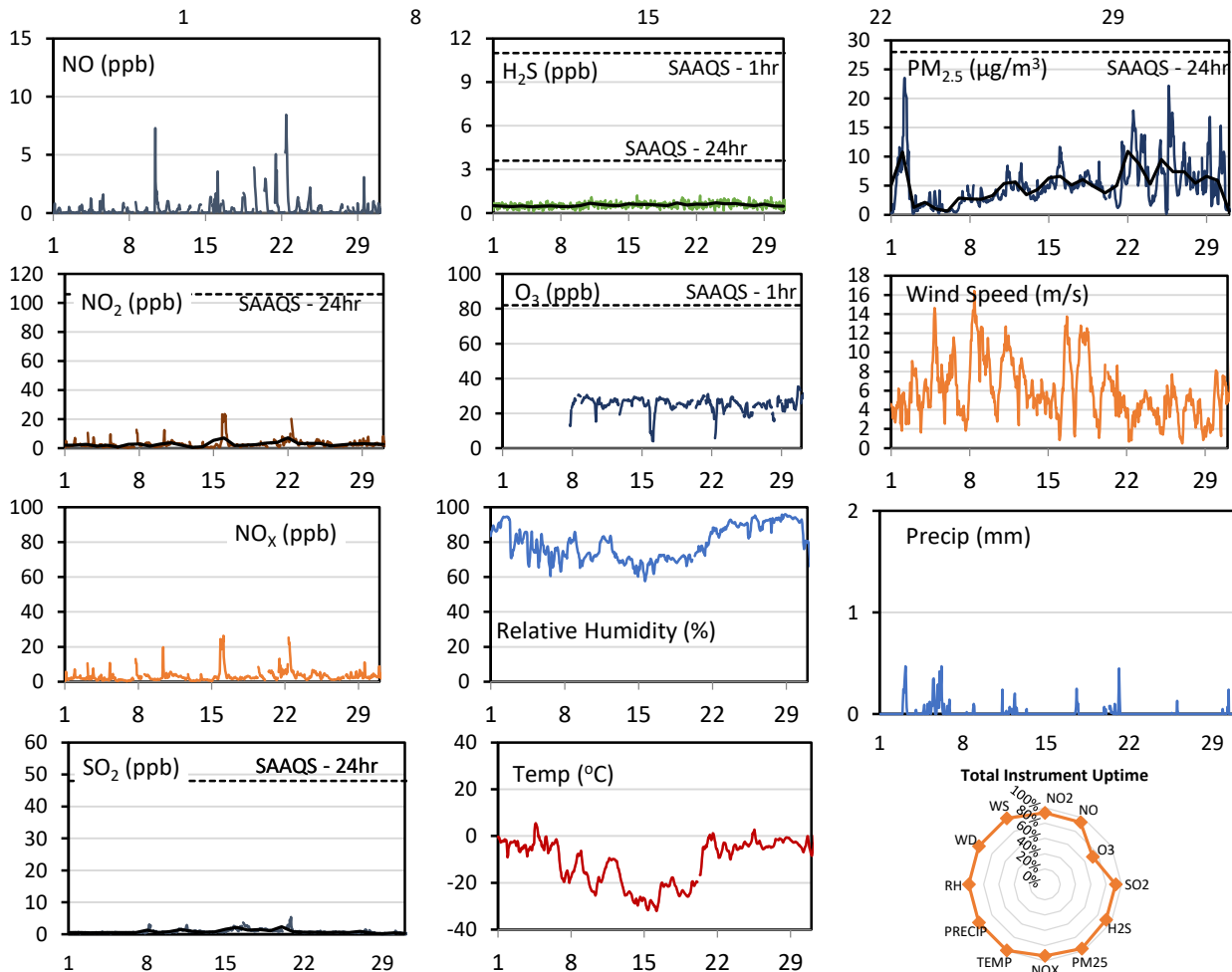
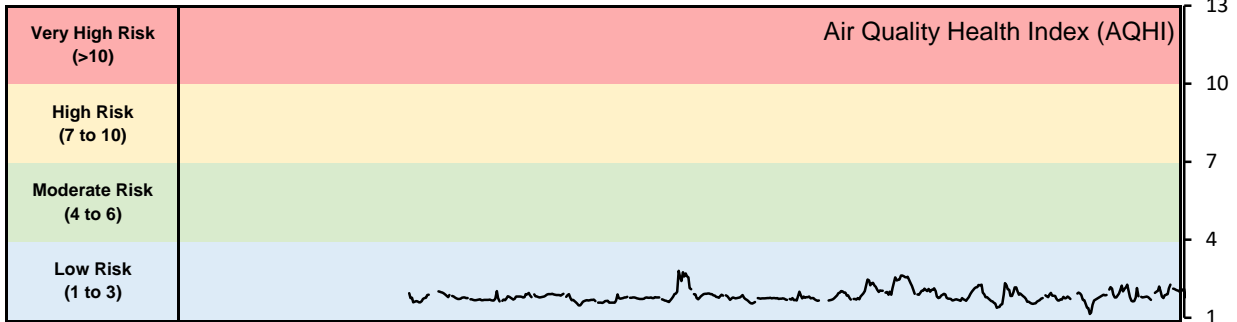


