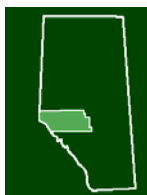


# **Capital Power**

## **AIR QUALITY MONITORING September 2014 Monthly Report**

**Prepared by:**

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





October 15<sup>th</sup>, 2014

Capital Power  
Mr. Kevin Parry  
Box 20, Site 2, RR 1  
Warburg, AB  
T0C 2T0

Dear Mr. Parry:

**Monthly Ambient Air Quality Monitoring Report for September 2014  
For Capital Power**

Enclosed are the reports for the continuous ambient air quality monitoring station of the West Central Airshed Society network.

Network Station is                      AMS 910                      Genesee  
Identified as:

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

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

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

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

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

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

**3. Monitoring Notes:**

**AMS 910 (Genesee)**

The PM<sub>2.5</sub> analyzer experienced unstable operation, returning an uptime of 98.3%. All other analyzers and meteorological equipment returned uptimes of 100% in September.

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

Sincerely,

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

Robert Scotten  
Executive Director

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

Patrick Andersen  
Environmental Specialist

**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 910  
GENESEE  
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**

EPCOR / Genesee Station 910													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	1.4	-	0.0	33.6	0.0	0.0	0.0	0.5	4.6	0.010
O <sub>3</sub> (ppb)	34	686	100.0	18.0	-	0.0	54.6	7.7	10.8	16.8	23.7	31.5	0.030
NO (ppb)	35	685	100.0	1.1	-	0.0	28.1	0.0	0.0	0.2	0.6	2.4	-
NO <sub>2</sub> (ppb)	35	685	100.0	3.3	-	0.0	31.0	0.1	0.6	1.8	3.5	8.3	0.010
NO <sub>x</sub> (ppb)	35	685	100.0	4.3	-	0.0	55.0	0.2	0.7	2.0	4.1	11.2	-
Particulate Matter 2.5 microns (µ/m <sup>3</sup> )	0	708	98.3	3.5	-	0.0	38.0	0.0	0.6	2.2	4.6	8.4	16.07 ug/m3
Wind Speed (kph)	0	720	100.0	11.2	-	0.3	33.1	3.9	7.0	10.9	14.3	18.9	-
Temperature - 2m (°C)	0	720	100.0	11.5	-	-3.6	29.4	3.4	6.9	10.9	15.8	20.1	-
Temperature - 10m (°C)	0	720	100.0	11.5	-	-1.6	28.5	3.3	7.7	11.3	15.6	20.0	-
Delta Temperature (°C)	0	720	100.0	0.1	-	-3.1	5.9	-1.3	-1.0	-0.4	1.0	2.3	-
Relative Humidity (%)	0	720	100.0	71.4	-	20.4	94.8	42.4	56.5	76.5	87.5	92.5	-
Global Solar Radiation (W/m <sup>2</sup> )	0	720	100.0	139.0	-	0.0	741.3	0.0	0.0	13.2	248.3	453.4	-
Precipitation (mm)	0	720	100.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Std Dev Wind Direction (deg)	0	720	100.0	19.2	-	3.0	88.6	7.2	9.6	14.0	22.4	39.4	-
Std Dev Wind Speed (kph)	0	720	100.0	2.8	-	0.5	12.3	1.3	1.8	2.6	3.5	4.4	-



**WCAS - Genesee**  
**Summary of Hourly Averages**

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

Maximum Value: 33.61 ppb on Sep 16 17:00		Maximum Daily Average: 9.92 ppb on Sep 15		Hours in Service:	720																												
Minimum Value: 0.0 ppb on Sep 1 01:00		Minimum Daily Average: 0.00 ppb on Sep 6		Hours of Data:	686																												
Maximum Diurnal Average: 3.78 ppb at hour 17		Minimum Diurnal Average: 0.21 ppb at hour 7		Hours of Missing Data:	34																												
Monthly Average: 1.442 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> = 0.5 P <sub>90</sub> = 4.6 P <sub>99</sub> = 23.6		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	1.2	0.4	0.7	0.6	0.0	0.0	0.0	0.0	0.13	1.24							
2-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.3	7.6	0.1	1.9	0.0	7.4	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.21	7.61							
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	1.5	0.4	13.1	5.1	1.4	0.3	0.8	0.2	0.0	0.0	0.99	13.07							
4-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	7.6	0.1	0.0	0.0	0.2	2.6	1.4	3.1	0.1	0.3	0.5	0.1	0.4	0.73	7.64							
5-Sep	0.4	0.1	Z	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	2.1	1.0	1.0	0.8	0.34	2.06							
6-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							
7-Sep	0.0	0.0	Z	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	13.3	1.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.75	13.28							
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.20							
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.02							
12-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.6	3.7	4.5	1.5	4.6	2.7	1.2	0.9	0.3	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.89	4.62							
13-Sep	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.5	4.9	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.34	4.92							
14-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	9.5	5.4	19.0	5.9	13.4	11.0	16.2	16.7	7.5	1.0	0.8	0.8	0.0	0.0	0.0	4.66	18.96							
15-Sep	0.0	0.0	Z	0.0	0.0	0.2	0.1	0.0	0.1	15.4	12.2	4.7	0.9	23.2	23.4	27.8	23.7	32.8	17.9	14.9	11.6	10.9	6.0	2.4	9.92	32.81							
16-Sep	1.5	1.4	Z	1.0	0.1	0.2	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.7	28.0	33.6	22.3	13.5	5.0	4.6	13.9	8.8	5.5	6.09	33.61							
17-Sep	6.6	6.7	Z	3.0	2.6	1.2	1.1	0.9	0.9	2.5	1.1	0.4	0.4	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.23	6.74							
18-Sep	0.0	0.0	Z	0.1	0.5	0.0	0.0	0.0	0.2	0.3	0.1	0.0	0.0	1.2	25.0	1.5	0.2	0.0	0.0	0.0	0.5	0.7	0.0	0.0	1.32	24.97							
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	24.0	4.2	0.0	0.0	1.0	0.2	0.0	2.2	0.5	0.2	6.2	1.81	24.01							
20-Sep	5.7	2.8	Z	6.7	12.0	0.8	0.0	0.0	0.1	0.2	12.1	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.55	18.23							
21-Sep	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.07	0.73							
22-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.7	2.1	0.2	0.16	2.15							
23-Sep	1.5	0.5	Z	0.6	0.0	0.5	0.3	0.2	1.1	0.8	0.6	11.3	5.3	3.1	1.9	1.6	1.4	1.0	0.2	0.0	0.0	0.0	0.0	0.0	1.39	11.34							
24-Sep	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	0.0	0.0	0.0	0.0	0.4	9.8	8.2	2.0	0.2	1.09	9.84							
25-Sep	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.08	0.61							
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	0.5	0.0	4.9	12.2	5.9	14.0	4.2	1.7	3.6	0.2	0.0	4.5	2.25	14.00							
27-Sep	3.8	7.6	Z	1.8	2.5	1.2	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	0.2	0.1	0.2	0.0	0.0	0.78	7.55							
28-Sep	0.0	0.0	Z	0.0	0.0	0.3	0.5	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	0.03	0.46							
29-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	0.1	1.0	7.1	8.4	4.2	1.4	0.4	0.99	8.42							
30-Sep	0.1	0.0	Z	0.0	1.0	2.4	3.7	5.3	7.6	6.9	8.5	4.1	6.0	2.3	2.7	2.7	6.3	5.0	3.8	0.7	5.2	1.4	1.2	0.6	3.36	8.48							
		0.66	0.64	--	0.46	0.63	0.23	0.21	0.24	0.47	1.39	1.75	2.79	1.61	1.81	2.86	3.32	3.78	3.02	1.58	1.17	1.63	1.41	0.96	0.61	Diurnal Average							
		6.57	7.55	--	6.74	12.04	2.40	3.71	5.25	7.55	15.35	12.22	18.96	24.01	23.16	24.97	27.97	33.61	32.81	17.90	14.89	11.59	13.86	8.75	5.46	Diurnal Maximum							
Z - zerospan		C - Calibration																															
Alberta Ambient Air Quality Objectives (AAQO):		1-hr 172 ppb				24-hr 48 ppb																											



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Ozone (O<sub>3</sub>) - ppb**  
**September 2014**

Maximum Value: 54.61 ppb on Sep 22 16:00		Maximum Daily Average: 30.21 ppb on Sep 22		Hours in Service: 720																									
Minimum Value: 0.0 ppb on Sep 17 06:00		Minimum Daily Average: 10.56 ppb on Sep 26		Hours of Data: 686																									
Maximum Diurnal Average: 27.89 ppb at hour 16		Minimum Diurnal Average: 10.29 ppb at hour 7		Hours of Missing Data: 34																									
Monthly Average: 17.996 ppb		Percentiles: P <sub>1</sub> = 1.8 P <sub>10</sub> = 7.7 Q <sub>1</sub> = 10.8 Median = 16.8 O <sub>3</sub> = 23.7 P <sub>90</sub> = 31.5 P <sub>99</sub> = 41.5		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	10.7	Z	11.9	8.8	7.8	8.0	8.3	8.3	8.0	13.2	18.4	25.7	29.4	29.7	31.6	31.9	19.1	23.2	17.9	12.2	9.8	12.7	10.9	8.6	15.92	31.89			
2-Sep	7.0	Z	8.2	8.5	10.5	8.0	3.9	7.6	11.3	15.2	17.7	19.6	27.1	25.4	27.3	21.3	17.9	22.8	20.3	17.2	15.1	17.6	14.4	10.1	15.40	27.33			
3-Sep	11.7	Z	5.1	2.1	1.6	1.7	9.1	14.3	11.0	12.0	15.4	21.9	25.0	26.7	24.1	26.9	17.1	16.8	16.3	17.6	17.5	14.6	13.6	12.7	14.55	26.85			
4-Sep	10.2	Z	9.9	9.1	8.5	6.5	4.4	7.2	8.6	14.5	16.0	17.9	24.2	24.9	25.2	25.8	20.8	24.9	20.2	21.4	18.4	21.5	21.9	19.6	16.59	25.80			
5-Sep	16.7	Z	13.2	12.1	6.6	5.9	6.1	7.2	10.8	16.7	25.3	28.3	31.1	36.8	38.6	39.0	36.2	32.6	31.4	25.3	18.3	17.7	16.0	15.8	21.21	39.03			
6-Sep	12.0	Z	9.2	9.7	8.7	8.6	8.4	9.9	12.1	18.0	21.4	24.4	26.7	27.9	28.7	29.6	29.0	27.7	26.8	23.4	22.1	17.3	17.3	15.1	18.87	29.61			
7-Sep	15.1	Z	9.1	10.8	10.0	11.3	6.2	8.9	7.4	12.4	14.0	15.0	16.5	16.6	7.4	13.1	13.2	14.1	2.5	4.9	7.1	7.7	9.3	12.1	10.63	16.57			
8-Sep	11.2	Z	10.4	10.5	10.5	9.7	9.6	10.0	10.0	10.1	10.9	10.6	11.7	14.9	18.8	16.9	14.6	13.9	13.9	12.1	10.6	10.4	9.0	7.7	11.65	18.84			
9-Sep	7.5	Z	5.3	5.1	4.7	7.4	8.6	8.0	8.7	9.9	13.6	16.9	17.8	19.0	18.8	17.6	17.3	17.1	14.2	12.5	13.7	12.8	12.4	12.5	12.24	19.02			
10-Sep	12.3	Z	12.1	11.0	10.2	10.1	10.4	10.8	10.9	13.5	12.9	14.1	17.9	19.2	19.9	21.3	23.6	24.1	23.2	21.5	14.3	10.5	7.5	6.8	14.71	24.10			
11-Sep	5.8	Z	8.5	7.1	7.7	9.2	8.2	7.1	9.6	14.0	19.2	22.8	24.5	27.2	29.8	31.6	31.8	30.8	27.7	22.0	21.8	21.0	17.4	16.8	18.33	31.77			
12-Sep	15.7	Z	11.3	8.1	6.7	7.0	9.3	13.5	6.0	9.5	14.3	10.9	17.0	23.6	25.8	22.3	21.1	20.9	17.8	17.0	13.5	18.2	18.6	20.0	15.13	25.80			
13-Sep	18.2	Z	10.4	10.1	6.8	6.8	4.2	7.4	10.9	19.6	19.1	25.8	30.7	33.4	35.5	36.7	37.9	38.0	34.0	33.6	29.4	26.8	22.5	19.7	22.50	37.95			
14-Sep	14.5	Z	13.2	13.9	11.6	11.3	8.0	8.3	11.1	12.2	19.5	16.4	25.4	20.6	22.5	21.9	17.7	22.5	26.4	23.0	21.8	17.6	16.1	17.6	17.09	26.38			
15-Sep	16.1	Z	15.1	13.9	18.5	15.5	14.4	11.8	12.0	10.3	12.4	18.7	25.1	17.8	15.7	18.2	16.4	8.6	6.3	4.8	10.7	5.4	10.9	15.0	13.63	25.11			
16-Sep	19.8	Z	17.2	23.0	12.1	10.3	11.4	9.0	11.8	14.3	21.3	26.0	32.0	34.7	38.5	22.3	11.8	13.2	13.1	26.0	25.8	2.0	8.5	4.4	17.76	38.50			
17-Sep	1.9	Z	2.2	3.0	2.4	0.0	0.0	0.6	7.6	20.1	27.2	32.8	36.3	37.1	42.8	39.1	36.7	31.9	34.6	35.0	28.7	22.1	21.6	17.5	20.92	42.76			
18-Sep	16.2	Z	11.1	18.7	17.6	19.0	20.5	18.8	13.2	17.7	22.9	25.6	28.1	29.7	18.4	35.4	36.6	32.8	29.7	27.5	23.5	20.2	18.7	21.2	22.75	36.62			
19-Sep	17.1	Z	14.2	13.8	11.4	10.1	9.1	6.9	9.8	11.2	14.1	23.7	18.0	29.6	33.3	34.7	31.0	32.2	28.1	27.3	29.3	30.5	22.3	26.2	21.04	34.72			
20-Sep	19.2	Z	17.9	19.1	10.9	21.3	18.1	16.8	18.0	22.1	20.4	20.6	33.7	36.7	39.2	40.4	40.3	39.5	35.9	30.4	23.7	20.9	22.1	24.4	25.73	40.41			
21-Sep	22.8	Z	19.5	17.6	14.8	17.0	12.0	13.7	15.2	15.4	23.9	28.7	29.7	30.9	31.8	30.8	31.4	32.2	28.3	26.6	26.9	25.0	24.9	23.8	23.60	32.23			
22-Sep	20.3	Z	13.6	11.6	15.0	15.6	16.3	18.4	18.8	22.7	19.7	33.4	41.6	48.0	53.3	54.6	46.8	40.6	42.2	31.9	32.7	32.6	28.7	36.1	30.21	54.61			
23-Sep	26.1	Z	16.8	24.1	27.2	21.8	23.9	23.1	23.2	24.8	25.5	21.6	25.8	30.8	33.1	35.0	37.1	34.5	31.9	29.8	23.9	26.7	26.4	25.1	26.88	37.09			
24-Sep	23.5	Z	17.0	13.6	12.6	11.8	10.2	8.6	7.9	8.4	C	C	C	C	25.4	32.4	30.9	30.4	30.8	35.3	5.6	11.4	10.6	17.4	18.11	35.32			
25-Sep	14.7	Z	17.4	12.2	11.0	9.8	11.8	6.5	6.3	5.6	10.8	26.4	34.4	35.8	39.7	39.2	38.6	32.2	31.5	27.5	22.3	15.9	16.6	16.4	20.98	39.71			
26-Sep	16.0	Z	14.7	15.5	14.1	12.9	11.9	11.0	10.0	8.9	8.8	7.9	6.1	7.9	6.0	8.1	8.2	1.8	6.4	9.4	10.1	19.2	18.8	9.2	10.56	19.23			
27-Sep	7.3	Z	11.5	13.7	9.4	10.2	9.9	10.9	9.4	10.8	16.0	16.5	21.8	25.7	20.9	20.9	21.3	19.5	18.2	13.4	12.6	14.6	14.7	14.6	14.95	25.72			
28-Sep	15.3	Z	13.5	13.1	12.3	9.8	7.4	7.7	7.9	9.2	9.5	10.0	14.0	16.7	20.1	23.7	26.1	26.8	24.6	22.2	19.8	18.3	18.1	19.5	15.90	26.84			
29-Sep	20.1	Z	17.5	18.9	18.3	16.7	14.3	13.4	13.5	15.3	17.3	19.3	20.0	21.3	24.1	26.0	24.2	20.7	18.9	6.5	0.2	3.1	9.3	10.5	16.06	26.02			
30-Sep	11.3	Z	11.0	18.6	15.4	10.0	12.7	11.1	6.9	11.8	11.6	14.6	14.1	18.9	18.7	19.9	16.2	19.6	21.7	30.6	15.6	17.1	18.9	22.1	16.01	30.56			
		14.56	--	12.27	12.58	11.16	10.76	10.29	10.57	10.93	13.98	17.21	20.56	24.34	26.46	27.16	27.89	25.70	24.86	23.16	21.61	18.16	17.04	16.60	16.62	Diurnal Average			
		26.13	--	19.54	24.15	27.19	21.79	23.92	23.06	23.23	24.81	27.18	33.40	41.64	48.01	53.31	54.61	46.82	40.60	42.16	35.32	32.71	32.64	28.67	36.13	Diurnal Maximum			
Z - zerospan		C - Calibration																											
Alberta Ambient Air Quality Objectives (AAQO):		1-hr 82.5 ppb		24-hr -- ppb																									



**WCAS - Genesee**  
**Summary of Hourly Averages**

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

Maximum Value: 28.09 ppb on Sep 17 01:00		Maximum Daily Average: 5.03 ppb on Sep 15		Hours in Service: 720																													
Minimum Value: 0.0 ppb on Sep 1 04:00		Minimum Daily Average: 0.13 ppb on Sep 9		Hours of Data: 685																													
Maximum Diurnal Average: 2.74 ppb at hour 12		Minimum Diurnal Average: 0.04 ppb at hour 4		Hours of Missing Data: 35																													
Monthly Average: 1.059 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.2 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 2.4 P <sub>99</sub> = 15.9		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	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.2	0.4	0.4	0.4	0.1	0.1	0.2	0.1	0.1	0.3	0.8	0.8	0.4	0.0	0.0	0.0	0.0	0.21	0.82							
2-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.7	1.0	1.1	3.8	7.4	0.3	1.5	0.1	6.1	4.0	0.2	0.2	0.2	0.1	0.1	0.1	0.3	1.19	7.42							
3-Sep	0.0	0.0	Z	0.0	0.0	0.2	0.0	0.4	0.4	0.3	0.4	0.4	0.3	0.5	1.2	0.7	9.7	4.3	1.3	0.4	0.3	0.4	0.4	0.3	0.95	9.66							
4-Sep	0.3	0.2	Z	0.0	0.0	0.0	0.1	0.4	1.0	1.0	1.0	5.9	0.4	0.4	0.3	0.3	2.6	0.7	0.9	0.1	0.1	0.1	0.1	0.0	0.69	5.88							
5-Sep	0.0	0.0	Z	0.1	0.0	0.0	0.0	1.2	2.4	1.9	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.27	2.40							
6-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.1	1.1	2.0	0.8	0.3	0.2	0.1	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.21	1.95							
7-Sep	0.0	0.3	Z	0.1	0.0	0.1	0.3	0.9	3.3	1.4	0.7	0.7	0.4	1.0	10.3	1.6	1.1	0.5	0.6	0.4	0.3	0.3	0.2	0.1	1.07	10.30							
8-Sep	0.0	0.0	Z	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.5	0.5	0.6	0.8	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.18	0.84							
9-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.5	0.4	0.2	0.1	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.13	0.51							
10-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.2	0.4	0.5	1.2	1.6	1.2	0.4	0.5	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.32	1.61							
11-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.6	0.8	0.8	0.7	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.2	0.0	0.0	0.32	0.78							
12-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.9	3.6	3.1	2.2	5.2	2.6	1.0	0.5	0.2	0.2	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.87	5.16							
13-Sep	0.0	0.0	Z	0.2	0.5	0.5	0.2	1.0	2.3	1.1	3.9	1.5	0.6	0.5	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.4	0.2	0.2	0.70	3.87							
14-Sep	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.6	1.4	8.7	4.7	16.0	3.7	6.2	5.9	7.3	7.8	2.9	0.3	0.1	0.1	0.0	0.0	0.0	2.87	15.97							
15-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	1.4	13.3	10.6	4.9	1.7	16.4	14.8	18.1	11.1	16.6	5.6	0.9	0.0	0.0	0.0	0.1	5.03	18.10							
16-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	1.2	1.8	1.2	0.9	0.2	0.5	0.4	13.5	27.4	10.5	2.2	0.0	0.2	2.8	0.0	3.4	2.89	27.38							
17-Sep	28.1	0.0	Z	0.2	0.4	1.5	11.9	10.3	2.7	1.9	1.0	0.4	0.3	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.58	28.09							
18-Sep	0.0	0.0	Z	0.0	0.2	0.0	0.0	0.3	0.3	0.6	0.7	0.6	0.4	0.8	15.1	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.90	15.06							
19-Sep	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.8	1.7	1.2	0.9	0.7	13.8	2.6	0.1	0.1	0.5	0.1	0.2	0.1	0.1	0.0	0.5	0.6	1.06	13.78							
20-Sep	0.3	0.0	Z	0.2	2.0	0.0	0.0	0.1	0.4	0.6	8.3	12.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.08	12.80							
21-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.6	1.0	1.5	1.0	0.4	0.2	0.1	0.0	0.0	0.0	0.1	0.1	1.0	0.0	0.0	0.0	0.0	0.26	1.54							
22-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	1.0	0.6	3.3	0.7	0.2	0.0	0.0	0.0	0.0	0.5	0.0	0.1	0.1	0.3	0.4	0.2	0.33	3.26							
23-Sep	0.2	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.9	1.2	1.4	11.1	3.0	1.5	1.1	1.0	0.7	0.4	0.7	0.0	0.9	0.0	0.0	0.0	1.06	11.09							
24-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	0.8	1.1	C	C	C	C	C	1.7	0.2	0.2	0.0	0.4	5.1	4.5	0.6	0.2	0.84	5.09							
25-Sep	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.7	1.1	3.2	2.5	1.1	0.6	0.5	0.2	0.2	0.2	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.49	3.18							
26-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6	0.7	1.6	1.4	9.1	16.1	6.6	12.5	2.5	0.8	3.0	0.1	0.1	2.3	2.51	16.15							
27-Sep	2.4	3.3	Z	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.32	3.32							
28-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.4	0.5	0.8	0.9	0.6	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.25	0.90							
29-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.5	0.7	0.7	0.6	0.4	0.7	0.7	0.5	0.4	0.4	0.3	0.6	1.0	0.5	0.0	0.0	0.35	0.97							
30-Sep	0.0	1.2	Z	0.0	0.6	0.7	0.7	1.3	5.0	2.9	6.6	3.3	5.5	2.1	2.7	1.9	3.4	1.9	0.3	0.1	0.4	0.3	0.2	0.0	1.79	6.64							
		1.06	0.18	--	0.04	0.14	0.10	0.46	0.80	1.27	1.78	2.07	2.74	1.36	1.40	2.28	2.43	2.62	1.84	0.58	0.22	0.43	0.34	0.10	0.27	Diurnal Average							
		28.09	3.32	--	0.22	1.99	1.50	11.94	10.27	4.97	13.29	10.62	15.97	13.78	16.39	15.06	18.10	27.38	16.61	5.64	0.98	5.09	4.46	0.58	3.38	Diurnal Maximum							
Z - zerospan		C - Calibration																															
Alberta Ambient Air Quality Objectives (AAQO):		1-hr --- ppb				24-hr --- ppb																											



