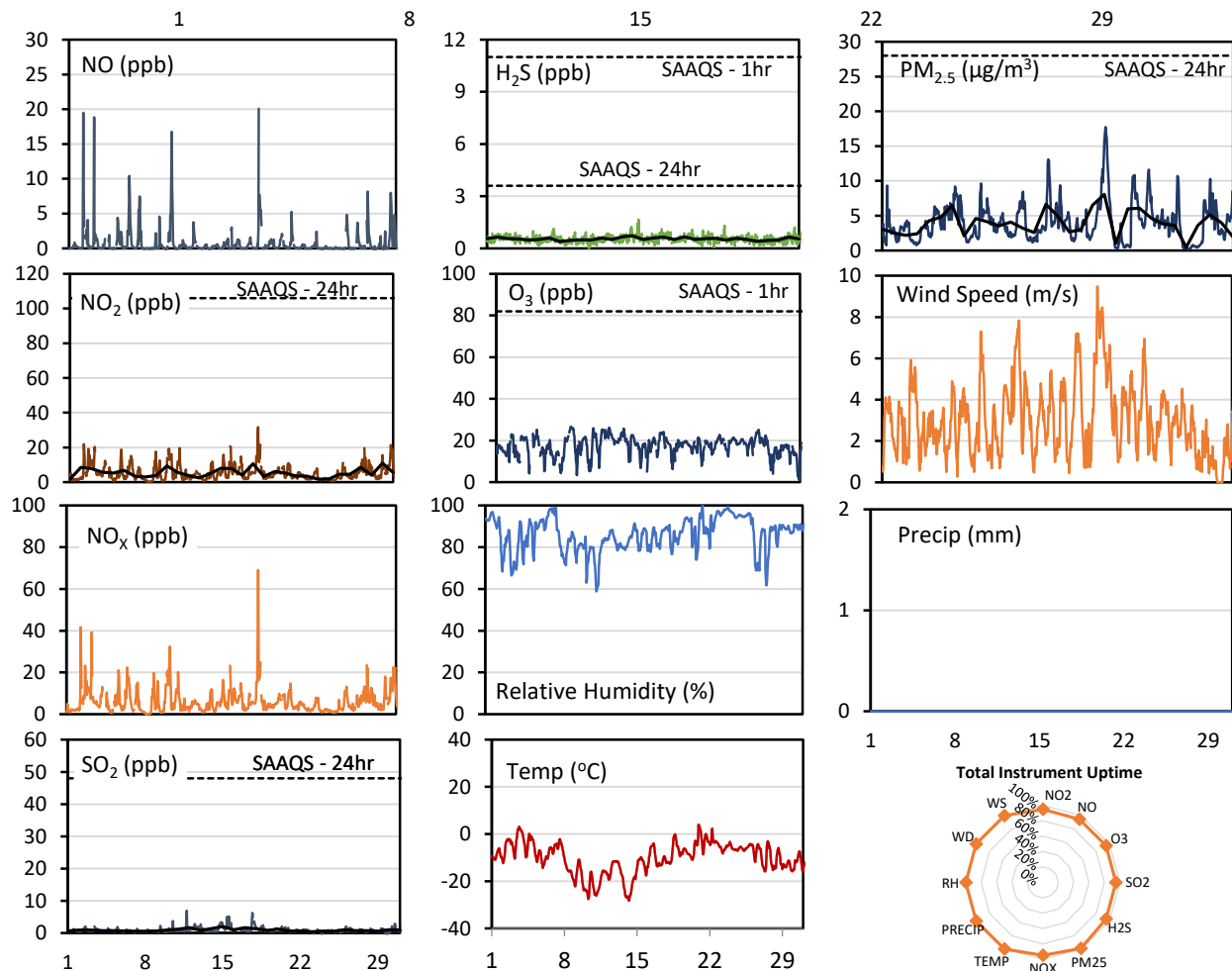
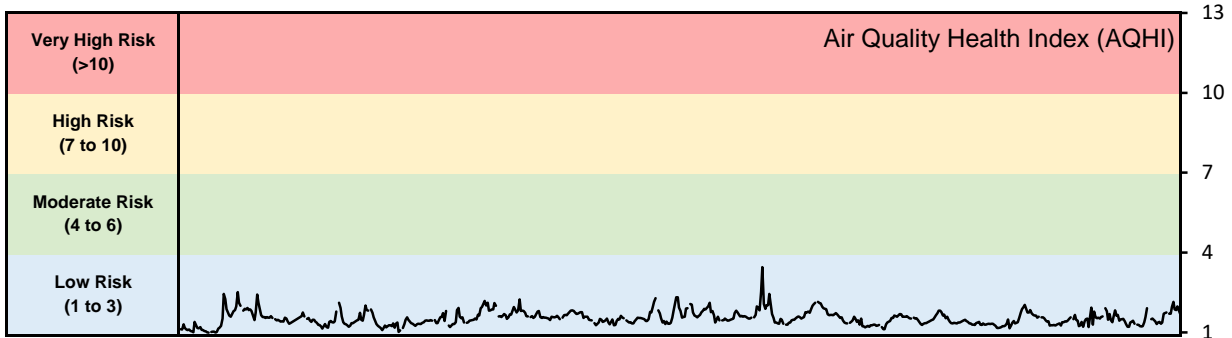


