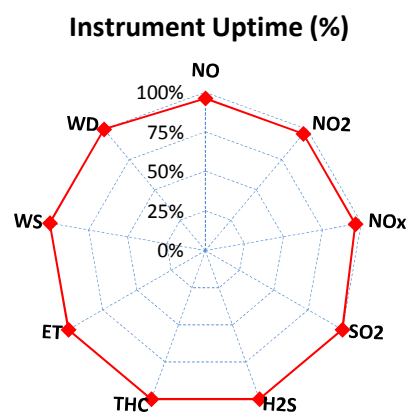
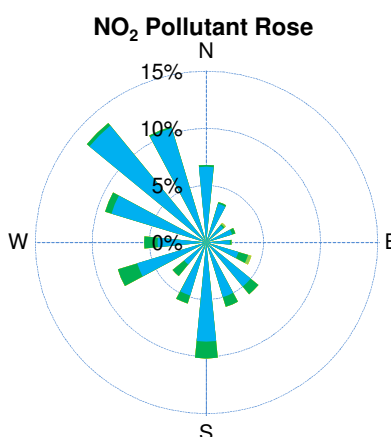
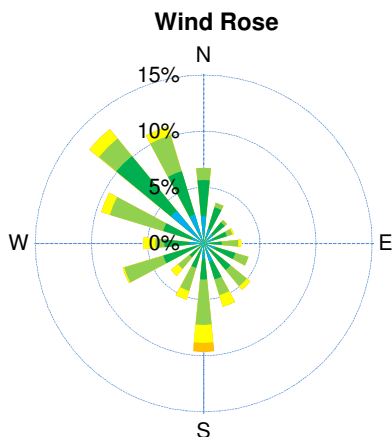
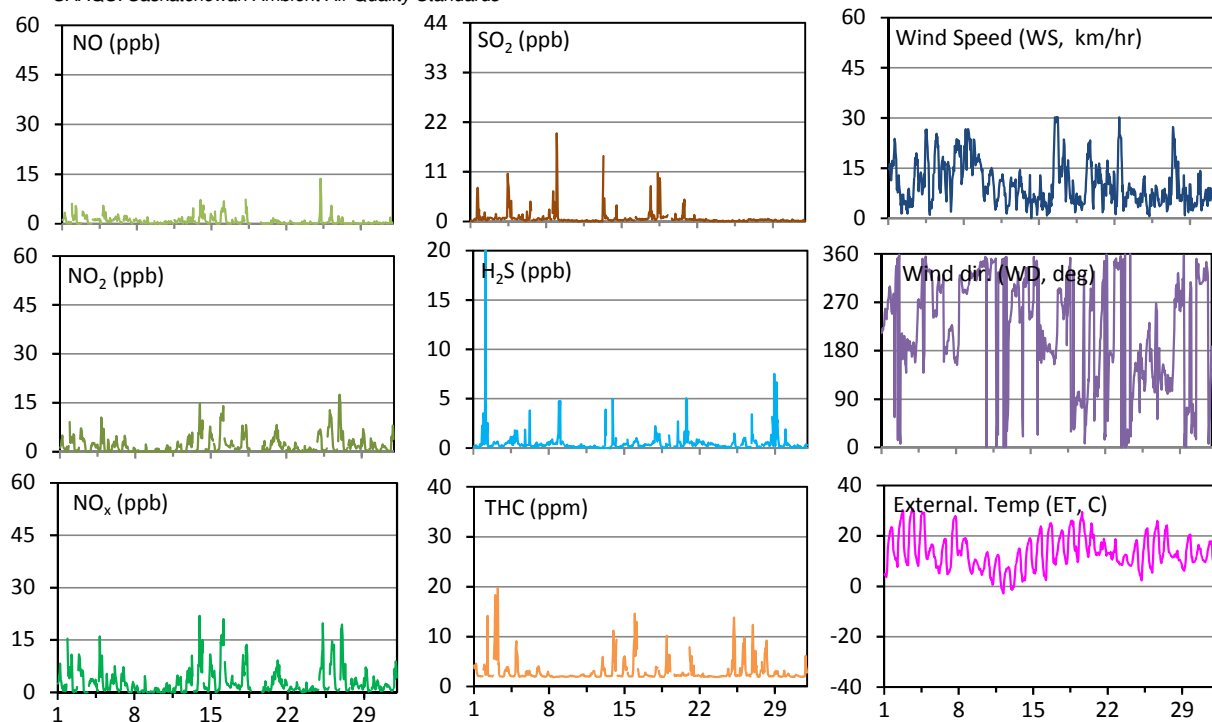


