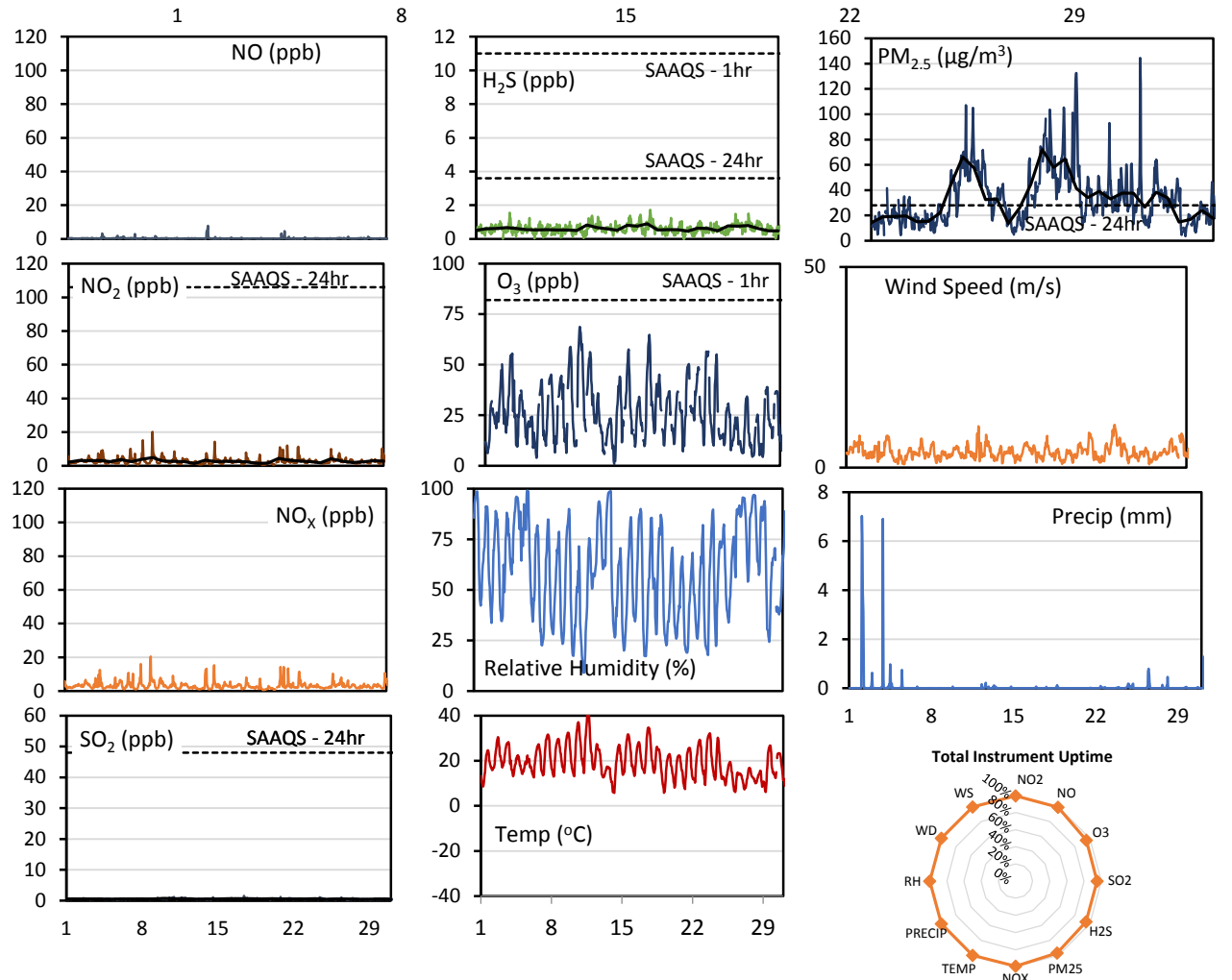
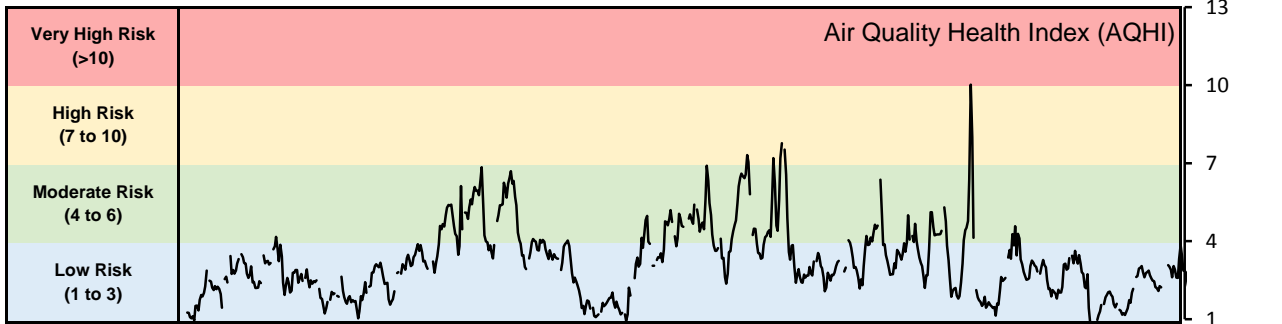


