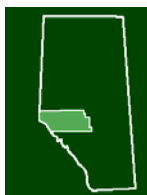


Capital Power

AIR QUALITY MONITORING June 2015 Monthly Report

Prepared by:

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





June 15th, 2015

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 June 2015 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 SO₂, NO₂ and PM_{2.5}.

2. Operational times less than 90 percent:

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

3. Monitoring Notes:

AMS 910 (Genesee)

All analyzers and meteorological equipment returned uptimes of 99.7% in June due to power outage. In addition, the PM_{2.5} analyzer experienced unstable operation, returning an uptime of 96.7%. Rise in PM concentrations measured at the end of June are associated with forest fire activity around the province, with similar trends captured at monitoring stations across central and northern Alberta.

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

Sincerely,

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

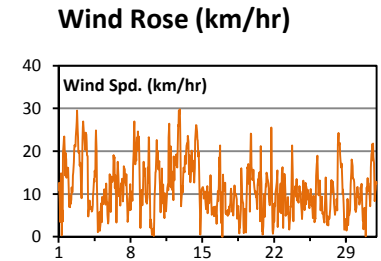
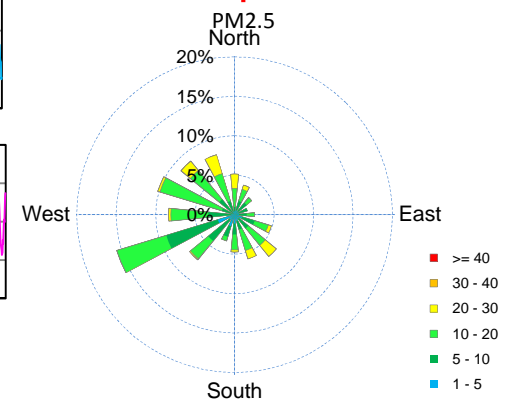
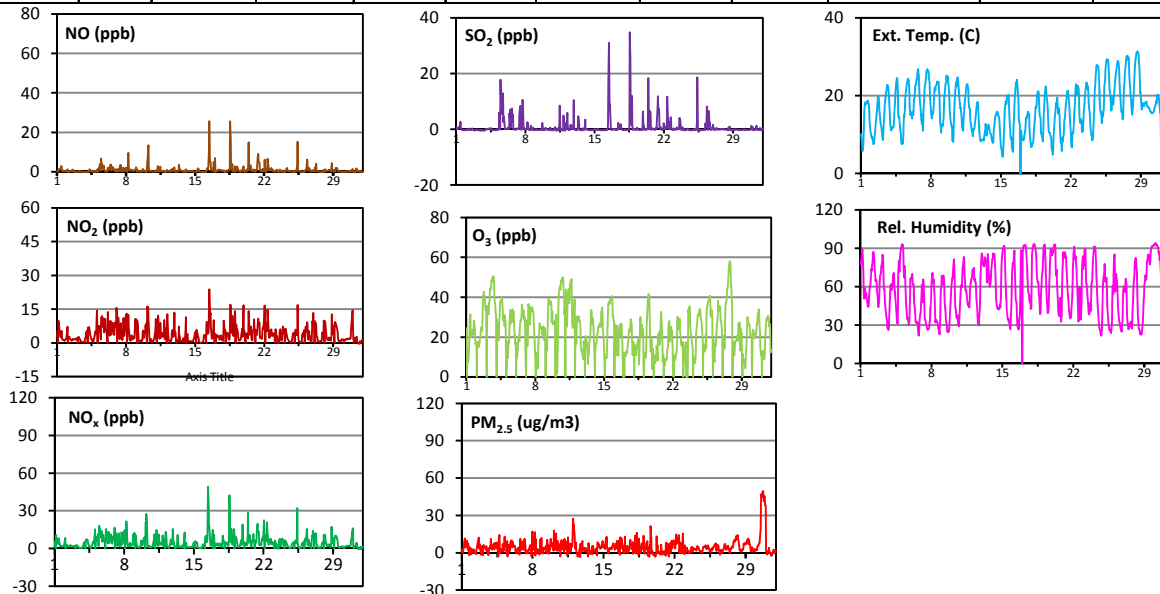
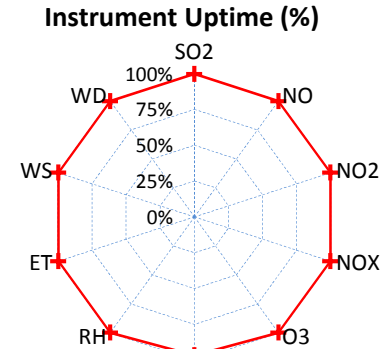
Robert Scotten
Executive Director

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

Patrick Andersen
Environmental Specialist

WCAS - June 2015 Genesee Summary Report

Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc Unit	Avg. Conc.	Uptime	Maximum		AAAQO Objective	Exceed No.	Maximum		AAAQO Objective	Exceed No.
				Conc	Time			Conc	Time		
SO ₂	ppb	0.8	99.7%	1.7	Jun-22	48	0	34.7	Jun-18 14:00	172	0
NO	ppb	1.1	99.7%	4.0	Jun-16	-	-	25.6	Jun-16 11:00	-	-
NO ₂	ppb	4.2	99.7%	8	Jun-5	-	-	23.8	Jun-16 11:00	159	0
NO _x	ppb	5.3	99.7%	11.7	Jun-16	-	-	49.2	Jun-16 11:00	-	-
O ₃	ppb	24	99.7%	41	Jun-3	-	-	58	Jun-27 20:00	82	0
PM _{2.5}	µg/m ³	5	96.5%	25	Jun-30	30	0	49	Jun-30 18:00	-	-



Monthly Summary

- * All data has been slope, intercept, and baseline corrected. Data may change after validation process.
- * The measured ambient concentrations of all parameters are within the AAAQO for the month of June 2015.
- * All compliance parameters are above 90% operational for the month of June 2015.
- * Routine calibration was performed on June 23, 2015.

WEST CENTRAL AIRSHED SOCIETY

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

**AMS 910
GENESEE
JUNE 2015**

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													June 2015
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Total	Min	Max	----- P10	----- Q1	Percentile Median	----- Q3	----- P90	24 Hour Average Max (ppm)
SO ₂ (ppb)	35	683	99.7	1.0	-	0.0	34.7	0.0	0.0	0.0	0.4	2.6	0.004
O ₃ (ppb)	35	683	99.7	24.4	-	1.5	58.1	10.7	16.1	23.9	31.6	39.1	0.041
NO (ppb)	35	683	99.7	1.1	-	0.0	25.6	0.1	0.2	0.5	1.1	2.3	-
NO ₂ (ppb)	35	683	99.7	4.3	-	0.0	23.8	0.7	1.5	3.4	6.0	9.6	0.008
NO _x (ppb)	35	683	99.7	5.4	-	0.2	49.2	1.0	1.9	3.9	7.1	11.2	-
Particulate Matter 2.5 microns (µ/m ³)	6	690	96.7	5.3	-	0.0	49.4	0.0	1.7	3.9	6.9	10.4	25.4 ug/m3
Wind Speed (kph)	0	718	99.7	11.3	-	0.1	29.8	4.3	6.8	10.4	15.0	20.1	-
Temperature - 2m (°C)	0	718	99.7	16.6	-	4.3	31.3	9.0	11.9	16.4	20.8	24.3	-
Temperature - 10m (°C)	0	718	99.7	16.2	-	4.7	29.8	9.3	11.9	16.2	19.9	23.2	-
Delta Temperature (°C)	0	718	99.7	-0.4	-	-3.8	4.0	-2.1	-1.6	-0.7	0.5	1.8	-
Relative Humidity (%)	0	718	99.7	58.7	-	21.8	93.9	29.9	39.9	59.8	77.3	88.1	-
Global Solar Radiation (W/m ²)	0	718	99.7	260.6	-	0.0	971.7	0.0	0.0	131.6	453.5	739.5	-
Precipitation (mm)	0	718	99.7	-	3.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	-
Std Dev Wind Direction (deg)	0	718	99.7	23.4	-	2.9	102.7	8.8	11.5	17.7	29.0	47.4	-
Std Dev Wind Speed (kph)	0	718	99.7	3.3	-	0.4	18.0	1.4	2.1	3.1	4.4	5.2	-



WCAS - Genesee
Summary of Hourly Averages

Sulphur Dioxide (SO₂) - ppb
June 2015

Maximum Value: 34.74 ppb on Jun 18 14:00		Maximum Daily Average: 4.37 ppb on Jun 5		Hours in Service: 720																						
Minimum Value: 0.0 ppb on Jun 1 01:00		Minimum Daily Average: 0.00 ppb on Jun 3		Hours of Data: 683																						
Maximum Diurnal Average: 2.85 ppb at hour 10		Minimum Diurnal Average: 0.10 ppb at hour 23		Hours of Missing Data: 37																						
Monthly Average: 1.015 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.4 P ₉₀ = 2.6 P ₉₉ = 17.6		Hours of Calibration: 35																						
				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-Jun	0.0	0.7	Z	0.1	0.1	0.4	0.7	0.6	0.8	1.4	2.7	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	0.35	2.67
2-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03	0.39
3-Jun	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	0.01
4-Jun	0.2	0.1	Z	0.1	0.0	0.0	0.2	0.4	0.0	0.1	0.1	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08	0.49
5-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	6.0	1.9	0.0	17.8	12.4	14.4	8.5	8.4	5.4	12.9	2.5	4.6	4.0	1.6	0.1	0.0	4.37	17.80
6-Jun	0.0	0.1	Z	0.2	0.2	0.6	0.2	0.1	0.5	5.7	2.6	7.1	0.6	4.9	3.8	7.4	2.8	5.4	0.3	0.0	0.0	0.0	0.0	0.0	1.85	7.42
7-Jun	0.0	0.0	Z	0.3	0.1	0.1	0.2	0.0	0.2	5.6	6.8	8.4	1.1	0.0	0.0	0.0	3.1	10.6	6.0	0.1	0.0	0.4	0.0	0.0	1.86	10.58
8-Jun	0.0	0.0	Z	0.2	2.5	1.9	1.9	0.2	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.5	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.39	2.53
9-Jun	0.0	0.1	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	2.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.20	2.29
10-Jun	0.5	0.4	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.7	0.13	0.75
11-Jun	0.8	0.0	Z	0.0	0.0	0.0	0.4	0.0	0.0	0.0	2.0	8.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	1.1	0.0	0.0	0.81	8.56
12-Jun	0.0	1.4	Z	2.5	1.0	5.9	1.6	0.4	0.0	0.0	0.0	0.0	0.0	1.7	0.4	1.1	1.3	1.1	0.1	0.2	2.5	10.5	0.3	0.0	1.38	10.48
13-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	1.2	4.7	3.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.48	4.71
14-Jun	1.9	3.5	Z	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	0.0	0.0	0.0	0.0	0.24	3.48
15-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.18
16-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	1.6	15.7	31.0	18.7	7.4	8.9	3.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1			4.13	30.96
17-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	1.0	2.3	0.7	0.1	0.4	0.6	1.2	1.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.39	2.27
18-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	34.7	25.1	4.6	1.9	1.6	11.9	1.7	0.0	0.0	0.3	0.0	3.63	34.74
19-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.9	6.4	0.5	1.3	0.45	6.43
20-Jun	0.4	0.0	Z	0.0	0.0	0.1	0.0	0.1	0.0	6.7	18.4	2.1	0.2	4.2	6.6	6.0	0.5	0.0	0.0	0.3	0.4	0.3	0.1	0.0	2.02	18.41
21-Jun	0.0	0.0	Z	0.0	0.0	0.6	0.4	3.5	7.8	11.8	7.2	7.6	6.5	0.2	0.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.2	2.14	11.84
22-Jun	1.4	1.4	Z	0.8	0.7	0.4	0.1	1.2	11.7	4.8	3.3	1.2	0.0	2.5	2.4	0.6	4.4	3.1	0.2	0.0	0.0	0.0	0.0	0.0	1.76	11.70
23-Jun	0.4	0.0	Z	0.0	0.0	0.0	0.0	0.7	C	C	C	C	C	4.0	3.6	3.9	1.9	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.85	4.05
24-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.22
25-Jun	0.0	0.0	Z	0.0	0.2	0.0	0.0	0.0	3.2	18.6	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	0.99	18.60
26-Jun	0.0	0.0	Z	0.0	2.1	1.8	0.7	3.5	8.1	4.5	0.0	0.0	6.6	5.2	1.3	2.5	1.5	0.0	0.0	0.0	0.0	0.2	0.7	1.7	1.77	8.14
27-Jun	0.3	0.0	Z	0.0	0.0	0.0	0.2	0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.08	0.46
28-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.7	0.0	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	0.91
29-Jun	0.0	0.0	Z	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	0.0	0.00	0.06
30-Jun	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	0.8	1.2	0.7	0.5	0.8	0.18	1.24
																								Diurnal Average		
																								Diurnal Maximum		
																								0.19 0.25 -- 0.14 0.23 0.39 0.22 0.45 1.60 2.85 2.65 2.50 1.34 2.78 1.89 1.29 0.90 1.23 0.72 0.27 0.46 0.74 0.10 0.24		
																								1.87 3.48 -- 2.48 2.53 5.87 1.85 3.51 11.70 18.60 30.96 18.68 12.41 34.74 25.12 8.41 5.37 12.87 11.91 4.64 4.90 10.48 0.71 2.24		
Z - zerospan C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAQO): 1-hr 172 ppb 24-hr 48 ppb																										



WCAS - Genesee
Summary of Hourly Averages

Ozone (O₃) - ppb
June 2015

Maximum Value: 58.08 ppb on Jun 27 20:00		Maximum Daily Average: 40.88 ppb on Jun 3		Hours in Service: 720																							
Minimum Value: 1.5 ppb on Jun 22 03:00		Minimum Daily Average: 16.00 ppb on Jun 21		Hours of Data: 683																							
Maximum Diurnal Average: 32.00 ppb at hour 17		Minimum Diurnal Average: 13.19 ppb at hour 6		Hours of Missing Data: 37																							
Monthly Average: 24.378 ppb		Percentiles: P ₁ = 4.4 P ₁₀ = 10.7 Q ₁ = 16.1 Median = 23.9 Q ₃ = 31.6 P ₉₀ = 39.1 P ₉₉ = 50.3		Hours of Calibration: 35																							
				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-Jun	24.5	Z	13.5	7.3	7.8	8.7	14.9	18.9	29.2	31.5	20.0	21.0	21.3	21.0	21.4	23.5	21.3	24.9	28.3	26.8	24.2	19.0	16.4	16.9	20.10	31.53	
2-Jun	15.5	Z	14.6	17.6	16.5	14.9	15.4	16.5	17.3	19.2	21.4	24.6	24.7	24.9	23.2	29.5	37.6	41.8	42.7	40.8	40.9	37.4	34.3	33.4	26.29	42.75	
3-Jun	34.6	Z	35.7	34.0	32.3	31.5	31.3	36.8	38.0	43.2	44.4	44.0	45.2	48.4	48.0	49.7	50.3	50.5	50.4	46.7	40.0	37.9	35.4	32.0	40.88	50.47	
4-Jun	31.3	Z	28.9	24.2	21.2	18.7	18.3	20.4	27.9	32.1	38.0	37.6	37.6	38.8	39.9	39.3	34.2	29.3	28.1	31.2	27.5	25.4	30.7	26.3	29.86	39.88	
5-Jun	14.7	Z	5.3	17.0	17.9	9.5	17.3	16.8	17.9	24.8	33.5	26.6	29.4	30.4	31.6	27.7	34.0	27.5	33.2	32.3	25.6	20.6	20.8	16.4	23.09	34.03	
6-Jun	17.4	Z	12.1	9.7	12.4	13.1	17.7	20.7	20.3	17.8	23.3	27.3	28.6	28.2	31.0	36.3	34.5	30.3	31.2	33.4	28.7	30.2	30.1	26.0	24.36	36.31	
7-Jun	13.0	Z	19.5	28.5	15.4	17.4	22.9	36.6	35.0	28.6	26.9	26.2	33.3	35.0	32.7	34.9	34.9	34.1	33.0	32.5	27.5	24.0	17.1	12.2	27.00	36.65	
8-Jun	8.7	Z	4.4	12.0	11.6	4.2	9.1	13.9	18.9	22.5	26.8	26.8	24.8	25.3	24.1	25.0	25.1	21.1	22.4	25.2	25.2	20.8	18.5	24.4	19.17	26.84	
9-Jun	17.3	Z	18.2	13.1	14.2	18.3	28.3	35.7	39.3	39.2	37.5	37.8	36.3	37.8	37.2	36.1	27.4	33.1	26.4	26.6	27.7	27.0	26.8	26.4	29.03	39.27	
10-Jun	27.9	Z	31.1	12.5	14.5	1.7	7.7	21.5	36.2	39.2	42.9	45.3	45.1	43.7	48.3	47.3	47.0	49.2	49.1	50.0	49.2	44.6	39.1	31.5	35.85	50.00	
11-Jun	34.2	Z	39.1	43.9	40.4	25.2	33.0	42.2	40.2	44.2	41.6	36.9	45.8	47.3	47.6	47.5	49.1	38.4	27.1	24.5	26.3	26.4	33.0	38.8	37.95	49.10	
12-Jun	39.0	Z	30.1	24.0	16.7	23.1	30.2	30.6	29.3	29.2	30.1	28.2	28.4	26.4	24.1	15.4	13.1	12.6	13.5	11.3	9.5	8.8	18.0	14.4	21.98	38.98	
13-Jun	17.7	Z	18.4	20.6	20.0	19.0	17.0	13.5	6.5	10.7	10.9	16.6	17.7	18.1	21.4	27.2	33.6	33.3	26.7	26.8	29.4	26.3	23.3	17.9	20.55	33.56	
14-Jun	11.2	Z	12.8	15.5	16.7	16.7	20.5	21.2	22.2	24.2	25.4	25.7	26.0	25.0	27.1	25.2	26.6	32.2	34.1	34.9	30.2	23.0	20.6	16.3	23.18	34.89	
15-Jun	13.8	Z	11.0	9.8	10.0	9.3	9.9	13.5	22.0	32.7	36.5	37.5	37.8	36.6	38.2	39.0	39.1	38.8	39.3	40.6	36.6	30.3	30.7	27.6	27.85	40.58	
16-Jun	27.8	Z	26.3	21.5	18.0	10.9	22.8	25.9	25.6	18.8	10.7	15.1	23.9	21.3	26.1	20.7	26.5	23.9	26.6	23.2	15.9	9.8	PF	PF	21.01	27.81	
17-Jun	12.0	Z	11.8	11.4	10.6	10.6	12.8	11.9	13.3	14.8	17.1	19.7	22.2	23.9	22.6	22.8	25.9	29.1	27.3	26.3	18.9	10.9	14.1	17.7	17.72	29.14	
18-Jun	16.3	Z	14.4	16.1	15.3	12.0	10.7	13.2	15.9	17.1	17.7	18.8	16.8	6.2	11.3	26.4	30.1	29.3	21.6	20.6	26.1	23.8	24.2	21.3	18.49	30.11	
19-Jun	5.8	Z	12.0	11.3	9.5	9.7	10.8	18.6	26.2	33.3	35.9	39.6	41.6	39.9	40.9	31.7	19.1	12.7	13.2	18.9	14.2	4.1	14.5	12.0	20.67	41.62	
20-Jun	10.3	Z	9.6	10.7	6.9	7.4	9.1	11.8	15.7	14.1	8.1	19.4	21.4	17.4	19.0	22.8	16.0	20.5	29.0	32.6	25.0	23.6	18.6	7.8	16.38	32.58	
21-Jun	11.0	Z	4.8	7.0	5.9	9.2	8.6	8.4	9.0	9.3	13.3	14.6	16.5	25.0	28.0	26.2	24.3	17.7	23.8	25.1	23.5	23.3	19.3	14.3	16.00	28.04	
22-Jun	2.1	Z	1.5	9.3	11.0	8.5	9.7	10.6	12.1	13.8	20.6	30.3	29.7	27.1	24.0	26.8	29.3	23.6	21.8	19.9	16.2	17.5	15.1	17.7	17.31	30.26	
23-Jun	13.6	Z	8.7	7.6	8.6	14.1	15.4	17.4	C	C	C	C	C	33.9	32.1	32.1	35.5	34.1	25.6	23.2	21.0	19.0	16.9	15.3	20.78	35.50	
24-Jun	13.7	Z	10.1	7.7	7.8	6.7	8.2	10.9	18.5	23.0	26.2	27.9	30.0	30.9	31.5	30.9	33.0	34.0	33.9	31.6	30.2	27.6	26.2	22.9	22.76	33.98	
25-Jun	19.7	Z	16.0	16.4	14.9	12.7	15.0	15.3	21.5	14.5	32.9	35.7	35.7	37.0	38.1	38.3	40.2	40.5	40.7	36.0	30.3	32.6	33.5	31.5	28.22	40.65	
26-Jun	29.6	Z	18.8	18.3	9.3	7.5	12.9	16.2	15.7	18.8	22.8	26.2	28.1	30.8	38.2	33.5	33.3	35.0	35.6	34.2	27.9	27.9	27.2	24.1	24.87	38.23	
27-Jun	19.2	Z	20.6	14.3	15.9	14.1	14.3	28.5	35.3	37.7	38.0	39.4	44.1	44.3	47.3	50.3	54.9	57.2	57.8	58.1	55.7	46.2	46.4	41.4	38.30	58.08	
28-Jun	35.7	Z	14.2	17.3	14.1	10.6	10.8	17.1	18.1	18.2	18.3	18.2	20.6	20.5	18.1	24.8	27.2	25.2	27.3	24.4	13.3	24.3	20.3	22.2	20.04	35.72	
29-Jun	18.1	Z	11.6	7.8	8.7	8.9	8.7	7.0	4.4	7.1	11.2	16.9	23.0	27.1	30.1	26.1	26.5	26.3	26.6	24.2	22.7	20.6	20.6	20.1	17.58	30.11	
30-Jun	19.3	Z	21.7	23.7	22.7	20.9	20.6	19.6	19.5	20.7	23.1	21.8	26.2	26.9	26.9	31.8	30.7	34.1	32.8	24.2	23.1	15.0	13.0	10.6	23.00	34.08	
		19.17	--	16.56	16.34	14.90	13.19	16.13	19.71	22.44	24.14	26.04	27.78	29.72	29.96	31.00	31.63	32.00	31.34	30.97	30.21	27.07	24.26	24.31	22.06	Diurnal Average	
		38.98	--	39.10	43.93	40.38	31.47	33.00	42.20	40.19	44.16	44.43	45.29	45.81	48.43	48.30	50.25	54.94	57.20	57.83	58.08	55.69	46.17	46.42	41.44	Diurnal Maximum	
Z - zerospan		C - Calibration		PF - Power Failure																							
Alberta Ambient Air Quality Objectives (AAQO):		1-hr 82.5 ppb		24-hr -- ppb																							