Husky Energy East Station - May 2016 Summary Report

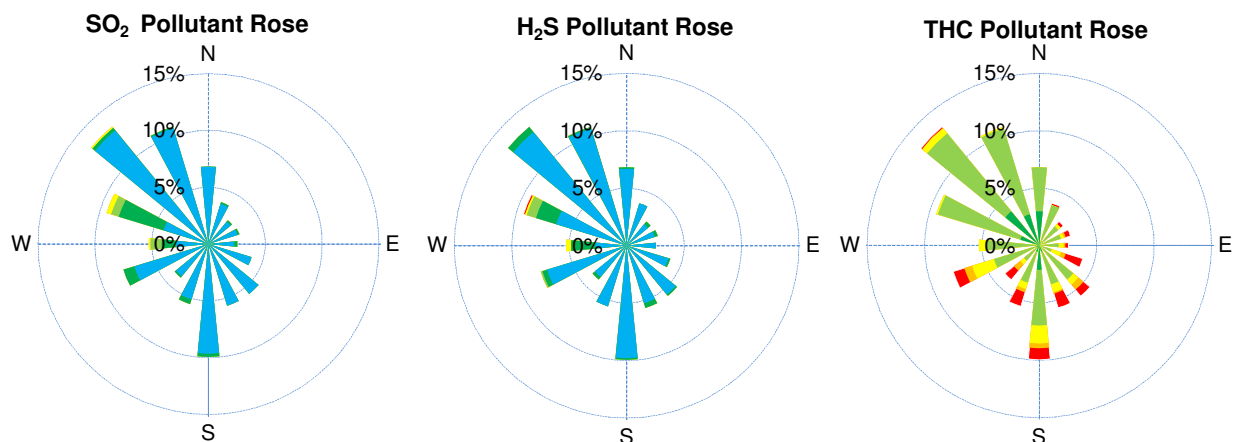
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Uptime	Maximum		SAAQS Standards	Exceed Days	Maximum		SAAQS Standards	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.8	96.2%	1.7	May-25	-	-	13.7	May-25 06:00	-	-
NO ₂	ppb	2.0	96.2%	6.0	May-26	106	0	17.5	May-27 00:00	159	0
NO _x	ppb	2.9	96.2%	7.2	May-26	-	-	22.0	May-14 00:00	-	-
SO ₂	ppb	0.7	100.0%	2.5	May-4	48	0	19.5	May-09 00:00	172	0
H ₂ S	ppb	0.5	100.0%	1.8	May-2	3.6	0	20.5	May-02 04:00	11.0	1
THC	ppm	2.9	100.0%	4.7	May-26	-	-	19.8	May-03 06:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



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
NO ₂	ppb	0 ≤ C < 5	5 ≤ C < 15	15 ≤ C < 30	30 ≤ C < 100	100 ≤ C < 212	C ≥ 212
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
THC	ppm	0 ≤ C < 1	1 ≤ C < 2	2 ≤ C < 3	3 ≤ C < 4	4 ≤ C < 5	C ≥ 5

Husky Energy East Station - May 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 one 1-hour H₂S exceedance. Refer to the Exceedance Summary table for details.

*All compliance parameters are above 90% operational. The NO_x analyzer was intermittently experiencing a lag in recovery time following the daily AIC. 11 hours of extended recovery time was flagged as "analyzer failure". The analyzer was repaired on May 18 and calibrated on May 19. 16 hours of data on May 18/19 is flagged as "maintenance" while the analyzer was repaired and stabilizing.

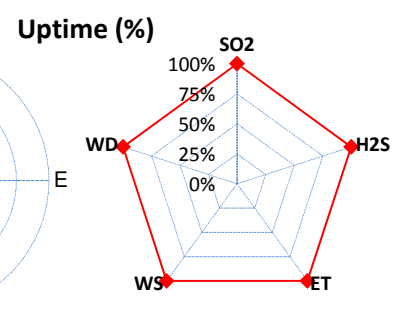
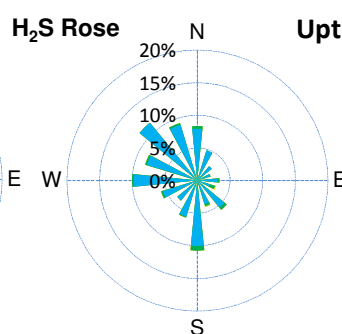
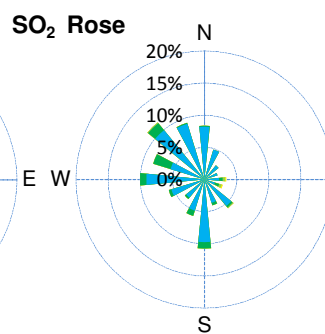
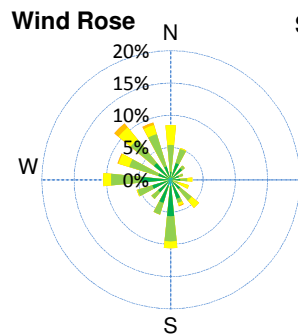
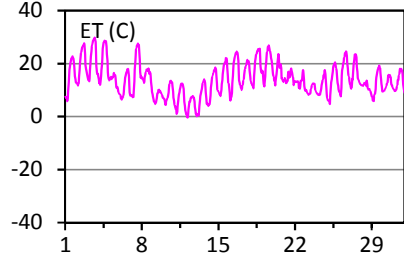
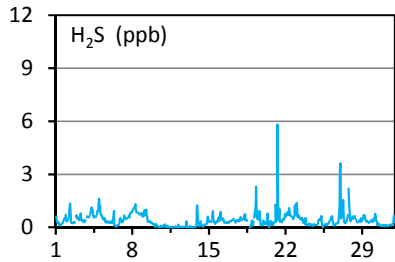
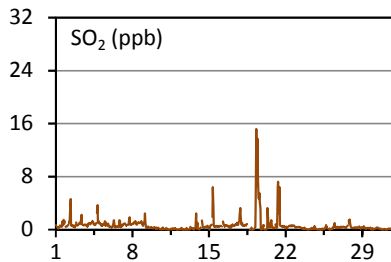
Exceedance Summary

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
H2S	20.5	May-02 04:00	3.9	286	10.3	1.0	20.5	3.7	2.4

Husky Energy West Station - May 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	0.6	100.0%	3.4	May-19	48 / 48	0 / 0	15.2	May-19 08:00	172 / 172	0 / 0
H ₂ S	ppb	0.4	100.0%	0.9	May-8	3 / 3.6	0 / 0	6.0	May-21 07:00	10 / 11.0	0 / 0

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



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.

