



Peace River Area Monitoring Program

MAY 2022

Monthly Ambient Air Quality Monitoring Report

PRAMP-202205

Operation and Maintenance:

Bureau Veritas Canada

Data Validation and Report:

Peace River Area Monitoring Program

June 25, 2022

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Table of Contents

LIST OF ACRONYMS	4
COVER LETTER	5
NETWORK STATION SUMMARY	6
Listing of Continuous Monitoring Stations	6
Listing of Intermittent Monitoring Stations.....	6
Listing of PRAMP member with EPEA Facility Operating Approval	6
Monitoring Notes during the Month of May 2022	6
986c Station	6
842b Station	7
Reno Station	7
PRC Station	7
AQHI – Grimshaw Station	7
VOCs Canister Sampling program	7
Revisions to Alberta’s Ambient Air Quality Data Warehouse.....	8
Deviations from Authorized Monitoring Methods	8
Disclaimer.....	8
Certification.....	9
Map of PRAMP Continuous Monitoring Network	10
CONTINUOUS NETWORK EQUIPMENT AND MONITORING RESULTS SUMMARY	11
986c Station	12
842b Station.....	15
Reno Station.....	18
PRC Station.....	21
AQHI – Grimshaw Station	24
TABLES, CHARTS, WIND ROSES AND EQUIPMENT CALIBRATION RECORDS	28
986c STATION.....	29
842b STATION	73
RENO STATION	117
PRC STATION	161
AQHI GRIMSHAW STATION.....	208
END OF REPORT	276

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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June 25, 2022

RE: PRAMP – May 2022 Monthly Ambient Air Quality Monitoring Report

Enclosed is the May 2022 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

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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 Continuous Monitoring Stations

The PRAMP continuous ambient air quality monitoring network stations are:

- 986c Station
- 842b Station
- Reno Station
- AQHI Grimshaw
- Peace River Complex (PRC) Station

Station ID	Station Name	Latitude	Longitude
1562	986c	56.36980	-116.92500
1561	842b	56.27406	-116.98129
1563	Reno	55.86936	-117.05739
1689	AQHI-Grimshaw	56.18657	-117.604994
1698	PRC	56.38257	-116.769283

Listing of Intermittent Monitoring Stations

- VOC Canister Sampling Station
 - 986c Station
 - 842b Station
 - Reno Station

Listing of PRAMP member with EPEA Facility Operating Approval

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

Monitoring Notes during the Month of May 2022

986c Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- **TRS:** Following a shut down calibration on May 12, the PRAMP-owned CD Nova CDN101 convertor, s/n: 583, was removed, and the BV-supplied CD Nova CDN101 convertor, s/n: 552,

was installed. A successful post-repair calibration was completed afterward. Seven hours of downtime were recorded due to this event.

- **TPX/RH:** On May 12, the BV-supplied Rotronic HC2-S3 sensor, s/n: 61116376, was removed, and the PRAMP-owned Rotronic HC2-S3 sensor, s/n: 20357528, was installed. The PRAMP-sensor was removed from the field and sent back to the manufacturer for repair and recalibration in March. Two hours of downtime were recorded due to this maintenance activity.

842b 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 identified this month.

Reno 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 RH (71.9%).
- **RH:** The probe failed on May 23 hour 7, and it was replaced on June 9 hour 10. 209 hours of downtime were recorded in May.

PRC Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- **TRS:** Following a shut down calibration on May 18, the BV-supplied Thermo 43i-TLE analyzer, s/n: 116460022, and the CD Nova CDN101 convertor, s/n: 553, was removed. The CNUL-owned Thermo 450i analyzer, s/n: 1034746224, and the CD Nova CDN101 convertor, s/n: 506, was installed following by a successful installation calibration. The CNUL's equipment was removed from the field and was serviced by BV; for the analyzer, the UV lamp was changed and the pump was rebuilt, and for the convertor, the quartz crystal tube was changed. One hour of downtime was recorded due to this event.

AQHI – Grimshaw Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) and /or Alberta Ambient Air Quality Guidelines (AAAQGs) 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 identified this month.

VOCs Canister Sampling Program

- The canister sampling program collects a 1-hour sample of air when the continuously measured non-methane hydrocarbon (NMHC) concentration reaches a specified trigger point. The current

trigger point is 0.3 ppm for non-methane hydrocarbons. The trigger point is based on real-time monitoring data that are averaged over a 5-minute period.

- The canister sample collection systems are in place at Station 986c, 842b, and the Reno Station; a canister sample collection system is not part of the suite of instruments currently deployed at the AQHI-Grimshaw Station.
- Sample analysis and analytical results were prepared and provided by InnoTech Alberta.
- One NMHC canister event was recorded at the 842b station on May 28.

Station	Parameter	Date	Time	Concentration (ppm)
842b	Non-methane HC	28-May	14:20	0.37

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

At the Reno station, nearby trees exceed the height allowed under section 2.3 of the wind speed and wind direction siting criteria in Chapter 3 of the AMD. This non-conformance was documented in the updated station site documents. Further actions are being considered including siting the wind sensor so that it meets AMD Chapter 3 siting requirements, or obtaining written authorization from “The Director” to deviate from AMD Siting requirements.

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).

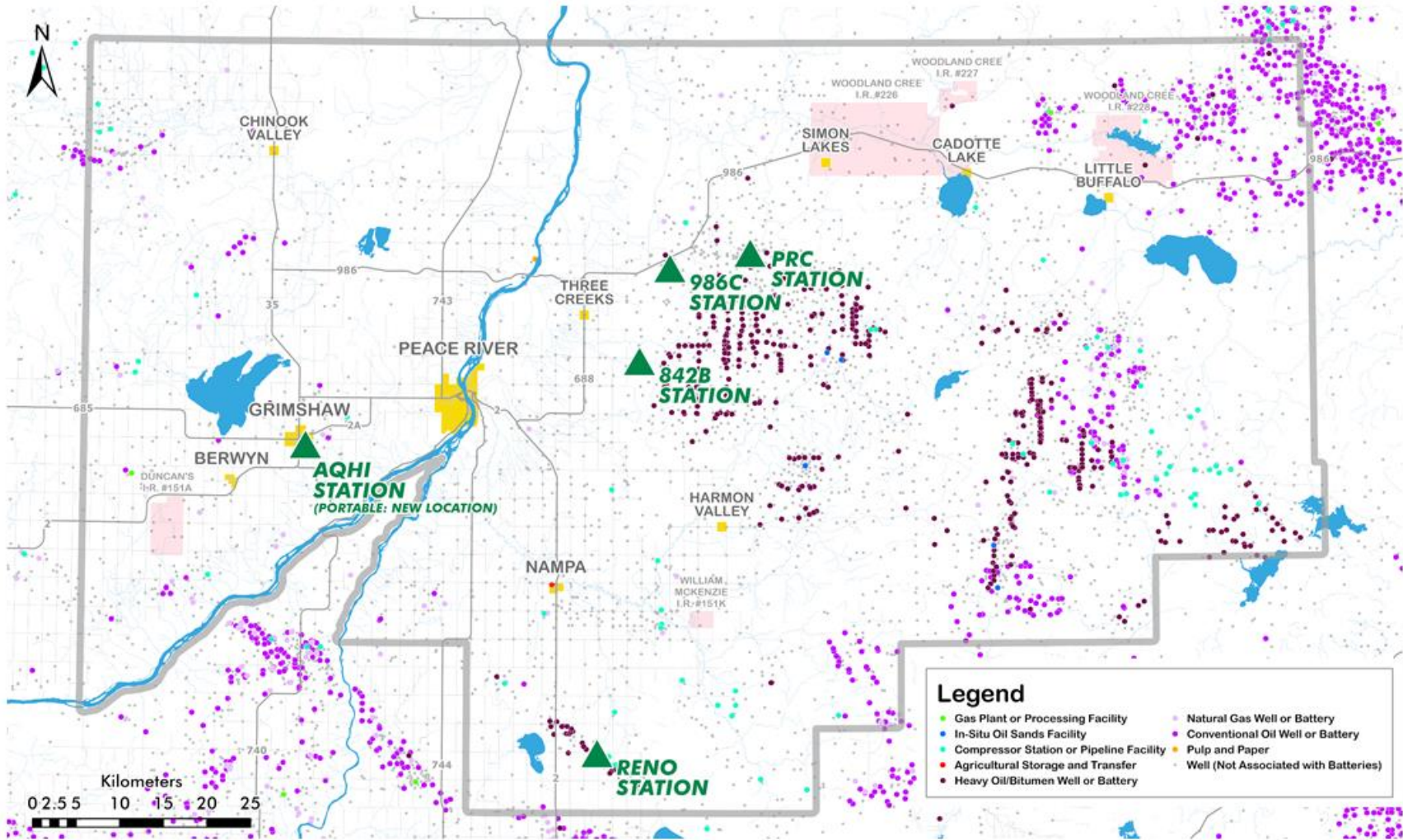
I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization and reporting requirements. I also certify that at the time of this report's submission, all 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

June 25, 2022

Map of PRAMP Continuous Monitoring Network



CONTINUOUS NETWORK EQUIPMENT AND MONITORING RESULTS SUMMARY

986c Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number
SO2	Thermo / 43iQTL	1193585646
<ul style="list-style-type: none"> • Due to a power outage event, no data were recorded between May 11 hour 16 and May 12 hour 2. Hourly data recorded on May 12 hour 3 was discarded as data quality was affected by the power outage. Twelve hours of downtime were recorded as a result. • A successful monthly calibration was performed on May 12. 		
TRS	Thermo / 43iQTL	1191833341
<ul style="list-style-type: none"> • Due to a power outage event, no data were recorded between May 11 hour 16 and May 12 hour 2. Hourly data recorded on May 12 hour 3 was discarded as data quality was affected by the power outage. Twelve hours of downtime were recorded as a result. • The analyzer failed the low-point calibration check on May 12. The analyzer was reset to the as-found condition in order to proceed with a shut down calibration. Following a successful shut down calibration on May 12, the PRAMP-owned CD Nova CDN101 convertor, s/n: 583, was removed, and the BV-supplied CD Nova CDN101 convertor, s/n: 552, was installed. A successful post-repair calibration was completed afterward. Seven hours of downtime were recorded due to this event. 		
THC/CH4/NMHC	Thermo / 55i	1193585652
<ul style="list-style-type: none"> • Due to a power outage event, no data were recorded between May 11 hour 16 and May 12 hour 2. Hourly data recorded on May 12 hour 3 was discarded as data quality was affected by the power outage. Twelve hours of downtime were recorded as a result. • A successful monthly calibration was performed on May 12. 		
Relative Humidity (RH)	Rotronic / HC2-S3	61116376 / 20357528
<ul style="list-style-type: none"> • Due to a power outage event, no data were recorded between May 11 hour 16 and May 12 hour 2. Eleven hours of downtime were recorded as a result. • On May 12, the BV-supplied Rotronic HC2-S3 sensor, s/n: 61116376, was removed, and the PRAMP-owned Rotronic HC2-S3 sensor, s/n: 20357528, was installed. The PRAMP-sensor was removed from the field and sent back to the manufacturer for repair/recalibration in March. Two hours of downtime were recorded due to this maintenance activity. 		

Parameter	Make / Model	Serial Number	
Barometric Pressure (BP)	MetOne / 092	Y23358	
<ul style="list-style-type: none"> • Due to a power outage event, no data were recorded between May 11 hour 16 and May 12 hour 2. Eleven hours of downtime were recorded as a result. • The BP sensor was checked on May 12. The sensor passed the check requirements. 			
Ambient Temperature (AT)	Rotronic / HC2-S3	61116376	
<ul style="list-style-type: none"> • Due to a power outage event, no data were recorded between May 11 hour 16 and May 12 hour 2. Eleven hours of downtime were recorded as a result. • On May 12, the BV-supplied Rotronic HC2A-S3 sensor, s/n: 61116376, was removed, and the PRAMP-owned Rotronic HC2A-S3 sensor, s/n: 20357528, was installed. The PRAMP-sensor was removed from the field and sent back to the manufacturer for repair/recalibration in March. Two hours of downtime were recorded due to this maintenance activity. 			
Station Temperature (ST)	COMET	18961918	
<ul style="list-style-type: none"> • Due to a power outage event, no data were recorded between May 11 hour 16 and May 12 hour 2. Eleven hours of downtime were recorded as a result. • No operational issues were recorded this month. 			
Precipitation (Precip)	RM Young / 52202	TB 16325	
<ul style="list-style-type: none"> • Due to a power outage event, no data were recorded between May 11 hour 16 and May 12 hour 2. Eleven hours of downtime were recorded as a result. • The precipitation gauge was checked on May 12. The sensor passed the check requirements. 			
Wind Speed/Wind Direction (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 April 12, 2022. • Due to a power outage event, no data were recorded between May 11 hour 16 and May 12 hour 2. Eleven hours of downtime were recorded as a result. • The anemometer sensors were checked on May 12. The sensor passed the check requirements. 			

Monitored Data Summary for 986c Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	1	May 13 at hour 23	11.2	WSW	0.1	May 16	98.4	93.4
TRS (ppb)	-	-	-	-	-	-	0.27	0.00	0.90	May 12 at hour 19	14.5	NE	0.61	May 13	97.4	92.6
THC (ppm)	-	-	-	-	-	-	2.22	2.06	2.53	May 31 at hour 5	2.7	ESE	2.34	May 31	98.4	93.5
CH4 (ppm)	-	-	-	-	-	-	2.22	2.06	2.53	May 31 at hour 5	2.7	ESE	2.34	May 31	98.4	93.5
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	May 1 at hour 0	13.5	ESE	0.00	May 1	98.4	93.5
RH (%)	-	-	-	-	-	-	62.3	14	97	May 2 at hour 5	11.1	ENE	93.5	May 6	98.3	98.3
BP (millibar)	-	-	-	-	-	-	938	918	954	May 20 at hour 8	7.4	N	953	May 20	98.5	98.5
Ext. Temp. (°C)	-	-	-	-	-	-	8.3	-4.3	20.3	May 31 at hour 17	7.2	WNW	13.0	May 31	98.3	98.3
Stn. Temp. (°C)	-	-	-	-	-	-	23.3	22.5	24.1	May 3 at hour 18	20.7	SW	23.5	May 12	98.5	98.5
Precipitation (mm)*	-	-	-	-	-	-	48.4	0.0	2.3	May 28 at hour 20	3.7	NW	15.3	May 6	98.5	98.5
WSV (km/hr)	-	-	-	-	-	-	0.9	0.4	33.1	May 16 at hour 12	33.1	ESE	18.0	May 29	98.5	98.5
WDV (sector)	-	-	-	-	-	-	42 (NE)	-	-	-	-	-	-	-	98.5	98.5

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 (AAAOs) and/or Alberta Ambient Air Quality Guidelines (AAAQGs) Exceedances at 986c Station

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

842b Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	
SO2	Thermo / 43iQTL	1200736629	
<ul style="list-style-type: none"> • A successful monthly calibration was performed on May 11. • Due to a power outage event, no data were recorded between May 11 hour 15 and May 12 hour 2. Hourly data recorded on May 12 hour 3 was discarded as data quality was affected by the power outage. Thirteen hours of downtime were recorded as a result. 			
TRS	Thermo 43iQTL	1200736630	
<ul style="list-style-type: none"> • A successful monthly calibration was performed on May 11. • Due to a power outage event, no data were recorded between May 11 hour 15 and May 12 hour 2. Hourly data recorded on May 12 hour 3 was discarded as data quality was affected by the power outage. Thirteen hours of downtime were recorded as a result. 			
THC/CH4/NMHC	Thermo / 55i	1501663728	
<ul style="list-style-type: none"> • The channels were put offline on May 10 hour 16 and 17 while the N2 gas cylinder and the regulator were being changed. Two hours of downtime were recorded due to this event. • A successful monthly calibration was performed on May 11. • Due to a power outage event, no data were recorded between May 11 hour 15 and May 12 hour 2. Hourly data recorded on May 12 hour 3 was discarded as data quality was affected by the power outage. Thirteen hours of downtime were recorded as a result. 			
Relative Humidity (RH)	Rotronic / HC2A-S3	20370767	
<ul style="list-style-type: none"> • The RH sensor was checked on May 11. The sensor passed the check requirements. • Due to a power outage event, no data were recorded between May 11 hour 15 and May 12 hour 2. Twelve hours of downtime were recorded as a result. 			

Parameter	Make / Model	Serial Number	
Barometric Pressure (BP)	MetOne / 092	Y23362	
<ul style="list-style-type: none"> The BP sensor was checked on May 11. The sensor passed the check requirements. Due to a power outage event, no data were recorded between May 11 hour 15 and May 12 hour 2. Twelve hours of downtime were recorded as a result. 			
Ambient Temperature (AT)	Rotronic / HC2A-S3	20370767	
<ul style="list-style-type: none"> The temperature sensor was checked on May 11. The sensor passed the check requirements. Due to a power outage event, no data were recorded between May 11 hour 15 and May 12 hour 2. Twelve hours of downtime were recorded as a result. 			
Station Temperature (ST)	COMET	20790297	
<ul style="list-style-type: none"> Due to a power outage event, no data were recorded between May 11 hour 15 and May 12 hour 2. Twelve hours of downtime were recorded as a result. 			
Precipitation (Precip)	RM Young / 52202	TB 15878	
<ul style="list-style-type: none"> The precipitation gauge was checked on May 11. The sensor passed the check requirements. Due to a power outage event, no data were recorded between May 11 hour 15 and May 12 hour 2. Twelve hours of downtime were recorded as a result. 			
Wind Speed/Wind Direction (WS/ WD)	RM Young / 05305AQ	174802	
<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 July 4, 2021. The anemometer sensors were checked on May 11. The sensor passed the check requirements. Due to a power outage event, no data were recorded between May 11 hour 15 and May 12 hour 2. Twelve hours of downtime were recorded as a result. 			

Monitored Data Summary for 842b Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	1	May 8 at hour 18	12.8	NW	0.1	May 8	98.3	93.4
TRS (ppb)	-	-	-	-	-	-	0.59	0.19	1.21	May 31 at hour 2	1	ESE	0.91	May 7	98.3	93.4
THC (ppm)	-	-	-	-	-	-	1.87	1.83	2.07	May 21 at hour 3	3.2	ENE	1.92	May 1	98.0	93.4
CH4 (ppm)	-	-	-	-	-	-	1.87	1.83	2.07	May 21 at hour 3	3.2	ENE	1.92	May 1	98.0	93.4
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.03	May 28 at hour 14	9.2	W	0.00	May 28	98.0	93.4
RH (%)	-	-	-	-	-	-	66.0	17	100	May 2 at hour 2	6.5	E	99.5	May 6	98.4	98.4
BP (millibar)	-	-	-	-	-	-	937	917	953	May 20 at hour 9	8.5	N	952	May 20	98.4	98.4
Ext. Temp. (°C)	-	-	-	-	-	-	8.4	-4.9	20.6	May 31 at hour 16	6.9	WNW	13.5	May 23	98.4	98.4
Stn. Temp. (°C)	-	-	-	-	-	-	22.4	20.5	24.0	May 5 at hour 21	9.4	NE	22.8	May 16	98.4	98.4
Precipitation (mm)*	-	-	-	-	-	-	52.5	0.0	3.6	May 25 at hour 12	6.8	ENE	17.4	May 6	98.4	98.4
WSV (km/hr)	-	-	-	-	-	-	1.6	0.2	24.9	May 4 at hour 13	24.9	SW	14.8	May 7	98.4	98.4
WDV (sector)	-	-	-	-	-	-	282 (W)	-	-	-	-	-	-	-	98.4	98.4

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) and/or Alberta Ambient Air Quality Guidelines (AAAQGs) Exceedances at 842b Station

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

Reno Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	
SO2	Thermo 43iQTL	12101910505	
<ul style="list-style-type: none"> • A successful monthly calibration was performed on May 10. • No operational issues were identified this month. 			
TRS	Thermo 43iQTL	12101910504	
<ul style="list-style-type: none"> • A successful monthly calibration was performed on May 10. • No operational issues were identified this month. 			
THC/CH4/NMHC	Thermo / 55i	12101910497	
<ul style="list-style-type: none"> • The analyzer was put offline on May 10 hour 9 and 10 while the deionizer and desiccant for the hydrogen generator were being replaced. A successful monthly calibration was performed afterwards. Two hours of downtime were recorded due to this maintenance. • No operational issues were identified this month. 			
Relative Humidity (RH)	RM Young / 43172VC	60837897	
<ul style="list-style-type: none"> • The RH sensor was checked on May 10. The sensor passed the check requirements. • The RH probe failed on May 23 hour 7, and it was replaced on June 9 hour 10. Two hundred and nine hours of downtime were recorded in May. 			
Barometric Pressure (BP)	MetOne / 092	K12864	
<ul style="list-style-type: none"> • The BP sensor was checked on May 10. The sensor passed the check requirements. • No operational issues were identified this month. 			
Ambient Temperature (AT)	RM Young / 43172VC	60837897	
<ul style="list-style-type: none"> • The AT sensor was checked on May 10. The sensor passed the check requirements. • No operational issues were identified this month. 			

Parameter	Make / Model	Serial Number	
Station Temperature (ST)	Bureau Veritas Canada	N/A	
<ul style="list-style-type: none"> No operational issues were identified this month. 			
Precipitation (Precip)	RM Young / 5202	TB15877	
<ul style="list-style-type: none"> The precipitation gauge was checked on May 10. The sensor passed the check requirements. No operational issues were identified this month. 			
Wind Speed/Wind Direction (WS/ WD)	RM Young / 5305VK	149769	
<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 July 5, 2021. The anemometer sensors were checked on May 10. The sensor passed the check requirements. No operational issues were identified this month. 			

Monitored Data Summary for Reno Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	1	May 15 at hour 7	5.9	SW	0.1	May 15	100.0	95.0
TRS (ppb)	-	-	-	-	-	-	0.15	0.00	0.96	May 4 at hour 6	4.8	SSW	0.22	May 26	100.0	94.7
THC (ppm)	-	-	-	-	-	-	1.99	1.92	2.49	May 18 at hour 5	1.7	SSW	2.08	May 21	99.7	94.7
CH4 (ppm)	-	-	-	-	-	-	1.99	1.92	2.49	May 18 at hour 5	1.7	SSW	2.08	May 21	99.7	94.7
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	May 1 at hour 0	6.6	ESE	0.00	May 1	99.7	94.7
RH (%)	-	-	-	-	-	-	60.9	0	100	May 1 at hour 3	11.6	E	100.0	May 7	71.9	71.9
BP (millibar)	-	-	-	-	-	-	935	915	951	May 20 at hour 9	6.8	NNW	950	May 20	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	8.5	-3.9	20.6	May 31 at hour 17	2.5	NNW	13.6	May 31	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	23.5	21.7	24.8	May 11 at hour 19	3.8	S	23.9	May 28	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	40.2	0.0	2.5	May 1 at hour 10	8	ESE	10.6	May 1	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	0.8	0.0	17.2	May 16 at hour 2	17.2	E	9.4	May 29	100.0	100.0
WDV (sector)	-	-	-	-	-	-	272 (W)	-	-	-	-	-	-	-	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) and/or Alberta Ambient Air Quality Guidelines (AAAQGs) Exceedances at Reno Station

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

PRC Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	
SO2	Thermo 43i	1034746225	
<ul style="list-style-type: none"> A successful monthly calibration was performed on May 18. Due to a datalogger error, no data was collected on May 18 hour 15. One hour of downtime was recorded due to this event. 			
H2S	Thermo 450i	1308857354	
<ul style="list-style-type: none"> A successful monthly calibration was performed on May 18. No operational issues were identified this month. 			
TRS	Thermo 43i-TLE / Thermo 450i	1162460022 / 1034746224	
<ul style="list-style-type: none"> Following a shut down calibration on May 18, the BV-supplied Thermo 43i-TLE analyzer, s/n: 116460022, and the CD Nova CDN101 convertor, s/n: 553, were removed. The CNUL-owned Thermo 450i analyzer, s/n: 1034746224, and the CD Nova CDN101 convertor, s/n: 506, were installed following by a successful installation calibration. The CNUL's equipment were removed from the field and were serviced by BV; for the analyzer, the UV lamp was changed and the pump was rebuilt, and for the convertor, the quartz crystal tube was changed. One hour of downtime was recorded due to this event. 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 May 18. The analyzer failed due to low fuel pressure on May 28 hour 8. The gas cylinder was replaced on May 29 hour 7 following by a successful zero-span check. Twenty-four hours of downtime were recorded due to this event. 			
Relative Humidity (RH)	RM Young / 43172VC	60837897	
<ul style="list-style-type: none"> The RH sensor was checked on May 18. The sensor passed the check requirements. No operational issues were identified this month. 			

Parameter	Make / Model	Serial Number	
Ambient Temperature (AT)	Rotronic C2-S3	28558318	
<ul style="list-style-type: none"> • The AT sensor was checked on May 18. The sensor passed the check requirements. • No operational issues were identified this month. 			
Barometric Pressure (BP)	MetOne 092	B19577	
<ul style="list-style-type: none"> • The BP sensor was checked on May 18. The sensor passed the check requirements. • No operational issues were identified this month. 			
Station Temperature (ST)	Canadian Natural	N/A	
<ul style="list-style-type: none"> • No operational issues were identified this month. 			
Wind Speed/Wind Direction (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 June 16, 2021. • The anemometer sensors were checked on May 10. The sensor passed the check requirements. • No operational issues were identified this month. 			

Monitored Data Summary for Peace River Complex (PRC) Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	1	May 10 at hour 14	1.3	W	0.2	May 16	99.9	94.9
H2S (ppb)	10	3	-	0	0	-	0.0	0	0	May 1 at hour 0	11.4	E	0.0	May 1	100.0	94.5
TRS (ppb)	-	-	-	-	-	-	0.0	0	1	May 23 at hour 20	18.0	E	0.1	24-May	99.9	94.5
THC (ppm)	-	-	-	-	-	-	1.98	1.92	2.30	May 16 at hour 21	4	SSW	2.03	May 1	96.8	91.9
CH4 (ppm)	-	-	-	-	-	-	1.98	1.92	2.10	May 21 at hour 6	2.6	SSW	2.03	May 1	96.8	91.9
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.25	May 16 at hour 21	4	SSW	0.02	May 17	96.8	91.9
RH (%)	-	-	-	-	-	-	64.3	15	99	May 25 at hour 1	1.9	NNE	95.2	May 6	100.0	100.0
BP (millibar)	-	-	-	-	-	-	939	919	954	May 20 at hour 7	5.2	N	953	May 20	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	7.8	-5.0	20.6	May 31 at hour 17	8.3	NW	12.4	May 31	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	22.6	18.2	23.9	May 9 at hour 11	14.3	WNW	23.5	May 6	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	0.3	0.3	28.0	May 4 at hour 14	28	SW	15.5	May 7	100.0	100.0
WDV (sector)	-	-	-	-	-	-	237 (SW)	-	-	-	-	-	-	-	100.0	100.0

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

Alberta Ambient Air Quality Objectives (AAAQOs) and/or Alberta Ambient Air Quality Guidelines (AAAQGs) Exceedances at Peace River Complex (PRC) Station

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

AQHI – Grimshaw Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	
SO2	Teledyne / T100	722	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. A successful monthly calibration was performed on May 19. 			
TRS	Teledyne / T100U	132	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. A successful monthly calibration was performed on May 19. 			
NOx/NO/NO2	Teledyne / T200	837	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. A successful monthly calibration was performed on May 19. 			
O3	API / 400A	445	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. A successful monthly calibration was performed on May 19. 			

Parameter	Make / Model	Serial Number	
THC/CH4/NMHC	Thermo / 55i	1191032505	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. The analyzer was put offline on May 19 hour 10 and 11 while the deionizer and desiccant for the hydrogen generator were being replaced. A successful monthly calibration was performed afterwards. Two hours of downtime were recorded due to this maintenance. 			
PM 2.5	Teledyne / T640	318	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. A successful monthly calibration was performed on May 19. 			
Relative Humidity (RH)	Vaisala / HMP155	N2910506	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. The sensor was checked on May 19. The sensor passed the check requirements. 			
Barometric Pressure (BP)	MetOne / 092	A2397	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. The sensor was checked on May 19. The sensor passed the check requirements. 			
Ambient Temperature (AT)	Vaisala / HMP155	N2910506	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. The sensor was checked on May 19. The sensor passed the check requirements. 			

Parameter	Make / Model	Serial Number	
Station Temperature (ST)	COMET	N/A	
<ul style="list-style-type: none"> Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. 			
Wind Speed/Wind Direction (WS/ WD)	RM Young / 05305AQ	174801	
<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 July 22, 2021. The anemometer sensors were checked on May 19. The sensor passed the check requirements. Hourly data recorded on May 3 hour 11 was invalidated as the data quality was affected by a short power outage. One hour of downtime was recorded. 			

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	May 15 at hour 3	8.5	WNW	0.3	May 15	99.9	94.9
TRS (ppb)	-	-	-	-	-	-	0.42	0.00	14.24	May 3 at hour 2	3.8	ESE	1.17	May 3	99.9	94.6
NOx (ppb)	-	-	-	-	-	-	2.5	0	17	May 17 at hour 20	9.1	WSW	5.6	May 14	99.9	94.6
NO (ppb)	-	-	-	-	-	-	0.5	0	7	May 17 at hour 20	9.1	WSW	2.1	May 14	99.9	94.6
NO2 (ppb)	159	-	-	0	-	-	2.0	0	15	May 11 at hour 4	0.7	SSW	4.2	May 31	99.9	94.6
O3 (ppb)	76	-	-	0	-	-	32.9	3	52	May 13 at hour 13	4.5	SE	42.5	May 13	99.9	94.7
THC (ppm)	-	-	-	-	-	-	2.02	1.96	2.43	May 12 at hour 0	3.1	N	2.09	May 31	99.6	94.5
CH4 (ppm)	-	-	-	-	-	-	2.02	1.96	2.29	May 12 at hour 0	3.1	N	2.08	May 31	99.6	94.5
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.13	May 12 at hour 0	3.1	N	0.02	May 31	99.6	94.5
PM2.5 (µg/m3)	80	30	-	0	0	-	3.4	0.0	14.0	May 25 at hour 23	3.4	N	6.0	May 25	99.9	99.6
RH (%)	-	-	-	-	-	-	59.9	17	98	May 6 at hour 2	9.2	NNE	92.6	May 6	99.9	99.9
BP (millibar)	-	-	-	-	-	-	939	919	955	May 20 at hour 12	10.4	NNE	953	May 20	99.9	99.9
Ext. Temp. (°C)	-	-	-	-	-	-	9.0	-3.7	21.1	May 31 at hour 16	1.1	ENE	14.7	May 31	99.9	99.9
Stn. Temp. (°C)	-	-	-	-	-	-	22.5	20.9	23.6	May 5 at hour 4	3.1	SSW	22.9	May 4	99.9	99.9
WSV (km/hr)	-	-	-	-	-	-	9.6	0.4	30.0	May 16 at hour 18	30	W	17.8	May 7	99.9	99.9
WDV (sector)	-	-	-	-	-	-	335 (NNW)	-	-	-	-	-	-	-	99.9	99.9

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

Alberta Ambient Air Quality Objectives (AAAOs) and/or Alberta Ambient Air Quality Guidelines (AAAGs) Exceedances at AQHI - Grimshaw Station

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

TABLES, CHARTS, WIND ROSES AND EQUIPMENT CALIBRATION RECORDS

986c STATION



PEACE RIVER AREA MONITORING PROGRAM

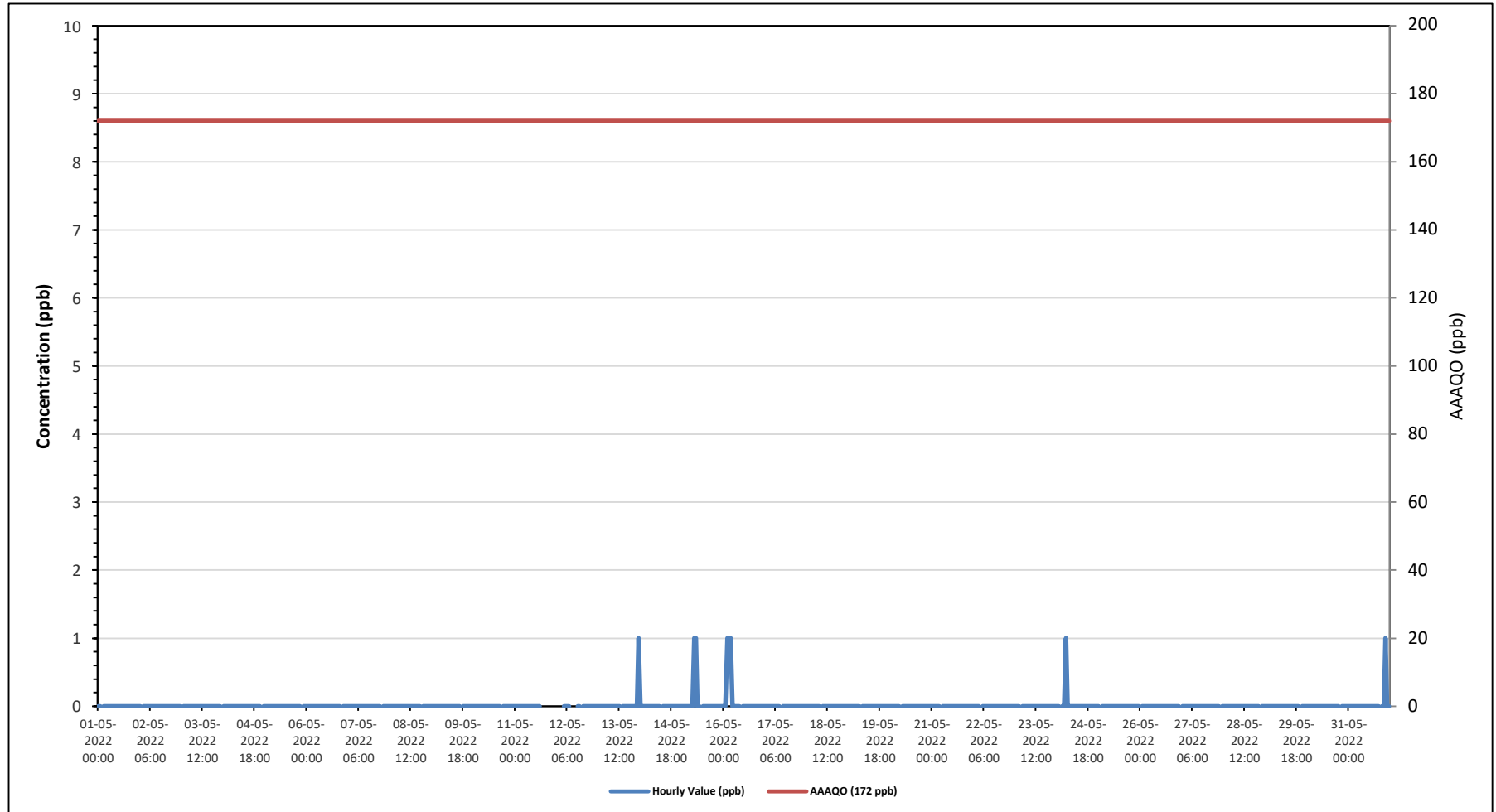
986c Station - May 2022

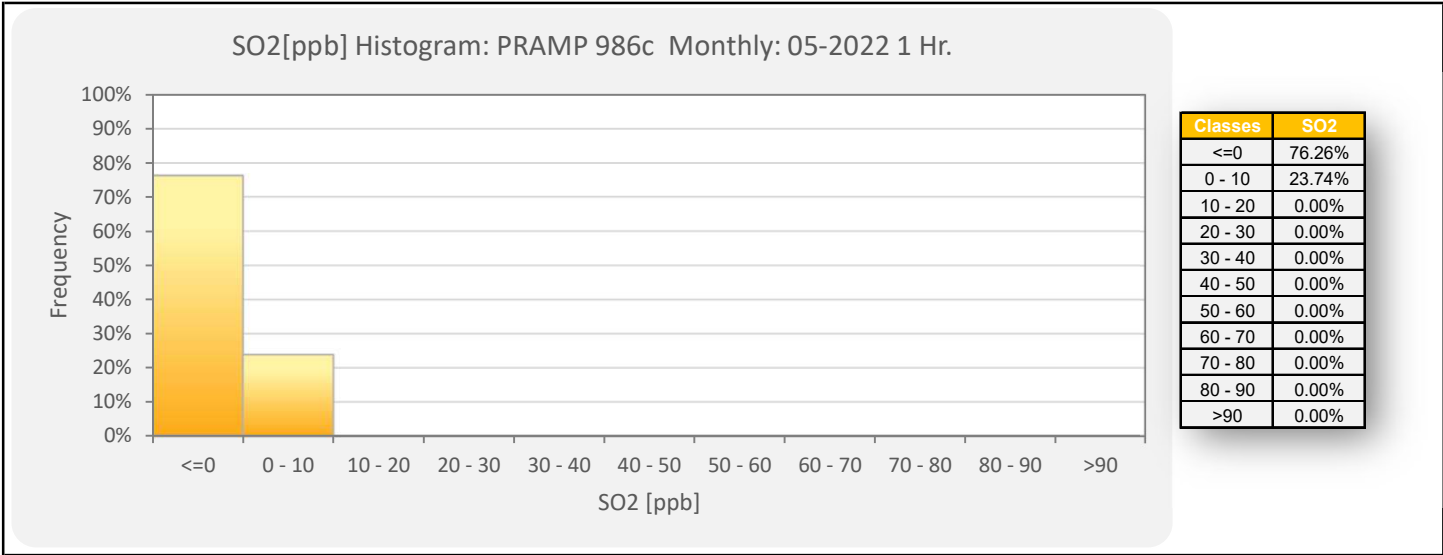
Summary of Hourly Averages

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 May 13 at hour 23					Hours in Service:					744														
Maximum Daily Value:					0.1 ppb on May 16					Hours of Data:					695														
Minimum Hourly Value:					0 ppb on May 1 at hour 0					Hours of Missing Data:					12														
Minimum Daily Value:					0.0 ppb on May 1					Hours of Calibration:					37														
Monthly Average:					0.0 ppb					Operational Uptime:					98.4														
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
May 1	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 2	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 3	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0		
May 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0		
May 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0		
May 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0		
May 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0		
May 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0.0		
May 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0		
May 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0		
May 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	P	P	P	P	P	P	P	P	0	0	-		
May 12	P	P	P	X	0	0	0	0	C	C	C	C	0	S	0	0	0	0	0	0	0	0	0	0	0	0	-		
May 13	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0	0	1	0	1	0.0		
May 14	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 15	0	0	0	0	0	0	0	1	1	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1		
May 16	0	0	1	1	1	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1		
May 17	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		
May 18	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 19	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 20	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 21	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 22	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 23	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 24	0	0	S	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0		
May 25	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
May 26	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0		
May 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0		
May 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0		
May 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0		
May 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0		
May 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	0	1	0.0		
Diurnal Maximum	0	0	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1					
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
C	Monthly Calibration										S	Daily Zero-Span Check					Q	Quality Assurance											
K	Collection Error										N	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.																													

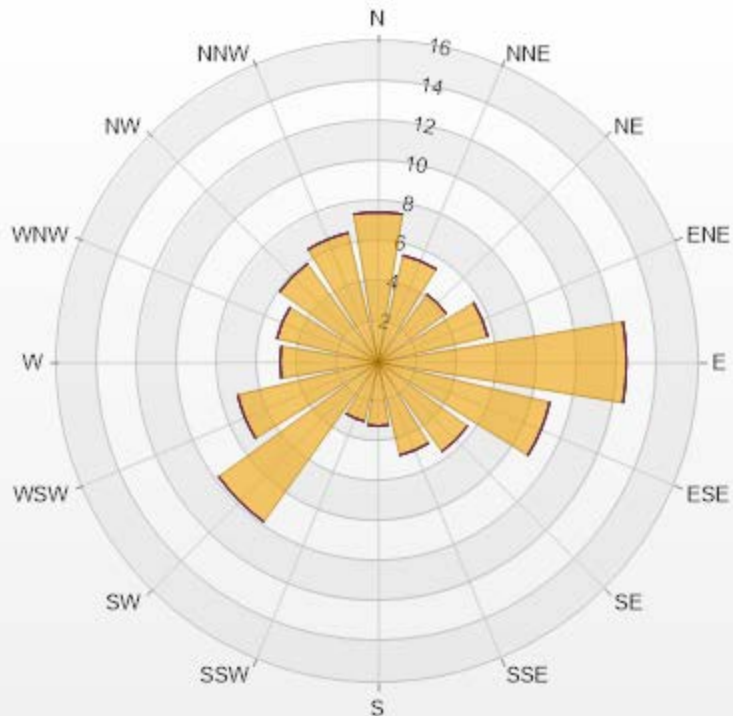
Timeseries Chart of Hourly Average for SO2 - 986c Station





Wind: PRAMP 986c Poll.: PRAMP 986c-SO2[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 93.41% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	7.48	0	0	0	0	7.48
NNE	5.47	0	0	0	0	5.47
NE	4.17	0	0	0	0	4.17
ENE	5.61	0	0	0	0	5.61
E	12.37	0	0	0	0	12.37
ESE	8.78	0	0	0	0	8.78
SE	5.47	0	0	0	0	5.47
SSE	4.75	0	0	0	0	4.75
S	3.17	0	0	0	0	3.17
SSW	3.02	0	0	0	0	3.02
SW	9.78	0	0	0	0	9.78
WSW	7.19	0	0	0	0	7.19
W	4.89	0	0	0	0	4.89
WNW	5.18	0	0	0	0	5.18
NW	6.04	0	0	0	0	6.04
NNW	6.62	0	0	0	0	6.62
Summary	100	0	0	0	0	100



PRAMP-202205

% Icon Classes (ppb)

100 0-10

0 10-50

0 50-100

0 100-172

0 >172.0



PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

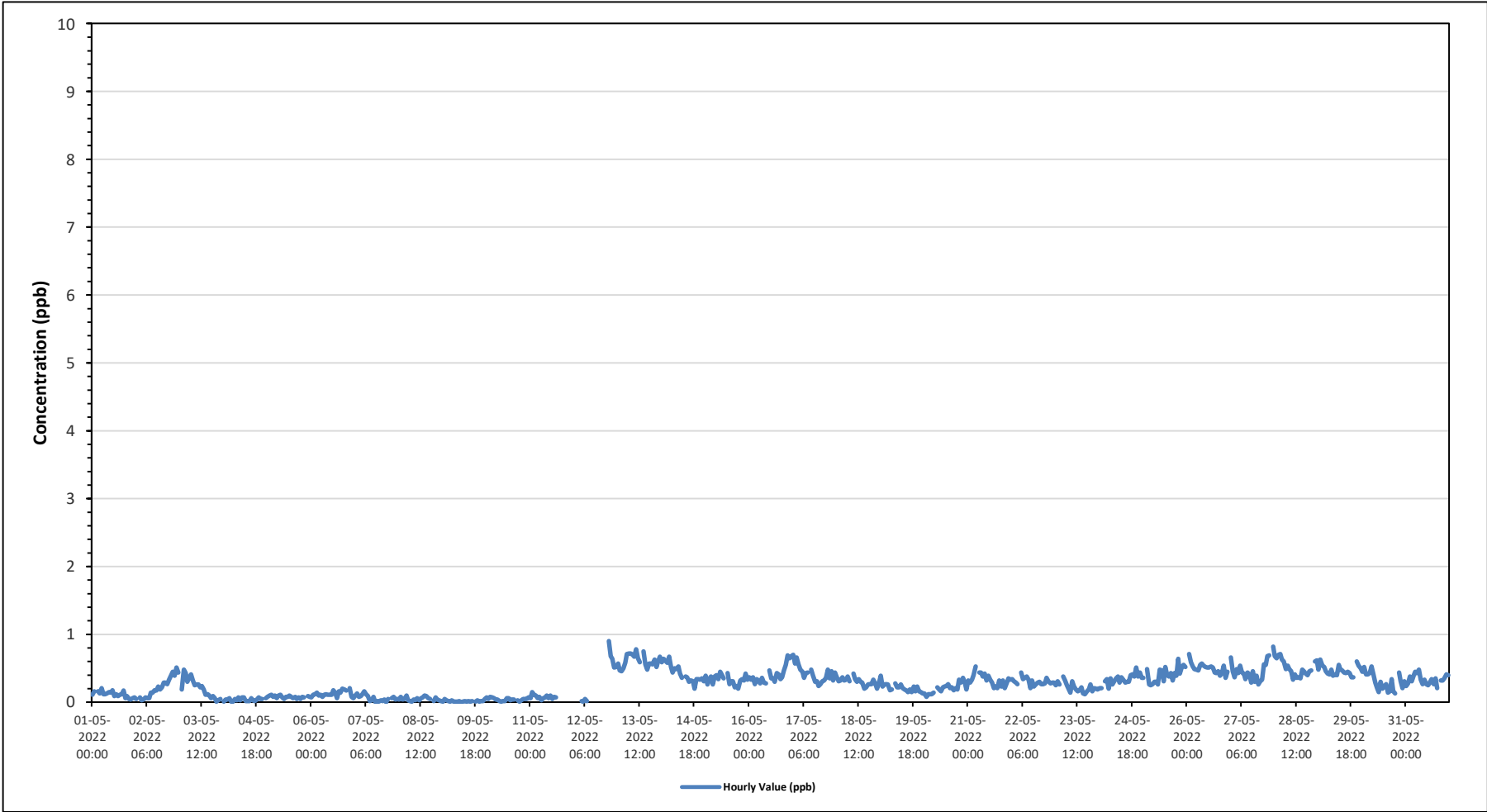
Summary of Hourly Averages

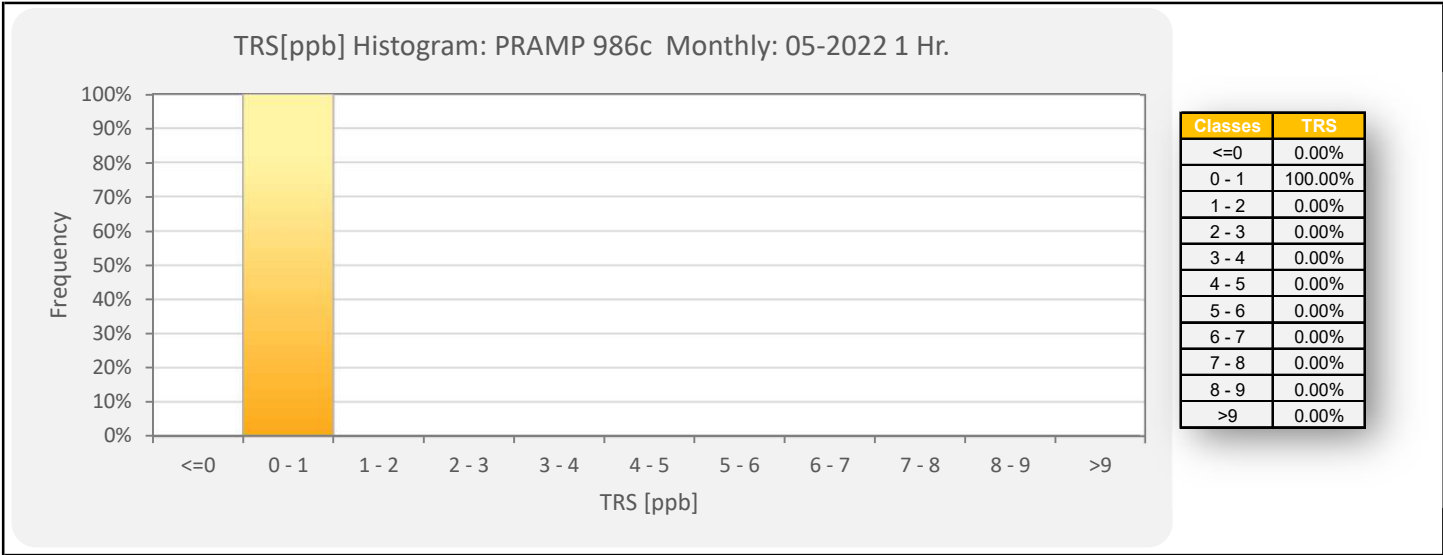
TOTAL REDUCED SULPHUR (TRS) in ppb

Maximum Hourly Value:	0.90 ppb on May 12 at hour 19	Hours in Service:	744
Maximum Daily Value:	0.61 ppb on May 13	Hours of Data:	689
Minimum Hourly Value:	0.00 ppb on May 7 at hour 11	Hours of Missing Data:	19
Minimum Daily Value:	0.02 ppb on May 9	Hours of Calibration:	36
Monthly Average:	0.27 ppb	Operational Uptime:	97.4

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
May 1	0.11	0.16	S	0.16	0.13	0.21	0.12	0.12	0.13	0.15	0.14	0.18	0.09	0.12	0.09	0.11	0.12	0.17	0.06	0.09	0.05	0.04	0.06	0.07	0.04	0.21	0.12
May 2	0.05	S	0.07	0.03	0.04	0.07	0.06	0.06	0.14	0.14	0.18	0.17	0.23	0.19	0.22	0.29	0.29	0.27	0.33	0.4	0.45	0.39	0.51	0.44	0.03	0.51	0.22
May 3	S	0.19	0.48	0.43	0.3	0.36	0.41	0.32	0.25	0.26	0.26	0.22	0.24	0.19	0.11	0.12	0.1	0.06	0.09	0.06	0.01	0.03	0.05	S	0.01	0.48	0.21
May 4	0.01	0.04	0.04	0.06	0.01	0.01	0.05	0.03	0.07	0.03	0.07	0.07	0.02	0.02	0.02	0.06	0.03	0.02	0.04	0.07	0.05	0.05	S	0.06	0.01	0.07	0.04
May 5	0.08	0.1	0.11	0.08	0.1	0.06	0.1	0.11	0.07	0.05	0.08	0.08	0.1	0.08	0.06	0.08	0.05	0.07	0.05	0.08	0.07	S	0.09	0.08	0.05	0.11	0.08
May 6	0.07	0.11	0.12	0.14	0.1	0.11	0.08	0.11	0.12	0.11	0.11	0.11	0.18	0.14	0.06	0.16	0.14	0.2	0.19	0.17	S	0.21	0.08	0.06	0.06	0.21	0.13
May 7	0.1	0.13	0.08	0.09	0.12	0.16	0.12	0.09	0.02	0.03	0.08	0	0.02	0.01	0.03	0.02	0.04	0	0.05	S	0.06	0.08	0.04	0.05	0.00	0.16	0.06
May 8	0.04	0.08	0.04	0.05	0.1	0.03	0.02	0.01	0.04	0.03	0.06	0.03	0.06	0.07	0.1	0.09	0.06	0.05	S	S	0.02	0.07	0.04	0.03	0.02	0.01	0.05
May 9	0.01	0.05	0.03	0.02	0.01	0.03	0.01	0.01	0.01	0.02	0	0.01	0.02	0.01	0.02	0.01	0.02	S	0.01	0.03	0.01	0.02	0.02	0.05	0.00	0.05	0.02
May 10	0.07	0.05	0.08	0.07	0.06	0.04	0.04	0.02	0.01	0.02	0.02	0.06	0.06	0.03	0.04	0.04	S	0.03	0.01	0.03	0.05	0.05	0.05	0.07	0.01	0.08	0.04
May 11	0.06	0.15	0.11	0.1	0.06	0.08	0.03	0.06	0.07	0.1	0.06	0.1	0.05	0.08	0.07	S	P	P	P	P	P	P	P	P	0.03	0.15	-
May 12	P	P	P	X	0.02	0.01	0.05	0.02	NRM	NRM	NRM	NRM	C	C	NRM	NRM	NRM	C	C	P	P	P	P	P	0.01	0.90	-
May 13	0.57	0.47	0.46	0.5	0.58	0.71	0.72	0.72	0.7	0.67	0.78	0.65	0.59	S	0.75	0.56	0.48	0.57	0.57	0.56	0.63	0.52	0.6	0.67	0.46	0.78	0.61
May 14	0.59	0.64	0.61	0.58	0.67	0.52	0.44	0.5	0.49	0.53	0.42	0.36	S	0.38	0.37	0.3	0.32	0.31	0.2	0.34	0.34	0.33	0.35	0.31	0.20	0.67	0.43
May 15	0.39	0.26	0.34	0.38	0.26	0.38	0.4	0.34	0.45	0.4	0.35	S	0.43	0.27	0.31	0.31	0.22	0.24	0.2	0.32	0.34	0.32	0.42	0.33	0.20	0.45	0.33
May 16	0.37	0.33	0.37	0.27	0.34	0.32	0.28	0.36	0.29	0.28	S	0.47	0.35	0.35	0.3	0.43	0.41	0.34	0.37	0.47	0.55	0.69	0.65	0.68	0.27	0.69	0.40
May 17	0.7	0.57	0.66	0.56	0.48	0.45	0.36	0.43	0.44	S	0.48	0.39	0.3	0.31	0.24	0.27	0.31	0.32	0.36	0.48	0.35	0.46	0.32	0.44	0.24	0.70	0.42
May 18	0.37	0.31	0.32	0.37	0.32	0.33	0.38	0.31	S	0.42	0.34	0.3	0.34	0.3	0.29	0.2	0.22	0.26	0.27	0.27	0.33	0.28	0.2	0.28	0.20	0.42	0.30
May 19	0.39	0.23	0.26	0.27	0.26	0.18	0.19	S	0.28	0.22	0.22	0.26	0.21	0.19	0.17	0.15	0.19	0.15	0.23	0.16	0.23	0.16	0.15	0.13	0.13	0.39	0.21
May 20	0.13	0.08	0.12	0.12	0.12	0.14	S	0.22	0.19	0.16	0.22	0.23	0.24	0.27	0.21	0.22	0.18	0.21	0.19	0.33	0.29	0.36	0.29	0.19	0.08	0.36	0.20
May 21	0.32	0.29	0.33	0.4	0.53	S	0.44	0.44	0.38	0.42	0.32	0.39	0.33	0.29	0.21	0.23	0.21	0.32	0.23	0.32	0.21	0.28	0.35	0.33	0.21	0.53	0.33
May 22	0.34	0.31	0.29	0.27	S	0.44	0.34	0.36	0.38	0.33	0.21	0.32	0.23	0.26	0.29	0.3	0.27	0.27	0.28	0.36	0.31	0.28	0.29	0.29	0.21	0.44	0.31
May 23	0.25	0.31	0.26	S	0.38	0.32	0.25	0.2	0.14	0.31	0.23	0.19	0.16	0.18	0.22	0.13	0.12	0.16	0.19	0.26	0.16	0.21	0.2	0.19	0.12	0.38	0.22
May 24	0.21	0.21	S	0.31	0.34	0.2	0.35	0.26	0.31	0.35	0.38	0.29	0.37	0.33	0.29	0.3	0.4	0.41	0.38	0.51	0.38	0.44	0.36	0.20	0.51	0.33	
May 25	0.36	S	0.49	0.26	0.25	0.27	0.3	0.3	0.26	0.48	0.47	0.31	0.52	0.4	0.38	0.43	0.32	0.43	0.39	0.64	0.42	0.51	0.55	0.52	0.25	0.64	0.40
May 26	S	0.71	0.59	0.53	0.49	0.48	0.47	0.55	0.57	0.54	0.52	0.51	0.51	0.53	0.51	0.44	0.43	0.46	0.39	0.43	0.54	0.36	0.45	S	0.36	0.71	0.50
May 27	0.66	0.46	0.37	0.49	0.43	0.54	0.44	0.42	0.34	0.44	0.41	0.29	0.46	0.3	0.39	0.26	0.31	0.33	0.56	0.55	0.68	0.69	S	0.82	0.26	0.82	0.46
May 28	0.68	0.65	0.7	0.71	0.63	0.6	0.49	0.54	0.49	0.46	0.33	0.41	0.36	0.37	0.35	0.48	0.46	0.42	0.4	0.46	0.47	S	0.6	0.62	0.33	0.71	0.51
May 29	0.48	0.63	0.54	0.52	0.46	0.42	0.41	0.48	0.39	0.41	0.4	0.55	0.48	0.47	0.44	0.43	0.45	0.43	0.37	0.37	S	0.6	0.54	0.5	0.37	0.63	0.47
May 30	0.45	0.52	0.41	0.41	0.43	0.53	0.41	0.29	0.21	0.15	0.3	0.2	0.24	0.27	0.14	0.16	0.34	0.16	0.13	S	0.44	0.31	0.21	0.31	0.13	0.53	0.31
May 31	0.24	0.28	0.38	0.31	0.39	0.45	0.43	0.48	0.33	0.27	0.33	0.27	0.25	0.29	0.34	0.27	0.35	0.21	S	0.32	0.32	0.35	0.41	0.41	0.21	0.48	0.33
Diurnal Maximum	0.70	0.71	0.70	0.71	0.67	0.71	0.72	0.72	0.70	0.67	0.78	0.65	0.59	0.53	0.75	0.56	0.48	0.57	0.57	0.90	0.68	0.69	0.65	0.82			
Diurnal Average	0.29	0.30	0.31	0.29	0.28	0.28	0.27	0.27	0.26	0.27	0.26	0.26	0.23	0.23	0.24	0.24	0.25	0.24	0.32	0.31	0.31	0.30	0.31				
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance										
K	Collection Error							N	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.																											

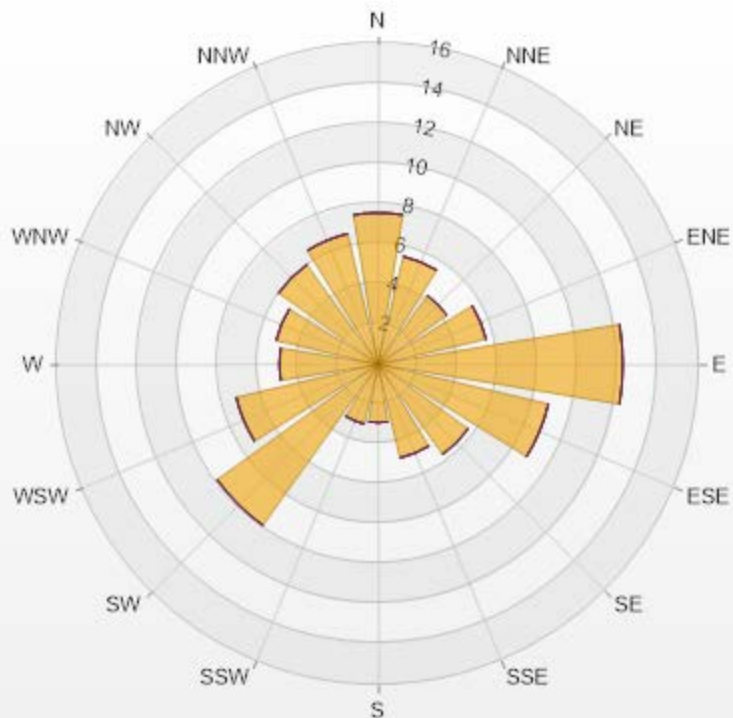
Timeseries Chart of Hourly Average for TRS - 986c Station





Wind: PRAMP 986c Poll.: PRAMP 986c-TRS[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 92.61% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	7.55	0	0	0	0	7.55
NNE	5.52	0	0	0	0	5.52
NE	4.21	0	0	0	0	4.21
ENE	5.52	0	0	0	0	5.52
E	12.19	0	0	0	0	12.19
ESE	8.71	0	0	0	0	8.71
SE	5.52	0	0	0	0	5.52
SSE	4.79	0	0	0	0	4.79
S	2.9	0	0	0	0	2.9
SSW	3.05	0	0	0	0	3.05
SW	9.87	0	0	0	0	9.87
WSW	7.26	0	0	0	0	7.26
W	4.93	0	0	0	0	4.93
WNW	5.22	0	0	0	0	5.22
NW	6.1	0	0	0	0	6.1
NNW	6.68	0	0	0	0	6.68
Summary	100	0	0	0	0	100



PRAMP-202205

Page 39 of 276

% Icon Classes (ppb)

100 0-2

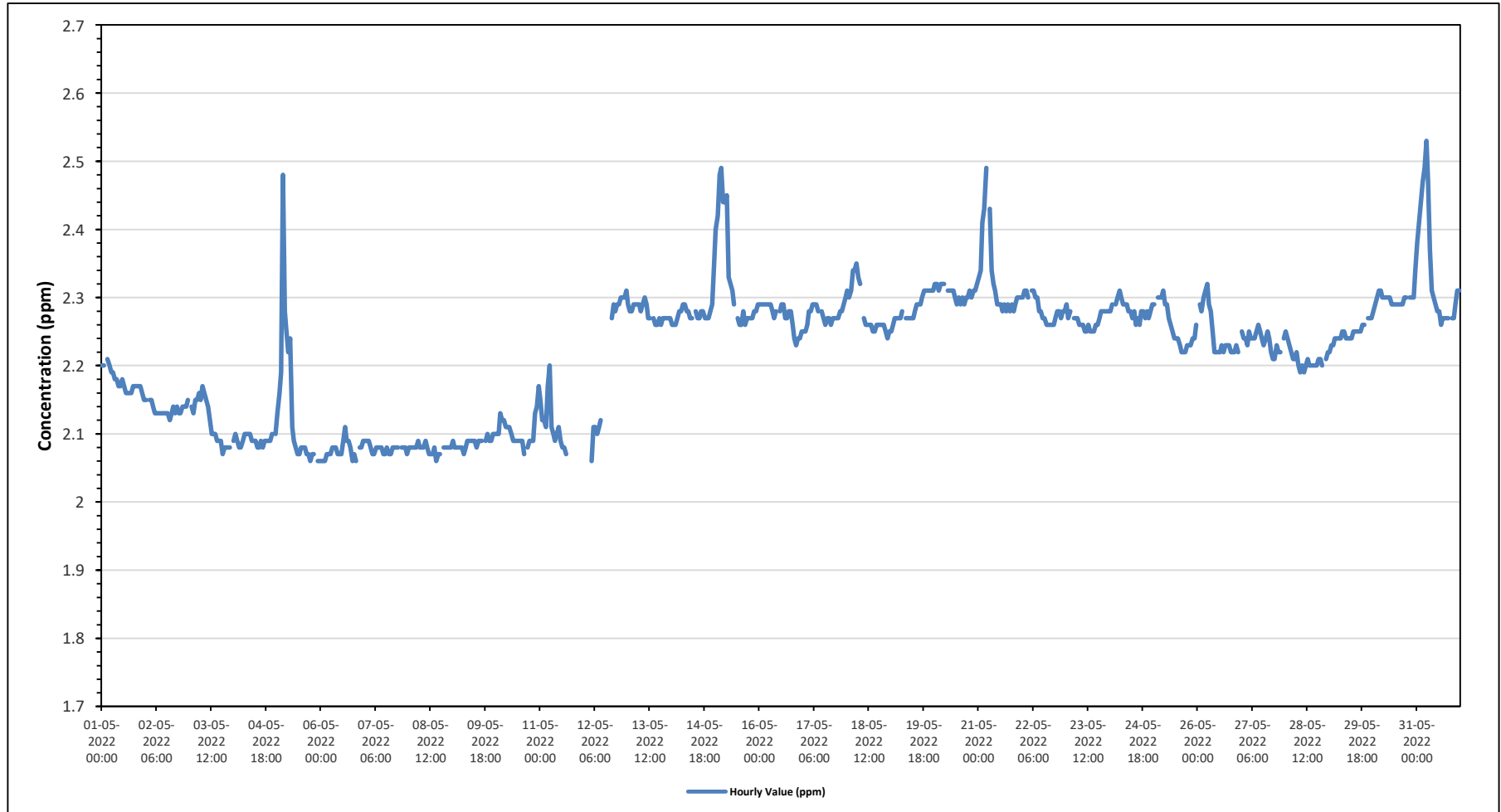
0 2-5

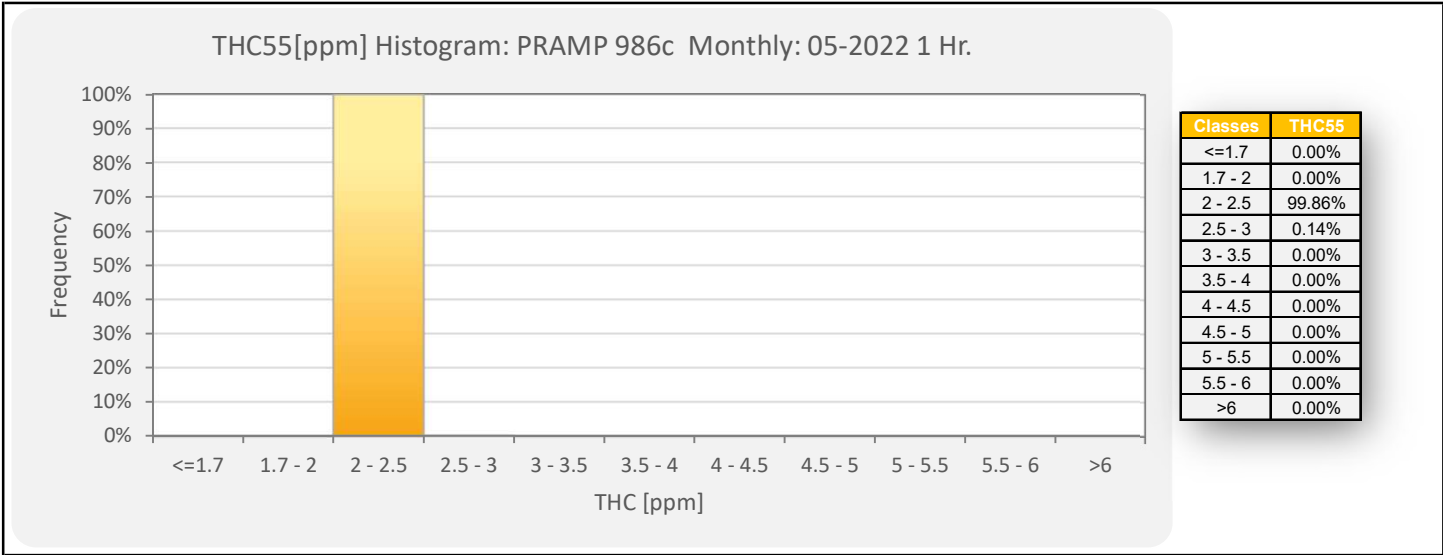
0 5-10

0 10-50

0 >50.0

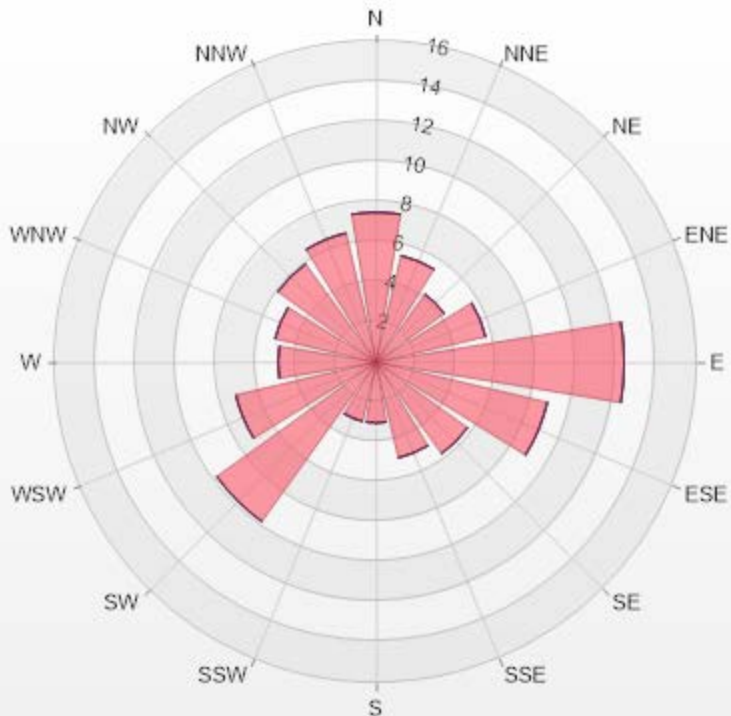
Timeseries Chart of Hourly Average for THC - 986c Station





Wind: PRAMP 986c Poll.: PRAMP 986c-THC55[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 93.55% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0	7.47	0	0	0	7.47
NNE	0	5.46	0	0	0	5.46
NE	0	4.17	0	0	0	4.17
ENE	0	5.6	0	0	0	5.6
E	0	12.36	0	0	0	12.36
ESE	0	8.76	0	0	0	8.76
SE	0	5.6	0	0	0	5.6
SSE	0	4.89	0	0	0	4.89
S	0	3.02	0	0	0	3.02
SSW	0	3.02	0	0	0	3.02
SW	0	9.77	0	0	0	9.77
WSW	0	7.18	0	0	0	7.18
W	0	4.89	0	0	0	4.89
WNW	0	5.17	0	0	0	5.17
NW	0	6.03	0	0	0	6.03
NNW	0	6.61	0	0	0	6.61
Summary	0	100	0	0	0	100



PRAMP-202205

Page 44 of 276

% Icon Classes (ppm)

0-2

2-5

5-10

10-40

>40.0



PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

Summary of Hourly Averages

METHANE (CH4) in ppm

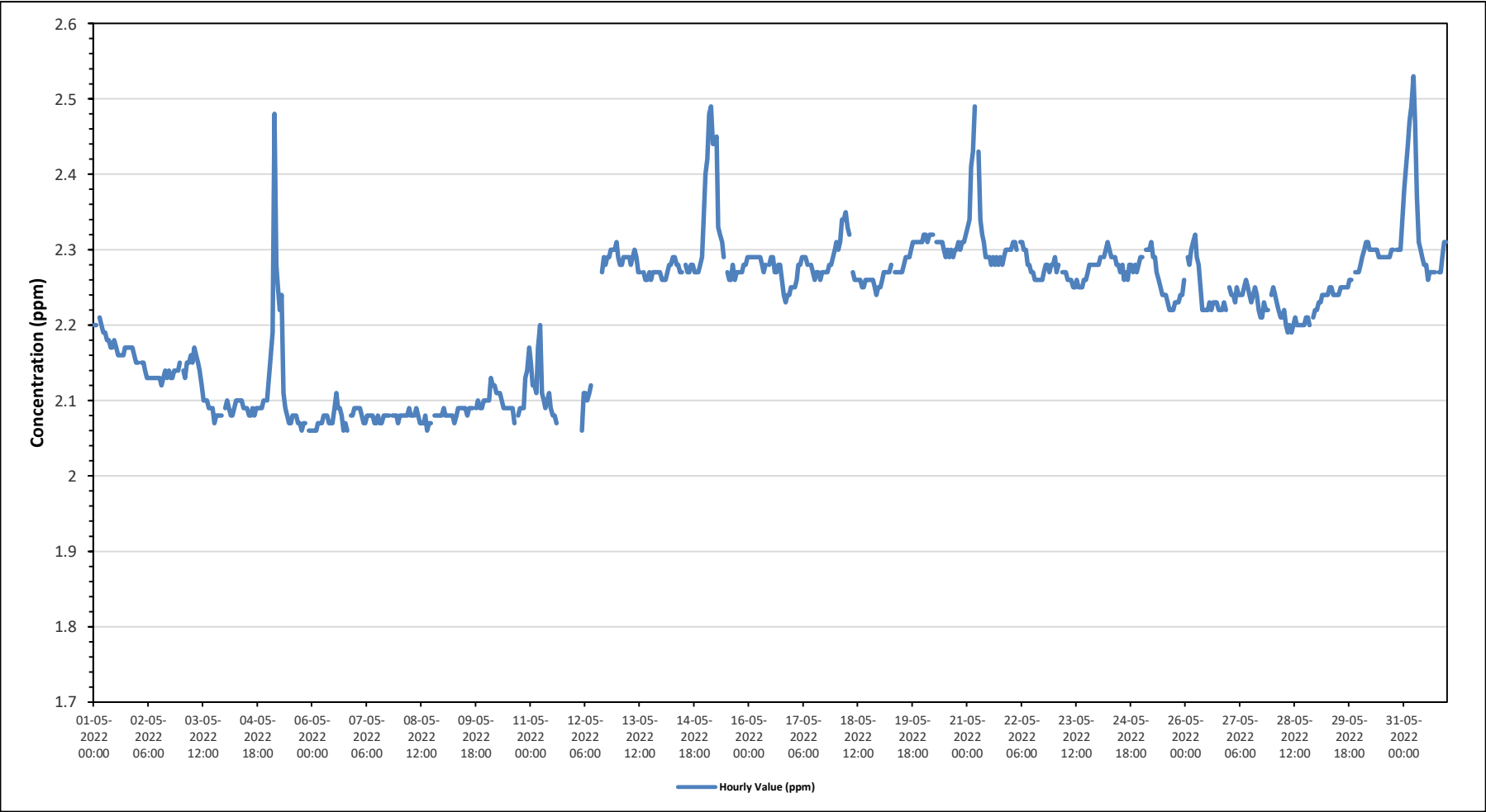
Maximum Hourly Value:	2.53 ppm	on May 31 at hour 5	Hours in Service:	744
Maximum Daily Value:	2.34 ppm	on May 31	Hours of Data:	696
Minimum Hourly Value:	2.06 ppm	on May 5 at hour 18	Hours of Missing Data:	12
Minimum Daily Value:	2.08 ppm	on May 6	Hours of Calibration:	36
Monthly Average:	2.22 ppm		Operational Uptime:	98.4

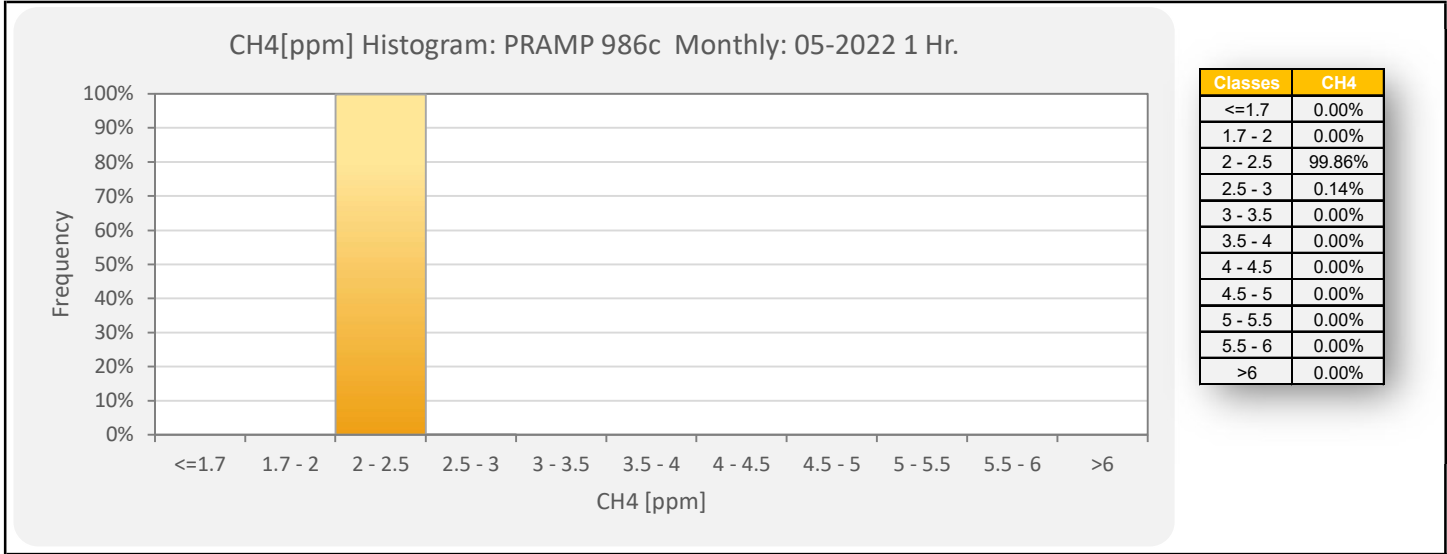
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
May 1	2.20	2.20	S	2.21	2.20	2.19	2.19	2.18	2.18	2.17	2.17	2.16	2.16	2.16	2.16	2.17	2.17	2.17	2.17	2.17	2.16	2.15	2.15	2.18		
May 2	2.15	S	2.15	2.15	2.14	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.12	2.13	2.14	2.13	2.14	2.13	2.13	2.14	2.14	2.14	2.15	2.14		
May 3	S	2.14	2.13	2.15	2.15	2.16	2.15	2.17	2.16	2.15	2.14	2.12	2.10	2.10	2.10	2.09	2.09	2.09	2.07	2.08	2.08	2.08	S	2.12		
May 4	2.09	2.10	2.09	2.08	2.08	2.09	2.10	2.10	2.10	2.10	2.09	2.09	2.09	2.08	2.08	2.09	2.08	2.09	2.09	2.09	2.09	S	2.10	2.09		
May 5	2.13	2.16	2.19	2.48	2.28	2.25	2.22	2.24	2.11	2.09	2.08	2.07	2.07	2.08	2.08	2.07	2.07	2.06	2.07	2.07	S	2.10	2.06	2.13		
May 6	2.06	2.06	2.06	2.07	2.07	2.07	2.08	2.08	2.08	2.07	2.07	2.07	2.09	2.11	2.09	2.09	2.08	2.06	2.07	2.06	S	2.08	2.09	2.08		
May 7	2.09	2.09	2.09	2.08	2.07	2.07	2.08	2.08	2.08	2.08	2.07	2.07	2.08	2.07	2.08	2.08	2.08	2.08	S	2.08	2.08	2.08	2.07	2.08		
May 8	2.08	2.08	2.08	2.08	2.08	2.09	2.08	2.08	2.08	2.09	2.08	2.07	2.07	2.07	2.08	2.06	2.07	2.07	S	2.08	2.08	2.08	2.08	2.08		
May 9	2.09	2.08	2.08	2.08	2.08	2.08	2.07	2.08	2.09	2.09	2.09	2.09	2.09	2.08	2.09	2.09	2.09	S	2.09	2.10	2.09	2.09	2.10	2.10		
May 10	2.10	2.10	2.13	2.12	2.12	2.11	2.11	2.11	2.10	2.09	2.09	2.09	2.09	2.09	2.09	2.07	S	2.08	2.09	2.09	2.09	2.13	2.14	2.17		
May 11	2.15	2.12	2.12	2.11	2.17	2.20	2.11	2.10	2.09	2.10	2.11	2.09	2.08	2.08	2.07	S	P	P	P	P	P	P	P	P		
May 12	P	P	P	X	2.06	2.11	2.11	2.10	2.11	2.12	C	C	C	2.29	S	2.27	2.29	2.28	2.29	2.29	2.30	2.30	2.30	2.31		
May 13	2.29	2.28	2.28	2.29	2.29	2.29	2.29	2.28	2.29	2.30	2.29	2.27	2.27	S	2.27	2.26	2.26	2.27	2.26	2.27	2.27	2.27	2.27	2.27		
May 14	2.26	2.26	2.26	2.27	2.28	2.28	2.29	2.29	2.28	2.28	2.27	2.27	S	2.28	2.27	2.27	2.28	2.28	2.27	2.27	2.28	2.29	2.34	2.28		
May 15	2.40	2.42	2.48	2.49	2.44	2.44	2.45	2.33	2.32	2.31	2.29	S	2.27	2.26	2.26	2.28	2.26	2.27	2.27	2.27	2.28	2.28	2.29	2.33		
May 16	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.28	2.27	2.28	S	2.28	2.29	2.29	2.27	2.27	2.28	2.28	2.26	2.24	2.23	2.24	2.25	2.27		
May 17	2.25	2.25	2.26	2.28	2.28	2.29	2.29	2.29	2.28	S	2.28	2.27	2.26	2.27	2.26	2.27	2.27	2.27	2.27	2.28	2.28	2.29	2.30	2.27		
May 18	2.31	2.30	2.31	2.34	2.34	2.35	2.33	2.32	S	2.27	2.26	2.26	2.26	2.26	2.25	2.25	2.26	2.26	2.26	2.26	2.25	2.24	2.25	2.28		
May 19	2.25	2.26	2.27	2.27	2.27	2.27	2.28	S	2.27	2.27	2.27	2.27	2.27	2.28	2.29	2.29	2.29	2.30	2.31	2.31	2.31	2.31	2.31	2.28		
May 20	2.32	2.32	2.31	2.32	2.32	2.32	S	2.31	2.31	2.31	2.31	2.30	2.29	2.30	2.29	2.30	2.29	2.30	2.30	2.31	2.30	2.31	2.32	2.31		
May 21	2.33	2.34	2.41	2.43	2.49	S	2.43	2.34	2.32	2.31	2.29	2.29	2.28	2.29	2.28	2.29	2.28	2.29	2.28	2.29	2.30	2.30	2.30	2.32		
May 22	2.30	2.31	2.31	2.30	S	2.31	2.31	2.30	2.30	2.28	2.28	2.27	2.27	2.26	2.26	2.26	2.26	2.26	2.27	2.28	2.28	2.27	2.28	2.28		
May 23	2.29	2.27	2.28	S	2.27	2.27	2.27	2.26	2.26	2.26	2.25	2.25	2.26	2.25	2.25	2.25	2.26	2.26	2.27	2.28	2.28	2.28	2.28	2.27		
May 24	2.28	2.29	S	2.29	2.30	2.31	2.30	2.29	2.29	2.29	2.28	2.28	2.27	2.28	2.26	2.27	2.26	2.28	2.28	2.27	2.28	2.27	2.28	2.29		
May 25	2.29	S	2.30	2.30	2.30	2.31	2.29	2.29	2.27	2.26	2.25	2.24	2.24	2.24	2.23	2.22	2.22	2.23	2.23	2.23	2.24	2.24	2.26	2.26		
May 26	S	2.29	2.28	2.30	2.31	2.32	2.29	2.28	2.25	2.22	2.22	2.22	2.22	2.23	2.22	2.23	2.23	2.23	2.22	2.22	2.22	2.23	S	2.25		
May 27	2.25	2.24	2.24	2.23	2.25	2.24	2.24	2.24	2.25	2.26	2.25	2.24	2.23	2.24	2.25	2.24	2.22	2.21	2.21	2.23	2.22	2.22	S	2.24		
May 28	2.25	2.24	2.23	2.22	2.21	2.21	2.22	2.20	2.19	2.20	2.19	2.20	2.21	2.20	2.20	2.20	2.20	2.21	2.21	2.20	2.20	S	2.21	2.22		
May 29	2.22	2.23	2.23	2.24	2.24	2.24	2.24	2.25	2.25	2.24	2.24	2.24	2.24	2.25	2.25	2.25	2.25	2.25	2.26	2.26	S	2.27	2.27	2.27		
May 30	2.28	2.29	2.30	2.31	2.31	2.30	2.30	2.30	2.30	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.30	2.30	S	2.30	2.30	2.30	2.34		
May 31	2.38	2.41	2.44	2.47	2.49	2.53	2.47	2.37	2.32	2.31	2.31	2.30	2.29	2.30	2.29	2.30	2.29	2.30	2.29	S	2.27	2.27	2.29	2.31		
Diurnal Maximum	2.40	2.42	2.48	2.49	2.49	2.53	2.47	2.37	2.32	2.31	2.31	2.30	2.29	2.30	2.29	2.30	2.29	2.30	2.31	2.31	2.31	2.31	2.34	2.34		
Diurnal Average	2.23	2.23	2.24	2.25	2.24	2.24	2.23	2.22	2.21	2.21	2.20	2.20	2.20	2.20	2.20	2.21	2.21	2.21	2.21	2.21	2.21	2.22	2.22	2.23		

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

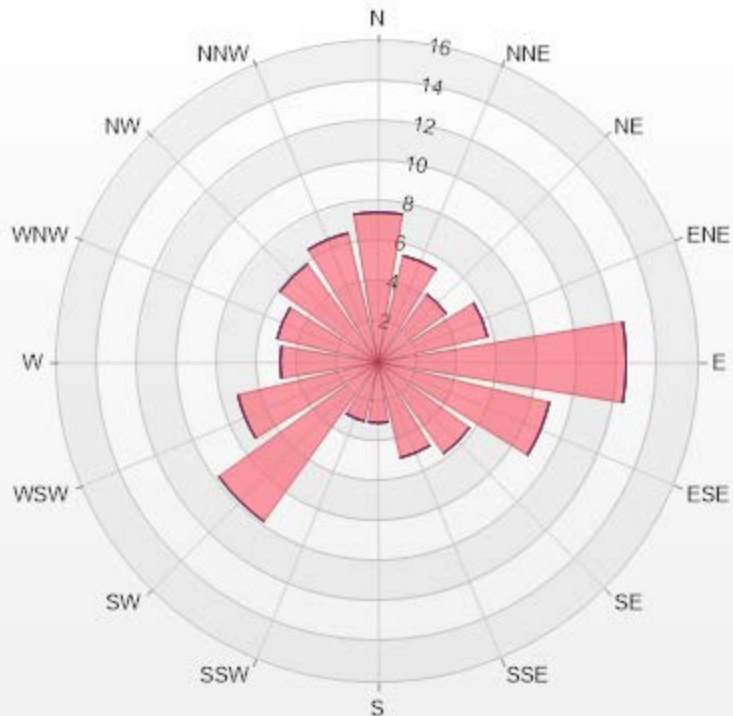
Timeseries Chart of Hourly Average for CH4 - 986c Station





Wind: PRAMP 986c Poll.: PRAMP 986c-CH4[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 93.55% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0	7.47	0	0	0	7.47
NNE	0	5.46	0	0	0	5.46
NE	0	4.17	0	0	0	4.17
ENE	0	5.6	0	0	0	5.6
E	0	12.36	0	0	0	12.36
ESE	0	8.76	0	0	0	8.76
SE	0	5.6	0	0	0	5.6
SSE	0	4.89	0	0	0	4.89
S	0	3.02	0	0	0	3.02
SSW	0	3.02	0	0	0	3.02
SW	0	9.77	0	0	0	9.77
WSW	0	7.18	0	0	0	7.18
W	0	4.89	0	0	0	4.89
WNW	0	5.17	0	0	0	5.17
NW	0	6.03	0	0	0	6.03
NNW	0	6.61	0	0	0	6.61
Summary	0	100	0	0	0	100



PRAMP-202205

% Icon Classes (ppm)

0 0-2

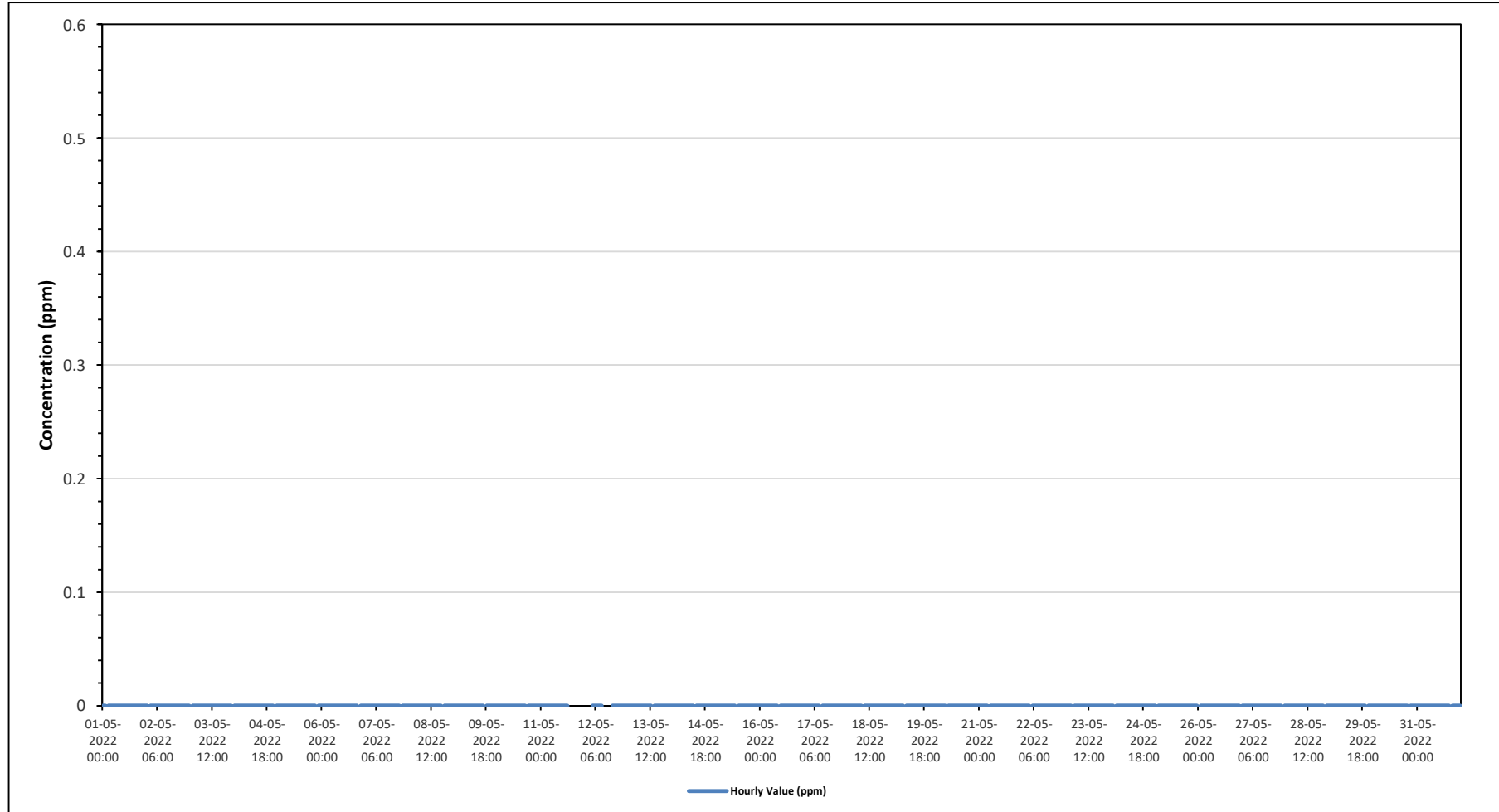
100 2-5

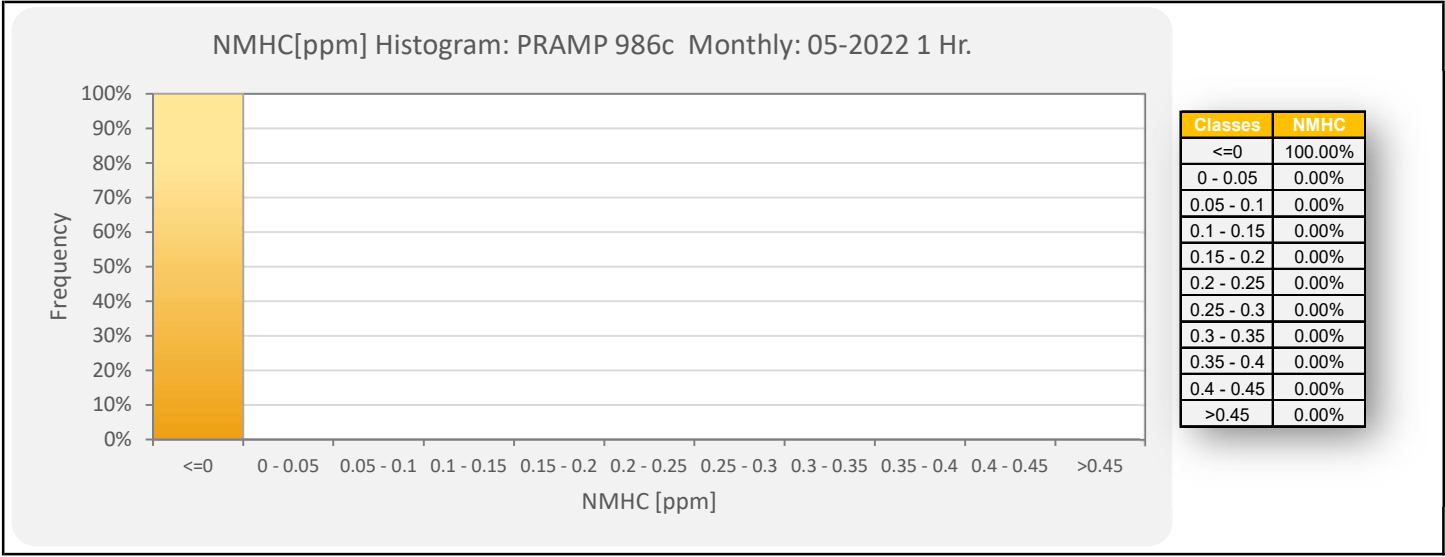
0 5-10

0 10-20

0 >20.0

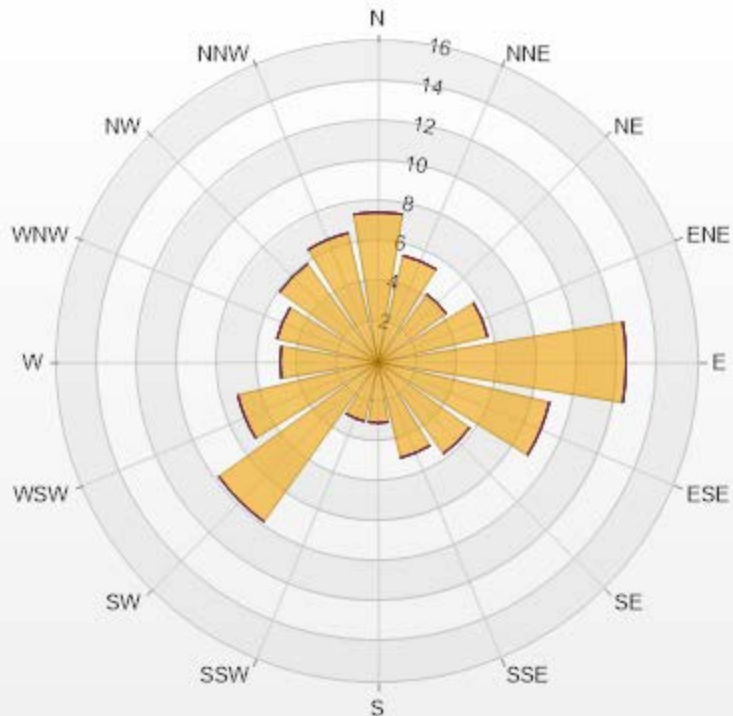
Timeseries Chart of Hourly Average for NMHC - 986c Station





Wind: PRAMP 986c Poll.: PRAMP 986c-NMHC[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 93.55% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	7.47	0	0	0	0	7.47
NNE	5.46	0	0	0	0	5.46
NE	4.17	0	0	0	0	4.17
ENE	5.6	0	0	0	0	5.6
E	12.36	0	0	0	0	12.36
ESE	8.76	0	0	0	0	8.76
SE	5.6	0	0	0	0	5.6
SSE	4.89	0	0	0	0	4.89
S	3.02	0	0	0	0	3.02
SSW	3.02	0	0	0	0	3.02
SW	9.77	0	0	0	0	9.77
WSW	7.18	0	0	0	0	7.18
W	4.89	0	0	0	0	4.89
WNW	5.17	0	0	0	0	5.17
NW	6.03	0	0	0	0	6.03
NNW	6.61	0	0	0	0	6.61
Summary	100	0	0	0	0	100



PRAMP-202205

Page 54 of 276

% Icon Classes (ppm)

100 0-0.1

0 0.1-0.3

0 0.3-1

0 1-2

0 >2.0



PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

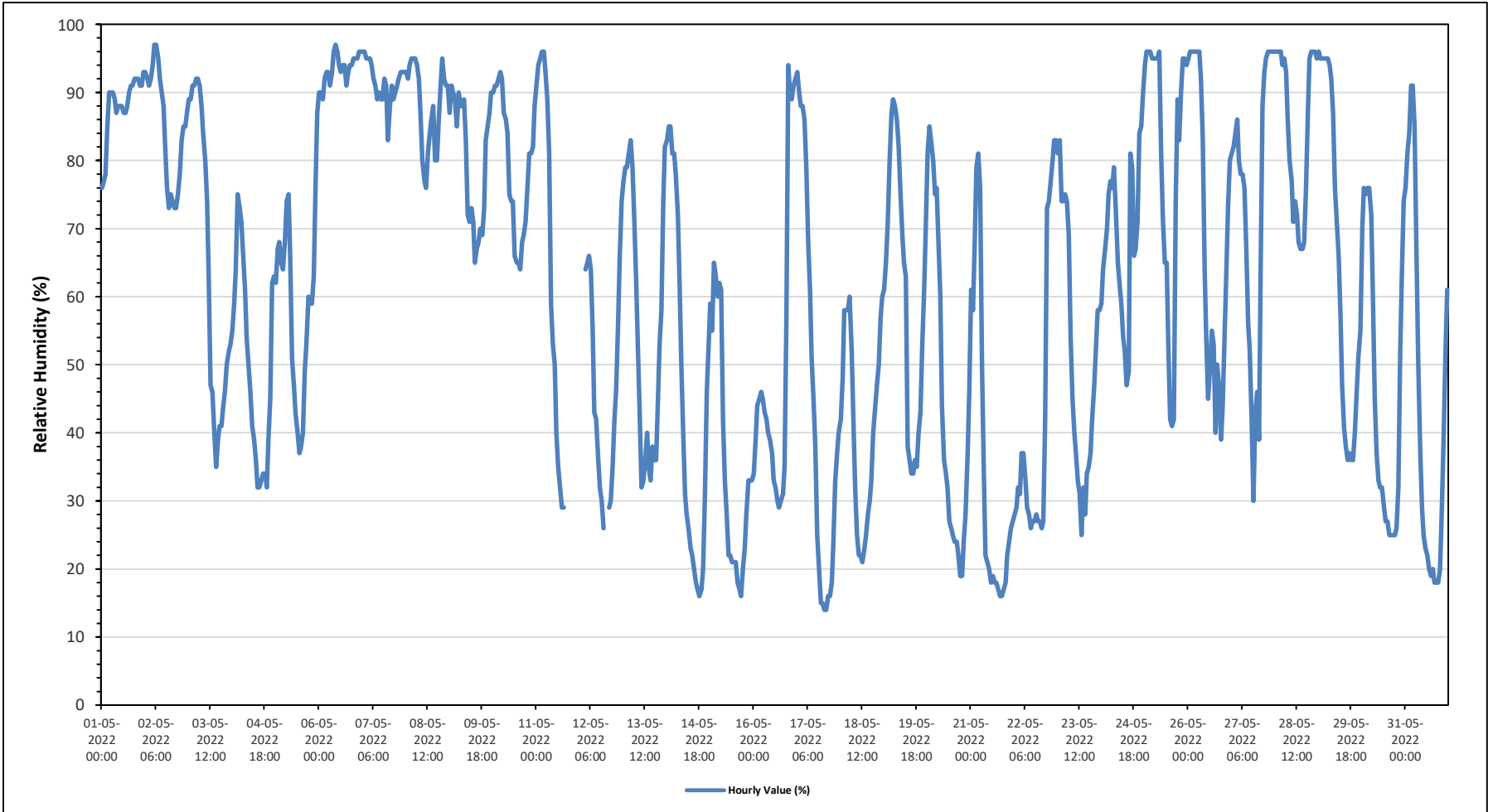
Maximum Hourly Value:	97 %	on May 2 at hour 5	Hours in Service:	744
Maximum Daily Value:	93.5 %	on May 6	Hours of Data:	731
Minimum Hourly Value:	14 %	on May 17 at hour 15	Hours of Missing Data:	13
Minimum Daily Value:	34.4 %	on May 21	Hours of Calibration:	0
Monthly Average:	62.3 %		Operational Uptime:	98.3

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
May 1	76	77	78	85	90	90	90	89	87	88	88	88	87	87	88	90	91	91	92	92	91	91	93	76	93	88.0		
May 2	93	92	91	92	94	97	97	95	92	90	88	82	76	73	75	74	73	73	75	78	83	85	85	87	73	97	85.0	
May 3	89	89	91	91	92	92	91	88	84	80	74	63	47	46	41	35	39	41	41	44	46	50	52	53	35	92	65.0	
May 4	55	59	64	75	73	71	66	61	54	50	46	41	39	36	32	32	33	34	34	32	39	45	62	63	32	75	49.8	
May 5	62	67	68	65	64	68	74	75	66	51	47	43	40	37	38	40	49	53	60	59	59	63	77	87	37	87	58.8	
May 6	90	90	89	92	93	93	91	93	96	97	96	94	93	94	94	91	93	94	94	95	95	95	96	96	89	97	93.5	
May 7	96	96	95	95	95	94	92	91	89	90	89	89	92	91	83	88	91	89	90	91	92	93	93	93	83	96	91.5	
May 8	93	92	94	95	95	95	94	92	87	80	77	76	81	84	86	88	80	80	86	91	95	92	91	91	76	95	88.1	
May 9	87	91	90	89	85	90	88	88	89	83	72	71	73	71	65	67	68	70	69	73	83	85	87	90	65	91	80.2	
May 10	90	91	91	92	93	92	87	86	84	75	74	74	66	65	65	64	68	69	71	76	81	81	82	88	64	93	79.4	
May 11	91	94	95	96	96	93	89	81	59	53	50	40	35	32	29	29	P	P	P	P	P	P	P	P	29	96	-	
May 12	P	P	P	64	65	66	64	55	43	42	36	32	30	26	Y	Y	29	30	35	42	46	55	66	74	26	74	47.4	
May 13	77	79	79	81	83	79	71	62	53	43	32	33	36	40	35	33	38	36	36	45	53	58	74	82	32	83	55.8	
May 14	83	85	85	81	81	78	72	61	50	40	31	28	26	23	22	20	18	17	16	17	20	31	46	52	16	85	45.1	
May 15	59	55	65	63	60	62	61	42	33	28	22	22	21	21	21	18	17	16	20	23	28	33	33	33	16	65	35.7	
May 16	34	39	44	45	46	45	43	42	40	39	37	33	32	30	29	30	31	35	57	94	90	89	91	92	29	94	49.5	
May 17	93	90	88	88	86	79	68	61	51	45	38	25	20	15	15	14	14	16	16	18	24	33	37	40	14	93	44.8	
May 18	42	48	58	58	58	60	52	41	32	25	22	22	21	23	25	28	30	33	40	44	47	50	57	60	21	60	40.7	
May 19	61	65	71	80	87	89	88	86	82	75	69	65	63	38	36	34	34	36	35	40	43	53	61	70	34	89	60.9	
May 20	81	85	83	80	75	76	68	60	44	36	34	32	27	26	25	24	24	22	19	19	24	28	37	46	19	85	44.8	
May 21	61	58	67	79	81	76	50	34	22	21	20	18	19	18	18	17	16	16	17	18	22	24	26	27	16	81	34.4	
May 22	28	29	32	31	37	37	33	29	28	26	27	27	28	27	27	26	27	42	73	74	77	80	83	83	26	83	42.1	
May 23	81	83	74	74	75	74	69	54	45	40	37	33	31	25	32	28	34	35	37	42	47	53	58	58	25	83	50.8	
May 24	59	64	67	70	75	77	76	79	73	65	62	59	54	52	47	49	81	79	66	67	71	84	85	90	47	90	68.8	
May 25	94	96	96	96	95	95	95	95	96	81	71	65	65	53	42	41	42	74	89	83	90	95	95	94	41	96	80.8	
May 26	95	96	96	96	96	96	96	92	83	64	54	45	50	55	53	40	50	47	39	44	54	64	73	80	39	96	69.1	
May 27	81	82	84	86	80	78	78	76	67	56	52	42	30	43	46	39	64	88	93	95	96	96	96	96	30	96	72.7	
May 28	96	96	96	96	94	95	93	86	80	77	71	74	72	68	67	67	68	76	87	95	96	96	96	95	67	96	84.9	
May 29	96	95	95	95	95	95	94	92	87	76	71	66	57	47	41	38	36	37	36	36	40	46	51	55	36	96	65.7	
May 30	70	76	75	76	76	72	58	45	37	33	32	32	29	27	27	25	25	25	25	26	32	52	63	74	25	76	46.3	
May 31	76	81	84	91	91	85	67	50	38	29	25	23	22	20	19	20	18	18	18	20	29	40	51	61	18	91	44.8	
Diurnal Maximum	96	96	96	96	96	97	97	95	96	97	96	94	93	94	94	91	93	94	94	95	96	96	96	96	96	96	96	96
Diurnal Average	76.3	78.0	79.5	80.5	80.8	80.3	76.0	70.4	63.6	57.4	53.0	49.6	47.2	44.9	44.1	43.0	46.0	49.1	52.2	55.8	59.8	64.7	69.8	73.4	73.4	73.4	73.4	

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

Timeseries Chart of Hourly Average for RH - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

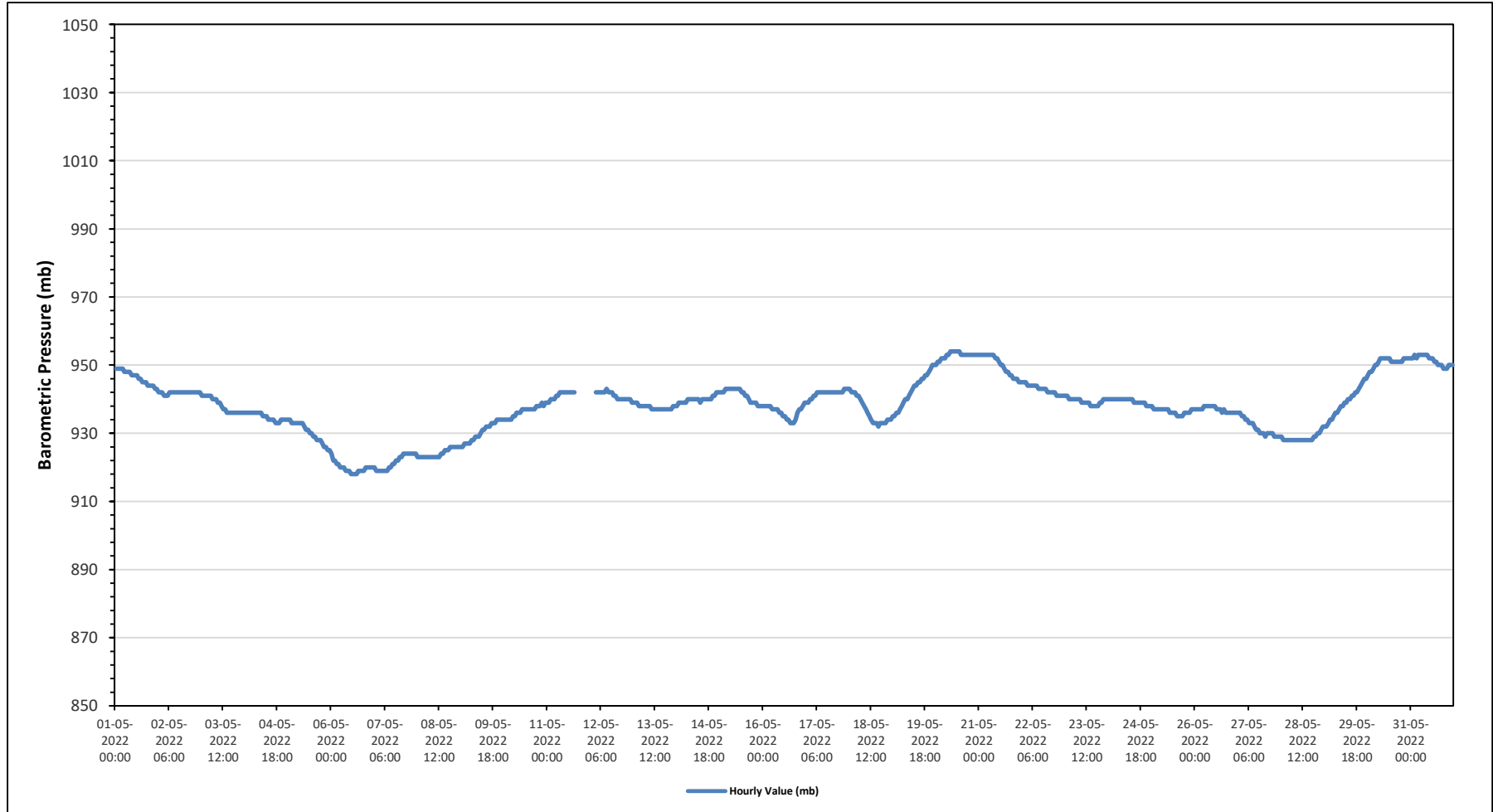
Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	954 mb	on May 20 at hour 8	Hours in Service:	744
Maximum Daily Value:	953 mb	on May 20	Hours of Data:	733
Minimum Hourly Value:	918 mb	on May 6 at hour 11	Hours of Missing Data:	11
Minimum Daily Value:	920 mb	on May 6	Hours of Calibration:	0
Monthly Average:	938 mb		Operational Uptime:	98.5

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								
May 1	949	949	949	949	949	948	948	948	948	947	947	947	947	946	946	945	945	945	944	944	944	943	943	943	943	949	949	946.4							
May 2	942	942	942	941	941	941	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	941	942	941.9								
May 3	941	941	941	941	941	941	940	940	940	939	939	938	937	937	936	936	936	936	936	936	936	936	936	936	936	941	941	938.2							
May 4	936	936	936	936	936	936	936	936	936	936	935	935	935	934	934	934	933	933	933	933	934	934	934	934	933	936	934.8								
May 5	934	934	933	933	933	933	933	933	933	932	931	931	930	930	929	929	928	928	928	927	926	926	925	925	925	934	930.2								
May 6	924	922	922	921	921	920	920	920	919	919	919	918	918	918	918	919	919	919	919	920	920	920	920	920	918	924	919.8								
May 7	920	919	919	919	919	919	919	919	920	920	921	921	922	922	923	923	924	924	924	924	924	924	924	924	919	924	921.5								
May 8	923	923	923	923	923	923	923	923	923	923	923	923	923	924	924	925	925	925	926	926	926	926	926	926	923	926	924.1								
May 9	926	926	927	927	927	928	928	929	929	929	930	931	931	932	932	932	933	933	933	934	934	934	934	934	926	934	930.3								
May 10	934	934	934	934	934	935	935	936	936	936	937	937	937	937	937	937	937	937	938	938	938	938	938	939	934	939	936.4								
May 11	939	939	940	940	940	941	941	942	942	942	942	942	942	942	942	942	P	P	P	P	P	P	P	P	939	942	-								
May 12	P	P	P	942	942	942	942	942	942	943	942	942	942	941	941	940	940	940	940	940	940	940	940	939	939	942	941.0								
May 13	939	939	939	938	938	938	938	938	938	938	937	937	937	937	937	937	937	937	937	937	937	937	938	938	937	939	937.6								
May 14	938	939	939	939	939	939	940	940	940	940	940	940	939	940	940	940	940	940	940	941	941	942	942	938	942	939.9									
May 15	942	942	942	943	943	943	943	943	943	943	943	942	942	941	941	940	939	939	939	939	938	938	938	938	938	943	941.2								
May 16	938	938	938	938	938	937	937	937	937	936	936	935	935	934	934	933	933	933	934	936	937	937	938	939	933	939	936.2								
May 17	939	939	940	940	941	941	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	943	943	943	939	943	941.6								
May 18	943	942	942	942	941	941	940	939	938	937	936	935	934	933	933	932	933	933	933	933	934	934	934	934	932	943	936.5								
May 19	935	935	936	936	937	938	939	940	940	941	942	943	944	944	945	945	946	946	947	947	948	949	950	950	935	950	942.6								
May 20	950	951	951	952	952	952	953	953	954	954	954	954	954	954	953	953	953	953	953	953	953	953	953	953	950	954	952.8								
May 21	953	953	953	953	953	953	953	953	953	952	952	951	950	950	949	948	948	947	947	946	946	946	945	945	945	945	950.0								
May 22	945	945	945	944	944	944	944	944	944	943	943	943	943	943	942	942	942	942	941	941	941	941	941	941	941	945	942.9								
May 23	941	941	940	940	940	940	940	940	940	939	939	939	939	939	938	938	938	938	939	939	939	940	940	940	938	941	939.4								
May 24	940	940	940	940	940	940	940	940	940	940	940	940	940	939	939	939	939	939	939	939	938	938	938	938	938	940	939.5								
May 25	938	937	937	937	937	937	937	937	937	937	936	936	936	935	935	935	935	935	936	936	936	936	937	937	935	938	936.4								
May 26	937	937	937	937	937	938	938	938	938	938	938	938	937	937	937	936	937	936	936	936	936	936	936	936	936	938	937.0								
May 27	936	936	935	935	934	934	933	933	932	931	931	930	930	930	929	930	930	930	930	929	929	929	929	929	929	936	931.6								
May 28	929	928	928	928	928	928	928	928	928	928	928	928	928	928	928	928	928	928	929	929	930	930	931	932	928	932	928.6								
May 29	932	932	933	934	934	935	936	936	937	938	938	939	939	940	940	941	941	942	942	943	944	945	946	946	932	946	938.9								
May 30	947	948	948	949	950	950	951	952	952	952	952	952	952	951	951	951	951	951	951	951	952	952	952	952	947	952	950.8								
May 31	952	952	953	952	953	953	953	953	953	953	952	952	952	951	951	950	950	950	949	949	950	950	950	950	949	953	951.3								
Diurnal Maximum	953	953	953	953	953	953	953	953	954	954	954	954	954	953	953	953	953	953	953	953	953	953	953	953	953	953	953								
Diurnal Average	938	938	938	938	938	938	938	939	939	938	938	938	938	938	938	938	937	937	938	938	938	938	938	938	938	938	938								
C	Monthly Calibration								S	Daily Zero-Span Check								Q	Quality Assurance																
K	Collection Error								N	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.																																			