## GPAZ Pense Station - January 2020 Summary Report

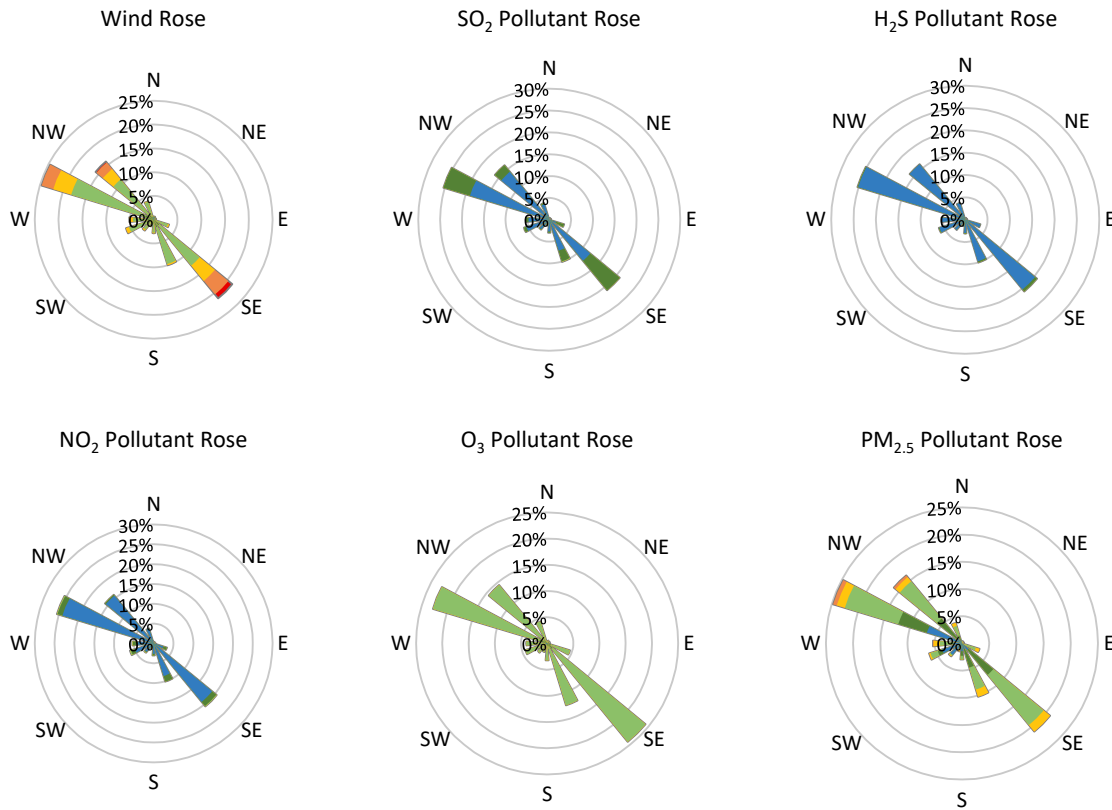
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.4	93%	1.7	Jan-22	-	-	8.5	Jan-22 10:00	-	-
NO <sub>2</sub>	ppb	2.8	93%	7.2	Jan-22	106	0	23.5	Jan-16 01:00	159	0
NO <sub>x</sub>	ppb	3.2	93%	8.8	Jan-22	-	-	26.3	Jan-16 03:00	-	-
SO <sub>2</sub>	ppb	0.8	92%	2.4	Jan-20	48	0	5.4	Jan-20 20:00	172	0
H <sub>2</sub> S	ppb	0.5	92%	0.7	Jan-24	3.6	0	1.2	Jan-15 21:00	11	0
O <sub>3</sub>	ppb	25.4	72%	30.4	Jan-31	-	-	35.4	Jan-30 16:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	5.1	97%	10.9	Jan-22	28	0	23.6	Jan-02 05:00	-	-

