Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Ambient Air Quality Monitoring Program

Monthly Report

February 2022

March 31, 2022

Alberta Environment and Parks
11th Floor, Oxbridge Place
9820-106 Street
Edmonton Alberta T5K 2J6

Subject: **Peace Airshed Zone Association (PAZA)**
February 2022 Ambient Air Quality Monitoring Report

Please find enclosed the PAZA Ambient Air Quality Monitoring Network Report for the month of February 2022.

The representative of the Person Responsible for this monitoring program is:

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This report was prepared by Dr. Kevin McCullum and reviewed by Mandeep Dhaliwal.

PAZA has retained the services of WSP Canada Inc. to conduct continuous ambient monitoring and Dr Kevin McCullum to provide data validation and reporting.

This report is submitted by PAZA on behalf of the industrial member companies to satisfy the requirements of the facility Operating Approvals listed in Table A

The monthly summary report includes the operational summaries and hourly continuous monitoring and monthly passive results. The Milner station is being reported under the PAZA Monthly report.

Continuous Monitoring:

Seven (8) Stations including Henry Pirker (Grande Prairie), Dunes, Smoky Heights, Beaverlodge, Valleyview, Donnelly, Poplar-Portable and Milner.
Detailed Summaries are included in the report

Calibration and Data Submission:

Monthly report, hourly data and calibration reports for February 2022 were submitted to the ETS data system.

Table A. PAZA members with Facility Operating Approvals

Company	Facility	LSD	EPEA Approval No.
Advantage Oil & Gas Ltd.	Glacier	05-02-076-13-W6	00262479-00-00
Alberta Power (2000) Ltd. (an ATCO company)	Sturgeon	SW-06-069-21-W5	00010283-02-02
ATCO Power Canada	Poplar Hill	11-19-073-08-W6	00067774-01-01
ATCO Power Canada	Valleyview	SW-06-069-21-W5	00147709-01-01
AltaGas Ltd.	Pouce Coupe	03-03-081-13-W6	00247673-00-00
	Ante Creek	02-26-068-25-W5	00266694-00-00
	Gordondale	02-26-068-25-W5	00287474-00-00
Apache Canada Ltd.	House Mountain	01-08-070-10-W5	00010137-02-02
Birchcliff Energy Ltd.	Pouce Coupe	03-22-078-12-W6	00252529-00-00
Canadian Natural Resources Limited	Bonanza	11-25-081-11-W6	00000029-01-00
	Progress/Gordondale	01-01-077-10-W6	00010036-02-00
	Gold Creek	13-26-067-05-W6	00010446-02-00
	Teepee Creek	SE-2-074-04-W6	00001635-02-00
	Sturgeon/Valleyview	02-02-069-22-W5	00001633-02-00
Canfor Forest Products	Grande Prairie	SW-23-071-06-W6	00152645-01-00
Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	00000212-01-00
Encana Corporation	Sexsmith	04-08-075-07-W6	00010002-01-00
Enerplus Resources	Pouce Coupe	SW-06-069-21-W5	00001464-02-03
Exshaw Oil Corporation	Spirit River	03-10-077-07-W6	00344521-00-00
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Inception Exploration Ltd.	Gold Creek	03-26-069-05-W6	00335317-00-02
KANATA Energy Group Ltd.	Valhalla	13-21-076-09-W6	00017620-02-02
Long Run Exploration	Eaglesham	01-25-076-01-W6	00241532-00-00
	Kakut	14-12-075-03-W6	00248469-00-00
	Donnelly	06-01-077-21-W5	00000087-02-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
Longview Oil Corp.	Sunset House	06-22-070-20-W5	00138884-01-00
Milner Power Limited Partnership	H.R. Milner thermal electric power plant	SE-15-058-08-W6	00009814-03-03
NorthRiver Midstream Inc.	Fourth Creek	16-11-082-09-W6	00000263-01-00
	Gordondale	11-26-079-09-W6	00011495-01-01
	Pouce Coupe/Bonanza	03-23-080-13-W6	00070203-01-01
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00
	Pouce Coupe	16-07-078-11-W6	00000614-01-00
Petrus Resources	Rycroft	08-25-077-06-W6	00011351-02-00
	Spirit River	08-34-077-06-W6	00011096-02-00
Strathcona Resources Ltd.	Jayar Sour Gas Processing Plant	06-08-062-03 W6	03612040-00-00
Suncor Energy Inc.	Progress	07-22-078-09-W6	00011428-02-00
Tidewater Midstream and Infrastructure Ltd.	Pipestone Sour Gas Plant	NW-35-70-9 W6	00403309-00-00
Veresen Energy	Hythe Brainard	11-18-074-12-W6	00010910-02-00
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	00000113-02-00

Concentrations in excess of the Clean Air (Maximum Levels) Regulation:

There were no readings above the AAAQO and one reading above the $PM_{2.5}$ (80 µg/m³)

There was one, 1hr $PM_{2.5}$ reading above 80 µg/m³ (AAAQG) as follows:

Reference Number	Pollutant	Station	Date	From MST	To MST	Hour avg µg/m³	WS km/h	WD degrees
387652	$PM_{2.5}$	Beaverlodge	Feb 04, 2022	00:00	01:00	109.6	11.3	93

Operational times less than 90 percent:

All stations reported above 90% operational times with the exception of THC at both:
THC/CH4/NMHC at Henry Pirker station (reference **#387816)**
THC/CH4/NMHC at Poplar station (reference **#389129)**

Air Incidents

None were reported

Deviations from Authorized Monitoring Methods

None to report

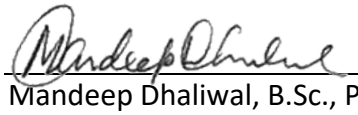
Passive Monitoring

- 49 Stations throughout the PAZA zone
  - Passive sample analyses were performed by Bureau Veritas Laboratories
- There were 15 duplicates sampled in the month of February
  - Seven SO_2 duplicates located at Spirit River, Gordondale, Sylvester, Crooked Creek, Duvernay 4, Jayar2 14-8, Bridge; RPD ranging from 0% to 96% (1 fail, Duvernay 4)
  - Six NO_2 duplicates at Forth Creek, High Prairie, Bay Tree, Steeprock Creek, Jayar3 Bone Yard, Wanyandie; RPD ranging from 5% to 63% (1 fail, Forth Creek)
  - Two H_2S duplicates, Duvernay 4, Jayar2 14-8; RPD 11% (no fails)
- There were no exceedances of the AAAQOs for all monitored parameters at any of the passive monitoring stations during this month.

Dustfall Monitoring

- Five Stations collected Total Dustfall and Fixed Dustfall previously collected by Milner Power Limited
- There was one duplicate sampled collected for each in the month of February
  - RPD ranged from 14% to 33%
- Total dustfall ranged from 10.6 to 119.6 mg/100cm²/30day

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.



Mandeep Dhaliwal, B.Sc., P.Chem.
Program Manager

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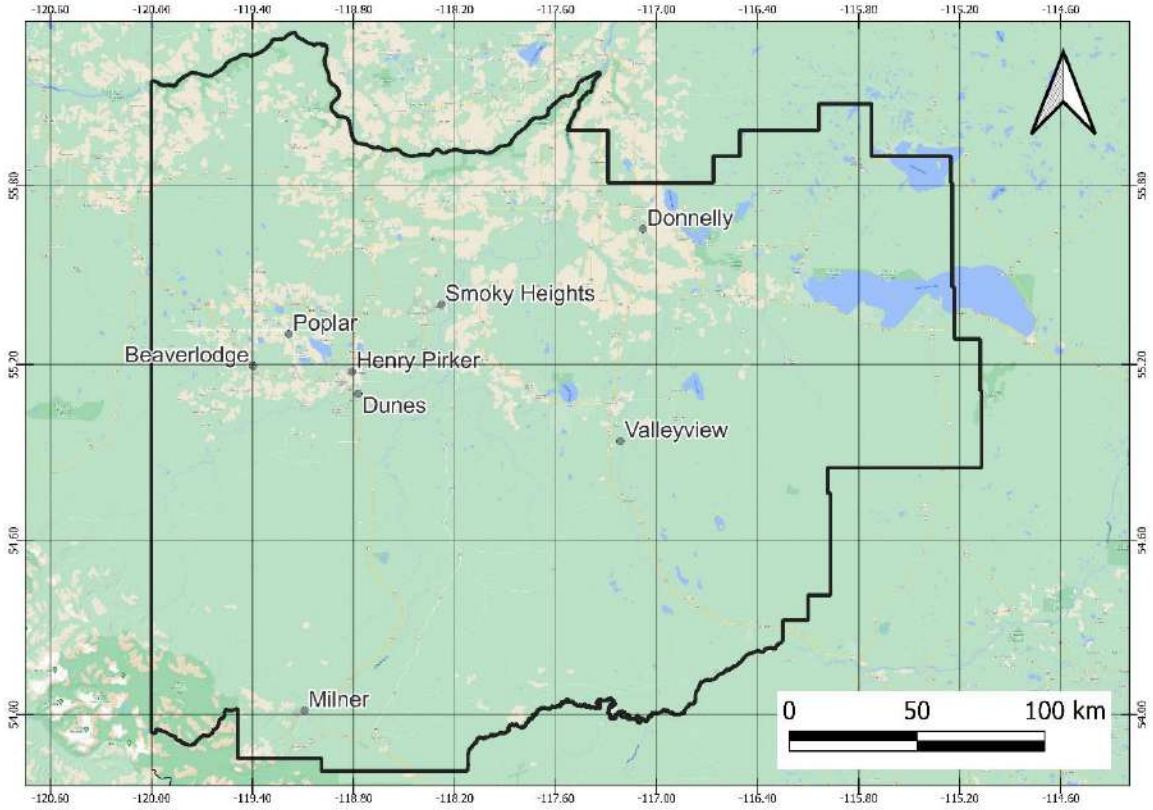
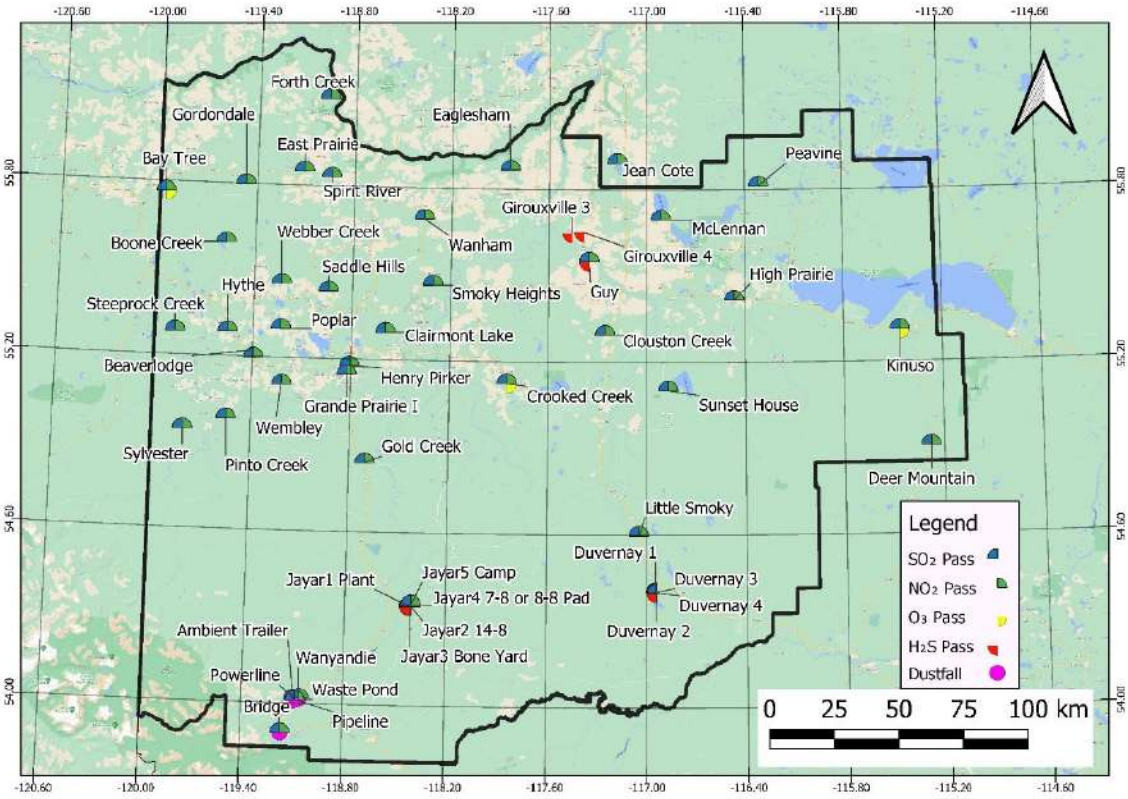
PAZA Continuous Monitoring Station Locations



PAZA Passive Monitoring Station Locations



1 February Monthly Station Summaries

The following summaries are for the equipment and data results from the continuous ambient monitoring network

1.1 Beaverlodge Air Monitoring Station

PAZA - February 2022 Beaverlodge Station Report

	February				1-hour			24-hour			Exceedance				Calibration
Parameter	Average	Minimum	Valid	Operational	Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
NO (ppb)	0.9	0.0	95.1%	100.0%	17.6	-	Feb-22 09:00	4.2	-	Feb-04	-	-	-	-	Feb 01, 2022
NO_2 (ppb)	5.0	0.3	95.1%	100.0%	32.6	159	Feb-05 02:00	16.0	-	Feb-04	0	-	-	-	Feb 01, 2022
NO_X (ppb)	5.9	0.3	95.1%	100.0%	45.2	-	Feb-22 09:00	20.3	-	Feb-04	-	-	-	-	Feb 01, 2022
O_3 (ppb)	34.1	0.1	95.2%	100.0%	49.0	76	Feb-06 06:00	46.6	-	Feb-06	0	-	-	-	Feb 01, 2022
$PM_{2.5}$ (µg/m³)	4.2	0.7	99.4%	100.0%	109.6	80	Feb-04 00:00	11.0	29	Feb-02	1	-	0	-	Feb 02, 2022
SO_2 (ppb)	0.9	0.0	95.2%	100.0%	11.6	172	Feb-18 12:00	4.3	48	Feb-18	0	-	0	0	Feb 02, 2022

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-6.4	-28.7	100.0%	100.0%	9.7
RH (%)	67.4	27.3	100.0%	100.0%	93.5
WS (km/hr)	13.3	0.2	100.0%	100.0%	59.4
WD (deg)	275	1.4	100.0%	100.0%	359.8

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	275	W

Update Summary:

Parameter	Make	Model	Equipment summary
$NO/NO_2/NO_X$	Thermo	42i	No Operational issues noted
O_3	Thermo	49iQ	No Operational issues noted
$PM_{2.5}$	Sharp	5030	No Operational issues noted; One exceedence above the AAAQG on Feb 4 (Ref#387652)
SO_2	Thermo	43i-TLE	No Operational issues noted
Met Equip	MetOne	50.5	No Operational issues noted

1.2 Dunes Air Monitoring Station

PAZA - February 2022 Dunes Station Report

	February				1-hour			24-hour			Exceedance				Calibration
Parameter	Average	Minimum	Valid	Operational	Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	Date
$PM_{2.5}$ (µg/m³)	2.1	0.0	99.6%	100.0%	16.9	80	Feb-23 07:00	6.1	29	Feb-04	0	-	0	-	Feb-10-2022
SO_2 (ppb)	0.6	0.0	95.2%	100.0%	39.5	172	Feb-24 12:00	2.8	48	Feb-24	0	-	0	0	Feb-10-2022
TRS (ppb)	0.3	0.0	95.2%	100.0%	4.9	-	Feb-07 01:00	0.6	-	Feb-07	-	-	-	-	Feb-10-2022

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-7.1	-33.0	100.0%	100.0%	11.8
RH (%)	66.5	27.7	100.0%	100.0%	91.1
WS (km/hr)	4.6	0.1	100.0%	100.0%	15.3
WD (deg)	298	0.1	100.0%	100.0%	358.4

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	298	WNW

Update Summary:

Parameter	Make	Model	Equipment summary
$PM_{2.5}$	Thermo	TEOM AB	No Operational issues noted
SO_2	TECO	43i	No Operational issues noted
TRS	TECO	43C	No Operational issues noted
Met Equip	Gil/RMYoung	MetPak/RMY86004	No Operational issues noted

1.3 Grande Prairie - Henry Pirker Air Monitoring Station

PAZA - February 2022 Henry Pirker Station Report

Parameter	February Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	8-hour / 24-hour Max	8-hour / 24-hour Objective	8-hour / 24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
NO (ppb)	5.3	0.0	94.9%	100.0%	106.1	-	Feb-02 01:00	17.3	-	Feb-01	-	-	-	-	**Feb 07, 2022**
NO_2 (ppb)	13.0	1.0	94.9%	100.0%	53.1	159	Feb-24 20:00	29.7	-	Feb-22	0	-	-	-	**Feb 07, 2022**
NO_X (ppb)	18.4	1.1	94.9%	100.0%	159.4	-	Feb-02 01:00	47.3	-	Feb-22	-	-	-	-	**Feb 07, 2022**
O_3 (ppb)	28.0	0.4	95.2%	100.0%	48.1	76	Feb-10 12:00	44.0	-	Feb-10	0	-	-	-	**Feb 07, 2022**
$PM_{2.5}$ (µg/m³)	4.0	0.0	99.7%	100.0%	27.9	80	Feb-22 23:00	8.5	29	Feb-22	0	-	0	-	**Feb 11, 2022**
SO_2 (ppb)	0.5	0.0	95.2%	100.0%	8.3	172	Feb-26 17:00	1.6	48	Feb-26	0	-	0	0	**Feb 07, 2022**
H_2S (ppb)	0.2	0.0	95.2%	100.0%	1.3	10	Feb-02 01:00	0.5	3	Feb-22	0	-	0	-	**Feb 03, 2022**
CH_4 (ppm)															**Feb 17, 2022**
THC (ppm)															**Feb 17, 2022**
NMHC (ppm)															**Feb 17, 2022**
CO (ppm)	0.2	0.1	95.2%	100.0%	1.1	13	Feb-23 09:00	0.3	5	Feb-12	0	0	-	-	**Feb 03, 2022**

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-6.9	-32.0	100.0%	100.0%	12.6
RH (%)	63.1	28.9	100.0%	100.0%	81.0
SR (W/m²)	44.1	0.0	100.0%	100.0%	481.0
WS (km/hr)	8.1	0.2	100.0%	100.0%	35.6
WD (deg)	266	0.8	100.0%	100.0%	359.1

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	266	W

Update Summary:

Parameter	Make	Model	Equipment summary
$NO/NO_2/NO_X$	Thermo	42IQ	No Operational issues noted
O_3	TECO	49I	No Operational issues noted
$PM_{2.5}$	Sharp	5030	No Operational issues noted
SO_2	TEI	43I-TLE	No Operational issues noted
H_2S	TEI	450i	No Operational issues noted
$THC/CH_4/NMHC$	TEI	55i	Several hours of maintenance; Feb 17 removed analyzer for repair (<90% uptime, ref#387816)
CO	TEI	48I-TLE	No Operational issues noted
Met Equip	MetOne	50.5	No Operational issues noted

1.4 Smoky Heights Air Monitoring Station

PAZA - February 2022 Smoky Heights Station Report

Parameter	February Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	24-hour Max	24-hour Objective	24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
$PM_{2.5}$ (µg/m³)	2.3	0.0	99.4%	100.0%	14.2	80	Feb-05 01:00	6.4	29	Feb-05	0	-	0	-	Feb 14, 2022
SO_2 (ppb)	0.6	0.0	95.2%	100.0%	12.5	172	Feb-26 17:00	2.0	48	Feb-26	0	-	0	0	Feb 14, 2022
TRS (ppb)	0.2	0.0	95.2%	100.0%	2.3	-	Feb-21 23:00	0.7	-	Feb-21	-	-	-	-	Feb 14, 2022

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-8.7	-31.7	100.0%	100.0%	6.6
WS (km/hr)	14.6	0.2	100.0%	100.0%	55.0
WD (deg)	270	3.0	100.0%	100.0%	358.2

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	270	WNW

Update Summary:

Parameter	Make	Model	Equipment summary
$PM_{2.5}$	Sharp	5030	No Operational issues noted
SO_2	TECO	43i	No Operational issues noted
TRS	TEI	43I APSAA	No Operational issues noted
Met Equip	MetOne	50.5	No Operational issues noted

1.5 Valleyview Air Monitoring Station

PAZA - February 2022 Valleyview Station Report

Parameter	February Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	24-hour Max	24-hour Objective	24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
SO_2 (ppb)	0.1	0.0	95.2%	100.0%	1.0	172	Feb-23 20:00	0.3	48	Feb-24	0	-	0	0	Feb 09, 2022
H_2S (ppb)	0.1	0.0	95.1%	100.0%	0.5	10	Feb-16 23:00	0.3	3	Feb-16	0	-	0	-	Feb 09, 2022

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-7.5	-34.6	100.0%	100.0%	11.9
RH (%)	74.8	32.2	100.0%	100.0%	100.2
WS (km/hr)	5.6	0.1	100.0%	100.0%	23.3
WD (deg)	282	0.5	100.0%	100.0%	359.5

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	282	NW

Update Summary:

Parameter	Make	Model	Equipment summary
SO_2	TEI	43i-APSCB	No Operational issues noted during the month
H_2S	TEI	450i-APHAA	No Operational issues noted during the month
Met Equip	RMYoung	RMY86004	No Operational issues noted during the month

1.6 Donnelly Air Monitoring Station

PAZA - February 2022 Donnelly Station Report

Parameter	February Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	24-hour Max	24-hour Objective	24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
SO_2 (ppb)	0.2	0.0	94.2%	99.0%	7.4	172	Feb-08 19:00	0.7	48	Feb-25	0	-	0	0	Feb 24, 2022
H_2S (ppb)	0.1	0.0	94.2%	99.0%	0.3	10	Feb-22 04:00	0.2	3	Feb-15	0	-	0	-	Feb 24, 2022

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-9.3	-29.4	99.0%	99.0%	7.7
WS (km/hr)	12.2	0.0	99.0%	99.0%	50.1
WD (deg)	254	0.0	99.0%	99.0%	359.4

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	254	WSW

Update Summary:

Parameter	Make	Model	Equipment summary
SO_2	Teco	43i	Feb 10 power failure (1hr); Feb 19 + Feb 27 communications failure (6hrs)
H2S	Thermo	45C	Feb 10 power failure (1hr); Feb 19 + Feb 27 communications failure (6hrs)
Met Equip	RMYoung	5103	Feb 10 power failure (1hr); Feb 19 + Feb 27 communications failure (6hrs)

1.7 Poplar Air Monitoring Station

PAZA - February 2022 Poplar Station Report

Parameter	February Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	24-hour Max	24-hour Objective	24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
NO (ppb)	1.0	0.0	94.9%	100.0%	16.8	-	Feb-02 13:00	4.5	-	Feb-02	-	-	-	-	Feb 17, 2022
NO_2 (ppb)	5.3	0.3	94.9%	100.0%	37.1	159	Feb-02 05:00	15.2	-	Feb-02	0	-	-	-	Feb 17, 2022
NO_x (ppb)	6.3	0.2	94.9%	100.0%	54.3	-	Feb-02 05:00	19.9	-	Feb-02	-	-	-	-	Feb 17, 2022
O_3 (ppb)	34.5	0.7	95.4%	100.0%	48.1	76	Feb-10 08:00	45.6	-	Feb-06	0	-	-	-	Feb 17, 2022
$PM_{2.5}$ (µg/m³)	1.9	0.0	98.4%	99.0%	20.6	80	Feb-08 19:00	5.0	29	Feb-28	0	-	0	-	Feb 17, 2022
SO_2 (ppb)	1.4	0.0	95.2%	100.0%	35.0	172	Feb-10 08:00	4.3	48	Feb-10	0	-	0	0	Feb 17, 2022
TRS (ppb)	0.5	0.1	95.1%	100.0%	5.9	-	Feb-10 09:00	1.0	-	Feb-01	-	-	-	-	Feb 15, 2022
CH4 (ppm)	-	1.6	45.8%	48.3%	2.6	-	Feb-02 01:00	2.0	-	Feb-02	-	-	-	-	Feb 14, 2022
THC (ppm)	-	1.6	45.8%	48.3%	3.5	-	Feb-01 07:00	2.3	-	Feb-01	-	-	-	-	Feb 14, 2022
NMHC (ppm)	-	0.0	45.8%	48.3%	1.4	-	Feb-01 07:00	0.3	-	Feb-01	-	-	-	-	Feb 14, 2022

	Average	Minimum	Valid	Operational	Maximum
Temp (°C)	-7.4	-31.2	100.0%	100.0%	8.3
WS (km/hr)	15.6	0.3	100.0%	100.0%	56.0
WD (deg)	275	1.2	100.0%	100.0%	358.8

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

Average Wind Direction	275	W

Update Summary:

Parameter	Make	Model	Equipment summary
$NO/NO_2/NO_x$	TEI	42i	No Operational issues noted
O_3	TEI	49I	No Operational issues noted
$PM_{2.5}$	Thermo	TEOM AB	Several hours of data removed due to negative drift (<-3µg/m³, 7hrs)
SO_2	TEI	43I	No Operational issues noted
TRS	TEI	43I	No Operational issues noted
THC/CH4/NMHC	TEI	55I-A3PHAA	THC removed Feb 14, resulting in <90% uptime (ref# 389129)
Met Equip	MetOne	50.5	No Operational issues noted

1.8 Milner Air Monitoring Station

PAZA - February 2022 Milner Station Report

Parameter	February Average	Minimum	Valid	Operational	1-hour Max	1-hour Objective	1-hour Max Day and Time	24-hour Max	24-hour Objective	24-hour Max Day	Exceedance 1hr	Exceedance 8hr	Exceedance 24hr	Exceedance 30d	Calibration Date
NO (ppb)	0.7	0.0	94.7%	99.7%	18.0	-	Feb-28 11:00	3.3	-	Feb-02	-	-	-	-	Feb 16, 2022
NO_2 (ppb)	3.9	0.1	94.7%	99.7%	33.0	159	Feb-14 10:00	14.9	-	Feb-02	0	-	-	-	Feb 16, 2022
NO_X (ppb)	4.5	0.0	94.7%	99.7%	43.4	-	Feb-14 10:00	17.9	-	Feb-02	-	-	-	-	Feb 16, 2022
$PM_{2.5}$ (µg/m³)	6.7	0.0	79.8%	80.2%	39.4	80	Feb-18 15:00	12.5	29	Feb-22	0	-	0	-	Feb 16, 2022

	Average	Minimum	Valid	Operational	Maximum
WS (km/hr)	12.6	0.0	99.7%	99.7%	82.7
WD (deg)	261	0.9	99.7%	99.7%	356.6

Note: Valid hours must be greater than 75%
Operational hours must be greater than 90%

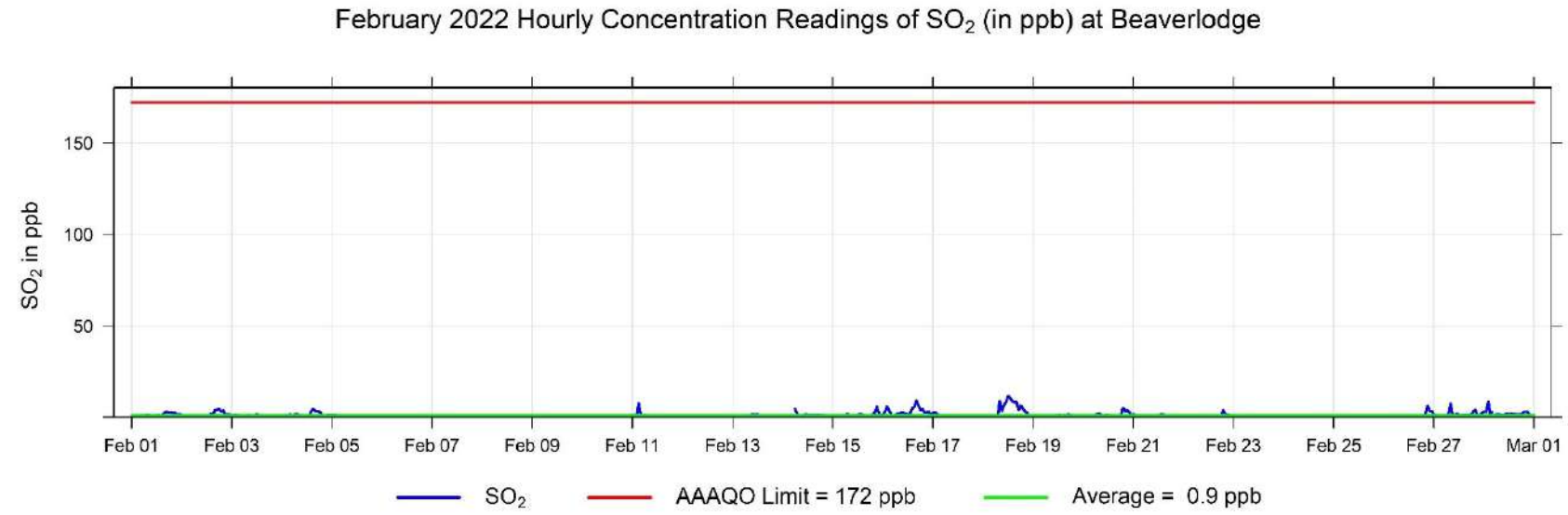
Average Wind Direction	261	W

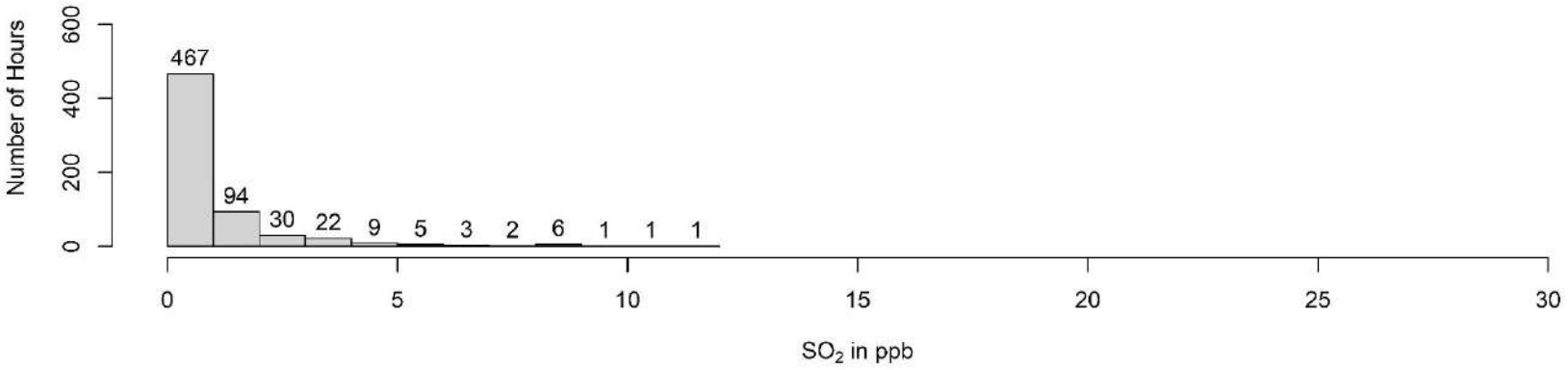
Update Summary:

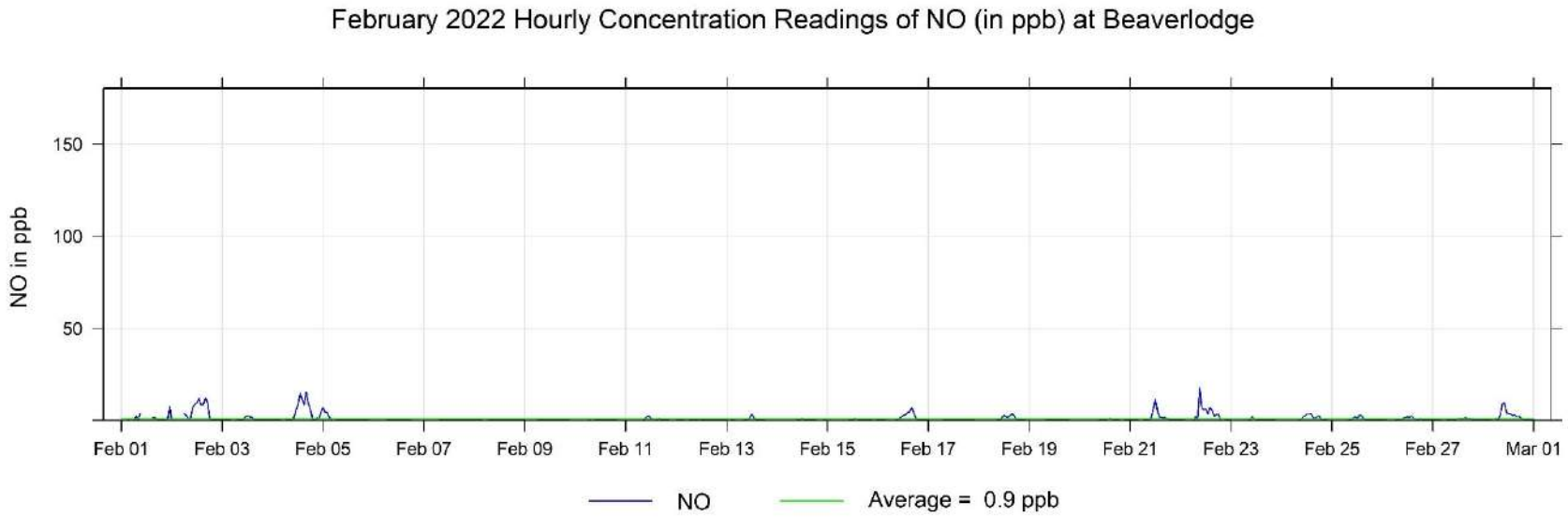
Parameter	Make	Model	Equipment summary
$NO/NO_2/NO_X$	Thermo	42i	No Operational issues noted
$PM_{2.5}$	TEOM	0	There were several hours of data less than -3µg/m³, resulting in <90% uptime
Met Equip	MetOne	50.5	No Operational issues noted

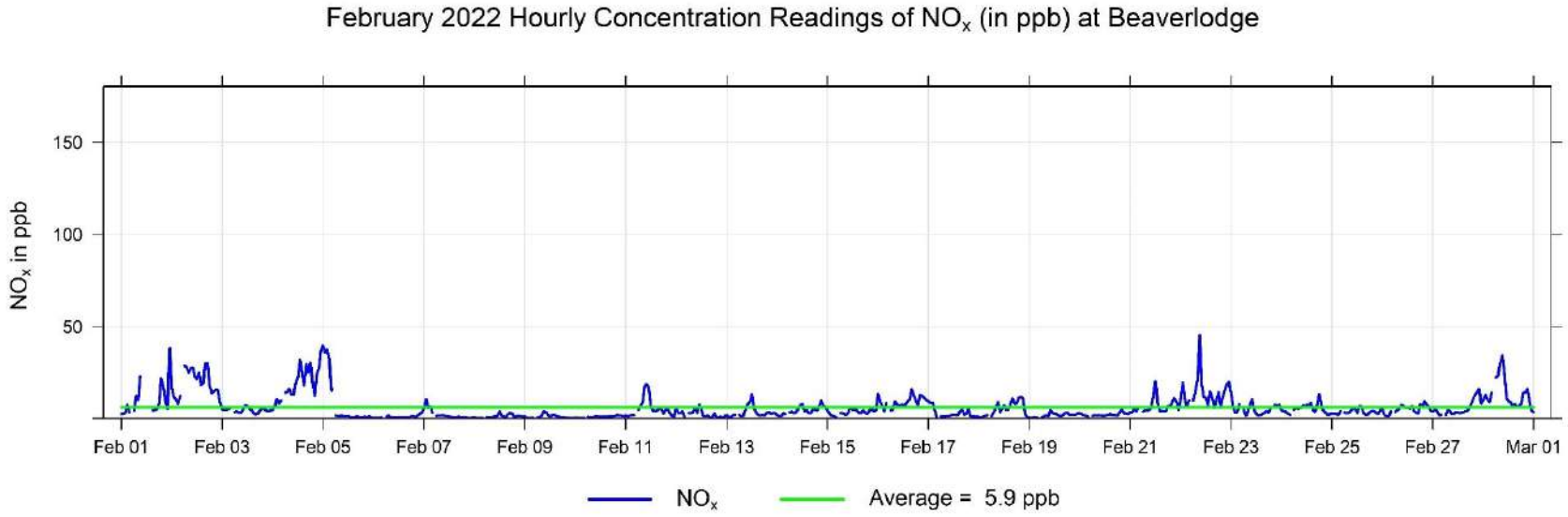
2 Beaverlodge Charts

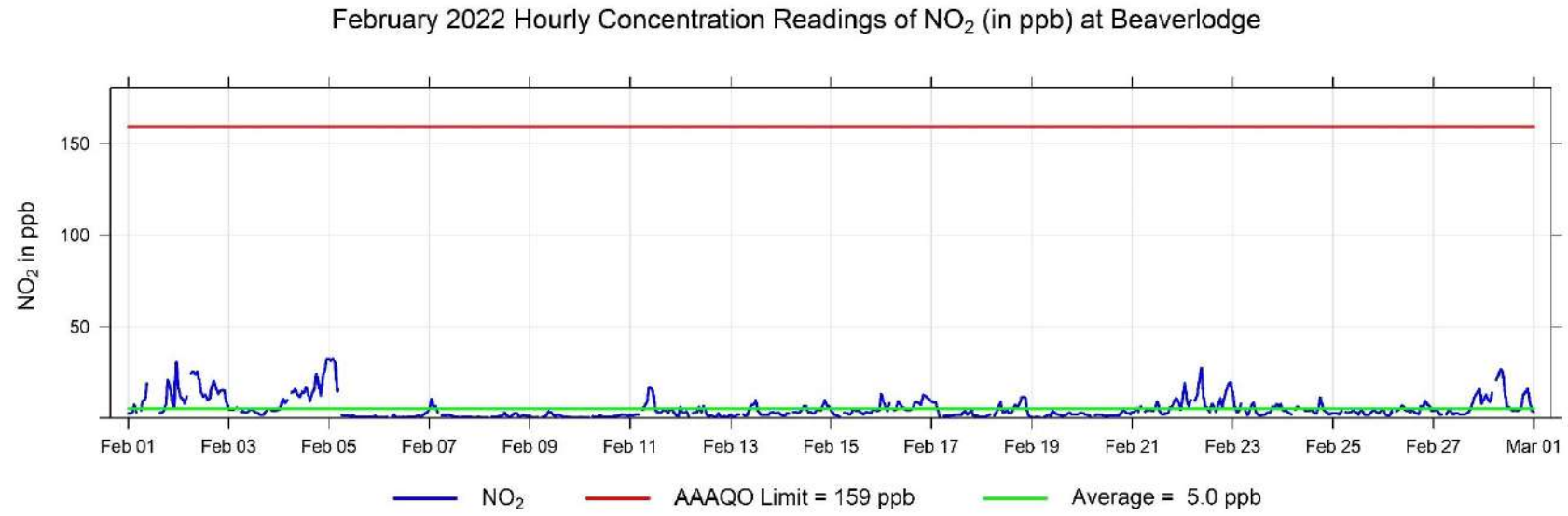
The following pages include the charts and histograms for Beaverlodge Station

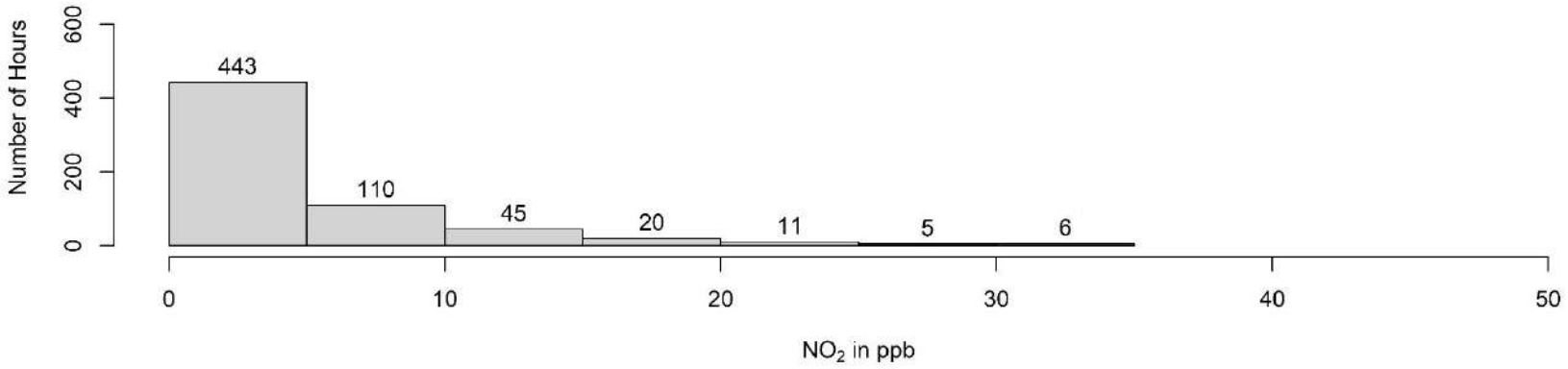

February 2022 Hourly Concentration Readings of SO2 (in ppb) at Beaverlodge
SO2 in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
SO2
AAAQO Limit = 172 ppb
Average = 0.9 ppb

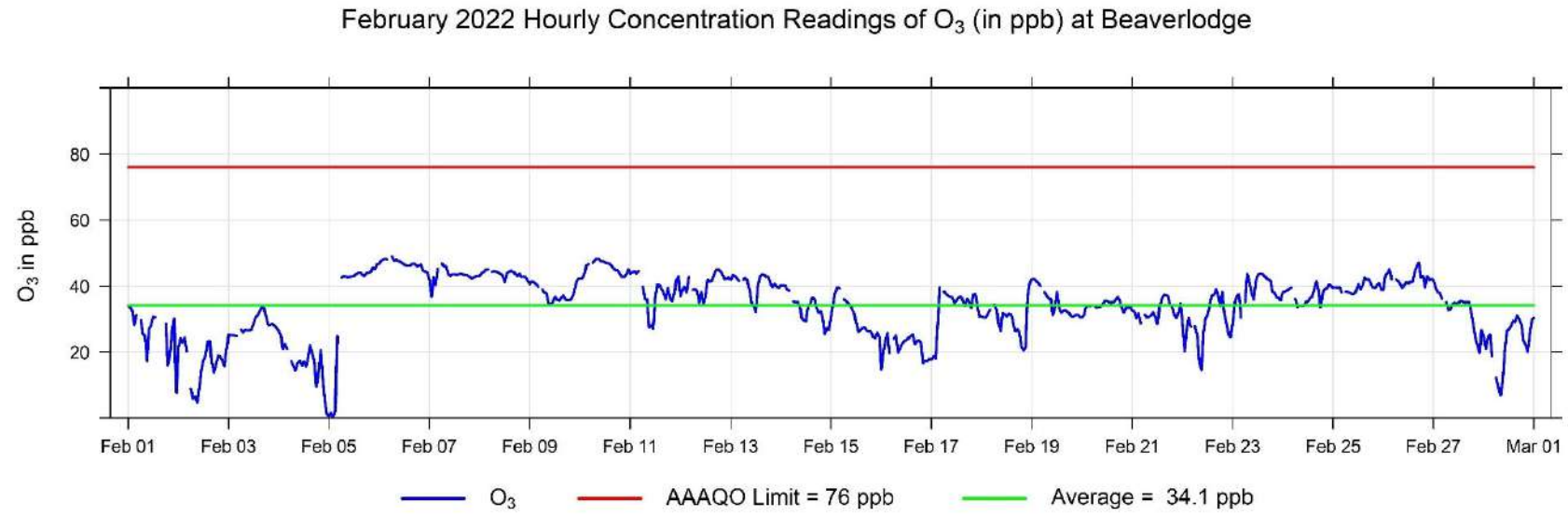

Number of Hours
0
200
400
600
467
94
30
22
9
5
3
2
6
1
1
1
0
5
10
15
20
25
30
SO2 in ppb

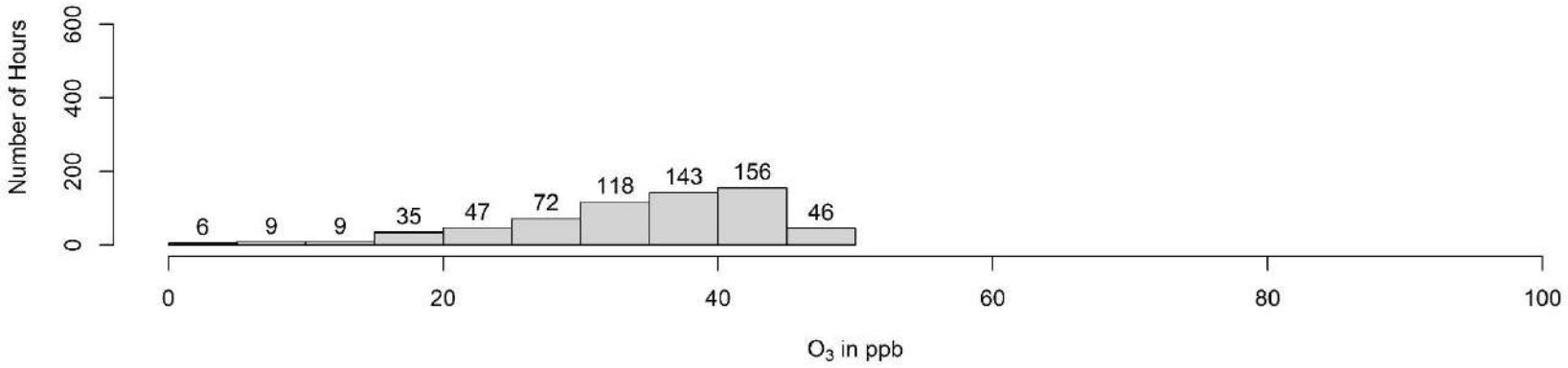

February 2022 Hourly Concentration Readings of NO (in ppb) at Beaverlodge
NO in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NO
Average = 0.9 ppb

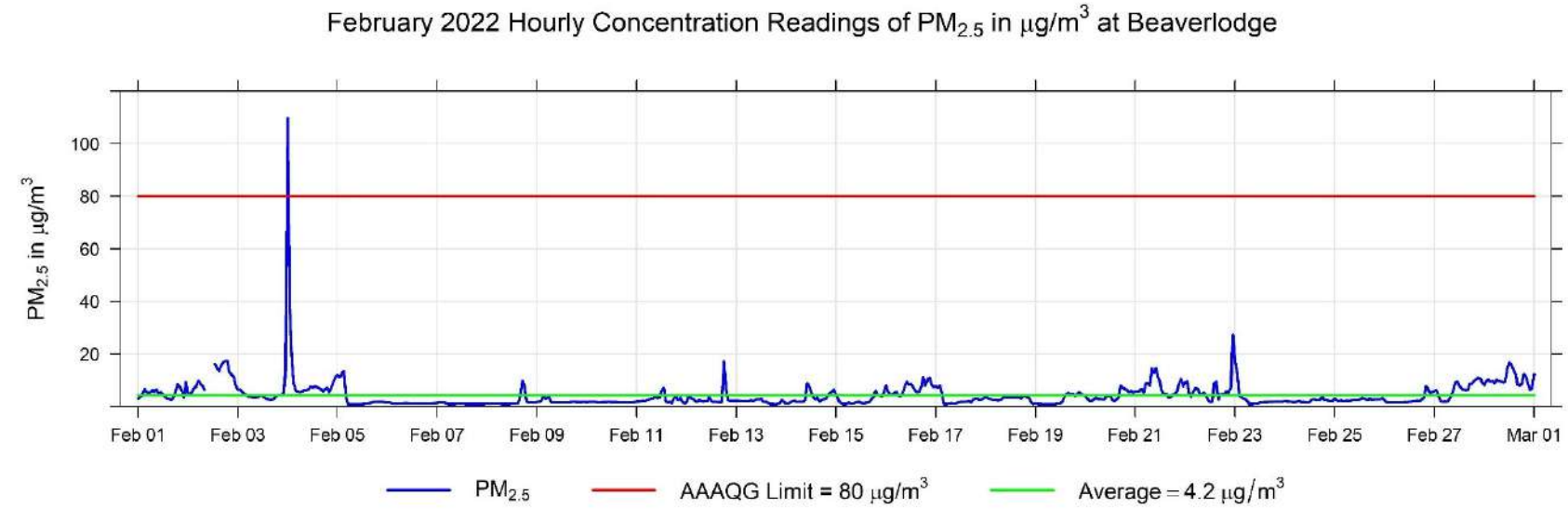

February 2022 Hourly Concentration Readings of NOx (in ppb) at Beaverlodge
NOx in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NOx
Average = 5.9 ppb

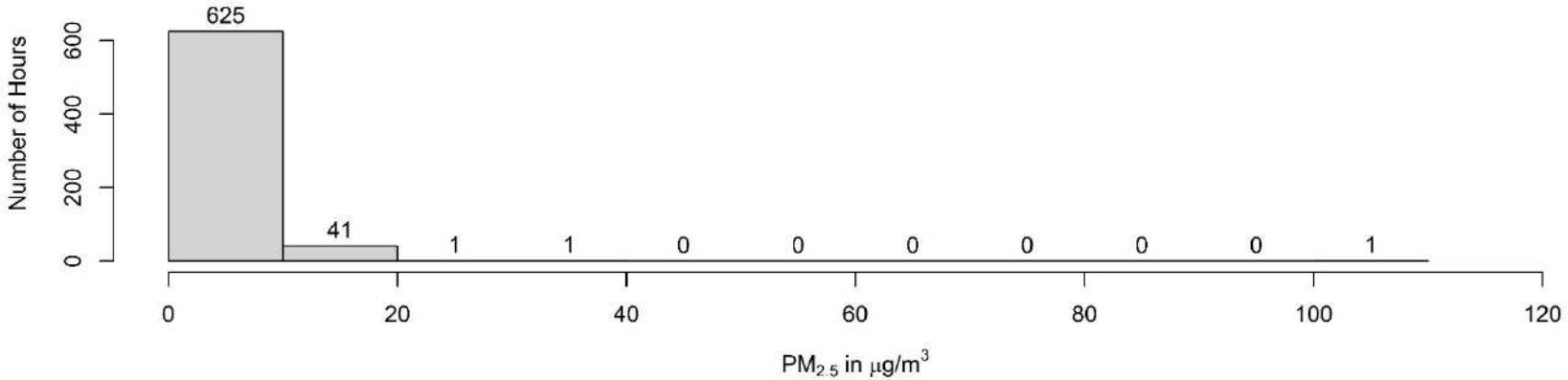

February 2022 Hourly Concentration Readings of NO2 (in ppb) at Beaverlodge
NO2 in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NO2
AAAQO Limit = 159 ppb
Average = 5.0 ppb

