

Hinton Pulp
A division of West Fraser Mills Limited
Hinton, Alberta

AIR QUALITY MONITORING
January 2015
Monthly Report

Prepared by:

West Central Airshed Society
Drayton Valley, Alberta





February 9th, 2015

Hinton Pulp
A Division of West Fraser Mills Ltd.
Mr. Phil Whitney
760 Switzer Drive
Hinton, Alberta
T7V 1V7

Dear Mr. Whitney:

**Monthly Ambient Air Quality Monitoring Report for January 2015
For Hinton Pulp – A Division of West Fraser Mills Ltd.**

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

Network Station is AMS 906 Hinton
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 eleven (11) readings occurring in January 2015 in excess of the one – hour average guidelines as indicated in Air Monitoring Directive Section III.A.3. (a) for H₂S. The maximum one-hour average reading was 28.20 ppb, occurring January 24th. There were three (3) readings in January 2015 in excess of the twenty–four hour average guidelines as indicated in Air Monitoring Directive Section III.A.3. (a) for H₂S. The maximum 24-hour average reading was 7.11 ppb.

2. Operational times less than 90 percent:

There were no operational times less than 90 percent in the month of January.

Forest Products Industry Monthly Report Summary

Hinton
Plant Name/Location

Hinton Pulp - A Division of West Fraser Mills Ltd.
Company

License Number	Report Date	
	Year	Month
	2015	JANUARY

TOTAL EMISSIONS FOR MONTH (IN TONNES)

POLLUTANT	INCINERATOR STACK	FLARE	MISCELLANEOUS
SO ₂			

"HOURS" OF EXCEEDED STACK LICENSED LIMITS (CEM)

POLLUTANT	STACK TYPE	1-HR AVG CONCENTRATION	1-HR AVG MASS EMISSION	24-HR AVG MASS EMISSION	STACK TOP TEMP.	% TIME STACK MONITOR OPERATIONAL
SO ₂						

STATIC AMBIENT MONITORING

PARAMETER	NO. OF STATIONS	PEAK READING	AVG. OF NETWORK	NO. OF STATIONS OVER GUIDELINES
T.S.				
H ₂ S				

CONTINUOUS AMBIENT MONITORING

PARAMETER	STATION NUMBER	% TIME OPERATIONAL	1-HR AVERAGE		24-HR AVERAGE	
			MAXIMUM CONCENTRATION (ppm)	NO. READINGS > REGULATIONS	MAXIMUM CONCENTRATION (ppm)	NO. READINGS > REGULATIONS
Wind	906	100.0	n/a	n/a	n/a	n/a
TRS	906	100.0	0.028	12	0.711	4
PM _{2.5}	906	100.0	35.7 µg/m ³	0	12.74 µg/m ³	0

28.2 711

SIGNATURE OF COMPANY REPRESENTATIVE

FOR ALBERTA ENVIRONMENT USE ONLY

3. Monitoring Notes:

AMS 906 (Hinton)

All analyzers and meteorological equipment returned uptimes of 100 percent.

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

Sincerely,



Robert Scotten
Executive Director



Patrick Andersen
Environmental Specialist

WEST CENTRAL AIRSHED SOCIETY

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

**AMS 906
HINTON
JANUARY 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

Hinton Pulp / Hinton Station 906												24 Hour Average Max (ppm)
January 2015												
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Min	Max	P10	Q1	Percentile Median	Q3	P90	
TRS (ppb)	35	709	100.0	1.4	0.0	28.0	0.2	0.3	0.7	1.7	3.1	0.007
SO ₂ (ppb)	34	710	100.0	0.5	0.0	9.3	0.0	0.0	0.1	0.4	1.2	0.003
O ₃ (ppb)	38	706	100.0	22.8	0.2	44.5	2.5	10.9	22.5	34.8	38.8	0.039
NO (ppb)	36	708	100.0	8.4	0.0	174.3	0.2	0.4	1.6	6.7	20.5	-
NO ₂ (ppb)	36	708	100.0	11.4	0.4	47.0	2.7	5.0	9.4	15.7	22.6	0.024
NO _x (ppb)	36	708	100.0	19.7	0.4	212.7	3.2	5.9	11.5	23.3	42.7	-
Particulate Matter 2.5 microns (µ/m ³)	0	744	100.0	6.9	0.0	35.7	2.6	4.0	5.9	8.6	11.9	12.74 ug/m3
Wind Speed (kph)	0	744	100.0	4.3	0.0	16.6	0.6	1.3	3.1	6.5	10.2	-
Temperature (°C)	0	744	100.0	-4.3	-33.0	13.1	-19.6	-12.5	-2.0	3.9	7.0	-
Relative Humidity (%)	0	744	100.0	62.8	21.1	91.7	36.5	46.5	67.0	79.0	84.7	-
Std Dev Wind Direction (deg)	0	744	100.0	47.0	16.2	111.9	23.8	30.3	41.3	57.5	82.8	-
Std Dev Wind Speed (kph)	0	744	100.0	2.9	0.1	9.2	1.0	1.4	2.3	4.2	5.8	-



WCAS - Hinton
Summary of Hourly Averages

Total Reduced Sulphur (TRS) - ppb
January 2015

Maximum Value: 28.20 ppb on Jan 24 09:00		Maximum Daily Average: 7.11 ppb on Jan 12		Hours in Service: 744																																													
Minimum Value: 0 ppb on Jan 13 23:00		Minimum Daily Average: 0.17 ppb on Jan 2		Hours of Data: 709																																													
Maximum Diurnal Average: 2.61 ppb at hour 9		Minimum Diurnal Average: 0.86 ppb at hour 5		Hours of Missing Data: 35																																													
Monthly Average: 1.445 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.7 Q ₃ = 1.7 P ₉₀ = 3.1 P ₉₉ = 12.6		Hours of Calibration: 35																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jan	0	0	0	Z	0	0	2	2	0	3	1	3	2	0	1	1	0	0	0	1	1	1	1	1	0.88	2.98																							
2-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.17	0.35																							
3-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	4	0.57	3.89																							
4-Jan	1	1	1	Z	1	1	1	4	8	2	5	6	7	3	2	1	1	1	1	1	1	0	0	0	2.07	7.56																							
5-Jan	0	0	0	Z	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.93	3.60																							
6-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.29	0.38																							
7-Jan	0	0	0	Z	0	0	0	0	0	2	6	5	2	1	2	2	1	1	0	0	0	0	0	0	1.14	5.91																							
8-Jan	0	0	0	Z	0	1	1	2	2	1	1	0	1	3	4	4	3	2	1	1	1	2	3	1	1.49	4.34																							
9-Jan	0	0	0	Z	0	2	4	3	3	3	2	2	3	3	1	1	1	4	3	3	2	1	3	2	2.09	3.86																							
10-Jan	2	2	2	Z	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.52	2.04																							
11-Jan	0	0	0	Z	0	2	6	7	6	3	3	5	8	8	7	4	3	3	3	2	3	2	6	6	3.75	8.42																							
12-Jan	10	7	19	Z	5	4	13	23	13	11	14	12	5	5	4	0	0	3	5	7	1	0	3	1	7.11	22.89																							
13-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	3	0	0	0	0.39	3.02																							
14-Jan	3	3	3	Z	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	1	1	0	0.73	3.37																							
15-Jan	1	2	1	Z	0	1	0	1	1	0	1	1	3	3	0	1	1	0	0	0	1	0	1	1	0.94	3.03																							
16-Jan	1	1	0	Z	1	1	1	3	3	2	1	2	1	1	1	0	1	0	1	1	3	3	3	1	1.33	3.22																							
17-Jan	1	2	2	Z	2	2	2	3	1	2	1	2	2	3	3	3	2	2	2	5	3	3	3	0	2.25	4.50																							
18-Jan	0	0	0	Z	1	1	2	1	0	0	1	1	1	0	0	1	1	1	2	4	2	1	1	2	1.03	4.39																							
19-Jan	3	1	1	Z	2	1	1	3	2	3	2	2	1	3	2	1	1	2	4	3	2	3	1	1	1.93	3.64																							
20-Jan	2	1	1	Z	1	1	2	4	2	1	3	C	C	C	C	2	1	1	2	3	1	3	1	0	1.74	3.71																							
21-Jan	0	0	0	Z	1	0	0	1	0	0	1	3	2	3	3	2	4	2	2	2	2	3	1	2	1.45	4.40																							
22-Jan	2	1	1	Z	0	2	2	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0.81	2.25																							
23-Jan	0	0	0	Z	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	1	1	0	0	0	0.60	1.44																							
24-Jan	0	0	0	Z	2	1	0	1	28	11	23	2	3	5	18	8	4	1	3	0	2	2	3	3	5.21	28.20																							
25-Jan	2	1	0	Z	1	1	0	0	0	2	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0.58	2.31																							
26-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.28	0.65																							
27-Jan	0	0	0	Z	0	0	1	1	2	4	1	0	0	0	0	0	0	0	1	1	1	0	1	2	0.72	4.30																							
28-Jan	2	1	1	Z	1	1	1	1	2	1	2	2	2	1	1	2	2	0	2	1	0	0	0	0	1.13	2.23																							
29-Jan	1	0	0	Z	0	0	0	0	0	0	1	1	2	0	2	2	1	3	1	3	2	1	1	0	0.97	3.46																							
30-Jan	1	1	1	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.36	1.09																							
31-Jan	0	0	0	Z	0	0	0	0	1	1	1	0	2	8	4	2	3	1	1	2	1	1	1	2	1.37	7.73																							
																								1.12	0.89	1.22	--	0.86	0.91	1.45	2.08	2.61	1.87	2.33	1.72	1.71	1.82	2.04	1.39	1.05	1.05	1.20	1.50	1.22	1.02	1.17	1.05	Diurnal Average	
																								9.73	6.89	19.28	--	4.65	4.05	12.58	22.89	28.20	11.34	23.24	12.18	8.42	8.23	18.44	8.05	4.40	3.86	4.72	6.89	3.22	3.01	5.87	5.91	Diurnal Maximum	
Z - zerospan																								C - Calibration																									
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

Sulphur Dioxide (SO₂) - ppb
January 2015

Maximum Value: 9.29 ppb on Jan 21 17:00 Maximum Daily Average: 2.78 ppb on Jan 17																				Hours in Service: 744 Hours of Data: 710 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0							
Minimum Value: 0.0 ppb on Jan 1 01:00 Minimum Daily Average: 0.00 ppb on Jan 1 Maximum Diurnal Average: 1.05 ppb at hour 16 Minimum Diurnal Average: 0.21 ppb at hour 10 Monthly Average: 0.485 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.4 P ₉₀ = 1.2 P ₉₉ = 5.7																											
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-Jan	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-Jan	0.0	0.0	0.0	Z	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	0.00	0.05
3-Jan	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.2	0.4	0.4	0.2	0.2	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.14	0.39
4-Jan	0.0	0.0	0.0	Z	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	0.2	0.2	0.2	0.2	0.03	0.25
5-Jan	0.2	0.3	0.3	Z	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.1	0.2	0.0	0.1	0.0	0.09	0.31	
6-Jan	0.1	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.3	0.5	0.20	0.47	
7-Jan	0.3	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.4	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	0.42	
8-Jan	0.0	0.0	0.0	Z	0.3	0.0	0.0	0.4	0.5	0.3	0.4	0.1	0.1	0.2	0.3	0.7	0.3	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.22	0.66	
9-Jan	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.02	0.19	
10-Jan	0.0	0.0	0.0	Z	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	0.0	0.01	0.06	
11-Jan	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.2	0.3	0.4	0.7	0.3	0.5	1.0	1.0	1.1	1.2	1.0	0.4	0.3	0.38	1.20	
12-Jan	0.3	0.2	0.4	Z	0.2	0.3	0.3	0.3	0.5	0.7	1.3	1.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.25	1.29	
13-Jan	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.01	0.12	
14-Jan	0.8	1.1	1.1	Z	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.8	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.23	1.12	
15-Jan	0.1	0.2	0.1	Z	0.0	0.1	0.0	0.2	0.3	0.0	0.4	0.6	3.6	3.9	0.2	2.8	0.4	0.0	0.3	0.6	4.2	0.3	2.3	2.8	1.01	4.19	
16-Jan	1.5	1.7	0.7	Z	0.6	0.3	0.8	1.2	3.4	1.0	0.8	2.7	1.1	1.4	0.5	0.1	0.0	0.0	0.4	0.4	0.6	1.5	1.7	2.3	1.07	3.41	
17-Jan	2.6	5.8	3.7	Z	5.0	4.0	3.0	1.3	0.6	0.4	0.2	2.2	5.5	5.0	5.9	6.3	1.4	2.4	1.8	2.0	1.7	1.9	1.3	0.1	2.78	6.34	
18-Jan	0.1	0.0	0.0	Z	0.0	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.7	1.7	1.1	0.4	0.1	0.6	0.25	1.73	
19-Jan	1.0	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.3	0.2	0.8	0.2	0.1	0.1	0.0	0.0	0.2	0.4	0.1	0.0	0.0	0.20	1.00	
20-Jan	0.0	0.0	0.0	Z	0.2	0.3	0.6	1.0	0.7	C	C	C	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.4	0.5	0.2	0.0	0.0	0.23	1.05	
21-Jan	0.1	0.1	0.1	Z	0.1	0.0	0.1	0.5	0.0	0.0	1.6	6.3	5.7	5.8	6.5	5.1	9.3	1.8	1.2	2.3	2.9	3.6	2.5	5.3	2.65	9.29	
22-Jan	4.2	2.7	1.0	Z	0.3	0.8	1.2	0.6	0.0	0.4	0.2	0.6	0.6	0.3	0.9	0.8	0.9	0.9	0.5	0.3	1.0	1.3	0.7	0.0	0.89	4.20	
23-Jan	0.0	0.4	1.0	Z	0.4	1.6	1.5	1.2	1.6	0.8	0.7	0.2	0.3	1.7	2.1	0.3	0.1	0.0	0.0	1.0	0.8	0.6	0.4	0.0	0.72	2.12	
24-Jan	0.1	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.7	0.5	3.2	3.0	9.3	7.2	1.2	5.3	0.2	2.3	1.1	1.3	3.1	1.69	9.29	
25-Jan	0.9	0.4	0.3	Z	0.6	1.0	0.2	0.4	0.1	0.3	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.4	0.4	0.2	0.2	0.2	0.1	0.28	1.02	
26-Jan	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.2	0.3	0.1	0.2	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.15	0.54	
27-Jan	0.1	0.0	0.1	Z	0.0	0.1	0.3	0.4	0.4	0.3	0.1	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.12	0.43	
28-Jan	0.2	0.3	0.2	Z	0.1	0.3	0.4	0.6	0.7	0.4	0.5	0.2	0.5	0.3	1.1	2.2	1.7	0.1	0.3	0.3	0.0	0.0	0.1	0.2	0.47	2.22	
29-Jan	0.2	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.4	3.4	2.5	0.3	1.1	0.7	1.2	0.3	0.2	0.1	0.1	0.49	3.38	
30-Jan	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.0	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.11	0.22	
31-Jan	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.4	0.2	0.1	0.3	0.3	0.1	0.2	0.2	0.2	0.2	0.7	0.6	0.1	0.1	0.2	0.18	0.68	
																								Diurnal Average			
																								Diurnal Maximum			
0.43 0.45 0.31 -- 0.26 0.30 0.31 0.30 0.33 0.21 0.28 0.56 0.68 0.83 0.87 1.05 0.77 0.33 0.46 0.45 0.60 0.42 0.40 0.53 4.20 5.80 3.67 -- 5.02 3.96 2.98 1.35 3.41 0.95 1.61 6.27 5.71 5.84 6.51 9.29 9.29 2.38 5.30 2.33 4.19 3.61 2.46 5.28																											
Z - zerospan C - Calibration Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											



