

# **Fox Creek**

## **AIR QUALITY MONITORING April 2016 Monthly Report**

**Prepared by:**

**West Central Airshed Society  
Drayton Valley, Alberta**





May 16<sup>th</sup>, 2016

Director, Central Region  
Alberta Environmental Protection  
4<sup>th</sup> Floor, Oxbridge Place  
9820 106 Street  
Edmonton, Alberta T5K 2J6

Dear Sir:

**Monthly Ambient Air Quality Monitoring Report for April 2016 for Fox Creek**

Enclosed is the report for the Fox Creek continuous ambient air quality monitoring station of the West Central Airshed Society network.

The person responsible for this reporting is Robert Scotten, Executive Director of West Central Airshed Society.

The following operational notes are included as required by the Air Monitoring Directive:

**1. Concentrations in excess of the Clean Air (Maximum Levels) Regulation:**

There were no readings in excess of guidelines as indicated in Air Monitoring Directive Section III.A.3. (a&b) for SO<sub>2</sub>, NO<sub>2</sub>, O<sub>3</sub>, and PM<sub>2.5</sub>.

**2. Operational times less than 90 percent:**

There were no operational times less than 90 percent in April.

**3. Monitoring Notes:**

The wind head failed to return valid data with an uptime of 99.7%. All other analyzers and meteorological equipment returned uptimes of 100% in April.

If additional information is required please contact Patrick Andersen at (780) 514-3533 or (403) 505-1041.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Scotten'.

Robert Scotten  
Executive Director

A handwritten signature in black ink, appearing to read 'Patrick Andersen'.

Patrick Andersen  
Environmental Specialist

**WEST CENTRAL AIRSHED SOCIETY**

**CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
MONTHLY REPORT  
CONTINUOUS AIR MONITORING DATA**

**FOX CREEK  
APRIL 2016**

Operations and Data Collection by:  
West Central Airshed Society  
Drayton Valley, Alberta

QA/QC, Data Validation and Reporting by:  
West Central Airshed Society  
Drayton Valley, Alberta

**Summary Report**

*Continuous air quality/meteorological monitoring measurements*

**West Central Airshed Society**

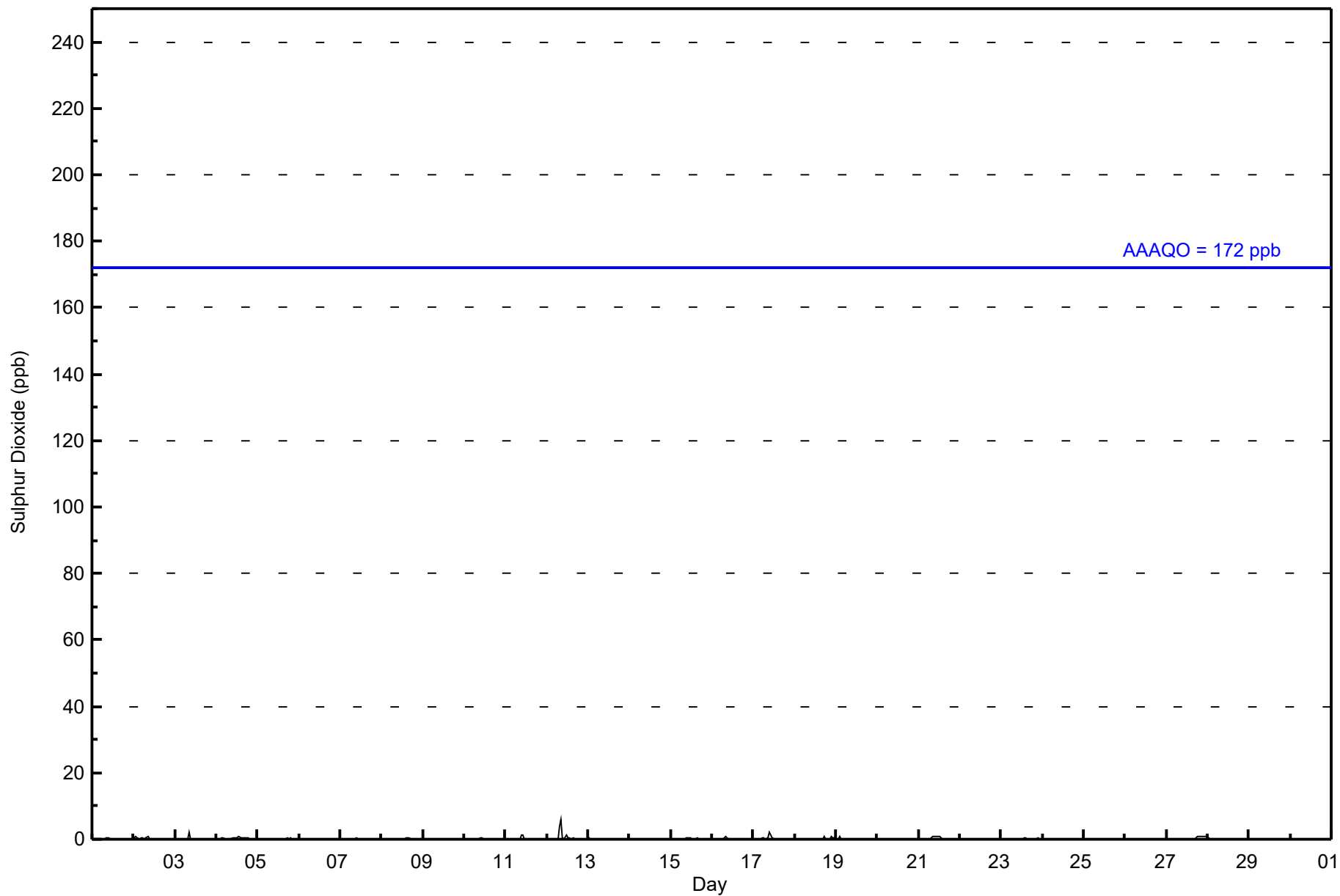
WCAS / Fox Creek													April 2016		
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Min	Max	Percentile					Exceedences		24 Hour Average Max (ppm)	
							P10	Q1	Median	Q3	P90	1-hour	24-hour		
SO <sub>2</sub> (ppb)	4	716	100.0	0.083	0.0	6.1	0.0	0.0	0.0	0.0	0.2	0	0	0.001	
H <sub>2</sub> S (ppb)	7	713	100.0	0.101	0.0	2.0	0.0	0.0	0.1	0.1	0.3	0	0	0.000	
O <sub>3</sub> (ppb)	5	715	100.0	31.7	0.6	54.0	13.9	24.3	33.1	41.1	46.5	0	-	0.039	
NO (ppb)	5	715	100.0	0.5	0.0	16.1	0.0	0.0	0.0	0.4	1.3	-	-	-	
NO <sub>2</sub> (ppb)	5	715	100.0	3.9	0.0	19.3	0.2	1.2	3.2	5.4	9.1	0	0	0.010	
NO <sub>x</sub> (ppb)	5	715	100.0	4.8	0.0	28.9	0.8	1.9	3.7	6.5	10.1	-	-	-	
Particulate Matter 2.5 microns (µ/m <sup>3</sup> )	4	716	100.0	2.5	0.0	10.5	0.2	0.9	1.9	3.6	5.4	0	0	4.71 ug/m3	
Temperature (°C)	0	720	100.0	8.1	-3.9	27.8	0.6	4.1	7.5	12.1	15.9	-	-	-	
Wind Speed (kph)	0	718	99.7	9.4	0.2	25.5	2.7	4.6	8.3	13.9	17.4	-	-	-	

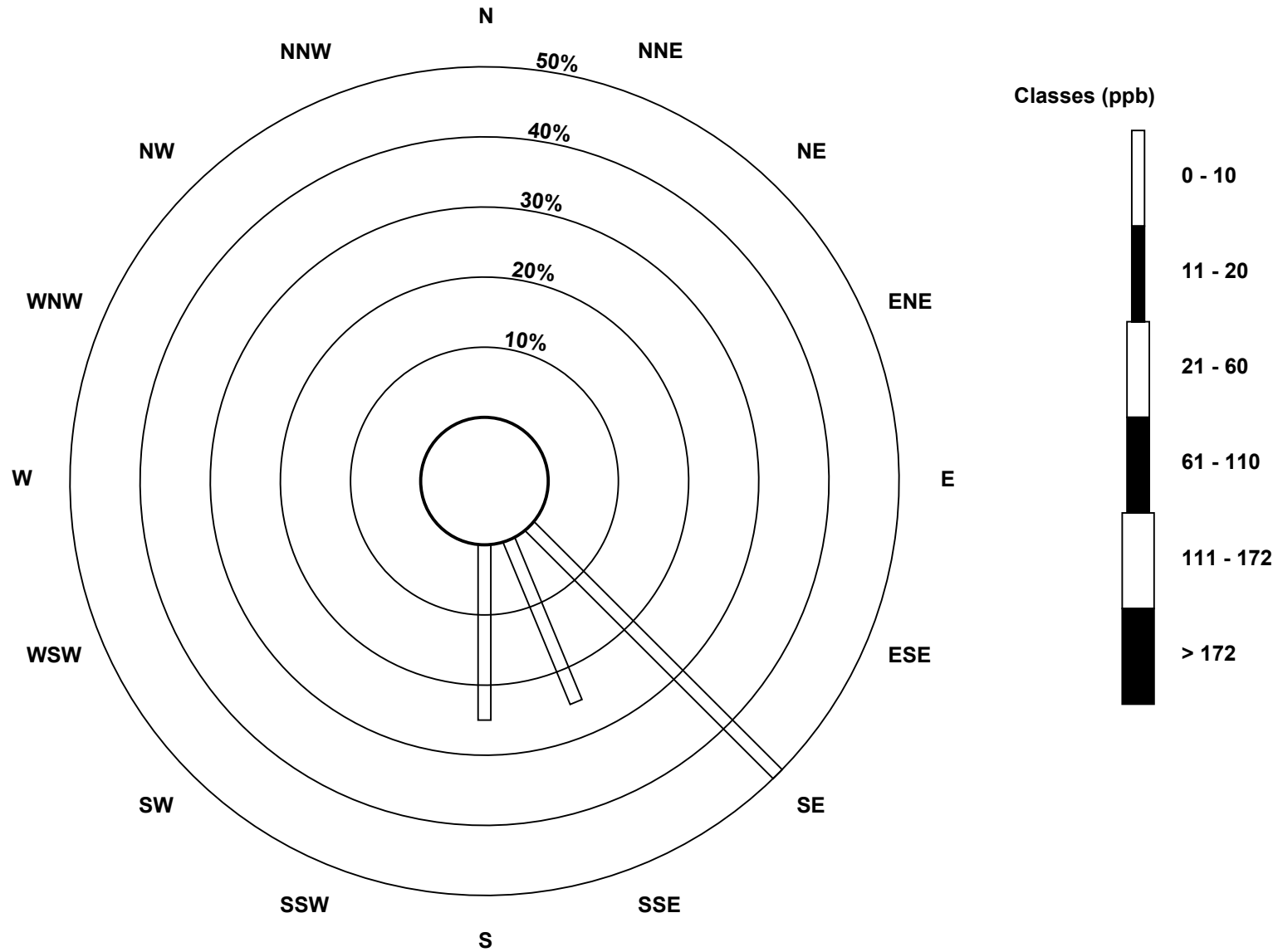


**WCAS - Fox Creek**  
**Summary of Hourly Averages**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**April 2016**

Maximum Value: 6.11 ppb on Apr 12 09:00      Maximum Daily Average: 0.55 ppb on Apr 12																				Hours in Service: 720 Hours of Data: 716 Hours of Missing Data: 4 Hours of Calibration: 4 Percent Operational Time: 100.0							
Minimum Value: 0.0 ppb on Apr 1 01:00      Minimum Daily Average: 0.00 ppb on Apr 6 Maximum Diurnal Average: 0.40 ppb at hour 9      Minimum Diurnal Average: 0.02 ppb at hour 4 Monthly Average: 0.083 ppb      Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.0 Q <sub>3</sub> = 0.0 P <sub>90</sub> = 0.2 P <sub>99</sub> = 1.1																											
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04	0.26
2-Apr	0.4	0.8	0.3	0.0	0.4	0.6	0.2	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.16	0.80
3-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	2.28	
4-Apr	0.0	0.0	0.1	0.3	0.3	0.1	0.1	0.1	0.2	0.4	0.6	0.5	0.5	0.7	0.5	0.5	0.6	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.25	0.65	
5-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.5	0.1	0.0	0.0	0.0	0.03	0.47	
6-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
7-Apr	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04	0.52	
8-Apr	0.0	0.0	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.12	0.35	
9-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
10-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.32	
11-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	1.43	
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.0	6.1	0.3	0.1	1.2	0.5	0.5	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.55	6.11	
13-Apr	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.27	
14-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
15-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.5	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.08	0.50	
16-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	0.66	
17-Apr	0.0	0.0	0.0	0.0	0.0	0.6	0.2	0.0	0.2	2.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.18	1.98	
18-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.7	0.5	0.4	0.12	0.82	
19-Apr	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03	0.83	
20-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
21-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	0.7	0.7	0.7	0.7	0.3	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.18	0.73	
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.08	
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.5	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.1	0.0	0.09	0.55	
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.15	
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.01	0.19	
26-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.02	
27-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.9	0.9	0.7	0.6	0.8	0.7	0.22	0.91	
28-Apr	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.28	
29-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.14	
30-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
																								Diurnal Average			
																								Diurnal Maximum			
0.03 0.03 0.05 0.02 0.03 0.05 0.02 0.18 0.40 0.22 0.17 0.12 0.08 0.09 0.06 0.06 0.04 0.07 0.06 0.05 0.03 0.05 0.05 0.04																											
0.44 0.80 0.83 0.28 0.35 0.59 0.22 4.02 6.11 1.98 1.34 1.18 0.72 0.65 0.50 0.49 0.55 0.82 0.91 0.89 0.73 0.69 0.80 0.74																											
C - Calibration																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											





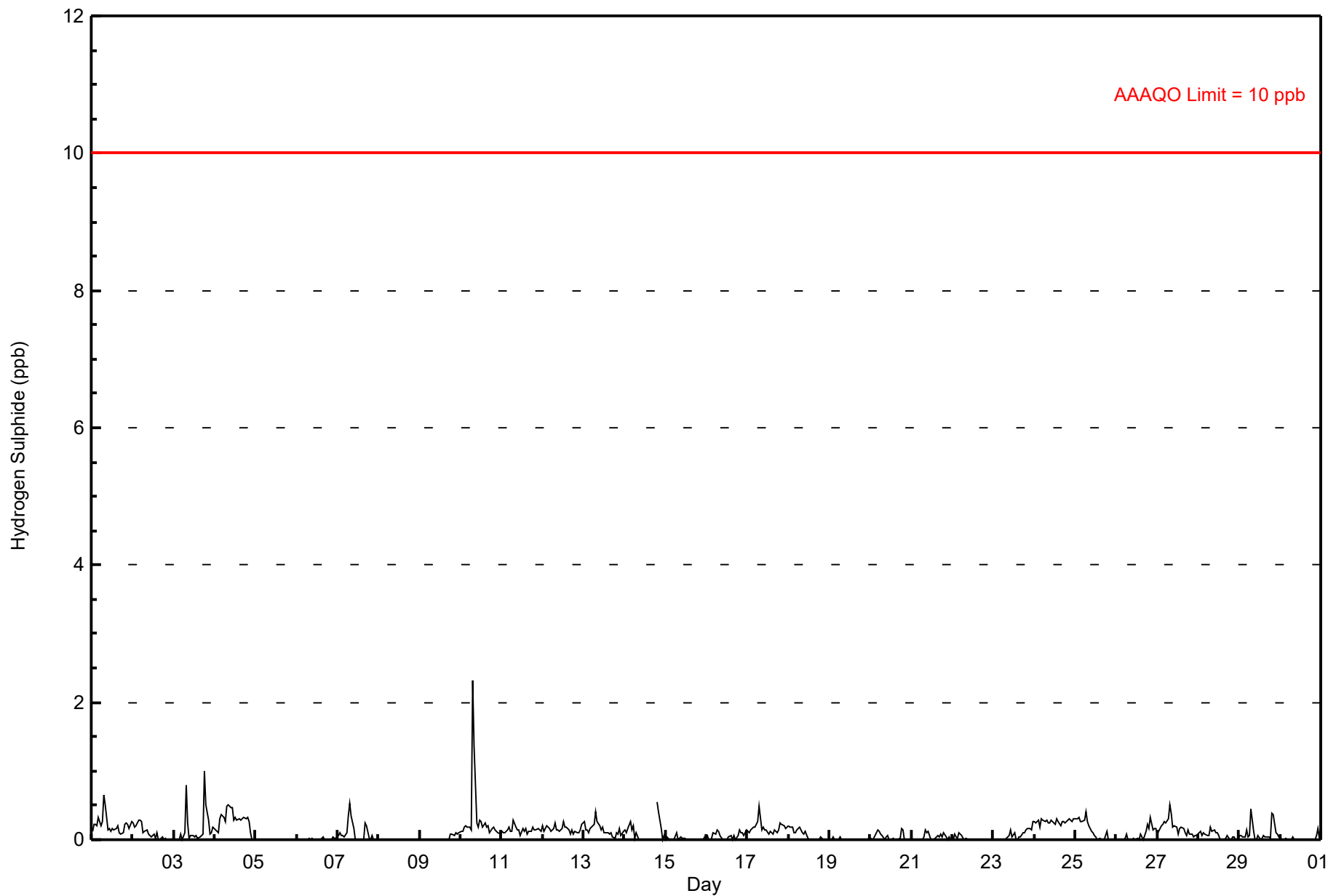


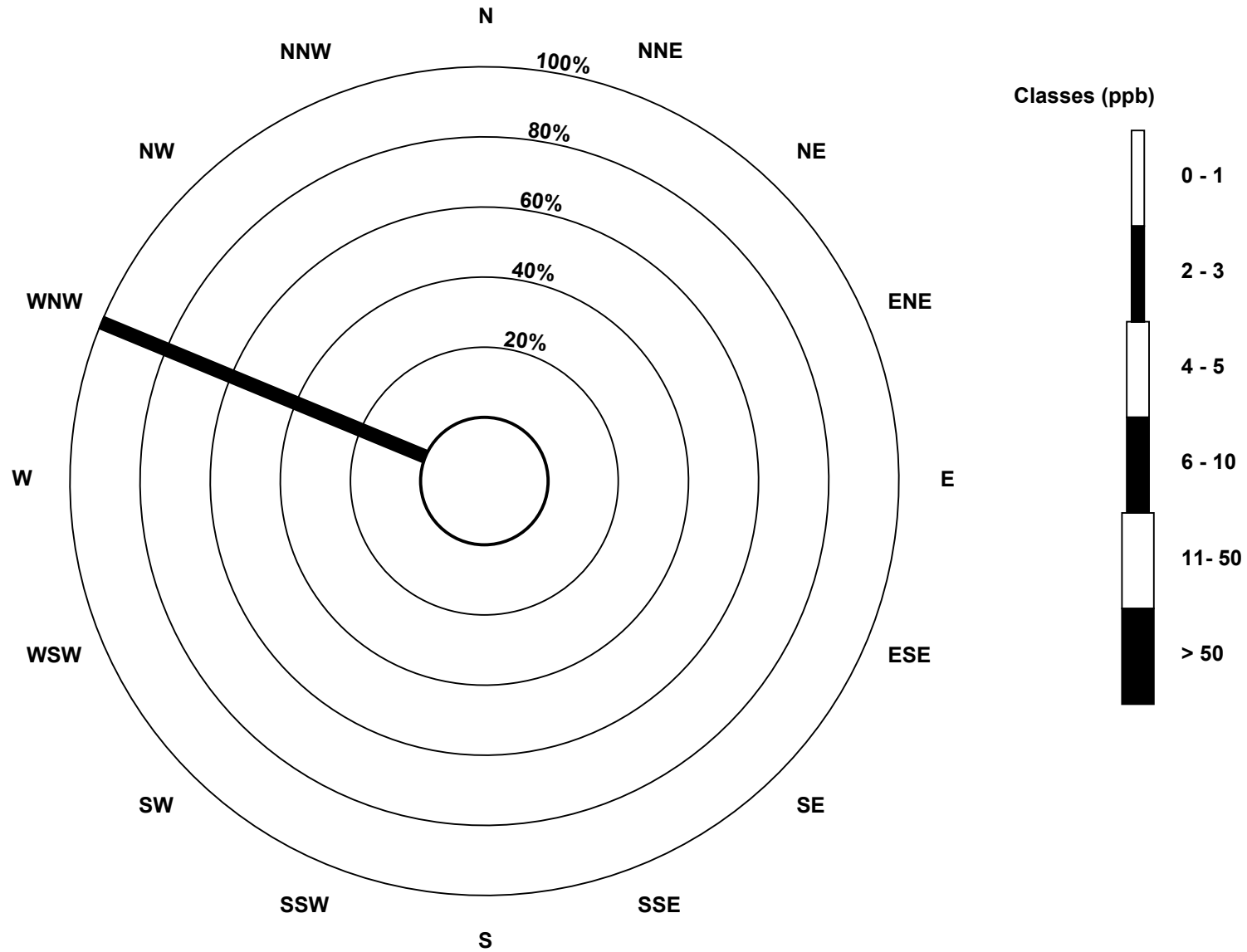
**WCAS - Fox Creek**  
**Summary of Hourly Averages**