**WCAS - Genesee**  
**Summary of Hourly Averages**

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

Maximum Value: 30.98 ppb on Sep 16 22:00		Maximum Daily Average: 10.45 ppb on Sep 15		Hours in Service:	720																					
Minimum Value: 0.0 ppb on Sep 1 12:00		Minimum Daily Average: 0.34 ppb on Sep 8		Hours of Data:	685																					
Maximum Diurnal Average: 4.91 ppb at hour 21		Minimum Diurnal Average: 2.06 ppb at hour 14		Hours of Missing Data:	35																					
Monthly Average: 3.294 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.6 Median = 1.8 Q <sub>3</sub> = 3.5 P <sub>90</sub> = 8.3 P <sub>99</sub> = 23.7		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	1.6	1.1	Z	2.6	1.6	1.8	1.5	2.1	2.2	0.6	0.5	0.0	0.0	0.0	0.0	0.0	6.0	2.0	3.5	6.4	2.6	2.2	1.0	0.7	1.74	6.38
2-Sep	0.8	0.3	Z	1.2	2.1	3.5	1.5	2.4	1.7	2.1	3.9	7.0	0.0	1.9	0.0	7.2	8.8	0.2	0.5	0.8	0.5	0.7	0.7	4.3	2.26	8.82
3-Sep	1.6	5.0	Z	3.8	2.7	5.1	3.0	1.5	1.0	0.7	0.4	0.3	0.1	0.3	2.6	0.8	12.4	7.4	3.9	1.9	3.3	2.1	0.8	0.8	2.67	12.36
4-Sep	0.9	0.8	Z	2.8	2.3	2.1	1.8	1.8	0.9	1.0	1.1	4.1	0.3	0.2	0.0	0.4	5.0	1.5	4.7	1.5	3.0	1.1	0.8	2.1	1.75	5.00
5-Sep	1.2	0.8	Z	5.8	2.0	2.4	2.6	2.0	2.6	2.1	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.4	2.3	4.3	5.9	3.7	3.6	3.2	1.99	5.91
6-Sep	1.4	1.2	Z	2.6	2.8	2.6	2.4	2.2	2.3	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1	1.8	1.7	1.5	1.4	1.17	2.75
7-Sep	3.1	8.4	Z	7.2	3.6	3.9	3.0	2.9	4.8	2.3	0.8	0.3	0.5	2.9	16.1	6.2	6.7	1.9	1.2	0.8	0.4	0.4	0.0	0.0	3.37	16.12
8-Sep	0.0	0.0	Z	1.1	0.7	0.6	0.4	0.2	0.2	0.1	0.2	0.2	0.3	0.5	1.5	0.9	0.0	0.0	0.0	0.0	0.2	0.3	0.2	0.2	0.34	1.54
9-Sep	0.2	0.2	Z	2.1	2.1	1.2	0.6	0.4	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.7	0.8	0.1	0.0	0.4	0.1	0.43	2.06
10-Sep	0.1	0.2	Z	1.2	1.1	1.2	1.1	1.5	2.1	1.5	2.7	2.7	1.3	1.3	1.3	1.4	0.5	0.3	0.2	0.1	1.0	1.5	1.3	1.6	1.19	2.75
11-Sep	1.3	0.9	Z	1.5	1.3	1.5	1.6	0.9	0.7	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.0	0.8	0.7	0.9	0.66	1.55	
12-Sep	0.9	1.6	Z	2.5	2.5	3.2	3.8	4.9	11.5	10.6	5.7	11.6	6.8	2.8	2.1	0.2	0.2	0.4	0.5	1.0	3.0	0.2	0.2	0.5	3.33	11.61
13-Sep	1.7	2.7	Z	7.1	7.9	5.3	4.1	3.4	3.9	2.5	5.6	2.9	0.9	0.7	0.5	0.4	0.4	0.4	1.7	1.0	1.4	1.7	0.9	0.6	2.51	7.89
14-Sep	0.4	0.3	Z	2.5	1.9	1.7	1.4	1.5	1.4	7.3	6.0	14.2	3.9	9.1	7.8	10.5	13.3	7.1	1.9	2.2	2.4	1.3	0.7	0.4	4.31	14.24
15-Sep	0.3	0.3	Z	2.2	1.3	1.5	2.6	1.1	1.8	9.8	9.5	6.0	3.1	15.3	16.3	10.5	19.2	26.6	24.0	25.0	18.7	20.5	12.5	5.8	10.45	26.63
16-Sep	3.3	2.4	Z	2.9	3.4	4.8	2.4	1.3	1.8	2.3	2.2	2.1	0.8	1.9	1.8	21.5	27.5	25.4	21.4	11.4	10.5	31.0	19.5	22.6	9.74	30.98
17-Sep	26.9	18.9	Z	13.4	13.8	12.0	15.1	8.2	3.0	3.6	2.7	2.0	2.3	3.2	1.6	0.5	0.0	0.3	0.2	0.3	2.8	3.0	2.8	2.8	6.06	26.87
18-Sep	3.5	5.5	Z	6.4	7.1	2.8	1.6	3.9	3.4	3.0	3.0	2.2	1.2	2.1	17.4	2.1	0.2	0.0	0.1	0.3	2.2	3.3	1.7	0.5	3.20	17.36
19-Sep	0.0	0.1	Z	1.3	1.5	1.8	1.7	1.4	1.4	1.2	0.9	0.7	15.1	2.6	0.0	0.0	1.7	0.8	1.0	4.4	0.9	0.5	9.4	5.3	2.34	15.11
20-Sep	10.2	7.9	Z	10.6	17.2	4.3	1.1	0.7	0.9	1.2	8.4	11.4	0.2	0.1	0.1	0.0	0.1	0.3	0.7	2.7	2.5	1.4	1.2	1.2	3.68	17.23
21-Sep	1.3	1.4	Z	3.4	3.3	3.0	3.5	2.9	2.1	2.3	1.8	0.7	0.4	0.2	0.1	0.1	0.1	0.9	2.9	4.3	3.1	3.6	3.2	2.5	2.04	4.26
22-Sep	2.4	2.7	Z	3.9	4.4	3.7	2.7	2.3	2.9	1.5	5.3	1.3	0.1	0.1	0.0	0.1	1.5	7.5	7.3	9.2	5.2	3.5	6.8	1.3	3.30	9.22
23-Sep	6.9	3.5	Z	3.5	0.6	3.5	2.4	2.2	3.5	3.4	3.2	13.5	7.3	3.9	2.9	3.2	2.4	2.5	3.8	5.6	7.8	2.8	2.2	2.5	4.04	13.53
24-Sep	2.4	2.4	Z	4.1	3.2	2.5	2.3	2.0	1.7	1.5	C	C	C	C	C	3.9	3.7	3.1	2.6	5.3	20.4	15.8	11.5	3.7	5.12	20.42
25-Sep	5.2	2.2	Z	3.7	3.6	2.6	4.5	4.4	3.1	4.6	3.6	2.6	2.1	2.1	0.8	1.1	1.1	4.1	2.6	2.1	2.1	1.4	0.7	0.4	2.64	5.16
26-Sep	0.5	1.2	Z	1.5	1.9	1.8	2.2	3.3	3.2	3.4	2.7	3.0	4.0	2.5	5.4	6.6	5.3	11.5	5.6	3.6	5.7	0.4	0.2	8.1	3.63	11.53
27-Sep	6.7	11.7	Z	4.3	7.2	3.7	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.3	4.7	3.5	1.7	1.0	0.3	2.12	11.69
28-Sep	0.3	0.5	Z	1.1	0.8	1.8	3.1	2.2	1.7	1.2	1.0	1.0	0.8	0.6	0.4	0.3	0.2	0.3	0.7	0.8	1.0	1.0	0.9	0.6	0.97	3.14
29-Sep	0.5	0.4	Z	1.5	1.2	1.1	1.1	1.1	0.4	0.3	0.3	0.3	0.6	0.7	0.8	0.8	1.1	2.8	4.8	14.1	19.3	15.6	7.7	4.9	3.54	19.32
30-Sep	4.0	7.1	Z	0.9	5.3	9.9	11.2	12.1	17.8	13.0	15.2	8.9	10.8	5.0	5.2	5.2	9.6	8.3	6.8	1.6	15.2	12.6	8.3	4.6	8.63	17.84
																								Diurnal Average		
																								Diurnal Maximum		
																								Z - zerospan C - Calibration		
																								Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb		





**WCAS - Genesee**  
**Summary of Hourly Averages**

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

Maximum Value: 55.02 ppb on Sep 16 17:00		Maximum Daily Average: 15.62 ppb on Sep 15		Hours in Service: 720																													
Minimum Value: 0.0 ppb on Sep 1 12:00		Minimum Daily Average: 0.49 ppb on Sep 9		Hours of Data: 685																													
Maximum Diurnal Average: 6.74 ppb at hour 17		Minimum Diurnal Average: 2.99 ppb at hour 24		Hours of Missing Data: 35																													
Monthly Average: 4.289 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.7 Median = 2.0 Q <sub>3</sub> = 4.1 P <sub>90</sub> = 11.2 P <sub>99</sub> = 33.5		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	1.5	1.1	Z	2.6	1.7	1.9	1.8	2.8	3.2	1.5	1.0	0.0	0.0	0.0	0.0	0.2	6.3	2.8	4.2	6.7	2.6	2.3	1.0	0.7	1.99	6.74							
2-Sep	0.7	0.3	Z	1.3	2.1	3.6	1.8	3.3	2.8	3.2	7.7	14.5	0.2	3.2	0.0	13.2	12.6	0.2	0.5	0.7	0.4	0.5	0.6	4.4	3.39	14.47							
3-Sep	1.6	5.0	Z	4.0	2.9	5.6	3.2	2.1	1.5	1.0	0.6	0.3	0.1	0.3	3.3	1.0	21.7	11.2	4.7	1.8	3.0	1.9	0.6	0.6	3.39	21.65							
4-Sep	0.8	0.7	Z	2.8	2.2	2.1	2.0	2.3	2.0	2.0	1.8	9.7	0.4	0.3	0.0	0.4	7.3	1.9	5.4	1.4	2.9	1.0	0.7	2.0	2.26	9.71							
5-Sep	1.1	0.7	Z	5.9	2.0	2.4	2.9	3.6	5.2	3.9	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.3	2.3	4.3	5.9	3.7	3.6	3.1	2.28	5.93							
6-Sep	1.4	1.2	Z	2.6	2.7	2.5	2.5	3.3	4.2	1.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	2.0	1.7	1.6	1.4	1.4	1.33	4.23							
7-Sep	3.0	8.6	Z	7.2	3.5	3.8	3.2	3.7	7.8	3.6	1.3	0.7	0.7	3.6	26.1	7.5	7.5	2.1	1.4	0.7	0.2	0.3	0.0	0.0	4.19	26.09							
8-Sep	0.0	0.0	Z	1.2	0.8	0.7	0.5	0.3	0.3	0.3	0.4	0.7	0.9	1.1	2.4	1.2	0.2	0.1	0.0	0.0	0.1	0.3	0.2	0.2	0.50	2.36							
9-Sep	0.2	0.2	Z	2.0	2.0	1.2	0.5	0.6	0.5	0.7	0.7	0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.7	0.8	0.0	0.0	0.3	0.0	0.49	2.01							
10-Sep	0.0	0.2	Z	1.2	1.1	1.1	1.1	1.6	2.4	1.9	3.8	4.3	2.5	1.6	1.8	2.0	0.8	0.5	0.2	0.0	0.9	1.5	1.3	1.5	1.44	4.29							
11-Sep	1.3	0.9	Z	1.5	1.2	1.5	1.6	1.5	1.4	1.2	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.9	0.7	0.6	0.7	0.9	0.77	1.59							
12-Sep	0.8	1.5	Z	2.5	2.4	3.2	3.9	5.7	15.0	13.6	7.9	16.7	9.3	3.8	2.6	0.3	0.3	0.5	0.5	1.0	3.0	0.1	0.2	0.4	4.14	16.70							
13-Sep	1.7	2.7	Z	7.2	8.3	5.7	4.3	4.4	6.2	3.5	9.4	4.0	0.8	0.6	0.3	0.2	0.2	0.2	1.6	0.8	1.1	1.4	0.7	0.4	2.86	9.37							
14-Sep	0.3	0.3	Z	2.5	1.8	1.6	1.5	2.3	2.9	16.2	10.5	30.1	7.3	14.9	13.5	17.5	20.9	9.8	2.0	2.2	2.4	1.3	0.6	0.4	7.07	30.07							
15-Sep	0.3	0.4	Z	2.2	1.4	1.6	2.8	1.9	3.7	23.5	20.3	11.0	4.8	31.8	31.2	35.0	30.4	43.5	29.8	26.1	18.7	20.6	12.5	5.8	15.62	43.45							
16-Sep	3.3	2.4	Z	2.8	3.4	4.8	2.6	2.2	3.1	4.1	3.4	3.0	1.1	2.5	2.2	35.1	55.0	35.9	23.7	11.4	10.6	33.9	19.5	26.0	12.69	55.02							
17-Sep	54.9	18.8	Z	13.6	14.3	13.6	27.5	18.9	5.8	5.5	3.7	2.4	2.6	3.8	1.7	0.5	0.0	0.3	0.1	0.2	2.8	2.9	2.7	2.8	8.67	54.85							
18-Sep	3.4	5.4	Z	6.3	7.3	2.8	1.6	4.2	3.7	3.7	3.7	2.8	1.6	2.9	32.4	2.9	0.4	0.0	0.3	0.5	2.3	3.4	1.8	0.5	4.08	32.39							
19-Sep	0.0	0.1	Z	1.4	1.5	1.8	1.8	2.2	3.1	2.4	1.8	1.5	28.9	5.3	0.0	0.0	2.2	1.0	1.3	4.6	1.0	0.6	9.9	6.1	3.42	28.88							
20-Sep	10.6	7.9	Z	10.9	19.4	4.3	1.0	1.0	1.5	1.9	16.8	24.3	0.4	0.2	0.2	0.0	0.2	0.3	0.7	2.6	2.4	1.4	1.1	1.1	4.79	24.35							
21-Sep	1.2	1.2	Z	3.3	3.2	2.8	3.4	3.5	3.1	3.8	2.8	1.1	0.6	0.3	0.2	0.2	0.2	0.9	2.9	5.2	3.0	3.6	3.3	2.5	2.27	5.23							
22-Sep	2.3	2.6	Z	3.9	4.3	3.6	2.5	2.5	3.9	2.1	8.5	1.9	0.3	0.1	0.0	0.0	1.4	7.9	7.2	9.2	5.1	3.7	7.0	1.5	3.54	9.22							
23-Sep	7.0	3.5	Z	3.5	0.4	3.3	2.2	2.1	4.2	4.4	4.6	24.5	10.2	5.3	3.9	4.2	3.0	2.9	4.3	5.6	8.6	2.7	2.1	2.4	4.99	24.51							
24-Sep	2.2	2.2	Z	4.0	3.1	2.4	2.2	2.3	2.4	2.6	C	C	C	C	C	5.5	3.9	3.2	2.6	5.7	25.6	20.2	12.1	3.9	5.89	25.57							
25-Sep	5.3	2.1	Z	3.6	3.5	2.5	4.5	5.2	4.3	7.8	6.1	3.7	2.6	2.4	0.7	1.0	1.0	4.1	2.4	2.0	1.9	1.2	0.6	0.3	3.00	7.84							
26-Sep	0.4	1.0	Z	1.4	1.7	1.7	2.0	3.2	3.3	3.6	3.3	3.7	5.6	3.9	14.5	22.7	11.9	23.9	8.0	4.3	8.6	0.6	0.2	10.4	6.09	23.92							
27-Sep	9.1	15.0	Z	4.3	7.3	3.7	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.3	4.6	3.5	1.7	0.9	0.3	2.38	14.99							
28-Sep	0.3	0.5	Z	1.1	0.7	1.8	3.1	2.3	2.1	1.7	1.9	2.0	1.5	1.2	1.0	0.7	0.4	0.5	0.8	0.9	1.0	1.1	1.0	0.7	1.22	3.13							
29-Sep	0.6	0.5	Z	1.5	1.2	1.1	1.1	1.4	0.9	1.0	1.0	1.0	1.1	1.3	1.3	1.2	1.3	3.0	4.8	14.5	20.2	16.2	7.7	4.9	3.85	20.23							
30-Sep	4.0	8.3	Z	1.0	5.9	10.6	11.9	13.3	22.8	15.9	21.8	12.2	16.3	7.1	7.9	7.1	13.0	10.0	7.0	1.6	15.5	12.9	8.4	4.6	10.40	22.77							
		3.98	3.17	--	3.64	3.77	3.31	3.42	3.45	4.11	4.60	5.07	6.10	3.44	3.37	5.07	5.32	6.74	5.60	4.07	4.08	5.20	4.76	3.43	2.99	Diurnal Average							
		54.85	18.85	--	13.61	19.37	13.63	27.47	18.89	22.77	23.47	21.81	30.07	28.88	31.81	32.39	35.06	55.02	43.45	29.84	26.11	25.57	33.90	19.47	25.99	Diurnal Maximum							
Z - zerospan		C - Calibration																															
Alberta Ambient Air Quality Objectives (AAQO):		1-hr --- ppb				24-hr --- ppb																											



