



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Ambient Air Quality Monitoring Program

Monthly Report

September 2022

October 31, 2022

Alberta Environment and Parks

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

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

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

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

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

PAZA has retained the services of WSP Canada Inc. to conduct continuous ambient monitoring and Dr. Kevin McCullum, P.Eng. 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:

Eight (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 September 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:

The follow is a summary of the concentrations in exceedance of AAAQG and AAAQO:

Thirteen 1-hr readings above the PM_{2.5} AAAQG (80 µg/m³) was recorded as:

Reference Number	Site	Date	From MST	To MST	Hour average (µg/m ³)	WS km/hr	WD degrees
403270	Smoky Heights	01-Sep-22	21:00	22:00	211	8.7	244
403270	Smoky Heights	01-Sep-22	22:00	23:00	94	10	257
403270	Smoky Heights	01-Sep-22	23:00	00:00	95	8.5	253
403798	Dunes	02-Sep-22	20:00	21:00	111	0.6	292
403798	Dunes	02-Sep-22	21:00	22:00	171	0.6	274
403862	Beaverlodge	03-Sep-22	13:00	14:00	112	7.8	297
403863	Henry Pirker	03-Sep-22	14:00	15:00	82	10.4	309
403881	Smoky Heights	04-Sep-22	20:00	21:00	141	19.4	248
404152	Milner	09-Sep-22	19:00	20:00	90	15.7	239
404185	Beaverlodge	10-Sep-22	23:00	00:00	150	11.3	312
404186	Dunes	11-Sep-22	01:00	02:00	86	0.8	247
404186	Dunes	11-Sep-22	02:00	03:00	83	0.7	331
404187	Henry Pirker	11-Sep-22	00:00	01:00	80	7.9	316

Four, 24-hr readings above the daily PM_{2.5} AAAQO (29 µg/m³) as:

Reference Number	Site	Date	Day average (µg/m ³)	WS km/hr	WD degrees
403862	Beaverlodge	03-Sep-22	30	6.4	316
403864	Dunes	03-Sep-22	37	1.6	320
403863	Henry Pirker	03-Sep-22	38	4.4	305
404185	Beaverlodge	10-Sep-22	30	9.9	282

Operational times less than 90 percent:

All stations reported above 90% operational times

Air Incidents

None were reported

Deviations from Authorized Monitoring Methods

None were reported

Passive Monitoring

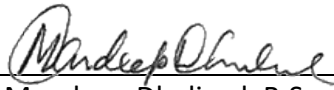
- 49 Stations throughout the PAZA zone
 - Passive sample analyses were performed by Bureau Veritas Laboratories
- There were 17 duplicates sampled in the month of September.
- Seven SO₂ duplicates located at Pinto Creek, Webber Creek, Jean Cote, Duvernay 3, Peavine, Jayar4 7-8 or 8-8 Pad, Pipeline; RPD ranging from 5% to 25% (no fails)
- One O₃ duplicate located at Bay Tree; RPD 2% (no fails)
- Six NO₂ duplicates at Poplar, High Prairie, Boone Creek, Eaglesham, Jayar1 Plant, Powerline; RPD ranging from 0% to 20% (no fails)
- Three H₂S duplicates, Guy, Duvernay 3, Jayar2 14-8; RPD 15% to 34% (no fails)

- Duplicate at Guy was identified as Girouxville, timing of change indicated it was from Guy
- 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
- There was one duplicate sampled collected for each in the month of September
 - RPD ranged from 18% to 48%
- Total dustfall ranged from 28.7 to 148.4 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.

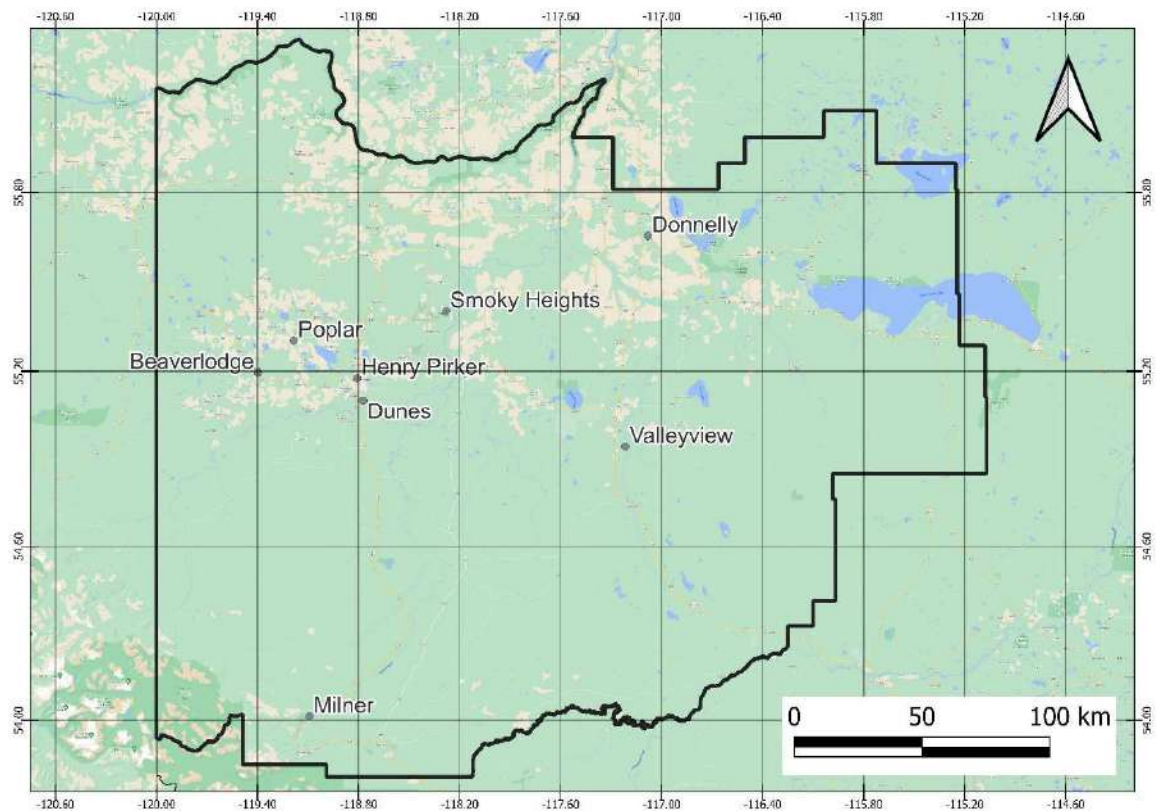


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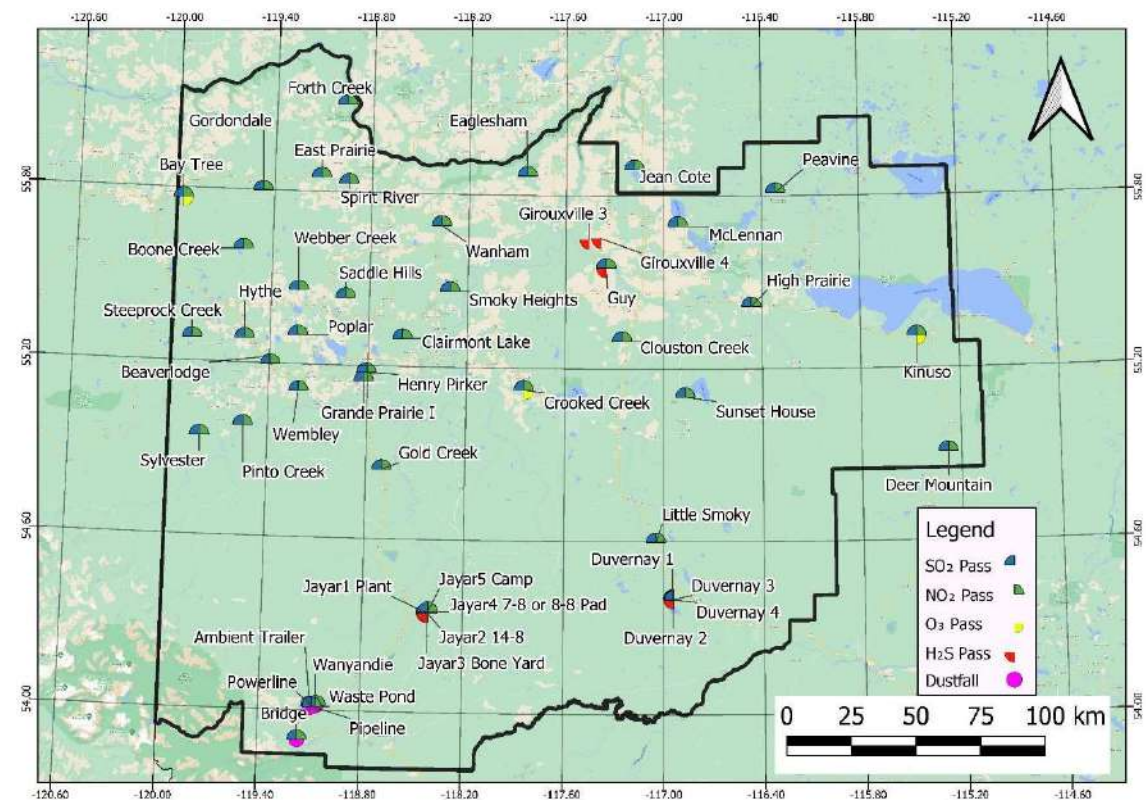
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PAZA Continuous Monitoring Station Locations



PAZA Passive Monitoring Station Locations



1 September 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 - September 2022 Beaverlodge Station Report

Parameter	September				Operational	1-hour			24-hour			Exceedance				Calibration Date
	Average	Minimum	Valid			Max	Objective	Max Day and Time	Max	Objective	Max Day	1hr	8hr	24hr	30d	
NO (ppb)	0.4	0.0	95.1%	100.0%	22.6	-	Sep-14 09:00	2.3	-	Sep-14	-	-	-	-	Sep 07, 2022	
NO ₂ (ppb)	2.6	0.2	95.1%	100.0%	12.8	159	Sep-15 09:00	6.1	-	Sep-15	0	-	-	-	Sep 07, 2022	
NO _x (ppb)	3.0	0.1	95.1%	100.0%	33.4	-	Sep-14 09:00	7.6	-	Sep-14	-	-	-	-	Sep 07, 2022	
O ₃ (ppb)	28.2	3.3	95.3%	100.0%	61.3	76	Sep-03 18:00	38.8	-	Sep-23	0	-	-	-	Sep 07, 2022	
PM _{2.5} (µg/m³)	10.0	0.5	99.6%	100.0%	150.3	80	Sep-10 23:00	32.3	29	Sep-10	2	-	2	-	Sep 06, 2022	
SO ₂ (ppb)	0.4	0.0	95.3%	100.0%	20.5	172	Sep-14 12:00	1.9	48	Sep-14	0	-	0	0	Sep 06, 2022	
	Average	Minimum	Valid	Operational	Maximum											
Temp (°C)	13.5	0.1	100.0%	100.0%	30.1	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%										
RH (%)	58.8	14.2	100.0%	100.0%	99.9											
WS (km/hr)	11.1	0.1	100.0%	100.0%	45.1											
WD (deg)	270	4.3	100.0%	100.0%	357.9	Average Wind Direction270W										

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; 2 days above AAAQO and 2 hours above AAAQG
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 - September 2022 Dunes Station Report

September					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)	9.1	0.0	99.4%	100.0%	171.2	80	Sep-02 21:00	37.6	29	Sep-03	4	-	1	-	Sep-15-2022
SO ₂ (ppb)	0.4	0.0	95.3%	100.0%	8.2	172	Sep-06 01:00	1.3	48	Sep-13	0	-	0	0	Sep-15-2022
TRS (ppb)	0.2	0.0	95.3%	100.0%	2.1	-	Sep-03 04:00	0.7	-	Sep-26	-	-	-	-	Sep-15-2022
	Average	Minimum	Valid	Operational	Maximum	Note: Valid hours must be greater than 75% Operational hours must be greater than 90% Average Wind Direction260W									
Temp (°C)	12.8	-1.7	100.0%	100.0%	31.6										
RH (%)	63.5	13.9	100.0%	100.0%	98.7										
WS (km/hr)	3.5	0.1	100.0%	100.0%	11.4										
WD (deg)	260	2.8	100.0%	100.0%	357.6										

Update Summary:

Parameter	Make	Model	Equipment summary
PM _{2.5}	Thermo	TEOM AB	No Operational issues noted; Sept02 2xh AAAQG; Sept03 24h AAAQG; Sept11 2xh AAAQG
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 - September 2022 Henry Pirker Station Report

AZA - September 2022 Henry Fikek Station Report															
September					1-hour			8-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)	3.2	0.0	92.5%	97.5%	82.3	-	Sep-03 07:00	12.7	-	Sep-27	-	-	-	-	Sep 02, 2022
NO _x (ppb)	6.6	0.8	92.5%	97.5%	45.2	159	Sep-03 07:00	13.3	-	Sep-27	0	-	-	-	Sep 02, 2022
NO ₂ (ppb)	9.8	1.0	92.5%	97.5%	127.8	-	Sep-03 07:00	26.1	-	Sep-27	-	-	-	-	Sep 02, 2022
O ₃ (ppb)	22.0	0.3	92.9%	97.5%	62.7	76	Sep-03 18:00	34.5	-	Sep-24	0	-	-	-	Sep 02, 2022
PM _{2.5} (µg/m³)	10.2	0.0	95.7%	96.3%	81.9	80	Sep-03 14:00	38.5	29	Sep-03	2	-	1	-	Sep 16, 2022
SO ₂ (ppb)	0.3	0.0	92.6%	97.5%	5.3	172	Sep-28 11:00	1.0	48	Sep-08	0	-	0	0	Sep 02, 2022
H ₂ S (ppb)	0.2	0.0	92.8%	97.5%	1.4	10	Sep-03 07:00	0.4	3	Sep-27	0	-	0	-	Sep 07, 2022
CH ₄ (ppm)	2.1	1.9	92.6%	97.5%	3.8	-	Sep-21 05:00	2.4	-	Sep-21	-	-	-	-	Sep 06, 2022
THC (ppm)	2.1	1.9	92.6%	97.5%	3.8	-	Sep-21 05:00	2.4	-	Sep-14	-	-	-	-	Sep 06, 2022
NMHC (ppm)	0.0	0.0	92.6%	97.5%	0.9	-	Sep-14 06:00	0.2	-	Sep-14	-	-	-	-	Sep 06, 2022
CO (ppm)	0.2	0.1	92.8%	97.5%	1.3	13	Sep-27 08:00	0.4	5	Sep-03	0	0	-	-	Sep 06, 2022
	Average	Minimum	Valid	Operational	Maximum										
Temp (°C)	14.2	0.7	97.5%	97.5%	32.9	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
RH (%)	57.6	14.3	97.5%	97.5%	90.1										
SR (W/m²)	125.5	0.0	97.5%	97.5%	560.3										
WS (km/hr)	7.1	0.2	97.5%	97.5%	30.6										
WD (deg)	258	3.4	97.5%	97.5%	352.0	Average Wind Direction 258 WSW									

Update Summary:

Parameter	Make	Model	Equipment summary
NO/NO ₂ /NO _x	Thermo	421Q	Datalogger glitched and has caused the data between Sept 22-23 to be removed (18hrs)
O ₃	TECO	49I	Datalogger glitched and has caused the data between Sept 22-23 to be removed (18hrs)
PM _{2.5}	Sharp	5030	Sharp replaced on Sept 22 with T640; Datalogger glitch (21hrs removed); 2x 1hr AAAQG and 1x24hr AAAQG
SO ₂	TEI	43I-TLE	Datalogger glitched and has caused the data between Sept 22-23 to be removed (18hrs)
H ₂ S	TEI	450I	Datalogger glitched and has caused the data between Sept 22-23 to be removed (18hrs)
THC/CH ₄ /NMHC	TEI	55I	Datalogger glitched and has caused the data between Sept 22-23 to be removed (18hrs)
CO	TEI	48I-TLE	Datalogger glitched and has caused the data between Sept 22-23 to be removed (18hrs)
Met Equip	MetOne	50.5	Datalogger glitched and has caused the data between Sept 22-23 to be removed (18hrs)

1.4 Smoky Heights Air Monitoring Station

PAZA - September 2022 Smoky Heights Station Report

AAR - September 2022imony Heights Station Report															
September					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)	10.3	0.3	99.0%	99.9%	210.9	80	Sep-01 21:00	26.7	29	Sep-01	4	-	0	-	Sep 08, 2022
SO ₂ (ppb)	0.2	0.0	95.3%	100.0%	3.2	172	Sep-24 22:00	0.4	48	Sep-24	0	-	0	0	Sep 08, 2022
TRS (ppb)	0.2	0.0	95.1%	100.0%	1.1	-	Sep-09 06:00	0.4	-	Sep-30	-	-	-	-	Sep 08, 2022
	Average	Minimum	Valid	Operational	Maximum										
Temp (°C)	13.2	-1.3	99.9%	99.9%	31.5	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
WS (km/hr)	12.2	0.3	99.9%	99.9%	50.4										
WD (deg)	248	0.5	99.9%	99.9%	359.2										
						Average Wind Direction		248	WNW						

Update Summary:

Parameter	Make	Model	Equipment summary
PM _{2.5}	Sharp	5030	There was four readings above the AAAQG on Sept 01; one hour removed due to missing data Sept 09
SO ₂	TECO	43I	No Operational issues noted
TRS	TEI	43I APSAA	No Operational issues noted
Met Equip	MetOne	50.5	One hour removed due to missing data Sept 09

1.5 Valleyview Air Monitoring Station

PAZA - September 2022 Valleyview Station Report

AAR - September 2022 Valleyview Station Report																
September					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	
SO ₂ (ppb)	0.1	0.0	95.3%	100.0%	1.0	172	Sep-03 13:00	0.2	48	Sep-11	0	-	0	0	Sep 14, 2022	
H ₂ S (ppb)	0.1	0.0	95.3%	100.0%	0.5	10	Sep-27 23:00	0.2	3	Sep-29	0	-	0	-	Sep 14, 2022	
Average		Minimum	Valid	Operational	Maximum											
Temp (°C)	13.0	-0.5	100.0%	100.0%	33.4		Note: Valid hours must be greater than 75% Operational hours must be greater than 90%									
RH (%)	71.9	19.7	100.0%	100.0%	100.2											
WS (km/hr)	3.3	0.1	100.0%	100.0%	15.7											
WD (deg)	252	0.2	100.0%	100.0%	359.4											
Average Wind Direction									252		NW					

Update Summary:

Parameter	Make	Model	Equipment summary
SO ₂	TEI	43I-APSCB	No Operational issues noted
H ₂ S	TEI	450I-APHAA	No Operational issues noted
Met Equip	RMYoung	RMY86004	No Operational issues noted

1.6 Donnelly Air Monitoring Station

PAZA - September 2022 Donnelly Station Report

A2A - September 2022 Donnelly Station Report																
September					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	
SO ₂ (ppb)	0.2	0.0	95.3%	100.0%	1.1	172	Sep-10 12:00	0.5	48	Sep-10	0	-	0	0	Sep 01, 2022	
H ₂ S (ppb)	0.2	0.0	95.3%	100.0%	1.5	10	Sep-17 10:00	0.5	3	Sep-17	0	-	0	-	Sep 01, 2022	
Average		Minimum	Valid	Operational	Maximum											
Temp (°C)	13.8	0.7	100.0%	100.0%	30.6	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%										
WS (km/hr)	10.2	0.0	100.0%	100.0%	38.8											
WD (deg)	234	0.8	100.0%	100.0%	359.7											
Average Wind Direction										234	SW					

Update Summary:

Parameter	Make	Model	Equipment summary
SO ₂	Teco	43I	No Operational issues noted
H ₂ S	Thermo	45C	No Operational issues noted
Met Equip	RMYoung	5103	No Operational issues noted

1.7 Poplar Air Monitoring Station

PAZA - September 2022 Poplar Station Report

AZA - September 2022 Poplar Station Report																
September					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)	1.5	0.0	95.0%	100.0%	28.3	-	Sep-26 08:00	6.0	-	Sep-26	-	-	-	-	Sep 08, 2022	
NO ₂ (ppb)	4.4	0.0	95.0%	100.0%	22.8	159	Sep-21 21:00	8.5	-	Sep-21	0	-	-	-	Sep 08, 2022	
NO _x (ppb)	6.0	0.0	95.0%	100.0%	36.2	-	Sep-26 08:00	14.0	-	Sep-26	-	-	-	-	Sep 08, 2022	
O ₃ (ppb)	23.7	0.1	95.3%	100.0%	61.9	76	Sep-03 16:00	36.1	-	Sep-23	0	-	-	-	Sep 08, 2022	
PM _{2.5} (µg/m³)	7.5	0.0	96.7%	97.5%	62.9	80	Sep-10 22:00	24.9	29	Sep-14	0	-	0	-	Sep 13, 2022	
SO ₂ (ppb)	1.2	0.0	95.3%	100.0%	50.5	172	Sep-30 12:00	4.5	48	Sep-30	0	-	0	0	Sep 08, 2022	
TRS (ppb)	0.8	0.1	95.3%	100.0%	16.6	-	Sep-13 23:00	1.8	-	Sep-27	-	-	-	-	Sep 13, 2022	
CH ₄ (ppm)	removed August 10															
THC (ppm)	2.1	1.7	94.7%	99.4%	7.7	-	Sep-03 06:00	2.6	-	Sep-27	-	-	-	-	Sep 13, 2022	
NMHC (ppm)	removed August 10															
	Average	Minimum	Valid	Operational	Maximum											
Temp (°C)	12.6	-1.6	95.4%	95.7%	30.9	Note: Valid hours must be greater than 75% Operational hours must be greater than 90%										
WS (km/hr)	12.4	0.2	99.6%	100.0%	48.3											
WD (deg)	272	3.2	99.6%	100.0%	358.5											
Average Wind Direction										272	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	Periods of data in negative drift (18hrs removed)
SO ₂	TEI	43I	No Operational issues noted
TRS	TEI	43I	No Operational issues noted
THC	TEI	55I-A3PHAA	Sept 27 THC second calibration flagged as maintenance (4hrs)
Met Equip	MetOne	50.5	External temperature sensor was replaced due to wiring issue with new datalogger, 31 hours removed

1.8 Milner Air Monitoring Station

PAZA - September 2022 Milner Station Report

September					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)	1.3	0.0	94.7%	99.7%	30.9	-	Sep-16 10:00	5.6	-	Sep-16	-	-	-	-	Sep 14, 2022
NO ₂ (ppb)	2.6	0.0	94.7%	99.7%	14.7	159	Sep-29 12:00	4.5	-	Sep-04	0	-	-	-	Sep 14, 2022
NO _x (ppb)	3.8	0.0	94.7%	99.7%	41.3	-	Sep-26 09:00	8.9	-	Sep-16	-	-	-	-	Sep 14, 2022
PM _{2.5} (µg/m³)	10.2	0.0	96.7%	97.6%	89.7	80	Sep-09 19:00	25.4	29	Sep-04	1	-	0	-	Sep 14, 2022
	Average	Minimum	Valid	Operational	Maximum										
WS (km/hr)	5.9	0.0	99.7%	99.7%	25.3	Note: Valid hours must be greater than 75% Operational hours must be greater than 90% Average Wind Direction245WSW									
WD (deg)	245	1.0	99.7%	99.7%	359.0										

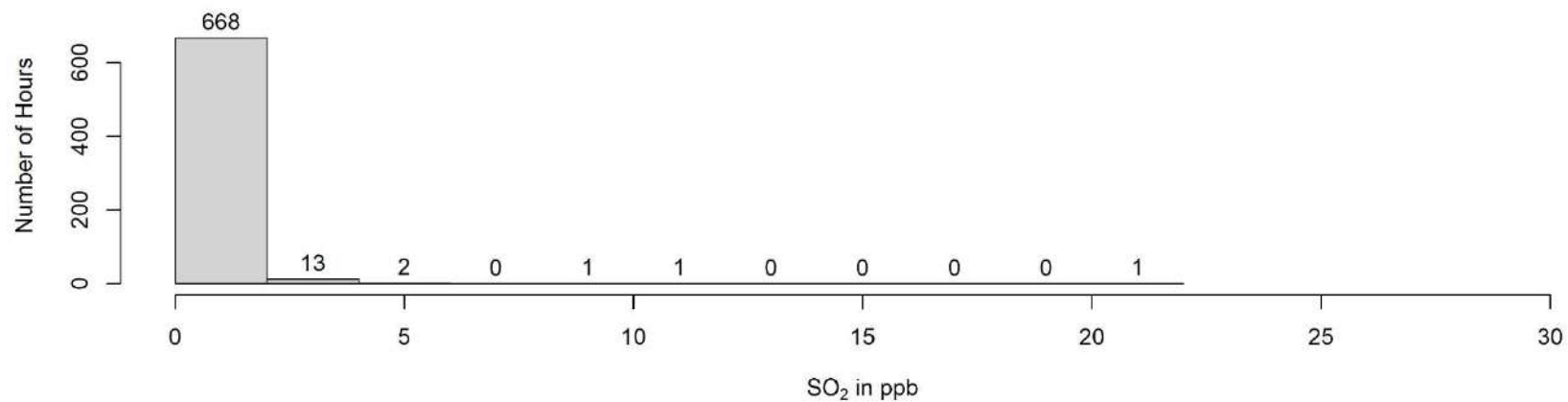
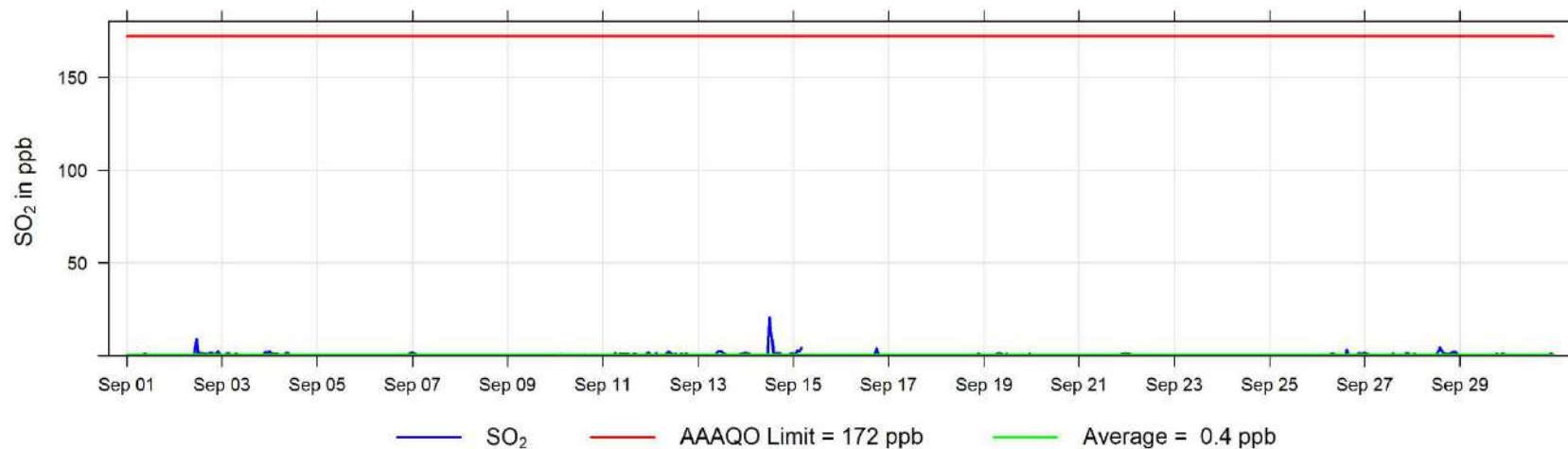
Update Summary:

Parameter	Make	Model	Equipment summary
NO/NO ₂ /NO _x	Thermo	42i	Sept16 hrs of data missing due to power failure
PM _{2.5}	TEOM	AB	Sept16 hrs of data missing due to power failure; Excessive drifting removed (17hrs); Sept09 1hr AAAQG
Met Equip	MetOne	50.5	Sept16 hrs of data missing due to power failure

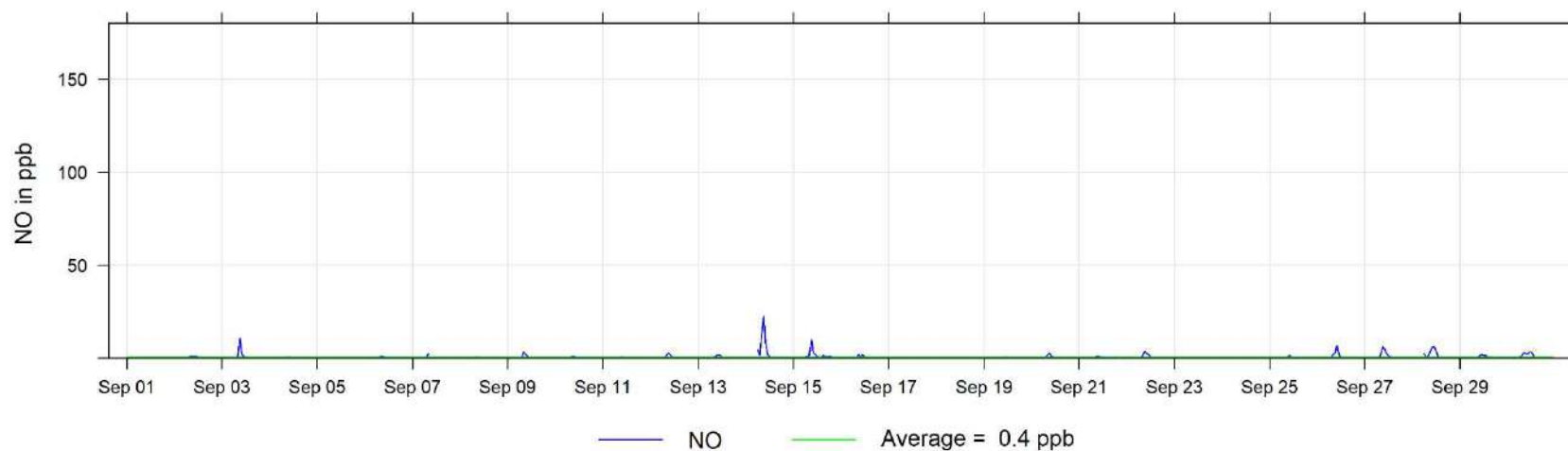
2 Beaverlodge Charts

The following pages include the charts and histograms for Beaverlodge Station

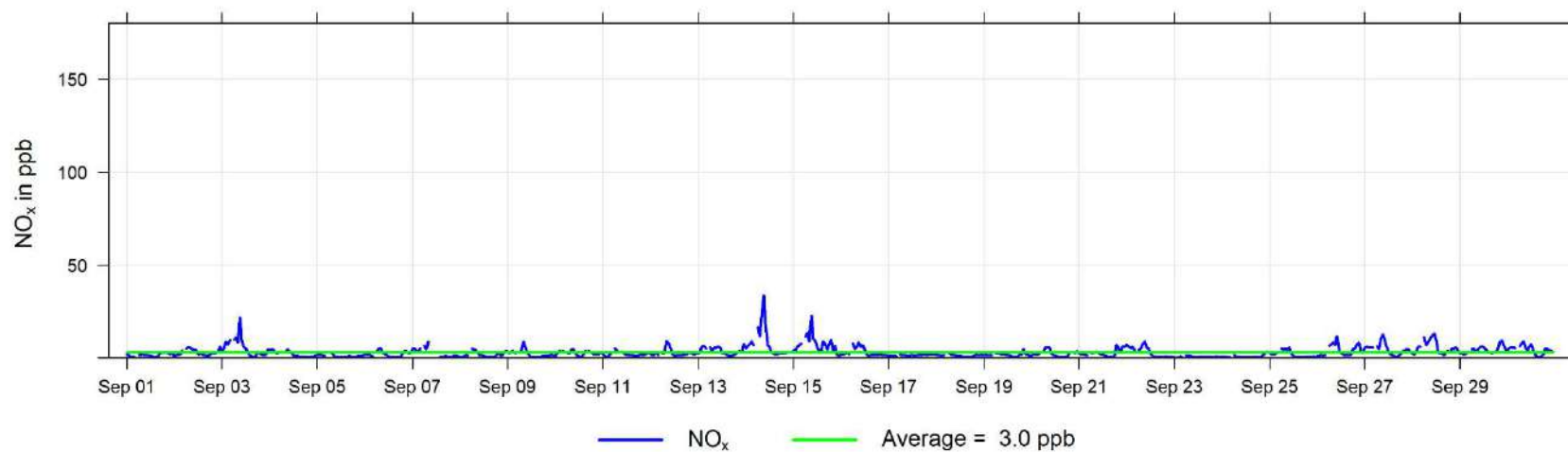
September 2022 Hourly Concentration Readings of SO₂ (in ppb) at Beaverlodge



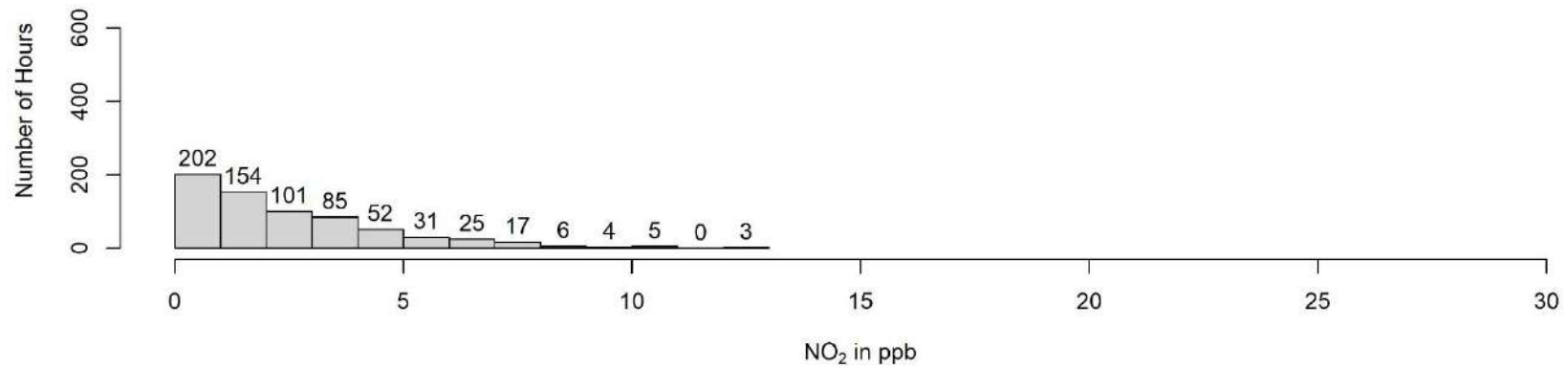
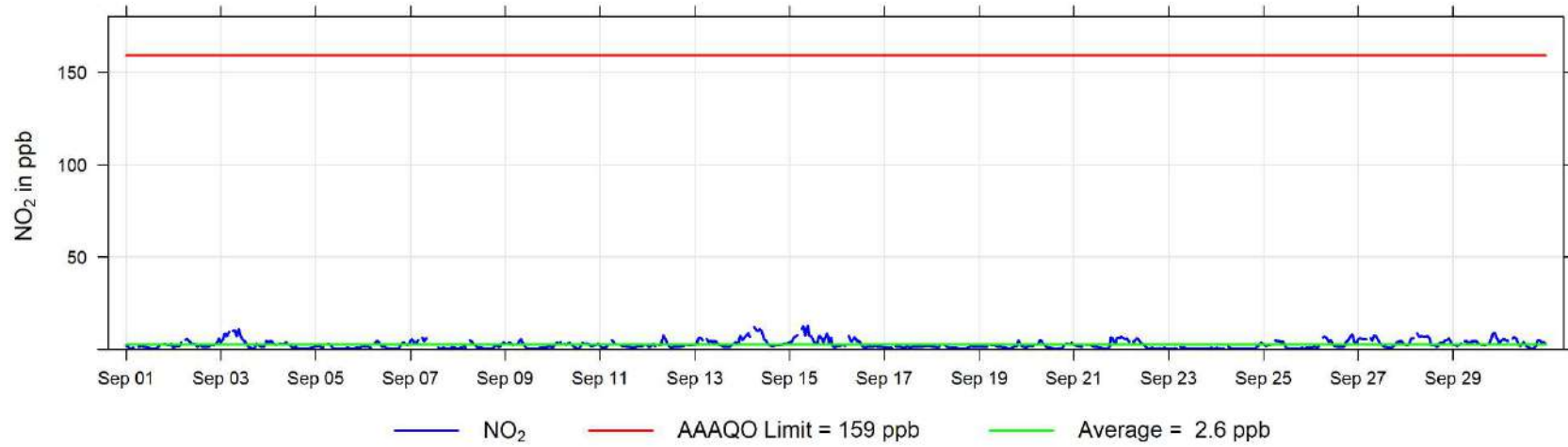
September 2022 Hourly Concentration Readings of NO (in ppb) at Beaverlodge



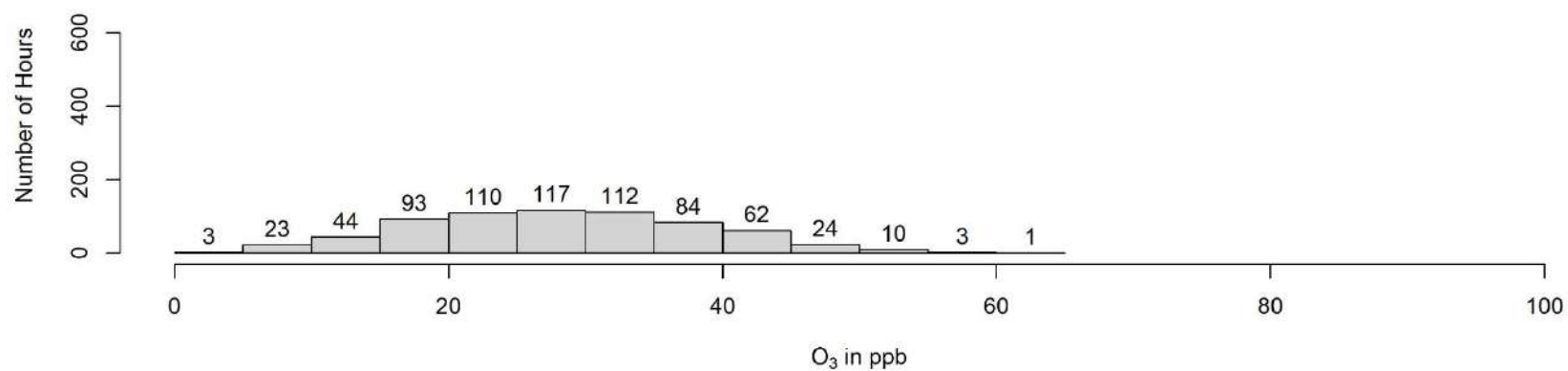
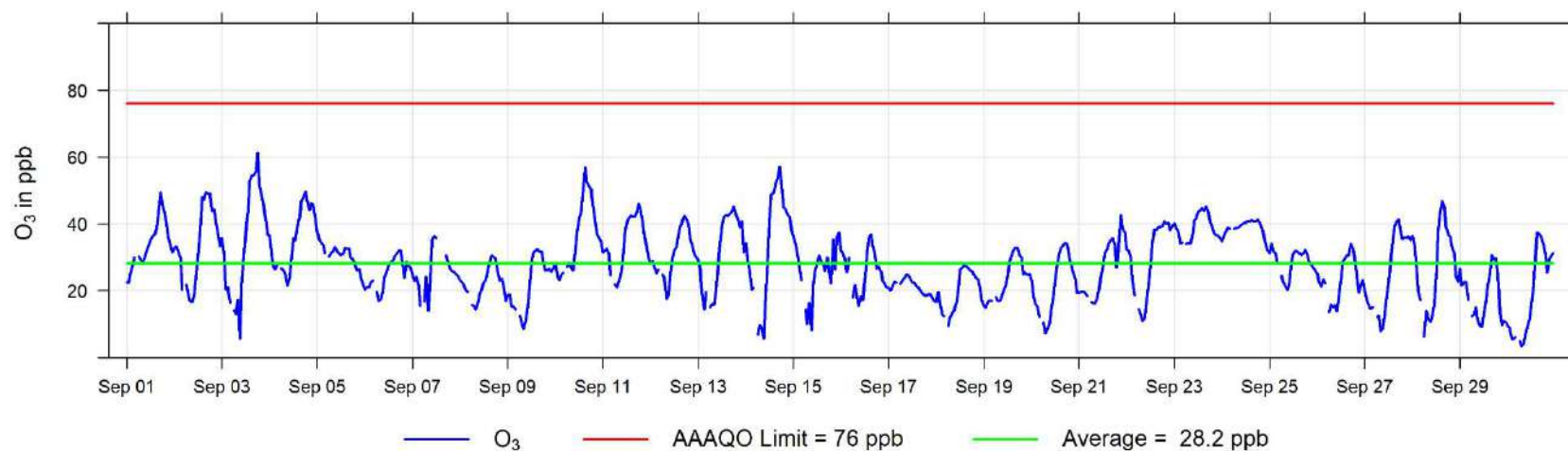
September 2022 Hourly Concentration Readings of NO_x (in ppb) at Beaverlodge



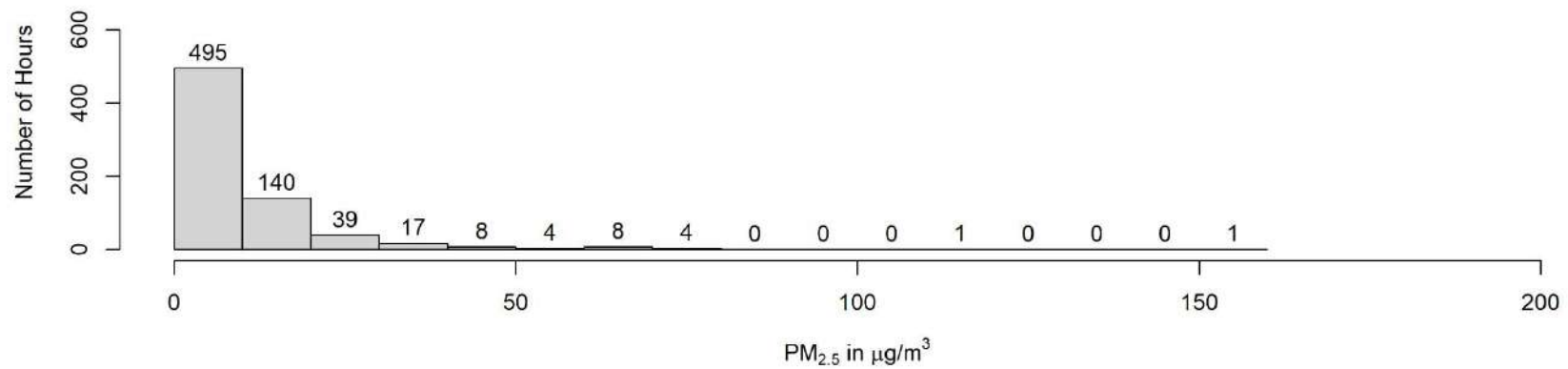
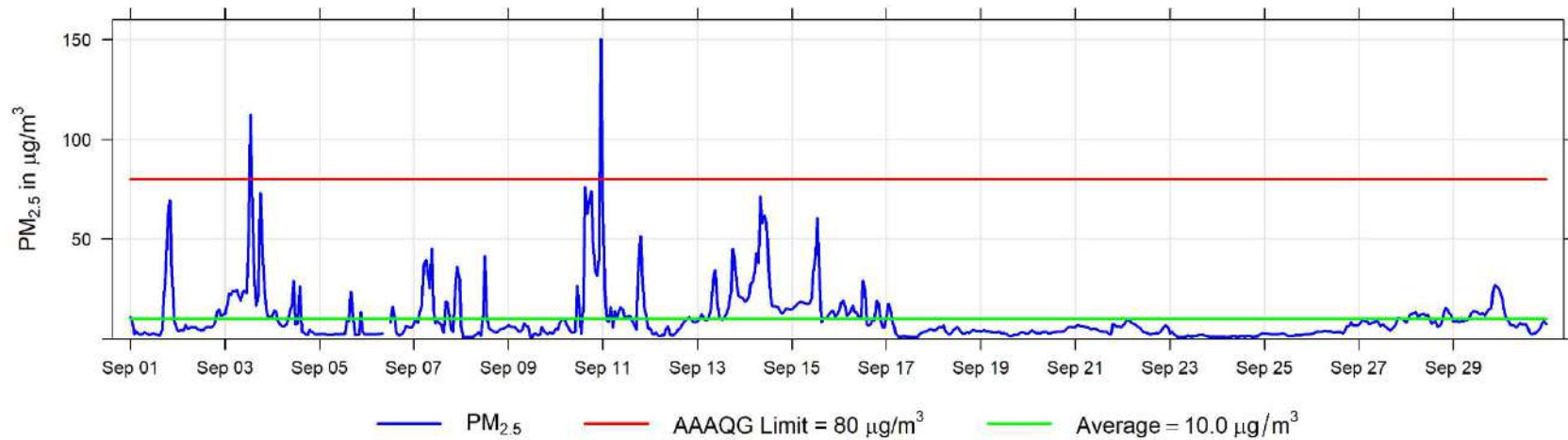
September 2022 Hourly Concentration Readings of NO₂ (in ppb) at Beaverlodge



