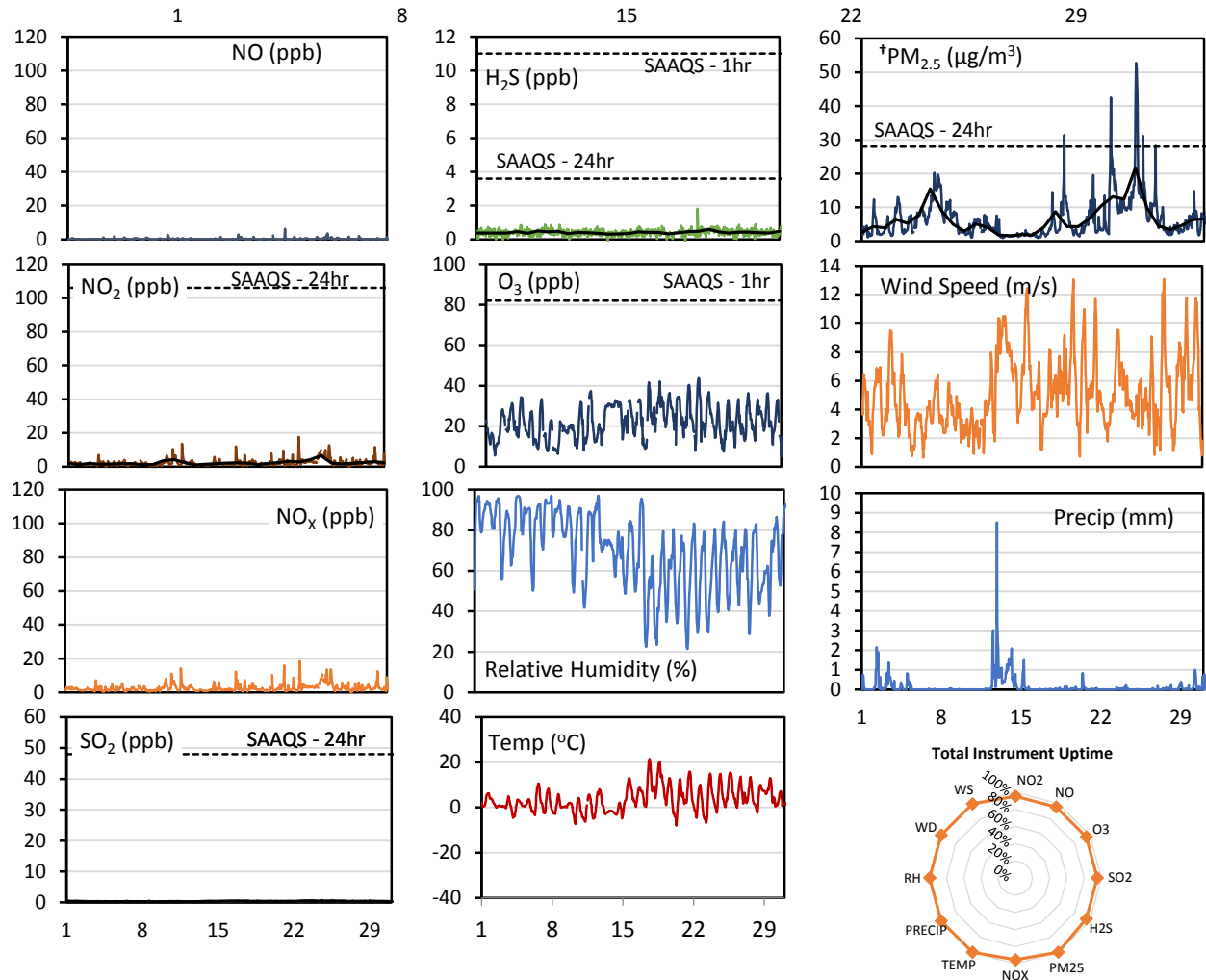
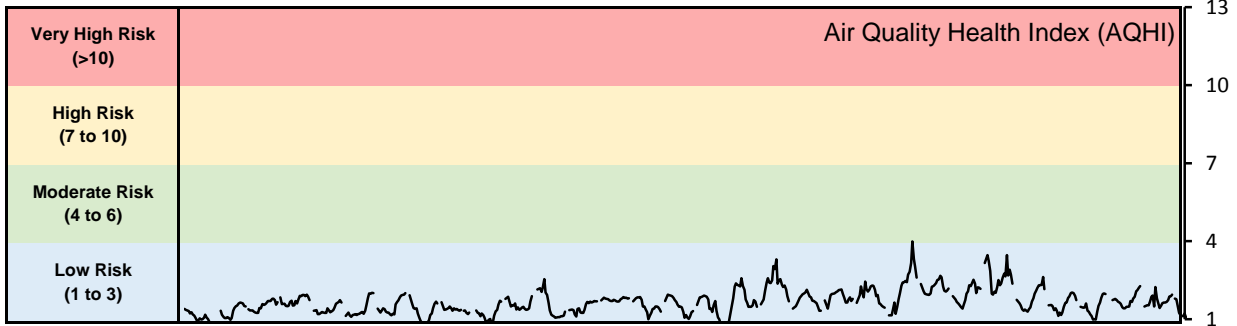