**WCAS - Genesee**  
**Summary of Hourly Averages**

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

Maximum Value: 38.04 µg/m <sup>3</sup> on Sep 22 20:00		Maximum Daily Average: 16.07 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: 0.36 µg/m <sup>3</sup> on Sep 9		Hours of Data: 708																						
Maximum Diurnal Average: 5.37 µg/m <sup>3</sup> at hour 20		Minimum Diurnal Average: 1.97 µg/m <sup>3</sup> at hour 15		Hours of Missing Data: 12																						
Monthly Average: 3.511 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.6 Median = 2.2 Q <sub>3</sub> = 4.6 P <sub>90</sub> = 8.4 P <sub>99</sub> = 23.9		Hours of Calibration: 0																						
				Percent Operational Time: 98.3																						
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	1.9	0.7	0.7	0.1	0.8	0.2	2.3	2.8	4.2	4.3	4.7	UC	0.0	0.1	0.0	0.9	12.3	2.4	0.0	0.2	0.0	0.0	1.2	0.0	1.73	12.34
2-Sep	0.0	0.0	0.0	0.8	0.7	0.1	0.3	2.2	1.7	0.9	0.0	0.0	0.0	1.4	0.4	0.0	4.3	4.0	1.5	2.2	1.1	1.9	0.2	2.1	1.07	4.26
3-Sep	2.7	2.3	2.8	0.0	3.2	5.3	3.7	3.3	3.1	3.4	3.2	0.5	1.3	0.0	0.0	UC	7.7	6.4	4.3	0.0	2.3	0.0	0.0	0.0	2.42	7.71
4-Sep	0.0	0.3	0.0	1.9	2.7	3.2	3.2	4.2	3.0	0.0	1.4	2.1	0.0	1.2	0.9	1.7	10.0	0.0	3.5	2.5	3.8	1.5	2.2	2.3	2.13	10.02
5-Sep	1.9	2.7	3.9	1.9	2.2	0.8	3.9	5.0	3.0	1.2	0.5	1.9	0.0	0.0	0.1	3.9	2.8	3.2	5.2	6.6	4.4	4.4	2.2	2.8	2.68	6.63
6-Sep	0.0	1.5	1.0	0.6	1.2	0.7	2.4	4.2	3.6	0.0	0.9	0.0	0.0	0.9	2.5	1.8	0.0	0.9	3.7	18.3	17.8	2.2	1.7	3.5	2.89	18.29
7-Sep	3.1	3.1	0.3	2.6	2.4	2.8	1.9	3.1	6.4	6.0	5.3	7.7	3.8	0.3	1.6	8.7	1.2	0.0	UC	UC	0.0	0.0	0.0	0.0	2.74	8.74
8-Sep	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.7	0.4	0.8	0.0	1.8	1.6	3.0	2.3	0.9	0.8	0.7	1.2	0.7	0.5	0.7	0.4	0.72	2.97
9-Sep	0.3	0.0	0.5	0.1	0.5	0.0	0.7	0.7	0.5	0.8	0.4	0.0	0.0	0.0	0.4	0.0	0.4	0.3	1.5	0.5	0.5	0.0	0.7	0.0	0.36	1.45
10-Sep	0.0	0.5	0.0	0.5	0.4	1.5	1.4	1.7	2.1	0.8	2.2	2.0	1.0	1.0	0.0	1.7	0.8	0.3	0.2	1.0	3.8	2.5	0.3	0.7	1.11	3.75
11-Sep	0.8	1.1	0.3	0.0	0.2	0.2	1.5	4.0	2.3	0.0	UC	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4	0.3	0.0	0.2	1.1	2.3	0.69	4.04
12-Sep	1.6	1.1	1.9	1.2	3.6	2.5	2.8	0.5	5.2	8.0	5.7	4.1	3.5	0.0	1.5	4.2	1.0	1.4	2.4	1.8	3.5	2.8	6.9	18.1	3.55	18.15
13-Sep	23.7	26.0	24.1	20.2	15.3	16.8	16.2	19.7	22.9	24.5	25.8	18.1	11.5	11.2	9.6	9.1	10.7	9.6	13.7	14.9	14.1	13.1	7.6	7.3	16.07	26.01
14-Sep	5.5	4.8	4.3	2.3	1.7	3.0	3.3	6.0	7.0	2.0	0.8	2.3	5.5	1.4	2.7	1.0	1.3	1.8	0.8	6.5	1.7	0.9	0.1	1.1	2.84	7.00
15-Sep	1.2	0.0	0.3	0.7	0.0	2.1	1.5	4.7	5.3	4.0	5.8	5.2	2.1	2.5	0.0	6.2	5.5	5.5	9.2	5.0	4.0	8.0	5.3	3.5	3.65	9.21
16-Sep	2.4	1.8	2.5	2.3	0.1	2.1	9.1	2.0	6.3	7.4	2.9	3.3	2.7	4.9	0.0	4.4	1.5	11.3	9.3	9.0	7.7	10.0	5.7	11.9	5.01	11.93
17-Sep	3.3	7.3	3.7	5.2	4.2	3.4	8.0	9.5	8.9	1.5	4.0	7.2	6.9	7.8	1.5	UC	0.1	4.5	UC	3.3	12.4	9.6	0.8	7.8	5.51	12.38
18-Sep	2.8	9.1	5.0	7.7	11.6	10.5	8.1	11.4	16.0	10.8	6.5	9.0	8.6	4.4	5.4	4.5	0.5	7.1	4.7	4.7	8.9	6.6	13.7	0.8	7.43	15.99
19-Sep	0.0	UC	0.0	0.0	0.0	3.4	0.0	2.3	6.3	7.0	3.9	UC	UC	1.9	UC	0.0	0.0	1.6	5.0	0.0	0.0	0.0	0.0	1.5	1.65	7.01
20-Sep	2.9	2.7	1.5	2.4	2.7	4.0	2.1	4.8	5.2	2.7	2.9	1.3	0.0	0.3	0.9	1.2	2.9	4.6	4.2	4.6	4.7	2.1	1.9	2.3	2.71	5.18
21-Sep	2.1	2.7	2.5	1.6	2.4	1.1	3.3	5.5	5.3	7.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	3.6	3.7	1.4	1.8	3.8	3.8	3.1	2.31	7.01
22-Sep	5.5	3.4	1.2	2.6	1.2	2.4	2.2	4.4	7.0	6.7	9.4	UC	0.0	2.6	10.0	17.0	25.1	25.3	20.2	38.0	16.9	19.7	15.4	11.5	10.76	38.04
23-Sep	12.6	14.3	13.8	2.8	3.9	3.2	5.2	6.9	6.3	4.9	3.3	0.0	0.8	1.1	2.5	5.9	5.5	6.3	8.5	4.4	7.2	3.7	2.0	3.0	5.32	14.31
24-Sep	2.3	2.4	2.2	3.3	4.1	3.5	3.7	6.2	8.7	9.2	7.6	7.2	6.6	3.5	3.5	4.4	7.7	5.3	4.1	5.0	12.3	8.2	9.2	3.8	5.58	12.26
25-Sep	6.8	3.6	2.9	2.2	4.2	3.5	3.1	4.0	5.0	6.0	5.8	2.0	0.0	0.7	0.0	0.6	0.7	4.2	3.0	5.4	4.7	7.2	3.7	0.0	3.30	7.17
26-Sep	0.0	2.1	0.0	0.0	2.3	0.0	0.4	3.4	0.0	3.7	3.1	5.4	7.2	4.5	4.4	1.9	3.4	5.0	1.6	0.0	0.8	0.0	0.4	0.0	2.08	7.24
27-Sep	0.2	1.3	1.1	1.1	0.6	0.0	0.7	0.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	1.6	1.2	10.2	17.3	12.5	5.3	1.2	2.39	17.29
28-Sep	0.9	0.7	0.8	0.1	1.1	2.9	3.8	3.5	4.2	5.0	4.9	3.6	2.1	2.3	2.1	1.9	2.0	1.1	1.0	0.6	0.4	0.0	0.5	0.0	1.90	5.04
29-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.6	2.3	2.5	2.9	3.4	3.3	3.6	3.1	4.5	4.9	6.1	6.7	6.0	6.3	5.1	4.5	2.83	6.68
30-Sep	4.6	6.1	5.0	1.3	1.0	1.0	1.0	1.1	0.7	1.1	2.2	0.4	0.9	0.6	0.4	1.8	2.3	1.6	1.9	1.2	2.2	2.1	0.9	0.9	1.76	6.06
																								Diurnal Average		
																								Diurnal Maximum		
2.97 3.50 2.74 2.18 2.47 2.68 3.20 4.29 5.14 4.40 4.02 3.19 2.40 1.98 1.97 3.17 3.88 4.15 4.37 5.37 5.36 4.32 3.29 3.22																								Diurnal Average		
23.74 26.01 24.10 20.16 15.28 16.84 16.19 19.65 22.87 24.53 25.80 18.14 11.48 11.19 10.04 16.97 25.13 25.28 20.17 38.04 17.79 19.70 15.39 18.15																								Diurnal Maximum		
UO - 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 910, Genesee  
 Calibration Date: September 24, 2014  
 Parameter: NO/NO<sub>2</sub>/NO<sub>x</sub>

Instrument: Teco 42C	Serial Number: 42c-70978-367	Previous Calibration Date: August 1, 2014
Calibration: Routine	Calibration Equipment: Sabio 2010 SN 08600312	Barometric Pressure: 27.01" Hg
Calibration Method: Standard Gas Dilution/GPT	Cylinder ID: FF26927	Temperature: 20.9° C
Cylinder Concentration: 12.6 ppm NO	In Service: December 10, 2013	Technician: L. Burns

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	4.9	7.8	NA	0.863	1.028	1.008	300 ppb
Current	4.9	5.3	NA	0.856	1.012	1.008	300 ppb

NO	Final Zero: 0.1 ppb	Final Span: 0.2 ppb	As Found Correction Factor: 1.003
NO <sub>2</sub>	Final Zero: -1.0 ppb	Final Span: 74.1 ppb	As Found Correction Factor: 0.000
NO <sub>x</sub>	Final Zero: 0.3 ppb	Final Span: 74.9 ppb	As Found Correction Factor: 0.982

Results of Linear Regression			Slope	Intercept	R <sup>2</sup>
NO	R <sub>c</sub> vs C <sub>c</sub>	Previous	100.571300	-73.771860	0.999945
		Current	99.864710	21.361200	0.999996
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	-0.000030	0.999996
NO <sub>2</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	99.734980	99.081050	0.999945
		Current	98.909360	95.598470	0.999485
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000000	0.999485
NO <sub>x</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	100.355600	-99.344350	0.999945
		Current	100.341000	8.322594	0.999995
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000030	0.999995

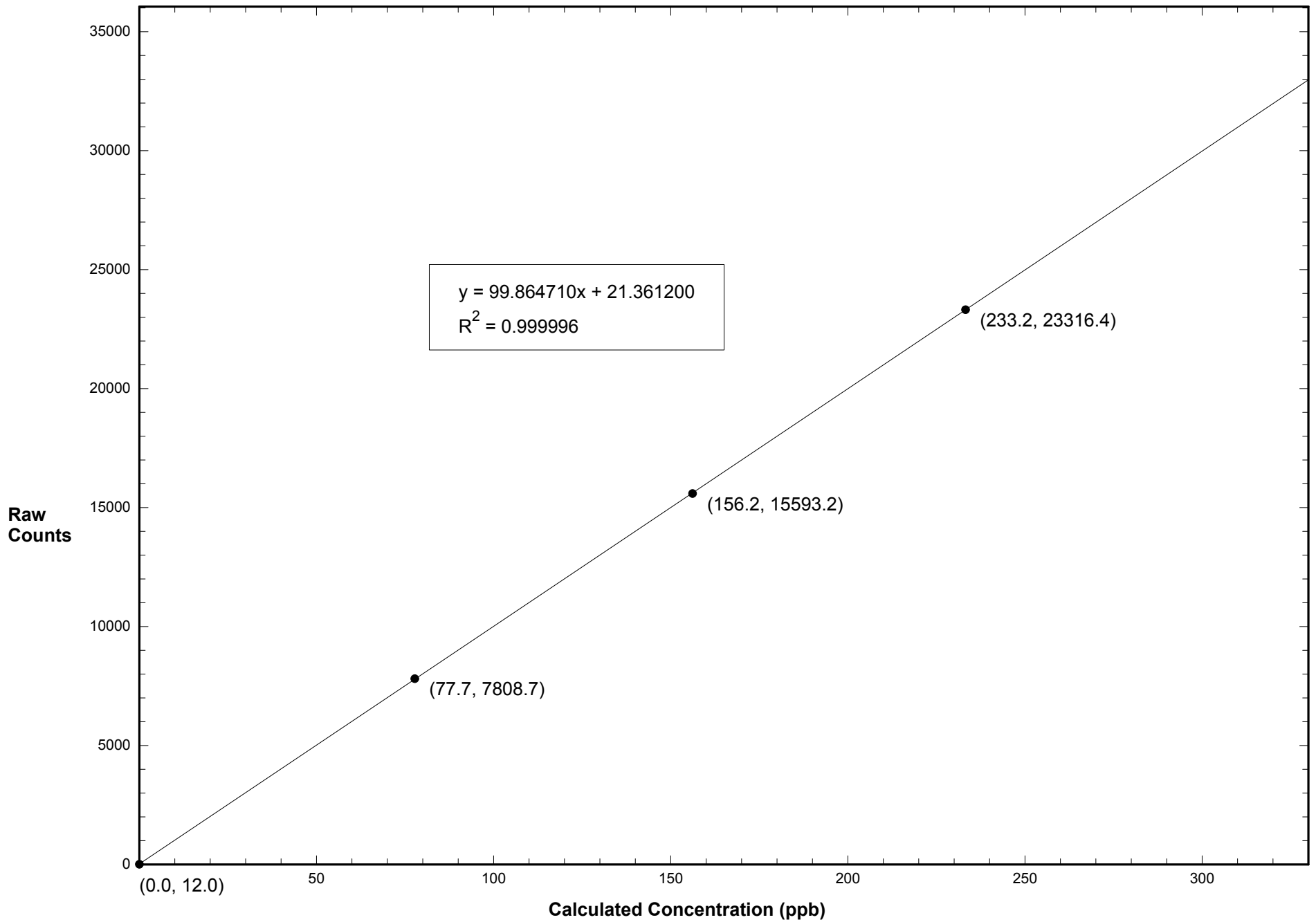
Comments:

**Calibration Data Summary (Page 2)**

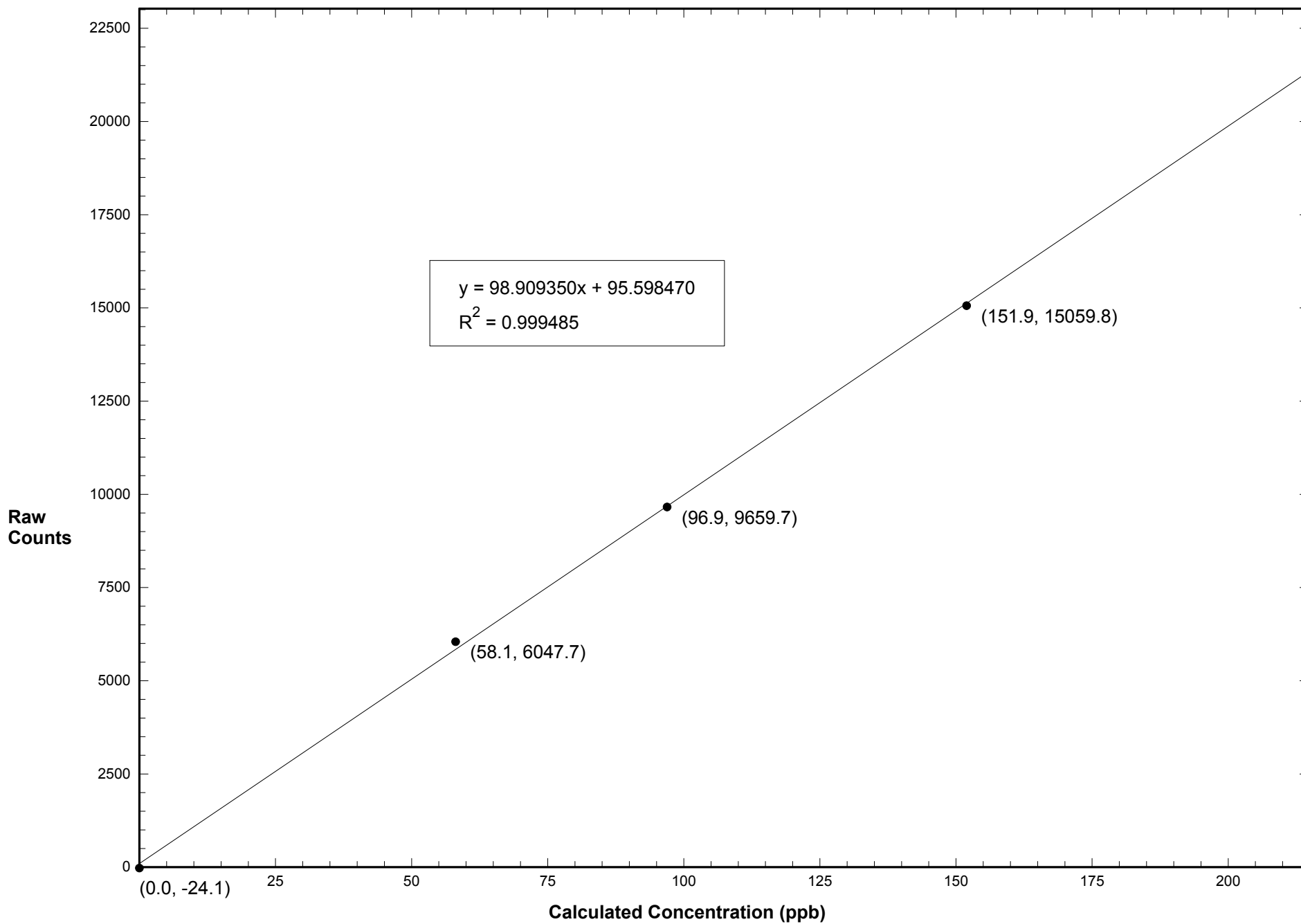
September 24, 2014 - Station 910

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>		
0.07505	3.980	233.2	23316.4	233.3	1.000		
0.05002	3.986	156.2	15593.2	155.9	1.001		
0.02471	3.981	77.7	7808.7	78.0	0.997		
0.00000	4.000	0.0	12.0	-0.1			
NO Calibration					Average Correction Factor:	0.999	
0.07505	3.980	233.2	23411.4	233.2	1.000		
0.05002	3.986	156.2	15656.9	156.0	1.001		
0.02471	3.981	77.7	7837.0	78.0	0.996		
0.00000	4.000	0.0	-4.7	-0.1			
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>
232.5	8063.8	80.5	151.9	15059.8	151.3	1.004	0.996
232.5	13557.7	135.5	96.9	9659.7	96.7	1.002	0.998
232.5	17437.4	174.4	58.1	6047.7	60.2	0.965	1.036
			0.0	-24.1	-1.2		
					Average Correction Factor:	0.991	
NO <sub>2</sub> Gas Phase Titration					Average Converter Efficiency: 1.010		
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	0.998	1.000	0.2				
NO <sub>2</sub>	1.003	1.004	0.1				
NO <sub>x</sub>	0.997	1.000	0.3				

