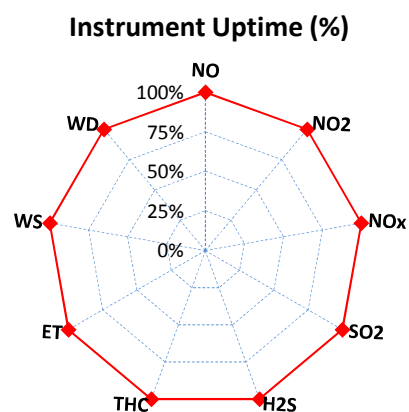
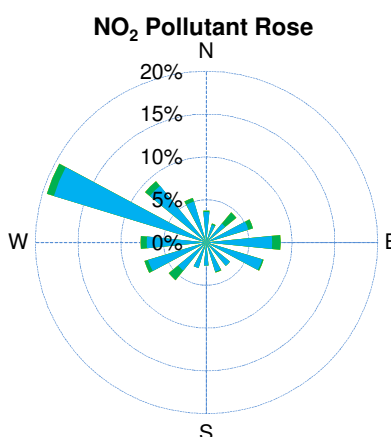
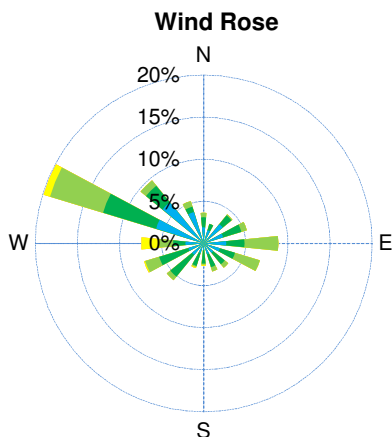
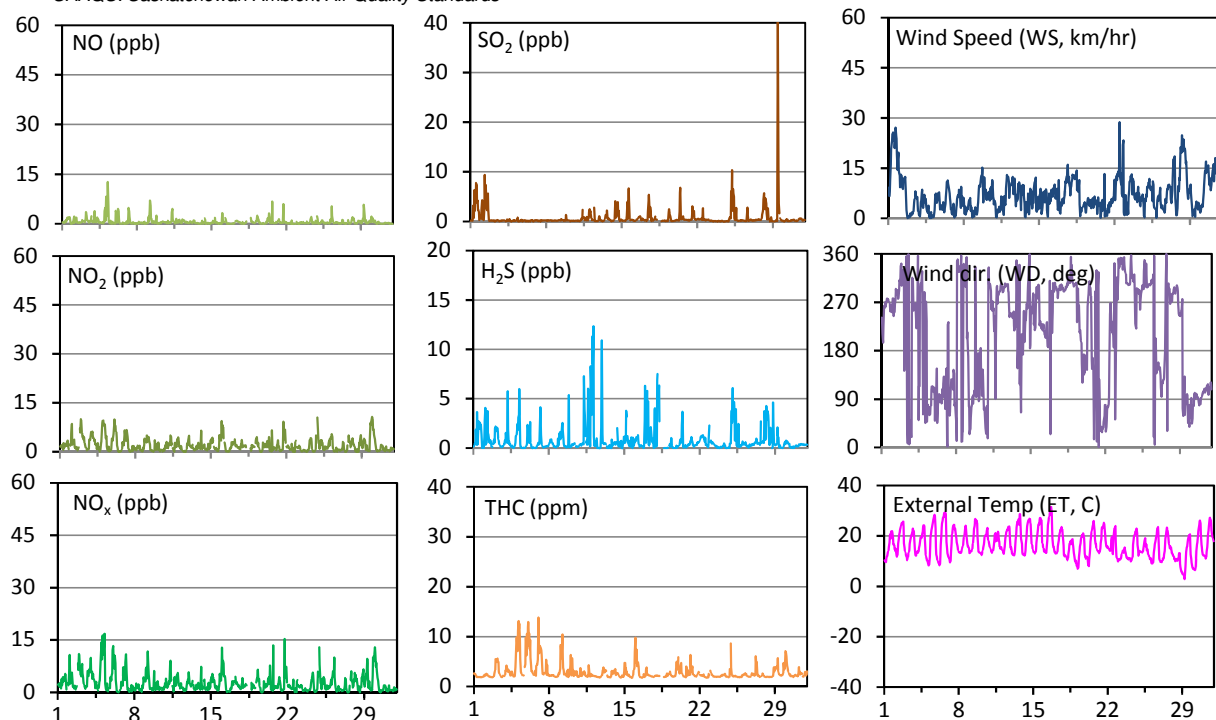