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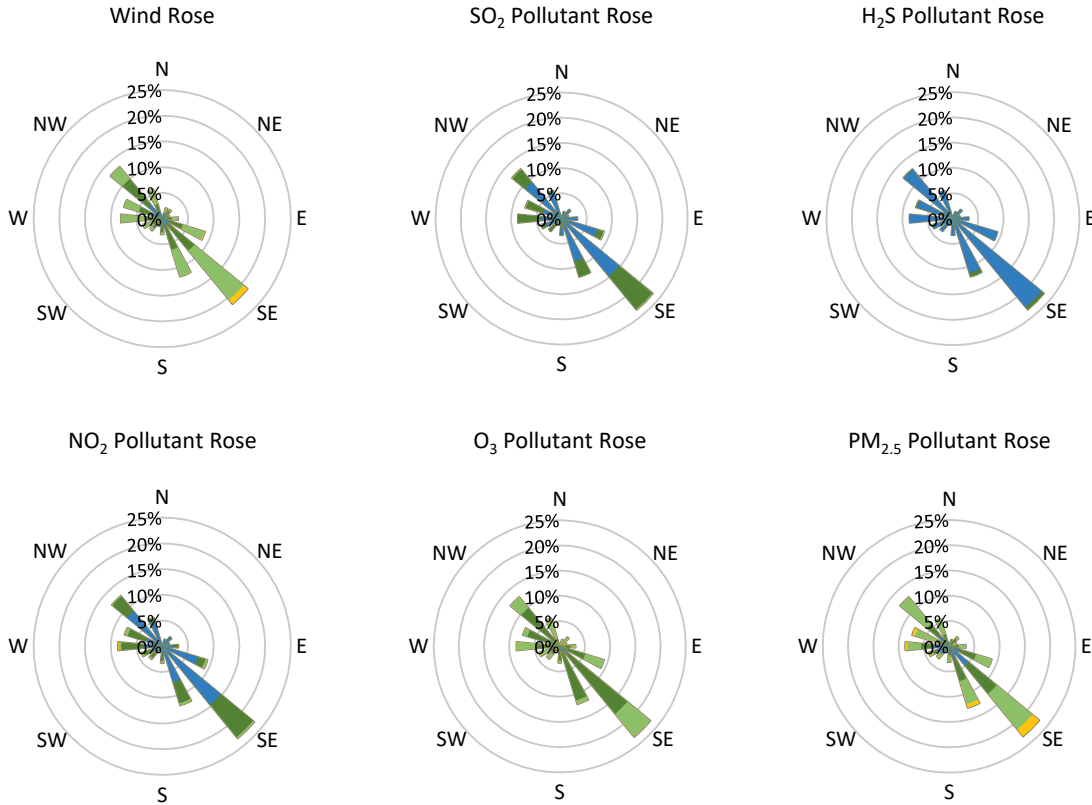
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.7	95%	2.5	Dec-10	-	-	20.1	Dec-18 10:00	-	-
NO ₂	ppb	5.4	95%	10.9	Dec-30	106	0	31.7	Dec-18 11:00	159	0
NO _x	ppb	6.1	95%	14.5	Dec-18	-	-	69.1	Dec-18 11:00	-	-
SO ₂	ppb	0.9	95%	2.0	Dec-15	48	0	6.9	Dec-11 18:00	172	0
H ₂ S	ppb	0.5	95%	0.7	Dec-15	3.6	0	1.7	Dec-15 14:00	11	0
O ₃	ppb	17.2	95%	21.5	Dec-12	-	-	26.6	Dec-08 09:00	82	0
PM _{2.5}	µg/m ³	4.0	99%	8.1	Dec-20	28	0	17.7	Dec-20 02:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