WCAS - Genesee
Summary of Hourly Averages

Nitrogen Oxide (NO) - ppb
June 2015

Maximum Value: 25.64 ppb on Jun 16 11:00		Maximum Daily Average: 4.01 ppb on Jun 16		Hours in Service: 720																						
Minimum Value: 0.0 ppb on Jun 3 22:00		Minimum Daily Average: 0.12 ppb on Jun 3		Hours of Data: 683																						
Maximum Diurnal Average: 2.42 ppb at hour 10		Minimum Diurnal Average: 0.31 ppb at hour 23		Hours of Missing Data: 37																						
Monthly Average: 1.091 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.5 Q ₃ = 1.1 P ₉₀ = 2.3 P ₉₉ = 12.9		Hours of Calibration: 35																						
				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-Jun	0.4	0.5	Z	1.1	1.1	1.3	1.4	1.7	1.3	1.2	2.9	1.3	0.7	0.5	0.5	0.7	0.5	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.85	2.88
2-Jun	0.7	1.3	Z	0.0	0.1	0.1	0.1	0.4	0.5	0.5	0.6	0.5	0.6	0.7	1.2	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.38	1.34
3-Jun	0.1	0.1	Z	0.1	0.1	0.1	0.4	0.5	0.3	0.3	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.12	0.47
4-Jun	0.0	0.0	Z	0.0	0.0	0.5	0.4	1.3	1.2	0.9	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.5	0.0	0.4	0.34	1.33
5-Jun	0.6	1.0	Z	1.5	0.4	1.8	1.6	2.6	3.9	1.8	0.5	6.9	3.7	4.1	2.7	3.3	1.6	3.1	0.8	0.8	0.6	0.1	0.2	0.4	1.92	6.88
6-Jun	0.5	0.2	Z	2.1	1.2	1.8	2.0	1.6	1.0	3.6	1.8	3.7	0.7	2.4	1.6	2.5	1.3	1.8	0.8	0.6	1.0	0.5	0.4	0.8	1.46	3.67
7-Jun	1.4	0.7	Z	0.3	0.5	1.5	1.6	0.3	0.5	3.2	2.9	3.4	0.7	0.4	0.4	0.3	1.1	2.2	1.3	0.3	0.6	0.6	0.7	2.2	1.18	3.42
8-Jun	2.0	1.8	Z	0.7	0.8	9.5	3.6	1.8	0.9	0.6	0.6	0.7	0.7	1.2	0.7	0.6	0.7	0.5	0.7	0.6	0.5	1.1	1.1	1.0	1.41	9.53
9-Jun	2.3	0.7	Z	1.2	0.7	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.4	0.2	1.5	1.1	0.5	0.4	0.4	0.6	0.4	0.7	0.60	2.30
10-Jun	0.0	0.2	Z	5.0	5.5	11.9	13.4	2.4	0.7	0.3	0.2	0.3	0.4	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.5	1.84	13.40
11-Jun	0.8	0.3	Z	0.2	0.2	2.9	2.0	0.5	0.7	0.4	1.1	2.6	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.4	0.1	0.2	0.71	2.93
12-Jun	0.1	0.5	Z	1.0	0.6	0.6	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.8	0.7	1.4	1.5	1.3	0.6	0.5	1.0	2.3	0.3	0.3	0.67	2.32
13-Jun	0.2	0.2	Z	0.1	0.1	0.1	0.2	1.0	3.6	2.3	1.6	0.7	0.8	0.8	0.5	0.5	0.5	0.6	0.4	0.5	0.1	0.0	0.1	0.2	0.66	3.60
14-Jun	0.6	1.3	Z	0.6	0.5	0.6	0.6	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.37	1.31
15-Jun	0.3	0.2	Z	0.2	0.3	0.8	1.7	1.8	1.1	0.3	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.31	1.77
16-Jun	0.0	0.0	Z	0.4	0.7	1.7	1.0	1.5	2.4	10.6	25.6	16.9	5.4	5.2	2.1	1.0	0.5	0.6	0.7	0.6	2.3	5.0	PF	PF	4.01	25.64
17-Jun	7.0	1.1	Z	0.6	0.5	0.5	0.4	0.8	1.1	1.2	0.9	0.7	1.0	0.8	0.9	1.0	0.9	0.4	0.4	0.4	0.5	0.8	0.4	0.2	0.98	7.01
18-Jun	0.1	0.4	Z	0.2	0.2	0.7	0.8	0.9	0.8	0.7	0.7	0.8	1.9	25.6	16.6	3.1	1.0	0.9	3.9	0.9	0.2	0.2	0.2	0.2	2.64	25.57
19-Jun	1.8	2.7	Z	1.7	1.9	2.1	2.6	1.6	1.1	0.4	0.3	0.2	0.2	0.1	0.1	0.4	0.9	0.7	0.4	0.3	0.4	2.8	0.3	0.5	1.03	2.80
20-Jun	0.3	0.1	Z	0.1	0.2	0.8	1.3	1.1	0.7	5.3	14.9	2.2	1.0	2.7	3.5	2.8	1.2	0.5	0.3	0.3	1.1	1.1	0.3	1.2	1.87	14.91
21-Jun	0.5	0.5	Z	0.9	0.3	0.9	1.2	4.2	7.0	9.1	5.3	5.0	4.7	0.8	0.6	0.9	0.6	0.8	0.5	1.0	1.5	0.3	0.4	0.7	2.07	9.12
22-Jun	0.7	6.3	Z	1.4	0.4	0.6	0.6	0.9	6.7	3.2	3.2	1.2	0.7	1.5	1.4	0.8	1.9	1.9	0.9	0.7	1.1	0.4	0.3	0.4	1.61	6.67
23-Jun	0.4	0.3	Z	0.8	0.4	0.5	0.6	1.1	C	C	C	C	C	1.2	1.2	0.8	0.3	0.2	0.1	0.1	0.7	0.3	0.1	0.1	0.50	1.17
24-Jun	0.1	0.2	Z	0.2	0.2	1.1	1.6	1.9	0.9	0.9	0.6	0.5	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.0	0.0	0.4	0.49	1.94
25-Jun	0.1	0.2	Z	0.2	0.6	0.4	0.6	1.3	3.4	15.3	1.1	0.4	0.4	0.3	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.1	1.13	15.32
26-Jun	0.2	0.1	Z	0.2	0.8	1.1	1.4	2.3	6.3	3.8	0.7	0.6	2.2	1.9	0.6	1.1	0.9	0.3	0.2	0.2	0.5	0.7	0.9	0.8	1.21	6.26
27-Jun	0.9	0.9	Z	1.0	2.4	2.0	4.1	0.7	0.5	0.5	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.65	4.07
28-Jun	0.0	1.0	Z	1.2	1.4	0.8	0.8	0.6	0.5	0.6	0.7	0.7	0.7	1.1	0.7	0.9	0.7	0.5	0.4	0.9	4.4	0.4	1.2	0.5	0.90	4.42
29-Jun	0.2	0.7	Z	0.9	0.4	0.5	1.9	2.0	2.0	1.9	1.0	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.62	1.99
30-Jun	0.1	0.1	Z	0.0	0.1	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.7	0.5	0.6	0.8	1.5	0.33	1.54
																								Diurnal Average		
																								Diurnal Maximum		
																								0.74 0.78 -- 0.80 0.74 1.59 1.63 1.27 1.72 2.42 2.39 1.78 1.01 1.82 1.28 0.84 0.66 0.67 0.51 0.40 0.64 0.65 0.31 0.49		
																								7.01 6.25 -- 4.98 5.46 11.90 13.40 4.23 6.97 15.32 25.64 16.95 5.37 25.57 16.59 3.27 1.86 3.11 3.93 1.02 4.42 4.99 1.21 2.19		
Z - zerospan C - Calibration PF - Power Failure																										
Alberta Ambient Air Quality Objectives (AAQO): 1-hr --- ppb 24-hr --- ppb																										



WCAS - Genesee
Summary of Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
June 2015

Maximum Value: 23.78 ppb on Jun 16 11:00		Maximum Daily Average: 8.04 ppb on Jun 5		Hours in Service: 720																							
Minimum Value: 0.0 ppb on Jun 15 13:00		Minimum Daily Average: 1.48 ppb on Jun 3		Hours of Data: 683																							
Maximum Diurnal Average: 6.72 ppb at hour 4		Minimum Diurnal Average: 2.45 ppb at hour 19		Hours of Missing Data: 37																							
Monthly Average: 4.326 ppb		Percentiles: P ₁ = 0.2 P ₁₀ = 0.7 Q ₁ = 1.5 Median = 3.4 Q ₃ = 6.0 P ₉₀ = 9.6 P ₉₉ = 16.1		Hours of Calibration: 35																							
				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-Jun	2.8	5.2	Z	9.8	7.7	7.1	3.9	3.5	2.5	2.6	5.4	4.7	2.0	1.5	1.2	1.4	1.3	1.1	1.0	1.1	1.5	1.7	2.1	3.1	3.23	9.84	
2-Jun	5.1	7.2	Z	2.7	2.5	2.8	2.5	2.0	1.7	1.5	1.5	0.9	1.3	1.5	1.8	1.6	1.4	1.5	1.6	1.6	1.6	1.5	2.0	2.1	2.17	7.23	
3-Jun	1.8	1.8	Z	2.5	2.7	2.5	2.1	1.6	1.2	0.8	0.7	0.4	0.3	0.4	0.3	0.1	0.2	0.3	0.4	0.8	2.0	2.7	4.3	3.8	1.48	4.32	
4-Jun	5.4	4.1	Z	6.8	6.6	7.1	6.4	5.7	3.3	3.0	2.0	1.8	1.5	0.9	0.7	0.3	0.8	1.7	2.4	3.3	3.8	5.1	4.1	5.3	3.57	7.12	
5-Jun	10.8	14.4	Z	7.6	5.7	7.5	4.9	5.3	7.4	3.3	1.5	11.3	11.0	11.9	10.3	10.1	6.9	10.9	4.6	7.3	9.9	10.6	5.8	5.9	8.04	14.38	
6-Jun	4.5	5.1	Z	13.7	9.9	9.5	6.7	5.2	3.3	9.8	6.3	9.3	3.6	7.3	6.7	8.9	6.3	7.5	4.3	3.5	9.0	8.3	7.1	8.2	7.12	13.73	
7-Jun	15.6	13.4	Z	10.0	11.3	11.1	7.6	2.0	1.7	6.8	6.9	8.8	2.9	1.4	1.3	1.2	4.4	11.1	8.6	3.2	5.2	5.3	9.9	12.2	7.04	15.62	
8-Jun	12.4	13.0	Z	7.5	8.5	12.5	7.6	3.9	1.8	1.2	1.0	1.3	1.6	3.4	1.9	1.5	2.3	2.0	2.9	2.4	2.0	7.5	10.6	5.5	4.98	13.04	
9-Jun	10.5	7.1	Z	9.8	7.0	4.5	2.0	1.1	0.8	0.7	0.8	0.5	0.6	0.5	1.5	1.1	4.6	5.6	3.0	2.3	2.4	4.1	5.8	7.9	3.66	10.48	
10-Jun	6.6	8.8	Z	16.1	15.1	15.8	10.2	7.4	2.4	1.0	0.8	1.3	1.7	1.1	0.6	0.7	0.5	0.6	1.0	1.5	1.9	3.2	5.0	6.6	4.78	16.15	
11-Jun	10.6	2.4	Z	3.5	3.0	12.2	10.5	2.6	3.5	1.8	4.0	8.9	3.4	2.5	2.5	3.4	4.5	4.1	3.6	2.7	10.2	7.3	1.7	2.9	4.86	12.19	
12-Jun	2.2	6.8	Z	10.4	12.8	8.7	3.3	1.5	1.0	0.7	0.3	0.2	0.2	1.6	1.6	4.8	5.9	5.7	3.0	2.7	5.7	13.5	3.5	4.8	4.39	13.49	
13-Jun	3.0	1.6	Z	1.2	0.7	0.7	0.7	1.8	7.3	3.7	2.9	0.5	0.9	1.0	0.8	0.6	0.7	0.8	0.6	2.2	0.8	0.5	0.6	1.4	1.53	7.31	
14-Jun	6.3	11.5	Z	3.5	3.4	4.0	1.6	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.6	0.7	0.6	0.7	0.8	0.8	1.8	2.0	3.4	4.4	2.20	11.48	
15-Jun	4.8	4.1	Z	5.8	4.8	3.8	3.5	2.7	1.8	0.6	0.4	0.1	0.0	0.2	0.1	0.2	0.2	0.3	0.3	0.6	1.4	3.4	3.5	3.0	1.97	5.85	
16-Jun	2.8	1.9	Z	7.9	9.4	8.2	4.1	4.1	4.8	14.2	23.8	19.3	12.5	13.3	7.0	3.9	1.8	2.2	2.8	3.7	7.2	10.0	PF	PF	7.85	23.78	
17-Jun	4.0	3.9	Z	3.7	3.4	2.8	2.5	3.2	3.2	3.1	2.2	1.4	2.0	2.5	2.9	3.4	2.7	1.5	1.1	1.0	3.6	9.9	8.8	5.5	3.40	9.93	
18-Jun	4.7	5.7	Z	4.0	3.7	4.2	4.5	4.0	2.9	2.0	1.5	1.4	3.4	17.0	15.8	6.3	4.7	4.4	12.0	6.0	3.2	3.6	3.4	3.5	5.29	17.01	
19-Jun	14.2	11.7	Z	8.3	7.4	6.4	6.2	4.9	3.5	1.9	1.2	1.0	1.0	1.3	1.4	2.4	3.7	5.0	6.3	2.6	5.5	16.7	4.6	5.5	5.33	16.73	
20-Jun	4.6	2.8	Z	3.6	4.3	3.8	3.0	2.3	1.9	5.7	14.2	6.2	3.7	5.6	7.3	6.6	3.9	1.8	1.2	1.8	5.3	5.8	6.8	10.5	4.89	14.23	
21-Jun	6.7	5.2	Z	5.7	4.7	3.9	3.5	5.6	9.2	10.8	9.0	8.8	9.0	3.2	2.1	2.8	2.2	2.3	1.9	5.2	6.8	6.0	8.1	10.2	5.77	10.81	
22-Jun	16.2	16.5	Z	9.1	7.4	6.9	5.4	5.3	14.7	9.7	6.5	3.7	2.2	4.1	5.5	3.0	5.8	6.1	3.8	3.1	4.3	3.9	3.3	3.6	6.53	16.55	
23-Jun	4.2	1.9	Z	6.0	5.5	4.1	2.8	2.8	C	C	C	C	C	4.9	4.9	6.1	3.1	1.0	1.0	1.6	4.3	7.3	5.6	4.8	4.01	7.33	
24-Jun	4.7	6.0	Z	6.4	5.5	5.0	3.6	3.0	1.8	1.7	1.3	1.0	0.7	0.4	0.3	0.5	0.3	0.3	0.3	0.9	2.4	3.9	3.9	4.6	2.54	6.44	
25-Jun	4.4	3.5	Z	5.4	6.0	5.3	3.5	3.5	4.1	16.8	3.2	1.3	0.8	0.5	0.3	0.5	0.2	0.1	0.2	0.8	3.5	4.1	4.6	2.8	3.28	16.82	
26-Jun	3.8	5.8	Z	1.5	7.2	7.2	4.8	5.2	9.2	7.7	2.5	1.4	4.8	5.2	2.4	3.0	2.2	0.6	0.5	1.0	5.1	9.6	8.3	13.3	4.89	13.29	
27-Jun	9.3	8.0	Z	9.6	9.5	8.1	8.2	3.6	2.6	1.8	0.7	0.7	0.5	0.7	0.6	0.7	0.7	0.7	0.6	1.0	1.7	4.7	3.9	4.4	3.58	9.62	
28-Jun	4.3	9.9	Z	9.1	9.6	6.3	4.7	3.4	2.2	1.6	1.3	1.1	1.6	2.3	1.2	2.1	2.0	0.9	0.9	3.4	12.8	4.0	5.0	3.9	4.07	12.79	
29-Jun	5.3	7.6	Z	8.9	9.3	8.7	8.2	7.9	7.1	6.1	5.0	2.9	1.5	1.1	0.4	0.7	0.9	0.8	0.7	1.2	1.4	1.7	1.4	1.4	3.92	9.29	
30-Jun	1.5	1.2	Z	1.3	1.4	1.6	1.5	1.9	1.9	1.6	1.7	1.8	1.9	2.0	1.7	1.6	1.9	1.9	2.1	5.9	7.8	11.8	13.7	14.5	3.66	14.47	
		6.43	6.61	--	6.72	6.53	6.41	4.66	3.58	3.77	4.23	3.76	3.54	2.67	3.33	2.86	2.68	2.55	2.78	2.45	2.50	4.46	5.99	5.21	5.71	Diurnal Average	
		16.22	16.55	--	16.15	15.08	15.82	10.54	7.95	14.70	16.82	23.78	19.32	12.48	17.01	15.76	10.09	6.95	11.10	12.00	7.25	12.79	16.73	13.65	14.47	Diurnal Maximum	
Z - zerospan		C - Calibration		PF - Power Failure																							
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 159 ppb		24-hr 106 ppb																							



WCAS - Genesee
Summary of Hourly Averages

NOx (NO_x) - ppb
June 2015

Maximum Value: 49.24 ppb on Jun 16 11:00		Maximum Daily Average: 11.75 ppb on Jun 16		Hours in Service: 720																							
Minimum Value: 0.2 ppb on Jun 15 13:00		Minimum Daily Average: 1.60 ppb on Jun 3		Hours of Data: 683																							
Maximum Diurnal Average: 7.93 ppb at hour 6		Minimum Diurnal Average: 2.91 ppb at hour 20		Hours of Missing Data: 37																							
Monthly Average: 5.391 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 1.0 Q ₁ = 1.9 Median = 3.9 Q ₃ = 7.1 P ₉₀ = 11.2 P ₉₉ = 27.3		Hours of Calibration: 35																							
				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-Jun	3.1	5.6	Z	10.8	8.7	8.4	5.2	5.1	3.7	3.8	8.2	5.9	2.7	2.1	1.8	2.2	1.8	1.5	1.5	1.5	1.9	2.0	2.4	3.5	4.06	10.79	
2-Jun	5.7	8.5	Z	2.7	2.5	2.9	2.5	2.3	2.1	1.9	2.1	1.4	1.9	2.3	3.0	2.2	1.6	1.7	1.8	1.8	1.7	1.6	2.1	2.1	2.54	8.50	
3-Jun	1.9	1.9	Z	2.5	2.7	2.6	2.5	2.1	1.5	1.1	0.9	0.6	0.5	0.6	0.5	0.3	0.3	0.4	0.5	0.9	2.0	2.6	4.3	3.7	1.60	4.31	
4-Jun	5.3	4.0	Z	6.6	6.4	7.5	6.7	6.9	4.4	3.9	2.4	2.2	1.9	1.2	0.9	0.5	1.0	2.0	2.7	3.6	4.1	5.6	4.1	5.7	3.90	7.51	
5-Jun	11.2	15.3	Z	9.0	6.0	9.3	6.4	7.8	11.2	5.2	2.1	18.1	14.7	15.9	12.9	13.3	8.5	13.9	5.4	8.0	10.5	10.7	6.0	6.3	9.91	18.08	
6-Jun	5.0	5.4	Z	15.7	11.0	11.2	8.6	6.8	4.2	13.2	8.0	12.9	4.3	9.6	8.2	11.3	7.4	9.2	5.0	4.0	9.9	8.6	7.3	8.8	8.50	15.66	
7-Jun	16.8	13.9	Z	10.1	11.6	12.3	9.0	2.3	2.2	9.9	9.7	12.1	3.6	1.8	1.7	1.5	5.3	13.1	9.7	3.4	5.7	5.8	10.4	14.2	8.09	16.75	
8-Jun	14.3	14.6	Z	8.1	9.1	21.8	11.0	5.7	2.7	1.9	1.7	2.0	2.3	4.6	2.6	2.2	3.0	2.5	3.6	2.9	2.5	8.4	11.6	6.4	6.33	21.85	
9-Jun	12.6	7.7	Z	10.8	7.6	4.9	2.4	1.3	1.1	1.0	1.1	0.8	0.8	0.8	1.9	1.4	6.1	6.6	3.6	2.7	2.8	4.7	6.2	8.5	4.24	12.61	
10-Jun	6.5	8.9	Z	21.0	20.5	27.7	23.5	9.7	3.0	1.4	1.0	1.8	2.2	1.4	0.9	0.9	0.8	0.8	1.1	1.7	2.1	3.3	5.0	7.1	6.62	27.68	
11-Jun	11.2	2.7	Z	3.6	3.1	14.9	12.4	3.1	4.1	2.2	5.1	11.4	3.9	2.9	2.9	3.9	4.9	4.5	4.1	3.2	10.6	7.7	1.9	3.1	5.54	14.95	
12-Jun	2.3	7.3	Z	11.4	13.4	9.3	3.6	1.7	1.2	1.0	0.5	0.6	0.6	2.5	2.3	6.2	7.3	7.1	3.6	3.2	6.7	15.7	3.8	5.1	5.06	15.65	
13-Jun	3.1	1.8	Z	1.4	0.8	0.8	0.9	2.8	10.9	6.0	4.5	1.1	1.8	1.8	1.4	1.1	1.2	1.4	1.1	2.7	1.0	0.6	0.7	1.7	2.20	10.86	
14-Jun	6.9	12.9	Z	4.2	3.9	4.6	2.3	1.0	0.9	1.1	1.2	1.2	1.2	1.2	1.0	1.1	1.0	1.1	1.1	1.0	1.9	2.2	3.6	4.6	2.65	12.88	
15-Jun	5.0	4.3	Z	6.1	5.0	4.5	5.1	4.4	3.0	0.9	0.6	0.4	0.2	0.4	0.3	0.4	0.4	0.5	0.5	0.7	1.4	3.4	3.4	3.0	2.34	6.05	
16-Jun	2.8	1.9	Z	8.3	10.0	9.9	4.9	5.5	7.1	24.5	49.2	36.0	17.6	18.2	9.1	4.8	2.2	2.8	3.4	4.2	9.3	14.8	PF	PF	11.75	49.24	
17-Jun	10.9	4.9	Z	4.1	3.7	3.2	2.7	3.8	4.1	4.1	3.0	2.0	2.8	3.1	3.6	4.2	3.4	1.8	1.4	1.2	3.9	10.4	9.0	5.4	4.20	10.89	
18-Jun	4.5	5.7	Z	3.9	3.6	4.5	5.0	4.6	3.5	2.5	2.0	2.1	5.2	42.2	32.1	9.3	5.4	5.1	15.6	6.7	3.2	3.7	3.5	3.6	7.72	42.23	
19-Jun	15.7	14.1	Z	9.8	9.1	8.3	8.7	6.4	4.6	2.3	1.5	1.2	1.3	1.5	1.6	2.7	4.5	5.7	6.7	2.9	5.8	19.3	4.9	5.9	6.28	19.27	
20-Jun	4.9	2.9	Z	3.6	4.4	4.5	4.3	3.4	2.5	11.0	29.0	8.3	4.6	8.2	10.7	9.3	5.0	2.3	1.4	2.0	6.2	6.8	6.9	11.5	6.69	28.96	
21-Jun	7.1	5.5	Z	6.4	4.9	4.7	4.6	9.6	16.0	19.7	14.1	13.7	13.5	3.9	2.6	3.7	2.7	2.9	2.3	6.1	8.1	6.2	8.3	10.7	7.71	19.73	
22-Jun	16.6	22.5	Z	10.3	7.6	7.3	5.8	6.0	21.1	12.7	9.6	4.8	2.9	5.5	6.7	3.8	7.5	7.9	4.6	3.7	5.3	4.2	3.5	3.9	7.99	22.48	
23-Jun	4.5	2.1	Z	6.6	5.6	4.4	3.1	3.6	C	C	C	C	C	6.8	7.0	7.8	4.3	1.9	1.8	2.3	5.5	8.1	6.1	5.2	4.81	8.06	
24-Jun	4.9	6.2	Z	6.7	5.8	6.0	5.2	5.0	2.7	2.6	1.9	1.4	1.0	0.7	0.7	0.9	0.6	0.6	0.6	1.1	2.6	4.0	4.0	5.0	3.06	6.68	
25-Jun	4.5	3.6	Z	5.5	6.5	5.7	4.1	4.8	7.4	32.3	4.2	1.6	1.2	0.8	0.6	0.9	0.4	0.4	0.4	1.0	3.7	4.2	4.7	3.0	4.42	32.27	
26-Jun	4.0	6.0	Z	1.8	8.1	8.4	6.2	7.5	15.5	11.5	3.3	2.0	7.0	7.1	3.0	4.1	3.1	0.9	0.7	1.3	5.6	10.4	9.2	14.2	6.12	15.53	
27-Jun	10.2	8.9	Z	10.6	11.8	10.1	12.3	4.2	3.1	2.3	0.9	0.9	0.7	0.9	0.7	0.8	0.8	0.8	0.7	1.1	1.8	4.9	4.0	4.5	4.20	12.28	
28-Jun	4.4	11.0	Z	10.4	11.1	7.2	5.4	4.0	2.8	2.2	2.0	1.8	2.3	3.4	2.0	3.1	2.8	1.5	1.4	4.4	17.4	4.5	6.4	4.6	5.04	17.37	
29-Jun	5.5	8.3	Z	9.9	9.8	9.3	10.2	10.0	9.1	8.0	6.1	3.4	1.8	1.3	0.5	0.9	1.1	0.9	0.9	1.4	1.6	1.8	1.5	1.5	4.56	10.22	
30-Jun	1.5	1.3	Z	1.4	1.5	1.6	1.6	2.0	2.1	1.9	2.0	2.1	2.3	2.3	2.1	1.9	2.1	2.1	2.4	6.6	8.3	12.5	14.6	16.2	4.03	16.20	
		7.10	7.32	--	7.44	7.20	7.93	6.22	4.78	5.44	6.62	6.13	5.30	3.68	5.17	4.18	3.55	3.23	3.46	2.98	2.91	5.10	6.61	5.50	6.17	Diurnal Average	
		16.75	22.48	--	21.02	20.47	27.68	23.55	10.03	21.05	32.27	49.24	36.02	17.65	42.23	32.12	13.28	8.47	13.90	15.62	8.03	17.37	19.27	14.62	16.20	Diurnal Maximum	
Z - zerospan		C - Calibration		PF - Power Failure																							
Alberta Ambient Air Quality Objectives (AAQO):		1-hr --- ppb		24-hr --- ppb																							



