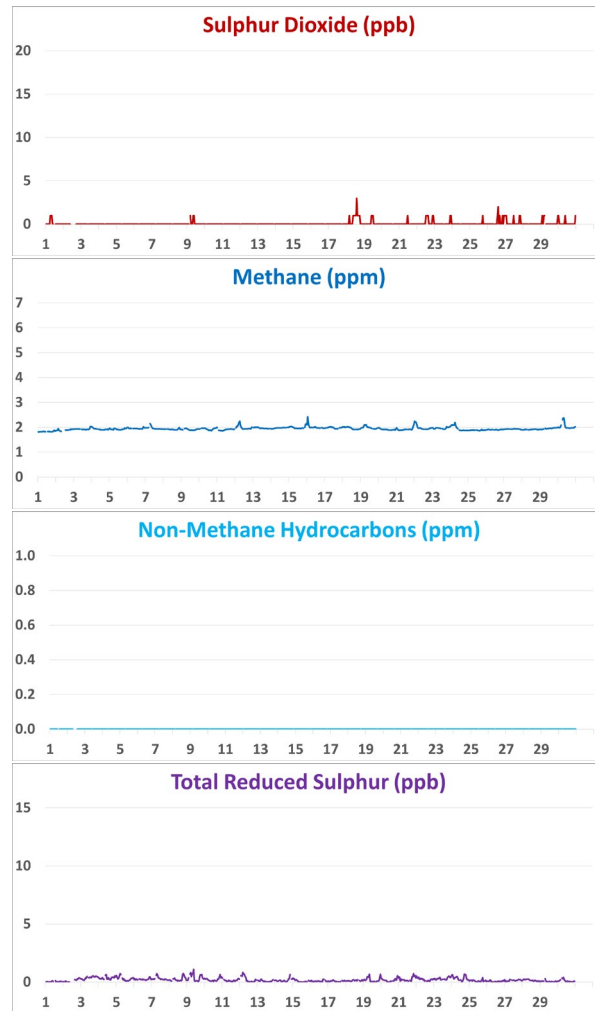
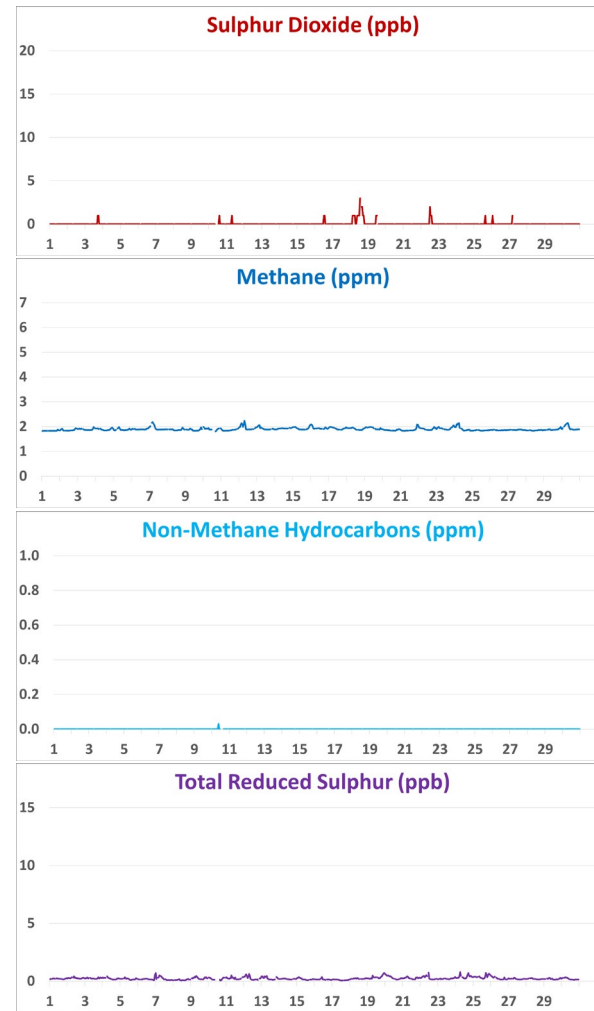