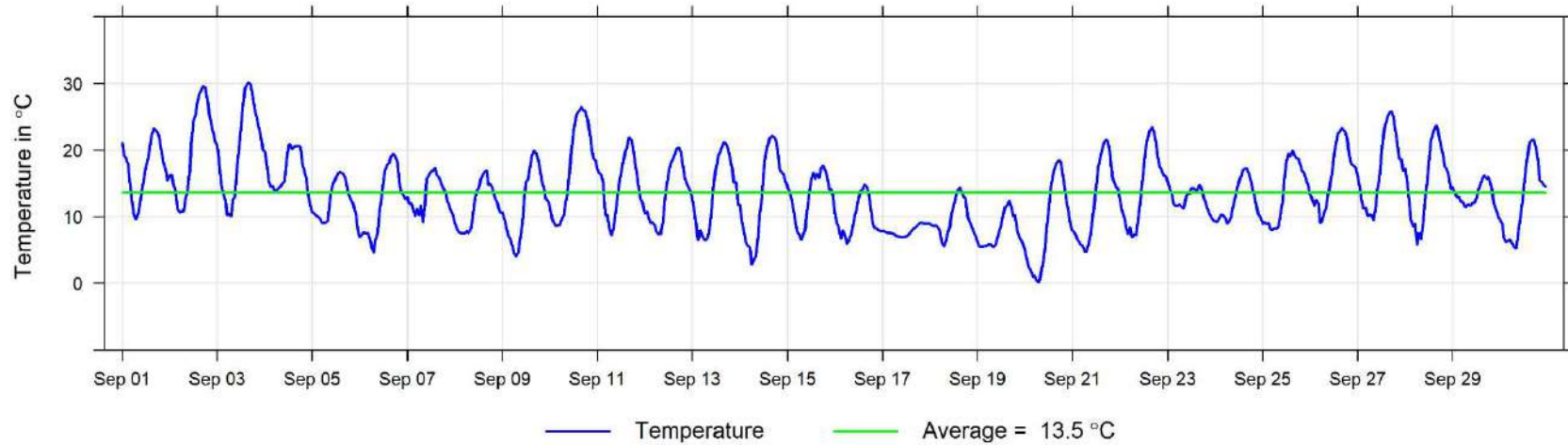
September 2022 Hourly Concentration Readings of O₃ (in ppb) at Beaverlodge



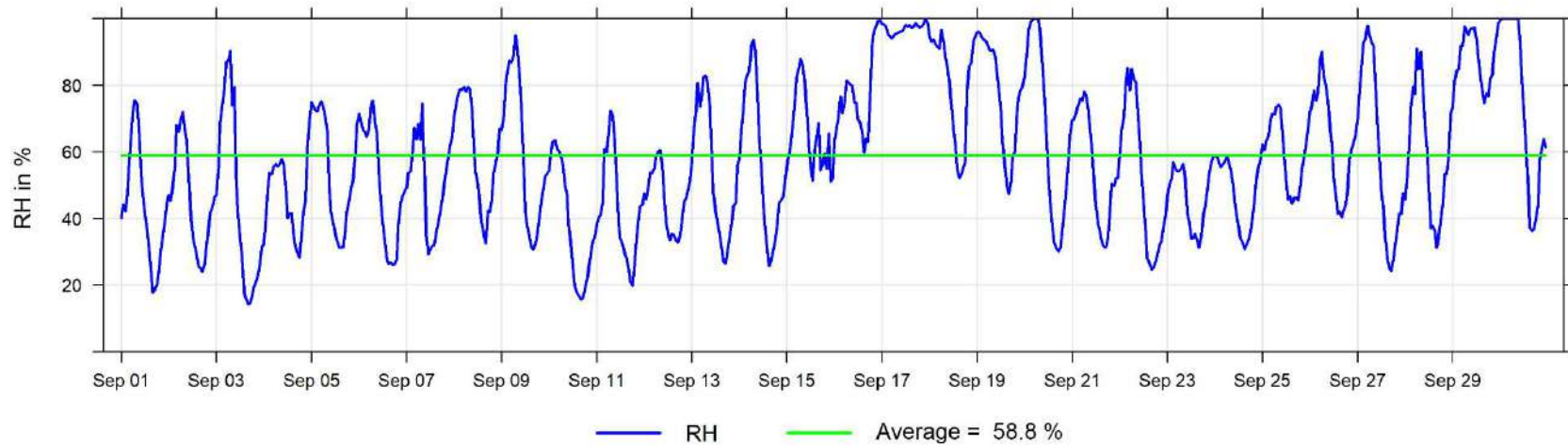
September 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Beaverlodge



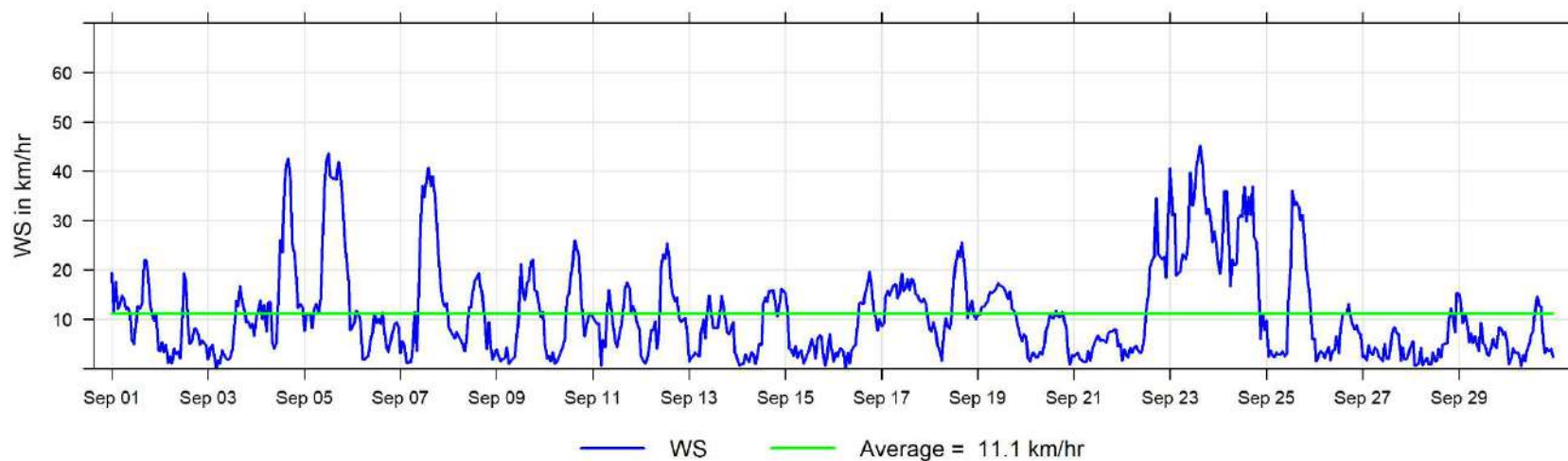
September 2022 Hourly Temperature Readings (in °C) at Beaverlodge



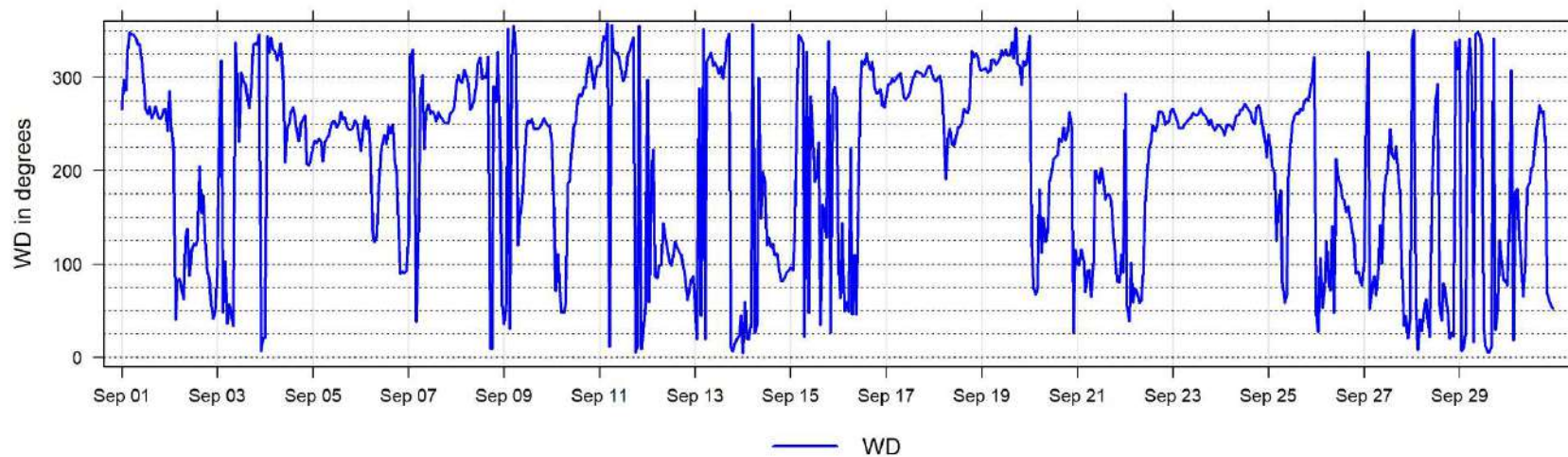
September 2022 Hourly Readings of Relative Humidity (in %) at Beaverlodge



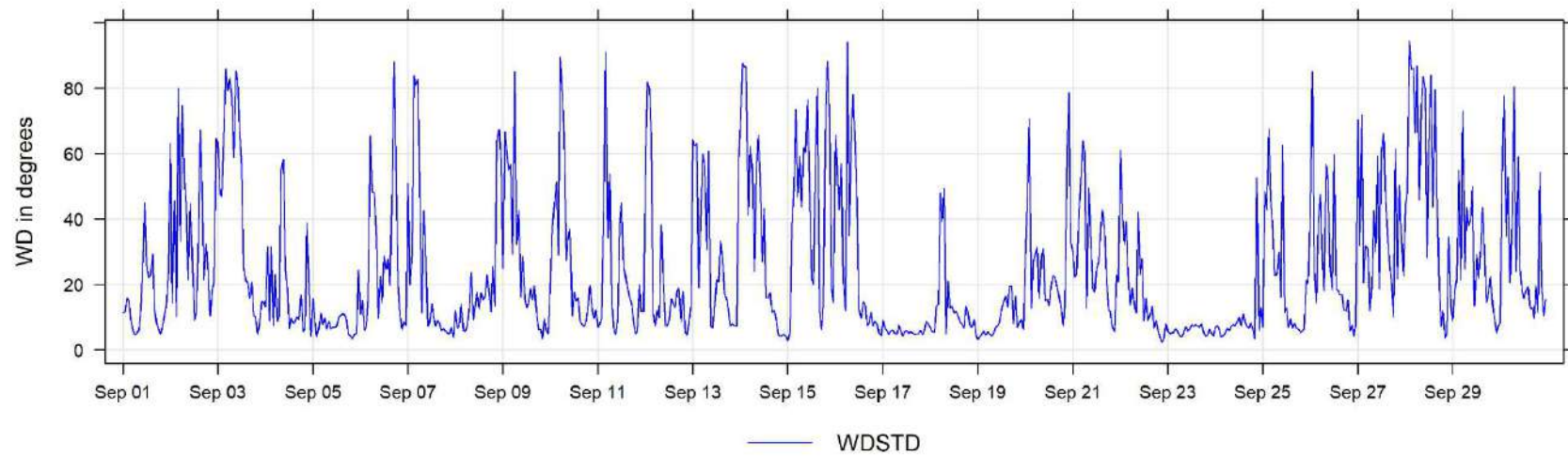
September 2022 Hourly Readings of Wind Speed (in km/hr) at Beaverlodge

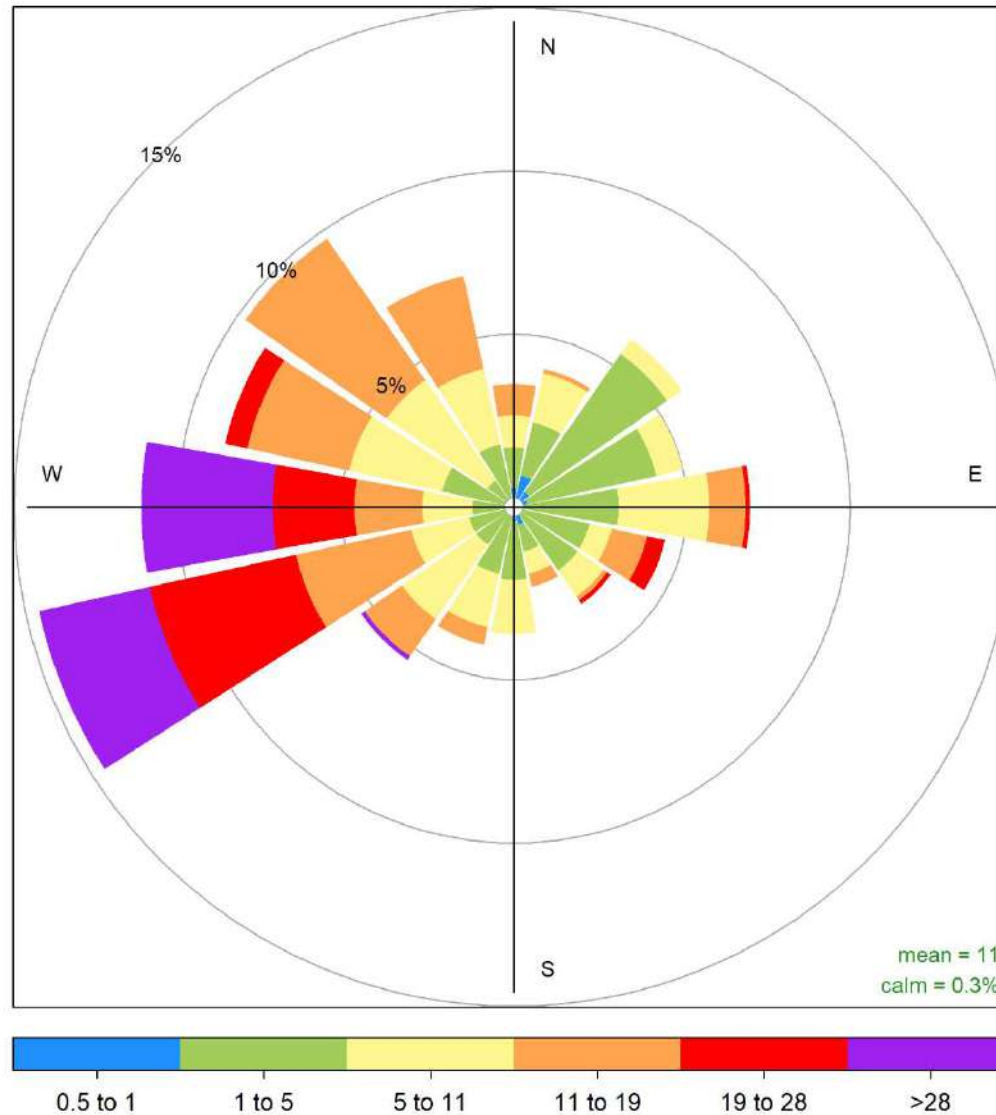


September 2022 Hourly Readings of Wind Direction (in degrees) at Beaverlodge



September 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Beaverlodge



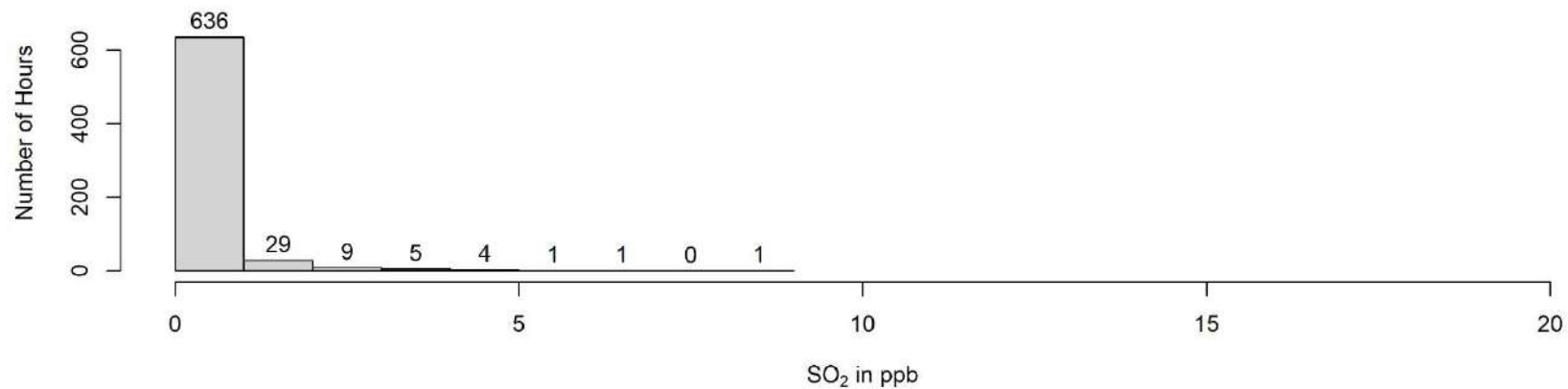
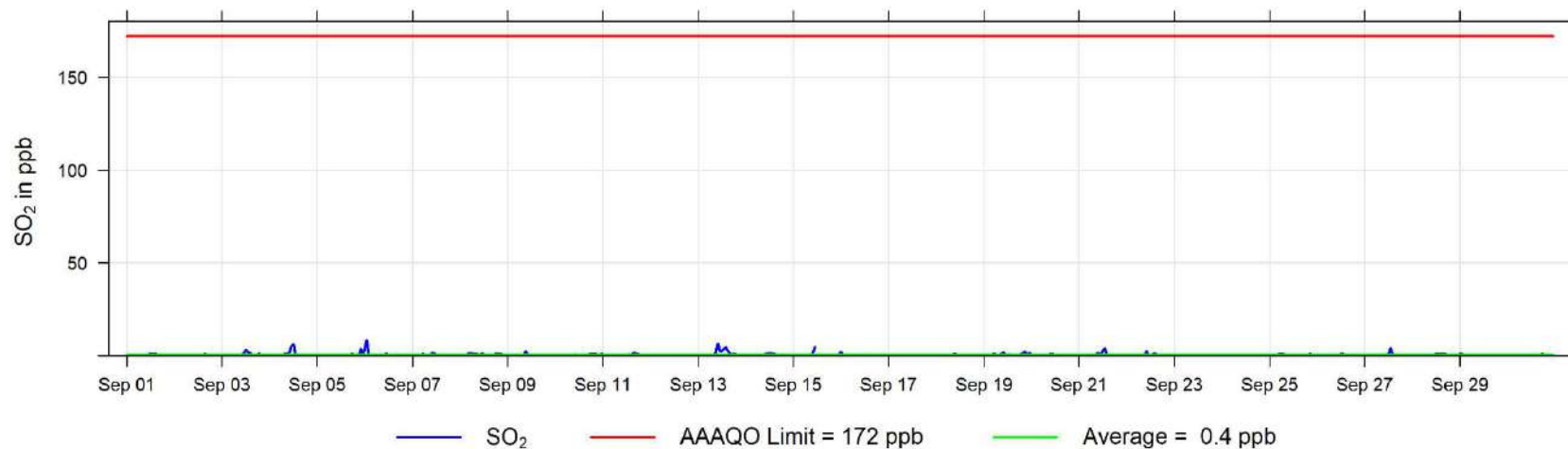


Beaverlodge September 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

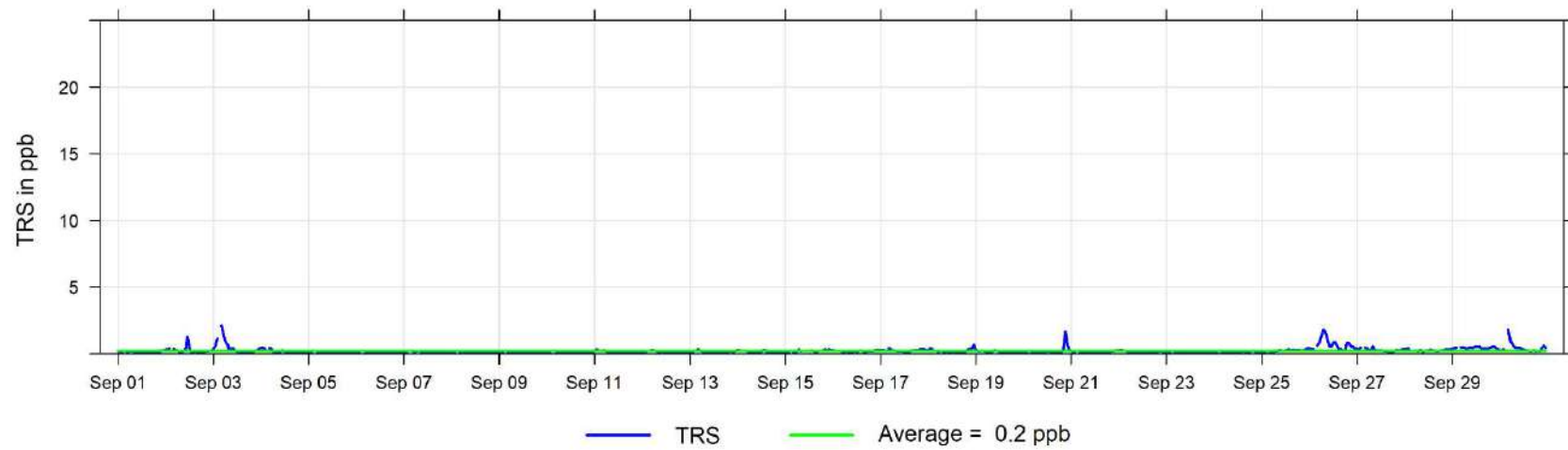
3 Dunes Charts

The following pages include the charts and histograms for Dunes Station

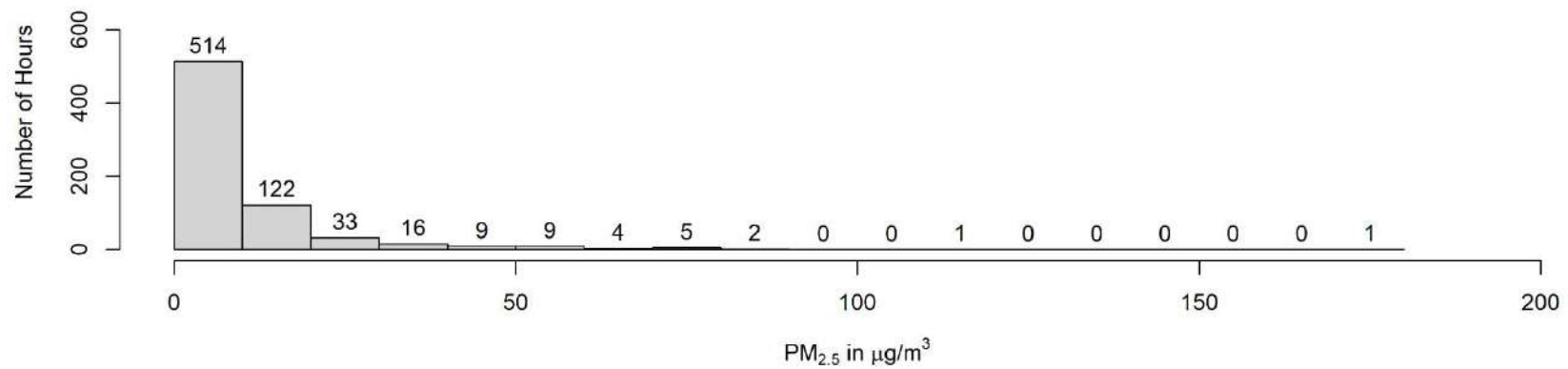
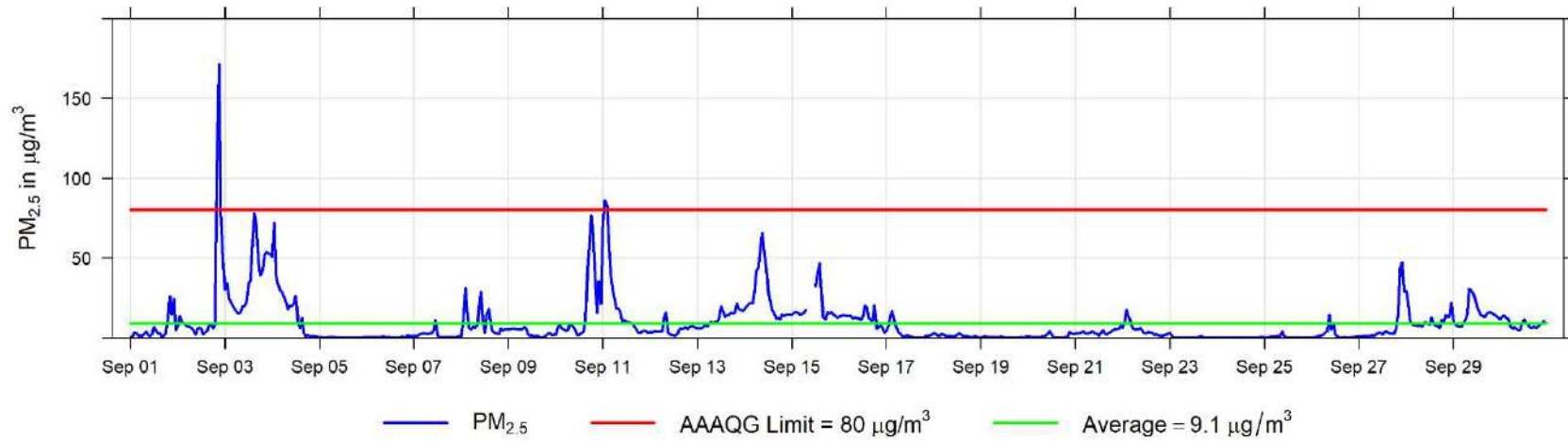
September 2022 Hourly Concentration Readings of SO₂ (in ppb) at Dunes



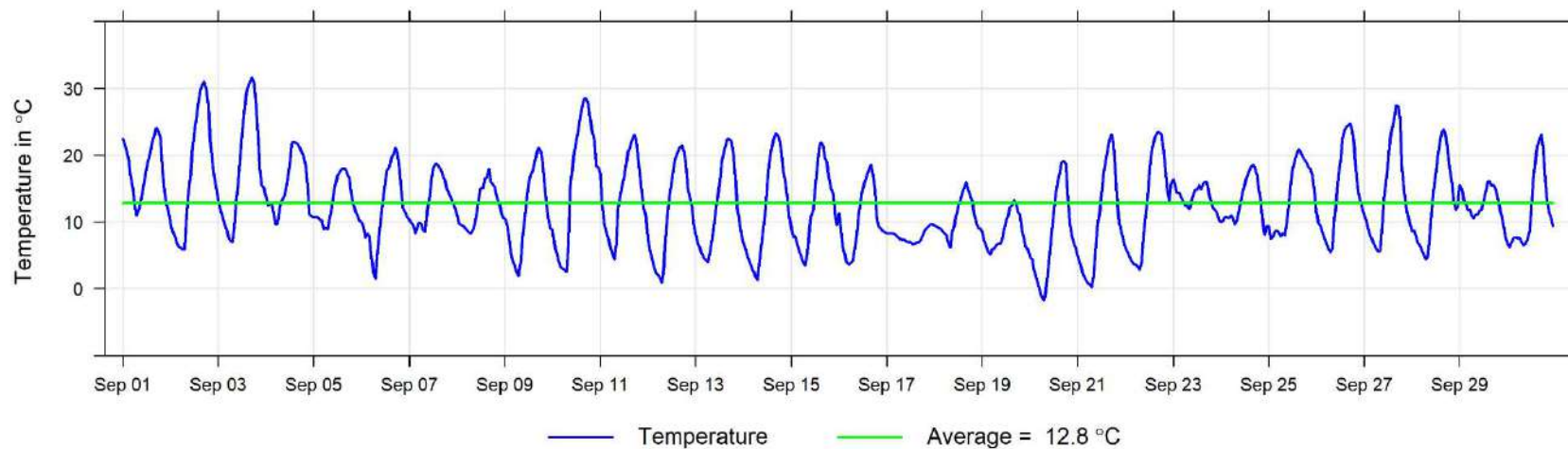
September 2022 Hourly Concentration Readings of TRS (in ppb) at Dunes



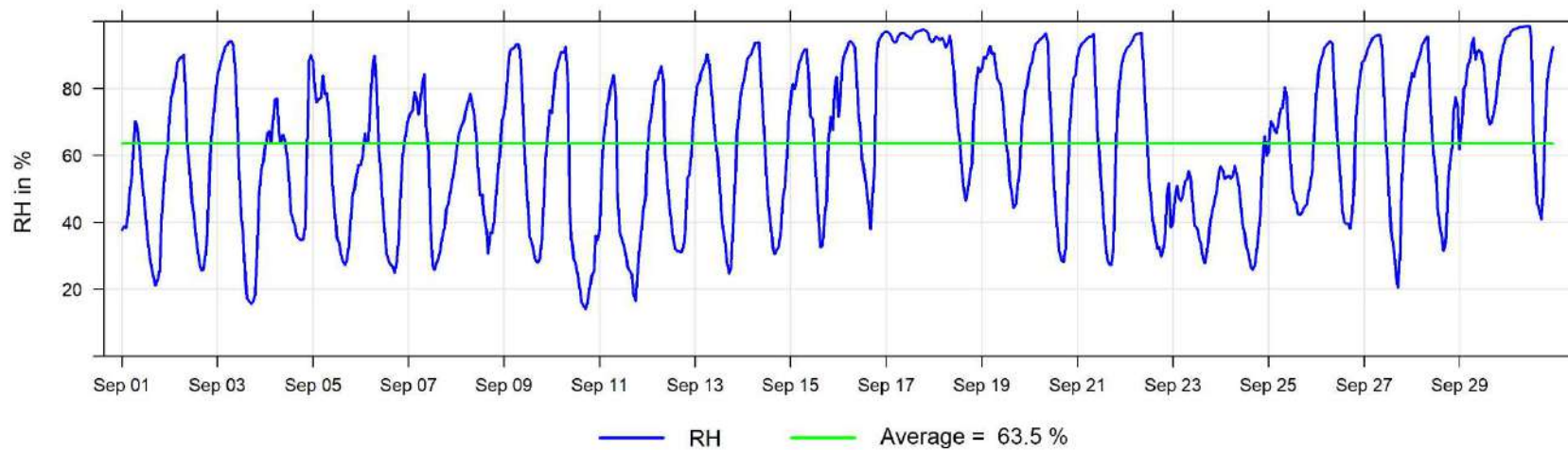
September 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Dunes



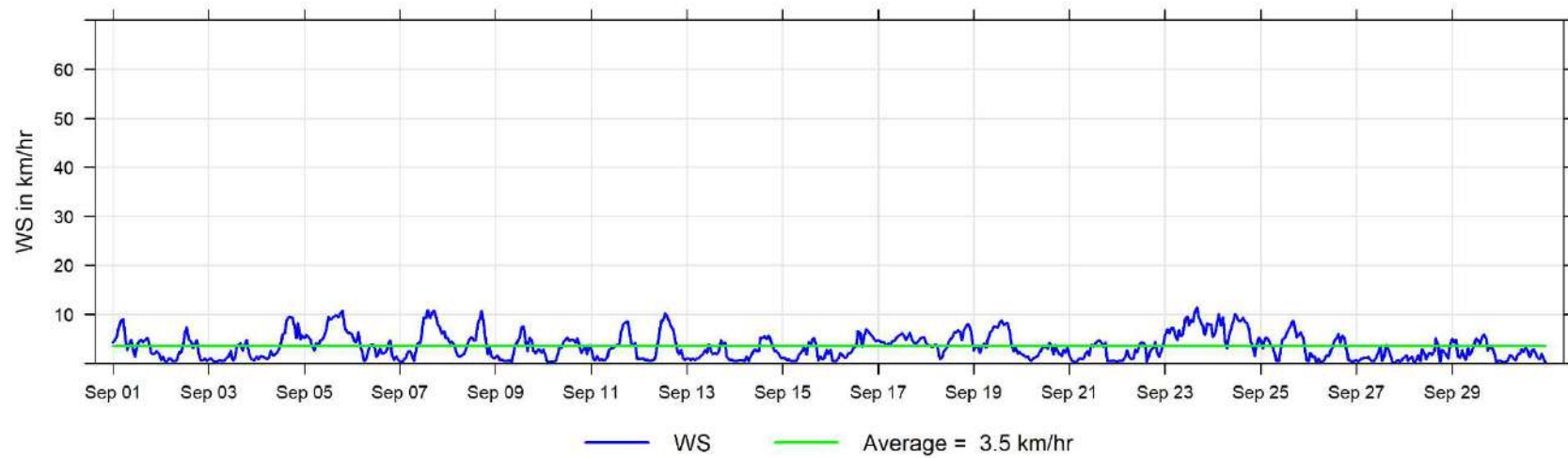
September 2022 Hourly Temperature Readings (in °C) at Dunes



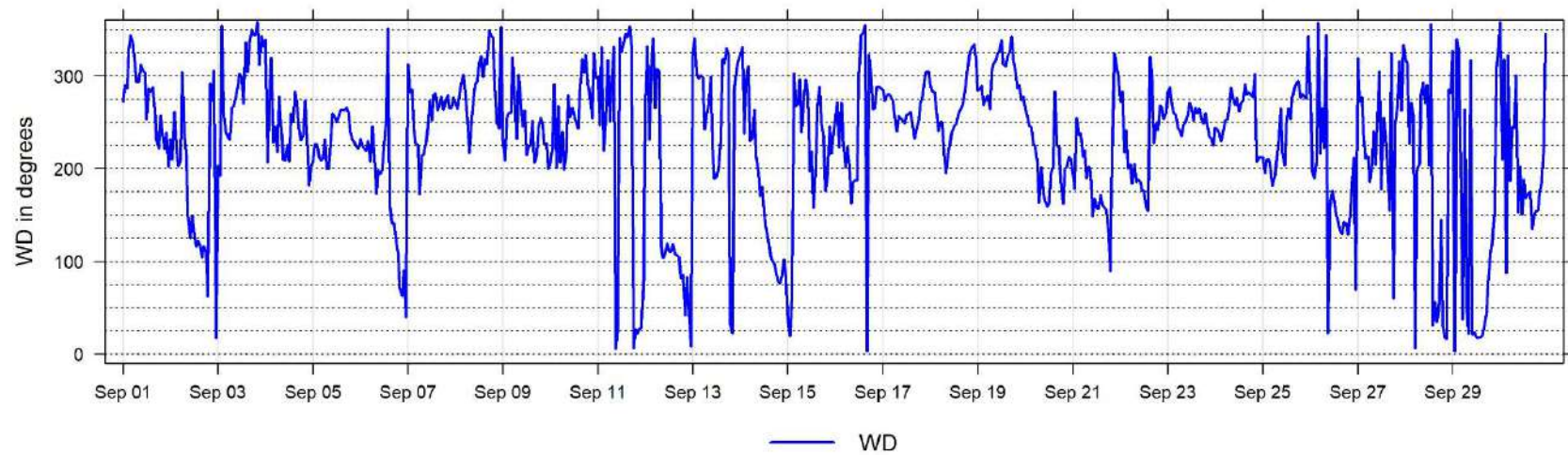
September 2022 Hourly Readings of Relative Humidity (in %) at Dunes



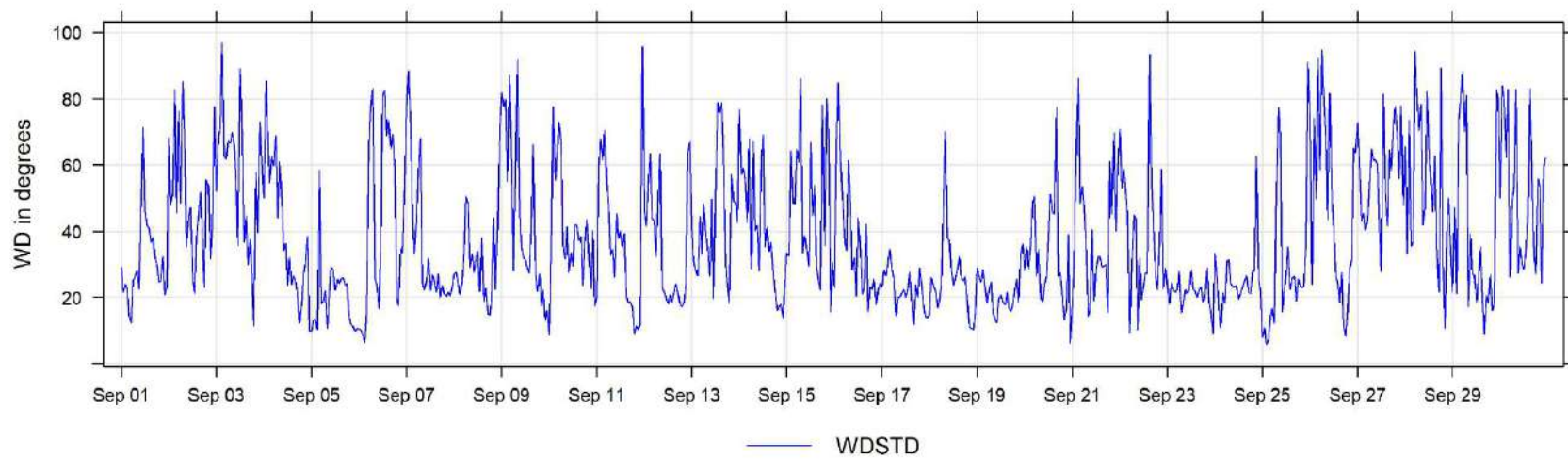
September 2022 Hourly Readings of Wind Speed (in km/hr) at Dunes

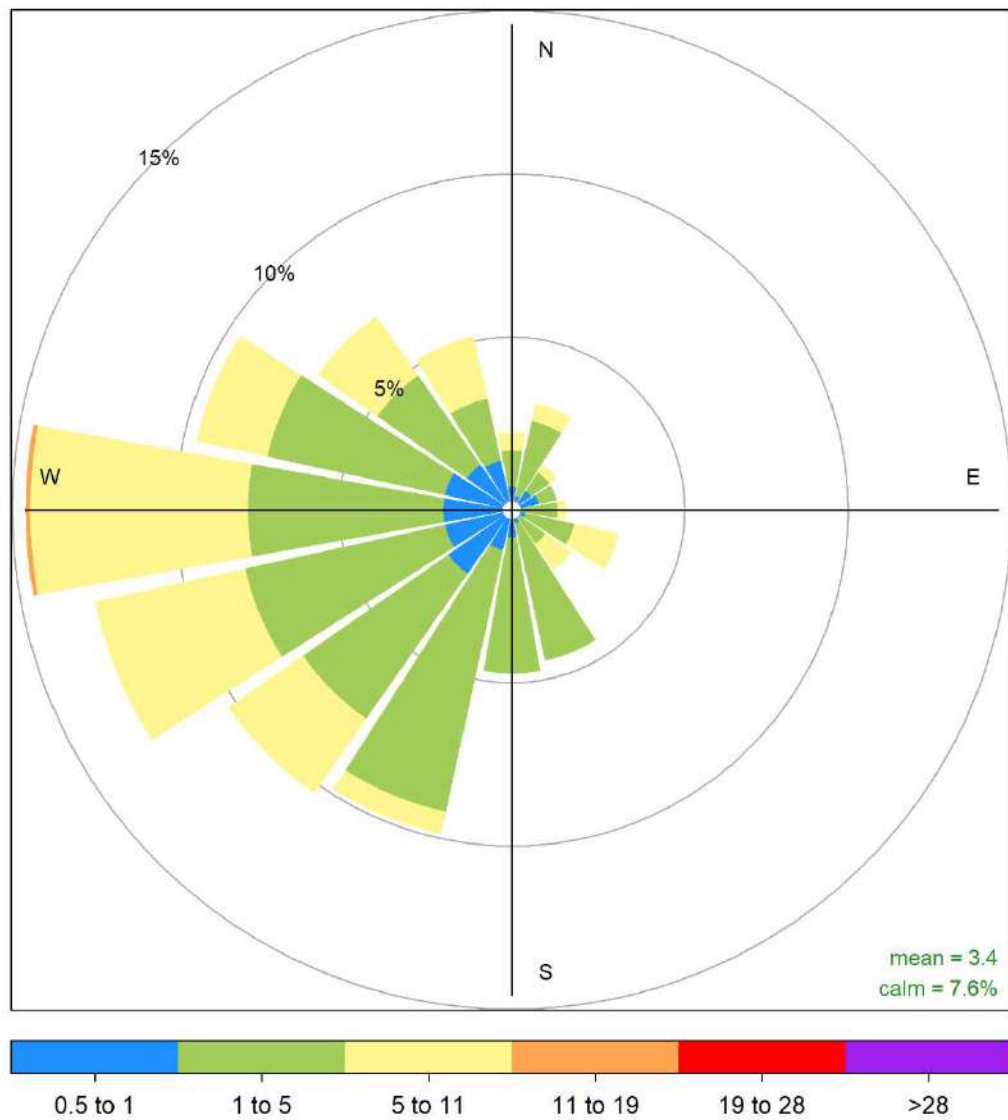


September 2022 Hourly Readings of Wind Direction (in degrees) at Dunes



September 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Dunes



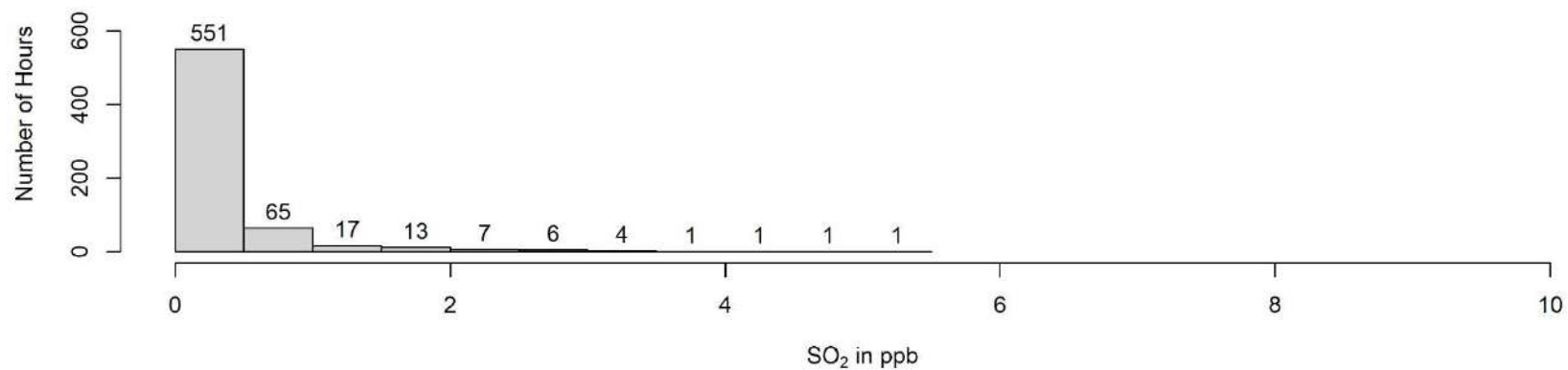
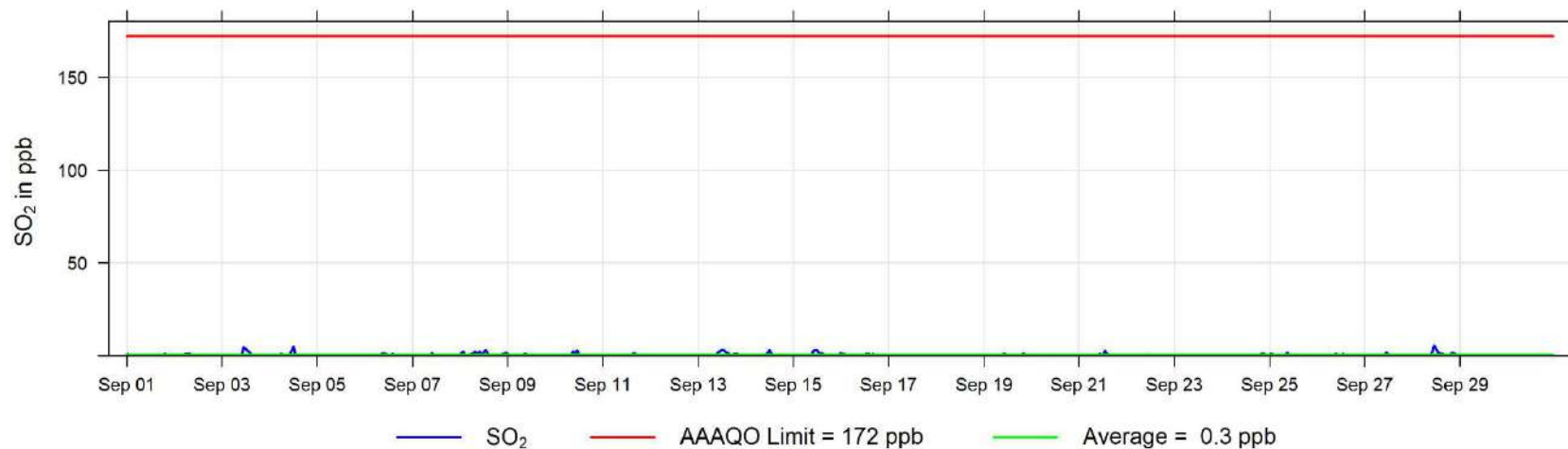