WCAS - Genesee
Summary of Hourly Averages

PM2.5 (PM_{2.5}) - µg/m³
June 2015

Maximum Value: 49.43 µg/m ³ on Jun 30 18:00		Maximum Daily Average: 25.40 µg/m ³ on Jun 30		Hours in Service: 720																						
Minimum Value: 0.0 µg/m ³ on Jun 1 18:00		Minimum Daily Average: 1.84 µg/m ³ on Jun 20		Hours of Data: 690																						
Maximum Diurnal Average: 6.97 µg/m ³ at hour 24		Minimum Diurnal Average: 3.46 µg/m ³ at hour 11		Hours of Missing Data: 30																						
Monthly Average: 5.312 µg/m ³		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 1.7 Median = 3.9 Q ₃ = 6.9 P ₉₀ = 10.4 P ₉₉ = 44.7		Hours of Calibration: 6																						
				Percent Operational Time: 96.7																						
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-Jun	2.3	1.1	0.1	1.5	4.0	5.9	9.2	11.4	4.2	8.5	7.6	8.2	9.6	5.5	2.6	7.7	3.6	0.0	2.7	4.6	2.9	0.0	1.1	3.2	4.47	11.40
2-Jun	2.0	0.6	1.6	1.0	2.7	0.9	0.0	0.9	0.6	0.0	0.5	3.7	4.7	7.1	7.8	9.9	12.2	3.9	7.2	2.8	3.9	0.0	5.1	5.4	3.52	12.17
3-Jun	1.3	3.2	0.0	6.3	4.5	4.7	4.2	4.7	4.4	2.5	5.4	1.5	2.5	0.0	3.3	0.0	2.8	4.1	2.7	5.6	4.5	11.3	4.2	4.8	3.69	11.27
4-Jun	2.6	6.0	5.5	5.2	7.6	2.8	4.6	7.9	7.7	6.0	8.5	3.9	5.6	UC	0.0	0.0	12.1	14.3	0.7	UC	2.8	2.2	1.7	3.3	5.05	14.35
5-Jun	1.0	7.2	2.3	1.4	4.5	13.0	6.8	7.8	5.4	7.9	UC	9.5	0.0	1.2	0.6	6.4	4.3	1.3	2.7	8.5	8.6	9.9	9.7	4.3	5.41	13.04
6-Jun	9.0	6.0	5.1	5.8	4.8	5.9	4.3	0.9	0.5	0.0	1.1	2.8	2.9	3.9	4.3	3.3	0.0	0.0	11.3	3.3	2.1	4.9	2.7	5.5	3.76	11.34
7-Jun	9.2	8.4	2.7	2.3	11.1	9.5	8.1	0.0	1.7	0.0	0.6	1.2	0.0	1.2	2.6	2.3	4.2	6.0	5.6	5.9	4.3	0.0	5.5	17.1	4.56	17.12
8-Jun	3.9	2.2	6.0	3.5	8.0	16.6	0.0	11.0	UC	UC	3.1	0.6	2.6	1.2	2.0	0.0	0.7	3.3	11.0	0.0	12.0	2.7	2.0	3.7	4.38	16.64
9-Jun	1.6	0.0	4.1	3.6	3.5	2.9	3.9	5.5	1.2	UC	10.5	UC	6.6	1.7	0.0	UC	5.3	3.1	11.3	5.1	5.1	5.9	7.6	5.8	4.50	11.26
10-Jun	4.5	1.7	17.8	3.1	2.7	11.8	11.3	15.6	2.2	4.9	1.3	9.5	7.4	2.7	6.8	5.2	5.6	0.0	7.1	8.6	10.3	2.8	8.3	6.5	6.57	17.77
11-Jun	2.4	5.6	0.5	11.3	2.8	7.2	9.2	5.6	6.1	6.4	0.0	12.4	UC	3.9	4.7	6.3	7.6	0.9	6.9	4.3	5.5	5.1	10.5	27.3	6.63	27.33
12-Jun	19.2	22.8	18.8	12.8	3.4	4.7	8.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.7	0.0	7.3	0.0	2.6	5.8	9.4	3.6	1.4	5.25	22.83
13-Jun	3.9	4.0	4.0	1.4	3.9	1.2	3.7	2.3	2.5	0.7	0.0	0.0	7.8	0.7	0.0	0.0	1.5	0.4	0.0	2.3	5.3	0.0	5.6	4.2	2.30	7.75
14-Jun	2.3	1.1	1.0	1.6	1.0	2.8	3.5	0.0	0.0	8.4	8.3	6.7	5.1	7.0	4.7	3.3	3.1	5.1	4.1	4.0	6.8	9.3	5.6	4.7	4.14	9.33
15-Jun	3.9	6.4	4.2	3.0	7.2	12.2	8.0	12.7	4.3	2.7	0.0	3.3	0.4	2.7	4.1	3.4	3.5	3.9	2.7	4.0	5.2	5.4	7.6	7.6	4.93	12.73
16-Jun	5.2	3.7	2.5	3.3	4.3	7.5	6.8	8.5	9.8	2.9	9.5	0.0	7.7	10.0	0.0	12.4	4.5	3.6	11.7	8.2	6.7	5.8	PF	PF	6.12	12.43
17-Jun	RE	UC	13.0	0.7	1.6	4.7	1.5	5.6	0.0	2.4	2.6	1.3	4.0	4.4	9.3	10.5	7.4	3.3	3.1	5.0	8.7	0.0	6.1	0.4	4.36	12.98
18-Jun	1.8	UC	13.9	UC	UC	2.4	16.1	5.1	6.4	5.0	0.0	11.4	7.6	5.7	3.5	UC	1.1	0.8	7.5	3.8	3.2	5.4	13.7	7.6	6.11	16.13
19-Jun	0.0	4.7	4.8	2.9	3.3	7.8	6.9	9.3	0.0	UC	4.3	3.6	0.0	6.5	1.8	21.4	12.4	3.7	UC	1.1	UC	0.0	0.0	0.0	4.50	21.39
20-Jun	0.0	0.0	0.0	0.0	UC	13.3	3.3	6.0	1.8	UC	0.3	UC	UC	0.0	1.3	1.0	6.6	0.0	0.0	0.0	1.3	0.0	0.9	0.9	1.84	13.32
21-Jun	0.8	1.2	0.0	8.1	0.0	2.1	3.9	7.5	3.5	0.9	0.0	3.7	3.9	7.7	0.0	2.9	8.0	9.6	3.7	9.2	6.9	10.0	9.4	8.9	4.66	9.97
22-Jun	4.6	3.6	8.2	14.8	7.2	9.7	8.1	11.4	8.1	14.4	8.1	UC	4.2	8.4	5.8	4.7	0.0	3.1	2.7	15.6	6.7	1.3	0.3	0.0	6.56	15.59
23-Jun	6.0	0.1	2.9	2.4	1.6	4.0	1.6	1.9	C	C	C	C	C	2.0	3.0	4.4	4.9	3.6	0.8	3.9	3.0	3.6	2.6	3.2	2.92	6.02
24-Jun	2.8	3.0	2.6	1.8	2.7	5.2	4.8	5.0	4.0	3.5	2.4	1.5	0.7	0.6	1.0	1.4	0.1	1.7	1.8	4.1	4.7	4.5	4.7	4.8	2.90	5.22
25-Jun	4.7	6.0	4.6	3.1	3.9	3.6	4.7	6.1	3.8	3.6	2.0	1.2	0.7	2.9	2.2	2.6	1.7	3.9	3.0	3.9	5.0	5.3	5.5	7.0	3.79	6.95
26-Jun	5.2	7.6	4.6	1.4	5.2	6.3	6.4	5.7	3.4	1.5	0.1	0.0	0.2	2.4	0.4	0.6	0.0	0.5	1.7	3.1	3.6	4.7	6.4	7.1	3.26	7.63
27-Jun	5.9	2.6	2.6	4.6	3.2	4.3	5.7	4.6	2.9	3.1	0.0	1.3	3.0	3.6	3.3	5.2	5.3	4.3	4.7	8.1	9.6	10.5	9.9	8.8	4.88	10.49
28-Jun	10.4	13.2	10.6	11.6	12.1	14.3	10.9	9.8	7.2	3.1	1.8	1.6	2.5	1.5	0.7	2.3	2.8	2.2	3.3	6.7	7.5	6.5	6.7	7.8	6.55	14.34
29-Jun	7.4	7.2	7.1	9.9	9.3	10.9	11.6	7.2	10.5	7.7	6.1	4.3	1.1	1.4	2.3	4.5	3.2	2.5	1.1	1.0	1.6	2.9	1.5	2.7	5.21	11.59
30-Jun	2.6	2.6	2.3	2.3	5.3	5.2	5.9	6.8	7.9	8.8	12.9	18.8	39.8	47.2	44.8	46.6	49.4	49.4	45.0	41.4	45.6	42.9	38.1	38.2	25.40	49.43
																								Diurnal Average		
																								Diurnal Maximum		
																								4.37 4.72 5.12 4.50 4.69 6.79 6.10 6.28 3.93 4.19 3.46 4.31 4.84 4.93 4.13 6.14 5.79 4.87 5.72 6.10 6.87 5.74 6.44 6.97		
																								19.25 22.83 18.84 14.75 12.14 16.64 16.13 15.59 10.49 14.40 12.87 18.82 39.79 47.24 44.76 46.63 49.35 49.43 44.97 41.42 45.59 42.92 38.09 38.21		
C - Calibration																										
UO - Unstable Operation																										
PF - Power Failure																										
RE - Recovery																										
Alberta Ambient Air Quality Objectives (AAQO): 1-hr 80 ul/m ³ 24-hr 30 ul/m ³																										

Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee

Calibration Date: June 23, 2015

Parameter: NO/NO₂/NO_x

Instrument: 42C

Serial Number: 42C 70978367

Previous Calibration Date: May 20, 2015

Calibration: Routine

Calibration Equipment: SABIO 2010 sn 05200311

Barometric Pressure: 27.31" Hg

Calibration Method: Standard Gas Dilution/ GPT

Cylinder ID: FF9469

Temperature: 22.0° C

Cylinder Concentration: 12.6 ppm No/ NOX

In Service: May 6/15

Technician: J.McClintock

Instrument Settings	NO bkg ppb	NO _x bkg ppb	Pre-reactor bkg ppb	NO Coefficient	NO _x Coefficient	NO ₂ Coefficient	Monitoring Range
Previous	4.6	4.9	na	0.824	1.005	1.001	300 ppb
Current	4.7	5.2	na	0.833	1.003	1.001	300 ppb

NO	Final Zero: 0.4 ppb	Final Span: 0.6 ppb	As Found Correction Factor: 1.007
NO ₂	Final Zero: -1.4 ppb	Final Span: 78.2 ppb	As Found Correction Factor: 1.000
NO _x	Final Zero: 0.6 ppb	Final Span: 80.0 ppb	As Found Correction Factor: 1.009

Results of Linear Regression			Slope	Intercept	R ²
NO	R _c vs C _c	Previous	100.217700	38.210320	0.999986
		Current	99.912010	-27.122480	0.999956
	C _i vs C _c	Current	1.000000	-0.000009	0.999956
NO ₂	R _c vs C _c	Previous	98.887170	13.481050	0.999986
		Current	98.170650	138.746400	0.999995
	C _i vs C _c	Current	1.000000	-0.000009	0.999995
NO _x	R _c vs C _c	Previous	100.187700	22.743200	0.999986
		Current	99.473400	-46.706480	0.999896
	C _i vs C _c	Current	1.000000	-0.000012	0.999896

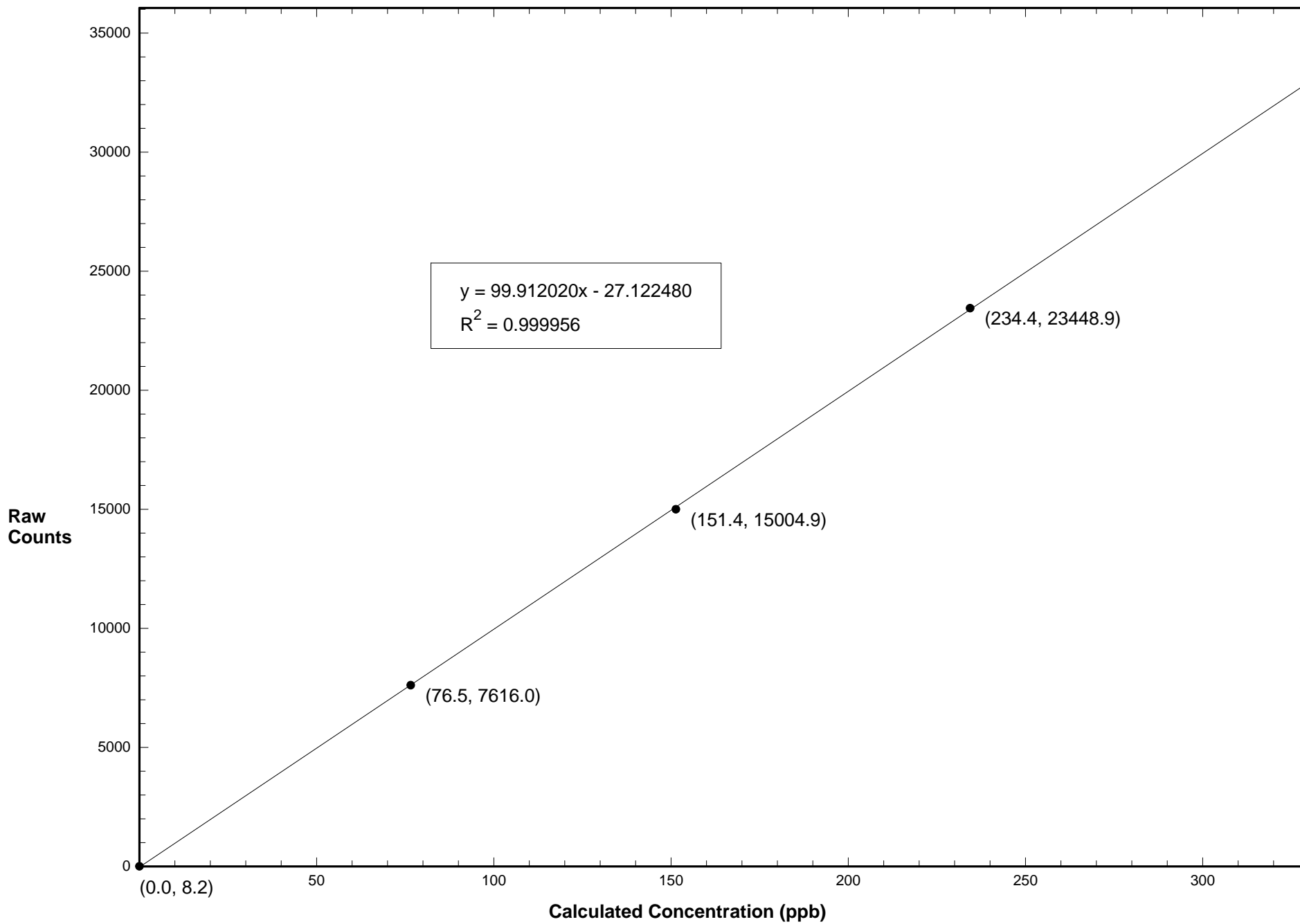
Comments:

Calibration Data Summary (Page 2)

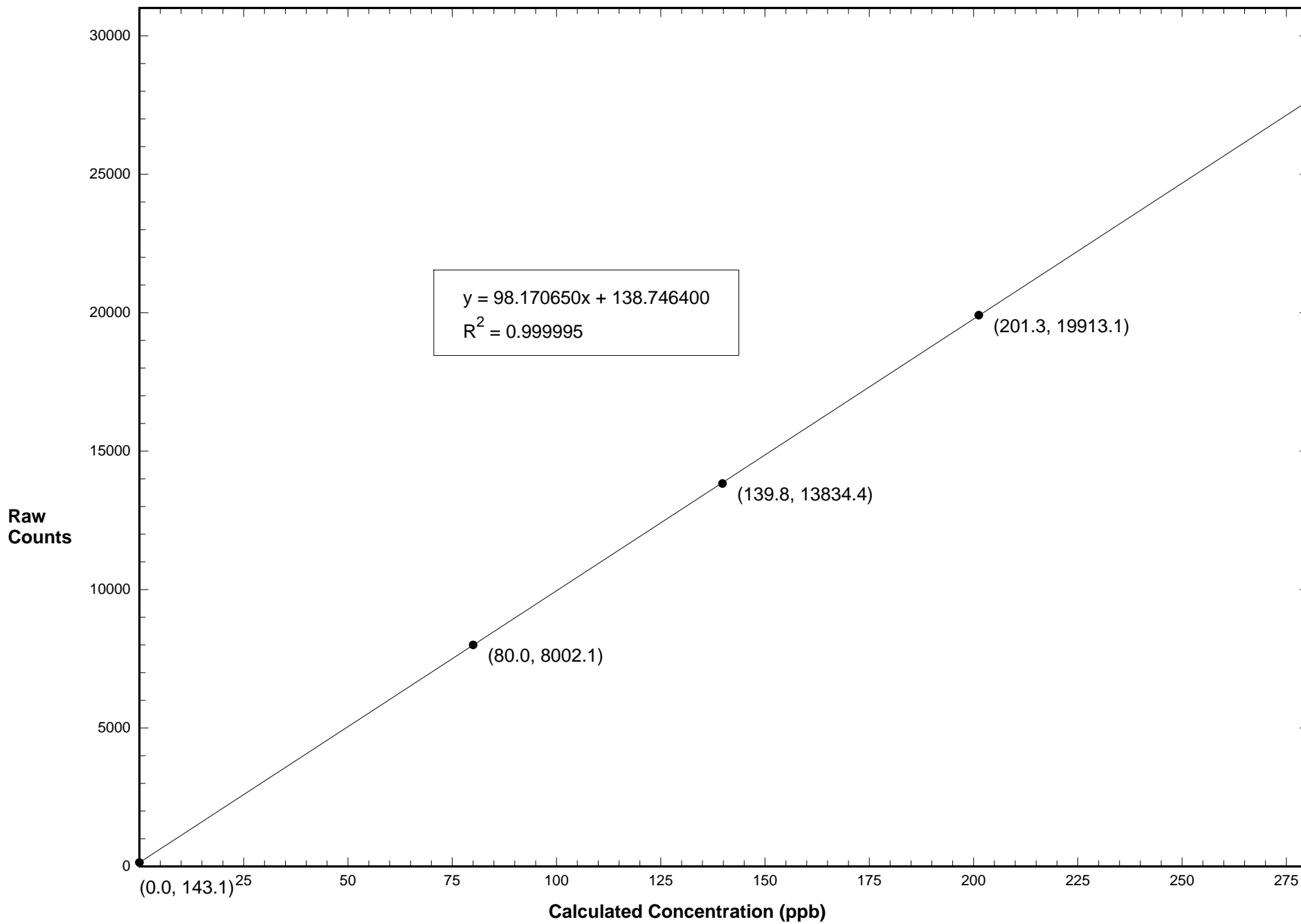
June 23, 2015 - Station 910

NO Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C _c (ppb)	Raw Count Output R _c	Indicated Concentration C _i (ppb)	Correction Factor C _c /C _i		
0.09700	5.118	234.4	23448.9	235.0	0.997		
0.06200	5.099	151.4	15004.9	150.5	1.006		
0.03100	5.072	76.5	7616.0	76.5	1.001		
0.00000	5.000	0.0	8.2	0.4			
NO Calibration					Average Correction Factor:	1.001	
0.09700	5.118	234.4	23359.7	235.3	0.996		
0.06200	5.099	151.4	14874.5	150.0	1.009		
0.03100	5.072	76.5	7549.1	76.4	1.002		
0.00000	5.000	0.0	13.6	0.6			
NO _x Calibration					Average Correction Factor:	1.002	
Reference Concentration NO (ppb)	Raw Count Output NO	Calculated Concentration NO (ppb)	Calculated Concentration NO ₂ , C _c (ppb)	Raw Count Output R _c	Indicated Concentration C _i (ppb)	Correction Factor C _c /C _i	Converter Efficiency C _i /C _c
234.4	3285.2	33.2	201.3	19913.1	201.4	0.999	1.001
234.4	9425.5	94.6	139.8	13834.4	139.5	1.002	0.998
234.4	15397.6	154.4	80.0	8002.1	80.1	0.999	1.001
			0.0	143.1	0.0		
					Average Correction Factor:	1.000	
NO ₂ Gas Phase Titration					Average Converter Efficiency: 1.000		
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	1.000	0.997	-0.3				
NO ₂	0.999	0.999	0.0				
NO _x	1.000	0.996	-0.4				