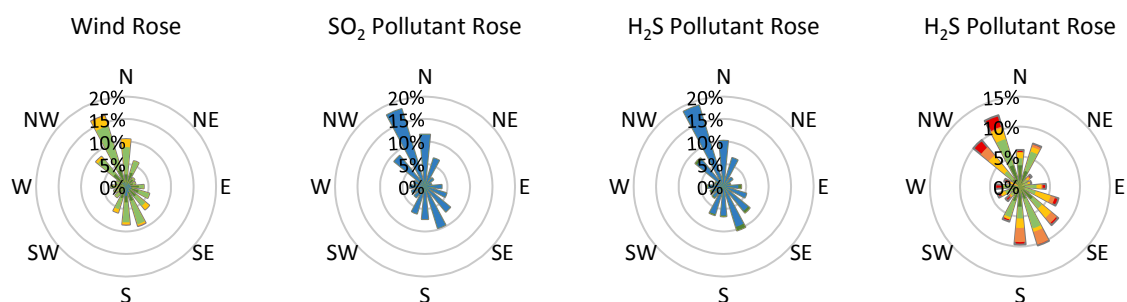
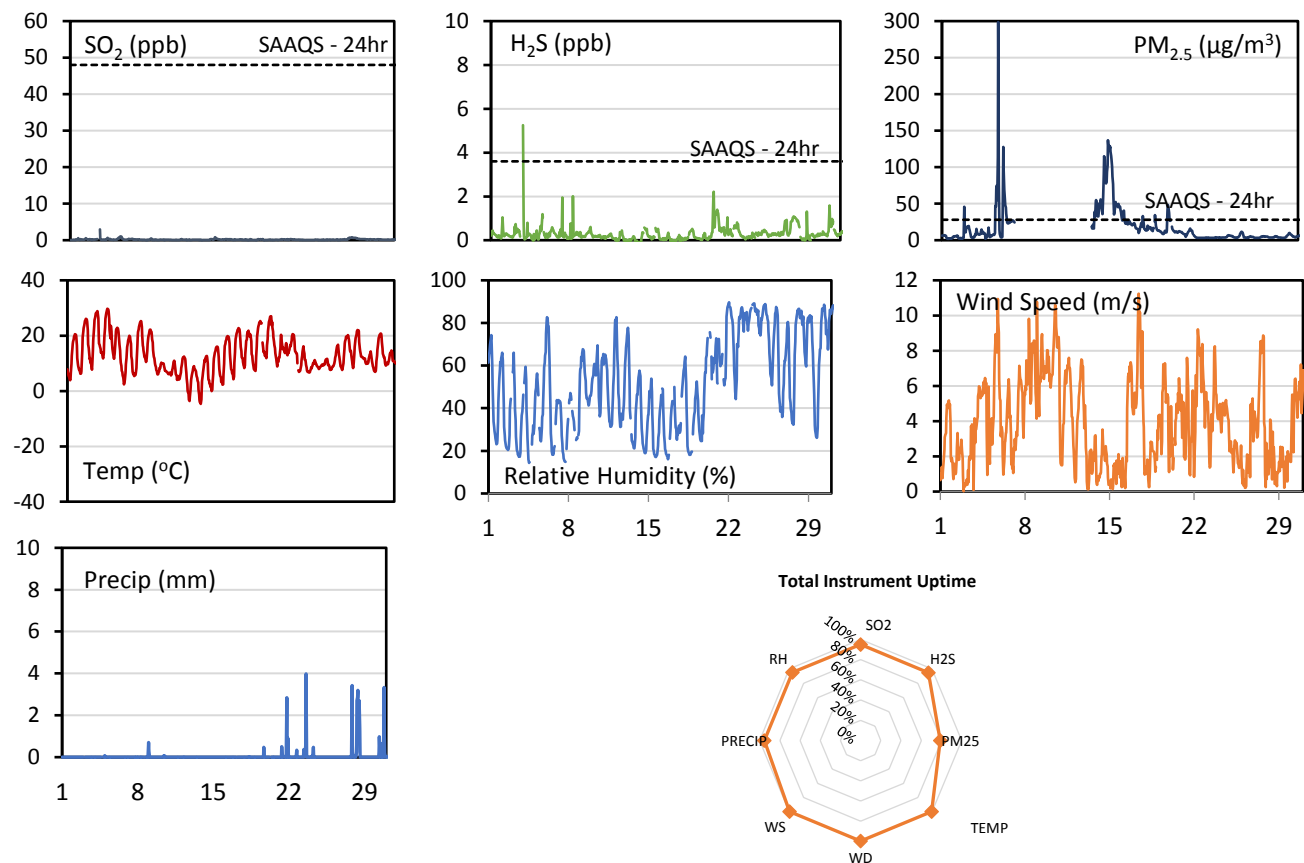
*All compliance parameters were within the Alberta Ambient Air Quality Objectives and the Saskatchewan Ambient Air Quality Standards