* colored lines indicate 1-hr concentration data for all parameters; solid black lines indicate 24-hr concentrations for PM_{2.5}, NO₂, SO₂, and H₂S

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Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class						
		0.3 ≤ WS < 1.4	1.4 ≤ WS < 3.1	3.1 ≤ WS < 7.8	7.8 ≤ WS < 10.8	10.8 ≤ WS < 13.6	WS ≥ 13.6	
SO ₂	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172	
NO ₂	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212	
H ₂ S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	C ≥ 10.8	
O ₃	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	C ≥ 82	
PM _{2.5}	μg/m ³	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30	

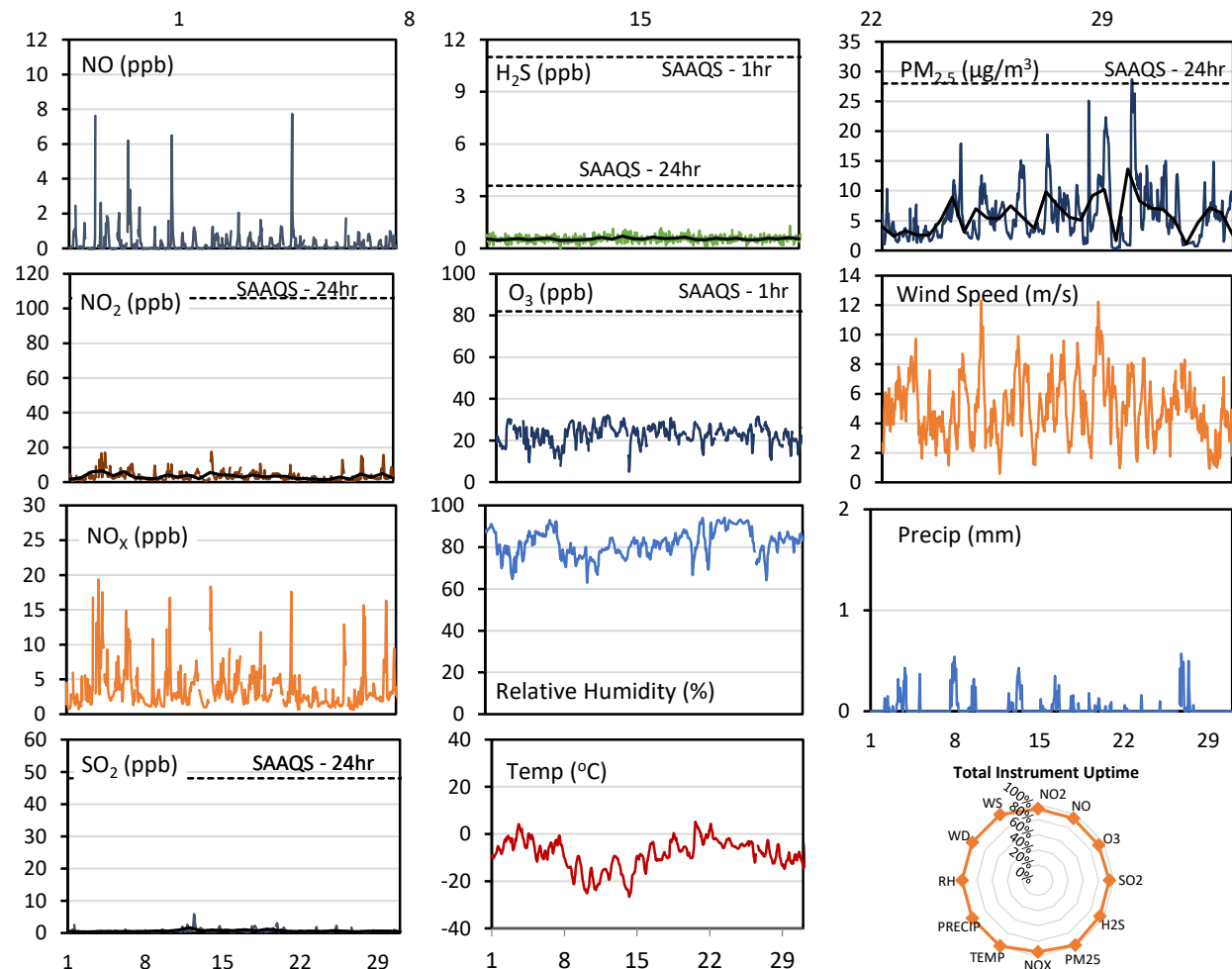
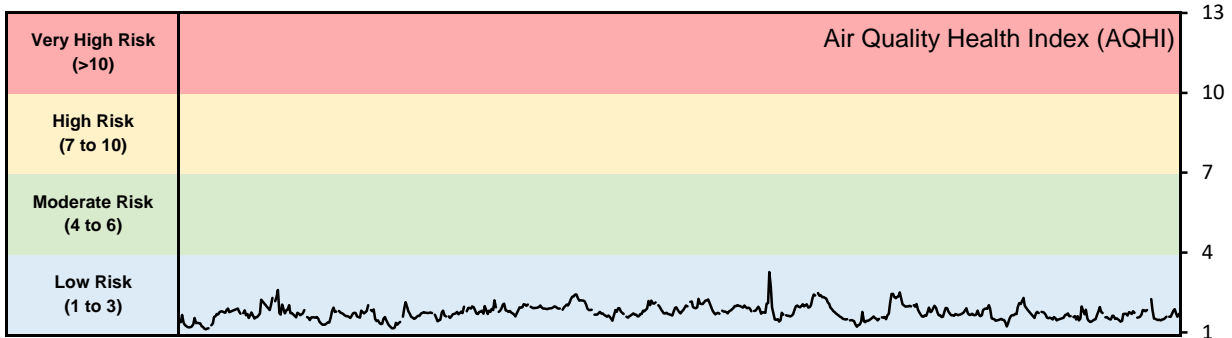
Monthly Update

- Achieved at least 98% of scheduled uptime for all parameters
- Downtime of <6% due to routine daily internal zeroes and spans, and quarterly calibration