September 2020: Continuous Monitoring Program

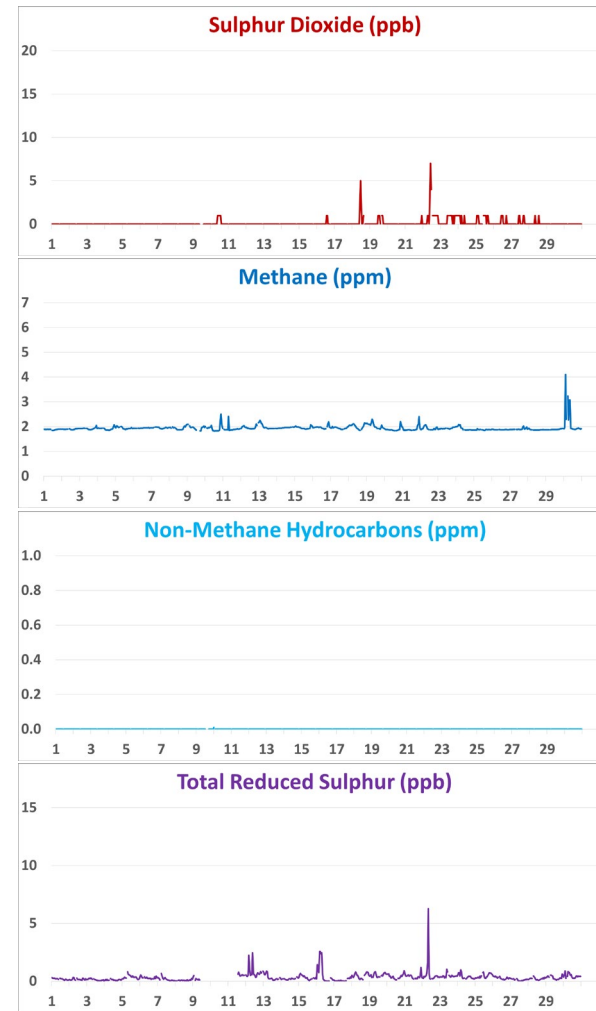
Station 986c



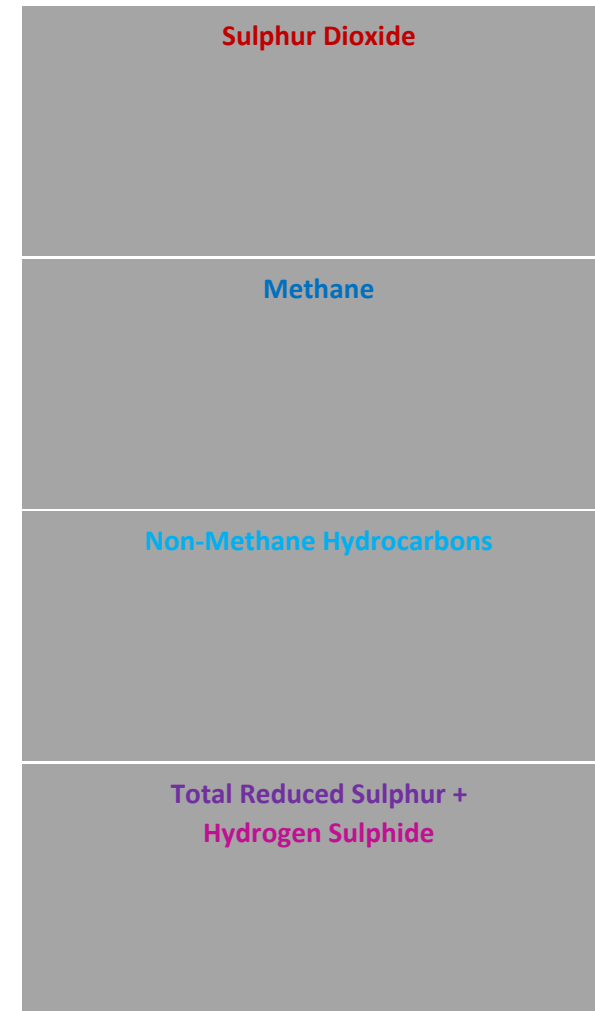
Station 842b



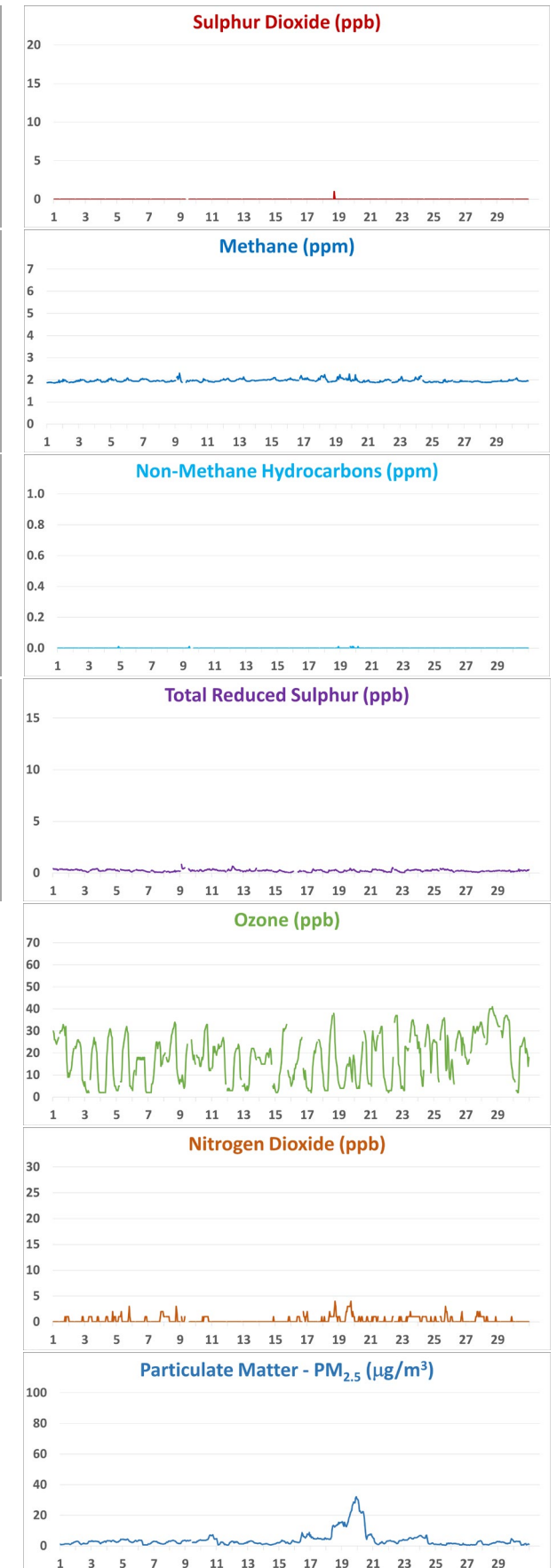
Reno Station



PRC Station (coming soon)



AQHI Station – Cadotte Lake



Field Operations Summary (detailed field operations notes can be found in the monthly technical reports on the PRAMP website)

986c Station:

- All gas parameters: An automatic daily zero-span check, scheduled on September 1 hour 11, was interrupted by a short power outage. A successful repeat zero-span check was completed on September 1 hour 12. One hour of downtime was recorded due to the invalid zero-span check.

842b Station:

- No issues were identified this month.

Reno Station:

- SO₂: The analyzer failed the daily span check on September 9 due to the permeation tube depletion. The permeation tube was replaced during the monthly calibration on September 9. As the issue was isolated in the zero-span system, data quality was not affected. No data were discarded.
- TRS: The analyzer failed the scrubber challenge test on September 9. On September 9, a shut-down calibration was successfully completed before the scrubber material was renewed. The converter temperature controller subsequently malfunctioned. A new converter was installed on September 10. Time was given to the analyzer to equilibrate overnight. A successful post-repair calibration was completed on September 11. Forty-four hours of downtime was recorded due to this event. The analyzer passed the last scrubber challenge, which was August 11. After reviewing the concentrations of SO₂ between August 11 and September 9, most concentrations were recorded 0 ppb (only 3 hourly data were recorded at concentration of 1 ppb). As such, it is considered unlikely this scrubber challenge failure would have a significant effect on apparent, ambient TRS concentrations. No data were discarded as a result.

AQHI – Cadotte Lake Station:

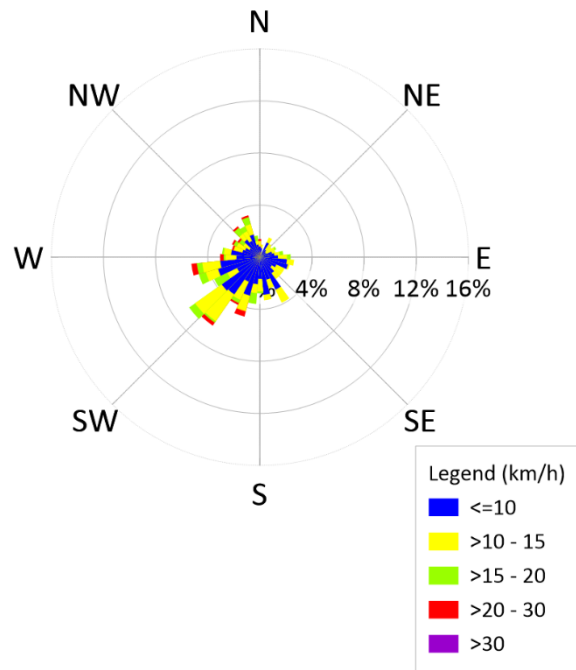
- TRS: Due to a firmware crash on September 16, data were not recorded from 04:28 to 06:40. The analyzer was remotely reset between 06:41-06:43. After the reset, ambient concentrations were recorded below than historical averages until 09:32. As data quality could not be confirmed, data were considered invalid. Hourly data that were collected between hour 4 and hour 9 on September 16 were discarded due to this event.

VOC Canister Sampling Program:

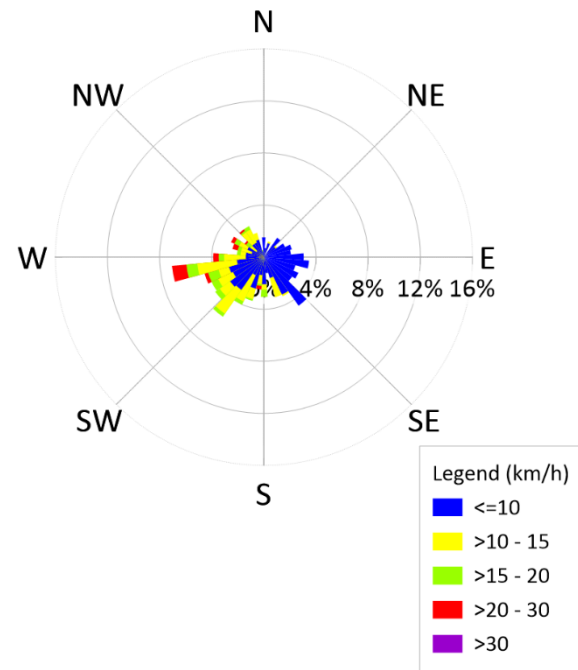
- One methane-triggered canister was recorded at the Reno station on September 30 at 02:10; the trigger concentration was 6.24 ppm.

