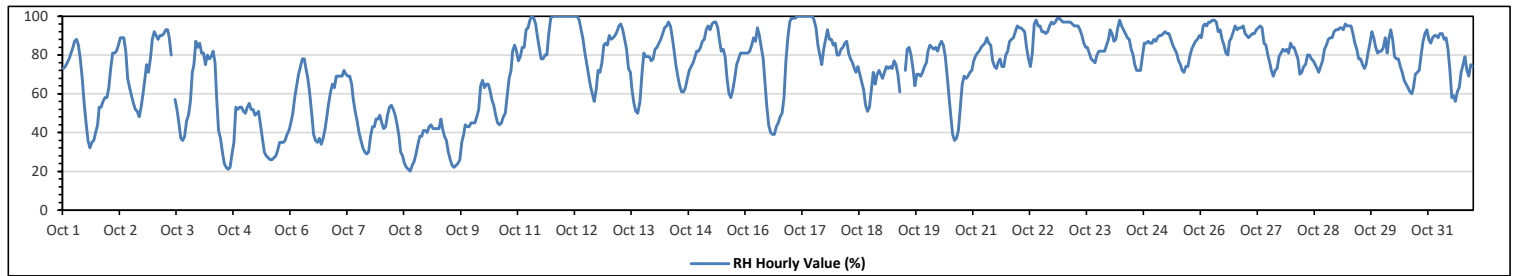
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	100	%	on Oct 11 at hr 7	Hours in Service:	744
Maximum Daily Value:	93.3	%	on Oct 17	Hours of Data:	741
Minimum Hourly Value:	20	%	on Oct 8 at hr 15	Hours of Missing Data:	3
Minimum Daily Value:	36.7	%	on Oct 9	Hours of Calibration:	0
Monthly Average:	72.7	%		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	
Oct 1	73	74	76	78	81	84	87	88	85	78	68	55	45	36	32	35	36	40	44	53	53	56	58	58	32	88	61.4	
Oct 2	63	73	81	81	82	85	89	89	89	82	68	63	59	55	52	51	48	53	60	68	75	71	78	88	48	89	71.0	
Oct 3	92	90	88	90	90	91	93	93	89	80	K	57	52	45	37	36	38	46	49	56	71	75	87	84	36	93	70.8	
Oct 4	86	81	81	75	80	78	79	82	76	58	41	37	30	24	22	21	22	29	35	53	52	53	53	51	21	86	54.1	
Oct 5	50	53	55	52	52	49	50	51	44	37	30	28	27	26	26	27	28	31	35	35	35	36	39	41	26	55	39.0	
Oct 6	45	50	58	64	70	74	78	78	73	68	60	50	39	36	35	37	34	37	42	49	55	61	65	63	34	78	55.0	
Oct 7	69	69	69	69	72	70	69	69	65	57	51	46	40	36	32	30	29	30	38	43	43	47	47	49	29	72	51.6	
Oct 8	45	42	43	49	53	54	52	49	44	38	30	28	24	22	21	20	23	25	29	34	38	38	41	41	20	54	36.8	
Oct 9	40	43	44	42	42	42	42	47	42	38	36	30	26	23	22	23	24	26	35	39	44	43	43	45	22	47	36.7	
Oct 10	45	45	48	52	64	67	63	65	65	62	57	54	49	45	44	45	48	50	59	68	72	82	85	82	44	85	59.0	
Oct 11	77	79	84	84	93	94	98	100	99	96	90	84	78	78	80	80	91	99	100	100	100	100	100	100	77	100	91.0	
Oct 12	100	100	100	100	100	100	100	100	98	93	88	82	76	70	64	60	56	62	72	71	76	85	86	85	56	100	84.3	
Oct 13	90	88	89	90	92	95	96	93	88	83	73	71	62	55	51	50	56	70	81	79	79	79	77	78	50	96	77.7	
Oct 14	83	84	86	88	91	94	95	97	95	90	83	75	69	64	61	61	63	68	72	74	76	79	82	82	61	97	79.7	
Oct 15	84	87	88	93	95	93	96	97	97	94	88	82	83	79	68	60	58	62	68	75	78	81	81	81	58	97	82.0	
Oct 16	81	81	82	85	89	87	94	90	84	78	65	54	44	40	39	39	43	45	48	50	58	77	89	97	39	97	68.3	
Oct 17	99	99	99	100	100	100	100	100	100	100	100	100	100	98	94	85	80	75	83	88	93	88	88	85	86	75	100	93.3
Oct 18	80	80	83	84	86	87	81	78	76	73	71	74	70	66	62	54	51	53	62	71	65	70	72	70	51	87	71.6	
Oct 19	68	71	74	73	74	73	77	75	70	61	K	K	72	83	84	80	73	64	70	70	69	71	74	76	61	84	72.8	
Oct 20	82	85	84	83	84	82	85	87	85	79	69	58	49	39	36	37	41	53	65	69	68	69	71	72	36	87	68.0	
Oct 21	77	79	81	82	84	85	86	89	86	85	77	74	73	76	78	74	74	80	82	87	88	89	92	95	73	95	82.2	
Oct 22	94	94	93	92	84	78	74	81	96	98	95	95	92	92	91	92	95	97	96	97	99	99	98	97	74	99	92.5	
Oct 23	97	97	97	97	96	95	95	95	93	90	86	84	84	81	78	77	76	80	82	82	82	82	85	88	76	97	87.5	
Oct 24	93	91	87	88	94	98	95	93	91	89	88	83	80	75	72	72	72	79	86	86	87	86	86	88	72	98	85.8	
Oct 25	87	89	90	90	91	92	91	91	88	85	83	81	77	75	72	71	74	74	79	83	85	87	88	90	71	92	83.9	
Oct 26	89	95	96	95	97	97	98	98	97	92	93	88	85	81	80	87	89	92	95	93	94	94	95	91	80	98	92.1	
Oct 27	90	89	90	91	91	93	94	95	94	86	85	80	76	72	69	72	73	79	81	83	82	83	81	86	69	95	84.0	
Oct 28	84	84	81	78	70	71	74	75	80	80	78	77	75	73	71	74	77	83	85	88	89	89	92	93	70	93	80.0	
Oct 29	93	94	94	93	96	95	95	95	91	86	83	78	78	75	73	75	81	86	92	89	84	81	82	82	73	96	86.3	
Oct 30	84	89	81	88	93	88	79	78	78	74	71	67	65	63	61	60	63	70	71	72	80	87	91	93	60	93	76.9	
Oct 31	88	86	89	90	90	89	91	91	88	89	83	72	58	59	56	61	63	71	75	79	72	69	75	74	56	91	77.4	
Diurnal Maximum	100	100	100	100	100	100	100	100	100	100	100	100	98	94	91	92	95	99	100	100	100	100	100	100				
Diurnal Average	78.3	79.4	80.4	81.2	83.1	83.2	83.7	84.2	82.1	77.4	72.1	66.9	62.4	59.3	56.6	56.2	57.2	61.8	67.0	70.6	72.2	74.4	76.7	77.6				

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

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.



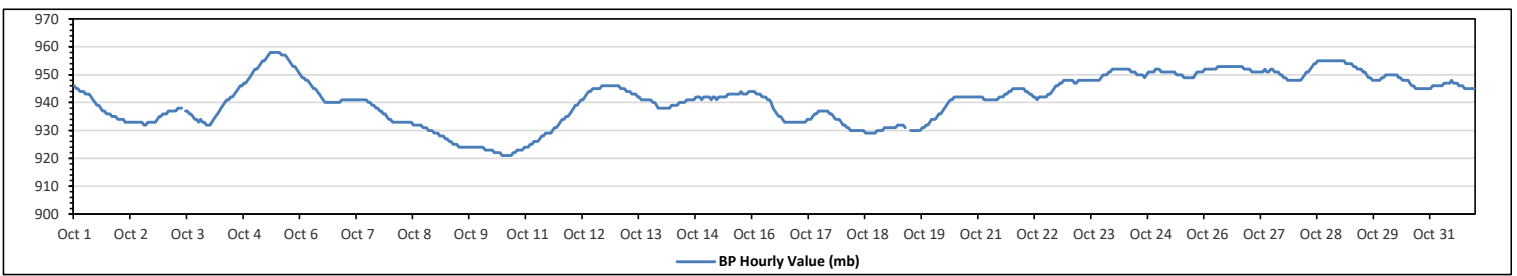
Peace River Area Monitoring Program
Reno-B Station - October 2023
Summary of Hourly Averages
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	958	mb	on Oct 5 at hr 8	Hours in Service:	744
Maximum Daily Value:	955	mb	on Oct 5	Hours of Data:	741
Minimum Hourly Value:	921	mb	on Oct 10 at hr 11	Hours of Missing Data:	3
Minimum Daily Value:	922	mb	on Oct 10	Hours of Calibration:	0
Monthly Average:	941	mb		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	
Oct 1	946	945	945	944	944	944	943	943	943	942	941	940	939	939	938	937	937	936	936	936	935	935	935	934	934	946	945	940
Oct 2	934	934	934	933	933	933	933	933	933	933	933	933	932	932	933	933	933	933	933	933	934	935	935	936	932	936	933	
Oct 3	936	936	937	937	937	937	937	938	938	938	938	938	938	938	938	937	937	936	936	935	934	934	933	934	933	933	932	932
Oct 4	932	933	934	935	936	937	938	939	940	941	941	942	942	943	944	945	946	946	947	947	948	949	950	951	932	951	942	
Oct 5	952	952	953	954	955	955	956	957	958	958	958	958	958	958	957	957	957	956	955	954	953	953	952	951	951	958	955	
Oct 6	950	949	949	948	948	947	946	945	945	944	943	942	941	940	940	940	940	940	940	940	940	940	941	941	940	950	943	
Oct 7	941	941	941	941	941	941	941	941	941	941	941	941	940	940	940	939	939	938	938	937	937	936	936	934	941	941	939	
Oct 8	934	933	933	933	933	933	933	933	933	933	933	933	932	932	932	932	931	931	931	931	930	930	930	929	929	934	932	
Oct 9	929	929	928	928	928	927	927	926	926	925	925	924	924	924	924	924	924	924	924	924	924	924	924	924	924	929	925	
Oct 10	924	924	923	923	923	923	922	922	922	922	921	921	921	921	921	921	921	922	922	922	923	923	923	923	924	924	922	
Oct 11	924	924	925	925	926	926	926	927	928	928	929	929	929	929	930	931	931	932	933	934	934	935	935	936	924	936	929	
Oct 12	937	938	939	939	940	941	941	942	943	944	944	945	945	945	945	945	946	946	946	946	946	946	946	946	946	946	943	
Oct 13	946	946	945	945	945	944	944	944	943	943	943	942	942	941	941	941	941	941	941	941	940	940	939	938	938	938	942	
Oct 14	938	938	938	938	938	939	939	939	939	940	940	940	940	941	941	941	941	941	941	941	942	942	941	942	942	942	940	
Oct 15	942	942	941	942	942	941	942	942	942	942	942	943	943	943	943	943	943	943	944	943	943	943	943	944	944	944	943	
Oct 16	944	944	943	943	943	942	942	942	941	941	940	938	937	936	935	935	934	933	933	933	933	933	933	933	933	933	938	
Oct 17	933	933	933	933	933	934	934	934	935	936	936	937	937	937	937	937	936	936	936	935	934	934	934	933	933	937	935	
Oct 18	932	932	931	931	930	930	930	930	930	930	930	930	929	929	929	929	929	929	929	929	930	930	930	931	931	929	930	
Oct 19	931	931	931	931	931	932	932	932	932	931	K	K	930	930	930	930	930	930	931	931	932	932	933	934	930	934	931	
Oct 20	934	934	935	936	936	937	938	939	940	941	941	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	940	
Oct 21	942	942	942	941	941	941	941	941	941	941	941	942	942	942	942	943	943	944	944	945	945	945	945	945	945	945	943	
Oct 22	945	944	944	943	943	942	942	941	942	942	942	942	942	943	943	944	945	946	946	947	947	948	948	948	948	948	944	
Oct 23	948	948	948	947	947	948	948	948	948	948	948	948	948	948	948	948	949	949	950	950	950	951	951	951	951	952	949	
Oct 24	952	952	952	952	952	952	952	952	951	951	951	951	950	950	950	949	950	950	951	951	951	951	951	951	951	952	951	
Oct 25	952	951	951	951	951	951	951	951	951	950	950	950	949	949	949	949	949	949	949	950	951	951	951	951	951	951	950	
Oct 26	952	952	952	952	952	952	952	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	952	952	952	952	953	
Oct 27	952	951	951	951	951	951	951	951	951	951	951	952	952	951	951	951	950	949	949	948	948	948	948	948	948	948	950	
Oct 28	948	948	948	948	949	950	951	951	952	953	954	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	953	
Oct 29	955	955	955	954	954	954	954	953	953	952	952	952	951	951	950	949	949	948	948	948	948	948	948	948	948	948	948	
Oct 30	950	950	950	950	950	950	949	949	948	948	948	948	947	946	946	945	945	945	945	945	945	945	945	945	945	945	947	
Oct 31	945	946	946	946	946	946	946	947	947	947	947	948	947	947	947	947	946	946	946	945	945	945	945	945	945	945	946	
Diurnal Maximum	955	955	955	954	955	955	956	957	958	958	958	958	958	958	957	957	957	956	955	955	955	955	955	955	955	955	955	
Diurnal Average	941	941	941	941	941	941	941	941	942	942	942	942	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	

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

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 - October 2023

Summary of Hourly Averages

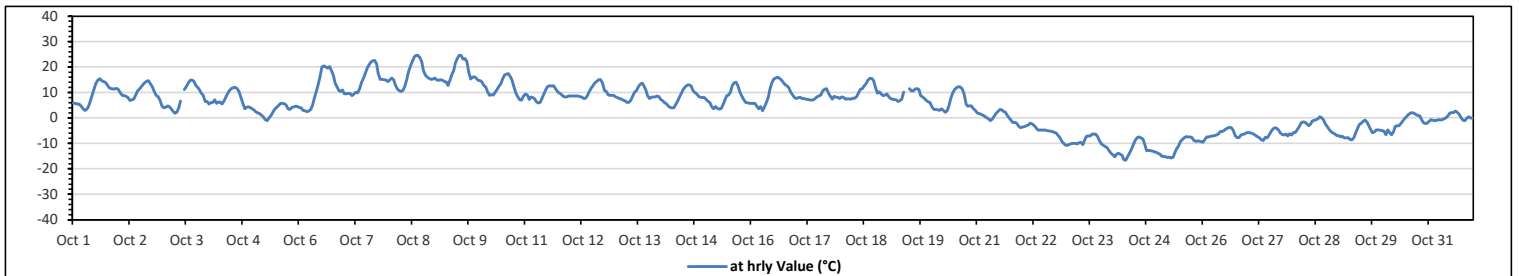
AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	24.6	°C	on Oct 8 at hr 14	Hours in Service:	744
Maximum Daily Value:	17.7	°C	on Oct 9	Hours of Data:	741
Minimum Hourly Value:	-16.6	°C	on Oct 24 at hr 7	Hours of Missing Data:	3
Minimum Daily Value:	-12.5	°C	on Oct 24	Hours of Calibration:	0
Monthly Average:	4.4	°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
Oct 1	5.9	5.7	5.4	5.5	4.8	3.8	3	3.2	4.4	6.5	9	11.4	13.7	14.9	15.5	14.6	14.3	14	13.1	11.9	11.5	11.4	11.4	11.7	3.0	15.5	9.4
Oct 2	11.1	9.9	8.9	8.8	8.5	8	6.9	7.1	7.4	9	10.6	11.3	12.1	13.2	13.9	14.4	14.6	13.4	12.3	10.4	8.9	8.4	7	4.8	4.8	14.6	10.0
Oct 3	3.9	4.2	4.8	4.5	3.7	2.6	1.8	2.4	4.1	6.6	K	11.2	12.3	13.6	14.7	14.9	14.4	12.8	12	11.2	9.8	8.9	6.5	6.5	1.8	14.9	8.1
Oct 4	5.4	6	6.2	7.1	5.8	6.3	6.3	5.4	6.6	8.3	9.7	10.7	11.5	11.9	12	11.6	10.4	7.9	5.8	3.7	4.2	4.3	3.9	3.6	3.6	12.0	7.3
Oct 5	3.1	2.4	2	1.7	1.1	0.5	-0.7	-1	0	1	2.4	3.5	4.2	5	5.7	5.7	5.6	5.1	3.7	3.4	4.1	4.3	4.6	4.5	-1.0	5.7	3.0
Oct 6	4.1	4	3	2.8	2.5	2.7	3.4	4.7	7.6	10.3	13	16.2	20	20.5	20	19.6	20.2	18.6	16.7	13.8	12.2	10.7	10.4	11	2.5	20.5	11.2
Oct 7	9.5	9.5	9.6	9.6	8.8	9.4	10.1	9.9	11.6	14	15.7	17.3	19.5	20.9	21.9	22.5	22.6	21.2	17.4	15.2	15.2	15	14.9	14.3	8.8	22.6	14.8
Oct 8	14.9	15.7	15	13.2	11.5	10.7	10.5	10.8	12.4	15	18.3	20.4	22.4	24	24.6	24.6	23.8	22.1	18.7	17	16	15.6	15.2	15.3	10.5	24.6	17.0
Oct 9	15.7	14.9	14.8	15	14.8	14.3	14.2	12.8	14.8	17.1	18.7	21.5	23.3	24.6	24.6	23.1	23.3	22.3	18	15.3	16	16.2	15.6	14.8	12.8	24.6	17.7
Oct 10	14.6	14.2	12.8	12.1	10.2	8.9	9.2	9.1	10	11.1	12.4	13.4	15.5	16.9	17.2	17.4	16.4	14.9	12.2	9.7	8.4	7.1	7	8.6	7.0	17.4	12.1
Oct 11	9.3	9.1	7.3	8.2	8	7.5	6.4	5.9	6.2	7.8	9.5	11.3	12.4	12.7	12.5	12.7	11.5	10.5	9.8	9.3	8.7	8.2	8.3	8.6	5.9	12.7	9.2
Oct 12	8.7	8.6	8.7	8.6	8.7	8.4	8.2	7.7	7.8	8.9	10.3	11.7	12.7	13.8	14.5	15.1	15	13.7	10.8	10.5	9.1	8.9	8.9	8.9	7.7	15.1	10.3
Oct 13	8.2	8	7.7	7.5	7	6.7	6.2	6.2	6.9	8.5	10.2	10.8	12.3	13.3	13.6	12.7	11.2	8.7	7.7	8.1	8.2	8.2	8.7	8.4	6.2	13.6	9.0
Oct 14	7.2	6.7	6	5.4	4.6	4.1	3.9	4	5.3	6.7	8.4	9.9	11.4	12.2	13	13.1	12.5	10.9	10	9.5	8.5	8.1	7.9	8.1	3.9	13.1	8.2
Oct 15	7.4	6.6	6.1	4.5	3.7	4.5	3.8	3.5	3.8	5.3	7.3	8.8	9	10.3	12.6	13.8	14	12.6	10.3	8.6	7.3	6.1	6	5.7	3.5	14.0	7.6
Oct 16	5.7	5.7	5.7	4.6	3.7	4.5	2.8	4.3	6.1	8.1	11.3	13.8	15.3	15.7	16	15.6	14.9	13.9	13.2	12.7	11.9	10.2	9.1	8	2.8	16.0	9.7
Oct 17	7.7	7.9	8.1	7.7	7.6	7.4	7.2	7.1	7	7.1	7.7	8.2	8.6	9.1	10.6	11.3	11.6	9.7	8.5	7.4	8.5	8.1	8.1	7.7	7.0	11.6	8.3
Oct 18	8.3	8.1	7.4	7.5	7.5	7.4	7.8	7.8	8.4	9.9	11.3	11.5	12.7	13.5	14.8	15.6	15.6	14.6	11.9	9.7	10.3	9.3	8.8	9.1	7.4	15.6	10.4
Oct 19	9.4	8.4	7.7	7.4	7.3	7.1	6.5	6.7	7.4	10.1	K	K	11.5	10.6	10.6	11.4	11.6	11.1	8.8	8.2	7.6	6.9	6.4	6.1	6.1	11.6	8.6
Oct 20	4.5	3.4	3.3	3.2	3	3.6	2.9	2.2	2.8	5	7.7	9.8	11.1	11.9	12.2	12.1	11.4	9.3	5.5	4.6	4.7	4.8	3.7	3	2.2	12.2	6.1
Oct 21	2	1.7	1.4	1.1	0.7	0.1	-0.2	-1.1	-0.4	0.7	1.9	2.6	3.4	3.1	2.6	2.2	1	-0.1	-0.8	-1.8	-1.7	-2.1	-3.2	-3.9	-3.9	3.4	0.4
Oct 22	-3.6	-3.4	-3	-2.8	-2	-2.3	-2.8	-3.6	-4.6	-4.8	-4.7	-4.8	-4.7	-5	-5.1	-5.2	-5.4	-5.6	-6	-6.9	-7.9	-9.4	-9.9	-10.8	-10.8	-2.0	-5.2
Oct 23	-10.8	-10.4	-10.1	-10	-9.9	-10.2	-9.7	-9.6	-10.5	-8.9	-7.2	-7.1	-7.1	-6.3	-6.3	-6.4	-7.3	-9	-10.2	-10.8	-11.2	-11.8	-12.8	-13.8	-13.8	-6.3	-9.5
Oct 24	-14.5	-15.3	-14.3	-13.9	-14.3	-14.8	-16.4	-16.6	-15.1	-13.7	-12.2	-10.3	-8.7	-7.7	-7.4	-7.8	-8.3	-10.7	-12.9	-12.7	-12.8	-13	-13.3	-13.5	-16.6	-7.4	-12.5
Oct 25	-13.8	-14.2	-15.1	-14.9	-15.3	-15.5	-15.4	-15.8	-15.4	-13.5	-12.1	-10.9	-9.2	-8.5	-7.7	-7.3	-7.5	-7.5	-7.7	-8.9	-9.2	-9	-9.1	-9.4	-15.8	-7.3	-11.4
Oct 26	-9.5	-8.4	-7.4	-7.4	-7.2	-7.1	-6.9	-6.8	-6.4	-5.3	-4.9	-4.3	-4	-3.7	-3.8	-5	-6.9	-7.7	-7.7	-7.7	-6.7	-6.5	-6.4	-5.8	-9.5	-3.7	-6.3
Oct 27	-5.7	-5.8	-6.1	-6.5	-6.9	-7.4	-7.8	-8.6	-8.8	-7.6	-7.8	-6.7	-5.4	-4.3	-3.8	-4.1	-4.8	-6.1	-6.5	-6.8	-6.4	-7	-6.2	-6.7	-8.8	-3.8	-6.4
Oct 28	-5.6	-5.7	-4.6	-3.4	-1.9	-1.5	-1.6	-2.3	-3	-2.3	-1.2	-0.9	-0.7	-0.3	0.5	0.1	-0.8	-2.4	-3.4	-4.5	-5.5	-5.9	-6.4	-6.9	-6.9	0.5	-2.9
Oct 29	-6.9	-7.5	-7.2	-7.9	-7.8	-7.7	-8.4	-8.6	-7.7	-5.6	-4	-2.6	-2	-1.3	-0.8	-1.6	-3.1	-4.4	-5.8	-5.5	-4.7	-4.7	-4.8	-4.9	-8.6	-0.8	-5.2
Oct 30	-5.2	-6.6	-4.7	-5.8	-6.6	-5.4	-3.3	-3	-3	-2.3	-1.3	-0.2	0.4	1.3	1.8	2.1	1.9	1.3	1	0.8	-0.8	-1.9	-2.2	-2.1	-6.6	2.1	-1.8
Oct 31	-1.4	-0.7	-0.9	-1.1	-0.9	-0.6	-0.8	-0.7	-0.3	0.1	0.9	2	2.1	2.1	2.7	2.3	1.4	0	-0.9	-1	-0.1	0.4	-0.1	-0.1	-1.4	2.7	0.2
Diurnal Maximum	15.7	15.7	15.0	15.0	14.8	14.3	14.2	12.8	14.8	17.1	18.7	21.5	23.3	24.6	24.6	24.6	23.8	22.3	18.7	17.0	16.0	16.2	15.6	15.3			
Diurnal Average	2.9	2.7	2.5	2.3	2.0	1.8	1.5	1.4	2.1	3.6	4.8	6.3	7.6	8.3	8.8	8.8	8.3	7.0	5.3	4.3	4.0	3.5	3.2	2.9			

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

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



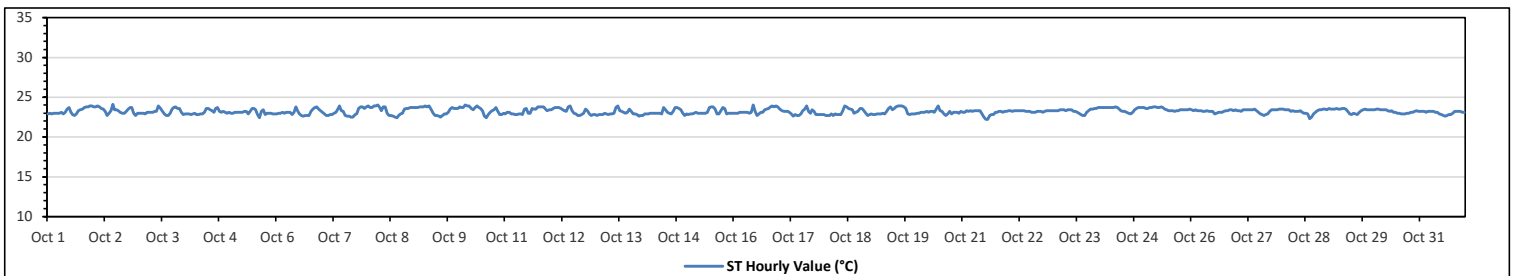
Peace River Area Monitoring Program
Reno-B Station - October 2023
Summary of Hourly Averages
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	24.1 °C	on Oct 2 at hr 10	Hours in Service:	744
Maximum Daily Value:	23.5 °C	on Oct 24	Hours of Data:	744
Minimum Hourly Value:	22.2 °C	on Oct 21 at hr 12	Hours of Missing Data:	0
Minimum Daily Value:	23.0 °C	on Oct 13	Hours of Calibration:	0
Monthly Average:	23.2 °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
Oct 1	22.9	23.0	22.9	23.0	23.0	23.0	23.0	23.1	22.9	23.1	23.5	23.7	23.1	22.8	22.7	22.9	23.3	23.4	23.5	23.7	23.8	23.8	23.9	23.9	22.7	23.9	23.2
Oct 2	23.8	23.8	23.9	23.8	23.6	23.5	23.2	22.7	23.0	23.3	24.1	23.4	23.4	23.3	23.1	23.0	23.0	23.2	23.5	23.7	23.7	23.0	22.7	23.0	22.7	24.1	23.4
Oct 3	23.0	23.0	23.0	22.9	23.1	23.1	23.1	23.1	23.2	23.2	23.9	23.6	23.2	22.9	22.7	22.7	23.0	23.5	23.7	23.8	23.6	23.6	23.1	22.8	22.7	23.9	23.2
Oct 4	22.9	22.9	22.9	22.8	22.9	23.0	22.8	22.8	22.9	22.9	23.1	23.6	23.6	23.4	23.3	23.1	23.6	23.7	23.2	23.1	23.2	23.1	23.0	23.1	22.8	23.7	23.1
Oct 5	23.0	23.0	23.1	23.1	23.1	23.1	23.1	23.2	23.2	22.9	23.2	23.6	23.6	23.4	22.8	22.4	23.2	23.4	22.8	23.0	23.0	23.0	22.9	22.9	22.4	23.6	23.1
Oct 6	22.9	23.0	23.0	23.1	23.0	23.1	23.1	22.8	23.1	23.8	23.3	22.9	22.7	22.6	22.7	22.7	22.7	23.2	23.5	23.7	23.8	23.5	23.3	22.6	23.8	23.1	
Oct 7	23.1	22.9	22.7	22.7	22.8	22.8	23.0	23.1	23.5	23.9	23.3	23.2	22.7	22.6	22.6	22.5	22.5	22.8	22.9	23.6	23.8	23.8	23.6	23.8	22.5	23.9	23.1
Oct 8	23.9	23.7	23.7	23.9	23.9	24.0	23.7	23.3	23.8	23.8	23.0	22.7	22.7	22.6	22.5	22.4	22.7	22.9	23.0	23.5	23.6	23.6	23.7	23.7	22.4	24.0	23.3
Oct 9	23.7	23.7	23.7	23.8	23.8	23.8	23.9	23.8	23.9	23.5	23.0	22.7	22.7	22.6	22.5	22.7	22.9	22.9	23.1	23.5	23.7	23.6	23.6	23.6	22.5	23.9	23.4
Oct 10	23.8	23.7	23.7	24.0	23.9	23.9	23.6	23.4	23.7	23.9	23.7	23.6	23.3	22.6	22.4	22.8	23.1	23.3	23.4	23.7	23.2	22.8	22.8	23.0	22.4	24.0	23.4
Oct 11	22.9	23.1	23.1	22.9	22.9	22.8	22.8	22.9	22.9	22.8	23.5	23.6	23.0	23.0	23.6	23.5	23.5	23.8	23.8	23.8	23.8	23.5	23.3	23.4	22.8	23.8	23.3
Oct 12	23.4	23.6	23.7	23.7	23.7	23.6	23.4	23.3	23.2	23.8	23.9	23.3	23.0	22.9	22.7	22.7	22.8	23.0	23.5	23.3	22.9	22.7	22.8	22.8	22.7	23.9	23.2
Oct 13	22.7	22.8	22.8	22.8	23.0	22.9	22.8	22.9	23.0	23.0	23.7	23.9	23.3	23.2	23.1	23.0	23.1	23.5	23.2	22.9	22.9	22.8	22.6	22.7	22.6	23.9	23.0
Oct 14	22.7	22.9	22.9	22.9	23.0	23.0	23.0	23.0	23.0	22.9	23.7	23.4	23.1	23.0	22.9	23.2	23.7	23.6	23.4	23.0	22.7	22.9	22.7	22.9	22.7	23.7	23.1
Oct 15	22.8	22.9	22.9	23.0	23.1	23.0	23.0	23.0	23.0	23.0	23.1	23.7	23.8	23.8	23.5	22.9	22.9	23.3	23.7	23.6	22.9	23.0	23.0	23.0	22.8	23.8	23.2
Oct 16	23.0	23.0	23.0	23.1	23.1	23.1	23.1	23.1	23.0	23.1	24.0	23.2	22.7	22.9	23.1	23.1	23.4	23.5	23.6	23.8	23.9	23.8	23.9	23.8	22.7	24.0	23.3
Oct 17	23.5	23.3	23.2	23.2	23.2	23.1	22.9	22.6	22.8	22.7	22.7	22.9	23.3	23.5	23.9	23.2	23.0	23.4	23.2	22.8	22.8	22.8	22.8	22.8	22.6	23.9	23.1
Oct 18	22.7	22.7	22.7	22.9	22.7	22.9	22.8	22.8	22.8	23.3	23.9	23.8	23.6	23.5	23.4	23.0	23.1	23.2	23.6	23.6	23.3	23.0	22.7	22.8	22.7	23.9	23.1
Oct 19	22.9	22.8	22.8	22.9	22.9	22.9	23.0	22.9	23.2	23.6	23.8	23.4	23.6	23.8	23.9	23.9	23.9	23.8	23.6	22.9	22.8	22.9	22.9	22.9	22.8	23.9	23.3
Oct 20	23.0	23.0	23.1	23.1	23.1	23.2	23.1	23.2	23.2	23.1	23.5	23.9	23.3	23.2	22.9	22.7	22.9	23.2	22.9	23.1	23.1	23.1	23.0	23.2	22.7	23.9	23.1
Oct 21	23.1	23.1	23.3	23.2	23.3	23.2	23.3	23.3	23.3	23.3	22.9	22.5	22.2	22.2	22.7	22.8	22.8	23.1	23.1	23.2	23.2	23.1	23.2	23.2	22.2	23.3	23.0
Oct 22	23.3	23.3	23.2	23.3	23.3	23.3	23.3	23.3	23.3	23.2	23.2	23.2	23.1	23.1	23.1	23.2	23.2	23.2	23.1	23.2	23.3	23.3	23.3	23.1	23.1	23.3	23.2
Oct 23	23.3	23.3	23.3	23.4	23.4	23.4	23.3	23.4	23.4	23.4	23.2	23.2	23.1	23.0	22.8	22.7	22.7	23.1	23.3	23.5	23.6	23.6	23.7	22.7	23.7	23.7	23.3
Oct 24	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.5	23.3	23.2	23.2	23.1	23.0	22.9	23.1	23.4	23.6	23.7	23.7	23.7	22.9	23.8	23.5	23.5
Oct 25	23.6	23.6	23.7	23.7	23.8	23.8	23.7	23.7	23.8	23.7	23.5	23.4	23.3	23.3	23.3	23.2	23.3	23.3	23.4	23.4	23.4	23.4	23.4	23.5	23.2	23.8	23.5
Oct 26	23.4	23.3	23.4	23.3	23.3	23.3	23.2	23.2	23.3	23.2	23.2	23.2	22.9	23.0	23.1	23.1	23.1	23.2	23.3	23.3	23.4	23.4	23.3	23.4	22.9	23.4	23.2
Oct 27	23.3	23.3	23.2	23.4	23.4	23.4	23.4	23.4	23.4	23.5	23.3	23.1	22.9	22.8	22.7	22.8	22.9	23.2	23.4	23.4	23.4	23.4	23.5	23.5	22.7	23.5	23.3
Oct 28	23.5	23.4	23.4	23.4	23.2	23.3	23.2	23.2	23.2	23.3	23.1	23.0	23.0	22.9	22.3	22.5	22.9	23.1	23.3	23.4	23.4	23.5	23.5	23.4	22.3	23.5	23.2
Oct 29	23.6	23.5	23.5	23.5	23.6	23.5	23.5	23.6	23.6	23.5	23.2	22.9	22.8	23.0	22.9	22.8	23.1	23.3	23.4	23.5	23.4	23.4	23.4	22.8	23.6	23.3	
Oct 30	23.4	23.5	23.5	23.4	23.4	23.4	23.4	23.3	23.2	23.3	23.1	23.1	23.0	23.0	22.9	22.9	22.9	23.0	23.0	23.1	23.1	23.2	23.3	23.2	22.9	23.5	23.2
Oct 31	23.2	23.2	23.2	23.1	23.2	23.2	23.2	23.2	23.1	23.1	22.9	22.8	22.7	22.6	22.7	22.8	22.8	23.0	23.2	23.2	23.2	23.2	23.1	23.1	22.6	23.2	23.0
Diurnal Maximum	23.9	23.8	23.9	24.0	23.9	24.0	23.9	23.8	23.9	23.9	24.1	23.9	23.8	23.8	23.9	23.9	23.9	23.8	23.8	23.8	23.9	23.8	23.9	23.9	22.6	23.2	23.0
Diurnal Average	23.2	23.2	23.2	23.3	23.3	23.3	23.2	23.2	23.2	23.3	23.4	23.3	23.1	23.0	23.0	22.9	23.0	23.3	23.3	23.4	23.4	23.3	23.2	23.3	22.6	23.2	23.0

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

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per days 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 - October 2023

Summary of Hourly Averages

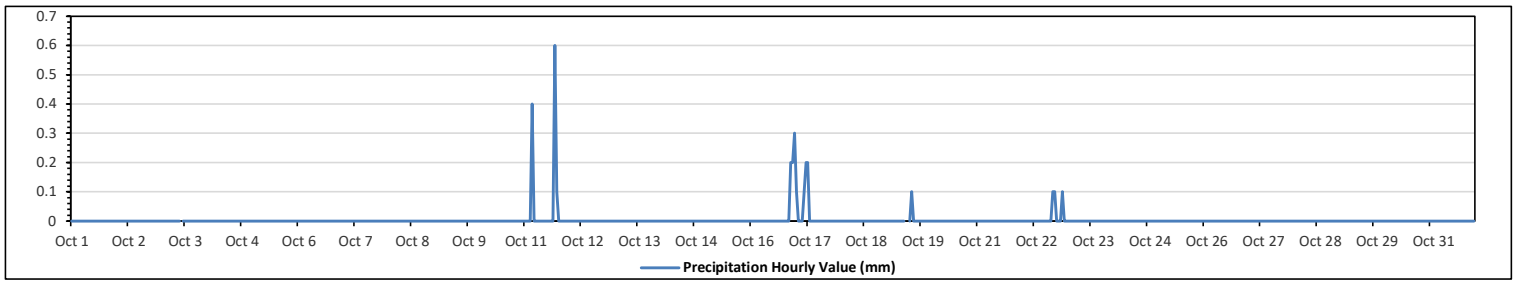
PRECIPITATION in mm

Maximum Hourly Value:	0.6 mm on Oct 11 at hr 16	Hours in Service:	744
Maximum Daily Value:	1.1 mm on Oct 11	Hours of Data:	741
Minimum Hourly Value:	0.0 mm on Oct 1 at hr 0	Hours of Missing Data:	3
Minimum Daily Value:	0.0 mm on Oct 1	Hours of Calibration:	0
Monthly Total:	2.8 mm	Operational Uptime:	99.6

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						
Oct 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
Oct 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oct 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oct 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oct 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oct 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	0	0	
Oct 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oct 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oct 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	0	0	
Oct 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	0	0	
Oct 11	0	0	0	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0.6	0.1	0	0	0	0	0	0	0	0	0	0	0	0.6	1.1	0	
Oct 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	0	0	
Oct 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	0	0	
Oct 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	0	0	0
Oct 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	0	0	0
Oct 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	0	0	0
Oct 17	0.1	0	0	0	0.1	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.3	0	0.3	0.7	0
Oct 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	0	0	0
Oct 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	0	0.1	0.1
Oct 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	0	0	0
Oct 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	0	0	0
Oct 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0.3	0
Oct 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	0	0	0
Oct 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	0	0	0
Oct 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	0	0	0
Oct 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	0	0	0
Oct 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	0	0	0
Oct 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	0	0	0
Oct 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	0	0	0
Oct 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	0	0	0
Oct 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diurnal Maximum	0.1	0.0	0.0	0.0	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.3	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	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
X InValid Data (Equipment Malfunction /Recovery)	NRM UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P Power Failure

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 - October 2023

Summary of Hourly Averages

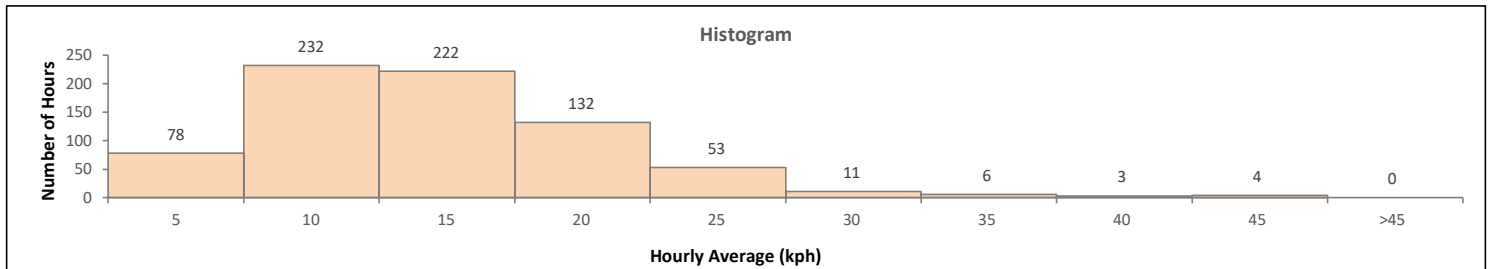
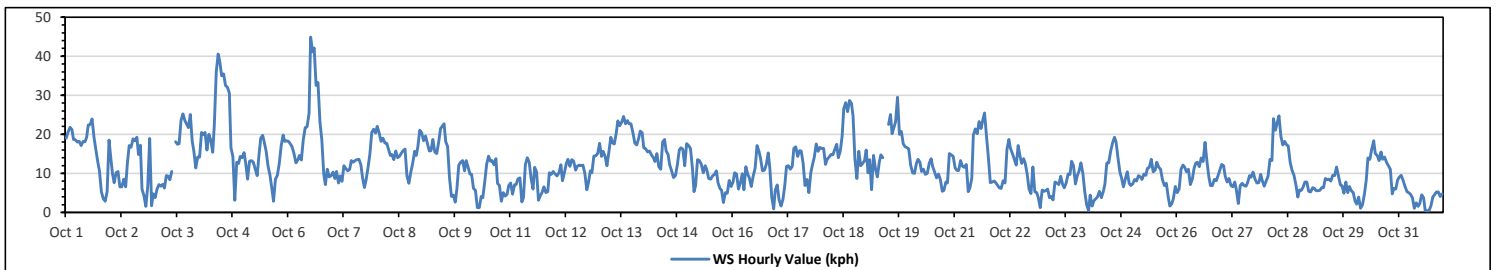
VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	44.9 kph	on Oct 6 at hr 12	Hours in Service:	744
Maximum Daily Value:	22.3 kph	on Oct 4	Hours of Data:	741
Minimum Hourly Value:	0.4 kph	on Oct 31 at hr 15	Hours of Missing Data:	3
Minimum Daily Value:	4.1 kph	on Oct 31	Hours of Calibration:	0
Monthly Average:	4.4 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
Oct 1	19.0	20.6	21.8	21.2	18.7	18.6	18.0	18.2	17.1	18.2	18.1	19.2	22.4	22.5	23.9	19.3	15.9	12.8	10.6	5.3	3.5	2.9	5.3	18.5	2.9	23.9	16.3
Oct 2	13.5	9.8	7.6	10.1	10.5	6.5	6.5	8.5	6.5	12.3	17.1	16.7	18.8	18.4	19.3	14.8	17.2	5.9	4.3	1.5	6.7	18.9	1.7	4.7	1.5	19.3	10.7
Oct 3	3.7	6.0	7.1	6.7	7.2	6.2	9.4	9.3	8.3	10.5	K	18.1	17.4	17.6	23.6	25.2	23.5	22.5	21.7	25.1	18.2	15.7	11.4	14.2	3.7	25.2	14.3
Oct 4	14.1	20.5	19.9	20.5	16.0	20.0	18.5	15.4	22.4	36.0	40.5	38.7	35.0	35.5	32.5	32.0	30.6	16.5	14.3	3.1	12.8	12.5	14.3	14.0	3.1	40.5	22.3
Oct 5	15.3	12.6	8.5	13.1	13.2	12.8	11.0	9.4	14.2	19.0	19.7	18.0	15.6	11.8	9.5	6.0	2.8	8.5	9.5	12.5	17.1	19.8	18.2	18.4	2.8	19.8	13.2
Oct 6	18.2	17.6	16.8	15.0	12.7	13.4	14.6	13.4	18.6	21.7	21.9	25.3	44.9	41.1	42.1	32.5	33.2	23.2	18.5	9.8	7.1	11.0	9.1	9.4	7.1	44.9	20.5
Oct 7	10.3	8.7	10.5	7.5	9.3	7.9	11.9	11.2	10.6	11.1	13.3	12.9	13.2	13.5	13.6	12.2	9.0	6.4	8.2	11.3	14.8	20.5	21.3	20.3	6.4	21.3	12.1
Oct 8	22.0	20.4	18.2	19.0	17.8	17.7	15.9	14.6	14.8	13.5	15.7	14.0	14.4	15.2	15.8	16.2	9.3	7.4	10.3	12.6	15.6	14.6	16.8	21.1	7.4	22.0	15.5
Oct 9	20.4	18.3	19.6	17.6	15.7	15.8	18.7	15.5	15.0	17.9	21.5	22.0	22.7	18.2	16.9	8.8	4.1	4.4	2.6	5.9	12.1	12.8	13.2	10.6	2.6	22.7	14.6
Oct 10	13.2	11.6	9.8	9.7	6.1	5.6	1.2	1.2	4.1	3.7	7.8	12.3	14.4	13.1	13.2	12.2	13.7	7.4	6.8	2.9	5.0	4.2	4.6	6.8	1.2	14.4	7.9
Oct 11	7.5	4.6	7.0	7.1	8.6	8.8	2.7	3.7	12.2	14.0	12.8	8.7	5.9	11.5	10.4	3.1	4.3	5.1	6.5	5.1	5.3	10.2	9.7	10.5	2.7	14.0	7.7
Oct 12	9.8	9.3	10.1	12.2	8.1	10.1	12.5	13.6	11.8	13.5	13.1	10.8	11.8	12.1	12.0	12.1	9.9	5.8	7.5	10.6	10.2	14.4	14.5	15.0	5.8	15.0	11.3
Oct 13	17.7	14.3	15.6	14.4	12.0	15.5	19.2	17.8	17.5	20.3	23.4	22.2	23.1	24.6	22.7	23.5	22.7	22.7	20.5	17.8	17.3	18.9	20.8	20.4	12.0	24.6	19.4
Oct 14	16.5	16.3	15.5	15.7	14.7	14.0	13.0	15.0	11.7	11.1	18.0	18.7	15.7	14.8	12.2	10.6	8.9	9.4	12.2	15.9	16.5	16.2	11.9	17.6	8.9	18.7	14.3
Oct 15	17.1	16.4	11.4	5.3	6.9	13.5	13.3	12.3	10.2	12.0	10.9	8.7	8.5	9.3	9.7	10.6	7.6	6.1	5.7	2.5	5.0	4.9	8.2	6.6	2.5	17.1	9.3
Oct 16	7.7	10.1	9.8	5.9	7.6	9.9	5.8	11.7	9.7	8.8	6.6	9.3	11.3	17.1	15.6	13.8	10.6	10.8	12.3	15.2	11.3	3.9	0.9	5.7	0.9	17.1	9.6
Oct 17	7.0	3.2	1.6	3.3	7.1	11.8	12.0	11.1	11.8	16.4	16.8	14.3	15.8	15.7	12.6	6.9	8.4	5.1	10.2	12.1	14.1	17.5	15.6	16.6	1.6	17.5	11.1
Oct 18	16.4	16.4	12.3	13.6	14.1	14.8	14.7	16.1	17.4	14.0	15.6	19.6	26.5	28.1	25.8	28.7	27.9	24.7	13.5	8.7	15.6	11.9	12.5	13.3	8.7	28.7	17.6
Oct 19	16.0	10.2	13.5	5.8	14.6	11.2	9.1	12.9	14.7	14.0	K	K	22.5	25.1	20.2	21.8	23.2	29.5	20.0	20.7	17.5	16.8	16.6	16.3	5.8	29.5	16.9
Oct 20	12.1	10.2	10.0	12.5	13.6	12.8	10.5	11.1	9.7	10.0	12.5	13.7	11.7	10.3	8.8	9.8	8.3	5.4	5.6	7.7	7.5	15.1	14.7	14.3	5.4	15.1	10.7
Oct 21	11.4	10.7	10.7	13.3	11.8	11.5	12.3	5.3	6.2	8.7	19.8	21.4	20.2	23.3	21.5	23.8	25.5	19.6	14.0	7.6	7.7	8.0	7.6	6.8	5.3	25.5	13.7
Oct 22	6.3	6.1	8.1	7.5	16.1	18.7	16.4	15.1	13.6	12.1	17.1	14.3	12.5	13.7	12.6	9.9	6.0	4.8	11.6	5.3	5.0	3.7	1.2	5.7	1.2	18.7	10.1
Oct 23	5.4	5.5	6.0	3.8	4.1	3.2	7.7	7.5	7.1	9.2	7.2	6.3	7.5	9.8	9.7	13.1	11.9	7.3	9.5	10.5	12.7	10.2	5.4	1.9	1.9	13.1	7.6
Oct 24	0.5	4.4	1.6	3.0	3.5	4.0	5.4	3.7	5.3	7.2	12.6	12.7	15.6	17.8	19.2	18.0	13.9	10.3	8.8	6.5	8.6	10.4	7.4	6.9	0.5	19.2	8.6
Oct 25	7.3	8.4	8.0	9.4	9.1	8.4	9.8	9.5	11.3	11.5	13.6	10.4	10.8	12.8	11.6	11.0	8.3	6.9	7.4	3.9	1.6	2.2	3.5	6.6	1.6	13.6	8.5
Oct 26	5.1	5.9	11.0	12.1	11.6	10.4	11.1	7.1	8.4	11.4	12.6	12.9	11.7	13.9	13.0	17.9	13.0	9.1	6.9	6.9	8.4	8.1	9.5	11.1	5.1	17.9	10.4
Oct 27	12.3	11.9	9.2	7.8	8.7	6.8	6.5	7.8	5.7	2.3	6.9	7.4	6.9	6.7	7.6	9.4	9.0	10.3	8.6	7.5	7.6	9.7	8.1	6.7	2.3	12.3	8.0
Oct 28	8.0	9.2	13.6	13.2	24.0	21.0	22.8	24.7	19.5	17.3	18.2	17.3	17.0	12.8	10.7	9.5	7.0	3.9	5.7	5.6	6.4	7.7	7.7	5.4	3.9	24.7	12.8
Oct 29	5.2	6.3	6.2	5.5	5.5	5.6	6.4	6.3	8.7	8.3	8.5	8.0	9.5	9.4	11.6	9.3	7.0	6.8	4.9	7.8	5.1	6.6	5.5	5.1	4.9	11.6	7.0
Oct 30	2.9	2.1	3.9	1.0	1.9	4.6	8.4	13.9	13.6	16.2	18.3	15.1	14.6	13.2	15.5	13.6	14.2	12.8	12.0	11.0	4.7	6.1	6.0	8.3	1.0	18.3	9.7
Oct 31	9.0	9.5	8.2	6.6	5.3	5.1	4.6	3.7	1.0	2.4	1.5	2.3	4.5	3.7	0.5	0.4	0.4	1.7	4.0	4.5	5.2	5.2	4.1	4.7	0.4	9.5	4.1
Diurnal Maximum	22.0	20.6	21.8	21.2	24.0	21.0	22.8	24.7	22.4	36.0	40.5	38.7	44.9	41.1	42.1	32.5	33.2	29.5	21.7	25.1	18.2	20.5	21.3	21.1			
Diurnal Average	11.3	10.9	10.7	10.3	10.8	11.2	11.3	11.2	11.6	13.1	15.2	15.0	16.2	16.5	15.9	14.7	13.1	10.7	10.1	9.1	9.9	11.0	9.9	11.1			

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

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.

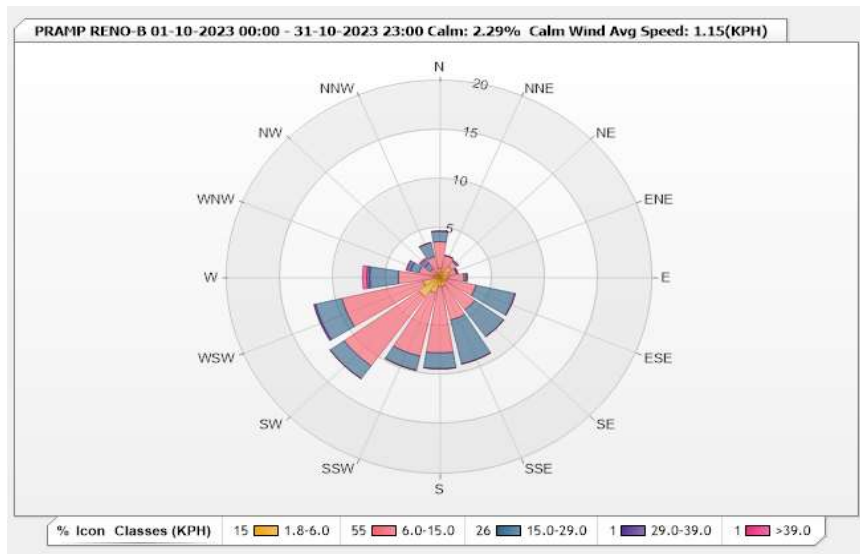


Station: PRAMP RENO-B Monitor: WDS [KPH] Monthly: 10-2023

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

Calm (WS<1.8kph): 2.29% Valid Data: 99.60%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.94	2.7	1.08	0	0	4.72
NNE	0.54	1.75	0	0	0	2.29
NE	1.35	0.67	0.13	0	0	2.15
ENE	0.94	0.67	0.13	0	0	1.74
E	0.81	1.48	0.27	0	0	2.56
ESE	0.67	2.83	3.78	0	0	7.28
SE	0.4	3.64	3.37	0	0	7.41
SSE	0.94	3.51	4.59	0	0	9.04
S	0.94	6.75	1.62	0	0	9.31
SSW	1.62	6.61	1.48	0	0	9.71
SW	2.43	8.64	1.62	0	0	12.69
WSW	1.62	7.83	2.56	0.13	0	12.14
W	0.54	3.37	2.7	0.27	0.4	7.28
WNW	0.4	1.62	0.81	0.4	0	3.23
NW	0.13	0.94	0.67	0.54	0.13	2.41
NNW	0.27	1.89	1.48	0	0	3.64
Summary	14.54	54.9	26.29	1.34	0.53	97.6



Peace River Area Monitoring Program

Reno-B Station - October 2023

Summary of Hourly Averages

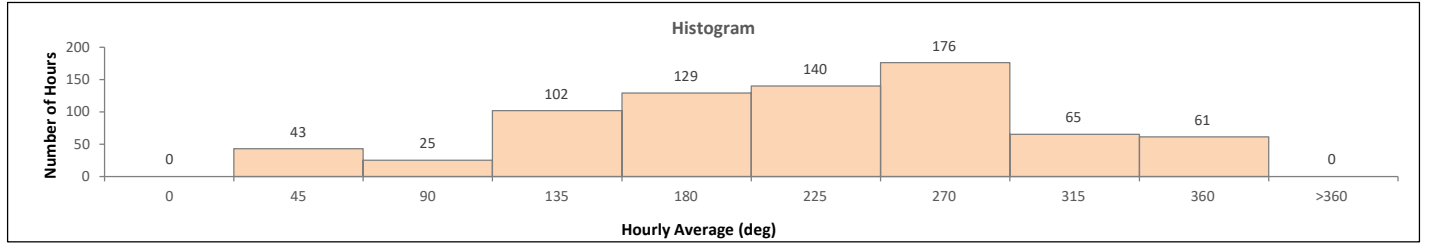
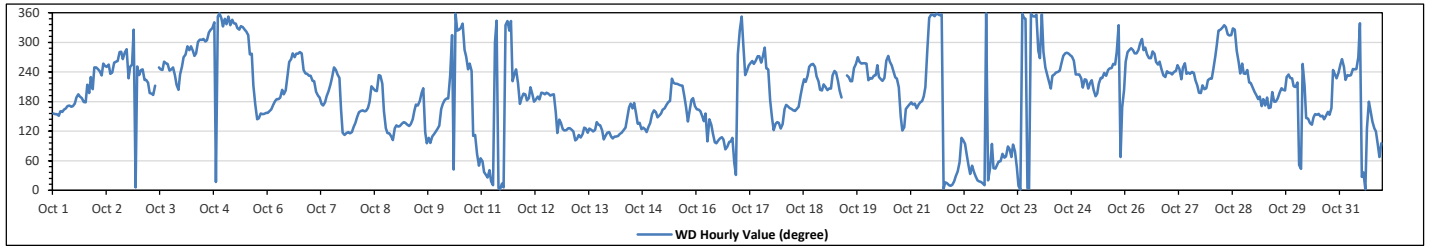
WIND DIRECTION (VWD) in sector

Monthly Average:	208 (SSW) degree	Hours in Service:	744
		Hours of Data:	741
		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		
Oct 1	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	SSE	S	S	S	SSW	S	S	S	S	SSW	SSW	SW	SSW	WSW	175	S		
Oct 2	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	WNW	SW	WSW	WSW	NW	N	WSW	264	W
Oct 3	SW	WSW	WSW	SW	SW	SW	SSW	SSW	S	SSW	K	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	SW	SSW	SSW	SW	238	SW		
Oct 4	WSW	W	W	WNW	WNW	WNW	W	W	W	WNW	NW	WNW	NW	WNW	WNW	NW	NW	NW	NNW	NNW	NNE	N	N	NNW	NNW	305	WNW	
Oct 5	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	NW	NNW	NNW	NW	NW	NW	W	W	SSW	S	SE	SE	SSE	SSE	SSE	SSE	323	NW		
Oct 6	SSE	SSE	SSE	S	S	S	S	S	SSW	SSW	SSW	SW	WSW	W	W	W	W	W	W	W	WSW	SW	SW	SW	236	SW		
Oct 7	SW	SW	SW	SSW	S	S	S	S	S	S	SSW	SSW	SW	WSW	WSW	SW	SW	SSE	ESE	ESE	ESE	ESE	ESE	ESE	180	S		
Oct 8	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	SSE	S	SSW	SSW	SSW	SSW	SW	SW	SW	SSE	SE	ESE	ESE	ESE	E	SE	160	SSE		
Oct 9	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	S	S	S	SSW	SSW	ESE	E	ESE	E	ESE	ESE	ESE	SE	143	SE		
Oct 10	SE	SSE	S	S	S	S	SW	NW	NE	N	NW	NW	NNW	NNW	WNW	W	WSW	WSW	WSW	ESE	ESE	ESE	ENE	NE	ENE	262	W	
Oct 11	ENE	NE	NNE	NNE	NE	NNE	N	WNW	NNW	N	N	NNE	N	NNW	NNW	NW	NNW	SW	SW	WSW	SW	S	S	SSW	354	N		
Oct 12	SSW	S	S	SSW	SSW	S	S	S	S	SSW	SSW	SSW	SSW	SSE	S	SSW	SSW	SSE	ESE	SE	SE	ESE	ESE	ESE	176	S		
Oct 13	SE	SE	ESE	ESE	E	ESE	ESE	ESE	ESE	SE	SE	ESE	SE	ESE	ESE	SE	SE	SE	SE	ESE	ESE	ESE	ESE	SE	120	ESE		
Oct 14	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SSE	S	SSE	S	SSE	SE	SE	ESE	SE	ESE	ESE	SE	SSE	133	SE			
Oct 15	SSE	SSE	SE	SSE	SSE	SSE	SSE	S	S	S	SW	SW	SW	SW	SSW	SSW	SSW	S	SSE	SE	SSE	S	S	S	181	S		
Oct 16	SSE	SSE	SSE	SSE	SE	SSE	E	SE	SE	ESE	E	E	E	ESE	ESE	ESE	E	E	E	ESE	NE	NNE	W	116	ESE			
Oct 17	NW	N	WNW	SW	WSW	WSW	WSW	W	WSW	W	W	W	WSW	W	WNW	WSW	WSW	S	SE	ESE	SE	SE	SE	SE	234	SW		
Oct 18	SE	SSE	S	SSE	SSE	SSE	SSE	SSE	SSE	S	SSW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	SW	SSW	SSW	SSW	206	SSW		
Oct 19	SSW	SSW	SSW	SSW	SW	WSW	WSW	SW	SSW	S	K	K	SW	SW	SW	SW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	236	SW		
Oct 20	SW	SW	SW	SW	SW	WSW	SW	SW	SW	SW	W	W	W	WSW	WSW	SW	SW	SSW	SSE	ESE	SE	SSE	SSE	S	221	SW		
Oct 21	S	S	S	SSE	S	S	S	S	SSW	W	N	N	N	N	N	N	N	N	N	N	N	NNE	NNE	N	NNE	355	N	
Oct 22	NNE	NNE	NE	ENE	ESE	E	E	ENE	NE	NNE	NE	NE	NNE	NNE	NNE	NNE	N	N	NNE	NE	E	NE	NE	NE	48	NE		
Oct 23	NE	ENE	ENE	ENE	ENE	ENE	E	ENE	E	ENE	E	ENE	NE	N	N	N	NNW	N	N	N	N	N	N	N	24	NNE		
Oct 24	W	N	W	WSW	SW	SW	SSW	SW	SW	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	SW	SW	257	WSW		
Oct 25	SSW	SW	SW	SSW	SW	SW	SSW	S	SSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W	NNW	ENE	SSE	SSW	225	SW		
Oct 26	W	W	WNW	WNW	WNW	W	W	WNW	WNW	NW	WNW	WNW	W	W	W	W	W	W	W	WSW	WSW	W	WSW	SW	273	W		
Oct 27	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	WSW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	228	SW		
Oct 28	SW	WSW	W	WNW	NW	NNW	NNW	NNW	NNW	NW	NW	NNW	NW	W	WSW	SW	WSW	SW	WSW	SW	WSW	SW	SSW	301	WNW			
Oct 29	SSW	S	S	S	S	S	S	SSE	SSE	SSW	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	SSW	195	SSW			
Oct 30	SW	NE	NE	WSW	SSW	SE	SE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SW	157	SSE		
Oct 31	WSW	W	WSW	SW	SW	SW	SW	WSW	WSW	W	NNW	NNE	NE	N	SE	S	SSE	SE	ESE	E	ENE	E	ENE	E	224	SW		

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

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 - October 2023

Summary of Hourly Averages

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

WIND SPEED																												
Maximum Hourly Value:		44.9 kph on Oct 6 at hr 12										Hours in Service:		744														
Maximum Daily Value:		22.3 kph on Oct 4										Hours of Data:		741														
Minimum Hourly Value:		0.4 kph on Oct 31 at hr 15										Hours of Missing Data:		3														
Minimum Daily Value:		4.1 kph on Oct 31										Hours of Calibration:		0														
Monthly Average:		4.4 kph										Operational Uptime:		99.6														
WIND DIRECTION																												
Monthly Average:		208 degree (SSW)																										
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
Oct 1	19.0	20.6	21.8	21.2	18.7	18.6	18.0	18.2	17.1	18.2	18.1	19.2	22.4	22.5	23.9	19.3	15.9	12.8	10.6	5.3	3.5	2.9	5.3	18.5	2.9	23.9	16.3	
Oct 2	13.5	9.8	7.6	10.1	10.5	6.5	6.5	8.5	6.5	12.3	17.1	16.7	18.8	18.4	19.3	14.8	17.2	5.9	4.3	1.5	6.7	18.9	1.7	4.7	1.5	19.3	10.7	
Oct 3	3.7	6.0	7.1	6.7	7.2	6.2	9.4	9.3	8.3	10.5	K	18.1	17.4	17.6	23.6	25.2	23.5	22.5	21.7	25.1	18.2	15.7	11.4	14.2	3.7	25.2	14.3	
Oct 4	14.1	20.5	19.9	20.5	16.0	20.0	18.5	15.4	22.4	36.0	K	18.1	17.4	17.6	23.6	25.2	23.5	22.5	21.7	25.1	18.2	15.7	11.4	14.2	3.1	40.5	22.3	
Oct 5	15.3	12.6	8.5	13.1	13.2	12.8	11.0	9.4	14.2	19.0	19.7	18.0	15.6	11.8	9.5	6.0	2.8	8.5	9.5	12.5	17.1	19.8	18.2	18.4	2.8	19.8	13.2	
Oct 6	18.2	17.6	16.8	15.0	12.7	13.4	14.6	13.4	18.6	21.7	21.9	25.3	44.9	41.1	42.1	32.5	33.2	23.2	18.5	9.8	7.1	11.0	9.1	9.4	7.1	44.9	20.5	
Oct 7	10.3	8.7	10.5	7.5	9.3	7.9	11.9	11.2	10.6	11.1	13.3	12.9	13.2	13.5	13.6	12.2	9.0	6.4	8.2	11.3	14.8	20.5	21.3	20.3	6.4	21.3	12.1	
Oct 8	22.0	20.4	18.2	19.0	17.8	17.7	15.9	14.6	14.8	13.5	15.7	14.0	14.4	15.2	15.8	16.2	9.3	7.4	10.3	12.6	15.6	14.6	16.8	21.1	7.4	22.0	15.5	
Oct 9	20.4	18.3	19.6	17.6	15.7	15.8	18.7	15.5	15.0	17.9	21.5	22.0	22.7	18.2	16.9	8.8	4.1	4.4	2.6	5.9	12.1	18.2	13.2	10.6	2.6	22.7	14.6	
Oct 10	13.2	11.6	9.8	9.7	6.1	5.6	1.2	1.2	4.1	3.7	7.8	12.3	14.4	13.1	13.2	12.2	13.7	7.4	6.8	2.9	5.0	4.2	4.6	6.8	1.2	14.4	7.9	
Oct 11	7.5	4.6	7.0	7.1	8.6	8.8	2.7	3.7	12.2	14.0	12.8	8.7	5.9	11.5	10.4	3.1	4.3	5.1	6.5	5.1	5.3	10.2	9.7	10.5	2.7	14.0	7.7	
Oct 12	9.8	9.3	10.1	12.2	8.1	10.1	12.5	13.6	11.8	13.5	13.1	10.8	11.8	12.1	12.0	12.1	9.9	5.8	7.5	10.6	10.2	14.4	14.5	15.0	5.8	15.0	11.3	
Oct 13	17.7	14.3	15.6	14.4	12.0	15.5	19.2	17.8	17.5	20.3	23.4	22.2	23.1	24.6	22.7	23.5	22.7	22.7	20.5	17.8	17.3	18.9	20.8	20.4	12.0	24.6	19.4	
Oct 14	16.5	16.3	15.5	15.7	14.7	14.0	13.0	15.0	11.7	11.1	18.0	18.7	15.7	14.8	12.2	10.6	8.9	9.4	12.2	15.9	16.5	16.2	11.9	17.6	8.9	18.7	14.3	
Oct 15	17.1	16.4	11.4	5.3	6.9	13.5	13.3	12.3	10.2	12.0	10.9	8.7	8.5	9.3	9.7	10.6	7.6	6.1	5.7	2.5	5.0	4.9	8.2	6.6	2.5	17.1	9.3	
Oct 16	7.7	10.1	9.8	5.9	7.6	9.9	5.8	11.7	9.7	8.8	6.6	9.3	11.3	17.1	15.6	13.8	10.6	10.8	12.3	15.2	11.3	3.9	0.9	5.7	0.9	17.1	9.6	
Oct 17	7.0	3.2	1.6	3.3	7.1	11.8	12.0	11.1	11.8	16.4	16.8	14.3	15.8	15.7	12.6	6.9	8.4	5.1	10.2	12.1	14.1	17.5	15.6	16.6	1.6	17.5	11.1	
Oct 18	16.4	16.4	12.3	13.6	14.1	14.8	14.7	16.1	17.4	14.0	15.6	19.6	26.5	28.1	25.8	28.7	27.9	24.7	13.5	8.7	15.6	11.9	12.5	13.3	8.7	28.7	17.6	
Oct 19	16.0	10.2	13.5	5.8	14.6	11.2	9.1	12.9	14.7	14.0	K	K	22.5	25.1	20.2	21.8	23.2	29.5	20.0	20.7	17.5	16.8	16.6	16.3	5.8	29.5	16.9	
Oct 20	12.1	10.2	10.0	12.5	13.6	12.8	10.5	11.1	9.7	10.0	12.5	13.7	11.7	10.3	8.8	9.8	8.3	5.4	5.6	7.7	7.5	15.1	14.7	14.3	5.4	15.1	10.7	
Oct 21	11.4	10.7	10.7	13.3	11.8	11.5	12.3	5.3	6.2	8.7	19.8	21.4	20.2	23.3	21.5	23.8	25.5	19.6	14.0	7.6	7.7	8.0	7.6	6.8	5.3	25.5	13.7	
Oct 22	6.3	6.1	8.1	7.5	16.1	18.7	16.4	15.1	13.6	12.1	17.1	14.3	12.5	13.7	12.6	9.9	6.0	4.8	11.6	5.3	5.0	3.7	1.2	5.7	1.2	18.7	10.1	
Oct 23	5.4	5.5	6.0	3.8	4.1	3.2	7.7	7.5	7.1	9.2	7.2	6.3	7.5	9.8	9.7	13.1	11.9	7.3	9.5	10.5	12.7	10.2	5.4	1.9	1.9	13.1	7.6	
Oct 24	0.5	4.4	1.6	3.0	3.5	4.0	5.4	3.7	5.3	7.2	12.6	12.7	15.6	17.8	19.2	18.0	13.9	10.3	8.8	6.5	8.6	10.4	7.4	6.9	0.5	19.2	8.6	
Oct 25	7.3	8.4	8.0	9.4	9.1	8.4	9.8	9.5	11.3	11.5	13.6	10.4	10.8	12.8	11.6	11.0	8.3	6.9	7.4	3.9	1.6	2.2	3.5	6.6	1.6	13.6	8.5	
Oct 26	5.1	5.9	11.0	12.1	11.6	10.4	11.1	7.1	8.4	11.4	12.6	12.9	11.7	13.9	13.0	17.9	13.0	9.1	6.9	6.9	8.4	8.1	9.5	11.1	5.1	17.9	10.4	
Oct 27	12.3	11.9	9.2	7.8	8.7	6.8	6.5	7.8	5.7	2.3	6.9	7.4	6.9	6.7	7.6	9.4	9.0	10.3	8.6	7.5	7.6	9.7	8.1	6.7	2.3	12.3	8.0	
Oct 28	8.0	9.2	13.6	13.2	24.0	21.0	22.8	24.7	19.5	17.3	18.2	17.3	17.0	12.8	10.7	9.5	7.0	3.9	5.7	5.6	6.4	7.7	7.7	5.4	3.9	24.7	12.8	
Oct 29	5.2	6.3	6.2	5.5	5.5	5.6	6.4	6.3	8.7	8.3	8.5	8.0	9.5	9.4	11.6	9.3	7.0	6.8	4.9	7.8	5.1	6.6	5.5	5.1	4.9	11.6	7.0	
Oct 30	2.9	2.1	3.9	1.0	1.9	4.6	8.4	13.9	13.6	16.2	18.3	15.1	14.6	13.2	15.5	13.6	14.2	12.8	11.0	4.7	6.1	6.0	8.3	1.0	18.3	9.7		
Oct 31	9.0	9.5	8.2	6.6	5.3	5.1	4.6	3.7	1.0	2.4	1.5	2.3	4.5	3.7	0.5	0.4	0.4	1.7	4.0	4.5	5.2	5.2	4.1	4.7	0.4	9.5	4.1	
	WWSW	W	WSW	SW	SW	SW	SW	SW	WSW	WSW	W	NNW	NNE	NE	N	SE	S	SSE	SE	ESE	E	ENE	E				224(SW)	
C	Monthly Calibration										S										Daily Zero-Span Check							
K	Collection Error										ND										No Data (Machine Not in Service)							
X	Invalid Data (Equipment Malfunction /Recovery)										NRM										Unit/Maint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)							
											Q										Quality Assurance							
											Y										Routine Maintenance							
																					P				Power Failure			