Timeseries Chart of Hourly Average for BP - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

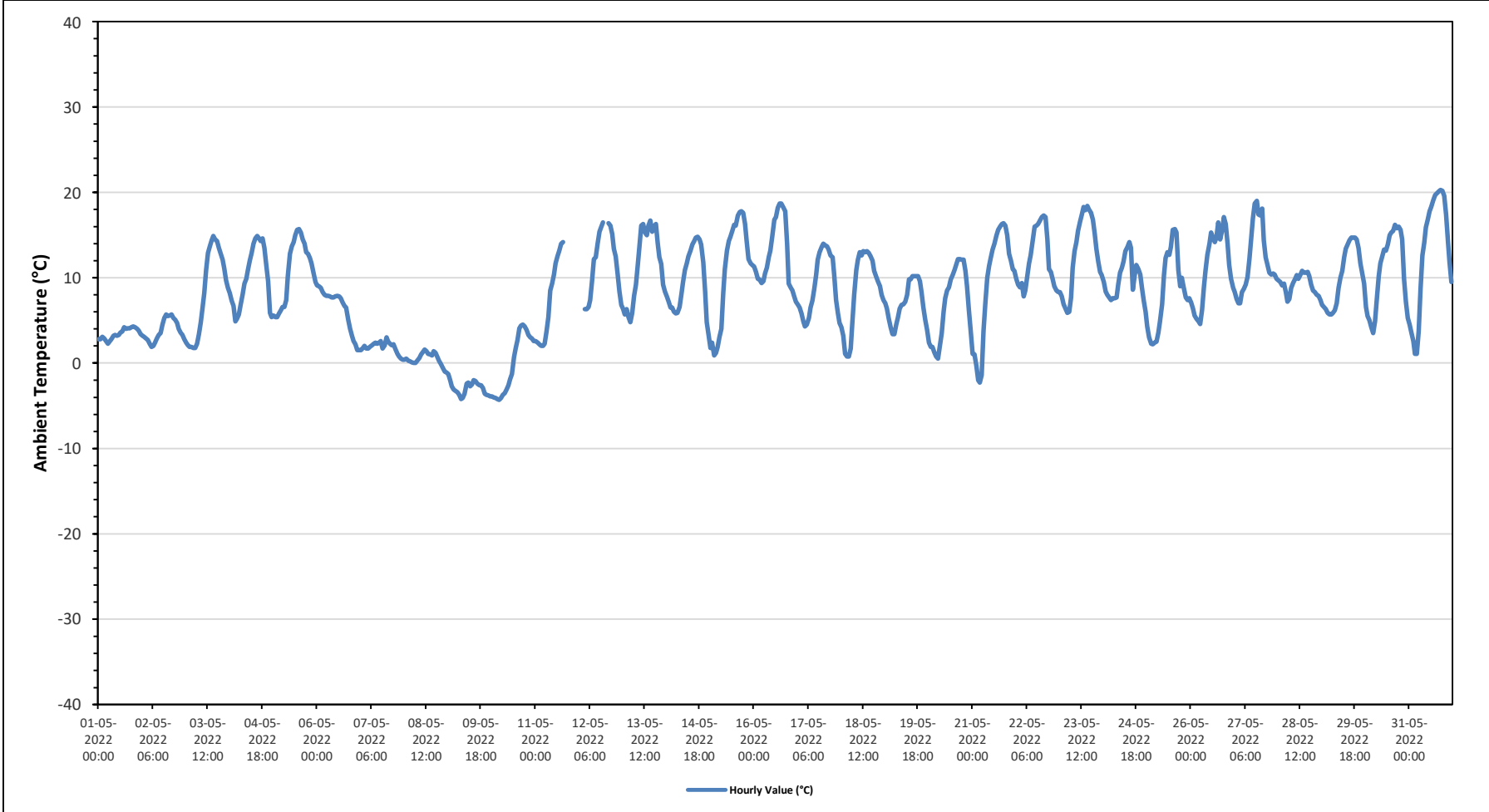
Maximum Hourly Value:	20.3 °C	on May 31 at hour 17	Hours in Service:	744
Maximum Daily Value:	13.0 °C	on May 31	Hours of Data:	731
Minimum Hourly Value:	-4.3 °C	on May 10 at hour 4	Hours of Missing Data:	13
Minimum Daily Value:	-3.0 °C	on May 9	Hours of Calibration:	0
Monthly Average:	8.3 °C		Operational Uptime:	98.3

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
May 1	2.8	2.8	3.1	2.9	2.6	2.3	2.5	2.8	3.2	3.3	3.2	3.3	3.6	3.7	4.2	4	4.1	4.1	4.2	4.3	4.2	4	3.8	3.4	2.3	4.3	3.4	
May 2	3.2	3.1	2.9	2.7	2.3	1.9	2	2.4	2.9	3.3	3.5	4.5	5.3	5.7	5.5	5.6	5.7	5.3	5.1	4.7	4	3.6	3.3	2.8	1.9	5.7	3.8	
May 3	2.4	2.1	1.9	1.9	1.8	1.8	2.3	3.4	4.8	6.3	8.2	10.9	12.9	13.7	14.4	14.9	14.5	14.3	13.5	12.8	12.1	11.1	9.7	8.8	1.8	14.9	8.4	
May 4	8.2	7.3	6.7	4.9	5.2	5.7	6.9	8	9.3	9.9	10.9	12	12.9	14	14.6	14.9	14.6	14.3	14.6	13.5	11.5	9.6	5.9	5.4	4.9	14.9	10.0	
May 5	5.6	5.4	5.4	5.8	6.2	6.6	6.6	7.4	10.2	12.8	13.7	14.2	15	15.6	15.7	15.3	14.5	14	13	12.8	12.3	11.7	10.5	9.5	5.4	15.7	10.8	
May 6	9.1	9	8.8	8.3	8	7.9	7.9	7.8	7.7	7.7	7.8	7.9	7.8	7.6	7.1	6.7	6.5	5.1	4	3.2	2.6	2.2	1.5	1.5	1.5	9.1	6.4	
May 7	1.5	1.8	2	1.7	1.7	1.9	2.1	2.3	2.4	2.3	2.4	2.6	1.7	2.1	3	2.5	2.3	2.1	2.2	1.6	1.1	0.8	0.5	0.4	0.4	3.0	1.9	
May 8	0.4	0.5	0.3	0.2	0.1	0	0	0.3	0.6	1	1.3	1.6	1.4	1.1	1	0.9	1.4	1.2	0.7	0.3	-0.1	-0.6	-1	-1.1	-1.1	1.6	0.5	
May 9	-1.3	-2	-2.7	-3.1	-3.3	-3.4	-3.7	-4.2	-4.1	-3.6	-2.4	-2.3	-2.7	-2.5	-2	-2.1	-2.4	-2.6	-2.6	-2.9	-3.6	-3.7	-3.8	-3.9	-4.2	-1.3	-3.0	
May 10	-3.9	-4	-4.1	-4.2	-4.3	-4.1	-3.7	-3.5	-3.1	-2.6	-1.9	-1.3	0.7	1.7	2.7	4.1	4.4	4.5	4.3	3.9	3.3	3	2.9	2.6	-4.3	4.5	-0.1	
May 11	2.6	2.4	2.2	2	2	2.3	3.7	5.4	8.5	9.3	10.4	11.7	12.5	13.2	14	14.2	P	P	P	P	P	P	P	P	2.0	14.2	-	
May 12	P	P	P	6.3	6.3	6.6	7.4	9.6	12.2	12.4	14	15.4	16	16.5	Y	Y	16.4	16.1	15.1	13.4	12.5	10.5	8.4	6.8	6.3	16.5	11.7	
May 13	6.3	5.7	6.3	5.4	4.8	5.9	7.9	9.2	11.2	13.6	16.1	16.3	15.3	15	16.1	16.7	15.4	16	16.3	14	12.4	11.6	9.2	8.4	4.8	16.7	11.5	
May 14	7.8	7.2	6.5	6.5	6	5.8	5.9	6.6	8.1	9.5	10.9	11.7	12.5	13.2	13.9	14.3	14.7	14.8	14.5	13.9	11.8	8.4	4.8	3.3	3.3	14.8	9.7	
May 15	1.8	2.4	0.9	1.2	1.9	3.1	4	8.2	11	13.2	14.3	14.8	15.5	16.2	16.1	17.3	17.7	17.8	17.6	16.3	14.3	12.2	11.7	11.5	0.9	17.8	10.9	
May 16	11.3	10.7	9.9	9.8	9.4	9.6	10.5	11.2	12.4	13.2	14.8	16.8	17.1	18.2	18.7	18.7	18.3	17.8	14	9.3	8.9	8.5	7.9	7.2	7.2	18.7	12.7	
May 17	6.8	6.5	5.8	4.9	4.3	4.5	5.3	6.5	7.3	8.7	10.3	12.1	13	13.6	14	13.8	13.7	13.3	12.6	12.4	10.3	7.4	5.8	4.7	4.3	14.0	9.1	
May 18	4.2	3.2	1.1	0.8	0.8	1.7	4.7	8	10.9	12.1	13	12.6	13.1	13	13.1	12.9	12.5	12	10.8	10.2	9.6	9	8	7.4	0.8	13.1	8.5	
May 19	7	6.4	5.2	4.2	3.4	3.4	4.5	5.3	6.4	6.8	6.9	7.2	8	9.8	9.8	10.2	10.2	10.2	10.2	9.6	8.3	6.5	5.1	3.9	3.4	10.2	7.0	
May 20	2.4	1.9	1.9	1.3	0.8	0.5	2	3.5	6	7.6	8.5	8.9	9.8	10.3	10.9	11.5	12.2	12.2	12.1	12.1	10.8	9	6.2	3.7	0.5	12.2	6.9	
May 21	1.1	1	-0.3	-2	-2.3	-1.4	3.8	7.1	10	11.4	12.3	13.3	14	14.9	15.6	16	16.3	16.4	16.1	15	12.8	12	11	10.8	-2.3	16.4	9.4	
May 22	9.9	9.2	8.9	9.4	7.8	8.5	10.1	11.7	12.6	14.4	16	16.1	16.3	16.7	17.1	17.3	17.1	14.5	11	10.7	9.8	9	8.5	8.3	7.8	17.3	12.1	
May 23	8.3	7.8	6.9	6.4	5.9	6	7.7	11.2	13.1	14.2	15.5	16.6	17.5	18.3	17.9	18.4	18	17.6	16.8	15.1	13.4	11.9	10.7	10.3	5.9	18.4	12.7	
May 24	9.5	8.4	8	7.7	7.4	7.6	7.6	7.7	9.2	10.6	11.2	11.9	13.1	13.6	14.2	13.5	8.6	10.3	11.5	11	10.4	8.9	7.3	6	6.0	14.2	9.8	
May 25	4.3	3	2.3	2.2	2.4	2.5	3.6	4.9	6.9	10.3	12.3	13	12.7	13.6	15.6	15.7	15.3	10.9	9	10	8.9	7.7	7.4	7.6	2.2	15.7	8.4	
May 26	7.1	6.4	5.6	5.2	4.9	4.6	6.2	8.9	10.8	12.7	14	15.3	14.7	14.2	14.7	16.5	14.5	15.6	17.1	16.3	14	11.5	9.9	8.8	4.6	17.1	11.2	
May 27	8.3	7.5	7	7	8.3	8.7	9.2	10.1	12.2	14.7	16.9	18.7	19	17.4	17.3	18.1	14.4	12.4	11.5	10.6	10.4	10.5	10.4	9.9	7.0	19.0	12.1	
May 28	9.7	9.5	9.1	9.3	8.3	7.2	7.5	8.8	9.4	9.8	10.3	10.8	10.6	10.6	10.7	10.2	9.2	8.5	8.3	8	7.9	7.4	7.2	10.8	9.2	7.2	10.8	9.2
May 29	6.8	6.6	6.3	5.9	5.7	5.7	5.9	6.2	7	8.8	10	10.8	12.4	13.4	13.9	14.4	14.7	14.7	14.7	14.5	13.5	11.7	10.5	9.3	5.7	14.7	10.1	
May 30	6.6	5.5	5	4.2	3.5	4.9	7.6	10.2	11.7	12.5	13.3	13.2	13.9	15	15.3	15.5	16.2	15.8	16	15.6	14.5	9.9	7.2	5.3	3.5	16.2	10.8	
May 31	4.5	3.5	2.6	1.1	1.1	3.7	8.7	12.6	14.1	15.9	16.8	17.8	18.3	19.1	19.7	19.9	20.1	20.3	20.2	19.6	17.4	14.3	11.8	9.5	1.1	20.3	13.0	
Diurnal Maximum	11.3	10.7	9.9	9.8	9.4	9.6	10.5	12.6	14.1	15.9	16.9	18.7	19.0	19.1	19.7	19.9	20.1	20.3	20.2	19.6	17.4	14.3	11.8	11.5				
Diurnal Average	5.1	4.7	4.2	3.9	3.6	3.9	5.1	6.4	7.9	9.1	10.1	10.9	11.4	11.9	12.2	12.4	12.1	11.7	11.2	10.4	9.3	8.0	6.8	6.0				

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

Timeseries Chart of Hourly Average for AT - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

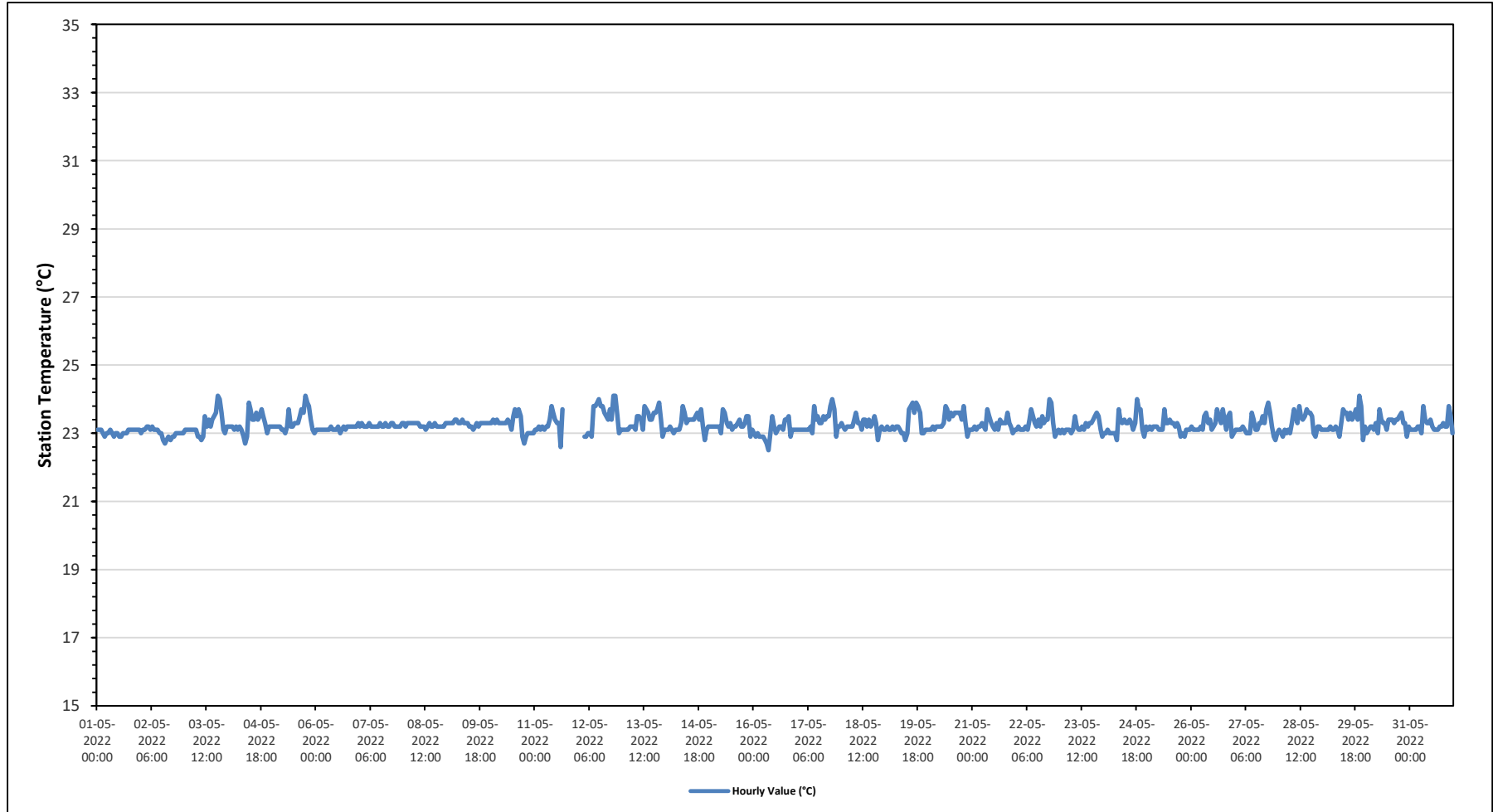
Maximum Hourly Value:	24.1 °C on May 3 at hour 18	Hours in Service:	744
Maximum Daily Value:	23.5 °C on May 12	Hours of Data:	733
Minimum Hourly Value:	22.5 °C on May 16 at hour 8	Hours of Missing Data:	11
Minimum Daily Value:	23.0 °C on May 2	Hours of Calibration:	0
Monthly Average:	23.3 °C	Operational Uptime:	98.5

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			
May 1	23.1	23.1	23.1	23.0	22.9	23.0	23.0	23.1	23.0	22.9	23.0	23.0	22.9	22.9	23.0	23.0	23.0	23.1	23.1	23.1	23.1	23.1	22.9	22.9	23.0	23.1	23.0	22.7	23.1	23.0
May 2	23.0	23.1	23.1	23.2	23.2	23.1	23.2	23.1	23.1	23.1	23.0	23.0	22.8	22.7	22.8	22.9	22.8	22.9	22.9	23.0	23.0	23.0	23.0	23.0	22.7	23.2	23.0	22.7	23.2	23.0
May 3	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	22.9	22.9	22.8	22.9	23.5	23.2	23.4	23.2	23.4	23.5	23.6	24.1	24.0	23.6	23.1	23.0	23.2	22.8	24.1	23.3	22.8	23.3
May 4	23.2	23.2	23.2	23.1	23.2	23.1	23.2	23.1	22.9	22.7	22.9	23.9	23.7	23.4	23.4	23.6	23.4	23.5	23.7	23.5	23.7	23.5	23.3	23.0	23.2	23.2	22.7	23.9	23.3	
May 5	23.2	23.2	23.2	23.2	23.2	23.1	23.1	23.0	23.2	23.2	23.2	23.2	23.3	23.3	23.3	23.5	23.7	23.6	24.1	23.9	23.8	23.4	23.1	23.0	23.0	23.0	24.1	23.4	23.0	
May 6	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.2	23.1	23.1	23.1	23.1	23.2	23.0	23.1	23.2	23.1	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.3	23.0	23.3	23.1	
May 7	23.2	23.3	23.2	23.2	23.2	23.3	23.2	23.2	23.2	23.2	23.2	23.3	23.2	23.2	23.3	23.2	23.2	23.3	23.3	23.2	23.2	23.2	23.2	23.2	23.3	23.2	23.3	23.2	23.3	
May 8	23.3	23.2	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.4	23.3	23.2	23.2	23.1	23.2	23.3	23.2	23.2	23.3	23.2	23.2	23.2	23.2	23.2	23.3	23.1	23.3	23.2	
May 9	23.3	23.3	23.3	23.3	23.4	23.4	23.3	23.3	23.4	23.3	23.3	23.3	23.3	23.2	23.2	23.1	23.2	23.3	23.2	23.3	23.2	23.3	23.3	23.3	23.3	23.1	23.4	23.3	23.1	
May 10	23.3	23.4	23.3	23.4	23.3	23.3	23.3	23.3	23.3	23.3	23.4	23.3	23.1	23.5	23.7	23.5	23.7	23.5	22.9	22.7	22.9	23.0	23.0	23.0	22.7	23.7	23.3	22.7	23.7	23.3
May 11	23.1	23.1	23.2	23.1	23.2	23.1	23.2	23.1	23.2	23.4	23.8	23.6	23.4	23.3	23.3	22.6	23.7	P	P	P	P	P	P	P	22.6	23.8	-	22.6	23.8	
May 12	P	P	P	22.9	22.9	23.0	23.0	22.9	23.8	23.8	23.9	24.0	23.8	23.8	23.6	23.5	23.4	23.7	23.4	24.1	24.1	23.5	23.0	23.1	22.9	24.1	23.5	22.9	24.1	23.5
May 13	23.1	23.1	23.1	23.1	23.2	23.2	23.2	23.1	23.5	23.5	23.4	23.1	23.8	23.7	23.6	23.4	23.4	23.6	23.6	23.7	23.9	23.4	22.9	23.1	22.9	23.9	23.4	22.9	23.1	
May 14	23.1	23.1	23.2	23.1	23.0	23.1	23.1	23.1	23.3	23.8	23.6	23.3	23.4	23.4	23.4	23.5	23.6	23.4	23.7	23.2	22.8	23.1	23.2	22.8	23.8	23.8	23.3	22.8	23.8	
May 15	23.2	23.2	23.2	23.2	23.2	23.2	23.0	23.7	23.6	23.3	23.2	23.3	23.1	23.2	23.2	23.3	23.4	23.2	23.2	23.3	23.5	23.5	22.9	23.1	22.9	23.7	23.7	23.3	22.9	23.7
May 16	23.0	22.9	23.0	22.9	22.9	22.9	22.8	22.7	22.5	23.0	23.5	23.2	23.0	23.1	23.2	23.2	23.1	23.4	23.4	23.5	22.9	23.1	23.1	23.1	22.5	23.5	23.1	22.5	23.5	
May 17	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.2	23.0	23.8	23.4	23.5	23.3	23.3	23.5	23.4	23.5	23.5	23.8	24.0	23.7	22.9	23.2	23.2	22.9	24.0	23.3	22.9	24.0	
May 18	23.3	23.2	23.1	23.2	23.2	23.2	23.2	23.4	23.6	23.3	23.3	23.1	23.4	23.4	23.2	23.4	23.2	23.3	23.5	23.3	22.8	23.1	23.2	23.1	22.8	23.6	23.3	22.8	23.6	
May 19	23.1	23.2	23.1	23.1	23.2	23.1	23.2	23.2	23.1	23.0	23.0	22.8	23.0	23.7	23.8	23.9	23.6	23.9	23.8	23.6	23.0	23.0	23.1	23.1	22.8	23.9	23.3	22.8	23.9	
May 20	23.1	23.1	23.2	23.1	23.2	23.2	23.2	23.2	23.3	23.8	23.7	23.4	23.6	23.5	23.6	23.6	23.6	23.6	23.4	23.8	23.3	22.9	23.1	23.1	22.9	23.8	23.4	22.9	23.8	
May 21	23.1	23.2	23.1	23.2	23.2	23.3	23.2	23.1	23.7	23.5	23.3	23.2	23.1	23.3	23.1	23.4	23.3	23.3	23.3	23.6	23.3	23.2	23.0	23.1	23.0	23.7	23.3	23.0	23.7	
May 22	23.1	23.2	23.1	23.1	23.1	23.2	23.1	23.4	23.7	23.5	23.3	23.2	23.4	23.2	23.5	23.3	23.4	24.0	23.9	23.3	22.9	23.0	23.1	22.9	24.0	23.3	22.9	24.0	23.3	
May 23	23.0	23.1	23.0	23.1	23.1	23.1	23.0	23.1	23.5	23.2	23.1	23.1	23.2	23.1	23.3	23.2	23.3	23.3	23.4	23.5	23.6	23.5	23.1	22.9	22.9	23.6	23.2	22.9	23.6	
May 24	23.0	23.0	23.1	23.0	23.0	23.0	23.0	22.8	23.7	23.4	23.3	23.4	23.3	23.3	23.4	23.3	23.1	23.3	24.0	23.7	23.7	23.1	22.9	23.2	22.8	24.0	23.3	22.8	24.0	
May 25	23.1	23.2	23.1	23.2	23.2	23.2	23.1	23.1	23.1	23.7	23.3	23.3	23.4	23.3	23.3	23.2	23.3	23.2	22.9	23.0	22.9	23.1	23.1	22.9	23.7	23.2	22.9	23.7	23.2	
May 26	23.2	23.1	23.1	23.1	23.1	23.2	23.1	23.5	23.6	23.3	23.4	23.1	23.2	23.3	23.7	23.5	23.3	23.7	23.4	23.1	23.5	23.6	22.9	23.0	22.9	23.7	23.3	22.9	23.7	
May 27	23.1	23.1	23.1	23.1	23.2	23.1	23.0	23.0	23.6	23.4	23.1	23.1	23.3	23.3	23.5	23.3	23.7	23.9	23.6	23.2	22.9	22.8	23.0	22.8	23.9	23.2	22.8	23.9	23.2	
May 28	23.1	23.0	22.9	23.1	23.0	23.1	23.0	23.3	23.7	23.5	23.3	23.8	23.5	23.4	23.5	23.7	23.6	23.5	23.0	22.9	23.2	23.2	23.1	22.9	23.8	23.3	22.9	23.8	23.3	
May 29	23.1	23.1	23.1	23.1	23.2	23.1	23.1	23.2	23.1	22.9	23.3	23.7	23.6	23.6	23.4	23.6	23.4	23.5	23.7	23.4	24.1	23.8	22.8	23.2	22.8	24.1	23.3	22.8	24.1	
May 30	23.0	23.1	23.2	23.2	23.1	23.3	23.0	23.7	23.4	23.3	23.3	23.1	23.4	23.4	23.4	23.3	23.4	23.5	23.6	23.3	23.3	22.9	23.2	22.9	23.7	23.3	22.9	23.7	23.3	
May 31	23.1	23.1	23.1	23.1	23.2	23.2	23.0	23.8	23.4	23.3	23.3	23.4	23.2	23.1	23.1	23.1	23.2	23.2	23.3	23.2	23.2	23.3	23.5	23.0	23.0	23.8	23.8	23.0	23.8	
Diurnal Maximum	23.3	23.4	23.3	23.4	23.4	23.4	23.3	23.8	23.8	23.8	23.9	24.0	23.8	23.8	23.8	23.9	23.7	23.9	24.1	24.1	24.1	23.8	23.5	23.3	23.0	23.8	23.8	23.3	23.3	
Diurnal Average	23.1	23.1	23.1	23.1	23.1	23.2	23.1	23.2	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.4	23.3	23.4	23.5	23.3	23.2	23.1	23.1	23.1	23.1	23.1	23.1	

C Monthly Calibration	S Daily Zero-Span Check	Q Quality Assurance
K Collection Error	N 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.

Timeseries Chart of Hourly Average for ST - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

Summary of Hourly Averages

PRECIPITATION in mm

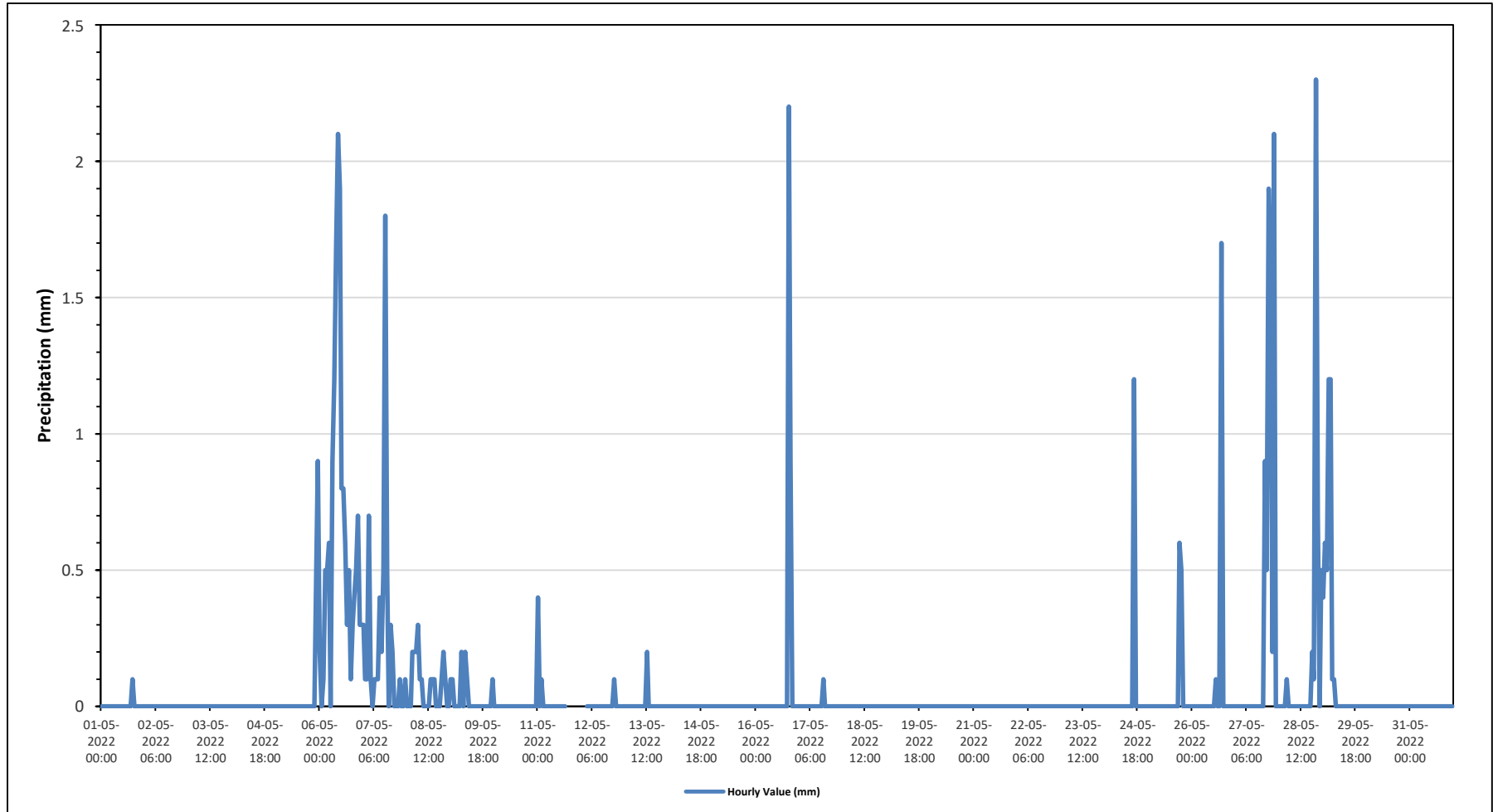
Maximum Hourly Value:	2.3 mm on May 28 at hour 20	Hours in Service:	744
Maximum Daily Value:	15.3 mm on May 6	Hours of Data:	733
Minimum Hourly Value:	0.0 mm on May 1 at hour 0	Hours of Missing Data:	11
Minimum Daily Value:	0.0 mm on May 2	Hours of Calibration:	0
Monthly Total:	48.4 mm	Operational Uptime:	98.5

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	
May 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.0	0.1	0.1	
May 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
May 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
May 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
May 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9	0.0	0.9	1.4	
May 6	0.2	0	0.1	0.5	0.5	0.6	0	0.9	1.2	1.7	2.1	1.9	0.8	0.8	0.6	0.3	0.5	0.1	0.3	0.4	0.5	0.7	0.3	0.3	0.0	2.1	15.3	
May 7	0.3	0.1	0.1	0.7	0.1	0	0.1	0.1	0.1	0.4	0.2	0.5	1.8	0.5	0	0.3	0.2	0	0	0	0.1	0	0	0.1	0.0	1.8	5.7	
May 8	0	0	0	0.2	0.2	0.2	0.3	0.1	0.1	0	0	0	0	0.1	0.1	0	0	0	0	0.1	0.2	0.1	0	0	0.0	0.3	1.8	
May 9	0.1	0.1	0	0	0	0	0.2	0	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.0	0.2	0.8
May 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
May 11	0.4	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	P	0.0	0.4	-	
May 12	P	P	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0.0	0.1	0.1	
May 13	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	0.2	
May 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	
May 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	
May 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2	0.9	0	0	0	0.0	2.2	3.1	
May 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0.0	0.1	0.1	
May 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	
May 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	
May 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	
May 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	
May 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	
May 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	
May 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	0	0	0	0	0	0	0.0	1.2	1.2	
May 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.5	0	0	0	0	0.0	0.6	1.1	
May 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	1.7	0	0	0	0	0	0	0	0.0	1.7	1.8	
May 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0.5	1.9	1.6	0.2	2.1	0	0	0.0	2.1	7.2	
May 28	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.1	2.3	0.7	0	0.5	0.0	2.3	3.9
May 29	0.4	0.6	0.5	1.2	1.2	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	1.2	4.1	
May 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	
May 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	
Diurnal Maximum	0.4	0.6	0.5	1.2	1.2	0.6	0.3	0.9	1.2	1.7	2.1	1.9	1.8	0.8	0.6	0.3	1.7	0.6	2.2	1.6	2.3	2.1	0.5	0.9				
Diurnal Average	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.0	0.2	0.1	0.1	0.1	0.0	0.1				

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

Timeseries Chart of Hourly Average for Precipitation - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

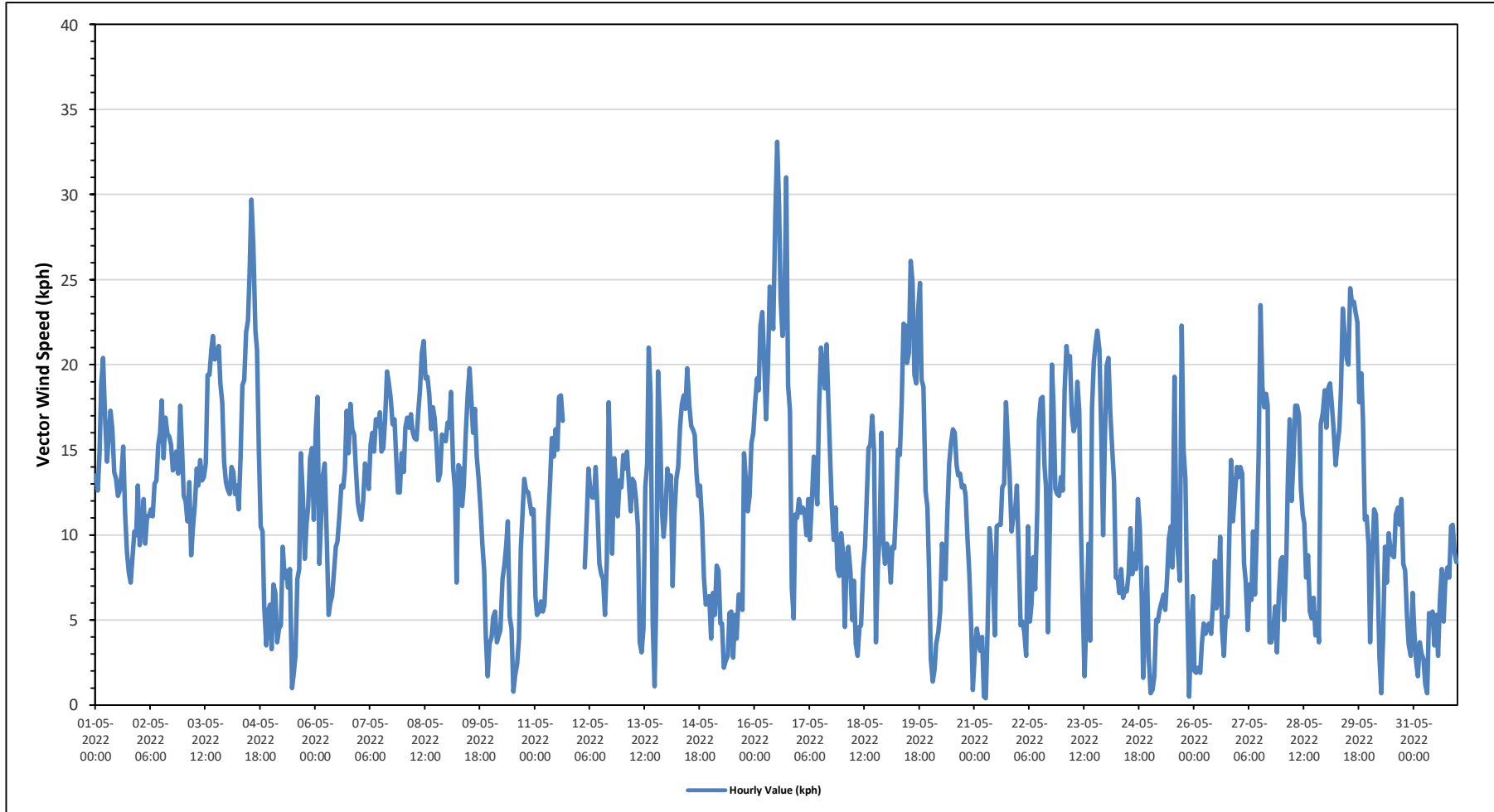
Maximum Hourly Value:	33.1 kph on May 16 at hour 12	Hours in Service:	744
Maximum Daily Value:	18.0 kph on May 29	Hours of Data:	733
Minimum Hourly Value:	0.4 kph on May 21 at hour 6	Hours of Missing Data:	11
Minimum Daily Value:	1.3 kph on May 31	Hours of Calibration:	0
Monthly Average:	0.9 kph	Operational Uptime:	98.5

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
May 1	13.5	12.6	14.9	18.8	20.4	16.7	14.3	15.8	17.3	16.2	13.7	13.3	12.3	12.6	13.7	15.2	11.3	9.0	7.8	7.2	8.7	10.2	10.0	12.9	7.2	20.4	13.0
May 2	9.4	10.7	12.1	9.5	11.1	11.1	11.5	11.1	13.0	13.2	15.3	16.0	17.9	14.5	16.9	15.9	15.8	15.3	13.8	14.0	14.9	13.6	17.6	14.9	9.4	17.9	13.4
May 3	12.3	12.0	10.8	13.1	8.8	10.5	11.8	13.9	12.9	14.4	13.2	13.4	14.2	19.4	19.4	20.9	21.7	20.3	20.7	21.1	18.9	17.8	14.3	13.1	8.8	21.7	11.1
May 4	12.7	12.4	14.0	13.7	12.4	12.9	11.5	14.5	18.8	19.1	21.9	22.6	25.3	29.7	27.1	22.0	20.9	15.0	10.5	10.2	5.9	3.5	5.5	5.9	3.5	29.7	14.7
May 5	3.3	7.1	6.6	3.7	4.5	4.7	9.3	7.5	7.9	6.9	8.0	1.0	1.8	2.9	7.4	8.0	14.8	12.2	8.6	10.7	11.7	14.5	15.1	10.9	1.0	15.1	5.1
May 6	16.0	18.1	8.3	11.1	13.5	14.2	10.3	5.3	6.0	6.4	7.8	9.3	9.6	11.0	12.9	12.8	13.8	17.3	14.8	17.7	16.2	15.9	13.8	11.9	5.3	18.1	7.2
May 7	11.3	10.9	12.0	14.2	13.7	12.7	15.3	16.0	14.9	16.8	16.4	17.2	14.9	15.1	16.9	19.6	19.0	18.0	16.5	16.8	14.4	12.5	12.5	14.8	10.9	19.6	14.9
May 8	13.7	16.3	16.9	16.3	17.1	16.1	15.7	15.6	17.3	18.5	20.7	21.4	19.2	19.3	18.3	16.2	17.5	16.9	15.4	13.2	13.6	15.9	15.6	15.5	13.2	21.4	16.0
May 9	16.6	16.3	18.4	14.0	12.7	7.2	14.1	13.9	11.7	12.9	16.1	18.3	19.8	18.1	16.0	17.4	14.6	13.3	11.6	9.5	7.9	4.1	1.7	3.6	1.7	19.8	12.5
May 10	4.0	5.2	5.5	3.7	4.1	4.4	7.4	8.2	9.4	10.8	5.2	4.5	0.8	1.8	2.4	3.9	9.2	11.1	13.3	12.6	12.5	11.9	11.2	11.5	0.8	13.3	1.8
May 11	6.4	5.3	5.5	6.1	5.5	5.9	8.3	10.8	13.0	15.7	14.6	16.2	15.0	18.1	18.2	16.7	P	P	P	P	P	P	P	P	5.3	18.2	-
May 12	P	P	P	8.1	10.8	13.9	12.6	12.2	12.2	14.0	11.4	8.3	7.7	7.4	5.3	8.5	17.8	14.1	8.9	14.5	13.0	11.1	13.2	12.8	5.3	17.8	8.8
May 13	14.7	13.9	14.9	13.1	11.4	13.3	13.1	12.1	10.5	3.7	3.1	4.5	12.8	14.2	21.0	18.2	4.8	1.1	6.0	19.6	16.7	11.6	9.9	11.2	1.1	21.0	7.9
May 14	13.9	12.7	13.5	7.0	11.2	13.3	14.0	16.4	17.7	18.2	17.4	19.8	17.6	16.4	16.2	15.9	13.6	12.3	12.9	10.8	7.5	5.9	6.3	6.4	5.9	19.8	12.7
May 15	3.9	6.6	5.3	8.2	7.9	4.8	4.8	2.2	2.6	2.9	5.4	5.5	2.8	5.3	3.9	6.5	6.5	5.6	14.8	13.2	11.4	12.3	15.4	16.0	2.2	16.0	4.8
May 16	17.8	19.2	18.5	22.3	23.1	19.7	16.8	19.8	24.6	23.5	22.1	28.8	33.1	29.4	23.8	21.7	23.0	31.0	18.8	17.3	6.9	5.1	11.2	11.0	5.1	33.1	16.2
May 17	12.1	11.3	11.6	11.4	10.0	12.1	9.7	11.8	14.6	13.0	11.8	17.7	21.0	19.9	18.6	21.2	17.7	14.3	11.6	9.7	11.6	8.0	7.6	10.1	7.6	21.2	12.9
May 18	9.0	4.6	8.4	9.3	7.8	5.0	7.3	3.6	2.9	4.6	4.7	8.0	9.3	12.4	15.1	15.3	17.0	14.9	3.7	8.1	10.1	16.0	9.9	8.3	2.9	17.0	4.7
May 19	9.5	9.0	7.2	9.3	9.2	11.8	15.0	14.7	17.7	22.4	22.3	20.1	20.7	26.1	24.8	19.4	18.9	23.2	24.8	19.1	18.7	12.6	11.6	8.0	7.2	26.1	16.0
May 20	2.7	1.4	2.1	3.6	4.3	5.5	9.5	8.5	7.4	11.3	14.2	15.4	16.2	16.0	14.1	13.5	13.6	12.8	12.9	12.3	9.8	7.7	4.6	0.9	0.9	16.2	8.6
May 21	3.2	4.5	3.8	3.2	4.0	0.5	0.4	4.7	10.4	9.0	6.8	4.1	10.5	10.6	12.8	13.0	17.8	15.4	13.8	10.2	11.1	11.5	12.9	0.4	17.8	7.2	
May 22	8.9	4.7	4.9	4.3	2.9	10.5	4.9	5.9	8.7	6.8	11.5	16.7	18.0	18.1	14.1	12.8	4.3	11.2	20.0	17.6	12.7	12.4	12.3	13.4	2.9	20.0	3.2
May 23	12.6	18.5	21.1	20.0	20.5	17.1	16.1	16.5	19.0	17.3	10.0	6.0	1.7	5.7	9.5	3.8	17.4	20.2	21.3	22.0	20.9	16.0	10.0	15.2	1.7	22.0	13.2
May 24	19.9	20.4	17.2	15.1	13.2	7.5	7.5	6.6	8.0	6.3	6.8	6.7	7.7	10.4	7.7	8.9	8.0	12.1	10.5	6.7	1.6	4.5	8.1	2.8	1.6	20.4	2.6
May 25	0.7	0.9	1.7	5.0	4.9	5.6	6.1	6.5	5.6	7.5	9.8	10.5	8.1	19.3	9.8	8.7	7.3	22.3	15.0	13.3	6.0	0.5	4.2	6.4	0.5	22.3	5.6
May 26	2.0	1.9	2.2	1.9	3.6	4.8	4.2	4.6	4.8	4.2	6.0	8.5	5.7	6.2	9.9	4.4	2.9	5.2	5.2	10.3	14.4	10.8	12.3	14.0	1.9	14.4	1.9
May 27	13.4	14.0	13.6	8.3	7.3	4.4	7.1	6.2	10.2	6.5	10.1	14.7	23.5	18.7	17.5	18.3	17.6	3.7	3.7	4.6	5.8	3.1	6.5	8.5	3.1	23.5	8.2
May 28	8.7	5.0	8.5	13.9	16.8	12.0	14.4	17.6	17.6	17.0	12.8	11.2	10.7	7.5	8.8	5.5	5.1	6.3	4.1	5.4	3.7	16.5	17.2	18.5	3.7	18.5	6.8
May 29	16.3	18.6	18.9	17.6	16.3	14.1	15.3	16.2	18.5	23.3	21.7	20.4	20.0	24.5	23.6	23.7	23.1	22.5	17.8	19.5	16.8	10.9	11.1	9.4	9.4	24.5	18.0
May 30	3.7	8.6	11.5	11.2	7.3	2.9	0.7	4.1	9.3	7.2	10.1	9.1	8.8	8.7	11.2	11.6	10.6	12.1	8.3	7.9	5.2	3.6	2.9	6.6	0.7	12.1	6.2
May 31	4.2	2.6	1.7	3.7	3.0	2.7	1.2	0.7	4.7	5.4	5.0	5.5	3.5	5.3	2.9	6.2	8.0	4.9	7.2	8.1	7.5	10.5	10.6	8.4	0.7	10.6	1.3
Diurnal Maximum	20	20	21	22	23	20	17	20	25	24	22	29	33	30	27	24	23	31	25	22	21	18	19				
Diurnal Average	9.9	10.2	10.4	10.3	10.3	9.6	10.0	10.4	11.9	12.1	12.1	12.7	13.3	14.3	14.2	13.8	13.5	13.9	12.6	12.9	11.3	10.3	10.4	10.5			

C Monthly Calibration	S Daily Zero-Span Check	Q Quality Assurance
K Collection Error	N 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.

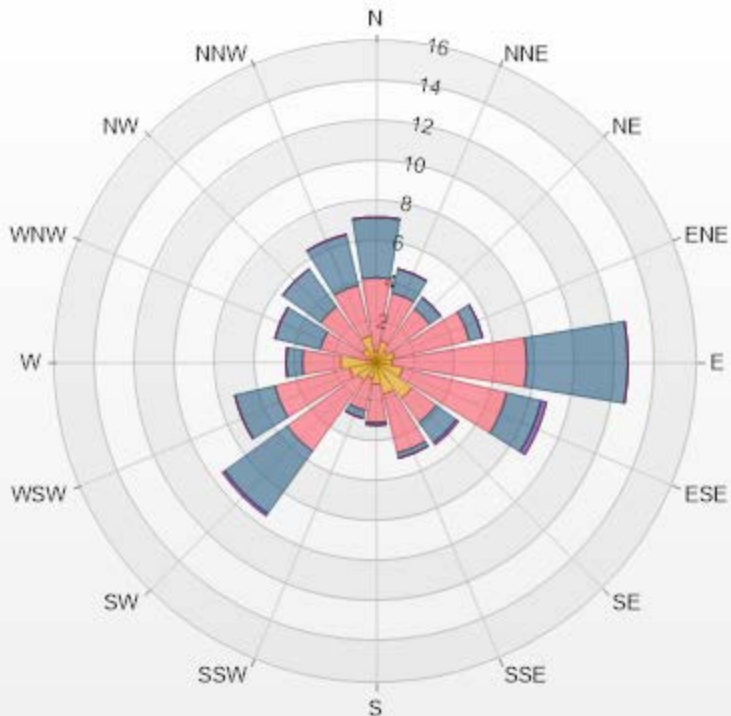
Timeseries Chart of Hourly Average for VWS - 986c Station



Wind: PRAMP 986c Monitor: WDS [KPH] Monthly: 05-2022 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.

Calm: 2.73% Valid Data: 98.52%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.55	3.68	3	0	0	7.23
NNE	1.09	2.46	1.23	0	0	4.78
NE	0.68	2.59	0.68	0	0	3.95
ENE	0.95	3.82	0.68	0	0	5.45
E	0.82	6.68	5.05	0	0	12.55
ESE	1.36	5.32	1.77	0.27	0	8.72
SE	2.18	1.5	1.23	0.14	0	5.05
SSE	1.64	3	0.27	0	0	4.91
S	1.09	1.91	0.14	0	0	3.14
SSW	0.82	1.64	0.41	0	0	2.87
SW	1.09	4.37	3.82	0.14	0	9.42
WSW	1.36	3.82	2.05	0	0	7.23
W	1.77	1.91	0.82	0	0	4.5
WNW	0.27	2.59	2.32	0	0	5.18
NW	0.82	2.59	2.32	0	0	5.73
NNW	1.36	2.59	2.59	0	0	6.54
Summary	17.85	50.47	28.38	0.55	0	97.25



PRAMP-202205

% Icon Classes (KPH)

18 1.8-6.0

50 6.0-15.0

28 15.0-29.0

1 29.0-39.0

0 >39.0



PEACE RIVER AREA MONITORING PROGRAM

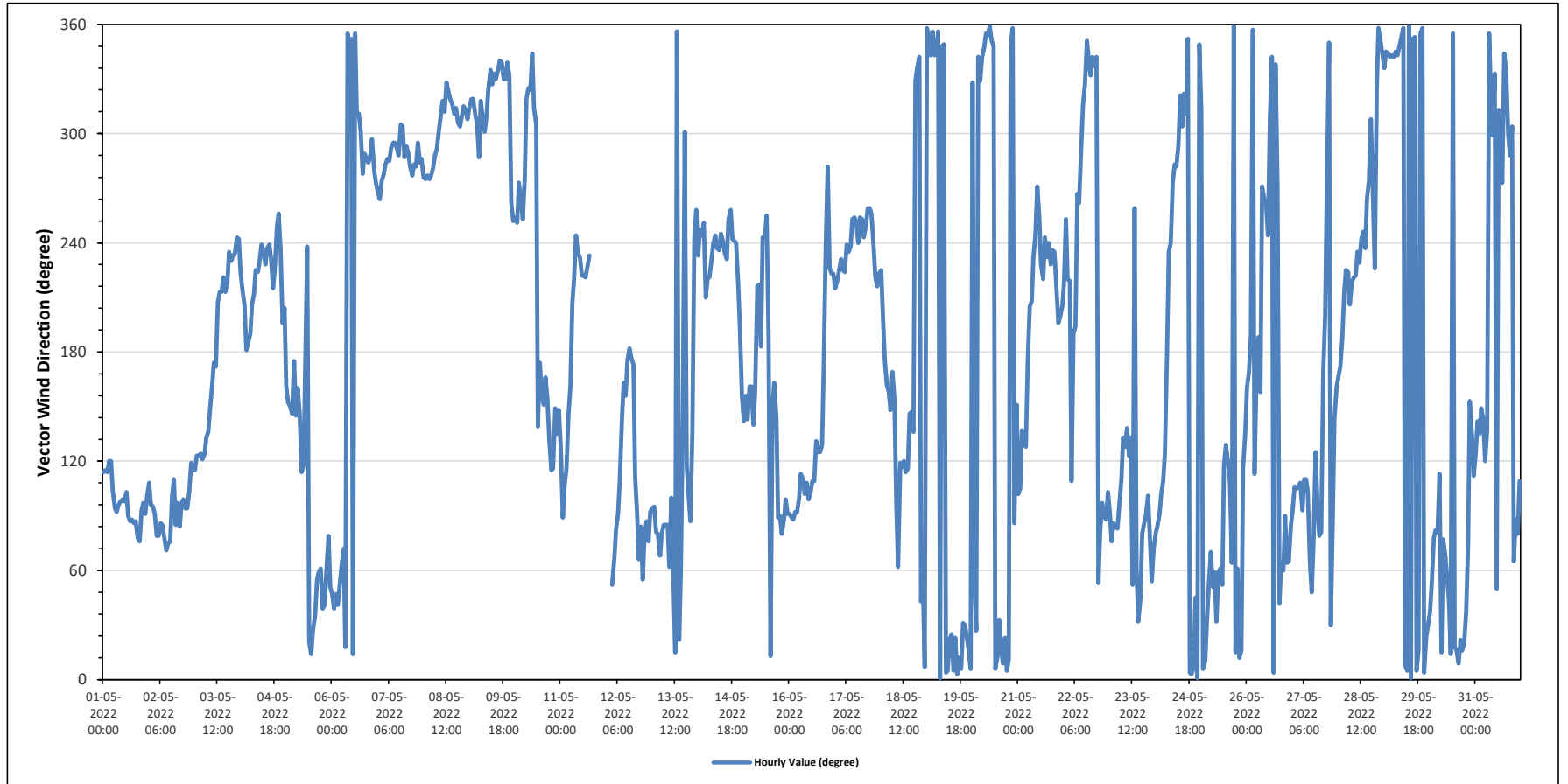
986c Station - May 2022

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average: 42 (NE) degree										Hours in Service: 744																																	
										Hours of Data: 733																																	
										Hours of Missing Data: 11																																	
										Hours of Calibration: 0																																	
										Operational Uptime: 98.5																																	
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																	
May 1	ESE	ESE	ESE	ESE	ESE	ESE	E	E	E	E	E	ESE	E	E	E	E	E	ENE	ENE	E	E	E	E	E	99	E																	
May 2	ESE	E	E	E	ENE	ENE	E	E	ENE	ENE	ENE	ENE	E	ESE	E	E	E	E	E	E	E	ESE	ESE	ESE	93	E																	
May 3	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SSE	S	S	SSW	SSW	SSW	SW	SSW	SW	SW	SW	SW	SW	WSW	WSW	194	SSW																	
May 4	SW	SSW	SSW	S	S	S	SSW	SSW	SW	SW	SW	WSW	SW	SW	WSW	SW	SSW	SW	WSW	WSW	SW	SSW	SSW	223	SW																		
May 5	SSE	SSE	SSE	SE	S	SE	SSE	SE	ESE	ESE	S	SW	NNE	NNE	NNE	NE	NE	ENE	ENE	NE	NE	ENE	ENE	83	E																		
May 6	NE	NE	NE	NE	NE	ENE	ENE	NNE	N	NNW	N	NNE	N	NW	NW	WNW	W	WNW	WNW	WNW	WNW	WNW	W	W	334	NNW																	
May 7	W	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	WNW	WNW	WNW	287	WNW																	
May 8	W	W	W	W	W	W	WNW	WNW	WNW	WNW	NW	NW	NNW	NW	NW	NW	NW	NW	WNW	NW	NW	NW	NW	303	WNW																		
May 9	NW	NW	NW	NW	WNW	WNW	NW	NW	WNW	NW	NW	NNW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	W	WSW	322	NW																		
May 10	WSW	WSW	W	W	WSW	W	NW	NW	NW	NNW	NW	WNW	SE	S	SSE	SSE	SSE	SSE	SE	ESE	ESE	SSE	SE	SE	164	SSE																	
May 11	SE	E	ESE	ESE	SE	SSE	SSW	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	-	-																		
May 12	P	P	P	NE	ENE	E	E	ESE	SE	SSE	SSE	S	S	S	S	ESE	E	ENE	E	NE	E	E	ENE	E	102	E																	
May 13	E	E	E	E	ENE	E	E	E	E	ENE	E	ENE	NNE	N	NNE	ENE	SE	WNW	ESE	ESE	E	SE	WSW	WSW	76	ENE																	
May 14	SW	WSW	WSW	WSW	SSW	SW	SW	SW	WSW	WSW	SW	SW	WSW	SW	SW	WSW	SW	WSW	WSW	WSW	WSW	SW	S	SSE	235	SW																	
May 15	SE	SSE	SE	SSE	SSE	SE	SSE	SW	SW	S	WSW	WSW	WSW	S	NNE	SSE	SSE	SE	E	E	E	E	E	125	SE																		
May 16	E	E	E	E	E	E	ESE	ESE	E	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SE	S	SW	W	WSW	SW	115	ESE																		
May 17	SSW	SW	SW	SW	SW	SW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	240	WSW																	
May 18	SW	SSW	S	SSE	SSE	SE	SSE	SSE	E	ENE	ESE	ESE	ESE	ESE	SE	SE	SE	NNW	NNW	NNW	NE	NE	N	123	ESE																		
May 19	N	N	NNW	N	NNW	NNW	N	NNW	NNW	N	N	NNE	NNE	N	NNE	N	NNE	N	NNE	N	NNE	NNE	NNE	N	7	N																	
May 20	NNW	NE	NNE	NNW	NNW	NNW	NNW	N	N	N	N	NNW	N	NNE	NNE	N	NNE	N	NNE	N	NNE	NNW	N	E	5	N																	
May 21	E	ESE	SE	SE	SE	S	SSW	SSW	SW	WSW	W	WSW	SW	SW	WSW	SW	WSW	SW	SW	SW	SW	SSW	SSW	SSW	221	SW																	
May 22	SW	WSW	SW	SW	ESE	S	SSW	W	WNW	NW	NW	N	NNW	NNW	NNW	NNW	NNW	NE	E	E	E	E	ESE	4	N																		
May 23	E	ENE	E	E	E	E	ESE	SE	SE	SE	ESE	SE	NE	WSW	ENE	NNE	NE	E	E	E	E	E	ENE	91	E																		
May 24	E	E	E	E	ESE	ESE	S	SW	WSW	W	W	WNW	NW	WNW	NW	NW	N	N	N	N	N	N	NNW	29	NNE																		
May 25	NW	N	N	NNE	NE	ENE	NE	ENE	NNE	ENE	NE	ESE	SE	ESE	ESE	ENE	N	NNE	ENE	NNE	NNE	ESE	SE	62	ENE																		
May 26	SSE	SSE	S	N	ESE	SSE	S	SSE	W	W	W	WSW	NW	NNW	N	NNW	W	NE	ENE	ENE	E	ENE	ENE	60	ENE																		
May 27	E	ESE	ESE	ESE	ESE	E	ESE	ESE	ESE	ENE	NE	ENE	SE	E	ENE	E	SSE	SSW	W	N	NNE	E	SE	102	E																		
May 28	SSE	S	S	SSW	SW	SW	SSW	SW	SW	SW	SW	WSW	WSW	SW	W	NW	W	NW	W	NW	N	N	NNW	241	WSW																		
May 29	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	N	N	N	N	N	N	N	N	N	N	N	NNE	355	N																		
May 30	NE	NE	ENE	E	E	ESE	NNE	ENE	ENE	NE	NE	NNE	N	NNE	NNE	N	NNE	NNE	NE	ENE	SSE	SE	ESE	45	NE																		
May 31	ESE	SE	SE	SSE	SE	ESE	SE	N	NW	WNW	NNW	NE	NW	WNW	W	NNW	NNW	WNW	WNW	WNW	ENE	E	E	ESE	9	N																	
C	Monthly Calibration										S	Daily Zero-Span Check										Q	Quality Assurance																				
K	Collection Error										N	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.																																											

Timeseries Chart of Hourly Average for VWD - 986c Station





PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

Summary of Hourly Averages

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

WIND SPEED																											
Maximum Hourly Value:		33.1 kph on May 16 at hour 12										Hours in Service:		744													
Maximum Daily Value:		18.0 kph on May 29										Hours of Data:		733													
Minimum Hourly Value:		0.4 kph on May 21 at hour 6										Hours of Missing Data:		11													
Minimum Daily Value:		1.3 kph on May 31										Hours of Calibration:		0													
Monthly Average:		0.9 kph										Operational Uptime:		98.5													
WIND DIRECTION																											
Monthly Average:		42 (NE) degree																									
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
May 1	13.5	12.6	14.9	18.8	20.4	16.7	14.3	15.8	17.3	16.2	13.7	13.3	12.3	12.6	13.7	15.2	11.3	9.0	7.8	7.2	8.7	10.2	10.0	12.9	7.2	20.4	13.0
May 2	9.4	10.7	12.1	9.5	11.1	11.1	11.1	11.1	13.0	13.2	15.3	16.0	17.9	14.5	16.9	15.9	15.8	15.3	13.8	14.0	14.9	13.6	17.6	14.9	9.4	17.9	13.4
May 3	12.3	12.0	10.8	13.1	8.8	10.5	11.8	13.9	12.9	14.4	13.2	13.4	14.2	19.4	19.4	20.9	21.7	20.3	20.7	21.1	18.9	17.8	14.3	13.1	8.8	21.7	11.1
May 4	12.7	12.4	14.0	13.7	12.4	12.9	11.5	14.5	18.8	19.1	21.9	22.6	25.3	29.7	27.1	22.0	20.9	15.0	10.5	10.2	5.9	3.5	5.5	5.9	3.5	29.7	14.7
May 5	3.3	7.1	6.6	3.7	4.5	4.7	9.3	7.5	7.9	6.9	8.0	1.0	1.8	2.9	7.4	8.0	14.8	12.2	8.6	10.7	11.7	14.5	15.1	10.9	1.0	15.1	5.1
May 6	16.0	18.1	8.3	11.1	13.5	14.2	10.3	5.3	6.0	6.4	7.8	9.3	9.6	11.0	12.9	12.8	13.8	17.3	14.8	17.7	16.2	15.9	13.8	11.9	5.3	18.1	7.2
May 7	11.3	10.9	12.0	14.2	13.7	12.7	15.3	16.0	14.9	16.8	16.4	17.2	14.9	15.1	16.9	19.6	19.0	18.0	16.5	16.8	14.4	12.5	12.5	14.8	10.9	19.6	14.9
May 8	13.7	16.3	16.9	16.3	17.1	16.1	15.7	15.6	17.3	18.5	20.7	21.4	19.2	19.3	18.3	16.2	17.5	16.9	15.4	13.2	13.6	15.9	15.6	15.5	13.2	21.4	16.0
May 9	16.6	16.3	18.4	14.0	12.7	7.2	14.1	13.9	11.7	12.9	16.1	18.3	19.8	18.1	16.0	17.4	14.6	13.3	11.6	9.5	7.9	4.1	1.7	3.6	1.7	19.8	12.5
May 10	4.0	5.2	5.5	3.7	4.1	4.4	7.4	8.2	9.4	10.8	5.2	4.5	0.8	1.8	2.4	3.9	9.2	11.1	13.3	12.6	12.5	11.9	11.2	11.5	0.8	13.3	1.8
May 11	6.4	5.3	5.5	6.1	5.5	5.9	8.3	10.8	13.0	15.7	14.6	16.2	15.0	18.1	18.2	16.7	P	P	P	P	P	P	P	P	5.3	18.2	-
May 12	P	P	P	8.1	10.8	13.9	12.6	12.2	12.2	14.0	11.4	8.3	7.7	7.4	5.3	8.5	17.8	14.1	8.9	14.5	13.0	11.1	13.2	12.8	5.3	17.8	8.8
May 13	14.7	13.9	14.9	13.1	11.4	13.3	13.1	12.1	10.5	3.7	3.1	4.5	12.8	14.2	21.0	18.2	4.8	1.1	6.0	19.6	16.7	11.6	9.9	11.2	1.1	21.0	7.9
May 14	13.9	12.7	13.5	7.0	11.2	13.3	14.0	16.4	17.7	18.2	17.4	19.8	17.6	16.4	16.2	15.9	13.6	12.3	12.9	10.8	7.5	5.9	6.3	6.4	5.9	19.8	12.7
May 15	3.9	6.6	5.3	8.2	7.9	4.8	4.8	2.2	2.6	2.9	5.4	5.5	2.8	5.3	3.9	6.5	6.5	5.6	14.8	13.2	11.4	12.3	15.4	16.0	2.2	16.0	4.8
May 16	17.8	19.2	18.5	22.3	23.1	19.7	16.8	19.8	24.6	23.5	22.1	28.8	33.1	29.4	23.8	21.7	23.0	31.0	18.8	17.3	6.9	5.1	11.2	11.0	5.1	33.1	16.2
May 17	12.1	11.3	11.6	11.4	10.0	12.1	9.7	11.8	14.6	13.0	11.8	17.7	21.0	19.9	18.6	21.2	17.7	14.3	11.6	9.7	11.6	8.0	7.6	10.1	7.6	21.2	12.9
May 18	9.0	4.6	8.4	9.3	7.8	5.0	7.3	3.6	2.9	4.6	4.7	8.0	9.3	12.4	15.1	15.3	17.0	14.9	3.7	8.1	10.1	16.0	9.9	8.3	2.9	17.0	4.7
May 19	9.5	9.0	7.2	9.3	9.2	11.8	15.0	14.7	17.7	22.4	22.3	20.1	20.7	26.1	24.8	19.4	18.9	23.2	24.8	19.1	18.7	12.6	11.6	8.0	7.2	26.1	16.0
May 20	2.7	1.4	2.1	3.6	4.3	5.5	8.5	7.4	11.3	14.2	15.4	16.2	16.0	14.1	13.5	13.6	12.8	12.9	9.8	7.7	4.6	0.9	0.9	0.9	16.2	8.6	
	NNW	NE	NNE	NNW	NNW	NNW	NNW	N	N	N	N	NNW	N	NNE	NNE	N	NNE	N	NNE	N	NNE	NNE	NNE	SSE			



PEACE RIVER AREA MONITORING PROGRAM

986c Station - May 2022

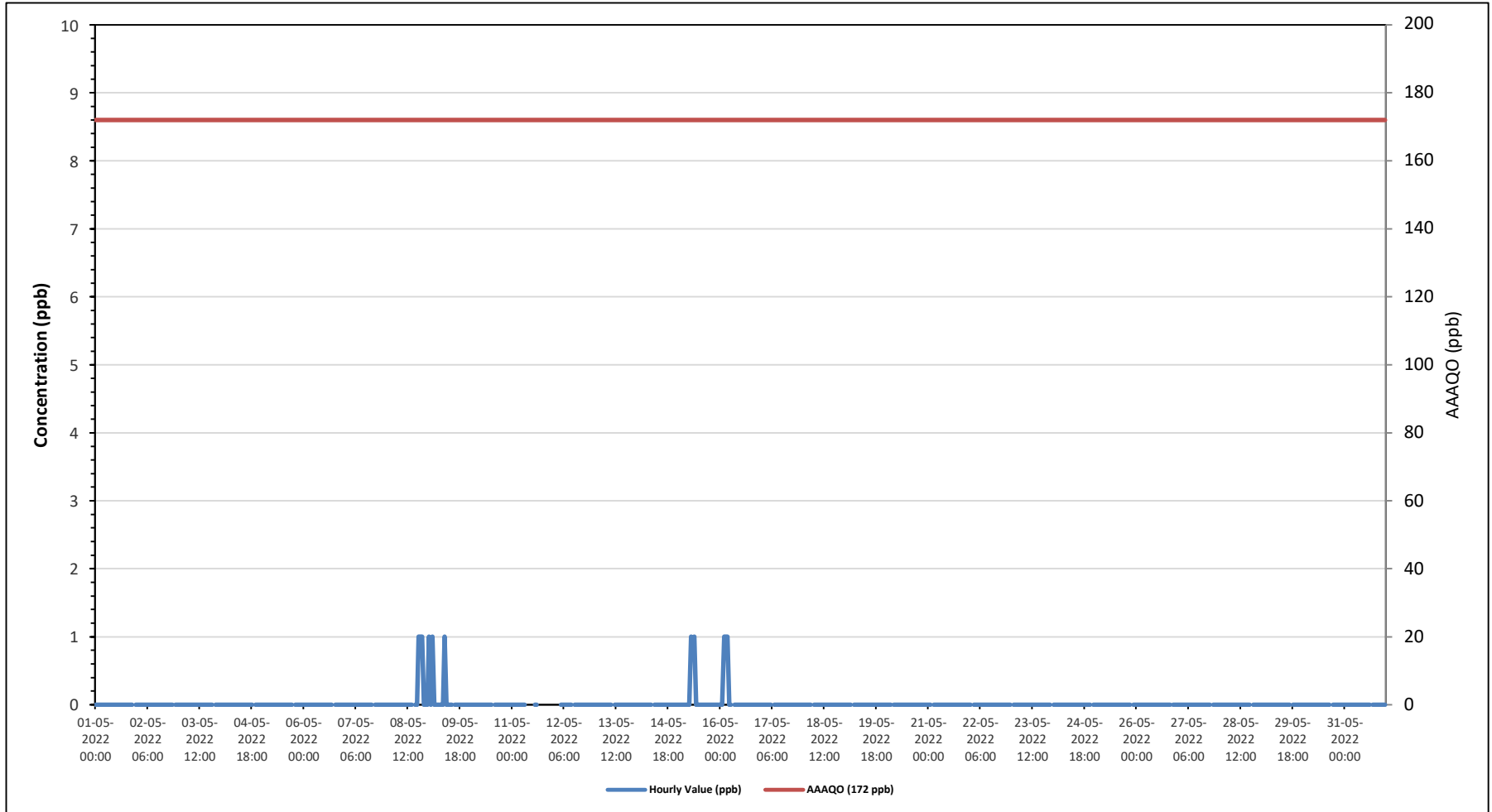
Summary of Hourly Averages

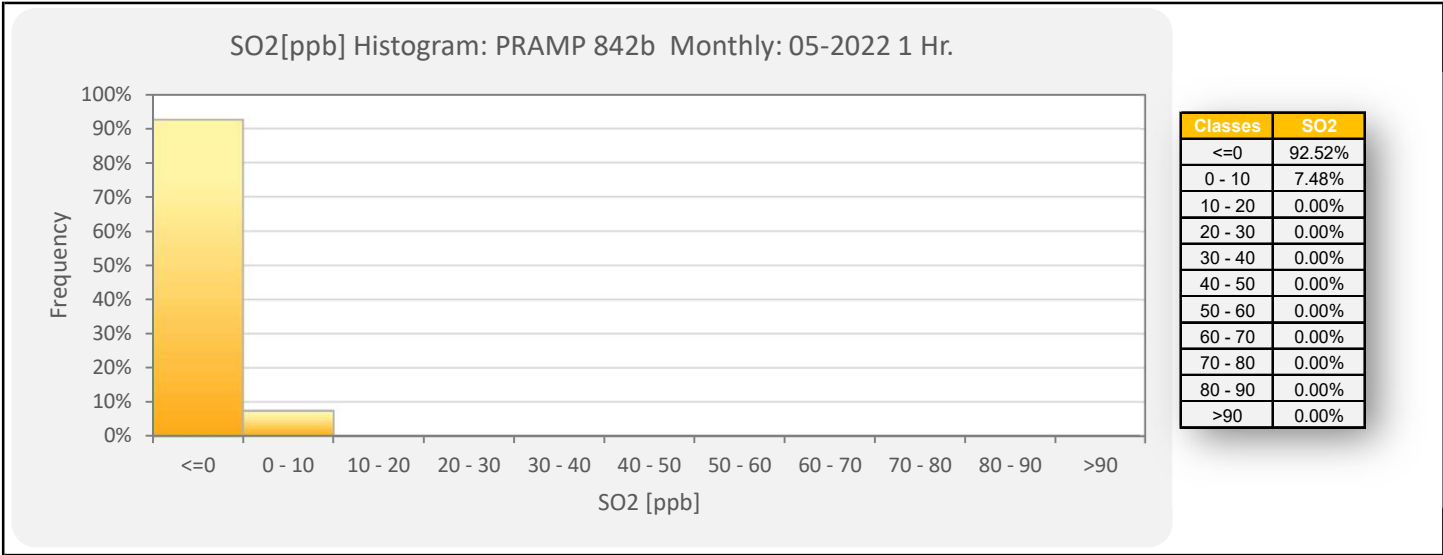
VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED		WIND DIRECTION																																										
Maximum Hourly Value:	33.1 kph on May 16 at hour 12	Hours in Service:	744																																									
Maximum Daily Value:	18.0 kph on May 29	Hours of Data:	733																																									
Minimum Hourly Value:	0.4 kph on May 21 at hour 6	Hours of Missing Data:	11																																									
Minimum Daily Value:	1.3 kph on May 31	Hours of Calibration:	0																																									
Monthly Average:	0.9 kph	Operational Uptime:	98.5																																									
Monthly Average: 42 (NE) degree																																												
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average																		
May 21	3.2	4.5	3.8	3.2	4.0	0.5	0.4	4.7	10.4	9.0	6.8	4.1	10.5	10.6	10.6	12.8	13.0	17.8	15.4	13.8	10.2	11.1	11.5	12.9	0.4	17.8	7.2																	
May 22	E	ESE	SE	SE	SE	S	SSW	SSW	SW	WSW	W	WSW	SW	SW	WSW	SW	WSW	SW	SW	SW	SW	SSW	SSW	SSW	2.9	20.0	3.2																	
May 23	8.9	4.7	4.9	4.3	2.9	10.5	4.9	5.9	8.7	6.8	11.5	16.7	18.0	18.1	14.1	12.8	4.3	11.2	20.0	17.6	12.7	12.4	12.3	13.4	1.7	22.0	13.2																	
May 24	12.6	18.5	21.1	20.0	20.5	17.1	16.1	16.5	19.0	17.3	10.0	6.0	1.7	5.7	9.5	3.8	17.4	20.2	21.3	22.0	20.9	16.0	10.0	15.2	1.6	20.4	2.6																	
May 25	E	ENE	E	E	E	E	ESE	SE	SE	ESE	SE	SE	ESE	SE	NE	WSW	ENE	NNE	NE	E	E	E	NE	ENE	0.5	22.3	5.6																	
May 26	19.9	20.4	17.2	15.1	13.2	7.5	7.5	6.6	8.0	6.3	6.8	6.7	7.7	10.4	7.7	8.9	8.0	12.1	10.5	6.7	1.6	4.5	8.1	2.8	1.9	14.4	1.9																	
May 27	E	E	E	E	ESE	ESE	S	SW	WSW	W	W	W	WNW	NW	NNW	NW	NW	N	N	N	N	NE	N	NNW	3.1	23.5	8.2																	
May 28	0.7	0.9	1.7	5.0	4.9	5.6	6.1	6.5	5.6	7.5	9.8	10.5	8.1	19.3	9.8	8.7	7.3	22.3	15.0	13.3	6.0	0.5	4.2	6.4	3.7	18.5	6.8																	
May 29	NW	N	N	NNE	NE	ENE	NE	ENE	NNE	ENE	ENE	NE	ESE	SE	ESE	ESE	ENE	N	NNE	ENE	NNE	NNE	ESE	SE	9.4	24.5	18.0																	
May 30	2.0	1.9	2.2	1.9	3.6	4.8	4.2	4.6	4.8	4.2	6.0	8.5	5.7	6.2	9.9	4.4	2.9	5.2	5.2	10.3	14.4	10.8	12.3	14.0	0.7	12.1	6.2																	
May 31	13.4	14.0	13.6	8.3	7.3	4.4	7.1	6.2	10.2	6.5	10.1	14.7	23.5	18.7	17.5	18.3	17.6	3.7	3.7	4.6	5.8	3.1	6.5	8.5	0.7	10.6	1.3																	
	E	ESE	ESE	ESE	ESE	E	ESE	ESE	ESE	ENE	NE	ENE	SE	E	ENE	E	SSE	SSW	W	N	NNE	E	SE	SSE	0.7	10.6	1.3																	
	4.2	2.6	1.7	3.7	3.0	2.7	1.2	0.7	5.4	5.0	5.5	3.5	5.3	2.9	6.2	8.0	4.9	7.2	8.1	7.5	10.5	10.6	9.0	8.4	0.7	10.6	1.3																	
	ESE	SE	SE	SSE	SE	ESE	SE	N	NW	WNW	NNW	NE	NW	WNW	W	NNW	NNW	WNW	WNW	WNW	ENE	E	E	ESE	0.7	10.6	1.3																	
C	Monthly Calibration											S Daily Zero-Span Check											Q Quality Assurance																					
K	Collection Error											N 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.																																												

842b STATION

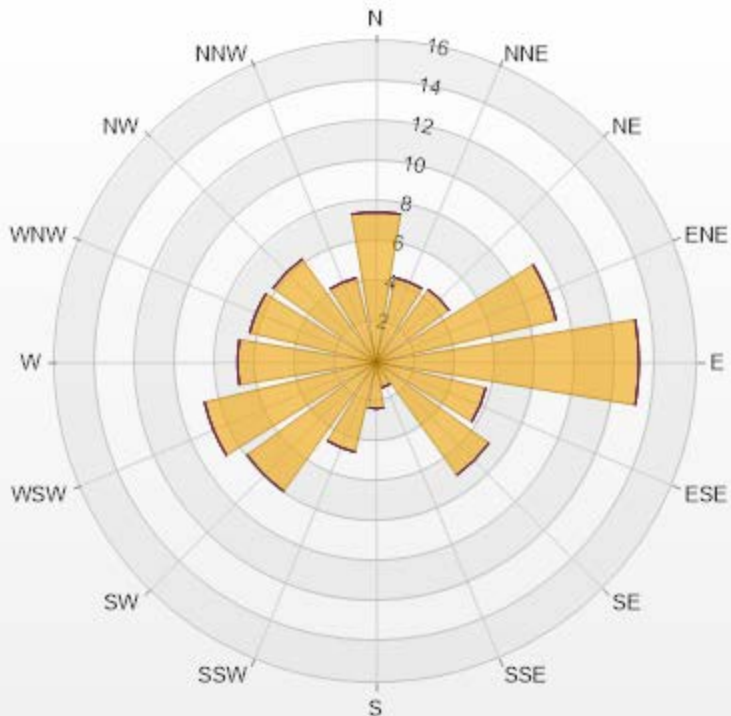
Timeseries Chart of Hourly Average for SO2 - 842b Station





Wind: PRAMP 842b Poll.: PRAMP 842b-SO2[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 93.41% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	7.48	0	0	0	0	7.48
NNE	4.32	0	0	0	0	4.32
NE	4.46	0	0	0	0	4.46
ENE	9.21	0	0	0	0	9.21
E	13.09	0	0	0	0	13.09
ESE	5.61	0	0	0	0	5.61
SE	6.91	0	0	0	0	6.91
SSE	1.29	0	0	0	0	1.29
S	2.3	0	0	0	0	2.3
SSW	4.6	0	0	0	0	4.6
SW	7.91	0	0	0	0	7.91
WSW	8.78	0	0	0	0	8.78
W	6.91	0	0	0	0	6.91
WNW	6.47	0	0	0	0	6.47
NW	6.33	0	0	0	0	6.33
NNW	4.32	0	0	0	0	4.32
Summary	100	0	0	0	0	100



PRAMP-202205

% Icon Classes (ppb)

100  0-10

0  10-50

0  50-100

0  100-172

0  >172.0



PEACE RIVER AREA MONITORING PROGRAM

842b Station - May 2022

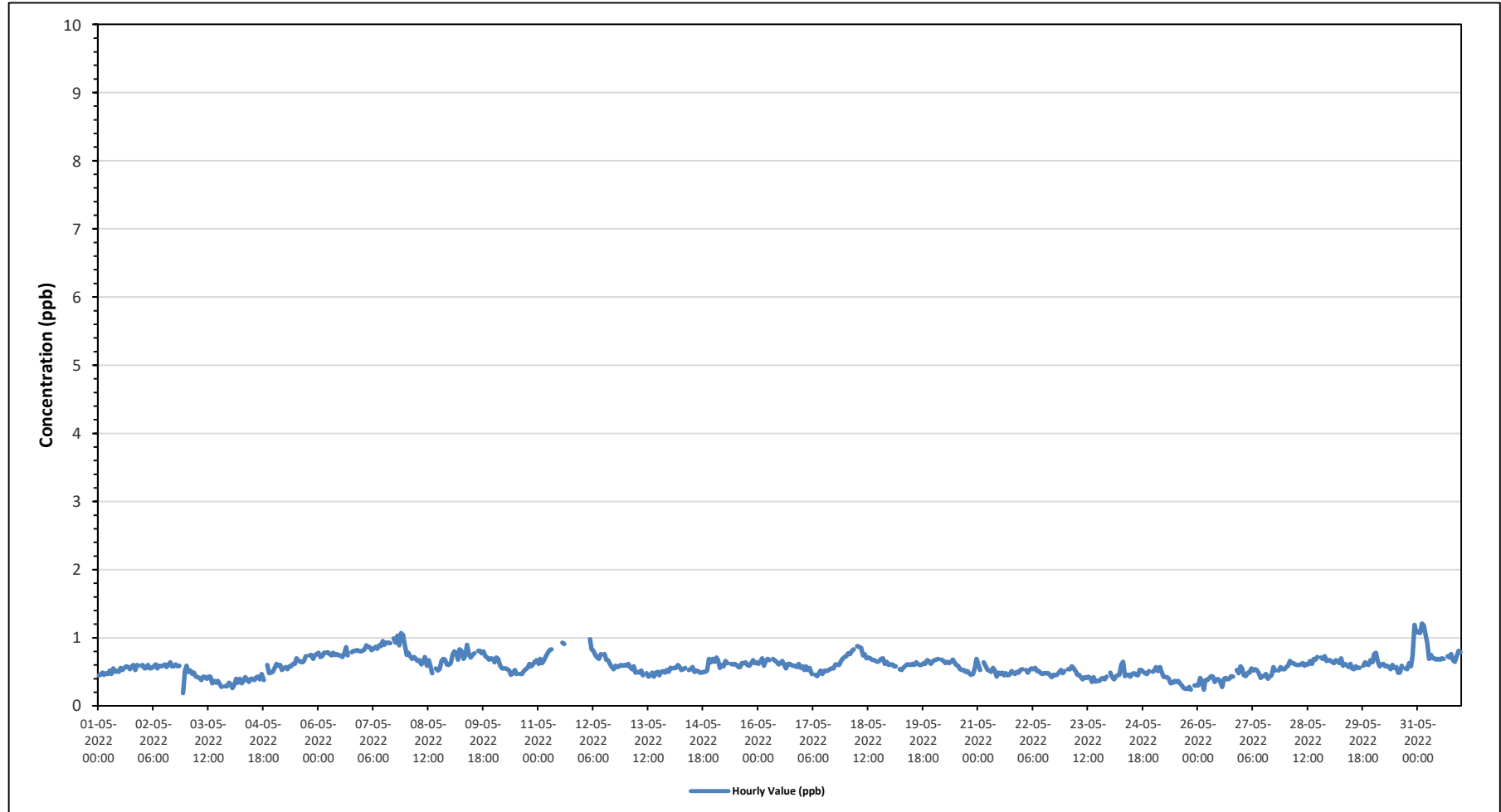
Summary of Hourly Averages

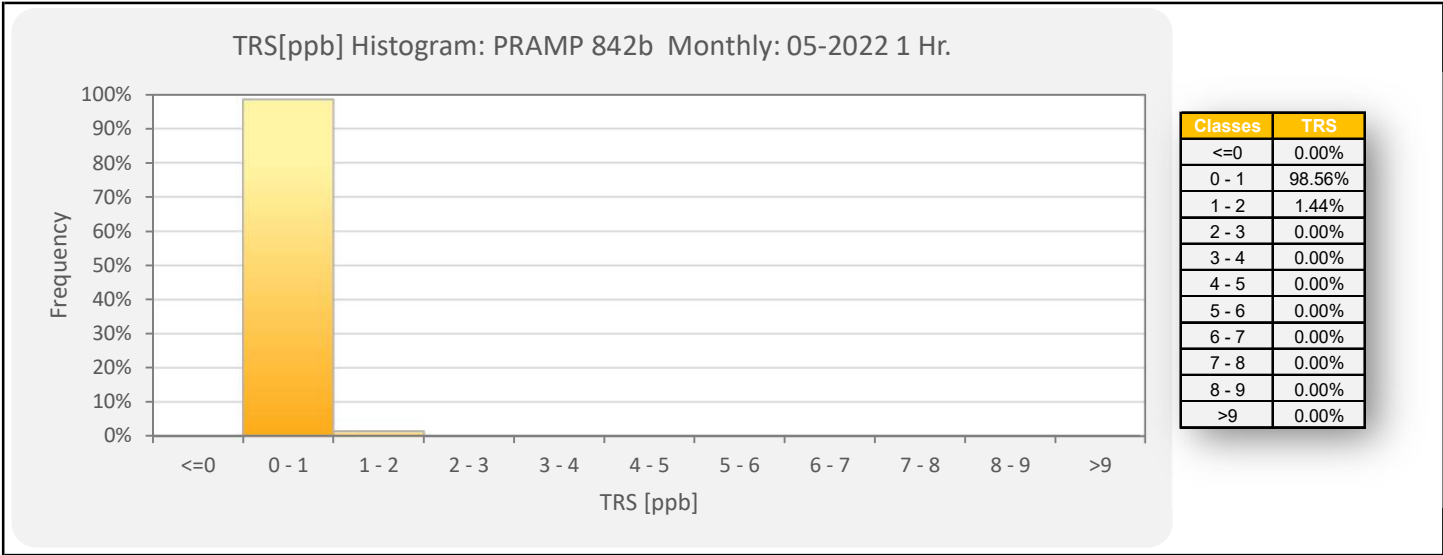
TOTAL REDUCED SULPHUR (TRS) in ppb

Maximum Hourly Value:	1.21 ppb on May 31 at hour 2	Hours in Service:	744
Maximum Daily Value:	0.91 ppb on May 7	Hours of Data:	695
Minimum Hourly Value:	0.19 ppb on May 2 at hour 22	Hours of Missing Data:	13
Minimum Daily Value:	0.37 ppb on May 25	Hours of Calibration:	36
Monthly Average:	0.59 ppb	Operational Uptime:	98.3

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average						
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23					
May 1	0.45	0.46	0.49	0.46	0.48	0.47	0.52	0.47	0.55	0.5	0.52	0.5	0.56	0.53	0.56	0.58	0.57	0.54	0.58	0.6	0.53	0.6	S	0.59	0.45	0.60	0.53					
May 2	0.6	0.55	0.56	0.6	0.55	0.56	0.58	0.61	0.55	0.59	0.58	0.59	0.61	0.57	0.61	0.64	0.58	0.58	0.61	0.58	0.59	S	0.19	0.51	0.19	0.64	0.56					
May 3	0.59	0.5	0.52	0.47	0.49	0.43	0.42	0.41	0.38	0.43	0.42	0.4	0.43	0.43	0.33	0.37	0.34	0.37	0.32	0.28	S	0.29	0.29	0.34	0.28	0.59	0.40					
May 4	0.32	0.26	0.31	0.4	0.34	0.4	0.33	0.37	0.42	0.39	0.35	0.4	0.4	0.38	0.42	0.43	0.39	0.47	0.38	S	0.6	0.48	0.49	0.5	0.26	0.60	0.40					
May 5	0.55	0.62	0.59	0.6	0.53	0.55	0.57	0.54	0.58	0.58	0.62	0.62	0.7	0.67	0.65	0.64	0.66	0.73	S	0.74	0.75	0.69	0.75	0.76	0.53	0.76	0.64					
May 6	0.78	0.72	0.73	0.78	0.78	0.79	0.76	0.74	0.78	0.75	0.76	0.74	0.74	0.72	0.77	0.86	0.74	S	0.79	0.81	0.81	0.82	0.81	0.8	0.72	0.86	0.77					
May 7	0.81	0.83	0.89	0.87	0.86	0.82	0.84	0.87	0.84	0.89	0.88	0.95	0.9	0.93	0.93	0.92	S	0.99	0.93	1.03	0.89	1.07	1.04	0.89	0.81	1.07	0.91					
May 8	0.75	0.78	0.73	0.69	0.72	0.69	0.66	0.67	0.61	0.64	0.72	0.59	0.67	0.59	0.48	S	0.55	0.52	0.54	0.66	0.69	0.68	0.61	0.6	0.48	0.78	0.65					
May 9	0.63	0.74	0.8	0.78	0.68	0.83	0.81	0.69	0.74	0.9	0.76	0.71	0.75	0.77	S	0.81	0.81	0.77	0.8	0.73	0.71	0.68	0.7	0.69	0.63	0.90	0.75					
May 10	0.64	0.71	0.69	0.59	0.55	0.55	0.55	0.54	0.52	0.46	0.48	0.53	0.47	S	0.47	0.47	0.51	0.54	0.56	0.62	0.58	0.61	0.65	0.67	0.46	0.71	0.56					
May 11	0.62	0.69	0.63	0.67	0.73	0.77	0.82	0.83	C	C	C	C	S	0.93	0.91	P	P	P	P	P	P	P	P	P	0.62	0.93	-					
May 12	P	P	P	X	0.98	0.83	0.81	0.75	0.71	0.69	0.76	S	0.76	0.68	0.67	0.62	0.57	0.54	0.59	0.57	0.58	0.6	0.59	0.6	0.54	0.98	0.68					
May 13	0.59	0.62	0.57	0.54	0.58	0.49	0.5	0.49	0.52	0.45	S	0.48	0.43	0.45	0.49	0.43	0.49	0.5	0.45	0.5	0.51	0.49	0.53	0.5	0.43	0.62	0.50					
May 14	0.56	0.55	0.56	0.56	0.6	0.57	0.53	0.54	0.56	S	0.53	0.54	0.57	0.5	0.52	0.51	0.49	0.49	0.5	0.5	0.52	0.69	0.64	0.69	0.49	0.69	0.55					
May 15	0.65	0.71	0.67	0.56	0.6	0.58	0.66	0.63	S	0.62	0.61	0.62	0.6	0.57	0.57	0.63	0.63	0.64	0.6	0.59	0.63	0.67	0.63	0.64	0.56	0.71	0.62					
May 16	0.62	0.65	0.7	0.59	0.66	0.69	0.67	S	0.69	0.66	0.65	0.61	0.63	0.66	0.61	0.55	0.62	0.62	0.6	0.59	0.59	0.57	0.62	0.56	0.55	0.70	0.63					
May 17	0.58	0.53	0.58	0.53	0.56	0.47	S	0.46	0.44	0.48	0.52	0.47	0.52	0.51	0.52	0.54	0.55	0.55	0.61	0.61	0.6	0.66	0.69	0.72	0.44	0.72	0.55					
May 18	0.73	0.77	0.76	0.81	0.83	S	0.88	0.87	0.85	0.74	0.76	0.7	0.71	0.7	0.68	0.67	0.66	0.65	0.66	0.69	0.7	0.62	0.65	0.6	0.60	0.88	0.73					
May 19	0.61	0.61	0.58	0.58	S	0.54	0.53	0.56	0.58	0.61	0.61	0.6	0.62	0.6	0.64	0.62	0.6	0.6	0.63	0.62	0.67	0.66	0.62	0.65	0.53	0.67	0.61					
May 20	0.67	0.68	0.69	S	0.68	0.66	0.63	0.65	0.63	0.65	0.68	0.64	0.6	0.59	0.54	0.53	0.53	0.5	0.51	0.48	0.46	0.47	0.56	0.69	0.46	0.69	0.60					
May 21	0.61	0.53	S	0.64	0.58	0.53	0.52	0.5	0.56	0.52	0.43	0.49	0.47	0.49	0.45	0.48	0.45	0.46	0.51	0.49	0.47	0.5	0.49	0.53	0.43	0.64	0.51					
May 22	0.54	S	0.53	0.49	0.53	0.55	0.54	0.56	0.51	0.51	0.48	0.47	0.48	0.48	0.46	0.42	0.46	0.45	0.46	0.49	0.53	0.48	0.51	0.42	0.42	0.56	0.50					
May 23	S	0.54	0.54	0.58	0.55	0.51	0.46	0.46	0.42	0.39	0.42	0.41	0.43	0.41	0.35	0.42	0.36	0.37	0.37	0.4	0.41	0.39	0.43	S	0.35	0.58	0.44					
May 24	0.49	0.42	0.39	0.43	0.45	0.46	0.6	0.65	0.44	0.46	0.46	0.43	0.47	0.48	0.46	0.45	0.53	0.53	0.5	0.48	0.47	0.51	S	0.5	0.39	0.65	0.48					
May 25	0.52	0.57	0.51	0.57	0.5	0.43	0.42	0.42	0.4	0.33	0.34	0.37	0.35	0.37	0.33	0.3	0.26	0.25	0.25	0.28	0.24	S	0.3	0.3	0.24	0.57	0.37					
May 26	0.3	0.41	0.37	0.24	0.38	0.38	0.41	0.44	0.43	0.35	0.39	0.39	0.36	0.28	0.4	0.41	0.39	0.4	0.44	0.43	S	0.53	0.48	0.58	0.24	0.58	0.40					
May 27	0.55	0.45	0.44	0.49	0.49	0.55	0.52	0.54	0.53	0.48	0.41	0.44	0.44	0.47	0.4	0.43	0.45	0.57	0.52	S	0.52	0.57	0.54	0.54	0.40	0.57	0.49					
May 28	0.57	0.59	0.66	0.63	0.63	0.61	0.6	0.6	0.61	0.63	0.59	0.62	0.61	0.66	0.62	0.69	0.68	0.72	S	0.71	0.69	0.73	0.66	0.67	0.57	0.73	0.64					
May 29	0.67	0.65	0.63	0.67	0.66	0.63	0.7	0.59	0.62	0.6	0.57	0.62	0.55	0.54	0.58	0.56	0.56	S	0.59	0.64	0.61	0.6	0.67	0.64	0.54	0.70	0.62					
May 30	0.76	0.78	0.65	0.58	0.61	0.62	0.58	0.59	0.57	0.54	0.6	0.56	0.57	0.49	0.49	0.59	S	0.55	0.54	0.63	0.58	0.74	1.19	1.08	0.49	1.19	0.65					
May 31	1.08	1.07	1.21	1.18	1.04	0.93	0.69	0.75	0.7	0.7	0.68	0.69	0.68	0.7	0.69	S	0.73	0.71	0.76	0.67	0.65	0.72	0.81	0.79	0.65	1.21	0.81					
Diurnal Maximum	1.08	1.07	1.21	1.18	1.04	0.93	0.88	0.87	0.85	0.90	0.88	0.95	0.90	0.93	0.92	0.81	0.99	0.93	1.03	0.89	1.07	1.19	1.08									
Diurnal Average	0.62	0.62	0.62	0.61	0.62	0.60	0.60	0.59	0.58	0.57	0.57	0.56	0.57	0.57	0.55	0.56	0.54	0.56	0.56	0.59	0.59	0.61	0.61	0.63								
C	Monthly Calibration										S	Daily Zero-Span Check										Q	Quality Assurance									
K	Collection Error										N	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.																																

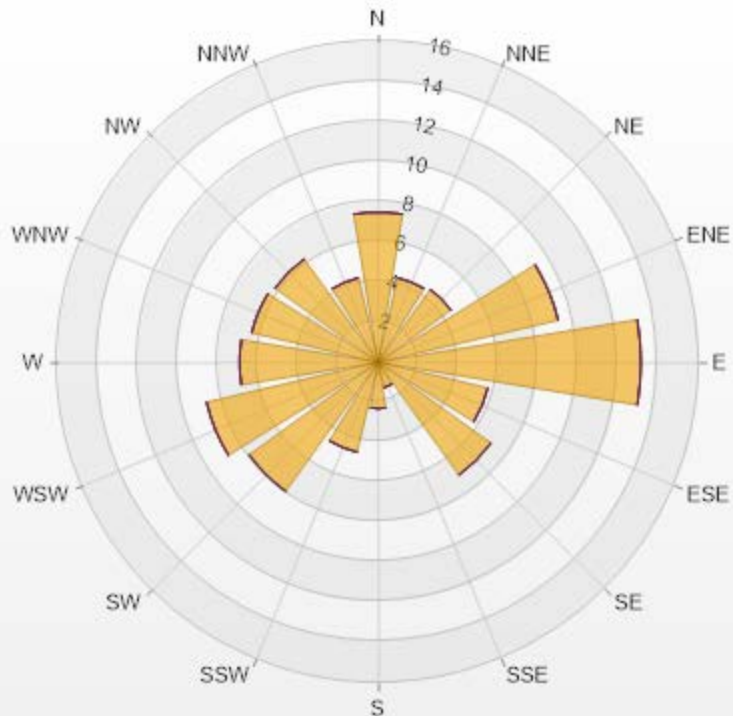
Timeseries Chart of Hourly Average for TRS - 842b Station





Wind: PRAMP 842b Poll.: PRAMP 842b-TRS[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 93.41% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	7.48	0	0	0	0	7.48
NNE	4.32	0	0	0	0	4.32
NE	4.46	0	0	0	0	4.46
ENE	9.21	0	0	0	0	9.21
E	13.09	0	0	0	0	13.09
ESE	5.61	0	0	0	0	5.61
SE	6.91	0	0	0	0	6.91
SSE	1.29	0	0	0	0	1.29
S	2.3	0	0	0	0	2.3
SSW	4.6	0	0	0	0	4.6
SW	7.91	0	0	0	0	7.91
WSW	8.78	0	0	0	0	8.78
W	6.91	0	0	0	0	6.91
WNW	6.47	0	0	0	0	6.47
NW	6.33	0	0	0	0	6.33
NNW	4.32	0	0	0	0	4.32
Summary	100	0	0	0	0	100



PRAMP-202205

Page 83 of 276

% Icon Classes (ppb)

100 0-2

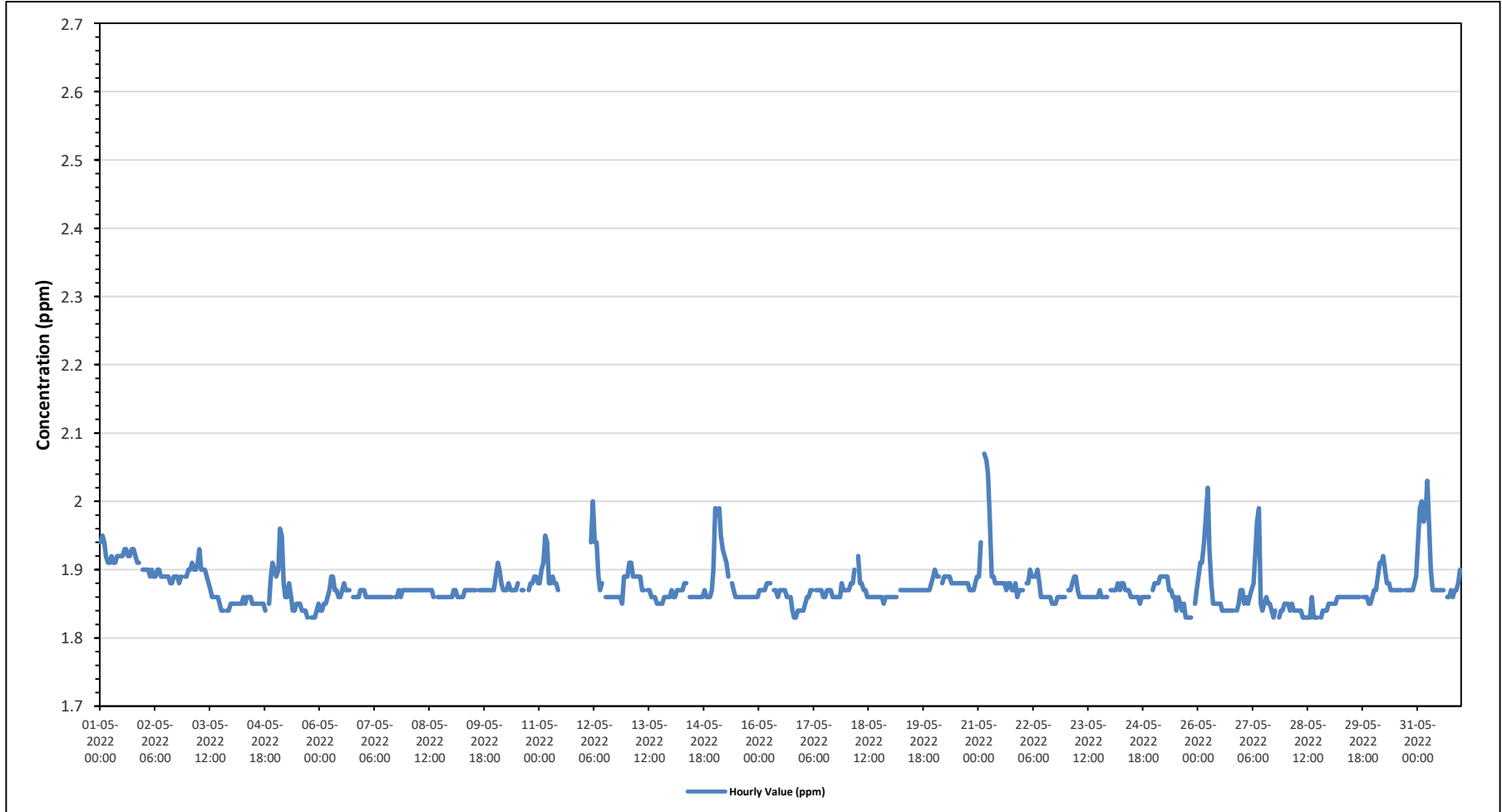
0 2-5

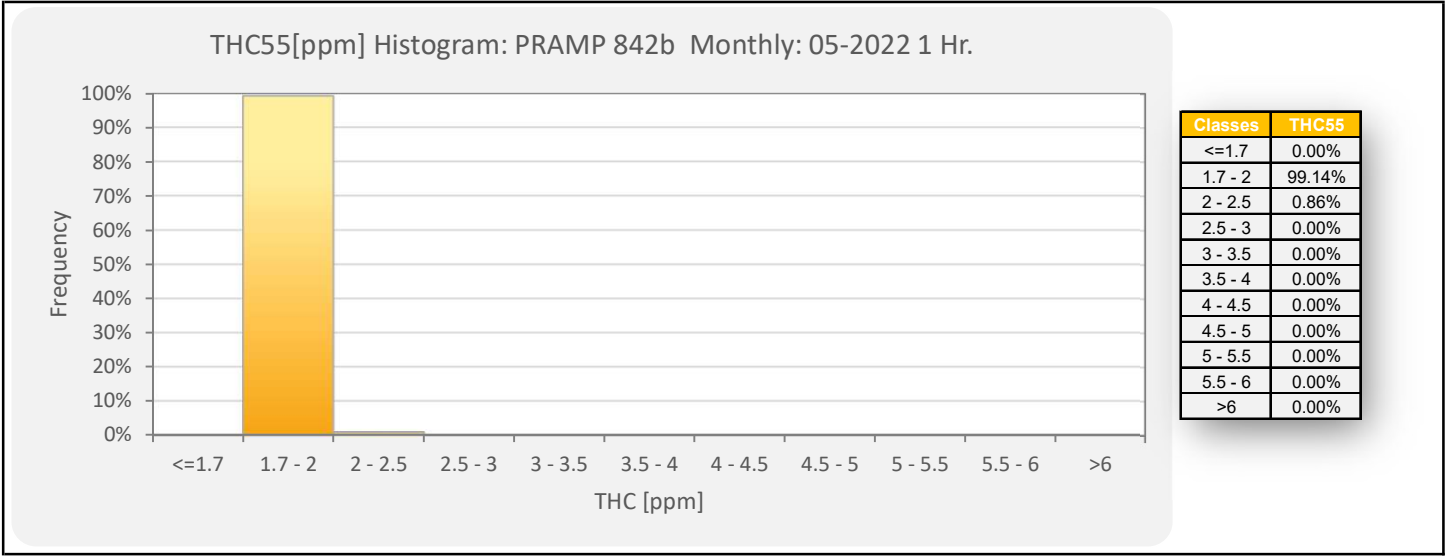
0 5-10

0 10-50

0 >50.0

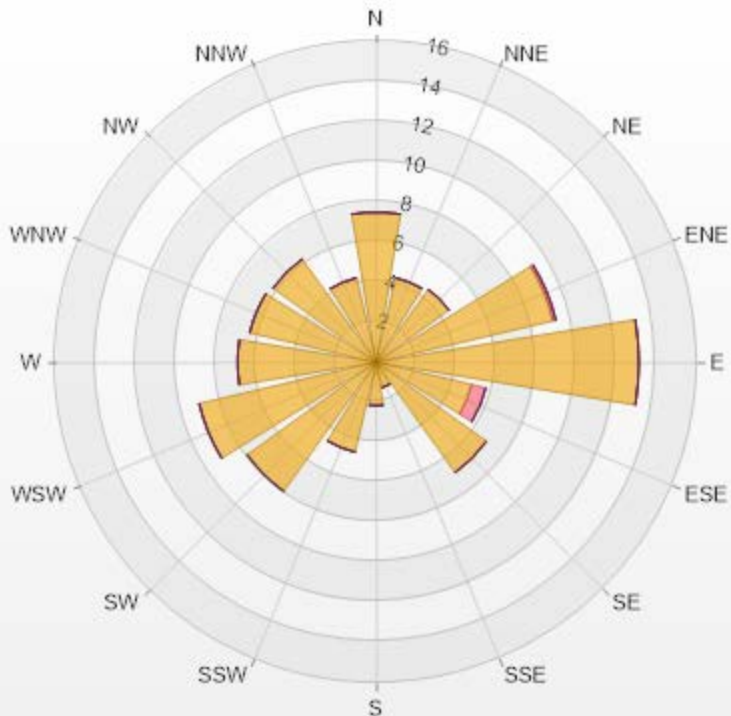
Timeseries Chart of Hourly Average for THC - 842b Station





Wind: PRAMP 842b Poll.: PRAMP 842b-THC55[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 93.41% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	7.48	0	0	0	0	7.48
NNE	4.32	0	0	0	0	4.32
NE	4.46	0	0	0	0	4.46
ENE	9.06	0.14	0	0	0	9.2
E	13.09	0	0	0	0	13.09
ESE	4.89	0.72	0	0	0	5.61
SE	6.76	0	0	0	0	6.76
SSE	1.29	0	0	0	0	1.29
S	2.16	0	0	0	0	2.16
SSW	4.6	0	0	0	0	4.6
SW	7.91	0	0	0	0	7.91
WSW	9.06	0	0	0	0	9.06
W	6.91	0	0	0	0	6.91
WNW	6.47	0	0	0	0	6.47
NW	6.33	0	0	0	0	6.33
NNW	4.32	0	0	0	0	4.32
Summary	99.11	0.86	0	0	0	100



PRAMP-202205

Page 88 of 276

% Icon Classes (ppm)

99 0-2

1 2-5

0 5-10

0 10-40

0 >40.0



PEACE RIVER AREA MONITORING PROGRAM

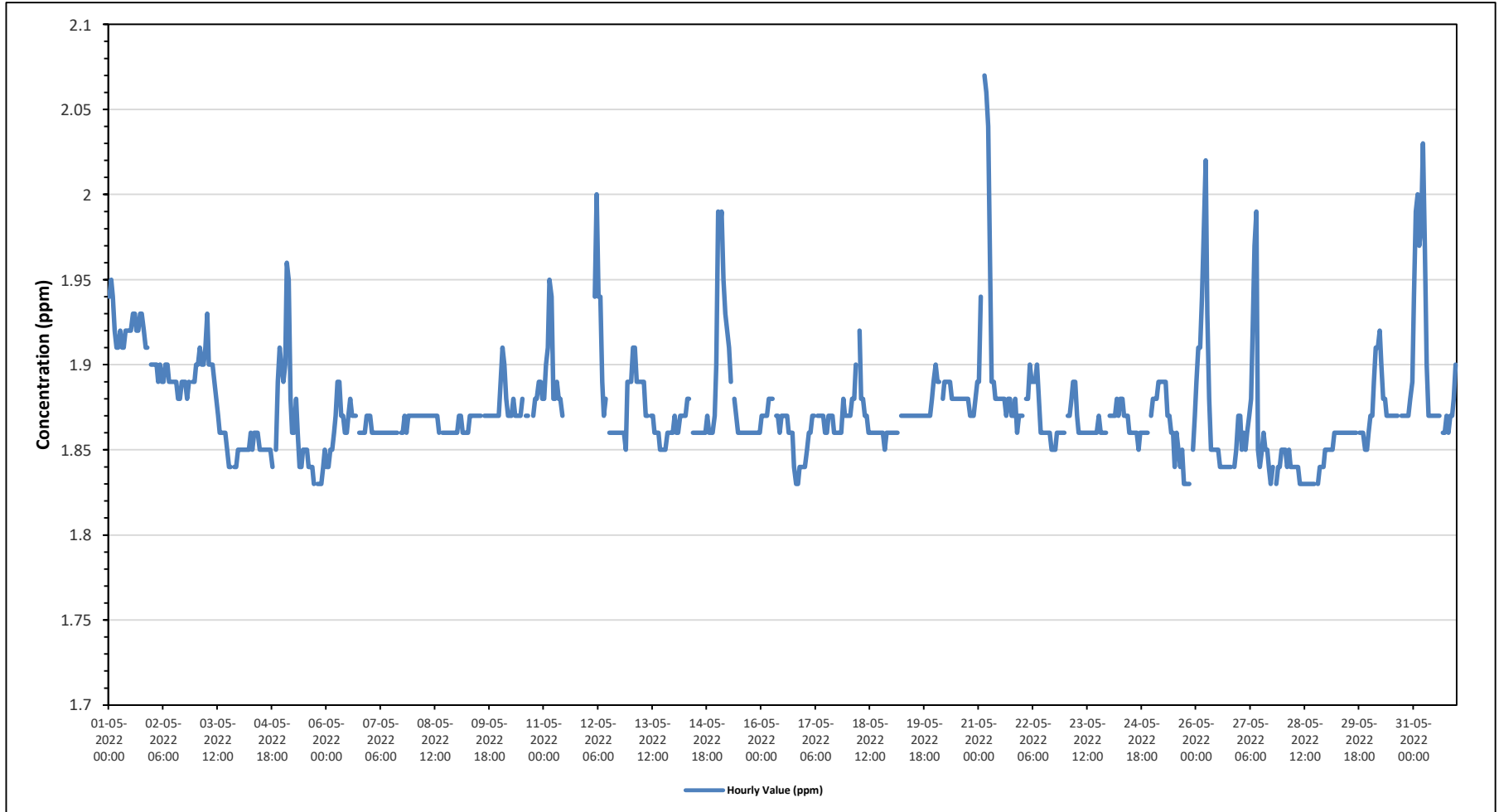
842b Station - May 2022

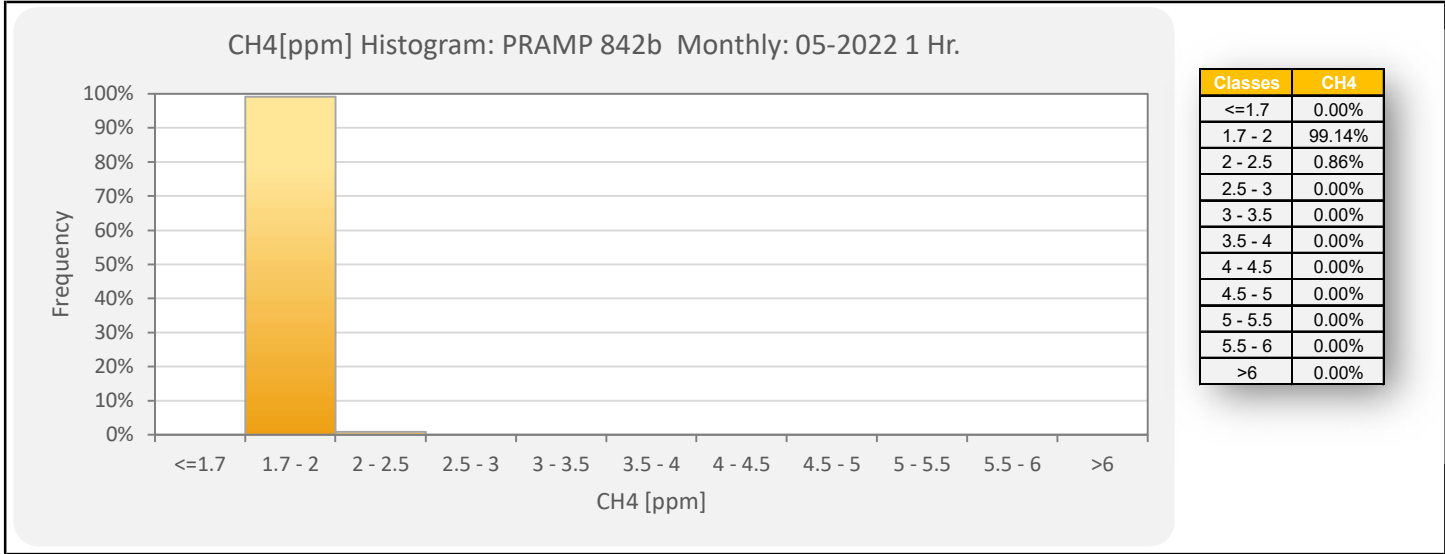
Summary of Hourly Averages

METHANE (CH4) in ppm

Table containing summary statistics (Maximum Hourly Value: 2.07 ppm, Minimum Hourly Value: 1.83 ppm, etc.), a detailed hourly data grid for May 2022 (24 columns for hours 0-23, 31 rows for days), and a legend for data quality codes (C, K, X, S, N, NRM, Q, Y, P).

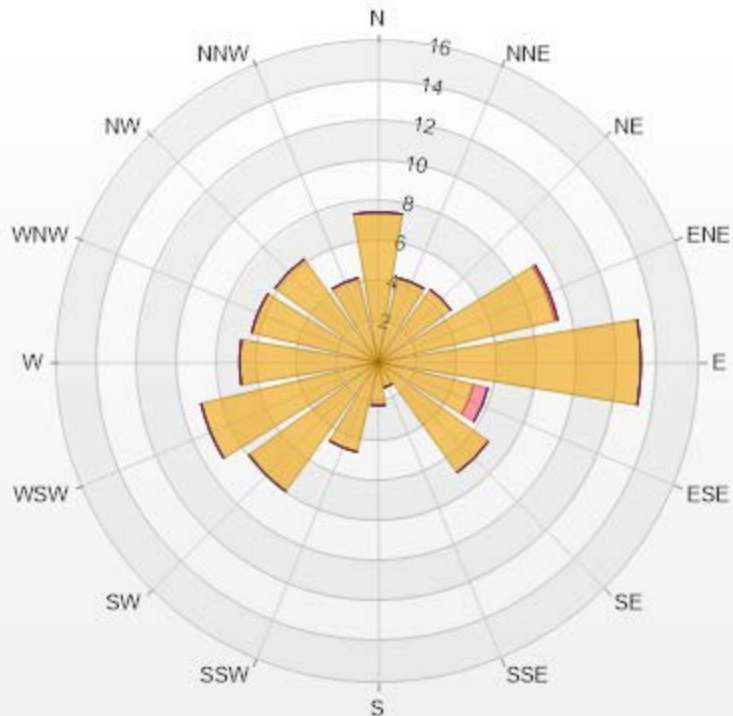
Timeseries Chart of Hourly Average for CH4 - 842b Station





Wind: PRAMP 842b Poll.: PRAMP 842b-CH4[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 93.41% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	7.48	0	0	0	0	7.48
NNE	4.32	0	0	0	0	4.32
NE	4.46	0	0	0	0	4.46
ENE	9.06	0.14	0	0	0	9.2
E	13.09	0	0	0	0	13.09
ESE	4.89	0.72	0	0	0	5.61
SE	6.76	0	0	0	0	6.76
SSE	1.29	0	0	0	0	1.29
S	2.16	0	0	0	0	2.16
SSW	4.6	0	0	0	0	4.6
SW	7.91	0	0	0	0	7.91
WSW	9.06	0	0	0	0	9.06
W	6.91	0	0	0	0	6.91
WNW	6.47	0	0	0	0	6.47
NW	6.33	0	0	0	0	6.33
NNW	4.32	0	0	0	0	4.32
Summary	99.11	0.86	0	0	0	100



PRAMP-202205

Page 93 of 276

% Icon Classes (ppm)

99 0-2

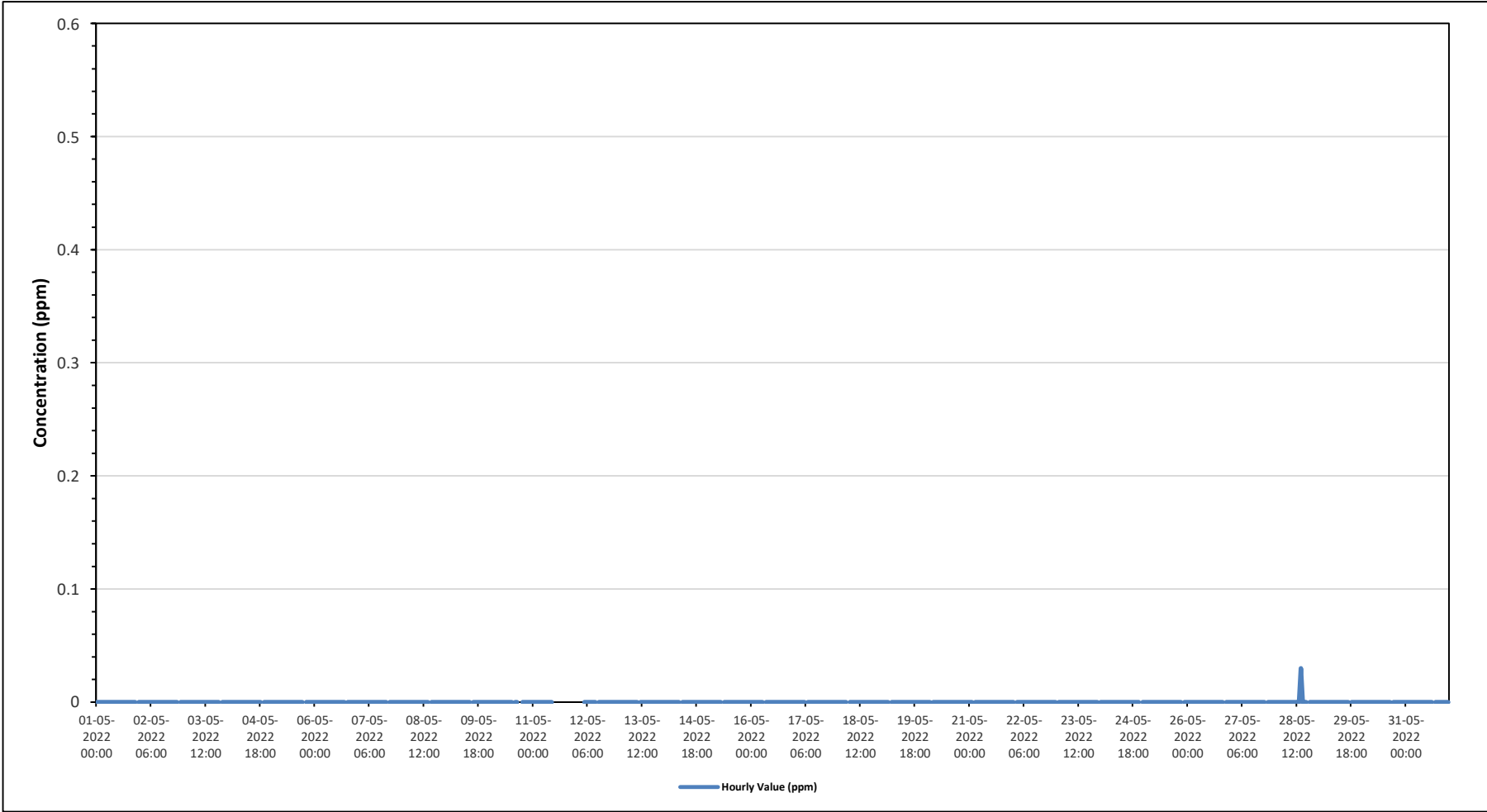
1 2-5

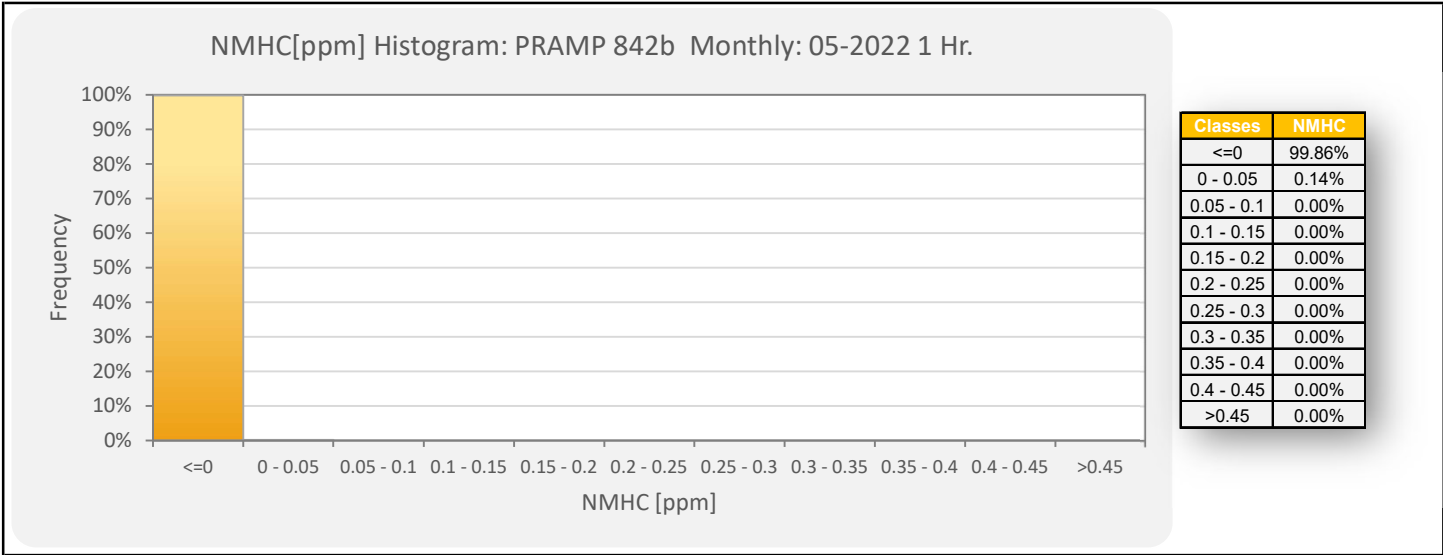
0 5-10

0 10-20

0 >20.0

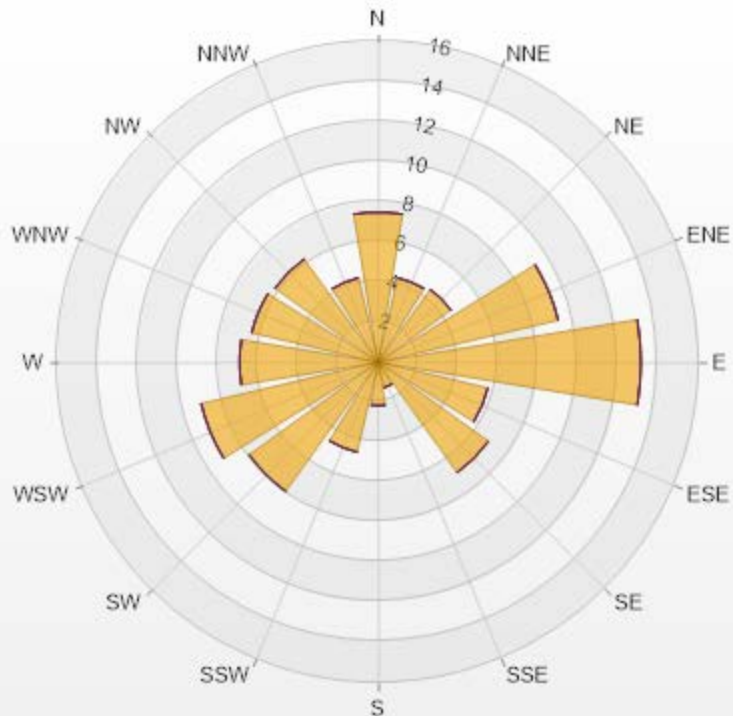
Timeseries Chart of Hourly Average for NMHC - 842b Station





Wind: PRAMP 842b Poll.: PRAMP 842b-NMHC[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 93.41% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	7.48	0	0	0	0	7.48
NNE	4.32	0	0	0	0	4.32
NE	4.46	0	0	0	0	4.46
ENE	9.21	0	0	0	0	9.21
E	13.09	0	0	0	0	13.09
ESE	5.61	0	0	0	0	5.61
SE	6.76	0	0	0	0	6.76
SSE	1.29	0	0	0	0	1.29
S	2.16	0	0	0	0	2.16
SSW	4.6	0	0	0	0	4.6
SW	7.91	0	0	0	0	7.91
WSW	9.06	0	0	0	0	9.06
W	6.91	0	0	0	0	6.91
WNW	6.47	0	0	0	0	6.47
NW	6.33	0	0	0	0	6.33
NNW	4.32	0	0	0	0	4.32
Summary	100	0	0	0	0	100



PRAMP-202205

Page 98 of 276

% Icon Classes (ppm)

100 0-0.1

0 0.1-0.3

0 0.3-1

0 1-2

0 >2.0



PEACE RIVER AREA MONITORING PROGRAM

842b Station - May 2022

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

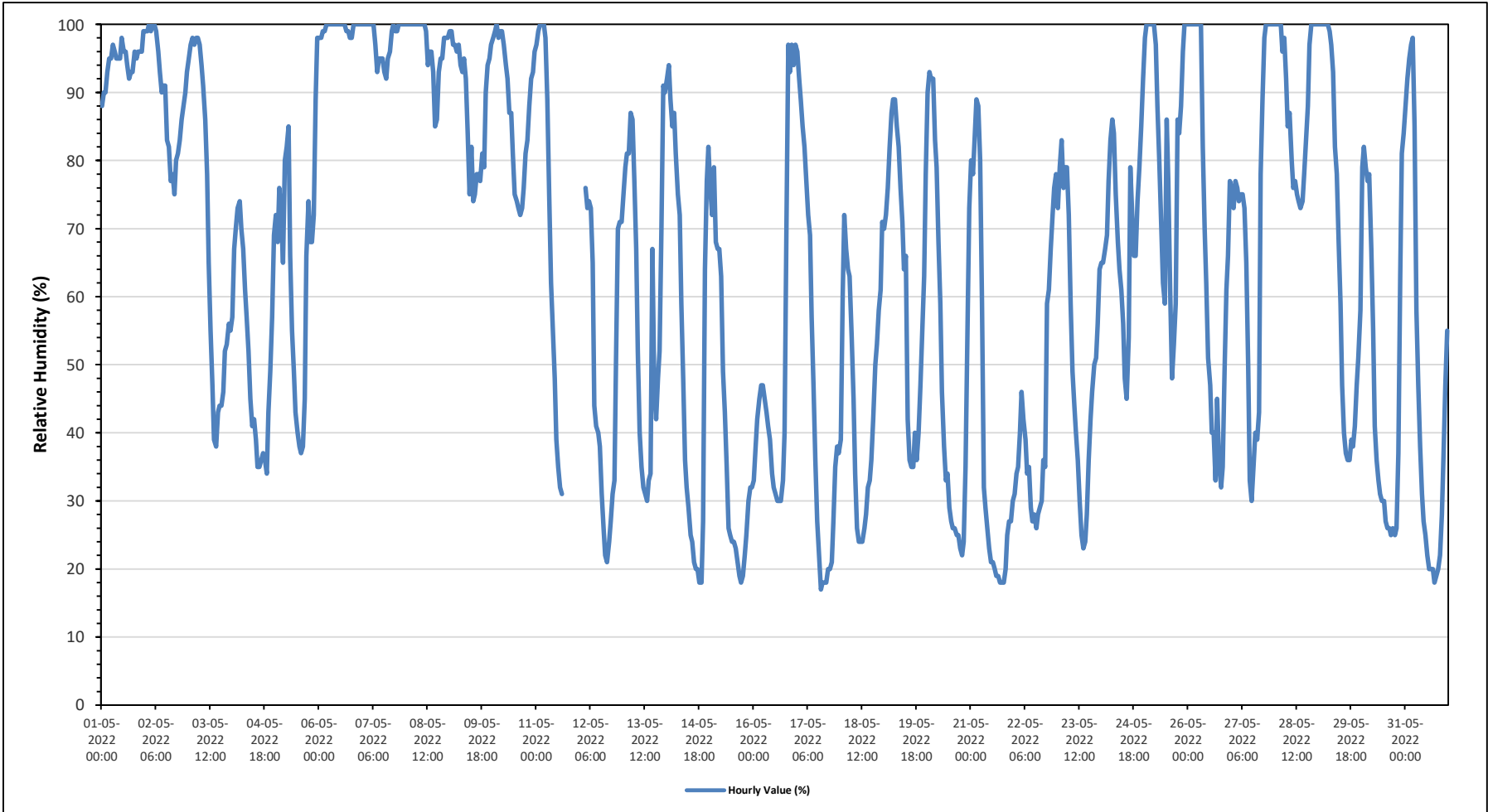
Maximum Hourly Value:	100 %	on May 2 at hour 2	Hours in Service:	744
Maximum Daily Value:	99.5 %	on May 6	Hours of Data:	732
Minimum Hourly Value:	17 %	on May 17 at hour 13	Hours of Missing Data:	12
Minimum Daily Value:	39.6 %	on May 21	Hours of Calibration:	0
Monthly Average:	66.0 %		Operational Uptime:	98.4

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
May 1	88	90	90	93	95	95	97	96	95	95	95	98	96	96	94	92	93	96	95	96	96	96	99	88	99	94.5		
May 2	99	99	100	99	100	100	99	96	93	90	91	91	83	82	77	78	75	80	81	83	86	88	90	93	75	100	89.7	
May 3	95	97	98	97	98	98	97	94	91	86	78	65	55	47	39	38	43	44	44	46	52	53	56	55	38	98	69.4	
May 4	57	67	70	73	74	70	67	61	57	52	45	41	42	39	35	35	36	37	36	34	43	49	57	69	34	74	51.9	
May 5	72	68	76	72	65	80	82	85	66	55	49	43	40	38	37	38	45	66	74	68	68	72	89	98	37	98	64.4	
May 6	98	98	99	99	100	100	100	100	100	100	100	100	100	100	100	99	99	98	98	100	100	100	100	100	98	100	99.5	
May 7	100	100	100	100	100	100	100	97	93	95	95	95	93	92	95	96	99	100	99	99	100	100	100	100	92	100	97.8	
May 8	100	100	100	100	100	100	100	100	100	100	100	99	94	96	96	93	85	86	93	95	95	98	98	98	85	100	96.9	
May 9	99	99	97	97	96	97	94	93	95	92	84	75	82	74	75	78	78	77	81	79	90	94	95	97	74	99	88.3	
May 10	98	99	100	98	99	99	97	94	92	87	87	81	75	74	73	72	73	76	81	83	88	92	93	96	72	100	87.8	
May 11	97	99	100	100	100	98	89	75	62	55	48	39	35	32	31	P	P	P	P	P	P	P	P	31	100	-		
May 12	P	P	P	76	73	74	73	65	44	41	40	38	31	26	22	21	24	27	31	33	51	70	71	71	21	76	47.7	
May 13	75	79	81	81	87	86	77	67	52	40	35	32	31	30	33	34	67	47	42	48	52	70	91	90	30	91	59.5	
May 14	92	94	89	85	87	81	75	72	59	48	36	32	29	25	24	21	20	20	18	18	27	64	77	82	18	94	53.1	
May 15	76	72	79	68	67	67	63	49	43	35	26	25	24	24	23	21	19	18	19	22	25	30	32	32	18	79	40.0	
May 16	33	38	42	45	47	47	45	43	41	39	34	32	31	30	30	30	33	40	70	97	93	97	94	97	30	97	51.2	
May 17	96	92	89	85	82	77	72	69	57	47	36	27	22	17	18	18	18	20	20	21	27	35	38	37	17	96	46.7	
May 18	39	60	72	67	64	63	54	45	34	26	24	24	24	26	28	32	33	36	42	50	53	58	61	71	24	72	45.3	
May 19	70	72	76	82	87	89	89	85	82	76	71	64	66	42	36	35	35	40	36	40	47	55	63	78	35	89	63.2	
May 20	90	93	92	92	83	79	68	59	46	38	33	34	29	27	26	26	25	25	23	22	24	35	57	73	22	93	50.0	
May 21	80	78	83	89	88	80	59	32	29	26	23	21	21	20	19	19	18	18	18	20	25	27	27	30	18	89	39.6	
May 22	31	34	35	40	46	42	39	34	35	29	27	28	26	28	29	30	36	35	59	61	67	72	76	78	26	78	42.4	
May 23	73	79	83	76	79	79	72	59	49	44	40	36	30	25	23	24	28	36	42	46	50	51	56	64	23	83	51.8	
May 24	65	65	67	69	77	83	86	84	75	68	64	61	56	48	45	54	79	72	66	66	74	79	85	92	45	92	70.0	
May 25	98	100	100	100	100	100	97	88	80	71	62	59	86	77	61	48	53	59	86	84	88	96	100	100	48	100	83.0	
May 26	100	100	100	100	100	100	100	100	82	70	62	51	47	40	40	33	45	36	32	35	49	61	66	77	32	100	67.8	
May 27	76	73	77	76	74	75	75	73	65	50	33	30	35	40	39	43	78	89	98	100	100	100	100	100	30	100	70.8	
May 28	100	100	100	100	96	98	92	85	87	80	76	77	75	74	73	74	78	83	88	97	100	100	100	100	73	100	88.9	
May 29	100	100	100	100	100	100	99	97	93	82	78	68	59	47	40	37	36	36	39	38	41	47	51	58	36	100	68.6	
May 30	79	82	79	77	78	67	55	41	36	33	31	30	30	27	26	26	25	26	25	26	37	63	81	84	25	84	48.5	
May 31	88	92	95	97	98	85	58	47	38	31	27	25	22	20	20	20	18	19	20	22	28	38	47	55	18	98	46.3	
Diurnal Maximum	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	99	100	99	100	100	100	100	100	100	100	100	100
Diurnal Average	82.1	84.0	85.6	84.9	85.2	84.2	79.7	73.7	66.8	60.7	55.8	52.3	50.6	47.2	45.4	45.5	49.8	51.3	55.2	57.6	62.5	69.7	74.9	79.1				

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

Timeseries Chart of Hourly Average for RH - 842b Station





PEACE RIVER AREA MONITORING PROGRAM

842b Station - May 2022

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

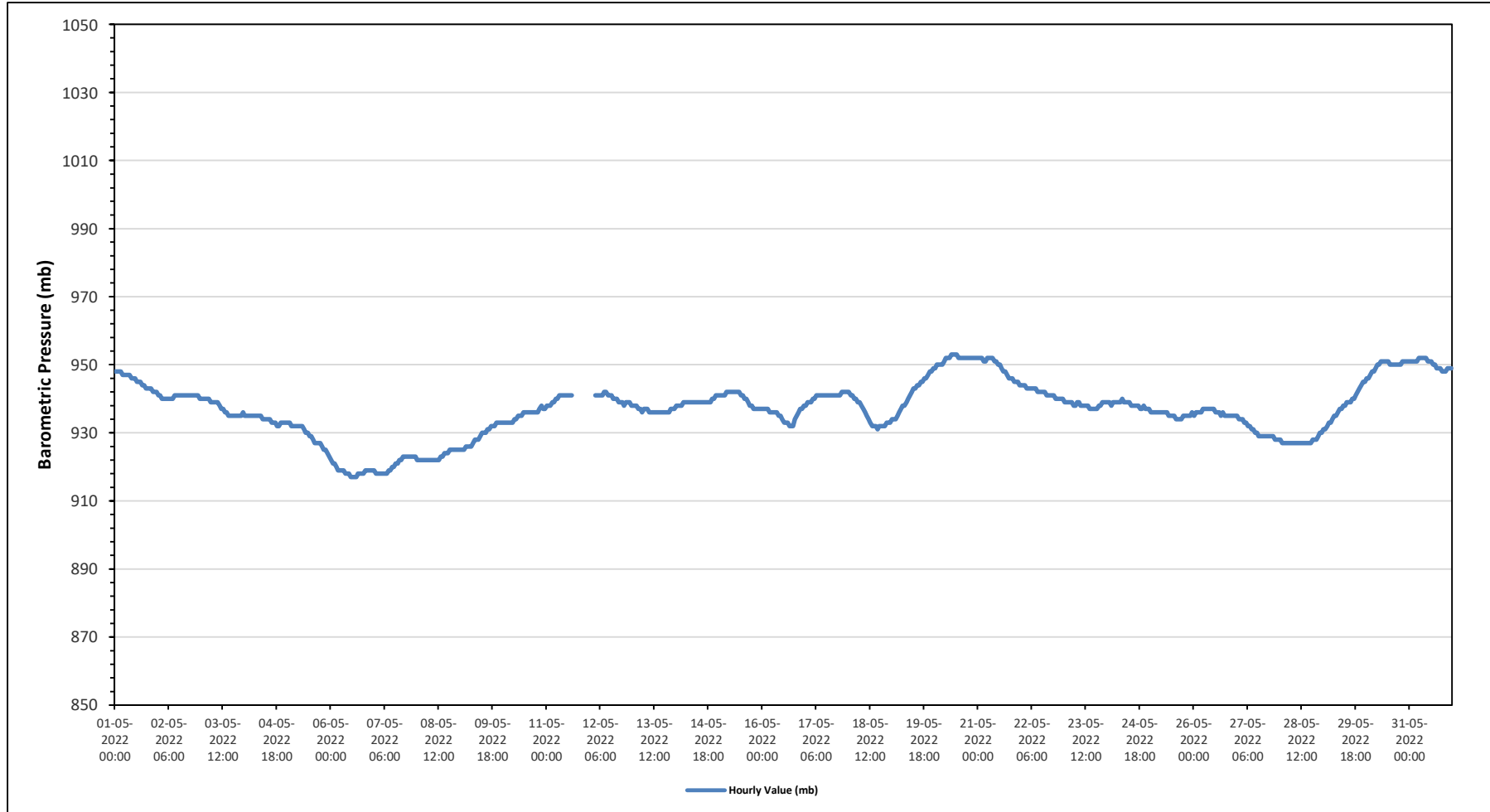
Maximum Hourly Value:	953 mb	on May 20 at hour 9	Hours in Service:	744
Maximum Daily Value:	952 mb	on May 20	Hours of Data:	732
Minimum Hourly Value:	917 mb	on May 6 at hour 11	Hours of Missing Data:	12
Minimum Daily Value:	919 mb	on May 6	Hours of Calibration:	0
Monthly Average:	937 mb		Operational Uptime:	98.4

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		
May 1	948	948	948	948	947	947	947	947	947	946	946	946	945	945	945	944	944	943	943	943	943	942	942	942	942	942	948	948	945.3
May 2	941	941	940	940	940	940	940	940	940	940	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	940.7
May 3	940	940	940	940	940	939	939	939	939	939	938	937	937	936	936	935	935	935	935	935	935	935	935	935	936	935	940	937.3	
May 4	935	935	935	935	935	935	935	935	935	935	934	934	934	934	934	933	933	933	932	932	933	933	933	933	933	932	935	934.0	
May 5	933	933	932	932	932	932	932	932	932	931	930	930	929	929	928	927	927	927	927	926	925	925	924	923	923	923	933	929.1	
May 6	922	921	921	920	919	919	919	919	919	918	918	917	917	917	917	918	918	918	918	919	919	919	919	919	919	917	922	918.7	
May 7	919	918	918	918	918	918	918	918	919	919	920	920	921	921	922	922	923	923	923	923	923	923	923	923	923	923	923	923	920.5
May 8	922	922	922	922	922	922	922	922	922	922	922	922	922	923	923	924	924	924	925	925	925	925	925	925	925	925	925	923.1	
May 9	925	925	925	926	926	926	926	927	928	928	928	929	930	930	930	931	931	932	932	932	933	933	933	933	933	933	933	929.1	
May 10	933	933	933	933	933	933	934	934	935	935	935	936	936	936	936	936	936	936	936	936	937	938	937	937	933	938	935.2		
May 11	938	938	938	939	939	940	940	941	941	941	941	941	941	941	941	941	940	P	P	P	P	P	P	P	P	938	941	-	
May 12	P	P	P	941	941	941	941	941	941	942	942	941	941	941	940	940	939	939	939	938	939	939	939	938	938	941	940.1		
May 13	938	938	938	937	937	936	937	937	937	936	936	936	936	936	936	936	936	936	936	936	936	937	937	937	937	936	938	936.6	
May 14	938	938	938	938	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	940	940	940	941	941	938	941	939.1		
May 15	941	941	941	941	942	942	942	942	942	942	942	941	941	941	940	940	939	938	938	937	937	937	937	937	937	937	941	940.1	
May 16	937	937	937	937	936	936	936	936	936	935	935	934	933	933	933	932	932	932	934	935	936	937	937	938	932	938	935.2		
May 17	938	939	939	939	940	940	941	941	941	941	941	941	941	941	941	941	941	941	941	941	942	942	942	942	938	942	940.7		
May 18	942	941	941	940	940	939	939	938	937	936	935	934	933	932	932	931	932	932	932	932	933	933	933	933	931	942	935.4		
May 19	934	934	934	935	936	937	938	938	939	940	941	942	943	943	944	944	945	945	946	946	947	948	948	949	934	949	941.5		
May 20	949	950	950	950	950	951	952	952	952	953	953	953	953	952	952	952	952	952	952	952	952	952	952	952	949	953	951.7		
May 21	952	952	952	951	951	952	952	952	952	951	951	950	950	949	948	948	947	946	946	945	945	945	944	944	944	944	949.0		
May 22	944	944	944	943	943	943	943	943	943	942	942	942	942	942	941	941	941	941	940	940	940	940	940	940	940	940	944	941.9	
May 23	939	939	939	939	939	938	938	939	939	938	938	938	938	938	937	937	937	937	937	938	938	939	939	939	937	939	938.2		
May 24	939	939	938	939	939	939	939	939	940	939	939	939	939	938	938	938	937	937	937	938	937	937	937	937	937	940	938.3		
May 25	936	936	936	936	936	936	936	936	936	936	935	935	935	935	934	934	934	934	935	935	935	935	935	936	934	936	935.3		
May 26	935	936	936	936	936	937	937	937	937	937	937	937	936	936	936	935	936	935	935	935	935	935	935	935	935	937	935.9		
May 27	935	934	934	934	933	933	932	932	931	931	930	930	929	929	929	929	929	929	929	929	929	928	928	928	928	928	935	930.6	
May 28	928	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	928	928	928	929	930	930	927	930	927.5		
May 29	931	931	932	933	933	934	935	935	936	937	937	938	938	939	939	939	940	940	941	942	943	944	945	945	931	945	937.8		
May 30	946	946	947	948	948	949	950	950	951	951	951	951	951	950	950	950	950	950	950	950	951	951	951	951	946	951	949.7		
May 31	951	951	951	951	951	952	952	952	952	952	951	951	951	950	950	949	949	948	948	948	949	949	949	949	948	952	950.3		
Diurnal Maximum	952	952	952	951	951	952	952	952	952	953	953	953	953	952	952	952	952	952	952	952	952	952	952	952	948	952	950.3		
Diurnal Average	937	937	937	937	937	937	937	937	938	937	937	937	937	937	937	936	936	936	937	937	937	937	937	937	937	937	937	937	

C Monthly Calibration	S Daily Zero-Span Check	Q Quality Assurance
K Collection Error	N 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.