## GPAZ Pense Station - August 2018 Summary Report

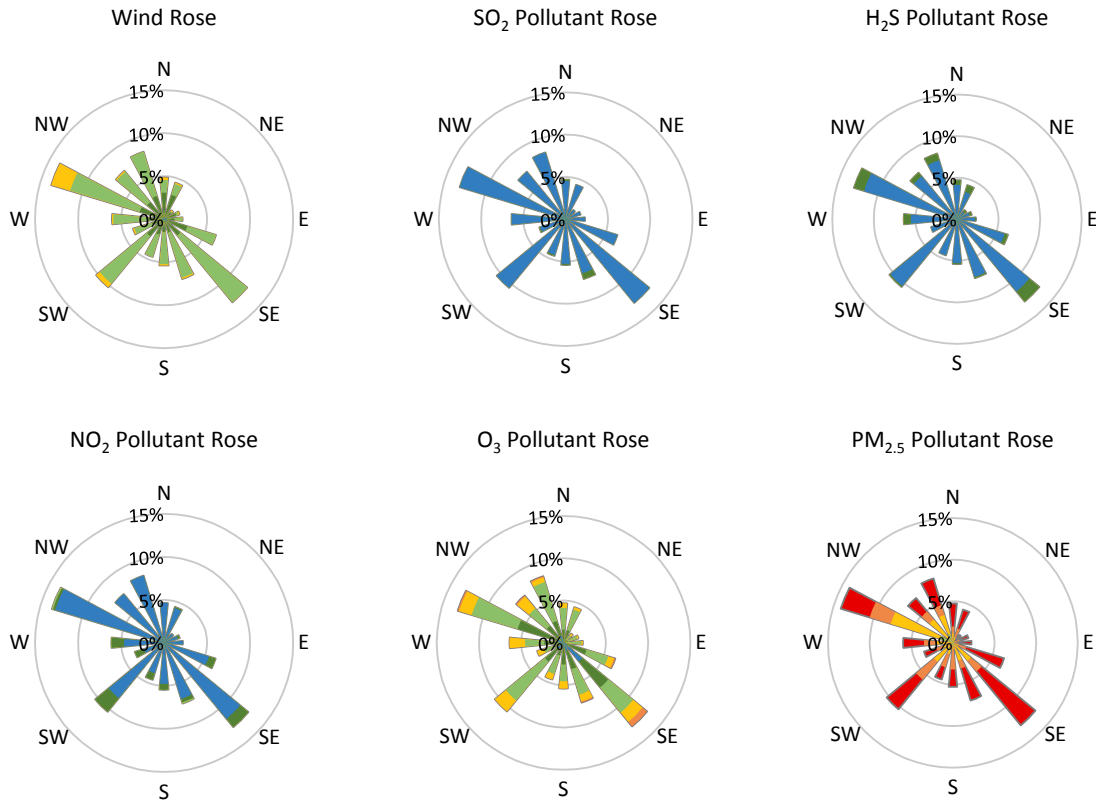
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.4	99%	1.3	Aug-14	-	0	7.8	Aug-14 05:00	-	0
NO <sub>2</sub>	ppb	2.8	99%	4.9	Aug-09	106	0	20.1	Aug-09 00:00	159	0
NO <sub>x</sub>	ppb	3.2	99%	5.3	Aug-09	-	0	20.5	Aug-09 00:00	-	0
SO <sub>2</sub>	ppb	0.5	95%	0.7	Aug-10	48	0	1.6	Aug-17 10:00	172	0
H <sub>2</sub> S	ppb	0.6	95%	0.9	Aug-18	3.6	0	1.7	Aug-18 07:00	11	0
O <sub>3</sub>	ppb	25.9	95%	41.0	Aug-10	-	-	68.7	Aug-10 15:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	33.4	97%	72.2	Aug-16	28	17	144.5	Aug-24 14:00	-	-