**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**April 2016**

Maximum Value: 2.32 ppb on Apr 10 08:00		Maximum Daily Average: 0.31 ppb on Apr 10		Hours in Service: 720																							
Minimum Value: 0 ppb on Apr 2 16:00		Minimum Daily Average: 0.00 ppb on Apr 5		Hours of Data: 713																							
Maximum Diurnal Average: 0.28 ppb at hour 8		Minimum Diurnal Average: 0.06 ppb at hour 16		Hours of Missing Data: 7																							
Monthly Average: 0.101 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.1 P <sub>90</sub> = 0.3 P <sub>99</sub> = 0.5		Hours of Calibration: 7																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0.65	
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.10	0.28	
3-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.16	0.99	
4-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.28	0.51	
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.04	
7-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.10	0.54	
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.01	
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02	0.10	
10-Apr	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.31	2.32	
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.14	0.28	
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.16	0.26	
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.15	0.41	
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	C	1	0	0	0	0	--	0.55	
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.10	
16-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.06	0.14	
17-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.17	0.48	
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.07	0.20	
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.05	
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	0.17	
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.03	0.13	
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.11	
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.06	0.26	
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.26	0.31	
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.13	0.41	
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.07	0.33	
27-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.17	0.50	
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.06	0.18	
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.09	0.45	
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.17	
		0.09	0.08	0.09	0.10	0.12	0.11	0.13	0.28	0.18	0.09	0.09	0.07	0.07	0.06	0.07	0.06	0.07	0.07	0.11	0.13	0.11	0.08	0.07	0.08	Diurnal Average	
		0.30	0.31	0.33	0.30	0.37	0.32	0.41	2.32	1.35	0.48	0.46	0.29	0.32	0.31	0.30	0.29	0.30	0.32	0.99	0.55	0.40	0.29	0.27	0.30	Diurnal Maximum	
C - Calibration Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																											





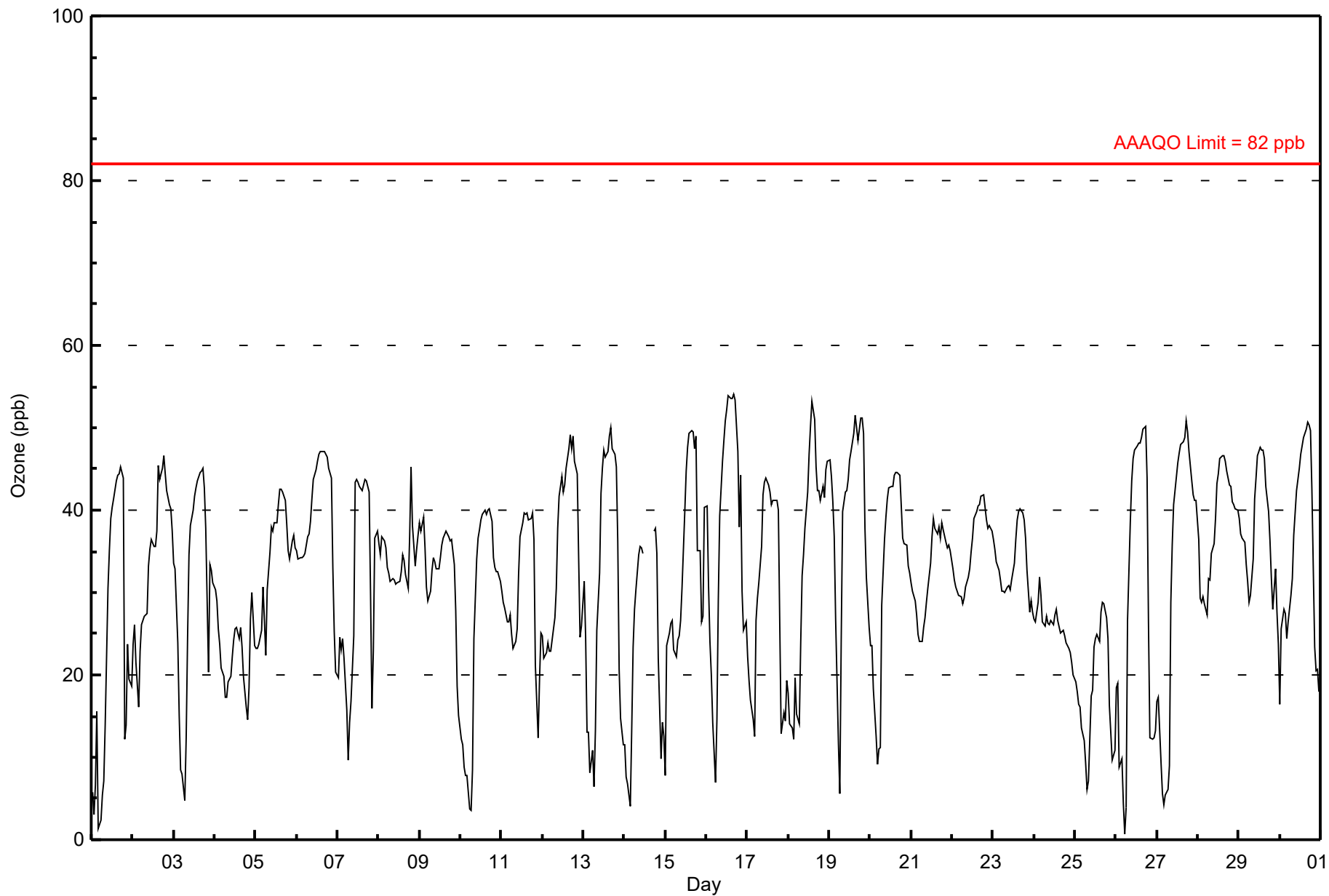


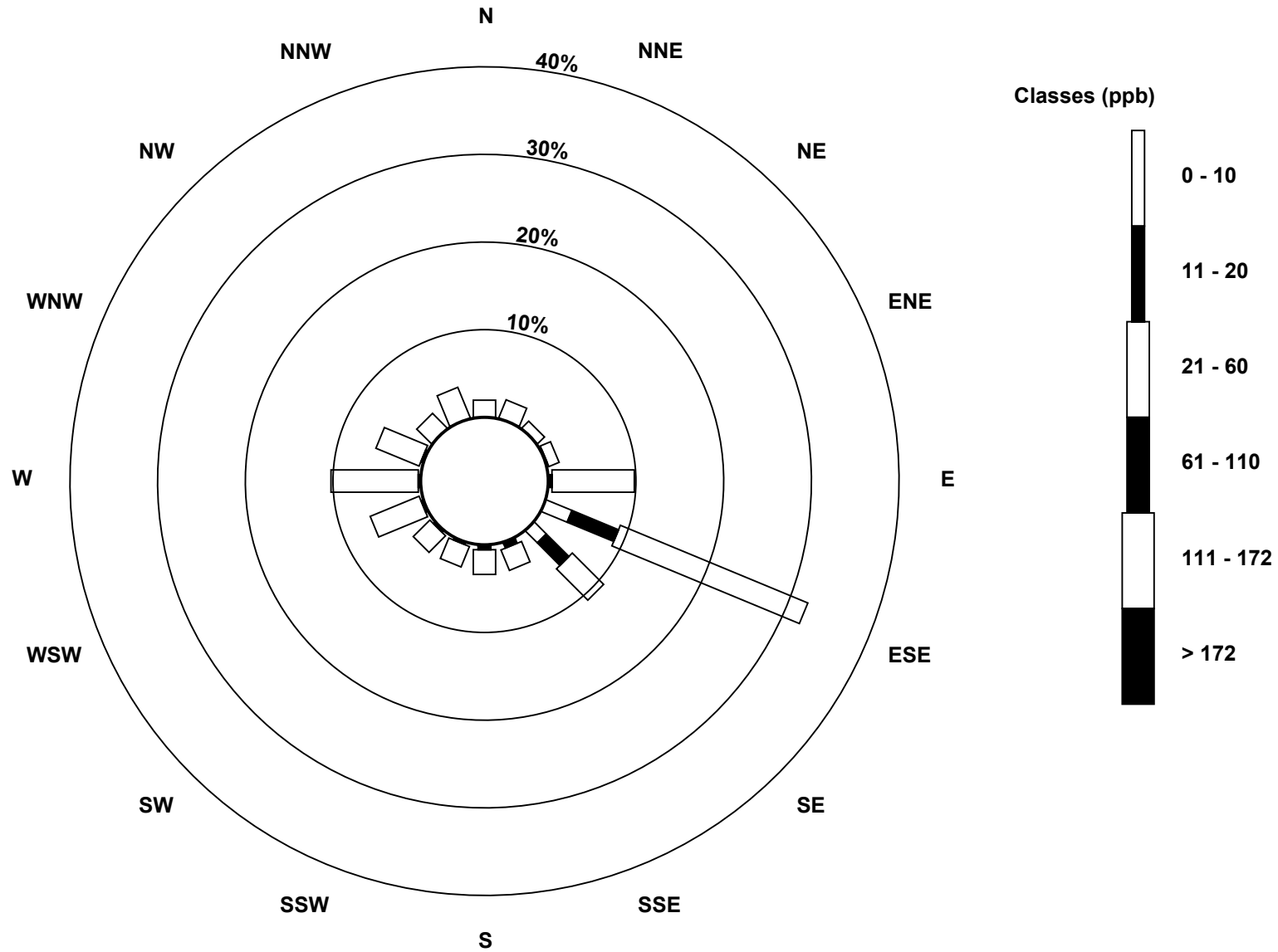


**WCAS - Fox Creek**  
**Summary of Hourly Averages**

**Ozone (O<sub>3</sub>) - ppb**  
**April 2016**

Maximum Value: 54.02 ppb on Apr 16 17:00      Maximum Daily Average: 39.36 ppb on Apr 6																						Hours in Service: 720 Hours of Data: 715				
Minimum Value: 0.6 ppb on Apr 26 06:00      Minimum Daily Average: 18.18 ppb on Apr 25 Maximum Diurnal Average: 42.79 ppb at hour 16      Minimum Diurnal Average: 19.64 ppb at hour 7 Monthly Average: 31.716 ppb      Percentiles: P <sub>1</sub> = 4.0 P <sub>10</sub> = 13.9 Q <sub>1</sub> = 24.3 Median = 33.1 Q <sub>3</sub> = 41.1 P <sub>90</sub> = 46.5 P <sub>99</sub> = 51.5																						Hours of Missing Data: 5 Hours of Calibration: 5 Percent Operational Time: 100.0				
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	5.8	3.0	6.5	15.6	1.4	2.4	5.4	7.1	14.0	30.5	35.2	39.0	40.3	41.3	43.5	44.2	44.4	45.2	43.8	12.2	13.9	23.8	19.5	18.6	23.19	45.17
2-Apr	23.8	26.1	21.6	16.2	22.9	26.1	26.6	27.2	27.5	33.2	35.2	36.5	35.6	35.6	37.5	45.5	43.7	45.1	46.5	44.4	42.4	40.7	40.2	37.5	34.06	46.54
3-Apr	33.6	32.8	23.9	15.0	8.6	7.9	4.7	12.4	24.5	34.6	38.1	40.1	41.7	42.7	43.5	44.6	44.8	45.0	42.7	37.9	20.4	33.4	32.7	31.1	30.70	45.02
4-Apr	30.3	29.0	25.6	23.8	20.9	19.8	17.3	17.2	19.1	19.8	22.1	24.2	25.6	25.8	24.4	25.7	23.5	19.8	16.0	14.6	18.5	26.8	29.9	23.6	22.64	30.33
5-Apr	23.3	23.1	23.7	25.4	30.6	26.6	22.4	30.4	34.9	38.0	37.4	38.4	38.5	40.6	42.5	42.6	42.1	41.2	38.3	35.1	34.2	36.3	36.9	35.4	34.09	42.56
6-Apr	35.2	34.1	34.2	34.2	34.3	34.8	36.9	37.2	38.7	41.3	43.8	44.9	46.0	46.9	47.1	47.2	47.1	46.7	46.5	45.0	43.8	33.1	25.2	20.4	39.36	47.20
7-Apr	19.7	24.6	23.0	24.4	22.0	15.8	9.7	14.3	16.8	24.7	43.4	43.7	43.4	42.8	42.4	43.0	43.7	43.5	42.1	29.9	16.0	22.9	36.5	37.5	30.25	43.72
8-Apr	35.9	34.5	36.7	36.3	35.5	33.1	32.4	31.3	31.7	31.6	31.0	31.2	31.4	32.5	34.5	34.0	32.2	30.5	36.8	45.3	38.1	33.2	35.2	36.9	34.24	45.28
9-Apr	38.5	37.4	39.2	35.4	30.7	28.9	30.2	32.8	34.2	33.7	32.9	32.9	34.2	35.8	36.7	37.5	37.1	36.8	36.3	36.4	33.4	27.8	18.6	15.1	33.02	39.15
10-Apr	12.1	11.5	8.8	7.8	7.9	3.8	3.6	8.4	24.4	34.0	36.6	37.6	38.8	39.6	40.0	39.5	40.1	40.1	38.7	34.2	33.1	32.6	32.5	31.4	26.53	40.14
11-Apr	30.1	28.9	28.2	26.4	26.5	27.2	24.9	23.3	24.0	25.7	32.2	36.8	38.4	39.6	39.5	39.6	38.9	38.9	39.7	36.4	21.2	12.3	19.5	25.0	30.14	39.66
12-Apr	24.8	22.0	22.6	23.8	23.0	22.9	25.5	26.9	30.5	37.8	41.7	44.1	42.2	43.0	45.0	47.4	49.1	47.4	49.0	45.9	44.4	34.2	24.5	25.9	35.16	49.09
13-Apr	31.4	24.6	13.1	13.1	8.1	10.9	6.4	13.2	25.4	32.4	42.0	45.0	47.3	46.5	47.1	48.9	50.0	47.4	46.8	45.3	36.3	20.6	14.7	11.6	30.34	50.01
14-Apr	11.5	7.7	6.7	4.1	13.4	23.4	28.0	30.3	34.6	35.6	35.4	34.7	C	C	C	C	C	37.5	37.8	34.8	22.0	9.8	14.3	12.5	22.85	37.78
15-Apr	7.8	23.6	25.1	26.3	26.6	23.0	22.2	24.3	24.8	26.6	30.4	39.8	44.7	47.6	49.4	49.6	49.5	47.4	49.0	35.0	35.1	26.4	27.1	40.4	33.41	49.61
16-Apr	40.5	30.8	24.0	19.9	14.3	6.9	14.5	29.1	39.2	45.9	48.5	50.9	52.2	53.9	53.6	53.5	54.0	53.3	47.2	37.9	44.3	30.2	25.5	26.4	37.36	54.02
17-Apr	22.3	19.4	17.0	14.5	12.5	26.6	29.3	31.2	35.7	41.8	43.3	43.9	43.0	42.2	40.7	41.2	41.1	41.2	39.9	26.2	12.8	15.4	14.5	19.2	29.79	43.89
18-Apr	17.8	14.0	13.5	12.3	19.7	15.2	14.1	23.8	32.1	34.6	37.8	42.2	46.7	50.1	53.3	50.9	45.2	42.4	42.4	41.1	42.9	41.5	44.9	46.0	34.36	53.28
19-Apr	46.1	44.2	41.1	36.7	26.8	11.6	5.6	24.3	39.8	42.2	42.4	43.7	46.1	47.2	49.3	51.5	50.0	48.5	51.1	51.1	49.4	37.8	31.9	25.7	39.34	51.53
20-Apr	23.5	23.5	18.4	12.5	9.2	11.0	11.2	28.4	36.5	39.2	41.4	42.7	42.9	43.0	44.2	44.6	44.6	44.2	40.4	36.5	35.9	35.8	33.3	32.3	32.31	44.62
21-Apr	31.2	30.2	28.9	27.4	24.9	24.1	24.1	25.7	27.0	28.9	30.6	33.6	36.7	38.9	37.8	37.2	37.9	36.5	38.5	37.6	36.1	35.4	35.8	35.1	32.50	38.90
22-Apr	32.8	31.6	30.7	30.2	29.7	29.5	28.6	29.4	30.7	31.8	32.9	35.0	36.6	38.9	39.8	40.6	40.7	41.6	41.8	40.3	38.8	37.8	38.1	37.4	35.23	41.83
23-Apr	36.5	35.2	33.7	32.7	31.6	30.2	30.1	30.0	30.6	30.8	30.3	31.5	33.6	36.5	38.7	39.8	40.2	39.7	38.9	36.6	32.7	27.7	29.0	27.6	33.51	40.23
24-Apr	26.9	26.5	28.8	31.8	29.7	26.5	25.9	27.2	26.3	26.0	26.7	26.2	27.3	28.0	26.6	25.0	25.3	25.4	24.8	23.9	23.2	22.7	21.5	20.0	25.92	31.79
25-Apr	19.1	17.9	16.5	16.2	13.6	12.0	9.3	6.2	7.1	17.4	18.1	23.4	24.4	24.9	24.0	27.6	28.8	28.6	27.0	24.5	16.3	13.0	9.7	10.8	18.18	28.78
26-Apr	18.5	18.9	8.8	9.8	4.4	0.6	4.0	26.6	38.7	43.6	46.3	47.2	47.9	48.2	48.1	48.8	49.9	50.1	43.9	26.3	12.3	12.2	12.4	13.2	28.37	50.11
27-Apr	16.7	17.3	9.2	5.6	4.3	5.5	6.1	9.1	28.8	35.8	40.6	44.0	45.8	47.0	48.0	48.3	48.8	50.9	49.4	47.2	43.6	41.9	41.2	41.1	32.34	50.86
28-Apr	36.5	29.4	28.8	29.5	28.7	27.3	31.7	31.5	34.7	35.9	39.0	43.2	44.4	46.2	46.5	46.6	45.9	44.8	43.0	42.9	41.0	40.7	40.1	40.0	38.26	46.59
29-Apr	39.0	37.2	36.7	36.2	33.4	31.4	28.9	29.7	34.0	41.4	43.9	46.6	47.7	47.3	47.3	46.3	42.8	39.9	36.3	31.7	28.0	32.8	27.6	23.7	37.07	47.70
30-Apr	16.5	25.6	28.0	27.4	24.4	26.5	29.6	31.8	36.9	39.7	42.5	45.1	46.7	47.7	48.8	49.8	50.8	50.3	49.7	42.5	23.3	20.4	20.7	17.9	35.11	50.76
26.26 25.49 23.44 22.35 20.64 19.73 19.64 24.01 29.44 33.81 36.73 38.94 40.36 41.39 42.07 42.79 42.49 41.67 40.82 35.95 31.12 28.65 27.79 27.32																								Diurnal Average		
46.10 44.15 41.08 36.70 35.46 34.82 36.86 37.18 39.84 45.88 48.52 50.87 52.23 53.94 53.58 53.51 54.02 53.34 51.13 51.12 49.39 41.92 44.92 45.98																								Diurnal Maximum		
C - Calibration																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82.5 ppb 24-hr -- ppb																										