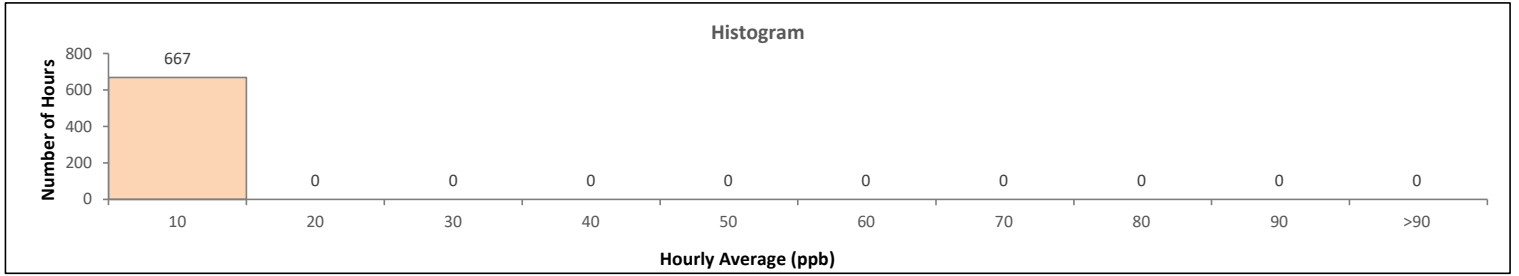
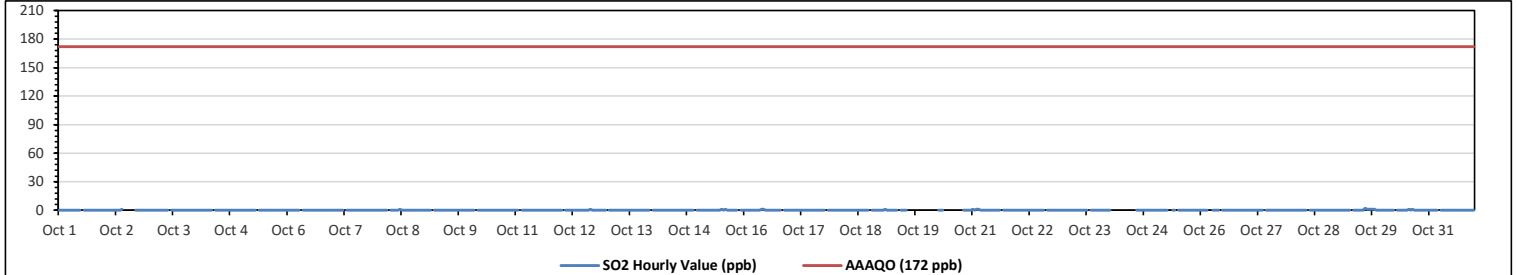
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

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 - October 2023
Summary of Hourly Averages
SULPHUR DIOXIDE (SO₂) 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 Oct 29 at hr 14										Hours in Service:					744							
Maximum Daily Value:										0.3 ppb on Oct 29										Hours of Data:					667							
Minimum Hourly Value:										0 ppb on Oct 1 at hr 0										Hours of Missing Data:					43							
Minimum Daily Value:										0.0 ppb on Oct 1										Hours of Calibration:					34							
Monthly Average:										0.0 ppb										Operational Uptime:					94.2							
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average						
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23								
Oct 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				
Oct 2	0	0	0	0	0	0	0	0	0	0	0	1	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	1	0.1	
Oct 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 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	0	0.0
Oct 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 20	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 21	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 24	0	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 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	0	0.0
Oct 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum	1	0	1	1	0	0	0	0	0	0	1	1	1	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.0
Diurnal Average	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	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

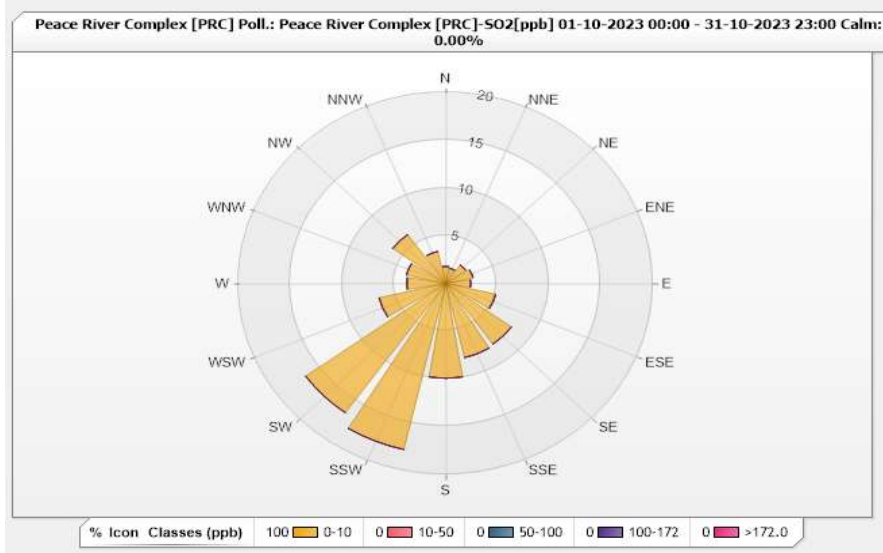


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-SO2[ppb] Monthly: 10-2023

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

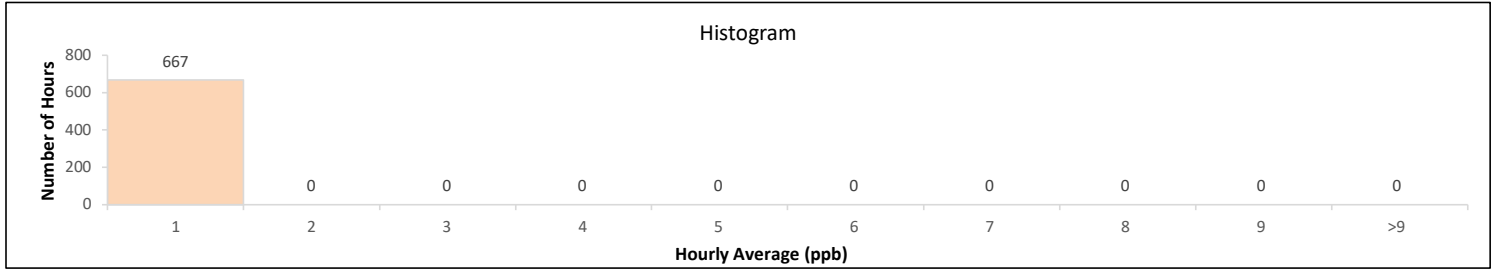
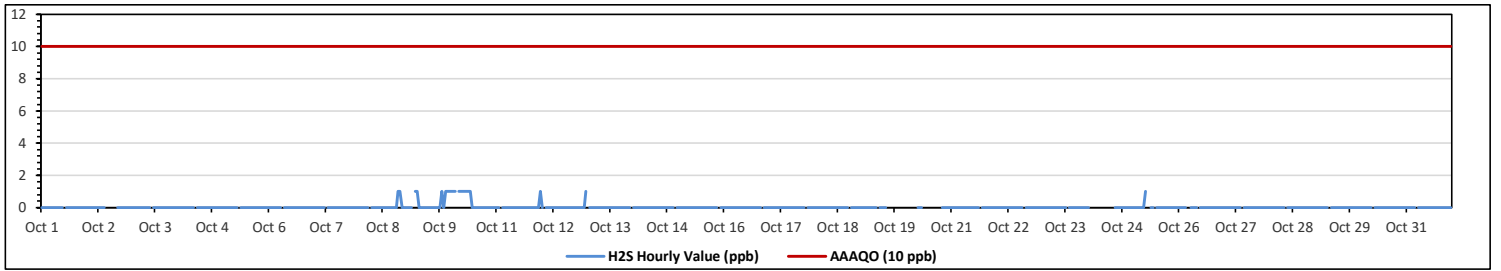
Calm: 0.00% Valid Data: 89.65% Calm Avg: 0.00 [ppm]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	1.8	0	0	0	0	1.8
NNE	1.65	0	0	0	0	1.65
NE	2.4	0	0	0	0	2.4
ENE	2.7	0	0	0	0	2.7
E	2.4	0	0	0	0	2.4
ESE	4.95	0	0	0	0	4.95
SE	7.8	0	0	0	0	7.8
SSE	7.95	0	0	0	0	7.95
S	9.9	0	0	0	0	9.9
SSW	17.84	0	0	0	0	17.84
SW	16.64	0	0	0	0	16.64
WSW	6.6	0	0	0	0	6.6
W	3.75	0	0	0	0	3.75
WNW	3.9	0	0	0	0	3.9
NW	6.3	0	0	0	0	6.3
NNW	3.45	0	0	0	0	3.45
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages
HYDROGEN SULPHIDE (H₂S) 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:										1 ppb on Oct 8 at hr 20										Hours in Service:					744									
Maximum Daily Value:										0.0 ppb on Oct 1										Hours of Data:					667									
Minimum Hourly Value:										0 ppb on Oct 1 at hr 0										Hours of Missing Data:					43									
Minimum Daily Value:										0.0 ppb on Oct 1										Hours of Calibration:					34									
Monthly Average:										0.0 ppb										Operational Uptime:					94.2									
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average								
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23										
Oct 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				
Oct 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0				
Oct 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0				
Oct 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0				
Oct 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0				
Oct 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	0.0				
Oct 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0				
Oct 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0				
Oct 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	0.0				
Oct 10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 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	0.0				
Oct 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0				
Diurnal Maximum	1	1	1	0	1	1	1	0	1	1	1	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	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

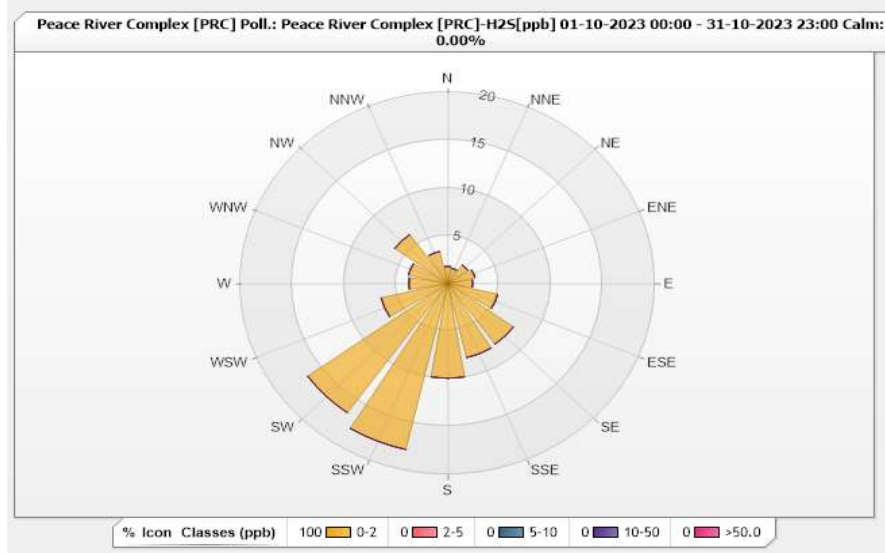


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-H2S[ppb] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 89.65% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	1.8	0	0	0	0	1.8
NNE	1.65	0	0	0	0	1.65
NE	2.4	0	0	0	0	2.4
ENE	2.7	0	0	0	0	2.7
E	2.4	0	0	0	0	2.4
ESE	4.95	0	0	0	0	4.95
SE	7.8	0	0	0	0	7.8
SSE	7.95	0	0	0	0	7.95
S	9.9	0	0	0	0	9.9
SSW	17.84	0	0	0	0	17.84
SW	16.64	0	0	0	0	16.64
WSW	6.6	0	0	0	0	6.6
W	3.75	0	0	0	0	3.75
WNW	3.9	0	0	0	0	3.9
NW	6.3	0	0	0	0	6.3
NNW	3.45	0	0	0	0	3.45
Summary	100	0	0	0	0	100

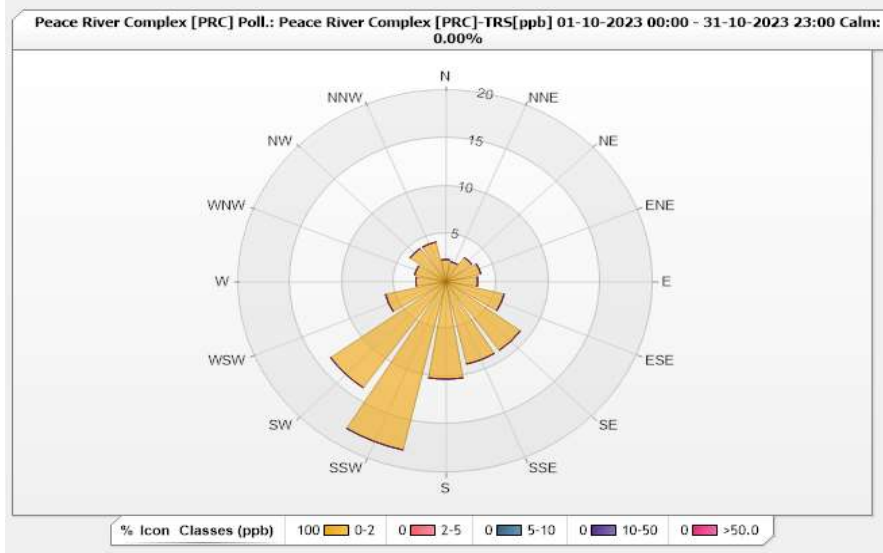


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-TRS[ppb] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 69.76% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	2.31	0	0	0	0	2.31
NNE	2.12	0	0	0	0	2.12
NE	3.08	0	0	0	0	3.08
ENE	3.47	0	0	0	0	3.47
E	3.08	0	0	0	0	3.08
ESE	5.78	0	0	0	0	5.78
SE	8.86	0	0	0	0	8.86
SSE	8.86	0	0	0	0	8.86
S	10.21	0	0	0	0	10.21
SSW	18.11	0	0	0	0	18.11
SW	13.68	0	0	0	0	13.68
WSW	5.97	0	0	0	0	5.97
W	2.89	0	0	0	0	2.89
WNW	3.08	0	0	0	0	3.08
NW	4.24	0	0	0	0	4.24
NNW	4.24	0	0	0	0	4.24
Summary	100	0	0	0	0	100



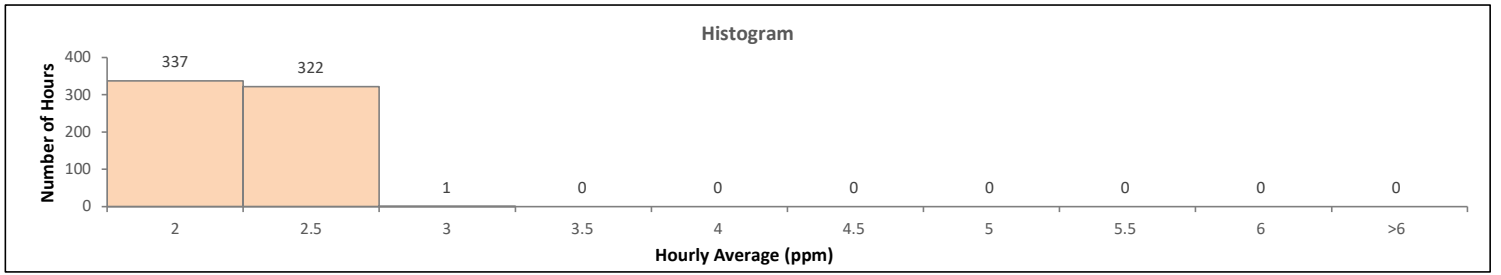
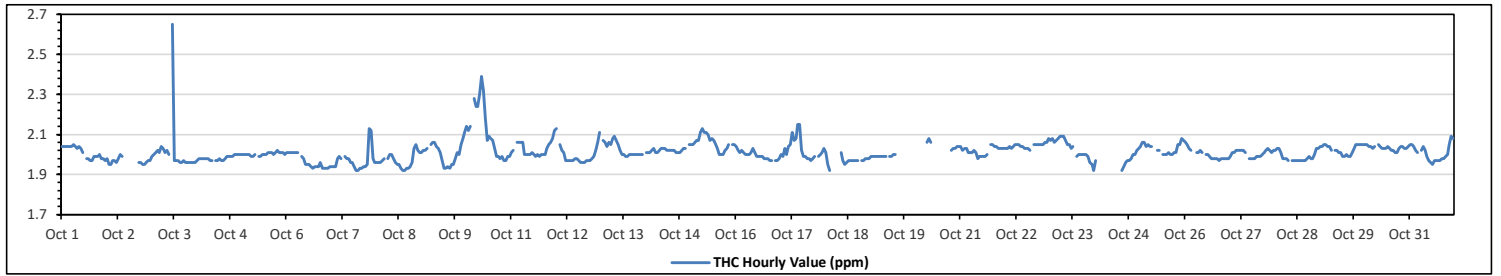
Peace River Area Monitoring Program
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages
TOTAL HYDROCARBONS (THC) in ppm

Maximum Hourly Value:	2.65 ppm	on Oct 3 at hr 11	Hours in Service:	744
Maximum Daily Value:	2.11 ppm	on Oct 10	Hours of Data:	660
Minimum Hourly Value:	1.92 ppm	on Oct 7 at hr 13	Hours of Missing Data:	48
Minimum Daily Value:	1.97 ppm	on Oct 6	Hours of Calibration:	36
Monthly Average:	2.01 ppm		Operational Uptime:	93.5

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				
Oct 1	2.04	2.04	2.04	2.04	2.04	2.04	2.05	2.04	2.03	2.04	2.03	2.01	S	1.98	1.98	1.97	1.97	1.99	1.99	1.99	2.00	1.98	1.98	1.97	1.97	1.97	1.95	2.00	NA		
Oct 2	1.98	1.95	1.95	1.97	1.97	1.96	1.98	2.00	1.99	C	C	C	C	C	C	C	C	1.96	1.96	1.95	1.95	1.96	1.97	1.97	1.97	1.97	1.97	1.97	1.97	2.05	2.01
Oct 3	1.99	2.00	2.01	2.02	2.01	2.04	2.03	2.01	2.02	2.00	S	2.65	1.97	1.97	1.97	1.96	1.96	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	2.65	2.01	
Oct 4	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.97	1.97	S	1.97	1.97	1.98	1.97	1.97	1.98	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.97	2.00	1.98	
Oct 5	2.00	2.00	2.00	2.00	2.00	1.99	1.99	2.00	S	1.99	1.99	2.00	2.00	2.00	2.01	2.01	2.01	2.00	2.01	2.02	2.01	2.01	2.01	2.00	2.00	2.00	1.99	2.02	2.00	2.00	
Oct 6	2.01	2.01	2.01	2.01	2.01	2.01	2.01	S	1.99	1.98	1.95	1.95	1.95	1.94	1.93	1.94	1.94	1.94	1.96	1.93	1.93	1.93	1.93	1.94	1.94	1.93	1.93	1.94	1.93	2.01	1.97
Oct 7	1.94	1.94	1.94	1.98	1.99	1.98	S	1.99	1.98	1.98	1.96	1.96	1.94	1.92	1.92	1.93	1.93	1.94	1.94	1.95	2.13	2.12	1.98	1.98	1.96	1.92	2.13	1.98	1.96	2.01	1.97
Oct 8	1.96	1.96	1.96	1.97	1.98	S	1.98	2.00	2.00	1.98	1.96	1.95	1.95	1.93	1.92	1.92	1.93	1.93	1.94	1.96	2.03	2.05	2.02	2.01	1.92	2.05	1.97	2.05	1.91	2.01	
Oct 9	2.01	2.02	2.02	2.03	S	2.05	2.06	2.06	2.04	2.03	2.01	1.97	1.93	1.93	1.94	1.93	1.95	1.95	1.98	2.01	2.00	2.05	2.08	2.11	1.93	2.11	1.93	2.11	2.01	1.97	
Oct 10	2.14	2.12	2.14	S	2.28	2.24	2.24	2.30	2.39	2.32	2.18	2.07	2.09	2.08	2.07	2.03	1.99	1.99	1.98	1.99	1.97	1.97	1.99	1.99	1.97	2.39	2.11	2.11	2.11	2.11	
Oct 11	2.01	2.02	S	2.06	2.06	2.06	2.06	2.00	2.00	2.00	2.01	2.00	1.99	2.00	1.99	2.00	2.00	2.00	2.00	2.03	2.05	2.06	2.08	2.12	1.99	2.12	2.03	2.03	2.03	2.03	
Oct 12	2.13	S	2.05	2.02	2.01	1.97	1.97	1.97	1.97	1.97	1.98	1.98	1.97	1.96	1.96	1.96	1.97	1.97	1.97	1.98	1.99	2.02	2.06	2.11	1.96	2.13	2.00	2.00	2.00	2.00	
Oct 13	S	2.07	2.06	2.04	2.06	2.05	2.08	2.09	2.07	2.05	2.02	2.00	2.00	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
Oct 14	2.01	2.01	2.01	2.02	2.03	2.01	2.01	2.02	2.03	2.03	2.03	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.01	2.02	2.03	2.03	2.03	S	2.05	2.01	2.05	2.02	2.02	2.02	
Oct 15	2.05	2.05	2.06	2.07	2.07	2.11	2.13	2.11	2.11	2.10	2.07	2.08	2.07	2.05	2.03	2.00	2.00	2.00	2.02	2.03	2.05	S	2.05	2.05	2.00	2.13	2.06	2.00	2.13	2.06	
Oct 16	2.04	2.02	2.01	2.02	2.01	2.00	2.00	2.00	2.01	2.03	2.01	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.97	1.97	S	1.97	1.97	1.98	1.97	2.04	2.00	2.04	2.00	
Oct 17	2.00	1.99	2.03	2.00	2.04	2.05	2.11	2.07	2.08	2.15	2.15	2.02	1.99	1.99	1.98	1.98	1.97	1.98	1.99	1.99	S	1.99	2.00	2.01	2.03	1.97	2.15	2.03	2.03	2.03	
Oct 18	2.01	1.95	1.92	X	X	X	X	X	X	2.01	1.97	1.95	1.96	1.97	1.97	1.97	1.97	1.97	1.97	1.97	S	1.97	1.97	1.98	1.98	1.92	2.01	1.97	2.01	1.97	
Oct 19	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	X	1.99	1.99	2.00	2.00	X	X	X	X	X	X	X	X	X	X	X	1.99	2.00	NA	2.00	NA	
Oct 20	X	X	X	X	X	X	X	X	X	X	X	X	2.01	X	X	X	X	X	X	X	2.02	2.03	2.03	2.04	2.04	2.01	2.08	NA	2.08	NA	
Oct 21	2.04	2.02	2.03	2.03	2.01	2.01	2.01	2.02	2.01	1.98	1.99	1.99	1.99	1.99	2.00	S	2.05	2.05	2.04	2.04	2.03	2.03	2.03	2.03	1.98	2.05	2.02	2.05	2.02	2.02	
Oct 22	2.03	2.03	2.04	2.03	2.04	2.05	2.05	2.05	2.04	2.04	2.03	2.03	2.03	2.02	S	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.06	2.06	2.08	2.02	2.08	2.04	2.04	
Oct 23	2.07	2.08	2.06	2.07	2.08	2.09	2.09	2.09	2.07	2.05	2.05	2.03	2.04	S	1.99	2.00	2.00	2.00	2.00	2.00	1.99	1.96	1.95	1.92	1.92	2.09	1.92	2.09	2.03	2.03	
Oct 24	1.97	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1.92	1.94	1.96	1.97	1.97	1.98	2.00	2.00	2.02	2.03	1.92	2.03	NA	2.03	NA	
Oct 25	2.04	2.06	2.06	2.04	2.05	2.04	2.04	X	X	2.02	2.02	S	2.00	2.00	2.00	2.01	2.00	2.00	2.01	2.01	2.05	2.05	2.08	2.07	2.00	2.08	2.03	2.08	2.03	2.03	
Oct 26	2.06	2.05	2.03	2.02	X	X	2.01	2.01	2.02	2.01	S	2.00	2.00	1.99	1.98	1.98	1.98	1.98	1.98	1.97	1.98	1.98	1.98	1.98	1.97	2.06	2.00	2.06	2.00	2.00	
Oct 27	1.99	2.01	2.01	2.02	2.02	2.02	2.02	2.02	2.01	S	1.98	1.98	1.98	1.98	1.99	1.99	1.99	2.00	2.01	2.02	2.03	2.02	2.01	2.02	1.98	2.03	2.01	2.02	2.01	2.01	
Oct 28	2.02	2.03	2.03	2.01	1.98	1.98	1.98	1.97	S	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.98	1.98	1.98	2.00	2.03	2.02	1.97	2.03	1.99	2.03	1.99	1.99	
Oct 29	2.04	2.04	2.05	2.05	2.04	2.04	2.02	S	2.02	2.02	2.01	1.99	1.99	2.00	1.99	1.99	2.01	2.03	2.05	2.05	2.05	2.05	2.05	2.05	1.99	2.05	2.03	2.05	2.03	2.03	
Oct 30	2.05	2.05	2.04	2.04	2.03	2.04	S	2.05	2.04	2.03	2.03	2.01	2.03	2.04	2.03	2.02	2.02	2.01	2.01	2.03	2.04	2.04	2.03	2.04	2.01	2.05	2.05	2.04	2.01	2.05	2.03
Oct 31	2.05	2.05	2.04	2.02	2.01	S	2.02	2.04	2.02	1.99	1.97	1.96	1.95	1.97	1.97	1.97	1.97	1.98	1.98	1.99	2.00	2.05	2.09	2.08	1.95	2.09	2.01	2.09	2.01	2.01	
Diurnal Maximum	2.14	2.12	2.14	2.07	2.28	2.24	2.24	2.30	2.39	2.32	2.18	2.65	2.09	2.08	2.07	2.05	2.05	2.05	2.05	2.05	2.13	2.12	2.09	2.12	2.00	2.12	2.09	2.12	2.09	2.12	
Diurnal Average	2.02	2.02	2.02	2.02	2.03	2.03	2.04	2.04	2.04	2.04	2.03	2.01	2.02	1.99	1.99	1.98	1.98	1.98	1.99	1.99	2.00	2.01	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.02	

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

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.

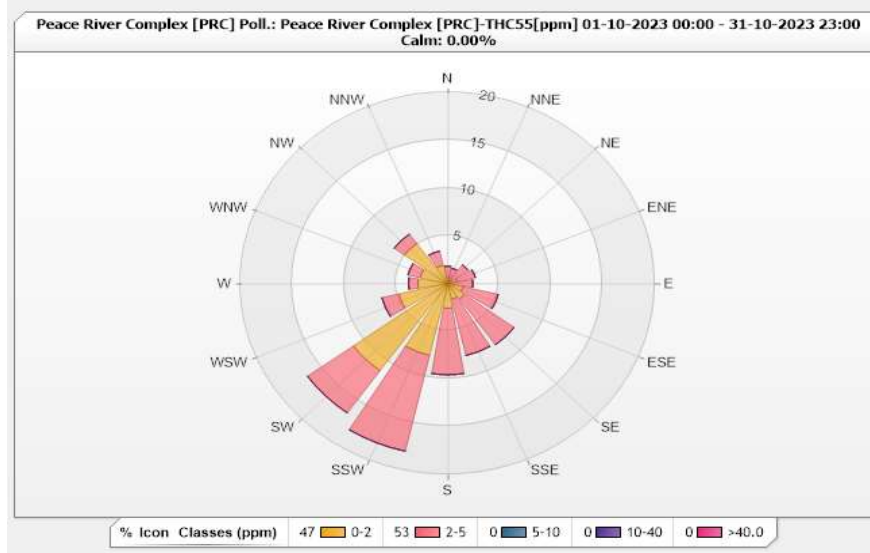


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-THC55[ppm] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 88.71% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.61	1.21	0	0	0	1.82
NNE	0.3	1.36	0	0	0	1.66
NE	0.3	2.12	0	0	0	2.42
ENE	0.91	1.82	0	0	0	2.73
E	0.45	1.97	0	0	0	2.42
ESE	1.52	3.48	0	0	0	5
SE	1.97	5.91	0	0	0	7.88
SSE	1.67	6.06	0	0	0	7.73
S	2.58	6.97	0	0	0	9.55
SSW	7.73	10.3	0	0	0	18.03
SW	11.21	5.45	0	0	0	16.66
WSW	4.85	1.67	0	0	0	6.52
W	2.88	0.91	0	0	0	3.79
WNW	2.73	1.21	0	0	0	3.94
NW	5.15	1.21	0	0	0	6.36
NNW	1.97	1.52	0	0	0	3.49
Summary	46.83	53.17	0	0	0	100



Peace River Area Monitoring Program
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages

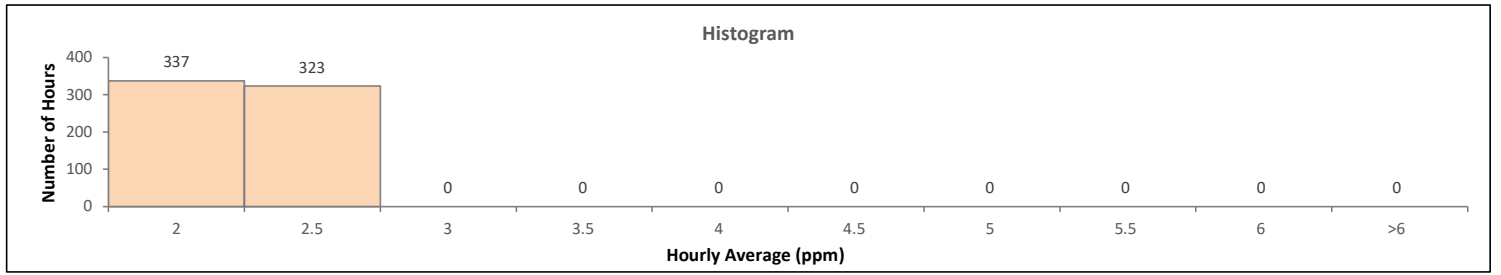
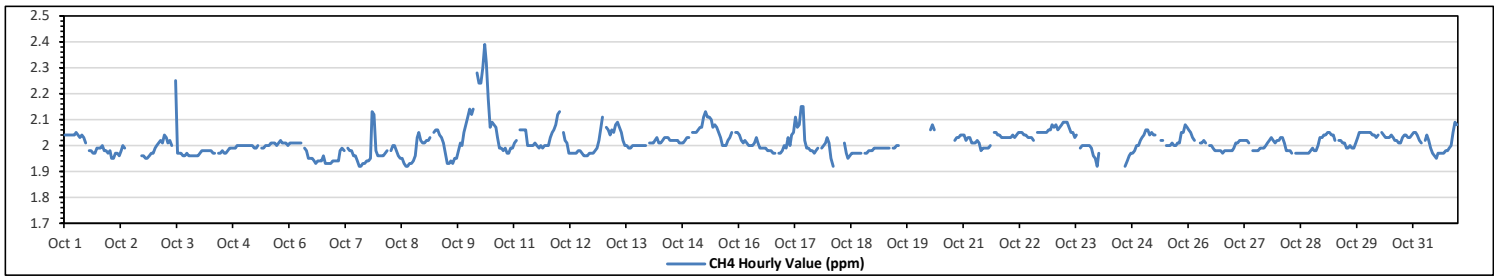
METHANE (CH4) in ppm

Maximum Hourly Value:	2.39 ppm	on Oct 10 at hr 8	Hours in Service:	744
Maximum Daily Value:	2.11 ppm	on Oct 10	Hours of Data:	660
Minimum Hourly Value:	1.92 ppm	on Oct 7 at hr 13	Hours of Missing Data:	48
Minimum Daily Value:	1.97 ppm	on Oct 6	Hours of Calibration:	36
Monthly Average:	2.01 ppm		Operational Uptime:	93.5

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					
Oct 1	2.04	2.04	2.04	2.04	2.04	2.04	2.05	2.04	2.03	2.04	2.03	2.01	S	1.98	1.98	1.97	1.97	1.99	1.99	1.99	2.00	1.98	1.98	1.97	1.97	1.97	1.95	2.00	NA	1.97	2.05	2.01
Oct 2	1.98	1.95	1.95	1.97	1.97	1.96	1.98	2.00	1.99	C	C	C	C	C	C	C	C	1.96	1.96	1.95	1.95	1.96	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97
Oct 3	1.99	2.00	2.01	2.02	2.01	2.04	2.03	2.01	2.02	2.00	S	2.25	1.97	1.97	1.97	1.96	1.96	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
Oct 4	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.97	1.97	S	1.97	1.97	1.98	1.97	1.97	1.98	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Oct 5	2.00	2.00	2.00	2.00	2.00	1.99	1.99	2.00	S	1.99	1.99	2.00	2.00	2.00	2.01	2.01	2.01	2.00	2.01	2.02	2.01	2.01	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Oct 6	2.01	2.01	2.01	2.01	2.01	2.01	2.01	S	1.99	1.98	1.95	1.95	1.95	1.94	1.93	1.94	1.94	1.94	1.96	1.93	1.93	1.93	1.93	1.94	1.96	1.93	1.93	1.93	1.94	1.93	2.01	1.97
Oct 7	1.94	1.94	1.94	1.98	1.99	1.99	S	1.99	1.98	1.98	1.96	1.96	1.94	1.92	1.92	1.93	1.93	1.94	1.94	1.95	2.13	2.12	1.98	1.98	1.96	1.92	2.13	1.98	1.96	1.92	2.13	1.97
Oct 8	1.96	1.96	1.96	1.97	1.98	S	1.98	2.00	2.00	1.98	1.96	1.95	1.95	1.93	1.92	1.92	1.93	1.93	1.94	1.96	2.03	2.05	2.02	2.01	1.92	2.05	1.97	1.92	2.05	1.97	2.05	1.97
Oct 9	2.01	2.02	2.02	2.03	S	2.05	2.06	2.06	2.04	2.03	2.01	1.97	1.93	1.93	1.94	1.93	1.95	1.95	1.98	2.01	2.00	2.05	2.08	2.11	1.93	2.11	2.01	1.93	2.11	2.01	1.97	2.11
Oct 10	2.14	2.12	2.14	S	2.28	2.24	2.24	2.30	2.39	2.32	2.18	2.07	2.09	2.08	2.07	2.03	1.99	1.99	1.98	1.99	1.97	1.97	1.99	1.99	1.97	1.99	1.97	1.99	1.97	2.39	2.11	2.11
Oct 11	2.01	2.02	S	2.06	2.06	2.06	2.00	2.00	2.00	2.01	2.00	1.99	2.00	1.99	2.00	1.99	2.00	2.00	2.00	2.03	2.05	2.06	2.08	2.12	1.99	2.12	2.03	1.99	2.12	2.03	1.99	2.12
Oct 12	2.13	S	2.05	2.02	2.01	1.97	1.97	1.97	1.97	1.97	1.98	1.98	1.97	1.96	1.96	1.96	1.97	1.97	1.97	1.98	1.99	2.02	2.06	2.11	1.96	2.13	2.00	1.96	2.13	2.00	1.96	2.13
Oct 13	S	2.07	2.06	2.04	2.06	2.05	2.08	2.09	2.07	2.05	2.02	2.00	2.00	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Oct 14	2.01	2.01	2.01	2.02	2.03	2.01	2.01	2.02	2.03	2.03	2.03	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.01	2.02	2.03	2.03	S	2.05	2.01	1.99	2.05	2.02	2.01	1.99	2.05	2.02
Oct 15	2.05	2.05	2.06	2.07	2.07	2.11	2.13	2.11	2.11	2.10	2.07	2.08	2.07	2.05	2.03	2.00	2.00	2.00	2.02	2.03	2.05	S	2.05	2.05	2.00	2.13	2.06	2.00	2.13	2.06	2.00	2.13
Oct 16	2.04	2.02	2.01	2.02	2.01	2.00	2.00	2.00	2.01	2.03	2.01	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.97	1.97	S	1.97	1.97	1.98	1.97	2.04	2.00	1.97	2.04	2.00	1.97
Oct 17	2.00	1.99	2.03	2.00	2.04	2.05	2.11	2.07	2.08	2.15	2.15	2.02	1.99	1.99	1.98	1.98	1.97	1.98	1.99	1.99	S	1.99	2.00	2.01	2.03	1.97	2.15	2.03	1.97	2.15	2.03	1.97
Oct 18	2.01	1.95	1.92	X	X	X	X	X	X	2.01	1.97	1.95	1.96	1.97	1.97	1.97	1.97	1.97	1.97	1.97	S	1.97	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98
Oct 19	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	X	1.99	1.99	2.00	2.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1.99
Oct 20	X	X	X	X	X	X	2.06	2.08	2.06	X	X	X	2.01	X	X	X	X	X	X	X	2.02	2.03	2.03	2.04	2.04	2.01	2.08	NA	2.01	2.08	NA	2.01
Oct 21	2.04	2.02	2.03	2.03	2.01	2.01	2.01	2.02	2.01	1.98	1.99	1.99	1.99	1.99	2.00	S	2.05	2.05	2.04	2.04	2.03	2.03	2.03	2.03	2.03	1.98	2.05	2.02	1.98	2.05	2.02	1.98
Oct 22	2.03	2.03	2.04	2.03	2.04	2.05	2.05	2.05	2.04	2.04	2.03	2.03	2.03	2.02	S	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.06	2.06	2.08	2.02	2.08	2.04	2.02	2.08	2.04	2.02
Oct 23	2.07	2.08	2.06	2.07	2.08	2.09	2.09	2.09	2.07	2.05	2.05	2.03	2.04	S	1.99	2.00	2.00	2.00	2.00	2.00	1.99	1.96	1.95	1.92	1.92	1.92	2.09	2.03	1.92	2.09	2.03	1.92
Oct 24	1.97	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1.92	1.94	1.96	1.97	1.97	1.98	2.00	2.00	2.02	2.03	1.92	2.03	1.92	2.03	2.03	1.92	2.03
Oct 25	2.04	2.06	2.06	2.04	2.05	2.04	2.04	X	X	2.02	2.02	S	2.00	2.00	2.00	2.01	2.00	2.00	2.01	2.01	2.05	2.05	2.08	2.07	2.00	2.08	2.03	2.00	2.08	2.03	2.00	2.08
Oct 26	2.06	2.05	2.03	2.02	X	X	2.01	2.01	2.02	2.01	S	2.00	2.00	1.99	1.98	1.98	1.98	1.98	1.98	1.97	1.98	1.98	1.98	1.98	1.98	1.97	2.06	2.00	1.97	2.06	2.00	1.97
Oct 27	1.99	2.01	2.01	2.02	2.02	2.02	2.02	2.02	2.01	S	1.98	1.98	1.98	1.98	1.99	1.99	1.99	2.00	2.01	2.02	2.03	2.02	2.01	2.02	1.98	2.03	2.01	1.98	2.03	2.01	1.98	2.03
Oct 28	2.02	2.03	2.03	2.01	1.98	1.98	1.98	1.97	S	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.99	1.98	1.98	2.00	2.03	2.03	1.97	2.03	1.97	2.03	1.97	2.03	1.99	1.99
Oct 29	2.04	2.04	2.05	2.05	2.04	2.04	2.02	S	2.02	2.02	2.01	1.99	1.99	2.00	1.99	1.99	2.01	2.03	2.05	2.05	2.05	2.05	2.05	2.05	1.99	2.05	2.05	1.99	2.05	2.05	2.03	1.99
Oct 30	2.05	2.05	2.04	2.04	2.03	2.04	S	2.05	2.04	2.03	2.03	2.01	2.03	2.04	2.03	2.02	2.01	2.01	2.03	2.04	2.04	2.03	2.03	2.04	2.01	2.01	2.05	2.04	2.01	2.05	2.03	2.01
Oct 31	2.05	2.05	2.04	2.02	2.01	S	2.02	2.04	2.02	1.99	1.97	1.96	1.95	1.97	1.97	1.97	1.97	1.98	1.98	1.99	2.00	2.05	2.09	2.12	2.09	2.12	1.95	2.09	2.01	2.09	2.01	1.95
Diurnal Maximum	2.14	2.12	2.14	2.07	2.28	2.24	2.24	2.30	2.39	2.32	2.18	2.25	2.09	2.08	2.07	2.05	2.05	2.05	2.05	2.05	2.13	2.12	2.09	2.12	2.09	2.12	2.09	2.12	2.09	2.12	2.09	2.12
Diurnal Average	2.02	2.02	2.02	2.02	2.03	2.03	2.04	2.04	2.04	2.04	2.03	2.01	2.01	1.99	1.99	1.98	1.98	1.98	1.98	1.99	1.99	2.00	2.01	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02

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

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.

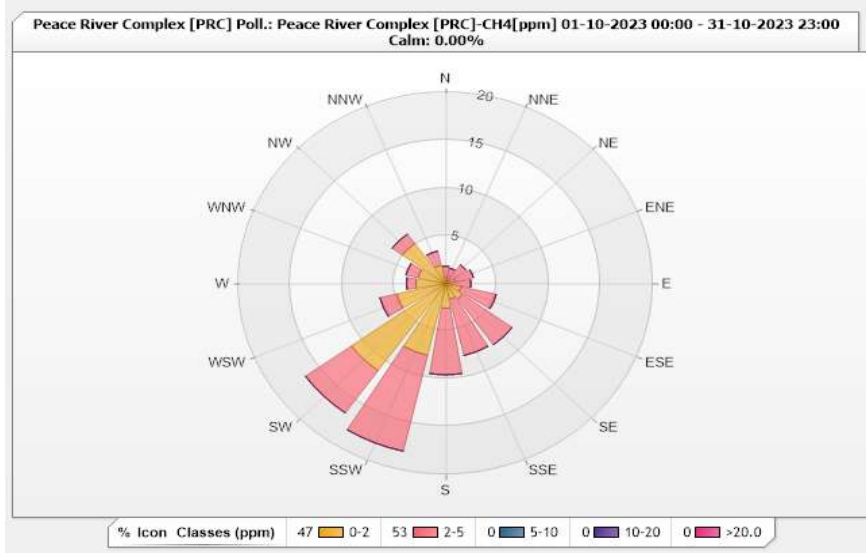


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-CH4[ppm] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 88.71% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.61	1.21	0	0	0	1.82
NNE	0.3	1.36	0	0	0	1.66
NE	0.3	2.12	0	0	0	2.42
ENE	0.91	1.82	0	0	0	2.73
E	0.45	1.97	0	0	0	2.42
ESE	1.52	3.48	0	0	0	5
SE	1.97	5.91	0	0	0	7.88
SSE	1.67	6.06	0	0	0	7.73
S	2.58	6.97	0	0	0	9.55
SSW	7.73	10.3	0	0	0	18.03
SW	11.21	5.45	0	0	0	16.66
WSW	4.85	1.67	0	0	0	6.52
W	2.88	0.91	0	0	0	3.79
WNW	2.73	1.21	0	0	0	3.94
NW	5.15	1.21	0	0	0	6.36
NNW	1.97	1.52	0	0	0	3.49
Summary	46.83	53.17	0	0	0	100

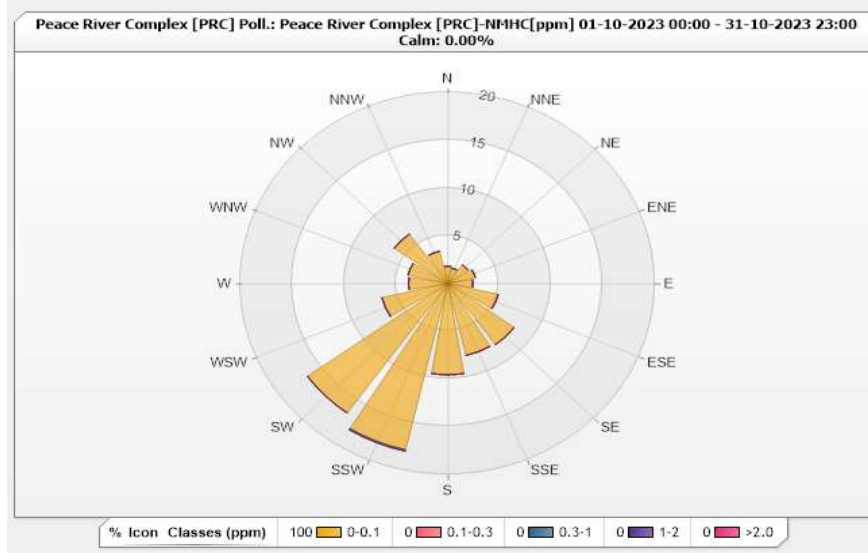


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-NMHC[ppm] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 88.71% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	1.82	0	0	0	0	1.82
NNE	1.67	0	0	0	0	1.67
NE	2.42	0	0	0	0	2.42
ENE	2.73	0	0	0	0	2.73
E	2.42	0	0	0	0	2.42
ESE	5	0	0	0	0	5
SE	7.88	0	0	0	0	7.88
SSE	7.73	0	0	0	0	7.73
S	9.55	0	0	0	0	9.55
SSW	17.88	0	0.15	0	0	18.03
SW	16.67	0	0	0	0	16.67
WSW	6.52	0	0	0	0	6.52
W	3.79	0	0	0	0	3.79
WNW	3.94	0	0	0	0	3.94
NW	6.36	0	0	0	0	6.36
NNW	3.48	0	0	0	0	3.48
Summary	100	0	0.15	0	0	100



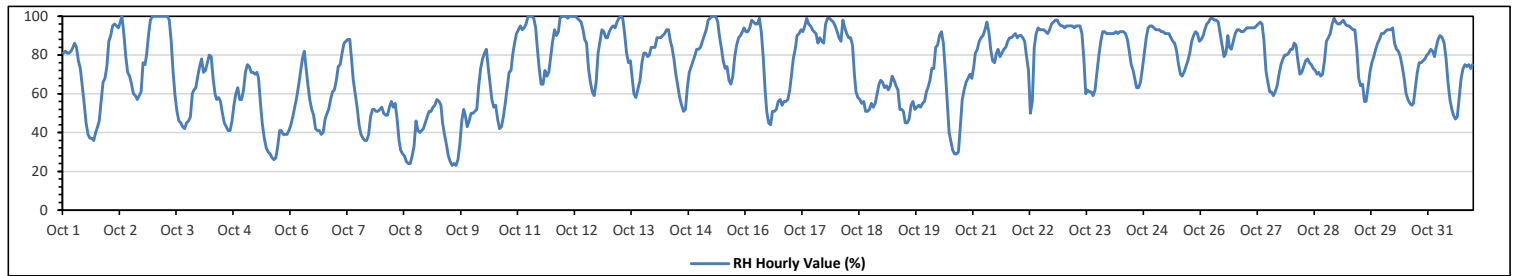
Peace River Area Monitoring Program
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	100	%	on Oct 2 at hr 7	Hours in Service:	744
Maximum Daily Value:	91.2	%	on Oct 17	Hours of Data:	744
Minimum Hourly Value:	23	%	on Oct 9 at hr 13	Hours of Missing Data:	0
Minimum Daily Value:	40.8	%	on Oct 8	Hours of Calibration:	0
Monthly Average:	73.1	%		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
Oct 1	81	82	81	81	82	84	86	84	77	73	64	55	45	39	37	37	36	40	43	46	56	66	68	74	36	86	63.2
Oct 2	87	90	95	96	95	94	97	100	91	79	71	69	65	60	59	57	59	61	76	75	80	90	98	100	57	100	81.0
Oct 3	100	100	100	100	100	100	100	100	98	87	71	59	51	46	45	43	42	45	46	48	60	62	63	69	42	100	72.3
Oct 4	74	78	71	72	76	80	79	68	60	57	58	56	50	45	43	41	41	46	54	60	63	57	57	62	41	80	60.3
Oct 5	71	75	74	71	71	70	71	68	55	44	37	32	30	29	27	26	27	33	41	41	39	39	39	41	26	75	48.0
Oct 6	44	48	53	58	64	71	78	82	74	65	57	52	49	42	41	41	39	40	47	50	52	57	61	62	39	82	55.3
Oct 7	67	74	75	81	86	87	88	88	77	67	60	53	44	39	37	36	36	39	48	52	52	51	51	52	36	88	60.0
Oct 8	53	50	49	49	53	56	53	55	47	36	31	29	28	25	24	24	28	33	46	41	40	41	42	45	24	56	40.8
Oct 9	48	51	51	53	54	57	56	54	45	39	34	28	25	23	24	23	26	34	46	52	49	43	46	50	23	57	42.1
Oct 10	50	51	52	64	73	78	81	83	73	66	57	53	54	47	42	43	48	55	63	71	72	80	86	91	42	91	63.9
Oct 11	93	95	93	94	96	100	100	100	99	94	84	73	65	65	72	69	71	79	87	93	90	92	99	100	65	100	87.6
Oct 12	100	100	99	100	100	100	100	99	98	97	93	88	86	73	66	61	59	66	81	87	93	92	89	89	59	100	88.2
Oct 13	92	94	95	94	97	99	100	99	91	81	76	77	69	60	58	62	67	76	81	81	79	80	84	84	58	100	82.3
Oct 14	84	89	89	89	90	91	93	93	87	84	78	70	64	58	54	51	52	63	71	74	77	80	83	83	51	93	77.0
Oct 15	84	87	90	93	98	99	100	100	100	97	90	84	77	73	74	67	65	69	79	85	89	90	92	94	65	100	86.5
Oct 16	92	92	94	98	97	96	96	99	92	79	62	51	45	44	51	51	52	56	57	54	56	56	57	62	44	99	70.4
Oct 17	69	78	83	90	91	93	92	95	99	96	95	93	92	91	86	89	87	86	96	99	99	98	97	95	69	99	91.2
Oct 18	92	89	87	98	94	91	89	89	85	70	61	58	57	55	56	51	51	52	55	53	55	60	65	67	51	98	70.0
Oct 19	66	63	64	62	64	69	67	64	62	52	52	51	45	45	47	54	56	52	53	54	53	55	56	61	45	69	57.0
Oct 20	63	67	73	73	84	85	90	92	86	72	56	40	36	31	29	29	30	43	57	62	66	68	70	68	29	92	61.3
Oct 21	74	81	83	87	89	90	93	97	92	83	77	76	81	83	79	81	83	84	87	89	89	90	91	89	74	97	85.3
Oct 22	90	90	89	87	79	72	50	56	84	91	94	93	93	93	92	91	93	96	97	98	98	96	95	95	50	98	88.0
Oct 23	94	95	95	95	95	94	95	95	95	91	78	60	62	61	61	59	62	71	80	87	92	92	91	91	59	95	83.0
Oct 24	91	91	91	92	91	92	92	91	88	82	75	72	68	63	63	66	73	81	89	94	95	95	94	63	95	84.2	
Oct 25	93	93	93	92	92	91	91	91	89	87	86	82	75	70	69	71	74	77	81	87	90	92	91	87	69	93	85.2
Oct 26	88	90	93	96	97	99	99	98	98	97	91	85	79	81	90	84	83	87	91	93	93	92	92	93	79	99	91.2
Oct 27	94	94	94	94	94	95	96	97	96	87	72	66	61	61	59	61	64	70	75	78	80	80	81	83	59	97	80.5
Oct 28	83	86	85	77	70	71	74	77	78	76	75	73	72	70	71	69	70	77	87	89	91	96	99	97	69	99	79.7
Oct 29	96	96	97	98	96	95	95	94	93	93	83	68	64	65	56	63	71	76	79	83	86	88	91	56	98	82.6	
Oct 30	91	92	93	93	93	94	86	83	82	79	74	68	60	57	55	54	55	63	71	76	76	77	78	80	54	94	76.3
Oct 31	81	83	82	79	84	88	90	89	86	78	66	57	52	49	47	48	58	68	73	75	74	75	73	75	47	90	72.1
Diurnal Maximum	100	100	100	100	100	100	100	100	97	95	93	93	93	92	91	93	96	97	99	99	98	99	100				
Diurnal Average	80.2	82.1	82.7	84.1	85.3	86.5	86.4	86.5	83.2	76.9	69.8	63.7	59.6	56.4	55.3	54.6	56.2	61.5	68.6	71.5	73.5	75.1	76.7	78.2			

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

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



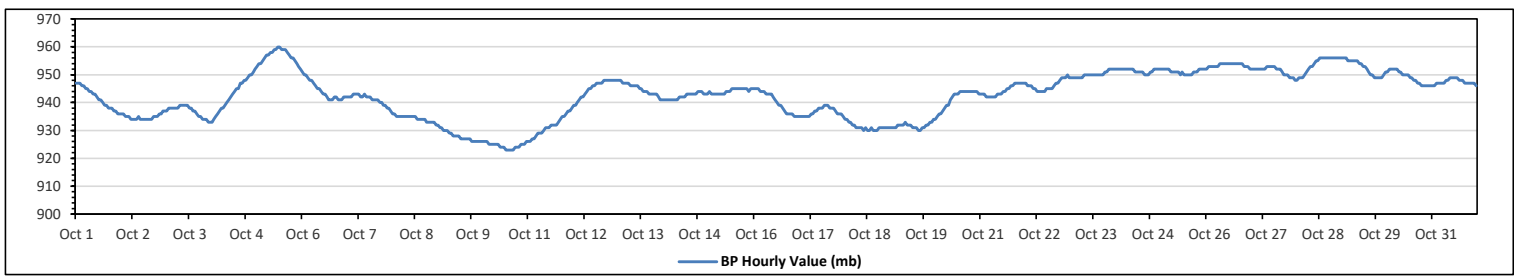
Peace River Area Monitoring Program
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	960	mb	on Oct 5 at hr 11	Hours in Service:	744
Maximum Daily Value:	957	mb	on Oct 5	Hours of Data:	744
Minimum Hourly Value:	923	mb	on Oct 10 at hr 12	Hours of Missing Data:	0
Minimum Daily Value:	925	mb	on Oct 10	Hours of Calibration:	0
Monthly Average:	943	mb		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
Oct 1	947	947	947	946	946	945	945	944	944	943	943	942	941	941	940	939	939	938	938	938	937	937	936	936	936	947	942
Oct 2	936	936	935	935	935	934	934	934	934	935	934	934	934	934	934	934	935	935	935	936	936	937	937	937	937	937	935
Oct 3	937	938	938	938	938	938	938	939	939	939	939	939	938	938	937	937	936	935	935	934	934	934	933	933	933	939	937
Oct 4	933	934	935	936	937	938	938	939	940	941	942	943	944	945	945	947	947	948	948	949	950	950	951	952	952	933	943
Oct 5	953	954	954	955	956	957	957	958	958	959	959	960	960	959	959	959	958	957	956	956	955	954	953	952	952	960	957
Oct 6	951	950	950	949	948	948	947	946	945	945	944	943	943	942	941	941	941	942	942	941	941	941	942	942	941	951	944
Oct 7	942	942	942	943	943	943	943	944	945	945	946	946	947	947	947	947	948	948	948	948	948	948	948	948	948	937	941
Oct 8	936	936	935	935	935	935	935	935	935	935	935	935	935	934	934	934	934	934	933	933	933	933	932	932	932	936	934
Oct 9	932	931	931	930	930	930	929	929	928	928	928	928	927	927	927	927	927	926	926	926	926	926	926	926	926	932	928
Oct 10	926	926	926	925	925	925	925	925	925	924	924	924	923	923	923	923	923	924	924	924	925	925	925	925	923	926	925
Oct 11	926	926	927	927	928	929	929	929	930	931	931	931	932	932	932	932	933	934	935	935	936	937	937	938	926	938	932
Oct 12	939	939	940	941	942	942	943	944	945	945	946	946	947	947	947	947	948	948	948	948	948	948	948	948	939	948	945
Oct 13	948	948	947	947	947	947	946	946	946	946	946	945	945	944	944	944	943	943	943	943	943	943	942	941	941	948	945
Oct 14	941	941	941	941	941	941	941	941	942	942	942	942	943	943	943	943	943	943	944	944	944	943	943	943	941	944	942
Oct 15	944	943	943	943	943	943	943	943	943	944	944	944	945	945	945	945	945	945	945	945	945	944	945	945	943	945	944
Oct 16	945	945	945	944	944	944	943	943	943	943	942	941	940	939	939	938	937	936	936	936	936	935	935	935	935	945	940
Oct 17	935	935	935	935	935	935	936	936	937	937	938	938	938	939	939	939	938	938	938	937	936	936	935	935	935	939	937
Oct 18	934	934	933	933	932	932	931	931	931	931	930	931	930	930	931	930	930	931	931	931	931	931	931	931	930	934	931
Oct 19	931	931	931	931	932	932	932	932	933	932	932	931	931	931	930	930	931	931	932	932	933	933	933	934	930	934	932
Oct 20	934	935	936	936	937	938	939	939	941	942	943	943	943	944	944	944	944	944	944	944	944	944	944	943	934	944	941
Oct 21	943	943	943	942	942	942	942	942	943	943	943	944	944	944	945	945	946	946	947	947	947	947	947	947	942	947	944
Oct 22	947	946	946	946	945	945	944	944	944	944	944	945	945	945	945	946	947	947	948	949	949	949	950	949	944	950	946
Oct 23	949	949	949	949	949	949	949	950	950	950	950	950	950	950	950	950	950	951	951	951	952	952	952	952	949	952	950
Oct 24	952	952	952	952	952	952	952	952	952	951	951	951	951	951	951	950	950	950	951	951	951	952	952	952	950	952	951
Oct 25	952	952	952	952	952	951	951	951	951	951	950	951	950	950	950	950	950	951	951	951	952	952	952	952	950	952	951
Oct 26	952	953	953	953	953	953	953	954	954	954	954	954	954	954	954	954	954	954	954	954	953	953	953	952	952	954	953
Oct 27	952	952	952	952	952	952	952	952	953	953	953	953	953	952	952	952	951	950	950	950	949	949	949	948	948	954	951
Oct 28	948	949	949	949	950	951	952	953	953	954	955	955	956	956	956	956	956	956	956	956	956	956	956	948	956	954	
Oct 29	956	956	956	955	955	955	955	955	954	954	953	953	952	951	950	950	949	949	949	949	949	949	950	949	949	956	953
Oct 30	951	952	952	952	952	951	951	950	950	950	950	949	949	949	948	948	947	947	946	946	946	946	946	946	946	952	949
Oct 31	946	946	947	947	947	947	947	948	948	949	949	949	949	949	948	948	948	947	947	947	947	947	947	946	946	949	948
Diurnal Maximum	956	956	956	955	956	957	957	958	958	959	959	960	960	959	959	959	958	957	956	956	956	956	956	956	946	956	948
Diurnal Average	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	942

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

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.