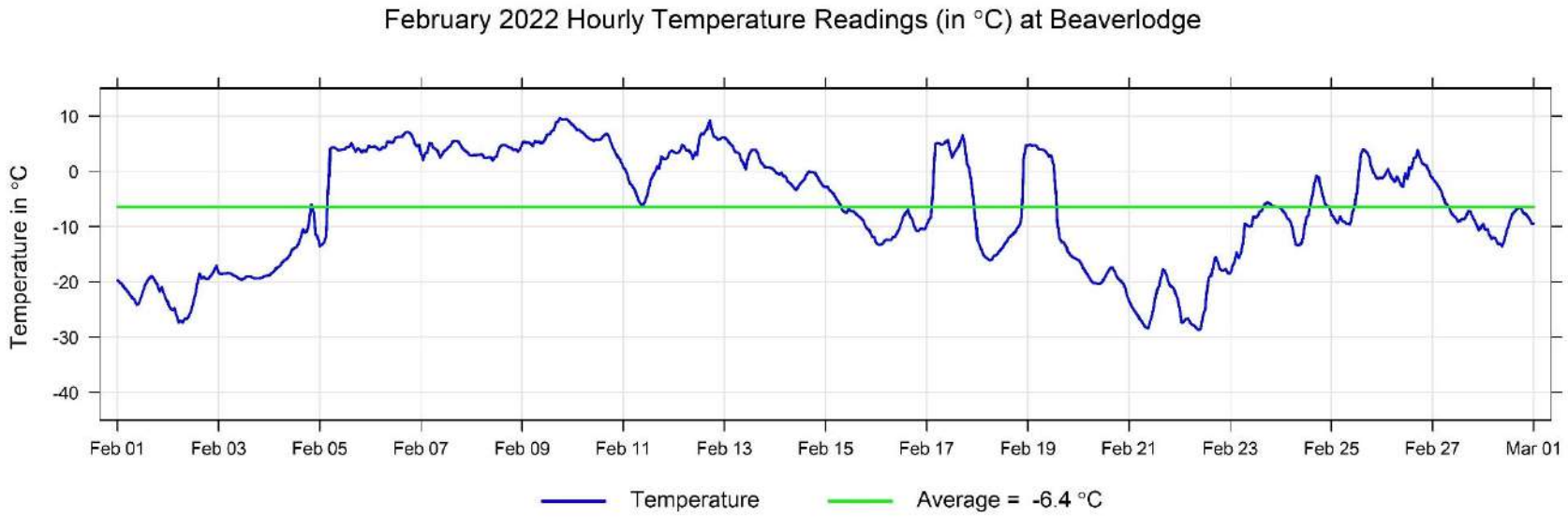

Number of Hours
0
200
400
600
443
110
45
20
11
5
6
0
10
20
30
40
50
NO2 in ppb

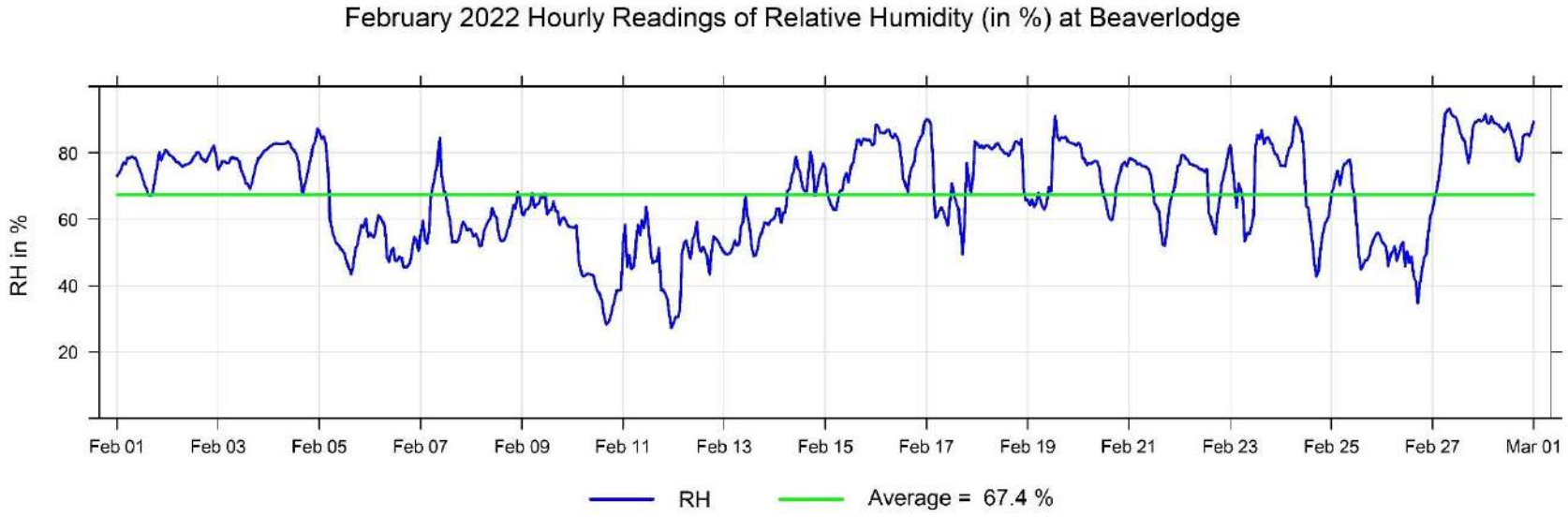

February 2022 Hourly Concentration Readings of O_3 (in ppb) at Beaverlodge
O_3 in ppb
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
O_3
AAAQO Limit = 76 ppb
Average = 34.1 ppb


Number of Hours
0
200
400
600
6
9
9
35
47
72
118
143
156
46
0
20
40
60
80
100
O_3 in ppb

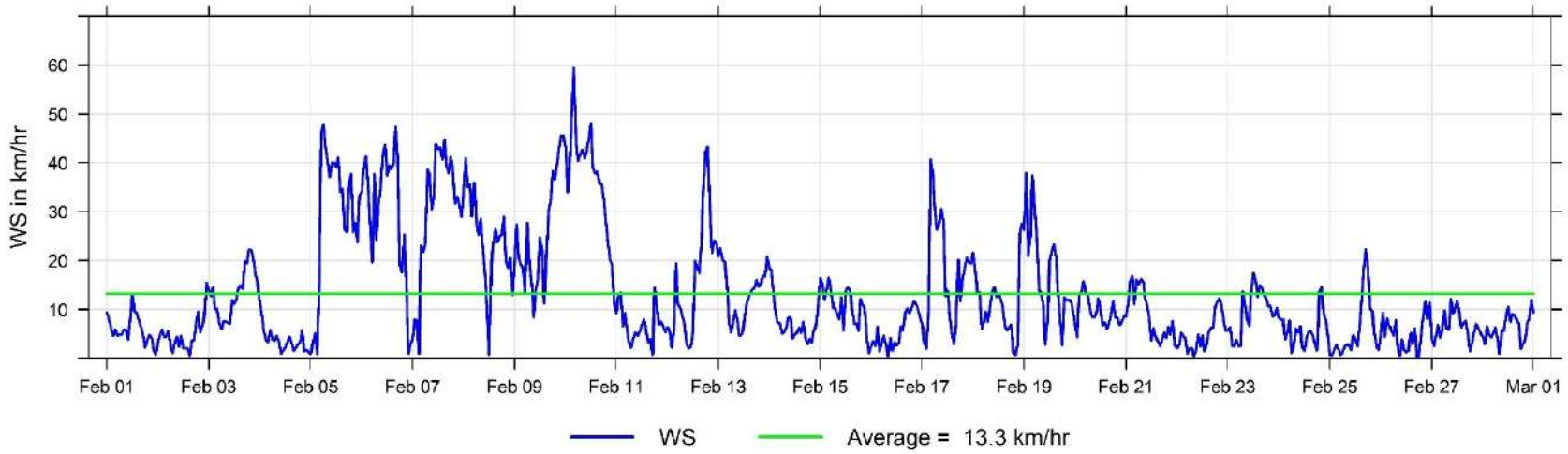

February 2022 Hourly Concentration Readings of PM2.5 in µg/m3 at Beaverlodge
PM2.5 in µg/m3
100
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
PM2.5
AAAQG Limit = 80 µg/m3
Average = 4.2 µg/m3


Number of Hours
0
200
400
600
625
41
1
1
0
0
0
0
0
0
1
0
20
40
60
80
100
120
PM2.5 in µg/m3

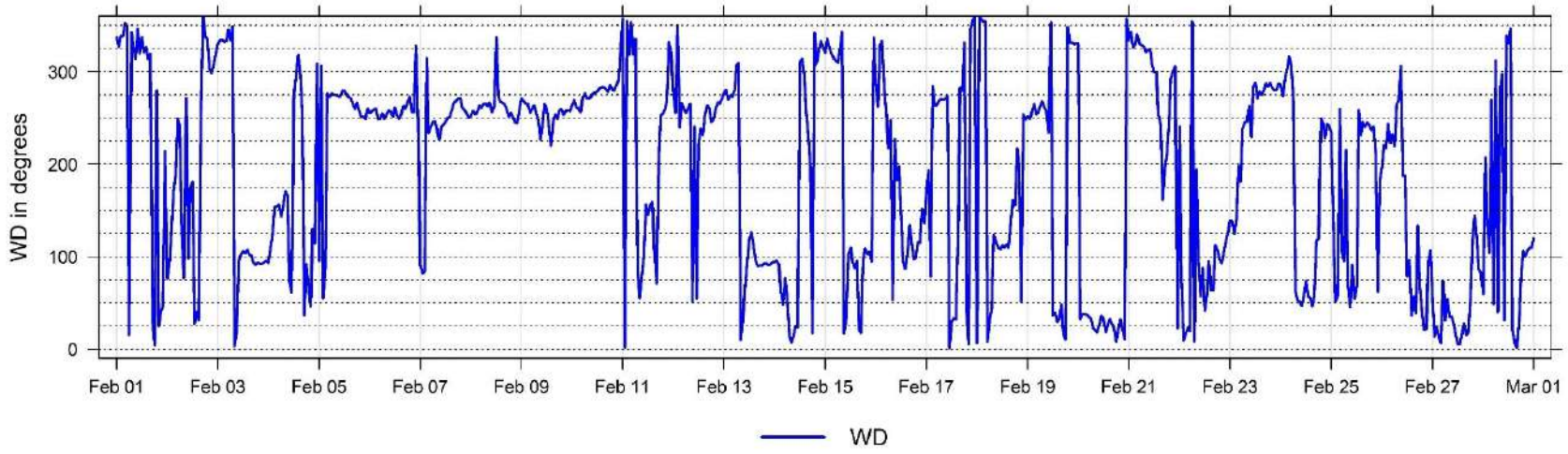

February 2022 Hourly Temperature Readings (in °C) at Beaverlodge
Temperature in °C
10
0
-10
-20
-30
-40
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
Temperature
Average = -6.4 °C


February 2022 Hourly Readings of Relative Humidity (in %) at Beaverlodge
RH in %
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
RH
Average = 67.4 %

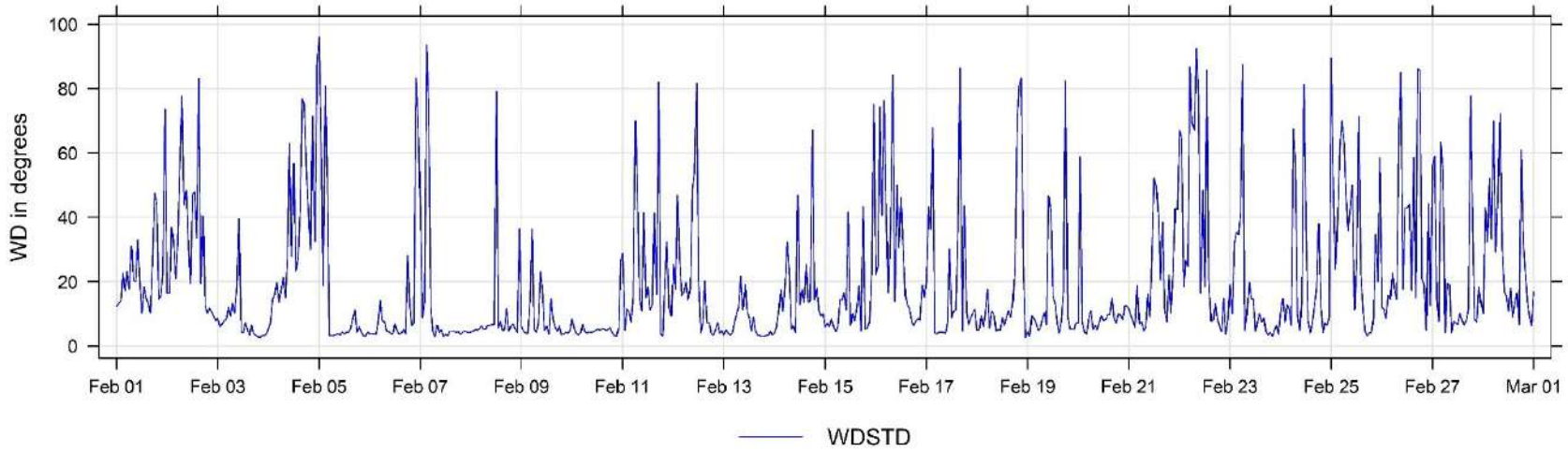
February 2022 Hourly Readings of Wind Speed (in km/hr) at Beaverlodge

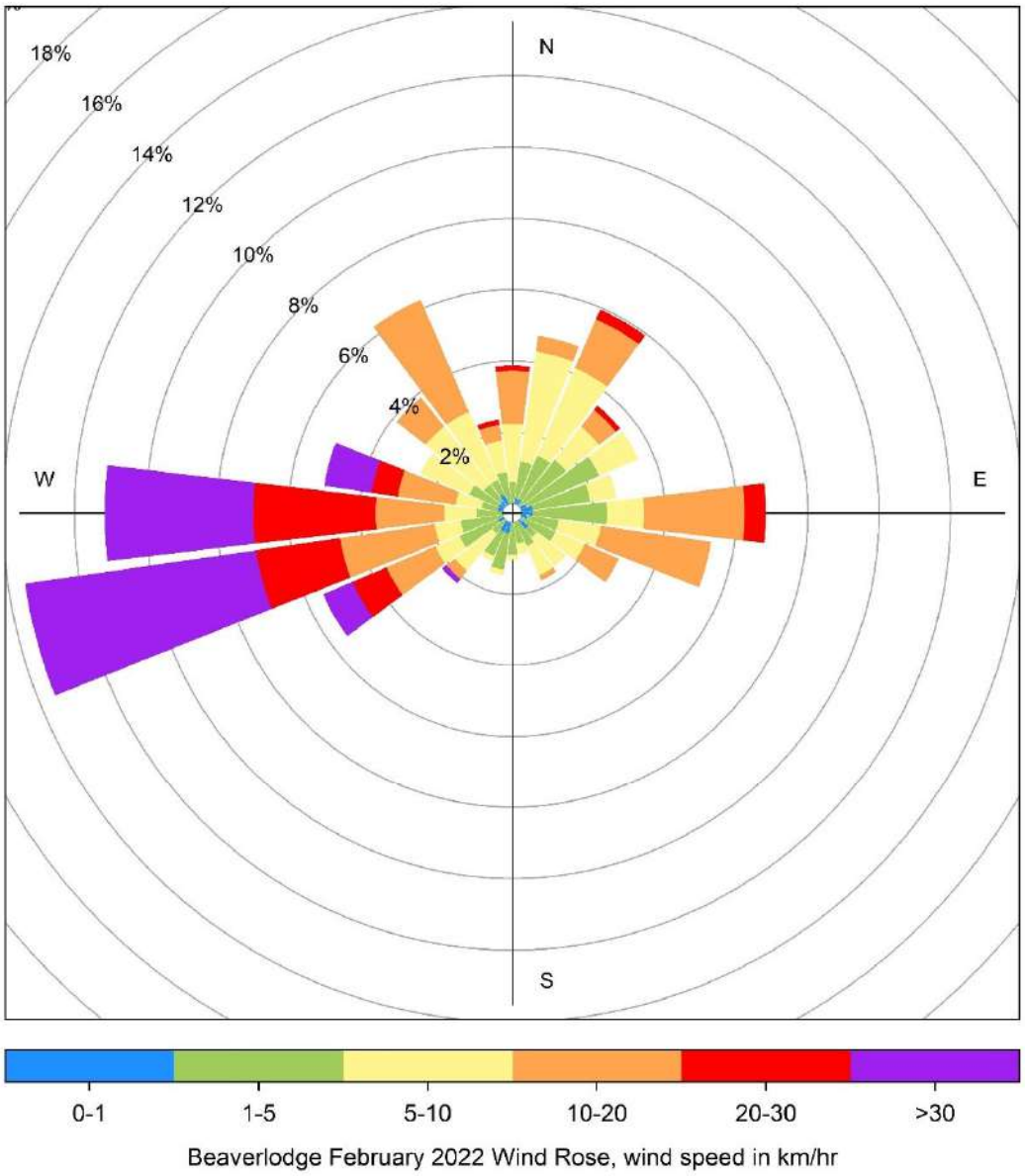


February 2022 Hourly Readings of Wind Direction (in degrees) at Beaverlodge



February 2022 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Beaverlodge

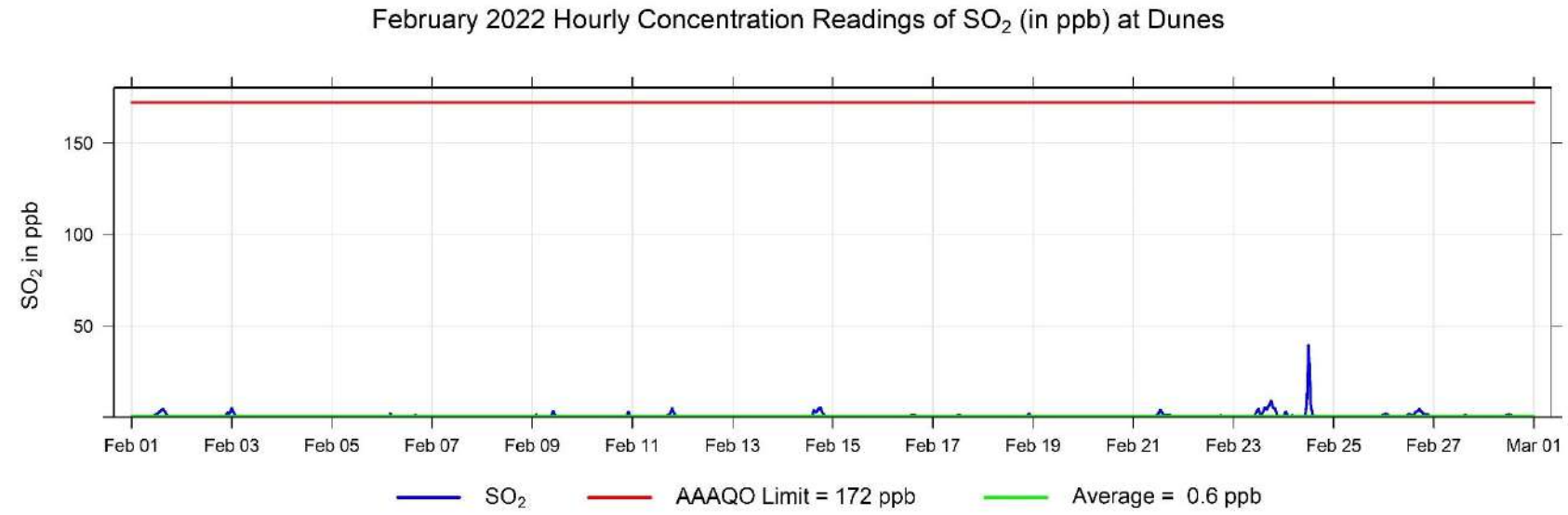


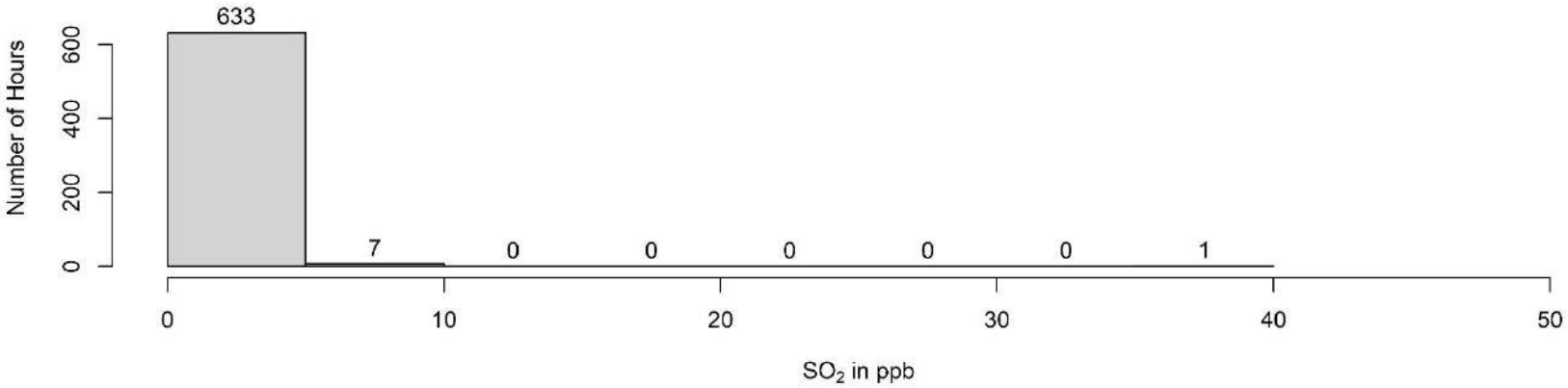


Beaverlodge February 2022 Wind Rose, wind speed in km/hr

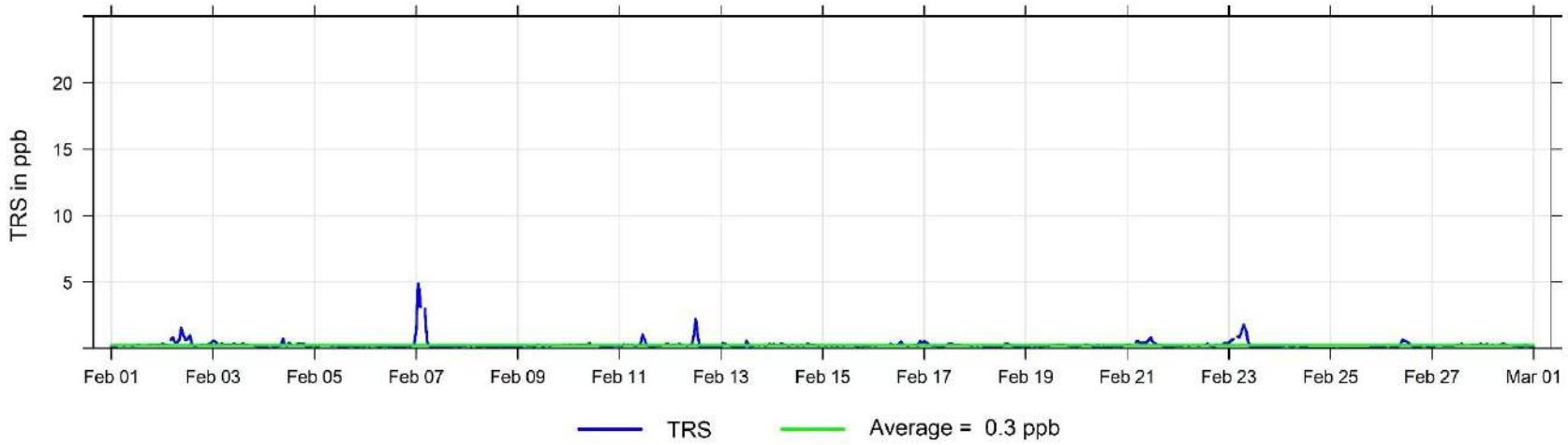
3 Dunes Charts

The following pages include the charts and histograms for Dunes Station

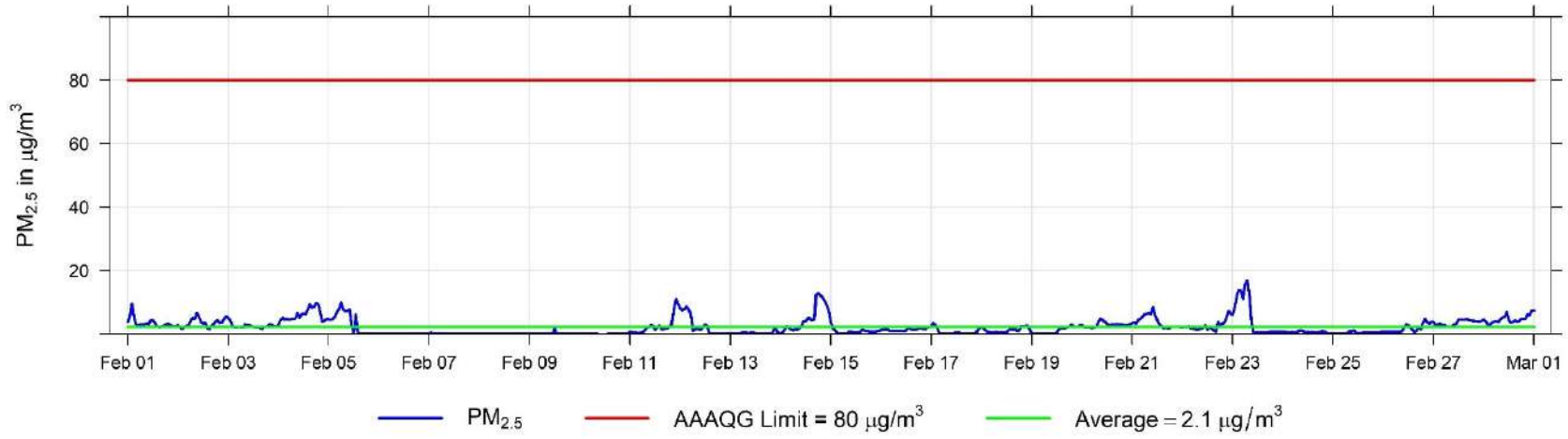

February 2022 Hourly Concentration Readings of SO_2 (in ppb) at Dunes
SO_2 in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
SO_2
AAAQO Limit = 172 ppb
Average = 0.6 ppb

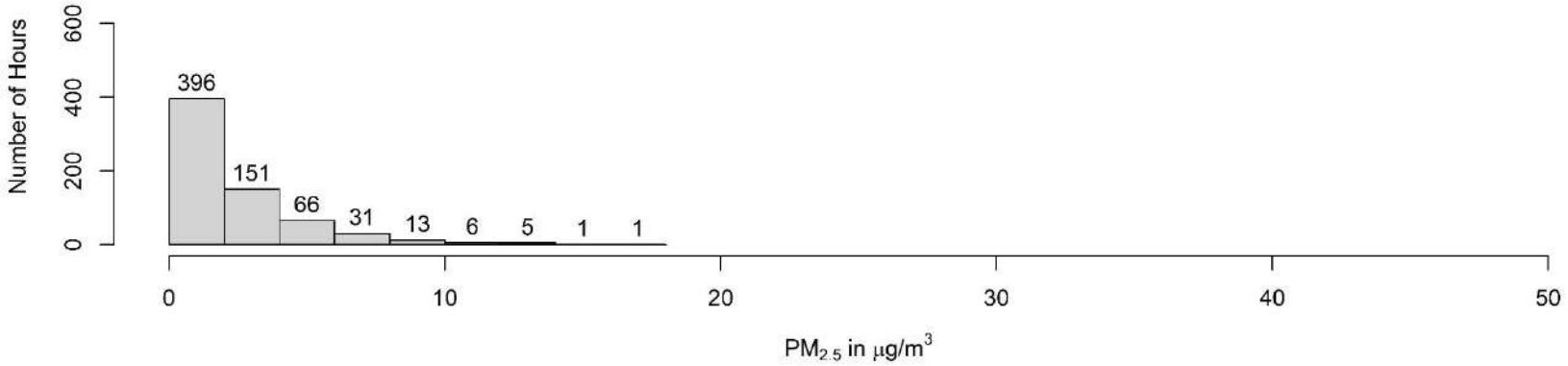

Number of Hours
0
200
400
600
633
7
0
0
0
0
0
1
0
10
20
30
40
50
SO_2 in ppb

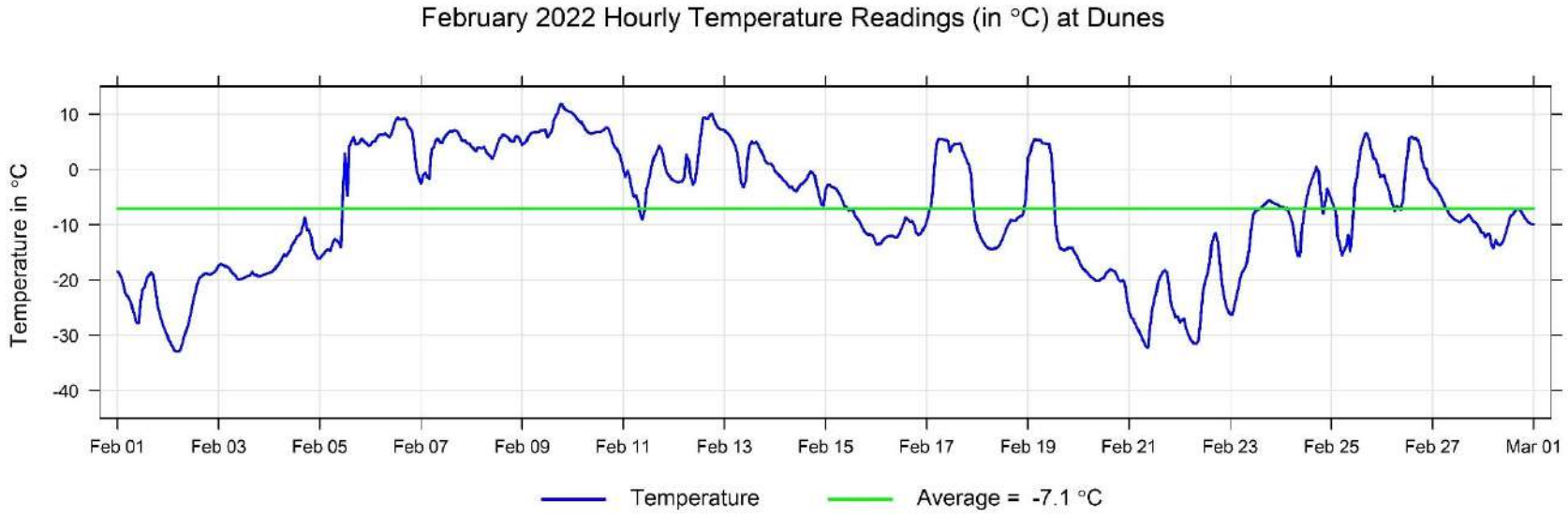
February 2022 Hourly Concentration Readings of TRS (in ppb) at Dunes



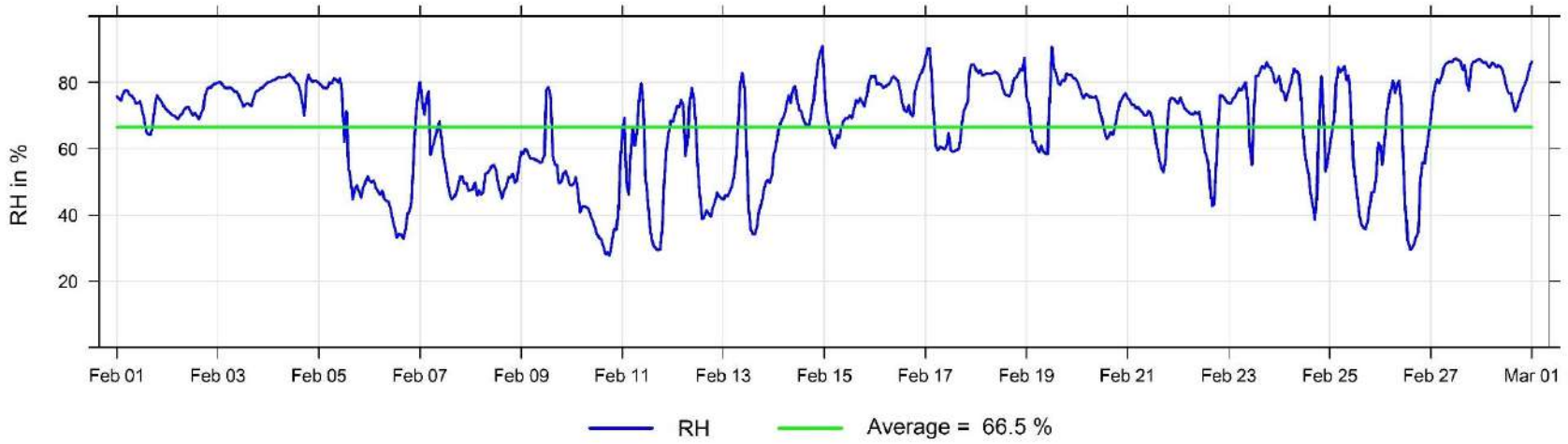
February 2022 Hourly Concentration Readings of $PM_{2.5}$ in $\mu g/m^3$ at Dunes



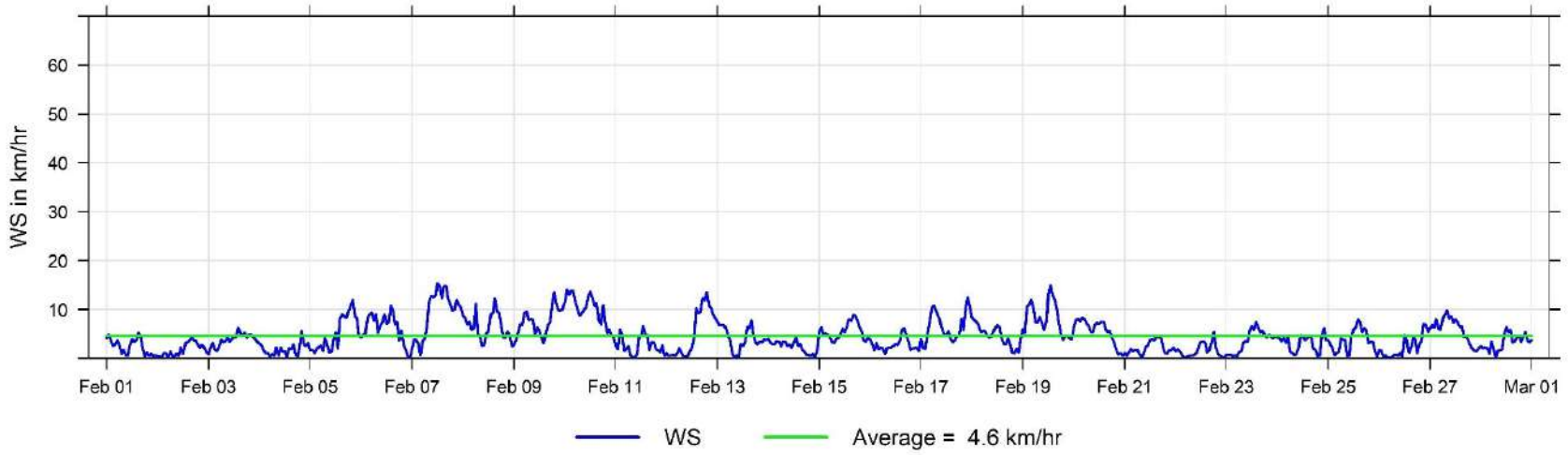

Number of Hours
0
200
400
600
396
151
66
31
13
6
5
1
1
0
10
20
30
40
50
PM2.5 in µg/m3


February 2022 Hourly Temperature Readings (in °C) at Dunes
Temperature in °C
10
0
-10
-20
-30
-40
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
Temperature
Average = -7.1 °C

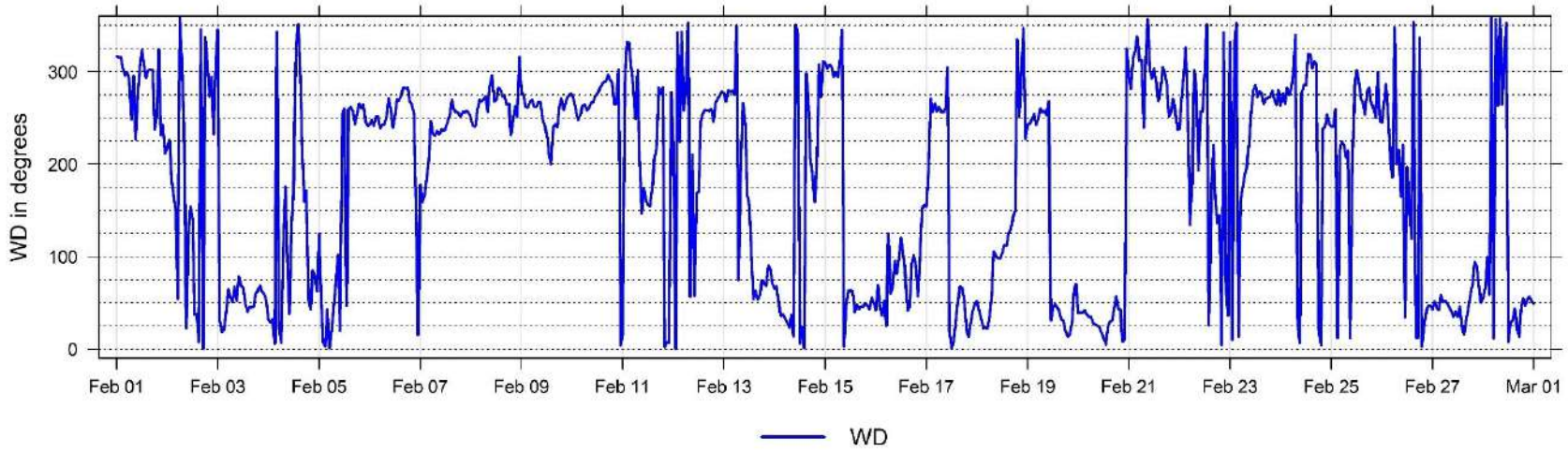
February 2022 Hourly Readings of Relative Humidity (in %) at Dunes



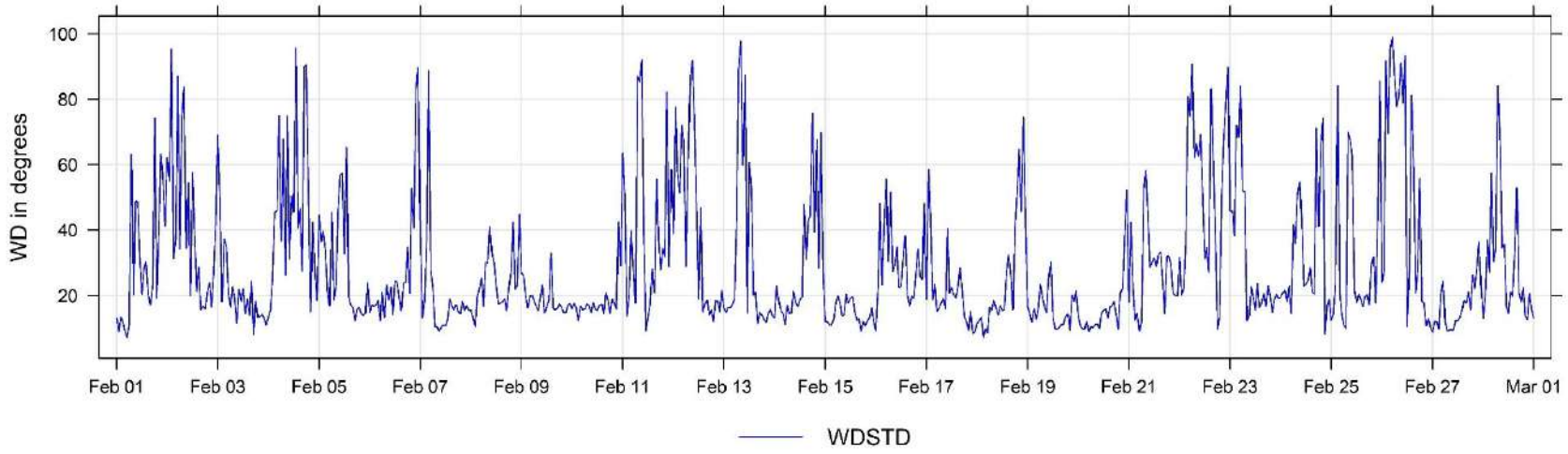
February 2022 Hourly Readings of Wind Speed (in km/hr) at Dunes

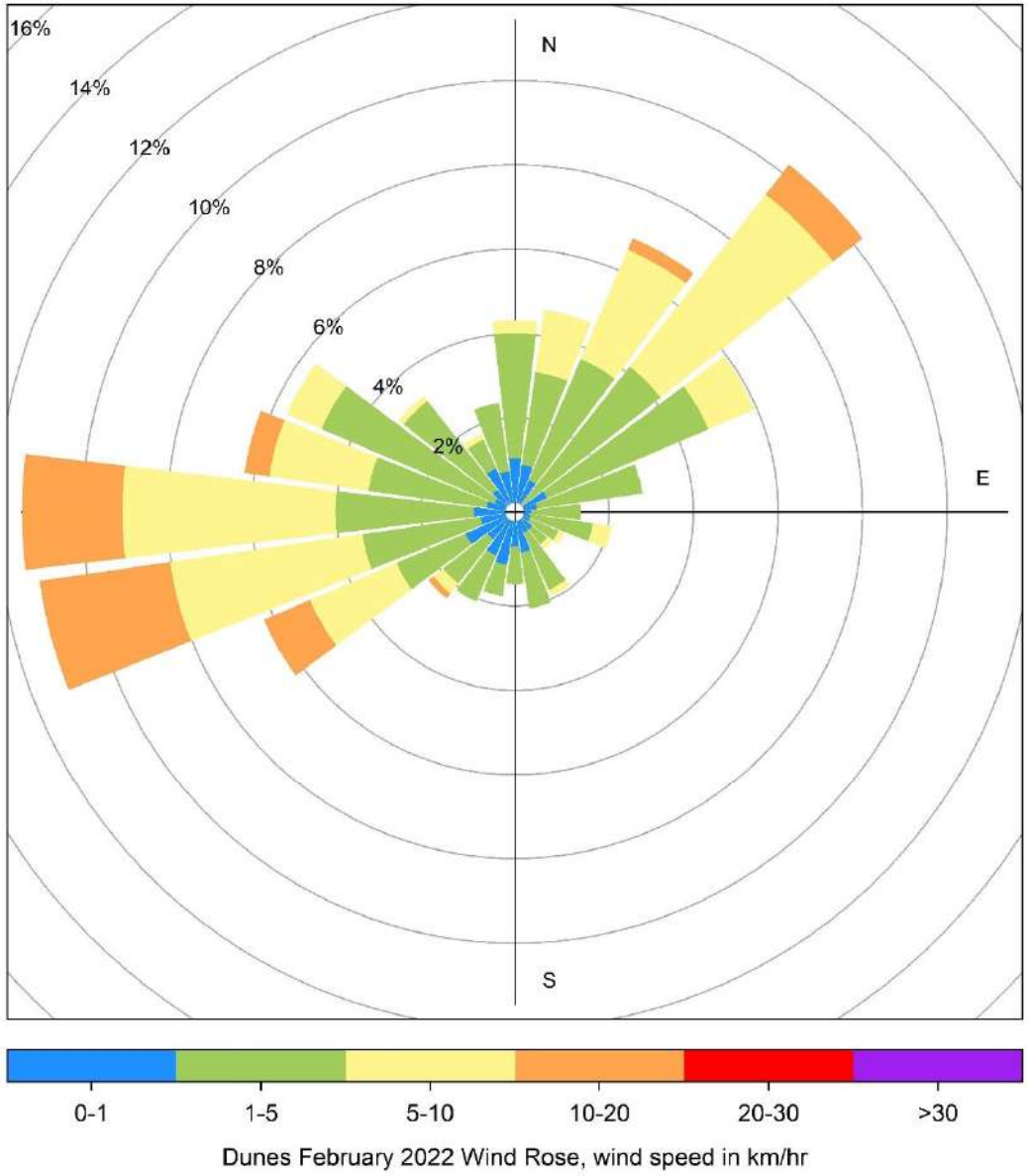


February 2022 Hourly Readings of Wind Direction (in degrees) at Dunes



February 2022 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Dunes

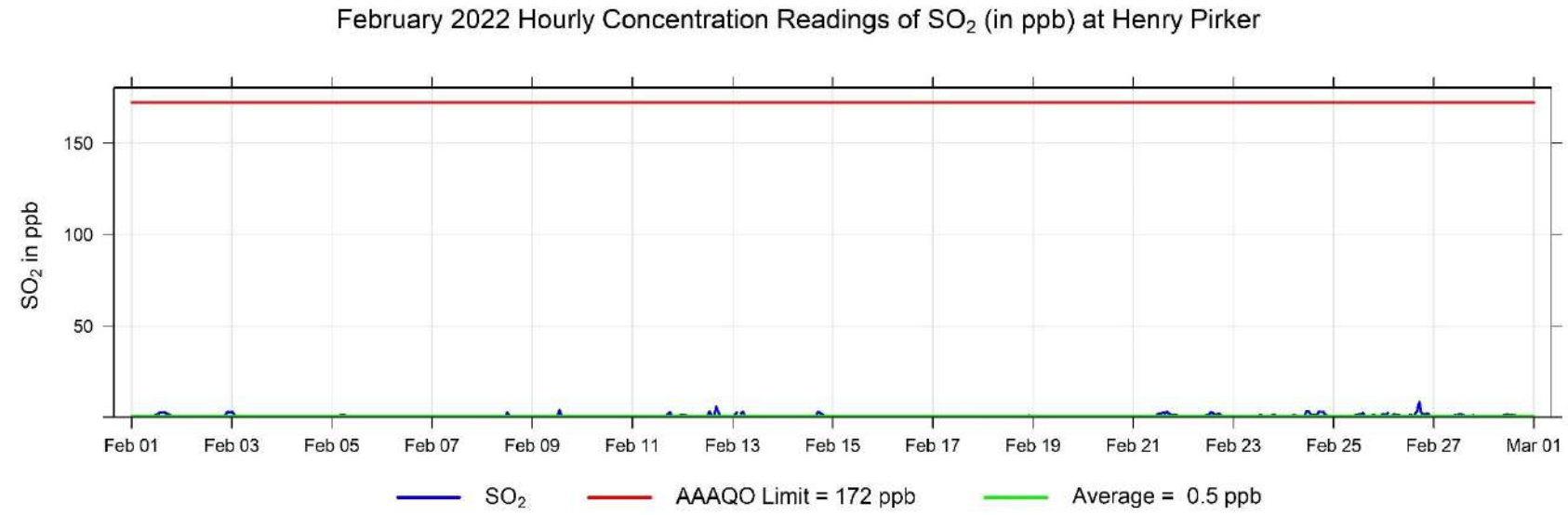


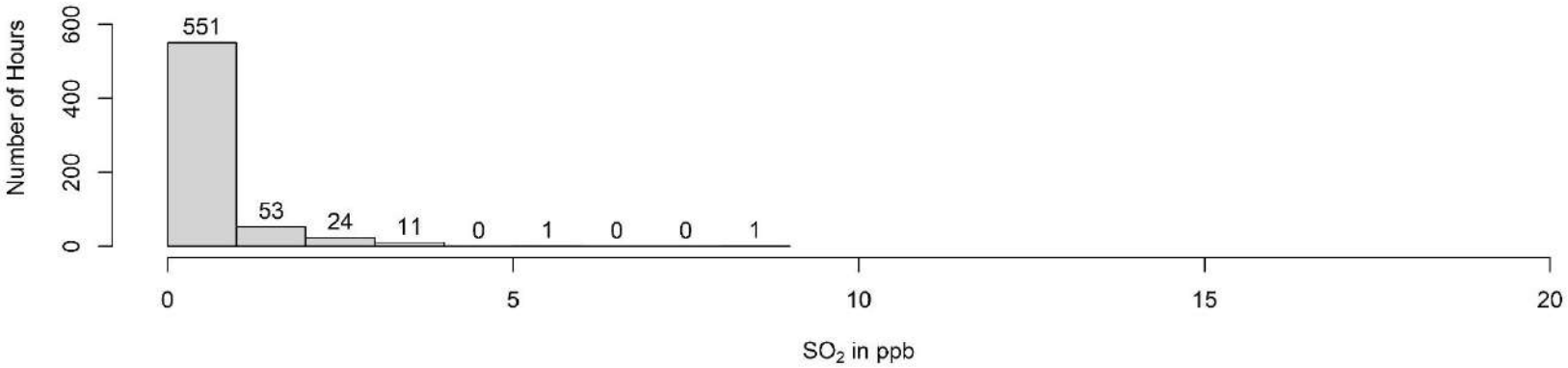


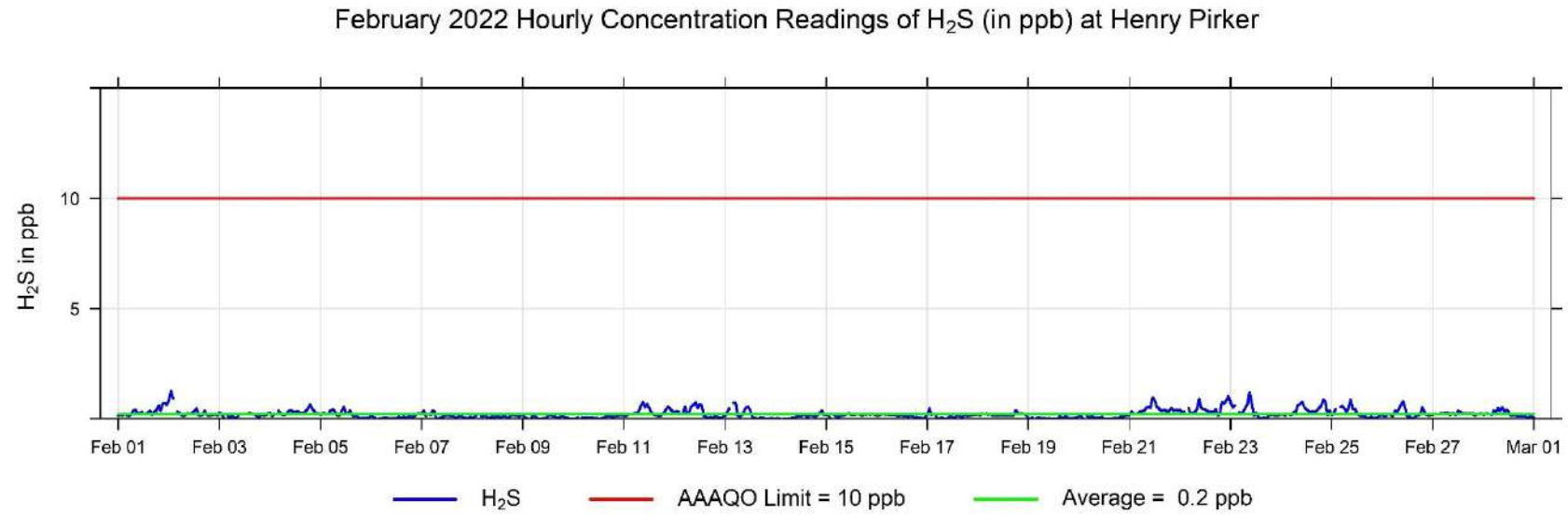
Dunes February 2022 Wind Rose, wind speed in km/hr

