















**WCAS - Power**  
**Summary of Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**September 2014**

Maximum Value: 35.61 ppb on Sep 11 10:00		Maximum Daily Average: 2.00 ppb on Sep 11		Hours in Service: 720																																												
Minimum Value: 0.0 ppb on Sep 1 01:00		Minimum Daily Average: 0.00 ppb on Sep 1		Hours of Data: 684																																												
Maximum Diurnal Average: 1.62 ppb at hour 10		Minimum Diurnal Average: 0.00 ppb at hour 1		Hours of Missing Data: 36																																												
Monthly Average: 0.236 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> = 0.1 P <sub>99</sub> = 5.4		Hours of Calibration: 36																																												
				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-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																					
2-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																					
3-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																					
4-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																					
5-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	1.0	2.3	2.1	1.6	0.8	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	0.37	2.31																					
6-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.3	1.1	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	0.0	0.06	1.07																						
7-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
8-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
9-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.5	1.2	1.2	0.7	1.3	0.4	0.7	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.29	1.31																						
10-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
11-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	5.5	35.6	0.0	0.0	0.0	0.0	0.0	4.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.00	35.61																						
12-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
13-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	1.2	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.50	5.61																						
14-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
15-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
16-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.8	1.9	1.5	1.6	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.31	1.88																						
17-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	7.2	3.6	5.5	4.2	2.0	16.2	0.0	2.0	0.5	0.7	0.0	0.2	0.0	0.0	0.0	0.0	0.0	1.83	16.19																						
18-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
19-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	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	0.0	0.0	0.06	1.19																						
20-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.9	0.9	2.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.27	2.63																						
22-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.9	0.5	0.8	0.6	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	0.13	0.87																						
23-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.26	3.50																						
24-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	--	0.00																						
25-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
26-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
27-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
28-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.7	2.2	3.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.34	3.53																						
29-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.8	1.5	1.0	1.1	5.9	2.2	0.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.62	5.94																						
30-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
																								0.00	0.00	0.00	--	0.00	0.00	0.00	0.36	0.61	1.62	0.44	0.30	0.85	0.30	0.31	0.51	0.15	0.01	0.01	0.00	0.00	0.00	0.00	0.00	Diurnal Average
																								0.00	0.00	0.00	--	0.00	0.00	0.00	7.25	5.53	35.61	4.25	2.01	16.19	5.94	3.53	4.71	2.11	0.26	0.15	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum
Z - zerospan C - Calibration																																																
Alberta Ambient Air Quality Objectives (AAQO): 1-hr --- ppb 24-hr --- ppb																																																



**WCAS - Power**  
**Summary of Hourly Averages**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**September 2014**

Maximum Value: 17.18 ppb on Sep 16 01:00		Maximum Daily Average: 5.62 ppb on Sep 17		Hours in Service:	720																					
Minimum Value: 0.0 ppb on Sep 5 21:00		Minimum Daily Average: 0.00 ppb on Sep 8		Hours of Data:	684																					
Maximum Diurnal Average: 2.92 ppb at hour 8		Minimum Diurnal Average: 1.56 ppb at hour 14		Hours of Missing Data:	36																					
Monthly Average: 2.230 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.4 Median = 1.7 Q <sub>3</sub> = 3.3 P <sub>90</sub> = 5.1 P <sub>99</sub> = 11.5		Hours of Calibration:	36																					
				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-Sep	3.3	3.6	3.7	Z	3.4	4.2	3.8	6.4	4.8	5.5	3.4	2.8	2.3	2.1	2.1	2.0	2.5	2.3	2.1	2.7	3.9	4.2	4.1	4.4	3.47	6.37
2-Sep	4.7	4.6	5.0	Z	5.5	4.2	3.9	3.9	3.4	2.7	2.0	1.8	1.6	1.6	1.7	1.7	1.8	1.7	1.8	1.7	1.6	1.6	1.6	2.1	2.70	5.49
3-Sep	2.0	2.1	2.1	Z	1.9	2.0	2.3	2.3	1.8	1.3	1.2	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.0	1.4	1.4	1.7	3.2	4.0	1.70	4.00
4-Sep	5.1	5.4	5.3	Z	4.7	4.0	3.2	2.4	2.1	1.9	1.7	1.6	1.3	1.2	1.1	1.1	1.3	1.3	1.1	1.3	1.3	1.3	1.2	1.2	2.26	5.36
5-Sep	1.2	2.0	1.9	Z	1.9	1.6	2.3	4.6	4.0	3.8	3.9	3.4	3.3	1.8	0.5	0.2	0.2	0.4	0.3	0.3	0.0	0.0	0.0	0.2	1.64	4.64
6-Sep	0.3	0.0	1.6	Z	0.5	1.1	1.0	1.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3	1.9	1.0	0.9	0.58	1.85
7-Sep	1.1	0.5	0.0	Z	0.0	0.0	0.3	0.4	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	0.11	1.09
8-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-Sep	0.0	0.0	0.0	Z	0.0	0.3	1.0	1.6	2.4	1.7	1.3	2.1	0.5	1.8	3.3	3.8	1.8	0.9	0.6	0.9	1.5	1.7	1.5	0.4	1.27	3.80
10-Sep	0.2	0.8	0.8	Z	1.1	1.0	1.0	1.3	1.1	0.9	0.6	0.5	0.8	0.6	0.7	0.7	0.8	0.9	1.3	1.3	1.3	1.5	3.1	5.9	1.21	5.88
11-Sep	6.9	7.0	5.0	Z	7.7	3.8	4.1	4.2	6.1	14.1	2.6	3.0	2.6	2.1	2.5	9.4	7.1	1.8	3.1	5.4	4.3	4.0	3.8	3.7	4.97	14.06
12-Sep	5.9	6.1	6.3	Z	4.9	5.0	4.0	2.7	2.1	1.8	1.5	1.4	1.3	1.3	1.4	1.5	1.5	1.6	1.8	2.0	2.1	2.1	2.2	2.3	2.73	6.31
13-Sep	3.2	2.7	2.6	Z	2.9	2.8	2.9	2.8	2.6	2.9	3.6	3.8	11.5	3.1	7.7	13.4	5.0	7.8	4.0	5.0	3.9	4.0	3.9	4.4	4.63	13.45
14-Sep	5.0	6.2	4.9	Z	6.0	6.5	5.2	5.6	4.0	2.9	2.9	2.5	2.1	1.8	1.7	1.6	1.6	1.5	1.8	1.9	3.1	5.8	7.2	7.4	3.87	7.37
15-Sep	5.0	5.0	4.2	Z	3.9	4.0	4.4	6.0	4.4	3.2	2.7	2.2	1.9	1.6	1.4	1.4	1.5	1.5	1.8	2.3	3.4	2.4	4.4	14.6	3.61	14.59
16-Sep	17.2	9.4	7.3	Z	7.3	7.1	7.9	6.7	5.0	4.5	4.8	4.8	4.0	2.7	1.9	1.9	1.6	1.5	1.9	1.7	1.7	1.3	1.7	1.7	4.60	17.18
17-Sep	3.9	5.4	3.6	Z	5.7	4.0	4.1	9.3	6.4	6.7	7.1	5.6	15.5	3.6	8.5	7.2	7.4	8.1	4.8	3.1	3.9	1.4	2.0	1.9	5.62	15.51
18-Sep	1.8	1.5	0.5	Z	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	1.0	0.3	0.0	0.2	0.0	0.0	1.1	0.0	0.35	1.79
19-Sep	0.0	0.0	0.1	Z	2.1	0.8	0.1	1.0	1.5	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.33	2.11
20-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.3	3.1	2.4	0.41	3.30
21-Sep	2.7	2.9	2.2	Z	2.7	5.1	4.4	2.9	1.9	1.9	4.1	3.2	0.1	0.0	0.0	0.9	0.2	0.0	0.0	0.4	0.8	1.2	1.6	1.6	1.77	5.07
22-Sep	2.0	2.7	2.5	Z	2.8	2.9	5.9	5.7	3.3	2.1	1.9	1.5	1.2	0.9	0.7	1.7	3.0	5.3	3.6	3.8	2.3	0.3	0.1	0.4	2.46	5.92
23-Sep	0.3	0.5	0.2	Z	0.1	0.5	0.4	1.0	0.6	0.4	0.2	0.0	0.2	0.0	0.2	9.6	9.6	6.9	5.1	5.8	4.6	3.3	2.8	2.6	2.37	9.64
24-Sep	3.2	3.4	3.3	Z	2.9	3.1	3.4	3.1	3.3	3.6	3.6	C	C	C	C	C	C	11.5	9.0	7.8	3.6	2.5	2.5	2.8	--	11.49
25-Sep	3.5	3.3	3.8	Z	3.5	4.4	5.4	5.0	3.8	3.8	3.5	8.2	4.9	5.3	4.6	3.2	3.0	3.0	2.9	2.8	2.6	1.9	1.8	1.9	3.73	8.21
26-Sep	1.8	1.8	1.9	Z	1.8	2.1	2.2	2.3	2.2	2.2	2.1	1.9	1.8	1.6	1.4	1.5	1.6	1.8	1.5	1.4	1.4	1.2	1.3	1.3	1.74	2.32
27-Sep	1.5	1.0	1.0	Z	1.0	1.0	1.2	0.9	0.6	0.7	0.6	0.5	0.5	0.5	0.7	0.8	0.7	1.0	1.0	1.3	2.7	5.9	5.0	2.2	1.41	5.91
28-Sep	1.2	0.9	0.8	Z	0.9	1.0	2.7	2.9	1.6	1.4	2.4	2.1	2.3	3.8	4.8	2.3	0.6	0.6	0.3	0.3	0.4	0.7	0.7	0.4	1.52	4.77
29-Sep	0.3	0.0	0.0	Z	0.0	0.4	0.8	1.1	0.6	0.7	1.0	1.0	1.6	6.3	5.2	2.9	4.5	3.6	3.8	3.0	3.0	2.2	1.6	1.6	1.96	6.35
30-Sep	1.4	1.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	1.45
																								Diurnal Average		
																								Diurnal Maximum		
																								Z - zerospan C - Calibration		
																								Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb		





**WCAS - Power**  
**Summary of Hourly Averages**

**NOx (NO<sub>x</sub>) - ppb**  
**September 2014**

Maximum Value: 49.70 ppb on Sep 11 10:00		Maximum Daily Average: 6.97 ppb on Sep 17		Hours in Service: 720																																													
Minimum Value: 0.0 ppb on Sep 1 16:00		Minimum Daily Average: 0.00 ppb on Sep 8		Hours of Data: 684																																													
Maximum Diurnal Average: 3.55 ppb at hour 10		Minimum Diurnal Average: 0.87 ppb at hour 21		Hours of Missing Data: 36																																													
Monthly Average: 1.662 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.4 Q <sub>3</sub> = 2.2 P <sub>90</sub> = 4.6 P <sub>99</sub> = 12.6		Hours of Calibration: 36																																													
				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-Sep	1.2	1.4	1.6	Z	1.2	2.1	1.8	4.8	3.2	5.1	1.9	1.1	0.4	0.2	0.2	0.0	0.5	0.3	0.1	0.7	1.8	2.1	2.1	2.4	1.58	5.11																							
2-Sep	2.7	2.6	3.0	Z	3.6	2.3	2.2	2.8	2.4	1.4	0.6	0.1	0.0	0.0	0.1	0.1	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.7	1.13	3.59																							
3-Sep	0.6	0.7	0.7	Z	0.6	0.7	1.1	1.1	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.5	1.9	2.8	0.52	2.76																							
4-Sep	3.9	4.2	4.1	Z	3.5	2.8	2.2	1.9	1.5	1.3	1.0	0.8	0.3	0.2	0.0	0.1	0.2	0.2	0.0	0.2	0.1	0.2	0.1	0.1	1.25	4.16																							
5-Sep	0.1	0.9	0.8	Z	1.3	0.6	1.4	5.7	6.4	6.0	5.6	4.3	4.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.68	6.37																							
6-Sep	0.0	0.0	0.6	Z	0.0	0.1	0.2	2.1	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.9	0.0	0.0	0.32	2.85																							
7-Sep	0.2	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
8-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
9-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.3	2.0	3.6	2.9	2.0	3.5	0.9	2.6	3.4	4.4	1.7	0.3	0.0	0.2	0.7	0.9	0.8	0.0	1.31	4.44																							
10-Sep	0.0	0.0	0.0	Z	0.3	0.0	0.0	0.5	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	0.9	3.8	0.25	3.83																								
11-Sep	4.7	4.7	2.6	Z	5.4	1.5	2.0	3.6	11.7	49.7	1.8	2.7	1.6	0.7	1.3	13.5	8.0	0.0	1.4	3.7	2.5	2.4	2.2	2.1	5.64	49.70																							
12-Sep	4.4	4.7	4.9	Z	3.4	3.5	2.6	1.3	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.2	1.15	4.93																								
13-Sep	1.1	0.6	0.5	Z	0.7	0.6	0.7	0.8	0.8	1.3	2.3	2.4	17.3	1.5	9.1	18.4	3.9	7.0	1.9	2.9	1.8	1.9	1.8	2.3	3.55	18.41																							
14-Sep	2.9	4.2	2.8	Z	3.9	4.5	3.3	5.1	3.6	1.6	1.4	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.8	5.2	5.4	2.18	5.45																								
15-Sep	3.0	3.1	2.2	Z	2.0	2.1	2.7	5.9	4.8	2.5	1.6	0.7	0.4	0.0	0.0	0.0	0.0	0.1	0.4	0.9	2.0	1.0	3.1	13.5	2.27	13.50																							
16-Sep	16.1	8.3	6.1	Z	6.4	6.1	7.1	7.6	7.0	6.1	6.5	6.1	4.1	1.9	0.9	0.9	0.5	0.5	0.8	0.6	0.6	0.2	0.7	0.6	4.16	16.15																							
17-Sep	2.8	4.2	2.5	Z	4.8	3.0	3.3	16.6	10.1	12.2	11.4	7.6	31.7	3.6	10.6	7.7	8.2	7.9	5.0	2.1	2.9	0.3	1.0	0.9	6.97	31.74																							
18-Sep	0.7	0.4	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.10	0.72																								
19-Sep	0.0	0.0	0.0	Z	1.2	0.0	0.0	0.7	2.7	1.6	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	0.30	2.71																							
20-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.3	1.6	0.28	2.49																								
21-Sep	1.9	2.1	1.4	Z	1.9	4.3	3.8	3.0	2.8	2.9	6.8	4.8	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.4	0.8	0.8	1.67	6.83																								
22-Sep	1.1	1.9	1.7	Z	2.0	2.1	5.3	6.6	3.9	2.9	2.5	1.6	1.0	0.5	0.1	1.2	2.5	5.0	2.9	3.1	1.6	0.0	0.0	2.16	6.62																								
23-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	11.8	7.2	4.7	5.2	4.1	2.7	2.2	1.9	2.31	13.11																							
24-Sep	2.6	2.8	2.7	Z	2.1	2.3	2.6	2.5	3.2	3.9	4.0	C	C	C	C	C	C	11.6	7.6	6.2	1.8	0.6	0.6	0.9	--	11.58																							
25-Sep	1.4	1.2	1.6	Z	1.2	2.0	3.1	2.9	2.0	2.0	1.6	7.9	3.6	4.1	3.4	1.5	1.2	1.1	1.0	0.9	0.6	0.0	0.0	0.0	1.92	7.88																							
26-Sep	0.0	0.0	0.0	Z	0.0	0.1	0.3	0.6	0.4	0.5	0.5	0.4	0.3	0.1	0.0	0.2	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.18	0.59																							
27-Sep	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4	4.7	3.8	0.9	0.48	4.67																							
28-Sep	0.0	0.0	0.0	Z	0.0	0.0	1.6	1.9	0.8	0.8	2.6	2.5	3.0	6.1	8.3	3.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.34	8.34																								
29-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.7	0.8	1.5	2.5	2.1	2.7	12.3	7.5	3.7	5.3	3.3	2.8	1.9	1.9	1.1	0.5	0.5	2.22	12.33																							
30-Sep	0.4	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.37																							
																								1.73	1.60	1.32	--	1.52	1.36	1.59	2.70	2.53	3.55	1.91	1.71	2.47	1.21	1.55	2.38	1.56	1.50	0.96	0.97	0.87	0.88	1.01	1.38	Diurnal Average	
																								16.15	8.27	6.14	--	6.39	6.09	7.09	16.59	11.70	49.70	11.37	7.88	31.74	12.33	10.55	18.41	11.77	11.58	7.59	6.19	4.09	4.67	5.25	13.50	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAQO): 1-hr --- ppb 24-hr --- ppb																																																	



**WCAS - Power**  
**Summary of Hourly Averages**

**PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>**  
**September 2014**

Maximum Value: 31.36 µg/m <sup>3</sup> on Sep 13 09:00	Maximum Daily Average: 18.09 µg/m <sup>3</sup> on Sep 13	Hours in Service: 720
Minimum Value: 0.0 µg/m <sup>3</sup> on Sep 1 13:00	Minimum Daily Average: 0.91 µg/m <sup>3</sup> on Sep 26	Hours of Data: 718
Maximum Diurnal Average: 5.08 µg/m <sup>3</sup> at hour 19	Minimum Diurnal Average: 2.21 µg/m <sup>3</sup> at hour 14	Hours of Missing Data: 2
Monthly Average: 3.564 µg/m <sup>3</sup>	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 1.0 Median = 2.4 Q <sub>3</sub> = 4.3 P <sub>90</sub> = 7.9 P <sub>99</sub> = 19.5	Hours of Calibration: 0
		Percent Operational Time: 99.7

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-Sep	2.4	2.2	2.6	1.7	1.4	1.8	2.1	3.5	1.5	2.4	1.7	1.9	0.0	0.0	1.1	1.5	3.7	1.6	1.2	0.5	0.8	0.1	0.6	0.0	1.51	3.73
2-Sep	0.1	0.8	1.2	1.3	1.8	0.9	2.1	1.6	0.5	0.2	0.0	0.0	1.3	2.1	1.4	2.7	2.3	1.4	2.4	3.0	2.2	2.3	2.4	3.2	1.55	3.22
3-Sep	1.9	1.2	1.4	3.3	4.2	3.6	3.8	5.7	5.3	0.4	2.1	0.8	0.3	2.2	0.9	1.1	0.5	1.0	1.6	4.1	1.3	1.8	2.8	3.9	2.30	5.69
4-Sep	2.3	1.4	2.1	1.7	3.0	3.3	3.8	3.2	3.1	1.6	1.4	1.8	2.4	1.7	1.1	4.1	4.4	4.3	4.4	2.7	2.6	2.3	2.7	2.0	2.64	4.43
5-Sep	2.4	3.1	2.2	2.4	1.8	1.1	2.9	4.3	3.6	3.4	2.8	3.4	1.5	0.8	0.3	2.4	3.3	4.9	4.8	5.6	4.0	3.0	2.4	2.5	2.87	5.64
6-Sep	1.5	1.9	1.3	0.8	0.9	1.7	1.8	3.5	2.6	2.4	0.9	0.1	0.0	0.0	0.0	0.0	0.9	1.5	10.6	9.0	6.4	6.1	5.7	4.7	2.69	10.64
7-Sep	5.6	1.8	1.1	0.9	0.9	0.6	2.4	4.8	5.4	7.6	4.0	4.5	5.3	2.2	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.02	7.58
8-Sep	0.0	0.0	1.6	1.6	1.2	1.6	1.8	0.8	1.6	1.6	1.6	0.4	2.0	0.2	1.7	1.5	0.4	1.3	1.1	1.6	1.1	0.9	0.6	0.4	1.11	1.99
9-Sep	0.6	0.4	0.4	0.2	0.8	1.0	1.3	1.9	1.8	3.0	2.0	2.4	0.0	1.9	2.9	3.2	2.8	1.9	1.8	1.4	2.0	1.6	1.2	0.8	1.55	3.17
10-Sep	0.5	4.1	3.6	5.0	3.6	3.0	3.9	4.5	3.2	2.1	0.2	0.8	1.5	0.9	0.6	0.3	0.2	0.8	1.8	3.3	1.9	2.0	1.0	2.0	2.11	4.95
11-Sep	2.1	1.7	1.1	0.4	0.5	0.6	0.7	0.9	1.8	3.8	0.0	0.2	0.0	0.0	0.0	0.0	0.5	0.4	0.4	2.5	1.1	1.9	2.3	2.2	1.04	3.75
12-Sep	2.8	2.6	3.5	2.0	2.7	3.8	2.8	1.7	3.4	5.6	3.7	2.2	2.0	2.7	2.0	2.0	2.6	2.9	2.8	3.7	3.4	8.0	14.1	16.1	4.13	16.07
13-Sep	20.1	17.9	17.3	19.6	21.5	26.0	27.5	28.2	31.4	24.5	20.6	17.2	19.4	15.9	14.1	14.7	11.1	10.3	12.8	12.7	12.4	13.7	14.1	11.3	18.09	31.36
14-Sep	9.3	7.5	5.7	4.3	3.9	4.1	6.0	6.1	2.5	1.5	3.3	3.0	1.7	0.2	1.2	0.0	0.6	0.5	4.3	0.9	0.0	0.9	2.5	2.5	3.01	9.28
15-Sep	2.6	1.5	0.6	2.4	1.6	2.8	3.2	3.6	3.8	4.4	3.6	1.2	1.0	1.9	1.0	2.2	2.4	2.2	7.6	2.8	1.3	1.2	2.7	5.7	2.64	7.58
16-Sep	4.3	4.2	4.3	4.6	4.3	5.4	5.2	5.7	6.4	4.6	5.2	5.1	5.8	3.2	3.3	4.2	4.1	3.9	15.2	5.5	4.4	3.4	4.9	6.5	5.14	15.17
17-Sep	7.1	6.0	3.7	7.0	5.6	5.5	7.1	15.5	3.8	3.9	4.1	6.1	8.1	6.6	3.9	7.9	9.6	10.0	12.3	3.5	4.0	3.1	6.8	1.7	6.36	15.49
18-Sep	7.9	4.4	6.8	8.6	13.5	8.6	8.6	8.8	10.9	8.5	7.6	7.9	8.7	4.7	3.9	5.3	4.2	4.2	5.3	2.8	2.7	6.8	5.7	2.2	6.61	13.54
19-Sep	0.0	0.6	1.2	0.3	1.8	1.2	0.0	1.6	4.2	1.8	1.6	0.0	UC	0.0	0.0	0.0	0.0	0.0	1.2	0.9	0.1	2.3	0.7	3.5	1.00	4.15
20-Sep	3.8	2.6	2.4	2.2	2.8	2.5	3.3	2.8	3.3	1.7	1.9	1.2	1.3	0.4	0.0	2.0	3.4	3.9	5.2	5.0	5.0	4.2	3.7	3.6	2.84	5.19
21-Sep	3.4	2.9	3.0	4.0	3.4	5.8	4.8	5.3	5.3	1.9	5.1	1.3	0.6	1.0	3.2	3.4	3.9	3.5	6.6	4.1	3.0	3.3	3.7	4.3	3.61	6.60
22-Sep	5.9	5.4	4.9	4.4	6.0	5.6	7.1	6.4	4.1	3.6	4.0	3.2	3.4	3.0	7.3	15.7	29.0	21.3	15.3	12.4	17.4	14.3	10.9	9.6	9.19	29.00
23-Sep	11.5	11.1	7.8	4.2	4.8	4.9	4.4	5.0	5.7	3.3	0.3	0.0	0.8	0.0	0.5	4.5	5.9	12.0	11.0	7.3	6.1	4.0	3.6	3.5	5.09	11.95
24-Sep	6.9	5.4	4.3	4.5	5.6	5.5	5.8	6.5	8.0	7.2	8.2	11.1	10.7	8.0	11.8	8.8	10.6	10.6	8.9	10.2	7.7	1.9	4.0	2.0	7.26	11.80
25-Sep	1.1	0.3	2.3	0.5	2.9	3.7	2.3	1.9	4.4	1.4	4.0	1.4	3.9	0.0	4.2	5.4	6.4	5.3	5.4	9.2	1.4	0.1	UC	0.0	2.93	9.21
26-Sep	0.0	3.3	0.0	0.0	0.4	0.8	0.4	2.4	2.8	2.3	1.4	1.1	1.8	0.5	0.2	0.4	1.3	2.7	0.0	0.0	0.0	0.0	0.3	0.0	0.91	3.27
27-Sep	0.0	0.0	0.2	0.6	0.5	0.0	1.4	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	0.0	0.8	1.5	1.2	7.3	12.1	5.7	1.39	12.10
28-Sep	1.1	0.1	0.4	0.0	0.6	1.1	3.0	3.7	3.5	3.1	4.4	4.3	3.8	1.8	3.5	2.4	2.5	1.8	1.4	0.5	0.0	0.4	0.4	0.0	1.83	4.41
29-Sep	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.8	1.6	2.1	1.5	2.6	2.9	4.0	4.5	3.3	4.2	3.5	5.3	2.7	3.5	4.0	3.3	4.1	2.27	5.31
30-Sep	4.8	6.2	2.5	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.9	0.5	0.1	0.9	0.7	1.0	1.0	1.2	1.3	0.9	0.2	0.5	1.07	6.16