GPAZ Pense Station - October 2018 Summary Report

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	0.3	95%	0.9	Oct-25	-	-	6.3	Oct-21 10:00	-	-
NO ₂	ppb	2.3	95%	6.6	Oct-25	106	0	17.7	Oct-22 21:00	159	0
NO _x	ppb	2.6	95%	7.5	Oct-25	-	-	18.5	Oct-22 21:00	-	-
SO ₂	ppb	0.3	95%	0.5	Oct-23	48	0	0.8	Oct-24 13:00	172	0
H ₂ S	ppb	0.4	95%	0.6	Oct-24	3.6	0	1.8	Oct-22 21:00	11	0
O ₃	ppb	22.0	95%	29.9	Oct-18	-	-	43.8	Oct-22 15:00	82	0
†PM _{2.5}	µg/m ³	6.5	100%	21.7	Oct-25	28	0	52.8	Oct-25 01:00	-	-

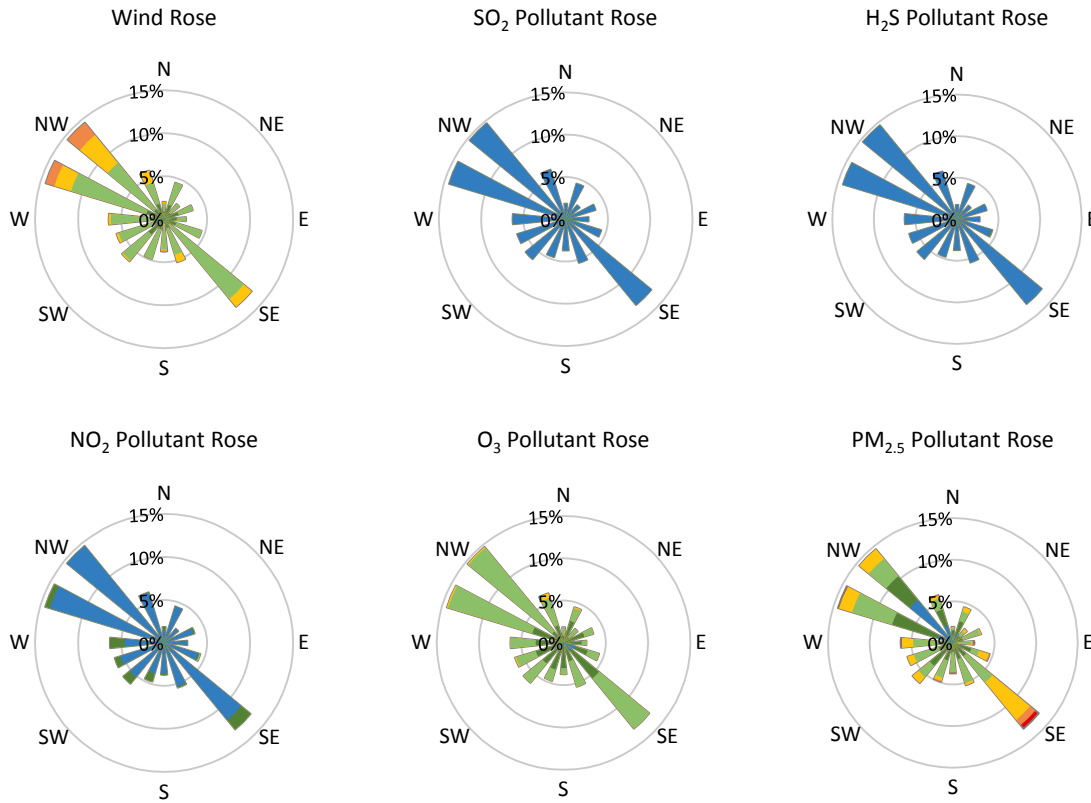
SAAQS: Saskatchewan Ambient Air Quality Standards