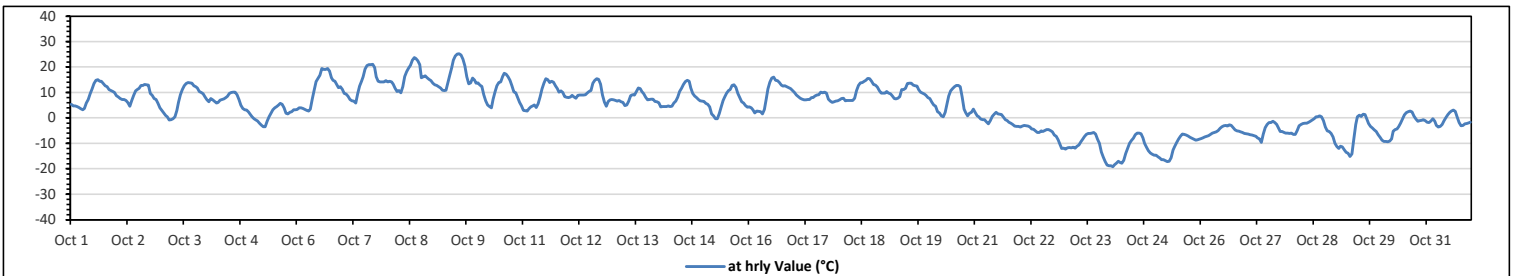
Peace River Area Monitoring Program
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages
AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	25.2 °C	on Oct 9 at hr 14	Hours in Service:	744
Maximum Daily Value:	16.7 °C	on Oct 9	Hours of Data:	744
Minimum Hourly Value:	-19.1 °C	on Oct 24 at hr 1	Hours of Missing Data:	0
Minimum Daily Value:	-12.7 °C	on Oct 24	Hours of Calibration:	0
Monthly Average:	4.0 °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
Oct 1	5.3	4.8	4.7	4.5	4.1	3.6	3.2	3.8	5.9	7.2	9.5	11.4	13.5	14.8	15	14.5	14.5	13.5	12.7	12.2	11.1	10.7	10.4	10	3.2	15.0	9.2
Oct 2	8.8	8.2	7.6	7.3	7.2	6.9	6	4.6	6.8	8.9	10.6	11.1	11.7	12.8	12.8	13.2	13.1	12.9	9.6	8.9	7.6	7.3	5.8	3.9	3.9	13.2	8.9
Oct 3	3	2	1	0.5	-0.8	-0.6	-0.3	0.5	2.9	6.2	9.2	11.1	12.6	13.5	13.9	13.8	13.6	12.6	12.2	11.8	10.4	10	9.5	8.2	-0.8	13.9	7.4
Oct 4	7.1	6.4	7.6	7.1	6.5	5.9	6.1	7	7.2	7.5	8	8.5	9.6	10	10.1	10.1	9.2	7.3	5	3.8	3.2	3.1	2.4	1.4	1.4	10.1	6.7
Oct 5	0.5	-0.3	-0.8	-1.2	-2.1	-2.8	-3.4	-3.4	-1.4	0.4	1.8	3.2	3.9	4.5	5.1	5.8	5.3	4	1.9	1.6	2.3	2.5	3.2	3.2	-3.4	5.8	1.4
Oct 6	3.3	4	3.9	3.8	3.4	3	2.7	3.5	7.4	10.9	14.3	15.6	16.8	19.4	19	19	19.5	18.5	15.8	14.7	14.4	13.1	11.9	12.2	2.7	19.5	11.3
Oct 7	11.3	9.6	9.4	8.5	7.2	6.7	6.6	5.9	9.5	12.5	14.4	16.2	19.2	20.6	21	21	21.1	19.9	16.2	14.5	14.2	14.2	14.2	14.6	5.9	21.1	13.7
Oct 8	14.2	14.4	14.2	13.3	11.7	10.5	10.8	9.9	12.2	16.3	18.2	19.6	20.7	22.7	23.8	23.4	22.5	21	15.9	16.1	16.5	15.8	15.2	14.6	9.9	23.8	16.4
Oct 9	13.7	13.1	12.8	12.3	11.8	10.9	10.7	10.9	13.9	16.9	19.9	22.7	24.3	25.1	25.2	24.8	23.1	20.4	16.1	13.4	13.8	15.7	14.9	13.7	10.7	25.2	16.7
Oct 10	13.8	13	12.4	9.2	6.7	5.2	4.5	4	7.2	10.1	12.6	13.9	14.2	16.3	17.6	17.2	16.2	14.8	12.7	10.3	9.9	7.9	6.1	4.7	4.0	17.6	10.9
Oct 11	3	2.8	2.7	3.7	4.4	4.8	5.1	4.1	5.6	8.2	11.4	13.7	15.4	15	13.9	14.4	14	12.7	11.5	10.1	10.6	10	8.4	8.1	2.7	15.4	8.9
Oct 12	7.9	8.3	8.9	8.2	7.8	8.9	9	9.1	9.1	9.2	9.7	10.4	10.8	13.6	14.8	15.5	15.2	13.3	9.1	6.3	4.6	6.5	7.1	7.2	4.6	15.5	9.6
Oct 13	7.1	6.8	6.6	6.8	6.4	6.1	4.9	5.2	6.6	8.8	9.2	9.1	10.4	11.8	11.6	10.5	9.5	8.1	7.1	7.3	7.4	7.4	6.5	6.4	4.9	11.8	7.8
Oct 14	6	4.4	4.5	4.5	4.5	4.7	4.5	4.6	5.9	6.6	8.1	10.5	11.7	13.2	14.3	14.8	14.4	11.8	9.6	8.7	8	7.3	6.7	6.6	4.4	14.8	8.2
Oct 15	6.5	5.8	5.3	4.3	1.6	0.9	-0.3	-0.2	1.7	4.3	6.8	8.2	9.8	10.7	11.1	12.8	13.1	12	9.6	7.9	6.4	5.9	4.9	4.2	-0.3	13.1	6.4
Oct 16	4.3	3.9	3.2	2	2.7	2.6	2.5	1.6	3.4	7.6	11.4	14.1	15.7	16	14.8	14.6	13.9	13	12.5	12.6	12.3	11.9	11.5	10.8	1.6	16.0	9.1
Oct 17	10	9.1	8.4	7.8	7.4	7.1	7.1	7.2	7.3	7.9	8	8.7	9	9.2	10.1	9.9	10.2	9.7	7.4	6.6	6.2	6.4	6.6	6.7	6.2	10.2	8.1
Oct 18	7.1	7.7	7.8	6.7	6.8	6.9	6.8	6.9	7.8	10.8	12.8	13.8	13.9	14.4	14.7	15.6	15.4	14.4	13.2	13	12.1	10.7	9.7	9.7	6.7	15.6	10.8
Oct 19	9.8	10.5	9.8	9.5	8.7	7.6	7.5	7.8	8.4	11.1	11.1	11.7	13.5	13.6	13.7	13	12.6	12.5	11.2	10.1	9.8	9.3	8.9	8	7.5	13.7	10.4
Oct 20	7.6	6.3	5.1	4.6	2.5	2	0.9	0.5	2.2	5.7	8.7	10.6	11.5	12.3	12.8	12.8	12.2	8.3	3.5	2.1	0.8	1.9	2.2	3.5	0.5	12.8	5.9
Oct 21	2.1	0.9	0.5	-0.4	-0.6	-0.7	-1.5	-2.3	-1.1	0.6	1.4	2.2	1.6	1.4	1.3	0.3	-0.6	-1.1	-1.6	-2.1	-2.6	-3.1	-3.3	-3.3	-3.3	2.2	-0.5
Oct 22	-3.5	-3.2	-2.9	-3	-3.2	-3.5	-4.3	-4.4	-5.1	-5.6	-5.6	-5.1	-5.3	-4.9	-4.6	-4.5	-4.9	-5.5	-6.7	-7.2	-8.6	-10.5	-12	-11.9	-12.0	-2.9	-5.7
Oct 23	-12.2	-11.8	-11.6	-11.7	-11.5	-11.9	-11.1	-10.6	-9.4	-8.5	-7.3	-6.5	-6.1	-6.1	-5.9	-5.6	-6.4	-8.3	-10	-13.4	-15.4	-17.1	-18.5	-18.8	-18.8	-5.6	-10.7
Oct 24	-18.8	-19.1	-18.4	-17.7	-17	-17.5	-17.8	-16.6	-14	-12	-9.9	-8.8	-8	-6.6	-5.9	-6	-6.2	-7.9	-9.9	-11.5	-12.9	-13.7	-14.3	-14.7	-19.1	-5.9	-12.7
Oct 25	-14.7	-15.2	-15.8	-16.3	-16.4	-16.8	-17.1	-17	-15.7	-12.6	-11.2	-9.7	-8.3	-7.2	-6.4	-6.5	-6.8	-7.1	-7.6	-8	-8.3	-8.7	-8.6	-8.3	-17.1	-6.4	-11.3
Oct 26	-8.1	-7.9	-7.5	-7.2	-6.9	-6.5	-5.9	-5.6	-5.5	-5	-4.1	-3.4	-3	-2.9	-3.2	-2.7	-2.9	-3.9	-4.7	-5.1	-5.2	-5.5	-5.6	-6.1	-8.1	-2.7	-5.2
Oct 27	-6.2	-6.4	-6.6	-6.7	-6.9	-7.2	-7.8	-8.2	-9.6	-6.4	-3.9	-2.6	-1.8	-1.8	-1.4	-1.8	-2.6	-4.1	-5.3	-5.4	-5.6	-5.9	-6.1	-6.1	-9.6	-1.4	-5.3
Oct 28	-5.9	-6.5	-6.5	-5	-3	-2.6	-2.2	-2.1	-2	-1.6	-1.3	-0.8	-0.2	0.4	0.5	0.9	0.5	-1.1	-3.5	-5.1	-5.4	-6.1	-7.4	-9.9	-9.9	0.9	-3.2
Oct 29	-11.2	-12	-11.1	-11.4	-12.4	-13.5	-13.9	-15.1	-14.1	-8.2	-2.6	0.4	1.1	0.6	1.4	1.3	-0.5	-2.2	-3.3	-4	-4.7	-5.4	-6.6	-7.6	-15.1	1.4	-6.5
Oct 30	-8.7	-9.2	-9.3	-9.4	-9.1	-8.2	-5.2	-4.6	-4.3	-3.4	-2	-0.4	1.2	2.1	2.5	2.7	2.4	0.7	-0.4	-1.3	-1.1	-0.9	-0.7	-1	-9.4	2.7	-2.8
Oct 31	-1.6	-1.8	-1.2	-0.3	-1.3	-2.9	-3.5	-3.3	-2.6	-1.1	0.2	1.3	2.2	2.7	3.1	2.6	0.3	-1.8	-3	-2.9	-2.3	-2.2	-1.9	-1.6	-3.5	3.1	-1.0
Diurnal Maximum	14.2	14.4	14.2	13.3	11.8	10.9	10.8	10.9	13.9	16.9	19.9	22.7	24.3	25.1	25.2	24.8	23.1	21.0	16.2	16.1	16.5	15.8	15.2	14.6			
Diurnal Average	2.0	1.6	1.4	1.1	0.7	0.3	0.1	0.1	1.5	3.7	5.5	6.8	7.8	8.6	8.9	8.9	8.4	7.0	5.1	4.1	3.5	3.2	2.6	2.2			

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

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



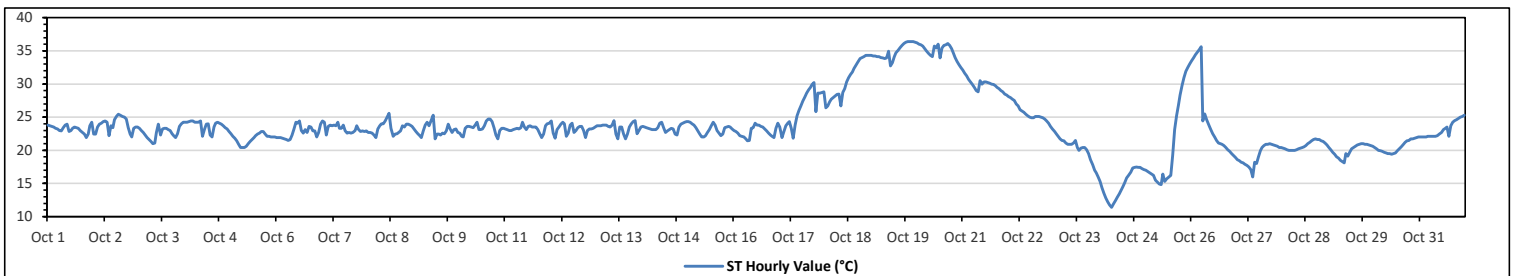
Peace River Area Monitoring Program
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	36.4 °C	on Oct 19 at hr 19	Hours in Service:	744
Maximum Daily Value:	35.0 °C	on Oct 20	Hours of Data:	744
Minimum Hourly Value:	11.4 °C	on Oct 24 at hr 6	Hours of Missing Data:	0
Minimum Daily Value:	14.8 °C	on Oct 24	Hours of Calibration:	0
Monthly Average:	23.8 °C		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
Oct 1	23.8	23.7	23.6	23.5	23.3	23.2	23.0	22.9	23.4	23.8	23.9	22.8	23.0	23.3	23.5	23.4	23.3	23.0	22.7	22.4	21.9	22.4	23.7	24.2	21.9	24.2	23.2
Oct 2	22.4	22.4	23.5	23.9	24.1	24.3	24.4	24.2	22.2	23.7	23.4	24.6	25.1	25.4	25.3	25.1	25.0	24.7	23.4	22.4	22.0	23.3	23.5	23.5	22.0	25.4	23.8
Oct 3	23.3	23.0	22.7	22.3	21.9	21.6	21.3	21.0	21.1	22.7	23.9	22.3	23.2	23.3	23.3	23.1	23.0	22.5	22.2	21.9	22.5	23.6	24.0	24.2	21.0	24.2	22.7
Oct 4	24.2	24.2	24.3	24.4	24.4	24.2	24.2	24.2	24.4	22.1	23.1	23.9	24.0	22.2	22.0	23.5	24.1	24.2	24.1	23.9	23.7	23.4	23.2	22.8	22.0	24.4	23.7
Oct 5	22.5	22.1	21.8	21.4	20.9	20.4	20.4	20.6	21.0	21.3	21.6	21.9	22.2	22.4	22.6	22.8	22.8	22.4	22.1	22.1	22.0	22.0	22.0	22.0	20.4	22.8	21.7
Oct 6	21.9	21.9	21.9	21.8	21.7	21.6	21.5	21.6	22.3	23.2	24.2	24.1	24.4	23.0	22.6	23.1	22.7	23.6	23.5	22.9	22.9	22.0	22.7	23.9	21.5	24.4	22.7
Oct 7	24.4	24.2	22.3	23.6	23.8	23.7	23.8	23.7	24.2	23.3	23.3	23.8	22.9	22.6	22.7	22.6	22.7	23.0	23.7	23.1	22.8	22.9	22.8	22.9	22.3	24.4	23.3
Oct 8	22.7	22.7	22.6	22.3	21.9	23.2	23.7	24.0	24.0	24.4	25.0	25.6	23.3	22.1	22.4	22.5	22.7	22.9	23.7	23.5	23.9	23.9	23.8	23.6	21.9	25.6	23.4
Oct 9	23.2	22.8	22.5	22.2	21.9	22.9	23.8	24.2	23.7	24.4	25.3	21.7	22.4	22.4	22.3	22.6	22.5	22.9	23.9	23.2	22.7	23.1	23.2	22.7	21.7	25.3	23.0
Oct 10	22.6	22.1	22.0	23.3	23.6	23.6	23.5	23.4	23.8	24.2	23.1	23.1	23.2	23.7	24.4	24.7	24.7	24.3	23.4	22.3	21.7	23.0	23.3	23.3	21.7	24.7	23.3
Oct 11	23.2	23.1	23.0	23.0	23.1	23.2	23.3	23.2	23.4	24.2	23.5	23.1	23.6	23.7	23.5	23.5	23.5	23.1	22.5	21.9	22.4	23.7	24.0	24.1	21.9	24.2	23.3
Oct 12	24.4	22.6	21.8	23.1	23.5	23.9	24.2	24.0	22.1	22.6	23.8	24.1	22.7	23.0	23.4	23.6	23.6	23.0	21.9	23.0	23.2	23.2	23.3	23.5	21.8	24.4	23.2
Oct 13	23.7	23.7	23.7	23.8	23.8	23.8	23.6	23.5	23.8	24.5	22.4	21.7	23.5	23.5	22.4	21.7	22.4	23.5	24.0	24.3	24.5	22.5	23.0	23.5	21.7	24.5	23.4
Oct 14	23.6	23.5	23.4	23.3	23.2	23.1	23.1	23.1	23.4	24.1	24.2	23.4	22.7	22.9	23.1	23.3	23.2	22.4	22.3	23.5	23.9	24.1	24.2	24.3	22.3	24.3	23.4
Oct 15	24.3	24.2	24.0	23.8	23.4	22.9	22.4	22.0	22.0	22.2	22.7	23.1	23.7	24.2	23.8	23.0	22.6	22.2	22.4	23.4	23.5	23.6	23.5	23.2	22.0	24.3	23.2
Oct 16	23.0	22.8	22.6	22.2	22.1	22.0	21.7	21.4	21.5	23.3	23.4	24.1	23.8	23.8	23.6	23.5	23.2	22.9	22.6	22.3	22.1	21.9	23.3	24.1	21.4	24.1	22.8
Oct 17	23.5	21.9	22.8	22.7	24.1	24.3	23.3	21.8	23.8	25.2	26.0	26.7	27.4	28.0	28.6	29.1	29.5	29.9	30.2	25.8	28.6	28.6	28.7	28.8	21.8	30.2	26.3
Oct 18	26.4	26.7	27.3	27.7	27.9	28.2	28.4	28.5	26.7	28.7	29.3	30.3	30.9	31.4	31.8	32.3	32.8	33.3	33.8	34.0	34.1	34.3	34.3	34.3	26.4	34.3	30.6
Oct 19	34.3	34.2	34.2	34.1	34.1	34.0	33.9	33.8	33.9	34.9	32.7	33.2	34.1	34.7	35.1	35.5	35.8	36.1	36.3	36.4	36.4	36.4	36.3	36.3	32.7	36.4	34.9
Oct 20	36.2	36.0	35.9	35.7	35.3	34.9	34.6	34.3	34.1	35.7	35.4	36.0	33.9	35.4	35.8	35.9	36.1	35.8	35.3	34.6	34.0	33.4	32.9	32.5	32.5	36.2	35.0
Oct 21	32.1	31.6	31.2	30.7	30.3	29.9	29.5	29.0	28.8	30.5	30.0	30.3	30.3	30.2	30.1	30.0	29.9	29.7	29.5	29.3	29.0	28.8	28.5	28.3	28.3	32.1	29.9
Oct 22	28.1	27.9	27.7	27.5	27.0	26.7	26.1	25.9	25.7	25.4	25.2	25.0	24.9	24.9	25.1	25.1	25.1	25.0	24.9	24.7	24.4	24.1	23.6	23.2	23.2	28.1	25.6
Oct 23	22.8	22.5	22.1	21.7	21.5	21.4	21.1	20.9	20.9	20.9	21.1	21.5	20.4	20.0	20.3	20.4	20.4	20.1	19.5	18.6	17.8	17.0	16.6	16.0	16.0	22.8	20.2
Oct 24	15.3	14.3	13.5	12.8	12.2	11.7	11.4	11.9	12.4	12.9	13.4	13.9	14.5	15.1	15.8	16.2	16.7	17.3	17.4	17.5	17.4	17.2	17.2	17.1	11.4	17.5	14.8
Oct 25	17.0	16.8	16.6	16.4	16.2	15.5	15.2	14.9	14.8	16.4	15.3	15.7	15.9	16.2	19.3	23.1	25.2	26.8	28.3	29.7	30.9	31.9	32.5	33.0	14.8	33.0	21.0
Oct 26	33.5	33.9	34.4	34.8	35.2	35.6	24.4	25.5	24.6	23.8	23.1	22.5	22.0	21.5	21.1	21.0	20.9	20.7	20.4	20.1	19.8	19.5	19.2	18.9	18.9	35.6	24.9
Oct 27	18.6	18.4	18.2	18.1	17.9	17.7	17.5	17.1	16.0	18.2	18.0	19.0	19.9	20.4	20.7	20.9	20.9	21.0	20.9	20.8	20.7	20.6	20.4	20.4	16.0	21.0	19.3
Oct 28	20.3	20.2	20.1	20.0	20.0	20.0	20.0	20.1	20.2	20.3	20.4	20.5	20.7	21.0	21.2	21.4	21.6	21.7	21.6	21.6	21.4	21.3	21.1	20.8	20.0	21.7	20.7
Oct 29	20.4	20.1	19.7	19.4	19.0	18.8	18.5	18.3	18.1	19.5	19.1	19.7	20.2	20.4	20.6	20.8	20.9	21.0	20.9	20.8	20.7	20.6	20.6	20.6	18.1	21.0	20.0
Oct 30	20.4	20.2	20.0	19.9	19.8	19.7	19.6	19.5	19.4	19.5	19.5	19.6	19.9	20.2	20.5	20.9	21.2	21.4	21.5	21.7	21.7	21.8	21.9	22.0	19.4	22.0	20.5
Oct 31	22.0	22.0	22.0	22.0	22.1	22.1	22.1	22.1	22.2	22.4	22.7	23.1	23.3	23.5	22.1	23.7	24.2	24.5	24.6	24.8	25.0	25.1	25.3	22.0	25.3	23.1	
Diurnal Maximum	36.2	36.0	35.9	35.7	35.3	35.6	34.6	34.3	34.1	35.7	35.4	36.0	34.1	35.4	35.8	35.9	36.1	36.1	36.3	36.4	36.4	36.4	36.4	36.3			
Diurnal Average	24.0	23.7	23.6	23.6	23.5	23.0	22.9	22.8	23.5	23.5	23.5	23.6	23.7	23.9	24.1	24.3	24.4	24.3	24.1	24.1	24.2	24.3	24.3				

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

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.



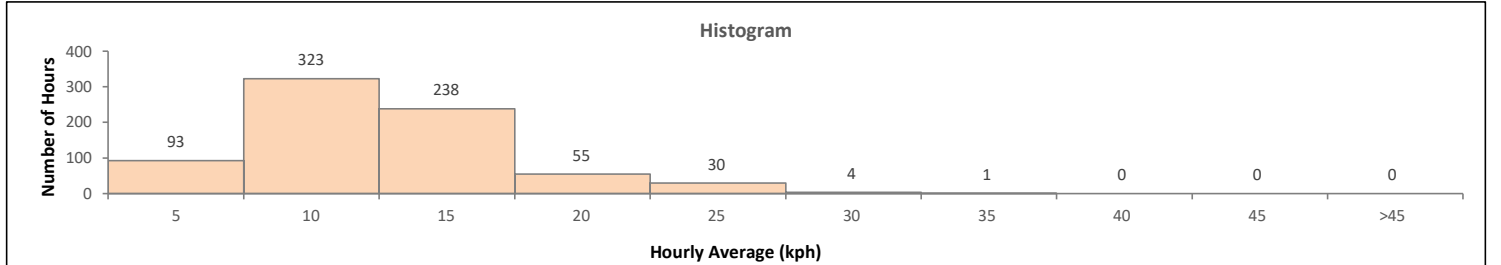
Peace River Area Monitoring Program
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages
VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	30.2 kph	on Oct 18 at hr 13	Hours in Service:	744
Maximum Daily Value:	20.8 kph	on Oct 19	Hours of Data:	744
Minimum Hourly Value:	0.2 kph	on Oct 17 at hr 4	Hours of Missing Data:	0
Minimum Daily Value:	5.2 kph	on Oct 11	Hours of Calibration:	0
Monthly Average:	5.2 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
Oct 1	12.8	12.8	13.6	13.9	13.1	13.4	10.8	8.7	13.6	14.8	14.8	14.3	18.3	18.3	21.1	16.9	16.6	14.0	9.7	9.1	8.8	11.4	8.9	11.1	8.7	21.1	13.4
Oct 2	10.1	10.4	12.1	11.2	10.3	8.2	7.7	9.9	8.9	9.0	8.9	15.5	16.3	14.5	15.9	11.1	12.9	7.0	5.0	5.6	1.9	7.2	7.0	6.3	1.9	16.3	9.7
Oct 3	7.2	7.8	9.0	8.0	8.6	10.1	11.0	9.1	10.9	10.5	12.5	15.3	16.9	17.8	17.0	16.4	14.6	11.5	14.5	21.5	17.2	16.5	18.2	15.9	7.2	21.5	13.3
Oct 4	12.5	10.8	12.7	10.0	12.8	10.9	13.1	16.5	20.2	17.6	14.9	14.8	16.5	17.3	17.3	19.3	17.8	13.1	8.0	11.6	10.9	14.4	12.6	8.3	8.0	20.2	13.9
Oct 5	7.8	6.7	7.9	10.9	9.0	8.2	7.5	7.6	10.2	12.7	14.1	12.8	13.5	10.7	8.2	5.3	6.0	5.3	8.3	8.7	9.1	8.5	10.5	10.1	5.3	14.1	9.2
Oct 6	8.9	11.3	13.1	16.1	15.8	14.6	14.3	14.6	15.2	20.9	26.7	24.6	18.1	24.5	27.5	26.0	20.9	14.4	9.5	15.2	13.5	11.0	14.4	12.0	8.9	27.5	16.8
Oct 7	10.8	10.4	9.7	10.3	8.7	9.4	7.5	8.9	9.0	8.9	6.4	12.5	12.4	14.2	15.4	12.7	8.5	9.7	12.5	13.0	14.7	15.1	15.5	6.4	15.5	11.0	11.0
Oct 8	16.6	14.0	14.6	11.7	8.0	9.1	10.9	10.0	11.6	12.6	10.9	11.5	11.6	11.5	13.8	14.6	7.5	4.8	8.0	13.5	13.2	12.9	13.2	13.9	4.8	16.6	11.7
Oct 9	12.9	11.1	9.4	7.7	9.0	11.5	10.4	10.1	9.6	8.8	9.1	9.9	14.8	14.6	14.7	10.7	6.7	1.1	4.3	5.5	12.1	10.9	8.2	9.5	1.1	14.8	9.7
Oct 10	8.6	8.2	4.5	5.9	2.7	5.1	4.3	5.6	2.9	0.6	2.1	4.4	4.1	2.5	3.4	7.8	9.6	7.8	7.5	10.8	7.0	6.9	5.4	5.4	0.6	10.8	5.5
Oct 11	3.6	3.2	6.3	5.3	0.5	1.7	7.3	3.4	3.3	3.1	9.0	9.0	6.9	5.6	7.0	4.8	2.6	1.7	3.1	4.3	9.0	7.6	7.1	8.5	0.5	9.0	5.2
Oct 12	7.5	7.7	8.3	7.3	6.5	8.9	8.4	7.7	15.5	11.0	10.6	12.1	12.5	10.7	9.8	9.9	10.5	6.9	5.6	6.9	8.1	12.1	9.8	11.0	5.6	15.5	9.4
Oct 13	11.7	9.2	12.6	10.8	13.1	11.9	9.9	10.7	14.1	14.8	16.8	18.0	20.0	18.5	17.4	19.7	18.1	14.8	16.3	12.6	10.6	12.2	14.3	13.6	9.2	20.0	14.2
Oct 14	14.4	13.0	14.4	13.5	12.6	12.0	10.5	11.6	13.0	11.2	10.6	10.4	10.0	7.5	7.6	7.2	6.2	6.5	9.4	10.0	10.2	8.9	7.9	8.5	6.2	14.4	10.3
Oct 15	7.9	8.9	9.7	7.4	3.8	5.3	3.2	6.3	7.0	8.5	11.6	9.6	9.0	11.3	13.5	10.9	11.4	10.2	10.2	10.5	11.7	12.6	10.6	11.3	3.2	13.5	9.3
Oct 16	10.2	9.0	8.1	12.2	11.4	9.9	8.0	6.1	6.9	6.9	4.5	4.3	6.1	8.6	11.5	12.0	12.4	10.2	11.7	11.8	11.5	11.5	9.6	5.6	4.3	12.4	9.2
Oct 17	5.0	5.1	4.8	4.2	0.2	1.0	5.8	3.1	2.7	2.4	3.4	6.5	6.6	7.2	9.2	7.9	6.6	9.1	8.2	10.7	11.0	10.7	9.9	9.6	0.2	11.0	6.3
Oct 18	9.7	11.0	9.4	7.4	9.1	7.7	7.4	8.5	9.8	14.1	21.9	22.9	26.2	30.2	22.5	22.2	19.9	16.9	15.8	20.1	17.0	16.2	18.1	20.8	7.4	30.2	16.0
Oct 19	20.4	24.0	24.5	22.1	20.4	19.9	19.9	18.3	16.3	18.4	20.1	21.1	20.8	20.3	20.2	23.0	21.1	24.4	22.2	20.6	20.8	20.0	20.4	19.8	16.3	24.5	20.8
Oct 20	19.5	13.2	14.0	10.2	11.4	9.2	10.2	10.9	10.5	9.1	8.1	7.7	7.1	7.2	4.2	4.4	4.1	5.0	8.1	9.3	9.3	8.9	9.5	9.8	4.1	19.5	9.2
Oct 21	11.4	11.1	9.3	11.4	10.1	11.6	9.6	11.0	8.1	7.6	13.5	13.1	12.9	13.8	14.5	14.9	11.7	9.8	10.1	9.2	8.6	7.3	5.6	6.8	5.6	14.9	10.5
Oct 22	4.6	4.1	7.5	11.6	12.3	13.9	14.3	12.6	13.9	13.8	12.8	12.2	11.2	8.7	8.2	8.4	7.4	6.2	3.2	1.3	2.2	5.0	2.7	3.0	1.3	14.3	8.4
Oct 23	2.6	7.3	5.3	5.0	3.5	3.3	3.0	5.0	7.2	6.5	9.6	10.9	9.8	5.3	6.2	6.0	6.4	7.3	4.8	3.7	4.7	5.5	8.6	2.6	10.9	6.0	
Oct 24	8.6	9.3	10.2	10.2	9.3	9.9	9.7	8.0	8.8	8.3	10.1	9.7	10.0	10.0	9.7	9.0	9.7	9.4	10.9	9.5	9.7	10.3	10.7	10.7	8.0	10.9	9.7
Oct 25	10.1	10.1	10.2	11.1	10.0	10.4	10.8	10.0	10.3	11.4	11.6	10.1	9.1	8.9	6.8	6.7	5.4	2.4	0.5	2.4	4.7	6.8	6.5	7.8	0.5	11.6	8.1
Oct 26	6.4	5.9	7.6	8.0	6.7	5.9	6.7	6.6	6.1	7.6	8.6	8.6	9.6	11.4	9.2	9.2	11.1	9.7	8.6	8.4	9.1	10.2	10.7	8.9	5.9	11.4	8.4
Oct 27	8.4	8.3	8.0	6.5	6.9	2.9	5.3	7.1	6.2	4.2	2.5	3.4	4.7	5.6	9.0	10.3	10.0	10.3	11.6	11.4	12.5	11.5	9.9	8.4	2.5	12.5	7.7
Oct 28	8.1	8.2	9.3	9.7	9.1	8.0	11.4	10.4	8.8	9.8	12.0	10.5	11.4	10.0	10.4	10.4	8.6	5.9	5.1	4.5	7.4	8.3	8.2	7.1	4.5	12.0	8.9
Oct 29	8.8	9.5	8.6	9.4	7.1	10.1	7.3	8.4	7.8	5.3	7.0	8.4	10.0	10.3	12.2	14.1	12.4	11.3	12.1	10.2	8.7	7.6	4.3	3.4	3.4	14.1	8.9
Oct 30	0.6	3.1	3.6	5.6	4.8	7.0	9.6	9.1	9.2	9.5	7.2	7.2	9.2	2.0	4.1	3.9	3.9	2.3	5.1	5.1	6.1	8.6	9.0	7.0	0.6	9.6	6.0
Oct 31	8.6	9.9	8.9	7.2	4.9	2.4	3.8	3.9	6.0	4.2	4.3	5.0	5.6	4.6	7.3	5.3	2.9	3.3	4.8	6.3	6.3	5.8	6.1	5.6	2.4	9.9	5.5
Diurnal Maximum	20.4	24.0	24.5	22.1	20.4	19.9	19.9	18.3	16.3	18.4	20.1	21.1	20.8	20.3	20.2	23.0	21.1	24.4	22.2	20.6	20.8	20.0	20.4	19.8	16.3	24.5	20.8
Diurnal Average	9.6	9.5	9.9	9.7	8.8	8.8	9.1	9.0	9.8	9.8	10.9	11.3	12.0	11.7	12.0	11.7	10.6	8.7	8.9	9.8	9.8	10.4	10.0	9.8			

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

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.

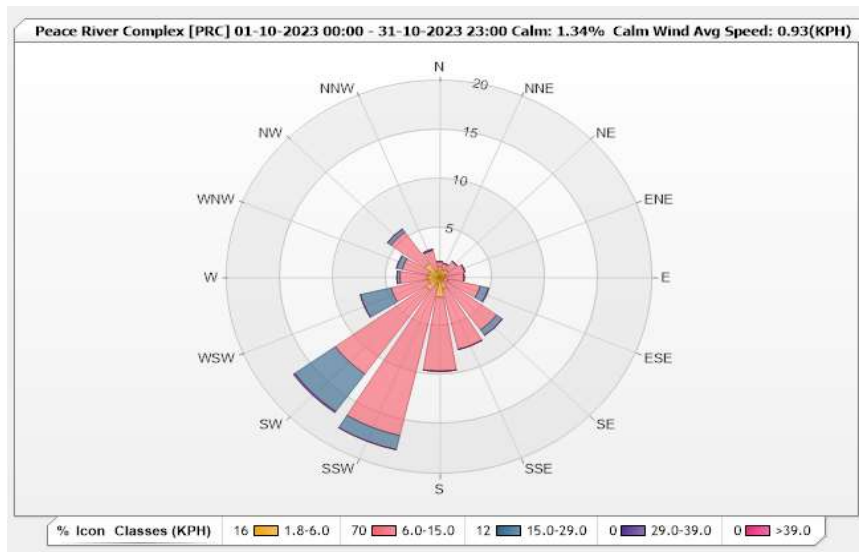


Station: Peace River Complex [PRC] Monitor: WDS [KPH] Monthly: 10-2023

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

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

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	1.08	0.54	0	0	0	1.62
NNE	0.81	0.67	0	0	0	1.48
NE	0.94	1.08	0	0	0	2.02
ENE	0.54	1.88	0	0	0	2.42
E	0.4	1.88	0	0	0	2.28
ESE	0.81	3.09	0.81	0	0	4.71
SE	0.4	6.18	0.67	0	0	7.25
SSE	1.21	6.32	0	0	0	7.53
S	2.02	7.53	0	0	0	9.55
SSW	0.67	15.86	1.48	0	0	18.01
SW	1.61	10.48	4.7	0.13	0	16.92
WSW	1.08	3.63	2.96	0	0	7.67
W	1.21	2.55	0.27	0	0	4.03
WNW	1.08	2.55	0.54	0	0	4.17
NW	1.75	3.9	0.4	0	0	6.05
NNW	0.67	2.15	0.13	0	0	2.95
Summary	16.28	70.29	11.96	0.13	0	98.66

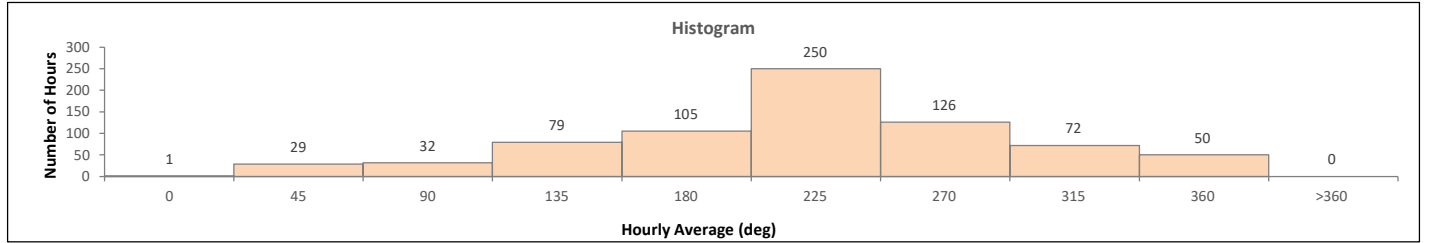
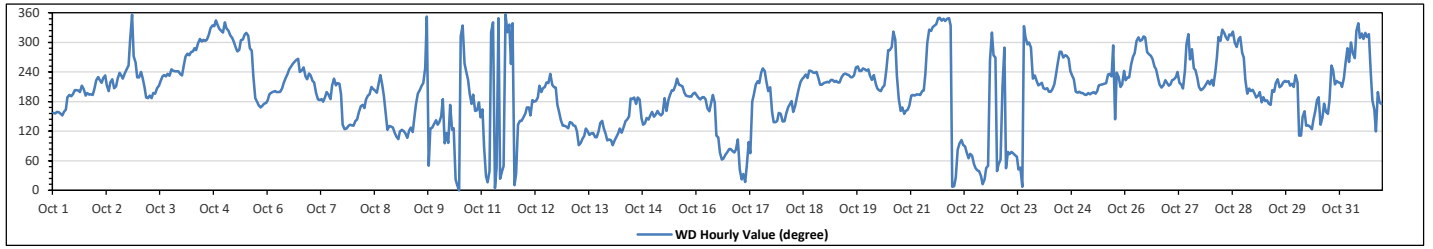


Peace River Area Monitoring Program
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		208 (SSW) degree															Hours in Service:		744																																												
																	Hours of Data:		744																																												
																	Hours of Missing Data:		0																																												
																	Hours of Calibration:		0																																												
																	Operational Uptime:		100.0																																												
Day	Hourly Period Starting at (MST)																							Daily Average																																							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant																																					
Oct 1	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	SSW	S	SSW	SSW	186	S																																					
Oct 2	SW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	WSW	WSW	NW	N	W	WSW	SW	230	SW																																					
Oct 3	SW	WSW	SW	SSW	S	S	S	S	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	225	SW																																					
Oct 4	SW	WSW	W	W	W	W	W	W	WNW	WNW	WNW	NW	WNW	WNW	NW	NW	WNW	NW	NNW	NNW	NNW	NW	NW	NW	302	WNW																																					
Oct 5	NNW	NNW	NW	NW	NW	WNW	WNW	W	WNW	WNW	NW	NW	NW	NW	WNW	W	SW	S	S	S	SSE	S	S	S	282	W																																					
Oct 6	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	SW	230	SW																																					
Oct 7	SW	SW	SW	SSW	S	S	S	S	S	SSW	SSW	S	SSW	SSW	SW	SW	SSW	S	ESE	ESE	SE	SE	SE	SE	184	S																																					
Oct 8	SE	SE	SE	SSE	SE	SSE	E	E	ESE	ESE	S	SSE	SSW	SSW	SSW	SSW	SSW	S	SSE	ESE	SE	SE	SE	ESE	168	SSE																																					
Oct 9	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	ESE	SE	S	SSW	SSW	SSW	SW	WSW	N	NE	SE	SE	SE	SE	SE	144	SE																																					
Oct 10	SE	SSE	S	E	ESE	E	S	ESE	SE	NNE	N	N	NW	NNW	WSW	WSW	SSW	S	SSW	SSE	SSE	S	S	SSW	170	SSE																																					
Oct 11	SSE	E	NNE	NNE	NE	NW	NNW	N	NE	NNW	NNE	NE	NE	N	NW	NNW	WSW	NNW	N	NNE	SE	SE	SE	SE	40	NE																																					
Oct 12	SSE	SSE	SSE	SSE	S	S	S	S	SSW	SSW	SSW	SSW	SW	SW	SSW	SSW	SSW	S	SSE	SE	SE	SE	SE	SE	185	S																																					
Oct 13	SE	SE	SE	SE	SE	ESE	E	E	ESE	ESE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	ESE	E	ESE	E	117	ESE																																					
Oct 14	E	E	E	ESE	ESE	SE	ESE	SE	SE	SSE	S	S	S	S	S	S	SE	SE	SE	SE	SE	SSE	SSE	SSE	138	SE																																					
Oct 15	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	SSW	191	S																																					
Oct 16	S	S	S	S	S	S	SSE	SSE	S	S	S	ESE	ESE	ENE	ENE	ENE	ENE	E	E	E	ENE	E	ESE	ESE	121	ESE																																					
Oct 17	NE	NNE	NNE	NNE	NE	E	ENE	S	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	SSW	SSE	SE	SE	SE	SSE	SSW	SW	174	S																																					
Oct 18	SE	SE	SSE	SSE	S	S	SSE	S	S	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	SW	WSW	SW	SSW	SSW	SSW	217	SW																																					
Oct 19	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	232	SW																																					
Oct 20	WSW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	SSE	SSE	SSE	SSE	S	215	SSW																																					
Oct 21	S	S	S	SSW	SSW	S	SSW	SSW	SW	WNW	NW	NW	NNW	NNW	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	304	WNW																																				
Oct 22	N	NNE	E	E	E	E	E	ENE	ENE	ENE	ENE	NE	NE	NE	NE	NNE	NNE	NE	NE	W	NW	W	W	W	61	ENE																																					
Oct 23	NE	NE	ENE	SSW	WNW	NE	ENE	ENE	ENE	ENE	ENE	NE	NE	N	NNW	NW	WNW	WNW	WNW	WNW	SW	SW	SSW	SSW	29	NNE																																					
Oct 24	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	229	SSW																																				
Oct 25	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	210	SSW																																				
Oct 26	SW	SW	SW	WSW	W	W	WNW	NW	WNW	WNW	NW	NW	W	W	W	W	WSW	WSW	SW	SSW	SSW	SSW	SSW	SW	257	WSW																																					
Oct 27	SSW	SSW	SW	SW	SW	WSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	224	SW																																				
Oct 28	SW	SSW	WSW	W	NW	WNW	NW	NW	WNW	NW	NW	NW	WNW	WNW	NW	W	W	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	283	W																																				
Oct 29	SSW	S	S	SSW	S	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	205	SSW																																				
Oct 30	SW	ESE	ESE	SSE	SSE	SE	SE	SE	ESE	SE	SSE	S	S	SE	SE	S	SSE	S	WSW	WSW	SSW	SSW	SSW	SSW	167	SSE																																					
Oct 31	SW	SSW	SW	WSW	WNW	WSW	WNW	W	W	NW	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	SSW	251	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
Peace River Complex (PRC) Station - October 2023
Summary of Hourly Averages

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

WIND SPEED			
Maximum Hourly Value:	30.2	kph	on Oct 18 at hr 13
Maximum Daily Value:	20.8	kph	on Oct 19
Minimum Hourly Value:	0.2	kph	on Oct 17 at hr 4
Minimum Daily Value:	5.2	kph	on Oct 11
Monthly Average:	5.2	kph	
Hours in Service:			744
Hours of Data:			744
Hours of Missing Data:			0
Hours of Calibration:			0
Operational Uptime:			100.0

WIND DIRECTION			
Monthly Average:	208 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
Oct 1	12.8	12.8	13.6	13.9	13.1	13.4	10.8	8.7	13.6	14.8	14.8	14.3	18.3	18.3	21.1	16.9	16.6	14.0	9.7	9.1	8.8	11.4	8.9	11.1	8.7	21.1	13.4
Oct 2	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	S	SSW	1.9	16.3	9.7	
Oct 3	10.1	10.4	12.1	11.2	10.3	8.2	7.7	9.9	8.9	9.0	8.9	15.5	16.3	14.5	15.9	11.1	12.9	7.0	5.0	5.6	1.9	7.2	7.0	7.2	21.5	13.3	
Oct 4	7.2	7.8	9.0	8.0	8.6	10.1	11.0	9.1	10.9	10.5	12.5	15.3	16.9	17.8	17.0	16.4	14.6	11.5	14.5	21.5	17.2	16.5	18.2	8.0	20.2	13.9	
Oct 5	12.5	10.8	12.7	10.0	12.8	10.9	13.1	16.5	20.2	17.6	14.9	14.8	16.5	17.3	17.3	19.3	17.8	13.1	8.0	11.6	10.9	14.4	12.6	5.3	14.1	9.2	
Oct 6	7.8	6.7	7.9	10.9	9.0	8.2	7.5	7.6	10.2	12.7	14.1	12.8	13.5	10.7	8.2	5.3	6.0	5.3	8.3	8.7	9.1	8.5	10.5	8.9	27.5	16.8	
Oct 7	10.1	11.1	13.1	16.1	15.8	14.6	14.3	14.6	15.2	20.9	26.7	24.6	18.1	24.5	27.5	26.0	20.9	14.4	9.5	15.2	13.5	11.0	14.4	6.4	15.5	11.0	
Oct 8	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	6.4	15.5	11.0	
Oct 9	10.8	10.4	9.7	10.3	8.7	8.7	9.4	7.5	8.9	9.0	8.9	6.4	12.5	12.4	14.2	15.4	12.7	8.5	9.7	12.5	13.0	14.7	15.1	4.8	16.6	11.7	
Oct 10	16.6	14.0	14.6	11.7	8.0	9.1	10.9	10.0	11.6	12.6	10.9	11.5	11.6	11.5	13.8	14.6	7.5	4.8	8.0	13.5	13.2	12.9	13.2	1.1	14.8	9.7	
Oct 11	12.9	11.1	9.4	7.7	9.0	11.5	10.4	10.1	9.6	8.8	9.1	9.9	14.8	14.6	14.7	10.7	6.7	1.1	4.3	5.5	12.1	10.9	8.2	0.6	10.8	5.5	
Oct 12	8.6	8.2	4.5	5.9	2.7	5.1	4.3	5.6	2.9	0.6	2.1	4.4	4.1	2.5	3.4	7.8	9.6	7.8	7.5	10.8	7.0	6.9	5.4	0.5	9.0	5.2	
Oct 13	SE	SSE	S	E	ESE	E	S	ESE	E	NNE	N	NW	NNW	WSW	WSW	SSW	S	SSW	SSE	SSE	S	SE	5.6	15.5	9.4		
Oct 14	3.6	3.2	6.3	5.3	0.5	1.7	7.3	3.4	3.3	3.1	9.0	9.0	6.9	5.6	7.0	4.8	2.6	1.7	3.1	4.3	9.0	7.6	7.1	9.2	20.0	14.2	
Oct 15	SSE	E	NNE	NNE	NE	NW	NNW	N	NE	NNW	NNE	NE	NE	N	NW	NNW	WSW	NNW	N	NNE	SE	SE	SE	9.2	20.0	14.2	
Oct 16	7.5	7.7	8.3	7.3	6.5	8.9	8.4	7.7	15.5	11.0	10.6	12.1	12.5	10.7	9.8	9.9	10.5	6.9	5.6	6.9	8.1	12.1	9.8	6.2	14.4	10.3	
Oct 17	SSE	SSE	SSE	SSE	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSE	SE	SE	SE	SE	6.2	14.4	10.3	
Oct 18	11.7	9.2	12.6	10.8	13.1	11.9	9.9	10.7	14.1	14.8	16.8	18.0	20.0	18.5	17.4	19.7	18.1	14.8	16.3	12.6	10.6	12.2	14.3	6.2	14.4	10.3	
Oct 19	SE	SE	SE	SE	SE	E	E	E	ESE	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	6.2	14.4	10.3	
Oct 20	14.4	13.0	14.4	13.5	12.6	12.0	10.5	11.6	13.0	11.2	10.6	10.4	10.0	7.5	7.6	7.2	6.2	6.5	9.4	10.0	10.2	8.9	7.9	3.2	13.5	9.3	
Oct 21	E	E	ESE	ESE	ESE	ESE	ESE	SE	SE	SSE	S	S	S	S	S	S	SE	SE	SE	SE	SE	SE	SE	3.2	13.5	9.3	
Oct 22	7.9	8.9	9.7	7.4	3.8	5.3	3.2	6.3	7.0	8.5	11.6	9.6	9.0	11.3	13.5	10.9	11.4	10.2	10.2	10.5	11.7	12.6	10.6	5.6	15.5	9.4	
Oct 23	SSE	SSE	SSE	SSE	SSE	SSE	S	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	SSW	5.6	15.5	9.4	
Oct 24	10.2	9.0	8.1	12.2	11.4	9.9	8.0	6.1	6.9	6.9	4.5	4.3	6.1	8.6	11.5	12.0	12.4	10.2	11.7	11.8	11.5	11.5	9.6	4.3	12.4	9.2	
Oct 25	S	S	S	S	S	SSE	SSE	S	S	SSE	SSE	S	S	ESE	ESE	ENE	ENE	ENE	ENE	E	E	ENE	E	0.2	11.0	6.3	
Oct 26	5.0	5.1	4.8	4.2	0.2	1.0	5.8	3.1	2.7	2.4	3.4	6.5	6.6	7.2	9.2	7.9	6.6	9.1	8.2	10.7	11.0	10.7	9.9	16.3	24.5	20.8	
Oct 27	NE	NNE	NNE	NNE	NE	E	ENE	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	16.3	24.5	20.8	
Oct 28	9.7	11.0	9.4	7.4	9.1	7.7	7.4	8.5	9.8	14.1	21.9	22.9	26.2	30.2	22.5	22.2	19.9	16.9	15.8	20.1	17.0	16.2	18.1	16.3	24.5	20.8	
Oct 29	SE	SE	SSE	SSE	S	S	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	16.3	24.5	20.8	
Oct 30	20.4	24.0	24.5	22.1	20.4	19.9	19.9	18.3	16.3	18.4	20.1	21.1	20.8	20.3	20.2	23.0	21.1	24.4	22.2	20.6	20.8	20.0	20.4	16.3	24.5	20.8	
Oct 31	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	16.3	24.5	20.8	
Oct 1	19.5	13.2	14.0	10.2	11.4	9.2	10.2	10.9	10.5	9.1	8.1	7.7	7.1	7.2	4.2	4.4	4.1	5.0	8.1	9.3	9.3	8.9	9.5	4.1	19.5	9.2	
Oct 2	WSW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	4.1	19.5	9.2	
Oct 3	11.4	11.1	9.3	11.4	10.1	11.6	9.6	11.0	8.1	7.6	13.5	13.1	12.9	13.8	14.5	14.9	11.7	9.8	10.1	9.2	8.6	7.3	5.6	5.6	14.9	10.5	
Oct 4	S	S	S	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	5.6	14.9	10.5	
Oct 5	4.6	4.1	7.5	11.6	12.3	13.9	14.3	12.6	13.9	13.8	12.8	12.2	11.2	8.7	8.2	8.4	7.4	6.2	3.2	1.3	2.2	5.0	2.7	1.3	14.3	8.4	
Oct 6	N	NNE	E	E	E	E	E	ENE	ENE	ENE	ENE	NE	NE	NE	NE	NNE	NNE	NNE	NE	NE	W	NW	W	1.3	14.3	8.4	
Oct 7	2.6	7.3	5.3	5.0	3.5	3.0	5.0	7.2	6.5	9.6	10.9	9.8	5.3	5.3	6.2	6.0	6.4	7.3	4.8	3.7	4.7	5.5	8.6	2.6	10.9	6.0	
Oct 8	NE	NE	ENE	SSW	WNW	NE	ENE	ENE	ENE	ENE	ENE	NE	NE	N	NNW	NW	WNW	WNW	WNW	SSW	SSW	SSW	SSW	2.6	10.9	6.0	
Oct 9	8.6	9.3	10.2	10.2	9.3	9.9	9.7	8.0	8.8	8.3	10.1	9.7	10.0	10.0	9.7	9.0	9.7	9.4	10.9	9.5	9.7	10.3	10.7	8.0	10.9	9.7	
Oct 10	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	8.0	10.9	9.7	
Oct 11	10.1	10.1	10.2	11.1	10.0	10.4	10.8	10.0	10.3	11.4	11.6	10.1	9.1	8.9	6.8	6.7	5.4	2.4	0.5	2.4	4.7	6.8	6.5	0.5	11.6	8.1	
Oct 12	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	0.5	11.6	8.1	
Oct 13	6.4	5.9	7.6	8.0	6.7	5.9	6.7	6.6	6.1	7.6	8.6	8.6	9.6	11.4	9.2	9.2	11.1	9.7	8.6	8.4	9.1	10.2	10.7	5.9	11.4	8.4	
Oct 14	SW	SW	SW	WSW	W	W	WNW	NW	WNW	WNW	NW	NW	W	W	W	W	WSW	WSW	SSW	SSW	SSW	SSW	SSW	5.9	11.4	8.4	
Oct 15	8.4	8.3	8.0	6.5	6.9	2.9	5.3	7.1	6.2	4.2	2.5	3.4	4.7	5.6	9.0	10.3	10.0	10.3	11.6	11.4	12.5	11.5	9.9	2.5	12.5	7.7	
Oct 16	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	2.5	12.5	7.7	
Oct 17	8.1	8.2	9.3	9.7	9.1	8.0	11.4	10.4	8.8	9.8	12.0	10.5	11.4	10.0	10.4	10.4	8.6	5.9	5.1	4.5	7.4	8.3	8.2	4.5	12.0	8.9	
Oct 18	SW	SSW	WSW	W	NW	WNW	NW	WNW	NW	WNW	NW	NW	NNW	NNW	NW	W	W	SSW	SSW	SSW	SSW	SSW	SSW	4.5	12.0	8.9	
Oct 19	8.8	9.5	8.6	9.4	7.1	10.1	7.3	8.4	7.8	5.3	7.0	8.4	10.0	10.3	12.2	14.1	12.4	11.3	12.1	10.2	8.7	7.6	4.3	3.4	14.1	8.9	
Oct 20	SSW	S	S	SSW	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	3.4	14.1	8.9	
Oct 21	0.6	3.1	3.6	5.6	4.8	7.0	9.6	9.1	9.2	9.5	7.2	7.2	9.2	2.0	4.1	3.9	3.9	2.3	5.1	5.1							

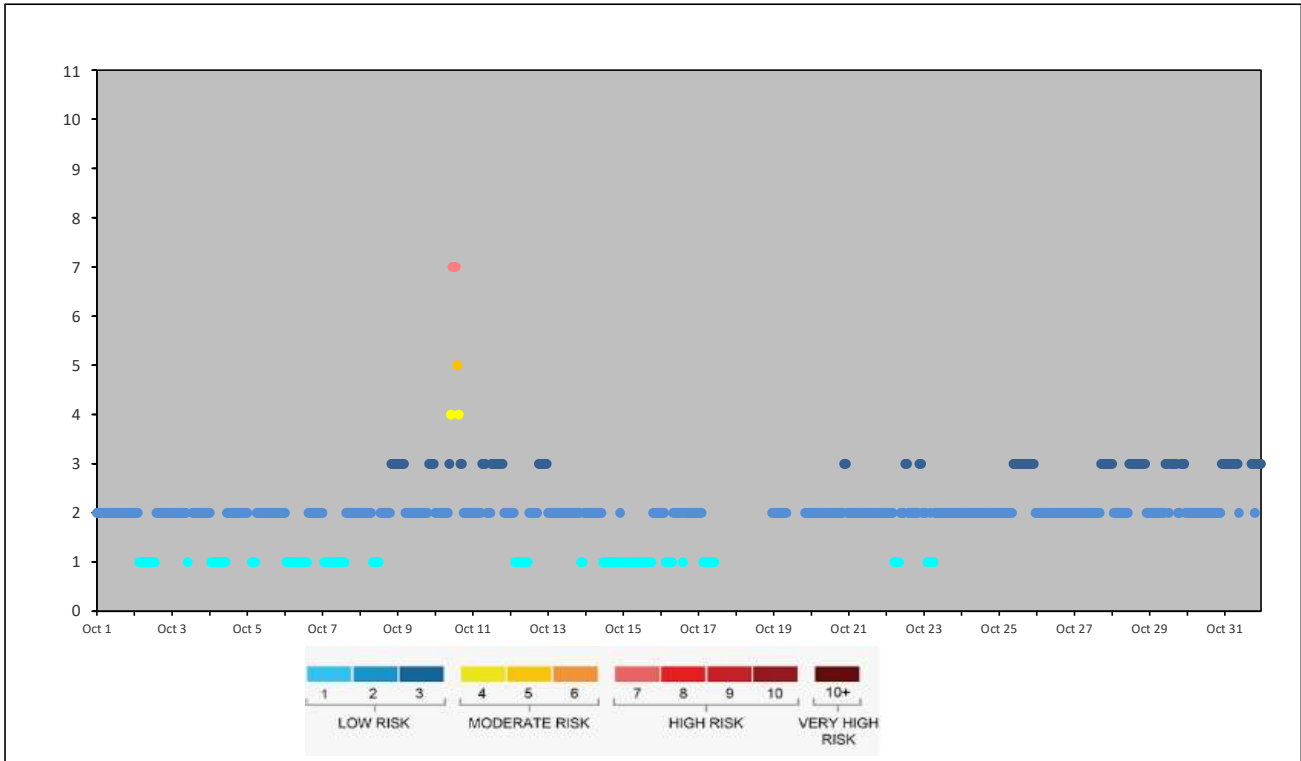
AQHI GRIMSHAW STATION

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

AQHI - Grimshaw Station - October 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
Oct 1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Oct 2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2
Oct 3	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2
Oct 4	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
Oct 5	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Oct 6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2
Oct 7	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2
Oct 8	2	2	2	2	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3
Oct 9	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
Oct 10	2	2	2	2	2	2	2	2	2	3	4	7	7	7	5	4	3	3	2	2	2	2	2	2
Oct 11	2	2	2	2	2	2	3	3	3	2	2	2	3	3	3	3	3	3	3	3	2	2	2	2
Oct 12	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3
Oct 13	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2
Oct 14	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1
Oct 15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
Oct 16	2	2	2	1	1	1	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2
Oct 17	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Oct 18	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Oct 19	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Oct 20	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2
Oct 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
Oct 22	2	2	2	2	2	1	1	1	1	2	2	2	3	3	2	2	2	2	2	2	2	3	3	2
Oct 23	2	2	1	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Oct 24	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Oct 25	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2
Oct 26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Oct 27	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3
Oct 28	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	2	2
Oct 29	2	2	2	2	2	2	2	2	2	2	3	3	2	3	3	3	3	3	2	2	3	3	3	2
Oct 30	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3
Oct 31	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	2	3	3	3	3

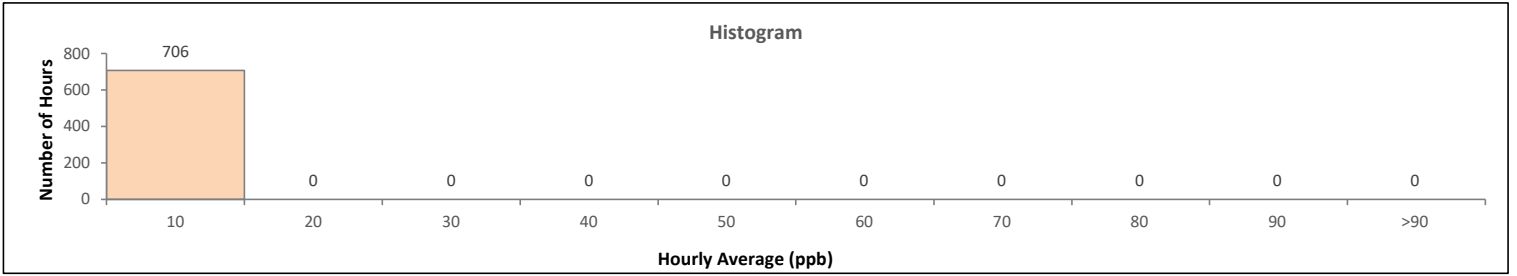
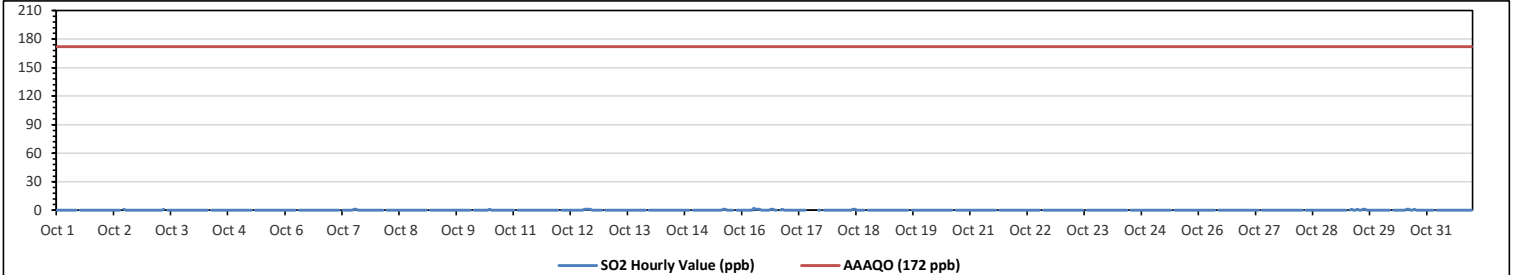


Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
SULPHUR DIOXIDE (SO₂) in ppb

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 Exceedance: 0																	
Maximum Hourly Value:	2	ppb	on Oct 16 at hr 6												Hours in Service:	744											
Maximum Daily Value:	0.3	ppb	on Oct 16												Hours of Data:	706											
Minimum Hourly Value:	0	ppb	on Oct 1 at hr 0												Hours of Missing Data:	0											
Minimum Daily Value:	0.0	ppb	on Oct 1												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			
Oct 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
Oct 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	1	0.0
Oct 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Oct 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
Oct 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Oct 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
Oct 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	1	0.1
Oct 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
Oct 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
Oct 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	1	0.0
Oct 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
Oct 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	1	0.2
Oct 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
Oct 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
Oct 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	1	0.1
Oct 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	2	0.3
Oct 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	NA
Oct 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	1	0.1
Oct 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
Oct 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
Oct 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
Oct 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
Oct 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
Oct 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
Oct 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
Oct 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
Oct 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
Oct 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
Oct 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	1	0.2
Oct 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	1	0.1
Oct 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum																								0	0	0	
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

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

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.

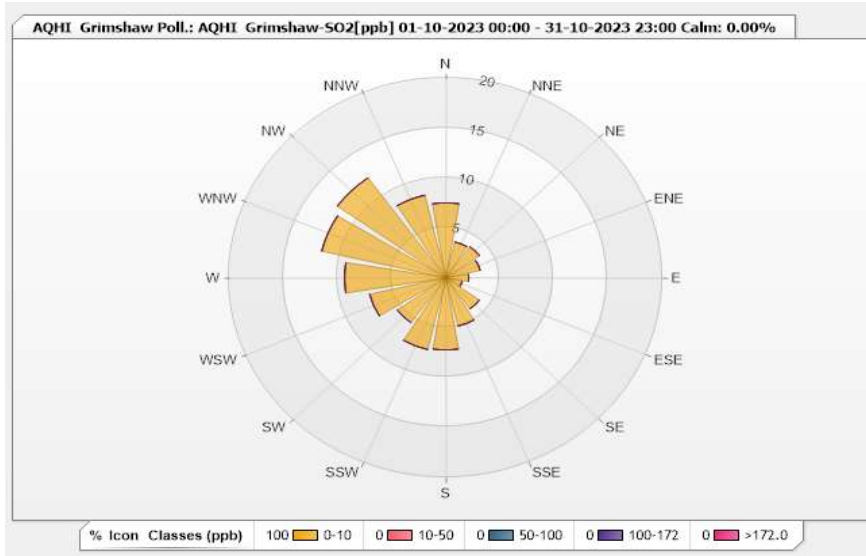


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-SO2[ppb] Monthly: 10-2023

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

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

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	7.51	0	0	0	0	7.51
NNE	3.68	0	0	0	0	3.68
NE	3.82	0	0	0	0	3.82
ENE	3.26	0	0	0	0	3.26
E	2.12	0	0	0	0	2.12
ESE	1.56	0	0	0	0	1.56
SE	3.82	0	0	0	0	3.82
SSE	4.96	0	0	0	0	4.96
S	7.22	0	0	0	0	7.22
SSW	7.37	0	0	0	0	7.37
SW	5.52	0	0	0	0	5.52
WSW	7.22	0	0	0	0	7.22
W	9.35	0	0	0	0	9.35
WNW	11.76	0	0	0	0	11.76
NW	12.32	0	0	0	0	12.32
NNW	8.5	0	0	0	0	8.5
Summary	100	0	0	0	0	100



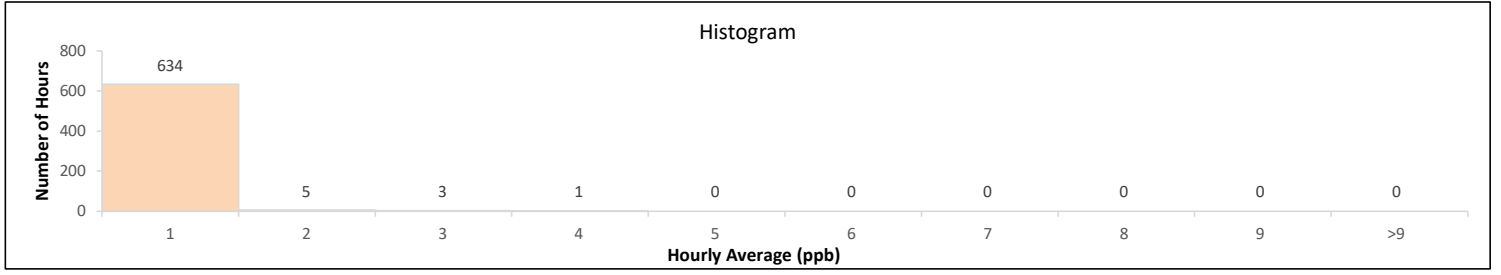
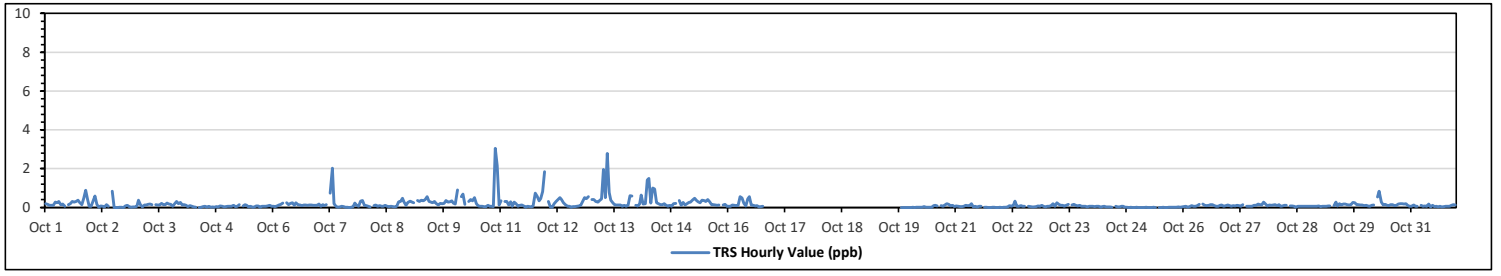
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
TOTAL REDUCED SULPHUR (TRS) in ppb

Maximum Hourly Value:	3.05 ppb	on Oct 10 at hr 21	Hours in Service:	744
Maximum Daily Value:	0.48 ppb	on Oct 13	Hours of Data:	643
Minimum Hourly Value:	0.00 ppb	on Oct 2 at hr 12	Hours of Missing Data:	68
Minimum Daily Value:	0.01 ppb	on Oct 25	Hours of Calibration:	33
Monthly Average:	0.16 ppb		Operational Uptime:	90.9

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
Oct 1	0.19	0.16	0.11	0.1	0.11	0.28	0.24	0.31	0.15	0.17	0.07	S	0.14	0.19	0.31	0.27	0.31	0.37	0.26	0.15	0.48	0.88	0.42	0.05	0.05	0.88	0.25
Oct 2	0.05	0.32	0.58	0.16	0.01	0.08	0.06	0.03	0.14	0.06	S	0.83	0	0	0	0.01	0.01	0	0.08	0.1	0.04	0.01	0.03	0.03	0.00	0.83	0.11
Oct 3	0.06	0.38	0.14	0.03	0.12	0.13	0.16	0.17	0.14	S	0.14	0.13	0.13	0.21	0.15	0.14	0.22	0.17	0.16	0.06	0.21	0.31	0.19	0.26	0.03	0.38	0.17
Oct 4	0.12	0.14	0.1	0.04	0.09	0.06	0.03	0.01	S	0	0.01	0.04	0.05	0.01	0.06	0.01	0.03	0.01	0.04	0.03	0.08	0.07	0.03	0.04	0.00	0.14	0.05
Oct 5	0.06	0.06	0.05	0.11	0.04	0.06	0.14	S	0.08	0.14	0.1	0.03	0.07	0.02	0.03	0.08	0.08	0.02	0.05	0.05	0.05	0.08	0.1	0.05	0.02	0.14	0.07
Oct 6	0.05	0.04	0.08	0.12	0.16	0.22	S	0.25	0.15	0.21	0.24	0.11	0.23	0.14	0.13	0.09	0.12	0.13	0.11	0.13	0.13	0.11	0.1	0.11	0.04	0.25	0.14
Oct 7	0.17	0.07	0.15	0.09	0.15	S	0.74	2.01	0.18	0.07	0.02	0.03	0.05	0.04	0.01	0.02	0	0.01	0.04	0.22	0.1	0.06	0.33	0.36	0.00	2.01	0.21
Oct 8	0.1	0.09	0.05	0.03	S	0.09	0.13	0.05	0.09	0.07	0.05	0.1	0.07	0.04	0.06	0.04	0.03	0.06	0.29	0.31	0.48	0.27	0.11	0.26	0.03	0.48	0.12
Oct 9	0.32	0.28	0.25	S	0.35	0.31	0.37	0.34	0.41	0.56	0.3	0.27	0.25	0.3	0.19	0.13	0.21	0.19	0.21	0.35	0.28	0.29	0.34	0.22	0.13	0.56	0.29
Oct 10	0.17	0.9	S	0.55	0.69	0.16	NRM	0.3	0.41	0.34	0.5	0.2	0.08	0.06	0.07	0.04	0.03	0.1	0.07	0.07	0.04	3.05	2.16	0.12	0.03	3.05	0.46
Oct 11	0.34	S	0.31	0.3	0.12	0.29	0.07	0.27	0.18	0.07	0.11	0.12	0.08	0.01	0.05	0.04	0.03	0.07	0.74	0.57	0.34	0.46	0.82	1.83	0.01	1.83	0.31
Oct 12	S	0.3	0.03	0.02	0.18	0.31	0.4	0.5	0.4	0.25	0.15	0.05	0.06	0.01	0.04	0.04	0.07	0.08	0.11	0.31	0.5	0.45	0.56	S	0.01	0.56	0.22
Oct 13	0.42	0.41	0.31	0.27	0.35	0.44	1.96	0.5	2.79	0.78	0.37	0.22	0.13	0.12	0.13	0.13	0.06	0.1	0.07	0.1	0.61	0.58	S	0.1	0.06	2.79	0.48
Oct 14	0.08	0.17	0.64	0.17	0.2	1.41	1.5	0.22	1.01	0.94	0.25	0.2	0.14	0.14	0.18	0.1	0.07	0.1	0.05	0.18	0.21	S	0.35	0.1	0.05	1.50	0.37
Oct 15	0.26	0.12	0.19	0.26	0.27	0.39	0.48	0.36	0.29	0.25	0.37	0.35	0.31	0.42	0.29	0.15	0.14	0.12	0.11	0.13	S	0.12	0.16	0.06	0.06	0.48	0.24
Oct 16	0.05	0.07	0.12	0.1	0.09	0.11	0.56	0.49	0.21	0.08	0.44	0.56	0.13	0.11	0.08	0.09	0.03	0.04	0.07	S	X	X	X	X	0.03	0.56	0.18
Oct 17	X	X	X	X	X	X	X	X	X	X	X	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	-	-	-
Oct 18	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	-	-	-
Oct 19	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	-	-	-
Oct 20	0	0.02	0	0.02	0.01	0.01	0.02	0.04	0.02	0.02	0.02	0.02	0.09	0.1	0.08	S	0.09	0.06	0.12	0.19	0.16	0.08	0.11	0.04	0.00	0.19	0.06
Oct 21	0.08	0.05	0.04	0.04	0.06	0.11	0.09	0.09	0.19	0.03	0.06	0.01	0.06	0.05	S	0.02	0.01	0	0	0.02	0.01	0	0	0.01	0.00	0.19	0.04
Oct 22	0	0.01	0.02	0.03	0.09	0.05	0.11	0.33	0.06	0.06	0.09	0.07	0.05	S	0.06	0.04	0.03	0.03	0.04	0.08	0.07	0.1	0.05	0.03	0.00	0.33	0.07
Oct 23	0.06	0.06	0.09	0.19	0.06	0.25	0.16	0.1	0.1	0.07	0.1	0.16	S	0.12	0.16	0.1	0.08	0.1	0.07	0.05	0.07	0.03	0.06	0.06	0.03	0.25	0.10
Oct 24	0.06	0.04	0.06	0.06	0.02	0.04	0.06	0.03	0.03	0.03	0.02	S	0.05	0.03	0.03	0.06	0.06	0.02	0.01	0	0.02	0	0	0.01	0.00	0.06	0.03
Oct 25	0	0	0	0	0.01	0	0	0	0.01	0	S	0	0	0.01	0	0	0.01	0.02	0.01	0.02	0.01	0.03	0.01	0.03	0.00	0.03	0.01
Oct 26	0.04	0.05	0.02	0.04	0.09	0.06	0.05	0.09	0.16	S	0.17	0.11	0.09	0.1	0.14	0.14	0.09	0.05	0.07	0.1	0.12	0.06	0.09	0.13	0.02	0.17	0.09
Oct 27	0.09	0.06	0.09	0.08	0.1	0.09	0.07	0.14	S	0.06	0.07	0.07	0.06	0.11	0.11	0.17	0.15	0.12	0.17	0.17	0.08	0.12	0.1	0.12	0.06	0.27	0.11
Oct 28	0.14	0.09	0.15	0.07	0.08	0.1	0.1	S	0.08	0.08	0.05	0.02	0.05	0.06	0.07	0.06	0.05	0.07	0.05	0.06	0.05	0.05	0.07	0.08	0.02	0.15	0.07
Oct 29	0.04	0.05	0.06	0.05	0.08	0.08	S	0.09	0.27	0.08	0.18	0.13	0.17	0.17	0.15	0.13	0.15	0.26	0.24	0.14	0.14	0.13	0.12	0.09	0.04	0.27	0.13
Oct 30	0.11	0.08	0.07	0.1	0.13	S	0.54	0.83	0.27	0.12	0.16	0.11	0.09	0.14	0.14	0.09	0.11	0.17	0.2	0.18	0.17	0.18	0.11	0.06	0.06	0.83	0.18
Oct 31	0.07	0.13	0.05	0.06	S	0.1	0.05	0.08	0.06	0.17	0.03	0.1	0.04	0.05	0.03	0.06	0.03	0.04	0.05	0.05	0.06	0.11	0.15	0.12	0.03	0.17	0.07
Diurnal Maximum	0.42	0.90	0.64	0.55	0.69	1.41	1.96	2.01	2.79	0.94	0.50	0.83	0.31	0.42	0.31	0.27	0.31	0.37	0.74	0.57	0.61	3.05	2.16	1.83			
Diurnal Average	0.12	0.15	0.14	0.11	0.14	0.20	0.32	0.29	0.30	0.18	0.16	0.16	0.10	0.10	0.10	0.08	0.08	0.09	0.13	0.14	0.17	0.28	0.24	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
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

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.