September 2020: Continuous Monitoring Program

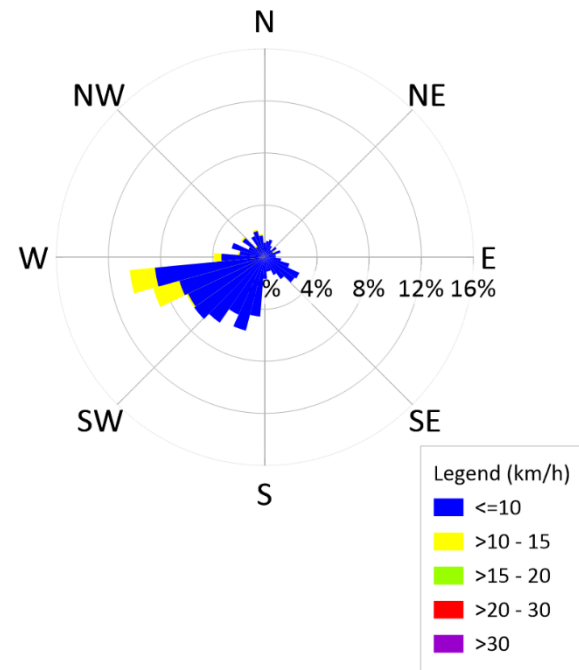
Station 986c



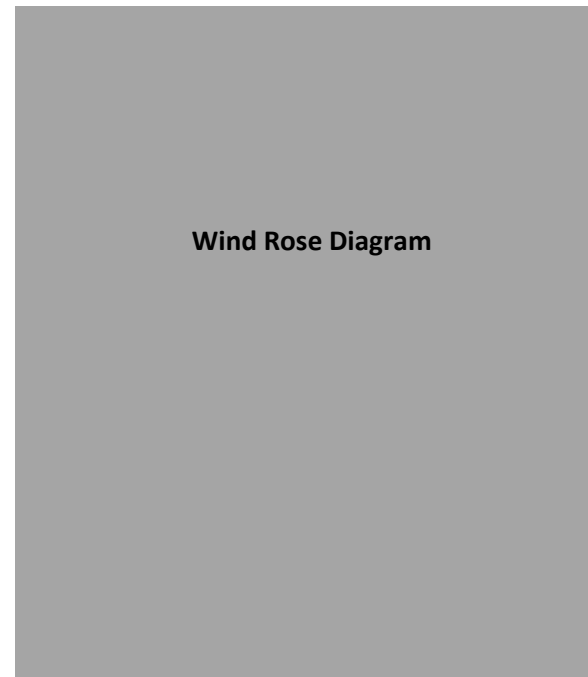
Station 842b



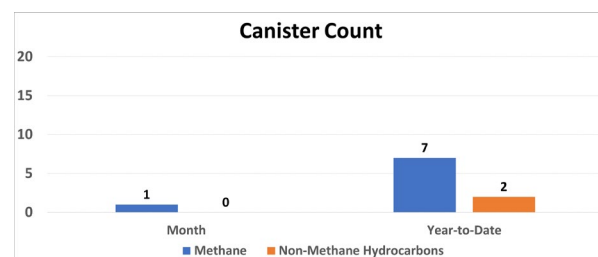
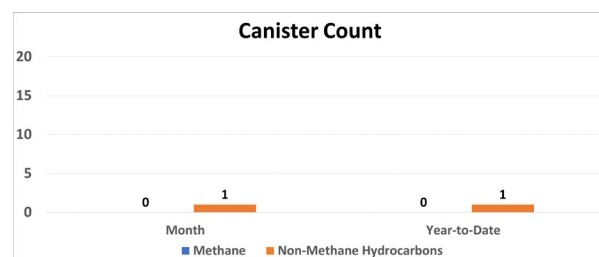
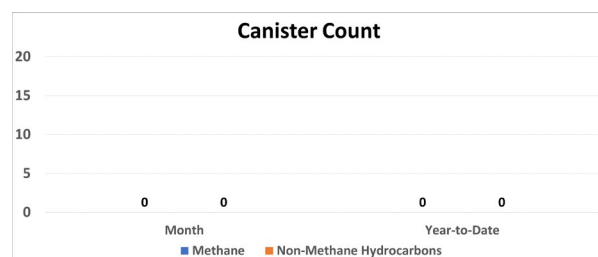
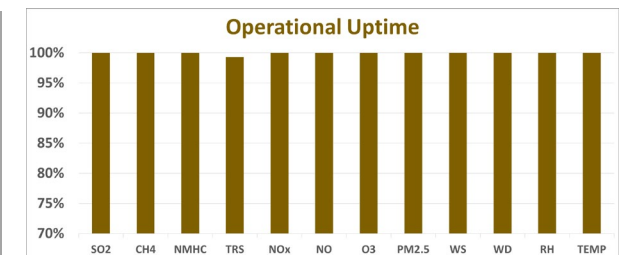
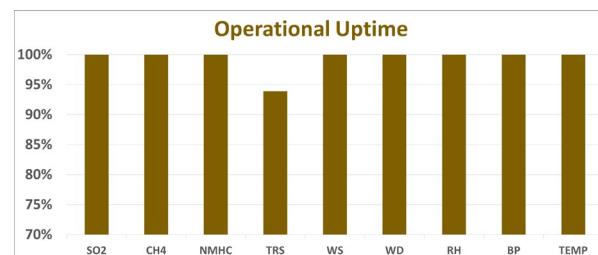
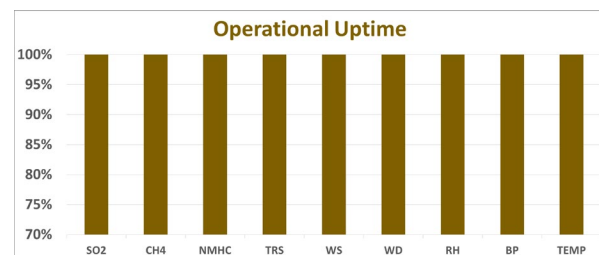
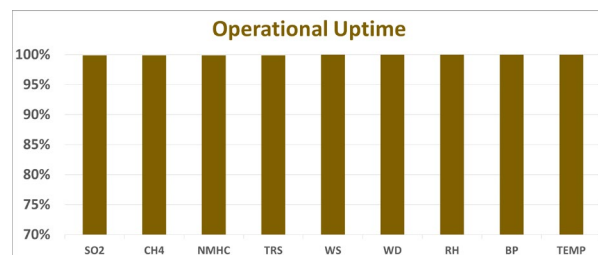
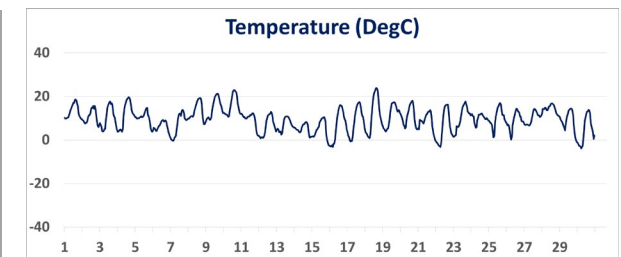
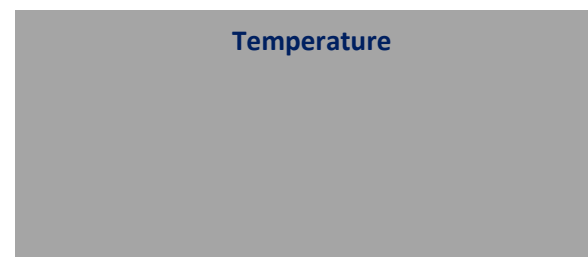
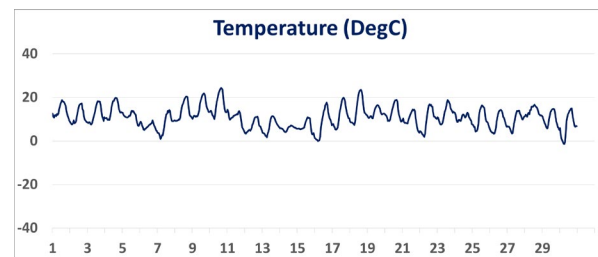
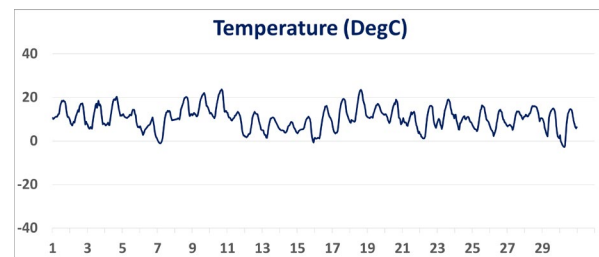