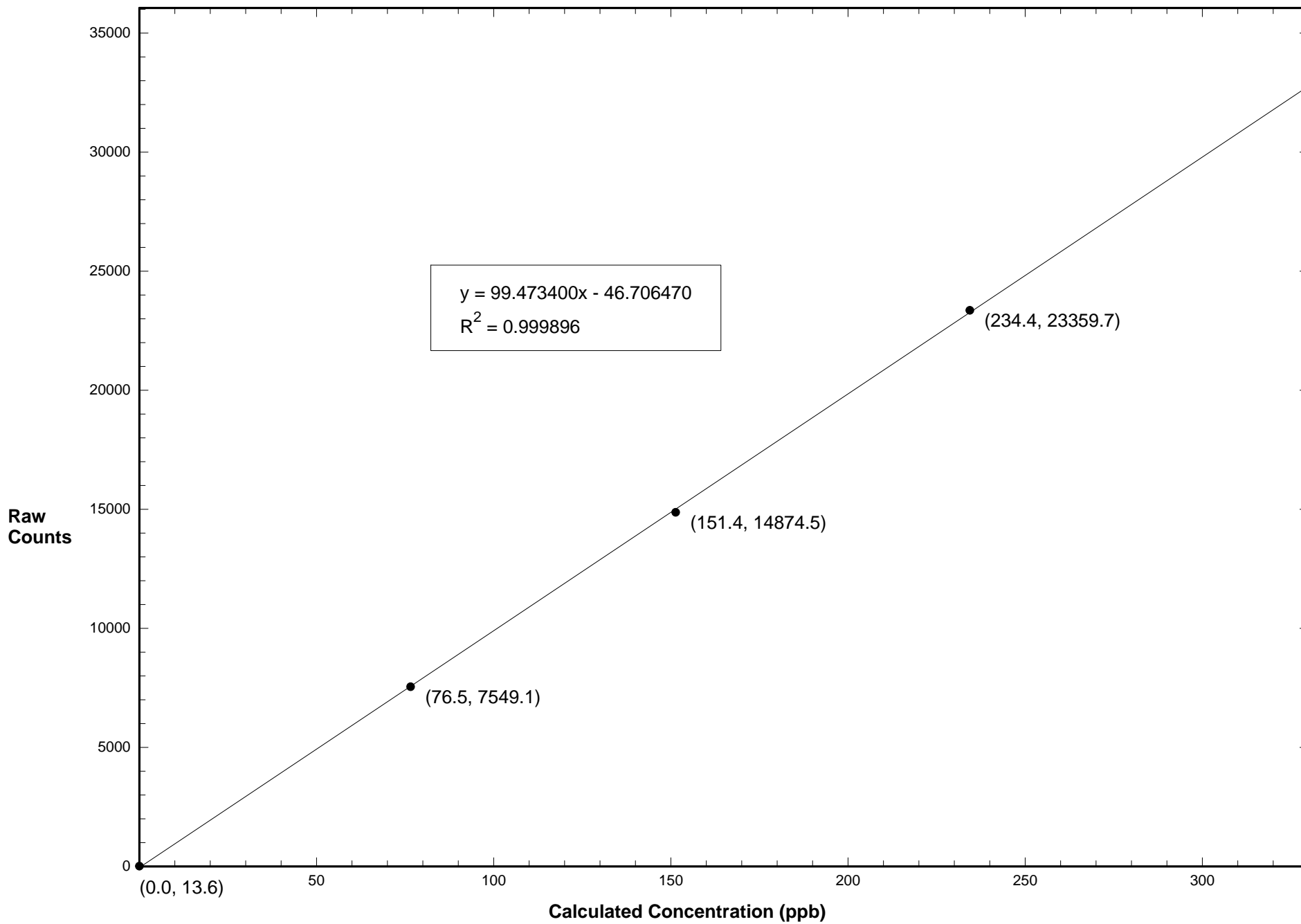
Station 910 NO June 23, 2015: Linear Regression



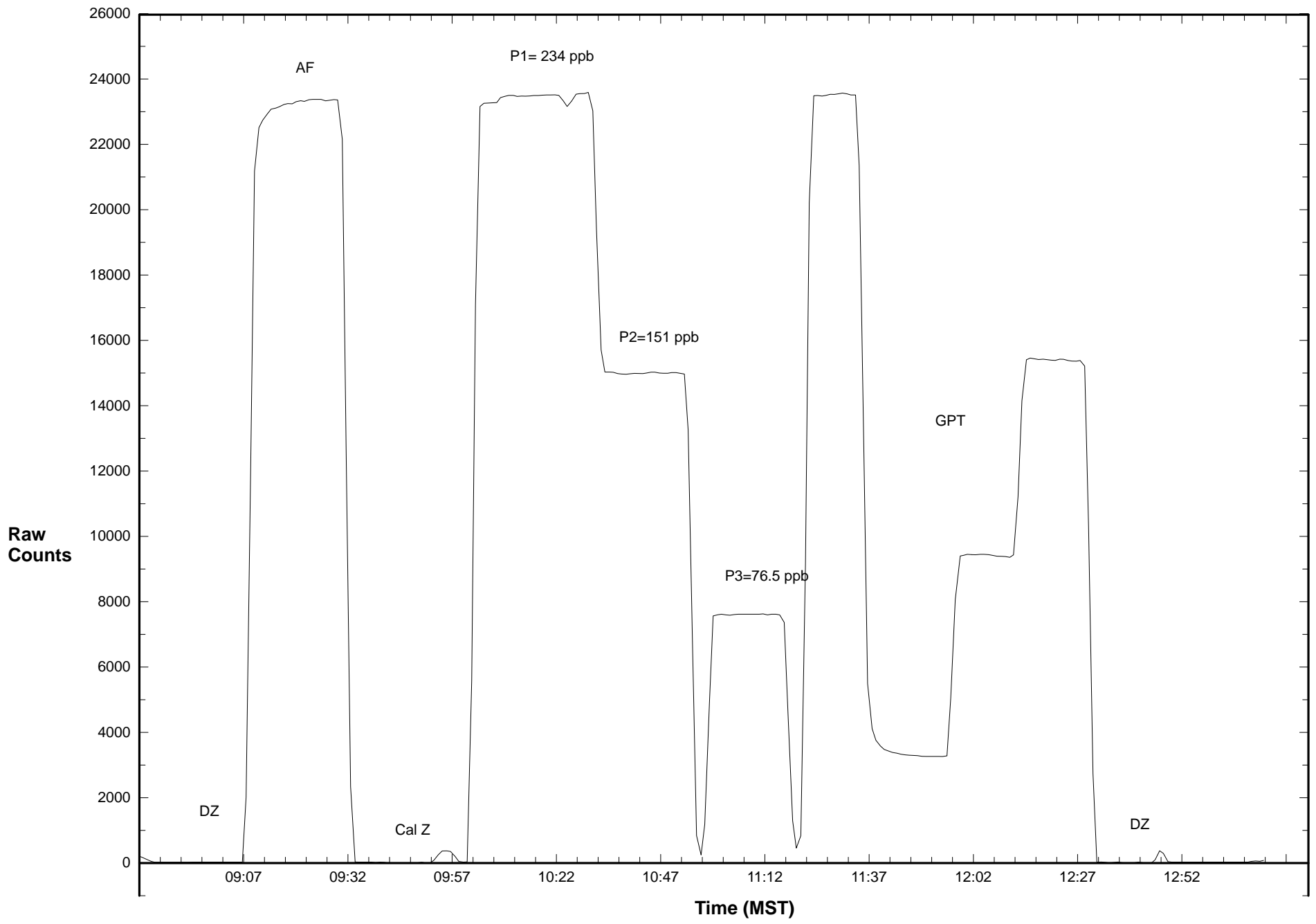
Station 910 NO2 June 23, 2015: Linear Regression



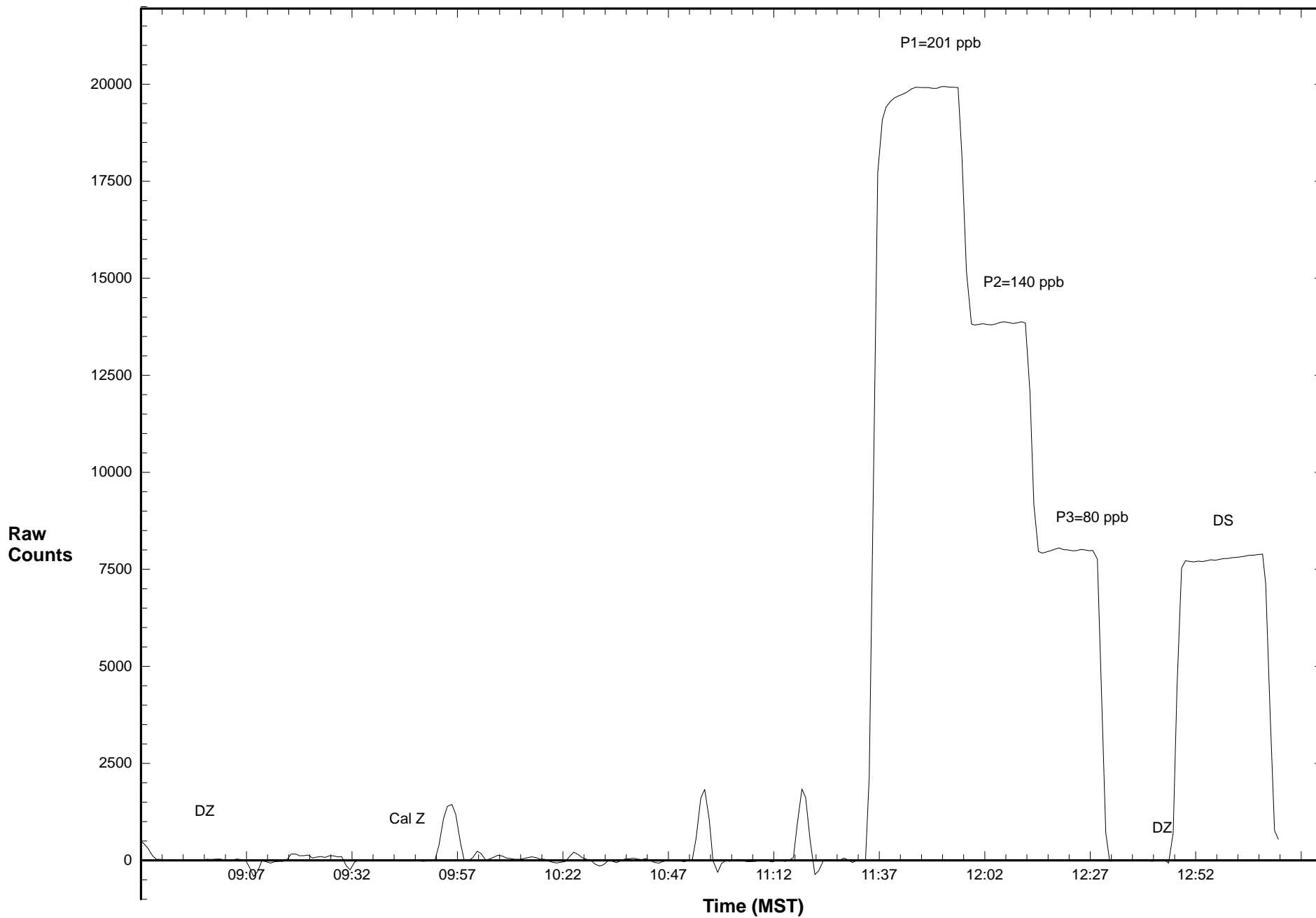
Station 910 NOX June 23, 2015: Linear Regression



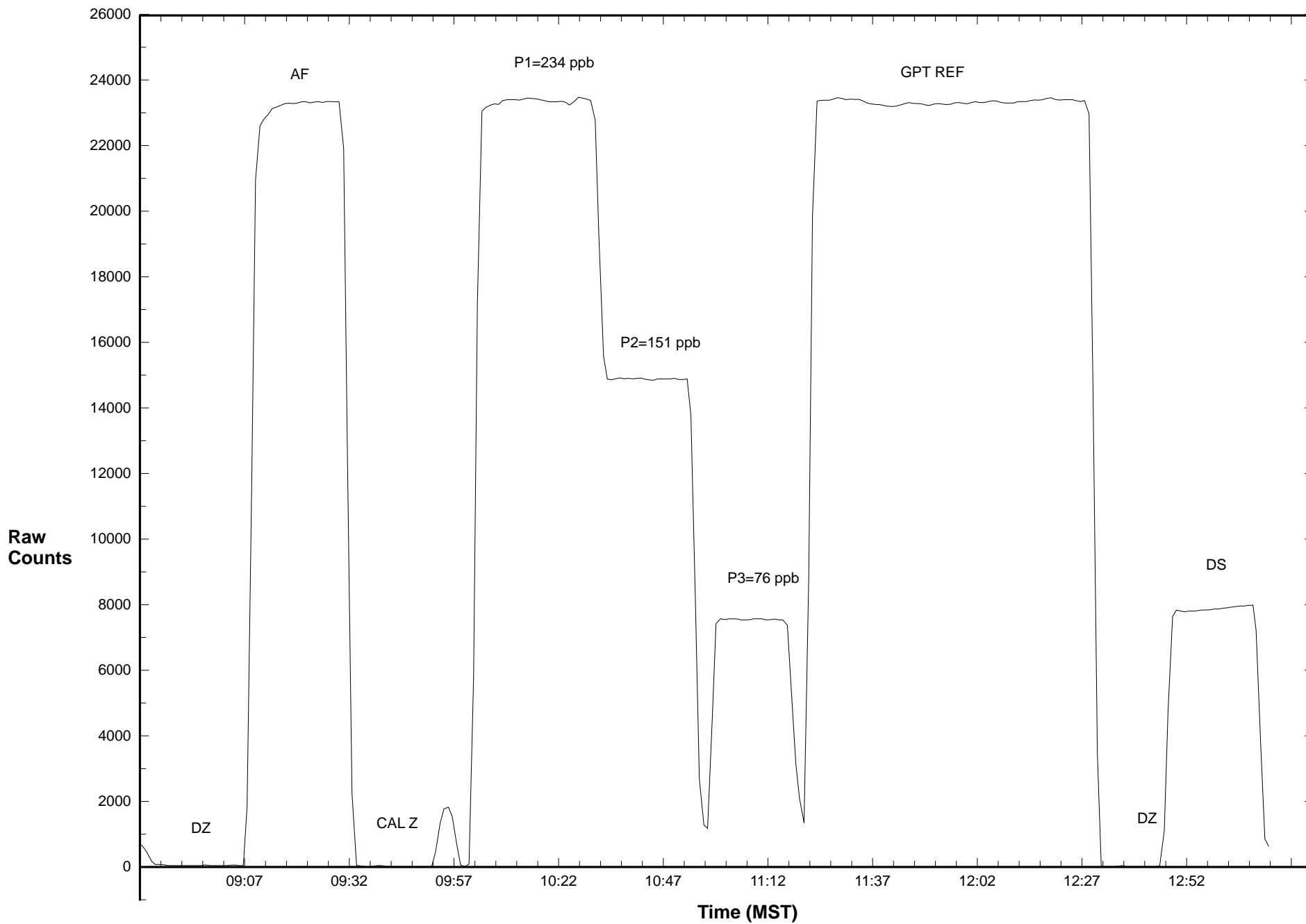
Station 910 NO June 23, 2015: Calibration Graph



Station 910 NO2 June 23, 2015: Calibration Graph



Station 910 NOX June 23, 2015: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee

Calibration Date: June 23, 2015

Parameter: O₃

Instrument: Teco 49i

Serial Number: 0708721220

Previous Calibration Date: May 20,2015

Calibration: Routine

Calibration Equipment: 2B Technology 306 SN 145 Barometric Pressure: 27.31" Hg

Calibration Method: Ozone Generator

Temperature: 22.0° C

Technician: J.McClintock

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	0.2	1.049	500 ppb
Current	-0.5	1.022	500 ppb

Final Zero: 2.0 ppb

Final Span: 238.5 ppb

As Found Correction Factor: 0.984

Calibration System Flow Rate (LPM)	Calculated Concentration C _c (ppb)	Raw Count Output R _c	Indicated Concentration C _i (ppb)	Correction Factor C _c /C _i
3.000	397.0	23832.1	398.3	0.997
3.000	252.0	14956.6	250.6	1.005
3.000	103.0	5985.6	101.4	1.016
3.000	0.0	-5.7	1.7	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	59.961070	-21.624160	0.999997
Current	60.107000	-107.965400	0.999900

C _i vs C _c	Slope	Intercept	R ²
Current	1.000000	0.000000	0.999900

Average Correction Factor: 1.006

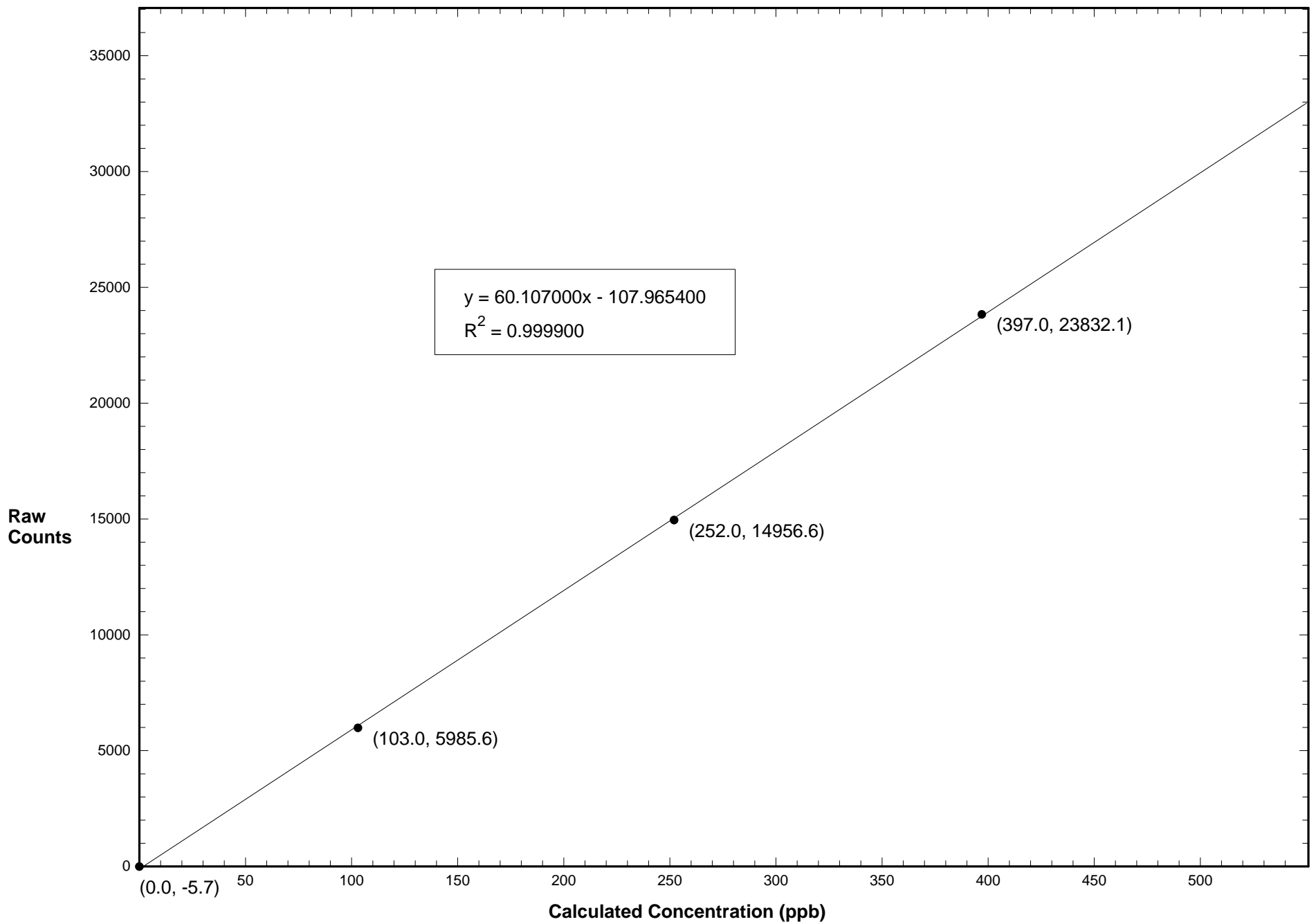
Previous Correction Factor: 1.000

Current Correction Factor: 0.997

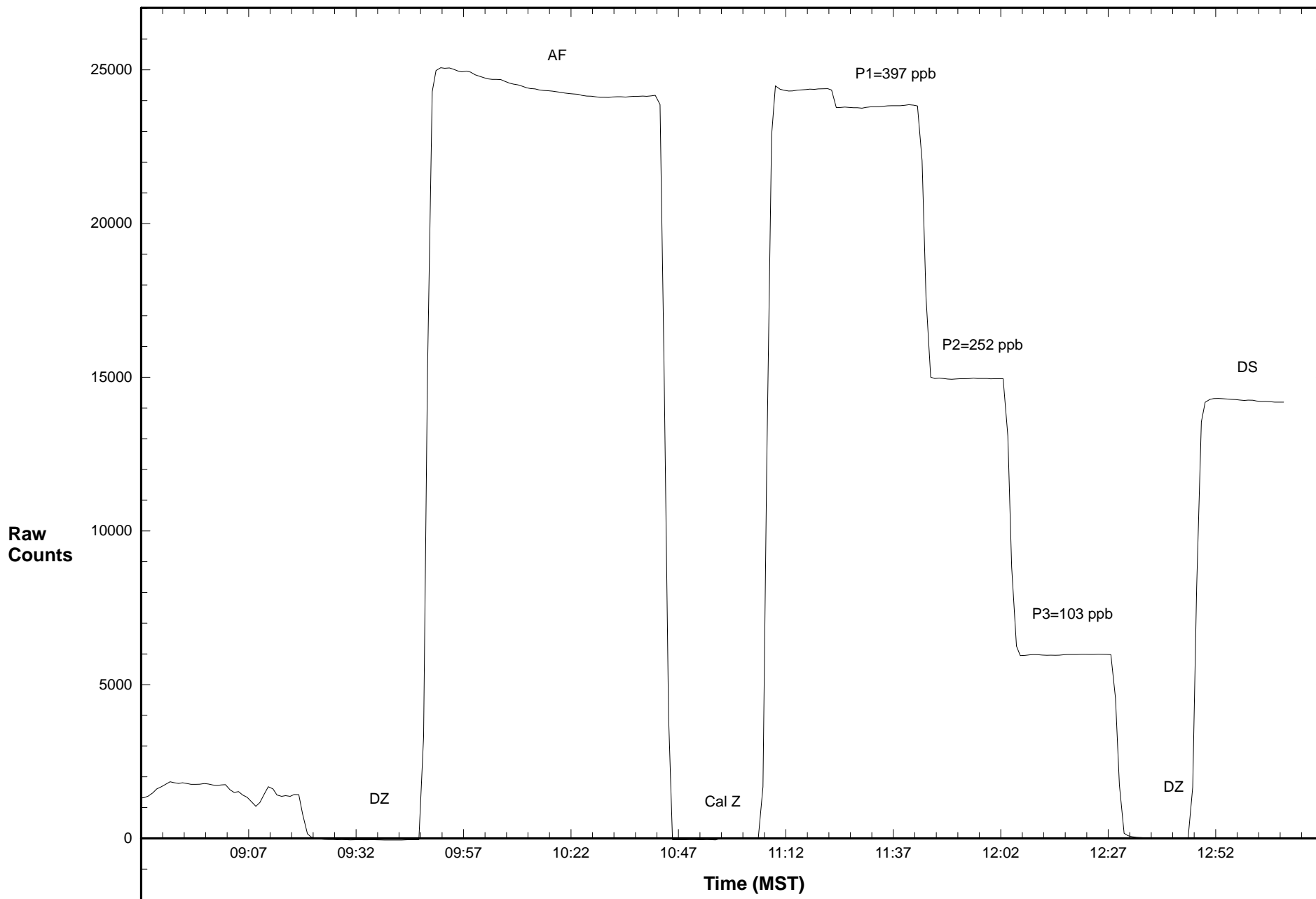
Percent Change of Correction Factor: -0.3