3.73	3.35	2.99	2.98	3.45	3.57	3.98	4.71	4.52	3.67	3.25	2.85	3.14	2.21	2.55	3.34	4.05	3.96	5.08	4.03	3.28	3.40	3.98	3.48	Diurnal Average	
20.13	17.87	17.34	19.62	21.53	25.97	27.52	28.20	31.36	24.53	20.61	17.17	19.36	15.86	14.06	15.70	29.00	21.34	15.32	12.66	17.44	14.30	14.14	16.07	Diurnal Maximum	

UC - Unstable Operation  
 Alberta Ambient Air Quality Objectives (AAQO): 1-hr 80 ul/m<sup>3</sup> 24-hr 30 ul/m<sup>3</sup>





**WCAS - Power**  
**Summary of Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**September 2014**

Maximum Value: 35.61 ppb on Sep 11 10:00		Maximum Daily Average: 2.00 ppb on Sep 11		Hours in Service: 720																																												
Minimum Value: 0.0 ppb on Sep 1 01:00		Minimum Daily Average: 0.00 ppb on Sep 1		Hours of Data: 684																																												
Maximum Diurnal Average: 1.62 ppb at hour 10		Minimum Diurnal Average: 0.00 ppb at hour 1		Hours of Missing Data: 36																																												
Monthly Average: 0.236 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> = 0.1 P <sub>99</sub> = 5.4		Hours of Calibration: 36																																												
				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-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																					
2-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																					
3-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																					
4-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																					
5-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	1.0	2.3	2.1	1.6	0.8	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	0.37	2.31																					
6-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.3	1.1	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	0.0	0.06	1.07																						
7-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
8-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
9-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.5	1.2	1.2	0.7	1.3	0.4	0.7	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.29	1.31																						
10-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
11-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	5.5	35.6	0.0	0.0	0.0	0.0	0.0	4.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.00	35.61																						
12-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
13-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	1.2	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.50	5.61																						
14-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
15-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
16-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.8	1.9	1.5	1.6	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.31	1.88																						
17-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	7.2	3.6	5.5	4.2	2.0	16.2	0.0	2.0	0.5	0.7	0.0	0.2	0.0	0.0	0.0	0.0	0.0	1.83	16.19																						
18-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
19-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	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	0.0	0.0	0.06	1.19																						
20-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.9	0.9	2.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.27	2.63																						
22-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.9	0.5	0.8	0.6	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	0.13	0.87																						
23-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.26	3.50																						
24-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	--	0.00																						
25-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
26-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
27-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
28-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.7	2.2	3.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.34	3.53																						
29-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.8	1.5	1.0	1.1	5.9	2.2	0.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.62	5.94																						
30-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
																								0.00	0.00	0.00	--	0.00	0.00	0.00	0.36	0.61	1.62	0.44	0.30	0.85	0.30	0.31	0.51	0.15	0.01	0.01	0.00	0.00	0.00	0.00	0.00	Diurnal Average
																								0.00	0.00	0.00	--	0.00	0.00	0.00	7.25	5.53	35.61	4.25	2.01	16.19	5.94	3.53	4.71	2.11	0.26	0.15	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum
Z - zerospan C - Calibration																																																
Alberta Ambient Air Quality Objectives (AAQO): 1-hr --- ppb 24-hr --- ppb																																																



**WCAS - Power**  
**Summary of Hourly Averages**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**September 2014**

Maximum Value: 17.18 ppb on Sep 16 01:00		Maximum Daily Average: 5.62 ppb on Sep 17		Hours in Service: 720																																													
Minimum Value: 0.0 ppb on Sep 5 21:00		Minimum Daily Average: 0.00 ppb on Sep 8		Hours of Data: 684																																													
Maximum Diurnal Average: 2.92 ppb at hour 8		Minimum Diurnal Average: 1.56 ppb at hour 14		Hours of Missing Data: 36																																													
Monthly Average: 2.230 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.4 Median = 1.7 Q <sub>3</sub> = 3.3 P <sub>90</sub> = 5.1 P <sub>99</sub> = 11.5		Hours of Calibration: 36																																													
				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-Sep	3.3	3.6	3.7	Z	3.4	4.2	3.8	6.4	4.8	5.5	3.4	2.8	2.3	2.1	2.1	2.0	2.5	2.3	2.1	2.7	3.9	4.2	4.1	4.4	3.47	6.37																							
2-Sep	4.7	4.6	5.0	Z	5.5	4.2	3.9	3.9	3.4	2.7	2.0	1.8	1.6	1.6	1.7	1.7	1.8	1.7	1.8	1.7	1.6	1.6	1.6	2.1	2.70	5.49																							
3-Sep	2.0	2.1	2.1	Z	1.9	2.0	2.3	2.3	1.8	1.3	1.2	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.0	1.4	1.4	1.7	3.2	4.0	1.70	4.00																							
4-Sep	5.1	5.4	5.3	Z	4.7	4.0	3.2	2.4	2.1	1.9	1.7	1.6	1.3	1.2	1.1	1.1	1.3	1.3	1.1	1.3	1.3	1.3	1.2	1.2	2.26	5.36																							
5-Sep	1.2	2.0	1.9	Z	1.9	1.6	2.3	4.6	4.0	3.8	3.9	3.4	3.3	1.8	0.5	0.2	0.2	0.4	0.3	0.0	0.0	0.0	0.2	0.2	1.64	4.64																							
6-Sep	0.3	0.0	1.6	Z	0.5	1.1	1.0	1.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3	1.9	1.0	0.9	0.58	1.85																							
7-Sep	1.1	0.5	0.0	Z	0.0	0.0	0.3	0.4	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	0.11	1.09																							
8-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
9-Sep	0.0	0.0	0.0	Z	0.0	0.3	1.0	1.6	2.4	1.7	1.3	2.1	0.5	1.8	3.3	3.8	1.8	0.9	0.6	0.9	1.5	1.7	1.5	0.4	1.27	3.80																							
10-Sep	0.2	0.8	0.8	Z	1.1	1.0	1.0	1.3	1.1	0.9	0.6	0.5	0.8	0.6	0.7	0.7	0.8	0.9	1.3	1.3	1.3	1.5	3.1	5.9	1.21	5.88																							
11-Sep	6.9	7.0	5.0	Z	7.7	3.8	4.1	4.2	6.1	14.1	2.6	3.0	2.6	2.1	2.5	9.4	7.1	1.8	3.1	5.4	4.3	4.0	3.8	3.7	4.97	14.06																							
12-Sep	5.9	6.1	6.3	Z	4.9	5.0	4.0	2.7	2.1	1.8	1.5	1.4	1.3	1.4	1.5	1.5	1.6	1.8	2.0	2.1	2.1	2.2	2.3	2.73	6.31																								
13-Sep	3.2	2.7	2.6	Z	2.9	2.8	2.9	2.8	2.6	2.9	3.6	3.8	11.5	3.1	7.7	13.4	5.0	7.8	4.0	5.0	3.9	4.0	3.9	4.4	4.63	13.45																							
14-Sep	5.0	6.2	4.9	Z	6.0	6.5	5.2	5.6	4.0	2.9	2.9	2.5	2.1	1.8	1.7	1.6	1.5	1.8	1.9	3.1	5.8	7.2	7.4	3.87	7.37																								
15-Sep	5.0	5.0	4.2	Z	3.9	4.0	4.4	6.0	4.4	3.2	2.7	2.2	1.9	1.6	1.4	1.4	1.5	1.5	1.8	2.3	3.4	2.4	4.4	14.6	3.61	14.59																							
16-Sep	17.2	9.4	7.3	Z	7.3	7.1	7.9	6.7	5.0	4.5	4.8	4.8	4.0	2.7	1.9	1.9	1.6	1.5	1.9	1.7	1.7	1.3	1.7	1.7	4.60	17.18																							
17-Sep	3.9	5.4	3.6	Z	5.7	4.0	4.1	9.3	6.4	6.7	7.1	5.6	15.5	3.6	8.5	7.2	7.4	8.1	4.8	3.1	3.9	1.4	2.0	1.9	5.62	15.51																							
18-Sep	1.8	1.5	0.5	Z	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	1.0	0.3	0.0	0.2	0.0	0.0	1.1	0.0	0.35	1.79																							
19-Sep	0.0	0.0	0.1	Z	2.1	0.8	0.1	1.0	1.5	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.33	2.11																							
20-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.3	3.1	2.4	0.41	3.30																							
21-Sep	2.7	2.9	2.2	Z	2.7	5.1	4.4	2.9	1.9	1.9	4.1	3.2	0.1	0.0	0.0	0.9	0.2	0.0	0.0	0.4	0.8	1.2	1.6	1.6	1.77	5.07																							
22-Sep	2.0	2.7	2.5	Z	2.8	2.9	5.9	5.7	3.3	2.1	1.9	1.5	1.2	0.9	0.7	1.7	3.0	5.3	3.6	3.8	2.3	0.3	0.1	0.4	2.46	5.92																							
23-Sep	0.3	0.5	0.2	Z	0.1	0.5	0.4	1.0	0.6	0.4	0.2	0.0	0.0	0.2	0.0	9.6	9.6	6.9	5.1	5.8	4.6	3.3	2.8	2.6	2.37	9.64																							
24-Sep	3.2	3.4	3.3	Z	2.9	3.1	3.4	3.1	3.3	3.6	3.6	C	C	C	C	C	C	11.5	9.0	7.8	3.6	2.5	2.5	2.8	--	11.49																							
25-Sep	3.5	3.3	3.8	Z	3.5	4.4	5.4	5.0	3.8	3.8	3.5	8.2	4.9	5.3	4.6	3.2	3.0	3.0	2.9	2.8	2.6	1.9	1.8	1.9	3.73	8.21																							
26-Sep	1.8	1.8	1.9	Z	1.8	2.1	2.2	2.3	2.2	2.2	2.1	1.9	1.8	1.6	1.4	1.5	1.6	1.8	1.5	1.4	1.4	1.2	1.3	1.3	1.74	2.32																							
27-Sep	1.5	1.0	1.0	Z	1.0	1.0	1.2	0.9	0.6	0.7	0.6	0.5	0.5	0.5	0.7	0.8	0.7	1.0	1.0	1.3	2.7	5.9	5.0	2.2	1.41	5.91																							
28-Sep	1.2	0.9	0.8	Z	0.9	1.0	2.7	2.9	1.6	1.4	2.4	2.1	2.3	3.8	4.8	2.3	0.6	0.6	0.3	0.3	0.4	0.7	0.7	0.4	1.52	4.77																							
29-Sep	0.3	0.0	0.0	Z	0.0	0.4	0.8	1.1	0.6	0.7	1.0	1.0	1.6	6.3	5.2	2.9	4.5	3.6	3.8	3.0	3.0	2.2	1.6	1.6	1.96	6.35																							
30-Sep	1.4	1.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	1.45																							
																								2.82	2.67	2.35	--	2.51	2.43	2.60	2.92	2.39	2.40	1.97	1.90	2.15	1.56	1.83	2.45	2.04	2.20	1.81	1.94	1.88	1.91	2.08	2.41	Diurnal Average	
																								17.18	9.37	7.27	--	7.69	7.13	7.91	9.29	6.45	14.06	7.06	8.21	15.51	6.35	8.52	13.45	9.64	11.49	9.01	7.83	4.61	5.91	7.19	14.59	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAQO): 1-hr 159 ppb 24-hr 106 ppb																																																	



**WCAS - Power**  
**Summary of Hourly Averages**

**NOx (NO<sub>x</sub>) - ppb**  
**September 2014**

Maximum Value: 49.70 ppb on Sep 11 10:00		Maximum Daily Average: 6.97 ppb on Sep 17		Hours in Service: 720																																													
Minimum Value: 0.0 ppb on Sep 1 16:00		Minimum Daily Average: 0.00 ppb on Sep 8		Hours of Data: 684																																													
Maximum Diurnal Average: 3.55 ppb at hour 10		Minimum Diurnal Average: 0.87 ppb at hour 21		Hours of Missing Data: 36																																													
Monthly Average: 1.662 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.4 Q <sub>3</sub> = 2.2 P <sub>90</sub> = 4.6 P <sub>99</sub> = 12.6		Hours of Calibration: 36																																													
				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-Sep	1.2	1.4	1.6	Z	1.2	2.1	1.8	4.8	3.2	5.1	1.9	1.1	0.4	0.2	0.2	0.0	0.5	0.3	0.1	0.7	1.8	2.1	2.1	2.4	1.58	5.11																							
2-Sep	2.7	2.6	3.0	Z	3.6	2.3	2.2	2.8	2.4	1.4	0.6	0.1	0.0	0.0	0.1	0.1	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.7	1.13	3.59																							
3-Sep	0.6	0.7	0.7	Z	0.6	0.7	1.1	1.1	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.5	1.9	2.8	0.52	2.76																							
4-Sep	3.9	4.2	4.1	Z	3.5	2.8	2.2	1.9	1.5	1.3	1.0	0.8	0.3	0.2	0.0	0.1	0.2	0.2	0.0	0.2	0.1	0.2	0.1	0.1	1.25	4.16																							
5-Sep	0.1	0.9	0.8	Z	1.3	0.6	1.4	5.7	6.4	6.0	5.6	4.3	4.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.68	6.37																							
6-Sep	0.0	0.0	0.6	Z	0.0	0.1	0.2	2.1	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.9	0.0	0.0	0.32	2.85																							
7-Sep	0.2	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
8-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																							
9-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.3	2.0	3.6	2.9	2.0	3.5	0.9	2.6	3.4	4.4	1.7	0.3	0.0	0.2	0.7	0.9	0.8	0.0	1.31	4.44																							
10-Sep	0.0	0.0	0.0	Z	0.3	0.0	0.0	0.5	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	0.9	3.8	0.25	3.83																								
11-Sep	4.7	4.7	2.6	Z	5.4	1.5	2.0	3.6	11.7	49.7	1.8	2.7	1.6	0.7	1.3	13.5	8.0	0.0	1.4	3.7	2.5	2.4	2.2	2.1	5.64	49.70																							
12-Sep	4.4	4.7	4.9	Z	3.4	3.5	2.6	1.3	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.2	1.15	4.93																								
13-Sep	1.1	0.6	0.5	Z	0.7	0.6	0.7	0.8	0.8	1.3	2.3	2.4	17.3	1.5	9.1	18.4	3.9	7.0	1.9	2.9	1.8	1.9	1.8	2.3	3.55	18.41																							
14-Sep	2.9	4.2	2.8	Z	3.9	4.5	3.3	5.1	3.6	1.6	1.4	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.8	5.2	5.4	2.18	5.45																								
15-Sep	3.0	3.1	2.2	Z	2.0	2.1	2.7	5.9	4.8	2.5	1.6	0.7	0.4	0.0	0.0	0.0	0.0	0.1	0.4	0.9	2.0	1.0	3.1	13.5	2.27	13.50																							
16-Sep	16.1	8.3	6.1	Z	6.4	6.1	7.1	7.6	7.0	6.1	6.5	6.1	4.1	1.9	0.9	0.9	0.5	0.5	0.8	0.6	0.6	0.2	0.7	0.6	4.16	16.15																							
17-Sep	2.8	4.2	2.5	Z	4.8	3.0	3.3	16.6	10.1	12.2	11.4	7.6	31.7	3.6	10.6	7.7	8.2	7.9	5.0	2.1	2.9	0.3	1.0	0.9	6.97	31.74																							
18-Sep	0.7	0.4	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.10	0.72																								
19-Sep	0.0	0.0	0.0	Z	1.2	0.0	0.0	0.7	2.7	1.6	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	0.30	2.71																								
20-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.3	1.6	0.28	2.49																								
21-Sep	1.9	2.1	1.4	Z	1.9	4.3	3.8	3.0	2.8	2.9	6.8	4.8	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.4	0.8	0.8	1.67	6.83																								
22-Sep	1.1	1.9	1.7	Z	2.0	2.1	5.3	6.6	3.9	2.9	2.5	1.6	1.0	0.5	0.1	1.2	2.5	5.0	2.9	3.1	1.6	0.0	0.0	2.16	6.62																								
23-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	11.8	7.2	4.7	5.2	4.1	2.7	2.2	1.9	2.31	13.11																							
24-Sep	2.6	2.8	2.7	Z	2.1	2.3	2.6	2.5	3.2	3.9	4.0	C	C	C	C	C	C	11.6	7.6	6.2	1.8	0.6	0.6	0.9	--	11.58																							
25-Sep	1.4	1.2	1.6	Z	1.2	2.0	3.1	2.9	2.0	2.0	1.6	7.9	3.6	4.1	3.4	1.5	1.2	1.1	1.0	0.9	0.6	0.0	0.0	1.92	7.88																								
26-Sep	0.0	0.0	0.0	Z	0.0	0.1	0.3	0.6	0.4	0.5	0.5	0.4	0.3	0.1	0.0	0.2	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.18	0.59																								
27-Sep	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4	4.7	3.8	0.9	0.48	4.67																							
28-Sep	0.0	0.0	0.0	Z	0.0	0.0	1.6	1.9	0.8	0.8	2.6	2.5	3.0	6.1	8.3	3.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.34	8.34																								
29-Sep	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.7	0.8	1.5	2.5	2.1	2.7	12.3	7.5	3.7	5.3	3.3	2.8	1.9	1.9	1.1	0.5	0.5	2.22	12.33																							
30-Sep	0.4	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.37																								
																								1.73	1.60	1.32	--	1.52	1.36	1.59	2.70	2.53	3.55	1.91	1.71	2.47	1.21	1.55	2.38	1.56	1.50	0.96	0.97	0.87	0.88	1.01	1.38	Diurnal Average	
																								16.15	8.27	6.14	--	6.39	6.09	7.09	16.59	11.70	49.70	11.37	7.88	31.74	12.33	10.55	18.41	11.77	11.58	7.59	6.19	4.09	4.67	5.25	13.50	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAQO): 1-hr --- ppb 24-hr --- ppb																																																	



**WCAS - Power**  
**Summary of Hourly Averages**

**PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>**  
**September 2014**

Maximum Value: 31.36 µg/m <sup>3</sup> on Sep 13 09:00	Maximum Daily Average: 18.09 µg/m <sup>3</sup> on Sep 13	Hours in Service: 720
Minimum Value: 0.0 µg/m <sup>3</sup> on Sep 1 13:00	Minimum Daily Average: 0.91 µg/m <sup>3</sup> on Sep 26	Hours of Data: 718
Maximum Diurnal Average: 5.08 µg/m <sup>3</sup> at hour 19	Minimum Diurnal Average: 2.21 µg/m <sup>3</sup> at hour 14	Hours of Missing Data: 2
Monthly Average: 3.564 µg/m <sup>3</sup>	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 1.0 Median = 2.4 Q <sub>3</sub> = 4.3 P <sub>90</sub> = 7.9 P <sub>99</sub> = 19.5	Hours of Calibration: 0
		Percent Operational Time: 99.7

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-Sep	2.4	2.2	2.6	1.7	1.4	1.8	2.1	3.5	1.5	2.4	1.7	1.9	0.0	0.0	1.1	1.5	3.7	1.6	1.2	0.5	0.8	0.1	0.6	0.0	1.51	3.73
2-Sep	0.1	0.8	1.2	1.3	1.8	0.9	2.1	1.6	0.5	0.2	0.0	0.0	1.3	2.1	1.4	2.7	2.3	1.4	2.4	3.0	2.2	2.3	2.4	3.2	1.55	3.22
3-Sep	1.9	1.2	1.4	3.3	4.2	3.6	3.8	5.7	5.3	0.4	2.1	0.8	0.3	2.2	0.9	1.1	0.5	1.0	1.6	4.1	1.3	1.8	2.8	3.9	2.30	5.69
4-Sep	2.3	1.4	2.1	1.7	3.0	3.3	3.8	3.2	3.1	1.6	1.4	1.8	2.4	1.7	1.1	4.1	4.4	4.3	4.4	2.7	2.6	2.3	2.7	2.0	2.64	4.43
5-Sep	2.4	3.1	2.2	2.4	1.8	1.1	2.9	4.3	3.6	3.4	2.8	3.4	1.5	0.8	0.3	2.4	3.3	4.9	4.8	5.6	4.0	3.0	2.4	2.5	2.87	5.64
6-Sep	1.5	1.9	1.3	0.8	0.9	1.7	1.8	3.5	2.6	2.4	0.9	0.1	0.0	0.0	0.0	0.0	0.9	1.5	10.6	9.0	6.4	6.1	5.7	4.7	2.69	10.64
7-Sep	5.6	1.8	1.1	0.9	0.9	0.6	2.4	4.8	5.4	7.6	4.0	4.5	5.3	2.2	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.02	7.58
8-Sep	0.0	0.0	1.6	1.6	1.2	1.6	1.8	0.8	1.6	1.6	1.6	0.4	2.0	0.2	1.7	1.5	0.4	1.3	1.1	1.6	1.1	0.9	0.6	0.4	1.11	1.99
9-Sep	0.6	0.4	0.4	0.2	0.8	1.0	1.3	1.9	1.8	3.0	2.0	2.4	0.0	1.9	2.9	3.2	2.8	1.9	1.8	1.4	2.0	1.6	1.2	0.8	1.55	3.17
10-Sep	0.5	4.1	3.6	5.0	3.6	3.0	3.9	4.5	3.2	2.1	0.2	0.8	1.5	0.9	0.6	0.3	0.2	0.8	1.8	3.3	1.9	2.0	1.0	2.0	2.11	4.95
11-Sep	2.1	1.7	1.1	0.4	0.5	0.6	0.7	0.9	1.8	3.8	0.0	0.2	0.0	0.0	0.0	0.0	0.5	0.4	0.4	2.5	1.1	1.9	2.3	2.2	1.04	3.75
12-Sep	2.8	2.6	3.5	2.0	2.7	3.8	2.8	1.7	3.4	5.6	3.7	2.2	2.0	2.7	2.0	2.0	2.6	2.9	2.8	3.7	3.4	8.0	14.1	16.1	4.13	16.07
13-Sep	20.1	17.9	17.3	19.6	21.5	26.0	27.5	28.2	31.4	24.5	20.6	17.2	19.4	15.9	14.1	14.7	11.1	10.3	12.8	12.7	12.4	13.7	14.1	11.3	18.09	31.36
14-Sep	9.3	7.5	5.7	4.3	3.9	4.1	6.0	6.1	2.5	1.5	3.3	3.0	1.7	0.2	1.2	0.0	0.6	0.5	4.3	0.9	0.0	0.9	2.5	2.5	3.01	9.28
15-Sep	2.6	1.5	0.6	2.4	1.6	2.8	3.2	3.6	3.8	4.4	3.6	1.2	1.0	1.9	1.0	2.2	2.4	2.2	7.6	2.8	1.3	1.2	2.7	5.7	2.64	7.58
16-Sep	4.3	4.2	4.3	4.6	4.3	5.4	5.2	5.7	6.4	4.6	5.2	5.1	5.8	3.2	3.3	4.2	4.1	3.9	15.2	5.5	4.4	3.4	4.9	6.5	5.14	15.17
17-Sep	7.1	6.0	3.7	7.0	5.6	5.5	7.1	15.5	3.8	3.9	4.1	6.1	8.1	6.6	3.9	7.9	9.6	10.0	12.3	3.5	4.0	3.1	6.8	1.7	6.36	15.49
18-Sep	7.9	4.4	6.8	8.6	13.5	8.6	8.6	8.8	10.9	8.5	7.6	7.9	8.7	4.7	3.9	5.3	4.2	4.2	5.3	2.8	2.7	6.8	5.7	2.2	6.61	13.54
19-Sep	0.0	0.6	1.2	0.3	1.8	1.2	0.0	1.6	4.2	1.8	1.6	0.0	UC	0.0	0.0	0.0	0.0	0.0	1.2	0.9	0.1	2.3	0.7	3.5	1.00	4.15
20-Sep	3.8	2.6	2.4	2.2	2.8	2.5	3.3	2.8	3.3	1.7	1.9	1.2	1.3	0.4	0.0	2.0	3.4	3.9	5.2	5.0	5.0	4.2	3.7	3.6	2.84	5.19
21-Sep	3.4	2.9	3.0	4.0	3.4	5.8	4.8	5.3	5.3	1.9	5.1	1.3	0.6	1.0	3.2	3.4	3.9	3.5	6.6	4.1	3.0	3.3	3.7	4.3	3.61	6.60
22-Sep	5.9	5.4	4.9	4.4	6.0	5.6	7.1	6.4	4.1	3.6	4.0	3.2	3.4	3.0	7.3	15.7	29.0	21.3	15.3	12.4	17.4	14.3	10.9	9.6	9.19	29.00
23-Sep	11.5	11.1	7.8	4.2	4.8	4.9	4.4	5.0	5.7	3.3	0.3	0.0	0.8	0.0	0.5	4.5	5.9	12.0	11.0	7.3	6.1	4.0	3.6	3.5	5.09	11.95
24-Sep	6.9	5.4	4.3	4.5	5.6	5.5	5.8	6.5	8.0	7.2	8.2	11.1	10.7	8.0	11.8	8.8	10.6	10.6	8.9	10.2	7.7	1.9	4.0	2.0	7.26	11.80
25-Sep	1.1	0.3	2.3	0.5	2.9	3.7	2.3	1.9	4.4	1.4	4.0	1.4	3.9	0.0	4.2	5.4	6.4	5.3	5.4	9.2	1.4	0.1	UC	0.0	2.93	9.21
26-Sep	0.0	3.3	0.0	0.0	0.4	0.8	0.4	2.4	2.8	2.3	1.4	1.1	1.8	0.5	0.2	0.4	1.3	2.7	0.0	0.0	0.0	0.0	0.3	0.0	0.91	3.27
27-Sep	0.0	0.0	0.2	0.6	0.5	0.0	1.4	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2	0.0	0.8	1.5	1.2	7.3	12.1	5.7	1.39	12.10
28-Sep	1.1	0.1	0.4	0.0	0.6	1.1	3.0	3.7	3.5	3.1	4.4	4.3	3.8	1.8	3.5	2.4	2.5	1.8	1.4	0.5	0.0	0.4	0.4	0.0	1.83	4.41
29-Sep	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.8	1.6	2.1	1.5	2.6	2.9	4.0	4.5	3.3	4.2	3.5	5.3	2.7	3.5	4.0	3.3	4.1	2.27	5.31
30-Sep	4.8	6.2	2.5	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.9	0.5	0.1	0.9	0.7	1.0	1.0	1.2	1.3	0.9	0.2	0.5	1.07	6.16

