

January 21, 2026

Lorna Morishita

Executive Director of Palliser Airshed Society
PO Box 23121 Medicine Hat Mall
Medicine Hat AB T1B 4C7

RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – December 2025

Enclosed is the PAS Dashboard Report for the month of **December 2025**.

Continuous Monitoring – Crescent Heights, Brooks – Meadowplace, Hanna and Raymond Airpointer Monitoring Stations

Included in this report are: Monthly Air Monitoring Summary Table, Station Issue Summary, Station Summary Graphs and Station Wind Roses.

Continuous Monitoring Instrumentation Uptime Summary:

The THC analyzer at Crescent Heights malfunctioned after the December 2 calibration and did not return valid readings for the remainder of the month, with an uptime of 2.8%. **Ref# 449562.**

The power supply at the Raymond station was interrupted from December 4-9, with uptimes of 82.3% and 82.1% for the PM_{2.5} and meteorological sensors respectively. The NO_x and O₃ analyzers were down for December due to sample pump and NO_x analyzer requiring repair. **Ref# 449563.**

AAAQO/G Exceedance Summary:

There were no exceedances of the AAAQO/G in December.

If you have any questions, please contact the WSP office at 403-519-8480.

X *Patrick Andersen*

Patrick Andersen, B.Sc.
WSP AQM Data Specialist

X 

Lenin Flores
Project Manager

December 2025 Monthly Ambient Air Quality Summary

Dec-25 Palliser Airshed Society										Maximum Recorded Values						
Pollutant (units)	Objectives			Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr				
	1-hr	24-hr	30-day				1-hr	24-hr	30-day	Conc	Day	Conc	Day	Operational Time (%)	Calibration Date	
SO ₂ (ppb)	172	48	8	Crescent Heights	0.1	0.0	0	0	0	1.5	Dec-11 18:00	0.3	Dec-11	100.0	Dec-01	
NO (ppb)					1.4	0.0					38.4	Dec-07 20:00	6.1	Dec-07	100.0	Dec-01
NO ₂ (ppb)	159				6.0	0.7	0				36.5	Dec-07 20:00	13.0	Dec-07	100.0	Dec-01
NO _x (ppb)					7.4	0.8					74.9	Dec-07 20:00	19.1	Dec-07	100.0	Dec-01
O ₃ (ppb)	76				25.4	1.4	0				39.6	Dec-17 14:00	32.3	Dec-30	100.0	Dec-02
CO (ppm)					0.1	0.1					0.4	Dec-23 08:00	0.2	Dec-07	100.0	Dec-01
CO 8-Hour (ppm)	5				-	0.1	0				0.2	Dec-23 10:00	-	-	100.0	-
THC (ppm)					-	1.5					2.1	Dec-01 15:00	--	Nov-30	2.8	Dec-01
PM _{2.5} (µg/m³)	80	29			5.8	0.2	0	0			29.1	Dec-25 19:00	14.5	Dec-26	100.0	Dec-02
ET (°C)					-7.0	-27.1					10.1	Dec-16 01:00	7.5	Dec-15	100.0	-
RH (%)					80.7	48.0					100.0	Dec-05 08:00	97.7	Dec-26	100.0	-
GSR (W/m²)					34.5	0.0					290.8	Dec-03 13:00	58.3	Dec-28	100.0	-
WSPD (km/h)					3.2	0.5					42.4	Dec-17 15:00	25.7	Dec-15	100.0	25/09/25
WDIR					W										100.0	

Pollutant (units)	Analyzer			Notes
	Make		Model	
SO ₂	TEI		43i-TLE	
NO/NO ₂ /NO _x	TEI		42i	
O ₃	TECO		49i	
CO	TEI		48i-TLE	
THC	TECO		51C-LT	Analyzer returned invalid readings after December 2 calibration.
PM _{2.5}	API		T640	
ET/RH	RMYoung		41382VC	
GSR	Pyranometer		PY45774	
WSWD	RMYoung		5305	