Timeseries Chart of Hourly Average for BP - 842b Station





PEACE RIVER AREA MONITORING PROGRAM

842b Station - May 2022

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

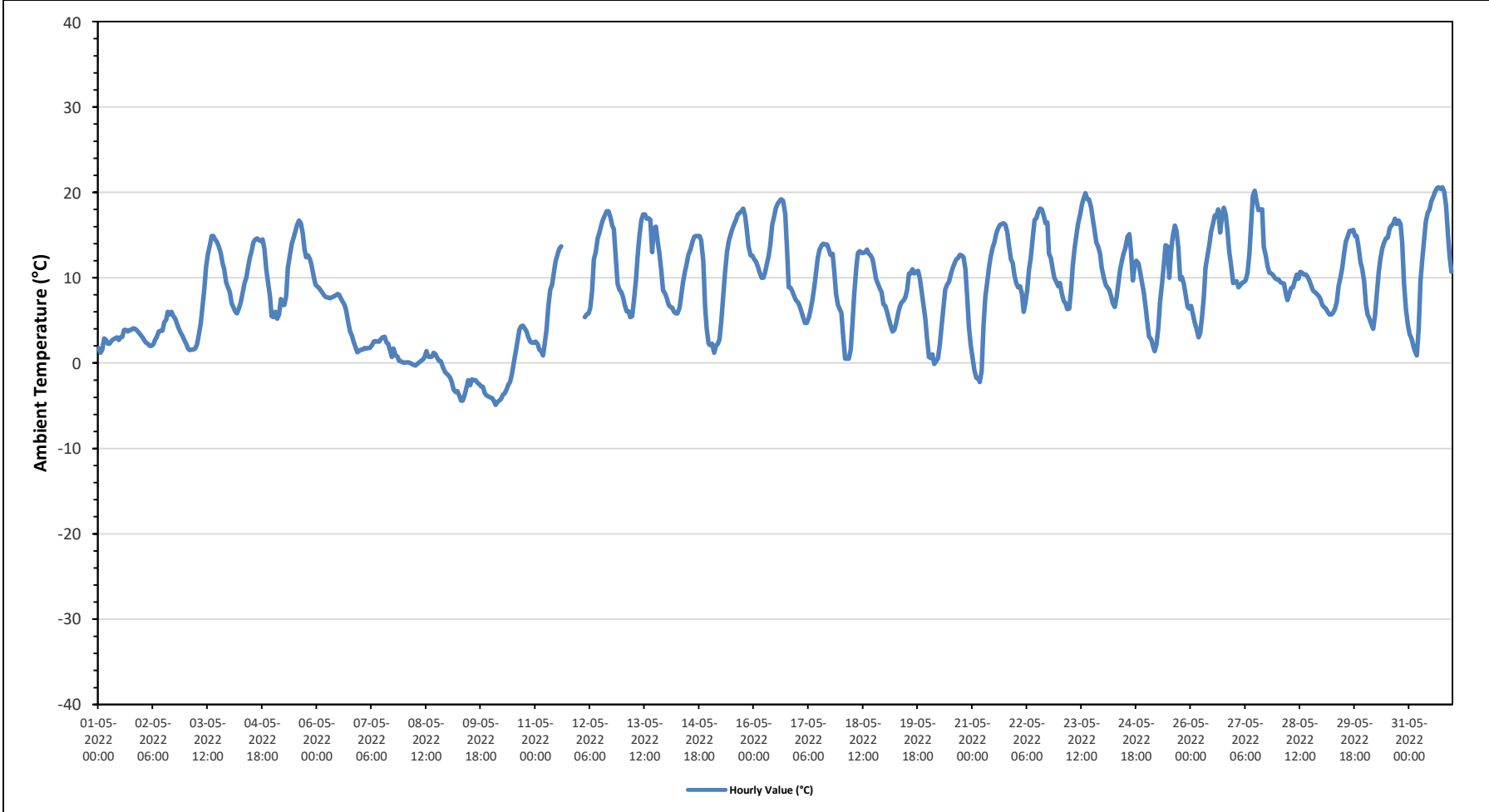
Maximum Hourly Value:	20.6 °C	on May 31 at hour 16	Hours in Service:	744
Maximum Daily Value:	13.5 °C	on May 23	Hours of Data:	732
Minimum Hourly Value:	-4.9 °C	on May 10 at hour 2	Hours of Missing Data:	12
Minimum Daily Value:	-2.9 °C	on May 9	Hours of Calibration:	0
Monthly Average:	8.4 °C		Operational Uptime:	98.4

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
May 1	1.8	1.2	1.6	2.9	2.7	2.3	2.3	2.6	2.8	2.9	3	2.7	3	3.1	3.9	3.9	3.7	3.9	3.9	4.1	4	3.8	3.6	3.3	1.2	4.1	3.0
May 2	3	2.7	2.4	2.3	2	2	2.2	2.7	3.1	3.7	3.8	3.8	4.8	5.1	6	5.7	6	5.5	5.2	4.6	4.1	3.6	3.2	2.7	2.0	6.0	3.8
May 3	2.3	1.7	1.5	1.6	1.6	1.7	2.2	3.4	4.7	6.5	8.6	11.3	12.8	13.8	14.9	14.9	14.5	14.2	13.6	12.9	11.7	11	9.5	8.9	1.5	14.9	8.3
May 4	8.3	7	6.5	6	5.8	6.4	7.1	8.2	9.3	10	11.1	12.3	13.1	14.2	14.5	14.6	14.4	14.3	14.5	13.4	11	9.4	7.8	5.5	5.5	14.6	10.2
May 5	5.4	6	5.2	5.7	7.5	6.8	6.8	7.9	11.1	12.7	14	14.7	15.4	16.2	16.7	16.4	15.2	13.3	12.4	12.6	12.2	11.5	10.2	9.2	5.2	16.7	11.0
May 6	9	8.8	8.5	8.2	7.9	7.7	7.7	7.6	7.7	7.8	7.9	8.1	8	7.6	7.2	6.8	6.2	4.8	3.7	3.2	2.5	1.9	1.3	1.4	1.3	9.0	6.3
May 7	1.6	1.6	1.8	1.7	1.8	1.8	2.1	2.5	2.6	2.5	2.5	2.8	3	3.1	2.4	2.3	1.5	0.7	1.7	0.9	0.8	0.3	0.2	0.1	0.1	3.1	1.8
May 8	0	0.1	0.1	0	-0.1	-0.2	-0.3	-0.1	0.1	0.3	0.4	0.7	1.4	0.8	0.7	0.8	1.2	1	0.6	0.3	0.2	-0.5	-1	-1.2	-1.2	1.4	0.2
May 9	-1.4	-1.7	-2.2	-3.1	-3.4	-3.3	-3.8	-4.4	-4.4	-3.8	-2.8	-2	-2.6	-1.9	-2	-2	-2.3	-2.5	-2.7	-2.8	-3.5	-3.8	-3.9	-4	-4.4	-1.4	-2.9
May 10	-4.1	-4.4	-4.9	-4.6	-4.4	-4.2	-3.7	-3.5	-3.1	-2.5	-2.2	-1.3	0.2	1.3	2.6	3.9	4.3	4.4	4.1	3.7	3	2.5	2.4	2.4	-4.9	4.4	-0.3
May 11	2.5	2.2	1.6	1.4	0.9	2.2	3.9	6.7	8.6	9.2	10.7	11.9	12.7	13.4	13.7	P	P	P	P	P	P	P	P	P	0.9	13.7	-
May 12	P	P	P	5.4	5.7	5.8	6.4	8.3	12.2	13	14.6	15.3	16.2	16.8	17.3	17.8	17.8	17.1	16.1	15.7	12.5	9.3	8.6	8.3	5.4	17.8	12.4
May 13	7.7	6.8	6.1	6.1	5.4	5.5	7.5	9.7	12.4	14.9	16.7	17.4	17.4	16.9	17	16.8	13	15.8	16	14.2	12.9	10.9	8.5	8.2	5.4	17.4	11.8
May 14	7.6	6.8	6.6	6.5	6	5.8	5.8	6.5	8.1	9.5	10.7	11.7	12.7	13.3	14.2	14.8	14.9	14.9	14.9	14.4	12	6.6	4	2.3	2.3	14.9	9.6
May 15	2.1	2.3	1.2	2.1	2.2	2.8	5	7.9	10.3	13	14.3	15	15.7	16.3	16.7	17.4	17.6	17.8	18.1	17.3	15.8	13.7	12.6	12.6	1.2	18.1	11.2
May 16	12.2	11.9	11.3	10.7	10	10	10.6	11.6	12.6	13.9	16.2	17.3	18.2	18.7	19	19.2	19	17.5	13.2	8.9	8.8	8.4	7.9	7.4	7.4	19.2	13.1
May 17	7.1	6.7	6	5.3	4.7	4.7	5.4	6.2	7.4	8.9	10.7	12.3	13.3	13.8	14	13.9	13.9	13.4	12.7	12.8	10.8	8.1	6.8	6.4	4.7	14.0	9.4
May 18	5.9	3	0.5	0.5	0.5	1.6	4.4	8	11.2	12.9	13.1	12.9	13	13.3	12.8	12.6	12.2	11.2	9.9	9.3	8.7	8.3	6.9	0.5	13.3	8.6	
May 19	6.7	6.1	5.2	4.4	3.7	3.9	4.7	5.7	6.6	7.1	7.3	7.7	8.6	10.5	11	10.5	10.7	10.8	9.9	8.5	6.9	5.3	2.8	2.8	11.0	7.3	
May 20	0.7	0.6	1	-0.1	0.2	0.6	2.3	4.5	6.7	8.6	9.2	9.5	10.4	11.1	11.7	12.1	12.3	12.7	12.6	12.4	11	8.1	4.3	2.1	-0.1	12.7	6.9
May 21	0.6	-0.9	-1.7	-1.8	-2.2	-0.9	4.4	7.8	9.5	11.3	12.5	13.5	14.2	15.2	15.8	16.2	16.3	16.4	16.2	15.4	13.7	12.2	11.7	10.3	-2.2	16.4	9.4
May 22	9.4	8.9	9	8.2	6	7	8.5	11	12.2	14.7	16.8	17	17.7	18.1	18	17.3	16.4	16.5	12.8	12.3	11	10	9.5	9	6.0	18.1	12.4
May 23	9.4	8.2	7.3	7	6.3	6.4	8.5	11.3	13.4	15	16.3	17.4	18.6	19.3	19.9	19.2	19.2	18.3	16.8	15.4	14.1	13.6	12.8	11.2	6.3	19.9	13.5
May 24	10	9.2	8.9	8.6	7.9	7.1	6.6	7.7	9.2	10.9	12	12.8	13.5	14.8	15.1	13.2	9.7	11.5	12	11.7	10.6	9.5	8.3	6.6	6.6	15.1	10.3
May 25	4.9	3.1	2.8	2.1	1.4	2.2	4.2	7.1	9.4	11.7	13.8	13.7	10	12.8	14.9	16.1	15.5	13.5	9.8	10.1	9.4	7.9	6.6	6.4	1.4	16.1	8.7
May 26	6.7	5.7	4.8	4.1	3	3.5	5.4	7.9	11.1	12.5	14	15.4	16.3	17.3	17.2	18	15.3	17.4	18.2	17.4	15.4	13.1	11.5	9.4	3.0	18.2	11.7
May 27	9.5	9.6	8.9	9.1	9.4	9.5	9.7	10.6	12.8	16.5	19.6	20.2	18.8	17.9	18	18	13.6	12.7	11.4	10.6	10.5	10.3	10	9.8	8.9	20.2	12.8
May 28	9.8	9.5	9.4	9.3	8.1	7.4	8.1	8.8	8.9	9.7	10.4	9.9	10.7	10.6	10.4	10.1	9.7	9.1	8.5	8.3	8.1	7.9	7.5	7.4	7.4	10.7	9.2
May 29	6.9	6.6	6.4	6	5.7	5.7	5.9	6.3	7.1	9	10	11.2	12.9	14.2	14.8	15.5	15.5	15.6	14.9	14.9	13.6	11.9	11	9.6	5.7	15.6	10.5
May 30	6.8	5.7	5.2	4.6	4	5.6	8.2	10.7	12.2	13.4	14.1	14.6	14.7	15.8	16.1	16.3	16.9	16.3	16.7	16.3	14.2	9.3	6.4	4.6	4.0	16.9	11.2
May 31	3.4	2.9	2	1.4	0.9	4	9.7	12.3	14.6	16.6	17.6	18	18.9	19.5	20.1	20.5	20.6	20.4	20.6	20.1	18.4	15.1	12.6	10.7	0.9	20.6	13.4
Diurnal Maximum	12.2	11.9	11.3	10.7	10.0	10.0	10.6	12.3	14.6	16.6	19.6	20.2	18.9	19.5	20.1	20.5	20.6	20.4	20.6	20.1	18.4	15.1	12.8	12.6			
Diurnal Average	5.2	4.6	4.1	3.9	3.6	3.9	5.1	6.6	8.1	9.4	10.5	11.2	11.7	12.3	12.7	12.8	12.2	12.0	11.4	10.7	9.6	8.0	6.9	6.0			

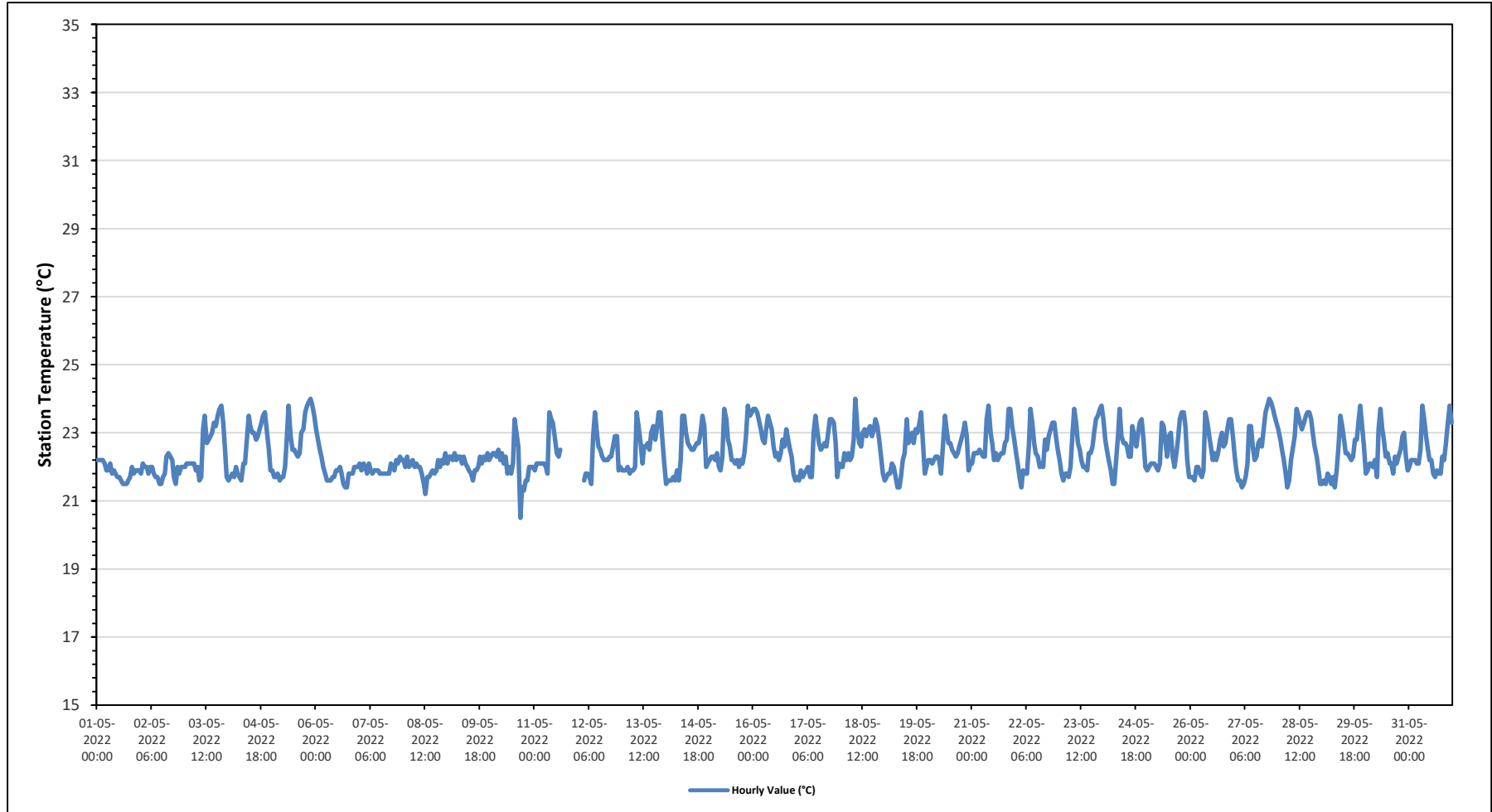
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	Invalid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

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.

Timeseries Chart of Hourly Average for AT - 842b Station



Timeseries Chart of Hourly Average for ST - 842b Station





PEACE RIVER AREA MONITORING PROGRAM

842b Station - May 2022

Summary of Hourly Averages

PRECIPITATION in mm

Maximum Hourly Value:	3.6 mm on May 25 at hour 12	Hours in Service:	744
Maximum Daily Value:	17.4 mm on May 6	Hours of Data:	732
Minimum Hourly Value:	0.0 mm on May 1 at hour 0	Hours of Missing Data:	12
Minimum Daily Value:	0.0 mm on May 2	Hours of Calibration:	0
Monthly Total:	52.5 mm	Operational Uptime:	98.4

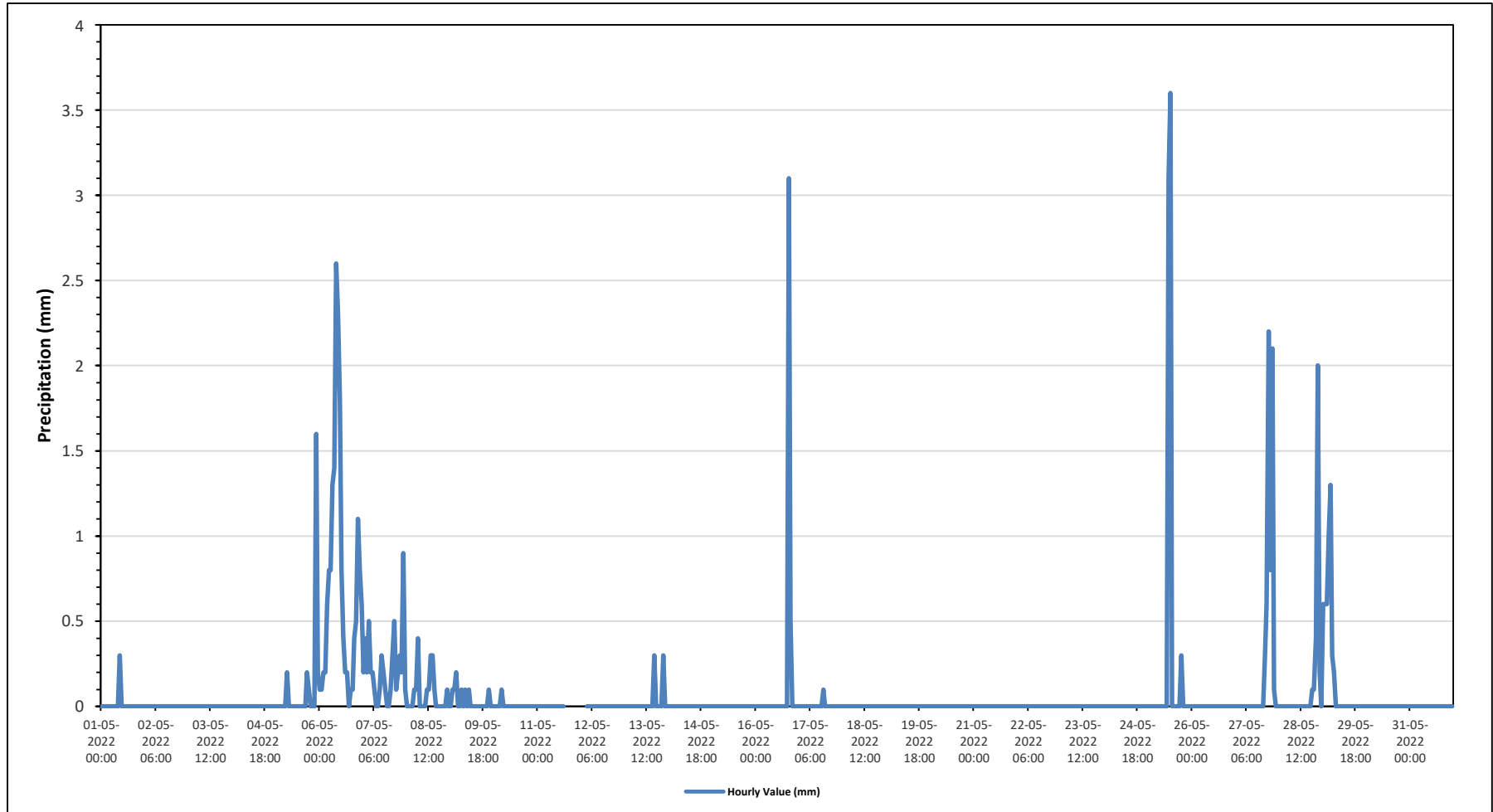
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
May 1	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3	0.3
May 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
May 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
May 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
May 5	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0.2	0.1	0	0	0	0	1.6	0.2	0.0	1.6	2.3
May 6	0.1	0.1	0.2	0.2	0.6	0.8	0.8	1.3	1.4	2.6	2.3	1.8	0.8	0.4	0.2	0.2	0	0.1	0.1	0.4	0.5	1.1	0.8	0.6	0.0	2.6	17.4
May 7	0.2	0.4	0.2	0.5	0.2	0.2	0.1	0	0	0.1	0.3	0.2	0.1	0	0	0.1	0.3	0.5	0.1	0.2	0.3	0.2	0.9	0.1	0.0	0.9	5.2
May 8	0	0	0	0	0.1	0.1	0.4	0	0	0	0	0.1	0.1	0.3	0.3	0.1	0	0	0	0	0	0.1	0	0	0.0	0.4	1.6
May 9	0	0.1	0.1	0.2	0	0	0.1	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.0	0.2	0.8
May 10	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.1
May 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	-
May 12	P	P	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
May 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0.3	0	0	0.0	0.3	0.6
May 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
May 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
May 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.1	0.5	0	0	0	0	0.0	3.1	3.6
May 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.1
May 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
May 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
May 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
May 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
May 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
May 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
May 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
May 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0.0	3.6	7.0
May 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
May 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	2.2	0.8	2.1	0.1	0	0	0.0	2.2	6.1
May 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.4	2	0.2	0	0.0	2.0	2.8
May 29	0.6	0.6	0.6	1	1.3	0.3	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	1.3	4.6
May 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
May 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
Diurnal Maximum	0.6	0.6	0.6	1.0	1.3	0.8	0.8	1.3	1.4	2.6	2.3	3.1	3.6	0.4	0.3	0.2	0.3	0.6	3.1	0.8	2.1	2.0	1.6	0.6			
Diurnal Average	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

Timeseries Chart of Hourly Average for Precipitation - 842b Station





PEACE RIVER AREA MONITORING PROGRAM

842b Station - May 2022

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

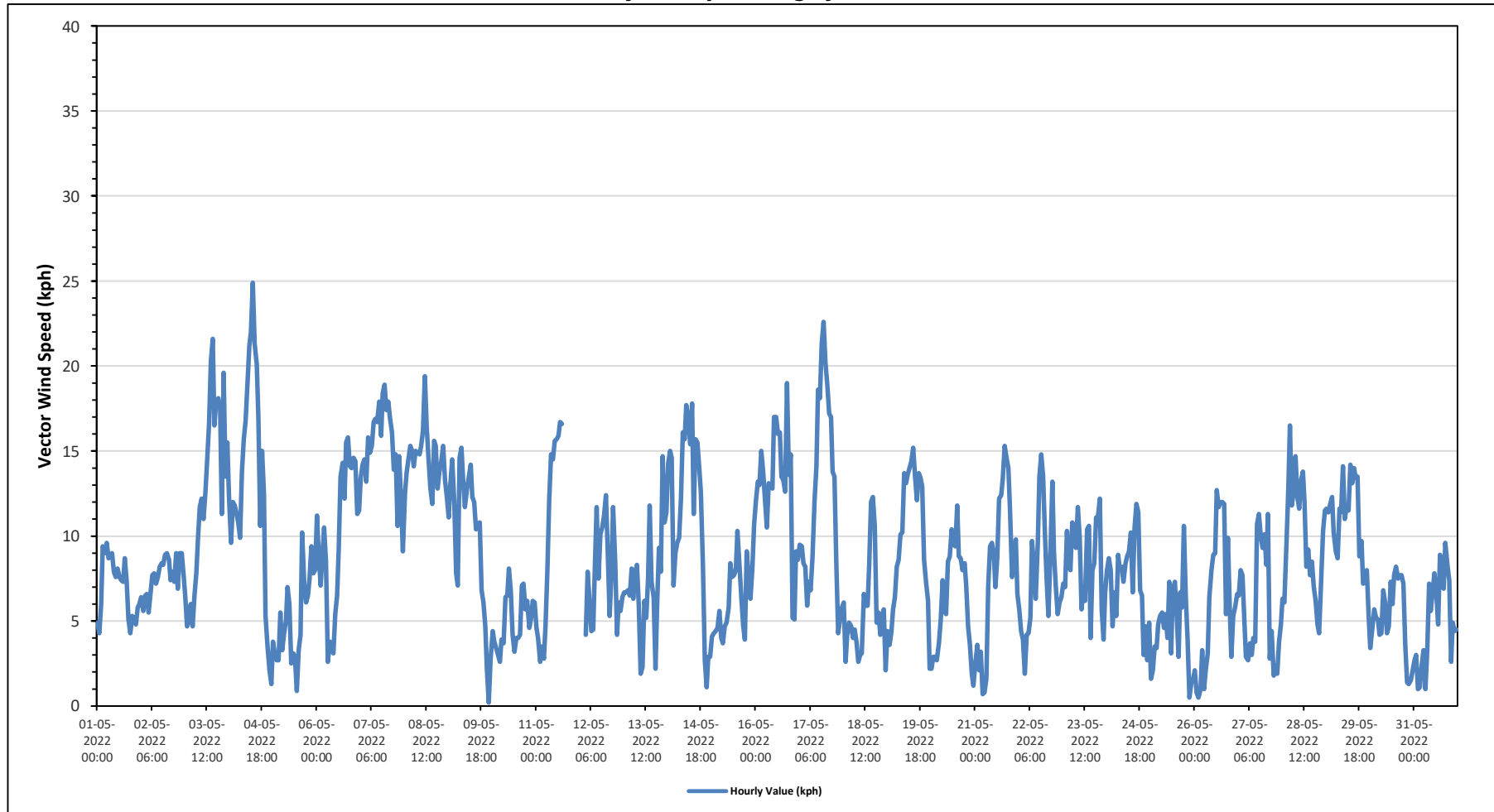
Maximum Hourly Value:	24.9 kph on May 4 at hour 13	Hours in Service:	744
Maximum Daily Value:	14.8 kph on May 7	Hours of Data:	732
Minimum Hourly Value:	0.2 kph on May 9 at hour 22	Hours of Missing Data:	12
Minimum Daily Value:	1.1 kph on May 10	Hours of Calibration:	0
Monthly Average:	1.6 kph	Operational Uptime:	98.4

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
May 1	4.9	4.3	6.0	9.4	9.0	9.6	8.7	8.9	9.0	7.9	7.6	8.1	7.6	7.4	7.3	8.7	7.4	5.1	4.3	5.3	5.2	4.8	5.8	6.0	4.3	9.6	6.9
May 2	6.4	5.6	6.5	6.6	5.5	6.6	7.7	7.8	7.2	7.6	8.2	8.4	8.3	8.9	9.0	8.6	7.4	7.9	7.3	9.0	6.9	9.0	9.0	7.7	5.5	9.0	7.5
May 3	6.5	4.7	5.0	6.0	4.7	6.5	7.8	10.1	11.7	12.2	11.0	12.5	14.5	16.6	20.3	21.6	16.5	17.9	18.1	17.4	11.3	19.6	13.5	15.5	4.7	21.6	9.3
May 4	12.4	9.6	12.0	11.8	11.4	10.8	9.9	13.8	15.7	16.8	19.0	21.2	22.0	24.9	21.3	20.1	17.0	10.6	15.0	12.5	5.3	3.4	2.1	1.3	1.3	24.9	12.7
May 5	3.8	3.1	2.7	2.7	5.5	3.3	4.3	5.0	7.0	6.0	2.5	3.1	2.9	0.9	3.3	4.2	10.2	7.2	6.1	6.5	7.5	9.4	7.8	8.0	0.9	10.2	3.4
May 6	11.2	8.8	7.1	9.0	10.5	8.5	2.6	3.8	3.6	3.1	5.4	6.5	9.2	13.5	14.3	12.2	15.5	15.8	14.1	14.0	14.6	14.4	11.3	11.5	2.6	15.8	6.6
May 7	13.4	14.2	14.5	13.2	15.8	14.9	15.3	16.7	16.9	16.7	17.9	15.9	18.4	18.9	17.4	17.9	17.0	16.1	13.9	14.8	10.6	14.7	12.2	9.1	9.1	18.9	14.8
May 8	12.5	13.7	14.5	15.3	15.0	14.1	15.0	14.9	14.8	15.3	16.2	19.4	16.4	14.5	12.8	11.9	15.6	15.3	12.8	13.8	14.4	15.3	13.3	12.3	11.9	19.4	14.0
May 9	11.1	13.0	14.5	12.0	7.8	7.1	14.6	15.2	13.1	11.7	12.8	13.5	14.2	12.3	12.0	10.4	10.7	10.8	6.8	6.1	4.7	2.2	0.2	2.8	0.2	15.2	9.7
May 10	4.4	3.8	3.4	3.0	2.6	3.9	3.7	6.4	6.5	8.1	6.8	4.2	3.2	4.0	4.0	4.2	7.1	7.2	5.7	6.2	4.6	5.1	6.2	6.1	2.6	8.1	1.1
May 11	4.6	4.0	2.6	3.5	2.8	4.7	7.9	12.1	14.8	14.5	15.6	15.7	15.9	16.7	16.6		P	P	P	P	P	P	P	P	2.6	16.7	-
May 12	P	P	P	4.2	7.9	6.2	4.4	4.5	8.6	11.7	7.5	10.1	10.5	11.2	12.4	9.0	5.3	7.5	11.7	8.5	4.2	6.1	5.6	6.4	4.2	12.4	2.5
May 13	6.7	6.7	6.8	6.5	8.1	6.3	7.8	8.3	5.9	1.9	2.3	6.2	5.2	7.5	11.8	7.3	6.4	2.2	5.9	9.3	7.9	14.7	10.8	11.4	1.9	14.7	2.3
May 14	14.3	15.0	14.6	7.1	9.0	9.6	9.9	12.2	16.1	15.7	17.7	17.0	15.4	17.8	11.3	15.7	15.5	14.0	12.6	8.2	2.7	1.1	2.9	2.9	1.1	17.8	10.9
May 15	4.1	4.3	4.4	4.6	5.6	4.0	3.7	4.7	4.9	5.8	8.4	7.6	7.7	8.0	10.3	8.2	6.3	4.7	3.9	9.1	7.7	6.3	8.0	10.7	3.7	10.7	2.6
May 16	12.1	13.2	13.0	15.0	13.8	11.9	10.5	13.1	12.9	12.8	17.0	17.0	16.0	16.1	13.5	13.3	12.6	19.0	13.6	14.8	5.2	5.1	9.1	8.6	5.1	19.0	9.3
May 17	9.5	9.4	8.4	8.2	5.9	7.3	6.8	8.7	12.1	14.1	18.6	18.1	21.3	22.6	20.2	18.9	17.2	17.0	13.8	13.5	8.4	4.3	5.1	5.8	4.3	22.6	11.3
May 18	6.1	2.6	4.2	4.9	4.7	4.0	4.5	3.8	2.6	3.0	3.1	6.6	5.9	5.9	8.3	12.0	12.3	10.6	4.9	5.5	4.2	5.3	5.7	2.1	2.1	12.3	3.2
May 19	4.4	3.6	4.4	5.7	6.4	8.2	8.6	10.1	10.2	13.7	13.1	13.6	14.0	14.4	15.2	13.5	12.1	13.7	13.4	12.9	8.6	7.2	6.2	2.2	2.2	15.2	9.5
May 20	2.2	2.9	2.9	2.7	3.7	5.1	7.4	5.7	5.4	8.5	8.8	10.4	9.5	9.4	11.8	8.8	8.7	8.0	8.4	7.1	4.7	3.6	1.9	1.2	1.2	11.8	6.0
May 21	2.6	3.6	2.1	3.2	0.7	0.8	1.6	7.1	9.4	9.6	9.0	7.0	8.7	12.2	12.4	13.4	15.3	14.6	14.0	11.6	7.6	8.9	9.8	6.6	0.7	15.3	6.5
May 22	5.7	4.4	3.9	1.9	4.2	4.3	5.2	9.7	8.4	6.3	9.6	13.5	14.8	13.5	10.1	7.6	5.3	9.2	13.2	9.0	7.0	5.4	6.1	6.4	1.9	14.8	1.9
May 23	7.2	7.0	10.3	8.5	8.0	10.8	9.7	9.3	11.7	9.9	5.7	6.8	6.2	10.4	10.6	4.0	8.0	8.4	11.1	11.0	12.2	5.7	3.9	6.7	3.9	12.2	5.0
May 24	8.0	8.7	8.0	4.7	6.7	5.3	8.9	8.1	8.2	7.3	8.4	8.8	9.1	10.2	6.7	10.5	11.9	11.4	6.8	6.5	3.0	4.7	2.7	4.9	2.7	11.9	2.6
May 25	1.6	2.1	3.5	3.4	4.8	5.3	5.5	4.6	5.4	4.0	7.3	3.1	6.8	7.3	5.3	2.9	6.7	5.8	10.6	6.5	3.9	0.5	1.4	1.6	0.5	10.6	4.0
May 26	2.1	0.8	0.5	1.0	3.3	1.0	2.2	3.1	6.4	8.0	8.9	9.0	12.7	11.7	12.0	12.0	11.9	5.4	9.9	5.8	2.9	5.3	5.8	6.6	0.5	12.7	3.6
May 27	6.5	8.0	7.7	5.1	2.9	2.7	3.7	3.0	4.0	3.8	10.7	11.3	10.0	9.3	10.1	8.3	11.3	2.8	4.4	1.8	2.4	1.9	3.8	4.8	1.8	11.3	4.3
May 28	6.3	6.1	9.6	12.8	16.5	11.8	12.6	14.7	12.3	11.6	13.3	13.8	12.0	8.2	9.2	7.7	8.5	7.0	6.2	4.8	4.3	7.1	10.3	11.5	4.3	16.5	7.7
May 29	11.6	11.4	11.9	12.3	10.2	9.1	8.7	11.6	11.4	14.1	11.0	11.8	11.5	14.2	13.1	14.0	13.4	13.5	8.8	9.7	7.2	7.3	8.0	5.3	5.3	14.2	10.6
May 30	3.4	4.6	5.7	5.2	5.1	4.2	4.3	6.8	6.1	4.3	4.7	7.3	6.0	7.7	8.2	7.5	7.7	7.7	7.2	3.6	1.4	1.3	1.5	2.1	1.3	8.2	4.5
May 31	2.7	3.0	1.0	1.1	2.4	3.3	1.0	3.3	7.2	5.6	6.7	7.8	6.4	4.8	8.9	7.4	6.9	9.6	8.3	7.4	2.6	4.9	4.4	4.5	1.0	9.6	2.8
Diurnal Maximum	14	15	15	15	17	15	15	17	17	17	19	21	22	25	21	22	17	19	18	17	15	20	14	16			
Diurnal Average	6.9	6.7	7.1	6.8	7.1	6.8	7.2	8.6	9.3	9.4	10.2	10.8	11.0	11.6	11.6	10.7	10.9	10.2	9.8	9.1	6.4	6.8	6.5	6.4			

C Monthly Calibration	S Daily Zero-Span Check	Q Quality Assurance
K Collection Error	N 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.

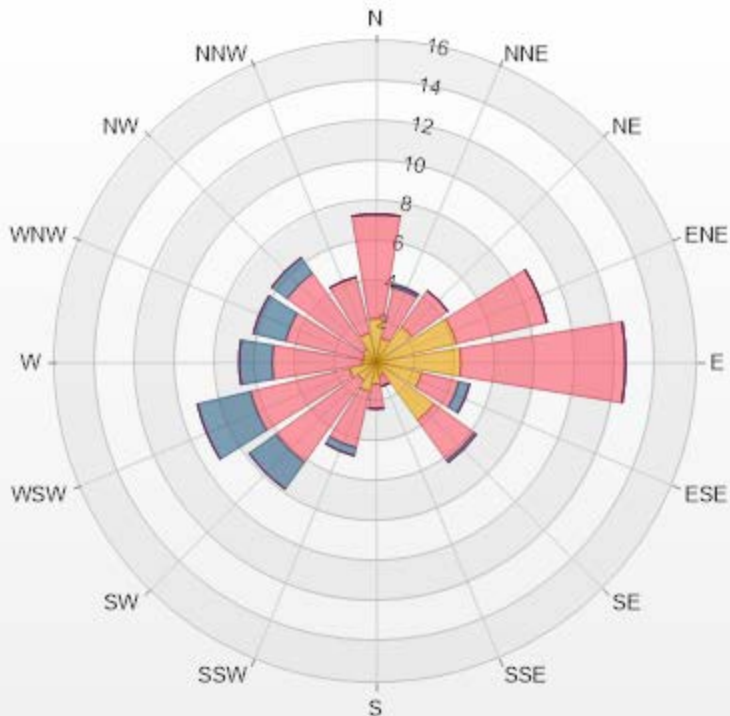
Timeseries Chart of Hourly Average for VWS - 842b Station



Wind: PRAMP 842b Monitor: WDS [KPH] Monthly: 05-2022 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.

Calm: 3.01% Valid Data: 98.39%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	2.19	5.19	0	0	0	7.38
NNE	1.23	2.6	0.14	0	0	3.97
NE	2.19	2.19	0	0	0	4.38
ENE	4.1	4.64	0	0	0	8.74
E	4.23	8.2	0	0	0	12.43
ESE	2.32	1.91	0.55	0	0	4.78
SE	3.55	2.46	0.14	0	0	6.15
SSE	0.68	0.55	0	0	0	1.23
S	1.09	1.23	0	0	0	2.32
SSW	1.5	2.87	0.41	0	0	4.78
SW	1.09	5.05	1.64	0	0	7.78
WSW	1.37	5.05	2.73	0	0	9.15
W	0.68	4.51	1.64	0	0	6.83
WNW	0.68	3.96	1.64	0	0	6.28
NW	0.82	4.64	0.96	0	0	6.42
NNW	1.5	2.87	0	0	0	4.37
Summary	29.22	57.92	9.85	0	0	96.99



PRAMP-202205

Page 112 of 276

% Icon Classes (KPH)

29

1.8-6.0

58

6.0-15.0

10

15.0-29.0

0

29.0-39.0

0

>39.0



PEACE RIVER AREA MONITORING PROGRAM

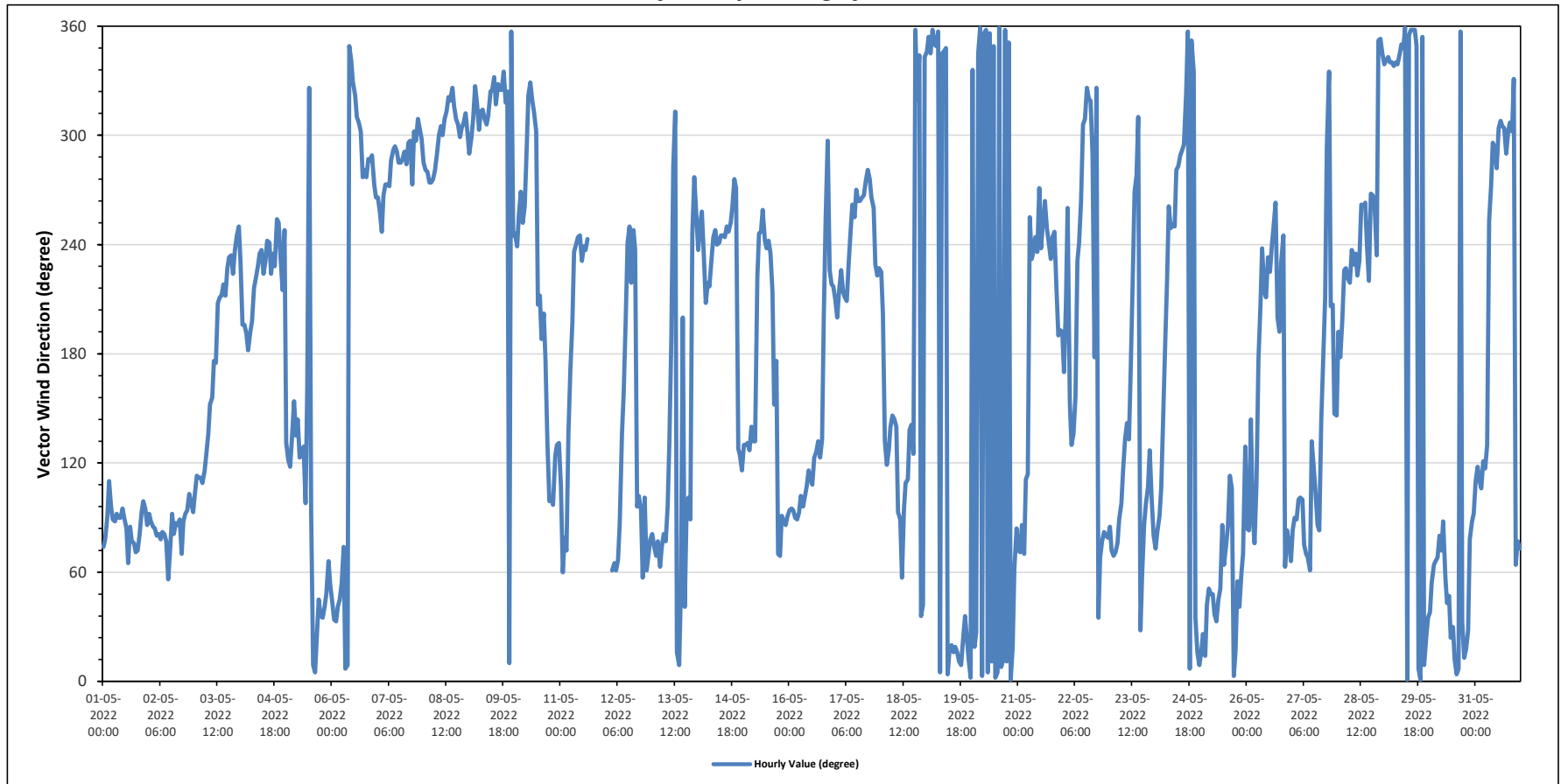
842b Station - May 2022

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		282 (W) degree													Hours in Service:		744										
															Hours of Data:		732										
															Hours of Missing Data:		12										
															Hours of Calibration:		0										
															Operational Uptime:		98.4										
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	
May 1	ENE	ENE	E	ESE	E	E	E	E	E	E	E	E	ENE	E	ENE	ENE	ENE	ENE	E	E	E	E	E	E	87	E	
May 2	E	E	E	E	E	E	ENE	E	E	ENE	NE	ENE	E	E	E	E	ENE	E	E	E	ESE	E	E	E	85	E	
May 3	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SSE	SSE	S	S	SSW	SSW	SSW	SW	SSW	SW	SW	SW	SW	SW	WSW	WSW	202	SSW	
May 4	SW	SSW	SSW	S	S	S	SSW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	SW	SW	WSW	WSW	SW	SSW	WSW	WSW	224	SW	
May 5	SE	ESE	ESE	SE	SSE	SE	SE	ESE	SE	SE	E	SSE	NW	E	N	N	NNE	NE	NE	NE	NE	ENE	NE	74	ENE		
May 6	NE	NE	NNE	NE	NE	NE	ENE	N	N	NNW	NNW	NNW	NW	NW	NW	WNW	W	W	W	WNW	WNW	WNW	W	W	315	NW	
May 7	W	WSW	WSW	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	NW	WNW	WNW	285	WNW	
May 8	WNW	W	W	W	W	W	W	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	NW	WNW	WNW	300	WNW	
May 9	WNW	WNW	NW	NW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NNW	NW	NNW	NW	NW	NW	NW	NW	N	N	WSW	216	NW	
May 10	WSW	WSW	WSW	W	WSW	W	WNW	NW	NNW	NW	NNW	NW	NNW	SSW	SSW	S	SSW	SW	E	E	E	ESE	SE	SE	315	SSW	
May 11	ESE	ENE	ENE	ENE	SE	S	SSW	SW	WSW	WSW	WSW	SW	WSW	SW	WSW	SW	WSW	SW	WSW	P	P	P	P	P	P	-	-
May 12	P	P	P	ENE	ENE	ENE	ENE	E	SE	SSE	SSW	WSW	WSW	SW	WSW	SW	WSW	E	E	E	ENE	E	ENE	ENE	129	SE	
May 13	E	ENE	ENE	ENE	ENE	ENE	E	ENE	E	SE	S	W	NW	NNE	N	NE	SSW	NE	E	E	E	WSW	W	WSW	62	ENE	
May 14	SW	WSW	WSW	SW	SSW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	SE	ESE	ESE	243	WSW	
May 15	SE	SE	SE	SE	SE	SE	SE	SE	SW	WSW	WSW	WSW	WSW	SW	WSW	SW	SSW	SSE	S	ENE	ENE	E	E	E	165	SSE	
May 16	E	E	E	E	E	E	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	SE	ESE	SE	SSW	WSW	WNW	SW	SW	SW	119	ESE	
May 17	SSW	SSW	SSW	SW	SSW	SSW	SSW	SW	WSW	W	WSW	W	W	W	W	W	W	W	W	W	W	WSW	SW	SW	253	WSW	
May 18	SW	SSW	SE	ESE	SE	SE	SE	SE	SE	E	E	ENE	E	ESE	ESE	SE	SE	SE	N	NW	NNW	NE	NE	NNW	112	ESE	
May 19	NNW	N	NNW	N	N	NNW	N	N	NNW	NNW	NNW	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	NNE	NNE	N	7	N	
May 20	NNW	NNE	NNE	NNW	N	N	N	N	N	N	NNE	NNW	N	N	N	N	NNE	N	NNE	N	NNE	N	N	NNE	E	3	N
May 21	ENE	ENE	E	ENE	ESE	ESE	WSW	SW	SW	WSW	SW	W	SW	WSW	W	WSW	WSW	SW	WSW	WSW	SW	S	S	S	235	SW	
May 22	SSE	SSW	WSW	SSE	SE	SE	SSE	SW	WSW	W	NW	NW	NW	NW	NW	WNW	S	NW	NE	ENE	ENE	E	E	ENE	319	NW	
May 23	E	ENE	ENE	ENE	ENE	E	E	ESE	SE	SE	SE	SSE	SW	W	W	NW	NNE	ENE	E	E	ESE	SE	E	E	98	E	
May 24	ENE	E	E	ESE	SE	S	SW	W	WSW	WSW	WSW	W	W	WNW	WNW	WNW	NW	N	N	N	NNW	NE	NNE	N	306	NW	
May 25	NNE	NNE	NNE	NE	NE	NE	NE	NNE	NE	NE	E	ENE	ENE	E	ESE	ESE	N	NNE	NE	NE	ENE	ENE	SE	SE	51	NE	
May 26	E	E	SE	E	ENE	ESE	S	SSW	SW	SSW	SSW	SW	SW	WSW	WSW	W	SSW	S	SW	WSW	ENE	E	ENE	ENE	219	SW	
May 27	E	E	E	E	E	E	ENE	ENE	ENE	ENE	SE	ESE	ESE	E	E	SE	S	SSW	WNW	NNW	SSW	SSW	SE	SE	111	ESE	
May 28	S	S	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	W	W	W	WSW	SW	W	W	WSW	SW	N	N	NNW	240	WSW
May 29	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	NNW	N	N	N	N	N	N	N	N	N	N	N	NNE	NE	352	N
May 30	NE	NE	ENE	ENE	ENE	E	ENE	E	ENE	NE	NE	NNE	NNE	N	N	N	NNE	NNE	NNE	NNE	ENE	E	E	E	39	NE	
May 31	ESE	ESE	ESE	ESE	ESE	ESE	SE	WSW	W	WNW	WNW	W	WNW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	ENE	ENE	ENE	305	WNW
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance												
K	Collection Error						N	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.																											

Timeseries Chart of Hourly Average for VWD - 842b Station





PEACE RIVER AREA MONITORING PROGRAM

842b Station - May 2022

Summary of Hourly Averages

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

WIND SPEED																														
Maximum Hourly Value: 24.9 kph on May 4 at hour 13														Hours in Service: 744																
Maximum Daily Value: 14.8 kph on May 7														Hours of Data: 732																
Minimum Hourly Value: 0.2 kph on May 9 at hour 22														Hours of Missing Data: 12																
Minimum Daily Value: 1.1 kph on May 10														Hours of Calibration: 0																
Monthly Average: 1.6 kph														Operational Uptime: 98.4																
WIND DIRECTION																														
Monthly Average: 282 (W) degree																														
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			
May 1	4.9	4.3	6.0	9.4	9.0	9.6	8.7	8.9	9.0	7.9	7.6	8.1	7.6	7.4	7.3	8.7	7.4	5.1	4.3	5.3	5.2	4.8	5.8	6.0	4.3	9.6	6.9	4.3	9.6	6.9
May 2	6.4	5.6	6.5	6.6	5.5	6.6	7.7	7.8	7.2	7.6	8.2	8.4	8.3	8.9	9.0	8.6	7.4	7.9	7.3	9.0	6.9	9.0	9.0	7.7	5.5	9.0	7.5	5.5	9.0	7.5
May 3	6.5	4.7	5.0	6.0	4.7	6.5	7.8	10.1	11.7	12.2	11.0	12.5	14.5	16.6	20.3	21.6	16.5	17.9	18.1	17.4	11.3	19.6	13.5	15.5	4.7	21.6	9.3	4.7	21.6	9.3
May 4	12.4	9.6	12.0	11.8	11.4	10.8	9.9	13.8	15.7	16.8	19.0	21.2	22.0	24.9	21.3	20.1	17.0	10.6	15.0	12.5	5.3	3.4	2.1	1.3	1.3	24.9	12.7	1.3	24.9	12.7
May 5	3.8	3.1	2.7	2.7	5.5	3.3	4.3	5.0	7.0	6.0	2.5	3.1	2.9	0.9	3.3	4.2	10.2	7.2	6.1	6.5	7.5	9.4	7.8	8.0	0.9	10.2	3.4	0.9	10.2	3.4
May 6	11.2	8.8	7.1	9.0	10.5	8.5	2.6	3.8	3.6	3.1	5.4	6.5	9.2	13.5	14.3	12.2	15.5	15.8	14.1	14.0	14.6	14.4	11.3	11.5	2.6	15.8	6.6	2.6	15.8	6.6
May 7	13.4	14.2	14.5	13.2	15.8	14.9	15.3	16.7	16.9	16.7	17.9	15.9	18.4	18.9	17.4	17.9	17.0	16.1	13.9	14.8	10.6	14.7	12.2	9.1	9.1	18.9	14.8	9.1	18.9	14.8
May 8	12.5	13.7	14.5	15.3	15.0	14.1	15.0	14.9	14.8	15.3	16.2	19.4	16.4	14.5	12.8	11.9	15.6	15.3	12.8	13.8	14.4	15.3	13.3	12.3	11.9	19.4	14.0	11.9	19.4	14.0
May 9	11.1	13.0	14.5	12.0	7.8	7.1	14.6	15.2	13.1	11.7	12.8	13.5	14.2	12.3	12.0	10.4	10.7	10.8	6.8	6.1	4.7	2.2	0.2	2.8	0.2	15.2	9.7	0.2	15.2	9.7
May 10	4.4	3.8	3.4	3.0	2.6	3.9	3.7	6.4	6.5	8.1	6.8	4.2	3.2	4.0	4.0	4.2	7.1	7.2	5.7	6.2	4.6	5.1	6.2	6.1	2.6	8.1	1.1	2.6	8.1	1.1
May 11	4.6	4.0	2.6	3.5	2.8	4.7	7.9	12.1	14.8	14.5	15.6	15.7	15.9	16.7	16.6	P	P	P	P	P	P	P	P	P	2.6	16.7	-	2.6	16.7	-
May 12	P	P	P	4.2	7.9	6.2	4.4	4.5	8.6	11.7	7.5	10.1	10.5	11.2	12.4	9.0	5.3	7.5	11.7	8.5	4.2	6.1	5.6	6.4	4.2	12.4	2.5	4.2	12.4	2.5
May 13	6.7	6.7	6.8	6.5	8.1	6.3	7.8	8.3	5.9	1.9	2.3	6.2	5.2	7.5	11.8	7.3	6.4	2.2	5.9	9.3	7.9	14.7	10.8	11.4	1.9	14.7	2.3	1.9	14.7	2.3
May 14	14.3	15.0	14.6	7.1	9.0	9.6	9.9	12.2	16.1	15.7	17.7	17.0	15.4	17.8	11.3	15.7	15.5	14.0	12.6	8.2	2.7	1.1	2.9	2.9	1.1	17.8	10.9	1.1	17.8	10.9
May 15	4.1	4.3	4.4	4.6	5.6	4.0	3.7	4.7	4.9	5.8	8.4	7.6	7.7	8.0	10.3	8.2	6.3	4.7	3.9	9.1	7.7	6.3	8.0	10.7	3.7	10.7	2.6	3.7	10.7	2.6
May 16	12.1	13.2	13.0	15.0	13.8	11.9	10.5	13.1	12.9	12.8	17.0	17.0	16.0	16.1	13.5	13.3	12.6	19.0	13.6	14.8	5.2	5.1	9.1	8.6	5.1	19.0	9.3	5.1	19.0	9.3
May 17	9.5	9.4	8.4	8.2	5.9	7.3	6.8	8.7	12.1	14.1	18.6	18.1	21.3	22.6	20.2	18.9	17.2	17.0	13.8	13.5	8.4	4.3	5.1	5.8	4.3	22.6	11.3	4.3	22.6	11.3
May 18	6.1	2.6	4.2	4.9	4.7	4.0	4.5	3.8	2.6	3.0	3.1	6.6	5.9	5.9	8.3	12.0	12.3	10.6	4.9	5.5	4.2	5.3	5.7	2.1	2.1	12.3	3.2	2.1	12.3	3.2
May 19	4.4	3.6	4.4	5.7	6.4	8.2	8.6	10.1	10.2	13.7	13.1	13.6	14.0	14.4	15.2	13.5	12.1	13.7	13.4	12.9	8.6	7.2	6.2	2.2	2.2	15.2	9.5	2.2	15.2	9.5
May 20	2.2	2.9	2.9	2.7	3.7	5.1	7.4	5.7	5.4	8.5	8.8	10.4	9.5	9.4	11.8	8.8	8.7	8.0	8.4	7.1	4.7	3.6	1.9	1.2	1.2	11.8	6.0	1.2	11.8	6.0



PEACE RIVER AREA MONITORING PROGRAM

842b Station - May 2022

Summary of Hourly Averages

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

WIND SPEED		WIND DIRECTION																											
Maximum Hourly Value:	24.9 kph on May 4 at hour 13	Hours in Service:	744																										
Maximum Daily Value:	14.8 kph on May 7	Hours of Data:	732																										
Minimum Hourly Value:	0.2 kph on May 9 at hour 22	Hours of Missing Data:	12																										
Minimum Daily Value:	1.1 kph on May 10	Hours of Calibration:	0																										
Monthly Average:	1.6 kph	Operational Uptime:	98.4																										
Monthly Average:	282 (W) degree																												
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average			
May 21	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0.7	15.3	6.6		
May 22	ENE	ENE	E	ENE	ESE	ESE	WSW	SW	SW	WSW	SW	W	SW	WSW	W	WSW	WSW	SW	WSW	WSW	SW	S	S	S	1.9	14.8	1.9		
May 23	7.2	7.0	10.3	8.5	8.0	10.8	9.7	9.3	11.7	9.9	5.7	6.8	6.2	10.4	10.6	4.0	8.0	8.4	11.1	11.0	12.2	5.7	3.9	6.7	3.9	12.2	5.0		
May 24	E	ENE	ENE	ENE	ENE	E	E	ESE	SE	SE	SE	SSE	SW	W	W	NW	NNE	ENE	E	E	ESE	SE	E	E	2.7	11.9	2.6		
May 25	8.0	8.7	8.0	4.7	6.7	5.3	8.9	8.1	8.2	7.3	8.4	8.8	9.1	10.2	6.7	10.5	11.9	11.4	6.8	6.5	3.0	4.7	2.7	4.9	0.5	10.6	4.0		
May 26	ENE	E	E	ESE	SE	S	SW	W	WSW	WSW	WSW	W	W	WNW	WNW	WNW	NW	N	N	NNW	NE	NNE	N	N	0.5	12.7	3.6		
May 27	1.6	2.1	3.5	3.4	4.8	5.3	5.5	4.6	5.4	4.0	7.3	3.1	6.8	7.3	5.3	2.9	6.7	5.8	10.6	6.5	3.9	0.5	1.4	1.6	1.8	11.3	4.3		
May 28	NNE	NNE	NNE	NE	NE	NE	NE	NE	NNE	NE	NE	E	ENE	ENE	E	ESE	ESE	N	NNE	NE	NE	ENE	ENE	SE	4.3	16.5	7.7		
May 29	2.1	0.8	0.5	1.0	3.3	1.0	2.2	3.1	6.4	8.0	8.9	9.0	12.7	11.7	12.0	12.0	11.9	5.4	9.9	5.8	2.9	5.3	5.8	6.6	5.3	14.2	10.6		
May 30	E	E	SE	E	ENE	ESE	S	SSW	SW	SSW	SSW	SW	SW	WSW	WSW	W	SSW	S	SW	WSW	ENE	E	ENE	ENE	1.3	8.2	4.5		
May 31	6.5	8.0	7.7	5.1	2.9	2.7	3.7	3.0	4.0	3.8	10.7	11.3	10.0	9.3	10.1	8.3	11.3	2.8	4.4	1.8	2.4	1.9	3.8	4.8	1.0	9.6	2.8		
	E	E	E	E	E	E	ENE	ENE	ENE	ENE	SE	ESE	ESE	E	E	SE	S	SSW	WNW	NNW	SSW	SSW	SE	SE					
	6.3	6.1	9.6	12.8	16.5	11.8	12.6	14.7	12.3	11.6	13.3	13.8	12.0	8.2	9.2	7.7	8.5	7.0	6.2	4.8	4.3	7.1	10.3	11.5					
	S	S	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	W	W	W	WSW	SW	W	W	WSW	SW	N	N	NNW					
	11.6	11.4	11.9	12.3	10.2	9.1	8.7	11.6	11.4	14.1	11.0	11.8	11.5	14.2	13.1	14.0	13.4	13.5	8.8	9.7	7.2	7.3	8.0	5.3					
	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	NNW	N	N	N	N	N	NNW	N	N	N	N	N	NNE	NE					
	3.4	4.6	5.7	5.2	5.1	4.2	4.3	6.8	6.1	4.3	4.7	7.3	6.0	7.7	8.2	7.5	7.7	7.2	3.6	1.4	1.3	1.5	2.1						
	NE	NE	ENE	ENE	ENE	E	ENE	E	ENE	NE	NE	NNE	NNE	N	N	N	NNE	NNE	NNE	NNE	ENE	E	E						
	2.7	3.0	1.0	1.1	2.4	3.3	1.0	3.3	7.2	5.6	6.7	7.8	6.4	4.8	8.9	7.4	6.9	9.6	8.3	7.4	2.6	4.9	4.4	4.5					
	ESE	ESE	ESE	ESE	ESE	ESE	SE	WSW	W	WNW	WNW	W	WNW	NW	WNW	WNW	WNW	WNW	NW	WNW	NNW	ENE	ENE	ENE					
C	Monthly Calibration										S	Daily Zero-Span Check										Q	Quality Assurance						
K	Collection Error										N	No Data (Machine Not in Service)										Y	Routine Maintenance			P	Power Failure		
X	Invalid Data (Equipment Malfunction/Recovery)										NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																	
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																													
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																													

RENO STATION



PEACE RIVER AREA MONITORING PROGRAM

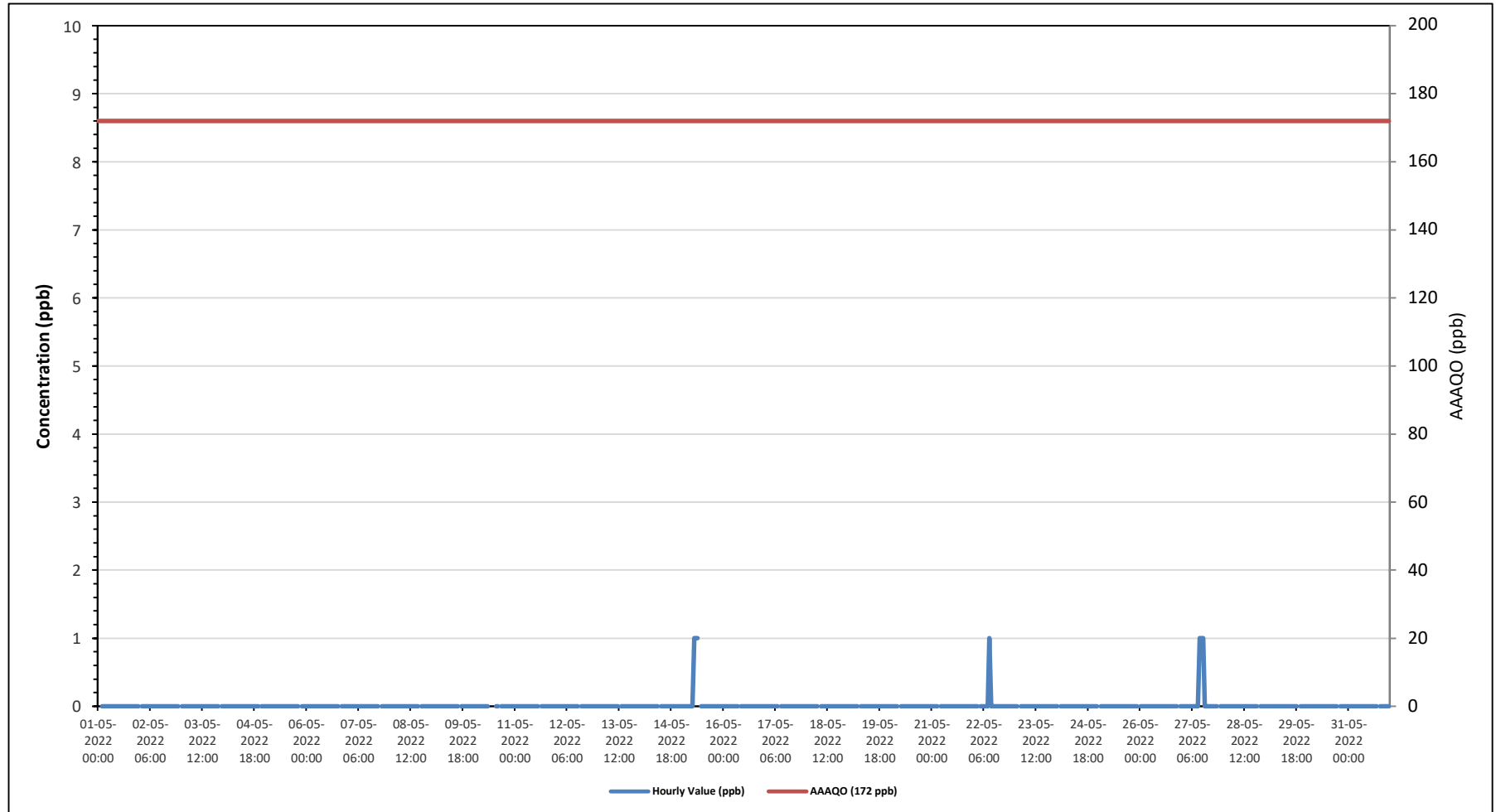
Reno Station - May 2022

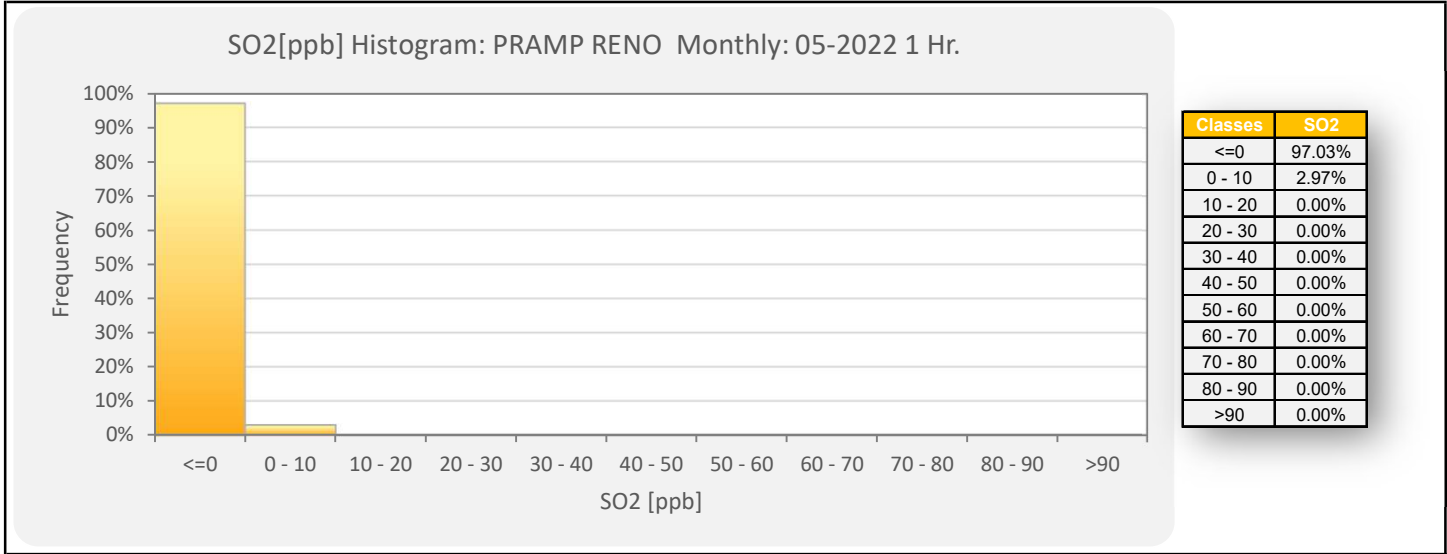
Summary of Hourly Averages

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 May 15 at hour 7												Hours in Service: 744																
Maximum Daily Value: 0.1 ppb on May 15												Hours of Data: 707																
Minimum Hourly Value: 0 ppb on May 1 at hour 0												Hours of Missing Data: 0																
Minimum Daily Value: 0.0 ppb on May 1												Hours of Calibration: 37																
Monthly Average: 0.0 ppb												Operational Uptime: 100.0																
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
May 1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
May 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
May 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
May 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
May 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
May 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
May 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
May 10	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
May 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 12	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 13	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 14	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 15	0	0	0	0	0	0	0	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
May 16	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	0.0
May 17	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 18	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 19	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 20	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 21	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 22	0	0	0	S	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
May 23	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 24	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 25	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
May 27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	S	0	0	0	1	0.1
May 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
May 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
May 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
May 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum	0	0	0	0	0	0	0	1	1	1	1	1	1	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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
C Monthly Calibration											S Daily Zero-Span Check											Q Quality Assurance						
K Collection Error											N 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.																												

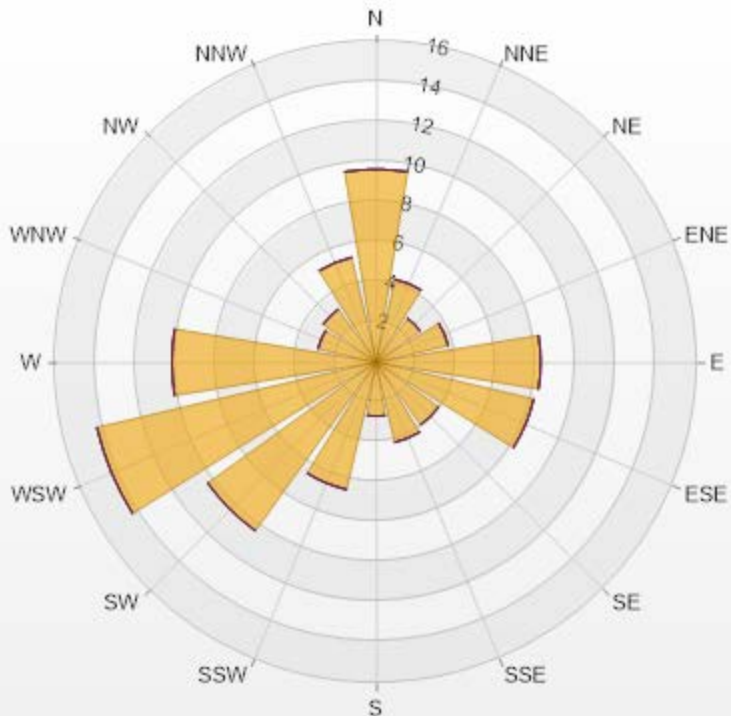
Timeseries Chart of Hourly Average for SO2 - Reno Station





Wind: PRAMP RENO Poll.: PRAMP RENO-SO2[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 95.03% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	9.62	0	0	0	0	9.62
NNE	4.24	0	0	0	0	4.24
NE	2.69	0	0	0	0	2.69
ENE	3.68	0	0	0	0	3.68
E	8.2	0	0	0	0	8.2
ESE	8.06	0	0	0	0	8.06
SE	3.82	0	0	0	0	3.82
SSE	4.1	0	0	0	0	4.1
S	2.69	0	0	0	0	2.69
SSW	6.51	0	0	0	0	6.51
SW	10.33	0	0	0	0	10.33
WSW	14.29	0	0	0	0	14.29
W	10.18	0	0	0	0	10.18
WNW	2.97	0	0	0	0	2.97
NW	3.25	0	0	0	0	3.25
NNW	5.37	0	0	0	0	5.37
Summary	100	0	0	0	0	100



PRAMP-202205

Page 122 of 276

% Icon Classes (ppb)

100 0-10

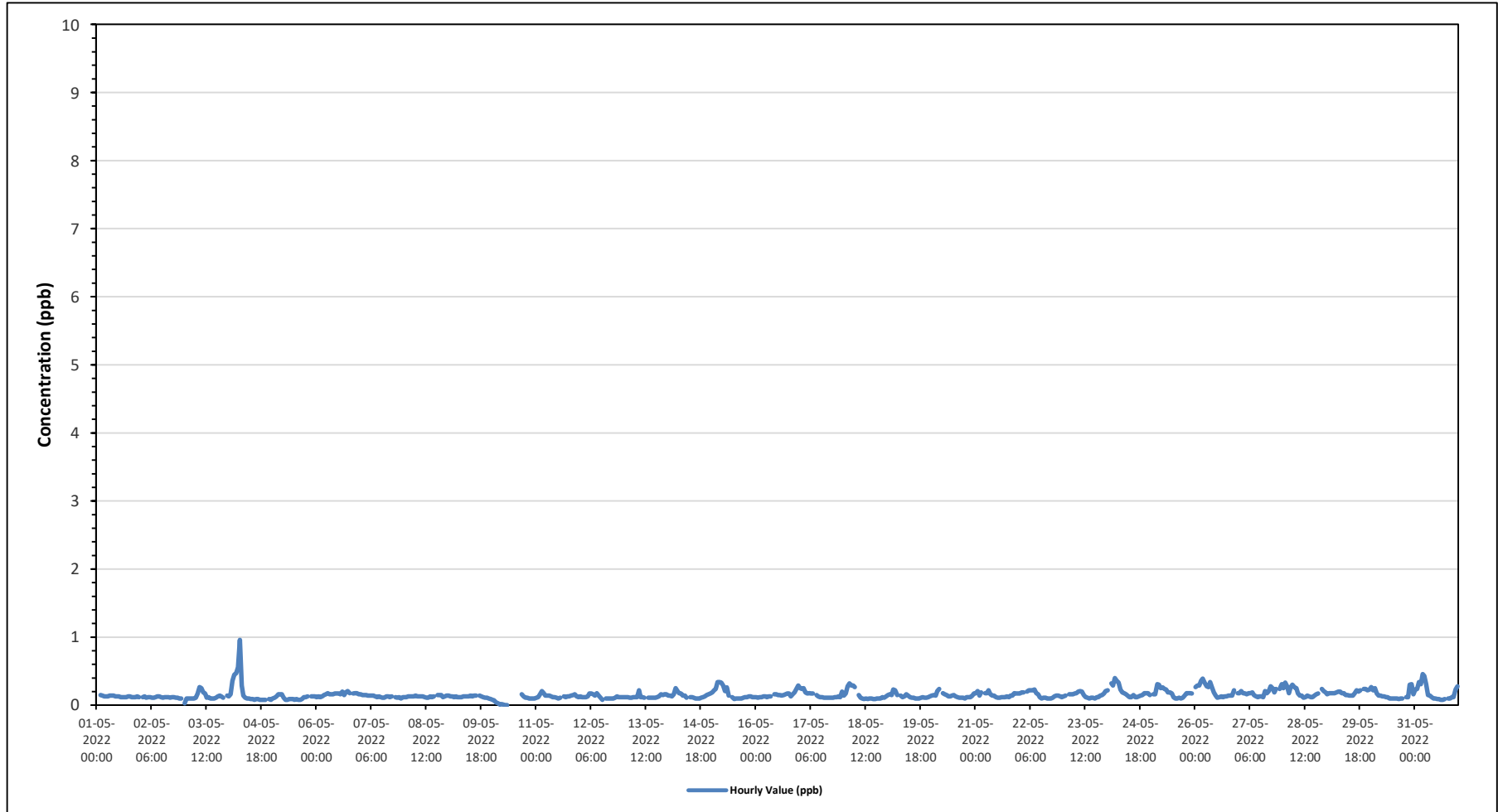
0 10-50

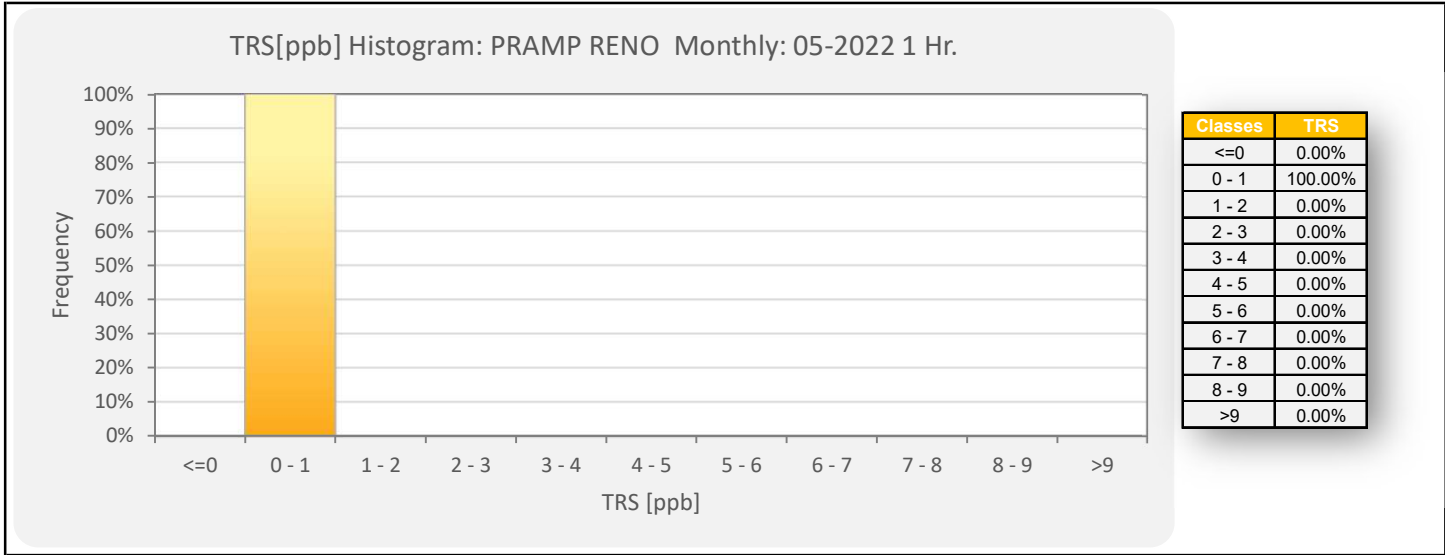
0 50-100

0 100-172

0 >172.0

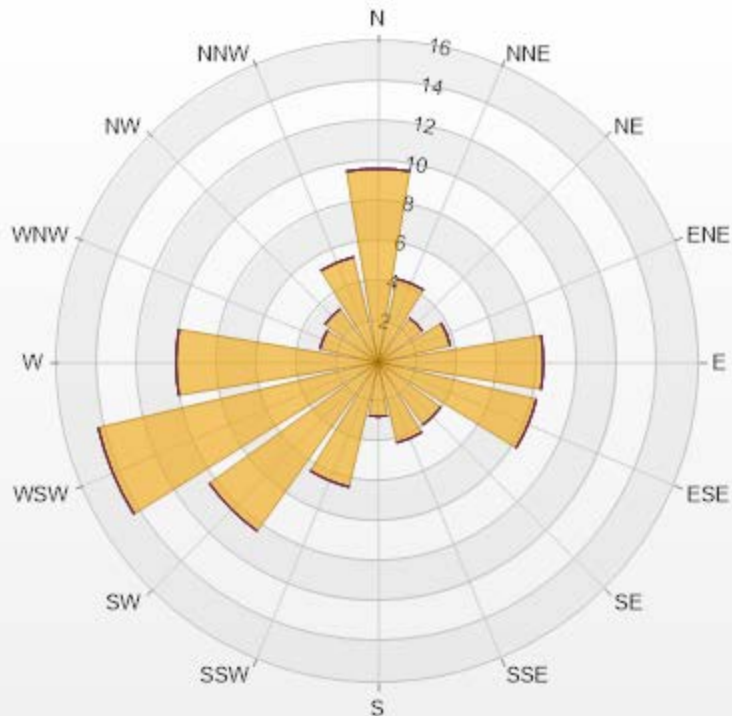
Timeseries Chart of Hourly Average for TRS - Reno Station





Wind: PRAMP RENO Poll.: PRAMP RENO-TRS[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.76% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	9.65	0	0	0	0	9.65
NNE	4.26	0	0	0	0	4.26
NE	2.7	0	0	0	0	2.7
ENE	3.69	0	0	0	0	3.69
E	8.23	0	0	0	0	8.23
ESE	8.09	0	0	0	0	8.09
SE	3.83	0	0	0	0	3.83
SSE	4.11	0	0	0	0	4.11
S	2.7	0	0	0	0	2.7
SSW	6.38	0	0	0	0	6.38
SW	10.35	0	0	0	0	10.35
WSW	14.33	0	0	0	0	14.33
W	10.07	0	0	0	0	10.07
WNW	2.98	0	0	0	0	2.98
NW	3.26	0	0	0	0	3.26
NNW	5.39	0	0	0	0	5.39
Summary	100	0	0	0	0	100



PRAMP-202205

Page 127 of 276

% Icon Classes (ppb)

100 0-2

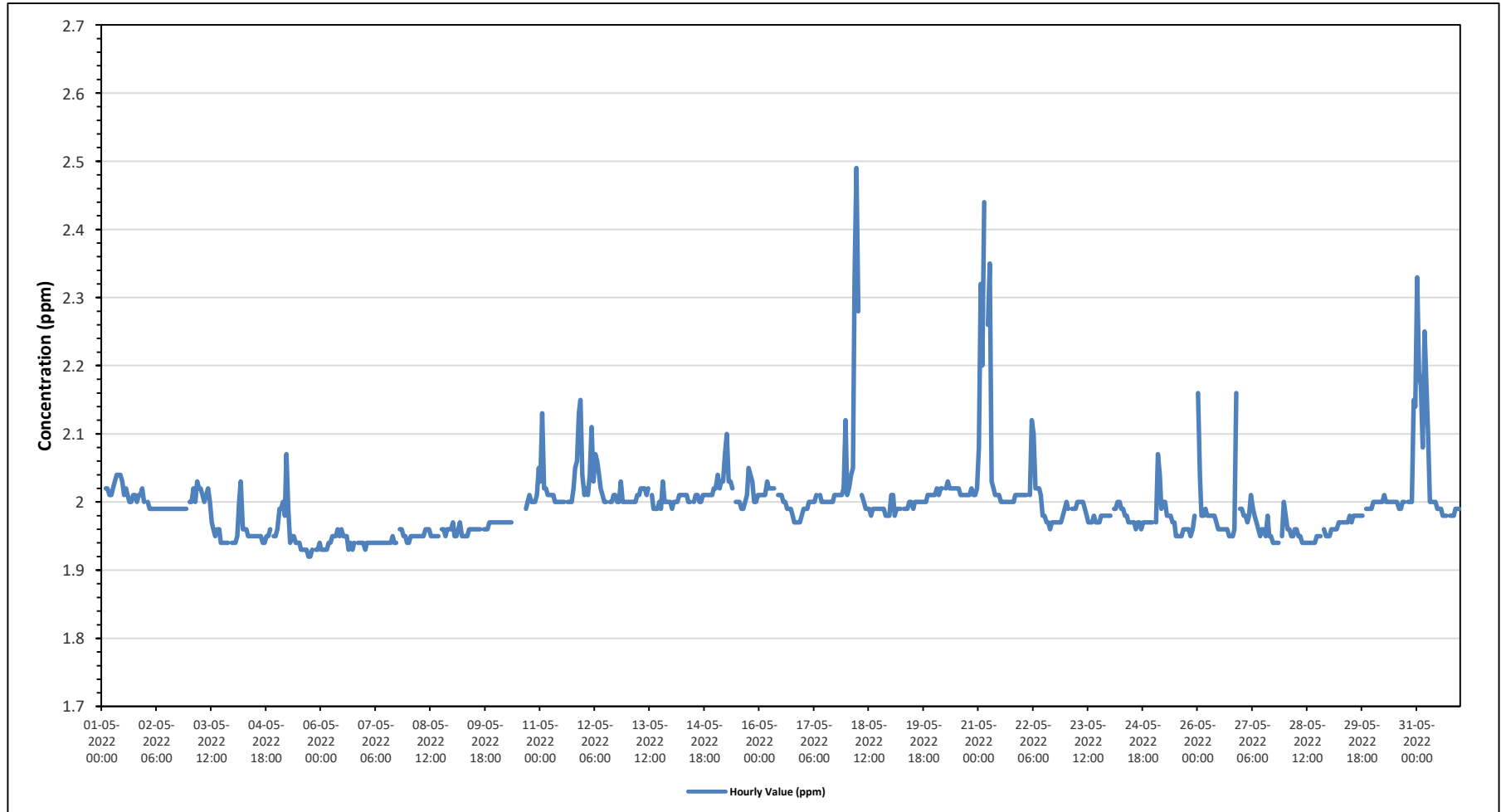
0 2-5

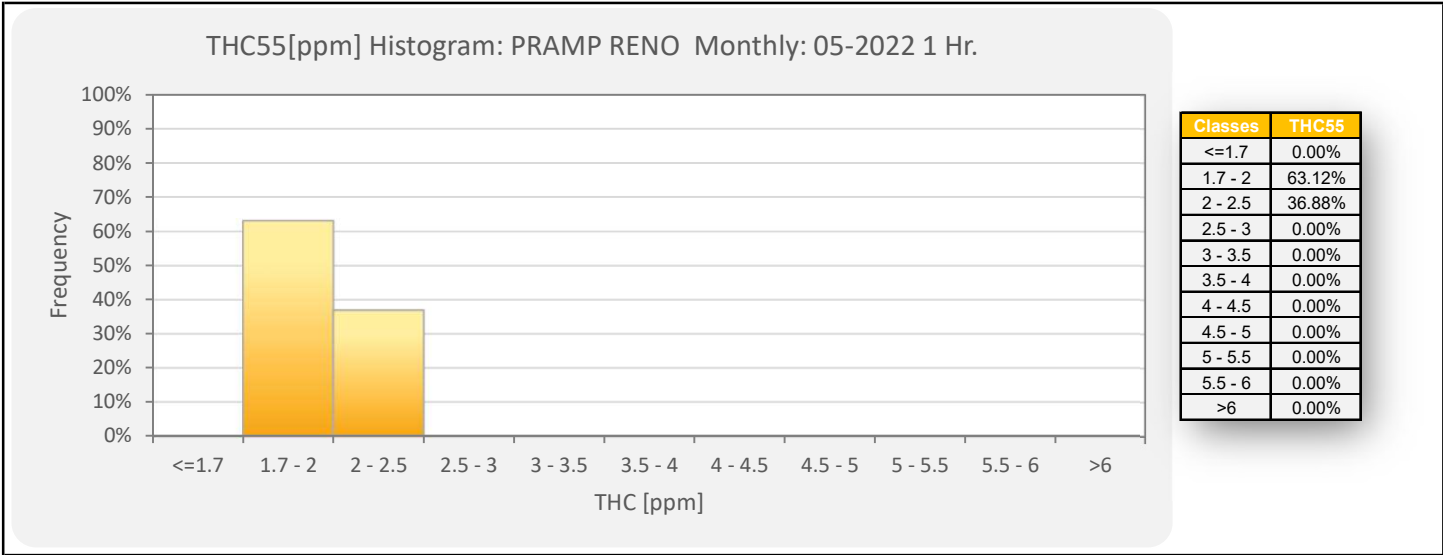
0 5-10

0 10-50

0 >50.0

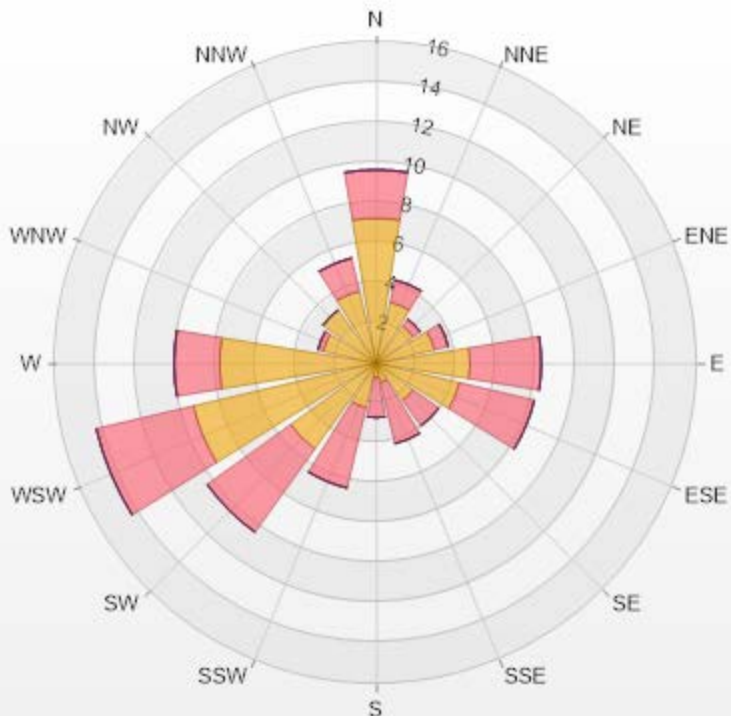
Timeseries Chart of Hourly Average for THC - Reno Station





Wind: PRAMP RENO Poll.: PRAMP RENO-THC55[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 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	7.23	2.41	0	0	0	9.64
NNE	3.12	1.13	0	0	0	4.25
NE	2.27	0.43	0	0	0	2.7
ENE	2.98	0.71	0	0	0	3.69
E	4.68	3.55	0	0	0	8.23
ESE	4.26	3.83	0	0	0	8.09
SE	2.27	1.56	0	0	0	3.83
SSE	0.99	3.12	0	0	0	4.11
S	0.71	1.99	0	0	0	2.7
SSW	2.27	4.11	0	0	0	6.38
SW	5.25	5.11	0	0	0	10.36
WSW	9.36	4.96	0	0	0	14.32
W	7.8	2.27	0	0	0	10.07
WNW	2.7	0.28	0	0	0	2.98
NW	3.26	0	0	0	0	3.26
NNW	3.69	1.7	0	0	0	5.39
Summary	62.84	37.16	0	0	0	100



PRAMP-202205

Page 132 of 276



PEACE RIVER AREA MONITORING PROGRAM

Reno Station - May 2022

Summary of Hourly Averages

METHANE (CH4) in ppm

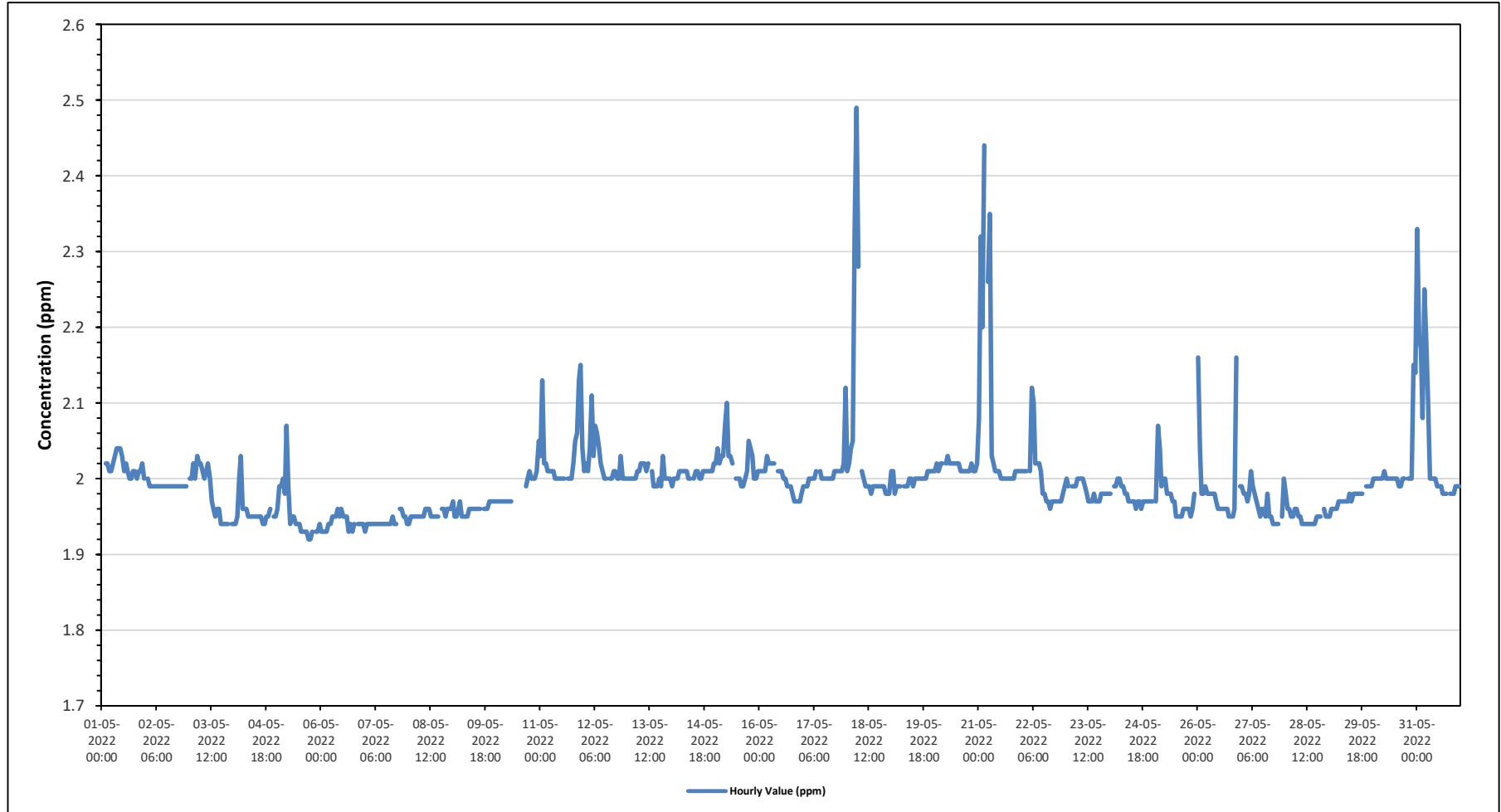
Summary statistics table for Methane (CH4) in ppm, including Maximum Hourly Value (2.49 ppm), Maximum Daily Value (2.08 ppm), Minimum Hourly Value (1.92 ppm), Minimum Daily Value (1.94 ppm), and Monthly Average (1.99 ppm).

Main data table showing hourly Methane (CH4) concentrations in ppm from May 1 to May 31, 2022. Includes columns for Day, Hourly Period (0-23 MST), and Daily Minimum/Maximum/Average.

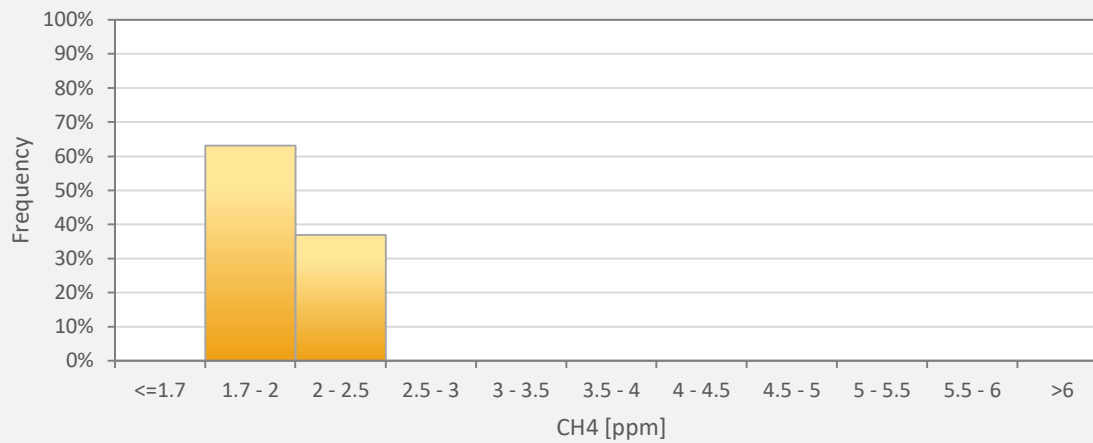
Legend table for status codes: C (Monthly Calibration), K (Collection Error), X (Invalid Data), N (No Data), Y (Routine Maintenance), Q (Quality Assurance), S (Daily Zero-Span Check), R (Repeat Daily Zero-Span Check), P (Power Failure), NR (Unit Maint).

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.

Timeseries Chart of Hourly Average for CH4 - Reno Station



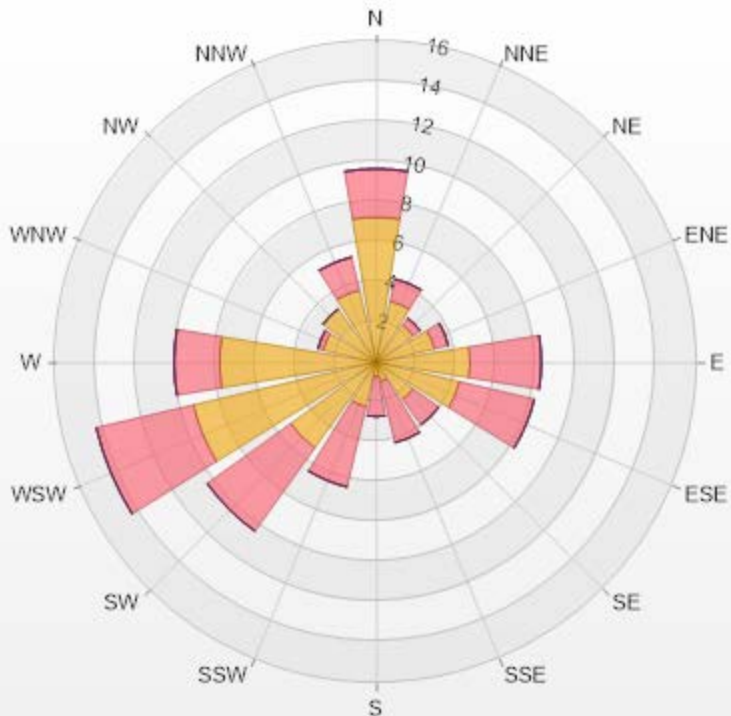
CH4[ppm] Histogram: PRAMP RENO Monthly: 05-2022 1 Hr.



Classes	CH4
<=1.7	0.00%
1.7 - 2	63.12%
2 - 2.5	36.88%
2.5 - 3	0.00%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: PRAMP RENO Poll.: PRAMP RENO-CH4[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.76% Calm Avg: 0.00 [ppm]

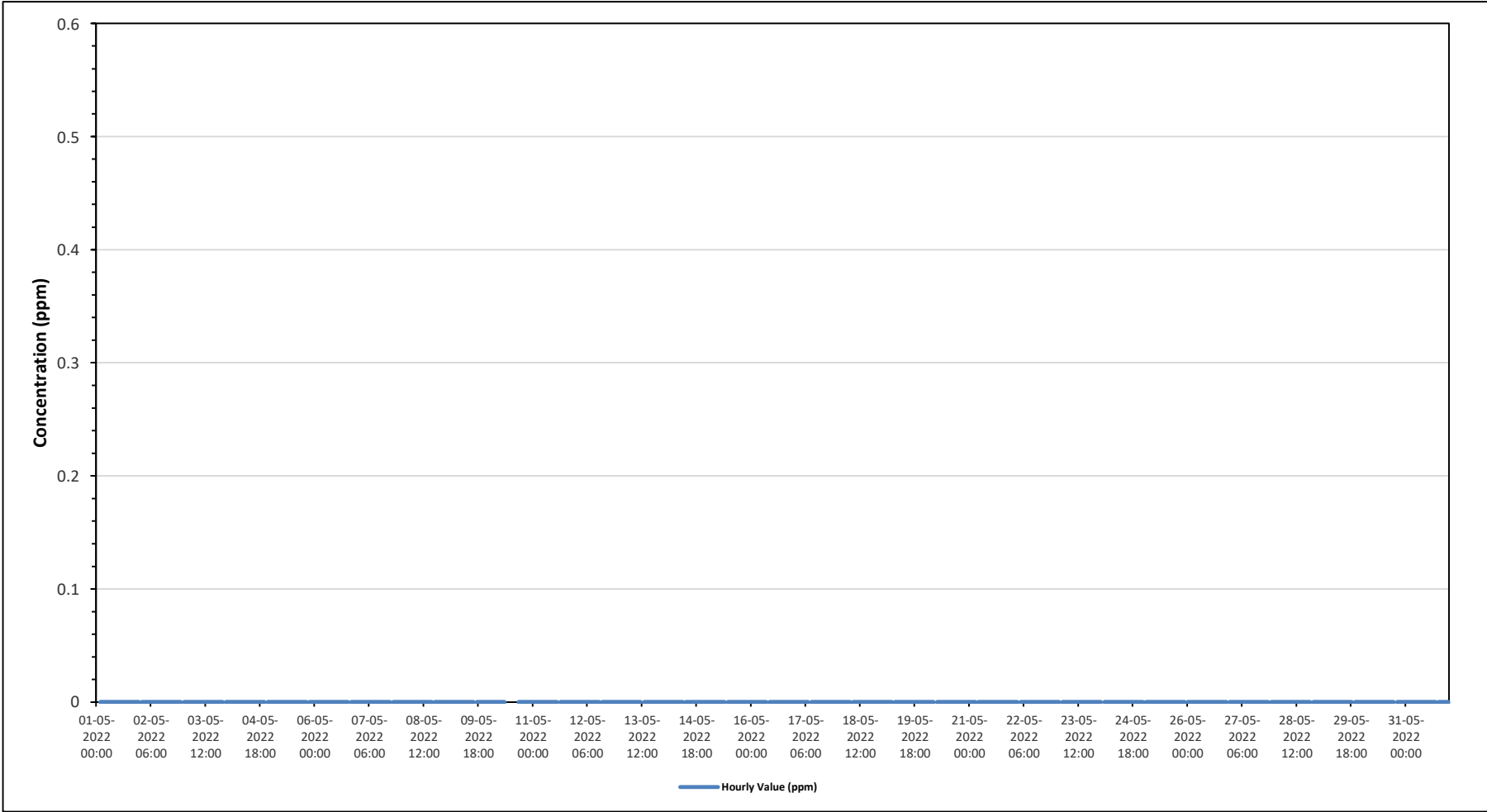
Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	7.23	2.41	0	0	0	9.64
NNE	3.12	1.13	0	0	0	4.25
NE	2.27	0.43	0	0	0	2.7
ENE	2.98	0.71	0	0	0	3.69
E	4.68	3.55	0	0	0	8.23
ESE	4.26	3.83	0	0	0	8.09
SE	2.27	1.56	0	0	0	3.83
SSE	0.99	3.12	0	0	0	4.11
S	0.71	1.99	0	0	0	2.7
SSW	2.27	4.11	0	0	0	6.38
SW	5.25	5.11	0	0	0	10.36
WSW	9.36	4.96	0	0	0	14.32
W	7.8	2.27	0	0	0	10.07
WNW	2.7	0.28	0	0	0	2.98
NW	3.26	0	0	0	0	3.26
NNW	3.69	1.7	0	0	0	5.39
Summary	62.84	37.16	0	0	0	100

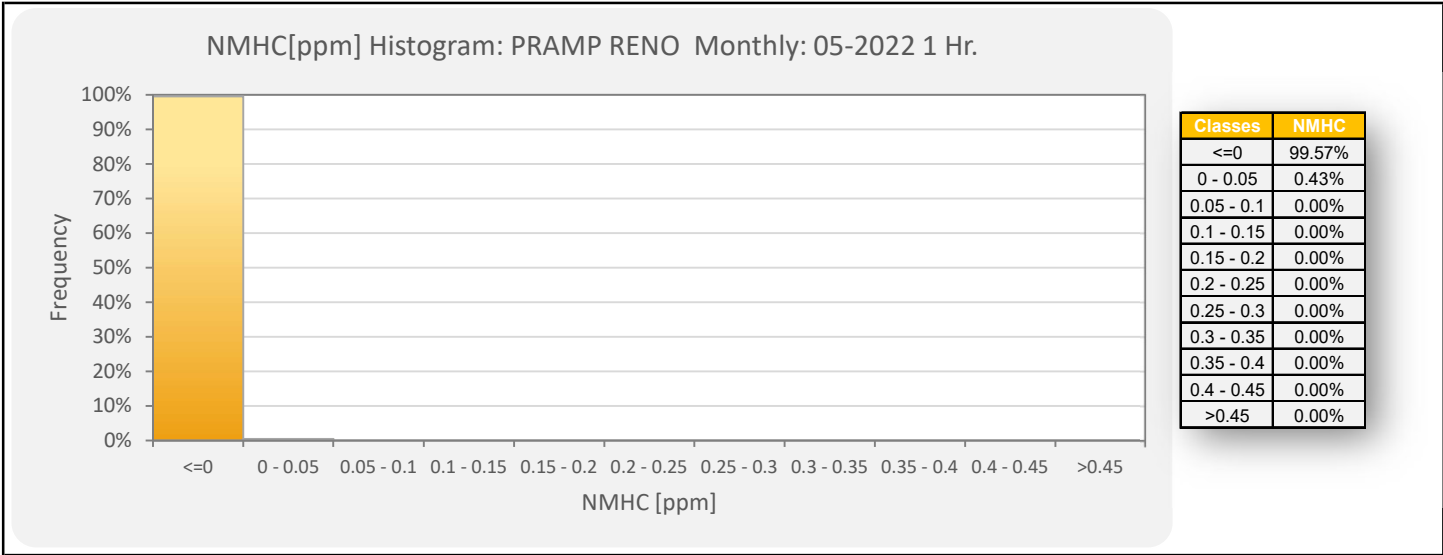


PRAMP-202205

Page 137 of 276

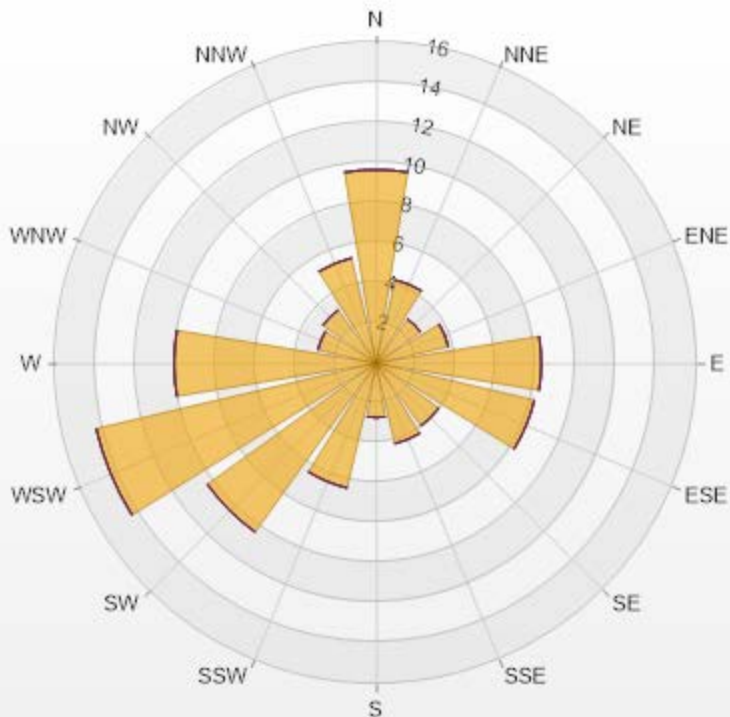
Timeseries Chart of Hourly Average for NMHC - Reno Station





Wind: PRAMP RENO Poll.: PRAMP RENO-NMHC[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 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	9.65	0	0	0	0	9.65
NNE	4.26	0	0	0	0	4.26
NE	2.7	0	0	0	0	2.7
ENE	3.69	0	0	0	0	3.69
E	8.23	0	0	0	0	8.23
ESE	8.09	0	0	0	0	8.09
SE	3.83	0	0	0	0	3.83
SSE	4.11	0	0	0	0	4.11
S	2.7	0	0	0	0	2.7
SSW	6.38	0	0	0	0	6.38
SW	10.35	0	0	0	0	10.35
WSW	14.33	0	0	0	0	14.33
W	10.07	0	0	0	0	10.07
WNW	2.98	0	0	0	0	2.98
NW	3.26	0	0	0	0	3.26
NNW	5.39	0	0	0	0	5.39
Summary	100	0	0	0	0	100



PRAMP-202205

Page 142 of 276

% Icon Classes (ppm)

100 0-0.1

0 0.1-0.3

0 0.3-1

0 1-2

0 >2.0



PEACE RIVER AREA MONITORING PROGRAM

Reno Station - May 2022

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

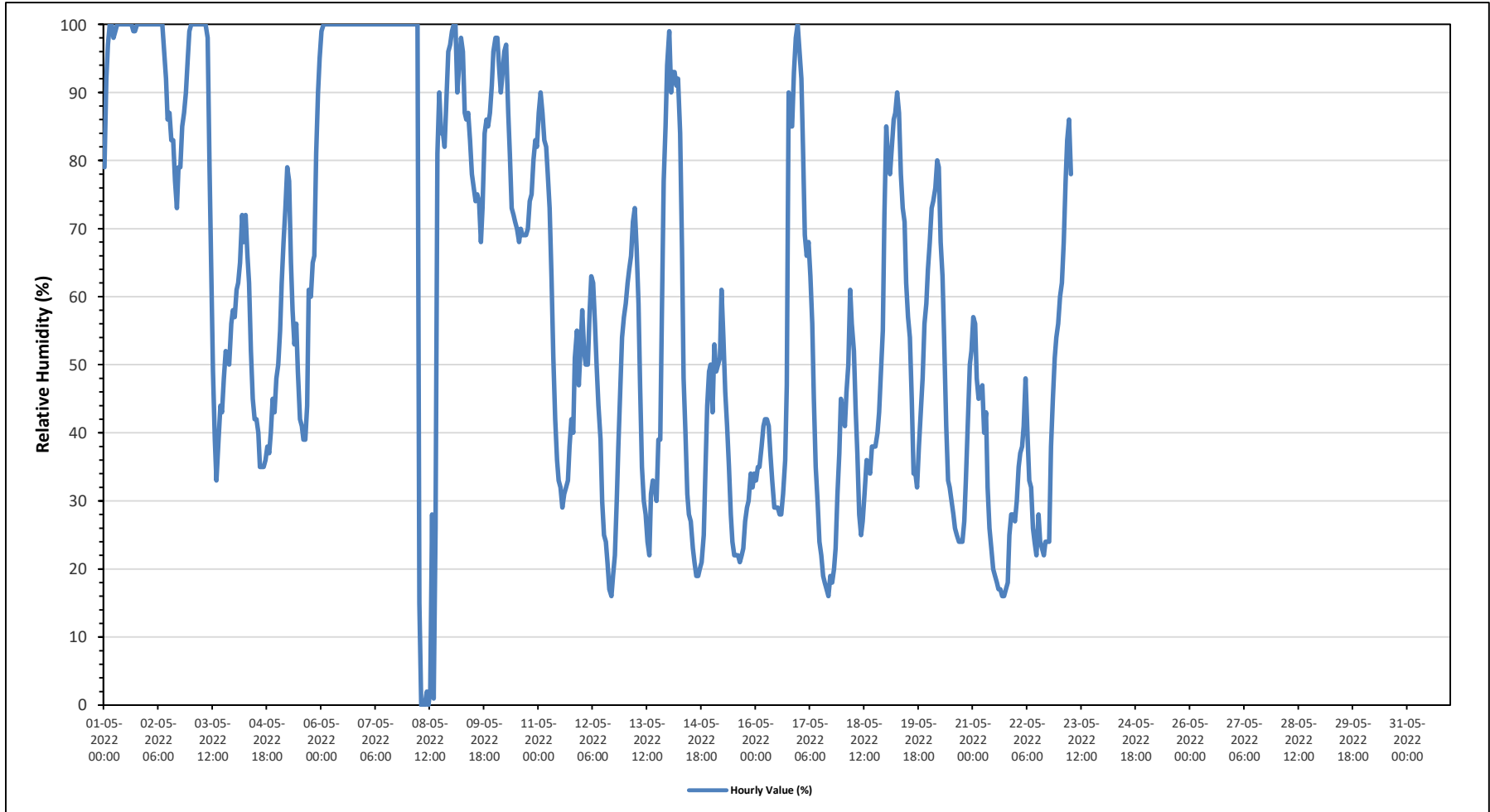
Maximum Hourly Value:	100 %	on May 1 at hour 3	Hours in Service:	744
Maximum Daily Value:	####	% on May 7	Hours of Data:	535
Minimum Hourly Value:	0 %	on May 8 at hour 7	Hours of Missing Data:	209
Minimum Daily Value:	30.4 %	on May 21	Hours of Calibration:	0
Monthly Average:	60.9 %		Operational Uptime:	71.9

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	
May 1	79	92	97	100	100	98	99	100	100	100	100	100	100	100	100	99	99	100	100	100	100	100	100	79	100	98.5		
May 2	100	100	100	100	100	100	100	100	100	96	92	86	87	83	83	77	73	79	79	85	87	90	95	99	73	100	91.3	
May 3	100	100	100	100	100	100	100	100	100	98	79	65	49	39	33	39	44	43	48	52	51	50	56	58	33	100	71.0	
May 4	57	61	62	65	72	68	72	66	62	52	45	42	42	40	35	35	35	36	38	37	40	45	43	48	35	72	49.9	
May 5	50	55	62	68	73	79	77	65	58	53	56	49	42	41	39	39	44	61	60	65	66	81	90	95	39	95	61.2	
May 6	99	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100.0	
May 7	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100.0
May 8	100	100	100	100	100	100	15	0	0	0	2	0	2	28	1	26	81	90	84	84	82	89	96	97	0	100	57.4	
May 9	99	100	100	90	94	98	96	87	86	87	83	78	76	74	75	74	68	73	84	86	85	87	91	96	68	100	86.1	
May 10	98	98	94	90	93	96	97	87	81	73	72	71	70	68	70	69	69	69	70	74	75	80	83	82	68	98	80.4	
May 11	87	90	87	83	82	78	73	63	51	42	36	33	32	29	31	32	33	38	42	40	51	55	47	52	29	90	53.6	
May 12	58	52	50	50	58	63	62	56	50	44	39	30	25	24	21	17	16	19	22	30	38	46	54	57	16	63	40.9	
May 13	59	62	64	66	71	73	67	59	47	35	30	28	24	22	31	33	32	30	39	39	57	77	85	94	22	94	51.0	
May 14	99	90	93	93	91	92	84	67	48	40	31	28	27	23	21	19	19	20	21	25	34	44	49	50	19	99	50.3	
May 15	43	53	49	50	51	61	54	46	41	35	28	24	22	22	22	21	22	23	27	29	30	34	32	34	21	61	35.5	
May 16	33	35	35	38	41	42	42	41	37	33	29	29	29	28	28	31	36	47	90	85	85	93	98	100	28	100	49.4	
May 17	96	92	82	69	66	68	63	56	45	35	30	24	22	19	18	17	16	19	18	20	23	31	37	45	16	96	42.1	
May 18	43	41	46	50	61	56	52	43	37	28	25	27	31	36	35	34	38	38	40	43	49	55	72	25	72	42.4		
May 19	85	80	78	82	86	87	90	87	78	73	71	62	57	54	45	34	34	32	38	43	48	56	59	64	32	90	63.5	
May 20	68	73	74	76	80	79	68	63	54	41	33	32	30	28	26	25	24	24	24	27	33	41	50	52	24	80	46.9	
May 21	57	56	48	45	46	47	40	43	32	26	23	20	19	18	17	16	16	17	18	25	28	28	27	16	57	30.4		
May 22	30	35	37	38	41	48	39	33	32	26	24	22	28	24	23	22	24	24	24	38	45	51	54	56	22	56	34.1	
May 23	60	62	68	77	83	86	78	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	60	86	-	
May 24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
May 25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
May 26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
May 27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
May 28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
May 29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
May 30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
May 31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	
Diurnal Maximum	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100				
Diurnal Average	73.9	75.1	75.0	75.2	77.8	79.1	72.5	66.5	60.9	55.3	51.3	47.7	46.1	45.5	43.4	43.7	46.5	49.1	52.9	55.3	59.0	64.9	68.3	71.7				

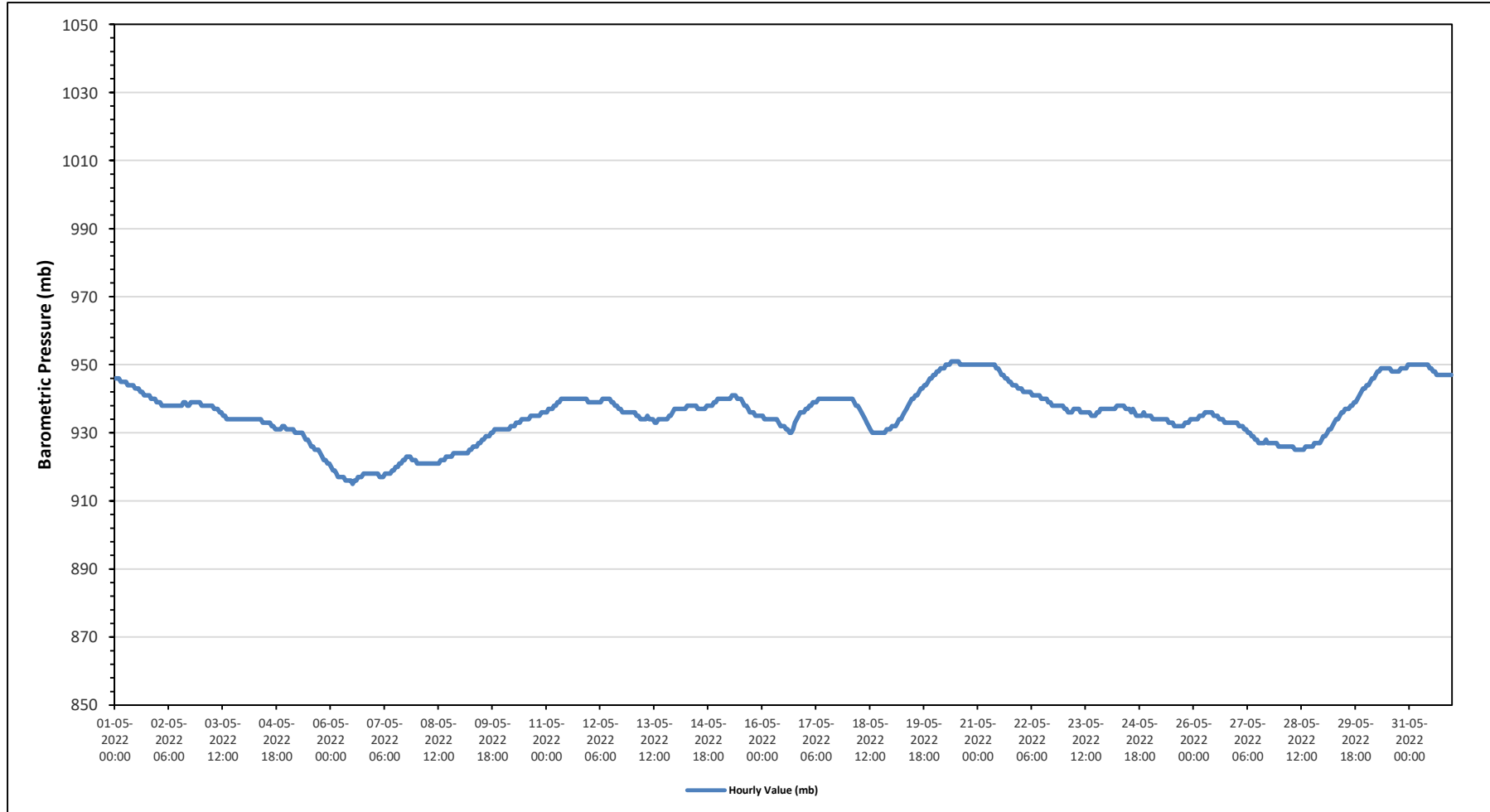
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

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.