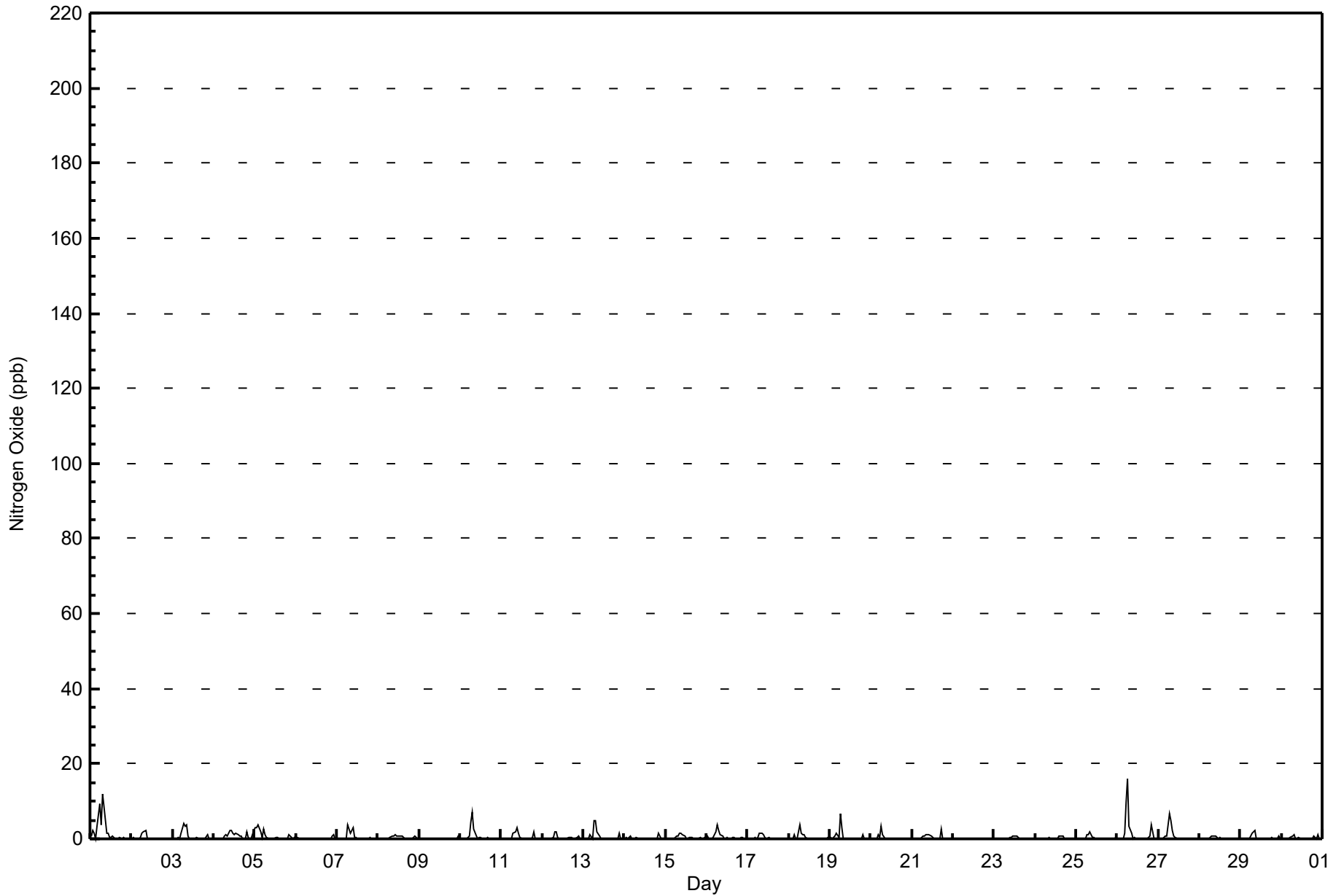


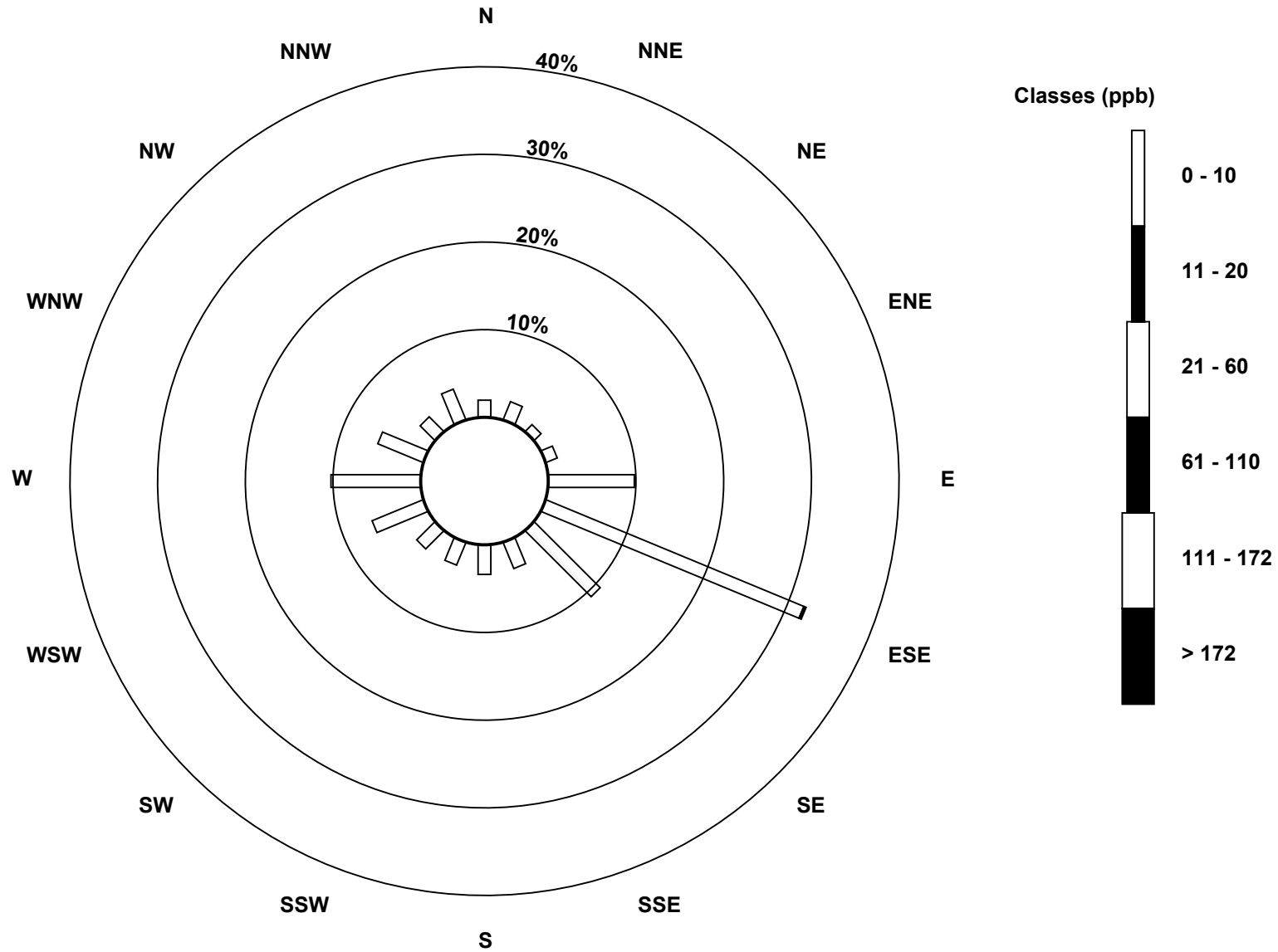


**WCAS - Fox Creek**  
**Summary of Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**April 2016**

Maximum Value: 16.08 ppb on Apr 26 07:00		Maximum Daily Average: 1.93 ppb on Apr 1		Hours in Service: 720																							
Minimum Value: 0.0 ppb on Apr 1 04:00		Minimum Daily Average: 0.01 ppb on Apr 22		Hours of Data: 715																							
Maximum Diurnal Average: 2.30 ppb at hour 7		Minimum Diurnal Average: 0.04 ppb at hour 19		Hours of Missing Data: 5																							
Monthly Average: 0.457 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.0 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 1.3 P <sub>99</sub> = 6.8		Hours of Calibration: 5																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0.8	2.2	1.4	0.0	3.3	9.3	3.6	12.0	8.7	1.7	1.4	0.5	0.4	0.6	0.0	0.0	0.1	0.4	0.0	0.3	0.0	0.0	0.0	0.0	1.93	11.96	
2-Apr	0.0	0.3	0.0	0.0	0.0	0.5	1.4	1.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.26	2.31	
3-Apr	0.0	0.0	0.0	0.4	0.0	1.3	4.1	3.4	3.8	0.7	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.63	4.11		
4-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1	0.9	2.3	2.1	1.5	1.0	1.4	0.9	0.9	0.8	0.1	0.0	1.9	0.3	0.0	0.0	2.1	0.75	2.34	
5-Apr	3.0	3.0	3.9	1.8	0.2	2.4	0.9	0.2	0.1	0.0	0.0	0.0	0.3	0.3	0.2	0.2	0.2	0.0	0.0	0.0	1.3	0.2	0.0	0.4	0.77	3.85	
6-Apr	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.1	0.0	0.11	1.11	
7-Apr	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.5	1.6	3.1	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.51	3.55	
8-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.9	1.0	0.9	0.9	0.9	0.7	0.3	0.0	0.1	0.0	0.0	0.2	0.6	0.2	0.0	0.32	0.95	
9-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.04	0.58	
10-Apr	0.0	0.0	0.0	0.0	0.0	0.8	4.4	6.9	2.5	0.7	0.1	0.5	0.2	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.69	6.93	
11-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.9	3.1	1.5	0.4	0.0	0.2	0.0	0.1	0.0	0.1	0.4	1.7	0.0	0.0	0.0	0.0	0.46	3.12	
12-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.9	1.8	0.5	0.2	0.0	0.0	0.1	0.0	0.5	0.2	0.4	0.1	0.1	0.5	0.9	0.0	0.0	0.31	1.89	
13-Apr	0.0	0.0	0.0	0.0	1.2	0.2	4.9	4.8	1.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.1	0.0	0.0	0.64	4.86	
14-Apr	0.0	0.2	0.1	0.6	0.0	0.0	0.1	0.4	0.2	0.0	0.0	0.0	C	C	C	C	C	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.16	1.37	
15-Apr	0.3	0.1	0.0	0.0	0.0	0.0	0.9	0.9	1.3	1.5	0.9	0.6	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.32	1.50	
16-Apr	0.9	0.1	0.0	0.0	0.4	1.8	3.7	2.1	1.2	0.7	0.1	0.0	0.2	0.2	0.1	0.4	0.4	0.0	0.0	0.0	0.5	0.2	0.0	0.0	0.54	3.72	
17-Apr	0.0	0.0	0.0	0.0	0.3	0.0	0.2	1.5	1.5	0.9	0.4	0.1	0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.23	1.50	
18-Apr	0.0	0.0	0.1	1.0	0.0	0.1	3.6	1.5	1.1	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.4	0.39	3.60		
19-Apr	0.4	0.1	0.4	0.7	1.5	0.4	6.7	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.61	6.71		
20-Apr	0.0	0.0	0.0	0.0	1.1	0.5	3.3	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.26	3.27		
21-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.9	1.0	1.3	1.0	0.9	0.4	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.36	2.70	
22-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.17	
23-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.7	0.8	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14	0.84	
24-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.6	0.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.90	
25-Apr	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.3	1.7	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.22	1.74		
26-Apr	0.0	0.0	0.0	0.0	1.4	9.8	16.1	3.3	1.5	0.0	0.2	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.4	0.8	3.6	0.1	0.0	0.0	1.57	16.08	
27-Apr	0.0	0.0	0.0	0.3	0.7	0.6	6.8	4.8	2.2	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.69	6.82	
28-Apr	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.9	0.6	0.7	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.15	0.92	
29-Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.7	0.1	0.23	2.13	
30-Apr	0.3	0.1	0.0	0.0	0.0	0.2	0.9	1.2	0.2	0.0	0.3	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.9	0.0	1.1	0.1	0.0	0.24	1.17	
		0.19	0.22	0.20	0.16	0.34	0.93	2.30	2.03	1.38	0.72	0.39	0.23	0.17	0.16	0.12	0.13	0.12	0.13	0.04	0.25	0.30	0.19	0.08	0.14	Diurnal Average	
		2.96	3.04	3.85	1.81	3.28	9.80	16.08	11.96	8.72	3.12	2.08	1.54	1.04	1.38	0.94	0.92	0.89	2.70	0.42	1.95	3.61	1.63	1.11	2.06	Diurnal Maximum	
C - Calibration																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb 24-hr --- ppb																											