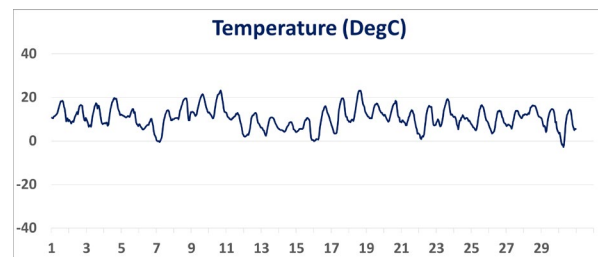
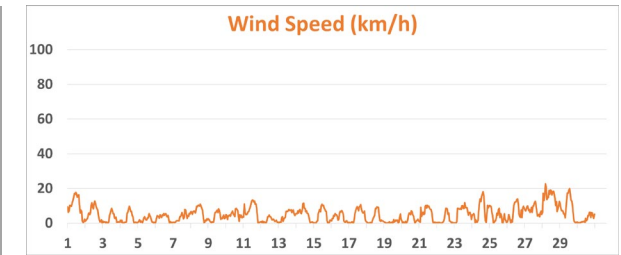
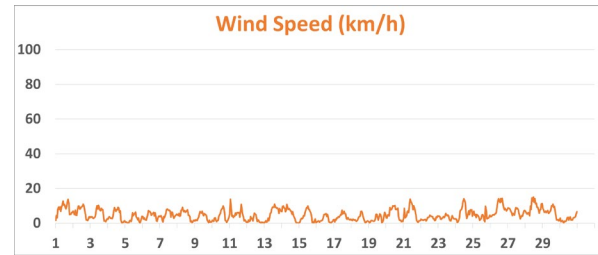
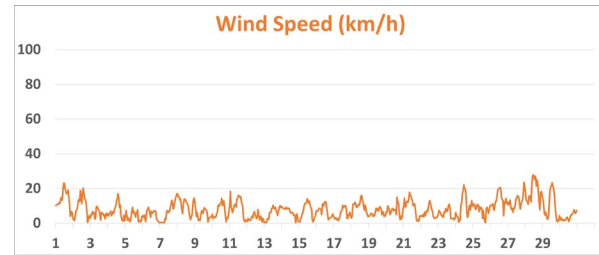
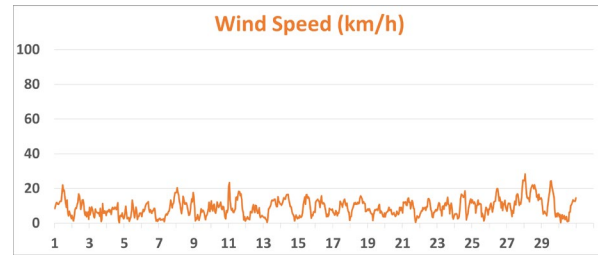
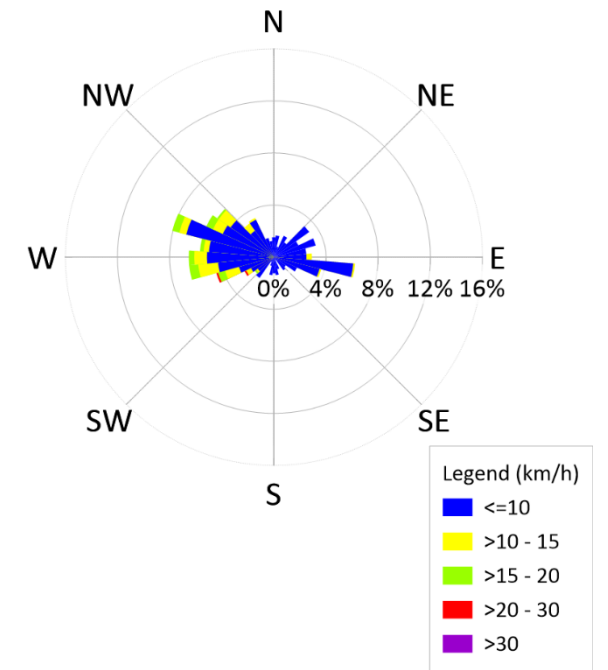
Reno Station



PRC Station (coming soon)

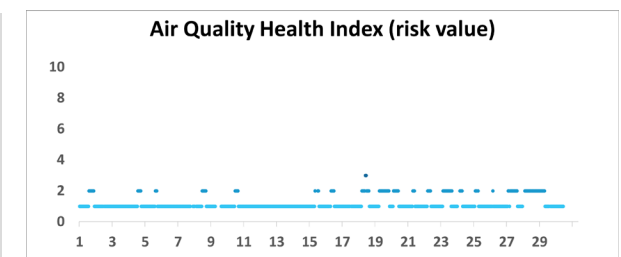


AQHI Station – Cadotte Lake



Targets, Guidelines, and Objectives

- Sulphur Dioxide 1h AAAQO = 172 ppb
- Ozone 1h AAAQO = 76 ppb
- Particulate Matter AAAQG = 80 µg/m³
- Nitrogen Dioxide AAAQO = 159 ppb
- Operational Uptime Requirement = 90%
- AQHI Risk Value = 1-3 Low, 4-6 Moderate, 7-9 High, 10+ Very High



