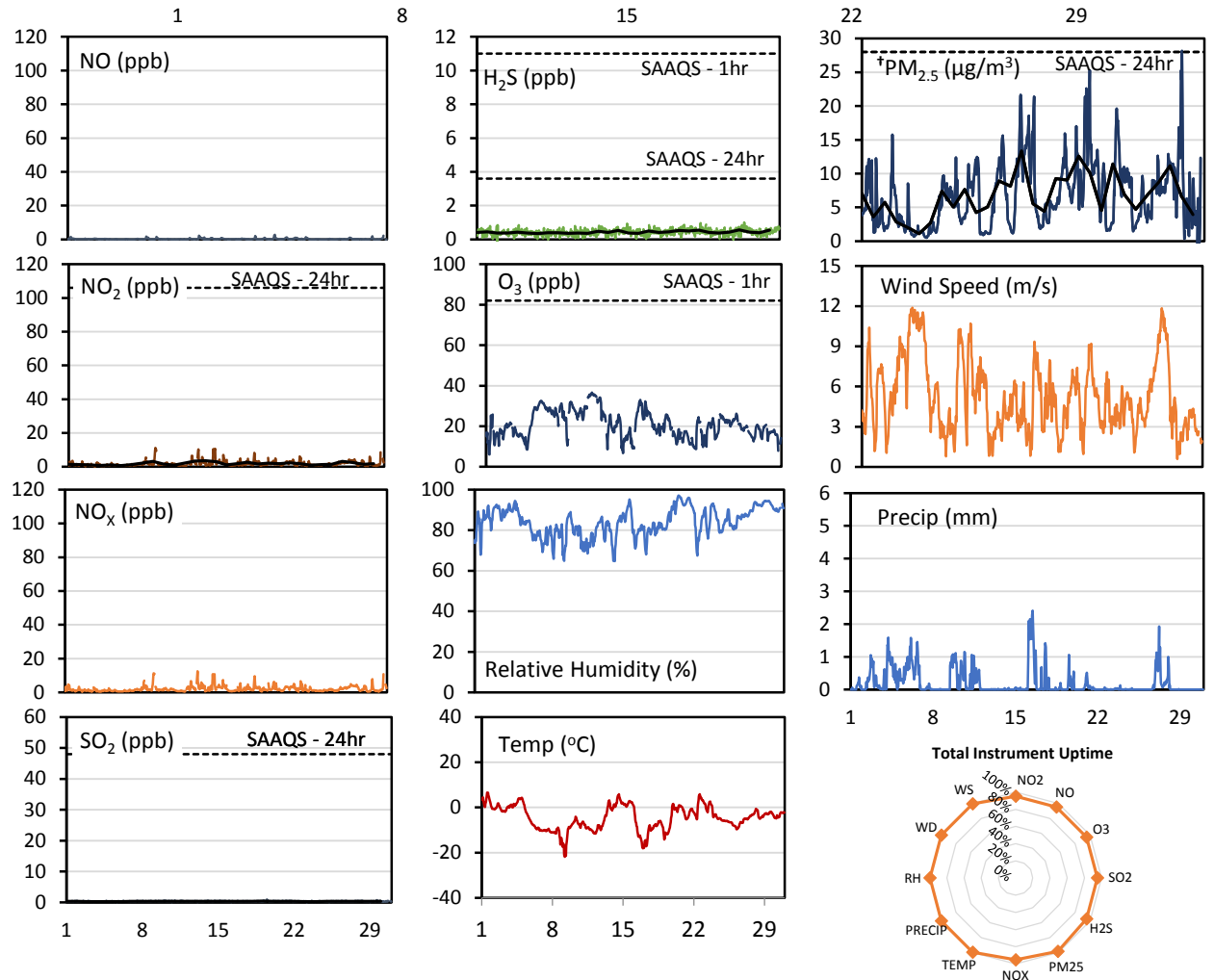
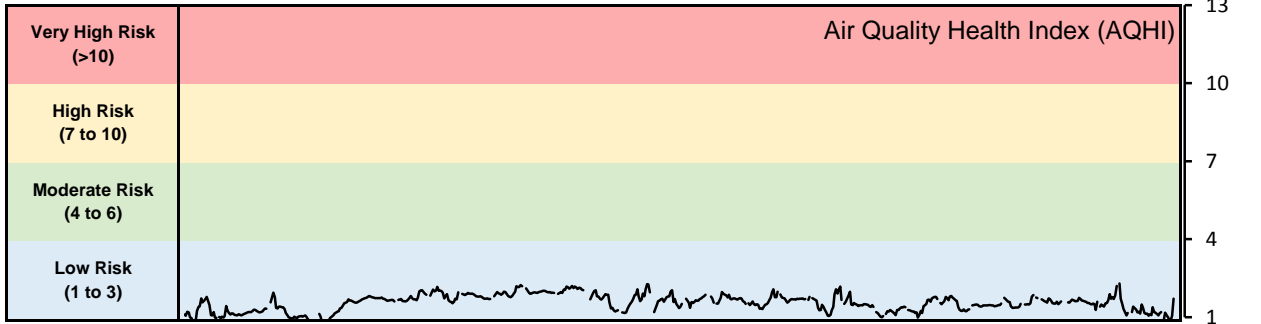