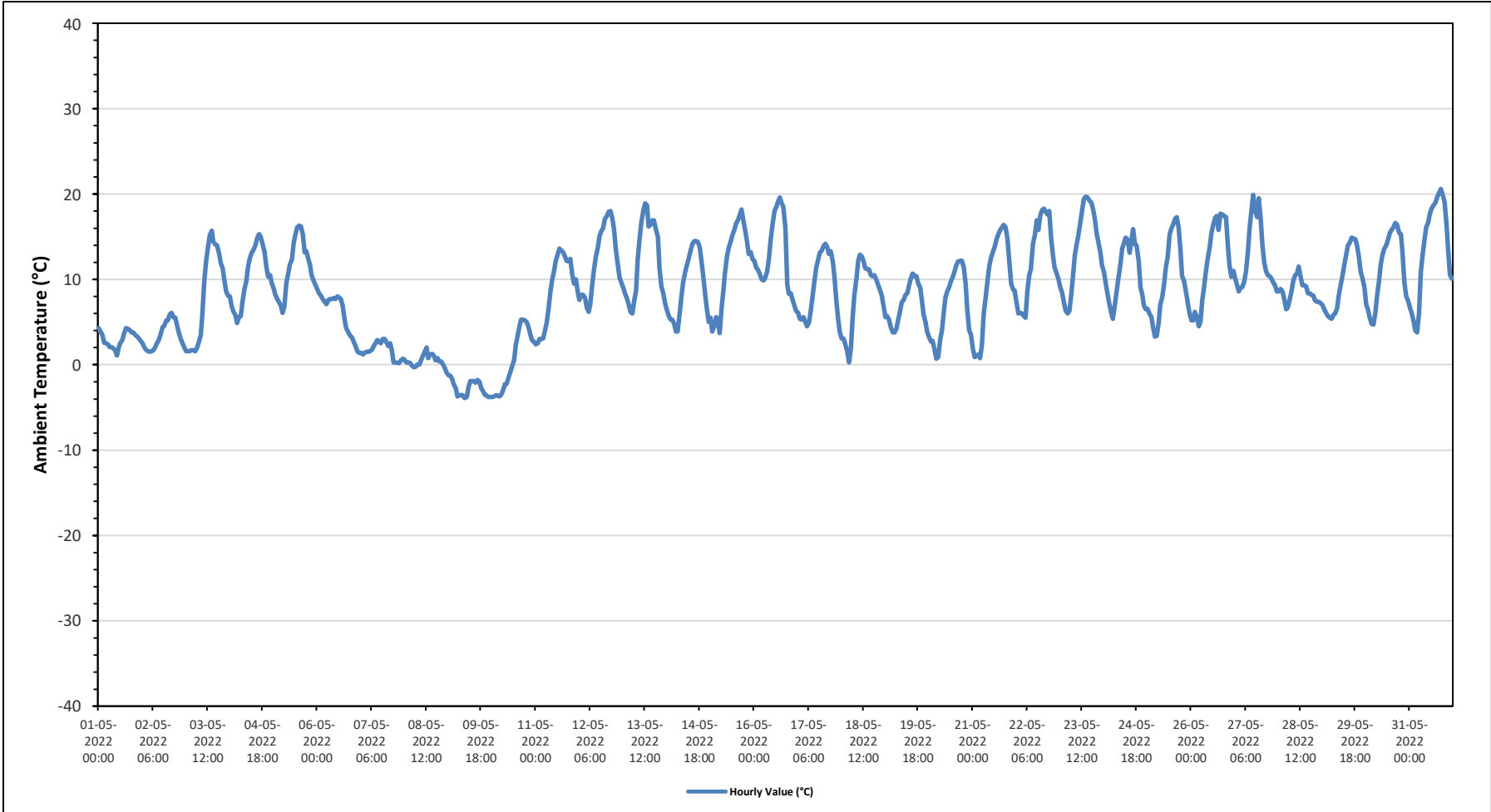
Timeseries Chart of Hourly Average for RH - Reno Station



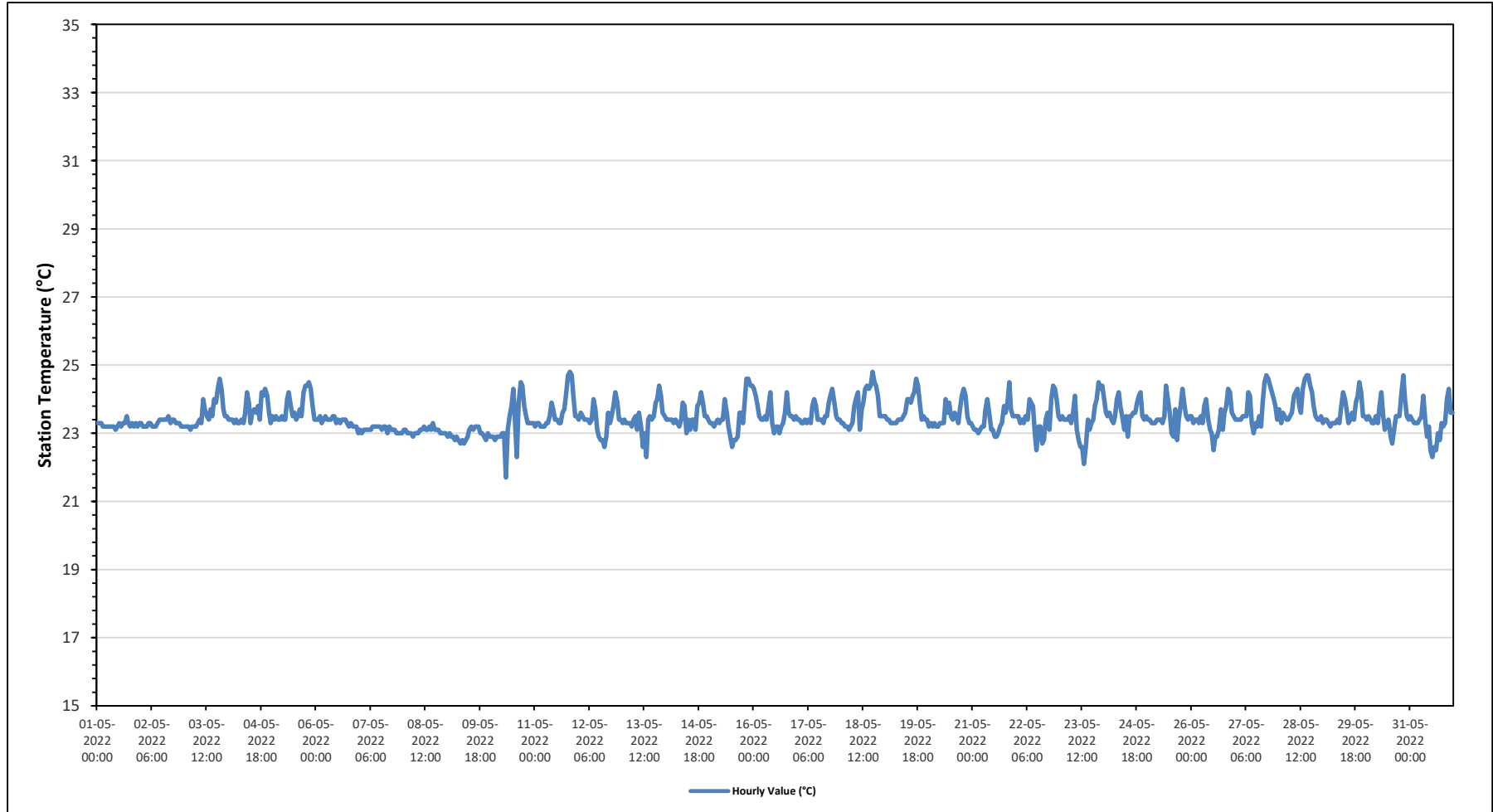
Timeseries Chart of Hourly Average for BP - Reno Station



Timeseries Chart of Hourly Average for AT - Reno Station



Timeseries Chart of Hourly Average for ST - Reno Station





PEACE RIVER AREA MONITORING PROGRAM

Reno Station - May 2022

Summary of Hourly Averages

PRECIPITATION in mm

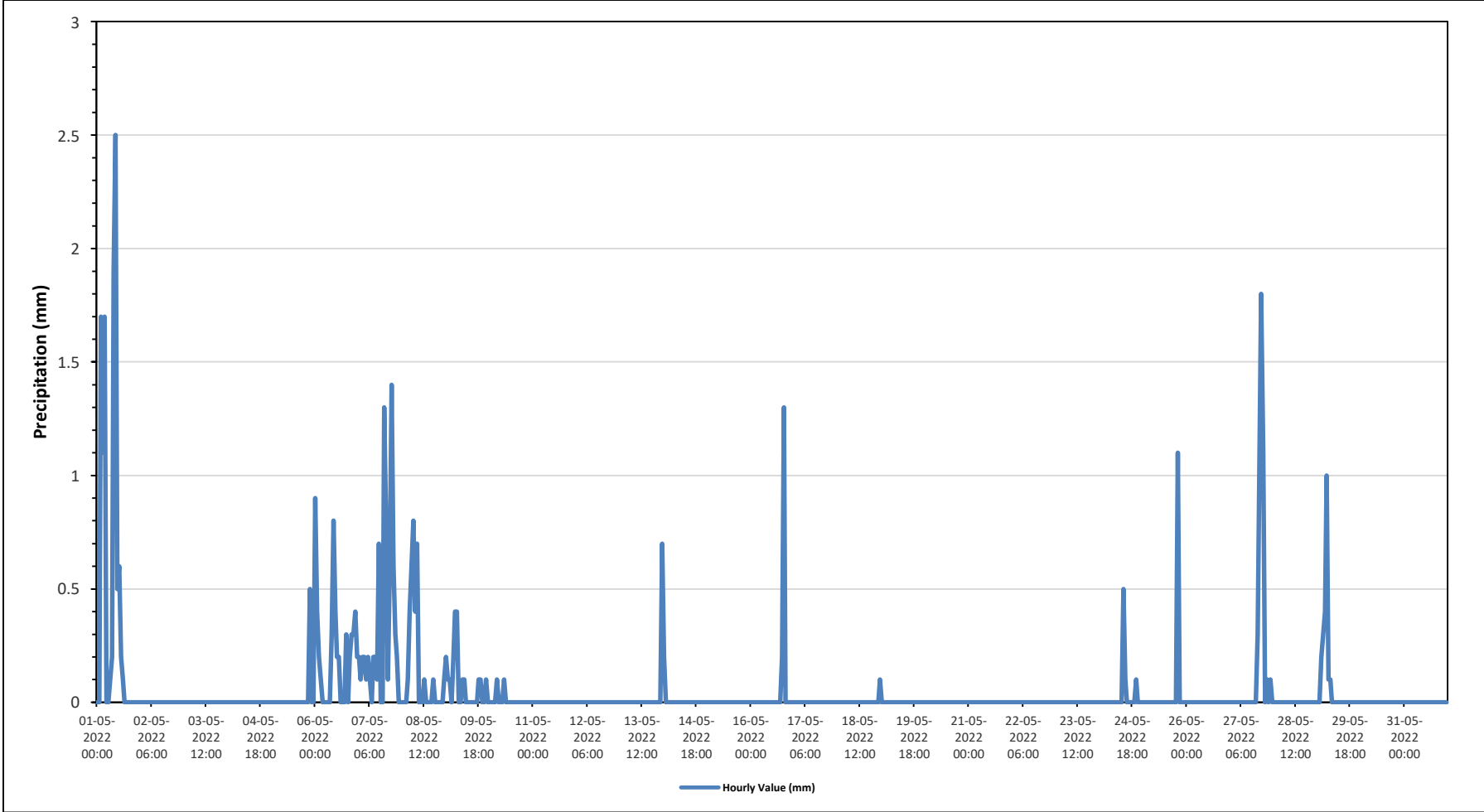
Maximum Hourly Value:	2.5 mm on May 1 at hour 10	Hours in Service:	744
Maximum Daily Value:	10.6 mm on May 1	Hours of Data:	744
Minimum Hourly Value:	0.0 mm on May 1 at hour 0	Hours of Missing Data:	0
Minimum Daily Value:	0.0 mm on May 2	Hours of Calibration:	0
Monthly Total:	40.2 mm	Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
May 1	0	0	1.7	1.1	1.7	0	0	0.1	0.2	1.9	2.5	0.5	0.6	0.2	0.1	0	0	0	0	0	0	0	0	0	0.0	2.5	10.6
May 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
May 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
May 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
May 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0.0	0.5	0.5
May 6	0.9	0.4	0.2	0.1	0	0	0	0	0	0.3	0.8	0.4	0.2	0.2	0	0	0	0.3	0	0.2	0.3	0.3	0.4	0.2	0.0	0.9	5.2
May 7	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0	0.2	0.2	0.1	0.7	0	0	1.3	0.8	0.1	0.6	1.4	0.6	0.3	0.2	0	0	0.0	1.4	7.6
May 8	0	0	0	0.1	0.4	0.6	0.8	0.4	0.7	0	0	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0.0	0.8	3.3
May 9	0.2	0.1	0.1	0	0.2	0.4	0.4	0	0	0.1	0.1	0	0	0	0	0	0	0	0.1	0.1	0	0	0.1	0	0.0	0.4	1.9
May 10	0	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.2
May 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
May 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
May 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0.0	0.7	0.7
May 14	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	0.2
May 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
May 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3	0	0	0	0	0.0	1.3	1.5
May 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
May 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.0	0.1	0.1
May 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
May 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
May 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
May 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
May 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
May 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.1	0	0	0	0	0	0	0.1	0	0	0.0	0.5	0.7
May 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	0	0	0	0	0.0	1.1	1.1
May 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
May 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1	1.8	1.1	0	0.1	0	0.1	0	0.0	1.8	4.5
May 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
May 29	0	0	0.2	0.3	0.4	1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	1.0	2.1
May 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
May 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
Diurnal Maximum	0.9	0.4	1.7	1.1	1.7	1.0	0.8	0.4	0.7	1.9	2.5	0.7	0.6	0.5	1.3	0.8	1.1	1.8	1.4	1.1	0.3	0.5	0.4	0.7			
Diurnal Average	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

Timeseries Chart of Hourly Average for Precipitation - Reno Station





PEACE RIVER AREA MONITORING PROGRAM

Reno Station - May 2022

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

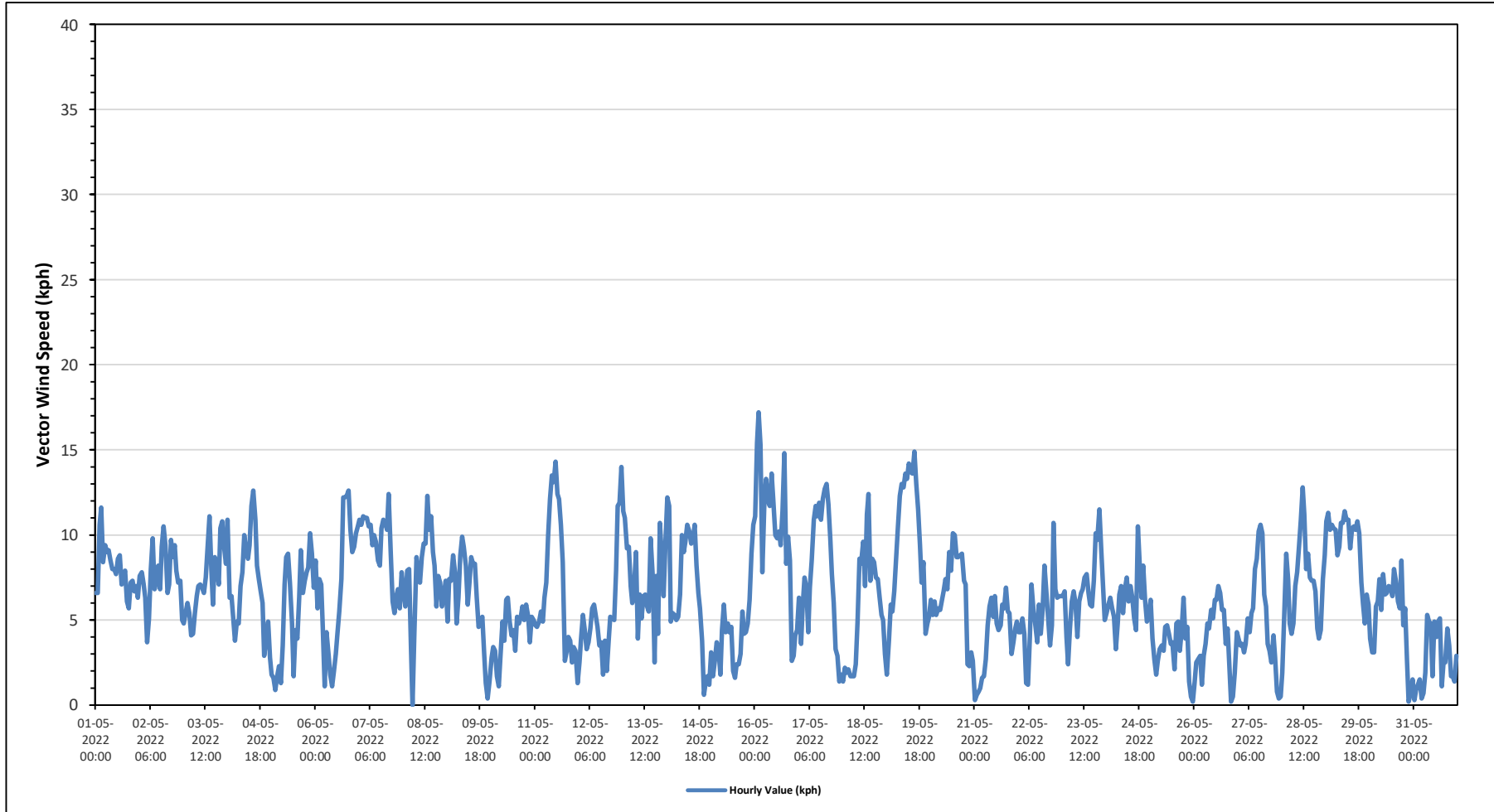
Maximum Hourly Value:	17.2 kph on May 16 at hour 2	Hours in Service:	744
Maximum Daily Value:	9.4 kph on May 29	Hours of Data:	744
Minimum Hourly Value:	0.0 kph on May 8 at hour 5	Hours of Missing Data:	0
Minimum Daily Value:	0.5 kph on May 25	Hours of Calibration:	0
Monthly Average:	0.8 kph	Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
May 1	6.6	6.6	10.6	11.6	8.4	9.4	9.0	9.1	8.5	8.0	8.0	7.7	8.6	8.8	7.1	7.6	7.9	6.1	5.7	7.2	7.3	6.7	7.0	6.3	5.7	11.6	7.5
May 2	7.6	7.8	7.1	6.3	3.7	5.1	8.0	9.8	6.8	7.3	8.2	6.8	9.3	10.5	9.4	6.6	7.1	9.7	8.7	9.4	7.9	7.2	7.3	5.0	3.7	10.5	7.5
May 3	4.8	5.4	6.0	5.4	4.1	4.2	5.4	6.4	7.0	7.1	6.9	6.6	7.5	9.3	11.1	8.0	5.9	8.7	8.1	7.1	10.4	10.8	9.3	8.3	4.1	11.1	5.3
May 4	10.9	6.3	6.4	5.0	3.8	4.9	4.8	7.0	7.8	10.0	9.1	8.6	9.4	11.7	12.6	10.9	8.2	7.4	6.7	6.0	2.9	3.9	4.9	2.8	2.8	12.6	6.9
May 5	1.8	1.6	0.9	1.7	2.3	1.3	3.5	7.1	8.7	8.9	7.2	4.8	1.7	4.4	3.9	6.3	9.1	6.6	7.3	7.8	8.1	10.1	8.9	6.9	0.9	10.1	4.2
May 6	8.5	5.7	7.4	7.1	4.5	1.1	4.3	2.9	1.8	1.1	2.0	3.0	4.2	5.5	7.4	12.2	12.2	12.3	12.6	10.3	9.0	9.3	10.1	10.5	1.1	12.6	4.3
May 7	10.9	10.6	11.1	11.0	11.0	10.5	10.6	9.4	10.0	9.6	8.5	8.2	10.4	10.9	10.7	10.3	12.4	8.9	6.1	5.4	6.4	6.8	5.7	7.8	5.4	12.4	9.2
May 8	6.6	5.8	7.9	8.0	3.5	0.0	4.3	8.7	7.8	7.2	8.7	9.5	9.5	12.3	10.3	11.1	9.0	8.2	5.8	7.6	7.2	5.8	6.5	7.3	0.0	12.3	7.0
May 9	4.9	7.4	7.3	8.8	7.8	4.8	6.3	8.8	9.9	9.3	8.2	5.9	7.3	8.7	8.3	8.3	6.3	4.6	4.9	5.2	3.0	1.3	0.4	1.4	0.4	9.9	5.4
May 10	2.8	3.4	3.2	1.7	1.1	2.8	4.9	3.8	6.2	6.3	4.9	4.1	4.4	3.2	5.2	4.8	5.2	5.8	5.0	5.9	5.2	3.7	5.2	5.0	1.1	6.3	1.4
May 11	4.7	4.6	4.9	5.5	4.9	6.3	7.2	10.0	12.1	13.5	13.1	14.3	12.4	12.1	10.6	8.4	2.6	3.1	4.0	3.8	2.5	3.4	3.2	1.3	1.3	14.3	6.2
May 12	2.5	3.9	5.3	4.4	3.3	3.7	4.5	5.7	5.9	5.3	4.6	3.5	3.7	1.8	3.8	2.0	3.8	5.2	5.1	5.0	7.9	11.7	11.9	14.0	1.8	14.0	3.8
May 13	11.4	11.0	9.2	9.3	7.0	6.0	7.0	9.0	3.9	6.5	5.1	6.4	6.5	5.8	5.5	9.8	7.6	2.5	7.6	4.2	10.7	8.8	6.4	9.6	2.5	11.4	3.1
May 14	12.2	11.7	4.9	5.4	5.3	5.0	5.2	6.5	10.0	9.0	9.6	10.6	10.2	9.5	9.7	10.6	8.2	6.6	5.7	3.8	0.6	1.4	1.7	1.2	0.6	12.2	6.7
May 15	3.1	1.7	2.6	3.7	3.3	1.8	4.4	5.9	4.3	4.8	4.3	4.6	2.0	1.6	2.4	2.4	3.0	5.5	4.2	4.3	4.8	6.2	8.9	10.6	1.6	10.6	2.6
May 16	11.1	15.4	17.2	15.3	7.8	12.1	13.3	12.0	11.7	13.6	12.1	10.0	9.8	10.2	9.4	11.4	14.8	8.3	9.9	8.5	2.6	2.9	4.1	4.4	2.6	17.2	7.7
May 17	6.3	3.6	5.8	7.5	6.9	4.3	6.9	8.5	10.9	11.7	11.1	11.9	10.9	12.1	12.7	13.0	11.8	9.8	7.7	6.0	3.3	2.9	1.4	1.8	1.4	13.0	7.7
May 18	1.4	2.2	1.9	2.1	1.7	1.7	1.7	2.4	5.0	8.6	8.3	9.6	7.0	11.2	12.4	7.3	8.6	8.4	7.5	7.4	6.3	5.3	5.0	3.0	1.4	12.4	4.1
May 19	1.8	3.8	5.9	5.5	6.7	8.6	10.5	12.3	13.0	12.8	13.6	13.3	14.2	13.7	13.6	14.9	13.0	11.5	9.4	7.2	8.4	4.2	4.8	5.2	1.8	14.9	9.2
May 20	6.2	5.3	6.1	5.3	5.7	5.6	6.2	6.7	7.4	6.8	9.0	7.9	10.1	10.0	8.7	8.7	8.8	8.9	7.3	7.1	2.4	2.3	3.1	2.6	2.3	10.1	6.5
May 21	0.3	0.6	0.8	1.0	1.6	1.7	2.7	4.7	5.8	6.3	5.2	6.4	4.8	4.4	4.7	5.9	5.7	6.9	5.5	5.4	3.0	3.7	4.5	4.9	0.3	6.9	3.6
May 22	4.3	4.3	5.1	4.2	1.3	1.2	4.0	7.1	5.7	4.8	3.7	5.9	4.2	5.6	8.2	6.9	5.3	3.5	4.7	10.7	6.8	6.3	6.4	6.4	1.2	10.7	1.0
May 23	6.4	6.7	4.0	2.4	4.5	6.1	6.7	6.0	4.0	6.1	6.6	6.8	7.5	7.7	6.6	5.9	5.8	7.3	10.1	9.7	11.5	9.1	6.9	5.0	2.4	11.5	3.3
May 24	5.4	5.9	6.3	5.7	5.2	3.3	4.8	6.5	7.0	5.4	6.9	7.5	6.1	7.0	6.3	5.1	4.4	10.5	8.2	6.3	8.2	6.2	4.9	5.2	3.3	10.5	2.4
May 25	6.2	3.9	2.7	1.8	2.6	3.3	3.5	3.2	4.6	4.7	4.2	3.6	3.7	2.1	4.8	4.9	3.2	4.4	6.3	3.9	4.6	1.4	0.5	0.2	0.2	6.3	0.5
May 26	1.2	2.5	2.7	2.9	1.2	2.9	3.6	4.8	4.5	5.6	5.1	6.2	6.2	7.0	6.6	5.6	5.6	3.6	4.5	2.2	0.2	0.5	1.9	4.3	0.2	7.0	3.2
May 27	3.9	3.5	3.6	3.1	3.6	5.1	4.3	5.4	5.7	8.0	8.6	10.2	10.6	10.1	6.5	5.8	3.6	3.2	2.5	4.1	2.8	0.8	0.4	0.5	0.4	10.6	3.2
May 28	1.9	5.1	8.9	7.4	4.8	4.2	4.8	7.0	7.8	9.3	10.9	12.8	11.2	8.0	8.9	7.5	7.3	7.3	6.7	4.5	3.9	4.4	7.4	8.8	1.9	12.8	6.1
May 29	10.8	11.3	10.3	10.6	10.4	10.3	8.8	9.3	10.7	10.7	11.4	10.9	10.9	9.2	10.4	10.5	10.3	10.8	10.1	7.2	6.0	4.8	6.5	5.9	4.8	11.4	9.4
May 30	3.9	3.1	3.1	5.8	6.1	7.4	5.6	7.7	6.5	6.6	7.0	6.9	6.4	8.0	7.3	6.1	5.7	8.5	4.7	5.7	2.6	0.2	0.7	1.5	0.2	8.5	4.7
May 31	0.3	0.9	1.2	1.5	0.4	0.7	1.9	5.3	4.9	4.8	1.7	4.9	4.0	4.9	5.1	1.1	2.6	2.5	4.5	3.5	1.7	1.7	1.4	2.9	0.3	5.3	1.1
Diurnal Maximum	12	15	17	15	11	12	13	12	13	14	14	14	14	14	14	15	15	12	13	11	12	12	12	14			
Diurnal Average	5.5	5.5	5.8	5.7	4.7	4.7	5.8	7.1	7.3	7.7	7.5	7.7	7.6	8.0	8.1	7.7	7.3	7.0	6.7	6.2	5.4	5.0	5.1	5.2			

C Monthly Calibration	S Daily Zero-Span Check	Q Quality Assurance
K Collection Error	N 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

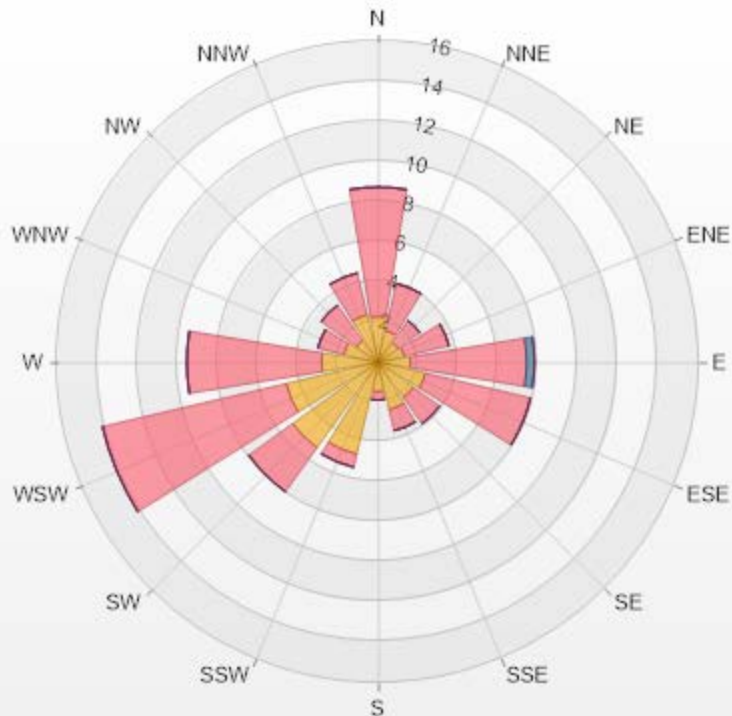
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for VWS - Reno Station



Wind: PRAMP RENO Monitor: WDS [KPH] Monthly: 05-2022 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 8.20% 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	2.28	6.45	0	0	0	8.73
NNE	1.61	2.42	0	0	0	4.03
NE	1.21	1.34	0	0	0	2.55
ENE	1.34	2.28	0	0	0	3.62
E	1.61	5.78	0.4	0	0	7.79
ESE	2.42	5.38	0	0	0	7.8
SE	2.15	1.61	0	0	0	3.76
SSE	2.42	1.08	0	0	0	3.5
S	1.48	0.4	0	0	0	1.88
SSW	4.7	0.67	0	0	0	5.37
SW	5.24	2.69	0	0	0	7.93
WSW	4.7	9.41	0	0	0	14.11
W	2.82	6.72	0	0	0	9.54
WNW	1.75	1.34	0	0	0	3.09
NW	1.34	2.15	0	0	0	3.49
NNW	2.42	2.15	0	0	0	4.57
Summary	39.49	51.87	0.4	0	0	91.76



PRAMP-202205

Page 156 of 276

% Icon Classes (KPH)	39	1.8-6.0	52	6.0-15.0	0	15.0-29.0	0	29.0-39.0	0	>39.0



PEACE RIVER AREA MONITORING PROGRAM

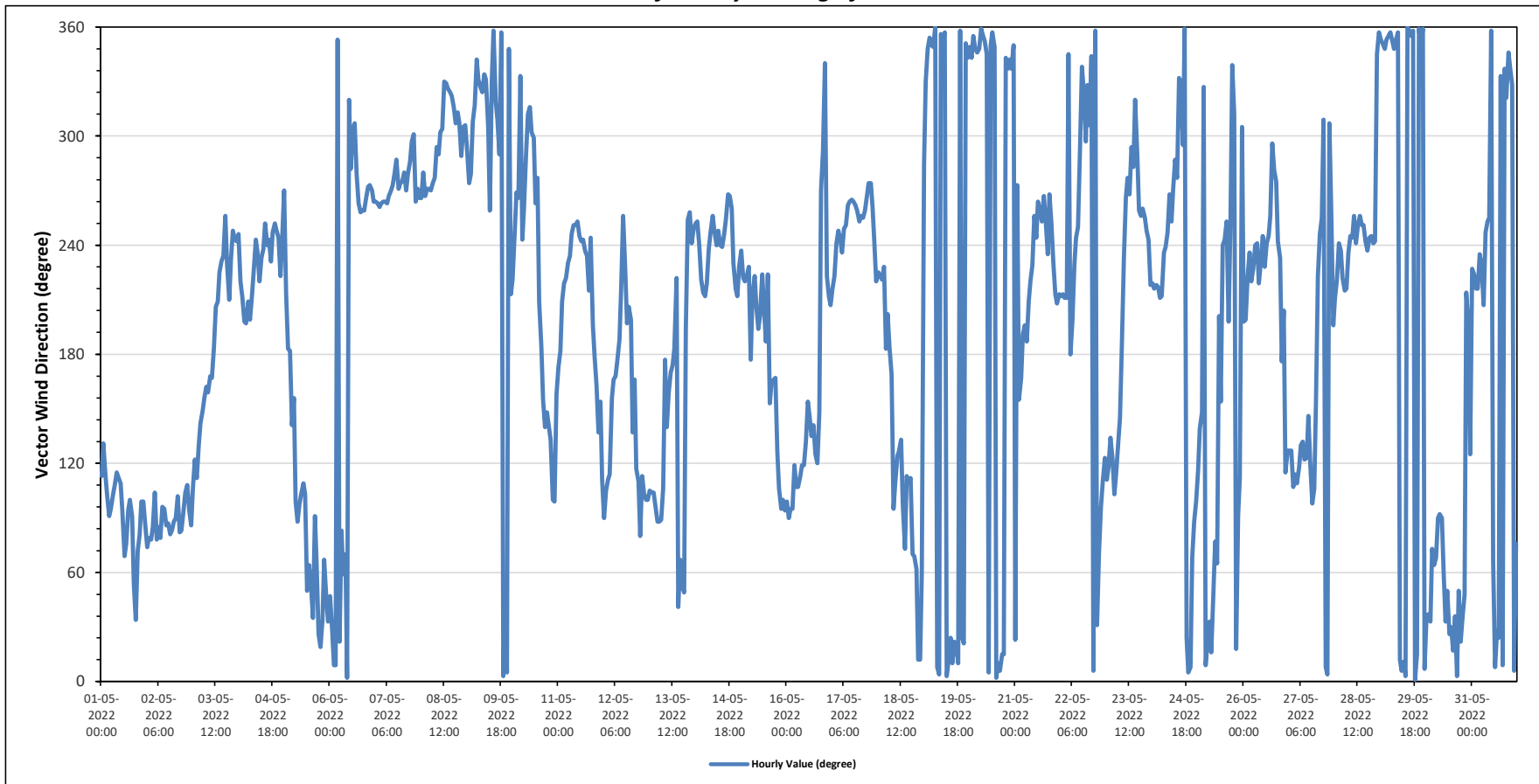
Reno Station - May 2022

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		272 (W) 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	
May 1	ESE	SE	ESE	E	E	E	ESE	ESE	ESE	ESE	ESE	E	ENE	ENE	E	E	E	NE	NE	ENE	E	E	E	E	95	E	
May 2	ENE	ENE	ENE	E	ESE	ENE	E	ENE	E	E	E	E	E	E	E	E	E	E	E	ESE	ESE	E	E	E	88	E	
May 3	ESE	ESE	ESE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSW	SSW	SW	SW	SW	WSW	SW	SSW	SW	WSW	WSW	WSW	201	SSW	
May 4	WSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	232	SW	
May 5	W	SSW	S	S	SE	SSE	E	E	E	ESE	ESE	ESE	NE	ENE	NE	NE	E	ENE	NNE	NNE	NE	ENE	NE	NNE	69	ENE	
May 6	NE	NNE	N	N	N	NNE	E	ENE	ENE	N	NW	W	WNW	NW	W	W	WSW	WSW	WSW	W	W	W	W	W	289	WNW	
May 7	W	W	W	W	W	W	W	W	W	W	W	WNW	W	W	W	W	W	W	WNW	WNW	WNW	W	W	W	272	W	
May 8	W	W	W	W	W	W	W	W	WNW	WNW	WNW	WNW	NNW	NNW	NW	NW	NW	NW	NW	NW	WNW	WNW	WNW	NW	302	WNW	
May 9	WNW	W	W	NW	NW	NNW	NNW	NW	NW	NNW	NNW	WNW	WSW	NNW	N	NW	NW	WNW	N	N	NE	N	NNW	SSW	319	NW	
May 10	SW	WSW	W	W	NNW	WSW	W	WNW	NW	NW	WNW	WNW	W	W	SSW	S	SSE	SE	SE	SE	SE	E	E	SSE	219	SW	
May 11	S	S	SSW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSW	SSW	SSW	SSW	S	SSE	SE	SSE	ESE	231	SW	
May 12	E	ESE	ESE	ESE	SSE	SSE	SSE	S	S	SW	WSW	SW	SSW	SSW	SSW	SE	SSE	ESE	ESE	E	ESE	ESE	E	E	134	SE	
May 13	ESE	ESE	ESE	E	E	E	ESE	S	SE	SSE	SSE	S	S	SW	NE	ENE	NE	NE	SSW	WSW	WSW	WSW	WSW	WSW	128	SE	
May 14	WSW	WSW	WSW	SW	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	SW	SW	SSW	SW	244	WSW	
May 15	SW	SW	SW	SW	S	SSW	SW	SSW	SW	SSW	SSW	SSW	SW	SSW	S	SW	SSE	SSE	SSE	SE	ESE	E	E	E	170	SSE	
May 16	E	E	E	E	ESE	ESE	ESE	ESE	ESE	SE	SSE	SE	SE	SE	SE	ESE	SE	W	WNW	NNW	SW	SSW	SSW	SSW	122	ESE	
May 17	SW	SW	WSW	WSW	WSW	SW	WSW	WSW	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW	W	W	W	W	WSW	SW	255	WSW	
May 18	SW	SW	SW	SW	S	SSW	S	SSE	E	ESE	ESE	SE	SE	E	ENE	ESE	ESE	ESE	ENE	ENE	ENE	NNE	NNE	ENE	101	E	
May 19	WNW	NNW	NNW	N	N	NNW	N	N	N	N	N	N	N	NNE	NNE	N	NNE	NNE	N	N	NNE	NNE	N	NNW	4	N	
May 20	NNW	NNW	N	NNW	NNW	NNW	N	N	N	NNW	N	N	N	NNW	N	N	N	NNE	NNE	NNW	NNW	NNW	NNW	N	356	N	
May 21	NNE	W	SSE	SSE	S	SSW	S	SSW	SW	SW	WSW	WSW	W	WSW	WSW	W	WSW	SW	W	WSW	SW	SSW	SSW	SSW	237	SW	
May 22	SSW	SSW	SSW	SSW	NNW	S	SSW	SW	WSW	WSW	WNW	NNW	NW	WNW	NNW	NW	NNW	N	N	NNE	ENE	E	ESE	ESE	305	WNW	
May 23	ESE	ESE	SE	ESE	ESE	ESE	SE	SE	S	SW	W	W	W	WNW	W	NW	WNW	WSW	WSW	WSW	WSW	WSW	WSW	SW	241	WSW	
May 24	SW	SW	SW	SW	SSW	SSW	SW	WSW	WSW	W	WSW	W	WNW	W	NNW	NNW	NNW	N	NNE	N	ENE	E	E	E	282	W	
May 25	ESE	SE	SE	NW	N	NNE	NNE	NE	ENE	ENE	SSE	SSW	SSW	SSW	SSW	SSW	SSW	SSW	NNW	NNW	NNE	E	ESE	WNW	38	NE	
May 26	SSW	SSW	SW	SW	SW	SW	WSW	WSW	SW	SW	WSW	SW	WSW	WSW	WSW	WNW	W	W	WSW	SW	S	SSW	ESE	SE	239	WSW	
May 27	SE	SE	ESE	ESE	ESE	ESE	SE	SE	ESE	ESE	SE	ESE	E	ESE	SSE	SW	WSW	WSW	NW	N	NW	W	SSW	SSW	125	SE	
May 28	SSW	SW	WSW	SW	SW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	SW	WSW	WSW	NNW	N	248	WSW
May 29	N	N	NNW	N	N	N	NNW	N	N	NNE	N	NNE	N	N	N	N	N	N	N	NNE	N	N	N	N	358	N	
May 30	NE	NE	NNE	ENE	ENE	ENE	E	E	E	ENE	NNE	NE	NNE	NNE	NE	NE	NNE	NE	NE	NNE	NE	SSW	SSW	SE	49	NE	
May 31	SW	SW	SW	SW	SW	SSW	WSW	WSW	WSW	N	ENE	N	NNE	NNE	NNW	N	NNW	NW	NNW	NNW	NNW	NNW	NNW	N	ENE	333	NNW
C	Monthly Calibration						S	Daily Zero-Span Check						Q	Quality Assurance												
K	Collection Error						N	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.																											

Timeseries Chart of Hourly Average for VWD - Reno Station





PEACE RIVER AREA MONITORING PROGRAM

Reno Station - May 2022
Summary of Hourly Averages

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

WIND SPEED																											
Maximum Hourly Value: 17.2 kph on May 16 at hour 2													Hours in Service: 744														
Maximum Daily Value: 9.4 kph on May 29													Hours of Data: 744														
Minimum Hourly Value: 0.0 kph on May 8 at hour 5													Hours of Missing Data: 0														
Minimum Daily Value: 0.5 kph on May 25													Hours of Calibration: 0														
Monthly Average: 0.8 kph													Operational Uptime: 100														
WIND DIRECTION																											
Monthly Average: 272 (W) degree																											
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
May 1	6.6	6.6	10.6	11.6	8.4	9.4	9.0	9.1	8.5	8.0	8.0	7.7	8.6	8.8	7.1	7.6	7.9	6.1	5.7	7.2	7.3	6.7	7.0	6.3	5.7	11.6	7.5
May 2	7.6	7.8	7.1	6.3	3.7	5.1	8.0	9.8	6.8	7.3	8.2	6.8	9.3	10.5	9.4	6.6	7.1	9.7	8.7	9.4	7.9	7.2	7.3	5.0	3.7	10.5	7.5
May 3	4.8	5.4	6.0	5.4	4.1	4.2	5.4	6.4	7.0	7.1	6.9	6.6	7.5	9.3	11.1	8.0	5.9	8.7	8.1	7.1	10.4	10.8	9.3	8.3	4.1	11.1	5.3
May 4	10.9	6.3	6.4	5.0	3.8	4.9	4.8	7.0	7.8	10.0	9.1	8.6	9.4	11.7	12.6	10.9	8.2	7.4	6.7	6.0	2.9	3.9	4.9	2.8	2.8	12.6	6.9
May 5	1.8	1.6	0.9	1.7	2.3	1.3	3.5	7.1	8.7	8.9	7.2	4.8	1.7	4.4	3.9	6.3	9.1	6.6	7.3	7.8	8.1	10.1	8.9	6.9	0.9	10.1	4.2
May 6	8.5	5.7	7.4	7.1	4.5	1.1	4.3	2.9	1.8	1.1	2.0	3.0	4.2	5.5	7.4	12.2	12.2	12.3	12.6	10.3	9.0	9.3	10.1	10.5	1.1	12.6	4.3
May 7	10.9	10.6	11.1	11.0	11.0	10.5	10.6	9.4	10.0	9.6	8.5	8.2	10.4	10.9	10.7	10.3	12.4	8.9	6.1	5.4	6.4	6.8	5.7	7.8	5.4	12.4	9.2
May 8	6.6	5.8	7.9	8.0	3.5	0.0	4.3	8.7	7.8	7.2	8.7	9.5	9.5	12.3	10.3	11.1	9.0	8.2	5.8	7.6	7.2	5.8	6.5	7.3	0.0	12.3	7.0
May 9	4.9	7.4	7.3	8.8	7.8	4.8	6.3	8.8	9.9	9.3	8.2	5.9	7.3	8.7	8.3	8.3	6.3	4.6	4.9	5.2	3.0	1.3	0.4	1.4	0.4	9.9	5.4
May 10	2.8	3.4	3.2	1.7	1.1	2.8	4.9	3.8	6.2	6.3	4.9	4.1	4.4	3.2	5.2	4.8	5.2	5.8	5.0	5.9	5.2	3.7	5.2	5.0	1.1	6.3	1.4
May 11	4.7	4.6	4.9	5.5	4.9	6.3	7.2	10.0	12.1	13.5	13.1	14.3	12.4	12.1	10.6	8.4	2.6	3.1	4.0	3.8	2.5	3.4	3.2	1.3	1.3	14.3	6.2
May 12	2.5	3.9	5.3	4.4	3.3	3.7	4.5	5.7	5.9	5.3	4.6	3.5	3.7	1.8	3.8	2.0	3.8	5.2	5.1	5.0	7.9	11.7	11.9	14.0	1.8	14.0	3.8
May 13	11.4	11.0	9.2	9.3	7.0	6.0	7.0	9.0	3.9	6.5	5.1	6.4	6.5	5.8	5.5	9.8	7.6	2.5	7.6	4.2	10.7	8.8	6.4	9.6	2.5	11.4	3.1
May 14	12.2	11.7	4.9	5.4	5.3	5.0	5.2	6.5	10.0	9.0	9.6	10.6	10.2	9.5	9.7	10.6	8.2	6.6	5.7	3.8	0.6	1.4	1.7	1.2	0.6	12.2	6.7
May 15	3.1	1.7	2.6	3.7	3.3	1.8	4.4	5.9	4.3	4.8	4.3	4.6	2.0	1.6	2.4	2.4	3.0	5.5	4.2	4.3	4.8	6.2	8.9	10.6	1.6	10.6	2.6
May 16	11.1	15.4	17.2	15.3	7.8	12.1	13.3	12.0	11.7	13.6	12.1	10.0	9.8	10.2	9.4	11.4	14.8	8.3	9.9	8.5	2.6	2.9	4.1	4.4	2.6	17.2	7.7
May 17	6.3	3.6	5.8	7.5	6.9	4.3	6.9	8.5	10.9	11.7	11.1	11.9	10.9	12.1	12.7	13.0	11.8	9.8	7.7	6.0	3.3	2.9	1.4	1.8	1.4	13.0	7.7
May 18	1.4	2.2	1.9	2.1	1.7	1.7	1.7	2.4	5.0	8.6	8.3	9.6	7.0	11.2	12.4	7.3	8.6	8.4	7.5	7.4	6.3	5.3	5.0	3.0	1.4	12.4	4.1
May 19	1.8	3.8	5.9	5.5	6.7	8.6	10.5	12.3	13.0	12.8	13.6	13.3	14.2	13.7	13.6	14.9	13.0	11.5	9.4	7.2	8.4	4.2	4.8	5.2	1.8	14.9	9.2
May 20	6.2	5.3	6.1	5.3	5.7	6.2	6.7	7.4	6.8	9.0	7.9	10.1	10.0	8.7	8.7	8.8	8.9	7.3	7.1	2.4	2.3	3.1	2.6	2.6	2.3	10.1	6.5



PEACE RIVER AREA MONITORING PROGRAM

Reno Station - May 2022

Summary of Hourly Averages

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

WIND SPEED																														
Maximum Hourly Value: 17.2 kph on May 16 at hour 2												Hours in Service: 744																		
Maximum Daily Value: 9.4 kph on May 29												Hours of Data: 744																		
Minimum Hourly Value: 0.0 kph on May 8 at hour 5												Hours of Missing Data: 0																		
Minimum Daily Value: 0.5 kph on May 25												Hours of Calibration: 0																		
Monthly Average: 0.8 kph												Operational Uptime: 100																		
WIND DIRECTION																														
Monthly Average: 272 (W) degree																														
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						
May 21	0.3	0.6	0.8	1.0	1.6	1.7	2.7	4.7	5.8	6.3	5.2	6.4	4.8	4.4	4.7	5.9	5.7	6.9	5.5	5.4	3.0	3.7	4.5	4.9	0.3	6.9	3.6			
	NNE	W	SSE	SSE	S	SSW	S	SSW	SW	SW	WSW	WSW	W	WSW	WSW	W	WSW	SW	W	WSW	SW	SSW	SSW	SSW						
May 22	4.3	4.3	5.1	4.2	1.3	1.2	4.0	7.1	5.7	4.8	3.7	5.9	4.2	5.6	8.2	6.9	5.3	3.5	4.7	10.7	6.8	6.3	6.4	6.4	1.2	10.7	1.0			
	SSW	SSW	SSW	SSW	NNW	S	SSW	SW	WSW	WSW	WNW	NNW	NW	WNW	NNW	NW	NNW	N	N	NNE	ENE	E	ESE	ESE						
May 23	6.4	6.7	4.0	2.4	4.5	6.1	6.7	6.0	4.0	6.1	6.6	6.8	7.5	7.7	6.6	5.9	5.8	7.3	10.1	9.7	11.5	9.1	6.9	5.0	2.4	11.5	3.3			
	ESE	ESE	SE	ESE	ESE	ESE	SE	SE	S	SW	W	W	W	WNW	W	NW	WNW	WSW	WSW	WSW	WSW	WSW	WSW	SW						
May 24	5.4	5.9	6.3	5.7	5.2	3.3	4.8	6.5	7.0	5.4	6.9	7.5	6.1	7.0	6.3	5.1	4.4	10.5	8.2	6.3	8.2	6.2	4.9	5.2	3.3	10.5	2.4			
	SW	SW	SW	SW	SSW	SSW	SW	WSW	WSW	W	WSW	W	WNW	W	NNW	NNW	WNW	N	NNE	N	N	ENE	E	E						
May 25	6.2	3.9	2.7	1.8	2.6	3.3	3.5	3.2	4.6	4.7	4.2	3.6	3.7	2.1	4.8	4.9	3.2	4.4	6.3	3.9	4.6	1.4	0.5	0.2	0.2	6.3	0.5			
	ESE	SE	SE	NW	N	NNE	NNE	NNE	NE	ENE	ENE	SSW	SSE	WSW	WSW	SSW	WSW	NNW	NW	NNE	E	ESE	WNW							
May 26	1.2	2.5	2.7	2.9	1.2	2.9	3.6	4.8	4.5	5.6	5.1	6.2	6.2	7.0	6.6	5.6	5.6	3.6	4.5	2.2	0.2	0.5	1.9	4.3	0.2	7.0	3.2			
	SSW	SSW	SW	SW	SW	SW	WSW	WSW	SW	SW	WSW	SW	WSW	WSW	WSW	WNW	W	W	WSW	SW	S	SSW	ESE	SE						
May 27	3.9	3.5	3.6	3.1	3.6	5.1	4.3	5.4	5.7	8.0	8.6	10.2	10.6	10.1	6.5	5.8	3.6	3.2	2.5	4.1	2.8	0.8	0.4	0.5	0.4	10.6	3.2			
	SE	SE	ESE	ESE	ESE	ESE	SE	SE	ESE	ESE	SE	ESE	E	ESE	SSE	SW	WSW	WSW	NW	N	N	NW	W	SSW						
May 28	1.9	5.1	8.9	7.4	4.8	4.2	4.8	7.0	7.8	9.3	10.9	12.8	11.2	8.0	8.9	7.5	7.3	7.3	6.7	4.5	3.9	4.4	7.4	8.8	1.9	12.8	6.1			
	SSW	SW	WSW	SW	SW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	NNW	N					
May 29	10.8	11.3	10.3	10.6	10.4	10.3	8.8	9.3	10.7	10.7	11.4	10.9	10.9	9.2	10.4	10.5	10.3	10.8	10.1	7.2	6.0	4.8	6.5	5.9	4.8	11.4	9.4			
	N	N	NNW	N	N	N	N	NNW	N	N	NNE	N	NNE	N	N	N	N	N	N	NNE	N	N	N	N						
May 30	3.9	3.1	3.1	5.8	6.1	7.4	5.6	7.7	6.5	6.6	7.0	6.9	6.4	8.0	7.3	6.1	5.7	8.5	4.7	5.7	2.6	0.2	0.7	1.5	0.2	8.5	4.7			
	NE	NE	NNE	ENE	ENE	ENE	E	E	E	ENE	NNE	NNE	NNE	NNE	NE	N	NE	NNE	NE	NE	SSW	SSW	SE							
May 31	0.3	0.9	1.2	1.5	0.4	0.7	1.9	5.3	4.9	4.8	1.7	4.9	4.0	4.9	5.1	1.1	2.6	2.5	4.5	3.5	1.7	1.7	1.4	2.9	0.3	5.3	1.1			
	SW	SW	SW	SW	SW	SSW	WSW	WSW	WSW	N	ENE	N	NNE	NNE	NNW	N	NNW	NW	NNW	NNW	NNW	NNW	N	ENE						
C	Monthly Calibration												S Daily Zero-Span Check										Q Quality Assurance							
K	Collection Error												N No Data (Machine Not in Service)										Y Routine Maintenance				P Power Failure			
X	Invalid Data (Equipment Malfunction/Recovery)												NRM UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																	
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																														
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																														

PRC STATION



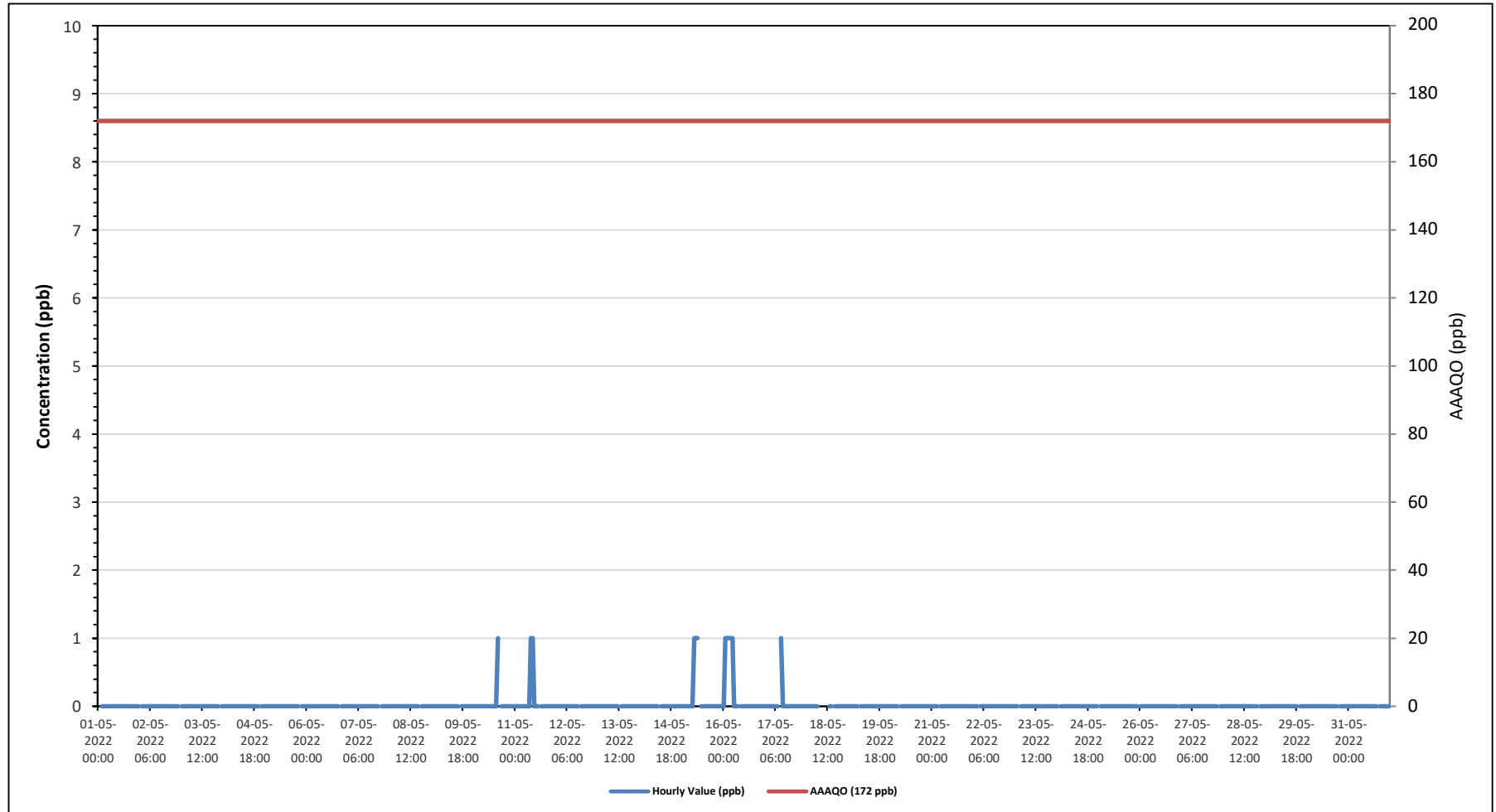
PEACE RIVER AREA MONITORING PROGRAM
 Peace River Complex (PRC) Station - May 2022
 Summary of Hourly Averages
SULPHUR DIOXIDE (SO₂) in ppb

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 May 10 at hour 14															Hours in Service: 744														
Maximum Daily Value: 0.2 ppb on May 16															Hours of Data: 706														
Minimum Hourly Value: 0 ppb on May 1 at hour 0															Hours of Missing Data: 1														
Minimum Daily Value: 0.0 ppb on May 1															Hours of Calibration: 37														
Monthly Average: 0.0 ppb															Operational Uptime: 99.9														
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
May 1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	
May 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	
May 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	
May 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	
May 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	
May 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	
May 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	
May 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	
May 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	S	0	0	0	0	0	0	0	0	0	0	0	0	
May 11	0	0	0	0	0	0	0	0	0	1	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 12	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 13	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 14	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 15	0	0	0	0	0	0	0	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 16	0	1	1	1	1	1	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 17	0	0	0	0	0	0	0	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 18	0	0	0	0	0	0	S	S	0	C	C	C	C	0	0	N	0	0	0	0	0	0	0	0	0	0	0	0	
May 19	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 20	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 21	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 22	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 23	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 24	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 25	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	
May 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	
May 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	
May 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	
May 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	
May 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	
Diurnal Maximum	0	1	1	1	1	1	0	1	1	1	1	0	0	0	1	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	0.1	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	

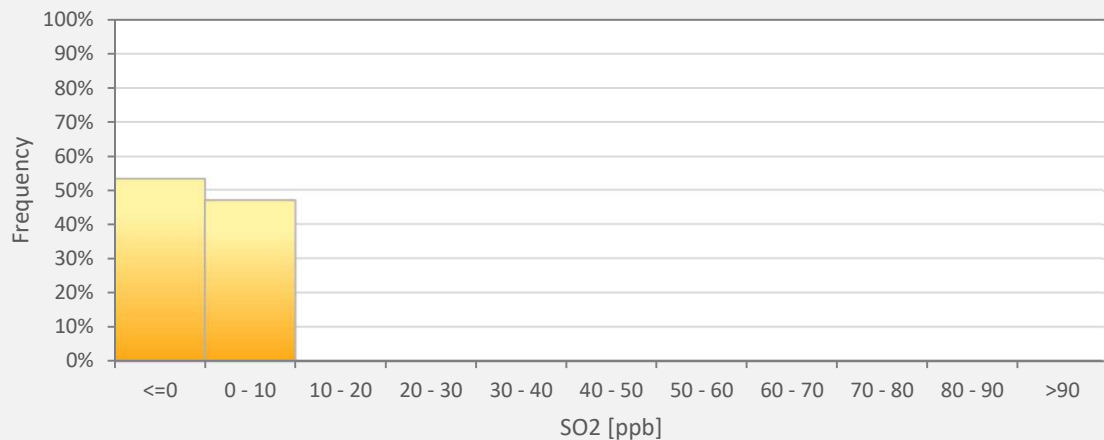
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

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.

Timeseries Chart of Hourly Average for SO₂ - Peace River Complex (PRC) Station



SO2[ppb] Histogram: Peace River Complex [PRC] Monthly: 05-2022 1 Hr.

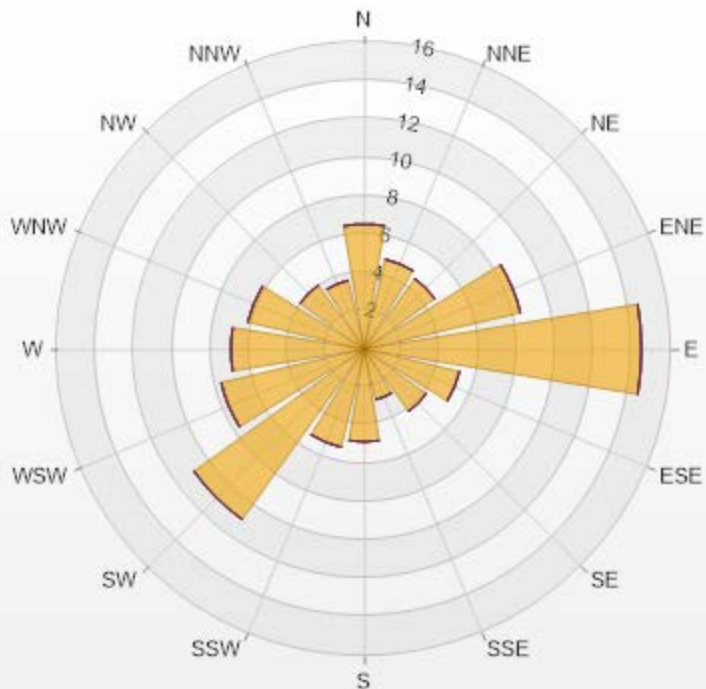


Classes	SO2
<=0	53.12%
0 - 10	46.88%
10 - 20	0.00%
20 - 30	0.00%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-SO2[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	6.52	0	0	0	0	6.52
NNE	4.82	0	0	0	0	4.82
NE	4.53	0	0	0	0	4.53
ENE	8.36	0	0	0	0	8.36
E	14.45	0	0	0	0	14.45
ESE	5.1	0	0	0	0	5.1
SE	3.97	0	0	0	0	3.97
SSE	2.69	0	0	0	0	2.69
S	4.82	0	0	0	0	4.82
SSW	5.24	0	0	0	0	5.24
SW	10.91	0	0	0	0	10.91
WSW	7.65	0	0	0	0	7.65
W	6.94	0	0	0	0	6.94
WNW	6.23	0	0	0	0	6.23
NW	4.11	0	0	0	0	4.11
NNW	3.68	0	0	0	0	3.68
Summary	100	0	0	0	0	100

Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-SO2[ppb] 01-05-2022 00:00 - 31-05-2022 23:00 Calm: 0.00%



PRAMP-202205

Page 166 of 276

% Icon Classes (ppb)

100 0-10

0 10-50

0 50-100

0 100-172

0 >172.0



PEACE RIVER AREA MONITORING PROGRAM

Peace River Complex (PRC) Station - May 2022

Summary of Hourly Averages

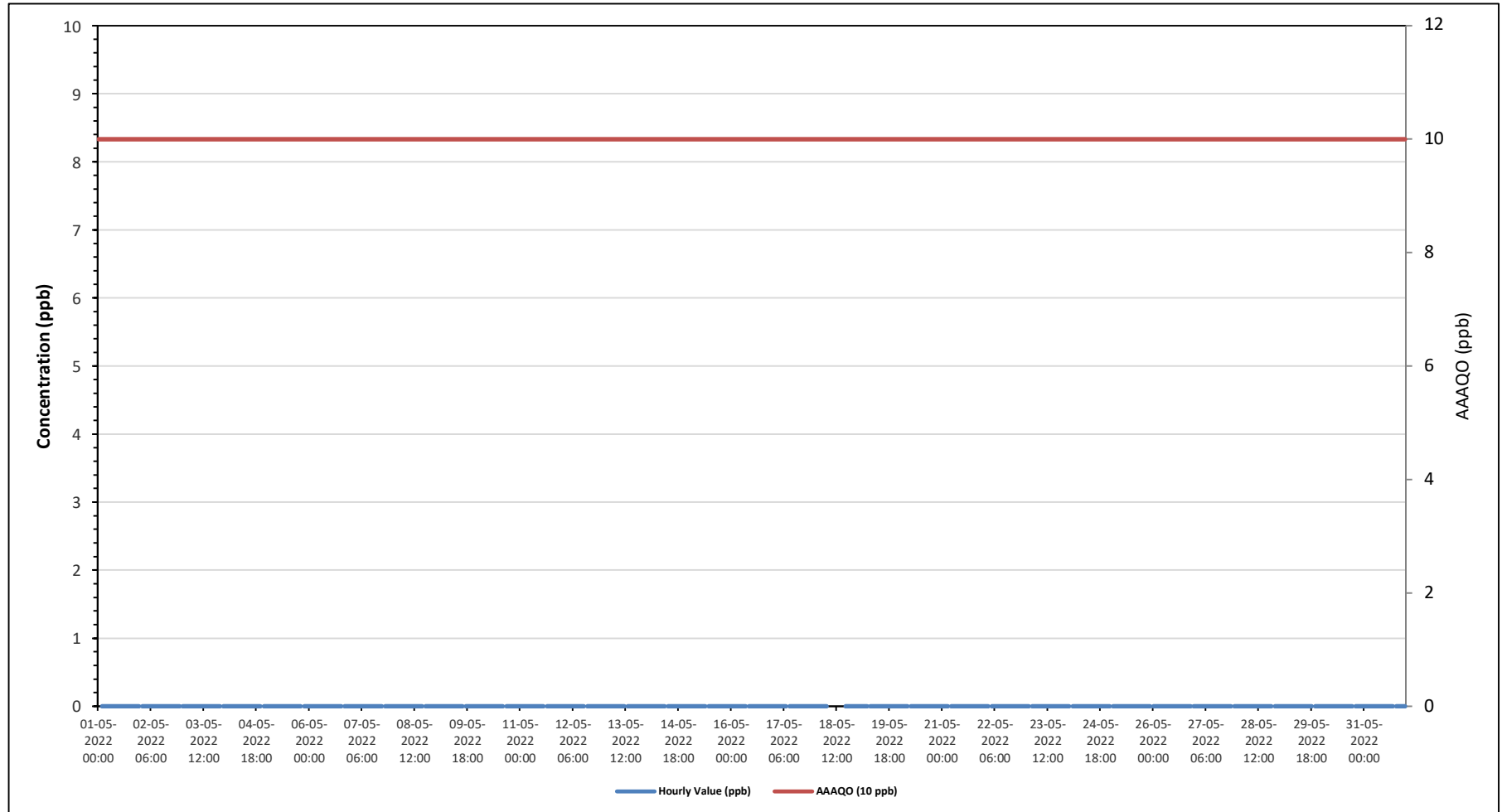
HYDROGEN SULPHIDE (H₂S) in ppb

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: 0 ppb on May 1 at hour 0												Hours in Service: 744																					
Maximum Daily Value: 0.0 ppb on May 1												Hours of Data: 703																					
Minimum Hourly Value: 0 ppb on May 1 at hour 0												Hours of Missing Data: 0																					
Minimum Daily Value: 0.0 ppb on May 1												Hours of Calibration: 41																					
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						
May 1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
May 2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
May 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		
May 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		
May 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		
May 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		
May 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		
May 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		
May 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		
May 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		
May 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		
May 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		
May 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		
May 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		
May 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		
May 16	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
May 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	0	0		
May 18	0	0	0	0	0	0	0	0	0	S	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	-		
May 19	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 20	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 21	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	0	0	0	0	
May 22	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	0	0	0	0	
May 23	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	0	0	0	0	
May 24	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	0	0	0	0	
May 25	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 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	
May 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	
May 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	
May 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	
May 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	
May 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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							N	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)																								

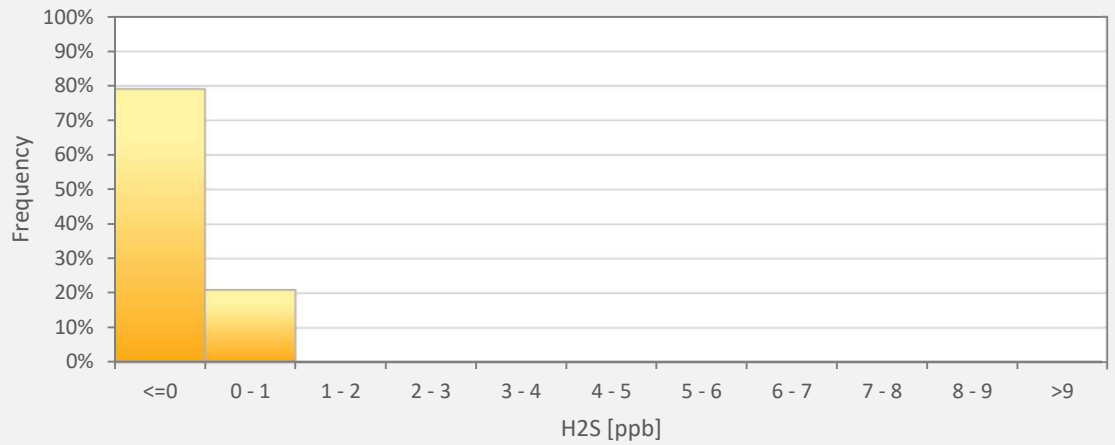
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

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

Timeseries Chart of Hourly Average for H2S - Peace River Complex (PRC) Station



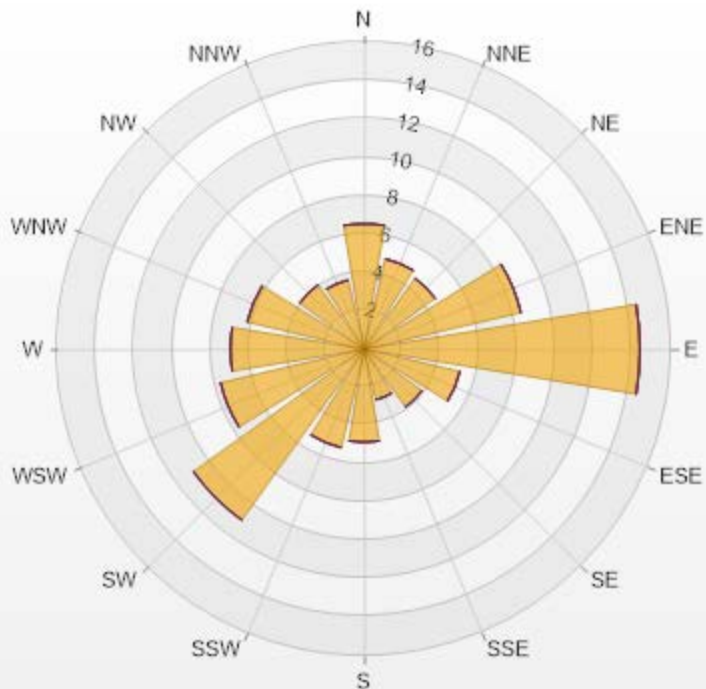
H2S[ppb] Histogram: Peace River Complex [PRC] Monthly: 05-2022 1 Hr.



Classes	H2S
<=0	79.09%
0 - 1	20.91%
1 - 2	0.00%
2 - 3	0.00%
3 - 4	0.00%
4 - 5	0.00%
5 - 6	0.00%
6 - 7	0.00%
7 - 8	0.00%
8 - 9	0.00%
>9	0.00%

Wind: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-H2S[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.49% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	6.54	0	0	0	0	6.54
NNE	4.84	0	0	0	0	4.84
NE	4.55	0	0	0	0	4.55
ENE	8.39	0	0	0	0	8.39
E	14.37	0	0	0	0	14.37
ESE	5.12	0	0	0	0	5.12
SE	3.7	0	0	0	0	3.7
SSE	2.7	0	0	0	0	2.7
S	4.84	0	0	0	0	4.84
SSW	5.26	0	0	0	0	5.26
SW	10.95	0	0	0	0	10.95
WSW	7.68	0	0	0	0	7.68
W	6.97	0	0	0	0	6.97
WNW	6.26	0	0	0	0	6.26
NW	4.13	0	0	0	0	4.13
NNW	3.7	0	0	0	0	3.7
Summary	100	0	0	0	0	100



PRAMP-202205

Page 171 of 276

% Icon Classes (ppb)

100 0-2

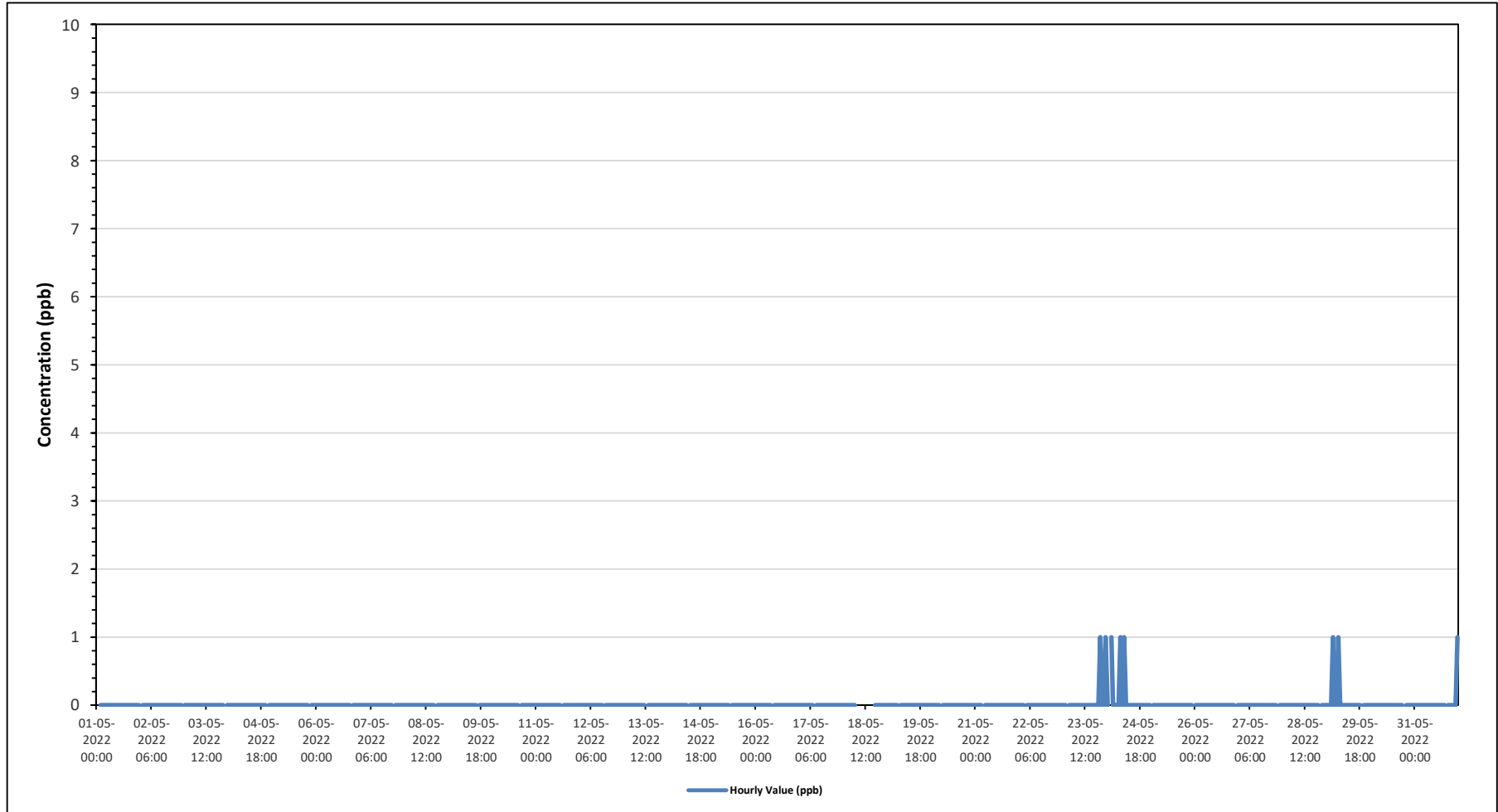
0 2-5

0 5-10

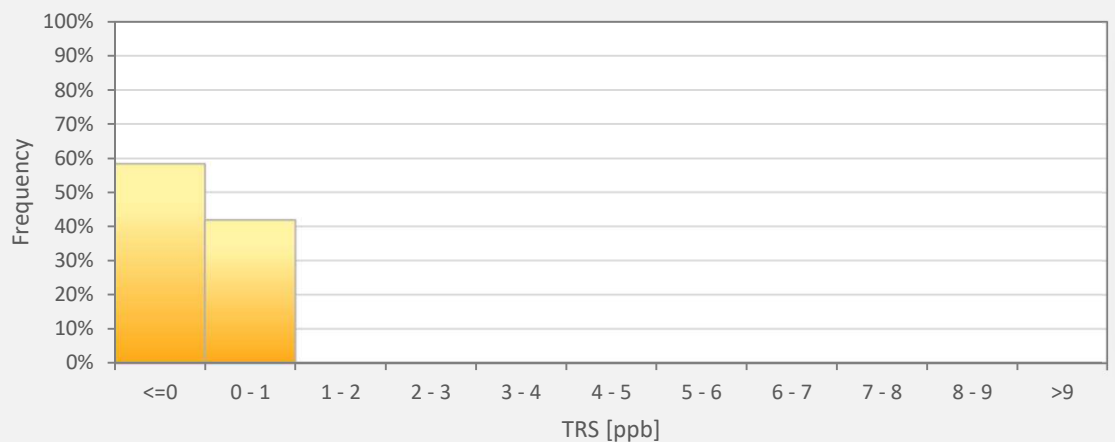
0 10-50

0 >50.0

Timeseries Chart of Hourly Average for TRS - Peace River Complex (PRC) Station



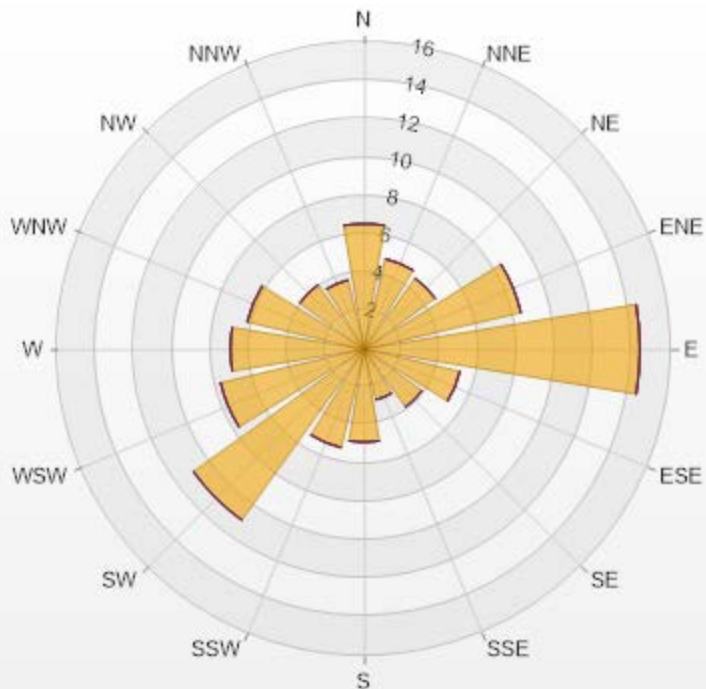
TRS[ppb] Histogram: Peace River Complex [PRC] Monthly: 05-2022 1 Hr.



Classes	TRS
<=0	58.18%
0 - 1	41.82%
1 - 2	0.00%
2 - 3	0.00%
3 - 4	0.00%
4 - 5	0.00%
5 - 6	0.00%
6 - 7	0.00%
7 - 8	0.00%
8 - 9	0.00%
>9	0.00%

Wind: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-TRS[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.49% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	6.54	0	0	0	0	6.54
NNE	4.84	0	0	0	0	4.84
NE	4.55	0	0	0	0	4.55
ENE	8.39	0	0	0	0	8.39
E	14.37	0	0	0	0	14.37
ESE	5.12	0	0	0	0	5.12
SE	3.7	0	0	0	0	3.7
SSE	2.7	0	0	0	0	2.7
S	4.84	0	0	0	0	4.84
SSW	5.26	0	0	0	0	5.26
SW	10.95	0	0	0	0	10.95
WSW	7.68	0	0	0	0	7.68
W	6.97	0	0	0	0	6.97
WNW	6.26	0	0	0	0	6.26
NW	4.13	0	0	0	0	4.13
NNW	3.7	0	0	0	0	3.7
Summary	100	0	0	0	0	100



PRAMP-202205

Page 176 of 276

% Icon Classes (ppb)

100 0-2

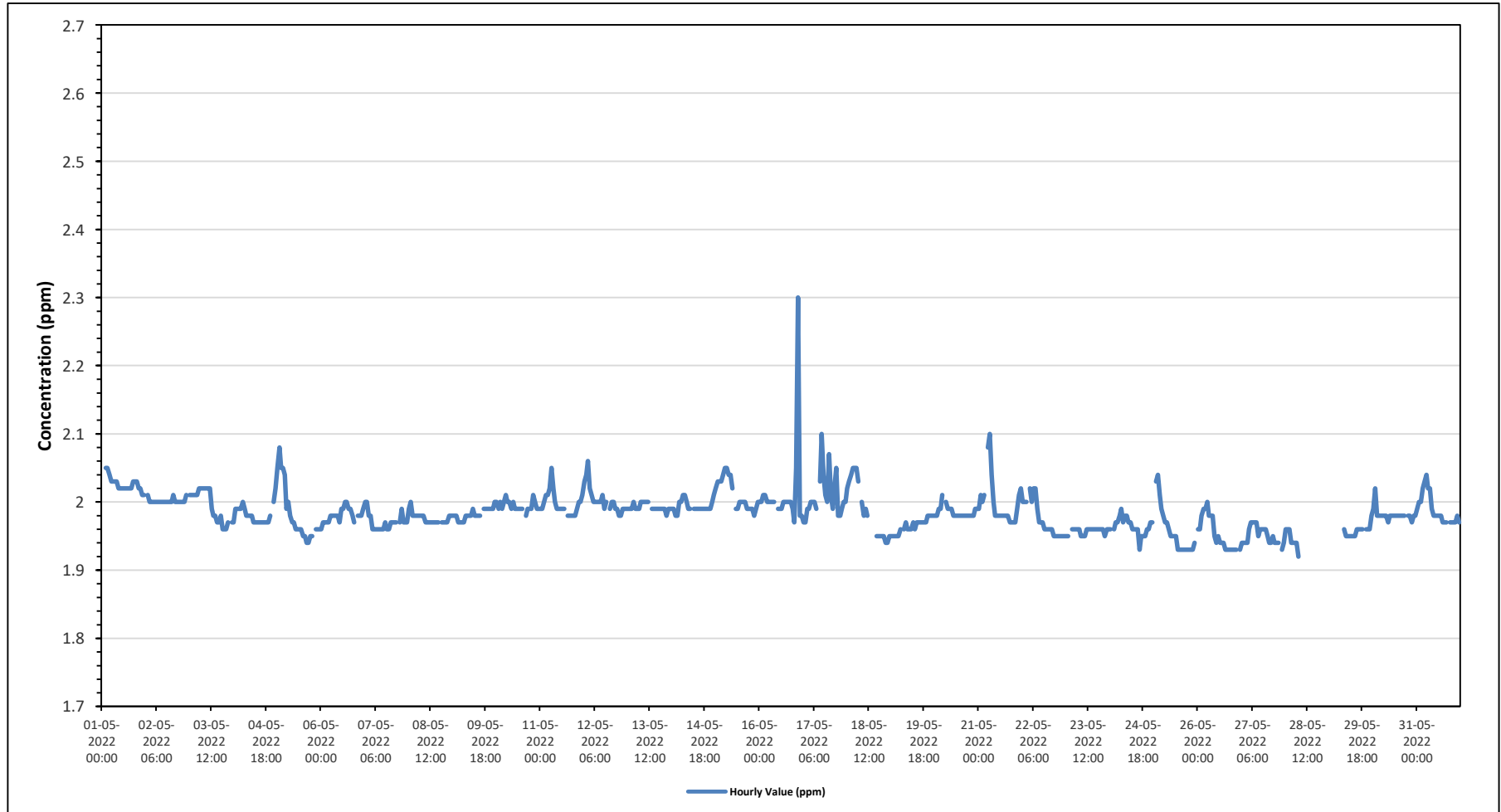
0 2-5

0 5-10

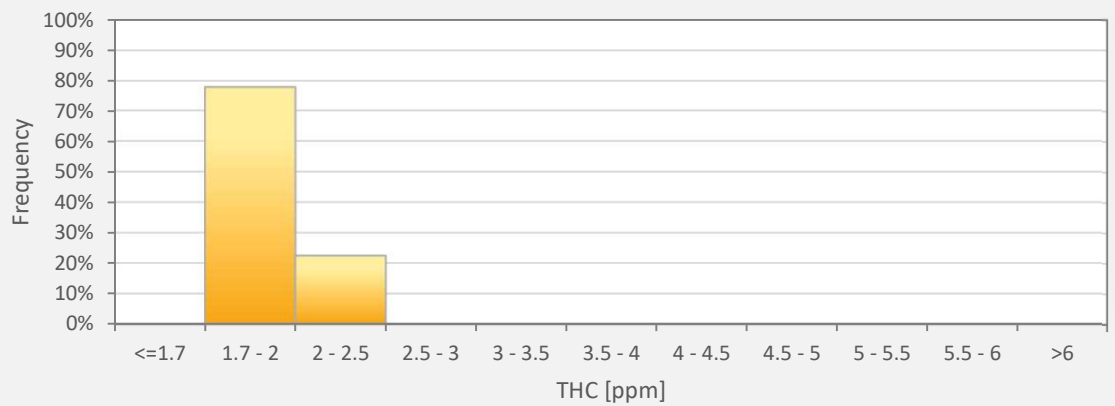
0 10-50

0 >50.0

Timeseries Chart of Hourly Average for THC - Peace River Complex (PRC) Station



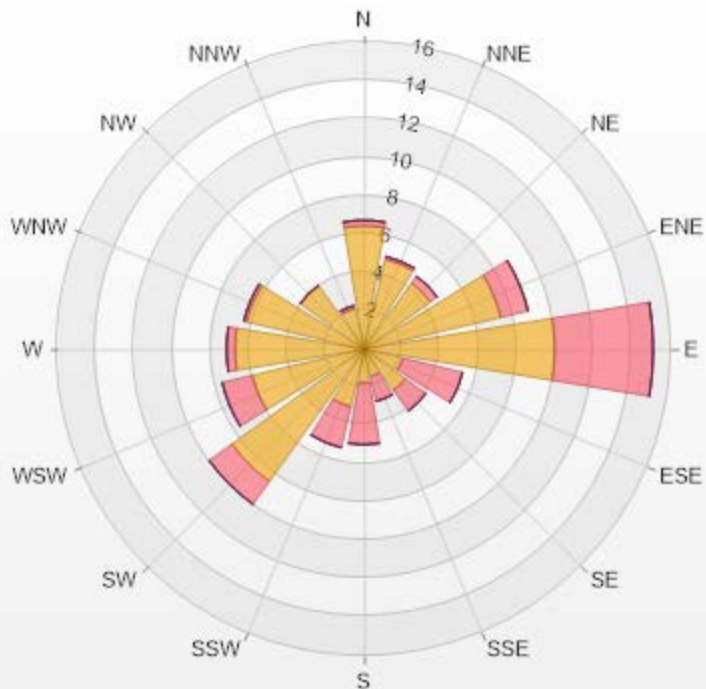
THC55[ppm] Histogram: Peace River Complex [PRC] Monthly: 05-2022 1 Hr.



Classes	THC55
<=1.7	0.00%
1.7 - 2	77.63%
2 - 2.5	22.37%
2.5 - 3	0.00%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-THC55[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 91.94% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	6.43	0.29	0	0	0	6.72
NNE	4.82	0.15	0	0	0	4.97
NE	4.24	0.44	0	0	0	4.68
ENE	7.31	1.46	0	0	0	8.77
E	9.94	5.12	0	0	0	15.06
ESE	2.05	3.22	0	0	0	5.27
SE	2.63	1.32	0	0	0	3.95
SSE	1.46	1.32	0	0	0	2.78
S	1.75	3.22	0	0	0	4.97
SSW	3.07	2.19	0	0	0	5.26
SW	8.48	1.46	0	0	0	9.94
WSW	5.99	1.61	0	0	0	7.6
W	6.73	0.44	0	0	0	7.17
WNW	6.29	0.15	0	0	0	6.44
NW	4.09	0	0	0	0	4.09
NNW	2.19	0.15	0	0	0	2.34
Summary	77.47	22.54	0	0	0	100

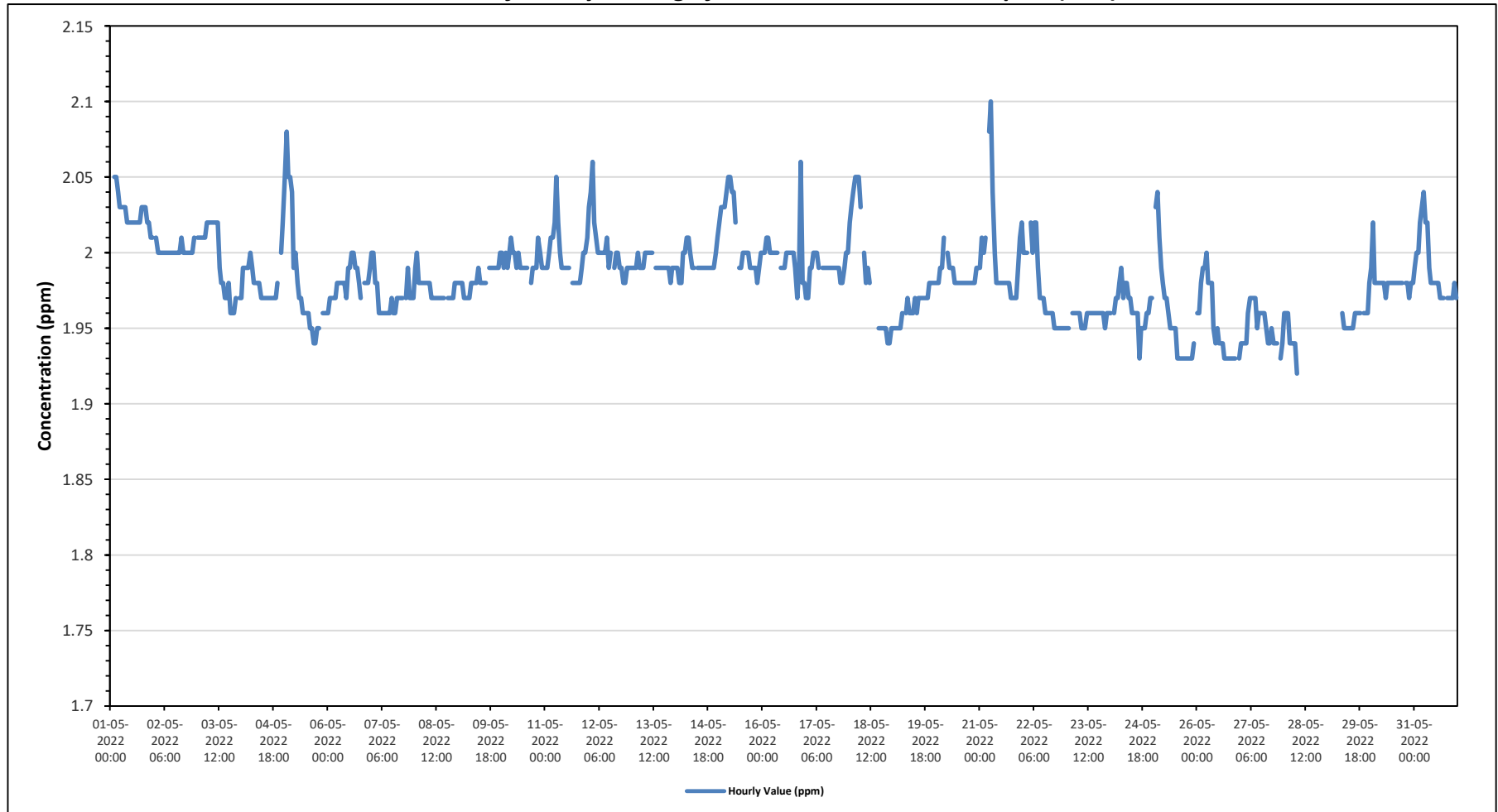


PRAMP-202205

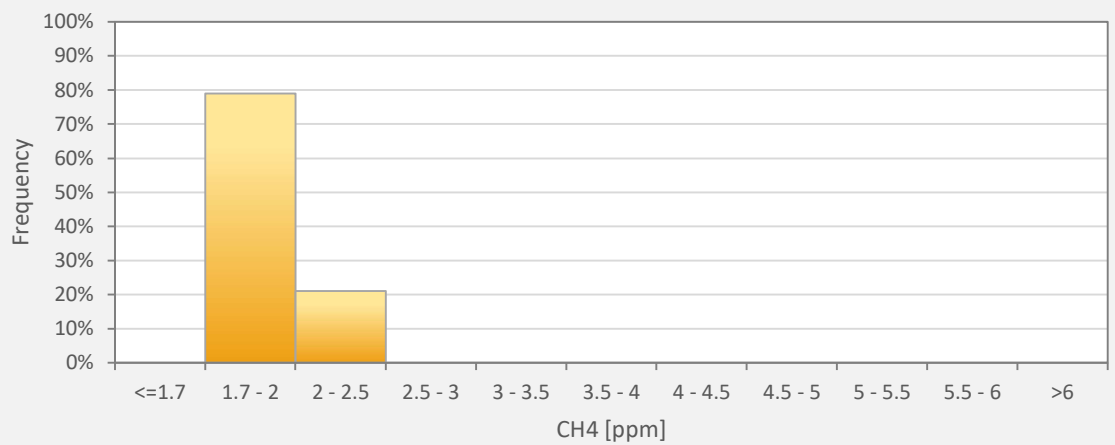
Page 181 of 276

% Icon Classes (ppm)	77	23	0	0	0
0-2	77	23	0	0	0
2-5		23			
5-10			0		
10-40				0	
>40.0					0

Timeseries Chart of Hourly Average for CH4 - Peace River Complex (PRC) Station



CH4[ppm] Histogram: Peace River Complex [PRC] Monthly: 05-2022 1 Hr.

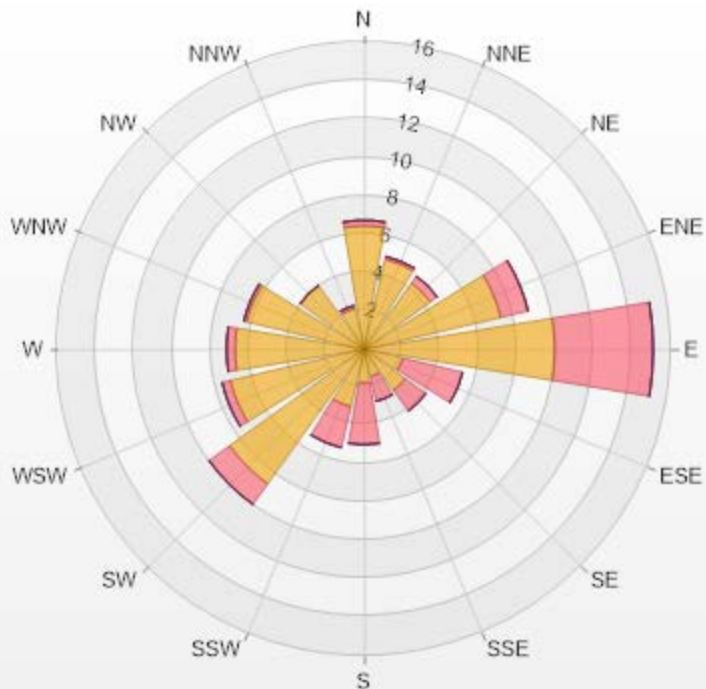


Classes	CH4
<=1.7	0.00%
1.7 - 2	78.95%
2 - 2.5	21.05%
2.5 - 3	0.00%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-CH4[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 91.94% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	6.43	0.29	0	0	0	6.72
NNE	4.82	0.15	0	0	0	4.97
NE	4.24	0.44	0	0	0	4.68
ENE	7.31	1.46	0	0	0	8.77
E	9.94	5.12	0	0	0	15.06
ESE	2.05	3.22	0	0	0	5.27
SE	2.63	1.32	0	0	0	3.95
SSE	1.46	1.32	0	0	0	2.78
S	1.75	3.22	0	0	0	4.97
SSW	3.07	2.19	0	0	0	5.26
SW	8.63	1.32	0	0	0	9.95
WSW	7.16	0.44	0	0	0	7.6
W	6.73	0.44	0	0	0	7.17
WNW	6.29	0.15	0	0	0	6.44
NW	4.09	0	0	0	0	4.09
NNW	2.19	0.15	0	0	0	2.34
Summary	78.79	21.23	0	0	0	100

Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-CH4[ppm] 01-05-2022 00:00 - 31-05-2022 23:00
 Calm: 0.00%

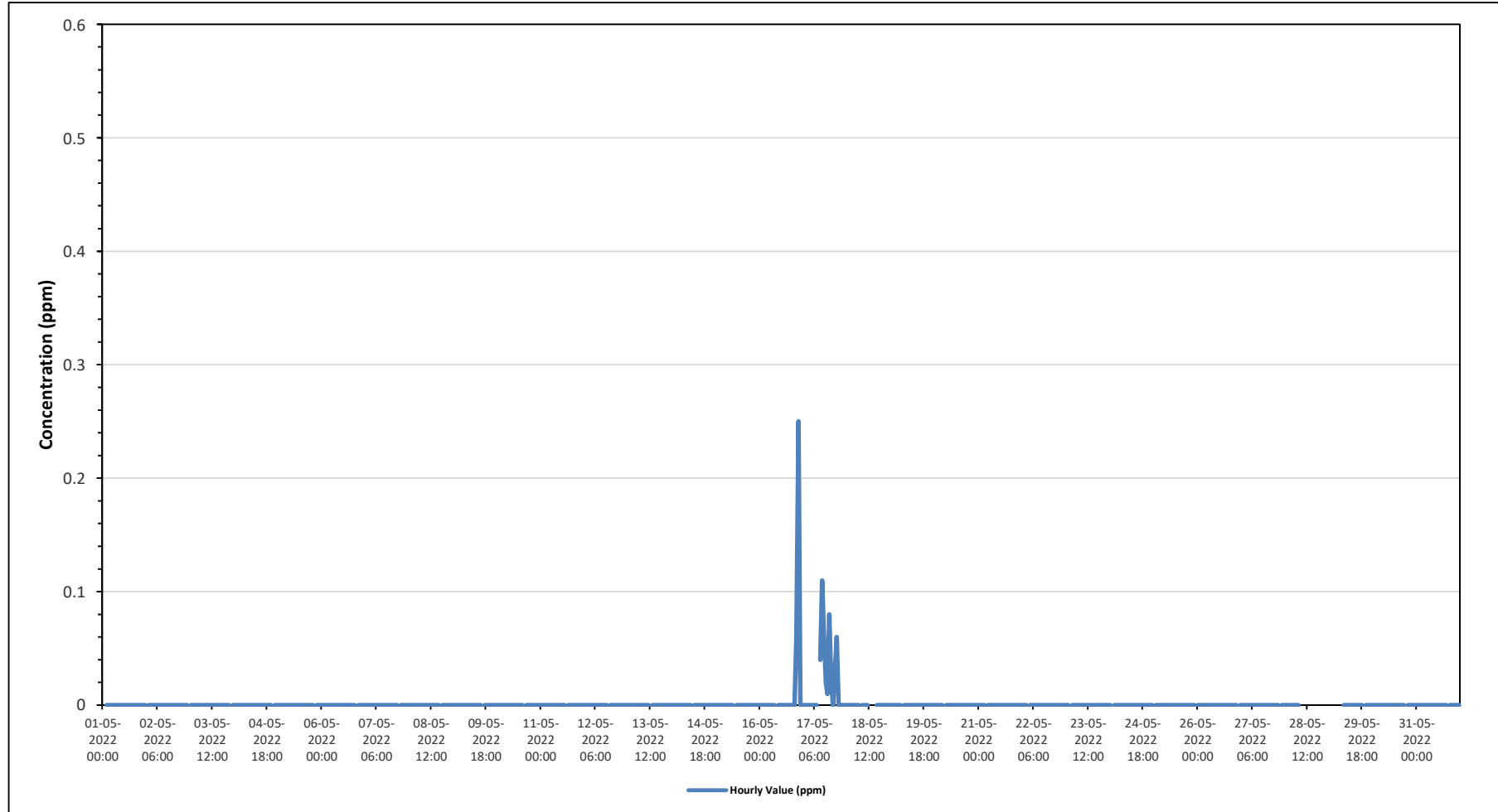


PRAMP-202205

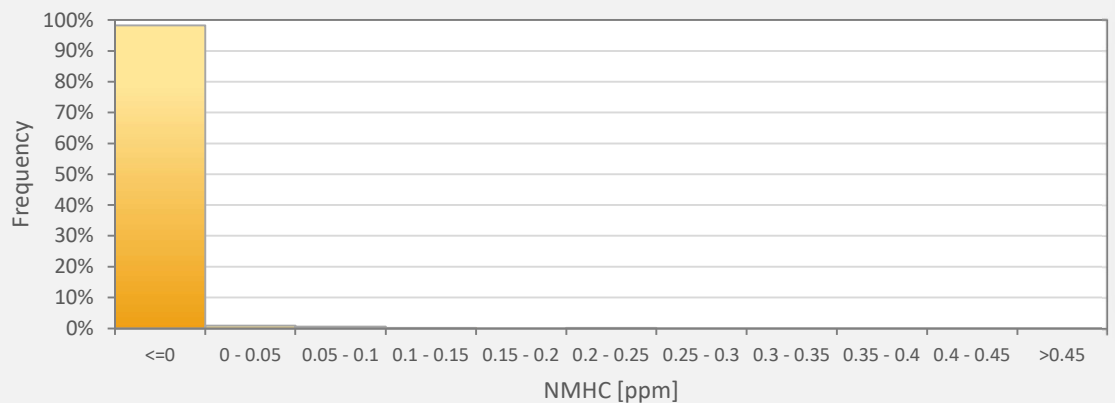
Page 186 of 276

% Icon Classes (ppm)	79	21	0	0	0
0-2	79	21	0	0	0
2-5		21			
5-10			0		
10-20				0	
>20.0					0

Timeseries Chart of Hourly Average for NMHC - Peace River Complex (PRC) Station



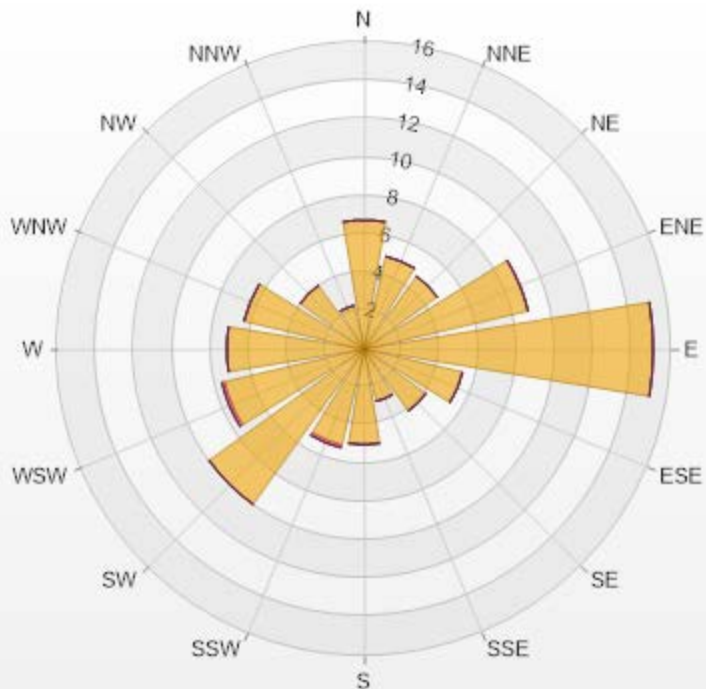
NMHC[ppm] Histogram: Peace River Complex [PRC] Monthly: 05-2022 1 Hr.



Classes	NMHC
<=0	98.25%
0 - 0.05	0.88%
0.05 - 0.1	0.58%
0.1 - 0.15	0.15%
0.15 - 0.2	0.00%
0.2 - 0.25	0.15%
0.25 - 0.3	0.00%
0.3 - 0.35	0.00%
0.35 - 0.4	0.00%
0.4 - 0.45	0.00%
>0.45	0.00%

Wind: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-NMHC[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 91.94% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	6.73	0	0	0	0	6.73
NNE	4.97	0	0	0	0	4.97
NE	4.68	0	0	0	0	4.68
ENE	8.77	0	0	0	0	8.77
E	15.06	0	0	0	0	15.06
ESE	5.26	0	0	0	0	5.26
SE	3.95	0	0	0	0	3.95
SSE	2.78	0	0	0	0	2.78
S	4.97	0	0	0	0	4.97
SSW	5.12	0.15	0	0	0	5.27
SW	9.94	0	0	0	0	9.94
WSW	7.46	0.15	0	0	0	7.61
W	7.16	0	0	0	0	7.16
WNW	6.43	0	0	0	0	6.43
NW	4.09	0	0	0	0	4.09
NNW	2.34	0	0	0	0	2.34
Summary	100	0.3	0	0	0	100



PRAMP-202205

Page 191 of 276

% Icon Classes (ppm)

100 0-0.1

0 0.1-0.3

0 0.3-1

0 1-2

0 >2.0



PEACE RIVER AREA MONITORING PROGRAM

Peace River Complex (PRC) Station - May 2022

Summary of Hourly Averages

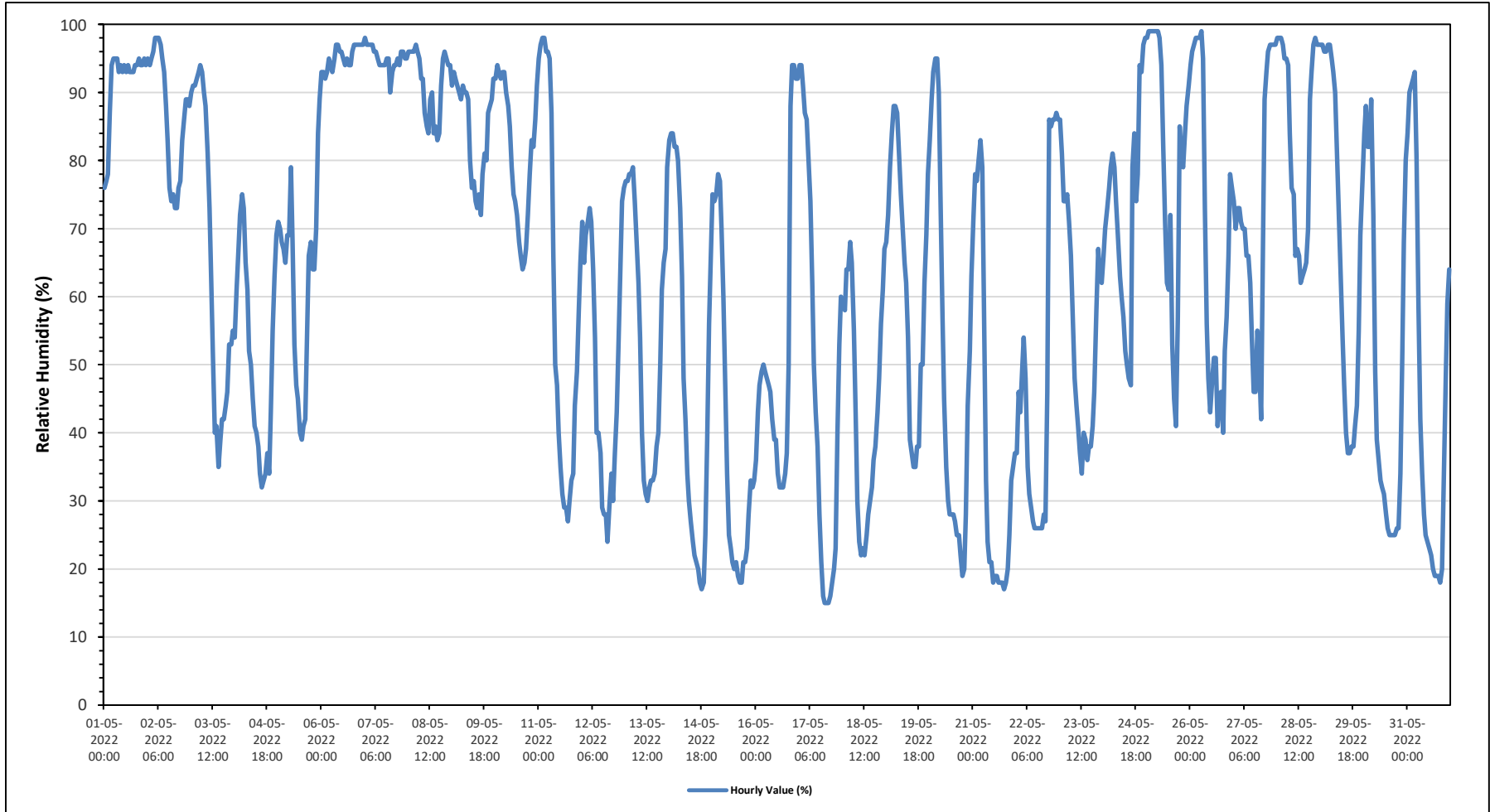
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	99 %	on May 25 at hour 1	Hours in Service:	744
Maximum Daily Value:	95.2 %	on May 6	Hours of Data:	744
Minimum Hourly Value:	15 %	on May 17 at hour 14	Hours of Missing Data:	0
Minimum Daily Value:	38.3 %	on May 21	Hours of Calibration:	0
Monthly Average:	64.3 %		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
May 1	76	77	78	87	94	95	95	95	93	94	93	94	93	94	93	93	93	94	94	95	94	94	95	94	76	95	91.5
May 2	95	94	95	96	98	98	98	97	95	93	88	83	76	74	75	73	73	76	77	83	86	89	89	88	73	98	87.0
May 3	90	91	91	92	93	94	93	90	88	81	73	63	51	40	41	35	39	42	42	44	46	53	53	55	35	94	65.8
May 4	54	61	66	72	75	73	65	61	52	50	45	41	40	38	34	32	33	34	37	34	43	55	63	69	32	75	51.1
May 5	71	70	68	67	65	69	69	79	68	53	47	45	40	39	41	42	55	66	68	64	70	84	89	39	89	62.2	
May 6	93	93	92	93	95	94	93	95	97	97	96	96	95	94	95	94	94	96	97	97	97	97	97	97	92	97	95.2
May 7	98	97	97	97	97	96	96	95	94	94	94	95	95	90	93	94	94	95	94	96	96	95	95	90	98	97	95.0
May 8	96	96	96	96	97	96	95	92	92	87	85	84	89	90	84	85	83	84	91	95	96	95	94	94	83	97	91.3
May 9	91	93	92	91	90	89	91	90	90	89	80	76	77	74	73	75	72	78	81	80	87	88	89	92	72	93	84.5
May 10	92	94	93	92	93	93	90	88	85	79	75	74	72	68	66	64	65	67	72	78	83	82	86	91	64	94	80.9
May 11	95	97	98	98	96	96	95	87	66	50	47	40	35	31	29	29	27	30	33	34	44	49	58	65	27	98	59.5
May 12	71	65	69	71	73	71	64	54	40	40	37	29	28	28	24	29	34	30	37	43	52	63	74	76	24	76	50.1
May 13	77	77	78	78	79	74	68	62	54	40	33	31	30	32	33	33	34	38	40	50	61	65	67	79	30	79	54.7
May 14	83	84	84	82	82	80	73	63	48	42	34	30	27	24	22	21	20	18	17	18	25	39	56	65	17	84	47.4
May 15	75	74	75	78	77	70	60	47	34	25	23	21	20	21	19	18	18	21	21	23	28	33	32	33	18	78	39.4
May 16	36	43	47	49	50	49	48	47	46	42	39	39	34	32	32	32	34	37	50	88	94	94	92	92	32	94	51.9
May 17	94	94	91	87	86	80	74	62	50	43	38	28	21	16	15	15	15	16	18	20	23	40	53	60	15	94	47.5
May 18	59	58	64	64	68	65	55	42	30	24	22	23	22	25	28	30	32	36	38	43	48	56	61	67	22	68	44.2
May 19	68	72	79	84	88	88	87	81	75	70	65	62	54	39	37	35	35	38	38	50	50	62	69	78	35	88	62.7
May 20	83	89	93	95	95	90	73	57	45	35	30	28	28	28	27	25	25	22	19	20	28	44	52	63	19	95	49.8
May 21	71	78	77	80	83	79	56	33	24	21	21	18	19	19	18	18	18	17	18	20	25	33	35	37	17	83	38.3
May 22	37	46	43	49	54	48	35	31	29	27	26	26	26	26	26	28	27	46	86	85	86	86	87	86	26	87	47.8
May 23	86	81	74	74	75	71	66	57	48	44	41	37	34	40	39	36	38	38	41	46	58	67	63	62	34	86	54.8
May 24	66	70	73	76	79	81	79	74	69	63	60	57	52	50	48	47	79	84	74	78	94	93	97	98	47	98	72.5
May 25	98	99	99	99	99	99	99	98	94	82	71	62	61	72	53	45	41	57	85	80	79	84	88	91	41	99	80.6
May 26	94	96	97	98	98	98	99	95	73	56	48	43	48	51	51	41	45	46	40	52	57	66	78	76	40	99	68.6
May 27	74	70	73	73	71	70	70	66	66	62	54	46	46	55	50	42	64	89	93	96	97	97	97	97	42	97	71.6
May 28	98	98	98	97	95	95	94	84	76	75	66	67	66	62	63	64	65	70	89	93	97	98	97	97	62	98	83.5
May 29	97	97	96	96	97	97	95	93	90	81	72	63	54	47	40	37	37	38	38	41	44	55	69	77	37	97	68.8
May 30	84	88	82	82	89	72	49	39	36	33	32	31	28	26	25	25	25	25	26	26	34	51	68	80	25	89	48.2
May 31	84	90	91	92	93	80	59	42	34	28	25	24	23	22	20	19	19	19	18	20	34	48	59	64	18	93	46.1
Diurnal Maximum	98	99	99	99	99	99	99	98	97	97	96	96	95	95	95	94	94	96	97	97	97	98	97	98			
Diurnal Average	80.2	81.7	82.2	83.4	84.6	82.3	76.9	70.8	63.9	58.1	53.5	50.2	47.9	46.8	44.9	43.7	46.2	49.9	54.0	57.7	62.9	69.1	74.1	77.6			
C Monthly Calibration											S Daily Zero-Span Check											Q Quality Assurance					
K Collection Error											N 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.

Timeseries Chart of Hourly Average for RH - Peace River Complex (PRC) Station





PEACE RIVER AREA MONITORING PROGRAM

Peace River Complex (PRC) Station - May 2022

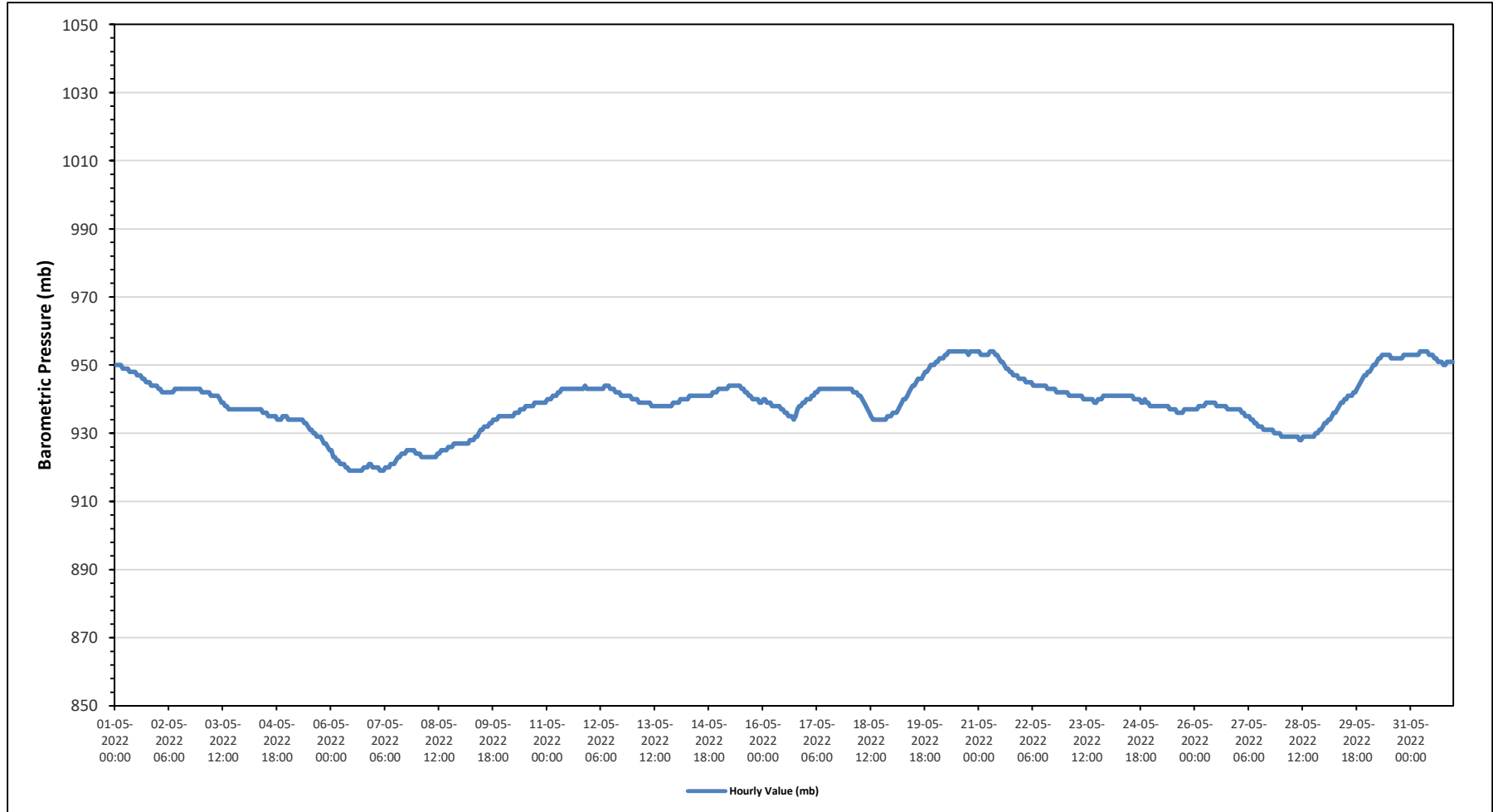
Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	954 mb on May 20 at hour 7	Hours in Service:	744
Maximum Daily Value:	953 mb on May 20	Hours of Data:	744
Minimum Hourly Value:	919 mb on May 6 at hour 10	Hours of Missing Data:	0
Minimum Daily Value:	921 mb on May 6	Hours of Calibration:	0
Monthly Average:	939 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				
May 1	950	950	950	950	949	949	949	949	948	948	948	948	947	947	947	946	946	945	945	944	944	944	944	944	944	944	950	947.2			
May 2	943	943	942	942	942	942	942	942	942	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	942	942.7			
May 3	942	942	942	942	942	941	941	941	941	941	940	939	939	938	938	937	937	937	937	937	937	937	937	937	937	937	937	939.3			
May 4	937	937	937	937	937	937	937	937	937	937	936	936	936	935	935	935	935	935	934	934	934	935	935	935	935	934	937	935.8			
May 5	934	934	934	934	934	934	934	934	934	933	933	932	931	931	930	930	929	929	929	928	927	927	926	925	925	925	934	931.1			
May 6	925	923	923	922	922	921	921	921	920	920	919	919	919	919	919	919	919	919	920	920	920	921	921	920	919	925	920.5				
May 7	920	920	920	919	919	919	920	920	920	921	921	921	922	923	923	924	924	924	925	925	925	925	925	925	925	925	925	922.0			
May 8	924	924	923	923	923	923	923	923	923	923	924	924	924	925	925	925	925	926	926	926	927	927	927	927	927	923	927	924.5			
May 9	927	927	927	927	927	928	928	928	929	929	930	931	931	932	932	932	933	933	934	934	934	935	935	935	935	927	935	930.8			
May 10	935	935	935	935	935	935	936	936	936	937	937	937	938	938	938	938	938	939	939	939	939	939	939	939	939	935	939	937.2			
May 11	940	940	940	941	941	941	942	942	943	943	943	943	943	943	943	943	943	943	943	943	943	944	943	943	940	944	942.3				
May 12	943	943	943	943	943	943	943	943	944	944	944	943	943	943	942	942	941	941	941	941	941	941	941	940	940	940	944	942.4			
May 13	940	940	940	939	939	939	939	939	939	939	938	938	938	938	938	938	938	938	938	938	938	938	938	939	939	938	940	938.6			
May 14	939	939	940	940	940	940	940	941	941	941	941	941	941	941	941	941	941	941	941	941	942	942	942	943	939	943	940.8				
May 15	943	943	943	943	943	944	944	944	944	944	944	944	943	943	942	942	941	941	940	940	940	939	939	939	939	939	944	942.2			
May 16	940	940	939	939	939	938	938	938	938	938	937	937	936	936	935	935	935	934	935	937	938	938	939	939	934	940	937.4				
May 17	940	940	940	941	941	942	942	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	940	943	942.4				
May 18	943	943	942	942	942	941	941	940	939	938	937	936	935	934	934	934	934	934	934	934	934	935	935	935	934	943	937.3				
May 19	936	936	936	937	938	939	940	940	941	942	943	944	944	945	946	946	946	947	948	948	949	950	950	950	936	950	943.4				
May 20	951	951	952	952	952	953	953	954	954	954	954	954	954	954	954	954	954	954	954	953	954	954	954	954	951	954	953.4				
May 21	954	953	953	953	953	953	954	954	954	953	953	952	951	951	950	949	949	948	948	947	947	947	946	946	946	954	950.8				
May 22	946	946	945	945	945	945	944	944	944	944	944	944	944	944	943	943	943	943	943	942	942	942	942	942	942	946	943.7				
May 23	942	942	941	941	941	941	941	941	941	941	940	940	940	940	940	940	939	939	940	940	940	941	941	941	939	942	940.5				
May 24	941	941	941	941	941	941	941	941	941	941	941	941	941	940	940	940	940	939	939	940	939	939	939	938	938	941	940.3				
May 25	938	938	938	938	938	938	938	938	938	938	937	937	937	937	936	936	936	936	937	937	937	937	937	937	936	938	937.3				
May 26	937	937	938	938	938	938	939	939	939	939	939	939	938	938	938	938	938	938	938	937	937	937	937	937	937	937	939	937.9			
May 27	937	937	936	936	935	935	935	934	934	933	933	932	932	931	931	931	931	931	931	931	930	930	930	930	930	930	937	932.8			
May 28	929	929	929	929	929	929	929	929	929	928	928	928	929	929	929	929	929	929	929	929	930	931	931	932	928	932	929.3				
May 29	933	933	934	934	935	936	936	937	938	939	939	940	940	941	941	941	942	942	943	944	945	946	947	947	933	947	939.7				
May 30	948	948	949	950	950	951	952	952	953	953	953	953	953	952	952	952	952	952	952	952	952	953	953	953	948	953	951.7				
May 31	953	953	953	953	954	954	954	954	954	953	953	953	952	952	951	951	951	950	950	951	951	951	951	950	950	954	952.3				
Diurnal Maximum	954	953	953	953	953	954	954	954	954	954	954	954	954	954	954	954	954	954	953	954	954	954	954	954	954	954	954	954			
Diurnal Average	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939			
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance														
K	Collection Error							N	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.																															