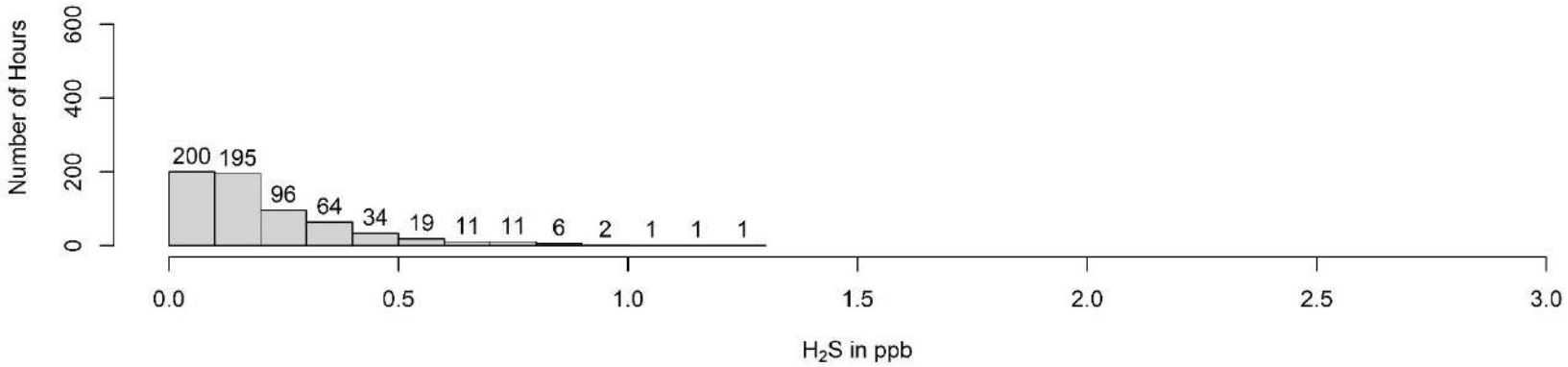
4 Grande Prairie - Henry Pirker Charts

The following pages include the charts and histograms for Henry Pirker Station in Grande Prairie

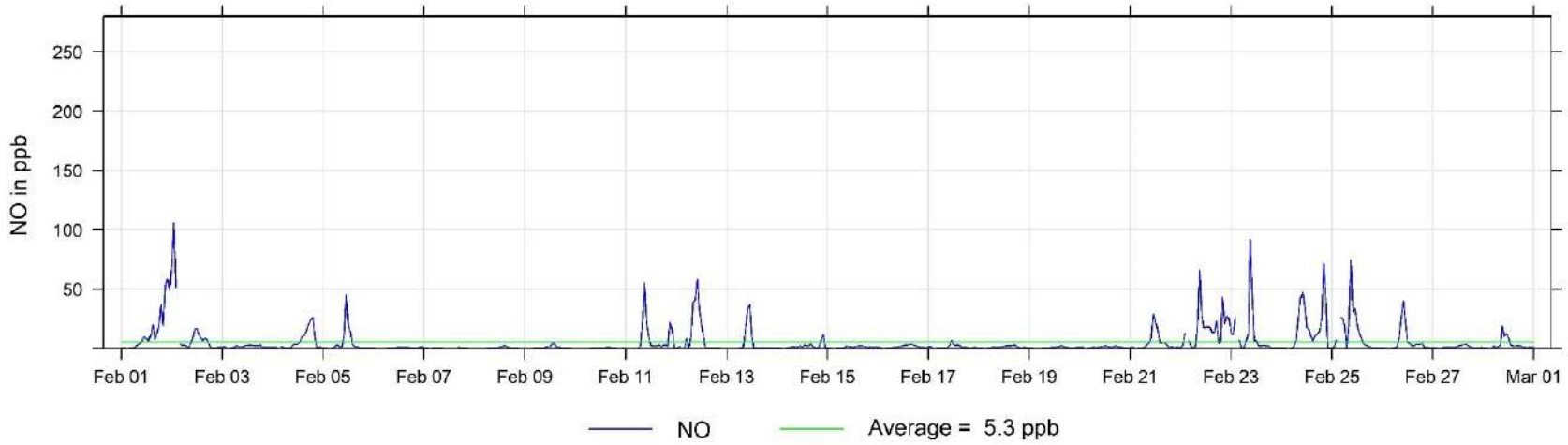

February 2022 Hourly Concentration Readings of SO_2 (in ppb) at Henry Pirker
SO_2 in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
SO_2
AAAQO Limit = 172 ppb
Average = 0.5 ppb


Number of Hours
0
200
400
600
551
53
24
11
0
1
0
0
1
0
5
10
15
20
SO_2 in ppb

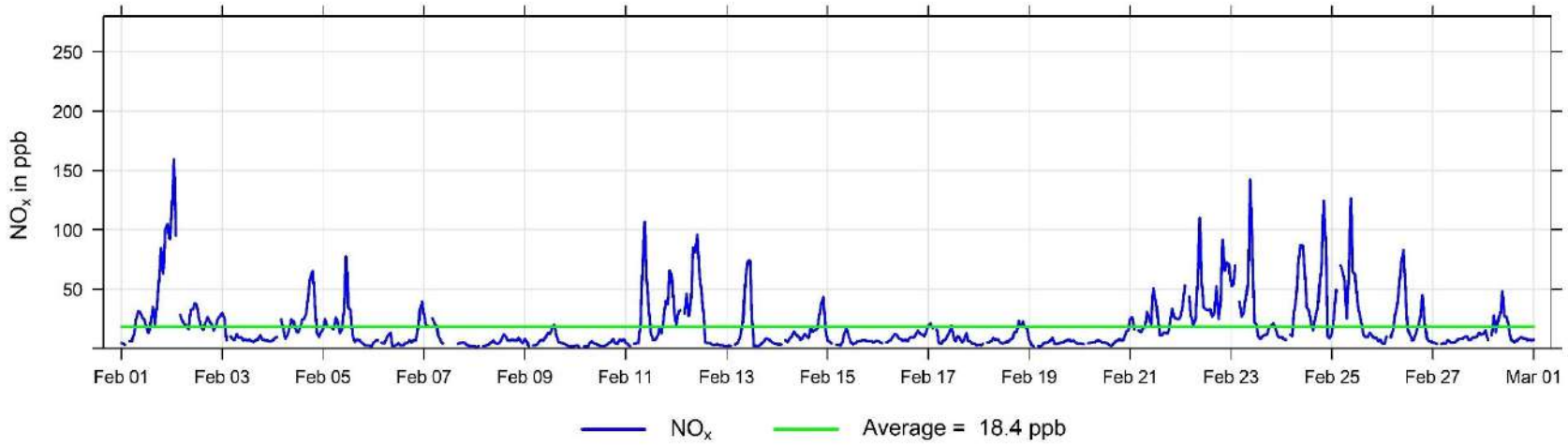

February 2022 Hourly Concentration Readings of H2S (in ppb) at Henry Pirker
H2S in ppb
10
5
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
H2S
AAAQO Limit = 10 ppb
Average = 0.2 ppb

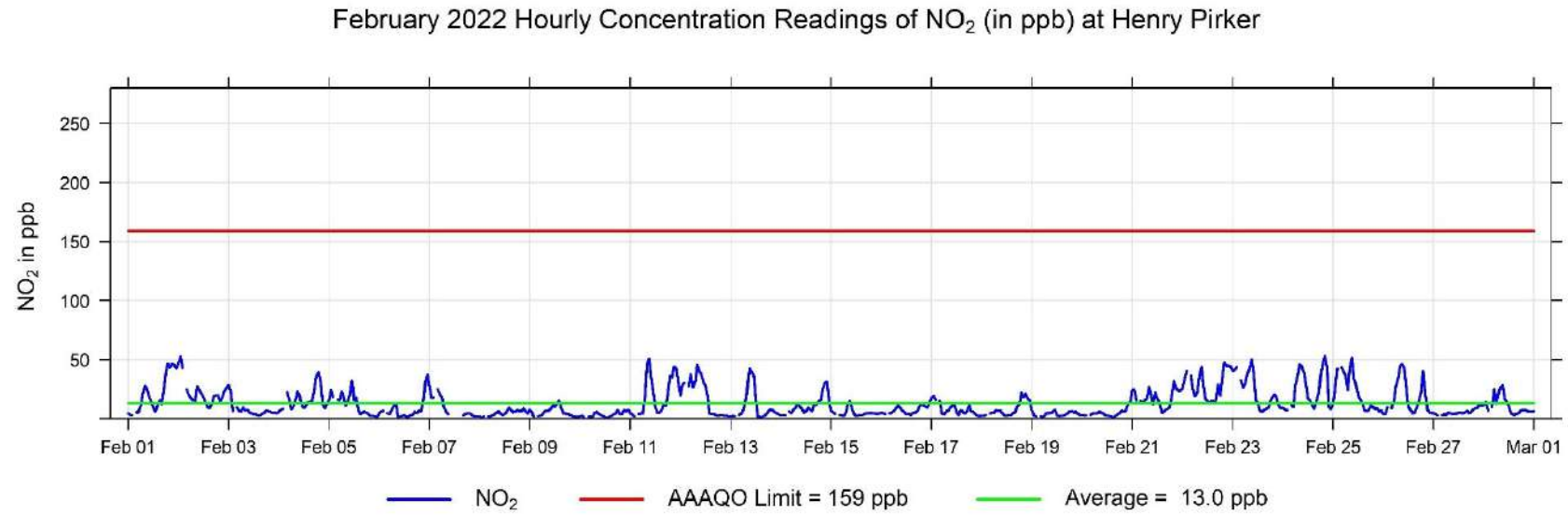

Number of Hours
0
200
400
600
200
195
96
64
34
19
11
11
6
2
1
1
1
0.0
0.5
1.0
1.5
2.0
2.5
3.0
H2S in ppb

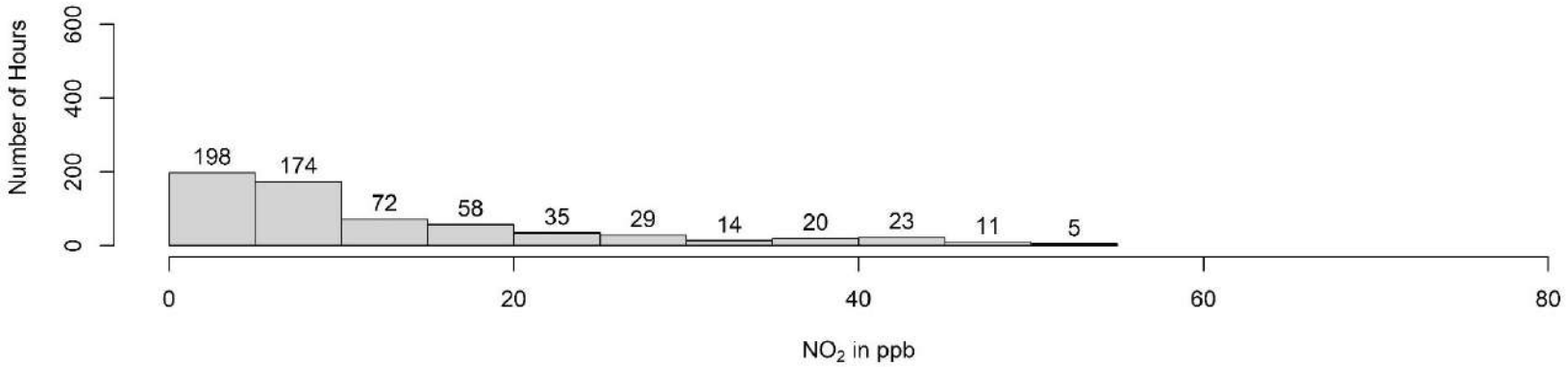
February 2022 Hourly Concentration Readings of NO (in ppb) at Henry Pirker

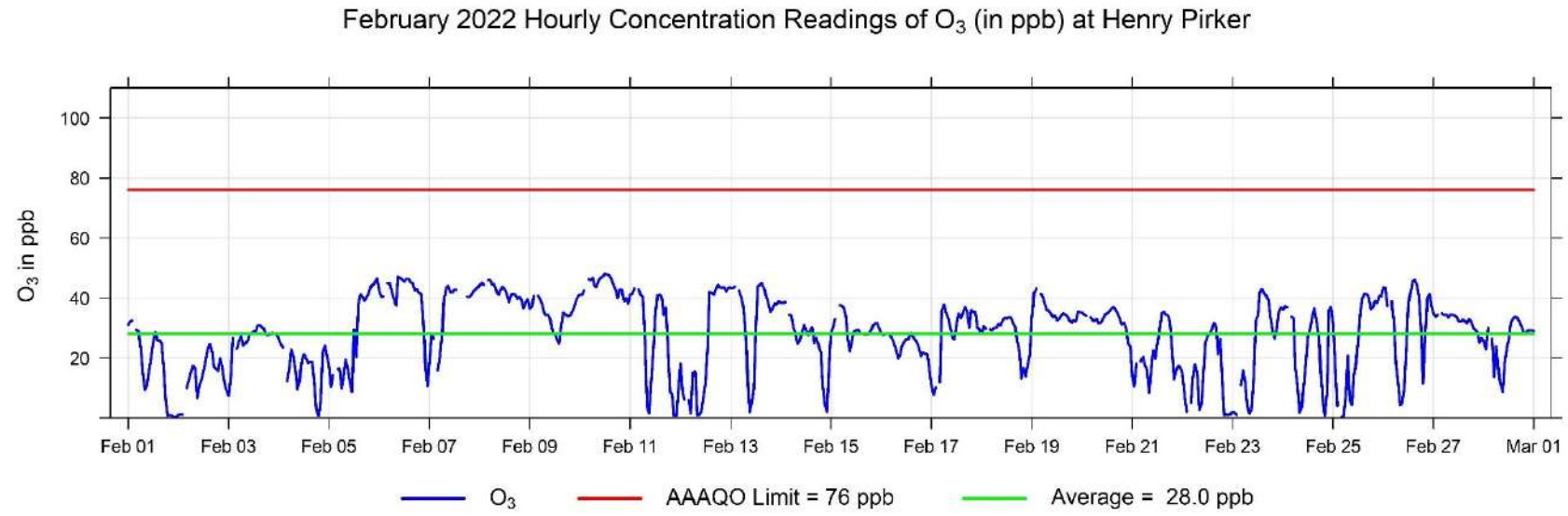


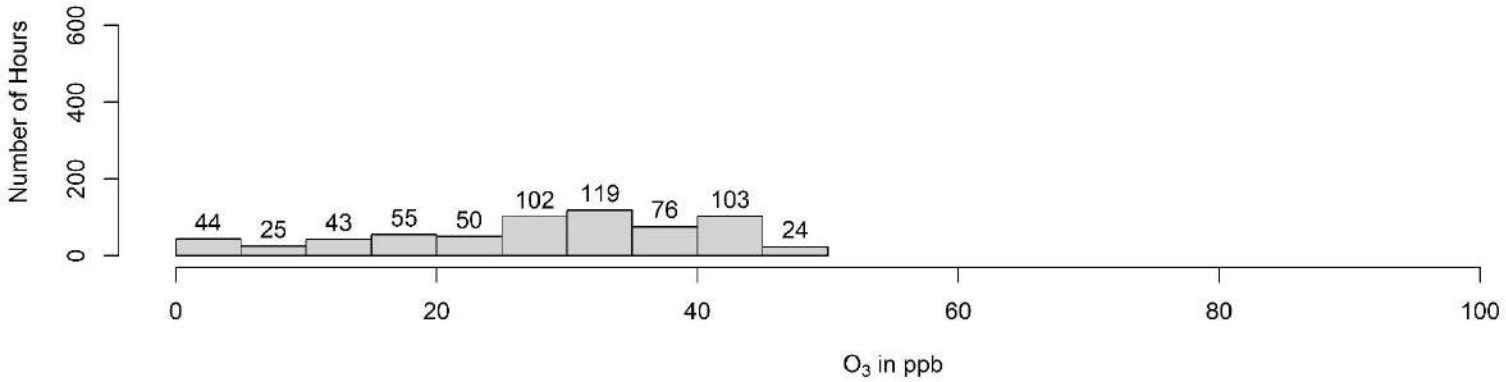
February 2022 Hourly Concentration Readings of NO_x (in ppb) at Henry Pirker



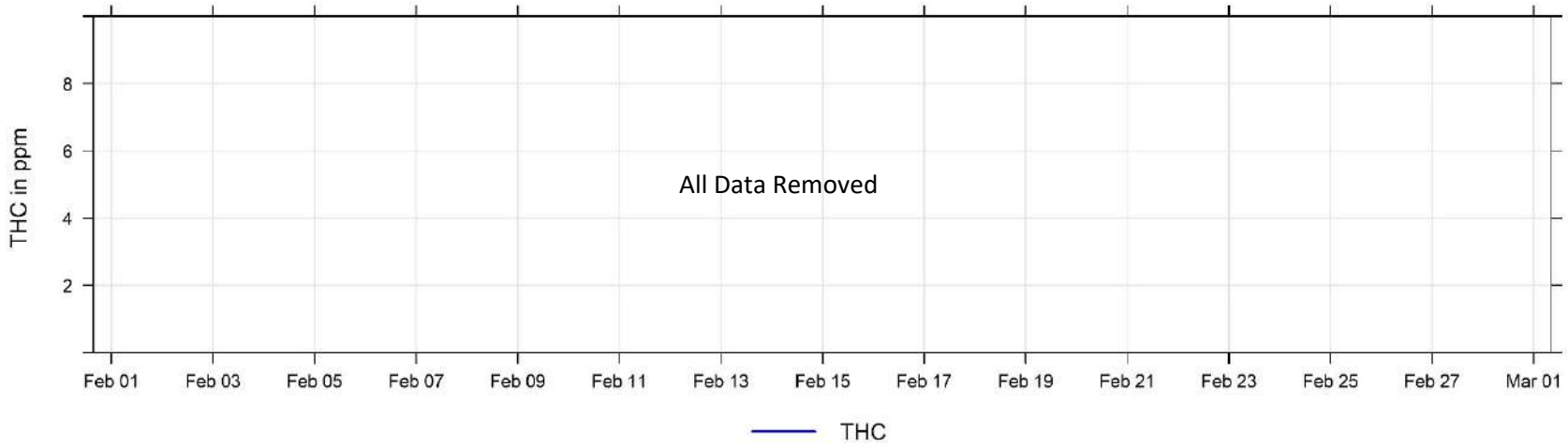

February 2022 Hourly Concentration Readings of NO2 (in ppb) at Henry Pirker
NO2 in ppb
250
200
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NO2
AAAQO Limit = 159 ppb
Average = 13.0 ppb


Number of Hours
0
200
400
600
198
174
72
58
35
29
14
20
23
11
5
0
20
40
60
80
NO2 in ppb

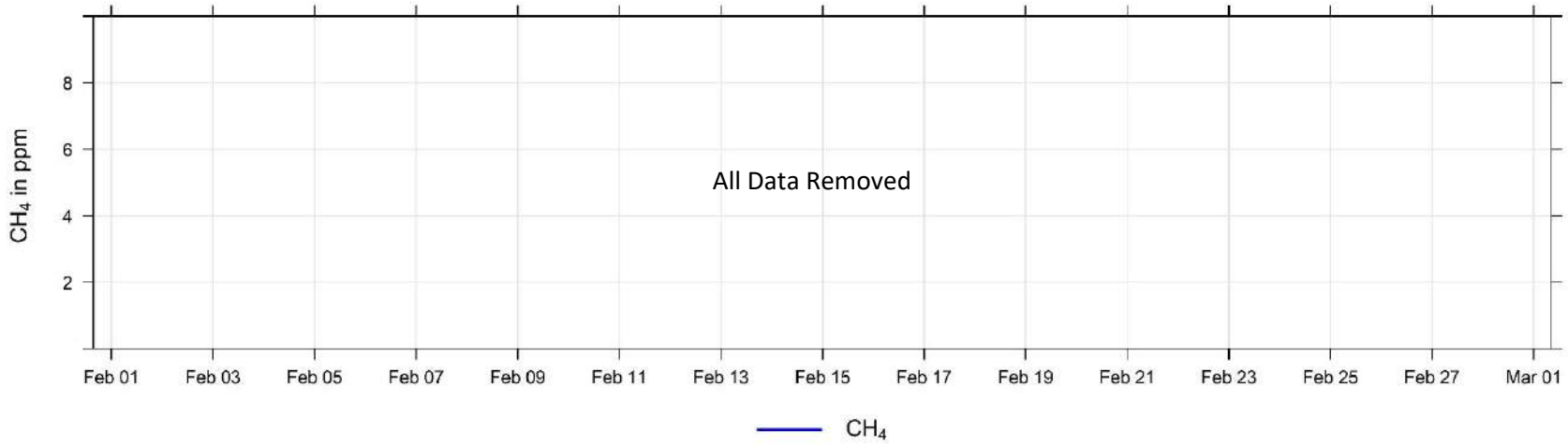

February 2022 Hourly Concentration Readings of O_3 (in ppb) at Henry Pirker
O_3 in ppb
100
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
O_3
AAAQO Limit = 76 ppb
Average = 28.0 ppb

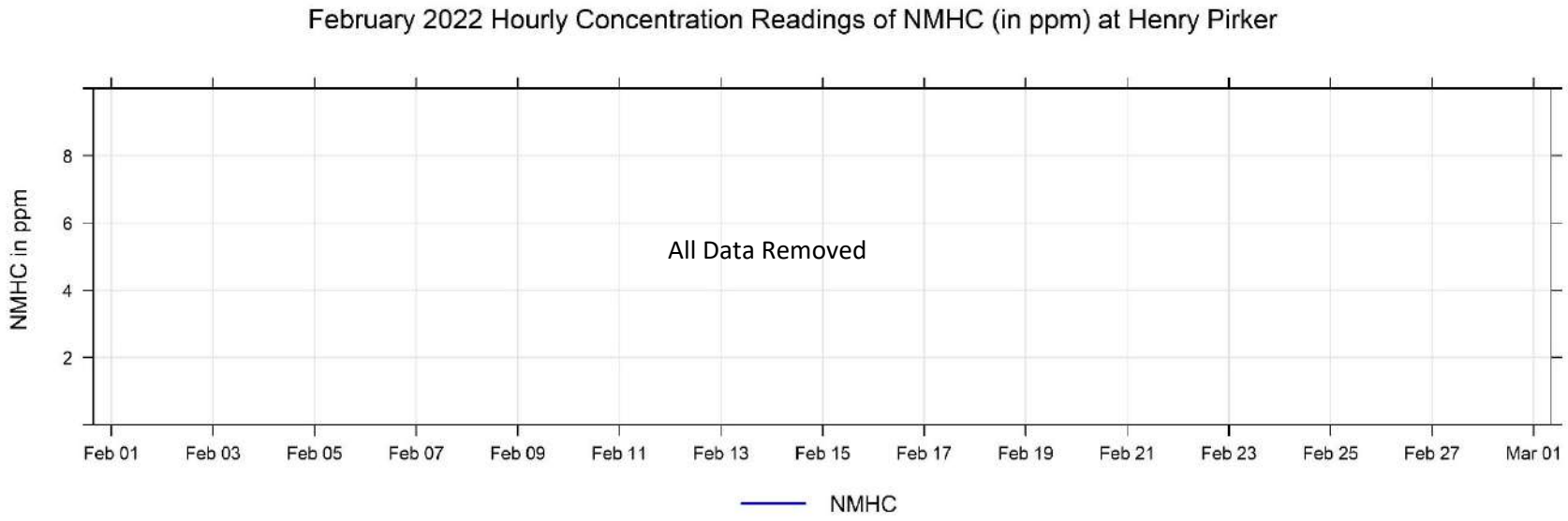

Number of Hours
0
200
400
600
44
25
43
55
50
102
119
76
103
24
0
20
40
60
80
100
O_3 in ppb

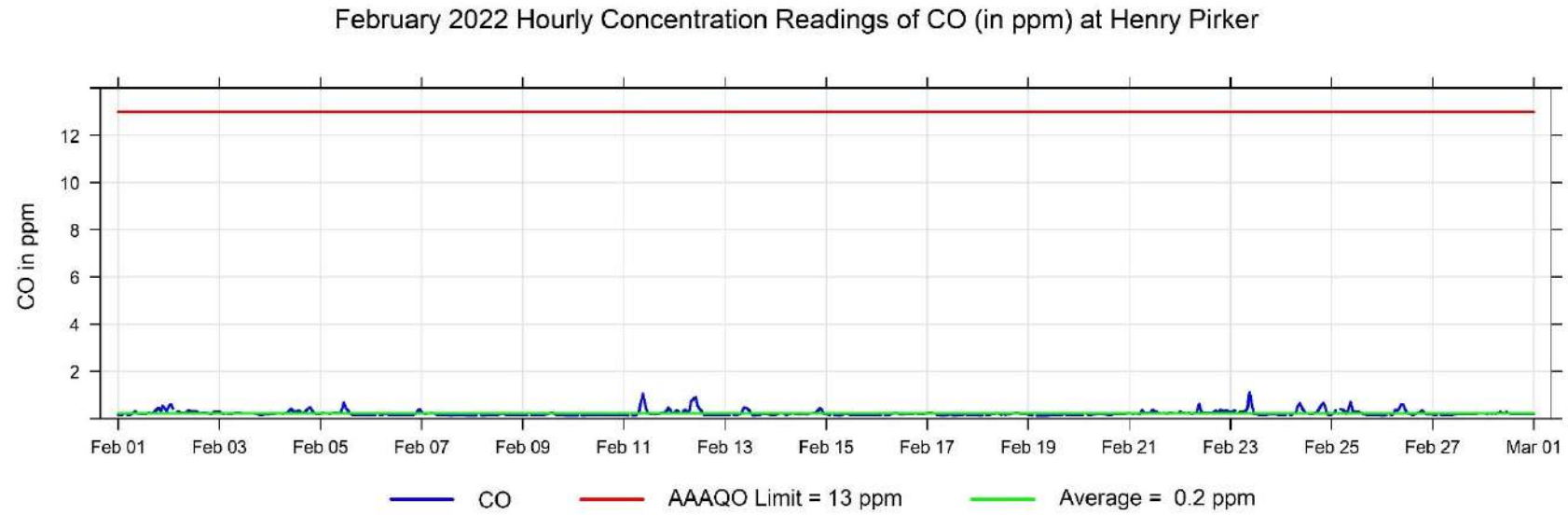
February 2022 Hourly Concentration Readings of THC (in ppm) at Henry Pirker

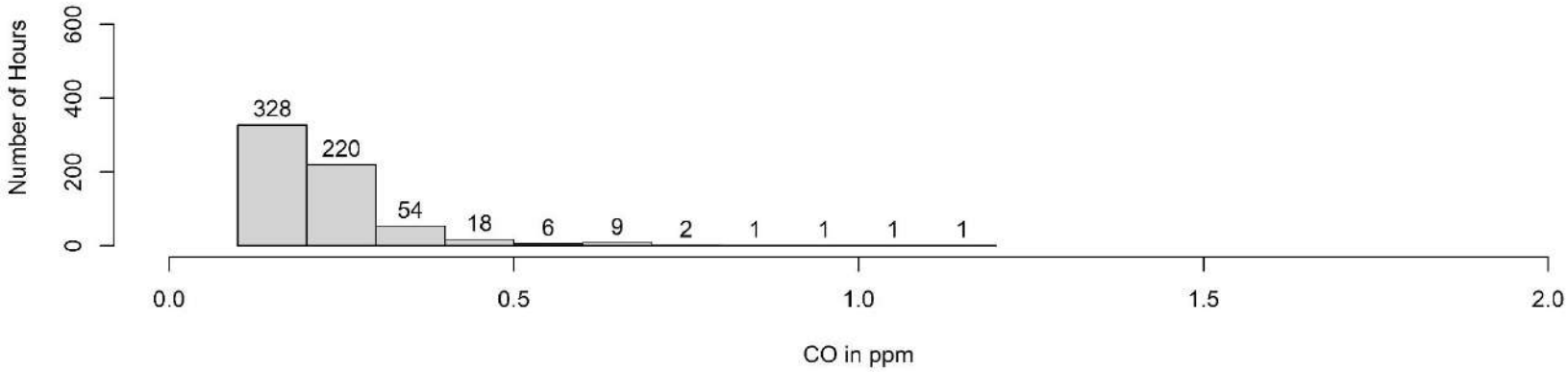


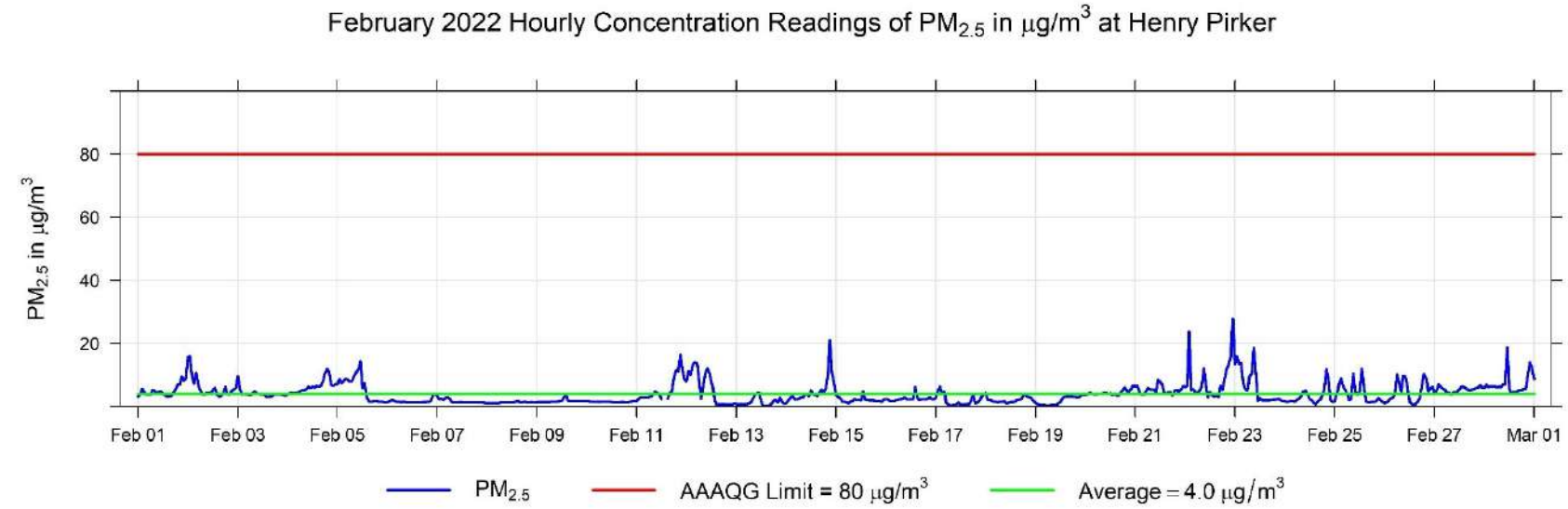
February 2022 Hourly Concentration Readings of CH_4 (in ppm) at Henry Pirker

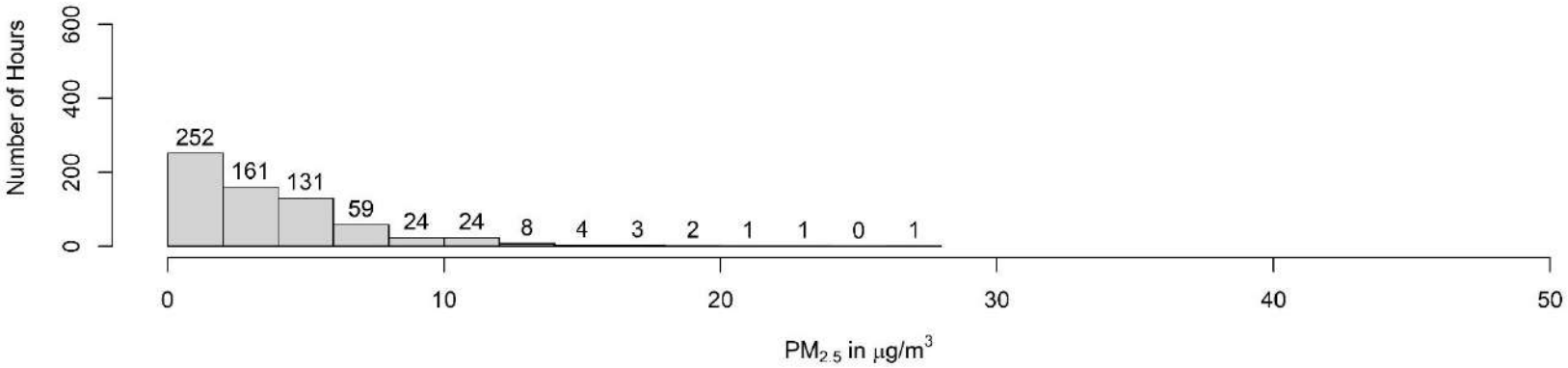


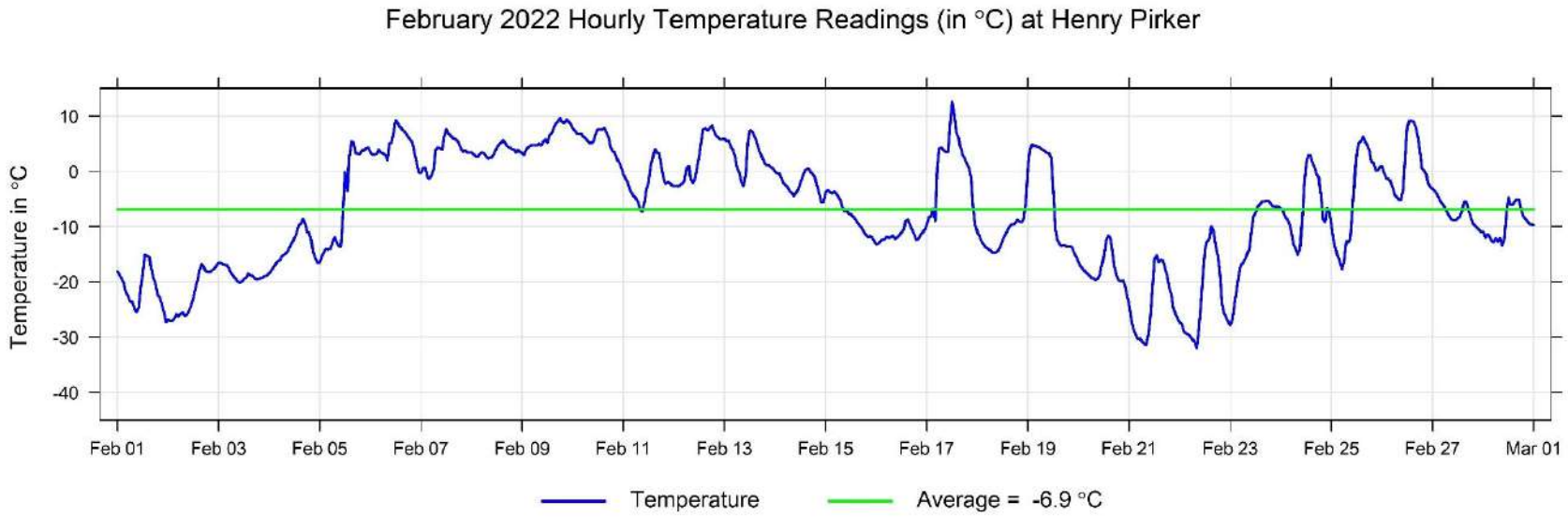

February 2022 Hourly Concentration Readings of NMHC (in ppm) at Henry Pirker
NMHC in ppm
8
6
4
2
All Data Removed
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NMHC

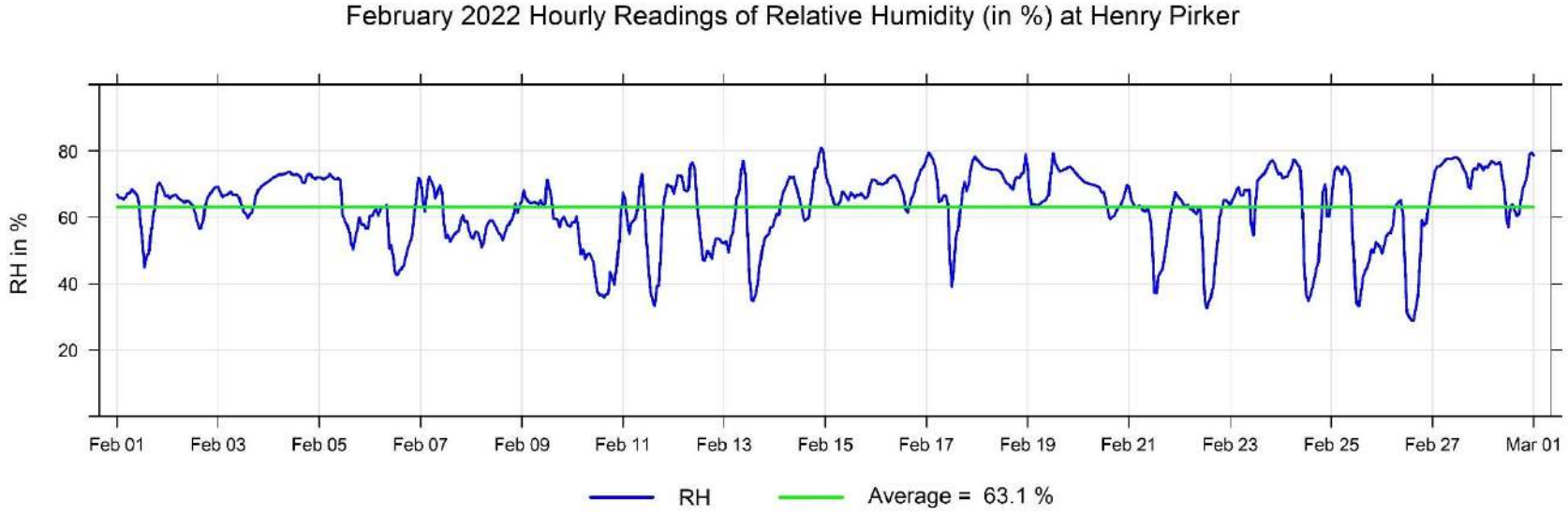

February 2022 Hourly Concentration Readings of CO (in ppm) at Henry Pirker
CO in ppm
12
10
8
6
4
2
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
CO
AAAQO Limit = 13 ppm
Average = 0.2 ppm


Number of Hours
0
200
400
600
328
220
54
18
6
9
2
1
1
1
1
0.0
0.5
1.0
1.5
2.0
CO in ppm

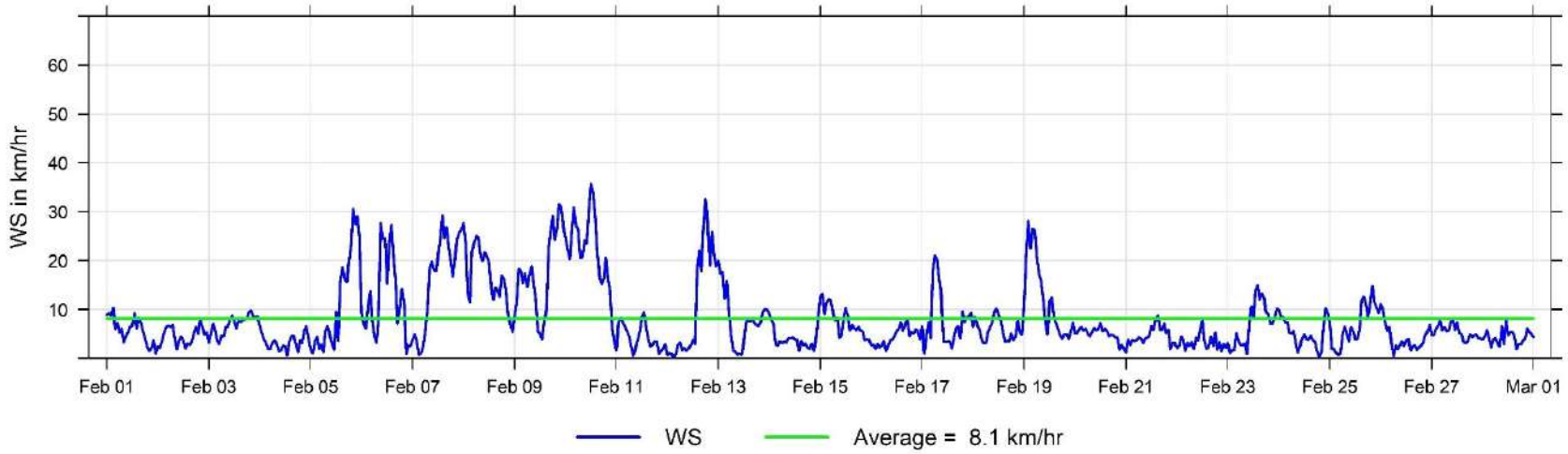

February 2022 Hourly Concentration Readings of PM2.5 in µg/m3 at Henry Pirker
PM2.5 in µg/m3
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
PM2.5
AAAQG Limit = 80 µg/m3
Average = 4.0 µg/m3


Number of Hours
0
200
400
600
252
161
131
59
24
24
8
4
3
2
1
1
0
1
0
10
20
30
40
50
PM2.5 in µg/m3

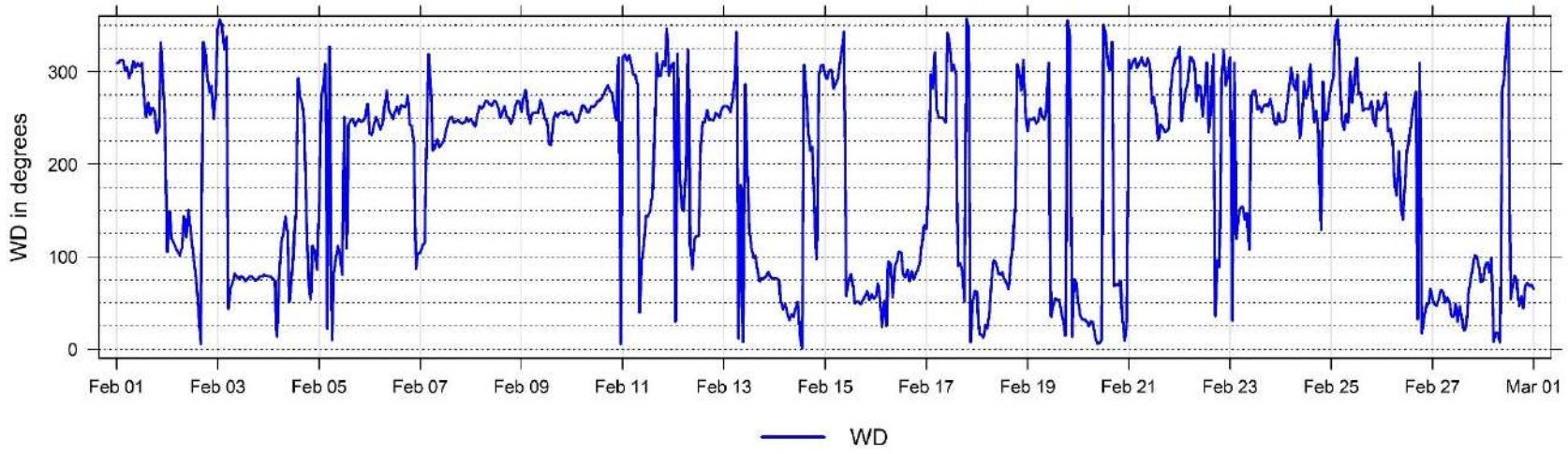

February 2022 Hourly Temperature Readings (in °C) at Henry Pirker
Temperature in °C
10
0
-10
-20
-30
-40
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
Temperature
Average = -6.9 °C

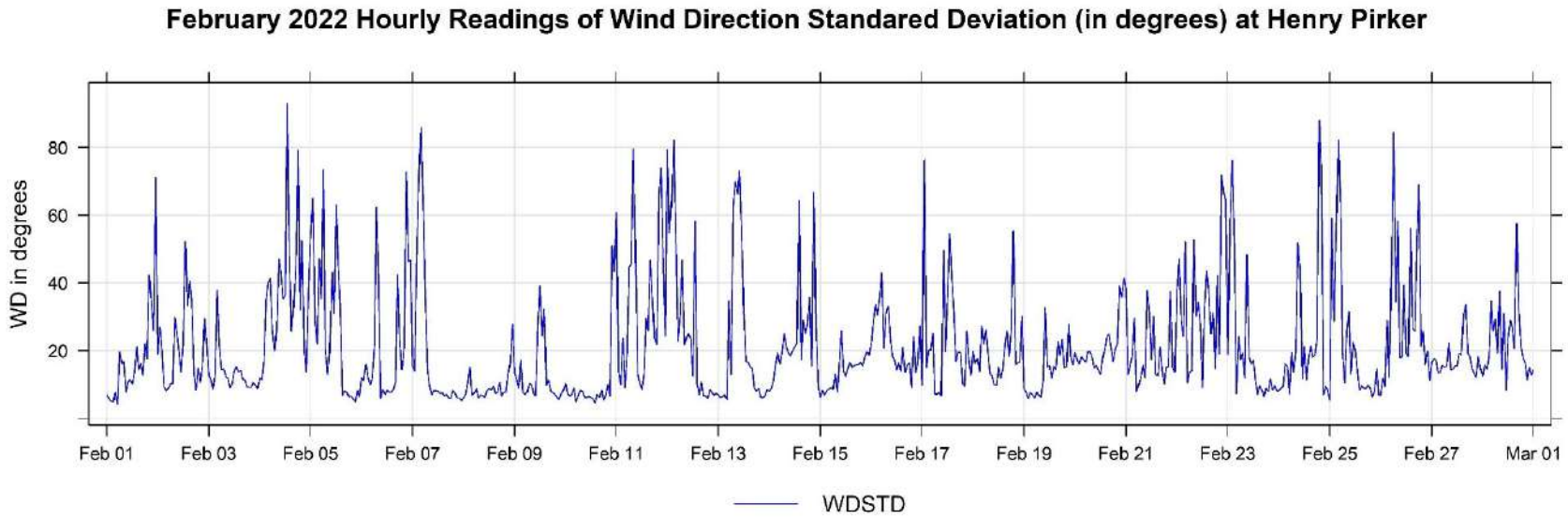

February 2022 Hourly Readings of Relative Humidity (in %) at Henry Pirker
RH in %
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
RH
Average = 63.1 %