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 - August 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 <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 >95.0% of total uptime for all parameters
- Achieved >97.0% of scheduled uptime for all parameters
- Downtime of 4% due to routine daily internal zeroes and spans

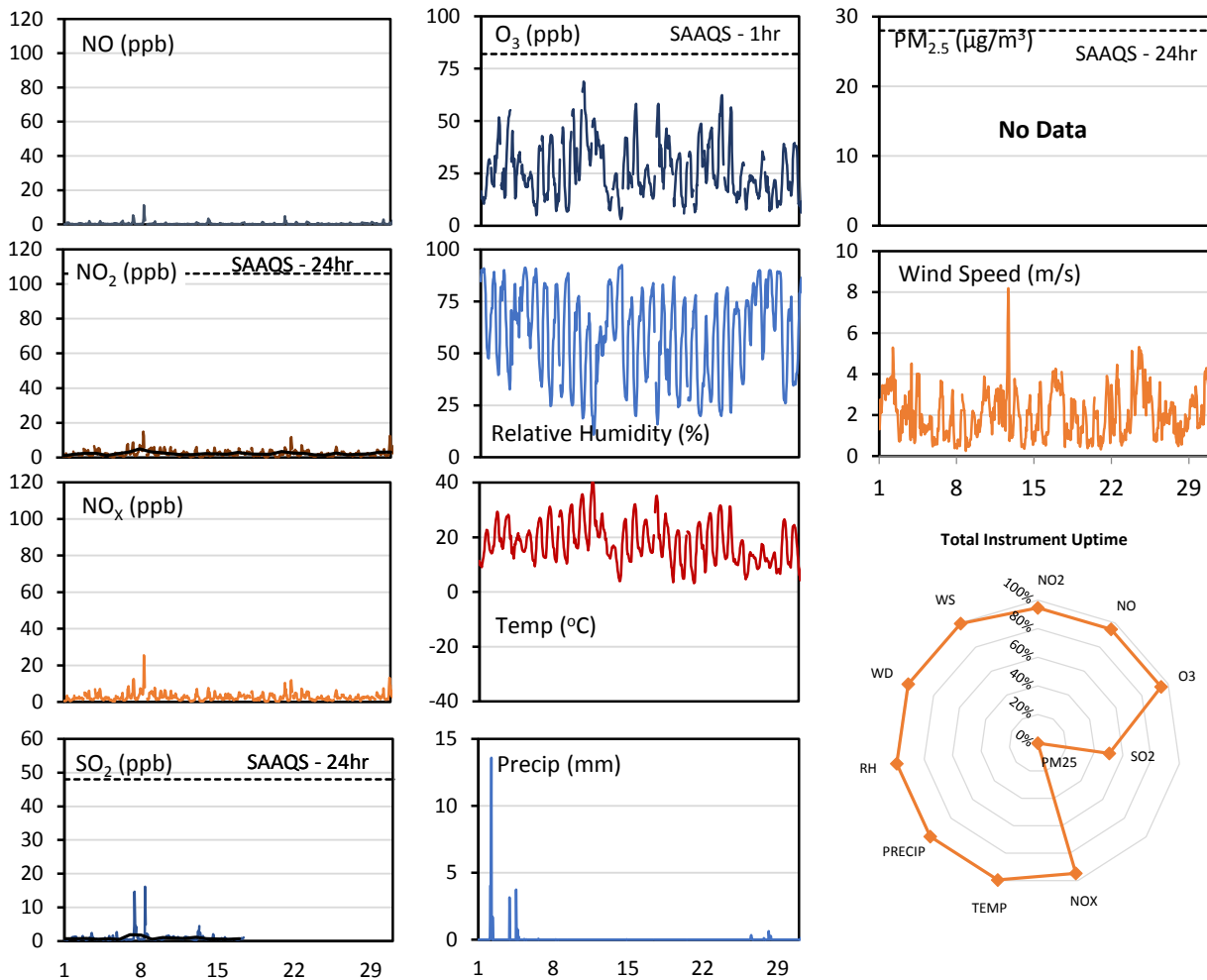
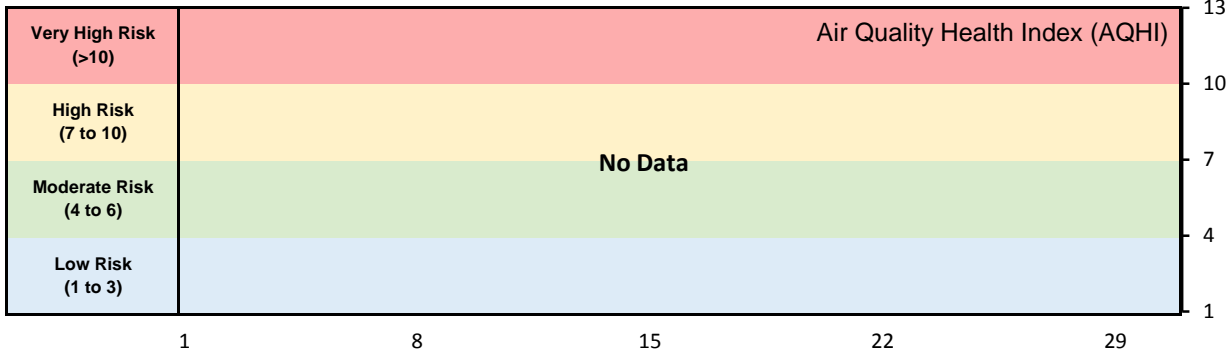
**GPAZ Pense Station - August 2018 Summary Report**