Dunes September 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

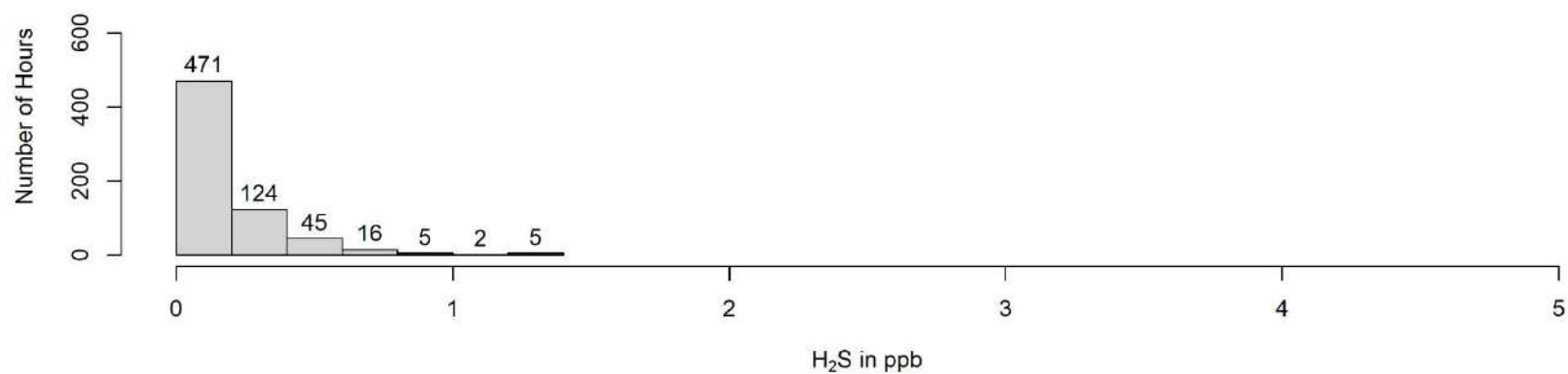
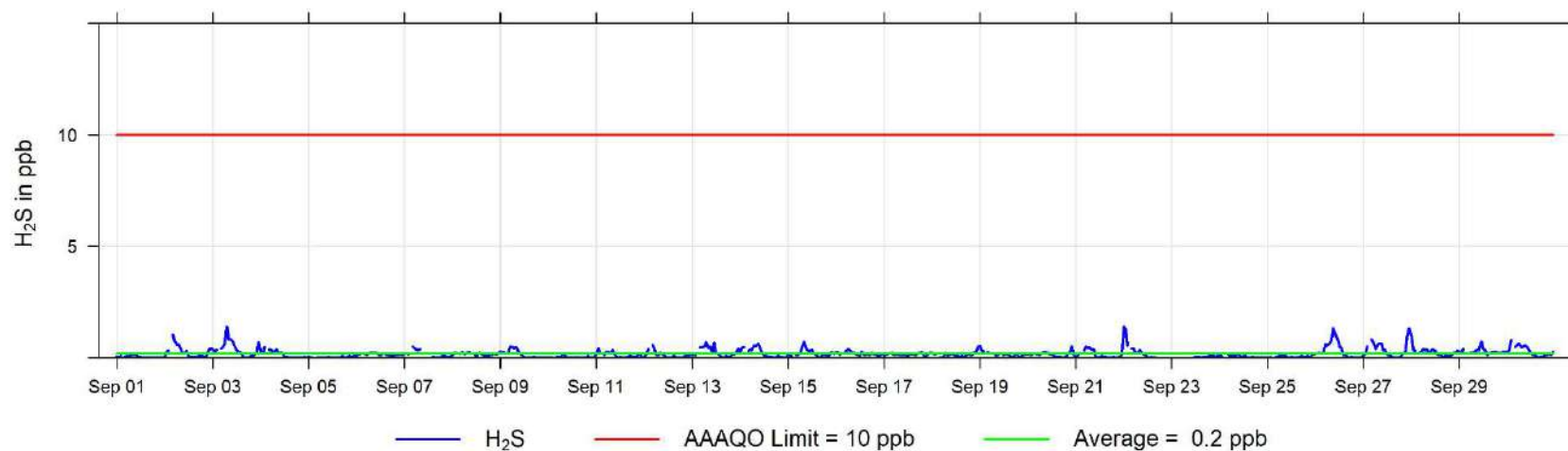
4 Grande Prairie - Henry Pirker Charts

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

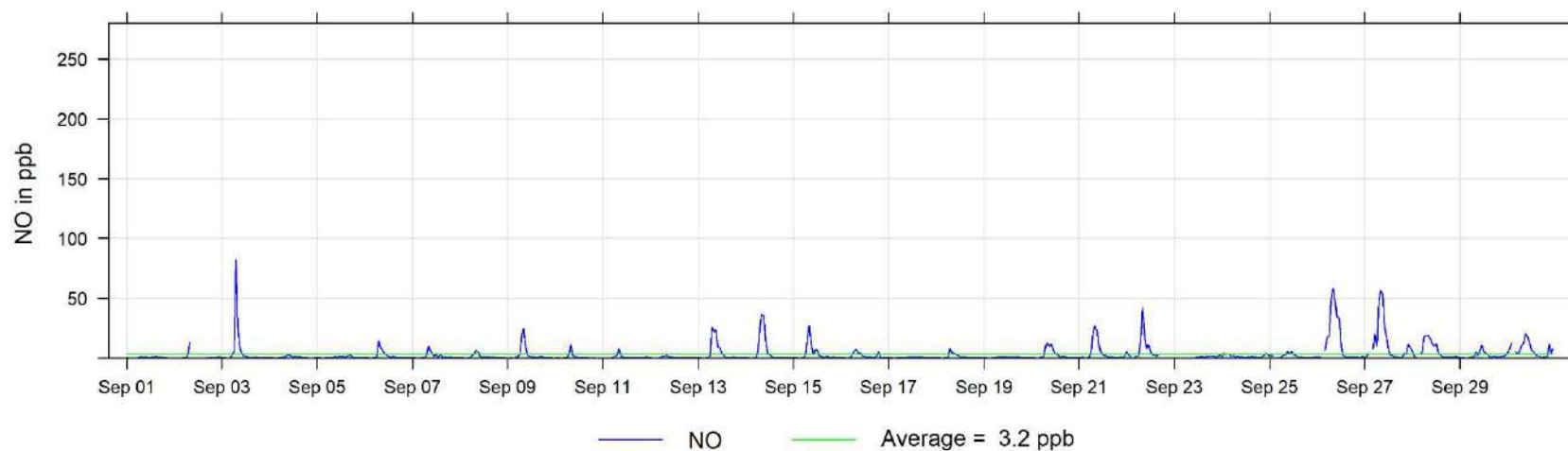
September 2022 Hourly Concentration Readings of SO₂ (in ppb) at Henry Pirker



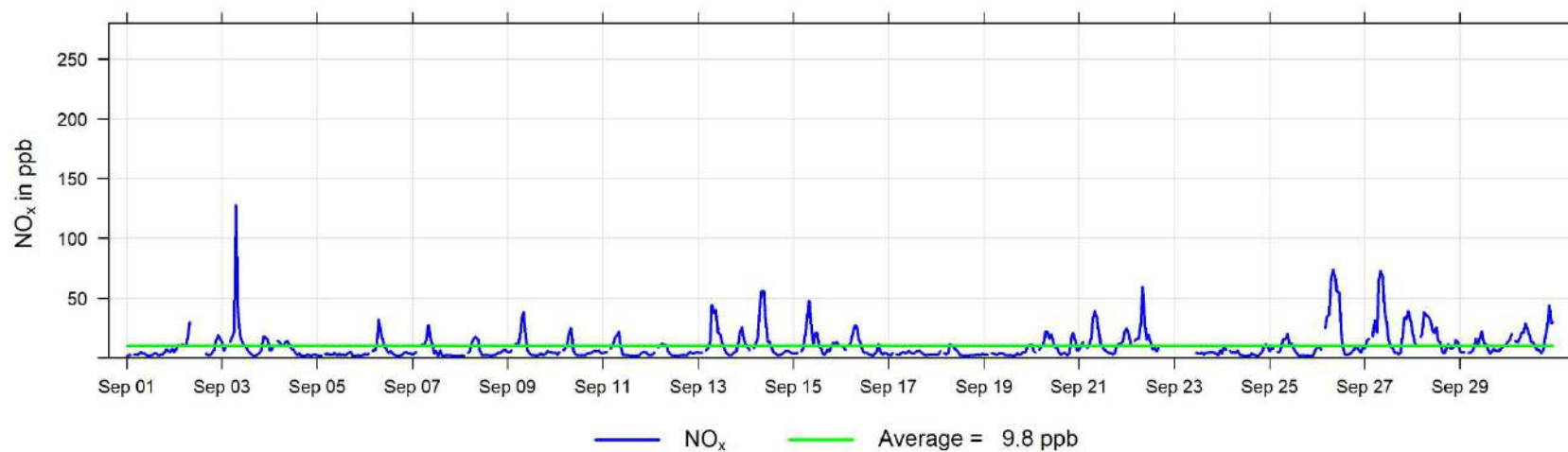
September 2022 Hourly Concentration Readings of H₂S (in ppb) at Henry Pirker



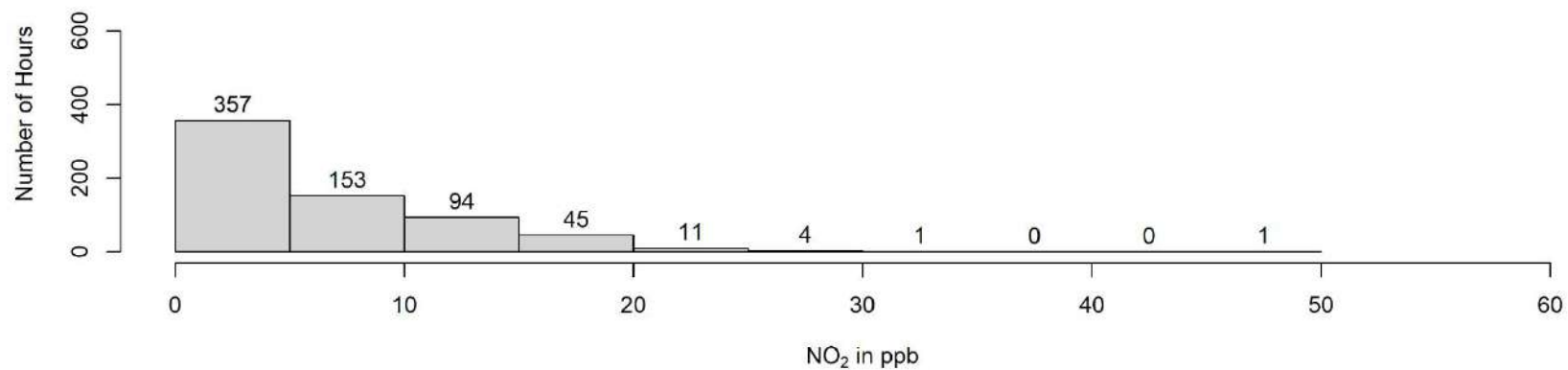
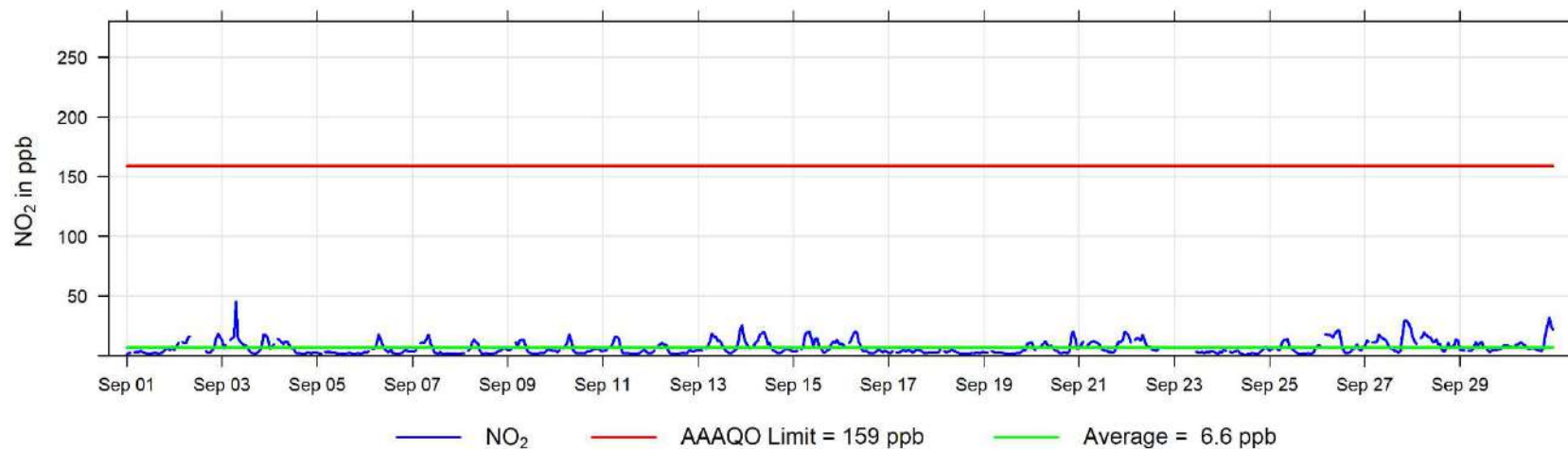
September 2022 Hourly Concentration Readings of NO (in ppb) at Henry Pirker



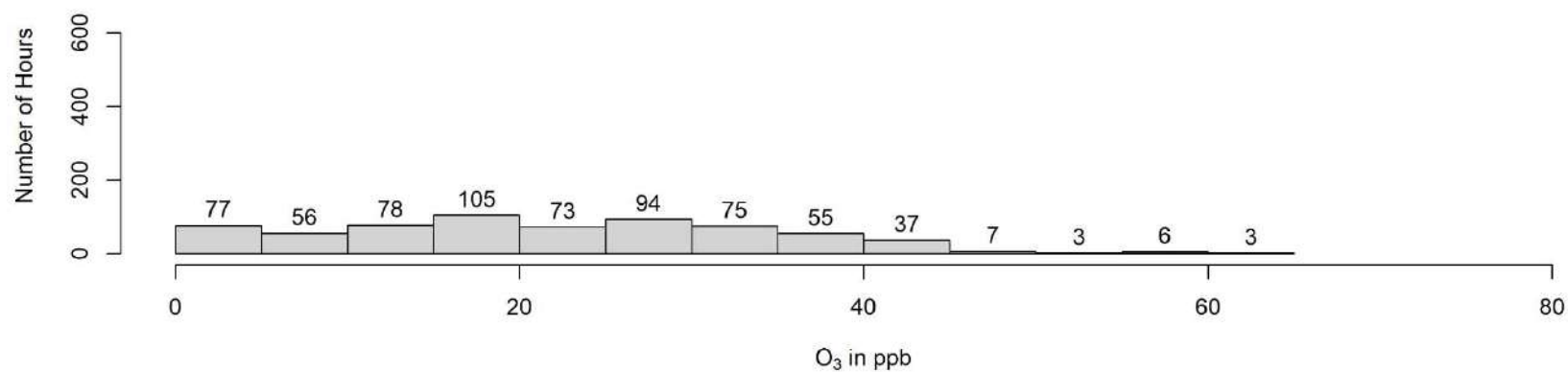
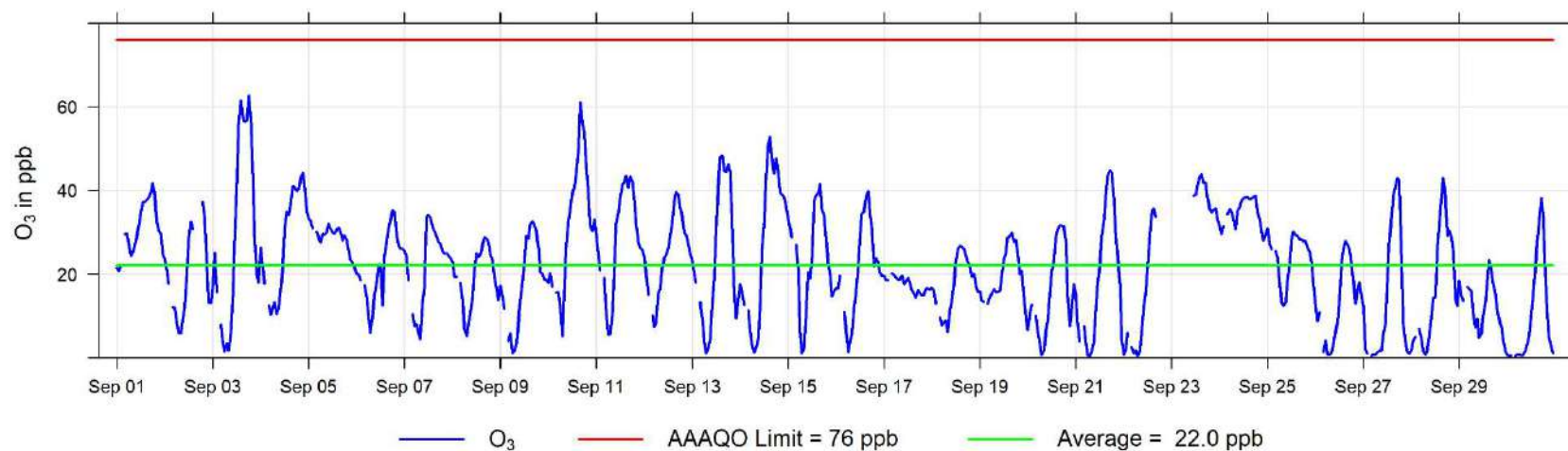
September 2022 Hourly Concentration Readings of NO_x (in ppb) at Henry Pirker



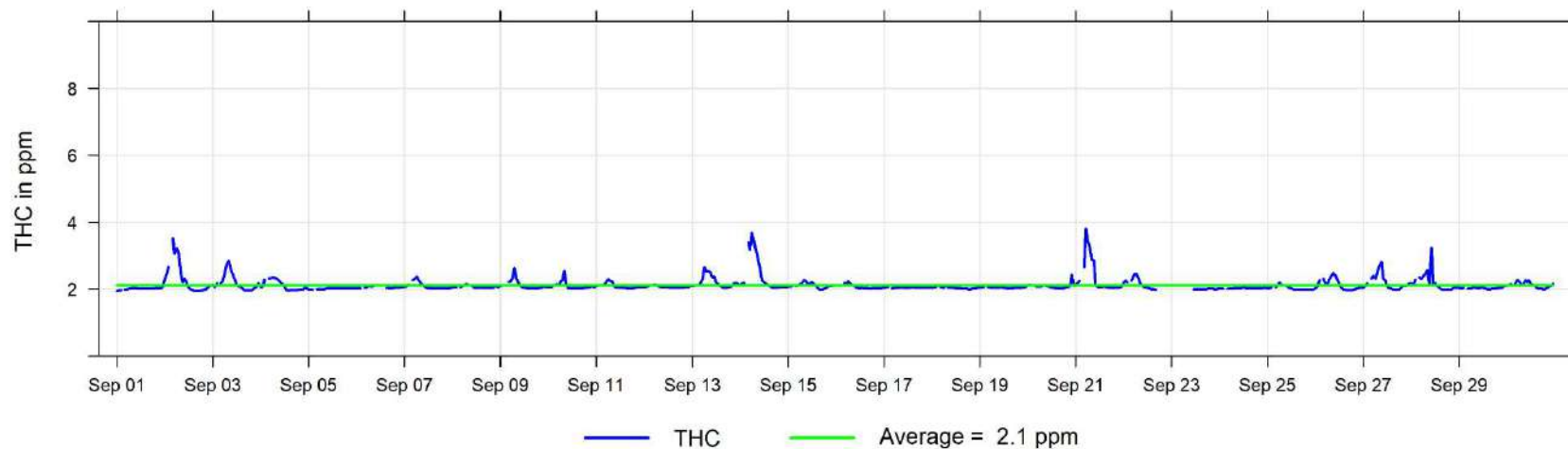
September 2022 Hourly Concentration Readings of NO₂ (in ppb) at Henry Pirker



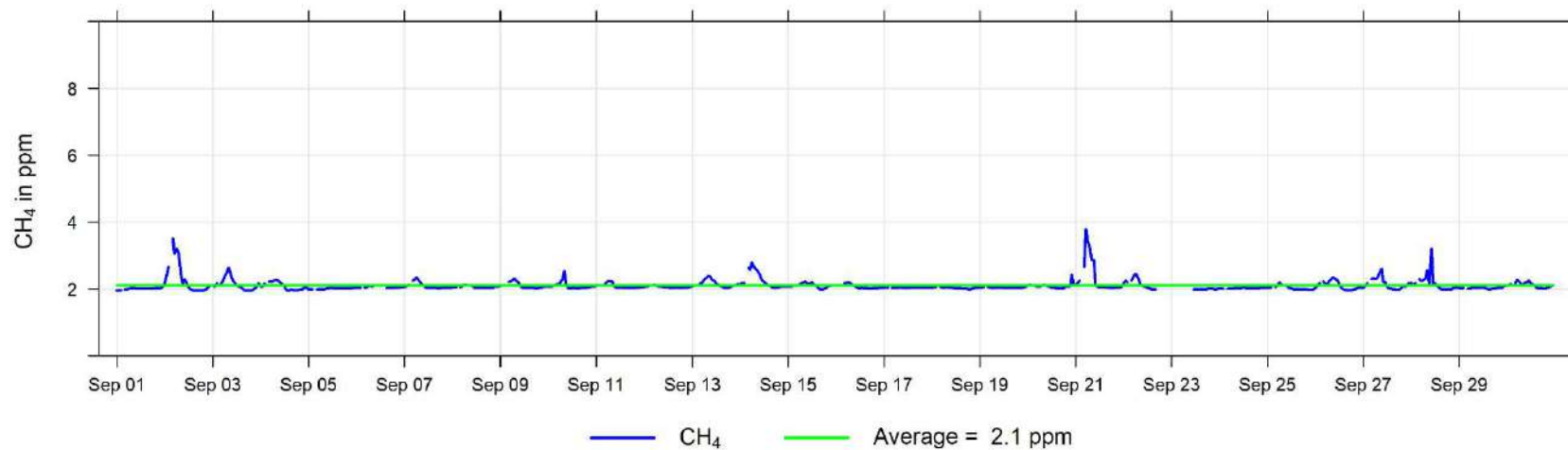
September 2022 Hourly Concentration Readings of O₃ (in ppb) at Henry Pirker



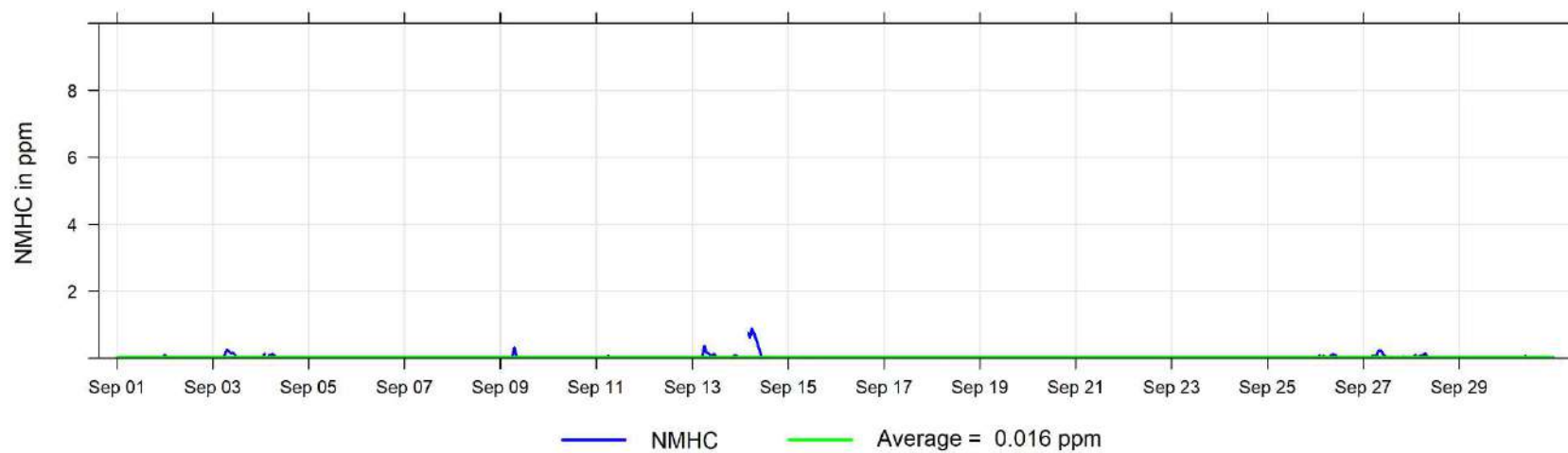
September 2022 Hourly Concentration Readings of THC (in ppm) at Henry Pirker



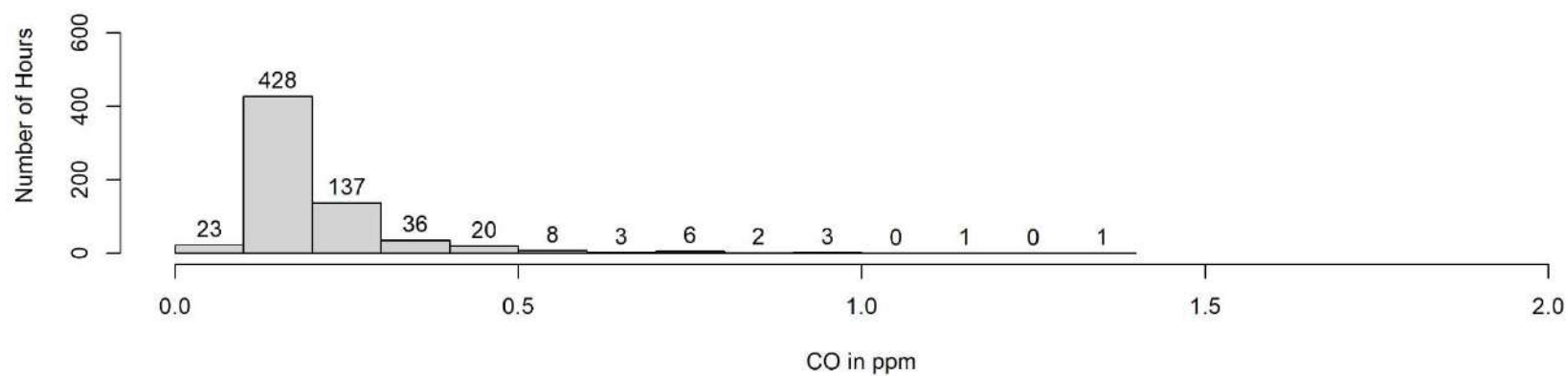
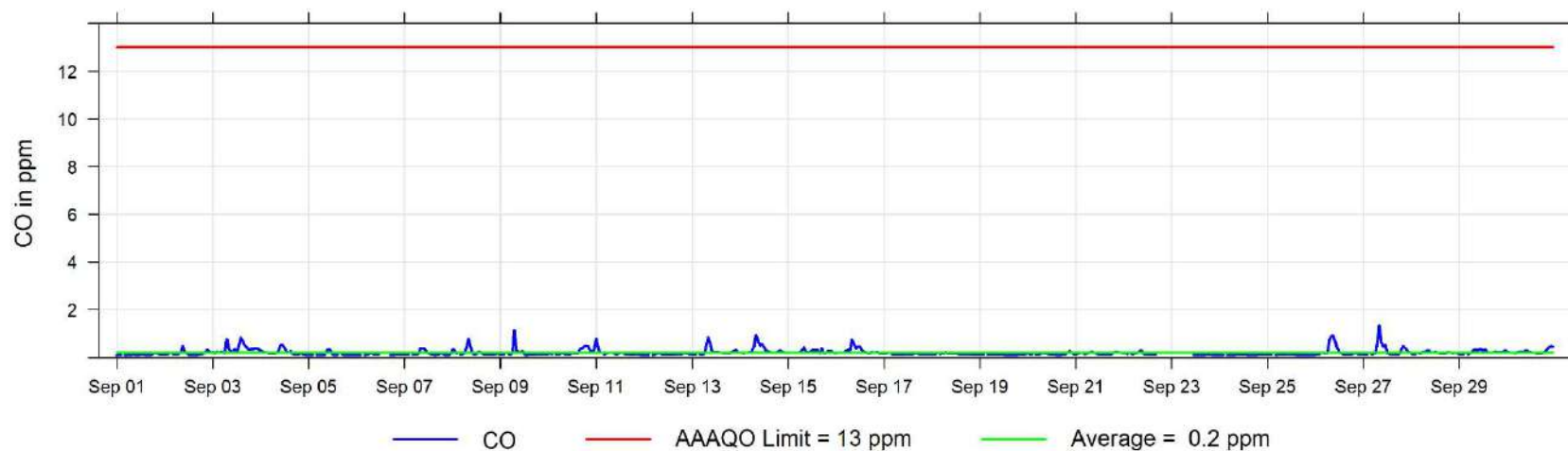
September 2022 Hourly Concentration Readings of CH₄ (in ppm) at Henry Pirker



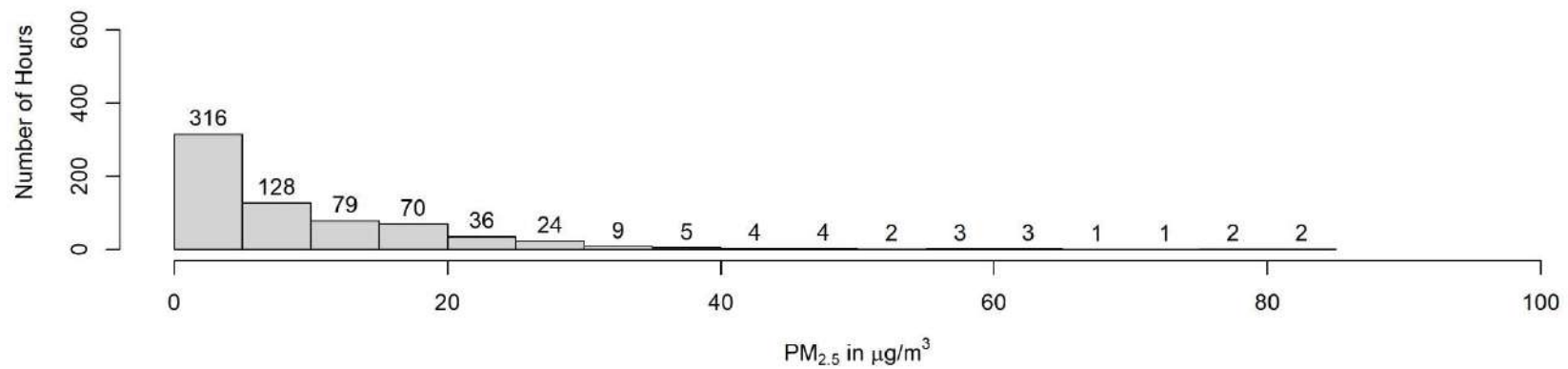
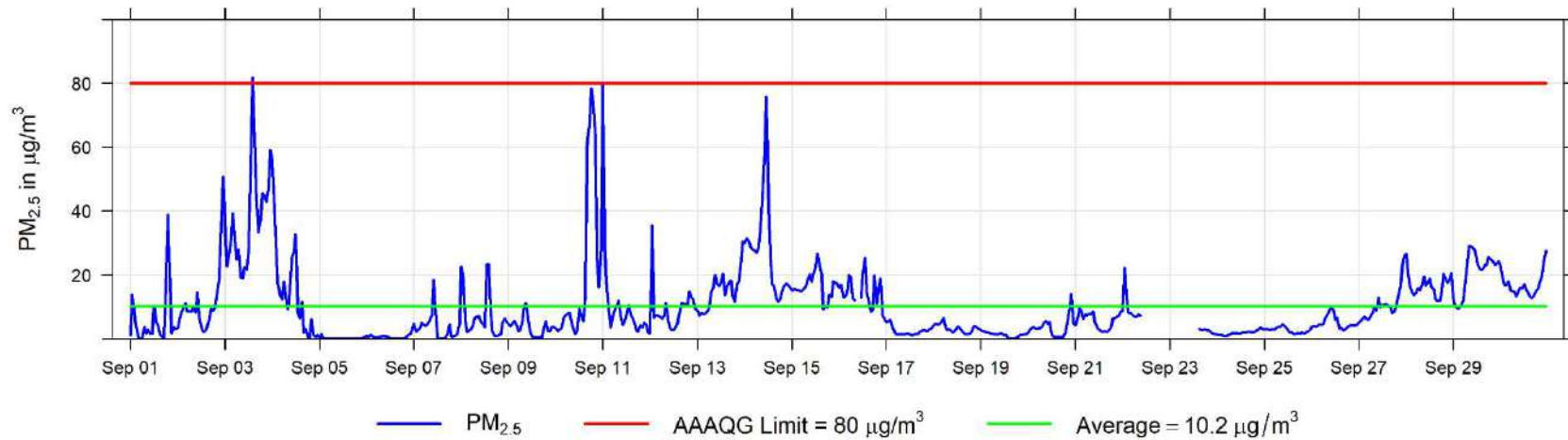
September 2022 Hourly Concentration Readings of NMHC (in ppm) at Henry Pirker



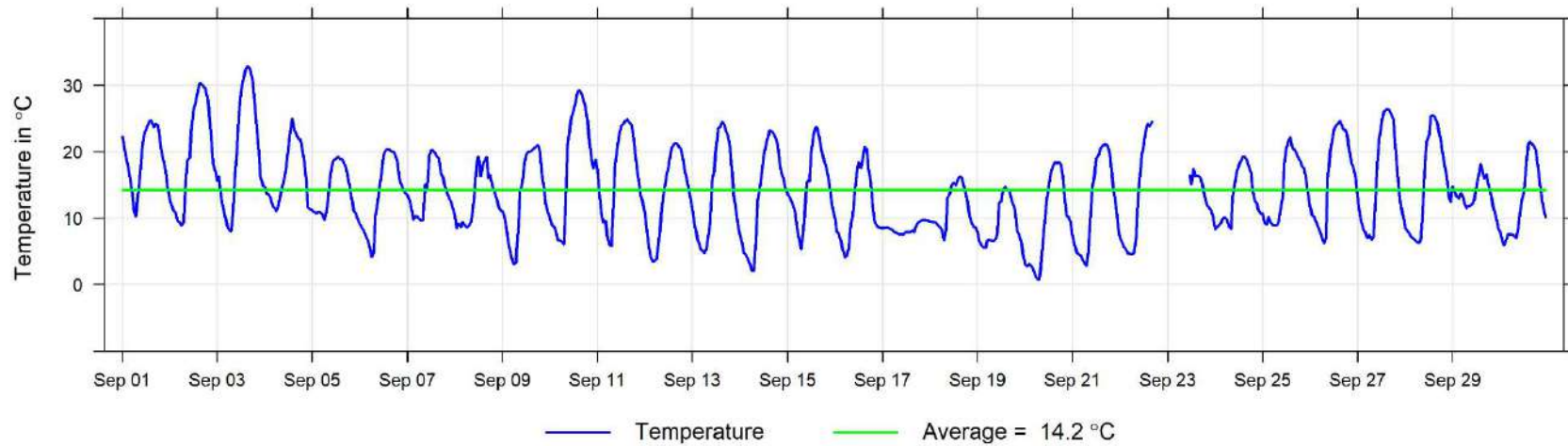
September 2022 Hourly Concentration Readings of CO (in ppm) at Henry Pirker



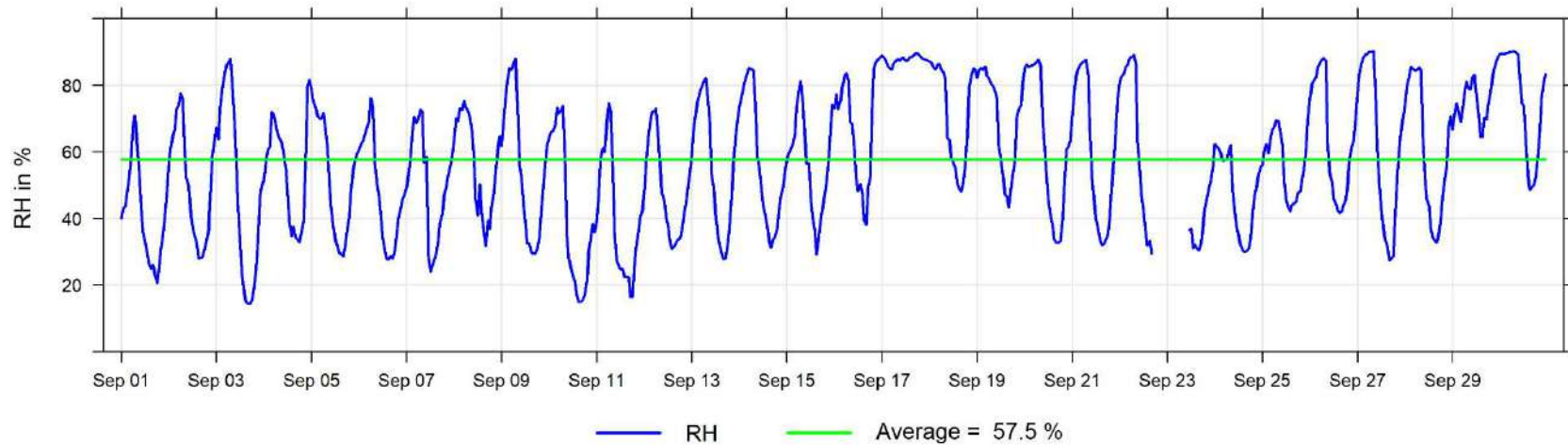
September 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Henry Pirker



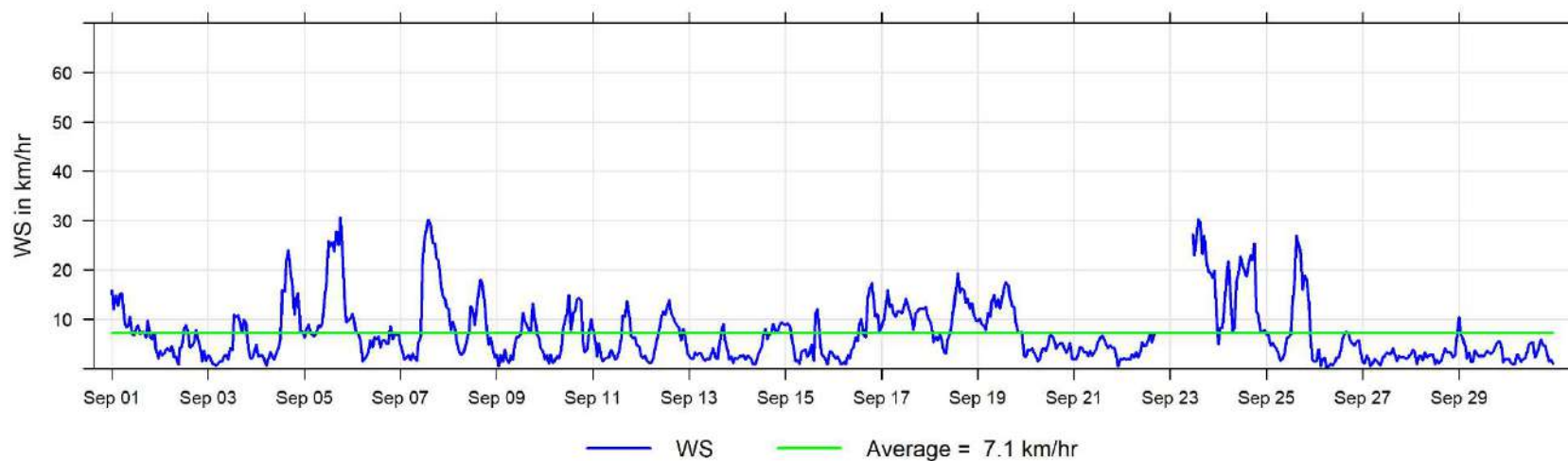
September 2022 Hourly Temperature Readings (in °C) at Henry Pirker



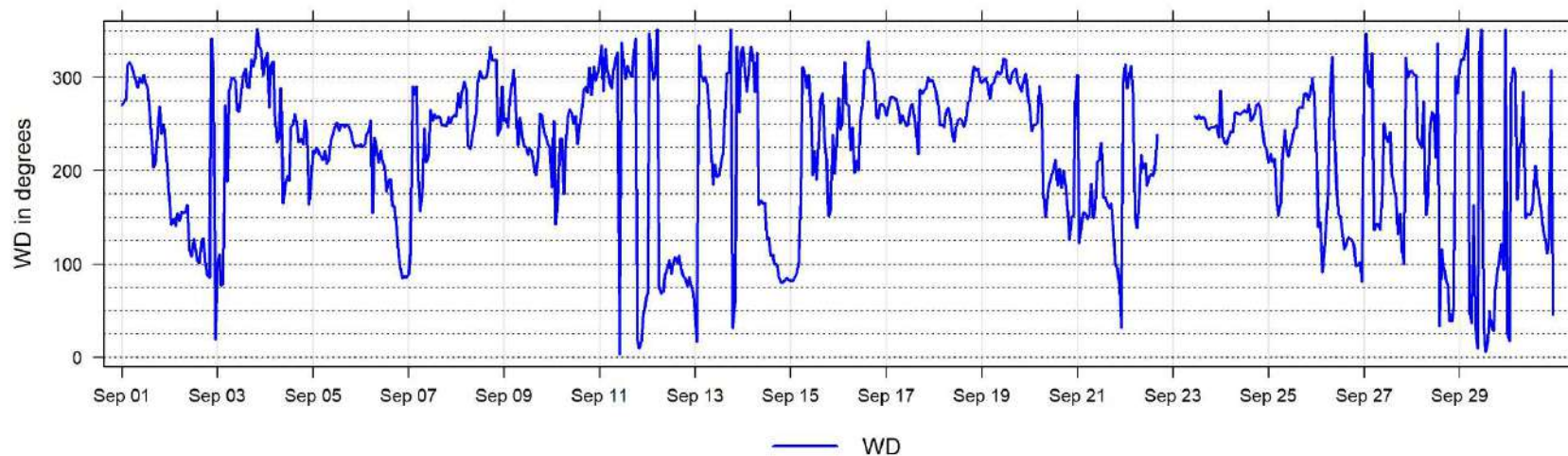
September 2022 Hourly Readings of Relative Humidity (in %) at Henry Pirker