3.73	3.35	2.99	2.98	3.45	3.57	3.98	4.71	4.52	3.67	3.25	2.85	3.14	2.21	2.55	3.34	4.05	3.96	5.08	4.03	3.28	3.40	3.98	3.48	Diurnal Average	
20.13	17.87	17.34	19.62	21.53	25.97	27.52	28.20	31.36	24.53	20.61	17.17	19.36	15.86	14.06	15.70	29.00	21.34	15.32	12.66	17.44	14.30	14.14	16.07	Diurnal Maximum	

UC - Unstable Operation  
 Alberta Ambient Air Quality Objectives (AAQO): 1-hr 80 ul/m<sup>3</sup> 24-hr 30 ul/m<sup>3</sup>

# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 907, Power

Calibration Date: September 24, 2014

Parameter: NO/NO<sub>2</sub>/NO<sub>x</sub>

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Instrument: Teco 42 i	Serial Number: 0905034788	Previous Calibration Date: August 20, 2014
Calibration: Routine	Calibration Equipment: SABIO 2010 sn 04300810	Barometric Pressure: 26.95" Hg
Calibration Method: Standard Gas Dilution/ GPT	Cylinder ID: FF47744	Temperature: 20.0° C
Cylinder Concentration: 12.4 ppm NO, 12.5 ppm NO <sub>x</sub>	In Service: Dec.10,2013	Technician: Dean Yustak

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Instrument Settings	NO bkg ppb	NO <sub>x</sub> bkg ppb	Pre-reactor bkg ppb	NO Coefficient	NO <sub>x</sub> Coefficient	NO <sub>2</sub> Coefficient	Monitoring Range
Previous	15.9	16.6	NA	1.579	1.011	0.990	300 ppb
Current	12.3	12.9	NA	1.060	1.018	0.990	300 PPB

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NO	Final Zero: 0.1 ppb	Final Span: 119.6 ppb	As Found Correction Factor: 1.098
NO <sub>2</sub>	Final Zero: 1.1 ppb	Final Span: 13.1 ppb	As Found Correction Factor: NA
NO <sub>x</sub>	Final Zero: 0.4 ppb	Final Span: 131.8 ppb	As Found Correction Factor: 1.096

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Results of Linear Regression			Slope	Intercept	R <sup>2</sup>
NO	R <sub>c</sub> vs C <sub>c</sub>	Previous	99.667450	-43.458940	0.999976
		Current	100.131600	-2.336957	0.999990
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000016	0.999990
NO <sub>2</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	100.019400	-3.230010	0.999976
		Current	100.187400	-77.016620	0.999902
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000000	0.999902
NO <sub>x</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	99.785600	-40.342330	0.999976
		Current	100.111200	-4.621199	0.999991
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000025	0.999990

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Comments:

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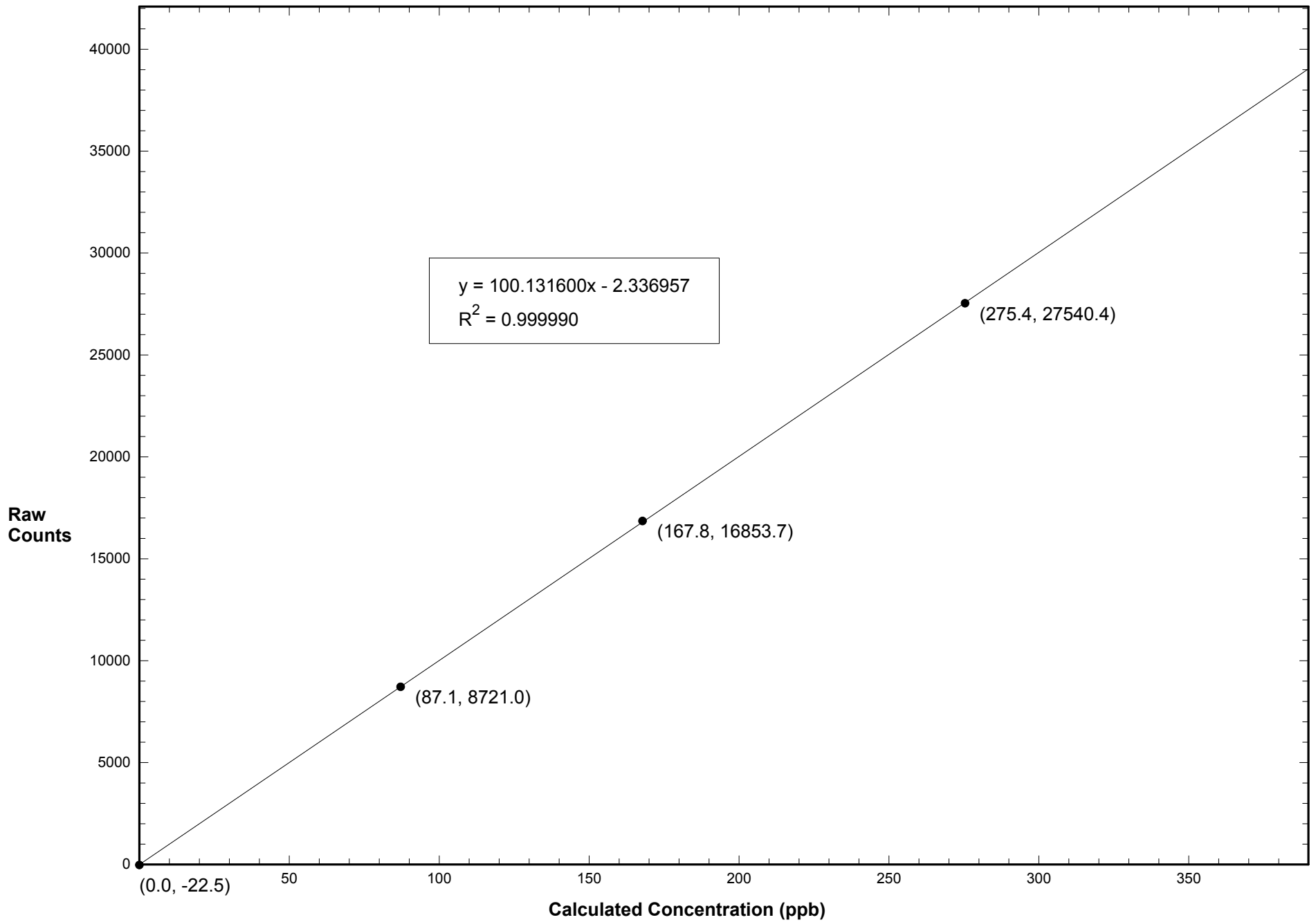


**Calibration Data Summary (Page 2)**

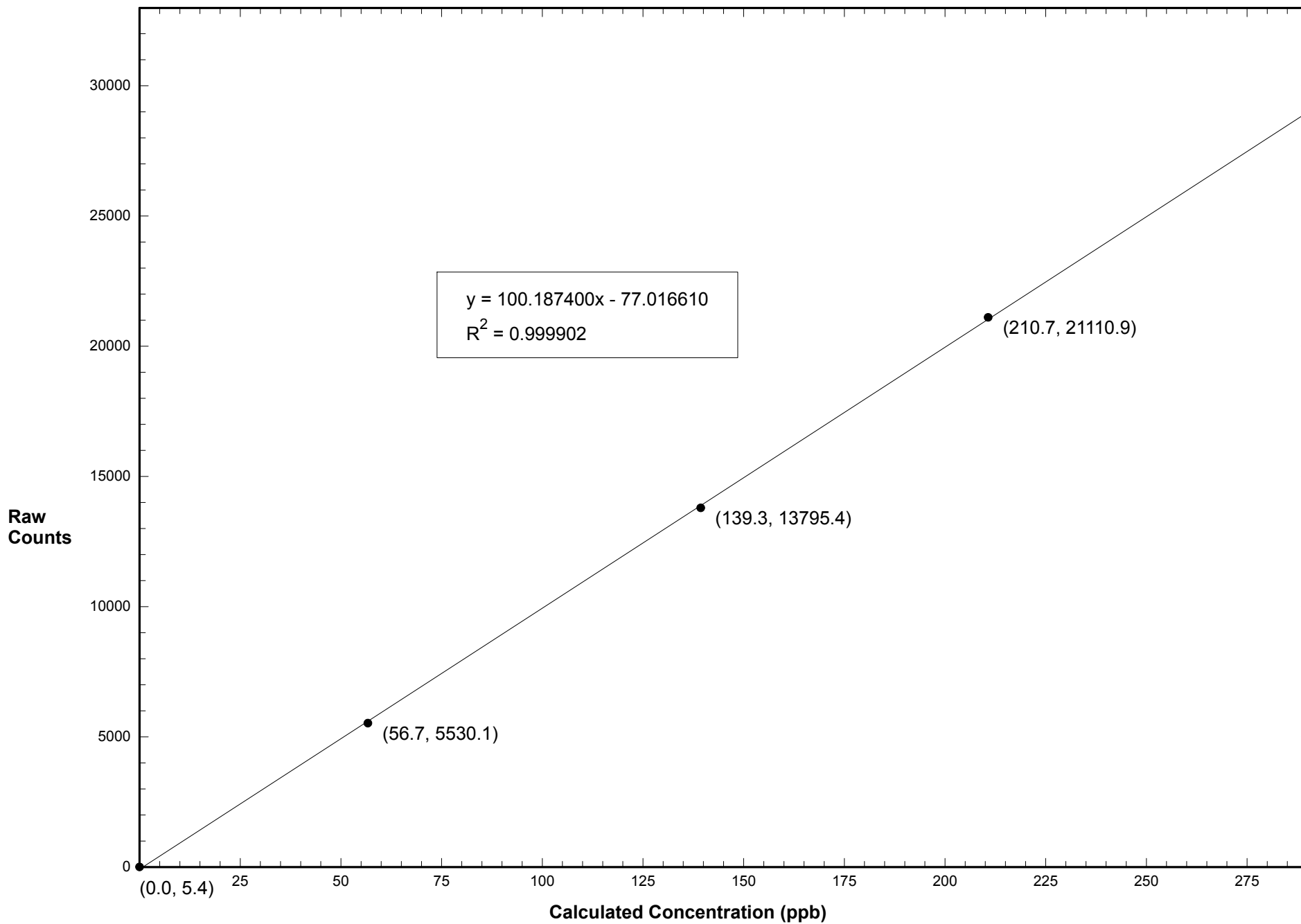
September 24, 2014 - Station 907

NO Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>		
0.06909	3.042	275.4	27540.4	275.1	1.001		
0.04171	3.040	167.8	16853.7	168.3	0.997		
0.02150	3.039	87.1	8721.0	87.1	1.000		
0.00000	2.964	0.0	-22.5	-0.2			
NO Calibration					Average Correction Factor:	0.999	
0.06909	3.042	277.6	27755.9	277.3	1.001		
0.04171	3.040	169.2	16981.3	169.7	0.997		
0.02150	3.039	87.8	8788.1	87.8	1.000		
0.00000	2.964	0.0	-24.5	-0.2			
NO <sub>x</sub> Calibration					Average Correction Factor:	0.999	
Reference Concentration NO (ppb)	Raw Count Output NO	Calculated Concentration NO (ppb)	Calculated Concentration NO <sub>2</sub> , C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>	Converter Efficiency C <sub>i</sub> /C <sub>c</sub>
275.9	6527.7	65.2	210.7	21110.9	211.5	0.996	1.004
275.9	13676.0	136.6	139.3	13795.4	138.5	1.006	0.994
275.9	21950.5	219.2	56.7	5530.1	56.0	1.013	0.987
			0.0	5.4	0.8		
					Average Correction Factor:	1.005	
NO <sub>2</sub> Gas Phase Titration					Average Converter Efficiency:	0.995	
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	0.999	1.001	0.2				
NO <sub>2</sub>	1.001	0.996	-0.5				
NO <sub>x</sub>	0.999	1.001	0.2				

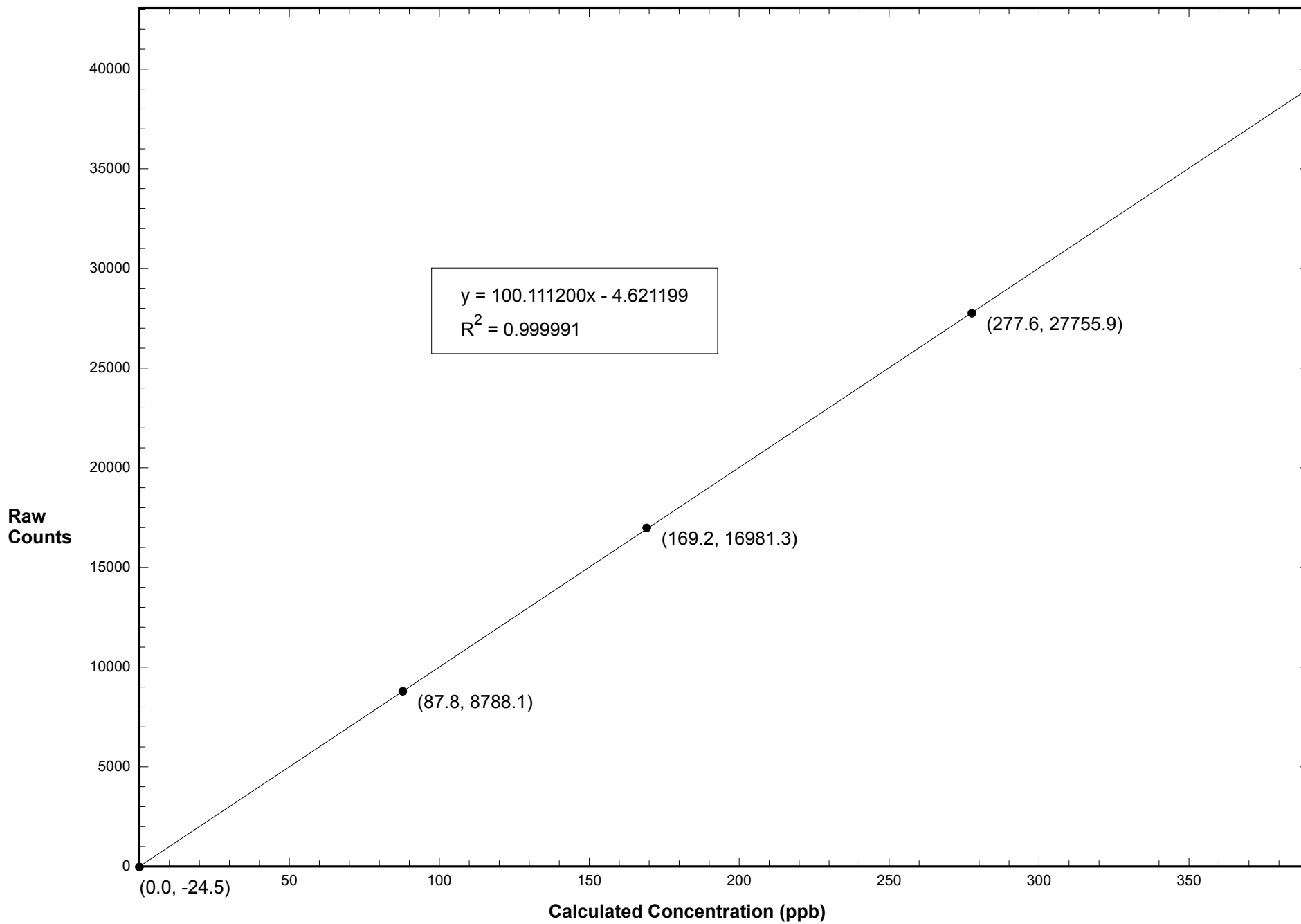
# Station 907 NO September 24, 2014: Linear Regression



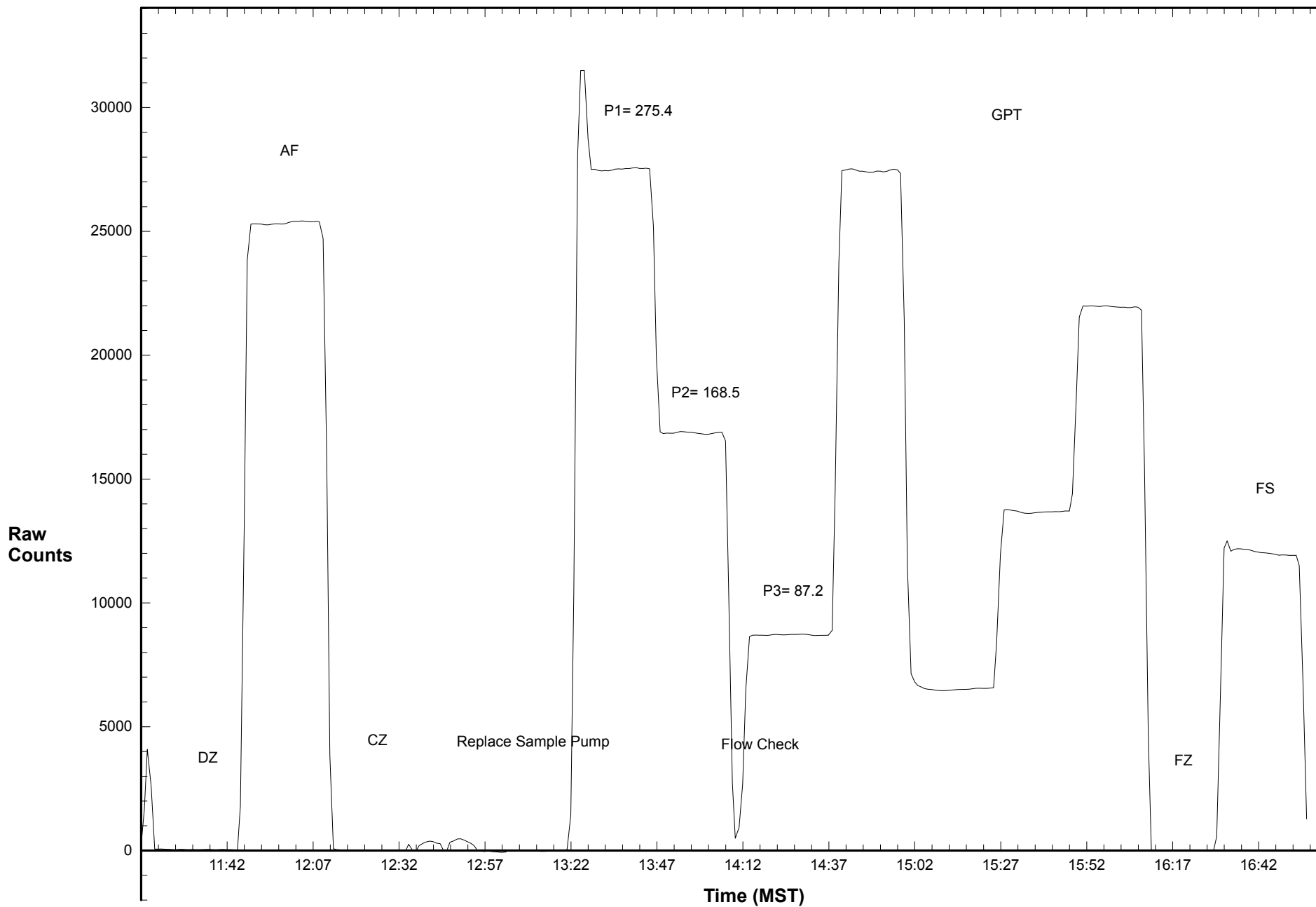
# Station 907 NO2 September 24, 2014: Linear Regression