Dec-25				Palliser Airshed Society				Maximum Recorded Values							
Pollutant (units)	Objectives			Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date
	1-hr	24-hr	30-day				1-hr	24-hr	30-day	Conc	Day	Conc	Day		
NO (ppb)				Brooks Meadowplace	0.5	0.0				14.7	Dec-23 12:00	2.6	Dec-07	100.0	Dec-08
NO ₂ (ppb)	159				5.0	0.5	0			29.9	Dec-07 08:00	9.9	Dec-07	100.0	Dec-08
NO _x (ppb)					5.5	0.2				40.4	Dec-07 09:00	12.4	Dec-07	100.0	Dec-08
O ₃ (ppb)	76				23.2	0.3	0			38.8	Dec-16 01:00	30.4	Dec-12	100.0	Dec-08
PM _{2.5} (µg/m ³)	80	29			7.0	0.1	0	0		31.4	Dec-26 12:00	20.0	Dec-26	100.0	Dec-08
ET (°C)					-9.6	-29.1				12.2	Dec-15 16:00	7.5	Dec-15	100.0	-
RH (%)					83.1	48.7				100.0	Dec-17 11:00	95.3	Dec-31	100.0	-
WSPD (km/h)					1.5	0.1				56.6	Dec-17 14:00	21.4	Dec-15	100.0	19/08/25
WDIR					NNW									100.0	

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	TEI		42iQ	
O ₃	TEI		49iQ	
PM _{2.5}	API		T640	
ET/RH	CS		HC2-S3	
WSWD	RMYoung		5305	

Dec-25				Palliser Airshed Society					Maximum Recorded Values				Operational Time (%)	Calibration Date	
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence		1-hr		24-hr / 8-hr				
		1-hr	24-hr				30-day	1-hr	24-hr	30-day	Conc	Day			Conc
NO (ppb)					3.2	0.1				27.6	Dec-30 10:00	8.0	Dec-30	99.3	Dec-23
NO ₂ (ppb)		159			6.5	1.3	0			44.6	Dec-30 08:00	22.8	Dec-30	99.3	Dec-23
NO _x (ppb)					9.7	1.9				65.4	Dec-30 08:00	30.7	Dec-30	99.3	Dec-23
O ₃ (ppb)		76			23.5	1.1	0			36.0	Dec-01 14:00	29.2	Dec-27	99.2	Dec-24
PM _{2.5} (µg/m ³)		80	29		5.3	0.0	0	0		71.0	Dec-18 01:00	13.4	Dec-25	100.0	Dec-24
ET (°C)					-12.7	-27.7				6.8	Dec-15 23:00	1.4	Dec-04	100.0	-
RH (%)					81.5	51.1				97.4	Dec-30 00:00	93.8	Dec-30	100.0	-
WSPD (km/h)					0.9	0.0				17.0	Dec-13 17:00	8.6	Dec-18	100.0	26/09/25
WDIR					E									100.0	