Comments:

Station 910 O3 June 23, 2015: Linear Regression



Station 910 O3 June 23, 2015: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee

Calibration Date: June 23, 2015

Parameter: SO₂

Instrument: Teco 43 i

Serial Number: 0708 721218

Previous Calibration Date: May 20,2015

Calibration: Routine

Calibration Equipment: SABIO 2010 sn 05200311

Barometric Pressure: 27.31" Hg

Calibration Method: Standard Gas Dilution

Cylinder ID: FF9469

Temperature: 22.0° C

Cylinder Concentration: 6.2 ppm SO₂

In Service: Jan.14/15

Technician: J.McClintock

Instrument Settings	SO ₂ bkg ppb	SO ₂ Coefficient	Monitoring Range
Previous	13.6	0.897	200 ppb
Current	13.0	0.860	200 ppb

Final Zero: 0.2 ppb

Final Span: 46.0 ppb

As Found Correction Factor: 1.018

SO ₂ Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C _c (ppb)	Raw Count Output R _c	Indicated Concentration C _i (ppb)	Correction Factor C _c /C _i
0.0970	5.118	115.3	17240.1	115.5	0.998
0.0620	5.099	74.5	11070.2	74.2	1.004
0.0310	5.072	37.7	5621.2	37.7	1.000
0.0000	5.000	0.0	15.9	0.1	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	150.322600	-10.255450	0.999998
Current	149.242600	-0.095546	0.999980
C _i vs C _c			
Current	1.000000	-0.000005	0.999981

Average Correction Factor: 1.001

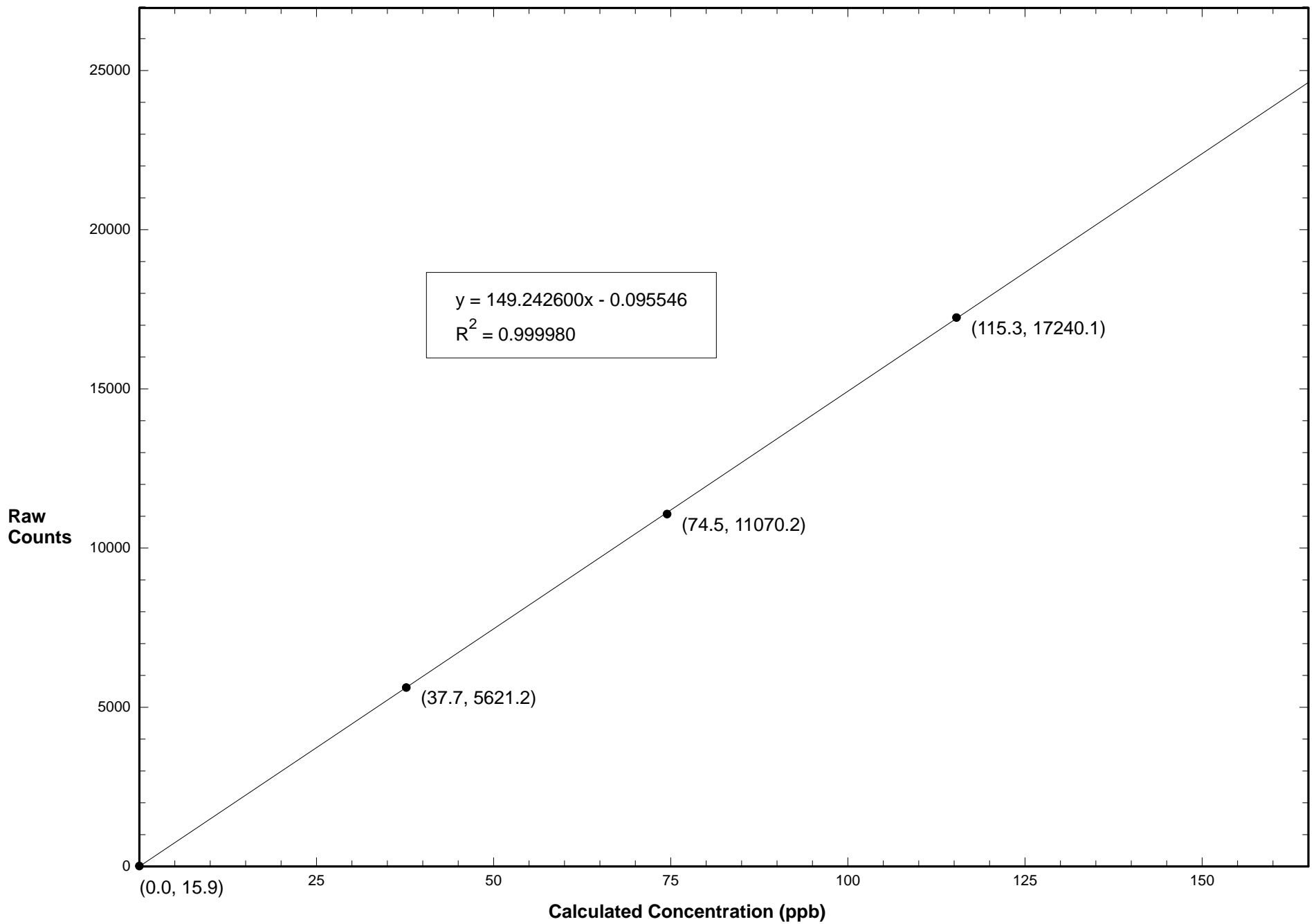
Previous Correction Factor: 1.000

Current Correction Factor: 0.998

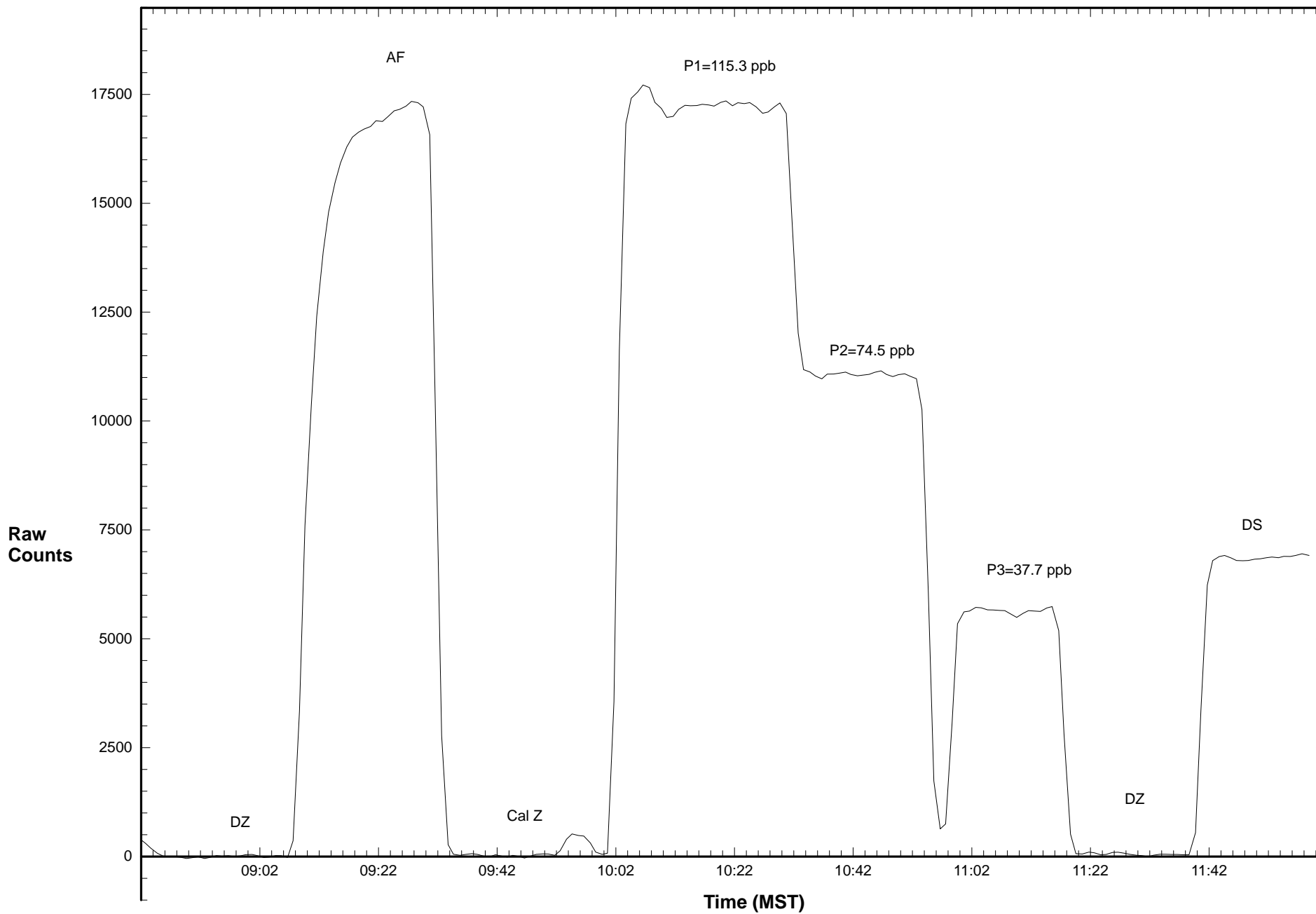
Percent Change of Correction Factor: -0.2

Comments:

Station 910 SO2 June 23, 2015: Linear Regression



Station 910 SO2 June 23, 2015: Calibration Graph



WEST CENTRAL AIRSHED SOCIETY

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

**AMS 910
GENESEE
JUNE 2015**

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
June 2015

Maximum Value: 31.34 C on Jun 28 16:00 Maximum Daily Average: 24.62 C on Jun 28 Minimum Value: 4.3 C on Jun 15 05:00 Minimum Daily Average: 10.31 C on Jun 13 Maximum Diurnal Average: 22.15 C at hour 16 Minimum Diurnal Average: 10.61 C at hour 5 Monthly Average: 16.646 C Percentiles: P ₁ = 5.7 P ₁₀ = 9.0 Q ₁ = 11.9 Median = 16.4 Q ₃ = 20.8 P ₉₀ = 24.3 P ₉₉ = 30.2																						Hours in Service: 720 Hours of Data: 718 Hours of Missing Data: 2 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-Jun	10.1	9.0	7.5	5.9	5.8	7.3	10.4	12.9	16.3	18.2	17.7	18.2	18.4	18.0	17.9	18.5	18.7	18.3	17.7	16.6	14.4	12.4	11.1	10.5	13.83	18.72																							
2-Jun	10.1	9.2	9.4	9.1	8.4	7.9	7.5	8.1	9.2	10.0	11.4	13.2	13.6	14.7	16.3	18.4	19.0	19.9	19.6	18.2	16.3	14.6	13.3	12.8	12.92	19.92																							
3-Jun	12.2	11.3	10.6	9.8	8.6	9.7	11.9	14.5	15.4	18.0	18.9	20.1	20.9	21.2	22.7	22.8	22.6	21.9	21.0	19.6	16.5	14.6	12.9	11.9	16.23	22.81																							
4-Jun	11.0	11.8	11.6	11.8	11.9	11.8	12.3	13.9	16.3	18.2	19.9	21.4	23.2	24.2	24.5	24.3	20.7	15.2	14.3	14.5	14.0	11.9	11.4	10.5	15.87	24.54																							
5-Jun	8.8	7.7	7.6	8.2	7.7	9.8	13.4	15.0	14.5	16.6	19.1	20.4	21.5	22.4	23.2	23.6	24.3	23.8	24.1	22.4	20.0	16.7	15.1	15.3	16.71	24.31																							
6-Jun	15.2	14.8	14.1	15.9	15.6	15.0	16.4	19.1	19.4	21.0	22.4	22.9	23.3	24.1	24.0	25.6	26.5	26.8	25.5	24.1	20.8	18.2	17.5	16.6	20.20	26.79																							
7-Jun	13.8	13.4	12.6	15.2	10.9	12.2	16.6	18.7	21.1	22.3	23.3	24.1	24.7	26.2	26.6	26.8	26.2	26.2	25.7	24.4	23.2	20.6	18.6	17.6	20.48	26.81																							
8-Jun	15.2	14.8	14.1	15.8	15.6	15.3	17.5	19.7	21.4	22.0	21.3	22.5	22.5	22.8	23.6	23.3	22.9	23.6	23.4	22.3	19.5	15.9	13.1	11.8	19.16	23.64																							
9-Jun	10.4	12.1	12.7	12.1	12.2	12.8	14.4	17.6	19.6	21.2	22.6	23.0	23.4	25.2	23.9	24.3	24.8	23.7	22.8	20.7	18.7	16.2	14.1	13.3	18.42	25.17																							
10-Jun	12.8	12.1	12.1	8.5	8.6	8.1	10.3	14.3	17.9	20.0	20.8	22.8	23.3	22.4	24.0	24.6	24.6	23.8	21.7	20.2	19.3	17.8	16.8	17.0	17.64	24.64																							
11-Jun	16.2	14.3	12.5	11.8	11.0	10.9	14.0	15.7	17.3	18.7	19.4	20.5	21.6	22.5	23.0	22.9	22.4	21.6	18.6	17.3	16.7	16.6	14.0	13.0	17.19	22.96																							
12-Jun	12.5	11.2	11.0	10.4	9.5	11.5	11.1	11.4	11.6	12.4	13.9	14.6	15.4	17.4	18.1	17.5	18.4	16.9	14.7	13.0	10.4	9.2	8.7	8.2	12.87	18.39																							
13-Jun	8.3	8.6	8.7	8.6	8.8	8.8	8.4	9.2	9.6	10.8	10.9	12.7	11.0	9.7	10.4	11.9	11.5	12.4	12.5	12.0	11.5	10.5	10.3	10.2	10.31	12.75																							
14-Jun	10.1	9.5	8.5	8.6	7.8	8.0	9.9	11.7	12.6	14.0	14.5	14.7	15.3	15.5	15.8	15.9	15.6	15.0	14.7	14.6	13.8	10.8	9.3	7.6	12.25	15.89																							
15-Jun	6.6	6.3	5.2	4.6	4.3	5.4	8.3	11.3	14.2	16.5	17.2	18.6	18.2	17.9	19.8	20.0	19.2	20.2	20.1	18.1	15.3	12.0	11.4	9.2	13.33	20.24																							
16-Jun	8.8	9.2	6.9	6.0	5.5	5.7	11.3	14.6	16.9	19.4	21.0	22.3	23.5	22.2	24.1	23.3	21.9	19.7	17.7	13.7	12.8	12.7	PF	PF	15.43	24.13																							
17-Jun	11.1	10.0	9.3	8.8	8.6	8.5	8.6	9.0	9.8	10.5	11.1	12.7	14.3	14.1	14.7	14.7	15.8	15.8	15.0	15.3	12.3	9.9	8.7	7.7	11.51	15.84																							
18-Jun	7.2	6.7	7.0	7.8	7.8	8.1	9.5	11.4	12.9	14.0	15.6	17.0	16.9	17.1	19.1	20.7	20.9	21.2	20.7	18.3	16.6	14.9	14.6	13.8	14.16	21.17																							
19-Jun	10.5	9.9	9.7	9.3	8.2	10.3	13.0	15.6	18.4	20.1	21.0	22.3	21.5	20.3	18.8	18.2	16.9	14.8	11.2	10.6	10.4	10.5	9.9	9.7	14.21	22.34																							
20-Jun	9.0	7.0	6.1	5.6	4.8	5.8	8.7	11.7	12.6	14.3	15.6	16.8	18.1	18.3	18.6	19.5	17.3	15.4	16.9	16.1	15.0	12.1	10.4	7.9	12.66	19.53																							
21-Jun	8.0	8.4	5.8	9.3	8.2	9.2	9.9	11.6	13.7	14.4	15.7	16.9	17.9	19.0	20.2	20.9	21.3	20.0	19.8	18.2	16.7	14.8	13.2	11.3	14.35	21.27																							
22-Jun	8.5	7.3	6.7	9.8	10.6	10.5	11.5	12.7	15.8	17.5	20.0	21.8	22.9	22.8	20.3	20.4	21.7	22.5	21.5	19.2	15.4	13.9	13.0	14.0	15.83	22.92																							
23-Jun	13.9	13.2	10.6	10.7	10.9	12.7	14.4	16.3	17.8	19.3	20.6	21.8	22.4	23.4	22.8	21.9	21.7	22.4	18.8	17.1	16.4	14.9	12.7	11.4	17.00	23.39																							
24-Jun	10.3	9.7	10.0	8.5	9.1	9.2	12.5	15.8	18.8	21.1	23.3	25.2	25.8	27.5	27.9	27.8	27.7	27.4	26.8	24.6	21.0	18.3	16.3	16.1	19.19	27.91																							
25-Jun	15.2	14.9	12.9	15.3	15.9	14.6	16.5	18.4	22.3	23.7	25.3	27.1	27.8	29.2	29.4	28.8	29.2	29.2	27.6	25.3	21.9	21.1	20.8	18.4	22.12	29.39																							
26-Jun	17.3	16.2	17.6	19.7	18.0	17.6	18.7	19.8	21.4	22.8	23.8	24.8	26.0	26.7	27.9	28.6	28.9	28.8	28.5	27.3	24.6	22.5	19.6	18.5	22.74	28.93																							
27-Jun	17.0	15.7	16.3	15.8	13.9	14.2	18.6	21.3	23.5	25.5	26.7	27.8	29.1	30.0	30.1	30.3	30.2	29.1	29.8	28.3	25.2	22.6	21.9	19.9	23.45	30.28																							
28-Jun	18.7	16.6	16.1	15.1	16.4	18.6	19.7	22.6	24.6	26.6	28.8	29.6	30.0	30.7	31.3	31.3	31.3	31.1	30.4	29.0	26.6	24.2	20.7	20.9	24.62	31.34																							
29-Jun	18.5	17.7	16.4	17.5	18.1	17.7	17.4	17.6	17.4	18.0	18.1	18.2	18.4	18.5	17.7	17.3	17.2	17.0	16.9	17.0	16.6	16.3	16.1	15.9	17.38	18.50																							
30-Jun	15.7	15.6	15.4	15.5	15.5	15.5	15.8	16.1	16.5	17.1	17.3	17.4	18.6	18.0	18.9	20.3	19.3	20.1	20.1	18.9	17.8	16.9	15.6	15.7	17.23	20.26																							
																								12.09	11.48	10.84	11.03	10.61	11.09	12.94	14.91	16.63	18.15	19.24	20.38	20.98	21.39	21.86	22.15	21.96	21.46	20.60	19.24	17.33	15.45	14.18	13.34	Diurnal Average	
																								18.65	17.68	17.60	19.72	18.14	18.56	19.74	22.65	24.63	26.64	28.75	29.60	30.01	30.65	31.25	31.34	31.34	31.09	30.43	28.99	26.58	24.21	21.89	20.91	Diurnal Maximum	
PF - Power Failure																																																	