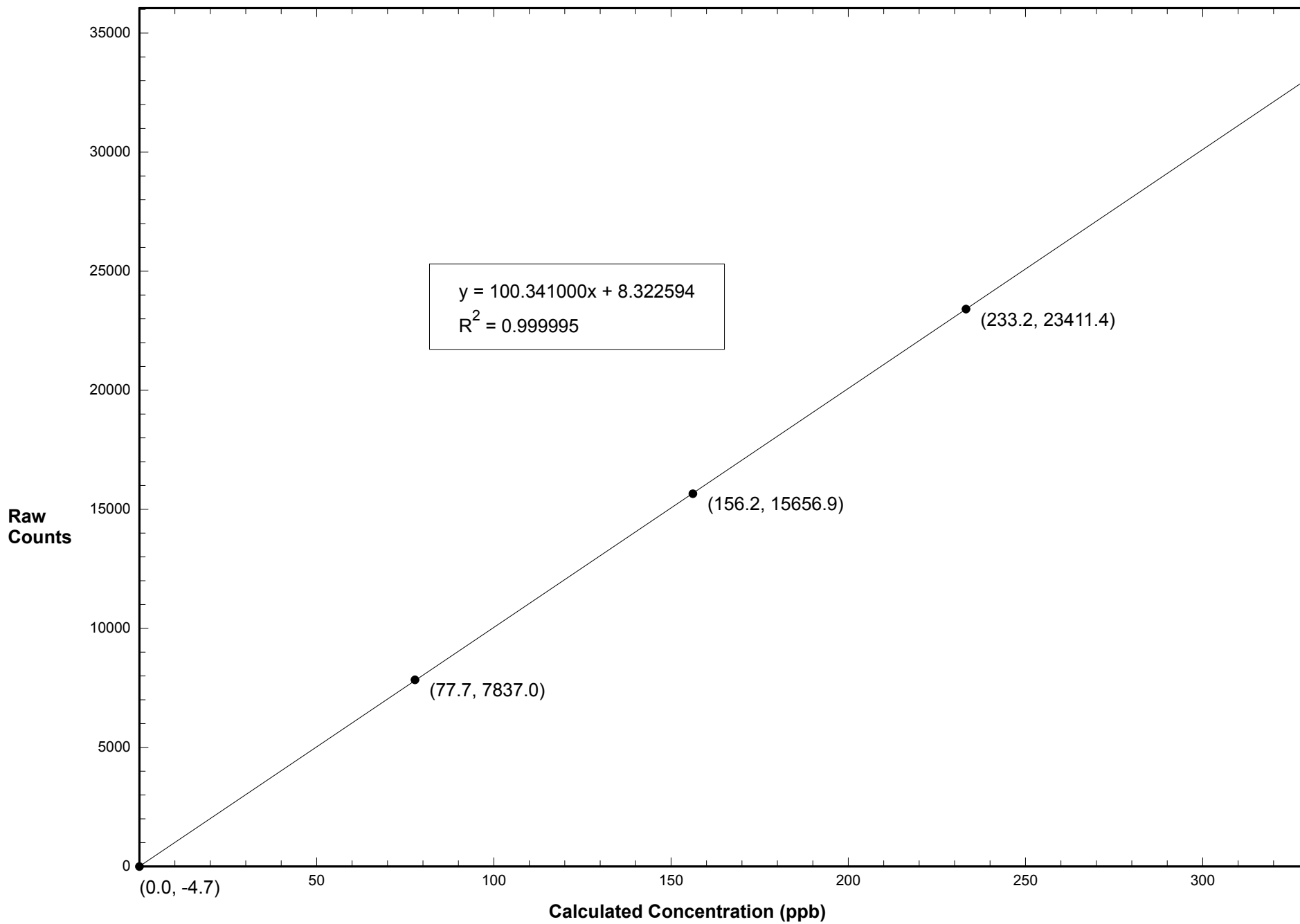
# Station 910 NO September 24, 2014: Linear Regression



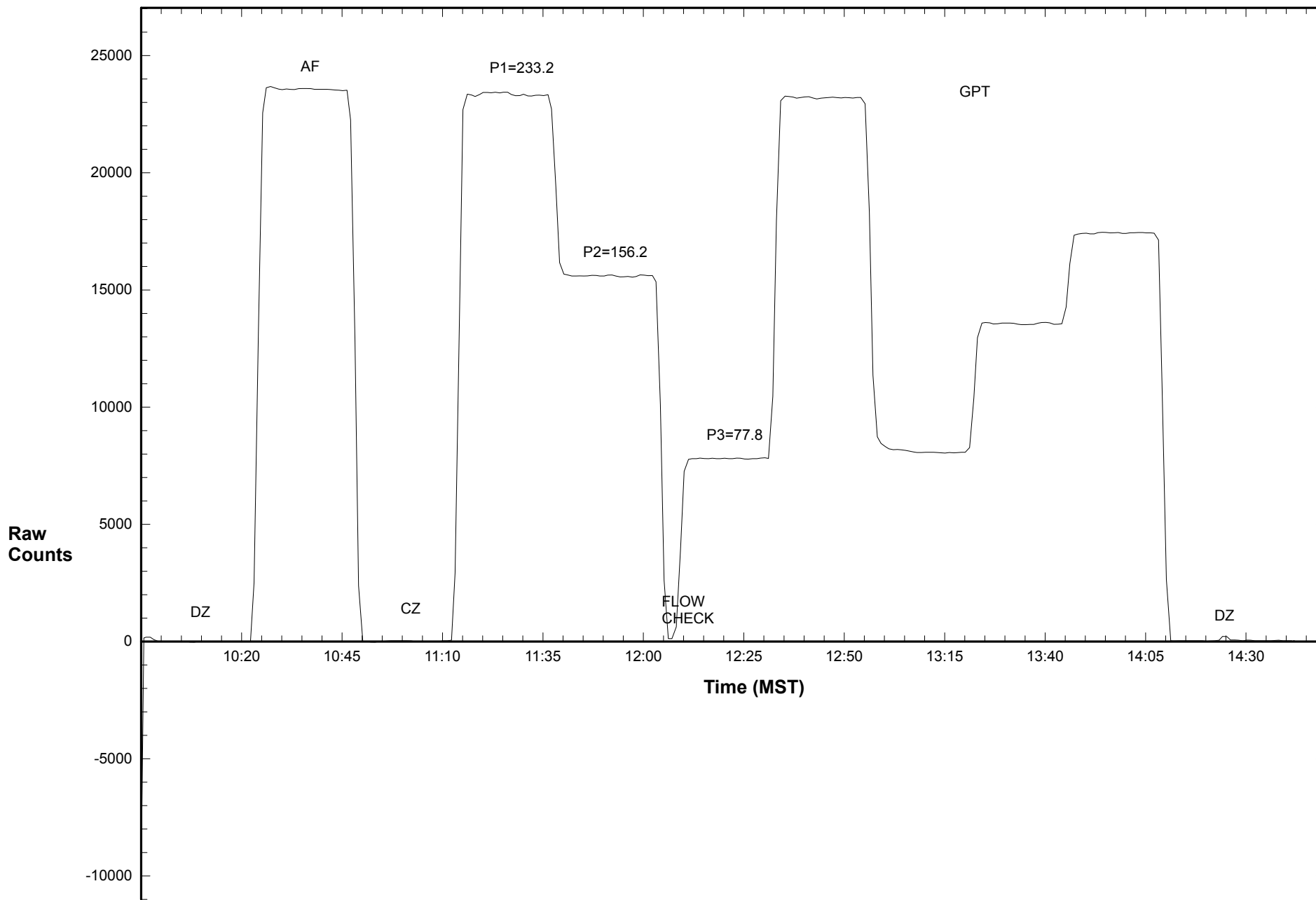
# Station 910 NO2 September 24, 2014: Linear Regression



# Station 910 NOX September 24, 2014: Linear Regression

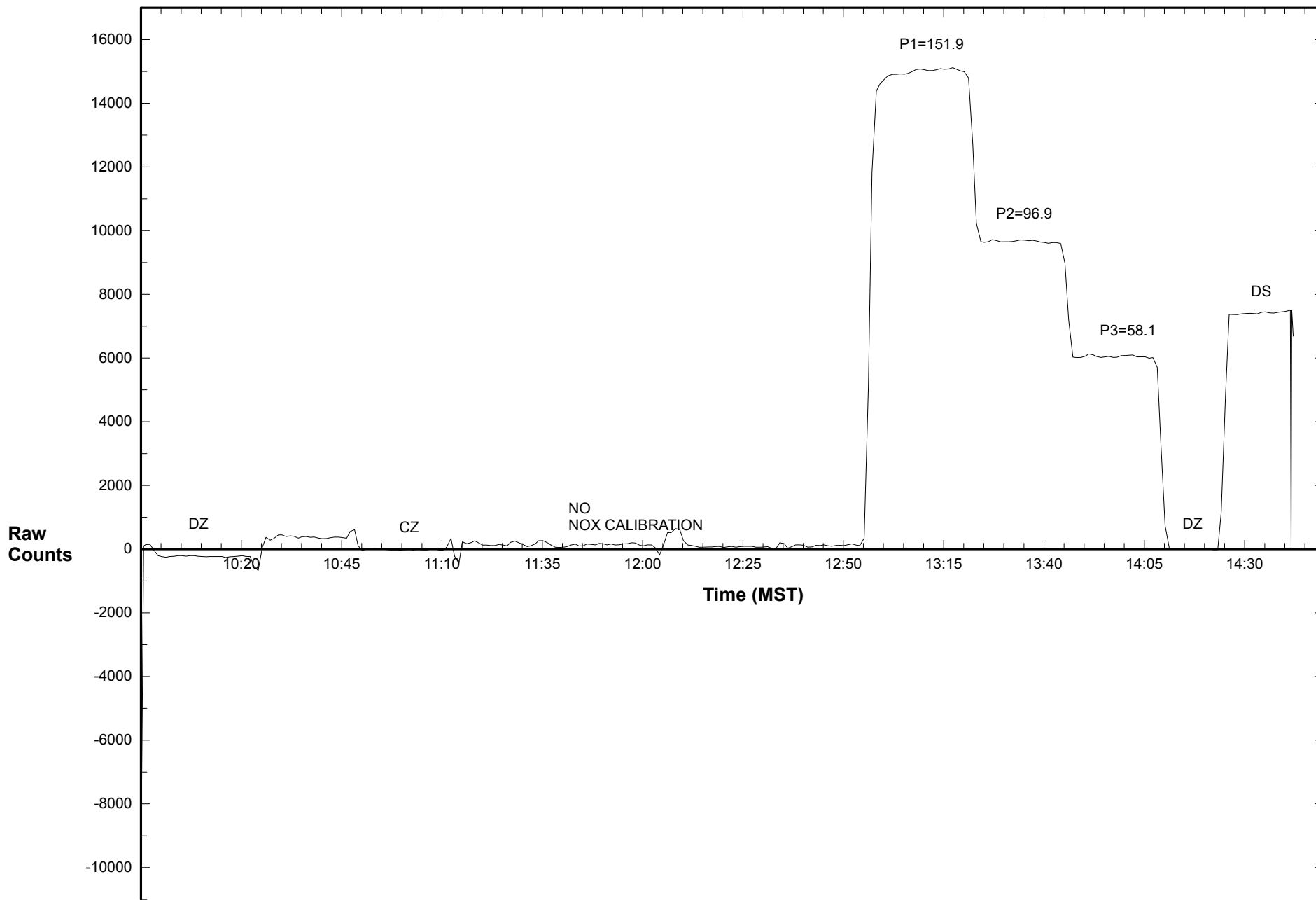


# Station 910 NO September 24, 2014: Calibration Graph

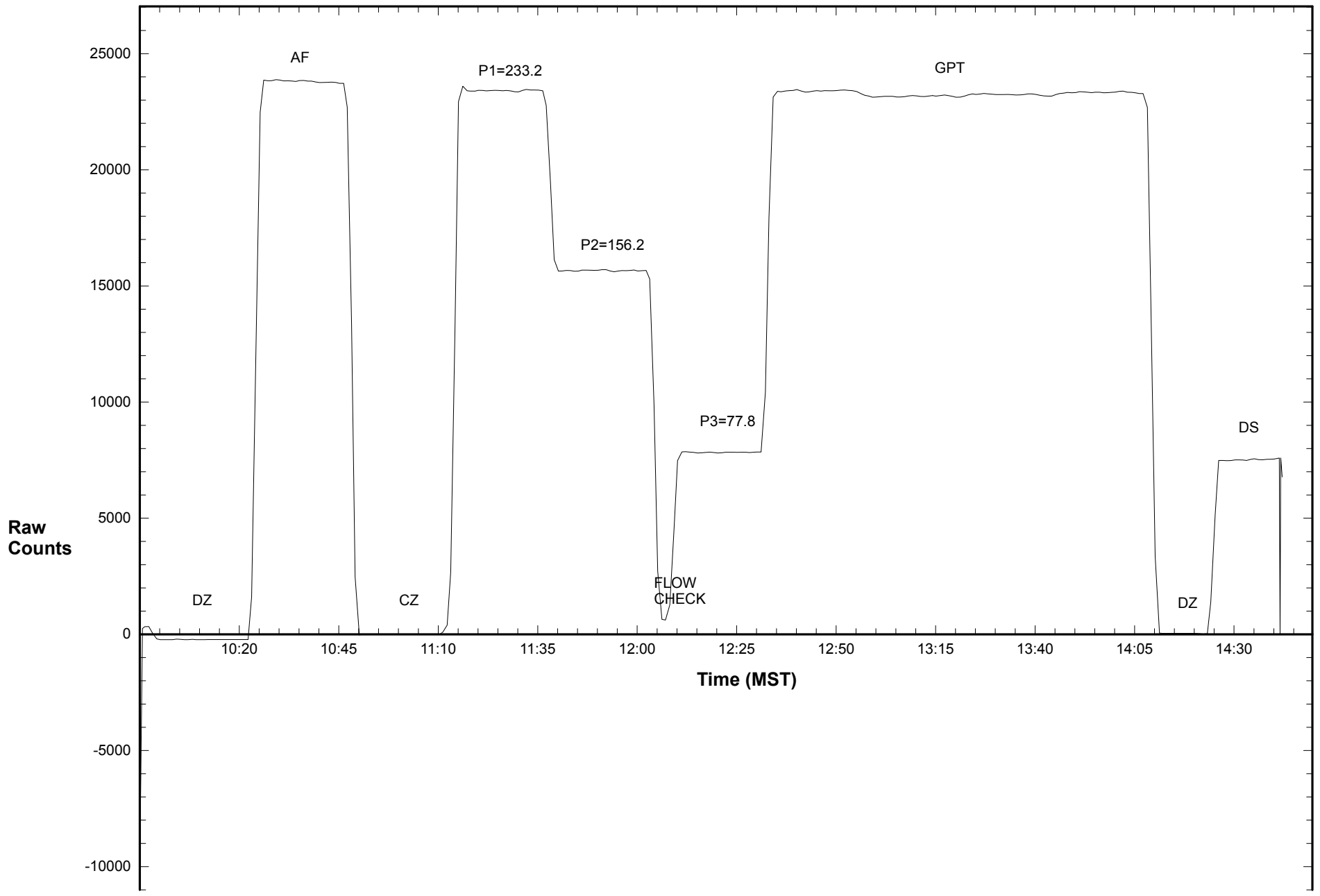




# Station 910 NO2 September 24, 2014: Calibration Graph



# Station 910 NOX September 24, 2014: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee  
 Calibration Date: September 24, 2014  
 Parameter: SO<sub>2</sub>

Instrument: Teco 43i	Serial Number: 0708721218	Previous Calibration Date: August 1, 2014
Calibration: Routine	Calibration Equipment: Sabio 2010 SN 08600312	Barometric Pressure: 27.01" Hg
Calibration Method: Standard Gas Dilution	Cylinder ID: FF26927	Temperature: 20.9° C
Cylinder Concentration: 5.97 ppm SO <sub>2</sub>	In Service: December 10, 2013	Technician: L. Burns

Instrument Settings	SO <sub>2</sub> bkg ppb	SO <sub>2</sub> Coefficient	Monitoring Range
Previous	12.1	0.837	200 ppb
Current	13.1	0.872	200 ppb

Final Zero: -0.2 ppb                      Final Span: 46.6 ppb                      As Found Correction Factor: 1.051

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>
0.0751	3.980	110.5	16586.8	110.3	1.002
0.0500	3.986	74.0	11186.8	74.4	0.995
0.0247	3.981	36.8	5531.0	36.8	1.001
0.0000	4.000	0.0	-15.6	-0.1	

Results of Linear Regression			
R <sub>c</sub> vs C <sub>c</sub>	Slope	Intercept	R <sup>2</sup>
Previous	150.030100	-51.977380	0.999914
Current	150.457400	-2.076991	0.999969
C <sub>i</sub> vs C <sub>c</sub>			
Current	1.000000	0.000011	0.999970

Average Correction Factor: 0.999

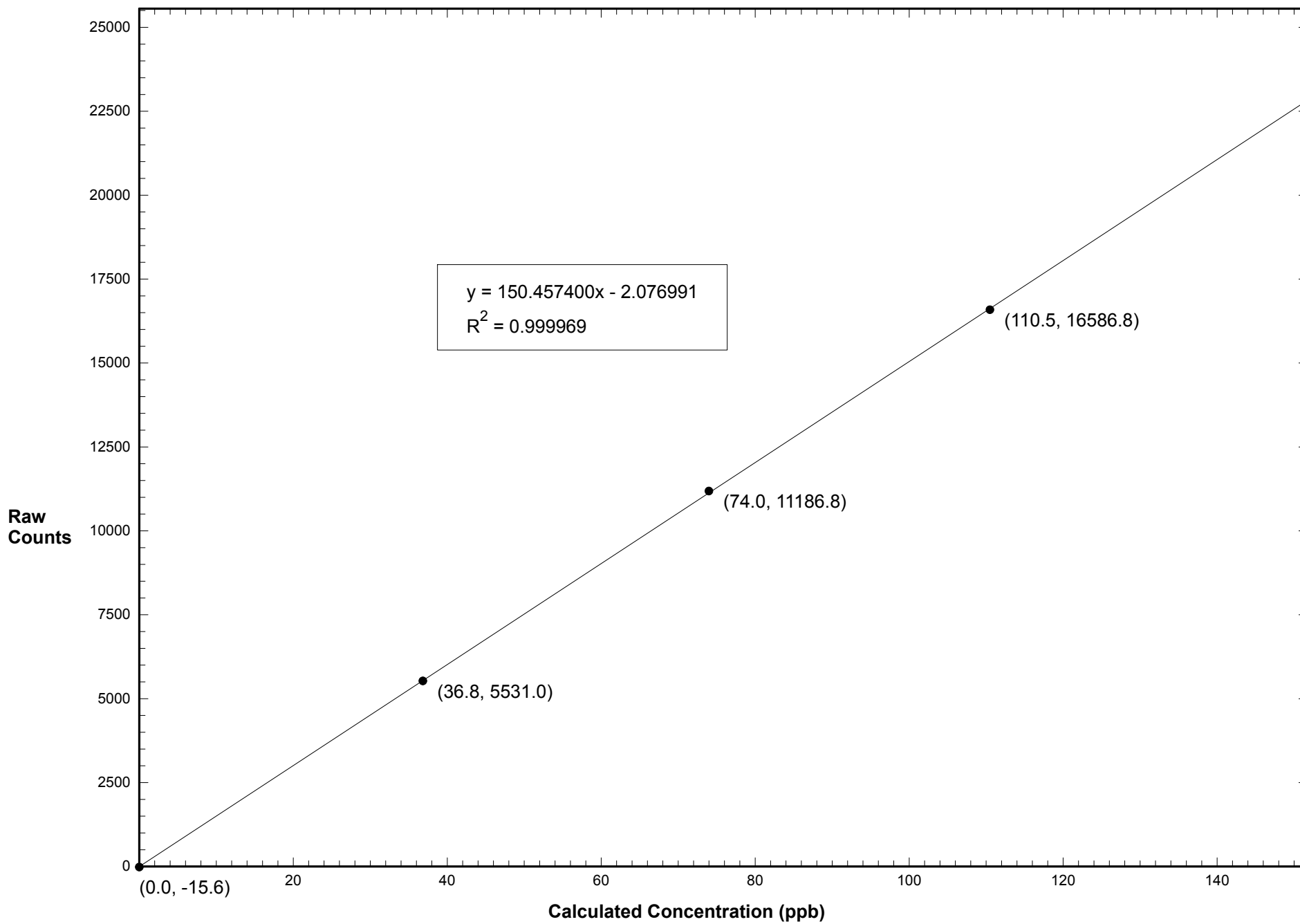
Previous Correction Factor: 0.997

Current Correction Factor: 1.002

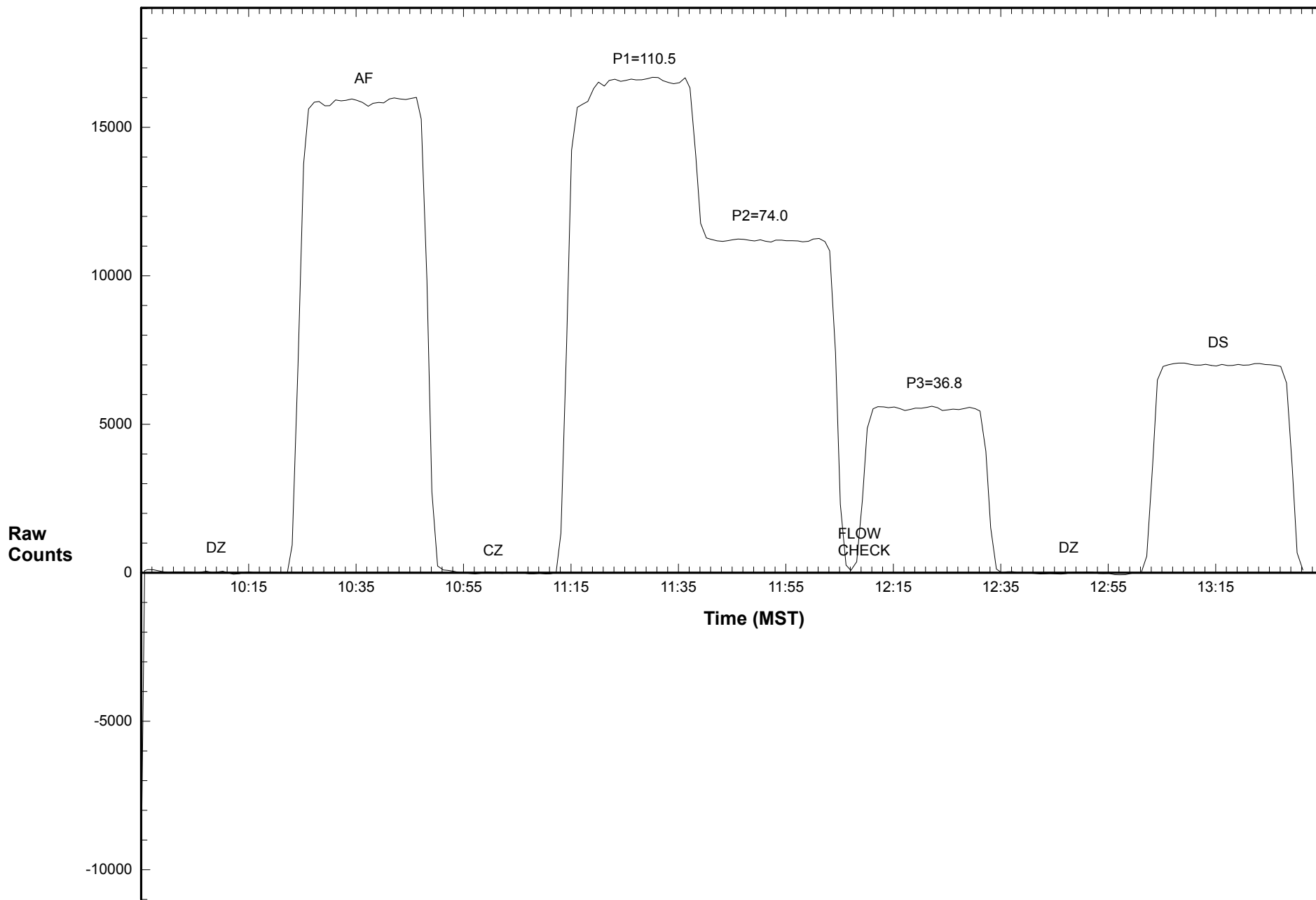
Percent Change of Correction Factor: 0.5