## GPAZ Pense Station - November 2018 Summary Report

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	0.2	95%	0.6	Nov-13	-	-	2.8	Nov-20 11:00	-	-
NO <sub>2</sub>	ppb	1.8	95%	3.5	Nov-14	106	0	11.1	Nov-09 06:00	159	0
NO <sub>x</sub>	ppb	2.0	95%	3.9	Nov-13	-	-	12.5	Nov-13 08:00	-	-
SO <sub>2</sub>	ppb	0.3	95%	0.4	Nov-19	48	0	1.0	Nov-19 12:00	172	0
H <sub>2</sub> S	ppb	0.4	95%	0.6	Nov-27	3.6	0	1.0	Nov-27 12:00	11	0
O <sub>3</sub>	ppb	20.8	95%	33.5	Nov-11	-	-	36.6	Nov-11 18:00	82	0
†PM <sub>2.5</sub>	µg/m <sup>3</sup>	6.7	99%	13.4	Nov-15	28	0	28.2	Nov-29 01:00	-	-

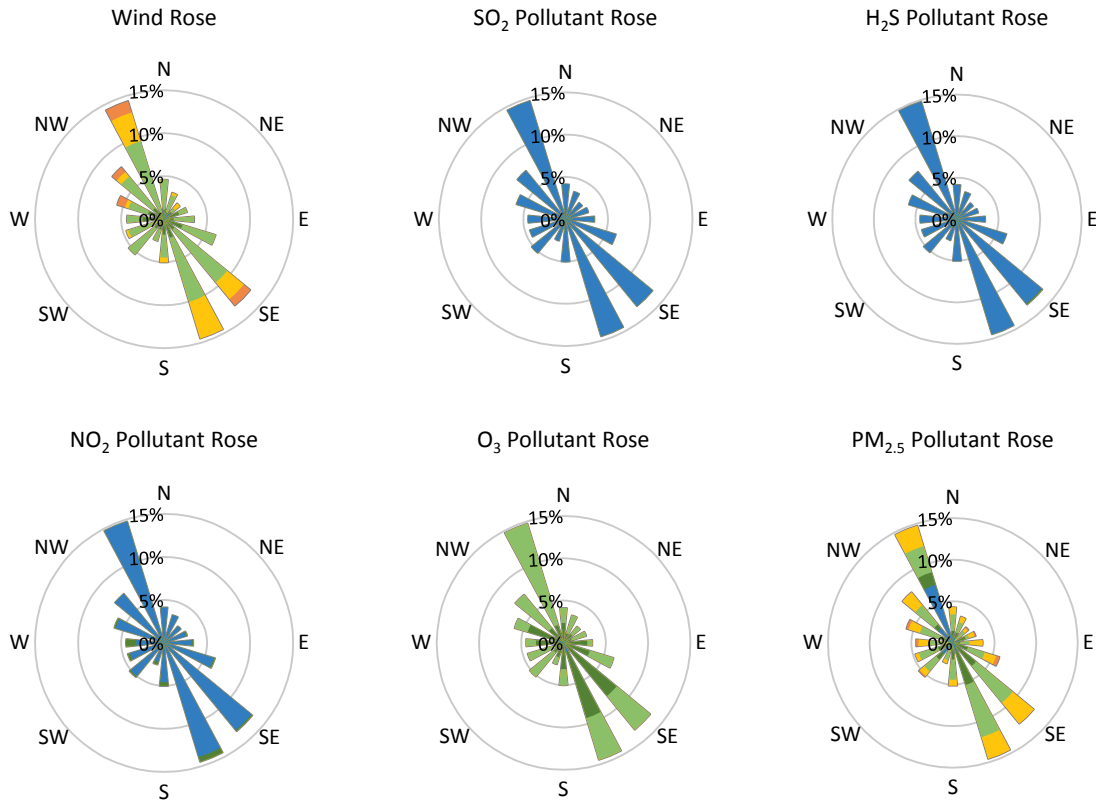
SAAQS: Saskatchewan Ambient Air Quality Standards