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<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and H<sub>2</sub>S

**GPAZ Pense Station - January 2020 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 <sub>2</sub>	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172
NO <sub>2</sub>	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212
H <sub>2</sub> S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	C ≥ 10.8
O <sub>3</sub>	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	C ≥ 82
PM <sub>2.5</sub>	µg/m <sup>3</sup>	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30

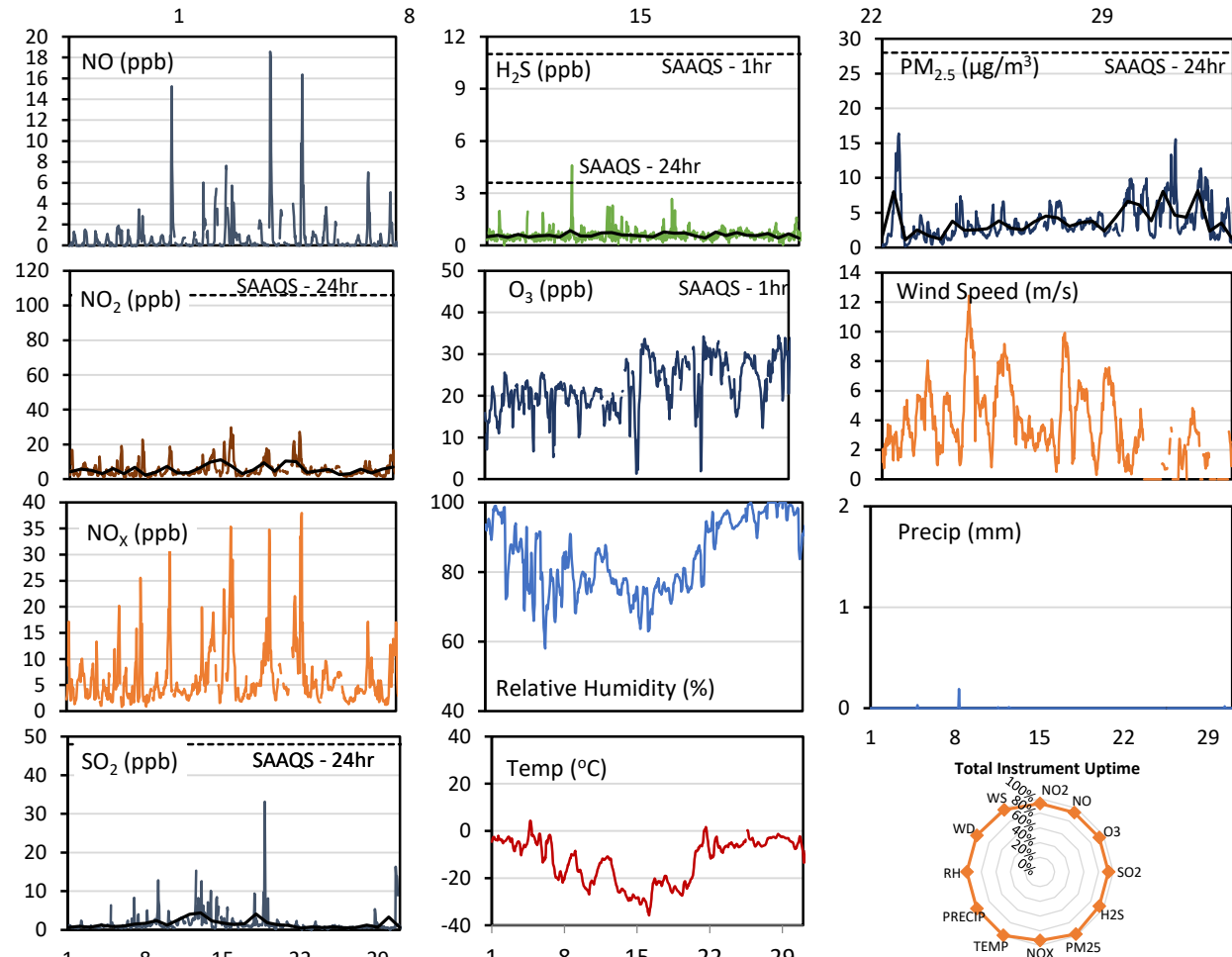
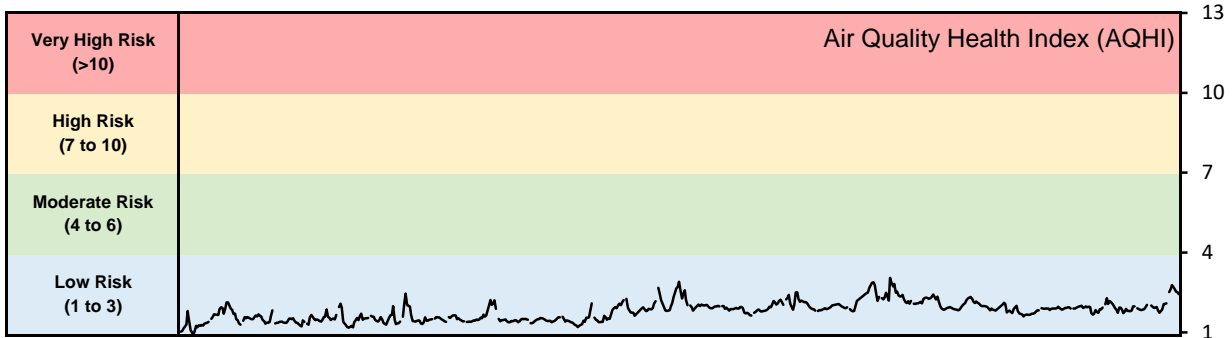
**Monthly Update**