# Station 907 NOX September 24, 2014: Linear Regression



# Station 907 NO September 24, 2014: Calibration Graph





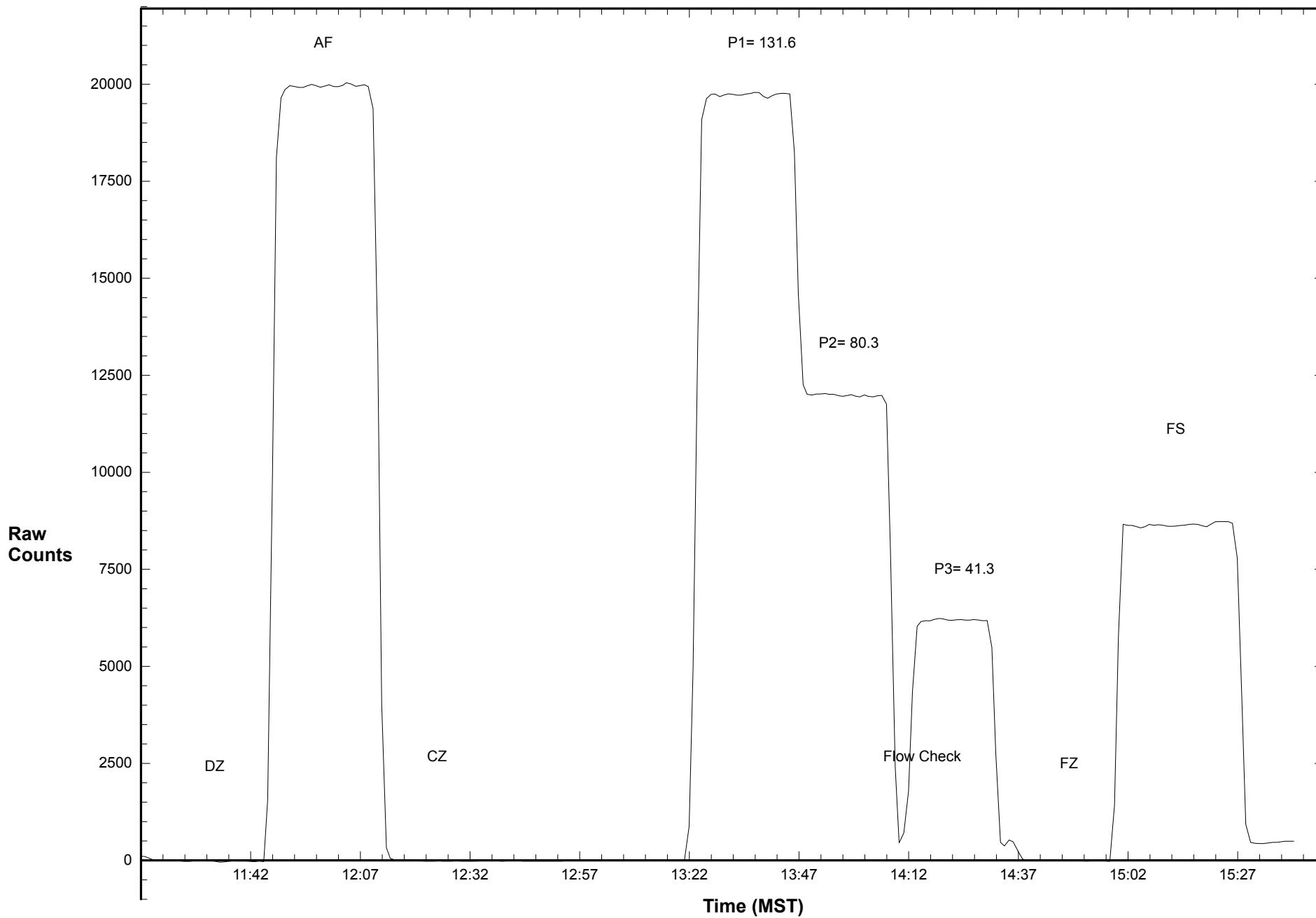








# Station 907 SO2 September 24, 2014: Calibration Graph



**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 907  
POWERS  
SEPTEMBER 2014**

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



**WCAS - Power**  
**Summary of Hourly Averages**

**External Temperature (ET) - C**  
**September 2014**

Maximum Value: 27.91 C on Sep 21 16:00      Maximum Daily Average: 18.81 C on Sep 22																							Hours in Service:	720			
Minimum Value: -1.7 C on Sep 11 05:00      Minimum Daily Average: 1.08 C on Sep 8																							Hours of Data:	692			
Maximum Diurnal Average: 16.29 C at hour 16      Minimum Diurnal Average: 7.27 C at hour 7																							Hours of Missing Data:	28			
Monthly Average: 11.103 C      Percentiles: P <sub>1</sub> = -0.7 P <sub>10</sub> = 3.3 Q <sub>1</sub> = 7.1 Median = 10.9 Q <sub>3</sub> = 14.8 P <sub>90</sub> = 19.9 P <sub>99</sub> = 26.6																							Hours of Calibration:	0			
																							Percent Operational Time:	96.1			
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-Sep	9.3	9.0	8.4	8.6	7.6	7.5	7.8	9.5	10.2	11.6	AF	14.5	5.5	AF	16.9	15.4	12.8	12.7	12.5	10.7	9.8	9.1	8.9	8.6	10.31	16.85	
2-Sep	8.9	9.2	9.1	9.3	9.2	8.9	8.8	10.0	AF	10.3	AF	13.7	14.1	15.1	15.7	15.6	14.4	AF	AF	10.0	8.8	7.9	7.4	8.0	10.72	15.72	
3-Sep	7.8	8.2	7.8	8.0	8.5	8.5	8.3	8.5	AF	AF	AF	AF	AF	AF	14.9	AF	AF	AF	AF	17.7	AF	9.2	8.3	8.4	9.0	--	17.75
4-Sep	9.1	9.1	8.3	8.9	9.3	8.9	8.9	9.3	11.7	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	11.0	10.4	9.9	9.5	--	11.69	
5-Sep	9.0	9.1	9.3	9.0	7.4	5.7	6.0	9.4	11.3	AF	15.1	16.4	18.0	19.2	20.3	19.9	20.1	19.3	17.9	16.8	15.4	14.6	13.1	13.7	13.74	20.27	
6-Sep	12.8	11.5	11.1	11.0	10.9	10.8	11.2	12.9	15.9	18.0	20.2	21.8	22.7	23.7	24.2	24.7	24.9	25.2	25.3	17.9	16.5	15.3	13.4	11.7	17.24	25.34	
7-Sep	12.7	14.3	14.0	13.8	13.1	12.2	11.3	11.4	11.1	11.1	12.0	12.3	13.0	13.6	12.5	12.5	10.3	7.6	6.6	5.8	4.5	3.9	3.5	3.0	10.25	14.31	
8-Sep	1.4	0.7	0.8	0.6	0.4	0.3	0.2	0.1	0.0	0.1	0.3	1.0	1.2	1.8	1.9	2.3	2.2	2.0	1.5	1.4	1.4	1.4	1.4	1.3	1.08	2.30	
9-Sep	1.3	1.2	1.2	1.1	0.8	0.6	0.4	0.6	1.3	1.8	2.5	3.0	4.1	4.3	3.7	3.7	3.4	3.7	3.3	2.6	2.3	2.1	2.0	1.9	2.20	4.33	
10-Sep	1.7	1.8	1.8	1.4	1.3	1.1	1.2	1.2	1.4	2.6	4.3	5.2	4.8	5.7	6.3	6.4	6.9	7.4	5.5	3.6	2.5	1.8	0.3	-0.6	3.16	7.40	
11-Sep	-0.9	-0.8	-1.2	-1.5	-1.7	-1.3	-1.7	-0.2	1.6	3.3	5.3	8.1	10.0	11.5	12.7	12.9	13.1	12.8	11.2	7.6	7.3	7.4	7.3	6.6	5.39	13.05	
12-Sep	5.4	5.4	5.5	5.6	5.8	6.1	6.6	7.4	8.4	7.3	6.2	6.4	7.0	7.8	8.8	10.5	10.6	10.2	9.9	9.2	8.0	7.4	6.9	6.5	7.45	10.58	
13-Sep	6.3	6.1	5.2	5.5	4.5	4.2	3.9	3.4	7.3	8.7	9.6	9.6	11.1	11.9	12.9	13.0	14.0	13.9	10.6	7.9	7.9	7.3	6.9	6.8	8.26	13.95	
14-Sep	6.6	6.3	6.5	5.8	6.0	5.3	5.4	6.8	10.0	12.1	13.5	15.7	16.5	17.1	18.4	18.7	18.5	18.6	16.9	11.9	11.0	11.2	10.8	11.2	11.70	18.69	
15-Sep	10.5	11.0	12.2	10.5	8.1	8.1	6.2	8.9	11.2	14.5	17.0	19.9	21.4	22.5	22.2	22.7	24.0	24.9	22.3	13.9	12.1	12.2	12.6	12.4	15.05	24.95	
16-Sep	11.9	11.8	11.0	10.7	10.2	10.0	10.0	10.8	12.8	15.4	17.6	19.7	21.6	23.6	24.5	25.5	26.0	26.6	21.1	14.8	13.7	11.5	11.2	10.3	15.92	26.56	
17-Sep	9.8	9.2	8.8	8.5	7.7	7.1	7.0	10.1	13.4	15.6	17.1	18.5	19.9	20.6	21.1	20.5	21.6	21.6	16.9	13.4	12.3	14.7	16.0	16.9	14.51	21.60	
18-Sep	14.8	15.1	15.4	15.1	14.0	13.0	12.7	12.8	13.3	13.7	14.0	13.9	14.1	14.5	14.8	14.9	16.0	17.4	14.8	12.5	10.9	11.3	13.6	12.8	13.96	17.35	
19-Sep	12.2	11.3	10.8	10.4	10.7	11.0	10.9	11.4	12.8	14.2	15.6	17.5	19.2	20.3	20.8	21.2	20.1	19.8	17.4	16.1	15.7	14.2	13.5	13.4	15.02	21.19	
20-Sep	11.9	11.2	11.2	10.5	9.2	8.7	7.7	8.3	11.4	13.1	14.9	16.2	17.3	18.7	19.7	20.4	21.2	21.1	19.4	13.8	14.4	15.5	14.6	14.0	14.35	21.17	
21-Sep	13.3	12.7	11.7	11.4	10.0	11.1	9.8	12.1	15.8	19.3	21.5	23.8	25.3	26.6	27.5	27.9	27.8	25.7	22.8	19.9	18.9	17.5	16.3	16.1	18.53	27.91	
22-Sep	15.2	15.0	13.8	12.1	11.1	11.2	11.0	13.0	13.7	16.1	20.5	22.1	24.7	26.8	27.6	26.7	25.1	26.6	21.7	20.4	21.0	19.6	18.6	17.7	18.81	27.61	
23-Sep	15.5	15.4	15.2	14.0	11.6	11.3	11.4	11.5	13.5	15.3	16.4	17.3	17.7	18.8	19.2	21.8	21.6	20.6	15.8	13.7	13.6	12.8	11.9	12.6	15.35	21.83	
24-Sep	12.6	12.4	12.5	12.1	11.7	11.5	10.9	10.9	11.9	13.2	15.4	17.8	19.2	20.1	20.7	22.5	21.5	21.7	18.4	17.8	16.4	15.0	13.2	12.0	15.47	22.47	
25-Sep	11.4	10.1	9.5	10.1	10.9	10.9	11.2	11.5	13.0	14.9	16.0	16.5	17.6	18.2	19.3	18.5	17.4	15.9	14.7	13.6	11.8	10.2	8.6	7.9	13.32	19.30	
26-Sep	8.6	8.9	8.3	8.5	8.3	8.0	7.9	7.8	7.6	7.6	7.7	7.7	7.8	8.0	8.7	9.3	9.9	10.1	9.5	8.0	7.1	6.3	5.8	5.3	8.03	10.08	
27-Sep	5.2	4.8	4.6	5.0	4.9	4.6	4.1	3.9	4.0	4.4	4.9	6.1	6.2	6.2	5.6	5.2	5.0	4.5	4.1	4.0	3.7	3.3	3.5	3.6	4.64	6.24	
28-Sep	3.3	3.1	3.0	3.1	3.3	3.6	3.9	4.4	5.4	6.2	7.3	8.4	9.1	10.3	11.8	14.1	15.0	14.6	12.6	11.0	10.0	9.1	8.3	7.7	7.86	14.96	
29-Sep	7.2	6.7	6.9	6.6	6.5	6.2	5.3	5.5	8.0	9.8	11.3	12.4	13.5	15.5	15.0	15.7	15.6	14.5	11.6	9.4	9.5	9.2	8.5	8.5	9.95	15.71	
30-Sep	8.5	10.0	10.6	10.6	10.5	10.0	9.7	9.6	9.8	10.5	11.0	11.3	12.2	13.1	13.9	13.4	13.8	12.7	11.0	9.8	8.1	6.9	5.8	5.6	10.35	13.92	
																							Diurnal Average				
																							Diurnal Maximum				
																							AF - Analyzer Failure				



**WCAS - Power**  
**Summary of Hourly Averages**

**Wind Speed (WS) - kph**  
**September 2014**

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	9.3	10.1	8.0	6.7	5.9	7.8	7.7	10.4	7.8	4.1	3.6	8.8	9.5	3.2	6.7	9.9	5.6	6.6	6.3	6.2	8.7	8.9	8.6	9.2	5.39	10.39	
Dir	W	W	W	W	WSW	WSW	SW	WSW	WSW	SSW	WSW	NNW	NNW	NW	N	NNE	NW	W	WSW	SW	SW	WSW	WSW	SW	W	WSW	
2 Spd	6.4	9.7	7.5	7.8	8.4	7.7	8.4	8.9	7.6	9.7	11.7	13.7	14.7	10.7	13.2	15.7	15.3	12.3	7.0	3.5	1.4	2.6	3.2	3.2	6.33	15.71	
Dir	SSW	SW	SW	WSW	WSW	W	W	W	WNW	WNW	NW	WNW	NW	NW	NW	NNW	NNE	NNE	N	NNW	NW	W	WNW	W	WNW	NNW	
3 Spd	3.8	3.0	3.2	3.4	6.2	1.9	7.1	4.1	6.6	9.9	8.7	8.8	9.3	11.6	7.7	12.0	11.2	9.1	4.1	2.2	7.6	8.9	8.8	8.3	4.04	12.00	
Dir	WNW	WNW	NW	WNW	NW	WNW	NW	WNW	NNW	NW	NW	NW	N	W	NNW	NW	NNW	NNW	N	SSE	SSE	SSE	S	SSW	NW	NW	
4 Spd	10.2	11.9	10.7	11.3	9.6	10.4	10.4	8.2	10.4	9.6	14.2	16.6	17.7	16.7	17.7	15.4	16.4	18.1	11.0	7.6	7.4	9.1	8.5	9.2	10.86	18.09	
Dir	SW	SW	SW	SW	WSW	W	WNW	W	WNW	W	W	WNW	WNW	WNW	WNW	W	WNW	NW	NW	WNW	W	WNW	W	W	W	W	
5 Spd	8.4	8.9	3.7	4.2	2.1	4.4	6.4	10.5	12.7	12.9	11.8	11.0	10.9	12.8	16.2	11.9	5.5	7.4	5.9	7.8	10.7	7.3	8.0	8.7	7.20	16.23	
Dir	W	WNW	WNW	WSW	WSW	SSW	S	SSW	SW	WSW	SW	SW	SW	SW	SW	W	NW	NNW	WNW	W	WNW	WNW	W	W	WSW	SW	
6 Spd	7.4	9.5	10.8	11.5	11.0	13.2	12.3	11.8	11.5	11.9	9.9	11.8	17.1	16.9	17.7	15.4	12.9	6.8	3.7	8.8	11.1	10.2	3.9	4.4	8.91	17.67	
Dir	W	WSW	WSW	WSW	WSW	SW	WSW	SW	WSW	W	WSW	W	W	WNW	WNW	WNW	WNW	W	S	SSE	S	S	WSW	WSW	WSW	WSW	
7 Spd	9.5	8.8	7.2	5.3	6.3	5.5	2.7	5.9	13.3	11.5	13.8	6.8	4.4	6.4	9.7	8.7	16.5	16.8	18.3	19.4	19.1	17.5	15.0	18.3	7.70	19.40	
Dir	WNW	W	W	W	W	SW	WSW	NNW	N	N	NNE	NNE	SW	W	WNW	W	N	NNE	NNE	NNE	NNE	NNE	NE	NNE	N	NNE	
8 Spd	17.4	14.8	15.8	13.2	12.0	12.8	10.8	14.1	16.2	14.7	12.5	13.4	10.8	8.5	8.3	7.2	7.5	5.0	5.8	3.5	2.1	2.0	2.2	3.9	9.37	17.43	
Dir	NNE	NNE	NNE	NNE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	E	E	E	ENE	ENE	E	E	NE	NNE
9 Spd	3.4	4.5	5.7	5.3	4.5	5.6	5.0	6.4	6.0	9.6	9.2	8.5	9.7	8.1	7.5	6.3	7.2	7.4	8.4	7.6	7.3	5.9	5.2	6.9	6.48	9.69	
Dir	E	E	E	E	ENE	E	E	E	E	ESE	ESE	E	ESE	E	ESE	SE	SE	ESE	E	E	E	E	ENE	ENE	E	ESE	
10 Spd	8.2	6.6	6.5	6.9	6.9	7.1	9.0	8.1	7.2	8.7	9.0	8.7	7.3	8.2	7.8	7.2	3.8	4.0	0.2	1.0	3.3	4.2	7.9	9.0	5.28	9.04	
Dir	ENE	E	ENE	ENE	ENE	ENE	E	ENE	ENE	E	ENE	ENE	NE	NE	ENE	NNE	NE	NE	SSE	S	S	SE	SSE	S	ENE	E	
11 Spd	10.6	9.1	7.7	9.8	12.3	12.1	11.4	9.5	11.0	12.9	14.7	14.4	13.8	12.0	12.1	15.5	12.5	13.1	8.5	8.1	9.2	11.1	11.4	11.1	10.93	15.50	
Dir	S	S	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SSW	S	SSW	SSW	SSW	SW	SSW	SW	
12 Spd	12.3	10.7	11.9	11.7	10.3	11.9	10.3	14.4	19.3	17.0	14.1	13.7	10.8	13.1	15.2	15.4	13.7	12.2	13.9	16.8	12.1	9.9	8.3	6.9	11.58	19.25	
Dir	SW	SW	WSW	WSW	WSW	W	WNW	WNW	NW	NW	NW	WNW	W	W	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	WNW	WNW	WNW	
13 Spd	6.2	6.8	7.4	7.2	5.8	6.2	4.3	4.0	0.7	3.8	7.3	8.9	7.8	9.5	8.7	10.3	8.5	6.2	6.0	6.6	8.9	10.1	11.0	10.7	4.99	10.96	
Dir	WNW	WNW	WNW	WNW	WNW	WNW	WNW	SW	W	SW	SW	SW	SW	SW	SSW	SW	SSW	S	SSE	SSE	S	S	S	S	SW	SW	
14 Spd	8.3	5.4	5.3	5.9	5.7	4.4	4.8	6.6	6.6	7.4	6.6	8.4	10.1	10.1	10.3	10.6	8.8	7.4	1.4	6.3	10.1	11.3	9.4	10.6	4.57	11.28	
Dir	S	SSW	SW	SW	SW	SSW	SW	WSW	W	W	WNW	WNW	NW	WNW	NW	NW	WNW	W	SSW	SSE	S	S	S	SSW	WSW	S	
15 Spd	11.4	13.4	15.5	8.7	9.2	1.3	4.1	6.4	6.7	5.0	4.5	3.4	2.3	3.7	5.8	4.5	1.0	2.2	5.3	6.2	7.5	9.1	9.7	10.2	4.46	15.46	
Dir	SSW	SW	SSW	SW	SW	WNW	SSW	WSW	W	WNW	NNW	N	NNE	NNW	WNW	W	WNW	SSW	SSE	S	S	S	S	S	SW	SSW	
16 Spd	11.1	9.9	11.4	9.5	8.5	6.8	5.5	7.5	8.3	9.1	7.4	7.0	4.2	4.3	4.3	2.9	2.9	2.7	1.9	3.3	4.0	4.5	1.5	5.3	4.63	11.38	
Dir	S	S	S	S	S	SSW	SSW	SSW	SW	WSW	WSW	SW	WSW	WNW	WNW	W	W	ENE	SSE	SSW	WSW	WSW	S	S	SSW	S	
17 Spd	3.0	2.7	2.7	0.2	1.7	2.0	5.6	4.7	5.0	5.1	6.5	6.7	7.1	7.2	8.1	8.0	6.6	4.3	3.4	2.5	5.4	6.0	9.6	4.3	4.58	9.62	
Dir	S	S	WSW	E	S	S	SSE	S	SW	S	SSW	SW	S	SW	SSW	SW	SW	SW	S	S	S	S	S	S	SSW	S	
18 Spd	1.3	6.6	5.1	6.5	8.7	8.2	6.5	4.9	7.4	7.9	6.3	5.6	6.7	5.4	6.4	6.8	5.9	3.3	1.3	2.0	4.1	7.0	14.4	11.0	4.57	14.44	
Dir	NNW	NW	NNW	NNE	WNW	NNW	NNW	NNW	NW	NW	NW	NW	WNW	W	WSW	WSW	W	NNW	SSW	SE	S	SW	W	WSW	WNW	W	
19 Spd	10.7	11.8	10.4	10.5	12.6	13.5	10.3	5.8	14.2	12.3	11.4	13.3	14.2	19.3	21.8	20.6	16.7	18.2	15.5	13.7	12.8	14.7	17.8	21.2	12.56	21.77	
Dir	WSW	WSW	WSW	SW	WSW	WSW	SW	SW	WSW	WSW	W	W	W	W	W	NW	WNW	NW	WNW	WNW	WNW	NW	NW	NW	W	W	
20 Spd	13.4	14.8	16.0	15.1	10.5	9.2	6.6	7.9	9.2	11.3	9.5	11.0	13.1	12.5	16.5	18.1	14.0	8.0	5.9	6.8	9.7	12.7	10.7	11.3	9.45	18.05	
Dir	NW	NW	NW	WNW	WNW	WNW	W	W	W	WNW	WNW	W	W	W	W	W	W	W	S	SSW	SSW	SW	SW	SW	W	W	
21 Spd	10.7	11.4	9.3	5.8	4.6	7.0	6.2	7.8	10.0	11.5	14.3	17.5	19.2	17.9	16.6	17.0	14.6	12.0	8.8	12.2	13.8	14.0	14.9	11.1	11.01	19.18	
Dir	SW	WSW	SW	SSW	SSW	SSW	SSE	S	S	SSE	SSE	S	S	S	S	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	S	S	
22 Spd	9.9	10.8	8.1	6.8	8.2	7.1	6.8	7.0	9.4	11.4	9.0	11.1	8.7	5.0	4.9	4.8	5.6	6.9	8.1	8.8	14.0	16.3	9.3	6.1	6.36	16.27	
Dir	SW	WSW	WSW	SW	SW	SW	SSW	SSW	SW	SW	SW	SW	WSW	SW	SW	SW	S	S	SSE	S	WNW	NW	NW	NNW	WSW	NW	