Timeseries Chart of Hourly Average for BP - Peace River Complex (PRC) Station





PEACE RIVER AREA MONITORING PROGRAM

Peace River Complex (PRC) Station - May 2022

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

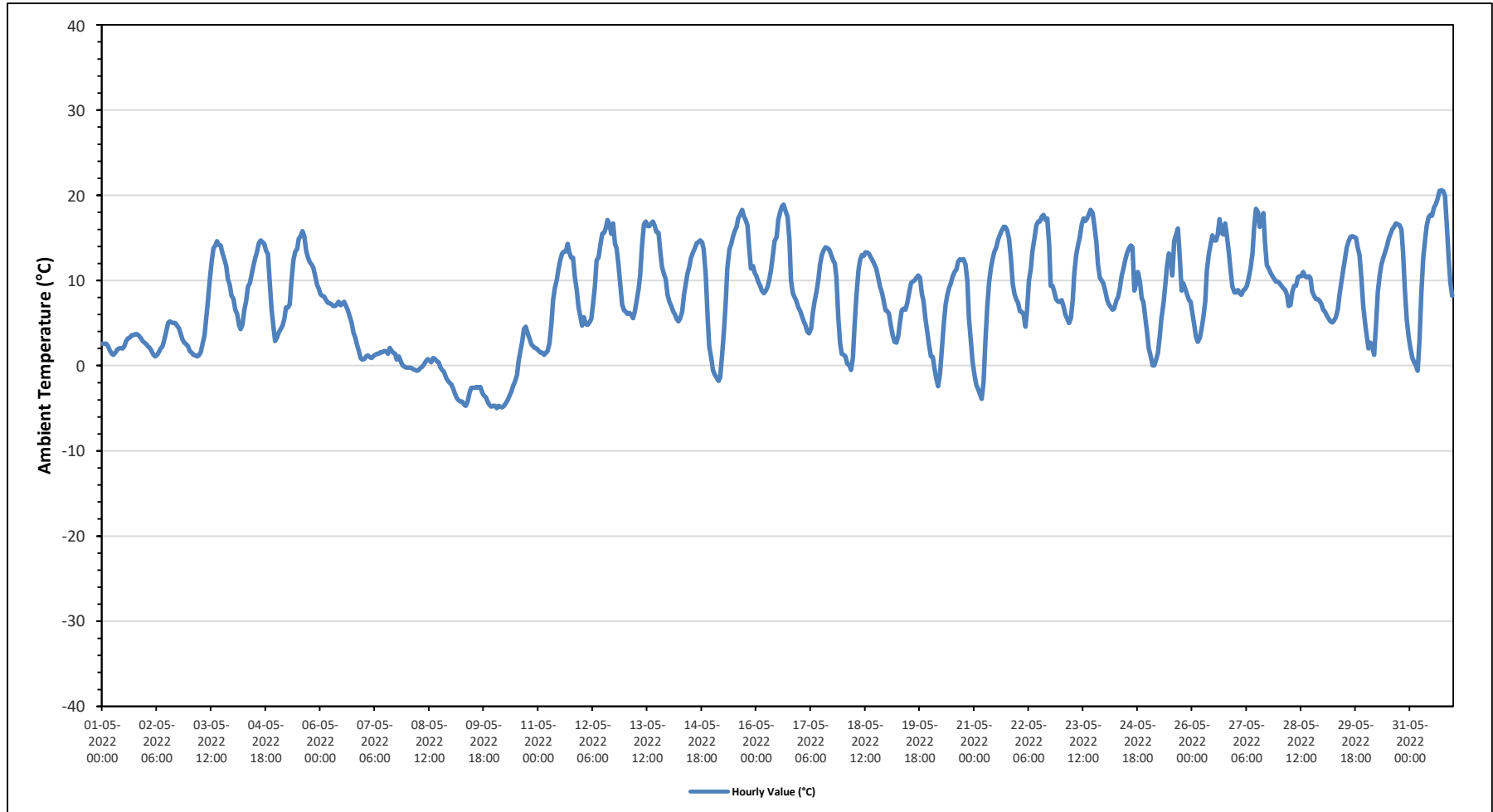
Maximum Hourly Value:	20.6 °C	on May 31 at hour 17	Hours in Service:	744
Maximum Daily Value:	12.4 °C	on May 31	Hours of Data:	744
Minimum Hourly Value:	-5.0 °C	on May 10 at hour 1	Hours of Missing Data:	0
Minimum Daily Value:	-3.6 °C	on May 9	Hours of Calibration:	0
Monthly Average:	7.8 °C		Operational 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
May 1	2.6	2.6	2.6	2.3	1.8	1.4	1.3	1.5	1.9	2	2.1	2	2.3	2.9	3.2	3.3	3.6	3.6	3.7	3.7	3.5	3.2	2.9	2.7	1.3	3.7	2.6
May 2	2.5	2.3	2.1	1.7	1.3	1.1	1.3	1.6	2	2.3	3.1	4	5	5.2	5.1	5	5	4.7	4.4	3.7	3.1	2.7	2.5	2.3	1.1	5.2	3.1
May 3	1.7	1.5	1.3	1.2	1.1	1.2	1.6	2.6	3.5	5.4	7.6	10.1	12.2	13.8	14.1	14.6	14.2	14.1	13.2	12.5	11.7	10.2	9.5	8.2	1.1	14.6	7.8
May 4	7.9	6.6	6.1	4.8	4.3	4.8	6.5	7.6	9.3	9.7	10.6	11.7	12.6	13.4	14.4	14.7	14.5	14.3	13.5	13.1	9.7	6.5	4.5	2.9	2.9	14.7	9.3
May 5	3.3	3.9	4.3	4.7	5.5	6.8	6.8	7.2	9.7	12.4	13.4	13.7	14.9	15.2	15.8	15.2	13.5	12.7	12.2	11.9	11.5	10.7	9.5	9	3.3	15.8	10.2
May 6	8.4	8.2	8.1	7.7	7.4	7.3	7.2	7	7	7.2	7.5	7.1	7.3	7.5	7	6.5	5.9	5.1	3.9	3.3	2.5	1.8	0.9	0.7	0.7	8.4	5.9
May 7	0.8	1.1	1.2	1	0.9	1.1	1.3	1.4	1.4	1.6	1.6	1.7	1.7	1.4	2.1	1.8	1.5	1.4	0.7	1.1	0.5	0.1	-0.1	-0.2	-0.2	2.1	1.1
May 8	-0.2	-0.2	-0.3	-0.4	-0.5	-0.6	-0.5	-0.3	-0.1	0.2	0.5	0.8	0.6	0.4	0.9	0.8	0.5	0.4	-0.2	-0.5	-0.7	-1.4	-1.8	-2	-2.0	0.9	-0.2
May 9	-2.2	-2.7	-3.3	-3.8	-4.1	-4.2	-4.2	-4.6	-4.7	-4.2	-3.1	-2.6	-2.6	-2.6	-2.5	-2.6	-2.5	-3.2	-3.5	-3.7	-4.3	-4.6	-4.8	-4.7	-4.8	-2.2	-3.6
May 10	-4.7	-5	-4.7	-4.8	-4.9	-4.7	-4.4	-4	-3.5	-3	-2.4	-1.9	-1.1	0.5	1.7	2.9	4.3	4.6	3.8	3.2	2.5	2.3	2.1	2	-5.0	4.6	-0.8
May 11	1.8	1.5	1.5	1.3	1.5	1.7	2.6	4.7	7.7	9.2	10.1	11.3	12.4	13.2	13.4	13.4	14.3	13.3	12.7	12.7	10.4	8.9	6.8	5.7	1.3	14.3	8.0
May 12	4.7	5.7	4.9	4.8	5.1	5.5	7.1	9.2	12.4	12.7	14.2	15.5	15.6	16.1	17.1	16.6	15.5	16.7	14.3	13.8	11.9	9.5	7.2	6.5	4.7	17.1	10.9
May 13	6.3	6.1	6.2	6	5.6	6.4	7.7	9	10.7	14.1	16.6	16.9	16.4	16.4	16.7	16.9	16.4	15.7	15.6	13.3	11.6	10.8	10.2	8.3	5.6	16.9	11.7
May 14	7.5	7	6.4	6.1	5.5	5.2	5.5	6.3	8.3	9.5	10.8	11.6	12.6	13.3	13.8	14.4	14.5	14.7	14.5	13.7	10.6	5.7	2.3	1	1.0	14.7	9.2
May 15	-0.5	-1	-1.4	-1.8	-1.4	1.1	3.9	7.4	11.4	13.7	14.3	15.1	15.8	16.3	17.3	17.8	18.3	17.6	17.1	16.5	14	11.4	11.7	10.9	-1.8	18.3	10.2
May 16	10.5	9.8	9.4	8.8	8.5	8.8	9.2	10.1	11.3	12.8	14.6	15.1	17.1	18	18.7	18.9	18.2	17.5	14.8	10	8.5	8	7.6	6.9	6.9	18.9	12.2
May 17	6.4	5.8	5.2	4.7	4	3.8	4.4	6.2	7.6	8.7	10.1	11.8	13	13.6	13.9	13.8	13.6	13.1	12.5	12	10.3	5.7	2.6	1.4	1.4	13.9	8.5
May 18	1.3	1.1	0.2	0.1	-0.5	0.9	4.5	8.1	11.2	12.4	13	12.9	13.3	13.3	13.1	12.7	12.3	11.8	11.4	10.4	9.3	8.5	7.6	6.5	-0.5	13.3	8.1
May 19	6.4	6.1	4.7	3.6	2.8	2.7	3.5	5	6.5	6.7	6.6	7.4	8.6	9.7	9.9	10	10.3	10.6	10.3	8.4	7.6	5.6	4	2.4	2.4	10.6	6.6
May 20	1.1	1	-0.3	-1.5	-2.4	-1	1.9	4.8	7.1	8.2	9.1	9.7	10.5	11	11.3	12.2	12.5	12.4	12.5	11.9	10	5.6	3	0.4	-2.4	12.5	6.3
May 21	-1.1	-2.3	-2.8	-3.4	-3.9	-2	2.8	6.9	9.8	11.5	12.5	13.4	13.9	14.8	15.4	15.9	16.3	16.3	15.9	14.9	12.7	9.6	8.4	7.8	-3.9	16.3	8.5
May 22	7.4	6.4	6.3	6	4.6	6.6	10	11.3	13.4	15	16.5	16.9	16.9	17.5	17.7	17.1	17.3	14.3	9.4	9.4	8.6	7.8	7.5	7.5	4.6	17.7	11.3
May 23	7.7	7	6	5.5	5	5.6	7.7	10.9	13	14.2	15	16.6	17.3	17	17.3	17.8	18.3	17.9	16.3	14.5	11.9	10.3	10	9.7	5.0	18.3	12.2
May 24	8.7	7.7	7.2	6.9	6.6	6.7	7.6	8.1	9	10.5	11.4	12.3	13.2	13.8	14.1	13.9	8.8	9.7	11	9.9	7.9	7.5	5.7	3.9	3.9	14.1	9.3
May 25	2.1	1.2	0	0	0.7	1.5	3.5	5.6	7.4	9.6	11.7	13.2	12.6	10.6	14.6	15.5	16.1	12.8	8.8	9.7	9.1	8.3	7.7	7.5	0.0	16.1	7.9
May 26	6.1	4.7	3.4	2.8	3.3	4.3	5.7	7.5	11.1	13	14.4	15.3	14.7	14.7	15.4	17.2	15.6	15.4	16.7	15.1	13.3	11.3	9.3	8.6	2.8	17.2	10.8
May 27	8.6	8.9	8.5	8.3	8.8	9	9.4	10.4	11.5	13.2	16.2	18.4	18	16.3	16.7	17.9	14.5	11.8	11.4	10.9	10.5	10.2	9.9	9.9	8.3	18.4	12.1
May 28	9.7	9.4	9.1	8.9	8.3	7	7.1	8.7	9.4	9.4	10.4	10.5	10.5	11	10.5	10.4	10.5	10.3	8.7	8.2	7.8	7.8	7.6	7.2	7.0	11.0	9.1
May 29	6.6	6.3	5.9	5.5	5.2	5.1	5.3	5.7	6.6	8.4	9.9	11.3	12.7	13.9	14.6	15.1	15.2	15.1	15	13.9	13	10.3	7	5	5.0	15.2	9.7
May 30	3.3	2	2.7	2.3	1.3	4.7	8.7	10.6	11.8	12.6	13.3	14	14.9	15.5	16	16.3	16.7	16.6	16.5	16	13.3	8.8	5.4	3.4	1.3	16.7	10.3
May 31	2	0.9	0.4	0	-0.6	3	8.6	12.6	14.8	16.4	17.4	17.7	17.6	18.6	19	19.7	20.5	20.6	20.5	19.9	16.4	12.5	11.7	10.9	-0.6	20.6	12.4
Diurnal Maximum	10.5	9.8	9.4	8.9	8.8	9.0	10.0	12.6	14.8	16.4	17.4	18.4	18.0	18.6	19.0	19.7	20.5	20.6	20.5	19.9	16.4	12.5	11.7	10.9			
Diurnal Average	4.1	3.7	3.3	2.9	2.6	3.3	4.6	6.1	7.7	8.9	10.0	10.8	11.3	11.7	12.2	12.4	12.1	11.7	10.9	10.1	8.7	7.0	5.7	4.8			

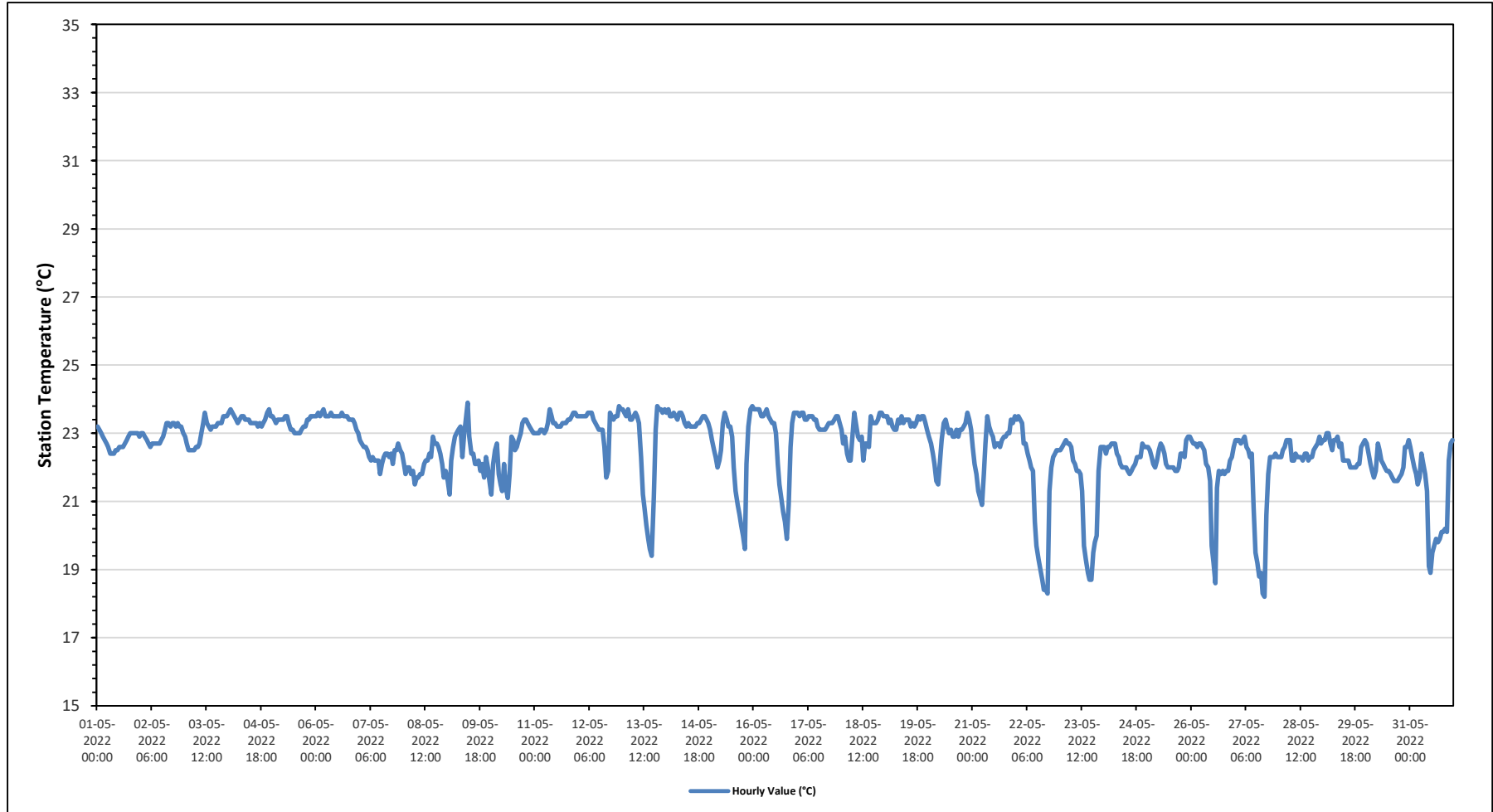
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

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.

Timeseries Chart of Hourly Average for AT - Peace River Complex (PRC) Station



Timeseries Chart of Hourly Average for ST - Peace River Complex (PRC) Station





PEACE RIVER AREA MONITORING PROGRAM

Peace River Complex (PRC) Station - May 2022

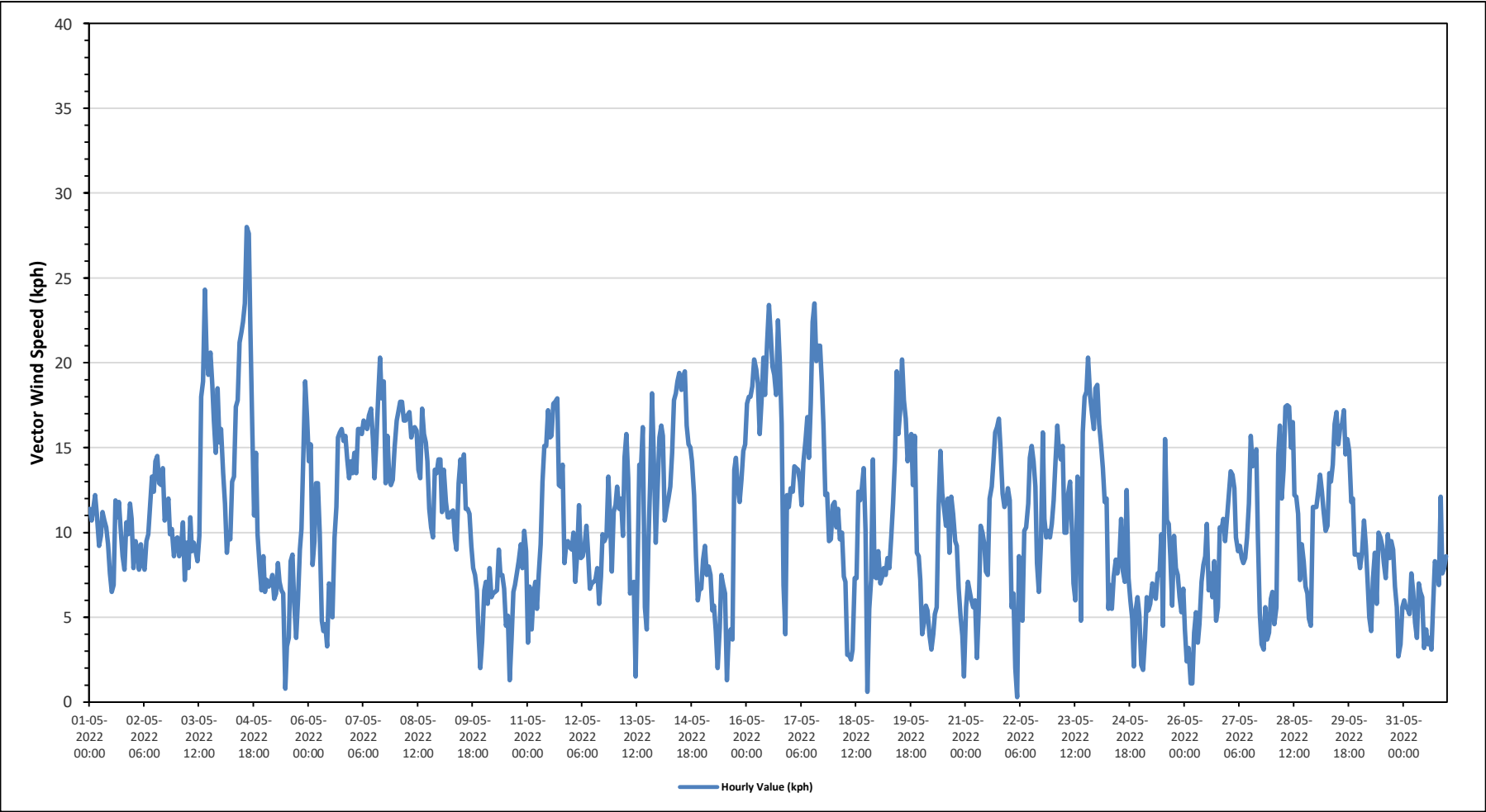
Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	28.0 kph on May 4 at hour 14	Hours in Service:	744
Maximum Daily Value:	15.5 kph on May 7	Hours of Data:	744
Minimum Hourly Value:	0.3 kph on May 22 at hour 4	Hours of Missing Data:	0
Minimum Daily Value:	0.9 kph on May 26	Hours of Calibration:	0
Monthly Average:	0.3 kph	Operational Uptime:	100.0

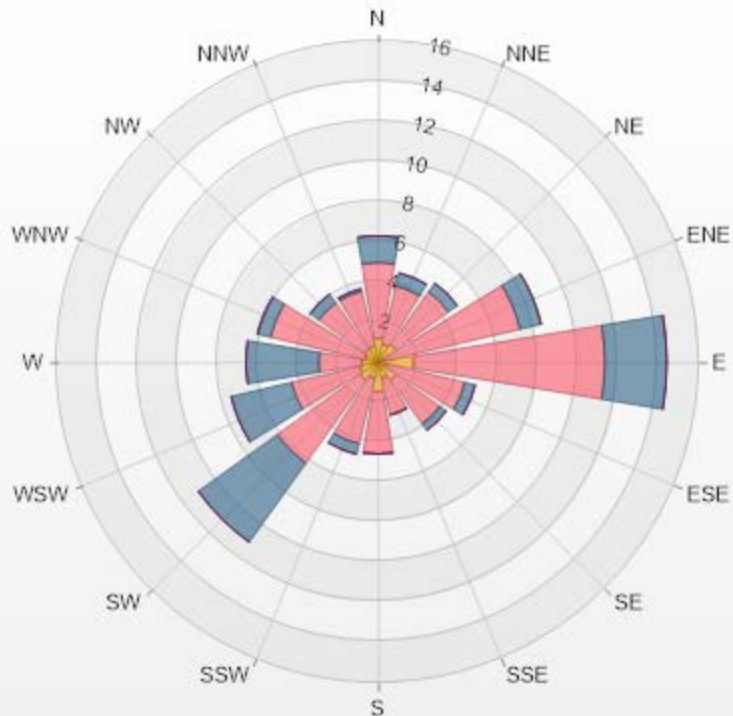
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23
May 1	11.4	10.7	11.5	12.2	11.0	9.2	9.8	11.2	10.7	10.3	9.3	7.6	6.5	6.9	11.9	10.9	11.8	10.1	8.6	7.8	10.6	9.9	11.7	10.8	6.5	12.2	9.8
May 2	7.9	9.5	8.9	7.8	9.3	8.1	7.8	9.5	9.9	11.6	13.3	12.4	14.2	14.5	12.9	12.8	13.8	10.7	11.3	12.0	9.9	10.2	8.6	9.6	7.8	14.5	10.5
May 3	9.7	8.6	9.2	10.6	7.2	9.4	7.9	10.9	8.9	9.4	8.9	8.3	9.8	18.0	18.9	24.3	20.7	19.3	20.6	18.7	16.6	14.7	18.5	15.3	7.2	24.3	9.6
May 4	16.1	13.5	11.7	8.8	10.0	9.6	13.0	13.3	17.4	17.8	21.2	21.8	22.4	23.5	28.0	27.6	21.9	16.2	11.0	14.7	9.9	8.0	6.6	8.6	6.6	28.0	15.2
May 5	6.5	7.2	6.8	7.0	7.5	6.1	6.4	8.2	7.1	6.6	6.4	0.8	3.3	3.8	8.3	8.7	6.0	3.8	6.1	9.0	10.2	14.5	18.9	16.8	0.8	18.9	4.8
May 6	14.2	15.2	8.1	9.5	12.9	12.9	10.0	4.8	4.2	4.6	3.3	7.0	6.7	5.0	9.7	11.5	15.6	15.9	16.1	15.4	15.7	14.3	13.2	14.2	3.3	16.1	5.1
May 7	13.5	14.7	13.5	16.1	16.1	15.8	16.6	16.3	16.1	16.9	17.3	15.5	13.2	15.3	18.0	20.3	17.9	18.9	12.9	15.7	13.1	12.8	13.1	15.0	12.8	20.3	15.5
May 8	16.6	17.1	17.7	17.7	16.6	16.6	16.9	17.1	15.6	16.1	16.2	16.0	13.7	13.2	17.3	15.8	15.3	14.2	11.4	10.3	9.7	13.7	13.5	14.3	9.7	17.7	14.4
May 9	14.3	11.2	13.7	11.8	10.9	10.9	11.2	11.3	9.6	9.0	12.9	14.3	13.0	14.6	11.4	11.4	11.1	9.2	7.9	7.5	6.6	4.1	2.0	3.6	2.0	14.6	9.9
May 10	6.6	7.1	5.8	7.9	6.2	6.4	6.5	6.6	9.0	7.5	7.5	6.7	4.5	5.1	1.3	3.7	6.5	6.9	7.6	8.3	9.3	7.9	10.1	8.9	1.3	10.1	2.7
May 11	3.5	6.8	4.3	6.4	7.1	5.5	7.6	9.3	13.0	15.1	15.1	17.2	15.6	15.7	17.6	17.7	17.9	12.8	12.7	14.0	8.2	9.2	9.5	9.1	3.5	17.9	8.5
May 12	9.0	10.0	7.1	8.7	11.6	8.5	8.6	9.2	10.4	8.9	6.7	7.0	7.1	7.2	7.9	5.8	7.4	9.9	9.5	9.8	13.3	11.0	7.7	11.2	5.8	13.3	6.1
May 13	11.6	12.7	11.4	12.0	9.8	14.4	15.8	13.2	6.4	6.9	7.1	1.5	7.7	14.0	13.7	16.2	5.6	4.3	9.2	13.0	18.2	14.2	9.4	12.6	1.5	18.2	8.1
May 14	15.6	16.3	15.7	10.7	11.4	12.0	12.7	14.7	17.8	18.2	18.9	19.4	18.4	19.2	19.5	16.3	15.2	15.0	14.2	12.2	8.6	6.0	6.7	6.7	6.0	19.5	13.7
May 15	8.4	9.2	7.5	8.0	7.5	5.4	5.7	4.2	2.0	4.4	7.5	6.9	6.4	1.3	3.7	4.3	3.7	13.7	14.4	12.6	11.8	13.1	14.8	15.2	1.3	15.2	4.7
May 16	17.6	18.0	18.0	18.6	20.2	19.6	18.8	15.8	17.8	20.3	18.1	21.2	23.4	21.6	19.8	19.3	18.1	22.5	20.0	16.4	6.9	4.0	12.2	11.5	4.0	23.4	13.7
May 17	12.6	12.4	13.9	13.8	13.7	13.0	11.6	14.1	15.4	16.8	14.4	17.6	22.4	23.5	20.1	21.0	21.0	18.8	16.3	12.2	12.3	9.5	9.6	11.6	9.5	23.5	14.8
May 18	11.8	10.3	11.4	9.6	10.0	7.4	7.1	2.8	2.8	2.5	3.1	7.3	7.3	12.4	11.9	12.6	13.8	10.1	0.6	5.5	7.2	14.3	7.4	7.3	0.6	14.3	4.1
May 19	8.9	7.0	7.4	7.9	7.5	8.5	7.9	9.7	11.7	14.3	19.5	15.8	17.2	20.2	17.8	16.7	14.2	15.4	15.8	12.8	15.7	8.8	8.6	7.2	7.0	20.2	12.1
May 20	4.0	4.7	5.7	5.4	3.9	3.1	4.0	5.2	5.6	11.5	14.8	12.3	11.4	10.4	12.0	8.8	12.1	11.1	9.5	9.2	6.7	5.1	3.9	1.5	1.5	14.8	7.3
May 21	5.6	7.1	6.5	6.0	5.6	6.0	2.6	5.5	10.4	10.0	9.3	7.7	7.5	12.0	12.7	14.1	15.9	16.2	16.7	15.0	12.3	11.5	11.8	12.6	2.6	16.7	8.1
May 22	11.9	5.6	6.4	2.0	0.3	8.6	5.3	4.8	10.1	10.3	11.7	14.4	15.1	14.2	12.7	8.2	6.5	9.4	15.9	10.8	9.7	10.1	9.7	10.5	0.3	15.9	2.4
May 23	11.9	14.2	16.3	14.8	14.3	15.1	10.0	10.0	12.3	13.0	10.2	7.0	6.0	13.3	12.2	4.8	15.9	18.0	18.3	20.3	18.0	17.0	16.1	18.5	4.8	20.3	13.2
May 24	18.7	16.4	15.2	13.8	11.8	12.0	5.5	6.9	5.5	7.4	8.4	7.6	8.3	10.8	7.7	7.1	12.5	7.3	6.0	4.9	2.1	5.4	6.2	5.1	2.1	18.7	1.4
May 25	2.2	1.9	3.7	6.2	5.4	5.8	7.0	6.6	6.1	7.6	7.5	9.9	4.5	15.5	10.7	10.5	8.6	5.7	9.8	7.9	7.5	6.2	5.3	6.7	1.9	15.5	5.4
May 26	4.3	2.4	3.2	1.1	1.1	4.1	5.3	3.5	4.6	7.1	8.1	8.6	10.5	6.6	7.6	6.2	8.3	4.8	5.6	10.3	10.1	10.8	9.5	11.0	1.1	11.0	0.9
May 27	12.2	13.6	13.4	12.6	9.7	8.9	9.2	8.5	8.2	8.5	9.7	11.7	15.7	13.9	14.4	14.9	9.7	5.3	3.4	3.1	5.6	3.7	4.1	6.1	3.1	15.7	7.9
May 28	6.5	4.6	5.6	14.6	16.3	12.0	13.7	17.4	17.5	17.4	15.0	16.5	12.2	12.1	11.1	7.2	9.3	8.3	6.8	6.4	4.9	4.5	11.5	11.5	4.5	17.5	9.0
May 29	11.5	12.4	13.4	12.4	11.3	10.1	10.4	13.5	13.0	14.0	16.4	17.1	15.2	16.2	16.4	17.2	14.6	15.5	14.8	11.8	12.0	8.7	8.7	8.7	8.7	17.2	12.7
May 30	7.9	8.9	10.7	9.2	7.0	5.0	4.2	7.3	8.8	5.8	10.0	9.7	9.2	8.2	7.3	9.9	8.5	9.5	9.0	6.8	5.6	2.7	3.4	5.6	2.7	10.7	6.4
May 31	6.0	5.6	5.5	5.2	7.6	6.5	4.7	3.8	7.0	6.5	6.2	3.2	4.3	3.4	3.8	3.1	6.0	8.3	7.9	6.9	12.1	7.6	7.9	8.6	3.1	12.1	1.1
Diurnal Maximum	19	18	18	19	20	20	19	17	18	20	21	22	23	24	28	28	22	23	21	20	18	17	19	19			
Diurnal Average	10.3	10.2	10.0	9.9	9.7	9.6	9.2	9.5	10.2	10.8	11.4	11.3	11.4	12.6	12.8	12.5	12.4	11.8	11.3	11.0	10.3	9.5	9.7	10.2			
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance										
K	Collection Error							N	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.																											

Timeseries Chart of Hourly Average for VWS - Peace River Complex (PRC) Station



Wind: Peace River Complex [PRC] Monitor: WDS [KPH] Monthly: 05-2022 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 1.21% 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	1.21	3.76	1.34	0	0	6.31
NNE	0.94	2.96	0.67	0	0	4.57
NE	1.08	3.23	0.54	0	0	4.85
ENE	0.27	6.99	1.08	0	0	8.34
E	1.75	9.54	3.09	0	0	14.38
ESE	0.4	4.03	0.54	0	0	4.97
SE	1.08	2.69	0.4	0	0	4.17
SSE	0.81	1.88	0	0	0	2.69
S	1.48	3.09	0	0	0	4.57
SSW	0.81	3.36	0.54	0	0	4.71
SW	1.08	5.11	4.84	0	0	11.03
WSW	0.94	3.49	3.09	0	0	7.52
W	0.81	2.15	3.63	0	0	6.59
WNW	0.67	4.84	0.67	0	0	6.18
NW	0.81	2.82	0.54	0	0	4.17
NNW	0.81	2.82	0.13	0	0	3.76
Summary	14.95	62.76	21.1	0	0	98.81



PRAMP-202205

Page 203 of 276

% Icon Classes (KPH)	15	63	21	0	0
1.8-6.0	15	0	0	0	0
6.0-15.0	0	63	0	0	0
15.0-29.0	0	0	21	0	0
29.0-39.0	0	0	0	0	0
>39.0	0	0	0	0	0



PEACE RIVER AREA MONITORING PROGRAM

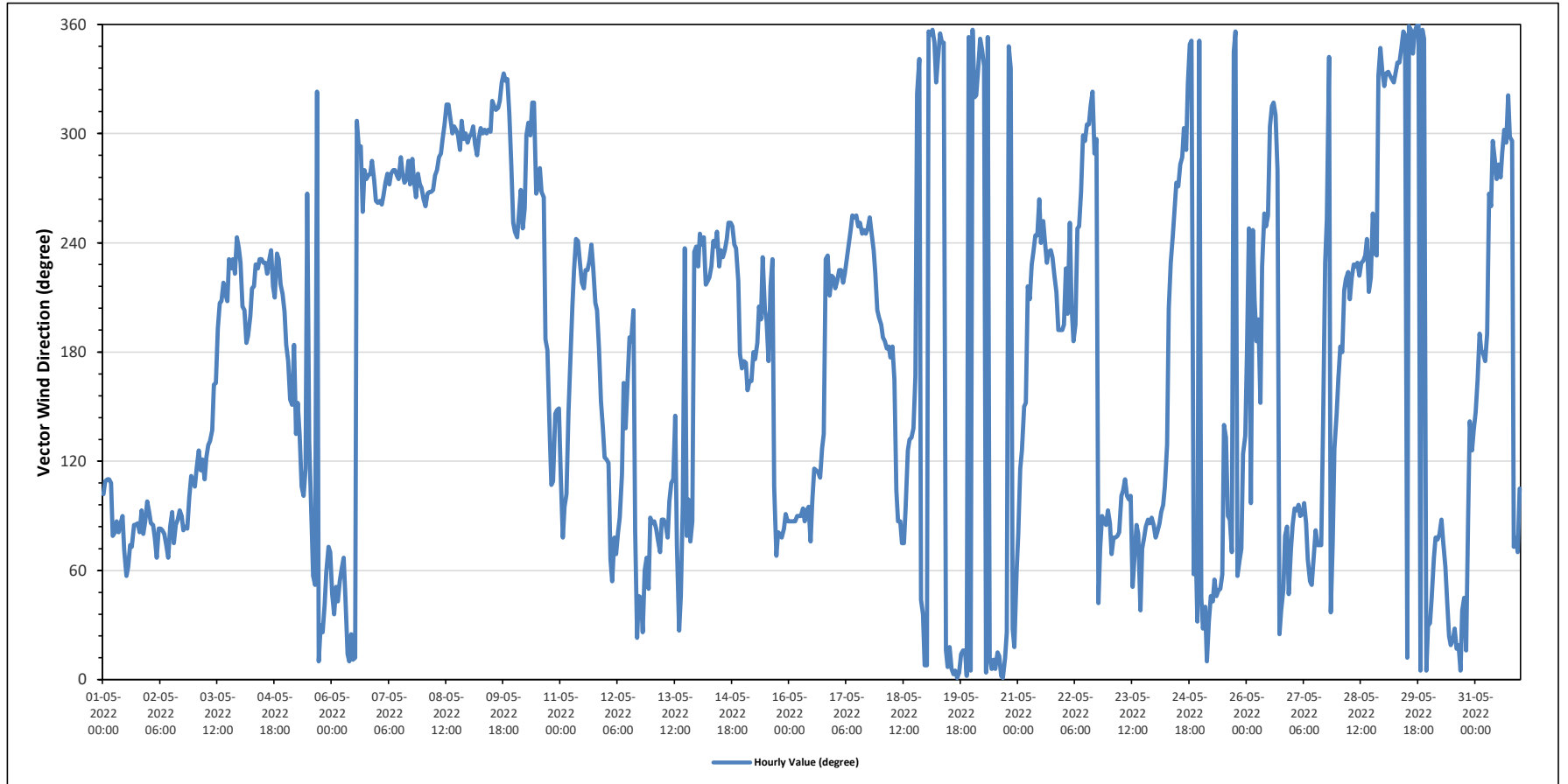
Peace River Complex (PRC) Station - May 2022

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		237 (SW) 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									
May 1	E	ESE	ESE	ESE	ESE	ENE	E	E	E	E	E	ENE	ENE	ENE	ENE	E	E	E	E	E	E	E	E	E	88	E									
May 2	E	E	E	ENE	ENE	E	E	E	E	ENE	ENE	E	E	ENE	E	E	E	E	E	E	E	E	E	E	E	ESE	ESE								
May 3	ESE	ESE	SE	ESE	ESE	ESE	ESE	SE	SE	SE	SSE	SSE	S	SSW	SSW	SW	SSW	SSW	SW	SW	SW	SW	WSW	SW	194	SSW									
May 4	SW	SSW	SSW	S	S	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	222	SW									
May 5	S	S	SSE	SSE	S	SE	SSE	SE	ESE	E	ESE	W	SE	E	ENE	NE	NW	N	NNE	NNE	NE	ENE	ENE	ENE	90	E									
May 6	NE	NE	NE	NE	NE	ENE	ENE	NE	NNE	N	NNE	NNE	NNE	NW	WNW	WNW	WSW	W	W	W	W	WNW	W	W	325	NW									
May 7	W	W	W	W	W	W	W	W	W	W	W	WNW	W	W	W	WNW	W	W	WNW	W	W	W	W	W	274	W									
May 8	W	WSW	W	W	W	W	W	W	WNW	WNW	WNW	WNW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	289	WNW									
May 9	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NNW	NNW	NNW	NNW	NW	W	WSW	307	NW									
May 10	WSW	WSW	WSW	W	WSW	WSW	WNW	NW	WNW	NW	NW	W	W	W	W	S	S	SE	ESE	ESE	SE	SE	SSE	SSE	236	SW									
May 11	ESE	ENE	E	E	SE	S	SSW	SW	WSW	WSW	SW	SSW	SW	SW	SW	SSW	SSW	SSW	SSW	S	SSE	SE	ESE	ESE	208	SSW									
May 12	ESE	ESE	ENE	NE	ENE	ENE	E	E	ESE	SSE	SE	SSE	S	S	SSW	E	NNE	NE	NE	NNE	ENE	ENE	NE	E	88	E									
May 13	E	E	E	ENE	ENE	E	E	E	ENE	E	ESE	ESE	SE	ENE	NNE	NE	E	SW	ENE	E	ENE	E	SW	SW	84	E									
May 14	SW	WSW	WSW	WSW	SW	SW	SW	SW	WSW	WSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	S	S	234	SW								
May 15	S	S	SSE	SSE	SSE	S	S	S	SSW	SSW	SW	SSW	SSW	S	SW	SW	ESE	ENE	E	E	ENE	E	E	E	129	SE									
May 16	E	E	E	E	E	E	E	E	E	E	E	ENE	E	ESE	ESE	ESE	ESE	SE	SE	SW	SSW	SW	SSW	SSW	106	ESE									
May 17	SSW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SSW	SSW	239	WSW								
May 18	SSW	S	S	S	S	S	S	SSE	ESE	E	E	ENE	ENE	E	SE	SE	SE	SE	SSE	NW	NNW	NE	NE	N	131	SE									
May 19	N	N	N	N	N	NNW	NNW	N	N	NNE	N	NNE	N	NNE	N	N	N	N	NNE	NNE	NNE	N	N	N	N	3	N								
May 20	N	NW	NW	NNW	N	NNW	NNW	N	N	NNE	N	NNE	N	NNE	N	N	N	NNE	NNE	NNW	NNW	NNE	NNE	ENE	3	N									
May 21	E	ESE	SE	SSE	SSE	SW	SSW	SW	SW	WSW	WSW	W	WSW	WSW	WSW	SW	SW	SW	SW	SSW	S	S	S	S	219	SW									
May 22	SSW	SW	SSW	WSW	SSW	S	SSW	WSW	WSW	W	WNW	WNW	WNW	NW	NW	WNW	WNW	WNW	NE	ENE	E	E	E	E	295	WNW									
May 23	E	ENE	ENE	ENE	ENE	E	E	ESE	ESE	E	E	E	NE	ENE	E	E	NE	ENE	ENE	E	E	E	E	E	82	E									
May 24	ENE	E	E	E	E	ESE	SE	SSW	SW	WSW	WSW	W	W	WNW	WNW	WNW	NW	NNW	N	ENE	E	NNE	N	39	NE										
May 25	NE	NNE	NE	N	NNE	NE	NE	NE	NE	ENE	SE	SE	E	E	ENE	NNW	N	ENE	ENE	ENE	ENE	ESE	SE	65	ENE										
May 26	S	WSW	E	WSW	SSW	S	SSW	SSE	SW	WSW	WSW	WSW	WNW	NW	NW	NW	W	NNE	NE	NE	ENE	E	NE	ENE	341	NNW									
May 27	E	E	E	E	E	E	E	E	ENE	NE	NE	ENE	E	ENE	ENE	ENE	SE	SW	WSW	NNW	NE	ENE	SE	SE	84	E									
May 28	SSE	S	S	SSW	SW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	WSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	228	SW									
May 29	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	NNE	N	N	NNW	N	N	N	N	N	N	N	N	350	N									
May 30	NNE	NE	ENE	ENE	ENE	E	E	ENE	ENE	NE	NNE	NNE	NNE	NNE	NNE	N	NE	NE	NE	NE	E	SE	SE	SE	47	NE									
May 31	SE	SSE	S	S	S	S	S	W	WSW	WNW	WNW	W	W	W	WNW	WNW	WNW	NW	WNW	WNW	ENE	ENE	ENE	ESE	246	WSW									
C	Monthly Calibration														S	Daily Zero-Span Check														Q	Quality Assurance				
K	Collection Error														N	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.																																			

Timeseries Chart of Hourly Average for VWD - Peace River Complex (PRC) Station





PEACE RIVER AREA MONITORING PROGRAM

Peace River Complex (PRC) Station - May 2022

Summary of Hourly Averages

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

WIND SPEED																												
Maximum Hourly Value:	28.0	kph	on May 4 at hour 14																Hours in Service:	744								
Maximum Daily Value:	15.5	kph	on May 7																Hours of Data:	744								
Minimum Hourly Value:	0.3	kph	on May 22 at hour 4																Hours of Missing Data:	0								
Minimum Daily Value:	0.9	kph	on May 26																Hours of Calibration:	0								
Monthly Average:	0.3	kph																	Operational Uptime:	100								
WIND DIRECTION																												
Monthly Average:	237	(SW)	degree																									
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	
May 1	11.4	10.7	11.5	12.2	11.0	9.2	9.8	11.2	10.7	10.3	9.3	7.6	6.5	6.9	11.9	10.9	11.8	10.1	8.6	7.8	10.6	9.9	11.7	10.8	6.5	12.2	9.8	
	E	ESE	ESE	ESE	ESE	ENE	E	E	E	E	ENE	ENE	ENE	ENE	ENE	ENE	E	E	E	E	E	E	E	E	E	E	E	
May 2	7.9	9.5	8.9	7.8	9.3	8.1	7.8	9.5	9.9	11.6	13.3	12.4	14.2	14.5	12.9	12.8	13.8	10.7	11.3	12.0	9.9	10.2	8.6	9.6	7.8	14.5	10.5	
	E	E	E	ENE	ENE	E	E	E	E	ENE	ENE	E	E	ENE	E	E	E	E	E	E	E	E	E	ESE	ESE	ESE	ESE	
May 3	9.7	8.6	9.2	10.6	7.2	9.4	7.9	10.9	8.9	9.4	8.9	8.3	9.8	18.0	18.9	24.3	20.7	19.3	20.6	18.7	16.6	14.7	18.5	15.3	7.2	24.3	9.6	
	ESE	ESE	SE	ESE	ESE	ESE	SE	SE	SE	SE	SSE	SSE	S	SSW	SSW	SW	SSW	SSW	SW	SW	SW	SW	WSW	SW	7.2	24.3	9.6	
May 4	16.1	13.5	11.7	8.8	10.0	9.6	13.0	13.3	17.4	17.8	21.2	21.8	22.4	23.5	28.0	27.6	21.9	16.2	11.0	14.7	9.9	8.0	6.6	8.6	6.6	28.0	15.2	
	SW	SSW	SSW	S	S	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SW	SSW	SW	SW	SSW	SSW	SSW	6.6	28.0	15.2	
May 5	6.5	7.2	6.8	7.0	7.5	6.1	6.4	8.2	7.1	6.6	6.4	0.8	3.3	3.8	8.3	8.7	6.0	3.8	6.1	9.0	10.2	14.5	18.9	16.8	0.8	18.9	4.8	
	S	S	SSE	SSE	S	SE	SSE	SE	ESE	E	ESE	W	SE	E	ENE	NW	N	NNE	NNE	NE	ENE	ENE	ENE	ENE	0.8	18.9	4.8	
May 6	14.2	15.2	8.1	9.5	12.9	12.9	10.0	4.8	4.2	4.6	3.3	7.0	6.7	5.0	9.7	11.5	15.6	15.9	16.1	15.4	15.7	14.3	13.2	14.2	3.3	16.1	5.1	
	NE	NE	NE	NE	ENE	ENE	NE	NNE	N	NNE	NNE	NNE	NW	WNW	WNW	WSW	W	W	W	W	W	WNW	W	W	3.3	16.1	5.1	
May 7	13.5	14.7	13.5	16.1	16.1	15.8	16.6	16.3	16.1	16.9	17.3	15.5	13.2	15.3	18.0	20.3	17.9	18.9	12.9	15.7	13.1	12.8	13.1	15.0	12.8	20.3	15.5	
	W	W	W	W	W	W	W	W	W	W	W	W	WNW	W	W	W	WNW	W	WNW	W	W	W	W	W	12.8	20.3	15.5	
May 8	16.6	17.1	17.7	17.7	16.6	16.6	16.9	17.1	15.6	16.1	16.2	16.0	13.7	13.2	17.3	15.8	15.3	14.2	11.4	10.3	9.7	13.7	13.5	14.3	9.7	17.7	14.4	
	W	WSW	W	W	W	W	W	W	W	WNW	WNW	WNW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	WNW	9.7	17.7	14.4	
May 9	14.3	11.2	13.7	11.8	10.9	10.9	11.2	11.3	9.6	9.0	12.9	14.3	13.0	14.6	11.4	11.4	11.1	9.2	7.9	7.5	6.6	4.1	2.0	3.6	2.0	14.6	9.9	
	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	WNW	NNW	NNW	NNW	NNW	NW	W	WSW	W	2.0	14.6	9.9	
May 10	6.6	7.1	5.8	7.9	6.2	6.4	6.5	6.6	9.0	7.5	7.5	6.7	4.5	5.1	1.3	3.7	6.5	6.9	7.6	8.3	9.3	7.9	10.1	8.9	1.3	10.1	2.7	
	WSW	WSW	WSW	W	WSW	WSW	WNW	NW	WNW	NW	NW	W	W	W	W	W	S	S	SE	ESE	SE	SSE	SSE	W	1.3	10.1	2.7	
May 11	3.5	6.8	4.3	6.4	7.1	5.5	7.6	9.3	13.0	15.1	15.1	17.2	15.6	15.7	17.6	17.7	17.9	12.8	12.7	14.0	8.2	9.2	9.5	9.1	3.5	17.9	8.5	
	ESE	ENE	E	E	SE	S	SSW	SW	WSW	WSW	SW	SW	SSW	SW	SW	SW	WSW	SW	SSW	SSW	S	SSE	SE	ESE	3.5	17.9	8.5	
May 12	9.0	10.0	7.1	8.7	11.6	8.5	8.6	9.2	10.4	8.9	6.7	7.0	7.1	7.2	7.9	5.8	7.4	9.9	9.5	9.8	13.3	11.0	7.7	11.2	5.8	13.3	6.1	
	ESE	ESE	ENE	NE	ENE	ENE	E	ESE	SSE	SE	SSE	S	S	SSW	E	NNE	NE	NE	NNE	ENE	ENE	NE	E	E	5.8	13.3	6.1	
May 13	11.6	12.7	11.4	12.0	9.8	14.4	15.8	13.2	6.4	6.9	7.1	1.5	7.7	14.0	13.7	16.2	5.6	4.3	9.2	13.0	18.2	14.2	9.4	12.6	1.5	18.2	8.1	
	E	E	E	ENE	ENE	E	E	ENE	E	ESE	ESE	SE	ENE	NE	NE	NE	E	SW	ENE	E	ENE	E	SW	SW	1.5	18.2	8.1	
May 14	15.6	16.3	15.7	10.7	11.4	12.0	12.7	14.7	17.8	18.2	18.9	19.4	18.4	19.2	19.5	16.3	15.2	15.0	14.2	12.2	8.6	6.0	6.7	6.7	6.0	19.5	13.7	
	SW	WSW	WSW	WSW	SW	SW	SW	SW	WSW	SW	WSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	S	S	6.0	19.5	13.7
May 15	8.4	9.2	7.5	8.0	7.5	5.4	5.7	4.2	2.0	4.4	7.5	6.9	6.4	1.3	3.7	4.3	3.7	13.7	14.4	12.6	11.8	13.1	14.8	15.2	1.3	15.2	4.7	
	S	S	SSE	SSE	SSE	S	S	S	SSW	SSW	SW	SSW	SSW	S	SW	SW	ESE	ENE	E	E	ENE	E	E	E	1.3	15.2	4.7	
May 16	17.6	18.0	18.0	18.6	20.2	19.6	18.8	15.8	17.8	20.3	18.1	21.2	23.4	21.6	19.8	19.3	18.1	22.5	20.0	16.4	6.9	4.0	12.2	11.5	4.0	23.4	13.7	
	E	E	E	E	E	E	E	E	E	E	E	ENE	E	ESE	ESE	SE	SE	SW	SSW	SW	SW	SSW	SW	SW	4.0	23.4	13.7	
May 17	12.6	12.4	13.9	13.8	13.7	13.0	11.6	14.1	15.4	16.8	14.4	17.6	22.4	23.5	20.1	21.0	21.0	18.8	16.3	12.2	12.3	9.5	9.6	11.6	9.5	23.5	14.8	
	SSW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	11.6	23.5	14.8	
May 18	11.8	10.3	11.4	9.6	10.0	7.4	7.1	2.8	2.8	2.5	3.1	7.3	7.3	12.4	11.9	12.6	13.8	10.1	0.6	5.5	7.2	14.3	7.4	7.3	0.6	14.3	4.1	
	SSW	S	S	S	S	S	SSE	ESE	E	E	ENE	ENE	E	SE	SE	SE	SE	SE	SE	SE	NW	NNW	NE	NE	0.6	14.3	4.1	
May 19	8.9	7.0	7.4	7.9	7.5	8.5	7.9	9.7	11.7	14.3	19.5	15.8	17.2	20.2	17.8	16.7	14.2	15.4	15.8	12.8	15.7	8.8	8.6	7.2	7.0	20.2	12.1	
	N	N	N	N	N	NNW	NNW	N	N	N	NNE	N	NNE	N	N	N	N	N	NNE	NNE	NNE	N	N	N	7.2	20.2	12.1	
May 20	4.0	4.7	5.7	5.4	3.9	3.1	4.0	5.2	5.6	11.5	14.8	12.3	11.4	10.4	12.0	8.8	12.1	11.1	9.5	9.2	6.7	5.1	3.9	1.5	1.5	14.8	7.3	
	N	NW	NW	NNW	N	NNW	NNW	N	N	NNE	N	NNE	N	NNE	NNE	N	N	NNE	NNE	NNW	NNW	NNE	NNE	ENE	1.5	14.8	7.3	



PEACE RIVER AREA MONITORING PROGRAM

Peace River Complex (PRC) Station - May 2022

Summary of Hourly Averages

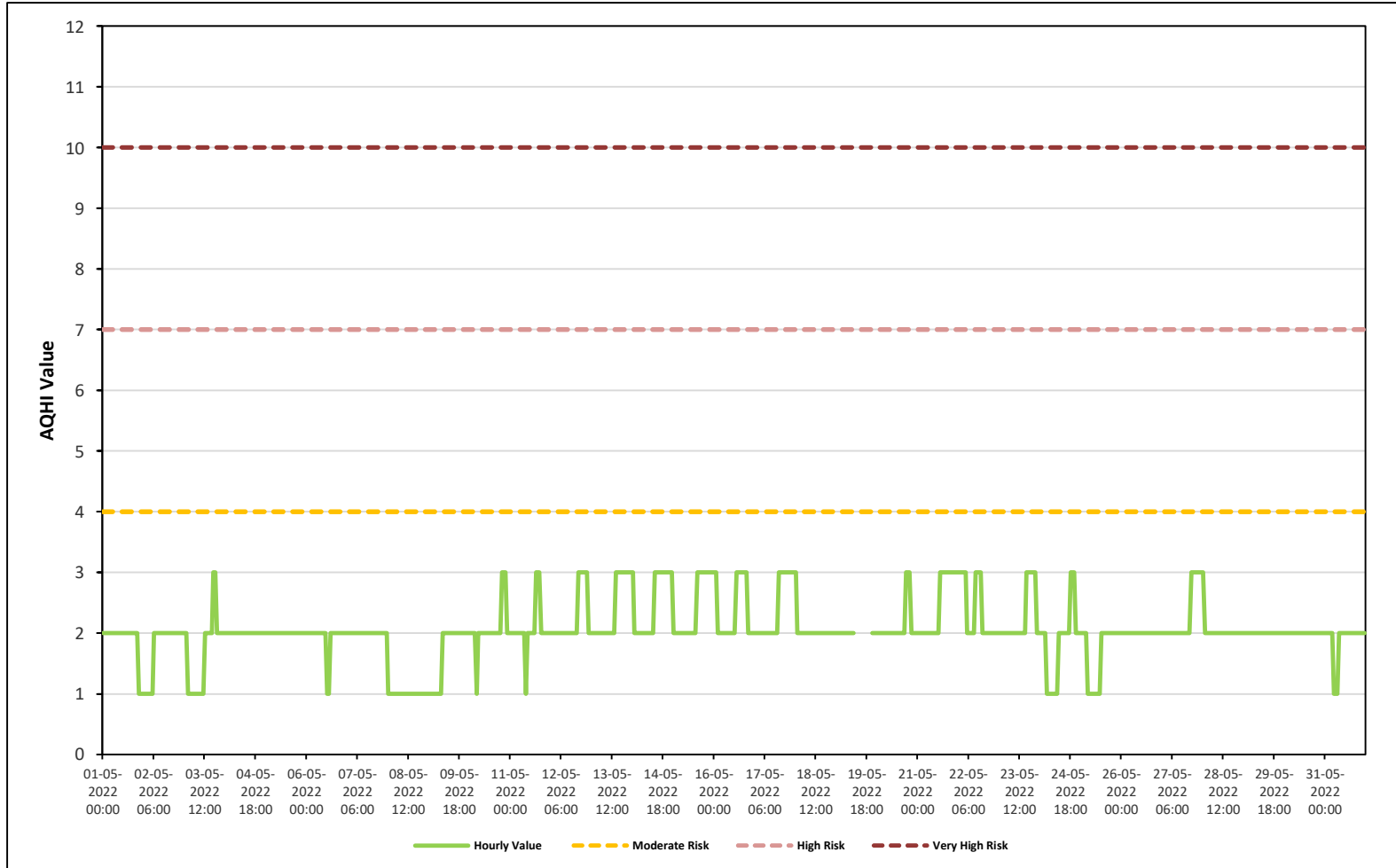
VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED		WIND DIRECTION																																																																																														
Maximum Hourly Value:	28.0 kph on May 4 at hour 14	Hours in Service:	744																																																																																													
Maximum Daily Value:	15.5 kph on May 7	Hours of Data:	744																																																																																													
Minimum Hourly Value:	0.3 kph on May 22 at hour 4	Hours of Missing Data:	0																																																																																													
Minimum Daily Value:	0.9 kph on May 26	Hours of Calibration:	0																																																																																													
Monthly Average:	0.3 kph	Operational Uptime:	100																																																																																													
Monthly Average: 237 (SW) degree																																																																																																
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average																																																																						
May 21	5.6	7.1	6.5	6.0	5.6	6.0	2.6	5.5	10.4	10.0	9.3	7.7	7.5	12.0	12.7	14.1	15.9	16.2	16.7	15.0	12.3	11.5	11.8	12.6	2.6	16.7	8.1																																																																					
May 22	E	ESE	SE	SSE	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	0.3	15.9	2.4																																																																					
May 23	11.9	5.6	6.4	2.0	0.3	8.6	5.3	4.8	10.1	10.3	11.7	14.4	15.1	14.2	12.7	8.2	6.5	9.4	15.9	10.8	9.7	10.1	9.7	10.5	4.8	20.3	13.2																																																																					
May 24	SSW	SW	SSW	WSW	SSW	S	SSW	WSW	WSW	W	WNW	WNW	WNW	WNW	NW	NW	WNW	WNW	NE	ENE	E	E	E	E	2.1	18.7	1.4																																																																					
May 25	11.9	14.2	16.3	14.8	14.3	15.1	10.0	10.0	12.3	13.0	10.2	7.0	6.0	13.3	12.2	4.8	15.9	18.0	18.3	20.3	18.0	17.0	16.1	18.5	1.9	15.5	5.4																																																																					
May 26	E	ENE	ENE	ENE	ENE	E	E	ESE	ESE	E	E	E	NE	ENE	E	E	NE	ENE	ENE	E	E	E	E	E	1.1	11.0	0.9																																																																					
May 27	18.7	16.4	15.2	13.8	11.8	12.0	5.5	6.9	5.5	7.4	8.4	7.6	8.3	10.8	7.7	7.1	12.5	7.3	6.0	4.9	2.1	5.4	6.2	5.1	3.1	15.7	7.9																																																																					
May 28	ENE	E	E	E	E	ESE	SE	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	4.5	17.5	9.0																																																																					
May 29	2.2	1.9	3.7	6.2	5.4	5.8	7.0	6.6	6.1	7.6	7.5	9.9	4.5	15.5	10.7	10.5	8.6	5.7	9.8	7.9	7.5	6.2	5.3	6.7	8.7	17.2	12.7																																																																					
May 30	NE	NNE	NE	N	NNE	NE	NE	NE	NE	NE	NE	NE	ENE	SE	SE	E	E	ENE	NNW	N	ENE	ENE	ENE	ESE	SE	2.7	10.7	6.4																																																																				
May 31	4.3	2.4	3.2	1.1	1.1	4.1	5.3	3.5	4.6	7.1	8.1	8.6	10.5	6.6	7.6	6.2	8.3	4.8	5.6	10.3	10.1	10.8	9.5	11.0	3.1	12.1	1.1																																																																					
May 31	S	WSW	E	WSW	SSW	S	SSW	SSE	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	6.0	5.6	5.5																																																																					
May 31	12.2	13.6	13.4	12.6	9.7	8.9	9.2	8.5	8.2	8.5	9.7	11.7	15.7	13.9	14.4	14.9	9.7	5.3	3.4	3.1	5.6	3.7	4.1	6.1	SE	SSE	S																																																																					
May 31	E	E	E	E	E	E	E	E	ENE	NE	NE	ENE	E	ENE	ENE	ENE	SE	SW	WSW	NNW	NE	ENE	SE	SE	SE	SSE	S																																																																					
May 31	6.5	4.6	5.6	14.6	16.3	12.0	13.7	17.4	17.5	17.4	15.0	16.5	12.2	12.1	11.1	7.2	9.3	8.3	6.8	6.4	4.9	4.5	11.5	11.5	SE	SSE	S																																																																					
May 31	11.5	12.4	13.4	12.4	11.3	10.1	10.4	13.5	13.0	14.0	16.4	17.1	15.2	16.2	16.4	17.2	14.6	15.5	14.8	11.8	12.0	8.7	8.7	8.7	SE	SSE	S																																																																					
May 31	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	SE	SSE	S																																																																					
May 31	7.9	8.9	10.7	9.2	7.0	5.0	4.2	7.3	8.8	5.8	10.0	9.7	9.2	8.2	7.3	9.9	8.5	9.5	9.0	6.8	5.6	2.7	3.4	5.6	SE	SSE	S																																																																					
May 31	NNE	NE	ENE	ENE	ENE	E	E	ENE	ENE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	SE	SSE	S																																																																					
May 31	6.0	5.6	5.5	5.2	7.6	6.5	4.7	3.8	7.0	6.5	6.2	3.2	4.3	3.4	3.8	3.1	6.0	8.3	7.9	6.9	12.1	7.6	7.9	8.6	SE	SSE	S																																																																					
May 31	SE	SSE	S	S	S	S	S	W	WSW	WNW	WNW	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SE	SSE	S																																																																					
May 31	C	Monthly Calibration																							S	Daily Zero-Span Check																							Q	Quality Assurance																																														
May 31	K	Collection Error																							N	No Data (Machine Not in Service)																							Y	Routine Maintenance																							P	Power Failure																						
May 31	X	Invalid Data (Equipment Malfunction/Recovery)																							NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																																																																						

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

AQHI GRIMSHAW STATION

Timeseries Chart of Hourly Average for AQHI - AQHI - Grimshaw Station





PEACE RIVER AREA MONITORING PROGRAM

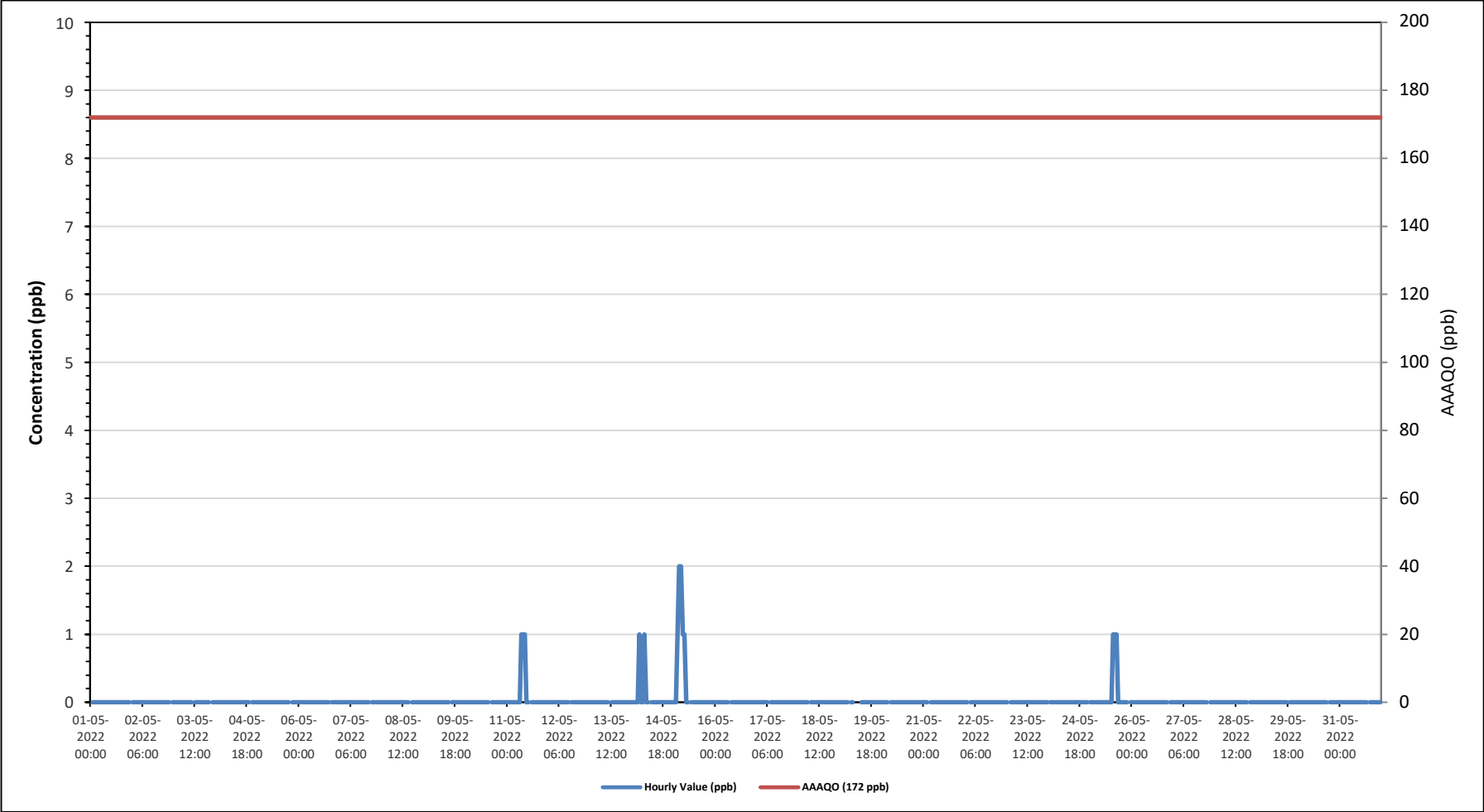
AQHI - Grimshaw Station - May 2022

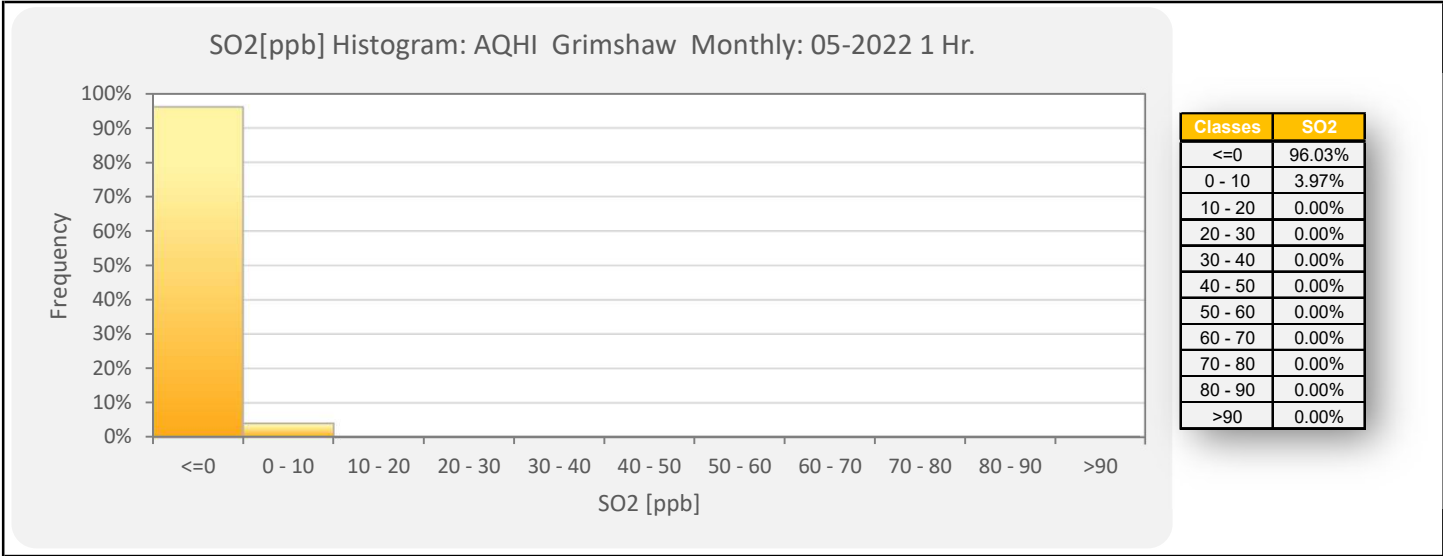
Summary of Hourly Averages

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 May 15 at hour 3												Hours in Service: 744														
Maximum Daily Value: 0.3 ppb on May 15												Hours of Data: 706														
Minimum Hourly Value: 0 ppb on May 1 at hour 1												Hours of Missing Data: 1														
Minimum Daily Value: 0.0 ppb on May 1												Hours of Calibration: 37														
Monthly Average: 0.0 ppb												Operational Uptime: 99.9														
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
May 1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0
May 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
May 3	0	0	0	0	0	0	0	0	0	0	0	X	0	0	0	0	0	0	0	0	0	S	0	0	0.0	
May 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0	
May 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0.0	
May 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0	
May 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0.0	
May 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0.0	
May 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0	0.0	
May 10	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0	0	0.0	
May 11	0	0	0	0	0	0	0	0	1	1	1	0	0	S	S	0	0	0	0	0	0	0	0	0	1	0.1
May 12	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0	0	0	0	0.0
May 13	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 14	0	0	0	0	1	0	0	1	0	0	S	S	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
May 15	0	0	1	2	2	1	1	0	0	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3
May 16	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 17	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 18	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 19	0	0	0	0	0	S	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 20	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 21	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 22	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 23	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
May 24	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0
May 25	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	S	0	1	0.1
May 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
May 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
May 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0.0
May 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
May 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	S	0	0	0	0	0	0	0.0
May 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum	0	0	1	2	2	1	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	
Diurnal Average	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	
C	Monthly Calibration										S	Daily Zero-Span Check										Q	Quality Assurance			
K	Collection Error										N	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.																										

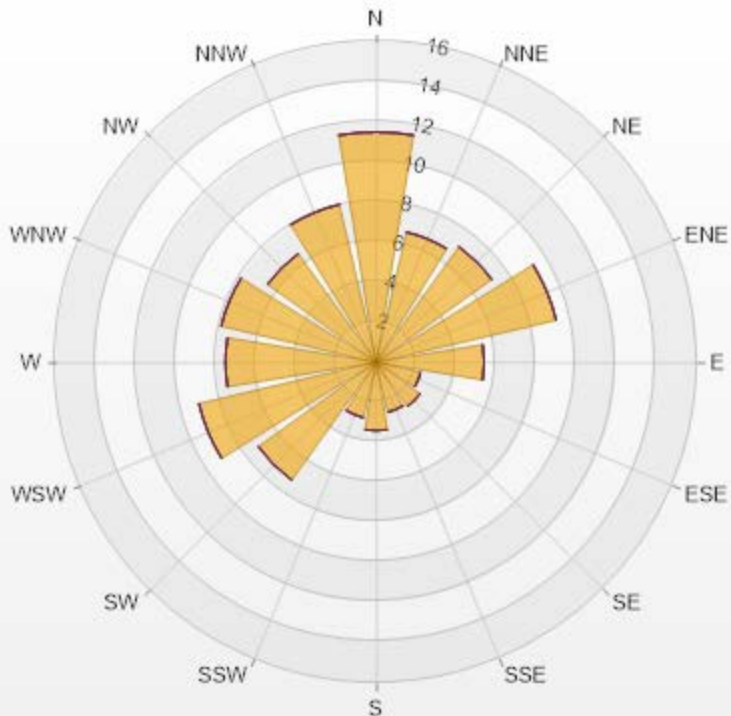
Timeseries Chart of Hourly Average for SO2 - AQHI - Grimshaw Station





Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-SO2[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	11.47	0	0	0	0	11.47
NNE	6.66	0	0	0	0	6.66
NE	7.08	0	0	0	0	7.08
ENE	9.21	0	0	0	0	9.21
E	5.38	0	0	0	0	5.38
ESE	2.27	0	0	0	0	2.27
SE	2.69	0	0	0	0	2.69
SSE	2.55	0	0	0	0	2.55
S	3.4	0	0	0	0	3.4
SSW	2.83	0	0	0	0	2.83
SW	7.22	0	0	0	0	7.22
WSW	9.07	0	0	0	0	9.07
W	7.51	0	0	0	0	7.51
WNW	7.93	0	0	0	0	7.93
NW	6.66	0	0	0	0	6.66
NNW	8.07	0	0	0	0	8.07
Summary	100	0	0	0	0	100



PRAMP-202205

Page 214 of 276

% Icon Classes (ppb)

100 0-10

0 10-50

0 50-100

0 100-172

0 >172.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

TOTAL REDUCED SULPHUR (TRS) in ppb

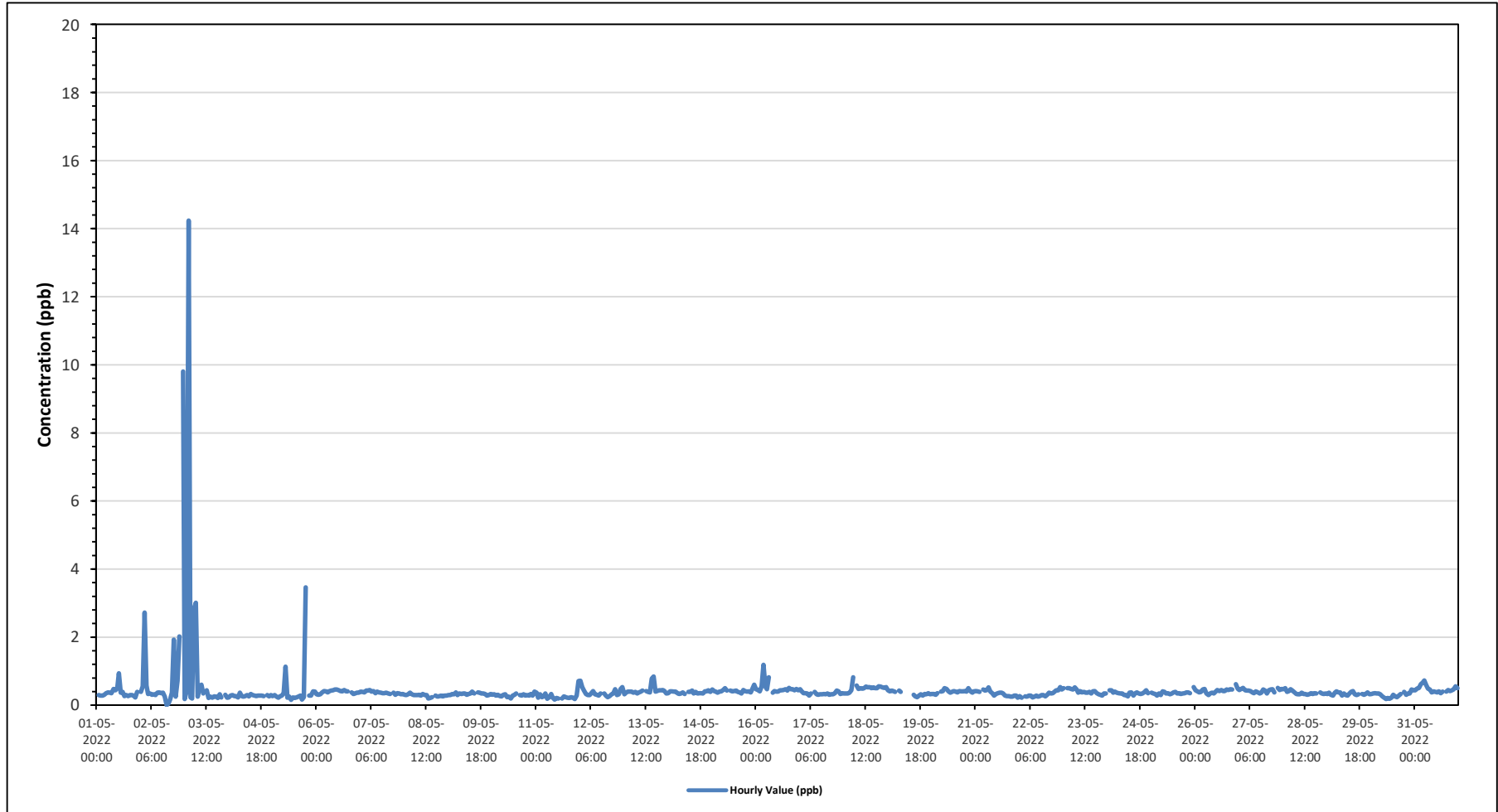
Maximum Hourly Value:	14.24 ppb on May 3 at hour 2	Hours in Service:	744
Maximum Daily Value:	1.17 ppb on May 3	Hours of Data:	704
Minimum Hourly Value:	0.00 ppb on May 2 at hour 14	Hours of Missing Data:	1
Minimum Daily Value:	0.26 ppb on May 11	Hours of Calibration:	39
Monthly Average:	0.42 ppb	Operational Uptime:	99.9

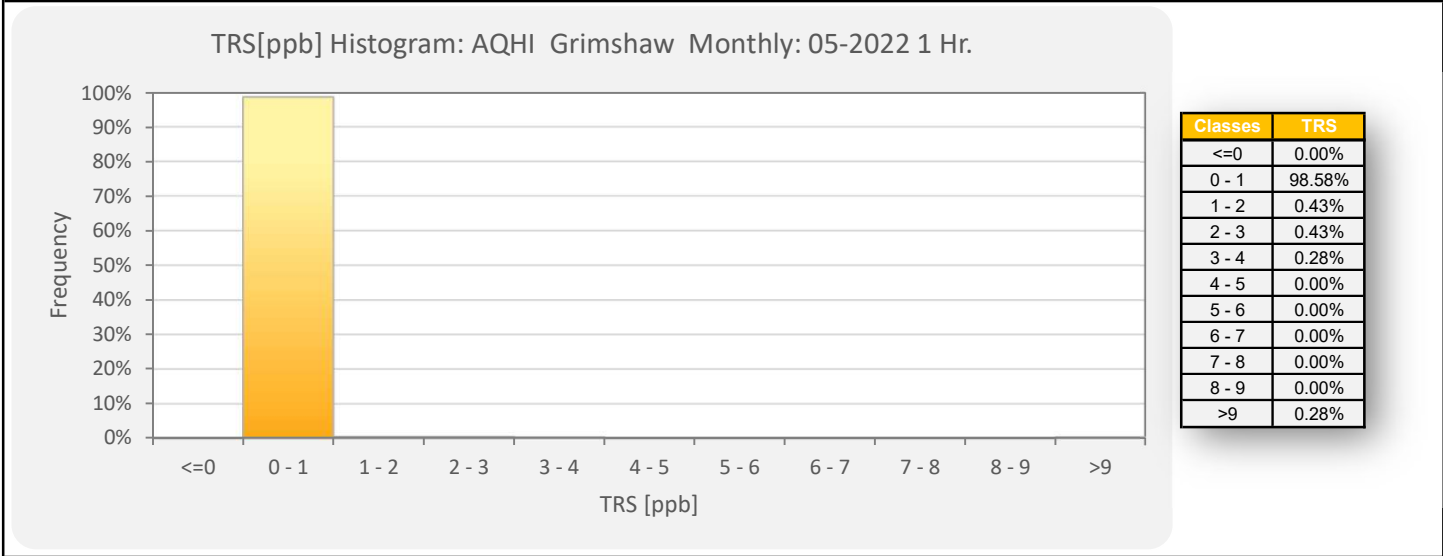
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
May 1	S	0.3	0.29	0.29	0.31	0.36	0.38	0.37	0.36	0.48	0.44	0.5	0.94	0.37	0.39	0.27	0.3	0.27	0.3	0.3	0.28	0.23	0.39	S	0.23	0.94	0.37
May 2	0.39	0.56	2.72	0.58	0.33	0.35	0.31	0.32	0.3	0.37	0.38	0.36	0.37	0.25	0	0.05	0.17	0.37	1.93	0.25	0.72	2.02	S	9.81	0.00	9.81	1.00
May 3	0.18	0.41	14.24	0.23	0.2	2.83	3.01	0.25	0.5	0.6	0.35	X	0.44	0.21	0.25	0.22	0.26	0.25	0.21	0.32	0.23	S	0.31	0.22	0.18	14.24	1.17
May 4	0.23	0.29	0.3	0.27	0.27	0.23	0.37	0.27	0.25	0.27	0.3	0.26	0.33	0.3	0.28	0.27	0.28	0.28	0.29	0.27	S	0.3	0.26	0.3	0.23	0.37	0.28
May 5	0.27	0.3	0.25	0.22	0.26	0.28	0.35	1.13	0.22	0.25	0.16	0.23	0.21	0.23	0.25	0.29	0.17	0.24	3.46	S	0.28	0.28	0.41	0.4	0.16	3.46	0.44
May 6	0.32	0.31	0.32	0.38	0.42	0.41	0.38	0.42	0.43	0.44	0.46	0.46	0.44	0.42	0.41	0.45	0.41	0.41	S	0.38	0.33	0.34	0.37	0.37	0.31	0.46	0.39
May 7	0.4	0.39	0.38	0.43	0.43	0.45	0.4	0.42	0.36	0.4	0.38	0.37	0.36	0.36	0.37	0.34	0.33	S	0.37	0.31	0.36	0.34	0.32	0.33	0.31	0.45	0.37
May 8	0.31	0.3	0.32	0.37	0.32	0.3	0.3	0.3	0.31	0.29	0.33	0.3	0.3	0.2	0.21	0.24	S	0.28	0.25	0.27	0.28	0.26	0.28	0.28	0.20	0.37	0.29
May 9	0.3	0.3	0.33	0.32	0.38	0.3	0.34	0.33	0.35	0.35	0.31	0.33	0.34	0.4	0.35	S	0.38	0.37	0.35	0.35	0.33	0.29	0.3	0.33	0.29	0.40	0.34
May 10	0.31	0.32	0.29	0.31	0.27	0.26	0.31	0.32	0.24	0.25	0.2	0.28	0.31	0.35	S	0.3	0.28	0.32	0.29	0.3	0.28	0.33	0.29	0.4	0.20	0.40	0.30
May 11	0.37	0.22	0.32	0.24	0.26	0.35	0.19	0.24	0.33	0.22	0.17	0.21	0.2	S	0.2	0.26	0.24	0.22	0.21	0.24	0.22	0.18	0.29	0.71	0.17	0.71	0.26
May 12	0.72	0.53	0.44	0.33	0.3	0.3	0.36	0.42	0.32	0.31	0.29	0.35	S	0.35	0.28	0.24	0.27	0.32	0.34	0.47	0.3	0.32	0.47	0.53	0.24	0.72	0.37
May 13	0.32	0.38	0.4	0.4	0.4	0.37	0.39	0.34	0.38	0.4	0.43	S	0.42	0.39	0.38	0.78	0.84	0.4	0.42	0.44	0.44	0.45	0.42	0.35	0.32	0.84	0.43
May 14	0.36	0.41	0.41	0.4	0.4	0.36	0.33	0.35	0.38	0.33	S	0.39	0.39	0.43	0.34	0.39	0.34	0.36	0.36	0.35	0.41	0.41	0.44	0.39	0.33	0.44	0.38
May 15	0.46	0.42	0.4	0.37	0.4	0.41	0.45	0.5	0.43	S	0.43	0.41	0.42	0.43	0.39	0.38	0.34	0.45	0.42	0.4	0.41	0.38	0.48	0.6	0.34	0.60	0.43
May 16	0.47	0.45	0.41	0.56	1.19	0.55	0.47	0.82	S	0.37	0.42	0.4	0.4	0.44	0.44	0.45	0.47	0.43	0.51	0.47	0.47	0.44	0.48	0.44	0.37	1.19	0.50
May 17	0.47	0.4	0.36	0.36	0.34	0.29	0.34	S	0.39	0.32	0.31	0.32	0.32	0.33	0.32	0.34	0.31	0.32	0.32	0.36	0.43	0.41	0.33	0.36	0.29	0.47	0.35
May 18	0.35	0.35	0.34	0.37	0.44	0.82	S	0.58	0.48	0.5	0.49	0.5	0.55	0.52	0.54	0.5	0.52	0.5	0.5	0.56	0.55	0.52	0.51	0.54	0.34	0.82	0.50
May 19	0.44	0.41	0.43	0.42	0.39	S	0.43	0.39	C	C	C	C	C	C	C	0.31	0.26	0.24	0.29	0.32	0.28	0.33	0.32	0.36	0.32	0.44	-
May 20	0.33	0.33	0.31	0.36	S	0.4	0.42	0.5	0.48	0.41	0.37	0.39	0.42	0.4	0.38	0.42	0.41	0.41	0.42	0.4	0.5	0.42	0.37	0.41	0.31	0.50	0.40
May 21	0.42	0.41	0.39	S	0.46	0.43	0.45	0.52	0.4	0.36	0.29	0.33	0.36	0.37	0.37	0.34	0.28	0.27	0.27	0.25	0.25	0.29	0.28	0.22	0.22	0.52	0.35
May 22	0.27	0.22	S	0.26	0.25	0.29	0.28	0.23	0.25	0.29	0.25	0.27	0.3	0.3	0.26	0.31	0.37	0.34	0.36	0.39	0.44	0.44	0.54	0.46	0.22	0.54	0.32
May 23	0.5	S	0.5	0.5	0.48	0.46	0.52	0.46	0.37	0.42	0.38	0.39	0.37	0.37	0.39	0.34	0.41	0.42	0.36	0.32	0.31	0.29	0.34	0.34	0.29	0.52	0.40
May 24	S	0.44	0.44	0.37	0.4	0.37	0.36	0.35	0.34	0.3	0.3	0.26	0.37	0.38	0.29	0.36	0.38	0.34	0.33	0.34	0.38	0.44	0.36	S	0.26	0.44	0.36
May 25	0.37	0.34	0.33	0.28	0.34	0.3	0.41	0.39	0.34	0.36	0.32	0.35	0.38	0.39	0.34	0.36	0.33	0.35	0.36	0.38	0.38	0.36	S	0.53	0.28	0.53	0.36
May 26	0.44	0.41	0.38	0.39	0.46	0.48	0.34	0.3	0.34	0.37	0.34	0.4	0.45	0.42	0.45	0.42	0.42	0.46	0.45	0.47	0.46	S	0.62	0.49	0.30	0.62	0.42
May 27	0.45	0.48	0.51	0.44	0.43	0.43	0.42	0.38	0.36	0.41	0.38	0.35	0.37	0.46	0.43	0.34	0.44	0.46	0.47	0.38	S	0.51	0.45	0.48	0.34	0.51	0.43
May 28	0.47	0.5	0.39	0.42	0.47	0.43	0.38	0.33	0.32	0.32	0.37	0.33	0.33	0.31	0.32	0.36	0.33	0.36	0.34	S	0.38	0.34	0.33	0.35	0.31	0.50	0.37
May 29	0.33	0.37	0.31	0.29	0.37	0.41	0.38	0.38	0.29	0.35	0.3	0.29	0.34	0.39	0.42	0.32	0.3	0.32	S	0.33	0.31	0.33	0.38	0.32	0.29	0.42	0.34
May 30	0.33	0.35	0.36	0.34	0.35	0.32	0.26	0.22	0.18	0.21	0.19	0.22	0.31	0.26	0.24	0.28	0.33	S	0.39	0.31	0.35	0.35	0.46	0.44	0.18	0.46	0.31
May 31	0.44	0.49	0.51	0.62	0.67	0.73	0.59	0.49	0.46	0.38	0.41	0.39	0.38	0.41	0.36	0.4	S	0.4	0.45	0.42	0.44	0.46	0.56	0.5	0.36	0.73	0.48
Diurnal Maximum	0.72	0.56	14.24	0.62	1.19	2.83	3.01	1.13	0.50	0.60	0.49	0.50	0.94	0.52	0.54	0.78	0.84	0.50	3.46	0.56	0.72	2.02	0.62	9.81			
Diurnal Average	0.38	0.38	0.91	0.37	0.40	0.48	0.46	0.41	0.35	0.36	0.34	0.34	0.38	0.36	0.33	0.34	0.35	0.35	0.52	0.36	0.37	0.42	0.39	0.73			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

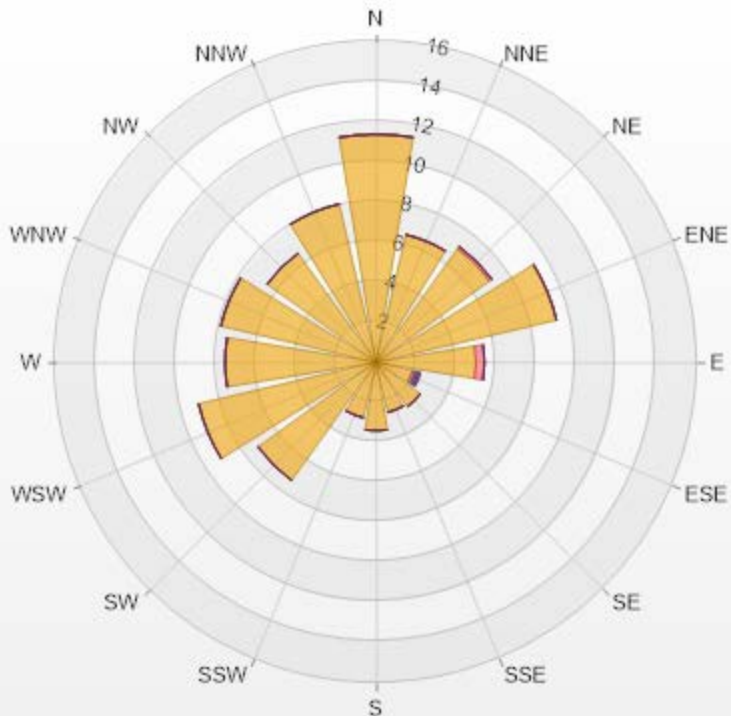
Timeseries Chart of Hourly Average for TRS - AQHI - Grimshaw Station





Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-TRS[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.62% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	11.36	0	0	0	0	11.36
NNE	6.53	0	0	0	0	6.53
NE	6.96	0.14	0	0	0	7.1
ENE	9.23	0	0	0	0	9.23
E	4.97	0.43	0	0	0	5.4
ESE	1.85	0.14	0.14	0.14	0	2.27
SE	2.7	0	0	0	0	2.7
SSE	2.56	0	0	0	0	2.56
S	3.41	0	0	0	0	3.41
SSW	2.84	0	0	0	0	2.84
SW	7.24	0	0	0	0	7.24
WSW	9.09	0	0	0	0	9.09
W	7.53	0	0	0	0	7.53
WNW	7.95	0	0	0	0	7.95
NW	6.68	0	0	0	0	6.68
NNW	8.1	0	0	0	0	8.1
Summary	99	0.71	0.14	0.14	0	100



PRAMP-202205

Page 219 of 276

% Icon Classes (ppb)

99 0-2

1 2-5

0 5-10

0 10-50

0 >50.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

OXIDES OF NITROGEN (NOx) in ppb

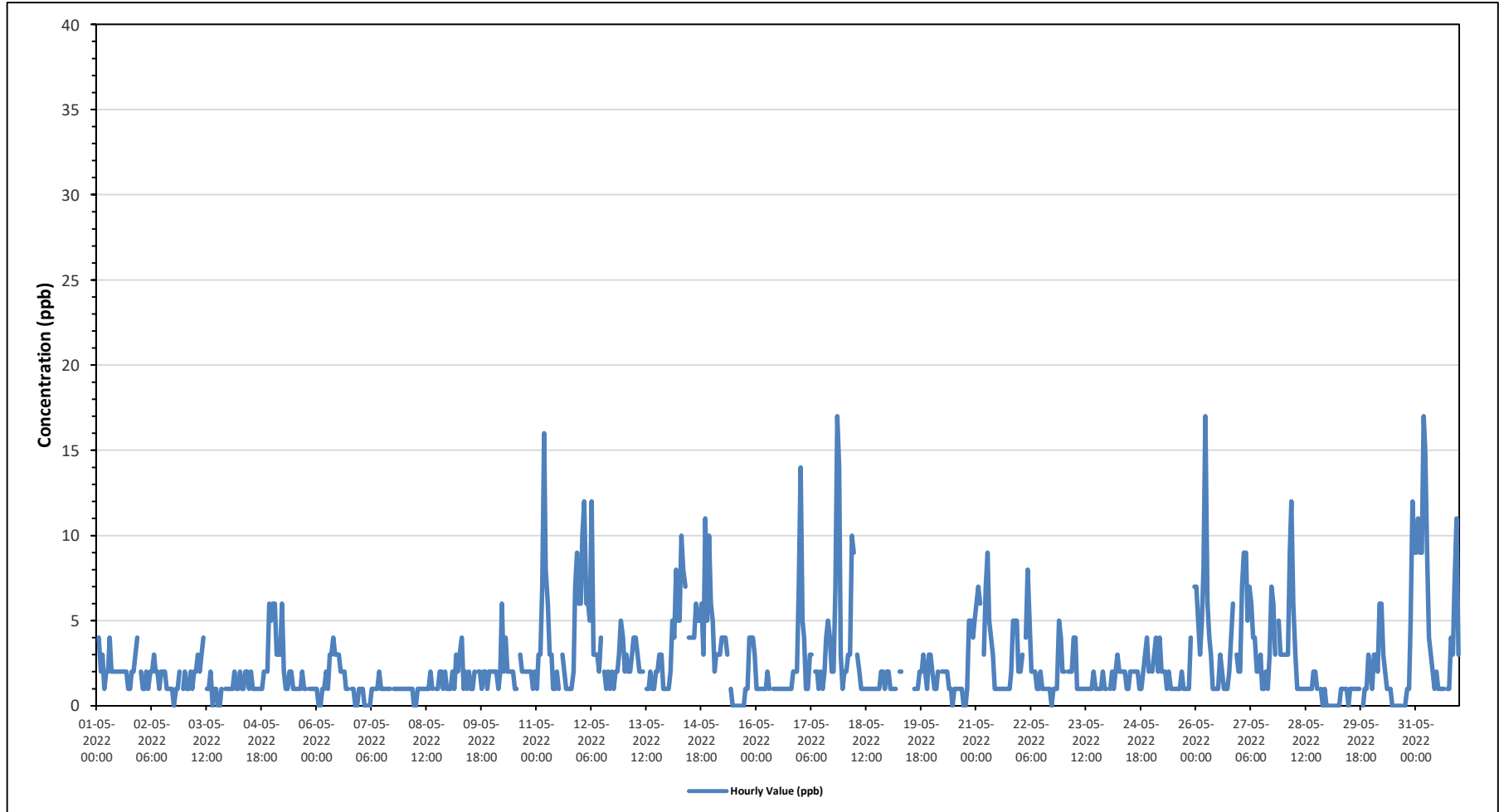
Maximum Hourly Value:	17 ppb on May 17 at hour 20	Hours in Service:	744
Maximum Daily Value:	5.6 ppb on May 14	Hours of Data:	704
Minimum Hourly Value:	0 ppb on May 2 at hour 18	Hours of Missing Data:	1
Minimum Daily Value:	0.7 ppb on May 29	Hours of Calibration:	39
Monthly Average:	2.5 ppb	Operational Uptime:	99.9

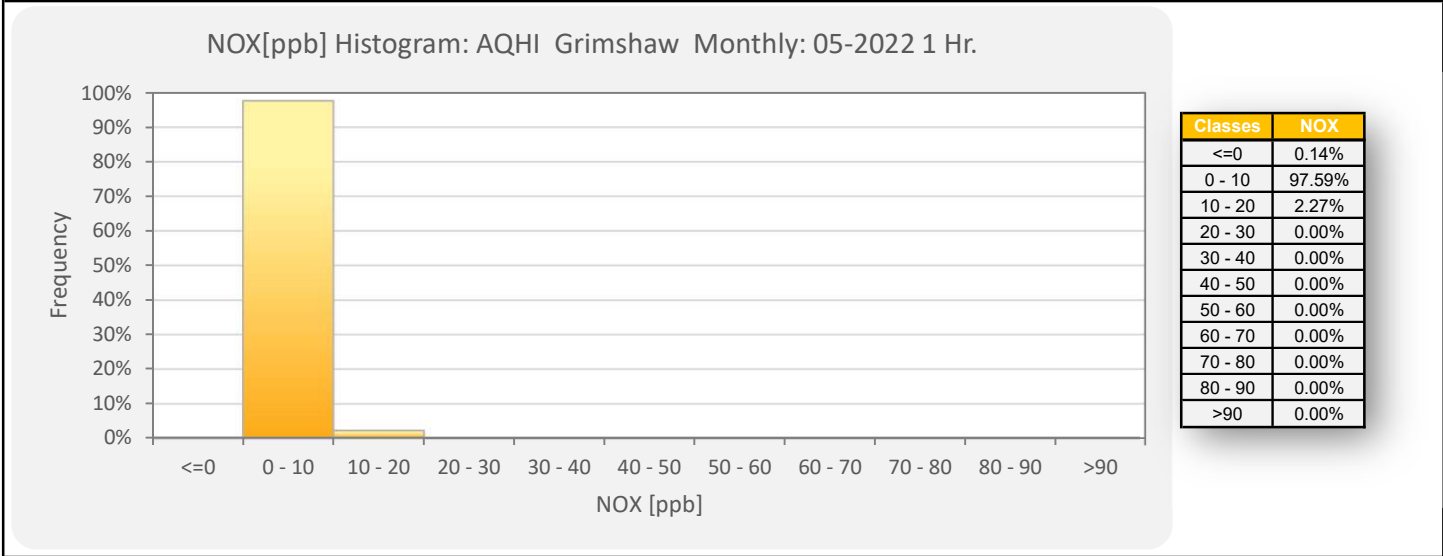
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23	
May 1	S	4	2	3	1	2	2	4	2	2	2	2	2	2	2	2	1	1	2	2	3	4	S	1	0	4	2.2	
May 2	2	1	1	2	1	2	2	3	2	2	1	2	2	2	1	1	1	1	0	1	1	2	S	1	0	3	1.5	
May 3	2	1	1	2	1	2	2	3	2	3	4	X	1	1	2	0	1	1	0	0	1	S	1	1	0	4	1.5	
May 4	1	1	1	2	1	1	2	1	1	2	2	1	2	1	1	1	1	1	1	2	S	2	6	5	1	6	1.7	
May 5	6	6	3	3	3	6	2	1	1	2	2	1	1	1	1	1	2	1	1	S	1	1	1	1	1	6	2.1	
May 6	1	0	0	1	1	2	1	3	3	4	3	3	3	2	2	2	1	1	S	1	1	0	0	1	0	4	1.6	
May 7	1	1	0	0	0	0	1	1	1	1	2	1	1	1	1	1	1	S	1	1	1	1	1	1	1	2	0.9	
May 8	1	1	1	1	1	0	0	1	1	1	1	1	1	1	2	1	S	1	1	2	2	1	2	1	2	1	1.1	
May 9	1	1	2	1	3	2	3	4	1	2	1	2	1	1	2	S	2	2	1	2	2	1	2	2	2	4	1.8	
May 10	2	2	2	1	2	6	2	4	2	2	2	2	1	1	S	3	2	2	2	2	2	2	1	2	1	6	2.1	
May 11	1	3	3	7	16	8	6	3	3	1	1	2	1	S	3	2	1	1	1	1	2	7	9	6	1	16	3.8	
May 12	6	10	12	6	6	5	12	3	3	3	2	4	S	2	1	2	1	2	1	2	2	3	5	4	1	12	4.2	
May 13	2	3	2	2	3	4	4	3	2	2	2	S	1	2	1	1	1	2	2	3	3	1	1	1	1	4	2.1	
May 14	1	2	5	4	8	5	5	10	8	7	S	4	4	4	6	5	5	6	3	11	5	10	6	1	11	5.6		
May 15	5	2	3	3	3	4	4	4	3	S	1	0	0	0	0	0	0	1	1	4	4	4	3	0	5	2.1		
May 16	1	1	1	1	1	1	2	1	S	1	1	1	1	1	1	1	1	1	1	1	2	2	2	7	1	7	1.4	
May 17	14	5	4	1	1	3	3	S	2	2	1	2	1	2	4	5	4	2	2	7	17	14	3	1	17	4.3		
May 18	2	2	3	3	10	9	S	3	2	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1	10	2.3	
May 19	2	1	1	1	1	S	2	2	C	C	C	C	C	C	1	1	1	2	2	3	2	1	3	3	1	3	-	
May 20	2	1	1	2	S	2	2	2	2	1	1	0	1	1	1	1	1	0	0	1	5	5	4	5	0	5	1.8	
May 21	6	7	6	S	3	7	9	5	4	3	1	1	1	1	1	1	1	1	1	2	5	5	5	2	1	9	3.4	
May 22	2	3	S	4	8	5	2	2	2	1	1	2	1	1	1	1	0	1	1	1	5	4	2	0	8	2.2		
May 23	2	S	2	2	2	4	4	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	1	1	4	1.5		
May 24	S	1	2	1	2	3	2	2	2	2	1	1	2	2	2	2	1	1	2	3	4	2	S	1	4	1.9		
May 25	2	3	4	2	4	2	2	2	1	2	1	1	1	1	1	2	1	1	1	1	4	S	7	1	7	2.0		
May 26	7	5	3	5	8	17	6	4	3	1	1	1	1	3	2	1	1	1	2	4	6	S	3	2	1	17	3.8	
May 27	2	7	9	9	5	7	6	4	4	2	2	3	1	1	2	1	3	7	6	3	S	5	3	3	1	9	4.1	
May 28	3	3	3	9	12	6	3	1	1	1	1	1	1	1	1	2	2	1	S	1	0	1	0	0	0	12	2.4	
May 29	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	1	1	S	0	1	1	3	2	0	3	0.7	
May 30	1	3	3	2	6	6	3	2	1	1	1	0	0	0	0	0	0	S	0	1	1	5	12	9	0	12	2.5	
May 31	9	11	9	9	17	15	9	4	3	2	1	2	1	1	1	1	S	1	1	4	3	7	11	3	1	17	5.4	
Diurnal Maximum	14	11	12	9	17	17	12	10	8	7	4	4	4	4	6	5	7	6	7	17	14	12	9					
Diurnal Average	3.0	3.0	3.0	3.0	4.3	4.5	3.4	2.8	2.2	1.9	1.4	1.5	1.2	1.3	1.5	1.4	1.5	1.5	1.4	1.9	3.0	3.3	3.6	2.9				

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

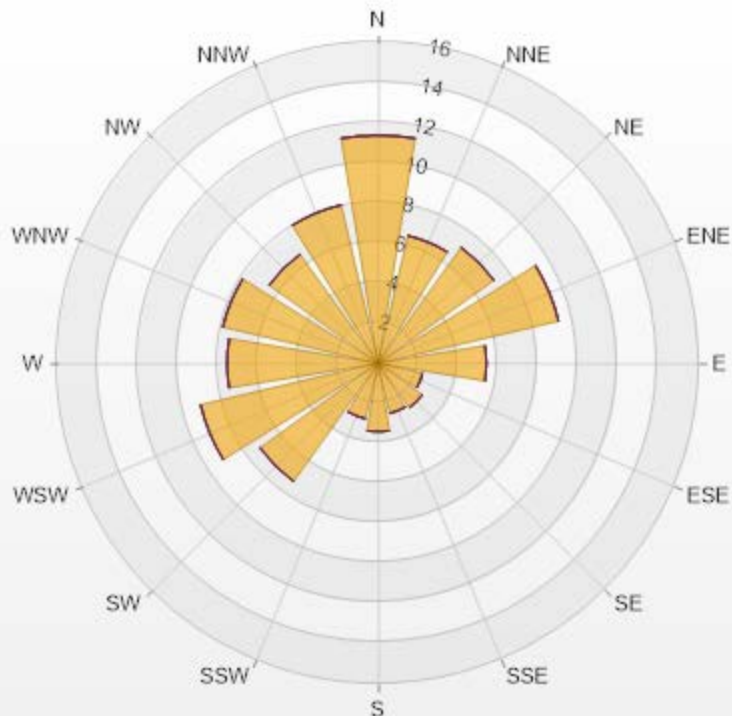
Timeseries Chart of Hourly Average for NOx - AQHI - Grimshaw Station





Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-NOX[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.62% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	11.36	0	0	0	0	11.36
NNE	6.53	0	0	0	0	6.53
NE	7.1	0	0	0	0	7.1
ENE	9.23	0	0	0	0	9.23
E	5.4	0	0	0	0	5.4
ESE	2.27	0	0	0	0	2.27
SE	2.7	0	0	0	0	2.7
SSE	2.56	0	0	0	0	2.56
S	3.41	0	0	0	0	3.41
SSW	2.84	0	0	0	0	2.84
SW	7.24	0	0	0	0	7.24
WSW	9.09	0	0	0	0	9.09
W	7.53	0	0	0	0	7.53
WNW	7.95	0	0	0	0	7.95
NW	6.68	0	0	0	0	6.68
NNW	8.1	0	0	0	0	8.1
Summary	100	0	0	0	0	100



PRAMP-202205

Page 224 of 276

% Icon Classes (ppb)

100

0-30

0

30-50

0

50-76

0

76-159

0

>159.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

NITRIC OXIDE (NO) in ppb

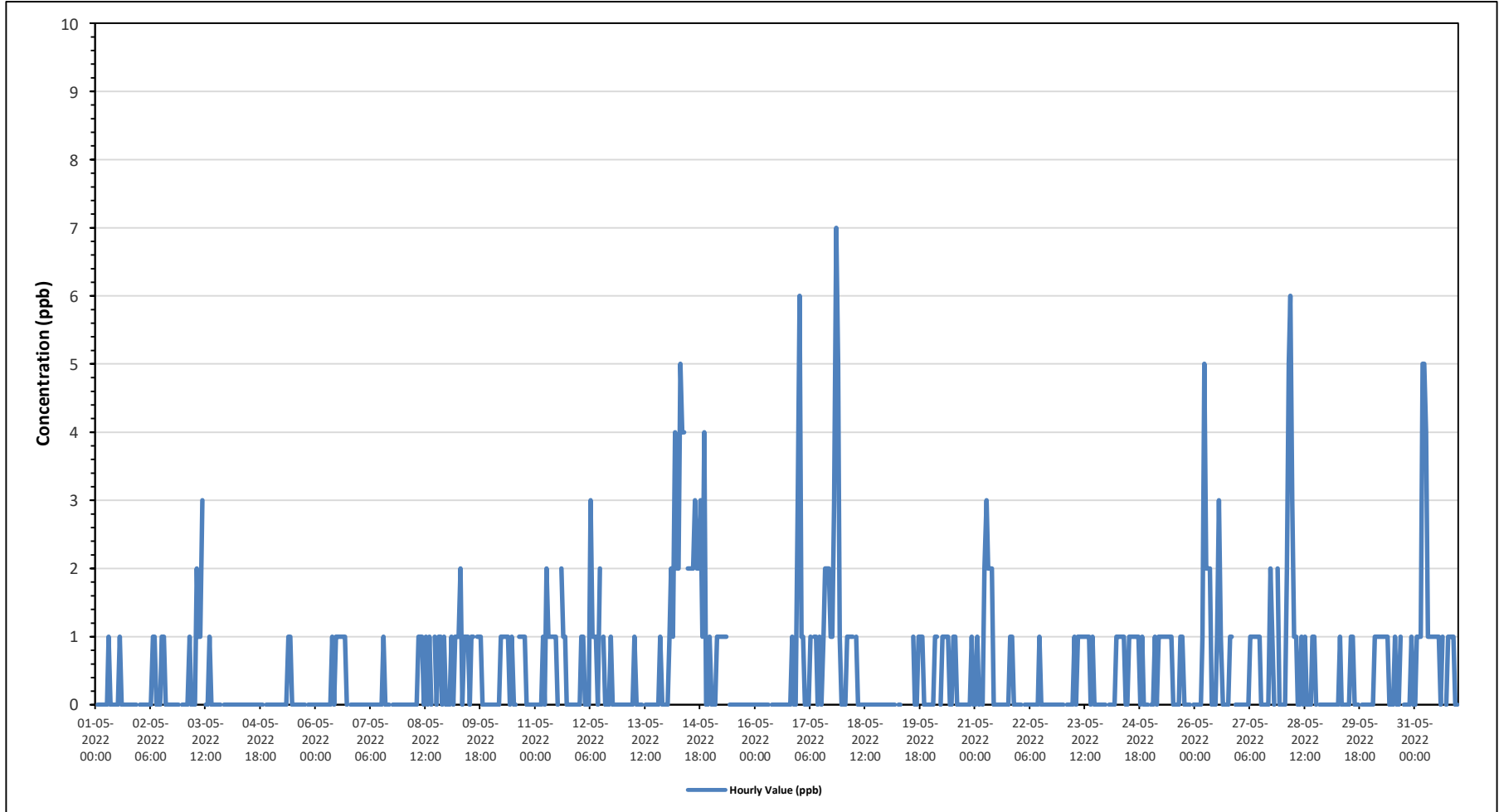
Maximum Hourly Value:	7 ppb on May 17 at hour 20	Hours in Service:	744
Maximum Daily Value:	2.1 ppb on May 14	Hours of Data:	704
Minimum Hourly Value:	0 ppb on May 1 at hour 1	Hours of Missing Data:	1
Minimum Daily Value:	0.0 ppb on May 4	Hours of Calibration:	39
Monthly Average:	0.5 ppb	Operational 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			
May 1	S	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	S	0	1	0.1
May 2	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	S	0	1	0.2
May 3	0	0	0	1	0	0	0	2	1	1	3	X	0	0	1	0	0	0	0	0	0	S	0	3	0.4	
May 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0	
May 5	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	S	S	0	0	0	1	0.1	
May 6	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	S	0	0	0	0	1	0.3	
May 7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	S	0	0	0	0	0	1	0.0	
May 8	0	0	0	0	0	0	0	1	1	1	1	0	1	0	1	0	S	1	0	1	1	0	1	0	0.4	
May 9	0	0	1	0	1	1	1	2	0	1	1	1	0	1	1	S	1	1	1	0	0	0	0	0	0.6	
May 10	0	0	0	0	0	1	1	1	1	1	1	0	1	0	0	S	1	1	1	1	0	0	0	0	0.4	
May 11	0	0	0	0	1	0	2	1	1	1	1	1	0	S	2	1	1	0	0	0	0	0	0	0	0.5	
May 12	0	1	1	0	0	0	3	1	1	1	1	0	2	S	1	0	0	1	0	0	0	0	0	0	0.5	
May 13	0	0	0	0	0	0	1	0	0	0	0	S	0	0	0	0	0	0	0	0	1	0	0	0	0.1	
May 14	0	1	2	1	4	2	2	5	4	4	S	2	2	2	2	3	2	2	3	1	4	0	1	0	2.1	
May 15	0	0	0	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	
May 16	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0.2	
May 17	6	1	1	0	0	0	1	S	1	1	0	1	0	1	2	2	2	1	1	3	7	5	1	0	1.6	
May 18	0	0	1	1	1	1	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	
May 19	0	0	0	0	0	S	0	0	C	C	C	C	C	C	1	0	0	1	1	1	0	0	0	0	-	
May 20	0	0	1	1	S	0	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0.4	
May 21	0	1	0	S	0	2	3	2	2	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.6	
May 22	0	0	S	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
May 23	0	S	0	0	0	0	1	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0.4	
May 24	S	0	0	0	0	1	1	1	1	1	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0.5	
May 25	0	0	1	0	1	1	1	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	S	0	0.5	
May 26	0	0	0	0	1	5	2	2	2	0	0	0	1	3	1	0	0	0	0	1	1	S	0	0	0.8	
May 27	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	2	1	0	S	2	0	0	0	0.5	
May 28	0	0	2	5	6	3	1	1	0	0	1	0	1	0	0	1	1	0	S	0	0	0	0	0	1.0	
May 29	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	S	0	0	0	0	0	0.1	
May 30	0	0	1	1	1	1	1	1	1	1	0	0	1	0	0	1	0	0	S	0	0	0	1	0	0.5	
May 31	0	1	1	1	5	5	4	1	1	1	1	1	1	1	0	1	0	1	S	0	1	1	1	0	0	1.3
Diurnal Maximum	6	1	2	5	6	5	4	5	4	4	3	2	2	3	2	3	2	2	3	3	7	5	1	3		
Diurnal Average	0.2	0.2	0.4	0.4	0.7	0.8	0.9	0.9	0.8	0.8	0.4	0.5	0.4	0.6	0.5	0.3	0.4	0.4	0.3	0.3	0.6	0.3	0.1	0.1		

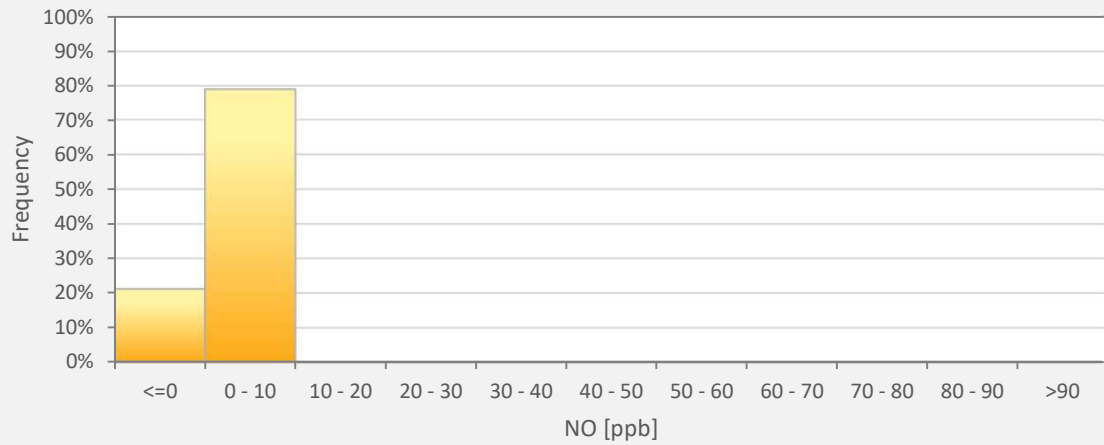
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

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.

Timeseries Chart of Hourly Average for NO - AQHI - Grimshaw Station



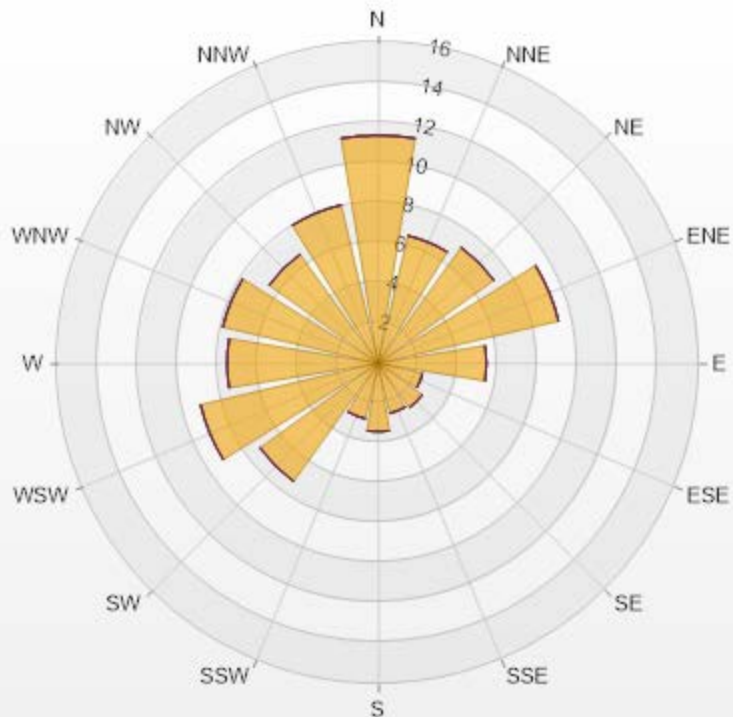
NO[ppb] Histogram: AQHI Grimshaw Monthly: 05-2022 1 Hr.



Classes	NO
<=0	21.16%
0 - 10	78.84%
10 - 20	0.00%
20 - 30	0.00%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-NO[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.62% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	11.36	0	0	0	0	11.36
NNE	6.53	0	0	0	0	6.53
NE	7.1	0	0	0	0	7.1
ENE	9.23	0	0	0	0	9.23
E	5.4	0	0	0	0	5.4
ESE	2.27	0	0	0	0	2.27
SE	2.7	0	0	0	0	2.7
SSE	2.56	0	0	0	0	2.56
S	3.41	0	0	0	0	3.41
SSW	2.84	0	0	0	0	2.84
SW	7.24	0	0	0	0	7.24
WSW	9.09	0	0	0	0	9.09
W	7.53	0	0	0	0	7.53
WNW	7.95	0	0	0	0	7.95
NW	6.68	0	0	0	0	6.68
NNW	8.1	0	0	0	0	8.1
Summary	100	0	0	0	0	100



PRAMP-202205

Page 229 of 276

% Icon Classes (ppb)

100  0-30

0  30-50

0  50-76

0  76-159

0  >159.0



PEACE RIVER AREA MONITORING PROGRAM

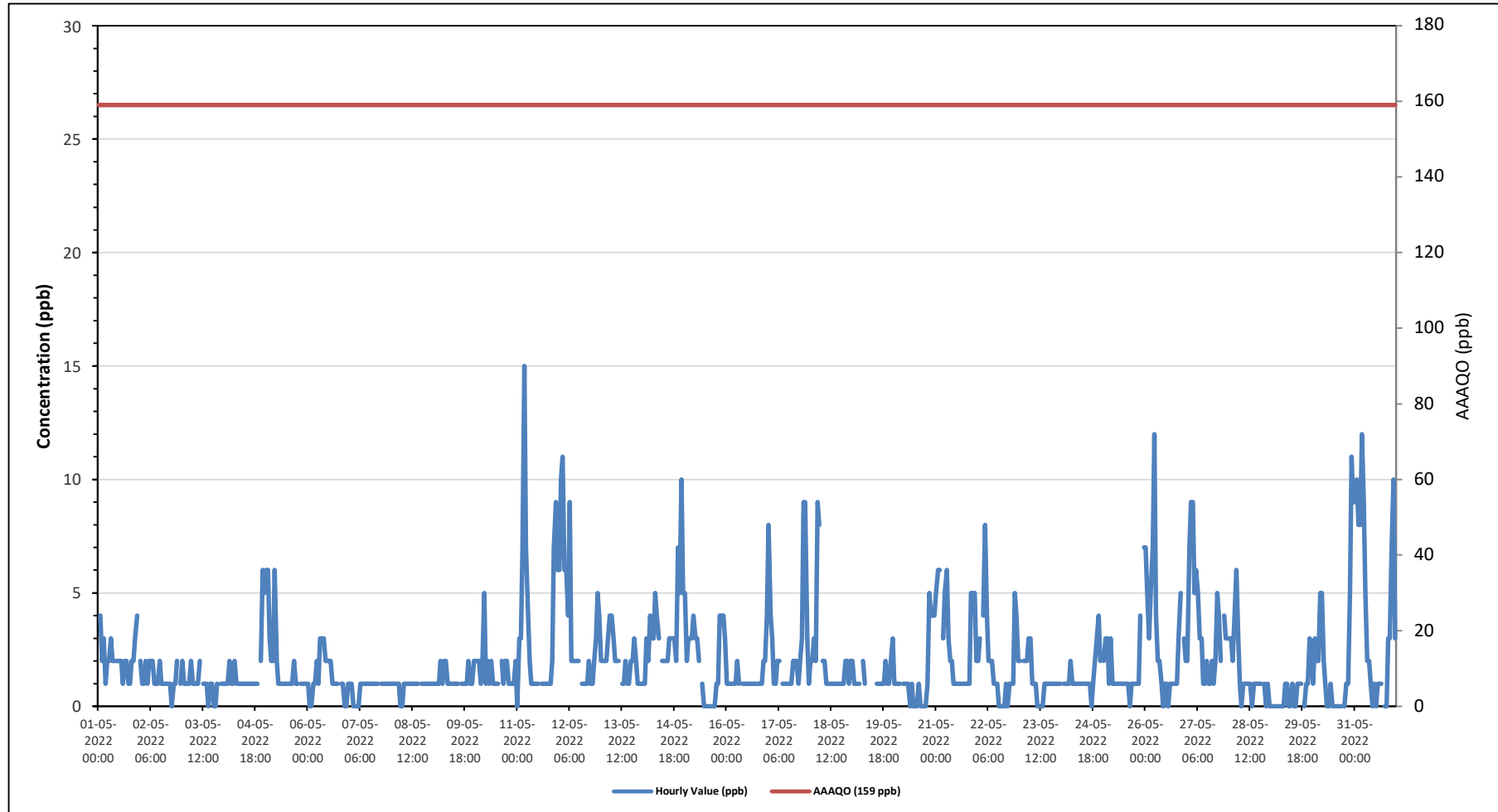
AQHI - Grimshaw Station - May 2022

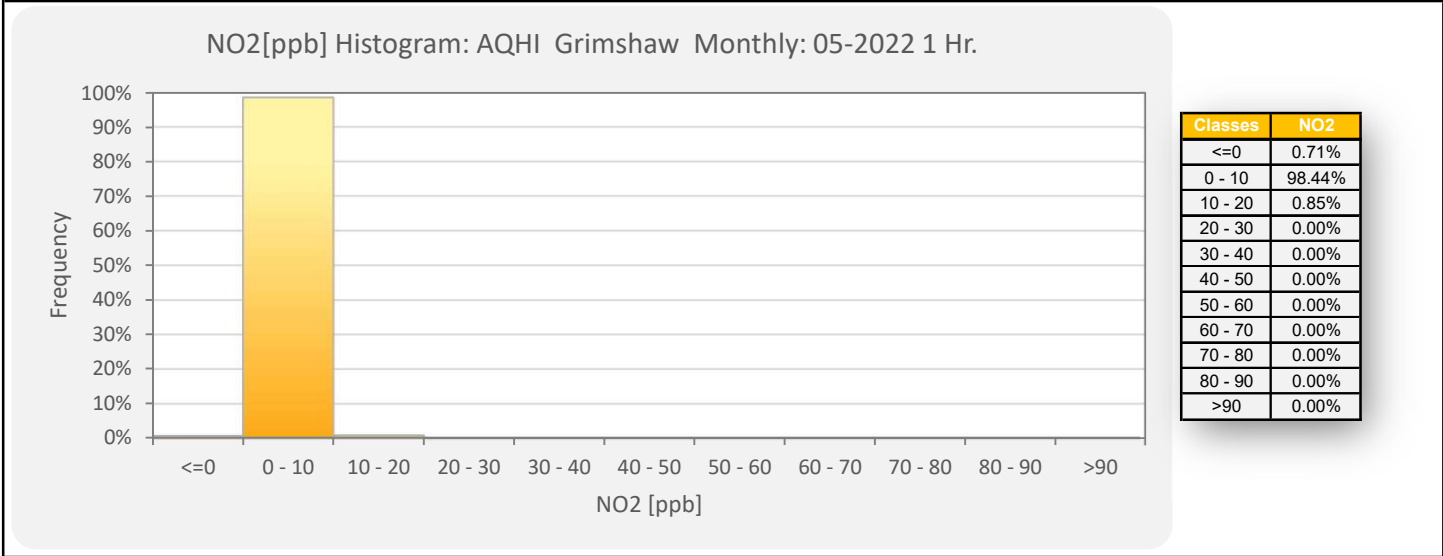
Summary of Hourly Averages

NITROGEN DIOXIDE (NO₂) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 159 ppb																															
Number of 1-Hour Exceedances: 0																															
Maximum Hourly Value: 15 ppb on May 11 at hour 4												Hours in Service: 744																			
Maximum Daily Value: 4.2 ppb on May 31												Hours of Data: 704																			
Minimum Hourly Value: 0 ppb on May 2 at hour 18												Hours of Missing Data: 1																			
Minimum Daily Value: 0.6 ppb on May 29												Hours of Calibration: 39																			
Monthly Average: 2.0 ppb												Operational Uptime: 99.9																			
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average					
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				23				
May 1	S	4	2	3	1	2	2	3	2	2	2	2	2	1	2	2	1	1	2	2	3	4	S	1	0	4	2.1				
May 2	2	1	1	2	1	2	2	2	2	1	1	2	1	1	1	1	1	1	0	1	1	2	S	1	1	2	1.3				
May 3	2	1	1	1	1	2	1	1	1	1	2	X	1	1	1	0	1	1	0	0	1	S	1	1	1	2	1.0				
May 4	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	S	2	6	5	1	6	1.5				
May 5	6	6	3	2	2	6	2	1	1	1	1	1	1	1	1	2	1	1	S	1	1	1	1	1	1	6	1.9				
May 6	1	0	0	1	1	2	1	3	3	3	2	2	2	2	1	1	1	S	1	1	0	0	1	1	0	3	1.3				
May 7	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	0.8				
May 8	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	0.9				
May 9	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	S	1	1	1	1	2	1	1	2	1	2	1.2				
May 10	2	2	2	1	2	5	1	2	1	2	1	1	1	1	S	2	1	2	2	1	1	1	1	2	1	5	1.6				
May 11	0	3	3	7	15	7	4	2	1	1	1	1	S	1	1	1	1	1	1	1	2	7	9	6	0	15	3.3				
May 12	6	10	11	6	6	4	9	2	2	2	2	S	1	1	1	1	2	1	1	2	3	5	4	1	11	3.7					
May 13	2	2	2	2	3	4	4	3	2	2	2	S	1	1	2	1	1	2	2	3	2	1	1	1	1	4	2.0				
May 14	1	1	3	2	4	3	3	5	4	3	S	2	2	2	2	3	3	3	3	2	7	5	10	5	1	10	3.4				
May 15	5	2	3	3	3	4	3	3	3	2	S	1	0	0	0	0	0	0	1	1	4	4	4	3	0	5	2.0				
May 16	1	1	1	1	1	1	2	1	S	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	1	4	1.3				
May 17	8	4	3	1	1	2	2	S	1	1	1	1	1	1	2	2	2	1	2	3	9	9	3	1	1	9	2.7				
May 18	2	2	3	2	9	8	S	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1	9	2.1				
May 19	2	1	1	1	1	S	2	1	C	C	C	C	C	C	1	1	1	1	1	2	1	2	3	1	3	-					
May 20	1	1	1	1	S	1	1	1	1	0	1	0	0	0	1	0	0	0	0	1	5	4	4	4	0	5	1.2				
May 21	5	6	6	S	3	5	6	3	2	2	1	1	1	1	1	1	1	1	1	1	5	5	5	2	1	6	2.8				
May 22	2	3	S	4	8	4	2	2	2	1	1	1	0	0	0	1	0	1	1	1	5	4	2	0	8	2.0					
May 23	2	S	2	2	2	3	3	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	3	1.2				
May 24	S	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0	1	2	3	4	2	S	0	4	1.3					
May 25	2	3	3	1	3	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	4	4	S	7	0	7	1.7				
May 26	7	5	3	5	7	12	4	2	2	1	0	1	1	0	1	1	1	1	1	3	5	S	3	2	0	12	3.0				
May 27	2	7	9	9	5	6	5	3	3	1	2	1	1	2	1	2	5	4	2	S	4	3	3	1	9	3.5					
May 28	3	3	2	4	6	3	1	0	1	1	1	1	0	1	1	1	1	1	1	S	1	0	1	0	0	6	1.5				
May 29	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	1	1	1	S	0	1	1	3	2	0	3	0.6				
May 30	1	3	2	2	5	5	2	1	0	0	1	0	0	0	0	0	0	0	S	0	1	5	11	9	0	11	2.1				
May 31	9	10	8	8	12	9	5	2	2	1	0	1	0	1	1	S	0	0	3	3	7	10	3	0	12	4.2					
Diurnal Maximum	9	10	11	9	15	12	9	5	4	3	2	2	2	2	3	3	5	4	3	9	9	11	9								
Diurnal Average	2.7	2.9	2.6	2.5	3.6	3.5	2.5	1.8	1.5	1.2	1.0	1.0	0.9	0.8	1.0	1.0	1.1	1.1	1.1	1.4	2.3	3.0	3.4	2.7							
C	Monthly Calibration										S	Daily Zero-Span Check										Q	Quality Assurance								
K	Collection Error										N	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.																															

