

January 26, 2024

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 2023

Enclosed is the PAS Dashboard Report for the month of **December 2023**.

Continuous Monitoring – Crescent Heights, Brooks, Taber Monitoring Stations

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

Crescent Heights Station:

- ◆ All analyzers and instruments at the Crescent Heights Station were greater than 90% operational for the month of December.
- ◆ There were no exceedances of the AAAQO/G in December.

Brooks Station:

- ◆ All analyzers and instruments at the Brooks Station were greater than 90% operational for the month of December.
- ◆ There were no exceedances of the AAAQO/G in December.

Taber Station:

- ◆ All analyzers and instruments at the Taber Station were greater than 90% operational for the month of December.
- ◆ There were no exceedances of the AAAQO/G in December.

If you have any questions, please contact the WSP office at 780.401.1356.

X *Patrick Andersen*

Patrick Andersen, B.Sc.
WSP AQM Data Specialist

December 2023 Monthly Ambient Air Quality Summary

Dec-23		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		
SO ₂ (ppb)	172	48	8	Crescent Heights	0.1	0.0	0	0	0	0.9	Dec-14 12:00	0.1	Dec-23	99.7	Dec-15
NO (ppb)					2.9	0.0	0			45.6	Dec-15 10:00	10.0	Dec-30	99.7	Dec-14
NO ₂ (ppb)	159				7.0	1.2	0			27.5	Dec-11 18:00	13.7	Dec-30	99.7	Dec-14
NO _x (ppb)					9.9	1.3				64.8	Dec-15 10:00	23.8	Dec-30	99.7	Dec-14
O ₃ (ppb)	76				21.1	0.0	0			38.7	Dec-26 12:00	32.3	Dec-13	99.7	Dec-14
CO (ppm)					0.1	0.1				0.4	Dec-15 05:00	0.2	Dec-30	99.7	Dec-13
CO 8-Hour (ppm)	5				-	0.1	0			0.3	Dec-15 12:00	-	-	100.0	-
THC (ppm)					2.2	1.9				2.9	Dec-30 07:00	2.5	Dec-19	99.7	Dec-13
PM _{2.5} (µg/m ³)	80	29			2.0	0.2	0	0		18.1	Dec-07 09:00	6.2	Dec-08	99.9	Oct-18
ET (°C)					2.2	-10.1				17.8	Dec-05 15:00	12.0	Dec-05	100.0	-
RH (%)					62.9	21.3				100.0	Dec-07 15:00	99.8	Dec-08	100.0	-
GSR (W/m ²)					44.9	0.0				339.8	Dec-09 12:00	64.6	Dec-09	100.0	-
WSPD (km/h)					8.0	0.0				33.4	Dec-16 02:00	23.4	Dec-13	100.0	-
WDIR					SW									100.0	-