October 2020: Continuous Monitoring Program

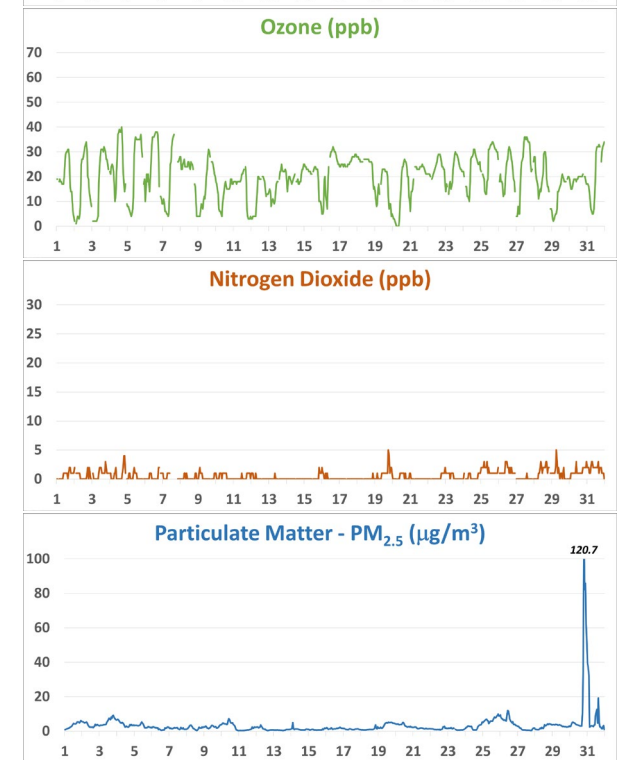
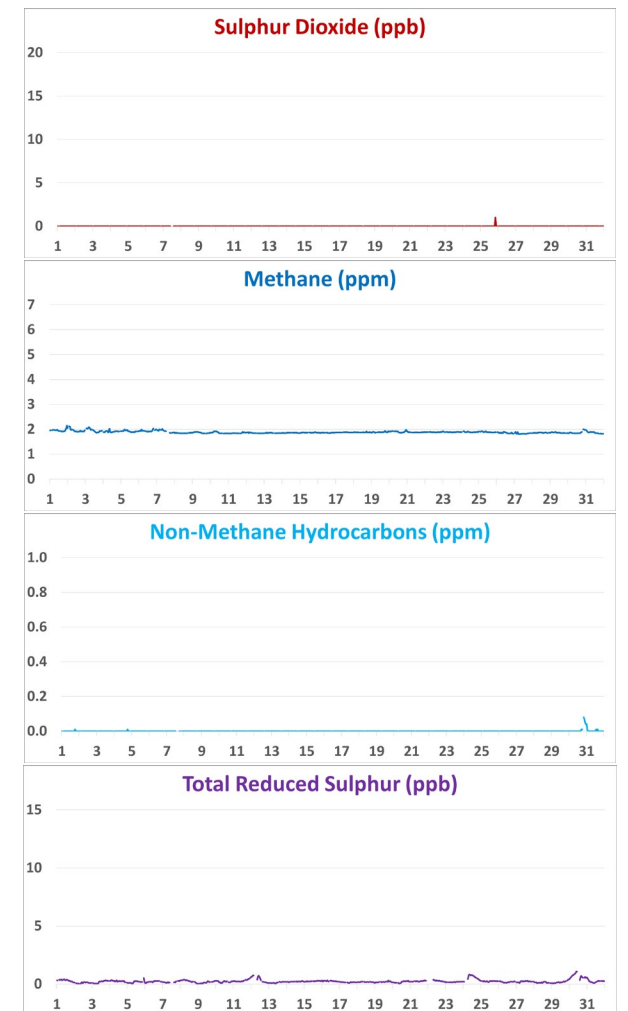
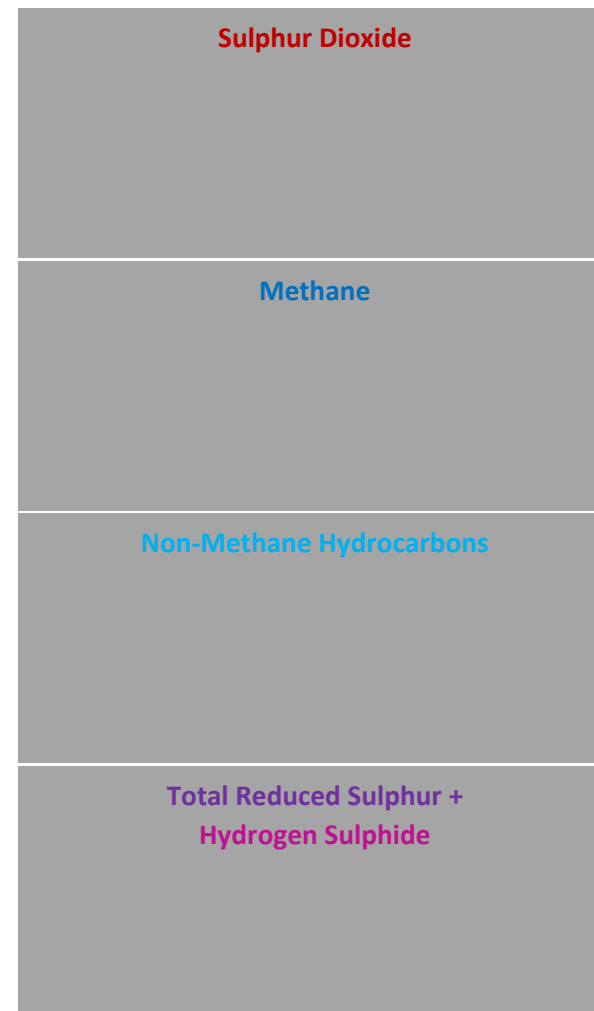
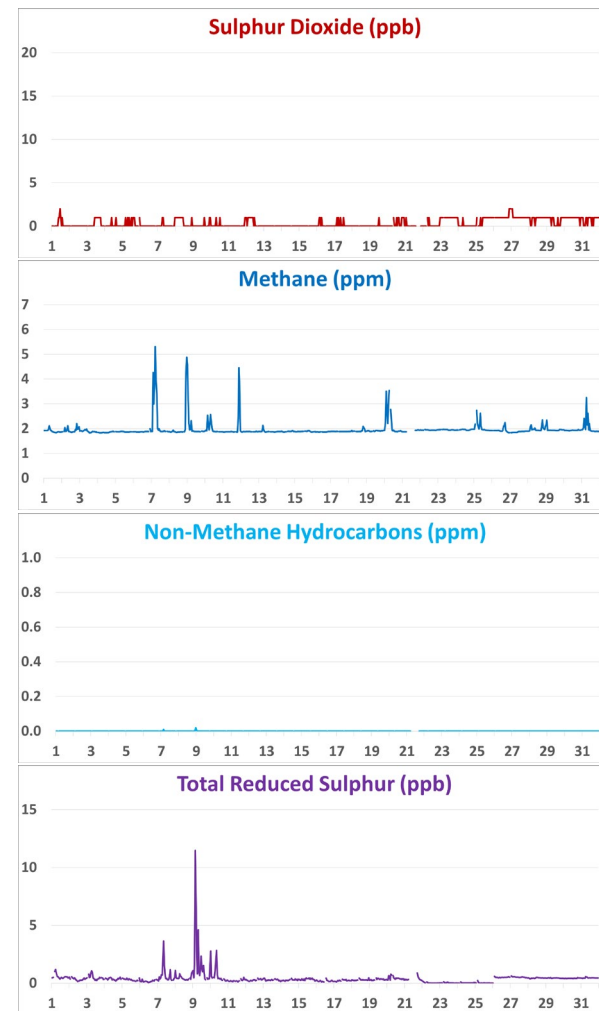
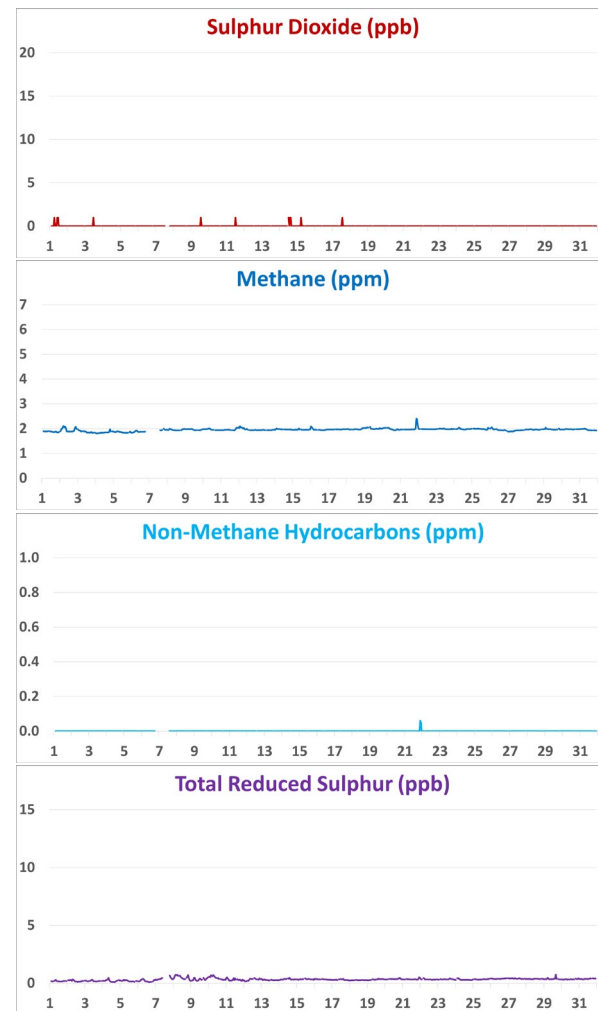
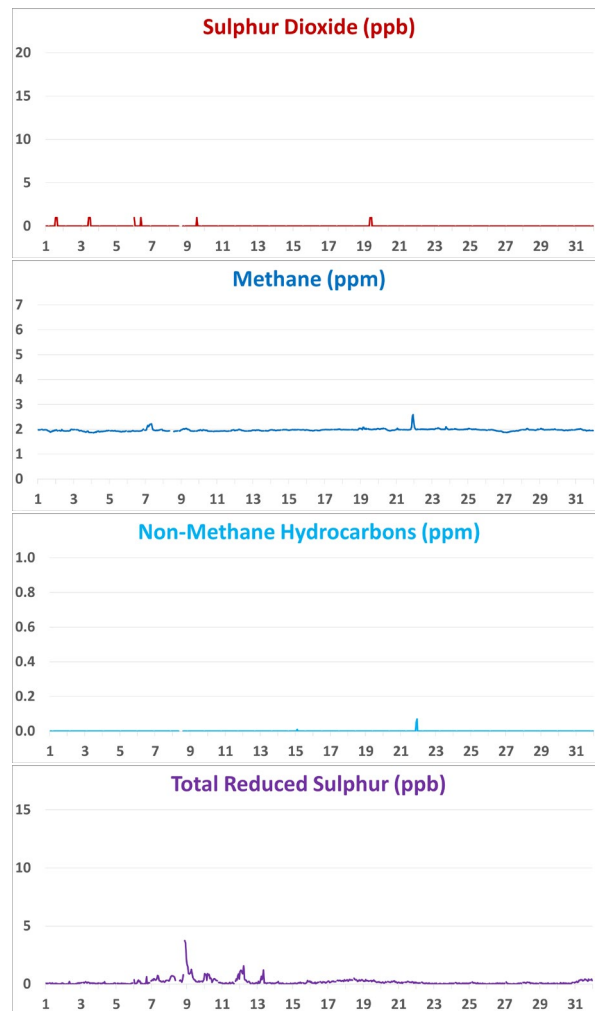
Station 986c