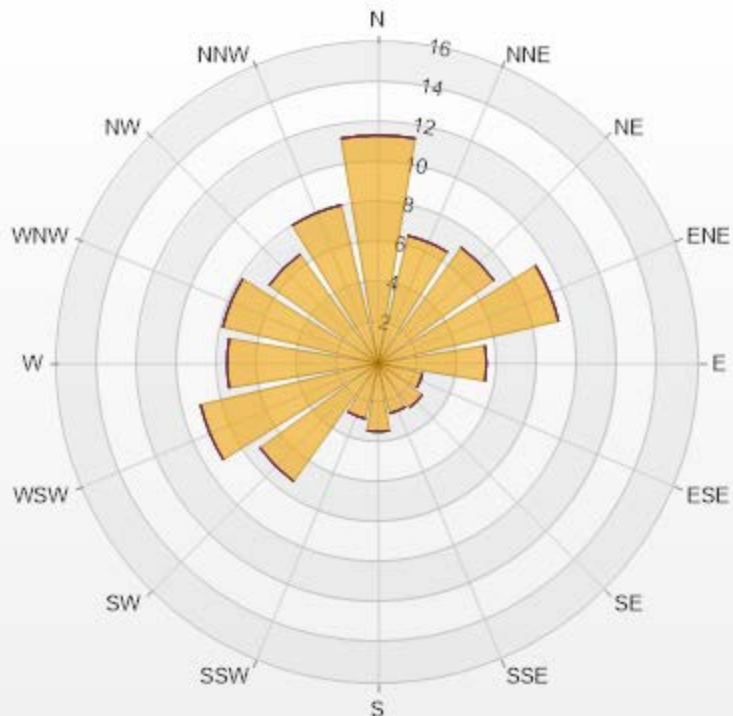
Timeseries Chart of Hourly Average for NO2 - AQHI - Grimshaw Station





Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-NO2[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.62% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	11.36	0	0	0	0	11.36
NNE	6.53	0	0	0	0	6.53
NE	7.1	0	0	0	0	7.1
ENE	9.23	0	0	0	0	9.23
E	5.4	0	0	0	0	5.4
ESE	2.27	0	0	0	0	2.27
SE	2.7	0	0	0	0	2.7
SSE	2.56	0	0	0	0	2.56
S	3.41	0	0	0	0	3.41
SSW	2.84	0	0	0	0	2.84
SW	7.24	0	0	0	0	7.24
WSW	9.09	0	0	0	0	9.09
W	7.53	0	0	0	0	7.53
WNW	7.95	0	0	0	0	7.95
NW	6.68	0	0	0	0	6.68
NNW	8.1	0	0	0	0	8.1
Summary	100	0	0	0	0	100



PRAMP-202205


Page 234 of 276

% Icon Classes (ppb)

100  0-30

0  30-50

0  50-76

0  76-159

0  >159.0



PEACE RIVER AREA MONITORING PROGRAM

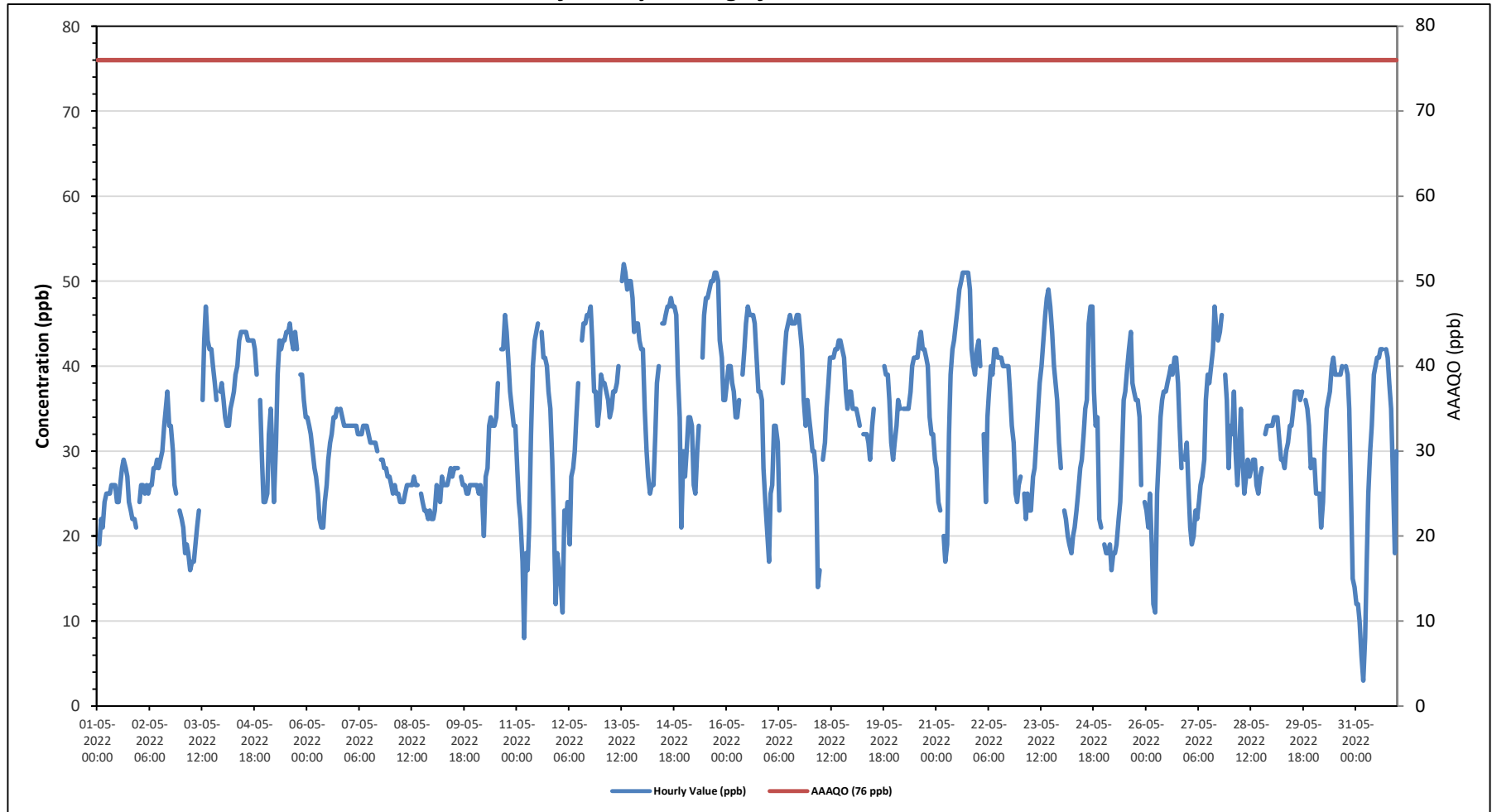
AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

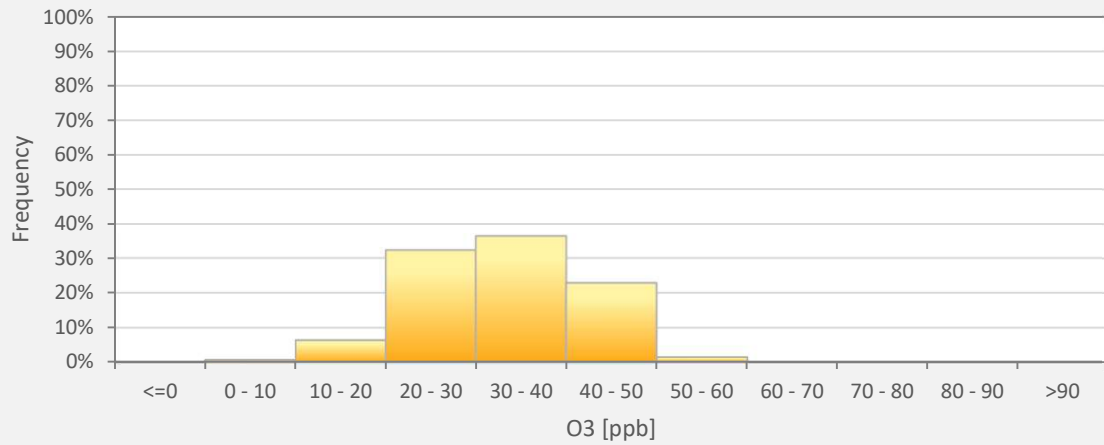
OZONE (O₃) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 76 ppb																								Daily	Daily	Daily			
Number of 1-Hour Exceedances: 0																								Minimum	Maximum	Average			
Maximum Hourly Value:	52 ppb on May 13 at hour 13											Hours in Service:	744																
Maximum Daily Value:	42.5 ppb on May 13											Hours of Data:	705																
Minimum Hourly Value:	3 ppb on May 31 at hour 4											Hours of Missing Data:	1																
Minimum Daily Value:	24.4 ppb on May 1											Hours of Calibration:	38																
Monthly Average:	32.9 ppb											Operational Uptime:	99.9																
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average		
May 1	S	19	22	21	24	25	25	25	26	26	26	24	24	26	28	29	28	27	24	23	22	22	21	S	23	19.0	29.0	24.4	
May 2	24	26	26	25	26	25	26	26	28	28	29	28	29	30	33	35	37	33	33	30	26	25	S	23	23.0	37.0	28.3		
May 3	22	21	18	19	18	16	17	17	19	21	23	X	36	43	47	43	42	42	40	38	36	S	37	38	16.0	47.0	29.7		
May 4	36	34	33	33	35	36	37	39	40	43	44	44	44	44	43	43	43	43	43	42	39	S	36	29	24	24.0	44.0	38.4	
May 5	24	25	32	35	30	24	31	39	43	42	43	43	44	44	45	43	42	44	42	S	S	39	39	36	34	24.0	45.0	37.5	
May 6	34	33	32	30	28	27	25	22	21	21	24	26	29	31	32	34	34	35	S	35	34	33	33	33	21.0	35.0	29.8		
May 7	33	33	33	33	33	32	32	32	33	33	33	32	31	31	31	31	30	S	29	29	28	28	27	27	27.0	33.0	31.0		
May 8	26	25	26	25	25	24	24	24	25	26	26	26	27	26	26	S	25	24	23	23	23	22	23	22	22.0	27.0	24.7		
May 9	22	23	26	25	24	27	26	26	26	27	28	27	28	28	S	27	26	26	25	25	26	26	26	26	22.0	28.0	26.0		
May 10	26	26	25	26	25	20	27	28	33	34	33	33	34	38	S	42	42	46	44	41	37	35	33	33	20.0	46.0	33.1		
May 11	28	24	22	17	8	18	16	21	32	40	43	44	45	S	44	41	41	40	37	35	29	22	12	18	8.0	45.0	29.4		
May 12	16	14	11	23	22	24	19	27	28	30	34	38	S	43	45	45	46	46	47	43	37	37	33	35	11.0	47.0	32.3		
May 13	39	38	38	37	36	34	35	37	37	38	40	S	50	52	51	49	50	50	48	44	45	45	43	42	34.0	52.0	42.5		
May 14	42	35	30	27	25	26	26	32	38	40	S	45	45	46	47	47	48	47	47	46	39	34	21	30	21.0	48.0	37.5		
May 15	27	30	34	34	33	26	25	30	33	S	41	46	48	48	49	50	50	51	51	50	43	41	36	36	25.0	51.0	39.7		
May 16	38	40	40	38	37	34	34	36	S	39	42	45	47	46	46	45	41	37	37	36	28	24	21	21	21.0	47.0	38.1		
May 17	17	25	26	33	33	31	23	S	38	41	44	45	46	45	45	46	46	44	42	36	33	36	34	34	17.0	46.0	37.1		
May 18	32	30	30	27	14	16	S	29	31	35	38	41	41	41	42	42	43	43	42	41	37	35	37	37	14.0	43.0	35.0		
May 19	35	35	35	34	33	S	32	32	32	31	29	33	35	C	C	C	C	C	40	39	39	36	31	29	29.0	40.0	33.9		
May 20	31	33	36	35	S	35	35	35	35	37	40	41	41	41	43	44	42	42	41	40	34	32	32	29	29.0	44.0	37.1		
May 21	28	24	23	S	20	17	19	32	39	42	43	45	47	49	50	51	51	51	51	49	42	40	39	42	17.0	51.0	38.9		
May 22	43	40	S	32	24	34	37	40	39	42	42	41	41	41	40	40	40	40	37	33	31	25	24	26	24.0	43.0	36.2		
May 23	27	S	25	22	25	23	23	27	28	31	35	38	40	43	46	48	49	47	44	40	38	36	31	28	22.0	49.0	34.5		
May 24	S	23	22	20	19	18	20	21	23	25	28	29	32	35	36	45	47	47	37	33	34	22	21	S	24	18.0	47.0	29.0	
May 25	19	18	18	19	16	18	18	19	22	24	30	36	37	40	42	44	38	37	36	36	34	26	S	24	16.0	44.0	28.3		
May 26	23	21	25	19	12	11	25	29	34	36	37	37	38	39	40	39	41	41	38	33	28	S	29	31	11.0	41.0	30.7		
May 27	26	21	19	20	23	22	24	26	27	29	36	39	38	40	42	47	44	43	44	46	S	39	36	28	19.0	47.0	33.0		
May 28	33	32	37	30	26	29	35	29	25	27	29	27	28	29	26	25	27	28	S	S	32	33	33	33	25.0	37.0	29.7		
May 29	33	34	34	34	31	29	29	28	30	31	33	33	35	37	37	36	37	S	36	35	33	28	29	29	28.0	37.0	33.0		
May 30	29	25	25	25	21	24	30	35	36	37	40	41	39	39	39	40	S	40	39	35	26	15	14	14	14.0	41.0	31.9		
May 31	12	12	10	6	3	8	17	25	30	33	39	40	41	41	42	42	S	42	41	38	35	27	18	30	3.0	42.0	27.5		
Diurnal Maximum	43	40	40	38	37	36	37	40	43	43	44	46	50	52	51	51	51	51	51	50	45	45	43	42					
Diurnal Average	28.4	27.3	27.1	26.8	24.3	24.4	26.4	28.9	31.0	33.0	35.1	36.8	38.0	39.2	40.3	41.1	41.0	40.7	39.1	37.3	34.1	31.6	29.1	29.5					
C	Monthly Calibration											S	Daily Zero-Span Check					Q	Quality Assurance										
K	Collection Error											N	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.																													

Timeseries Chart of Hourly Average for O3 - AQHI - Grimshaw Station



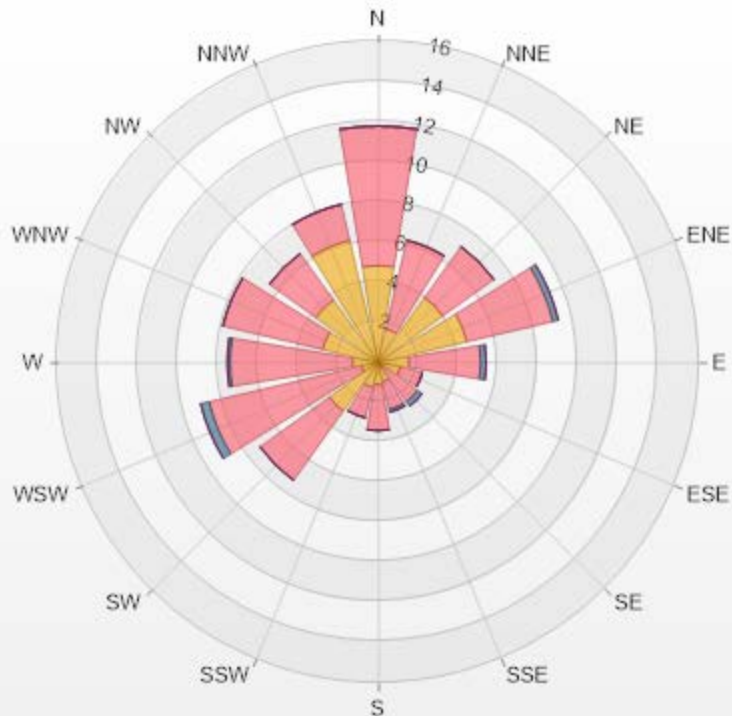
O3[ppb] Histogram: AQHI Grimshaw Monthly: 05-2022 1 Hr.



Classes	O3
<=0	0.00%
0 - 10	0.71%
10 - 20	6.38%
20 - 30	32.20%
30 - 40	36.31%
40 - 50	22.84%
50 - 60	1.56%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-O3[ppb] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.76% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	4.82	6.95	0	0	0	11.77
NNE	1.7	4.54	0	0	0	6.24
NE	3.97	3.12	0	0	0	7.09
ENE	4.54	4.4	0.28	0	0	9.22
E	1.56	3.55	0.28	0	0	5.39
ESE	1.13	1.13	0	0	0	2.26
SE	0.14	2.27	0.28	0	0	2.69
SSE	0.99	1.42	0.14	0	0	2.55
S	1.13	2.27	0	0	0	3.4
SSW	1.28	1.56	0	0	0	2.84
SW	2.98	4.26	0	0	0	7.24
WSW	0.85	7.8	0.43	0	0	9.08
W	1.28	6.1	0.14	0	0	7.52
WNW	2.84	5.11	0	0	0	7.95
NW	3.83	2.84	0	0	0	6.67
NNW	6.24	1.84	0	0	0	8.08
Summary	39.28	59.16	1.55	0	0	100



PRAMP-202205

Page 239 of 276

% Icon Classes (ppb)

39

0-30

59

30-50

2

50-76

0

76-159

0

>159.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

TOTAL HYDROCARBONS (THC) in ppm

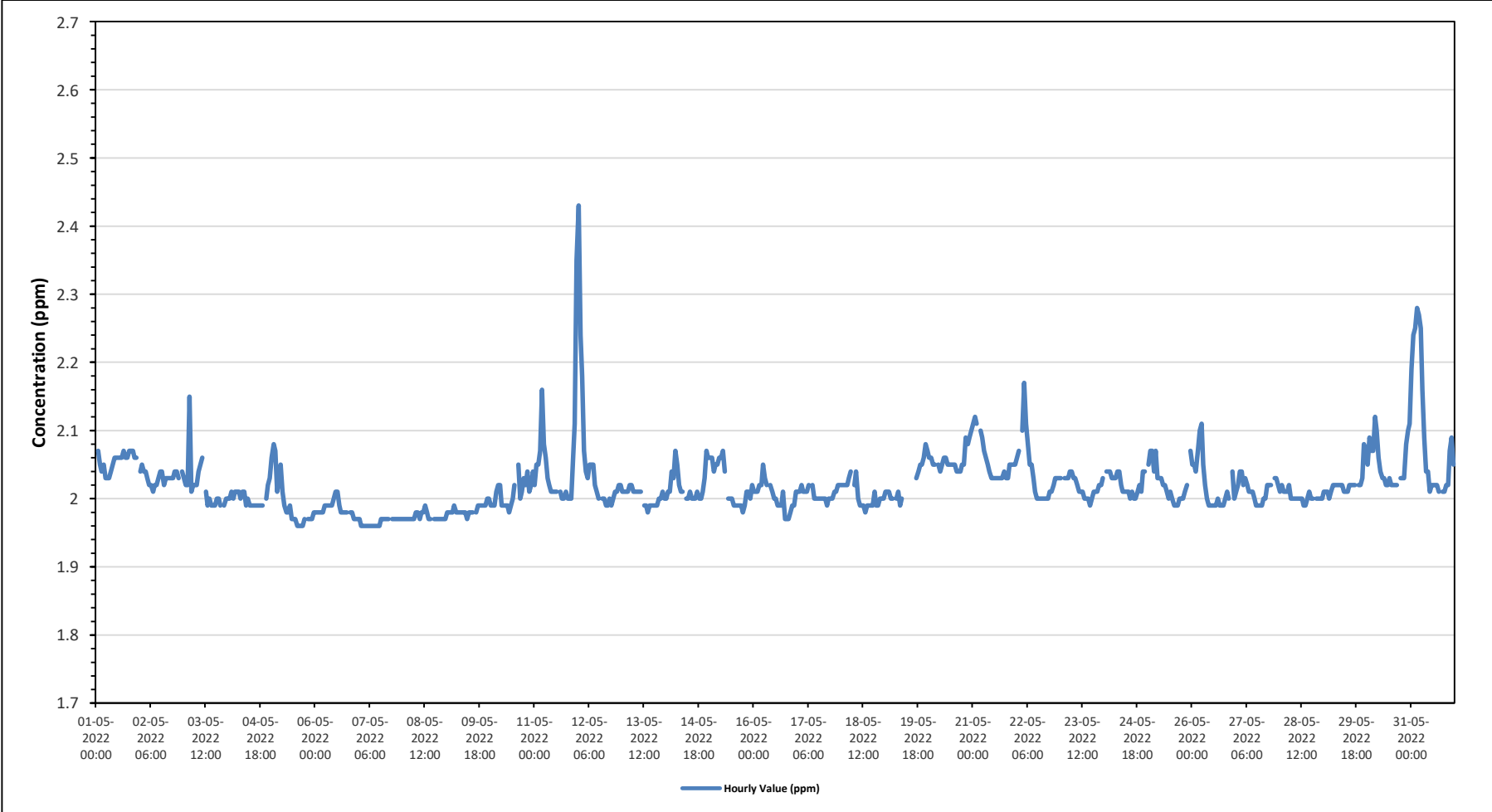
Maximum Hourly Value:	2.43 ppm on May 12 at hour 0	Hours in Service:	744
Maximum Daily Value:	2.09 ppm on May 31	Hours of Data:	703
Minimum Hourly Value:	1.96 ppm on May 5 at hour 14	Hours of Missing Data:	3
Minimum Daily Value:	1.97 ppm on May 7	Hours of Calibration:	38
Monthly Average:	2.02 ppm	Operational 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	
May 1	S	2.07	2.05	2.04	2.05	2.03	2.03	2.03	2.04	2.05	2.06	2.06	2.06	2.06	2.06	2.07	2.06	2.06	2.07	2.07	2.06	2.06	S	2.03	2.07	2.06		
May 2	2.04	2.05	2.04	2.04	2.03	2.02	2.02	2.01	2.02	2.02	2.03	2.04	2.04	2.02	2.03	2.03	2.03	2.03	2.04	2.04	2.03	S	2.04	2.01	2.05	2.03		
May 3	2.03	2.02	2.02	2.15	2.01	2.02	2.02	2.02	2.04	2.05	2.06	X	2.01	1.99	2.00	1.99	1.99	1.99	2.00	2.00	1.99	S	1.99	2.00	1.99	2.02		
May 4	2.00	2.00	2.01	2.00	2.01	2.01	2.01	2.00	2.01	2.01	1.99	2.00	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	S	2.00	2.02	2.03	1.99	2.03	2.00	
May 5	2.06	2.08	2.07	2.01	2.03	2.05	2.01	1.99	1.98	1.98	1.99	1.97	1.97	1.96	1.96	1.96	1.96	1.97	S	1.97	1.97	1.97	1.97	1.98	1.97	1.99		
May 6	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.99	1.99	2.00	2.01	2.01	1.99	1.98	1.98	1.98	1.98	S	1.98	1.98	1.97	1.97	1.97	1.97	1.97		
May 7	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.97	S	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97		
May 8	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.98	1.97	1.98	1.98	1.98	1.98	1.97	1.98	1.97	S	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97		
May 9	1.98	1.98	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.97	1.98	1.98	1.98	S	1.98	1.99	1.99	1.99	1.99	1.99	2.00	2.00	1.97	2.00	1.98	
May 10	1.99	1.99	1.99	2.01	2.02	2.02	1.99	1.99	1.99	1.99	1.99	1.98	1.99	2.00	2.02	S	2.05	2.00	2.01	2.03	2.02	2.04	2.01	2.02	2.04	1.98	2.05	2.01
May 11	2.02	2.05	2.05	2.07	2.16	2.08	2.06	2.03	2.02	2.01	2.01	2.01	S	2.01	2.00	2.00	2.01	2.00	2.01	2.00	2.00	2.06	2.11	2.35	2.00	2.02	2.05	
May 12	2.43	2.24	2.18	2.07	2.04	2.03	2.05	2.05	2.05	2.02	2.01	2.00	S	2.00	2.00	1.99	1.99	2.00	1.99	2.00	2.01	2.02	2.02	2.02	1.99	2.43	2.05	
May 13	2.01	2.01	2.01	2.01	2.02	2.02	2.01	2.01	2.01	2.01	2.01	S	1.99	1.99	1.98	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.01	2.00	1.98	2.02	2.00	
May 14	2.00	2.01	2.01	2.04	2.03	2.07	2.05	2.02	2.01	2.01	S	2.00	2.00	2.01	2.00	2.00	2.01	2.00	2.01	2.00	2.01	2.03	2.07	2.06	2.00	2.07	2.02	
May 15	2.06	2.06	2.04	2.05	2.05	2.06	2.06	2.07	2.04	S	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.99	1.98	1.99	2.01	2.00	2.02	1.98	2.07	2.02	2.02	
May 16	2.01	2.01	2.01	2.02	2.02	2.05	2.03	2.02	S	2.02	2.01	2.00	2.00	1.99	1.99	1.99	2.01	1.97	1.97	1.97	1.98	1.99	1.99	2.01	1.97	2.05	2.00	
May 17	2.01	2.01	2.02	2.01	2.01	2.01	2.02	S	2.02	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.99	2.00	2.00	2.01	2.01	2.02	2.02	1.99	2.02	2.01	2.01	
May 18	2.02	2.02	2.02	2.02	2.03	2.04	S	2.02	2.04	2.00	1.99	1.99	1.99	1.98	1.99	1.99	1.99	1.99	2.01	1.99	1.99	2.00	2.00	2.00	1.98	2.04	2.00	
May 19	2.01	2.01	2.01	2.00	2.00	S	2.00	2.01	1.99	2.00	Y	Y	C	C	C	C	C	2.03	2.04	2.05	2.05	2.06	2.08	2.07	1.99	2.08	-	
May 20	2.06	2.06	2.05	2.05	S	2.05	2.04	2.05	2.06	2.06	2.05	2.05	2.05	2.05	2.05	2.04	2.04	2.04	2.05	2.05	2.09	2.08	2.09	2.10	2.04	2.10	2.06	
May 21	2.11	2.12	2.11	S	2.10	2.09	2.07	2.06	2.05	2.04	2.03	2.03	2.03	2.03	2.03	2.03	2.04	2.03	2.03	2.03	2.05	2.05	2.05	2.05	2.03	2.12	2.05	
May 22	2.06	2.07	S	2.10	2.17	2.11	2.08	2.05	2.05	2.03	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.01	2.02	2.03	2.03	2.03	2.03	2.00	2.17	2.04	
May 23	2.03	S	2.03	2.03	2.03	2.04	2.04	2.03	2.03	2.02	2.01	2.01	2.01	2.00	2.00	2.00	1.99	2.00	2.01	2.01	2.01	2.02	2.02	2.03	1.99	2.04	2.02	
May 24	S	2.04	2.04	2.04	2.03	2.03	2.03	2.04	2.04	2.02	2.01	2.01	2.01	2.01	2.01	2.00	2.01	2.00	2.01	2.02	2.01	2.04	2.04	S	2.00	2.04	2.02	
May 25	2.05	2.07	2.07	2.04	2.07	2.03	2.03	2.03	2.02	2.02	2.01	2.00	2.01	2.00	1.99	1.99	1.99	2.00	2.00	2.00	2.01	2.02	S	2.07	1.99	2.07	2.02	
May 26	2.05	2.05	2.04	2.07	2.10	2.11	2.05	2.02	2.00	1.99	1.99	1.99	1.99	1.99	2.00	1.99	1.99	1.99	2.00	2.01	2.00	S	2.04	2.00	1.99	2.11	2.02	
May 27	2.01	2.02	2.04	2.04	2.02	2.03	2.02	2.01	2.01	2.01	2.00	1.99	1.99	1.99	2.00	2.00	2.02	2.02	2.02	S	2.03	2.03	2.02	1.99	2.04	2.01	2.01	
May 28	2.01	2.02	2.01	2.01	2.01	2.02	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.99	1.99	2.00	2.01	2.00	2.00	S	2.00	2.00	2.00	2.00	1.99	2.02	2.00	
May 29	2.01	2.01	2.01	2.00	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.01	2.02	2.02	2.02	2.02	S	2.02	2.02	2.03	2.08	2.07	2.00	2.08	2.02	
May 30	2.05	2.09	2.07	2.07	2.12	2.10	2.06	2.04	2.03	2.03	2.02	2.02	2.03	2.02	2.02	2.02	2.02	S	2.03	2.03	2.03	2.08	2.10	2.11	2.02	2.12	2.05	
May 31	2.19	2.24	2.25	2.28	2.27	2.25	2.16	2.09	2.04	2.04	2.01	2.02	2.02	2.02	2.02	2.01	S	2.01	2.01	2.02	2.02	2.07	2.09	2.05	2.01	2.28	2.09	
Diurnal Maximum	2.43	2.24	2.25	2.28	2.27	2.25	2.16	2.09	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.07	2.06	2.06	2.07	2.07	2.09	2.08	2.11	2.35			
Diurnal Average	2.04	2.04	2.04	2.04	2.04	2.04	2.03	2.02	2.02	2.01	2.01	2.00	2.01	2.00	2.00	2.00	2.00	2.00	2.01	2.01	2.01	2.02	2.03	2.04				

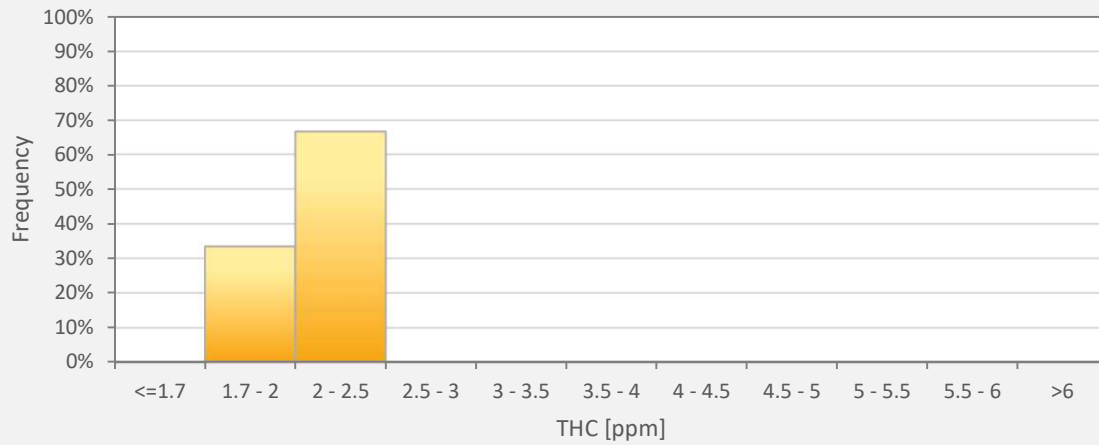
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)	P	Power Failure

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.

Timeseries Chart of Hourly Average for THC - AQHI - Grimshaw Station



THC55[ppm] Histogram: AQHI Grimshaw Monthly: 05-2022 1 Hr.

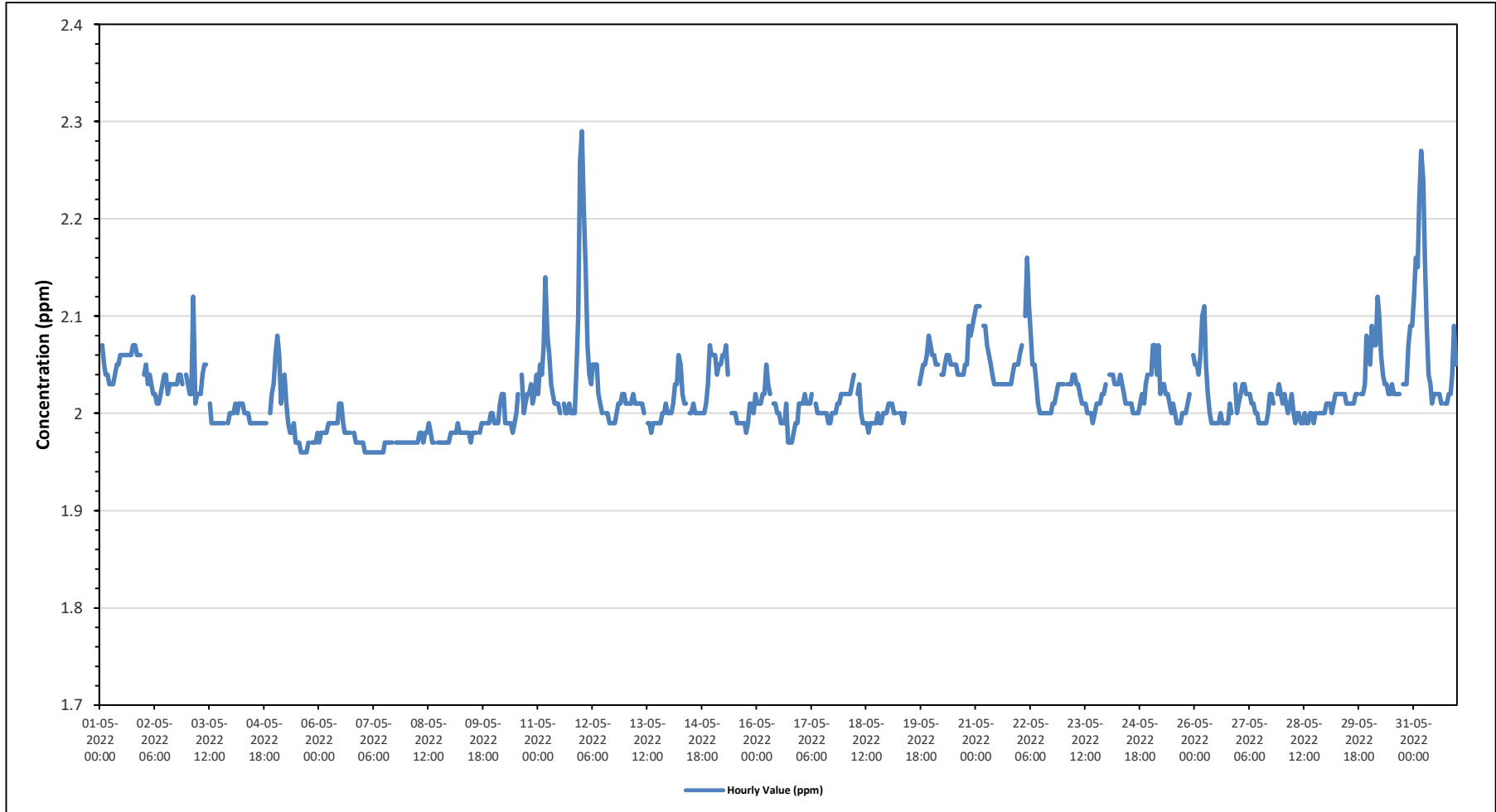


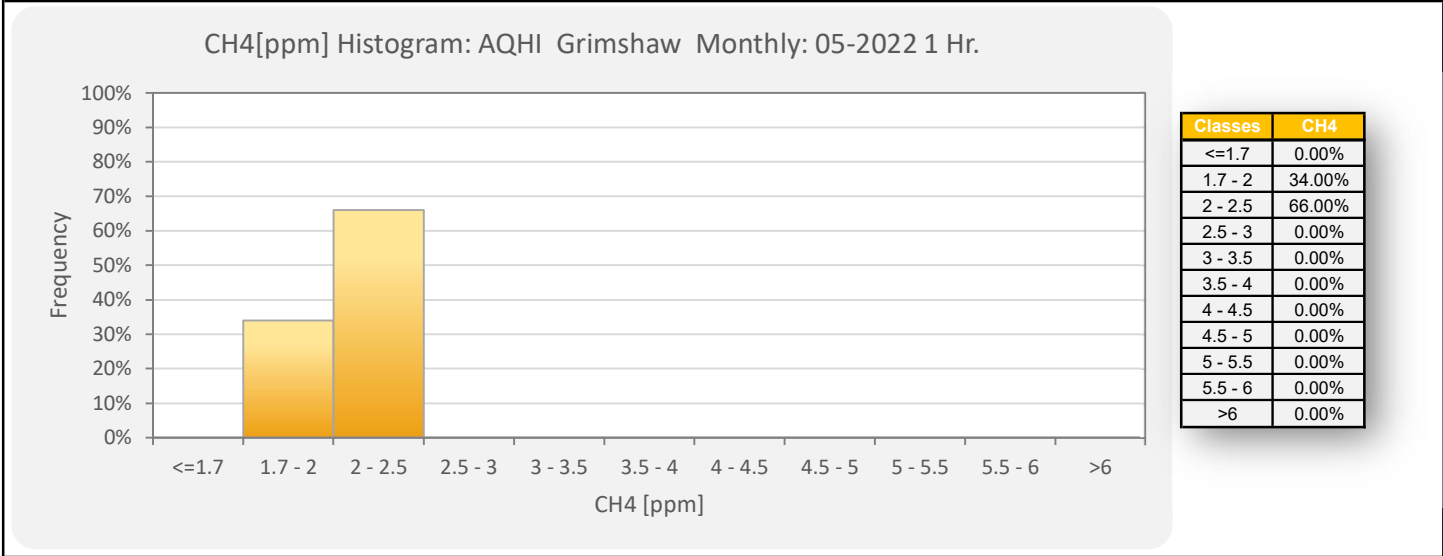
Classes	THC55
<=1.7	0.00%
1.7 - 2	33.43%
2 - 2.5	66.57%
2.5 - 3	0.00%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-THC55[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.49% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	1.56	9.96	0	0	0	11.52
NNE	1.71	4.55	0	0	0	6.26
NE	0.85	6.26	0	0	0	7.11
ENE	1.71	7.54	0	0	0	9.25
E	1.99	3.41	0	0	0	5.4
ESE	0.28	1.99	0	0	0	2.27
SE	1.42	1.28	0	0	0	2.7
SSE	0.57	1.99	0	0	0	2.56
S	1.14	2.28	0	0	0	3.42
SSW	1.85	1	0	0	0	2.85
SW	2.28	4.98	0	0	0	7.26
WSW	2.56	6.54	0	0	0	9.1
W	3.56	3.98	0	0	0	7.54
WNW	4.84	3.13	0	0	0	7.97
NW	3.98	2.7	0	0	0	6.68
NNW	2.99	5.12	0	0	0	8.11
Summary	33.29	66.71	0	0	0	100

Timeseries Chart of Hourly Average for CH4 - AQHI - Grimshaw Station

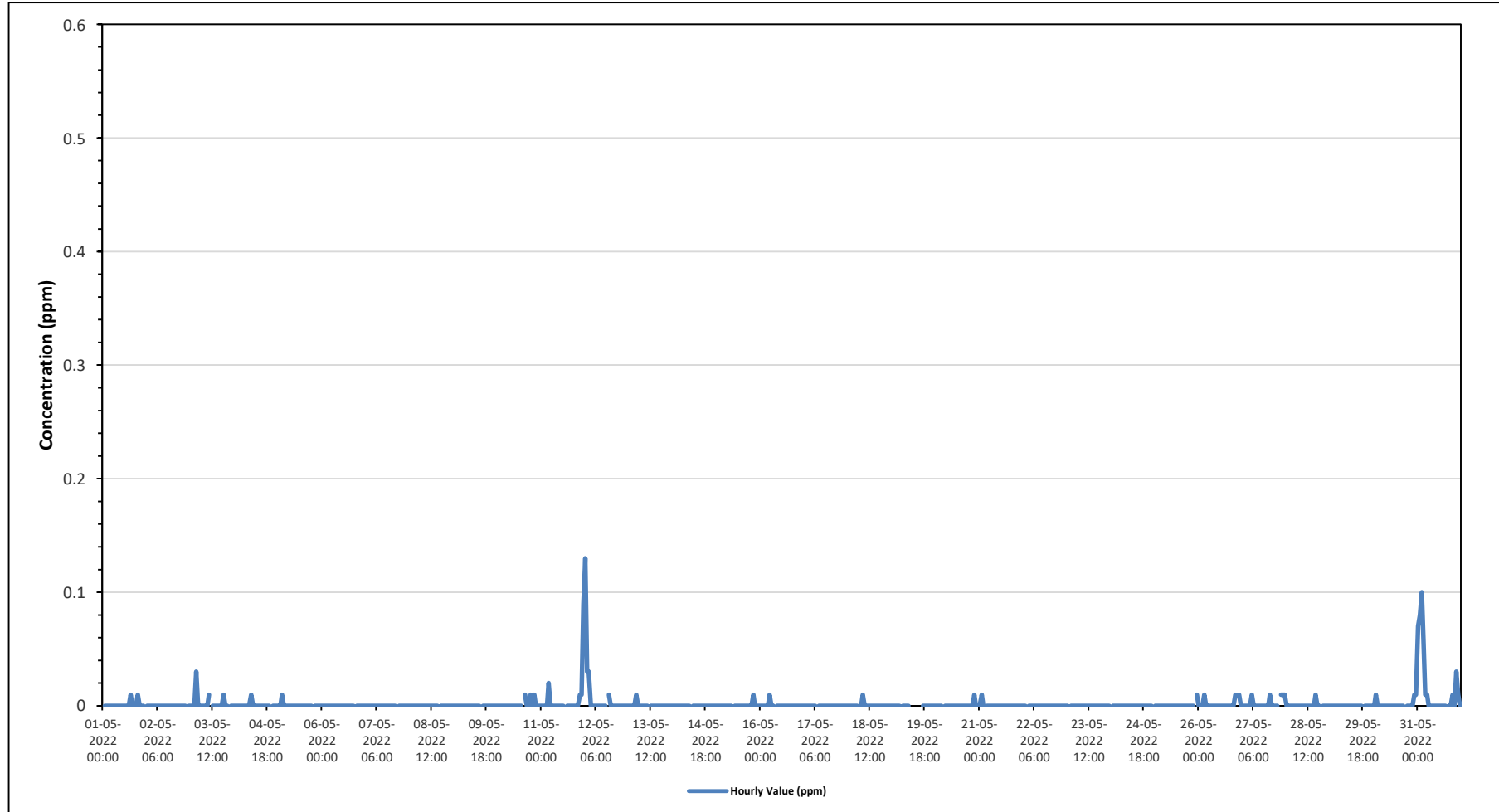




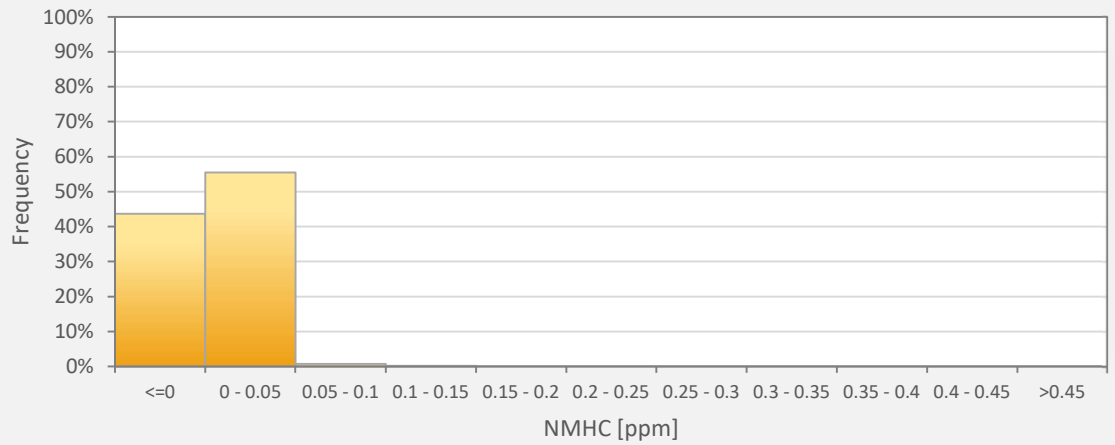
Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-CH4[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.49% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	1.85	9.67	0	0	0	11.52
NNE	1.71	4.55	0	0	0	6.26
NE	0.85	6.26	0	0	0	7.11
ENE	1.71	7.54	0	0	0	9.25
E	1.99	3.41	0	0	0	5.4
ESE	0.28	1.99	0	0	0	2.27
SE	1.42	1.28	0	0	0	2.7
SSE	0.71	1.85	0	0	0	2.56
S	1.14	2.28	0	0	0	3.42
SSW	1.85	1	0	0	0	2.85
SW	2.56	4.69	0	0	0	7.25
WSW	2.56	6.54	0	0	0	9.1
W	3.56	3.98	0	0	0	7.54
WNW	4.84	3.13	0	0	0	7.97
NW	3.98	2.7	0	0	0	6.68
NNW	2.99	5.12	0	0	0	8.11
Summary	34	65.99	0	0	0	100

Timeseries Chart of Hourly Average for NMHC - AQHI - Grimshaw Station



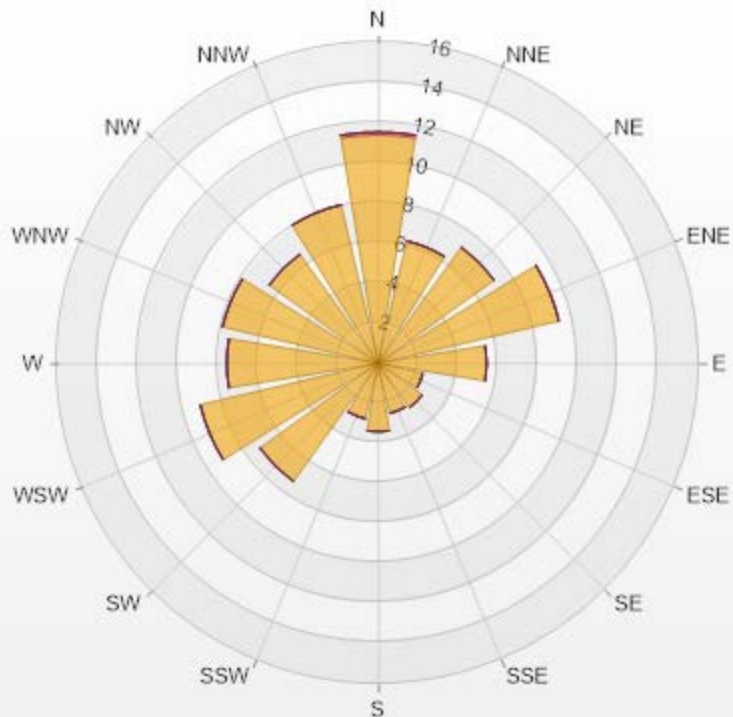
NMHC[ppm] Histogram: AQHI Grimshaw Monthly: 05-2022 1 Hr.



Classes	NMHC
<=0	43.67%
0 - 0.05	55.48%
0.05 - 0.1	0.71%
0.1 - 0.15	0.14%
0.15 - 0.2	0.00%
0.2 - 0.25	0.00%
0.25 - 0.3	0.00%
0.3 - 0.35	0.00%
0.35 - 0.4	0.00%
0.4 - 0.45	0.00%
>0.45	0.00%

Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-NMHC[ppm] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 94.49% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	11.38	0.14	0	0	0	11.52
NNE	6.26	0	0	0	0	6.26
NE	7.11	0	0	0	0	7.11
ENE	9.25	0	0	0	0	9.25
E	5.41	0	0	0	0	5.41
ESE	2.28	0	0	0	0	2.28
SE	2.7	0	0	0	0	2.7
SSE	2.56	0	0	0	0	2.56
S	3.41	0	0	0	0	3.41
SSW	2.84	0	0	0	0	2.84
SW	7.25	0	0	0	0	7.25
WSW	9.1	0	0	0	0	9.1
W	7.54	0	0	0	0	7.54
WNW	7.97	0	0	0	0	7.97
NW	6.69	0	0	0	0	6.69
NNW	8.11	0	0	0	0	8.11
Summary	100	0.14	0	0	0	100



PRAMP-202205

Page 254 of 276

% Icon Classes (ppm)

100 0-0.1

0 0.1-0.3

0 0.3-1

0 1-2

0 >2.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

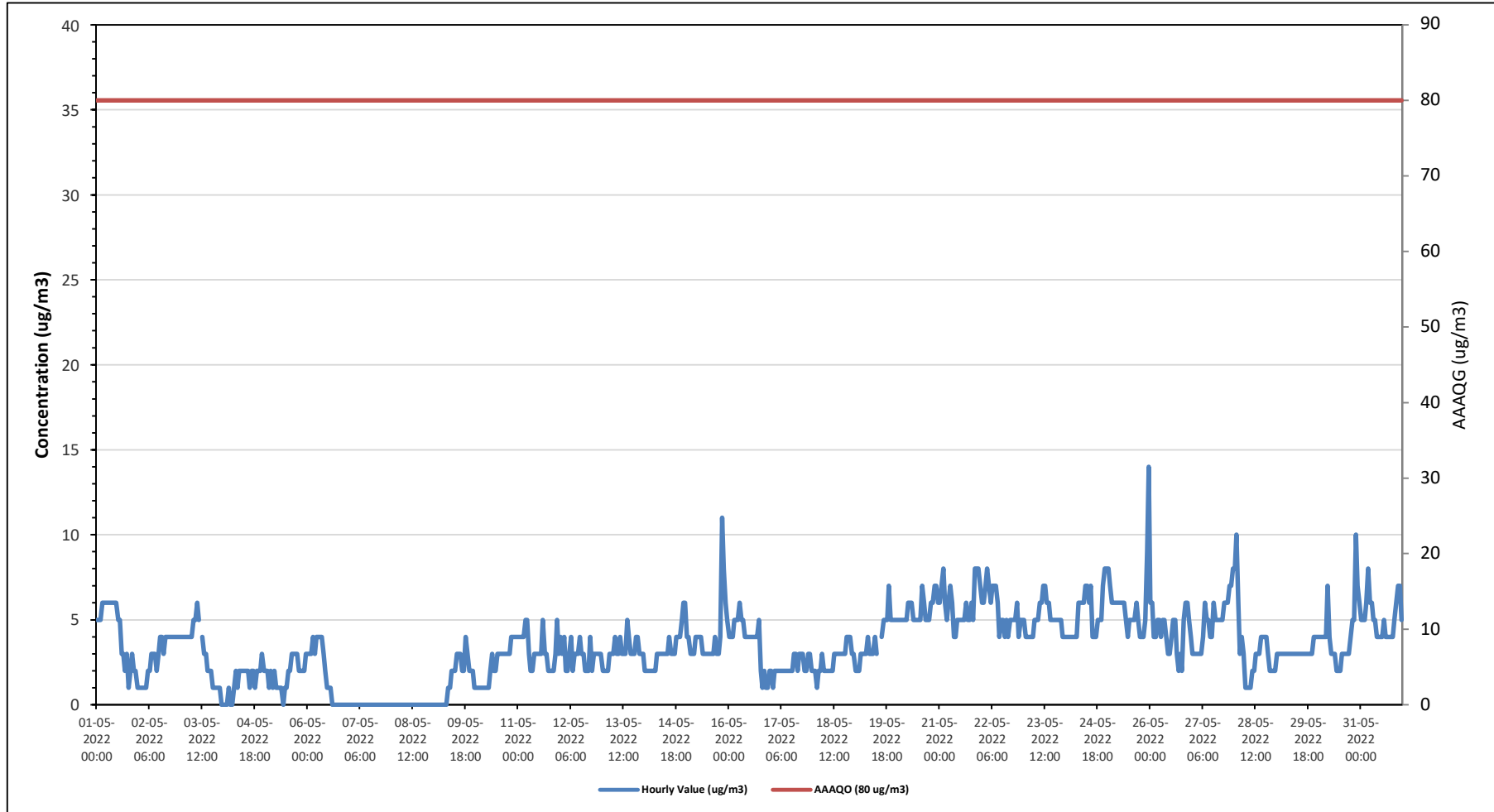
Summary of Hourly Averages

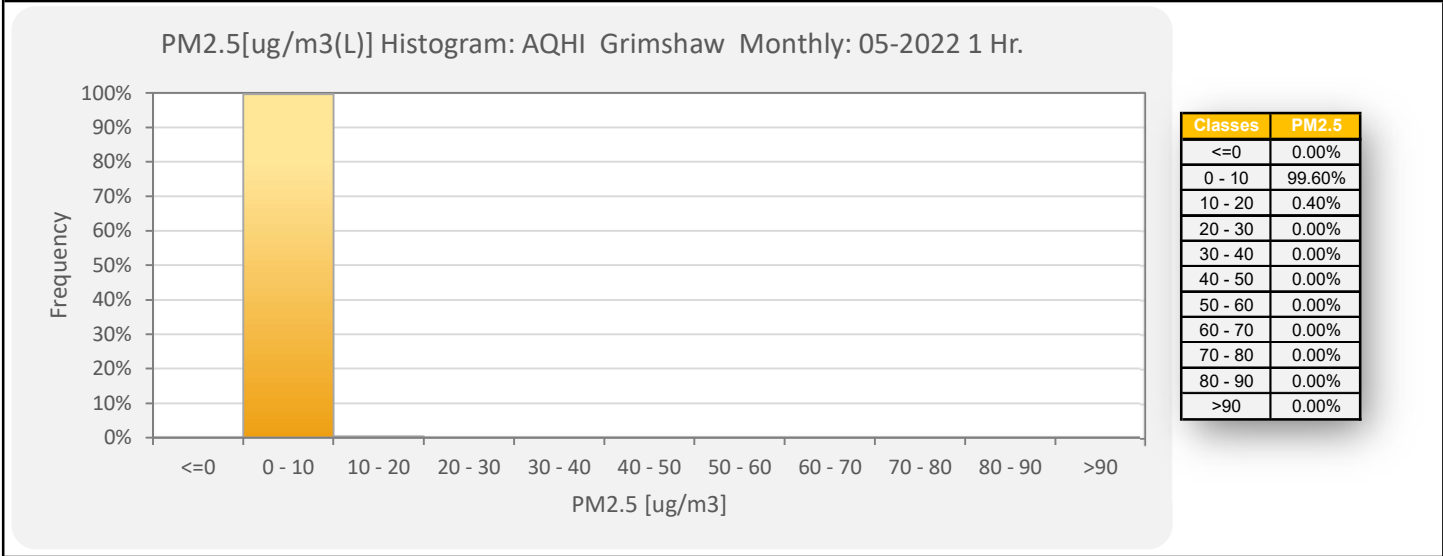
PARTICULATE MATTER 2.5 (PM_{2.5}) in µg/m³

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: 0										Number of 24-Hour Exceedances: 0																		
Maximum Hourly Value: 14 µg/m ³ on May 25 at hour 23					Hours in Service: 744																							
Maximum Daily Value: 6.0 µg/m ³ on May 25					Hours of Data: 741																							
Minimum Hourly Value: 0 µg/m ³ on May 3 at hour 23					Hours of Missing Data: 1																							
Minimum Daily Value: 0.0 µg/m ³ on May 7					Hours of Calibration: 2																							
Monthly Average: 3.4 µg/m ³					Operational Uptime: 99.9																							
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average	
May 1	5	5	5	6	6	6	6	6	6	6	6	6	5	5	3	3	2	3	1	2	3	2	2	1	1	6	6	4.2
May 2	1	1	1	1	1	2	2	3	3	2	3	4	4	4	3	4	4	4	4	4	4	4	4	4	4	1	4	2.9
May 3	4	4	4	4	4	4	4	5	5	6	5	X	4	3	3	2	2	2	1	1	1	1	1	0	0	6	3	3.0
May 4	0	0	0	1	0	0	1	2	1	2	2	2	2	2	1	2	2	1	2	2	2	2	3	2	0	3	1.4	
May 5	2	2	1	2	1	2	1	1	1	1	0	1	1	2	2	3	3	3	3	2	2	2	2	3	0	3	1.8	
May 6	3	3	3	4	3	4	4	4	4	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	4	4	1.7
May 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
May 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
May 9	0	0	0	0	0	0	0	0	1	1	2	2	2	3	3	2	2	4	3	2	2	2	1	0	4	4	1.5	
May 10	1	1	1	1	1	1	1	1	2	3	2	2	3	3	3	3	3	3	3	3	4	4	4	4	1	4	2.4	
May 11	4	4	4	4	5	5	3	2	2	3	3	3	3	5	3	3	2	2	2	2	3	5	3	2	5	3	3.3	
May 12	4	3	4	2	2	3	4	2	3	3	3	4	3	3	2	2	2	4	2	3	3	3	3	2	4	2	2.9	
May 13	2	2	2	2	3	3	3	4	3	3	4	3	3	3	5	4	3	3	3	4	4	3	3	2	5	3	3.1	
May 14	2	2	2	2	2	2	2	3	3	3	3	3	3	4	3	3	3	4	4	4	5	6	6	2	6	3	3.2	
May 15	4	4	3	3	3	4	4	4	4	3	3	3	3	3	3	4	3	3	3	4	11	8	6	5	3	11	4.1	
May 16	4	4	4	5	5	5	6	5	5	4	4	4	4	4	4	4	5	2	1	2	1	1	2	1	6	3	3.7	
May 17	2	1	2	2	2	2	2	2	2	2	2	2	2	3	3	2	3	3	3	2	2	3	3	2	3	2	2.3	
May 18	2	2	1	2	2	3	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	3	3	1	4	2.6	
May 19	2	2	2	3	3	3	3	4	3	3	3	4	3	C	C	4	5	5	5	7	5	5	5	2	7	3	3.8	
May 20	5	5	5	5	5	5	6	6	6	5	5	5	5	5	7	6	5	5	5	6	6	7	7	6	5	7	5.5	
May 21	6	7	8	6	5	6	7	6	4	4	5	5	5	5	6	5	5	5	6	5	8	8	8	7	4	8	5.9	
May 22	6	6	7	8	7	6	7	7	7	6	4	5	5	4	5	4	5	5	5	6	4	5	5	4	8	5	5.6	
May 23	5	4	4	4	4	4	5	5	5	6	6	7	7	6	6	5	5	5	5	5	5	5	5	4	4	7	5.0	
May 24	4	4	4	4	4	4	4	6	6	6	6	7	7	6	7	4	4	4	5	5	5	7	8	8	4	8	5.4	
May 25	8	7	6	6	6	6	6	6	6	5	4	5	5	5	5	6	5	4	4	4	5	9	8	14	4	14	6.0	
May 26	6	6	4	4	5	5	4	5	5	4	3	3	4	5	5	3	2	3	2	5	6	6	5	4	2	6	4.3	
May 27	3	3	3	3	3	3	4	6	5	5	4	4	6	5	5	5	5	6	6	6	7	7	8	3	8	4	4.9	
May 28	8	10	6	3	4	3	1	1	1	2	2	3	3	3	4	4	4	4	3	2	2	2	2	1	10	3	3.3	
May 29	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	3	4	3	3.1	
May 30	4	4	4	4	4	7	4	3	3	3	2	2	2	3	3	3	3	4	5	5	10	7	6	2	10	4	4.1	
May 31	5	5	5	6	8	6	6	5	5	4	4	4	5	4	4	4	4	4	5	6	7	7	5	4	8	5	5.1	
Diurnal Maximum	8	10	8	8	8	7	7	7	7	6	6	7	7	6	7	6	6	5	6	7	11	10	9	14				
Diurnal Average	3.4	3.4	3.2	3.2	3.3	3.5	3.4	3.5	3.4	3.4	3.1	3.2	3.4	3.4	3.5	3.2	3.2	3.3	3.1	3.4	3.8	4.0	4.1	3.9				
C	Monthly Calibration							S	Daily Zero-Span Check							Q	Quality Assurance											
K	Collection Error							N	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.

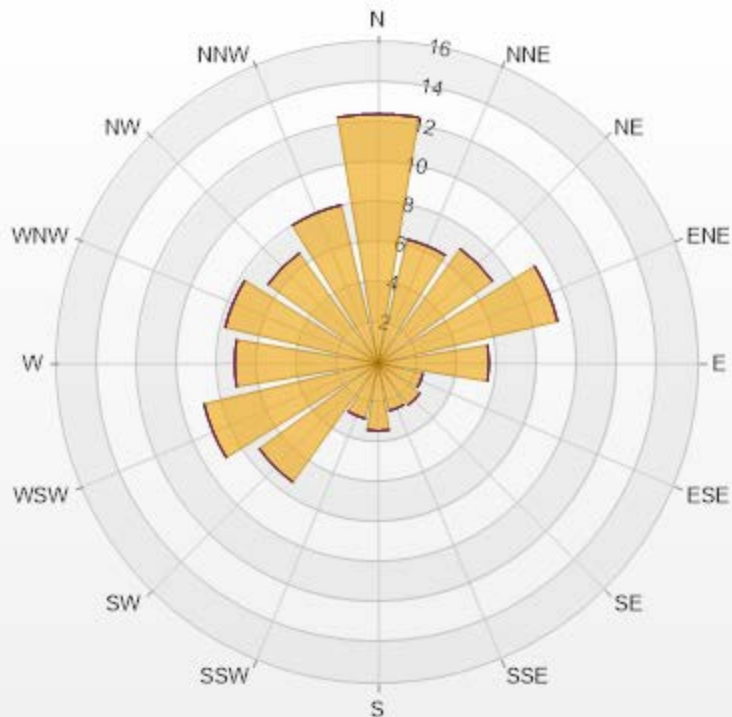
Timeseries Chart of Hourly Average for PM2.5 - AQHI - Grimshaw Station





Wind: AQHI Grimshaw Poll.: AQHI Grimshaw-PM2.5[ug/m3(L)] Monthly: 05-2022 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 0.00% Valid Data: 99.60% Calm Avg: 0.00 [ug/m3(L)]

Direction	0-50	50-80	80-120	120-240	>240.0	Total
N	12.42	0	0	0	0	12.42
NNE	6.34	0	0	0	0	6.34
NE	7.02	0	0	0	0	7.02
ENE	9.18	0	0	0	0	9.18
E	5.53	0	0	0	0	5.53
ESE	2.29	0	0	0	0	2.29
SE	2.56	0	0	0	0	2.56
SSE	2.43	0	0	0	0	2.43
S	3.37	0	0	0	0	3.37
SSW	2.83	0	0	0	0	2.83
SW	7.29	0	0	0	0	7.29
WSW	8.91	0	0	0	0	8.91
W	7.15	0	0	0	0	7.15
WNW	7.83	0	0	0	0	7.83
NW	6.75	0	0	0	0	6.75
NNW	8.1	0	0	0	0	8.1
Summary	100	0	0	0	0	100



PRAMP-202205

Page 259 of 276

% Icon Classes (ug/m3(L))

100 0-50

0 50-80

0 80-120

0 120-240

0 >240.0



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

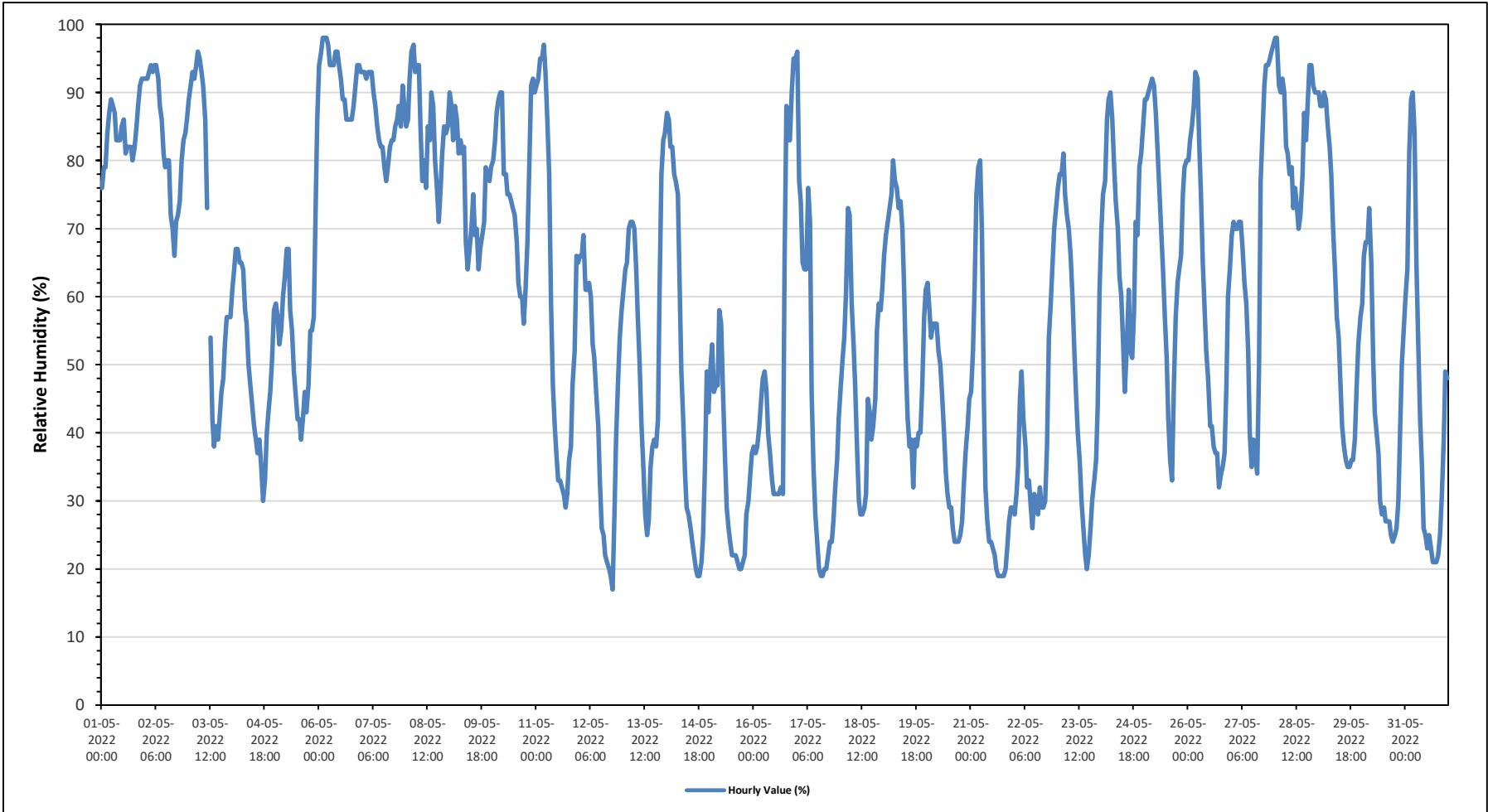
Maximum Hourly Value:	98 %	on May 6 at hour 2	Hours in Service:	744
Maximum Daily Value:	92.6 %	on May 6	Hours of Data:	743
Minimum Hourly Value:	17 %	on May 12 at hour 18	Hours of Missing Data:	1
Minimum Daily Value:	34.0 %	on May 15	Hours of Calibration:	0
Monthly Average:	59.9 %		Operational Uptime:	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
May 1	76	79	79	84	87	89	88	87	83	83	83	85	86	81	82	82	82	80	82	85	88	91	92	92	76	92	84.4
May 2	92	92	93	94	93	94	94	92	88	86	81	79	80	80	72	70	66	71	72	74	80	83	84	86	66	94	83.2
May 3	89	91	93	92	94	96	95	93	91	86	73	X	54	42	38	41	39	42	46	48	53	57	57	57	38	96	68.1
May 4	61	64	67	67	65	65	64	58	56	50	47	44	41	39	37	39	35	30	33	40	43	46	51	58	30	67	50.0
May 5	59	57	53	55	60	63	67	67	58	55	49	46	42	42	39	42	46	43	47	55	55	57	73	86	39	86	54.8
May 6	94	96	98	98	98	97	94	94	94	96	96	94	92	89	89	86	86	86	86	88	91	94	94	93	86	98	92.6
May 7	93	93	92	93	93	93	90	88	85	83	82	82	79	77	79	82	83	83	85	86	88	85	91	88	77	93	86.4
May 8	85	86	92	96	97	93	94	94	85	77	80	76	85	83	90	88	80	76	71	76	81	85	84	85	71	97	85.0
May 9	90	88	83	88	86	81	83	81	82	68	64	67	70	75	69	70	64	67	69	71	79	78	77	79	64	90	76.2
May 10	80	83	87	89	90	90	78	78	75	75	74	73	72	68	62	60	60	56	61	68	79	91	92	90	56	92	76.3
May 11	91	92	95	95	97	93	86	78	59	47	41	37	33	33	32	31	29	31	36	38	47	52	66	65	29	97	58.5
May 12	66	66	69	61	61	62	60	53	51	46	41	33	26	25	22	21	20	19	17	28	39	47	54	58	17	69	43.5
May 13	61	64	65	70	71	71	70	64	57	50	41	35	28	25	27	35	38	39	38	42	61	78	83	84	25	84	54.0
May 14	87	86	82	82	78	77	75	61	49	42	34	29	28	26	24	22	20	19	19	21	25	35	49	43	19	87	46.4
May 15	49	53	46	47	47	58	56	46	37	29	26	24	22	22	22	21	20	20	21	22	28	30	34	37	20	58	34.0
May 16	38	37	38	41	45	48	49	46	40	37	33	31	31	31	31	32	31	65	88	83	83	90	95	95	31	95	51.6
May 17	96	77	74	65	64	64	76	71	46	35	28	24	20	19	19	20	20	22	24	24	27	32	36	42	19	96	42.7
May 18	47	51	54	61	73	72	59	53	47	38	30	28	28	29	31	45	43	39	41	45	55	59	58	61	28	73	47.8
May 19	66	69	71	73	75	80	77	76	73	74	70	62	50	42	38	39	32	39	38	40	40	47	57	61	32	80	57.9
May 20	62	58	54	56	56	56	52	50	46	40	34	31	29	29	26	24	24	24	25	27	32	37	41	45	24	62	39.9
May 21	46	52	61	75	79	80	69	45	32	27	24	24	23	22	20	19	19	19	19	20	23	27	29	29	19	80	36.8
May 22	28	31	35	45	49	42	38	32	33	29	26	31	30	28	32	29	29	30	38	54	59	65	70	73	26	73	39.8
May 23	76	78	78	81	75	72	70	66	60	52	46	40	36	30	26	22	20	22	26	30	33	36	44	61	20	81	49.2
May 24	70	75	77	86	89	90	86	80	74	70	63	60	53	46	52	61	52	51	58	71	69	79	81	85	46	90	69.9
May 25	89	89	90	91	92	91	87	82	76	70	64	57	51	42	36	33	47	57	62	64	66	75	79	80	33	92	69.6
May 26	80	83	85	88	93	92	82	75	65	58	52	48	41	41	38	37	37	32	34	35	37	47	60	64	32	93	58.5
May 27	69	71	70	70	71	71	67	62	59	52	40	35	39	37	34	50	77	84	91	94	94	95	96	97	34	97	67.7
May 28	98	98	91	90	92	90	82	81	78	79	73	76	73	70	72	78	87	83	89	94	94	91	90	90	70	98	85.0
May 29	90	88	88	90	89	85	82	78	70	64	57	54	47	41	38	36	35	35	36	36	39	47	53	57	35	90	59.8
May 30	59	66	68	68	73	65	51	43	40	37	30	28	29	27	27	25	24	25	26	30	41	50	55	24	73	42.3	
May 31	60	64	81	89	90	84	65	53	42	35	26	25	23	25	23	21	21	21	22	25	31	39	49	48	21	90	44.3
Diurnal Maximum	98	98	98	98	98	97	95	94	94	96	96	94	92	89	90	88	87	86	91	94	94	95	96	97			
Diurnal Average	72.5	73.5	74.5	76.8	78.1	77.5	73.7	68.6	62.3	57.1	51.9	48.6	46.5	44.1	42.8	44.0	44.1	45.5	48.4	51.9	56.4	61.8	66.7	69.2			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

Timeseries Chart of Hourly Average for RH - AQHI - Grimshaw Station





PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

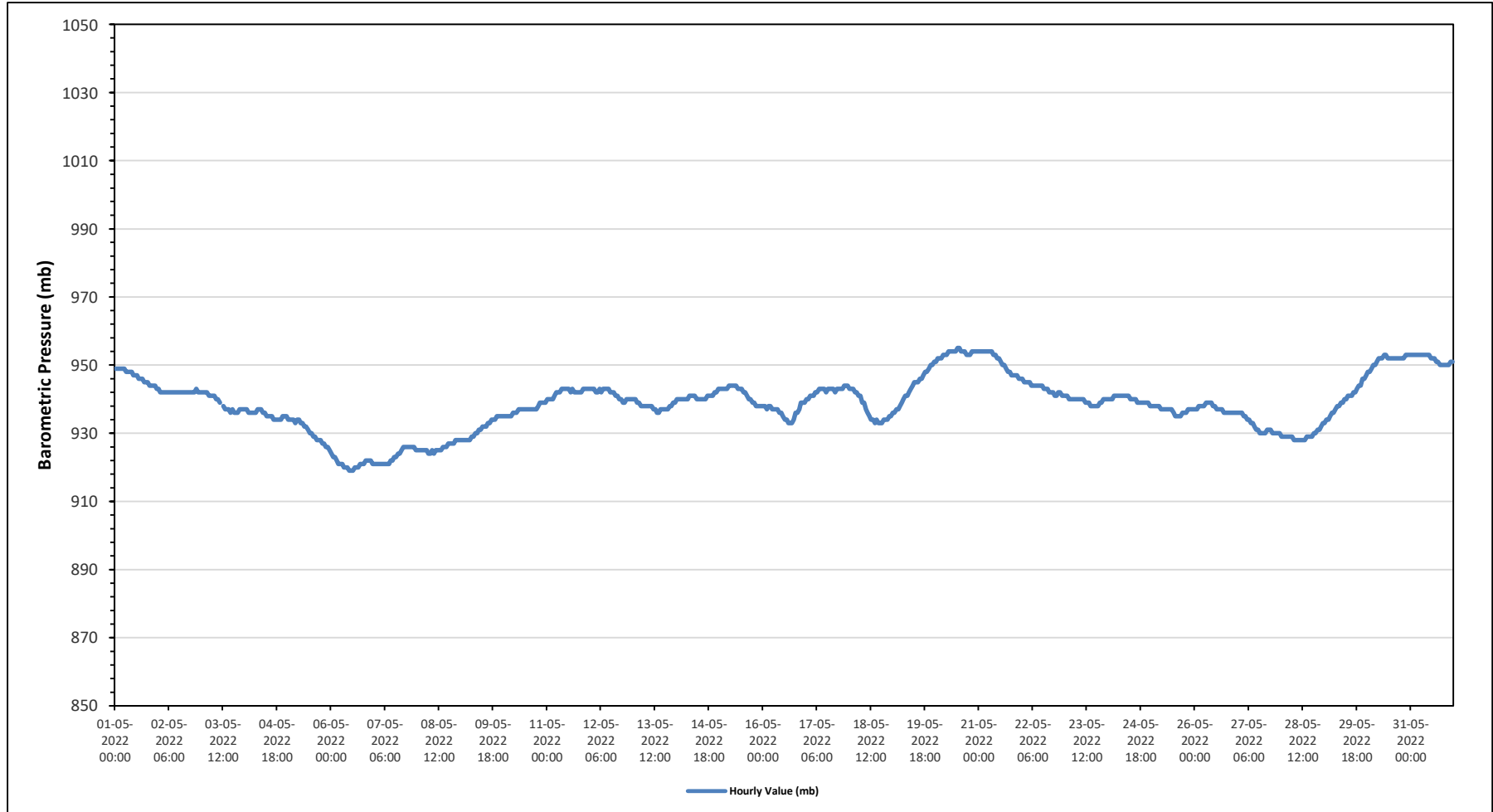
Maximum Hourly Value:	955 mb on May 20 at hour 12	Hours in Service:	744
Maximum Daily Value:	953 mb on May 20	Hours of Data:	743
Minimum Hourly Value:	919 mb on May 6 at hour 10	Hours of Missing Data:	1
Minimum Daily Value:	921 mb on May 6	Hours of Calibration:	0
Monthly Average:	939 mb	Operational Uptime:	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
May 1	949	949	949	949	949	949	948	948	948	948	947	947	947	946	946	946	945	945	945	944	944	944	944	943	949	946.6	
May 2	943	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	943	942.1	
May 3	942	942	942	942	941	941	941	941	940	940	939	X	938	937	937	937	936	937	936	936	936	936	937	937	937	938.8	
May 4	937	937	936	936	936	936	936	937	937	937	936	936	935	935	935	934	934	934	934	934	934	935	935	935	934	937	935.5
May 5	934	934	934	934	933	934	934	933	933	932	932	931	930	930	929	929	928	928	928	927	927	926	926	925	925	934	930.5
May 6	924	923	923	922	921	921	921	920	920	920	919	919	919	920	920	920	921	921	921	922	922	922	922	921	919	924	921.0
May 7	921	921	921	921	921	921	921	921	921	922	922	923	923	924	924	925	926	926	926	926	926	926	926	925	921	926	923.3
May 8	925	925	925	925	925	925	924	924	925	924	925	925	925	925	926	926	926	927	927	927	927	927	928	928	924	928	925.7
May 9	928	928	928	928	928	928	929	929	930	930	931	931	932	932	932	933	933	934	934	934	935	935	935	935	928	935	931.3
May 10	935	935	935	935	935	936	936	936	937	937	937	937	937	937	937	937	937	937	937	938	939	939	939	939	935	939	936.8
May 11	940	940	940	940	941	942	942	942	943	943	943	943	943	942	943	942	942	942	942	942	943	943	943	943	940	943	942.0
May 12	943	943	943	942	942	943	942	943	943	943	943	942	942	942	941	941	940	940	939	939	940	940	940	940	939	943	941.5
May 13	940	940	939	939	938	938	938	938	938	938	938	937	937	936	936	937	937	937	937	937	937	938	938	939	936	940	937.9
May 14	940	940	940	940	940	940	940	941	941	941	941	940	940	940	940	940	941	941	941	941	941	942	942	943	940	943	940.6
May 15	943	943	943	943	943	944	944	944	944	944	944	943	943	942	942	941	940	940	939	939	938	938	938	938	938	944	941.6
May 16	938	938	937	938	938	937	937	937	937	936	936	935	934	934	933	933	933	934	936	936	937	939	939	939	933	939	936.3
May 17	940	940	941	941	941	942	942	943	943	943	943	942	943	943	943	943	942	943	943	943	943	943	944	944	940	944	942.5
May 18	943	943	943	942	942	941	941	939	939	937	936	935	934	934	933	934	933	933	933	934	934	934	935	935	933	943	937.0
May 19	936	936	937	937	938	939	940	941	941	942	943	944	945	945	946	946	947	948	948	949	950	950	951	951	936	951	943.5
May 20	951	952	952	952	953	953	953	954	954	954	954	954	955	955	954	954	954	953	953	953	954	954	954	954	951	955	953.5
May 21	954	954	954	954	954	954	954	954	953	953	952	952	951	950	950	949	948	948	947	947	947	947	946	946	946	954	950.8
May 22	946	945	945	945	945	944	944	944	944	944	944	944	943	943	943	942	942	942	941	941	942	942	941	941	941	946	943.2
May 23	941	941	940	940	940	940	940	940	940	940	940	939	939	939	938	938	938	938	938	939	939	939	940	940	938	941	939.5
May 24	940	940	940	941	941	941	941	941	941	941	941	941	940	940	940	940	939	939	939	939	939	939	939	938	938	941	940.0
May 25	938	938	938	938	938	937	937	937	937	937	937	937	936	935	935	935	935	936	936	936	936	937	937	937	935	938	936.7
May 26	937	937	938	938	938	938	939	939	939	939	938	938	937	937	937	937	936	936	936	936	936	936	936	936	936	939	937.3
May 27	936	936	936	935	935	934	934	933	933	932	931	931	930	930	930	931	931	931	931	930	930	930	930	930	930	936	932.0
May 28	929	929	929	929	929	929	929	928	928	928	928	928	928	928	929	929	929	930	930	931	931	932	933	933	928	933	929.3
May 29	933	934	934	935	936	936	937	938	938	939	939	940	940	941	941	941	942	942	943	944	944	946	946	947	933	947	939.8
May 30	948	948	949	950	950	951	952	952	952	953	953	952	952	952	952	952	952	952	952	952	952	953	953	953	948	953	951.5
May 31	943	953	953	953	953	953	953	953	953	953	953	952	952	952	951	950	950	950	950	950	950	951	951	950	950	953	951.8
Diurnal Maximum	954	954	954	954	954	954	954	954	954	954	954	954	955	955	954	954	954	953	953	953	954	954	954	954	950	953	951.8
Diurnal Average	939	939	939	939	939	939	939	939	939	939	939	939	938	938	938	938	938	938	938	938	939	939	939	939	939	939	939

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

Timeseries Chart of Hourly Average for BP - AQHI - Grimshaw Station





PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

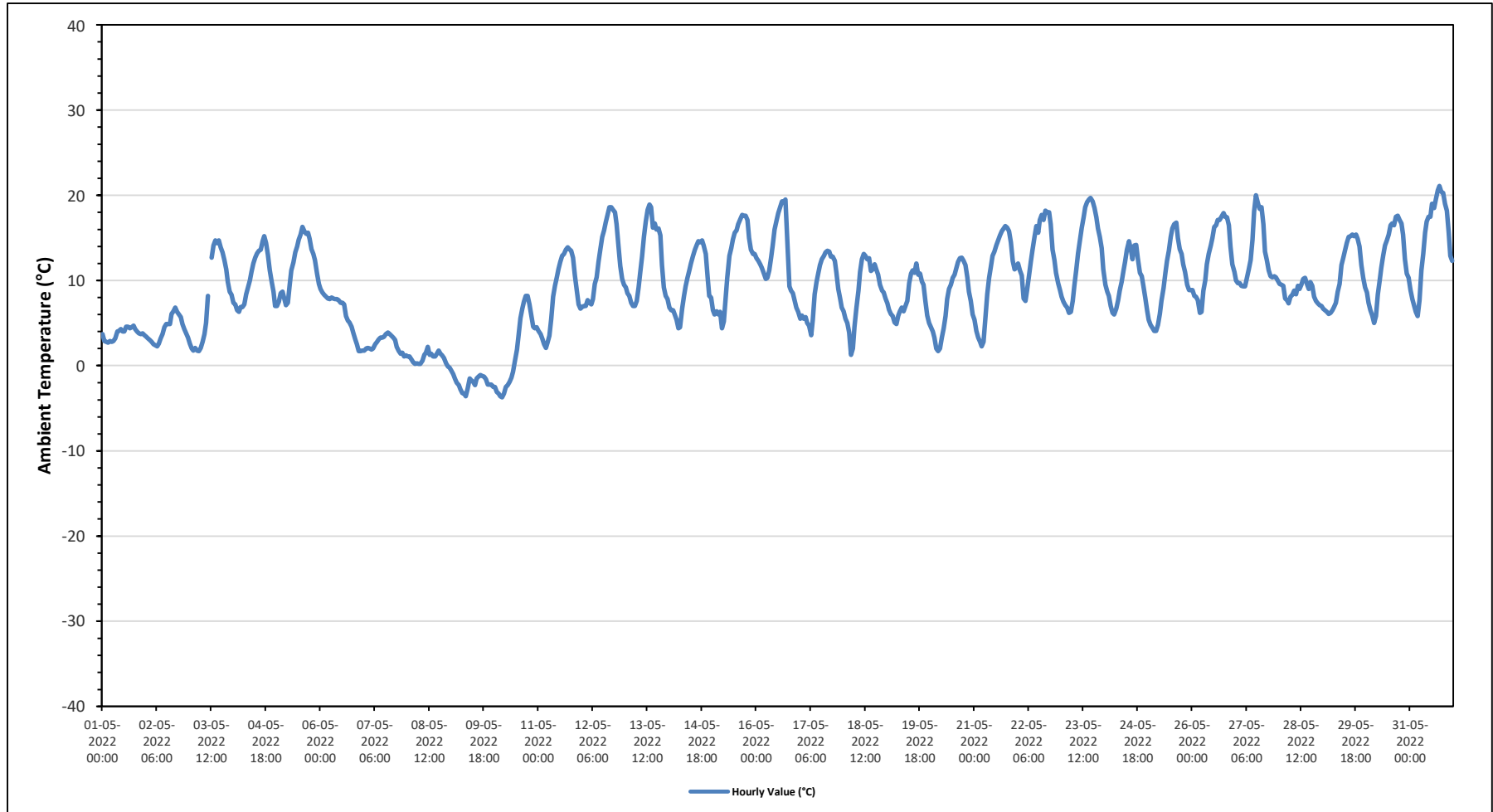
Maximum Hourly Value:	21.1 °C	on May 31 at hour 16	Hours in Service:	744
Maximum Daily Value:	14.7 °C	on May 31	Hours of Data:	743
Minimum Hourly Value:	-3.7 °C	on May 10 at hour 4	Hours of Missing Data:	1
Minimum Daily Value:	-2.0 °C	on May 9	Hours of Calibration:	0
Monthly Average:	9.0 °C		Operational 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
May 1	3.7	2.9	2.8	2.7	2.9	2.8	2.9	3.2	4	4.1	4.3	4	4	4.6	4.6	4.4	4.5	4.7	4.3	4	3.8	3.7	3.8	3.6	2.7	4.7	3.8
May 2	3.4	3.2	3	2.8	2.5	2.4	2.3	2.6	3.2	3.7	4.5	4.9	4.9	4.9	6.1	6.4	6.8	6.3	6	5.7	4.9	4.3	3.8	3.3	2.3	6.8	4.2
May 3	2.6	2	1.8	2.1	1.8	1.7	2.1	2.8	3.7	5	8.2	X	12.7	14.1	14.7	14.4	14.7	13.9	13.3	12.4	11.3	9.8	8.7	8.3	1.7	14.7	7.9
May 4	7.4	7.2	6.5	6.3	6.9	6.9	7.2	8.4	9.2	10	11	12	12.7	13.2	13.5	13.6	14.6	15.2	14.4	13	11.2	9.9	8.7	7	6.3	15.2	10.3
May 5	7	7.5	8.5	8.7	7.8	7.1	7.4	9.5	11.2	12.1	13.3	14	14.8	15.4	16.3	15.8	15.5	15.6	14.9	13.7	13.1	12.4	10.8	9.6	7.0	16.3	11.8
May 6	9	8.6	8.3	8.1	7.9	7.8	8	7.9	7.8	7.7	7.4	7.4	7.2	5.8	5.3	5.1	4.6	3.8	3.1	2.5	1.7	1.7	1.8	1.7	9.0	6.1	
May 7	1.8	2	2.1	2	1.9	2	2.5	2.8	3.1	3.3	3.3	3.4	3.7	3.9	3.7	3.5	3.3	3	2.2	1.7	1.4	1.5	1.1	1.2	1.1	3.9	2.5
May 8	1.1	1.1	0.7	0.4	0.2	0.3	0.2	0.2	0.6	1.3	1.5	2.2	1.3	1.4	1.1	1.1	1.4	1.8	1.4	1.2	0.9	0.3	-0.1	-0.2	-0.2	2.2	0.9
May 9	-0.6	-1	-1.5	-2	-2.3	-2.8	-3.2	-3.3	-3.6	-2.7	-1.5	-1.7	-1.9	-2.3	-1.5	-1.3	-1.1	-1.2	-1.3	-1.6	-2.2	-2.2	-2.5	-3.6	-3.6	-0.6	-2.0
May 10	-2.5	-3.1	-3.3	-3.6	-3.7	-3.3	-2.5	-2.3	-1.9	-1.4	-0.7	0.5	1.9	3.6	5.6	6.7	7.5	8.2	8.2	7.2	5.9	4.6	4.4	4.5	-3.7	8.2	1.7
May 11	4.1	3.7	3.2	2.5	2.1	2.7	3.5	5.5	8.1	9.4	10.4	11.3	12.2	12.9	13.1	13.6	13.9	13.7	13.5	12.7	10.6	8.9	7.2	6.7	2.1	13.9	8.6
May 12	6.9	7	7	7.7	7.4	7.2	7.8	9.6	10.4	12.2	13.7	15.1	15.9	16.8	17.7	18.6	18.6	18.3	18	16.6	14.1	11.7	10.2	9.5	6.9	18.6	12.4
May 13	9.2	8.5	8.2	7.4	7	7	7.6	9.2	10.9	12.8	15.1	16.9	18.3	18.9	18.6	16.2	16.7	16	16.1	15.3	11.8	9.2	8.2	7.8	7.0	18.9	12.2
May 14	6.8	6.5	6.5	6	5.4	4.4	4.5	6.7	8.2	9.3	10.3	11.2	12	12.9	13.6	14.2	14.6	14.5	14.7	14.1	13.1	10.4	8.2	8	4.4	14.7	9.8
May 15	6.5	6	6.4	6	6.3	4.4	5.2	8	10.4	12.9	13.8	14.8	15.6	15.9	16.6	17.2	17.7	17.6	17.6	17.1	15	13.6	13.1	13.1	4.4	17.7	12.1
May 16	12.6	12.3	11.9	11.5	10.8	10.2	10.3	11.2	12.7	14.1	16	17.1	17.9	18.6	19.3	19.2	19.5	14	9.3	8.8	8.5	7.6	6.8	6.3	6.3	19.5	12.8
May 17	5.5	5.9	5.5	5.7	5	4.7	3.6	5.4	8.4	9.8	10.9	11.8	12.5	12.9	13.3	13.5	13.4	12.8	12.8	12.3	10.9	9	7.9	6.8	3.6	13.5	9.2
May 18	6.4	5.5	5	3.9	1.3	2	4.6	6.7	8.8	11	12.5	13.1	12.9	12.5	12.6	11.1	11.3	11.9	11.3	10.7	9.5	8.8	8.6	7.9	1.3	13.1	8.7
May 19	7.3	6.6	6.1	5.8	5.1	4.9	5.9	6.4	6.8	6.4	7	7.6	9.7	10.8	11.2	10.9	12	10.7	10.8	9.9	9.5	7.6	5.9	5	4.9	12.0	7.9
May 20	4.5	4	3.3	2	1.7	2	3.3	4.4	5.8	7.8	9	9.5	10.3	10.7	11.5	12.2	12.6	12.7	12.3	11.8	10.4	8.7	7.6	6	1.7	12.7	7.7
May 21	5.4	4.1	3.3	2.8	2.3	2.8	5.6	8.4	10.3	11.7	12.9	13.4	14.1	14.7	15.3	15.8	16.1	16.4	16.2	15.8	14.5	12.3	11.3	11.5	2.3	16.4	10.7
May 22	12	11.2	10.6	7.9	7.6	8.9	10.5	12.2	13.5	15.1	16.4	15.6	17.1	17.7	17.1	18.2	18	18	16.6	13.6	12.4	10.9	9.7	8.9	7.6	18.2	13.3
May 23	8.1	7.5	7.1	6.8	6.2	6.3	7.6	9.4	11.2	13.2	14.5	16.2	17.4	18.6	19.2	19.5	19.7	19.3	18.5	17.4	16.1	15.1	13.8	11.3	6.2	19.7	13.3
May 24	9.5	8.7	8.2	7	6.2	6	6.7	7.7	8.8	9.8	11.1	12.2	13.6	14.6	13.6	12.5	14.1	14.2	12.6	10.9	10.5	9.4	8	6.5	6.0	14.6	10.1
May 25	5.4	4.8	4.4	4.1	4.1	4.8	6.1	7.6	9.1	10.9	12.3	13.5	15.1	16.1	16.6	16.8	15	13.7	13.1	11.9	11	9.5	8.9	8.9	4.1	16.8	10.2
May 26	8.9	8.2	8.1	7.7	6.2	6.3	8.8	10	11.9	13.1	14.1	15	16.3	16.5	17.1	17.1	17.5	17.9	17.5	17.4	16.5	14	11.9	11	6.2	17.9	12.9
May 27	10	9.7	9.7	9.4	9.3	9.3	10.3	11.3	12.4	14.8	18.1	20	19	18.4	18.6	16.6	13.4	12.4	11.2	10.5	10.4	10.5	10.4	10	9.3	20.0	12.7
May 28	9.6	9.5	9.4	7.9	7.7	7.3	8.1	8.3	8.8	8.4	9.4	9	9.5	10.2	10.3	9.6	9	9.8	9.4	8.1	7.6	7.3	7.1	7	7.0	10.3	8.7
May 29	6.7	6.5	6.3	6.1	6.2	6.5	6.9	7.4	8.7	9.6	11.8	12.7	13.6	14.4	15.1	15.2	15.4	15.2	15.4	14.9	14	11.8	10.3	9.2	6.1	15.4	10.8
May 30	8.6	7.4	6.5	5.9	5	5.8	8.4	10	11.5	12.9	14.1	14.7	15.4	16.5	16.7	16.5	17.5	17.6	17.1	16.7	15.4	12.5	10.8	10.3	5.0	17.6	12.2
May 31	8.9	7.8	7	6.3	5.8	7.7	11.2	13.1	15.6	16.9	17.5	17.5	19	18.5	19.6	20.6	21.1	20.4	20.3	19	18.2	15.6	12.9	12.3	5.8	21.1	14.7
Diurnal Maximum	12.6	12.3	11.9	11.5	10.8	10.2	11.2	13.1	15.6	16.9	18.1	20.0	19.0	18.9	19.6	20.6	21.1	20.4	20.3	19.0	18.2	15.6	13.8	13.1			
Diurnal Average	6.3	5.9	5.6	5.1	4.7	4.7	5.6	6.8	8.1	9.2	10.4	11.2	11.9	12.4	12.8	12.7	12.9	12.6	12.0	11.2	10.1	8.7	7.7	7.1			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance
K	Collection Error	N	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.

Timeseries Chart of Hourly Average for AT - AQHI - Grimshaw Station





PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

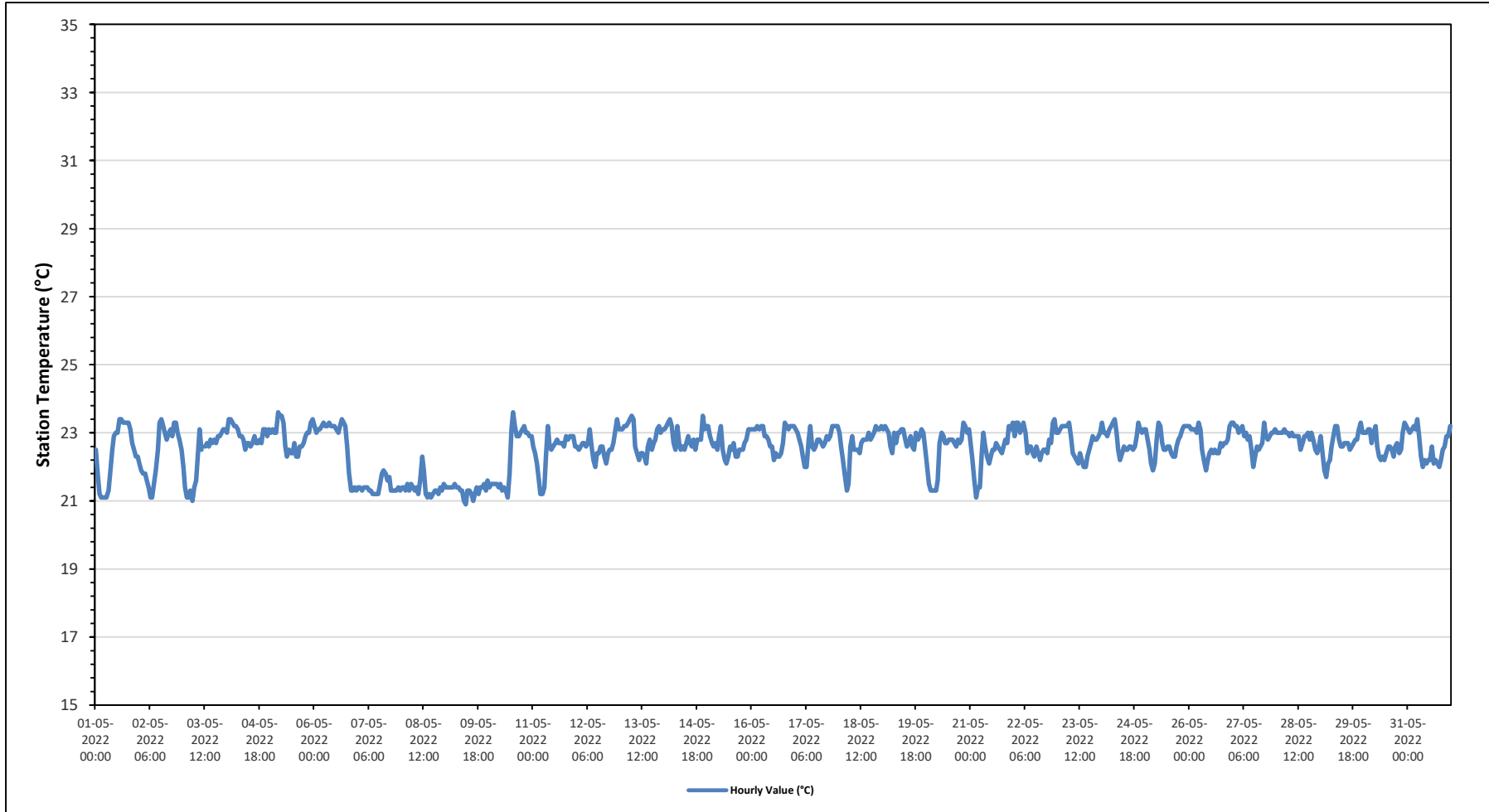
Summary of Hourly Averages: Maximum Hourly Value: 23.6 °C on May 5 at hour 4; Maximum Daily Value: 22.9 °C on May 4; Minimum Hourly Value: 20.9 °C on May 9 at hour 11; Minimum Daily Value: 21.3 °C on May 9; Monthly Average: 22.5 °C; Hours in Service: 744; Hours of Data: 743; Hours of Missing Data: 1; Hours of Calibration: 0; Operational Uptime: 99.9

Main data table with columns: Day, Hourly Period Starting at (MST) (0-23), Daily Minimum, Daily Maximum, Daily Average. Contains 31 days of hourly temperature data.

Legend table with symbols: C Monthly Calibration, N No Data (Machine Not in Service), Q Quality Assurance, K Collection Error, 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.

Timeseries Chart of Hourly Average for ST - AQHI - Grimshaw Station





PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

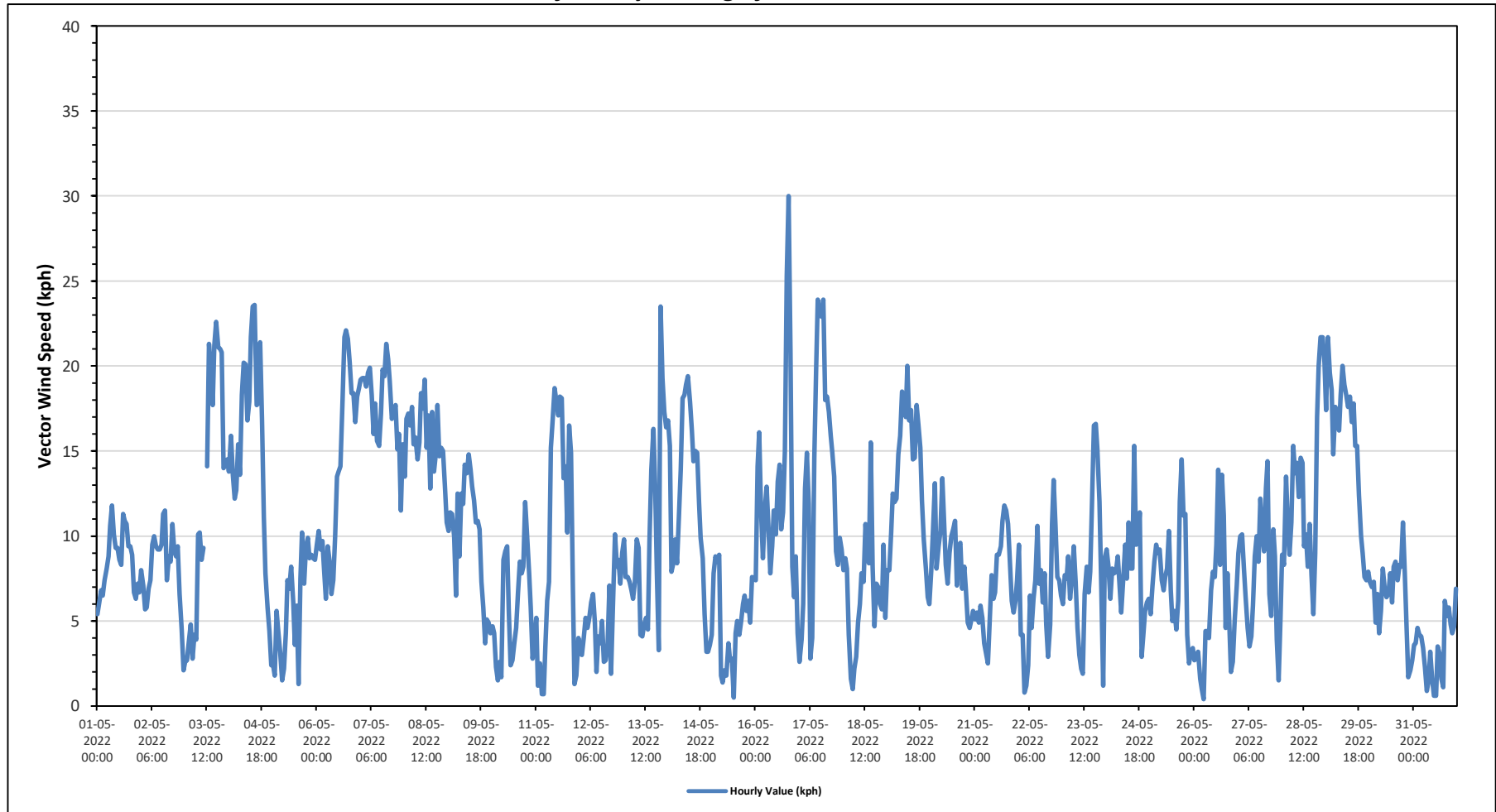
Maximum Hourly Value:	30.0 kph on May 16 at hour 18	Hours in Service:	744
Maximum Daily Value:	17.8 kph on May 7	Hours of Data:	743
Minimum Hourly Value:	0.4 kph on May 26 at hour 5	Hours of Missing Data:	1
Minimum Daily Value:	3.4 kph on May 31	Hours of Calibration:	0
Monthly Average:	9.6 kph	Operational 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
May 1	5.4	6.1	6.8	6.5	7.4	8.1	8.8	10.6	11.8	10.1	9.3	9.3	8.6	8.3	11.3	10.9	10.7	9.4	9.4	8.9	6.7	6.3	7.2	6.7	5.4	11.8	8.5
May 2	8.0	7.1	5.7	5.8	6.9	7.4	9.5	10.0	9.4	9.2	9.2	9.5	11.3	11.5	7.4	8.8	8.5	10.7	9.1	8.8	9.4	6.6	4.5	2.1	2.1	11.5	8.2
May 3	2.6	2.7	3.8	4.8	2.8	4.2	3.9	10.1	10.2	8.6	9.3	X	14.1	21.3	19.8	17.7	21.2	22.6	21.1	21.0	20.8	14.0	14.2	14.5	2.6	22.6	12.4
May 4	13.8	15.9	13.6	12.2	12.7	15.4	13.6	18.3	20.2	20.1	16.8	17.9	21.7	23.5	23.6	17.7	17.8	21.4	16.9	11.1	7.8	5.8	4.4	2.4	2.4	23.6	15.2
May 5	2.5	1.8	5.6	4.3	3.1	1.5	2.2	4.3	7.4	6.9	8.2	6.1	3.6	5.9	1.3	7.5	10.2	7.2	9.4	9.9	8.7	8.9	8.7	8.6	1.3	10.2	6.0
May 6	9.5	10.3	9.2	9.7	8.1	6.3	9.4	8.4	6.6	7.4	10.0	13.5	13.8	14.1	18.0	21.7	22.1	21.6	20.2	18.4	18.4	16.7	18.2	18.7	6.3	22.1	13.8
May 7	19.2	19.3	19.3	18.8	19.6	19.9	18.3	16.0	17.8	15.6	15.3	17.2	19.8	19.4	21.3	20.4	19.1	16.9	17.3	17.7	15.1	16.0	11.5	15.4	11.5	21.3	17.8
May 8	13.5	16.9	17.2	16.5	17.6	15.4	15.8	14.5	15.5	18.4	17.5	19.2	15.2	17.1	12.8	17.3	13.8	14.7	17.7	14.7	15.2	15.0	13.0	10.8	10.8	19.2	15.6
May 9	10.3	11.4	11.3	10.0	6.5	12.5	8.8	12.5	11.9	14.2	13.7	14.8	13.9	12.9	12.1	10.8	10.9	10.4	7.3	5.8	3.7	5.1	4.9	4.3	3.7	14.8	10.0
May 10	4.7	4.3	2.3	1.5	2.6	1.7	8.6	9.1	9.4	5.7	2.4	2.7	3.7	4.6	6.7	8.5	7.8	8.2	12.0	10.1	7.8	5.8	2.8	3.9	1.5	12.0	5.7
May 11	5.2	1.2	2.5	0.7	0.7	3.4	6.2	7.3	15.2	16.9	18.7	17.9	17.1	18.2	18.1	13.4	14.1	10.2	16.5	14.9	7.0	1.3	1.8	4.0	0.7	18.7	9.7
May 12	3.1	3.0	4.0	5.2	4.6	5.2	6.1	6.6	4.9	2.0	4.1	3.7	5.0	2.6	2.7	3.6	7.1	1.9	5.8	10.1	8.2	8.6	7.2	9.0	1.9	10.1	5.2
May 13	9.8	7.6	7.6	7.3	6.8	6.3	7.3	9.8	9.3	4.2	4.1	4.8	5.2	4.5	9.7	13.9	16.3	12.6	7.8	3.3	23.5	19.3	17.3	16.4	3.3	23.5	9.8
May 14	16.8	15.3	7.9	8.4	9.8	8.4	11.1	13.9	18.1	18.3	18.9	19.4	17.9	16.2	14.4	15.0	14.9	12.0	9.9	8.7	5.4	3.2	3.2	3.6	3.2	19.4	12.1
May 15	4.2	7.8	8.8	8.5	8.9	1.8	1.4	2.1	1.8	3.7	2.7	2.8	0.5	4.3	5.0	4.2	5.0	6.0	6.5	5.6	6.2	4.9	7.6	7.5	0.5	8.9	4.9
May 16	7.4	14.1	16.1	11.5	8.7	11.7	12.9	10.5	7.8	9.4	11.5	10.1	13.2	14.2	10.4	11.4	15.0	25.3	30.0	20.9	8.2	6.4	8.8	4.3	4.3	30.0	12.5
May 17	2.6	3.9	6.0	12.8	14.9	11.9	2.8	4.0	14.6	19.9	23.9	23.0	22.9	23.9	18.0	18.2	17.3	15.9	14.9	13.5	9.1	8.3	9.9	9.2	2.6	23.9	13.4
May 18	8.0	8.7	8.1	4.2	1.6	1.0	2.2	2.9	4.9	6.0	7.8	7.3	10.7	9.0	8.4	15.5	8.2	4.7	7.2	7.0	6.0	5.7	9.5	5.2	1.0	15.5	6.7
May 19	8.0	8.0	10.2	12.5	12.0	12.2	14.8	15.9	18.5	18.1	17.0	20.0	16.8	17.4	14.5	14.6	17.7	16.5	15.2	12.1	9.8	8.1	6.4	6.0	6.0	20.0	13.4
May 20	7.9	10.4	13.1	8.1	9.4	10.3	13.4	11.1	8.3	7.2	9.0	10.0	10.4	10.9	7.1	9.4	9.6	6.9	8.2	6.8	4.9	4.6	5.1	5.6	4.6	13.4	8.7
May 21	5.1	5.5	4.9	5.9	5.2	3.7	3.1	2.5	5.1	7.7	6.3	6.7	8.9	8.9	9.4	10.9	11.8	11.5	10.7	8.8	6.2	5.5	6.2	7.4	2.5	11.8	7.0
May 22	9.5	4.2	4.2	0.8	1.2	2.4	6.5	4.6	6.3	7.4	10.6	7.2	8.0	6.1	7.8	4.8	2.9	4.8	10.7	13.3	10.6	7.6	7.4	6.5	0.8	13.3	6.5
May 23	6.0	7.7	7.5	8.8	6.3	7.5	9.4	7.3	4.6	3.0	2.2	1.9	6.6	8.2	6.7	7.9	12.1	16.5	16.6	15.1	12.0	6.8	1.2	8.7	1.2	16.6	7.9
May 24	9.2	8.2	6.3	8.1	7.8	7.9	8.8	7.3	5.5	7.3	9.5	7.5	10.8	8.1	8.1	15.3	9.5	9.7	11.4	2.9	4.1	5.6	6.1	6.3	2.9	15.3	8.0
May 25	5.4	7.1	8.5	9.5	9.0	9.2	7.4	6.8	7.6	8.1	10.3	6.8	5.0	5.6	4.5	6.2	12.0	14.5	11.2	11.3	4.2	2.5	3.2	3.4	2.5	14.5	7.5
May 26	2.7	2.8	3.2	1.6	1.0	0.4	4.4	4.4	4.0	6.8	7.9	7.6	9.5	13.9	8.3	13.6	11.2	4.6	7.8	4.8	2.0	2.6	5.0	7.1	0.4	13.9	5.7
May 27	9.0	10.0	10.1	8.1	6.5	4.6	3.5	4.1	5.9	8.8	10.0	8.5	12.2	10.1	9.1	12.8	14.4	6.6	5.3	10.4	8.8	3.9	1.5	5.2	1.5	14.4	7.9
May 28	8.9	8.3	13.5	10.4	8.9	10.8	15.3	13.7	14.3	12.3	14.6	14.3	9.4	10.1	8.2	10.7	7.7	5.4	9.0	17.0	20.0	21.7	21.7	20.2	5.4	21.7	12.8
May 29	17.4	21.7	19.6	18.6	14.8	17.6	16.6	16.2	18.3	20.0	18.9	18.3	17.6	18.2	16.7	17.8	15.3	15.3	12.4	10.0	9.0	7.6	7.4	7.9	7.4	21.7	15.6
May 30	7.3	7.0	7.3	4.9	6.6	4.3	5.6	8.1	6.9	6.4	6.6	7.8	6.1	8.2	8.5	7.4	8.3	8.2	10.8	7.8	4.5	1.7	2.1	2.7	1.7	10.8	6.5
May 31	3.6	3.7	4.6	4.2	4.1	3.4	2.3	0.9	1.5	3.2	1.6	0.6	0.6	3.5	3.1	1.6	1.1	6.2	5.3	5.8	4.8	4.3	4.7	6.9	0.6	6.9	3.4
Diurnal Maximum	19	22	20	19	20	20	18	18	20	20	24	23	23	24	24	22	22	25	30	21	24	22	22	20			
Diurnal Average	8.0	8.5	8.7	8.1	7.6	7.6	8.4	8.8	9.8	10.1	10.6	10.5	11.0	11.6	10.7	11.9	12.1	11.6	12.1	10.9	9.3	7.8	7.5	7.8			

C Monthly Calibration	S Daily Zero-Span Check	Q Quality Assurance
K Collection Error	N 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

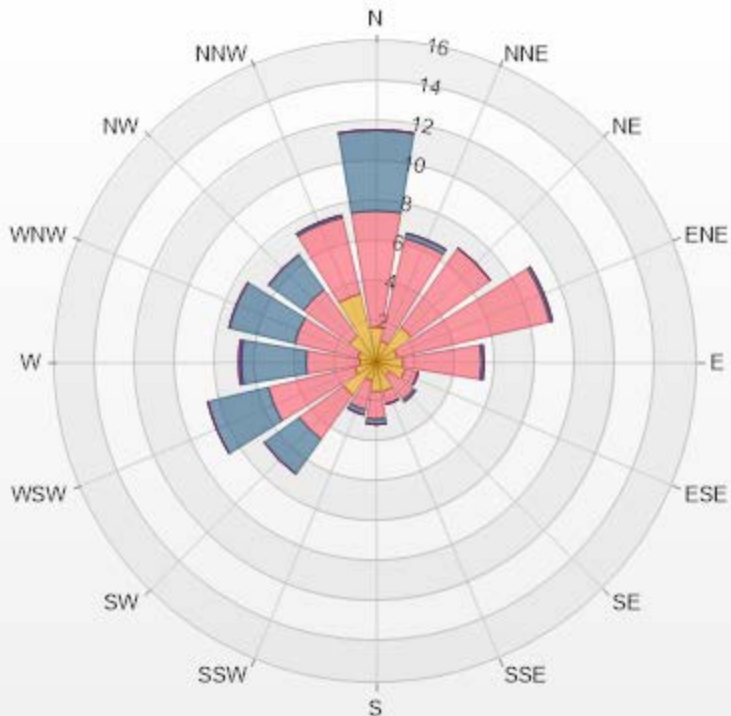
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for VWS - AQHI - Grimshaw Station



Wind: AQHI Grimshaw Monitor: WDS [KPH] Monthly: 05-2022 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
 Calm: 3.90% 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	1.75	5.79	4.04	0	0	11.58
NNE	1.08	5.25	0.27	0	0	6.6
NE	2.15	4.85	0	0	0	7
ENE	1.08	7.81	0.13	0	0	9.02
E	1.35	3.9	0.13	0	0	5.38
ESE	1.48	0.67	0	0	0	2.15
SE	0.81	1.48	0.13	0	0	2.42
SSE	1.48	0.67	0	0	0	2.15
S	1.48	1.35	0.27	0	0	3.1
SSW	0.94	1.48	0.27	0	0	2.69
SW	2.02	2.69	2.15	0	0	6.86
WSW	1.08	4.44	3.1	0	0	8.62
W	0.81	2.69	3.23	0.13	0	6.86
WNW	0.94	3.23	3.36	0	0	7.53
NW	1.62	2.83	2.15	0	0	6.6
NNW	3.5	3.9	0.13	0	0	7.53
Summary	23.57	53.03	19.36	0.13	0	96.09



PRAMP-202205

Page 271 of 276

% Icon Classes (KPH)	24	53	19	0	0
	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0



PEACE RIVER AREA MONITORING PROGRAM

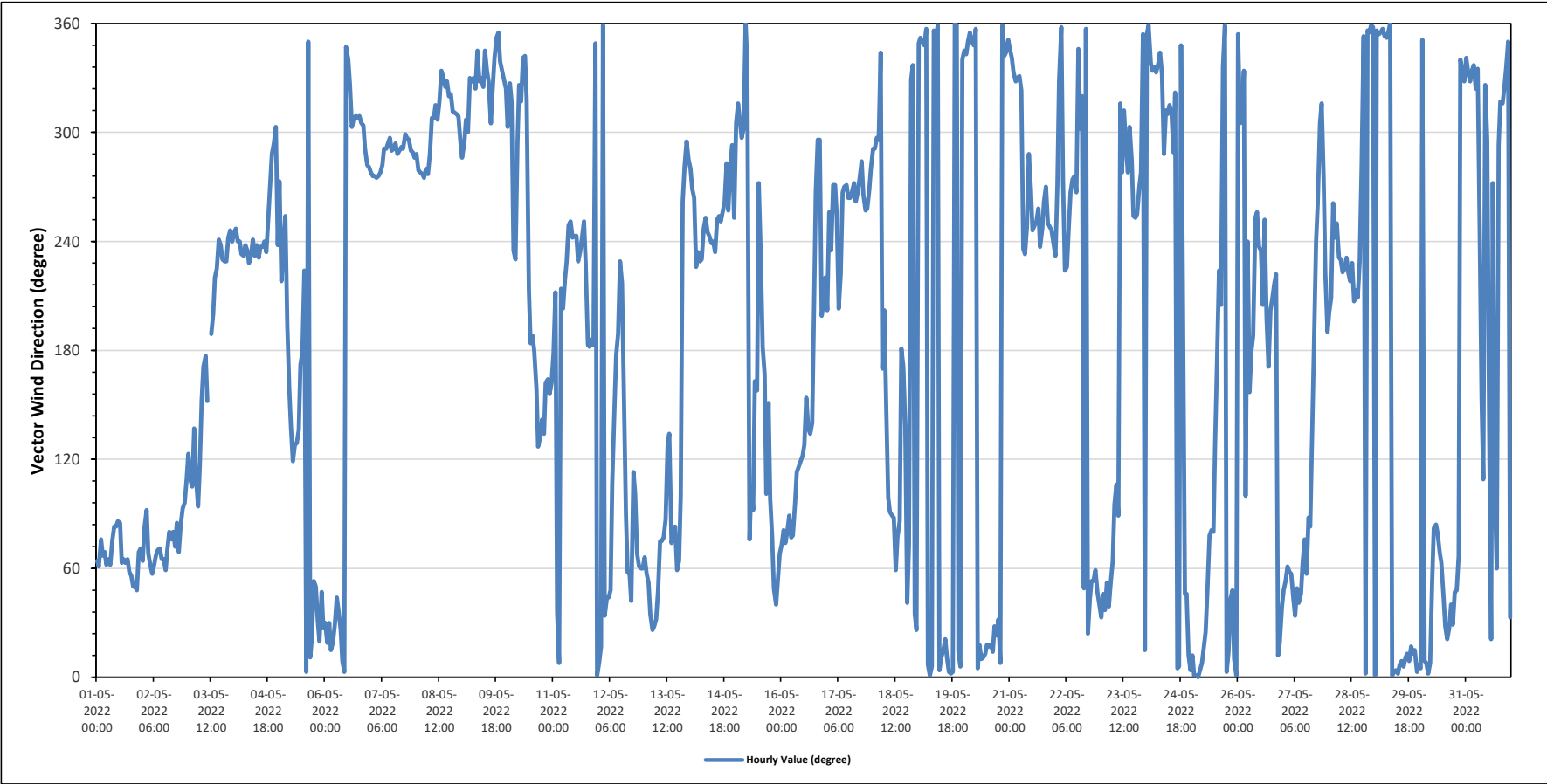
AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average:		335 (NNW) 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									
May 1	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	E	E	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	ENE	ENE	66	ENE									
May 2	ENE	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	ENE	E	ENE	E	ENE	E	E	E	E	ESE	75	ENE								
May 3	ESE	ESE	ESE	SE	ESE	E	ESE	SSE	S	S	SSE	X	S	SSW	SW	SW	WSW	SW	SW	SW	SW	WSW	WSW	WSW	184	S									
May 4	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	WSW	SW	SW	SW	SW	WSW	SW	WSW	SW	WSW	W	WNW	WNW	WNW	SW	245	WSW								
May 5	W	SW	SW	WSW	SSW	SSE	SE	ESE	SE	SE	SE	S	S	SW	N	N	NNE	NNE	NE	NE	NNE	NNE	NE	NNE	102	E									
May 6	NNE	NNE	NNE	NNE	NNE	NNE	NE	NE	NNE	N	N	NNW	NNW	NW	WNW	NW	NW	NW	NW	WNW	WNW	WNW	W	W	343	NNW									
May 7	W	W	W	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	288	WNW									
May 8	WNW	W	W	W	W	W	W	WNW	NW	NW	NW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	304	WNW									
May 9	WNW	WNW	NW	WNW	NNW	NNW	NNW	NW	NNW	NNW	NNW	NW	NNW	NNW	NNW	WNW	NW	NNW	N	N	NNW	NNW	NNW	NW	327	NW									
May 10	WNW	NW	NW	SW	SW	WNW	NW	NW	NNW	NNW	NW	SSW	S	S	SSE	SE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	210	SSW									
May 11	S	SSW	NE	N	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	SW	S	S	S	S	NNW	N	228	SW									
May 12	N	NNE	N	NE	NE	NE	NE	ESE	SE	S	S	SW	SW	SSE	E	ENE	ENE	NE	ESE	E	ENE	ENE	ENE	ENE	74	ENE									
May 13	ENE	ENE	NE	NE	NNE	NNE	NNE	NE	ENE	ENE	ENE	E	SE	ENE	ENE	E	ENE	ENE	E	W	W	WNW	WNW	60	ENE										
May 14	W	W	W	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	W	W	WSW	W	WNW	WSW	253	WSW									
May 15	WNW	NW	NW	WNW	WNW	N	NNW	ENE	ESE	E	SSE	SSE	W	SW	S	SSE	E	SSE	E	ENE	NE	NE	ENE	ENE	67	ENE									
May 16	ENE	E	ENE	E	E	ENE	ENE	E	ESE	ESE	ESE	SE	SE	SSE	SE	SE	SSW	W	WNW	WNW	SSW	SSW	SW	125	SE										
May 17	SSW	WSW	SW	W	W	WSW	SSW	SW	W	W	W	W	W	W	W	W	W	W	WNW	W	WSW	WSW	W	W	259	WSW									
May 18	WNW	WNW	WNW	WNW	NNW	SSE	SSW	SE	E	E	E	ENE	ENE	E	S	S	SE	NE	ENE	NNW	NNW	NE	NNE	68	ENE										
May 19	NNW	N	N	NNW	N	N	N	N	N	N	N	NNE	NNE	NNE	NNE	N	N	N	N	N	NNE	N	NNW	N	1	N									
May 20	NNW	NNW	N	N	N	NNW	N	N	NNE	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	N	NNW	NNW	N	4	N									
May 21	NNW	NNW	NNW	NNW	NNW	NNW	NW	SW	SW	WSW	WNW	W	WSW	WSW	WSW	WSW	SW	WSW	W	W	WSW	WSW	WSW	SW	273	W									
May 22	SW	W	NNW	N	W	SW	SW	WSW	W	W	W	NNW	WNW	NW	NE	N	NNE	NE	NE	ENE	NE	ENE	NE	NE	325	NW									
May 23	NNE	NE	NE	NE	NE	NE	ENE	E	ESE	E	NW	NW	WNW	W	WNW	WNW	WSW	WSW	WSW	W	W	N	NNE	341	NNW										
May 24	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NW	NW	NW	N	N	NNW	SW	NE	NE	NNE	N	338	NNW									
May 25	NNE	N	N	N	N	N	NNE	NNE	NE	ENE	E	E	SE	S	SW	SSW	NNW	N	N	NNE	NE	NE	N	N	25	NNE									
May 26	N	WNW	NW	NNW	E	WSW	SSE	S	S	WSW	WSW	SW	SW	SSW	WSW	SSW	S	SSW	SSW	SW	SW	NNE	NNE	NE	233	SW									
May 27	NE	NE	ENE	ENE	ENE	NE	NE	NE	NE	ENE	ENE	ENE	E	E	SE	S	WSW	W	WNW	NW	W	SW	S	55	NE										
May 28	SSW	SSW	W	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	W	N	N	N	N	N	N	247	WSW									
May 29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NNE	NNE	N	NNE	NNE	N	N	N	3	N									
May 30	N	N	N	N	N	N	NE	E	E	ENE	ENE	ENE	NE	NNE	NNE	NNE	NE	NNE	NE	ENE	NNW	NNW	NNW	N	30	NNE									
May 31	NNW	NNW	NNW	NNW	NNW	NW	NNW	WSW	SSE	ESE	NW	WNW	SE	NNE	W	ESE	ENE	WNW	NW	NW	NW	NNW	N	NNE	336	NNW									
C	Monthly Calibration														S	Daily Zero-Span Check														Q	Quality Assurance				
K	Collection Error														N	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.																																			

Timeseries Chart of Hourly Average for VWD - AQHI - Grimshaw Station





PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

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

WIND SPEED																												
Maximum Hourly Value: 30.0 kph on May 16 at hour 18													Hours in Service: 744															
Maximum Daily Value: 17.8 kph on May 7													Hours of Data: 743															
Minimum Hourly Value: 0.4 kph on May 26 at hour 5													Hours of Missing Data: 1															
Minimum Daily Value: 3.4 kph on May 31													Hours of Calibration: 0															
Monthly Average: 9.6 kph													Operational Uptime: 99.9															
WIND DIRECTION																												
Monthly Average: 335 (NNW) degree																												
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	
May 1	5.4	6.1	6.8	6.5	7.4	8.1	8.8	10.6	11.8	10.1	9.3	9.3	8.6	8.3	11.3	10.9	10.7	9.4	9.4	8.9	6.7	6.3	7.2	6.7	5.4	11.8	8.5	
May 2	8.0	7.1	5.7	5.8	6.9	7.4	9.5	10.0	9.4	9.2	9.2	9.5	11.3	11.5	7.4	8.8	8.5	10.7	9.1	8.8	9.4	6.6	4.5	2.1	2.1	11.5	8.2	
May 3	2.6	2.7	3.8	4.8	2.8	4.2	3.9	10.1	10.2	8.6	9.3	X	14.1	21.3	19.8	17.7	21.2	22.6	21.1	21.0	20.8	14.0	14.2	14.5	2.6	22.6	12.4	
May 4	13.8	15.9	13.6	12.2	12.7	15.4	13.6	18.3	20.2	20.1	16.8	17.9	21.7	23.5	23.6	17.7	17.8	21.4	16.9	11.1	7.8	5.8	4.4	2.4	2.4	23.6	15.2	
May 5	2.5	1.8	5.6	4.3	3.1	1.5	2.2	4.3	7.4	6.9	8.2	6.1	3.6	5.9	1.3	7.5	10.2	7.2	9.4	9.9	8.7	8.9	8.7	8.6	1.3	10.2	6.0	
May 6	9.5	10.3	9.2	9.7	8.1	6.3	9.4	8.4	6.6	7.4	10.0	13.5	13.8	14.1	18.0	21.7	22.1	21.6	20.2	18.4	18.4	16.7	18.2	18.7	6.3	22.1	13.8	
May 7	19.2	19.3	19.3	18.8	19.6	19.9	18.3	16.0	17.8	15.6	15.3	17.2	19.8	19.4	21.3	20.4	19.1	16.9	17.3	17.7	15.1	16.0	11.5	15.4	11.5	21.3	17.8	
May 8	13.5	16.9	17.2	16.5	17.6	15.4	15.8	14.5	15.5	18.4	17.5	19.2	15.2	17.1	12.8	17.3	13.8	14.7	17.7	14.7	14.7	15.2	15.0	13.0	10.8	10.8	19.2	15.6
May 9	10.3	11.4	11.3	10.0	6.5	12.5	8.8	12.5	11.9	14.2	13.7	14.8	13.9	12.9	12.1	10.8	10.9	10.4	7.3	5.8	3.7	5.1	4.9	4.3	3.7	14.8	10.0	
May 10	4.7	4.3	2.3	1.5	2.6	1.7	8.6	9.1	9.4	5.7	2.4	2.7	3.7	4.6	6.7	8.5	7.8	8.2	12.0	10.1	7.8	5.8	2.8	3.9	1.5	12.0	5.7	
May 11	5.2	1.2	2.5	0.7	0.7	3.4	6.2	7.3	15.2	16.9	18.7	17.9	17.1	18.2	18.1	13.4	14.1	10.2	16.5	14.9	7.0	1.3	1.8	4.0	0.7	18.7	9.7	
May 12	3.1	3.0	4.0	5.2	4.6	5.2	6.1	6.6	4.9	2.0	4.1	3.7	5.0	2.6	2.7	3.6	7.1	1.9	5.8	10.1	8.2	8.6	7.2	9.0	1.9	10.1	5.2	
May 13	9.8	7.6	7.6	7.3	6.8	6.3	7.3	9.8	9.3	4.2	4.1	4.8	5.2	4.5	9.7	13.9	16.3	12.6	7.8	3.3	23.5	19.3	17.3	16.4	3.3	23.5	9.8	
May 14	16.8	15.3	7.9	8.4	9.8	8.4	11.1	13.9	18.1	18.3	18.9	19.4	17.9	16.2	14.4	15.0	14.9	12.0	9.9	8.7	5.4	3.2	3.2	3.6	3.2	19.4	12.1	
May 15	4.2	7.8	8.8	8.5	8.9	1.8	1.4	2.1	1.8	3.7	2.7	2.8	0.5	4.3	5.0	4.2	5.0	6.0	6.5	5.6	6.2	4.9	7.6	7.5	0.5	8.9	4.9	
May 16	7.4	14.1	16.1	11.5	8.7	11.7	12.9	10.5	7.8	9.4	11.5	10.1	13.2	14.2	10.4	11.4	15.0	25.3	30.0	20.9	8.2	6.4	8.8	4.3	4.3	30.0	12.5	
May 17	2.6	3.9	6.0	12.8	14.9	11.9	2.8	4.0	14.6	19.9	23.9	23.0	22.9	23.9	18.0	18.2	17.3	15.9	14.9	13.5	9.1	8.3	9.9	9.2	2.6	23.9	13.4	
May 18	8.0	8.7	8.1	4.2	1.6	1.0	2.2	2.9	4.9	6.0	7.8	7.3	10.7	9.0	8.4	15.5	8.2	4.7	7.2	7.0	6.0	5.7	9.5	5.2	1.0	15.5	6.7	
May 19	8.0	8.0	10.2	12.5	12.0	12.2	14.8	15.9	18.5	18.1	17.0	20.0	16.8	17.4	14.5	14.6	17.7	16.5	15.2	12.1	9.8	8.1	6.4	6.0	6.0	20.0	13.4	
May 20	7.9	10.4	13.1	8.1	9.4	10.3	13.4	11.1	8.3	7.2	9.0	10.0	10.4	10.9	7.1	9.4	9.6	6.9	8.2	6.8	4.9	4.6	5.1	5.6	4.6	13.4	8.7	



PEACE RIVER AREA MONITORING PROGRAM

AQHI - Grimshaw Station - May 2022

Summary of Hourly Averages

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

WIND SPEED		WIND DIRECTION																																																	
Maximum Hourly Value:	30.0 kph on May 16 at hour 18	Hours in Service:	744																																																
Maximum Daily Value:	17.8 kph on May 7	Hours of Data:	743																																																
Minimum Hourly Value:	0.4 kph on May 26 at hour 5	Hours of Missing Data:	1																																																
Minimum Daily Value:	3.4 kph on May 31	Hours of Calibration:	0																																																
Monthly Average:	9.6 kph	Operational Uptime:	99.9																																																
Monthly Average: 335 (NNW) degree																																																			
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average																									
May 21	5.1	5.5	4.9	5.9	5.2	3.7	3.1	2.5	5.1	7.7	6.3	6.7	8.9	8.9	9.4	10.9	11.8	11.5	10.7	8.8	6.2	5.5	6.2	7.4	2.5	11.8	7.0																								
May 22	9.5	4.2	4.2	0.8	1.2	2.4	6.5	4.6	6.3	7.4	10.6	7.2	8.0	6.1	7.8	4.8	2.9	4.8	10.7	13.3	10.6	7.6	7.4	6.5	0.8	13.3	6.5																								
May 23	6.0	7.7	7.5	8.8	6.3	7.5	9.4	7.3	4.6	3.0	2.2	1.9	6.6	8.2	6.7	7.9	12.1	16.5	16.6	15.1	12.0	6.8	1.2	8.7	1.2	16.6	7.9																								
May 24	9.2	8.2	6.3	8.1	7.8	7.9	8.8	7.3	5.5	7.3	9.5	7.5	10.8	8.1	8.1	15.3	9.5	9.7	11.4	2.9	4.1	5.6	6.1	6.3	2.9	15.3	8.0																								
May 25	5.4	7.1	8.5	9.5	9.0	9.2	7.4	6.8	7.6	8.1	10.3	6.8	5.0	5.6	4.5	6.2	12.0	14.5	11.2	11.3	4.2	2.5	3.2	3.4	2.5	14.5	7.5																								
May 26	2.7	2.8	3.2	1.6	1.0	0.4	4.4	4.4	4.0	6.8	7.9	7.6	9.5	13.9	8.3	13.6	11.2	4.6	7.8	4.8	2.0	2.6	5.0	7.1	0.4	13.9	5.7																								
May 27	9.0	10.0	10.1	8.1	6.5	4.6	3.5	4.1	5.9	8.8	10.0	8.5	12.2	10.1	9.1	12.8	14.4	6.6	5.3	10.4	8.8	3.9	1.5	5.2	1.5	14.4	7.9																								
May 28	8.9	8.3	13.5	10.4	8.9	10.8	15.3	13.7	14.3	12.3	14.6	14.3	9.4	10.1	8.2	10.7	7.7	5.4	9.0	17.0	20.0	21.7	21.7	20.2	5.4	21.7	12.8																								
May 29	17.4	21.7	19.6	18.6	14.8	17.6	16.6	16.2	18.3	20.0	18.9	18.3	17.6	18.2	16.7	17.8	15.3	15.3	12.4	10.0	9.0	7.6	7.4	7.9	7.4	21.7	15.6																								
May 30	7.3	7.0	7.3	4.9	6.6	4.3	5.6	8.1	6.9	6.4	6.6	7.8	6.1	8.2	8.5	7.4	8.3	8.2	10.8	7.8	4.5	1.7	2.1	2.7	1.7	10.8	6.5																								
May 31	3.6	3.7	4.6	4.2	4.1	3.4	2.3	0.9	1.5	3.2	1.6	0.6	0.6	3.5	3.1	1.6	1.1	6.2	5.3	5.8	4.8	4.3	4.7	6.9	0.6	6.9	3.4																								
C	Monthly Calibration										S	Daily Zero-Span Check										Q	Quality Assurance																												
K	Collection Error										N	No Data (Machine Not in Service)										Y	Routine Maintenance										P	Power Failure																	
X	Invalid Data (Equipment Malfunction/Recovery)										NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)																																							
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.																																																			
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.																																																			

END OF REPORT

This page, 276 of 276, ends the May 2022 Monthly Ambient Air Quality Monitoring Report.