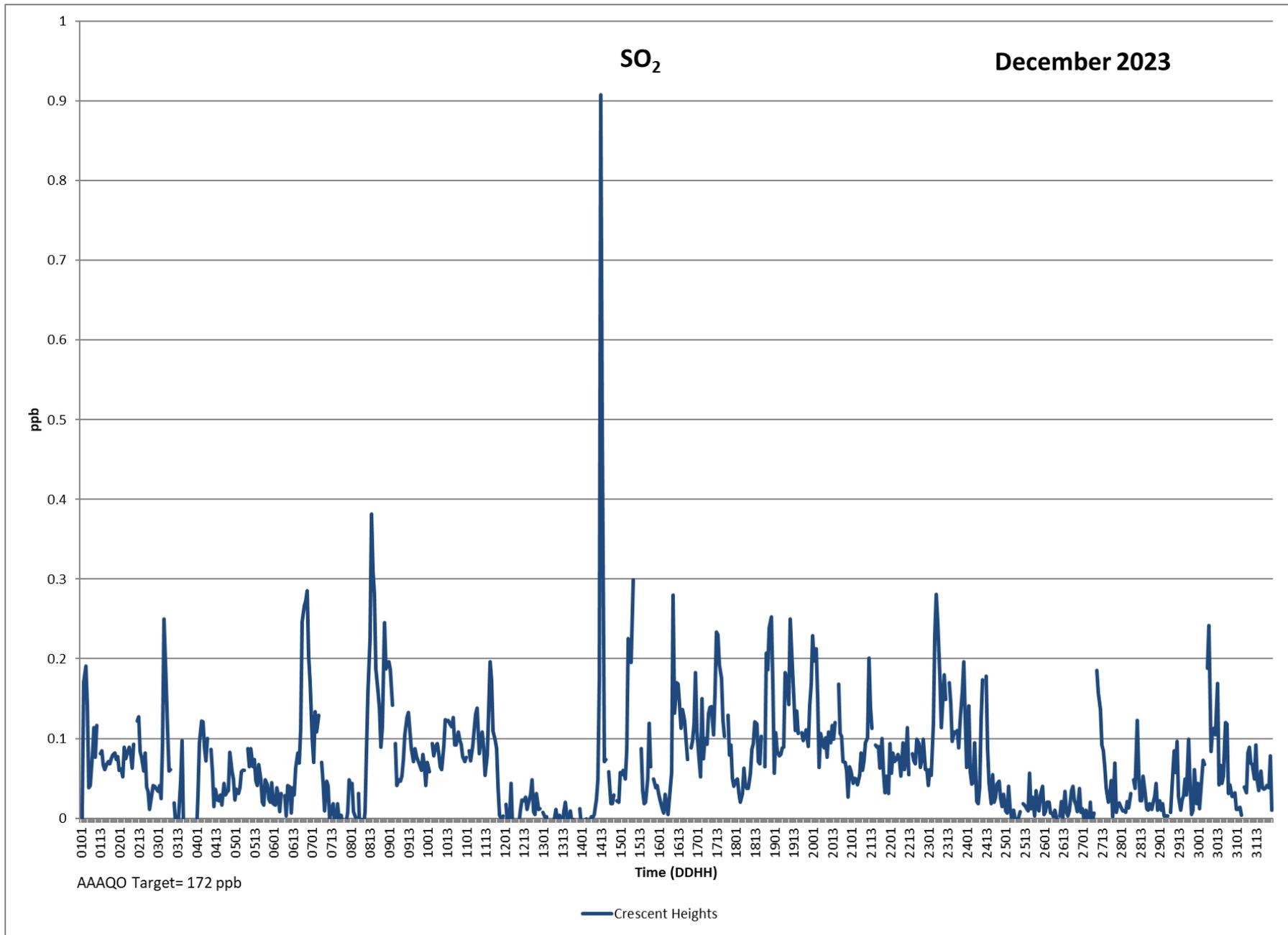
Pollutant (units)	Analyzer			Notes
	Make		Model	
SO ₂	TEI		43i	Manual span checks performed December 13 and 14.
NO/NO ₂ /NO _x	TEI		42i	Manual span checks performed December 13 and 15.
O ₃	TECO		49i	Manual span checks performed December 13 and 14.
CO	TEI		48i-TLE	Manual span checks performed December 14 and 15.
THC	TECO		51C-LT	Manual span checks performed December 14 and 15.
PM _{2.5}	SHARP		5030	
ET/RH	RMYoung		41382VC	
GSR	EPPLEY			
WS/WD	RMYoung		5305-10	