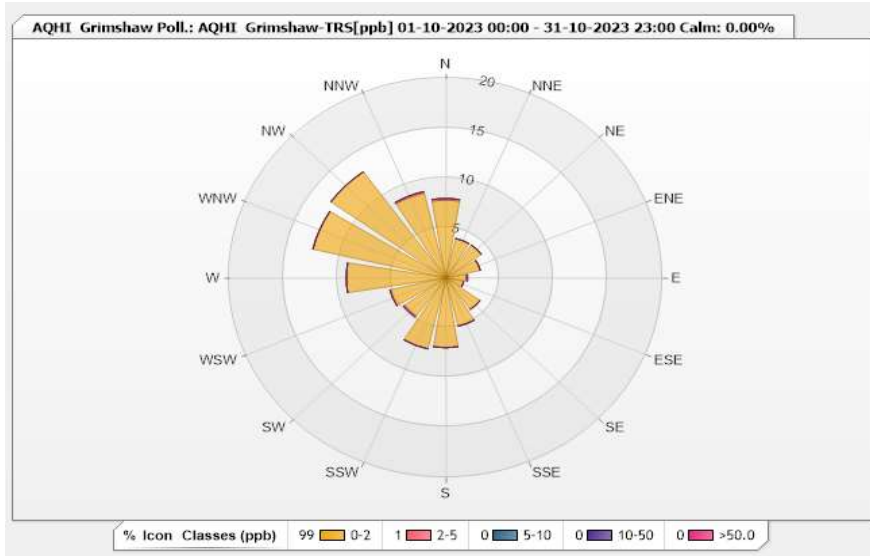


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-TRS[ppb] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 86.42% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	7.78	0.16	0	0	0	7.94
NNE	4.04	0	0	0	0	4.04
NE	4.04	0	0	0	0	4.04
ENE	3.27	0	0	0	0	3.27
E	1.87	0.16	0	0	0	2.03
ESE	1.71	0	0	0	0	1.71
SE	3.89	0	0	0	0	3.89
SSE	4.98	0	0	0	0	4.98
S	7	0	0	0	0	7
SSW	7.31	0	0	0	0	7.31
SW	4.67	0.16	0	0	0	4.83
WSW	5.29	0	0	0	0	5.29
W	9.18	0	0	0	0	9.18
WNW	12.6	0	0	0	0	12.6
NW	13.06	0	0	0	0	13.06
NNW	8.71	0.16	0	0	0	8.87
Summary	99.4	0.64	0	0	0	100



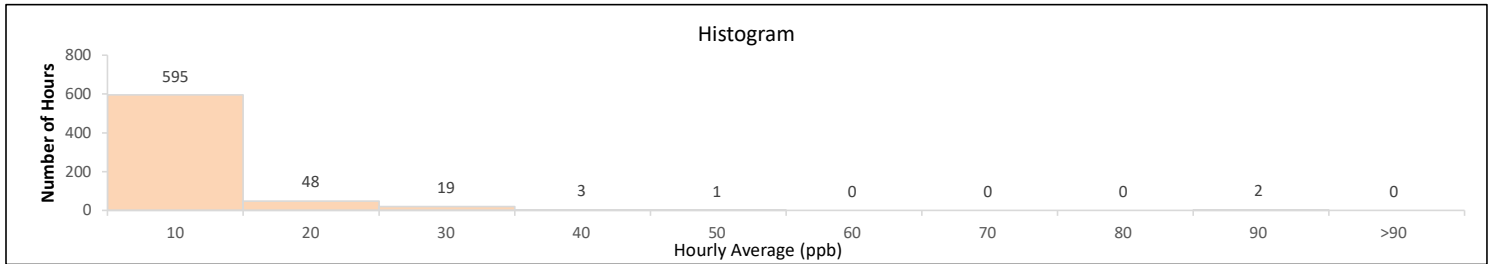
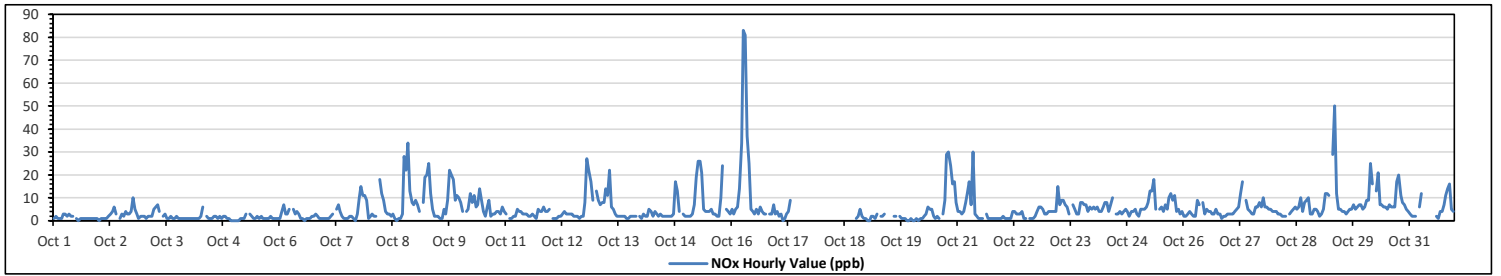
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
OXIDES OF NITROGEN (NOx) in ppb

Maximum Hourly Value:	83 ppb	on Oct 16 at hr 6	Hours in Service:	744
Maximum Daily Value:	15.0 ppb	on Oct 16	Hours of Data:	668
Minimum Hourly Value:	0 ppb	on Oct 1 at hr 13	Hours of Missing Data:	33
Minimum Daily Value:	1.2 ppb	on Oct 5	Hours of Calibration:	43
Monthly Average:	5.3 ppb		Operational Uptime:	95.6

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
Oct 1	1	2	1	1	1	3	3	2	3	2	2	S	1	0	1	1	1	1	1	1	1	1	1	0	3	1.4	
Oct 2	0	1	1	1	1	2	3	4	6	3	S	1	3	2	4	3	3	4	10	5	3	1	2	2	0	10	2.8
Oct 3	2	1	2	2	2	5	6	7	4	S	2	3	1	1	2	1	1	2	1	1	1	1	1	1	1	7	2.2
Oct 4	1	1	1	1	1	1	2	6	S	2	1	1	1	2	2	1	2	1	2	2	1	1	0	0	0	6	1.4
Oct 5	0	0	0	1	1	1	3	S	3	2	1	1	2	1	2	1	1	1	1	2	1	1	1	1	0	3	1.2
Oct 6	1	4	7	3	3	S	S	5	3	4	3	1	1	0	1	1	1	2	2	3	2	1	1	1	0	7	2.4
Oct 7	1	1	1	2	3	S	5	7	4	2	1	1	1	2	2	1	0	3	10	15	11	11	9	1	0	15	4.1
Oct 8	2	3	2	2	S	18	12	9	4	3	3	2	3	1	0	1	1	3	28	22	34	13	8	7	0	34	7.9
Oct 9	9	7	4	S	8	19	20	25	12	5	2	2	2	1	1	5	3	9	22	20	18	9	11	10	1	25	9.7
Oct 10	8	4	S	4	5	12	8	11	6	7	14	9	4	2	6	9	2	3	3	4	4	3	6	4	2	14	6.0
Oct 11	3	S	1	1	2	2	5	4	4	3	3	3	2	2	3	2	1	5	4	4	6	4	4	5	1	6	3.2
Oct 12	S	1	1	1	2	2	3	4	3	3	3	3	2	2	2	1	2	2	8	27	22	17	9	S	1	27	5.5
Oct 13	13	9	7	8	8	14	11	22	6	5	3	2	2	2	2	2	1	1	2	2	2	S	S	2	1	22	5.6
Oct 14	1	3	2	2	5	4	2	4	3	2	3	2	2	2	2	2	3	17	13	4	S	3	2	1	17	3.7	
Oct 15	2	2	2	3	7	19	26	26	21	5	4	4	4	5	3	3	2	2	10	24	S	5	4	3	2	26	8.1
Oct 16	5	3	5	6	14	34	83	81	37	25	5	4	3	5	3	6	4	3	3	S	3	3	7	3	3	83	15.0
Oct 17	4	2	3	0	1	3	4	9	C	C	C	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	0	9	NA
Oct 18	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	C	C	C	C	1	2	5	2	1	1	1	5	NA
Oct 19	0	0	2	2	1	3	NRM	2	2	3	NRM	NRM	NRM	NRM	2	2	S	2	1	1	1	0	0	1	0	3	1.4
Oct 20	0	0	1	0	1	1	2	3	6	5	5	2	1	2	1	S	3	9	29	30	24	16	17	8	0	30	7.2
Oct 21	4	4	3	4	8	12	17	7	30	3	2	1	1	1	S	3	1	1	1	1	1	1	1	1	1	30	4.7
Oct 22	2	1	1	1	1	4	4	3	3	3	4	1	1	S	1	1	1	2	4	6	6	5	3	3	1	6	2.7
Oct 23	4	4	4	4	4	15	7	9	9	7	6	3	S	7	5	3	3	8	8	7	7	4	6	5	3	15	6.0
Oct 24	6	5	6	4	4	6	8	8	4	7	10	S	3	3	4	3	4	5	4	2	4	4	5	3	2	10	4.9
Oct 25	2	5	5	5	6	8	13	13	18	5	S	5	6	4	7	5	10	12	9	11	4	5	3	4	2	18	7.2
Oct 26	2	2	3	4	3	2	2	9	7	S	8	3	5	4	4	3	5	3	5	3	1	2	2	3	1	9	3.6
Oct 27	3	3	3	4	5	6	12	17	S	9	5	4	3	3	6	6	8	6	10	6	6	5	5	4	3	17	6.0
Oct 28	4	4	3	3	2	2	S	3	4	5	6	5	6	10	4	8	9	10	3	3	5	5	4	2	10	4.8	
Oct 29	2	3	5	12	12	11	S	29	50	12	5	5	4	4	3	4	5	5	7	5	6	7	7	5	2	50	9.0
Oct 30	6	9	9	25	16	S	13	21	7	7	6	6	5	7	6	6	17	20	11	8	7	5	4	4	4	25	9.9
Oct 31	3	2	2	2	S	6	12	NRM	NRM	NRM	NRM	NRM	NRM	NRM	2	1	4	4	7	11	14	16	5	4	1	16	NA
Diurnal Maximum	13	9	9	25	16	34	83	81	50	25	14	9	6	7	10	9	10	17	29	30	34	17	17	10			
Diurnal Average	3.1	3.0	3.0	3.7	4.5	7.9	10.7	12.9	9.9	5.3	4.2	3.0	2.6	2.7	3.1	2.9	3.0	4.5	7.9	8.4	7.0	5.2	4.6	3.2			

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

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.

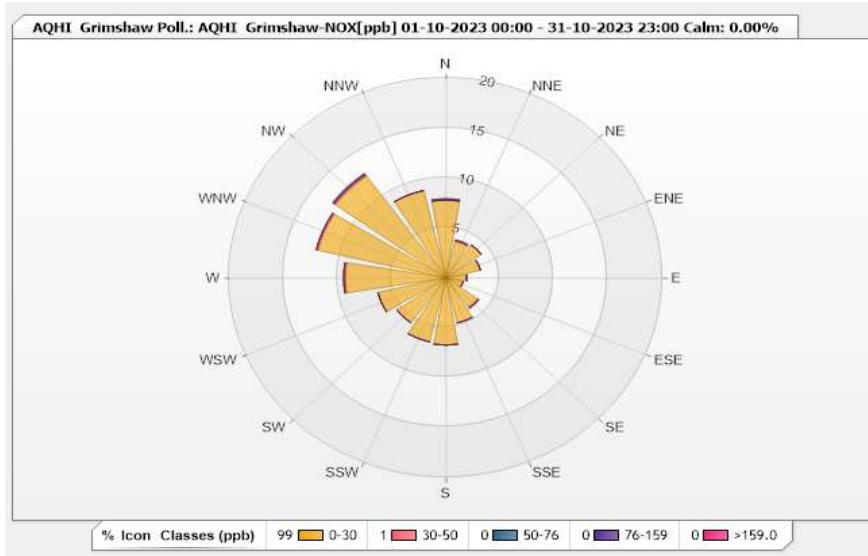


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NOX[ppb] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 89.78% Calm Avg: 0.00 [ppm]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	7.78	0	0	0.15	0	7.93
NNE	3.74	0.15	0	0	0	3.89
NE	4.04	0	0	0	0	4.04
ENE	3.29	0	0	0	0	3.29
E	1.95	0	0	0	0	1.95
ESE	1.65	0	0	0	0	1.65
SE	3.59	0.15	0	0	0	3.74
SSE	4.64	0	0	0	0	4.64
S	6.74	0	0	0	0	6.74
SSW	6.59	0	0	0	0	6.59
SW	5.54	0	0	0	0	5.54
WSW	6.44	0	0	0	0	6.44
W	9.28	0.15	0	0	0	9.43
WNW	12.13	0.15	0	0	0	12.28
NW	12.57	0.15	0	0.15	0	12.87
NNW	8.98	0	0	0	0	8.98
Summary	98.95	0.75	0	0.3	0	100



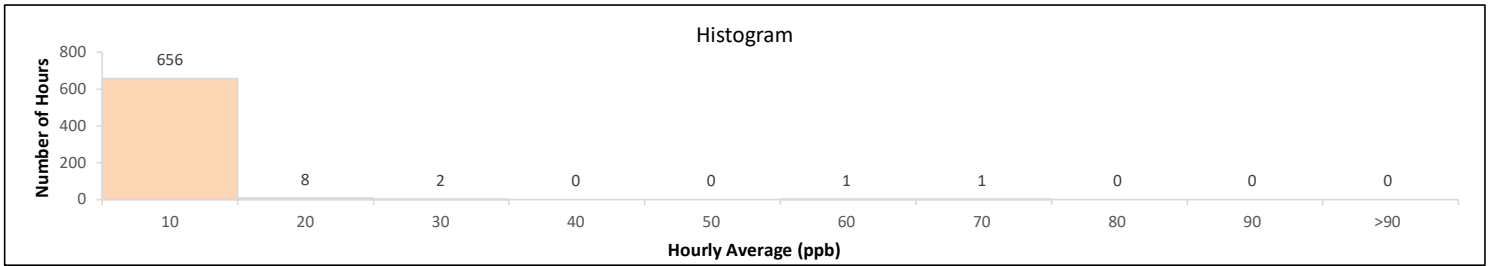
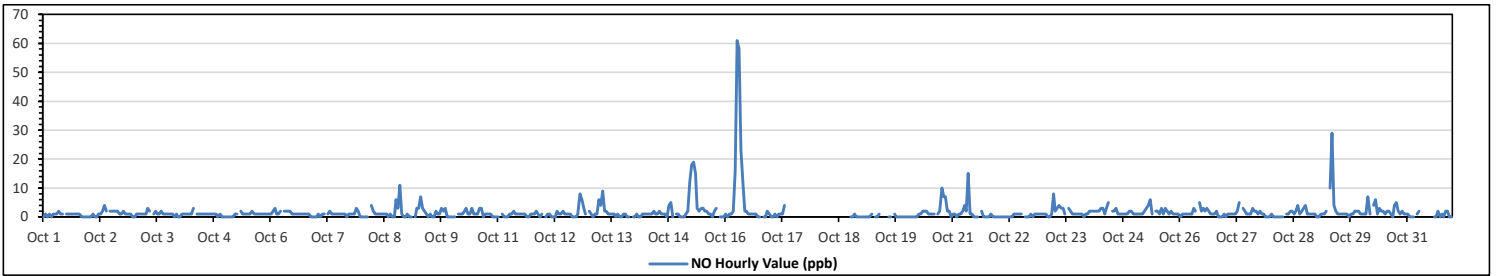
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
NITRIC OXIDE (NO) in ppb

Maximum Hourly Value:	61 ppb	on Oct 16 at hr 6	Hours in Service:	744
Maximum Daily Value:	8.1 ppb	on Oct 16	Hours of Data:	668
Minimum Hourly Value:	0 ppb	on Oct 1 at hr 0	Hours of Missing Data:	33
Minimum Daily Value:	0.2 ppb	on Oct 19	Hours of Calibration:	43
Monthly Average:	1.6 ppb		Operational Uptime:	95.6

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	
Oct 1	0	1	0	1	0	1	1	1	2	1	1	S	1	1	1	1	1	1	1	1	0	0	0	0	0	0	2	0.7
Oct 2	0	0	1	0	0	1	1	2	4	2	S	2	2	2	2	2	1	1	2	1	1	1	1	0	0	4	1.3	
Oct 3	0	1	1	1	1	1	1	3	2	S	1	2	1	1	2	1	1	1	1	1	1	0	1	0	0	3	1.1	
Oct 4	0	1	1	1	1	1	1	3	2	S	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	3	0.9	
Oct 5	0	0	0	0	0	1	1	S	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	0.9	
Oct 6	1	2	3	1	1	S	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	3	1.2	
Oct 7	0	1	0	1	1	S	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	0	3	1.0	
Oct 8	0	0	0	0	S	4	2	1	1	1	1	1	1	1	0	1	0	0	6	3	11	1	0	0	0	11	1.5	
Oct 9	1	0	0	S	0	3	3	7	3	2	1	0	1	0	0	2	1	1	3	2	3	0	0	0	0	7	1.4	
Oct 10	0	0	S	1	1	1	2	3	1	1	3	1	1	1	3	3	0	1	1	1	1	0	0	0	0	3	1.1	
Oct 11	0	S	1	0	0	0	1	2	1	2	1	1	1	1	1	0	0	1	1	1	2	1	0	1	0	2	0.8	
Oct 12	S	0	1	1	0	0	0	2	1	1	2	1	1	1	1	0	0	0	1	8	6	3	1	S	0	8	1.4	
Oct 13	2	1	0	1	1	6	4	9	2	2	1	1	1	1	0	1	0	0	1	1	0	0	S	0	0	9	1.5	
Oct 14	0	1	0	0	1	1	1	1	1	1	2	1	1	2	1	1	1	0	4	5	0	S	1	1	0	5	1.2	
Oct 15	0	0	0	1	2	12	18	19	15	3	2	3	3	2	2	1	1	0	2	3	S	0	0	0	0	19	3.9	
Oct 16	1	0	1	1	2	16	61	58	23	12	2	2	1	1	1	1	0	0	S	0	0	0	2	1	0	61	8.1	
Oct 17	0	0	1	0	1	1	1	4	C	C	C	C	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	0	4	NA
Oct 18	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	C	C	C	C	0	0	1	0	0	0	0	1	NA	
Oct 19	0	0	0	0	0	1	NRM	0	0	1	NRM	NRM	NRM	NRM	0	0	S	1	0	0	0	0	0	0	0	1	0.2	
Oct 20	0	0	0	0	0	0	1	1	2	2	2	1	1	1	1	S	1	2	10	7	7	2	2	0	0	10	1.9	
Oct 21	1	1	0	1	1	2	4	2	15	1	1	0	0	0	S	2	0	0	0	0	1	0	0	0	0	15	1.4	
Oct 22	0	0	0	0	0	0	0	0	1	1	1	1	1	S	0	0	0	1	0	1	1	1	1	1	0	1	0.5	
Oct 23	1	1	0	0	1	8	2	3	4	3	3	1	S	3	2	1	1	1	1	1	1	0	1	1	0	8	1.7	
Oct 24	2	2	2	2	2	3	3	1	3	5	S	2	2	3	1	1	1	1	1	1	1	2	2	1	1	5	2.0	
Oct 25	1	1	1	1	1	2	3	4	6	1	S	2	2	1	3	1	3	2	1	2	1	1	1	1	1	6	1.8	
Oct 26	0	1	1	1	1	1	1	3	2	S	5	2	3	2	3	2	1	1	1	2	0	0	0	1	0	5	1.5	
Oct 27	0	1	1	1	1	1	2	5	S	3	2	1	1	1	3	2	2	1	2	1	1	0	0	0	0	5	1.4	
Oct 28	1	0	0	0	0	0	S	1	1	2	2	1	2	4	1	2	3	4	1	1	1	1	1	1	0	4	1.3	
Oct 29	0	0	1	1	1	2	S	10	29	4	2	1	1	1	1	1	0	1	1	2	2	2	1	0	29	2.8		
Oct 30	1	1	1	7	1	S	4	6	1	3	2	2	1	2	2	1	0	4	5	2	1	2	1	1	0	7	2.2	
Oct 31	1	0	0	0	S	1	2	NRM	NRM	NRM	NRM	NRM	NRM	NRM	0	0	2	0	1	0	2	2	0	0	0	2	NA	
Diurnal Maximum	2	2	3	7	2	16	61	58	29	12	5	3	3	3	4	3	3	4	10	8	11	3	2	1				
Diurnal Average	0.4	0.6	0.6	0.8	0.8	2.5	4.5	5.7	4.8	2.1	1.9	1.3	1.2	1.3	1.5	1.1	0.9	0.9	1.8	1.7	1.7	0.8	0.7	0.4				

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

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.

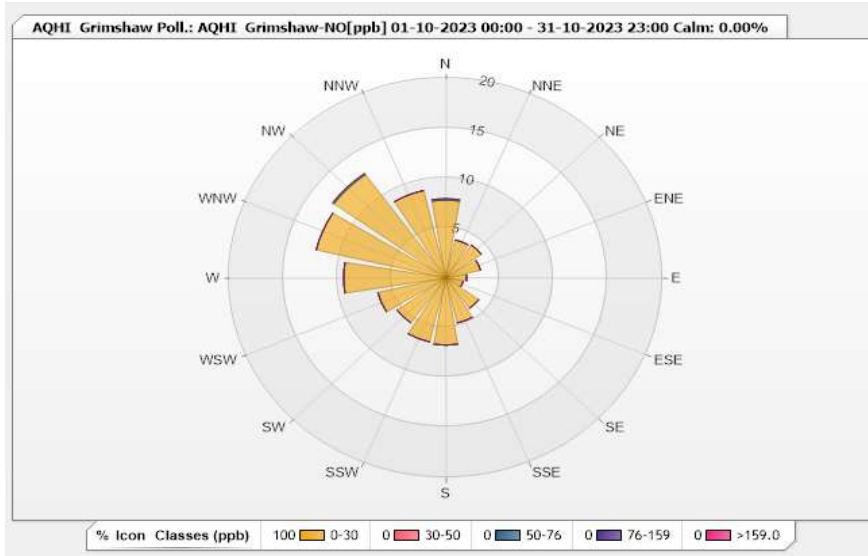


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NO[ppb] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 89.78% Calm Avg: 0.00 [ppm]

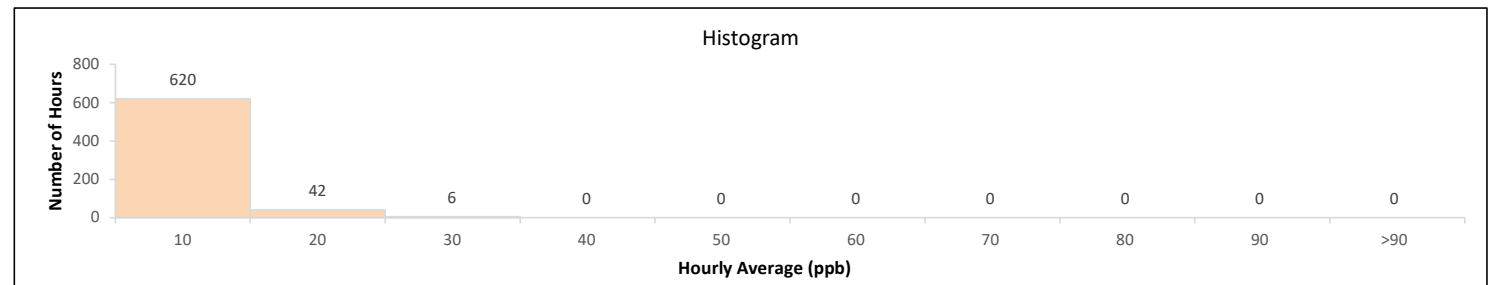
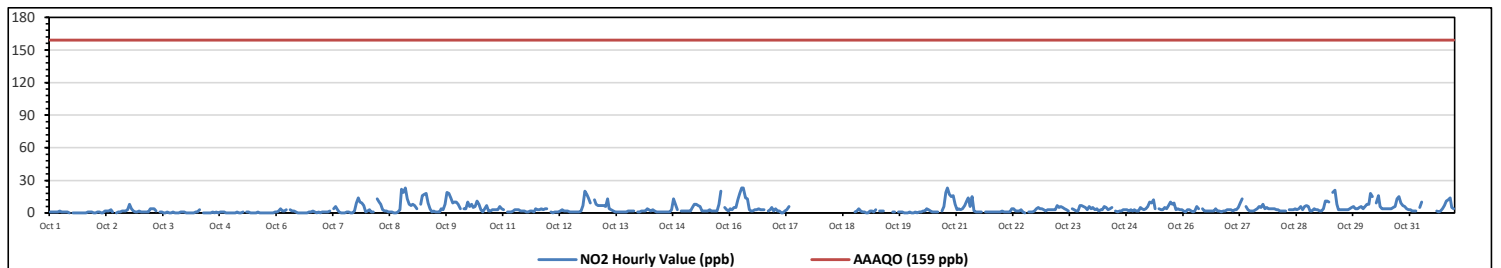
Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	7.78	0	0.15	0	0	7.93
NNE	3.89	0	0	0	0	3.89
NE	4.04	0	0	0	0	4.04
ENE	3.29	0	0	0	0	3.29
E	1.95	0	0	0	0	1.95
ESE	1.65	0	0	0	0	1.65
SE	3.74	0	0	0	0	3.74
SSE	4.64	0	0	0	0	4.64
S	6.74	0	0	0	0	6.74
SSW	6.59	0	0	0	0	6.59
SW	5.54	0	0	0	0	5.54
WSW	6.44	0	0	0	0	6.44
W	9.43	0	0	0	0	9.43
WNW	12.28	0	0	0	0	12.28
NW	12.72	0	0.15	0	0	12.87
NNW	8.98	0	0	0	0	8.98
Summary	100	0	0.3	0	0	100



Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
NITROGEN DIOXIDE (NO₂) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 159 ppb																																															
Number of 1-Hour Exceedances: 0																																															
Maximum Hourly Value: 23 ppb on Oct 8 at hr 20												Hours in Service: 744																																			
Maximum Daily Value: 8.3 ppb on Oct 9												Hours of Data: 668																																			
Minimum Hourly Value: 0 ppb on Oct 1 at hr 10												Hours of Missing Data: 33																																			
Minimum Daily Value: 0.3 ppb on Oct 5												Hours of Calibration: 43																																			
Monthly Average: 3.7 ppb												Operational Uptime: 95.6																																			
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																				
Oct 1	1	1	1	1	1	2	1	1	1	1	0	S	0	0	0	0	0	0	0	1	1	1	0	0	0	2	0.6																				
Oct 2	0	1	1	0	0	2	2	2	3	1	S	0	1	1	2	2	2	3	8	4	2	1	1	2	0	8	1.8																				
Oct 3	1	1	1	1	1	4	4	4	4	2	S	1	1	0	0	0	1	0	0	0	1	1	1	1	0	4	1.1																				
Oct 4	0	0	0	0	0	1	1	3	S	0	0	0	0	0	1	0	1	0	1	1	1	0	0	0	0	3	0.4																				
Oct 5	0	0	0	1	0	0	1	S	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0.3																				
Oct 6	1	2	4	2	2	3	S	3	2	2	1	0	0	0	0	0	0	1	1	2	1	0	1	0	0	4	1.2																				
Oct 7	1	1	1	1	2	S	4	6	3	1	0	0	0	1	1	0	0	2	9	14	10	9	7	1	0	14	3.2																				
Oct 8	2	3	1	1	S	13	10	8	3	2	2	1	1	1	0	0	1	3	22	19	23	13	8	7	0	23	6.3																				
Oct 9	8	7	4	S	8	16	17	18	9	4	1	2	1	1	1	4	3	8	19	18	14	9	10	10	1	19	8.3																				
Oct 10	8	4	S	4	4	10	6	8	5	6	11	8	3	1	4	7	2	2	3	3	3	3	6	4	1	11	5.0																				
Oct 11	3	S	1	1	1	2	3	3	3	2	2	2	1	1	2	2	1	4	3	3	4	3	4	4	1	4	2.4																				
Oct 12	S	1	0	1	1	1	2	3	2	2	2	1	1	1	1	1	1	2	7	20	17	14	9	S	0	20	4.1																				
Oct 13	12	8	7	7	7	7	6	13	4	3	2	1	1	1	1	1	1	1	1	2	2	2	S	1	1	13	4.0																				
Oct 14	1	2	2	2	4	3	2	3	2	1	1	1	1	1	1	1	3	13	8	3	S	2	2	2	1	13	2.6																				
Oct 15	2	2	2	2	5	8	8	7	6	2	2	2	2	3	2	2	2	2	8	20	S	5	3	2	2	20	4.3																				
Oct 16	4	3	5	5	12	18	23	23	14	13	3	2	2	3	3	4	3	3	S	2	3	5	2	2	23	6.9																					
Oct 17	4	2	2	0	2	3	6	C	C	C	C	C	C	C	C	C	C	C	NRM	NRM	NRM	NRM	NRM	NRM	0	6	NA																				
Oct 18	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	C	C	C	C	C	C	C	C	1	2	4	2	1	1	1	4	NA																				
Oct 19	0	0	2	2	1	3	NRM	2	2	2	NRM	NRM	NRM	NRM	1	1	S	1	1	1	0	0	0	1	0	3	1.1																				
Oct 20	0	0	1	0	1	1	2	2	4	3	2	1	1	1	1	S	2	6	19	23	17	15	16	8	0	23	5.5																				
Oct 21	3	4	3	4	7	11	14	6	15	2	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	15	3.6																				
Oct 22	2	1	1	1	1	4	4	2	2	2	3	1	0	S	1	1	1	2	4	5	4	4	3	2	0	5	2.2																				
Oct 23	3	3	3	3	3	7	5	6	5	4	3	2	S	4	3	2	2	7	7	6	5	3	6	4	2	7	4.2																				
Oct 24	5	3	4	2	3	3	6	5	3	4	5	S	2	1	2	2	3	3	3	2	3	2	3	2	1	6	3.1																				
Oct 25	2	5	4	3	4	6	10	9	12	4	S	4	3	3	5	4	7	10	8	9	3	4	3	3	2	12	5.4																				
Oct 26	2	1	3	3	2	1	2	6	4	S	4	2	2	2	2	2	2	4	2	2	1	2	2	3	1	6	2.4																				
Oct 27	3	3	2	3	3	5	9	13	S	6	3	2	2	2	2	3	4	6	5	8	4	5	4	4	2	13	4.5																				
Oct 28	4	3	3	2	2	2	2	S	3	3	3	4	3	4	6	3	6	7	6	2	2	4	3	3	2	7	3.5																				
Oct 29	2	2	4	11	10	S	19	21	8	3	3	3	3	3	3	3	4	5	6	4	4	5	6	4	2	21	6.3																				
Oct 30	6	8	8	18	15	S	9	16	6	4	4	4	4	4	4	5	6	13	15	9	7	6	4	3	3	18	7.7																				
Oct 31	3	2	2	2	S	5	10	NRM	NRM	NRM	NRM	NRM	NRM	2	1	2	4	7	11	12	14	5	4	1	14	NA																					
Diurnal Maximum	12	8	8	18	15	18	23	23	21	13	11	8	4	4	6	7	7	13	22	23	23	15	16	10																							
Diurnal Average	2.9	2.5	2.5	2.9	3.6	5.4	6.1	7.3	5.3	3.2	2.4	1.8	1.3	1.5	1.9	1.9	2.1	3.6	6.2	6.7	5.2	4.5	4.0	2.8																							
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.

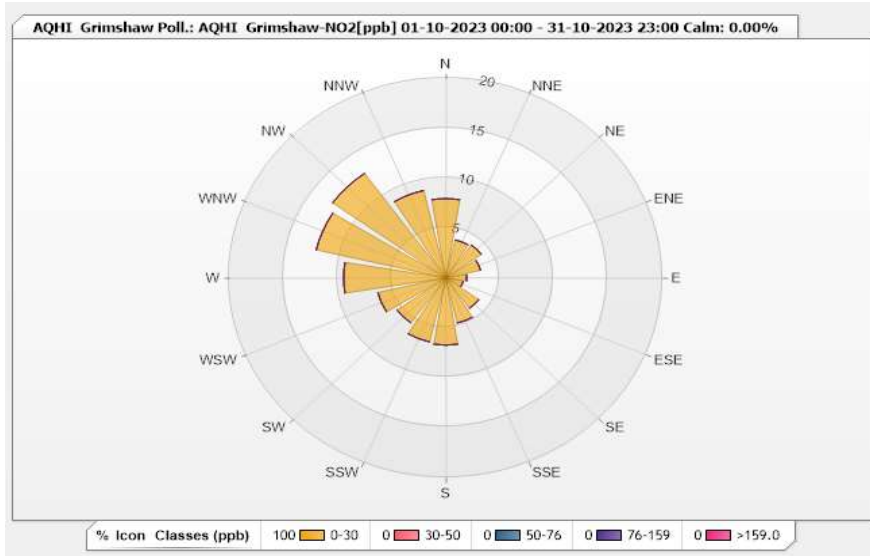


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NO2[ppb] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 89.78% Calm Avg: 0.00 [ppm]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	7.93	0	0	0	0	7.93
NNE	3.89	0	0	0	0	3.89
NE	4.04	0	0	0	0	4.04
ENE	3.29	0	0	0	0	3.29
E	1.95	0	0	0	0	1.95
ESE	1.65	0	0	0	0	1.65
SE	3.74	0	0	0	0	3.74
SSE	4.64	0	0	0	0	4.64
S	6.74	0	0	0	0	6.74
SSW	6.59	0	0	0	0	6.59
SW	5.54	0	0	0	0	5.54
WSW	6.44	0	0	0	0	6.44
W	9.43	0	0	0	0	9.43
WNW	12.28	0	0	0	0	12.28
NW	12.87	0	0	0	0	12.87
NNW	8.98	0	0	0	0	8.98
Summary	100	0	0	0	0	100

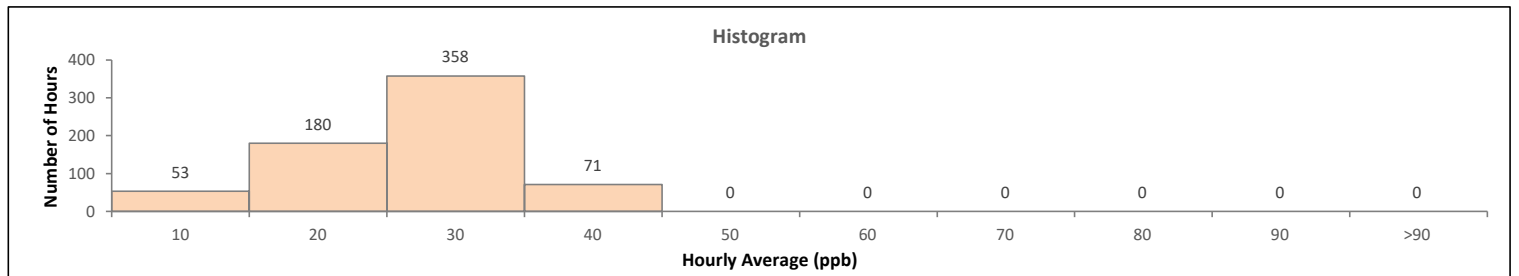
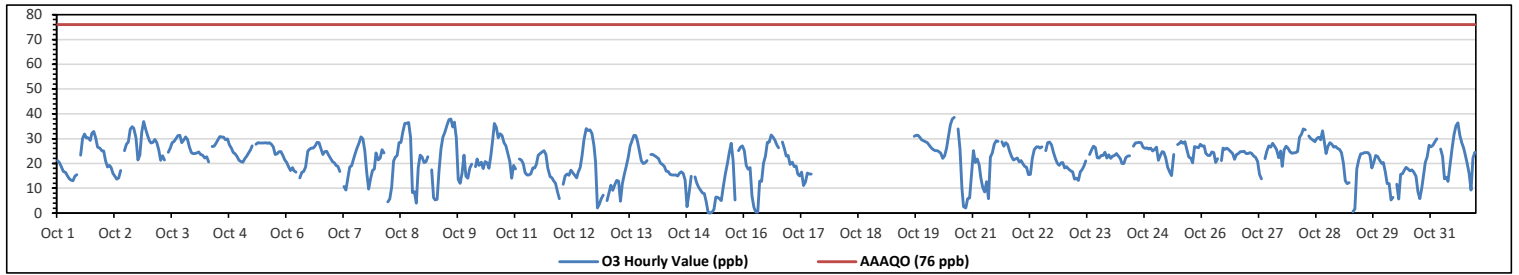


Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
OZONE (O₃) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 76 ppb																												
Number of 1-Hour Exceedances: 0																												
Maximum Hourly Value: 38.6 ppb on Oct 20 at hr 14												Hours in Service: 744																
Maximum Daily Value: 28.8 ppb on Oct 28												Hours of Data: 662																
Minimum Hourly Value: 0.0 ppb on Oct 15 at hr 6												Hours of Missing Data: 46																
Minimum Daily Value: 11.8 ppb on Oct 15												Hours of Calibration: 36																
Monthly Average: 21.7 ppb												Operational Uptime: 93.8																
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	
Oct 1	21.2	20.2	18.6	16.8	16.4	15	13.9	13.2	13	14.8	15.4	S	23.4	30.1	31.9	30.3	30.2	29.3	32.2	32.9	30.2	26.6	26.1	25.2	13.0	32.9	22.9	
Oct 2	25	21	18.5	19.3	18.4	16	14.9	13.6	14.2	17.2	S	25.1	27.8	28.6	33.8	34.8	34.2	30.3	21.4	23.4	32.6	36.8	34	31.4	13.6	36.8	24.9	
Oct 3	29.2	28.2	28.5	29.7	28.3	25.5	21.3	23.1	21.5	S	24.5	26.2	28.4	28.9	30.1	31.2	31.3	28.3	29.4	30.7	29.7	26.5	24.4	23.9	21.3	31.3	27.3	
Oct 4	23.9	24.2	24.6	23.6	23.3	22.1	22.7	20.6	S	26.8	27	28	29.6	30.8	30.7	30.5	29.5	29.9	27.5	26.2	24.3	24	23	21.3	20.6	30.8	25.8	
Oct 5	20.7	20.5	21.9	22.9	24.2	25.6	27.1	S	27.7	28.3	28.2	28.2	28.4	28	28.3	27.8	26.7	23.7	23.8	24.7	24.7	23.2	21.5	20.5	28.4	25.4		
Oct 6	20.3	18.6	17.2	18.3	17.1	16.5	S	14.2	16.4	16.8	18.6	25	25.8	26.2	26.2	27.1	28.5	28.3	25.9	23.6	24.7	24.9	23.3	22	14.2	28.5	22.0	
Oct 7	20.8	20.2	19.3	18.9	16.8	S	10.7	9.2	14.1	18.5	19.1	21.5	23.9	26.3	28.2	30.7	29.9	25.1	16.4	9.6	13.8	17.2	17.8	24.2	9.2	30.7	19.7	
Oct 8	21.4	22.1	25.5	24.2	S	4.5	5.6	10.5	21	22.4	23.2	28.3	28.5	32.7	36.1	36.3	36.5	30.5	8.2	8.6	4	18.3	23.3	22.5	4.0	36.5	21.5	
Oct 9	20.4	20.6	22.7	S	17.4	6.2	5.3	5.5	17.2	25.8	30.5	32.4	35.5	37.6	38	34.6	36.6	30.3	13.5	12	16.1	23.3	14.9	14.1	5.3	38.0	22.2	
Oct 10	18	19.7	S	18.7	21.8	19.2	20.5	17.9	20.7	20.2	18	23.2	30	36.2	34.5	30.3	32	31.2	28.4	27.1	23.9	20.9	14	19.2	14.0	36.2	23.7	
Oct 11	17.7	S	21.8	21.5	19.9	16.2	15.3	15.3	15.8	18.2	18.1	19.6	23.4	24	24.6	25.1	23.6	18	14.7	14.2	13	12	8.6	5.8	5.8	25.1	17.7	
Oct 12	S	11.6	15	15.7	15.2	17.3	16.2	15.2	14.2	16.5	18.3	23.2	29.7	34.1	33.3	33.5	32	27.3	20.7	2.1	3.6	5.8	7.2	S	2.1	34.1	18.5	
Oct 13	5	8.1	11.2	9.1	11.3	13.1	12.9	4.7	12	15.5	18.8	22.3	27	29.1	31.4	31.2	29	25.1	21.2	19.9	20.2	21.2	S	23.6	4.7	31.4	18.4	
Oct 14	23.6	23.1	22.6	21.9	20.1	19.5	18.9	16.9	16.8	15.6	15.3	15.3	15.3	15	16	16.6	16	13.2	2.5	8.6	14.9	S	14.6	12.2	2.5	23.6	16.3	
Oct 15	10.5	9.3	8.1	7.9	4.5	0.2	0	0.3	1.4	6.4	6.3	5.8	5	11.2	15.9	19.8	24.4	28	21.2	5.3	S	25.1	26.6	27.1	0.0	28.0	11.8	
Oct 16	25.1	19.3	17.6	18.3	6.8	2.3	0.3	0.3	12.9	12.8	20.1	22.9	28.5	28.6	31.5	30.5	29.3	27.4	26.3	S	28.6	26	23	23.2	0.3	31.5	20.1	
Oct 17	19.5	20.5	18.7	19	15.7	15	16.5	11	12.5	16.1	15.7	15.7	C	C	C	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	11.0	20.5	NA	
Oct 18	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	-	-	-
Oct 19	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	NRM	28.8	31.3	NA
Oct 20	28.4	27.4	26.2	25.5	25.1	25.2	24.7	24.1	22	23.1	26.2	31	35.6	38	38.6	S	34	25.8	10.1	2.5	2.1	5.8	6	15.6	2.1	38.6	22.7	
Oct 21	25.1	20.4	21.8	19.4	14.3	10.3	8.5	12.7	5.8	22.5	24.2	27.7	29.1	28.9	S	28.7	26.9	28.3	27.6	24.9	22.8	21.5	21.7	22.1	5.8	29.1	21.5	
Oct 22	20.6	21.2	20	18.9	18.4	15.4	15.6	22	25.6	26.7	26.7	26.2	26.7	S	25.2	28.3	28.6	27.5	24.5	22	20.1	19.2	20.2	20.3	15.4	28.6	22.6	
Oct 23	18.1	18.7	17.7	17.1	16.7	13.6	14.1	13.1	16.6	17.4	18.8	21.1	S	23.7	25.4	26.9	26.4	22.3	22.1	23.2	23.2	24.5	22.2	23.5	13.1	26.9	20.3	
Oct 24	22	23	23.2	23.9	23	21.9	19.9	20	22.3	22.9	23.1	S	26.9	28.2	28.4	28.5	28.3	26.5	26	26.3	25.8	26.2	25	25.7	19.9	28.5	24.7	
Oct 25	26.5	21.3	23.2	24.7	24.5	22.2	18.4	16.6	15.1	23.7	S	27.6	28.1	28.9	28	28.7	25.6	22.5	22.2	20.2	26.8	26.5	26.3	27.7	15.1	28.9	24.1	
Oct 26	26.9	27.1	24.1	23.2	23.2	24.6	24.3	20.4	21.9	S	21.2	26.2	25.7	26.2	25.5	24.8	23.9	21.6	23.7	24	24.7	24.7	24.9	24	20.4	27.1	24.2	
Oct 27	23.9	24.3	24	22.9	22.4	20.7	15.6	13.7	S	21.9	25	27.1	26.5	28.1	26.9	25.7	22.3	25	18.8	25.6	26.9	26.1	24.7	24.1	13.7	28.1	23.6	
Oct 28	24.2	24.3	24.8	30.6	31.8	34	33.5	S	31.1	30.1	29.4	28.7	30.1	30.6	29.5	33.1	29.1	24	27	28.4	27.7	26.5	26.8	26	24.0	34.0	28.8	
Oct 29	25.7	24.3	20.2	13	11.9	12.3	S	0.4	1.7	17.8	21.5	23.8	24	24.4	24.3	24.3	23.3	18.1	20.3	23.2	22.8	21.5	20	20.4	0.4	25.7	19.1	
Oct 30	16.7	11.8	11.9	5.3	6.3	S	11.6	5.6	15.5	15.8	17.4	18.4	17.8	17	17.4	16.5	14.8	8.7	5.8	10.1	15.5	20.3	22.7	27.3	5.3	27.3	14.4	
Oct 31	26.7	27.4	28.8	29.9	S	25.8	22.8	13.7	14.5	12.8	19.9	26.3	31.7	35.2	36.4	31.4	28.3	26.1	23.5	19.9	16	9.2	22.2	24.5	9.2	36.4	24.0	
Diurnal Maximum	29.2	28.2	28.8	30.6	31.8	34.0	33.5	24.1	31.1	30.1	30.5	32.4	35.6	38.0	38.6	36.3	36.6	31.2	32.2	32.9	32.6	36.8	34.0	31.4				
Diurnal Average	21.7	20.7	20.6	20.0	18.3	17.0	16.0	13.1	16.4	19.5	21.1	24.0	26.4	28.0	28.7	28.4	27.9	25.4	21.2	19.6	21.0	22.0	21.3	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
X InValid Data (Equipment Malfunction/Recovery) **NRM** UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance) **P** Power Failure

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.

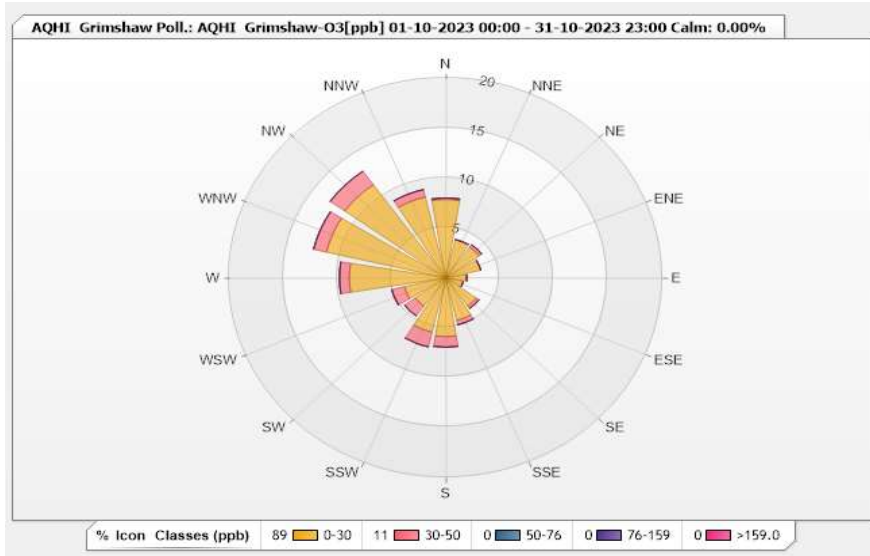


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-O3[ppb] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 88.98% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	7.85	0.15	0	0	0	8
NNE	3.93	0	0	0	0	3.93
NE	3.78	0.3	0	0	0	4.08
ENE	3.32	0	0	0	0	3.32
E	1.96	0	0	0	0	1.96
ESE	1.66	0	0	0	0	1.66
SE	3.47	0.3	0	0	0	3.77
SSE	4.38	0.45	0	0	0	4.83
S	5.89	1.06	0	0	0	6.95
SSW	5.59	1.51	0	0	0	7.1
SW	3.47	1.21	0	0	0	4.68
WSW	3.93	1.21	0	0	0	5.14
W	8.91	0.91	0	0	0	9.82
WNW	11.33	1.21	0	0	0	12.54
NW	11.48	1.66	0	0	0	13.14
NNW	8.31	0.76	0	0	0	9.07
Summary	89.26	10.73	0	0	0	100



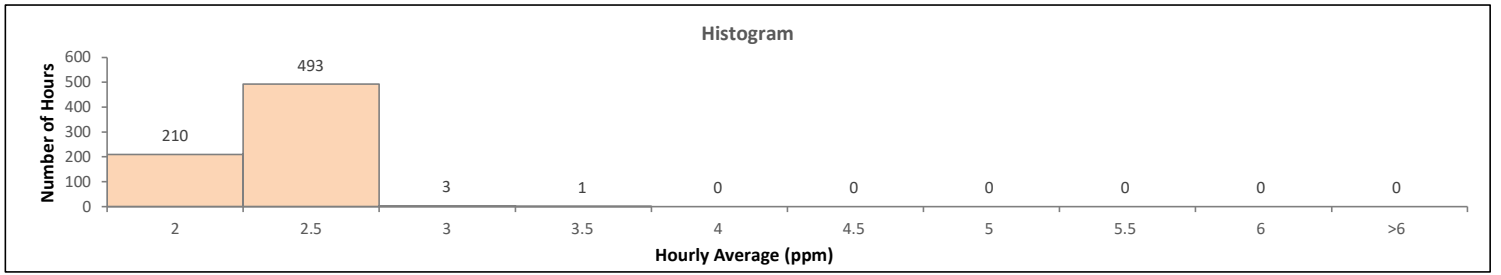
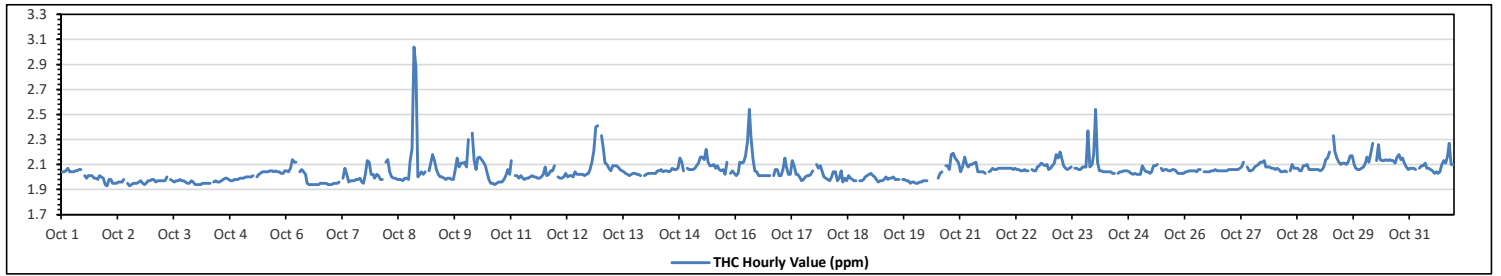
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
TOTAL HYDROCARBONS (THC) in ppm

Maximum Hourly Value:	3.04 ppm	on Oct 8 at hr 20	Hours in Service:	744
Maximum Daily Value:	2.14 ppm	on Oct 30	Hours of Data:	707
Minimum Hourly Value:	1.93 ppm	on Oct 2 at hr 0	Hours of Missing Data:	0
Minimum Daily Value:	1.96 ppm	on Oct 2	Hours of Calibration:	37
Monthly Average:	2.05 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	
Oct 1	2.04	2.04	2.05	2.07	2.04	2.04	2.04	2.05	2.05	2.06	2.06	S	2.01	1.99	2.01	2.01	1.99	1.99	1.98	2.01	2.00	1.99	1.94	1.94	1.94	2.07	2.02	
Oct 2	1.93	1.98	1.98	1.95	1.95	1.95	1.96	1.96	1.96	1.98	S	1.95	1.93	1.94	1.95	1.95	1.96	1.97	1.95	1.94	1.95	1.97	1.97	1.97	1.93	1.98	1.96	
Oct 3	1.98	1.98	1.96	1.97	1.97	1.97	1.97	1.97	2.00	S	1.98	1.97	1.96	1.97	1.97	1.98	1.97	1.97	1.96	1.95	1.95	1.97	1.96	1.94	1.94	2.00	1.97	
Oct 4	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	S	1.96	1.97	1.96	1.96	1.97	1.98	1.99	1.99	1.98	1.97	1.97	1.98	1.98	1.99	1.99	1.94	1.99	1.97	
Oct 5	1.99	1.99	2.00	2.00	2.00	2.00	2.01	S	2.00	2.02	2.03	2.04	2.04	2.04	2.04	2.05	2.05	2.04	2.05	2.04	2.04	2.04	2.03	2.03	2.05	1.99	2.05	2.03
Oct 6	2.05	2.04	2.07	2.14	2.12	2.12	S	2.04	2.06	2.04	2.02	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.94	1.94	1.94	2.14	2.00	
Oct 7	1.94	1.95	1.95	1.95	1.96	S	1.99	2.07	2.02	1.96	1.97	1.97	1.97	1.98	1.98	1.99	1.96	1.95	2.02	2.13	2.12	2.02	2.02	1.99	1.94	2.13	1.99	
Oct 8	2.02	2.01	1.98	1.98	S	2.12	2.14	2.04	2.00	1.99	1.99	1.98	1.98	1.98	1.97	1.99	1.99	1.98	2.13	2.23	3.04	2.88	2.00	2.02	1.97	3.04	2.11	
Oct 9	2.04	2.02	2.04	S	2.05	2.12	2.18	2.13	2.06	2.02	2.00	2.00	1.99	1.98	1.99	1.99	1.98	1.98	2.06	2.15	2.08	2.11	2.11	2.12	1.98	2.18	2.05	
Oct 10	2.08	2.30	S	2.35	2.13	2.06	2.15	2.16	2.14	2.12	2.09	2.03	1.98	1.95	1.94	1.95	1.96	1.96	1.96	1.98	2.01	2.06	2.02	1.94	2.35	2.06	2.02	
Oct 11	2.13	S	2.01	2.01	1.99	2.01	1.99	1.98	1.99	1.99	2.00	2.01	2.00	2.00	1.99	1.99	2.00	2.02	2.08	2.01	2.02	2.05	2.05	2.09	1.98	2.13	2.02	
Oct 12	S	2.00	1.99	1.99	2.00	2.03	2.00	2.01	2.01	2.00	2.04	2.02	2.02	2.02	2.02	2.01	2.02	2.03	2.06	2.12	2.21	2.40	2.41	S	1.99	2.41	2.06	
Oct 13	2.33	2.24	2.11	2.10	2.07	2.05	2.09	2.09	2.09	2.08	2.06	2.05	2.04	2.03	2.02	2.01	2.02	2.03	2.02	2.02	2.02	2.01	S	2.01	2.01	2.33	2.07	
Oct 14	2.02	2.03	2.03	2.03	2.03	2.03	2.05	2.05	2.06	2.04	2.05	2.05	2.04	2.05	2.07	2.06	2.06	2.07	2.15	2.12	2.05	S	2.07	2.06	2.02	2.15	2.06	
Oct 15	2.06	2.06	2.07	2.09	2.11	2.16	2.16	2.14	2.22	2.12	2.09	2.09	2.10	2.07	2.09	2.06	2.05	2.06	2.02	2.12	S	2.03	2.05	2.03	2.02	2.22	2.09	
Oct 16	2.01	2.03	2.12	2.11	2.12	2.17	2.28	2.54	2.32	2.15	2.05	2.04	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	S	2.01	2.06	2.06	2.01	2.01	2.54	2.09
Oct 17	2.01	2.06	2.15	2.08	2.02	2.02	2.13	2.09	2.02	2.02	2.00	1.97	1.98	2.00	2.01	2.01	2.02	2.05	S	2.10	2.07	2.09	2.05	2.00	1.97	2.15	2.04	
Oct 18	1.99	1.98	1.97	2.00	2.04	2.04	1.97	1.99	2.05	1.96	1.99	1.97	2.01	1.99	1.98	1.97	1.97	S	1.98	1.97	1.97	1.98	2.00	2.01	2.02	1.96	2.05	1.99
Oct 19	2.03	2.01	2.00	1.98	1.96	1.97	1.97	1.98	2.00	1.98	1.99	1.99	2.00	1.98	1.98	1.98	S	1.98	1.98	1.97	1.97	1.95	1.96	1.96	1.95	2.03	1.98	
Oct 20	1.95	1.95	1.96	1.96	1.97	1.97	S	C	C	C	C	C	1.99	2.03	2.04	S	2.09	2.09	2.06	2.18	2.19	2.15	2.13	2.11	1.95	2.19	2.04	
Oct 21	2.04	2.08	2.16	2.10	2.08	2.10	2.10	2.11	2.12	2.04	2.04	2.04	2.03	S	2.04	2.05	2.07	2.06	2.06	2.07	2.07	2.07	2.07	2.07	2.03	2.16	2.07	
Oct 22	2.07	2.07	2.07	2.07	2.06	2.07	2.06	2.06	2.05	2.05	2.06	2.05	2.05	2.05	S	2.06	2.05	2.05	2.08	2.09	2.11	2.10	2.09	2.10	2.06	2.05	2.11	2.07
Oct 23	2.07	2.09	2.11	2.18	2.15	2.20	2.15	2.09	2.07	2.06	2.07	2.08	S	2.07	2.07	2.06	2.06	2.08	2.08	2.37	2.08	2.10	2.18	2.06	2.06	2.37	2.11	
Oct 24	2.54	2.12	2.05	2.05	2.04	2.04	2.04	2.04	2.04	2.03	2.03	S	2.03	2.04	2.04	2.05	2.05	2.05	2.04	2.03	2.02	2.03	2.02	2.02	2.02	2.54	2.06	
Oct 25	2.02	2.09	2.06	2.04	2.04	2.03	2.04	2.09	2.09	2.10	S	2.07	2.05	2.06	2.06	2.05	2.05	2.06	2.06	2.05	2.03	2.03	2.03	2.03	2.02	2.10	2.05	
Oct 26	2.04	2.04	2.05	2.05	2.05	2.05	2.04	2.06	2.06	S	2.04	2.04	2.04	2.04	2.04	2.05	2.05	2.06	2.05	2.05	2.05	2.05	2.05	2.06	2.04	2.06	2.05	
Oct 27	2.06	2.06	2.06	2.06	2.06	2.07	2.08	2.12	S	2.08	2.05	2.05	2.06	2.08	2.09	2.10	2.12	2.12	2.13	2.08	2.08	2.08	2.07	2.07	2.05	2.13	2.08	
Oct 28	2.06	2.07	2.06	2.04	2.04	2.05	2.04	S	2.05	2.10	2.07	2.07	2.07	2.05	2.05	2.09	2.10	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.04	2.10	2.06	
Oct 29	2.05	2.06	2.08	2.14	2.15	2.20	S	2.33	2.20	2.15	2.12	2.10	2.11	2.11	2.10	2.12	2.17	2.17	2.10	2.07	2.06	2.06	2.07	2.08	2.05	2.33	2.12	
Oct 30	2.11	2.16	2.12	2.19	2.27	S	2.13	2.26	2.14	2.13	2.13	2.14	2.13	2.14	2.13	2.11	2.16	2.18	2.14	2.15	2.11	2.08	2.08	2.06	2.27	2.14	2.18	
Oct 31	2.07	2.07	2.07	2.06	S	2.07	2.09	2.09	2.11	2.07	2.07	2.06	2.05	2.03	2.04	2.03	2.04	2.10	2.13	2.11	2.17	2.27	2.10	2.10	2.03	2.27	2.09	
Diurnal Maximum	2.54	2.30	2.16	2.35	2.27	2.20	2.28	2.54	2.32	2.15	2.13	2.14	2.13	2.14	2.13	2.13	2.17	2.17	2.18	2.23	3.04	2.88	2.41	2.18	2.02	2.54	2.09	
Diurnal Average	2.06	2.05	2.04	2.06	2.05	2.06	2.06	2.09	2.07	2.05	2.04	2.03	2.02	2.02	2.02	2.03	2.04	2.05	2.06	2.04	2.09	2.09	2.05	2.04	2.03	2.27	2.09	

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

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.

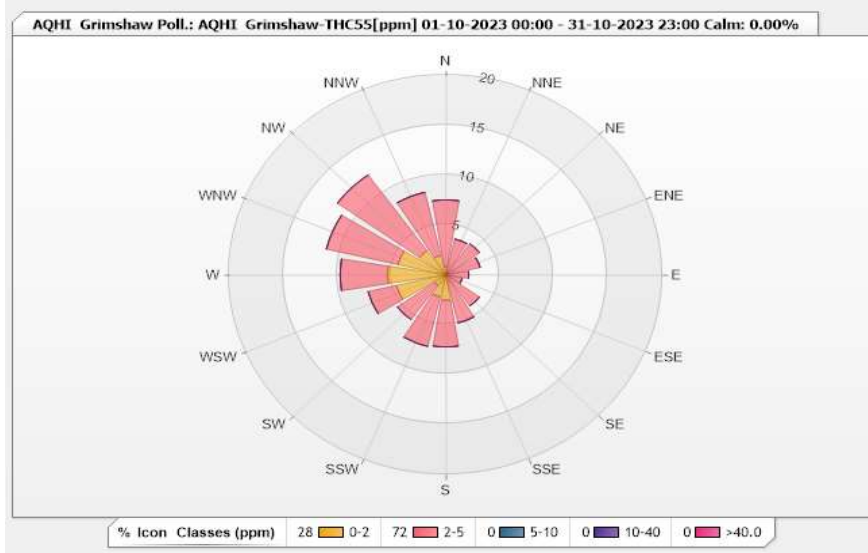


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-THC55[ppm] Monthly: 10-2023

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

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

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.85	6.65	0	0	0	7.5
NNE	0.14	3.54	0	0	0	3.68
NE	0.28	3.54	0	0	0	3.82
ENE	0.14	3.11	0	0	0	3.25
E	0	2.12	0	0	0	2.12
ESE	0	1.56	0	0	0	1.56
SE	0	3.82	0	0	0	3.82
SSE	0.71	4.24	0	0	0	4.95
S	2.55	4.67	0	0	0	7.22
SSW	2.26	5.09	0	0	0	7.35
SW	1.27	4.24	0	0	0	5.51
WSW	4.67	2.69	0	0	0	7.36
W	5.37	4.38	0	0	0	9.75
WNW	4.53	6.79	0	0	0	11.32
NW	2.97	9.34	0	0	0	12.31
NNW	1.98	6.51	0	0	0	8.49
Summary	27.72	72.29	0	0	0	100



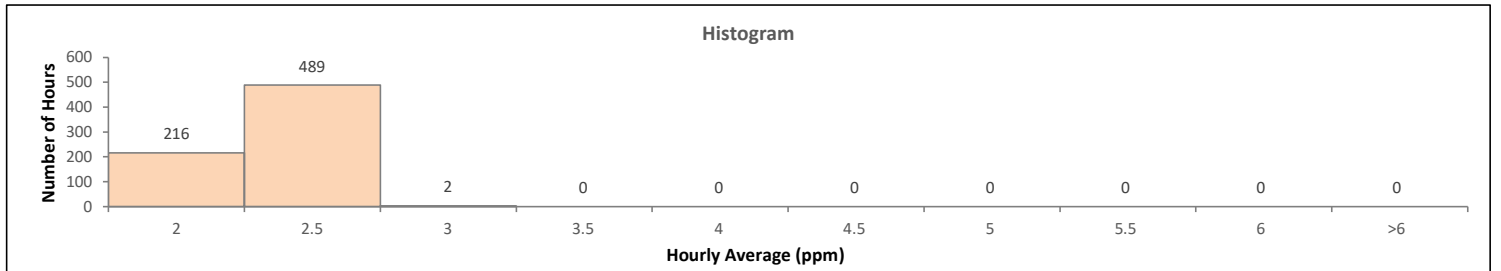
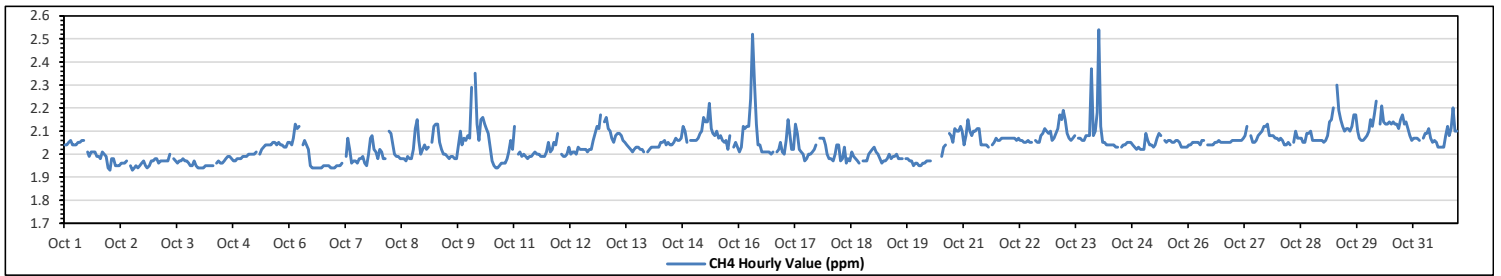
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
METHANE (CH4) in ppm

Maximum Hourly Value:	2.54 ppm	on Oct 24 at hr 0	Hours in Service:	744
Maximum Daily Value:	2.14 ppm	on Oct 30	Hours of Data:	707
Minimum Hourly Value:	1.93 ppm	on Oct 2 at hr 0	Hours of Missing Data:	0
Minimum Daily Value:	1.95 ppm	on Oct 2	Hours of Calibration:	37
Monthly Average:	2.04 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		
Oct 1	2.04	2.04	2.05	2.06	2.04	2.04	2.04	2.05	2.05	2.06	2.06	S	2.01	1.99	2.01	2.01	2.01	1.99	1.99	1.98	2.01	2.00	1.99	1.94	1.94	2.06	2.02		
Oct 2	1.93	1.98	1.98	1.95	1.95	1.95	1.96	1.96	1.96	1.97	S	1.95	1.93	1.94	1.95	1.94	1.95	1.96	1.97	1.95	1.94	1.95	1.97	1.97	1.93	1.98	1.95		
Oct 3	1.98	1.98	1.96	1.97	1.97	1.97	1.97	1.97	2.00	S	1.98	1.97	1.96	1.97	1.97	1.98	1.97	1.97	1.96	1.95	1.95	1.97	1.95	1.94	1.94	2.00	1.97		
Oct 4	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	S	1.96	1.97	1.96	1.96	1.97	1.98	1.99	1.99	1.98	1.97	1.97	1.98	1.98	1.99	1.98	1.99	1.94	1.99		
Oct 5	1.99	1.99	2.00	2.00	2.00	2.00	2.01	S	2.00	2.02	2.03	2.04	2.04	2.04	2.04	2.05	2.05	2.04	2.05	2.04	2.04	2.04	2.03	2.03	2.05	1.99	2.05		
Oct 6	2.05	2.04	2.07	2.13	2.11	2.12	S	2.04	2.06	2.04	2.02	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.94	1.94	1.94	2.13	2.00		
Oct 7	1.94	1.95	1.95	1.95	1.96	S	1.99	2.07	2.02	1.96	1.97	1.97	1.96	1.98	1.98	1.99	1.96	1.95	2.00	2.07	2.08	2.02	2.01	1.98	1.94	2.08	1.99		
Oct 8	2.02	2.01	1.98	1.98	S	2.10	2.09	2.04	2.00	1.99	1.99	1.98	1.98	1.98	1.97	1.99	1.98	1.98	2.02	2.11	2.15	2.06	2.00	2.02	1.97	2.15	2.02		
Oct 9	2.04	2.02	2.03	S	2.05	2.12	2.13	2.13	2.05	2.02	2.00	2.00	1.99	1.98	1.99	1.99	1.98	1.98	2.04	2.10	2.04	2.07	2.06	2.08	1.98	2.13	2.04		
Oct 10	2.07	2.29	S	2.35	2.13	2.06	2.15	2.16	2.13	2.11	2.09	2.03	1.97	1.95	1.94	1.94	1.95	1.96	1.96	1.96	1.98	2.01	2.06	2.02	1.94	2.35	2.06		
Oct 11	2.12	S	2.00	2.01	1.99	2.00	1.99	1.98	1.99	1.99	2.00	2.01	2.00	2.00	1.99	1.99	1.99	2.01	2.05	2.01	2.02	2.05	2.04	2.09	1.98	2.12	2.01		
Oct 12	S	2.00	1.99	1.99	2.00	2.03	2.00	2.01	2.01	2.00	2.03	2.02	2.02	2.02	2.02	2.01	2.02	2.02	2.06	2.09	2.12	2.11	2.17	S	1.99	2.17	2.03		
Oct 13	2.14	2.16	2.11	2.10	2.07	2.05	2.08	2.09	2.09	2.08	2.06	2.05	2.04	2.03	2.02	2.01	2.02	2.03	2.03	2.02	2.02	2.01	S	2.01	2.01	2.16	2.06		
Oct 14	2.02	2.03	2.03	2.03	2.03	2.03	2.05	2.05	2.06	2.04	2.05	2.04	2.04	2.05	2.07	2.06	2.06	2.07	2.12	2.10	2.05	S	2.06	2.06	2.02	2.12	2.05		
Oct 15	2.06	2.06	2.07	2.09	2.10	2.16	2.14	2.14	2.22	2.11	2.09	2.08	2.10	2.07	2.08	2.06	2.05	2.06	2.02	2.08	S	2.03	2.05	2.03	2.02	2.22	2.08		
Oct 16	2.01	2.03	2.12	2.11	2.12	2.12	2.24	2.52	2.31	2.13	2.04	2.04	2.01	2.01	2.01	2.01	2.01	2.00	2.01	S	2.01	2.02	2.05	2.01	2.00	2.52	2.08		
Oct 17	2.00	2.06	2.15	2.08	2.02	2.02	2.13	2.09	2.02	2.01	2.00	1.97	1.98	2.00	2.00	2.01	2.02	2.04	S	2.07	2.07	2.07	2.04	2.00	1.97	2.15	2.04		
Oct 18	1.98	1.98	1.97	2.00	2.04	2.04	1.97	1.98	2.03	1.96	1.98	1.97	2.01	1.99	1.98	1.97	1.96	S	1.97	1.97	1.97	2.00	2.01	2.00	1.96	2.04	1.99		
Oct 19	2.03	2.01	2.00	1.98	1.96	1.97	1.97	1.98	2.00	1.98	1.99	1.99	2.00	1.98	1.98	1.98	S	1.98	1.98	1.97	1.97	1.95	1.96	1.96	1.95	2.03	1.98		
Oct 20	1.95	1.95	1.96	1.96	1.97	1.97	1.97	C	C	C	C	C	C	1.99	2.03	2.04	S	2.09	2.08	2.05	2.11	2.10	2.10	2.12	2.10	1.95	2.12		
Oct 21	2.04	2.08	2.15	2.10	2.08	2.10	2.10	2.11	2.11	2.04	2.04	2.04	2.04	2.04	2.03	S	2.04	2.05	2.07	2.06	2.06	2.07	2.07	2.07	2.07	2.03	2.15	2.07	
Oct 22	2.07	2.07	2.07	2.07	2.06	2.07	2.06	2.06	2.05	2.05	2.06	2.05	2.06	2.05	2.05	S	2.06	2.05	2.05	2.08	2.09	2.11	2.10	2.09	2.10	2.06	2.05	2.11	2.07
Oct 23	2.07	2.09	2.11	2.17	2.15	2.19	2.15	2.09	2.07	2.06	2.07	2.08	S	2.07	2.07	2.06	2.06	2.08	2.08	2.08	2.37	2.08	2.10	2.18	2.06	2.37	2.11		
Oct 24	2.54	2.12	2.05	2.05	2.04	2.04	2.04	2.04	2.04	2.03	2.03	S	2.03	2.04	2.04	2.05	2.05	2.05	2.04	2.03	2.02	2.03	2.02	2.02	2.02	2.54	2.06		
Oct 25	2.02	2.09	2.06	2.04	2.04	2.03	2.04	2.07	2.09	2.08	S	2.06	2.05	2.06	2.06	2.05	2.05	2.06	2.06	2.05	2.03	2.03	2.03	2.03	2.02	2.09	2.05		
Oct 26	2.04	2.04	2.05	2.05	2.05	2.05	2.04	2.06	2.06	S	2.04	2.04	2.04	2.04	2.04	2.05	2.05	2.06	2.05	2.05	2.05	2.05	2.05	2.06	2.04	2.06	2.05		
Oct 27	2.06	2.06	2.06	2.06	2.06	2.07	2.08	2.12	S	2.08	2.05	2.05	2.06	2.08	2.09	2.10	2.12	2.12	2.13	2.08	2.08	2.08	2.07	2.07	2.05	2.13	2.08		
Oct 28	2.06	2.07	2.06	2.04	2.04	2.05	2.04	S	2.05	2.10	2.07	2.07	2.07	2.05	2.05	2.09	2.09	2.10	2.06	2.06	2.06	2.06	2.06	2.06	2.04	2.10	2.06		
Oct 29	2.05	2.06	2.08	2.14	2.15	2.20	S	2.30	2.19	2.15	2.12	2.10	2.11	2.11	2.10	2.12	2.17	2.17	2.10	2.07	2.06	2.06	2.07	2.08	2.05	2.30	2.12		
Oct 30	2.10	2.15	2.12	2.17	2.23	S	2.13	2.21	2.14	2.13	2.13	2.14	2.13	2.14	2.13	2.11	2.15	2.17	2.13	2.14	2.11	2.08	2.06	2.06	2.06	2.23	2.14		
Oct 31	2.07	2.07	2.07	2.06	S	2.07	2.09	2.09	2.11	2.07	2.05	2.06	2.05	2.03	2.03	2.03	2.03	2.08	2.12	2.08	2.11	2.20	2.10	2.10	2.03	2.20	2.08		
Diurnal Maximum	2.54	2.29	2.15	2.35	2.23	2.20	2.24	2.52	2.31	2.15	2.13	2.14	2.13	2.14	2.13	2.13	2.17	2.17	2.17	2.13	2.17	2.20	2.17	2.18	2.03	2.52	2.08		
Diurnal Average	2.05	2.05	2.04	2.05	2.05	2.05	2.06	2.08	2.07	2.04	2.04	2.03	2.02	2.02	2.02	2.02	2.03	2.04	2.04	2.04	2.05	2.04	2.04	2.03	2.03	2.03	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
X	InValid Data (Equipment Malfunction/Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

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.