\* 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

† Particulate data is unable to be validated as a leak was discovered during a verification; however, data is representative of the general conditions

**GPAZ Pense Station - November 2018 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>	µg/m <sup>3</sup>	$0 \leq C < 2$	$2 \leq C < 4$	$4 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 30$	$C \geq 30$	

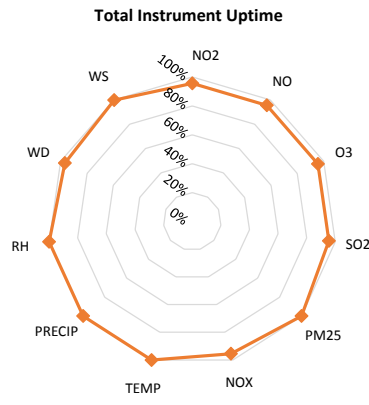
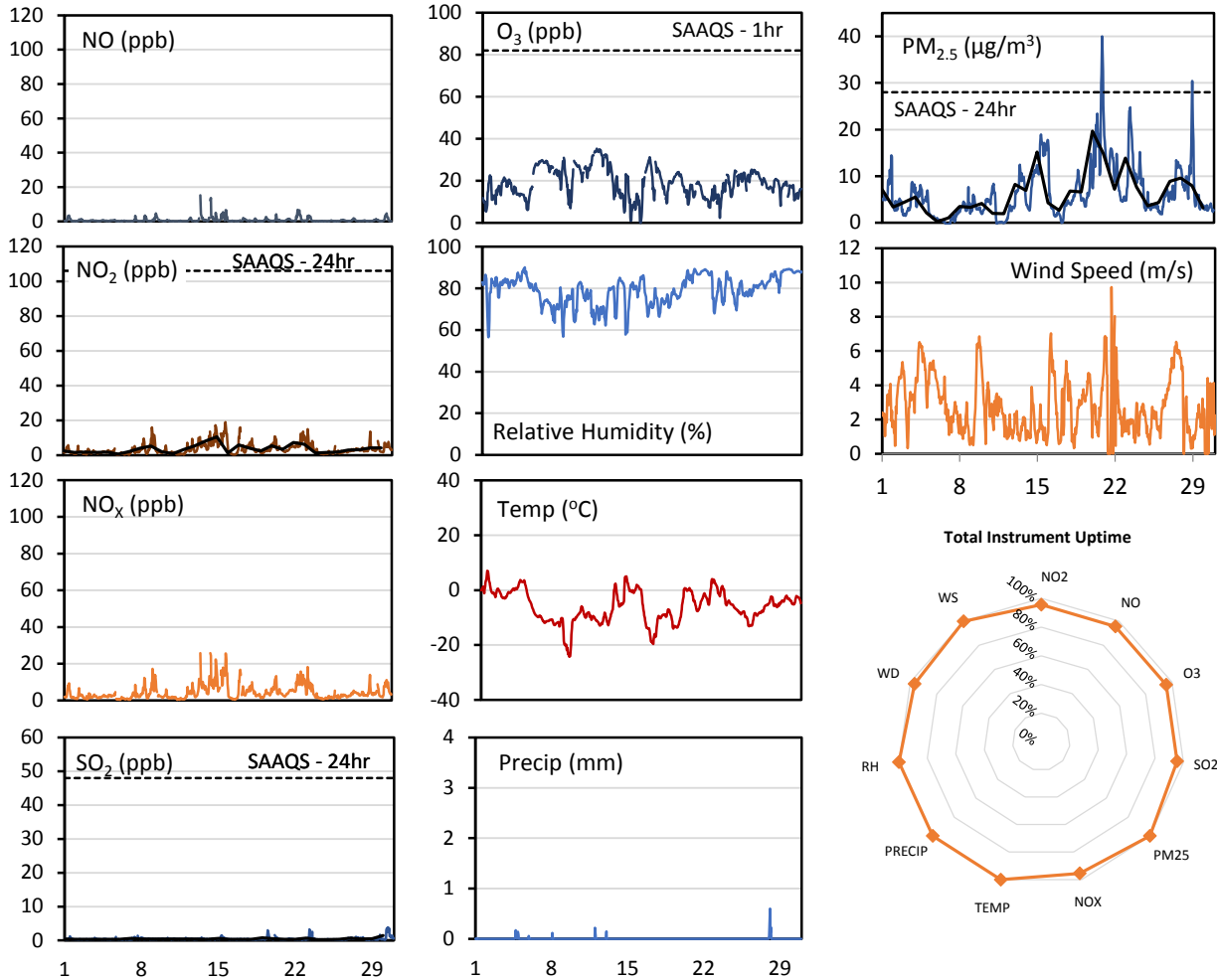
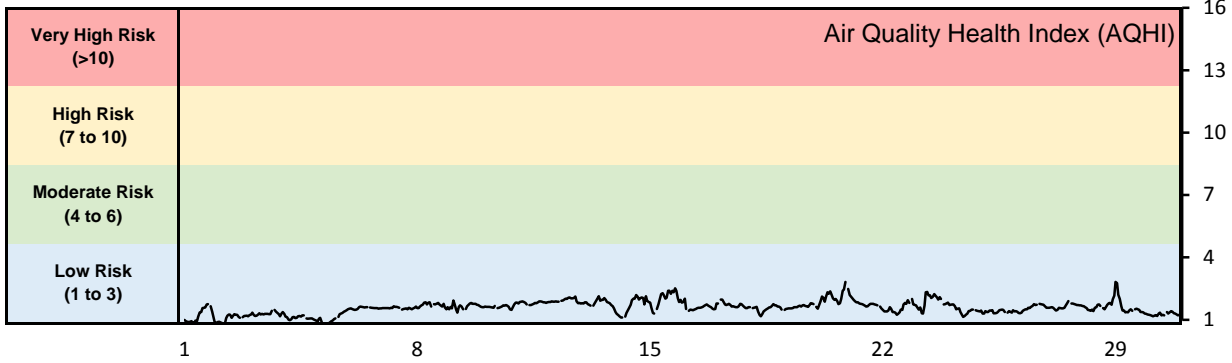
**Monthly Update**