- Achieved 70% uptime for O<sub>3</sub> and at least 92% of sheduled uptime for all other parameters
- Downtime of 30% for O<sub>3</sub> due to a pump failure and <8% due to routine daily internal zeroes and spans, and quarterly calibrations

## GPAZ Regina Station - January 2020 Summary Report

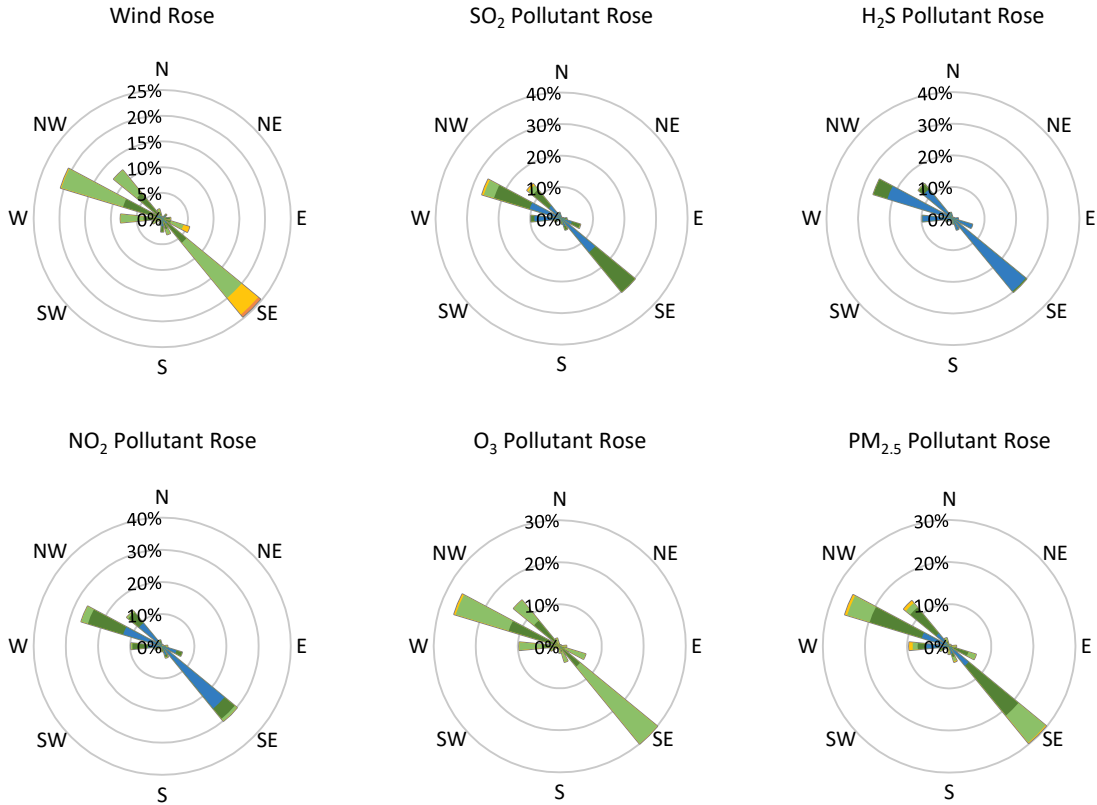
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.8	93%	2.9	Jan-19	-	-	18.6	Jan-19 11:00	-	-
NO <sub>2</sub>	ppb	5.6	93%	11.1	Jan-15	106	0	29.8	Jan-15 23:00	159	0
NO <sub>x</sub>	ppb	6.3	93%	12.9	Jan-15	-	-	38.0	Jan-22 10:00	-	-
SO <sub>2</sub>	ppb	1.6	93%	4.4	Jan-13	48	0	33.2	Jan-18 19:00	172	0
H <sub>2</sub> S	ppb	0.6	93%	0.8	Jan-09	3.6	0	4.6	Jan-09 04:00	11	0
O <sub>3</sub>	ppb	22.6	94%	32.0	Jan-31	-	-	41.0	Jan-31 15:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	3.7	98%	8.2	Jan-28	28	0	16.4	Jan-02 10:00	-	-

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<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and H<sub>2</sub>S

**GPAZ Regina Station - January 2020 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 <sub>2</sub>	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172	
NO <sub>2</sub>	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212	
H <sub>2</sub> S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	C ≥ 10.8	
O <sub>3</sub>	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	C ≥ 82	
PM <sub>2.5</sub>	μg/m <sup>3</sup>	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30	