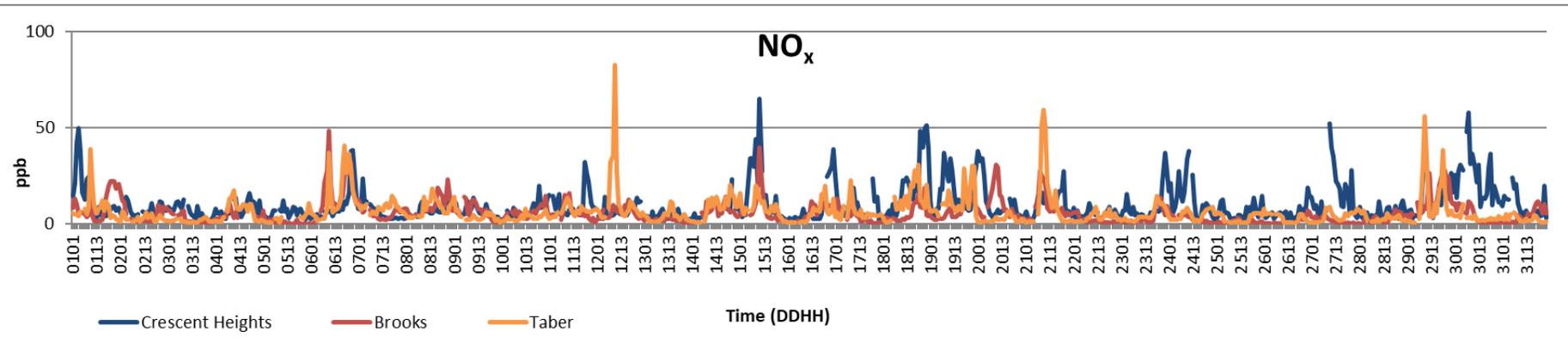
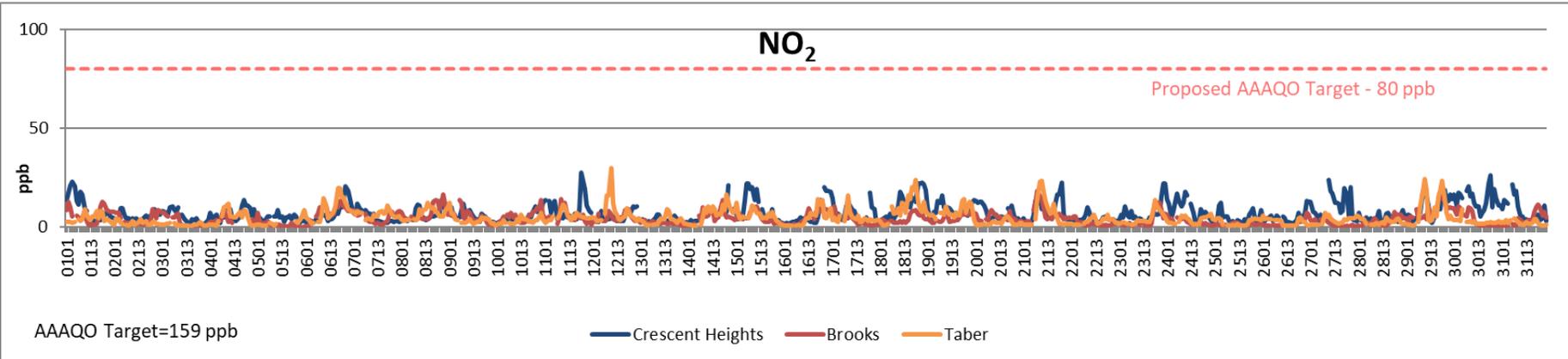
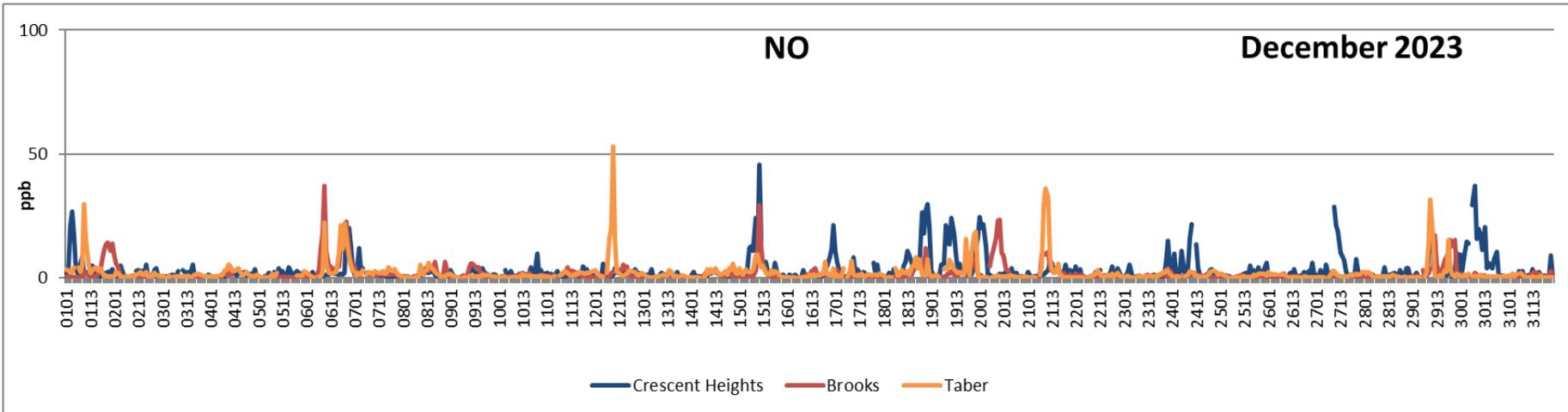
Dec-23		Palliser Airshed Society			Maximum Recorded Values										
Pollutant (units)	Objectives			Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date
	1-hr	24-hr	30-day				1-hr	24-hr	30-day	Conc	Day	Conc	Day		
NO (ppb)				Taber	1.9	0.0				53.1	Dec-12 09:00	6.1	Dec-06	100.0	Dec-05
NO ₂ (ppb)	159				4.4	0.3	0			29.5	Dec-12 09:00	9.6	Dec-18	100.0	Dec-05
NO _x (ppb)					6.3	0.3				82.6	Dec-12 09:00	14.5	Dec-06	100.0	Dec-05
O ₃ (ppb)	76				23.5	1.0	0			39.7	Dec-28 13:00	32.6	Dec-03	100.0	Dec-05
PM _{2.5} (µg/m ³)	80	29			3.7	0.0	0	0		47.1	Dec-06 19:00	12.9	Dec-06	100.0	Oct-17
ET (°C)					2.4	-9.8				16.3	Dec-05 14:00	11.6	Dec-05	100.0	-
RH (%)					63.0	26.9				100.0	Dec-07 20:00	98.6	Dec-08	100.0	-
WSPD (km/h)					7.6	0.1				37.2	Dec-16 03:00	15.5	Dec-28	100.0	-
WDIR					WSW									100.0	-