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

WYAMZ Kindersley Station - May 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	0.2	95%	0.5	May-27	48	0	3.0	May-03 18:00	172	0
H ₂ S	ppb	0.3	95%	0.9	May-20	3.6	0	5.3	May-03 18:00	11	0
PM _{2.5}	µg/m ³	16.9	79%	77.8	May-15	28	5	298.7	May-05 18:00	-	-

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 - May 2016 Summary Report

Monthly Update

- Achieved >99% of scheduled uptime for all parameters except relative humidity and precipitation (95%) and PM_{2.5} (79%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- PM_{2.5} data invalid May 7-13 due to foreign material in the nephelometer

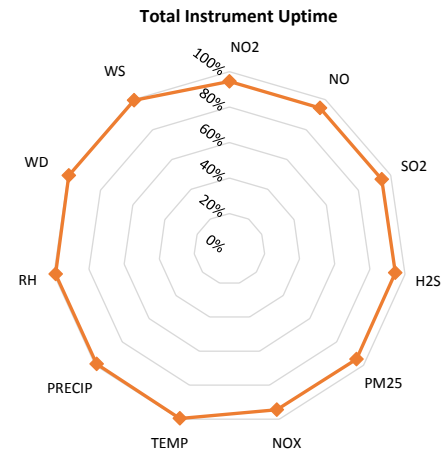
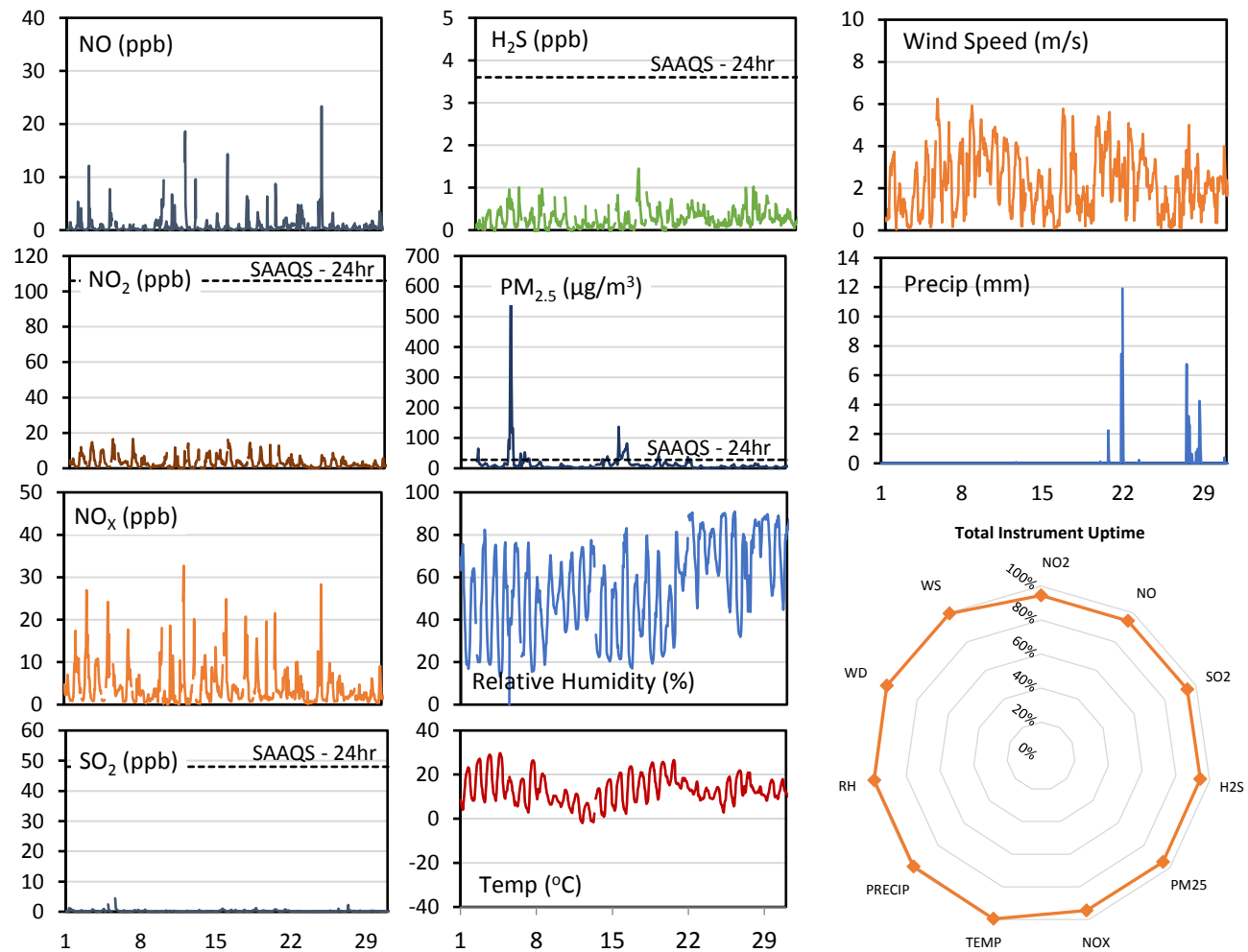
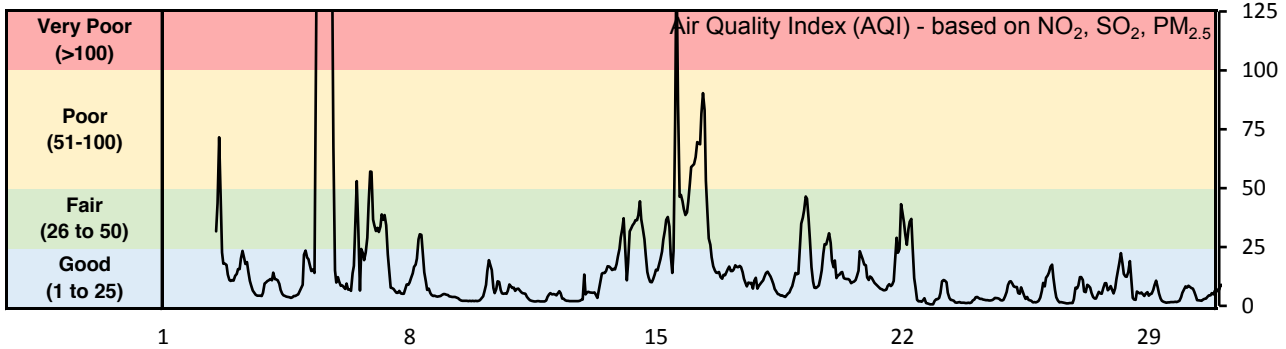
Exceedance Summary (24- Hour Average - Exceedances Highlighted)