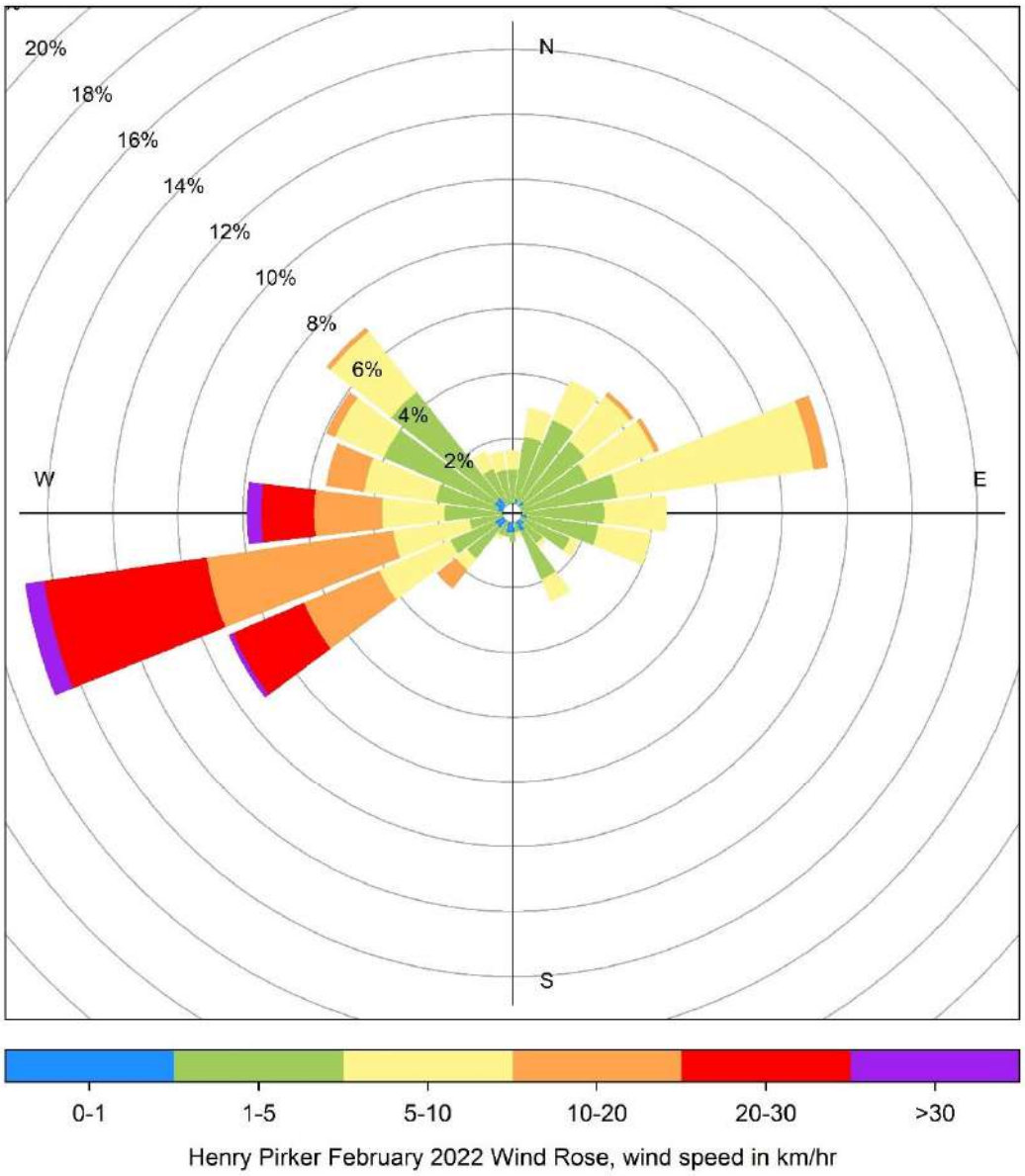
February 2022 Hourly Readings of Wind Speed (in km/hr) at Henry Pirker



February 2022 Hourly Readings of Wind Direction (in degrees) at Henry Pirker



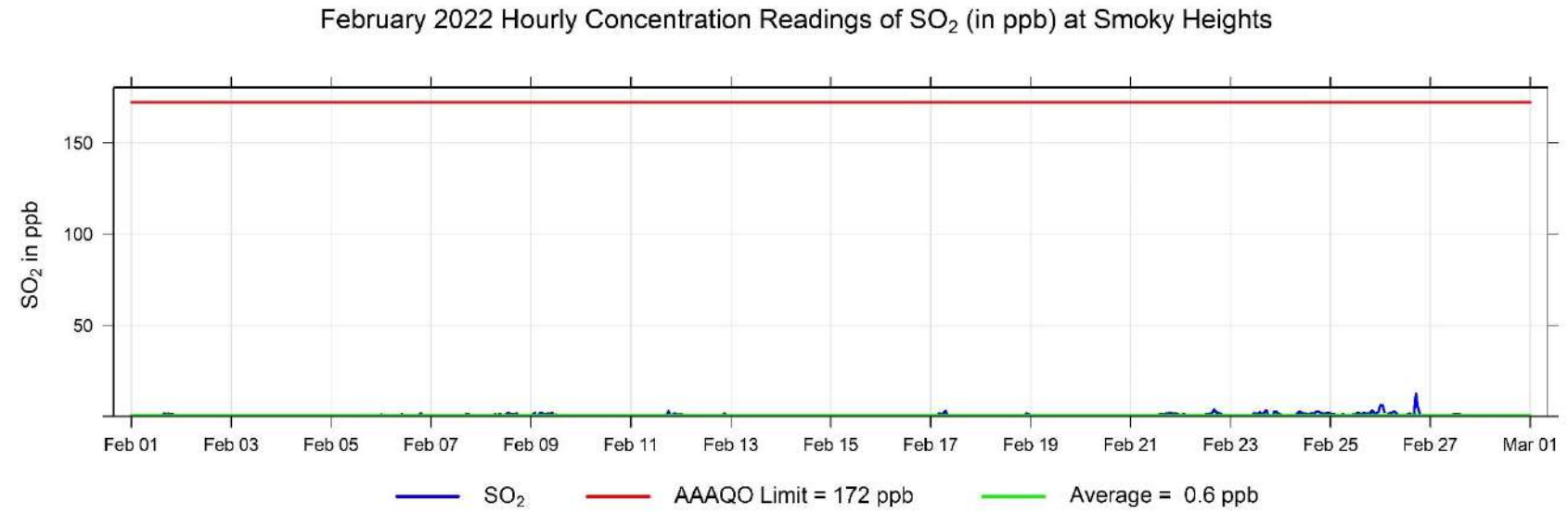

February 2022 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Henry Pirker
WD in degrees
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
WDSTD

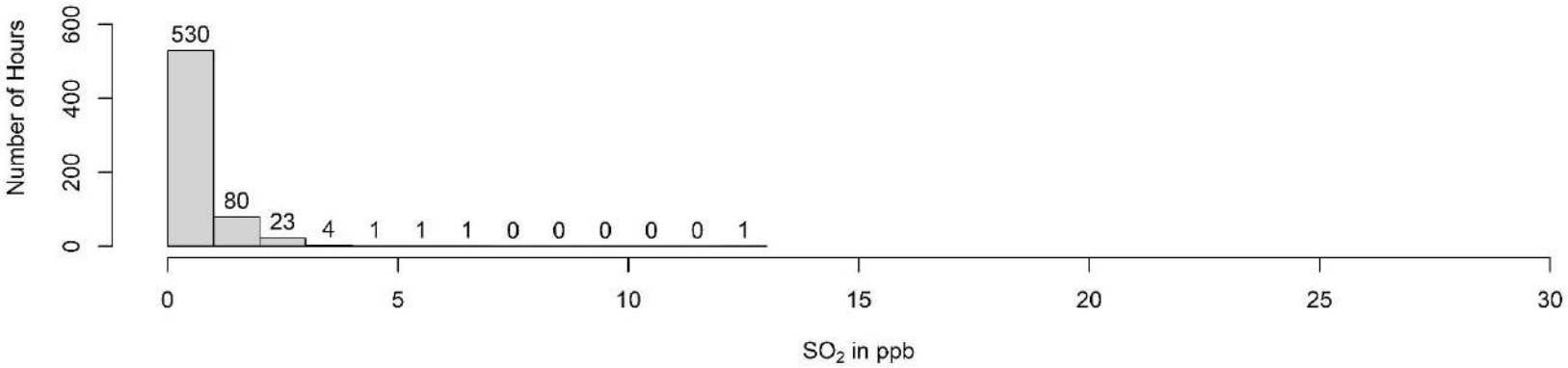


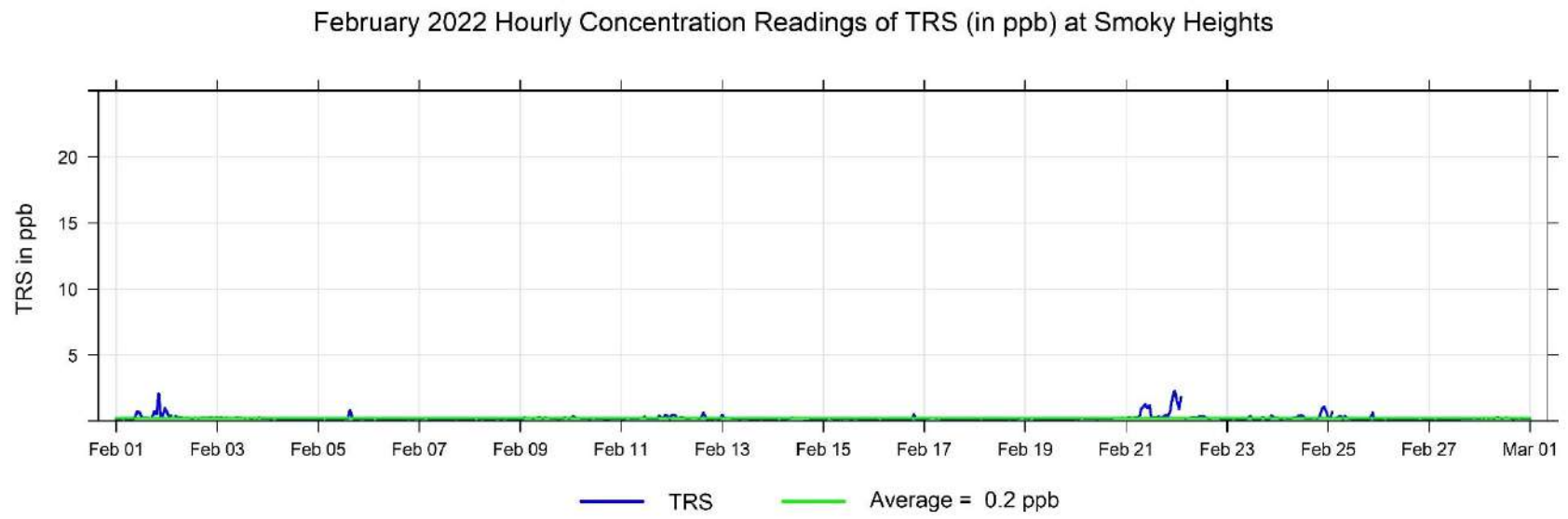
Henry Pirker February 2022 Wind Rose, wind speed in km/hr

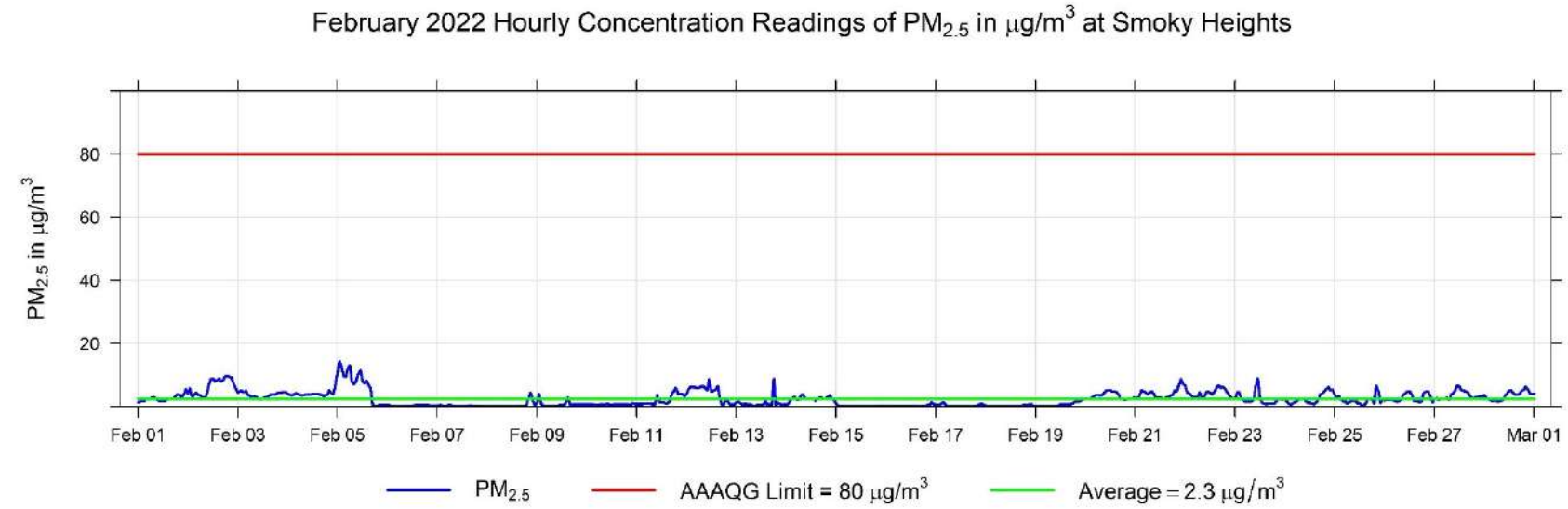
5 Smoky Heights Charts

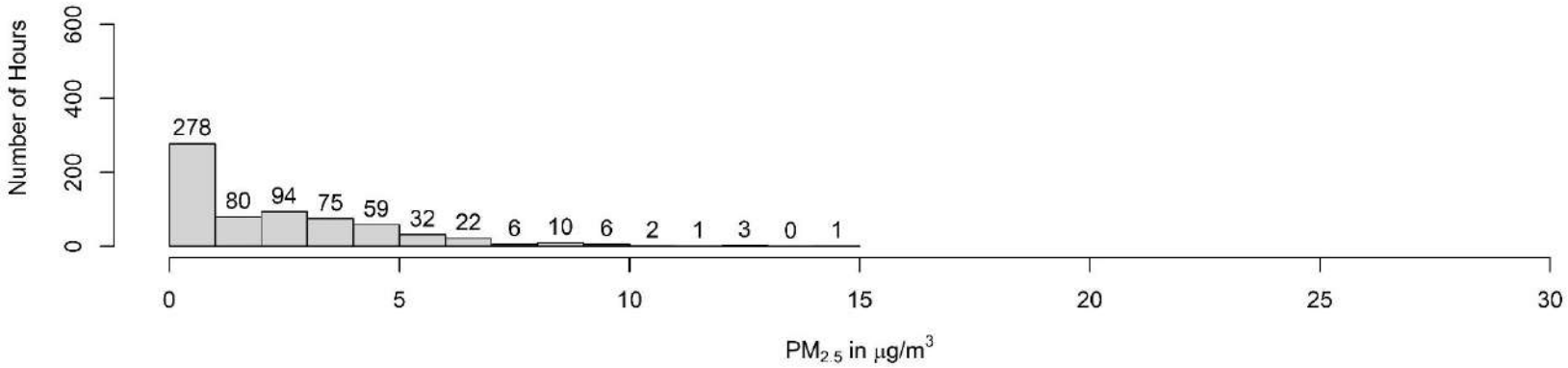
The following pages include the charts and histograms for Smoky Heights Station


February 2022 Hourly Concentration Readings of SO2 (in ppb) at Smoky Heights
SO2 in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
SO2
AAAQO Limit = 172 ppb
Average = 0.6 ppb

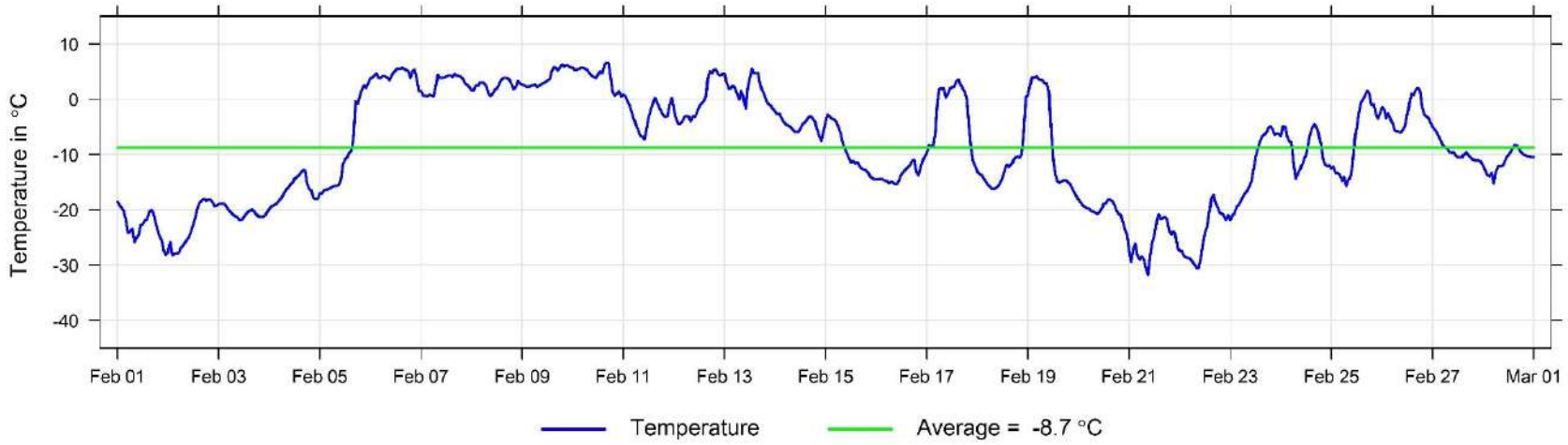

Number of Hours
0
200
400
600
530
80
23
4
1
1
1
0
0
0
0
0
1
0
5
10
15
20
25
30
SO2 in ppb


February 2022 Hourly Concentration Readings of TRS (in ppb) at Smoky Heights
TRS in ppb
20
15
10
5
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
TRS
Average = 0.2 ppb

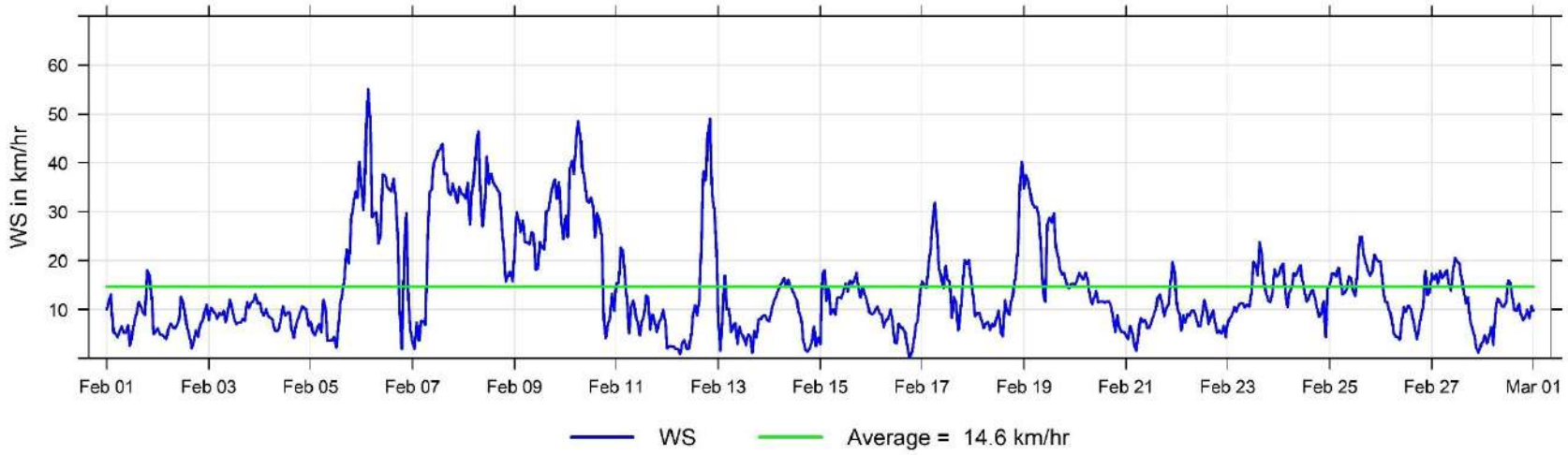

February 2022 Hourly Concentration Readings of PM2.5 in µg/m3 at Smoky Heights
PM2.5 in µg/m3
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
PM2.5
AAAQG Limit = 80 µg/m3
Average = 2.3 µg/m3


Number of Hours
0
200
400
600
278
80
94
75
59
32
22
6
10
6
2
1
3
0
1
0
5
10
15
20
25
30
PM2.5 in µg/m3

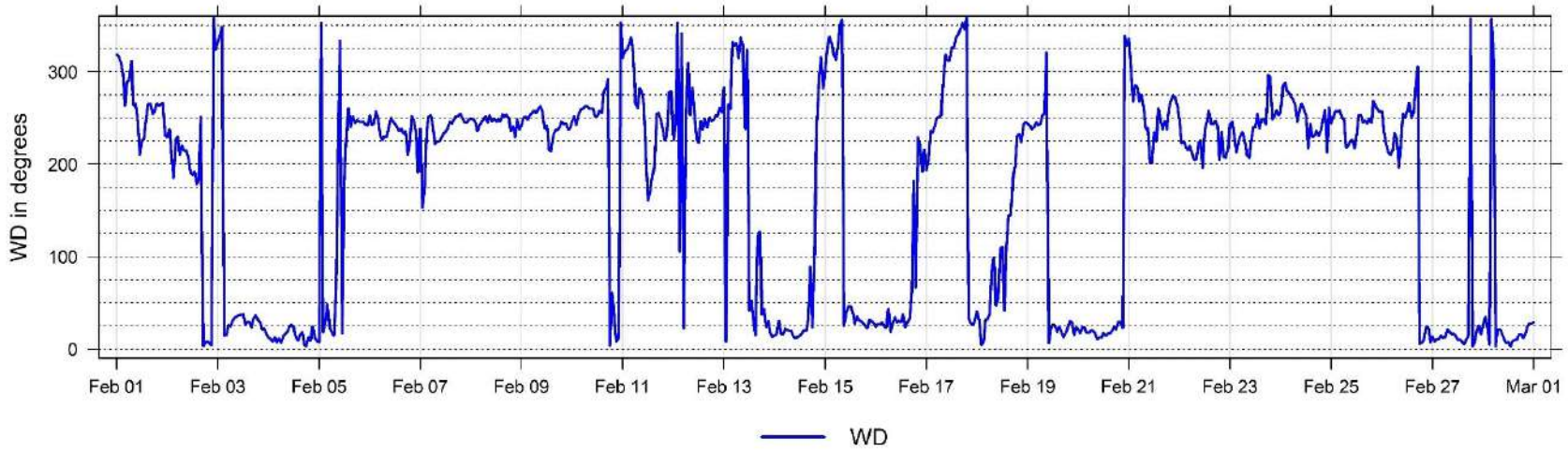
February 2022 Hourly Temperature Readings (in °C) at Smoky Heights



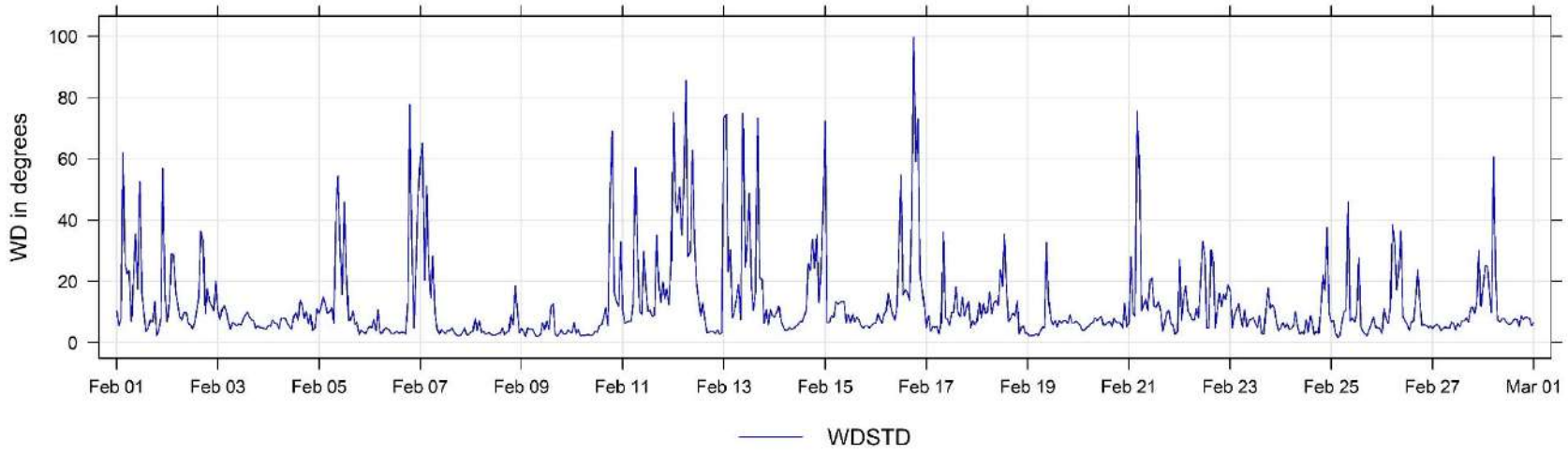
February 2022 Hourly Readings of Wind Speed (in km/hr) at Smoky Heights

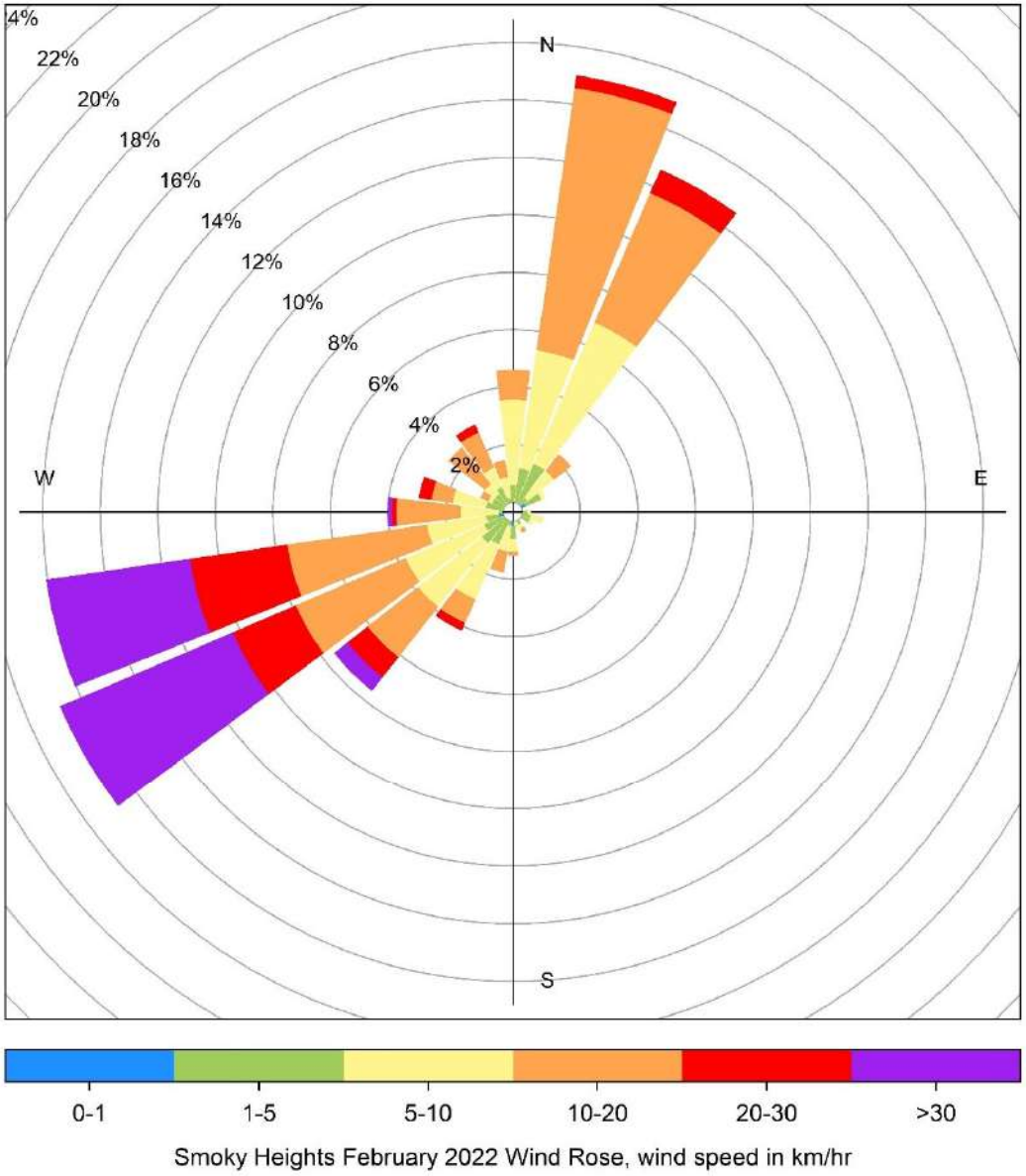


February 2022 Hourly Readings of Wind Direction (in degrees) at Smoky Heights



February 2022 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Smoky Heights

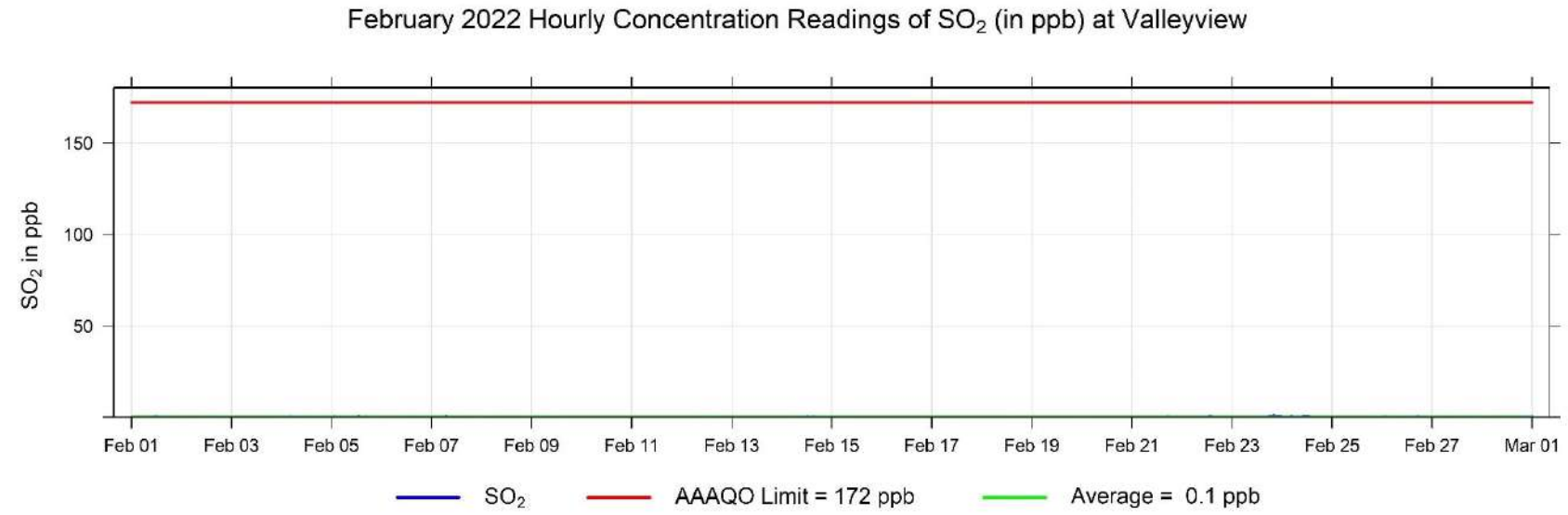


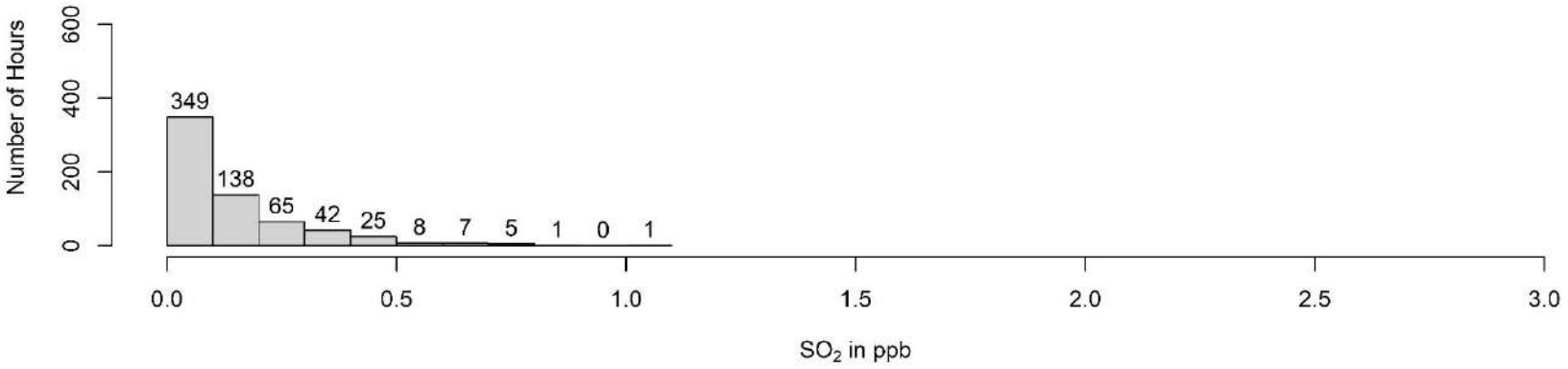


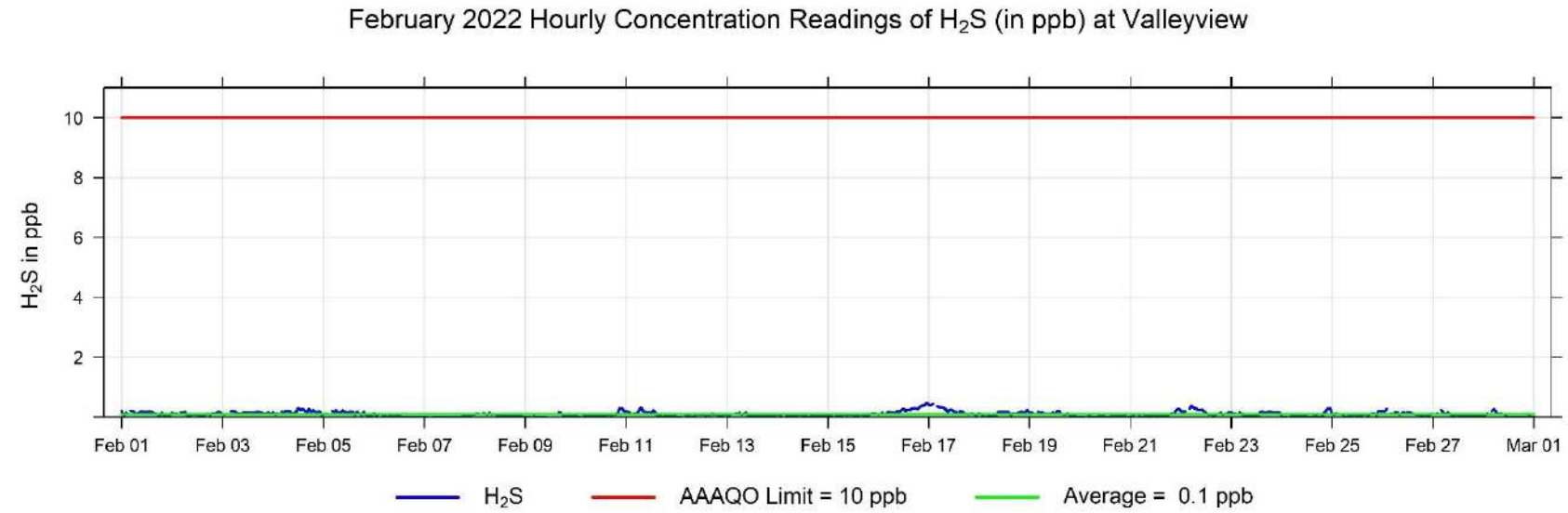
Smoky Heights February 2022 Wind Rose, wind speed in km/hr

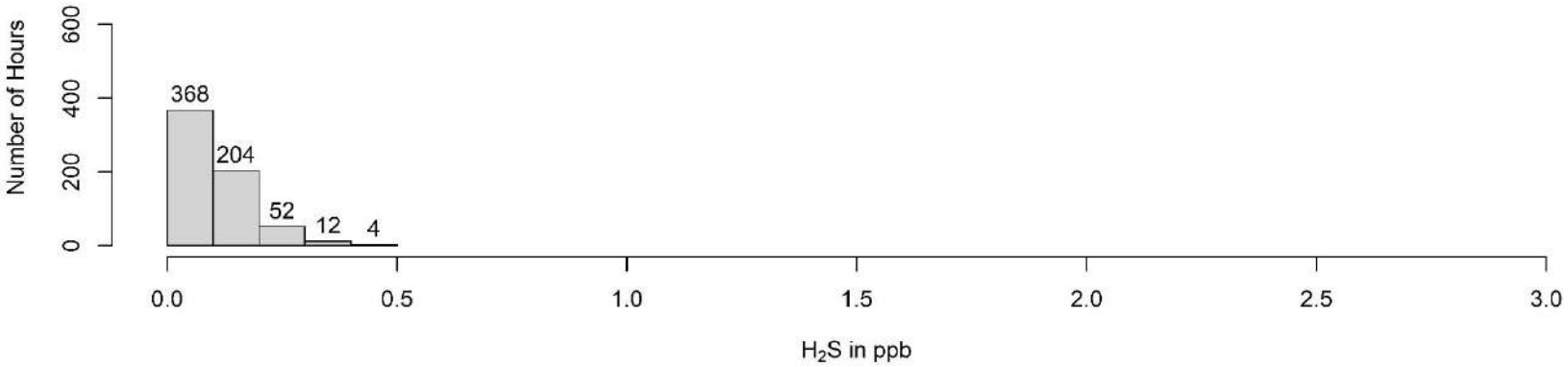
6 Valleyview Charts

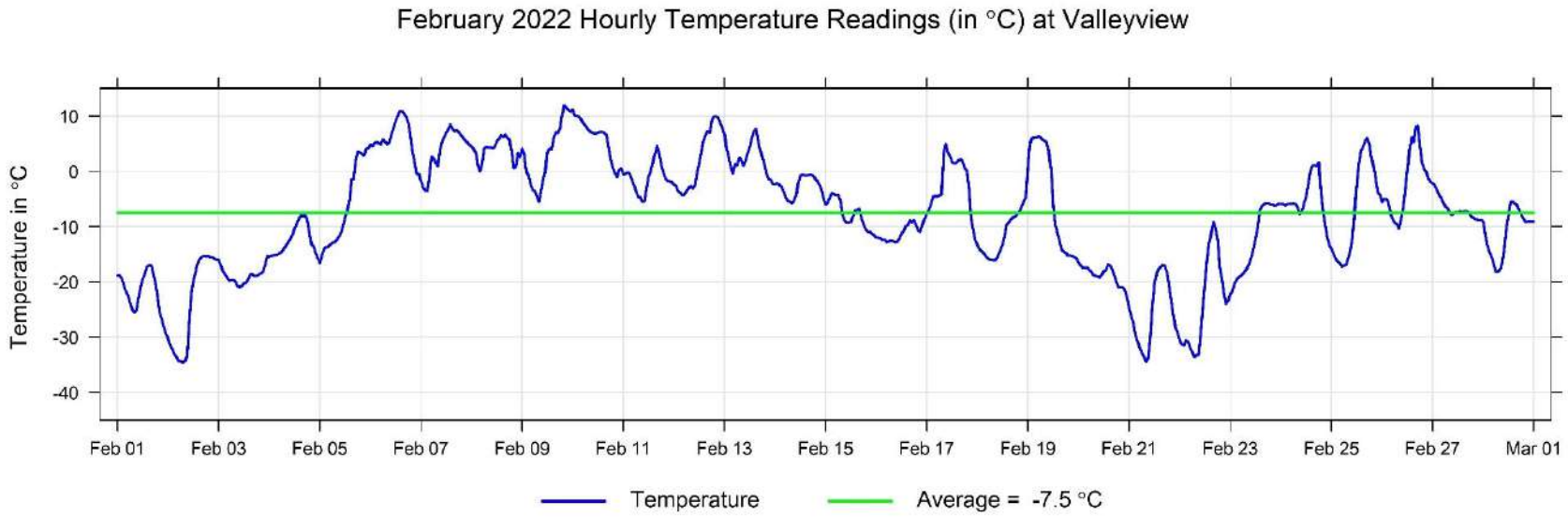
The following pages include the charts and histograms for Valleyview Station

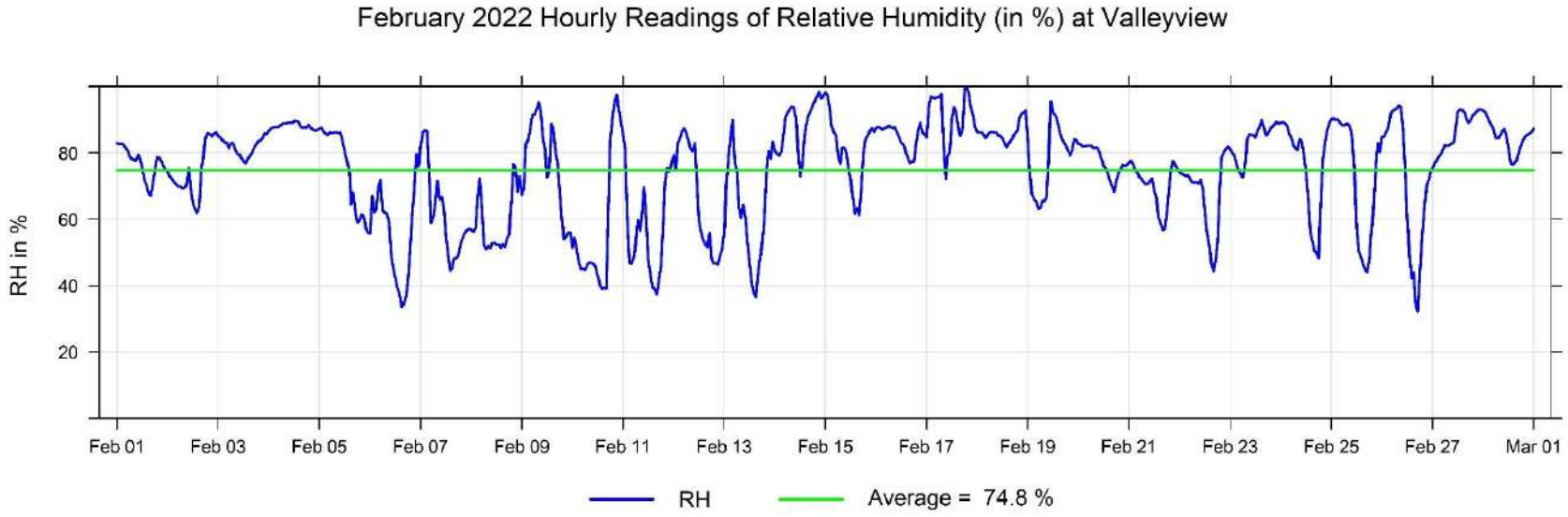

February 2022 Hourly Concentration Readings of SO2 (in ppb) at Valleyview
SO2 in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
SO2
AAAQO Limit = 172 ppb
Average = 0.1 ppb

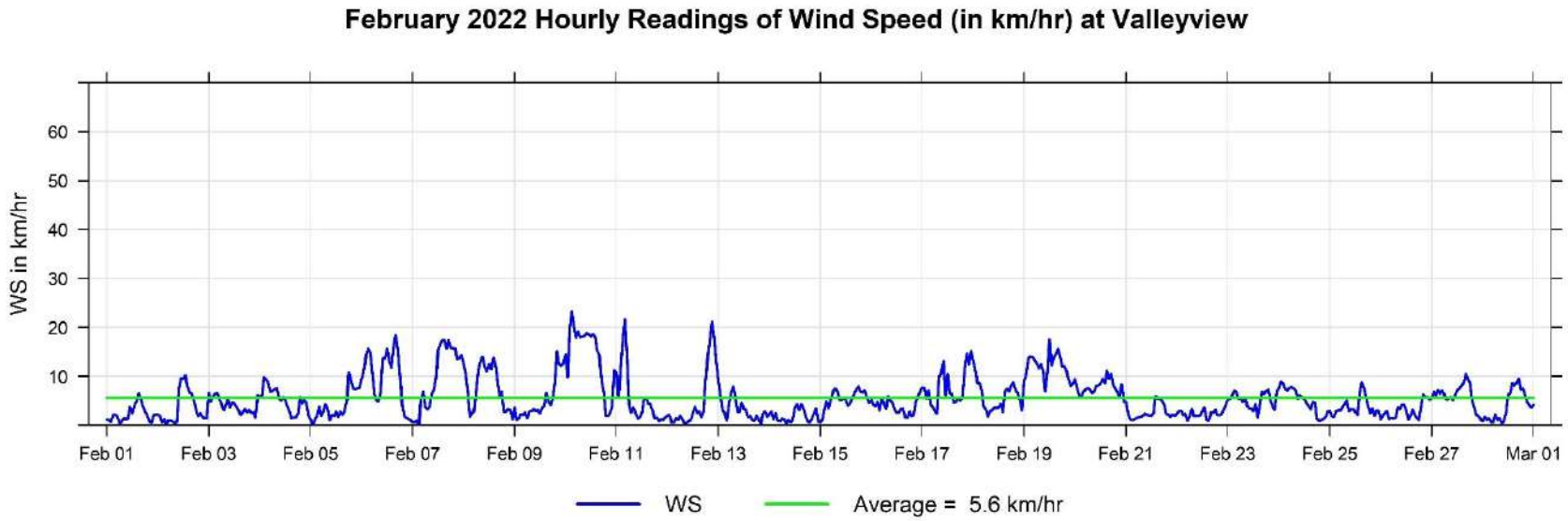

Number of Hours
0
200
400
600
349
138
65
42
25
8
7
5
1
0
1
0.0
0.5
1.0
1.5
2.0
2.5
3.0
SO2 in ppb

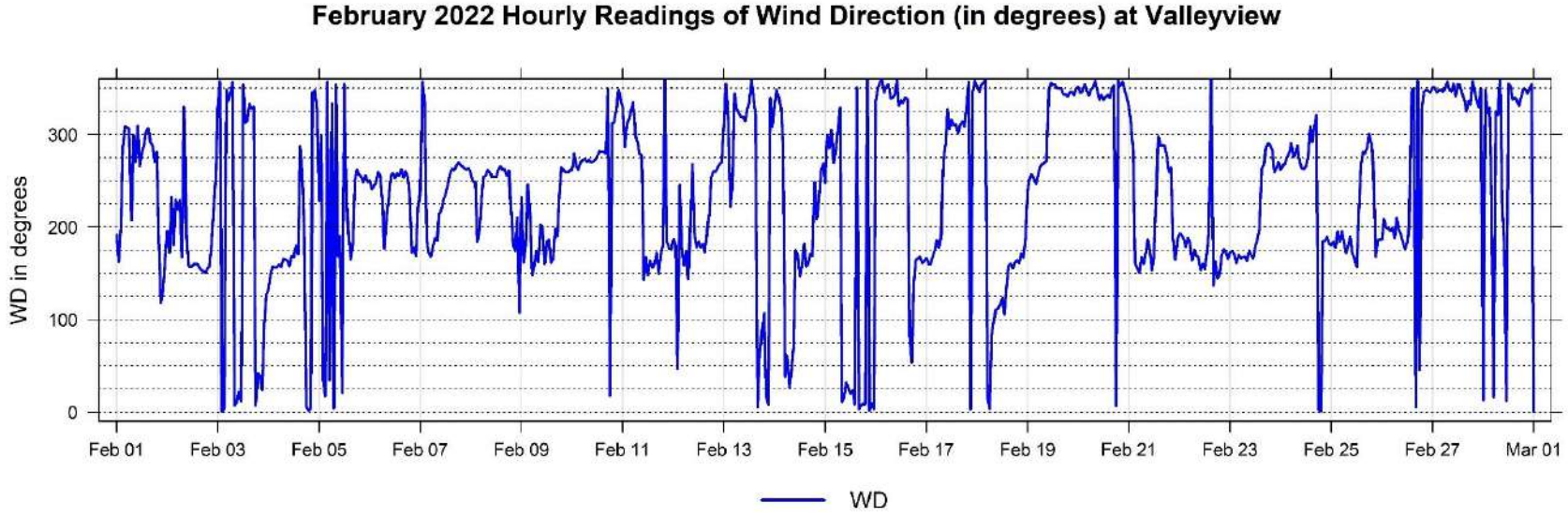

February 2022 Hourly Concentration Readings of H2S (in ppb) at Valleyview
H2S in ppb
10
8
6
4
2
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
H2S
AAAQO Limit = 10 ppb
Average = 0.1 ppb