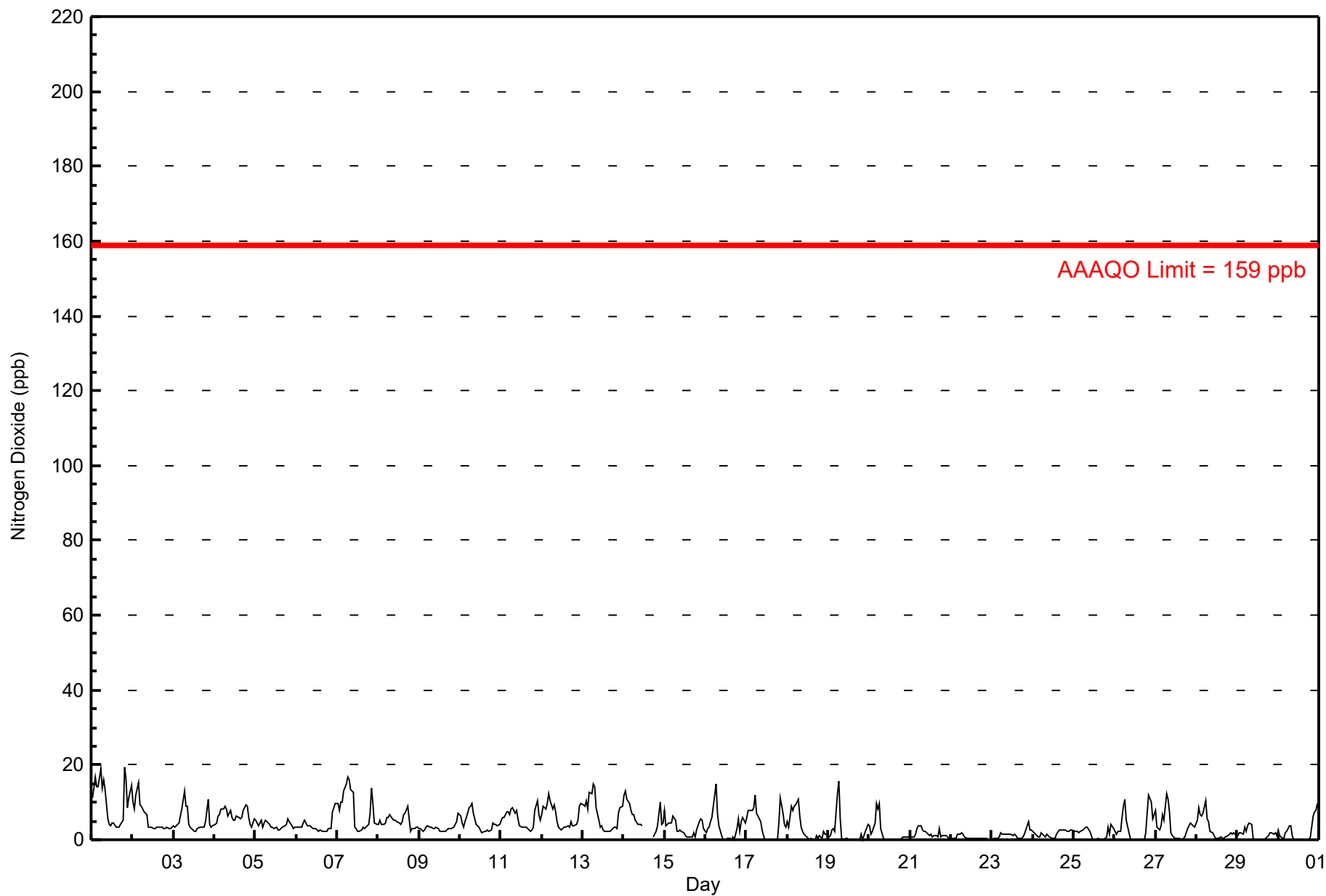


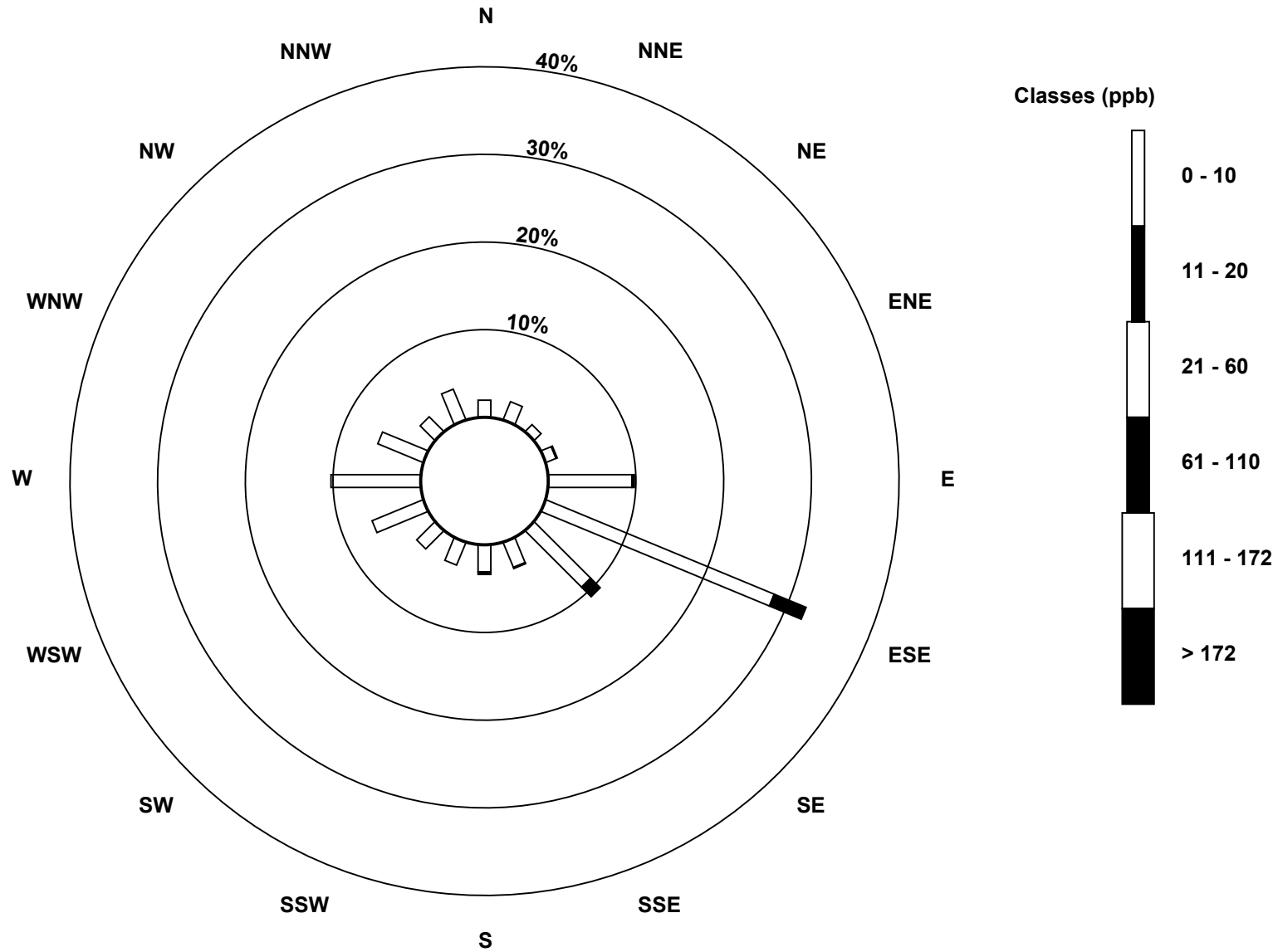


**WCAS - Fox Creek**  
**Summary of Hourly Averages**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**April 2016**

Maximum Value: 19.34 ppb on Apr 1 20:00      Maximum Daily Average: 10.17 ppb on Apr 1																							Hours in Service: 720 Hours of Data: 715																									
Minimum Value: 0.0 ppb on Apr 16 12:00      Minimum Daily Average: 0.61 ppb on Apr 22 Maximum Diurnal Average: 7.88 ppb at hour 7      Minimum Diurnal Average: 1.56 ppb at hour 14 Monthly Average: 3.941 ppb      Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 1.2 Median = 3.2 Q <sub>3</sub> = 5.4 P <sub>90</sub> = 9.1 P <sub>99</sub> = 15.9																							Hours of Missing Data: 5 Hours of Calibration: 5 Percent Operational Time: 100.0																									
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
1-Apr	11.1	13.7	16.7	14.1	14.1	19.1	13.6	16.2	13.6	5.7	4.2	3.8	4.3	4.5	3.3	3.3	3.4	4.2	5.2	19.3	16.4	8.6	11.1	14.5	10.17	19.34																						
2-Apr	10.1	8.4	12.1	15.4	9.3	8.8	8.1	7.5	6.8	3.4	3.3	3.3	3.2	2.9	3.2	3.4	3.3	3.3	2.9	2.9	3.3	3.1	3.0	3.5	5.60	15.43																						
3-Apr	3.6	3.5	4.0	4.6	6.5	8.2	12.9	9.1	8.8	4.1	3.3	2.5	2.3	2.3	2.9	3.3	3.3	3.2	3.5	4.8	10.8	4.3	3.3	3.7	4.94	12.88																						
4-Apr	4.2	4.6	6.4	6.8	8.1	8.0	9.1	8.3	6.3	7.7	6.0	5.3	5.3	6.2	5.8	5.7	6.0	8.0	9.2	8.9	6.1	4.1	3.2	5.6	6.45	9.15																						
5-Apr	5.2	4.4	3.6	5.2	3.3	4.4	5.0	4.7	4.0	3.2	3.3	3.1	3.4	2.8	2.8	3.0	3.2	3.8	4.1	5.5	5.0	3.8	3.0	3.4	3.88	5.53																						
6-Apr	3.3	3.3	3.2	3.2	4.4	5.1	3.9	3.7	3.6	3.2	3.2	3.0	2.5	2.3	2.5	2.1	2.1	2.1	2.4	3.1	3.2	7.4	8.6	9.6	3.79	9.62																						
7-Apr	9.8	7.8	10.2	10.1	13.1	14.7	16.7	16.0	13.4	12.5	3.4	2.8	2.2	2.3	2.7	3.2	3.1	3.3	4.0	7.1	13.7	9.8	4.5	4.1	7.95	16.70																						
8-Apr	4.3	5.2	4.1	4.2	4.3	5.9	6.0	6.5	5.6	5.2	5.2	4.9	4.6	4.3	4.9	6.8	7.1	8.9	5.4	2.3	2.9	3.1	3.4	3.4	4.95	8.95																						
9-Apr	3.1	3.1	2.3	2.8	3.2	3.9	3.5	3.3	2.8	3.2	3.2	2.9	2.4	2.3	2.3	2.2	2.5	3.0	3.1	3.1	3.5	4.2	4.7	7.1	3.23	7.14																						
10-Apr	6.4	4.7	3.5	4.7	5.8	8.6	9.0	9.6	7.2	4.0	3.6	3.2	2.4	1.9	2.1	2.3	2.4	2.1	2.7	4.3	4.1	3.9	3.6	4.2	4.43	9.59																						
11-Apr	5.1	5.8	6.0	7.6	7.5	6.6	8.1	8.6	7.0	7.7	5.7	3.5	3.3	3.2	3.3	3.3	3.1	2.3	2.6	3.2	7.7	10.6	6.7	5.2	5.57	10.59																						
12-Apr	6.7	8.9	8.4	9.7	12.4	10.6	8.4	9.2	7.3	4.9	3.5	2.7	3.2	3.2	3.2	3.6	3.4	4.8	3.8	3.7	3.9	5.2	9.1	9.9	6.23	12.38																						
13-Apr	9.1	9.0	10.5	8.1	12.8	12.1	14.9	14.2	8.5	5.2	3.5	3.6	2.6	2.1	2.2	2.3	2.1	2.5	3.4	3.3	3.1	7.0	8.7	9.1	6.66	14.86																						
14-Apr	11.8	13.2	10.8	9.6	8.0	6.6	6.5	5.2	4.3	4.0	4.0	3.9	C	C	C	C	C	0.6	1.4	2.2	3.8	10.0	4.1	4.5	6.03	13.22																						
15-Apr	7.8	3.7	4.6	4.3	4.3	6.5	5.2	2.2	2.3	2.5	2.3	1.7	1.3	0.8	0.8	0.6	0.7	2.0	0.8	2.6	4.8	5.5	5.1	3.1	3.15	7.79																						
16-Apr	1.9	2.8	3.5	4.8	5.8	12.1	15.1	7.2	3.6	1.0	0.1	0.0	0.0	0.5	0.5	0.0	0.6	0.0	2.9	5.7	2.1	4.9	5.9	4.6	3.56	15.07																						
17-Apr	6.1	7.8	7.7	7.7	8.5	12.0	7.2	6.4	4.8	2.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	11.1	6.9	4.0	3.4	4.24	12.01																						
18-Apr	5.0	3.2	9.0	7.8	9.1	9.4	10.7	6.4	3.4	2.3	1.3	0.7	0.4	0.0	0.3	0.0	0.0	1.0	0.3	1.0	0.5	2.2	1.5	1.4	3.21	10.67																						
19-Apr	0.6	1.0	2.6	3.0	2.2	12.3	15.5	5.6	0.2	0.0	0.4	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.1	2.2	4.2	2.21	15.53																						
20-Apr	3.6	1.7	2.1	4.4	9.9	8.0	9.6	3.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.9	0.8	0.8	0.8	1.95	9.87																						
21-Apr	0.9	0.9	0.9	1.5	2.9	3.6	3.7	2.5	2.1	2.4	1.8	1.2	1.6	0.9	1.2	0.9	0.6	3.1	0.9	1.0	1.3	1.2	0.6	0.5	1.59	3.69																						
22-Apr	0.5	0.4	0.4	0.4	1.4	1.5	1.8	1.6	0.9	0.4	0.4	0.4	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.2	0.1	0.61	1.78																						
23-Apr	0.2	0.4	0.4	0.4	0.6	1.8	1.6	1.5	1.4	1.4	1.5	1.4	1.2	1.4	1.2	0.4	0.5	0.4	0.7	1.4	2.5	4.9	2.6	2.5	1.34	4.91																						
24-Apr	2.2	1.8	1.0	0.6	0.9	1.7	1.3	0.9	1.6	1.2	0.8	0.4	0.4	0.4	1.4	2.4	2.7	2.8	2.5	2.6	2.4	2.4	2.5	2.6	1.64	2.77																						
25-Apr	2.4	2.1	2.4	1.9	2.4	2.6	2.9	3.3	3.4	2.2	1.2	0.0	0.0	0.0	0.3	0.0	0.2	0.0	0.3	0.9	3.3	1.6	4.3	3.0	1.70	4.26																						
26-Apr	2.3	1.4	2.2	2.1	6.1	9.1	10.8	5.4	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.0	12.0	9.9	5.7	6.6	3.52	12.02																						
27-Apr	7.7	3.3	2.7	3.6	6.9	5.2	12.3	10.9	7.5	1.7	0.9	0.5	0.5	0.2	0.4	0.2	0.3	0.8	1.7	2.9	4.6	4.0	3.9	3.3	3.59	12.28																						
28-Apr	5.3	8.7	6.9	6.5	7.1	10.3	5.4	4.8	2.1	1.9	1.0	0.3	0.4	0.5	0.6	0.5	0.5	0.9	1.1	1.5	1.7	1.5	1.7	1.0	3.01	10.27																						
29-Apr	0.9	2.0	1.7	1.5	3.2	2.1	3.8	4.6	4.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.3	2.0	1.7	1.5	2.0	0.9	1.43	4.61																						
30-Apr	2.5	1.0	0.5	0.5	1.7	2.4	3.8	3.9	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	6.5	7.3	7.8	9.6	2.05	9.57																							
																							4.79	4.60	5.01	5.23	6.19	7.45	7.88	6.41	4.66	3.14	2.27	1.85	1.66	1.56	1.67	1.72	1.78	2.14	2.29	3.66	4.79	4.71	4.25	4.51	Diurnal Average	
																							11.82	13.65	16.72	15.43	14.07	19.11	16.70	16.21	13.57	12.54	6.02	5.31	5.34	6.18	5.82	6.83	7.13	8.95	9.15	19.34	16.45	10.59	11.05	14.48	Diurnal Maximum	
C - Calibration																																																
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb    24-hr 106 ppb																																																





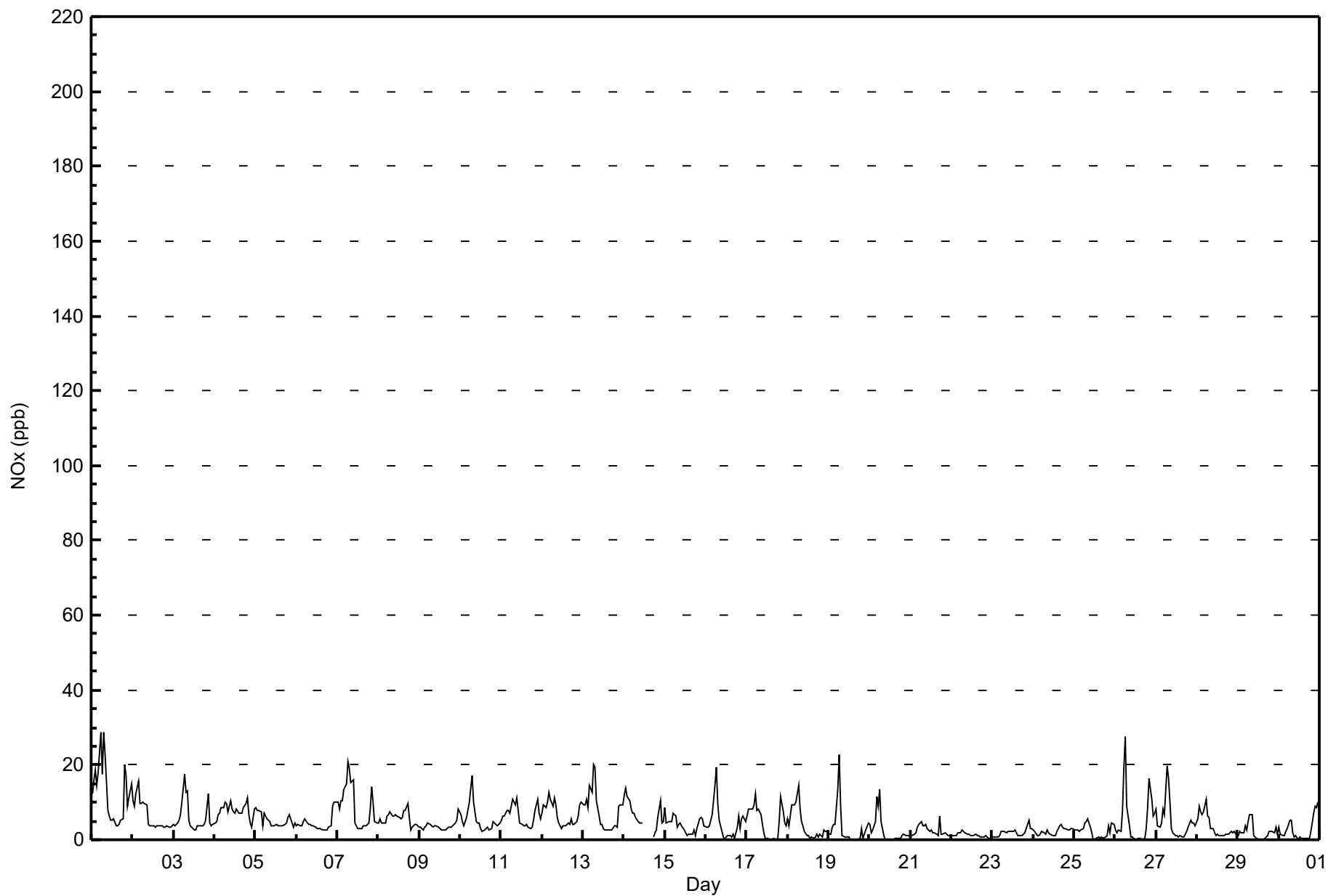


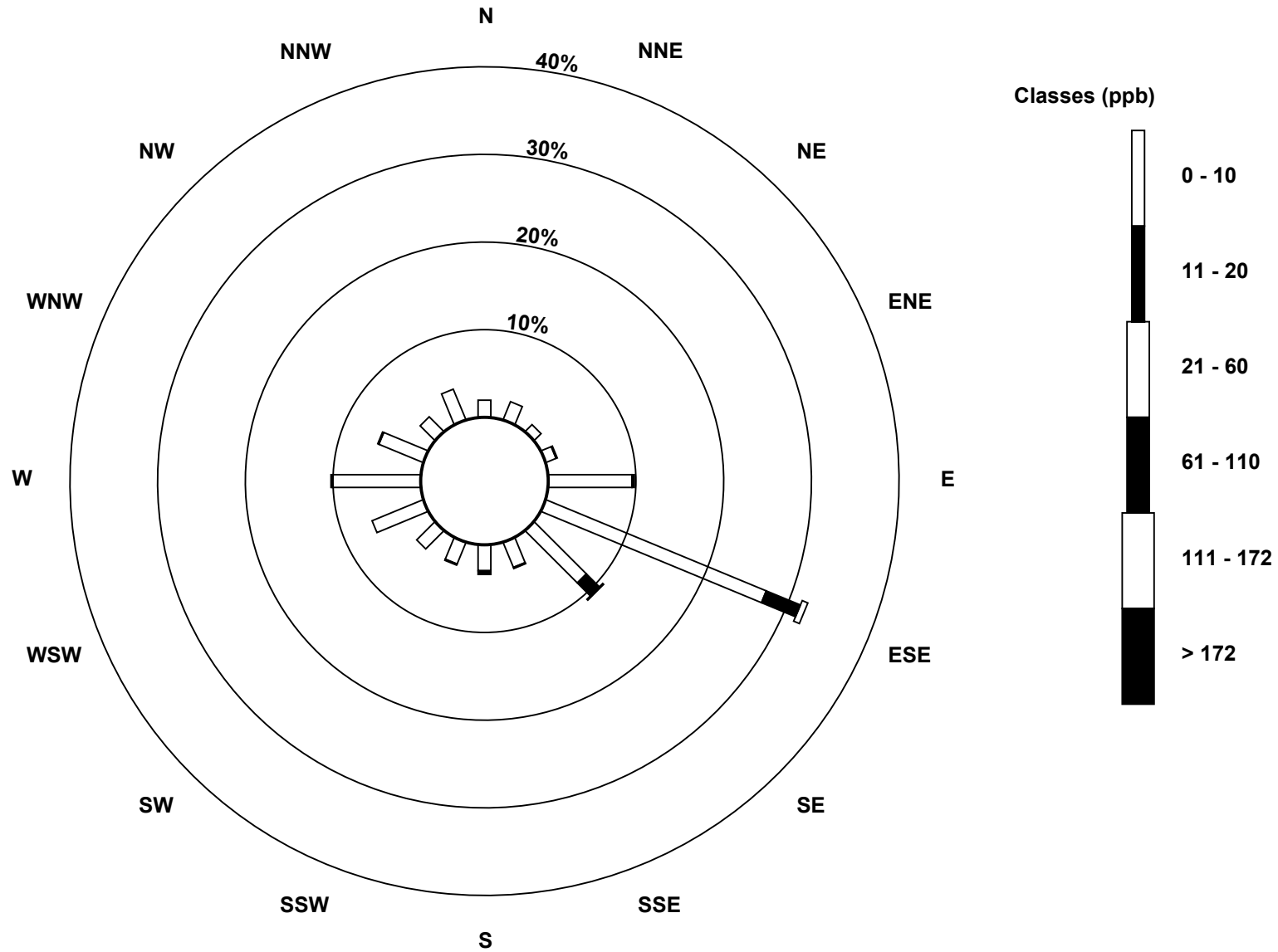
**WCAS - Fox Creek**  
**Summary of Hourly Averages**