<b>Exceedance Summary (24- Hour Average - Exceedances Highlighted)</b>											
<b>Exceedance Time</b>	<b>AQHI</b>	<b>NO<sub>2</sub></b>	<b>NO</b>	<b>SO<sub>2</sub></b>	<b>O<sub>3</sub></b>	<b>NO<sub>x</sub></b>	<b>H<sub>2</sub>S</b>	<b>PM<sub>2.5</sub></b>	<b>Temp</b>	<b>WD</b>	<b>WS</b>
	-	ppb	ppb	ppb	ppb	ppb	ppb	μg/m <sup>3</sup>	°C	deg	m/s
Aug-08	3.9	3.9	0.4	0.6	27.9	4.2	0.5	<b>45.1</b>	22.3	272.9	3.8
Aug-09	5.2	4.9	0.5	0.6	32.2	5.3	0.5	<b>66.3</b>	24.1	146.7	2.9
Aug-10	5.1	2.8	0.3	0.7	41.0	3.1	0.5	<b>57.5</b>	25.3	137.6	4.0
Aug-11	3.7	2.7	0.3	0.6	37.9	2.9	0.5	<b>32.5</b>	28.5	159.1	3.7
Aug-12	3.0	2.5	0.3	0.6	23.6	2.8	0.8	<b>33.0</b>	21.6	124.6	4.3
Aug-15	4.1	2.5	0.3	0.5	33.9	2.8	0.5	<b>44.7</b>	23.1	230.6	3.7
Aug-16	4.8	2.6	0.3	0.6	22.3	2.9	0.8	<b>72.2</b>	21.1	116.9	3.9
Aug-17	4.8	2.6	0.3	0.7	35.6	2.9	0.8	<b>58.0</b>	24.5	172.7	4.2
Aug-18	4.9	2.3	0.3	0.6	31.0	2.6	0.9	<b>64.6</b>	20.3	285.4	3.9
Aug-19	3.4	1.5	0.2	0.5	24.7	1.7	0.5	<b>41.2</b>	15.8	311.6	3.1
Aug-20	3.0	1.6	0.2	0.6	23.8	1.8	0.6	<b>34.1</b>	16.5	190.8	2.7
Aug-21	3.8	4.3	0.7	0.6	30.4	5.1	0.5	<b>39.0</b>	17.6	238.9	3.9
Aug-22	3.6	3.4	0.2	0.5	33.8	3.6	0.5	<b>32.9</b>	20.1	224.2	5.3
Aug-23	3.8	2.8	0.3	0.5	33.7	3.1	0.6	<b>37.6</b>	22.3	152.5	2.7
Aug-24	3.3	2.4	0.3	0.6	25.4	2.7	0.6	<b>37.5</b>	18.4	207.3	6.8
Aug-26	3.0	4.3	0.3	0.5	15.1	4.6	0.8	<b>38.4</b>	11.6	130.0	3.1
Aug-27	2.7	2.8	0.4	0.5	16.8	3.2	0.8	<b>33.9</b>	12.2	149.7	3.1