Station 842b

Reno Station

PRC Station (*coming soon*)

AQHI Station – Cadotte Lake



Field Operations Summary (detailed field operations notes can be found in the monthly technical reports on the PRAMP website)

986c Station:

- THC/CH4/NMHC: The span gas was replaced on Oct 22; expected span values were not updated until after the daily zero-span check on Oct 24. This resulted in NMHC span response being outside the -10% limit range on Oct 23 - 24.
- Precipitation: Three hours of data collected on Oct 31 between hour 8 and hour 10 were invalidated due to a sensor malfunction caused by low air temperature. The sensor will remain offline for the winter.

842b Station:

- THC/CH4/NMHC: The analyzer flamed out on Oct 6 hour 19 due to zero air generator failure. A new zero air generator was installed on Oct 7 hour 7. Thirteen hours of downtime were recorded due to this event.
- Precipitation: A RM Young 5202, s/n: TB1877, precipitation gauge was installed on Oct 20. Valid hourly data will be collected, starting November 1.

Reno Station:

- Due to a datalogger error, no daily zero-span check were completed between Oct 27 and November 1. The issue was corrected on November 2. *AEP reference #: 373328.*
- Precipitation: A RM Young 5202, s/n: TB1588, precipitation gauge was installed on Oct 20. Valid hourly data will be collected, starting November 1.

AQHI – Cadotte Lake Station:

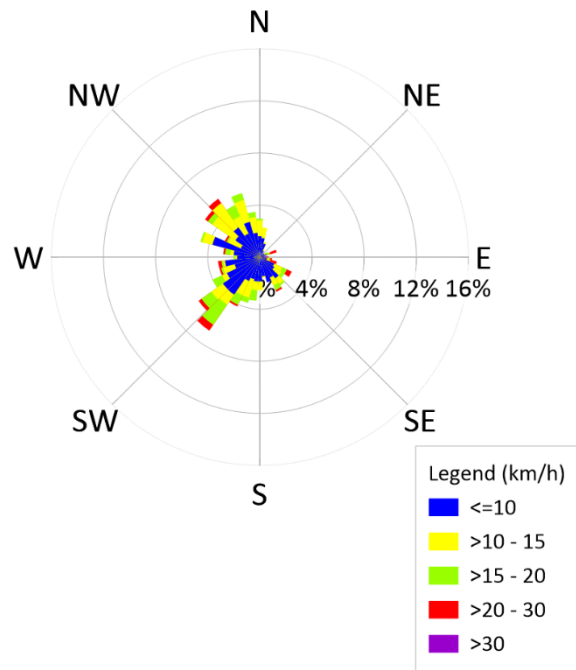
- PM2.5: Three exceedances of the 1-hour hour Guideline were recorded on Oct 30 between hour 19 and 21, at concentration of 120 µg/m³, 82.3 µg/m³ and 85.9 µg/m³, respectively. Throughout the Peace River – Three Creeks region, brush piles associated with land clearing were being burned and created wide-spread smoke. *AEP reference #: 373264.*
- TRS: Due to multiple firmware crash events, which occurred on Oct 12, 21, 24 and 30, sixteen hours of data were not recorded. The analyzer is scheduled to be replaced in November.