Comments:

# Station 910 SO2 September 24, 2014: Linear Regression



# Station 910 SO2 September 24, 2014: Calibration Graph



**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 910  
GENESEE  
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 - Genesee**  
**Summary of Hourly Averages**

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

Maximum Value: 29.43 C on Sep 22 15:00      Maximum Daily Average: 18.96 C on Sep 22		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: -3.6 C on Sep 11 04:00 Maximum Diurnal Average: 17.25 C at hour 16 Monthly Average: 11.453 C		Minimum Daily Average: 1.20 C on Sep 8 Minimum Diurnal Average: 6.85 C at hour 7 Percentiles: P <sub>1</sub> = -1.7 P <sub>10</sub> = 3.4 Q <sub>1</sub> = 6.9 Median = 10.9 Q <sub>3</sub> = 15.8 P <sub>90</sub> = 20.1 P <sub>99</sub> = 26.3																								
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	6.9	7.1	7.4	6.2	5.6	5.6	6.2	8.2	9.1	12.0	15.3	15.8	16.7	17.8	18.0	18.0	12.2	11.8	12.1	10.4	9.2	8.6	9.0	9.0	10.76	18.03
2-Sep	8.3	7.6	7.4	7.8	9.2	9.5	8.4	9.9	11.3	13.0	14.2	15.3	15.5	16.0	16.3	17.1	16.5	13.9	12.0	9.5	8.4	7.5	6.8	6.8	11.17	17.08
3-Sep	7.3	7.9	8.4	6.8	7.5	8.5	9.3	10.3	10.5	10.6	11.8	14.0	14.1	15.3	15.1	15.8	16.6	14.2	13.7	10.6	9.3	8.3	7.5	6.1	10.82	16.63
4-Sep	6.2	6.5	5.9	6.6	7.6	8.0	8.2	9.6	11.3	14.2	14.7	16.6	17.2	17.1	17.0	17.0	14.0	16.2	15.9	13.9	11.8	11.1	10.9	10.3	11.99	17.24
5-Sep	8.6	8.9	11.0	10.2	7.0	5.6	6.5	9.6	12.5	15.6	18.3	19.6	20.6	21.4	21.7	21.8	20.5	19.8	19.0	18.0	16.9	16.4	14.6	14.2	14.93	21.83
6-Sep	10.7	9.4	9.3	9.2	9.3	9.0	9.6	12.6	16.6	19.7	21.4	22.9	24.1	25.0	25.6	26.1	26.2	25.7	23.5	19.5	16.5	13.9	13.0	13.1	17.16	26.20
7-Sep	15.2	14.0	15.2	13.5	11.4	13.0	10.0	12.0	13.2	15.1	15.4	15.1	15.5	15.9	15.8	13.4	12.6	12.4	8.9	7.3	6.3	5.3	4.5	3.9	11.88	15.94
8-Sep	2.9	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.7	1.1	1.2	1.6	1.7	1.9	1.9	1.9	1.6	1.4	1.5	1.6	1.7	1.20	2.88
9-Sep	1.7	1.7	1.8	1.7	1.7	1.5	1.3	1.5	2.1	2.7	3.1	4.1	4.2	4.7	4.8	4.4	4.4	4.4	3.9	3.3	2.8	2.4	2.5	2.4	2.88	4.76
10-Sep	2.2	2.1	1.9	1.6	1.3	1.3	1.6	1.8	1.9	2.5	3.1	4.1	5.4	5.2	5.3	6.0	6.3	6.2	5.0	3.4	2.0	0.2	-1.1	-1.5	2.81	6.27
11-Sep	-2.2	-2.0	-2.4	-3.6	-3.1	-2.6	-2.4	-0.4	2.9	5.8	8.8	11.3	12.7	13.5	14.1	14.1	13.7	13.1	10.2	5.6	3.8	3.1	2.9	3.0	5.00	14.12
12-Sep	3.1	2.5	2.8	1.8	2.5	4.4	6.2	7.6	8.5	8.2	6.8	6.9	7.2	7.4	7.5	8.8	10.1	9.9	9.3	9.0	8.9	8.1	7.3	6.6	6.75	10.09
13-Sep	6.5	6.3	6.6	6.6	6.5	6.1	5.9	6.6	7.6	9.0	11.0	11.8	12.5	13.5	13.6	13.9	14.3	13.1	10.6	8.0	6.8	5.9	5.4	5.1	8.88	14.28
14-Sep	5.4	5.7	5.8	5.5	3.7	3.7	3.4	6.2	10.4	12.5	14.5	16.2	17.4	17.8	18.4	19.1	18.6	18.7	16.1	13.6	11.5	8.6	7.5	7.0	11.14	19.12
15-Sep	7.1	6.7	7.0	5.9	6.8	7.4	6.9	8.4	11.2	13.7	15.6	17.5	19.5	21.1	22.0	22.4	22.2	21.6	19.0	15.9	15.5	11.8	11.1	9.5	13.58	22.43
16-Sep	9.5	10.5	7.6	6.6	6.0	5.2	5.9	9.1	12.8	15.8	18.9	21.7	24.0	24.7	25.2	25.2	25.0	24.0	21.1	18.1	16.3	13.8	13.5	12.3	15.53	25.17
17-Sep	11.3	9.3	7.4	7.1	6.7	6.0	6.1	7.5	12.0	16.8	19.7	21.3	22.2	22.8	24.1	24.7	24.5	22.8	19.5	16.6	17.1	13.8	14.6	14.1	15.33	24.65
18-Sep	13.3	13.2	15.4	15.8	15.9	14.4	14.0	14.3	14.0	14.3	15.4	16.4	16.7	17.3	17.9	18.7	19.1	18.0	16.6	13.0	12.5	12.2	13.3	12.7	15.18	19.13
19-Sep	11.6	10.2	9.7	9.4	8.9	9.7	10.0	9.4	12.7	15.1	16.8	19.5	20.5	21.3	21.4	22.1	20.5	19.6	17.4	14.1	14.9	13.9	13.3	12.9	14.80	22.10
20-Sep	11.0	9.4	10.3	11.0	11.0	9.8	5.0	7.5	10.9	13.9	15.5	17.1	18.4	19.6	20.5	21.3	21.7	21.3	17.8	14.0	12.3	11.9	12.0	12.3	13.98	21.68
21-Sep	11.5	11.6	11.1	10.0	8.4	9.3	6.7	10.0	13.8	16.6	21.2	23.7	25.2	26.4	26.9	26.5	26.7	24.8	20.5	17.6	16.6	15.2	14.4	12.7	16.97	26.93
22-Sep	12.9	12.6	8.9	8.3	9.2	10.3	9.4	13.1	17.0	20.1	23.0	26.4	28.6	29.0	29.4	27.9	26.2	24.5	22.4	18.7	18.5	20.7	19.7	18.3	18.96	29.43
23-Sep	15.9	15.1	15.9	15.1	12.6	11.7	13.0	13.3	14.8	16.3	17.4	18.7	19.0	19.3	19.9	20.0	20.4	18.9	15.8	13.5	11.6	11.1	10.9	11.6	15.48	20.41
24-Sep	11.3	11.3	10.8	10.5	10.1	10.0	9.5	9.9	11.2	12.7	14.5	16.8	19.0	21.5	22.9	23.6	23.6	23.7	21.2	19.9	18.2	16.2	13.2	12.6	15.59	23.66
25-Sep	12.1	11.7	11.3	10.7	10.5	10.4	10.2	10.4	12.2	13.9	15.1	18.2	19.2	19.7	20.2	20.1	20.1	19.1	17.5	16.9	15.8	13.6	11.4	9.5	14.58	20.22
26-Sep	8.9	9.3	9.2	9.0	9.0	8.9	8.9	8.9	8.7	8.3	8.6	8.6	8.9	9.4	10.7	12.1	12.1	11.1	10.7	9.5	8.7	8.0	7.0	7.3	9.24	12.11
27-Sep	7.1	6.6	5.9	6.0	5.8	5.1	5.3	5.4	5.1	5.1	6.2	6.2	7.2	7.3	6.8	6.9	6.6	5.9	5.5	4.6	4.3	4.4	4.6	4.4	5.76	7.31
28-Sep	4.2	4.1	4.1	4.3	4.6	4.7	4.9	5.2	6.4	7.5	8.4	9.2	10.3	12.1	14.1	15.2	15.2	14.2	12.2	10.7	9.3	8.8	8.6	9.0	8.64	15.24
29-Sep	9.4	7.8	7.3	7.5	7.7	7.5	5.2	5.4	9.8	12.3	14.0	16.1	16.1	17.6	18.7	18.7	17.6	15.9	13.0	10.9	10.7	10.8	10.4	9.5	11.67	18.73
30-Sep	9.1	10.0	10.9	11.3	11.4	10.2	9.8	9.8	10.0	10.5	11.4	12.1	13.0	13.8	15.2	14.6	14.7	12.9	11.8	9.9	8.9	8.3	7.1	6.4	10.95	15.15
																								Diurnal Average		
																								Diurnal Maximum		
8.31 7.93 7.81 7.43 7.17 7.16 6.85 8.12 10.03 11.80 13.36 14.80 15.74 16.49 17.03 17.25 16.80 15.99 14.13 11.92 10.90 9.85 9.25 8.76																										
15.89 15.12 15.87 15.78 15.88 14.39 14.00 14.26 17.05 20.14 23.04 26.39 28.57 28.98 29.43 27.91 26.70 25.71 23.48 19.88 18.50 20.66 19.65 18.25																										



**WCAS - Genesee**  
**Summary of Hourly Averages**

**External Temperature 10 m (ET\_10) - C**  
**September 2014**

Maximum Value: 28.47 C on Sep 22 15:00      Maximum Daily Average: 19.94 C on Sep 22																						Hours in Service: 720 Hours of Data: 720				
Minimum Value: -1.6 C on Sep 11 04:00      Minimum Daily Average: 0.62 C on Sep 8 Maximum Diurnal Average: 16.23 C at hour 16      Minimum Diurnal Average: 7.48 C at hour 7 Monthly Average: 11.545 C      Percentiles: P <sub>1</sub> = -0.7 P <sub>10</sub> = 3.3 Q <sub>1</sub> = 7.7 Median = 11.3 Q <sub>3</sub> = 15.6 P <sub>90</sub> = 20.0 P <sub>99</sub> = 26.2																						Hours of Missing Data: 0 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	8.6	9.9	8.8	7.8	6.8	6.5	6.3	7.5	8.6	11.1	13.9	14.6	15.3	16.1	16.9	17.2	12.1	10.4	11.4	11.5	9.8	9.9	9.0	8.9	10.78	17.24
2-Sep	8.8	8.6	8.7	8.6	9.3	9.5	8.4	9.6	10.7	12.0	13.0	13.9	14.2	14.7	15.1	15.9	15.7	13.3	12.4	11.4	10.9	10.5	9.9	9.3	11.43	15.89
3-Sep	8.8	8.5	8.6	6.5	7.3	8.2	8.9	9.6	9.8	9.7	10.6	12.6	13.1	14.2	14.3	14.9	15.5	13.8	13.8	12.4	11.3	10.2	9.4	8.4	10.85	15.50
4-Sep	7.5	7.3	6.8	7.1	7.7	8.0	8.1	9.4	10.4	13.1	13.9	15.5	16.1	16.2	16.0	16.2	13.3	15.3	15.6	14.5	13.4	12.3	11.6	11.0	11.92	16.17
5-Sep	9.9	10.2	11.1	10.5	8.1	7.7	7.8	8.7	10.8	13.9	16.5	17.7	18.8	19.7	20.2	20.6	20.2	19.8	19.6	18.7	17.5	17.0	15.6	14.9	14.79	20.55
6-Sep	12.7	11.0	10.8	10.7	10.6	10.4	10.2	12.1	15.3	18.5	20.2	21.4	22.4	23.5	24.3	24.8	25.1	24.9	24.3	22.1	19.3	17.3	16.5	15.4	17.67	25.06
7-Sep	16.4	15.4	16.1	15.1	12.9	13.0	10.3	11.7	12.5	14.0	14.2	14.0	14.4	15.0	15.1	12.8	11.6	11.4	8.0	6.5	5.4	4.5	3.7	3.1	11.54	16.39
8-Sep	2.1	0.3	0.1	0.1	0.0	0.0	0.1	0.1	0.0	-0.1	-0.1	0.0	0.4	0.5	1.0	1.2	1.3	1.3	1.3	1.1	0.9	1.0	1.0	1.1	0.62	2.06
9-Sep	1.2	1.2	1.3	1.2	1.2	1.0	0.7	0.8	1.3	1.6	1.9	2.7	3.1	3.5	3.7	3.5	3.6	3.7	3.3	2.9	2.3	2.0	2.0	1.9	2.14	3.70
10-Sep	1.6	1.5	1.3	1.0	0.6	0.7	0.9	1.0	1.2	1.7	2.2	3.0	4.0	4.3	4.3	4.9	5.2	5.3	4.7	4.1	2.7	1.5	0.4	-0.7	2.38	5.25
11-Sep	-1.2	-0.7	-1.0	-1.6	-1.6	-1.4	-1.6	-1.4	0.8	3.3	6.0	8.2	9.6	10.8	11.9	12.4	12.6	12.5	11.3	8.4	6.5	5.8	4.5	4.0	4.90	12.57
12-Sep	4.0	3.8	3.3	2.3	3.2	4.5	5.9	7.5	8.1	7.9	5.9	5.8	5.9	5.8	6.6	8.0	9.3	9.4	9.0	8.9	8.7	7.9	6.5	5.9	6.42	9.35
13-Sep	5.6	5.6	5.9	5.9	6.0	5.9	5.7	5.9	6.8	7.8	8.7	9.5	10.4	11.2	11.9	12.4	12.8	12.7	11.6	10.2	8.4	7.5	7.7	6.7	8.45	12.79
14-Sep	7.0	7.2	7.2	7.6	5.7	5.7	5.4	6.1	9.3	11.4	13.2	14.8	15.9	16.5	17.1	17.7	17.7	17.7	17.1	15.1	13.3	11.2	10.7	10.4	11.70	17.74
15-Sep	10.2	9.6	10.0	8.7	9.6	8.9	8.1	7.8	10.1	12.6	14.5	16.4	18.5	20.0	21.0	21.2	21.3	21.1	20.0	18.5	16.8	15.0	14.0	13.2	14.46	21.26
16-Sep	13.3	13.6	11.8	12.5	9.0	8.7	9.5	9.2	11.2	14.5	17.9	20.7	22.6	23.5	23.9	24.1	24.3	23.7	22.4	21.0	19.0	17.8	17.4	14.8	16.93	24.26
17-Sep	14.1	12.4	12.1	10.9	11.4	8.5	7.8	8.4	10.5	15.6	18.5	20.0	21.0	21.8	23.1	23.8	24.0	23.2	22.2	20.4	18.3	16.2	17.3	16.0	16.56	24.03
18-Sep	16.2	15.3	16.2	16.1	15.9	14.5	14.1	14.0	13.7	13.8	14.7	15.5	15.7	16.2	16.7	17.5	18.0	17.7	17.0	15.6	14.5	13.6	13.5	12.2	15.34	17.98
19-Sep	11.2	10.3	9.4	9.7	9.4	9.7	10.5	9.7	11.7	13.9	15.7	18.3	19.3	19.9	20.3	21.0	20.2	19.5	17.8	14.9	15.5	14.5	13.9	13.3	14.56	20.96
20-Sep	12.2	11.3	11.0	11.3	11.2	10.5	7.2	7.8	9.8	12.4	14.2	15.6	16.9	18.1	19.1	20.1	20.7	20.7	19.8	17.2	15.2	14.2	13.7	13.8	14.33	20.69
21-Sep	13.4	13.3	12.9	11.9	11.2	11.8	9.0	11.7	12.8	15.7	20.8	22.9	24.2	25.3	26.2	26.4	26.7	25.8	23.7	21.6	19.9	18.1	17.4	16.5	18.29	26.68
22-Sep	15.4	14.2	12.6	10.7	12.6	13.1	12.7	13.8	15.8	19.3	22.2	25.4	27.4	28.0	28.5	27.8	26.8	25.9	25.0	21.8	20.8	20.7	19.7	18.6	19.94	28.47
23-Sep	17.3	16.5	16.0	15.4	14.2	13.2	13.3	13.1	14.1	15.2	16.2	17.5	17.6	18.1	18.5	18.9	19.2	18.8	17.4	15.8	14.0	13.1	12.8	12.9	15.79	19.21
24-Sep	12.6	11.8	11.1	10.5	10.3	10.1	9.7	9.6	10.4	11.9	13.5	15.8	18.0	20.4	21.9	22.9	23.2	24.4	23.1	20.9	18.2	16.5	14.4	13.5	15.61	24.35
25-Sep	13.2	12.7	13.0	11.7	11.4	11.4	11.9	10.7	11.8	12.9	13.8	16.2	17.9	18.9	19.6	19.7	19.7	18.7	17.3	16.6	15.4	13.1	11.0	9.2	14.49	19.66
26-Sep	8.5	8.9	8.7	8.6	8.5	8.4	8.4	8.4	8.1	7.7	7.6	7.6	7.9	8.5	9.6	10.8	11.0	10.6	10.6	9.5	8.6	7.8	7.0	7.1	8.69	11.04
27-Sep	6.8	6.3	5.7	5.7	5.5	4.9	4.9	4.9	4.4	4.3	5.0	5.0	5.9	6.3	5.7	5.7	5.6	5.1	4.8	4.1	3.7	3.7	3.8	3.6	5.06	6.79
28-Sep	3.4	3.3	3.3	3.5	3.8	4.0	4.2	4.5	5.5	6.5	7.2	7.9	9.0	10.5	12.5	13.8	14.3	14.1	12.9	11.5	10.4	9.7	9.6	10.0	8.13	14.29
29-Sep	10.3	9.2	8.0	8.0	8.1	8.0	7.4	7.2	8.8	10.5	12.0	13.8	14.9	15.8	17.1	17.5	17.0	16.0	15.3	14.2	13.2	12.1	11.1	10.4	11.92	17.52
30-Sep	9.8	9.9	10.7	11.0	11.1	9.5	8.7	8.3	9.5	10.1	10.8	11.4	12.1	12.9	14.0	13.7	13.8	12.7	11.9	10.4	9.7	9.0	7.9	7.3	10.68	14.03
																						Diurnal Average				
																						Diurnal Maximum				