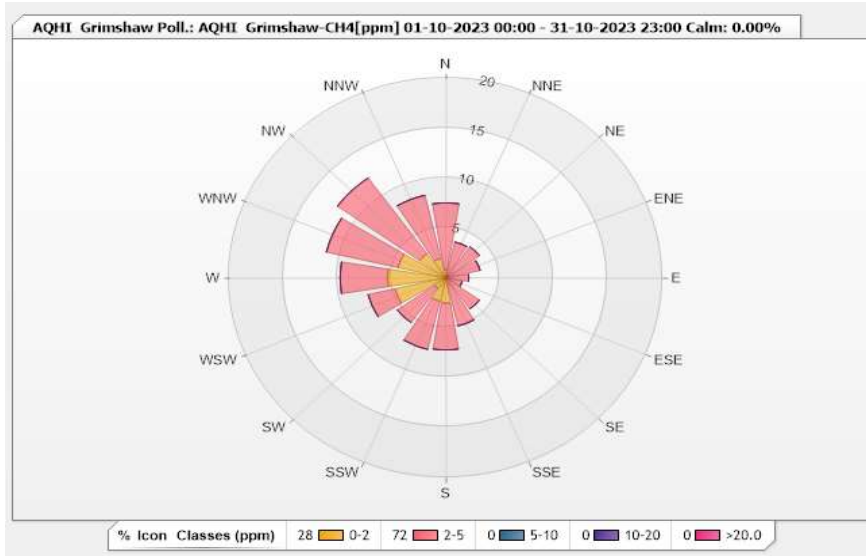


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-CH4[ppm] Monthly: 10-2023

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

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

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.85	6.65	0	0	0	7.5
NNE	0.14	3.54	0	0	0	3.68
NE	0.28	3.54	0	0	0	3.82
ENE	0.14	3.11	0	0	0	3.25
E	0.14	1.98	0	0	0	2.12
ESE	0	1.56	0	0	0	1.56
SE	0	3.82	0	0	0	3.82
SSE	0.71	4.24	0	0	0	4.95
S	2.55	4.67	0	0	0	7.22
SSW	2.4	4.95	0	0	0	7.35
SW	1.27	4.24	0	0	0	5.51
WSW	4.81	2.55	0	0	0	7.36
W	5.37	4.38	0	0	0	9.75
WNW	4.53	6.79	0	0	0	11.32
NW	2.97	9.34	0	0	0	12.31
NNW	1.98	6.51	0	0	0	8.49
Summary	28.14	71.87	0	0	0	100

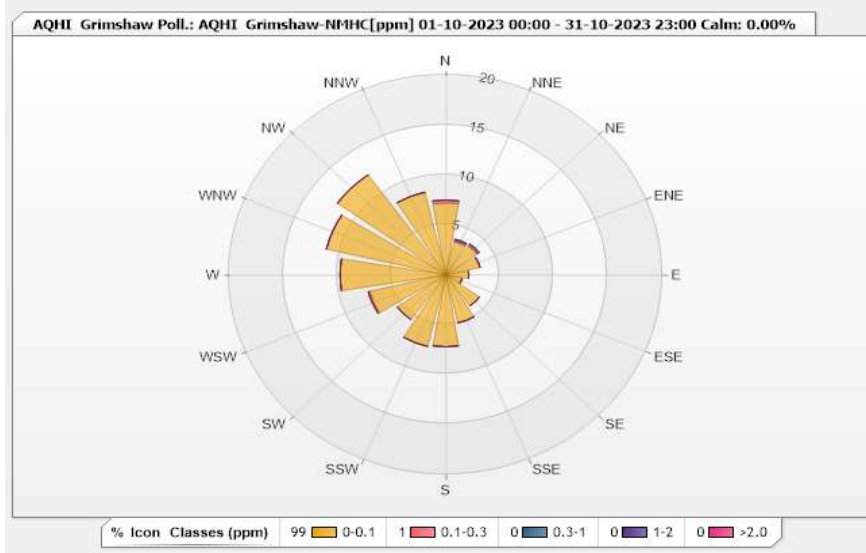


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NMHC[ppm] Monthly: 10-2023

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

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

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	7.21	0.28	0	0	0	7.49
NNE	3.39	0.14	0.14	0	0	3.67
NE	3.54	0.14	0.14	0	0	3.82
ENE	3.25	0	0	0	0	3.25
E	2.12	0	0	0	0	2.12
ESE	1.56	0	0	0	0	1.56
SE	3.82	0	0	0	0	3.82
SSE	4.95	0	0	0	0	4.95
S	7.21	0	0	0	0	7.21
SSW	7.36	0	0	0	0	7.36
SW	5.52	0	0	0	0	5.52
WSW	7.21	0.14	0	0	0	7.35
W	9.76	0	0	0	0	9.76
WNW	11.32	0	0	0	0	11.32
NW	12.31	0	0	0	0	12.31
NNW	8.49	0	0	0	0	8.49
Summary	99.02	0.7	0.28	0	0	100



Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages

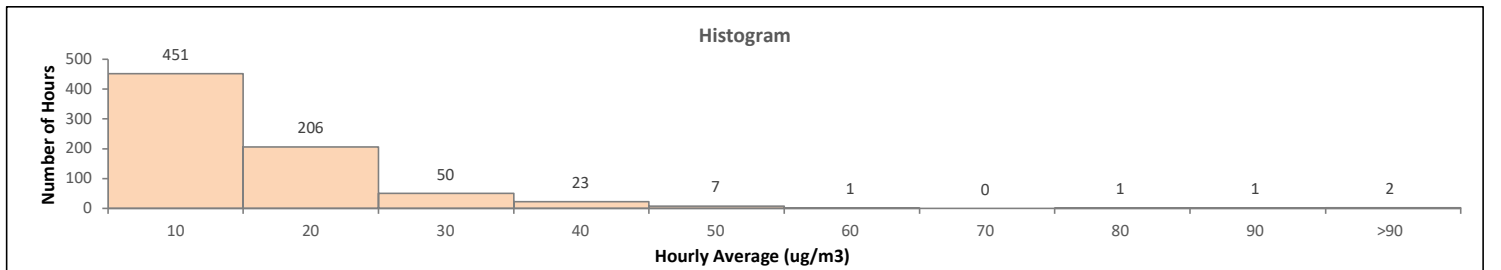
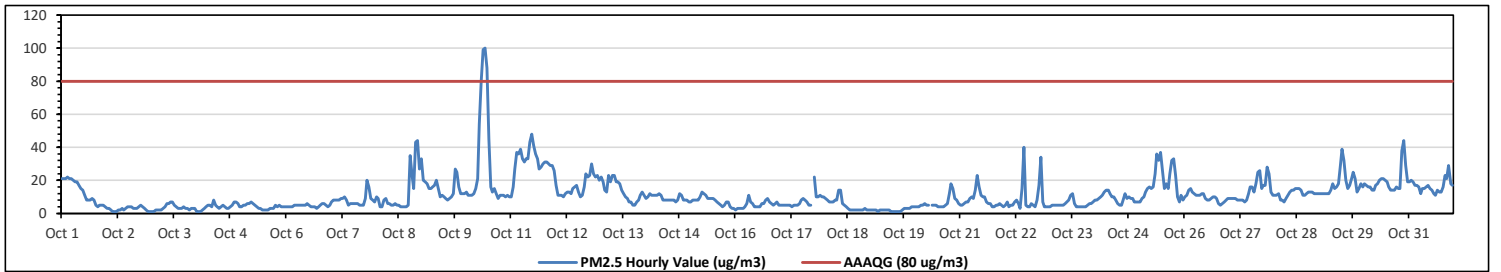
PARTICULATE MATTER 2.5 (PM_{2.5}) in µg/m³

Alberta Ambient Air Quality Guideline (AAAQG): 1-Hour 80 µg/m ³ , Alberta Ambient Air Quality Objective (AAAQO): 24-Hour 29 µg/m ³	
Number of 1-Hour Exceedances:	3
Number of 24-Hour Exceedances:	1
Maximum Hourly Value:	100 µg/m ³ on Oct 10 at hr 10
Maximum Daily Value:	31.5 µg/m ³ on Oct 11
Minimum Hourly Value:	1 µg/m ³ on Oct 2 at hr 3
Minimum Daily Value:	2 µg/m ³ on Oct 19
Monthly Average:	11.0 µg/m ³
Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	0
Hours of Calibration:	1
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	
Oct 1	21	21	21	22	21	21	20	19	19	17	15	14	11	8	8	9	8	5	4	5	5	4	4	4	4	4	22	13.0
Oct 2	3	3	2	1	1	1	2	2	3	2	3	4	4	4	3	3	3	4	5	4	3	2	1	1	1	1	5	2.7
Oct 3	1	1	2	2	2	2	3	4	6	7	7	7	5	4	3	3	4	3	3	3	2	3	3	3	3	1	7	3.4
Oct 4	1	1	1	2	3	4	5	5	4	8	5	4	3	4	5	4	3	3	4	5	7	7	6	4	1	8	4.1	
Oct 5	4	5	5	6	6	7	6	5	4	3	3	2	2	2	3	3	3	5	4	5	4	4	4	2	7	4.0		
Oct 6	4	4	4	4	5	5	5	5	5	5	6	5	4	4	4	3	4	5	6	6	5	4	4	5	3	6	4.7	
Oct 7	7	8	8	8	8	9	9	10	8	5	6	6	6	6	6	5	5	5	9	20	16	9	8	7	5	20	8.1	
Oct 8	10	9	4	4	8	9	6	6	5	5	6	5	5	4	4	4	5	35	23	15	43	44	27	4	44	12.1		
Oct 9	33	20	19	18	15	15	16	17	20	15	10	11	10	9	8	9	10	12	27	25	16	12	12	12	8	33	15.5	
Oct 10	13	11	11	11	12	15	21	54	80	99	100	88	45	16	13	15	12	9	11	11	11	10	11	10	9	100	28.7	
Oct 11	10	16	27	37	36	39	33	31	33	43	48	41	36	33	27	28	30	31	31	30	29	29	26	10	48	31.5		
Oct 12	17	11	11	11	10	12	13	13	12	15	16	17	13	10	11	16	24	22	23	30	24	22	23	20	10	30	16.5	
Oct 13	22	19	14	13	23	19	23	19	19	18	14	12	10	9	7	7	5	5	7	8	11	13	11	5	23	13.8		
Oct 14	9	10	12	11	11	11	11	12	11	8	8	8	8	8	8	8	7	8	12	11	8	8	8	7	7	12	9.3	
Oct 15	7	8	8	8	8	10	13	12	11	9	9	9	8	7	6	5	4	5	7	7	4	3	3	3	3	13	7.5	
Oct 16	2	3	3	3	3	4	6	11	7	6	4	4	4	4	6	6	8	9	7	6	5	6	7	5	2	11	5.4	
Oct 17	5	5	5	5	5	5	4	5	5	6	8	9	8	7	5	5	25	22	10	10	11	10	10	4	25	8.1		
Oct 18	9	8	7	7	7	8	8	14	14	6	5	4	3	2	2	2	2	2	2	2	2	3	2	2	2	14	5.1	
Oct 19	2	2	2	2	1	2	2	2	2	2	1	1	1	1	1	2	3	3	3	3	3	4	4	1	4	2.0		
Oct 20	4	4	4	5	5	6	5	5	5	5	4	4	4	4	5	6	12	18	15	9	8	6	4	4	18	6.4		
Oct 21	5	5	6	7	7	9	10	9	14	23	16	11	10	10	7	6	6	4	4	5	5	6	5	4	4	23	8.1	
Oct 22	5	7	4	5	5	7	8	6	3	15	40	5	4	4	6	5	4	8	17	34	7	4	4	4	3	40	8.8	
Oct 23	4	5	5	5	5	5	5	5	6	7	8	11	12	6	4	4	4	4	4	4	5	6	6	7	4	12	5.7	
Oct 24	8	8	9	10	11	13	14	14	12	10	10	8	6	5	5	8	12	9	10	9	9	7	7	7	5	14	9.2	
Oct 25	7	9	10	13	15	16	15	16	24	36	32	37	26	15	18	15	24	32	33	23	10	7	11	8	7	37	18.8	
Oct 26	10	11	14	15	13	12	11	11	11	12	12	9	8	8	9	10	10	9	6	5	6	7	8	9	5	15	9.8	
Oct 27	9	9	9	9	8	8	8	8	7	8	12	16	16	13	18	25	26	15	17	17	28	24	13	11	7	28	13.9	
Oct 28	11	11	12	8	8	7	9	11	13	14	14	15	15	15	14	11	11	12	13	13	13	12	12	12	7	15	11.9	
Oct 29	12	12	12	12	12	12	14	18	15	16	18	29	39	32	20	15	17	21	25	21	13	15	18	16	12	39	18.1	
Oct 30	18	17	16	16	14	14	17	18	20	21	21	20	19	16	14	14	14	16	15	15	38	44	29	19	14	44	19.4	
Oct 31	19	20	19	17	17	16	12	15	15	16	17	15	14	12	11	14	13	13	16	23	21	29	18	17	11	29	16.6	
Diurnal Maximum	33	21	27	37	36	39	33	54	80	99	100	88	45	36	33	27	28	32	35	34	38	44	44	27				
Diurnal Average	9.4	9.1	9.2	9.6	9.8	10.4	10.8	12.5	13.6	14.5	15.4	14.2	11.9	9.3	8.7	8.6	9.3	10.1	12.6	12.9	11.4	11.8	10.8	9.2				

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

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.

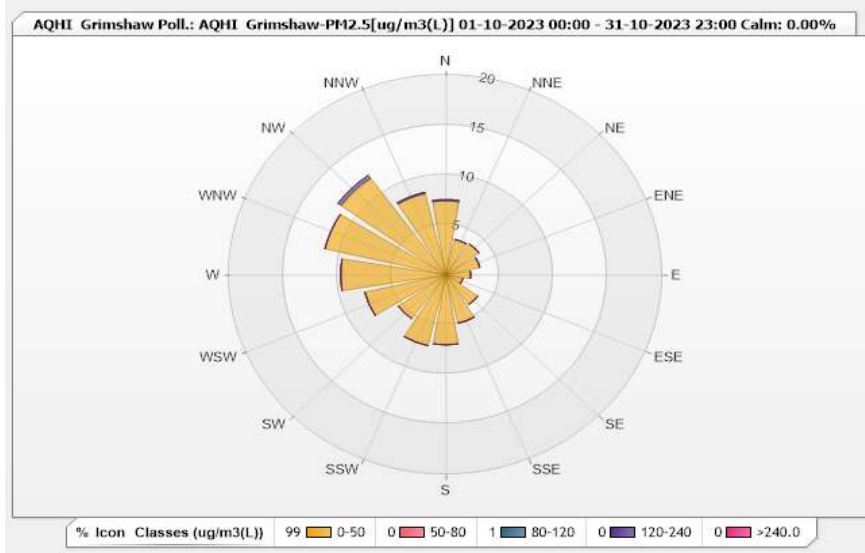


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-PM2.5[ug/m3(L)] Monthly: 10-2023

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

Calm: 0.00% Valid Data: 99.73% Calm Avg: 0.00 [ppm]

Direction	0-50	50-80	80-120	120-240	>240.0	Total
N	7.41	0	0.13	0	0	7.54
NNE	3.64	0	0	0	0	3.64
NE	3.77	0	0	0	0	3.77
ENE	3.23	0	0	0	0	3.23
E	2.29	0	0	0	0	2.29
ESE	1.62	0	0	0	0	1.62
SE	3.64	0	0	0	0	3.64
SSE	4.99	0	0	0	0	4.99
S	7.01	0	0	0	0	7.01
SSW	7.28	0	0	0	0	7.28
SW	5.39	0	0	0	0	5.39
WSW	7.68	0	0	0	0	7.68
W	9.7	0	0	0	0	9.7
WNW	11.46	0	0	0	0	11.46
NW	11.86	0.13	0.27	0	0	12.26
NNW	8.36	0	0.13	0	0	8.49
Summary	99.33	0.13	0.53	0	0	100

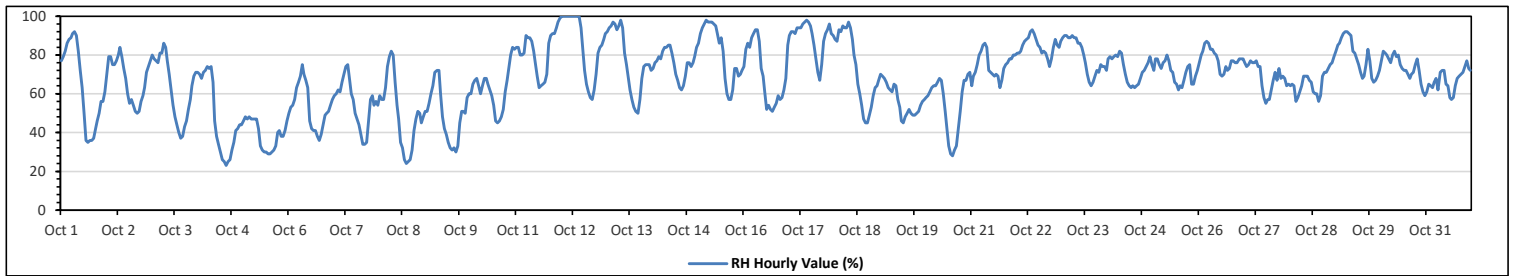


Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	100 %	on Oct 12 at hr 0	Hours in Service:	744
Maximum Daily Value:	89.4 %	on Oct 17	Hours of Data:	744
Minimum Hourly Value:	23 %	on Oct 4 at hr 15	Hours of Missing Data:	0
Minimum Daily Value:	39.1 %	on Oct 5	Hours of Calibration:	0
Monthly Average:	68.1 %		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																																																																				
Oct 1	77	79	82	86	88	89	91	92	90	82	72	63	50	36	35	36	36	37	42	46	50	56	61	35	92	63.8																																																																					
Oct 2	70	79	79	75	75	77	80	84	79	73	68	60	55	57	54	51	50	51	56	59	63	71	74	77	50	84	67.4																																																																				
Oct 3	80	78	77	76	81	81	86	84	77	70	62	54	48	44	40	37	38	43	46	52	57	64	69	71	37	86	63.1																																																																				
Oct 4	71	70	68	71	72	74	73	74	66	46	38	34	30	26	25	23	25	26	31	35	41	42	44	44	23	74	47.9																																																																				
Oct 5	46	48	47	48	47	47	47	47	42	33	31	30	30	29	29	30	31	33	40	41	38	38	41	46	29	48	39.1																																																																				
Oct 6	50	53	54	57	63	66	69	75	70	67	63	46	42	41	41	38	36	39	44	49	50	51	54	57	36	75	53.1																																																																				
Oct 7	59	60	62	61	66	70	74	75	67	60	57	50	47	44	39	34	34	35	46	57	59	54	56	54	34	75	55.0																																																																				
Oct 8	59	57	57	63	74	79	82	80	66	54	47	35	32	26	24	25	26	31	41	47	51	50	45	48	24	82	50.0																																																																				
Oct 9	51	51	55	60	64	71	72	72	60	48	42	39	35	32	31	32	30	33	45	51	51	50	58	60	30	72	49.7																																																																				
Oct 10	60	65	67	68	64	60	64	68	68	65	62	59	54	46	45	46	48	52	61	67	74	80	84	83	45	84	62.9																																																																				
Oct 11	84	84	80	80	81	90	89	89	87	82	76	69	63	64	65	66	70	86	90	91	91	94	97	99	63	99	82.0																																																																				
Oct 12	100	100	100	100	100	100	100	100	100	100	94	84	72	65	61	58	57	62	70	81	84	85	88	91	57	100	85.5																																																																				
Oct 13	92	94	95	97	96	93	95	98	94	81	75	68	62	57	53	51	50	57	68	74	75	75	75	72	50	98	77.0																																																																				
Oct 14	73	76	77	79	78	82	84	84	85	85	81	76	70	67	63	62	64	69	76	76	74	76	79	84	62	85	75.8																																																																				
Oct 15	86	91	94	96	98	97	97	97	96	95	91	86	89	82	68	60	57	57	62	73	73	69	70	72	57	98	81.5																																																																				
Oct 16	74	83	86	84	89	91	93	93	87	73	69	61	52	54	52	51	53	55	59	57	58	62	68	85	51	93	70.4																																																																				
Oct 17	90	92	92	91	94	94	94	96	97	98	97	95	91	85	78	71	67	75	87	91	93	96	91	90	67	98	89.4																																																																				
Oct 18	88	87	93	92	95	94	94	97	94	88	80	75	65	60	54	47	45	45	49	53	59	63	64	67	45	97	72.8																																																																				
Oct 19	70	69	68	66	63	62	61	65	64	57	53	46	45	48	50	52	50	49	49	50	51	54	56	57	45	70	56.5																																																																				
Oct 20	58	59	61	63	64	64	66	68	67	60	51	41	33	29	28	31	33	42	51	61	67	67	70	71	28	71	54.4																																																																				
Oct 21	64	69	71	75	80	82	85	86	84	72	71	70	69	70	69	63	67	73	75	76	78	78	80	80	63	86	74.5																																																																				
Oct 22	81	81	82	85	87	88	89	92	93	91	88	85	84	81	82	81	78	74	78	84	88	85	84	87	74	93	84.5																																																																				
Oct 23	89	90	90	89	89	90	89	89	86	86	84	80	76	70	66	64	66	69	72	71	75	74	74	72	64	90	79.2																																																																				
Oct 24	78	79	78	79	80	79	82	81	75	70	66	64	63	64	63	64	65	68	71	72	74	76	79	75	63	82	72.7																																																																				
Oct 25	72	78	78	75	73	76	77	80	77	72	71	66	65	62	64	63	67	71	74	75	65	65	69	72	62	80	71.1																																																																				
Oct 26	76	80	82	86	87	86	83	83	81	80	77	70	69	70	74	72	73	77	77	76	76	78	78	78	69	87	77.9																																																																				
Oct 27	76	74	75	77	76	76	77	74	74	64	58	55	57	57	62	67	71	67	73	68	69	68	64	65	55	77	68.5																																																																				
Oct 28	64	65	64	56	58	61	64	69	69	69	67	66	61	60	60	56	59	69	71	71	73	75	76	79	56	79	65.9																																																																				
Oct 29	82	85	86	89	91	92	92	91	90	82	81	78	75	71	68	69	75	83	77	68	66	67	69	72	66	92	79.1																																																																				
Oct 30	77	82	81	80	78	76	80	82	79	80	75	73	72	72	70	68	70	71	75	78	72	65	61	59	59	82	74.0																																																																				
Oct 31	61	65	64	63	66	68	62	71	72	72	65	64	58	57	58	64	68	69	70	71	74	77	73	72	57	77	66.8																																																																				
Diurnal Maximum	100	100	100	100	100	100	100	100	100	97	95	91	85	82	81	78	86	90	91	93	96	97	99																																																																								
Diurnal Average	72.8	74.9	75.6	76.4	78.0	79.2	80.4	81.8	78.6	72.7	68.1	62.6	58.5	55.7	53.9	52.6	53.5	57.0	62.1	65.2	66.7	67.9	69.2	71.0																																																																							
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 days is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



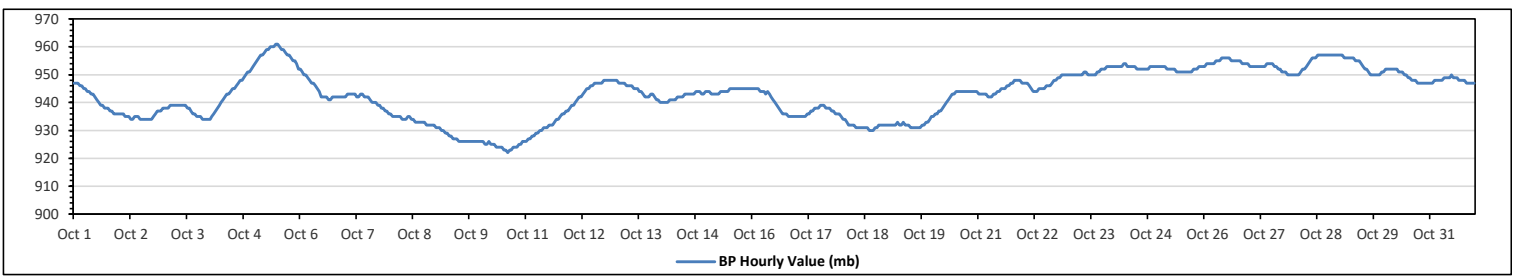
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	961	mb	on Oct 5 at hr 11	Hours in Service:	744
Maximum Daily Value:	957	mb	on Oct 5	Hours of Data:	744
Minimum Hourly Value:	922	mb	on Oct 10 at hr 14	Hours of Missing Data:	0
Minimum Daily Value:	924	mb	on Oct 10	Hours of Calibration:	0
Monthly Average:	943	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		
Oct 1	947	947	947	946	946	945	945	944	944	943	943	942	941	940	939	939	938	938	938	937	937	936	936	936	936	936	947	941	941
Oct 2	936	936	936	935	935	935	934	934	935	935	935	934	934	934	934	934	934	934	935	936	937	937	937	938	938	938	938	935	935
Oct 3	938	938	938	939	939	939	939	939	939	939	939	939	938	938	937	936	936	935	935	935	934	934	934	934	934	934	939	937	937
Oct 4	934	935	936	937	938	939	940	941	942	943	943	944	945	945	946	947	948	948	949	950	951	951	952	953	953	934	953	944	
Oct 5	954	955	956	957	957	958	959	959	960	960	960	961	961	960	959	959	958	957	957	956	955	955	954	952	952	952	961	957	
Oct 6	952	951	950	950	949	948	947	947	946	945	944	942	942	942	942	941	941	941	942	942	942	942	942	942	942	941	952	945	
Oct 7	942	943	943	943	943	943	942	942	943	943	942	942	942	941	940	940	939	939	938	938	937	937	936	936	936	936	943	941	
Oct 8	936	935	935	935	935	935	934	934	934	935	935	934	934	933	933	933	933	933	933	932	932	932	932	932	932	932	936	934	
Oct 9	931	931	931	930	930	929	929	928	928	927	927	927	926	926	926	926	926	926	926	926	926	926	926	926	926	926	931	928	
Oct 10	926	926	925	925	925	925	925	924	924	924	924	923	923	922	923	923	923	924	924	924	925	925	925	926	926	922	926	924	
Oct 11	926	927	927	928	928	929	929	930	930	931	931	931	932	932	932	933	934	934	935	936	936	937	937	938	938	926	938	932	
Oct 12	939	939	940	941	942	942	943	944	945	945	946	946	947	947	947	947	948	948	948	948	948	948	948	948	948	939	948	945	
Oct 13	948	947	947	947	947	946	946	946	946	945	945	945	944	944	943	942	942	942	943	943	942	941	941	940	940	940	948	944	
Oct 14	940	940	940	940	941	941	941	941	942	942	942	943	943	943	943	943	943	943	944	944	944	943	943	944	944	940	944	942	
Oct 15	944	944	943	943	943	943	943	944	944	944	944	945	945	945	945	945	945	945	945	945	945	945	945	945	945	943	945	944	
Oct 16	945	945	945	945	944	944	944	943	944	943	942	941	940	939	938	937	936	936	936	935	935	935	935	935	935	935	945	940	
Oct 17	935	935	935	935	935	936	936	937	937	938	938	938	939	939	939	938	938	938	938	937	937	936	936	935	935	935	939	937	
Oct 18	934	934	933	932	932	932	931	931	931	931	931	931	931	930	930	930	931	931	931	932	932	932	932	932	932	930	934	932	
Oct 19	932	932	932	932	932	933	932	932	933	932	932	931	931	931	931	931	931	931	931	932	932	933	933	934	935	931	935	932	
Oct 20	935	936	936	937	937	938	939	940	941	942	943	943	944	944	944	944	944	944	944	944	944	944	944	944	944	935	944	941	
Oct 21	943	943	943	943	943	942	942	942	943	943	944	944	945	945	945	946	946	947	947	948	948	948	948	947	947	942	948	945	
Oct 22	947	947	947	946	945	944	944	944	944	945	945	945	946	946	946	946	947	948	948	949	949	950	950	950	944	950	947		
Oct 23	950	950	950	950	950	950	950	951	951	951	950	950	950	950	950	951	951	952	952	952	952	953	953	953	953	952	953	951	
Oct 24	953	953	953	953	953	954	954	953	953	953	953	952	952	952	952	952	952	952	952	953	953	953	953	953	953	952	954	953	
Oct 25	953	953	953	953	952	952	952	952	952	951	951	951	951	951	951	951	951	951	952	952	952	952	953	953	953	951	953	952	
Oct 26	953	954	954	954	954	954	955	955	955	956	956	956	956	956	955	955	955	955	955	955	955	954	954	954	953	953	956	955	
Oct 27	953	953	953	953	953	953	953	953	953	954	954	954	954	953	953	952	952	951	951	951	950	950	950	950	950	950	954	952	
Oct 28	950	950	950	951	952	952	953	954	955	956	956	956	957	957	957	957	957	957	957	957	957	957	957	957	957	950	957	955	
Oct 29	957	957	956	956	956	956	956	955	955	955	955	954	953	952	952	951	950	950	950	950	950	951	951	951	950	950	957	953	
Oct 30	952	952	952	952	952	952	951	951	951	950	949	949	949	948	948	948	947	947	947	947	947	947	947	947	947	947	952	950	
Oct 31	947	947	948	948	948	948	948	949	949	949	950	949	949	949	949	948	948	948	948	947	947	947	947	947	947	947	950	948	
Diurnal Maximum	957	957	956	957	957	958	959	959	960	960	960	961	961	960	959	959	958	957	957	957	957	957	957	957	957	957	957	957	
Diurnal Average	943	943	943	943	943	943	943	943	944	944	944	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	

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

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.



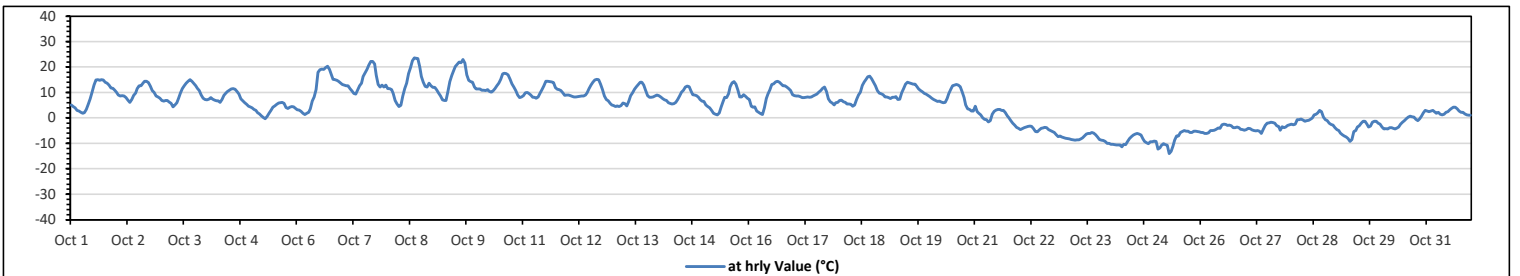
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	23.6	°C	on Oct 8 at hr 14	Hours in Service:	744
Maximum Daily Value:	14.6	°C	on Oct 7	Hours of Data:	744
Minimum Hourly Value:	-14.0	°C	on Oct 25 at hr 7	Hours of Missing Data:	0
Minimum Daily Value:	-9.0	°C	on Oct 24	Hours of Calibration:	0
Monthly Average:	5.0	°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
Oct 1	5.2	4.5	3.9	3	2.7	2.3	1.9	2.1	3.3	5.3	7.5	10.1	13	14.9	15.1	14.8	15.1	14.9	14.1	13.6	13	11.8	11.7	11	1.9	15.1	9.0
Oct 2	10.2	9	8.7	8.8	8.6	7.9	7	6.1	7.2	8.9	9.7	11.5	12.6	12.7	13.7	14.4	14.5	13.9	12.5	10.8	10	8.7	8.3	7.8	6.1	14.5	10.1
Oct 3	6.9	6.6	6.9	6.9	6.3	5.8	4.3	5.2	6	7.6	9.7	11.5	12.7	13.6	14.4	15	14.5	13.5	12.6	11.7	10.7	9	7.8	7.2	4.3	15.0	9.4
Oct 4	7.1	7.4	8	7.4	7	6.7	6.7	6.1	7.3	8.9	9.8	10.4	10.9	11.4	11.5	11.3	10.5	9.3	7.5	6.7	6	5.3	4.6	4.3	4.3	11.5	8.0
Oct 5	3.9	3.4	2.9	2.1	1.6	0.9	0.2	-0.2	0.6	1.9	2.9	4.2	4.7	5.3	5.9	6	6.2	5.7	4.1	3.8	4.2	4.5	4.4	3.8	-0.2	6.2	3.5
Oct 6	3.2	3.1	2.6	1.9	1.3	1.8	2.2	3.7	6.6	8.2	11.1	17.9	18.9	19.2	19	19.9	20.3	19	16.9	15.2	15.1	14.8	14.5	13.8	1.3	20.3	11.3
Oct 7	13.2	12.9	12.6	12.7	11.5	10.6	9.6	9.3	11	12.7	13.7	16.3	17.7	19.1	20.8	22.2	22.3	21.2	16.8	13.2	12.1	13	12.1	12.9	9.3	22.3	14.6
Oct 8	11.6	11.6	11.2	9.6	6.8	5.4	4.5	5	8.7	11.6	13.7	17.4	19.8	22.5	23.6	23.5	23.4	20.1	16.3	14	12.4	12.1	13.7	12.7	4.5	23.6	13.8
Oct 9	12	12	11	9.8	8.7	7.1	6.8	6.9	10.4	14.3	16.7	18.4	20.2	21.1	21.9	21.7	23	21.6	17	14.7	14.3	14.1	12.1	11.4	6.8	23.0	14.5
Oct 10	11.4	11.4	10.9	10.9	10.7	11.1	10.5	10.1	10.6	11.6	12.7	13.6	15.2	17.3	17.6	17.4	17	15.3	13.4	12.1	10.7	9.1	7.9	8.2	7.9	17.6	12.4
Oct 11	8.8	9.9	10	9.6	9.1	8.1	8.1	7.8	8.3	9.8	11.2	12.7	14.5	14.5	14.3	14.2	13.9	11.9	11.3	11.2	10.8	9.9	8.9	9.1	7.8	14.5	10.7
Oct 12	9	8.8	8.5	8.3	8.3	8.4	8.5	8.6	8.7	9.1	9.9	11.5	13	14	14.9	15.2	15	13.3	11.1	8.6	7.3	6.7	5.7	5.2	5.2	15.2	9.9
Oct 13	4.9	4.5	4.7	4.5	4.9	5.9	5.6	4.8	6.5	8.8	9.9	11.3	12.3	13.2	14.1	14	13	10.7	8.8	8.1	8.1	8.3	8.6	9	4.5	14.1	8.5
Oct 14	8.8	8.2	7.7	7.1	6.9	6	5.7	5.5	5.6	6.1	7.2	8.7	10.1	10.9	12.1	12.5	12.2	10.8	9.2	9	8.8	8.1	7.3	6.6	5.5	12.5	8.4
Oct 15	6.5	5.1	4.5	4	3	1.9	1.4	1.2	2	4.3	6.5	8.1	7.9	9.5	12.2	13.8	14.3	13.3	11	8.2	8.2	9.2	8.5	7.8	1.2	14.3	7.2
Oct 16	7.2	4.6	4.2	4.4	2.7	2.2	1.7	1.3	4	7.6	9.4	11	13.2	13.4	14.2	14.5	14	13.3	12.6	12.6	12.1	11.6	10.7	9.2	1.3	14.5	8.8
Oct 17	8.8	8.7	8.7	8.4	7.9	7.9	8.1	8.2	8.1	8.3	8.6	9	9.4	10.1	10.8	11.7	12.1	10.4	7.5	6.4	5.9	5.2	6	6.2	5.2	12.1	8.4
Oct 18	6.9	7	6.4	6.2	5.4	5.5	5.3	4.6	5.2	7.2	9	10.1	12.8	14.2	15.1	16.2	16.4	15.5	14.1	12.6	10.8	9.7	9.5	9.2	4.6	16.4	9.8
Oct 19	8.3	8.2	7.9	7.6	8.1	8.1	8.4	7.2	7.4	9.9	11.5	13.3	14	13.8	13.5	13.3	13.3	12.2	11.4	10.8	10.3	9.6	9.4	8.9	7.2	14.0	10.3
Oct 20	8.4	7.8	7.2	6.9	6.5	6.6	6.3	6	6.2	7.7	9.5	11.1	12.6	13	13.2	13	12.3	10.3	7.9	5.1	3.6	3.4	2.7	2.7	2.7	13.2	7.9
Oct 21	4.6	2.5	1.9	1.2	0.1	-0.5	-0.6	-1.5	-1	1.5	2.6	3.1	3.4	3.3	3	3	2.1	0.8	0.1	-1.1	-2.1	-2.8	-3.7	-4.1	-4.1	4.6	0.7
Oct 22	-4.5	-4.2	-3.9	-3.6	-3.3	-3.1	-3.3	-4.2	-5.3	-5.5	-4.7	-4.1	-4	-3.7	-3.9	-4.5	-5	-5.3	-5.7	-6.6	-7.3	-7.1	-7.5	-7.7	-7.7	-3.1	-4.9
Oct 23	-8	-8.1	-8.2	-8.5	-8.6	-8.7	-8.6	-8.6	-8.2	-7.8	-7.1	-6.4	-6.1	-6.1	-5.6	-5.9	-6.6	-7.5	-8.4	-8.7	-8.8	-9.3	-9.9	-10	-10.0	-5.6	-7.9
Oct 24	-10.3	-10.3	-10.5	-10.6	-10.6	-11.3	-10.4	-10.5	-9.2	-8.1	-7.3	-6.7	-6.4	-6.1	-6.3	-6.8	-8.2	-9.2	-9.7	-10.1	-9.4	-9.4	-9.1	-11.3	-6.1	-9.0	-9.0
Oct 25	-9.2	-12.2	-11.7	-10.8	-10.1	-10.5	-10.8	-14	-13.1	-10.9	-8.7	-7.1	-7	-5.7	-5.3	-4.9	-5.2	-5.2	-5.6	-5.6	-5.2	-5.2	-5.3	-5.5	-14.0	-4.9	-8.1
Oct 26	-5.7	-5.6	-6.1	-6.1	-5.8	-5	-4.9	-4.8	-4.4	-4	-4.1	-2.7	-2.4	-2.6	-2.9	-2.8	-3	-3.9	-3.8	-3.6	-3.9	-4.4	-4.6	-4.8	-6.1	-2.4	-4.2
Oct 27	-4.6	-4.1	-4.2	-4.7	-5	-5.1	-5	-5.2	-6.1	-4.4	-2.9	-2.1	-1.9	-1.7	-1.8	-2.1	-3	-3.3	-4.8	-3.4	-3.8	-3.6	-2.9	-2.7	-6.1	-1.7	-3.7
Oct 28	-2.5	-2.7	-2.4	-0.7	-0.6	-0.4	-0.8	-1.4	-1.1	-0.9	-0.5	-0.1	1.2	1.4	2	2.9	2.5	0.3	-0.7	-1.1	-2	-2.6	-2.8	-3.8	-3.8	2.9	-0.7
Oct 29	-4.5	-5	-5.9	-6.6	-7.1	-7.5	-8.1	-9.3	-8.4	-5.4	-4.9	-3.5	-3	-2	-1.3	-1.4	-2.4	-3.5	-3.2	-1.7	-1.3	-1.4	-2	-2.4	-9.3	-1.3	-4.2
Oct 30	-3.6	-4.3	-4.2	-4.3	-3.9	-3.8	-4.1	-4.3	-4	-3.5	-2.5	-1.6	-1	-0.3	0.3	0.7	0.5	0.3	-0.5	-1	-0.2	0.8	2	3	-4.3	3.0	-1.6
Oct 31	2.7	2.5	2.7	2.9	2.4	1.9	2.3	1.4	1.2	1.5	2.2	2.5	3.2	3.8	4.2	4.2	3.7	2.7	2.2	2.2	1.6	1.2	1.1	1.1	1.1	4.2	2.4
Diurnal Maximum	13.2	12.9	12.6	12.7	11.5	11.1	10.5	10.1	11.0	14.3	16.7	18.4	20.2	22.5	23.6	23.5	23.4	21.6	17.0	15.2	15.1	14.8	14.5	13.8			
Diurnal Average	3.8	3.3	3.1	2.8	2.4	2.2	1.9	1.5	2.3	3.9	5.2	6.7	7.8	8.5	9.0	9.3	9.0	7.9	6.3	5.4	4.9	4.5	4.2	3.9			

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

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



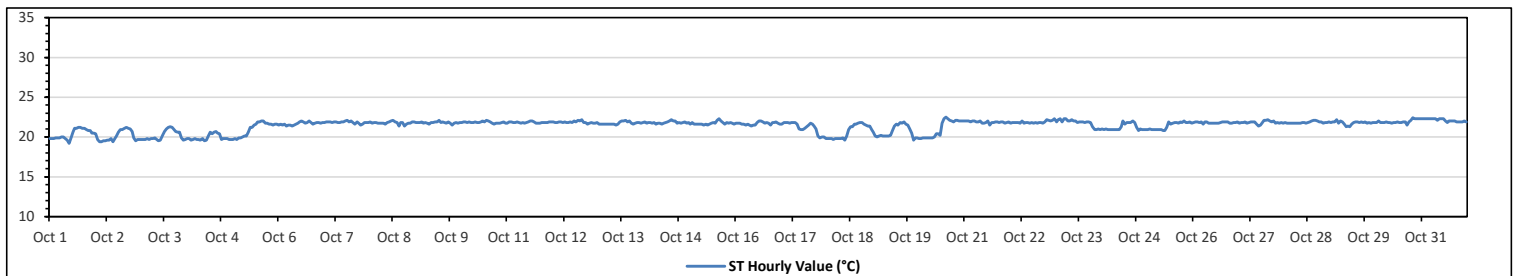
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	22.5 °C	on Oct 20 at hr 14	Hours in Service:	744
Maximum Daily Value:	22.1 °C	on Oct 31	Hours of Data:	744
Minimum Hourly Value:	19.2 °C	on Oct 1 at hr 10	Hours of Missing Data:	0
Minimum Daily Value:	19.9 °C	on Oct 4	Hours of Calibration:	0
Monthly Average:	21.4 °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	
Oct 1	19.8	19.8	19.8	19.9	19.9	19.9	20.0	20.0	19.8	19.6	19.2	19.9	20.6	21.1	21.1	21.2	21.2	21.1	21.1	20.9	20.8	20.8	20.5	20.5	19.2	21.2	20.4	
Oct 2	20.4	19.7	19.4	19.4	19.5	19.5	19.6	19.6	19.8	19.4	19.8	20.1	20.6	20.9	20.9	21.1	21.2	21.1	21.0	20.7	19.9	19.5	19.7	19.7	19.4	21.2	20.1	
Oct 3	19.7	19.7	19.7	19.8	19.7	19.8	19.8	19.8	19.9	19.7	19.5	19.6	20.2	20.7	21.0	21.2	21.3	21.2	20.9	20.7	20.6	20.6	19.9	19.6	19.7	19.5	21.3	20.2
Oct 4	19.8	19.8	19.6	19.7	19.8	19.7	19.7	19.6	19.8	19.5	19.6	20.1	20.6	20.4	20.6	20.7	20.5	20.4	19.7	19.8	19.8	19.8	19.7	19.7	19.5	20.7	19.9	
Oct 5	19.7	19.8	19.7	19.9	19.9	20.0	20.1	20.1	20.6	21.2	21.2	21.5	21.6	21.9	21.9	22.0	22.0	21.7	21.7	21.6	21.6	21.5	21.6	21.6	19.7	22.0	21.0	
Oct 6	21.5	21.6	21.5	21.6	21.4	21.5	21.5	21.4	21.5	21.6	21.7	21.9	22.0	21.9	21.7	21.8	22.0	21.8	21.6	21.7	21.8	21.8	21.7	21.8	21.4	22.0	21.7	
Oct 7	21.8	21.9	21.9	21.9	21.8	21.9	21.8	21.9	21.8	21.9	21.9	22.0	22.1	21.9	22.0	22.0	21.8	21.6	21.9	21.7	21.5	21.6	21.8	21.8	21.5	22.1	21.8	
Oct 8	21.9	21.7	21.8	21.8	21.7	21.7	21.7	21.7	21.6	21.8	21.9	22.0	22.1	21.9	21.8	21.4	21.8	21.8	21.4	21.6	21.7	21.7	21.9	21.9	21.4	22.1	21.8	
Oct 9	21.8	21.8	21.8	21.9	21.7	21.8	21.7	21.6	21.8	21.8	21.9	21.9	22.1	21.8	21.9	21.8	21.7	21.9	21.7	21.5	21.7	21.8	21.7	21.8	21.5	22.1	21.8	
Oct 10	21.8	21.9	21.9	21.8	21.9	21.8	21.8	21.9	21.8	21.8	21.9	22.0	21.9	22.1	22.0	21.9	21.7	21.6	21.7	21.5	21.7	21.8	21.8	21.9	21.7	22.1	21.8	
Oct 11	21.7	21.9	21.9	21.8	21.8	21.9	21.8	21.7	21.8	21.7	21.8	21.9	22.0	22.0	21.9	21.7	21.7	21.7	21.8	21.8	21.8	21.8	21.9	21.9	21.7	22.0	21.8	
Oct 12	21.9	21.8	21.8	21.9	21.8	21.9	21.8	21.8	21.9	21.8	21.9	22.0	22.1	21.9	22.0	22.2	21.8	21.8	21.6	21.7	21.8	21.8	21.7	21.7	21.8	21.6	22.2	21.9
Oct 13	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.5	21.6	21.9	22.0	22.0	22.1	21.9	22.0	21.7	21.6	21.7	21.8	21.8	21.7	21.8	21.5	22.1	21.7	
Oct 14	21.9	21.7	21.8	21.8	21.7	21.8	21.6	21.7	21.7	21.6	21.7	21.8	21.9	22.0	22.2	22.0	22.0	21.7	21.8	21.7	21.8	21.9	21.7	21.8	21.6	22.2	21.8	
Oct 15	21.6	21.8	21.6	21.6	21.6	21.6	21.6	21.5	21.6	21.5	21.6	21.7	21.8	21.7	22.1	22.3	22.0	21.8	21.6	21.8	21.7	21.8	21.7	21.8	21.5	22.3	21.7	
Oct 16	21.7	21.7	21.7	21.6	21.6	21.5	21.6	21.5	21.4	21.5	21.5	21.8	22.0	22.0	21.9	21.7	21.8	21.7	21.5	21.8	21.8	21.9	21.7	21.6	21.4	22.0	21.7	
Oct 17	21.6	21.8	21.8	21.8	21.7	21.8	21.8	21.8	21.6	21.0	20.9	20.9	21.1	21.3	21.5	21.7	21.6	21.4	21.0	20.1	19.9	20.0	20.0	19.8	19.8	21.8	21.2	
Oct 18	19.8	19.8	19.8	19.7	19.8	19.8	19.8	19.8	19.9	19.6	20.1	20.9	21.3	21.3	21.6	21.6	21.7	21.8	21.8	21.6	21.5	21.4	21.4	20.9	19.6	21.8	20.7	
Oct 19	20.6	20.1	20.0	20.1	20.2	20.1	20.1	20.1	20.2	20.8	21.4	21.6	21.5	21.8	21.7	21.9	21.6	21.5	21.0	20.5	19.6	19.9	19.9	19.6	21.9	20.7	20.7	
Oct 20	19.8	19.8	19.9	19.9	19.9	19.9	19.9	20.0	20.4	20.4	20.2	21.7	22.3	22.5	22.3	22.1	22.0	21.9	22.1	22.1	22.0	22.0	22.0	19.8	22.5	21.0	21.0	
Oct 21	22.0	22.0	22.0	21.9	22.0	22.0	21.9	21.9	22.0	21.7	21.7	21.8	22.0	21.5	21.8	21.8	21.9	21.9	21.8	21.9	21.9	21.8	21.9	21.5	22.0	21.9	21.9	
Oct 22	21.7	21.8	21.8	21.8	21.8	21.7	22.0	21.7	21.8	21.8	21.7	21.8	21.7	21.8	21.7	21.8	21.8	21.7	21.9	22.2	22.1	22.0	22.1	22.3	21.7	22.3	21.9	
Oct 23	21.9	22.2	22.3	21.9	22.3	22.3	22.0	22.0	22.2	22.0	22.0	21.8	21.9	21.9	21.8	21.9	21.9	21.8	21.3	20.9	20.9	21.0	20.9	20.9	20.9	22.3	21.8	
Oct 24	21.0	20.9	21.0	20.9	20.9	20.9	20.9	20.9	20.9	20.9	21.3	22.0	21.6	21.8	21.8	22.0	21.8	21.2	20.8	21.0	20.9	20.9	20.9	20.8	22.0	21.2	21.2	
Oct 25	20.9	21.0	20.9	20.9	20.9	20.9	20.9	20.9	20.8	20.8	21.2	21.9	21.6	21.7	21.8	21.8	21.7	21.9	21.8	22.0	21.8	21.8	21.9	21.7	20.8	22.0	21.4	
Oct 26	21.8	21.9	21.9	21.8	21.9	21.6	21.9	21.9	21.7	21.7	21.7	21.7	21.7	21.8	21.9	21.9	21.9	21.9	21.7	21.7	21.8	21.8	21.9	21.6	21.9	21.9	21.8	
Oct 27	21.7	21.8	21.8	21.8	21.7	21.8	21.9	21.9	21.9	21.6	21.4	21.5	21.8	22.1	22.1	22.2	22.0	21.9	22.0	21.7	21.8	21.7	21.8	21.7	21.4	22.2	21.8	
Oct 28	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.8	21.7	21.8	21.9	22.0	22.1	22.1	22.0	21.9	21.9	21.7	21.8	21.8	21.9	21.7	22.1	21.8	
Oct 29	21.8	21.9	21.9	22.2	21.7	22.0	21.9	21.6	21.3	21.4	21.3	21.6	21.8	21.9	21.9	21.8	21.9	21.8	21.9	21.7	21.8	21.7	21.8	21.8	21.3	22.2	21.8	
Oct 30	21.8	22.0	21.8	21.8	21.8	21.9	21.8	21.8	21.7	21.8	21.8	21.9	21.8	21.8	21.9	21.9	21.5	21.9	22.1	22.4	22.3	22.3	22.3	21.5	22.4	22.1	21.9	
Oct 31	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.1	22.3	22.3	22.3	22.0	21.8	22.0	22.0	22.0	21.9	21.9	21.9	21.9	22.0	21.9	21.8	22.3	22.3	22.1	
Diurnal Maximum	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.2	22.3	22.3	22.3	22.1	22.3	22.5	22.3	22.1	22.0	22.1	22.4	22.3	22.3	22.3	21.8	22.3	22.3	22.3	
Diurnal Average	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.3	21.5	21.7	21.7	21.8	21.8	21.7	21.7	21.6	21.5	21.4	21.4	21.4	21.8	22.3	22.3	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
X InValid Data (Equipment Malfunction /Recovery)	NRM UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P Power Failure

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



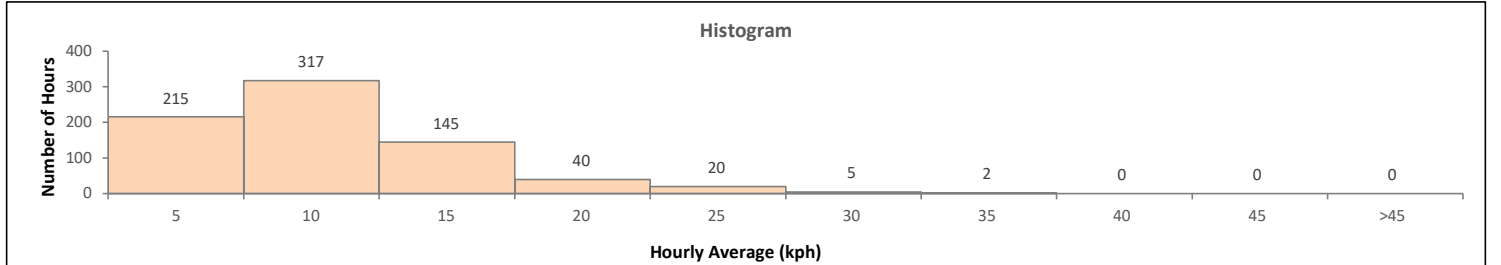
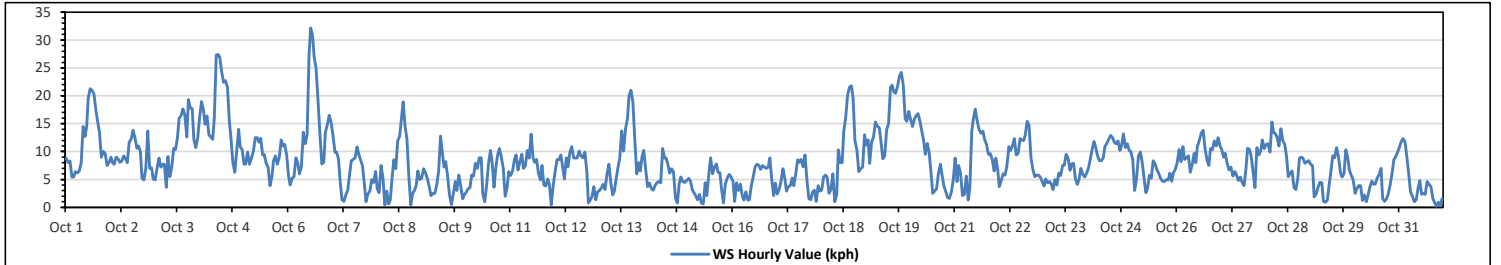
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	32.2 kph	on Oct 6 at hr 12	Hours in Service:	744
Maximum Daily Value:	16.6 kph	on Oct 4	Hours of Data:	744
Minimum Hourly Value:	0.2 kph	on Oct 31 at hr 20	Hours of Missing Data:	0
Minimum Daily Value:	4.2 kph	on Oct 30	Hours of Calibration:	0
Monthly Average:	8.2 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
Oct 1	8.8	8.0	8.3	5.4	5.4	6.4	6.2	6.5	8.0	14.5	12.7	14.4	19.6	21.3	21.0	20.3	17.4	15.2	13.5	9.0	10.0	9.6	7.5	8.0	5.4	21.3	11.5
Oct 2	9.0	8.0	7.7	9.0	8.7	8.1	8.3	9.2	8.7	8.0	11.7	12.2	13.8	12.5	10.6	11.0	10.0	5.3	4.9	7.0	13.7	7.0	7.1	5.1	4.9	13.8	9.0
Oct 3	4.9	7.0	8.8	7.2	7.7	7.7	3.6	9.1	5.5	7.2	10.5	10.4	12.6	16.0	16.4	17.7	16.5	12.6	19.3	17.8	17.7	12.2	10.7	12.4	3.6	19.3	11.3
Oct 4	16.1	19.0	17.5	14.9	16.4	13.0	12.6	12.2	16.1	27.3	27.4	26.9	24.3	22.4	22.7	21.6	15.4	12.4	8.0	6.3	10.2	14.0	10.8	10.4	6.3	27.4	16.6
Oct 5	7.7	7.8	9.9	7.7	8.8	10.0	12.5	12.5	11.7	12.4	9.4	9.5	7.9	7.2	3.9	5.5	8.4	9.2	7.7	9.0	12.1	11.0	11.3	9.4	3.9	12.5	9.3
Oct 6	5.6	4.0	5.2	5.5	8.9	7.9	6.0	7.3	13.5	11.4	13.0	27.3	32.2	30.9	27.0	24.9	19.2	13.1	7.8	8.1	13.4	14.8	16.5	15.2	4.0	32.2	14.1
Oct 7	12.8	9.9	9.9	8.7	4.8	1.4	1.1	2.2	3.1	6.0	8.4	8.6	8.9	10.8	9.4	8.4	7.4	4.2	1.0	2.4	2.9	5.0	4.5	6.4	1.0	12.8	6.2
Oct 8	3.4	2.6	7.5	5.3	0.4	2.9	0.6	1.4	5.0	8.5	6.9	11.9	12.7	16.0	18.9	14.6	12.2	5.4	0.4	2.5	3.1	4.0	6.5	5.0	0.4	18.9	6.6
Oct 9	5.3	6.9	6.2	5.1	3.6	2.1	2.5	2.5	4.0	6.5	12.8	10.1	7.2	8.2	5.6	2.2	0.5	2.5	4.6	3.0	5.8	3.8	1.5	2.3	0.5	12.8	4.8
Oct 10	2.7	3.3	3.5	5.8	5.6	7.9	7.0	8.9	8.9	2.4	1.0	4.0	7.9	10.2	8.2	3.6	7.3	9.3	10.5	9.0	7.0	2.0	3.5	6.4	1.0	10.5	6.1
Oct 11	5.7	6.5	8.6	9.4	6.7	8.2	9.5	7.0	7.4	10.2	8.8	13.1	8.9	8.1	8.6	6.1	4.9	7.5	4.0	3.8	5.1	4.1	0.4	3.9	0.4	13.1	6.9
Oct 12	6.4	8.5	8.5	9.4	7.4	5.1	8.9	7.3	9.8	10.9	8.9	8.8	8.9	10.1	9.2	8.9	9.9	6.5	0.8	1.4	1.9	3.7	1.4	2.8	0.8	10.9	6.9
Oct 13	3.0	3.5	4.1	3.2	5.9	7.7	4.4	2.2	2.9	5.2	7.0	8.8	13.7	10.1	14.1	15.9	20.0	21.0	18.9	12.2	6.0	8.0	6.5	9.2	2.2	21.0	8.9
Oct 14	10.2	6.8	3.7	4.3	3.3	3.1	3.9	4.4	4.6	4.4	10.5	8.8	8.8	7.6	6.1	6.9	6.3	1.7	0.8	4.3	5.4	4.6	4.5	4.8	0.8	10.5	5.4
Oct 15	5.2	4.7	3.1	2.6	2.1	1.4	2.3	0.8	0.6	4.4	2.1	5.7	8.9	6.0	7.2	7.8	6.3	6.2	3.3	0.8	4.2	5.3	5.9	5.4	0.6	8.9	4.3
Oct 16	4.6	1.1	4.4	3.0	4.2	2.0	1.3	2.8	1.3	1.4	3.8	5.4	7.3	7.7	7.5	6.8	7.5	7.2	7.0	7.2	8.9	5.0	2.1	4.3	1.1	8.9	4.7
Oct 17	2.4	3.2	4.7	6.9	5.1	2.9	3.7	3.9	5.3	3.9	6.0	8.5	8.1	8.6	7.3	9.4	4.8	1.6	1.4	2.7	3.1	1.1	3.9	2.9	1.1	9.4	4.6
Oct 18	3.1	5.4	5.8	5.4	2.5	3.2	6.0	1.0	2.3	10.3	8.0	8.0	13.6	16.1	20.1	21.6	21.8	19.7	11.9	10.3	6.4	6.9	7.2	13.0	1.0	21.8	9.6
Oct 19	11.2	12.1	7.9	11.7	12.6	15.3	14.6	14.3	12.0	8.7	9.2	13.9	15.0	21.5	21.9	20.6	20.5	21.7	23.5	24.2	21.9	15.9	15.4	17.2	7.9	24.2	16.0
Oct 20	15.7	14.5	15.9	16.5	16.8	15.5	13.9	12.2	9.5	11.5	9.8	6.0	2.5	2.9	3.3	6.1	7.7	5.5	3.8	2.8	1.8	1.6	2.7	4.8	1.6	16.8	8.5
Oct 21	8.8	4.6	7.5	6.1	2.1	2.3	5.6	1.3	3.5	13.6	15.9	17.6	15.5	13.9	13.3	13.6	12.2	11.3	9.5	9.6	8.6	6.5	8.8	6.8	1.3	17.6	9.1
Oct 22	3.7	4.8	6.0	5.8	7.5	10.9	10.2	11.0	12.3	9.4	9.7	12.3	12.1	12.0	12.9	15.4	14.7	8.9	6.8	5.5	5.8	5.8	5.4	4.6	3.7	15.4	8.9
Oct 23	3.8	5.1	4.4	4.6	4.1	3.2	5.0	4.0	6.2	5.7	7.5	7.6	9.5	8.8	6.6	7.8	7.9	5.1	4.1	5.0	7.0	5.9	5.4	6.1	3.2	9.5	5.9
Oct 24	7.1	8.5	10.3	11.8	10.6	9.3	8.4	8.4	8.9	10.9	11.5	12.2	12.9	12.5	11.6	11.4	11.9	10.2	11.0	13.2	10.7	11.4	10.2	10.0	7.1	13.2	10.6
Oct 25	8.6	3.0	5.3	9.2	9.9	8.3	5.5	2.6	3.3	5.7	5.2	8.4	7.8	6.8	6.1	5.2	4.7	4.6	5.0	4.9	6.1	4.7	6.2	6.8	2.6	9.9	6.0
Oct 26	8.0	10.4	8.2	10.9	8.6	8.9	9.2	6.3	7.7	9.7	8.0	10.9	12.0	13.3	13.8	10.5	8.5	7.5	10.5	10.3	11.9	11.0	12.5	11.0	6.3	13.8	10.0
Oct 27	10.4	9.0	9.7	7.9	6.7	7.2	5.6	6.4	5.9	4.8	5.4	4.5	3.9	7.0	10.6	10.4	9.2	6.4	3.5	10.7	9.4	10.1	12.1	10.5	3.5	12.1	7.8
Oct 28	11.3	11.4	9.9	15.3	13.5	13.2	12.6	11.0	14.1	12.0	11.3	9.0	5.5	6.2	6.5	3.5	3.2	5.2	8.8	9.0	8.8	7.9	8.2	8.4	3.2	15.3	9.4
Oct 29	7.7	7.4	1.9	2.4	3.6	4.5	4.4	1.1	0.9	1.2	3.6	6.3	9.2	8.9	10.7	9.1	6.3	5.4	6.0	10.3	8.9	6.7	5.7	4.9	0.9	10.7	5.7
Oct 30	2.5	3.3	3.9	3.9	1.2	2.2	1.0	2.1	3.6	4.7	4.2	4.2	5.3	5.9	7.0	1.6	1.1	1.5	2.5	4.2	6.3	8.5	9.1	9.9	1.0	9.9	4.2
Oct 31	10.7	11.8	12.3	11.7	8.9	6.3	2.8	2.0	1.0	1.4	3.5	4.8	2.3	2.5	2.3	4.6	4.1	3.7	1.6	0.9	0.2	0.9	0.3	1.6	0.2	12.3	4.3
Diurnal Maximum	16.1	19.0	17.5	16.5	16.8	15.5	14.6	14.3	16.1	27.3	27.4	27.3	32.2	30.9	27.0	24.9	21.8	21.7	23.5	24.2	21.9	15.9	16.5	17.2			
Diurnal Average	7.3	7.2	7.4	7.6	6.9	6.7	6.4	5.9	6.7	8.2	8.8	10.3	10.9	11.4	11.3	10.7	9.9	8.3	7.2	7.3	7.9	7.1	6.9	7.4			

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

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.