VOC Canister Sampling Program:

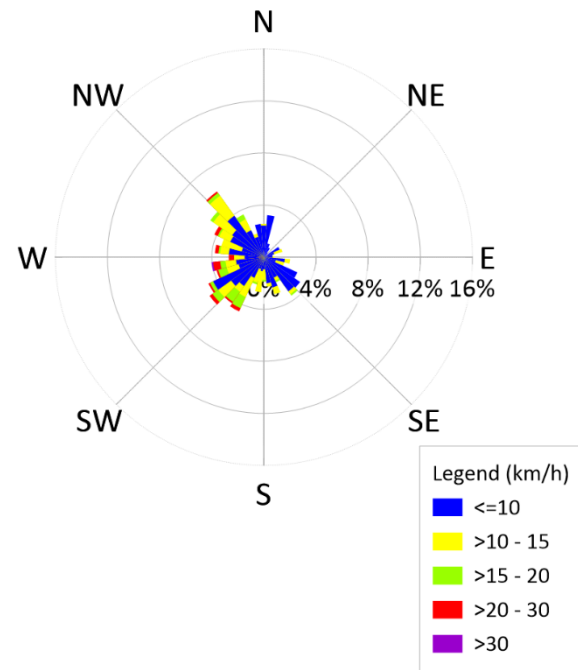
- In Oct, five methane-triggered events were recorded at the Reno station. However, only two canister samples were collected:
 - Oct 7 at 02:45, trigger concentration of 5.81 ppm, valid sample collection.
 - Oct 8, at 22:25, trigger concentration of 12.13 ppm, no sample was collected as a spare canister was not yet available for deployment.
 - Oct 11, at 22:30, trigger concentration of 5.63 ppm, valid sample collection.
 - Oct 20, at 02:45, trigger concentration of 5.86 ppm, no sample was collected as the previously-triggered canister had not yet been replaced.
 - Oct 20, at 06:50, trigger concentration of 5.95 ppm, no sample was collected as the previously-triggered canister had not yet been replaced.