## GPAZ East Regina Station - July 2018 Summary Report

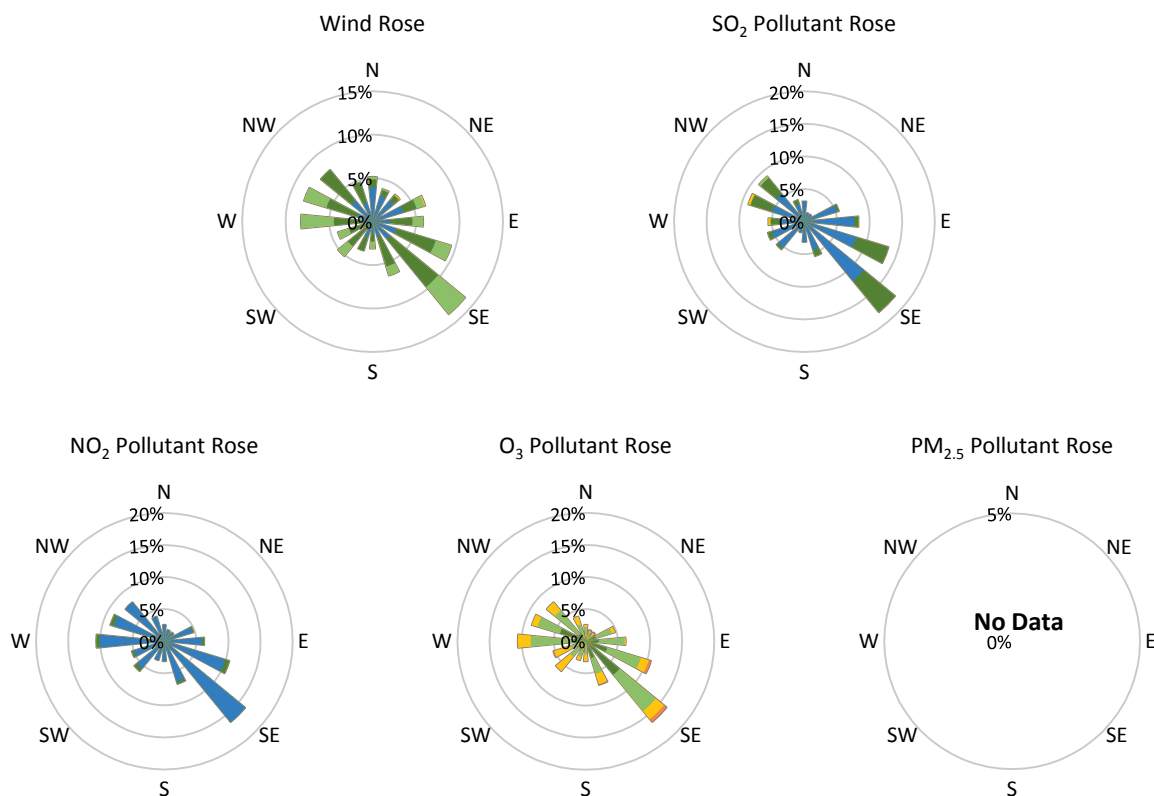
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.4	95%	1.3	Jul-08	-	-	11.2	Jul-08 08:00	-	-
NO <sub>2</sub>	ppb	2.3	95%	5.0	Jul-08	106	0	14.9	Jul-08 08:00	159	0
NO <sub>x</sub>	ppb	2.7	95%	6.2	Jul-08	-	-	25.5	Jul-08 08:00	-	-
SO <sub>2</sub>	ppb	0.9	51%	1.9	Jul-07	48	0	16.1	Jul-08 09:00	172	0
O <sub>3</sub>	ppb	26.6	95%	45.2	Jul-10	-	-	68.8	Jul-10 16:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	No Data	No Data	No Data	No Data	28	No Data	No Data	No Data	-	No Data