WCAS - Genesee
Summary of Hourly Averages

External Temperature 10 m (ET_10) - C
June 2015

Maximum Value: 29.76 C on Jun 28 18:00 Maximum Daily Average: 24.64 C on Jun 28																						Hours in Service: 720 Hours of Data: 718																									
Minimum Value: 4.7 C on Jun 15 06:00 Minimum Daily Average: 9.61 C on Jun 13 Maximum Diurnal Average: 20.37 C at hour 17 Minimum Diurnal Average: 11.23 C at hour 6 Monthly Average: 16.212 C Percentiles: P ₁ = 6.3 P ₁₀ = 9.3 Q ₁ = 11.9 Median = 16.2 Q ₃ = 19.9 P ₉₀ = 23.2 P ₉₉ = 28.7																						Hours of Missing Data: 2 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-Jun	11.5	10.4	9.3	7.4	7.2	7.3	9.2	11.7	14.5	16.3	16.1	16.4	16.5	16.1	16.0	16.7	17.1	16.9	16.7	16.0	14.3	12.5	11.2	10.4	13.23	17.06																					
2-Jun	9.9	9.3	9.0	8.6	8.0	7.4	7.0	7.2	8.1	9.0	10.0	11.5	12.2	12.9	13.8	16.0	17.2	18.4	18.7	17.9	16.5	15.2	14.1	13.5	12.14	18.75																					
3-Jun	12.9	12.0	11.4	10.8	10.0	9.9	11.3	13.6	14.4	16.0	16.7	17.6	18.3	18.9	19.8	20.3	20.4	20.2	20.0	19.4	17.9	16.5	15.0	13.1	15.68	20.40																					
4-Jun	12.6	12.0	11.4	11.5	11.7	11.4	11.6	12.7	14.6	16.3	17.8	19.0	20.1	20.8	21.8	22.3	20.0	15.2	13.9	14.4	14.0	13.5	13.3	12.3	15.17	22.30																					
5-Jun	10.6	8.8	9.3	9.5	9.1	8.8	11.6	12.8	13.4	15.0	17.3	18.6	19.8	20.8	21.6	21.9	22.5	22.6	22.9	22.5	21.2	19.3	17.5	16.9	16.43	22.91																					
6-Jun	16.3	15.8	16.2	16.8	16.0	15.5	16.3	18.2	18.5	19.7	20.6	21.2	21.8	22.5	22.7	23.9	25.1	25.6	24.8	23.7	22.2	21.3	20.7	19.5	20.20	25.57																					
7-Jun	16.5	15.7	16.1	16.8	12.4	13.8	16.0	18.2	19.9	20.7	21.6	22.3	22.9	24.0	24.6	24.9	25.1	25.3	25.4	24.9	24.2	22.9	22.0	20.9	20.71	25.38																					
8-Jun	17.7	16.3	15.1	16.8	16.8	16.3	17.1	18.8	20.0	20.4	20.1	21.0	21.0	21.4	22.1	22.0	21.9	22.6	22.4	21.8	19.2	16.9	15.6	14.3	19.06	22.57																					
9-Jun	13.4	12.8	12.8	12.4	12.0	12.5	13.4	15.4	17.3	19.0	20.1	20.8	21.3	22.3	22.4	22.6	23.0	22.6	21.8	20.0	18.5	16.8	15.7	15.0	17.66	23.03																					
10-Jun	14.1	13.5	13.2	11.5	10.7	8.3	9.4	12.6	15.8	17.7	18.4	19.7	20.0	19.1	20.2	21.3	21.5	21.4	20.9	20.3	19.6	18.7	17.9	17.2	16.79	21.53																					
11-Jun	16.9	14.8	14.2	13.3	12.6	11.7	13.3	14.2	15.9	17.2	18.0	18.9	19.8	20.8	21.4	21.7	21.6	20.5	17.4	16.7	16.5	16.6	14.1	13.6	16.72	21.72																					
12-Jun	12.5	11.6	11.3	11.2	9.9	11.3	10.7	10.9	10.7	11.2	12.3	13.0	13.8	15.3	16.3	16.0	16.4	15.6	13.6	12.3	10.0	8.9	8.0	7.5	12.10	16.41																					
13-Jun	7.6	8.3	8.2	8.2	8.4	8.3	7.9	8.4	8.9	9.8	9.9	11.3	10.2	8.7	9.3	10.7	10.5	11.4	11.8	11.5	11.1	10.4	10.0	9.8	9.61	11.78																					
14-Jun	9.9	9.5	8.5	8.7	7.9	7.7	9.1	10.5	11.3	12.3	12.8	13.1	13.6	13.7	14.0	14.1	14.1	14.0	14.0	14.0	13.5	11.7	9.5	7.7	11.46	14.08																					
15-Jun	6.7	6.1	5.5	4.9	4.7	4.7	6.4	9.3	11.9	13.7	14.8	15.3	15.8	15.9	16.6	17.1	17.2	17.8	18.0	17.6	16.7	15.0	13.5	11.8	12.37	17.96																					
16-Jun	10.8	11.2	9.5	8.5	8.0	7.0	10.2	12.7	14.9	17.8	19.3	20.4	21.2	20.9	21.9	21.0	19.8	19.1	17.4	14.1	12.7	12.8	PF	PF	15.06	21.92																					
17-Jun	10.7	9.1	8.4	7.9	7.7	7.7	7.7	8.3	8.9	9.6	10.1	11.1	11.9	12.3	12.5	12.8	13.5	13.9	13.9	14.0	13.0	11.7	10.8	9.8	10.72	14.00																					
18-Jun	8.5	8.0	8.2	8.4	8.2	7.7	8.6	10.5	11.7	12.5	13.7	14.8	15.4	15.7	17.1	18.7	19.4	19.9	19.5	17.7	16.8	15.6	15.1	14.2	13.58	19.89																					
19-Jun	12.2	11.7	11.2	11.3	10.1	10.5	12.2	14.3	16.6	18.1	19.1	19.7	19.9	19.8	19.2	18.1	16.3	14.4	10.1	9.6	10.3	10.3	9.7	9.6	13.93	19.85																					
20-Jun	9.1	7.2	6.8	6.6	5.6	5.6	7.0	9.9	11.4	12.7	13.8	14.9	16.0	16.4	16.8	17.5	16.3	14.6	14.5	15.3	14.9	14.2	12.2	10.0	12.05	17.45																					
21-Jun	10.4	9.7	7.0	9.7	8.2	9.2	9.5	10.5	12.0	12.9	14.0	15.1	16.2	17.2	18.3	19.1	19.5	18.7	18.7	18.0	17.3	16.1	15.6	13.9	14.03	19.53																					
22-Jun	10.6	9.4	9.0	11.2	11.4	10.5	11.1	12.4	15.2	16.0	17.9	19.7	21.0	21.0	19.9	19.2	20.6	21.3	21.0	19.1	15.8	14.3	14.1	14.7	15.68	21.34																					
23-Jun	13.9	13.7	11.6	11.5	11.6	12.4	13.3	15.0	16.3	17.6	18.9	19.7	20.8	21.3	21.6	21.2	20.6	20.4	18.1	16.8	16.6	15.7	14.1	13.3	16.51	21.57																					
24-Jun	12.1	10.8	10.8	10.0	10.1	9.6	11.3	14.2	16.9	18.8	20.6	22.2	23.3	24.1	24.6	25.1	25.4	25.6	25.5	24.8	23.0	21.1	19.4	18.5	18.67	25.60																					
25-Jun	17.2	16.9	15.2	16.3	16.8	15.6	16.2	17.2	20.7	22.2	23.2	24.1	25.1	25.9	26.2	26.6	26.7	26.9	26.8	26.1	24.4	23.2	22.3	20.8	21.77	26.94																					
26-Jun	20.3	18.3	18.8	20.2	18.2	17.5	18.0	18.6	20.0	21.3	22.3	23.2	24.1	24.9	25.8	26.5	27.0	27.1	27.1	26.9	25.6	24.1	22.6	22.3	22.52	27.06																					
27-Jun	20.9	19.7	18.7	17.2	17.7	17.0	18.4	19.9	22.1	23.8	24.7	25.7	26.4	27.2	27.5	28.0	28.4	28.3	28.7	28.2	26.8	25.1	24.0	22.4	23.61	28.73																					
28-Jun	20.5	19.0	18.9	17.0	17.6	18.4	19.1	21.6	23.4	25.3	27.1	27.7	28.1	28.7	29.2	29.5	29.7	29.8	29.6	28.8	27.8	26.4	24.6	23.9	24.64	29.76																					
29-Jun	21.4	20.8	18.0	17.8	18.2	17.9	18.8	18.0	17.5	17.4	17.9	18.0	18.2	18.3	17.6	16.7	15.9	15.9	15.8	15.9	15.7	15.9	15.4	15.2	17.43	21.40																					
30-Jun	15.0	14.8	14.7	14.7	15.2	15.2	15.3	15.5	15.8	16.2	16.3	16.4	16.9	17.0	17.5	18.5	18.5	19.0	19.2	18.9	18.5	18.0	17.1	17.2	16.72	19.24																					
																						13.42	12.57	11.94	11.89	11.40	11.23	12.24	13.76	15.28	16.54	17.51	18.41	19.05	19.46	19.95	20.33	20.37	20.17	19.60	18.91	17.82	16.69	15.70	14.80	Diurnal Average	
																						21.40	20.82	18.89	20.16	18.23	18.44	19.07	21.57	23.37	25.26	27.05	27.66	28.13	28.67	29.20	29.45	29.72	29.76	29.59	28.82	27.82	26.36	24.62	23.86	Diurnal Maximum	
PF - Power Failure																																															



WCAS - Genesee
Summary of Hourly Averages

Delta Temperature (ET_D) - C
June 2015

Maximum Value: 3.95 C on Jun 28 23:00 Maximum Daily Average: 0.24 C on Jun 7																								Hours in Service: 720																									
Minimum Value: -3.8 C on Jun 10 15:00 Minimum Daily Average: -0.95 C on Jun 15																								Hours of Data: 718																									
Maximum Diurnal Average: 1.51 C at hour 23 Minimum Diurnal Average: -1.95 C at hour 12																								Hours of Missing Data: 2																									
Monthly Average: -0.429 C Percentiles: P₁ = -3.3 P₁₀ = -2.1 Q₁ = -1.6 Median = -0.7 Q₃ = 0.5 P₉₀ = 1.8 P₉₉ = 3.2																								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-Jun	1.3	1.3	1.7	1.4	1.4	0.0	-1.2	-1.2	-1.8	-1.9	-1.6	-1.7	-1.8	-1.9	-1.8	-1.8	-1.6	-1.4	-1.0	-0.6	-0.1	0.0	0.1	-0.1	-0.59	1.74																							
2-Jun	-0.2	0.0	-0.4	-0.5	-0.4	-0.5	-0.5	-0.9	-1.0	-1.0	-1.4	-1.6	-1.4	-1.8	-2.5	-2.3	-1.8	-1.5	-0.8	-0.3	0.2	0.6	0.8	0.7	-0.77	0.78																							
3-Jun	0.7	0.7	0.8	1.0	1.4	0.2	-0.6	-0.9	-1.0	-2.0	-2.2	-2.5	-2.3	-2.8	-2.5	-2.2	-1.6	-1.0	-0.2	1.4	1.9	2.1	1.2	-0.55	2.12																								
4-Jun	1.6	0.2	-0.2	-0.3	-0.2	-0.4	-0.7	-1.2	-1.7	-1.9	-2.1	-2.3	-3.1	-3.3	-2.7	-2.0	-0.8	0.0	-0.4	-0.2	0.0	1.6	1.9	1.8	-0.69	1.87																							
5-Jun	1.9	1.1	1.7	1.4	1.5	-0.9	-1.7	-2.2	-1.1	-1.6	-1.8	-1.9	-1.7	-1.7	-1.6	-1.7	-1.8	-1.2	-1.2	0.1	1.2	2.6	2.3	1.6	-0.29	2.64																							
6-Jun	1.1	1.0	2.1	0.8	0.4	0.5	0.0	-0.9	-0.9	-1.4	-1.8	-1.7	-1.5	-1.6	-1.3	-1.7	-1.4	-1.2	-0.7	-0.3	1.5	3.0	3.2	2.9	0.00	3.18																							
7-Jun	2.7	2.3	3.5	1.6	1.5	1.7	-0.6	-0.6	-1.2	-1.6	-1.8	-1.8	-1.8	-2.2	-2.0	-1.9	-1.0	-0.9	-0.4	0.5	0.9	2.3	3.3	3.2	0.24	3.46																							
8-Jun	2.5	1.5	0.9	1.0	1.2	1.0	-0.4	-0.9	-1.4	-1.6	-1.2	-1.5	-1.5	-1.3	-1.4	-1.3	-1.0	-1.1	-1.0	-0.5	-0.2	1.0	2.4	2.5	-0.10	2.49																							
9-Jun	3.0	0.7	0.1	0.3	-0.2	-0.3	-1.1	-2.2	-2.3	-2.2	-2.5	-2.2	-2.1	-2.9	-1.4	-1.7	-1.8	-1.1	-1.0	-0.7	-0.2	0.6	1.6	1.7	-0.75	2.96																							
10-Jun	1.3	1.4	1.1	3.0	2.1	0.2	-0.9	-1.6	-2.1	-2.3	-2.4	-3.1	-3.3	-3.3	-3.8	-3.4	-3.0	-2.4	-0.8	0.1	0.3	0.9	1.1	0.2	-0.85	3.04																							
11-Jun	0.6	0.5	1.7	1.5	1.5	0.8	-0.7	-1.4	-1.5	-1.5	-1.5	-1.5	-1.8	-1.7	-1.5	-1.2	-0.9	-1.1	-1.2	-0.7	-0.2	0.0	0.1	0.6	-0.46	1.69																							
12-Jun	0.1	0.4	0.2	0.7	0.4	-0.2	-0.3	-0.5	-0.8	-1.2	-1.6	-1.6	-1.5	-2.1	-1.8	-1.4	-2.0	-1.2	-1.0	-0.7	-0.4	-0.2	-0.7	-0.7	-0.75	0.73																							
13-Jun	-0.7	-0.3	-0.5	-0.4	-0.4	-0.5	-0.5	-0.7	-0.7	-1.1	-0.9	-1.5	-0.8	-1.0	-1.1	-1.2	-0.9	-1.0	-0.7	-0.5	-0.4	-0.1	-0.3	-0.3	-0.68	-0.10																							
14-Jun	-0.2	0.0	0.0	0.0	0.1	-0.3	-0.8	-1.2	-1.3	-1.7	-1.6	-1.6	-1.7	-1.7	-1.8	-1.8	-1.5	-1.0	-0.7	-0.6	-0.2	0.8	0.2	0.1	-0.78	0.81																							
15-Jun	0.1	-0.2	0.3	0.3	0.5	-0.7	-1.8	-2.0	-2.3	-2.8	-2.4	-3.4	-2.5	-1.9	-3.1	-2.9	-1.9	-2.4	-2.1	-0.6	1.3	2.9	2.1	2.6	-0.95	2.92																							
16-Jun	2.0	2.0	2.6	2.5	2.4	1.3	-1.1	-1.9	-2.1	-1.6	-1.7	-1.9	-2.3	-1.3	-2.2	-2.3	-2.2	-0.6	-0.3	0.4	-0.1	0.1	PF	PF	-0.36	2.59																							
17-Jun	-0.3	-0.9	-0.8	-0.9	-0.9	-0.8	-0.9	-0.7	-0.9	-1.0	-1.0	-1.6	-2.4	-1.8	-2.2	-1.9	-2.3	-1.9	-1.1	-1.2	0.7	1.8	2.2	2.1	-0.78	2.16																							
18-Jun	1.3	1.3	1.2	0.5	0.4	-0.4	-0.8	-0.9	-1.2	-1.5	-1.9	-2.2	-1.5	-1.4	-2.0	-1.9	-1.5	-1.3	-1.2	-0.6	0.2	0.7	0.5	0.3	-0.57	1.34																							
19-Jun	1.8	1.7	1.5	2.0	1.8	0.2	-0.8	-1.3	-1.7	-2.0	-1.9	-2.6	-1.7	-0.5	0.4	-0.1	-0.6	-0.4	-1.1	-0.9	-0.2	-0.1	-0.1	-0.1	-0.27	1.99																							
20-Jun	0.1	0.2	0.7	1.0	0.8	-0.2	-1.7	-1.8	-1.2	-1.6	-1.8	-1.9	-2.1	-1.9	-1.8	-2.1	-1.0	-0.8	-2.4	-0.8	-0.1	2.1	1.8	2.0	-0.60	2.05																							
21-Jun	2.3	1.2	1.1	0.4	0.0	0.0	-0.4	-1.2	-1.6	-1.5	-1.7	-1.8	-1.7	-1.8	-1.9	-1.8	-1.7	-1.3	-1.1	-0.2	0.5	1.3	2.4	2.6	-0.32	2.61																							
22-Jun	2.1	2.1	2.4	1.4	0.8	0.0	-0.3	-0.2	-0.6	-1.5	-2.1	-2.1	-1.9	-1.8	-0.4	-1.1	-1.1	-1.1	-0.4	-0.1	0.4	0.4	1.1	0.7	-0.15	2.38																							
23-Jun	0.0	0.4	1.0	0.8	0.7	-0.3	-1.1	-1.3	-1.5	-1.7	-1.6	-2.0	-1.6	-2.1	-1.2	-0.7	-1.1	-1.9	-0.6	-0.3	0.2	0.8	1.4	1.8	-0.49	1.80																							
24-Jun	1.7	1.1	0.9	1.5	1.0	0.4	-1.1	-1.5	-1.9	-2.3	-2.6	-2.9	-2.4	-3.4	-3.3	-2.7	-2.3	-1.8	-1.4	0.3	2.0	2.8	3.2	2.5	-0.52	3.16																							
25-Jun	2.0	1.9	2.2	1.0	0.9	1.0	-0.3	-1.1	-1.6	-1.5	-2.1	-2.9	-2.7	-3.3	-3.2	-2.2	-2.5	-2.2	-0.8	0.8	2.5	2.1	1.4	2.4	-0.35	2.48																							
26-Jun	3.0	2.1	1.1	0.4	0.2	-0.1	-0.7	-1.1	-1.4	-1.5	-1.5	-1.6	-1.8	-1.8	-2.1	-2.1	-1.9	-1.8	-1.4	-0.4	1.0	1.6	3.0	3.7	-0.21	3.74																							
27-Jun	3.9	3.9	2.4	1.4	3.8	2.7	-0.1	-1.4	-1.4	-1.7	-2.0	-2.1	-2.8	-2.8	-2.7	-2.2	-1.8	-0.8	-1.1	-0.1	1.6	2.5	2.0	2.5	0.16	3.93																							
28-Jun	1.9	2.4	2.8	1.9	1.1	-0.1	-0.6	-1.1	-1.3	-1.4	-1.7	-1.9	-1.9	-2.0	-2.0	-1.9	-1.6	-1.3	-0.8	-0.2	1.2	2.1	4.0	2.9	0.03	3.95																							
29-Jun	2.9	3.1	1.6	0.3	0.0	0.2	1.4	0.4	0.1	-0.5	-0.2	-0.2	-0.1	-0.1	-0.1	-0.6	-1.2	-1.1	-1.1	-1.1	-0.8	-0.4	-0.6	-0.7	0.05	3.13																							
30-Jun	-0.7	-0.7	-0.7	-0.8	-0.3	-0.3	-0.4	-0.6	-0.7	-0.9	-1.0	-1.0	-1.6	-1.1	-1.5	-1.8	-0.7	-1.1	-0.8	0.0	0.6	1.0	1.5	1.6	-0.49	1.55																							
																								1.32	1.08	1.10	0.85	0.78	0.14	-0.69	-1.13	-1.34	-1.60	-1.72	-1.95	-1.92	-1.92	-1.90	-1.80	-1.57	-1.28	-0.98	-0.32	0.49	1.22	1.51	1.45	Diurnal Average	
																								3.91	3.93	3.46	3.04	3.78	2.73	1.39	0.36	0.12	-0.53	-0.16	-0.19	-0.10	-0.11	0.43	-0.08	-0.59	-0.02	-0.31	0.80	2.48	3.02	3.95	3.74	Diurnal Maximum	
PF - Power Failure																																																	



WCAS - Genesee
Summary of Hourly Averages

Wind Speed (WS) - kph
June 2015

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	10.9	12.6	8.2	3.5	9.4	14.8	8.6	0.3	6.3	3.5	19.6	21.8	23.1	23.4	18.6	14.3	19.6	18.1	13.8	15.1	14.1	16.2	16.0	11.0	8.48	23.45	
Dir	W	WSW	WSW	W	WSW	WSW	WSW	SSE	S	W	NNW	NNW	N	N	NNW	N	N	NNE	NNE	NE	NE	NE	NNE	NE	N	N	
2 Spd	7.0	8.6	6.9	9.5	7.6	8.7	11.6	10.4	10.4	14.3	15.0	17.4	20.2	21.4	21.1	21.1	23.4	25.6	27.0	29.5	24.8	23.2	19.7	19.7	14.70	29.48	
Dir	NE	NNE	ENE	E	ESE	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	SE	SSE	
3 Spd	20.1	16.7	17.3	15.8	10.2	9.0	12.1	22.8	25.6	26.9	24.5	24.1	23.0	20.7	20.3	24.3	23.8	22.1	19.1	18.8	10.1	4.7	6.6	6.7	17.24	26.94	
Dir	SSE	SSE	SSE	SSE	SE	ESE	SE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	SSE	SE	ESE	ESE	SE	SSE
4 Spd	8.4	6.8	7.0	6.5	7.0	5.8	6.0	7.4	9.9	10.6	13.5	12.8	15.4	14.1	22.0	24.8	20.0	12.3	8.6	1.1	5.5	2.6	3.6	5.8	6.57	24.84	
Dir	ESE	E	ENE	ENE	ENE	ENE	E	ENE	E	E	E	E	SE	SSE	SE	SE	SSE	W	W	SSW	ESE	SE	SSE	WSW	ESE	SE	
5 Spd	1.3	2.8	6.3	7.8	3.4	9.3	9.2	7.6	8.7	9.0	11.1	10.0	8.8	7.5	10.2	12.5	8.4	8.0	5.1	3.1	3.6	6.0	10.1	14.6	5.72	14.63	
Dir	WSW	S	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	NW	NW	NNW	NW	WSW	NW	NW	NE	SE	S	SW	WSW	W	WSW	
6 Spd	11.6	5.8	8.0	14.1	13.8	12.8	13.1	14.0	19.1	18.0	18.6	11.4	14.5	10.3	10.6	3.3	13.2	15.4	17.5	14.5	12.3	9.5	11.1	10.0	11.47	19.06	
Dir	W	W	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	WNW	WNW	N	N	NNW	NNW	NW	N	N	NNW	NNW	NNW	NW	NW	NW	NW
7 Spd	7.3	12.2	12.5	12.0	13.5	12.6	8.2	10.4	16.5	16.1	15.8	13.5	12.8	12.0	14.6	11.3	6.8	3.4	4.3	7.6	6.3	8.8	10.2	12.3	10.03	16.46	
Dir	WSW	WSW	W	W	WSW	W	W	W	WNW	WNW	WNW	WNW	WNW	W	W	W	NNW	NNE	WNW	WSW	WNW	WNW	NW	NW	W	WNW	
8 Spd	6.2	8.5	10.5	10.1	8.4	11.0	16.5	20.1	25.0	27.0	18.6	16.9	19.7	17.9	21.7	23.2	20.3	24.6	21.1	23.4	20.8	11.2	5.8	2.0	13.82	26.96	
Dir	WSW	WSW	SW	WSW	WSW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	N	N	N	N	WSW	NNW	NNW	
9 Spd	7.5	10.3	10.9	7.4	9.1	11.0	17.5	14.2	15.8	16.0	13.2	10.0	8.1	9.3	7.8	9.2	16.2	12.7	23.3	22.7	16.5	8.1	2.1	4.1	4.75	23.30	
Dir	WSW	WSW	WSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	NW	WNW	NNW	N	NNE	NNE	NE	NE	ENE	E	W	W	NNE
10 Spd	3.1	1.5	0.4	1.7	1.8	1.9	0.2	3.8	8.9	12.4	15.0	15.3	19.5	22.6	17.5	20.1	17.2	15.7	17.2	17.7	13.9	10.0	5.7	12.4	9.06	22.64	
Dir	ESE	E	S	SW	NNE	S	S	SSE	SE	SE	SE	SE	SSE	S	S	S	S	SSE	SSE	SSE	SE	SE	SSE	WNW	SSE	S	
11 Spd	7.7	16.0	8.0	10.7	12.2	8.2	5.8	4.4	10.2	8.6	6.2	6.0	8.6	9.9	11.4	12.2	10.9	23.2	26.5	21.6	11.8	13.6	21.1	11.5	5.74	26.45	
Dir	WSW	S	SSW	SW	SW	NNW	WNW	SW	S	SSW	NW	NNE	NE	NNE	NNE	N	N	NNW	NNW	NW	WNW	WNW	W	W	NW	NNW	
12 Spd	15.3	11.0	11.4	11.3	8.5	18.8	13.2	17.0	16.7	17.9	18.3	19.2	16.8	16.2	18.8	26.1	25.9	29.5	28.7	29.8	26.4	14.7	7.1	8.4	16.42	29.78	
Dir	WNW	WNW	WNW	NW	W	WNW	WNW	WNW	W	W	W	WNW	WNW	WNW	NW	NNW	NW	NW	NW	NW	NW	NW	WNW	SW	WSW	WNW	NW
13 Spd	10.8	11.9	10.3	15.2	16.2	15.6	15.0	18.8	18.9	17.0	19.9	21.2	21.9	20.7	23.6	22.2	17.2	14.6	19.0	15.6	12.7	15.2	17.2	20.1	14.18	23.60	
Dir	WSW	W	W	W	WNW	WNW	WNW	WNW	NW	NW	NW	NNW	NNW	N	N	NNE	NNW	NNW	NW	NW	W	WNW	WNW	WNW	NW	NW	N
14 Spd	17.6	15.3	15.4	17.8	14.6	12.7	16.0	22.5	24.9	26.2	25.9	24.6	22.7	22.5	18.7	19.7	17.1	9.0	6.3	0.4	4.5	10.1	11.0	11.3	12.17	26.17	
Dir	WNW	WNW	WNW	NW	WNW	WNW	NW	NNW	NNW	N	N	N	N	N	NNE	NNE	NNE	NE	NE	NNE	WSW	SW	WSW	WSW	NNW	NW	N
15 Spd	11.5	11.6	10.9	8.9	9.4	10.0	10.5	8.3	6.5	6.6	6.5	11.9	5.5	10.4	10.3	7.9	7.8	10.2	12.4	14.4	10.5	7.1	5.1	6.4	7.54	14.36	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	SSW	SW	S	S	SSW	S	SSE	S	S	S	SSE	SSE	SSE	SSE	SSW	SSW	SSW	SSE
16 Spd	5.8	6.8	7.0	4.8	5.5	5.9	7.1	5.0	5.1	3.0	6.9	9.0	10.6	8.3	12.1	18.6	16.4	21.4	13.0	6.3	3.1	10.4	PF	PF	5.04	21.36	
Dir	SW	SW	SW	WSW	WSW	SW	WSW	SW	SW	W	NNW	NW	W	NW	W	W	SW	NNE	NNE	SW	SW	NNW	PF	PF	W	NNE	
17 Spd	14.5	12.4	10.6	10.9	12.5	12.6	5.5	5.5	5.2	6.0	6.0	4.9	6.3	5.1	7.1	5.7	6.9	7.8	10.2	11.2	9.8	6.3	5.8	6.3	2.73	14.53	
Dir	N	N	NNE	NNE	NNE	NE	NE	NE	NE	NE	NE	NE	ESE	SSE	S	SSW	S	S	S	S	S	SSE	SE	SE	E	N	
18 Spd	5.0	6.2	9.9	12.0	10.1	10.0	10.0	9.6	8.7	4.2	6.2	7.1	7.2	4.5	0.8	4.2	2.1	5.1	6.5	16.1	11.9	9.0	8.4	7.7	2.57	16.06	
Dir	SE	SE	SE	SE	ESE	ESE	ESE	SE	SSE	WSW	WSW	WSW	NW	WNW	S	ENE	NNE	NW	W	SW	WSW	W	W	W	SSW	SW	
19 Spd	2.8	0.8	4.2	6.5	5.8	4.5	1.0	6.9	12.5	16.3	16.0	17.0	15.7	12.4	14.2	5.9	16.4	24.1	23.8	16.4	15.3	13.3	14.1	15.6	1.85	24.13	
Dir	S	ESE	SSW	WSW	SW	WSW	ESE	ESE	E	E	E	ESE	ESE	E	SE	SW	NW	NW	NNW	NNW	NW	WNW	WNW	WNW	NNW	NW	
20 Spd	13.5	11.5	10.9	10.1	10.7	9.2	10.1	7.4	6.4	12.0	13.5	12.1	14.3	15.1	10.6	3.6	21.2	14.2	12.6	1.3	1.7	0.5	2.5	6.0	7.24	21.22	
Dir	WNW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WNW	NW	WNW	WNW	NW	NNW	N	N	WNW	SSW	S	WSW	NNW	SW	SW	W	N	
21 Spd	10.0	8.9	4.7	9.6	12.3	11.8	15.0	14.2	13.6	13.3	12.4	10.9	8.4	7.3	7.8	10.1	13.1	25.5	17.9	5.6	1.4	0.7	2.2	7.6	8.53	25.52	
Dir	W	W	WSW	WNW	W	WNW	NW	WNW	NW	NW	WNW	WNW	NNW	NNW	NW	NW	NNW	N	N	N	N	S	SSW	SW	NW	N	
22 Spd	3.5	7.9	7.1	10.3	11.4	12.0	12.7	15.5	2.3	7.1	5.7	6.3	10.0	9.6	11.3	12.5	5.5	11.0	15.0	16.2	14.3	2.0	11.8	11.1	6.30	16.24	
Dir	SSW	SW	WSW	W	WSW	WSW	WSW	W	NE	SSW	WSW	W	NW	NW	WNW	SW	WSW	NNW	NNW	N	N	E	WSW	WNW	W	N	