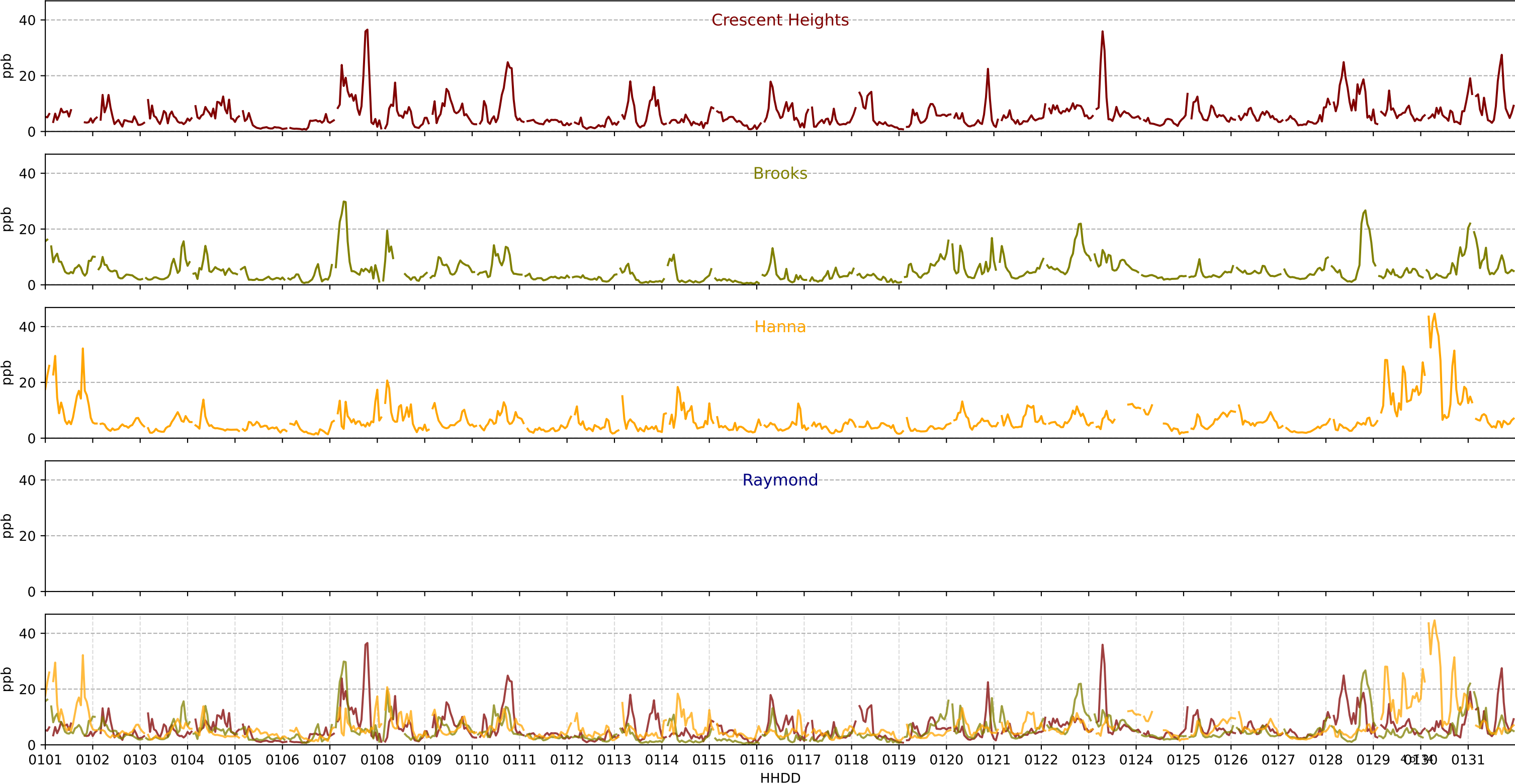
Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	Analyzer offline during December 24 O3 calibration.
O ₃	Airpointer API		400e	Analyzer offline during December 23 NO _x calibration.
PM _{2.5}	Sharp		5030	
ET/RH	CS		HC2-S3	
WS/WD	RMYoung		5305	Wind system failed to return valid readings November 18-19.