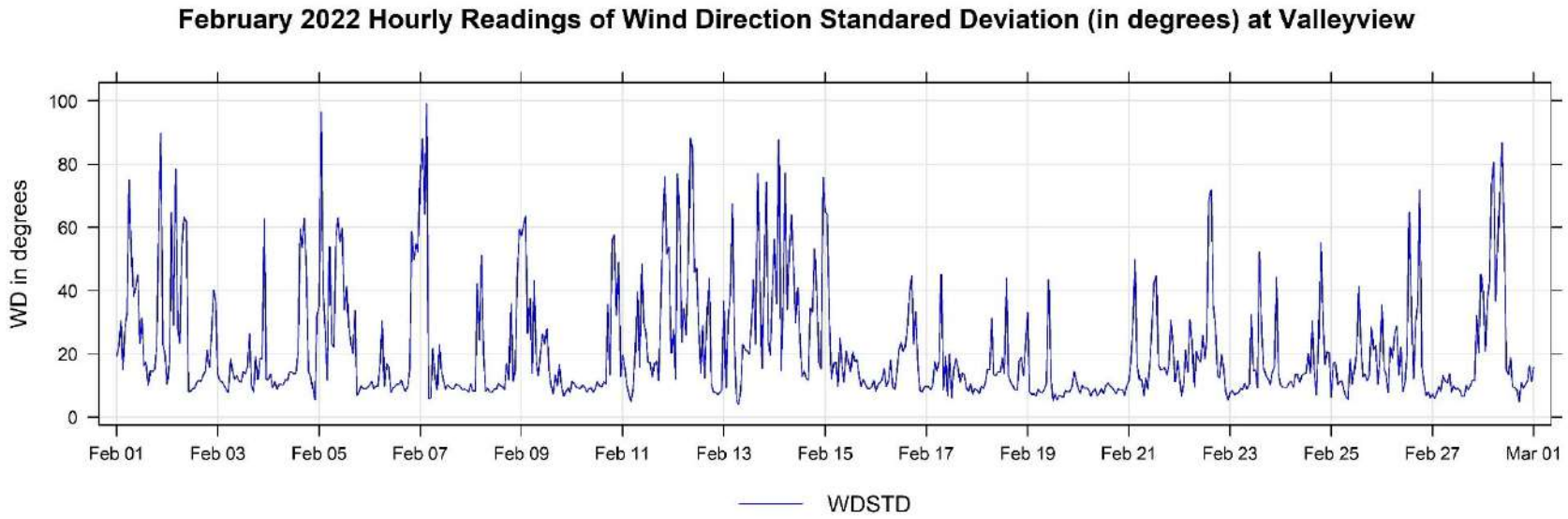

Number of Hours
0
200
400
600
368
204
52
12
4
0.0
0.5
1.0
1.5
2.0
2.5
3.0
H2S in ppb

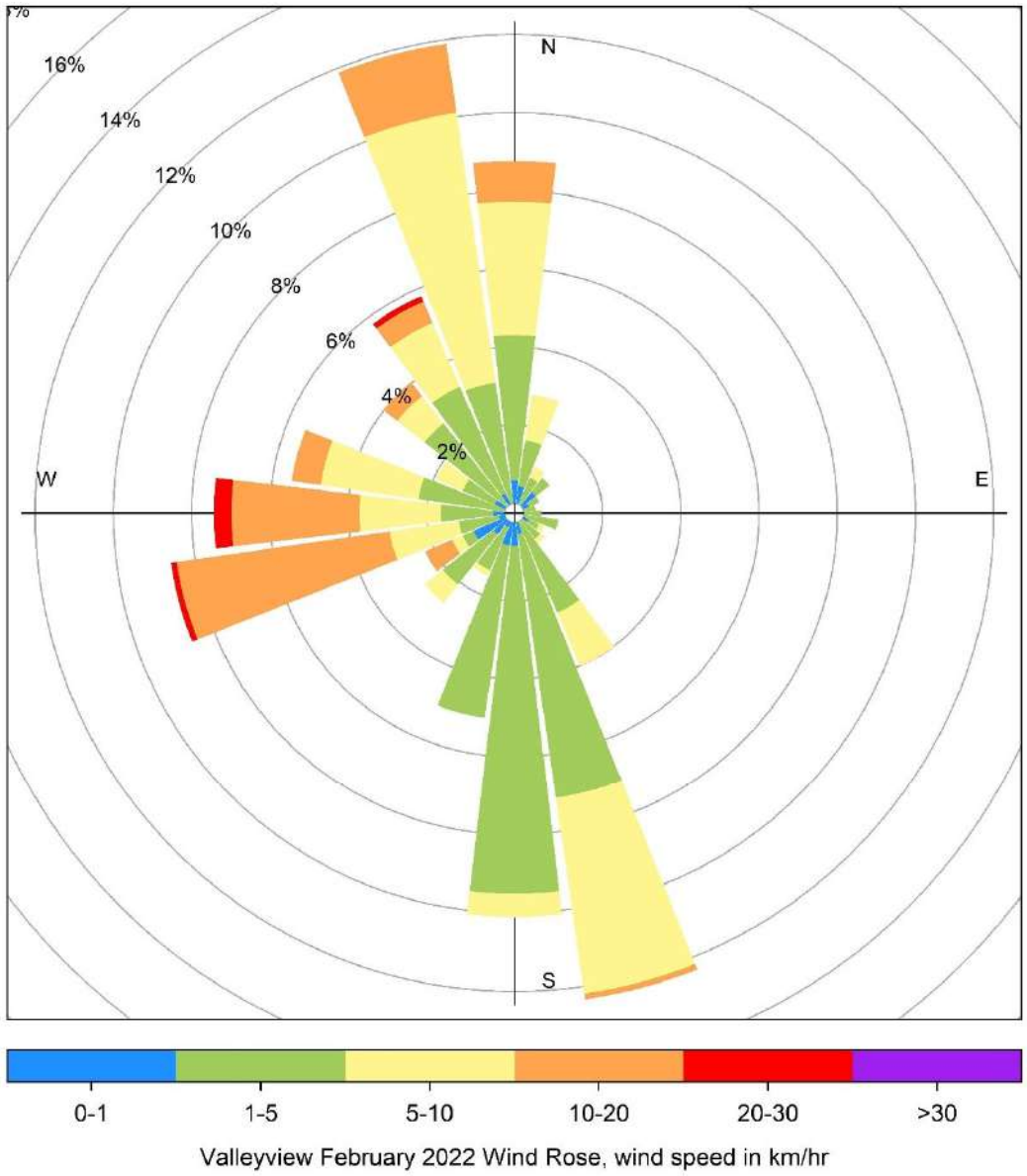

February 2022 Hourly Temperature Readings (in °C) at Valleyview
Temperature in °C
10
0
-10
-20
-30
-40
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
Temperature
Average = -7.5 °C


February 2022 Hourly Readings of Relative Humidity (in %) at Valleyview
RH in %
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
RH
Average = 74.8 %


February 2022 Hourly Readings of Wind Speed (in km/hr) at Valleyview
WS in km/hr
60
50
40
30
20
10
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
WS
Average = 5.6 km/hr


February 2022 Hourly Readings of Wind Direction (in degrees) at Valleyview
WD in degrees
300
200
100
0
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
WD

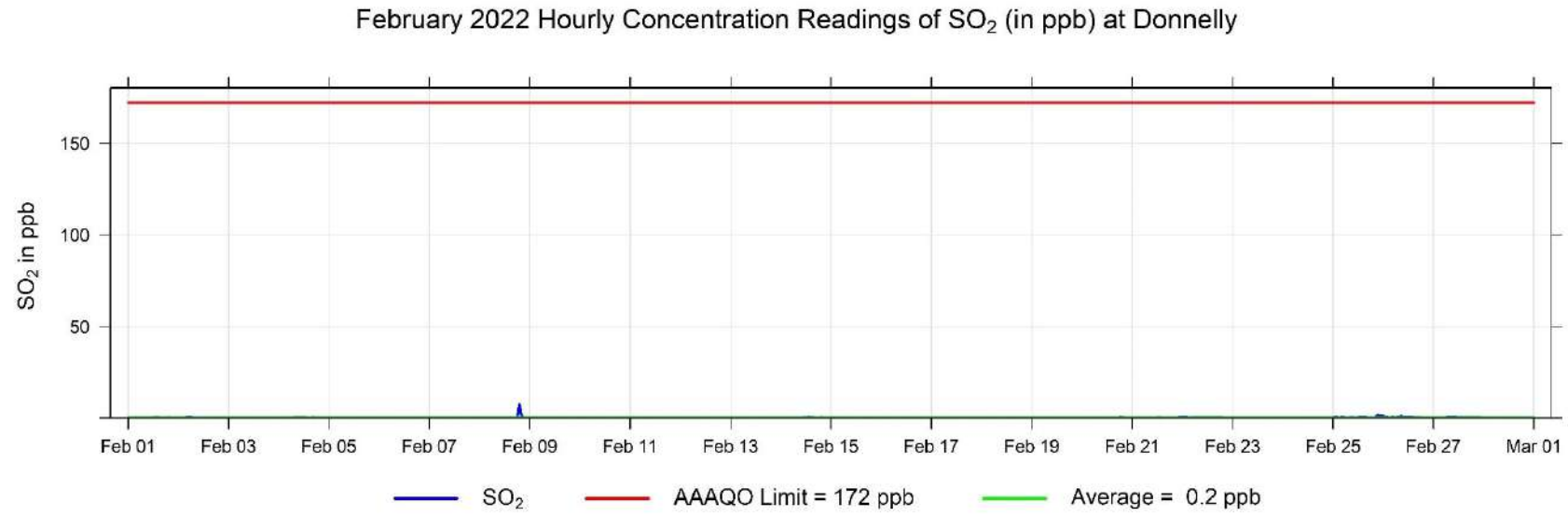

February 2022 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Valleyview
WD in degrees
100
80
60
40
20
0
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
WDSTD

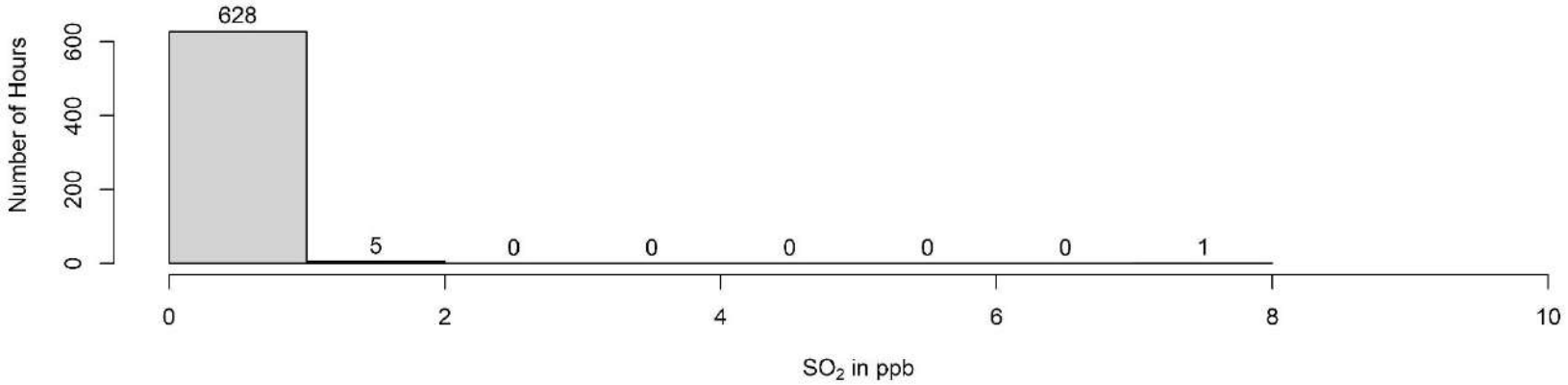


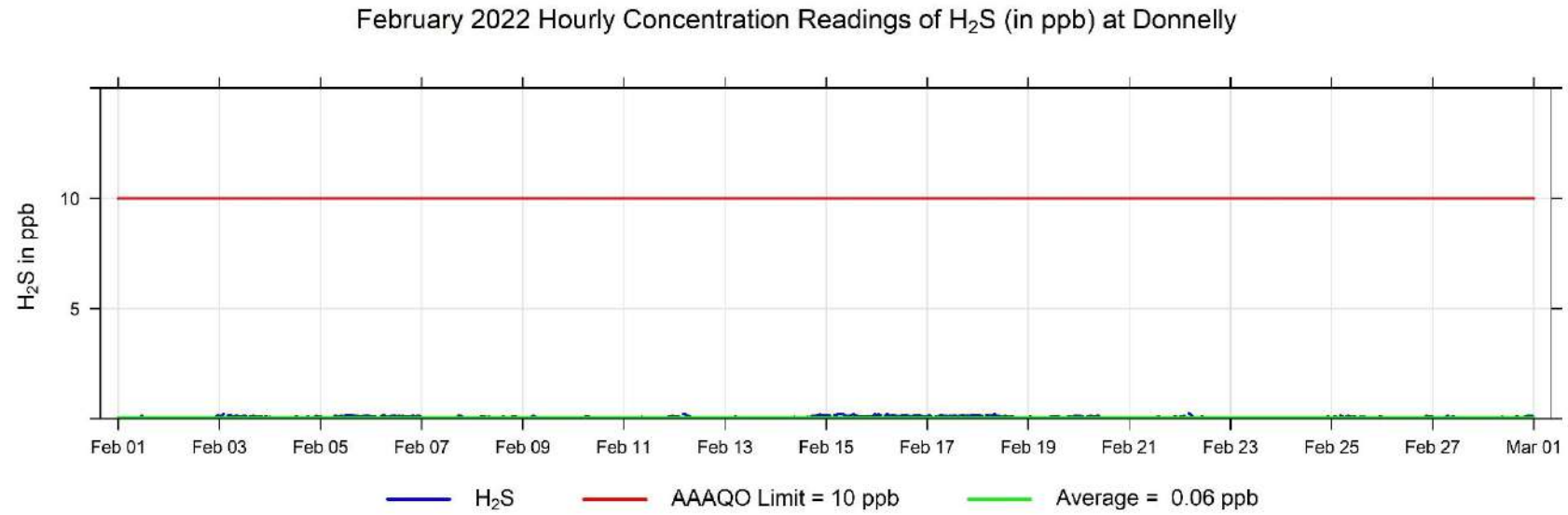
Valleyview February 2022 Wind Rose, wind speed in km/hr

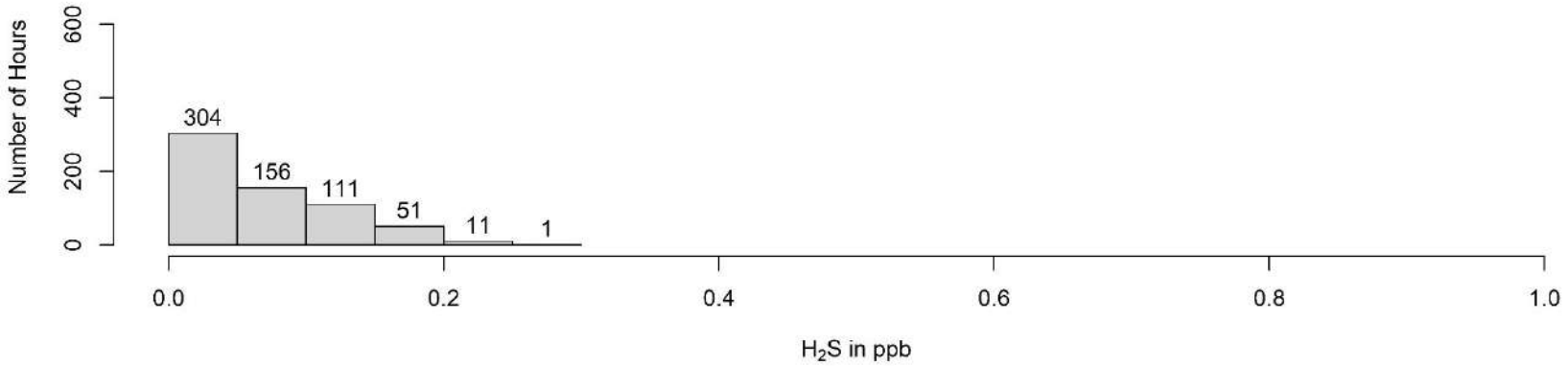
7 Donnelly Charts

The following pages include the charts and histograms for Donnelly Station

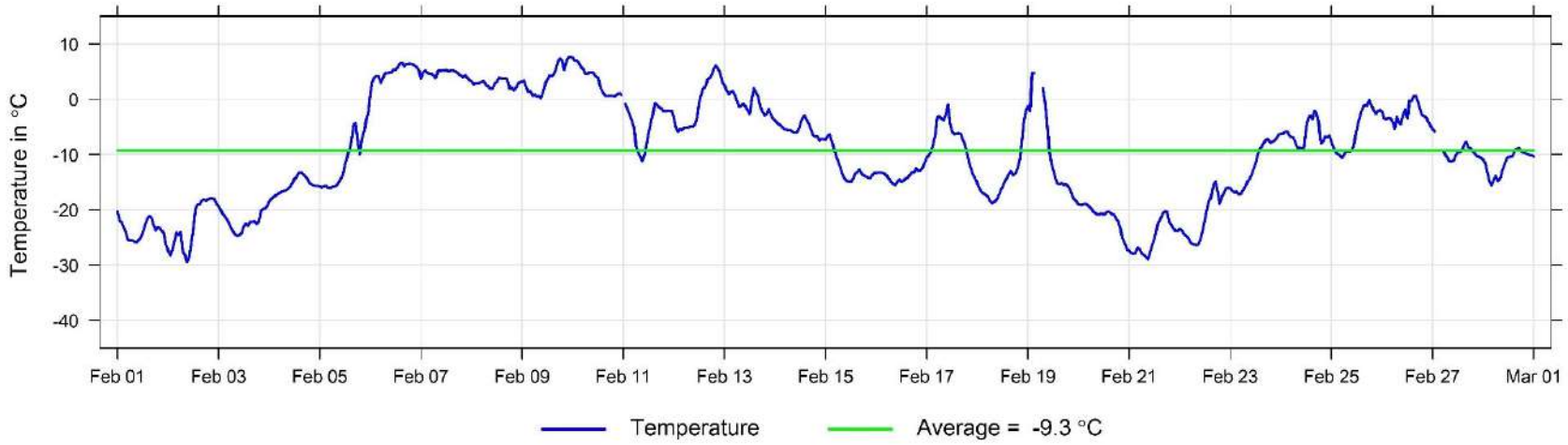

February 2022 Hourly Concentration Readings of SO2 (in ppb) at Donnelly
SO2 in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
SO2
AAAQO Limit = 172 ppb
Average = 0.2 ppb


Number of Hours
0
200
400
600
628
5
0
0
0
0
0
1
0
2
4
6
8
10
SO2 in ppb

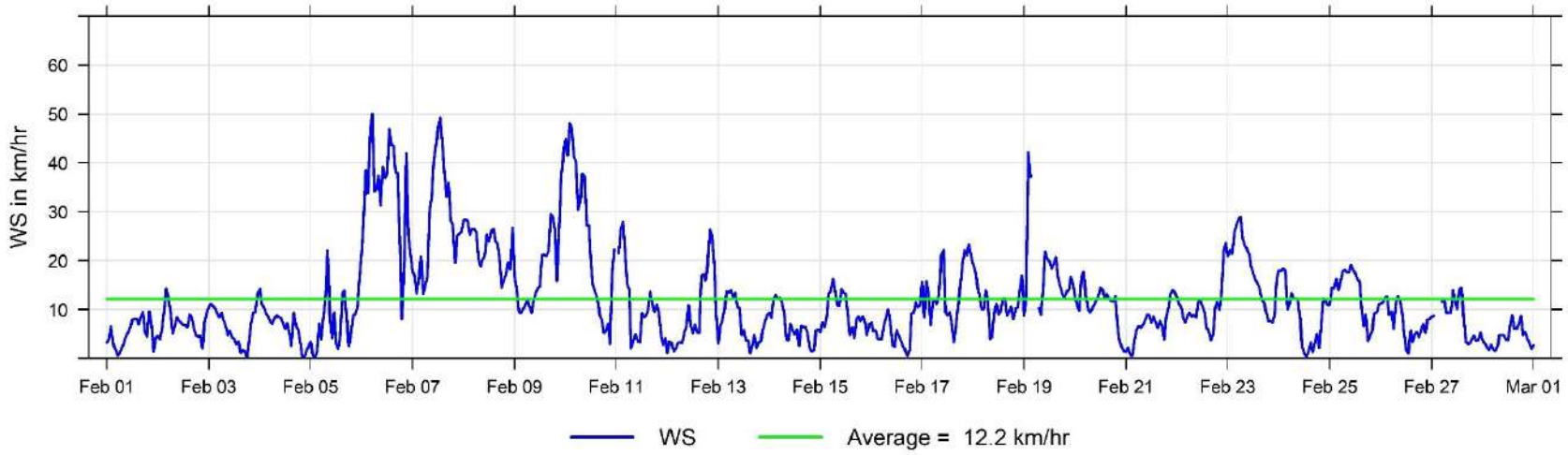

February 2022 Hourly Concentration Readings of H2S (in ppb) at Donnelly
H2S in ppb
10
5
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
H2S
AAAQO Limit = 10 ppb
Average = 0.06 ppb


Number of Hours
0
200
400
600
304
156
111
51
11
1
0.0
0.2
0.4
0.6
0.8
1.0
H2S in ppb

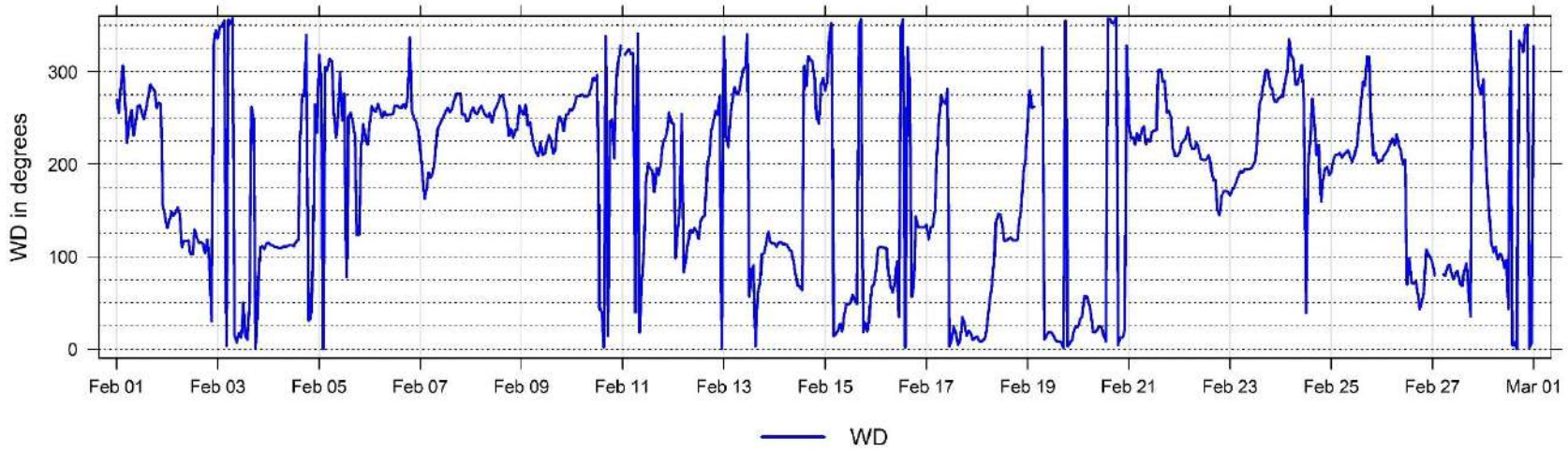
February 2022 Hourly Temperature Readings (in °C) at Donnelly



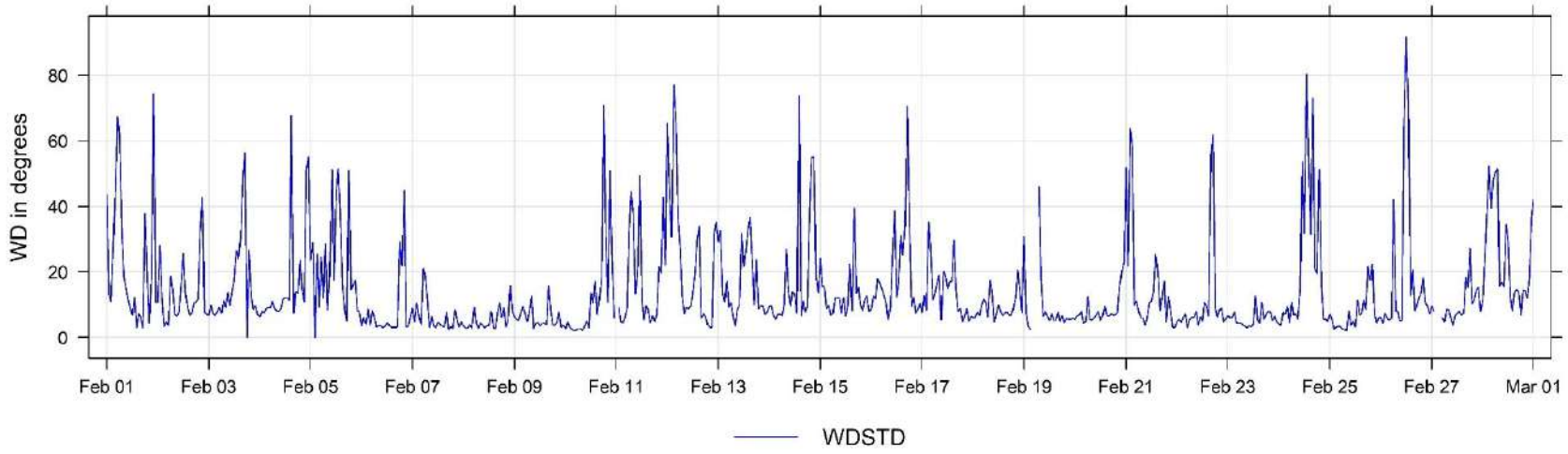
February 2022 Hourly Readings of Wind Speed (in km/hr) at Donnelly

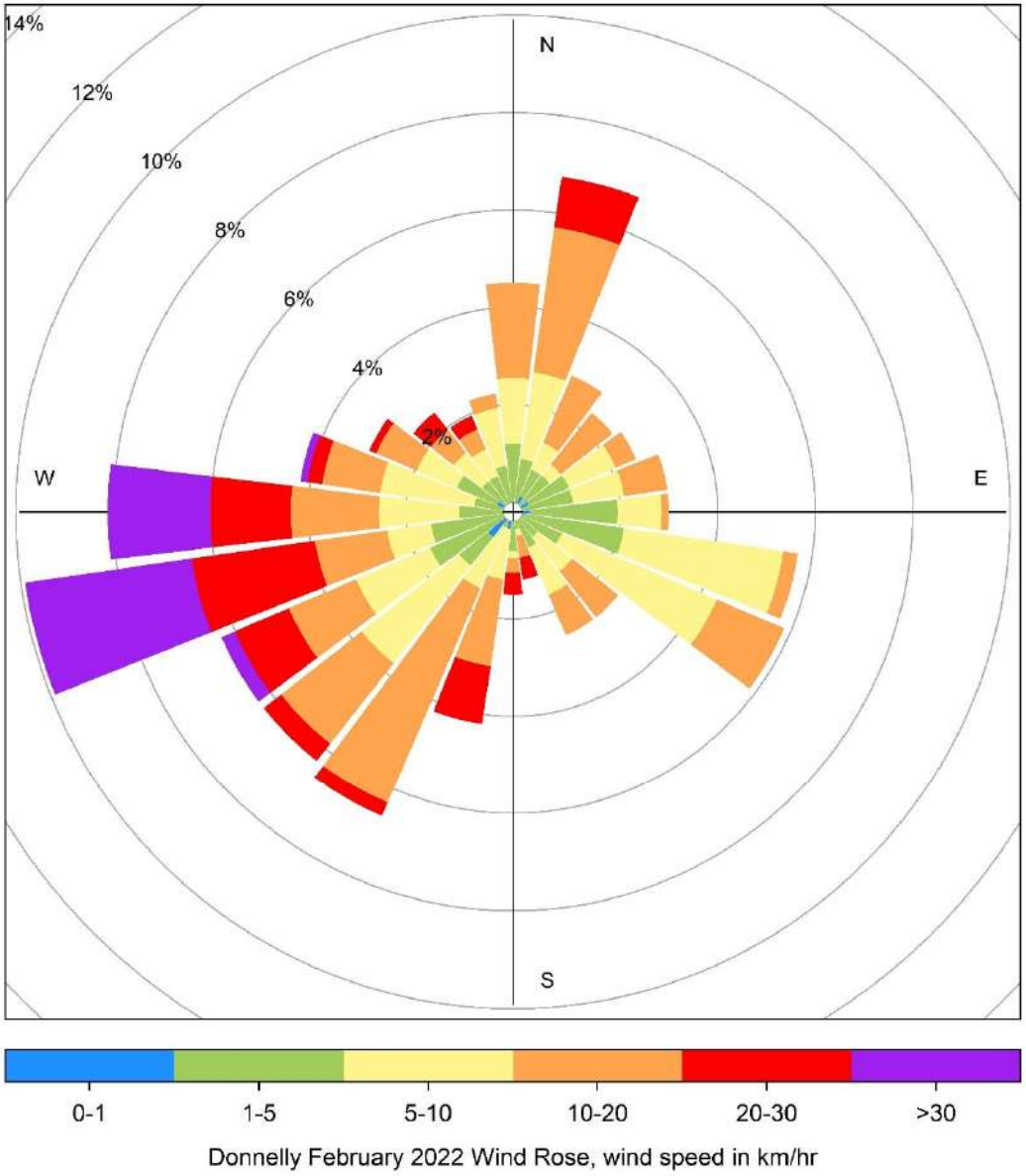


February 2022 Hourly Readings of Wind Direction (in degrees) at Donnelly



February 2022 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Donnelly

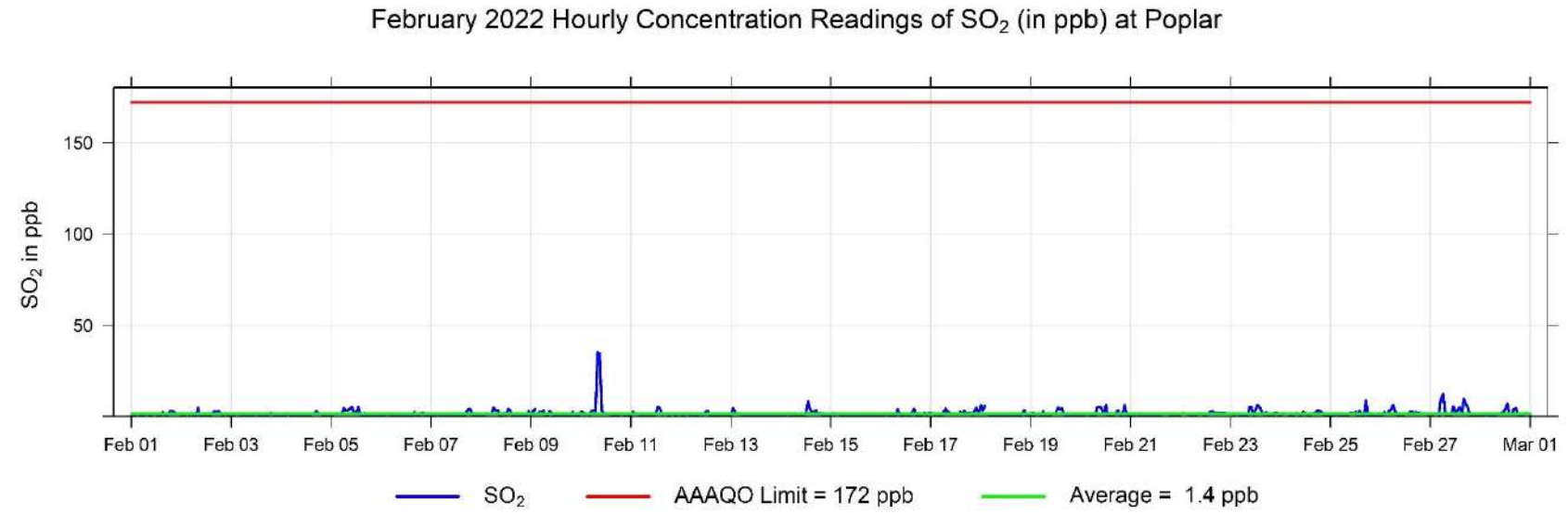


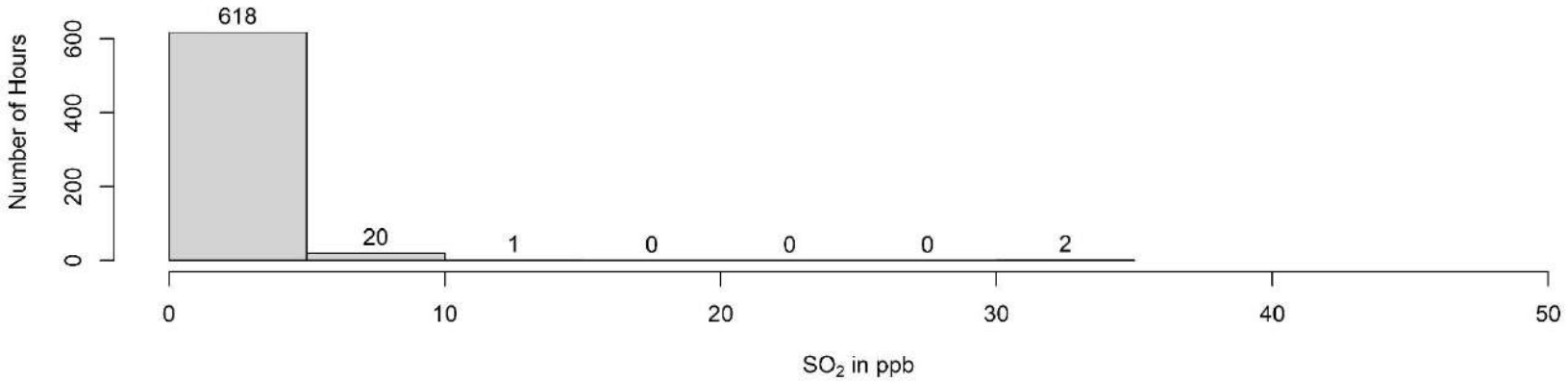


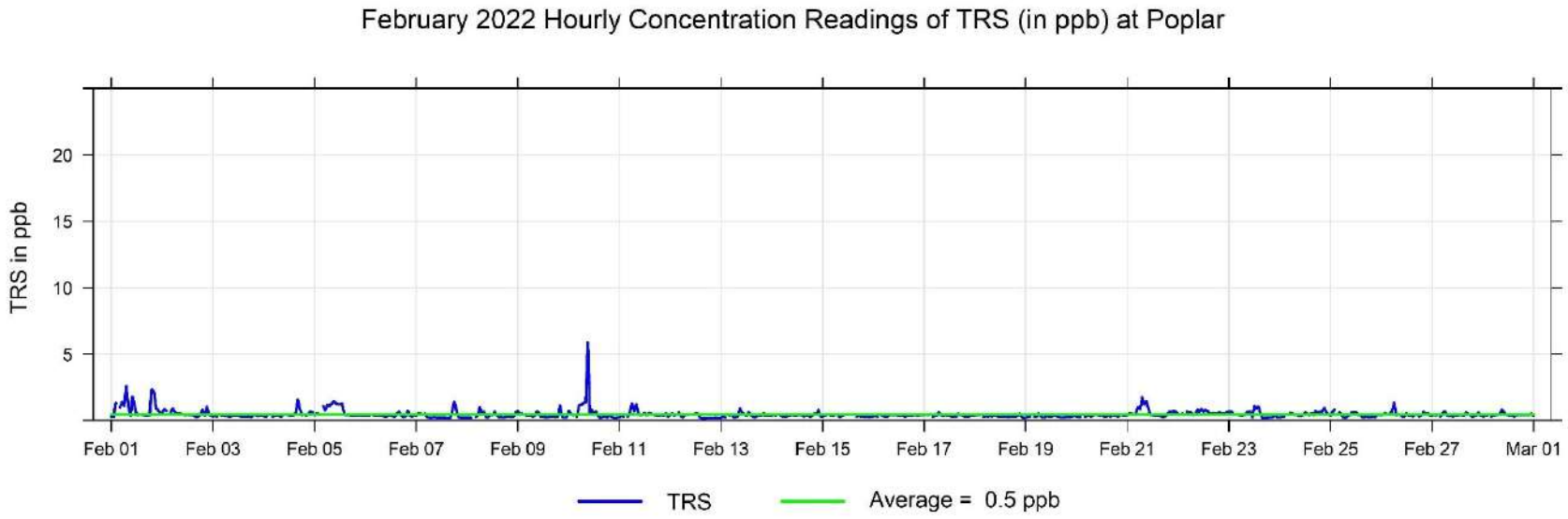
Donnelly February 2022 Wind Rose, wind speed in km/hr

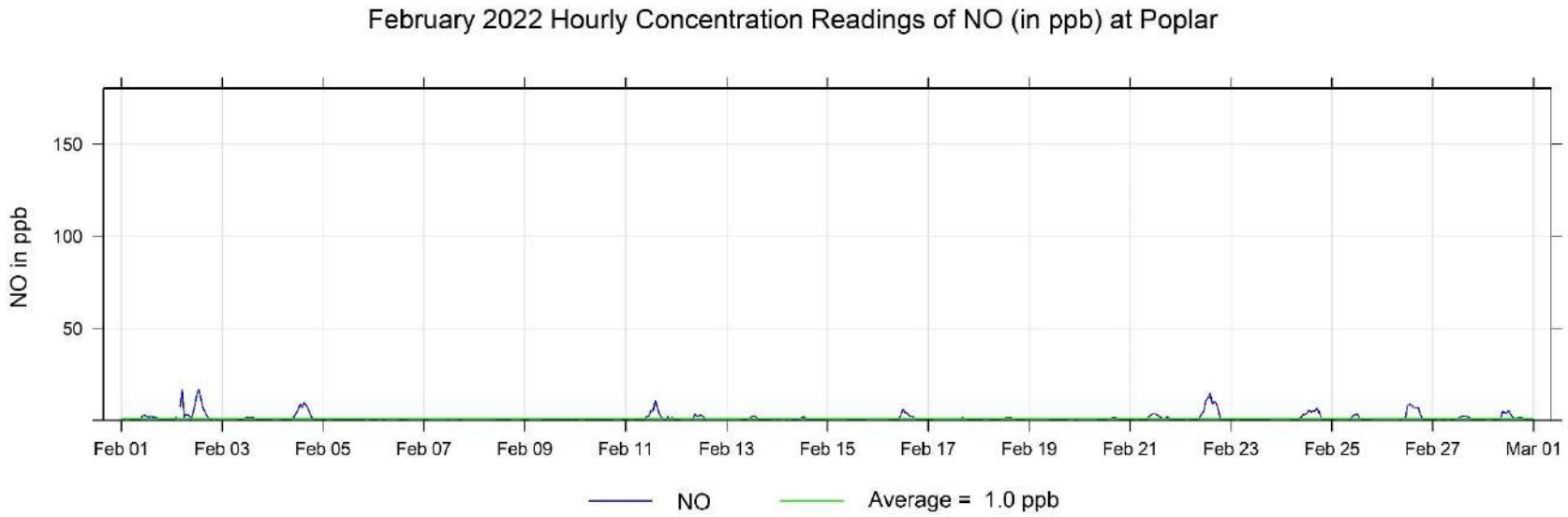
8 Poplar (Portable) Charts

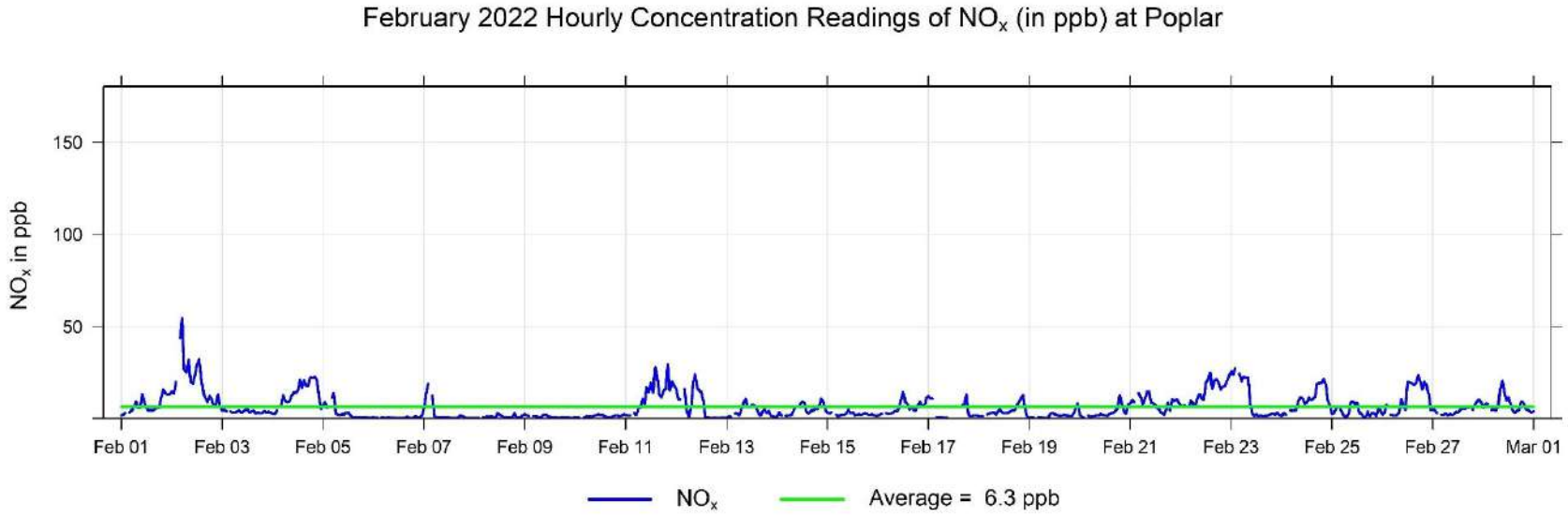
The following pages include the charts and histograms for Poplar Portable Station

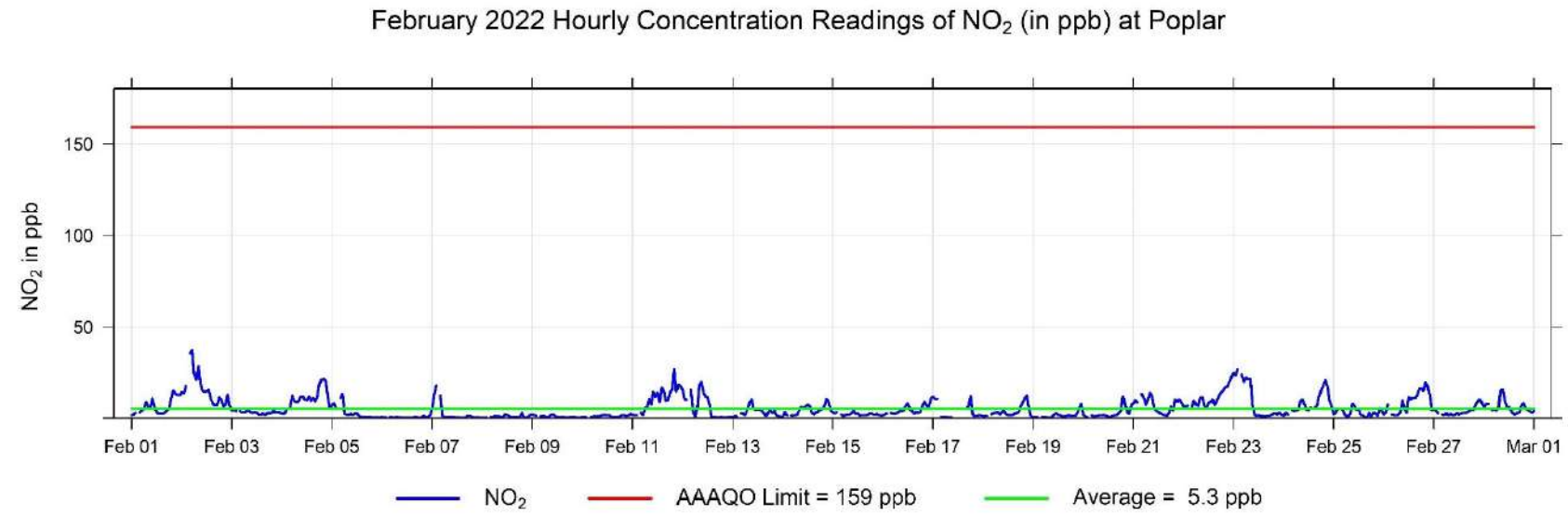

February 2022 Hourly Concentration Readings of SO_2 (in ppb) at Poplar
SO_2 in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
SO_2
AAAQO Limit = 172 ppb
Average = 1.4 ppb

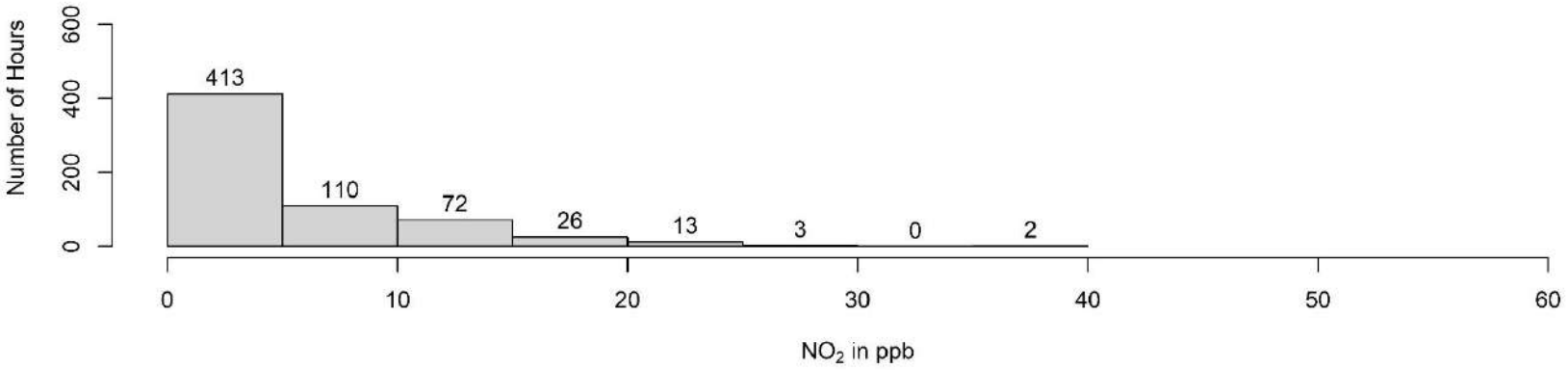

Number of Hours
0
200
400
600
618
20
1
0
0
0
2
0
10
20
30
40
50
SO_2 in ppb

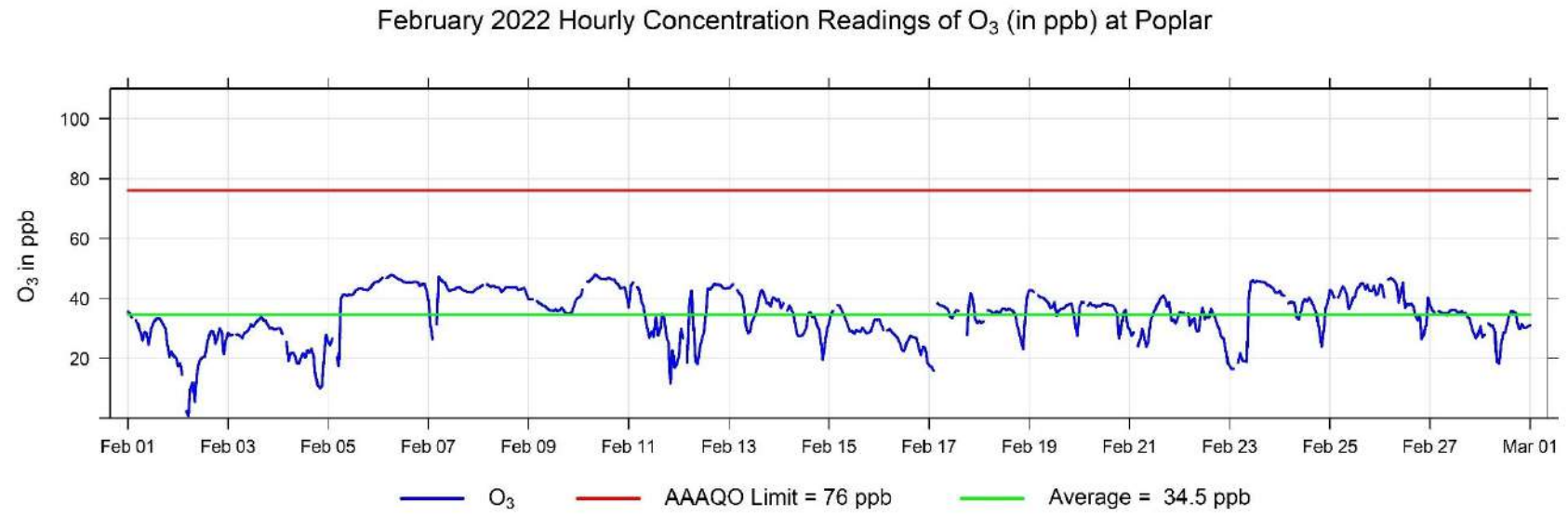

February 2022 Hourly Concentration Readings of TRS (in ppb) at Poplar
TRS in ppb
20
15
10
5
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
TRS
Average = 0.5 ppb

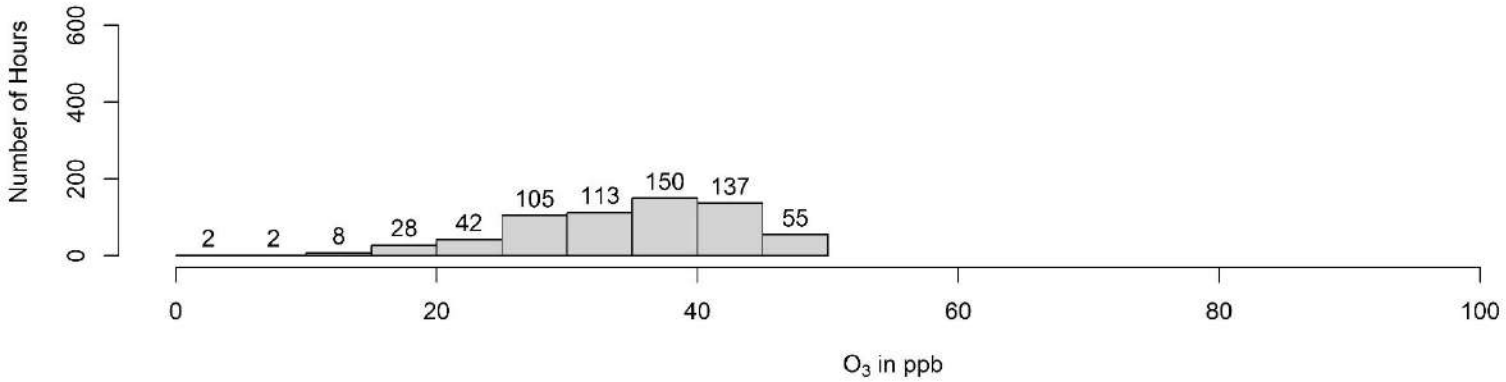

February 2022 Hourly Concentration Readings of NO (in ppb) at Poplar
NO in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NO
Average = 1.0 ppb