WCAS - Hinton
Summary of Hourly Averages

Ozone (O₃) - ppb
January 2015

Maximum Value: 44.47 ppb on Jan 16 17:00																						Maximum Daily Average: 38.78 ppb on Jan 21																						Hours in Service: 744					
Minimum Value: 0.2 ppb on Jan 10 01:00																						Minimum Daily Average: 5.22 ppb on Jan 11																						Hours of Data: 706					
Maximum Diurnal Average: 28.16 ppb at hour 15																						Minimum Diurnal Average: 18.10 ppb at hour 9																						Hours of Missing Data: 38					
Monthly Average: 22.754 ppb																						Percentiles: P ₁ = 0.9 P ₁₀ = 2.5 Q ₁ = 10.9 Median = 22.5 Q ₃ = 34.8 P ₉₀ = 38.8 P ₉₉ = 42.3																						Hours of Calibration: 38					
																																												Percent Operational Time: 100.0					
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jan	34.4	34.1	34.3	Z	33.3	32.0	31.6	30.2	29.8	29.8	28.8	30.8	31.9	31.2	30.0	29.4	25.4	22.2	20.8	19.1	13.9	15.1	14.6	18.2	27.00	34.45																							
2-Jan	22.2	20.4	21.0	Z	28.9	30.2	29.8	26.2	21.8	24.6	32.0	31.6	33.0	33.3	33.4	33.8	33.6	33.8	33.8	33.0	32.7	32.3	33.1	34.2	29.94	34.24																							
3-Jan	33.8	33.8	34.0	Z	33.9	32.9	31.2	30.6	28.4	30.2	32.0	33.7	35.4	35.6	34.6	31.6	19.3	6.0	2.8	5.1	6.5	9.4	10.7	14.7	24.61	35.61																							
4-Jan	10.5	9.5	11.6	Z	11.4	10.9	11.8	14.4	10.2	10.5	10.7	13.8	13.0	16.8	22.3	19.6	12.9	16.7	19.9	21.2	21.9	24.0	23.9	23.4	15.70	23.96																							
5-Jan	21.7	22.2	19.5	Z	9.4	10.8	4.1	11.1	10.2	9.6	10.7	16.8	16.2	16.4	10.8	10.5	11.0	5.0	9.0	13.5	14.3	14.8	16.1	16.6	13.06	22.22																							
6-Jan	16.3	16.8	18.5	Z	22.0	21.3	21.2	21.7	20.5	20.6	21.0	25.2	23.5	23.7	21.8	20.0	20.8	18.7	16.2	17.9	18.9	18.0	20.2	20.3	20.24	25.23																							
7-Jan	17.0	15.8	14.5	Z	13.9	12.4	9.0	1.7	4.1	1.6	7.8	12.6	9.3	9.2	5.1	1.8	1.9	5.9	21.5	29.5	27.7	28.3	29.6	32.0	13.58	32.01																							
8-Jan	32.0	33.3	32.6	Z	27.4	21.9	13.6	2.4	1.1	3.6	6.4	18.7	22.6	20.3	21.4	24.0	10.3	3.4	2.3	1.1	0.9	2.1	2.3	2.5	13.32	33.29																							
9-Jan	5.3	3.5	2.9	Z	2.8	4.9	2.6	1.8	1.6	2.6	7.0	17.2	14.9	13.6	26.2	29.7	29.3	16.2	4.9	0.3	0.3	0.7	0.6	2.3	8.31	29.73																							
10-Jan	0.2	2.4	5.6	Z	11.0	8.8	14.4	21.4	20.7	21.9	22.6	21.7	19.8	21.2	19.5	16.3	15.4	16.6	16.3	18.3	15.1	19.2	19.1	17.4	15.85	22.56																							
11-Jan	17.5	14.0	17.4	Z	12.0	3.0	0.4	0.4	1.5	1.5	4.6	5.1	6.4	7.8	6.3	6.8	3.2	2.2	1.7	2.0	1.7	1.5	1.6	1.4	5.22	17.47																							
12-Jan	1.8	1.8	2.7	Z	1.5	1.6	1.7	1.4	1.4	1.9	2.5	4.4	16.5	26.2	30.5	35.0	34.1	17.9	13.5	19.0	36.5	36.6	35.0	37.3	15.69	37.28																							
13-Jan	36.7	36.9	37.6	Z	38.0	36.9	36.0	36.5	35.7	37.2	37.7	36.6	36.8	37.2	35.6	36.9	37.3	34.8	32.5	26.2	33.1	37.7	40.5	37.0	36.14	40.46																							
14-Jan	33.7	36.1	36.4	Z	40.2	37.4	34.4	34.4	32.3	36.2	37.9	38.1	35.2	36.2	37.5	36.3	34.9	38.0	37.9	24.5	16.7	18.9	26.0	35.0	33.66	40.24																							
15-Jan	34.9	33.2	32.6	Z	32.8	22.3	17.8	8.9	23.4	32.8	37.1	38.7	39.1	37.7	43.2	39.8	41.8	42.4	43.2	42.6	38.9	41.7	39.0	38.7	34.89	43.24																							
16-Jan	40.5	38.7	40.9	Z	34.4	40.4	36.5	33.3	30.8	32.3	34.7	29.8	31.2	33.1	40.1	44.2	44.5	44.1	38.2	37.6	34.4	32.7	33.3	39.2	36.73	44.47																							
17-Jan	38.2	31.5	34.7	Z	36.5	36.3	36.0	33.3	38.8	32.6	22.6	39.0	38.9	40.4	38.3	36.6	41.3	38.6	39.8	36.4	36.2	37.3	39.4	41.5	36.70	41.48																							
18-Jan	41.3	41.1	39.9	Z	38.5	35.0	33.7	18.1	10.3	23.5	31.6	35.6	32.8	26.5	18.2	14.3	11.9	14.1	29.6	28.9	31.1	35.5	35.1	36.7	28.84	41.32																							
19-Jan	35.6	39.0	38.0	Z	39.7	40.7	40.0	37.0	37.8	34.4	35.4	38.0	36.3	34.2	39.9	38.8	39.9	31.9	16.6	13.8	4.0	10.4	20.6	18.6	31.33	40.67																							
20-Jan	22.2	15.6	8.6	Z	2.8	1.9	1.9	2.4	C	C	C	C	C	C	C	37.6	36.6	30.2	17.9	4.4	2.3	15.0	35.8	37.6	--	37.64																							
21-Jan	39.7	39.6	38.4	Z	37.4	39.9	40.5	40.6	41.7	40.9	41.6	39.4	41.2	41.1	39.3	39.8	32.9	38.7	38.7	36.4	35.7	35.5	38.4	34.5	38.78	41.65																							
22-Jan	36.0	39.0	40.7	Z	40.0	32.7	29.0	34.2	40.8	34.9	37.2	36.0	36.9	39.3	33.7	34.5	34.4	30.4	35.0	38.7	33.8	35.3	38.4	41.2	36.18	41.16																							
23-Jan	42.0	39.2	37.8	Z	38.1	31.7	32.1	34.5	28.7	34.4	34.0	22.7	22.3	34.3	33.9	35.2	29.7	23.6	33.6	31.0	27.8	27.9	29.7	30.6	31.95	41.99																							
24-Jan	29.0	25.7	27.6	Z	20.8	24.6	33.3	25.6	12.6	16.2	27.3	40.2	43.4	42.5	42.0	40.8	39.9	40.8	38.2	40.3	36.3	35.7	34.0	31.0	32.52	43.40																							
25-Jan	30.9	28.4	31.6	Z	30.3	26.5	29.5	28.2	25.3	9.7	21.6	22.3	29.0	33.2	34.0	32.0	28.2	20.3	2.9	2.6	8.0	2.6	1.8	1.7	20.89	33.98																							
26-Jan	2.0	3.3	11.4	Z	6.6	2.1	2.4	2.1	2.0	4.6	10.9	13.1	17.3	20.1	19.6	19.3	30.5	26.2	16.5	16.3	16.3	14.3	12.3	13.8	12.32	30.53																							
27-Jan	12.2	11.8	8.1	Z	3.2	1.6	1.5	1.6	1.6	1.9	2.9	7.3	9.0	7.5	8.2	7.1	7.2	6.5	19.6	32.1	18.1	10.1	4.6	8.8	8.37	32.09																							
28-Jan	4.3	1.3	1.4	Z	0.9	1.0	1.0	1.2	1.3	1.2	2.9	9.9	28.7	42.3	41.5	38.1	39.3	41.4	21.6	10.0	19.2	17.1	6.1	2.4	14.53	42.34																							
29-Jan	1.7	2.9	10.6	Z	12.7	8.0	9.0	7.4	5.5	3.3	3.5	8.7	28.8	41.0	37.2	38.1	38.2	36.5	37.1	34.2	18.5	10.1	9.2	28.8	18.73	40.98																							
30-Jan	32.9	33.2	16.7	Z	19.6	14.1	24.6	16.9	21.4	21.9	18.4	21.7	24.0	23.2	21.1	19.4	22.8	19.4	18.2	17.7	17.2	17.7	18.0	17.6	20.78	33.23																							
31-Jan	17.5	19.3	19.8	Z	19.7	16.6	7.8	3.8	1.6	4.3	11.5	17.3	19.8	19.0	19.5	17.8	9.7	6.5	6.6	1.3	1.1	1.2	2.8	2.8	10.76	19.85																							
																								24.01	23.34	23.46	--	22.58	20.66	19.95	18.18	18.10	18.69	21.16	24.20	26.45	28.14	28.16	27.90	26.39	23.52	22.14	21.13	19.97	20.60	21.67	23.16	Diurnal Average	
																								41.99	41.12	40.89	--	40.24	40.67	40.51	40.62	41.65	40.93	41.60	40.17	43.40	42.52	43.24	44.15	44.47	44.08	43.19	42.59	38.87	41.66	40.46	41.48	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82.5 ppb 24-hr -- ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Oxide (NO) - ppb
January 2015

Maximum Value: 174.32 ppb on Jan 12 11:00		Maximum Daily Average: 44.84 ppb on Jan 11		Hours in Service: 744																																													
Minimum Value: 0.0 ppb on Jan 2 18:00		Minimum Daily Average: 0.36 ppb on Jan 2		Hours of Data: 708																																													
Maximum Diurnal Average: 16.59 ppb at hour 11		Minimum Diurnal Average: 1.79 ppb at hour 2		Hours of Missing Data: 36																																													
Monthly Average: 8.381 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.4 Median = 1.6 Q ₃ = 6.7 P ₉₀ = 20.5 P ₉₉ = 110.0		Hours of Calibration: 36																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jan	0.2	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.6	0.5	0.3	0.3	1.1	1.0	0.9	1.5	0.6	0.5	0.4	0.44	1.50																							
2-Jan	0.4	0.2	0.5	Z	0.1	0.8	0.4	0.6	2.0	1.1	0.2	0.3	0.2	0.4	0.2	0.3	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.36	2.04																							
3-Jan	0.0	0.0	0.0	Z	0.2	1.1	2.6	0.7	0.6	0.2	0.4	1.4	1.8	1.9	2.9	1.8	10.5	27.2	31.9	7.3	3.9	5.7	1.8	0.6	4.54	31.87																							
4-Jan	3.6	2.5	1.0	Z	0.9	2.2	1.4	0.9	1.4	3.8	17.3	19.8	25.4	19.7	6.8	5.3	3.3	0.9	2.0	1.8	1.2	0.8	0.9	0.1	5.35	25.37																							
5-Jan	0.3	0.0	0.0	Z	0.7	1.4	15.1	3.1	2.9	5.6	12.3	6.2	8.5	8.7	17.7	14.3	5.4	8.9	4.3	3.9	2.4	1.0	0.8	1.0	5.42	17.71																							
6-Jan	0.7	0.3	0.6	Z	0.1	0.3	1.4	3.0	2.0	2.1	2.7	3.4	6.3	4.2	5.2	5.2	4.0	5.2	7.7	3.2	1.4	1.7	1.6	0.4	2.72	7.73																							
7-Jan	1.6	0.5	1.3	Z	1.5	1.2	3.1	6.5	6.6	20.2	13.1	13.2	18.9	29.4	41.6	62.7	29.7	9.4	1.3	0.2	0.3	0.2	0.2	0.1	11.42	62.71																							
8-Jan	0.1	0.2	0.8	Z	2.0	1.9	6.3	55.7	65.5	33.4	58.0	14.8	12.3	17.7	13.0	4.9	13.8	40.1	35.1	37.2	35.3	9.1	7.4	7.1	20.51	65.48																							
9-Jan	3.8	2.6	3.2	Z	4.6	3.0	2.6	4.9	9.1	18.6	19.4	5.3	22.4	16.9	2.7	0.8	0.4	3.6	17.1	39.4	24.7	7.6	22.9	5.3	10.48	39.44																							
10-Jan	12.2	2.9	1.7	Z	1.8	3.3	2.2	1.3	2.5	2.6	4.4	3.8	5.9	6.4	5.6	5.5	5.2	2.7	2.4	2.8	1.3	0.8	1.2	1.6	3.48	12.23																							
11-Jan	0.2	0.2	0.5	Z	1.0	10.8	17.5	10.6	4.1	13.4	12.1	26.3	37.2	47.3	69.6	28.8	57.7	106.4	122.0	132.5	144.6	114.4	36.8	37.7	44.84	144.56																							
12-Jan	20.1	9.0	31.2	Z	11.2	20.7	26.2	34.9	61.5	92.3	174.3	127.1	11.5	4.3	2.8	1.5	1.0	2.0	9.2	1.2	0.2	0.5	0.2	0.1	27.96	174.32																							
13-Jan	0.2	0.1	0.3	Z	0.2	0.3	0.4	0.5	0.4	0.5	0.5	1.0	1.3	0.8	1.2	1.1	0.6	1.7	1.8	6.7	0.2	0.7	0.5	2.5	1.02	6.72																							
14-Jan	0.3	0.2	0.2	Z	0.6	2.3	5.6	3.5	4.5	1.0	1.8	1.5	2.7	3.0	1.9	1.0	0.8	0.5	0.4	0.8	0.2	0.5	0.4	0.2	1.47	5.60																							
15-Jan	0.1	0.1	0.1	Z	2.0	2.2	5.7	29.1	7.1	4.2	1.7	1.2	1.8	2.0	0.7	0.9	0.2	0.2	0.4	0.2	0.3	0.5	0.5	0.4	2.68	29.09																							
16-Jan	0.3	0.3	0.3	Z	1.5	0.2	0.3	0.4	0.6	0.4	0.4	1.7	2.0	2.4	0.7	0.1	0.0	0.0	0.3	0.1	0.2	0.5	0.5	0.2	0.57	2.40																							
17-Jan	0.2	1.3	0.8	Z	0.8	0.6	0.5	0.2	0.2	1.3	11.4	1.6	3.0	2.7	3.2	2.7	0.5	0.3	0.2	0.2	0.3	0.4	0.2	0.1	1.42	11.44																							
18-Jan	0.1	0.1	0.1	Z	0.1	0.1	0.4	8.1	6.7	0.5	0.4	0.7	1.8	4.7	9.6	11.7	13.2	7.5	0.9	0.4	0.4	0.2	0.2	0.2	2.95	13.17																							
19-Jan	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.6	0.8	0.9	1.5	2.3	0.4	0.6	0.1	1.5	1.0	16.3	36.4	11.3	6.2	1.6	3.58	36.40																							
20-Jan	0.7	1.0	11.2	Z	26.0	43.9	89.8	148.1	C	C	C	C	C	1.2	2.0	1.5	0.7	0.2	33.1	63.0	62.5	28.0	0.5	0.1	28.53	148.13																							
21-Jan	0.1	0.3	0.9	Z	0.1	0.3	0.3	0.2	0.3	0.3	0.3	0.8	0.9	0.9	1.0	0.6	1.1	0.3	0.3	0.6	0.8	0.7	0.3	0.7	0.53	1.06																							
22-Jan	0.5	0.5	0.1	Z	0.1	0.7	1.2	0.8	0.1	0.8	1.1	2.0	2.0	1.6	2.6	1.8	1.2	1.1	0.5	0.3	0.9	0.7	0.6	0.2	0.93	2.60																							
23-Jan	0.2	0.1	0.4	Z	0.5	0.7	0.6	0.5	0.6	0.4	0.7	8.7	9.9	0.9	0.9	0.4	2.8	9.0	0.4	0.4	0.5	0.9	0.3	0.2	1.75	9.87																							
24-Jan	0.2	0.3	0.2	Z	0.2	0.2	0.3	4.7	8.6	7.5	4.0	1.4	1.1	1.4	1.2	0.9	0.6	0.6	1.8	0.5	0.2	0.4	0.3	0.3	1.62	8.61																							
25-Jan	0.3	0.3	0.1	Z	0.2	0.4	0.2	0.6	2.9	12.1	2.5	2.6	3.1	1.3	1.9	3.2	5.1	13.2	40.8	36.1	12.5	16.0	14.1	9.4	7.78	40.76																							
26-Jan	6.5	4.6	2.2	Z	5.8	10.2	6.8	16.0	17.9	10.9	5.4	7.7	5.8	6.6	6.0	3.5	1.0	1.9	6.0	3.7	1.0	2.0	5.3	1.1	5.99	17.93																							
27-Jan	0.3	0.3	15.6	Z	4.2	11.1	38.8	63.3	55.1	43.7	15.3	8.0	8.4	10.0	9.4	13.4	12.1	10.7	6.2	1.4	2.3	4.1	6.1	0.9	14.83	63.33																							
28-Jan	13.1	21.4	11.2	Z	11.7	32.4	47.5	67.2	89.4	64.9	79.0	28.5	9.1	1.3	1.3	1.8	0.9	0.2	14.1	15.8	2.6	2.3	6.3	15.1	23.35	89.42																							
29-Jan	20.7	4.6	1.6	Z	0.7	4.4	3.7	5.4	9.1	15.1	26.6	21.4	6.9	1.3	2.4	1.2	1.3	0.2	0.4	0.5	6.8	14.8	3.3	0.8	6.67	26.56																							
30-Jan	0.0	0.1	2.5	Z	3.3	7.7	1.4	6.2	3.8	1.9	5.6	2.6	3.6	3.2	3.8	3.3	2.1	2.6	3.1	1.7	2.0	1.2	0.5	0.5	2.73	7.70																							
31-Jan	1.1	0.9	0.4	Z	1.0	3.4	11.3	15.9	43.1	60.8	25.5	12.6	10.2	8.8	4.1	5.8	11.2	13.6	19.8	84.5	66.7	13.4	4.8	1.2	18.28	84.50																							
																								2.84	1.79	2.88	--	2.69	5.42	9.48	15.91	13.64	14.02	16.59	10.89	7.52	6.90	7.19	6.04	6.03	8.80	11.75	15.01	13.36	7.76	4.04	2.90	Diurnal Average	
																								20.69	21.38	31.16	--	26.04	43.94	89.83	148.13	89.42	92.26	174.32	127.07	37.16	47.34	69.56	62.71	57.70	106.36	121.99	132.45	144.56	114.40	36.84	37.66	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb 24-hr --- ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
January 2015