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 - July 2018 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	
Wind Speed	m/s							
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	
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	

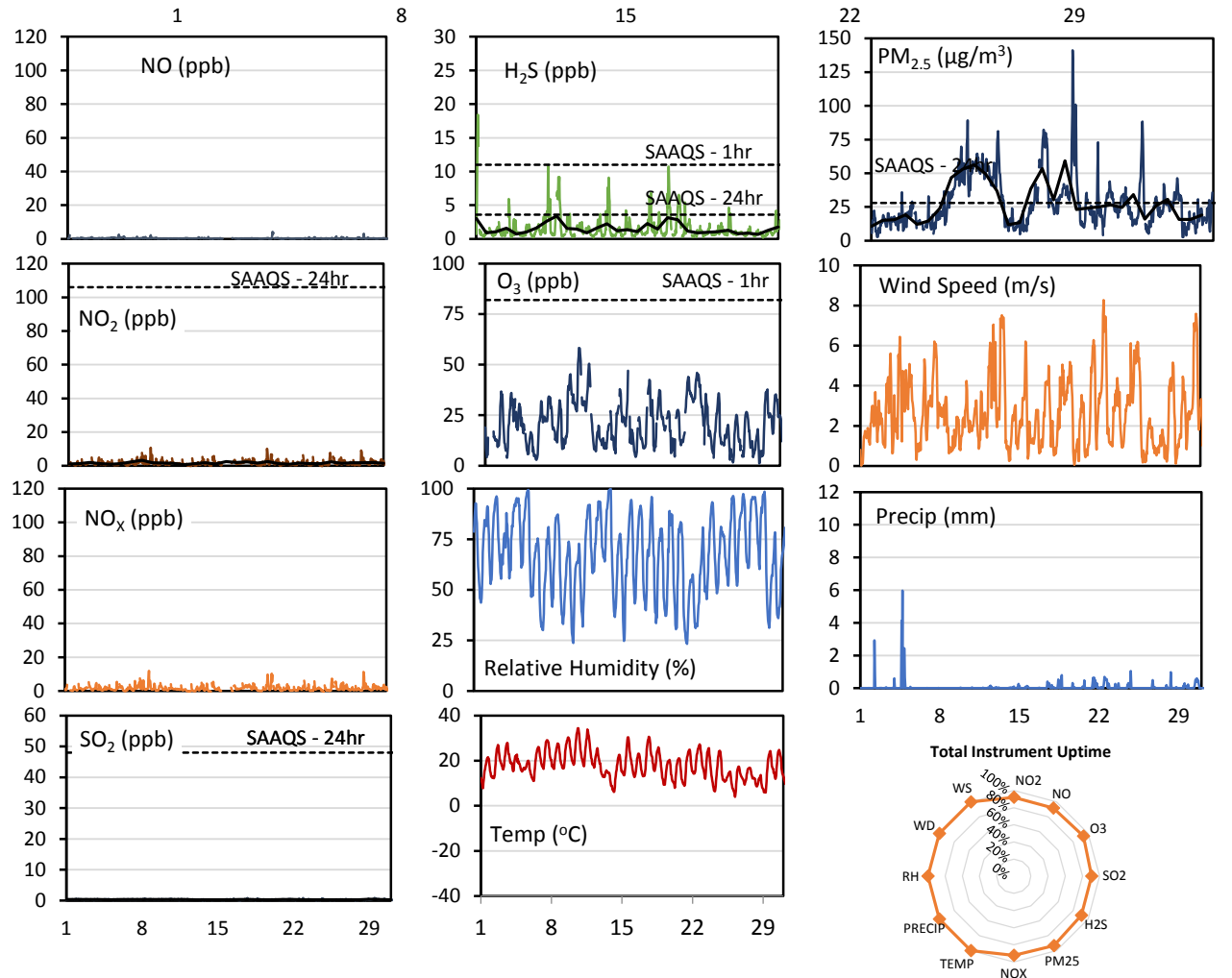
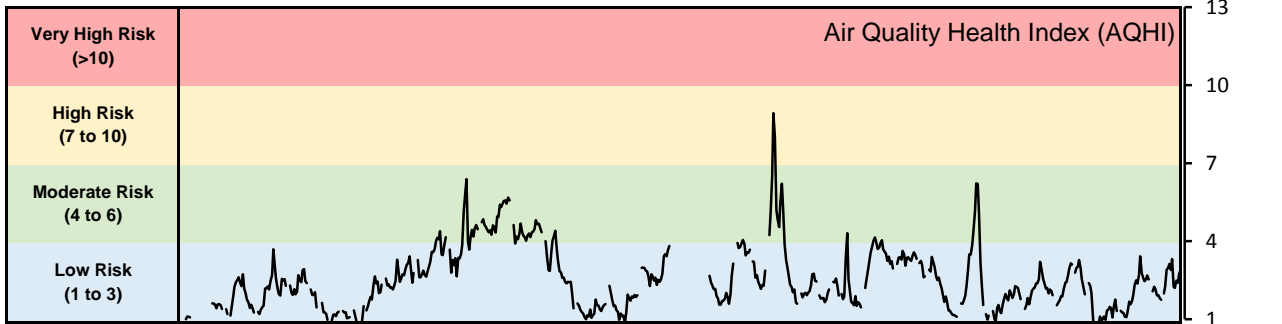
### Monthly Update