- Achieved >95% of scheduled uptime for all parameters
- Downtime of 4% due to routine daily internal zeroes and spans
- Particulate data was unable to be validated as a leak was discovered in the analyzer during a verification; however, data is representative of the general conditions and is included in these results

## GPAZ East Regina Station - November 2018 Summary Report

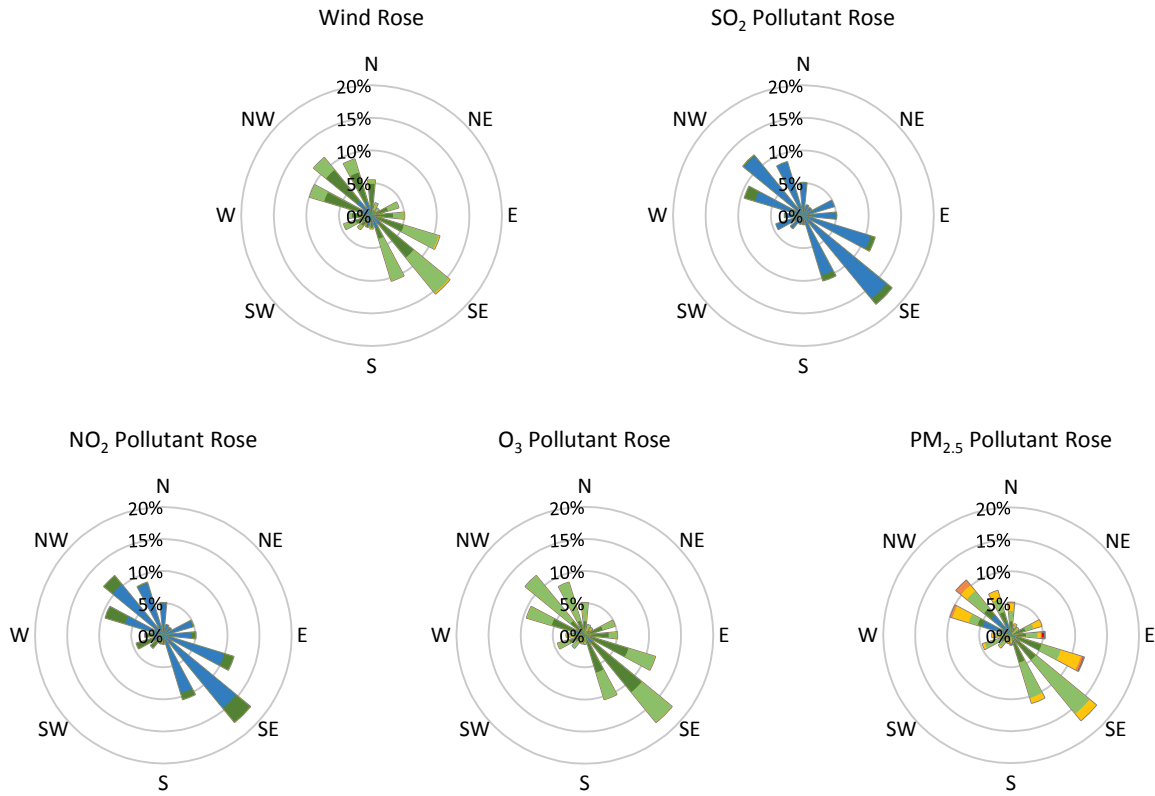
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.8	96%	2.4	Nov-14	-	-	15.2	Nov-13 11:00	-	-
NO <sub>2</sub>	ppb	3.6	96%	10.6	Nov-15	106	0	19.0	Nov-15 19:00	159	0
NO <sub>x</sub>	ppb	4.3	96%	12.9	Nov-15	-	-	25.8	Nov-13 11:00	-	-
SO <sub>2</sub>	ppb	0.4	96%	1.4	Nov-30	48	0	3.9	Nov-30 10:00	172	0
O <sub>3</sub>	ppb	19.0	96%	31.6	Nov-11	-	-	35.3	Nov-11 17:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	6.3	100%	19.7	Nov-20	28	0	40.0	Nov-20 21:00	-	-

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>, and SO<sub>2</sub>

**GPAZ East Regina Station - November 2018 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	$0 \leq C < 5$	$5 \leq C < 15$	$15 \leq C < 30$	$30 \leq C < 100$	$100 \leq C < 212$	$C \geq 212$	
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>	$\mu\text{g}/\text{m}^3$	$0 \leq C < 2$	$2 \leq C < 4$	$4 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 30$	$C \geq 30$	