Husky Energy East Station - August 2016 Summary Report

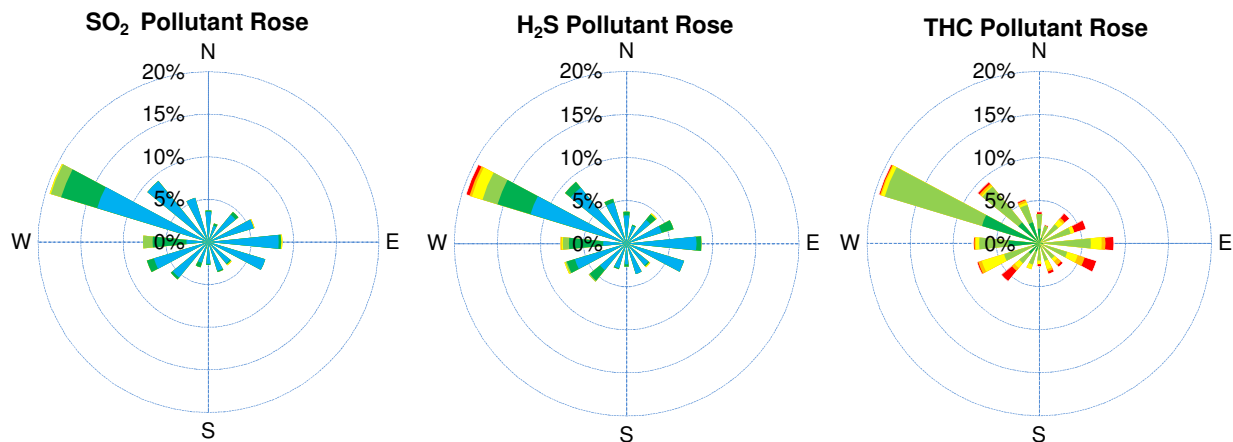
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Uptime	Maximum		SAAQS Standards	Exceed Days	Maximum		SAAQS Standards	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.7	100.0%	2.2	Aug-5	-	-	12.6	Aug-05 07:00	-	-
NO ₂	ppb	2.0	100.0%	3.7	Aug-5	106	0	10.7	Aug-30 00:00	159	0
NO _x	ppb	2.8	100.0%	5.9	Aug-5	-	-	16.8	Aug-05 07:00	-	-
SO ₂	ppb	0.8	100.0%	7.7	Aug-29	48	0	40.3	Aug-29 12:00	172	0
H ₂ S	ppb	0.9	100.0%	2.7	Aug-12	3.6	0	12.3	Aug-12 04:00	11.0	2
THC	ppm	2.9	100.0%	6.6	Aug-5	-	-	13.8	Aug-07 01:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



Parameters	Unit	Color Code for Wind Spd & Pollutant Conc. Class					
Wind Speed	km/hr	$1 \leq WS < 5$	$5 \leq WS < 10$	$10 \leq WS < 20$	$20 \leq WS < 30$	$30 \leq WS < 40$	$WS \geq 40$
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	$0 \leq C < 1$	$1 \leq C < 3.6$	$3.6 \leq C < 5$	$5 \leq C < 8$	$8 \leq C < 10.8$	$C \geq 10.8$
THC	ppm	$0 \leq C < 1$	$1 \leq C < 2$	$2 \leq C < 3$	$3 \leq C < 4$	$4 \leq C < 5$	$C \geq 5$

Husky Energy East Station - August 2016 Summary Report



Monthly Update

*Air monitoring data has been slope, intercept, and baseline corrected. Data may change after validation process.

*All compliance parameters were within the Saskatchewan Ambient Air Quality Standards, with the exception of two 1-hour H₂S exceedances. Refer to the Exceedance Summary table for details.

*All compliance parameters are above 90% operational. There are no operational issues to report.

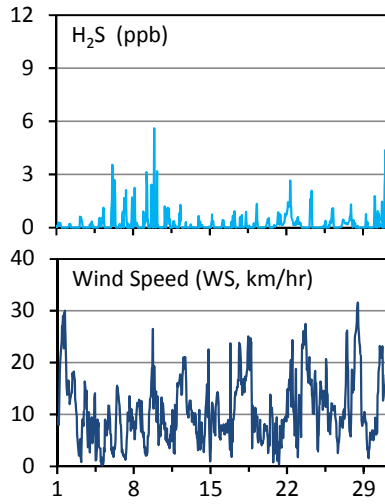
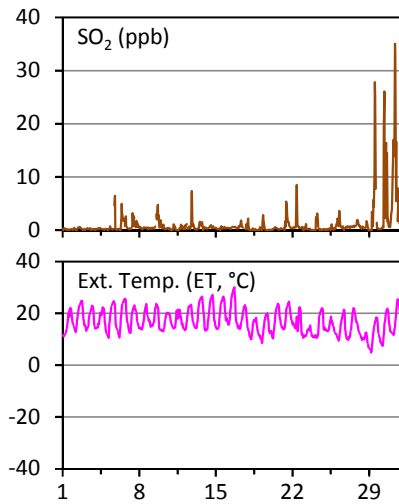
Exceedance Summary

1-hour Exceedance Information			Summary of Other Parameters During Exceedance						
Pollutant	Conc. ppb	Exceedance Time mmm-dd hh:mm	WS km/hr	WD deg	ET C	SO ₂ ppb	H ₂ S ppb	NO ₂ ppb	THC ppm
H ₂ S	12.3	Aug-12 04:00	12.4	291	13.8	1.2	12.3	1.1	2.1
H ₂ S	11.3	Aug-12 02:00	11.8	290	14.6	1.8	11.3	1.6	2.2

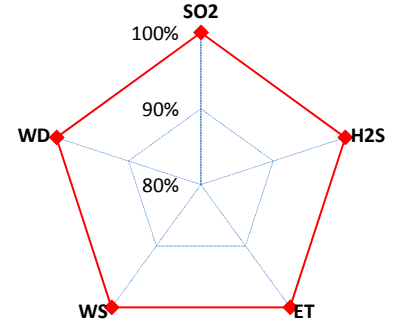
Husky Energy West Station - August 2016 Summary Report

Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Uptime	Maximum		AAAQO / SAAQS	Exceed Days	Maximum		AAAQO / SAAQS	Exceed Hours
				Conc.	Time			Conc.	Time		
SO ₂	ppb	1.1	100.0%	8.9	Aug-31	48 / 48	0 / 0	35.1	Aug-31 09:00	172 / 172	0 / 0
H ₂ S	ppb	0.3	100.0%	1.1	Aug-31	3 / 3.6	0 / 0	6.0	Aug-09 23:00	10 / 11.0	0 / 0

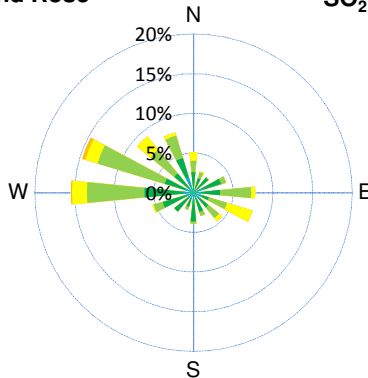
AAAQO: Alberta Ambient Air Quality Objectives; SAAQS: Saskatchewan Ambient Air Quality Standards.



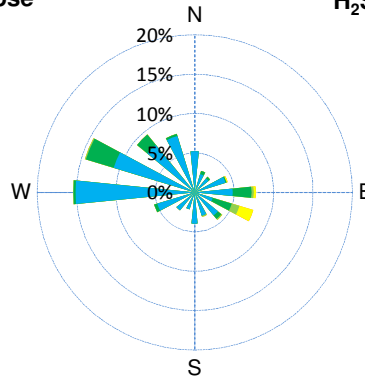
Uptime (%)



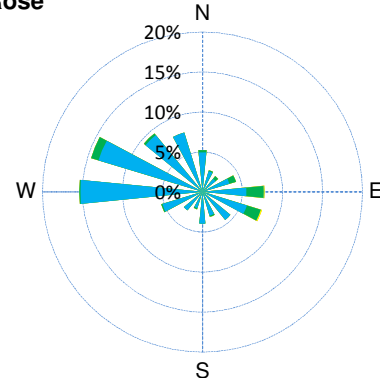
Wind Rose



SO₂ Rose



H₂S Rose



Parameters	Unit	Color Code for Wind Spd & Pollutant Conc. Class					
Wind Speed	km/hr	1 ≤ WS < 5	5 ≤ WS < 10	10 ≤ WS < 20	20 ≤ WS < 30	30 ≤ WS < 40	WS ≥ 40
SO ₂	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172
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

Monthly Update

*Air monitoring data has been slope, intercept, and baseline corrected. Data may change after validation process.

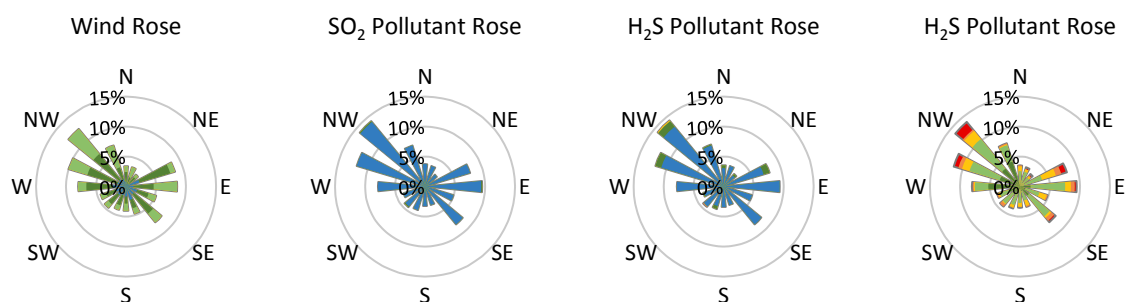
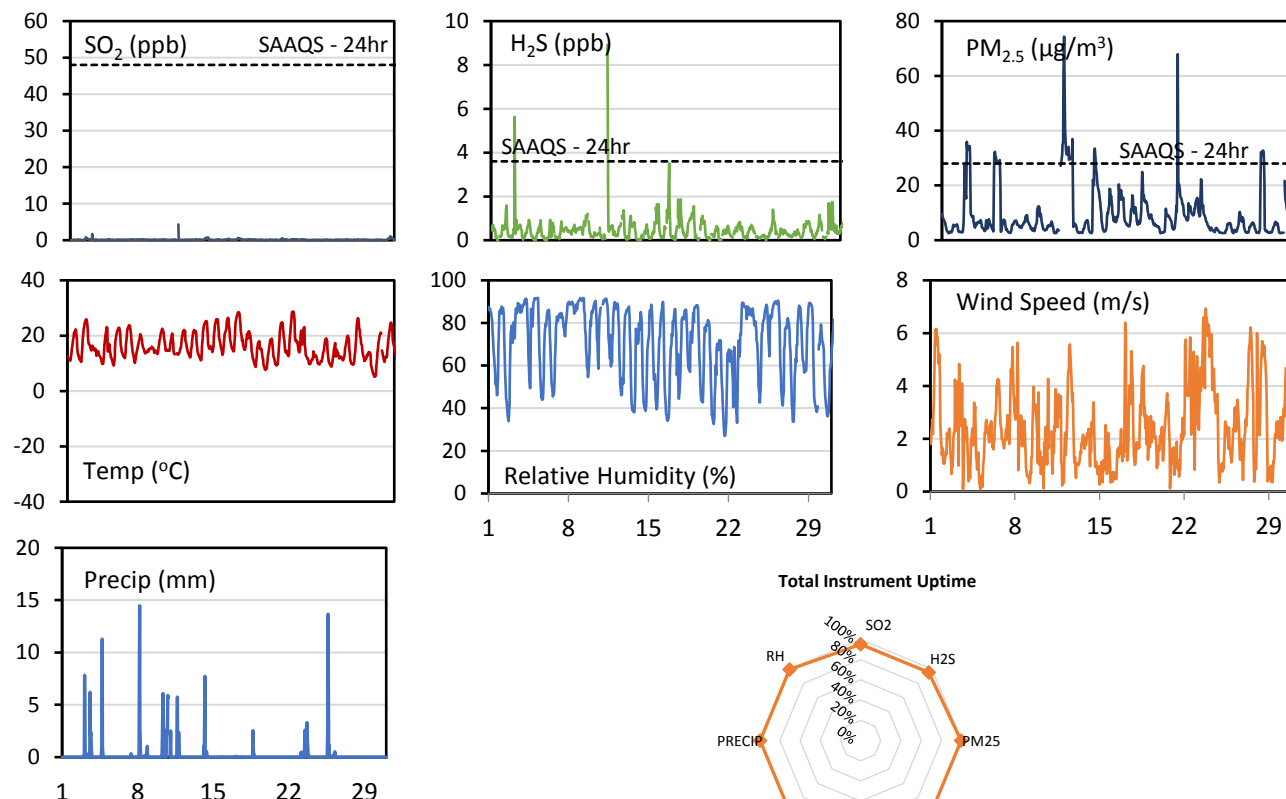
*All compliance parameters were within the Alberta Ambient Air Quality Objectives and the Saskatchewan Ambient Air Quality Standards