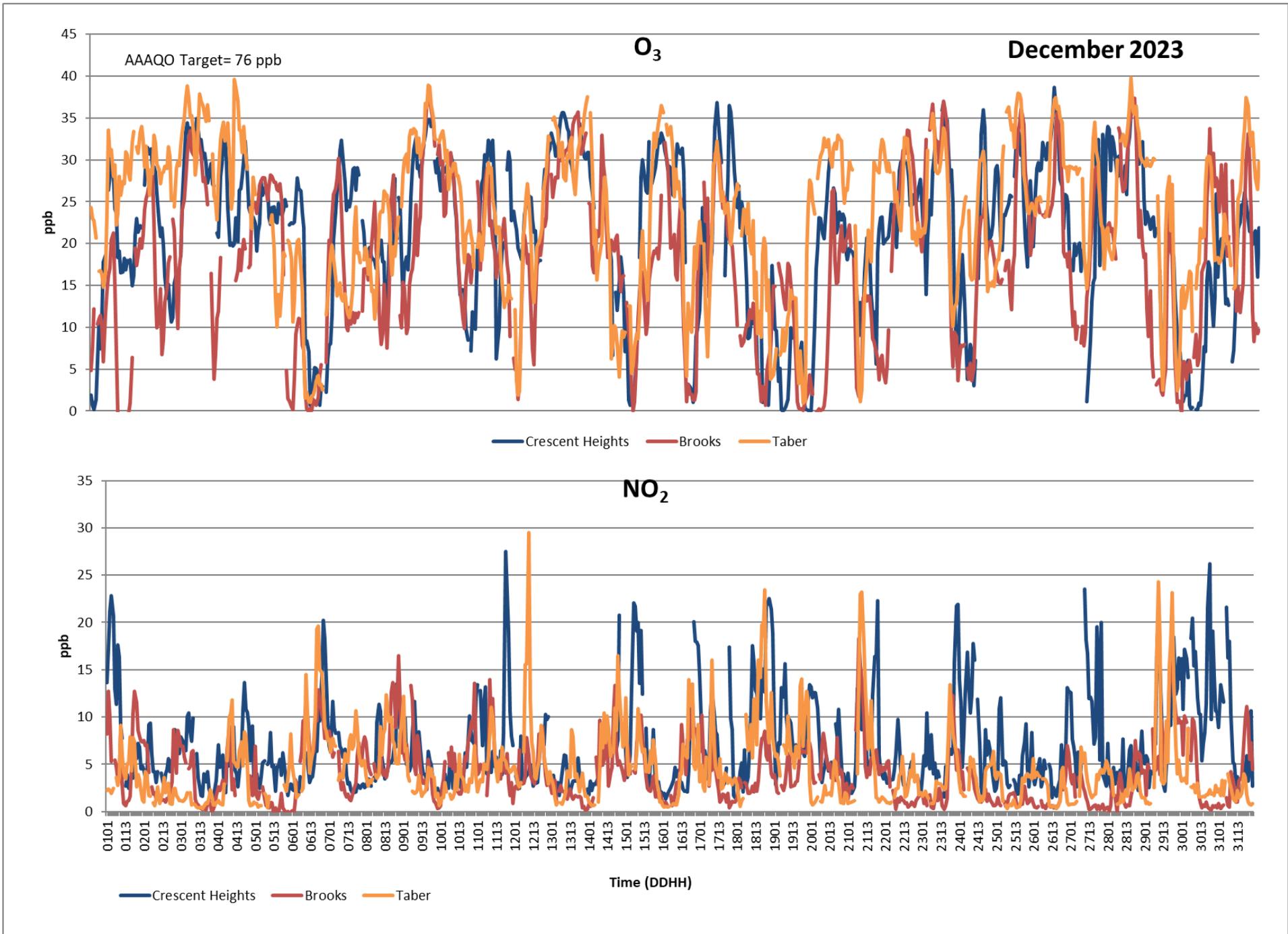
Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	API		42i	
O ₃	API		T400	
PM _{2.5}	SHARP		5030	
ET/RH	Vaisala		WXT520	
WS/WD	Vaisala		WXT520	