**NOx (NO<sub>x</sub>) - ppb**  
**April 2016**

Maximum Value: 28.89 ppb on Apr 1 06:00		Maximum Daily Average: 12.55 ppb on Apr 1		Hours in Service: 720																																													
Minimum Value: 0.0 ppb on Apr 17 14:00		Minimum Daily Average: 1.23 ppb on Apr 22		Hours of Data: 715																																													
Maximum Diurnal Average: 10.65 ppb at hour 7		Minimum Diurnal Average: 2.15 ppb at hour 14		Hours of Missing Data: 5																																													
Monthly Average: 4.831 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 1.9 Median = 3.7 Q <sub>3</sub> = 6.5 P <sub>90</sub> = 10.1 P <sub>99</sub> = 19.8		Hours of Calibration: 5																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Apr	12.3	16.2	18.5	14.5	17.8	28.9	17.7	28.6	22.7	7.7	6.3	5.0	5.2	5.6	3.7	3.7	3.9	5.1	5.6	20.2	17.1	8.8	11.3	14.8	12.55	28.89																							
2-Apr	10.4	8.9	12.4	15.7	9.5	9.7	10.0	9.7	9.5	4.1	3.6	3.6	3.6	3.4	3.7	3.7	3.7	3.7	3.3	3.3	3.7	3.4	3.3	3.8	6.24	15.73																							
3-Apr	3.9	3.8	4.3	5.4	6.8	10.0	17.4	12.8	12.9	5.2	3.9	3.0	2.7	2.7	3.9	3.8	3.7	3.7	4.0	5.3	12.2	4.6	3.6	4.0	5.99	17.35																							
4-Apr	4.4	4.9	6.7	7.0	8.5	8.5	10.1	9.7	7.5	10.5	8.3	7.3	7.0	8.1	7.2	7.1	7.0	8.6	9.8	11.4	6.8	4.5	3.5	8.1	7.60	11.36																							
5-Apr	8.7	7.9	7.9	7.4	3.9	7.2	6.5	5.5	4.7	3.7	3.6	3.6	4.2	3.7	3.6	3.7	3.8	4.2	4.5	6.0	6.8	4.5	3.3	4.3	5.14	8.67																							
6-Apr	3.7	4.2	3.6	3.6	4.8	5.6	4.3	4.2	4.2	3.6	3.6	3.4	2.9	2.9	3.0	2.6	2.6	2.5	2.8	3.5	3.6	8.8	10.1	9.9	4.33	10.12																							
7-Apr	10.1	8.1	10.6	10.4	13.4	15.1	20.7	18.9	15.4	16.0	4.3	3.9	3.0	2.9	3.2	3.6	3.6	3.8	4.4	8.0	14.1	10.1	4.8	4.4	8.87	20.72																							
8-Apr	4.5	5.5	4.3	4.6	4.7	6.2	6.5	7.5	6.5	6.4	6.8	6.2	5.9	5.5	5.9	7.7	7.9	9.8	5.8	2.7	3.5	4.2	4.1	3.8	5.70	9.82																							
9-Apr	3.5	3.4	2.7	3.2	3.6	4.3	3.9	3.9	3.2	3.6	3.8	3.5	2.8	2.6	2.7	2.6	2.9	3.4	3.5	3.4	3.9	4.7	5.2	8.1	3.69	8.13																							
10-Apr	6.6	4.9	3.8	5.0	6.1	9.9	13.7	17.0	10.0	4.9	4.5	4.3	3.1	2.2	2.5	2.9	3.4	2.5	3.1	4.7	4.4	4.3	3.9	4.5	5.51	17.03																							
11-Apr	5.4	6.2	6.3	7.9	7.9	7.0	8.8	10.7	9.4	11.2	7.7	4.6	3.9	3.8	3.6	3.9	3.5	3.0	3.5	5.3	8.0	10.9	7.0	5.5	6.46	11.22																							
12-Apr	7.0	9.3	8.7	10.0	12.8	10.9	9.1	11.3	9.5	5.9	4.3	3.2	3.7	3.8	3.7	4.5	4.1	5.6	4.2	4.1	4.9	6.5	9.3	10.1	6.94	12.81																							
13-Apr	9.4	9.3	10.8	8.4	14.4	12.8	20.1	19.4	10.6	6.2	4.0	4.1	3.0	2.7	2.6	2.7	2.5	2.8	3.9	3.6	3.4	9.0	9.2	9.4	7.67	20.06																							
14-Apr	12.1	13.9	11.4	10.5	8.4	7.1	7.0	6.1	4.8	4.3	4.3	4.5	C	C	C	C	C	0.8	1.8	2.7	5.8	10.5	4.5	5.0	6.60	13.88																							
15-Apr	8.7	4.3	5.0	4.7	4.8	7.0	6.5	3.5	4.2	4.4	3.7	2.7	1.8	1.2	1.5	1.4	1.3	2.5	1.2	3.1	5.6	6.0	5.5	3.8	3.94	8.72																							
16-Apr	3.2	3.4	3.8	5.1	6.7	14.5	19.2	9.7	5.2	2.2	0.8	0.1	0.7	1.2	1.0	0.8	1.4	0.3	3.3	6.2	3.0	5.6	6.3	5.0	4.53	19.22																							
17-Apr	6.5	8.2	8.1	8.2	9.3	12.5	8.0	8.4	6.7	4.1	1.9	0.6	0.3	0.0	0.0	0.0	0.3	0.0	0.5	5.0	11.7	7.5	4.4	3.8	4.82	12.49																							
18-Apr	5.5	3.7	9.5	9.4	9.5	10.0	14.7	8.4	4.8	3.6	2.2	1.3	1.0	0.5	0.7	0.5	0.7	1.5	0.7	1.5	0.9	2.6	2.1	2.3	4.06	14.71																							
19-Apr	1.6	1.7	3.4	4.2	4.2	13.3	22.7	9.3	0.9	0.6	0.9	0.8	0.9	0.0	0.0	0.0	0.0	0.1	0.3	2.9	0.4	1.4	2.6	4.6	3.21	22.73																							
20-Apr	3.9	2.0	2.5	4.7	11.4	9.1	13.3	4.8	1.1	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.5	0.9	1.3	1.2	1.2	1.2	2.51	13.28																							
21-Apr	1.3	1.3	1.3	1.9	3.4	4.1	4.8	3.9	3.9	4.2	3.0	2.2	2.6	1.8	2.0	1.7	1.1	6.4	1.4	1.5	1.8	1.7	1.1	1.0	2.48	6.41																							
22-Apr	1.0	1.0	1.0	1.0	1.9	2.1	2.4	2.3	1.8	1.3	1.4	1.1	1.0	1.1	1.3	1.2	1.0	0.9	0.9	0.9	0.9	0.9	0.6	0.5	1.23	2.44																							
23-Apr	0.6	0.9	0.9	0.9	1.0	2.4	2.1	2.1	1.9	2.1	2.3	2.2	2.5	1.9	1.0	0.9	1.1	1.4	1.8	2.9	5.3	3.0	2.9	2.9	1.94	5.34																							
24-Apr	2.6	2.2	1.3	1.0	1.3	2.2	1.8	1.5	2.5	1.9	1.7	1.0	1.0	1.1	2.4	3.8	4.0	3.5	3.0	3.0	2.7	2.7	2.8	2.9	2.24	3.96																							
25-Apr	2.7	2.4	2.7	2.3	2.7	3.1	4.4	5.0	5.5	3.2	2.0	0.0	0.0	0.3	0.8	0.5	0.7	0.5	0.8	1.3	3.7	2.0	4.6	3.9	2.31	5.50																							
26-Apr	2.8	1.8	2.7	2.4	7.9	19.3	27.4	9.0	3.7	0.9	0.7	0.5	0.0	0.5	0.2	0.2	0.1	0.5	3.1	8.5	16.3	10.7	6.2	7.1	5.51	27.43																							
27-Apr	8.3	3.8	3.3	4.5	8.3	6.6	19.7	16.3	10.1	2.9	1.9	1.1	1.2	0.9	1.0	0.8	0.9	1.5	2.3	3.4	5.1	4.5	4.3	3.7	4.84	19.68																							
28-Apr	5.7	9.1	7.4	6.9	7.5	10.9	6.4	6.0	3.0	3.0	1.8	1.3	1.4	1.0	1.2	1.0	1.2	1.4	1.6	1.9	2.1	1.8	2.1	1.3	3.62	10.93																							
29-Apr	1.3	2.4	2.0	1.9	3.6	2.6	4.9	6.6	6.8	1.1	0.6	0.3	0.0	0.1	0.0	0.0	0.4	1.1	2.2	2.4	2.2	1.8	3.2	1.5	2.05	6.84																							
30-Apr	3.3	1.6	1.1	0.9	2.1	3.2	5.2	5.3	2.0	0.9	1.0	0.2	0.6	0.2	0.2	0.3	0.4	0.3	0.4	2.2	7.0	9.0	8.4	10.0	2.74	10.02																							
																								5.37	5.20	5.60	5.78	6.94	8.87	10.65	8.92	6.50	4.32	3.16	2.52	2.26	2.15	2.19	2.28	2.32	2.71	2.79	4.35	5.53	5.31	4.72	5.05	Diurnal Average	
																								12.35	16.16	18.47	15.73	17.83	28.89	27.43	28.65	22.74	15.99	8.34	7.30	6.96	8.07	7.21	7.73	7.91	9.82	9.76	20.19	17.06	10.87	11.32	14.79	Diurnal Maximum	

C - Calibration  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb 24-hr --- ppb



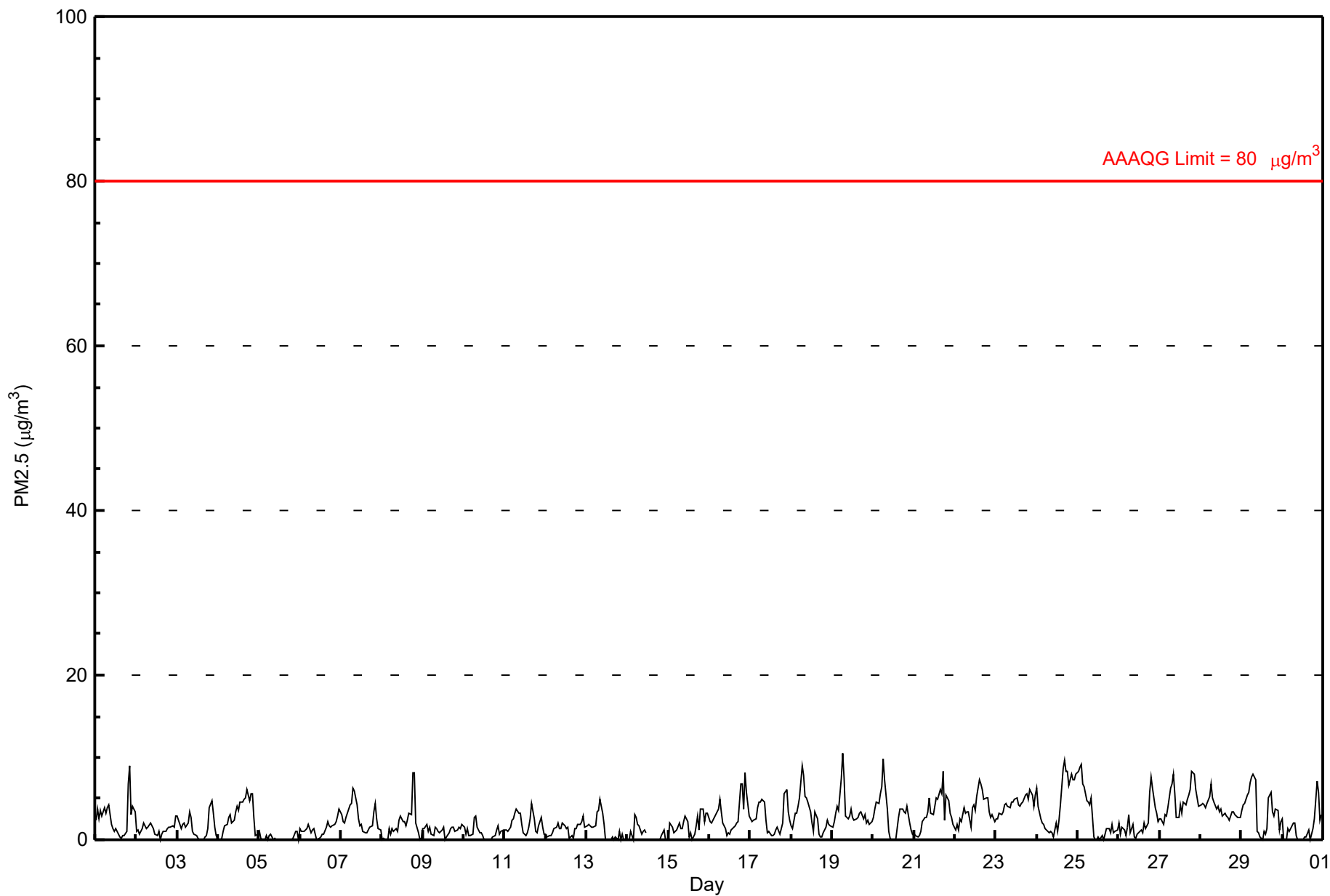




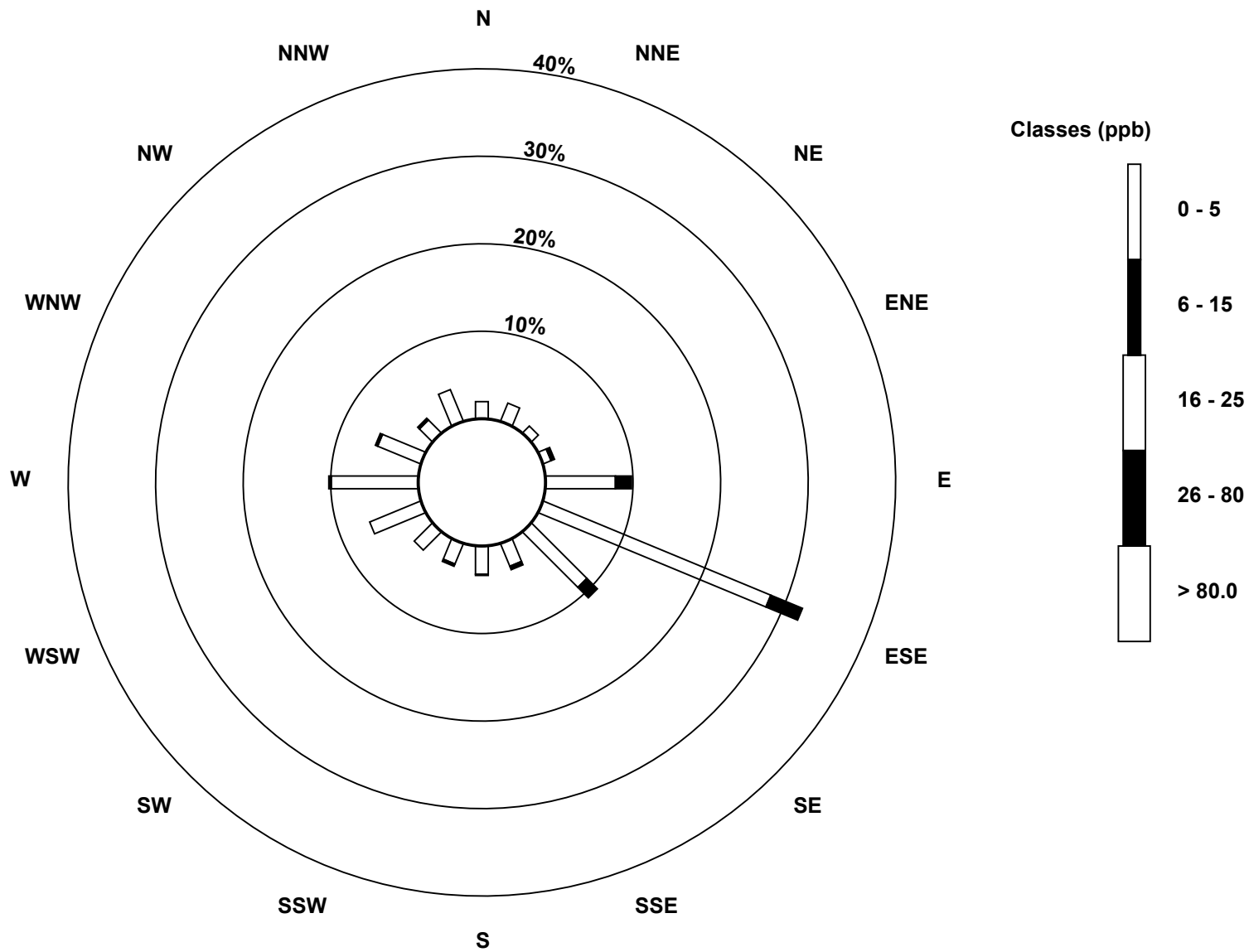
**WCAS - Fox Creek**  
**Summary of Hourly Averages**

**PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>**  
**April 2016**

Maximum Value: 10.48 µg/m <sup>3</sup> on Apr 19 07:00		Maximum Daily Average: 4.71 µg/m <sup>3</sup> on Apr 27		Hours in Service: 720																																													
Minimum Value: 0.0 µg/m <sup>3</sup> on Apr 2 15:00		Minimum Daily Average: 0.22 µg/m <sup>3</sup> on Apr 5		Hours of Data: 716																																													
Maximum Diurnal Average: 3.74 µg/m <sup>3</sup> at hour 7		Minimum Diurnal Average: 1.47 µg/m <sup>3</sup> at hour 13		Hours of Missing Data: 4																																													
Monthly Average: 2.457 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.9 Median = 1.9 Q <sub>3</sub> = 3.6 P <sub>90</sub> = 5.4 P <sub>99</sub> = 8.7		Hours of Calibration: 4																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Apr	2.4	3.8	2.6	3.6	2.9	3.9	3.2	3.9	4.2	1.8	1.4	1.0	1.3	1.0	0.3	0.2	0.6	0.5	1.0	6.7	9.0	3.1	4.0	3.4	2.75	9.02																							
2-Apr	1.0	1.1	0.6	1.4	2.0	1.6	1.4	1.5	2.0	1.8	1.4	0.7	0.5	1.0	0.0	0.6	1.1	1.0	1.4	1.6	1.5	1.7	1.5	3.0	1.30	2.96																							
3-Apr	2.8	2.4	1.3	1.9	2.1	1.5	2.1	3.4	2.7	1.0	0.6	0.6	0.1	0.0	0.0	0.0	0.3	0.5	1.3	3.9	4.7	3.2	1.5	0.5	1.60	4.68																							
4-Apr	0.0	0.0	0.2	1.1	1.6	1.9	2.8	3.0	2.1	2.4	3.4	4.1	3.6	4.5	4.5	4.9	5.1	6.0	4.8	5.5	5.7	2.6	0.6	0.7	2.97	6.04																							
5-Apr	1.0	0.2	0.0	0.0	0.6	0.0	0.5	0.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	0.9	0.0	0.22	1.00																							
6-Apr	1.3	0.9	1.0	1.1	1.3	1.8	0.9	1.2	1.4	0.6	0.0	0.2	0.3	0.8	0.7	1.5	2.1	1.7	1.5	1.7	1.9	2.2	2.8	3.7	1.36	3.70																							
7-Apr	3.0	2.3	2.1	2.7	3.2	4.2	4.4	6.2	6.0	4.3	2.6	1.7	1.9	1.1	0.9	0.8	1.2	1.6	1.7	3.4	4.5	2.6	1.4	1.2	2.70	6.21																							
8-Apr	0.0	0.2	0.0	0.0	1.3	0.7	1.3	1.1	1.3	1.0	2.4	2.9	2.2	2.1	1.7	2.4	3.3	3.0	8.1	8.1	2.0	0.8	0.0	0.1	1.92	8.10																							
9-Apr	1.4	1.4	1.9	1.1	1.5	0.6	0.6	1.6	1.4	0.9	0.8	1.1	1.5	0.0	0.4	0.8	1.4	1.5	1.5	1.1	1.1	1.5	1.4	1.9	1.18	1.93																							
10-Apr	1.5	0.7	1.3	0.5	0.5	0.6	2.7	2.8	1.6	0.8	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.4	0.5	1.2	1.7	0.7	1.1	1.2	0.88	2.83																							
11-Apr	1.2	1.2	1.0	1.5	2.4	2.6	3.2	3.7	3.2	3.3	1.9	0.8	0.5	0.8	1.6	2.5	4.5	2.6	0.9	0.9	1.7	2.7	1.5	0.7	1.95	4.46																							
12-Apr	0.7	0.4	0.4	0.5	0.9	1.4	1.5	2.0	1.4	1.3	2.1	1.7	1.4	1.5	0.3	0.6	0.2	1.3	1.3	1.9	1.8	2.1	2.8	1.6	1.31	2.80																							
13-Apr	1.6	1.9	1.7	1.4	1.5	1.7	3.5	3.6	4.9	3.3	1.8	0.0	0.0	0.0	0.0	0.3	0.0	0.4	0.0	1.0	0.0	0.6	0.1	0.0	1.22	4.94																							
14-Apr	0.0	0.0	0.9	0.0	3.1	2.8	1.9	1.6	0.7	1.1	1.2	0.8	C	C	C	C	0.0	0.0	0.0	0.0	0.4	1.1	0.0	0.0	0.78	3.12																							
15-Apr	0.0	2.0	1.5	0.8	1.0	1.2	2.1	1.3	1.4	2.1	2.9	2.2	0.3	0.8	0.0	0.8	1.7	2.8	1.1	3.8	3.8	2.2	3.2	3.3	1.77	3.81																							
16-Apr	2.2	2.0	2.4	2.8	3.0	3.8	4.9	3.5	2.0	1.4	0.4	0.8	0.7	1.2	1.5	1.7	2.0	2.2	6.8	6.7	3.7	8.1	5.7	2.9	3.02	8.07																							
17-Apr	2.6	2.3	2.3	2.6	3.8	4.5	4.6	5.0	4.6	2.3	0.8	1.1	0.5	0.5	0.7	1.2	1.5	0.7	1.4	2.1	5.6	6.1	3.4	2.3	2.60	6.08																							
18-Apr	1.8	1.3	3.2	3.1	4.0	5.0	9.0	7.9	5.3	5.1	4.6	3.5	2.0	0.9	3.4	2.6	0.7	0.3	0.3	0.9	1.5	2.4	1.9	1.7	3.01	8.99																							
19-Apr	1.5	2.2	3.2	4.0	3.6	7.4	10.5	7.5	2.9	2.6	2.9	3.7	2.7	2.4	2.5	2.8	3.3	3.4	2.5	3.1	2.1	2.4	1.9	2.2	3.46	10.48																							
20-Apr	2.7	3.7	4.6	4.5	5.6	6.5	9.9	7.3	3.7	1.1	0.2	0.0	0.0	0.0	1.4	2.7	3.8	3.7	3.4	3.2	4.1	2.0	1.1	0.7	3.16	9.86																							
21-Apr	0.9	0.5	0.4	0.5	1.1	2.2	2.6	2.8	3.4	5.1	3.3	3.0	4.0	5.1	4.9	6.1	5.5	8.3	2.3	5.5	4.8	3.2	2.7	1.8	3.33	8.30																							
22-Apr	1.1	1.9	1.1	2.5	2.2	4.0	3.2	3.4	3.4	1.5	3.9	4.2	3.5	5.2	7.2	6.8	6.2	5.0	5.1	5.0	3.4	2.8	3.1	2.2	3.67	7.24																							
23-Apr	2.6	2.6	3.2	3.0	3.4	4.2	4.4	4.0	3.8	4.6	4.6	5.0	5.1	4.2	4.0	4.4	4.6	5.4	5.5	4.8	6.2	5.3	4.1	5.4	4.35	6.19																							
24-Apr	6.2	4.1	2.6	2.1	1.9	1.3	1.0	0.8	1.0	0.8	0.4	2.1	1.1	2.4	4.2	8.6	9.6	8.4	8.3	6.7	7.9	7.3	7.3	8.0	4.34	9.60																							
25-Apr	8.3	8.8	9.2	6.7	6.4	4.7	4.5	4.3	5.0	0.4	0.1	0.0	0.4	0.0	0.5	0.0	0.6	1.4	1.4	0.8	1.8	0.8	1.1	1.2	2.86	9.18																							
26-Apr	2.1	0.7	1.5	1.2	0.5	1.5	3.0	0.9	1.9	0.4	0.1	0.7	1.0	1.2	0.9	2.1	1.3	2.1	5.7	7.7	6.2	3.8	3.2	2.3	2.17	7.69																							
27-Apr	2.5	2.6	1.9	3.1	2.8	3.9	6.3	6.7	8.0	5.5	2.7	2.7	4.3	3.3	4.6	4.3	4.9	5.4	6.1	8.3	8.0	6.0	5.1	4.0	4.71	8.31																							
28-Apr	4.2	4.5	4.2	3.9	4.4	5.3	6.8	5.0	4.6	3.7	4.1	3.4	3.6	2.9	3.2	2.8	2.7	2.4	3.4	3.4	3.0	2.9	2.6	2.7	3.74	6.76																							
29-Apr	3.6	4.3	4.4	5.4	5.8	6.9	7.5	7.9	7.4	0.9	0.8	0.3	0.0	1.1	0.6	1.4	5.2	5.7	3.4	2.9	3.8	3.6	1.1	2.2	3.60	7.91																							
30-Apr	2.6	0.0	0.0	1.4	1.0	1.3	2.0	2.0	0.5	0.0	0.0	0.0	0.0	0.4	0.4	1.1	0.0	0.7	1.4	2.5	7.1	5.8	2.4	3.1	1.49	7.05																							
																								2.10	2.00	2.03	2.15	2.51	2.97	3.74	3.55	3.06	2.04	1.74	1.63	1.47	1.53	1.74	2.20	2.45	2.61	2.75	3.48	3.64	3.03	2.31	2.13	Diurnal Average	
																								8.31	8.79	9.18	6.74	6.39	7.39	10.48	7.91	7.99	5.51	4.60	4.97	5.10	5.21	7.24	8.61	9.60	8.38	8.30	8.31	9.02	8.07	7.26	8.04	Diurnal Maximum	
C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 ul/m <sup>3</sup> 24-hr 30 ul/m <sup>3</sup>																																																	





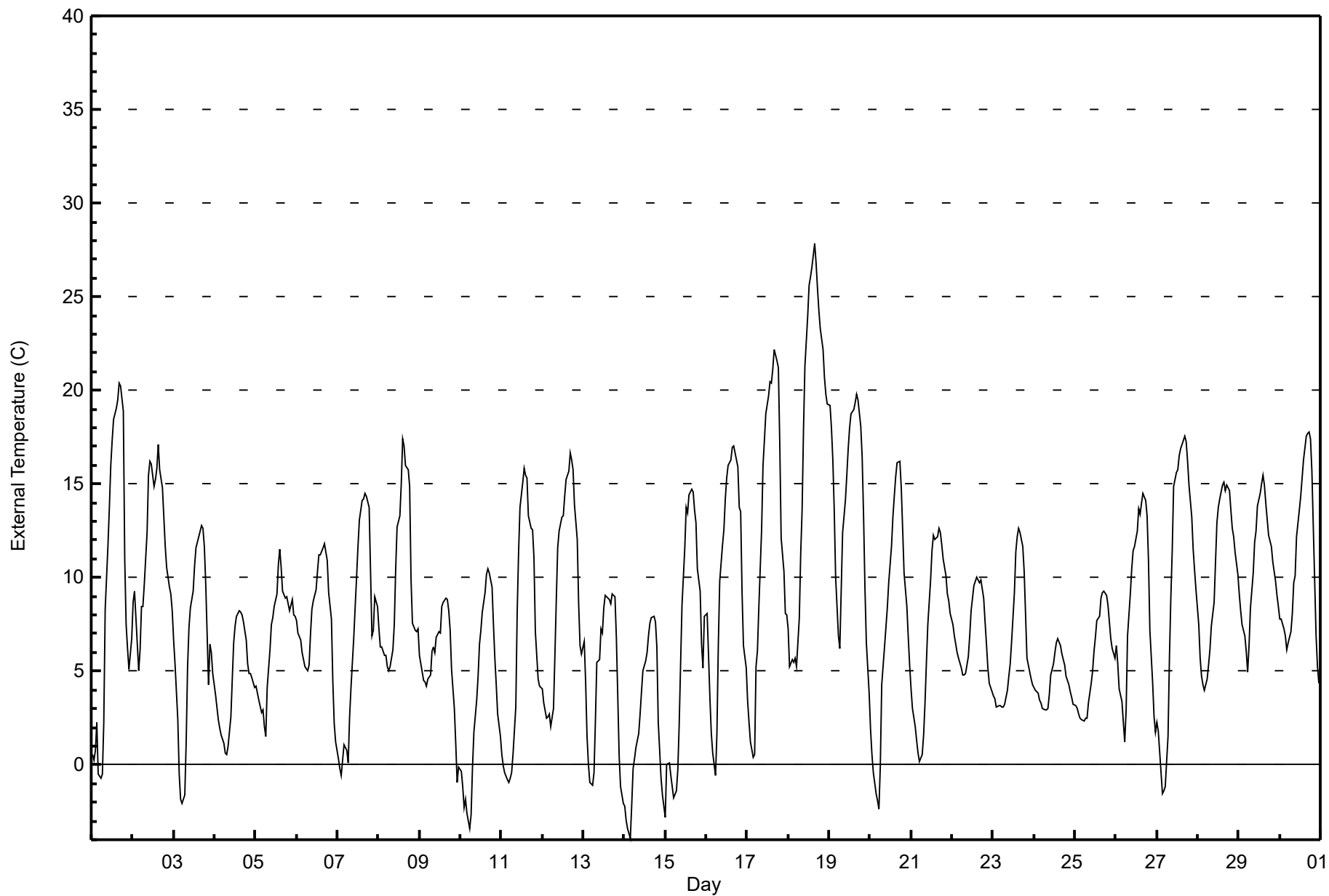




**WCAS - Fox Creek**  
**Summary of Hourly Averages**

**External Temperature (ET) - C**  
**April 2016**

<b>Maximum Value: 27.82 C on Apr 18 16:00</b>		<b>Maximum Daily Average: 17.43 C on Apr 18</b>		<b>Hours in Service: 720</b>																							
<b>Minimum Value: -3.9 C on Apr 14 04:00</b>		<b>Minimum Daily Average: 2.22 C on Apr 14</b>		<b>Hours of Data: 720</b>																							
<b>Maximum Diurnal Average: 14.05 C at hour 16</b>		<b>Minimum Diurnal Average: 2.13 C at hour 6</b>		<b>Hours of Missing Data: 0</b>																							
<b>Monthly Average: 8.114 C</b>		<b>Percentiles: P<sub>1</sub> = -2.4 P<sub>10</sub> = 0.6 Q<sub>1</sub> = 4.1 Median = 7.5 Q<sub>3</sub> = 12.1 P<sub>90</sub> = 15.9 P<sub>99</sub> = 23.5</b>		<b>Hours of Calibration: 0</b>																							
				<b>Percent Operational Time: 100.0</b>																							
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Apr	0.6	0.2	0.7	2.3	-0.5	-0.7	-0.5	2.3	8.3	11.8	13.7	16.0	17.3	18.4	19.1	19.5	20.4	20.2	18.9	11.0	7.5	6.2	5.1	6.7	9.36	20.38	
2-Apr	8.6	9.3	7.8	5.0	6.2	8.4	8.4	9.6	12.4	15.4	16.2	16.1	14.9	15.2	15.8	17.1	15.8	14.8	13.2	11.7	10.6	9.5	9.1	8.3	11.65	17.13	
3-Apr	6.6	5.4	2.4	-0.5	-1.8	-2.0	-1.6	1.2	5.2	7.3	8.4	9.3	10.6	11.6	11.9	12.5	12.8	12.6	11.7	9.6	4.3	6.4	6.0	4.9	6.45	12.79	
4-Apr	3.7	3.1	2.4	1.9	1.6	1.2	0.6	0.5	1.0	2.6	4.6	6.5	7.4	8.0	8.3	8.2	8.0	7.6	6.6	5.4	4.9	4.9	4.7	4.2	4.49	8.26	
5-Apr	4.2	3.8	3.5	2.8	2.9	2.0	1.5	4.2	6.2	7.5	7.9	8.4	9.1	10.7	11.5	10.5	9.3	8.9	8.9	8.6	8.2	8.8	8.0	8.0	6.90	11.51	
6-Apr	7.7	7.0	6.7	6.0	5.6	5.2	5.0	5.3	7.0	8.3	8.7	9.3	10.3	11.2	11.2	11.6	11.8	11.3	10.9	9.2	7.8	4.4	2.2	1.2	7.71	11.79	
7-Apr	0.3	-0.2	-0.6	0.2	1.1	0.7	0.1	2.5	4.1	6.8	8.5	10.0	11.6	13.1	14.1	14.2	14.5	14.4	13.8	10.3	6.9	7.2	8.9	8.4	7.13	14.48	
8-Apr	7.2	6.3	6.3	5.9	5.8	5.3	5.1	5.2	6.1	7.5	10.5	12.7	13.3	15.0	17.4	17.0	16.0	15.8	14.8	9.9	7.6	7.2	7.1	7.2	9.67	17.37	
9-Apr	5.8	5.4	4.5	4.5	4.2	4.6	4.8	6.1	6.3	6.0	6.8	7.1	7.1	8.4	8.7	8.9	8.8	8.3	7.2	5.1	3.0	1.1	-0.9	-0.1	5.48	8.94	
10-Apr	-0.4	-1.2	-2.3	-1.8	-2.6	-3.4	-2.7	-0.2	1.7	3.4	4.7	6.5	7.2	8.1	9.2	10.2	10.4	10.2	9.5	7.5	5.7	4.3	2.7	1.5	3.69	10.44	
11-Apr	0.6	-0.1	-0.4	-0.8	-1.0	-0.7	-0.4	0.5	3.1	8.2	11.4	13.7	15.1	15.9	15.5	15.3	13.3	12.7	12.5	11.1	7.1	4.6	4.2	4.1	6.89	15.86	
12-Apr	4.0	3.3	2.5	2.6	2.7	2.1	3.0	5.8	8.8	11.6	12.5	13.2	13.3	14.4	15.2	15.7	16.7	16.3	15.7	13.9	12.0	8.6	6.4	6.0	9.43	16.69	
13-Apr	6.6	4.5	1.5	0.0	-1.0	-1.1	-0.4	2.3	5.4	5.7	7.3	7.0	8.4	9.1	8.9	8.8	8.6	9.1	8.9	6.8	3.7	0.5	-1.2	-2.1	4.47	9.09	
14-Apr	-2.2	-2.9	-3.4	-3.9	-2.1	-0.2	0.3	0.9	1.7	2.7	3.9	5.0	5.6	6.0	6.9	7.6	7.8	7.9	7.6	6.3	2.2	-0.8	-1.6	-2.2	2.22	7.94	
15-Apr	-2.8	0.0	0.1	-0.6	-1.1	-1.8	-1.4	-0.3	2.2	5.4	8.5	11.6	13.8	13.5	14.4	14.8	14.6	13.6	13.0	10.5	9.3	6.4	5.2	8.0	6.53	14.75	
16-Apr	8.1	5.8	3.5	1.7	0.6	-0.6	1.7	6.4	9.8	11.7	12.6	14.2	15.3	16.0	16.3	17.0	17.0	16.7	15.9	13.7	13.5	9.2	6.4	5.1	9.90	17.03	
17-Apr	3.4	2.3	1.3	0.4	0.6	5.3	6.1	8.4	12.5	16.0	17.3	18.8	19.7	20.5	20.4	21.1	22.2	21.6	21.2	17.2	12.1	10.3	8.1	8.0	12.28	22.17	
18-Apr	7.3	5.3	5.7	5.4	5.7	5.2	7.9	11.3	13.6	17.9	21.3	24.0	25.6	26.0	26.5	27.8	26.8	25.5	24.3	23.3	22.2	20.7	19.8	19.3	17.43	27.82	
19-Apr	19.2	18.0	16.2	13.6	10.0	6.9	6.2	9.4	12.4	14.1	15.5	16.9	18.0	18.8	19.0	19.3	19.8	19.5	18.1	16.4	13.3	9.5	6.5	3.9	14.19	19.81	
20-Apr	1.9	0.5	-0.4	-1.6	-1.9	-2.4	0.0	4.3	6.3	7.3	8.3	9.8	11.7	13.2	14.3	15.4	16.1	16.2	14.8	12.5	10.2	8.5	6.8	5.3	7.39	16.20	
21-Apr	4.0	3.0	2.0	1.3	0.6	0.1	0.6	1.6	3.3	5.4	7.5	9.8	11.5	12.3	12.0	12.2	12.6	12.4	11.8	11.0	10.1	9.1	8.8	8.1	7.13	12.60	
22-Apr	7.5	6.9	6.4	6.0	5.7	5.2	4.8	4.8	4.9	5.8	6.9	8.2	8.9	9.6	10.0	9.9	9.7	9.9	8.9	7.6	6.5	5.2	4.3	3.9	6.97	10.03	
23-Apr	3.7	3.5	3.1	3.1	3.2	3.1	3.1	3.3	4.0	4.7	5.4	6.6	9.2	11.4	12.2	12.7	12.4	11.7	10.3	8.0	5.7	4.9	4.6	4.2	6.41	12.66	
24-Apr	4.1	3.9	3.8	3.5	3.3	3.0	2.9	2.9	3.0	3.8	4.8	5.4	6.0	6.5	6.7	6.4	5.9	5.6	5.3	4.8	4.3	3.9	3.6	3.3	4.45	6.74	
25-Apr	3.1	3.0	2.7	2.5	2.4	2.4	2.5	2.5	3.3	4.4	5.0	6.0	6.8	7.7	7.9	8.9	9.2	9.3	9.0	8.5	7.6	6.8	6.2	5.7	5.57	9.30	
26-Apr	6.4	5.4	4.0	3.4	2.3	1.2	2.9	6.9	9.1	10.5	11.5	11.7	12.5	13.7	13.4	14.0	14.5	14.1	13.3	10.9	7.2	4.3	2.6	1.7	8.22	14.51	
27-Apr	2.3	1.8	-0.4	-1.5	-1.4	-1.1	1.5	5.7	8.9	11.4	14.9	15.6	15.8	16.5	16.9	17.4	17.5	17.3	16.2	15.0	13.3	11.5	10.4	9.3	9.78	17.54	
28-Apr	7.5	5.7	4.8	4.3	4.0	4.6	5.3	6.1	7.4	8.7	10.8	12.9	13.8	14.2	14.9	15.1	14.7	15.0	14.7	13.6	12.7	12.2	11.3	10.1	10.18	15.06	
29-Apr	9.1	8.2	7.5	6.9	6.1	4.9	6.4	8.4	10.2	11.9	12.5	13.8	14.5	15.0	15.4	15.0	13.9	12.2	12.0	11.6	10.8	9.8	9.0	8.5	10.58	15.44	
30-Apr	7.8	7.8	7.3	6.9	6.2	6.5	7.1	8.1	9.7	10.1	12.2	13.6	14.3	15.3	16.3	17.5	17.7	17.8	17.4	15.7	9.8	6.9	5.2	4.3	10.89	17.80	
		4.87	4.17	3.31	2.64	2.24	2.13	2.69	4.53	6.61	8.46	10.00	11.33	12.28	13.17	13.69	14.05	13.96	13.62	12.89	10.89	8.66	7.06	5.99	5.49	Diurnal Average	
		19.16	18.00	16.25	13.57	9.99	8.43	8.43	11.27	13.60	17.90	21.31	23.99	25.59	26.03	26.54	27.82	26.77	25.48	24.29	23.29	22.19	20.71	19.76	19.30	Diurnal Maximum	