**WCAS - Genesee**  
**Summary of Hourly Averages**

**Delta Temperature (ET\_D) - C**  
**September 2014**

Maximum Value: 5.86 C on Sep 16 04:00      Maximum Daily Average: 1.39 C on Sep 16		Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																									
Minimum Value: -3.1 C on Sep 11 13:00 Maximum Diurnal Average: 1.45 C at hour 20 Monthly Average: 0.095 C		Minimum Daily Average: -0.72 C on Sep 9 Minimum Diurnal Average: -1.33 C at hour 12 Percentiles: P <sub>1</sub> = -2.2 P <sub>10</sub> = -1.3 Q <sub>1</sub> = -1.0 Median = -0.4 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 2.3 P <sub>99</sub> = 3.7																									
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	1.6	2.7	1.4	1.6	1.2	0.8	0.1	-0.7	-0.5	-0.9	-1.4	-1.3	-1.4	-1.7	-1.1	-0.7	-0.1	-1.4	-0.7	1.1	0.6	1.3	0.1	-0.1	0.02	2.74	
2-Sep	0.5	1.0	1.2	0.8	0.1	0.0	-0.1	-0.3	-0.6	-0.9	-1.2	-1.3	-1.2	-1.3	-1.1	-1.2	-0.8	-0.6	0.4	1.9	2.4	3.0	3.1	2.4	0.26	3.07	
3-Sep	1.5	0.6	0.2	-0.3	-0.2	-0.3	-0.4	-0.8	-0.7	-0.8	-1.2	-1.4	-1.0	-1.0	-0.8	-0.9	-1.1	-0.3	0.1	1.7	2.0	1.9	1.9	2.3	0.03	2.28	
4-Sep	1.2	0.8	0.9	0.5	0.1	0.0	-0.1	-0.2	-0.9	-1.1	-0.9	-1.1	-1.1	-0.9	-1.0	-0.8	-0.7	-0.9	-0.3	0.6	1.6	1.2	0.7	0.7	-0.07	1.58	
5-Sep	1.3	1.3	0.0	0.3	1.1	2.1	1.3	-0.8	-1.7	-1.8	-1.8	-1.9	-1.9	-1.7	-1.5	-1.3	-0.3	0.0	0.5	0.7	0.6	0.5	0.9	0.7	-0.14	2.12	
6-Sep	2.0	1.6	1.5	1.5	1.3	1.4	0.6	-0.5	-1.2	-1.2	-1.2	-1.4	-1.6	-1.5	-1.3	-1.3	-1.1	-0.8	0.8	2.6	2.7	3.4	3.5	2.3	0.51	3.49	
7-Sep	1.2	1.4	0.9	1.7	1.5	0.0	0.3	-0.4	-0.7	-1.1	-1.2	-1.2	-1.0	-1.0	-0.6	-0.6	-1.0	-1.0	-0.9	-0.9	-0.9	-0.8	-0.8	-0.8	-0.32	1.67	
8-Sep	-0.8	-0.5	-0.5	-0.6	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.7	-0.6	-0.6	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.57	-0.47	
9-Sep	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6	-0.7	-0.8	-1.0	-1.2	-1.4	-1.2	-1.2	-1.1	-0.9	-0.8	-0.7	-0.6	-0.4	-0.4	-0.4	-0.5	-0.5	-0.72	-0.43	
10-Sep	-0.5	-0.5	-0.6	-0.6	-0.7	-0.6	-0.7	-0.8	-0.7	-0.7	-0.9	-1.1	-1.4	-0.9	-0.9	-1.1	-1.1	-0.9	-0.2	0.7	0.6	1.3	1.5	0.8	-0.42	1.45	
11-Sep	1.0	1.3	1.4	1.9	1.5	1.2	0.8	-1.0	-2.1	-2.5	-2.8	-3.1	-3.1	-2.7	-2.2	-1.8	-1.1	-0.6	1.1	2.7	2.6	2.7	1.5	1.0	-0.10	2.73	
12-Sep	0.8	1.3	0.5	0.5	0.7	0.1	-0.3	-0.1	-0.4	-0.4	-0.8	-1.1	-1.3	-1.6	-0.9	-0.8	-0.8	-0.6	-0.3	-0.2	-0.2	-0.2	-0.8	-0.8	-0.32	1.27	
13-Sep	-0.9	-0.7	-0.6	-0.7	-0.5	-0.2	-0.2	-0.6	-0.8	-1.2	-2.2	-2.2	-2.0	-2.4	-1.7	-1.5	-1.5	-0.4	1.0	2.2	1.6	1.6	2.3	1.6	-0.42	2.31	
14-Sep	1.6	1.5	1.4	2.1	2.0	2.0	2.0	-0.1	-1.1	-1.1	-1.3	-1.4	-1.6	-1.3	-1.3	-1.4	-0.9	-0.9	1.1	1.5	1.8	2.5	3.2	3.4	0.56	3.36	
15-Sep	3.1	2.8	3.0	2.8	2.8	1.5	1.2	-0.6	-1.1	-1.0	-1.2	-1.1	-1.0	-1.1	-1.0	-1.2	-0.9	-0.5	1.0	2.7	1.3	3.1	3.0	3.7	0.89	3.74	
16-Sep	3.8	3.1	4.2	5.9	3.0	3.5	3.6	0.1	-1.5	-1.3	-1.0	-1.0	-1.4	-1.2	-1.3	-1.1	-0.8	-0.3	1.3	2.9	2.6	4.0	3.8	2.6	1.39	5.86	
17-Sep	2.7	3.1	4.6	3.8	4.7	2.6	1.7	1.0	-1.5	-1.2	-1.2	-1.3	-1.1	-1.0	-1.1	-0.8	-0.5	0.4	2.7	3.7	1.2	2.4	2.7	1.9	1.23	4.71	
18-Sep	2.9	2.0	0.8	0.3	0.0	0.1	0.1	-0.2	-0.3	-0.4	-0.7	-0.9	-1.0	-1.1	-1.2	-1.2	-1.1	-0.4	0.4	2.5	2.0	1.4	0.2	-0.5	0.16	2.88	
19-Sep	-0.4	0.1	-0.2	0.3	0.4	0.0	0.4	0.3	-1.0	-1.2	-1.2	-1.2	-1.2	-1.3	-1.1	-1.1	-0.3	0.0	0.4	0.7	0.5	0.5	0.6	0.4	-0.24	0.70	
20-Sep	1.1	1.8	0.7	0.3	0.2	0.7	2.2	0.2	-1.1	-1.6	-1.3	-1.4	-1.5	-1.5	-1.3	-1.2	-1.0	-0.6	2.0	3.2	2.9	2.2	1.6	1.5	0.34	3.15	
21-Sep	1.9	1.6	1.8	1.8	2.7	2.6	2.3	1.8	-1.0	-0.9	-0.5	-0.8	-1.0	-1.0	-0.7	-0.1	0.0	0.9	3.2	4.0	3.4	2.9	3.0	3.8	1.31	3.99	
22-Sep	2.5	1.7	3.7	2.3	3.4	2.8	3.3	0.7	-1.2	-0.8	-0.9	-0.9	-1.2	-1.0	-0.9	-0.1	0.6	1.4	2.6	3.1	2.3	0.0	0.0	0.3	0.98	3.72	
23-Sep	1.4	1.3	0.1	0.2	1.6	1.5	0.3	-0.1	-0.7	-1.0	-1.2	-1.2	-1.3	-1.3	-1.2	-1.2	-0.1	1.5	2.3	2.4	2.0	1.8	1.2	1.2	0.30	2.42	
24-Sep	1.2	0.5	0.3	0.0	0.2	0.1	0.2	-0.3	-0.8	-0.8	-0.9	-1.0	-1.1	-1.1	-1.0	-0.7	-0.4	0.7	1.9	1.0	0.0	0.2	1.2	0.9	0.02	1.86	
25-Sep	1.1	0.9	1.7	1.0	0.9	0.9	1.7	0.3	-0.4	-0.9	-1.3	-1.9	-1.2	-0.8	-0.6	-0.4	-0.5	-0.4	-0.1	-0.3	-0.4	-0.4	-0.4	-0.3	-0.07	1.73	
26-Sep	-0.3	-0.4	-0.5	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-1.0	-1.0	-1.0	-0.9	-1.1	-1.3	-1.0	-0.5	-0.1	0.0	-0.1	-0.2	0.0	-0.2	-0.54	0.03	
27-Sep	-0.3	-0.3	-0.2	-0.3	-0.3	-0.2	-0.3	-0.5	-0.7	-0.8	-1.2	-1.1	-1.3	-1.0	-1.1	-1.2	-1.0	-0.7	-0.7	-0.5	-0.6	-0.7	-0.7	-0.8	-0.69	-0.19	
28-Sep	-0.8	-0.8	-0.8	-0.8	-0.7	-0.7	-0.7	-0.7	-0.7	-0.8	-1.0	-1.2	-1.3	-1.3	-1.6	-1.6	-1.4	-0.9	-0.2	0.6	0.8	1.0	0.9	0.9	0.9	-0.50	1.03
29-Sep	0.9	1.4	0.7	0.5	0.4	0.6	2.2	1.8	-0.9	-1.8	-2.0	-2.3	-1.2	-1.7	-1.6	-1.2	-0.6	0.1	2.3	3.2	2.4	1.3	0.6	0.9	0.25	3.24	
30-Sep	0.6	-0.1	-0.2	-0.2	-0.3	-0.7	-1.1	-1.4	-0.4	-0.3	-0.5	-0.6	-0.9	-1.0	-1.1	-0.8	-0.9	-0.2	0.1	0.5	0.8	0.7	0.8	0.9	-0.26	0.89	
	1.05	1.00	0.90	0.87	0.85	0.66	0.62	-0.19	-0.90	-1.03	-1.19	-1.33	-1.30	-1.27	-1.14	-1.00	-0.74	-0.33	0.68	1.45	1.20	1.26	1.17	0.99	Diurnal Average		
	3.76	3.10	4.63	5.86	4.71	3.50	3.55	1.83	-0.34	-0.31	-0.47	-0.63	-0.68	-0.65	-0.58	-0.11	0.59	1.38	3.16	3.99	3.35	3.98	3.83	3.80	Diurnal Maximum		



**WCAS - Genesee**  
**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	11.9	11.9	10.6	11.5	10.9	14.0	11.8	10.3	9.9	1.6	4.6	3.7	3.7	3.8	5.3	2.7	10.7	11.8	2.6	5.0	9.5	11.4	13.5	11.2	6.97	13.95
Dir	WSW	W	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	SSE	SE	WSW	SW	NW	N	NW	NNW	W	WSW	SW	WSW	WSW	WSW	WSW	WSW
2 Spd	8.0	9.2	7.0	8.9	10.9	11.8	7.4	10.5	11.6	10.0	14.2	12.4	13.2	12.6	11.3	12.7	16.9	16.6	9.6	6.8	8.3	6.9	9.2	10.9	8.64	16.88
Dir	SW	WSW	SW	WSW	W	W	WSW	W	W	WNW	WNW	WNW	W	WNW	WNW	WNW	NNW	N	N	N	NNW	NNW	NW	NW	WNW	NNW
3 Spd	10.1	11.4	9.6	4.8	1.9	8.3	13.5	16.8	15.1	12.9	12.1	10.8	12.0	6.1	12.5	11.2	11.7	3.9	6.1	8.3	7.4	9.1	9.3	9.6	7.13	16.77
Dir	NW	NW	NW	SW	WNW	NW	NW	NNW	NW	NNW	NW	NW	NNW	N	NNW	NNW	NW	ESE	S	SW	SW	WSW	WSW	SW	NW	NNW
4 Spd	11.9	12.9	14.2	14.0	13.4	9.4	11.2	11.4	11.4	12.7	11.9	14.3	15.4	16.7	14.6	17.5	12.8	14.1	17.7	13.5	9.7	12.6	13.2	12.1	12.57	17.69
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WNW	WNW	WNW	WNW	WNW	W	NW	NW	NW	W	W	W	W	W	NW
5 Spd	14.1	13.3	12.4	10.6	7.0	8.6	8.8	7.2	11.6	17.0	19.5	16.3	15.5	15.0	15.8	15.7	8.8	3.5	7.4	7.3	13.3	13.6	12.1	11.4	10.75	19.52
Dir	W	W	WNW	W	SW	WSW	WSW	SW	SW	SW	SW	SW	SW	WSW	W	W	W	W	WNW	W	WNW	WNW	W	W	WSW	SW
6 Spd	11.3	13.9	13.1	13.0	14.6	13.8	13.3	10.8	13.9	12.7	11.0	13.2	13.9	16.4	14.1	13.2	11.2	6.8	2.7	3.4	5.3	10.7	10.7	12.6	10.68	16.36
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	W	W	W	W	WSW	W	W	WNW	WNW	SW	SE	S	SW	SW	WSW	WSW	WSW
7 Spd	13.0	11.0	12.9	9.1	3.7	7.8	11.0	10.1	13.5	18.6	17.6	15.6	3.0	3.5	9.5	12.1	10.5	9.9	20.2	18.3	19.9	20.0	21.2	20.9	9.39	21.23
Dir	W	W	WNW	W	WSW	W	SW	WSW	NNW	NNW	N	N	WNW	WNW	NW	NW	NW	WNW	N	NNE	N	NNE	NNE	NNE	NNW	NNE
8 Spd	20.0	15.3	14.9	16.5	18.0	18.5	19.2	20.1	18.9	20.9	17.2	17.9	15.4	14.1	11.2	11.3	12.5	11.8	9.9	6.3	6.4	1.5	1.0	0.3	13.05	20.89
Dir	N	N	N	N	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	N	N	N	N	N	NNE	NE	NE	ENE	NNE	NNE
9 Spd	2.4	2.6	3.3	4.7	4.7	5.7	6.3	6.2	8.0	7.8	8.5	9.3	9.8	10.4	9.3	6.8	7.7	7.8	5.9	7.4	7.5	8.7	8.3	9.8	6.84	10.40
Dir	NE	NE	NE	NE	ENE	ENE	ENE	E	E	E	E	ENE	ENE	ENE	E	E	E	E	ENE	ENE	ENE	ENE	NE	NE	ENE	ENE
10 Spd	12.2	11.7	10.8	11.5	14.4	11.4	11.4	11.3	11.6	11.5	13.0	10.4	7.2	9.7	8.5	5.1	6.9	5.6	3.1	2.8	4.9	7.2	6.1	4.8	6.62	14.38
Dir	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	ENE	NNE	NE	ENE	NE	NE	E	SSW	SW	WSW	SW	SSW	NE	NE
11 Spd	6.4	6.4	7.8	6.2	4.3	4.2	4.4	5.4	7.8	8.6	12.6	18.5	17.5	17.2	17.1	17.1	17.6	15.0	12.4	8.1	8.7	10.9	12.1	13.6	10.28	18.46
Dir	SSW	SSW	SSW	SSW	S	SE	SE	S	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	S	SSW	S	SSW	SW	WSW	WSW	SSW	SSW
12 Spd	14.3	14.2	14.3	9.1	9.5	12.9	19.0	16.9	23.6	23.2	17.6	16.6	15.3	16.0	12.2	16.8	16.0	15.1	12.5	14.0	18.3	14.2	13.9	8.4	13.80	23.57
Dir	WSW	WSW	WSW	WSW	WSW	W	WNW	WNW	NW	WNW	WNW	WNW	WNW	NNW	W	W	W	W	W	WNW	NW	NNW	NNW	NW	WNW	NW
13 Spd	8.3	10.0	9.1	10.1	9.8	7.0	3.8	6.3	2.0	1.9	7.1	6.1	5.9	8.9	9.3	9.5	9.9	6.9	5.1	7.1	6.5	4.6	8.4	6.2	4.56	10.09
Dir	W	W	W	WNW	WNW	W	W	W	WNW	SE	SSE	SSW	SW	S	S	SSW	SSW	S	SE	SE	SE	S	SSW	SSW	SW	WNW
14 Spd	7.6	8.2	9.2	9.3	3.0	7.5	10.7	11.3	9.0	11.3	7.9	8.8	10.3	10.1	8.8	10.3	6.5	4.4	0.4	3.8	4.6	8.2	9.3	9.4	6.50	11.35
Dir	SW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	SW	SSE	SSE	SW	SW	SW	W	WNW
15 Spd	10.4	9.3	10.1	3.5	11.1	12.3	8.3	9.9	8.2	8.6	6.6	5.2	2.0	4.3	3.7	7.0	6.1	4.3	4.1	5.7	2.2	7.8	9.5	9.8	4.91	12.30
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	W	WNW	NNW	N	NW	NW	WNW	NNW	NNE	ENE	ENE	SSE	SW	SW	SW	WSW	WSW
16 Spd	9.1	8.1	5.1	4.2	2.5	4.4	7.8	5.0	8.9	5.1	5.1	3.8	4.3	7.4	12.9	11.3	11.8	6.2	1.7	4.1	3.1	8.3	12.5	2.7	4.34	12.86
Dir	SW	SW	SW	W	SSW	SW	WSW	SW	SW	WSW	WNW	WNW	SW	WNW	NW	NW	NNW	N	NE	ENE	SSW	SW	WSW	NNW	W	NW
17 Spd	2.2	3.3	4.7	2.3	1.0	0.9	1.1	2.5	3.7	4.1	3.4	6.5	2.2	3.2	3.3	8.7	11.5	6.9	2.3	1.2	2.3	6.1	5.4	4.0	3.33	11.48
Dir	WSW	WSW	SW	W	W	SE	SW	SSW	SSW	SSW	SW	SSW	SE	NW	SW	SW	SSW	SW	WSW	SE	SSE	SW	WSW	WSW	SW	SSW
18 Spd	5.8	6.6	12.1	16.1	17.3	15.7	13.3	12.3	6.6	10.0	17.1	13.4	7.9	5.3	3.7	4.6	5.1	6.1	4.0	3.6	6.0	3.5	13.0	12.9	7.07	17.30
Dir	WSW	WNW	NW	NNW	NW	NNW	NNW	WNW	WSW	WNW	NW	NNW	NW	NNW	WNW	W	SW	SW	SW	SSW	SSW	WSW	W	WSW	WNW	NW
19 Spd	11.1	12.0	15.4	15.0	15.1	13.2	6.5	12.6	15.2	11.7	8.8	6.5	8.5	12.4	16.7	18.7	16.0	16.4	19.8	16.0	21.4	14.4	16.4	17.8	12.60	21.40
Dir	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	SW	WNW	WNW	W	W	W	WNW	NW	NW	WNW	WNW	WNW	WNW	WNW	W	WNW
20 Spd	13.4	10.8	14.9	19.6	22.1	15.4	11.1	12.1	12.1	13.6	11.6	11.7	13.5	13.9	15.1	15.1	14.7	7.5	5.2	6.6	11.2	13.2	13.3	13.5	11.73	22.10
Dir	WNW	WNW	WNW	WNW	WNW	WNW	SW	WSW	WSW	SW	W	WNW	W	W	W	W	WSW	W	SW	SSW	WSW	WSW	WSW	WSW	W	WNW
21 Spd	14.3	16.7	15.4	6.4	7.7	3.7	3.4	1.6	4.7	7.7	21.5	25.4	27.4	27.6	25.7	24.3	22.0	16.0	10.3	8.0	11.5	8.8	3.8	3.2	10.00	27.58
Dir	WSW	WSW	WSW	WSW	WSW	SW	S	ENE	E	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	ESE	ESE	SE	SW	SSE	SSE
22 Spd	9.6	7.5	6.7	5.6	9.2	12.9	11.6	15.0	8.9	6.7	3.7	7.8	9.2	8.7	9.6	7.0	3.1	3.0	6.7	6.8	11.3	24.4	22.6	15.3	7.24	24.39
Dir	WSW	WSW	SW	SSW	SW	WSW	WSW	WSW	SW	WSW	WSW	SW	WSW	W	W	WNW	NW	E	ESE	S	WSW	WNW	NW	NW	W	WNW