**WCAS - Power**  
**Summary of Hourly Averages**

**Wind Speed (WS) - kph**  
**September 2014**

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	5.7	11.6	14.8	9.3	3.5	7.7	9.3	6.3	10.8	9.8	9.1	7.4	7.6	5.4	3.5	4.1	6.4	7.1	6.8	8.6	9.8	9.7	9.7	16.9	2.93	16.88		
Dir	NW	WNW	NW	NW	WSW	W	W	W	WNW	WNW	NW	NW	WSW	W	NNW	SSE	SSE	SE	SE	SSE	SSE	SSE	SSE	SSE	WSW	SSE		
24 Spd	17.9	17.2	19.7	21.0	18.9	16.8	15.2	11.1	6.8	8.5	8.7	9.6	10.3	8.1	5.1	6.7	5.8	5.9	4.9	19.9	21.5	11.0	8.5	6.8	6.18	21.53		
Dir	SSE	SSE	SE	SE	SSE	SE	SSE	SSE	SE	SSE	SSE	SSE	SSE	SE	ESE	ESE	SE	ESE	WNW	NW	NW	NNW	W	WSW	SSE	NNW		
25 Spd	6.4	3.3	8.2	4.1	4.8	3.4	4.0	3.2	1.6	2.9	5.0	7.6	5.1	12.2	15.8	16.2	15.2	15.0	15.8	13.8	18.7	17.6	21.1	15.2	6.36	21.06		
Dir	WSW	SSW	WSW	SW	SW	SW	W	WNW	NNW	SE	ESE	ESE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	NE	NNE	NNE		
26 Spd	12.3	7.3	5.7	10.6	10.1	7.7	9.3	8.2	5.4	5.4	6.3	8.6	11.5	10.5	9.7	12.0	8.5	8.3	14.2	15.1	15.1	13.2	12.9	12.9	7.44	15.11		
Dir	NE	NW	NNE	ENE	NE	NE	NE	NE	NNE	N	NNW	NNW	NNW	NW	NW	NW	NNW	NW	NW	NW	WNW	WNW	WNW	WNW	NNW	NW		
27 Spd	15.6	13.5	10.4	11.5	10.4	9.6	9.4	9.2	11.9	11.3	9.2	10.5	7.7	7.0	7.6	7.1	8.7	10.3	7.9	9.3	9.9	12.4	14.3	4.10	15.56			
Dir	NW	NW	WNW	NW	NW	NNW	NW	N	N	NNE	NNE	NNE	NNE	NE	E	ENE	E	E	ESE	ESE	ESE	SE	SE	NNE	NW			
28 Spd	18.3	21.5	19.8	18.0	14.3	14.2	17.4	16.5	18.0	17.4	17.6	19.5	16.5	18.0	19.3	21.5	19.4	18.2	14.8	16.6	18.2	16.3	16.0	14.4	17.41	21.52		
Dir	SSE	SSE	SSE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE		
29 Spd	13.3	15.7	20.7	20.1	20.1	13.0	10.2	8.5	9.7	11.3	11.4	11.4	7.7	4.9	5.2	2.8	1.2	2.8	0.6	2.5	2.6	2.7	3.8	5.8	6.12	20.71		
Dir	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	SSW	SSW	SSW	SW	W	NNE	NW	NE	SSW	W	NW	NNW	NW	NNW	S	SSE		
30 Spd	7.0	17.3	17.8	14.4	15.4	16.8	17.4	17.9	21.0	21.3	22.4	22.5	23.4	28.9	30.4	28.8	25.9	21.5	16.4	12.6	7.5	8.0	6.5	8.7	17.59	30.37		
Dir	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	W	W	W	NW	NW		
Spd	3.36	4.38	3.83	2.91	3.39	3.10	2.62	2.78	3.50	3.43	3.34	3.95	4.12	4.93	5.03	4.92	3.33	2.32	0.71	1.14	2.07	2.34	3.08	3.11	Diurnal Average			
Dir	SW	WSW	WSW	SW	SW	WSW	SW	WSW	W	W	W	W	W	W	W	WNW	WNW	NW	NW	WNW	WSW	WSW	SW	SW	SW	Diurnal Maximum		
Spd	18.30	21.52	20.71	20.98	20.08	16.83	17.39	17.87	20.98	21.33	22.42	22.46	23.43	28.87	30.37	28.80	25.94	21.54	18.30	19.92	21.53	17.58	21.06	21.17	Diurnal Maximum			
Dir	147.10	147.19	156.39	145.25	154.21	316.02	146.61	310.97	317.55	314.87	315.07	307.81	306.54	316.73	322.23	318.23	319.17	316.00	21.16	321.19	326.28	25.98	15.68	319.47				
Maximum Speed Value: 30.4 kph on Sep 30 15:00																			Minimum Speed Value: 0.2 kph on Sep 17 04:00					Hours in Service:				720
Maximum Daily Speed Average: 17.59 kph on Sep 30																			Minimum Daily Speed Average: 2.93 kph on Sep 17					Hours of Data:				720
Maximum Diurnal Speed Average: 5.03 kph at hour 15																			Minimum Diurnal Speed Average: 0.71 kph at hour 19					Hours of Missing Data:				0
Monthly Average Velocity: 2.903 kph 258.38 deg																			Speed Percentiles: P <sub>1</sub> = 1.3 P <sub>10</sub> = 4.0 Q <sub>1</sub> = 6.4 Median = 9.0 Q <sub>3</sub> = 12.5 P <sub>90</sub> = 16.7 P <sub>99</sub> = 22.4					Percent Operational Time:				100.0
All monthly, daily, and diurnal averages have been calculated using vector methods																												
Frequency Distribution																												
	Speed Range (kph)																											
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																					
North	7	18	15	3	0	0	43																					
NorthEast	7	24	21	0	0	0	52																					
East	8	33	0	0	0	0	41																					
SouthEast	4	22	27	7	0	0	60																					
South	19	60	26	5	0	0	110																					
SouthWest	26	75	38	0	0	0	139																					
West	22	78	32	2	0	0	134																					
NorthWest	16	55	55	12	3	0	141																					
Total	109	365	214	29	3	0	720																					



**WCAS - Power**  
**Summary of Hourly Averages**

**Relative Humidity (RH) - %**  
**September 2014**

<b>Maximum Value: 101.43 % on Sep 8 08:00</b> <b>Maximum Daily Average: 94.95 % on Sep 8</b>																							<b>Hours in Service: 720</b> <b>Hours of Data: 720</b>			
<b>Minimum Value: 27.0 % on Sep 22 15:00</b> <b>Minimum Daily Average: 50.08 % on Sep 20</b> <b>Maximum Diurnal Average: 88.64 % at hour 7</b> <b>Minimum Diurnal Average: 52.74 % at hour 16</b> <b>Monthly Average: 73.008 %</b> <b>Percentiles: P<sub>1</sub> = 29.1 P<sub>10</sub> = 43.4 Q<sub>1</sub> = 59.6 Median = 76.5 Q<sub>3</sub> = 88.9 P<sub>90</sub> = 96.2 P<sub>99</sub> = 100.7</b>																							<b>Hours of Missing Data: 0</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-Sep	72.8	74.7	78.8	77.0	80.8	80.8	77.4	78.6	73.5	74.4	66.8	62.9	63.0	54.4	52.4	57.8	75.7	82.4	81.7	91.5	93.4	95.2	96.8	96.5	76.63	96.78
2-Sep	95.0	93.3	94.7	94.7	95.0	95.9	96.7	93.2	85.6	76.4	69.6	65.4	63.6	60.8	58.0	58.1	65.1	62.6	72.0	82.1	89.5	95.7	97.2	97.7	81.58	97.66
3-Sep	97.8	97.4	97.8	98.2	98.5	98.2	98.4	98.2	95.8	84.2	74.4	66.4	53.7	62.5	57.0	53.9	45.3	46.4	43.1	70.0	81.9	85.1	88.6	91.2	78.50	98.48
4-Sep	88.9	81.5	85.7	83.2	81.9	83.6	84.8	82.1	72.1	68.8	59.8	55.7	53.4	52.9	45.9	51.4	51.1	49.8	60.5	63.9	71.1	70.8	73.3	74.0	68.58	88.86
5-Sep	75.0	77.1	77.5	79.3	88.7	96.0	95.0	87.8	80.0	67.4	59.8	56.2	47.2	39.6	34.2	34.8	38.9	44.6	50.1	56.3	61.0	64.5	70.1	68.7	64.57	95.96
6-Sep	71.3	75.5	76.1	73.5	73.4	75.8	73.6	70.8	60.9	52.8	45.8	40.0	35.7	33.0	30.1	29.0	29.2	30.0	38.7	63.0	60.6	62.1	71.2	79.0	56.30	79.01
7-Sep	75.2	64.5	61.8	60.4	62.9	66.9	71.6	75.7	84.2	92.3	93.3	91.8	90.9	87.7	91.0	92.4	94.0	97.2	96.3	97.7	99.9	100.0	99.1	98.4	85.22	100.04
8-Sep	98.9	100.7	100.7	100.5	100.9	101.2	101.2	101.4	101.2	100.0	99.3	96.2	93.3	86.1	84.2	84.2	84.5	86.4	88.9	92.6	95.2	95.0	93.8	92.4	94.95	101.43
9-Sep	92.7	94.8	94.2	93.8	97.0	98.3	99.6	99.5	97.7	94.6	90.9	89.6	81.7	79.0	81.7	84.4	86.9	84.1	84.5	88.0	90.4	94.1	96.7	97.2	91.31	99.63
10-Sep	97.4	97.5	97.9	99.4	99.8	100.1	99.6	98.4	97.1	90.6	75.1	61.6	60.5	54.2	51.5	49.2	47.0	43.3	58.1	77.1	84.7	86.3	88.1	94.2	79.52	100.12
11-Sep	96.3	96.0	97.6	97.5	97.9	97.4	97.6	92.6	86.7	78.9	63.7	52.9	46.9	39.8	33.7	30.6	31.2	32.8	39.1	60.0	58.6	61.9	64.3	66.6	67.52	97.85
12-Sep	74.4	76.8	82.7	78.2	76.6	76.5	74.0	65.0	59.5	76.6	93.2	94.1	91.5	90.3	84.6	75.1	71.6	74.1	76.2	81.0	93.3	94.9	96.7	97.4	81.44	97.40
13-Sep	97.1	97.6	98.6	98.4	98.9	99.4	97.9	99.4	86.4	72.0	64.7	62.8	56.8	52.7	49.1	49.0	46.7	46.3	63.6	77.8	74.4	75.3	77.2	79.1	75.88	99.41
14-Sep	81.0	82.9	84.6	88.7	91.1	94.2	94.8	91.4	76.7	64.6	60.8	53.6	51.1	47.9	43.4	41.5	42.7	42.3	55.7	77.5	73.3	69.6	71.8	69.6	68.79	94.79
15-Sep	73.6	70.2	63.4	69.9	81.0	79.1	91.3	79.5	71.9	62.0	54.9	43.7	37.9	35.7	36.0	35.6	33.5	33.0	46.7	76.3	76.8	72.4	69.2	71.3	61.04	91.26
16-Sep	71.9	70.7	74.4	75.9	79.0	79.8	82.3	81.4	76.0	64.8	56.6	51.3	47.3	40.6	36.2	34.2	32.8	31.9	57.6	79.1	79.4	86.9	83.0	84.6	64.90	86.86
17-Sep	87.7	92.6	94.5	96.7	98.0	98.6	98.9	95.4	82.2	69.4	59.6	54.0	49.5	48.5	46.7	49.2	49.4	53.9	75.1	87.5	86.6	71.7	65.6	57.7	73.70	98.88
18-Sep	72.3	69.6	65.5	67.8	77.2	85.6	85.1	84.3	83.6	82.9	81.5	81.9	83.3	80.7	78.3	79.3	74.7	69.2	81.7	92.3	96.1	96.1	88.4	92.0	81.23	96.13
19-Sep	91.6	93.3	95.2	95.4	93.9	90.9	90.1	85.9	83.1	76.5	70.4	59.6	48.2	40.3	36.8	35.2	35.4	34.0	35.1	40.7	38.1	41.7	42.1	41.3	62.28	95.39
20-Sep	47.7	50.8	50.9	54.0	58.7	60.9	66.8	66.7	56.4	51.3	46.0	41.8	37.4	33.1	29.4	29.5	31.3	34.0	44.6	65.1	60.3	59.7	61.8	63.4	50.08	66.83
21-Sep	65.1	67.0	70.5	73.6	79.4	78.4	83.0	74.0	62.4	48.6	43.6	36.9	31.3	28.5	27.2	27.3	27.1	32.0	39.9	47.7	50.1	54.2	58.4	59.3	52.72	82.96
22-Sep	63.4	65.7	70.9	76.9	81.7	81.6	83.5	76.2	69.4	58.1	43.4	37.8	32.4	28.1	27.0	29.7	42.1	37.8	52.7	52.2	47.6	52.4	56.4	59.9	55.30	83.53
23-Sep	70.4	71.6	71.2	73.7	83.3	84.3	84.5	84.4	77.6	68.3	60.1	50.6	47.1	40.6	39.0	34.0	36.1	40.6	57.9	68.3	71.9	74.8	77.7	75.7	64.33	84.53
24-Sep	76.9	78.5	79.3	82.1	85.2	87.2	90.2	90.8	87.4	81.4	73.3	64.7	60.5	56.9	54.6	47.3	53.1	54.5	67.9	67.3	73.3	74.2	81.3	85.1	73.04	90.81
25-Sep	85.0	88.2	92.5	90.4	87.7	88.6	87.8	84.2	80.6	71.8	68.1	65.2	61.3	57.6	52.7	55.5	60.5	67.4	73.0	82.1	93.3	93.3	94.2	94.7	78.15	94.69
26-Sep	91.1	91.2	95.7	92.1	89.5	91.2	92.0	93.1	95.7	97.5	97.8	98.2	97.4	95.8	92.5	88.6	85.6	86.4	79.5	82.1	83.1	83.3	84.2	86.2	90.41	98.23
27-Sep	85.4	85.7	85.5	84.9	84.4	87.3	95.9	97.7	93.3	89.2	82.7	75.0	74.0	73.7	77.5	79.2	79.3	81.8	83.4	84.4	86.7	88.7	87.3	87.6	84.61	97.69
28-Sep	91.5	92.1	92.4	93.7	93.9	93.7	93.4	91.9	88.4	85.7	82.4	78.5	76.0	71.1	66.1	58.7	56.5	57.9	64.6	69.6	71.9	75.5	79.0	81.3	79.41	93.91
29-Sep	82.8	83.7	82.7	85.1	86.7	88.9	94.2	94.0	85.8	78.9	73.0	67.5	65.5	58.1	60.0	58.6	59.4	66.0	78.7	90.4	88.2	89.1	93.1	91.8	79.26	94.24
30-Sep	92.3	89.2	88.3	85.6	86.8	85.3	77.9	74.3	67.9	63.5	61.2	59.4	56.4	53.5	49.4	48.9	45.8	49.7	55.3	61.5	68.6	74.7	79.7	81.2	69.01	92.30
82.08 82.34 83.39 84.02 86.33 87.52 88.64 86.26 80.64 74.77 69.05 63.84 59.83 56.13 53.54 52.74 53.74 55.09 63.41 74.17 76.64 77.97 79.55 80.50																							Diurnal Average			
98.92 100.66 100.66 100.54 100.94 101.23 101.23 101.43 101.20 100.00 99.25 98.23 97.35 95.81 92.54 92.44 94.01 97.23 96.28 97.66 99.89 100.04 99.09 98.36																							Diurnal Maximum			



**WCAS - Power**  
**Summary of Hourly Averages**

**Precipitation (PR) - mm**  
**September 2014**

Maximum Value: 0.30 mm on Sep 26 13:00		Maximum Daily Total: 1.70 mm on Sep 26		Hours in Service: 720																						
Minimum Value: 0.0 mm on Sep 1 01:00		Minimum Daily Total: 0.00 mm on Sep 1		Hours of Data: 720																						
Maximum Diurnal Total: 0.40 mm at hour 13		Minimum Diurnal Total: 0.00 mm at hour 1		Hours of Missing Data: 0																						
Monthly Total: 2.300 mm		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> = 0.0 P <sub>99</sub> = 0.1		Hours of Calibration: 0																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At																								Daily Total	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-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
2-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
3-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
4-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
5-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
8-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
11-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	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	0.20	0.10
12-Sep	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	0.0	0.0	0.0	0.10	0.10
13-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
14-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
15-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	0.10
16-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
17-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
18-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
19-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
20-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
22-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
23-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
24-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
25-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
26-Sep	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.2	0.0	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.70	0.30
27-Sep	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	0.0	0.0	0.10	0.10
28-Sep	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	0.0	0.10	0.10
29-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
30-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
		0.00	0.10	0.00	0.10	0.10	0.10	0.00	0.10	0.30	0.10	0.20	0.10	0.40	0.30	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.10	Diurnal Average	
		0.00	0.10	0.00	0.10	0.10	0.10	0.00	0.10	0.20	0.10	0.10	0.10	0.30	0.20	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.10	Diurnal Maximum	





**WCAS - Power**  
**Summary of Hourly Standard Deviations**

**Wind Speed (WS) - kph**  
**September 2014**

Maximum Value: 7.19 kph on Sep 25 22:00 Minimum Value: 0.4 kph on Sep 16 22:00 Maximum Diurnal Average: 3.65 kph at hour 15 Monthly Average: 2.589 kph		Maximum Daily Average: 4.20 kph on Sep 30 Minimum Daily Average: 1.78 kph on Sep 17 Minimum Diurnal Average: 2.08 kph at hour 22 Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 1.2 Q <sub>1</sub> = 1.6 Median = 2.4 Q <sub>3</sub> = 3.4 P <sub>90</sub> = 4.3 P <sub>99</sub> = 6.3		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																																												
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-Sep	1.5	1.5	1.9	1.6	1.3	1.7	1.8	1.5	2.2	2.2	2.9	3.4	2.7	2.3	3.5	3.6	2.8	2.6	1.7	2.7	1.8	1.0	2.1	1.5	2.15	3.56																						
2-Sep	2.0	2.1	1.1	1.6	1.3	1.4	2.6	2.1	2.1	2.9	3.8	4.6	4.4	3.7	3.8	5.2	3.8	2.7	2.4	1.9	1.4	0.9	1.3	0.7	2.49	5.21																						
3-Sep	1.5	1.1	1.4	1.9	3.5	2.0	2.3	1.8	2.6	2.8	3.0	3.9	4.0	3.9	3.0	3.3	4.1	2.4	2.6	1.4	1.1	2.1	2.1	1.9	2.48	4.12																						
4-Sep	1.5	1.5	1.1	1.2	1.5	1.7	1.6	1.5	2.5	2.7	3.4	3.7	4.0	3.9	4.5	4.1	4.4	4.2	4.3	1.7	1.0	1.1	1.3	1.0	2.46	4.46																						
5-Sep	2.5	1.8	2.4	2.6	1.9	1.0	1.7	2.2	3.0	2.7	2.8	2.9	3.3	4.3	4.8	4.7	1.7	1.7	1.6	1.7	2.2	2.4	1.3	1.8	2.46	4.81																						
6-Sep	0.9	1.8	1.1	1.2	1.7	1.5	1.4	1.4	2.2	2.6	3.0	4.0	4.2	4.6	4.0	4.2	3.2	2.2	1.8	1.5	2.1	1.2	2.5	1.0	2.31	4.63																						
7-Sep	1.9	1.0	1.4	1.4	1.4	1.7	1.0	4.8	4.3	2.8	3.3	4.3	2.4	2.3	2.2	1.9	5.9	4.0	4.1	4.2	4.3	3.8	4.5	4.9	3.07	5.88																						
8-Sep	4.3	3.8	3.9	4.9	3.8	4.1	3.7	4.4	4.7	4.7	4.2	4.4	4.2	3.4	2.6	2.4	3.1	1.7	1.8	1.6	1.0	0.8	0.7	1.0	3.14	4.87																						
9-Sep	0.8	1.1	1.2	1.1	1.8	2.0	1.6	2.0	2.4	2.0	2.2	2.7	3.4	4.0	3.2	2.1	2.4	2.5	2.4	1.7	2.1	1.9	1.9	2.4	2.13	4.01																						
10-Sep	3.1	2.8	2.7	2.9	2.9	3.0	3.3	3.3	2.6	3.4	3.4	3.2	2.6	3.9	3.2	2.9	2.9	2.4	1.3	1.1	1.4	1.5	1.2	1.0	2.58	3.85																						
11-Sep	1.1	1.9	1.5	1.8	1.7	2.2	2.0	2.8	3.7	3.6	4.1	4.5	4.1	4.0	4.4	4.2	3.4	3.6	1.6	1.4	1.9	1.5	1.7	1.6	2.68	4.51																						
12-Sep	1.4	1.1	1.5	2.1	2.4	2.2	2.0	4.6	4.4	4.0	3.0	3.2	2.5	3.0	3.6	4.1	3.4	2.7	2.9	4.1	3.1	2.3	1.4	1.0	2.75	4.61																						
13-Sep	0.9	1.0	0.8	1.2	1.8	1.3	1.6	0.7	1.3	2.3	2.7	2.4	3.1	4.4	4.2	3.2	3.1	2.1	0.8	1.0	0.8	1.1	1.5	1.6	1.87	4.42																						
14-Sep	2.2	1.3	1.3	0.9	1.2	0.8	1.2	1.2	1.8	2.0	2.2	3.2	3.2	3.0	3.7	3.7	2.8	2.3	1.4	1.4	1.6	1.3	1.8	2.2	1.98	3.68																						
15-Sep	1.4	2.2	3.4	4.0	1.0	1.6	0.8	1.3	1.7	1.3	2.2	2.6	2.2	2.8	3.7	3.2	2.6	1.1	0.7	0.8	0.7	0.9	1.3	1.5	1.86	3.99																						
16-Sep	1.9	1.6	1.6	1.8	1.7	1.8	2.9	1.4	2.3	2.4	2.2	2.5	2.5	2.1	2.7	2.6	2.4	1.1	1.9	1.3	0.6	0.4	1.2	2.2	1.89	2.94																						
17-Sep	1.6	1.4	0.7	1.2	1.3	1.4	1.0	1.6	2.7	1.8	1.9	2.7	2.4	2.3	2.7	2.6	1.8	1.0	0.8	0.8	1.6	1.6	2.9	3.0	1.78	3.04																						
18-Sep	2.4	2.7	1.9	1.6	2.8	3.1	2.2	1.7	1.4	1.7	2.0	1.2	1.6	1.8	2.1	1.6	1.4	1.3	1.2	0.9	0.8	2.0	2.9	1.9	1.84	3.06																						
19-Sep	1.6	1.4	1.4	1.6	2.5	2.3	2.3	3.3	2.6	2.2	2.8	3.2	3.9	4.4	6.4	4.8	5.4	6.4	5.8	4.1	2.9	3.5	5.7	4.9	3.54	6.42																						
20-Sep	3.3	3.1	3.6	3.6	1.8	1.8	1.7	2.5	2.0	3.6	3.1	3.6	3.9	4.3	4.8	4.6	3.5	3.3	0.8	1.1	2.4	1.8	1.3	2.2	2.83	4.81																						
21-Sep	1.5	1.0	1.8	1.3	0.8	1.5	1.5	1.8	1.6	2.7	3.7	4.8	6.0	5.5	5.0	4.5	3.9	1.9	1.4	2.0	1.8	1.6	1.8	3.2	2.61	5.98																						
22-Sep	1.5	1.4	1.8	1.3	2.1	1.8	1.5	1.4	1.4	2.1	2.4	2.5	2.0	2.1	2.1	1.8	1.0	1.0	1.2	1.7	5.3	4.2	2.2	2.1	1.99	5.35																						
23-Sep	3.2	3.4	2.8	5.5	1.8	1.3	1.7	1.6	2.5	2.2	2.2	1.9	3.3	2.1	2.8	2.6	1.7	1.3	2.5	1.6	2.0	2.8	4.1	2.46	5.52																							
24-Sep	2.6	2.9	2.9	2.8	3.1	2.9	3.1	3.4	1.8	1.7	3.0	3.6	2.2	2.4	2.2	2.8	1.1	1.9	6.7	5.0	4.6	3.8	2.1	1.5	2.92	6.69																						
25-Sep	2.7	1.2	1.8	1.6	1.3	1.3	1.3	1.0	1.8	1.3	2.0	2.2	2.7	2.5	5.0	4.1	4.1	3.7	3.6	4.8	5.0	7.2	4.9	5.5	3.03	7.19																						
26-Sep	4.5	4.8	3.0	3.9	3.4	2.5	3.2	3.0	2.0	1.0	2.2	2.2	2.9	2.5	2.7	3.2	2.1	2.2	4.4	3.5	3.5	3.0	2.8	2.9	2.98	4.78																						
27-Sep	3.6	3.1	2.4	2.8	2.3	2.5	2.5	2.9	2.7	2.7	2.7	3.3	3.0	3.2	3.0	2.8	3.1	3.2	2.6	2.3	2.1	2.4	2.7	3.2	2.80	3.59																						
28-Sep	4.1	3.9	4.0	3.3	3.5	3.4	3.3	3.5	3.9	4.0	4.7	4.7	4.2	5.9	5.5	5.2	5.1	4.5	2.9	3.2	3.3	3.1	3.0	3.1	3.97	5.85																						
29-Sep	2.5	3.4	3.8	3.6	4.0	3.4	2.3	1.8	2.1	3.6	4.3	3.6	2.5	3.0	2.0	1.8	1.5	1.4	1.2	0.7	1.1	1.1	1.8	1.3	2.42	4.28																						
30-Sep	2.1	4.2	3.6	3.1	3.9	4.3	3.9	4.4	4.8	5.9	4.8	6.2	6.1	6.3	6.8	6.3	6.6	5.4	4.1	2.8	1.1	0.9	1.1	2.3	4.20	6.82																						
																								2.21	2.17	2.11	2.31	2.18	2.11	2.10	2.36	2.58	2.70	3.01	3.38	3.27	3.50	3.65	3.48	3.18	2.61	2.38	2.17	2.14	2.08	2.19	2.29	Diurnal Average
																								4.49	4.78	3.98	5.52	4.03	4.25	3.86	4.80	4.84	5.89	4.82	6.20	6.08	6.29	6.82	6.30	6.58	6.42	6.69	5.03	5.35	7.19	5.65	5.53	Diurnal Maximum
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m <sup>3</sup> 24-hr 100 ul/m <sup>3</sup>																																																