Exceedance Day	SO ₂ ppb	PM _{2.5} µg/m ³	H ₂ S ppb	Temp °C	WD deg	WS m/s
May-05	0.4	37.3	0.4	17.2	259.9	5.9
May-06	0.2	35.6	0.3	11.6	251.0	3.4
May-14	0.3	63.1	0.3	8.8	255.1	1.6
May-15	0.2	77.8	0.2	12.1	175.5	1.0
May-16	0.1	29.1	0.0	14.8	162.4	3.8

WYAMZ Maidstone Station - May 2016 Summary Report

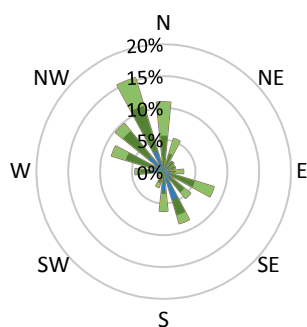
Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc. Unit	Avg. Conc.	Total Uptime	Maximum		SAAQS Standard	Exceed Days	Maximum		SAAQS Standard	Exceed Hours
				Conc.	Time			Conc.	Time		
NO	ppb	0.9	94%	2.9	May-25	-	-	23.3	May-25 07:00	-	-
NO ₂	ppb	3.0	94%	6.7	May-05	106	0	16.6	May-07 01:00	159	0
NO _x	ppb	3.9	94%	8.1	May-05	-	-	32.7	May-12 07:00	-	-
SO ₂	ppb	0.2	94%	0.7	May-05	48	0	4.4	May-05 15:00	172	0
H ₂ S	ppb	0.3	94%	0.5	May-16	3.6	0	1.5	May-16 07:00	11	0
PM _{2.5}	µg/m ³	13.7	95%	117.9	May-05	28	3	662.0	May-05 15:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards

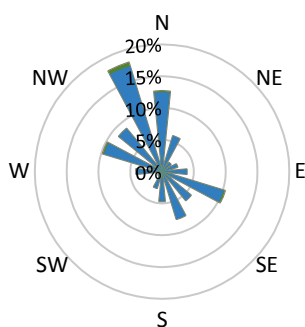


WYAMZ Maidstone Station - May 2016 Summary Report

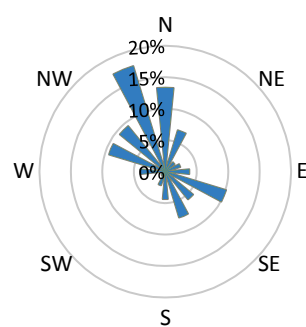
Wind Rose



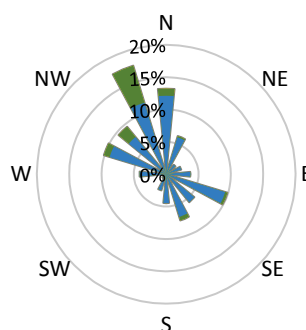
SO₂ Pollutant Rose



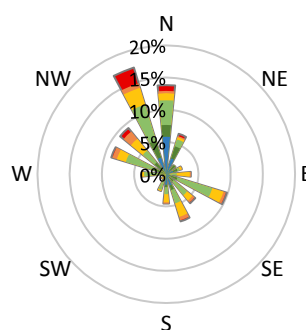
H₂S Pollutant Rose



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 >98% of scheduled uptime for all parameters except PM_{2.5} (95%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- All compliance parameters are above 90% data validity