October 2020: Continuous Monitoring Program

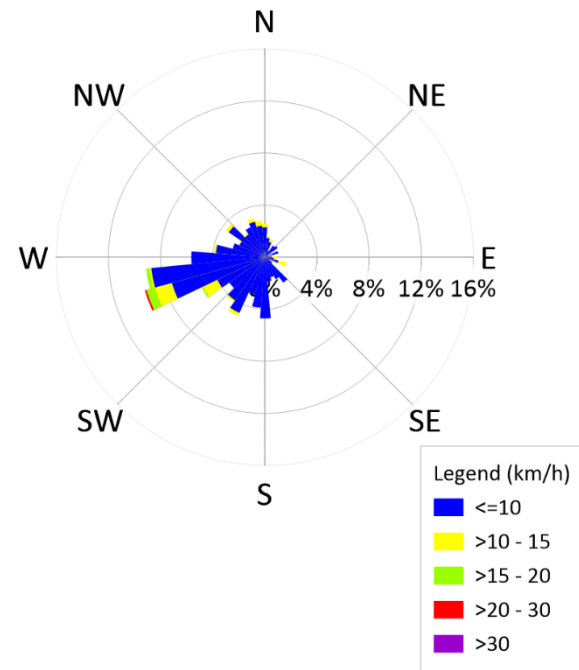
Station 986c



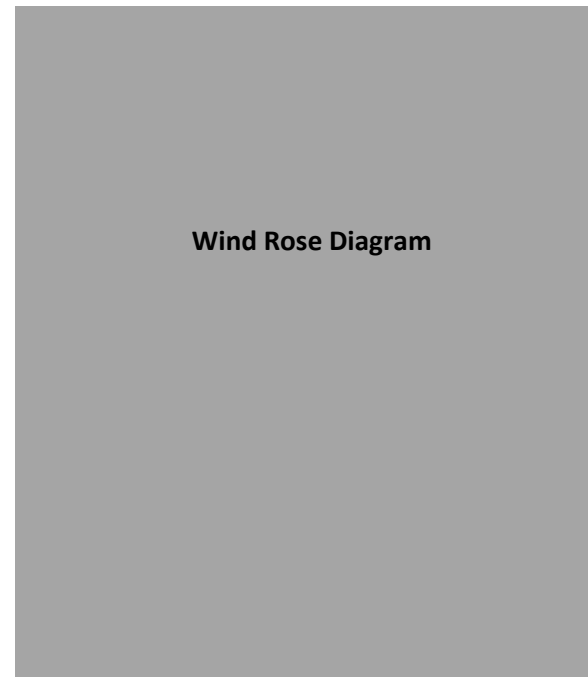
Station 842b



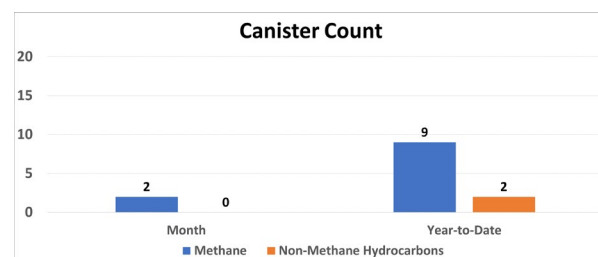
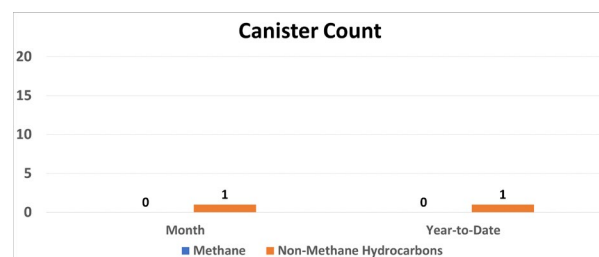
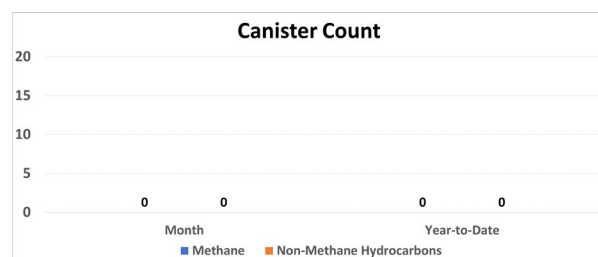
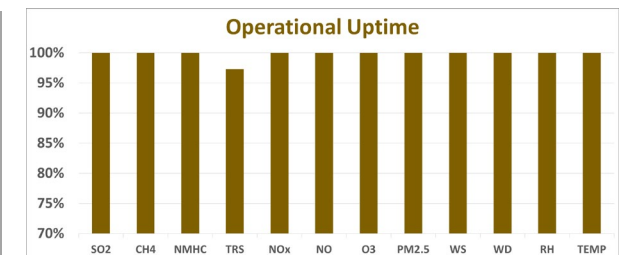
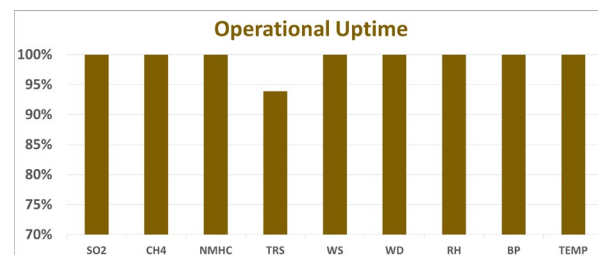
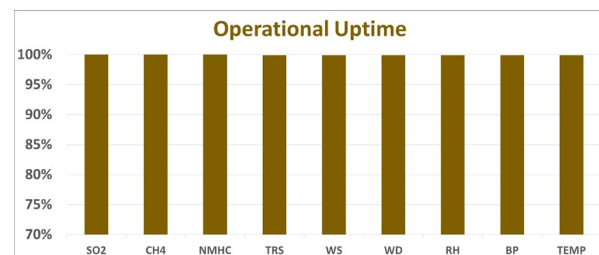
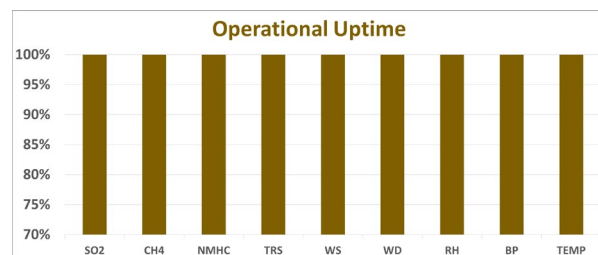
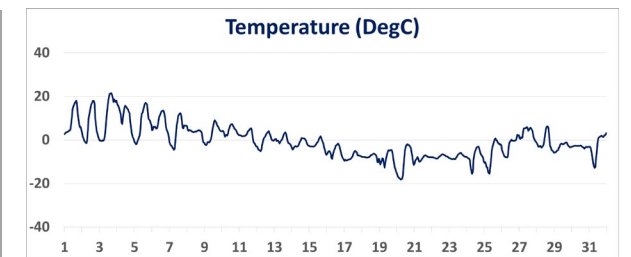
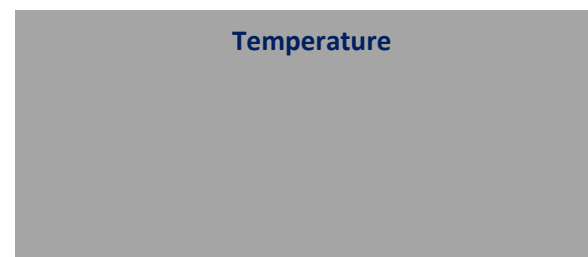
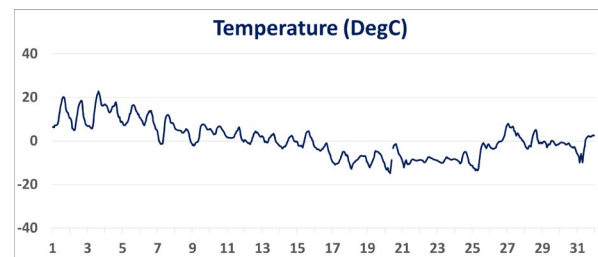
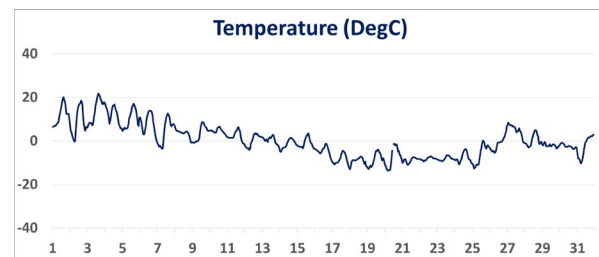
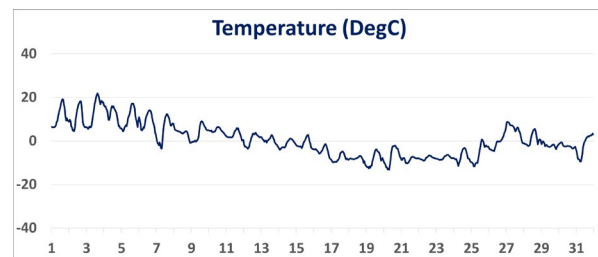
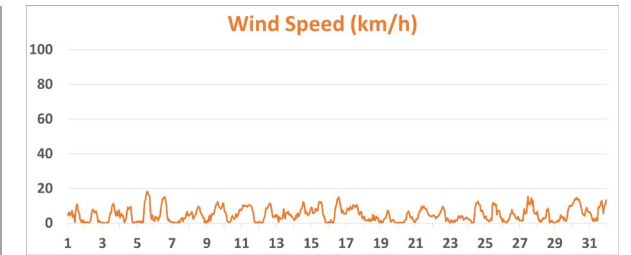
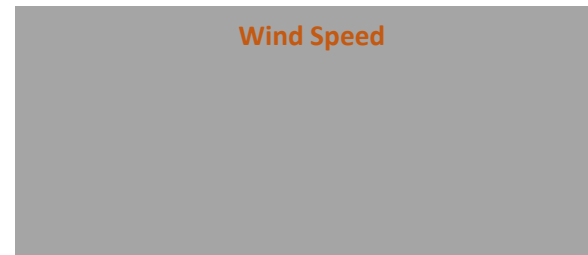
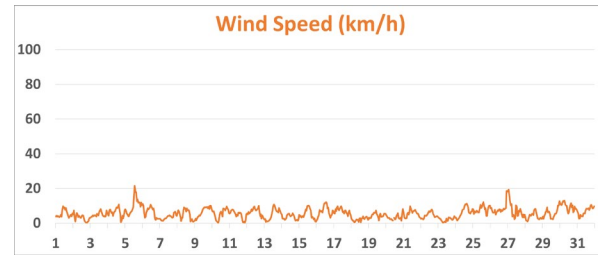
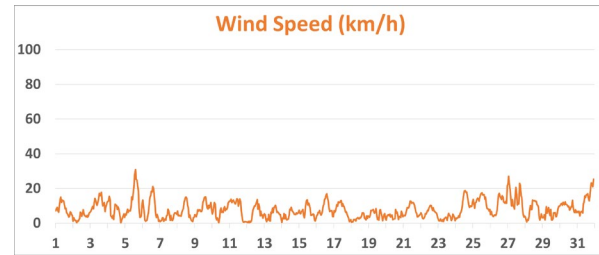
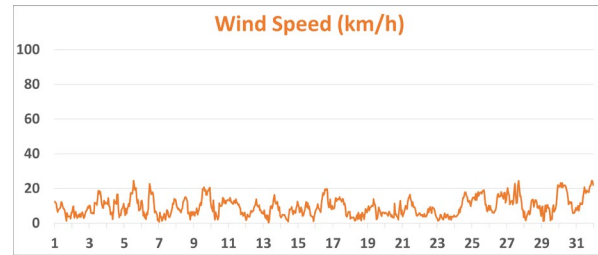
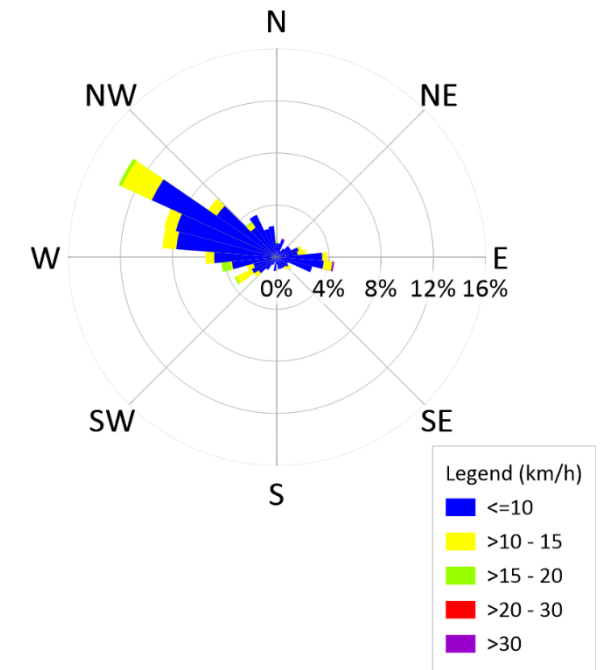
Reno Station



PRC Station (coming soon)



AQHI Station – Cadotte Lake



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