Maximum Value: 47.02 ppb on Jan 20 20:00		Maximum Daily Average: 23.69 ppb on Jan 8		Hours in Service: 744																													
Minimum Value: 0.4 ppb on Jan 16 18:00		Minimum Daily Average: 2.78 ppb on Jan 2		Hours of Data: 708																													
Maximum Diurnal Average: 15.34 ppb at hour 20		Minimum Diurnal Average: 8.04 ppb at hour 3		Hours of Missing Data: 36																													
Monthly Average: 11.398 ppb		Percentiles: P ₁ = 0.7 P ₁₀ = 2.7 Q ₁ = 5.0 Median = 9.4 Q ₃ = 15.7 P ₉₀ = 22.6 P ₉₉ = 37.0		Hours of Calibration: 36																													
				Percent Operational Time: 100.0																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
1-Jan	2.4	2.4	2.2	Z	2.5	3.8	3.8	3.9	3.6	4.0	3.2	3.7	2.7	3.6	3.6	3.0	5.1	7.3	7.9	8.9	8.9	7.1	5.7	5.1	4.53	8.88							
2-Jan	3.4	2.4	3.3	Z	2.1	2.6	3.1	5.5	9.2	6.4	1.7	2.2	1.3	1.3	1.4	1.6	1.7	1.6	1.7	2.5	3.0	2.5	1.8	1.6	2.78	9.23							
3-Jan	1.8	1.9	1.7	Z	2.8	4.3	5.5	4.9	5.7	4.1	3.0	3.0	2.5	2.9	4.4	6.1	19.9	35.6	36.1	31.7	28.2	23.1	20.4	15.2	11.51	36.10							
4-Jan	20.1	20.8	17.4	Z	14.7	15.7	16.2	12.4	16.6	17.1	19.7	18.6	22.5	21.1	13.1	14.2	20.5	16.0	12.1	10.8	10.0	9.4	9.8	9.4	15.57	22.51							
5-Jan	10.4	9.2	11.5	Z	19.3	18.2	27.6	16.6	17.0	18.6	16.2	10.4	11.9	12.5	21.2	21.7	19.3	24.7	18.4	13.4	13.1	11.2	11.0	10.9	15.84	27.62							
6-Jan	14.4	13.3	12.5	Z	7.0	7.6	8.7	9.6	11.6	12.2	12.6	9.3	11.7	10.2	12.3	14.2	14.1	15.9	17.7	14.3	12.4	13.2	10.6	10.0	11.98	17.75							
7-Jan	13.2	13.1	13.6	Z	12.1	13.2	16.9	25.4	21.4	25.4	17.4	17.3	17.9	21.6	26.9	28.1	22.0	16.2	6.4	2.3	4.2	4.6	4.0	2.6	15.03	28.12							
8-Jan	2.2	2.2	3.0	Z	6.9	10.5	22.6	42.6	43.4	33.7	35.0	15.8	13.9	19.3	19.0	16.1	30.7	38.3	36.5	34.9	32.8	30.3	28.1	27.1	23.69	43.43							
9-Jan	20.3	22.4	22.2	Z	22.3	16.7	19.3	20.3	21.8	22.7	19.6	12.8	21.9	21.8	9.2	5.6	5.7	19.4	29.9	33.7	27.2	16.8	21.9	13.0	19.42	33.65							
10-Jan	16.3	17.7	14.1	Z	12.2	13.8	11.5	9.2	11.4	11.8	10.6	9.6	11.0	10.0	12.0	14.7	16.1	14.3	14.3	10.7	12.3	8.3	9.2	11.4	12.28	17.74							
11-Jan	9.0	10.9	9.1	Z	11.1	20.6	20.5	15.5	11.3	11.6	9.4	13.6	17.5	19.7	25.2	19.8	25.9	27.9	25.8	26.9	26.3	24.3	15.3	13.4	17.86	27.88							
12-Jan	13.2	11.4	15.7	Z	12.1	14.4	17.0	18.6	20.9	23.6	40.5	32.1	11.2	9.0	8.1	6.6	7.3	21.7	22.9	17.6	4.2	4.7	5.4	3.6	14.86	40.48							
13-Jan	2.5	2.6	2.2	Z	1.9	3.5	4.8	4.5	5.1	3.4	2.8	4.3	3.9	4.3	6.7	5.5	5.8	8.0	10.2	17.2	8.8	5.2	2.8	5.9	5.31	17.18							
14-Jan	9.8	6.9	7.8	Z	3.6	7.0	9.7	10.4	12.7	7.7	4.4	3.1	7.6	7.2	5.9	5.6	6.6	3.6	3.5	7.9	5.4	5.9	5.4	4.0	6.58	12.68							
15-Jan	3.9	4.8	4.1	Z	6.2	14.3	16.9	30.7	19.2	8.9	6.3	5.8	8.0	9.2	2.4	6.2	4.6	3.4	2.6	3.2	6.9	2.9	5.5	5.6	7.89	30.70							
16-Jan	3.6	5.6	2.6	Z	7.3	2.6	6.5	9.9	11.1	8.1	2.6	7.7	6.0	5.1	1.9	0.7	0.4	0.4	4.9	4.5	9.8	11.0	10.6	4.3	5.54	11.08							
17-Jan	4.2	12.6	8.9	Z	8.3	7.6	8.1	9.5	4.0	10.2	21.6	5.7	8.4	8.2	9.3	11.3	6.1	8.2	6.3	8.7	8.1	7.4	5.7	3.4	8.33	21.56							
18-Jan	2.7	2.5	3.1	Z	3.7	5.3	5.8	21.8	26.3	9.3	4.3	4.0	5.9	13.4	19.5	24.0	25.1	19.9	8.1	9.7	6.4	1.9	2.6	3.6	9.96	26.28							
19-Jan	5.2	0.9	0.7	Z	0.8	0.4	0.5	4.0	3.1	7.7	7.4	5.5	6.6	9.3	1.9	3.3	1.2	10.3	26.8	26.3	38.2	23.8	14.0	13.5	9.20	38.18							
20-Jan	11.3	15.9	20.5	Z	28.5	28.1	34.9	41.8	C	C	C	C	C	4.1	7.8	8.0	8.6	14.7	29.5	47.0	41.3	29.3	7.0	4.5	21.26	47.02							
21-Jan	2.4	2.6	3.9	Z	4.2	3.1	3.0	3.5	2.0	2.9	4.3	9.2	6.9	7.6	9.3	7.4	14.3	2.7	3.0	5.8	7.4	7.6	4.6	8.5	5.49	14.30							
22-Jan	6.8	3.8	1.5	Z	2.8	10.3	15.3	9.1	1.2	8.9	8.1	9.5	7.9	5.4	11.4	10.0	10.1	14.5	9.4	5.7	10.8	9.3	5.8	2.3	7.82	15.35							
23-Jan	1.5	3.7	5.6	Z	2.6	10.0	9.1	6.5	13.6	6.9	7.6	19.4	20.1	7.1	8.4	5.2	10.4	17.6	3.4	4.7	6.2	5.6	2.7	1.1	7.78	20.15							
24-Jan	1.9	5.0	2.7	Z	6.2	7.7	3.4	13.2	26.8	23.6	13.9	5.6	3.4	5.0	6.3	7.3	7.0	4.8	7.3	3.8	6.5	3.5	4.9	6.5	7.66	26.76							
25-Jan	4.9	5.8	2.0	Z	1.9	4.4	1.3	4.4	6.1	21.8	5.0	4.9	4.1	2.2	2.9	7.5	12.3	21.0	35.4	31.6	23.9	25.9	23.8	19.6	11.86	35.38							
26-Jan	18.9	19.0	9.7	Z	9.8	13.6	12.1	12.6	12.9	11.6	9.0	11.2	10.1	11.3	15.3	14.0	7.1	11.0	14.1	11.8	11.7	13.9	14.1	10.5	12.40	18.97							
27-Jan	10.2	8.7	12.5	Z	8.9	9.0	13.0	15.7	12.8	14.4	7.0	6.4	7.5	7.3	8.3	10.3	14.2	14.5	11.5	7.5	12.3	11.6	15.4	13.4	10.97	15.66							
28-Jan	20.6	20.1	11.3	Z	8.7	9.5	10.4	13.9	17.8	15.0	20.8	17.9	11.5	4.6	6.0	10.1	8.5	5.0	22.2	26.6	13.0	13.5	21.5	25.6	14.52	26.59							
29-Jan	23.3	18.4	9.3	Z	7.9	12.9	12.2	14.2	16.0	17.8	18.3	17.9	11.0	4.3	9.2	9.9	7.9	8.1	9.6	10.9	23.3	28.1	24.5	7.4	14.02	28.06							
30-Jan	4.8	3.6	9.1	Z	11.3	17.7	12.4	18.1	14.4	13.6	14.2	9.8	10.4	9.9	9.7	8.1	6.5	6.7	6.1	5.2	4.8	4.8	4.3	5.0	9.15	18.14							
31-Jan	6.0	5.3	5.5	Z	5.7	8.5	19.5	22.3	27.1	29.1	15.8	9.9	7.8	7.7	4.4	7.1	16.1	20.1	20.8	29.9	25.5	16.4	10.8	9.8	14.39	29.93							
		8.75	8.89	8.04	--	8.25	10.22	11.99	14.53	14.20	13.74	12.07	10.19	9.77	9.24	9.78	10.10	11.65	13.97	14.98	15.34	14.60	12.36	10.62	8.96	Diurnal Average							
		23.27	22.39	22.17	--	28.50	28.14	34.85	42.59	43.43	33.73	40.48	32.10	22.51	21.85	26.94	28.12	30.71	38.28	36.53	47.02	41.27	30.27	28.07	27.12	Diurnal Maximum							
Z - zerospan		C - Calibration																															
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 159 ppb				24-hr 106 ppb																											



WCAS - Hinton
Summary of Hourly Averages

NOx (NO_x) - ppb
January 2015

Maximum Value: 212.69 ppb on Jan 12 11:00 Maximum Daily Average: 62.52 ppb on Jan 11																						Hours in Service: 744 Hours of Data: 708																											
Minimum Value: 0.4 ppb on Jan 16 18:00 Minimum Daily Average: 3.12 ppb on Jan 2																						Hours of Missing Data: 36 Hours of Calibration: 36																											
Maximum Diurnal Average: 30.36 ppb at hour 8 Minimum Diurnal Average: 10.66 ppb at hour 2																						Percent Operational Time: 100.0																											
Monthly Average: 19.742 ppb Percentiles: P ₁ = 0.8 P ₁₀ = 3.2 Q ₁ = 5.9 Median = 11.5 Q ₃ = 23.3 P ₉₀ = 42.7 P ₉₉ = 132.8																																																	
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-Jan	2.6	2.5	2.3	Z	2.7	3.9	3.9	4.1	3.7	4.1	3.4	4.1	3.0	4.1	4.1	3.3	5.5	8.4	8.9	9.7	10.4	7.7	6.2	5.5	4.95	10.37																							
2-Jan	3.9	2.7	3.8	Z	2.2	3.4	3.4	6.1	11.3	7.5	1.9	2.5	1.5	1.8	1.7	1.9	1.8	1.5	1.6	2.7	3.1	2.5	1.7	1.6	3.12	11.26																							
3-Jan	1.7	1.8	1.6	Z	3.0	5.3	8.0	5.6	6.3	4.3	3.3	4.4	4.2	4.7	7.3	7.8	30.4	62.8	67.9	39.0	32.2	28.7	22.2	15.8	16.02	67.86																							
4-Jan	23.7	23.3	18.4	Z	15.6	17.8	17.6	13.3	18.1	20.9	36.9	38.3	47.8	40.7	19.9	19.5	23.8	16.9	14.1	12.6	11.2	10.1	10.7	9.4	20.89	47.83																							
5-Jan	10.6	9.2	11.5	Z	20.0	19.7	42.7	19.7	19.9	24.2	28.4	16.6	20.3	21.1	38.9	36.0	24.7	33.5	22.7	17.4	15.5	12.2	11.7	11.8	21.23	42.70																							
6-Jan	15.1	13.6	13.2	Z	7.1	7.9	10.1	12.6	13.6	14.2	15.3	12.7	18.0	14.5	17.5	19.3	18.1	21.1	25.5	17.6	13.8	14.9	12.2	10.3	14.70	25.47																							
7-Jan	14.8	13.6	14.9	Z	13.6	14.4	20.0	31.9	28.0	45.6	30.4	30.4	36.7	50.9	68.4	90.6	51.6	25.6	7.8	2.5	4.5	4.8	4.2	2.7	26.44	90.60																							
8-Jan	2.2	2.4	3.7	Z	8.9	12.4	28.9	98.0	108.6	67.0	92.8	30.6	26.1	36.9	32.0	21.0	44.6	78.2	71.5	72.0	68.0	39.4	35.5	34.3	44.14	108.59																							
9-Jan	24.1	25.1	25.4	Z	27.0	19.7	21.9	25.2	30.9	41.3	39.0	18.1	44.1	38.7	11.9	6.5	6.1	23.1	47.0	73.0	51.9	24.4	44.8	18.3	29.89	72.98																							
10-Jan	28.5	20.7	15.8	Z	14.0	17.1	13.7	10.5	13.8	14.5	15.0	13.4	16.9	16.4	17.6	20.2	21.3	17.0	16.7	13.6	13.6	9.1	10.4	13.0	15.76	28.52																							
11-Jan	9.2	11.0	9.6	Z	12.1	31.4	37.9	26.0	15.5	25.0	21.4	39.7	54.5	66.9	94.5	48.6	83.4	133.7	147.5	158.8	170.2	138.2	52.0	51.0	62.52	170.24																							
12-Jan	33.2	20.4	46.7	Z	23.4	35.0	43.1	53.3	82.1	115.4	212.7	155.9	22.7	13.3	10.9	8.1	8.3	23.7	32.1	18.9	4.5	5.2	5.5	3.7	42.53	212.69																							
13-Jan	2.7	2.7	2.5	Z	2.1	3.8	5.2	4.9	5.6	3.9	3.2	5.3	5.2	5.1	8.0	6.6	6.4	9.8	12.0	23.9	9.0	5.9	3.3	8.4	6.32	23.89																							
14-Jan	10.1	7.2	8.0	Z	4.1	9.3	15.3	13.9	17.1	8.7	6.2	4.6	10.4	10.1	7.8	6.6	7.4	4.1	3.9	8.6	5.5	6.5	5.8	4.1	8.05	17.14																							
15-Jan	3.9	5.0	4.2	Z	8.2	16.5	22.6	59.7	26.3	13.1	8.0	7.0	9.8	11.2	3.0	7.0	4.8	3.5	3.0	3.4	7.2	3.3	6.0	6.0	10.56	59.68																							
16-Jan	3.8	5.8	2.9	Z	8.8	2.7	6.8	10.3	11.6	8.5	2.9	9.4	8.0	7.5	2.6	0.9	0.5	0.4	5.2	4.6	10.0	11.5	11.1	4.5	6.11	11.63																							
17-Jan	4.4	13.8	9.8	Z	9.1	8.2	8.5	9.7	4.2	11.5	33.0	7.3	11.5	11.0	12.5	14.1	6.6	8.5	6.4	8.9	8.3	7.7	5.9	3.5	9.76	32.98																							
18-Jan	2.8	2.6	3.1	Z	3.8	5.4	6.2	29.9	33.0	9.8	4.8	4.7	7.7	18.1	29.1	35.7	38.3	27.4	8.9	10.1	6.8	2.1	2.8	3.7	12.91	38.31																							
19-Jan	5.4	0.9	0.8	Z	0.9	0.5	0.6	4.1	3.3	8.3	8.2	6.4	8.1	11.7	2.3	3.9	1.3	11.8	27.8	42.6	74.5	35.1	20.2	15.1	12.78	74.45																							
20-Jan	12.1	16.9	31.6	Z	54.5	72.0	123.5	188.9	C	C	C	C	C	5.3	9.8	9.6	9.3	14.9	62.4	109.7	103.5	57.3	7.4	4.6	49.63	188.92																							
21-Jan	2.5	2.9	4.9	Z	4.4	3.4	3.3	3.8	2.3	3.3	4.6	10.0	7.8	8.5	10.3	8.0	15.4	3.0	3.3	6.4	8.3	8.3	4.9	9.2	6.02	15.36																							
22-Jan	7.4	4.3	1.6	Z	2.9	11.0	16.5	9.9	1.3	9.7	9.3	11.4	10.0	7.0	14.0	11.8	11.3	15.5	10.0	6.0	11.6	10.0	6.3	2.5	8.75	16.54																							
23-Jan	1.7	3.8	6.0	Z	3.2	10.7	9.7	7.0	14.2	7.3	8.3	28.1	30.0	8.0	9.3	5.6	13.2	26.6	3.8	5.1	6.6	6.5	3.0	1.3	9.52	30.01																							
24-Jan	2.0	5.3	3.0	Z	6.4	7.9	3.6	17.9	35.4	31.1	17.9	7.0	4.5	6.4	7.5	8.2	7.6	5.4	7.9	5.4	7.0	3.7	5.3	6.8	9.27	35.38																							
25-Jan	5.2	6.1	2.1	Z	2.1	4.8	1.5	5.0	9.0	33.9	7.5	7.5	7.2	3.5	4.8	10.7	17.4	34.1	76.0	67.6	36.3	41.9	38.0	29.0	19.61	75.98																							
26-Jan	25.4	23.6	11.8	Z	15.5	23.8	18.8	28.5	30.8	22.5	14.4	18.9	15.9	17.8	21.3	17.6	8.1	12.9	20.0	15.5	12.7	15.9	19.4	11.7	18.37	30.80																							
27-Jan	10.4	9.0	28.0	Z	13.1	20.1	51.7	78.7	67.7	58.0	22.3	14.4	15.9	17.2	17.7	23.7	26.3	25.2	17.7	8.9	14.6	15.6	21.5	14.3	25.73	78.69																							
28-Jan	33.7	41.4	22.4	Z	20.3	41.8	57.7	80.8	106.8	79.6	99.5	46.2	20.6	5.9	7.3	11.9	9.4	5.2	36.3	42.3	15.6	15.8	27.8	40.7	37.78	106.76																							
29-Jan	43.9	23.0	10.9	Z	8.7	17.3	16.0	19.6	25.1	32.8	44.8	39.2	17.9	5.7	11.6	11.1	9.3	8.3	10.0	11.4	30.0	42.8	27.8	8.2	20.67	44.82																							
30-Jan	4.9	3.7	11.6	Z	14.7	25.3	13.8	24.3	18.1	15.5	19.8	12.4	14.0	13.1	13.5	11.5	8.6	9.3	9.2	6.9	6.7	6.1	4.8	5.6	11.88	25.34																							
31-Jan	7.1	6.2	6.0	Z	6.7	11.9	30.8	38.2	70.0	89.6	41.2	22.5	18.0	16.5	8.6	12.9	27.2	33.6	40.6	114.1	91.9	29.7	15.6	11.0	32.61	114.05																							
																								11.58	10.66	10.90	--	10.92	15.62	21.41	30.36	27.79	27.71	28.55	20.96	17.28	16.12	16.96	16.13	17.67	22.74	26.70	30.29	27.91	20.09	14.65	11.86	Diurnal Average	
																								43.95	41.41	46.68	--	54.50	71.96	123.50	188.92	108.59	115.43	212.69	155.93	54.49	66.91	94.49	90.60	83.35	133.71	147.54	158.78	170.24	138.23	51.96	50.96	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb 24-hr --- ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