- Achieved >98.9% of scheduled uptime for all parameters except SO<sub>2</sub> (52.8%) and PM<sub>2.5</sub> (0%)
- Achieved >94.6% of total uptime for all parameters except SO<sub>2</sub> (50.5%) and PM<sub>2.5</sub> (0%)
- SO<sub>2</sub> analyzer and nephelometer were removed on August 17 and sent for servicing
- Nephelometer failed and data was invalidated for August
- Downtime of 4% results from routine daily internal zeroes and spans

## GPAZ Yorkton Station - August 2018 Summary Report

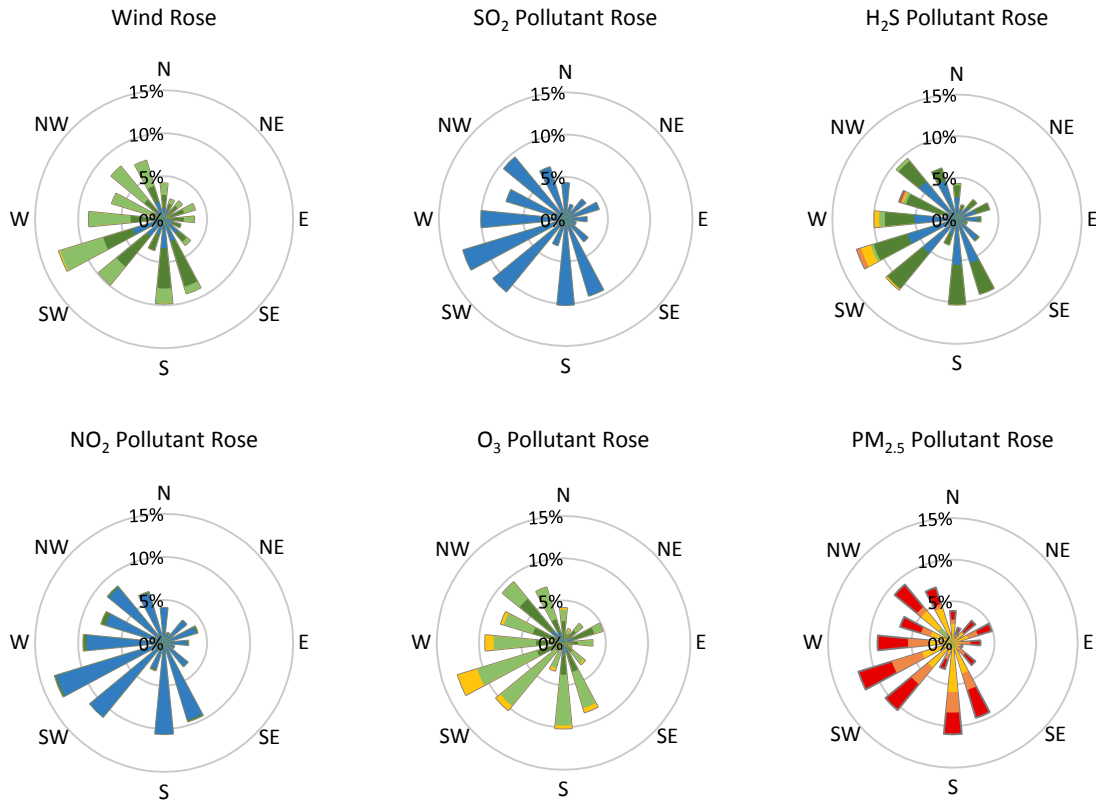
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.4	92%	0.8	Aug-20	-	-	4.2	Aug-20 07:00	-	-
NO <sub>2</sub>	ppb	1.6	92%	3.3	Aug-08	106	0	10.7	Aug-08 20:00	159	0
NO <sub>x</sub>	ppb	1.6	92%	3.3	Aug-08	-	-	11.9	Aug-08 20:00	-	-
SO <sub>2</sub>	ppb	0.3	91%	0.4	Aug-29	48	0	0.9	Aug-29 12:00	172	0
H <sub>2</sub> S	ppb	1.6	91%	3.4	Aug-09	3.6	0	18.4	Aug-01 04:00	11	3
O <sub>3</sub>	ppb	21.1	94%	39.1	Aug-10	-	-	58.3	Aug-10 13:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	28.3	93%	59.2	Aug-18	28	11	141.2	Aug-18 16:00	-	-