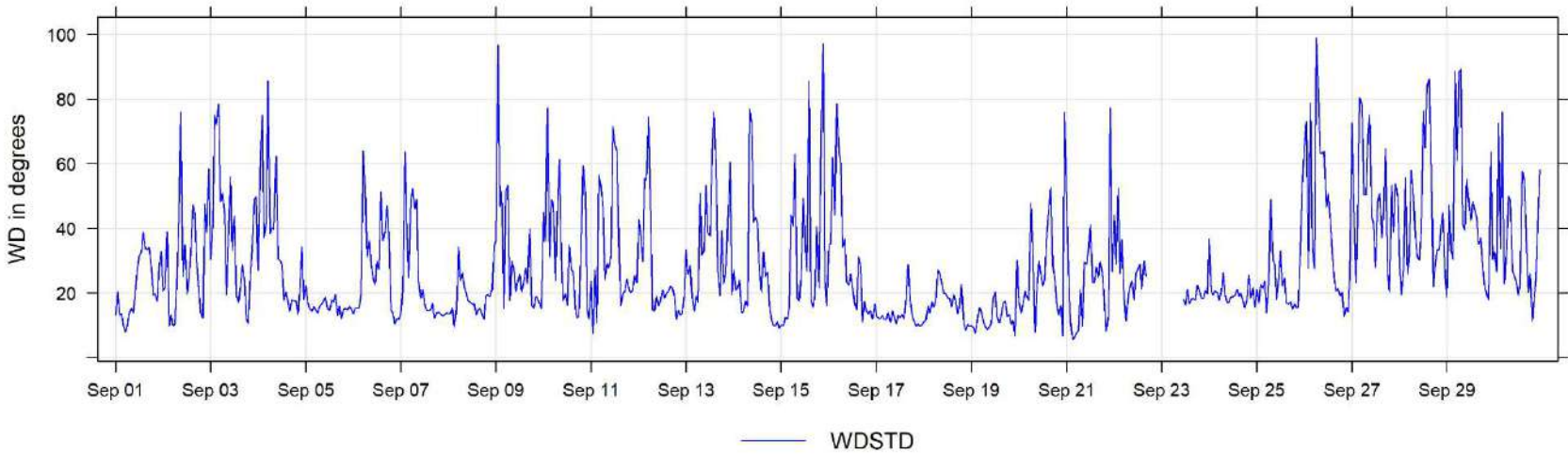
September 2022 Hourly Readings of Wind Speed (in km/hr) at Henry Pirker

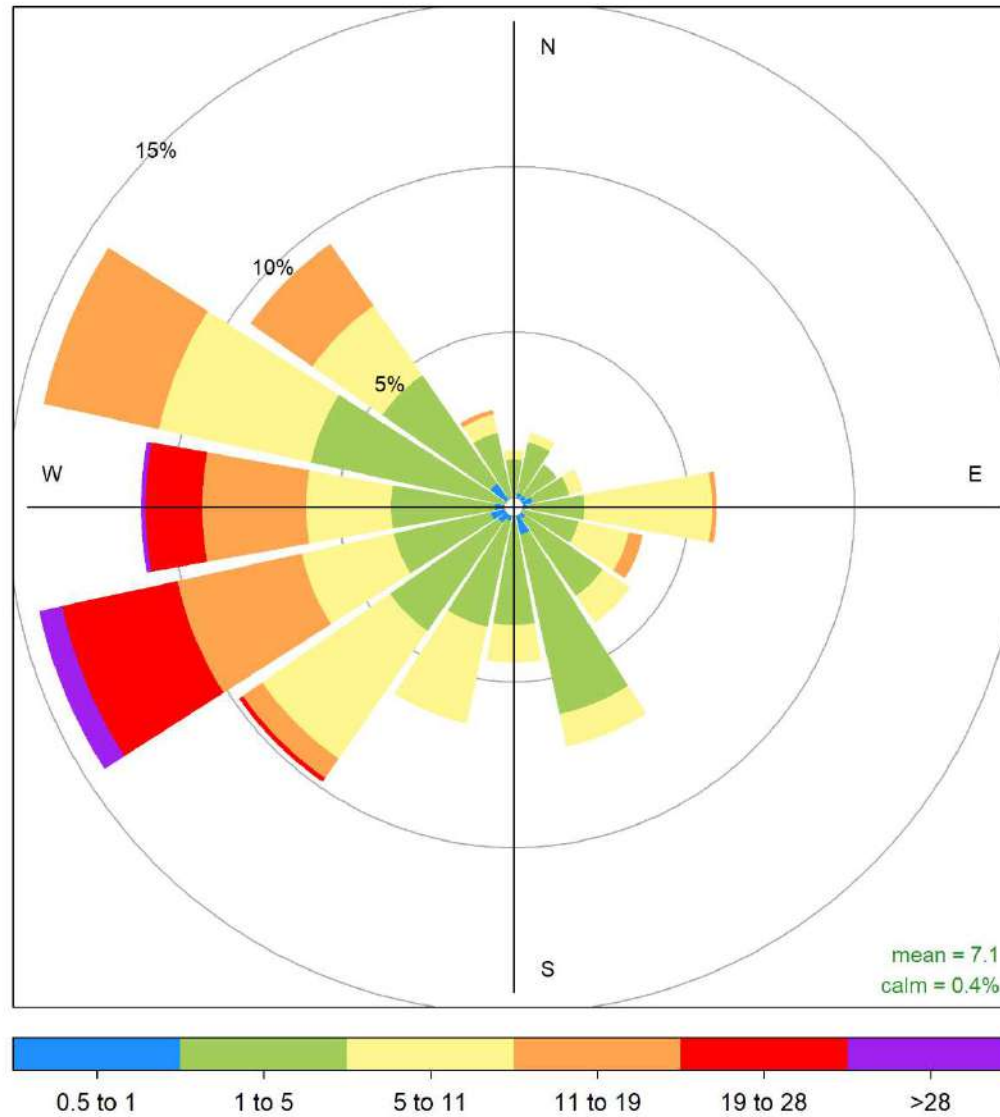


September 2022 Hourly Readings of Wind Direction (in degrees) at Henry Pirker



September 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Henry Pirker



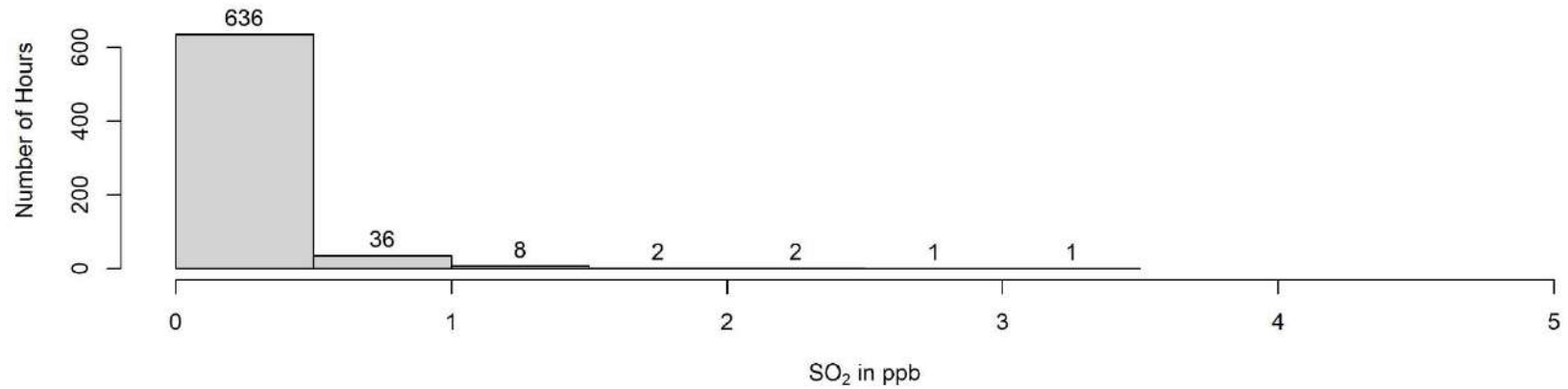
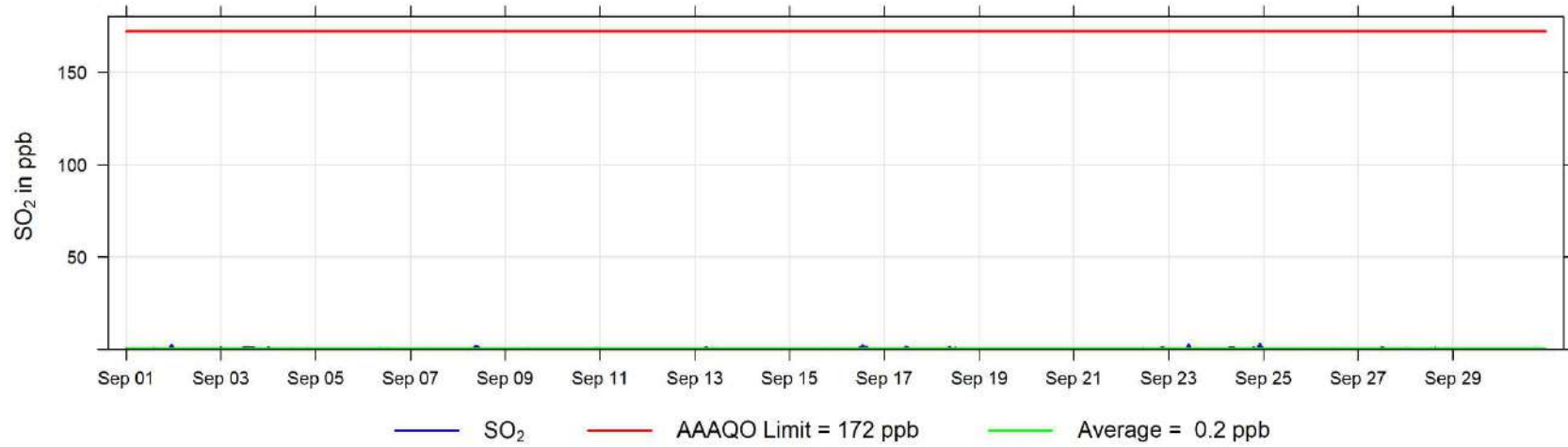


Henry Pirker September 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

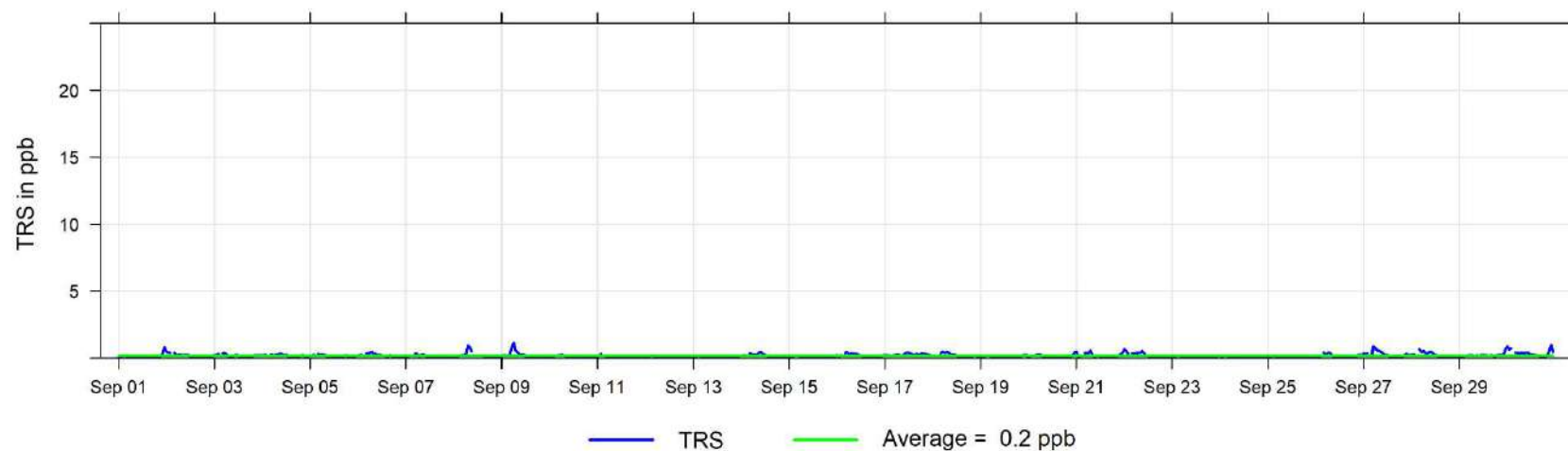
5 Smoky Heights Charts

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

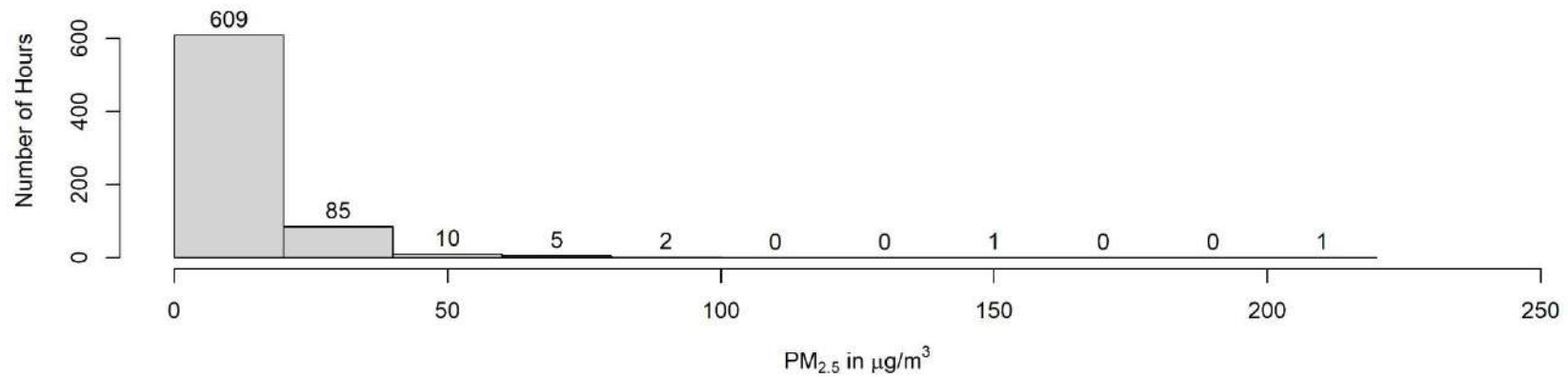
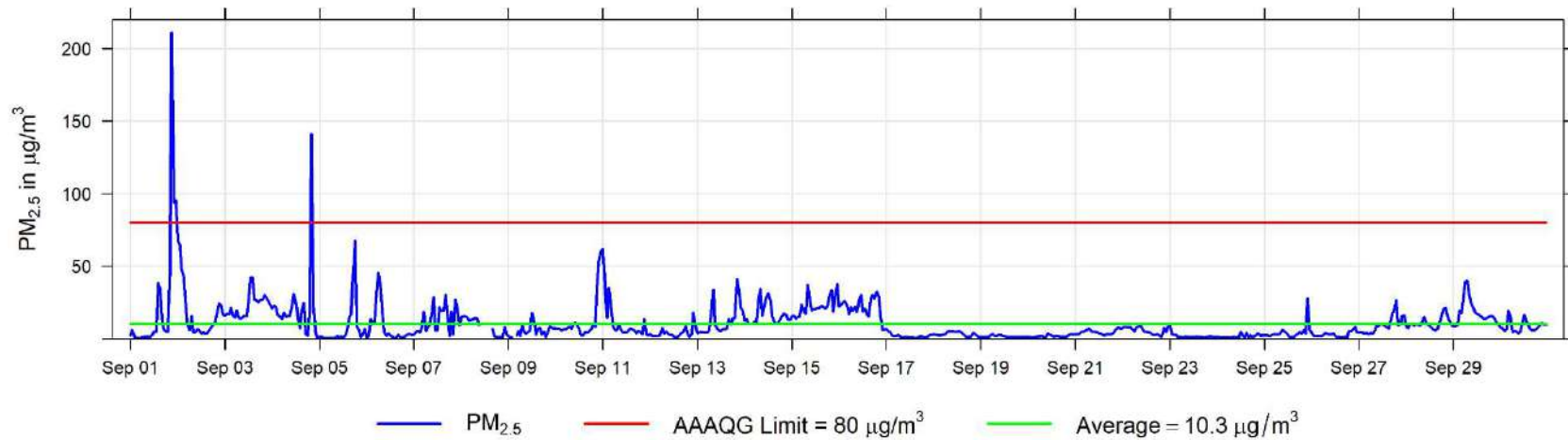
September 2022 Hourly Concentration Readings of SO₂ (in ppb) at Smoky Heights



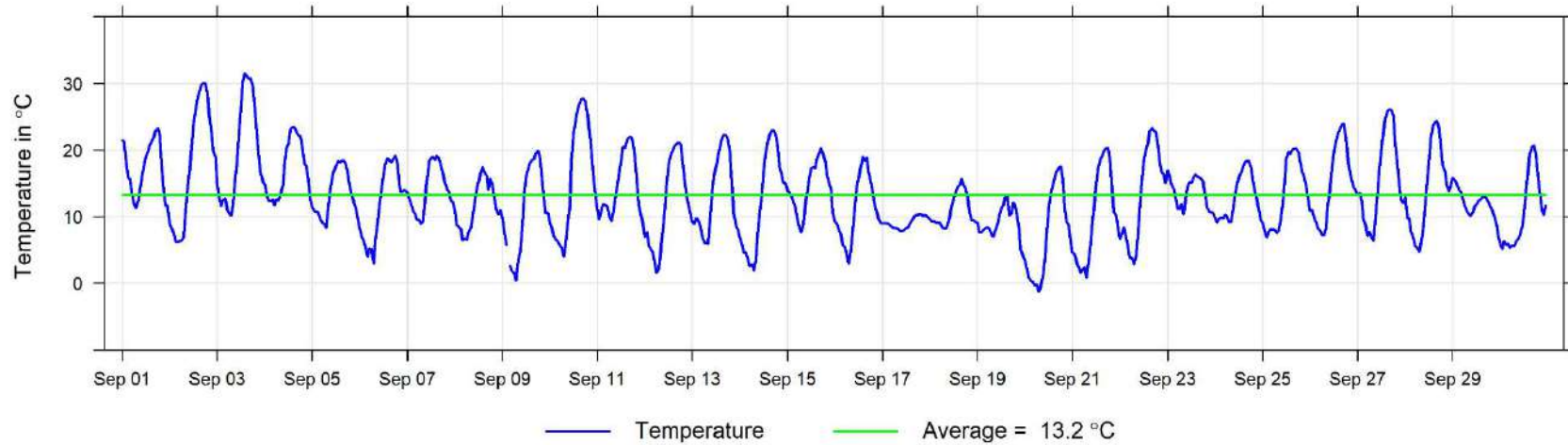
September 2022 Hourly Concentration Readings of TRS (in ppb) at Smoky Heights



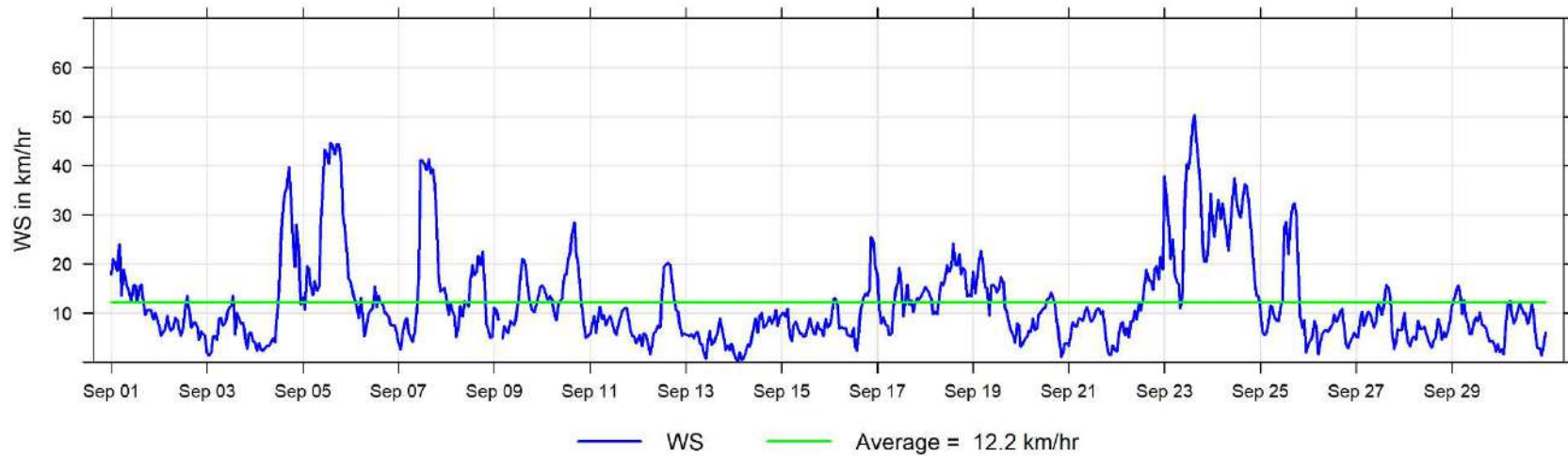
September 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Smoky Heights



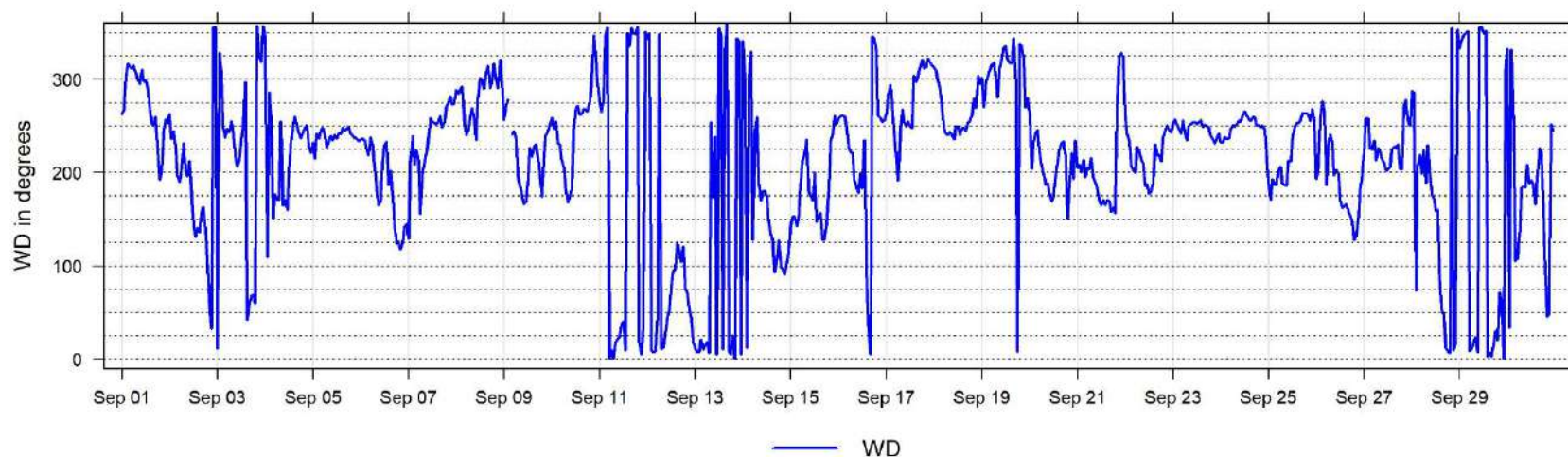
September 2022 Hourly Temperature Readings (in °C) at Smoky Heights



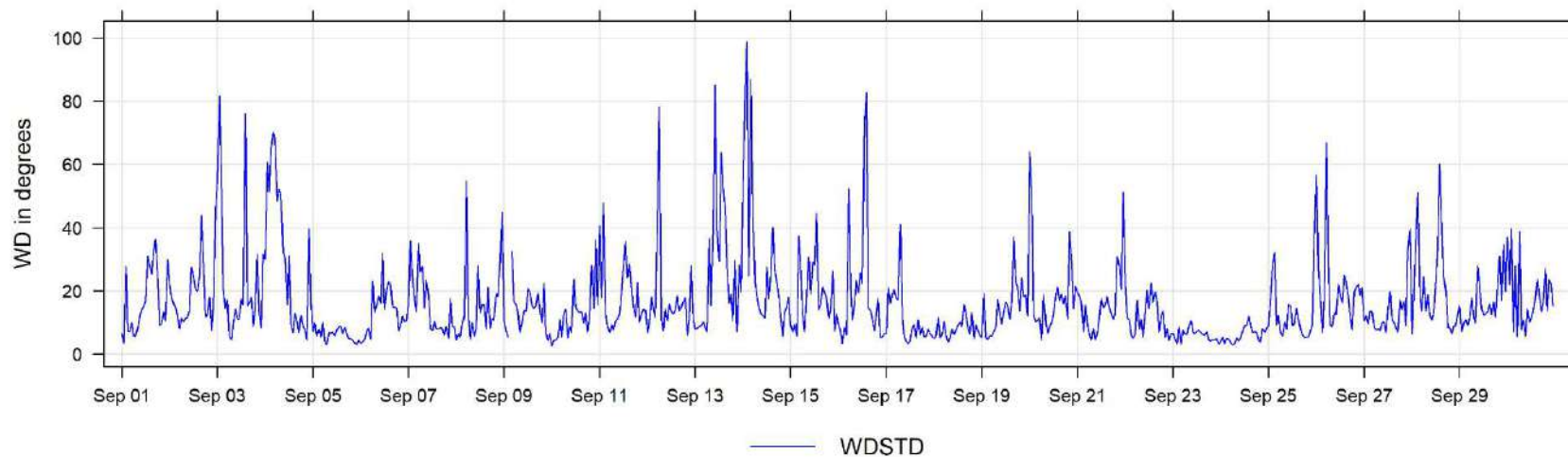
September 2022 Hourly Readings of Wind Speed (in km/hr) at Smoky Heights

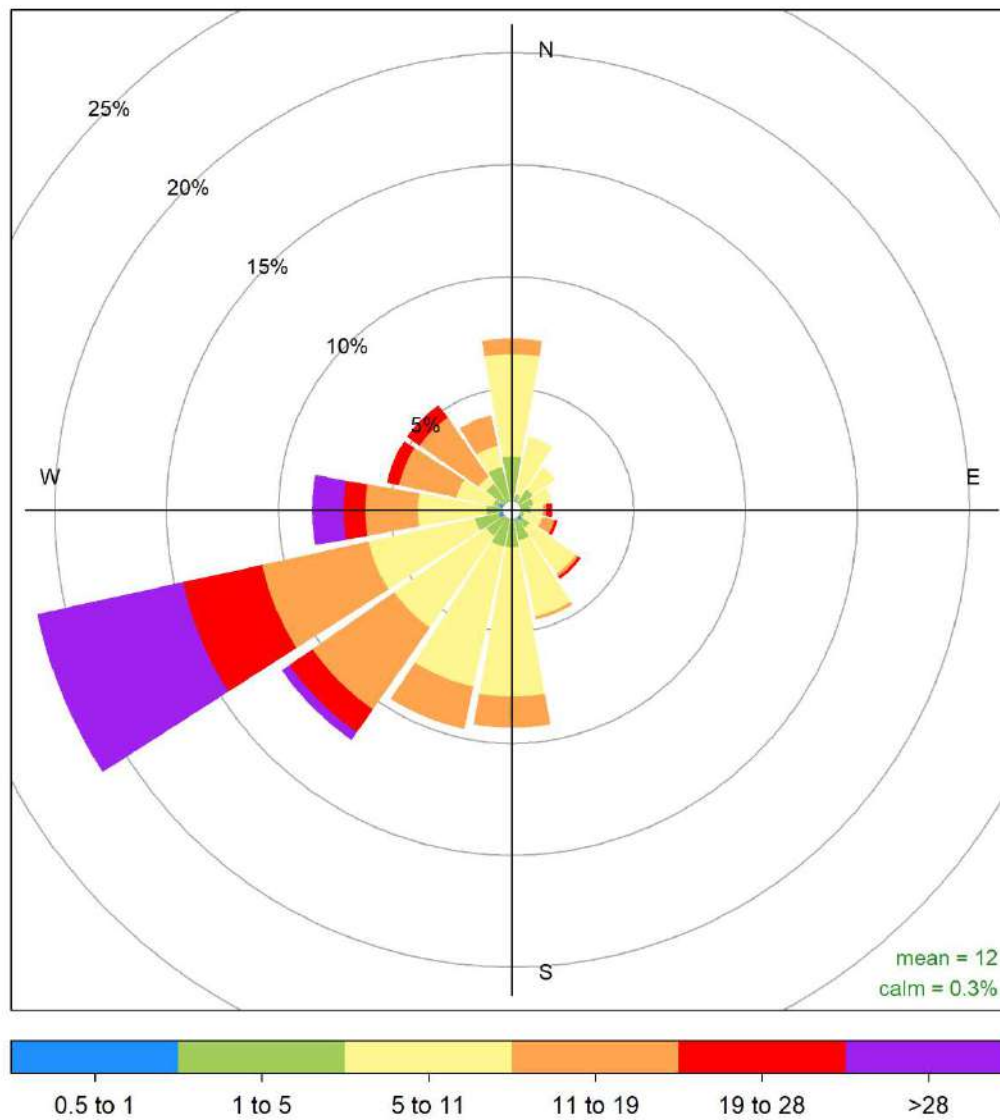


September 2022 Hourly Readings of Wind Direction (in degrees) at Smoky Heights



September 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Smoky Heights



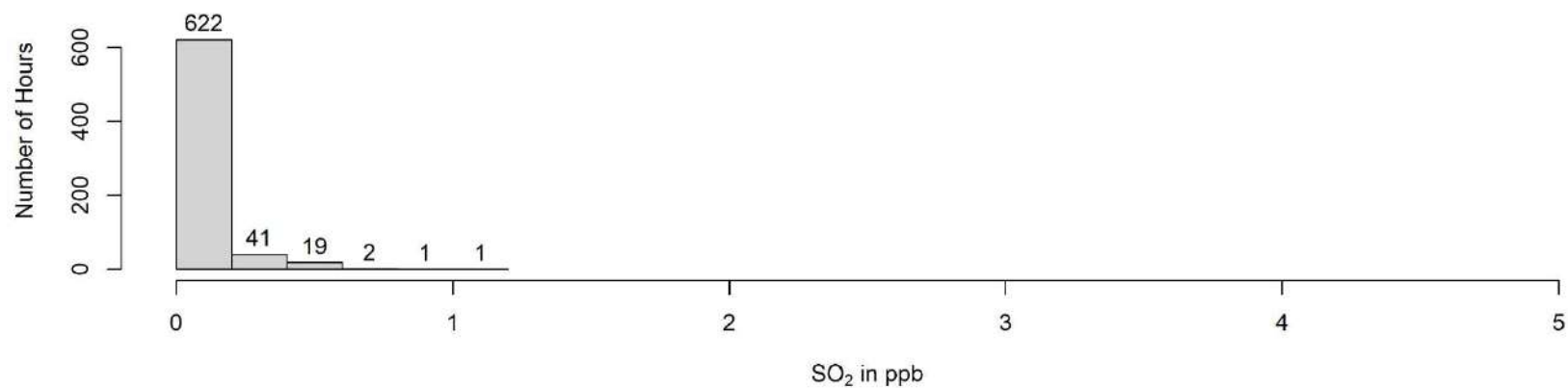
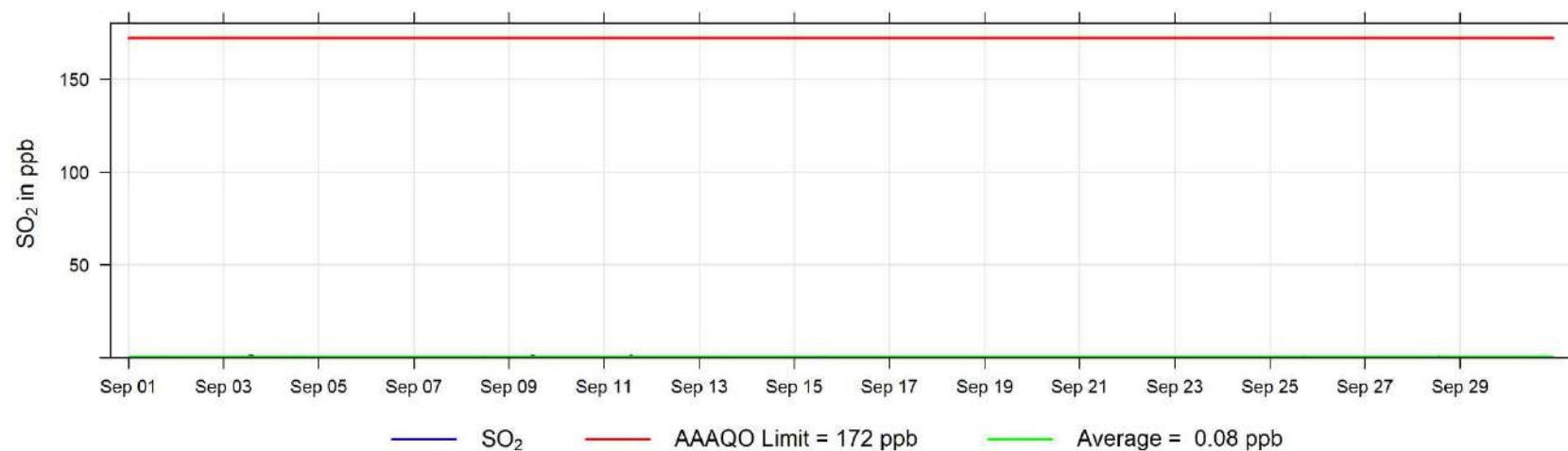


Smoky Heights September 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

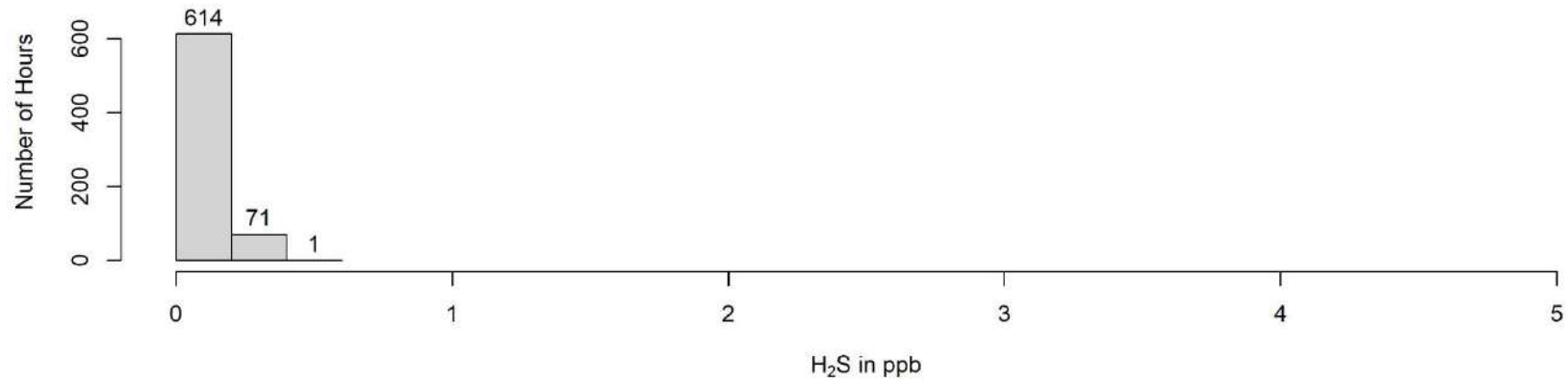
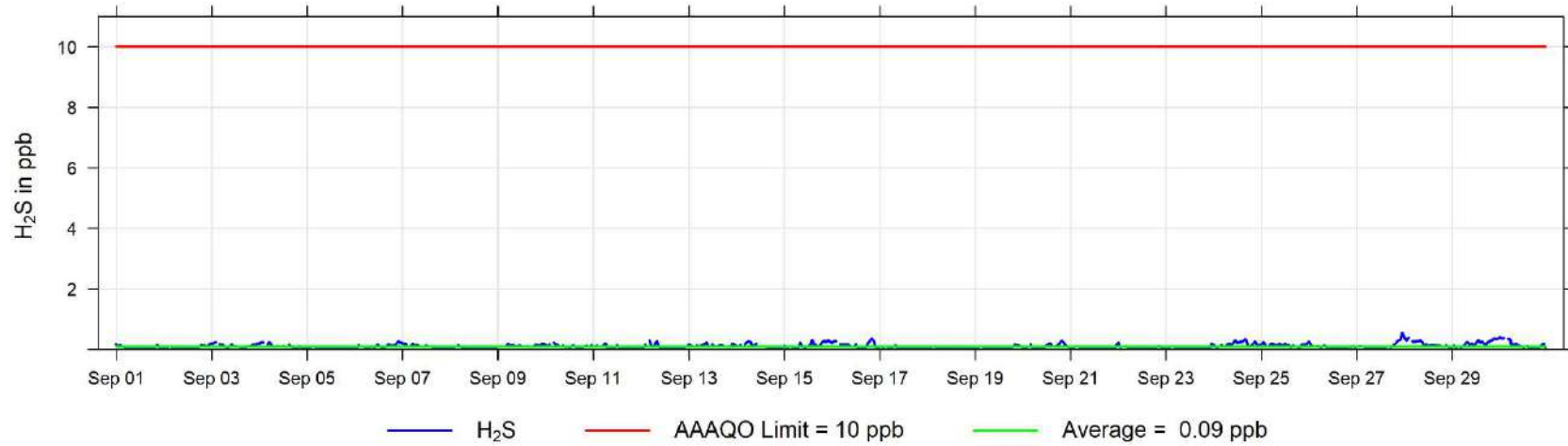
6 Valleyview Charts

The following pages include the charts and histograms for Valleyview Station

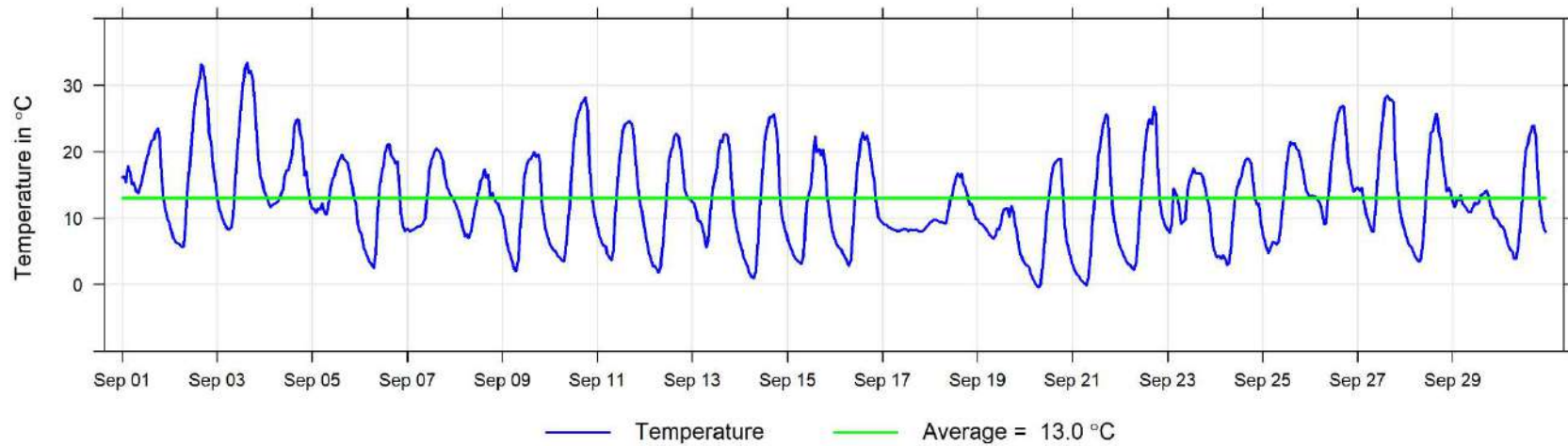
September 2022 Hourly Concentration Readings of SO₂ (in ppb) at Valleyview



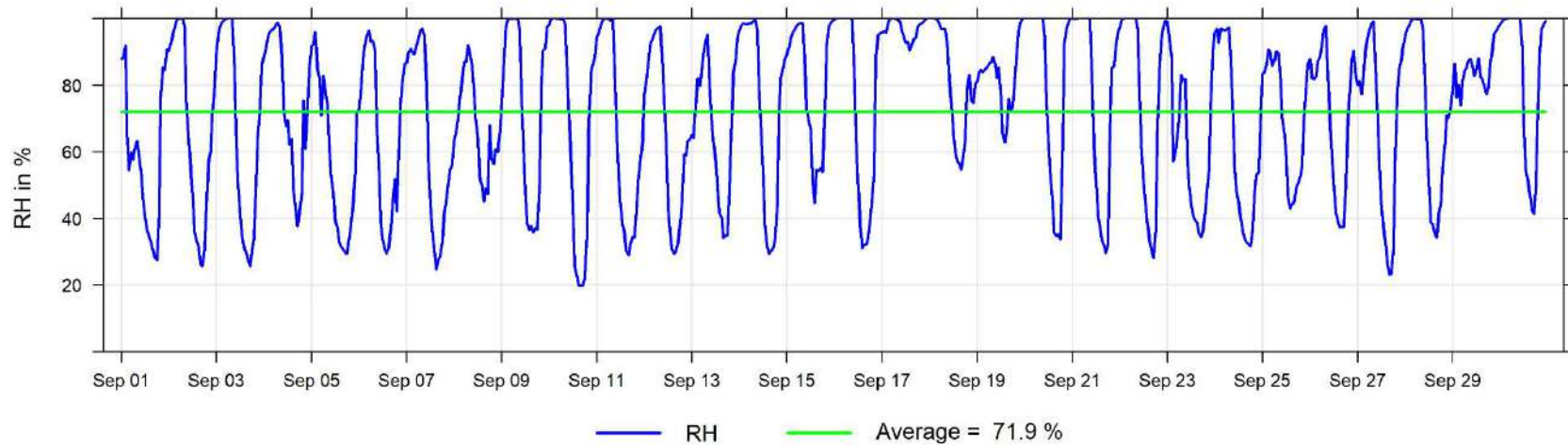
September 2022 Hourly Concentration Readings of H₂S (in ppb) at Valleyview



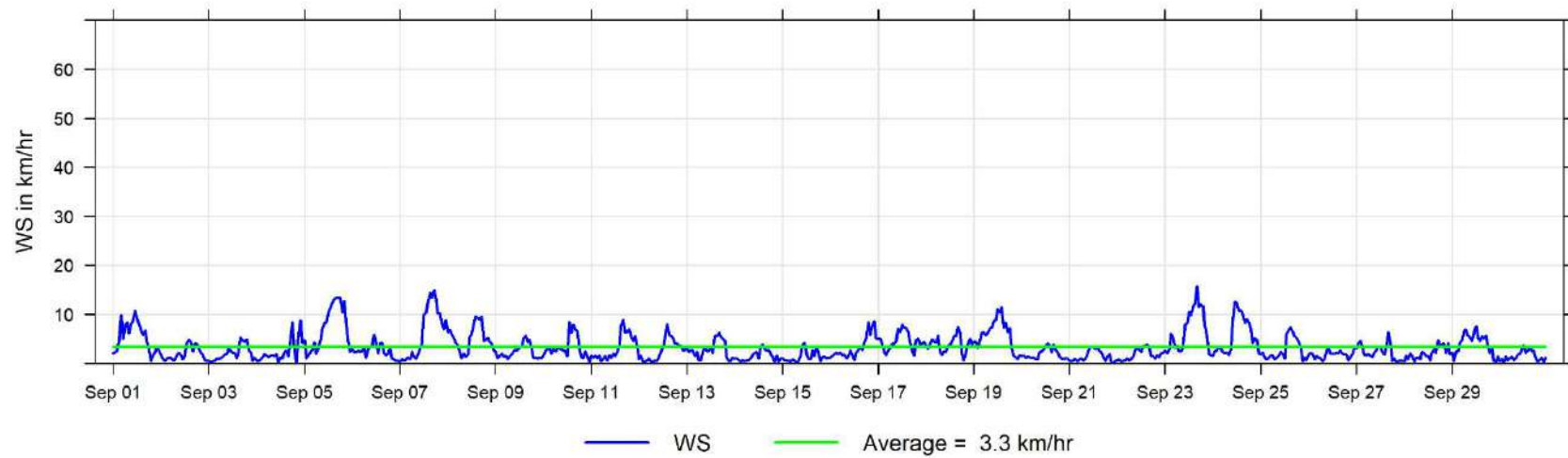
September 2022 Hourly Temperature Readings (in °C) at Valleyview