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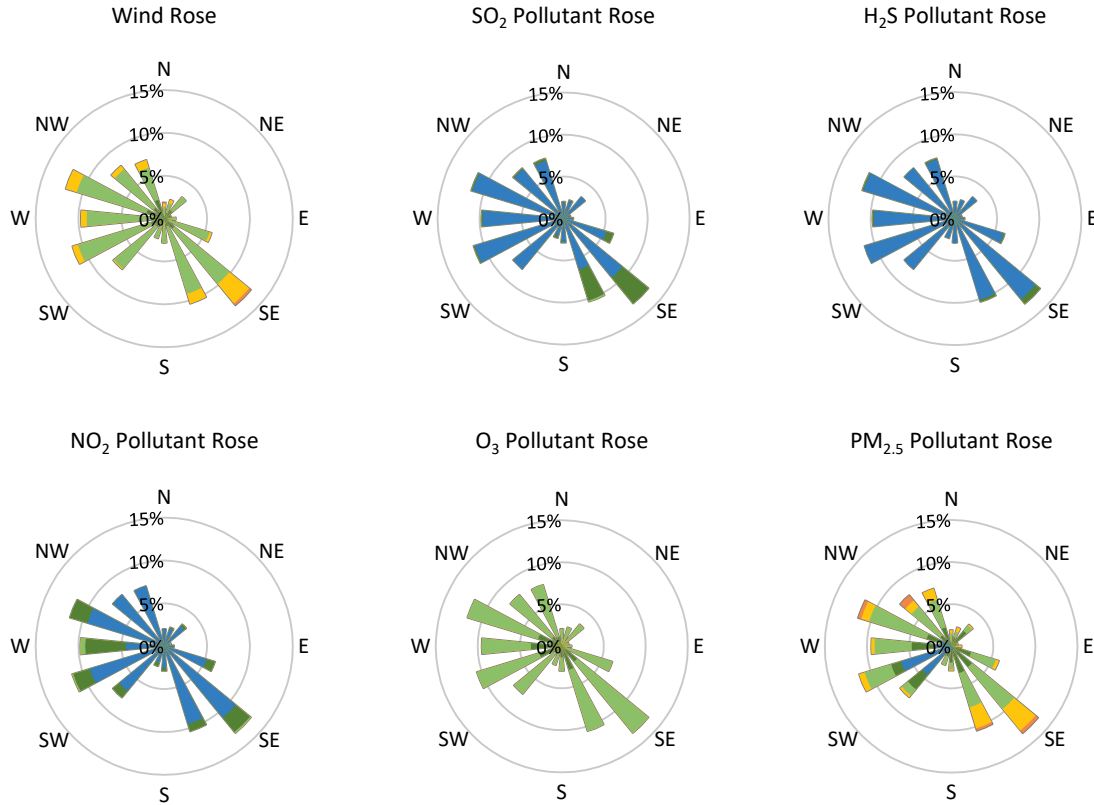
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.3	94%	1.0	Dec-06	-	-	7.7	Dec-21 11:00	-	-
NO ₂	ppb	3.3	94%	6.5	Dec-04	106	0	17.5	Dec-14 03:00	159	0
NO _x	ppb	3.6	94%	7.0	Dec-06	-	-	19.3	Dec-03 22:00	-	-
SO ₂	ppb	0.6	94%	1.7	Dec-12	48	0	5.9	Dec-12 10:00	172	0
H ₂ S	ppb	0.6	94%	0.7	Dec-14	3.6	0	1.3	Dec-30 03:00	11	0
O ₃	ppb	22.9	92%	27.5	Dec-02	-	-	32.1	Dec-12 00:00	82	0
PM _{2.5}	µg/m ³	5.8	99%	13.7	Dec-22	28	0	28.7	Dec-22 08:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



* colored lines indicate 1-hr concentration data for all parameters; solid black lines indicate 24-hr concentrations for PM_{2.5}, NO₂, SO₂, and H₂S