WCAS - Genesee
Summary of Hourly Averages

Wind Speed (WS) - kph
June 2015

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	14.7	12.4	10.4	4.9	7.1	6.8	5.3	9.2	9.3	6.2	3.5	1.7	2.7	4.6	7.1	7.0	11.2	16.3	21.4	14.6	7.2	3.6	10.7	10.3	5.15	21.36								
Dir	W	W	SW	WSW	WSW	W	WSW	W	NNW	NW	NNW	N	NE	ESE	NNE	NE	SSE	SSW	SW	SW	NW	WSW	WSW	WSW	WSW	SW								
24 Spd	10.4	11.8	11.6	9.4	13.5	8.5	10.0	8.4	8.5	7.9	10.3	11.8	10.5	10.6	10.2	7.8	5.7	4.2	5.9	9.3	13.1	8.6	7.4	6.2	8.58	13.46								
Dir	SW	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	WSW	SW	WSW	WSW	SSW	SW	WSW	WSW	WSW	SW	S	S	SSW	SSW	WSW	SW	WSW								
25 Spd	10.0	12.6	7.6	11.8	10.2	8.7	11.0	10.7	9.6	7.8	6.7	9.4	9.8	11.2	10.4	7.2	7.7	7.0	4.4	7.7	9.6	4.9	3.4	3.9	7.25	12.61								
Dir	WSW	WSW	WSW	W	WNW	SW	WSW	WSW	W	WNW	WSW	SW	WSW	SW	SW	W	SSW	SW	SSW	SSW	S	SSE	SE	WSW	WSW	WSW								
26 Spd	4.3	9.2	14.2	17.0	17.7	18.9	13.0	10.4	9.6	12.1	13.2	12.5	6.2	7.8	6.2	9.4	6.0	5.3	5.7	4.5	4.0	3.3	6.8	8.4	6.89	18.92								
Dir	SSE	SW	W	WNW	WNW	NW	NW	WNW	NW	NNW	NNW	NNW	NW	NW	W	W	W	WSW	SW	SW	SSW	ESE	N	NNE	WNW	NW								
27 Spd	13.8	10.6	8.4	3.3	2.7	4.8	2.7	4.6	4.1	4.3	5.6	6.4	10.4	12.4	13.3	10.3	11.5	12.9	11.1	10.0	7.7	6.0	5.1	5.8	4.34	13.84								
Dir	N	N	NNE	WSW	WSW	SW	WSW	SSW	ESE	ESE	E	E	SSE	S	S	S	SSE	SE	SE	SE	SE	SE	SE	SE	SE	N								
28 Spd	6.9	6.2	8.8	6.2	13.3	21.5	24.3	21.9	21.5	22.0	19.2	18.0	16.2	16.5	17.1	12.4	10.0	11.0	7.7	5.4	1.7	1.8	3.2	3.8	10.56	24.25								
Dir	ESE	NNE	NNW	WSW	WNW	NW	NW	NW	NNW	NNW	NNW	NW	NNW	NNW	NW	NW	NNW	NNW	N	NNE	ENE	E	SSW	SW	NNW	NW								
29 Spd	4.2	1.4	3.5	8.8	8.0	2.7	5.8	5.0	5.3	6.2	9.0	12.3	15.1	18.1	17.6	16.5	13.6	13.6	13.4	12.7	10.4	6.3	6.4	5.8	7.36	18.05								
Dir	SSW	SSW	ENE	ENE	ENE	ESE	NNW	WSW	SW	SE	SSE	SSE	SE	SE	SE	SSE	SE	ESE	ESE	SE	SE	ESE	ESE	ESE	SE	SE								
30 Spd	6.8	9.9	11.5	11.6	10.3	9.2	9.2	7.5	7.9	8.7	11.6	10.8	12.3	10.1	7.4	3.8	4.6	1.7	4.8	6.8	5.8	6.3	0.1	5.6	5.14	12.34								
Dir	E	E	E	ESE	ESE	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	S	SSW	NNW	NNW	NW	NW	SW	NW	E	ESE								
Spd	4.13	4.34	4.22	4.58	5.13	5.40	5.16	4.69	3.63	3.45	3.66	2.76	1.98	1.31	1.50	1.33	2.24	4.29	3.30	1.21	0.61	1.20	2.93	4.48	Diurnal Average									
Dir	WSW	WSW	WSW	W	W	W	W	W	WNW	NW	NW	NW	NW	NW	NNW	NW	NNW	NNW	NNW	NNW	W	W	WSW	W	Diurnal Maximum									
Spd	20.07	16.65	17.31	17.78	17.75	21.53	24.25	22.79	25.60	26.96	25.94	24.57	23.13	23.45	23.60	26.13	25.93	29.50	28.73	29.78	26.36	23.23	21.08	20.14	Diurnal Maximum									
Dir	167.28	153.16	160.05	313.56	297.75	313.11	315.52	157.56	162.35	343.94	354.73	353.74	350.37	0.07	9.13	327.62	323.82	323.75	324.63	321.07	313.90	160.98	278.93	291.82	Diurnal Maximum									
Maximum Speed Value: 29.8 kph on Jun 12 20:00																				Minimum Speed Value: 0.1 kph on Jun 30 23:00				Hours in Service: 720										
Maximum Daily Speed Average: 17.24 kph on Jun 12																				Minimum Daily Speed Average: 1.85 kph on Jun 18				Hours of Data: 718										
Maximum Diurnal Speed Average: 5.40 kph at hour 6																				Minimum Diurnal Speed Average: 0.61 kph at hour 21				Hours of Missing Data: 2										
Monthly Average Velocity: 2.849 kph 284.38 deg										Speed Percentiles: P ₁ = 0.7 P ₁₀ = 4.3 Q ₁ = 6.8 Median = 10.4 Q ₃ = 15.0 P ₉₀ = 20.1 P ₉₉ = 26.9										Percent Operational Time: 99.7														
All monthly, daily, and diurnal averages have been calculated using vector methods																																		
PF - Power Failure																																		
Frequency Distribution																																		
Speed Range (kph)																																		
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																											
North	5	12	25	27	0	0	69																											
NorthEast	7	23	9	2	0	0	41																											
East	12	31	10	0	0	0	53																											
SouthEast	12	30	30	19	0	0	91																											
South	13	28	17	11	1	0	70																											
SouthWest	29	78	21	1	0	0	129																											
West	7	64	57	3	0	0	131																											
NorthWest	6	39	64	22	3	0	134																											
Total	91	305	233	85	4	0	718																											



WCAS - Genesee
Summary of Hourly Averages

Relative Humidity (RH) - %
June 2015

Maximum Value: 93.87 % on Jun 30 03:00 Maximum Daily Average: 85.47 % on Jun 30																							Hours in Service: 720 Hours of Data: 718			
Minimum Value: 21.8 % on Jun 24 19:00 Minimum Daily Average: 40.69 % on Jun 7 Maximum Diurnal Average: 80.03 % at hour 5 Minimum Diurnal Average: 40.69 % at hour 18 Monthly Average: 58.702 % Percentiles: P ₁ = 23.3 P ₁₀ = 29.9 Q ₁ = 39.9 Median = 59.8 Q ₃ = 77.3 P ₉₀ = 88.1 P ₉₉ = 93.1																							Hours of Missing Data: 2 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-Jun	77.3	80.0	81.2	87.3	88.9	84.8	71.4	58.1	50.7	50.8	58.7	53.5	54.0	54.9	51.8	48.4	46.4	44.6	44.2	46.3	52.3	57.4	59.8	61.3	61.00	88.89
2-Jun	65.2	74.0	72.5	76.1	79.9	84.2	87.2	85.0	81.3	76.1	69.4	64.5	65.2	64.8	61.0	55.7	51.5	44.9	44.1	47.9	54.2	62.0	68.2	69.6	66.86	87.24
3-Jun	70.8	75.7	77.5	80.1	85.0	79.5	67.9	57.9	58.1	50.1	46.2	41.2	39.0	36.3	33.4	28.2	27.8	26.4	26.2	28.5	37.5	49.9	57.5	61.5	51.76	84.95
4-Jun	61.8	57.2	58.6	62.2	64.2	68.7	70.8	66.9	59.8	55.4	50.5	47.4	41.8	36.4	33.1	30.9	41.4	71.3	79.9	73.9	71.8	77.9	87.1	88.1	60.71	88.07
5-Jun	90.3	92.4	93.2	92.5	92.4	86.4	71.5	66.9	76.2	71.4	56.7	50.5	44.5	38.5	34.7	35.8	33.7	32.7	30.4	34.2	42.9	53.7	66.4	65.7	60.57	93.21
6-Jun	66.3	67.8	70.0	62.9	61.7	62.0	57.6	46.6	43.6	37.9	32.4	32.9	31.9	31.5	32.4	30.1	26.2	21.8	26.7	30.4	34.5	39.1	39.2	44.3	42.91	69.98
7-Jun	54.7	61.7	60.0	47.8	65.7	63.1	52.9	41.4	34.3	34.1	31.6	30.3	29.1	27.4	26.5	26.3	26.4	26.8	27.7	32.5	33.6	42.6	46.6	53.2	40.69	65.68
8-Jun	63.5	67.3	70.7	63.7	63.1	65.5	58.9	50.8	39.7	32.1	34.2	33.3	33.2	32.5	31.2	29.3	26.9	25.2	24.7	22.8	33.9	47.5	56.9	60.0	44.46	70.73
9-Jun	68.3	64.9	61.6	66.4	68.6	66.3	59.8	47.7	42.7	39.2	33.5	30.8	29.2	25.4	24.5	26.0	24.9	25.0	29.9	35.9	40.9	48.2	55.3	60.3	44.81	68.60
10-Jun	64.4	66.7	66.2	75.6	78.3	81.4	69.6	56.3	44.0	42.2	38.8	35.8	35.2	37.6	33.5	29.6	30.8	29.1	34.9	45.4	50.9	55.8	61.3	60.8	51.02	81.41
11-Jun	59.8	74.5	75.7	78.0	83.1	81.9	71.0	62.9	57.2	57.5	55.8	53.1	51.0	46.8	45.5	45.1	46.7	43.8	47.4	55.6	62.7	62.6	65.4	66.9	60.42	83.12
12-Jun	68.0	73.0	72.8	70.5	74.7	65.1	66.5	63.9	63.6	60.1	51.4	45.2	42.4	35.5	31.3	34.2	29.7	34.5	43.1	53.1	67.4	78.0	83.0	86.0	58.04	85.97
13-Jun	83.3	77.2	77.3	77.2	75.6	76.5	83.0	82.3	81.5	78.6	77.5	63.1	72.5	85.4	80.5	67.0	64.7	61.2	59.9	61.2	65.7	72.1	74.8	78.6	74.04	85.41
14-Jun	81.5	82.7	86.1	83.6	85.5	85.3	79.5	68.1	59.1	49.2	44.6	44.6	42.7	43.0	42.3	42.3	42.2	44.4	46.1	43.7	52.3	70.1	78.3	84.7	61.74	86.15
15-Jun	88.1	89.5	90.3	91.3	92.0	87.7	73.3	66.3	55.5	49.1	41.1	36.6	34.8	35.4	33.0	32.5	34.2	29.8	26.8	29.9	34.6	49.1	63.1	72.1	55.66	92.01
16-Jun	78.4	77.7	78.2	84.1	88.2	75.3	60.6	50.5	49.2	46.8	37.3	29.9	28.1	34.0	26.6	29.0	36.5	37.3	46.8	78.4	88.5	88.3	PF	PF	56.80	88.49
17-Jun	86.7	91.3	92.0	92.3	91.5	92.3	92.4	91.3	87.5	81.2	75.6	67.4	58.1	54.9	54.3	52.8	49.5	47.4	52.8	42.4	44.5	64.3	84.8	89.6	72.38	92.38
18-Jun	90.8	92.1	93.1	93.4	92.9	91.6	89.1	87.0	79.8	72.5	66.0	63.2	63.6	63.1	55.8	50.3	45.4	38.5	40.3	54.3	57.7	68.5	70.8	71.9	70.48	93.38
19-Jun	82.7	90.6	91.6	92.7	93.0	89.6	70.9	63.8	55.5	48.6	43.5	39.4	39.6	43.7	52.3	62.0	75.5	81.9	89.2	89.5	88.3	84.4	86.5	86.0	72.53	92.95
20-Jun	87.5	90.9	92.6	92.4	93.0	90.6	73.7	68.5	73.1	62.4	53.5	48.7	41.1	38.5	38.6	36.7	46.2	51.6	41.4	32.4	38.0	58.5	70.4	81.6	62.59	92.96
21-Jun	86.9	82.3	84.1	83.7	87.0	84.4	83.6	78.4	69.1	64.0	56.3	53.1	48.3	44.6	41.1	37.4	35.4	39.5	36.0	41.9	45.4	52.8	64.6	75.0	61.45	87.04
22-Jun	85.6	90.0	91.1	84.8	81.4	83.8	78.0	73.7	63.5	59.4	51.1	38.6	32.7	34.5	42.7	59.7	45.7	34.3	35.4	48.2	70.7	77.9	83.7	73.8	63.34	91.13
23-Jun	76.0	77.6	88.7	89.7	89.7	77.6	63.8	61.1	59.2	52.6	48.3	43.8	39.6	38.3	39.1	42.8	47.4	41.2	51.7	62.5	64.4	70.3	77.9	84.6	62.00	89.68
24-Jun	88.1	91.5	90.8	90.8	91.0	82.5	69.7	61.4	51.8	49.7	43.2	35.5	31.6	28.6	26.7	25.9	24.4	22.1	21.8	25.2	33.2	50.5	62.7	66.0	52.69	91.48
25-Jun	69.7	71.3	77.8	65.4	63.6	66.1	66.9	59.1	43.9	39.5	35.3	31.3	28.9	26.4	25.9	25.6	25.6	23.7	25.2	33.3	51.3	60.4	54.3	69.6	47.50	77.78
26-Jun	80.2	85.2	74.5	56.0	64.8	69.9	66.9	62.9	57.8	50.2	43.1	37.0	33.6	32.5	31.1	28.4	27.3	26.3	24.8	27.7	34.1	48.8	56.9	60.1	49.17	85.18
27-Jun	60.2	59.4	55.8	63.1	66.1	62.8	51.2	37.2	30.8	30.7	26.8	27.1	28.4	28.9	29.2	32.2	30.9	32.8	27.3	30.0	39.9	49.4	59.5	63.7	42.65	66.13
28-Jun	69.2	76.5	80.4	82.4	82.3	77.2	70.6	55.9	46.0	37.6	30.0	26.9	26.7	25.2	22.8	23.2	23.4	22.6	23.8	28.8	31.0	36.1	50.2	51.5	45.84	82.39
29-Jun	61.2	64.4	69.0	68.7	65.3	68.2	79.4	80.8	84.6	85.0	84.9	84.4	80.5	77.2	80.5	87.3	88.9	91.3	91.6	91.5	91.5	92.0	92.4	92.4	81.37	92.41
30-Jun	93.1	93.7	93.9	93.5	92.5	92.8	91.8	91.5	90.5	88.5	85.9	86.8	80.8	82.1	80.3	68.4	73.2	69.0	68.6	78.1	85.0	88.4	91.0	92.0	85.47	93.87
75.32 77.96 78.91 78.27 80.03 78.11 71.65 64.81 59.65 55.08 50.11 45.87 43.61 42.80 41.38 40.78 40.96 40.69 42.29 46.85 53.28 61.88 67.89 71.41																							Diurnal Average			
93.05 93.69 93.87 93.49 92.96 92.83 92.38 91.48 90.53 88.46 85.87 86.83 80.77 85.41 80.49 87.28 88.86 91.27 91.59 91.53 91.49 91.96 92.39 92.41																							Diurnal Maximum			
PF - Power Failure																										



WCAS - Genesee
Summary of Hourly Averages

Global Solar Radiation (GSR) - W/m2
June 2015

Maximum Value: 971.66 W/m2 on Jun 20 13:00 Maximum Daily Average: 360.55 W/m2 on Jun 24																								Hours in Service:	720	
Minimum Value: 0.0 W/m2 on Jun 1 01:00 Minimum Daily Average: 44.09 W/m2 on Jun 29																								Hours of Data:	718	
Maximum Diurnal Average: 690.59 W/m2 at hour 12 Minimum Diurnal Average: 0.00 W/m2 at hour 1																								Hours of Missing Data:	2	
Monthly Average: 260.62 W/m2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 131.6 Q ₃ = 453.5 P ₉₀ = 739.5 P ₉₉ = 904.6																								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-Jun	0.0	0.0	0.0	0.0	4.1	70.4	206.7	367.2	516.0	686.6	676.3	837.8	862.9	845.5	779.5	745.1	395.7	432.4	276.4	155.2	42.9	2.1	0.0	0.0	329.28	862.93
2-Jun	0.0	0.0	0.0	0.0	0.0	3.8	18.6	76.3	127.6	145.8	248.3	355.8	285.6	404.2	584.5	563.5	347.6	394.2	292.6	146.5	51.1	2.4	0.0	0.0	168.68	584.53
3-Jun	0.0	0.0	0.0	0.0	5.6	87.9	210.3	345.1	301.5	680.9	635.6	737.7	740.1	620.4	791.1	675.4	444.4	428.9	296.0	165.9	50.8	2.6	0.0	0.0	300.84	791.06
4-Jun	0.0	0.0	0.0	0.0	1.2	22.5	47.6	248.3	537.8	677.6	707.1	795.5	843.2	906.0	729.8	567.2	169.9	31.9	81.1	85.4	66.5	5.3	0.0	0.0	271.82	905.99
5-Jun	0.0	0.0	0.0	0.0	6.6	95.1	277.0	352.0	273.3	654.8	787.8	777.3	841.0	841.0	757.6	661.5	399.4	355.4	325.1	125.0	50.4	1.7	0.0	0.0	315.91	841.04
6-Jun	0.0	0.0	0.0	0.0	6.5	33.3	145.4	380.2	348.8	579.4	791.3	742.6	610.9	820.3	558.4	674.7	373.8	417.7	269.1	151.4	41.8	2.5	0.0	0.0	289.50	820.25
7-Jun	0.0	0.0	0.0	0.0	2.7	72.9	182.3	221.4	544.8	672.7	777.5	845.2	785.0	870.9	735.5	607.7	390.3	323.5	186.1	110.4	61.8	3.5	0.0	0.0	308.08	870.85
8-Jun	0.0	0.0	0.0	0.0	1.8	33.8	176.0	341.7	550.9	595.5	468.2	573.4	528.8	440.9	548.6	453.5	276.7	380.5	327.5	170.1	61.1	3.4	0.0	0.0	247.19	595.54
9-Jun	0.0	0.0	0.0	0.0	0.9	16.5	207.5	395.8	550.2	687.8	784.4	820.8	630.9	882.0	593.8	630.9	438.0	365.8	306.9	175.7	65.4	4.9	0.0	0.0	314.92	881.98
10-Jun	0.0	0.0	0.0	0.0	5.6	40.7	181.5	310.1	537.1	630.8	653.7	824.9	826.8	740.0	865.2	739.7	432.4	446.4	216.9	86.1	32.3	0.8	0.0	0.0	315.46	865.24
11-Jun	0.0	0.0	0.0	0.0	3.9	56.7	191.1	342.9	271.3	309.6	598.0	674.0	669.8	596.8	625.3	375.6	239.2	296.7	332.4	107.8	9.1	0.4	0.0	0.0	237.52	674.00
12-Jun	0.0	0.0	0.0	0.0	2.6	26.5	33.6	88.3	129.5	237.0	411.2	443.4	463.2	763.1	614.0	463.1	408.0	340.3	267.6	136.6	12.0	0.9	0.0	0.0	201.70	763.05
13-Jun	0.0	0.0	0.0	0.0	0.4	9.9	26.5	105.6	99.0	220.6	213.7	426.3	115.1	253.7	393.5	381.8	305.5	221.5	138.2	59.0	36.3	2.5	0.0	0.0	125.38	426.30
14-Jun	0.0	0.0	0.0	0.0	7.1	89.4	234.4	401.2	445.8	627.5	580.7	602.5	536.9	607.4	565.8	550.8	378.9	235.7	160.8	117.0	31.6	3.4	0.0	0.0	257.37	627.47
15-Jun	0.0	0.0	0.0	0.0	6.9	83.3	219.1	397.8	551.4	682.5	618.6	698.3	548.8	333.2	657.2	540.8	320.2	446.3	372.9	185.0	69.6	6.9	0.0	0.0	280.78	698.28
16-Jun	0.0	0.0	0.0	0.0	8.1	91.5	229.8	391.5	544.9	677.6	782.4	846.6	796.6	488.8	714.2	586.0	402.2	130.0	30.7	28.4	17.3	1.5	0.0	0.0	307.64	846.60
17-Jun	0.0	0.0	0.0	0.0	0.0	11.4	28.5	59.5	150.9	203.2	242.7	482.6	476.2	292.2	317.9	279.5	381.3	305.0	177.9	213.3	71.2	8.5	0.0	0.0	154.24	482.60
18-Jun	0.0	0.0	0.0	0.0	9.4	65.5	73.6	98.7	146.6	262.3	385.8	676.8	505.0	403.6	661.4	705.8	345.7	339.5	230.9	135.3	50.9	8.4	0.0	0.0	212.72	705.76
19-Jun	0.0	0.0	0.0	0.0	12.1	100.1	230.6	345.6	559.6	698.1	628.7	715.9	424.4	178.4	98.6	134.8	162.5	37.3	7.6	18.7	13.4	0.8	0.0	0.0	181.96	715.94
20-Jun	0.0	0.0	0.0	0.0	2.8	84.8	259.6	369.9	319.9	705.5	816.0	893.2	971.7	742.4	795.4	732.7	284.7	128.3	377.0	179.6	82.0	6.4	0.0	0.0	322.99	971.66
21-Jun	0.0	0.0	0.0	0.0	2.6	38.2	107.4	357.4	517.1	480.3	635.9	767.6	859.1	817.9	840.1	674.0	409.5	415.3	337.1	108.7	70.2	15.9	0.0	0.0	310.60	859.10
22-Jun	0.0	0.0	0.0	0.0	4.7	34.1	51.2	68.4	199.6	323.9	802.0	846.0	910.9	629.3	342.6	577.9	330.9	435.4	220.2	82.8	29.0	2.7	0.0	0.0	245.48	910.85
23-Jun	0.0	0.0	0.0	0.0	8.0	105.6	238.2	388.0	542.7	675.0	804.6	792.1	653.0	707.4	438.3	188.4	269.9	352.8	135.0	61.5	26.2	4.6	0.0	0.0	266.30	804.61
24-Jun	0.0	0.0	0.0	0.0	6.9	81.3	221.4	389.3	545.5	684.9	799.5	875.3	914.7	920.0	899.4	785.7	443.5	458.5	342.2	198.9	78.4	7.8	0.0	0.0	360.55	920.00
25-Jun	0.0	0.0	0.0	0.0	7.3	19.6	107.9	321.3	544.9	626.1	717.8	794.1	843.7	958.3	857.4	732.2	422.7	457.3	266.9	121.3	22.1	4.1	0.0	0.0	326.04	958.30
26-Jun	0.0	0.0	0.0	0.0	3.4	63.1	229.8	392.3	547.8	685.6	803.2	879.1	859.1	843.2	861.2	762.3	413.7	450.3	347.7	191.0	72.3	6.4	0.0	0.0	350.47	879.10
27-Jun	0.0	0.0	0.0	0.0	6.4	85.6	210.6	382.4	559.2	679.0	794.0	873.0	863.1	804.0	728.4	687.1	400.3	339.0	347.0	184.7	51.7	11.0	0.0	0.0	333.60	873.00
28-Jun	0.0	0.0	0.0	0.0	4.3	76.8	227.0	418.5	531.4	636.7	800.1	873.3	905.2	902.4	852.4	760.3	424.6	462.8	313.3	198.3	72.6	10.4	0.0	0.0	352.93	905.19
29-Jun	0.0	0.0	0.0	0.0	0.6	6.2	18.5	45.9	49.0	89.4	66.2	110.7	93.0	103.9	83.0	110.5	83.1	67.7	64.4	60.0	5.6	0.4	0.0	0.0	44.09	110.74
30-Jun	0.0	0.0	0.0	0.0	0.0	6.2	48.1	52.8	66.1	127.0	132.6	135.7	280.4	116.0	287.4	259.6	101.1	245.7	185.5	56.2	24.3	2.9	0.0	0.0	88.65	287.43
																								Diurnal Average		
																								Diurnal Maximum		
PF - Power Failure																										