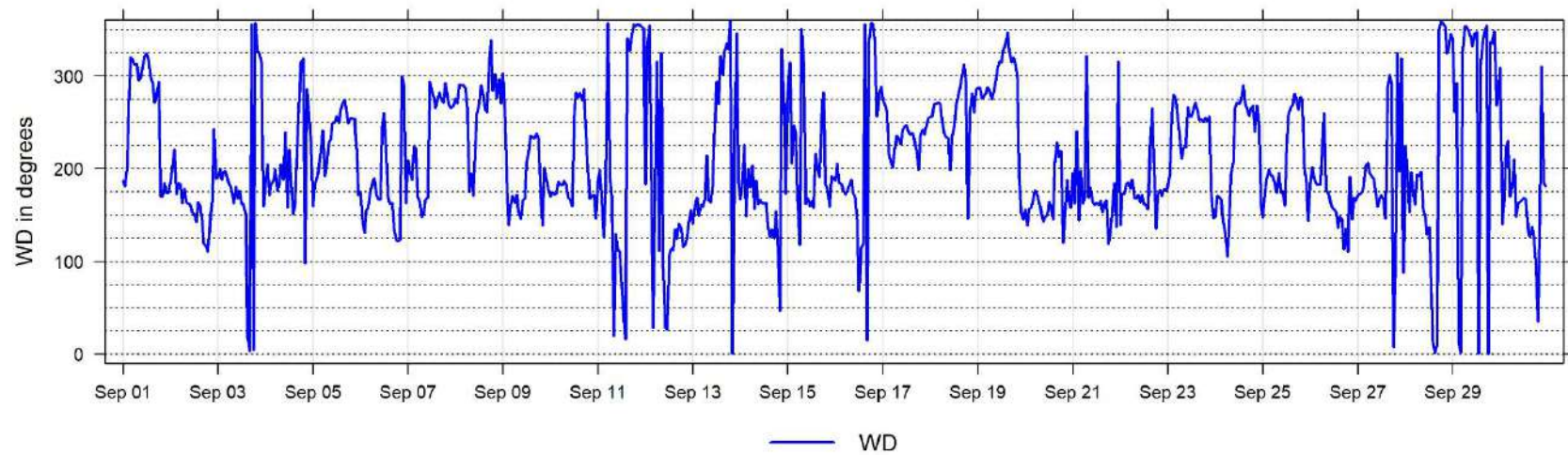
September 2022 Hourly Readings of Relative Humidity (in %) at Valleyview



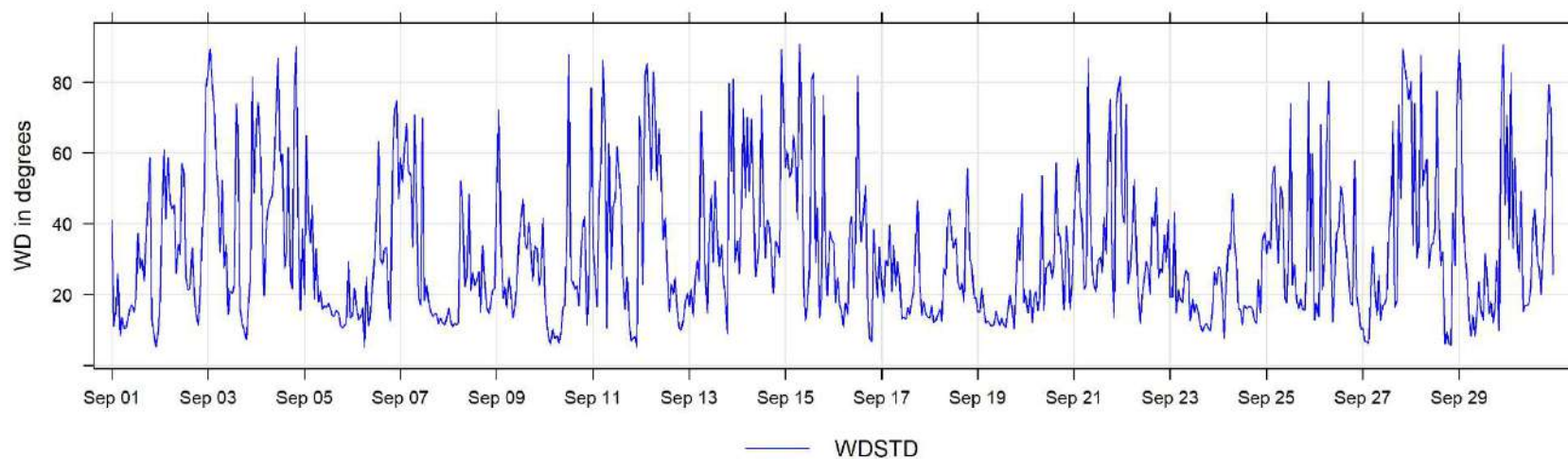
September 2022 Hourly Readings of Wind Speed (in km/hr) at Valleyview

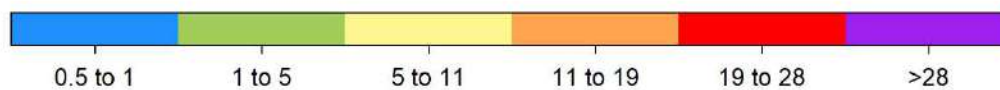
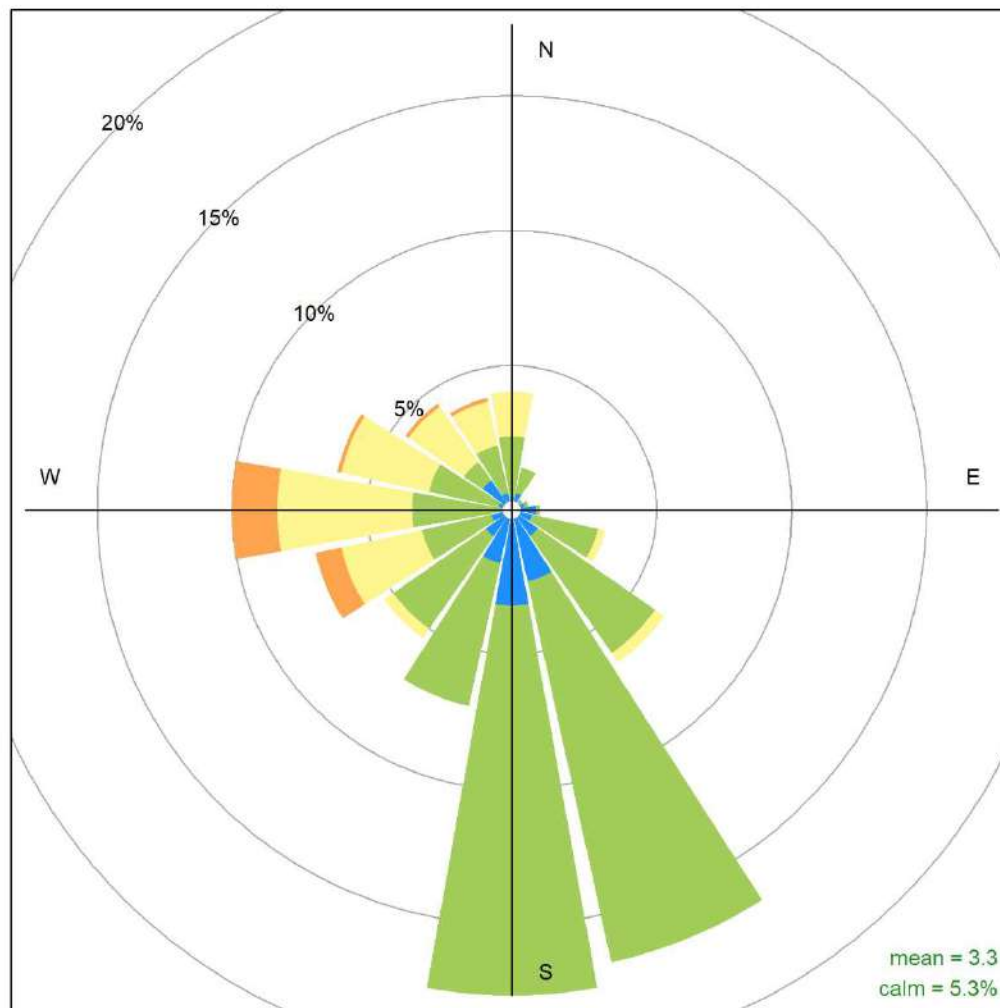


September 2022 Hourly Readings of Wind Direction (in degrees) at Valleyview



September 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Valleyview



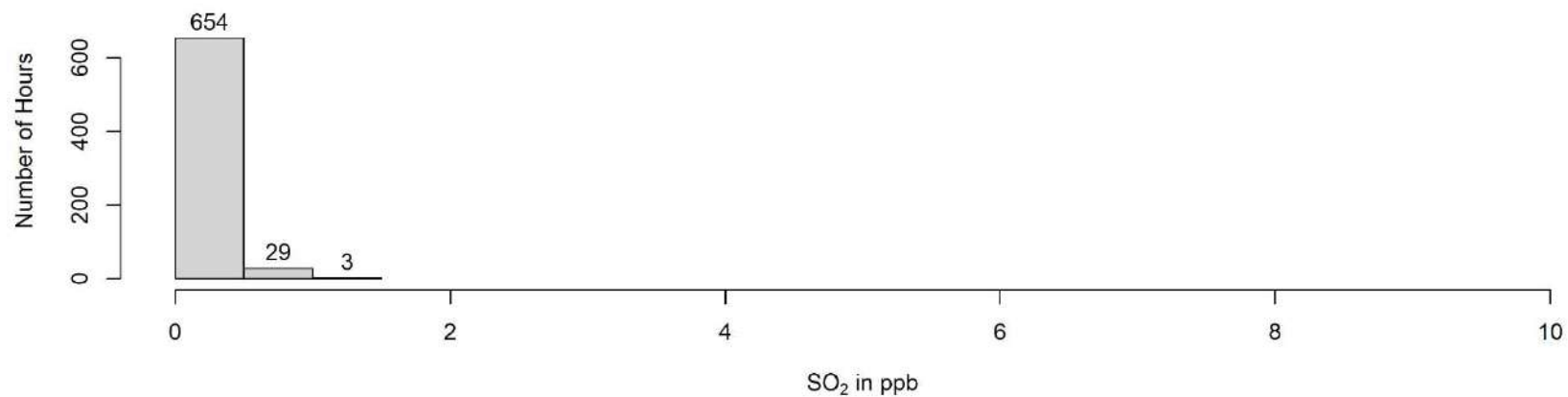
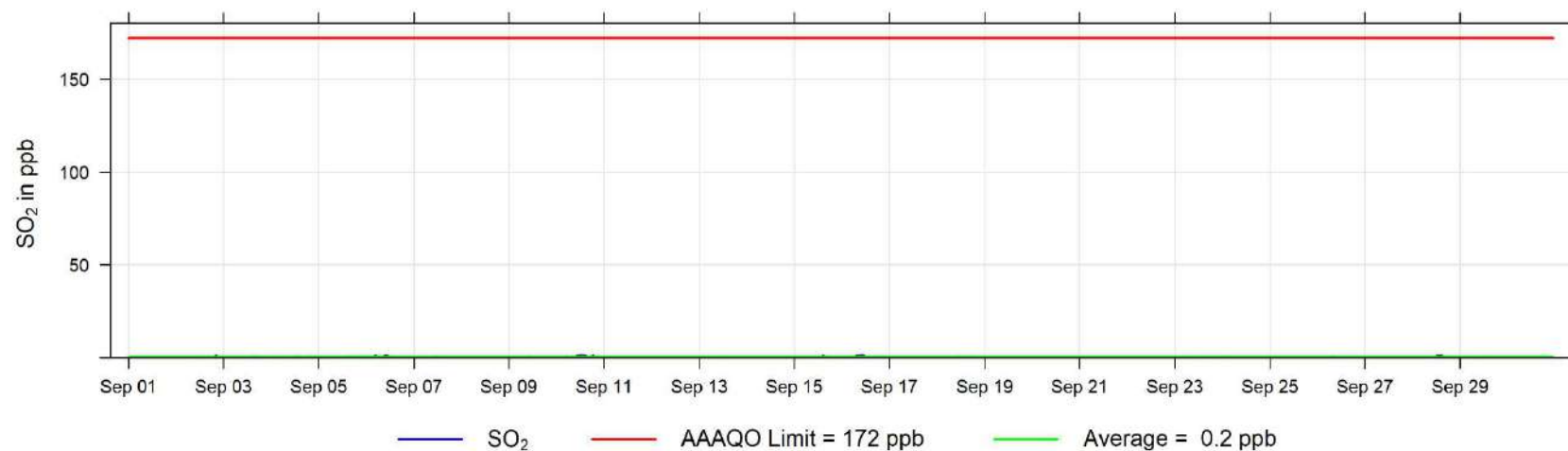


Valleyview September 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

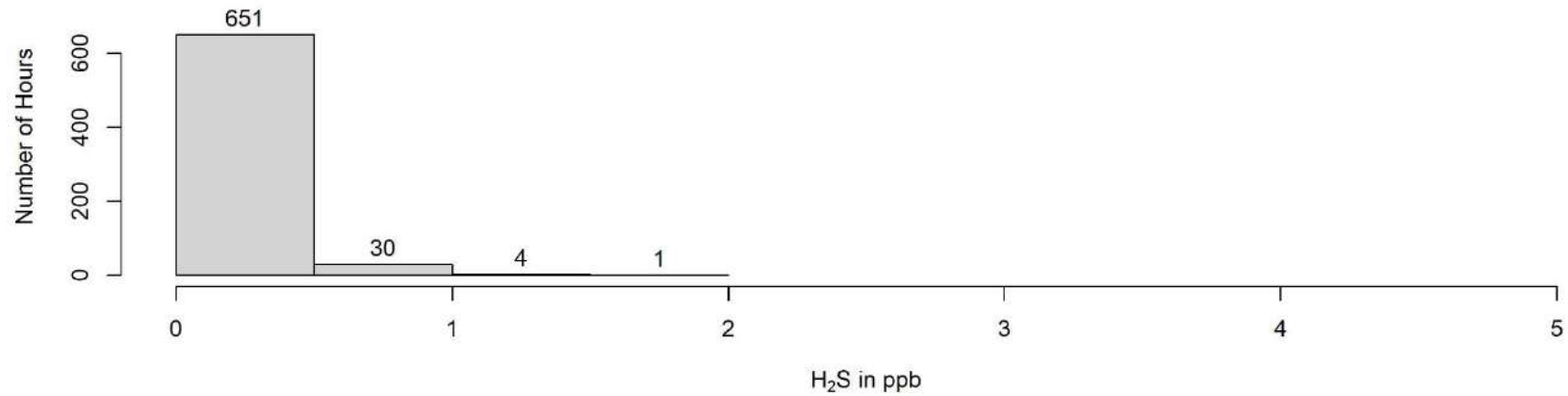
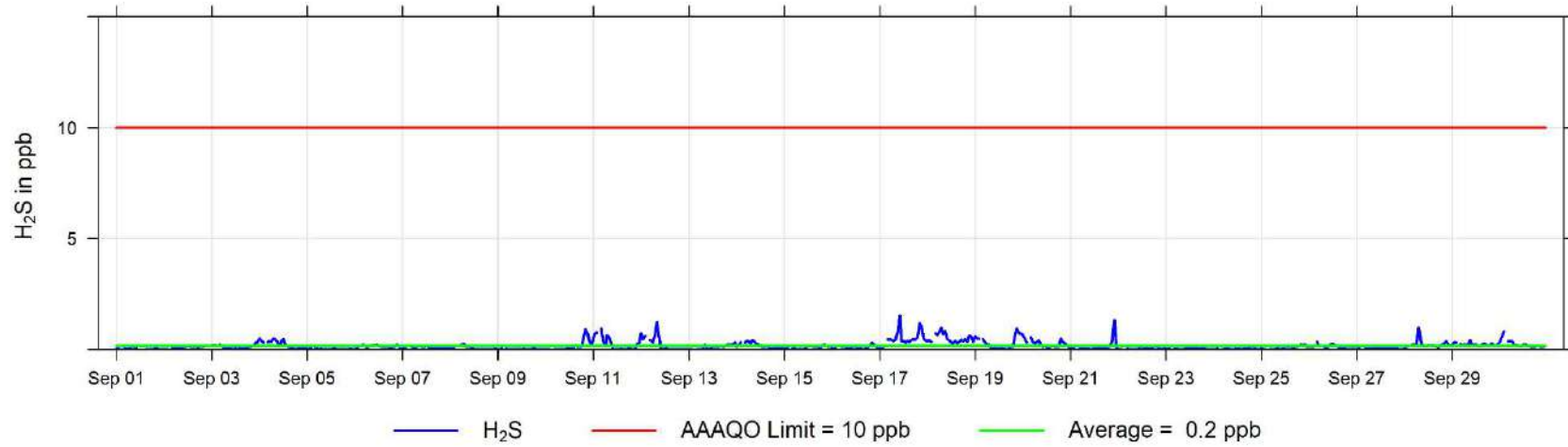
7 Donnelly Charts

The following pages include the charts and histograms for Donnelly Station

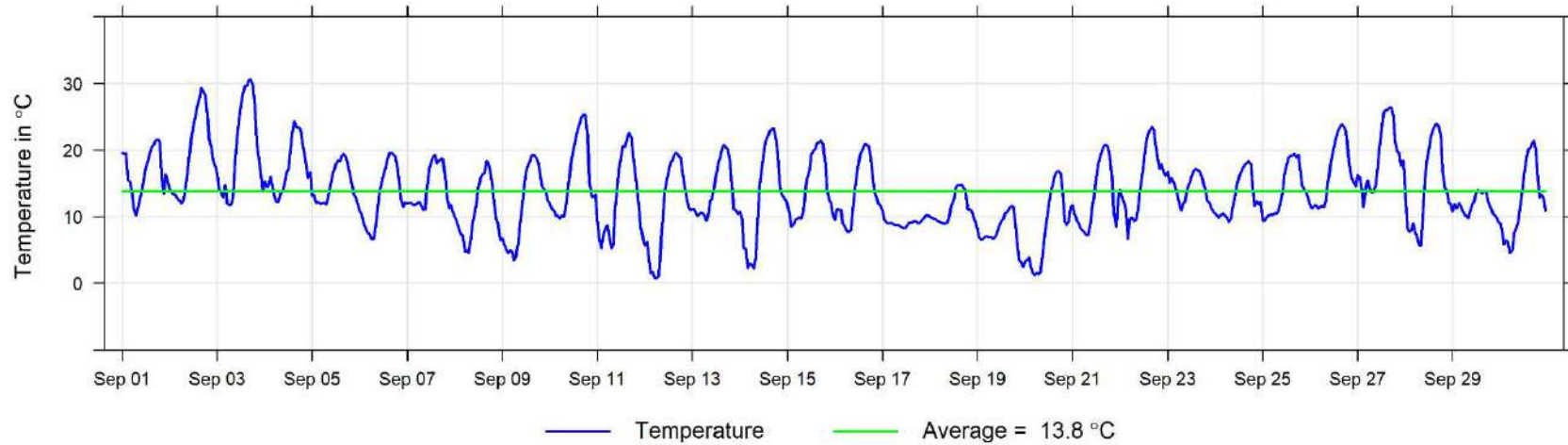
September 2022 Hourly Concentration Readings of SO₂ (in ppb) at Donnelly



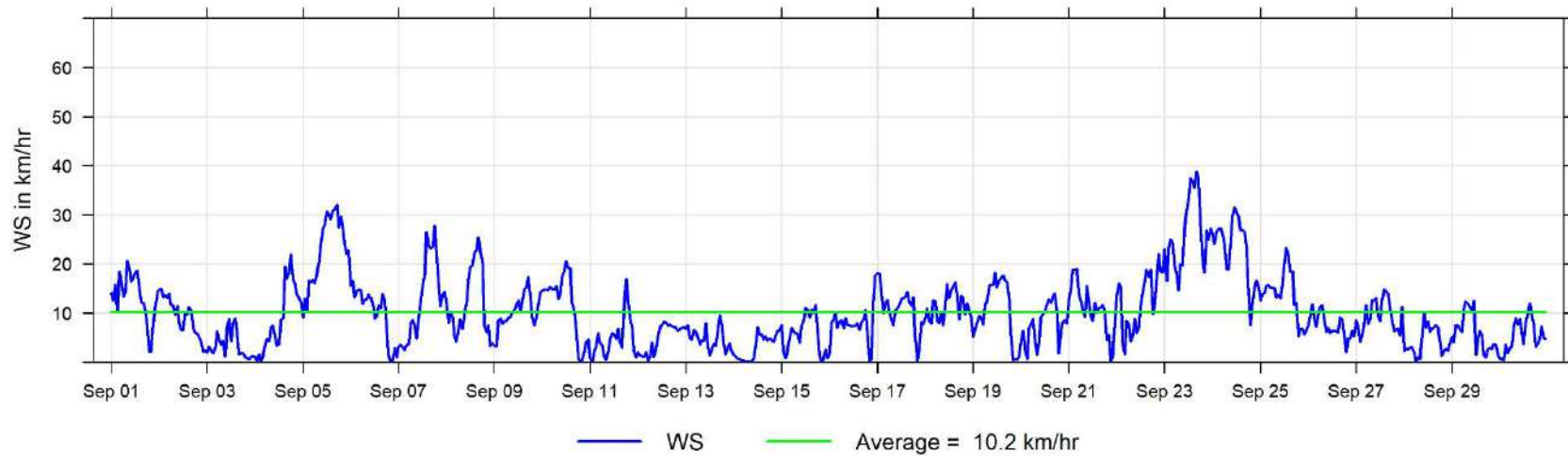
September 2022 Hourly Concentration Readings of H₂S (in ppb) at Donnelly



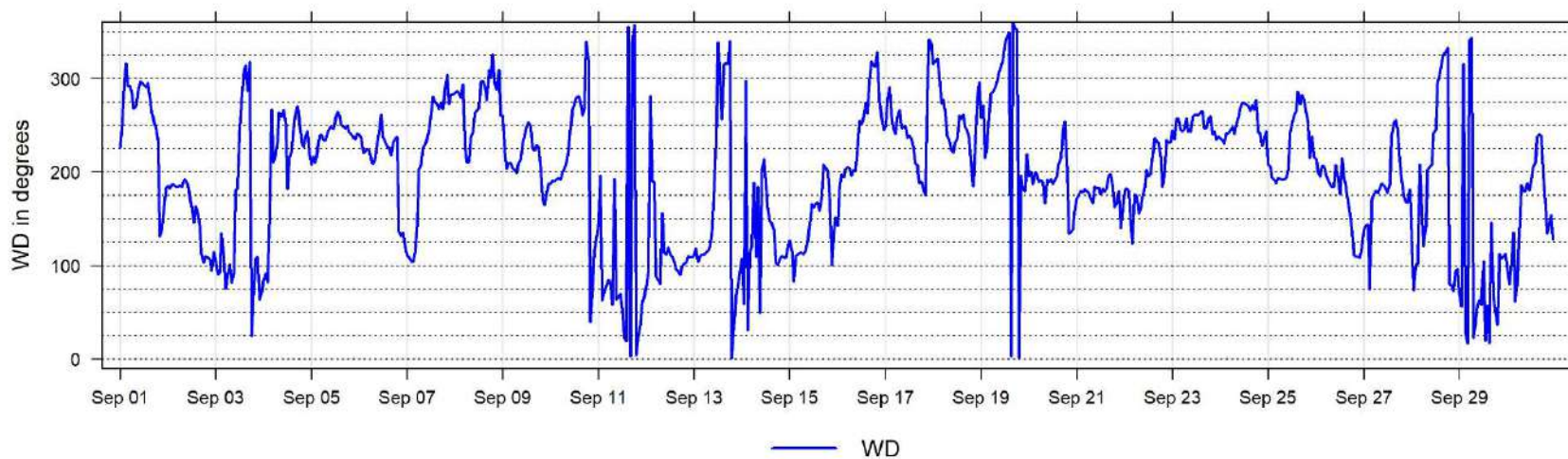
September 2022 Hourly Temperature Readings (in °C) at Donnelly



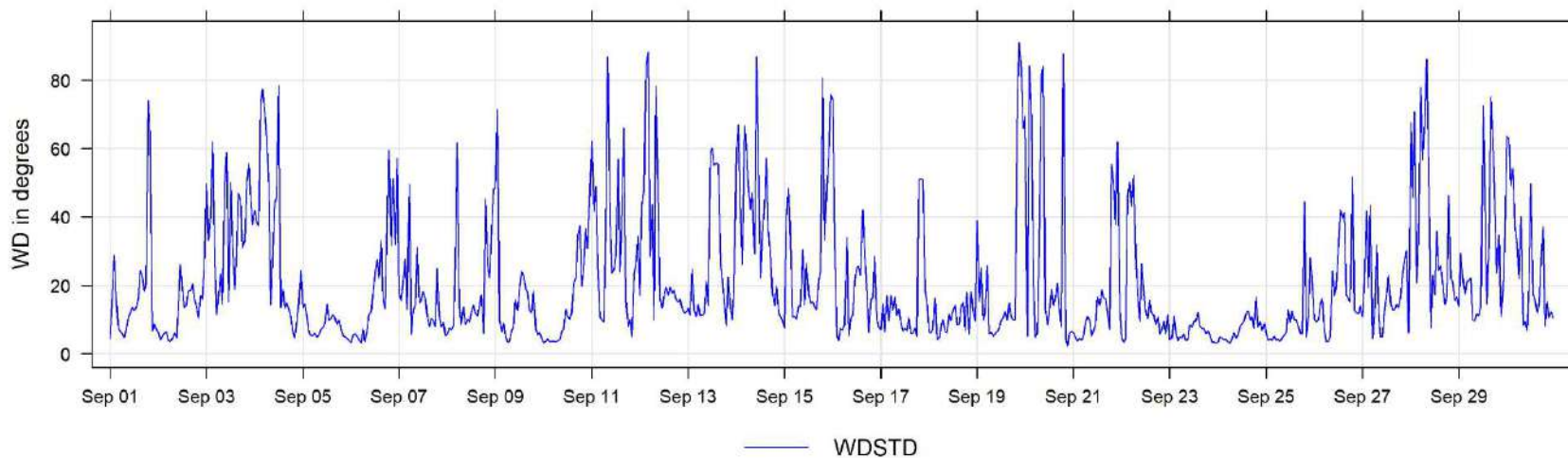
September 2022 Hourly Readings of Wind Speed (in km/hr) at Donnelly

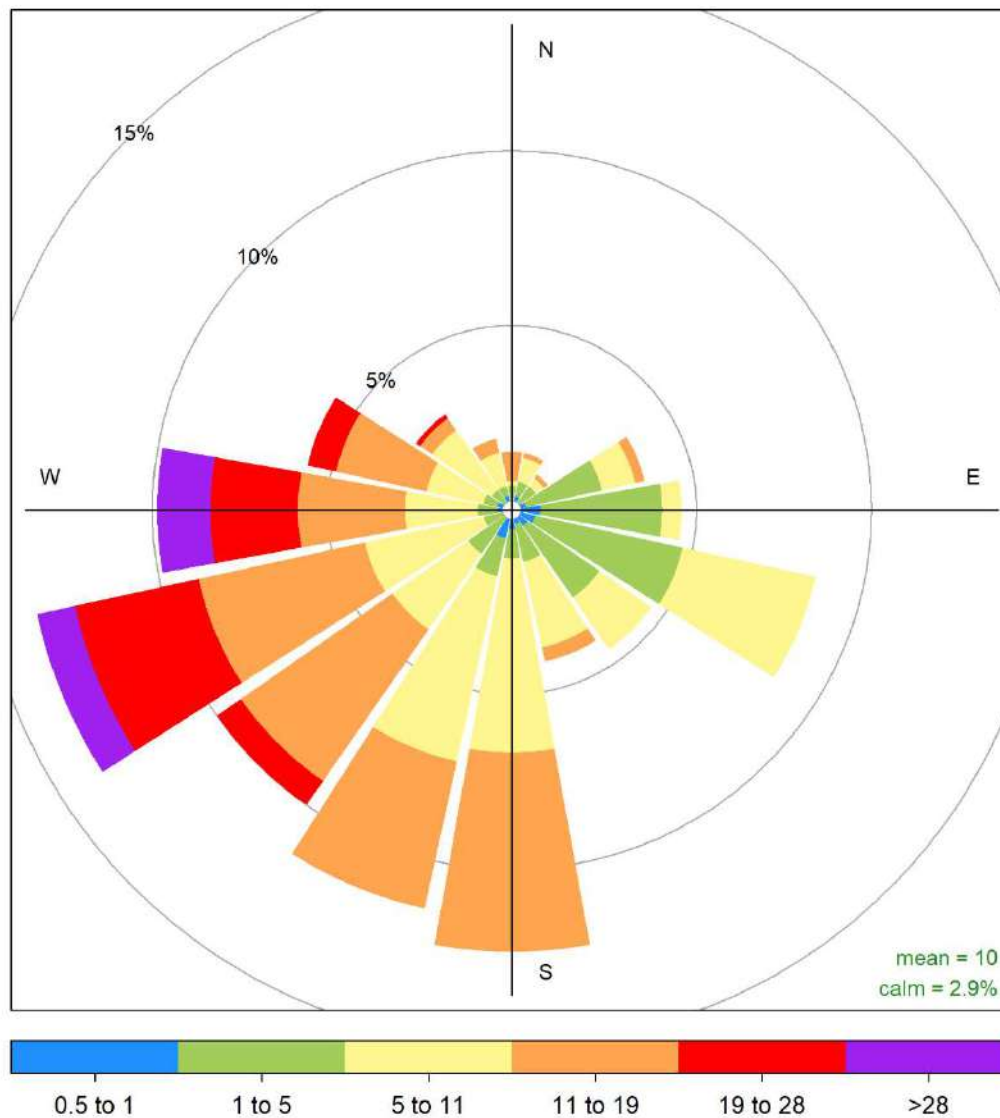


September 2022 Hourly Readings of Wind Direction (in degrees) at Donnelly



September 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Donnelly



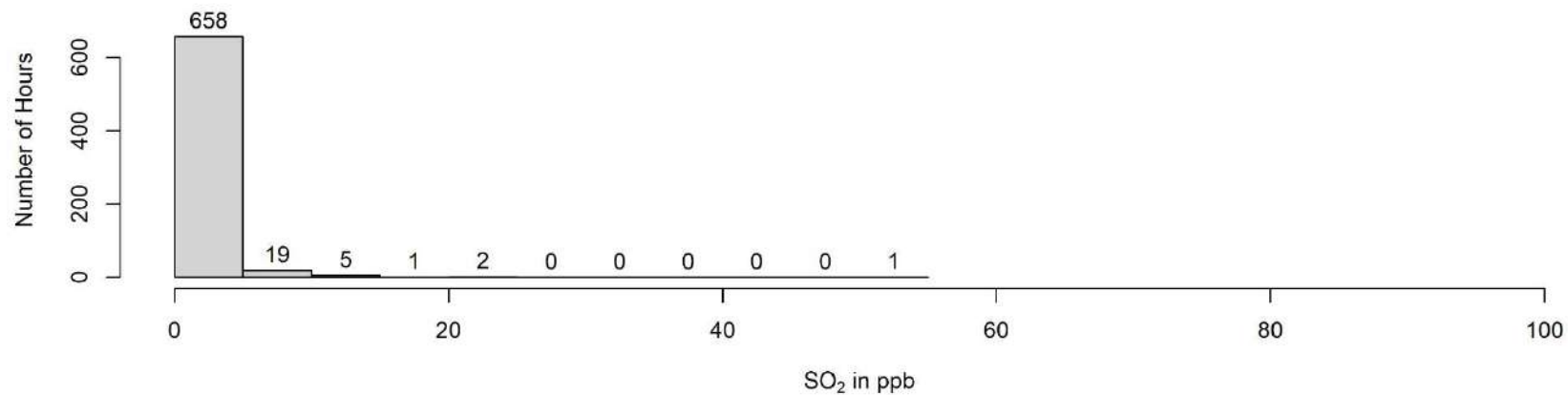
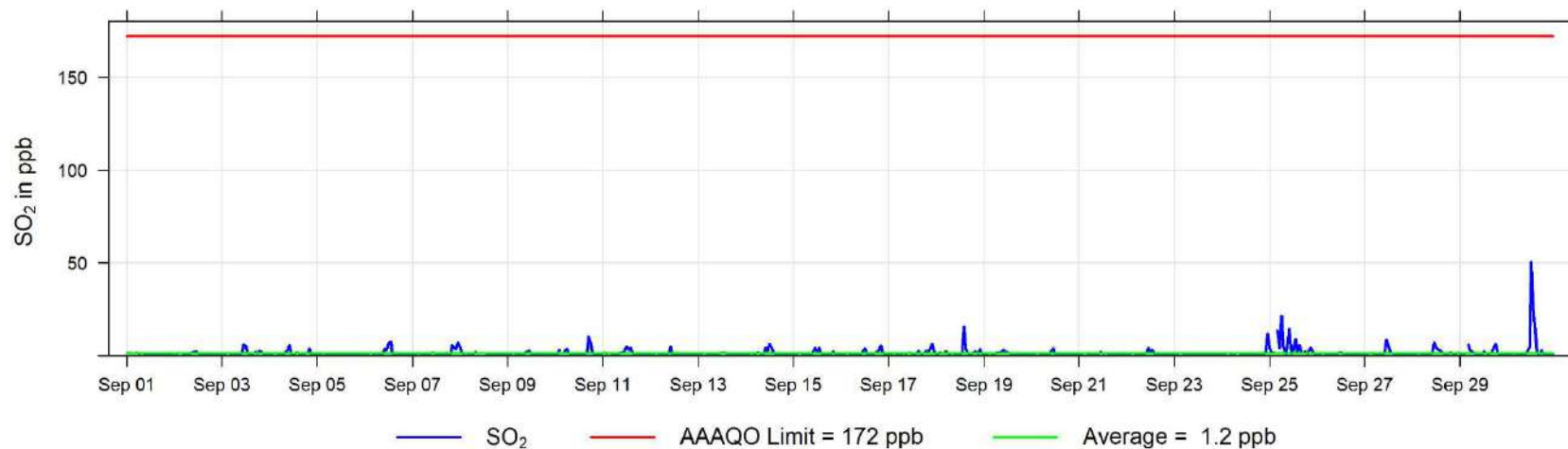


Donnelly September 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

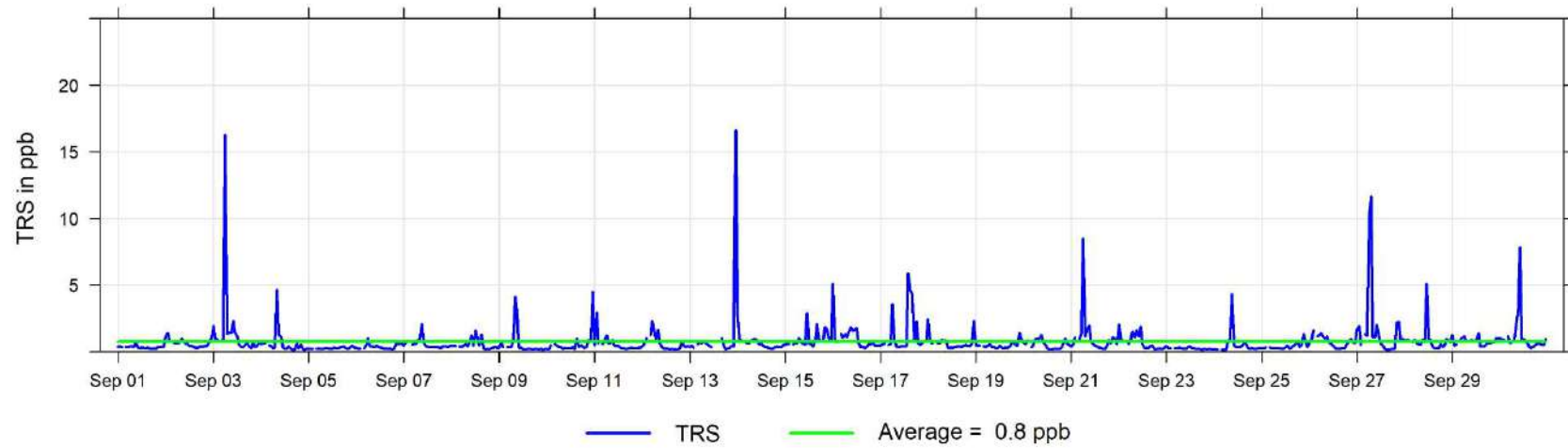
8 Poplar (Portable) Charts

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

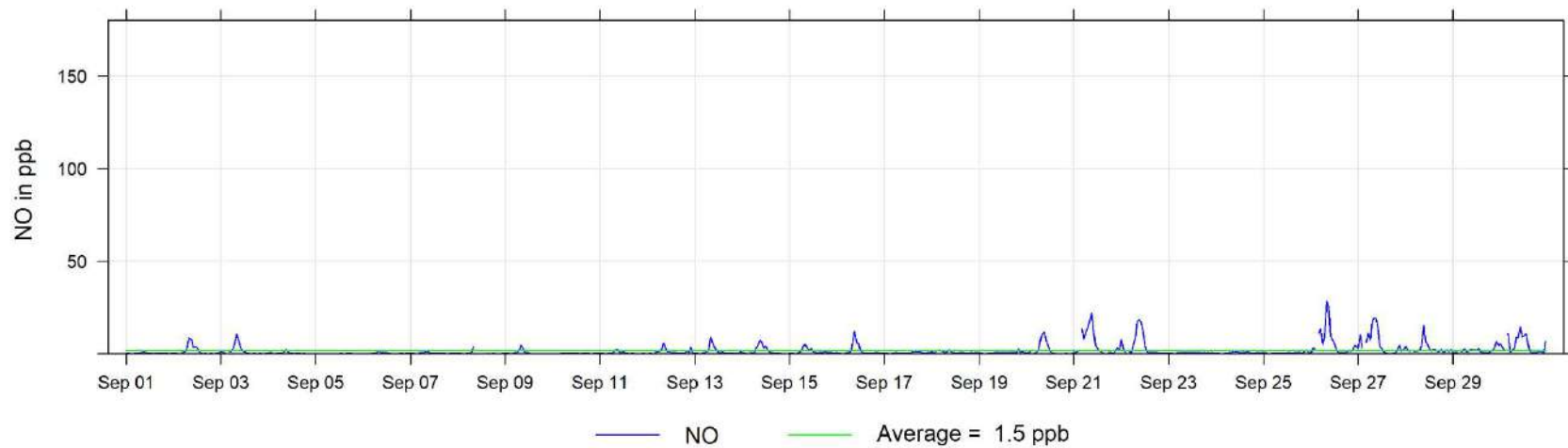
September 2022 Hourly Concentration Readings of SO₂ (in ppb) at Poplar



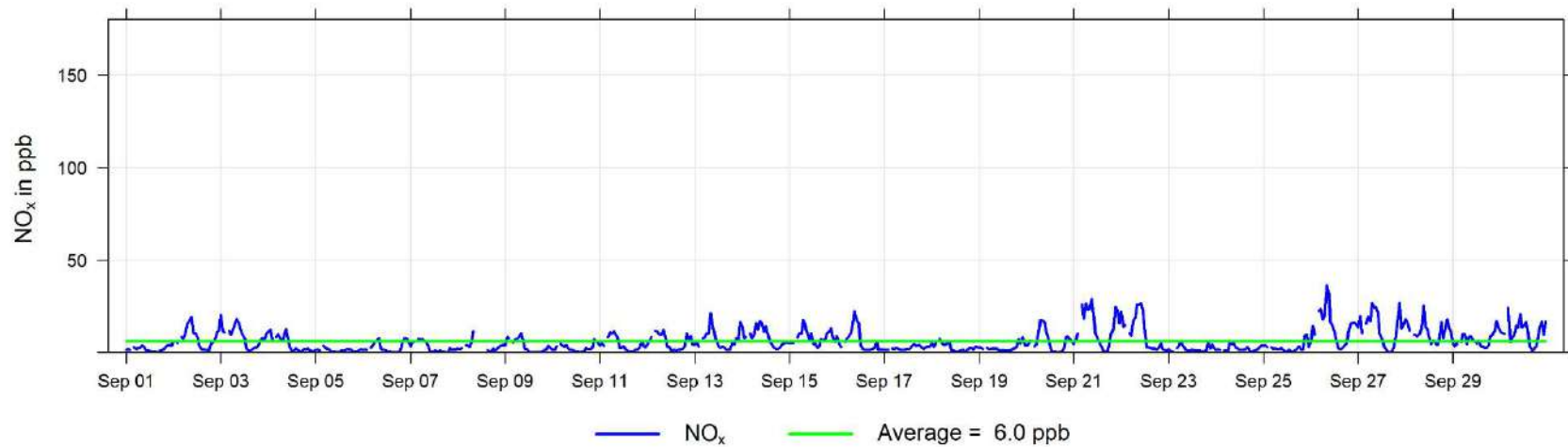
September 2022 Hourly Concentration Readings of TRS (in ppb) at Poplar



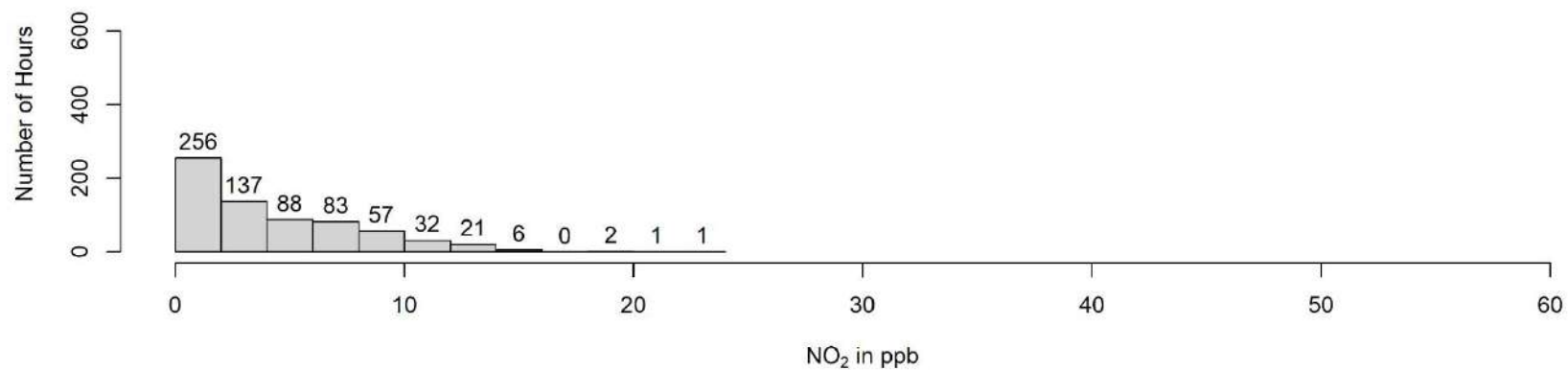
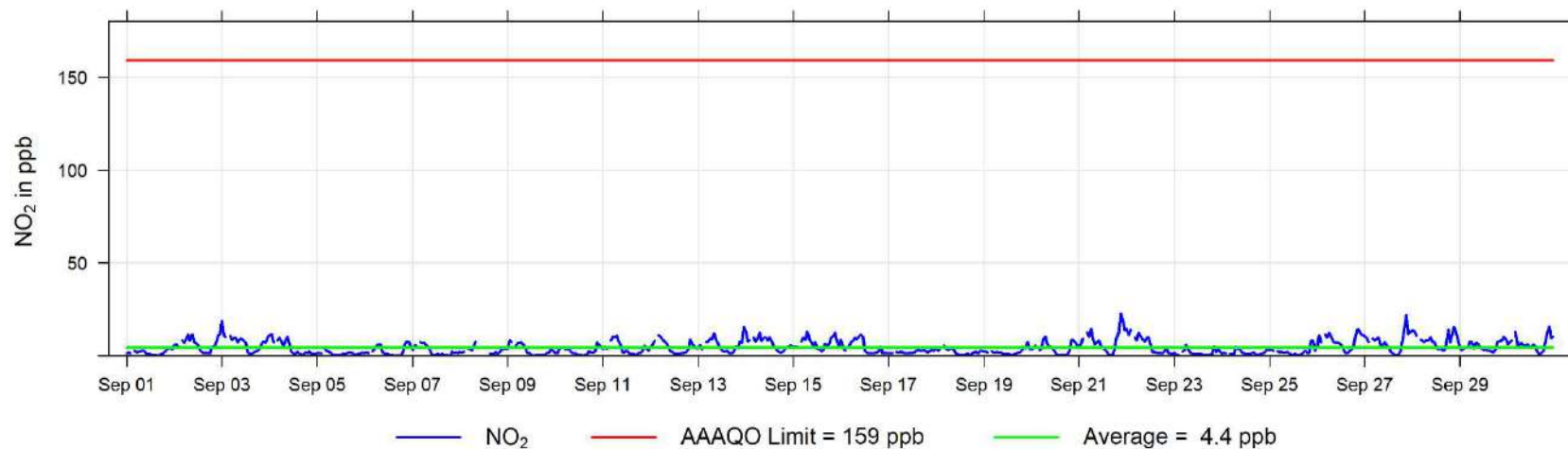
September 2022 Hourly Concentration Readings of NO (in ppb) at Poplar