**WCAS - Fox Creek**  
**Summary of Hourly Averages**

**Wind Speed (WS) - kph**  
**April 2016**

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3.8	4.6	5.9	2.0	3.1	4.8	4.2	5.4	4.0	5.0	2.9	4.4	3.7	5.8	9.4	7.4	5.6	5.6	3.3	2.3	5.5	6.5	5.7	4.1	1.00	9.41
Dir	ESE	ESE	ESE	E	ESE	ESE	ESE	ESE	ESE	W	WSW	WSW	W	W	W	WNW	W	WNW	NW	SE	ESE	SE	ESE	SE	S	W
2 Spd	5.8	7.4	4.4	5.5	6.8	8.2	8.2	7.6	6.9	14.2	17.0	19.6	17.1	22.4	17.8	21.9	19.3	22.9	19.1	14.7	11.7	10.7	10.1	6.6	10.84	22.90
Dir	S	S	SSE	SE	S	SSW	SSW	SSW	SW	W	W	W	WSW	WSW	WSW	W	W	W	W	W	W	W	W	NW	WSW	W
3 Spd	4.4	6.2	2.0	0.6	2.4	2.8	3.9	4.1	3.2	8.5	8.0	8.5	5.3	4.9	7.9	6.9	6.6	8.3	9.5	5.6	2.5	14.1	15.8	14.8	2.33	15.82
Dir	WNW	WNW	WNW	SW	ESE	ESE	ESE	ESE	S	WSW	NW	NNW	NW	WNW	N	NNE	NNE	NE	NE	NE	E	E	ESE	ESE	NE	ESE
4 Spd	13.3	15.6	14.8	15.8	14.6	13.2	11.7	12.6	14.5	16.4	14.5	11.1	12.4	13.4	12.2	11.7	7.7	5.4	4.7	3.9	6.7	9.4	5.3	3.8	8.86	16.41
Dir	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	E	ESE	SE	SSW	W	W	W	SW	ESE	ESE
5 Spd	6.0	5.7	7.1	6.8	10.0	7.2	7.1	8.4	12.9	16.5	15.2	14.9	11.9	12.2	15.3	15.3	12.5	8.4	9.4	10.3	8.1	15.0	19.4	15.2	10.12	19.40
Dir	SW	SW	SW	SW	WSW	SW	WSW	WSW	WSW	W	W	W	WSW	WSW	WSW	WSW	WSW	S	S	S	SSW	WSW	W	SW	WSW	W
6 Spd	17.4	15.2	16.8	11.2	11.3	8.0	9.4	6.9	13.4	17.4	22.8	21.4	21.1	24.0	20.8	19.8	20.9	18.6	16.3	10.1	6.9	3.0	2.7	1.9	13.39	24.04
Dir	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	SW	SSW	SSE	W	W
7 Spd	1.8	3.6	5.0	5.4	5.9	5.0	4.1	5.0	3.6	2.1	6.5	5.6	4.8	5.6	9.3	9.2	10.6	8.2	7.9	2.3	3.4	4.0	9.4	10.4	2.42	10.60
Dir	SSE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	ESE	W	W	NNW	NW	WNW	N	NNE	NNE	NE	ENE	SE	ESE	ESE	ESE	ENE	NNE
8 Spd	12.2	14.8	20.4	18.0	12.6	12.9	13.2	15.8	13.5	16.4	15.2	14.6	14.7	13.1	12.4	13.0	9.4	5.6	11.2	22.7	6.6	8.0	13.1	17.4	7.81	22.66
Dir	ESE	ESE	ESE	ESE	SE	ESE	ESE	ESE	ESE	ESE	ESE	E	E	ESE	ESE	ESE	E	ESE	WNW	W	WSW	SW	WSW	WSW	SE	W
9 Spd	19.3	19.7	15.7	10.5	9.8	9.6	11.1	14.7	14.6	16.3	15.8	13.9	15.1	15.8	19.1	18.5	16.4	14.1	12.2	7.4	2.9	2.7	0.5	0.6	11.20	19.73
Dir	WSW	W	W	W	W	W	WSW	W	W	WSW	W	W	WNW	WNW	NW	WNW	NW	NW	NNW	NNW	NNW	NW	SSW	S	WNW	W
10 Spd	0.8	2.4	1.4	2.1	0.8	2.8	1.4	0.2	4.1	2.8	1.1	1.8	2.8	4.9	3.3	1.7	3.9	5.3	11.4	11.9	11.7	14.7	15.3	13.6	4.23	15.26
Dir	S	ESE	SE	ESE	SSE	ESE	ESE	WNW	E	NE	NE	E	N	N	NNW	E	SE	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE
11 Spd	14.9	12.8	8.1	7.7	9.3	10.2	9.2	8.8	7.9	4.4	2.1	7.4	6.8	10.8	8.3	7.9	13.1	14.6	9.5	4.9	1.6	2.7	3.9	3.7	2.81	14.90
Dir	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	ESE	ESE	W	WSW	WNW	WNW	WNW	W	W	WSW	SW	SW	SE	SE	SSE	S	S	ESE
12 Spd	3.6	6.8	6.2	6.2	8.6	8.8	7.2	6.5	5.0	6.1	9.8	10.3	11.5	10.3	9.4	13.0	12.8	6.8	14.9	13.1	7.3	2.5	2.5	3.8	5.44	14.87
Dir	SSE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	E	ESE	SE	SE	SE	SSE	SSW	SSW	WSW	SW	WSW	WSW	SSW	SE	SE	SSE	SW
13 Spd	3.7	1.0	2.3	3.8	4.0	4.9	1.9	4.7	6.7	12.0	14.3	11.3	12.8	14.0	13.0	13.7	8.0	8.3	6.0	8.7	1.1	1.5	2.0	2.6	3.45	14.29
Dir	SE	ENE	ESE	SE	ESE	ESE	ESE	SE	W	W	W	W	WNW	NNW	NNW	NNW	N	NNW	W	WNW	WNW	SE	SE	SE	WNW	WSW
14 Spd	2.4	2.6	0.9	2.3	2.9	4.1	5.0	5.4	6.7	8.7	7.8	11.1	10.5	12.4	9.7	9.0	9.4	8.8	7.5	6.8	0.2	2.1	3.3	2.8	3.78	12.42
Dir	ESE	SE	S	ESE	W	W	W	W	W	W	WNW	NNW	NNW	N	NNW	NNW	NNW	NNW	N	NNE	N	SE	SE	ESE	NNW	N
15 Spd	3.3	11.9	11.2	10.0	11.8	10.1	10.3	13.7	14.9	14.7	14.9	13.9	13.0	5.5	7.6	10.1	10.4	3.8	1.1	1.4	3.1	1.8	6.9	4.8	7.81	14.92
Dir	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	E	SE	ESE	S	S	S	SE	SE	WNW	SE	SSE	ESE	SE	SSW	SE	E
16 Spd	4.2	2.0	3.1	2.9	3.1	5.0	5.4	5.3	4.5	5.4	3.8	8.8	6.3	8.7	7.1	10.2	8.5	6.4	5.4	5.3	6.6	2.5	4.6	6.4	3.88	10.17
Dir	WNW	SW	ESE	ESE	ESE	ESE	ESE	SE	S	W	WSW	SSW	SW	S	S	S	SSE	SSE	ESE	SSE	SW	SSE	ESE	ESE	SSE	S
17 Spd	4.8	5.0	5.1	4.7	5.4	6.7	6.4	4.9	2.9	3.0	4.8	5.7	9.0	5.9	8.0	5.2	2.5	4.2	4.8	0.4	3.6	4.8	4.3	5.6	2.03	8.97
Dir	ESE	ESE	ESE	SE	ESE	ESE	ESE	SE	E	SSE	S	SSW	WSW	SW	WSW	WNW	W	NNE	N	NNE	ESE	SE	SE	SE	SE	WSW
18 Spd	5.6	4.9	5.9	5.3	5.7	4.6	4.6	8.3	10.7	9.6	12.7	15.7	14.2	15.2	18.0	17.7	16.1	11.8	10.0	9.9	9.5	10.3	13.9	13.3	9.38	18.00
Dir	SE	SE	ESE	ESE	SE	ESE	ESE	SE	SE	ESE	SE	SE	SE	SSE	SE	SSE	S	S	SSE	SSE	SSE	S	SSW	SSW	SSE	SE
19 Spd	14.9	12.9	7.0	3.9	0.9	1.5	1.6	4.1	5.5	6.0	6.5	6.7	9.7	11.0	15.4	14.4	11.5	12.6	10.1	6.8	4.6	5.3	2.8	1.4	4.31	15.41
Dir	SSW	SSW	SSW	WSW	SSE	SE	SE	WNW	WNW	NW	WNW	NNW	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	NW	WNW	W	ESE	NW	N
20 Spd	3.5	3.0	0.3	2.7	2.3	2.6	2.3	4.4	8.1	8.1	8.0	7.1	3.8	4.2	3.1	2.9	5.6	8.7	13.5	11.1	14.6	17.5	15.2	18.0	3.85	18.04
Dir	SE	SE	WNW	ESE	SE	SE	SE	NW	NW	NW	NNW	NNW	NNW	NE	NW	NNE	NNE	NNE	NNE	ENE	E	ESE	ESE	ESE	ENE	ESE
21 Spd	16.5	17.0	16.1	14.9	11.9	12.8	13.0	15.7	14.7	10.1	11.6	12.5	15.2	16.5	16.1	18.3	17.8	16.6	14.5	10.6	10.8	8.2	10.4	13.8	13.59	18.26
Dir	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	ESE	E	ENE	E	E	ESE	E	E	ESE	E	ENE	E	E	E	E	E	E
22 Spd	15.4	15.0	16.1	13.5	14.3	16.2	15.2	17.2	18.7	18.7	17.0	19.0	20.9	22.7	21.7	22.8	24.6	24.8	23.8	22.1	18.2	18.1	20.3	19.4	18.93	24.83
Dir	E	E	E	E	ESE	ESE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	ESE	E	ESE



**WCAS - Fox Creek**  
**Summary of Hourly Averages**

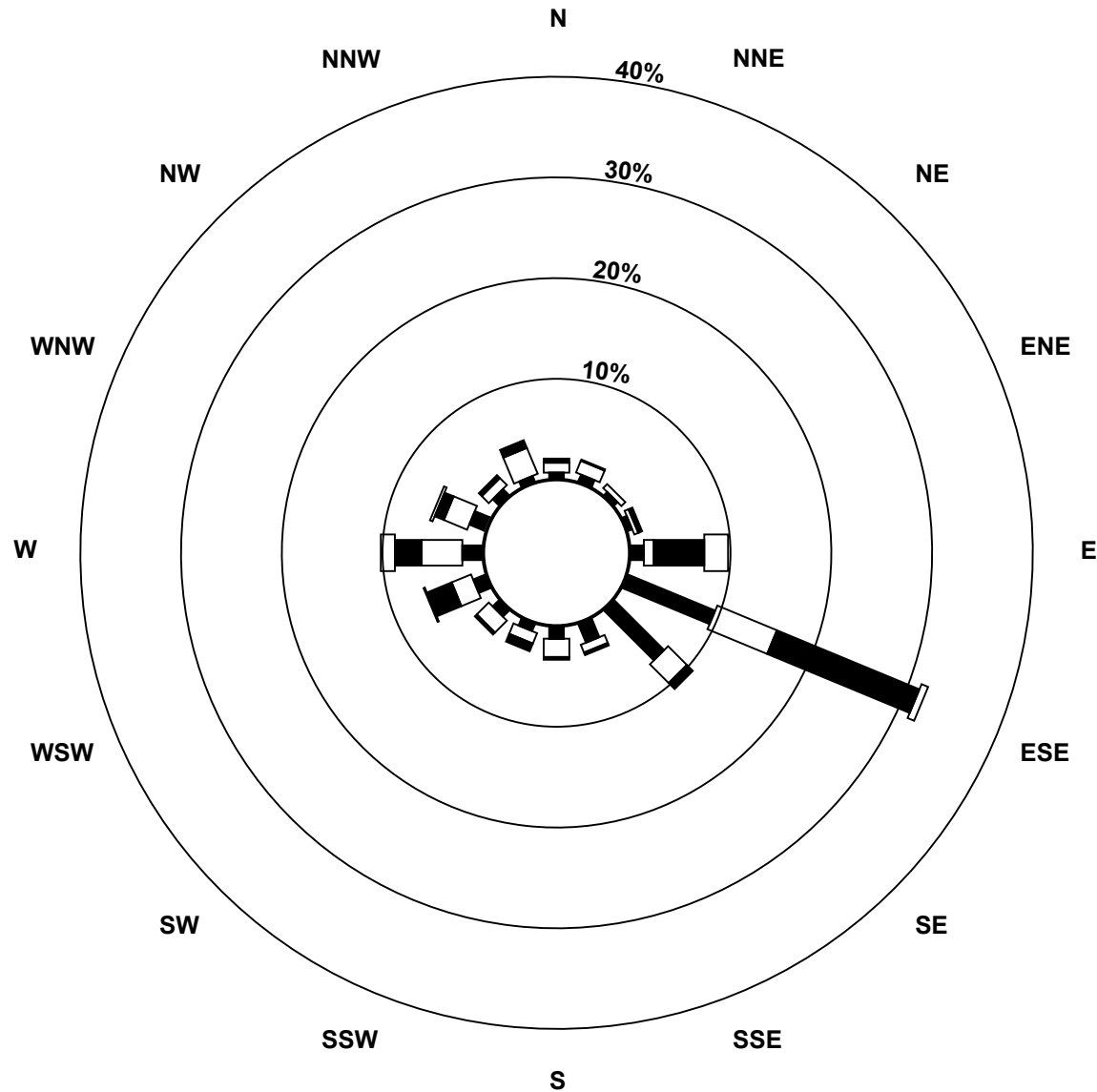
**Wind Speed (WS) - kph**  
**April 2016**