WCAS - Genesee
Summary of Hourly Averages

Precipitation (PR) - mm
June 2015

Maximum Value: 0.40 mm on Jun 11 18:00 Maximum Daily Total: 0.50 mm on Jun 11																				Hours in Service: 720 Hours of Data: 718						
Minimum Value: 0.0 mm on Jun 1 01:00 Minimum Daily Total: 0.00 mm on Jun 3 Maximum Diurnal Total: 0.50 mm at hour 11 Minimum Diurnal Total: 0.00 mm at hour 1 Monthly Total: 3.000 mm Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.1																				Hours of Missing Data: 2 Hours of Calibration: 0 Percent Operational Time: 99.7						
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-Jun	0.0	0.0	0.0	0.0	0.1	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	0.20	0.10
2-Jun	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	0.0	0.10	0.10
3-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.10	0.10
5-Jun	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
6-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	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	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.50	0.40
12-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.10	0.10
14-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.50	0.10
18-Jun	0.0	0.0	0.0	0.0	0.1	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	0.1	0.0	0.0	0.0	0.30	0.10
19-Jun	0.0	0.0	0.0	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	0.10	0.10
20-Jun	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	0.0	0.0	0.0	0.1	0.0	0.0	0.20	0.10
21-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	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	0.0	0.0	0.10	0.10
23-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	0.20
24-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	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
27-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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-Jun	0.0	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	0.1	0.0	0.20	0.10
30-Jun	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	0.1	0.0	0.0	0.0	0.0	0.20	0.10
																								Diurnal Average		
																								Diurnal Maximum		
PF - Power Failure																										



WCAS - Genesee
Summary of Hourly Standard Deviations

Wind Speed (WS) - kph
June 2015

Maximum Value: 18.03 kph on Jun 11 18:00	Maximum Daily Average: 4.42 kph on Jun 12	Hours in Service: 720
Minimum Value: 0.4 kph on Jun 30 23:00	Minimum Daily Average: 2.20 kph on Jun 30	Hours of Data: 718
Maximum Diurnal Average: 4.94 kph at hour 15	Minimum Diurnal Average: 2.05 kph at hour 23	Hours of Missing Data: 2
Monthly Average: 3.288 kph	Percentiles: P ₁ = 0.8 P ₁₀ = 1.4 Q ₁ = 2.1 Median = 3.1 Q ₃ = 4.4 P ₉₀ = 5.2 P ₉₉ = 6.9	Hours of Calibration: 0
		Percent Operational Time: 99.7

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-Jun	1.7	2.0	3.0	2.5	3.5	1.0	4.1	0.8	3.1	6.3	3.9	4.7	4.7	4.5	4.8	4.1	4.6	3.6	2.9	3.1	2.9	2.7	2.2	2.8	3.31	6.30
2-Jun	1.2	1.5	2.0	2.4	1.9	2.1	2.6	2.6	2.6	2.6	3.3	4.5	4.4	4.5	4.8	5.1	4.4	5.1	4.4	4.7	3.6	3.0	2.1	3.3	3.29	5.11
3-Jun	3.3	2.6	2.0	2.0	1.7	1.5	3.5	4.2	4.6	4.3	4.8	6.1	5.4	4.8	5.6	6.1	5.5	4.5	4.4	4.2	3.1	0.9	1.8	1.7	3.69	6.15
4-Jun	1.6	1.2	1.4	1.5	1.2	1.4	1.7	2.1	2.7	4.0	4.7	4.2	4.9	6.0	5.5	5.3	6.7	4.4	2.5	2.4	1.4	2.2	1.5	3.0	3.06	6.66
5-Jun	2.8	1.8	2.1	3.1	3.2	2.6	2.0	2.4	2.3	3.3	3.9	4.1	4.7	4.9	6.2	4.4	5.4	3.4	4.1	2.9	1.4	1.4	1.8	1.9	3.17	6.23
6-Jun	2.2	4.8	4.6	1.3	1.6	1.7	1.6	3.2	3.6	4.5	5.4	5.7	4.6	5.5	4.9	4.6	4.3	5.2	3.1	2.6	2.2	1.3	0.9	2.5	3.42	5.70
7-Jun	2.4	1.6	1.2	1.8	1.6	1.1	1.9	2.8	4.7	4.1	5.5	5.4	4.8	6.1	6.0	4.7	4.0	3.3	3.1	1.7	1.2	1.9	0.8	1.1	3.03	6.10
8-Jun	2.2	1.5	1.5	1.7	1.3	7.2	6.3	3.9	4.2	4.5	4.5	6.4	4.3	4.2	6.4	5.6	5.4	4.8	4.5	5.1	5.0	2.9	2.1	3.0	4.10	7.21
9-Jun	3.7	3.3	3.1	2.1	1.9	2.5	3.1	2.3	3.3	3.4	4.9	5.6	5.0	4.9	4.0	4.9	5.4	4.0	5.7	4.0	4.7	2.4	1.6	1.6	3.65	5.70
10-Jun	1.1	1.5	1.1	2.2	2.1	2.1	1.7	2.4	2.8	5.3	4.0	4.8	5.4	3.5	4.7	5.2	4.7	4.2	3.1	3.4	2.3	2.1	2.6	4.2	3.19	5.38
11-Jun	5.8	4.3	3.1	2.6	1.0	3.8	1.6	3.5	1.7	3.5	3.7	3.9	3.8	4.0	3.9	3.3	2.0	18.0	7.0	3.5	3.0	5.4	7.1	2.7	4.26	18.03
12-Jun	3.2	2.6	2.3	2.1	5.3	4.0	3.2	3.8	2.9	3.5	3.8	4.3	4.4	5.5	5.5	7.3	5.8	9.4	5.9	5.9	7.9	5.0	1.0	1.4	4.42	9.44
13-Jun	2.1	3.3	2.2	3.4	4.2	3.9	3.4	4.5	3.9	3.5	4.5	4.7	3.9	3.6	4.6	4.9	5.1	3.9	5.1	3.8	2.7	3.6	4.0	3.9	3.86	5.14
14-Jun	3.4	2.6	2.6	2.6	3.0	2.5	2.8	4.0	4.5	4.7	5.0	4.4	5.0	4.6	5.5	4.8	5.2	3.4	2.8	2.0	2.6	1.9	1.4	1.4	3.44	5.52
15-Jun	1.3	1.1	1.2	2.7	1.3	1.2	1.8	2.3	2.4	3.5	3.3	4.3	4.0	4.3	5.2	4.6	4.5	4.2	4.3	2.5	3.1	0.9	0.8	1.7	2.78	5.21
16-Jun	0.8	1.0	1.1	1.6	2.7	1.2	2.2	2.8	3.1	3.4	3.5	4.0	5.4	4.9	5.9	6.6	6.8	3.8	2.6	3.8	2.1	1.8	PF	PF	3.23	6.83
17-Jun	3.4	3.1	2.3	2.2	2.0	2.4	3.4	1.9	1.9	1.8	2.3	3.8	3.9	3.4	3.0	2.9	3.6	3.1	2.3	2.3	1.5	0.6	0.7	0.7	2.44	3.88
18-Jun	0.9	1.0	1.6	1.8	1.8	2.4	2.4	2.5	2.6	2.4	3.4	3.6	3.2	2.8	2.5	3.5	3.3	3.1	4.2	3.4	3.0	1.2	3.2	3.7	2.64	4.20
19-Jun	2.2	2.1	2.3	1.6	1.5	1.9	1.5	2.1	4.2	4.4	4.5	4.3	4.3	3.4	3.8	2.3	6.6	5.3	5.6	3.2	2.9	3.3	3.0	2.8	3.30	6.58
20-Jun	3.3	1.5	1.2	1.2	1.1	2.3	2.3	2.5	2.3	3.9	3.7	4.2	5.0	5.2	5.3	4.6	6.3	5.3	4.7	1.7	1.6	1.4	3.0	2.3	3.16	6.31
21-Jun	2.0	3.0	2.9	2.4	1.3	2.5	2.2	3.0	3.4	4.3	4.2	4.6	4.4	4.7	4.4	5.2	5.0	4.3	4.4	2.1	1.2	1.4	1.7	2.1	3.19	5.23
22-Jun	1.9	1.2	2.0	3.5	2.1	1.4	3.4	3.7	2.3	4.5	3.9	4.5	4.8	5.1	9.3	5.5	3.8	5.7	3.3	3.6	4.3	2.9	1.2	1.7	3.57	9.35
23-Jun	3.4	4.9	4.0	3.1	1.3	1.6	2.1	2.6	2.4	3.6	3.9	3.2	3.3	3.4	4.1	2.9	5.5	5.3	3.9	4.0	2.6	2.9	1.4	1.2	3.19	5.48
24-Jun	0.8	1.1	2.8	4.4	3.0	2.2	1.5	1.7	2.5	2.7	3.1	3.7	5.4	4.7	5.4	4.8	4.3	4.5	3.4	3.2	1.5	2.8	2.3	2.3	3.09	5.44
25-Jun	1.8	0.9	4.4	2.7	2.1	2.5	2.7	1.8	3.3	3.5	3.4	5.0	6.3	5.3	4.4	5.0	5.1	3.5	3.4	3.0	2.0	2.5	1.4	7.0	3.45	6.99
26-Jun	2.1	1.3	4.5	4.2	3.5	2.8	2.8	2.4	2.6	4.0	4.0	4.5	5.1	5.0	4.7	5.4	5.0	4.2	3.6	1.4	2.5	2.2	4.0	2.2	3.50	5.38
27-Jun	0.9	4.1	3.2	2.4	1.3	1.2	2.5	1.4	2.0	2.3	3.2	3.8	4.8	6.7	5.5	4.8	4.5	2.5	3.0	2.0	1.2	1.1	1.8	1.1	2.80	6.70
28-Jun	1.1	2.5	2.6	3.8	3.2	3.1	3.6	4.0	3.7	3.7	4.5	4.5	5.2	5.3	5.6	4.7	4.5	4.8	3.8	1.4	1.3	2.2	2.2	2.5	3.49	5.56
29-Jun	0.9	1.5	2.8	1.6	1.3	3.4	4.2	2.9	5.3	2.3	2.3	2.2	2.6	3.6	4.8	3.8	2.4	3.3	2.8	2.7	2.4	1.9	1.7	1.8	2.69	5.29
30-Jun	2.0	2.6	3.1	3.1	3.0	2.3	2.5	2.0	1.9	2.8	2.7	2.4	2.7	2.2	2.0	2.7	1.6	2.2	1.7	1.3	1.1	1.9	0.4	2.5	2.20	3.14

2.18	2.25	2.48	2.45	2.21	2.40	2.69	2.74	3.10	3.68	3.91	4.38	4.52	4.55	4.94	4.66	4.71	4.75	3.85	3.03	2.61	2.26	2.05	2.42			Diurnal Average
5.78	4.86	4.62	4.39	5.28	7.21	6.27	4.48	5.29	6.30	5.50	6.35	6.31	6.70	9.35	7.30	6.83	18.03	7.04	5.87	7.94	5.38	7.05	6.99			Diurnal Maximum

PF - Power Failure

,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m³ 24-hr 100 ul/m³



WCAS - Genesee
Summary of Hourly Standard Deviations

Wind Direction (WD) - deg
June 2015

Maximum Value: 102.68 deg on Jun 14 20:00		Maximum Daily Average: 35.01 deg on Jun 23		Hours in Service: 720																																													
Minimum Value: 2.9 deg on Jun 6 04:00		Minimum Daily Average: 13.13 deg on Jun 2		Hours of Data: 718																																													
Maximum Diurnal Average: 33.99 deg at hour 16		Minimum Diurnal Average: 16.28 deg at hour 5		Hours of Missing Data: 2																																													
Monthly Average: 23.360 deg		Percentiles: P ₁ = 4.4 P ₁₀ = 8.8 Q ₁ = 11.5 Median = 17.7 Q ₃ = 29.0 P ₉₀ = 47.4 P ₉₉ = 88.9		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-Jun	6.7	6.8	22.6	52.9	13.5	4.3	20.2	40.9	18.9	62.0	14.9	17.9	19.6	20.0	22.3	23.3	23.3	18.5	17.9	11.1	10.7	8.9	7.5	9.4	19.75	62.01																							
2-Jun	16.6	17.3	23.8	14.2	20.3	15.7	10.4	15.0	15.7	10.5	13.2	14.2	11.6	13.5	15.8	19.0	12.2	12.2	10.0	9.7	6.6	5.3	5.6	6.6	13.13	23.78																							
3-Jun	7.6	8.2	5.2	4.7	14.3	16.3	19.3	10.3	11.4	14.9	15.6	18.0	17.1	16.1	21.4	15.9	15.8	15.9	15.1	9.8	10.3	9.3	15.3	12.1	13.33	21.40																							
4-Jun	9.6	13.8	12.7	18.1	9.1	20.7	16.2	14.5	18.1	24.8	21.6	27.2	31.3	23.3	19.4	14.5	47.6	19.2	17.0	84.8	24.9	32.7	26.7	29.5	24.06	84.80																							
5-Jun	64.3	37.9	9.2	15.6	22.5	7.3	12.8	22.3	15.9	23.2	21.5	31.7	47.4	49.7	41.4	23.8	34.7	34.0	53.4	49.2	33.0	16.3	7.4	5.8	28.35	64.26																							
6-Jun	18.4	67.4	27.1	2.9	7.6	8.1	7.1	9.8	10.6	17.0	15.0	32.3	24.9	40.3	38.1	81.5	28.7	26.6	18.8	16.2	4.8	6.3	8.2	29.0	22.78	81.55																							
7-Jun	33.7	6.5	8.8	12.5	4.5	5.4	13.4	14.9	13.0	17.0	20.9	25.4	26.0	37.3	25.3	31.9	52.9	69.4	56.9	9.5	20.4	13.0	4.1	4.4	21.95	69.41																							
8-Jun	35.8	13.2	12.1	7.3	11.6	28.0	9.2	11.7	14.5	11.1	16.3	20.1	15.5	16.1	15.5	16.6	17.2	12.0	11.1	16.6	18.5	14.3	10.8	91.9	18.62	91.92																							
9-Jun	14.4	9.0	12.1	13.2	9.0	10.0	7.3	11.3	13.5	16.0	22.9	32.9	50.6	45.9	34.5	35.2	25.8	21.2	12.3	9.6	9.5	10.4	35.9	21.7	20.18	50.58																							
10-Jun	12.6	46.2	27.1	69.1	61.0	71.1	74.4	18.4	23.7	23.2	17.2	26.7	21.2	11.5	17.1	15.6	18.9	19.4	10.4	11.4	10.3	11.1	33.7	37.6	28.70	74.42																							
11-Jun	59.1	21.5	23.6	8.4	5.5	32.7	20.3	50.0	12.4	44.4	38.7	43.7	34.5	34.6	26.0	21.0	17.4	31.7	13.2	10.7	14.2	20.1	12.3	9.6	25.23	59.14																							
12-Jun	10.1	20.8	13.6	23.3	48.7	10.0	13.5	12.0	9.1	10.6	13.7	17.9	16.3	26.6	27.5	16.9	14.9	11.5	9.7	8.3	10.8	15.0	14.4	6.8	15.91	48.67																							
13-Jun	9.5	12.7	14.7	10.5	12.2	12.1	11.2	13.3	10.1	14.6	14.7	15.1	11.1	21.2	19.1	18.7	17.4	16.8	9.7	14.7	11.0	10.6	11.2	9.3	13.40	21.21																							
14-Jun	7.8	9.1	9.2	7.0	11.8	10.3	9.8	10.8	12.1	21.6	20.6	20.0	19.0	19.7	22.8	17.7	19.0	31.4	39.6	102.7	55.3	8.9	8.2	5.1	20.81	102.68																							
15-Jun	4.3	5.3	5.2	9.6	6.8	7.8	6.1	12.9	21.1	28.7	49.6	26.1	47.5	26.7	35.9	41.8	32.0	27.9	21.3	15.2	7.6	6.5	11.3	9.3	19.43	49.59																							
16-Jun	18.1	7.8	14.8	18.7	12.7	15.6	11.3	26.7	38.6	68.0	40.2	36.4	31.2	41.7	37.7	39.1	40.7	18.1	26.3	56.0	58.8	16.1	PF	PF	30.67	68.01																							
17-Jun	17.0	16.1	14.9	8.6	8.8	9.7	28.5	15.0	23.8	26.0	27.2	47.3	41.4	33.3	23.9	25.9	27.1	23.2	15.5	17.7	10.2	5.7	9.7	5.5	20.09	47.31																							
18-Jun	11.6	6.6	7.2	10.7	11.2	11.0	10.9	17.3	13.0	34.8	34.6	31.1	23.5	43.3	94.3	63.8	94.6	51.8	43.9	10.3	10.0	10.5	12.4	44.4	29.28	94.56																							
19-Jun	37.0	58.6	29.5	11.4	16.5	31.9	36.0	19.1	20.0	16.9	17.9	16.8	17.6	19.4	15.1	50.7	22.2	13.2	26.1	11.5	14.3	13.7	10.4	11.5	22.38	58.65																							
20-Jun	31.3	6.6	11.9	8.6	4.8	7.5	9.1	19.0	27.4	19.3	18.9	24.5	20.9	20.1	26.7	90.1	17.4	49.6	14.3	17.6	73.4	98.3	46.7	49.6	29.74	98.25																							
21-Jun	10.1	22.6	35.6	23.5	8.9	15.5	8.3	11.9	17.3	21.7	21.3	29.8	41.7	53.0	40.8	32.5	26.9	14.4	18.1	17.9	36.1	25.1	20.6	13.7	23.64	52.96																							
22-Jun	49.3	18.0	11.5	27.4	14.4	5.1	21.9	25.1	71.7	27.5	38.6	48.5	35.1	46.5	56.0	38.6	45.8	23.8	11.8	20.3	15.9	77.9	6.9	8.9	31.11	77.90																							
23-Jun	10.9	33.0	39.2	61.1	16.2	17.4	22.6	18.0	22.3	41.8	85.6	94.9	67.6	51.0	38.9	23.7	21.9	17.8	9.3	13.0	43.2	73.2	7.6	9.8	35.01	94.87																							
24-Jun	9.0	8.7	5.0	14.3	7.9	23.5	6.9	11.9	18.1	20.7	20.9	26.5	35.9	28.2	34.2	48.8	46.3	65.7	39.1	26.4	4.2	11.5	20.3	40.5	23.94	65.72																							
25-Jun	8.0	4.1	28.4	19.7	22.6	16.3	9.6	10.2	23.4	29.1	33.0	30.8	37.6	36.2	31.7	65.1	40.9	33.5	32.4	18.1	16.0	18.7	23.5	72.8	27.57	72.75																							
26-Jun	37.1	16.2	16.2	11.0	10.3	8.2	13.7	14.6	21.9	24.8	18.6	23.4	66.7	48.4	62.7	37.5	57.0	57.5	30.3	15.7	16.2	22.6	44.4	17.2	28.84	66.72																							
27-Jun	15.7	11.9	10.5	78.4	47.5	17.1	27.5	27.8	22.1	39.8	39.0	50.0	36.8	41.5	24.5	26.7	27.1	17.2	17.2	9.5	8.9	18.0	18.3	14.2	26.97	78.45																							
28-Jun	14.2	48.7	9.6	64.3	15.4	6.6	6.9	7.5	9.0	13.8	18.2	15.4	20.1	20.7	17.9	26.8	43.0	26.8	38.3	12.7	38.3	48.6	20.1	24.1	23.62	64.27																							
29-Jun	14.9	21.3	30.1	10.5	16.1	66.3	52.3	42.6	66.2	31.4	10.5	10.6	9.6	10.3	11.1	11.0	12.2	12.0	10.3	10.1	13.8	14.1	12.0	14.6	21.41	66.31																							
30-Jun	15.3	15.7	14.4	14.7	17.1	17.6	15.9	19.6	11.7	13.9	11.8	11.5	12.5	12.7	26.8	45.9	49.1	52.2	20.4	7.7	8.4	12.3	67.3	21.8	21.51	67.26																							
																								20.34	19.72	16.86	21.74	16.28	17.64	17.75	18.49	20.90	25.64	25.09	28.90	29.73	30.29	30.81	33.99	31.66	28.15	22.32	21.46	20.52	21.82	18.38	21.96	Diurnal Average	
																								64.26	67.43	39.21	78.45	61.03	71.10	74.42	49.98	71.74	68.01	85.60	94.87	67.64	52.96	94.27	90.10	94.56	69.41	56.88	102.68	73.38	98.25	67.26	91.92	Diurnal Maximum	

PF - Power Failure

,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m³ 24-hr 100 ul/m³

WEST CENTRAL AIRSHED SOCIETY

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

**END OF REPORT
JUNE 2015**