**WCAS - Power**  
**Summary of Hourly Standard Deviations**

**Wind Direction (WD) - deg**  
**September 2014**

Maximum Value: 95.39 deg on Sep 17 04:00		Maximum Daily Average: 28.97 deg on Sep 17		Hours in Service: 720																																													
Minimum Value: 4.5 deg on Sep 21 02:00		Minimum Daily Average: 12.11 deg on Sep 4		Hours of Data: 720																																													
Maximum Diurnal Average: 26.57 deg at hour 14		Minimum Diurnal Average: 13.09 deg at hour 22		Hours of Missing Data: 0																																													
Monthly Average: 18.884 deg		Percentiles: P <sub>1</sub> = 5.9 P <sub>10</sub> = 9.0 Q <sub>1</sub> = 11.6 Median = 15.6 Q <sub>3</sub> = 21.7 P <sub>90</sub> = 31.3 P <sub>99</sub> = 65.9		Hours of Calibration: 0																																													
				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-Sep	8.9	11.6	8.4	12.9	11.8	10.2	9.4	7.2	17.0	27.4	54.0	36.3	21.5	57.2	40.7	24.0	53.4	33.4	17.2	20.8	7.7	6.1	17.4	7.0	21.73	57.20																							
2-Sep	15.3	12.2	16.1	8.7	13.4	10.0	12.6	13.6	14.3	17.7	19.8	21.3	17.6	29.7	22.1	31.0	18.4	18.7	16.7	43.3	31.9	17.6	28.4	19.7	19.59	43.30																							
3-Sep	12.3	29.5	13.8	17.3	22.1	29.9	22.0	28.3	22.1	13.9	23.6	27.0	28.2	22.1	26.9	14.8	21.1	21.3	50.1	39.5	10.0	8.6	12.7	17.0	22.25	50.14																							
4-Sep	8.3	6.5	8.6	8.2	10.4	12.2	8.0	12.0	14.4	17.7	14.2	14.6	14.8	13.3	17.6	18.4	17.8	13.1	15.4	12.4	6.6	10.7	8.0	7.3	12.11	18.35																							
5-Sep	9.1	12.5	24.6	27.9	23.3	18.0	21.6	12.2	13.5	13.9	16.9	19.2	26.7	24.0	20.7	20.9	15.9	14.4	21.1	12.7	13.2	18.9	13.4	13.5	17.83	27.87																							
6-Sep	13.6	8.5	7.8	6.7	12.2	7.6	7.2	7.9	14.6	12.3	22.8	30.1	21.2	17.4	19.2	17.9	18.5	14.7	39.5	7.6	5.7	6.9	52.3	21.7	16.41	52.27																							
7-Sep	8.4	6.8	7.4	13.0	15.9	15.6	25.0	59.4	24.3	21.3	17.4	28.7	35.6	23.0	18.4	13.5	34.8	19.4	14.3	18.0	17.0	14.4	17.5	16.1	20.22	59.44																							
8-Sep	19.2	14.3	14.1	16.2	15.2	15.7	15.9	14.7	16.0	16.0	16.9	17.4	20.7	22.0	18.9	19.0	24.4	20.2	14.9	14.1	13.9	21.7	10.9	11.9	16.84	24.44																							
9-Sep	12.7	8.8	10.1	17.3	19.9	17.2	15.6	13.9	18.3	16.2	17.5	17.9	21.8	25.9	17.4	21.8	19.9	18.3	14.0	10.6	13.9	16.7	18.6	18.0	16.76	25.94																							
10-Sep	20.8	21.2	20.5	21.7	21.5	22.3	18.6	19.7	20.5	22.1	24.2	29.1	27.4	25.2	29.7	23.3	43.9	49.9	92.4	17.6	27.3	18.3	5.4	5.4	26.16	92.41																							
11-Sep	6.2	9.6	13.0	11.8	8.8	12.0	10.7	16.6	19.9	21.1	17.4	21.3	23.8	28.2	27.5	20.4	19.2	15.3	12.7	10.5	14.1	10.1	9.1	9.1	15.36	28.24																							
12-Sep	7.3	6.5	8.8	10.8	11.1	12.0	11.3	15.0	12.4	15.9	12.8	13.1	25.7	16.5	14.4	15.9	14.1	11.5	12.4	15.1	13.0	10.1	11.8	8.4	12.74	25.66																							
13-Sep	10.9	7.1	5.8	7.7	7.9	8.6	28.7	10.7	75.5	39.7	26.9	15.8	28.8	34.5	38.3	27.7	23.3	20.7	9.6	9.5	6.6	6.6	9.6	9.7	19.59	75.48																							
14-Sep	15.6	24.0	13.5	9.2	11.0	17.9	13.0	8.7	16.6	17.5	24.4	33.7	24.0	31.3	25.1	24.1	26.5	15.6	46.1	9.8	5.5	7.9	13.6	13.6	18.67	46.12																							
15-Sep	8.6	8.8	10.3	40.1	8.1	43.2	14.1	10.8	13.1	31.9	29.6	52.8	66.6	51.4	54.4	69.9	86.8	43.5	7.2	7.3	5.9	5.7	8.2	10.9	28.72	86.84																							
16-Sep	10.3	11.5	8.5	13.4	15.0	15.2	24.5	10.6	14.8	17.1	25.3	23.2	42.4	47.7	42.4	49.7	45.8	33.1	51.2	47.3	13.8	7.8	61.9	14.0	26.93	61.93																							
17-Sep	31.5	25.7	14.7	95.4	16.4	30.8	10.1	15.1	38.9	29.1	21.0	23.7	28.6	28.7	27.7	14.5	16.1	17.7	23.2	30.4	23.3	24.0	24.4	84.4	28.97	95.39																							
18-Sep	93.3	25.8	25.7	22.1	24.1	17.5	10.6	17.8	13.3	11.5	18.4	21.9	17.3	15.8	20.1	18.2	21.3	36.6	65.7	34.2	14.8	12.8	12.3	10.8	24.24	93.29																							
19-Sep	9.9	8.4	10.4	10.0	12.4	10.7	10.0	21.3	10.0	12.2	19.3	14.6	16.8	19.1	17.5	18.9	18.4	15.2	24.2	19.8	14.4	12.1	13.7	11.8	14.62	24.23																							
20-Sep	11.8	12.6	12.4	13.7	13.9	15.3	26.5	18.6	14.3	16.7	26.0	22.0	22.1	19.6	18.7	16.2	16.6	20.8	13.0	9.5	13.2	8.9	8.1	11.5	15.92	26.53																							
21-Sep	6.2	4.5	11.9	10.1	8.9	12.1	13.9	13.9	9.7	14.6	15.1	15.0	17.7	17.8	18.6	17.1	13.2	9.3	9.1	11.3	8.4	8.3	7.8	17.5	12.16	18.62																							
22-Sep	10.5	9.2	14.0	18.7	9.9	17.8	12.5	16.3	7.7	12.3	14.7	14.9	12.9	27.8	36.5	32.5	13.2	10.2	8.4	10.3	31.2	13.8	15.7	12.2	15.97	36.46																							
23-Sep	16.9	14.8	10.6	37.5	34.1	10.5	10.1	14.6	12.5	18.7	19.5	28.0	25.4	41.3	43.8	48.6	35.8	15.5	13.0	15.0	10.6	10.6	10.4	10.0	21.15	48.57																							
24-Sep	9.3	9.4	8.8	8.2	10.4	10.6	10.2	12.0	13.6	16.8	17.4	19.9	16.2	17.2	21.8	24.6	17.7	19.9	65.5	11.6	11.8	11.6	22.5	11.5	16.61	65.46																							
25-Sep	11.9	27.1	9.3	23.0	19.2	20.2	21.1	17.1	64.7	32.6	17.4	19.8	44.1	18.6	16.2	14.9	14.8	14.2	14.1	39.0	22.1	36.6	24.7	18.3	23.38	64.71																							
26-Sep	21.3	52.0	43.1	20.1	17.4	17.4	16.1	17.4	16.1	14.2	14.5	11.6	15.5	15.9	17.3	15.1	17.3	16.7	14.6	12.1	12.9	12.5	11.9	13.0	18.16	51.97																							
27-Sep	11.3	11.6	12.8	11.6	10.7	10.3	15.3	19.0	19.5	18.9	16.8	22.7	24.7	30.0	27.3	21.8	20.0	16.7	18.3	13.4	12.8	11.6	12.0	10.2	16.64	30.04																							
28-Sep	12.1	9.7	9.3	9.3	12.6	11.6	10.0	11.5	11.1	12.4	15.4	14.7	15.3	16.7	15.7	16.0	14.9	11.8	10.9	10.1	10.1	11.1	10.6	11.2	12.26	16.71																							
29-Sep	11.2	10.7	10.9	9.6	11.1	12.5	11.1	10.5	12.5	19.5	25.4	21.2	28.3	45.6	31.9	45.4	28.2	35.5	39.3	29.7	30.6	22.4	15.8	8.2	21.97	45.56																							
30-Sep	10.2	12.7	11.3	10.9	12.3	12.5	11.8	12.9	13.7	14.1	12.9	14.7	15.7	13.6	14.1	14.4	13.0	13.0	11.0	10.3	17.8	8.4	10.9	9.1	12.56	17.75																							
																								15.16	14.44	13.22	18.11	14.70	15.90	14.92	15.97	19.50	18.85	20.58	22.21	24.92	26.57	25.37	24.34	24.82	20.54	25.51	18.42	14.67	13.09	16.65	14.76	Diurnal Average	
																								93.29	51.97	43.06	95.39	34.13	43.17	28.68	59.44	75.48	39.68	54.02	52.78	66.59	57.20	54.36	69.87	86.84	49.90	92.41	47.34	31.86	36.57	61.93	84.43	Diurnal Maximum	
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m <sup>3</sup> 24-hr 100 ul/m <sup>3</sup>																																																	

**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 908  
MEADOWS  
SEPTEMBER 2014**

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**

TransAlta / Meadows Station 908													September 2014
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Total	Min	Max	----- P10	----- Q1	Percentile Median	----- Q3	----- P90	24 Hour Average Max (ppm)
SO <sub>2</sub> (ppb)	34	686	100.0	0.2	-	0.0	17.1	0.0	0.0	0.0	0.0	0.3	0.001
NO (ppb)	35	685	100.0	4.2	-	0.0	130.3	0.0	0.0	0.0	2.5	11.0	-
NO <sub>2</sub> (ppb)	35	685	100.0	5.1	-	0.0	27.8	0.0	0.6	3.0	7.9	14.9	0.010
NO <sub>x</sub> (ppb)	35	685	100.0	9.2	-	0.0	146.7	0.0	0.0	2.7	10.6	27.7	-
Wind Speed (kph)	0	720	100.0	9.3	-	0.1	24.2	3.7	5.8	8.3	12.5	16.5	-
Temperature (°C)	0	720	100.0	11.4	-	-1.2	27.8	3.9	7.4	10.8	14.9	19.5	-
Relative Humidity (%)	0	720	100.0	72.2	-	25.6	98.3	42.9	59.7	77.1	86.8	92.8	-
Precipitation (mm)	0	720	100.0	-	24.8	0.0	1.7	0.0	0.0	0.0	0.0	0.0	-
Std Dev Wind Direction (deg)	0	720	100.0	21.2	-	3.5	102.1	8.1	11.5	16.1	24.5	42.3	-
Std Dev Wind Speed (kph)	0	720	100.0	2.5	-	0.6	9.1	1.2	1.6	2.3	3.3	4.2	-



**WCAS - Meadows**  
**Summary of Hourly Averages**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**September 2014**

Maximum Value: 17.08 ppb on Sep 28 00:00		Maximum Daily Average: 1.09 ppb on Sep 24		Hours in Service: 720																							
Minimum Value: 0.0 ppb on Sep 1 01:00		Minimum Daily Average: 0.00 ppb on Sep 1		Hours of Data: 686																							
Maximum Diurnal Average: 0.71 ppb at hour 24		Minimum Diurnal Average: 0.00 ppb at hour 13		Hours of Missing Data: 34																							
Monthly Average: 0.175 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> = 0.3 P <sub>99</sub> = 4.3		Hours of Calibration: 34																							
				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-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
2-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
3-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
4-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.03	0.78
5-Sep	0.7	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03	0.71
6-Sep	0.2	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.02	0.21
7-Sep	0.6	1.5	Z	3.2	1.1	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	0.0	0.0	0.0	0.0	0.0	0.0	0.33	3.17
8-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	4.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.30	4.26
10-Sep	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.02	0.16	
11-Sep	0.0	0.0	Z	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	0.01	0.13
12-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
13-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.02	0.42	
14-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
15-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.3	1.6	1.7	2.0	0.29	2.04	
16-Sep	0.7	1.5	Z	0.6	0.7	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	0.5	0.20	1.51	
17-Sep	1.2	0.7	Z	0.0	0.3	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.19	1.22	
18-Sep	0.0	0.4	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.02	0.38	
19-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
20-Sep	0.0	0.0	Z	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.19	
21-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.44	
22-Sep	1.1	1.2	Z	0.3	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	0.0	0.0	0.14	1.21	
23-Sep	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.4	3.7	4.3	4.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.64	4.95	
24-Sep	0.0	0.0	Z	0.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	3.0	6.0	4.3	4.7	3.2	0.7	0.0	0.0	0.0	0.0	0.0	1.09	6.02	
25-Sep	0.0	0.0	Z	0.5	0.2	1.1	0.5	0.3	0.9	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.17	1.14	
26-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
27-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.8	3.6	17.1	0.96	17.08	
28-Sep	5.5	4.4	Z	1.1	0.3	0.0	0.0	0.7	1.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.63	5.47	
29-Sep	0.0	0.0	Z	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	0.4	1.2	1.1	0.7	0.16	1.24		
30-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
		0.34	0.33	--	0.22	0.13	0.13	0.02	0.05	0.09	0.02	0.08	0.16	0.00	0.06	0.15	0.32	0.29	0.34	0.16	0.03	0.03	0.13	0.24	0.71	Diurnal Average	
		5.47	4.43	--	3.17	1.30	1.28	0.46	0.73	1.76	0.65	2.12	4.26	0.06	1.14	3.02	6.02	4.33	4.95	3.23	0.68	0.40	1.56	3.63	17.08	Diurnal Maximum	
Z - zerospan C - Calibration																											
Alberta Ambient Air Quality Objectives (AAQO): 1-hr 172 ppb 24-hr 48 ppb																											



**WCAS - Meadows**  
**Summary of Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**September 2014**

Maximum Value: 130.25 ppb on Sep 7 04:00		Maximum Daily Average: 17.24 ppb on Sep 7		Hours in Service: 720																													
Minimum Value: 0.0 ppb on Sep 1 07:00		Minimum Daily Average: 0.00 ppb on Sep 8		Hours of Data: 685																													
Maximum Diurnal Average: 11.73 ppb at hour 6		Minimum Diurnal Average: 0.09 ppb at hour 17		Hours of Missing Data: 35																													
Monthly Average: 4.225 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> = 2.5 P <sub>90</sub> = 11.0 P <sub>99</sub> = 59.7		Hours of Calibration: 35																													
				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-Sep	13.0	8.6	Z	14.7	20.0	1.6	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.4	2.59	19.96							
2-Sep	0.0	0.0	Z	6.3	4.4	18.3	18.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	11.7	21.0	3.56	21.02							
3-Sep	6.3	15.9	Z	0.0	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	2.8	2.0	3.0	2.5	1.43	15.94							
4-Sep	2.2	1.9	Z	3.4	7.6	7.0	0.0	0.1	0.0	0.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	16.5	14.3	49.5	4.94	49.45							
5-Sep	47.4	6.4	Z	9.7	18.8	21.0	4.4	9.0	6.9	3.1	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	4.2	17.7	6.62	47.45							
6-Sep	28.1	9.3	Z	7.8	2.9	9.7	2.3	6.5	5.4	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	3.4	23.5	26.6	5.55	28.08							
7-Sep	42.2	74.1	Z	130.3	59.6	65.1	21.5	3.3	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.24	130.25							
8-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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							
9-Sep	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.3	1.4	3.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.24	3.63							
10-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.1	0.8	0.8	0.9	0.24	2.10							
11-Sep	0.0	0.0	Z	0.1	0.0	0.1	0.0	1.7	2.5	3.2	1.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.8	0.4	0.2	0.6	0.68	3.25							
12-Sep	0.0	4.0	Z	1.3	12.4	7.6	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	0.0	0.0	1.10	12.44							
13-Sep	2.0	1.9	Z	3.5	2.3	21.2	9.2	5.6	5.8	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	2.28	21.16							
14-Sep	0.0	0.0	Z	4.5	4.1	6.3	0.9	6.6	4.0	0.7	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	1.25	6.58							
15-Sep	0.0	0.0	Z	4.0	3.0	3.3	2.1	8.0	5.9	3.8	2.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	64.4	56.3	14.9	7.79	64.40							
16-Sep	5.5	8.8	Z	6.3	10.0	23.0	3.3	5.2	11.0	4.0	4.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.5	10.1	6.4	41.2	6.48	41.23							
17-Sep	64.2	46.2	Z	9.2	32.5	53.7	24.0	11.9	6.8	7.9	5.7	3.7	3.4	2.1	1.6	0.4	0.2	0.0	0.0	0.0	31.7	10.8	6.9	6.9	14.34	64.20							
18-Sep	14.0	28.5	Z	9.7	0.9	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	0.5	1.0	29.1	3.7	0.6	3.87	29.09							
19-Sep	1.1	1.6	Z	2.5	5.1	4.3	2.1	6.0	5.2	2.0	2.5	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	1.40	5.97							
20-Sep	0.0	0.0	Z	25.0	1.4	0.3	0.0	3.1	0.3	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	1.2	1.47	24.97							
21-Sep	0.0	10.1	Z	1.6	9.8	20.7	15.0	2.0	2.7	4.8	2.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	14.3	3.82	20.71							
22-Sep	60.6	63.2	Z	30.9	11.9	11.5	1.7	3.6	6.8	6.1	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	11.6	11.72	63.18							
23-Sep	9.8	0.0	Z	2.9	18.0	20.7	0.0	37.7	17.9	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	4.77	37.66							
24-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.7	1.3	1.6	2.5	1.7	1.5	2.4	3.5	1.5	1.6	0.5	0.0	0.0	0.0	6.7	3.5	1.26	6.71							
25-Sep	6.2	10.4	Z	35.4	24.4	55.9	33.0	27.5	45.9	5.7	2.2	1.3	0.7	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.85	55.91							
26-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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							
27-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	15.8	0.74	15.76							
28-Sep	1.8	1.9	Z	0.0	0.0	0.0	0.0	0.7	2.0	0.8	0.2	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.36	1.99							
29-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.2	6.6	13.8	0.6	1.0	1.1	0.1	0.6	0.0	0.0	0.0	0.0	0.0	8.6	31.6	60.5	56.0	43.6	9.76	60.49							
30-Sep	0.8	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	3.4	5.9	2.5	5.6	2.03	17.88							
		10.17	9.77	--	10.30	8.31	11.73	4.61	4.89	4.81	1.57	1.06	0.63	0.22	0.20	0.15	0.17	0.09	0.11	0.13	0.78	3.27	6.86	7.02	9.69	Diurnal Average							
		64.20	74.12	--	130.25	59.59	65.10	33.01	37.66	45.92	7.87	5.71	3.71	3.36	2.14	2.36	3.52	1.55	1.60	3.43	8.61	31.69	64.40	56.31	49.45	Diurnal Maximum							
Z - zerospan		C - Calibration																															
Alberta Ambient Air Quality Objectives (AAQO):		1-hr --- ppb				24-hr --- ppb																											



**WCAS - Meadows**  
**Summary of Hourly Averages**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**September 2014**