PM2.5 (PM_{2.5}) - µg/m³
January 2015

Maximum Value: 35.70 µg/m ³ on Jan 6 02:00		Maximum Daily Average: 12.74 µg/m ³ on Jan 6		Hours in Service: 744																							
Minimum Value: 0.0 µg/m ³ on Jan 2 04:00		Minimum Daily Average: 2.53 µg/m ³ on Jan 13		Hours of Data: 744																							
Maximum Diurnal Average: 8.09 µg/m ³ at hour 11		Minimum Diurnal Average: 5.71 µg/m ³ at hour 6		Hours of Missing Data: 0																							
Monthly Average: 6.874 µg/m ³		Percentiles: P ₁ = 1.2 P ₁₀ = 2.6 Q ₁ = 4.0 Median = 5.9 Q ₃ = 8.6 P ₉₀ = 11.9 P ₉₉ = 25.4		Hours of Calibration: 0																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	6.1	5.6	4.6	4.5	5.4	5.0	6.5	6.8	5.4	8.9	6.5	6.5	5.3	2.6	6.4	6.5	4.8	4.1	5.8	16.0	8.4	6.6	11.1	13.4	6.77	15.96	
2-Jan	15.8	13.1	2.9	0.0	2.2	2.9	4.6	4.6	5.5	7.0	4.7	5.2	5.6	10.6	8.0	5.6	5.3	4.8	4.6	4.3	4.7	4.7	5.1	5.0	5.70	15.76	
3-Jan	4.7	5.0	4.6	4.9	4.2	5.0	5.3	5.6	5.7	4.9	3.4	4.4	4.7	7.8	5.6	5.5	7.8	8.9	8.8	10.0	8.7	7.3	8.1	7.5	6.18	10.02	
4-Jan	9.2	8.3	8.6	9.4	7.4	5.9	5.5	7.3	5.5	5.5	7.7	6.6	9.2	12.3	6.8	6.2	4.8	6.1	3.3	3.1	3.3	2.1	5.1	5.8	6.45	12.31	
5-Jan	6.4	6.9	8.1	9.4	8.2	6.9	9.6	6.4	7.2	7.5	7.9	8.7	11.2	11.7	10.9	10.7	10.6	9.7	8.2	9.4	9.3	9.0	12.6	11.9	9.11	12.63	
6-Jan	30.5	35.7	27.7	23.8	21.8	18.4	15.8	14.2	11.8	11.0	9.8	7.1	6.2	6.8	7.4	7.9	6.3	5.4	7.2	7.2	6.1	5.4	6.1	6.1	12.74	35.70	
7-Jan	6.2	6.6	6.2	6.0	4.5	4.3	4.9	7.1	9.3	10.2	10.8	11.6	7.9	9.5	13.7	12.2	12.7	8.5	7.1	3.9	7.1	7.1	7.1	4.5	7.88	13.69	
8-Jan	6.0	5.0	3.9	4.1	4.2	4.7	6.1	10.7	9.4	11.0	15.7	4.0	10.2	15.7	17.7	18.4	16.5	8.6	3.3	5.3	4.3	8.8	10.9	6.3	8.78	18.45	
9-Jan	2.1	2.2	3.3	1.2	2.5	3.0	4.2	4.1	3.9	4.1	5.2	3.0	7.7	7.9	2.9	1.8	1.7	6.6	5.8	8.8	6.7	3.5	5.8	3.2	4.22	8.85	
10-Jan	4.3	6.8	7.3	5.6	11.3	11.4	8.4	5.9	6.7	5.7	4.8	5.6	5.7	6.1	8.5	7.3	8.1	7.4	6.1	6.5	5.8	5.6	5.0	4.9	6.71	11.43	
11-Jan	5.0	4.8	4.6	5.2	4.3	6.2	9.3	7.1	6.8	9.0	11.8	15.2	23.5	27.0	25.7	19.5	26.0	19.9	12.2	15.3	11.9	7.6	9.9	10.9	12.45	26.98	
12-Jan	7.1	5.6	13.3	7.7	4.5	3.7	5.9	5.6	7.6	9.1	16.8	16.8	6.2	0.4	2.3	0.9	3.1	5.6	5.1	3.2	2.4	3.4	3.3	3.2	5.93	16.81	
13-Jan	2.2	1.9	2.6	2.4	1.5	1.8	2.3	2.0	2.6	4.1	2.5	2.3	2.4	2.0	4.0	2.6	3.7	2.5	2.0	3.6	2.9	2.2	1.9	2.6	2.53	4.15	
14-Jan	5.2	4.3	4.1	3.0	1.4	2.4	2.2	3.0	3.9	4.3	3.2	2.3	3.6	3.5	3.2	2.7	3.1	2.0	1.8	4.2	10.3	4.6	4.2	2.3	3.53	10.27	
15-Jan	1.9	3.3	2.6	0.9	1.0	3.2	3.3	7.6	4.3	2.1	3.2	1.3	2.9	4.1	1.3	3.8	3.7	3.1	1.9	2.7	3.2	2.2	4.5	4.0	3.00	7.56	
16-Jan	2.2	2.5	1.9	1.8	2.1	2.5	5.0	6.1	8.1	6.9	3.1	4.7	4.7	4.1	1.3	4.1	4.6	3.7	5.1	6.6	8.4	8.8	8.1	5.1	4.65	8.84	
17-Jan	6.0	6.2	9.3	8.6	7.6	6.9	5.4	6.9	4.0	6.1	9.2	5.1	7.8	6.1	7.4	7.6	6.4	5.6	4.0	6.9	5.6	5.8	4.4	2.8	6.33	9.29	
18-Jan	1.9	2.8	3.4	2.9	2.1	3.1	3.6	3.2	7.6	3.1	4.9	2.9	3.3	5.8	9.0	16.9	14.7	9.5	5.4	8.8	6.0	4.0	3.2	4.3	5.51	16.93	
19-Jan	6.2	3.5	3.7	2.6	3.0	3.4	3.4	3.6	4.9	6.8	7.4	5.1	6.0	8.6	4.4	6.3	4.1	5.5	11.7	10.1	14.7	8.2	5.8	6.4	6.06	14.74	
20-Jan	8.7	6.6	12.6	10.8	14.5	11.9	12.5	15.0	10.4	10.2	20.5	14.6	0.3	0.0	5.7	5.8	5.6	6.9	8.7	11.7	11.1	6.6	2.0	3.4	9.01	20.53	
21-Jan	3.4	4.2	3.9	5.8	3.8	2.5	2.7	4.6	5.7	4.6	8.6	14.4	11.7	10.3	10.0	7.6	9.9	5.8	6.4	8.0	6.6	5.4	4.2	7.6	6.57	14.43	
22-Jan	5.9	5.3	5.6	6.3	3.1	3.4	6.7	6.3	4.6	5.7	5.6	5.9	5.3	4.1	5.3	5.5	5.0	6.0	5.6	4.5	5.6	4.0	3.6	3.8	5.11	6.72	
23-Jan	3.5	3.0	3.4	3.6	5.1	4.2	3.7	4.0	4.1	4.8	2.6	5.0	4.0	1.7	5.1	2.4	1.8	2.6	3.1	2.9	1.3	3.9	1.4	1.3	3.27	5.15	
24-Jan	6.7	4.9	5.1	5.2	4.4	3.9	3.6	4.7	6.1	8.0	8.4	3.4	1.3	3.8	6.2	4.0	3.7	1.8	3.7	1.4	4.1	4.1	3.3	3.1	4.38	8.44	
25-Jan	3.5	2.4	2.5	2.2	1.9	4.2	2.9	3.3	4.0	7.4	5.6	5.1	4.1	3.7	3.8	3.9	4.0	3.7	11.0	12.4	7.3	4.5	6.5	5.2	4.80	12.43	
26-Jan	5.3	4.1	3.7	3.2	3.7	4.7	3.9	3.6	4.7	5.9	4.8	6.7	7.8	11.0	16.6	16.4	5.5	7.8	11.1	8.1	6.2	7.5	8.2	8.1	7.03	16.62	
27-Jan	9.4	7.2	7.9	6.5	7.1	7.2	9.4	12.0	10.7	13.6	8.9	7.2	7.8	6.4	7.9	10.9	14.4	17.1	11.9	3.4	7.1	7.3	7.8	6.3	8.98	17.08	
28-Jan	15.9	19.2	8.7	7.6	7.6	9.2	8.3	8.7	11.0	10.0	17.1	16.1	8.1	3.4	6.0	7.7	9.1	5.7	18.5	16.9	13.3	13.9	13.0	19.6	11.44	19.62	
29-Jan	15.5	8.8	7.1	6.6	6.1	6.1	6.8	7.2	9.1	10.0	11.8	15.7	9.5	4.1	8.6	10.2	8.5	8.1	9.7	12.0	24.2	28.9	19.1	8.9	10.93	28.88	
30-Jan	8.5	7.0	12.5	8.1	16.8	12.2	5.0	4.7	5.4	8.8	8.7	6.9	5.3	5.7	5.8	7.6	11.1	11.0	9.9	10.6	9.4	9.6	8.9	6.6	8.59	16.83	
31-Jan	7.7	8.0	11.1	11.7	9.4	7.1	5.8	6.5	6.6	10.4	9.6	5.2	7.7	14.8	8.5	9.4	13.1	10.5	6.8	9.6	8.6	6.4	4.5	3.9	8.45	14.83	
		7.20	6.80	6.67	5.85	5.90	5.71	5.89	6.40	6.54	7.32	8.09	7.24	6.68	7.15	7.61	7.68	7.75	6.92	6.96	7.66	7.56	6.74	6.60	6.05	Diurnal Average	
		30.49	35.70	27.66	23.77	21.79	18.38	15.81	15.01	11.80	13.60	20.53	16.81	23.51	26.98	25.71	19.55	26.03	19.88	18.50	16.92	24.15	28.88	19.07	19.62	Diurnal Maximum	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 ul/m ³ 24-hr 30 ul/m ³																											

Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: January 20, 2015

Parameter: NO/NO₂/NO_x

Instrument: Teco 42i

Serial Number: CM13040041

Previous Calibration Date: Dec. 14,,2014

Calibration: Routine

Calibration Equipment: SABIO 2010 sn# 05200311

Barometric Pressure: 27.00" Hg

Calibration Method: Standard Gas Dilution/ GPT

Cylinder ID: FF 40515

Temperature: 22.0° C

Cylinder Concentration: 12.4 ppm NO / 12.5 ppm NO_x

In Service: Dec 10 ,2013

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	4.3	4.6	na	0.743	1.003	0.997	300 ppb
Current	4.5	4.9	na	0.744	1.011	0.997	300 ppb

NO	Final Zero: 0.2 ppb	Final Span: 196.4 ppb	As Found Correction Factor: 0.988
NO ₂	Final Zero: -0.1 ppb	Final Span: 2.1 ppb	As Found Correction Factor: 1.000
NO _x	Final Zero: 0.1 ppb	Final Span: 198.2 ppb	As Found Correction Factor: 0.999

Results of Linear Regression			Slope	Intercept	R ²
NO	R _c vs C _c	Previous	99.826290	92.595730	0.999940
		Current	99.894210	6.133317	0.999981
	C _i vs C _c	Current	1.000000	0.000009	0.999980
NO ₂	R _c vs C _c	Previous	100.399600	19.220100	0.999940
		Current	100.290600	3.247578	0.999999
	C _i vs C _c	Current	1.000000	0.000023	0.999999
NO _x	R _c vs C _c	Previous	100.354800	76.155150	0.999940
		Current	100.282300	-4.820201	0.999973
	C _i vs C _c	Current	1.000000	-0.000009	0.999974

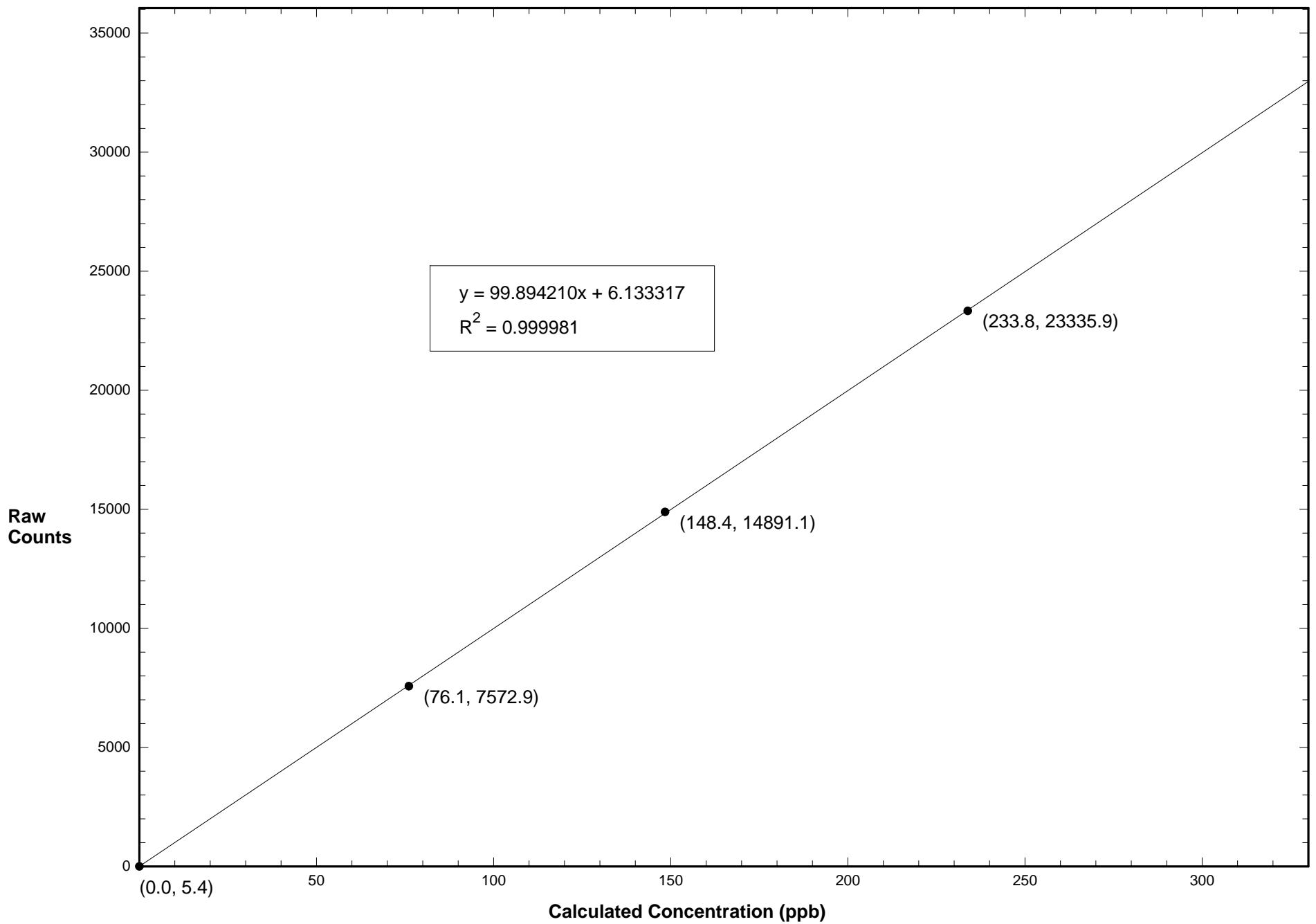
Comments:

Calibration Data Summary (Page 2)

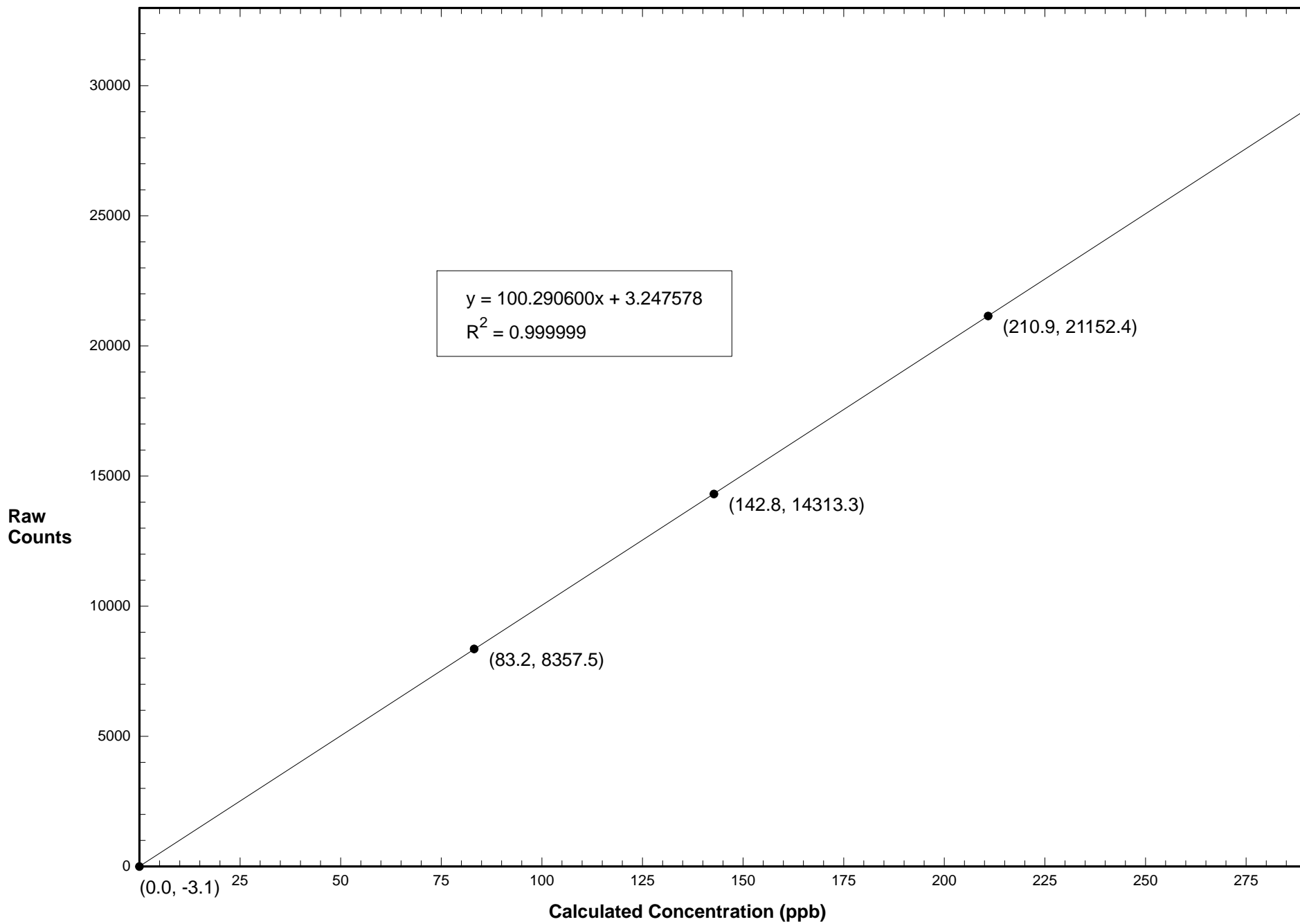
January 20, 2015 - Station 906

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		
0.09760	5.078	233.8	23335.9	233.5	1.001		
0.06150	5.078	148.4	14891.1	149.0	0.996		
0.03110	5.038	76.1	7572.9	75.7	1.004		
0.00000	5.000	0.0	5.4	0.0			
NO Calibration					Average Correction Factor:	1.000	
0.09760	5.078	235.7	23605.8	235.4	1.001		
0.06150	5.078	149.6	15064.5	150.3	0.995		
0.03110	5.038	76.7	7636.8	76.2	1.006		
0.00000	5.000	0.0	2.9	0.1			
NO _x Calibration					Average Correction Factor:	1.001	
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
233.4	2258.9	22.6	210.9	21152.4	210.9	1.000	1.000
233.4	9063.7	90.7	142.8	14313.3	142.7	1.001	0.999
233.4	15018.3	150.3	83.2	8357.5	83.3	0.998	1.002
			0.0	-3.1	-0.1		
					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	0.997	1.001	0.4				
NO ₂	1.000	1.000	0.0				
NO _x	0.997	1.001	0.4				