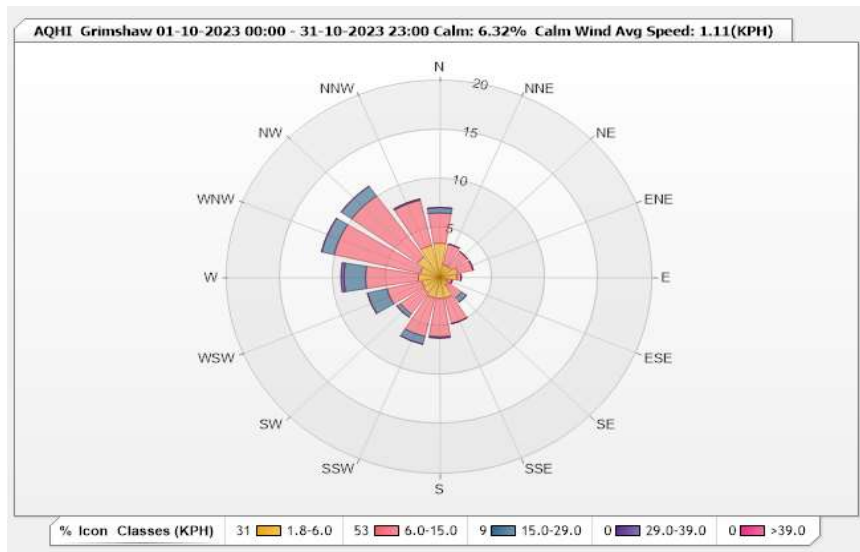


Station: AQHI Grimshaw Monitor: WDS [KPH] Monthly: 10-2023

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

Calm (WS<1.8kph): 6.32% 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	3.49	3.09	0.54	0	0	7.12
NNE	1.34	2.15	0	0	0	3.49
NE	1.34	1.88	0	0	0	3.22
ENE	1.75	1.48	0	0	0	3.23
E	1.61	0.4	0	0	0	2.01
ESE	0.67	0.54	0	0	0	1.21
SE	0.94	1.61	0.54	0	0	3.09
SSE	2.15	2.69	0	0	0	4.84
S	2.15	3.9	0.13	0	0	6.18
SSW	2.15	4.03	0.81	0	0	6.99
SW	1.88	2.69	0.4	0	0	4.97
WSW	1.75	3.36	1.88	0	0	6.99
W	2.02	4.97	2.02	0.27	0	9.28
WNW	1.88	8.33	1.21	0	0	11.42
NW	2.55	7.66	1.21	0	0	11.42
NNW	3.36	4.7	0.13	0	0	8.19
Summary	31.03	53.48	8.87	0.27	0	93.65



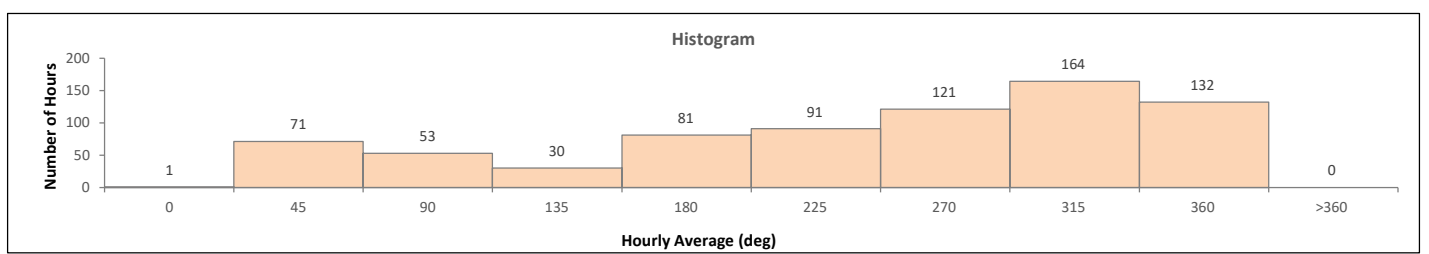
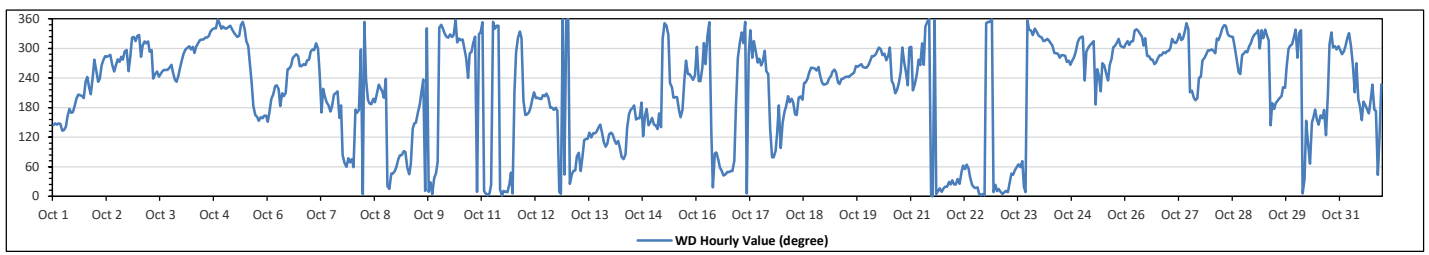
Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages
WIND DIRECTION (VWD) in sector

Monthly Average:	284 (WNW) degree	Hours in Service:	744
		Hours of Data:	744
		Hours of Missing Data:	0
		Hours of Calibration:	0
		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Oct 1	SE	SE	SE	SE	SE	SE	SE	SE	SSE	S	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SW	WSW	SW	SSW	WSW	W	183	S
Oct 2	WSW	SW	SW	W	W	WNW	W	WNW	WNW	W	WSW	W	W	W	W	WNW	WNW	WSW	W	NW	NW	NW	NW	NW	280	W
Oct 3	NW	W	NW	NW	NW	NW	WNW	WNW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	SW	SW	WSW	W	WSW	W	268	W
Oct 4	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NNW	N	N	NNW	NNW	319	NW
Oct 5	NNW	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NNW	N	NNW	NW	WNW	W	SW	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	307	NW
Oct 6	SSE	SSE	SSW	SSW	SW	SW	SW	S	SSW	SSW	SSW	WSW	WSW	W	W	WNW	WNW	WNW	W	W	W	W	W	W	241	WSW
Oct 7	WNW	WNW	WNW	NW	WNW	WSW	SSE	SW	SSW	S	S	S	S	SSW	SSW	SSW	SSE	S	E	ENE	ENE	ENE	ENE	ENE	194	SSW
Oct 8	ENE	S	SSE	S	WNW	N	N	WSW	SSW	S	S	SSW	S	SSW	SW	SW	SSW	SSW	SW	NNE	NNE	NE	NE	NE	201	SSW
Oct 9	ENE	ENE	E	E	E	E	ENE	NE	ENE	SE	SE	SSE	SSE	S	SSW	SW	NNE	NNW	N	NNE	N	NE	NE	ENE	73	ENE
Oct 10	NNW	NNW	NNW	NNW	NW	NNW	NNW	NW	NW	NW	NW	NW	NW	NW	WNW	W	WSW	WNW	WNW	NW	NW	N	NNW	NNW	321	NW
Oct 11	N	N	N	N	N	NNE	N	NNW	NNW	NNW	NNE	N	NNE	N	N	NNE	NE	N	SSW	WNW	NW	NNW	NW	SSW	355	N
Oct 12	SSE	SSE	SSE	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	N	N	N	NE	N	188	S
Oct 13	N	NNE	NE	NE	NE	E	E	NE	E	ESE	ESE	ESE	SE	ESE	SE	SE	SE	SE	SE	ESE	E	ESE	E	ESE	99	E
Oct 14	SE	SE	ESE	ESE	ESE	E	E	ENE	E	SE	SSE	S	S	S	SSE	SSE	SSE	S	ESE	SSE	S	SE	SSE	SSE	140	SE
Oct 15	SE	SE	SE	SSE	SE	NW	N	NNW	NW	SW	SW	SSW	SSW	SSW	S	SSE	S	SW	W	WSW	WSW	WSW	WSW	WSW	215	SSW
Oct 16	WNW	SW	SW	WSW	NW	W	NW	N	SE	NNE	E	E	ENE	ENE	NE	NE	NE	NE	NE	NE	NE	ENE	S	W	31	NNE
Oct 17	NW	NNW	NW	N	N	WNW	NNW	W	NW	WNW	W	W	W	WNW	WSW	WSW	SE	ENE	ENE	E	SE	S	E	301	WNW	
Oct 18	SSE	S	S	SSW	S	SSW	S	SSE	SSE	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	216	SW
Oct 19	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	W	248	WSW
Oct 20	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	270	W
Oct 21	WNW	SSW	SW	WSW	W	NW	W	NNW	N	N	N	N	N	N	NNE	NNE	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	344	NNW
Oct 22	NNE	NNE	NE	NNE	NE	ENE	NE	ENE	NE	NE	NNE	NNE	NNE	NNE	N	N	N	N	N	N	N	N	N	N	22	NNE
Oct 23	N	NNE	N	N	N	NNE	N	NNE	NE	NE	ENE	ENE	ENE	ENE	NNE	N	N	NNW	NNW	NW	NNW	NNW	NNW	NNW	14	NNE
Oct 24	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	WNW	W	WNW	WNW	W	W	W	W	W	W	W	W	W	W	298	WNW
Oct 25	NW	SW	WNW	WNW	NW	NW	NW	S	WSW	WSW	SSW	W	W	WSW	SW	W	WNW	NW	NW	NW	NW	NW	NW	NW	281	W
Oct 26	NW	NW	NW	NW	NW	NNW	NNW	NNW	NNW	NW	NW	NW	WNW	WNW	W	W	W	W	W	W	W	W	W	W	302	WNW
Oct 27	WNW	WNW	NW	NW	NW	NW	NNW	NW	NW	NNW	N	NNW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	287	WNW
Oct 28	WNW	WNW	WNW	NW	NW	NW	NNW	NNW	NNW	NNW	NW	NW	WNW	WNW	W	WSW	WSW	WNW	WNW	WNW	WNW	WNW	NW	NW	307	NW
Oct 29	NNW	NNW	NNW	WNW	NNW	NNW	NNW	NW	SE	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	282	W
Oct 30	W	NNW	NNW	N	NE	SSE	ESE	ENE	SSE	SSE	S	SSE	SE	SSE	SSE	S	ESE	SSW	NW	NNW	NNW	NNW	NNW	NNW	192	S
Oct 31	WNW	WNW	WNW	WNW	NW	NNW	WNW	W	SSW	W	SSW	S	SSE	S	S	S	SSE	SSW	SW	S	S	NE	ESE	SW	225	SW

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

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



Peace River Area Monitoring Program
AQHI - Grimshaw Station - October 2023
Summary of Hourly Averages

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

WIND SPEED																											
Maximum Hourly Value:		32.2 kph on Oct 6 at hr 12										Hours in Service:		744													
Maximum Daily Value:		16.6 kph on Oct 4										Hours of Data:		744													
Minimum Hourly Value:		0.2 kph on Oct 31 at hr 20										Hours of Missing Data:		0													
Minimum Daily Value:		4.2 kph on Oct 30										Hours of Calibration:		0													
Monthly Average:		8.2 kph										Operational Uptime:		100.0													
WIND DIRECTION																											
Monthly Average:		284 degree (WNW)																									
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
Oct 1	8.8	8.0	8.3	5.4	5.4	6.4	6.2	6.5	8.0	14.5	12.7	14.4	12.6	21.3	21.0	20.3	17.4	15.2	13.5	9.0	10.0	9.6	7.5	8.0	5.4	21.3	11.5
Oct 2	9.0	8.0	7.7	9.0	8.7	8.1	8.3	9.2	8.7	8.0	11.7	12.2	13.8	12.5	10.6	11.0	10.0	5.3	4.9	7.0	13.7	7.0	7.1	5.1	4.9	13.8	9.0
Oct 3	4.9	7.0	8.8	7.2	7.7	7.7	3.6	9.1	5.5	7.2	10.5	10.4	12.6	16.0	16.4	17.7	16.5	12.6	19.3	17.8	17.7	12.2	10.7	12.4	3.6	19.3	11.3
Oct 4	16.1	19.0	17.5	14.9	16.4	13.0	12.6	12.2	16.1	27.3	27.4	26.9	24.3	22.4	22.7	21.6	15.4	12.4	8.0	6.3	10.2	14.0	10.8	10.4	6.3	27.4	16.6
Oct 5	7.7	7.8	9.9	7.7	8.8	10.0	12.5	12.5	11.7	12.4	9.4	9.5	7.9	7.2	3.9	5.5	8.4	9.2	7.7	9.0	12.1	11.0	11.3	9.4	3.9	12.5	9.3
Oct 6	5.6	4.0	5.2	5.5	8.9	7.9	6.0	7.3	13.5	11.4	13.0	27.3	32.2	30.9	27.0	24.9	19.2	13.1	7.8	8.1	13.4	14.8	16.5	15.2	4.0	32.2	14.1
Oct 7	12.8	9.9	9.9	8.7	4.8	1.4	1.1	2.2	3.1	6.0	8.4	8.6	8.9	10.8	9.4	8.4	7.4	4.2	1.0	2.4	2.9	5.0	4.5	6.4	1.0	12.8	6.2
Oct 8	3.4	2.6	7.5	5.3	0.4	2.9	0.6	1.4	5.0	8.5	6.9	11.9	12.7	16.0	18.9	14.6	12.2	5.4	0.4	2.5	3.1	4.0	6.5	5.0	0.4	18.9	6.6
Oct 9	5.3	6.9	6.2	5.1	3.6	2.1	2.5	2.5	4.0	6.5	12.8	10.1	7.2	8.2	5.6	2.2	0.5	2.5	4.6	3.0	5.8	3.8	1.5	2.3	0.5	12.8	4.8
Oct 10	2.7	3.3	3.5	5.8	5.6	7.9	7.0	8.9	8.9	2.4	1.0	4.0	7.9	10.2	8.2	3.6	7.3	9.3	10.5	9.0	7.0	2.0	3.5	6.4	1.0	10.5	6.1
Oct 11	5.7	6.5	8.6	9.4	6.7	8.2	9.5	7.0	7.4	10.2	8.8	13.1	8.9	8.1	8.6	6.1	4.9	7.5	4.0	3.8	5.1	4.1	4.1	3.9	0.4	13.1	6.9
Oct 12	6.4	8.5	8.5	9.4	7.4	5.1	8.9	7.3	9.8	10.9	8.9	8.8	8.9	10.1	9.2	8.9	9.9	6.5	0.8	1.4	1.9	3.7	1.4	2.8	0.8	10.9	6.9
Oct 13	3.0	3.5	4.1	3.2	5.9	7.7	4.4	2.2	2.9	5.2	7.0	8.8	13.7	10.1	14.1	15.9	20.0	21.0	18.9	12.2	6.0	8.0	6.5	9.2	2.2	21.0	8.9
Oct 14	10.2	6.8	3.7	4.3	3.3	3.1	3.9	4.4	4.6	4.4	10.5	8.8	8.8	7.6	6.1	6.9	6.3	1.7	0.8	4.3	5.4	4.6	4.5	4.8	0.8	10.5	5.4
Oct 15	5.2	4.7	3.1	2.6	2.1	1.4	2.3	0.8	0.6	4.4	2.1	5.7	8.9	6.0	7.2	7.8	6.3	6.2	3.3	0.8	4.2	5.3	5.9	5.4	0.6	8.9	4.3
Oct 16	4.6	1.1	4.4	3.0	4.2	2.0	1.3	2.8	1.3	1.4	3.8	5.4	7.3	7.7	7.5	6.8	7.5	7.2	7.0	7.2	8.9	5.0	2.1	4.3	1.1	8.9	4.7
Oct 17	2.4	3.2	4.7	6.9	5.1	2.9	3.7	3.9	5.3	3.9	6.0	8.5	8.1	8.6	7.3	9.4	4.8	1.6	1.4	2.7	3.1	1.1	3.9	2.9	1.1	9.4	4.6
Oct 18	3.1	5.4	5.8	5.4	2.5	3.2	6.0	1.0	2.3	10.3	8.0	8.0	13.6	16.1	20.1	21.6	21.8	19.7	11.9	10.3	6.4	6.9	7.2	13.0	1.0	21.8	9.6
Oct 19	11.2	12.1	7.9	11.7	12.6	15.3	14.6	14.3	12.0	8.7	9.2	13.9	15.0	21.5	21.9	20.6	20.5	21.7	23.5	24.2	21.9	15.9	15.4	17.2	7.9	24.2	16.0
Oct 20	15.7	14.5	15.9	16.5	16.8	15.5	13.9	12.2	9.5	11.5	9.8	6.0	2.5	2.9	3.3	6.1	7.7	5.5	3.8	2.8	1.8	1.6	2.7	4.8	1.6	16.8	8.5
Oct 21	8.8	4.6	7.5	6.1	2.1	2.3	5.6	1.3	3.5	13.6	15.9	17.6	15.5	13.9	13.3	13.6	12.2	11.3	9.5	9.6	8.6	6.5	8.8	6.8	1.3	17.6	9.1
Oct 22	3.7	4.8	6.0	5.8	7.5	10.9	10.2	11.0	12.3	9.4	9.7	12.3	12.1	12.0	12.9	15.4	14.7	8.9	6.8	5.5	5.8	5.8	5.4	4.6	3.7	15.4	8.9
Oct 23	3.8	5.1	4.4	4.6	4.1	3.2	5.0	4.0	6.2	5.7	7.5	7.6	9.5	8.8	6.6	7.8	7.9	5.1	4.1	5.0	7.0	5.9	5.4	6.1	3.2	9.5	5.9
Oct 24	7.1	8.5	10.3	11.8	10.6	9.3	8.4	8.4	8.9	10.9	11.5	12.2	12.9	12.5	11.6	11.4	11.9	10.2	11.0	13.2	10.7	11.4	10.2	10.0	7.1	13.2	10.6
Oct 25	8.6	3.0	5.3	9.2	9.9	8.3	5.5	2.6	3.3	5.7	5.2	8.4	7.8	6.8	6.1	5.2	4.7	4.6	5.0	4.9	6.1	4.7	6.2	6.8	2.6	9.9	6.0
Oct 26	8.0	10.4	8.2	10.9	8.6	8.9	9.2	6.3	7.7	9.7	8.0	10.9	12.0	13.3	13.8	10.5	8.5	7.5	10.5	10.3	11.9	11.0	12.5	11.0	6.3	13.8	10.0
Oct 27	10.4	9.0	9.7	7.9	6.7	7.2	5.6	6.4	5.9	4.8	5.4	4.5	3.9	7.0	10.6	10.4	9.2	6.4	3.5	10.7	9.4	10.1	12.1	10.5	3.5	12.1	7.8
Oct 28	11.3	11.4	9.9	15.3	13.5	13.2	12.6	11.0	14.1	12.0	11.3	9.0	5.5	6.2	6.5	3.5	3.2	5.2	8.8	9.0	8.8	7.9	8.2	8.4	3.2	15.3	9.4
Oct 29	7.7	7.4	1.9	2.4	3.6	4.5	4.4	1.1	0.9	1.2	3.6	6.3	9.2	8.9	10.7	9.1	6.3	5.4	6.0	10.3	8.9	6.7	5.7	4.9	0.9	10.7	5.7
Oct 30	2.5	3.3	3.9	3.9	1.2	2.2	1.0	2.1	3.6	4.7	4.2	4.2	5.3	5.9	7.0	1.6	1.1	1.5	2.5	4.2	6.3	8.5	9.1	9.9	1.0	9.9	4.2
Oct 31	10.7	11.8	12.3	11.7	8.9	6.3	2.8	2.0	1.0	1.4	3.5	4.8	2.3	2.5	2.3	4.6	4.1	3.7	1.6	0.9	0.2	0.9	0.3	1.6	0.2	12.3	4.3
	WNW	WNW	WNW	WNW	NW	NNW	WNW	W	SSW	W	SSW	S	SSE	S	S	S	SSE	SSW	SW	S	S	NE	ESE	SW			225(SW)
C	Monthly Calibration										S Daily Zero-Span Check										Q Quality Assurance						
K	Collection Error										ND No Data (Machine Not in Service)										Y Routine Maintenance						
X	Invalid Data (Equipment Malfunction /Recovery)										NRM Unit/Maint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)										P Power Failure						

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 October 2023 Monthly Ambient Air Quality Monitoring Report.



Peace River Area Monitoring Program

OCTOBER 2023

Ambient Air Monitoring Calibration Report

- 842-B STATION-

CAL-PRAMP-202310-01561

Operation and Maintenance:

Bureau Veritas Canada

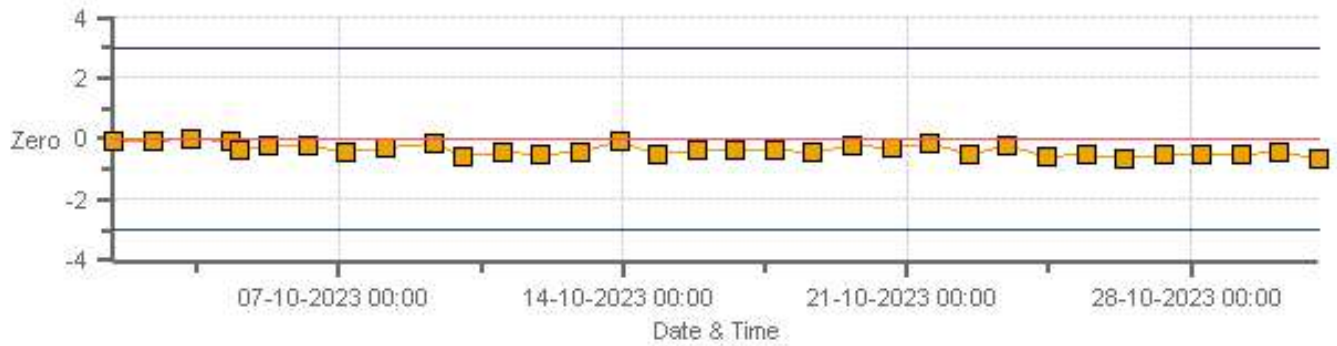
Data Validation and Report:

Bureau Veritas Canada

November 20, 2023

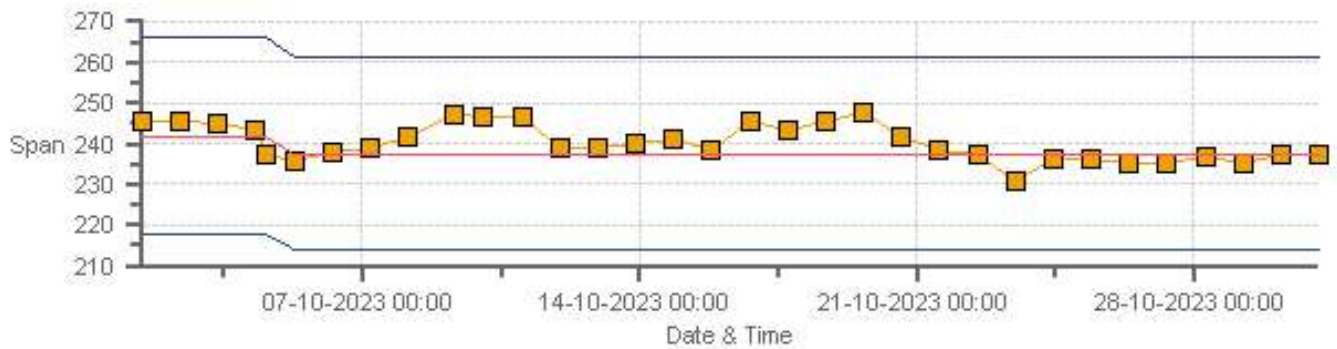
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Zero



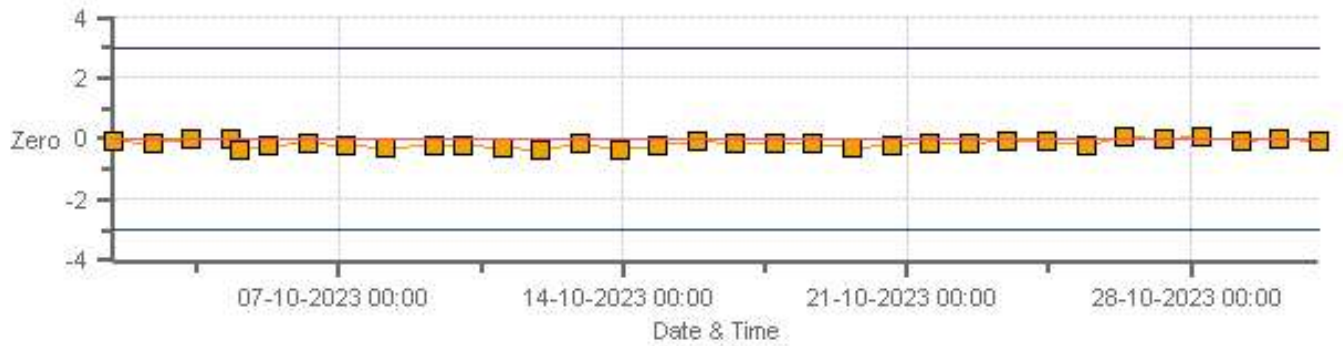
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Span



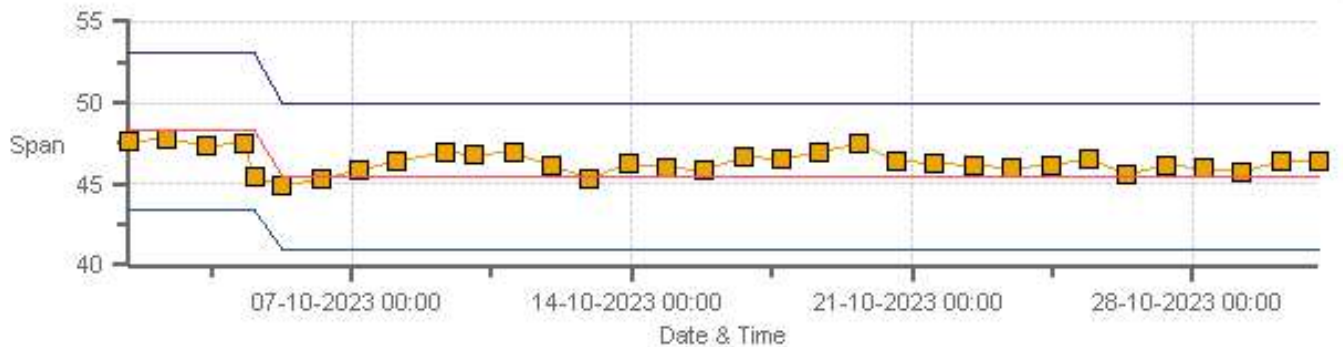
Span SpanRef Span Low Span High

TRS[ppb] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Zero



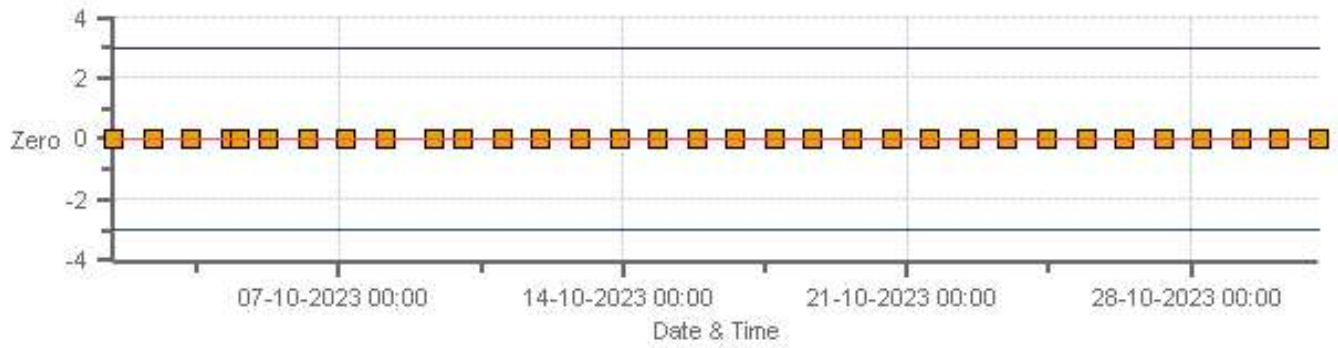
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Span



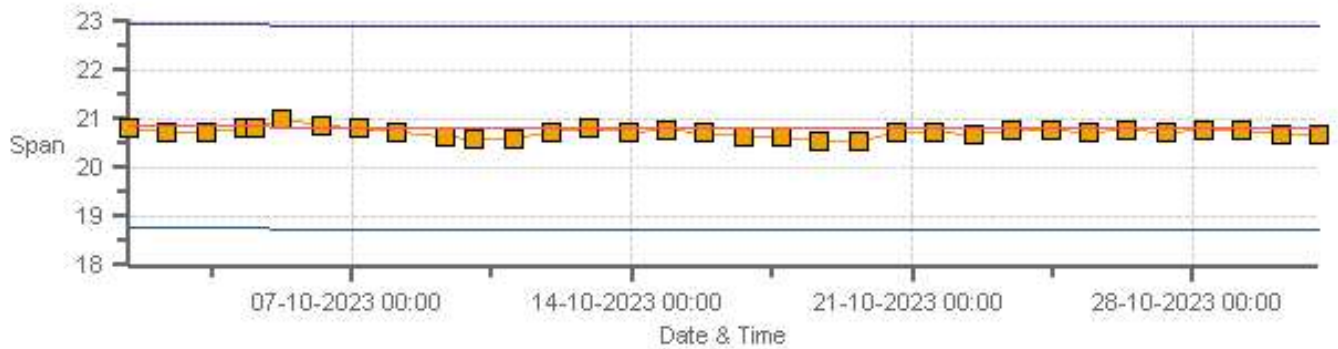
Span Span Ref Span Low Span High

THC55[ppm] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Zero



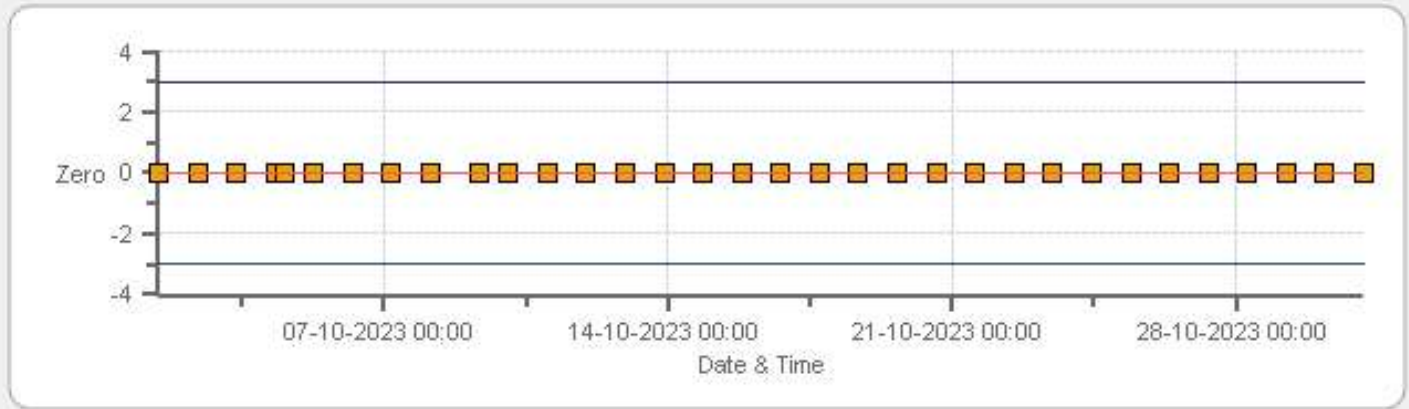
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Span



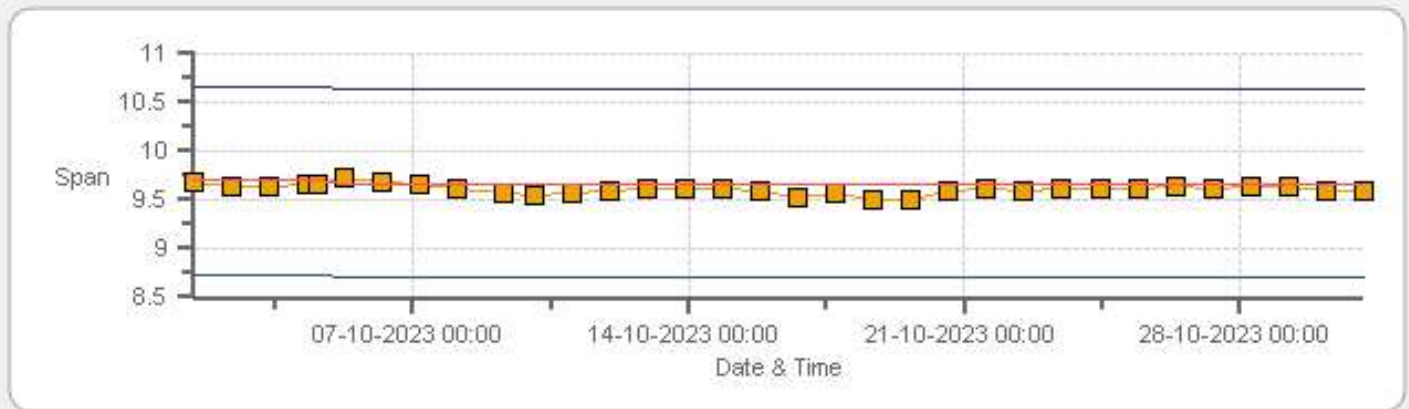
Span SpanRef Span Low Span High

CH4[ppm] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Zero



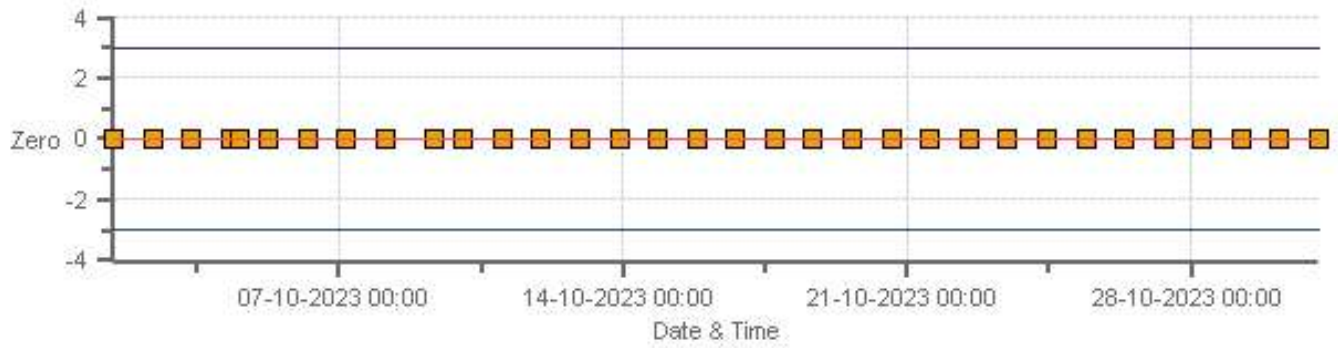
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Span



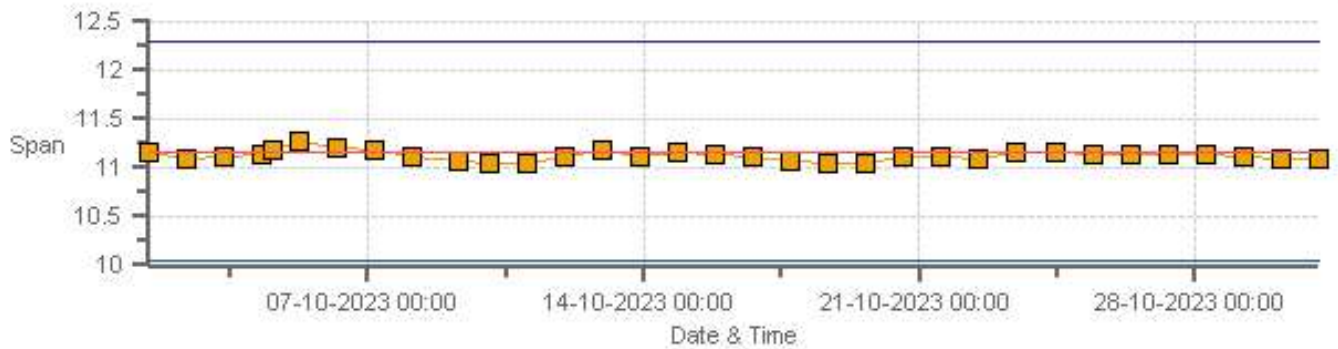
Span SpanRef Span Low Span High

NMHC[ppm] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP 842-B Monthly: 10-2023 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	04-Oct-2023	PREVIOUS CALIBRATION DATE:	06-Sep-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.001
CLIENT:	PRAMP	TEMPERATURE (°C):	21.6
LOCATION:	842b	BAROMETRIC (mBar):	939
PURPOSE:	Routine	START TIME (MST):	08:55
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:41

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1200736629	FLOW (mL/min)	424
INITIAL		FINAL	
BKG/OFFSET	8.8	BKG/OFFSET	9.2
COEF/SLOPE	1.116	COEF/SLOPE	1.11
Expected (reference) Value	241.9	Expected (reference) Value	237.5

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:

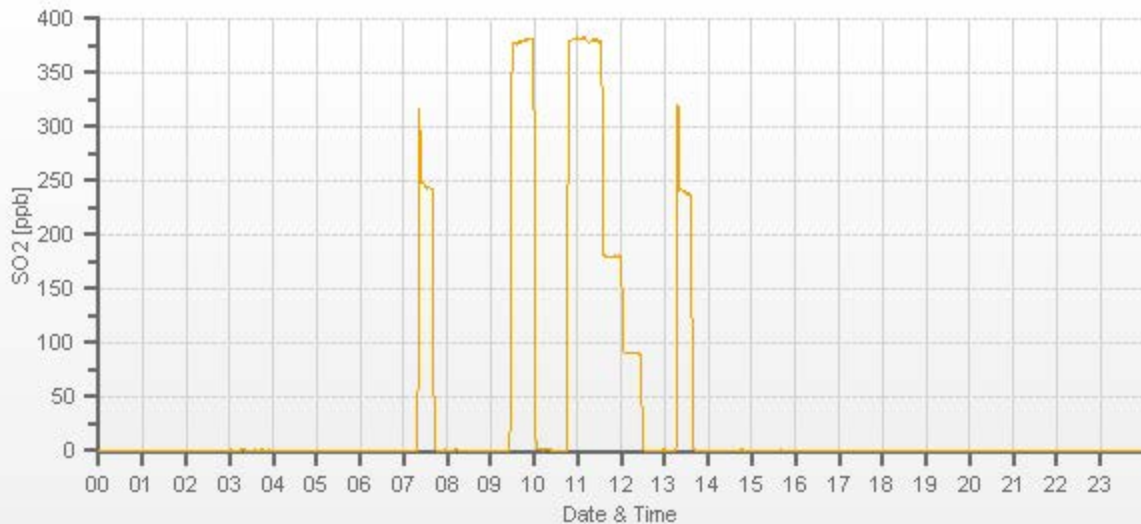
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4000	60.80	4000	0.00	0.2	0	0.997	1.001
3942	60.80	4003	379.72	381	379.3	0.997	1.001
3975	28.80	4004	179.82	n/a	179.9	n/a	1.000
3988	14.40	4002	89.96	n/a	90.3	n/a	0.996

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.999	0.0%

COMMENTS:

Sample filter changed.



TRS Analyzer Calibration by Dilution



DATE:	04-Oct-2023	PREVIOUS CALIBRATION DATE:	06-Sep-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.002
CLIENT:	PRAMP	TEMPERATURE (°C):	21.6
LOCATION:	842b	BAROMETRIC (mBar):	939
PURPOSE:	Routine	START TIME (MST):	08:55
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:41

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1200736630	FLOW (mL/min)	375
INITIAL		FINAL	
BKG/OFFSET	13.6	BKG/OFFSET	13.5
COEF/SLOPE	0.897	COEF/SLOPE	0.874
Expected (reference) Value	48.27	Expected (reference) Value	45.45

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:	EY0002519	HIGH ID	n/a
CONC (ppm):	9.41	EXPIRY DATE	n/a
CYLINDER (psi):	500	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:

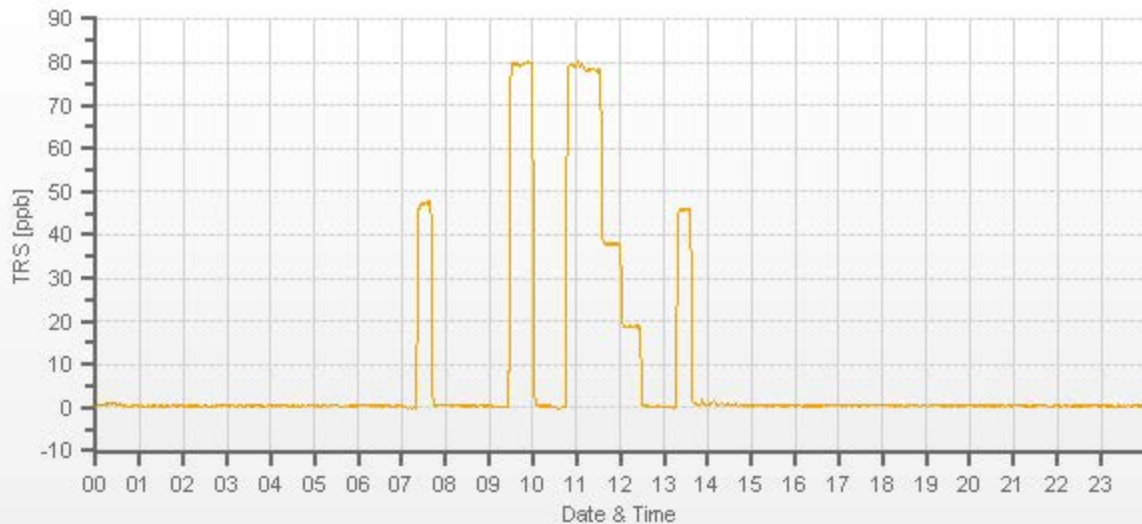
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4000	33.20	4000	0.00	0.11	0	0.980	1.001
3970	33.20	4003	78.04	79.75	77.96	0.980	1.001
3988	16.20	4004	38.07	n/a	37.72	n/a	1.009
3994	8.10	4002	19.05	n/a	18.54	n/a	1.027

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	-0.3%

COMMENTS:

TRS Converter CDNOVA CDN #583. Sample filter changed.



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	04-Oct-2023	PREVIOUS CALIBRATION DATE:	06-Sep-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	21.6		Thermo 55i	1314057759	1140
LOCATION:	842b	BAROMETRIC (mBar):	939	PARAMETER:	CH4	NMHC	THC
PURPOSE	Routine	START TIME (MST):	08:55	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:41	PREVIOUS CF:	1.001	1.002	1.002

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 ₃ H 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 (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE		
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄		1724.8

EXPECTED (REFERENCE) VALUE:

INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.70	11.17	20.87		9.66	11.17	20.83

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3099	X	3099	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3048	50.30	3098	14.56	13.44	28.00	14.71	13.54	28.23	14.58	13.46	28.04	0.990	0.993	0.992	0.999	0.998	0.999
3074	25.20	3099	7.29	6.73	14.03	n/a	n/a	n/a	7.27	6.74	14.00	n/a	n/a	n/a	1.003	0.999	1.002
3086	12.60	3099	3.65	3.37	7.01	n/a	n/a	n/a	3.65	3.39	7.04	n/a	n/a	n/a	0.999	0.993	0.996

LINEAR REGRESSION ANALYSIS:

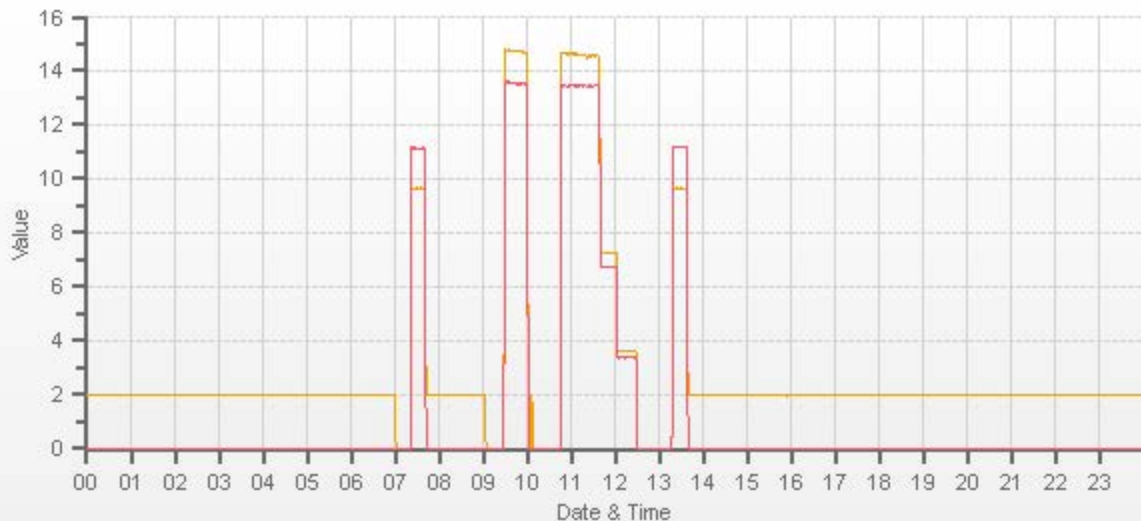
	CORRELATION	SLOPE	INTERCEPT
CH ₄	1.000	1.001	0.0%
NMHC	1.000	1.001	0.0%
THC	1.000	1.001	0.0%

Comments:

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

Use Zero Chrom?

No



CAL-PRAMP-202310-01561

Meteorological System Checklist



Date:	October 4, 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:	September 6, 2023	
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	yes	test time: 12:31-12:37
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:	September 6, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Temperature (°C):	11.5		
Station - Ambient Temperature (°C):	11.2		
Temperature Difference (°C):	0.3		

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	September 6, 2023		
Reference Barometer ID:	Brunton 05535 Expires July 17, 2024		
Reference Pressure - Units/Reading:	millibar	944	
Station Pressure - Units/Reading:	millibar	943	
Pressure Tolerance +/- 15% of error:	802 - 1086	0.11%	

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	September 6, 2023		
Reference Hygrometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	35.10		
Station Hygrometer % RH- Reading:	35.30		
RH Tolerance +/- 15% of difference:	29.84 - 40.37	-0.6%	

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	September 6, 2023	Previous check date:	September 6, 2023
Wind Speed Observed (kph):	20~30	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	22	Wind Direction on Data Logger:	W
		Wind Direction Pass/Fail?:	Pass

Comments



Meteorological Sensor Audit/Calibration

Location Information

Company: PRAMP
 Audit Location: 842b
 Audit Date: August 3, 2023
 Calibration Purpose: routine annual

Performed By: Chris Wesson
 Reviewed By: Limin Li
 Start/End Time (mst): 15:57 / 17:00
 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

OCTOBER 2023

Ambient Air Monitoring Calibration Report

- 986-C STATION-

CAL-PRAMP-202310-01562

Operation and Maintenance:

Bureau Veritas Canada

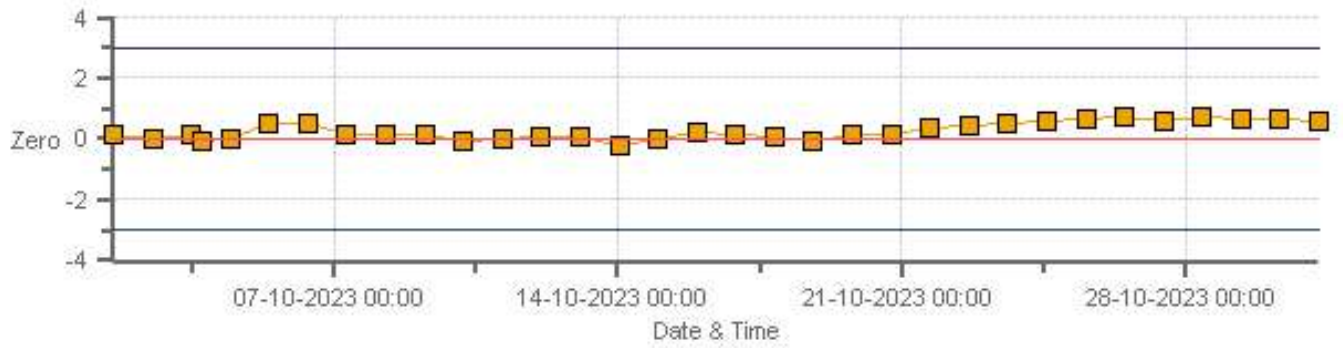
Data Validation and Report:

Bureau Veritas Canada

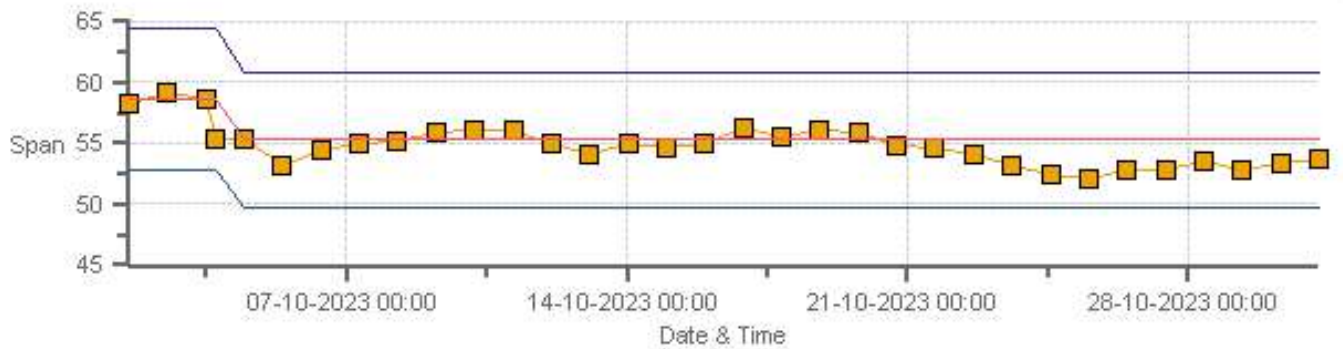
November 20, 2023

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

TRS[ppb] Calibration: PRAMP 986-C Monthly: 10-2023 Type: SpanAndZero - Zero



TRS[ppb] Calibration: PRAMP 986-C Monthly: 10-2023 Type: SpanAndZero - Span

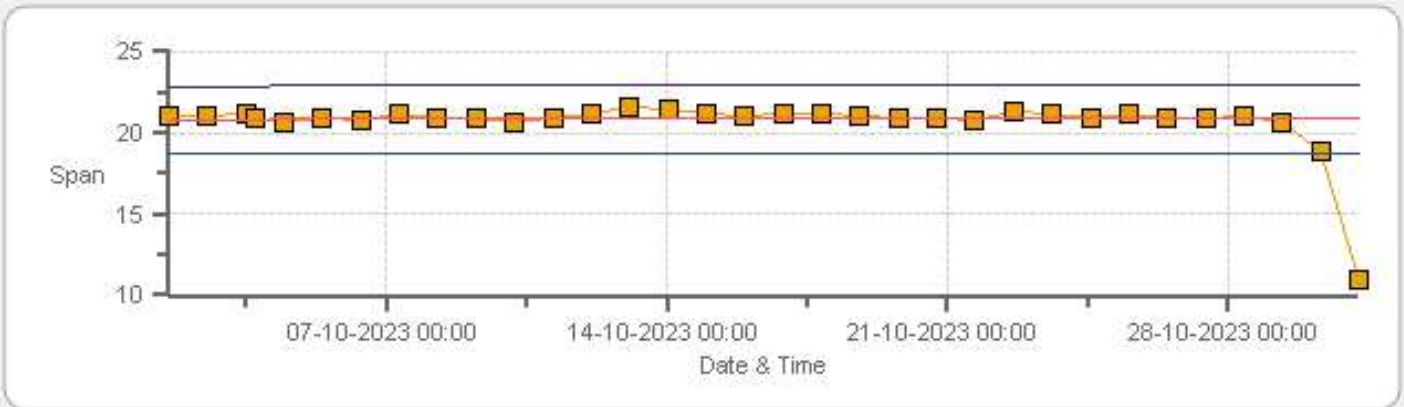


THC55[ppm] Calibration: PRAMP 986-C Monthly: 10-2023 Type: SpanAndZero - Zero



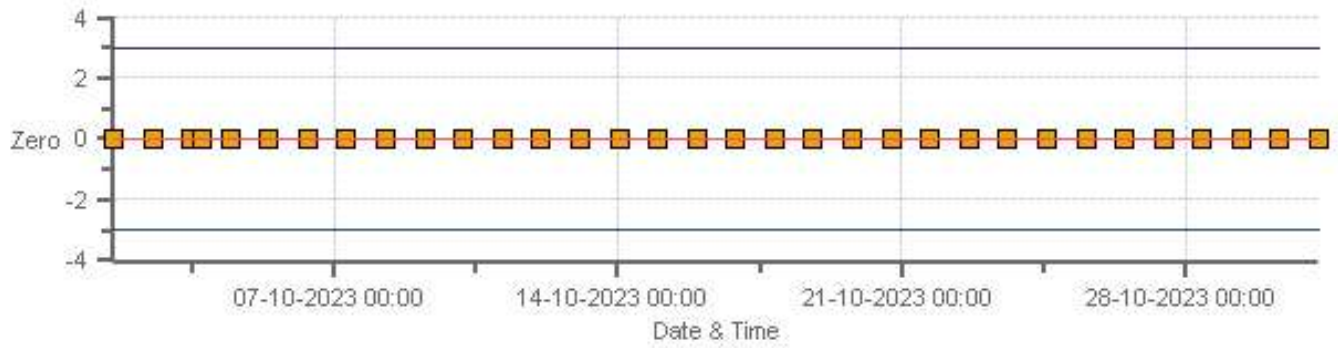
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: PRAMP 986-C Monthly: 10-2023 Type: SpanAndZero - Span



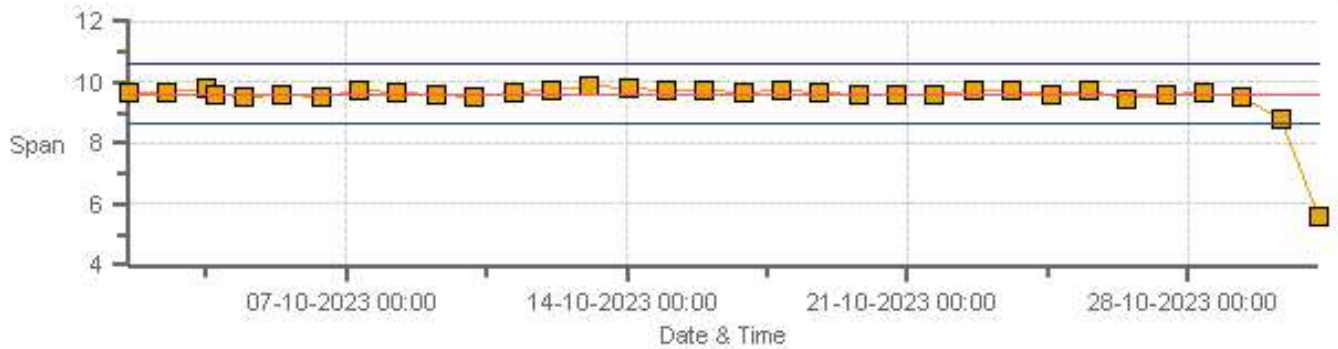
Span SpanRef Span Low Span High

CH4[ppm] Calibration: PRAMP 986-C Monthly: 10-2023 Type: SpanAndZero - Zero

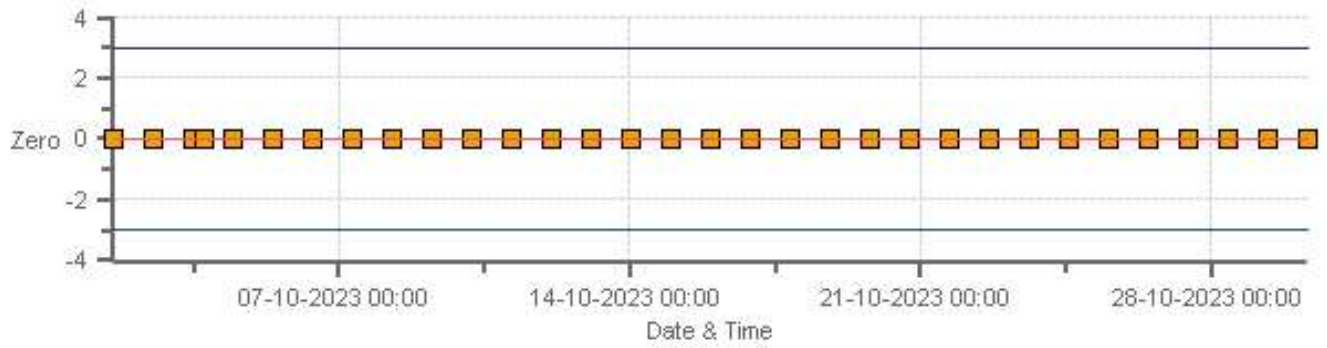


Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP 986-C Monthly: 10-2023 Type: SpanAndZero - Span

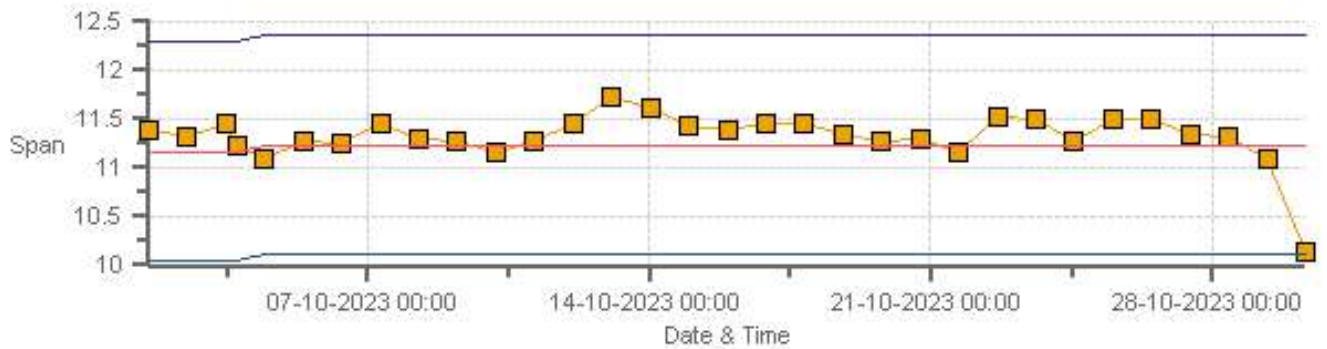


NMHC[ppm] Calibration: PRAMP 986-C Monthly: 10-2023 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP 986-C Monthly: 10-2023 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	03-Oct-2023	PREVIOUS CALIBRATION DATE:	26-Sep-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	25.5
LOCATION:	986c	BAROMETRIC (mBar):	932
PURPOSE:	Routine	START TIME (MST):	13:16
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	17:52

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1193585646	FLOW (mL/min)	427
INITIAL		FINAL	
BKG/OFFSET	16.9	BKG/OFFSET	17.7
COEF/SLOPE	1.013	COEF/SLOPE	1.038
Expected (reference) Value	246.1	Expected (reference) Value	251.8

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:

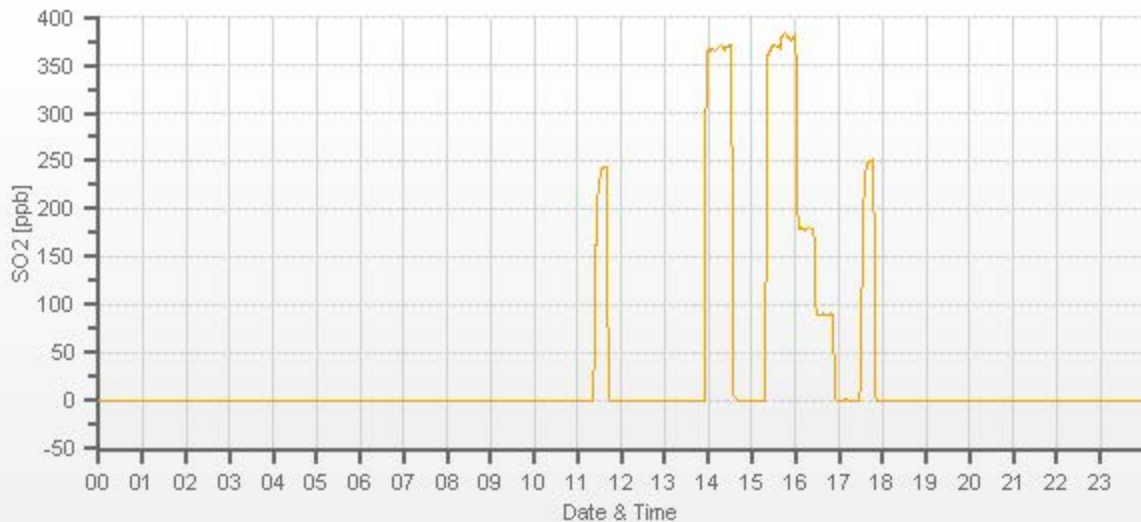
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	60.80	4001	0.00	0.2	0	1.030	1.002
3940	60.80	4001	379.91	369.2	379.3	1.030	1.002
3975	28.80	4004	179.82	n/a	180.7	n/a	0.995
3989	14.40	4003	89.93	n/a	90.5	n/a	0.994

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.998	0.1%

COMMENTS:

Sample filter changed.