Peace River Area Monitoring Program

MAY 2022

Ambient Air Monitoring Calibration Report

- 842b STATION-

CAL-PRAMP-202205-01561

Operation and Maintenance:

Bureau Veritas Canada

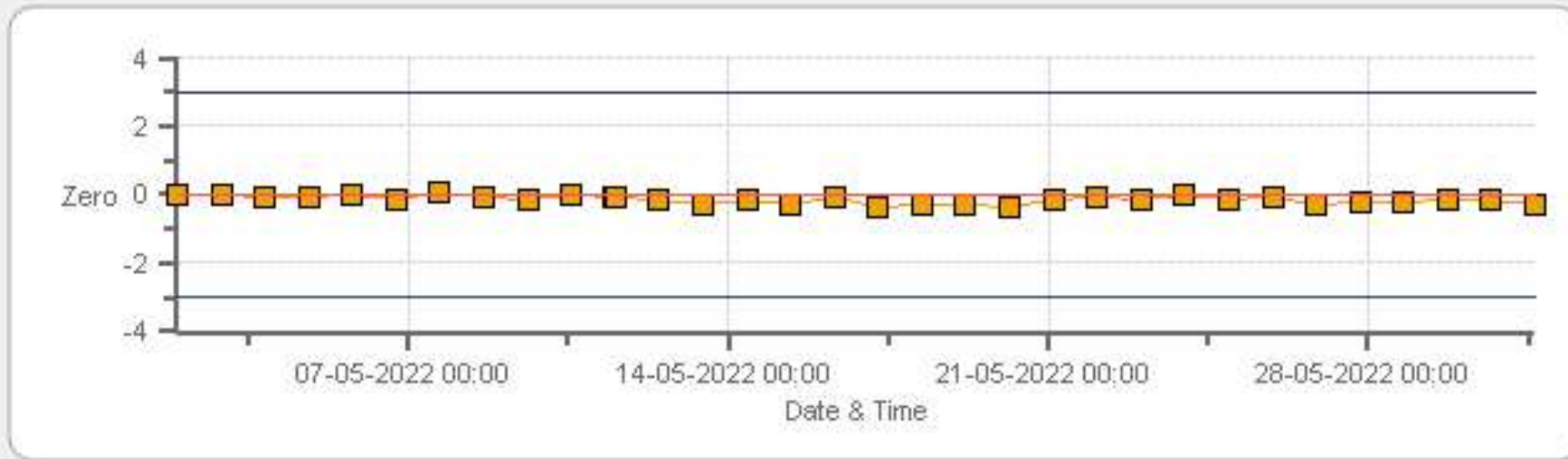
Data Validation and Report:

Bureau Veritas Canada

June 25, 2022

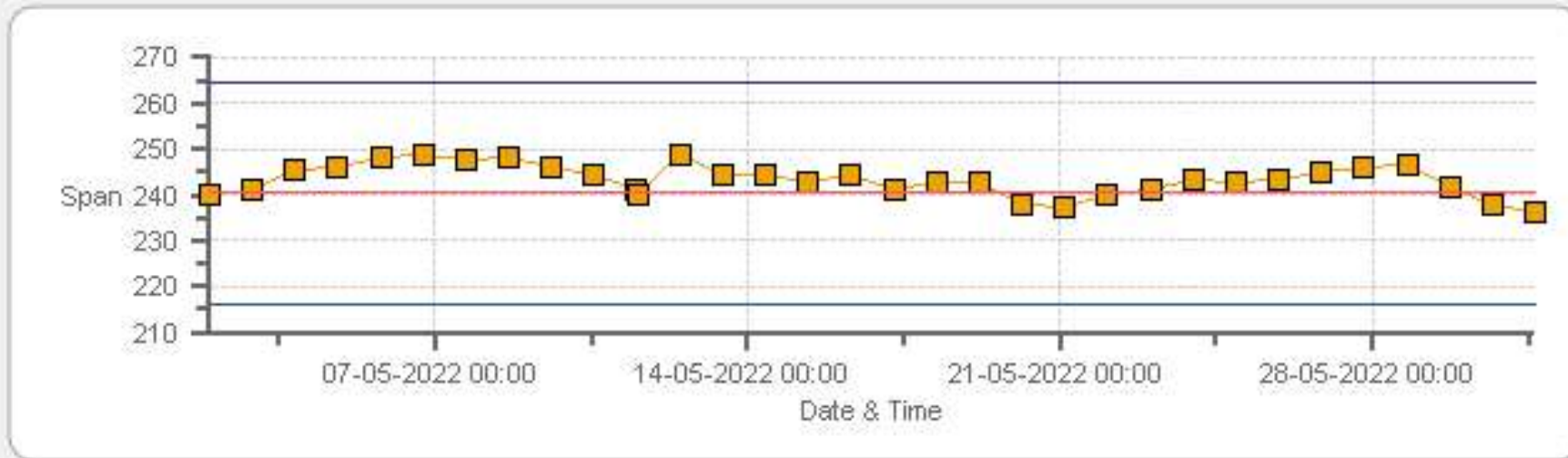
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Zero



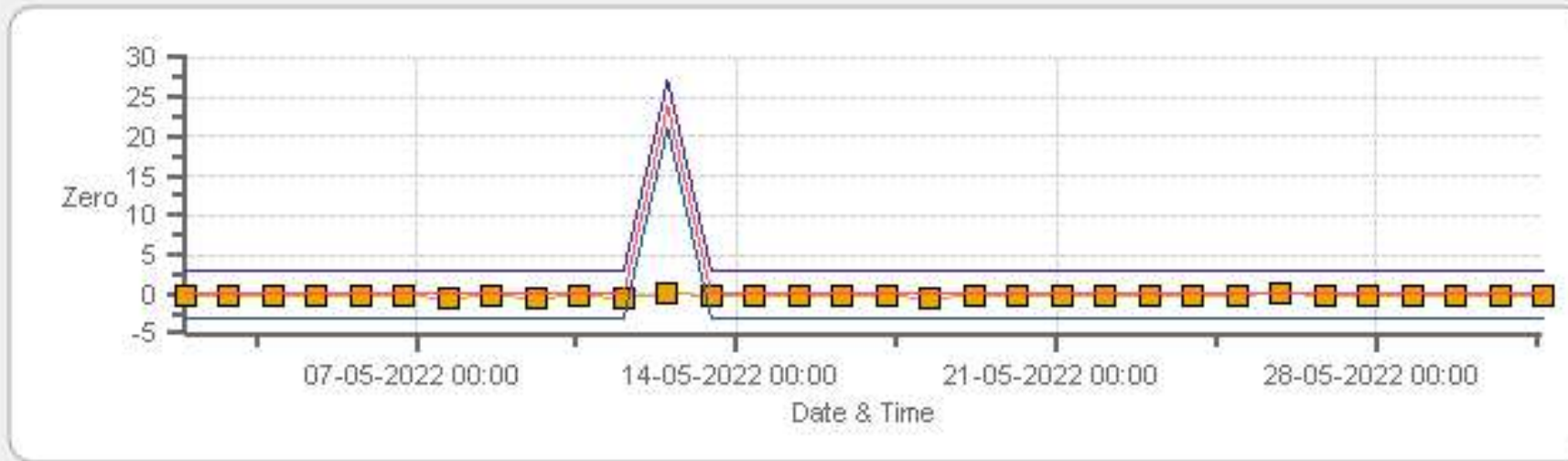
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Span



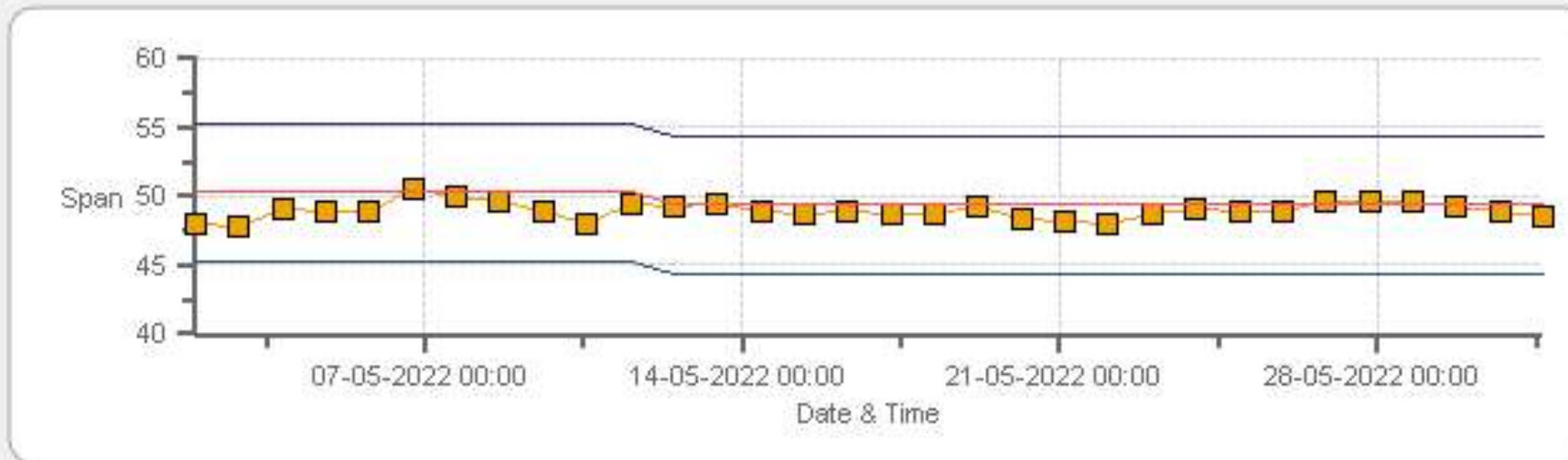
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TRS[ppb] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Zero



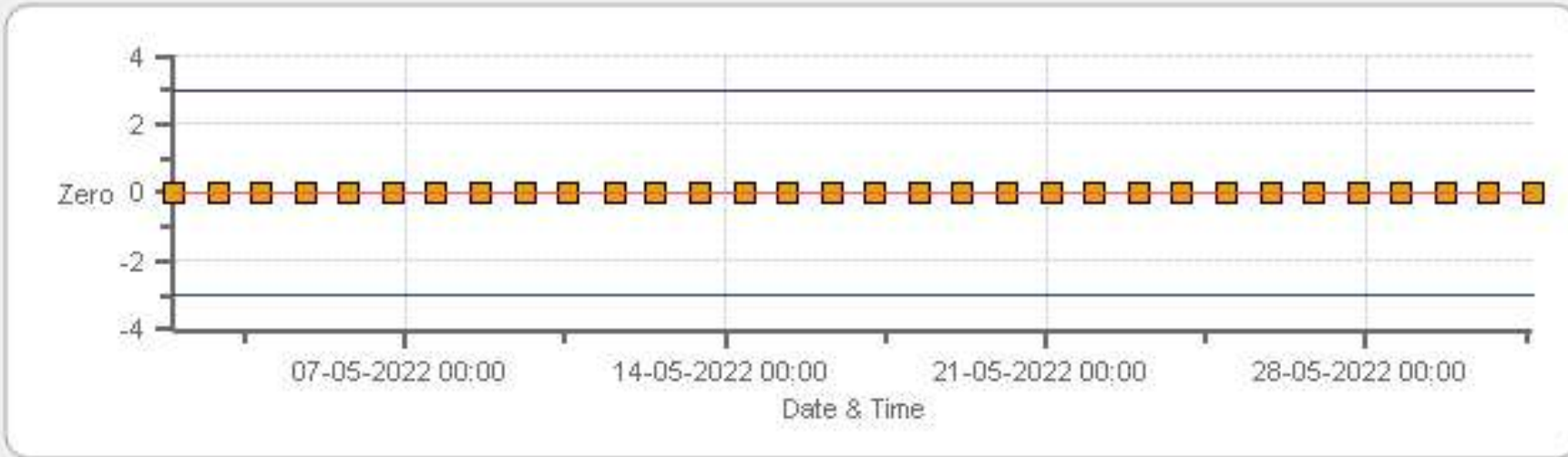
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TRS[ppb] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Span



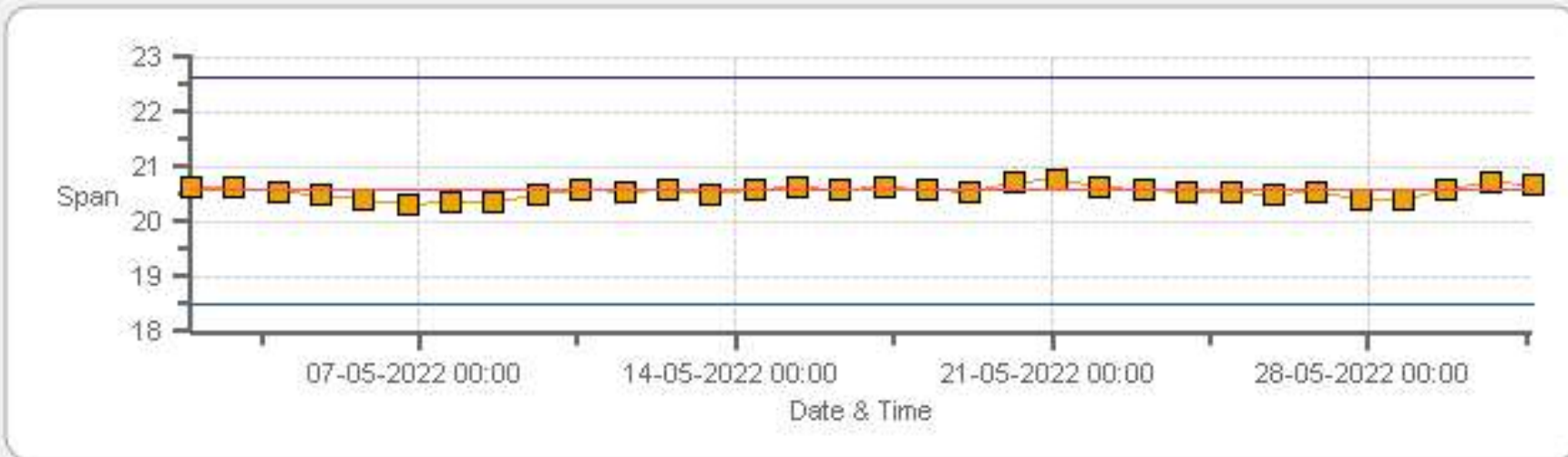
Span SpanRef Span Low Span High

THC55[ppm] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Zero



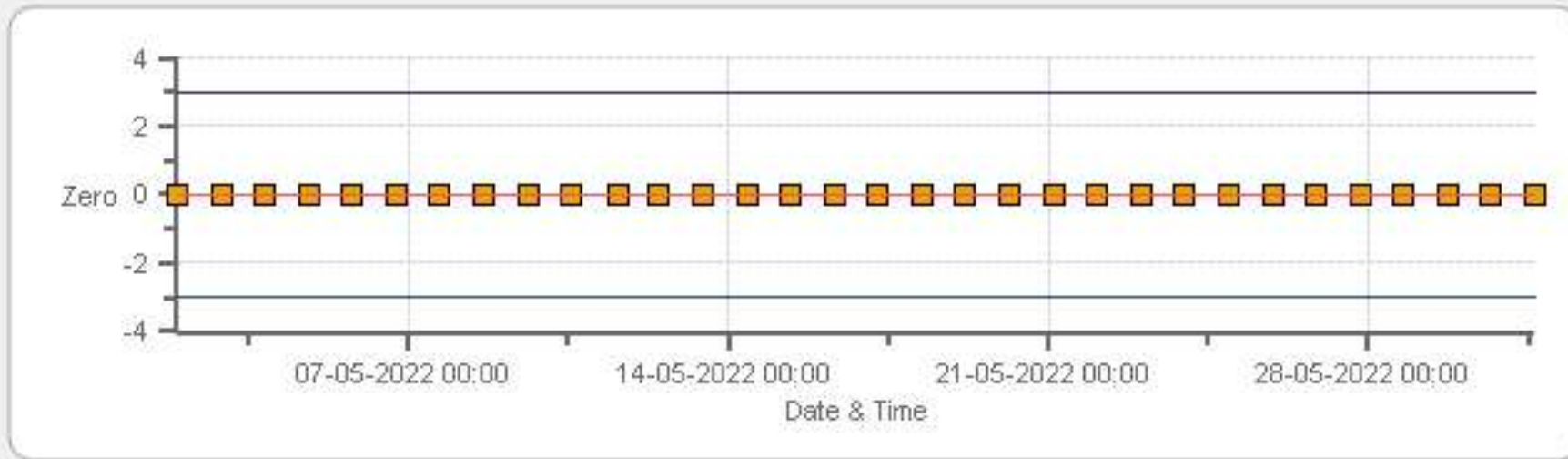
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Span



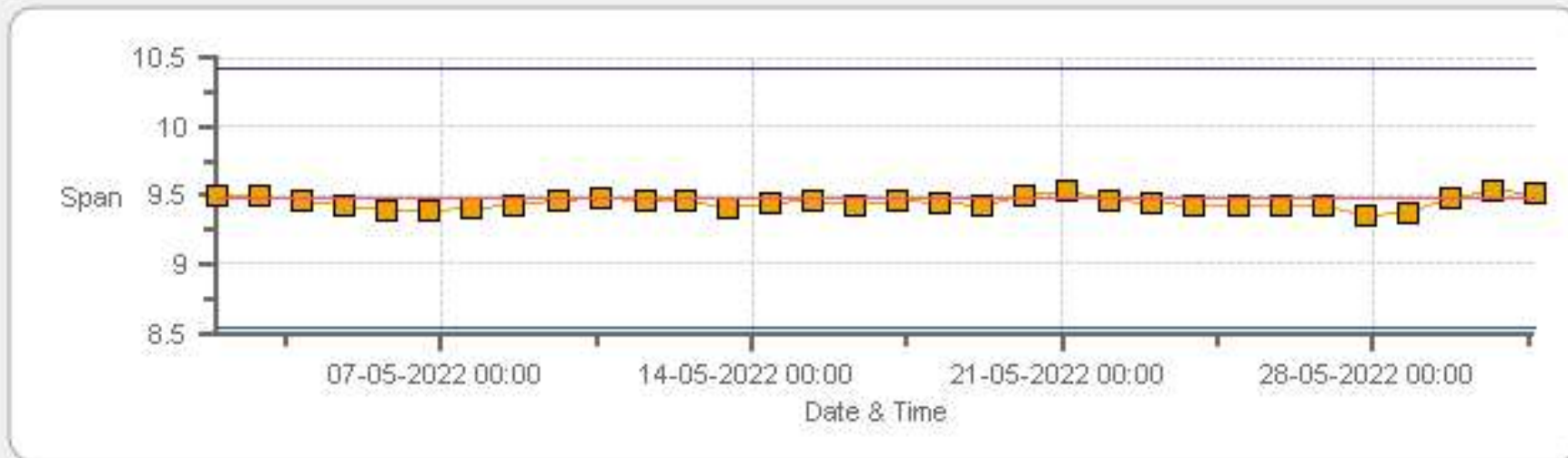
Span Span Ref Span Low Span High

CH4[ppm] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Zero



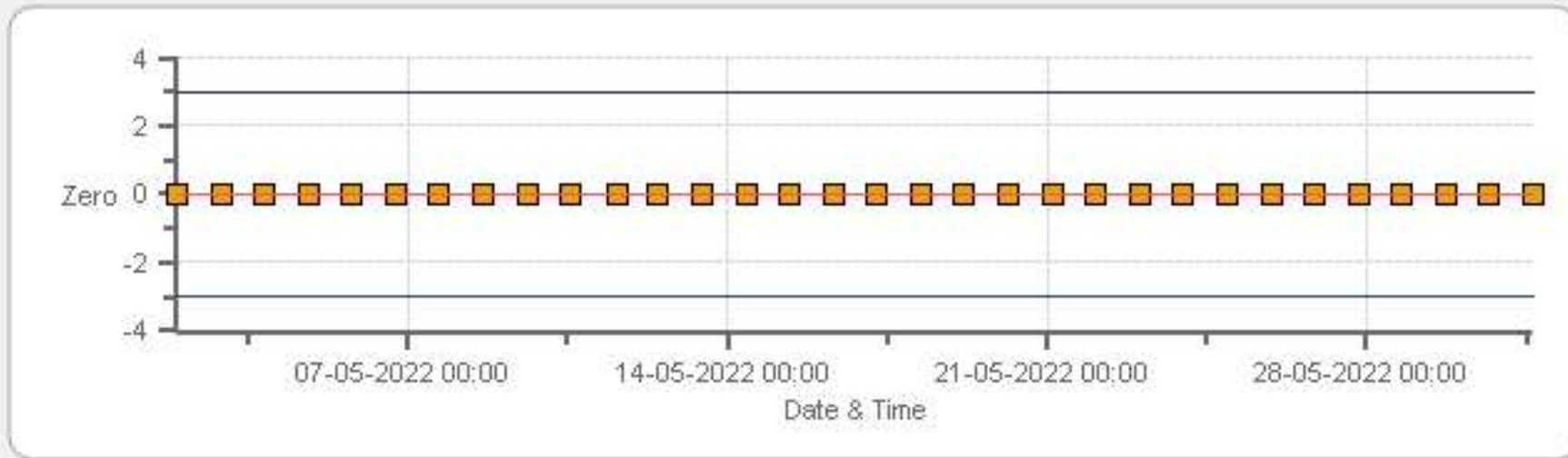
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Span



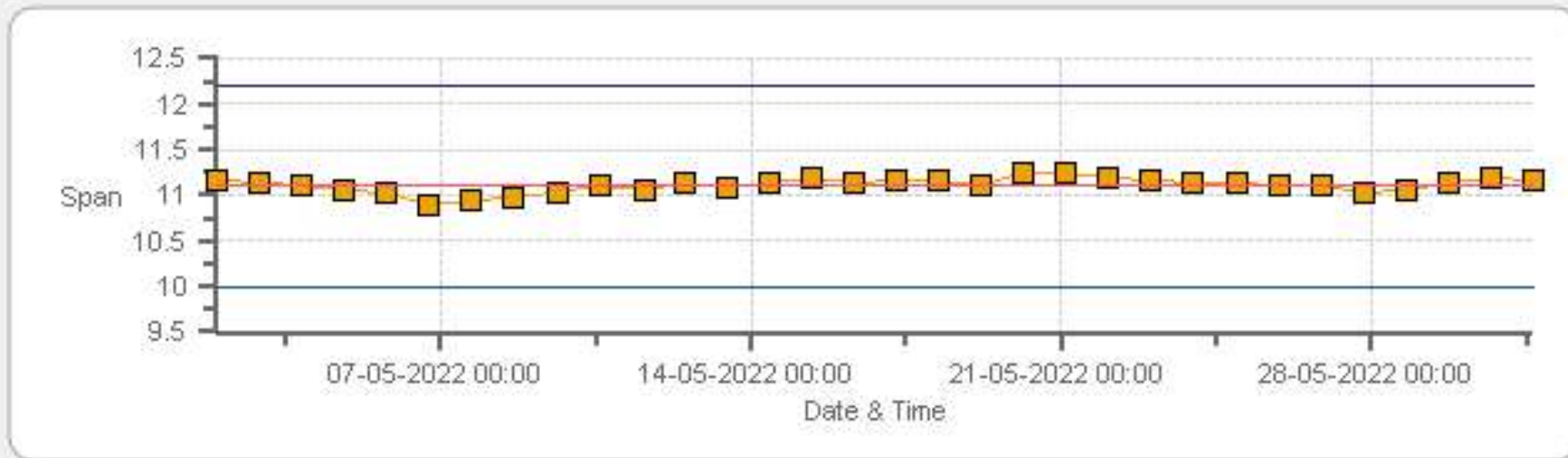
Span Span Ref Span Low Span High

NMHC[ppm] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP 842b Monthly: 05-2022 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	11-May-2022	PREVIOUS CALIBRATION DATE:	06-Apr-2022
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	22.1
LOCATION:	842b	BAROMETRIC (mBar):	942
PURPOSE:	Routine	START TIME (MST):	08:09
PERFORMED BY:	Limin Li	END TIME (MST):	11:40

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1200736629	FLOW (mL/min)	423
INITIAL		FINAL	
BKG/OFFSET	8.2	BKG/OFFSET	8.3
COEF/SLOPE	1.096	COEF/SLOPE	1.095
Expected (reference) Value	240.3	Expected (reference) Value	240.3

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0000647	HIGH ID	n/a
CONC (ppm):	51.6	EXPIRY DATE	n/a
CYLINDER (psi):	680	LOW ID	n/a
EXPIRY DATE	24-Feb-2028	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:

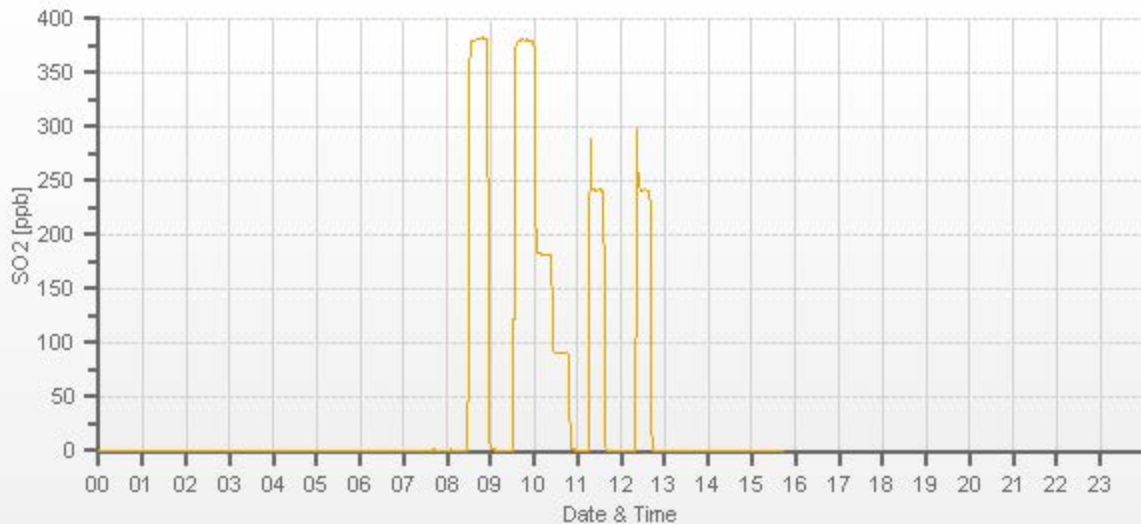
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
6000	 	6000	0.00	-0.1	0	 	
5956	44.20	6000	380.12	381.6	379.9	0.996	1.001
5979	20.90	6000	179.74	n/a	181.6	n/a	0.990
5990	10.50	6000	90.30	n/a	90.8	n/a	0.994

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.999	0.1%

COMMENTS:

Sample filter changed.



TRS Analyzer Calibration by Dilution



DATE:	11-May-2022	PREVIOUS CALIBRATION DATE:	06-Apr-2022
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	22.1
LOCATION:	842b	BAROMETRIC (mBar):	942
PURPOSE:	Routine	START TIME (MST):	08:12
PERFORMED BY:	Limin Li	END TIME (MST):	12:45

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1200736630	FLOW (mL/min)	373
INITIAL		FINAL	
BKG/OFFSET	13.3	BKG/OFFSET	13.4
COEF/SLOPE	0.924	COEF/SLOPE	0.937
Expected (reference) Value	50.28	Expected (reference) Value	49.37

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002272	HIGH ID	n/a
CONC (ppm):	10.20	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	14-Sep-2024	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:	08:35	SO2 Conc (ppb)	380
END TIME:	08:53	Analyzer Response (ppb)	0.1

CALIBRATION:

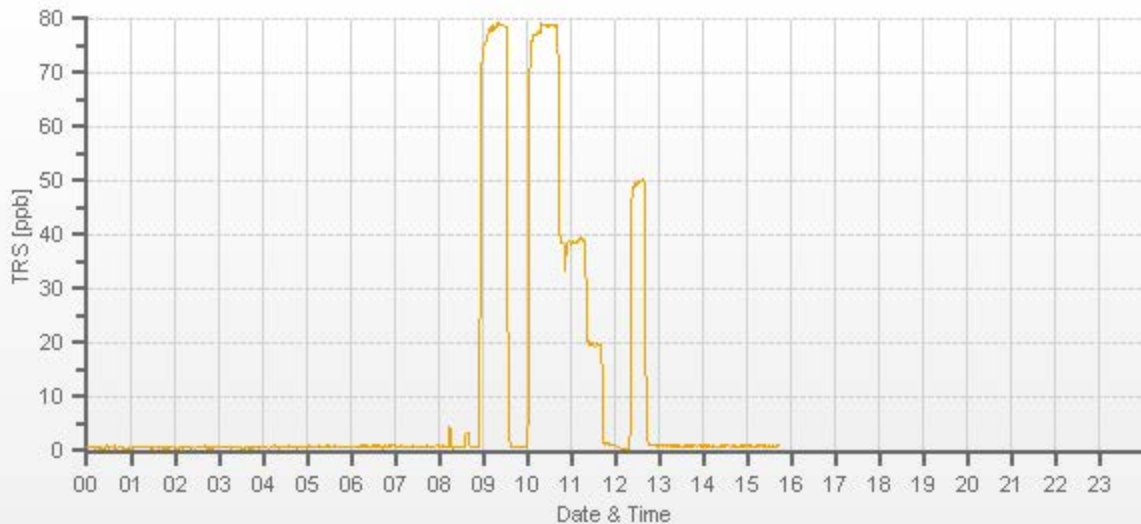
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7500	7500	7500	0.00	0.1	0	1.000	1.000
7443	57.35	7500	78.00	77.83	78.01	1.003	1.000
7472	27.94	7500	38.00	n/a	38.03	n/a	0.999
7486	13.97	7500	19.00	n/a	18.88	n/a	1.006

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	0.0%

COMMENTS:

TRS Converter CDNOVA CDN #576. Change sample filter.



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	11-May-2022	PREVIOUS CALIBRATION DATE:	06-Apr-2022	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	23.7		Thermo 55i	1501663728	1068
LOCATION:	842b	BAROMETRIC (mBar):	942	PARAMETER:	CH4	NMHC	THC
PURPOSE	Routine	START TIME (MST):	10:53	RANGE (ppm):	20	20	40
PERFORMED BY:	Limin Li	END TIME (MST):	13:55	PREVIOUS CF:	1.002	1.000	1.001

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	API	CYLINDER ID:	LL28583	HIGH ID:	n/a
MODEL:	2010	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	608.0 203.0	HIGH EXPIRY:	n/a
ID:	17200415	ID:	1105	CYLINDER (psi):	1600	LOW ID:	n/a
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	111	EXPIRY DATE	18-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	558.3
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1166.3

EXPECTED (REFERENCE) VALUE:

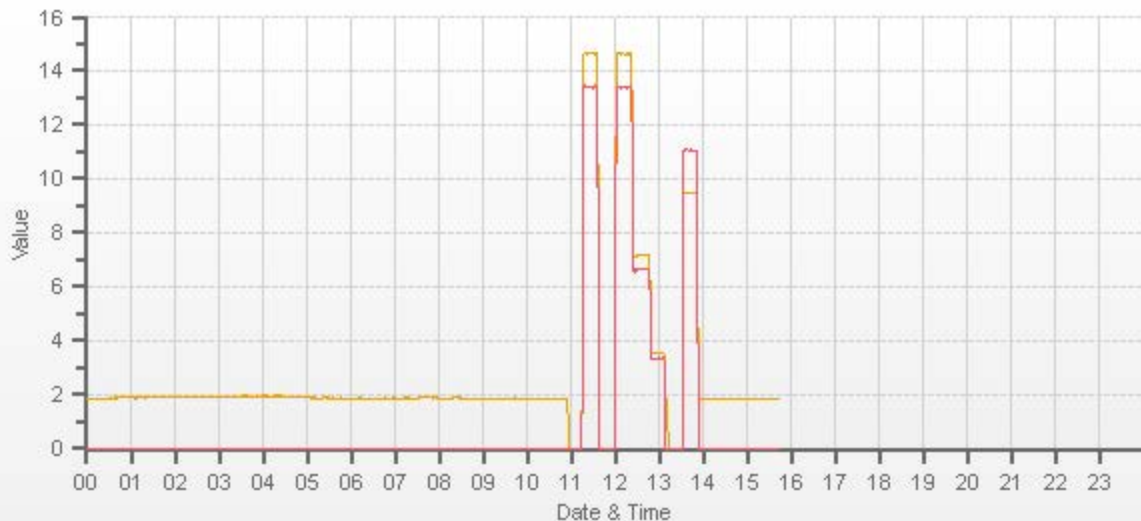
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	8.85	11.12	19.97		8.85	11.12	19.97

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
3500	X	3500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3416	84.00	3500	14.59	13.40	27.99	14.61	13.43	28.04	14.64	13.39	28.03	0.999	0.998	0.998	0.997	1.001	0.999
3458	42.40	3500	7.37	6.76	14.13	n/a	n/a	n/a	7.18	6.69	13.87	n/a	n/a	n/a	1.026	1.011	1.019
3479	21.40	3500	3.72	3.41	7.13	n/a	n/a	n/a	3.58	3.38	6.96	n/a	n/a	n/a	1.038	1.010	1.025

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:
CH ₄	1.000	1.005	-0.5%	Sample filter changed. Deionizer:2476 hours.
NMHC	1.000	1.000	-0.1%	
THC	1.000	1.002	-0.3%	
				Use Zero Chrom? Yes



CAL-PRAMP-202205-01561

Page 14 of 16
CH4 [ppm] NMHC [ppm]

Meteorological System Checklist



Date:	May 11, 2022
Technician:	Limin Li
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:	April 6, 2022	Channel offline =12:57-12:59pm, Audit 10 tip:12:58pm.
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	yes	
Is the screen on the housing? (screen should be on between July and September)	no	
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 ml)

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

AMBIENT TEMPERATURE SENSOR CHECK

Previous check date:	April 6, 2022
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022
Reference Temperature (°C):	9.2
Station - Ambient Temperature (°C):	8.9
Temperature Difference (°C):	0.3

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	April 6, 2022
Reference Barometer ID:	BRUNTON #5490, Expire: Feb 22, 2023
Reference Pressure - Units/Reading:	millibar 942.1
Station Pressure - Units/Reading:	millibar 941.3
Pressure Tolerance +/- 15% of error:	801 - 1083 0.08%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	April 6, 2022
Reference Hygrometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022
Reference Hygrometer % RH- Reading:	55.00
Station Hygrometer % RH- Reading:	57.80
RH Tolerance +/- 15% of difference:	46.75 - 63.25 -5.1%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	April 6, 2022	Previous check date:	April 6, 2022
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	15.9	Wind Direction on Data Logger:	W
		Wind Direction Pass/Fail?:	Pass

Comments



Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	Performed By:	Limin Li
Audit Location:	842b	Reviewed By:	Chris Wesson
Audit Date:	July 4, 2021	Start/End Time (mst):	12:16/13:43
Calibration Purpose:	routine annual	Weather Conditions:	Mainly cloudy with sunny breaks

Wind Sensor Information

Sensor ID Data:		Sensor Outputs:	
Sensor Make:	RM Young	Velocity Voltage Output Range:	n/a
Sensor Model:	05305AQ	Velocity Unit Output Range:	0-200
Serial #:	174802	Direction Voltage Output Range:	0-1
Previous Cal/Audit Date:	December 16, 2020	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# CA03309 expires June 07, 2023

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	0	355	0.0	0.0	0.0
30	330	29	331	1.0	-1.0	1.0
60	300	58	301	2.0	-1.0	1.5
90	270	88	272	2.0	-2.0	2.0
120	240	118	241	2.0	-1.0	1.5
150	210	149	211	1.0	-1.0	1.0
180	180	179	180	1.0	0.0	0.5
210	150	210	149	0.0	1.0	0.5
240	120	241	119	-1.0	1.0	1.0
270	90	272	88	-2.0	2.0	2.0
300	60	301	58	-1.0	2.0	1.5
330	30	331	29	-1.0	1.0	1.0
355	0	355	0	0.0	0.0	0.0
The audit meets AMD requirements.				Average Absolute Degrees Difference=		1.0

Comments:

Change 2 speed bearing.



Peace River Area Monitoring Program

MAY 2022

Ambient Air Monitoring Calibration Report

- 986c STATION-

CAL-PRAMP-202205-01562

Operation and Maintenance:

Bureau Veritas Canada

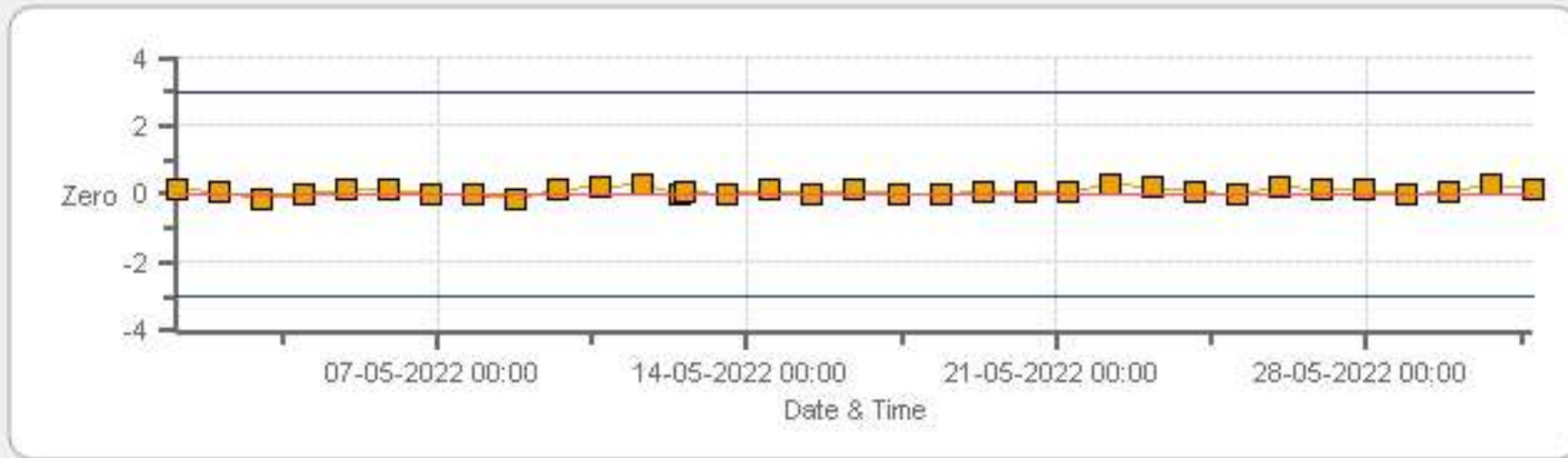
Data Validation and Report:

Bureau Veritas Canada

June 25, 2022

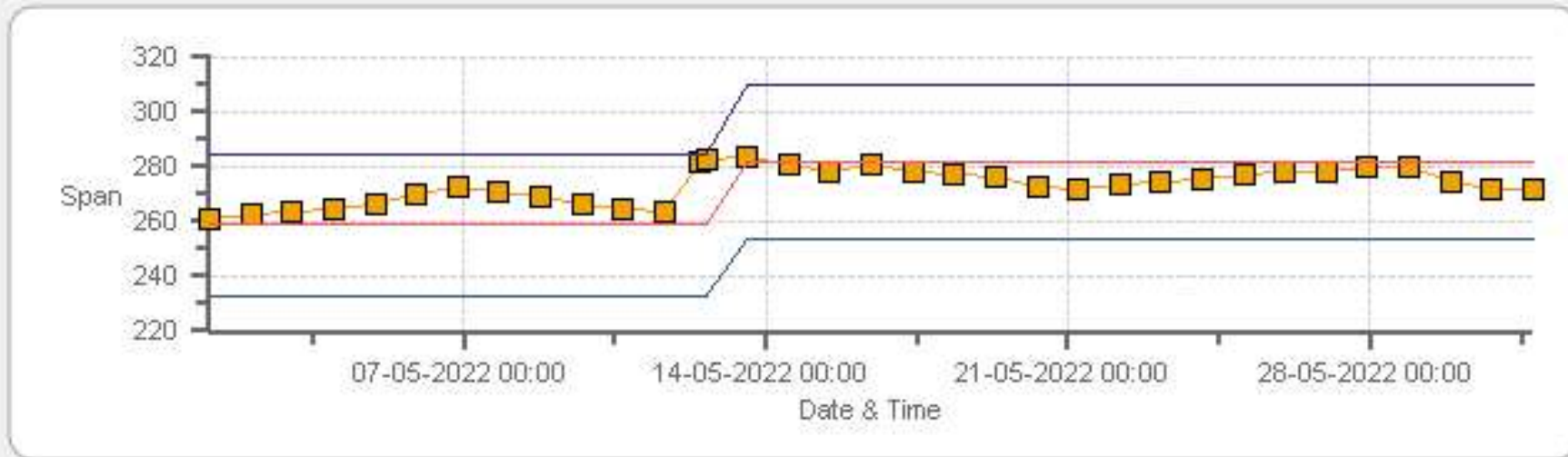
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Zero



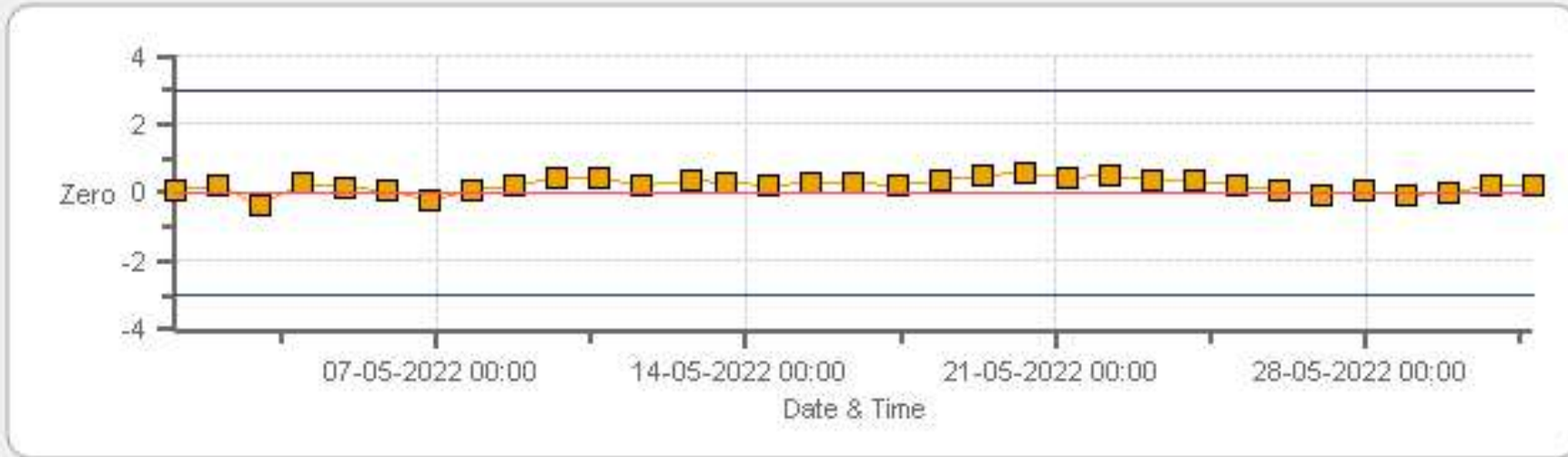
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

TRS[ppb] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Zero



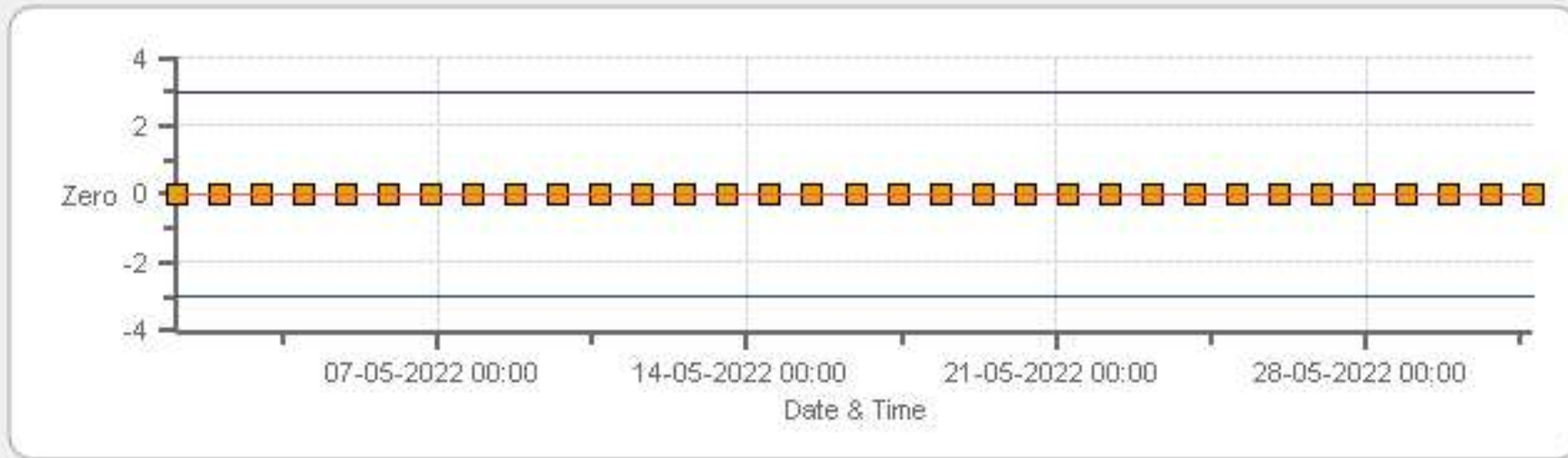
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Span



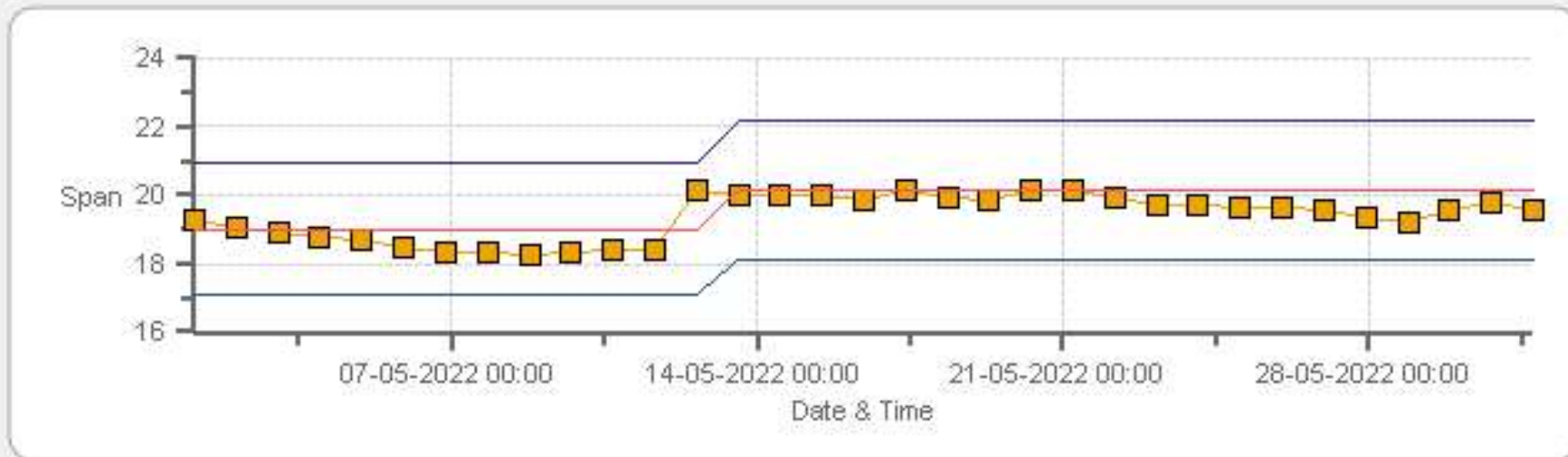
Span Span Ref Span Low Span High

THC55[ppm] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Zero



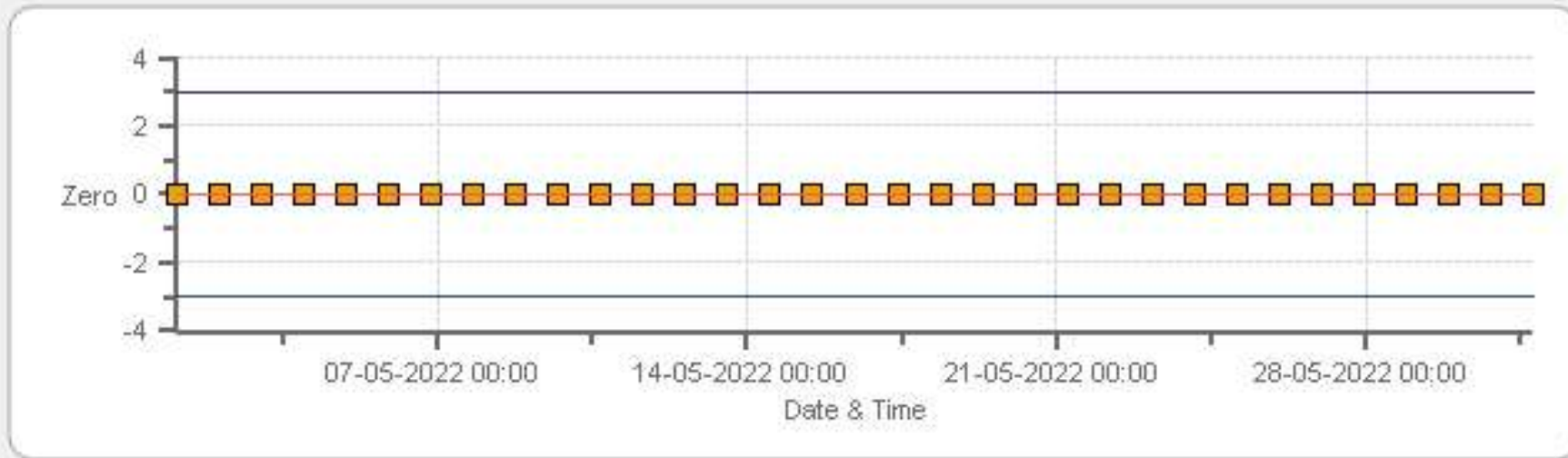
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Span



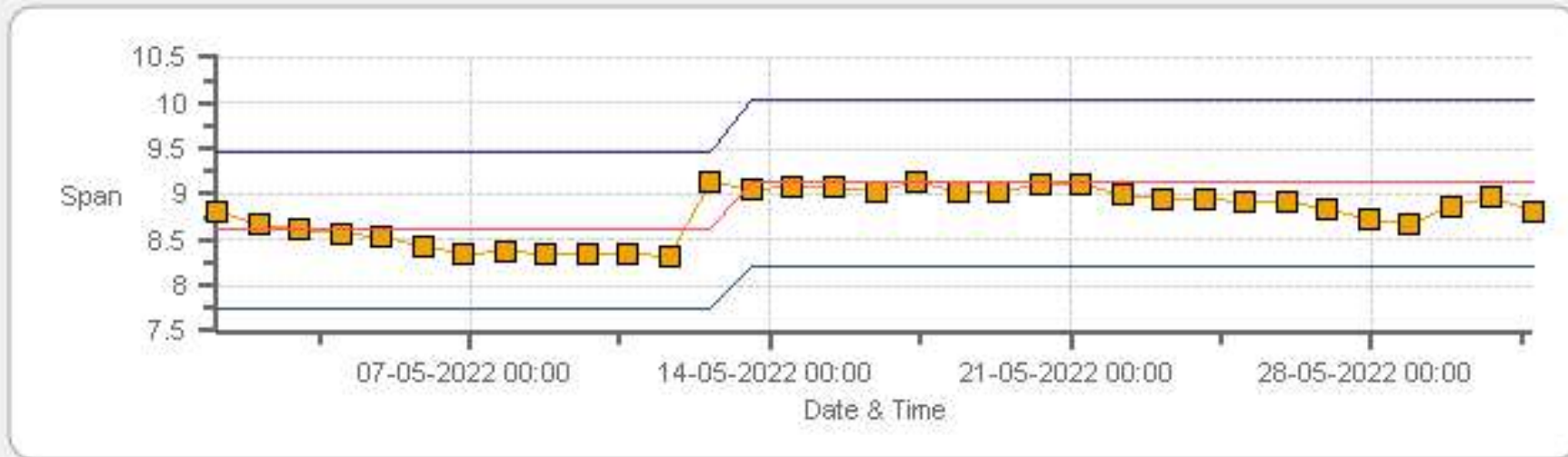
Span Span Ref Span Low Span High

CH4[ppm] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Span



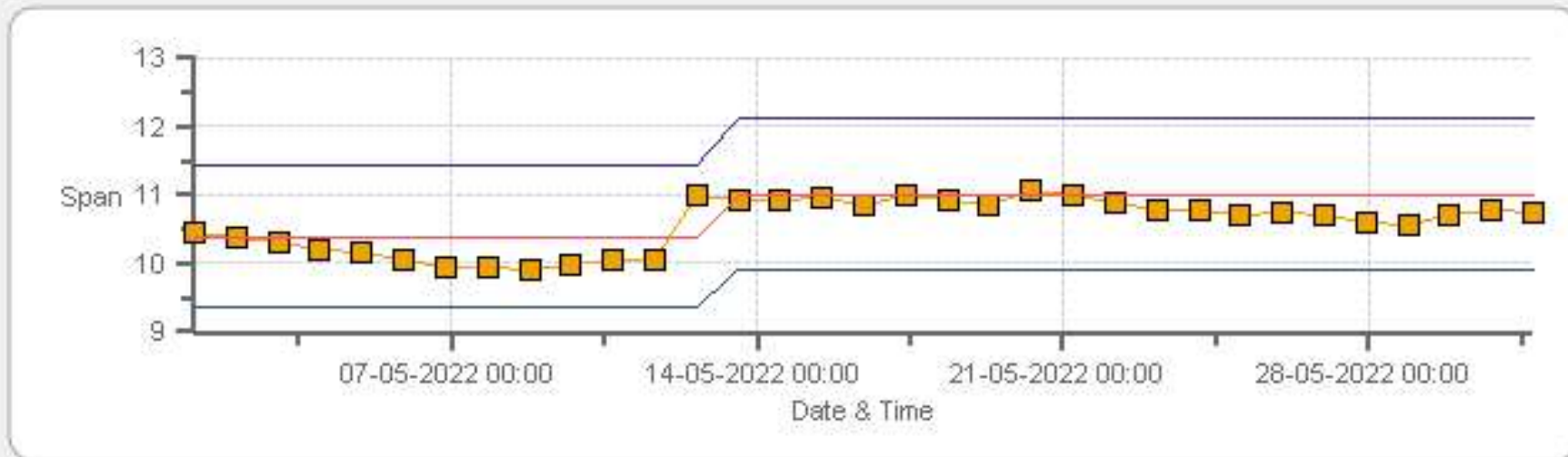
Span Span Ref Span Low Span High

NMHC[ppm] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP 986c Monthly: 05-2022 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	12-May-2022	PREVIOUS CALIBRATION DATE:	07-Apr-2022
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.0
LOCATION:	986C	BAROMETRIC (mBar):	943
PURPOSE:	Routine	START TIME (MST):	08:00
PERFORMED BY:	Limin Li	END TIME (MST):	11:37

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1193585646	FLOW (mL/min)	432
INITIAL		FINAL	
BKG/OFFSET	14	BKG/OFFSET	13.9
COEF/SLOPE	1.024	COEF/SLOPE	1.013
Expected (reference) Value	258.7	Expected (reference) Value	282.1

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	API
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0000647	HIGH ID	n/a
CONC (ppm):	51.6	EXPIRY DATE	n/a
CYLINDER (psi):	650	LOW ID	n/a
EXPIRY DATE	24-Feb-2028	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:

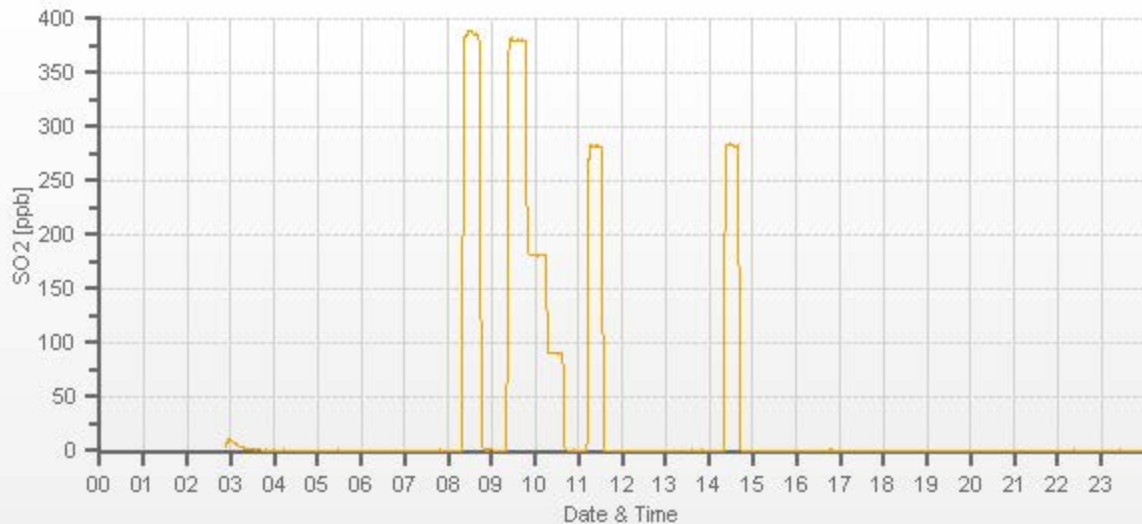
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
6000	44.20	6000	0.00	0.1	0	0.985	1.000
5956	44.20	6000	380.12	386.1	380	0.985	1.000
5979	20.90	6000	179.74	n/a	181.7	n/a	0.989
5990	10.50	6000	90.30	n/a	90.2	n/a	1.001

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	0.1%

COMMENTS:

Sample filter changed.



TRS Analyzer Calibration by Dilution



DATE:	12-May-2022	PREVIOUS CALIBRATION DATE:	07-Apr-2022
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	24.6
LOCATION:	986C	BAROMETRIC (mBar):	942
PURPOSE:	Removal/Shut-down	START TIME (MST):	12:22
PERFORMED BY:	Limin Li	END TIME (MST):	14:01

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1191833341	FLOW (mL/min)	424
INITIAL		FINAL	
BKG/OFFSET	14.5	BKG/OFFSET	n/a
COEF/SLOPE	0.995	COEF/SLOPE	n/a
Expected (reference) Value	50.53	Expected (reference) Value	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002272	HIGH ID	n/a
CONC (ppm):	10.20	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	14-Sep-2024	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:	08:22	SO2 Conc (ppb)	380
END TIME:	08:40	Analyzer Response (ppb)	0.1

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7500	7500	7500	0.00	0	n/a	0.982	n/a
7443	57.35	7500	78.00	79.4	n/a	0.982	n/a
7472	27.94	7500	38.00	36.6	n/a	1.038	n/a
7486	13.97	7500	19.00	18.02	n/a	1.054	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.021	-1.0%

COMMENTS:

Initial calibration (08:00-12:18) failed at low point.
Reset analyzer to as found condition, then completed this shutdown.

TRS Analyzer Calibration by Dilution



DATE:	12-May-2022	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	23.5
LOCATION:	986C	BAROMETRIC (mBar):	941
PURPOSE:	Install/Post-Repair	START TIME (MST):	16:50
PERFORMED BY:	Limin Li	END TIME (MST):	18:56

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1191833341	FLOW (mL/min)	424
INITIAL		FINAL	
BKG/OFFSET	n/a	BKG/OFFSET	14.4
COEF/SLOPE	n/a	COEF/SLOPE	1.006
Expected (reference) Value	n/a	Expected (reference) Value	60.84

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002272	HIGH ID	n/a
CONC (ppm):	10.20	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	14-Sep-2024	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:	08:22	SO2 Conc (ppb)	380
END TIME:	08:40	Analyzer Response (ppb)	0.1

CALIBRATION:

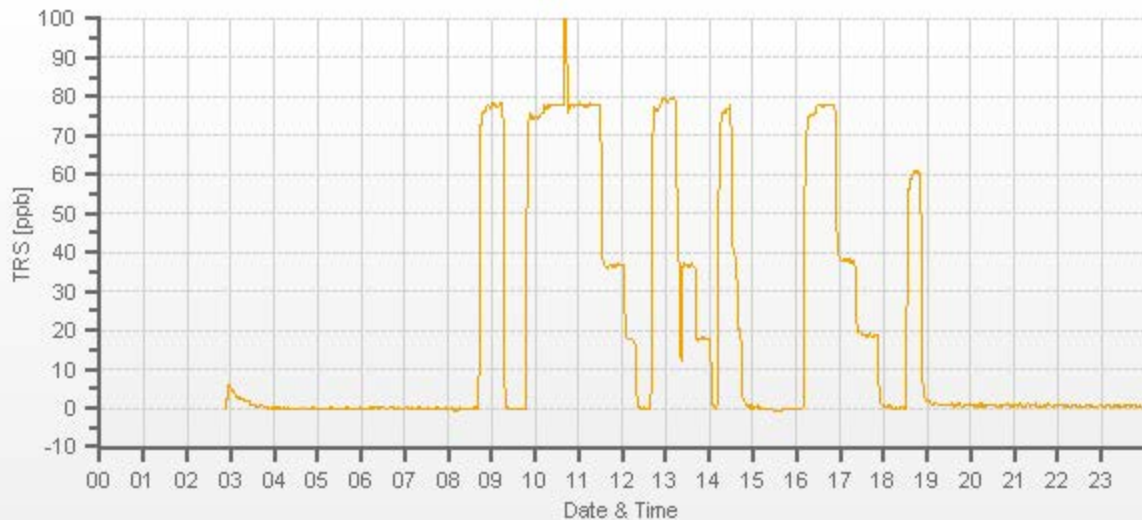
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7500	7500	7500	0.00	n/a	0	n/a	n/a
7443	57.35	7500	78.00	n/a	78.01	n/a	1.000
7472	27.94	7500	38.00	n/a	38.01	n/a	1.000
7486	13.97	7500	19.00	n/a	18.94	n/a	1.003

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	0.0%

COMMENTS:

Install BV TRS converter, sn:552.



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	12-May-2022	PREVIOUS CALIBRATION DATE:	07-Apr-2022	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	24.0		Thermo 55i	1193585652	1244
LOCATION:	986C	BAROMETRIC (mBar):	943	PARAMETER:	CH4	NMHC	THC
PURPOSE	Routine	START TIME (MST):	10:38	RANGE (ppm):	20	20	40
PERFORMED BY:	Limin Li	END TIME (MST):	13:08	PREVIOUS CF:	0.998	0.997	0.998

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	API	CYLINDER ID:	LL28583	HIGH ID:	n/a
MODEL:	2010	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	608.0 203.0	HIGH EXPIRY:	n/a
ID:	17200415	ID:	1105	CYLINDER (psi):	1600	LOW ID:	n/a
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	111	EXPIRY DATE	18-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	558.3
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1166.3

EXPECTED (REFERENCE) VALUE:

INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	8.16	10.06	19.01		9.13	11.01	20.14

CALIBRATION:

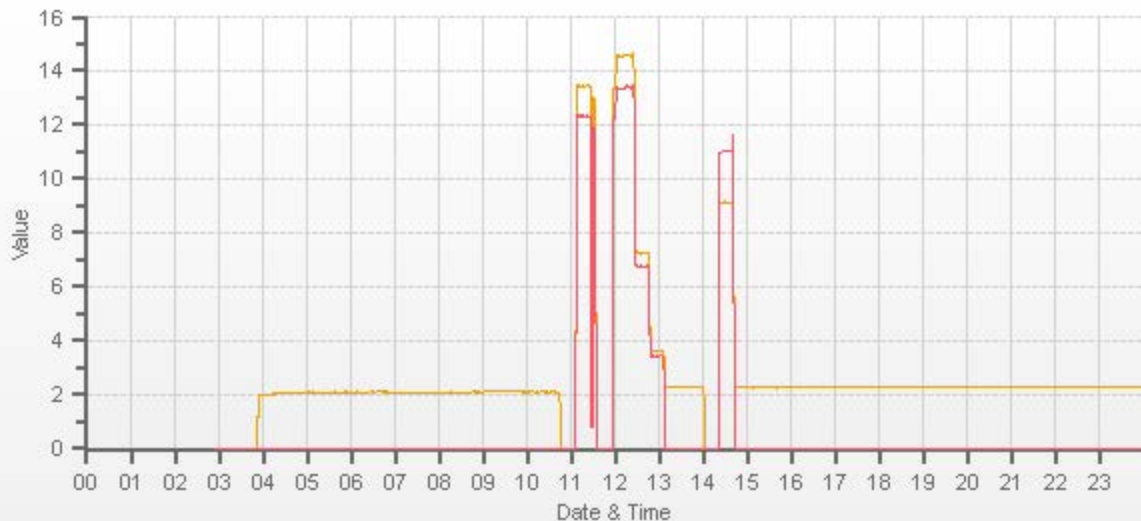
FLOW RATE			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
(mL/min)			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC	CH ₄	NMHC	THC
3500	84.00	3500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.086	1.091	1.088	1.000	0.997	0.999
3416	84.00	3500	14.59	13.40	27.99	13.44	12.28	25.72	14.59	13.44	28.03	1.086	1.091	1.088	1.000	0.997	0.999
3458	42.00	3500	7.30	6.70	14.00	n/a	n/a	n/a	7.24	6.76	14.00	n/a	n/a	n/a	1.008	0.991	1.000
3479	21.00	3500	3.65	3.35	7.00	n/a	n/a	n/a	3.64	3.43	7.07	n/a	n/a	n/a	1.002	0.977	0.990

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH ₄	1.000	1.000	-0.1%
NMHC	1.000	1.002	0.2%
THC	1.000	1.001	0.1%

Comments:

n/a
Use Zero Chrom? No



CAL-PRAMP-202205-01562

Meteorological System Checklist



Date:	May 12, 2022
Technician:	Limin Li
Station:	PRAMP 986c

Unit:	Make:	Model:	Serial #:
Precipitation Sampler:	RM Young	52202	TB 16325
Temperature Sensor:	Rotronic	HC2-S3	61116376
Barometric Pressure Sensor:	MetOne	092	Y23358
Relative Humidity Sensor:	Rotronic	HC2-S3	61116376
Anemometer:	RM Young	05305L	174795

PRECIPITATION SENSOR CHECK

Checklist:	Reply:	Comments:
Previous check date:	April 7, 2022	Tip test: 08:30-08:32am
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	no	
Is the screen on the housing? (screen should be on between July and September)	no	
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 ml)

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

AMBIENT TEMPERATURE SENSOR CHECK

Previous check date:	April 7, 2022
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022
Reference Temperature (°C):	12.0
Station - Ambient Temperature (°C):	12.0
Temperature Difference (°C):	0.0

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	April 7, 2022
Reference Barometer ID:	BRUNTON #5490, Expire: Feb 22, 2023
Reference Pressure - Units/Reading:	millibar 943
Station Pressure - Units/Reading:	millibar 942.4
Pressure Tolerance +/- 15% of error:	802 - 1084 0.06%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	April 7, 2022
Reference Hygrometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022
Reference Hygrometer % RH- Reading:	45.60
Station Hygrometer % RH- Reading:	44.40
RH Tolerance +/- 15% of difference:	38.76 - 52.44 2.6%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	April 7, 2022	Previous check date:	April 7, 2022
Wind Speed Observed (kph):	15~25	Wind Direction Observed:	SE
Wind speed on Data Logger (kph):	17.5	Wind Direction on Data Logger:	SE
		Wind Direction Pass/Fail?:	Pass

Comments

Prior to removal of BV's TPX/RH probe

Meteorological System Checklist



Date:	May 12, 2022		
Technician:	Limin Li		
Station:	PRAMP 986c		
Unit:	Make:	Model:	Serial #:
Precipitation Sampler:	RM Young	52202	TB 16325
Temperature Sensor:	Rotronic	HC2A-S3	20357528
Barometric Pressure Sensor:	MetOne	092	Y23358
Relative Humidity Sensor:	Rotronic	HC2A-S3	20357528
Anemometer:	RM Young	05305L	174795
AMBIENT TEMPERATURE SENSOR CHECK			
Previous check date:	April 7, 2022		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022		
Reference Temperature (°C):	18.0		
Station - Ambient Temperature (°C):	18.1		
Temperature Difference (°C):	-0.1		
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	April 7, 2022		
Reference Hygrometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022		
Reference Hygrometer % RH- Reading:	23.22		
Station Hygrometer % RH- Reading:	21.20		
RH Tolerance +/- 15% of difference:	19.74 - 26.70	8.7%	
Comments			
Change TXP/RH sensor from 14:43pm to 15:41pm.			



Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	Performed By:	Chris Wesson
Audit Location:	986C	Reviewed By:	Ferdinand Roy
Audit Date:	April 12, 2022	Start/End Time (mst):	10:29/11:20
Calibration Purpose:	installation	Weather Conditions:	Light snow

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:	0-180
Serial #:	180340	Direction Voltage Output Range:	n/a
Previous Cal/Audit Date:	n/a	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802A sn/id# R9133 expires Aug06, 2022

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	55.5	1.000
4000	73.7	73.9	73.6	1.000
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	147.7	1.000
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=	1.001

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	31	330	-1.0	0.0	0.5
60	300	62	300	-2.0	0.0	1.0
90	270	91	271	-1.0	-1.0	1.0
120	240	120	239	0.0	1.0	0.5
150	210	150	209	0.0	1.0	0.5
180	180	179	178	1.0	2.0	1.5
210	150	209	150	1.0	0.0	0.5
240	120	240	120	0.0	0.0	0.0
270	90	269	90	1.0	0.0	0.5
300	60	300	61	0.0	-1.0	0.5
330	30	330	31	0.0	-1.0	0.5
355	0	354	0	1.0	0.0	0.5
The audit meets AMD requirements.				Average Absolute Degrees Difference=		0.7

Comments:

No issues



Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	Performed By:	Chris Wesson
Audit Location:	986C	Reviewed By:	Ferdinand Roy
Audit Date:	April 12, 2022	Start/End Time (mst):	10:29/11:20
Calibration Purpose:	installation	Weather Conditions:	Light snow

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:	0-180
Serial #:	180340	Direction Voltage Output Range:	n/a
Previous Cal/Audit Date:	n/a	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802A sn/id# R9133 expires Aug06, 2022

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	55.5	1.000
4000	73.7	73.9	73.6	1.000
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	147.7	1.000
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=	1.001

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	31	330	-1.0	0.0	0.5
60	300	62	300	-2.0	0.0	1.0
90	270	91	271	-1.0	-1.0	1.0
120	240	120	239	0.0	1.0	0.5
150	210	150	209	0.0	1.0	0.5
180	180	179	178	1.0	2.0	1.5
210	150	209	150	1.0	0.0	0.5
240	120	240	120	0.0	0.0	0.0
270	90	269	90	1.0	0.0	0.5
300	60	300	61	0.0	-1.0	0.5
330	30	330	31	0.0	-1.0	0.5
355	0	354	0	1.0	0.0	0.5
The audit meets AMD requirements.				Average Absolute Degrees Difference=		0.7

Comments:

No issues



Peace River Area Monitoring Program

MAY 2022

Ambient Air Monitoring Calibration Report

- RENO STATION-

CAL-PRAMP-202205-01563

Operation and Maintenance:

Bureau Veritas Canada

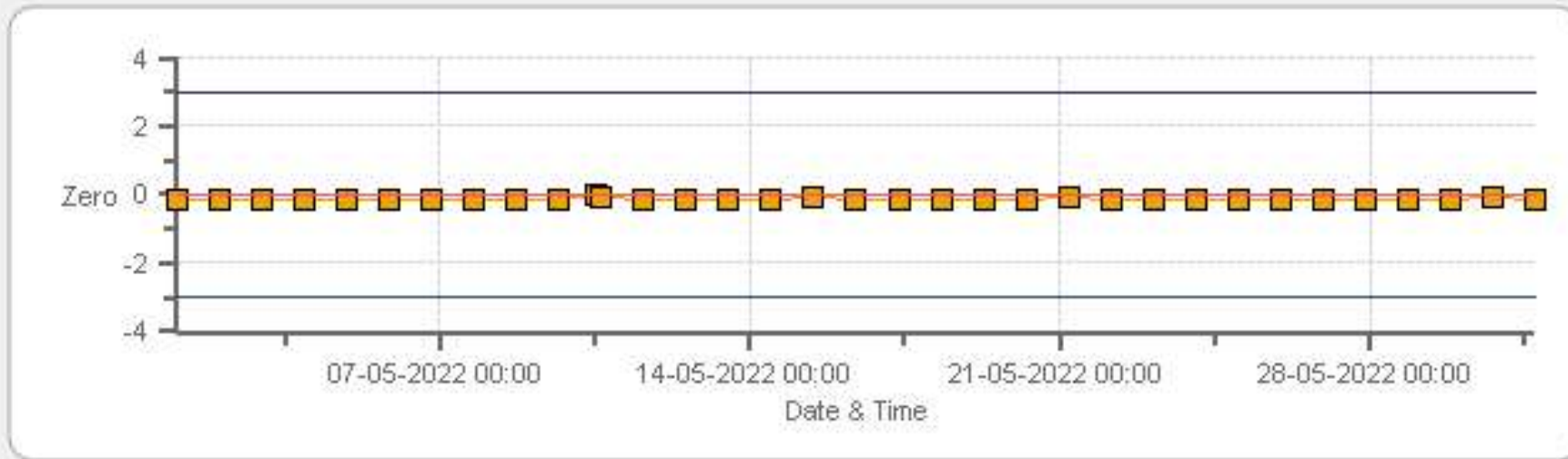
Data Validation and Report:

Bureau Veritas Canada

June 25, 2022

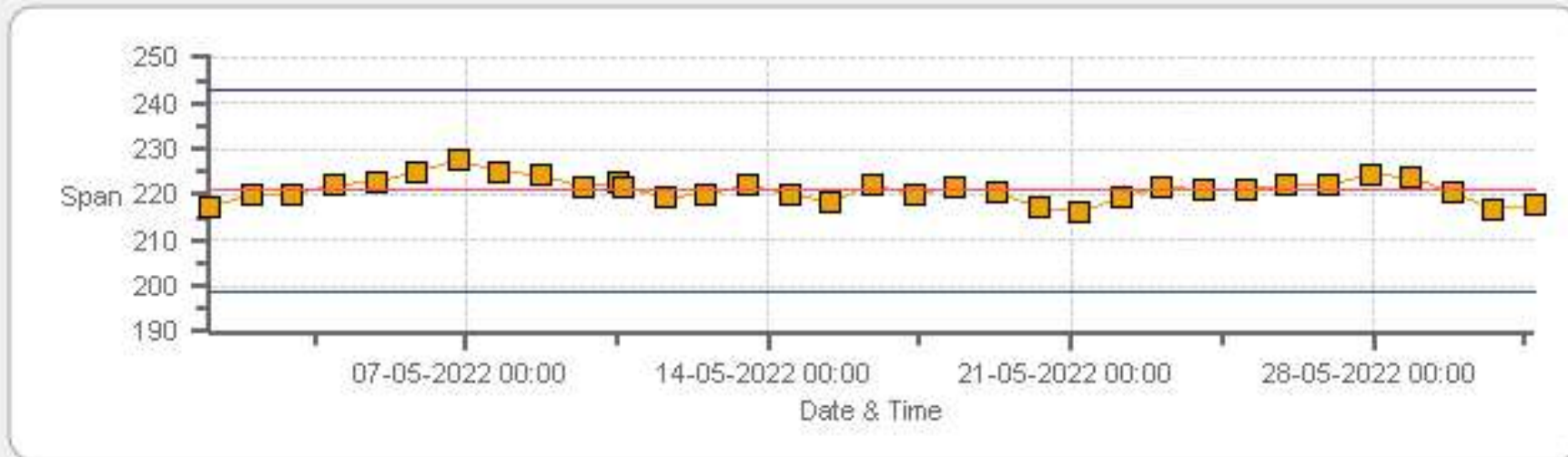
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Zero



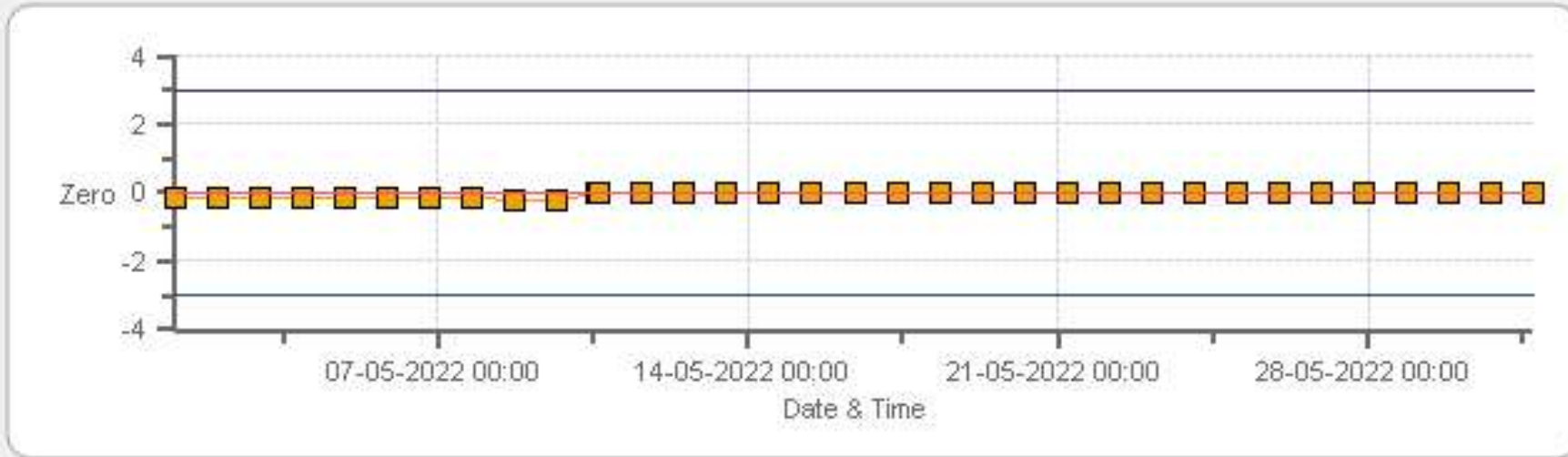
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Span



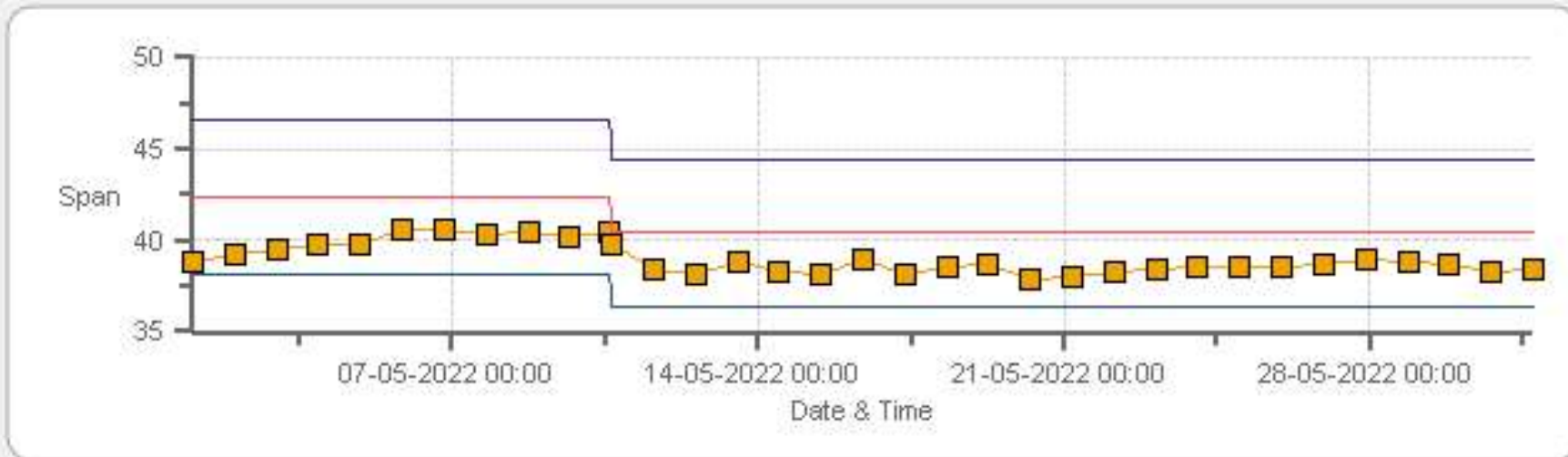
Span Span Ref Span Low Span High

TRS[ppb] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Zero



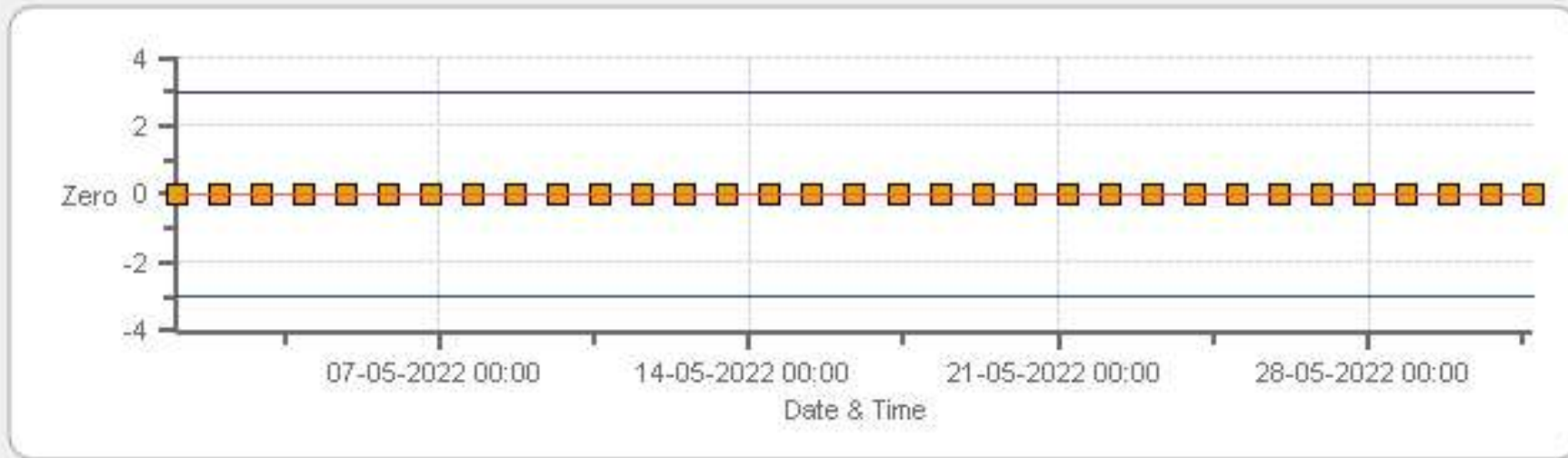
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Span



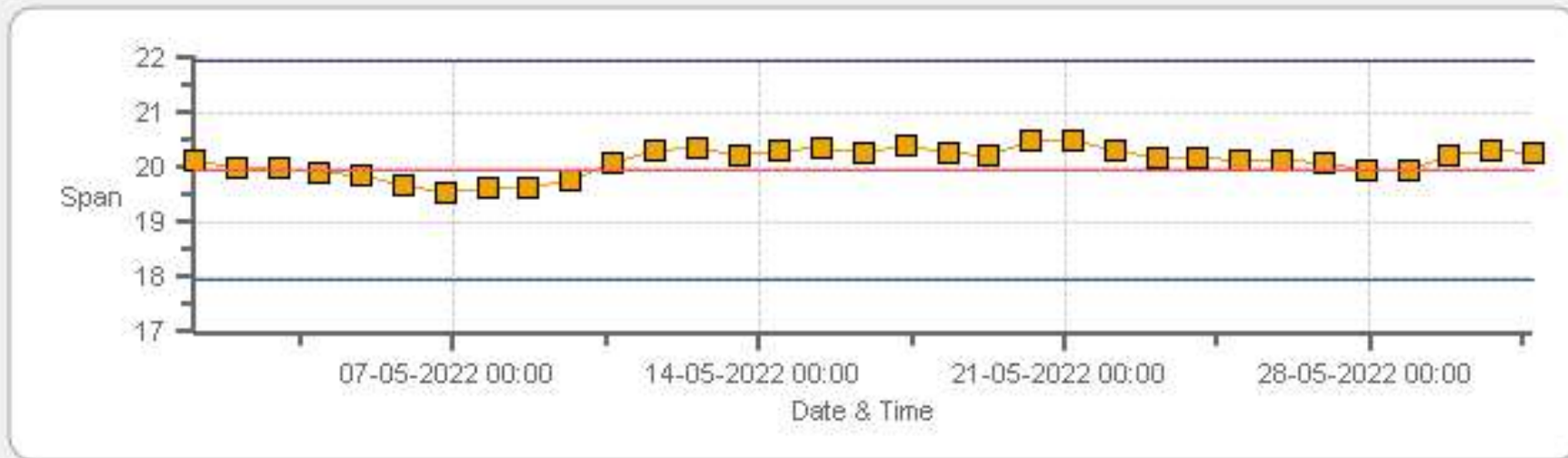
Span Span Ref Span Low Span High

THC55[ppm] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Zero



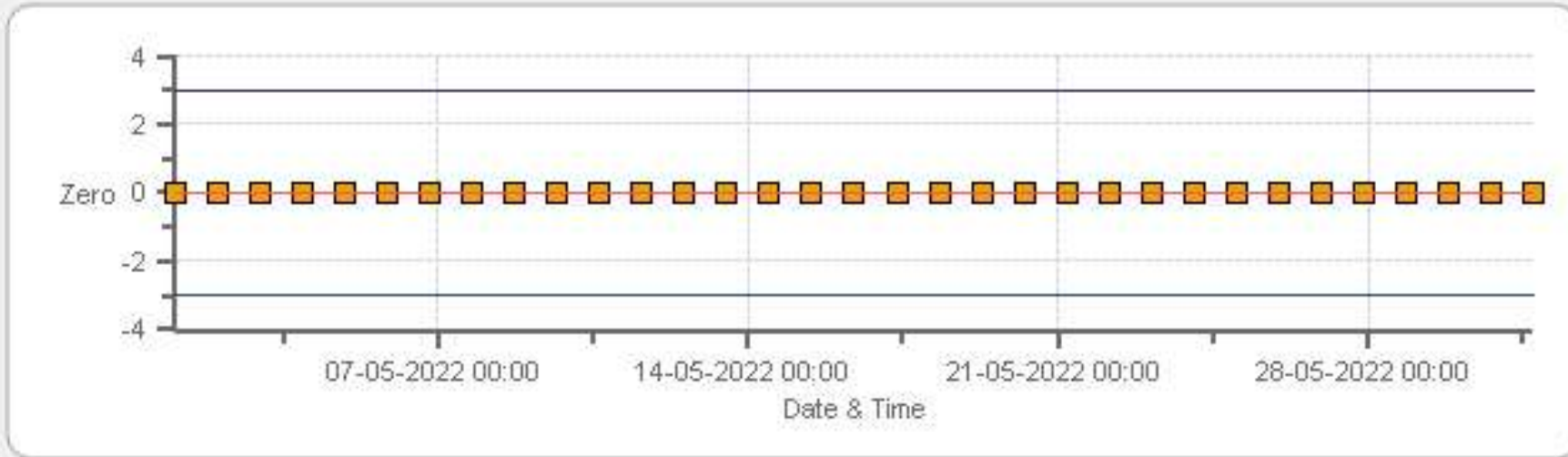
■ Zero
 — Zero Ref
 — Zero Low
 — Zero High

THC55[ppm] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Span



■ Span
 — SpanRef
 — Span Low
 — Span High

CH4[ppm] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Zero



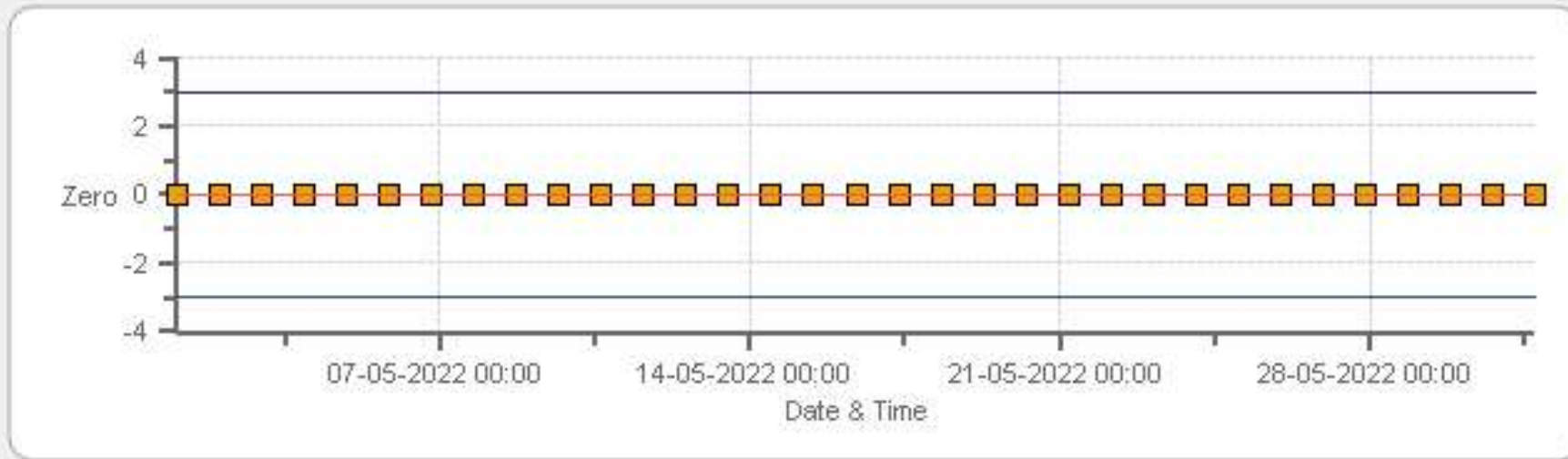
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Span



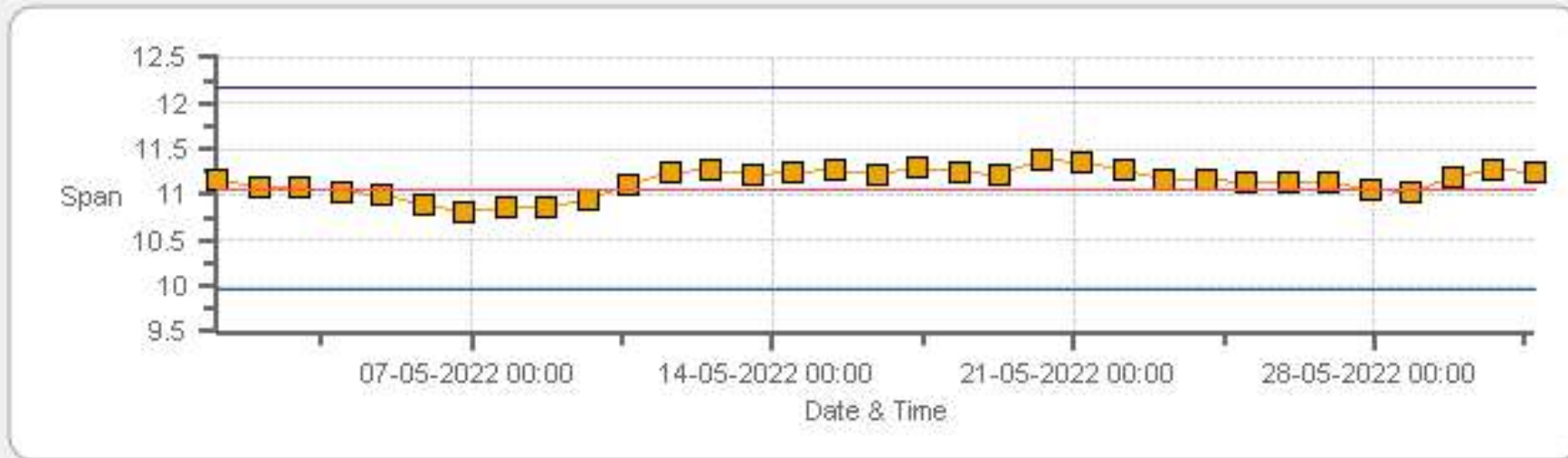
Span Span Ref Span Low Span High

NMHC[ppm] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: PRAMP RENO Monthly: 05-2022 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	10-May-2022	PREVIOUS CALIBRATION DATE:	05-Apr-2022
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.5
LOCATION:	Reno	BAROMETRIC (mBar):	933
PURPOSE:	Routine	START TIME (MST):	08:46
PERFORMED BY:	Limin Li	END TIME (MST):	12:30

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	12101910505	FLOW (mL/min)	443
INITIAL		FINAL	
BKG/OFFSET	1.07	BKG/OFFSET	1.05
COEF/SLOPE	0.929	COEF/SLOPE	0.932
Expected (reference) Value	220.9	Expected (reference) Value	220.9

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0000647	HIGH ID	n/a
CONC (ppm):	51.6	EXPIRY DATE	n/a
CYLINDER (psi):	700	LOW ID	n/a
EXPIRY DATE	24-Feb-2028	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:

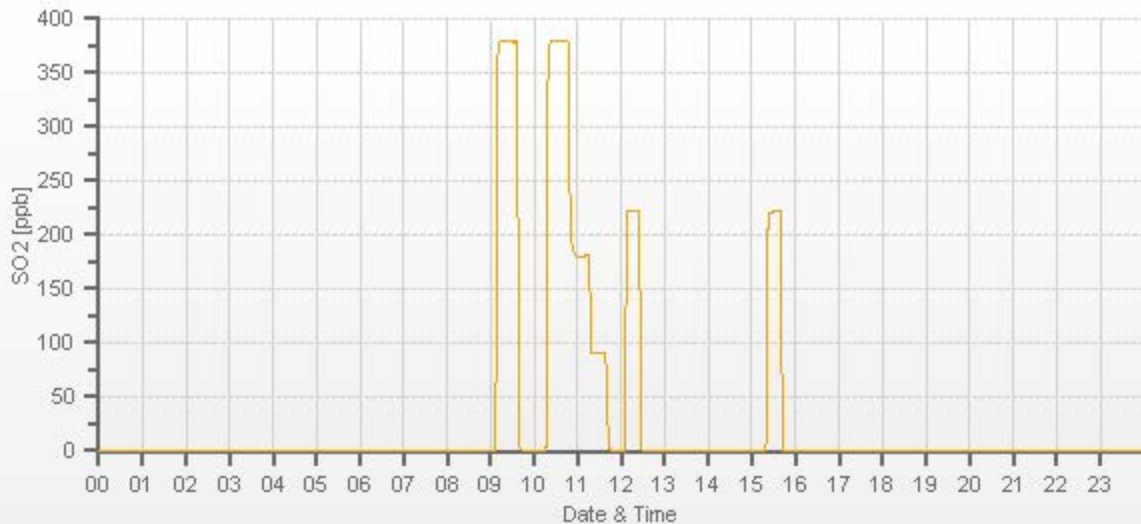
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
6000	44.20	6000	0.00	-0.2	0	1.001	1.001
5956	44.20	6000	380.12	379.7	379.9	1.001	1.001
5979	20.90	6000	179.74	n/a	180.8	n/a	0.994
5990	10.50	6000	90.30	n/a	90.3	n/a	1.000

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	0.1%

COMMENTS:

Change sample filter.



TRS Analyzer Calibration by Dilution



DATE:	10-May-2022	PREVIOUS CALIBRATION DATE:	05-Apr-2022
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.5
LOCATION:	Reno	BAROMETRIC (mBar):	933
PURPOSE:	Routine	START TIME (MST):	08:46
PERFORMED BY:	Limin Li	END TIME (MST):	14:35

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	12101910504	FLOW (mL/min)	399
INITIAL		FINAL	
BKG/OFFSET	1.05	BKG/OFFSET	0.86
COEF/SLOPE	0.949	COEF/SLOPE	0.919
Expected (reference) Value	42.37	Expected (reference) Value	40.43

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002272	HIGH ID	n/a
CONC (ppm):	10.20	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	14-Sep-2024	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

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

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

START TIME:	09:23	SO2 Conc (ppb)	380
END TIME:	09:43	Analyzer Response (ppb)	0.1

CALIBRATION:

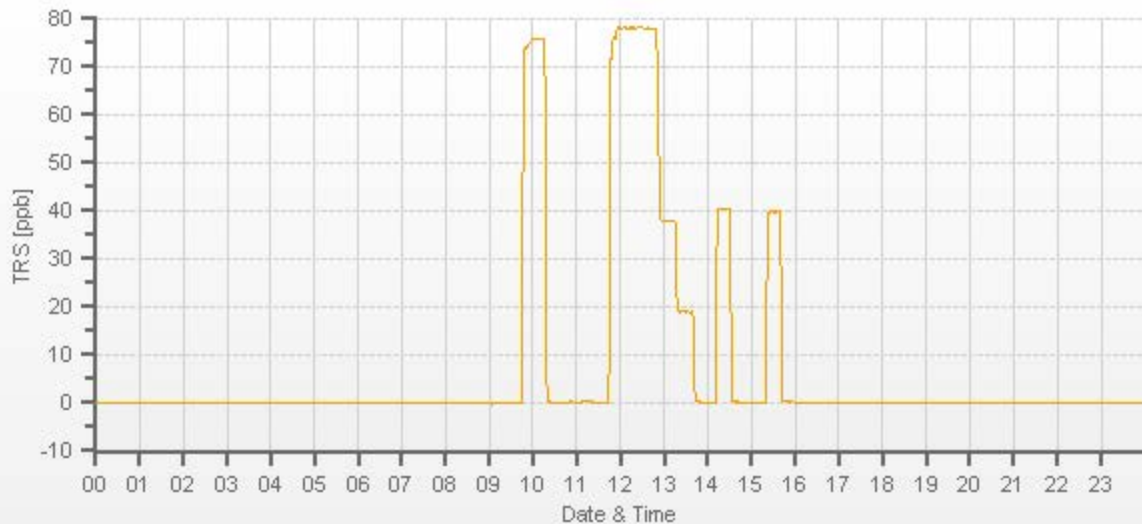
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7500	7500	7500	0.00	-0.21	0	1.000	1.000
7443	57.35	7500	78.00	75.79	78	1.026	1.000
7472	27.94	7500	38.00	n/a	38	n/a	1.000
7486	13.97	7500	19.00	n/a	19.01	n/a	0.999

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	0.0%

COMMENTS:

Converter: CDNova CDN-101 #590.



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	10-May-2022	PREVIOUS CALIBRATION DATE:	05-Apr-2022	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	23.6		Thermo 55i	12101910497	1178
LOCATION:	Reno	BAROMETRIC (mBar):	933	PARAMETER:	CH4	NMHC	THC
PURPOSE	Routine	START TIME (MST):	11:40	RANGE (ppm):	20	20	40
PERFORMED BY:	Limin Li	END TIME (MST):	14:38	PREVIOUS CF:	0.998	0.998	0.998

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	API	CYLINDER ID:	LL28583	HIGH ID:	n/a
MODEL:	2010	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	608.0 203.0	HIGH EXPIRY:	n/a
ID:	17200415	ID:	1105	CYLINDER (psi):	1600	LOW ID:	n/a
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	111	EXPIRY DATE	18-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	558.3
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1166.3

EXPECTED (REFERENCE) VALUE:

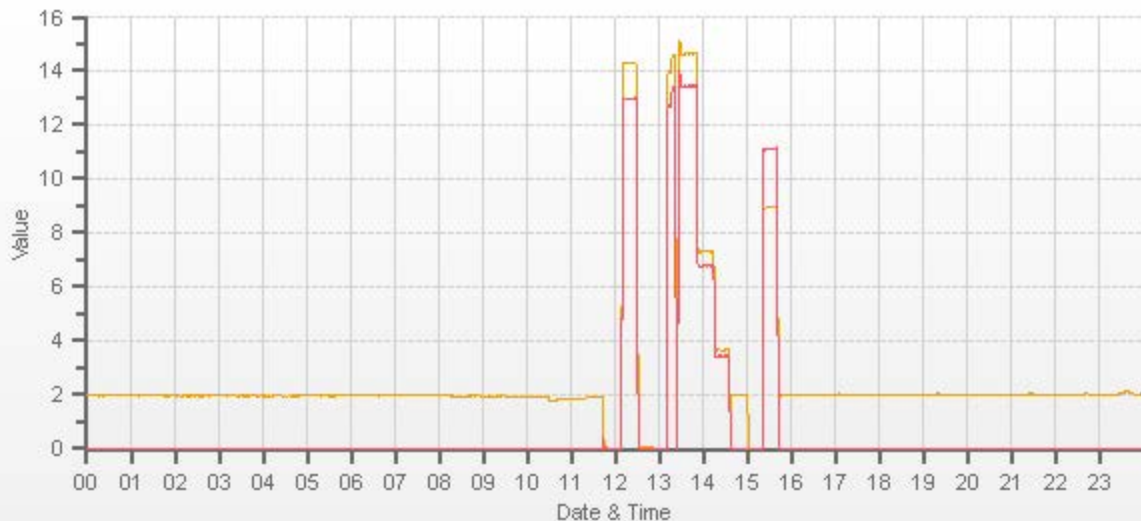
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	8.91	11.06	19.97		8.91	11.06	19.97

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
3500	X	3500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3416	84.00	3500	14.59	13.40	27.99	14.30	13.02	27.32	14.65	13.43	28.08	1.020	1.029	1.025	0.996	0.998	0.997
3458	42.00	3500	7.30	6.70	14.00	n/a	n/a	n/a	7.32	6.76	14.08	n/a	n/a	n/a	0.997	0.991	0.994
3479	21.00	3500	3.65	3.35	7.00	n/a	n/a	n/a	3.68	3.43	7.11	n/a	n/a	n/a	0.991	0.977	0.984

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:
CH ₄	1.000	1.004	0.0%	Sample filter changed. Change Deionizer and dessicant for HG300 H2 generator
NMHC	1.000	1.001	0.2%	
THC	1.000	1.002	0.1%	
				Use Zero Chrom? No



CAL-PRAMP-202205-01563

Page 14 of 16
CH4 [ppm] NMHC [ppm]

Meteorological System Checklist



Date:	May 10, 2022
Technician:	Limin Li
Station:	PRAMP Reno

Unit:	Make:	Model:	Serial #:
Precipitation Sampler:	RM Young	52202	TB 15877
Temperature Sensor:	RM Young	43172VC	60837897
Barometric Pressure Sensor:	MetOne	92	K12864
Relative Humidity Sensor:	RM Young	43172VC	60837897
Anemometer:	RM Young	05305VK	149769

PRECIPITATION SENSOR CHECK

Checklist:	Reply:	Comments:
Previous check date:	April 5, 2022	Tiptest = 13:59-14:00pm, channel offline time:13:52-14:02pm.
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	yes	
Is the screen on the housing? (screen should be on between July and September)	no	
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:	April 5, 2022
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022
Reference Temperature (°C):	4.1
Station - Ambient Temperature (°C):	3.2
Temperature Difference (°C):	0.9

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	April 5, 2022
Reference Barometer ID:	BRUNTON #5490, Expire: Feb 22, 2023
Reference Pressure - Units/Reading:	millibar 933.4
Station Pressure - Units/Reading:	millibar 934
Pressure Tolerance +/- 15% of error:	793 - 1073 -0.06%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	April 5, 2022
Reference Hygrometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022
Reference Hygrometer % RH- Reading:	64.80
Station Hygrometer % RH- Reading:	66.00
RH Tolerance +/- 15% of difference:	55.08 - 74.52 -1.9%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	April 5, 2022	Previous check date:	April 5, 2022
Wind Speed Observed (kph):	0~5	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	4.3	Wind Direction on Data Logger:	W
		Wind Direction Pass/Fail?:	Pass

Comments



Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	Performed By:	Limin Li
Audit Location:	Reno	Reviewed By:	
Audit Date:	July 5, 2021	Start/End Time (mst):	12:46/13:50
Calibration Purpose:	routine annual	Weather Conditions:	Mainly sunny

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 #:	149769	Direction Voltage Output Range:	0-1
Previous Cal/Audit Date:	June 17, 2020	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# CA03309 expires June 07, 2023

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	18.4	18.4	1.002
2000	36.9	36.8	36.8	1.002
3000	55.3	55.2	55.2	1.002
4000	73.7	73.6	73.6	1.002
5000	92.2	92.2	92.2	0.999
6000	110.6	110.6	110.6	1.000
7000	129.0	129.2	129.2	0.999
8000	147.4	147.6	147.6	0.999
9000	165.9	166.2	166.2	0.998
10000	184.3	184.8	184.8	0.997
The audit meets AMD requirements.			Average Correction Factor=	1.000

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	32	329	-2.0	1.0	1.5
60	300	62	300	-2.0	0.0	1.0
90	270	93	270	-3.0	0.0	1.5
120	240	122	240	-2.0	0.0	1.0
150	210	152	211	-2.0	-1.0	1.5
180	180	182	181	-2.0	-1.0	1.5
210	150	212	151	-2.0	-1.0	1.5
240	120	241	121	-1.0	-1.0	1.0
270	90	270	91	0.0	-1.0	0.5
300	60	300	61	0.0	-1.0	0.5
330	30	329	31	1.0	-1.0	1.0
355	0	354	0	1.0	0.0	0.5
The audit meets AMD requirements.				Average Absolute Degrees Difference=		1.1

Comments:

Bearings replaced. Declination = 15deg East



Peace River Area Monitoring Program

MAY 2022

Ambient Air Monitoring Calibration Report

- AQHI - GRIMSHAW STATION-

CAL-PRAMP-202205-01689

Operation and Maintenance:

Bureau Veritas Canada

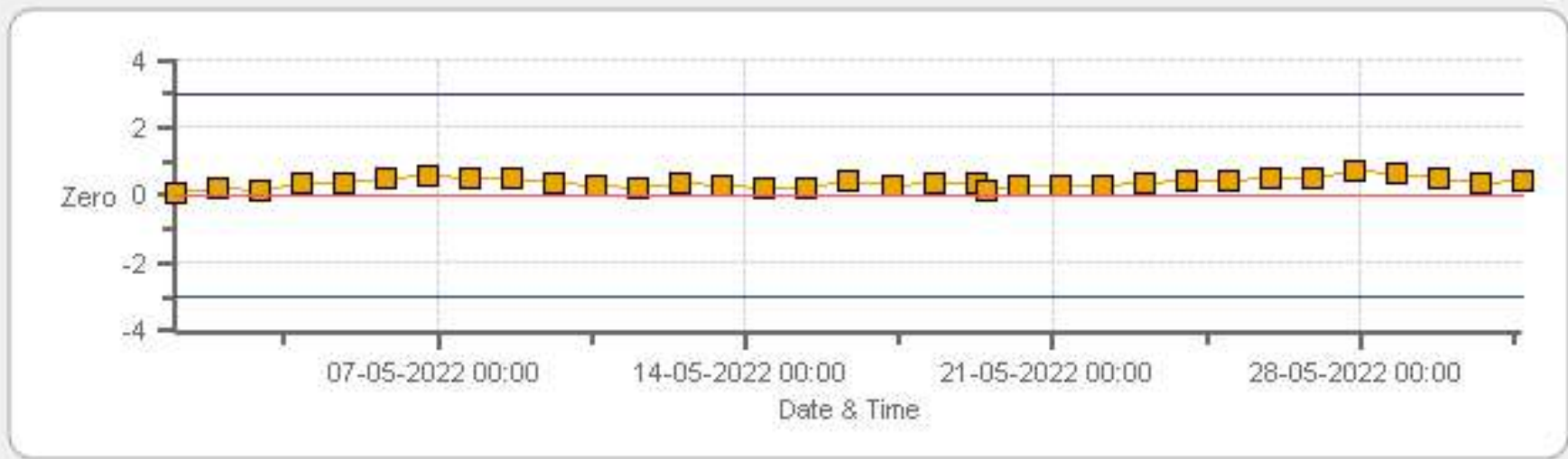
Data Validation and Report:

Bureau Veritas Canada

June 25, 2022

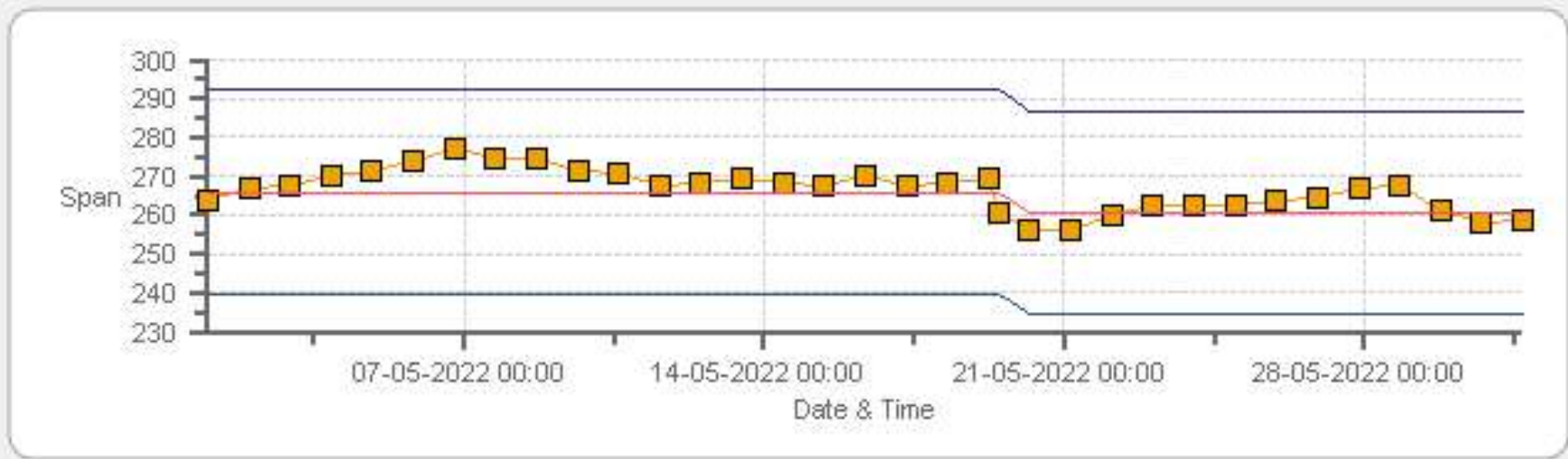
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Zero



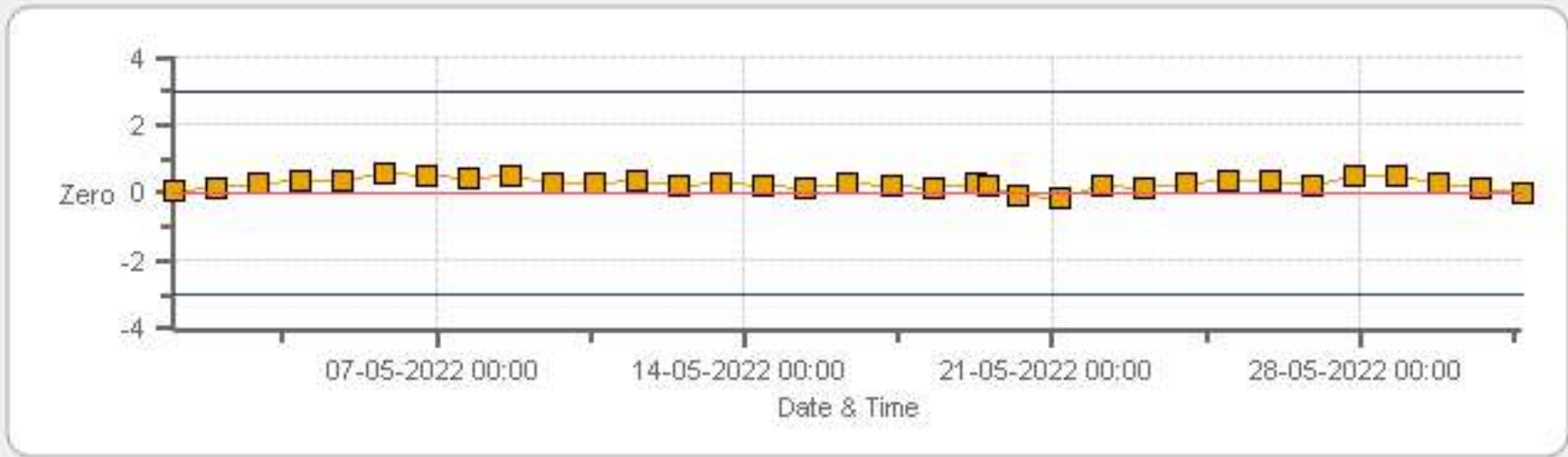
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Span



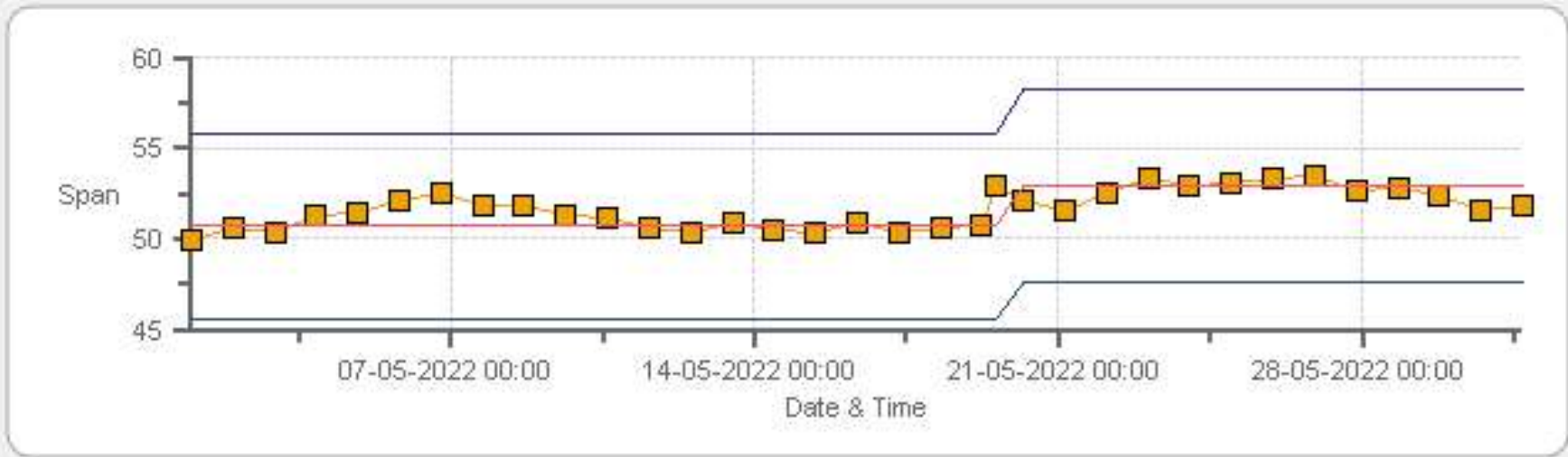
Span Span Ref Span Low Span High

TRS[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Zero



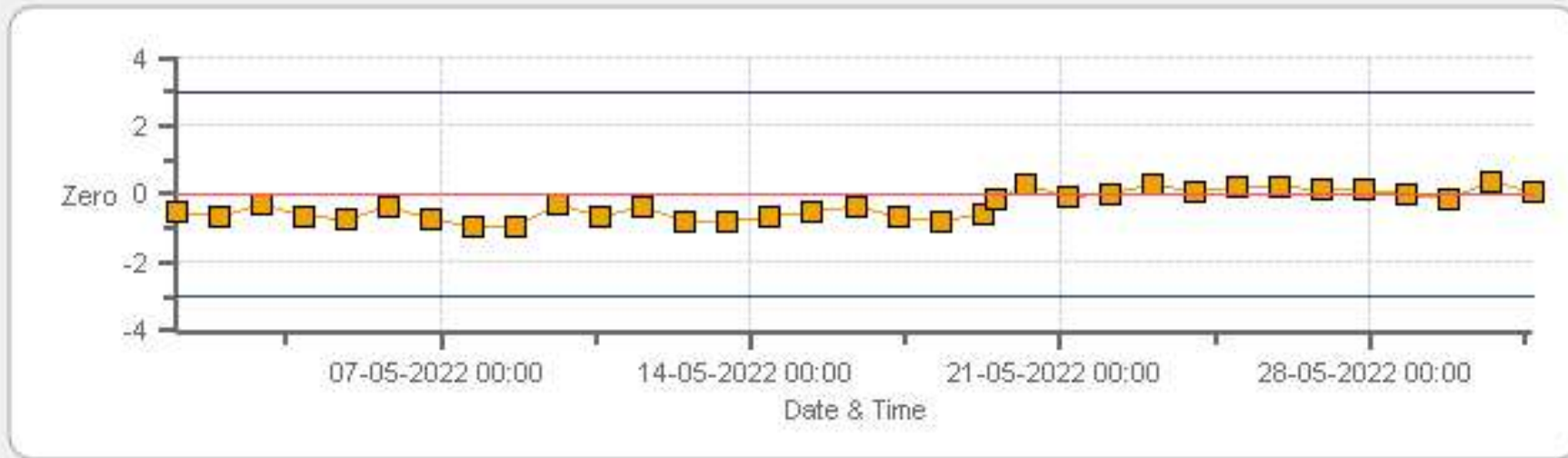
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Span

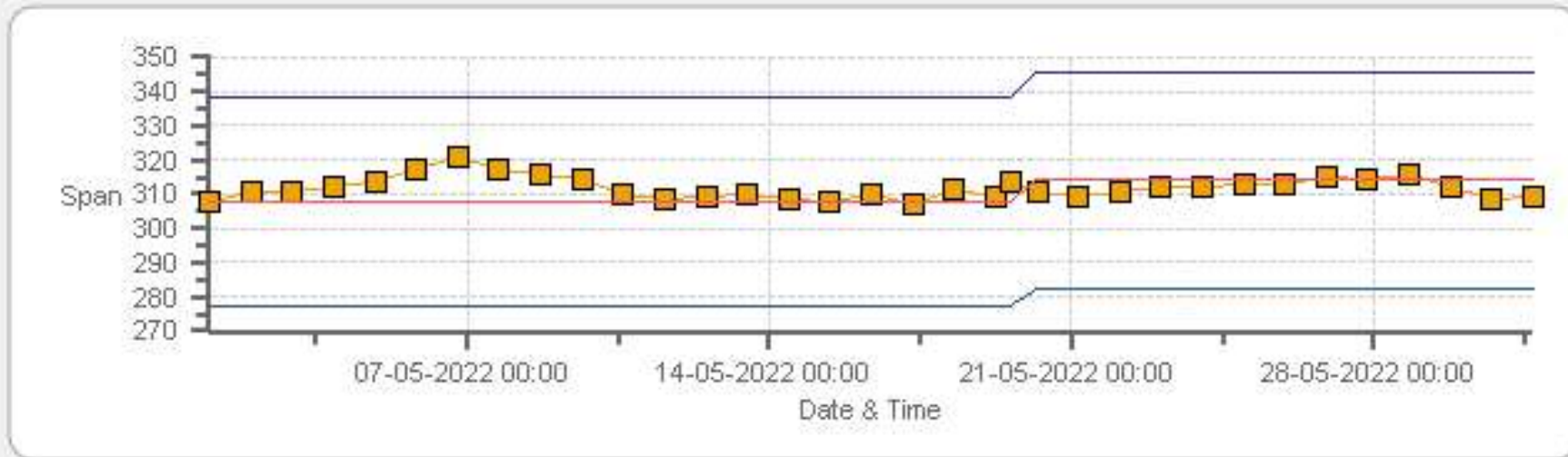


Span Span Ref Span Low Span High

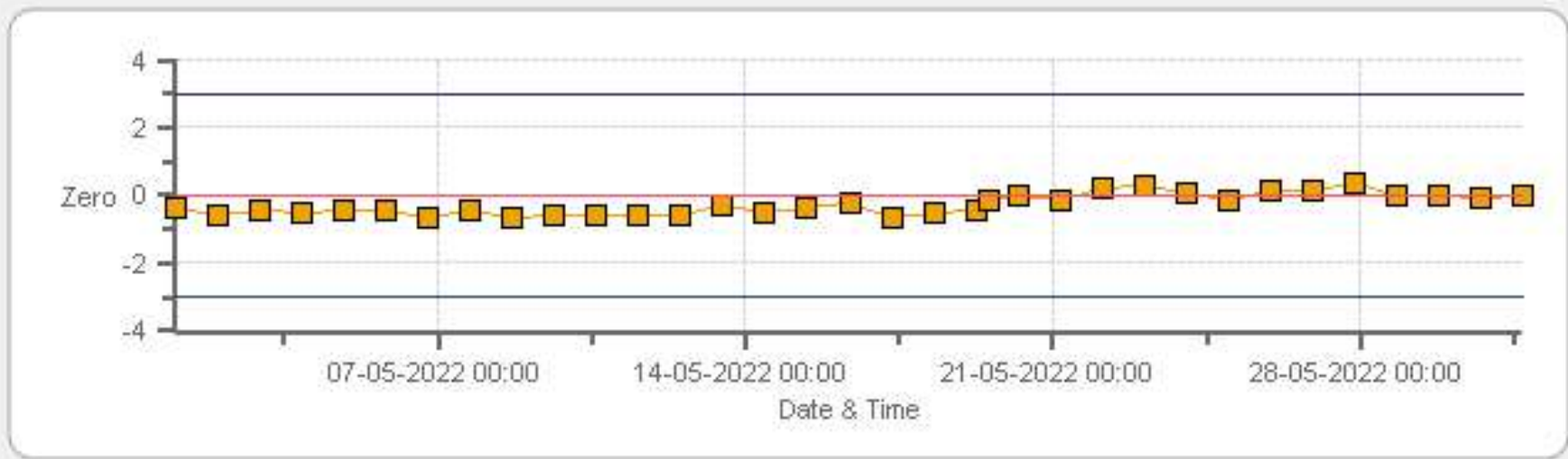
NOX[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Zero