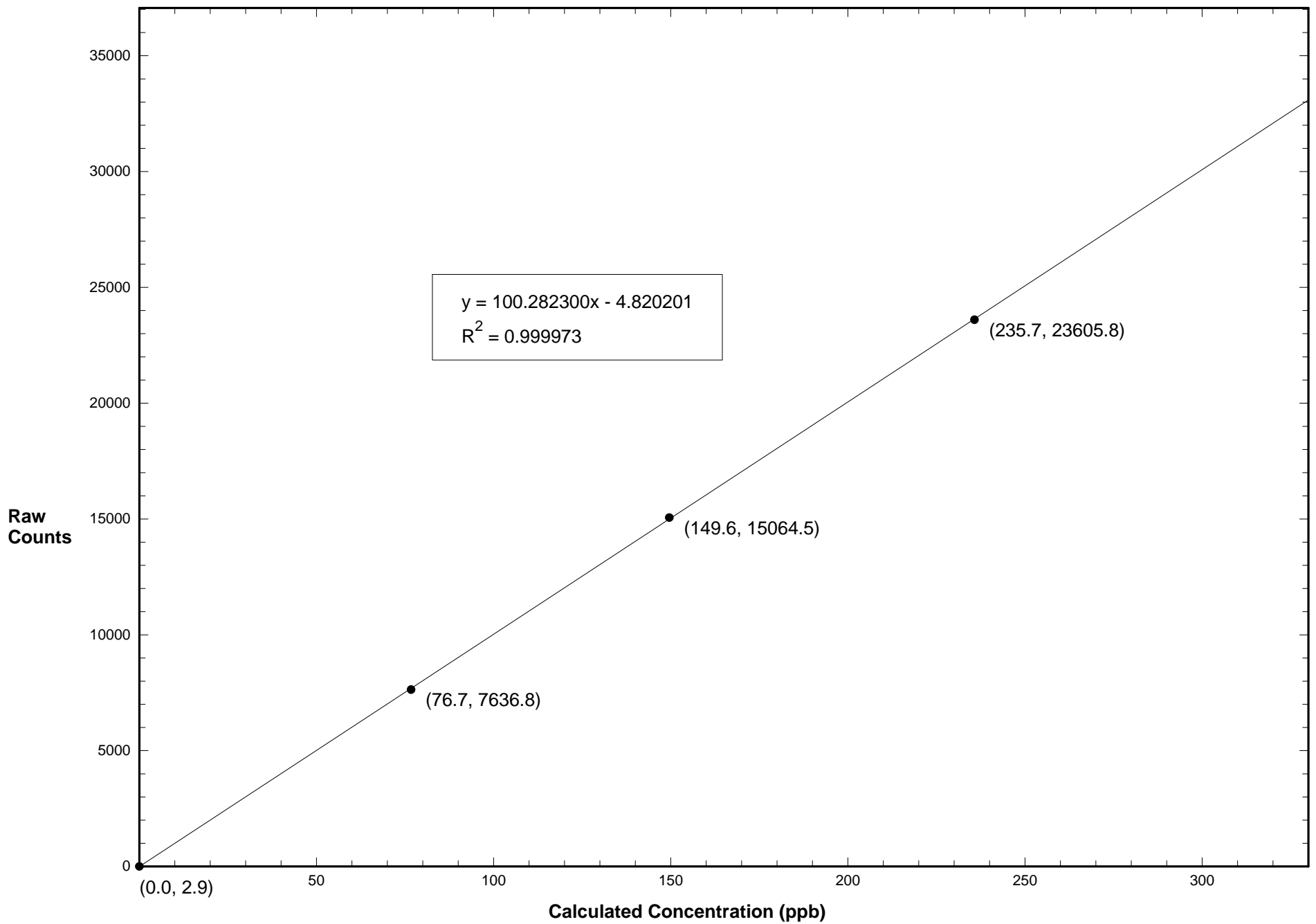
Station 906 NO January 20, 2015: Linear Regression



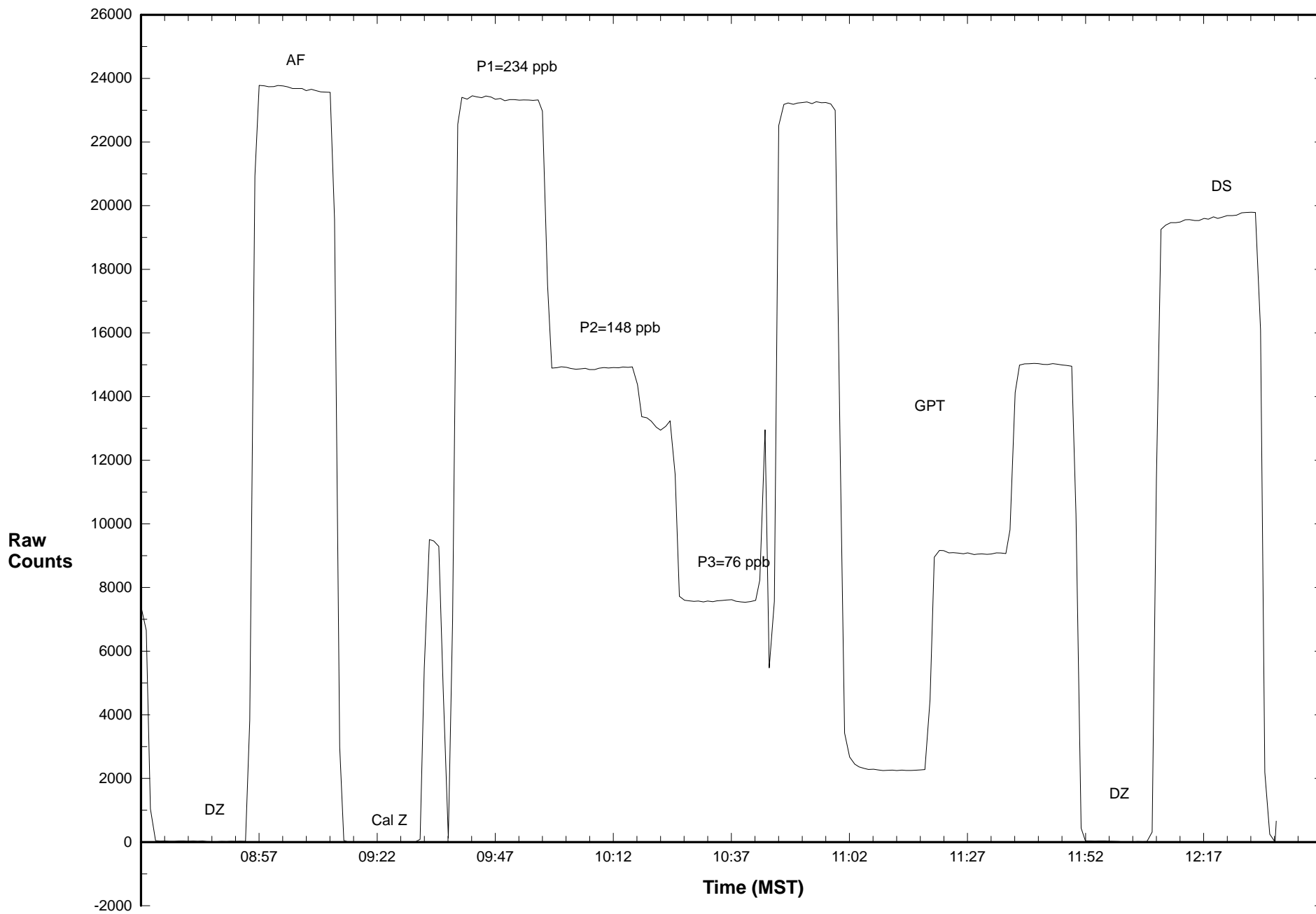
Station 906 NO2 January 20, 2015: Linear Regression



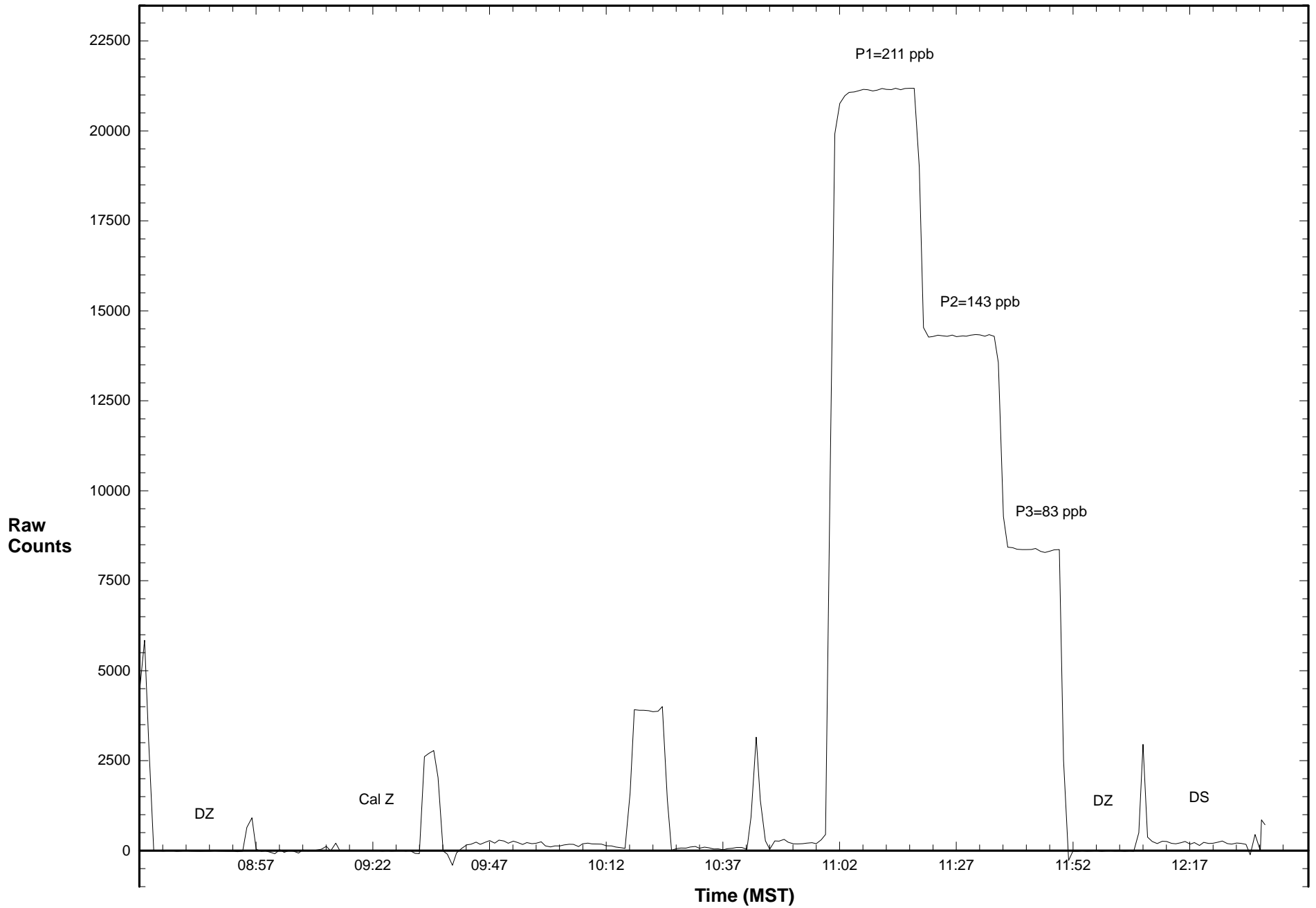
Station 906 NOX January 20, 2015: Linear Regression



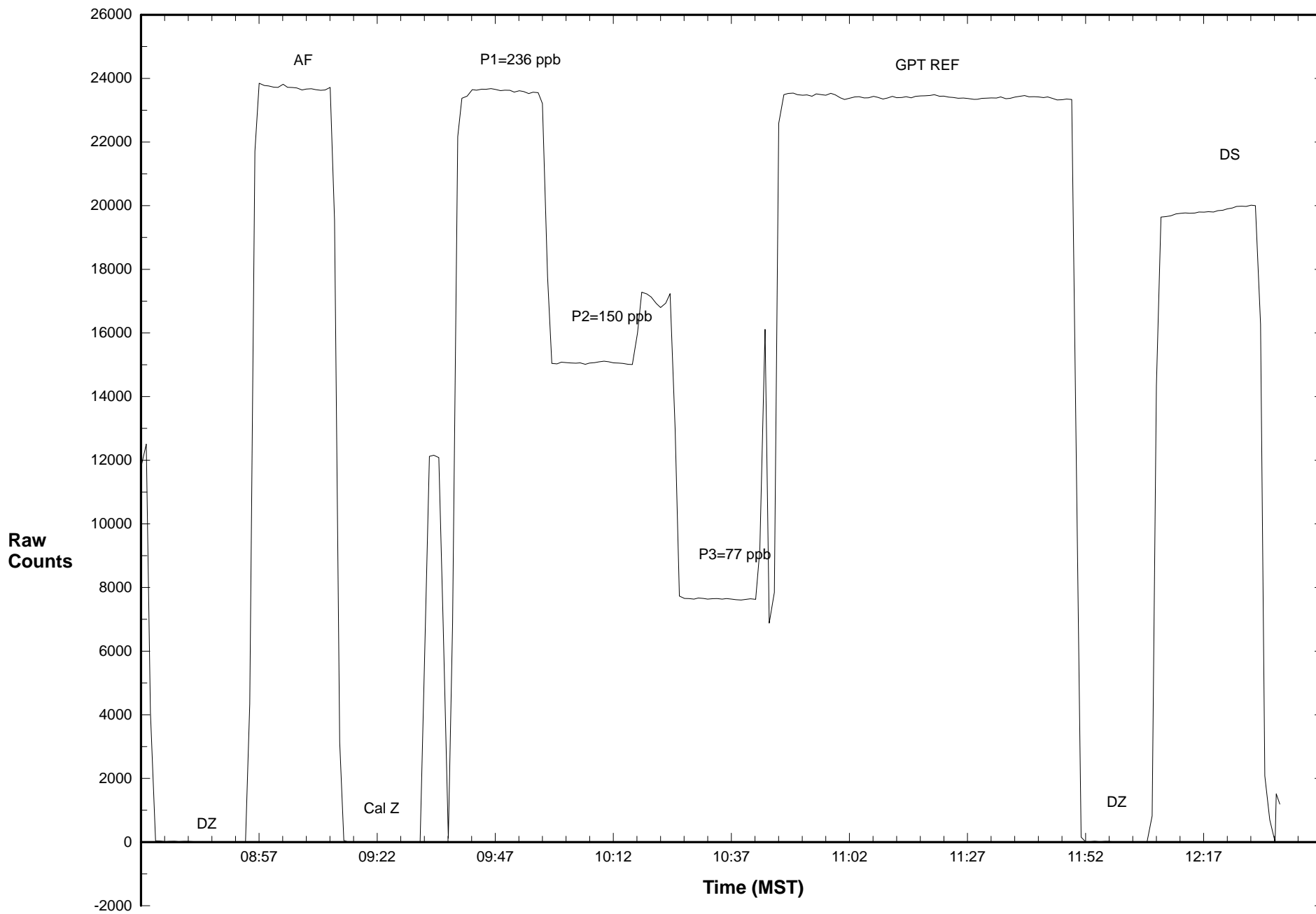
Station 906 NO January 20, 2015: Calibration Graph



Station 906 NO2 January 20, 2015: Calibration Graph



Station 906 NOX January 20, 2015: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: January 20, 2015

Parameter: O₃

Instrument: Teco 49i

Serial Number: 1136451325

Previous Calibration Date: Dec. 14,,2014

Calibration: Routine

Calibration Equipment: 2B Technologies 306 sn#113 Barometric Pressure: 27.00" Hg

Calibration Method: Certified Ozone Generator

Temperature: 22.0° C

Technician: J. McClintock

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	-1.0	1.099	500 ppb
Current	-0.5	1.125	500 ppb