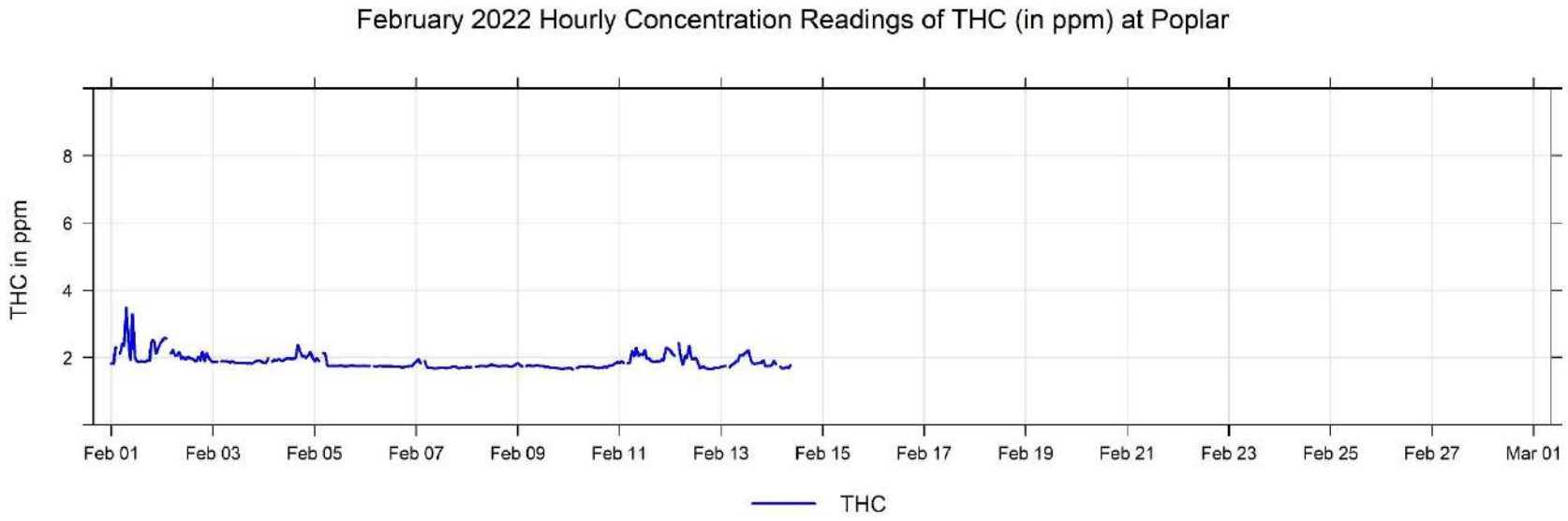

February 2022 Hourly Concentration Readings of NOx (in ppb) at Poplar
NOx in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NOx
Average = 6.3 ppb

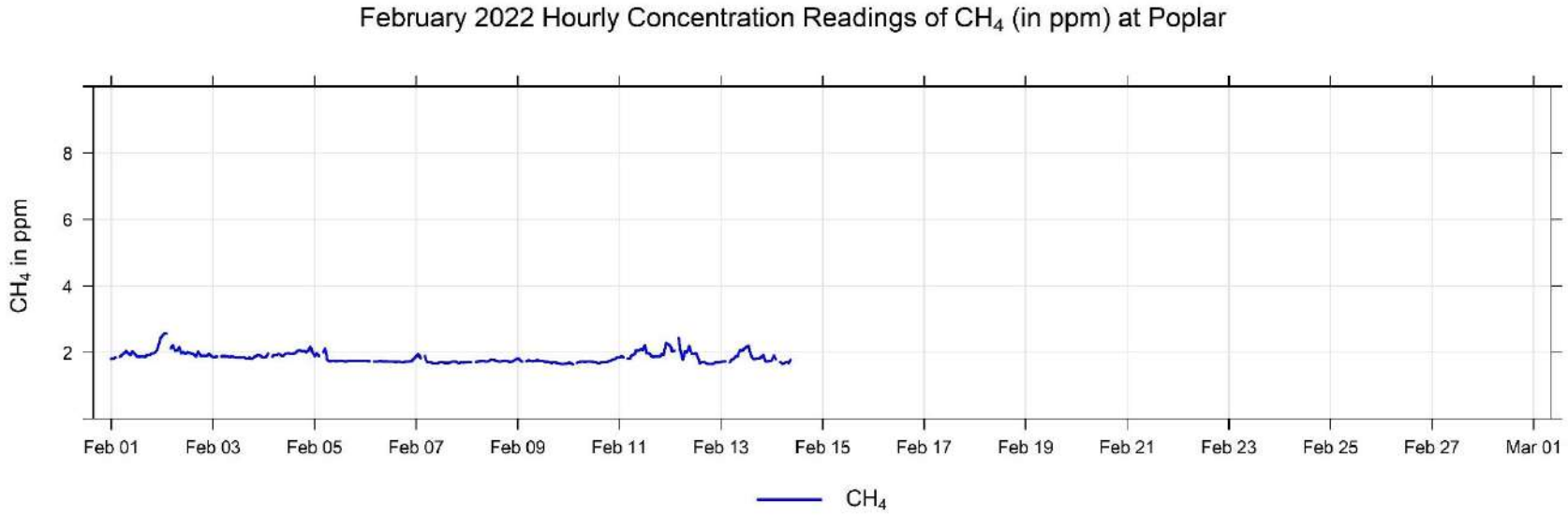

February 2022 Hourly Concentration Readings of NO2 (in ppb) at Poplar
NO2 in ppb
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NO2
AAAQO Limit = 159 ppb
Average = 5.3 ppb

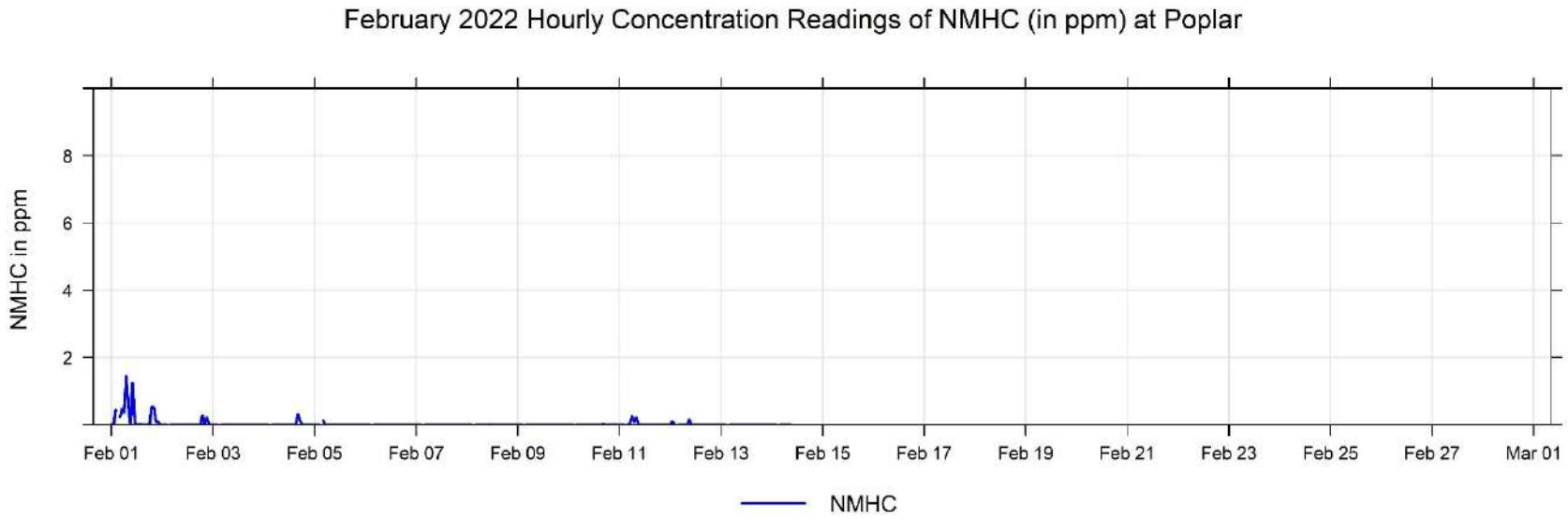

Number of Hours
0
200
400
600
413
110
72
26
13
3
0
2
0
10
20
30
40
50
60
NO2 in ppb

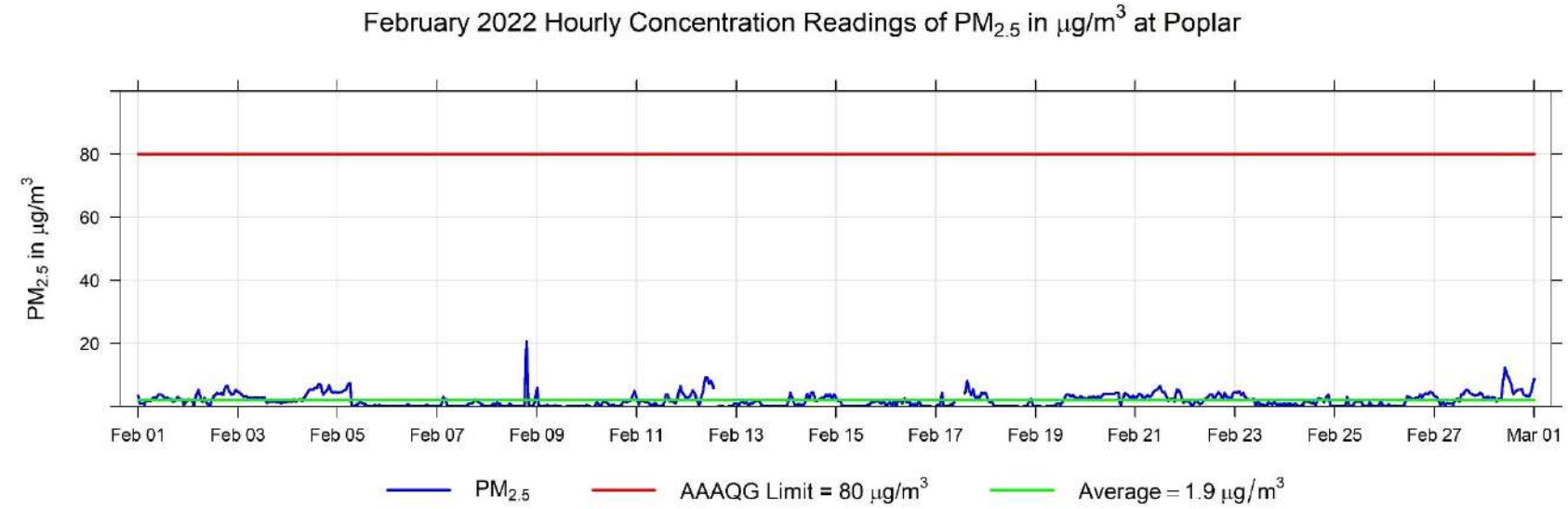

February 2022 Hourly Concentration Readings of O_3 (in ppb) at Poplar
O_3 in ppb
100
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
O_3
AAAQO Limit = 76 ppb
Average = 34.5 ppb

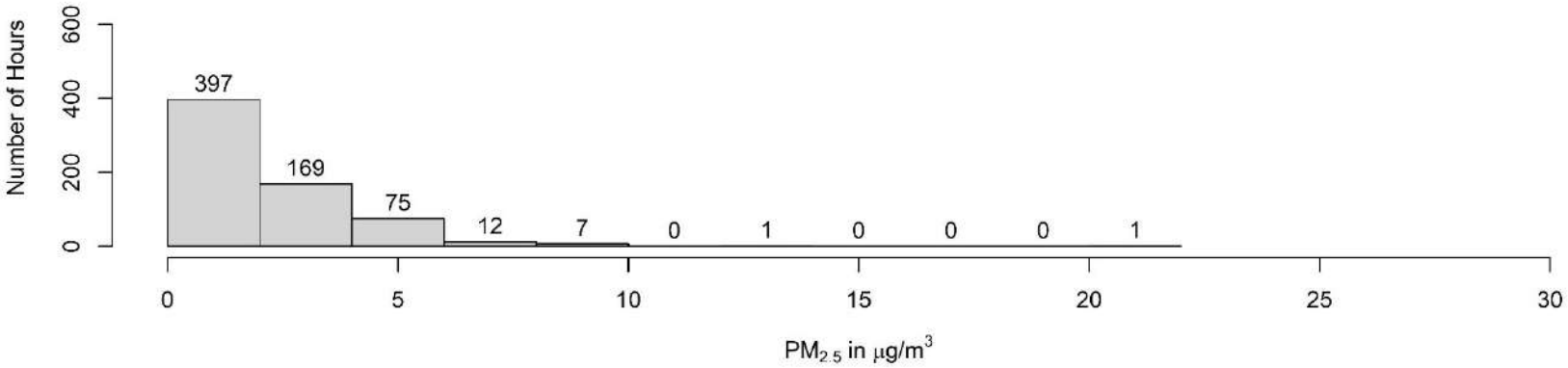

Number of Hours
0
200
400
600
2
2
8
28
42
105
113
150
137
55
0
20
40
60
80
100
O_3 in ppb

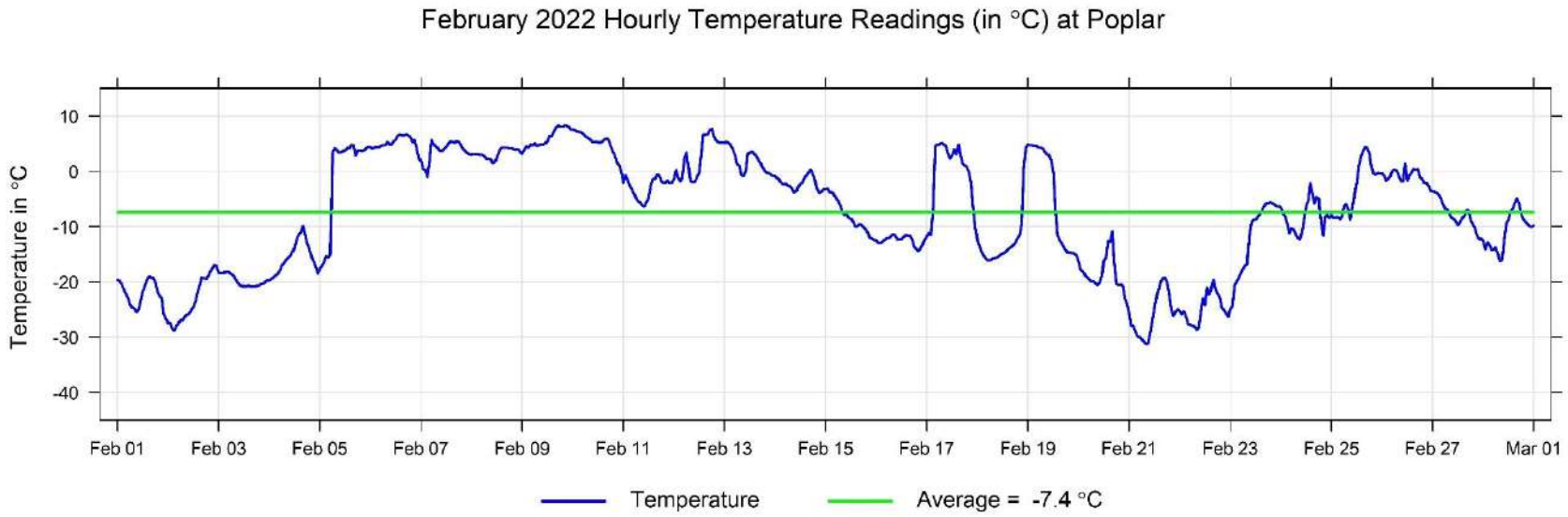

February 2022 Hourly Concentration Readings of THC (in ppm) at Poplar
THC in ppm
8
6
4
2
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
THC

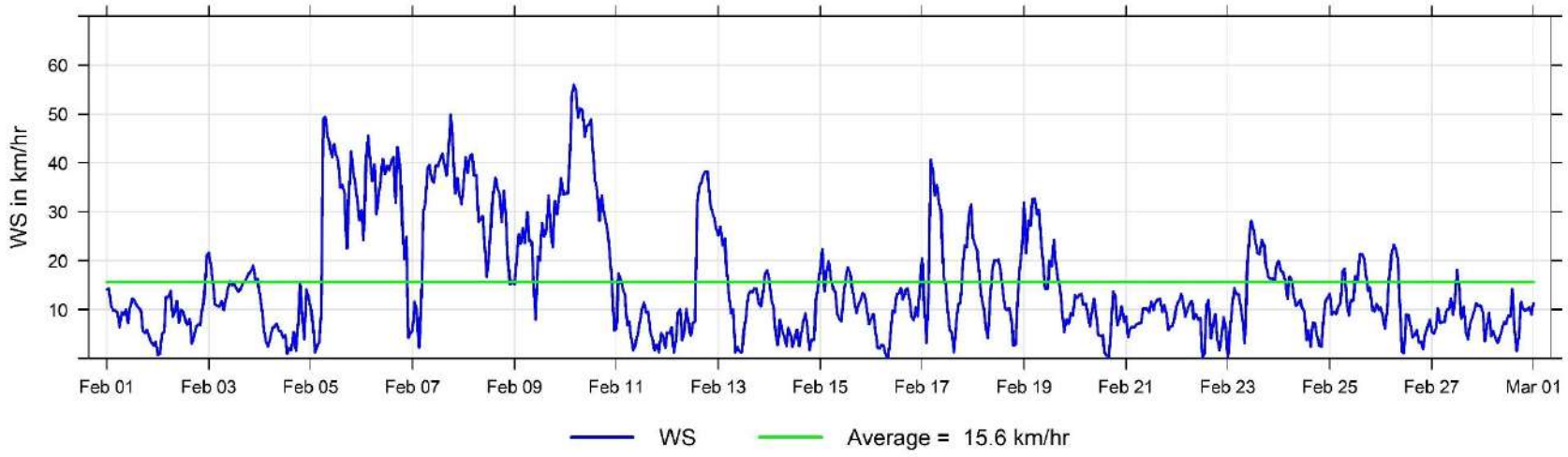

February 2022 Hourly Concentration Readings of CH_4 (in ppm) at Poplar
CH_4 in ppm
8
6
4
2
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
CH_4


February 2022 Hourly Concentration Readings of NMHC (in ppm) at Poplar
NMHC in ppm
8
6
4
2
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NMHC

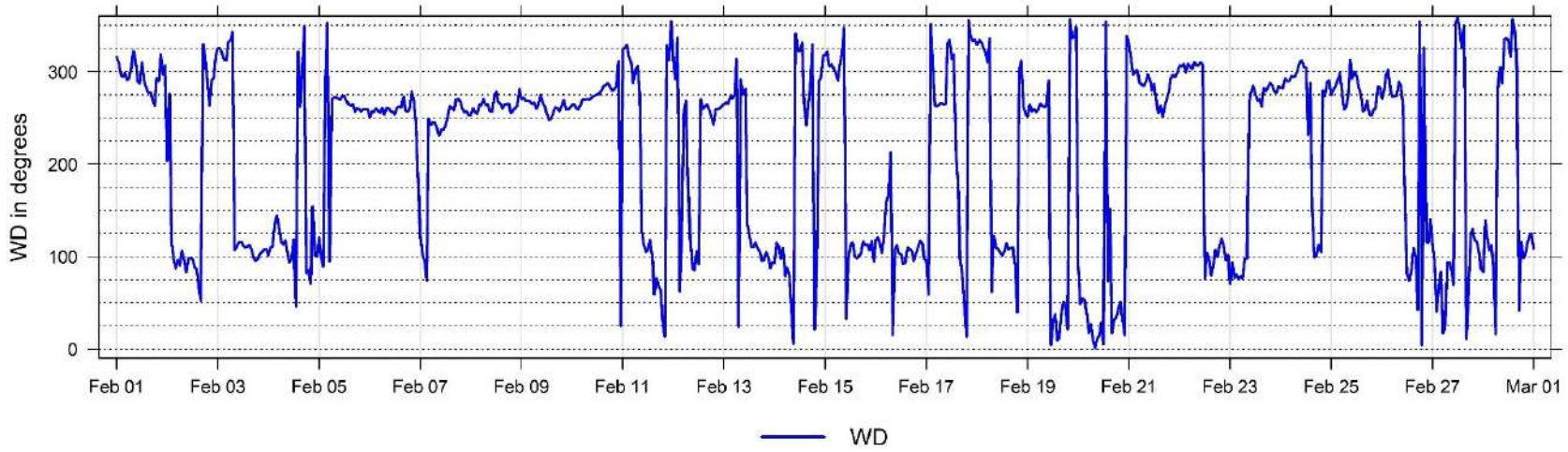

February 2022 Hourly Concentration Readings of PM2.5 in µg/m3 at Poplar
PM2.5 in µg/m3
80
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
PM2.5
AAAQG Limit = 80 µg/m3
Average = 1.9 µg/m3


Number of Hours
0
200
400
600
397
169
75
12
7
0
1
0
0
0
1
0
5
10
15
20
25
30
PM2.5 in µg/m3

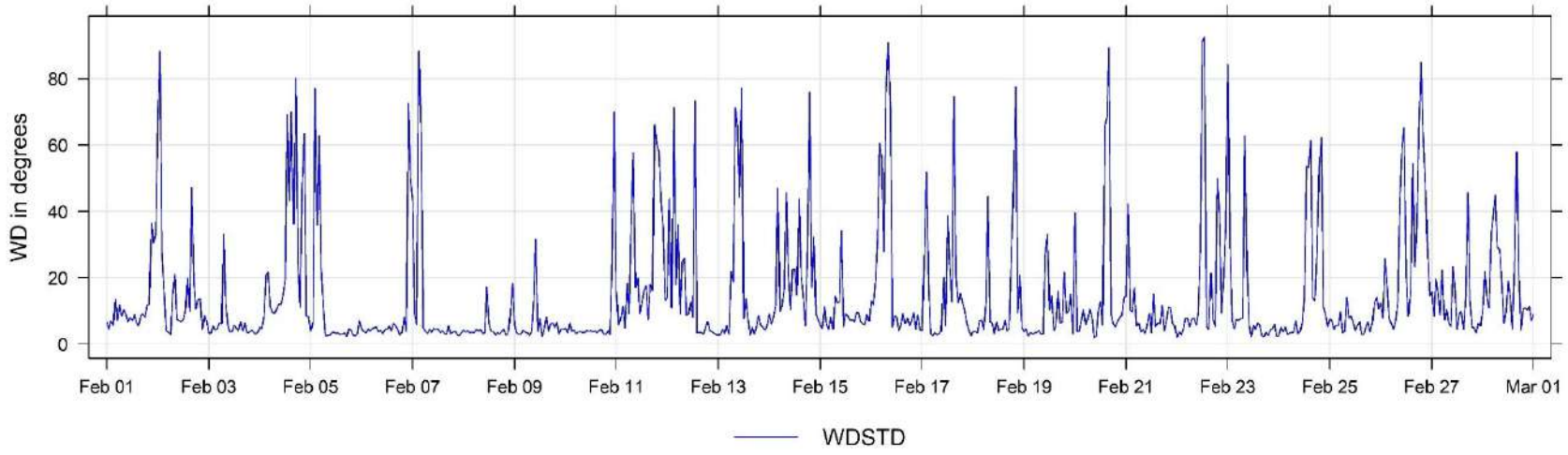

February 2022 Hourly Temperature Readings (in °C) at Poplar
Temperature in °C
10
0
-10
-20
-30
-40
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
Temperature
Average = -7.4 °C

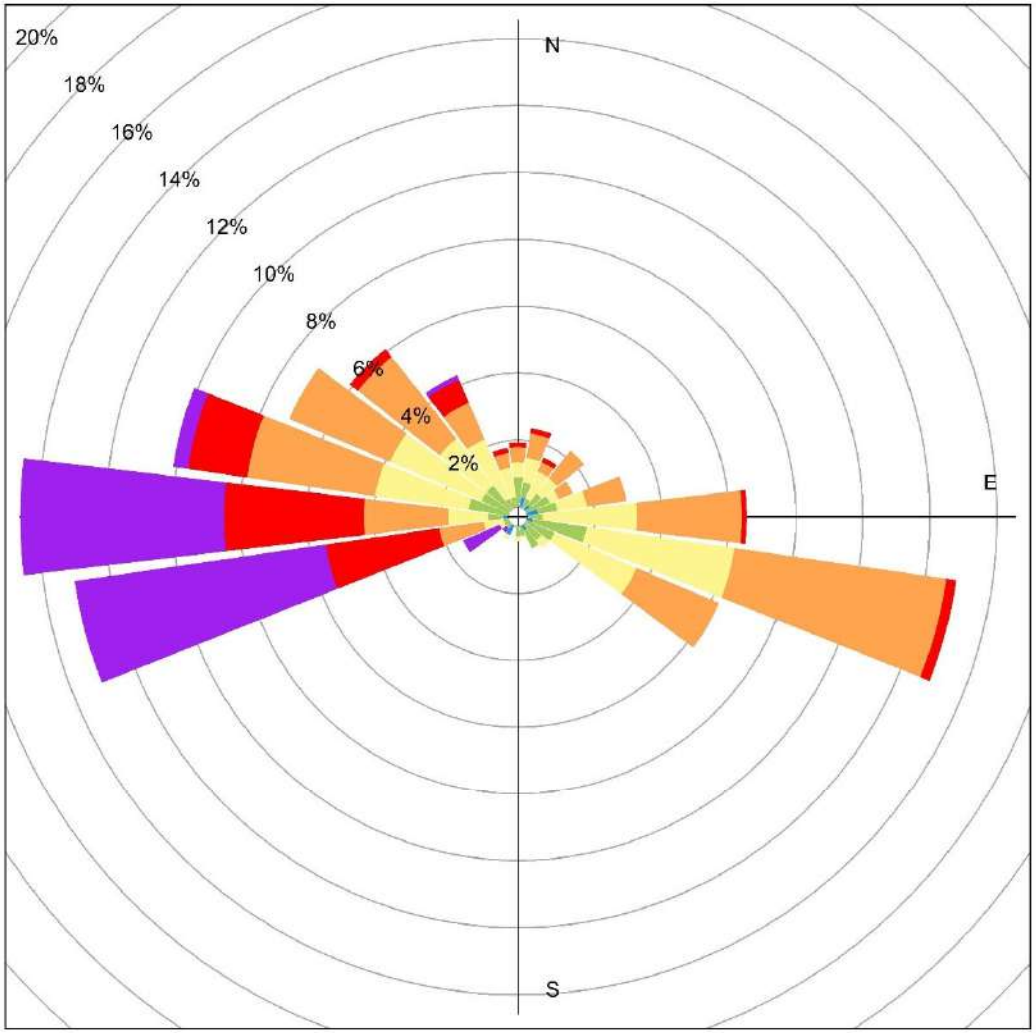

February 2022 Hourly Readings of Wind Speed (in km/hr) at Poplar
WS in km/hr
60
50
40
30
20
10
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
WS
Average = 15.6 km/hr

February 2022 Hourly Readings of Wind Direction (in degrees) at Poplar



February 2022 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Poplar

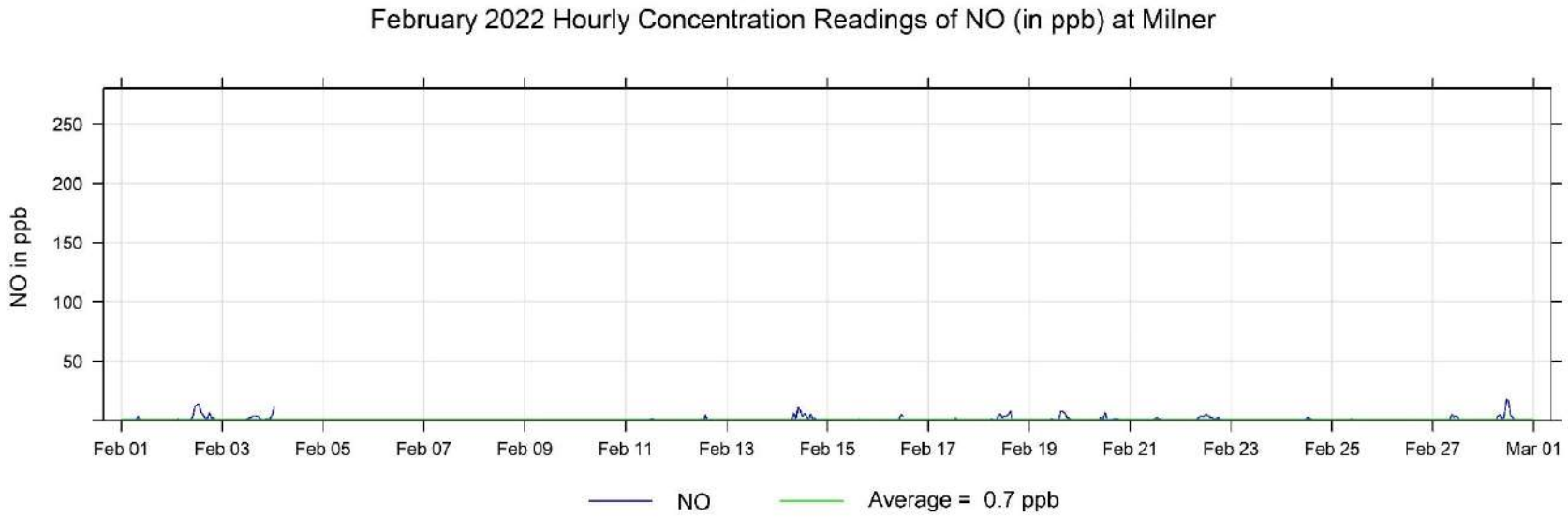


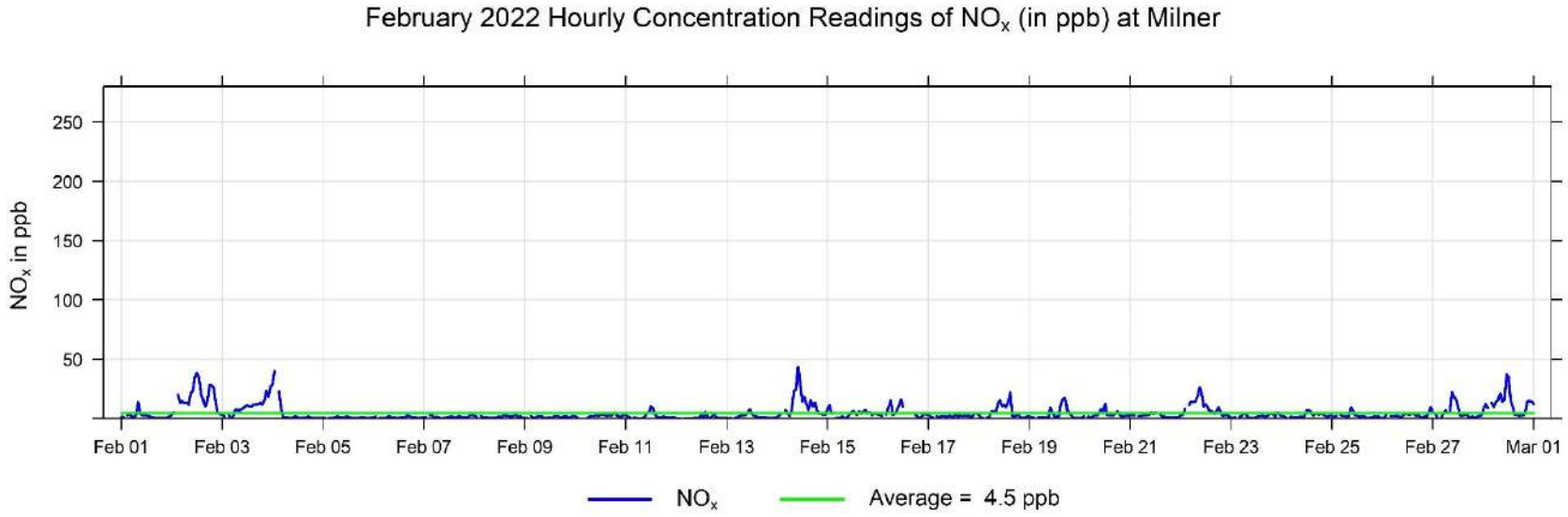


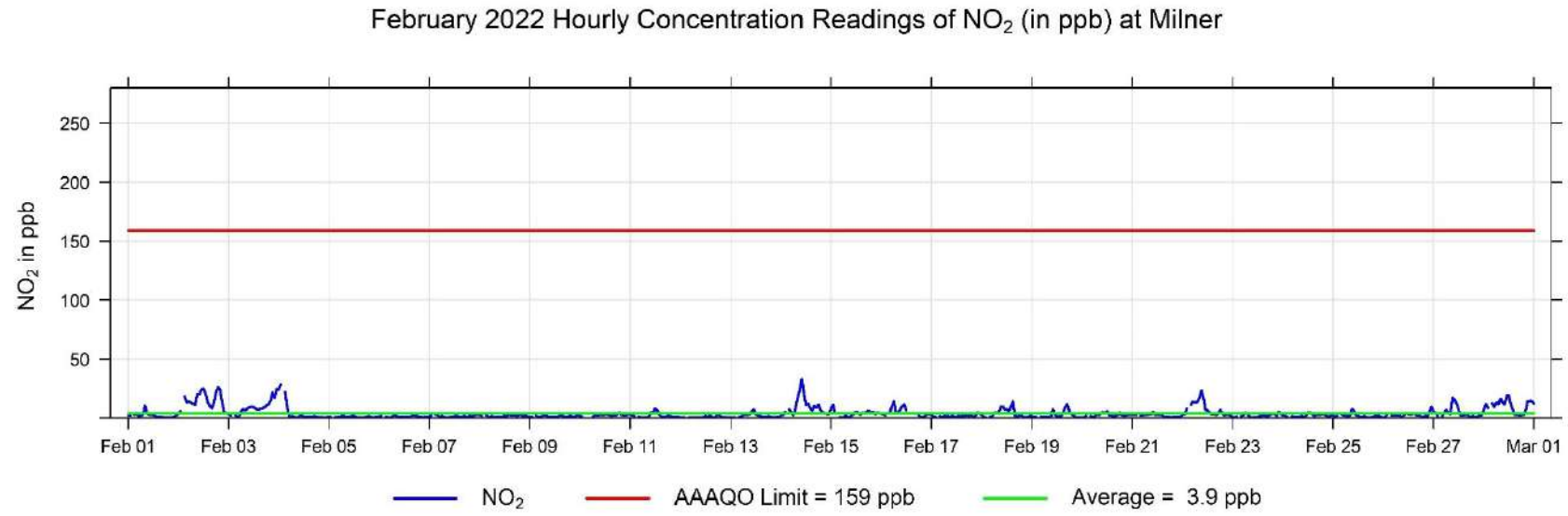
Poplar February 2022 Wind Rose, wind speed in km/hr

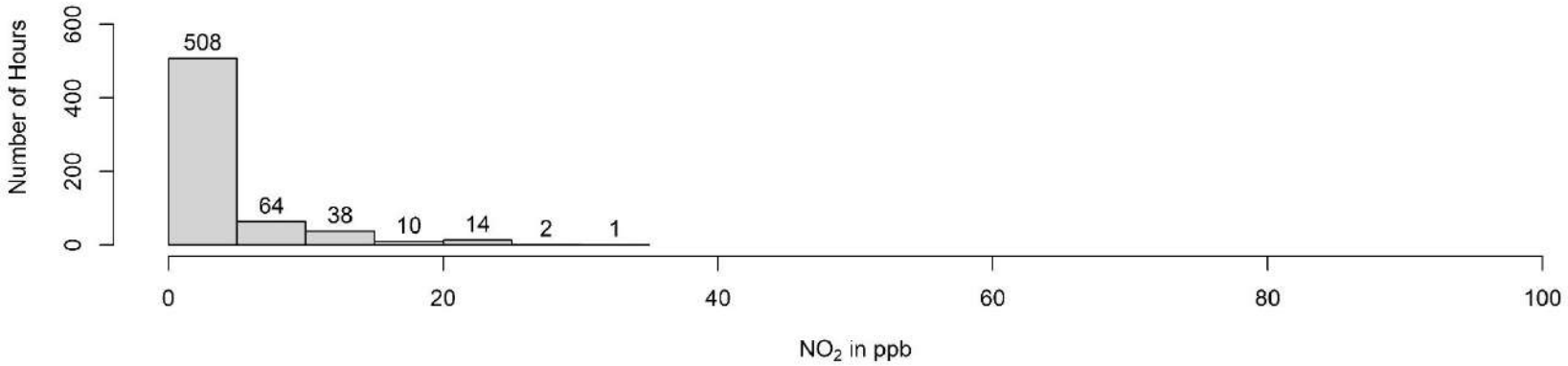
9 Milner Charts

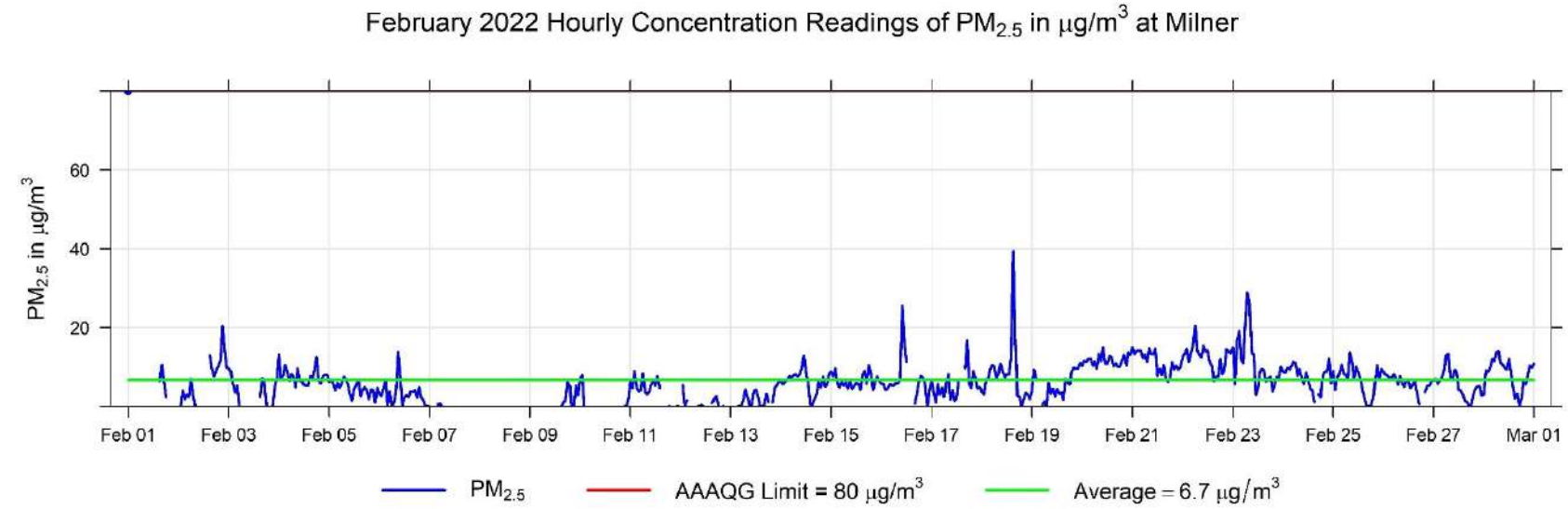
The following pages include the charts and histograms for Poplar Portable Station

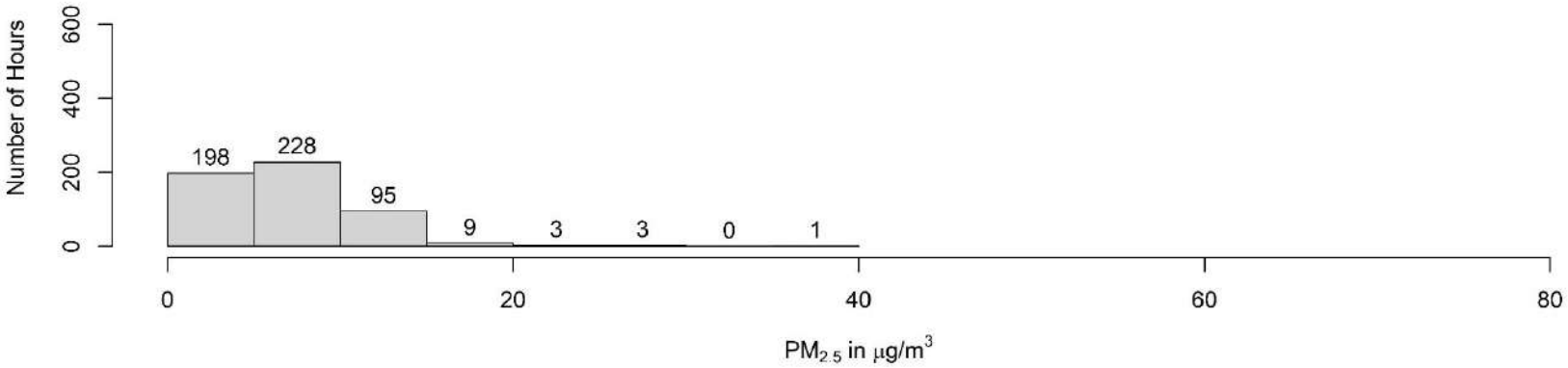

February 2022 Hourly Concentration Readings of NO (in ppb) at Milner
NO in ppb
250
200
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NO
Average = 0.7 ppb

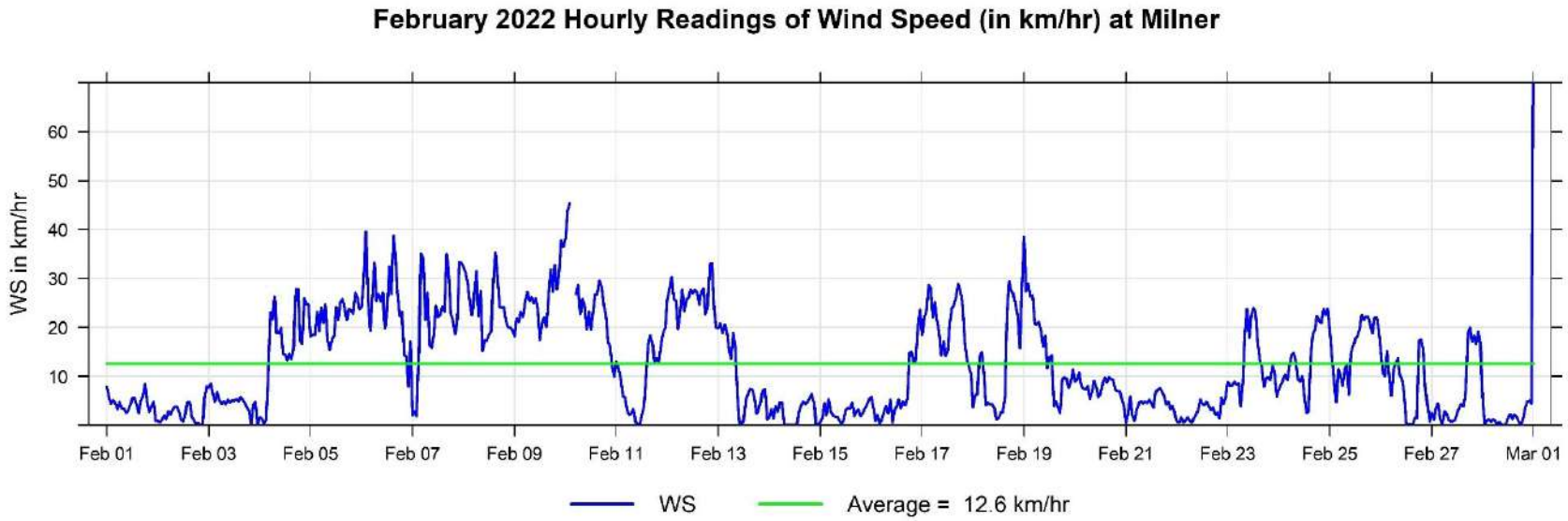

February 2022 Hourly Concentration Readings of NOx (in ppb) at Milner
NOx in ppb
250
200
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NOx
Average = 4.5 ppb

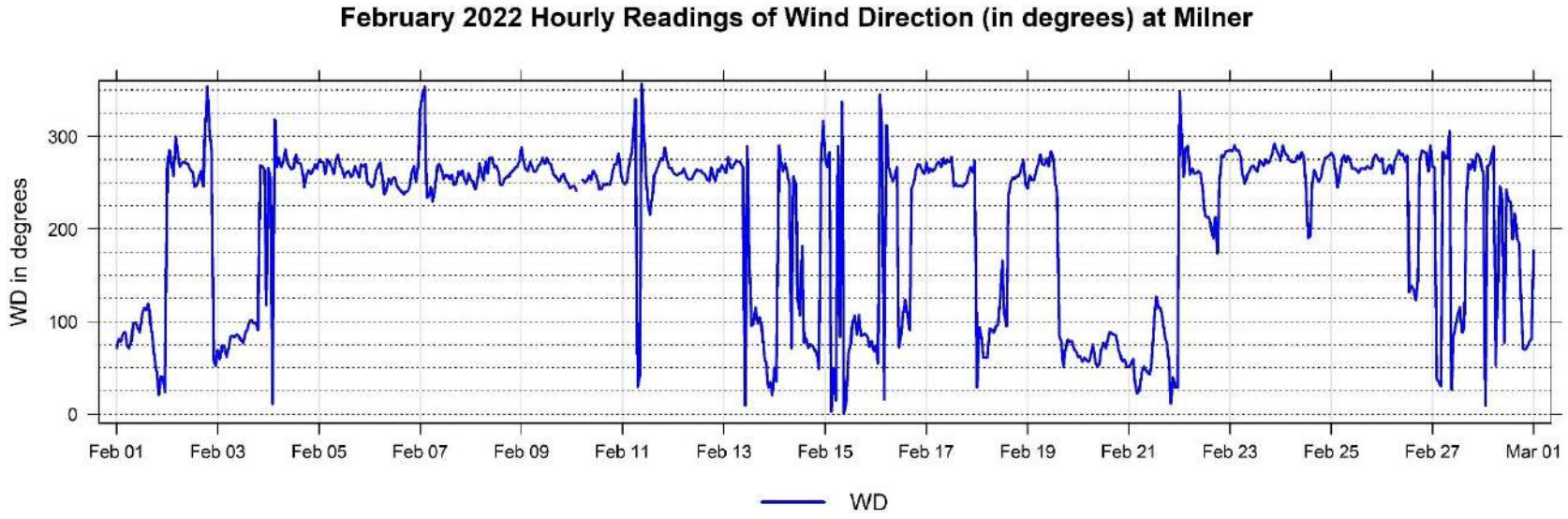

February 2022 Hourly Concentration Readings of NO2 (in ppb) at Milner
NO2 in ppb
250
200
150
100
50
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
NO2
AAAQO Limit = 159 ppb
Average = 3.9 ppb