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

† 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 - October 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 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}	µg/m ³	$0 \leq C < 2$	$2 \leq C < 4$	$4 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 30$	$C \geq 30$	

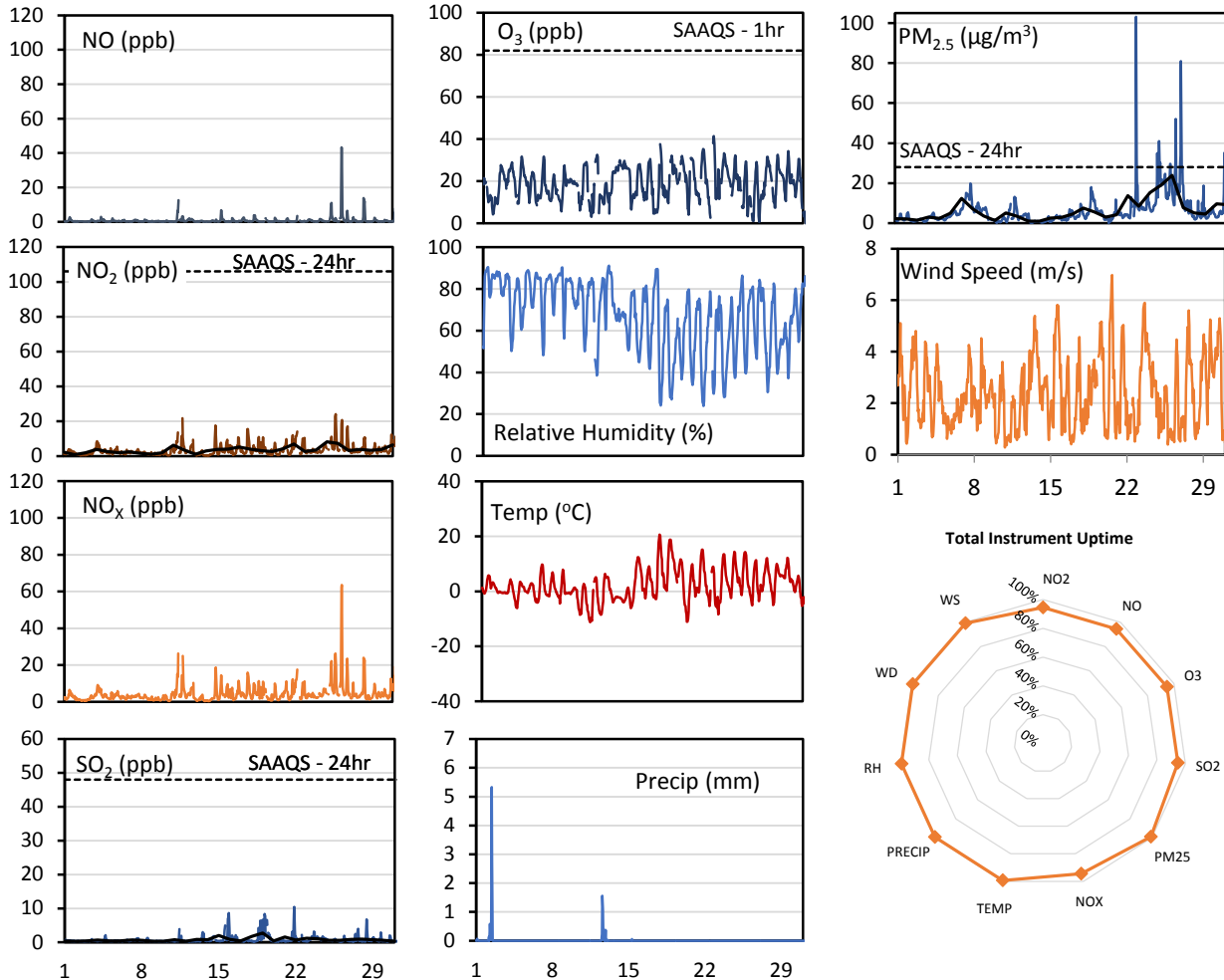
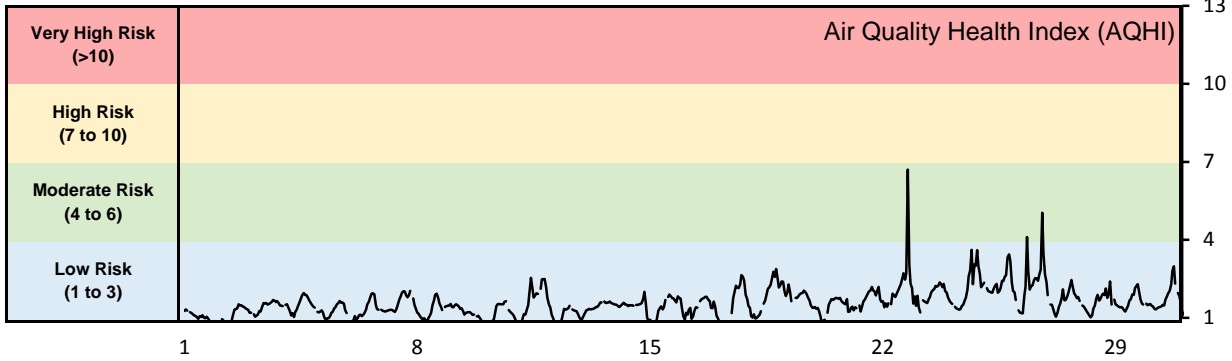
Monthly Update