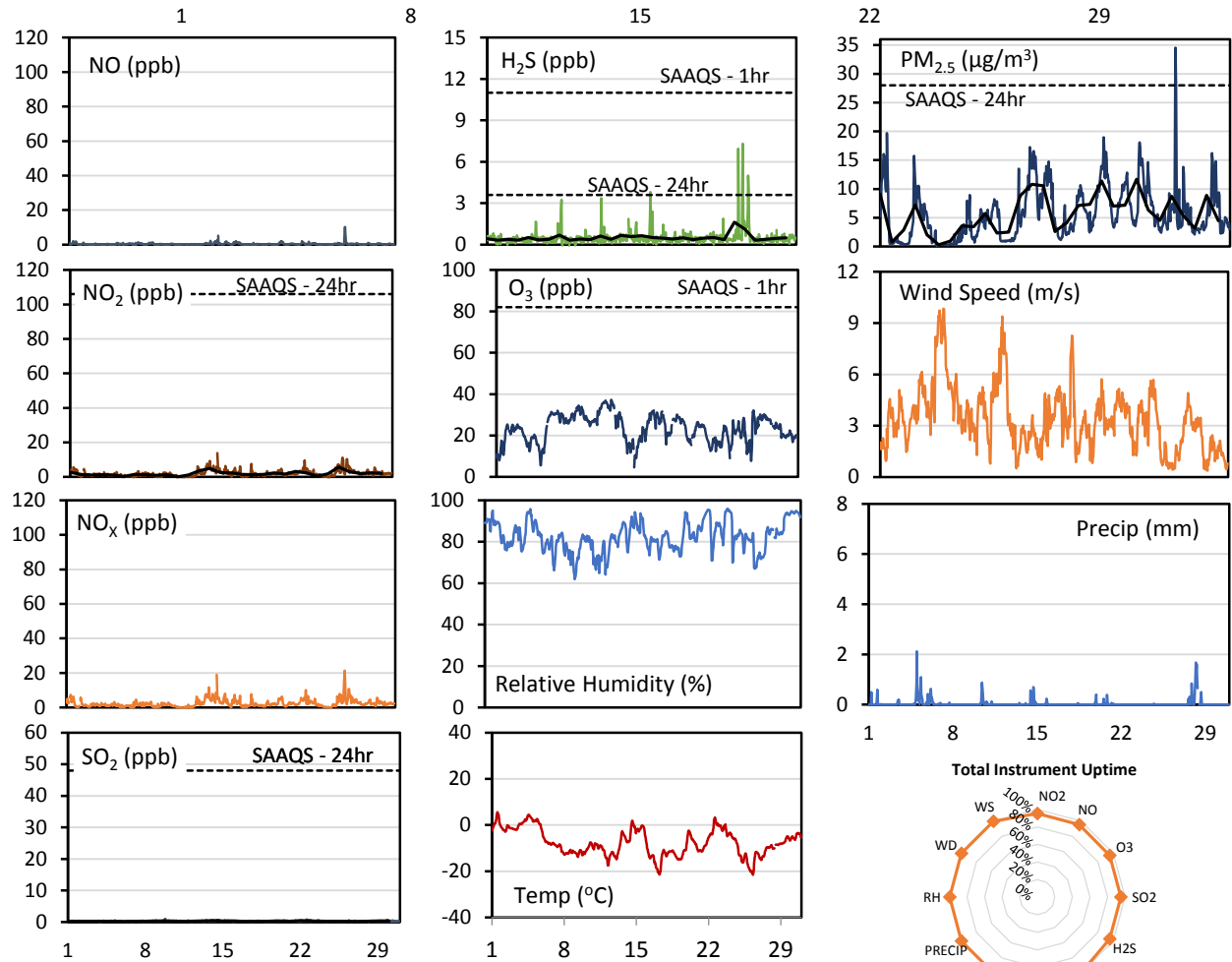
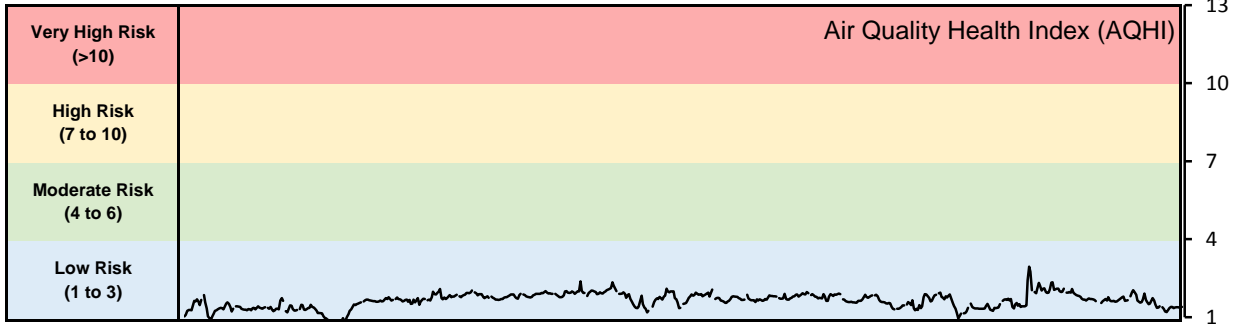
**Monthly Update**

- Achieved >99% of scheduled uptime for all parameters
- Downtime of 4% results from routine daily internal zeroes and spans

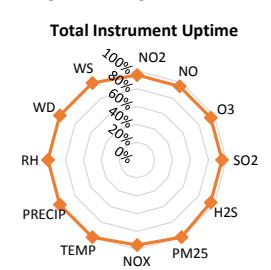
## GPAZ Yorkton Station - November 2018 Summary Report

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	95%	1.3	Nov-26	-	-	10.2	Nov-26 09:00	-	-
NO <sub>2</sub>	ppb	1.9	95%	5.7	Nov-26	106	0	13.8	Nov-14 17:00	159	0
NO <sub>x</sub>	ppb	2.3	95%	7.0	Nov-26	-	-	21.3	Nov-26 09:00	-	-
SO <sub>2</sub>	ppb	0.3	95%	0.4	Nov-14	48	0	1.0	Nov-09 19:00	172	0
H <sub>2</sub> S	ppb	0.5	95%	1.6	Nov-25	3.6	0	7.3	Nov-25 19:00	11	0
O <sub>3</sub>	ppb	23.3	95%	33.5	Nov-11	-	-	37.3	Nov-12 10:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	5.7	100%	11.7	Nov-23	28	0	34.5	Nov-26 08:00	-	-