GPAZ Pense Station - December 2019 Summary Report



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class						
Wind Speed	m/s	$0.3 \leq WS < 1.4$	$1.4 \leq WS < 3.1$	$3.1 \leq WS < 7.8$	$7.8 \leq WS < 10.8$	$10.8 \leq WS < 13.6$	$WS \geq 13.6$	
SO ₂	ppb	$0 \leq C < 1$	$1 \leq C < 5$	$5 \leq C < 10$	$10 \leq C < 57$	$57 \leq C < 172$	$C \geq 172$	
NO ₂	ppb	$0 \leq C < 5$	$5 \leq C < 15$	$15 \leq C < 30$	$30 \leq C < 100$	$100 \leq C < 212$	$C \geq 212$	
H ₂ S	ppb	$0 \leq C < 1$	$1 \leq C < 3.6$	$3.6 \leq C < 5$	$5 \leq C < 8$	$8 \leq C < 10.8$	$C \geq 10.8$	
O ₃	ppb	$0 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 40$	$40 \leq C < 60$	$60 \leq C < 82$	$C \geq 82$	
PM _{2.5}	$\mu\text{g}/\text{m}^3$	$0 \leq C < 2$	$2 \leq C < 4$	$4 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 30$	$C \geq 30$	

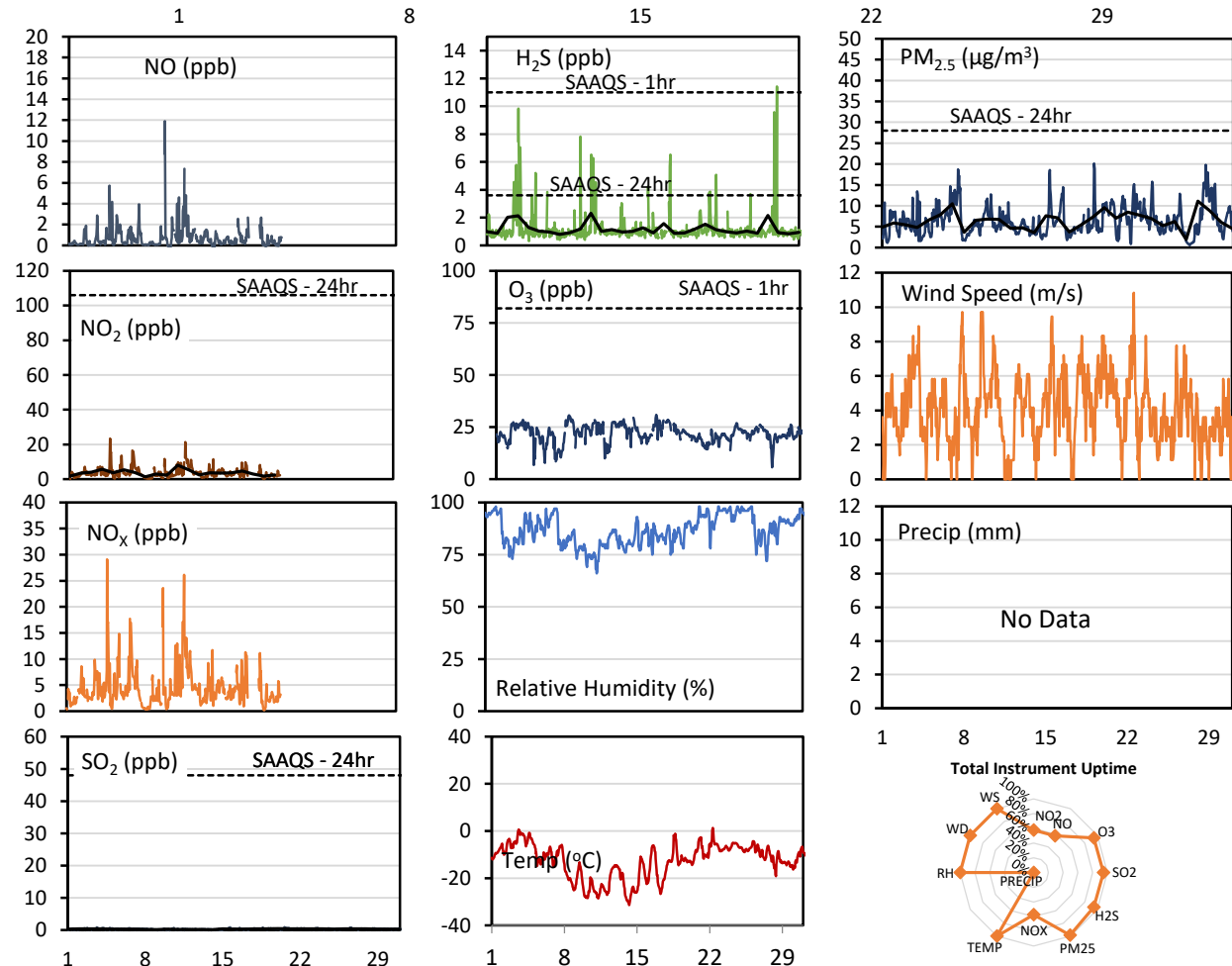
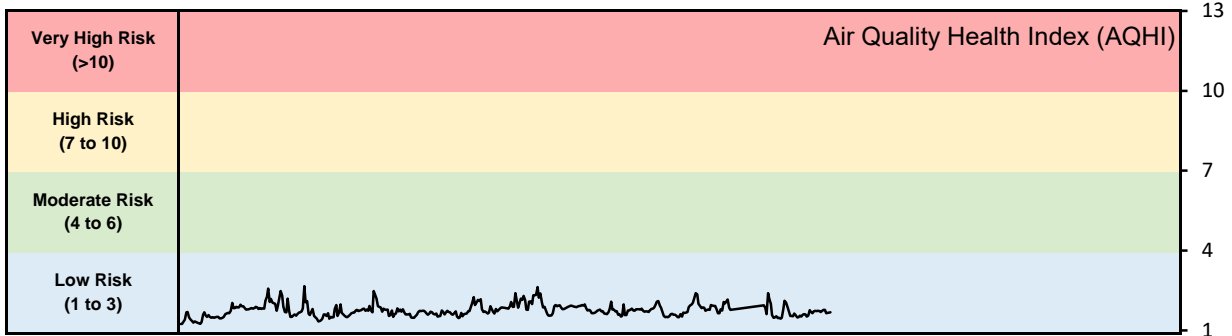
Monthly Update