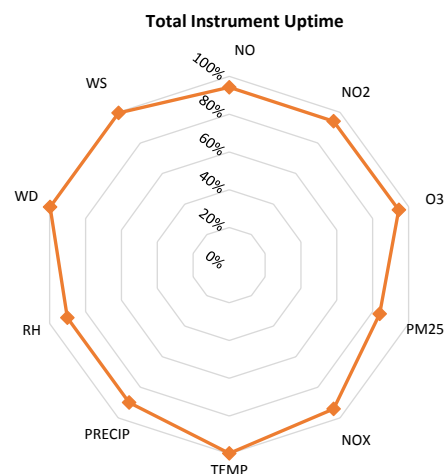
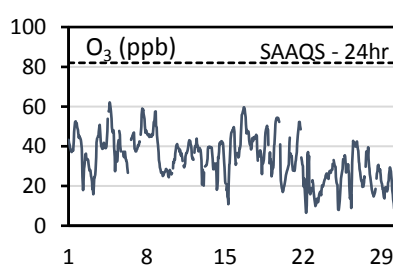
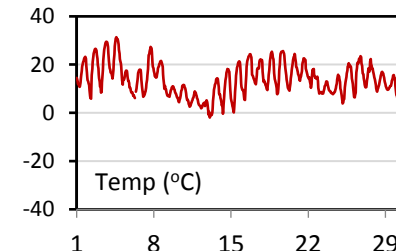
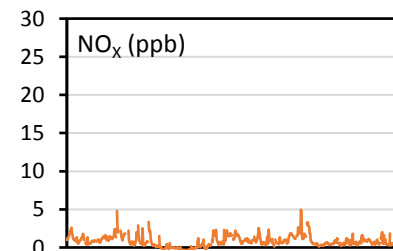
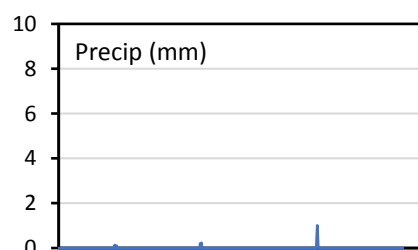
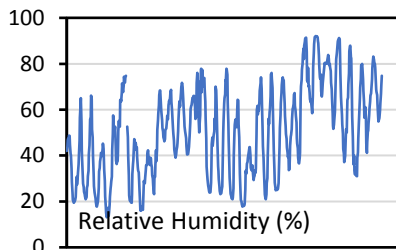
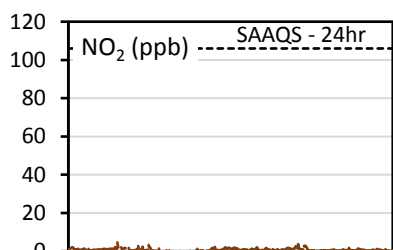
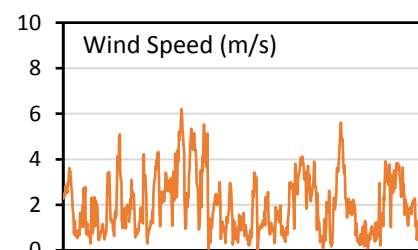
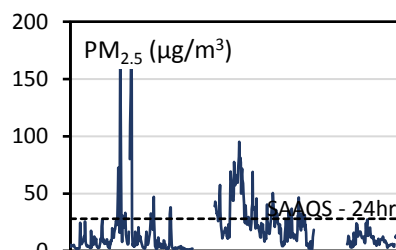
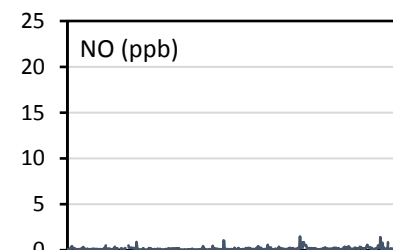
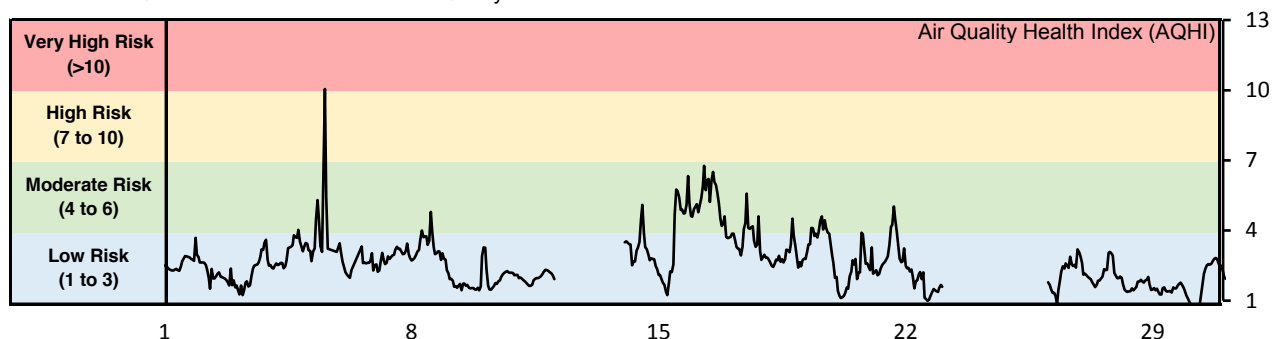
Exceedance Summary (24- Hour Average - Exceedances Highlighted)

Exceedance Day	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
May-05	129.6	6.7	1.4	0.7	117.9	8.1	0.3	13.5	289.4	3.1
May-15	41.1	4.6	0.5	0.4	35.0	5.0	0.2	12.6	222.5	1.1
May-16	42.4	5.6	1.2	0.2	36.5	6.8	0.5	13.9	185.3	2.4