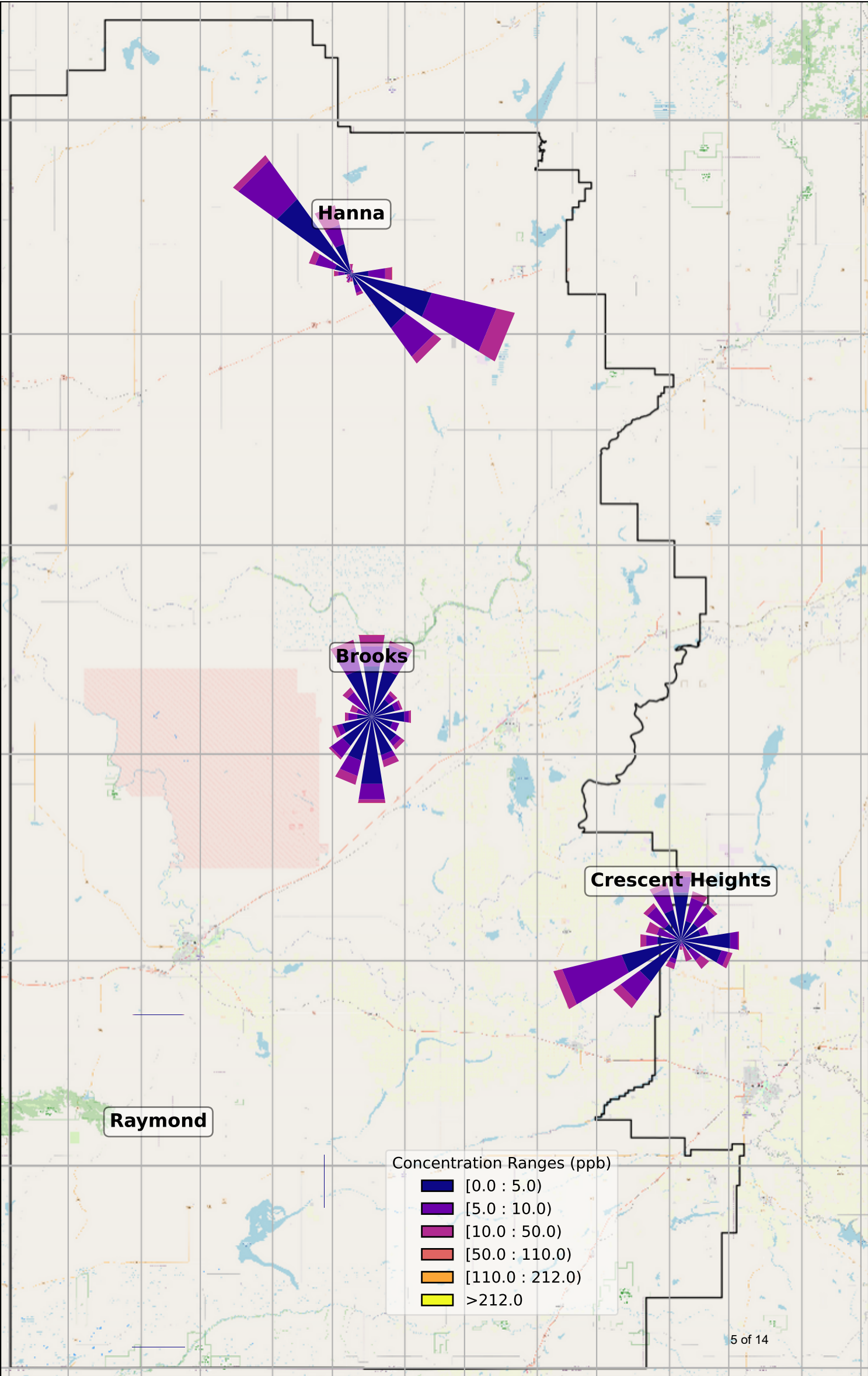
Dec-25				Palliser Airshed Society				Maximum Recorded Values							
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence		1-hr		24-hr / 8-hr				
		1-hr	24-hr				30-day	1-hr	24-hr	30-day	Conc			Day	Conc
NO (ppb)					-	-				-	-	-	-	-	
NO ₂ (ppb)		159			-	-	-			-	-	-	-	-	
NO _x (ppb)					-	-				-	-	-	-	-	
O ₃ (ppb)		76			-	-	-			-	-	-	-	-	
PM _{2.5} (µg/m ³)		80	29	Raymond Airpointer	4.5	0.0	0	0		32.6	Dec-25 15:00	17.1	Dec-26	82.3	
ET (°C)						-5.0	-27.1				11.6	Dec-15 14:00	8.3	Dec-15	82.1
RH (%)						72.8	32.3				100.0	Dec-11 02:00	92.3	Dec-11	82.1
WSPD (km/h)						6.2	0.1				39.9	Dec-17 13:00	18.9	Dec-29	82.1
WDIR						WSW									82.1

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	Station power supply interrupted December 4-9.
O ₃	Airpointer API		400e	Sample pump failed November 29, replaced December 10. Analyzer required repair and was removed December 10.
PM _{2.5}	Sharp		5030	Sample pump failed November 29, replaced December 10. Unable to calibrate analyzer in December without NO _x analyzer, no valid data returned.
ET/RH	Vaisala		WXT520	No data returned during PM calibration.
WS/WD	Vaisala		WXT520	No data returned during PM calibration.