*All compliance parameters are above 90% operational. There are no operational issues to report.

WYAMZ Kindersley Station - August 2016 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		
SO ₂	ppb	0.1	95%	0.3	Aug-30	48	0	4.3	Aug-11 00:00	172	0
H ₂ S	ppb	0.5	95%	0.8	Aug-11	3.6	0	8.9	Aug-11 00:00	11	0
PM _{2.5}	µg/m ³	9.2	99%	36.0	Aug-11	28	1	74.4	Aug-11 07:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



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	WS ≥ 13.6
SO ₂	ppb	0 ≤ C < 1	1 ≤ C < 5	5 ≤ C < 10	10 ≤ C < 57	57 ≤ C < 172	C ≥ 172
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
PM _{2.5}	µg/m ³	0 ≤ C < 2	2 ≤ C < 4	4 ≤ C < 10	10 ≤ C < 20	20 ≤ C < 30	C ≥ 30

WYAMZ Kindersley Station - August 2016 Summary Report

Monthly Update

- Achieved >99% of scheduled uptime for all parameters
- Downtime of 4% results from routine daily Internal Zeroes and Spans

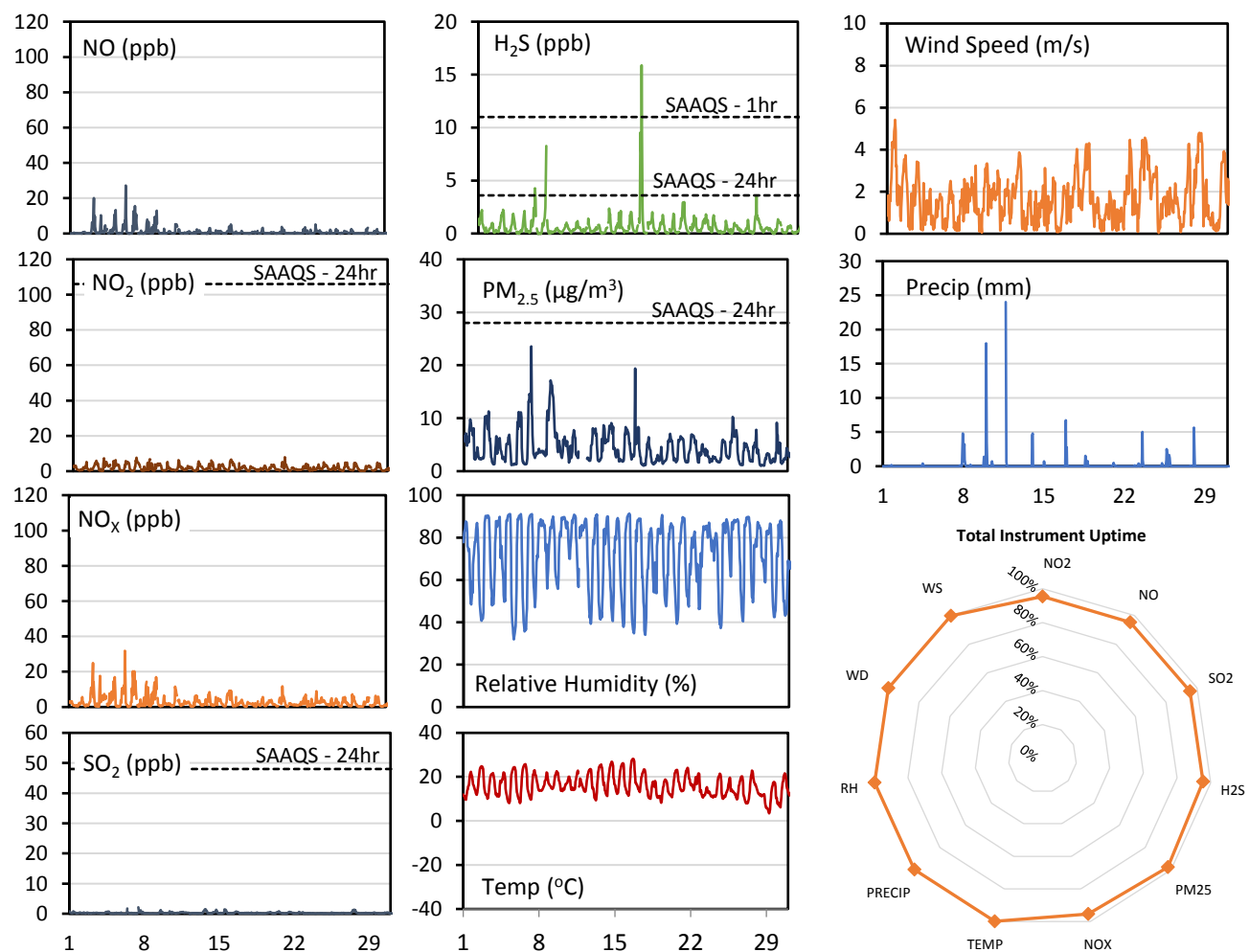
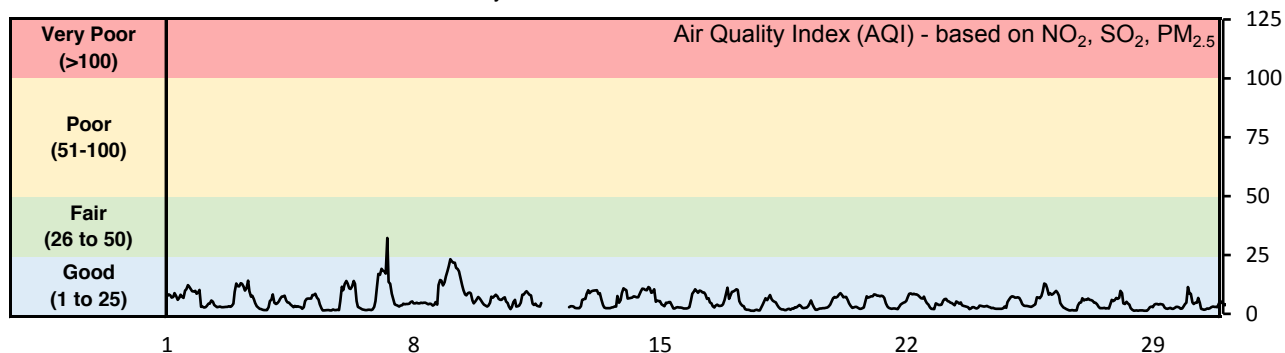
Exceedance Summary (24- Hour Average - Exceedances Highlighted)