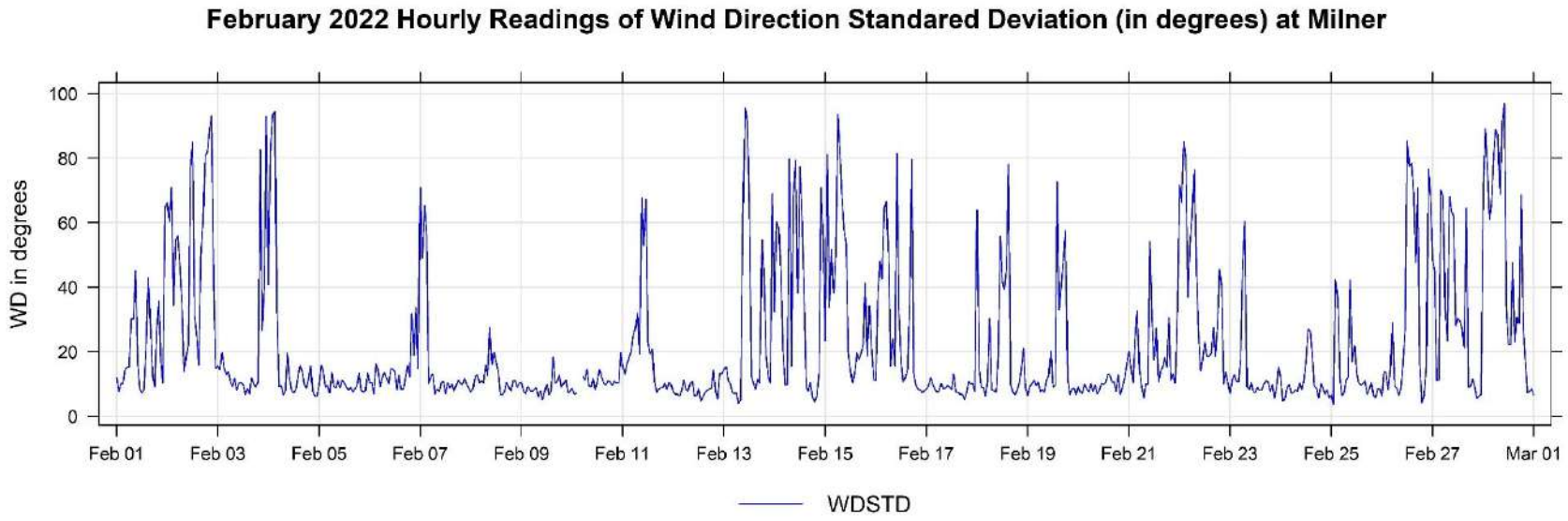

Number of Hours
0
200
400
600
508
64
38
10
14
2
1
0
20
40
60
80
100
NO2 in ppb

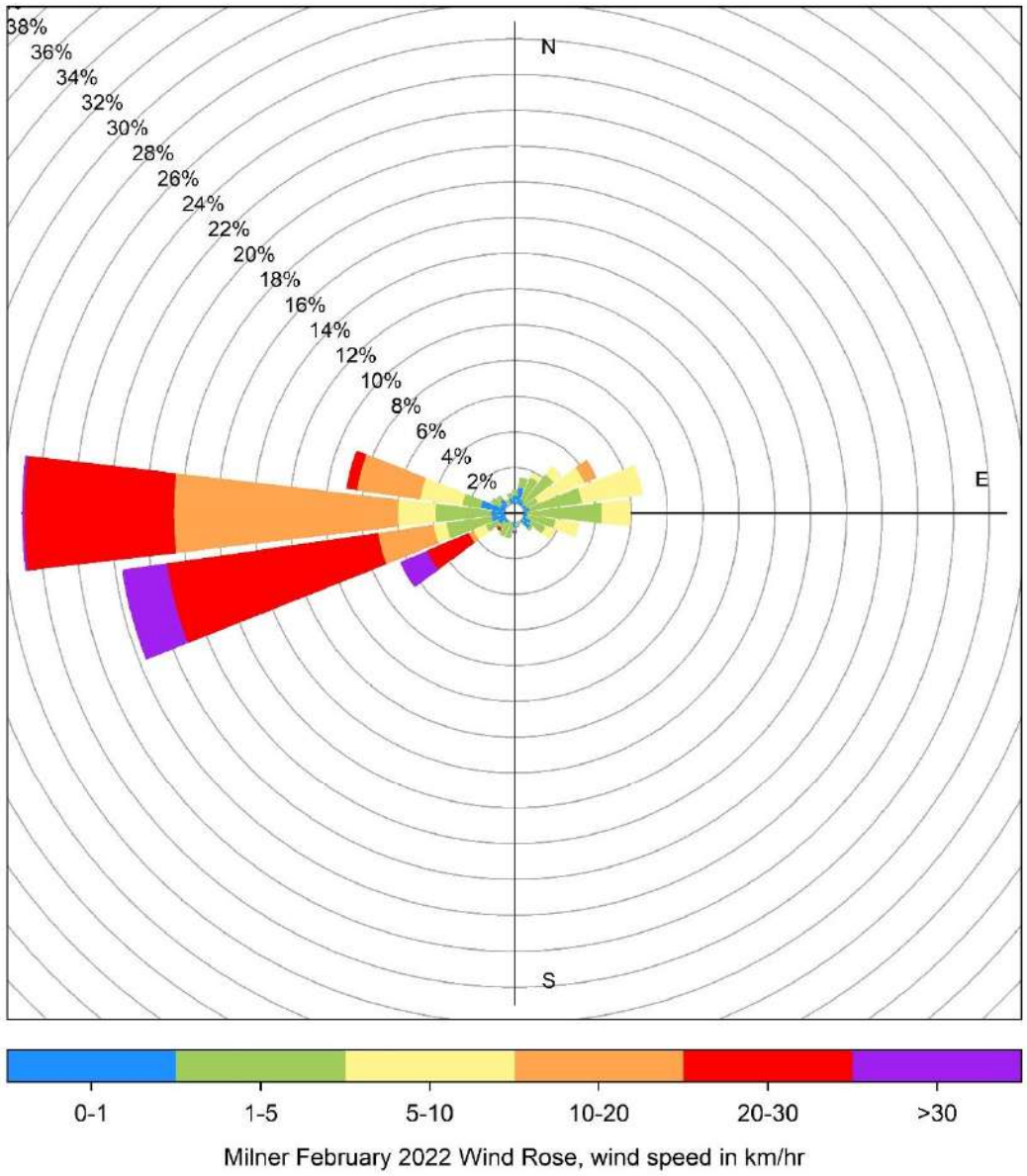

February 2022 Hourly Concentration Readings of PM2.5 in µg/m3 at Milner
PM2.5 in µg/m3
60
40
20
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
PM2.5
AAAQG Limit = 80 µg/m3
Average = 6.7 µg/m3


Number of Hours
0
200
400
600
198
228
95
9
3
3
0
1
0
20
40
60
80
PM2.5 in µg/m3


February 2022 Hourly Readings of Wind Speed (in km/hr) at Milner
WS in km/hr
60
50
40
30
20
10
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
WS
Average = 12.6 km/hr

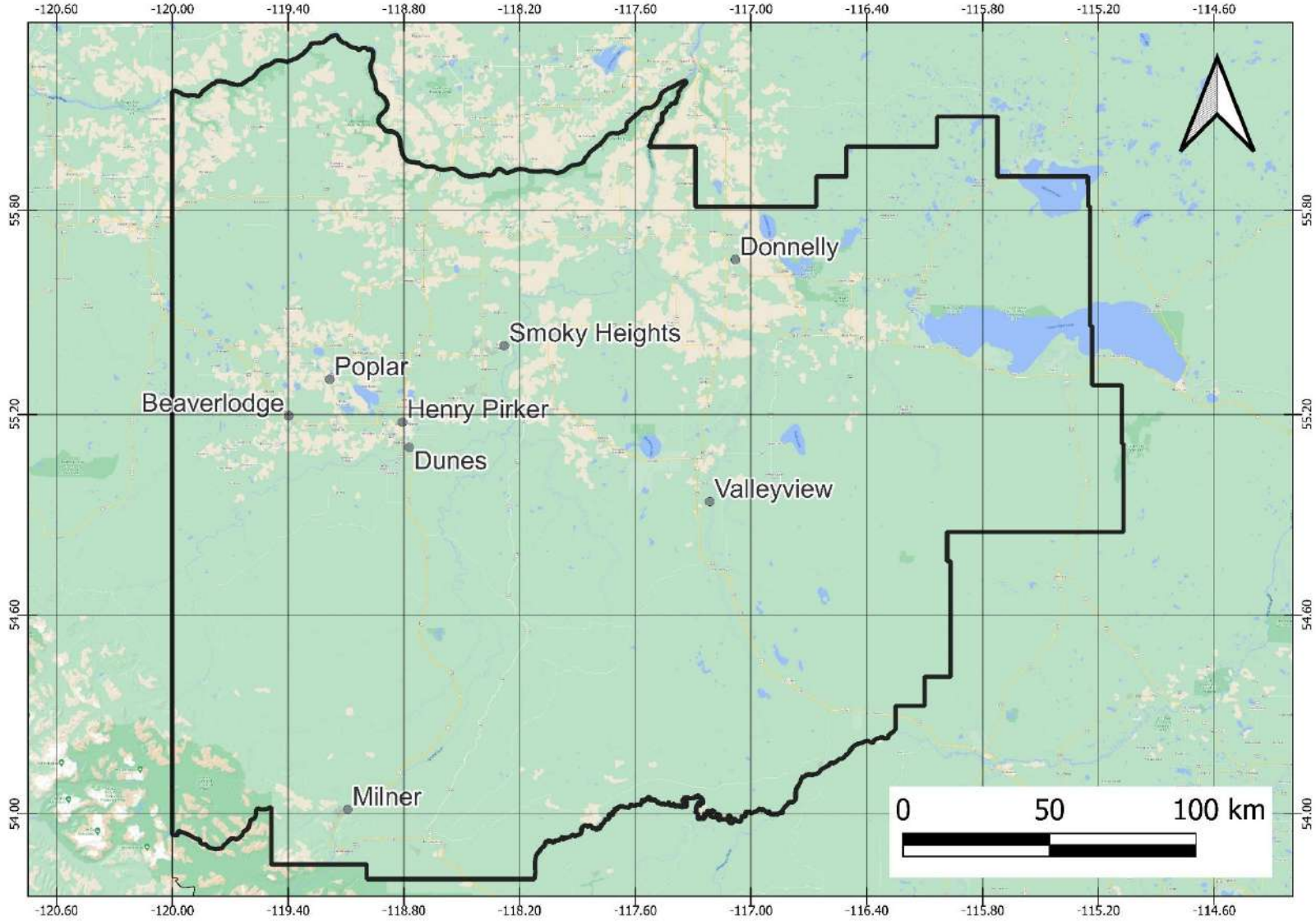

February 2022 Hourly Readings of Wind Direction (in degrees) at Milner
WD in degrees
300
200
100
0
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
WD


February 2022 Hourly Readings of Wind Direction Standared Deviation (in degrees) at Milner
WD in degrees
100
80
60
40
20
0
Feb 01
Feb 03
Feb 05
Feb 07
Feb 09
Feb 11
Feb 13
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Mar 01
WDSTD

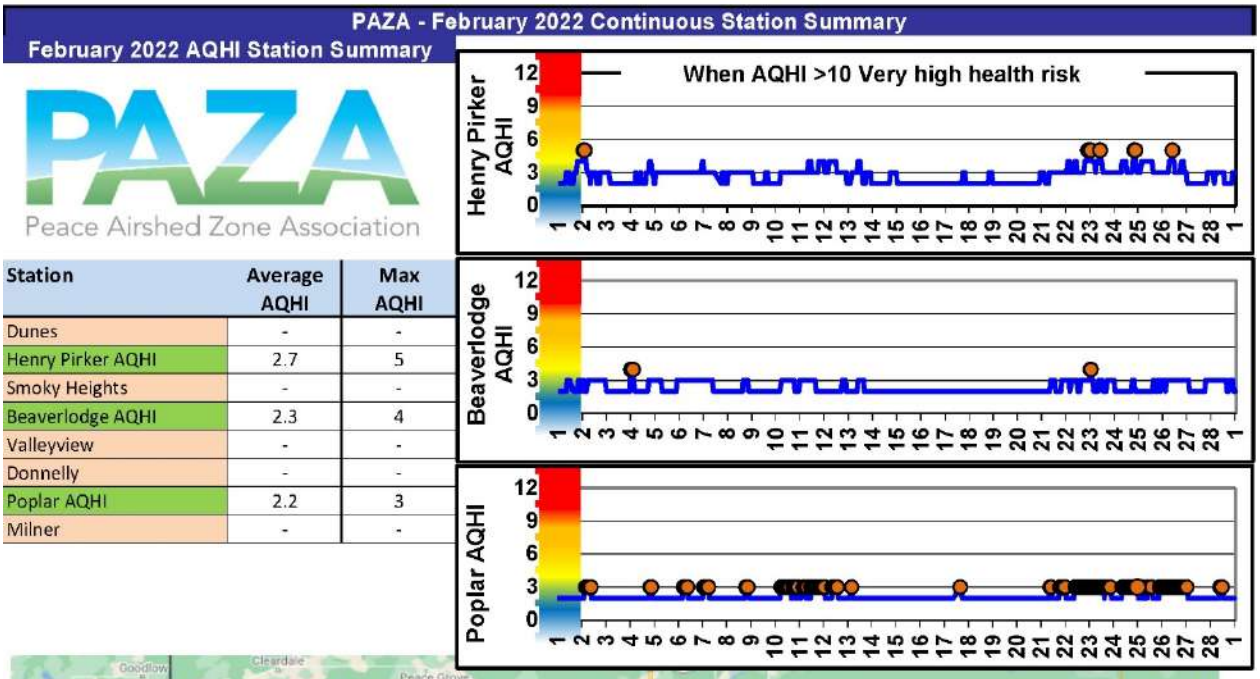


Milner February 2022 Wind Rose, wind speed in km/hr

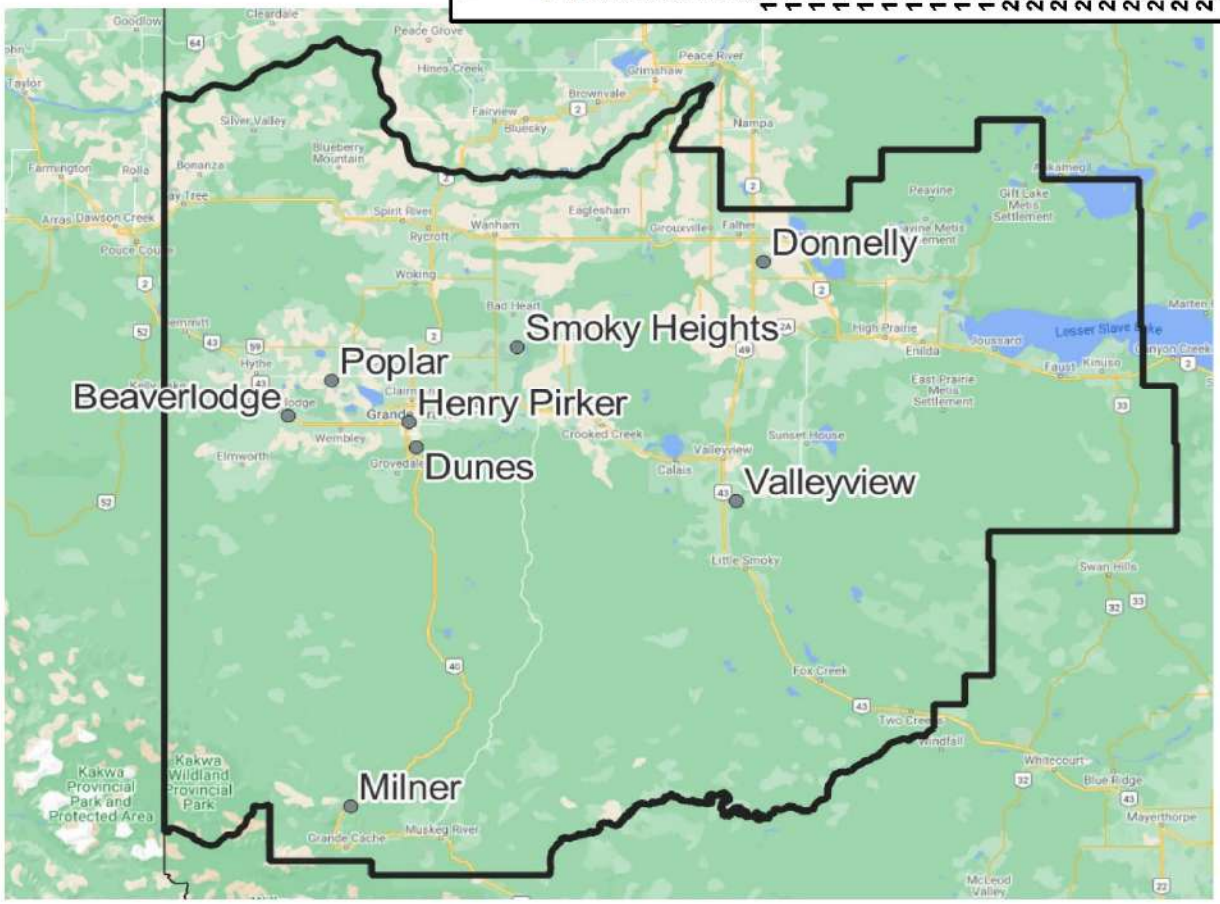
10 Concentration Summaries and Roses for PAZA



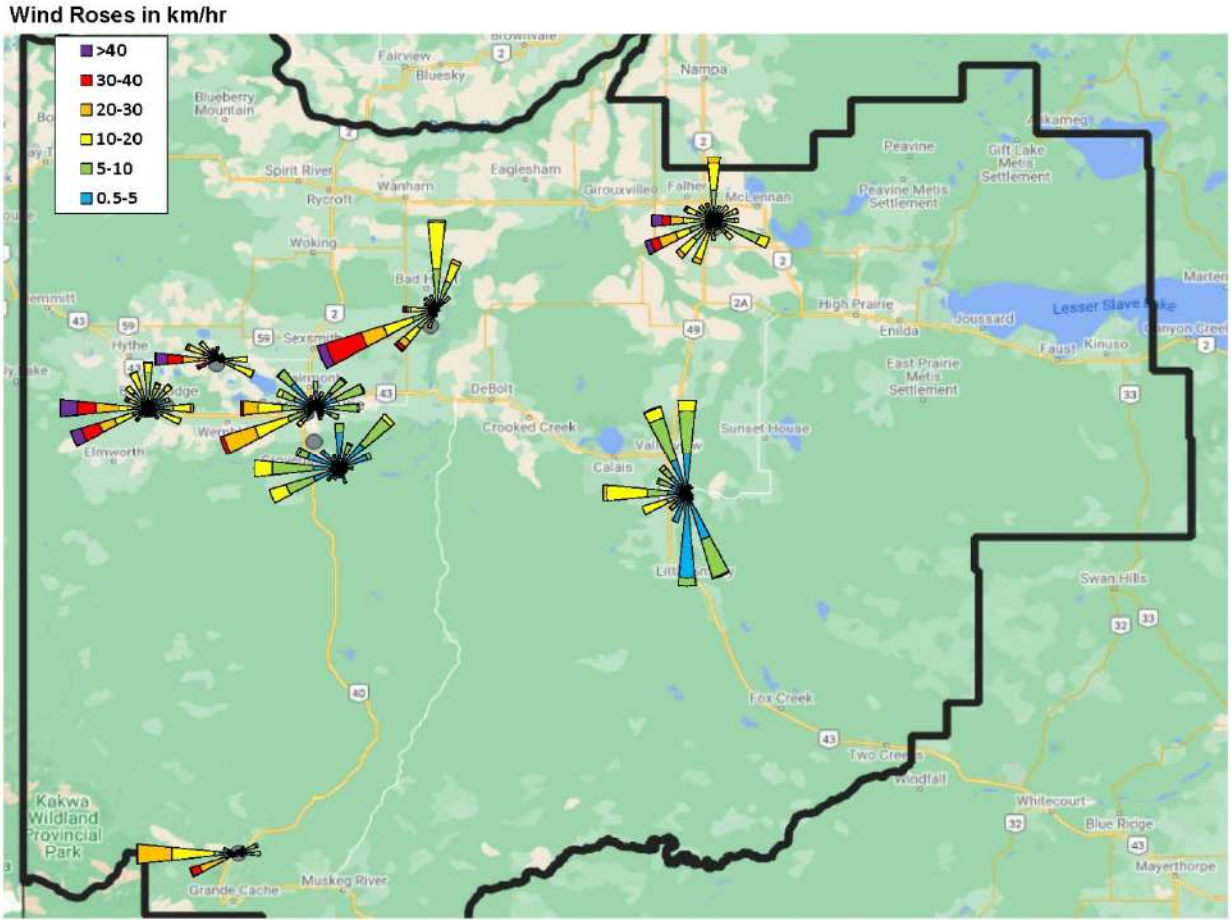
10.1 Air Quality Health Index (AQHI) Plots



Station	Average AQHI	Max AQHI
Dunes	-	-
Henry Pirker AQHI	2.7	5
Smoky Heights	-	-
Beaverlodge AQHI	2.3	4
Valleyview	-	-
Donnelly	-	-
Poplar AQHI	2.2	3
Milner	-	-

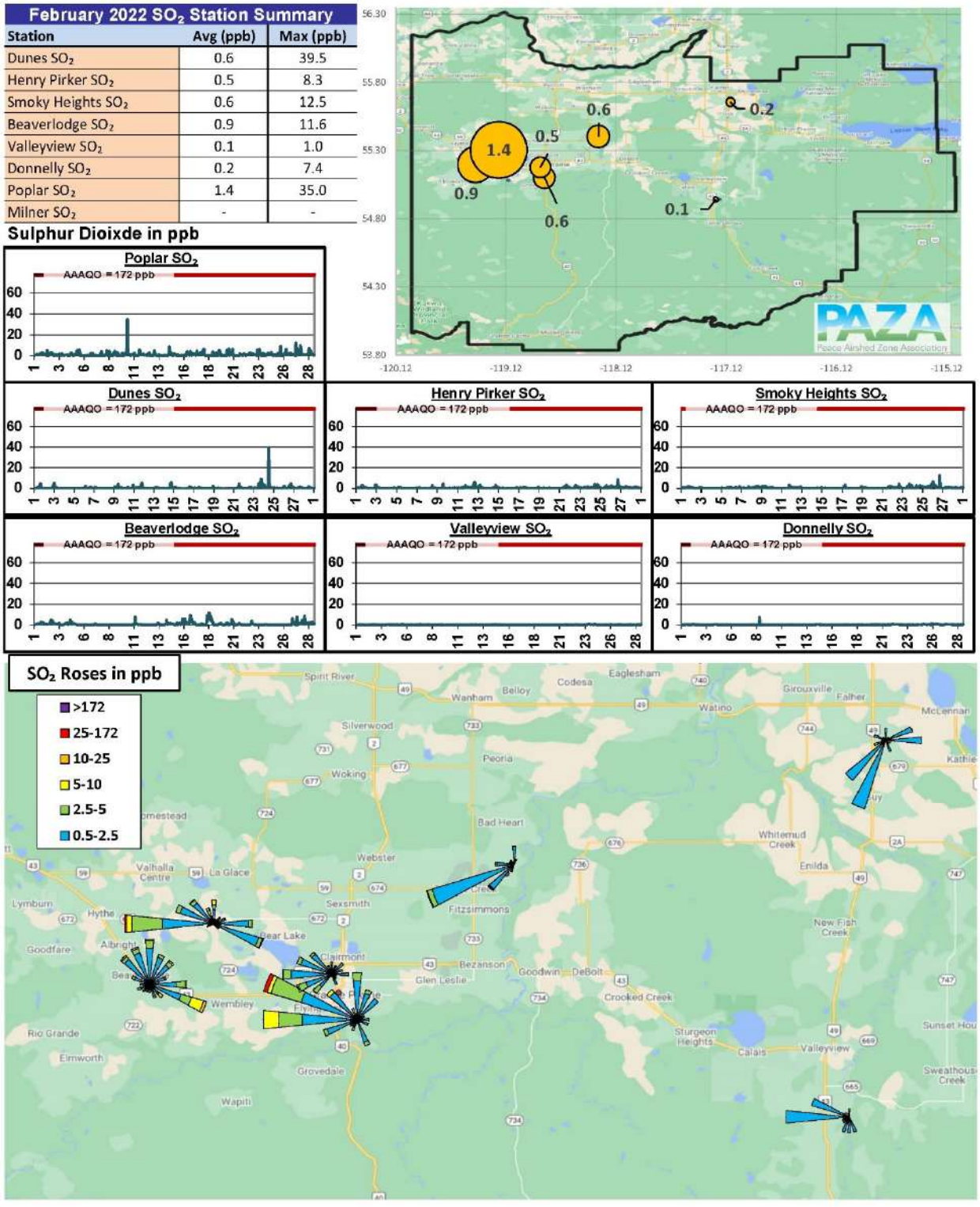


10.2 Wind Roses



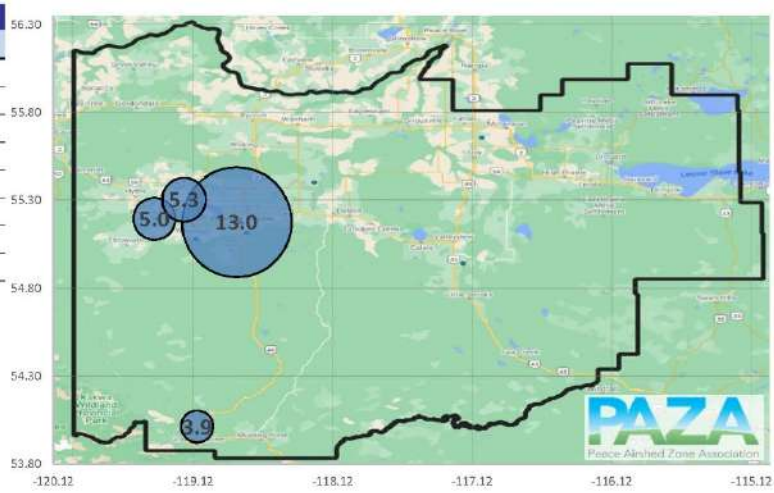
10.3 Sulphur Dioxide (SO_2) Plots

February 2022 SO_2 Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes SO_2	0.6	39.5
Henry Pirker SO_2	0.5	8.3
Smoky Heights SO_2	0.6	12.5
Beaverlodge SO_2	0.9	11.6
Valleyview SO_2	0.1	1.0
Donnelly SO_2	0.2	7.4
Poplar SO_2	1.4	35.0
Milner SO_2	-	-

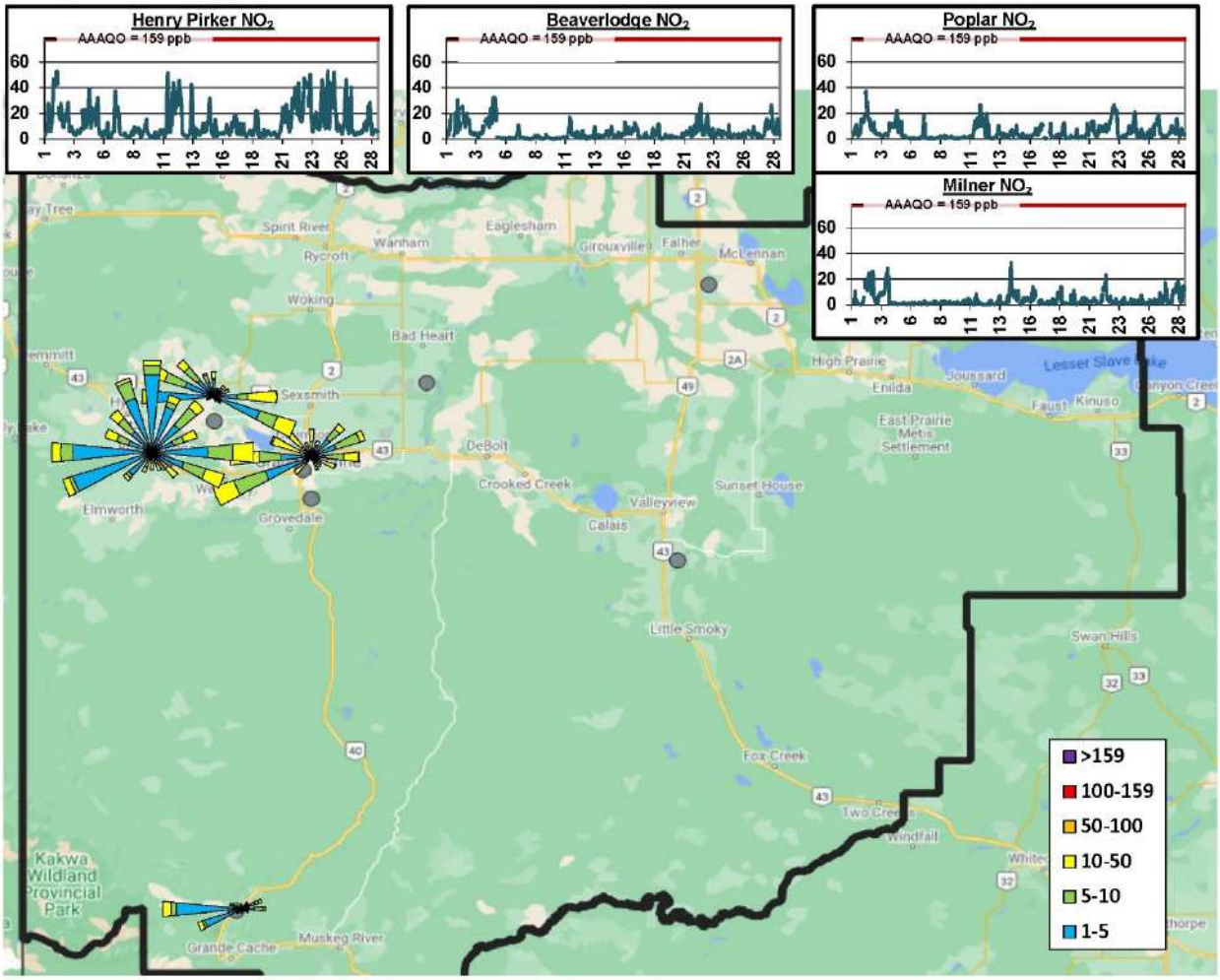


10.4 Nitrogen Dioxide (NO_2) Plots

February 2022 NO_2 Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes NO_2	-	-
Henry Pirker NO_2	13.0	53.1
Smoky Heights NO_2	-	-
Beaverlodge NO_2	5.0	32.6
Valleyview NO_2	-	-
Donnelly NO_2	-	-
Poplar NO_2	5.3	37.1
Milner NO_2	3.9	33.0

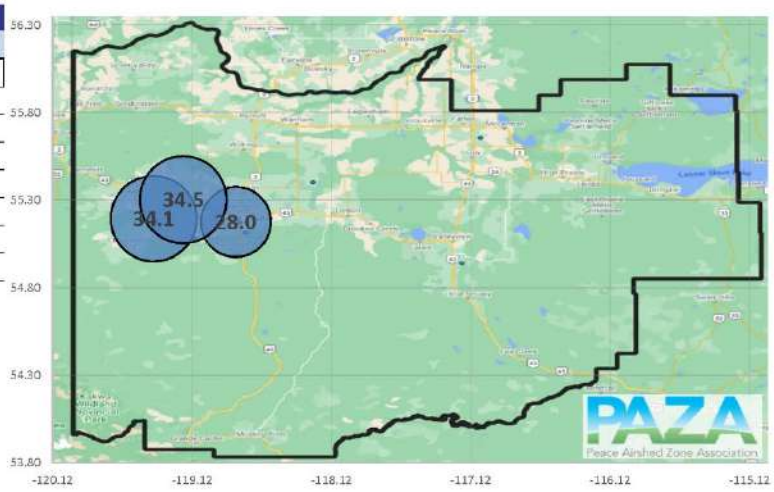


Nitrogen Dioixde in ppb

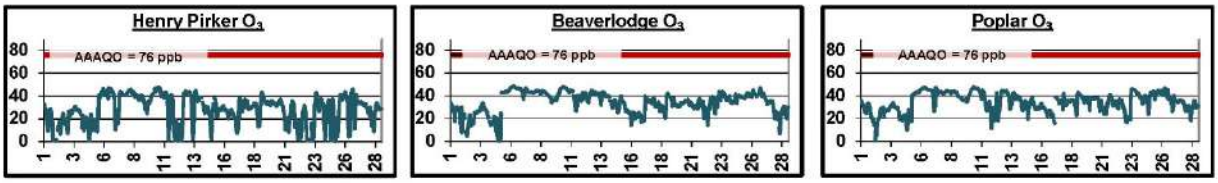


10.5 Ozone (O_3) Plots

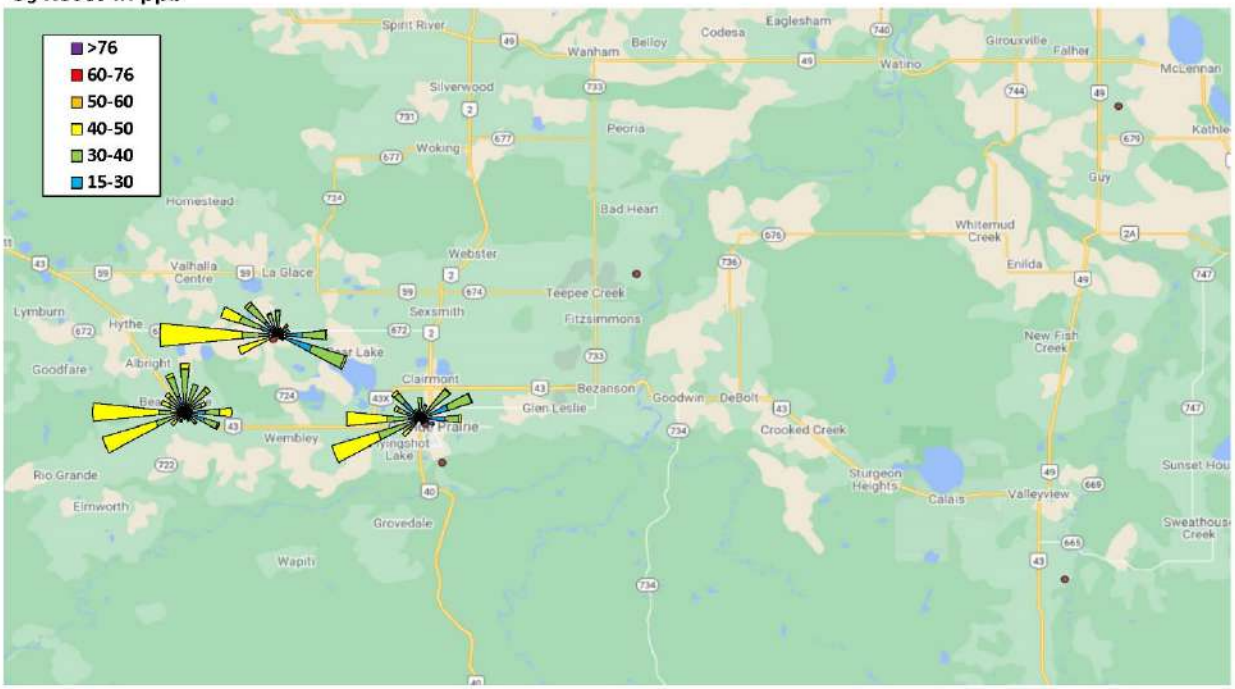
February 2022 O_3 Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes O_3	-	-
Henry Pirker O_3	28.0	48.1
Smoky Heights O_3	-	-
Beaverlodge O_3	34.1	49.0
Valleyview O_3	-	-
Donnelly O_3	-	-
Poplar O_3	34.5	48.1
Milner O_3	-	-



Ozone in ppb

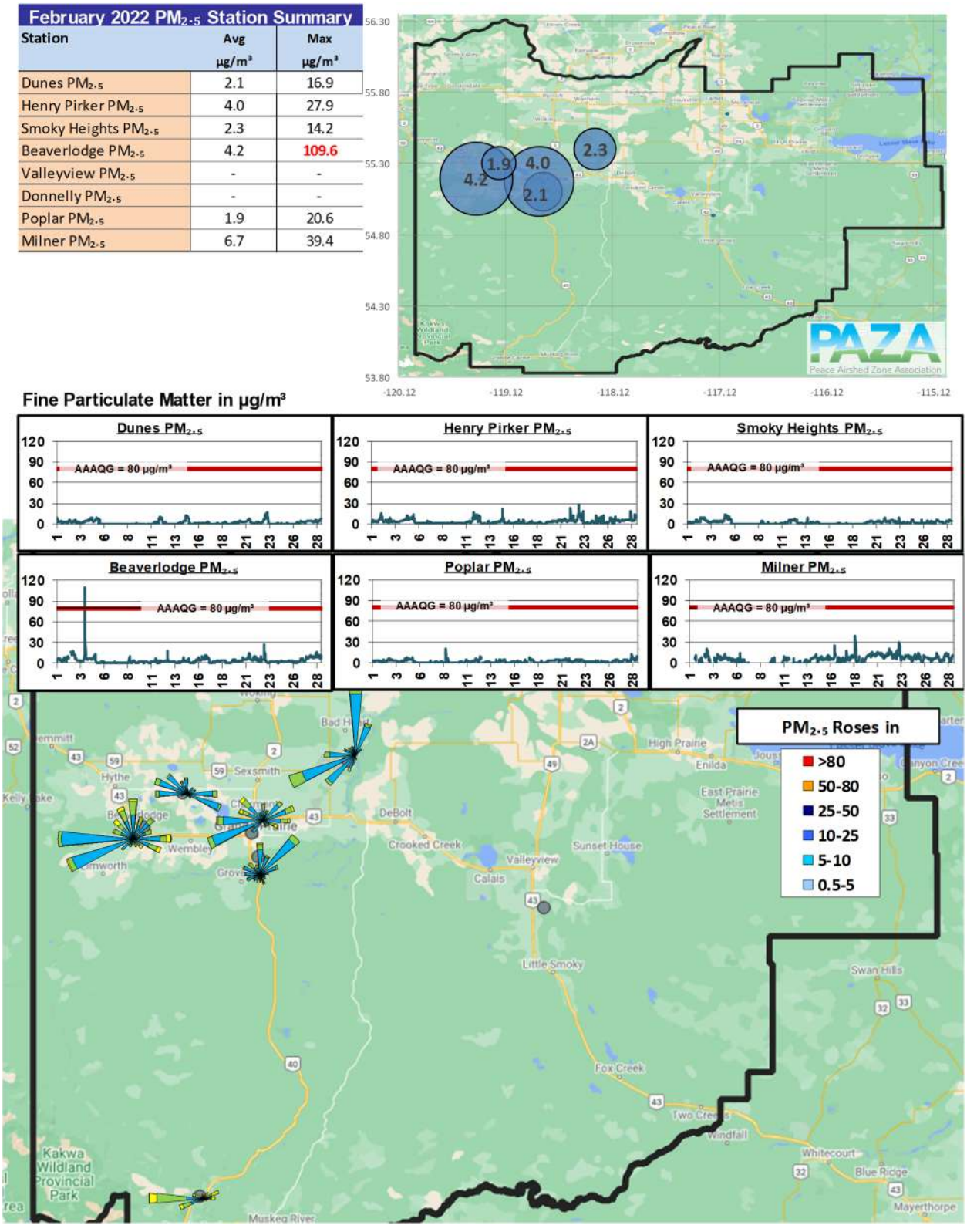


O_3 Roses in ppb



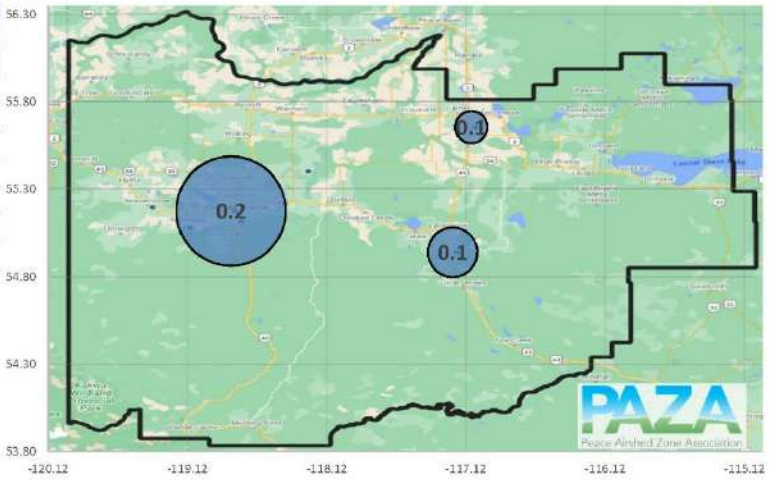
10.6 Fine Particulate Matter ($PM_{2.5}$) Plots

February 2022 $PM_{2.5}$ Station Summary		
Station	Avg µg/m³	Max µg/m³
Dunes $PM_{2.5}$	2.1	16.9
Henry Pirker $PM_{2.5}$	4.0	27.9
Smoky Heights $PM_{2.5}$	2.3	14.2
Beaverlodge $PM_{2.5}$	4.2	109.6
Valleyview $PM_{2.5}$	-	-
Donnelly $PM_{2.5}$	-	-
Poplar $PM_{2.5}$	1.9	20.6
Milner $PM_{2.5}$	6.7	39.4

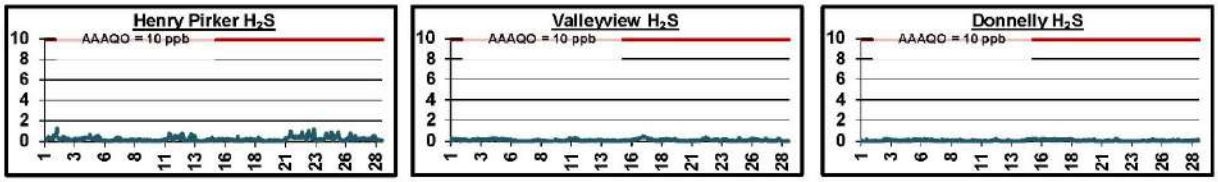


10.7 Hydrogen Sulphide (H_2S) Plots

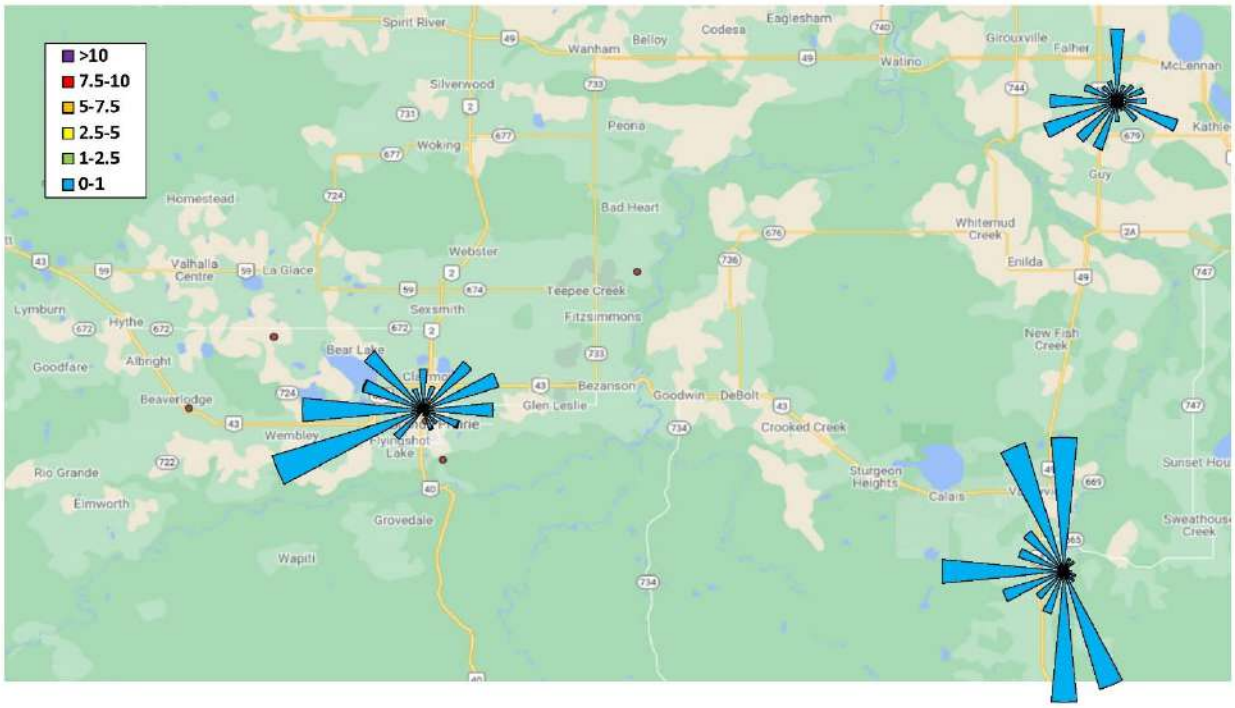
February 2022 H_2S Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes H_2S	-	-
Henry Pirker H_2S	0.2	1.3
Smoky Heights H_2S	-	-
Beaverlodge H_2S	-	-
Valleyview H_2S	0.1	0.5
Donnelly H_2S	0.1	0.3
Poplar H_2S	-	-
Milner H_2S	-	-



Hydrogen Sulphide in ppb

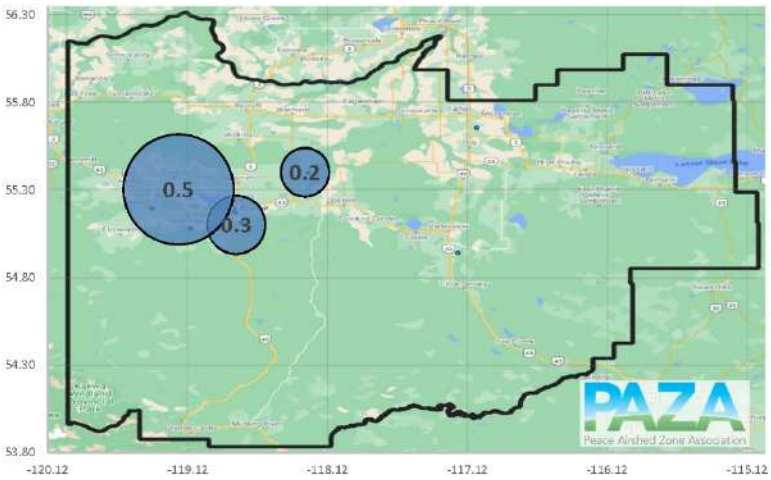


H_2S Roses in ppb

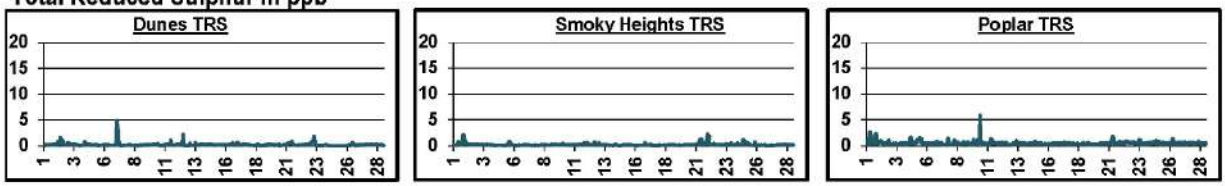


10.8 Total Reduced Sulphur (TRS) Plots

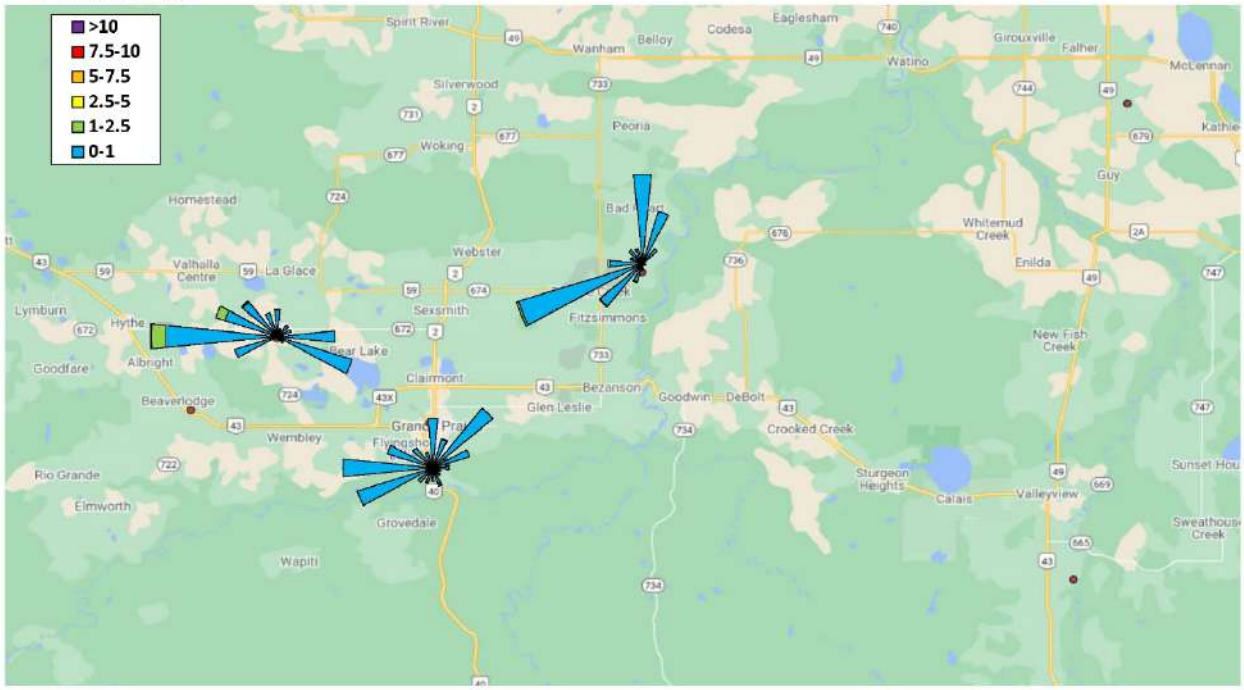
February 2022 TRS Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes TRS	0.3	4.9
Henry Pirker TRS	-	-
Smoky Heights TRS	0.2	2.3
Beaverlodge TRS	-	-
Valleyview TRS	-	-
Donnelly TRS	-	-
Poplar TRS	0.5	5.9
Milner TRS	-	-