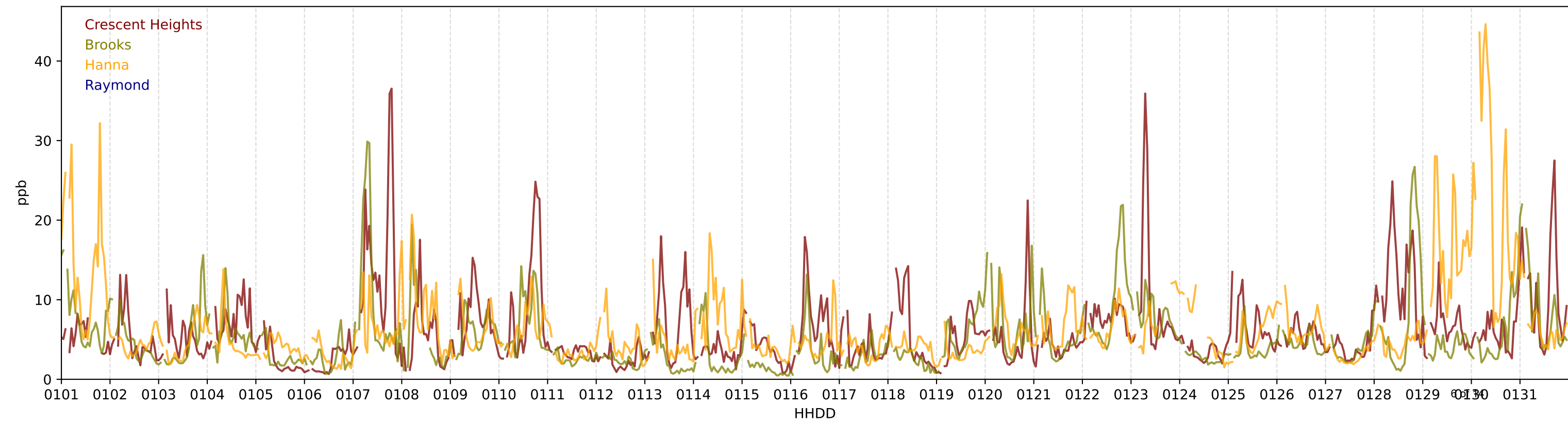
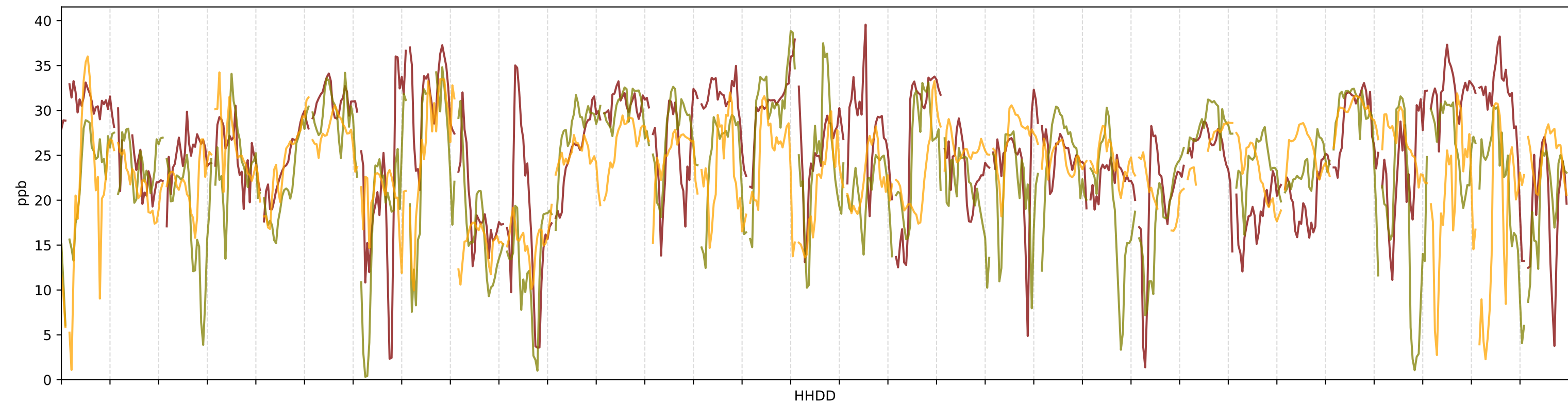
December 2025 NO₂