Final Zero: -1.4 ppb

Final Span: 353.6 ppb

As Found Correction Factor: 1.025

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	402.0	24047.0	401.3	1.002
3.000	252.0	15163.1	252.7	0.997
3.000	101.0	6141.6	101.8	0.992
3.000	0.0	-2.0	-0.9	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	59.957650	97.694950	0.999897
Current	59.788540	52.339660	0.999973
C _i vs C _c			
Current	1.000000	-0.000039	0.999973

Average Correction Factor: 0.997

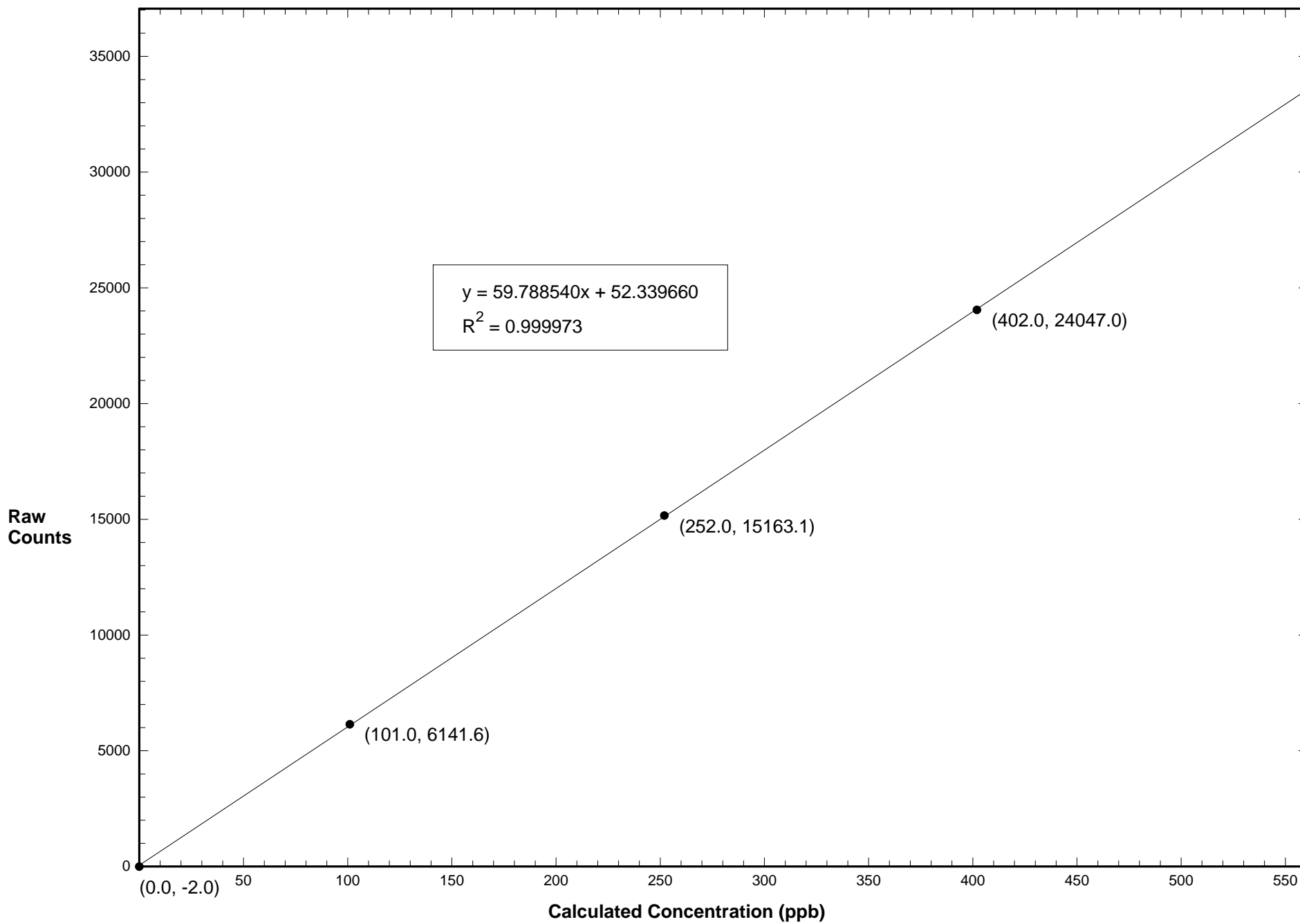
Previous Correction Factor: 1.003

Current Correction Factor: 1.002

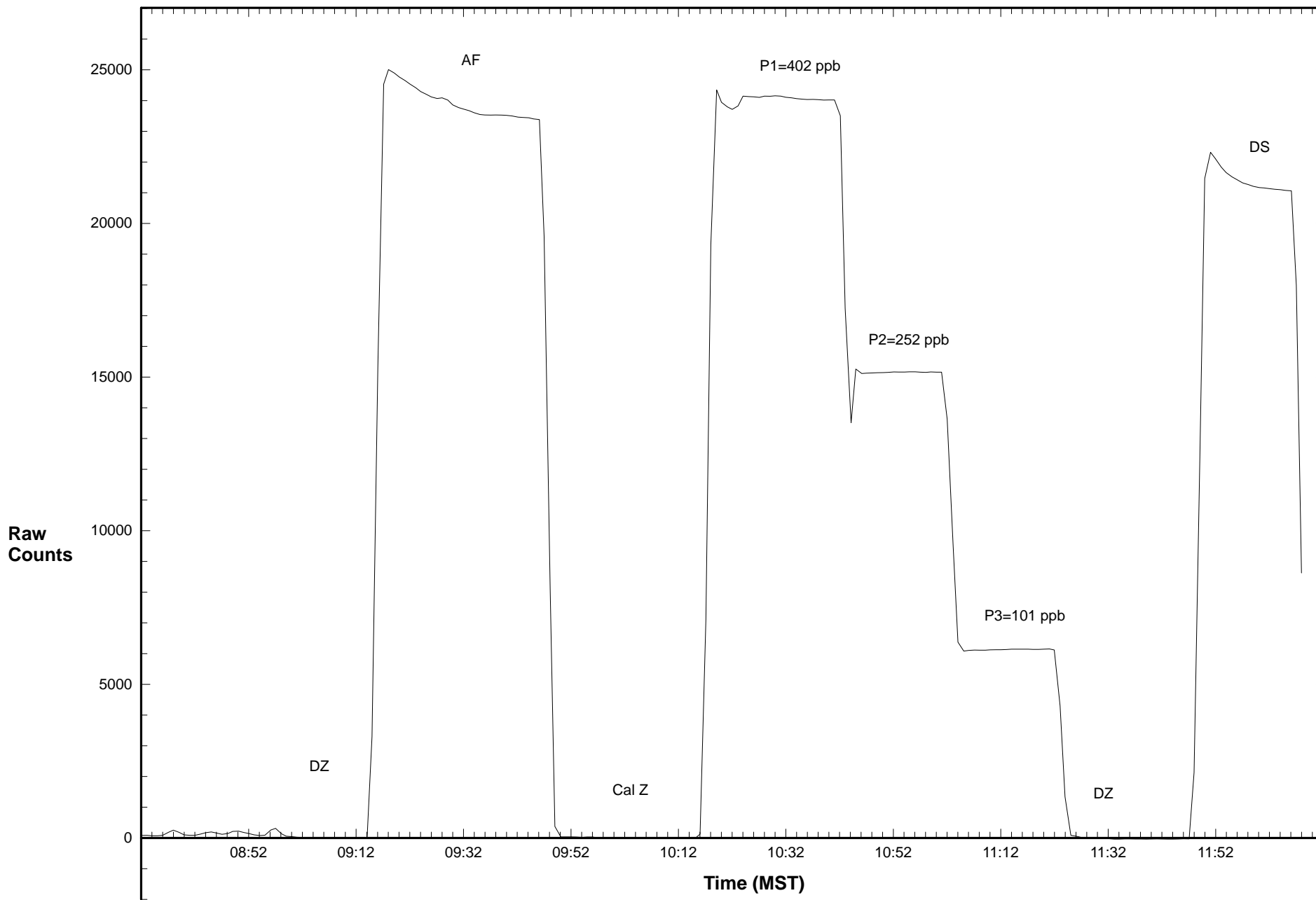
Percent Change of Correction Factor: -0.1

Comments:

Station 906 O3 January 20, 2015: Linear Regression



Station 906 O3 January 20, 2015: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: January 20, 2015

Parameter: SO₂

Instrument: Teco 43i

Serial Number: CM 12499009

Previous Calibration Date: Dec. 14,,2014

Calibration: Routine

Calibration Equipment: SABIO 2010 sn# 05200311

Barometric Pressure: 27.00" Hg

Calibration Method: Standard Gas Dilution

Cylinder ID: FF 40515

Temperature: 22.0° C

Cylinder Concentration: 5.66 ppb SO₂

In Service: Dec 10 ,2013

Technician: J. McClintock

Instrument Settings	SO ₂ bkg ppb	SO ₂ Coefficient	Monitoring Range
Previous	27.3	1.01	200 ppb
Current	25.8	0.974	200 ppb

Final Zero: 0.2 ppm

Final Span: 86.8 ppm

As Found Correction Factor: 0.965

SO ₂ Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C _c (ppm)	Raw Count Output R _c	Indicated Concentration C _i (ppm)	Correction Factor C _c /C _i
0.0976	5.078	106.7	16098.5	106.6	1.001
0.0615	5.078	67.7	10273.8	68.0	0.996
0.0311	5.038	34.7	5215.4	34.5	1.007
0.0000	5.000	0.0	16.5	0.0	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	151.077000	33.127850	0.999996
Current	150.895900	9.633924	0.999976
C _i vs C _c			
Current	1.000000	-0.000010	0.999976

Average Correction Factor: 1.001

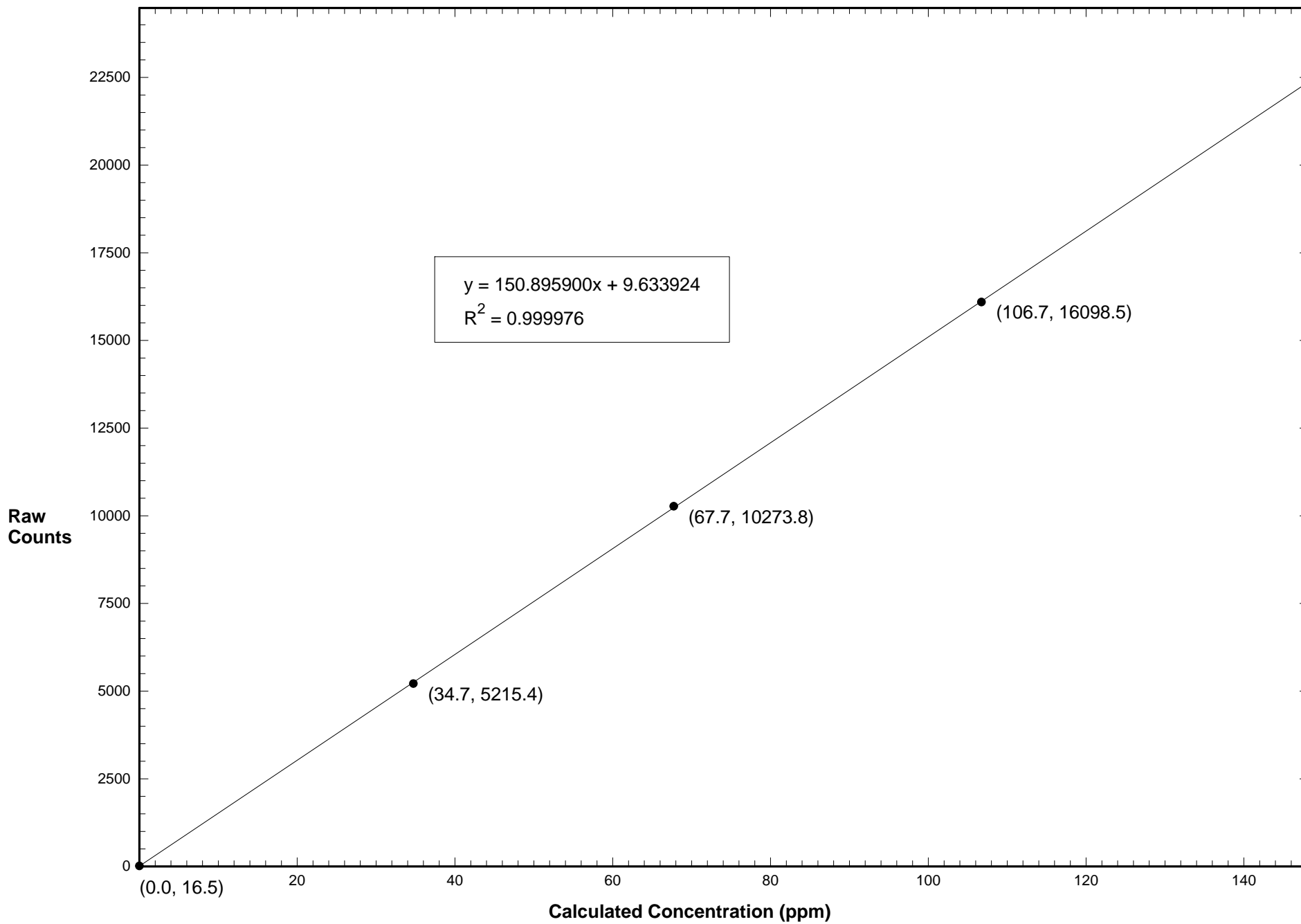
Previous Correction Factor: 1.001

Current Correction Factor: 1.001

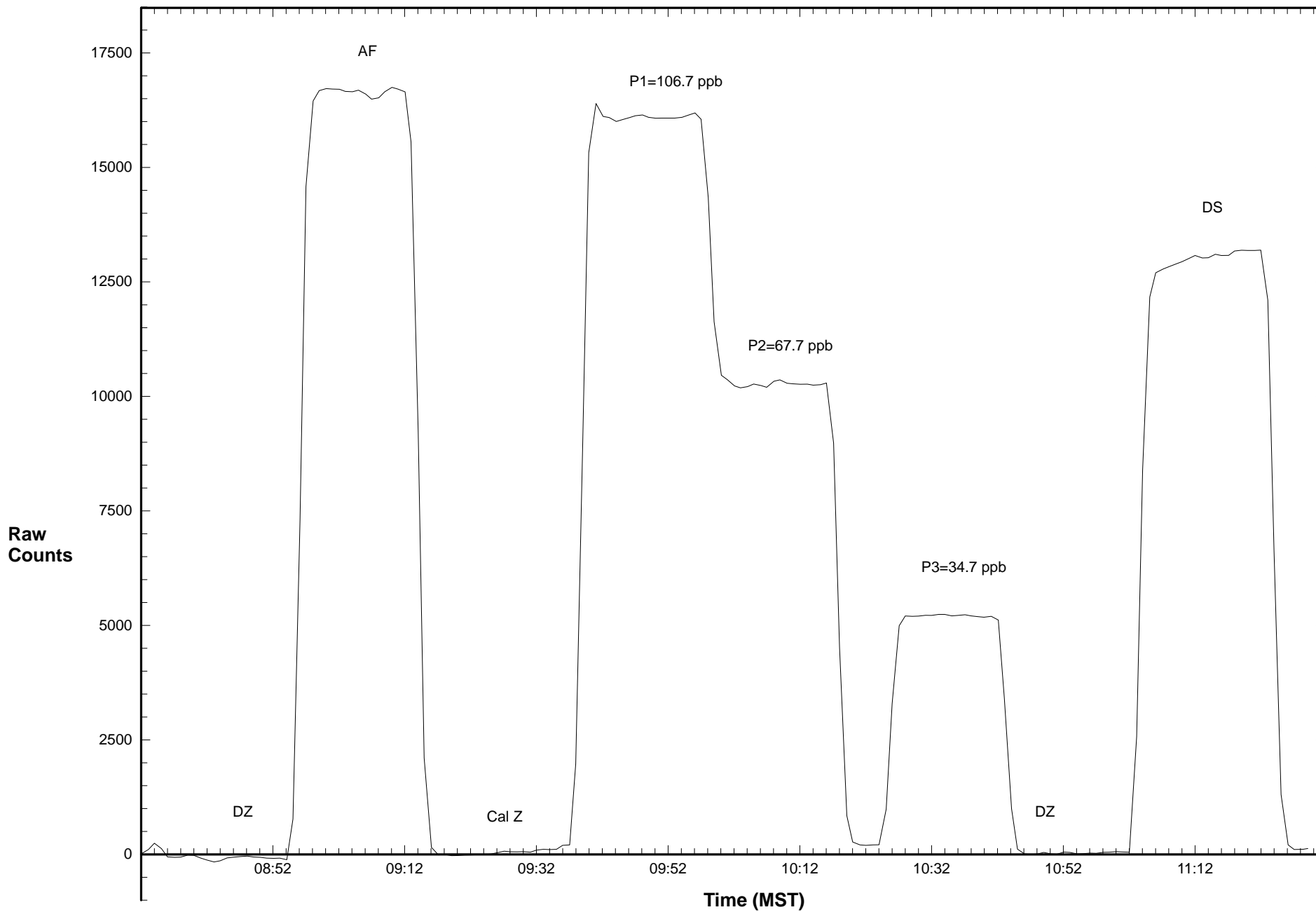
Percent Change of Correction Factor: 0.0

Comments:

Station 906 SO2 January 20, 2015: Linear Regression



Station 906 SO2 January 20, 2015: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: January 20, 2015

Parameter: TRS

Instrument: Teco 43C

Serial Number: 43CTL - 60324 - 326

Previous Calibration Date: Dec. 14,,2014

Calibration: Routine

Calibration Equipment: SABIO 2010 sn# 05200311

Barometric Pressure: 27.00" Hg

Calibration Method: Standard Gas Dilution

Permeation Device ID: SV14360, 4.89 ppm H2S

Temperature: 23.0° C

Permeation Rate: 0 ng/min

In Service: Feb 5,2013

Technician: J. McClintock

Instrument Settings	H ₂ S bkg ppb	H ₂ S Coefficient	Monitoring Range
Previous	1.63	0.715	100 ppb
Current	1.90	0.773	100 ppb