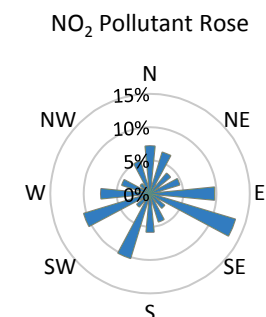
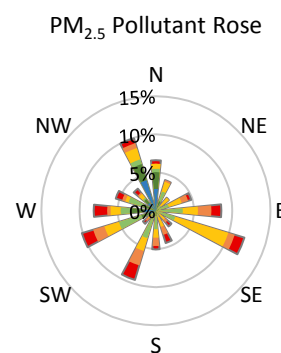
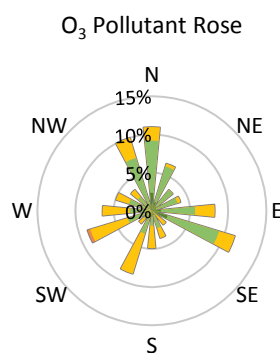
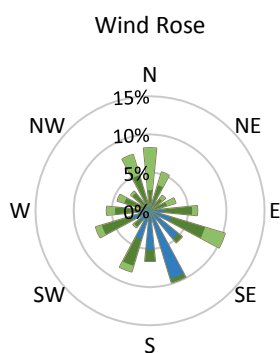
WYAMZ Meadow Lake Station - May 2016 Summary Report

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	94%	0.5	May-22	-	-	1.5	May-22 07:00	-	-
NO ₂	ppb	0.7	94%	1.8	May-22	106	0	4.6	May-05 13:00	159	0
NO _x	ppb	0.8	94%	2.3	May-22	-	-	5.0	May-22 06:00	-	-
O ₃	ppb	33.5	94%	48.0	May-08	-	-	62.1	May-04 16:00	82	0
PM _{2.5}	µg/m ³	17.0	84%	57.5	May-16	28	7	173.1	May-06 12:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



WYAMZ Meadow Lake Station - May 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}	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 relative humidity and precipitation (90%) and PM_{2.5} (84%)
- Downtime of 4% results from routine daily Internal Zeroes and Spans

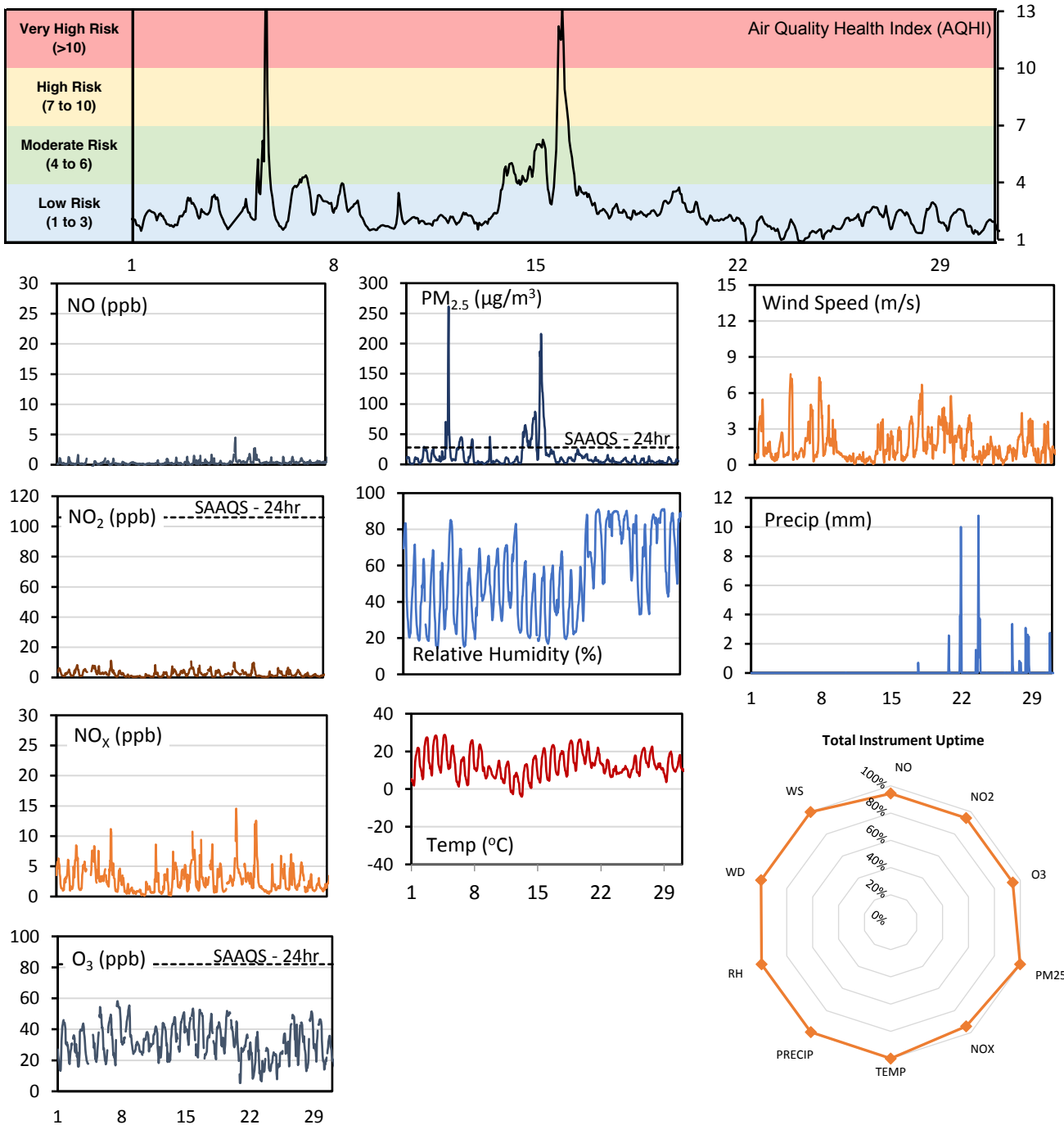
Exceedance Summary (24- Hour Average - Exceedances Highlighted)