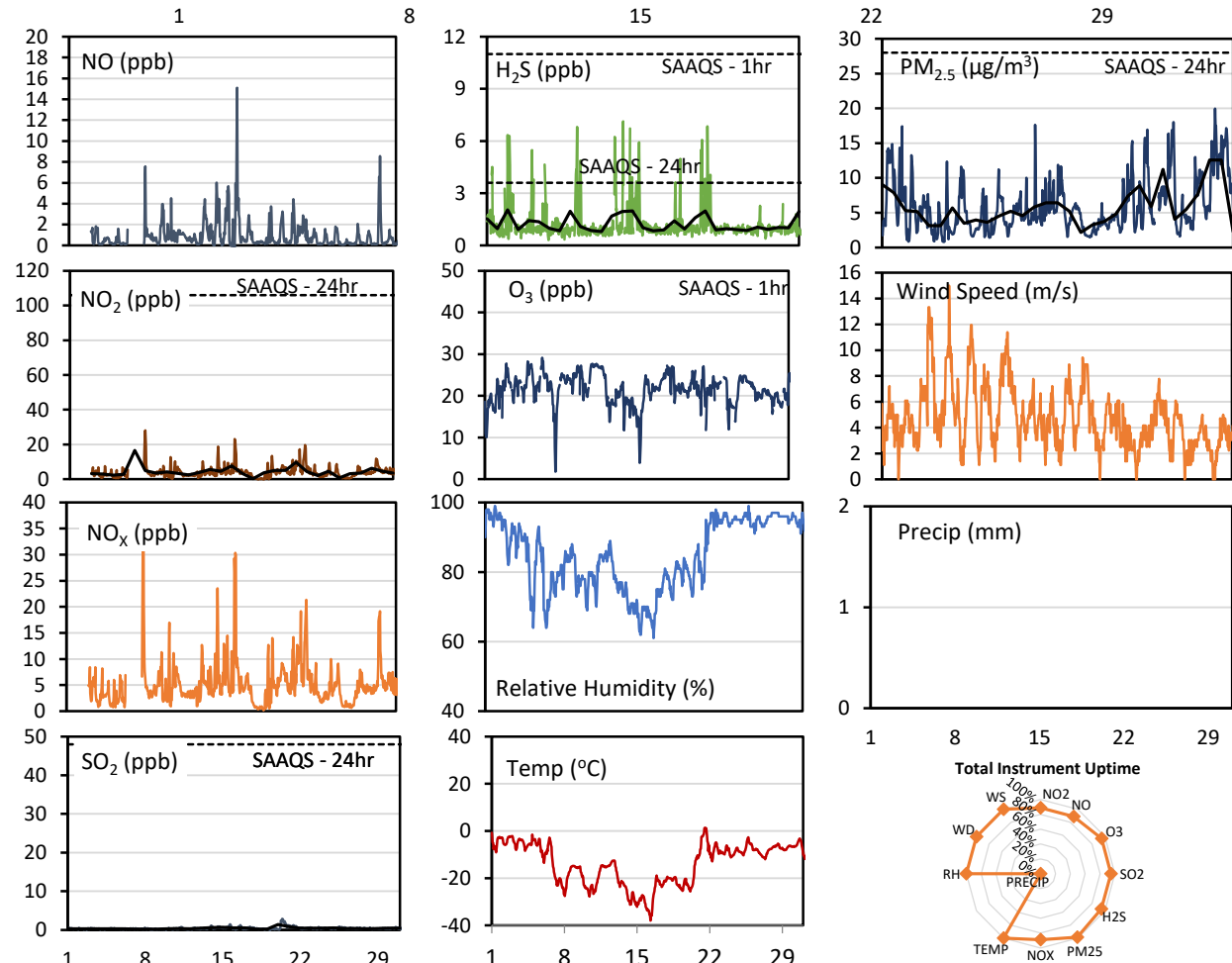
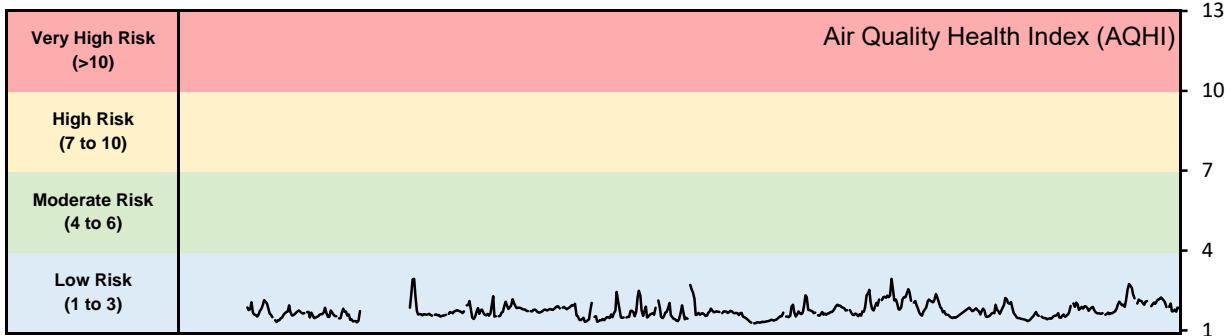
**Monthly Update**

- Achieved >97.7% of scheduled uptime on all parameters
- Downtime of <7% on other parameters due to routine daily zeros and spans and non-routine maintenance