Exceedance Day	SO ₂ ppb	PM _{2.5} µg/m ³	H ₂ S ppb	Temp °C	WD deg	WS m/s
Aug-11	0.3	36.0	0.8	16.9	262.8	2.4

WYAMZ Maidstone Station - August 2016 Summary Report

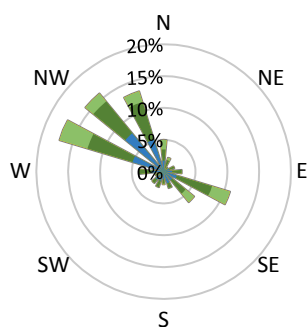
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	1.0	95%	3.7	Aug-03	-	-	27.2	Aug-06 07:00	-	-
NO ₂	ppb	1.9	95%	2.9	Aug-04	106	0	7.9	Aug-21 05:00	159	0
NO _x	ppb	2.9	95%	6.5	Aug-03	-	-	31.8	Aug-06 07:00	-	-
SO ₂	ppb	0.2	95%	0.5	Aug-13	48	0	2.1	Aug-07 11:00	172	0
H ₂ S	ppb	0.6	95%	2.8	Aug-16	3.6	0	15.9	Aug-16 08:00	11	1
PM _{2.5}	µg/m ³	4.4	98%	9.4	Aug-09	28	0	23.6	Aug-07 06:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards

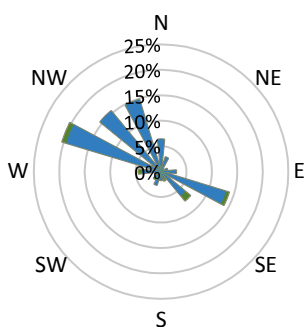


WYAMZ Maidstone Station - August 2016 Summary Report

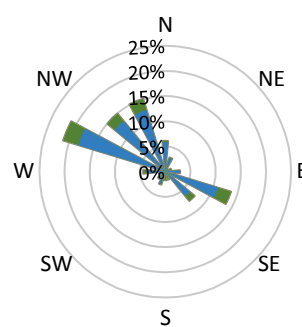
Wind Rose



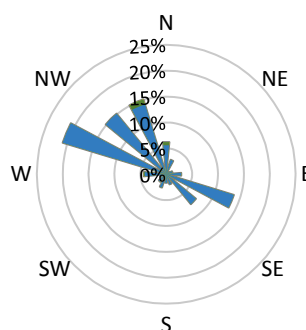
SO₂ Pollutant Rose



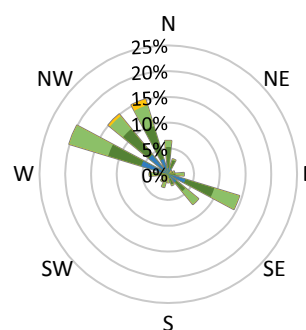
H₂S Pollutant Rose



NO₂ Pollutant Rose



PM_{2.5} Pollutant Rose



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	$0 \leq C < 1$	$1 \leq C < 3.6$	$3.6 \leq C < 5$	$5 \leq C < 8$	$8 \leq C < 10.8$	$C \geq 10.8$
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 >99% of scheduled uptime for all parameters except PM_{2.5} (97.6%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- All compliance parameters are above 90% data validity
- Downtime for PM_{2.5} due to operational issues