TRS Analyzer Calibration by Dilution



DATE:	03-Oct-2023	PREVIOUS CALIBRATION DATE:	13-Sep-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	25.5
LOCATION:	986C	BAROMETRIC (mBar):	932
PURPOSE:	Routine	START TIME (MST):	13:16
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	17:52

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1191833341	FLOW (mL/min)	420
INITIAL		FINAL	
BKG/OFFSET	15.6	BKG/OFFSET	14.8
COEF/SLOPE	0.974	COEF/SLOPE	0.921
Expected (reference) Value	58.67	Expected (reference) Value	55.3

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:	EY0002519	HIGH ID	n/a
CONC (ppm):	9.41	EXPIRY DATE	n/a
CYLINDER (psi):	500	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:

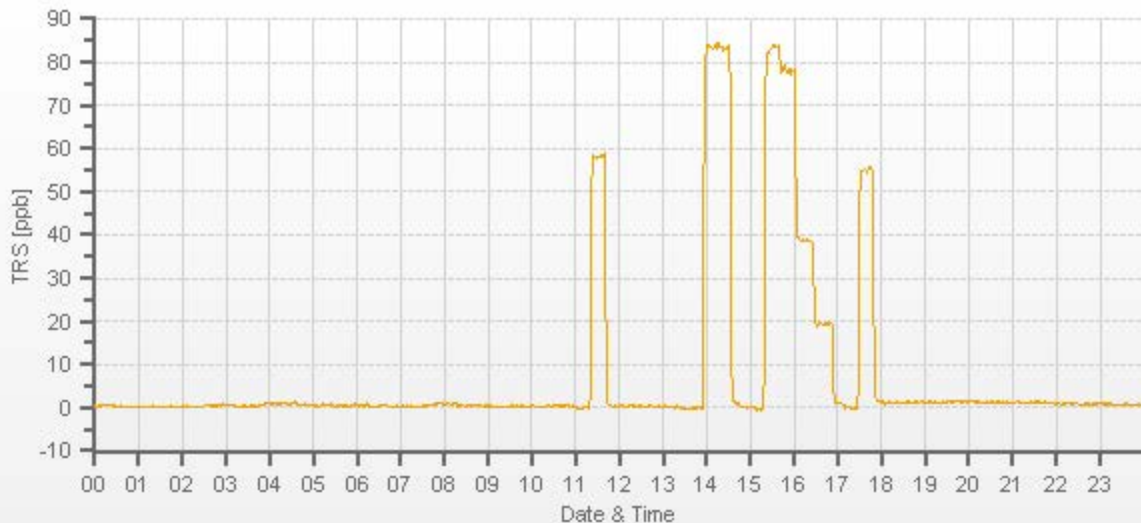
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	33.20	4001	0.00	0.02	0	0.939	1.003
3968	33.20	4001	78.08	83.16	77.82	0.939	1.003
3988	16.20	4004	38.07	n/a	38.66	n/a	0.985
3995	8.10	4003	19.04	n/a	19.34	n/a	0.985

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.996	0.3%

COMMENTS:

TRS Converter CDNOVA CDN101 #530 Sample filter changed



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	03-Oct-2023	PREVIOUS CALIBRATION DATE:	13-Sep-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	25.5		Thermo 55i	1022143392	1087
LOCATION:	986C	BAROMETRIC (mBar):	932	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	13:16	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	17:52	PREVIOUS CF:	0.998	0.998	0.998

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH ₄ /C ₃ H ₈ (ppm):	897.0 301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	5004	CYLINDER (psi):	1900	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 (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE		
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄		1724.8

EXPECTED (REFERENCE) VALUE:

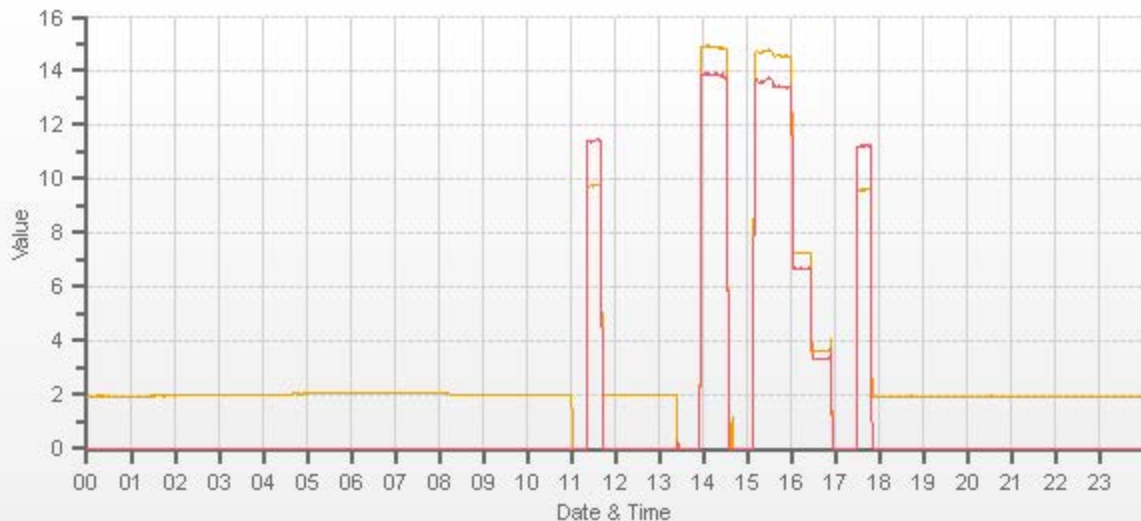
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.62	11.17	20.80		9.62	11.23	20.85

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3096	X	3096	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3049	50.30	3099	14.56	13.44	27.99	14.83	13.81	28.65	14.54	13.40	27.95	0.982	0.973	0.977	1.001	1.003	1.002
3075	25.20	3100	7.29	6.73	14.02	n/a	n/a	n/a	7.26	6.69	13.94	n/a	n/a	n/a	1.004	1.006	1.006
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.62	3.35	6.97	n/a	n/a	n/a	1.008	1.005	1.006

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:	
CH ₄	1.000	0.999	-0.1%	Sample filter changed BV analyzer	
NMHC	1.000	0.997	0.0%		
THC	1.000	0.999	-0.1%		
				Use Zero Chrom?	No



CAL-PRAMP-202310-01562

Meteorological System Checklist



Date:	October 3, 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:	September 13, 2023	
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	yes	Tested 15:42-15:47
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:	September 13, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	FS 181341226 expires July 17, 2024		
Reference Temperature (°C):	13.7		
Station - Ambient Temperature (°C):	13.5		
Temperature Difference (°C):	0.2		

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	September 13, 2023		
Reference Barometer ID:	Brunton 05535 expires July 17, 2024		
Reference Pressure - Units/Reading:	millibar	934.7	
Station Pressure - Units/Reading:	millibar	934.8	
Pressure Tolerance +/- 15% of error:	794 - 1075	-0.01%	

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	September 13, 2023		
Reference Hygrometer ID:	FS 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	42.50		
Station Hygrometer % RH- Reading:	45.00		
RH Tolerance +/- 15% of difference:	36.13 - 48.88	-5.9%	

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	September 13, 2023	Previous check date:	September 13, 2023
Wind Speed Observed (kph):	5~10	Wind Direction Observed:	NW
Wind speed on Data Logger (kph):	7.2	Wind Direction on Data Logger:	NW
		Wind Direction Pass/Fail?:	Pass

Comments

no issues



Meteorological Sensor Audit/Calibration

Location Information

Company: PRAMP
 Audit Location: 986C
 Audit Date: August 3, 2023
 Calibration Purpose: routine annual

Performed By: Chris Wesson
 Reviewed By: Limin Li
 Start/End Time (mst): 14:01 / 15:03
 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

OCTOBER 2023

Ambient Air Monitoring Calibration Report

- RENO-B STATION-

CAL-PRAMP-202310-01563

Operation and Maintenance:

Bureau Veritas Canada

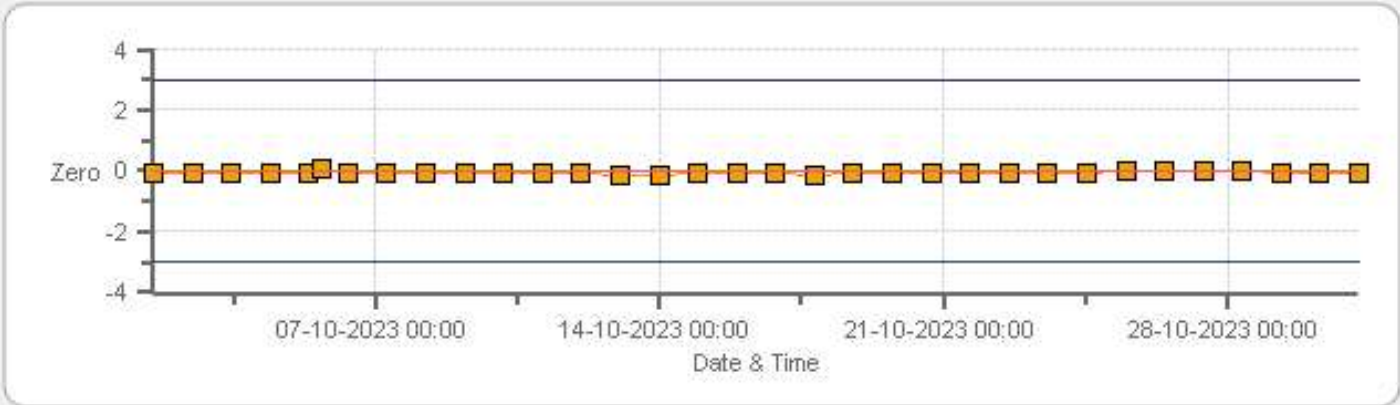
Data Validation and Report:

Bureau Veritas Canada

November 20, 2023

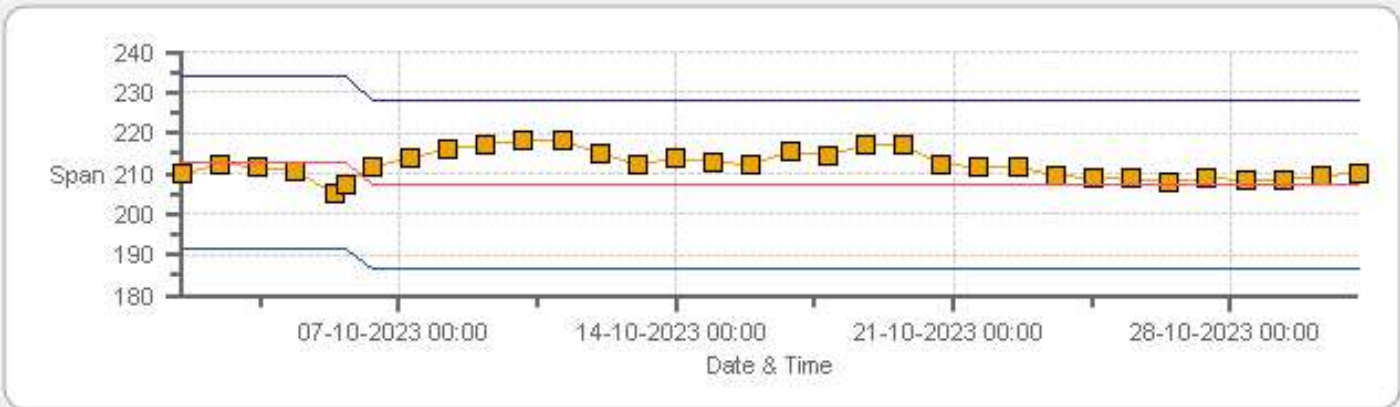
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP RENO-B Monthly: 10-2023 Type: SpanAndZero - Zero



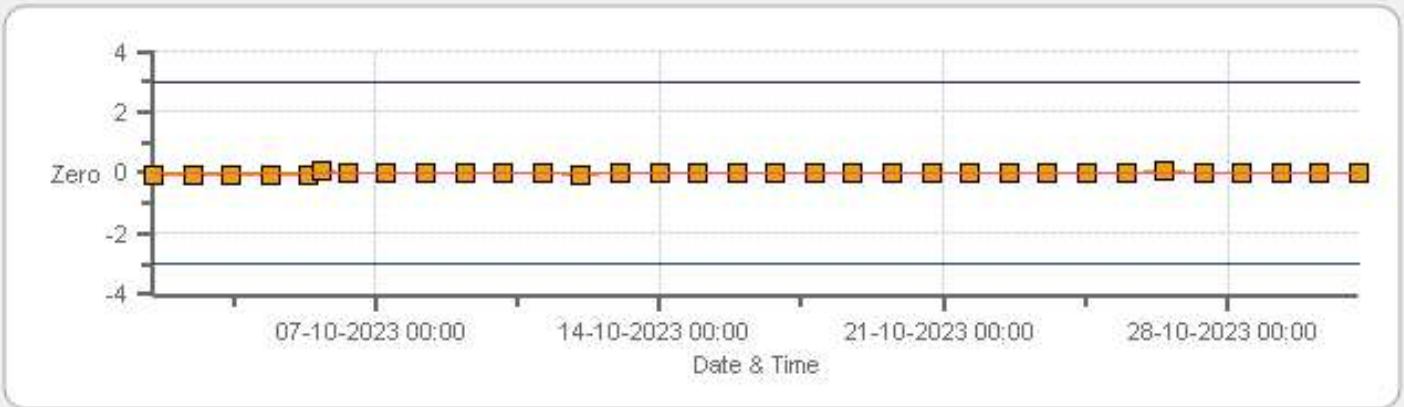
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: PRAMP RENO-B Monthly: 10-2023 Type: SpanAndZero - Span



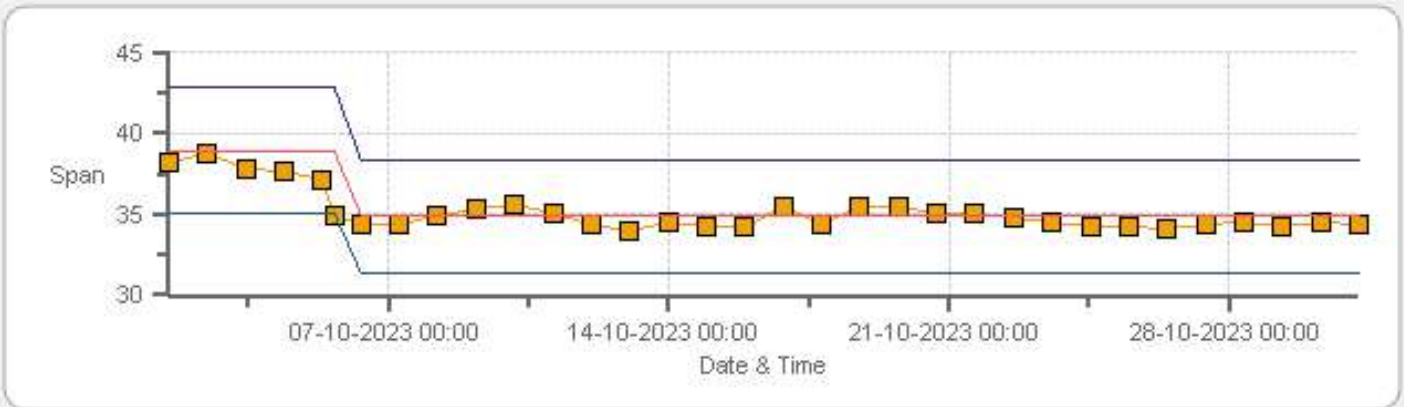
Span Span Ref Span Low Span High

TRS[ppb] Calibration: PRAMP RENO-B Monthly: 10-2023 Type: SpanAndZero - Zero



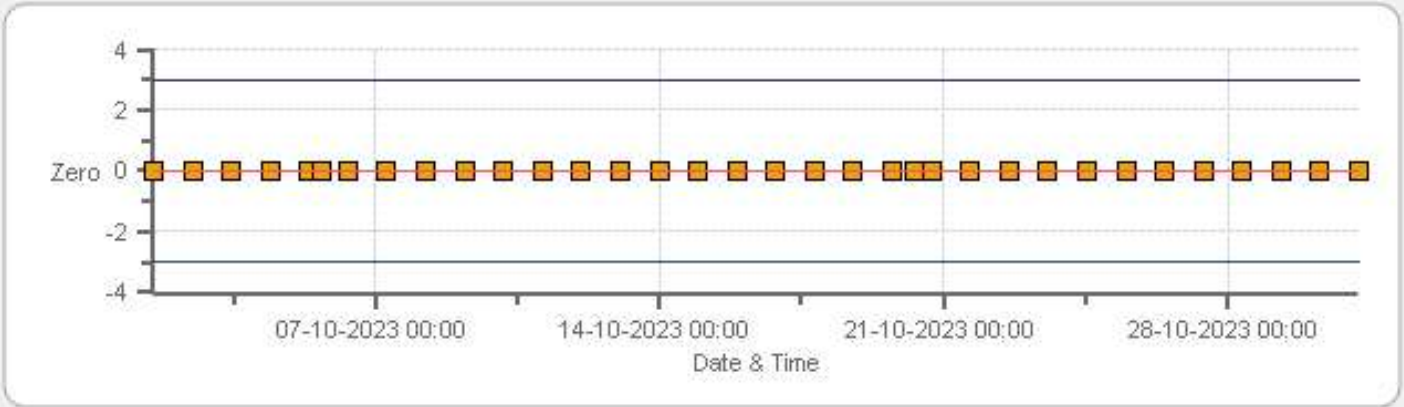
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: PRAMP RENO-B Monthly: 10-2023 Type: SpanAndZero - Span



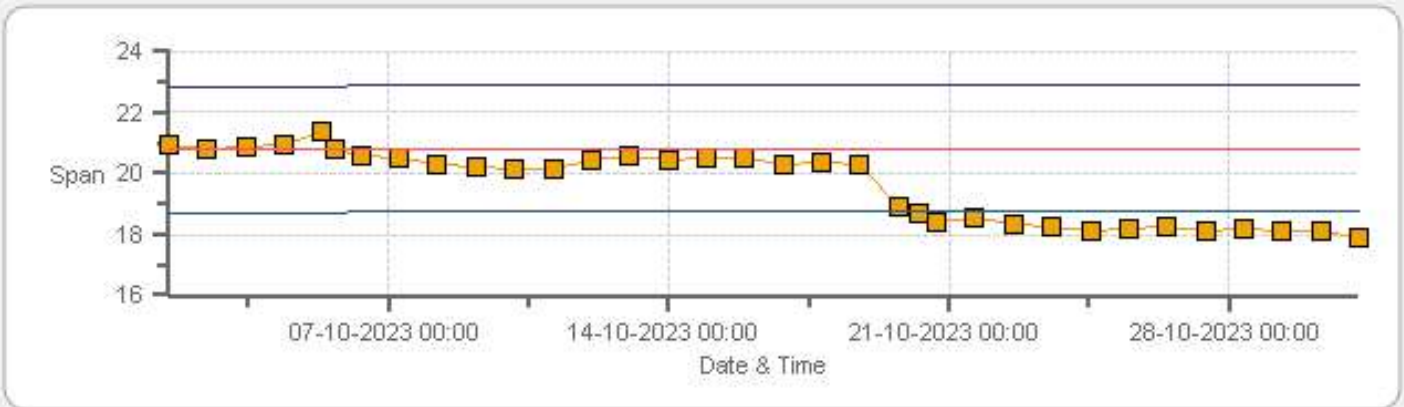
Span SpanRef Span Low Span High

THC55[ppm] Calibration: PRAMP REND-B Monthly: 10-2023 Type: SpanAndZero - Zero



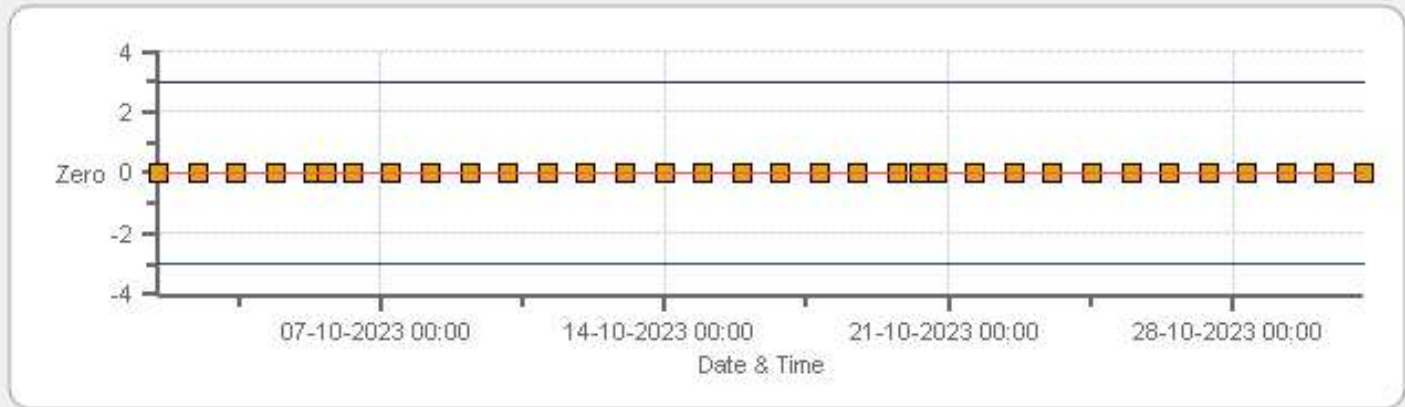
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: PRAMP REND-B Monthly: 10-2023 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

CH4[ppm] Calibration: PRAMP REND-B Monthly: 10-2023 Type: SpanAndZero - Zero



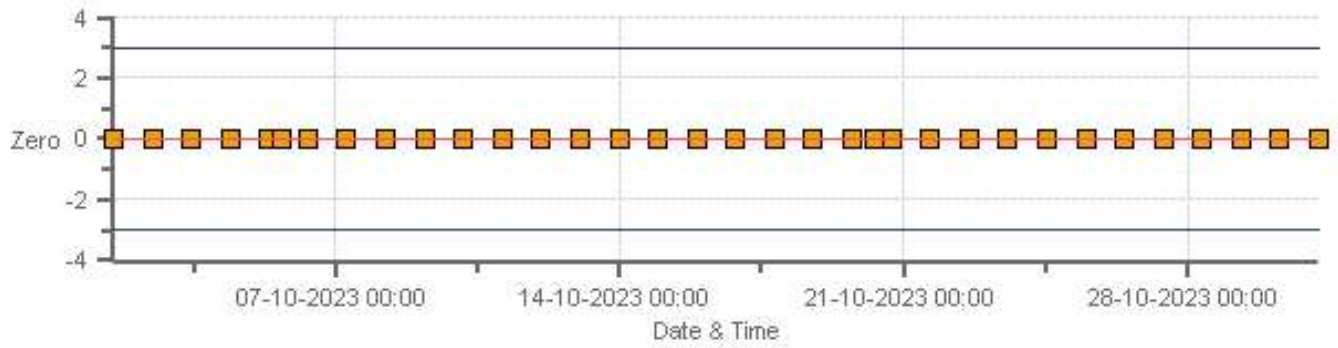
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP REND-B Monthly: 10-2023 Type: SpanAndZero - Span



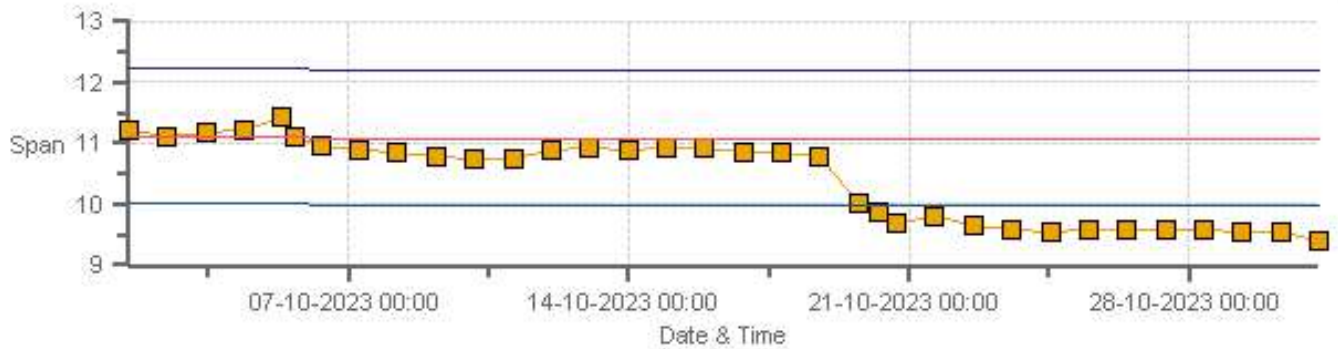
Span SpanRef Span Low Span High

NMHC[ppm] Calibration: PRAMP REND-B Monthly: 10-2023 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP REND-B Monthly: 10-2023 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	05-Oct-2023	PREVIOUS CALIBRATION DATE:	12-Sep-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	PRAMP	TEMPERATURE (°C):	23.3
LOCATION:	Reno-B	BAROMETRIC (mBar):	958
PURPOSE:	Routine	START TIME (MST):	10:29
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:40

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	12101910505	FLOW (mL/min)	445
INITIAL		FINAL	
BKG/OFFSET	1.13	BKG/OFFSET	1.15
COEF/SLOPE	0.916	COEF/SLOPE	0.931
Expected (reference) Value	212.6	Expected (reference) Value	207.2

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):	1900	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:

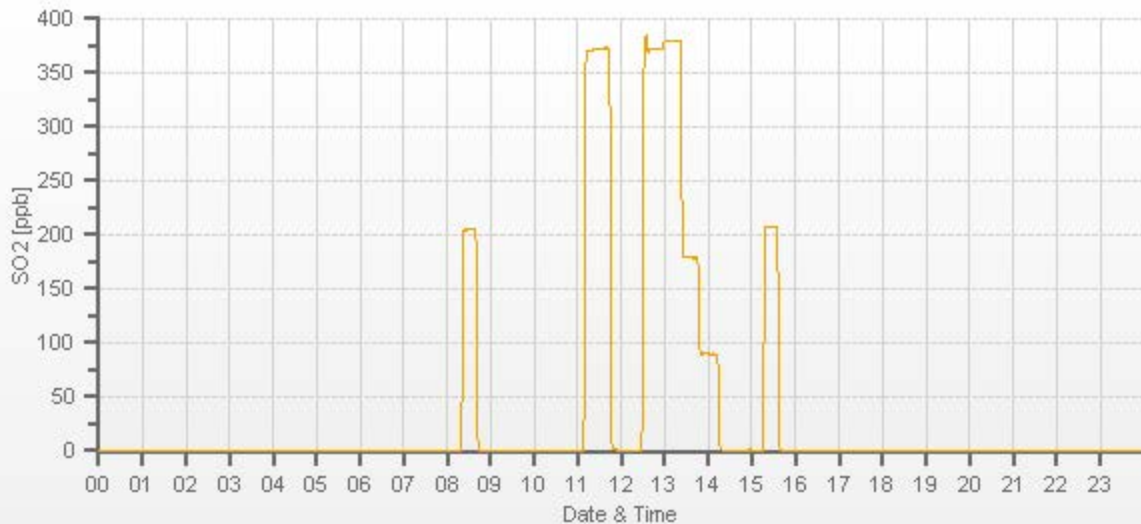
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	60.80	4001	0.00	0	0	1.020	0.999
3940	60.80	4001	379.91	372.5	380.1	1.020	0.999
3974	28.80	4003	179.87	n/a	179	n/a	1.005
3990	14.40	4004	89.91	n/a	89.3	n/a	1.007

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	-0.1%

COMMENTS:

Sample filter changed



TRS Analyzer Calibration by Dilution



DATE:	05-Oct-2023	PREVIOUS CALIBRATION DATE:	12-Sep-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	PRAMP	TEMPERATURE (°C):	23.3
LOCATION:	Reno-B	BAROMETRIC (mBar):	958
PURPOSE:	Routine	START TIME (MST):	10:29
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:40

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	12101910504	FLOW (mL/min)	404
INITIAL		FINAL	
BKG/OFFSET	1.04	BKG/OFFSET	0.91
COEF/SLOPE	0.93	COEF/SLOPE	0.854
Expected (reference) Value	38.9	Expected (reference) Value	34.89

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:	EY0002519	HIGH ID	n/a
CONC (ppm):	9.41	EXPIRY DATE	n/a
CYLINDER (psi):	500	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:

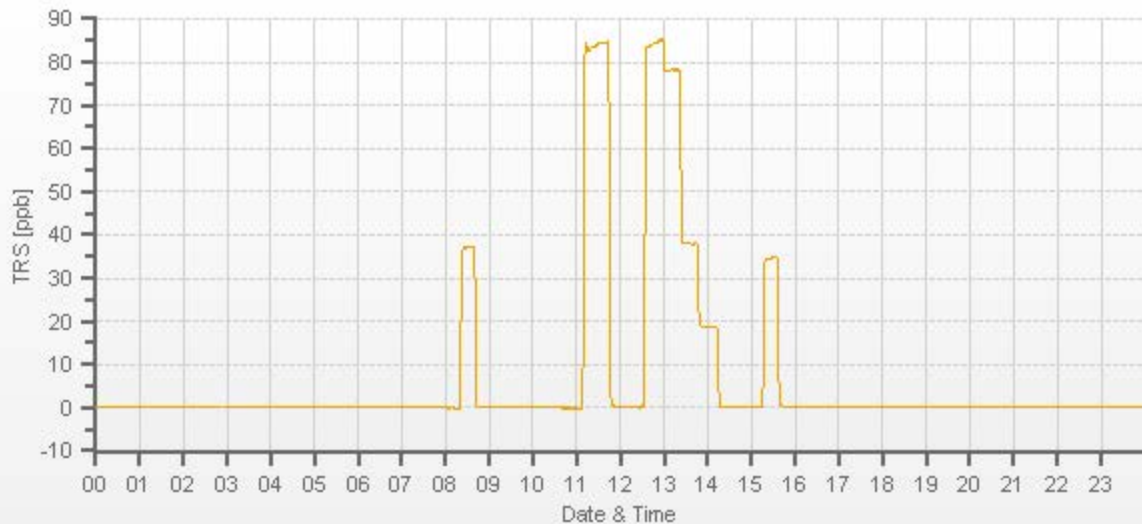
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	33.20	4001	0.00	0	0	0.926	0.997
3968	33.20	4001	78.08	84.3	78.3	0.926	0.997
3987	16.20	4003	38.08	n/a	37.89	n/a	1.005
3996	8.10	4004	19.04	n/a	18.65	n/a	1.021

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.004	-0.2%

COMMENTS:

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



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	05-Oct-2023	PREVIOUS CALIBRATION DATE:	13-Sep-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	23.3		Thermo 55i	12101910497	1081
LOCATION:	Reno-B	BAROMETRIC (mBar):	958	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	10:29	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:40	PREVIOUS CF:	0.998	0.994	0.996

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 ₃ H ₈ (ppm):	897.0 301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	5004	CYLINDER (psi):	1900	LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE	11-Aug-2029	LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE		
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄		1724.8

EXPECTED (REFERENCE) VALUE:

INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.65	11.12	20.77		9.71	11.09	20.81

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3098	X	3098	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3048	50.30	3098	14.56	13.44	28.00	14.82	13.75	28.58	14.56	13.42	27.98	0.983	0.977	0.980	1.000	1.001	1.001
3074	25.20	3099	7.29	6.73	14.03	n/a	n/a	n/a	7.27	6.75	14.02	n/a	n/a	n/a	1.003	0.997	1.000
3086	12.60	3099	3.65	3.37	7.01	n/a	n/a	n/a	3.65	3.41	7.06	n/a	n/a	n/a	0.999	0.987	0.993

LINEAR REGRESSION ANALYSIS:

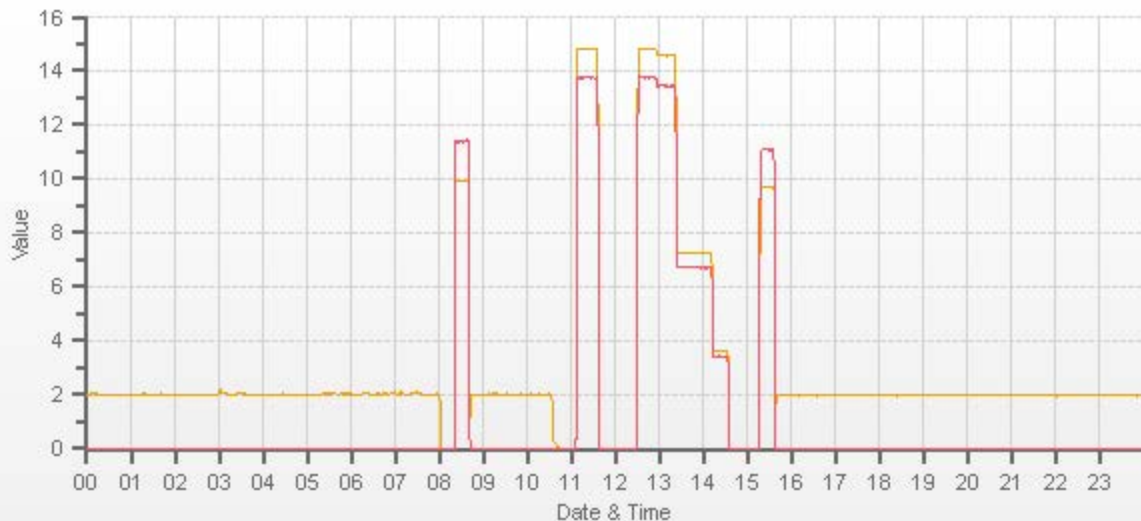
	CORRELATION	SLOPE	INTERCEPT
CH ₄	1.000	0.999	0.0%
NMHC	1.000	0.998	0.1%
THC	1.000	0.999	0.1%

Comments:

Sample filter changed

Use Zero Chrom?

No



CAL-PRAMP-202310-01563

Meteorological System Checklist



Date:		October 5, 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:	September 13, 2023		
Is the sensor Level?	yes		
Is the heater operating properly?	yes		
Are the bucket drain holes clean?	yes	Audit: 12:12-12:17	
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:	September 13, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	FS 181341226 expires July 17, 2024		
Reference Temperature (°C):	5.8		
Station - Ambient Temperature (°C):	5.7		
Temperature Difference (°C):	0.1		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	September 13, 2023		
Reference Barometer ID:	Brunton 05535 Expiry - July 17 2024		
Reference Pressure - Units/Reading:	millibar	958	
Station Pressure - Units/Reading:	millibar	957	
Pressure Tolerance +/- 15% of error:	814 - 1102	0.10%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	September 13, 2023		
Reference Hygrometer ID:	FS 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	26.80		
Station Hygrometer % RH- Reading:	26.70		
RH Tolerance +/- 15% of difference:	22.78 - 30.82	0.4%	
ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	September 13, 2023	Previous check date:	September 13, 2023
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	14.9	Wind Direction on Data Logger:	W
		Wind Direction Pass/Fail?:	Pass
Comments			



Meteorological Sensor Audit/Calibration

Location Information

Company: PRAMP
Audit Location: Reno-B
Audit Date: August 1, 2023
Calibration Purpose: routine annual

Performed By: Chris Wesson
Reviewed By: Limin Li
Start/End Time (mst): 09:54 / 11:18
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

OCTOBER 2023

Ambient Air Monitoring Calibration Report

- AQHI - GRIMSHAW STATION-

CAL-PRAMP-202310-01689

Operation and Maintenance:

Bureau Veritas Canada

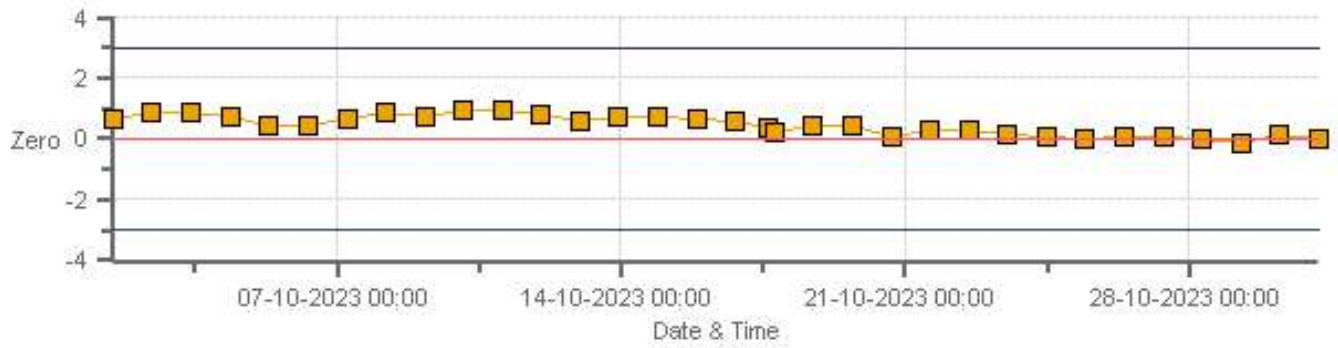
Data Validation and Report:

Bureau Veritas Canada

November 20, 2023

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Zero

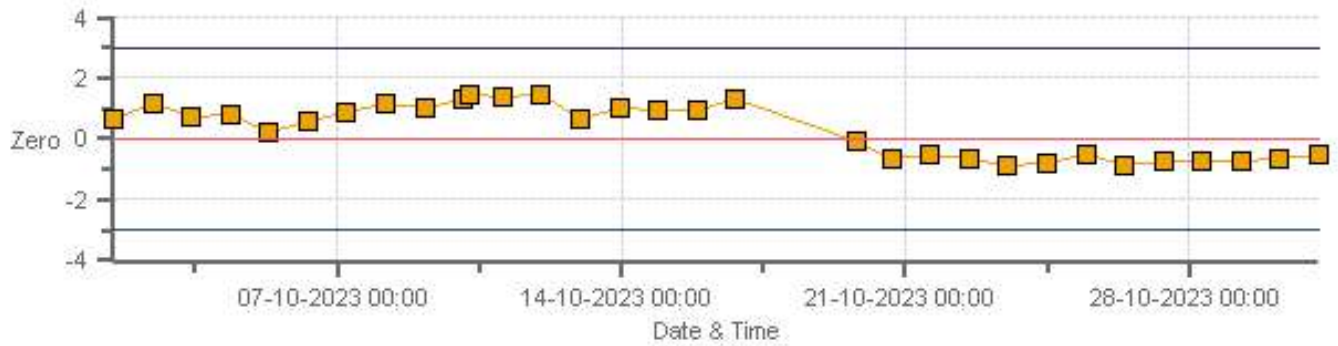


Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Span

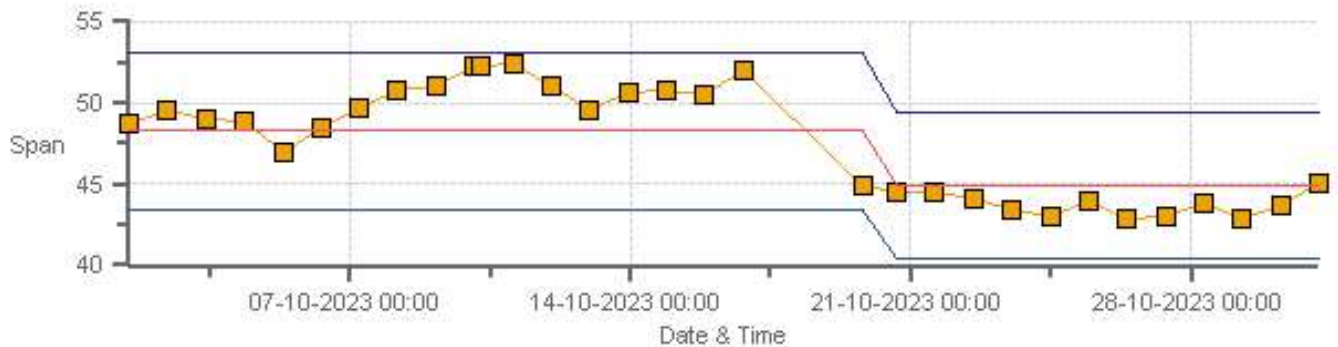


TRS[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Zero

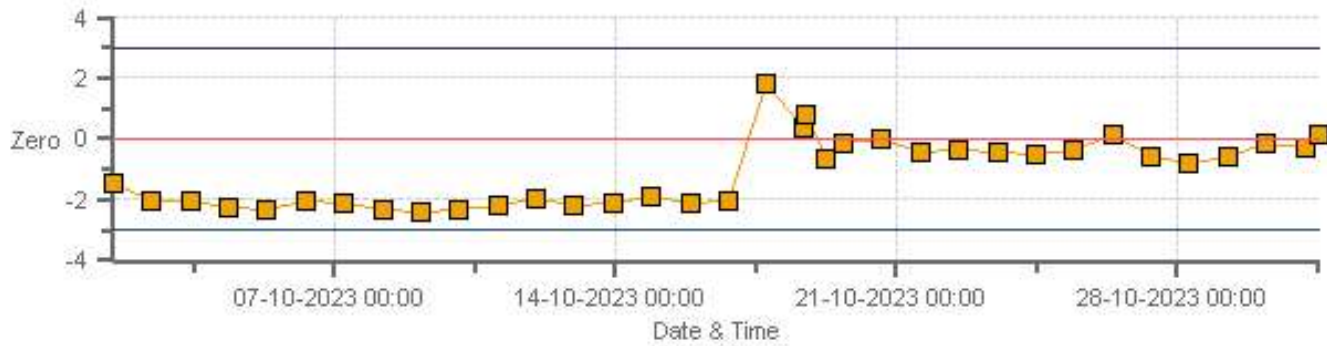


Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Span

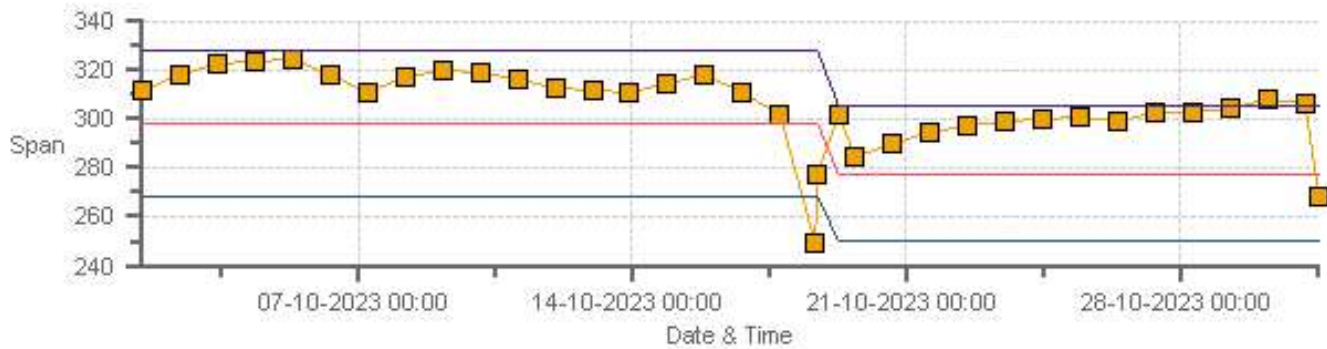


NOX[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Zero



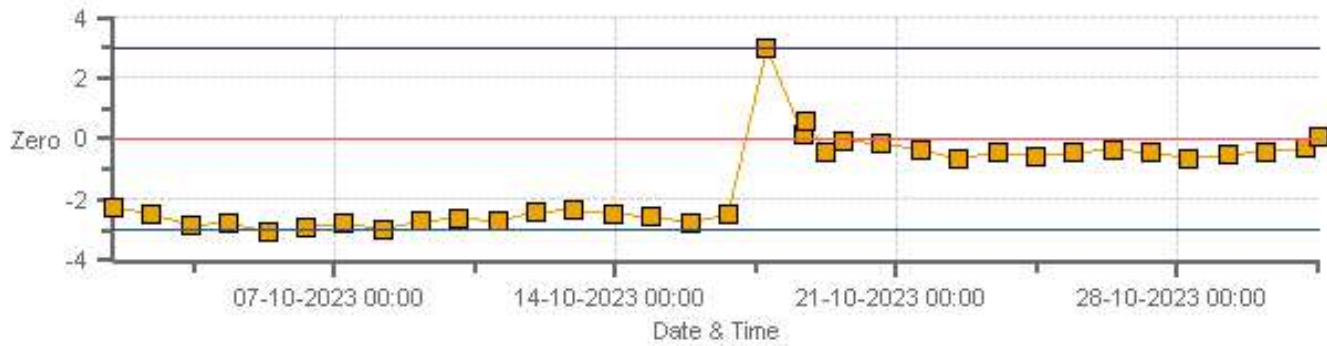
Zero Zero Ref Zero Low Zero High

NOX[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Span



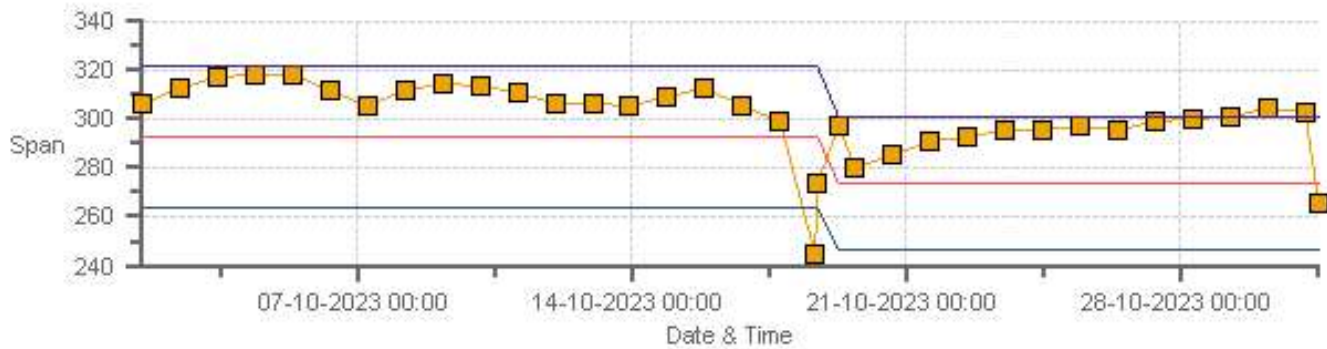
Span SpanRef Span Low Span High

NO2[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Zero



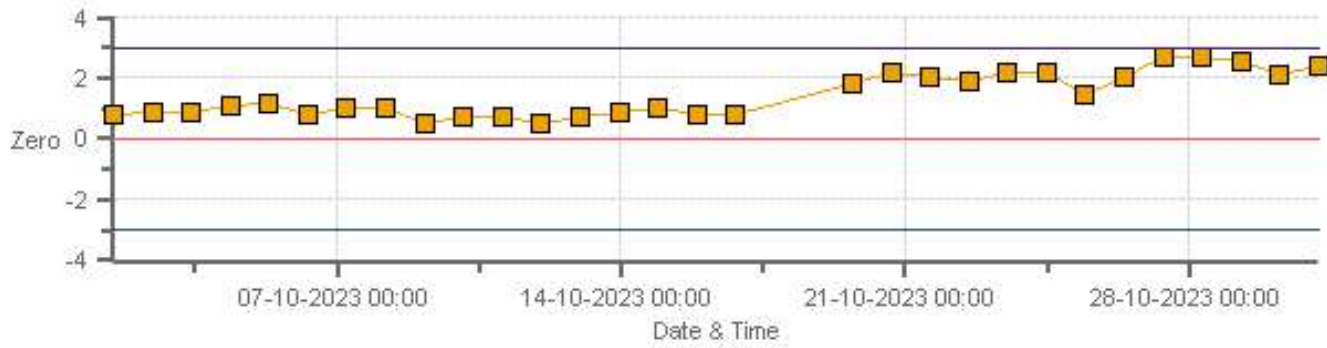
Zero Zero Ref Zero Low Zero High

NO2[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Span



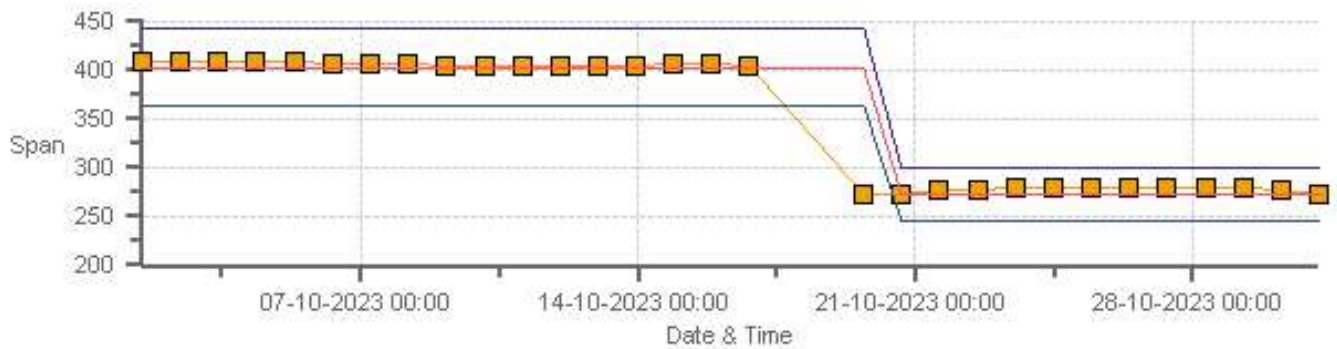
Span SpanRef Span Low Span High

O3[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Zero



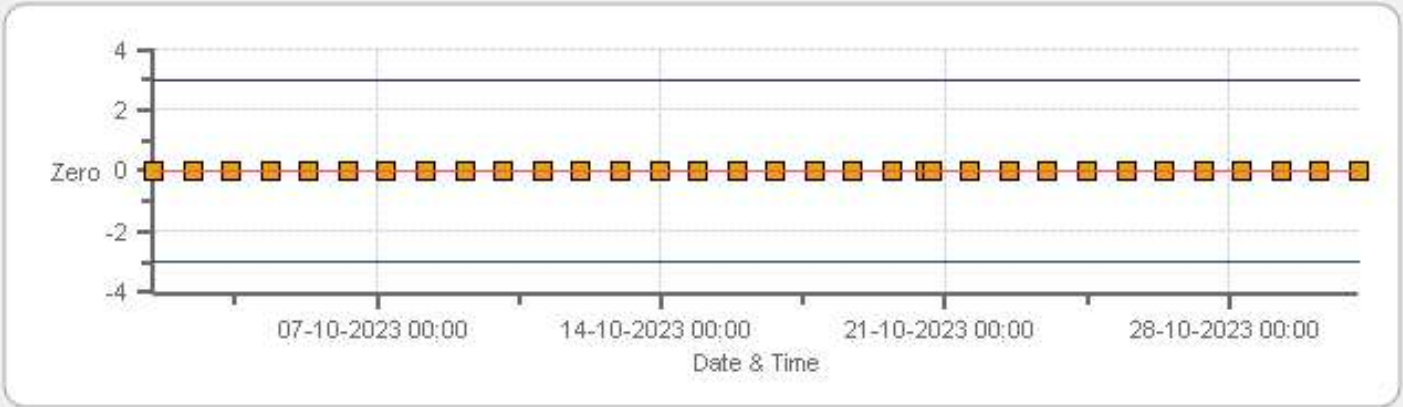
Zero Zero Ref Zero Low Zero High

O3[ppb] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Span



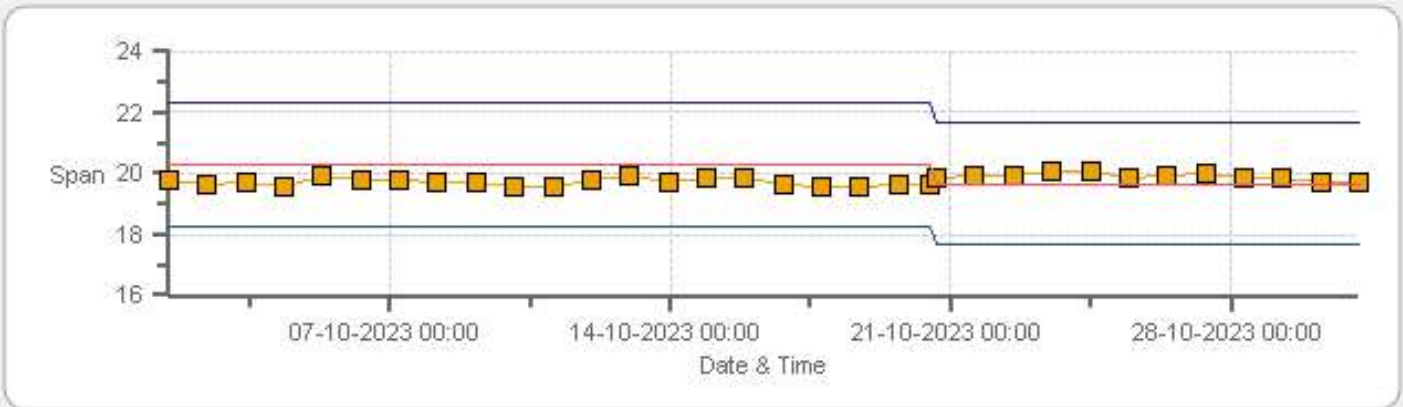
Span SpanRef Span Low Span High

THC55[ppm] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Zero

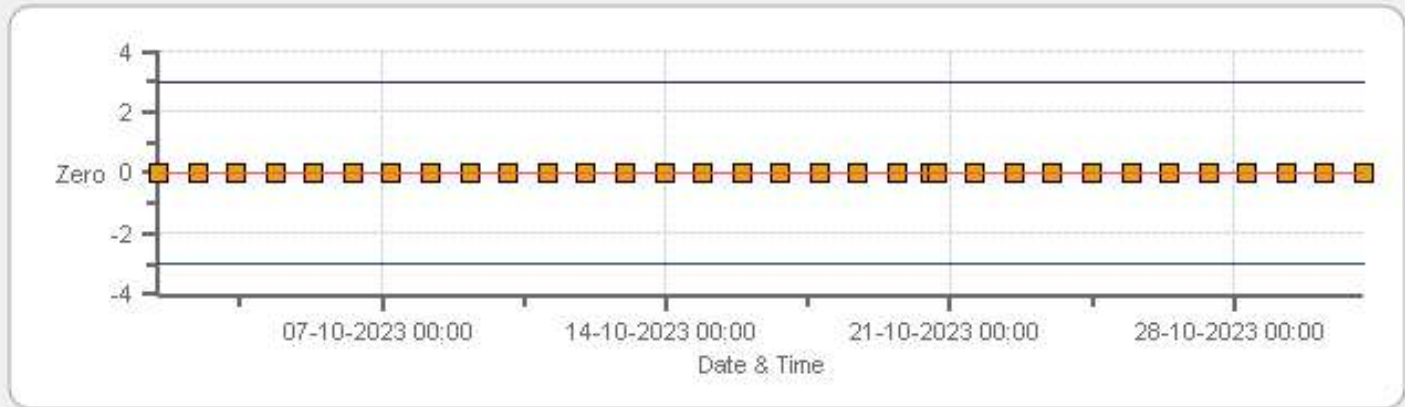


Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Span

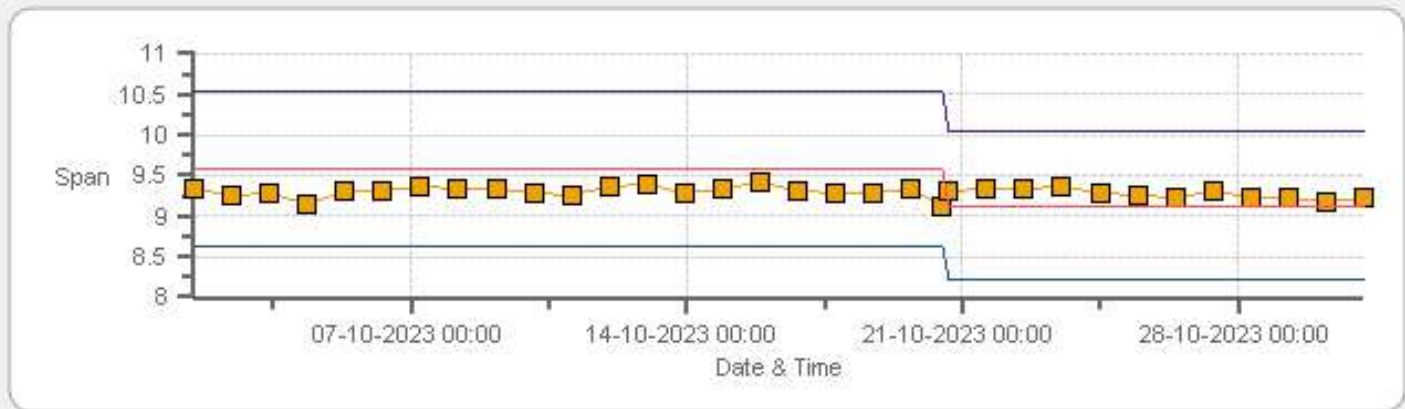


CH4[ppm] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Zero



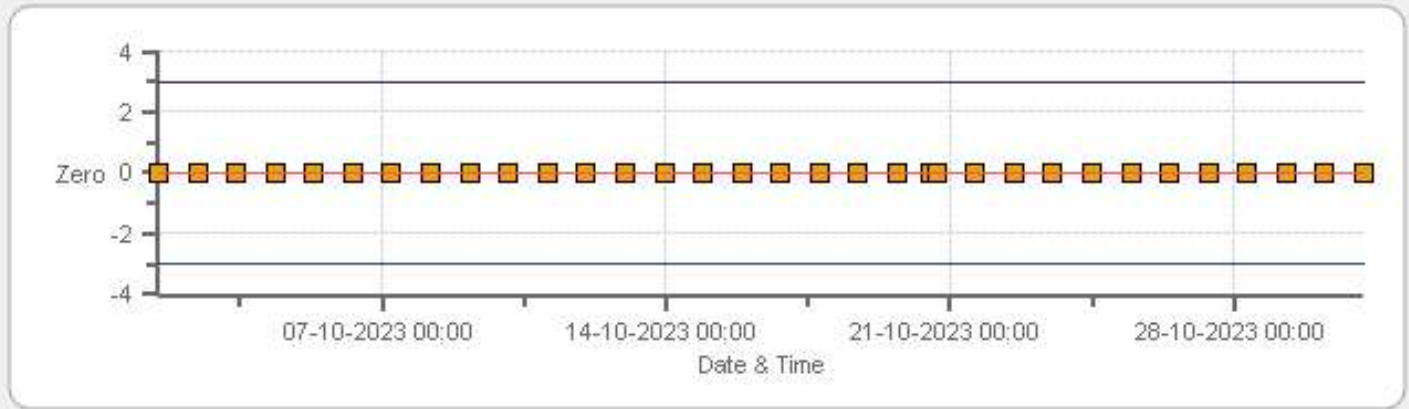
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Span



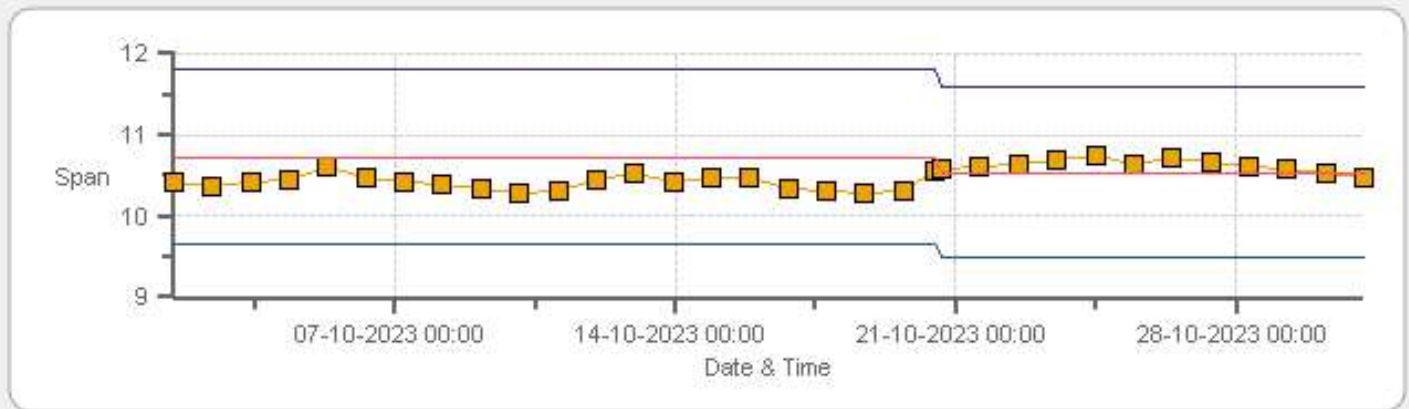
Span SpanRef Span Low Span High

NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 10-2023 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	17-Oct-2023	PREVIOUS CALIBRATION DATE:	14-Sep-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	20.5
LOCATION:	Grimshaw	BAROMETRIC (mBar):	937
PURPOSE:	Routine	START TIME (MST):	10:46
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:38

ANALYZER:

MAKE/MODEL	Teledyne T100	RANGE	500 ppb
SERIAL #	722	FLOW (mL/min)	502
INITIAL		FINAL	
BKG/OFFSET	31.3	BKG/OFFSET	32.3
COEF/SLOPE	0.911	COEF/SLOPE	0.928
Expected (reference) Value	252.4	Expected (reference) Value	253.5

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):	1900	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:

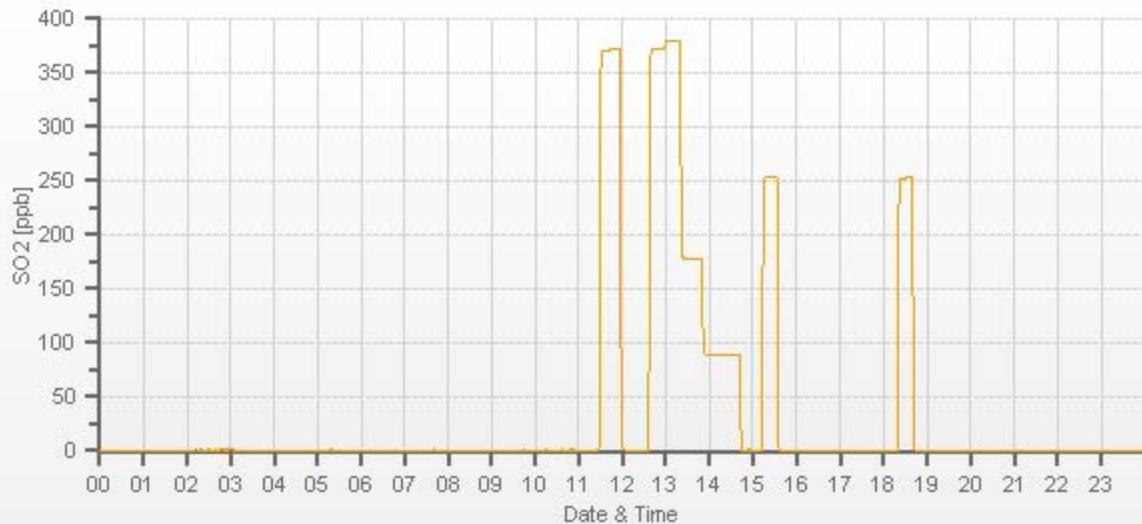
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	60.80	4001	0.00	0.5	0	1.020	0.999
3940	60.80	4001	379.91	373.1	380.3	1.020	0.999
3972	28.80	4001	179.96	n/a	177.9	n/a	1.012
3987	14.40	4001	89.98	n/a	89.1	n/a	1.010

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	-0.2%

COMMENTS:

Sample filter changed.



TRS Analyzer Calibration by Dilution



DATE:	19-Oct-2023	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	22.0
LOCATION:	Grimshaw	BAROMETRIC (mBar):	941
PURPOSE:	Install/Post-Repair	START TIME (MST):	15:16
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	19:05

ANALYZER:

MAKE/MODEL	Teledyne T100U	RANGE	100 ppb
SERIAL #	132	FLOW (mL/min)	536
INITIAL		FINAL	
BKG/OFFSET	n/a	BKG/OFFSET	59
COEF/SLOPE	n/a	COEF/SLOPE	0.724
Expected (reference) Value	n/a	Expected (reference) Value	44.9

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:	EY0002519	HIGH ID	n/a
CONC (ppm):	9.41	EXPIRY DATE	n/a
CYLINDER (psi):	500	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:

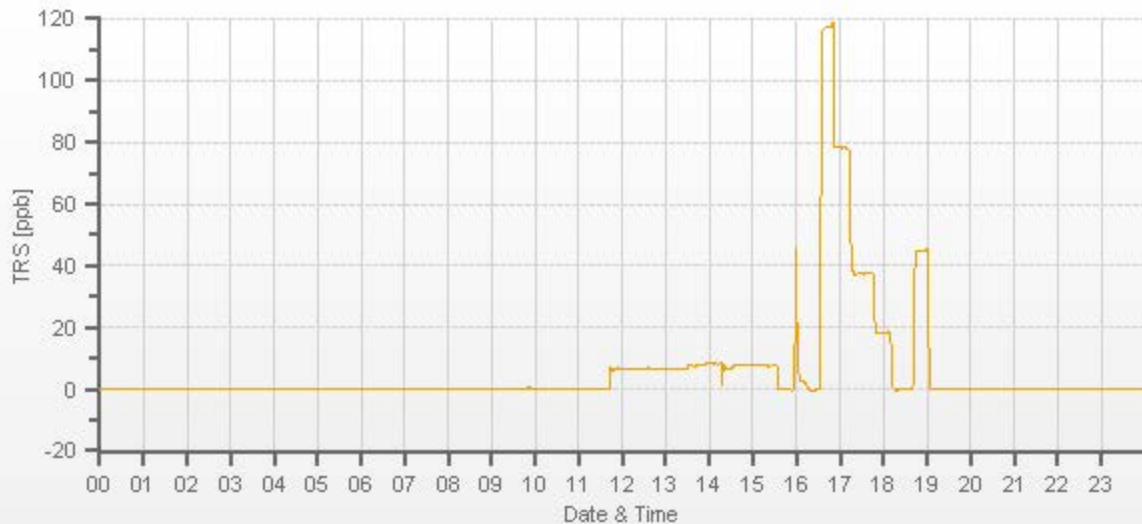
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	33.20	4001	0.00	n/a	0	n/a	1.001
3969	33.20	4002	78.06	n/a	78	n/a	1.001
3986	16.20	4002	38.09	n/a	37.47	n/a	1.017
3995	8.10	4003	19.04	n/a	18.42	n/a	1.034

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	-0.4%

COMMENTS:

Converter, CDNova CDN-101 #576.
Scrubber beads replaced, Converter Cleaned, Lamp ratio calibrated.