Maximum Value: 27.77 ppb on Sep 23 00:00      Maximum Daily Average: 10.23 ppb on Sep 22		Hours in Service: 720 Hours of Data: 685																									
Minimum Value: 0.0 ppb on Sep 4 18:00 Maximum Diurnal Average: 10.90 ppb at hour 24 Monthly Average: 5.126 ppb		Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0																									
Minimum Daily Average: 0.18 ppb on Sep 26 Minimum Diurnal Average: 0.89 ppb at hour 15 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.6 Median = 3.0 Q <sub>3</sub> = 7.9 P <sub>90</sub> = 14.9 P <sub>99</sub> = 22.7																											
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-Sep	21.1	18.2	Z	16.4	14.3	7.0	3.5	4.3	5.9	1.4	1.2	1.3	1.4	1.2	1.4	1.6	1.6	0.9	3.2	5.1	7.3	8.1	7.3	7.5	6.14	21.15	
2-Sep	7.5	5.9	Z	6.9	7.2	11.0	11.9	3.6	1.7	1.2	1.3	0.8	0.3	0.1	0.1	0.2	0.5	0.5	0.6	0.5	0.5	5.2	15.6	15.3	4.28	15.62	
3-Sep	12.4	14.4	Z	4.7	1.5	4.3	2.2	1.4	0.7	0.5	0.3	0.3	0.3	0.1	0.2	0.2	0.4	0.6	1.1	3.8	5.7	5.0	8.1	15.1	3.61	15.09	
4-Sep	13.7	11.8	Z	8.9	8.6	8.0	3.0	1.8	1.1	1.7	3.4	1.2	0.8	0.4	0.1	0.3	0.0	0.0	0.0	0.6	15.4	20.2	18.6	22.1	6.17	22.12	
5-Sep	17.4	6.6	Z	14.0	17.2	15.6	8.1	6.8	4.9	2.8	2.2	1.5	0.9	0.1	0.0	0.0	0.0	0.7	0.1	0.5	0.8	7.8	10.0	14.0	5.74	17.36	
6-Sep	16.0	12.6	Z	10.3	10.6	13.3	8.3	6.3	4.5	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.8	9.6	8.6	14.8	17.9	15.6	6.61	17.87	
7-Sep	16.7	17.8	Z	15.9	14.5	17.8	13.1	7.0	1.0	0.6	0.0	0.0	1.3	0.3	0.0	0.0	0.6	0.2	0.0	0.0	0.2	0.0	0.0	0.0	4.65	17.80	
8-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.8	4.5	0.43	4.45	
9-Sep	4.4	0.3	Z	2.9	3.3	5.5	1.8	2.3	1.8	2.8	5.6	6.7	1.1	2.1	0.0	1.4	2.2	4.0	4.5	3.7	4.4	3.3	3.2	2.8	3.05	6.71	
10-Sep	2.6	1.5	Z	0.7	1.0	1.0	0.9	1.0	1.3	1.0	0.5	0.2	0.0	0.0	0.1	0.0	0.0	0.0	1.5	4.2	5.5	4.4	5.5	4.1	1.61	5.50	
11-Sep	2.3	1.4	Z	3.0	2.3	3.9	2.7	2.4	2.5	2.2	1.6	1.9	0.7	0.7	0.5	0.6	0.8	1.5	3.1	6.4	6.1	5.1	4.9	8.7	2.84	8.72	
12-Sep	10.1	12.1	Z	7.2	14.1	7.6	3.3	2.6	1.0	0.7	1.0	0.5	0.5	1.1	0.5	0.3	0.4	0.5	0.7	0.7	0.4	0.5	0.7	0.6	2.92	14.05	
13-Sep	9.4	7.7	Z	7.1	6.0	11.2	9.7	5.6	6.2	2.9	1.8	1.3	1.0	1.1	1.1	0.4	1.1	3.0	3.2	4.0	4.7	3.5	4.0	4.9	4.39	11.25	
14-Sep	6.6	6.7	Z	7.4	9.7	10.9	6.2	6.1	3.7	1.6	1.7	1.4	1.1	0.1	0.0	0.0	0.0	0.2	2.2	6.2	9.4	8.9	5.0	2.0	4.23	10.94	
15-Sep	7.0	10.8	Z	10.5	9.1	10.2	7.0	6.7	4.6	3.3	2.8	1.6	1.1	0.1	0.0	0.1	0.2	1.8	4.2	14.8	15.8	23.1	23.3	21.1	7.79	23.25	
16-Sep	18.2	18.7	Z	18.7	17.8	14.4	8.1	4.7	6.8	3.4	4.0	2.8	1.1	0.7	0.4	0.4	0.0	0.3	2.5	15.6	18.5	17.3	17.8	16.5	9.08	18.72	
17-Sep	15.0	10.1	Z	9.0	9.3	7.4	9.1	7.9	4.4	4.9	5.0	5.3	6.2	6.0	6.5	5.3	4.3	4.0	5.4	14.9	27.4	24.5	22.8	19.7	10.19	27.35	
18-Sep	21.0	22.1	Z	18.9	5.4	3.3	2.6	4.3	2.6	1.7	1.6	1.0	1.0	2.5	2.3	0.9	0.5	1.3	3.3	7.6	11.9	13.3	6.1	8.4	6.25	22.13	
19-Sep	7.8	5.8	Z	6.2	9.0	9.9	7.5	4.6	4.8	4.3	4.3	0.7	1.0	0.1	0.0	0.0	0.0	0.0	0.5	2.8	0.0	0.0	0.1	0.0	3.01	9.86	
20-Sep	0.0	8.2	Z	17.3	12.7	10.3	8.7	9.1	2.4	4.1	2.3	0.8	0.3	0.0	0.5	0.5	0.4	0.3	4.0	10.2	12.3	6.5	9.8	15.2	5.91	17.29	
21-Sep	12.2	15.4	Z	16.5	13.3	14.2	11.1	4.1	5.0	5.7	4.6	3.5	1.6	1.3	0.8	0.7	0.9	2.3	4.9	11.3	8.3	4.2	13.0	19.1	7.57	19.11	
22-Sep	18.6	18.0	Z	15.8	15.0	16.2	10.2	7.7	8.8	7.1	C	C	C	C	C	3.4	2.6	4.0	9.2	8.6	2.2	1.1	7.9	27.8	10.23	27.77	
23-Sep	21.9	0.6	Z	5.3	20.6	19.5	9.4	17.9	9.7	0.2	0.9	0.2	0.1	0.0	1.1	5.0	5.8	8.3	4.3	7.9	4.5	5.9	10.9	9.4	7.36	21.89	
24-Sep	6.5	10.9	Z	4.9	7.3	3.6	4.6	4.6	3.3	3.1	3.2	4.3	4.2	4.3	4.7	8.8	7.9	9.9	12.1	4.8	1.1	2.3	15.6	14.5	6.36	15.64	
25-Sep	19.6	16.2	Z	19.7	16.5	18.2	13.3	11.7	17.5	11.6	7.1	5.0	3.3	3.5	1.7	1.5	0.8	0.0	0.1	0.2	0.1	0.0	0.0	0.0	7.28	19.66	
26-Sep	0.0	0.6	Z	0.0	0.0	0.0	0.3	0.4	0.6	1.2	0.8	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.18	1.24	
27-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.5	2.6	1.4	3.1	5.9	11.8	19.4	2.06	19.40	
28-Sep	10.4	12.7	Z	4.3	3.6	4.1	3.2	6.2	6.3	3.4	2.0	1.2	1.0	1.7	1.5	1.4	1.8	2.2	1.4	3.3	3.6	4.2	6.0	3.6	3.88	12.73	
29-Sep	2.9	3.6	Z	5.3	2.9	8.8	11.5	10.0	11.3	1.8	1.8	1.9	1.9	2.8	2.4	2.8	3.8	3.9	9.0	11.9	13.9	15.4	17.1	12.3	6.90	17.11	
30-Sep	6.1	2.3	Z	0.7	0.4	1.5	0.9	0.7	0.4	0.6	0.2	0.0	0.0	0.0	0.0	0.6	0.0	0.0	4.1	11.0	11.1	12.7	19.4	22.7	4.15	22.71	
		10.25	9.10	--	8.62	8.44	8.62	6.08	5.07	4.16	2.54	2.13	1.58	1.11	1.05	0.89	1.21	1.25	1.79	2.99	5.72	6.76	7.49	9.53	10.90	Diurnal Average	
		21.89	22.13	--	19.66	20.59	19.49	13.33	17.91	17.45	11.58	7.15	6.71	6.21	5.96	6.46	8.77	7.93	9.89	12.15	15.64	27.35	24.51	23.25	27.77	Diurnal Maximum	
Z - zerospan      C - Calibration																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb      24-hr 106 ppb																											



**WCAS - Meadows**  
**Summary of Hourly Averages**

**NOx (NO<sub>x</sub>) - ppb**  
**September 2014**

Maximum Value: 146.65 ppb on Sep 7 04:00      Maximum Daily Average: 24.65 ppb on Sep 17 Minimum Value: 0.0 ppb on Sep 2 13:00      Minimum Daily Average: 0.07 ppb on Sep 26 Maximum Diurnal Average: 20.56 ppb at hour 24      Minimum Diurnal Average: 0.86 ppb at hour 15 Monthly Average: 9.179 ppb      Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 2.7 Q <sub>3</sub> = 10.6 P <sub>90</sub> = 27.7 P <sub>99</sub> = 79.5																								Hours in Service:	720																								
																								Hours of Data:	685																								
																								Hours of Missing Data:	35																								
																								Hours of Calibration:	35																								
																								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-Sep	34.4	27.1	Z	31.4	34.5	8.6	2.6	4.3	6.8	0.9	0.3	0.3	0.9	0.5	0.6	0.6	0.7	0.1	2.5	4.9	7.7	7.7	6.8	7.9	8.35	34.52																							
2-Sep	7.2	5.9	Z	13.3	11.7	29.6	30.7	4.5	1.3	0.6	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	27.5	36.6	7.64	36.58																							
3-Sep	18.8	30.6	Z	4.4	0.6	4.8	1.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.7	8.5	7.0	11.1	17.7	4.78	30.57																							
4-Sep	16.0	13.8	Z	12.5	16.4	15.1	2.8	1.9	0.7	2.0	5.2	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.7	37.0	33.2	72.0	11.08	72.02																							
5-Sep	65.2	13.2	Z	23.9	36.3	36.9	12.6	15.9	11.7	5.9	3.7	2.0	0.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	9.3	14.3	32.0	12.34	65.24																							
6-Sep	44.4	22.2	Z	18.2	13.6	23.2	10.6	12.9	10.0	0.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.4	11.5	8.6	18.3	41.7	42.5	12.21	44.36																							
7-Sep	59.4	92.4	Z	146.7	74.5	83.3	34.9	10.3	0.8	0.2	0.1	0.0	1.7	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.94	146.65																							
8-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	3.7	3.9	0.37	3.92																							
9-Sep	3.9	0.0	Z	2.7	2.6	5.6	1.1	1.9	1.6	3.1	7.0	10.4	1.3	2.1	0.0	0.8	1.9	3.9	4.0	2.8	3.5	2.4	2.2	1.8	2.90	10.42																							
10-Sep	1.6	0.5	Z	0.0	0.1	0.1	0.0	0.1	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	5.1	7.6	5.3	6.2	5.0	1.45	7.63																							
11-Sep	1.4	0.5	Z	3.1	1.9	3.9	2.2	4.1	5.0	5.4	3.5	3.7	0.7	0.5	0.0	0.0	0.3	0.9	2.6	7.8	7.9	5.5	5.1	9.3	3.27	9.32																							
12-Sep	10.1	16.3	Z	8.6	26.7	15.3	2.4	1.8	0.1	0.0	0.2	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.57	26.68																							
13-Sep	11.5	9.6	Z	10.7	8.3	32.7	19.1	11.2	12.0	3.8	1.8	1.0	0.4	0.6	0.6	0.0	0.5	2.7	2.6	3.3	4.1	2.8	3.2	4.1	6.38	32.67																							
14-Sep	6.1	6.0	Z	11.9	13.9	17.4	7.2	12.8	7.7	2.3	2.3	1.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	6.1	10.3	8.9	4.4	1.4	5.36	17.39																						
15-Sep	6.4	10.7	Z	14.5	12.1	13.6	9.1	14.7	10.6	7.1	5.3	2.1	1.0	0.0	0.0	0.0	0.0	1.4	3.7	14.6	26.4	88.0	80.0	36.4	15.56	87.98																							
16-Sep	23.9	27.7	Z	25.2	28.1	37.7	11.5	10.0	17.8	7.5	8.6	4.8	0.9	0.3	0.0	0.0	0.0	0.0	1.9	19.8	22.2	27.6	24.4	58.1	15.56	58.11																							
17-Sep	79.6	56.6	Z	18.4	42.1	61.4	33.3	19.9	11.2	12.8	10.7	9.0	9.6	8.1	8.1	5.8	4.6	3.9	5.0	14.9	59.5	35.6	30.0	26.9	24.65	79.59																							
18-Sep	35.3	51.1	Z	28.9	6.4	3.0	2.1	5.3	2.6	1.4	1.3	0.6	0.5	2.5	2.3	0.6	0.1	0.7	2.7	8.2	13.0	42.7	9.8	9.1	10.01	51.05																							
19-Sep	8.9	7.4	Z	8.7	14.2	14.2	9.6	10.6	10.0	6.2	6.8	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	4.34	14.24																							
20-Sep	0.0	7.9	Z	42.6	14.2	10.8	8.1	12.2	2.7	5.6	2.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.5	10.6	12.7	5.7	9.1	16.5	7.19	42.56																							
21-Sep	11.5	25.7	Z	18.2	23.3	35.1	26.3	6.1	7.7	10.5	7.1	4.4	1.1	0.6	0.1	0.0	0.1	1.7	4.1	10.7	7.5	3.3	16.4	33.7	11.10	35.13																							
22-Sep	79.6	81.6	Z	47.1	27.1	27.9	12.0	11.3	15.7	13.3	C	C	C	C	C	2.7	1.8	3.2	8.7	8.0	1.3	0.2	10.9	39.8	21.80	81.62																							
23-Sep	32.0	0.0	Z	8.2	39.0	40.5	9.2	56.0	27.8	0.0	0.4	0.0	0.0	0.0	0.7	6.2	6.8	8.9	3.5	7.4	3.8	5.1	10.3	8.9	11.94	55.98																							
24-Sep	5.8	10.5	Z	4.2	6.6	2.8	4.1	4.7	4.0	4.3	4.7	6.9	5.8	5.7	7.0	12.4	9.5	11.6	12.8	4.0	0.2	1.5	22.5	18.2	7.38	22.51																							
25-Sep	26.0	26.9	Z	55.4	41.2	74.6	46.7	39.5	63.7	17.4	9.4	6.3	4.0	4.4	1.7	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.19	74.57																							
26-Sep	0.0	0.3	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.7	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	0.07	0.72																							
27-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.7	0.4	2.1	5.4	13.1	35.4	2.60	35.42																							
28-Sep	12.3	14.8	Z	3.6	2.8	3.2	2.3	6.9	8.3	4.2	2.1	0.9	0.6	2.3	1.7	1.3	1.6	1.5	0.1	2.2	2.5	3.1	4.9	2.5	3.73	14.77																							
29-Sep	1.7	2.4	Z	4.2	1.7	8.1	11.8	16.7	25.2	2.4	2.8	3.0	1.9	3.4	2.1	2.8	3.4	3.1	9.1	20.7	45.9	76.3	73.6	56.2	16.46	76.26																							
30-Sep	6.9	1.2	Z	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	7.6	17.0	13.8	18.5	29.0	40.9	5.92	40.93																							
																								Diurnal Average	20.34	18.76	--	18.88	16.66	20.32	10.46	9.87	8.85	3.95	3.05	2.04	1.15	1.08	0.86	1.14	1.06	1.57	2.69	6.18	9.79	14.13	16.46	20.56	
																								Diurnal Maximum	79.64	92.38	--	146.65	74.49	83.32	46.67	55.98	63.74	17.38	10.73	10.42	9.56	8.11	8.09	12.37	9.52	11.57	12.79	20.71	59.46	87.98	80.04	72.02	

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



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 908, Meadows

Calibration Date: September 22, 2014

Parameter: NO/NO<sub>2</sub>/NO<sub>x</sub>

Instrument: Teco 42i

Serial Number: 1004840575

Previous Calibration Date: August 21, 2014

Calibration: Routine

Calibration Equipment: SABIO 2010 04300810

Barometric Pressure: 27.22" Hg

Calibration Method: Standard Gas Dilution/ GPT

Cylinder ID: FF47744

Temperature: 20.5° C

Cylinder Concentration: 12.4 ppm NO 12.5 ppm NO<sub>x</sub>

In Service: Dec 10, 2013

Technician: Dean Yustak

Instrument Settings	NO bkg ppb	NO <sub>x</sub> bkg ppb	Pre-reactor bkg ppb	NO Coefficient	NO <sub>x</sub> Coefficient	NO <sub>2</sub> Coefficient	Monitoring Range
Previous	6.1	6.4	NA	1.000	1.005	0.996	300 ppb
Current	6.3	6.6	NA	1.032	1.008	0.996	300 ppb

NO	Final Zero: -0.3 ppb	Final Span: 61.3 ppb	As Found Correction Factor: 1.006
NO <sub>2</sub>	Final Zero: 1.3 ppb	Final Span: 107.9 ppb	As Found Correction Factor: NA
NO <sub>x</sub>	Final Zero: 0.1 ppb	Final Span: 168.7 ppb	As Found Correction Factor: 1.006

Results of Linear Regression			Slope	Intercept	R <sup>2</sup>
NO	R <sub>c</sub> vs C <sub>c</sub>	Previous	100.518400	-41.515860	0.999989
		Current	100.090600	23.824310	0.999991
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000000	0.999991
NO <sub>2</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	100.708200	-136.964300	0.999989
		Current	100.157800	-92.214570	0.999908
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	-0.000009	0.999908
NO <sub>x</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	100.348400	-27.199230	0.999989
		Current	100.086500	25.936430	0.999993
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	-0.000016	0.999993

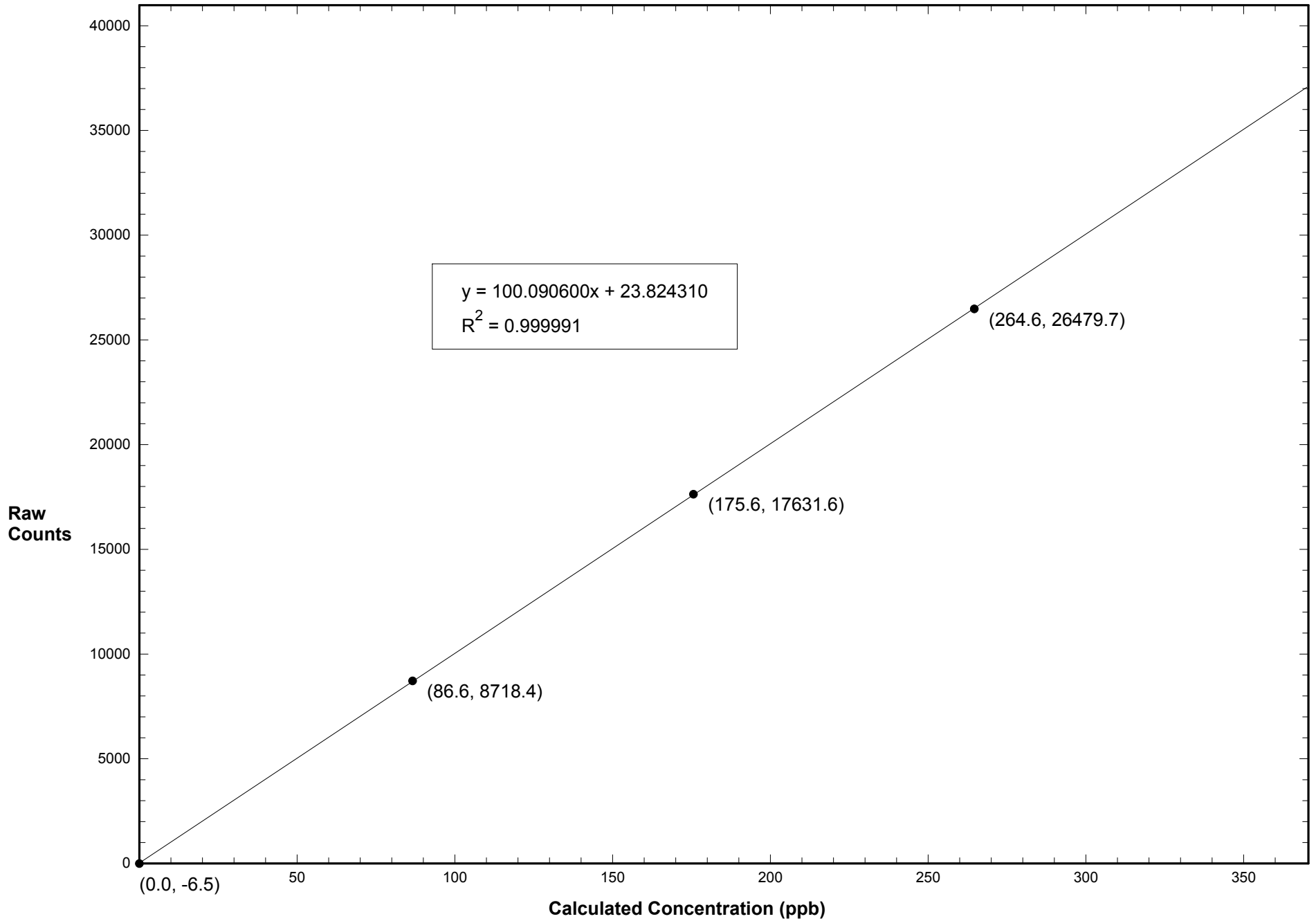
Comments:

**Calibration Data Summary (Page 2)**

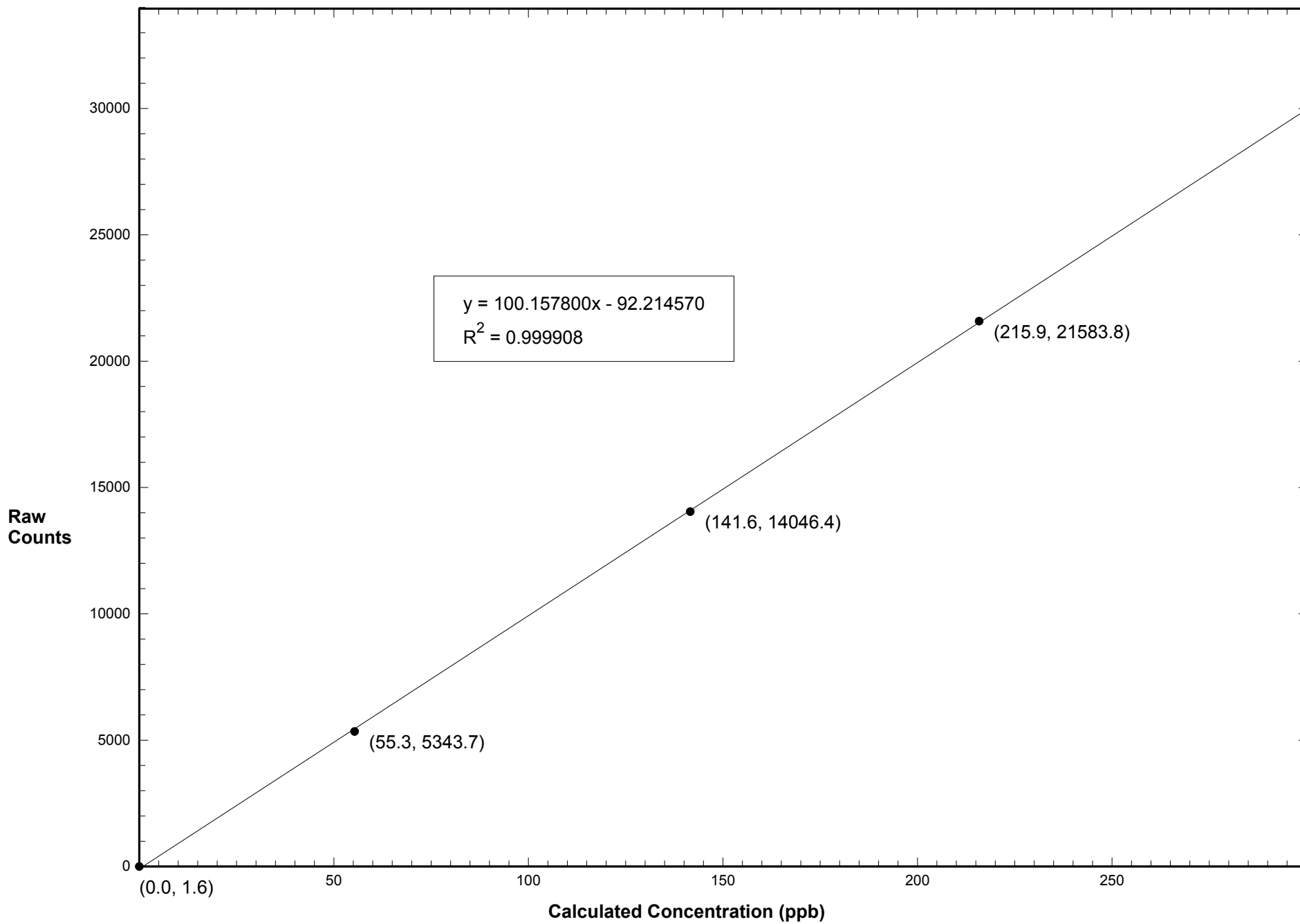
September 22, 2014 - Station 908

NO Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>		
0.06601	3.027	264.6	26479.7	264.3	1.001		
0.04358	3.034	175.6	17631.6	175.9	0.998		
0.02132	3.033	86.6	8718.4	86.9	0.997		
0.00000	2.968	0.0	-6.5	-0.3			
NO Calibration					Average Correction Factor:	0.999	
0.06601	3.027	266.8	26703.4	266.5	1.001		
0.04358	3.034	177.0	17759.0	177.2	0.999		
0.02132	3.033	87.3	8794.2	87.6	0.996		
0.00000	2.968	0.0	-1.9	-0.3			
NO <sub>x</sub> Calibration					Average Correction Factor:	0.999	
Reference Concentration NO (ppb)	Raw Count Output NO	Calculated Concentration NO (ppb)	Calculated Concentration NO <sub>2</sub> , C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>	Converter Efficiency C <sub>i</sub> /C <sub>c</sub>
265.1	4952.1	49.2	215.9	21583.8	216.4	0.997	1.003
265.1	12384.1	123.5	141.6	14046.4	141.2	1.003	0.997
265.1	21019.6	209.8	55.3	5343.7	54.3	1.019	0.981
			0.0	1.6	0.9		
						Average Correction Factor:	1.007
NO <sub>2</sub> Gas Phase Titration						Average Converter Efficiency:	0.993
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	0.999	1.001	0.2				
NO <sub>2</sub>	0.999	0.997	-0.2				
NO <sub>x</sub>	0.999	1.001	0.2				