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	19.6	18.9	18.3	16.1	15.7	16.8	18.6	17.4	16.8	19.3	17.1	16.8	15.2	17.5	20.1	23.0	22.4	23.3	19.8	20.4	22.3	18.7	17.3	14.6	18.51	23.27
Dir	ESE	ESE	ESE	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	E	E	E	E	ESE	ESE	ESE	ESE	E	
24 Spd	13.5	13.4	13.8	14.8	14.0	13.1	13.7	17.0	15.0	12.7	13.5	15.6	17.1	14.1	15.4	15.8	16.4	14.0	12.7	13.7	11.7	11.7	11.3	10.4	13.82	17.13
Dir	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	ESE	ESE	ESE	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	
25 Spd	9.8	9.3	9.8	8.0	5.3	5.3	4.6	4.5	AF	AF	25.5	15.5	9.1	6.2	8.2	7.5	7.5	6.3	5.3	4.9	3.2	4.1	4.0	3.6	4.00	25.49
Dir	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	AF	AF	E	ENE	WNW	NW	NNW	NNW	NNW	N	NE	E	SE	SE	SE	E	E	
26 Spd	2.8	1.9	3.6	3.6	3.0	3.7	4.1	2.8	4.7	4.4	7.2	7.9	6.5	2.0	7.4	6.0	4.3	6.9	2.7	0.6	0.8	2.6	2.8	3.7	0.10	7.92
Dir	SW	WSW	ESE	ESE	ESE	ESE	ESE	SW	WSW	WNW	WSW	W	WNW	S	NNE	ENE	NNE	N	ENE	SSW	S	SE	SE	SE	W	
27 Spd	4.9	2.7	1.2	1.9	3.2	1.0	3.5	1.5	4.7	11.0	13.1	13.0	12.5	12.8	16.7	15.4	19.0	19.1	19.5	13.6	12.5	8.6	8.6	8.8	9.38	19.46
Dir	ESE	ESE	SE	SE	SE	SE	SE	ENE	E	ESE	E	E	ESE	E	E	ESE	E	ESE	E	E	ESE	ESE	SE	ESE	E	
28 Spd	6.1	5.0	4.7	4.5	7.8	8.2	11.2	10.1	16.2	14.7	16.3	20.1	22.7	21.3	18.9	19.4	17.8	13.5	17.4	16.9	13.8	15.3	12.7	14.0	13.61	22.70
Dir	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	
29 Spd	12.8	12.5	10.5	5.7	6.4	4.6	1.5	1.3	2.2	8.7	9.8	11.7	7.9	5.6	3.9	3.3	10.4	11.0	3.7	1.3	0.9	5.1	3.6	1.8	2.67	12.77
Dir	ESE	ESE	ESE	SE	SE	SSE	SE	E	NW	WNW	NNW	N	NNE	N	NNW	N	E	ESE	ESE	NNE	NNE	ESE	SSE	E	ESE	
30 Spd	1.4	4.4	3.6	2.8	3.4	3.3	4.0	6.3	8.2	7.3	5.8	8.4	9.7	4.1	6.2	5.5	9.1	9.4	7.2	1.9	2.9	3.2	5.1	3.9	3.73	9.68
Dir	WSW	WNW	W	W	W	WSW	SW	WSW	W	W	WSW	WSW	SSW	SSE	SW	W	W	WNW	W	W	SE	ESE	ESE	WSW	SSW	
Spd	4.79	5.07	5.03	4.97	4.92	5.13	4.88	4.73	3.18	1.33	1.43	1.39	0.99	1.38	0.82	1.23	1.87	2.01	2.25	2.18	3.37	4.32	4.75	5.07	Diurnal Average	
Dir	SE	SE	ESE	ESE	SE	SE	SE	SE	SE	SSE	ESE	ESE	ESE	SE	ESE	E	E	E	ENE	ESE	ESE	SE	SE	SE	Diurnal Maximum	
Spd	19.58	19.73	20.38	17.97	15.73	16.80	18.55	17.42	18.68	19.31	25.49	21.40	22.70	24.04	21.71	23.05	24.62	24.83	23.79	22.66	22.35	18.66	20.31	19.44	Diurnal Maximum	
Dir	104.48	261.72	110.54	113.69	105.54	106.32	106.27	108.22	92.77	104.65	87.99	279.37	100.95	264.90	96.19	99.62	87.70	101.32	94.19	266.11	100.76	107.14	99.24	104.54	Diurnal Maximum	
Maximum Speed Value: 25.5 kph on Apr 25 11:00		Minimum Speed Value: 0.2 kph on Apr 14 21:00																		Hours in Service: 720						
Maximum Daily Speed Average: 18.93 kph on Apr 22		Minimum Daily Speed Average: 0.10 kph on Apr 26																		Hours of Data: 718						
Maximum Diurnal Speed Average: 5.13 kph at hour 6		Minimum Diurnal Speed Average: 0.82 kph at hour 15																		Hours of Missing Data: 2						
Monthly Average Velocity: 3.102 kph 123.12 deg		Speed Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 2.7 Q <sub>1</sub> = 4.6 Median = 8.3 Q <sub>3</sub> = 13.9 P <sub>90</sub> = 17.4 P <sub>99</sub> = 22.9																		Percent Operational Time: 99.7						
All monthly, daily, and diurnal averages have been calculated using vector methods																										
AF - Analyzer Failure																										
Frequency Distribution																										
		Speed Range (kph)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	9	22	4	0	0	0	35																			
NorthEast	7	12	1	0	0	0	20																			
East	19	29	105	29	0	0	182																			
SouthEast	105	58	52	0	0	0	215																			
South	15	22	7	0	0	0	44																			
SouthWest	18	24	15	1	0	0	58																			
West	22	46	32	15	0	0	115																			
NorthWest	13	23	11	2	0	0	49																			
Total	208	236	227	47	0	0	718																			

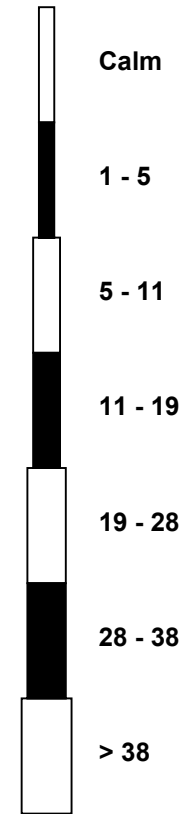
WCAS - Fox Creek  
Wind Speed Rose



Wind Speed (WS) - kph  
April 2016



Wind Frequency (kph)



**WEST CENTRAL AIRSHED SOCIETY**

**CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
MONTHLY REPORT  
CALIBRATIONS**

**FOX CREEK  
APRIL 2016**

# Calibration Report



Parameter                     SO2                      
 Air Monitoring Network                     Fox Creek                    

## Station Information

Calibration Date	April 14, 2016	Previous Calibration	March 28, 2016
Station Number	Pam12	Station Location	Fox Creek
Reason:	<input checked="" type="checkbox"/> Routine	<input checked="" type="checkbox"/> Calibration	<input type="checkbox"/> Removal
			Fox Creek

Start Time (MST)	13:00	End Time (MST)	18:00
Barometric Pressure	27.20 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Sabio 2010	Serial Number	SX17611
Cal Gas Concentration	25400 ppb SO2	Cal Gas Verified	Dec 2/15

DACS make		DACS serial No.	
DACS voltage range		DACS channel #	
	<b>Before</b>		<b>After</b>
Calculated slope	0.993462	Calculated slope	0.990853
Calculated intercept	1.205304	Calculated intercept	0.916518

Analyzer make                     Teco 431                     Analyzer serial #                     0700419950                    

	before		after	
Concentration range	500	ppb	500	ppb
Background	14	ppb	14.1	ppb
Coefficient	0.883		0.883	
Intensity A		Hz		Hz
Intensity B		Hz		Hz
Pressure		mmHg		mmHg
Sample Flow A		Lpm		Lpm
Sample Flow B		Lpm		Lpm

## Calibration Data

Dilution air flow rate (cc/min)		Source Gas Flow	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	5000	0.0	0.0	0.00	N/A
P1	4968	88.7	445.3	449.00	0.9918
P2	4970	49.6	251.0	252.00	0.9960
P3	4968	25.0	127.0	126.20	1.0063
AFZ	5000	0.0	0.0	-0.20	0.0000
AFS	5353	78.6	367.7	393.00	0.9356
Average Correction Factor					0.9980

Calculated value of As Found Response:                     391.8 ppm                     Percent Change of As Found:                     6.6%                    

	before calibration		after calibration	
Auto zero	0.00	ppb	0.20	ppb
Auto span	295.00	ppb	299.00	ppb

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Calibration Performed By:                     Greg Swain









# Calibration Report

Parameter **NOx-NO-NO<sub>2</sub>**  
 Air Monitoring Network **Fox Creek**



## Station Information

Calibration Date	April 14,2016	Previous Calibration	March 28,2016				
Station Number	Paml2	Station Location	Fox Creek				
Reason:	<table border="1"> <tr> <td><input checked="" type="checkbox"/> Routine</td> <td><input type="checkbox"/> Installation</td> <td><input type="checkbox"/> Removal</td> <td><input type="checkbox"/> Other:</td> </tr> </table>			<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal	<input type="checkbox"/> Other:				
Start Time (MST)	13:00	End Time (MST)	18:00				
Barometric Pressure	27.24 inches Hg	Station Temperature	21.0 Deg C				
Calibrator	Sabio 2010	Serial Number	42C 60475 327				
NO Cal Gas Conc	25.4 ppm	Cal Gas Verif. Date	Dec 2,2015				
NOx Cal Gas Conc	25.4 ppm	Cal Gas Serial #	SX17611				

## DACS Information

DACS make	ESC	DACS serial No.	
Parameter	NO	NO2	NOx
Before	Data Slope	1.001621	0.999867
	Data Offset	1.188374	-0.217940
After	Data Slope	1.000375	1.000329
	Data Offset	0.109328	-0.008378
Channel #			
Voltage Range			

## Analyzer Information

Analyzer make/model **42C** Analyzer serial # **60475327**

Test Point	before		after	
Concentration range	1000	ppb	1000	ppb
NO background	1.5	mV	1.2	mV
NOx background	1.5	mV	3.0	mV
NO coefficient	1.183		1.190	
NO2 coefficient	0.978		0.978	
NOx coefficient	1.001		1.001	
Internal Temp		Deg C		Deg C
Chamber Temp		Deg C		Deg C
Cooler Temp				
Perm Temp		Deg C		Deg C
Pressure		inches Hg		inches Hg
Sample Flow		ccm		ccm

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# Calibration Report

Parameter **NOx-NO-NO<sub>2</sub>**  
 Air Monitoring Network **Fox Creek**



## Station Information

Calibration Date: **April 14, 2016** Station Location: **Fox Creek**  
August 30, 2010

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	NO Correction factor	NO <sub>x</sub> Correction factor
zero	<b>5000</b>	<b>0.00</b>	0.0	0.0	0.0	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	N/A	N/A
P1	<b>4968</b>	<b>88.66</b>	445.3	0.0	445.3	<b>445.00</b>	<b>0.00</b>	<b>445.00</b>	1.001	1.001
P2	<b>4970</b>	<b>49.60</b>	251.0	0.0	251.0	<b>251.00</b>	<b>0.00</b>	<b>251.00</b>	1.000	1.000
P3	<b>4968</b>	<b>24.96</b>	127.0	0.0	127.0	<b>126.50</b>	<b>0.40</b>	<b>126.80</b>	1.004	1.001
AFZ	<b>5000</b>	<b>0.00</b>	0.0	0.0	0.0	<b>0.00</b>	<b>1.40</b>	<b>1.40</b>	#DIV/0!	0.000
AFS	<b>5353</b>	<b>78.63</b>	367.7	0.0	367.7	<b>394.00</b>	<b>2.00</b>	<b>396.00</b>	0.933	0.929
								Average Correction Factor	1.001	1.001

As Found Concentrations  
 As Found Percent Change

NO= 395.8 ppb  
 NO= 7.6%

NO<sub>x</sub>= 396.4 ppb  
 NO<sub>x</sub>= 7.8%

## GPT Calibration Data

O <sub>3</sub> Setpoint (ppb)	Indicated NO <sub>x</sub> ref (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	NO <sub>2</sub> Correction factor	Converter Efficiency
<b>0</b>	445.0	444.0	-1.0	445.0	<b>446.00</b>	<b>-1.00</b>	<b>445.00</b>	N/A	N/A
<b>1.1</b>	442.0	72.1	377.1	449.3	<b>72.00</b>	<b>377.00</b>	<b>449.00</b>	1.0003	100.0%
<b>0.7 v</b>	442.0	230.2	217.1	447.3	<b>230.00</b>	<b>217.00</b>	<b>447.00</b>	1.0003	100.0%
<b>0.4</b>	442.0	350.2	96.0	446.3	<b>350.00</b>	<b>96.00</b>	<b>446.00</b>	1.0001	100.0%
								Average Correction Factor	1.000

## AIC Data

Parameter	Previous calibration				Current calibration			
	NO	NO <sub>2</sub>	NO <sub>x</sub>		NO	NO <sub>2</sub>	NO <sub>x</sub>	
Auto zero	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	ppb	<b>0.00</b>	<b>-0.70</b>	<b>-0.60</b>	ppb
Auto span	<b>426.00</b>	<b>-1.00</b>	<b>425.00</b>	ppb	<b>437.00</b>	<b>-2.00</b>	<b>435.00</b>	ppb

Calibration Performed By: Greg Swain



# Calibration Summary

Parameter NO<sub>2</sub>

Air Monitoring Network Fox Creek



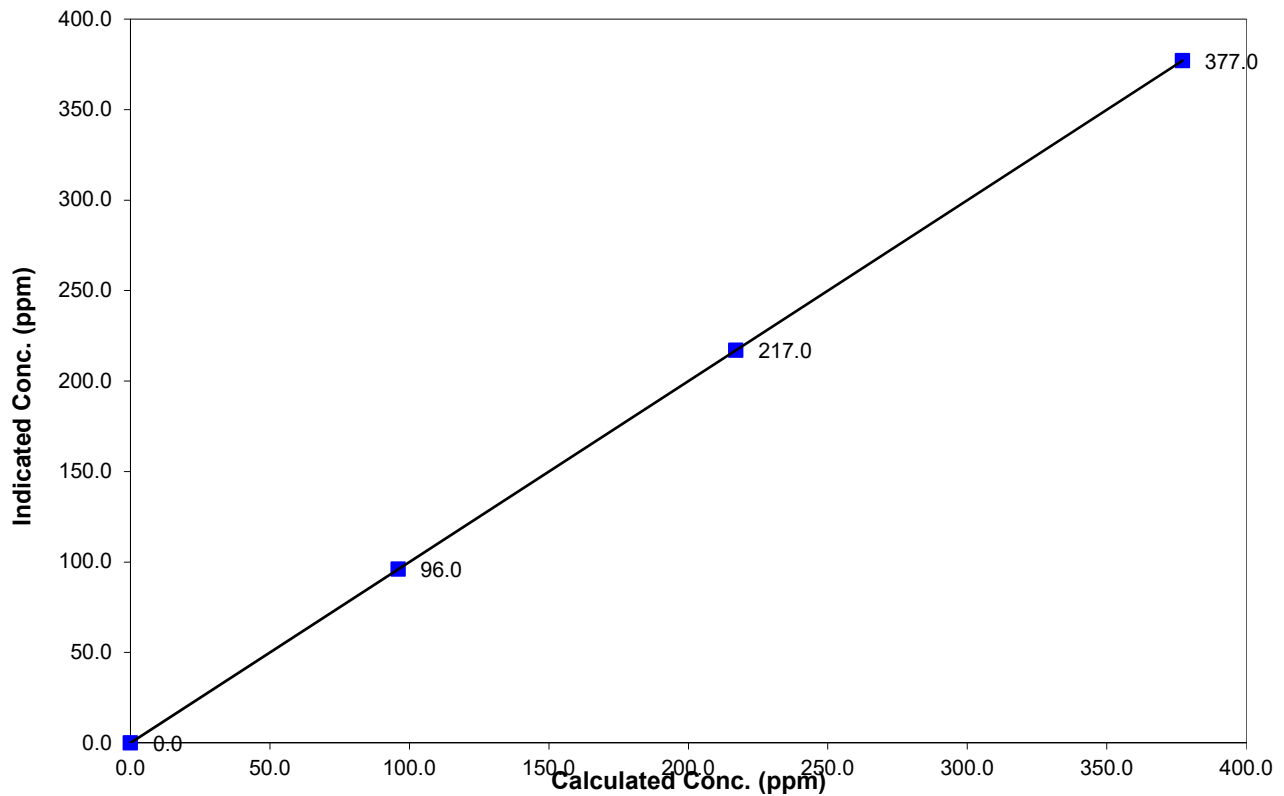
## Station Information

Calibration Date	April 14, 2016	Previous Calibration	March 28, 2016
Station Number		Station Location	Fox Creek
Start Time (MST)	11:00	End Time (MST)	15:05
Analyzer make	42C	Analyzer serial #	60475327

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
377.1	377.0	1.0003	Correlation Coefficient	1.000000
217.1	217.0	1.0003		
96.0	96.0	1.0001	Slope	1.000329
			Intercept	-0.008378

## NO<sub>2</sub> Calibration Curve



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network Fox Creek



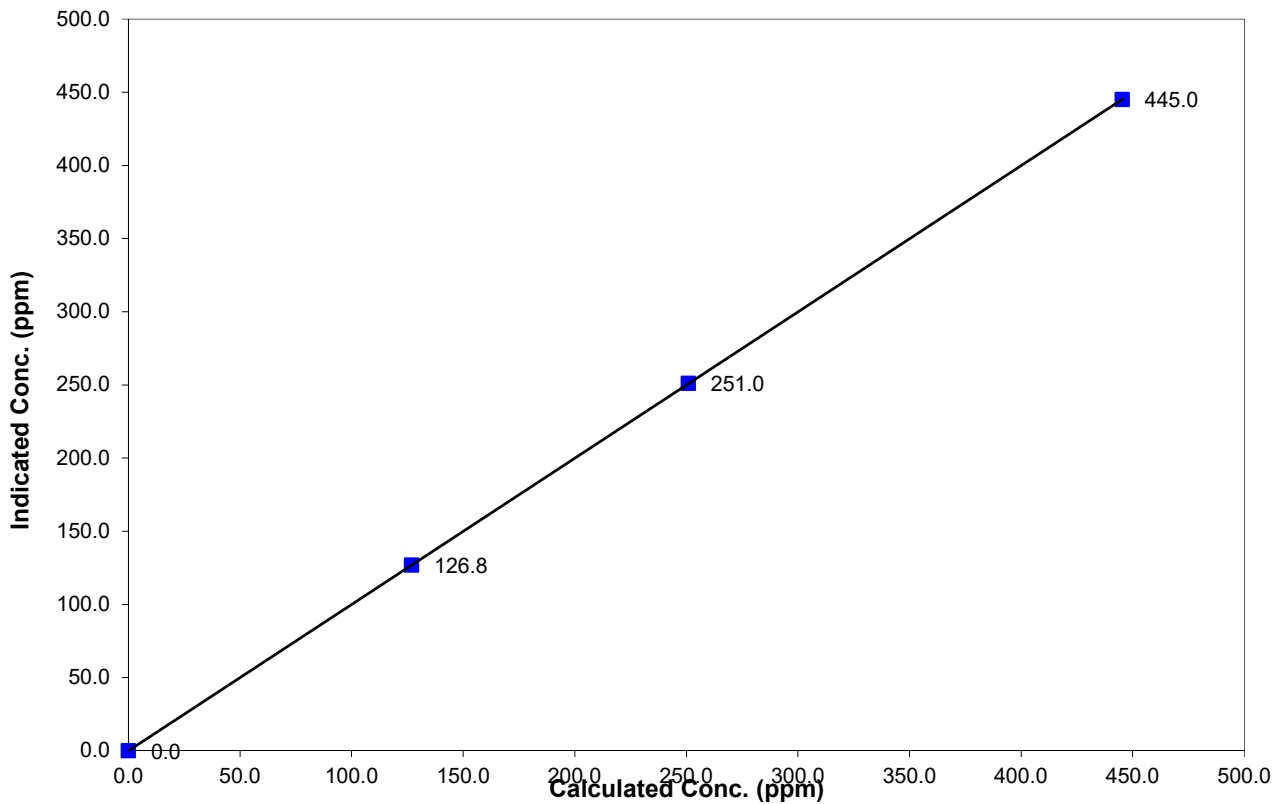
## Station Information

Calibration Date	April 14, 2016	Previous Calibration	March 28, 2016
Station Number	Pam1 2	Station Location	Fox Creek
Start Time (MST)	11:00	End Time (MST)	15:05
Analyzer make	42C	Analyzer serial #	60475327

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
445.3	445.0	1.0007	Correlation Coefficient	1.000000
251.0	251.0	0.9999		
127.0	126.8	1.0012	Slope	1.000595
			Intercept	-0.011031

## NOx Calibration Curve









**WEST CENTRAL AIRSHED SOCIETY**

**CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
MONTHLY REPORT**

**END OF REPORT  
APRIL 2016**