NOx Calibration by Dilution/Gas-Phase Titration



CALIBRATION:				ANALYZER:			
DATE:	17-Oct-2023	PREVIOUS CALIBRATION DATE:	14-Sep-2023	MAKE/MODEL:	API 200E	PREVIOUS CF.	
CLIENT:	PRAMP	TEMPERATURE (°C):	21.7	SERIAL #:	594	NOx	1.001
LOCATION:	Grimshaw	BAROMETRIC (mBar):	937	FLOW (mL/min)	437	NO	1.001
PURPOSE:	Removal/Shut-down	START TIME (MST):	08:27	RANGE (ppb)	500	NO2	1.000
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:55	GPT FOR O3?		Yes	

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	EY0001716	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	NO/NOx (PPM):	49.2 49.4	HIGH EXPIRY:	n/a
ID:	26801218	ID:	5004	CYLINDER (psi):	1000	LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a	EXPIRY DATE	11-Nov-2029	LOW EXPIRY:	n/a

CALIBRATION SETTINGS:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	3.4	-1.8	n/a	BKG/OFFSET:	n/a	n/a	n/a
SLOPE/COEF/CE:	1.243	1.231	0.995	SLOPE/COEF/CE:	n/a	n/a	n/a

EXPECTED (REFERENCE) VALUE:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	298.3	5.9	292.8		n/a	n/a	n/a

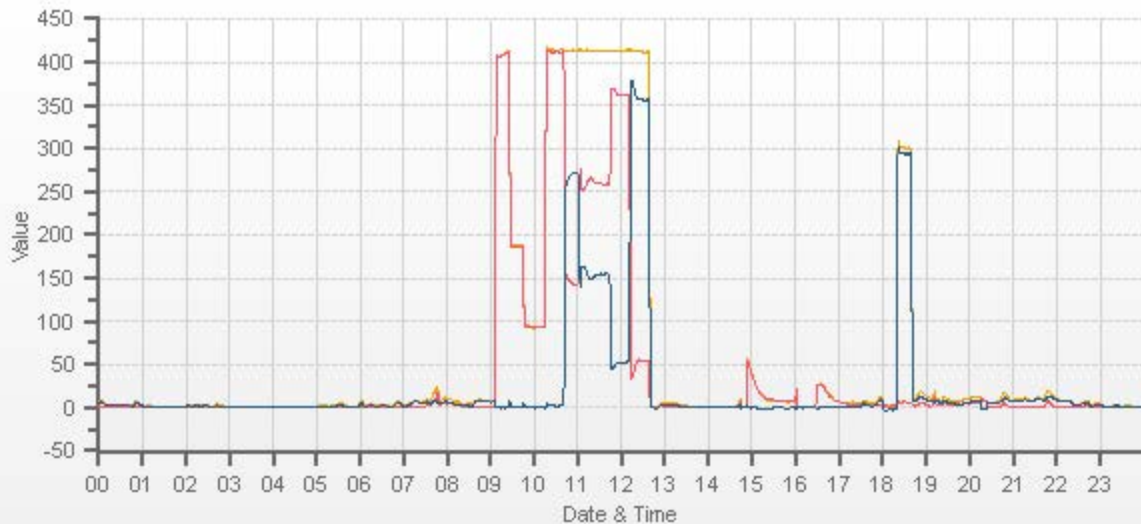
CALIBRATION PARAMETERS:				
POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
HIGH	395	250	240-275	n/a
MID	180	154	150-157	Mid
LOW	90	54	50-58	Low
EXTRA 1	n/a	340	300-370	High

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	5000	0.0	0.0	0.0	0.4	7.4	6.6	n/a	n/a	n/a	0.966	0.987	0.995	n/a	n/a	n/a
4959	40.10	4999	394.7	396.3	1.6	409.1	408.8	-0.5	n/a	n/a	n/a	0.966	0.987	0.995	n/a	n/a	n/a
4981	18.30	4999	180.1	180.8	0.7	186.9	189.2	2.2	n/a	n/a	n/a	0.966	0.995	0.995	n/a	n/a	n/a
4990	9.10	4999	89.6	89.9	0.4	93.3	94.0	0.3	n/a	n/a	n/a	0.964	1.038	0.995	n/a	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	40.20	5000	0	411.8	414.2	2.3	269.1	269.3	0.999	100.07%
AS-FOUND HIGH	40.20	5000	260	142.7	414.3	271.6	269.1	269.3	0.999	100.07%
ADJUSTED HIGH	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MID	40.20	5000	148	259.3	413.8	154.4	152.5	152.1	1.003	99.74%
LOW	40.20	5000	51	361.6	413.6	52.1	50.2	49.8	1.008	99.20%
NO2 adjustment not required.									AVERAGE:	99.67%

LINEAR REGRESSION ANALYSIS:				COMMENTS:
	CORRELATION	SLOPE	INTERCEPT	
NO	1.000	1.035	0.09%	
NOx	1.000	1.017	1.06%	
NO2	1.000	1.003	-0.13%	

Sample filter changed
Additional point for O3: Setpoint = 340, O3 conc = 356.6



CAL-PRAMP-202310-01689

NOx Calibration by Dilution/Gas-Phase Titration



CALIBRATION:				ANALYZER:			
DATE:	18-Oct-2023	PREVIOUS CALIBRATION DATE:	n/a	MAKE/MODEL:	Teledyne T200	PREVIOUS CF.	
CLIENT:	PRAMP	TEMPERATURE (°C):	20.0	SERIAL #:	837	NOx	n/a
LOCATION:	Grimshaw	BAROMETRIC (mBar):	931	FLOW (mL/min)	439	NO	n/a
PURPOSE:	Install/Post-Repair	START TIME (MST):	10:18	RANGE (ppb)	500	NO2	n/a
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	16:16	GPT FOR O3?	Yes		

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	EY0001716	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	NO/NOx (PPM):	49.2 49.4	HIGH EXPIRY:	n/a
ID:	26801218	ID:	5004	CYLINDER (psi):	1000	LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a	EXPIRY DATE	11-Nov-2029	LOW EXPIRY:	n/a

CALIBRATION SETTINGS:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	n/a	n/a	n/a	BKG/OFFSET:	0.6	-0.9	n/a
SLOPE/COEF/CE:	n/a	n/a	n/a	SLOPE/COEF/CE:	0.927	0.979	0.988

EXPECTED (REFERENCE) VALUE:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	n/a	n/a	n/a		277.7	4.2	273.5

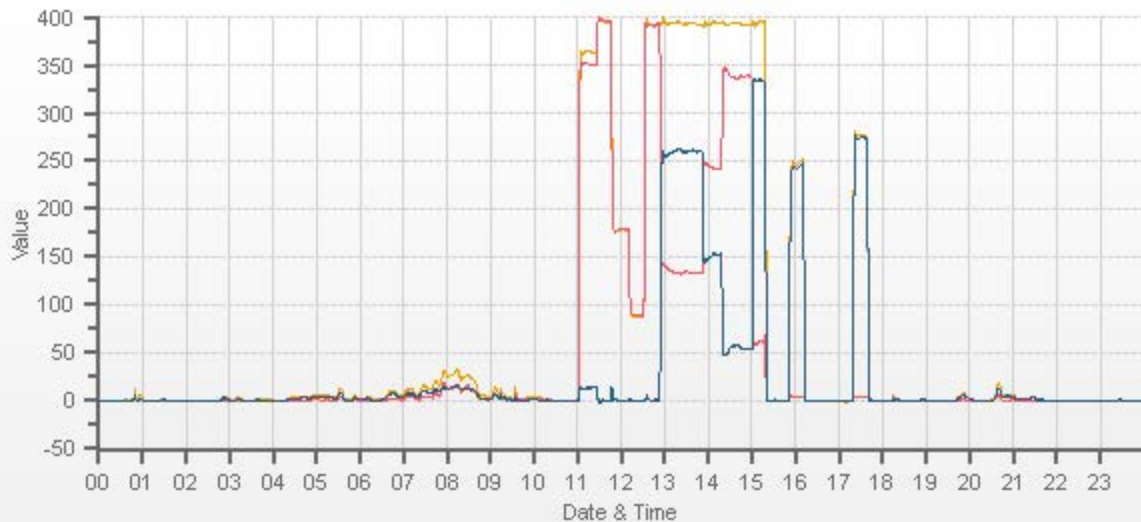
CALIBRATION PARAMETERS:				
POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
HIGH	395	250	240-275	n/a
MID	180	154	150-157	Mid
LOW	90	54	50-58	Low
EXTRA 1	n/a	340	300-370	High

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	40.10	5000	0.0	0.0	0.0	n/a	n/a	n/a	0.0	0.0	0.0	n/a	n/a	n/a	n/a	n/a	n/a
4960	40.10	5000	394.6	396.2	1.6	n/a	n/a	n/a	394.9	396.2	1.3	n/a	n/a	n/a	0.999	1.000	n/a
4981	18.30	4999	180.1	180.8	0.7	n/a	n/a	n/a	179.0	178.3	-0.7	n/a	n/a	n/a	1.006	1.014	n/a
4990	9.20	4999	90.5	90.9	0.4	n/a	n/a	n/a	89.3	88.7	-0.6	n/a	n/a	n/a	1.014	1.025	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	40.10	5000	0	391.4	392.7	1.2	n/a	n/a	n/a	n/a
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	260	133.1	392.9	259.8	258.3	258.6	0.999	100.12%
MID	40.10	5000	153	242.1	394.5	152.4	149.3	151.2	0.987	101.27%
LOW	40.10	5000	58	338.6	392.8	54.2	52.8	53	0.996	100.38%
NO2 COEF/CONVERTER EFFICIENCY ADJUSTED									AVERAGE:	100.59%

LINEAR REGRESSION ANALYSIS:				COMMENTS:
	CORRELATION	SLOPE	INTERCEPT	
NO	1.000	1.002	-0.16%	
NOx	1.000	1.002	-0.29%	
NO2	1.000	1.000	0.16%	

Sample filter changed
Additional point for O3: Setpoint = 330, O3 conc = 350.4



CAL-PRAMP-202310-01689

NOx Calibration by Dilution/Gas-Phase Titration



CALIBRATION:				ANALYZER:			
DATE:	19-Oct-2023	PREVIOUS CALIBRATION DATE:	18-Oct-2023	MAKE/MODEL:	Teledyne T200	PREVIOUS CF.	
CLIENT:	PRAMP	TEMPERATURE (°C):	21.0	SERIAL #:	837	NOx	1.000
LOCATION:	Grimshaw	BAROMETRIC (mBar):	933	FLOW (mL/min)	439	NO	0.999
PURPOSE:	As-Found	START TIME (MST):	10:45	RANGE (ppb)	500	NO2	0.999
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	11:59	GPT FOR O3?		No	

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	EY0001716	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	NO/NOx (PPM):	49.2 49.4	HIGH EXPIRY:	n/a
ID:	26801218	ID:	5004	CYLINDER (psi):	1000	LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a	EXPIRY DATE	11-Nov-2029	LOW EXPIRY:	n/a

CALIBRATION SETTINGS:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	0.6	-0.9	n/a	BKG/OFFSET:	0.6	-0.9	n/a
SLOPE/COEF/CE:	0.927	0.979	0.988	SLOPE/COEF/CE:	0.927	0.979	0.988

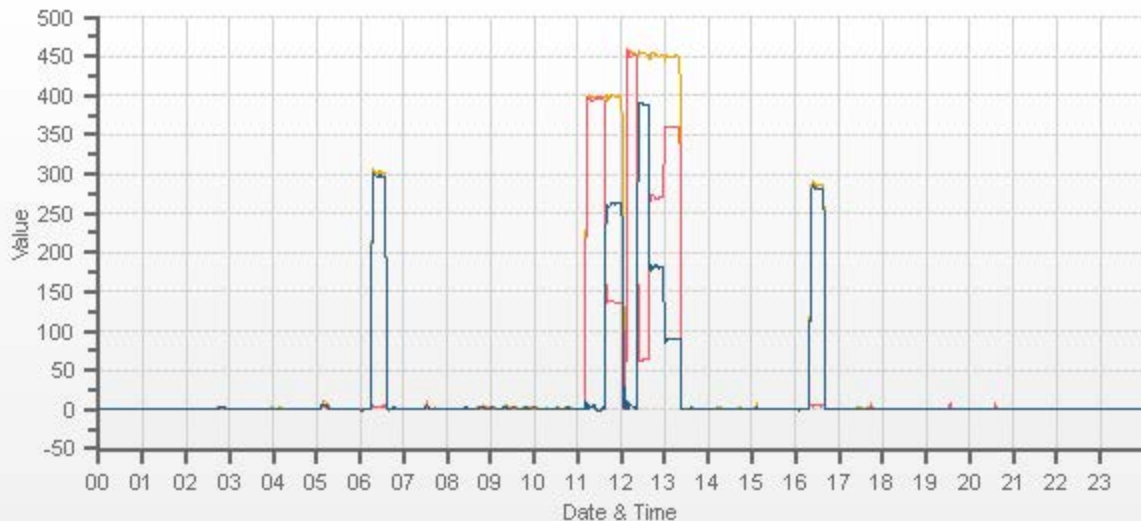
EXPECTED (REFERENCE) VALUE:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	277.7	4.2	273.5		277.7	4.2	273.5

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	40.10	5000	0.0	0.0	0.0	-0.1	-0.5	-0.4	n/a	n/a	n/a	0.995	0.999	n/a	n/a	n/a	n/a
4960	40.10	5000	394.6	396.2	1.6	396.3	396.1	-0.2	n/a	n/a	n/a	0.995	0.999	n/a	n/a	n/a	n/a
4981	18.30	4999	180.1	180.8	0.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
4990	9.20	4999	90.5	90.9	0.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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	40.10	5000	0	397.3	396.2	-1.0	n/a	n/a	n/a	n/a
AS-FOUND HIGH	40.10	5000	260	138.2	399.2	261.0	259.1	262	0.989	101.12%
ADJUSTED HIGH	2.00	5000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MID	40.10	5000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LOW	40.10	5000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NO2 adjustment not required.									AVERAGE:	n/a

LINEAR REGRESSION ANALYSIS:				COMMENTS:
	CORRELATION	SLOPE	INTERCEPT	
NO	n/a	n/a	n/a	
NOx	n/a	n/a	n/a	
NO2	n/a	n/a	n/a	As-found to check span drift



CAL-PRAMP-202310-01689

NOX [ppb] NO [ppb] NO2 [ppb]

NOx Calibration by Dilution/Gas-Phase Titration



CALIBRATION:				ANALYZER:			
DATE:	31-Oct-2023	PREVIOUS CALIBRATION DATE:	18-Oct-2023	MAKE/MODEL:	Teledyne T200	PREVIOUS CF.	
CLIENT:	PRAMP	TEMPERATURE (°C):	21.0	SERIAL #:	837	NOx	1.000
LOCATION:	Grimshaw	BAROMETRIC (mBar):	949	FLOW (mL/min)	406	NO	0.999
PURPOSE:	Repeat	START TIME (MST):	07:23	RANGE (ppb)	500	NO2	0.999
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:15	GPT FOR O3?		No	

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	EY0001716	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	NO/NOx (PPM):	49.2 49.4	HIGH EXPIRY:	n/a
ID:	26701218	ID:	5004	CYLINDER (psi):	1000	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:	0.6	-0.9	n/a	BKG/OFFSET:	0.5	-0.4	n/a
SLOPE/COEF/CE:	0.927	0.979	0.988	SLOPE/COEF/CE:	0.923	0.968	1.0088

EXPECTED (REFERENCE) VALUE:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	277.7	4.2	273.5		268.4	3.1	265.3

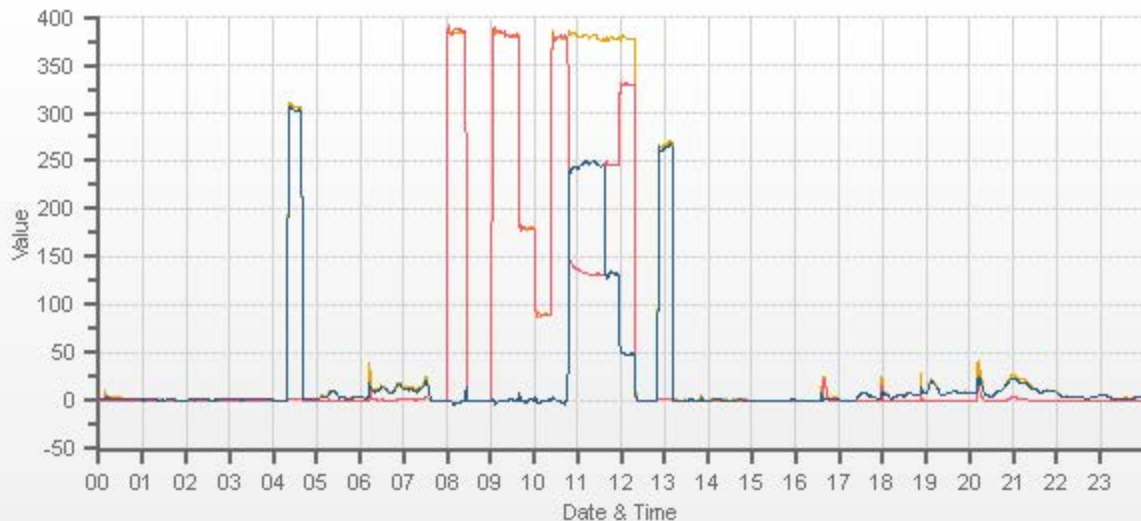
CALIBRATION PARAMETERS:				
POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
HIGH	380	250	230-265	n/a
MID	180	125	115-150	n/a
LOW	90	45	40-55	n/a
EXTRA 1	n/a	n/a	n/a	n/a

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
4999	38.60	4999	0.0	0.0	0.0	0.4	-0.1	-0.5	0.0	0.0	0.0	0.983	0.992	0.998	1.001	0.998	0.995
4959	38.60	4998	380.0	381.5	1.5	386.8	384.5	-2.3	380.6	381.3	0.7	0.983	0.992	0.998	1.001	0.998	0.995
4982	18.30	5000	180.1	180.8	0.7	n/a	n/a	n/a	179.6	181.3	1.7	n/a	n/a	1.003	0.997	0.998	0.995
4990	9.10	4999	89.6	89.9	0.4	n/a	n/a	n/a	89.7	90.4	0.9	n/a	n/a	0.998	0.995	0.998	0.995

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	380.1	378.2	-1.9	244	245.5	0.994	100.61%
AS-FOUND HIGH	38.60	4999	250	136.1	379.7	243.6	244	245.5	0.994	100.61%
ADJUSTED HIGH	38.60	4999	250	132.6	379.0	246.2	247.5	248.1	0.998	100.24%
MID	38.60	4999	135	245.6	377.6	132.0	134.5	133.9	1.004	99.55%
LOW	38.60	4999	50	329.2	377.1	47.9	50.9	49.8	1.022	97.84%
NO2 COEF/CONVERTER EFFICIENCY ADJUSTED									AVERAGE:	99.21%

LINEAR REGRESSION ANALYSIS:				COMMENTS:
	CORRELATION	SLOPE	INTERCEPT	
NO	1.000	1.001	-0.03%	
NOx	1.000	0.999	0.07%	
NO2	1.000	1.009	-0.33%	

Repeat Calibration to investigate span drift (recent install)



CAL-PRAMP-202310-01689

Ozone Calibration by Direct GPT



DATE:	17-Oct-2023	PREVIOUS CALIBRATION DATE:	14-Sep-2023
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	21.4
LOCATION:	Grimshaw	BAROMETRIC (mBar):	938
PURPOSE:	Removal/Shut-down	START TIME (MST):	12:47
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:09

ANALYZER:

MAKE/MODEL	API 400A	RANGE	500 ppb
SERIAL #	445	FLOW (mL/min)	813
INITIAL		FINAL	
BKG/OFFSET	-3	BKG/OFFSET	n/a
COEF/SLOPE	0.962	COEF/SLOPE	n/a
Expected (reference) Value	402.8	Expected (reference) Value	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	26801218	ID:	5004
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION METHOD:		Direct GPT	
GPT DATE:	17-Oct-2023	GPT END TIME:	15:08

CALIBRATION PARAMETERS:

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

CALIBRATION:

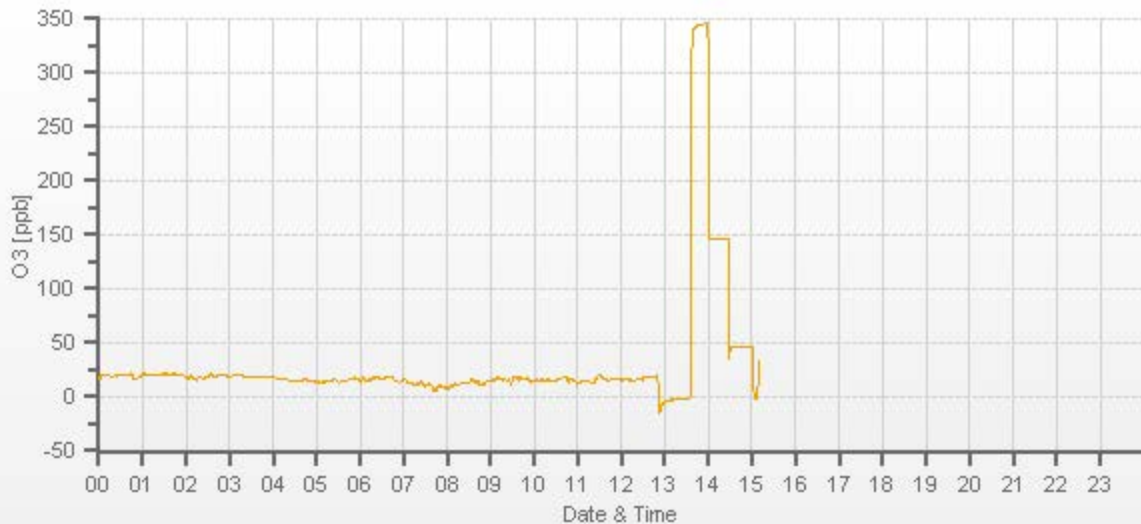
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
5000	5000	5000	0.0	-0.7	n/a	1.028	n/a
5000	5000	5000	356.6	346.2	n/a	1.028	n/a
5000	5000	5000	152.5	147.9	n/a	1.026	n/a
5000	5000	5000	50.2	47.5	n/a	1.041	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.974	-0.2%

COMMENTS:

Shut down calibration pass



Ozone Calibration by Direct GPT



DATE:	19-Oct-2023	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	20.8
LOCATION:	Grimshaw	BAROMETRIC (mBar):	937
PURPOSE:	Install/Post-Repair	START TIME (MST):	13:36
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	16:58

ANALYZER:

MAKE/MODEL	Teledyne T400	RANGE	500 ppb
SERIAL #	824	FLOW (mL/min)	740
INITIAL		FINAL	
BKG/OFFSET	n/a	BKG/OFFSET	-2.5
COEF/SLOPE	n/a	COEF/SLOPE	0.993
Expected (reference) Value	n/a	Expected (reference) Value	272.2

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	26801218	ID:	5004
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION METHOD:		Direct GPT	
GPT DATE:	19-Oct-2023	GPT END TIME:	13:32

CALIBRATION PARAMETERS:

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

CALIBRATION:

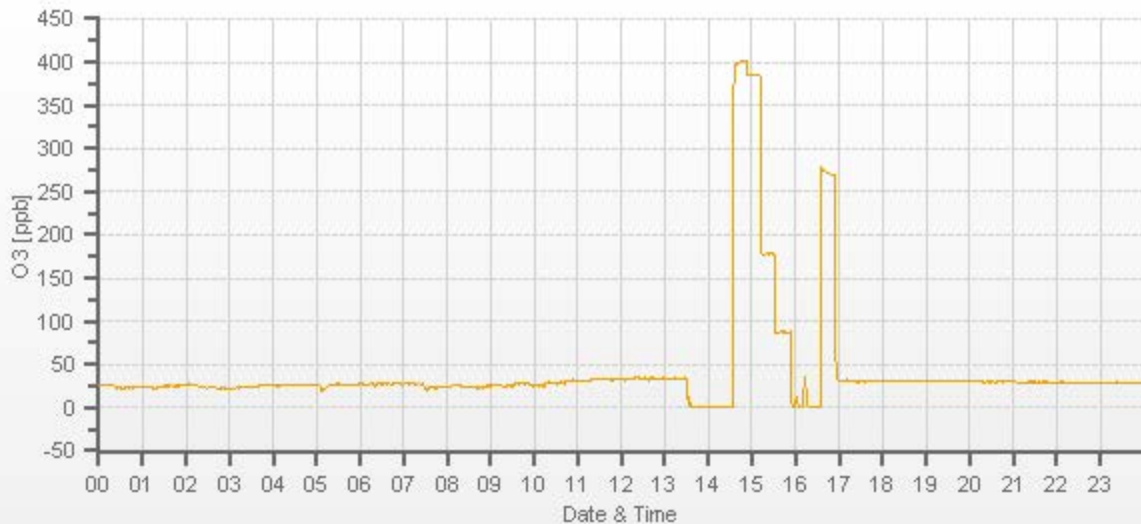
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
5000	 	5000	0.0	n/a	0.0	 	
5000	 	5000	386.8	n/a	387.1	n/a	0.999
5000	 	5000	181.8	n/a	179.9	n/a	1.011
5000	 	5000	91.2	n/a	89.4	n/a	1.020

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.2%

COMMENTS:

No issues



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	20-Oct-2023	PREVIOUS CALIBRATION DATE:	14-Sep-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	20.6		Thermo 55i	1191032505	1043
LOCATION:	Grimshaw	BAROMETRIC (mBar):	940	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	07:38	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	12:05	PREVIOUS CF:	1.000	1.001	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 ₃ H ₈ (ppm):	897.0 301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	4568	CYLINDER (psi):	1900	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 (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE		
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄		1724.8

EXPECTED (REFERENCE) VALUE:

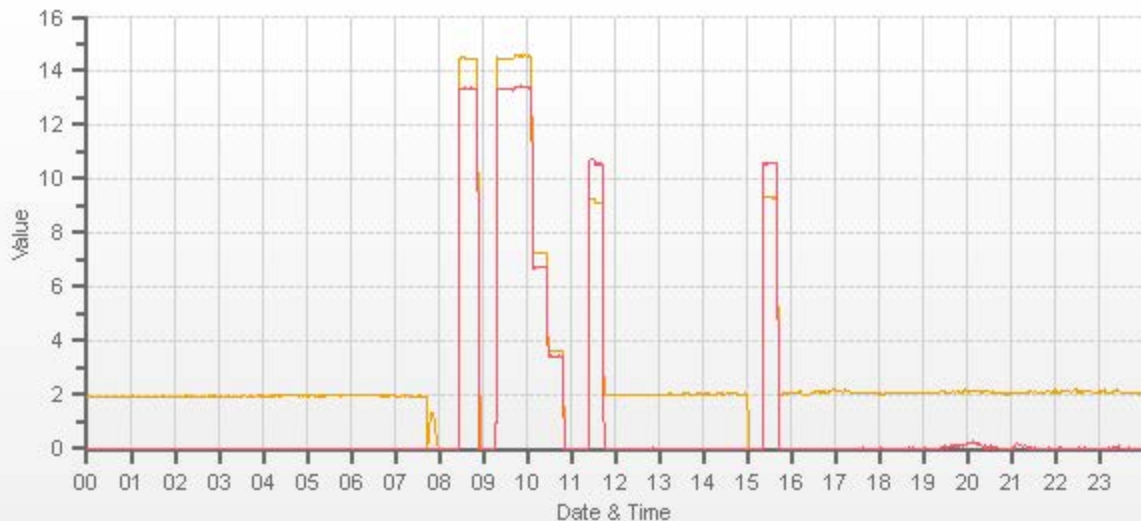
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.58	10.73	20.32		9.12	10.54	19.67

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3099	X	3099	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3048	50.30	3098	14.56	13.44	28.00	14.47	13.34	27.81	14.55	13.41	27.96	1.006	1.007	1.007	1.001	1.002	1.002
3074	25.20	3099	7.29	6.73	14.03	n/a	n/a	n/a	7.26	6.73	13.99	n/a	n/a	n/a	1.005	1.000	1.003
3087	12.60	3100	3.65	3.36	7.01	n/a	n/a	n/a	3.65	3.41	7.06	n/a	n/a	n/a	0.999	0.987	0.993

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:	
CH ₄	1.000	0.999	0.0%	H2 = AMA HG300 #190567059	
NMHC	1.000	0.997	0.1%		
THC	1.000	0.998	0.1%		
				Use Zero Chrom?	No



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CH4 [ppm] NMHC [ppm]



Teledyne T640 Audit/Calibration

Date/Previous Audit Date:	October 20, 2023	September 14, 2023	Weather Conditions:		Mainly sunny
Company:	PRAMP		Start Time (mst):		8:43
Station:	Grimshaw		End Time (mst):		9:05
Parameter:	PM 2.5		Performed By/Reviewer:		Kevin Sebastian Chris Wesson
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 #201588, expires Sept 20, 2023			Temperature: DeltaCal DC1 #201588, expires Sept 20, 2023		
Digital Manometer: DeltaCal DC1 #201588, expires Sept 20, 2024			Pressure: DeltaCal DC1 #201588, expires Sept 20, 2023		
DIAGNOSTICS:					
Ambient Pressure (mmHg)	708.4	Ambient Temp (°C)	8.6	ASC Heater Duty (%)	0.0
Box Temp (°C)	23.4	Current PMT HV (V)	1537	LED Temp (°C)	31.50
P3 Value	37	PMT Setting (V)	1546	Pump PWM (%)	39
Sample Flow (L/min)	4.98	Sample RH (%RH)	27.0	Sample Temp (°C)	21.2
Item:	As-found		As-left		Tolerance
	Reference	T640x	Reference	T640x	
Zero Test (Leak Check)	PM10	0.0	0	0.0	0.0 to 0.2
	PM2.5	0.0	0	0.0	
Ambient Pressure (mmHg)	708.1	708.4	n/a	n/a	+/- 10 mm Hg
Ambient Temperature (°C)	8.90	8.6	n/a		+/- 2°C
Sample Flow (L/min)	5.01	4.98	n/a	n/a	+/- 5% of T640x (e.g., 4.75 – 5.25 lpm)
Additional Monthly Maintenance :					Completed
Inlet cleaned?					Yes
Sample tubing inspected (inner and outer)?					Yes
Quarterly Audit/Calibration:					
SpanDust™ Standard	Peak at Channel		Lot No:		Expiry:
	10.9		100128-050-046		1-31-2025
Item:	Verification:		Calibration (if needed):		Tolerance
	Reference	T640x	Reference	T640x	
Peak Channel	10.9	11	10.9	n/a	± 0.5
PMT Setting (V)	n/a	1546	n/a	n/a	n/a
Peak Channel Counts:	n/a	1014	n/a	n/a	n/a
Comments:					
Alert: 08/24/2023: Perform span dust check. No issues					

Meteorological System Checklist



Date:		October 17, 2023	
Technician:		Kevin Sebastian	
Station:		PRAMP Grimshaw	
Unit:	Make:	Model:	Serial #:
Temperature Sensor:	Vaisala	HMP155	N2910506
Barometric Pressure Sensor:	MetOne	92	A2397
Relative Humidity Sensor:	Vaisala	HMP155	N2910506
Anemometer:	RM Young	05305AQ	174801
AMBIENT TEMPERATURE SENSOR CHECK			
Previous check date:	September 14, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Temperature (°C):	7.6		
Station - Ambient Temperature (°C):	7.6		
Temperature Difference (°C):	0.0		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	September 14, 2023		
Reference Barometer ID:	Brunton 05535 Expires July 17, 2024		
Reference Pressure - Units/Reading:	millibar	937	
Station Pressure - Units/Reading:	millibar	937.5	
Pressure Tolerance +/- 15% of error:	796 - 1078	-0.05%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	September 14, 2023		
Reference Hygrometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	90.10		
Station Hygrometer % RH- Reading:	87.60		
RH Tolerance +/- 15% of difference:	76.59 - 103.62	2.8%	
ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	September 14, 2023	Previous check date:	September 14, 2023
Wind Speed Observed (kph):	5~10	Wind Direction Observed:	NE
Wind speed on Data Logger (kph):	9.1	Wind Direction on Data Logger:	NE
		Wind Direction Pass/Fail?:	Pass
Comments			
No issues			



Meteorological Sensor Audit/Calibration

Location Information

Company: PRAMP
Audit Location: Grimshaw
Audit Date: August 2, 2023
Calibration Purpose: routine annual

Performed By: Chris Wesson
Reviewed By: Limin Li
Start/End Time (mst): 14:55 / 16:16
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

OCTOBER 2023

Ambient Air Monitoring Calibration Report

- PEACE RIVER COMPLEX (PRC) STATION-

CAL-PRAMP-202310-01698

Operation and Maintenance:

Bureau Veritas Canada

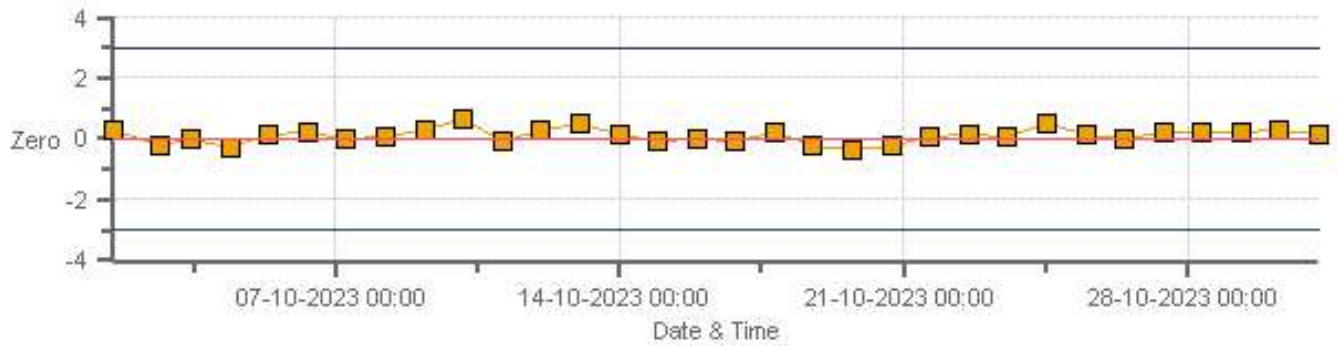
Data Validation and Report:

Bureau Veritas Canada

November 20, 2023

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Zero



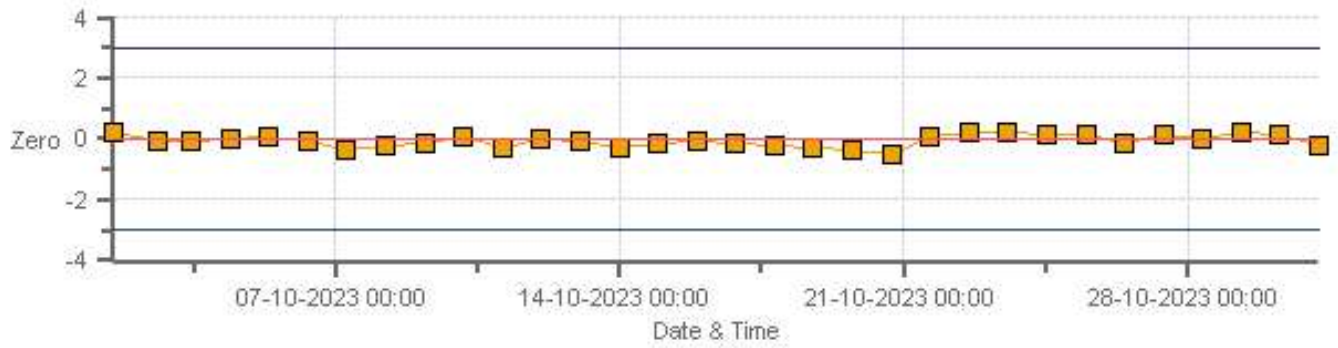
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Span



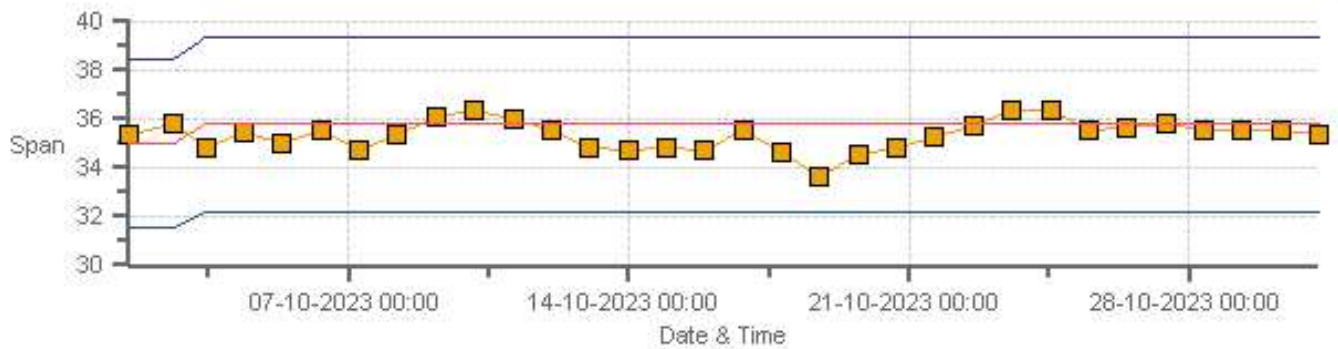
Span SpanRef Span Low Span High

H2S[ppb] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Zero



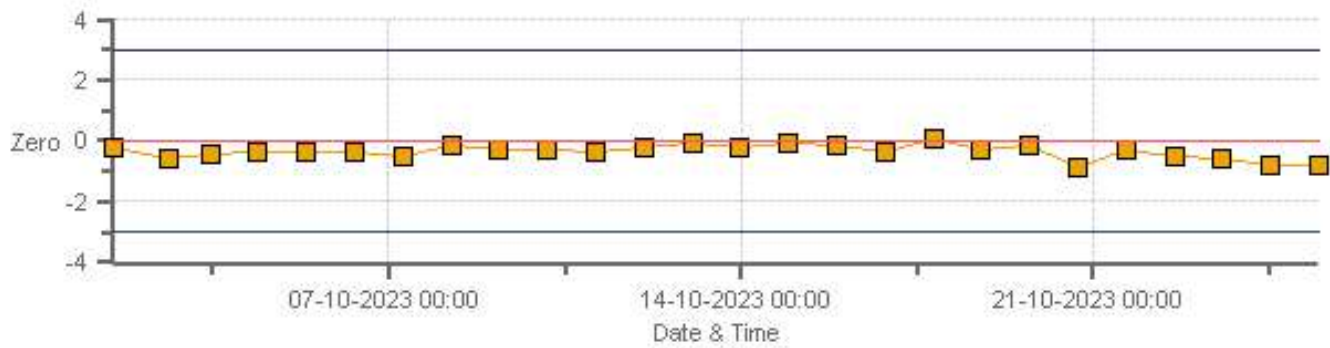
Zero Zero Ref Zero Low Zero High

H2S[ppb] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Span



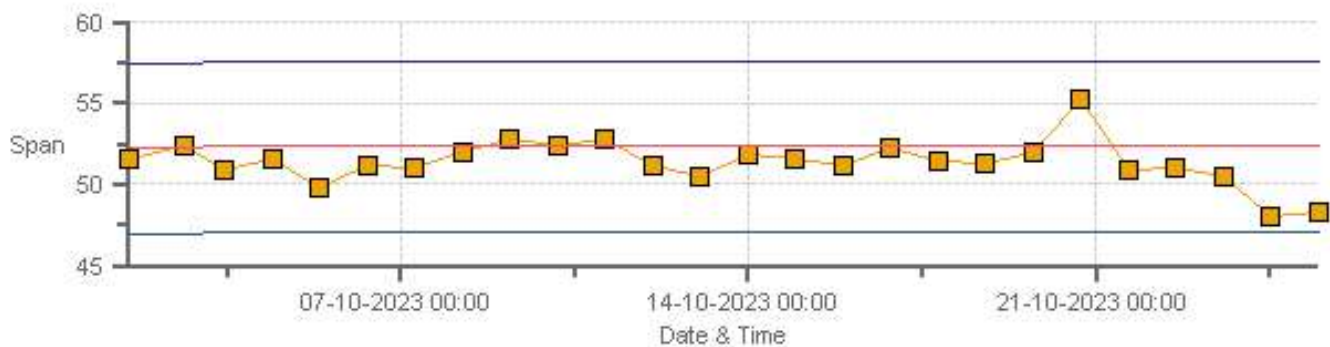
Span SpanRef Span Low Span High

TRS[ppb] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Zero



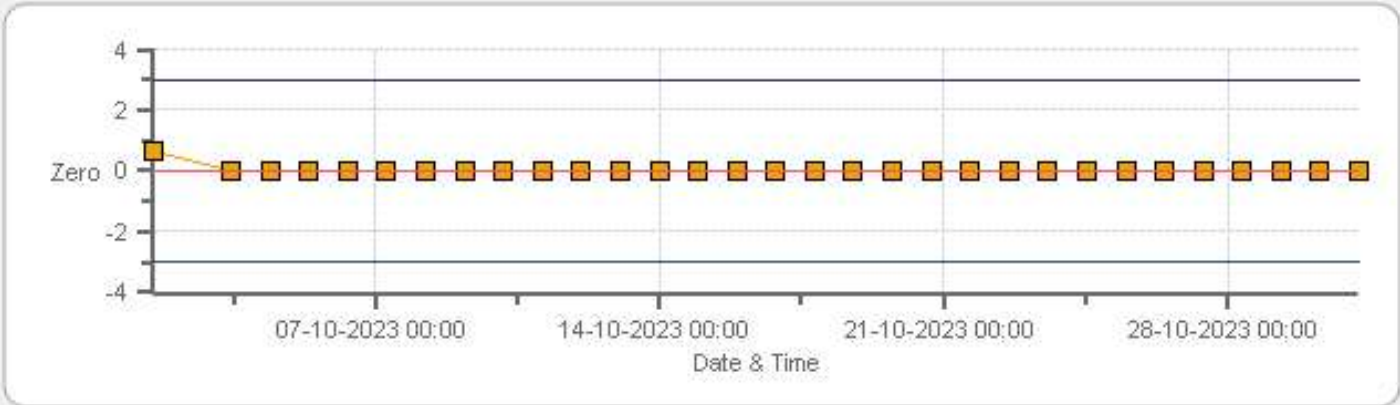
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Span



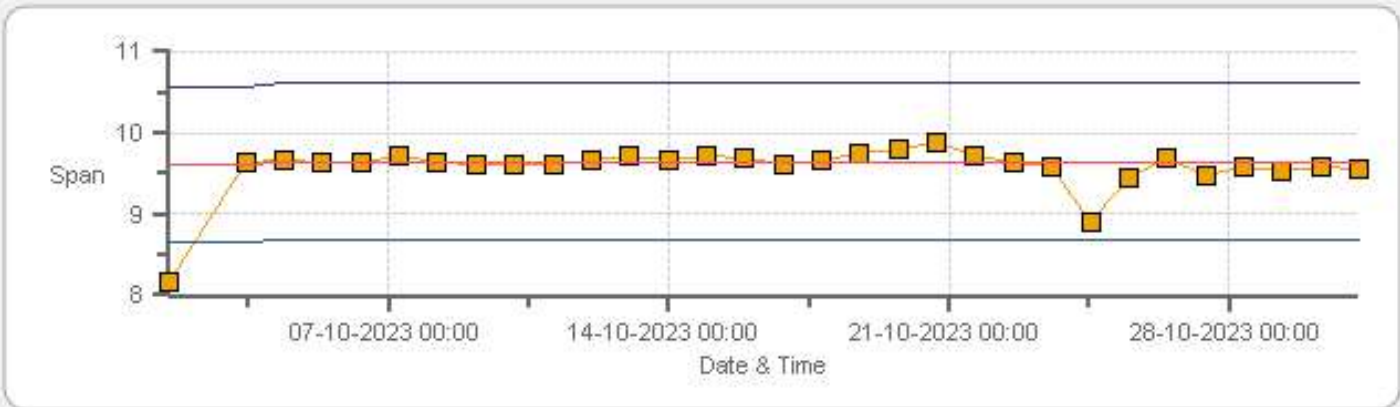
Span SpanRef Span Low Span High

CH4[ppm] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Zero



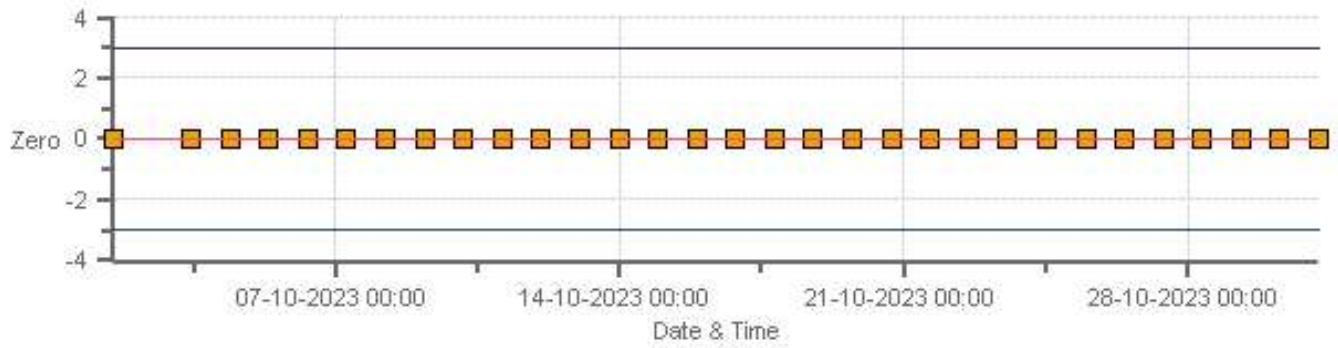
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Span



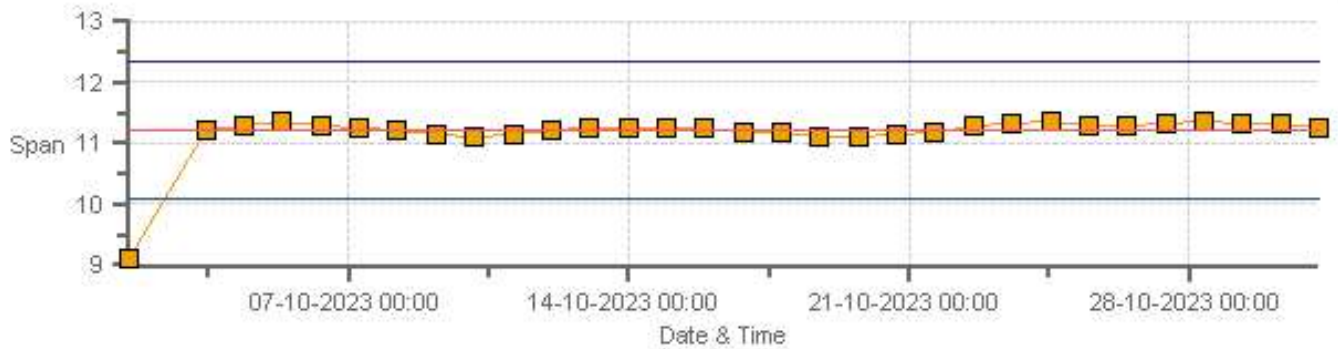
Span Span Ref Span Low Span High

NMHC[ppm] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: Peace River Complex (PRC) Monthly: 10-2023 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	02-Oct-2023	PREVIOUS CALIBRATION DATE:	07-Sep-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	PRAMP	TEMPERATURE (°C):	23.5
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	936
PURPOSE:	Routine	START TIME (MST):	10:13
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:33

ANALYZER:

MAKE/MODEL	Thermo 43i	RANGE	500 ppb
SERIAL #	1034746225	FLOW (mL/min)	436
INITIAL		FINAL	
BKG/OFFSET	19.1	BKG/OFFSET	19.7
COEF/SLOPE	1.104	COEF/SLOPE	1.125
Expected (reference) Value	265.2	Expected (reference) Value	269.2

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:

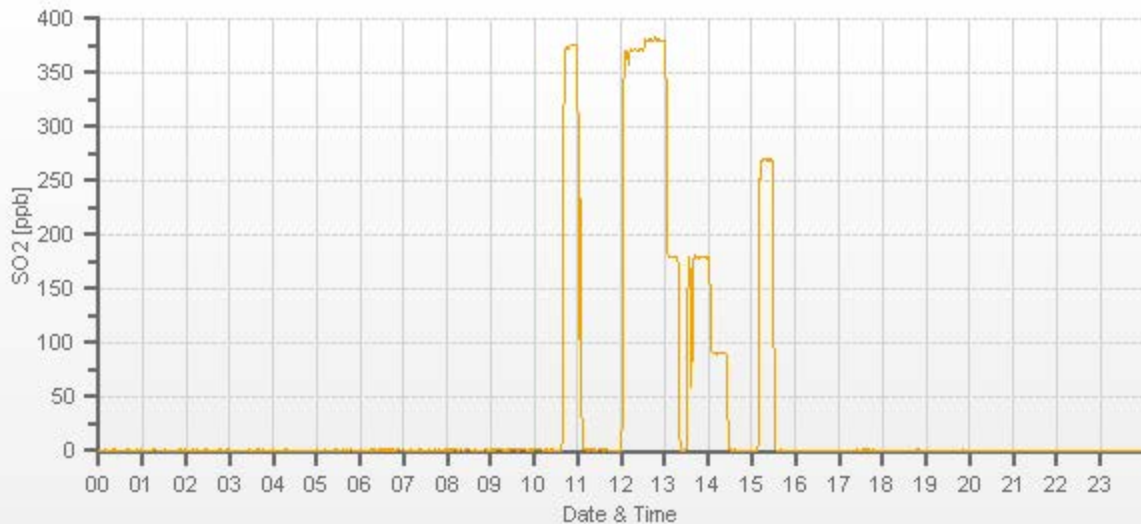
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	60.80	4001	0.00	0	0	1.012	1.002
3939	60.80	4000	380.00	375.6	379.3	1.012	1.002
3974	28.80	4003	179.87	n/a	179.1	n/a	1.004
3987	14.30	4001	89.35	n/a	90.4	n/a	0.988

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.997	0.1%

COMMENTS:

<p>Sample filter changed 11:00 = daily ZS (end of Af high) 12:09-12:12 = verify calibration line. Adjusted high restarted 13:18-13:32 = User error, mid point restarted</p>
--



H2S Analyzer Calibration by Dilution



DATE:	02-Oct-2023	PREVIOUS CALIBRATION DATE:	07-Sep-2023
PARAMETER:	H2S	PREVIOUS CORRECTION FACTOR:	1.004
CLIENT:	PRAMP	TEMPERATURE (°C):	23.5
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	936
PURPOSE:	Routine	START TIME (MST):	10:13
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:33

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1308857354	FLOW (mL/min)	929
INITIAL		FINAL	
BKG/OFFSET	14.9	BKG/OFFSET	15.2
COEF/SLOPE	1.05	COEF/SLOPE	1.051
Expected (reference) Value	35	Expected (reference) Value	35.8

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	58100720	ID:	4568
MFC CALIBRATION DATE:	12-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):	500	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:

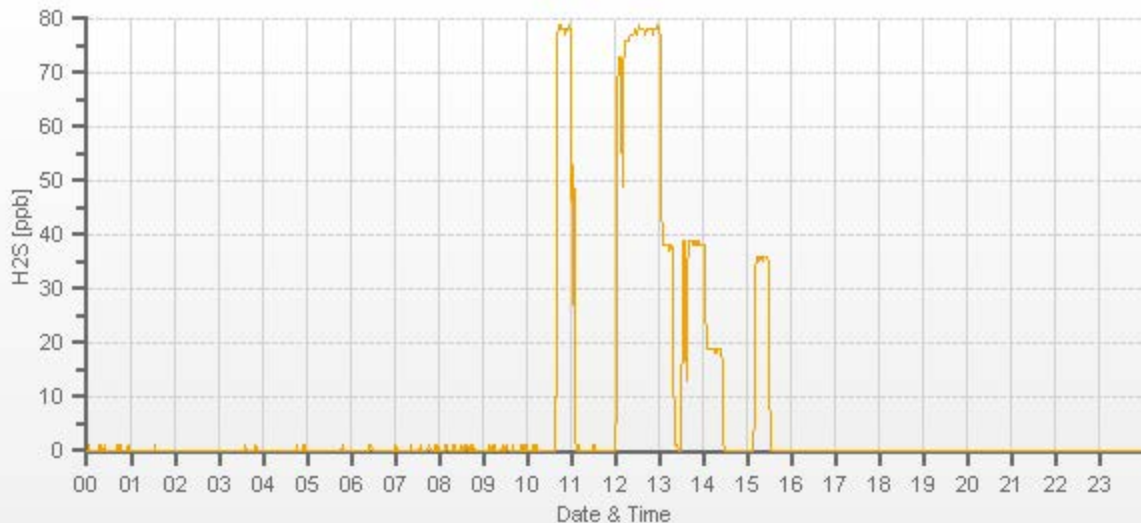
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	33.10	4001	0.00	0	0	0.997	0.994
3967	33.10	4000	77.87	78.1	78.3	0.997	0.994
3987	16.20	4003	38.08	n/a	38	n/a	1.002
3993	8.10	4001	19.05	n/a	18.4	n/a	1.035

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.009	-0.4%

COMMENTS:

Sample filter changed
 11:00 = daily ZS (end of Af high)
 12:09-12:12 = verify calibration line. Adjusted high restarted
 13:18-13:32 = User error, mid point restarted



TRS Analyzer Calibration by Dilution



DATE:	02-Oct-2023	PREVIOUS CALIBRATION DATE:	07-Sep-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.002
CLIENT:	PRAMP	TEMPERATURE (°C):	23.5
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	936
PURPOSE:	Routine	START TIME (MST):	10:13
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:33

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1034746224	FLOW (mL/min)	696
INITIAL		FINAL	
BKG/OFFSET	26.2	BKG/OFFSET	26.4
COEF/SLOPE	1.013	COEF/SLOPE	1.018
Expected (reference) Value	52.16	Expected (reference) Value	52.33

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:	EY0002519	HIGH ID	n/a
CONC (ppm):	9.41	EXPIRY DATE	n/a
CYLINDER (psi):	500	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:

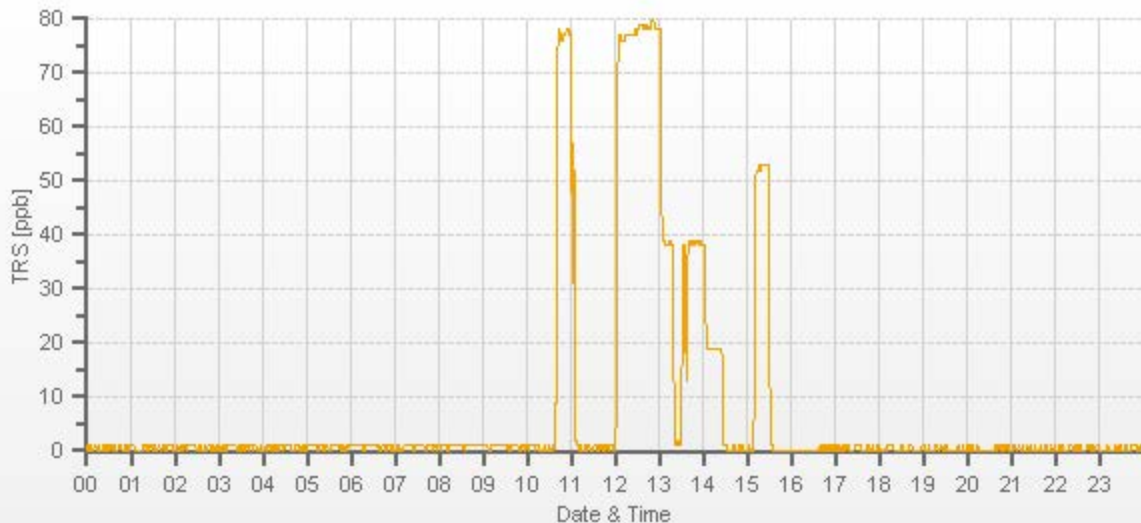
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
4001	33.10	4001	0.00	-0.14	0	1.012	1.005
3967	33.10	4000	77.87	76.84	77.5	1.012	1.005
3987	16.20	4003	38.08	n/a	37.72	n/a	1.010
3993	8.10	4001	19.05	n/a	18.52	n/a	1.029

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.997	-0.2%

COMMENTS:

TRS Converter CDNOVA CDN-101 #506. 11:00 = daily ZS (end of Af high) 12:09-12:12 = verify calibration line. Adjusted high restarted 13:18-13:32 = User error, mid point restarted
--



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	02-Oct-2023	PREVIOUS CALIBRATION DATE:	07-Sep-2023	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	22.3		Thermo 55i	1034745845	1098
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	933	PARAMETER:	CH4	NMHC	THC
PURPOSE:	Routine	START TIME (MST):	09:06	RANGE (ppm):	20	20	40
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	16:24	PREVIOUS CF:	1.001	1.001	1.001

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768	HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH ₄ /C ₃ H ₈ (ppm):	897.0 301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	916	CYLINDER (psi):	1700	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 (CH ₄ /NMHC)	HIGH	MID	LOW	CH ₄ EQUIVILANCE		
TARGET	14	7	3.5	C ₃ H ₈ as CH ₄		827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄		1724.8

EXPECTED (REFERENCE) VALUE:

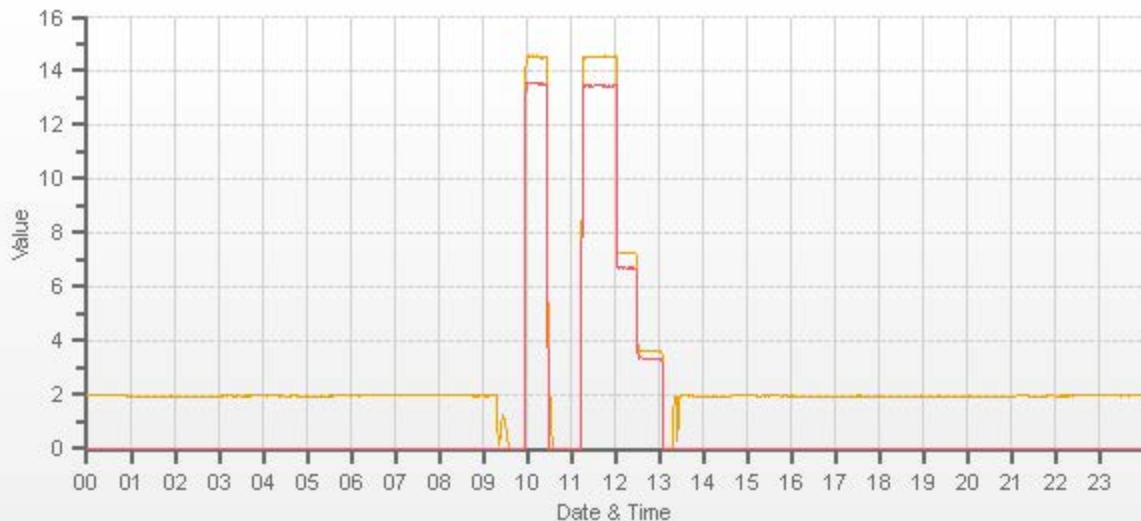
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.61	11.22	20.84		9.65	11.21	20.86

CALIBRATION:

FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3098	X	3098	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3050	50.30	3100	14.55	13.43	27.99	14.54	13.51	28.00	14.55	13.44	27.99	1.001	0.994	0.999	1.000	0.999	1.000
3075	25.20	3100	7.29	6.73	14.02	n/a	n/a	n/a	7.24	6.70	13.93	n/a	n/a	n/a	1.007	1.004	1.007
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.62	3.34	6.96	n/a	n/a	n/a	1.008	1.008	1.008

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:	
CH ₄	1.000	1.000	-0.1%	Filter Change. Unable to complete post-cal ZS due to issue with ZS system. No effect on calibration validity.	
NMHC	1.000	1.001	-0.1%		
THC	1.000	1.000	-0.1%		
				Use Zero Chrom?	No



CAL-PRAMP-202310-01698

Meteorological System Checklist



Date:		October 2, 2023	
Technician:		Kevin Sebastian	
Station:		Peace River Compliance	
Unit:	Make:	Model:	Serial #:
Precipitation Sampler:	RM Young	52202	TB 16325
Temperature Sensor:	Rotronic	HC2-S3	20558318
Barometric Pressure Sensor:	MetOne	092	B19577
Relative Humidity Sensor:	Rotronic	HC2-S3	20558318
Anemometer:	RM Young	05305VK	129612
AMBIENT TEMPERATURE SENSOR CHECK			
Previous check date:	September 7, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Temperature (°C):	11.3		
Station - Ambient Temperature (°C):	12.1		
Temperature Difference (°C):	-0.8		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	September 7, 2023		
Reference Barometer ID:	Brunton 05535 Expires July 17, 2024		
Reference Pressure - Units/Reading:	millibar	932	
Station Pressure - Units/Reading:	millibar	934	
Pressure Tolerance +/- 15% of error:	792 - 1072	-0.21%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	September 7, 2023		
Reference Hygrometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	54.50		
Station Hygrometer % RH- Reading:	57.40		
RH Tolerance +/- 15% of difference:	46.33 - 62.68	-5.3%	
ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	September 7, 2023	Previous check date:	September 7, 2023
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	SE
Wind speed on Data Logger (kph):	12	Wind Direction on Data Logger:	SE
		Wind Direction Pass/Fail?:	Pass
Comments			
No issues.			



Meteorological Sensor Audit/Calibration

Location Information

Company: PRAMP
Audit Location: PRC Compliance
Audit Date: August 3, 2023
Calibration Purpose: routine annual
Performed By: Chris Wesson
Reviewed By: Limin Li
Start/End Time (mst): 10:40 / 11:32
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 ₂ S)	Bureau Veritas EMS SOP-00209: Ambient Sulphur Monitoring
TOTAL REDUCED SULPHUR (TRS)	Bureau Veritas EMS SOP-00209: Ambient Sulphur Monitoring
TOTAL HYDROCARBONS (THC), METHANE (CH ₄), NON-METHANE(NMHC)	Bureau Veritas EMS SOP-00001: Methane, Non-Methane Hydrocarbon Analyzer Monitoring
OXIDES OF NITROGEN (NO _x), NITRIC OXIDE (NO) & NITROGEN DIOXIDE (NO ₂)	Bureau Veritas EMS SOP-00213: Ambient NO/NO ₂ /NO _x Monitoring
OZONE (O ₃)	Bureau Veritas EMS SOP-00212: Ambient O ₃ 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

OCTOBER 2023

Monthly Ambient Air Quality Monitoring Integrated Sampling Report

PRAMP-202310-INTEGRATED

November 20, 2023

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Peace River Area Monitoring Program
Suite 91, 305 – 4625 Varsity Drive NW
Calgary, AB, T3A 0Z9
Phone #: 780-226-7068 / 587-225-2248
E-mail: pramptech@prampairshed.ca
www.prampairshed.ca
November 20, 2023

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

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

Enclosed is the October 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 ₂ S, 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 ₂ S, SO ₂	PRAMP	Bureau Veritas	PRAMP	PRAMP

Monitoring Notes during the Month of October 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.

- **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 September and October were installed on August 31. They were removed on October 31.
 - 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 H₂S and SO₂ Sampling Program**
 - The passive sample filters were installed at the stations on September 29 and were removed on November 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).

A handwritten signature in blue ink, appearing to read 'Lily Lin', with a stylized flourish at the end.

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).

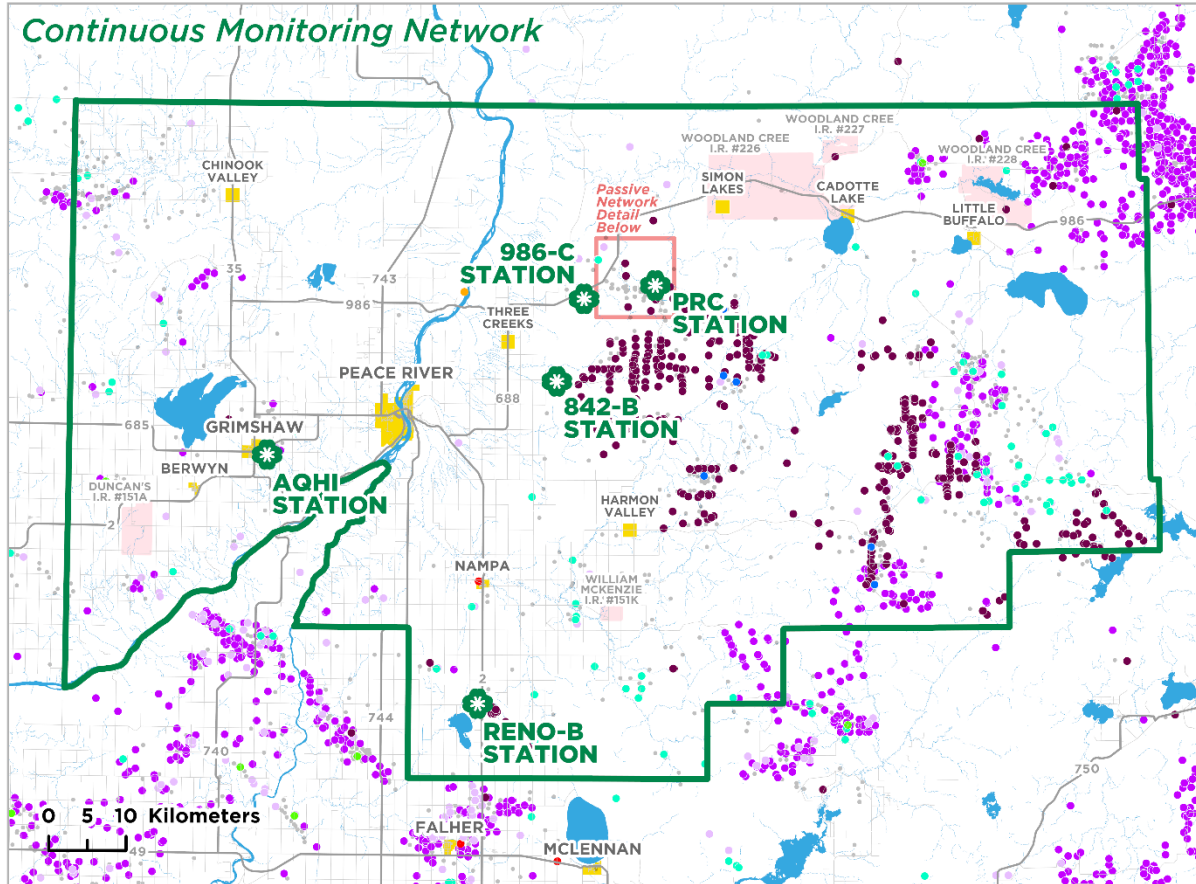
I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization and reporting requirements. I also certify that at the time of this report's submission, all air data have been electronically uploaded to Alberta ETS as required by the AMD.

A handwritten signature in blue ink, appearing to read 'Michael Bisaga', with a stylized flourish at the end.

Michael Bisaga, Technical Program Manager, PRAMP Airshed

November 20, 2023

Map of PRAMP Continuous Monitoring and Integrated Sampling Network



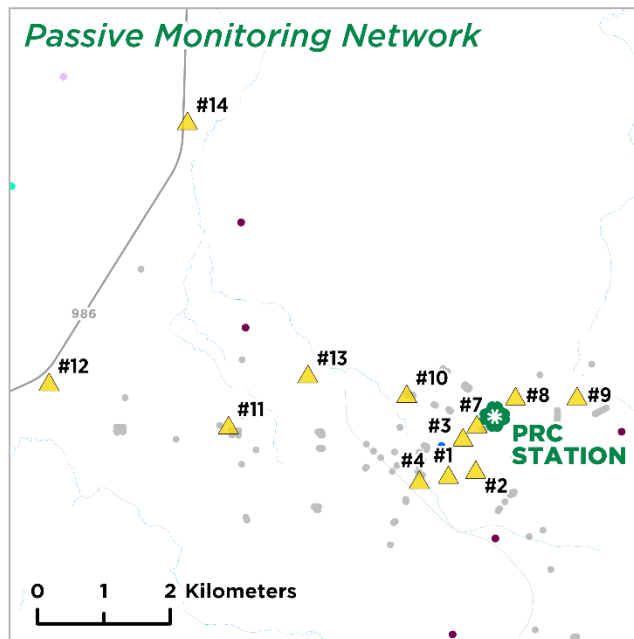
Legend

- 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 Credit: 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 ₂ S		SO ₂	
Minimum (ppb)	0.11	#4	0.1	#4
Maximum (ppb)	0.33	#1	0.3	#3
Average (ppb)	0.19	-	0.19	-

ANALYTICAL SAMPLING RESULTS

Passives

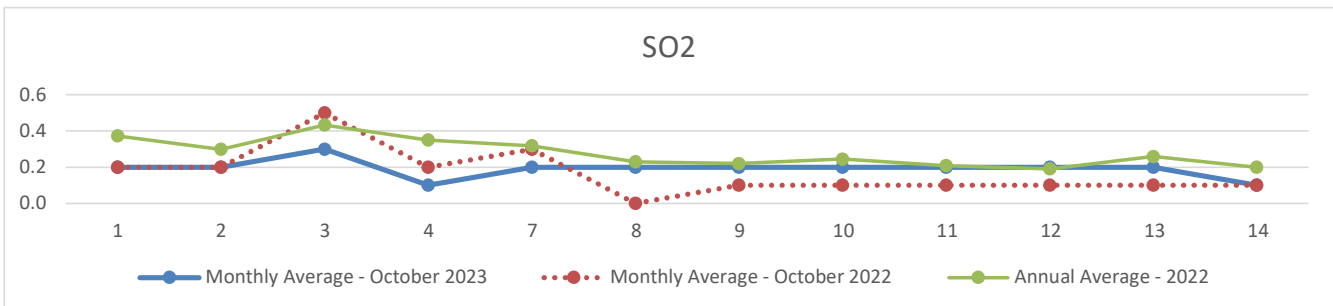
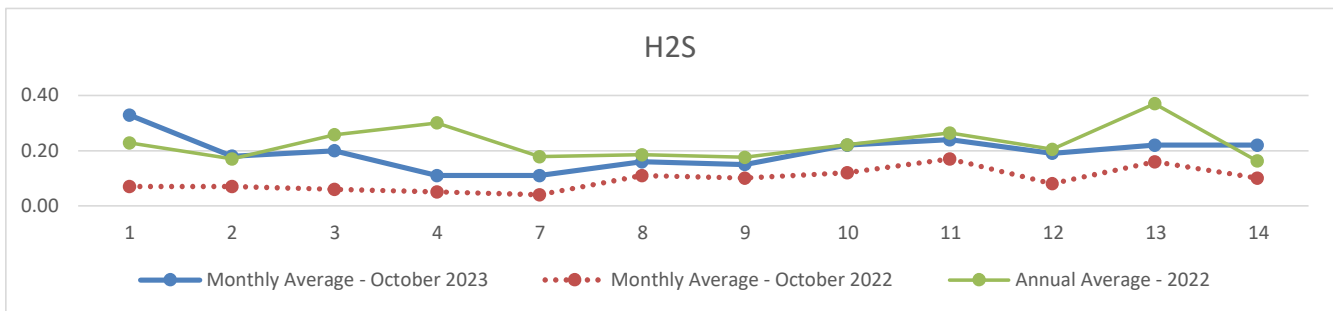


PEACE RIVER AREA MONITORING PROGRAM

PRC Site - October 2023

Passive Results

	H ₂ S		SO ₂	
Minimum (ppb)	0.11	#4	0.1	#4
Maximum (ppb)	0.33	#1	0.3	#3
Average (ppb)	0.19	-	0.19	-
No.	Calculated Value		Calculated Value	
1	0.33		0.2	
2	0.18		0.2	
3	0.20		0.3	
4	0.11		0.1	
7	0.11		0.2	
8	0.16		0.2	
9	0.15		0.2	
10	0.22		0.2	
11	0.24		0.2	
12	0.19		0.2	
13	0.22		0.2	
14	0.22		0.1	
Reportable Detection Limit (RDL)	0.02		0.1	



End of Report



Peace River Area Monitoring Program

OCTOBER 2023

Ambient Air Monitoring

Certified Laboratory Analysis Report

LAB-PRAMP-202310

Operation and Maintenance:

Bureau Veritas Canada

Data Validation and Report:

Peace River Area Monitoring Program

November 20, 2023

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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

Company Name _____

Contact Name _____

Address _____

City/Postal Code _____

Phone/Fax# _____

Report To

Name & Email Address _____

Service Requested

RUSH
(Please contact for TAT)

REGULAR

Company Name

Peace River

Project Name/LSD

Peace River

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	Analysis Required														
						SO2	H2S	NO2	O3	NH3	PM2.5	PM10	TSP	Dustfall						
1	29/04/23	9am	01/10/23	8am		X	X													
2			Sample End Date was corrected to 01/11/23. Confirmed by Nick Wolfe on Nov 2, 2023.																	
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		11am				X	X													
14				10:30 am		X	X													
Blank						X	X													
Blank						X	X													

Notes/Comments: Client 12521 / Scenario 18009

Sampled By Kevin AA Phone/Email _____ Received By _____ Date/Time _____ Project # 14125

Date Shipped _____ Signature _____ PO# 14502

AS 23-11-02
88100



Your Project #: 2023/09/29-2023/11/01
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: 2023/11/14
Report #: R3425745
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C389399

Received: 2023/11/02, 08:00

Sample Matrix: Air
Samples Received: 12

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
H2S Passive Analysis	12	2023/11/07	2023/11/09	PTC SOP-00150	Passive H2S in ATM
SO2 Passive Analysis	12	2023/11/06	2023/11/09	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 Nov 2023 08:13:01

Please direct all questions regarding this Certificate of Analysis to:

Customer Service Passives,
Email: PassiveAir@bureauveritas.com
Phone# (780) 378-8500

=====

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BUREAU
VERITAS

Bureau Veritas Job #: C389399
Report Date: 2023/11/14

Peace River Area Monitoring Program Committee
Client Project #: 2023/09/29-2023/11/01
Site Location: PEACE RIVER COMPLEX
Sampler Initials: BG

RESULTS OF CHEMICAL ANALYSES OF AIR

Bureau Veritas ID		CDL831	CDL832	CDL833	CDL834	CDL835	CDL836	CDL837		
Sampling Date		2023/09/29 09:00	2023/09/29 09:00	2023/09/29 09:00	2023/09/29 09:00	2023/09/29 09:00	2023/09/29 09:00	2023/09/29 09:00		
	UNITS	1	2	3	4	7	8	9	RDL	QC Batch
Passive Monitoring										
Calculated H2S	ppb	0.33	0.18	0.20	0.11	0.11	0.16	0.15	0.02	B188197
Calculated SO2	ppb	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.1	B186770
RDL = Reportable Detection Limit										

Bureau Veritas ID		CDL838	CDL839	CDL840	CDL841	CDL842		
Sampling Date		2023/09/29 09:00	2023/09/29 09:00	2023/09/29 09:00	2023/09/29 11:00	2023/09/29 11:00		
	UNITS	10	11	12	13	14	RDL	QC Batch
Passive Monitoring								
Calculated H2S	ppb	0.22	0.24	0.19	0.22	0.22	0.02	B188197
Calculated SO2	ppb	0.2	0.2	0.2	0.2	0.1	0.1	B186770
RDL = Reportable Detection Limit								



**BUREAU
VERITAS**

Bureau Veritas Job #: C389399
Report Date: 2023/11/14

Peace River Area Monitoring Program Committee
Client Project #: 2023/09/29-2023/11/01
Site Location: PEACE RIVER COMPLEX
Sampler Initials: BG

GENERAL COMMENTS

Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C389399
Report Date: 2023/11/14

Peace River Area Monitoring Program Committee
Client Project #: 2023/09/29-2023/11/01
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	
B186770	S1T	Spiked Blank	Calculated SO2			102	%	90 - 110	
B186770	S1T	Method Blank	Calculated SO2		<0.1		ppb		
B188197	YYA	Spiked Blank	Calculated H2S			100	%	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.



BUREAU
VERITAS

Bureau Veritas Job #: C389399
Report Date: 2023/11/14

Peace River Area Monitoring Program Committee
Client Project #: 2023/09/29-2023/11/01
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