NOX[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Span

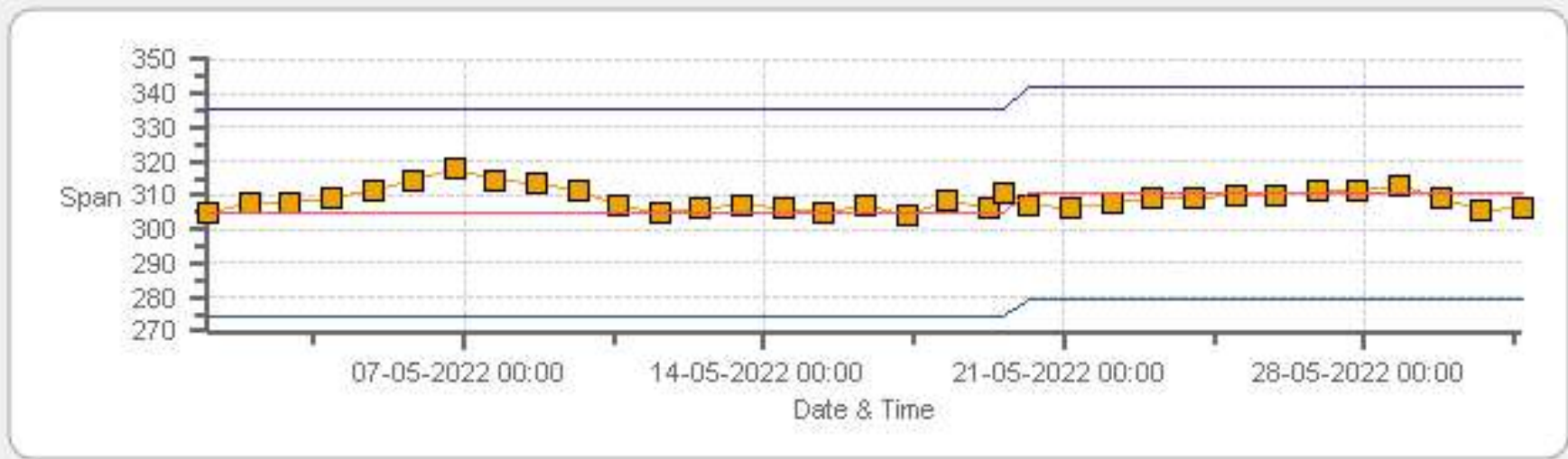


NO2[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Zero



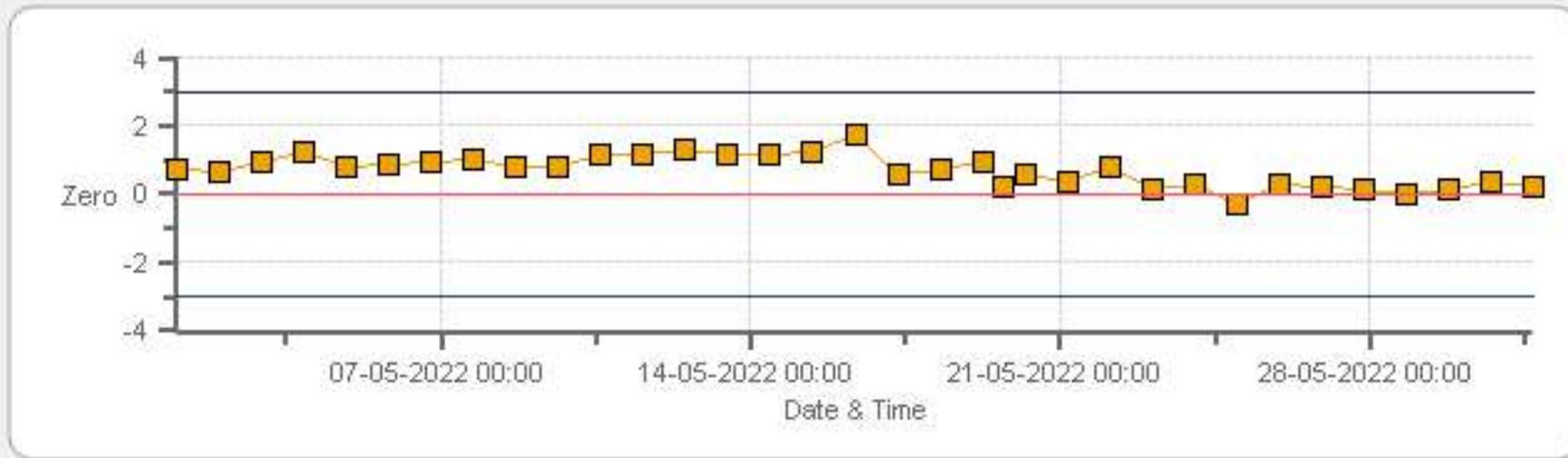
Zero Zero Ref Zero Low Zero High

NO2[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Span



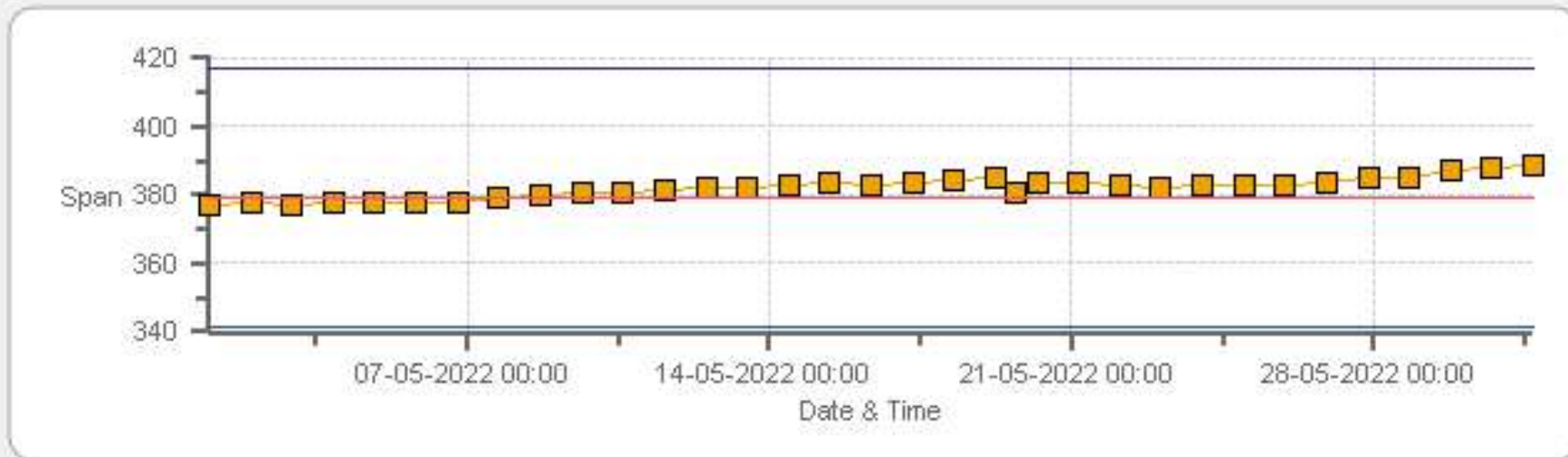
Span SpanRef Span Low Span High

O3[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Zero



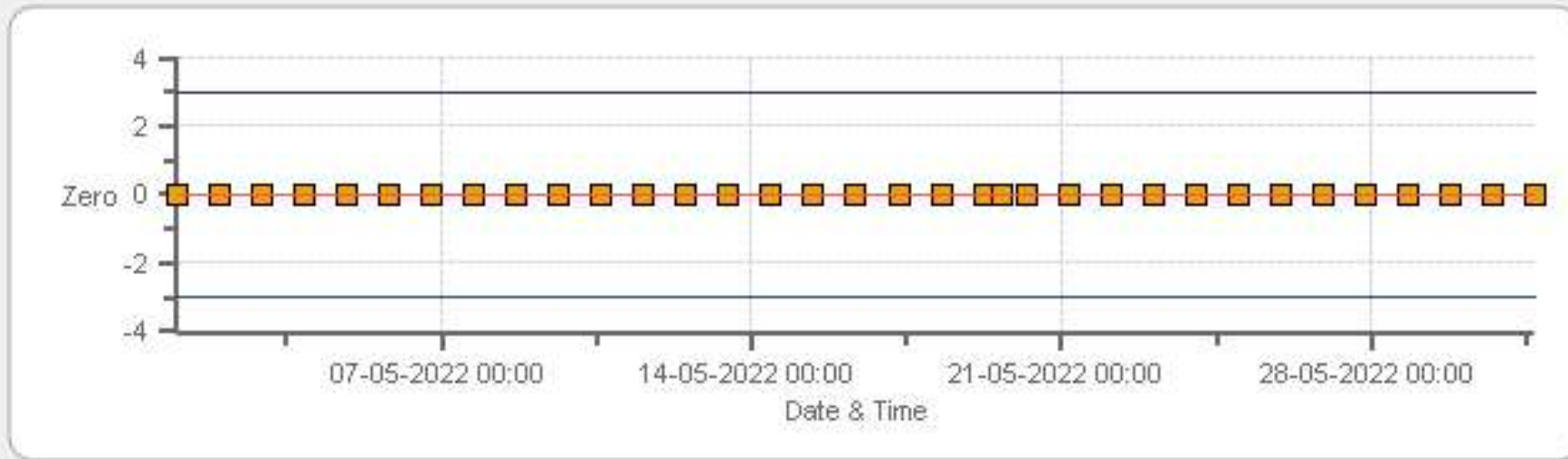
Zero Zero Ref Zero Low Zero High

O3[ppb] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Span



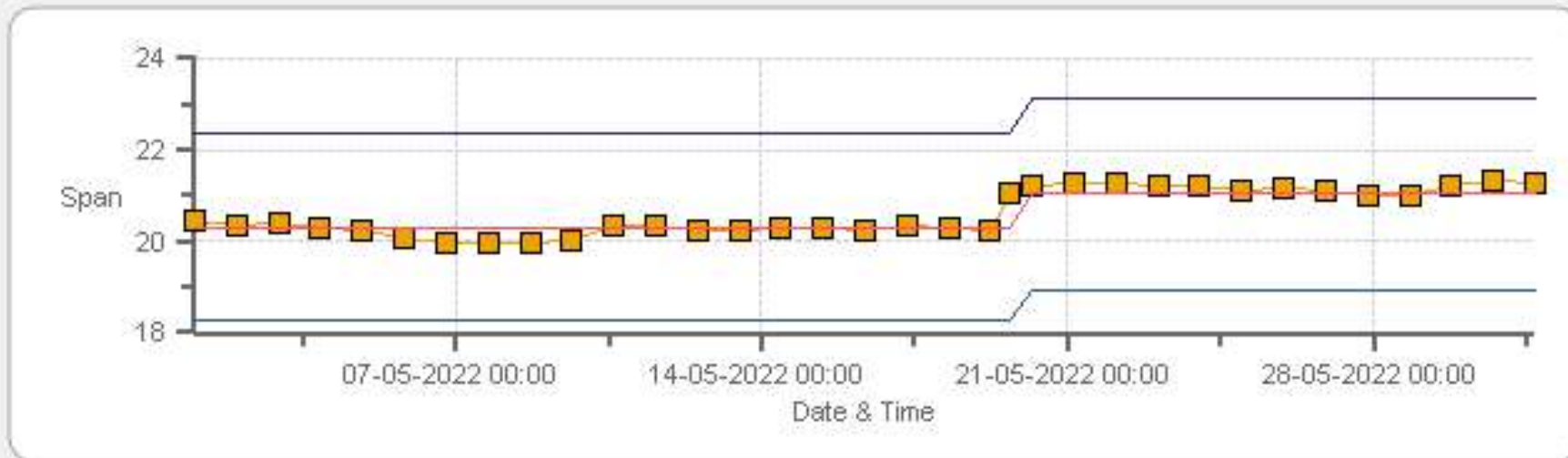
Span Span Ref Span Low Span High

THC55[ppm] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Zero



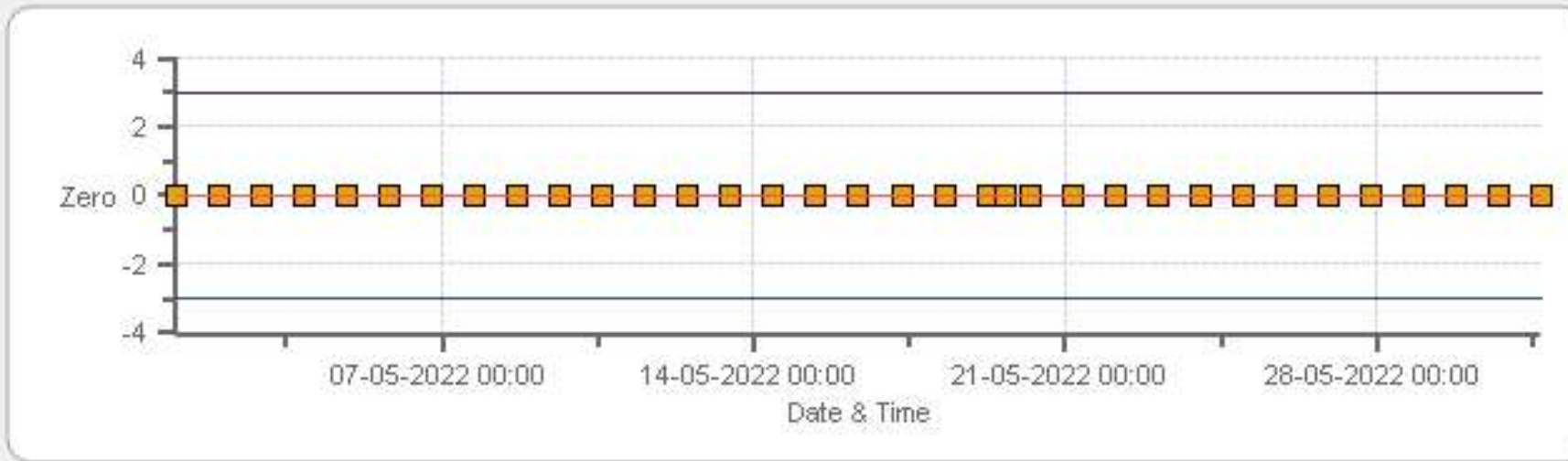
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Span



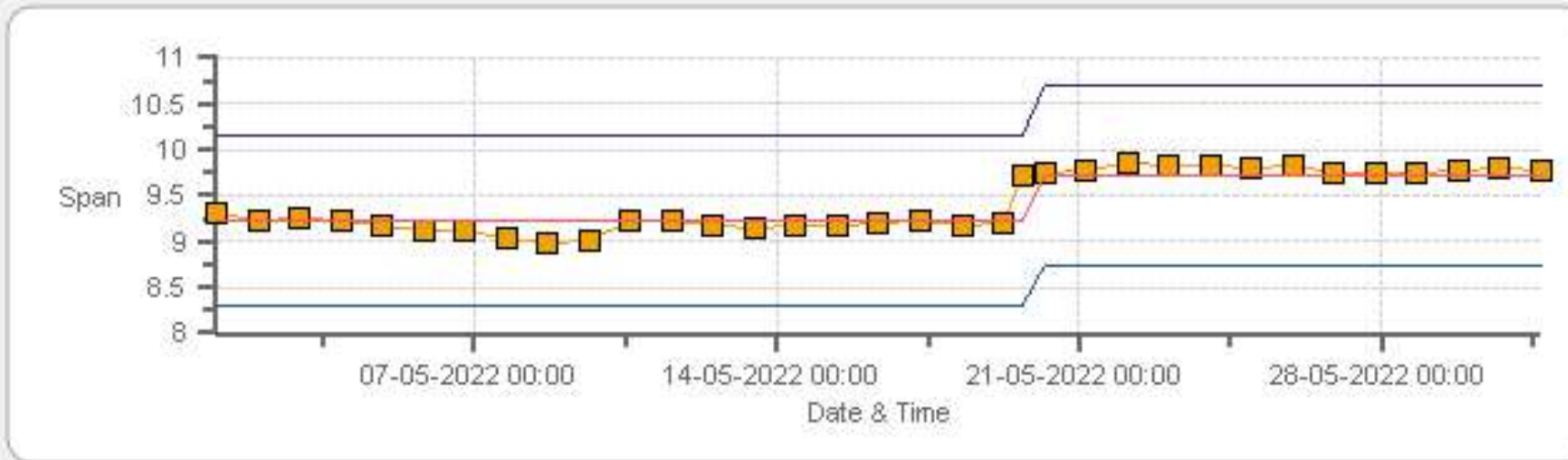
Span Span Ref Span Low Span High

CH4[ppm] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Zero



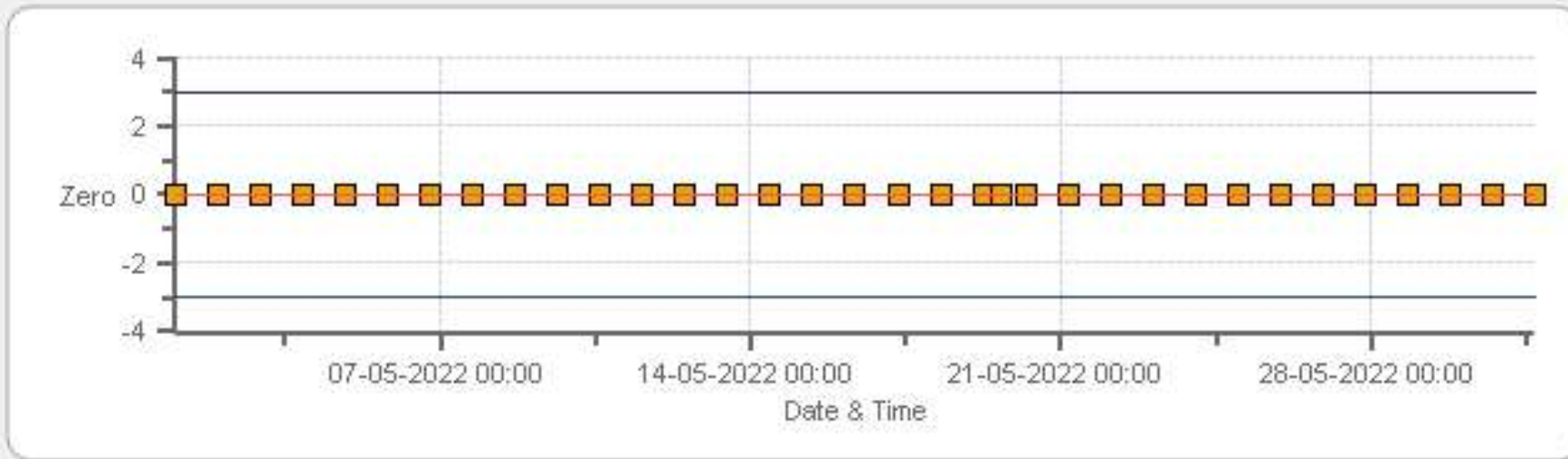
Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Span



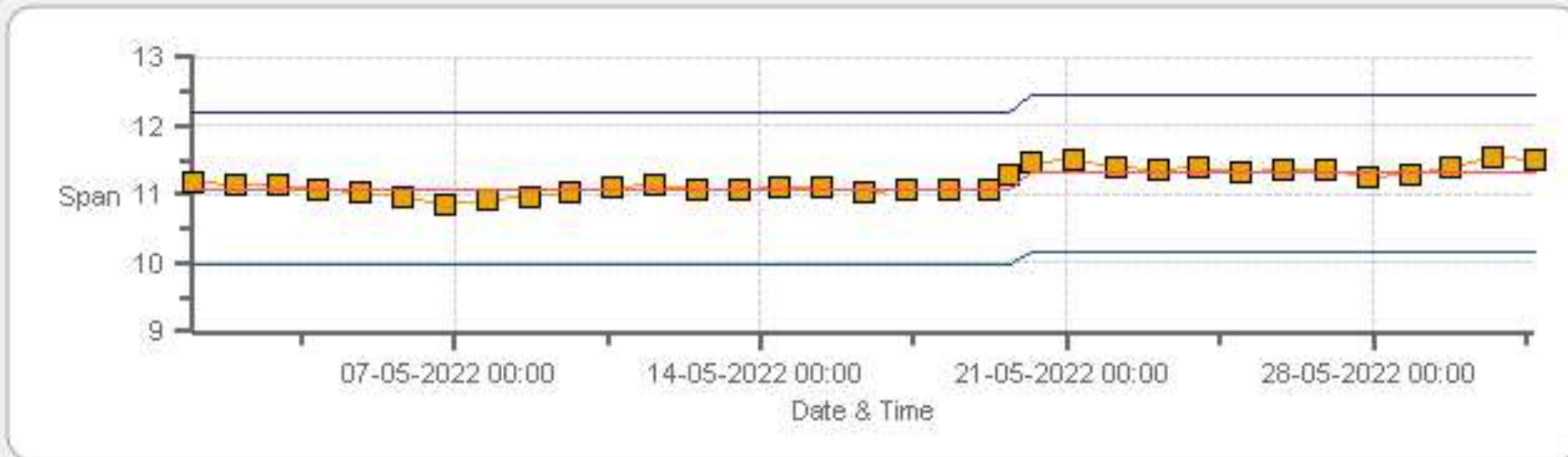
Span Span Ref Span Low Span High

NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 05-2022 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	19-May-2022	PREVIOUS CALIBRATION DATE:	20-Apr-2022
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.6
LOCATION:	Grimshaw	BAROMETRIC (mBar):	942
PURPOSE:	Routine	START TIME (MST):	08:26
PERFORMED BY:	Limin Li	END TIME (MST):	11:42

ANALYZER:

MAKE/MODEL	Teledyne T100	RANGE	500 ppb
SERIAL #	722	FLOW (mL/min)	528
INITIAL		FINAL	
BKG/OFFSET	24.5	BKG/OFFSET	24.3
COEF/SLOPE	0.943	COEF/SLOPE	0.922
Expected (reference) Value	265.9	Expected (reference) Value	260.4

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0000647	HIGH ID	n/a
CONC (ppm):	51.6	EXPIRY DATE	n/a
CYLINDER (psi):	650	LOW ID	n/a
EXPIRY DATE	24-Feb-2028	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		
6000	46.30	6000	0.00	0	0	0.972	1.000
5954	46.30	6000	398.18	409.8	398.3	0.972	1.000
5979	21.20	6000	182.32	n/a	182.2	n/a	1.001
5989	10.60	6000	91.16	n/a	90.6	n/a	1.006

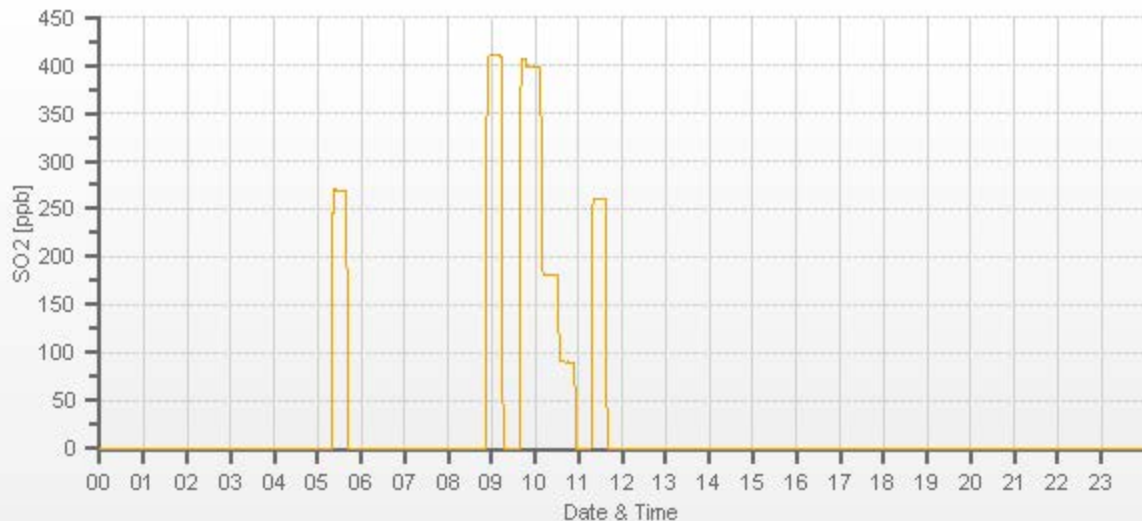
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	-0.1%

COMMENTS:

Sample filter changed.

SO2[ppb] Station: AQHI Grimshaw Daily: 19-05-2022 Type: AVG 1 Min. [1 Min.]



CAL-PRAMP-202205-01689

TRS Analyzer Calibration by Dilution



DATE:	19-May-2022	PREVIOUS CALIBRATION DATE:	20-Apr-2022
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.3
LOCATION:	Grimshaw	BAROMETRIC (mBar):	942
PURPOSE:	Routine	START TIME (MST):	08:34
PERFORMED BY:	Limin Li	END TIME (MST):	13:32

ANALYZER:

MAKE/MODEL	Teledyne T100U	RANGE	100 ppb
SERIAL #	132	FLOW (mL/min)	512
INITIAL		FINAL	
BKG/OFFSET	26.1	BKG/OFFSET	26.3
COEF/SLOPE	1.109	COEF/SLOPE	1.17
Expected (reference) Value	50.68	Expected (reference) Value	52.89

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002272	HIGH ID	n/a
CONC (ppm):	10.20	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	14-Sep-2024	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

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

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

START TIME:	09:00	SO2 Conc (ppb)	380
END TIME:	09:18	Analyzer Response (ppb)	0.2

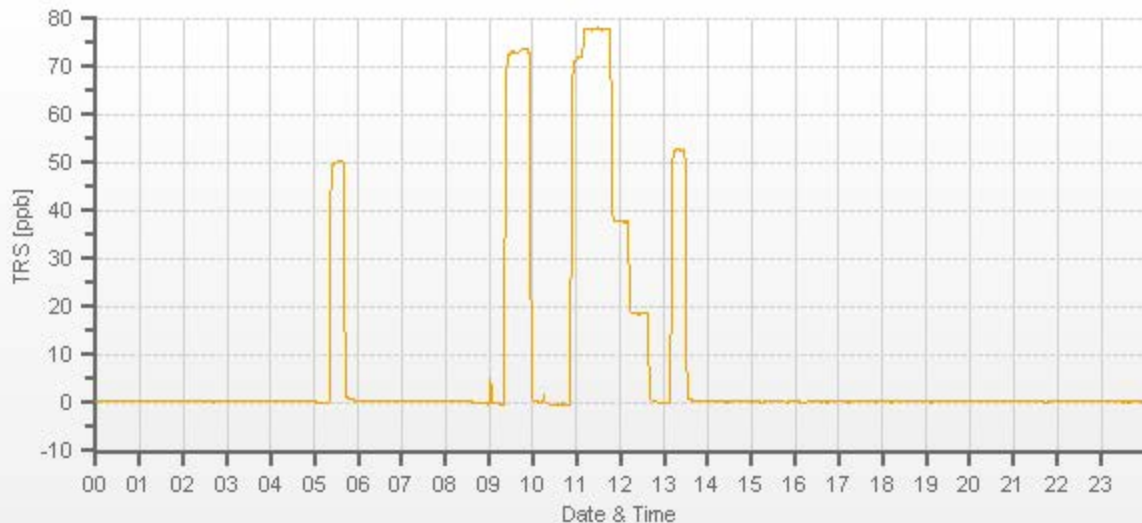
CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7500	7500	7500	0.00	0.1	0	1.000	1.000
7443	57.35	7500	78.00	73.29	78.06	1.066	0.999
7472	27.94	7500	38.00	n/a	38	n/a	1.000
7486	13.97	7500	19.00	n/a	18.84	n/a	1.008

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.1%

COMMENTS:



NOx Calibration by Dilution/Gas-Phase Titration



CALIBRATION:				ANALYZER:			
DATE:	19-May-2022	PREVIOUS CALIBRATION DATE:	20-Apr-2022	MAKE/MODEL:	Teledyne T200	PREVIOUS CF.	
CLIENT:	PRAMP	TEMPERATURE (°C):	23.6	SERIAL #:	837	NOx	n/a
LOCATION:	Grimshaw	BAROMETRIC (mBar):	942	FLOW (mL/min)	443	NO	n/a
PURPOSE:	Routine	START TIME (MST):	08:25	RANGE (ppb)	500	NO2	n/a
PERFORMED BY:	Limin Li	END TIME (MST):	13:43	GPT FOR O3?		Yes	

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	SABIO	MAKE:	API	CYLINDER ID:	EY 0000647	HIGH ID:	n/a
MODEL:	2010	MODEL:	701	NO/NOx (PPM):	50.9 51.1	HIGH EXPIRY:	n/a
ID:	17200415	ID:	1105	CYLINDER (psi):	650	LOW ID:	n/a
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a	EXPIRY DATE	24-Feb-2028	LOW EXPIRY:	n/a

CALIBRATION SETTINGS:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	1	-0.2	n/a	BKG/OFFSET:	0	-0.7	n/a
SLOPE/COEF/CE:	1.096	1.094	0.999	SLOPE/COEF/CE:	1.113	1.102	0.999

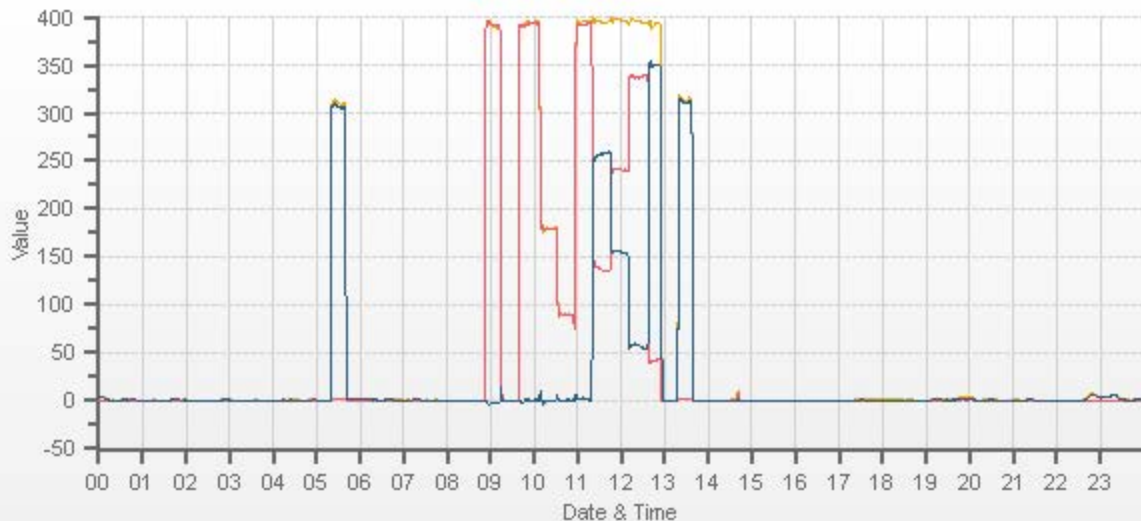
EXPECTED (REFERENCE) VALUE:							
INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	307.8	2.7	305.1		314.0	3.3	310.7

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
6000	6000	6000	0.0	0.0	0.0	-0.2	-0.6	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5954	46.30	6000	392.8	394.3	1.5	391.4	388.7	-2.7	393.0	394.6	1.6	1.003	1.013	1.003	0.999	0.999	0.999
5979	21.20	6000	179.8	180.6	0.7	n/a	n/a	n/a	179.4	180.6	1.2	n/a	n/a	n/a	1.002	1.000	1.000
5989	10.60	6000	89.9	90.3	0.4	n/a	n/a	n/a	89.8	89.5	-0.3	n/a	n/a	n/a	1.001	1.009	1.009

GPT CALIBRATION:										
Point	CALIBRATOR			INDICATED (ppb)			NO DROP / O3 Conc (ppb)	NO2 GAIN (ppb)	NO2 Corr. FACTOR	CONV. EFFICIENCY
	GAS	TOTAL	O3 SETPOINT	NO	NOx	NO2				
REFERENCE	38.60	5000	0	393.2	394.4	1.2	257.9	258.9	0.996	100.39%
AS-FOUND HIGH	38.60	5000	235	135.3	394.4	260.1	257.9	258.9	0.996	100.39%
ADJUSTED HIGH	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MID	38.60	5000	138	240.1	394.5	154.4	153.1	153.2	0.999	100.07%
LOW	38.60	5000	48	338.0	394.1	56.2	55.2	55	1.004	99.64%
NO2 adjustment not required.									AVERAGE:	100.03%

LINEAR REGRESSION ANALYSIS:				COMMENTS:
	CORRELATION	SLOPE	INTERCEPT	
NO	1.000	1.001	-0.04%	
NOx	1.000	1.001	-0.07%	
NO2	1.000	1.006	-0.12%	O3:320PPB, NO:42.6, NOX:393.4, NO2:350.8. Change sample filter.



CAL-PRAMP-202205-01689

Ozone Calibration by Direct GPT



DATE:	19-May-2022	PREVIOUS CALIBRATION DATE:	20-Apr-2022
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.6
LOCATION:	Grimshaw	BAROMETRIC (mBar):	945
PURPOSE:	Routine	START TIME (MST):	12:56
PERFORMED BY:	Limin Li	END TIME (MST):	17:27

ANALYZER:

MAKE/MODEL	API 400A	RANGE	500 ppb
SERIAL #	445	FLOW (mL/min)	820
INITIAL		FINAL	
BKG/OFFSET	-2.3	BKG/OFFSET	-1.7
COEF/SLOPE	0.994	COEF/SLOPE	0.99
Expected (reference) Value	379.1	Expected (reference) Value	379.1

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	SABIO	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION METHOD:		Direct GPT	
GPT DATE:	19-May-2022	GPT END TIME:	12:55

CALIBRATION PARAMETERS:

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

CALIBRATION:

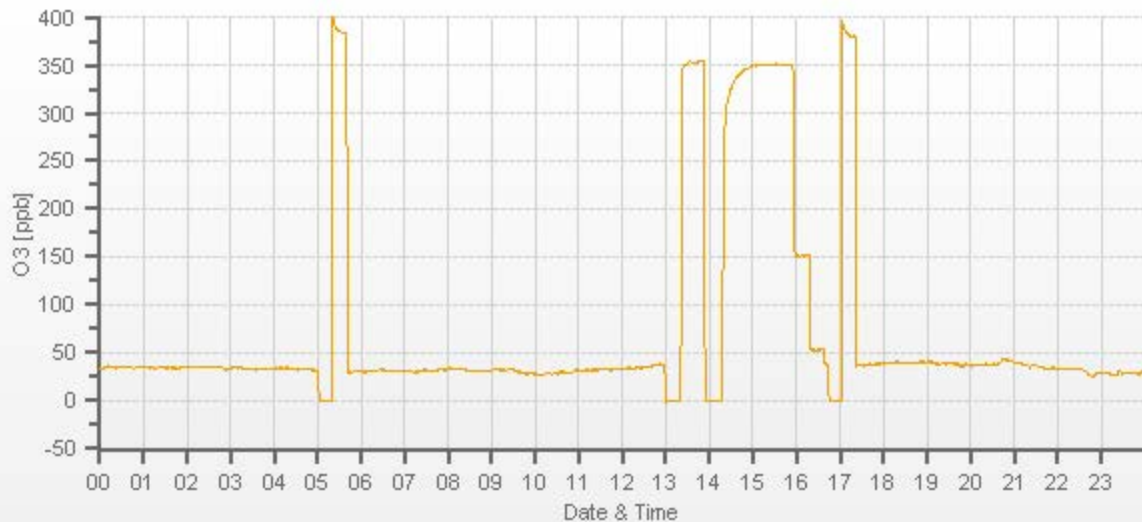
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
5000	 	5000	0.0	0.9	0.0	 	
5000	 	5000	350.6	354.3	350.7	0.992	1.000
5000	 	5000	153.1	n/a	152.5	n/a	1.004
5000	 	5000	55.2	n/a	54.0	n/a	1.022

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.1%

COMMENTS:

Change sample filter.



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	19-May-2022	PREVIOUS CALIBRATION DATE:	20-Apr-2022	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	24.1		Thermo 55i	1191032505	1117
LOCATION:	Grimshaw	BAROMETRIC (mBar):	945	PARAMETER:	CH4	NMHC	THC
PURPOSE	Routine	START TIME (MST):	12:39	RANGE (ppm):	20	20	40
PERFORMED BY:	Limin Li	END TIME (MST):	16:22	PREVIOUS CF:	1.000	1.002	1.001

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	EnviroNics	MAKE:	API	CYLINDER ID:	LL28583	HIGH ID:	n/a
MODEL:	6100	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	608.0 203.0	HIGH EXPIRY:	n/a
ID:	5212	ID:	1105	CYLINDER (psi):	1600	LOW ID:	n/a
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	111	EXPIRY DATE	18-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	558.3
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1166.3

EXPECTED (REFERENCE) VALUE:

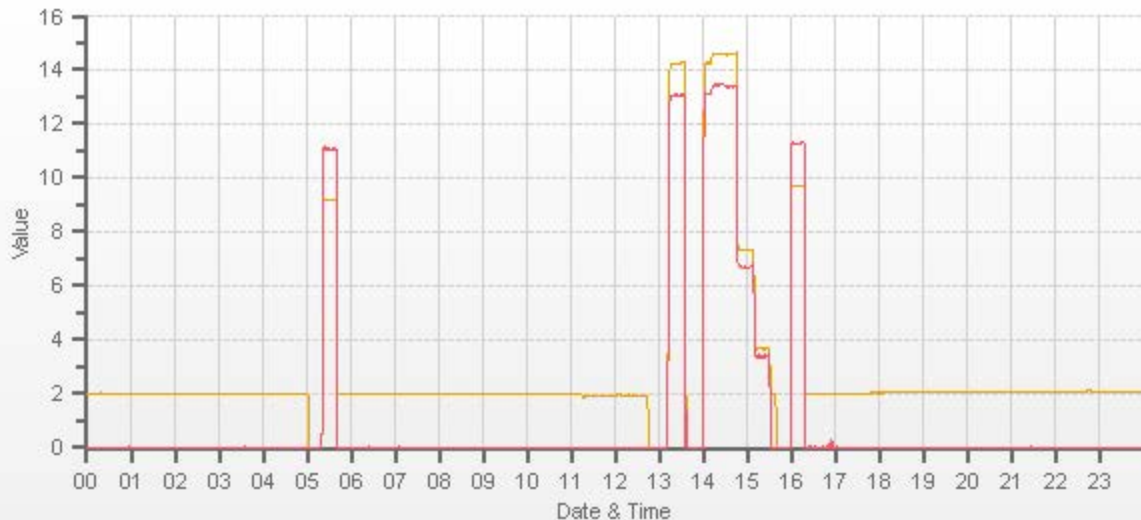
INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.23	11.08	20.31		9.72	11.31	21.03

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
3500	X	3500	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	X	X	X	X	X	X
3416	84.00	3500	14.59	13.40	27.99	14.26	13.13	27.39	14.62	13.39	28.01	1.023	1.020	1.022	0.998	1.001	0.999
3458	42.00	3500	7.30	6.70	14.00	n/a	n/a	n/a	7.32	6.76	14.08	n/a	n/a	n/a	0.997	0.991	0.994
3479	21.00	3500	3.65	3.35	7.00	n/a	n/a	n/a	3.68	3.40	7.08	n/a	n/a	n/a	0.991	0.985	0.988

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT	Comments:	
CH ₄	1.000	1.001	0.1%	Renew Desiccant and Deionizer. Maintenance time:10:30-11:22am.	
NMHC	1.000	0.999	0.2%		
THC	1.000	1.000	0.1%		
				Use Zero Chrom?	Yes



CAL-PRAMP-202205-01689



Teledyne T640 Audit/Calibration

Date/Previous Audit Date:	May 19, 2022	April 20, 2022	Weather Conditions:	Cloudy/Overcast	
Company:	PRAMP		Start Time (mst):	13:29	
Station:	Grimshaw		End Time (mst):	14:48	
Parameter:	PM 2.5		Performed By/Reviewer:	Limin Li	
Instrument Data:					
Make/Model:	Teledyne T640		Serial Number:	318	
Owner:	PRAMP		Alarms (detail in comments):	No	
Reference Standards/I.D./Expiry Date:					
Flow Standard: DeltaCal DC1 S/N201588 / Nov 01, 2022		Temperature: FS 181341226 expires July 20, 2022			
Digital Manometer: DeltaCal DC1 S/N201588 / Nov 01, 2022		Pressure: Brunton #05495 expires Jan 17, 2023			
DIAGNOSTICS:					
Ambient Pressure (mmHg)	708.3	Ambient Temp (°C)	11.4	ASC Heater Duty (%)	0.0
Box Temp (°C)	26.7	Current PMT HV (V)	1536	LED Temp (°C)	34.60
P3 Value	50	PMT Setting (V)	1542	Pump PWM (%)	37
Sample Flow (L/min)	4.99	Sample RH (%RH)	18.7	Sample Temp (°C)	24.7
Item:	As-found		As-left		Tolerance
	Reference	T640x	Reference	T640x	
Zero Test (Leak Check)	PM10	0.7	n/a	0.0	0.0 to 0.2
	PM2.5	1.1	n/a	0.0	
Ambient Pressure (mmHg)	710.5	708.3	n/a	n/a	+/- 10 mm Hg
Ambient Temperature (°C)	11.30	11.4	n/a		+/- 2°C
Sample Flow (L/min)	4.98	4.99	n/a	n/a	+/-5% of T640x (e.g., 4.75 – 5.25 lpm)
Additional Monthly Maintenance :					Completed
Inlet cleaned?					No
Sample tubing inspected (inner and outer)?					Yes
Comments:					
Inlet tubing connecting wrong position, change it, then as found leak check pass.					

Meteorological System Checklist



Date:	May 19, 2022		
Technician:	Limin Li		
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:	April 20, 2022		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022		
Reference Temperature (°C):	8.9		
Station - Ambient Temperature (°C):	8.5		
Temperature Difference (°C):	0.4		

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	April 20, 2022		
Reference Barometer ID:	BRUNTON #5490, Expire: Jan 17, 2023		
Reference Pressure - Units/Reading:	millibar	944.6	
Station Pressure - Units/Reading:	millibar	944.4	
Pressure Tolerance +/- 15% of error:	803 - 1086	0.02%	

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	April 20, 2022		
Reference Hygrometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022		
Reference Hygrometer % RH- Reading:	54.30		
Station Hygrometer % RH- Reading:	56.60		
RH Tolerance +/- 15% of difference:	46.16 - 62.45	-4.2%	

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	April 20, 2022	Previous check date:	April 20, 2022
Wind Speed Observed (kph):	5~25	Wind Direction Observed:	N
Wind speed on Data Logger (kph):	13.7	Wind Direction on Data Logger:	N
		Wind Direction Pass/Fail?:	Pass

Comments

No issues



Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	Performed By:	Ferdinand Roy
Audit Location:	Cadotte Lake	Reviewed By:	Chris Wesson
Audit Date:	July 22, 2021	Start/End Time (mst):	12:47-15:52
Calibration Purpose:	routine annual	Weather Conditions:	Cloudy/Overcast

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:	0-180
Serial #:	174801	Direction Voltage Output Range:	n/a
Previous Cal/Audit Date:	June 18, 2020	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# CA03309 expires June 7, 2023

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
			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	0	353	0.1	2.0	1.1
30	330	27	330	3.5	-0.3	1.9
60	300	56	300	3.9	0.1	2.0
90	270	87	269	3.5	1.1	2.3
120	240	118	238	2.4	2.5	2.5
150	210	149	207	1.5	3.5	2.5
180	180	178	177	1.8	2.8	2.3
210	150	208	148	2.1	2.5	2.3
240	120	239	117	1.1	2.9	2.0
270	90	270	86	-0.1	3.6	1.9
300	60	300	57	0.2	3.5	1.8
330	30	330	27	-0.1	3.0	1.6
355	0	353	0	1.8	0.1	1.0
The audit meets AMD requirements.				Average Absolute Degrees Difference=		1.9

Comments:

Physical inspection completed - no issues.



Peace River Area Monitoring Program

MAY 2022

Ambient Air Monitoring Calibration Report

- PEACE RIVER COMPLEX (PRC) STATION-

CAL-PRAMP-202205-01698

Operation and Maintenance:

Bureau Veritas Canada

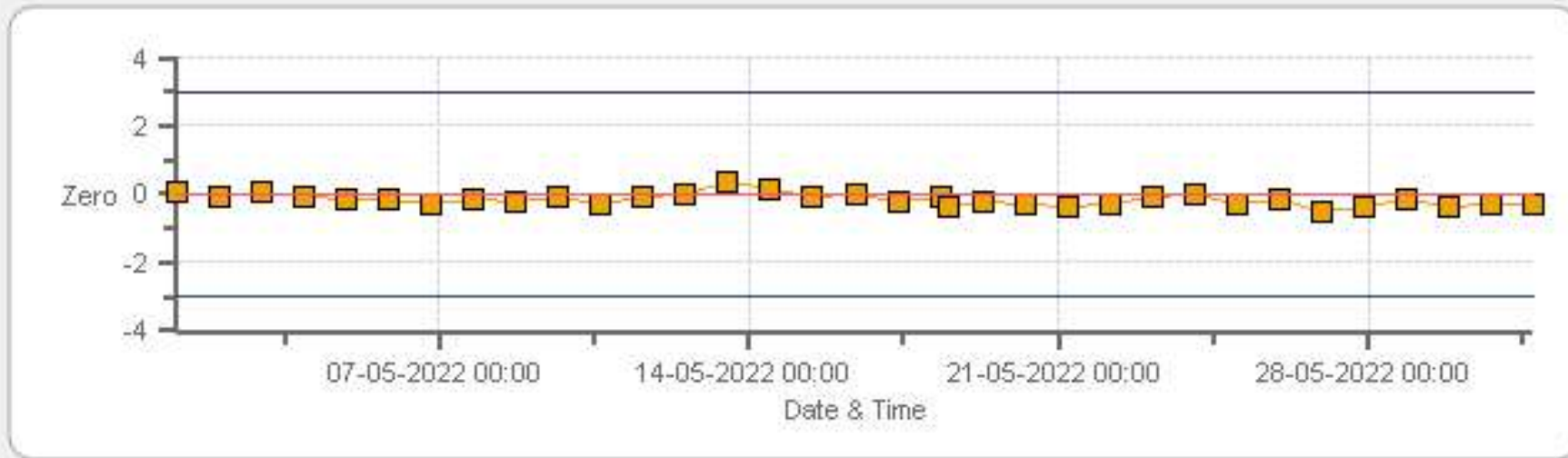
Data Validation and Report:

Bureau Veritas Canada

June 25, 2022

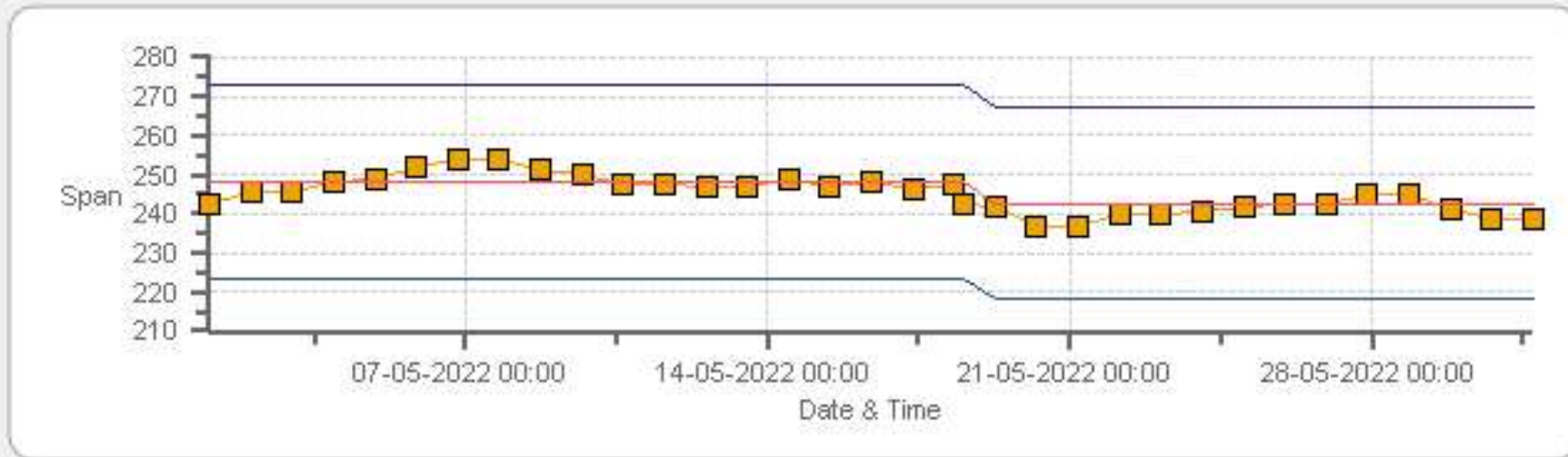
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Zero



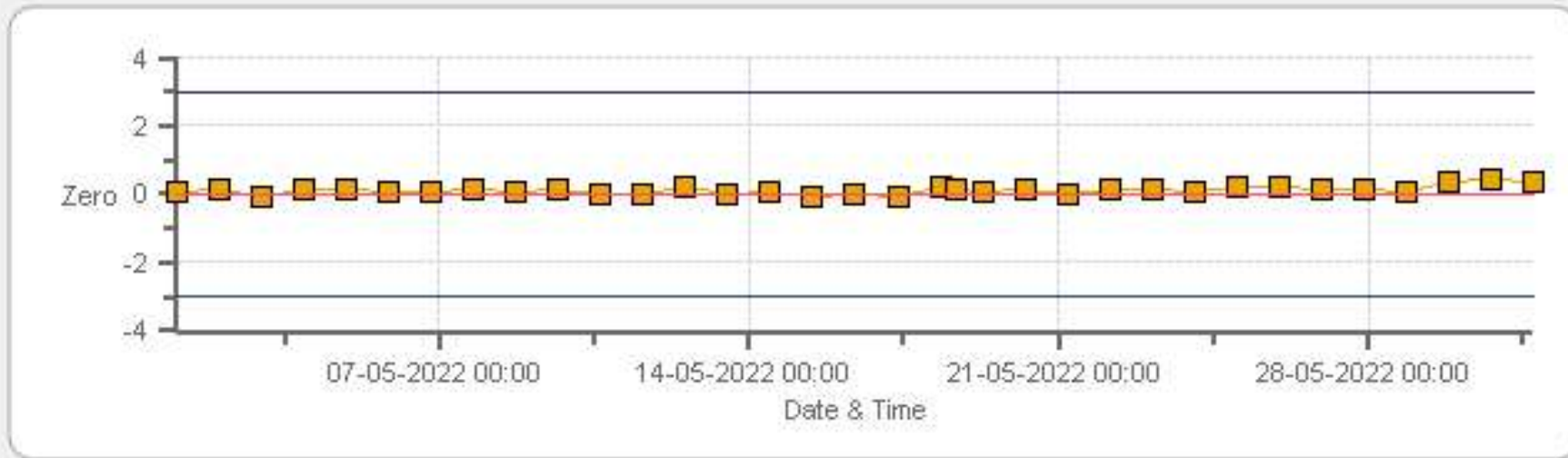
Zero Zero Ref Zero Low Zero High

SO2[ppb] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Span



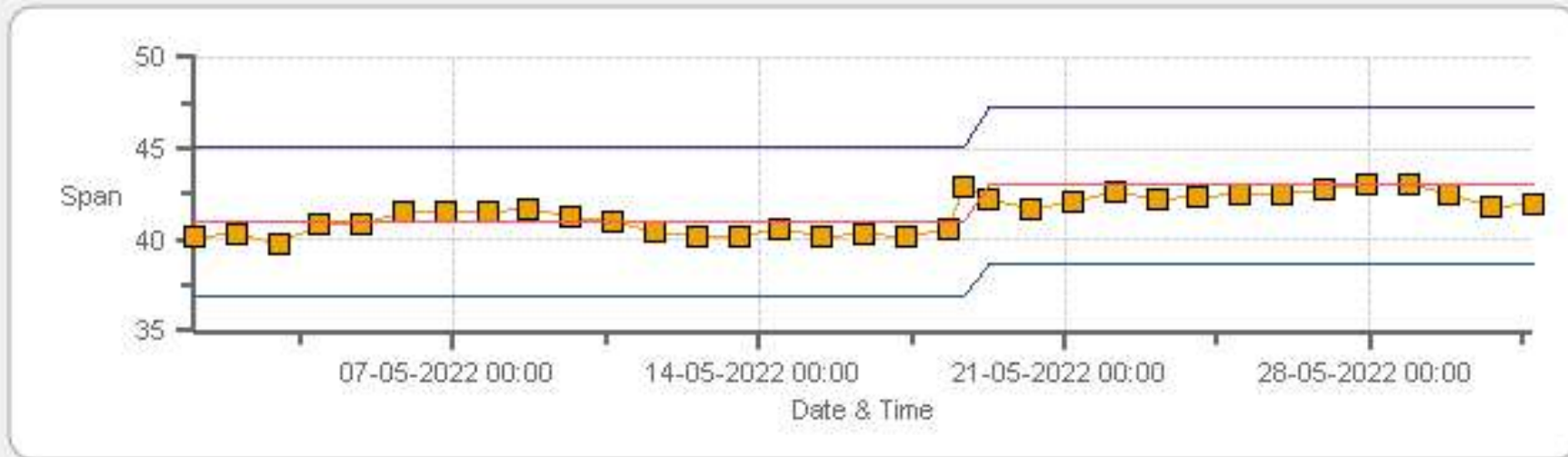
Span SpanRef Span Low Span High

H2S[ppb] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Zero



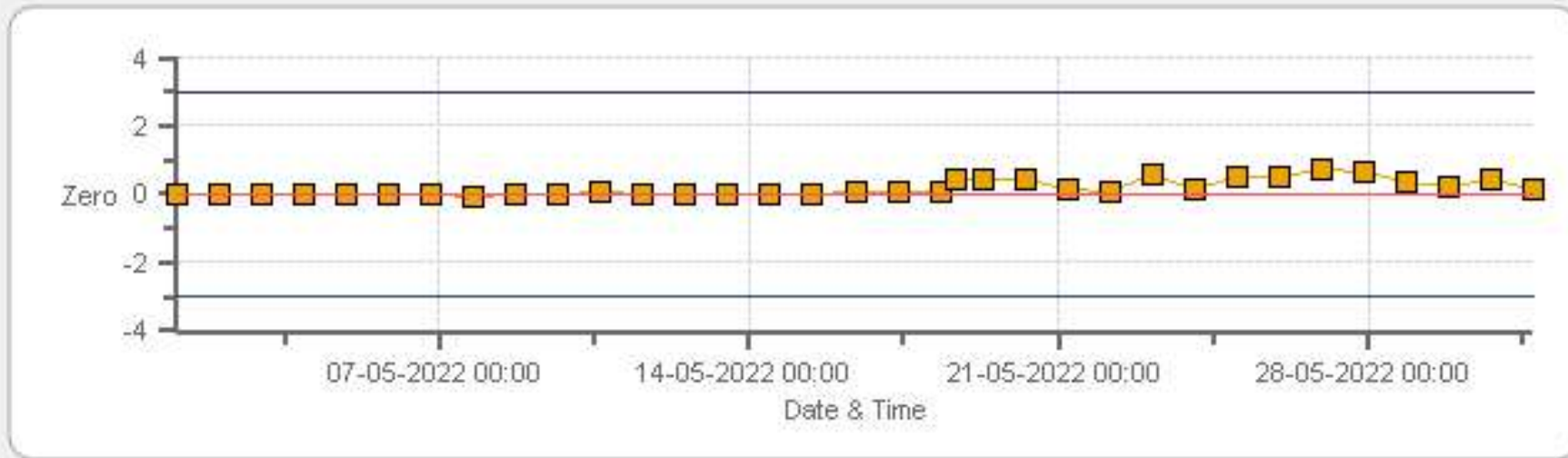
Zero Zero Ref Zero Low Zero High

H2S[ppb] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Span



Span Span Ref Span Low Span High

TRS[ppb] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Zero



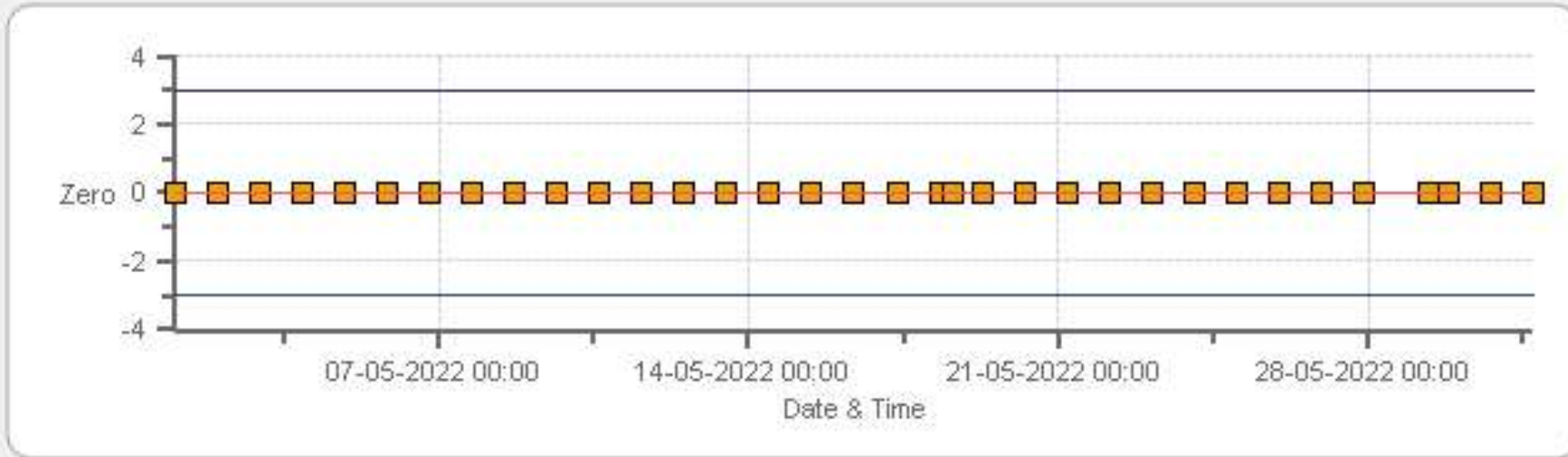
Zero Zero Ref Zero Low Zero High

TRS[ppb] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Span



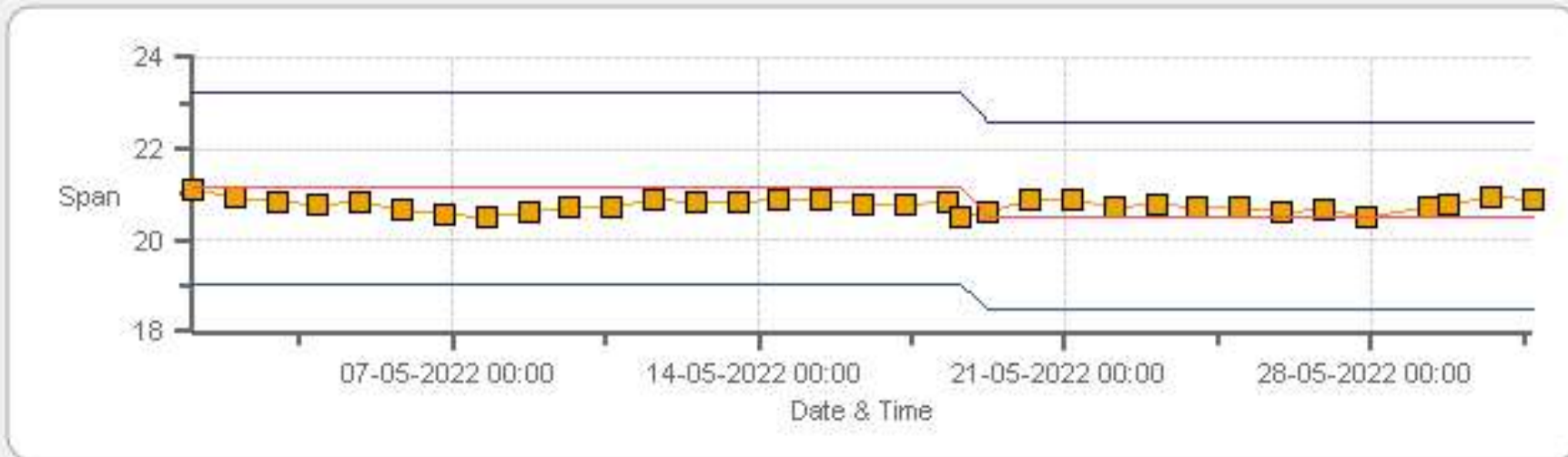
Span SpanRef Span Low Span High

THC55[ppm] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Zero



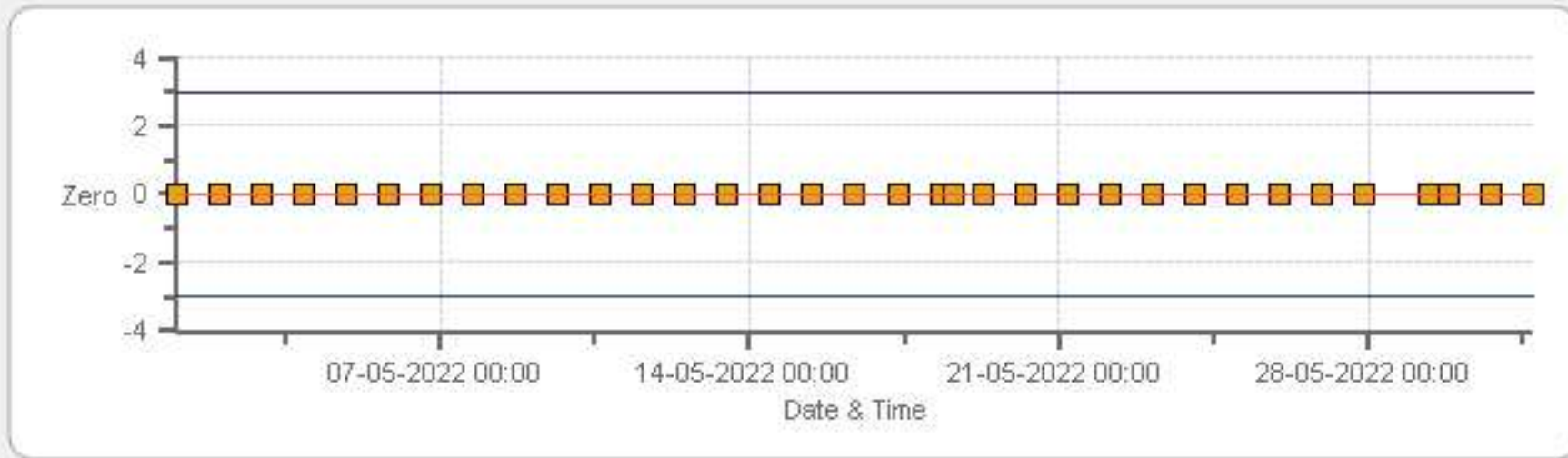
Zero Zero Ref Zero Low Zero High

THC55[ppm] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Span



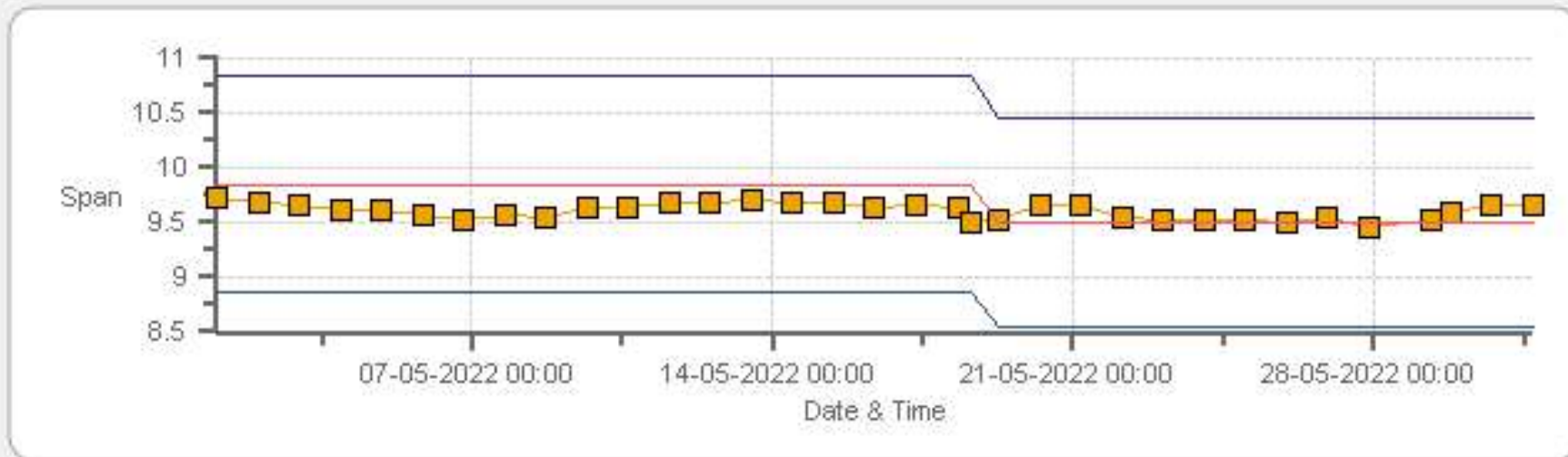
Span SpanRef Span Low Span High

CH4[ppm] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

CH4[ppm] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

NMHC[ppm] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Zero



Zero Zero Ref Zero Low Zero High

NMHC[ppm] Calibration: Peace River Complex [PRC] Monthly: 05-2022 Type: SpanAndZero - Span



Span SpanRef Span Low Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution



DATE:	18-May-2022	PREVIOUS CALIBRATION DATE:	19-Apr-2022
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.001
CLIENT:	PRAMP	TEMPERATURE (°C):	23.6
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	936
PURPOSE:	Routine	START TIME (MST):	09:03
PERFORMED BY:	Limin Li	END TIME (MST):	12:50

ANALYZER:

MAKE/MODEL	Thermo 43i	RANGE	500 ppb
SERIAL #	1034746225	FLOW (mL/min)	434
INITIAL		FINAL	
BKG/OFFSET	18.7	BKG/OFFSET	18.7
COEF/SLOPE	1.093	COEF/SLOPE	1.068
Expected (reference) Value	247.9	Expected (reference) Value	242.7

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	API
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0000647	HIGH ID	n/a
CONC (ppm):	51.6	EXPIRY DATE	n/a
CYLINDER (psi):	650	LOW ID	n/a
EXPIRY DATE	24-Feb-2028	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:

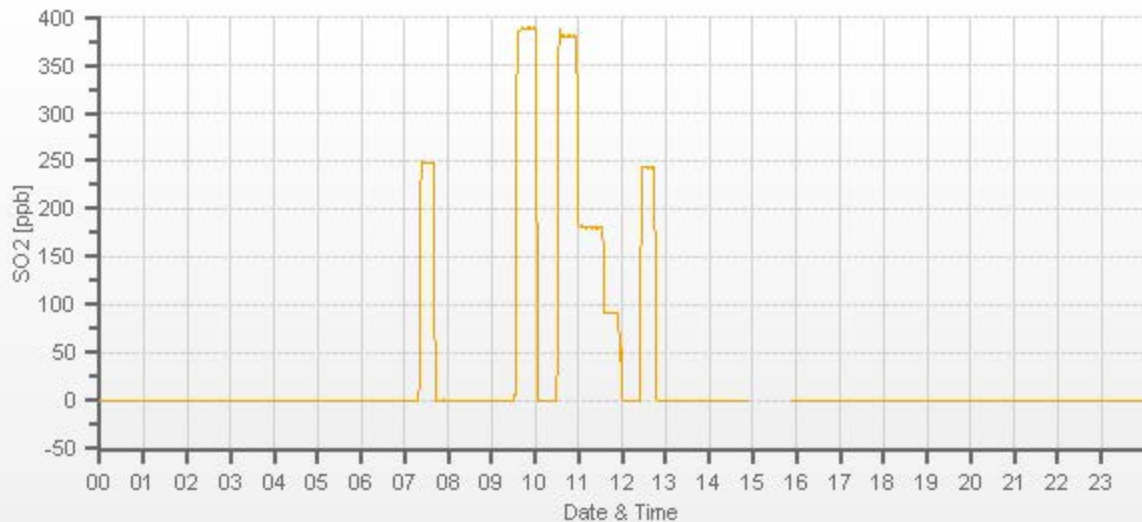
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
6000	 	6000	0.00	0.2	0	 	
5956	44.20	6000	380.12	388.2	380.2	0.980	1.000
5979	20.90	6000	179.74	n/a	180.3	n/a	0.997
5990	10.50	6000	90.30	n/a	91.5	n/a	0.987

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.999	0.1%

COMMENTS:

Sample filter changed.



H2S Analyzer Calibration by Dilution



DATE:	18-May-2022	PREVIOUS CALIBRATION DATE:	19-Apr-2022
PARAMETER:	H2S	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	22.6
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	936
PURPOSE:	Routine	START TIME (MST):	09:03
PERFORMED BY:	Limin Li	END TIME (MST):	16:52

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1308857354	FLOW (mL/min)	850
INITIAL		FINAL	
BKG/OFFSET	13.2	BKG/OFFSET	13.9
COEF/SLOPE	1.006	COEF/SLOPE	1.057
Expected (reference) Value	41	Expected (reference) Value	43

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002272	HIGH ID	n/a
CONC (ppm):	10.20	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	14-Sep-2024	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

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

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

START TIME:	09:31	SO2 Conc (ppb)	380
END TIME:	09:50	Analyzer Response (ppb)	0.1

CALIBRATION:

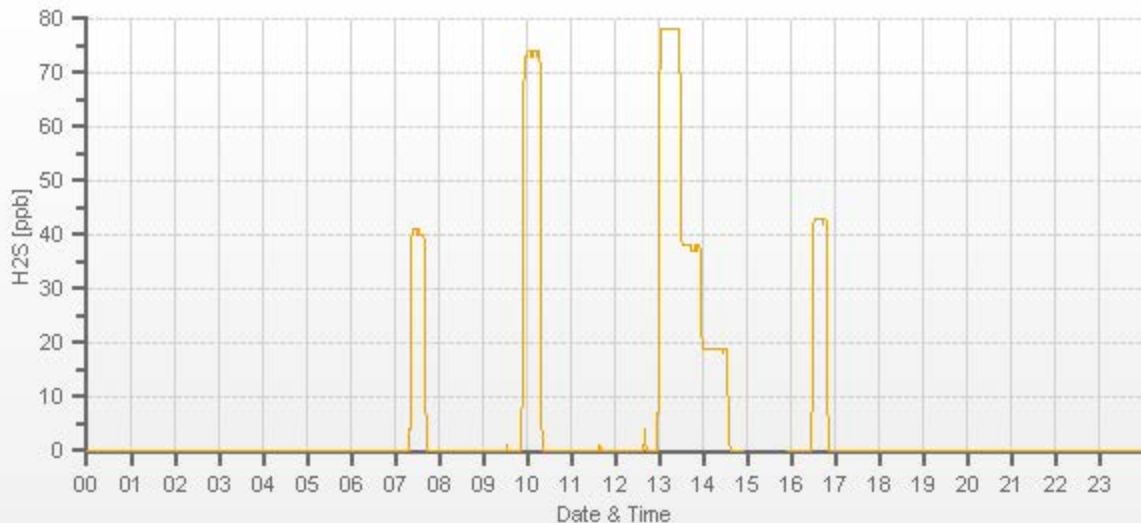
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7500	7500	7500	0.00	0	0	1.000	1.000
7443	57.35	7500	78.00	73.8	78	1.057	1.000
7472	27.94	7500	38.00	n/a	37.9	n/a	1.003
7486	13.97	7500	19.00	n/a	18.9	n/a	1.005

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	-0.1%

COMMENTS:

Sample filter changed.



TRS Analyzer Calibration by Dilution



DATE:	18-May-2022	PREVIOUS CALIBRATION DATE:	19-Apr-2022
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	23.0
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	936
PURPOSE:	Removal/Shut-down	START TIME (MST):	09:03
PERFORMED BY:	Limin Li	END TIME (MST):	11:03

ANALYZER:

MAKE/MODEL	Thermo 43I-TLE	RANGE	100 ppb
SERIAL #	1162460022	FLOW (mL/min)	430
INITIAL		FINAL	
BKG/OFFSET	2.51	BKG/OFFSET	n/a
COEF/SLOPE	0.977	COEF/SLOPE	n/a
Expected (reference) Value	47.79	Expected (reference) Value	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002272	HIGH ID	n/a
CONC (ppm):	10.20	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	14-Sep-2024	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

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

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

START TIME:	09:31	SO2 Conc (ppb)	380
END TIME:	09:50	Analyzer Response (ppb)	0.0

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7500	7500	7500	0.00	-0.04	n/a	1.000	1.000
7443	57.35	7500	78.00	73.17	n/a	1.065	n/a
7472	27.94	7500	38.00	35.62	n/a	1.066	n/a
7486	13.97	7500	19.00	17.43	n/a	1.088	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.940	-0.2%

COMMENTS:

Converter CD-NOVA CDN-101#553. Remove BV analyzer and TRS converter.

TRS Analyzer Calibration by Dilution



DATE:	18-May-2022	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	22.4
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	933
PURPOSE:	Install/Post-Repair	START TIME (MST):	11:50
PERFORMED BY:	Limin Li	END TIME (MST):	16:53

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1034746224	FLOW (mL/min)	721
INITIAL		FINAL	
BKG/OFFSET	n/a	BKG/OFFSET	25.6
COEF/SLOPE	n/a	COEF/SLOPE	0.965
Expected (reference) Value	n/a	Expected (reference) Value	55.73

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	EnviroNics	MAKE:	API
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002272	HIGH ID	n/a
CONC (ppm):	10.20	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	14-Sep-2024	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:	12:38	SO2 Conc (ppb)	380
END TIME:	12:55	Analyzer Response (ppb)	0.0

CALIBRATION:

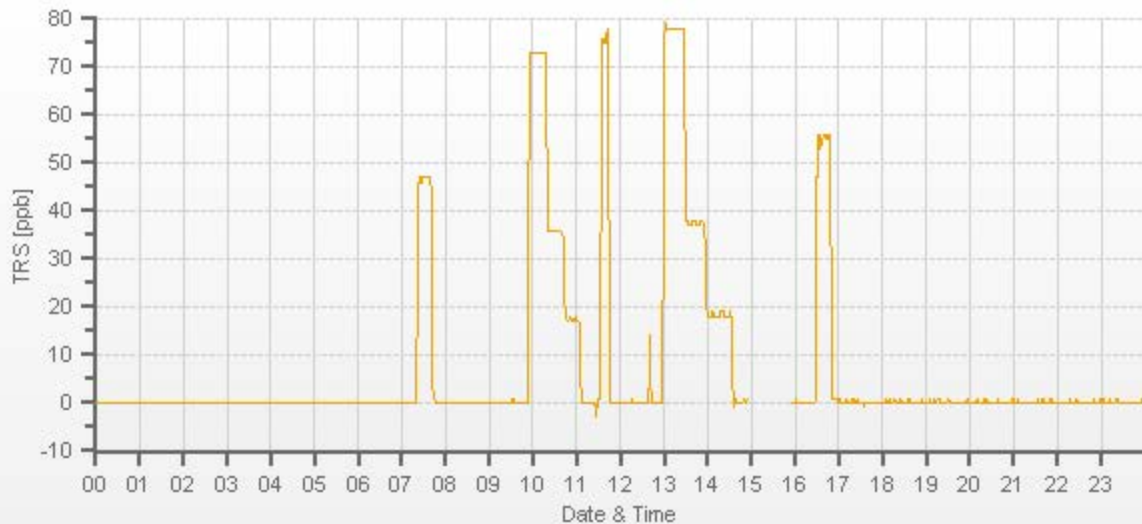
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED		Initial	Final
				Initial	Final		
7500	7500	7500	0.00	n/a	0	n/a	n/a
7443	57.35	7500	78.00	n/a	77.94	n/a	1.001
7472	27.94	7500	38.00	n/a	37.6	n/a	1.011
7486	13.97	7500	19.00	n/a	18.63	n/a	1.020

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	-0.2%

COMMENTS:

Converter CD-NOVA CDN-101#506.



Methane/Non-Methane Analyzer Calibration by Dilution



CALIBRATION:				ANALYZER:			
DATE:	18-May-2022	PREVIOUS CALIBRATION DATE:	19-Apr-2022	VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
CLIENT:	PRAMP	TEMPERATURE (°C):	22.1		Thermo 55i	1022143392	1051
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	933	PARAMETER:	CH4	NMHC	THC
PURPOSE	Routine	START TIME (MST):	11:59	RANGE (ppm):	20	20	40
PERFORMED BY:	Limin Li	END TIME (MST):	14:50	PREVIOUS CF:	0.998	1.001	1.000

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:		FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	API	CYLINDER ID:	LL28583	HIGH ID:	n/a
MODEL:	2010	MODEL:	701	CH ₄ /C ₃ H ₈ (ppm):	608.0 203.0	HIGH EXPIRY:	n/a
ID:	17200415	ID:	1105	CYLINDER (psi):	1600	LOW ID:	n/a
MFC CALIBRATION DATE:	23-Mar-2022	OXIDIZER ID:	111	EXPIRY DATE	18-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	558.3
RANGE	12 - 16	6 - 8	2 - 4	THC as CH ₄	1166.3

EXPECTED (REFERENCE) VALUE:

INITIAL	CH ₄	NMHC	THC	FINAL	CH ₄	NMHC	THC
	9.85	11.28	21.14		9.50	11.03	20.53

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
3500	X	3500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	X	X	X	X	X
3416	84.00	3500	14.59	13.40	27.99	14.82	13.48	28.30	14.58	13.42	28.00	0.985	0.994	0.989	1.001	0.998	1.000
3458	42.00	3500	7.30	6.70	14.00	n/a	n/a	n/a	7.33	6.75	14.08	n/a	n/a	n/a	0.995	0.992	0.994
3479	21.00	3500	3.65	3.35	7.00	n/a	n/a	n/a	3.71	3.40	7.11	n/a	n/a	n/a	0.983	0.985	0.984

LINEAR REGRESSION ANALYSIS:

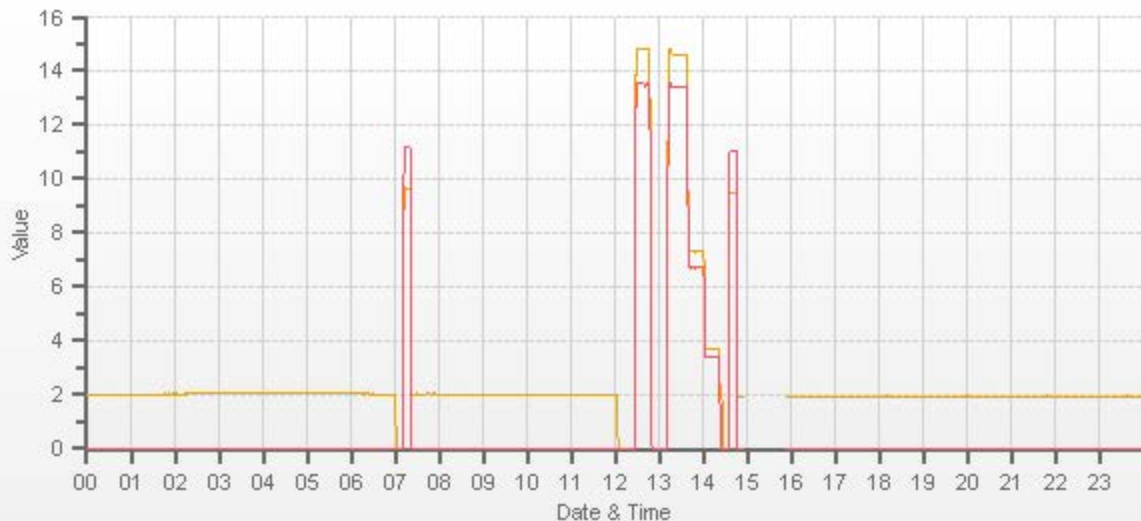
	CORRELATION	SLOPE	INTERCEPT
CH ₄	1.000	0.998	0.2%
NMHC	1.000	1.001	0.1%
THC	1.000	0.999	0.1%

Comments:

Sample filter changed. Monthly calibration - no issues.

Use Zero Chrom?

No



CAL-PRAMP-202205-01698

Meteorological System Checklist



Date:	May 18, 2022
Technician:	Limin Li
Station:	Peace River Compliance

Unit:	Make:	Model:	Serial #:
Temperature Sensor:	Rotronic	HC2-S3	20558318
Barometric Pressure Sensor:	MetOne	092	B19577
Relative Humidity Sensor:	Rotronic	HC2-S3	20558318
Anemometer:	RM Young	05305VK	129612

AMBIENT TEMPERATURE SENSOR CHECK

Previous check date:	April 19, 2022
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022
Reference Temperature (°C):	13.6
Station - Ambient Temperature (°C):	13.1
Temperature Difference (°C):	0.5

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	April 19, 2022
Reference Barometer ID:	BRUNTON #5490, Expire: Feb 22, 2023
Reference Pressure - Units/Reading:	millibar 931.6
Station Pressure - Units/Reading:	millibar 935
Pressure Tolerance +/- 15% of error:	792 - 1071 -0.36%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	April 19, 2022
Reference Hygrometer ID:	Fisher SCIENTIFIC 170286131 expires August 24, 2022
Reference Hygrometer % RH- Reading:	23.80
Station Hygrometer % RH- Reading:	24.70
RH Tolerance +/- 15% of difference:	20.23 - 27.37 -3.8%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	April 19, 2022	Previous check date:	April 19, 2022
Wind Speed Observed (kph):	5~10	Wind Direction Observed:	SE
Wind speed on Data Logger (kph):	6.5	Wind Direction on Data Logger:	SE
		Wind Direction Pass/Fail?:	Pass

Comments



Meteorological Sensor Audit/Calibration

Location Information

Company:	CNRL	Performed By:	Ferdinand Roy
Audit Location:	Peace River Compliance	Reviewed By:	Chris Wesson
Audit Date:	June 16, 2021	Start/End Time (mst):	8:20/10:45
Calibration Purpose:	routine annual	Weather Conditions:	Mix of sun and clouds

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:	July 14, 2020	Direction Unit Output Range:	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18801 id# R9133 expires August 6, 2022

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	18.5	18.5	0.996
2000	36.9	36.9	36.9	0.999
3000	55.3	55.4	55.4	0.998
4000	73.7	73.8	73.8	0.999
5000	92.2	92.3	92.3	0.998
6000	110.6	110.8	110.7	0.998
7000	129.0	129.4	129.2	0.998
8000	147.4	147.8	147.8	0.998
9000	165.9	166.4	166.4	0.997
10000	184.3	185.0	184.8	0.997
The audit meets AMD requirements.			Average Correction Factor=	0.998

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	329	0.0	1.0	0.5
60	300	61	300	-1.0	0.0	0.5
90	270	92	271	-2.0	-1.0	1.5
120	240	122	241	-2.0	-1.0	1.5
150	210	151	212	-1.0	-2.0	1.5
180	180	181	181	-1.0	-1.0	1.0
210	150	211	152	-1.0	-2.0	1.5
240	120	241	122	-1.0	-2.0	1.5
270	90	271	92	-1.0	-2.0	1.5
300	60	300	62	0.0	-2.0	1.0
330	30	329	31	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=		1.2

Comments:

Physical inspection completed - no issues.



Peace River Area Monitoring Program

MAY 2022

Monthly Ambient Air Quality Monitoring Integrated Sampling Report

PRAMP-202205-INTEGRATED

June 25, 2022

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Table of Contents

NETWORK STATION SUMMARY	5
Listing of Integrated Sampling Stations	5
Listing of Passive Sampling Sites	5
List of Contractors who performed the air monitoring activities	5
Monitoring Notes during the Month of May 2022	6
Revisions to Alberta’s Ambient Air Quality Data Warehouse	6
Deviations from Authorized Monitoring Methods	6
Certification	7
INTEGRATED SAMPLING RESULTS SUMMARY	8
ANALYTICAL SAMPLING RESULTS	9
NMHC Canisters – VOCs	10
Passives	15
End of Report	17



Peace River Area Monitoring Program
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E-mail: prampotech@prampairshed.ca
www.prampairshed.ca

June 25, 2022

Alberta Environment and Parks (AEP)
11th Floor, Oxbridge Place
9820 106 Street
Edmonton, AB, T5K 2J6

RE: PRAMP –May 2022 Monthly Ambient Air Quality Monitoring Integrated Sampling Report

Enclosed is the May 2022 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: prampotech@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

- 986c Station
- 842b Station
- Reno Station
- Peace River Complex (PRC) Station

Station Name	986c	842b	Reno	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)	√	√	√	
Intermittent (PACs)	√			
Passives				√

Listing of Passive 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
Intermittent (PACs)	PRAMP	ECCC	AEP	AEP
Passives	PRAMP	Bureau Veritas	PRAMP	PRAMP

Monitoring Notes during the Month of May 2022

- **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.
- One NMHC canister event was recorded at the 842b station in May.

Station	Parameter	Date	Time	Concentration (ppm)
842b	Non-methane HC	28-May	14:20	0.37

- **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.
- Due to an operator error, the task of the sample media exchange was not performed as scheduled in late April. The media for the March/May collection period was collected on May 30. The media for the May/June collection period was installed at the same time.

- **Passives Sampling Program**

- There were no exceedances of the AAAQOs for all monitored parameters at any of the passive stations during this month.
- The passive sample filters were installed at the stations on May 1 and were removed on June 1.

Revisions to Alberta's Ambient Air Quality Data Warehouse

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

Deviations from Authorized Monitoring Methods

There were no deviations from authorized monitoring methods.

Certification

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



Lily Lin, Technical Program Manager, PRAMP Airshed

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

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



Michael Bisaga, Technical Program Manager, PRAMP Airshed

June 25, 2022

INTEGRATED SAMPLING RESULTS SUMMARY

- NMHC Canister VOCs analytical results**

Sample Date/Time	2022-05-28 @14:20							
Canister Sample	Non-methane Hydrocarbon							
Canister ID	28882							
Method	NA-025		Method	NA-024		Method	AC-058	
Maximum Reading (ppmv)	2.8	Methane	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	7.63	trans-1,2-Dichloroethyl

Sample Date/Time	2022-05-28 @14:20							
Canister Sample	Non-methane Hydrocarbon - BLANK							
Canister ID	32229							
Method	NA-025		Method	NA-024		Method	AC-058	
Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	0.9	Acetone

- Passive analytical results**

	H ₂ S		SO ₂	
Minimum (ppb)	0.05	#8	<0.1	#1
Maximum (ppb)	0.11	#9	0.2	#2
Average (ppb)	0.08	-	0.17	-

ANALYTICAL SAMPLING RESULTS

NMHC Canisters – VOCs



PEACE RIVER AREA MONITORING PROGRAM

842b Site - May 2022

Volatile Organic Compounds (VOCs) Results

Sample Date/Time	2022-05-28 @14:20							
Canister Sample	Non-methane Hydrocarbon							
Canister ID	28882							
Method	NA-025		Method	NA-024		Method	AC-058	
Maximum Reading (ppmv)	2.8	Methane	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	7.63	
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)
1-Butene	0	0.16	2,5-Dimethylthiophene	0	0.5	1,1,1-Trichloroethane	0	0.03
Acetylene	0	0.12	2-Ethylthiophene	0	0.3	1,1,2,2-Tetrachloroethane	0	0.03
cis-2-Butene	0	0.06	2-Methylthiophene	0	0.3	1,1,2-Trichloroethane	0	0.03
Ethane	0	0.2	3-Methylthiophene	0	0.5	1,1-Dichloroethane	0	0.03
Ethylacetylene	0	0.09	Butyl mercaptan	0	0.5	1,1-Dichloroethylene	0	0.06
Ethylene	0	0.11	Carbon disulphide	0	0.3	1,2,3-Trimethylbenzene	0.24	0.08
Isobutane	0	0.2	Carbonyl sulphide	0	0.5	1,2,4-Trichlorobenzene	0	1.2
Isobutylene	0	0.2	Dimethyl disulphide	0	0.3	1,2,4-Trimethylbenzene	0.42	0.08
Methane	2.8	0.2	Dimethyl sulphide	0	0.3	1,2-Dibromoethane	0	0.03
n-Butane	0	0.3	Ethyl mercaptan	0	0.5	1,2-Dichlorobenzene	0	0.05
n-Propane	0	0.11	Ethyl sulphide	0	0.5	1,2-Dichloroethane	0	0.02
Propylene	0	0.2	Hydrogen sulphide	0	0.5	1,2-Dichloropropane	0	0.02
Propyne	0	0.2	Isobutyl mercaptan	0	0.5	1,3,5-Trimethylbenzene	0.13	0.03
trans-2-Butene	0	0.14	Isopropyl mercaptan	0	0.5	1,3-Butadiene	0	0.03
			Methyl mercaptan	0	0.3	1,3-Dichlorobenzene	0	0.5
			Pentyl mercaptan	0	0.6	1,4-Dichlorobenzene	0	0.6
			Propyl mercaptan	0	0.6	1,4-Dioxane	0	0.6
			tert-Butyl mercaptan	0	0.5	1-Butene/Isobutylene	0.65	0.03
			Thiophene	0	0.3	1-Hexene/2-Methyl-1-pentene	0	0.03
						1-Pentene	0	0.02
						2,2,4-Trimethylpentane	0.06	0.02
						2,2-Dimethylbutane	0	0.02
						2,3,4-Trimethylpentane	0	0.02
						2,3-Dimethylbutane	0	0.03
						2,3-Dimethylpentane	0	0.03
						2,4-Dimethylpentane	0	0.02
						2-Methylheptane	0	0.02
						2-Methylhexane	0	0.02
						2-Methylpentane	0	0.02
						3-Methylheptane	0	0.03
						3-Methylhexane	0	0.03
						3-Methylpentane	0	0.02
						Acetone	7.3	3.7
						Acrolein	0	0.5
						Benzene	0.15	0.02
						Benzyl chloride	0	0.6
						Bromodichloromethane	0	0.03
						Bromoform	0	0.03
						Bromomethane	0	0.02
						Carbon disulfide	0	0.02
						Carbon tetrachloride	0.24	0.02
						Chlorobenzene	0	0.03
						Chloroethane	0	0.03
						Chloroform	0	0.03
						Chloromethane	1.2	0.03
						cis-1,2-Dichloroethene	0	0.02
						cis-1,3-Dichloropropene	0	0.06
						cis-2-Butene	0	0.03
						cis-2-Pentene	0	0.03
						Cyclohexane	0.08	0.03
						Cyclopentane	0.43	0.02
						Dibromochloromethane	0	0.02
						Ethanol	2.6	2.8
						Ethyl acetate	0	0.6
						Ethylbenzene	0	0.02
						Freon-11	0.41	0.03
						Freon-113	0.14	0.02



PEACE RIVER AREA MONITORING PROGRAM

842b Site - May 2022

Volatile Organic Compounds (VOCs) Results

Sample Date/Time	2022-05-28 @14:20							
Canister Sample	Non-methane Hydrocarbon							
Canister ID	28882							
Method	NA-025	Method	NA-024	Method	AC-058			
Maximum Reading (ppmv)	2.8	Methane	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	7.63	
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)
						Freon-114	0.05	0.03
						Freon-12	0.79	0.03
						Hexachloro-1,3-butadiene	0	0.78
						Isobutane	0.49	0.03
						Isopentane	0	0.05
						Isoprene	0	0.02
						Isopropyl alcohol	0	3.7
						Isopropylbenzene	0	0.02
						m,p-Xylene	0.34	0.05
						m-Diethylbenzene	0	0.06
						m-Ethyltoluene	0.1	0.12
						Methyl butyl ketone	0	0.78
						Methyl ethyl ketone	0	0.5
						Methyl isobutyl ketone	0	0.6
						Methyl methacrylate	0	0.11
						Methyl tert butyl ether	0	0.05
						Methylcyclohexane	0	0.02
						Methylcyclopentane	0	0.03
						Methylene chloride	0	0.5
						n-Butane	0.3	0.05
						n-Decane	0	0.09
						n-Dodecane	0	0.6
						n-Heptane	0	0.02
						n-Hexane	0	0.02
						n-Nonane	0	0.02
						n-Octane	0.03	0.03
						n-Pentane	0.12	0.2
						n-Propylbenzene	0	0.08
						n-Undecane	0	0.8
						Naphthalene	0	0.8
						o-Ethyltoluene	0.11	0.02
						o-Xylene	0.19	0.02
						p-Diethylbenzene	0	0.06
						p-Ethyltoluene	0	0.11
						Styrene	0.08	0.06
						Tetrachloroethylene	0	0.06
						Tetrahydrofuran	0	0.6
						Toluene	0.14	0.02
						trans-1,2-Dichloroethylene	7.63	0.09
						trans-1,3-Dichloropropylene	0	0.06
						trans-2-Butene	0	0.02
						trans-2-Pentene	0	0.03
						Trichloroethylene	0	0.06
						Vinyl acetate	0	0.6
						Vinyl chloride	0	0.03



PEACE RIVER AREA MONITORING PROGRAM

842b Site - May 2022

Volatile Organic Compounds (VOCs) Results

Sample Date/Time		2022-05-28 @14:20						
Canister Sample		Non-methane Hydrocarbon - BLANK						
Canister ID		32229						
Method	NA-025	Method	NA-024	Method	AC-058			
Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	0.9 Acetone	
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)
1-Butene	0	0.16	2,5-Dimethylthiophene	0	0.5	1,1,1-Trichloroethane	0	0.03
Acetylene	0	0.12	2-Ethylthiophene	0	0.3	1,1,2,2-Tetrachloroethane	0	0.03
cis-2-Butene	0	0.06	2-Methylthiophene	0	0.3	1,1,2-Trichloroethane	0	0.03
Ethane	0	0.2	3-Methylthiophene	0	0.5	1,1-Dichloroethane	0	0.03
Ethylacetylene	0	0.09	Butyl mercaptan	0	0.5	1,1-Dichloroethylene	0	0.06
Ethylene	0	0.11	Carbon disulphide	0	0.3	1,2,3-Trimethylbenzene	0	0.08
Isobutane	0	0.2	Carbonyl sulphide	0	0.5	1,2,4-Trichlorobenzene	0	1.2
Isobutylene	0	0.2	Dimethyl disulphide	0	0.3	1,2,4-Trimethylbenzene	0	0.08
Methane	0	0.2	Dimethyl sulphide	0	0.3	1,2-Dibromoethane	0	0.03
n-Butane	0	0.3	Ethyl mercaptan	0	0.5	1,2-Dichlorobenzene	0	0.05
n-Propane	0	0.11	Ethyl sulphide	0	0.5	1,2-Dichloroethane	0	0.02
Propylene	0	0.2	Hydrogen sulphide	0	0.5	1,2-Dichloropropane	0	0.02
Propyne	0	0.2	Isobutyl mercaptan	0	0.5	1,3,5-Trimethylbenzene	0	0.03
trans-2-Butene	0	0.14	Isopropyl mercaptan	0	0.5	1,3-Butadiene	0	0.03
			Methyl mercaptan	0	0.3	1,3-Dichlorobenzene	0	0.5
			Pentyl mercaptan	0	0.6	1,4-Dichlorobenzene	0	0.6
			Propyl mercaptan	0	0.6	1,4-Dioxane	0	0.6
			tert-Butyl mercaptan	0	0.5	1-Butene/Isobutylene	0	0.03
			Thiophene	0	0.3	1-Hexene/2-Methyl-1-pentene	0	0.03
						1-Pentene	0	0.02
						2,2,4-Trimethylpentane	0.06	0.02
						2,2-Dimethylbutane	0.04	0.02
						2,3,4-Trimethylpentane	0	0.02
						2,3-Dimethylbutane	0	0.03
						2,3-Dimethylpentane	0	0.03
						2,4-Dimethylpentane	0	0.02
						2-Methylheptane	0	0.02
						2-Methylhexane	0	0.02
						2-Methylpentane	0	0.02
						3-Methylheptane	0	0.03
						3-Methylhexane	0	0.03
						3-Methylpentane	0	0.02
						Acetone	0.9	3.7
						Acrolein	0	0.5
						Benzene	0.13	0.02
						Benzyl chloride	0	0.6
						Bromodichloromethane	0	0.03
						Bromoform	0	0.03
						Bromomethane	0	0.02
						Carbon disulfide	0	0.02
						Carbon tetrachloride	0	0.02
						Chlorobenzene	0	0.03
						Chloroethane	0	0.03
						Chloroform	0	0.03
						Chloromethane	0	0.03
						cis-1,2-Dichloroethene	0	0.02
						cis-1,3-Dichloropropene	0	0.06
						cis-2-Butene	0	0.03
						cis-2-Pentene	0	0.03
						Cyclohexane	0.05	0.03
						Cyclopentane	0	0.02
						Dibromochloromethane	0	0.02
						Ethanol	0	2.8
						Ethyl acetate	0	0.6
						Ethylbenzene	0	0.02
						Freon-11	0	0.03
						Freon-113	0	0.02
						Freon-114	0	0.03



PEACE RIVER AREA MONITORING PROGRAM

842b Site - May 2022

Volatile Organic Compounds (VOCs) Results

Sample Date/Time	2022-05-28 @14:20							
Canister Sample	Non-methane Hydrocarbon - BLANK							
Canister ID	32229							
Method	NA-025	Method	NA-024	Method	AC-058			
Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	-	-	Maximum Reading (ppmv)	0.9 Acetone	
Parameter	Result (ppmv)	RDL (ppmv)	Parameter	Result (ppbv)	RDL (ppbv)	Parameter	Result (ppbv)	RDL (ppbv)
						Freon-12	0	0.03
						Hexachloro-1,3-butadiene	0	0.78
						Isobutane	0.23	0.03
						Isopentane	0	0.05
						Isoprene	0	0.02
						Isopropyl alcohol	0	3.7
						Isopropylbenzene	0	0.02
						m,p-Xylene	0.06	0.05
						m-Diethylbenzene	0	0.06
						m-Ethyltoluene	0	0.12
						Methyl butyl ketone	0	0.78
						Methyl ethyl ketone	0	0.5
						Methyl isobutyl ketone	0	0.6
						Methyl methacrylate	0	0.11
						Methyl tert butyl ether	0	0.05
						Methylcyclohexane	0	0.02
						Methylcyclopentane	0.07	0.03
						Methylene chloride	0	0.5
						n-Butane	0	0.05
						n-Decane	0	0.09
						n-Dodecane	0	0.6
						n-Heptane	0	0.02
						n-Hexane	0	0.02
						n-Nonane	0	0.02
						n-Octane	0.05	0.03
						n-Pentane	0.37	0.2
						n-Propylbenzene	0	0.08
						n-Undecane	0	0.8
						Naphthalene	0	0.8
						o-Ethyltoluene	0	0.02
						o-Xylene	0	0.02
						p-Diethylbenzene	0	0.06
						p-Ethyltoluene	0	0.11
						Styrene	0	0.06
						Tetrachloroethylene	0	0.06
						Tetrahydrofuran	0	0.6
						Toluene	0.16	0.02
						trans-1,2-Dichloroethylene	0	0.09
						trans-1,3-Dichloropropylene	0	0.06
						trans-2-Butene	0	0.02
						trans-2-Pentene	0	0.03
						Trichloroethylene	0	0.06
						Vinyl acetate	0	0.6
						Vinyl chloride	0	0.03

Passives



PEACE RIVER AREA MONITORING PROGRAM

PRC Site - May 2022

Passive Results

	H ₂ S		SO ₂	
Minimum (ppb)	0.05	#8	<0.1	#1
Maximum (ppb)	0.11	#9	0.2	#2
Average (ppb)	0.08	-	0.17	-
No.	Calculated Value		Calculated Value	
1	0.07		<0.1	
2	0.07		0.2	
3	0.08		0.2	
4	0.11		0.2	
7	0.06		<0.1	
8	0.05		0.1	
9	0.11		0.2	
10	0.06		<0.1	
11	0.09		0.1	
12	0.08		0.2	
13	0.07		0.1	
14	0.06		0.2	
Reportable Detection Limit (RDL)	0.02		0.1	

End of Report



Peace River Area Monitoring Program

MAY 2022

Ambient Air Monitoring

Certified Laboratory Analysis Report

LAB-PRAMP-202205

Operation and Maintenance:

Bureau Veritas Canada

Data Validation and Report:

Peace River Area Monitoring Program

June 25, 2022

Table of Contents

NMHC Canister Analytical Results	3
Passive Sampling Analytical Results.....	25
End of Report	32

NMHC Canister Analytical Results



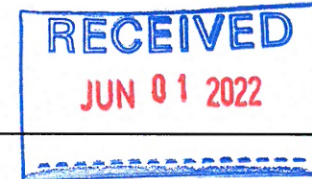
Highway 16A & 75 Street
 PO Bag 4000
 Vegreville, AB, T9C 1T4
 Environmental Analytical Services
 Phone: (780) 632-8403 Fax: (780) 632-8620

Sample ID 22060002-001 Priority: Normal



Customer ID: PRAMP
 Cust Samp ID: PRAMP_842b-20220528

Date Received- Lab Use Only



Client Contact Details:

Contact: Karla Ressor, Michael Bisaga/ Lily Lin
 Company: PRAMP Airshed
 PO#: 842b Station 986c Station Reno Station
 Address: 842b (Lat. 56.27406N, Long. 116.98129W)
 986c (Lat. 56.36988N, Long. 116.925636W)
 Reno (Lat. 55.86936N, Long. 117.05739W)
 Telephone: 403-8072995, 780-2667068/587-2252248
 Email: karla@prampairshed.ca, pramptech@prampairshed.ca

RUSH (Surcharge)

Invoice Instructions:

Send to: officemanager@prampairshed.ca, karla@prampairshed.ca,
 pramptech@prampairshed.ca Attention: PRAMP Office Manager
 Any correspondence related to canister analysis, send the information to
 karla@prampairshed.ca and pramptech@prampairshed.ca

InnoTech Contact: Graham Knox Phone: 780-632-8403 Cell: 780-632-1519
 Email: Graham.Knox@innotechalberta.ca

Sample ID (PRAMP_station_yyyymmdd) (Find Sample ID from BV's email)	Canister ID (Find canister ID from canister tag)	Sample Description	Date/Time Canister Triggered (Find Date/Time from BV's email)		Analysis Requested
			Date (yyyy/mm/dd)	Time (24 Hr) (MST)	
PRAMP_842b- <u>20220528</u>	<u>20992</u>	<input type="checkbox"/> Methane Trigger <input checked="" type="checkbox"/> NMHC Trigger <input type="checkbox"/> Methane Blank <input type="checkbox"/> NMHC Blank <input type="checkbox"/> Expired Canister – No further analysis is required.	<u>2022/05/28</u>	<u>14:20</u>	* C1C4 Air, VOC Full, RSC Air * Unknowns to be reported * Carbon Isotopic Analysis (if sample is collected from Methane trigger)
PRAMP_986c- _____					
PRAMP_Reno- _____					

Sample Collection:

Collected By Dwayne Stepanuk (Name) of _____ (Company) on May 29/2022 (Date/Time) (MST).



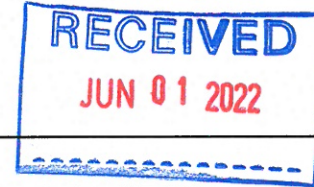
Highway 16A & 75 Street
 PO Bag 4000
 Vegreville, AB, T9C 1T4
 Environmental Analytical Services
 Phone: (780) 632-8403 Fax: (780) 632-8620

Sample ID 22060002-002 Priority: Normal



Customer ID: PRAMP
Cust Samp ID: PRAMP_842b-Blank

Date Received- Lab Use Only



Client Contact Details:

Contact: Karla Ressor, Michael Bisaga/ Lily Lin
 Company: PRAMP Airshed
 PO#: 842b Station 986c Station Reno Station
 Address: 842b (Lat. 56.27406N, Long. 116.98129W)
 986c (Lat. 56.36988N, Long. 116.925636W)
 Reno (Lat. 55.86936N, Long. 117.05739W)
 Telephone: 403-8072995, 780-2667068/587-2252248
 Email: karla@prampairshed.ca, pramptech@prampairshed.ca

RUSH (Surcharge)

Invoice Instructions:
 Send to: officemanager@prampairshed.ca, karla@prampairshed.ca,
 pramptech@prampairshed.ca Attention: PRAMP Office Manager
 Any correspondence related to canister analysis, send the information to
 karla@prampairshed.ca and pramptech@prampairshed.ca

InnoTech Contact: Graham Knox Phone: 780-632-8403 Cell: 780-632-1519
 Email: Graham.Knox@innotechalberta.ca

Sample ID (PRAMP_station_yyyymmdd) (Find Sample ID from BV's email)	Canister ID (Find canister ID from canister tag)	Sample Description	Date/Time Canister Triggered (Find Date/Time from BV's email)		Analysis Requested
			Date (yyyy/mm/dd)	Time (24 Hr) (MST)	
PRAMP_842b- <u>Blank</u>	<u>32227</u>	<input type="checkbox"/> Methane Trigger <input type="checkbox"/> NMHC Trigger <input type="checkbox"/> Methane Blank <input checked="" type="checkbox"/> NMHC Blank <input type="checkbox"/> Expired Canister – No further analysis is required.			* C1C4 Air, VOC Full, RSC Air * Unknowns to be reported * Carbon Isotopic Analysis (if sample is collected from Methane trigger)
PRAMP_986c- _____					
PRAMP_Reno- _____					


Sample Collection:


Collected By Dwayne Stoddard (Name) of _____ (Company) on May 29, 2022 (Date/Time) (MST).

Sample ID 22060002-001 Priority: Normal



Customer ID: PRAMP
Cust Samp ID: PRAMP_842b-20220528

 Canister ID: <u>28882</u> This cleaned canister meets or exceeds TO-15 Method Specifications	Sample ID: <u>PRAMP-842b-20220528</u>	
	Sampled By: <u>Dwayne S</u>	
Proofed by: <u>ISQ4</u> on: <u>MAY 04 2022</u>	Starting Vacuum: <u>-27.0</u> "Hg	End Pressure: <u>-2</u> "Hg/psig <i>JMP</i>
Evacuated: <u>MAY 05 2022</u> Recertified: <u>MAY 12 2022</u>		
(Use within: 3 months from evacuation or recertification date) Laboratory Contact Number: 780-632-8403		

 Canister ID: <u>32229</u> This cleaned canister meets or exceeds TO-15 Method Specifications	Sample ID: <u>PRAMP-842b-BLM</u>	
	Sampled By: <u>Dwayne</u>	
Proofed by: <u>ISQ4</u> on: <u>MAY 04 2022</u>	Starting Vacuum: <u>-27.0</u> "Hg	End Vacuum: <u>-27</u> "Hg/psig <i>JMP</i>
Evacuated: <u>MAY 05 2022</u> Recertified: <u>MAY 12 2022</u>		
(Use within: 3 months from evacuation or recertification date) Laboratory Contact Number: 780-632-8403		



PO Bag 4000
Vegreville, Alberta
Canada T9C 1T4
(780) 632-8211

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

<p>RESULTS: Karla Reesor 403 807 2995 Peace River Area Monitoring Program Committee</p> <p>INVOICE: Office Manager</p>	<p style="text-align: center;">CLIENT SAMPLE ID PRAMP_842b-20220528</p> <p>MATRIX: Ambient Air</p> <p>CANISTER ID: 28882</p> <p>PRIORITY: Normal</p> <p>DESCRIPTION: NMHC Trigger</p> <p>DATE SAMPLED: 28-May-22 14:20 DATE RECEIVED: 01-Jun-22</p> <p>REPORT CREATED: 06-Jun-22 REPORT NUMBER: 22060002</p> <p style="text-align: right;">VERSION: Version 01</p>
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Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-001	1-Butene	K, T, U	< 0.14 ppmv	0.14	NA-025	02-Jun-22
22060002-001	Acetylene	K, T, U	< 0.11 ppmv	0.11	NA-025	02-Jun-22
22060002-001	n-Butane	K, T, U	< 0.3 ppmv	0.3	NA-025	02-Jun-22
22060002-001	cis-2-Butene	K, T, U	< 0.06 ppmv	0.06	NA-025	02-Jun-22
22060002-001	Ethane	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-001	Ethylacetylene	K, T, U	< 0.08 ppmv	0.08	NA-025	02-Jun-22
22060002-001	Ethylene	K, T, U	< 0.10 ppmv	0.10	NA-025	02-Jun-22
22060002-001	Isobutane	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-001	Isobutylene	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-001	Methane		2.8 ppmv	0.1	NA-025	02-Jun-22
22060002-001	n-Propane	K, T, U	< 0.10 ppmv	0.10	NA-025	02-Jun-22
22060002-001	Propylene	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-001	Propyne	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-001	trans-2-Butene	K, T, U	< 0.13 ppmv	0.13	NA-025	02-Jun-22
22060002-001	2,5-Dimethylthiophene	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-001	2-Ethylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-001	2-Methylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-001	3-Methylthiophene	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022 Inquiries: (780) 632 8455 E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-20220528	28882	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Trigger		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-001	Butyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-001	Carbon disulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-001	Carbonyl sulphide	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-001	Dimethyl disulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-001	Dimethyl sulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-001	Ethyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-001	Ethyl sulphide	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-001	Hydrogen sulphide	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-001	Isobutyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-001	Isopropyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-001	Methyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-001	Pentyl mercaptan	K, T, U	< 0.6 ppbv	0.6	NA-024	01-Jun-22
22060002-001	Propyl mercaptan	K, T, U	< 0.6 ppbv	0.6	NA-024	01-Jun-22
22060002-001	tert-Butyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-001	Thiophene/sec-Butyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-001	1,1,1-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	1,1,2,2-Tetrachloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	1,1,2-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	1,1-Dichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	1,1-Dichloroethylene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	1,2,3-Trimethylbenzene		0.24 ppbv	0.07	AC-058	02-Jun-22
22060002-001	1,2,4-Trichlorobenzene	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	1,2,4-Trimethylbenzene		0.42 ppbv	0.04	AC-058	02-Jun-22
22060002-001	1,2-Dibromoethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	1,2-Dichlorobenzene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-20220528	28882	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Trigger		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-001	1,2-Dichloroethane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	1,2-Dichloropropane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	1,3,5-Trimethylbenzene	I	0.13 ppbv	0.04	AC-058	02-Jun-22
22060002-001	1,3-Butadiene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	1,3-Dichlorobenzene	K, T, U	< 0.6 ppbv	0.6	AC-058	02-Jun-22
22060002-001	1,4-Dichlorobenzene	K, T, U	< 0.6 ppbv	0.6	AC-058	02-Jun-22
22060002-001	1,4-Dioxane	K, T, U	< 0.7 ppbv	0.7	AC-058	02-Jun-22
22060002-001	1-Butene/Isobutylene		0.65 ppbv	0.08	AC-058	02-Jun-22
22060002-001	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.10 ppbv	0.10	AC-058	02-Jun-22
22060002-001	1-Pentene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	2,2,4-Trimethylpentane	I	0.06 ppbv	0.03	AC-058	02-Jun-22
22060002-001	2,2-Dimethylbutane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	2,3,4-Trimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	2,3-Dimethylbutane	K, T, U	< 0.13 ppbv	0.13	AC-058	02-Jun-22
22060002-001	2,3-Dimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	2,4-Dimethylpentane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	2-Methylheptane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	2-Methylhexane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	2-Methylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	3-Methylheptane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	3-Methylhexane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	3-Methylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Acetone		7.3 ppbv	0.6	AC-058	02-Jun-22
22060002-001	Acrolein	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	Benzene	I	0.15 ppbv	0.04	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-20220528	28882	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Trigger		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-001	Benzyl chloride	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	Bromodichloromethane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	Bromoform	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Bromomethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Carbon disulfide	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Carbon tetrachloride		0.24 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Chlorobenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Chloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Chloroform	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Chloromethane		1.20 ppbv	0.06	AC-058	02-Jun-22
22060002-001	cis-1,2-Dichloroethene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	cis-1,3-Dichloropropene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	cis-2-Butene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	cis-2-Pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Cyclohexane	I	0.08 ppbv	0.06	AC-058	02-Jun-22
22060002-001	Cyclopentane		0.43 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Dibromochloromethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Ethanol		2.6 ppbv	0.7	AC-058	02-Jun-22
22060002-001	Ethyl acetate	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	Ethylbenzene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	Freon-11		0.41 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Freon-113	I	0.14 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Freon-114	I	0.05 ppbv	0.04	AC-058	02-Jun-22
22060002-001	Freon-12		0.79 ppbv	0.04	AC-058	02-Jun-22
22060002-001	Hexachloro-1,3-butadiene	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED	
PRAMP_842b-20220528	28882	Ambient Air	28-May-22	14:20
DESCRIPTION:	NMHC Trigger			
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01	
22060002	06-Jun-22			

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-001	Isobutane		0.49 ppbv	0.04	AC-058	02-Jun-22
22060002-001	Isopentane	K, T, U	< 0.06 ppbv	0.06	AC-058	02-Jun-22
22060002-001	Isoprene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Isopropyl alcohol	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	Isopropylbenzene	K, T, U	< 0.06 ppbv	0.06	AC-058	02-Jun-22
22060002-001	m,p-Xylene	I	0.34 ppbv	0.06	AC-058	02-Jun-22
22060002-001	m-Diethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	m-Ethyltoluene	I	0.10 ppbv	0.04	AC-058	02-Jun-22
22060002-001	Methyl butyl ketone	K, T, U	< 0.6 ppbv	0.6	AC-058	02-Jun-22
22060002-001	Methyl ethyl ketone	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	Methyl isobutyl ketone	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	Methyl methacrylate	K, T, U	< 0.11 ppbv	0.11	AC-058	02-Jun-22
22060002-001	Methyl tert butyl ether	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	Methylcyclohexane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Methylcyclopentane	K, T, U	< 0.07 ppbv	0.07	AC-058	02-Jun-22
22060002-001	Methylene chloride	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	n-Butane		0.29 ppbv	0.03	AC-058	02-Jun-22
22060002-001	n-Decane	K, T, U	< 0.08 ppbv	0.08	AC-058	02-Jun-22
22060002-001	n-Dodecane	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	n-Heptane	K, T, U	< 0.06 ppbv	0.06	AC-058	02-Jun-22
22060002-001	n-Hexane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	n-Octane	I	0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	n-Pentane	I	0.12 ppbv	0.06	AC-058	02-Jun-22
22060002-001	n-Propylbenzene	K, T, U	< 0.08 ppbv	0.08	AC-058	02-Jun-22
22060002-001	n-Undecane	K, T, U	< 0.7 ppbv	0.7	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-20220528	28882	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Trigger		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-001	Naphthalene	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	n-Nonane	K, T, U	< 0.06 ppbv	0.06	AC-058	02-Jun-22
22060002-001	o-Ethyltoluene	I	0.11 ppbv	0.03	AC-058	02-Jun-22
22060002-001	o-Xylene	I	0.19 ppbv	0.04	AC-058	02-Jun-22
22060002-001	p-Diethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	p-Ethyltoluene	K, T, U	< 0.06 ppbv	0.06	AC-058	02-Jun-22
22060002-001	Styrene	I	0.08 ppbv	0.06	AC-058	02-Jun-22
22060002-001	Tetrachloroethylene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Tetrahydrofuran	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	Toluene	I	0.14 ppbv	0.04	AC-058	02-Jun-22
22060002-001	trans-1,2-Dichloroethylene		7.63 ppbv	0.08	AC-058	02-Jun-22
22060002-001	trans-1,3-Dichloropropylene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	trans-2-Butene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-001	trans-2-Pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Trichloroethylene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-001	Vinyl acetate	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-001	Vinyl chloride	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-Blank	32229	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Blank		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-002	1-Butene	K, T, U	< 0.10 ppmv	0.10	NA-025	02-Jun-22
22060002-002	Acetylene	K, T, U	< 0.08 ppmv	0.08	NA-025	02-Jun-22
22060002-002	n-Butane	K, T, U	< 0.2 ppmv	0.2	NA-025	02-Jun-22
22060002-002	cis-2-Butene	K, T, U	< 0.04 ppmv	0.04	NA-025	02-Jun-22
22060002-002	Ethane	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-002	Ethylacetylene	K, T, U	< 0.06 ppmv	0.06	NA-025	02-Jun-22
22060002-002	Ethylene	K, T, U	< 0.07 ppmv	0.07	NA-025	02-Jun-22
22060002-002	Isobutane	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-002	Isobutylene	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-002	Methane	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-002	n-Propane	K, T, U	< 0.07 ppmv	0.07	NA-025	02-Jun-22
22060002-002	Propylene	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-002	Propyne	K, T, U	< 0.1 ppmv	0.1	NA-025	02-Jun-22
22060002-002	trans-2-Butene	K, T, U	< 0.09 ppmv	0.09	NA-025	02-Jun-22
22060002-002	2,5-Dimethylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-002	2-Ethylthiophene	K, T, U	< 0.2 ppbv	0.2	NA-024	01-Jun-22
22060002-002	2-Methylthiophene	K, T, U	< 0.2 ppbv	0.2	NA-024	01-Jun-22
22060002-002	3-Methylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-002	Butyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-002	Carbon disulphide	K, T, U	< 0.2 ppbv	0.2	NA-024	01-Jun-22
22060002-002	Carbonyl sulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-002	Dimethyl disulphide	K, T, U	< 0.2 ppbv	0.2	NA-024	01-Jun-22
22060002-002	Dimethyl sulphide	K, T, U	< 0.2 ppbv	0.2	NA-024	01-Jun-22
22060002-002	Ethyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-002	Ethyl sulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-Blank	32229	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Blank		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-002	Hydrogen sulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-002	Isobutyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-002	Isopropyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-002	Methyl mercaptan	K, T, U	< 0.2 ppbv	0.2	NA-024	01-Jun-22
22060002-002	Pentyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-002	Propyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	01-Jun-22
22060002-002	tert-Butyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	01-Jun-22
22060002-002	Thiophene/sec-Butyl mercaptan	K, T, U	< 0.2 ppbv	0.2	NA-024	01-Jun-22
22060002-002	1,1,1-Trichloroethane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	1,1,2,2-Tetrachloroethane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	1,1,2-Trichloroethane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	1,1-Dichloroethane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	1,1-Dichloroethylene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	1,2,3-Trimethylbenzene	K, T, U	< 0.05 ppbv	0.05	AC-058	02-Jun-22
22060002-002	1,2,4-Trichlorobenzene	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	1,2,4-Trimethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	1,2-Dibromoethane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	1,2-Dichlorobenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	1,2-Dichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	1,2-Dichloropropane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	1,3,5-Trimethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	1,3-Butadiene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	1,3-Dichlorobenzene	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-002	1,4-Dichlorobenzene	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-002	1,4-Dioxane	K, T, U	< 0.5 ppbv	0.5	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

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CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-Blank	32229	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Blank		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-002	1-Butene/Isobutylene	K, T, U	< 0.06 ppbv	0.06	AC-058	02-Jun-22
22060002-002	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.07 ppbv	0.07	AC-058	02-Jun-22
22060002-002	1-Pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	2,2,4-Trimethylpentane	I	0.06 ppbv	0.02	AC-058	02-Jun-22
22060002-002	2,2-Dimethylbutane	I	0.04 ppbv	0.02	AC-058	02-Jun-22
22060002-002	2,3,4-Trimethylpentane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	2,3-Dimethylbutane	K, T, U	< 0.09 ppbv	0.09	AC-058	02-Jun-22
22060002-002	2,3-Dimethylpentane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	2,4-Dimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	2-Methylheptane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	2-Methylhexane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	2-Methylpentane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	3-Methylheptane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	3-Methylhexane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	3-Methylpentane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Acetone		0.9 ppbv	0.4	AC-058	02-Jun-22
22060002-002	Acrolein	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	Benzene	I	0.13 ppbv	0.03	AC-058	02-Jun-22
22060002-002	Benzyl chloride	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	Bromodichloromethane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	Bromoform	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Bromomethane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Carbon disulfide	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Carbon tetrachloride	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Chlorobenzene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

Inquiries: (780) 632 8455

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CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-Blank	32229	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Blank		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-002	Chloroethane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Chloroform	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Chloromethane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-002	cis-1,2-Dichloroethene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	cis-1,3-Dichloropropene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	cis-2-Butene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	cis-2-Pentene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Cyclohexane	I	0.05 ppbv	0.04	AC-058	02-Jun-22
22060002-002	Cyclopentane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Dibromochloromethane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Ethanol	K, T, U	< 0.5 ppbv	0.5	AC-058	02-Jun-22
22060002-002	Ethyl acetate	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	Ethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	Freon-11	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Freon-113	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Freon-114	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	Freon-12	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	Hexachloro-1,3-butadiene	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	Isobutane		0.23 ppbv	0.03	AC-058	02-Jun-22
22060002-002	Isopentane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-002	Isoprene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Isopropyl alcohol	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	Isopropylbenzene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-002	m,p-Xylene	I	0.06 ppbv	0.04	AC-058	02-Jun-22
22060002-002	m-Diethylbenzene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-Blank	32229	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Blank		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-002	m-Ethyltoluene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	Methyl butyl ketone	K, T, U	< 0.4 ppbv	0.4	AC-058	02-Jun-22
22060002-002	Methyl ethyl ketone	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	Methyl isobutyl ketone	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	Methyl methacrylate	K, T, U	< 0.08 ppbv	0.08	AC-058	02-Jun-22
22060002-002	Methyl tert butyl ether	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	Methylcyclohexane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Methylcyclopentane	I	0.07 ppbv	0.05	AC-058	02-Jun-22
22060002-002	Methylene chloride	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	n-Butane	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	n-Decane	K, T, U	< 0.06 ppbv	0.06	AC-058	02-Jun-22
22060002-002	n-Dodecane	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	n-Heptane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-002	n-Hexane	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	n-Octane	I	0.05 ppbv	0.02	AC-058	02-Jun-22
22060002-002	n-Pentane		0.37 ppbv	0.04	AC-058	02-Jun-22
22060002-002	n-Propylbenzene	K, T, U	< 0.06 ppbv	0.06	AC-058	02-Jun-22
22060002-002	n-Undecane	K, T, U	< 0.5 ppbv	0.5	AC-058	02-Jun-22
22060002-002	Naphthalene	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	n-Nonane	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-002	o-Ethyltoluene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	o-Xylene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	p-Diethylbenzene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	p-Ethyltoluene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22
22060002-002	Styrene	K, T, U	< 0.04 ppbv	0.04	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca



PO Bag 4000
 Vegreville, Alberta
 Canada T9C 1T4
 (780) 632-8211

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
PRAMP_842b-Blank	32229	Ambient Air	28-May-22 14:20
DESCRIPTION:	NMHC Blank		
REPORT NUMBER:	REPORT CREATED:	VERSION:	Version 01
22060002	06-Jun-22		

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
22060002-002	Tetrachloroethylene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Tetrahydrofuran	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	Toluene	I	0.16 ppbv	0.03	AC-058	02-Jun-22
22060002-002	trans-1,2-Dichloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	02-Jun-22
22060002-002	trans-1,3-Dichloropropylene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	trans-2-Butene	K, T, U	< 0.03 ppbv	0.03	AC-058	02-Jun-22
22060002-002	trans-2-Pentene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Trichloroethylene	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22
22060002-002	Vinyl acetate	K, T, U	< 0.3 ppbv	0.3	AC-058	02-Jun-22
22060002-002	Vinyl chloride	K, T, U	< 0.02 ppbv	0.02	AC-058	02-Jun-22

Report certified by: Rebecca Dasilva, Account Coordinator

On behalf of: A. Prefontaine, Manager, Chemical Testing

Date: June 6, 2022

LAB-PRAMP-202205

Inquiries: (780) 632 8455

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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 13 of 18

Revision History

Order ID	Ver	Date	Reason
22060002	01	06-Jun-22	Report created

Methods

Method	Description
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
NA-024	Analysis for Reduced Sulfur Compounds in Air Samples
NA-025	Determination of Light Hydrocarbons (C1C4) in Ambient Air by Gas Chromatography Flame Ionization Detector

Qualifiers

Data Qualifier Translation

B	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
K	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
N	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
T	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



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Vegreville, Alberta
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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 16 of 18

Order Comments

22060002

Unknowns to be reported. Invoice also to Karla Reesor and prampotech@prampairshed.ca



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Vegreville, Alberta
Canada T9C 1T4
(780) 632-8211

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 17 of 18

Sample Comments



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 18 of 18

Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.*
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.*

Passive Sampling Analytical Results



Bay 10, 6744 - 50 St. Edmonton AB Canada T6B 3M9

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

Maxxam Job Number:

PASSIVE AIR CHAIN OF CUSTODY

Page ___ of ___

Invoice To
Company Name Canadian Natural Resources Ltd.
Contact Name Robyn Kutz-Semeiuk
Address 210, 200 Carleton Dr.
Postal Code St. Albert T8N 3Y4
Phone/Fax# Ph Fax

Report To
Name & Email Address

Service Requested
 RUSH
 (Please contact for TAT)
 REGULAR

Company Name
CNRL
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	SO2	H2S	NO2	O3	NOx	NH3	HNO3	VOC	PM2.5	PM10	TSP	Dustfall
1	01/06/22	09:00				X	X										
2						X	X										
3						X	X										
4						X	X										
7						X	X										
8						X	X										
9						X	X										
10						X	X										
11						X	X										
12						X	X										
13						X	X										
14						X	X										
Blank		17:30				X	X										
Blank						X	X										

Notes/Comments: Client 12690 / Scenario 4290

Sampled By Dwayne Phone/Email _____ Received By AB Date/Time 22-06-06 Project # _____
 Date Shipped _____ Signature [Signature] PO# _____

14 SO2
14 H2S



Your Project #: 2022/05/01 - 2022/06/01
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: 2022/06/17
Report #: R3187860
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C238782

Received: 2022/06/06, 08:30

Sample Matrix: Air
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis	12	2022/06/10	2022/06/16	PTC SOP-00150	Passive H2S in ATM
SO2 Passive Analysis	12	2022/06/08	2022/06/16	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 

Belma Elefante
Customer Service Associate
17 Jun 2022 08:48:58

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

=====

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas Job #: C238782
 Report Date: 2022/06/17

Peace River Area Monitoring Program Committee
 Client Project #: 2022/05/01 - 2022/06/01
 Site Location: PEACE RIVER COMPLEX
 Sampler Initials: DS

RESULTS OF CHEMICAL ANALYSES OF AIR

Bureau Veritas ID		AUK610	AUK668	AUK671	AUK672	AUK673	AUK674	AUK675		
Sampling Date		2022/05/01 00:00	2022/05/01 00:00	2022/05/01 00:00	2022/05/01 00:00	2022/05/01 00:00	2022/05/01 00:00	2022/05/01 00:00		
	UNITS	1	2	3	4	7	8	9	RDL	QC Batch
Passive Monitoring										
Calculated H2S	ppb	0.07	0.07	0.08	0.11	0.06	0.05	0.11	0.02	A604788
Calculated SO2	ppb	<0.1 (1)	0.2	0.2	0.2	<0.1 (1)	0.1	0.2	0.1	A602735
RDL = Reportable Detection Limit (1) V7										

Bureau Veritas ID		AUK676	AUK677	AUK678	AUK679	AUK680		
Sampling Date		2022/05/01 00:00	2022/05/01 00:00	2022/05/01 00:00	2022/05/01 00:00	2022/05/01 00:00		
	UNITS	10	11	12	13	14	RDL	QC Batch
Passive Monitoring								
Calculated H2S	ppb	0.06	0.09	0.08	0.07	0.06	0.02	A604788
Calculated SO2	ppb	<0.1 (1)	0.1	0.2	0.1	0.2	0.1	A602735
RDL = Reportable Detection Limit (1) V7								



**BUREAU
VERITAS**

Bureau Veritas Job #: C238782
Report Date: 2022/06/17

Peace River Area Monitoring Program Committee
Client Project #: 2022/05/01 - 2022/06/01
Site Location: PEACE RIVER COMPLEX
Sampler Initials: DS

GENERAL COMMENTS

Sample AUK675 [9] : Sample for SO2 parameter has note: missing last sample period. --YL6 20220609

Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C238782
Report Date: 2022/06/17

Peace River Area Monitoring Program Committee
Client Project #: 2022/05/01 - 2022/06/01
Site Location: PEACE RIVER COMPLEX
Sampler Initials: DS

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
A602735	OZ	Spiked Blank	Calculated SO2			100	%	90 - 110
A602735	OZ	Method Blank	Calculated SO2		<0.1		ppb	
A604788	KDE	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 Job #: C238782
Report Date: 2022/06/17

Peace River Area Monitoring Program Committee
Client Project #: 2022/05/01 - 2022/06/01
Site Location: PEACE RIVER COMPLEX
Sampler Initials: DS

VALIDATION SIGNATURE PAGE

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

A handwritten signature in cursive script that reads 'Yang Liu'.

Yang Liu, Analyst II

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End of Report