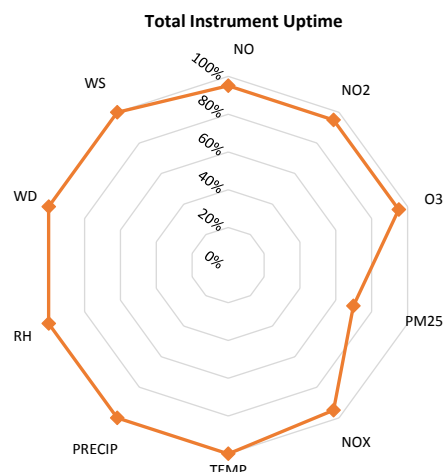
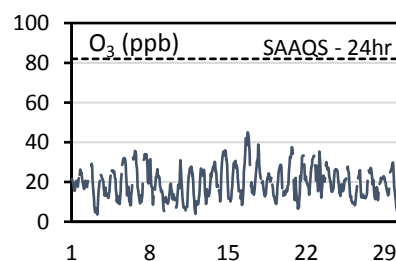
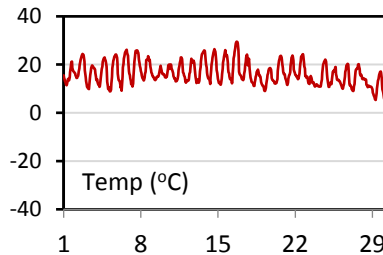
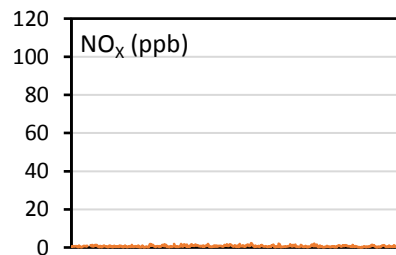
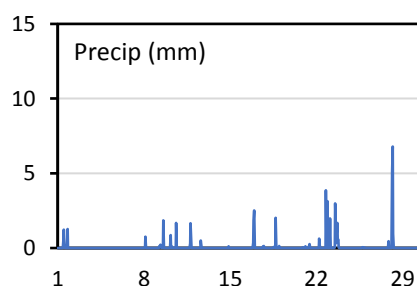
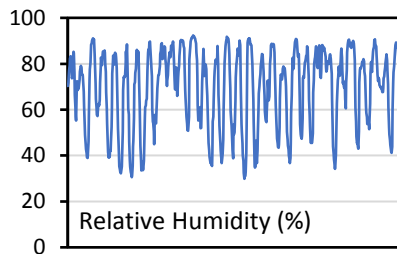
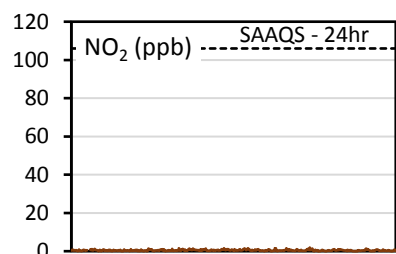
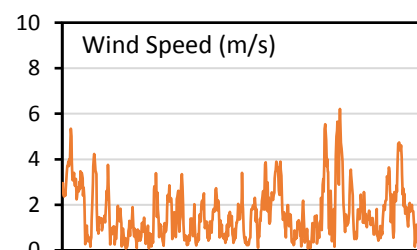
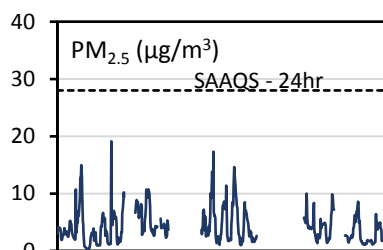
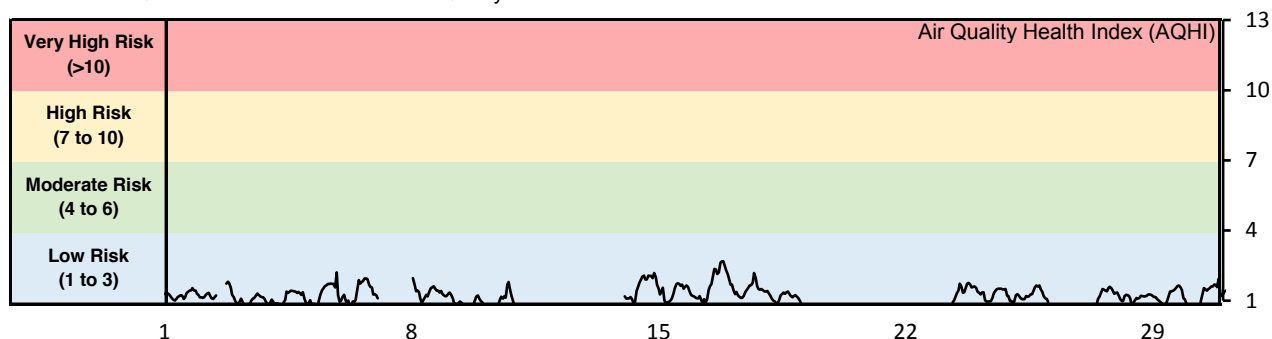
Exceedance Summary (1- Hour Average - Exceedances Highlighted)