Final Zero: 0.0 ppb

Final Span: 64.0 ppb

As Found Correction Factor: 1.096

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
0.076	72.0	21688.3	72.2	0.998
0.047	44.6	13315.1	44.4	1.004
0.021	20.1	5923.7	19.9	1.008
0.000	0.0	-35.0	0.2	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	303.476200	95.826730	0.999906
Current	301.747600	-89.011620	0.999962
C _i vs C _c			
Current	1.000000	0.000016	0.999962

Average Correction Factor: 1.003

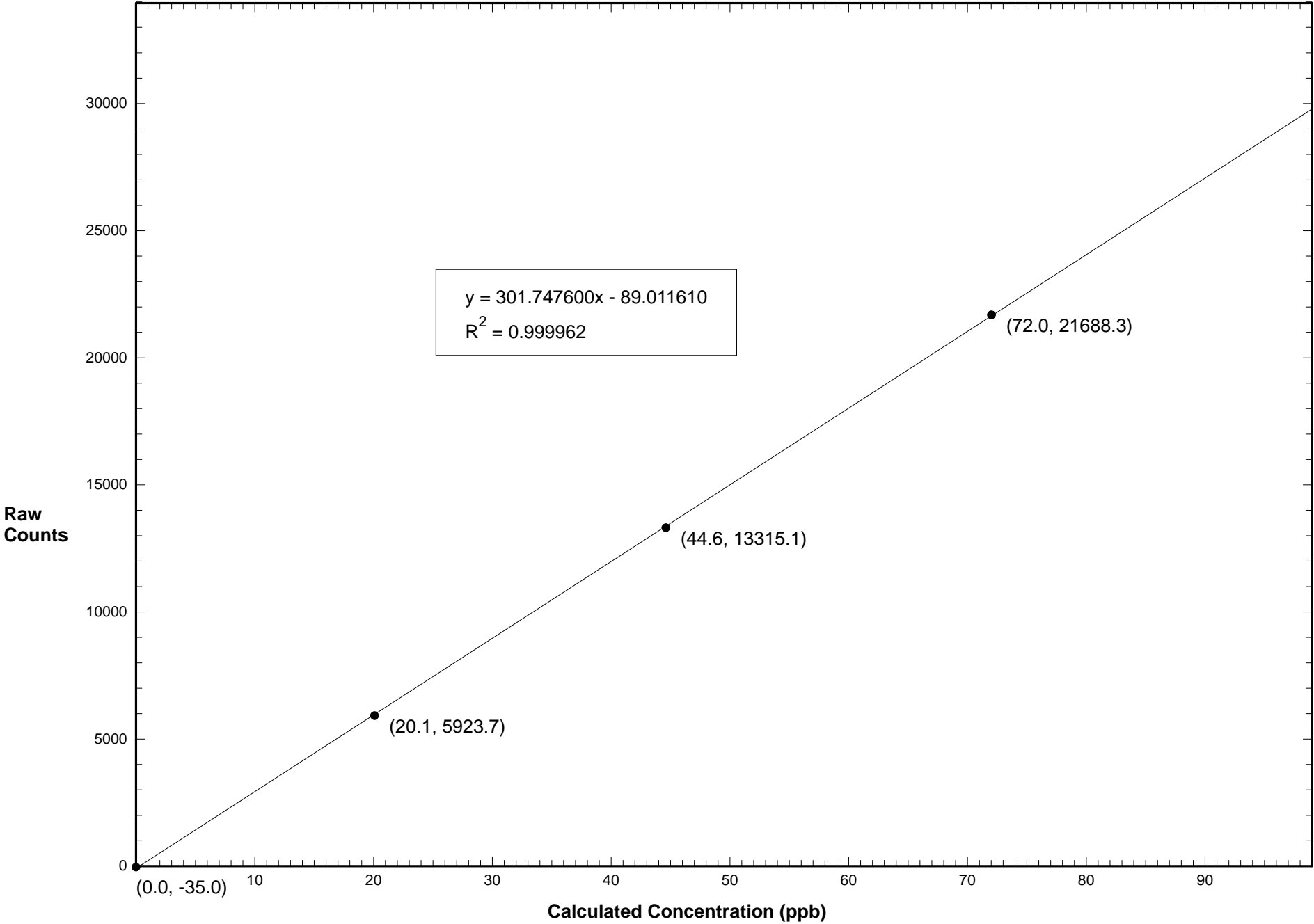
Previous Correction Factor: 0.996

Current Correction Factor: 0.998

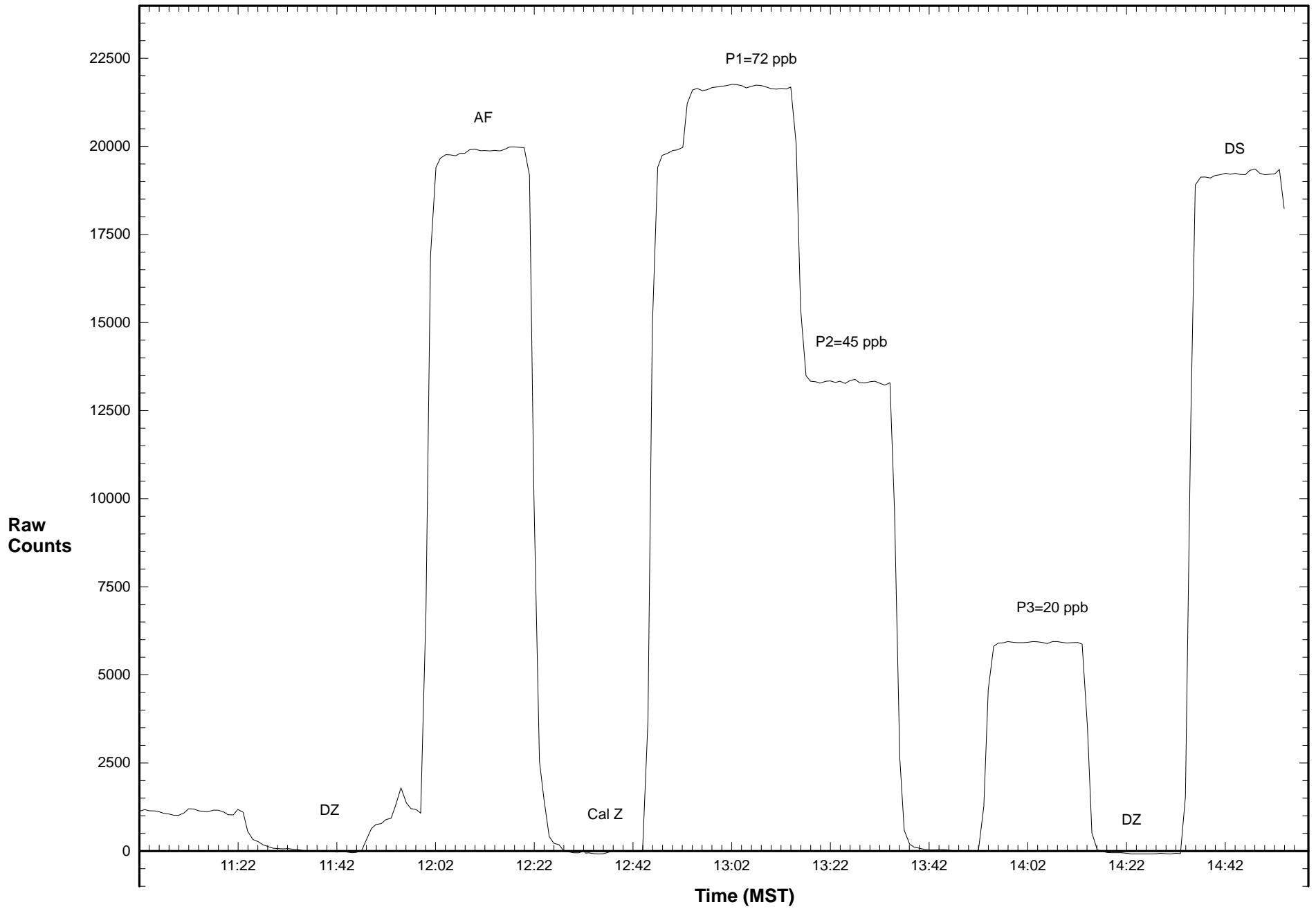
Percent Change of Correction Factor: 0.2

Comments:

Station 906 TRS January 20, 2015: Linear Regression



Station 906 TRS January 20, 2015: Calibration Graph



WEST CENTRAL AIRSHED SOCIETY

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

**AMS 906
HINTON
JANUARY 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 - Hinton
Summary of Hourly Averages

External Temperature (ET) - C
January 2015

Maximum Value: 13.08 C on Jan 25 15:00 Maximum Daily Average: 8.34 C on Jan 25 Minimum Value: -33.0 C on Jan 4 09:00 Minimum Daily Average: -26.68 C on Jan 4 Maximum Diurnal Average: -0.89 C at hour 15 Minimum Diurnal Average: -6.55 C at hour 9 Monthly Average: -4.301 C Percentiles: P ₁ = -31.1 P ₁₀ = -19.6 Q ₁ = -12.5 Median = -2.0 Q ₃ = 3.9 P ₉₀ = 7.0 P ₉₉ = 10.9																								Hours in Service:	744	
																								Hours of Data:	744	
																								Hours of Missing Data:	0	
																								Hours of Calibration:	0	
																								Percent Operational Time:	100.0	
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	-2.5	-2.4	-2.5	-2.2	-2.2	-2.1	-2.0	-1.9	-2.1	-2.2	-2.2	-1.8	-1.2	-0.7	-0.3	-1.4	-1.9	-2.2	-2.3	-2.3	-2.3	-2.3	-2.3	-2.2	-1.97	-0.25
2-Jan	-2.0	-2.1	-2.5	-5.5	-7.5	-9.2	-9.9	-10.3	-10.6	-10.9	-12.0	-12.4	-12.7	-13.1	-14.2	-14.6	-15.6	-16.1	-16.5	-17.0	-17.3	-17.9	-18.2	-18.4	-11.94	-2.04
3-Jan	-18.7	-18.8	-18.7	-18.8	-19.2	-19.3	-19.4	-19.5	-20.0	-20.3	-20.3	-20.3	-19.2	-19.8	-20.1	-21.2	-22.7	-24.4	-25.8	-26.2	-26.9	-26.8	-27.1	-26.9	-21.68	-18.65
4-Jan	-27.8	-28.8	-29.7	-31.1	-32.0	-32.3	-32.4	-32.7	-33.0	-33.0	-31.8	-30.0	-27.1	-23.8	-22.3	-22.1	-22.0	-21.6	-21.5	-21.2	-20.9	-20.9	-21.1	-21.1	-26.68	-20.86
5-Jan	-21.0	-20.9	-20.6	-20.3	-20.4	-20.1	-20.0	-20.9	-21.3	-21.2	-21.8	-22.0	-20.7	-19.0	-17.4	-16.4	-16.6	-17.1	-17.3	-17.4	-17.2	-17.0	-17.0	-16.7	-19.18	-16.40
6-Jan	-16.4	-16.3	-16.2	-16.1	-16.1	-16.1	-16.1	-16.1	-16.0	-15.8	-15.5	-14.9	-14.3	-13.9	-13.6	-13.4	-13.4	-13.5	-13.8	-14.0	-14.0	-14.3	-15.0	-16.1	-15.04	-13.36
7-Jan	-16.3	-16.1	-15.9	-15.9	-16.0	-15.7	-15.5	-15.1	-14.9	-13.8	-10.8	-5.7	-4.5	-3.2	-1.9	-1.9	-1.9	-2.4	-2.8	-3.8	-5.9	-7.9	-9.5	-11.0	-9.52	-1.88
8-Jan	-11.9	-13.1	-13.3	-13.1	-12.6	-13.3	-13.9	-15.6	-17.8	-19.6	-17.6	-16.3	-13.3	-11.8	-11.2	-11.0	-13.5	-16.2	-18.9	-20.4	-21.3	-21.4	-23.1	-24.9	-16.05	-10.99
9-Jan	-25.8	-26.8	-27.4	-27.2	-27.4	-25.8	-25.2	-24.4	-22.8	-20.9	-18.9	-14.9	-11.8	-9.6	-6.7	-5.6	-5.9	-6.2	-6.7	-7.1	-7.0	-6.9	-6.3	-6.3	-15.57	-5.64
10-Jan	-6.4	-6.2	-6.0	-6.2	-6.0	-6.0	-6.4	-7.1	-7.6	-8.0	-8.2	-8.3	-8.0	-7.0	-7.1	-7.2	-7.4	-8.1	-8.3	-8.4	-8.3	-8.3	-8.2	-8.2	-7.37	-5.96
11-Jan	-8.2	-8.3	-8.7	-8.8	-9.2	-10.0	-11.0	-12.5	-13.8	-13.9	-13.6	-12.6	-10.6	-6.3	-4.9	-4.0	-7.0	-9.5	-11.6	-13.3	-14.8	-16.0	-16.1	-16.2	-10.87	-3.98
12-Jan	-16.9	-18.6	-19.6	-20.1	-20.2	-20.6	-20.6	-20.7	-19.9	-19.8	-17.4	-12.8	-7.4	-5.0	-2.4	-0.7	-1.4	-4.1	-5.5	-5.2	-2.2	-1.7	-2.5	-1.9	-11.13	-0.73
13-Jan	-2.4	-2.6	-2.7	-2.7	-2.6	-2.8	-2.6	-2.3	-2.2	-1.4	-0.9	-0.4	0.3	1.3	1.9	3.1	3.9	3.2	2.5	2.0	2.2	3.8	4.3	4.0	0.28	4.28
14-Jan	4.8	5.2	6.2	6.2	5.7	5.7	5.1	5.5	5.2	6.3	5.6	6.4	7.4	7.8	8.2	6.9	6.4	6.3	5.9	2.7	-0.5	-1.1	0.5	3.1	5.06	8.15
15-Jan	3.0	2.1	1.1	1.4	3.2	1.4	1.1	0.6	3.2	3.6	5.3	6.6	7.9	7.7	7.4	7.2	7.2	6.5	6.5	6.5	5.8	5.6	5.7	5.2	4.66	7.89
16-Jan	5.2	5.1	4.6	4.6	3.2	4.1	3.8	3.9	3.4	3.6	3.6	3.7	3.7	4.9	5.4	4.8	3.3	1.9	2.0	2.0	3.0	3.2	3.0	3.5	3.73	5.43
17-Jan	2.7	2.7	3.2	3.5	3.7	3.2	2.9	2.0	2.6	2.5	0.9	4.3	5.5	5.6	5.5	5.2	4.3	3.8	3.5	2.4	1.5	1.7	2.1	1.6	3.20	5.58
18-Jan	0.7	0.6	0.1	0.4	0.0	-0.7	-1.3	-2.1	-3.0	-2.8	-2.1	-1.2	-0.7	-0.3	0.4	0.9	1.9	1.8	3.9	5.4	5.0	4.4	3.5	4.5	0.80	5.37
19-Jan	4.7	3.7	2.6	2.0	2.4	2.1	1.7	1.5	2.1	2.3	3.3	4.0	4.6	4.9	4.1	3.5	1.8	0.8	0.6	-1.8	-3.4	-4.1	-4.3	-4.9	1.42	4.85
20-Jan	-5.3	-6.3	-8.0	-8.9	-9.4	-9.9	-10.3	-9.7	-10.1	-10.2	-6.1	-1.9	2.7	3.8	4.4	4.1	2.9	1.4	-0.8	-2.6	-4.5	-2.9	-0.2	-0.1	-3.68	4.42
21-Jan	-0.1	-0.2	-0.2	-0.2	0.3	1.4	2.5	3.4	3.7	4.2	5.3	6.0	6.5	6.7	6.7	6.4	6.2	5.9	6.2	7.1	7.9	7.9	7.9	7.9	4.57	7.93
22-Jan	8.2	8.3	7.6	6.9	7.1	7.0	7.1	6.4	5.7	6.6	7.8	8.0	8.2	8.9	8.3	8.3	8.3	8.0	7.9	7.9	7.5	7.5	7.2	6.7	7.56	8.86
23-Jan	7.0	6.6	6.8	6.7	6.1	6.9	6.8	6.7	6.8	6.9	7.3	6.5	7.3	9.2	9.5	7.3	6.5	6.6	7.7	7.5	6.7	6.5	6.7	6.7	7.05	9.47
24-Jan	6.6	6.3	5.7	4.0	2.8	3.5	4.3	3.0	1.9	1.2	5.3	7.5	8.2	8.5	8.0	7.7	7.5	7.4	7.0	6.8	7.2	6.3	7.7	9.0	5.98	9.05
25-Jan	9.1	7.9	9.2	11.0	11.1	9.9	10.2	11.5	11.0	7.7	7.1	8.7	11.3	12.6	13.1	11.4	10.1	8.7	6.4	4.7	4.2	2.3	1.2	0.0	8.34	13.08
26-Jan	-0.2	0.1	0.1	-0.8	-1.3	-1.8	-1.9	-2.1	-2.2	-1.9	-0.8	0.8	2.2	4.1	4.6	5.4	10.0	9.7	4.1	2.6	2.3	2.2	1.8	1.5	1.60	10.00
27-Jan	1.0	0.4	-0.1	-0.9	-1.5	-2.1	-2.3	-2.7	-2.7	-2.7	-2.5	-2.0	-0.9	0.3	1.0	1.9	2.5	1.7	2.9	4.4	1.6	-0.2	-1.4	-2.0	-0.27	4.35
28-Jan	-2.2	-3.2	-4.1	-4.0	-4.3	-4.2	-5.1	-6.0	-6.7	-6.4	-3.0	-0.7	3.8	6.3	6.5	6.0	5.5	4.4	1.7	-1.6	-2.6	-3.2	-4.0	-4.6	-1.31	6.54
29-Jan	-5.5	-5.9	-5.5	-5.2	-5.0	-4.9	-4.8	-4.8	-4.8	-4.5	-3.6	-1.2	4.4	7.1	8.1	7.4	7.0	6.3	6.2	4.9	2.7	1.2	0.6	1.8	0.08	8.08
30-Jan	3.1	2.9	0.6	1.5	1.0	1.0	0.9	0.2	-0.1	-0.5	-0.5	-0.5	-0.6	-0.5	-0.7	-1.1	-3.5	-5.3	-6.7	-7.8	-8.7	-9.5	-10.2	-11.0	-2.33	3.12
31-Jan	-11.9	-12.5	-12.8	-13.1	-13.5	-14.6	-15.7	-16.3	-17.2	-16.7	-13.5	-12.1	-10.6	-9.0	-7.6	-8.4	-9.2	-10.7	-11.9	-13.7	-15.2	-15.4	-15.7	-16.8	-13.09	-7.63
																								Diurnal Average		
																								Diurnal Maximum		