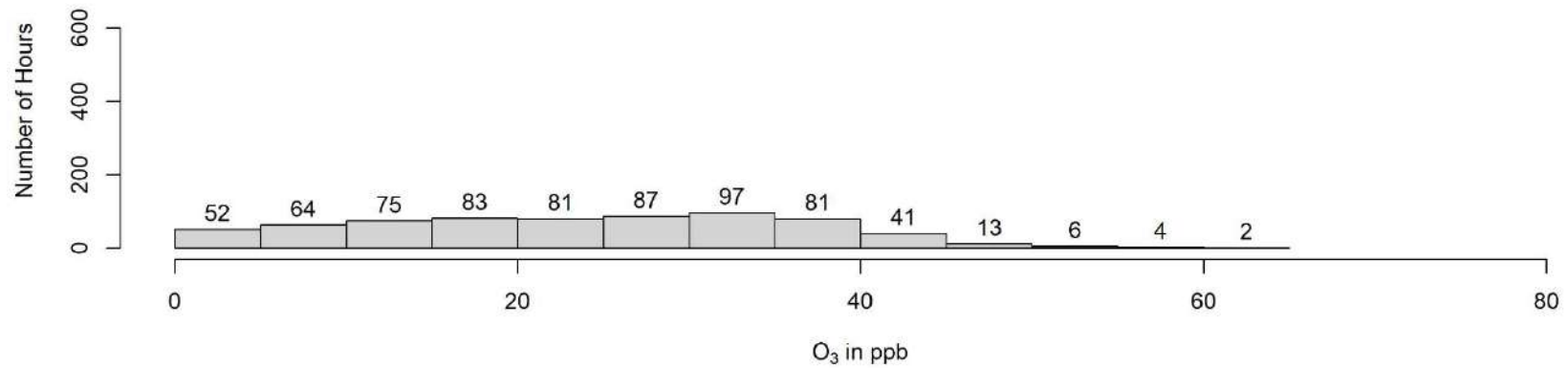
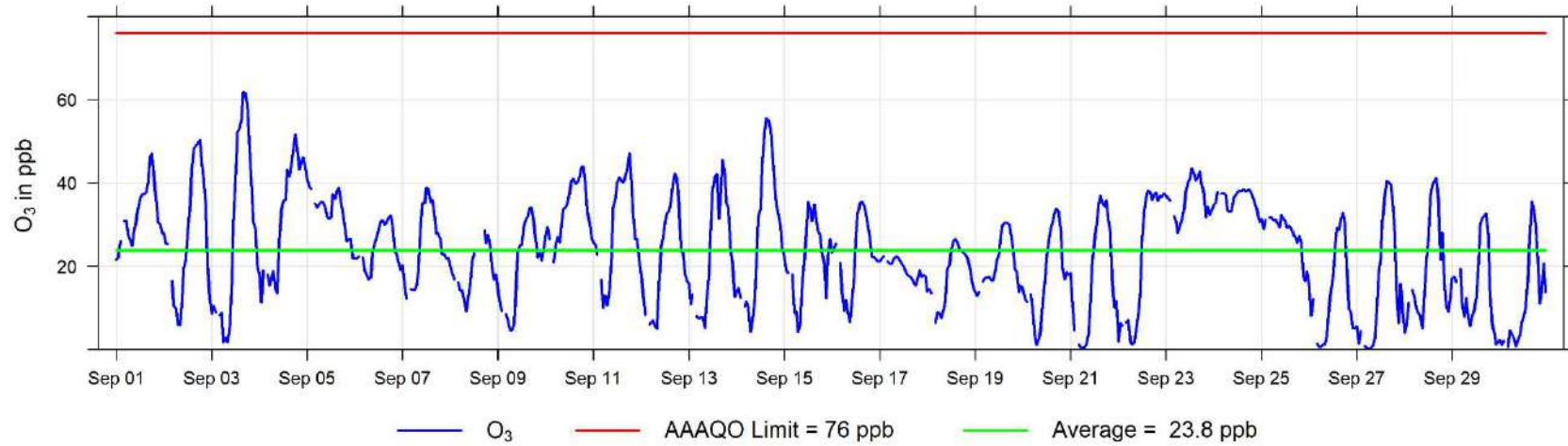
September 2022 Hourly Concentration Readings of NO_x (in ppb) at Poplar



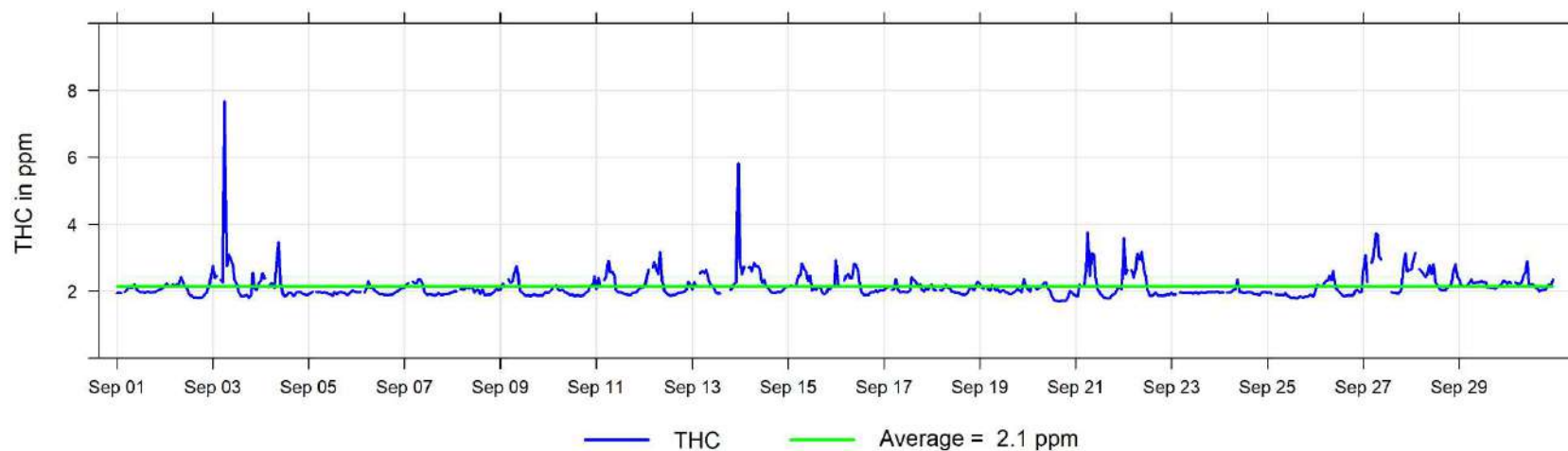
September 2022 Hourly Concentration Readings of NO₂ (in ppb) at Poplar



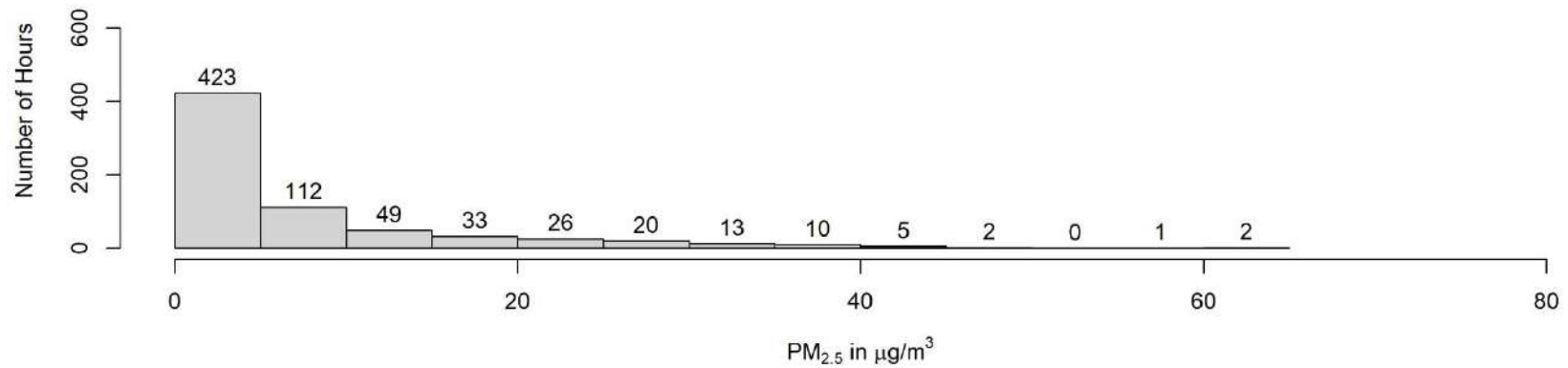
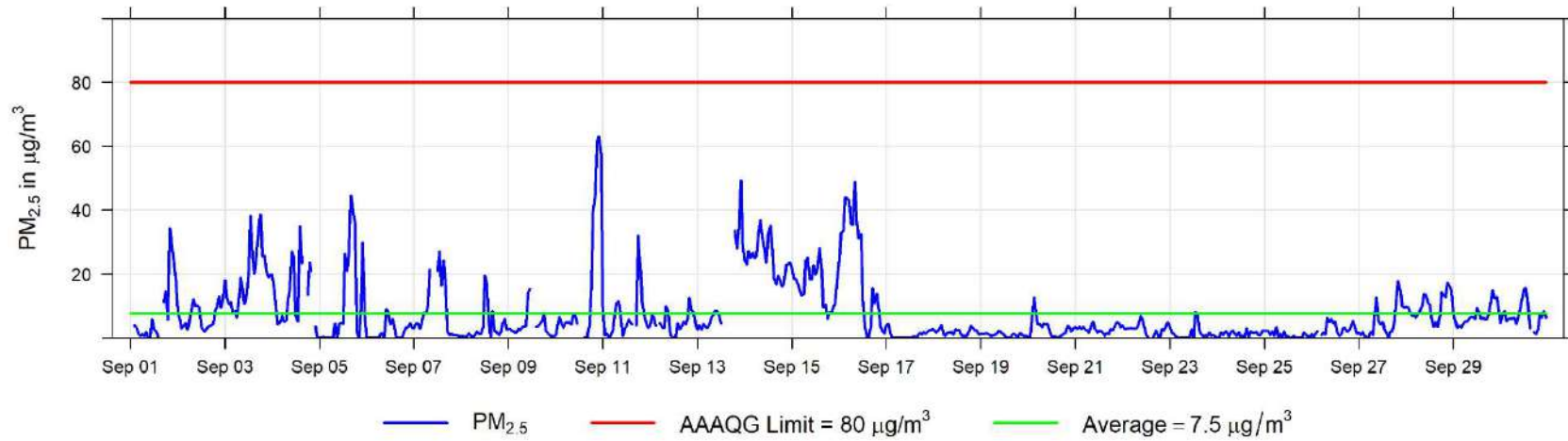
September 2022 Hourly Concentration Readings of O₃ (in ppb) at Poplar



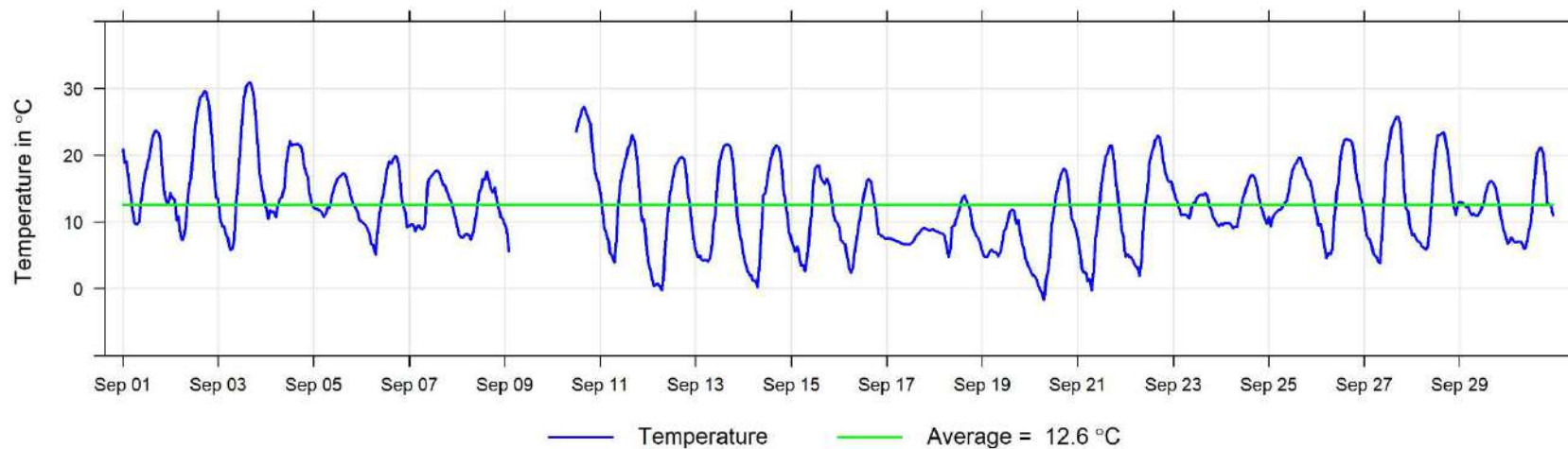
September 2022 Hourly Concentration Readings of THC (in ppm) at Poplar



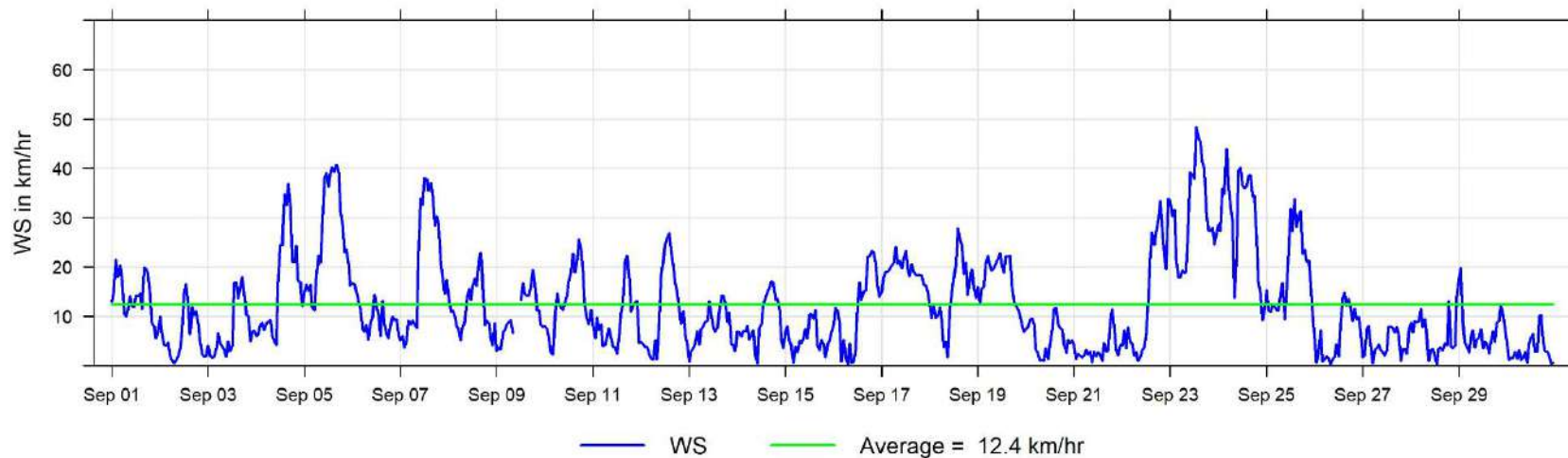
September 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Poplar



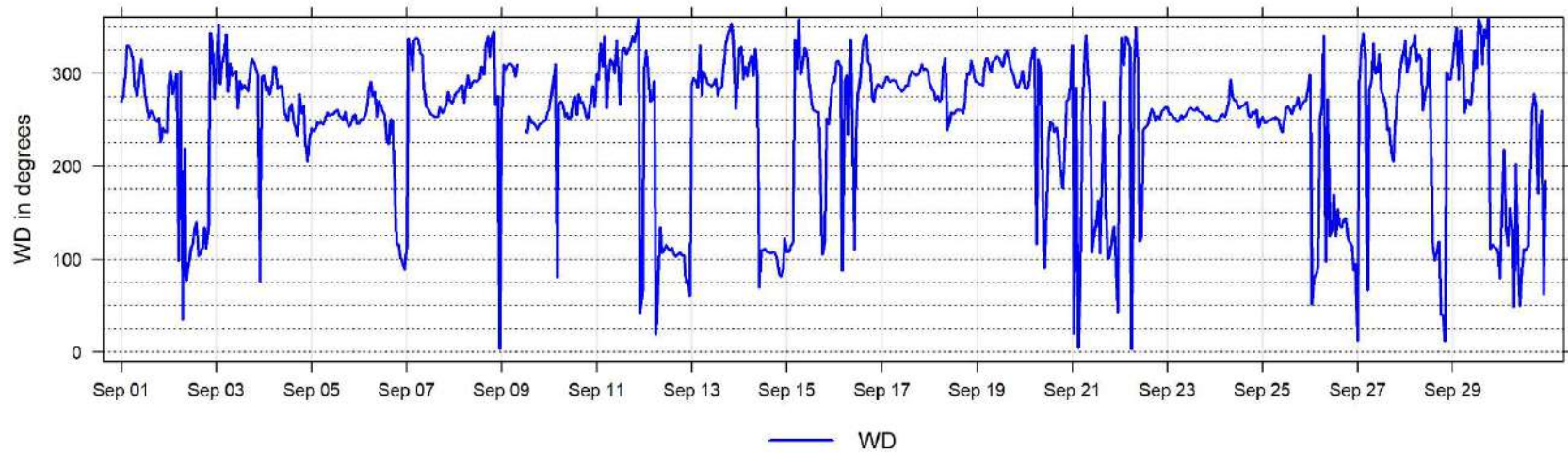
September 2022 Hourly Temperature Readings (in °C) at Poplar



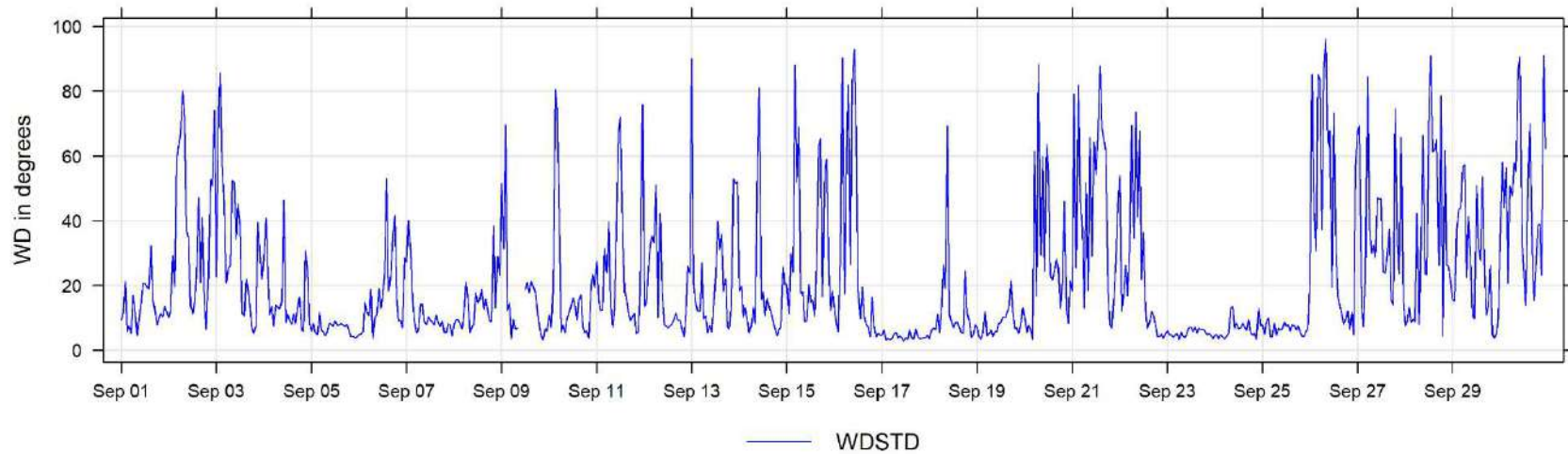
September 2022 Hourly Readings of Wind Speed (in km/hr) at Poplar

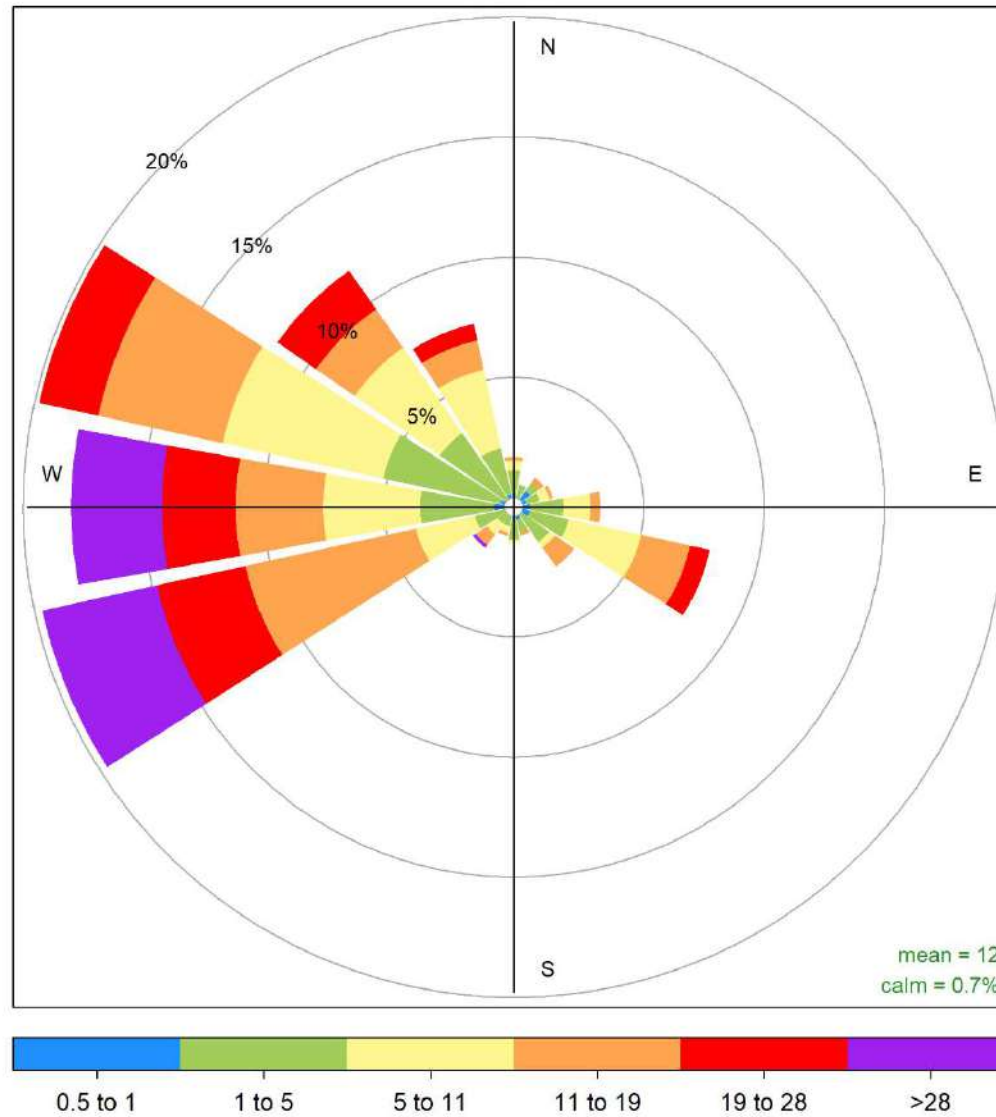


September 2022 Hourly Readings of Wind Direction (in degrees) at Poplar



September 2022 Hourly Readings of Wind Direction Standard Deviation (in degrees) at Poplar



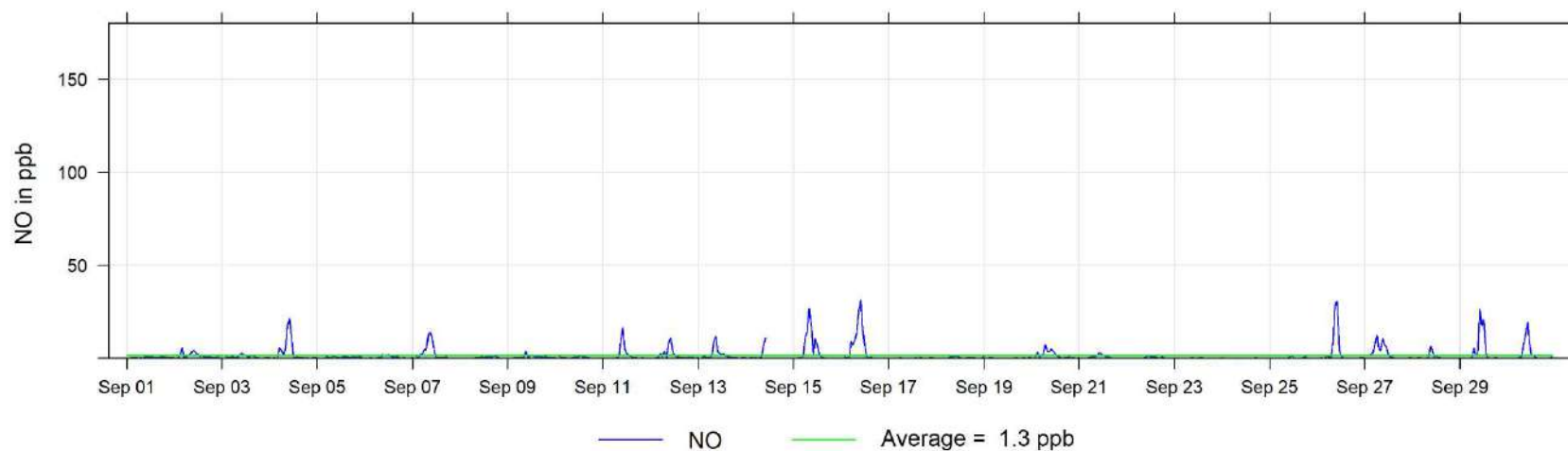


Poplar September 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

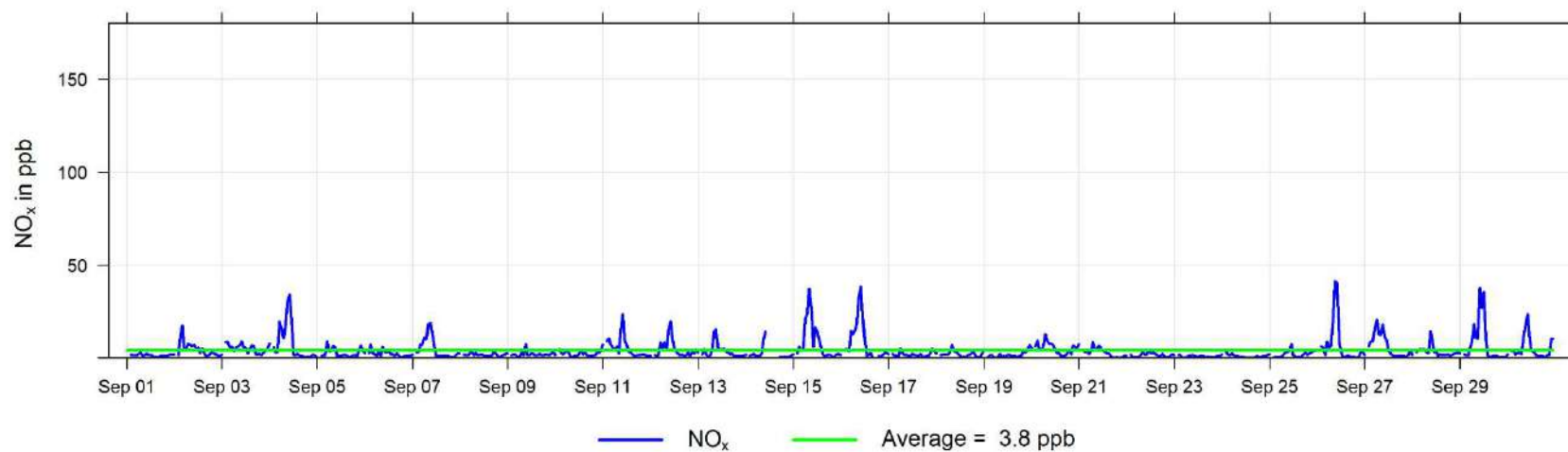
9 Milner Charts

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

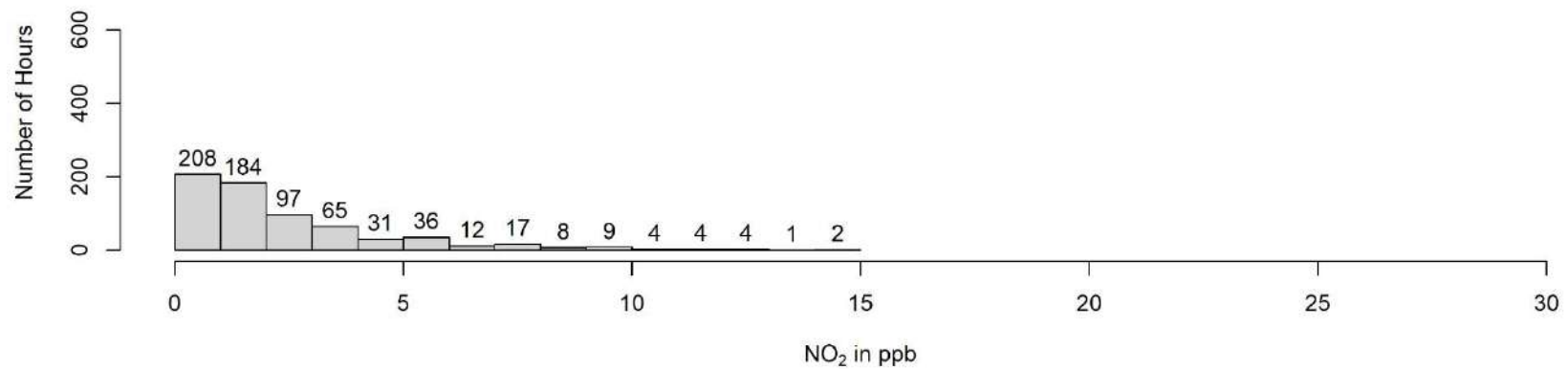
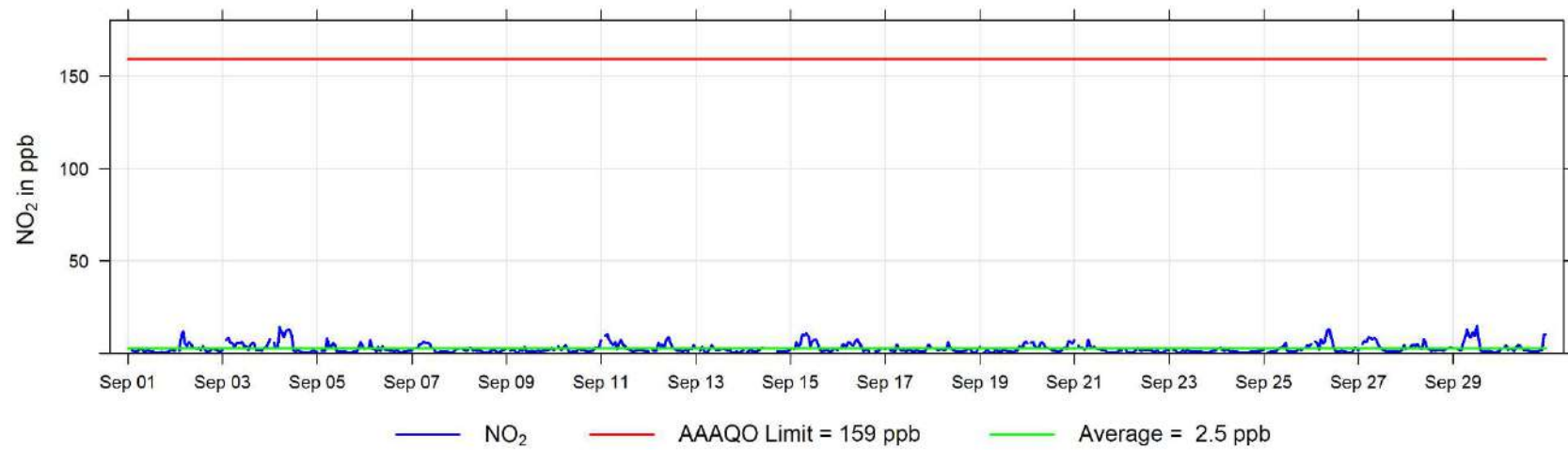
September 2022 Hourly Concentration Readings of NO (in ppb) at Milner



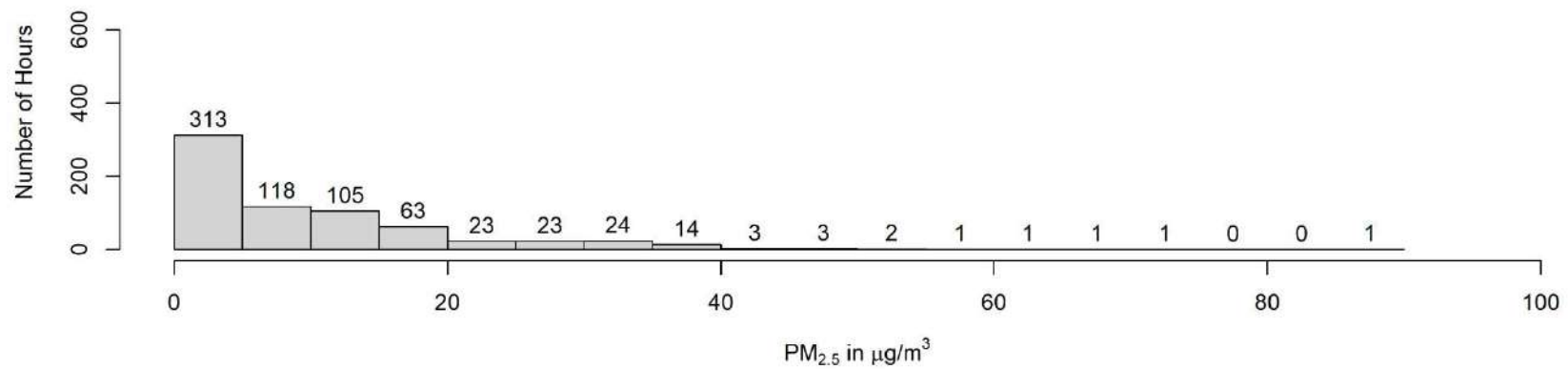
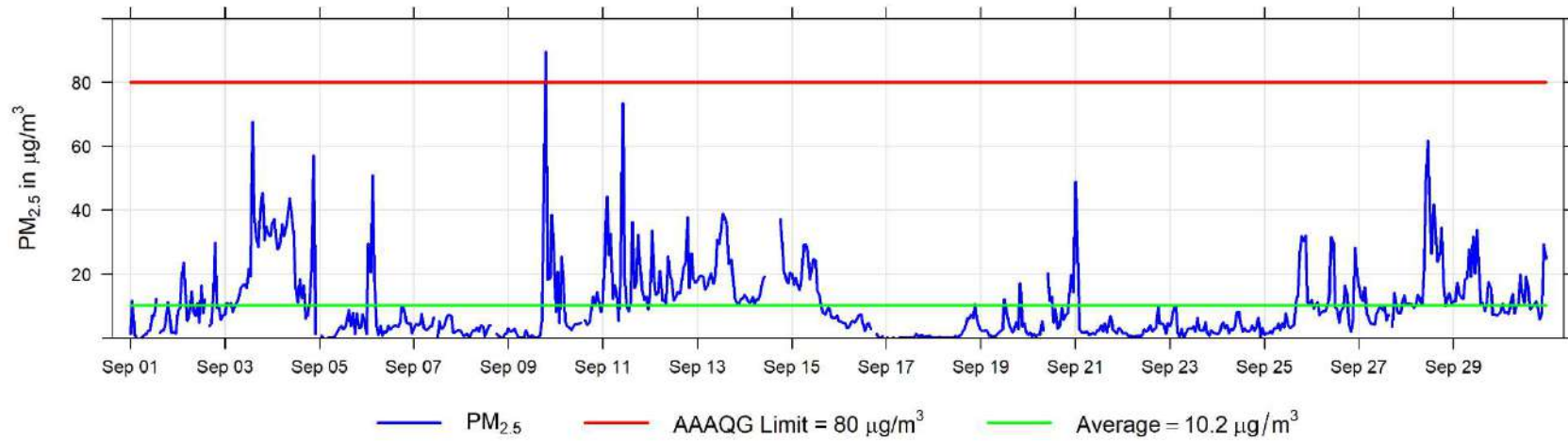
September 2022 Hourly Concentration Readings of NO_x (in ppb) at Milner



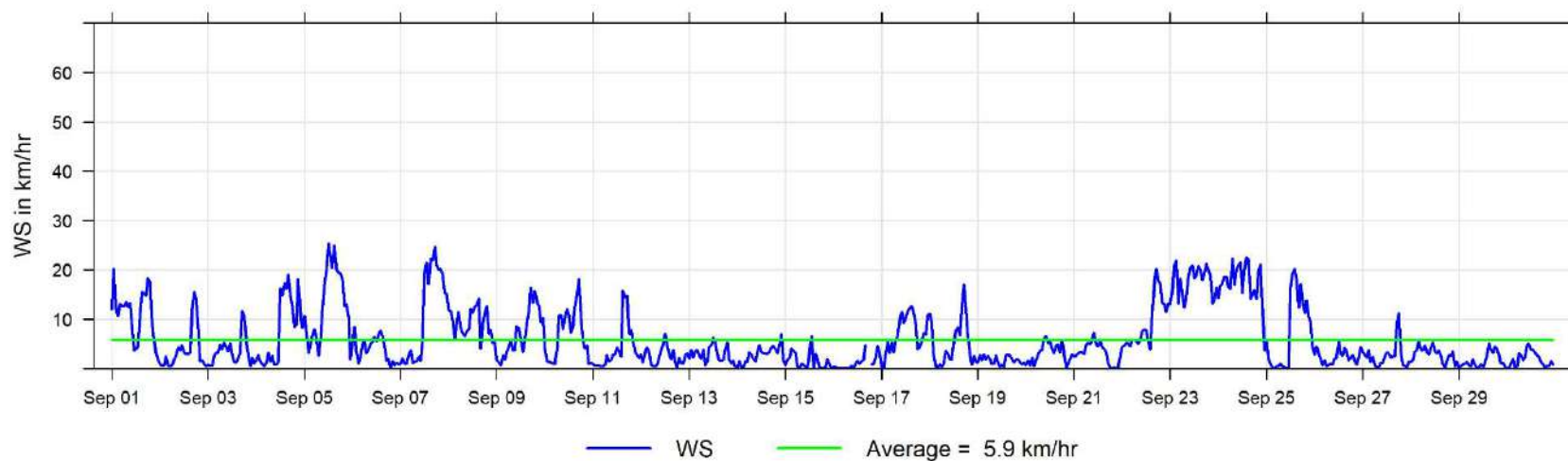
September 2022 Hourly Concentration Readings of NO₂ (in ppb) at Milner



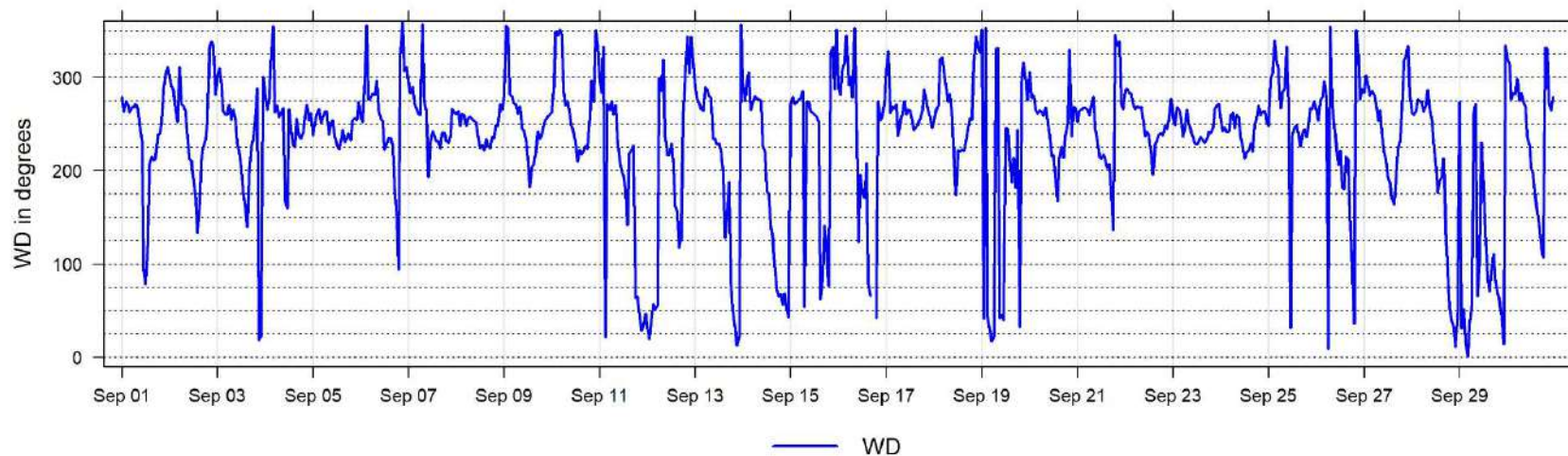
September 2022 Hourly Concentration Readings of PM_{2.5} in $\mu\text{g}/\text{m}^3$ at Milner