Exceedance Time	AQI	NO ₂ ppb	NO ppb	SO ₂ ppb	PM _{2.5} $\mu\text{g}/\text{m}^3$	NO _x ppb	H ₂ S ppb	Temp °C	WD deg	WS m/s
Aug-16 08:00	6.4	4.2	5.1	0.3	5.1	9.2	15.9	14.0	117.7	0.5

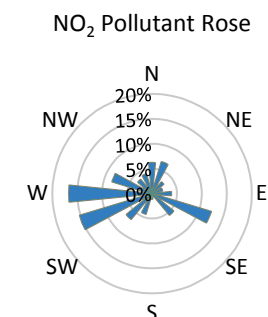
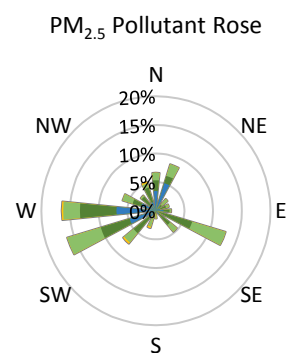
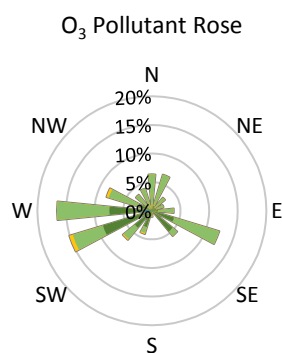
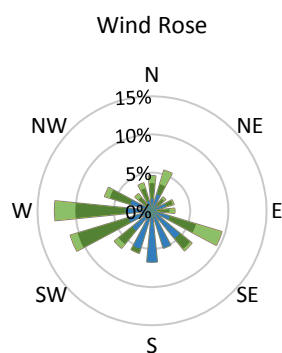
WYAMZ Meadow Lake Station - August 2016 Summary Report

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%	0.3	Aug-08	-	-	1.2	Aug-16 07:00	-	-
NO ₂	ppb	0.5	95%	0.8	Aug-15	106	0	1.9	Aug-23 01:00	159	0
NO _x	ppb	0.6	95%	1.0	Aug-17	-	-	2.3	Aug-17 08:00	-	-
O ₃	ppb	19.9	95%	27.6	Aug-16	-	-	45.0	Aug-16 18:00	82	0
PM _{2.5}	µg/m ³	4.2	70%	9.8	Aug-07	28	0	19.1	Aug-05 21:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



WYAMZ Meadow Lake Station - August 2016 Summary Report



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

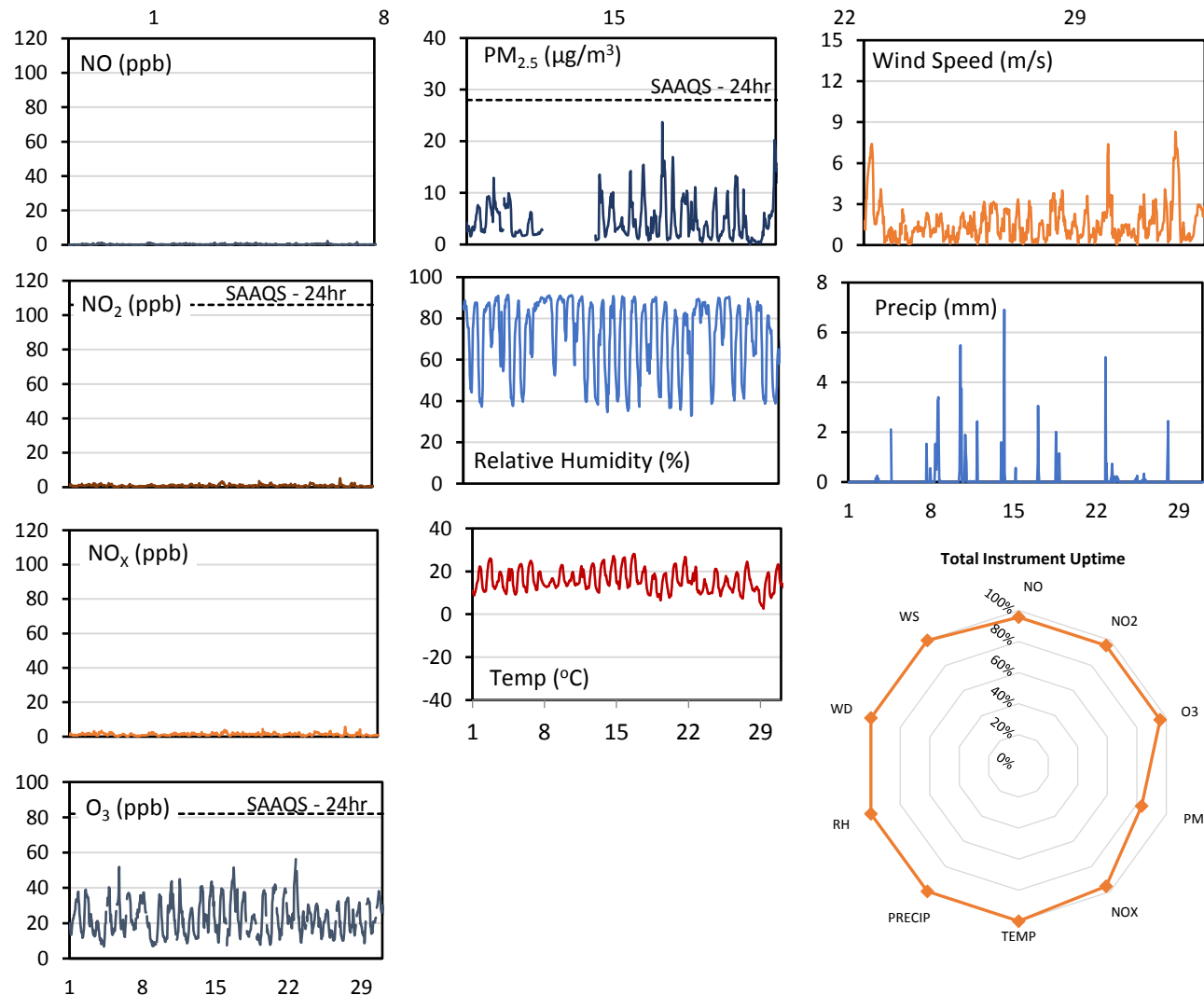
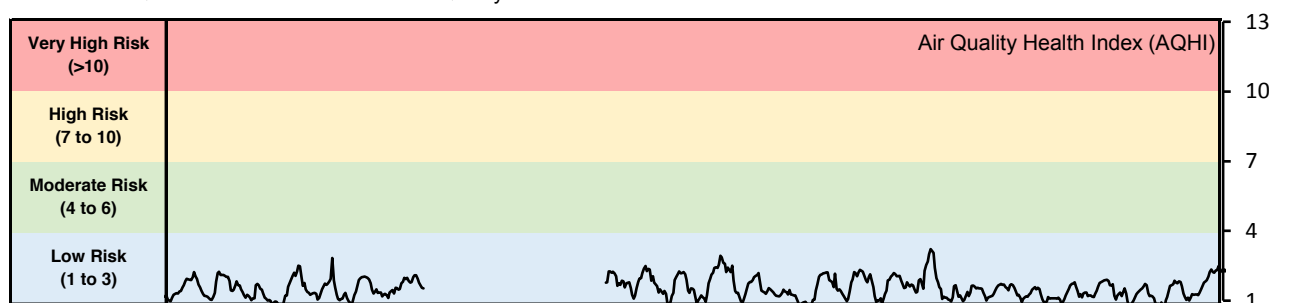
Monthly Update