## GPAZ Yorkton Station - January 2020 Summary Report

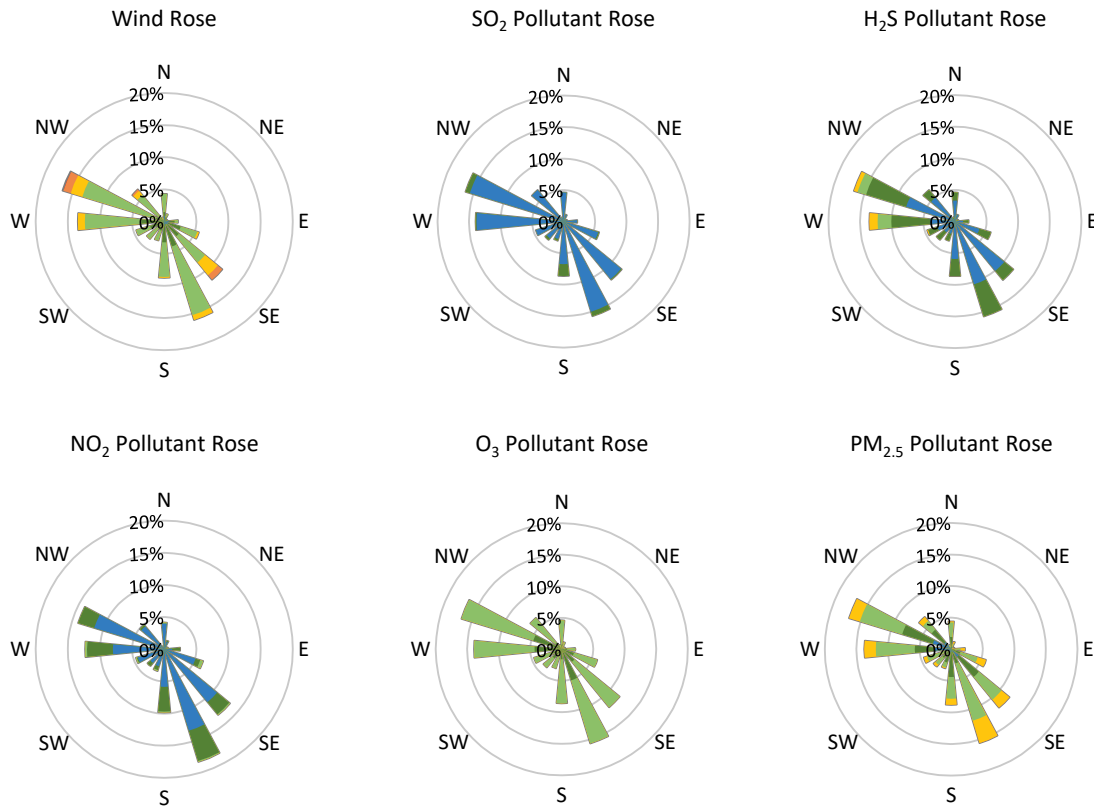
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.9	89%	2.7	Jan-16	-	-	15.1	Jan-16 10:00	-	-
NO <sub>2</sub>	ppb	4.0	89%	16.5	Jan-07	106	0	28.1	Jan-08 00:00	159	0
NO <sub>x</sub>	ppb	5.1	89%	19.2	Jan-07	-	-	35.9	Jan-08 00:00	-	-
SO <sub>2</sub>	ppb	0.4	95%	1.4	Jan-20	48	0	2.9	Jan-20 09:00	172	0
H <sub>2</sub> S	ppb	1.2	94%	2.0	Jan-03	3.6	0	7.1	Jan-14 02:00	11	0
O <sub>3</sub>	ppb	21.6	95%	26.5	Jan-31	-	-	29.1	Jan-06 16:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	5.8	99%	12.6	Jan-29	28	0	20.0	Jan-29 11:00	-	-

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<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and H<sub>2</sub>S

**GPAZ Yorkton Station - January 2020 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 <sub>2</sub>	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 <sub>2</sub>	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 <sub>2</sub> 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 <sub>3</sub>	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 <sub>2.5</sub>	$\mu\text{g}/\text{m}^3$	$0 \leq C < 2$	$2 \leq C < 4$	$4 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 30$	$C \geq 30$	

**Monthly Update**

- Achieved >92% of scheduled uptime for all parameters except Precipitation which could not be obtained from Environment Canada
- Downtime of <12% all parameters except Precip(<23%) from operational issues with replacement NOx analyzer and due to routine daily internal zeroes and spans
- Weather parameters taken from Environment Canada Historical Hourly Data