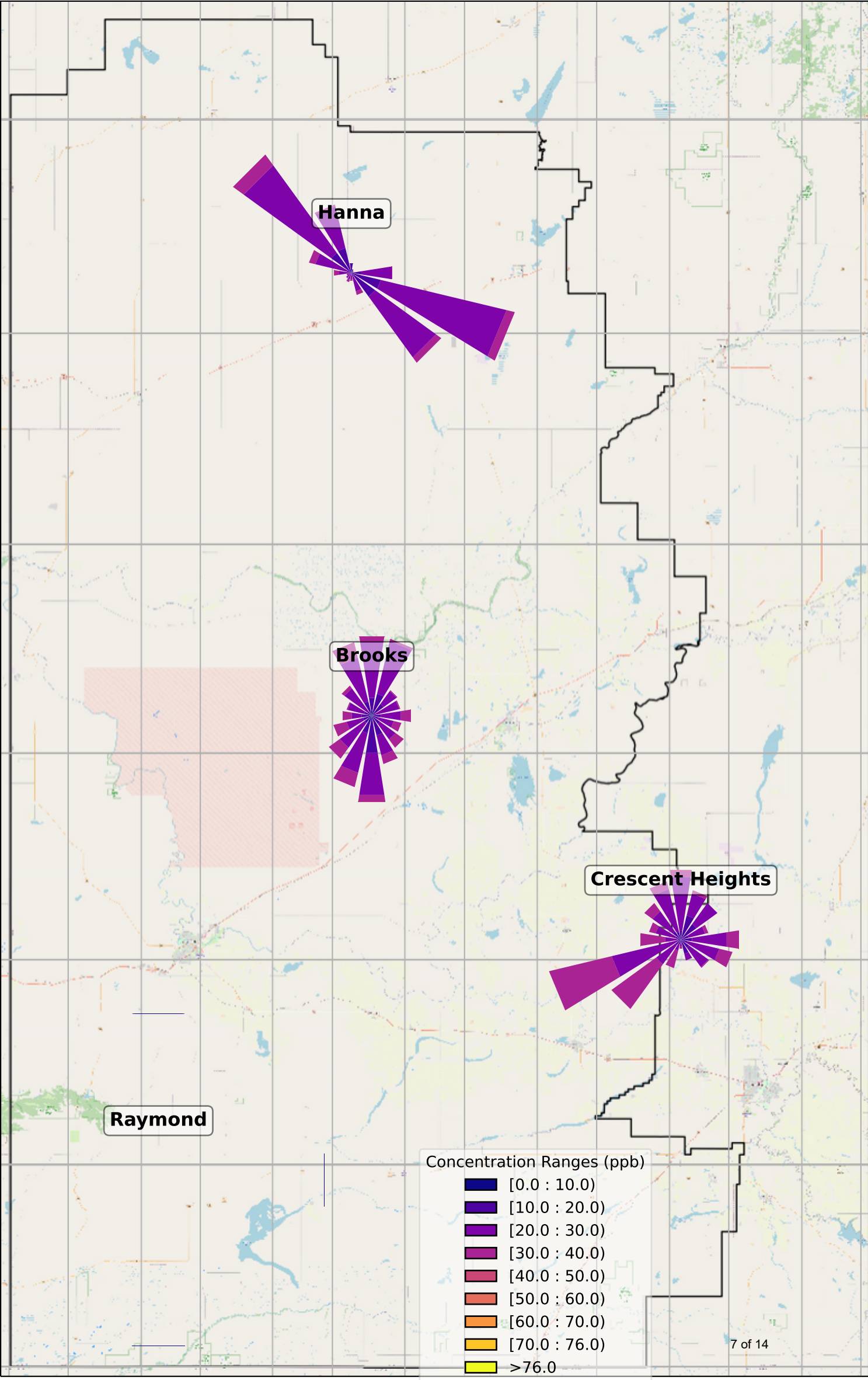
NO₂ AAAQO = 172 ppb





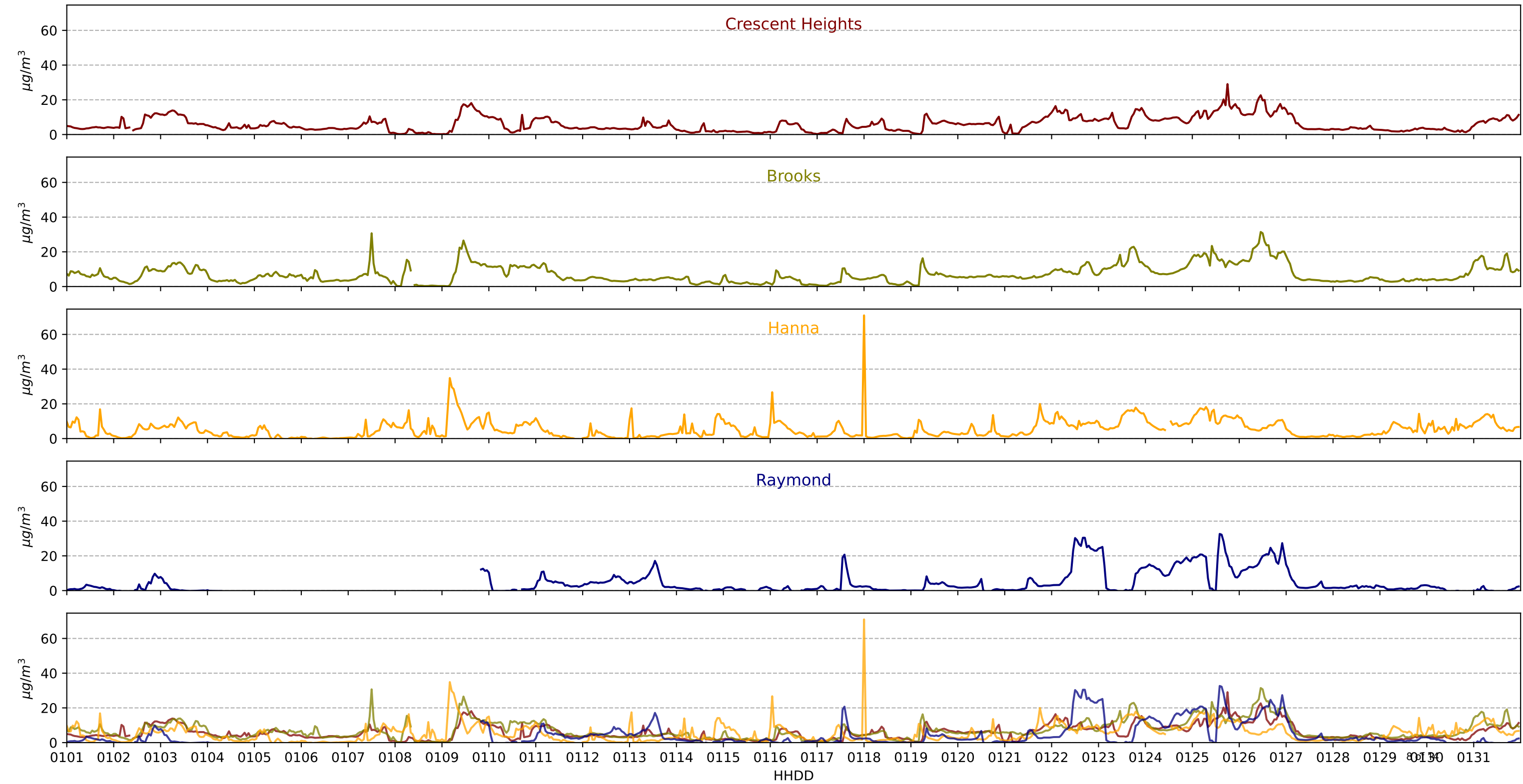