Dec-23				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	1.6	0.0				37.0	Dec-06 09:00	8.4	Dec-06	100.0	Dec-05			
NO ₂ (ppb)	159				4.0	0.0	0			18.3	Dec-21 07:00	8.1	Dec-29	100.0	Dec-05			
NO _x (ppb)					5.4	0.0				48.3	Dec-06 09:00	16.1	Dec-06	100.0	Dec-05			
O ₃ (ppb)	76				17.8	0.0	0			37.3	Dec-28 15:00	30.3	Dec-13	100.0	Dec-04			
PM _{2.5} (µg/m ³)	80	29			3.5	0.0	0	0		20.7	Dec-09 09:00	7.2	Dec-09	100.0	Oct-20			
ET (°C)					-1.0	-15.3				15.7	Dec-05 13:00	10.1	Dec-05	100.0	-			
RH (%)					65.9	27.1				86.0	Dec-15 15:00	82.6	Dec-07	100.0	-			
WSPD (km/h)					4.2	0.3				26.8	Dec-22 13:00	14.6	Dec-05	100.0	-			
WDIR					SSW									100.0	-			

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	API		42i	
O ₃	API		T400	
PM _{2.5}	SHARP		5030	
ET/RH	Vaisala		WXT520	
WS/WD	Vaisala		WXT520	