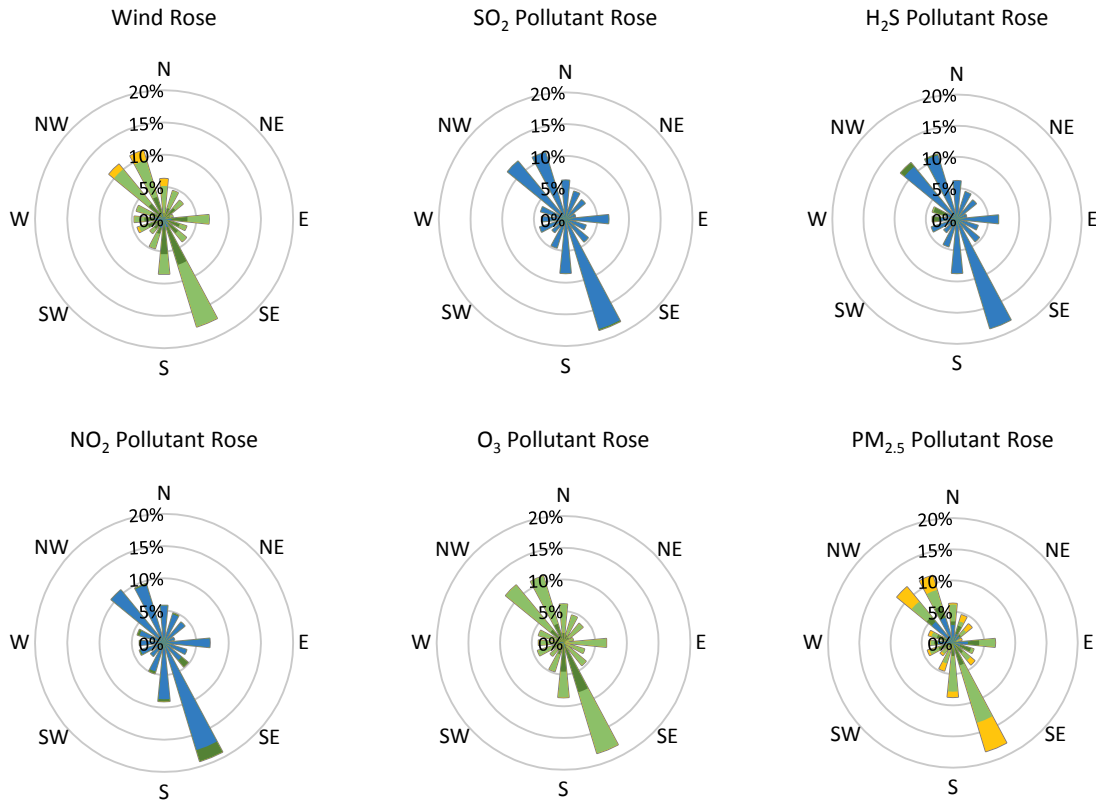
SAAQS: Saskatchewan Ambient Air Quality Standards



\* colored lines indicate 1-hr concentration data for all parameters; solid black lines indicate 24-hr concentrations for PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and H<sub>2</sub>S



**GPAZ Yorkton Station - November 2018 Summary Report**



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class						
Wind Speed	m/s	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	13.6 ≤ WS < 17.2	WS ≥ 13.6
SO <sub>2</sub>	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	172 ≤ C < 212	C ≥ 212
NO <sub>2</sub>	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	212 ≤ C < 252	C ≥ 252
H <sub>2</sub> S	ppb	0 ≤ C < 1	1 ≤ C < 3.6	3.6 ≤ C < 5	5 ≤ C < 8	8 ≤ C < 10.8	10.8 ≤ C < 17.2	C ≥ 17.2
O <sub>3</sub>	ppb	0 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 40	40 ≤ C < 60	60 ≤ C < 82	82 ≤ C < 172	C ≥ 172
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	30 ≤ C < 172	C ≥ 172

**Monthly Update**

- Achieved > 99% of scheduled uptime for all parameters
- Downtime of 4% due to routine daily internal zeroes and spans