**WCAS - Genesee**  
**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	7.2	9.9	21.1	18.7	3.7	10.4	12.8	15.9	13.2	14.8	10.4	8.2	8.8	4.2	4.8	2.7	5.2	10.7	7.2	6.3	7.5	7.6	8.1	9.9	4.01	21.12	
Dir	WSW	W	NW	NW	W	W	WNW	WNW	WNW	NW	NW	W	W	W	SW	SSW	SE	SE	SE	SE	SE	SE	SE	ESE	W	NW	
24 Spd	8.1	7.8	8.3	10.7	8.3	8.1	8.0	6.1	4.5	5.7	9.7	10.1	9.8	8.6	9.4	5.7	4.1	9.0	16.5	19.1	20.0	16.4	9.9	12.9	1.00	20.00	
Dir	ESE	E	E	E	E	E	E	ESE	E	ENE	NE	ENE	ENE	NE	NNE	NNW	WSW	SSW	SSW	WSW	WNW	WNW	WSW	WSW	ENE	WNW	
25 Spd	11.6	5.8	3.0	1.1	5.0	4.5	5.6	1.7	0.4	1.7	4.1	8.4	10.6	13.0	15.6	11.5	11.7	17.4	19.7	20.2	25.7	23.5	23.5	26.6	7.60	26.63	
Dir	WSW	WSW	WNW	WNW	SW	WSW	NNW	SW	NNE	ESE	SE	ESE	E	ENE	ENE	ENE	NE	NNE	NE	NNE	NNE	NNE	N	NNE	NNE	NNE	
26 Spd	21.0	10.5	16.4	18.0	14.1	12.7	12.9	12.0	7.4	4.6	8.8	13.1	13.1	16.0	17.0	15.9	16.3	10.9	15.7	19.2	22.4	19.0	12.7	21.8	11.86	22.41	
Dir	NE	NNW	NNW	NE	N	NNE	NNE	NNE	N	NNW	NW	NW	NW	WNW	WNW	WNW	NNW	NW	NW	WNW	WNW	WNW	W	NW	NNW	WNW	
27 Spd	25.2	22.1	14.4	11.4	12.2	13.7	14.3	16.0	14.6	12.0	13.3	7.7	3.8	7.0	12.4	10.7	9.8	11.4	8.4	10.6	7.8	10.7	12.8	15.7	6.00	25.24	
Dir	NW	NW	NW	WNW	WNW	NW	NNW	NNW	N	N	N	N	NW	NE	ENE	ENE	ENE	NE	E	E	E	ESE	ESE	ESE	N	NW	
28 Spd	14.8	12.8	12.5	11.8	13.8	15.5	15.3	13.2	16.2	22.5	23.8	25.7	28.0	30.2	30.1	31.6	30.2	26.1	19.9	17.0	13.5	17.4	20.2	19.8	19.34	31.61	
Dir	ESE	ESE	ESE	SE	SE	SE	SE	ESE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	SSE	SSE	SSE	SSE	SSE	SSE
29 Spd	20.7	11.5	11.1	11.2	17.5	14.7	7.1	7.5	13.6	17.4	16.1	12.6	10.0	7.6	3.8	1.7	5.4	4.9	4.8	6.6	11.8	15.1	13.0	13.0	4.03	20.67	
Dir	SSE	SE	ESE	ESE	SE	SE	SE	SE	S	S	S	S	S	S	SSW	E	ENE	NNW	NNW	NNW	NW	NW	NW	NW	SSE	SSE	
30 Spd	12.2	16.2	22.2	21.3	21.9	26.7	19.7	18.1	19.6	22.2	21.6	28.7	29.9	30.8	33.1	30.9	30.6	26.9	24.1	16.4	11.4	12.3	11.6	13.5	21.47	33.14	
Dir	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	W	W	NW	NW	
Spd	5.09	6.27	6.38	4.70	4.52	4.88	4.36	4.95	4.61	4.39	3.58	3.54	3.81	3.88	4.37	5.13	3.99	2.38	1.77	1.51	3.42	4.88	5.65	5.09	Diurnal Average		
Dir	W	W	W	WNW	W	W	W	W	W	WNW	WNW	W	W	W	W	W	WNW	WNW	NW	NW	WNW	WNW	W	W	Diurnal Maximum		
Spd	25.24	22.12	22.24	21.30	22.10	26.69	19.66	20.06	23.57	23.21	23.78	28.67	29.89	30.84	33.14	31.61	30.61	26.90	24.09	20.20	25.71	24.39	23.54	26.63	Diurnal Maximum		
Dir	310.50	305.41	317.92	316.80	299.76	312.98	306.21	16.39	305.55	302.02	154.08	307.93	304.05	307.53	308.67	163.19	315.18	312.90	314.75	32.34	20.57	300.61	6.21	25.27	Diurnal Maximum		
Maximum Speed Value: 33.1 kph on Sep 30 15:00																			Minimum Speed Value: 0.3 kph on Sep 9 00:00					Hours in Service: 720			
Maximum Daily Speed Average: 21.47 kph on Sep 30																			Minimum Daily Speed Average: 1.00 kph on Sep 17					Hours of Data: 720			
Maximum Diurnal Speed Average: 6.38 kph at hour 3																			Minimum Diurnal Speed Average: 1.51 kph at hour 20					Hours of Missing Data: 0			
Monthly Average Velocity: 4.237 kph 279.67 deg																			Speed Percentiles: P <sub>1</sub> = 1.1 P <sub>10</sub> = 3.9 Q <sub>1</sub> = 7.0 Median = 10.9 Q <sub>3</sub> = 14.3 P <sub>90</sub> = 18.9 P <sub>99</sub> = 30.2					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	5	14	28	12	0	0	59																				
NorthEast	11	19	21	4	0	0	55																				
East	7	30	3	0	0	0	40																				
SouthEast	15	20	19	10	0	0	64																				
South	13	19	14	6	4	0	56																				
SouthWest	27	75	46	1	0	0	149																				
West	21	49	89	4	0	0	163																				
NorthWest	10	31	64	23	6	0	134																				
Total	109	257	284	60	10	0	720																				



**WCAS - Genesee**  
**Summary of Hourly Averages**

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

<b>Maximum Value: 94.83 % on Sep 8 12:00</b> <b>Maximum Daily Average: 92.67 % on Sep 8</b>																						<b>Hours in Service: 720</b>				
<b>Minimum Value: 20.4 % on Sep 22 15:00</b> <b>Minimum Daily Average: 52.12 % on Sep 20</b>																						<b>Hours of Data: 720</b>				
<b>Maximum Diurnal Average: 87.39 % at hour 7</b> <b>Minimum Diurnal Average: 49.32 % at hour 16</b>																						<b>Hours of Missing Data: 0</b>				
<b>Monthly Average: 71.379 %</b> <b>Percentiles: P<sub>1</sub> = 29.5 P<sub>10</sub> = 42.4 Q<sub>1</sub> = 56.5 Median = 76.5 Q<sub>3</sub> = 87.5 P<sub>90</sub> = 92.5 P<sub>99</sub> = 94.3</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	86.4	85.7	85.3	86.4	88.7	89.6	88.4	81.9	83.5	82.4	67.4	57.6	47.8	46.4	43.8	45.2	79.9	87.1	77.5	79.6	90.5	92.7	93.7	93.7	77.55	93.74
2-Sep	93.4	94.1	93.7	94.5	93.3	89.5	91.4	90.8	84.6	77.9	69.1	60.8	59.4	56.7	55.5	50.7	51.2	68.2	71.4	82.3	86.4	87.2	89.9	91.5	78.47	94.52
3-Sep	92.1	92.5	93.2	93.0	93.7	94.3	94.1	90.8	88.6	87.5	81.7	69.6	65.6	59.0	55.4	48.9	48.6	72.2	57.5	70.9	85.3	88.4	87.8	90.0	79.19	94.33
4-Sep	91.7	91.2	90.7	91.2	90.3	90.2	90.8	86.3	82.8	63.5	58.8	51.6	47.6	46.4	46.9	45.6	70.7	55.6	52.0	58.5	68.9	70.4	70.4	72.0	70.17	91.72
5-Sep	78.6	80.1	71.4	74.3	82.8	88.9	91.5	80.4	73.5	61.1	48.9	43.9	38.8	30.4	30.0	32.0	36.8	42.1	42.5	49.1	54.0	56.1	64.3	66.4	59.08	91.53
6-Sep	77.3	85.5	86.1	86.0	85.8	86.1	83.5	72.3	64.0	50.2	43.4	38.4	35.3	32.9	31.9	31.3	29.5	28.9	30.9	42.3	58.8	73.4	75.6	75.7	58.53	86.10
7-Sep	64.4	70.0	61.4	62.8	75.5	65.4	82.2	76.2	72.1	64.8	67.4	73.0	73.3	67.5	66.4	85.3	90.5	91.7	92.3	92.8	92.5	92.7	93.2	93.0	77.77	93.18
8-Sep	92.7	93.2	94.0	94.3	94.4	94.4	94.4	94.5	94.6	94.7	94.8	94.8	94.3	93.9	91.2	89.2	88.2	88.7	88.5	90.1	91.6	92.4	92.6	92.9	92.67	94.83
9-Sep	93.1	93.2	93.4	93.5	93.4	92.6	92.0	92.2	91.2	89.2	89.0	83.2	81.0	78.1	76.7	79.0	79.2	77.7	82.6	85.6	88.5	90.5	91.6	91.9	87.43	93.51
10-Sep	92.7	93.0	93.0	93.3	93.7	94.0	93.9	93.6	93.0	90.9	88.1	82.4	73.7	65.5	61.9	57.8	53.4	51.4	53.3	65.4	78.2	84.5	88.6	91.0	80.28	94.03
11-Sep	92.1	92.6	93.0	92.3	92.5	92.6	93.5	92.3	91.4	83.6	61.4	44.5	37.6	34.2	31.0	30.0	29.5	31.1	37.2	59.2	69.5	73.4	77.6	79.6	67.16	93.54
12-Sep	81.6	83.8	85.3	86.8	89.9	85.0	72.8	63.2	61.5	71.7	88.8	90.2	90.7	87.3	84.6	85.0	80.3	77.7	81.9	81.9	83.2	88.1	90.5	91.5	82.64	91.53
13-Sep	91.4	92.3	91.6	92.1	91.7	92.8	93.0	92.9	88.6	79.2	72.8	63.0	55.3	49.4	47.1	45.2	44.2	45.8	57.6	72.2	79.3	84.2	85.5	87.9	74.79	92.99
14-Sep	89.3	88.3	88.3	87.1	88.4	91.6	92.6	89.8	81.8	66.6	56.5	48.3	46.8	46.6	45.1	40.5	41.4	41.4	44.8	62.8	72.7	80.6	85.5	87.2	69.33	92.62
15-Sep	87.5	86.1	85.9	85.2	84.1	82.9	83.7	80.0	75.8	64.1	58.0	52.9	47.0	38.7	35.5	34.0	35.4	35.5	43.8	56.0	57.9	72.7	77.7	82.3	64.28	87.54
16-Sep	84.6	78.2	80.7	83.9	87.2	90.5	92.7	85.9	81.7	68.6	54.8	45.2	36.8	36.8	35.9	32.8	28.5	32.1	38.9	49.2	60.3	67.8	69.9	73.0	62.33	92.66
17-Sep	71.6	84.1	84.2	85.8	88.2	90.3	92.6	92.9	90.9	66.4	49.5	48.2	47.0	46.9	41.3	34.1	31.3	37.0	39.9	48.1	52.7	67.5	69.8	66.1	63.59	92.93
18-Sep	69.7	73.0	69.6	64.8	66.1	74.6	75.7	75.7	80.0	83.4	76.6	72.8	71.6	66.8	62.2	57.9	54.8	60.3	66.7	79.6	87.3	89.1	88.3	91.5	73.26	91.50
19-Sep	92.7	93.2	93.9	94.0	93.9	94.2	93.1	93.0	90.8	84.1	78.3	62.4	46.7	47.4	41.9	35.4	39.3	41.7	50.7	62.0	51.1	51.2	47.8	46.6	67.72	94.15
20-Sep	52.9	59.3	55.9	51.9	52.7	56.8	74.3	71.8	63.5	53.4	45.0	39.4	35.2	32.2	30.3	29.3	30.5	32.5	41.9	58.8	68.8	72.4	71.8	70.2	52.12	74.27
21-Sep	72.4	72.4	74.9	76.1	83.7	78.6	86.5	85.0	71.9	66.9	49.5	37.5	34.0	31.6	29.8	31.0	30.4	34.1	43.7	56.5	61.4	64.6	67.6	73.4	58.88	86.45
22-Sep	74.9	74.2	81.9	88.1	87.5	78.3	76.8	65.2	55.7	46.2	42.7	32.7	26.0	22.7	20.4	23.4	31.2	36.6	39.3	52.9	55.3	49.3	53.0	57.7	52.99	88.13
23-Sep	66.5	71.8	71.0	68.9	76.9	83.1	79.3	79.7	74.4	67.9	63.5	52.8	52.2	49.5	46.6	47.7	48.8	51.6	61.5	72.5	81.5	86.9	88.1	86.5	67.88	88.14
24-Sep	86.4	85.2	87.6	89.3	90.9	91.8	92.4	93.1	92.0	88.2	82.1	71.7	63.6	56.2	51.7	48.7	50.0	45.3	48.7	46.9	66.6	71.4	79.6	84.0	73.48	93.08
25-Sep	87.5	87.5	87.3	88.4	90.5	90.8	91.1	90.8	91.5	84.9	78.1	62.8	54.4	51.8	43.2	42.4	42.2	47.7	52.1	57.8	65.2	74.3	77.5	81.5	71.71	91.48
26-Sep	83.5	83.0	84.3	83.5	83.9	84.4	85.0	85.0	86.6	90.6	92.3	92.6	92.7	89.9	85.0	76.2	76.0	78.6	77.9	74.8	76.5	75.8	77.8	75.0	82.96	92.72
27-Sep	75.6	76.3	80.0	80.7	80.8	82.1	81.8	80.4	85.6	86.8	74.5	73.4	67.8	67.2	71.6	71.3	71.5	74.9	76.7	80.5	83.2	83.8	83.8	85.1	78.14	86.78
28-Sep	85.6	86.3	86.8	87.0	86.6	86.2	85.9	86.1	84.5	80.6	77.2	74.2	70.7	65.3	58.9	56.3	56.1	58.2	65.6	71.4	77.1	81.2	81.3	78.6	76.14	87.02
29-Sep	76.1	79.0	83.9	84.6	86.9	87.7	89.2	91.4	91.3	75.1	64.6	56.6	53.7	50.7	47.1	46.9	52.5	58.8	65.8	74.7	77.6	78.9	80.6	84.7	72.43	91.42
30-Sep	86.9	86.1	85.0	83.0	81.8	87.7	87.7	84.7	79.8	71.1	65.4	59.1	53.5	50.6	44.4	46.6	45.9	47.7	51.8	59.3	65.1	68.6	73.3	76.9	68.41	87.71
																								Diurnal Average		
																								Diurnal Maximum		



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Global Solar Radiation (GSR) - W/m2**  
**September 2014**

Maximum Value: 741.26 W/m2 on Sep 14 13:00      Maximum Daily Average: 236.89 W/m2 on Sep 11																								Hours in Service:	720	
Minimum Value: 0.0 W/m2 on Sep 1 01:00      Minimum Daily Average: 52.20 W/m2 on Sep 26																								Hours of Data:	720	
Maximum Diurnal Average: 442.85 W/m2 at hour 13      Minimum Diurnal Average: 0.00 W/m2 at hour 1																								Hours of Missing Data:	0	
Monthly Average: 138.96 W/m2      Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 13.2 Q <sub>3</sub> = 248.3 P <sub>90</sub> = 453.4 P <sub>99</sub> = 699.0																								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	0.0	0.0	0.0	0.0	0.0	0.0	55.3	66.3	71.7	271.7	307.6	307.2	432.3	552.5	476.0	325.7	15.2	184.6	95.8	8.4	0.0	0.0	0.0	0.0	132.09	552.48
2-Sep	0.0	0.0	0.0	0.0	0.0	0.0	18.0	82.4	179.1	246.8	455.7	437.5	417.9	495.0	378.2	424.7	226.8	135.7	52.0	5.6	0.0	0.0	0.0	0.0	148.14	494.98
3-Sep	0.0	0.0	0.0	0.0	0.0	0.0	18.0	224.4	117.6	122.6	323.0	579.7	435.3	502.8	194.9	378.8	363.4	167.6	101.5	7.9	0.0	0.0	0.0	0.0	147.40	579.72
4-Sep	0.0	0.0	0.0	0.0	0.0	0.0	13.9	63.6	269.3	397.7	340.0	432.1	419.1	311.4	369.3	266.8	248.4	172.1	89.0	12.9	0.0	0.0	0.0	0.0	141.91	432.14
5-Sep	0.0	0.0	0.0	0.0	0.0	0.0	40.9	195.4	347.8	506.4	585.7	580.2	659.4	715.9	634.0	478.0	109.2	44.7	22.4	5.8	0.0	0.0	0.0	0.0	205.23	715.90
6-Sep	0.0	0.0	0.0	0.0	0.0	0.0	40.0	182.9	349.2	496.8	612.4	697.6	729.7	710.4	634.3	525.4	387.8	165.4	81.0	3.7	0.0	0.0	0.0	0.0	234.02	729.70
7-Sep	0.0	0.0	0.0	0.0	0.0	0.0	13.4	94.5	172.2	290.9	346.8	284.8	203.2	172.1	137.2	51.2	38.7	35.1	12.9	0.0	0.0	0.0	0.0	0.0	77.21	346.84
8-Sep	0.0	0.0	0.0	0.0	0.0	0.0	4.5	25.2	38.0	75.9	96.8	204.3	230.7	244.8	237.8	97.2	104.0	80.4	23.5	1.2	0.0	0.0	0.0	0.0	61.02	244.76
9-Sep	0.0	0.0	0.0	0.0	0.0	0.0	6.4	42.8	108.2	154.6	231.9	275.6	256.9	243.4	167.3	85.7	110.6	64.4	15.3	0.0	0.0	0.0	0.0	0.0	73.47	275.64
10-Sep	0.0	0.0	0.0	0.0	0.0	0.0	6.1	34.5	58.9	148.1	174.7	291.1	483.3	192.3	191.8	233.6	260.8	181.1	57.2	0.6	0.0	0.0	0.0	0.0	96.42	483.34
11-Sep	0.0	0.0	0.0	0.0	0.0	0.0	49.7	224.5	405.3	498.2	618.0	703.7	736.3	713.3	639.3	515.4	326.6	183.2	71.1	1.0	0.0	0.0	0.0	0.0	236.89	736.26
12-Sep	0.0	0.0	0.0	0.0	0.0	0.0	5.1	17.3	52.1	67.7	93.9	111.2	191.2	164.4	151.5	218.4	207.5	120.4	23.7	0.0	0.0	0.0	0.0	0.0	59.36	218.44
13-Sep	0.0	0.0	0.0	0.0	0.0	0.0	5.4	110.6	297.6	378.6	603.6	504.2	544.1	546.4	403.9	381.5	336.7	127.7	34.6	0.0	0.0	0.0	0.0	0.0	178.12	603.56
14-Sep	0.0	0.0	0.0	0.0	0.0	0.0	18.3	142.4	314.0	452.1	541.8	619.3	741.3	472.5	542.4	493.2	278.1	135.9	44.7	0.0	0.0	0.0	0.0	0.0	199.82	741.26
15-Sep	0.0	0.0	0.0	0.0	0.0	0.0	17.3	145.3	305.4	448.1	561.4	638.5	671.9	647.4	566.7	468.2	323.3	132.9	40.8	0.0	0.0	0.0	0.0	0.0	206.96	671.87
16-Sep	0.0	0.0	0.0	0.0	0.0	0.0	18.4	144.8	300.3	446.0	561.9	639.1	673.4	641.7	568.0	456.1	311.0	127.2	37.1	0.0	0.0	0.0	0.0	0.0	205.20	673.37
17-Sep	0.0	0.0	0.0	0.0	0.0	0.0	8.0	108.7	286.4	436.1	467.6	435.0	458.2	444.1	433.5	425.9	336.7	127.4	16.0	0.0	0.0	0.0	0.0	0.0	165.98	467.59
18-Sep	0.0	0.0	0.0	0.0	0.0	0.0	1.4	26.8	43.4	120.2	197.3	221.5	269.9	368.8	364.1	319.9	248.8	93.5	28.1	0.0	0.0	0.0	0.0	0.0	95.98	368.79
19-Sep	0.0	0.0	0.0	0.0	0.0	0.0	4.3	91.2	263.4	261.7	278.9	565.0	551.7	543.6	476.9	451.7	147.6	81.9	5.3	0.0	0.0	0.0	0.0	0.0	155.13	564.99
20-Sep	0.0	0.0	0.0	0.0	0.0	0.0	9.5	131.7	270.1	408.6	533.5	627.4	650.0	629.9	546.8	438.9	293.6	113.1	23.7	0.0	0.0	0.0	0.0	0.0	194.86	650.00
21-Sep	0.0	0.0	0.0	0.0	0.0	0.0	7.2	123.2	279.7	425.3	542.3	625.1	657.1	630.8	498.0	374.4	299.1	116.9	21.8	0.0	0.0	0.0	0.0	0.0	191.70	657.11
22-Sep	0.0	0.0	0.0	0.0	0.0	0.0	6.2	145.9	282.9	405.1	521.6	572.7	654.2	569.6	510.5	228.8	140.5	105.0	19.6	0.0	0.0	0.0	0.0	0.0	173.44	654.15
23-Sep	0.0	0.0	0.0	0.0	0.0	0.0	4.2	50.8	231.9	321.7	420.1	375.8	407.8	388.7	268.6	321.2	259.3	97.6	15.3	0.0	0.0	0.0	0.0	0.0	131.79	420.05
24-Sep	0.0	0.0	0.0	0.0	0.0	0.0	2.1	41.0	114.4	137.1	244.4	322.1	365.0	454.0	341.8	280.7	143.6	91.0	13.4	0.0	0.0	0.0	0.0	0.0	106.27	453.95
25-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.2	45.8	101.1	128.6	244.9	501.0	316.7	308.1	249.6	146.8	138.4	93.7	8.3	0.0	0.0	0.0	0.0	0.0	95.13	501.02
26-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	7.0	18.4	66.8	53.3	67.5	101.0	295.4	345.6	221.6	64.2	10.6	0.0	0.0	0.0	0.0	0.0	52.20	345.58
27-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	61.4	133.0	260.7	233.3	295.1	168.9	210.5	231.2	165.8	102.2	3.8	0.0	0.0	0.0	0.0	0.0	78.99	295.12
28-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7	49.6	91.4	144.8	184.7	202.4	332.6	425.0	383.4	235.0	90.6	8.3	0.0	0.0	0.0	0.0	0.0	90.11	425.01
29-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.2	242.2	393.3	467.8	480.8	230.6	419.9	421.3	340.7	145.3	55.2	4.9	0.0	0.0	0.0	0.0	0.0	136.34	480.80
30-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5	43.2	112.2	161.2	214.0	333.7	365.7	455.6	291.1	266.0	71.2	8.3	0.0	0.0	0.0	0.0	0.0	97.74	455.62
																								Diurnal Average		
																								Diurnal Maximum		