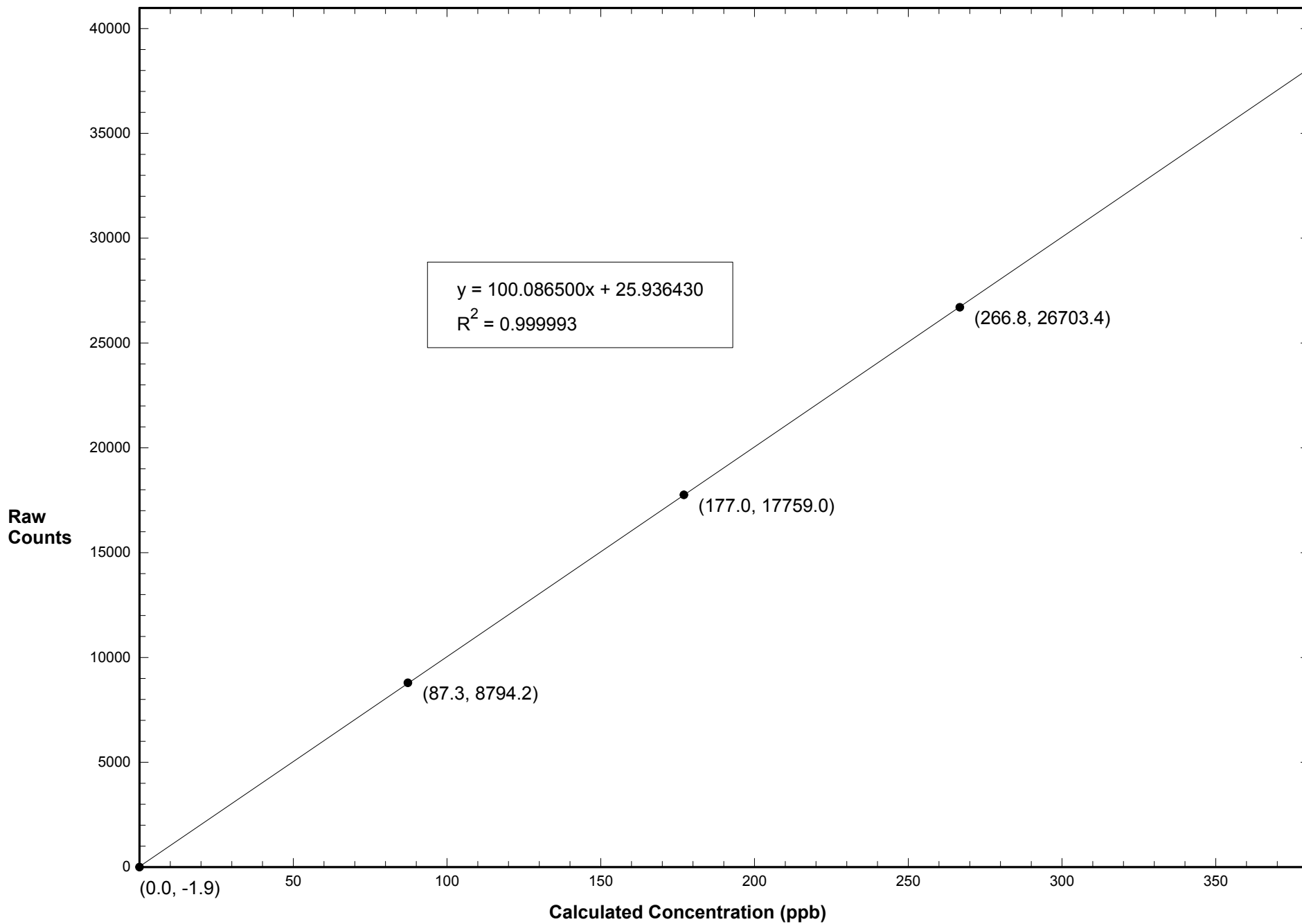
# Station 908 NO September 22, 2014: Linear Regression



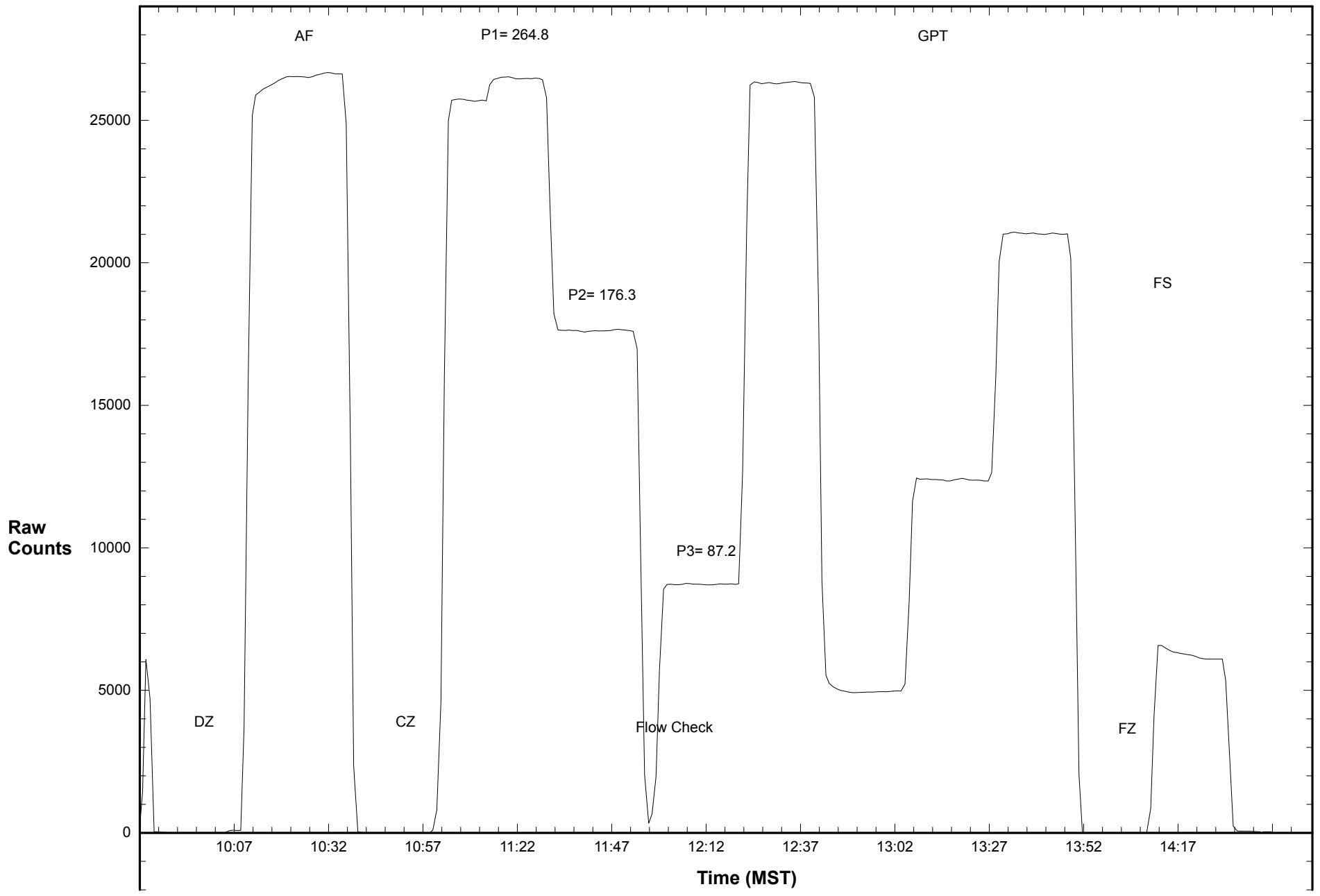
# Station 908 NO2 September 22, 2014: Linear Regression



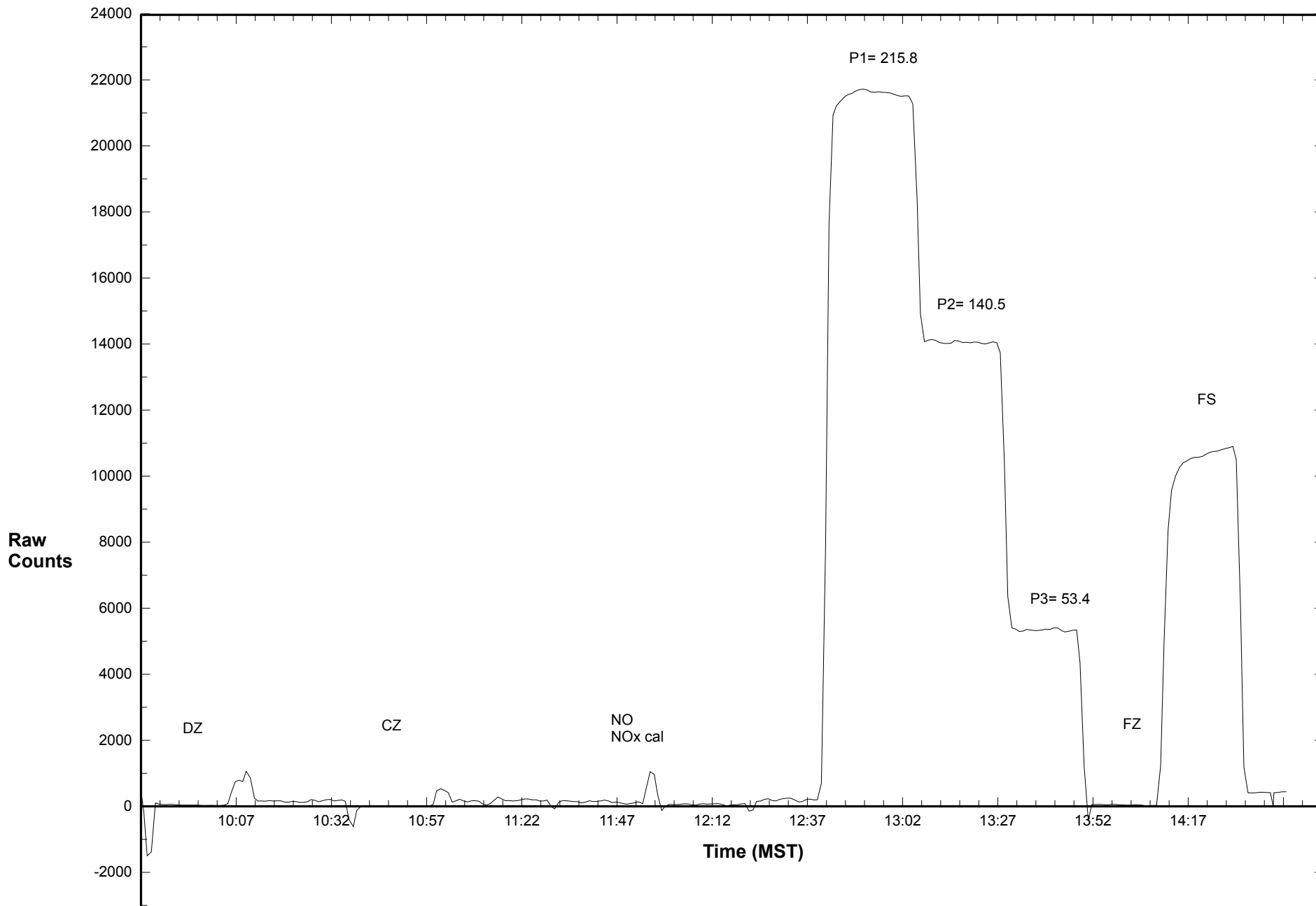
# Station 908 NOX September 22, 2014: Linear Regression



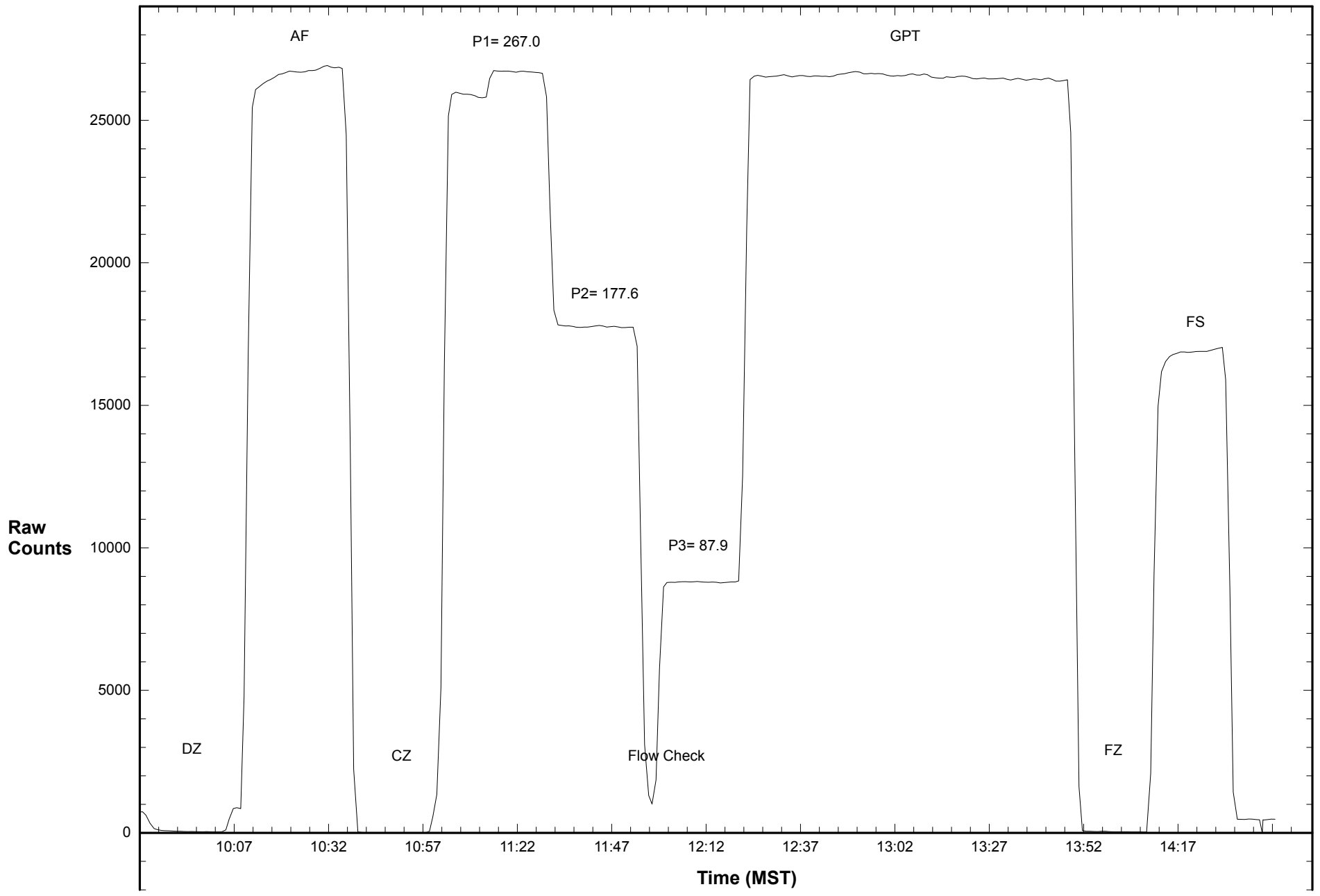
# Station 908 NO September 22, 2014: Calibration Graph



# Station 908 NO2 September 22, 2014: Calibration Graph



# Station 908 NOX September 22, 2014: Calibration Graph





# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 908, Meadows

Calibration Date: September 22, 2014

Parameter: SO<sub>2</sub>

Instrument: Teco 43 C

Serial Number: 0333803285

Previous Calibration Date: August 21, 2014

Calibration: Routine

Calibration Equipment: SABIO 2010 04300810

Barometric Pressure: 27.22" Hg

Calibration Method: Standard Gas Dilution

Cylinder ID: FF47744

Temperature: 20.5° C

Cylinder Concentration: 5.93 ppm SO<sub>2</sub>

In Service: Dec 10, 2013

Technician: Dean Yustak

Instrument Settings	SO <sub>2</sub> bkg ppb	SO <sub>2</sub> Coefficient	Monitoring Range
Previous	2.60	1.420	200 ppb
Current	2.73	1.474	200 ppb

Final Zero: -0.1 ppb

Final Span: 56.9 ppb

As Found Correction Factor: 1.033

SO <sub>2</sub> Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>
0.0660	3.027	126.5	18999.0	126.4	1.001
0.0436	3.034	84.0	12649.7	84.1	0.998
0.0213	3.033	41.4	6242.3	41.4	0.999
0.0000	2.968	0.0	10.3	-0.1	

### Results of Linear Regression

R <sub>c</sub> vs C <sub>c</sub>	Slope	Intercept	R <sup>2</sup>
Previous	150.357800	-24.092880	0.999972
Current	150.092100	22.139810	0.999995
C <sub>i</sub> vs C <sub>c</sub>			
Current	1.000000	0.000014	0.999995

Average Correction Factor: 0.999

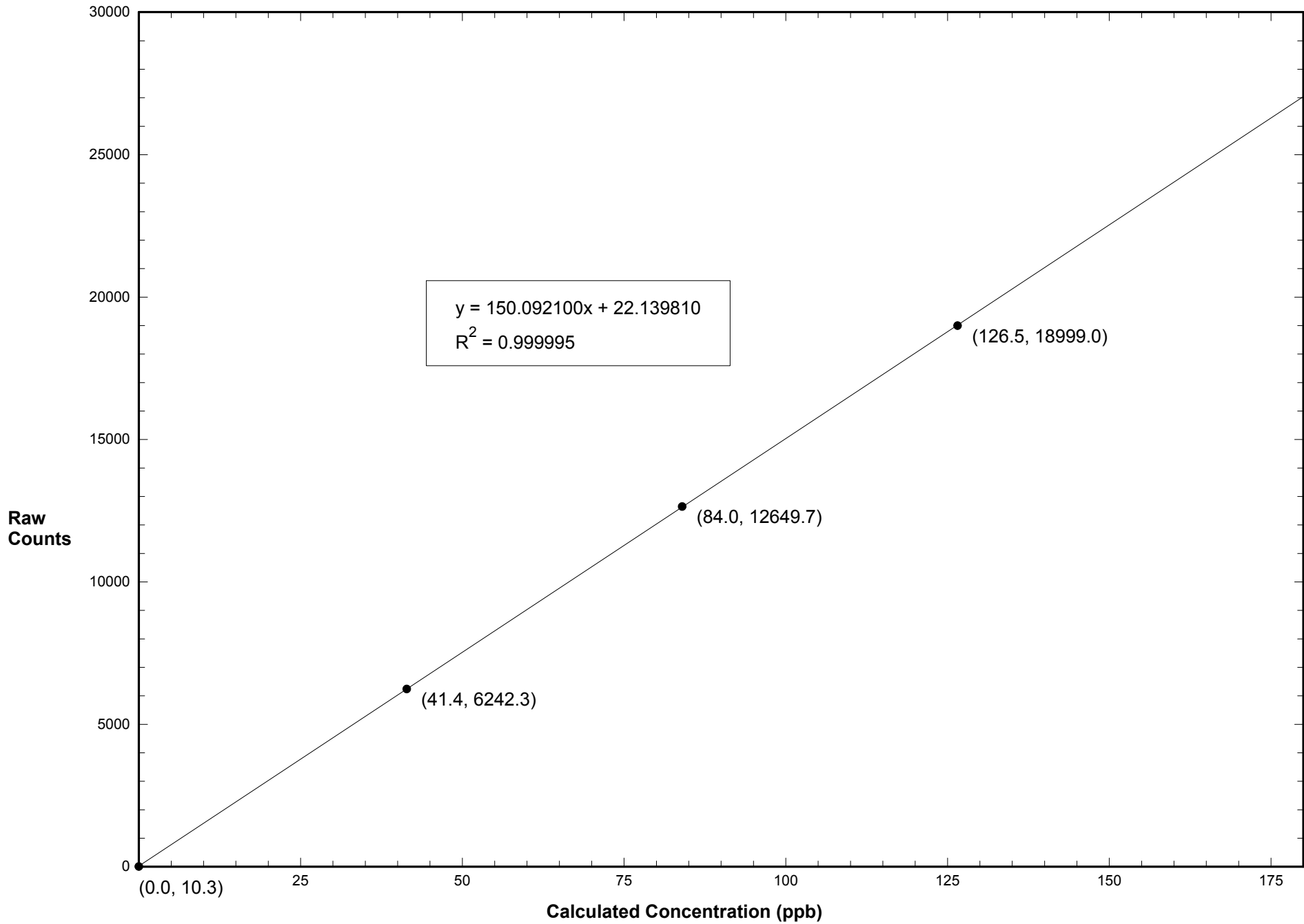
Previous Correction Factor: 0.999

Current Correction Factor: 1.001

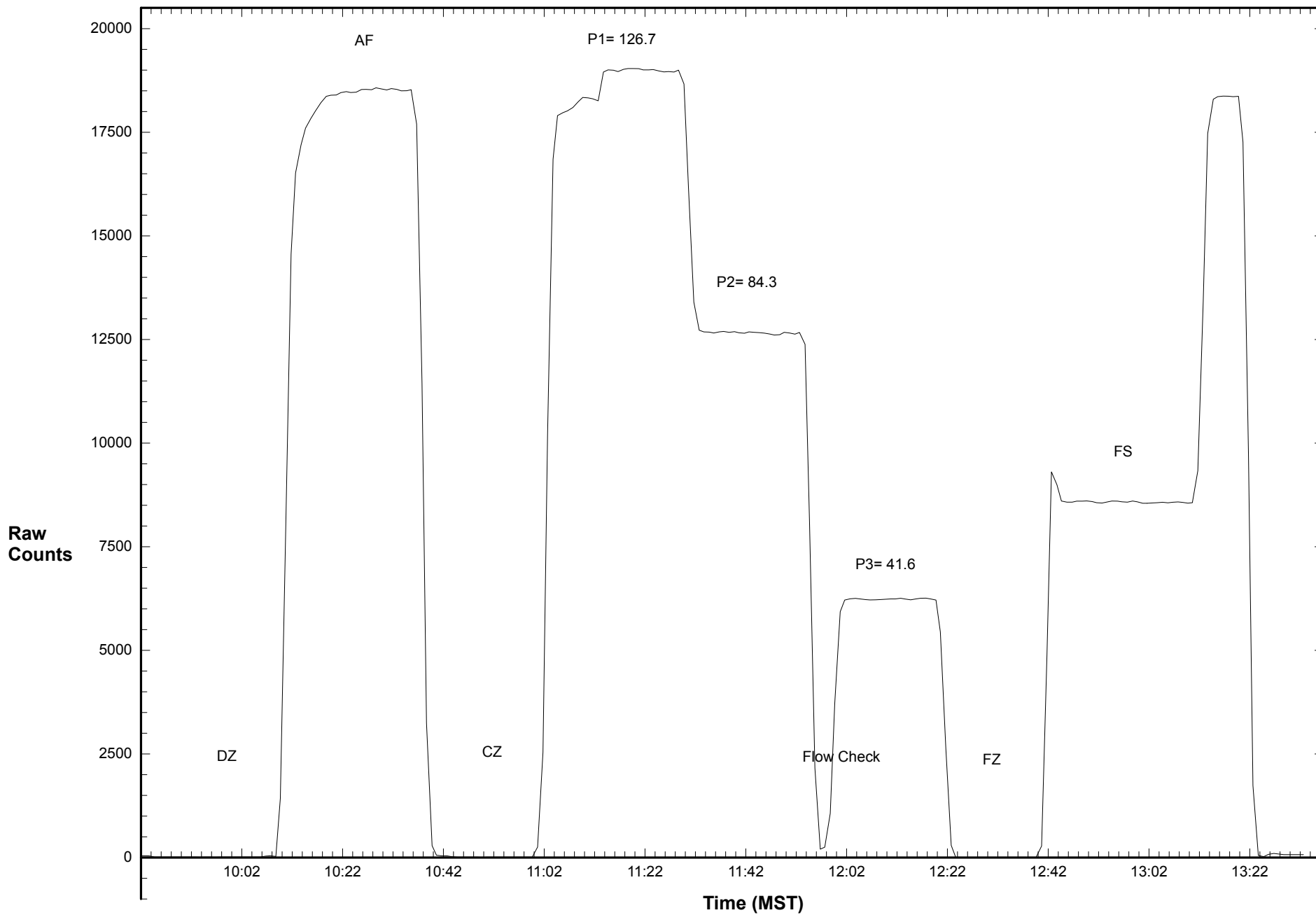
Percent Change of Correction Factor: 0.2

Comments:

# Station 908 SO2 September 22, 2014: Linear Regression



# Station 908 SO2 September 22, 2014: Calibration Graph



**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 908  
MEADOWS  
SEPTEMBER 2014**

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



























