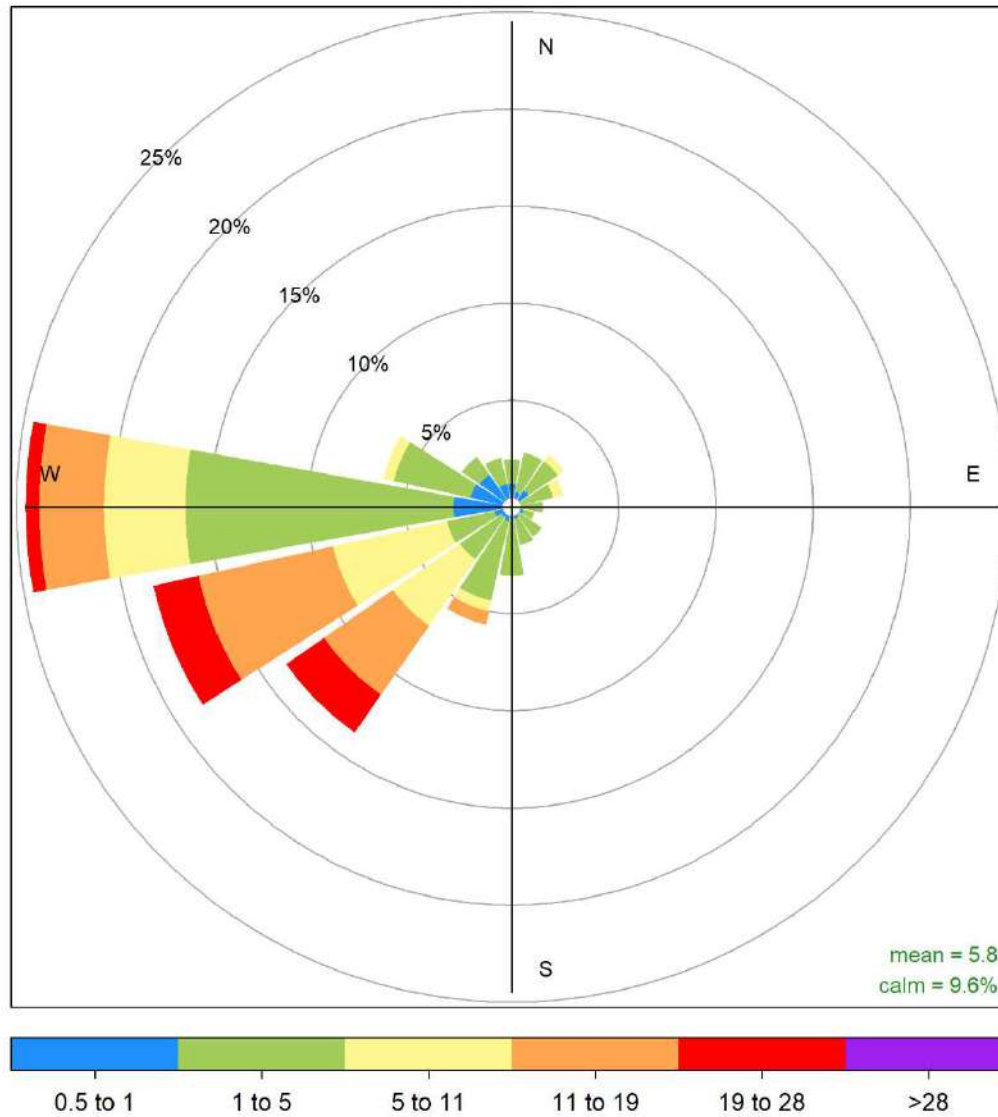


September 2022 Hourly Readings of Wind Speed (in km/hr) at Milner



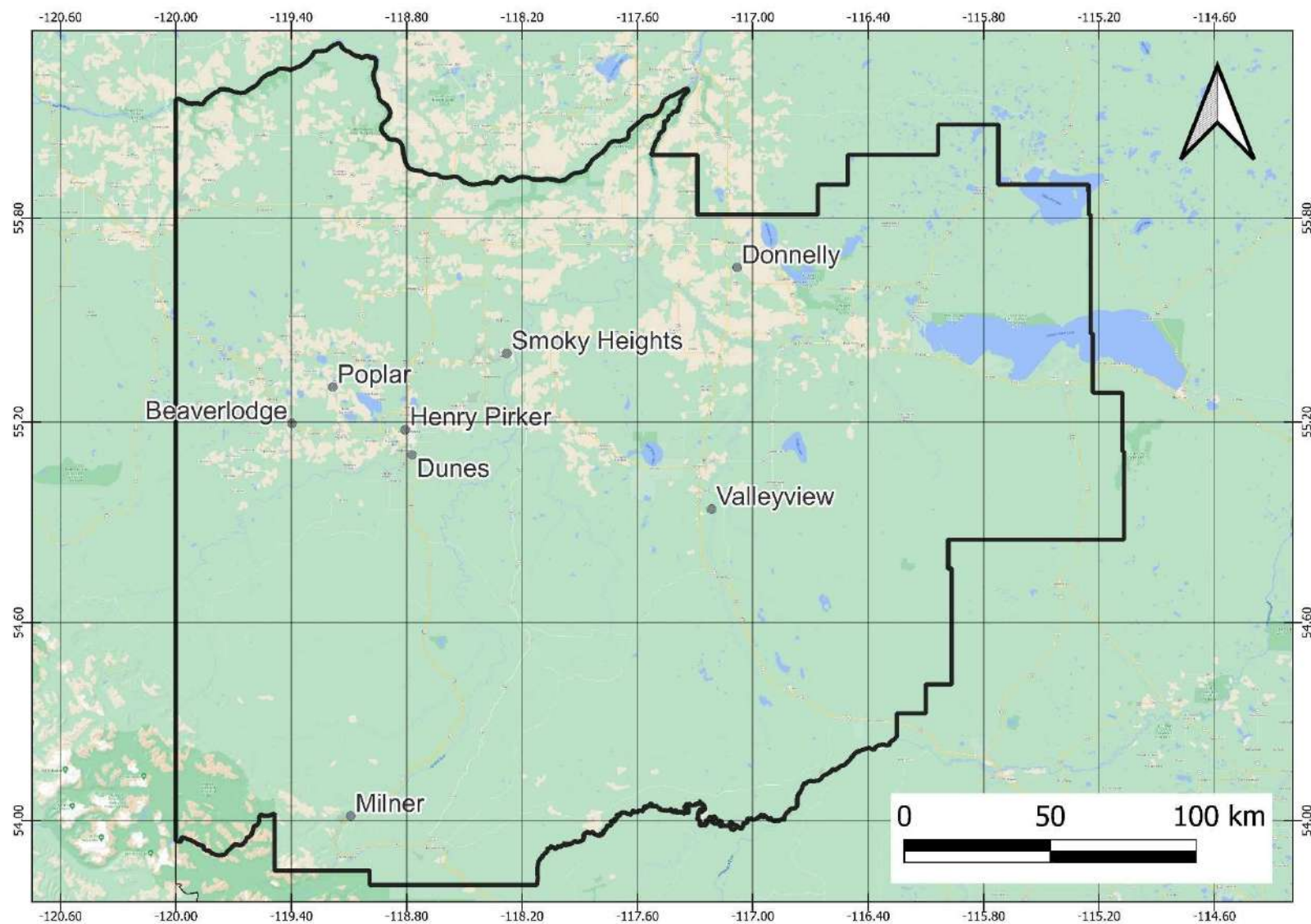
September 2022 Hourly Readings of Wind Direction (in degrees) at Milner



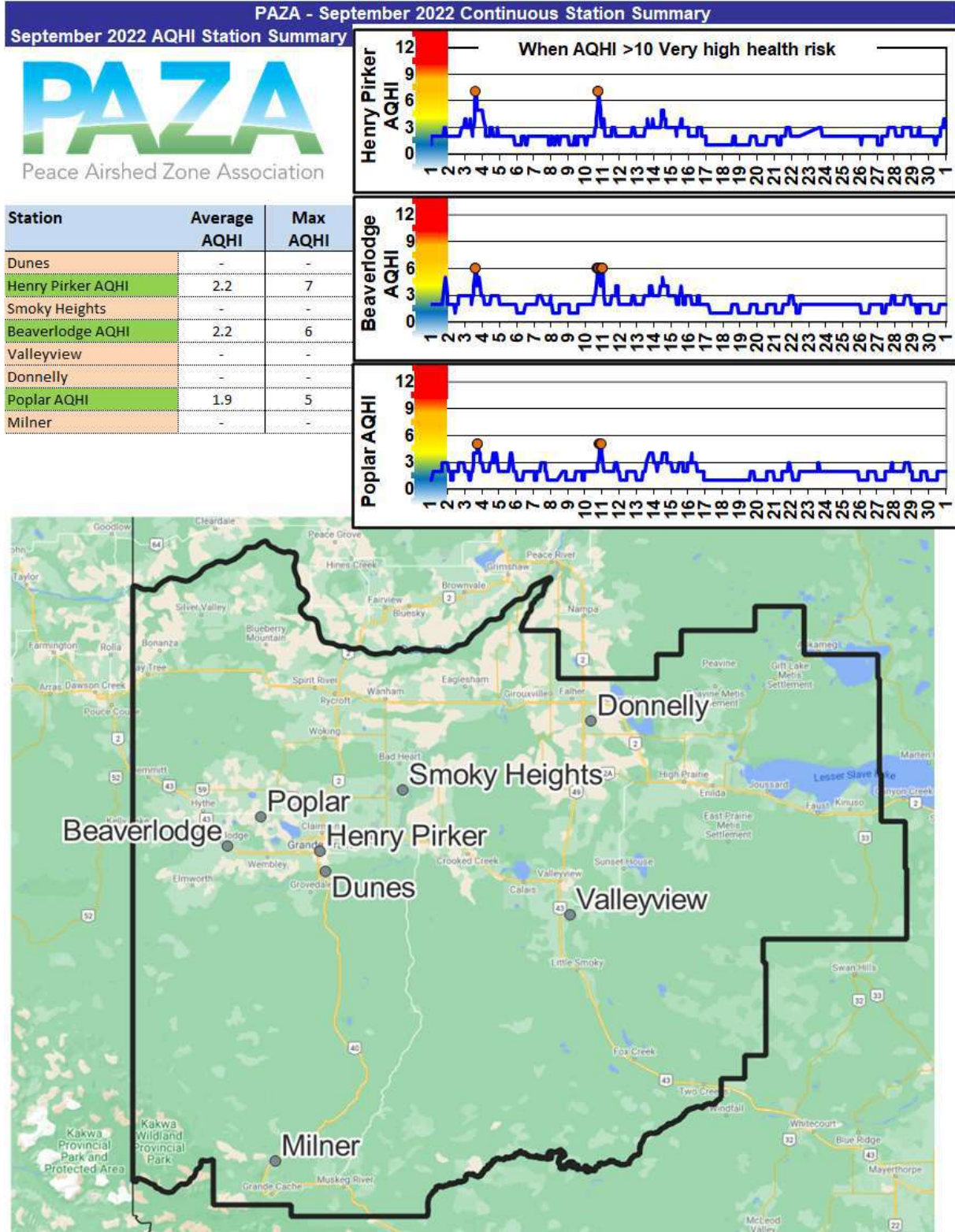


Milner September 2022 Wind Rose, wind speed in km/hr
Frequency of counts by wind direction (%)

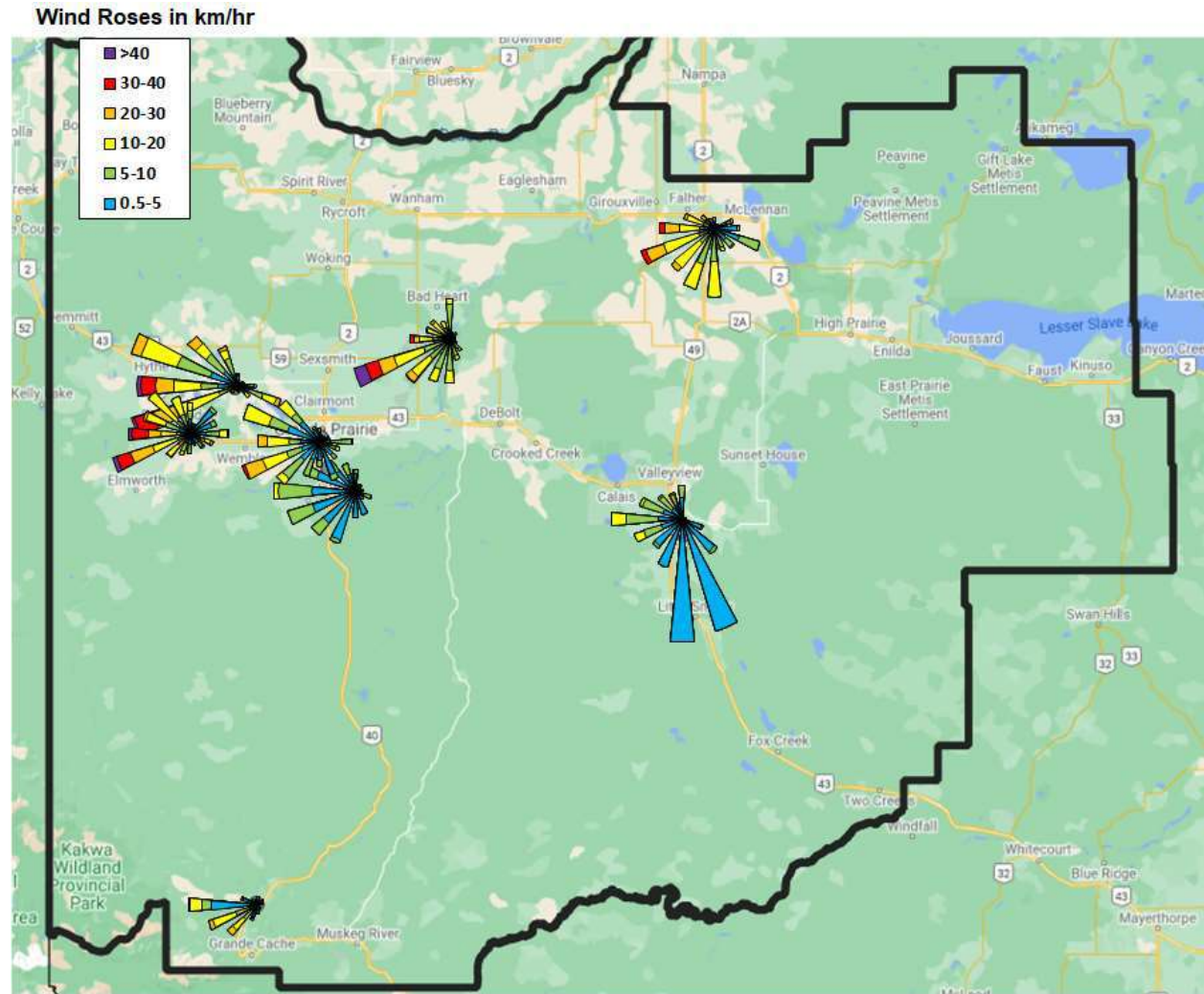
10 Concentration Summaries and Roses for PAZA



10.1 Air Quality Health Index (AQHI) Plots

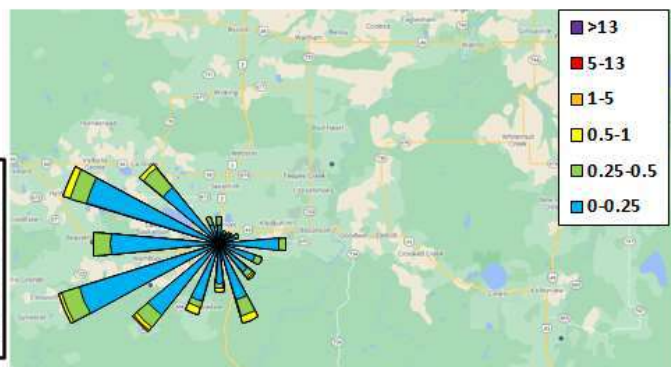
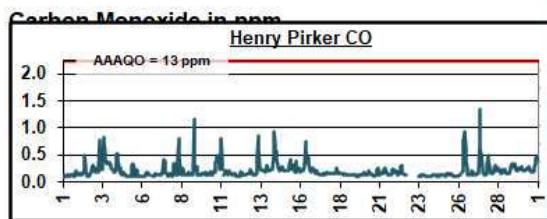


10.2 Wind Roses

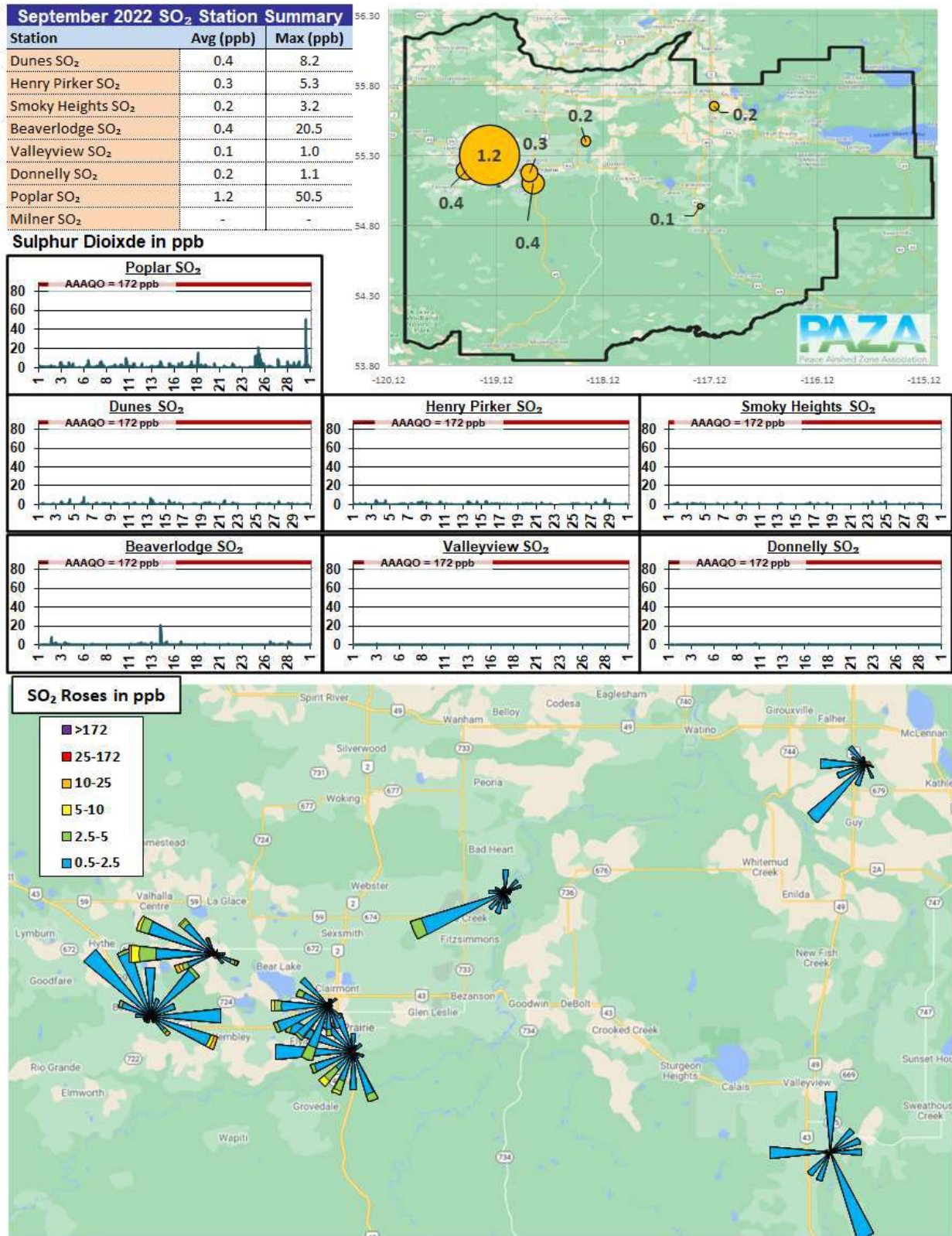


10.3 Carbon Monoxide (CO) Plots

September 2022 CO Station Summary		
Station	Avg (ppm)	Max (ppm)
Henry Pirker CO	0.20	1.35

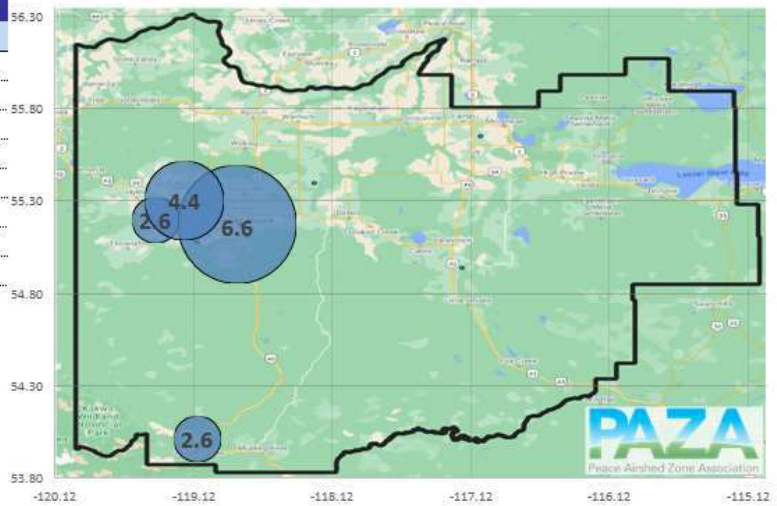


10.4 Sulphur Dioxide (SO₂) Plots

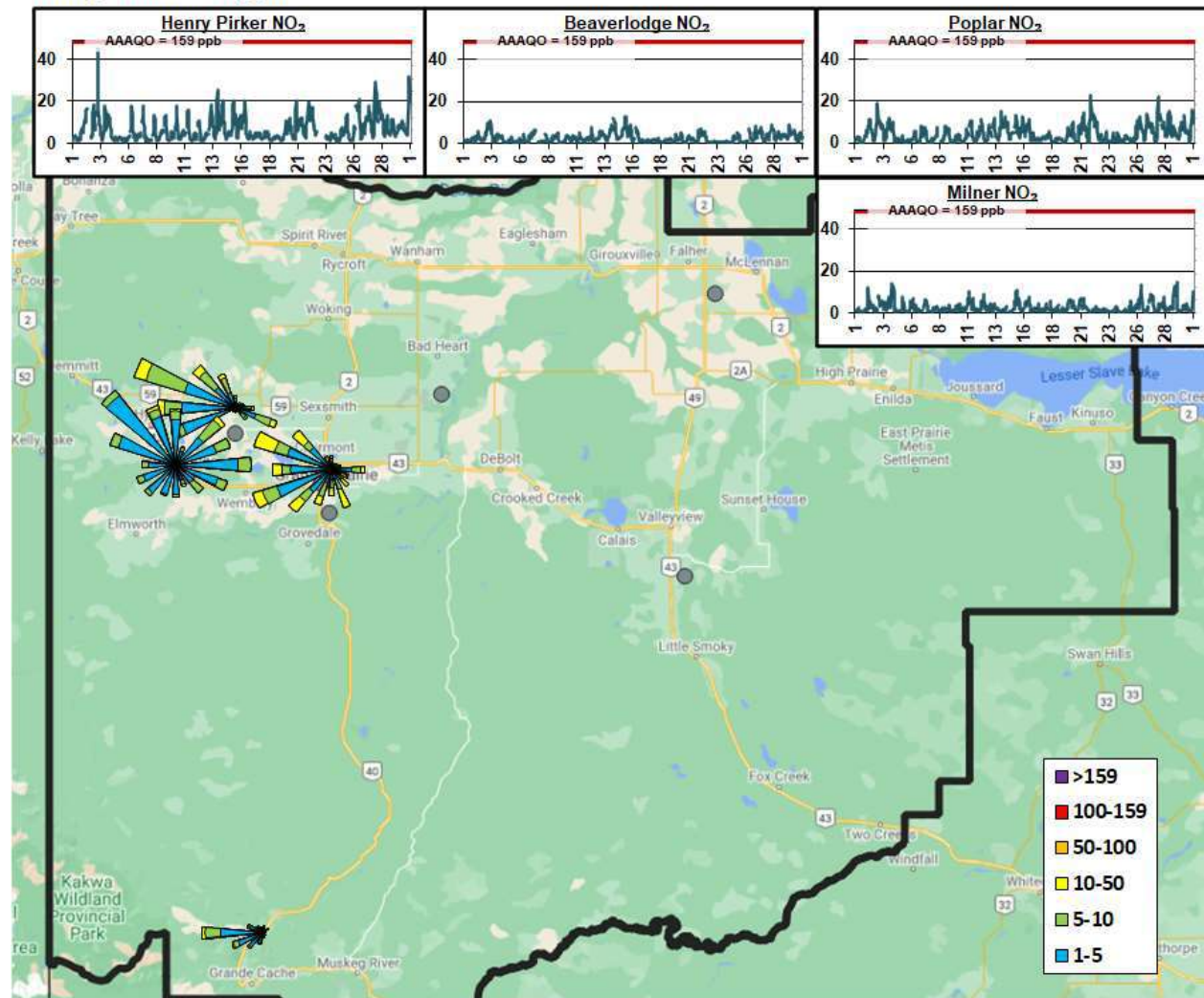


10.5 Nitrogen Dioxide (NO₂) Plots

September 2022 NO ₂ Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes NO ₂	-	-
Henry Pirkler NO ₂	6.6	45.2
Smoky Heights NO ₂	-	-
Beaverlodge NO ₂	2.6	12.8
Valleyview NO ₂	-	-
Donnelly NO ₂	-	-
Poplar NO ₂	4.4	22.8
Milner NO ₂	2.6	14.7

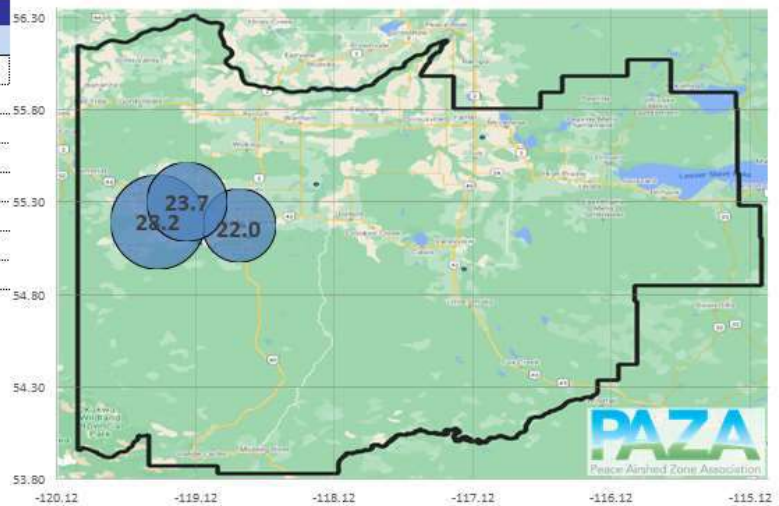


Nitrogen Dioxide in ppb

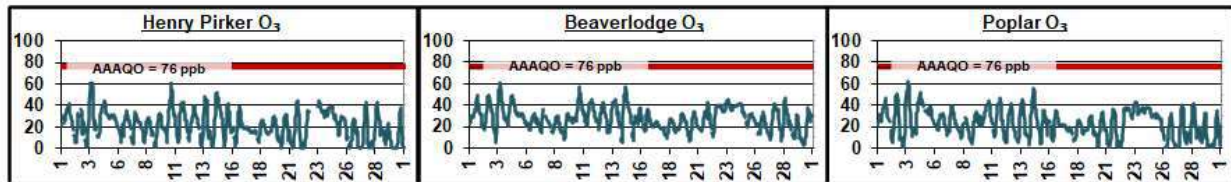


10.6 Ozone (O₃) Plots

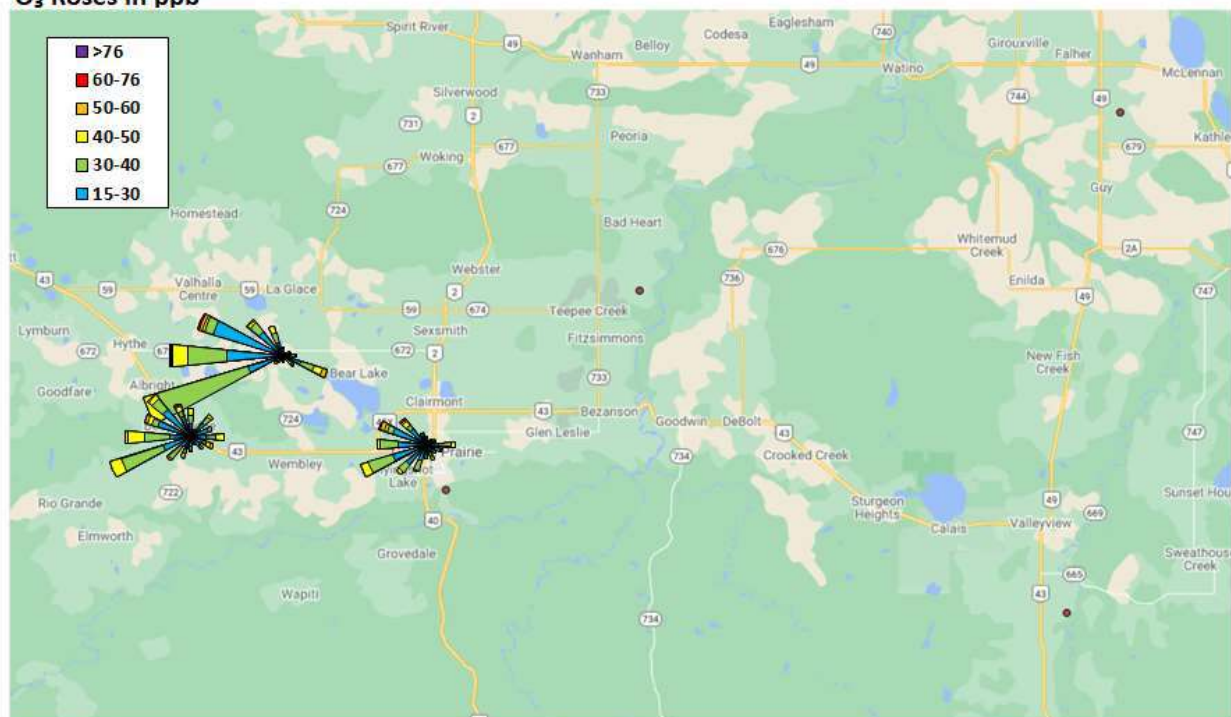
September 2022 O ₃ Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes O ₃	-	-
Henry Pirker O ₃	22.0	62.7
Smoky Heights O ₃	-	-
Beaverlodge O ₃	28.2	61.3
Valleyview O ₃	-	-
Donnelly O ₃	-	-
Poplar O ₃	23.7	61.9
Milner O ₃	-	-



Ozone in ppb



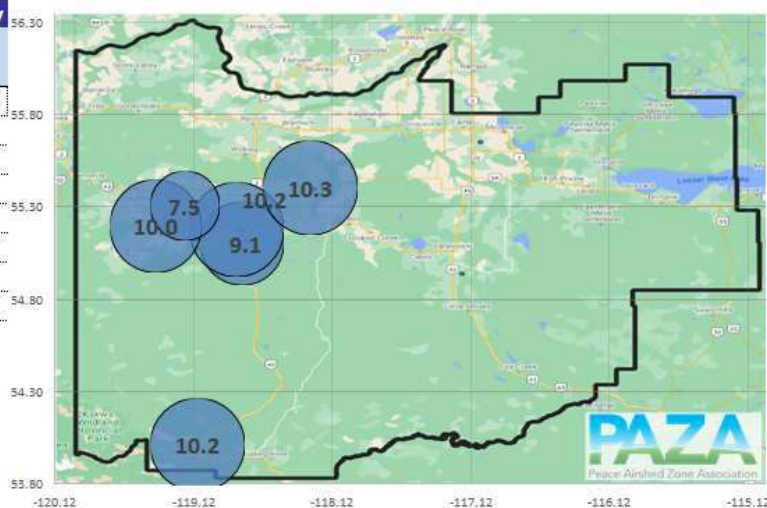
O₃ Roses in ppb



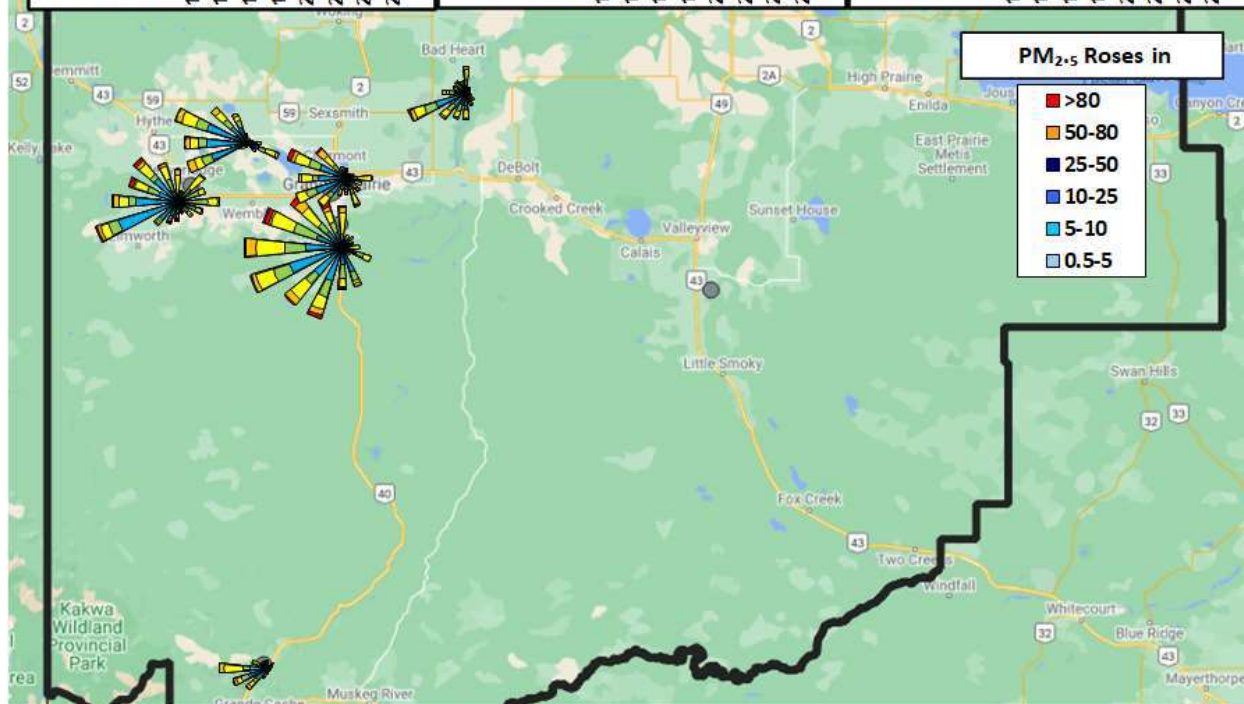
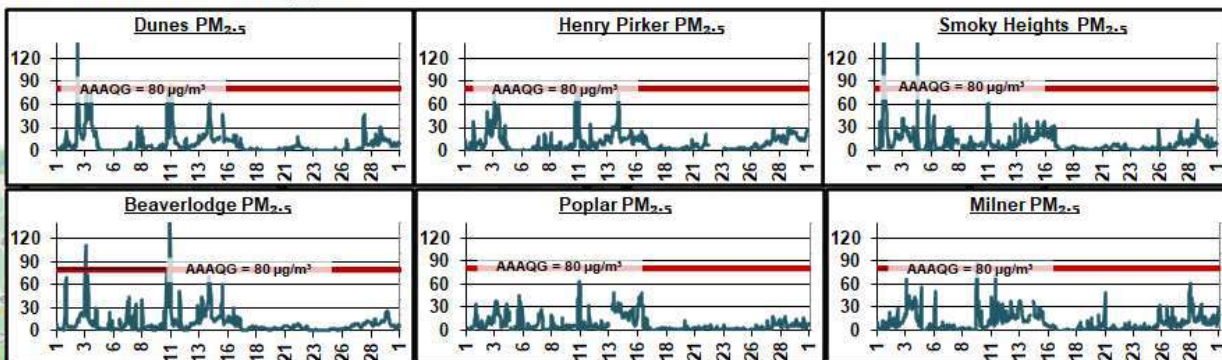
10.7 Fine Particulate Matter (PM_{2.5}) Plots

September 2022 PM_{2.5} Station Summary

Station	Avg µg/m ³	Max µg/m ³
Dunes PM _{2.5}	9.1	171.2
Henry Pirkler PM _{2.5}	10.2	81.9
Smoky Heights PM _{2.5}	10.3	210.9
Beaverlodge PM _{2.5}	10.0	150.3
Valleyview PM _{2.5}	-	-
Donnelly PM _{2.5}	-	-
Poplar PM _{2.5}	7.5	62.9
Milner PM _{2.5}	10.2	89.7

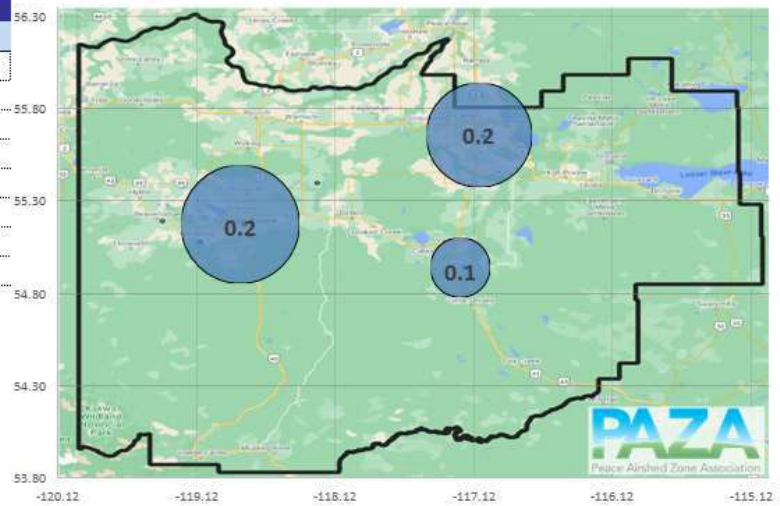


Fine Particulate Matter in µg/m³

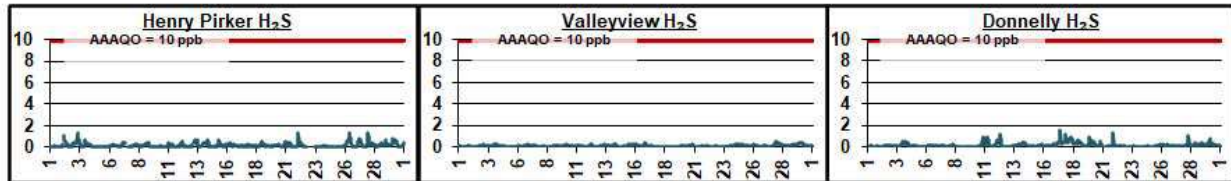


10.8 Hydrogen Sulphide (H₂S) Plots

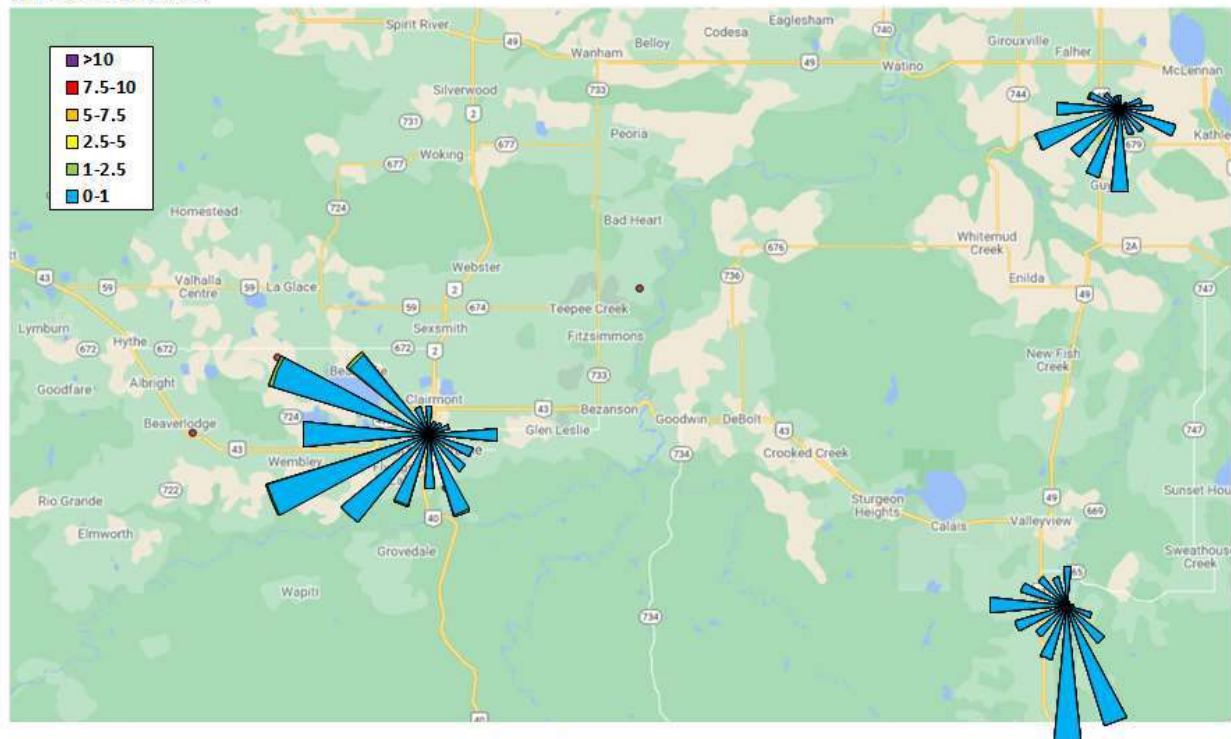
September 2022 H ₂ S Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes H ₂ S	-	-
Henry Pirker H ₂ S	0.2	1.4
Smoky Heights H ₂ S	-	-
Beaverlodge H ₂ S	-	-
Valleyview H ₂ S	0.1	0.5
Donnelly H ₂ S	0.2	1.5
Poplar H ₂ S	-	-
Milner H ₂ S	-	-