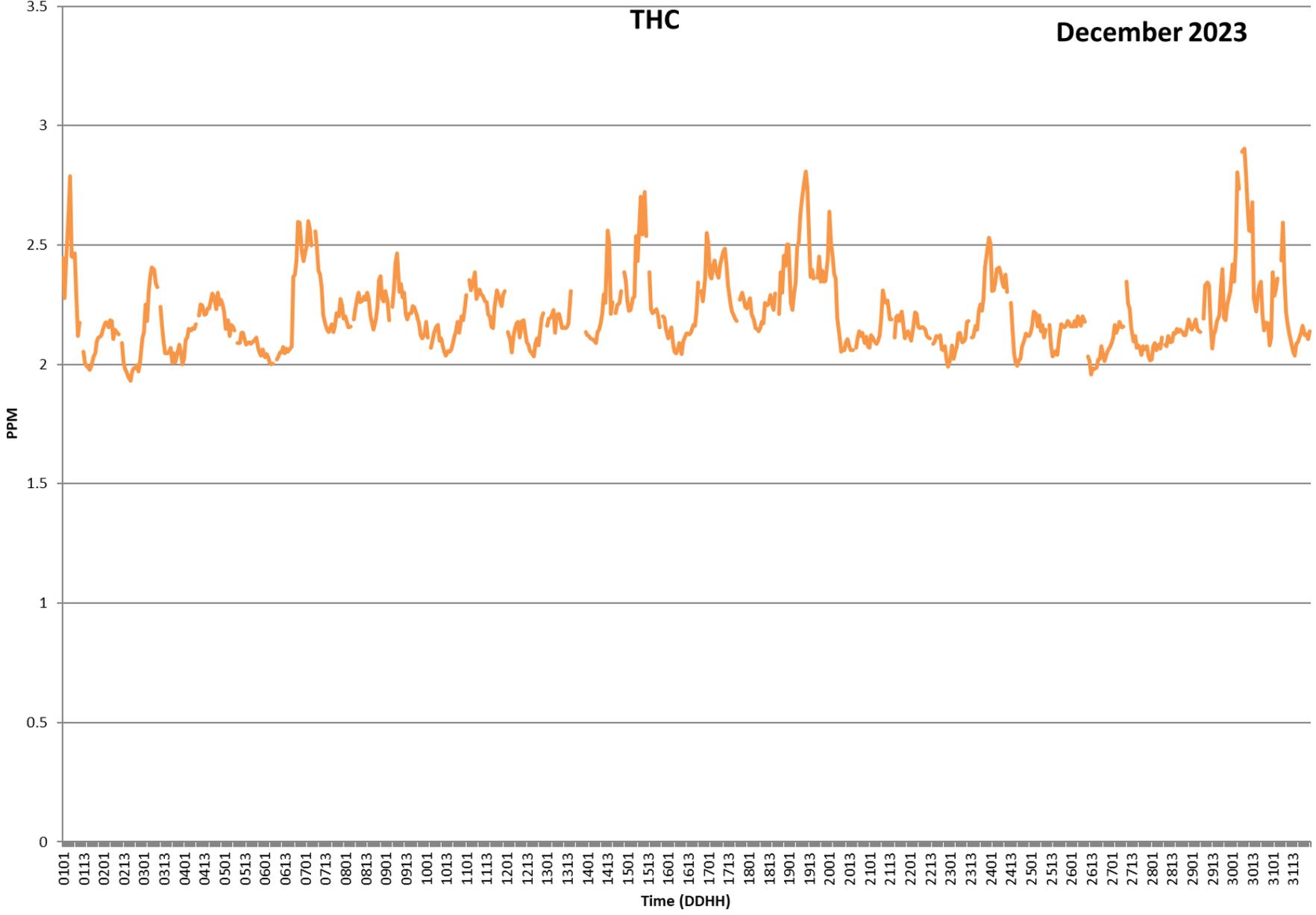






THC

December 2023

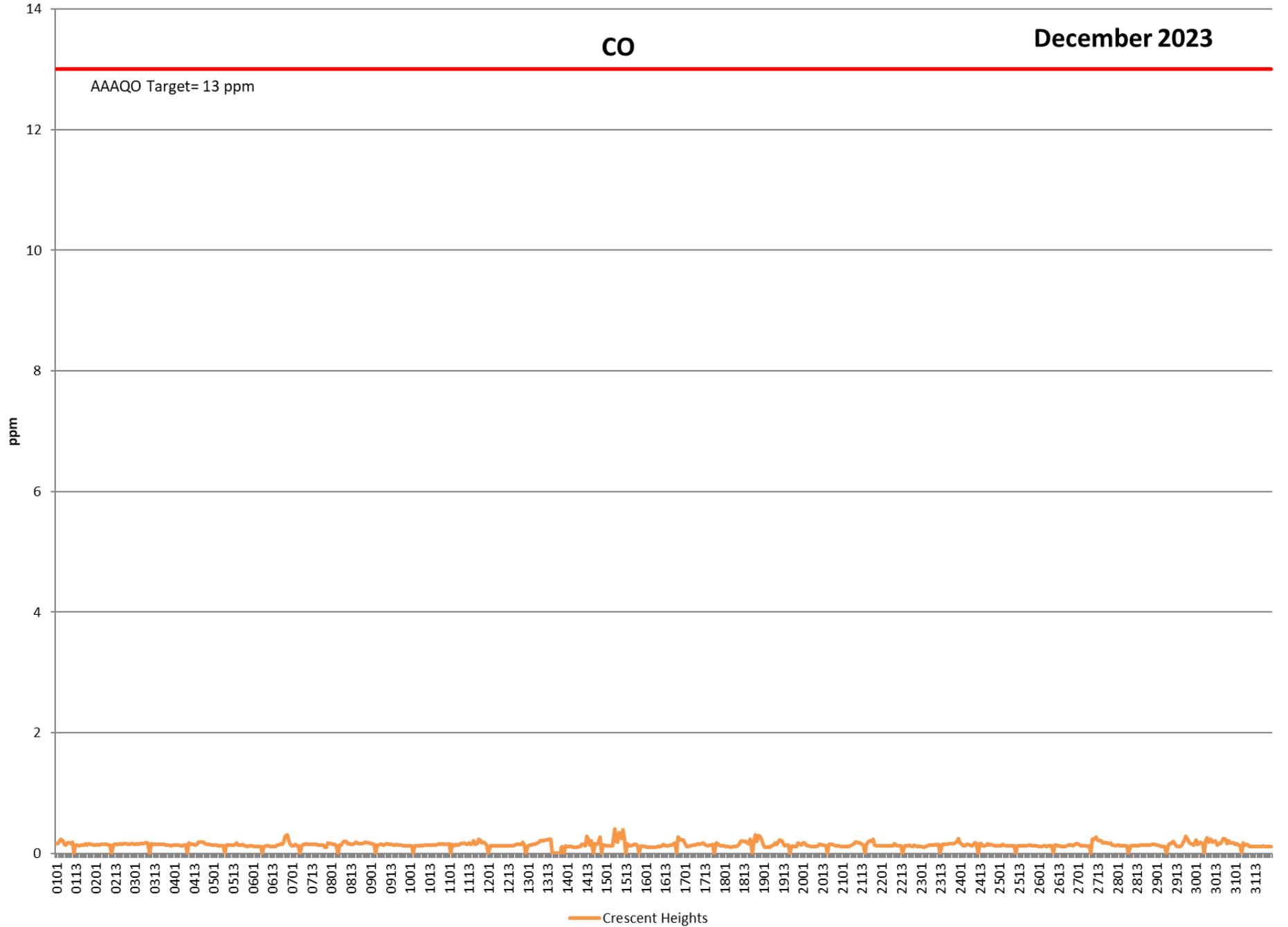


Crescent Heights

CO

December 2023

AAAQO Target= 13 ppm



PM_{2.5}

December 2023