- Achieved >99% of scheduled uptime for all parameters
- Downtime of 4% 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

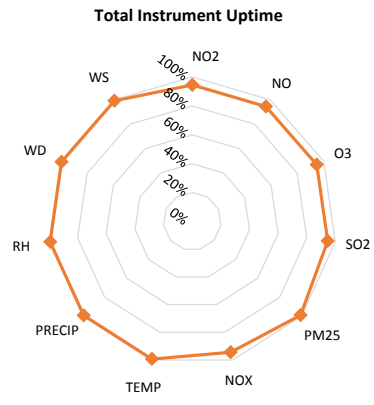
GPAZ East Regina Station - October 2018 Summary Report

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	0.9	94%	5.3	Oct-26	-	-	43.3	Oct-26 08:00	-	-
NO ₂	ppb	3.6	94%	8.3	Oct-25	106	0	24.1	Oct-25 19:00	159	0
NO _x	ppb	4.5	94%	12.6	Oct-26	-	-	63.5	Oct-26 09:00	-	-
SO ₂	ppb	0.8	95%	2.7	Oct-19	48	0	10.4	Oct-21 21:00	172	0
O ₃	ppb	18.7	95%	25.3	Oct-19	-	-	41.4	Oct-22 15:00	82	0
PM _{2.5}	µg/m ³	6.4	99%	23.9	Oct-26	28	0	103.1	Oct-22 18:00	-	-