Exceedance Time	AQI	NO ₂ ppb	NO ppb	O ₃ ppb	PM _{2.5} µg/m ³	NO _x ppb	Temp °C	WD deg	WS m/s
May-05	4.0	1.7	0.2	38.6	39.8	1.9	14.2	266.3	2.3
May-06	3.8	0.9	0.2	38.8	35.7	1.1	11.9	236.8	1.8
May-14	3.2	0.9	0.1	34.4	28.7	1.0	10.2	238.5	1.4
May-15	3.7	1.2	0.2	33.7	38.3	1.4	11.8	209.8	1.0
May-16	5.3	1.1	0.1	47.3	57.5	1.3	16.4	171.5	1.4
May-17	3.7	0.7	0.1	42.9	29.7	0.9	17.1	157.8	1.3
May-19	3.5	0.7	0.2	41.4	28.1	0.8	18.2	100.3	1.8

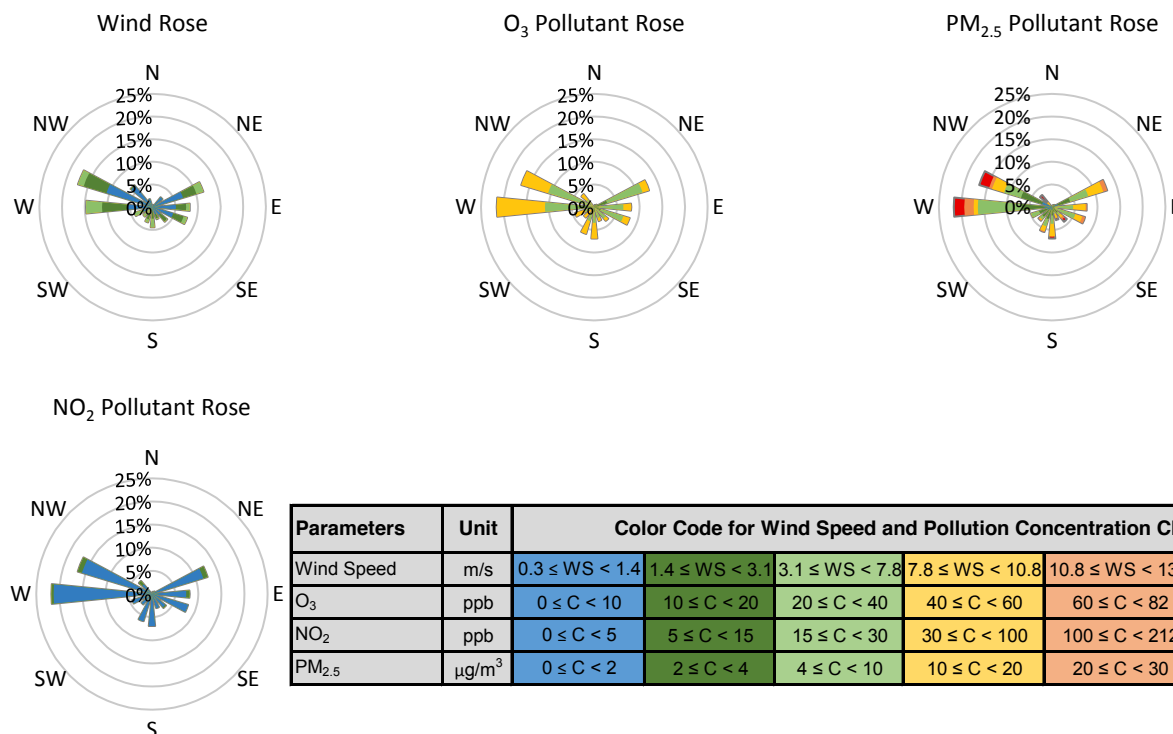
WYAMZ Unity Station - May 2016 Summary Report

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	0.4	94%	1.0	May-23	-	-	4.5	May-20 23:00	-	-
NO ₂	ppb	2.4	94%	4.9	May-04	106	0	11.1	May-07 01:00	159	0
NO _x	ppb	2.8	94%	5.0	May-04	-	-	14.5	May-20 23:00	-	-
O ₃	ppb	31.8	94%	42.5	May-15	-	-	58.2	May-07 13:00	82	0
PM _{2.5}	µg/m ³	14.4	100%	83.9	May-15	28	4	261.4	May-05 16:00	-	-

SAAQS: Saskatchewan Ambient Air Quality Standards



WYAMZ Unity Station - May 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}	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
- Downtime of 4% results from routine daily Internal Zeroes and Spans
- All compliance parameters are above 90% data validity

Exceedance Summary (24- Hour Average - Exceedances Highlighted)

Exceedance Time	AQHI	NO ₂	NO	O ₃	PM _{2.5}	NO _x	Temp	WD	WS
	-	ppb	ppb	ppb	µg/m ³	ppb	°C	deg	m/s
May-05	4.5	4.5	0.2	35.4	48.2	4.7	15.3	204.7	0.9
May-14	4.5	2.9	0.3	39.8	45.7	3.2	9.8	286.4	1.5
May-15	6.5	3.1	0.2	42.5	83.9	3.4	12.7	240.1	1.4
May-16	4.5	3.8	0.4	38.6	46.3	4.2	14.5	149.9	2.0