December 2025 O₃ vs NO₂

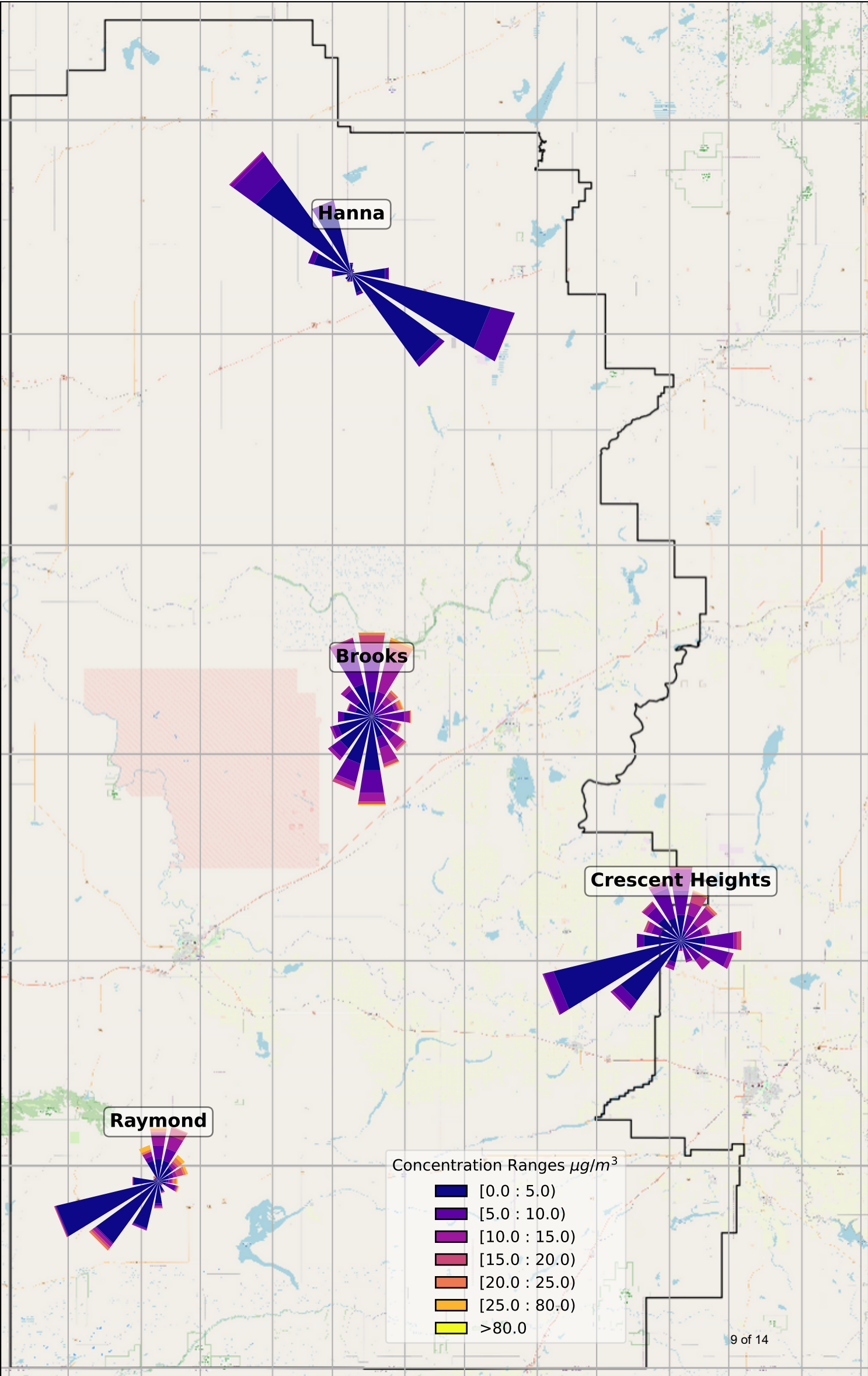




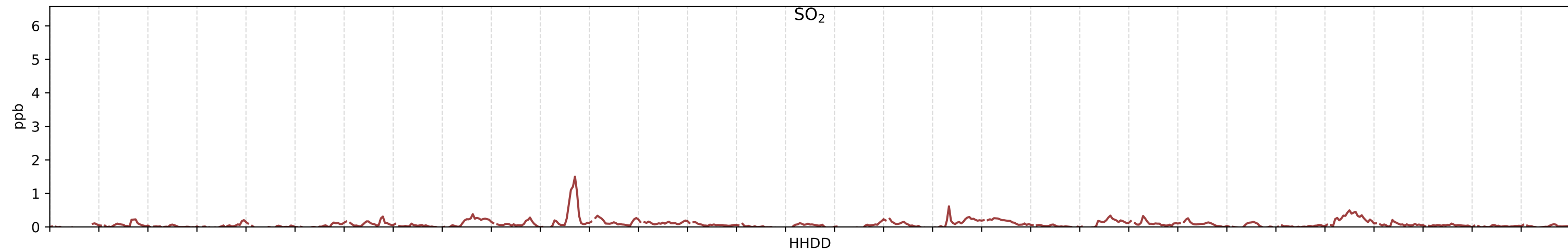
December 2025 PM_{2.5}

PM_{2.5} AAAQG = 80 $\mu\text{g}/\text{m}^3$





SO₂ AAAQO = 172 pbb



CO AAAQO = 13 ppm