- Achieved >99% of scheduled uptime for all parameters except PM_{2.5} (69.8%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- Quarterly calibration performed August 2
- Downtime in PM_{2.5} due to operational issues

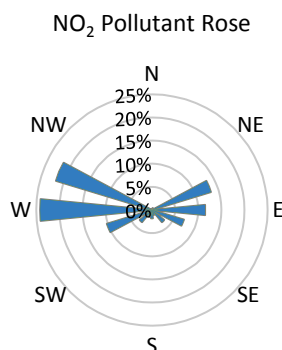
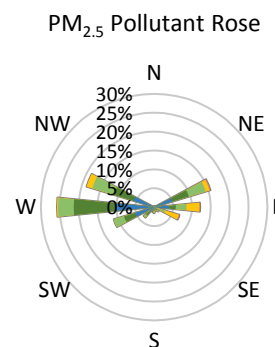
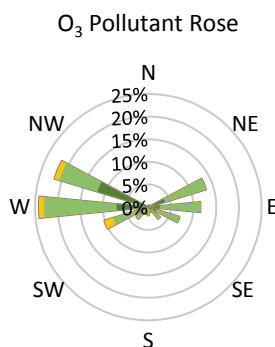
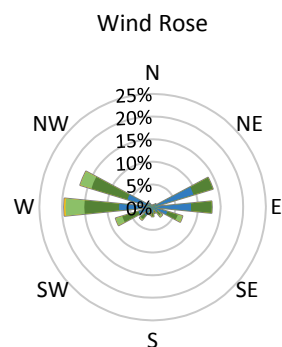
WYAMZ Unity Station - August 2016 Summary Report

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	96%	0.6	Aug-26	-	-	2.3	Aug-26 10:00	-	-
NO ₂	ppb	0.9	96%	1.7	Aug-16	106	0	5.2	Aug-27 20:00	159	0
NO _x	ppb	1.3	96%	1.9	Aug-16	-	-	5.7	Aug-27 20:00	-	-
O ₃	ppb	23.3	96%	30.6	Aug-22	-	-	56.3	Aug-22 17:00	82	0
PM _{2.5}	µg/m ³	5.0	83%	15.0	Aug-31	28	0	24.2	Aug-31 21:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



WYAMZ Unity Station - August 2016 Summary Report



Parameters	Unit	Color Code for Wind Speed and Pollution Concentration Class					
Wind Speed	m/s	$0.3 \leq WS < 1.4$	$1.4 \leq WS < 3.1$	$3.1 \leq WS < 7.8$	$7.8 \leq WS < 10.8$	$10.8 \leq WS < 13.6$	$WS \geq 13.6$
O ₃	ppb	$0 \leq C < 10$	$10 \leq C < 20$	$20 \leq C < 40$	$40 \leq C < 60$	$60 \leq C < 82$	$C \geq 82$
NO ₂	ppb	$0 \leq C < 5$	$5 \leq C < 15$	$15 \leq C < 30$	$30 \leq C < 100$	$100 \leq C < 212$	$C \geq 212$
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 >99% of scheduled uptime for all parameters except PM_{2.5} (83.3%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- Downtime in PM_{2.5} due to operational issues