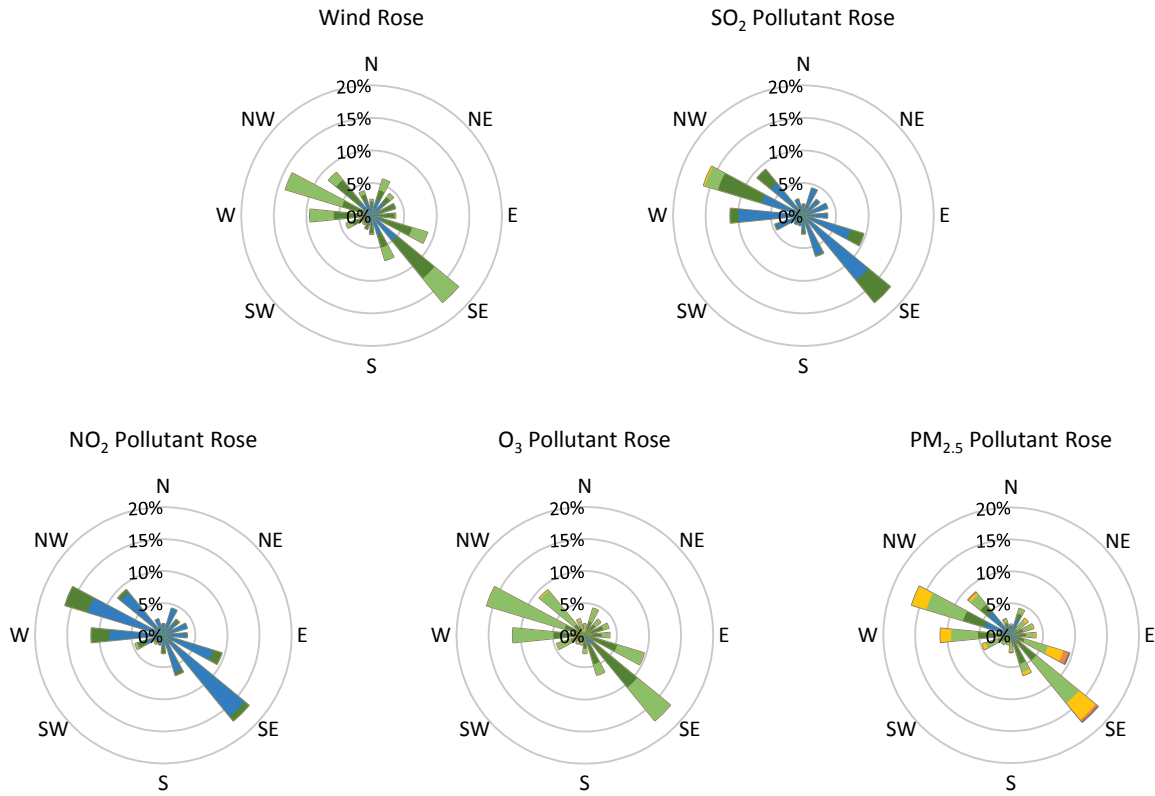
SAAQS: Saskatchewan Ambient Air Quality Standards



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



GPAZ East Regina Station - October 2018 Summary Report



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class						
		$0.3 \leq WS < 1.4$	$1.4 \leq WS < 3.1$	$3.1 \leq WS < 7.8$	$7.8 \leq WS < 10.8$	$10.8 \leq WS < 13.6$	$WS \geq 13.6$	
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	$0 \leq C < 5$	$5 \leq C < 15$	$15 \leq C < 30$	$30 \leq C < 100$	$100 \leq C < 212$	$C \geq 212$	
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}	$\mu\text{g}/\text{m}^3$	$0 \leq C < 2$	$2 \leq C < 4$	$4 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 30$	$C \geq 30$	