**WCAS - Genesee**  
**Summary of Hourly Averages**

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

Maximum Value: 0.00 mm on Sep 1 01:00		Maximum Daily Total: 0.00 mm on Sep 1		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: 0.00 mm at hour 1		Minimum Diurnal Total: 0.00 mm at hour 1		Hours of Missing Data: 0																							
Monthly Total: 0.000 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> = 0.0		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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	0.0	0.0	0.0	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
12-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	0.0	0.00	0.00
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	0.0	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	0.0	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	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	0.00	0.00
26-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	0.0	0.00	0.00
27-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	0.0	0.00	0.00
28-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	0.0	0.00	0.00
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	0.0	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	0.0	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	



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

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

Maximum Value: 12.31 kph on Sep 19 19:00		Maximum Daily Average: 4.09 kph on Sep 30		Hours in Service: 720																						
Minimum Value: 0.5 kph on Sep 16 05:00		Minimum Daily Average: 2.10 kph on Sep 9		Hours of Data: 720																						
Maximum Diurnal Average: 3.96 kph at hour 14		Minimum Diurnal Average: 2.14 kph at hour 20		Hours of Missing Data: 0																						
Monthly Average: 2.804 kph		Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 1.8 Median = 2.6 Q <sub>3</sub> = 3.5 P <sub>90</sub> = 4.4 P <sub>99</sub> = 6.5		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	1.8	1.6	1.5	2.1	2.8	1.9	2.7	2.6	3.0	2.9	2.0	2.2	2.8	3.4	3.2	3.6	6.5	4.7	1.8	1.8	2.0	1.2	2.6	2.2	2.63	6.49
2-Sep	1.7	2.3	1.6	1.1	2.2	2.1	3.2	2.6	2.6	2.3	3.7	3.6	3.2	4.1	3.9	3.5	5.7	4.5	2.4	1.7	1.6	1.6	0.7	1.2	2.63	5.71
3-Sep	1.1	1.5	1.6	2.7	1.9	4.6	2.8	3.5	2.8	2.8	2.7	4.2	4.3	4.0	5.6	3.6	4.6	1.5	1.9	1.9	0.6	1.6	2.7	1.1	2.74	5.59
4-Sep	1.1	1.3	1.0	1.3	1.7	2.3	1.9	2.5	2.1	3.4	3.1	3.3	3.9	4.3	3.5	6.1	4.9	3.7	4.1	2.8	1.2	1.7	2.0	1.8	2.71	6.07
5-Sep	2.4	2.0	2.3	1.7	1.7	1.4	2.1	1.8	2.0	4.2	3.8	3.5	4.6	5.8	5.2	4.2	5.0	1.1	2.7	2.5	3.2	3.9	2.1	2.0	2.98	5.85
6-Sep	2.0	1.9	1.1	1.7	1.1	1.2	1.7	1.9	2.7	2.7	3.1	4.2	5.2	5.0	4.1	4.3	3.9	2.3	1.5	1.3	1.4	1.0	1.2	3.0	2.48	5.19
7-Sep	3.6	2.8	1.4	3.3	3.6	3.8	2.5	3.8	7.2	3.2	3.2	3.9	2.7	2.4	4.0	3.6	2.8	5.3	4.1	3.5	4.0	3.7	3.8	4.3	3.61	7.15
8-Sep	3.6	2.6	2.5	2.2	2.8	3.0	3.0	3.3	3.2	3.5	2.9	2.7	3.0	2.4	2.6	2.8	2.5	2.1	1.5	1.1	0.9	1.7	1.1	0.6	2.39	3.62
9-Sep	1.2	1.2	0.6	1.1	1.2	1.6	1.8	1.7	2.0	1.9	3.1	2.8	2.9	3.1	3.1	2.5	2.8	2.2	1.9	2.0	2.3	2.6	2.1	2.5	2.10	3.14
10-Sep	3.4	2.9	2.7	3.3	2.7	2.6	2.5	2.4	2.4	2.8	2.5	3.4	2.9	5.1	2.9	2.3	3.3	2.6	1.5	1.6	1.2	1.6	1.6	0.7	2.53	5.08
11-Sep	0.8	1.1	1.5	1.0	0.8	2.1	2.1	0.9	1.6	1.9	4.0	3.5	4.1	4.5	4.0	3.9	3.3	2.6	2.0	1.9	2.3	1.8	1.7	1.5	2.29	4.46
12-Sep	1.8	2.3	2.7	2.6	2.8	4.1	3.6	4.1	5.9	4.7	3.3	3.4	3.2	4.8	4.9	3.6	3.9	3.7	2.2	2.7	4.2	3.6	3.4	1.4	3.46	5.94
13-Sep	1.3	1.6	1.4	1.7	1.7	1.4	2.4	1.7	2.2	2.5	2.6	3.6	3.6	5.4	3.6	3.6	3.4	2.9	0.9	0.8	0.7	0.9	1.7	0.9	2.19	5.38
14-Sep	1.3	1.1	1.2	2.7	1.8	2.4	2.7	1.7	2.1	2.6	2.3	3.0	3.9	3.8	3.7	3.4	2.9	2.7	0.9	1.1	1.4	1.0	0.8	0.9	2.15	3.93
15-Sep	1.0	1.6	1.5	2.3	3.7	3.0	2.1	1.6	1.8	2.3	2.6	2.8	2.6	3.3	3.2	3.4	2.7	1.9	0.9	0.9	2.0	2.2	0.7	0.9	2.11	3.66
16-Sep	0.8	0.7	1.4	1.8	0.5	1.3	3.0	2.2	2.6	1.8	2.5	2.2	3.4	4.4	2.7	3.4	2.5	2.0	1.5	1.8	2.0	2.6	1.5	3.9	2.19	4.40
17-Sep	2.0	3.6	2.9	2.5	1.8	1.6	1.4	1.9	1.2	1.8	2.5	2.7	2.3	2.8	3.0	3.4	2.7	2.6	1.4	1.3	1.7	1.9	3.1	4.0	2.33	4.02
18-Sep	3.4	4.6	6.0	2.4	5.5	2.4	2.1	2.6	2.3	2.4	2.6	3.4	1.9	3.0	2.8	3.3	3.6	1.5	1.2	1.4	1.2	2.7	4.4	4.4	2.95	5.99
19-Sep	1.9	2.0	2.3	2.7	1.7	2.5	4.1	2.7	3.1	2.0	2.2	2.8	3.0	5.1	4.7	4.1	4.7	2.8	12.3	4.9	10.5	3.6	4.5	3.2	3.89	12.31
20-Sep	3.3	3.2	2.4	3.8	3.4	5.4	2.6	1.6	2.1	3.3	2.9	2.8	3.9	4.3	4.3	3.7	3.8	3.4	1.7	1.7	1.3	1.4	1.7	2.1	2.91	5.43
21-Sep	1.7	1.3	1.6	4.8	1.6	1.5	1.8	1.6	1.6	2.0	7.3	4.5	4.7	4.3	4.5	4.2	4.8	3.0	2.6	1.6	1.6	1.6	2.1	2.5	2.87	7.25
22-Sep	5.9	6.7	2.8	1.7	1.1	1.0	2.6	1.4	2.2	2.6	2.2	4.0	3.6	3.5	3.4	2.9	0.7	2.3	1.0	1.5	6.6	4.4	4.0	3.8	2.99	6.72
23-Sep	1.6	1.7	5.5	8.0	3.3	1.6	2.7	2.7	2.6	3.2	4.5	3.2	3.0	2.8	3.3	2.5	2.7	2.3	2.0	1.5	1.2	1.4	1.6	1.7	2.78	8.00
24-Sep	1.4	1.6	1.5	2.0	2.2	1.6	1.6	1.7	1.6	1.7	2.2	2.3	2.3	2.6	2.7	2.1	3.1	3.3	2.9	3.9	5.0	5.6	1.4	1.0	2.39	5.64
25-Sep	0.9	3.8	1.8	2.2	2.0	2.6	1.5	2.1	1.6	2.2	2.1	3.0	3.1	3.3	4.4	3.1	3.0	3.4	3.2	3.5	5.1	8.8	4.8	4.9	3.18	8.80
26-Sep	5.1	4.0	2.4	4.5	3.1	2.4	2.4	3.4	1.8	1.5	2.1	2.5	3.0	4.6	3.4	3.6	3.4	2.5	6.5	3.6	4.2	5.6	4.1	4.4	3.51	6.52
27-Sep	4.0	4.3	2.4	2.4	2.9	2.3	4.0	2.8	3.3	2.4	3.9	3.8	3.3	3.2	3.1	2.7	2.8	3.5	2.2	2.9	2.3	2.1	2.8	3.1	3.02	4.32
28-Sep	3.0	2.7	2.4	3.1	2.9	3.0	3.3	2.6	5.2	3.8	4.2	4.4	5.1	4.3	4.2	4.6	5.0	4.8	3.6	2.8	2.7	2.6	2.5	3.0	3.56	5.21
29-Sep	3.1	2.5	2.4	2.6	2.9	3.9	3.2	1.9	4.4	2.8	2.7	3.2	2.6	3.1	2.7	2.4	1.9	2.1	1.1	0.8	1.6	1.2	2.0	1.4	2.43	4.37
30-Sep	1.3	3.6	3.9	3.2	3.6	5.5	3.2	3.4	3.6	4.2	4.2	6.2	5.6	6.1	6.8	6.8	6.2	5.3	4.5	3.3	1.8	2.0	1.6	2.3	4.09	6.79
																								Diurnal Average		
																								Diurnal Maximum		
																								2.25 2.46 2.21 2.62 2.36 2.53 2.55 2.35 2.77 2.71 3.09 3.37 3.47 3.96 3.78 3.57 3.64 2.97 2.61 2.14 2.59 2.58 2.34 2.36		
																								5.88 6.72 5.99 8.00 5.54 5.46 4.06 4.08 7.15 4.70 7.25 6.24 5.64 6.08 6.78 6.79 6.49 5.34 12.31 4.93 10.49 8.80 4.77 4.85		
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m^3 24-hr 100 ul/m^3																										



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

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

Maximum Value: 88.63 deg on Sep 25 04:00		Maximum Daily Average: 41.16 deg on Sep 17		Hours in Service: 720																																													
Minimum Value: 3.0 deg on Sep 21 02:00		Minimum Daily Average: 8.69 deg on Sep 30		Hours of Data: 720																																													
Maximum Diurnal Average: 28.99 deg at hour 14		Minimum Diurnal Average: 12.72 deg at hour 22		Hours of Missing Data: 0																																													
Monthly Average: 19.198 deg		Percentiles: P <sub>1</sub> = 3.9 P <sub>10</sub> = 7.2 Q <sub>1</sub> = 9.6 Median = 14.0 Q <sub>3</sub> = 22.4 P <sub>90</sub> = 39.4 P <sub>99</sub> = 73.3		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	8.1	11.2	14.1	11.3	9.9	6.2	11.3	8.3	13.9	76.9	31.3	31.8	52.6	57.9	51.7	78.2	53.5	21.3	56.6	29.1	20.3	5.8	8.6	13.5	28.48	78.19																							
2-Sep	17.3	14.4	10.4	10.5	14.7	11.3	39.4	11.0	10.2	10.5	13.5	23.3	16.6	18.6	24.2	21.6	17.8	21.8	11.8	5.5	11.0	9.5	7.9	8.7	15.06	39.40																							
3-Sep	7.7	8.6	6.9	38.7	66.3	34.4	9.6	8.8	14.9	14.8	15.0	29.5	26.0	55.3	34.8	24.0	27.5	44.3	18.2	11.4	8.0	7.9	12.5	5.4	22.11	66.33																							
4-Sep	5.8	5.9	4.4	6.8	7.2	11.7	6.2	13.8	12.9	22.8	13.4	13.6	16.3	13.2	13.6	18.6	29.5	17.3	9.9	9.5	7.3	6.9	8.5	7.6	11.79	29.52																							
5-Sep	7.3	8.5	12.2	12.8	10.7	6.2	5.4	9.3	10.6	10.7	12.9	17.7	17.1	18.3	20.2	19.7	12.3	18.1	28.5	24.3	16.7	14.3	9.6	12.9	14.01	28.47																							
6-Sep	15.5	5.6	5.2	7.7	4.2	5.6	7.4	14.0	10.4	24.4	19.9	21.6	27.8	17.9	20.0	21.4	18.3	18.6	32.5	15.2	15.7	3.9	4.9	22.4	15.01	32.46																							
7-Sep	21.6	14.5	6.7	36.7	66.2	52.7	11.3	35.9	14.5	17.4	21.8	18.9	60.3	53.3	28.4	10.9	25.1	30.7	20.7	12.3	14.3	14.7	13.8	12.2	25.61	66.16																							
8-Sep	18.4	16.4	11.6	19.1	16.4	11.0	9.4	10.1	11.0	7.8	7.8	9.6	13.0	9.4	12.8	16.9	11.7	15.4	13.6	14.7	10.5	38.9	39.4	31.7	15.70	39.42																							
9-Sep	23.2	27.0	9.9	12.0	14.8	13.9	16.2	18.1	14.8	15.3	21.6	17.8	18.7	17.2	19.0	20.1	17.3	16.2	17.0	14.5	13.9	14.4	14.0	14.1	16.70	26.97																							
10-Sep	13.6	14.5	13.6	12.8	9.0	12.6	12.2	10.3	9.5	13.1	13.2	20.3	28.6	46.8	21.7	37.2	35.9	29.9	29.7	38.1	12.6	12.9	12.8	18.7	19.98	46.80																							
11-Sep	5.5	4.4	11.2	11.7	20.0	17.9	16.0	22.0	12.7	18.1	18.6	13.8	16.8	17.7	18.4	15.1	14.7	11.2	6.6	4.2	9.5	9.8	7.0	5.6	12.86	22.05																							
12-Sep	6.9	7.9	6.2	12.0	14.5	17.4	9.3	11.7	10.1	11.4	11.0	10.6	11.3	22.9	25.4	10.7	12.7	11.1	10.7	9.8	17.3	8.7	11.0	7.4	12.00	25.36																							
13-Sep	12.0	12.9	10.0	10.0	9.4	13.9	51.5	29.1	62.5	74.8	23.5	41.9	35.5	29.9	28.8	21.2	28.7	25.0	10.7	9.4	6.3	14.8	7.6	13.4	24.28	74.80																							
14-Sep	4.0	8.0	6.7	6.5	38.3	10.2	10.0	5.8	16.7	15.0	22.4	24.4	23.8	26.3	28.1	20.8	28.5	38.6	35.0	6.8	24.7	4.3	4.0	3.2	17.17	38.60																							
15-Sep	3.7	5.2	3.9	46.9	7.8	7.2	11.3	7.4	15.9	18.0	28.7	37.7	72.9	52.4	55.8	33.2	35.3	32.4	12.5	11.5	35.6	13.6	4.9	3.6	23.23	72.86																							
16-Sep	5.8	8.0	16.8	22.9	17.4	11.2	9.9	17.7	9.7	38.3	36.2	51.3	51.8	41.8	18.7	16.4	18.8	16.1	24.4	46.0	20.8	13.8	4.3	60.1	24.10	60.12																							
17-Sep	63.7	49.8	26.1	60.4	84.4	55.3	25.1	16.6	22.5	29.0	35.1	20.3	64.9	63.5	60.3	29.2	15.6	17.3	21.2	44.4	34.2	15.1	61.6	72.2	41.16	84.41																							
18-Sep	40.2	58.1	35.0	13.0	18.5	10.4	13.8	18.1	16.8	21.0	6.7	17.2	18.4	51.2	48.2	53.6	43.1	24.0	24.3	33.8	7.6	25.3	12.6	21.8	26.37	58.13																							
19-Sep	7.8	6.1	6.6	7.0	5.8	11.1	61.6	18.4	7.9	9.7	13.6	34.4	23.9	22.1	14.8	13.8	14.0	9.2	14.6	14.4	16.2	14.3	15.8	8.5	15.49	61.63																							
20-Sep	19.1	11.1	10.7	8.5	9.3	19.5	14.2	10.0	9.2	13.8	18.4	20.4	20.1	20.8	17.4	20.7	13.6	12.5	14.8	11.5	6.1	4.8	7.1	7.1	13.35	20.80																							
21-Sep	5.3	3.0	4.4	48.8	25.1	25.5	23.7	57.7	16.4	16.4	14.6	10.3	9.3	10.4	10.9	8.9	8.6	6.6	9.5	6.4	8.7	10.4	43.6	58.1	18.44	58.11																							
22-Sep	58.2	64.5	49.0	27.5	14.6	3.7	9.9	8.3	11.2	17.3	29.7	26.4	30.2	30.1	25.6	16.0	33.0	55.0	15.2	13.1	30.7	8.5	6.7	7.7	24.67	64.52																							
23-Sep	28.4	17.2	7.9	8.4	67.3	7.7	8.8	9.0	10.0	15.7	28.6	25.5	23.6	40.7	31.8	59.5	33.1	12.8	7.5	12.0	7.1	12.6	11.1	9.9	20.69	67.32																							
24-Sep	14.5	14.0	10.1	9.8	11.7	12.9	8.8	13.3	16.3	15.3	16.5	14.4	16.7	19.4	24.5	31.7	56.4	30.4	17.5	20.1	9.6	9.4	12.8	5.7	17.16	56.44																							
25-Sep	4.6	57.4	51.6	88.6	11.0	33.1	20.1	55.8	86.5	71.0	33.7	20.5	20.4	15.9	14.8	15.3	15.8	9.2	9.7	10.5	9.4	44.1	26.0	8.6	30.57	88.63																							
26-Sep	10.2	38.5	13.1	12.8	25.9	16.1	14.7	12.2	18.5	23.1	9.0	8.0	12.4	10.5	12.4	13.5	16.5	12.5	10.0	8.2	9.0	10.8	13.9	9.1	14.20	38.50																							
27-Sep	7.8	9.8	11.1	11.0	10.4	7.2	14.1	9.1	14.6	18.2	17.5	39.5	71.9	31.7	18.5	21.3	17.2	14.4	20.5	15.3	15.6	11.4	10.9	11.1	17.92	71.89																							
28-Sep	10.5	10.9	10.3	10.6	9.9	8.9	11.1	9.8	18.2	9.3	9.0	9.0	9.3	9.0	8.7	8.8	8.2	7.7	8.7	9.1	9.9	7.7	5.5	7.2	9.48	18.18																							
29-Sep	7.2	9.8	12.2	12.1	10.2	8.5	25.6	11.7	14.6	9.7	11.4	19.1	20.4	35.5	51.1	82.3	24.0	41.9	29.2	14.0	3.1	3.9	8.4	6.5	19.68	82.26																							
30-Sep	8.6	11.6	8.8	7.2	8.1	7.2	8.4	9.4	9.2	7.9	9.2	8.9	9.7	10.0	9.6	10.2	9.2	7.2	7.0	7.5	8.7	8.8	9.6	6.4	8.69	11.64																							
																								15.42	17.83	13.56	20.15	21.30	15.69	16.55	16.42	17.41	22.21	18.80	21.92	27.99	28.99	25.68	25.70	23.20	20.96	18.27	16.09	14.01	12.72	13.88	16.02	Diurnal Average	
																								63.74	64.52	51.59	88.63	84.41	55.35	61.63	57.69	86.50	76.94	36.20	51.34	72.86	63.48	60.29	82.26	56.44	54.97	56.59	46.00	35.63	44.06	61.59	72.21	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**

**END OF REPORT  
SEPTEMBER 2014**