Total Reduced Sulphur in ppb

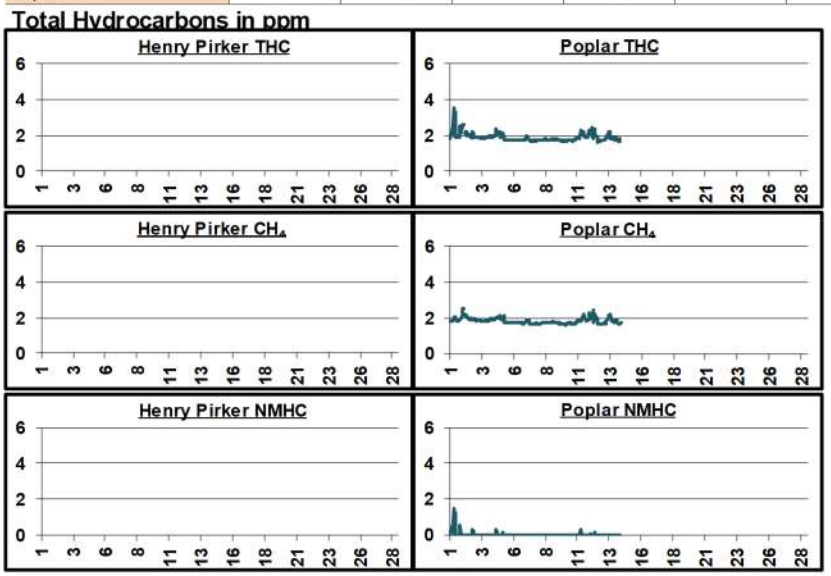


TRS Roses in ppb



10.9 Total Hydrocarbon (THC) Plots

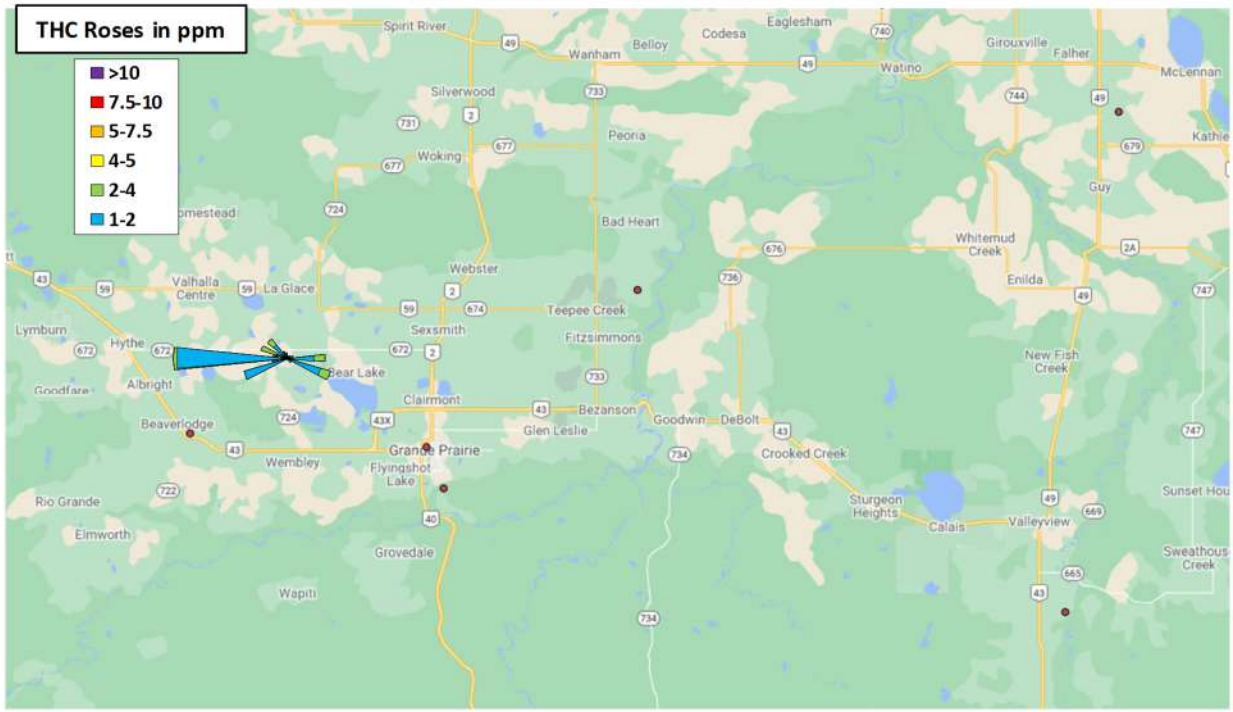
February 2022 THC Station Summary						
Station	Total Hydrocarbons		Methane		Non-Methane HCs	
	Avg (ppm)	Max (ppm)	Avg (ppm)	Max (ppm)	Avg (ppm)	Max (ppm)
Dunes THC	-	-	-	-	-	-
Henry Pirker THC	-	-	-	-	-	-
Smoky Heights THC	-	-	-	-	-	-
Beaverlodge THC	-	-	-	-	-	-
Valleyview THC	-	-	-	-	-	-
Donnelly THC	-	-	-	-	-	-
Poplar THC	-	3.5	-	2.6	-	1.4



Total Hydrocarbons (THC)

Methane (CH_4)

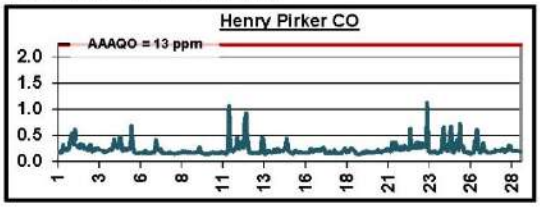
Non-Methane Hydrocarbons (NMHC)



10.10 Carbon Monoxide (CO) Plots

February 2022 CO Station Summary		
Station	Avg (ppm)	Max (ppm)
Henry Pirker CO	0.24	1.12

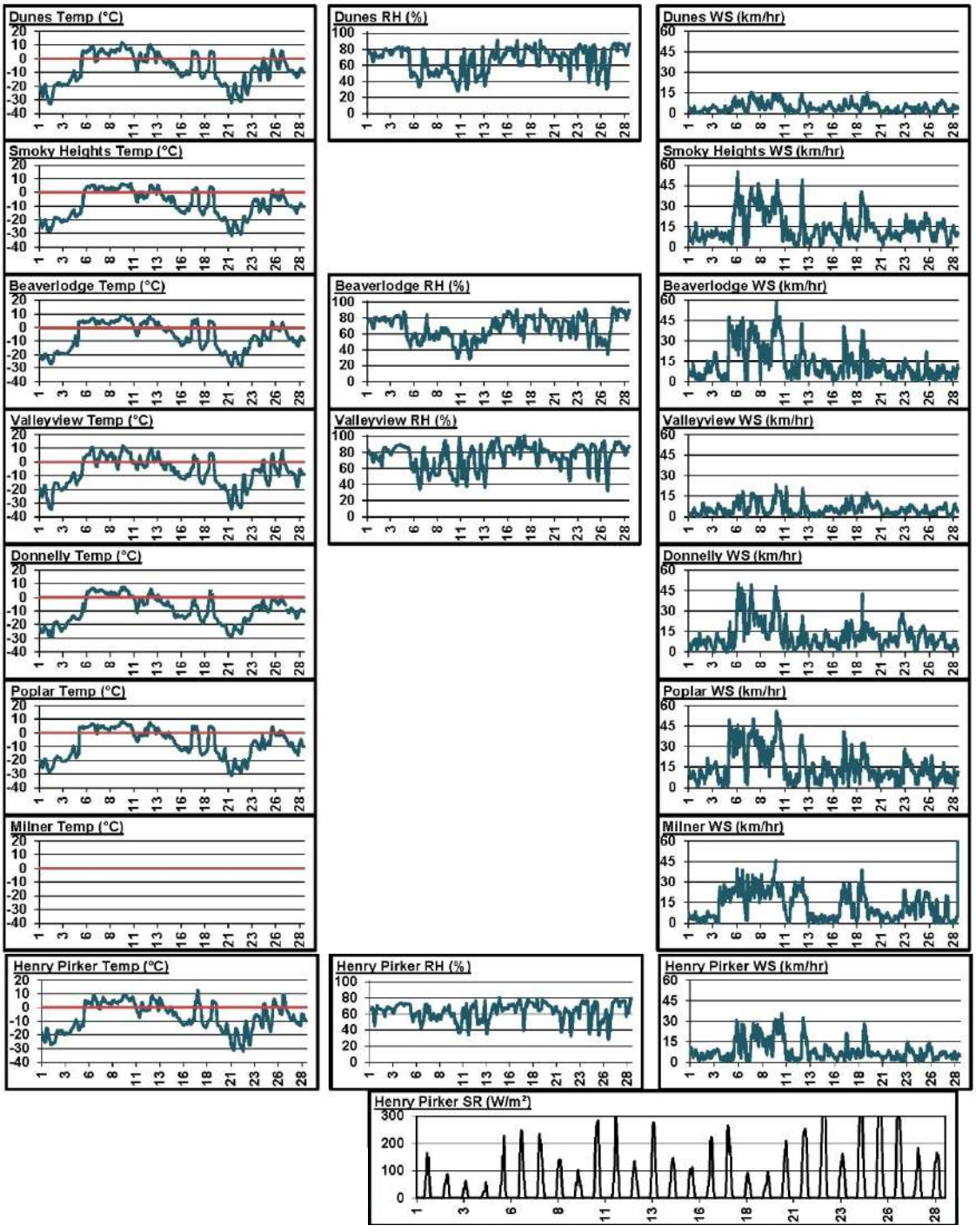
Carbon Monoxide in ppm



10.11 Meteorology Summary

February 2022 Meterological Summary						
Station	Temp (°C)	RH (%)	SR (W/m²)	WS (km/hr)	WD (deg)	WD
Dunes	-7.1	66.5	-	4.6	298	WNW
Henry Pirker	-6.9	63.1	44.1	8.1	266	W
Smoky Heights	-8.7	-	-	14.6	270	W
Beaverlodge	-6.4	67.4	-	13.3	275	W
Valleyview	-7.5	74.8	-	5.6	282	WNW
Donnelly	-9.3	-	-	12.2	254	WSW
Poplar	-7.4	-	-	15.6	275	W
Milner	-	-	-	12.6	261	261.4

Temp (°C) Outside Temperature
RH (%) Relative Humidity
SR (W/m²) Solar Radiation
WS (km/hr) Wind Speed
WD (deg) Wind Direction
WD Wind Direction



11 Passive Monitoring Data

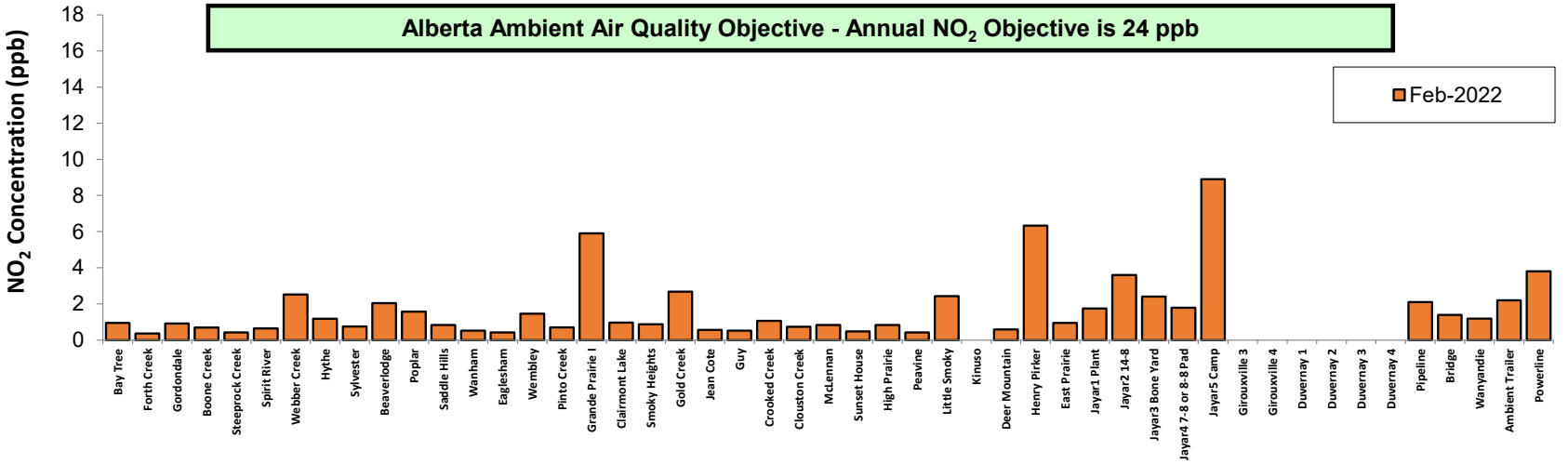
Peace Airshed Zone Association - PAZA Passive Stations for February 2022

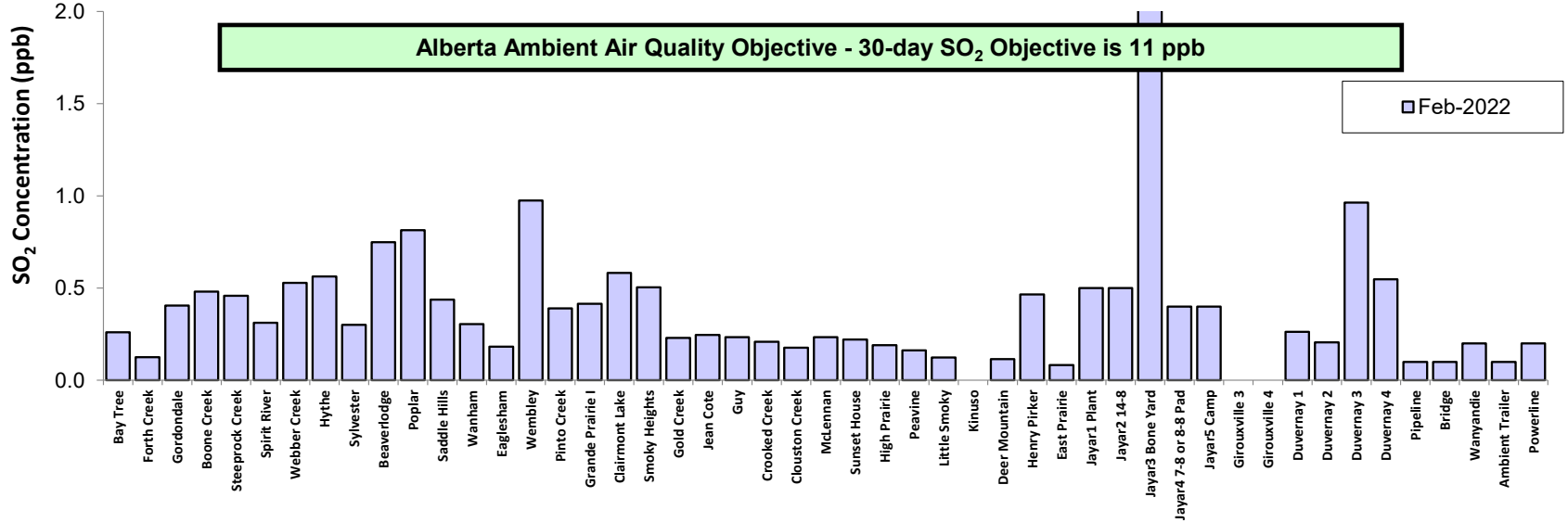
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	LSD
Duplicates						
2a	Bay Tree			**0.9**		13-16-078-13 W6M
2b	Bay Tree			**1.0**		
3a	Forth Creek			**0.5**		04-13-082-07 W6M
3b	Forth Creek			**0.2**		
4a	Gordondale	**0.4**				04-34-078-10 W6M
4b	Gordondale	**0.4**				
7a	Steeprock Creek			**0.4**		09-35-072-13 W6M
7b	Steeprock Creek			**0.5**		
9a	Spirit River	**0.3**				08-12-079-07 W6M
9b	Spirit River	**0.3**				
14a	Sylvester	**0.3**				08-06-069-12 W6M
14b	Sylvester	**0.3**				
37a	Crooked Creek	**0.2**				16-01-071-26 W5M
37b	Crooked Creek	**0.2**				
43a	High Prairie			**0.9**		16-13-074-17 W5M
43b	High Prairie			**0.8**		
47a	Kinuso					12-10-073-10 W5M
47b	Kinuso					
G4a	Girouxville 4					04-08-077-22 W5M
G4b	Girouxville 4					
D4a	Duvernay 4	**0.8**			**0.1**	04-33-062-20 W5M
D4b	Duvernay 4	**0.3**			**0.1**	
J1a	Jayar1 Plant					06-08-062-03 W6M
J1b	Jayar1 Plant					
J2a	Jayar2 14-8	**0.5**				07-08-062-03 W6M
J2b	Jayar2 14-8	**0.5**				
J3a	Jayar3 Bone Yard			**0.1**	**0.1**	14-08-062-03 W6M
J3b	Jayar3 Bone Yard			**0.1**	**0.1**	
M2a	Bridge	**0.1**				08-06-057-08 W6M
M2b	Bridge	**0.1**				
M4a	Wanyandie			**1.0**		11-13-058-08 W6M
M4b	Wanyandie			**1.4**		

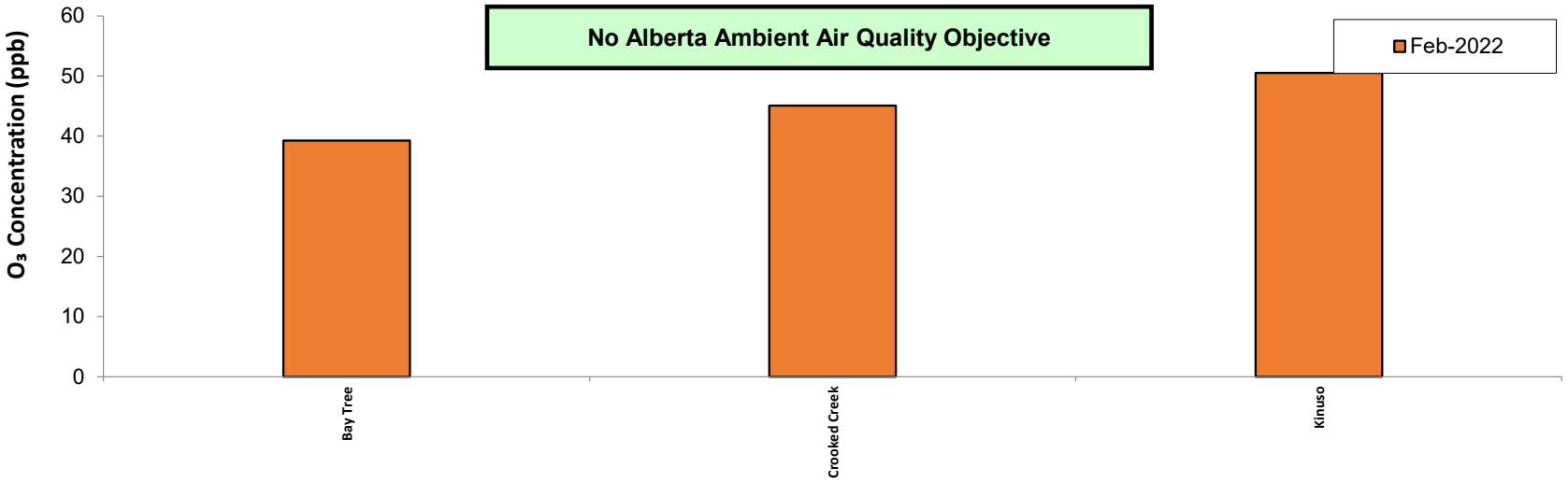
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	LSD
2	Bay Tree	0.3	39.3	0.9	-	13-16-078-13 W6M
3	Forth Creek	0.1	-	0.4	-	04-13-082-07 W6M
4	Gordondale	0.4	-	0.9	-	04-34-078-10 W6M
5	Boone Creek	0.5	-	0.7	-	01-23-076-11 W6M
7	Steeprock Creek	0.5	-	0.4	-	09-35-072-13 W6M
9	Spirit River	0.3	-	0.7	-	08-12-079-07 W6M
11	Webber Creek	0.5	-	2.5	-	09-36-074-09 W6M
12	Hythe	0.6	-	1.2	-	14-36-072-11 W6M
14	Sylvester	0.3	-	0.8	-	08-06-069-12 W6M
16	Beaverlodge	0.7	-	2.0	-	15-36-071-10 W6M
17	Poplar	0.8	-	1.6	-	13-06-073-08 W6M
18	Saddle Hills	0.4	-	0.8	-	04-25-074-07 W6M
19	Wanham	0.3	-	0.5	-	16-22-077-03 W6M
21	Eaglesham	0.2	-	0.4	-	16-21-079-25 W5M
24	Wembley	1.0	-	1.5	-	12-31-070-08 W6M
25	Pinto Creek	0.4	-	0.7	-	04-24-069-11 W6M
27	Grande Prairie I	0.4	-	5.9	-	08-15-071-06 W6M
28	Clairmont Lake	0.6	-	1.0	-	09-06-073-04 W6M
29	Smoky Heights	0.5	-	0.9	-	04-06-075-02 W6M
32	Gold Creek	0.2	-	2.7	-	06-33-067-05 W6M
35	Jean Cote	0.2	-	0.6	-	12-35-079-21 W5M
36	Guy	0.2	-	0.5	0.2	03-04-076-22 W5M
37	Crooked Creek	0.2	45.1	1.1	-	16-01-071-26 W5M
39	Clouston Creek	0.2	-	0.7	-	12-01-073-22 W5M
40	McLennan	0.2	-	0.8	-	03-29-077-19 W5M
42	Sunset House	0.2	-	0.5	-	05-32-070-19 W5M
43	High Prairie	0.2	-	0.8	-	16-13-074-17 W5M
44	Peavine	0.2	-	0.4	-	03-05-079-15 W5M
46	Little Smoky	0.1	-	2.4	-	12-01-065-21 W5M
47	Kinuso	-	50.5	-	0.3	12-10-073-10 W5M
48	Deer Mountain	0.1	-	0.6	-	15-22-068-09 W5M
49	Henry Pirker	0.5	-	6.3	-	17-26-071-06 W6M
50	East Prairie	0.1	-	0.9	-	11-13-079-08 W6M
57	Jayar1 Plant	0.5	-	1.8	0.1	06-08-062-03 W6M
58	Jayar2 14-8	0.5	-	3.6	0.1	07-08-062-03 W6M
59	Jayar3 Bone Yard	2.1	-	2.4	0.1	14-08-062-03 W6M
60	Jayar4 7-8 or 8-8 Pad	0.4	-	1.8	0.1	10-08-062-03 W6M
61	Jayar5 Camp	0.4	-	8.9	0.2	11-08-062-03 W6M
G3	Girouxville 3	-	-	-	0.4	14-02-077-23 W5M
G4	Girouxville 4	-	-	-	0.3	04-08-077-22 W5M
D1	Duvernay 1	0.3	-	-	0.1	04-33-062-20 W5M
D2	Duvernay 2	0.2	-	-	0.1	04-33-062-20 W5M
D3	Duvernay 3	1.0	-	-	0.1	04-33-062-20 W5M
D4	Duvernay 4	0.5	45.0	-	0.1	04-33-062-20 W5M
M1	Pipeline	0.1	-	2.1	-	12-14-058-08 W6M
M2	Bridge	0.1	-	1.4	-	08-06-057-08 W6M
M3	Wanyandie	0.2	-	1.2	-	11-13-058-08 W6M
M4	Ambient Trailer	0.1	-	2.2	-	09-15-058-08 W6M
M5	Powerline	0.2	-	3.8	-	06-14-058-08 W6M

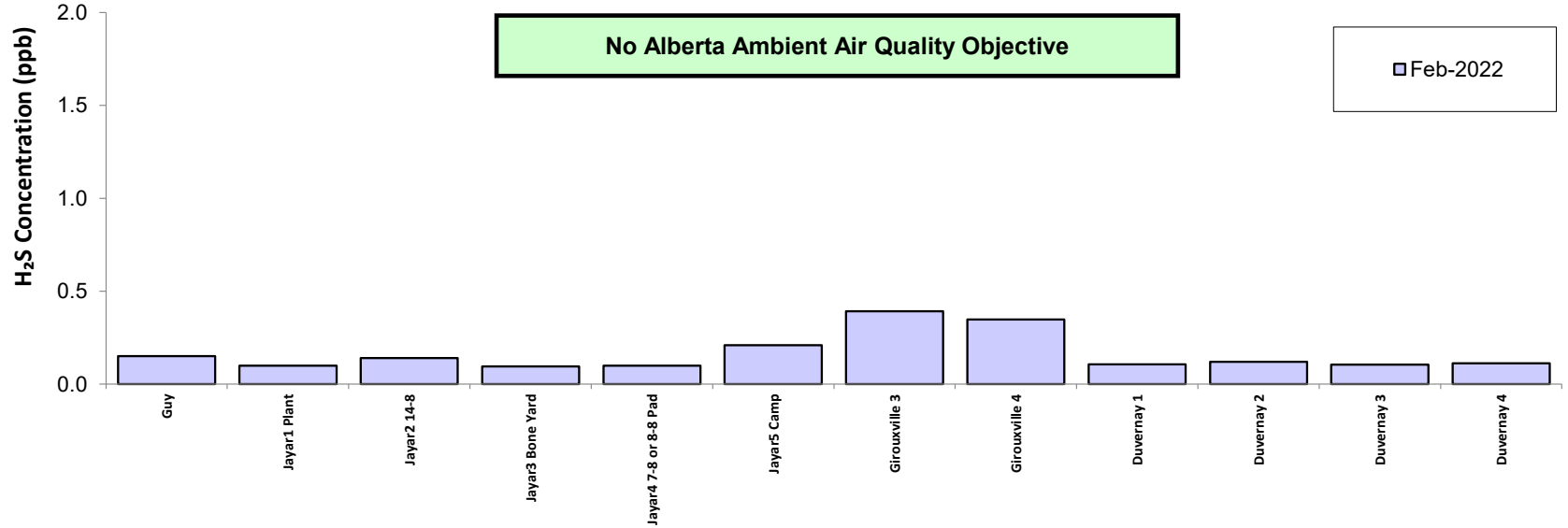
Passive Summary for February 2022

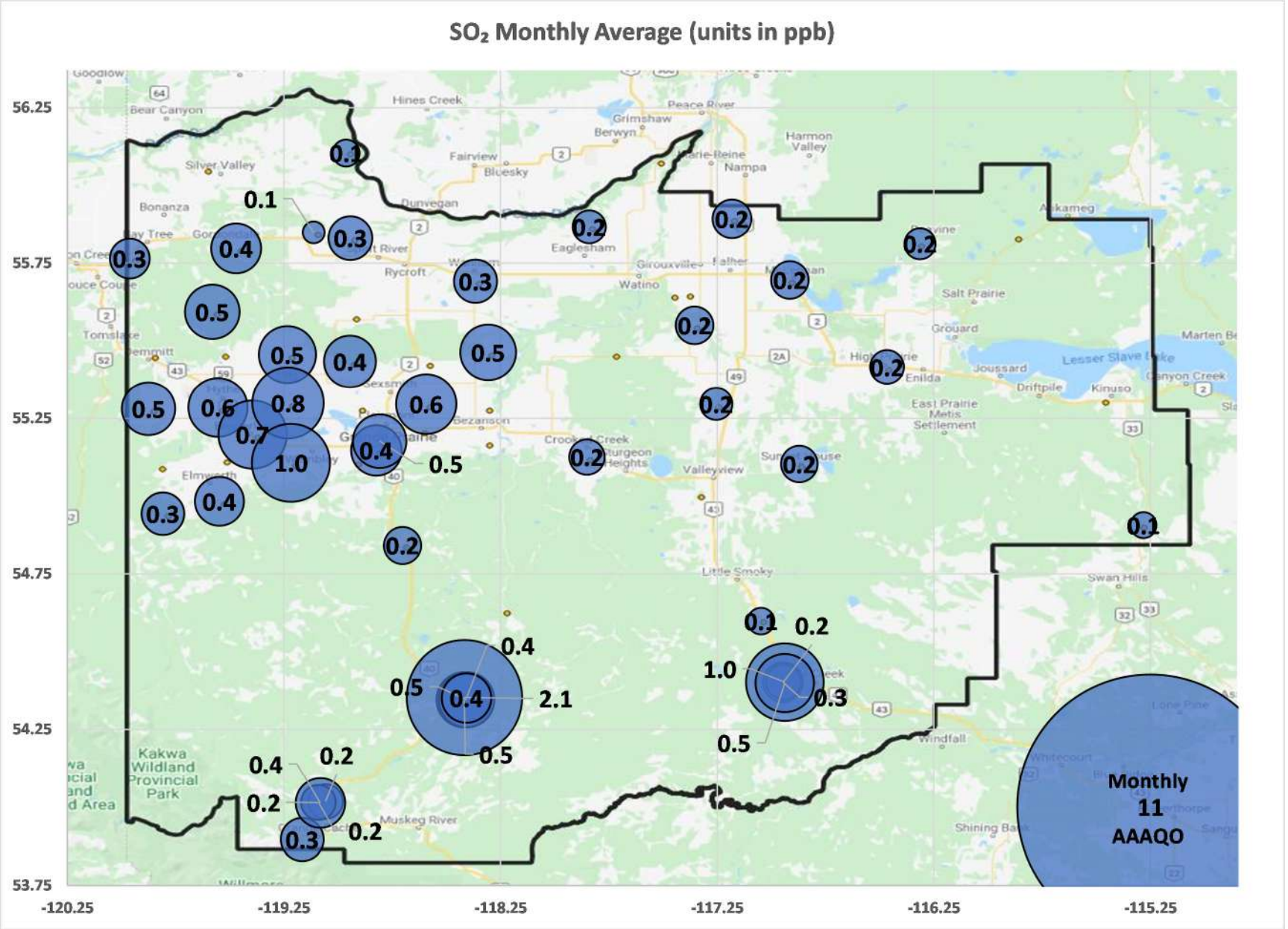
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
Passive Summary for February 2022 (PAZA)				
Mean	0.4	45.0	1.7	0.2
Standard Deviation	0.3	4.6	1.8	0.1
Minimum	0.1 East Prairie (#50)	39.3 Bay Tree (#2)	0.4 Forth Creek (#3)	0.1 Jayar3 Bone Yard (#59)
Maximum	2.1 Jayar3 Bone Yard (#59)	50.5 Kinuso (#47)	8.9 Jayar5 Camp (#61)	0.4 Girouxville 3 (#G3)
Continuous and Passive Monitoring Comparision				
PAZA Beaverlodge Station	**0.9**	**34.1**	**5.0**	**-**
Beaverlodge Passive (#16)	**0.7**	**-**	**2.0**	**-**
PAZA Henry Pirker Station	**0.5**	**28.0**	**13.0**	**0.2**
Henry Pirker passive (#49)	**0.5**	**-**	**6.3**	**-**
Milner Station	**-**	**-**	**3.9**	**-**
Henry Pirker passive (#49)	**0.1**	**-**	**2.2**	**-**

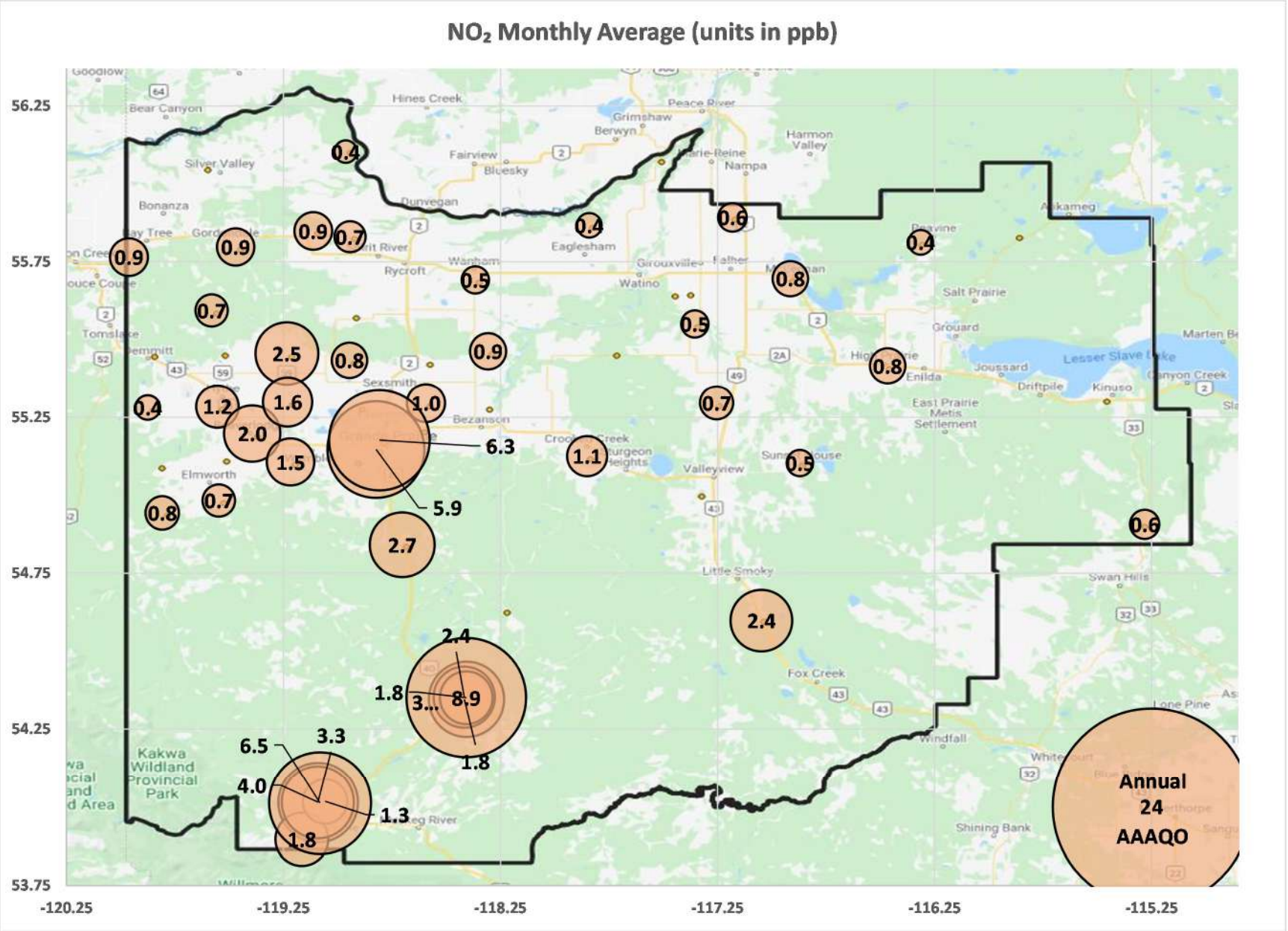

Alberta Ambient Air Quality Objective - Annual NO2 Objective is 24 ppb
NO2 Concentration (ppb)
Feb-2022
0
2
4
6
8
10
12
14
16
18
Bay Tree
Forth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Clairmont Lake
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
Sunset House
High Prairie
Peavine
Little Smoky
Kinuso
Deer Mountain
Henry Pirker
East Prairie
Jayar1 Plant
Jayar2 14-8
Jayar3 Bone Yard
Jayar4 7-8 or 8-8 Pad
Jayar5 Camp
Girouxville 3
Girouxville 4
Duvernay 1
Duvernay 2
Duvernay 3
Duvernay 4
Pipeline
Bridge
Wanyandie
Ambient Trailer
Powerline

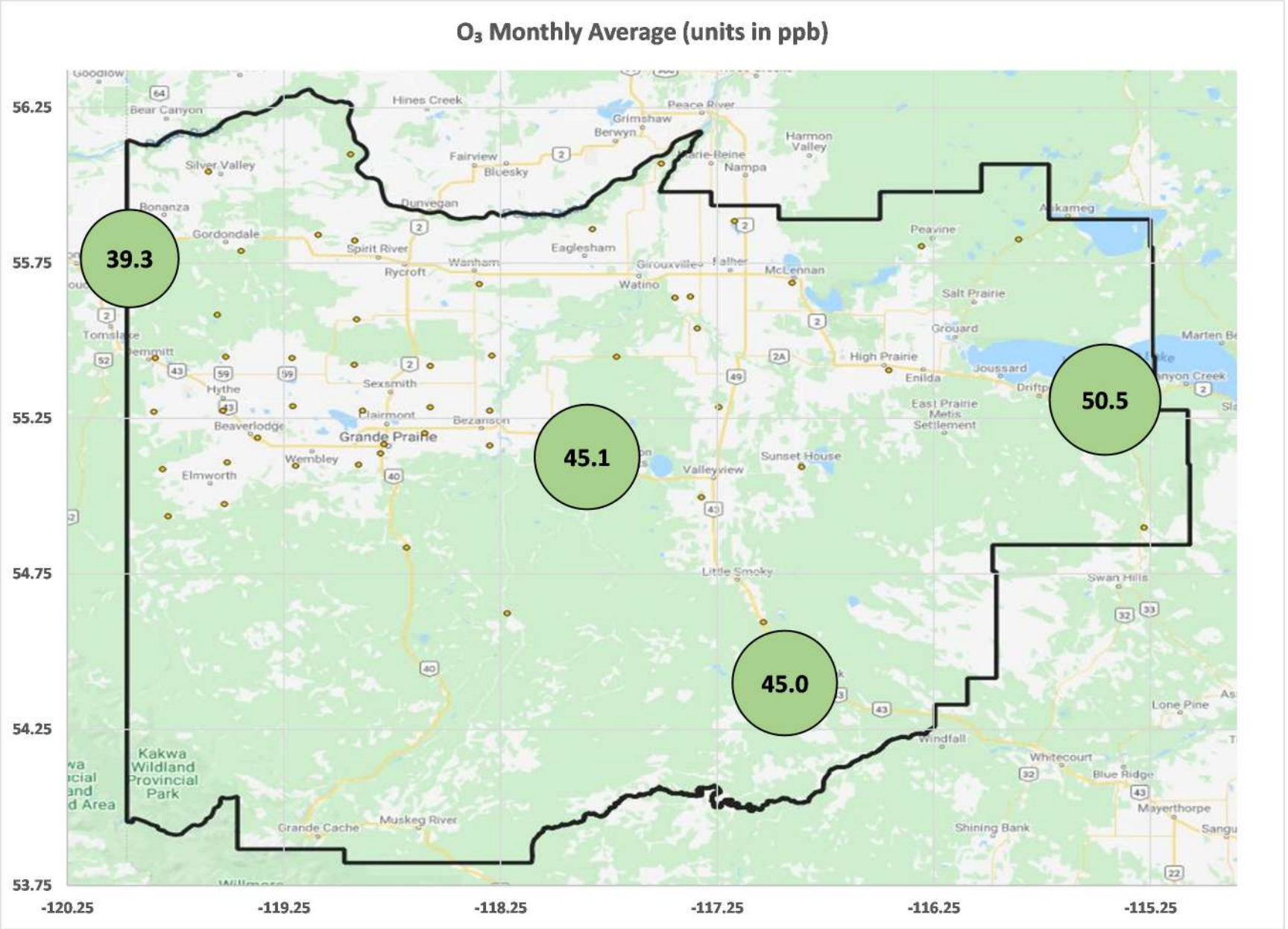

Alberta Ambient Air Quality Objective - 30-day SO2 Objective is 11 ppb
SO2 Concentration (ppb)
Feb-2022
0.0
0.5
1.0
1.5
2.0
Bay Tree
Forth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Clairmont Lake
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
Sunset House
High Prairie
Peavine
Little Smoky
Kinuso
Deer Mountain
Henry Pirker
East Prairie
Jayar1 Plant
Jayar2 14-8
Jayar3 Bone Yard
Jayar4 7-8 or 8-8 Pad
Jayar5 Camp
Girouxville 3
Girouxville 4
Duvernay 1
Duvernay 2
Duvernay 3
Duvernay 4
Pipeline
Bridge
Wanyandie
Ambient Trailer
Powerline

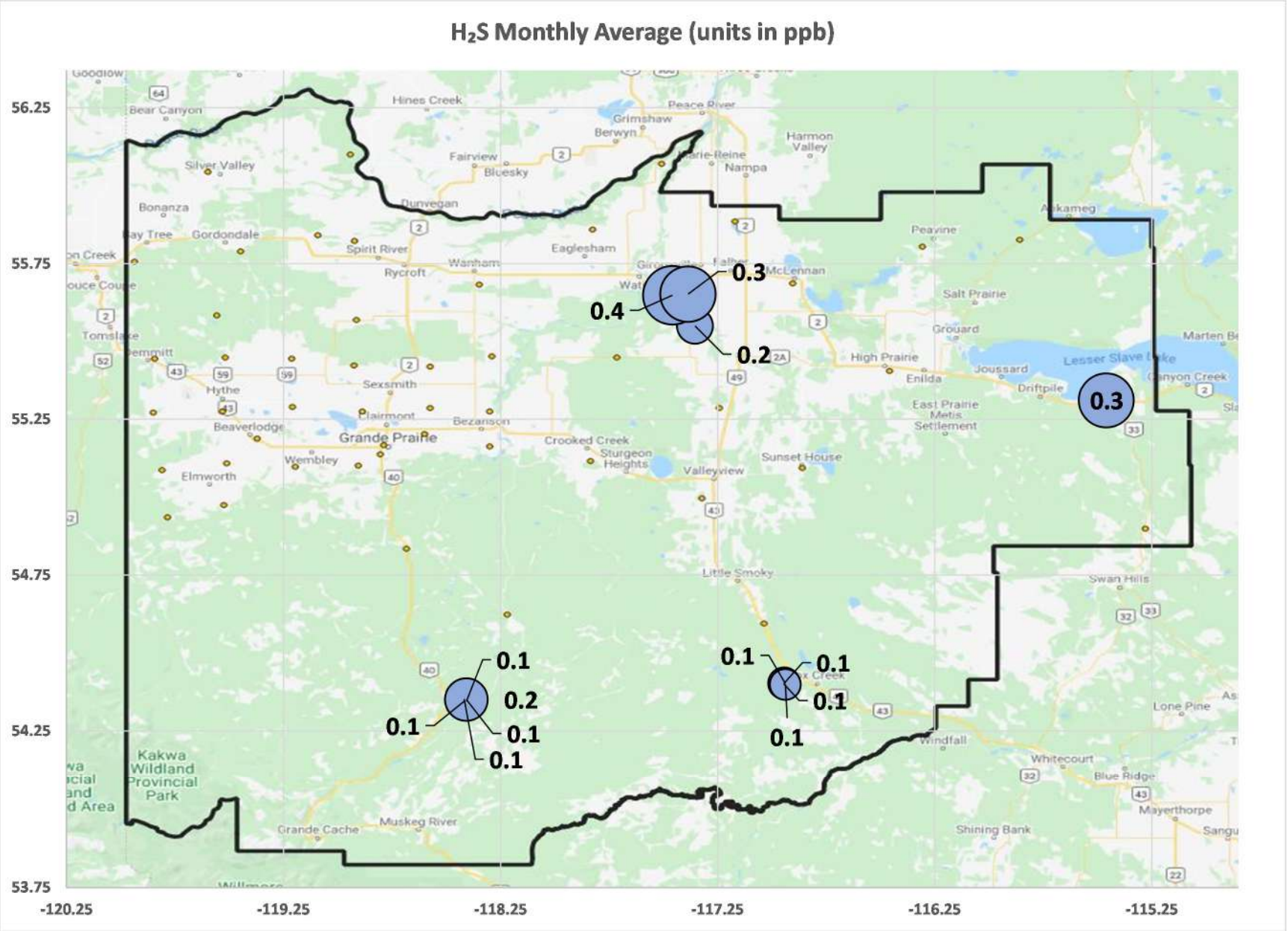

No Alberta Ambient Air Quality Objective
Feb-2022
O_3 Concentration (ppb)
60
50
40
30
20
10
0
Bay Tree
Crooked Creek
Kinuso


No Alberta Ambient Air Quality Objective
Feb-2022
H_2S Concentration (ppb)
2.0
1.5
1.0
0.5
0.0
Guy
Jayar1 Plant
Jayar2 14-8
Jayar3 Bone Yard
Jayar4 7-8 or 8-8 Pad
Jayar5 Camp
Girouxville 3
Girouxville 4
Duvernay 1
Duvernay 2
Duvernay 3
Duvernay 4


SO2 Monthly Average (units in ppb)
56.25
55.75
55.25
54.75
54.25
53.75
-120.25
-119.25
-118.25
-117.25
-116.25
-115.25
Monthly
11
AAAQO


NO2 Monthly Average (units in ppb)
56.25
55.75
55.25
54.75
54.25
53.75
-120.25
-119.25
-118.25
-117.25
-116.25
-115.25
Hines Creek
Peace River
Grimshaw
Berwyn
Harmon Valley
Fairview
Bluesky
Nampa
Silver Valley
Bonanza
Dunvegan
Eaglesham
Rycroft
Watino
Girouxville
Salt Prairie
Grouard
Joussard
Lesser Slave Lake
Enilda
Driftpile
Kinuso
East Prairie Metis Settlement
Sexsmith
Bezanson
Valleyview
Elmworth
Little Smoky
Swan Hills
Fox Creek
Windfall
Shining Bank
Kakwa Wildland Provincial Park
0.4
0.9
0.9
0.7
0.9
0.4
0.6
0.4
0.5
0.8
0.7
0.5
2.5
0.8
0.9
0.8
0.4
1.2
1.6
1.0
0.7
2.0
6.3
1.1
0.5
1.5
5.9
0.8
0.7
2.7
0.6
2.4
2.4
1.8
3...
8.9
1.8
6.5
3.3
4.0
1.3
1.8
Annual
24
AAAQO

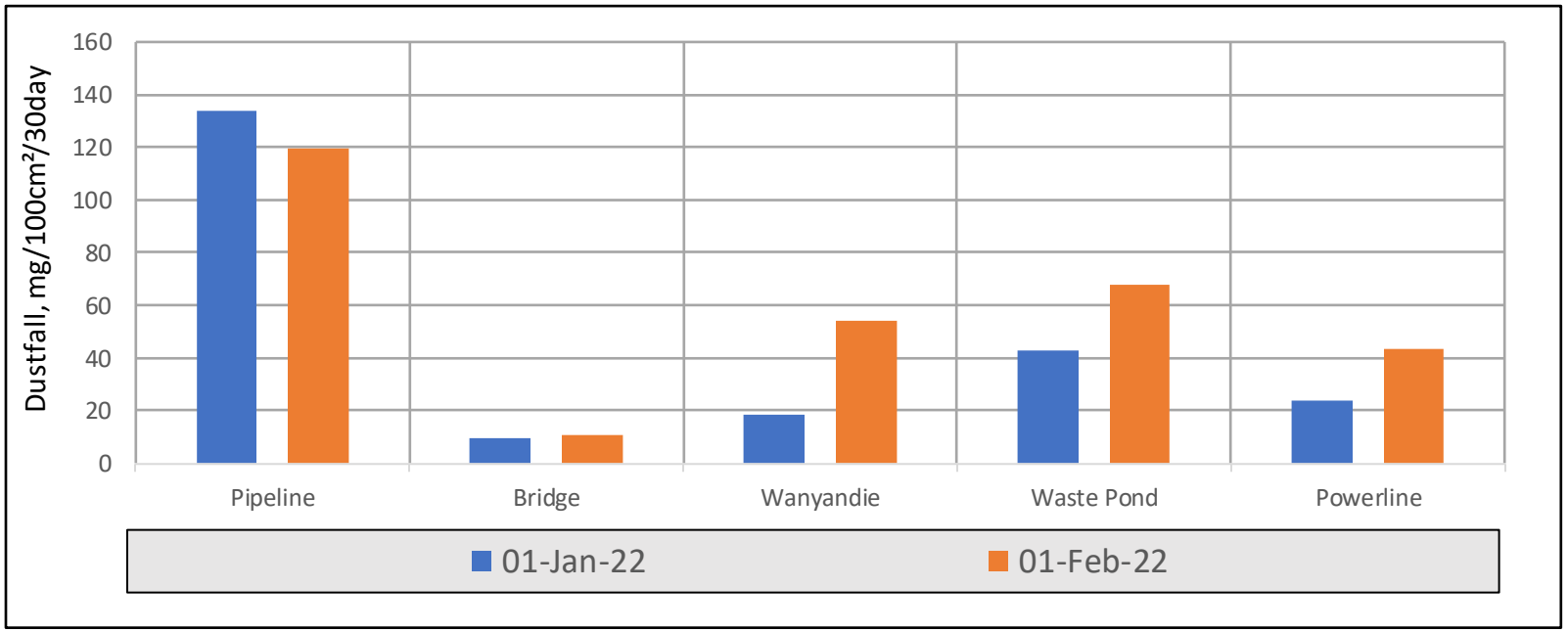

O3 Monthly Average (units in ppb)
56.25
55.75
55.25
54.75
54.25
53.75
-120.25
-119.25
-118.25
-117.25
-116.25
-115.25
39.3
45.1
45.0
50.5
Hines Creek
Peace River
Grimshaw
Berwyn
Harmon Valley
Fairview
Bluesky
Nampa
Silver Valley
Bear Canyon
Bonanza
Dunvegan
Gordondale
Spirit River
Eaglesham
Rycroft
Wanham
Girouxville
Watino
Father
McLennan
Peavine
Salt Prairie
Grouard
High Prairie
Enilda
Joussard
East Prairie Metis Settlement
Sexsmith
Hythe
Beaverlodge
Clairmont
Grande Prairie
Bezanson
Wembley
Elmworth
Valleyview
Sunset House
Little Smoky
Swan Hills
Lone Pine
Windfall
Whitecourt
Blue Ridge
Mayerthorpe
Shining Bank
Kakwa Wildland Provincial Park
Grande Cache
Muskeg River


H2S Monthly Average (units in ppb)
56.25
55.75
55.25
54.75
54.25
53.75
-120.25
-119.25
-118.25
-117.25
-116.25
-115.25
0.3
0.4
0.2
0.3
0.1
0.2
0.1
0.1
0.1
0.1
0.1
Grande Prairie
Hythe
Beaverlodge
Wembley
Elmworth
Dunvegan
Fairview
Bluesky
Hines Creek
Bear Canyon
Silver Valley
Bonanza
Gordondale
Spirit River
Rycroft
Eaglesham
Peace River
Grimshaw
Berwyn
Nampa
Harmon Valley
Peavine
Salt Prairie
Grouard
High Prairie
Enilda
Joussard
Driftpile
East Prairie Metis Settlement
Lesser Slave Lake
Sexsmith
Bezanson
Crooked Creek
Sturgeon Heights
Valleyview
Sunset House
Little Smoky
Swan Hills
Lone Pine
Windfall
Whitecourt
Blue Ridge
Mayerthorpe
Shining Bank
Kakwa Wildland Provincial Park
Grande Cache
Muskeg River

12 Dustfall Monitoring Data

Milner Dustfall Samples February 2022

Exposure Month	Year	Sample	Total Dustfall (30 day) mg/100cm²/30day	Fixed Dustfall (30 day) mg/100cm²/30day	Exposure days	Field Notes
February	2022	Pipeline	119.6	33.8	28	
February	2022	Bridge	10.6	6.5	28	
February	2022	Wanyandie	54.2	18.4	28	
February	2022	Waste Pond	67.7	13.4	28	
February	2022	Powerline	43.3	16.5	28	
February	2022	Powerline Dup	37.8	11.8	28	RPD= 14% / 33%



13 End of Report

End of Report

Peace Airshed Zone Association

Ambient Air Monitoring Report

February 2022