- Achieved >98% of scheduled uptime for all parameters
- Downtime of 6 - 8% due to routine daily internal zeroes and spans, quarterly calibrations, and maintenance

GPAZ Yorkton Station - December 2019 Summary Report

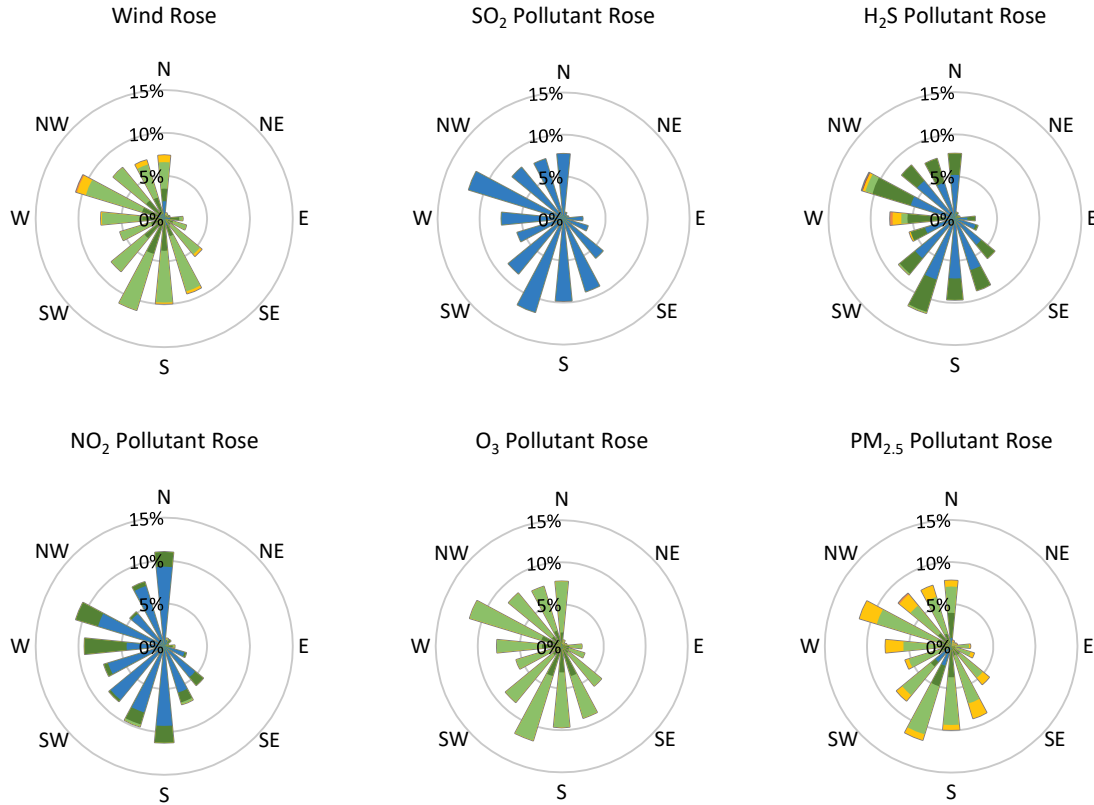
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.7	58%	1.9	Dec-11	-	-	11.9	Dec-09 19:00	-	-
NO ₂	ppb	3.7	58%	8.1	Dec-11	106	0	23.4	Dec-04 17:00	159	0
NO _x	ppb	4.4	58%	10.0	Dec-11	-	-	29.1	Dec-04 17:00	-	-
SO ₂	ppb	0.3	95%	0.4	Dec-20	48	0	0.9	Dec-20 14:00	172	0
H ₂ S	ppb	1.2	94%	2.3	Dec-11	3.6	0	11.4	Dec-28 21:00	11	1
O ₃	ppb	21.8	94%	26.2	Dec-17	-	-	30.9	Dec-16 19:00	82	0
PM _{2.5}	µg/m ³	6.4	99%	11.1	Dec-28	28	0	20.1	Dec-19 03:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



* colored lines indicate 1-hr concentration data for all parameters; solid black lines indicate 24-hr concentrations for PM_{2.5}, NO₂, SO₂, and H₂S

GPAZ Yorkton Station - December 2019 Summary Report



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class						
		0.3 ≤ WS < 1.4	1.4 ≤ WS < 3.1	3.1 ≤ WS < 7.8	7.8 ≤ WS < 10.8	10.8 ≤ WS < 13.6	WS ≥ 13.6	
SO ₂	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172	
NO ₂	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212	
H ₂ S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	C ≥ 10.8	
O ₃	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	C ≥ 82	
PM _{2.5}	µg/m ³	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30	

Monthly Update

- Achieved 60.1% of scheduled uptime for NO_x parameters and at least 98.5% on all other parameters
- Downtime on NO_x parameters due to removal of analyzer for repair. A replacement analyzer was installed in the interim but experienced operational issues that were resolved in January.
- Downtime of 5.8% on other parameters due to routine daily zeros and spans and NO_x analyzer replacement cal.
- Weather parameters taken from Environment Canada Historical Hourly Data

Exceedance Summary (1- Hour Average - Exceedances in Bold)

Exceedance Time	AQHI	NO ₂	NO	SO ₂	O ₃	NO _x	H ₂ S	PM _{2.5}	Temp	WD	WS
	-	ppb	ppb	ppb	ppb	ppb	ppb	µg/m ³	°C	deg	m/s
Dec-28 21:00	-	0.0	0.0	0.2	0.0	0.0	11.4	15.7	-12.6	300.0	1.4