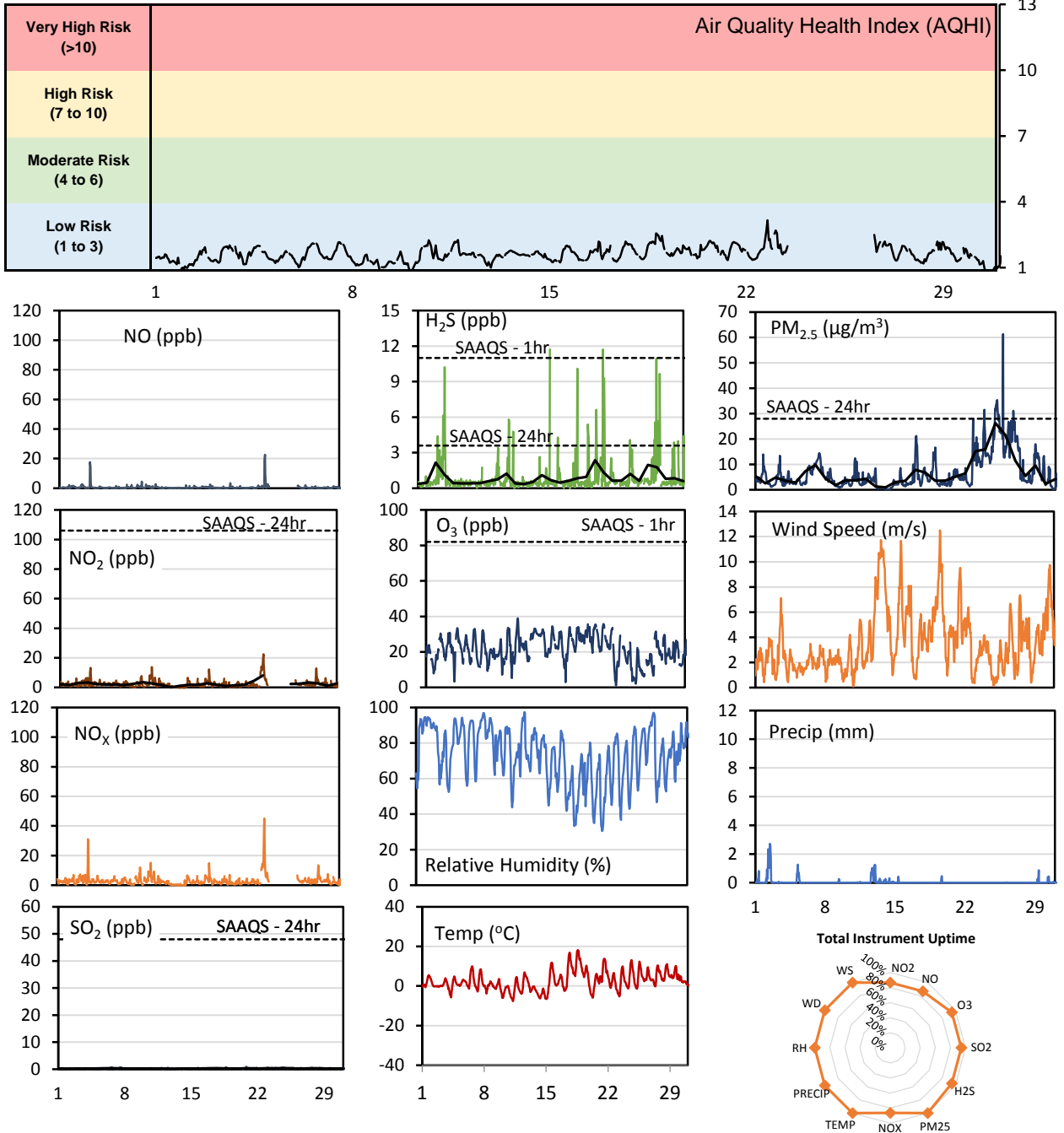
Monthly Update

- Achieved >98% of scheduled uptime for all parameters
- Downtime of 4% due to routine daily internal zeroes and spans