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 - August 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 >90.7% of total uptime for all parameters
- Achieved >93.4% of scheduled uptime for all parameters
- CD Nova visited the trailer on August 15<sup>th</sup> to 16<sup>th</sup> and determined all analyzers were properly working
- Downtime of 4% due to routine daily internal zeroes and spans

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

**Exceedance Summary (1- Hour Average - Exceedances Highlighted)**

Exceedance Time	AQHI	NO <sub>2</sub>	NO	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>x</sub>	H <sub>2</sub> S	PM <sub>2.5</sub>	Temp	WD	WS
	-	ppb	ppb	ppb	ppb	ppb	ppb	µg/m <sup>3</sup>	°C	deg	m/s
Aug-01 03:00	1.1	0.6	0.4	0.4	6.5	0.7	<b>15.3</b>	15.0	9.8	0.4	0.1
Aug-01 04:00	1.1	1.3	1.0	0.3	4.3	1.9	<b>18.4</b>	15.6	8.3	8.2	0.2
Aug-01 05:00	0.0	2.1	2.2	0.3	0.0	3.8	<b>13.8</b>	16.4	7.9	12.5	0.1

**Exceedance Summary (24- Hour Average - Exceedances Highlighted)**

Exceedance Time	AQHI	NO <sub>2</sub>	NO	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>x</sub>	H <sub>2</sub> S	PM <sub>2.5</sub>	Temp	WD	WS
	-	ppb	ppb	ppb	ppb	ppb	ppb	µg/m <sup>3</sup>	°C	deg	m/s
Aug-08	3.5	3.3	0.6	0.4	18.8	3.3	2.6	<b>46.7</b>	21.9	281.7	2.3
Aug-09	4.1	1.7	0.4	0.3	27.9	1.6	3.4	<b>53.0</b>	23.8	247.0	1.4
Aug-10	4.8	1.6	0.3	0.4	39.1	1.3	1.5	<b>56.4</b>	25.9	207.1	2.3
Aug-11	4.2	1.4	0.3	0.3	33.0	1.2	1.5	<b>49.5</b>	25.0	154.6	2.3
Aug-12	2.4	0.6	0.4	0.3	12.4	0.5	0.9	<b>37.0</b>	20.0	97.1	4.2
Aug-15	3.2	1.1	0.3	0.3	24.2	0.8	1.2	<b>38.6</b>	21.0	249.4	2.7
Aug-16	3.4	2.4	0.4	0.3	13.0	2.4	1.4	<b>53.4</b>	17.7	171.0	1.5
Aug-17	2.8	1.9	0.3	0.3	23.2	1.8	1.1	<b>30.3</b>	21.5	167.5	2.8
Aug-18	4.2	2.3	0.4	0.4	23.4	2.2	2.3	<b>59.2</b>	20.1	273.4	2.4
Aug-24	2.7	1.3	0.4	0.3	19.0	1.3	1.0	<b>34.2</b>	15.3	124.9	2.7
Aug-27	2.4	1.5	0.3	0.3	16.2	1.4	0.8	<b>30.7</b>	13.6	158.7	1.0