Hydrogen Sulphide in ppb

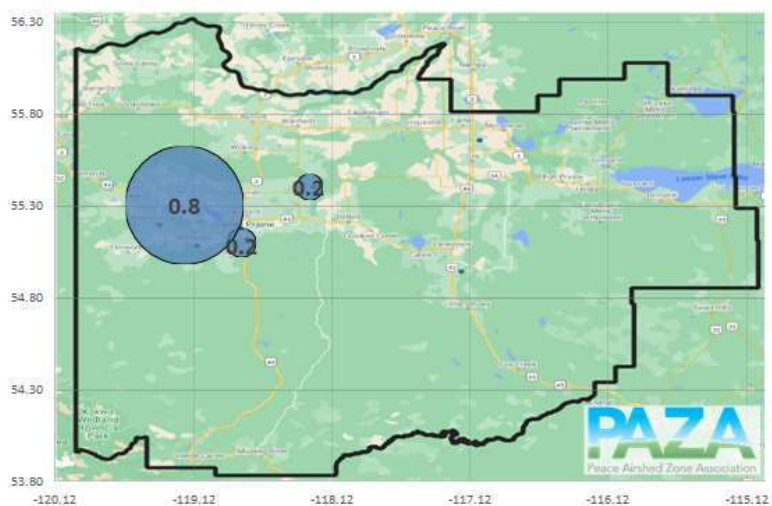


H₂S Roses in ppb

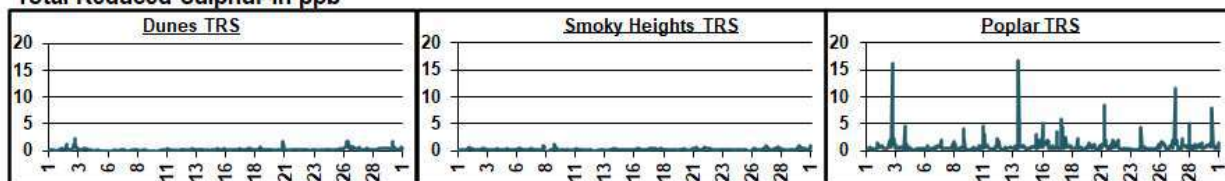


10.9 Total Reduced Sulphur (TRS) Plots

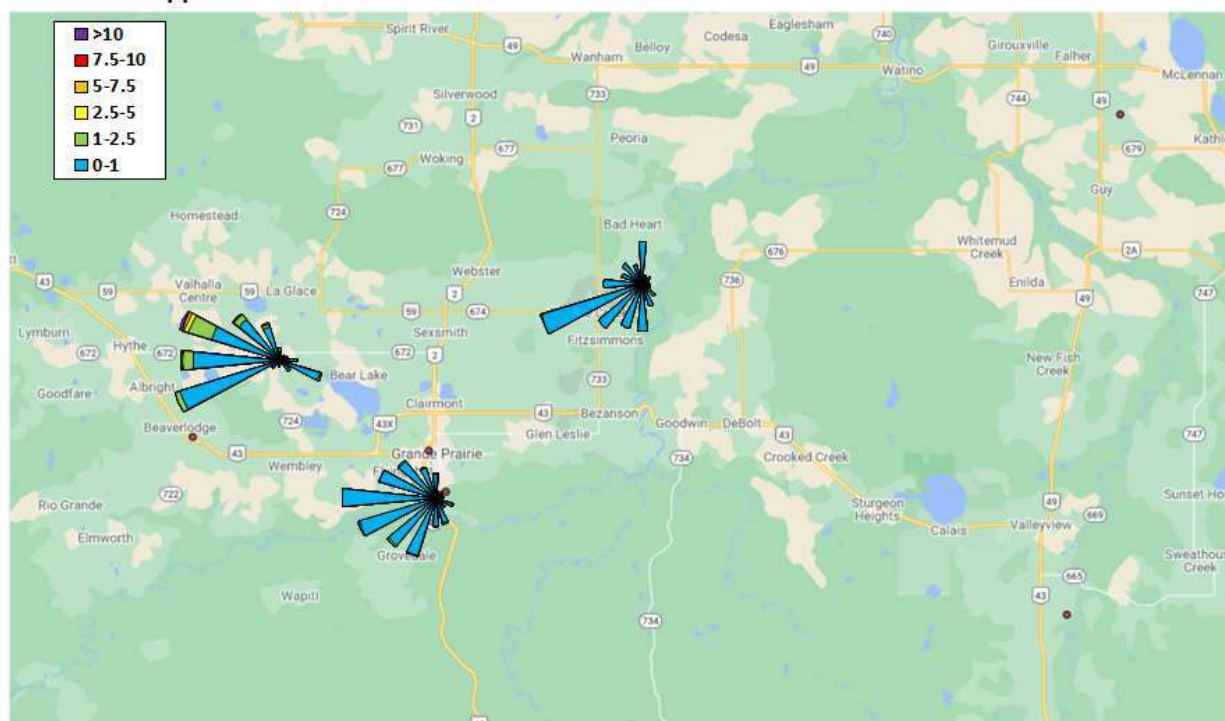
September 2022 TRS Station Summary		
Station	Avg (ppb)	Max (ppb)
Dunes TRS	0.2	2.1
Henry Pirker TRS	-	-
Smoky Heights TRS	0.2	1.1
Beaverlodge TRS	-	-
Valleyview TRS	-	-
Donnelly TRS	-	-
Poplar TRS	0.8	16.6
Milner TRS	-	-



Total Reduced Sulphur in ppb

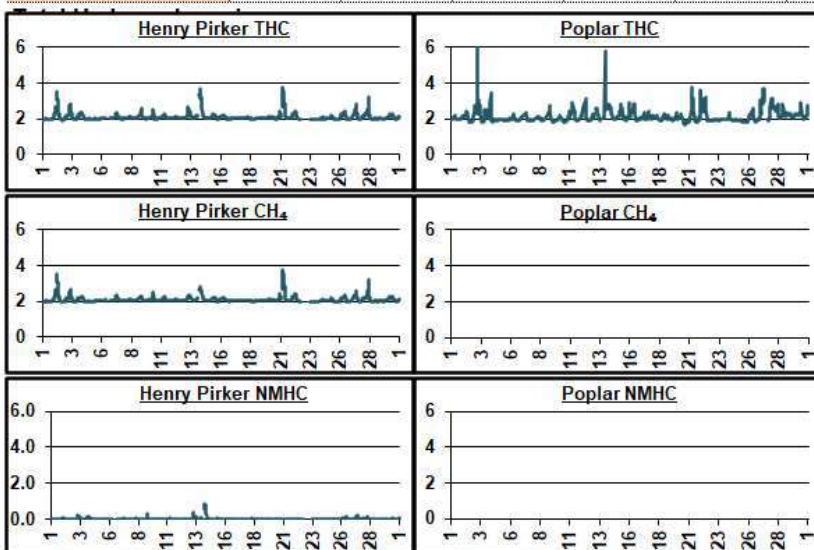


TRS Roses in ppb



10.10 Total Hydrocarbon (THC) Plots

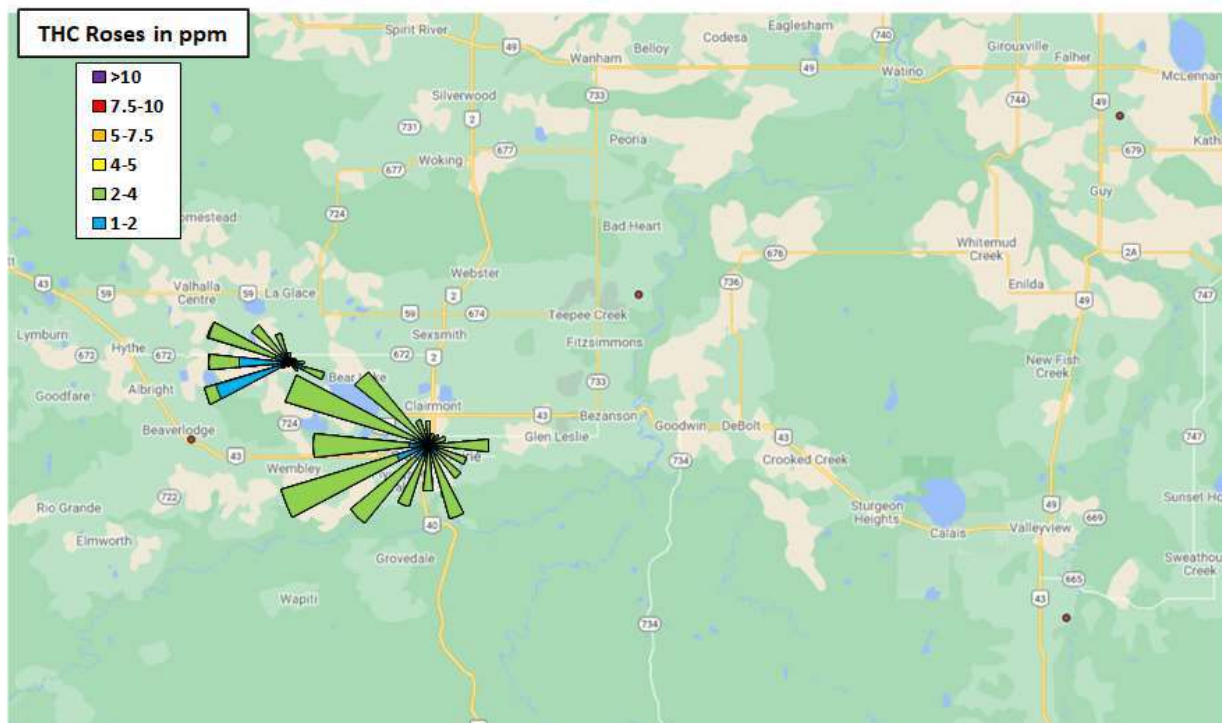
September 2022 THC Station Summary						
Station	Total Hydrocarbons		Methane		Non-Methane HCs	
	Avg (ppm)	Max (ppm)	Avg (ppm)	Max (ppm)	Avg (ppm)	Max (ppm)
Dunes THC	-	-	-	-	-	-
Henry Pirker THC	2.1	3.8	2.1	3.8	0.0	0.9
Smoky Heights THC	-	-	-	-	-	-
Beaverlodge THC	-	-	-	-	-	-
Valleyview THC	-	-	-	-	-	-
Donnelly THC	-	-	-	-	-	-
Poplar THC	2.1	7.7	-	-	-	-



Total Hydrocarbons (THC)

Methane (CH₄)

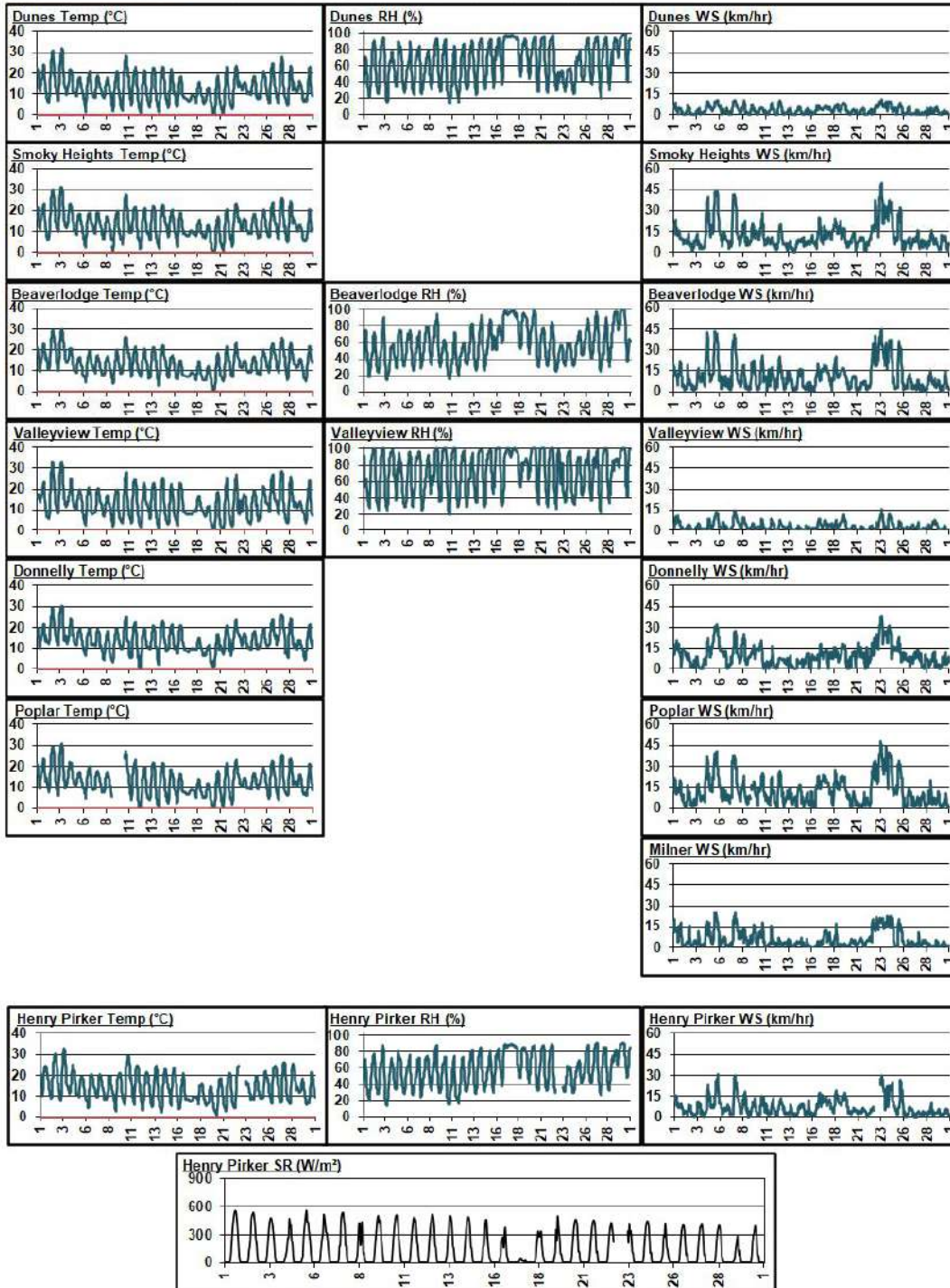
Non-Methane Hydrocarbons (NMHC)



10.11 Meteorology Summary

September 2022 Meteorological Summary						
Station	Temp (°C)	RH (%)	SR (W/m ²)	WS (km/hr)	WD (deg)	WD
Dunes	12.8	63.5	-	3.5	250	W
Henry Pirker	14.2	57.6	125.5	7.1	258	WSW
Smoky Heights	13.2	-	-	12.2	248	WSW
Beaverlodge	13.5	58.8	-	11.1	270	W
Valleyview	13.0	71.9	-	3.3	252	WSW
Donnelly	13.8	-	-	10.2	234	SW
Poplar	12.6	-	-	12.4	272	W
Milner	-	-	-	5.9	245	WSW

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 September 2022

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	LSD
Duplicates						
2a	Bay Tree		23.4			13-16-078-13 W6M
2b	Bay Tree		23.0			
5a	Boone Creek			0.7		01-23-076-11 W6M
5b	Boone Creek			0.6		
11a	Webber Creek	0.2				09-36-074-09 W6M
11b	Webber Creek	0.2				
17a	Poplar			1.9		13-06-073-08 W6M
17b	Poplar			1.8		
21a	Eaglesham			1.0		16-21-079-25 W5M
21b	Eaglesham			1.0		
25a	Pinto Creek	0.1				04-24-069-11 W6M
25b	Pinto Creek	0.1				
35a	Jean Cote	0.1				12-35-079-21 W5M
35b	Jean Cote	0.1				
36a	Guy				0.13	03-04-076-22 W5M
36b	Guy				0.09	
43a	High Prairie			0.7		16-13-074-17 W5M
43b	High Prairie			0.6		
44a	Peavine	0.1				03-05-079-15 W5M
44b	Peavine	0.1				
D3a	Duvernay 3	0.9			0.07	04-33-062-20 W5M
D3b	Duvernay 3	1.0			0.09	
J1a	Jayar1 Plant			0.7		06-08-062-03 W6M
J1b	Jayar1 Plant			0.7		
J2a	Jayar2 14-8				0.06	07-08-062-03 W6M
J2b	Jayar2 14-8				0.07	
J4a	Jayar4 7-8 or 8-8 Pad	0.4				10-08-062-03 W6M
J4b	Jayar4 7-8 or 8-8 Pad	0.4				
M9a	Pipeline	<0.1				12-14-058-08 W6M
M9b	Pipeline	<0.1				
M10a	Powerline			2.2		06-14-058-08 W6M
M10b	Powerline			2.7		

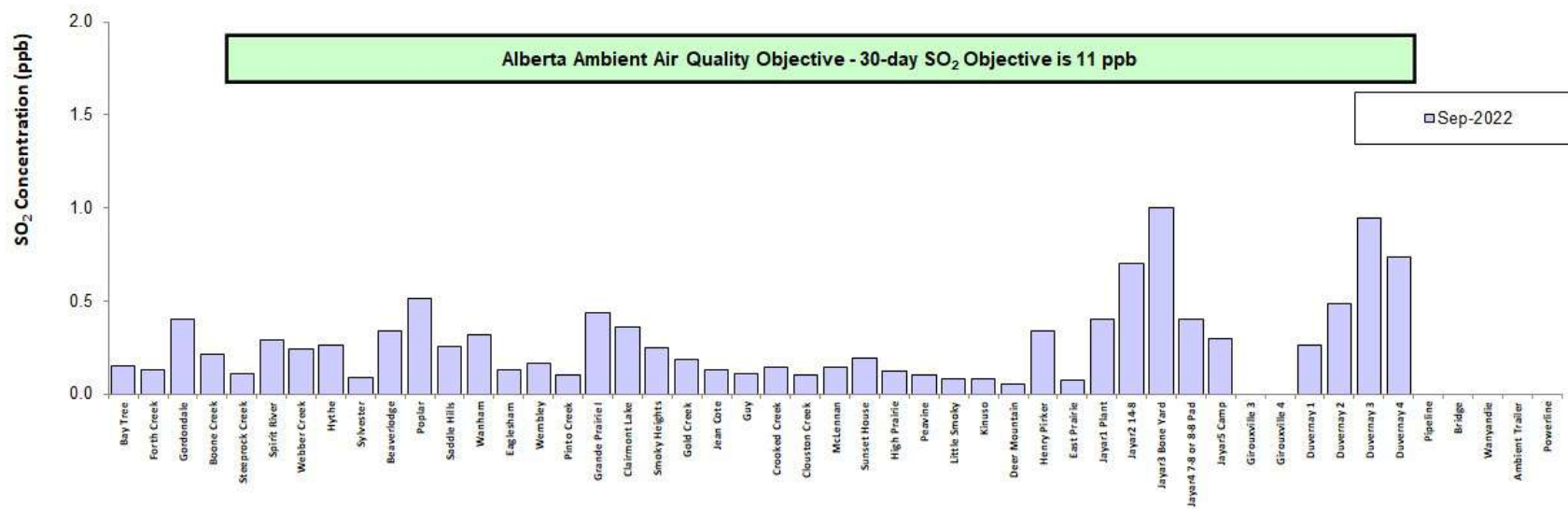
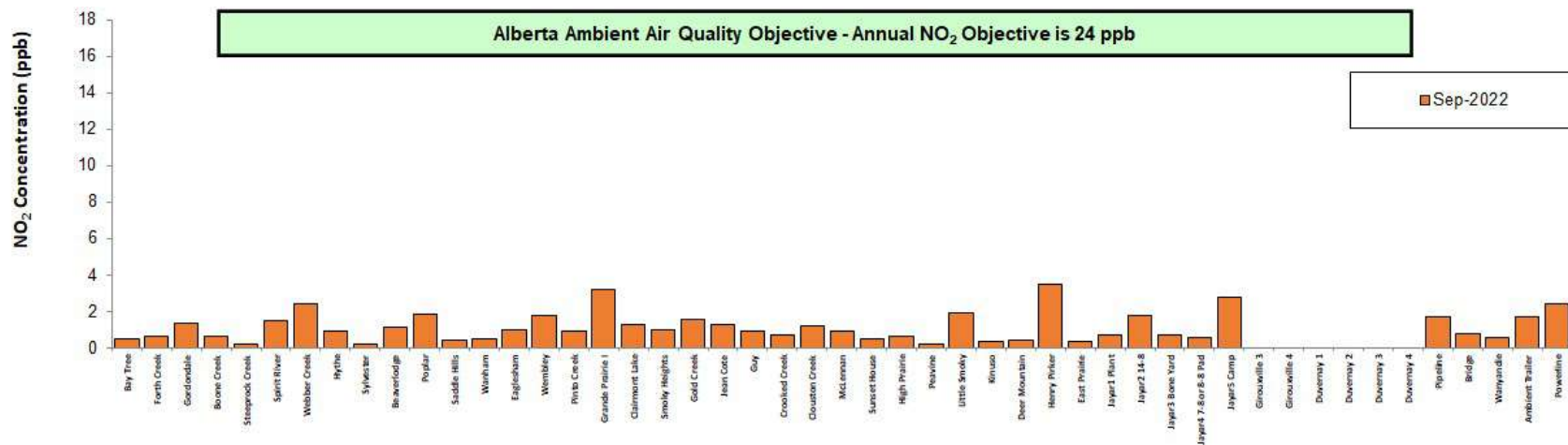
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	LSD
2	Bay Tree	0.1	23.2	0.5	-	13-16-078-13 W6M
3	Forth Creek	0.1	-	0.6	-	04-13-082-07 W6M
4	Gordondale	0.4	-	1.3	-	04-34-078-10 W6M
5	Boone Creek	0.2	-	0.7	-	01-23-076-11 W6M
7	Steepprock Creek	0.1	-	0.2	-	09-35-072-13 W6M
9	Spirit River	0.3	-	1.5	-	08-12-079-07 W6M
11	Webber Creek	0.2	-	2.4	-	09-36-074-09 W6M
12	Hythe	0.3	-	0.9	-	14-36-072-11 W6M
14	Sylvester	0.1	-	0.2	-	08-06-069-12 W6M
16	Beaverlodge	0.3	-	1.1	-	15-36-071-10 W6M
17	Poplar	0.5	-	1.8	-	13-06-073-08 W6M
18	Saddle Hills	0.3	-	0.5	-	04-25-074-07 W6M
19	Wanham	0.3	-	0.5	-	16-22-077-03 W6M
21	Eaglesham	0.1	-	1.0	-	16-21-079-25 W5M
24	Wembley	0.2	-	1.8	-	12-31-070-08 W6M
25	Pinto Creek	0.1	-	0.9	-	04-24-069-11 W6M
27	Grande Prairie I	0.4	-	3.2	-	08-15-071-06 W6M
28	Clairmont Lake	0.4	-	1.3	-	09-06-073-04 W6M
29	Smoky Heights	0.3	-	1.0	-	04-06-075-02 W6M
32	Gold Creek	0.2	-	1.5	-	06-33-067-05 W6M
35	Jean Cote	0.1	-	1.3	-	12-35-079-21 W5M
36	Guy	0.1	-	0.9	0.11	03-04-076-22 W5M
37	Crooked Creek	0.1	24.2	0.7	-	16-01-071-26 W5M
39	Clouston Creek	0.1	-	1.2	-	12-01-073-22 W5M
40	McLennan	0.1	-	0.9	-	03-29-077-19 W5M
42	Sunset House	0.2	-	0.5	-	05-32-070-19 W5M
43	High Prairie	0.1	-	0.6	-	16-13-074-17 W5M
44	Peavine	0.1	-	0.2	-	03-05-079-15 W5M
46	Little Smoky	0.1	-	1.9	-	12-01-066-21 W5M
47	Kinuso	0.1	17.4	0.3	-	12-10-073-10 W5M
48	Deer Mountain	0.1	-	0.4	-	15-22-068-09 W5M
49	Henry Pirker	0.3	-	3.5	-	17-26-071-06 W6M
50	East Prairie	0.1	-	0.3	-	11-13-079-08 W6M
57	Jayar1 Plant	0.4	-	0.7	0.05	06-08-062-03 W6M
58	Jayar2 14-8	0.7	-	1.8	0.07	07-08-062-03 W6M
59	Jayar3 Bone Yard	1.0	-	0.7	0.05	14-08-062-03 W6M
60	Jayar4 7-8 or 8-8 Pad	0.4	-	0.6	0.04	10-08-062-03 W6M
61	Jayar5 Camp	0.3	-	2.8	0.07	11-08-062-03 W6M
G3	Girouxville 3	-	-	-	0.33	14-02-077-23 W5M
G4	Girouxville 4	-	-	-	0.35	04-08-077-22 W5M
D1	Duvernay 1	0.3	-	-	0.09	04-33-062-20 W5M
D2	Duvernay 2	0.5	-	-	0.11	04-33-062-20 W5M
D3	Duvernay 3	0.9	-	-	0.08	04-33-062-20 W5M
D4	Duvernay 4	0.7	-	-	0.09	04-33-062-20 W5M
M1	Pipeline	<0.1	-	1.7	-	12-14-058-08 W6M
M2	Bridge	<0.1	-	0.8	-	08-06-057-08 W6M
M3	Wanyandie	<0.1	-	0.6	-	11-13-058-08 W6M
M4	Ambient Trailer	<0.1	-	1.7	-	09-15-058-08 W6M
M5	Powerline	<0.1	-	2.5	-	06-14-058-08 W6M

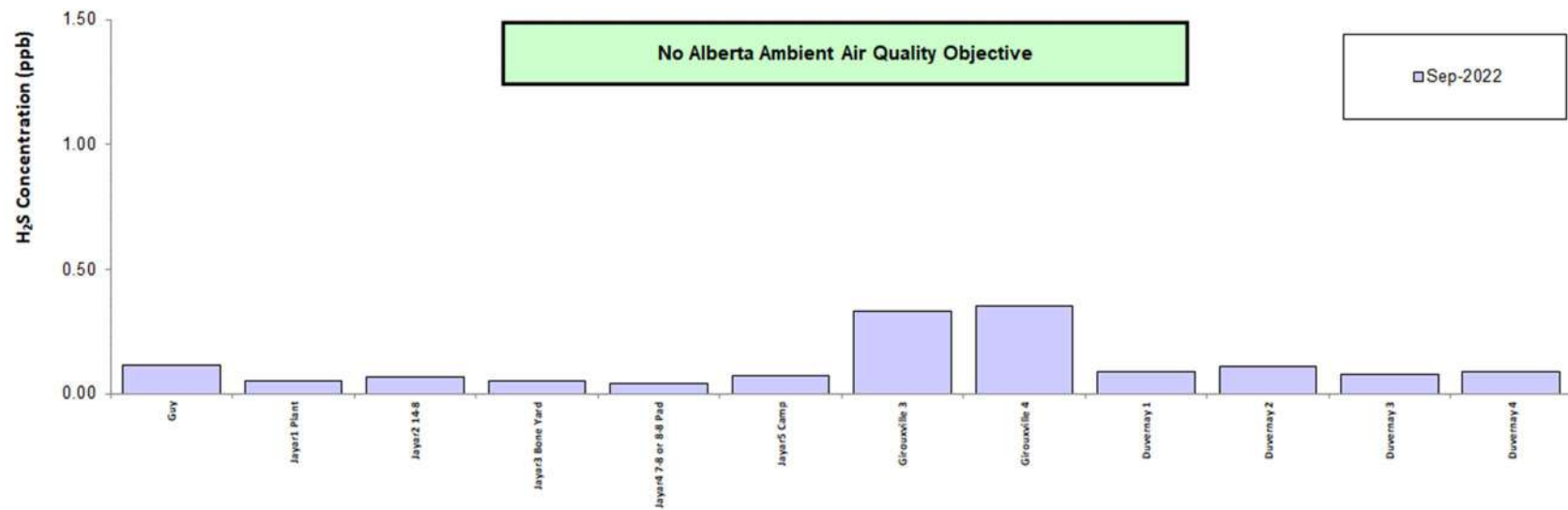
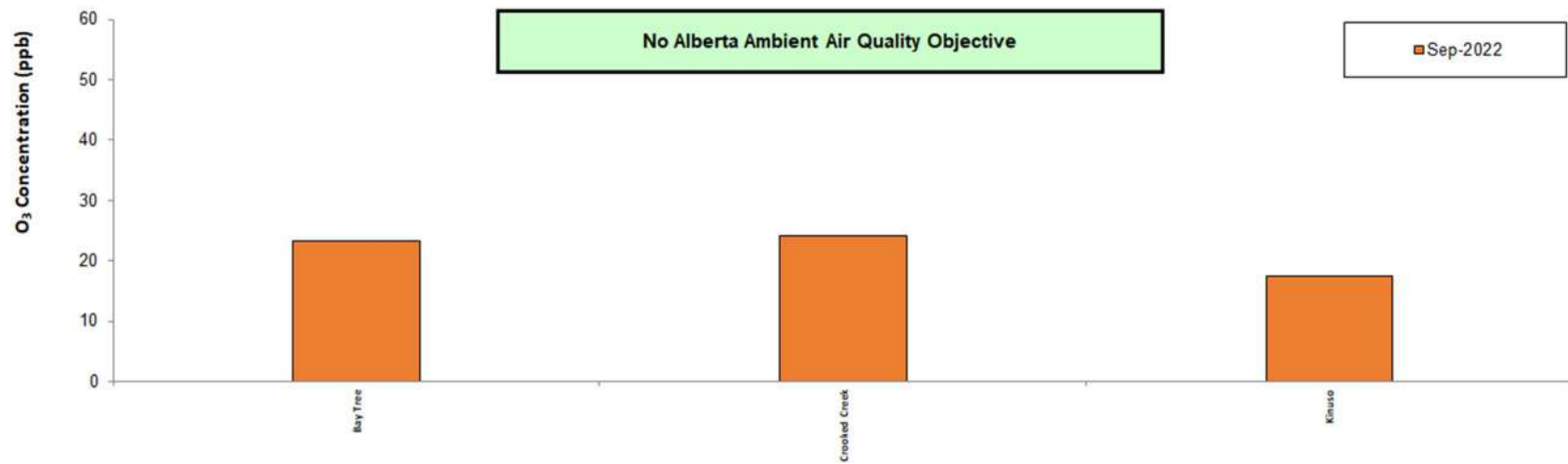
Passive Summary for September 2022

Stats	Sulphur Dioxide SO ₂	Ozone O ₃	Nitrogen Dioxide NO ₂	Hydrogen Sulphide H ₂ S
	ppb	ppb	ppb	ppb

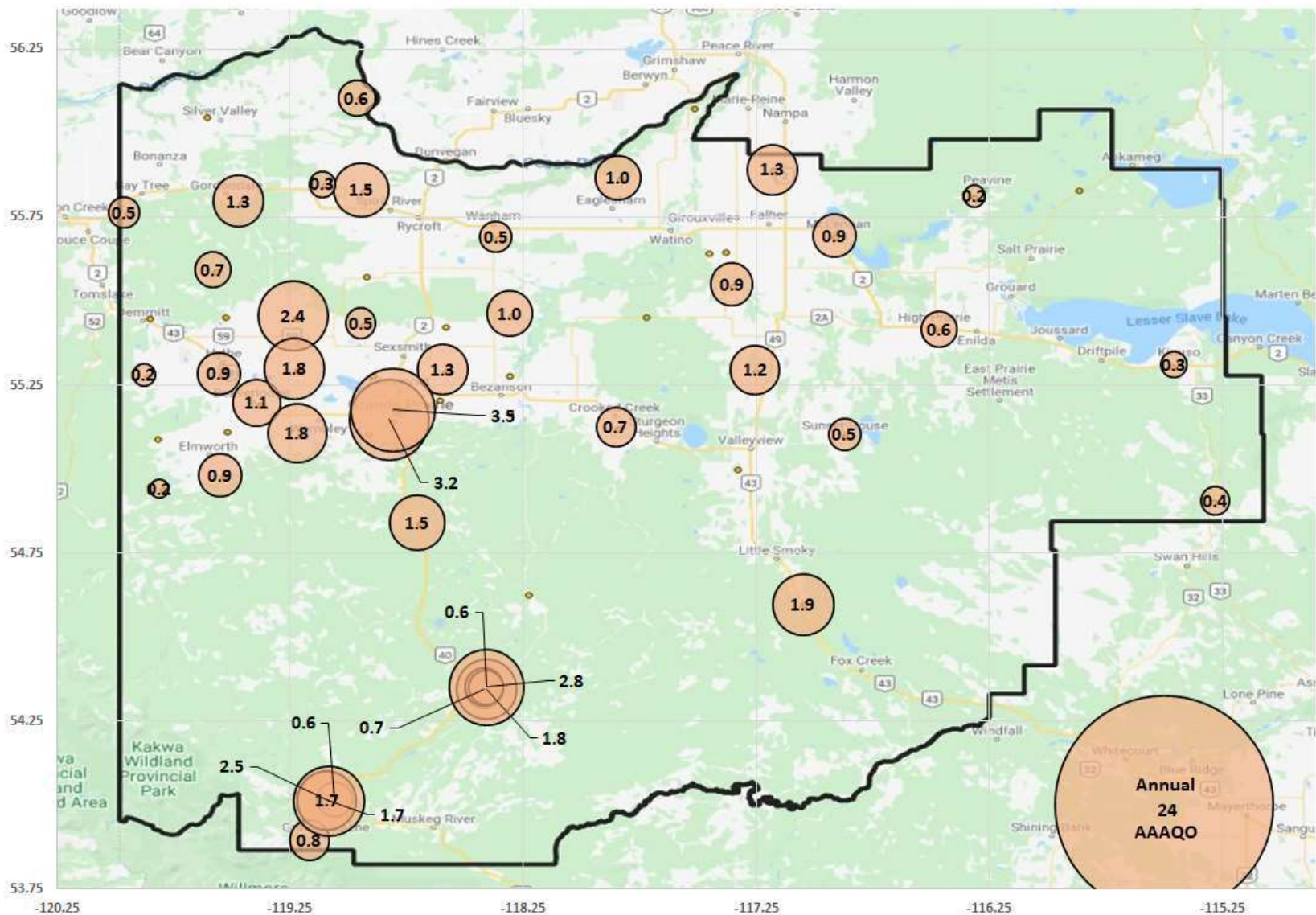
Passive Summary for September 2022 (PAZA)				
Mean	0.3	21.6	1.2	0.1
Standard Deviation	0.2	3.7	0.8	0.1
Minimum	0.1	17.4	0.2	0.0
	Deer Mountain (#48)	Kinuso (#47)	Sylvester (#14)	Jayar4 7-8 or 8-8 Pad
Maximum	1.0	24.2	3.5	0.4
	Jayar3 Bone Yard (#59)	Crooked Creek (#37)	Henry Pirker (#49)	Girouxville 4 (#G4)

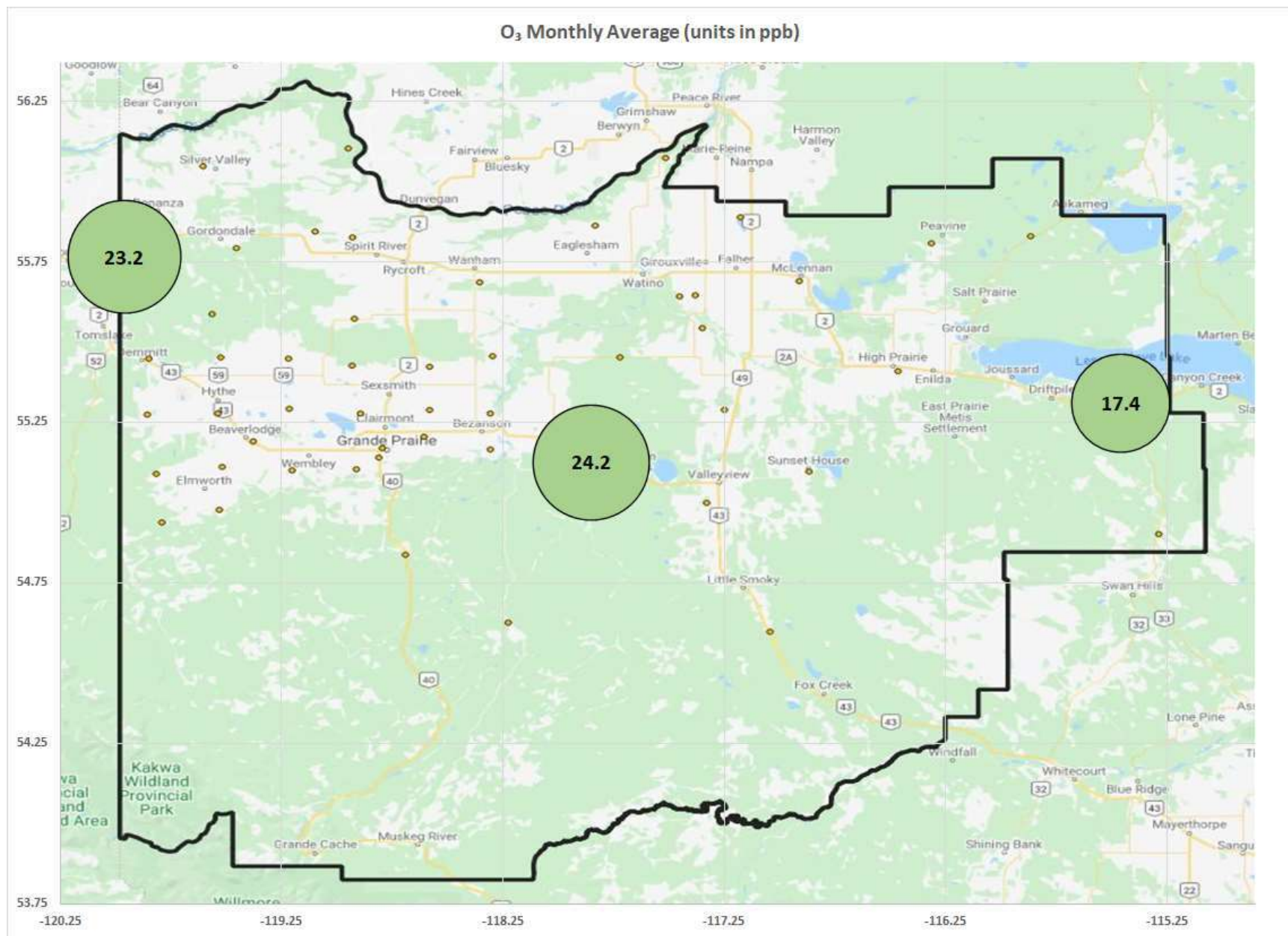
Continuous and Passive Monitoring Comparision				
PAZA Beaverlodge Station	0.4	28.2	2.6	-
Beaverlodge Passive (#16)	0.3	-	1.1	-
PAZA Henry Pirker Station	0.3	22.0	6.6	0.2
Henry Pirker passive (#49)	0.3	-	3.5	-
Milner Station	-	-	2.6	-
Henry Pirker passive (#49)	<0.1	-	1.7	-

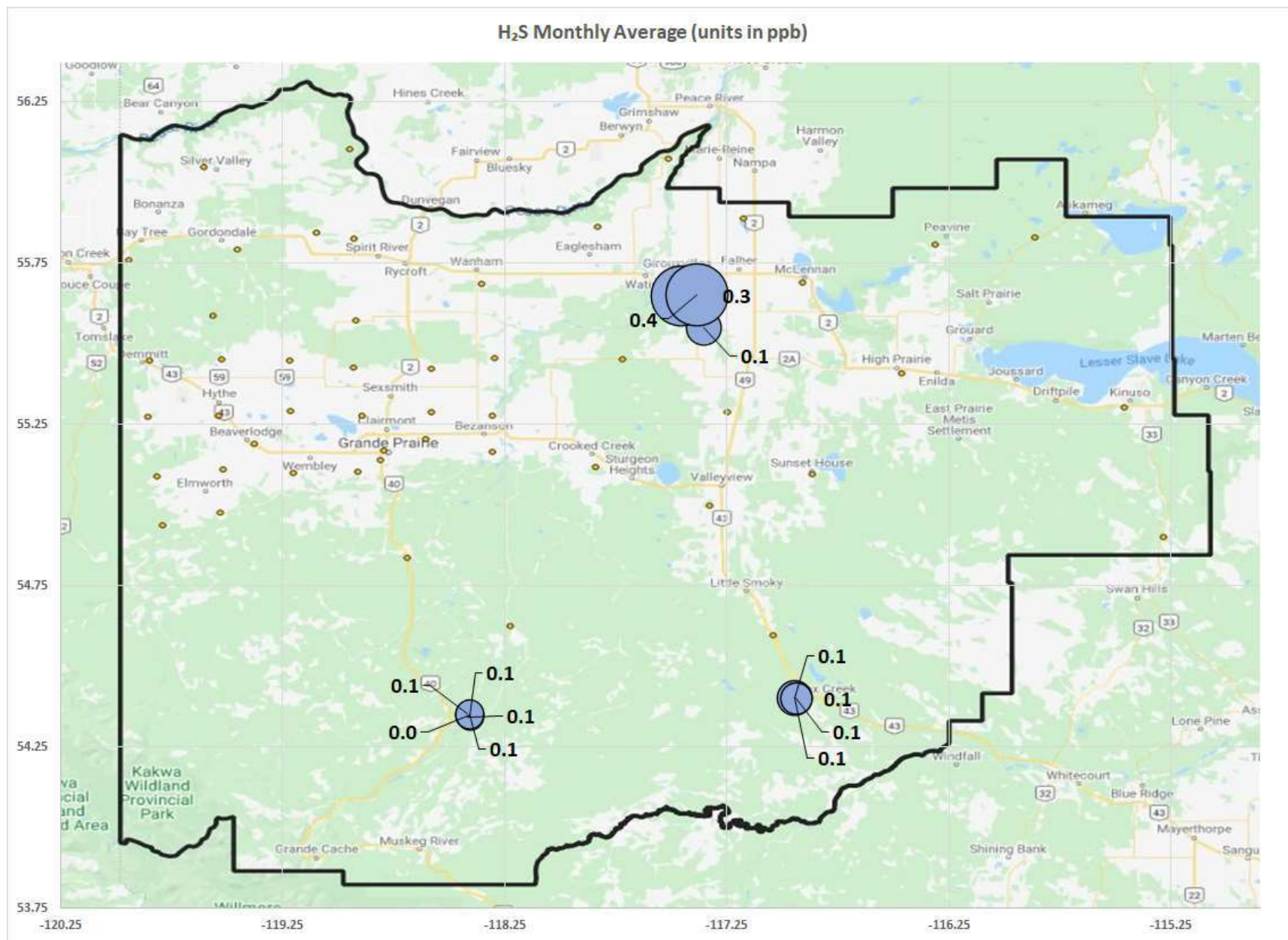




NO₂ Monthly Average (units in ppb)



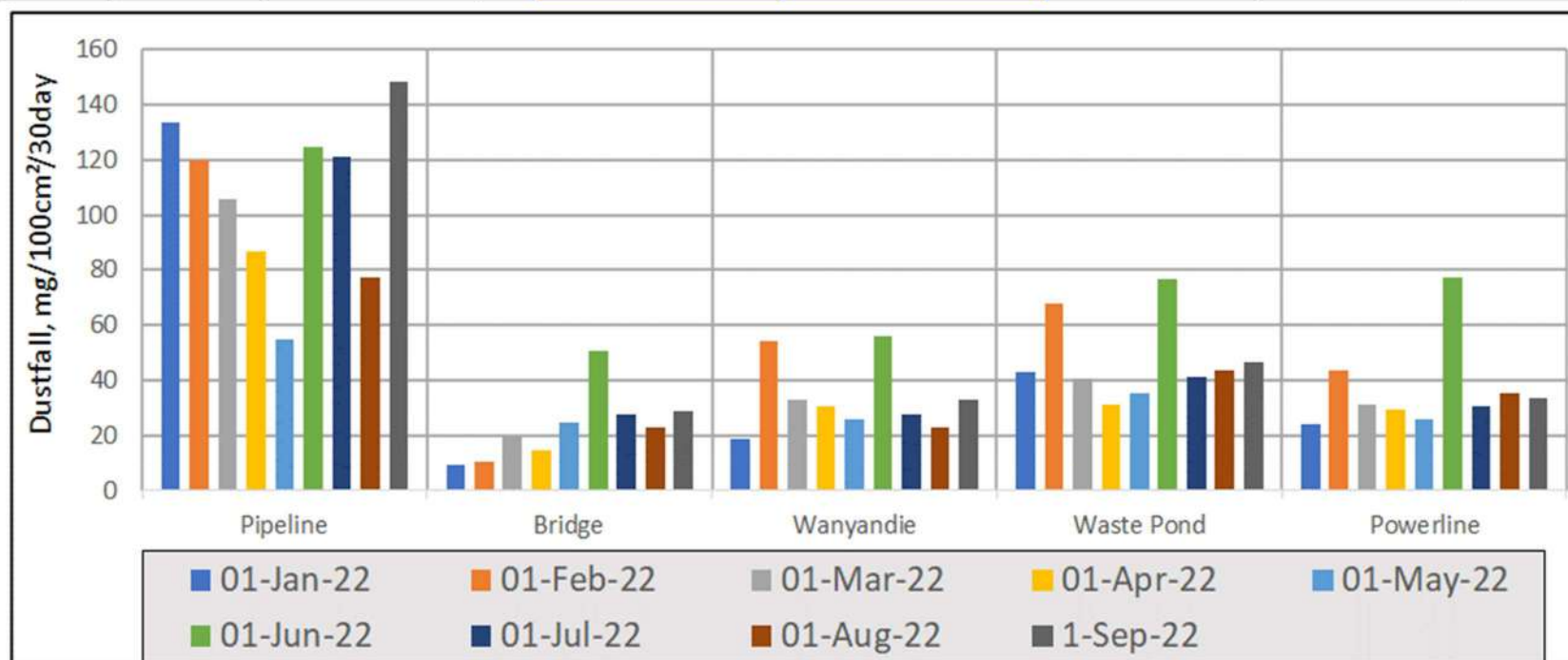




12 Dustfall Monitoring Data

Milner Dustfall Samples September 2022

Exposure Month	Year	Sample	Total Dustfall (30 day) mg/100cm ² /30day	Fixed Dustfall (30 day) mg/100cm ² /30day	Exposure days	Field Notes
September	2022	Pipeline	148.4	82.3	30	
September	2022	Bridge	28.7	15.4	30	
September	2022	Wanyandie	33.1	19.3	30	
September	2022	Waste Pond	46.3	19.1	30	
September	2022	Powerline	33.8	18.4	30	
September	2022	Powerline Dup	55.1	22.0	30	RPD= 48% / 18%



End of Report



Peace Airshed Zone Association

Ambient Air Monitoring Report

September 2022