GPAZ Yorkton Station - October 2018 Summary Report

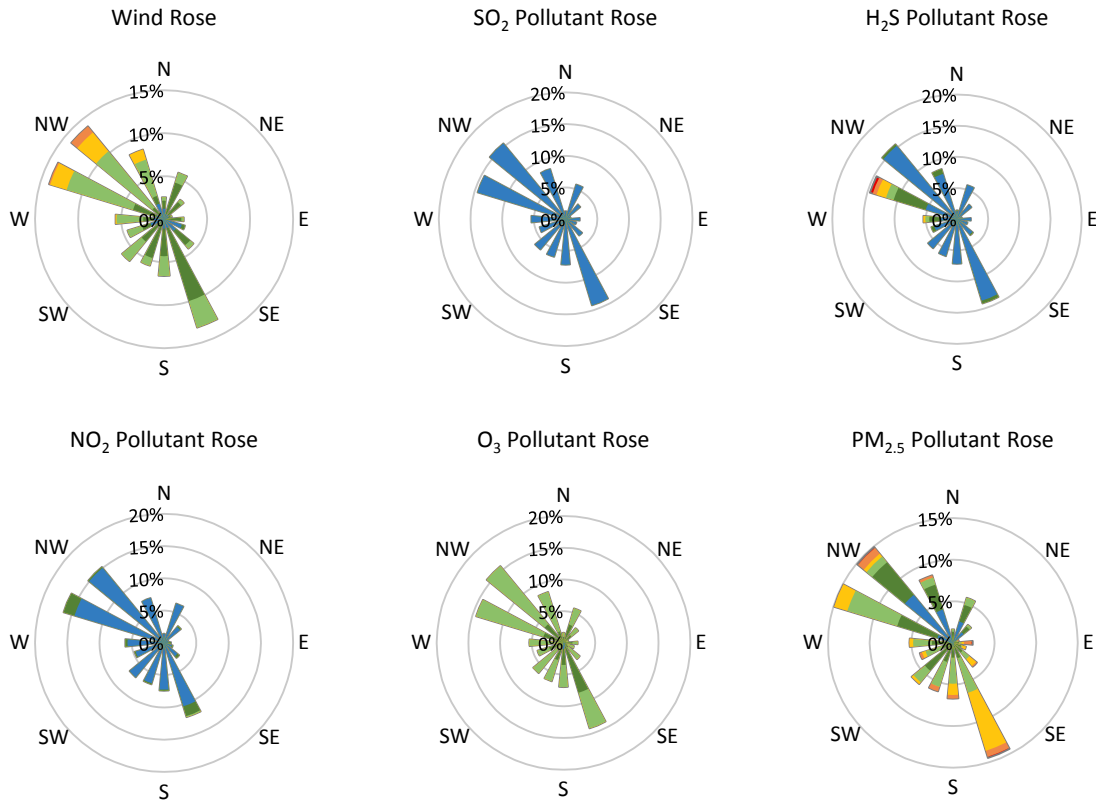
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.6	87%	5.0	Oct-23	-	-	22.6	Oct-23 01:00	-	-
NO ₂	ppb	2.3	87%	8.1	Oct-23	106	0	22.4	Oct-23 01:00	159	0
NO _x	ppb	2.9	87%	13.1	Oct-23	-	-	45.1	Oct-23 01:00	-	-
SO ₂	ppb	0.3	94%	0.4	Oct-25	48	0	1.0	Oct-20 19:00	172	0
H ₂ S	ppb	0.9	94%	2.4	Oct-21	3.6	0	11.7	Oct-15 22:00	11	2
O ₃	ppb	21.6	94%	29.6	Oct-19	-	-	38.9	Oct-11 15:00	82	0
PM _{2.5}	µg/m ³	6.7	100%	26.3	Oct-25	28	0	61.3	Oct-25 18:00	-	-

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 - October 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 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}	µg/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 except NO_x (90.5%)
- Downtime of 4% due to routine daily internal zeroes and spans
- Calibration was performed on Oct 23 (O₃) and Oct 26 (NO_x)
- Ozone detectors were replaced on Oct 23 for the ozone analyzer
- The interface board of the NO_x analyzer failed on Oct 23 resulting in analyzer downtime until it was replaced on Oct 26

Exceedance Summary (1- Hour Average - Exceedances Highlighted)

Exceedance Time	AQHI	NO ₂ ppb	NO ppb	SO ₂ ppb	O ₃ ppb	NO _x ppb	H ₂ S ppb	PM _{2.5} µg/m ³	Temp °C	WD deg	WS m/s
Oct-15 22:00	N/A	5.9	0.4	0.3	0.0	6.3	11.7	2.0	4.5	290.5	3.9
Oct-21 22:00	1.8	2.6	0.3	0.5	26.5	2.9	11.7	4.8	7.4	297.1	5.1