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
January 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	9.0	8.4	7.9	6.3	5.5	5.2	2.4	1.6	2.8	1.7	2.2	2.1	2.3	4.0	1.9	1.4	0.2	1.8	2.3	2.3	2.9	2.3	2.3	3.8	1.76	9.02	
Dir	SW	SW	SW	SW	SW	SW	WSW	W	SW	W	WNW	W	WSW	WSW	WNW	NW	NE	ENE	ENE	ENE	ENE	ENE	NE	ENE	WSW	SW	
2 Spd	6.1	3.4	5.1	10.2	11.2	10.9	9.6	3.6	2.8	4.4	6.0	4.6	3.4	5.0	5.3	4.5	3.3	3.4	4.2	2.0	1.0	1.6	2.4	3.0	4.19	11.21	
Dir	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	N	N	N	N	N	N	N	N	N	N	N	NNE	N	NNW	N	NE	ENE
3 Spd	1.3	1.1	0.2	2.0	1.4	2.8	3.3	1.2	1.7	0.1	1.2	1.9	1.6	2.6	1.8	1.1	0.6	2.1	0.5	1.1	0.7	0.2	0.8	0.9	0.47	3.33	
Dir	NW	W	WSW	NNE	NE	SSE	SE	ENE	ENE	ENE	N	E	SE	ENE	E	NE	ESE	SSW	SSW	WSW	NNE	NNE	NW	NW	E	SE	
4 Spd	1.0	1.1	1.4	1.5	0.7	0.3	0.4	1.8	1.0	1.6	1.2	1.7	0.8	0.2	0.8	1.0	1.1	1.4	5.0	3.5	4.1	5.3	4.7	1.7	1.26	5.31	
Dir	NE	NE	ENE	ENE	ENE	N	N	W	NW	WNW	WNW	WNW	N	WSW	NE	NW	NNE	ENE	ENE	ENE	ENE	ENE	ENE	NNE	NE	ENE	
5 Spd	1.7	0.7	0.6	0.9	1.1	0.8	2.2	2.7	2.2	2.6	3.9	4.7	3.8	1.7	0.8	1.6	0.9	1.8	2.1	3.1	2.2	2.3	3.8	4.1	1.93	4.68	
Dir	NE	ENE	WNW	W	W	NNW	ENE	ENE	E	ENE	ENE	ENE	ENE	E	NE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE
6 Spd	2.8	2.6	2.4	1.3	0.9	1.1	2.5	4.7	3.6	2.6	2.9	3.8	4.6	4.9	5.0	4.7	5.5	5.3	4.7	5.0	5.8	4.1	5.4	5.6	3.77	5.82	
Dir	NE	NE	NE	NE	NNE	NNE	NE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE
7 Spd	4.1	3.6	2.8	4.2	3.9	2.2	1.9	0.3	1.4	2.2	3.2	2.6	0.7	0.7	0.6	0.4	2.6	4.0	5.2	4.4	6.9	4.1	3.8	3.3	1.99	6.92	
Dir	ENE	ENE	NE	ENE	ENE	ENE	ENE	NNW	ENE	WSW	WNW	WSW	WSW	E	SE	E	ENE	ENE	NNE	N	NNE	NNE	NNE	N	NE	NNE	
8 Spd	3.5	1.8	0.8	3.3	4.1	1.3	0.5	1.2	1.0	0.8	1.2	2.2	1.0	1.2	3.0	2.1	2.3	2.5	1.3	0.1	0.6	2.0	0.9	1.3	0.89	4.09	
Dir	N	NNE	NNE	S	SSW	NNE	SSE	SSE	E	ESE	E	ESE	ESE	E	ENE	ENE	ENE	E	NE	SW	NE	ENE	ENE	ENE	E	SSW	
9 Spd	2.2	0.9	0.7	0.6	0.7	1.5	1.5	1.2	0.9	0.8	1.0	1.3	0.6	1.1	1.9	1.4	1.0	1.2	0.3	0.1	0.7	0.5	0.6	0.4	0.64	2.21	
Dir	ENE	NE	NNW	N	NNW	WNW	WNW	W	WSW	W	WNW	WNW	WSW	WNW	WNW	WNW	W	W	W	ENE	NW	NW	SW	WNW	WNW	ENE	
10 Spd	1.5	1.5	1.4	3.0	2.9	2.3	6.1	7.4	5.4	4.9	5.3	7.5	4.6	4.7	4.0	2.5	4.1	4.2	1.7	2.8	2.4	3.3	2.8	3.2	3.70	7.54	
Dir	ENE	ENE	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE
11 Spd	2.2	1.8	2.2	0.6	0.6	0.6	0.8	1.9	1.6	1.7	1.6	1.3	0.3	0.1	1.4	1.5	0.9	1.4	0.5	0.2	0.3	0.2	1.5	0.3	0.30	2.24	
Dir	ENE	NNE	ENE	NNE	ENE	SW	WSW	W	W	NW	WNW	NW	N	SW	E	ENE	E	E	E	ESE	SSE	WSW	W	NW	N	ENE	
12 Spd	0.4	0.6	0.2	0.2	0.3	0.3	0.6	0.5	0.4	0.3	0.2	0.1	0.4	2.5	2.0	7.1	6.6	1.9	2.6	3.3	8.7	9.4	5.6	11.0	2.50	10.99	
Dir	NNW	NW	NW	NW	W	W	WNW	W	W	SSW	SE	W	NW	WNW	W	SW	SW	W	WSW	W	SW	SW	SW	WSW	WSW	WSW	WSW
13 Spd	13.3	13.8	12.5	11.4	9.9	10.3	9.4	9.8	10.0	10.9	10.7	10.5	8.5	7.2	6.6	9.5	10.0	10.5	7.0	5.3	7.6	11.8	14.5	10.9	9.98	14.50	
Dir	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	SW	SW	SSW	SW	SW	
14 Spd	5.2	4.5	7.8	9.1	11.9	9.7	9.6	10.8	11.5	9.9	16.6	9.8	6.4	7.6	10.9	9.5	9.4	10.6	8.4	1.9	1.7	2.5	3.1	7.3	7.75	16.59	
Dir	SW	WSW	SW	SW	SW	SSW	S	SSW	SSW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WNW	NW	WNW	WSW	SW	SW	
15 Spd	6.3	5.0	3.5	4.5	8.9	1.1	1.2	0.6	2.5	10.3	8.3	6.9	9.8	11.2	16.2	11.6	10.9	11.3	15.6	9.8	8.4	9.3	9.9	12.4	7.95	16.16	
Dir	SW	WSW	WSW	WSW	SW	WNW	WNW	ENE	SW	SSW	SW	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	SW	SW	SW	
16 Spd	12.3	8.1	7.9	6.6	3.1	10.7	8.0	5.6	7.4	4.9	3.0	4.9	4.9	5.2	6.4	5.6	4.2	3.7	4.2	3.6	8.6	6.5	7.2	10.9	6.06	12.32	
Dir	SW	SSW	SSW	SW	SSW	SW	WSW	WSW	WSW	SW	W	WSW	W	W	W	W	W	W	WSW	WSW	SW	WSW	WSW	SW	WSW	WSW	
17 Spd	3.9	6.4	6.7	7.5	13.3	9.2	11.4	3.1	10.3	4.5	0.9	5.2	8.0	12.4	7.6	8.2	11.6	9.7	9.2	4.4	4.1	3.4	8.0	6.5	7.20	13.34	
Dir	W	WSW	WSW	WSW	WSW	SW	SW	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	WSW	W	WSW	SW	SW	WSW	
18 Spd	5.7	7.0	4.8	5.7	4.7	3.1	2.4	0.6	0.4	1.1	1.8	2.0	1.3	1.5	1.7	2.0	2.0	0.9	2.6	4.6	3.5	2.0	1.6	3.0	1.96	7.03	
Dir	SW	SW	SW	SW	SW	WSW	WSW	S	WNW	W	W	WSW	N	ENE	ENE	NE	ENE	NW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	
19 Spd	4.1	2.9	1.6	0.9	1.2	1.3	1.1	1.5	1.5	3.7	3.3	7.7	6.4	4.1	2.1	2.4	2.1	2.4	3.0	0.5	0.9	1.5	1.5	1.6	2.28	7.69	
Dir	WSW	W	WNW	W	WSW	W	W	WSW	W	WSW	WSW	SW	SW	WSW	W	W	W	SW	WSW	NW	SSE	WNW	W	NW	WSW		
20 Spd	0.9	1.4	1.0	0.7	0.7	0.3	0.1	0.3	0.1	0.3	0.4	0.3	9.0	11.3	5.0	6.9	6.0	4.3	1.1	0.5	0.5	3.0	7.0	6.4	2.38	11.29	
Dir	WNW	NE	ENE	E	SSW	E	SSE	ESE	SW	NNE	E	NE	SW	SW	SW	SW	SW	SW	SW	WSW	E	SW	SW	SW	SW	SW	
21 Spd	10.4	12.2	11.6	9.0	5.6	10.1	11.2	13.3	14.1	12.6	13.3	11.9	13.8	12.8	12.4	13.0	9.0	4.8	5.2	6.5	11.2	9.6	12.4	10.0	10.33	14.12	
Dir	SW	SSW	S	SSW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WSW	WSW	WSW	SW	WSW	SW		
22 Spd	8.7	11.2	6.3	6.1	10.4	9.5	7.3	4.8	4.1	4.9	8.1	8.0	10.3	13.0	7.8	8.8	11.5	7.5	8.1	10.3	8.8	8.2	8.0	14.6	8.36	14.64	
Dir	WSW	WSW	WNW	WSW	SW	SW	WSW	WSW	W	WSW	SW	WSW	SW	SW	WSW	SW	SW	SW	SW	SW	SW	WSW	SW	SSW	SW	SSW	



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
January 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	16.0	7.7	10.2	10.8	5.3	8.3	7.8	5.2	5.4	3.9	5.0	1.1	2.4	6.3	10.2	4.3	6.2	5.5	11.3	10.0	4.1	6.3	11.1	12.9	7.17	15.95	
Dir	SW	SW	SW	SW	W	WSW	WSW	WSW	WSW	SW	WSW	SW	SSE	SSW	WSW	SW	WSW	SSW	SSW	SW	SW	WSW	SW	SW	SW	SW	SW
24 Spd	6.8	7.0	9.1	3.5	2.8	4.8	7.6	2.6	4.9	2.6	1.2	9.5	10.6	9.4	10.6	9.6	6.5	5.4	9.4	11.7	6.5	2.4	4.0	5.3	6.27	11.75	
Dir	W	SW	SW	WSW	WSW	WSW	SW	SW	SW	WSW	W	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SW	W	SW	SW	SW	SW	SSW
25 Spd	5.4	2.1	6.3	13.8	11.1	5.0	5.0	2.6	3.6	1.5	5.5	4.4	6.4	7.5	2.5	1.3	2.6	1.1	1.3	0.5	1.2	0.7	0.9	0.4	1.04	13.76	
Dir	SW	WSW	SW	SW	SW	WSW	WSW	WSW	SW	SSW	ENE	NE	E	ENE	ENE	NE	ENE	ENE	ESE	E	SE	ESE	ESE	ENE	SSW	SW	SW
26 Spd	0.7	1.5	2.5	2.3	0.8	0.6	0.8	1.1	2.0	1.8	2.6	3.1	5.4	5.4	5.0	0.8	9.2	5.8	5.9	7.2	3.6	1.9	2.9	2.2	1.82	9.17	
Dir	SSW	SE	E	ENE	ESE	ENE	NE	ENE	E	E	ENE	ENE	ENE	ENE	ENE	NNE	SW	SW	ENE	ENE	NE	NE	ENE	NE	ENE	ENE	SW
27 Spd	3.1	2.0	2.2	2.4	1.2	0.6	1.1	0.5	0.4	2.0	1.1	2.7	0.8	4.2	5.2	4.3	4.2	4.1	3.9	5.5	1.1	1.8	2.5	1.8	1.27	5.52	
Dir	ENE	NE	ENE	ENE	ENE	NE	SSE	SSW	SSW	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	SSW	SW	E	E	SSW	WSW	ENE	SW	SW
28 Spd	2.8	0.2	0.6	0.6	0.6	0.6	0.5	0.4	0.9	0.5	0.2	3.2	5.8	8.6	4.9	6.6	8.0	6.8	0.7	3.5	3.0	1.1	0.3	0.0	1.26	8.60	
Dir	SSW	SW	ESE	NE	NE	E	S	ENE	ENE	ENE	ESE	ENE	SW	SW	SW	SW	SW	SW	NNE	ENE	ENE	E	SSE	SW	SW	SW	SW
29 Spd	0.5	1.0	2.1	1.5	2.4	2.0	1.8	2.0	1.7	1.2	0.2	2.2	2.4	8.5	5.2	6.0	7.1	2.5	8.0	2.6	0.3	2.0	0.1	4.9	1.31	8.46	
Dir	E	ENE	ENE	ENE	NE	E	NE	ENE	ENE	ENE	WSW	NE	WSW	SW	WSW	WSW	SSW	SW	SW	SW	WNW	SSE	S	SW	SW	SW	SW
30 Spd	2.4	3.3	0.7	1.0	2.0	1.8	2.4	2.7	3.7	3.3	3.2	3.4	4.5	4.2	4.7	6.8	11.7	10.3	10.3	8.9	7.7	7.2	4.4	4.8	4.25	11.71	
Dir	WSW	SW	ENE	SSE	ENE	ENE	NE	ENE	NE	NE	NE	NE	NE	NE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE
31 Spd	4.8	4.7	4.2	3.8	3.3	2.2	1.4	0.7	0.4	0.5	0.8	0.3	0.9	0.9	1.9	0.4	2.8	1.8	1.3	0.8	0.3	0.9	0.6	1.3	1.0	1.32	4.80
Dir	NE	NE	NE	ENE	NE	NE	E	E	ENE	SE	SSE	ESE	W	WNW	NNW	ENE	NE	NE	E	SE	NE	NNW	NW	NW	NE	NE	NE
Spd	2.52	2.32	1.97	2.07	2.13	2.04	1.77	1.21	1.73	1.64	1.46	1.34	2.20	2.67	2.21	2.40	2.45	1.70	1.80	1.22	0.98	1.22	2.13	2.74	Diurnal Average		
Dir	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	SW	SW	SW	WSW	SW	SW	SW	Diurnal Maximum	
Spd	15.95	13.83	12.46	13.76	13.34	10.94	11.42	13.29	14.12	12.59	16.59	11.86	13.82	12.95	16.16	12.99	11.71	11.31	15.58	11.75	11.16	11.78	14.50	14.64	Diurnal Maximum		
Dir	215.95	232.18	225.77	230.78	237.89	64.86	233.89	233.71	227.27	221.89	211.21	238.04	237.64	233.29	225.64	236.66	66.34	233.40	221.81	211.93	237.77	220.84	214.83	206.94	Diurnal Maximum		
Maximum Speed Value: 16.6 kph on Jan 14 11:00		Minimum Speed Value: 0.0 kph on Jan 29 00:00										Hours in Service: 744															
Maximum Daily Speed Average: 10.33 kph on Jan 21		Minimum Daily Speed Average: 0.30 kph on Jan 9										Hours of Data: 744															
Maximum Diurnal Speed Average: 2.74 kph at hour 24		Minimum Diurnal Speed Average: 0.98 kph at hour 21										Hours of Missing Data: 0															
Monthly Average Velocity: 1.904 kph 229.76 deg		Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.6 Q ₁ = 1.3 Median = 3.1 Q ₃ = 6.5 P ₉₀ = 10.2 P ₉₉ = 13.8										Percent Operational Time: 100.0															
All monthly, daily, and diurnal averages have been calculated using vector methods																											
Frequency Distribution																											
		Speed Range (kph)																									
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	34	3	0	0	0	0	37																				
NorthEast	147	28	2	0	0	0	177																				
East	86	5	0	0	0	0	91																				
SouthEast	21	0	0	0	0	0	21																				
South	19	4	2	0	0	0	25																				
SouthWest	61	148	44	0	0	0	253																				
West	89	14	0	0	0	0	103																				
NorthWest	37	0	0	0	0	0	37																				
Total	494	202	48	0	0	0	744																				



WCAS - Hinton
Summary of Hourly Averages

Relative Humidity (RH) - %
January 2015

Maximum Value: 91.74 % on Jan 27 12:00 Maximum Daily Average: 85.13 % on Jan 27																						Hours in Service: 744 Hours of Data: 744																									
Minimum Value: 21.1 % on Jan 29 19:00 Minimum Daily Average: 36.89 % on Jan 17 Maximum Diurnal Average: 67.30 % at hour 8 Minimum Diurnal Average: 53.75 % at hour 15 Monthly Average: 62.838 % Percentiles: P₁ = 24.4 P₁₀ = 36.5 Q₁ = 46.5 Median = 67.0 Q₃ = 79.0 P₉₀ = 84.7 P₉₉ = 90.4																						Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																									
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																							
1-Jan	52.8	54.2	54.2	55.1	56.1	57.1	59.7	60.7	61.6	63.2	63.3	61.7	59.8	57.6	60.3	77.3	85.6	88.1	89.3	89.7	89.9	90.0	90.2	90.2	69.48	90.25																					
2-Jan	90.0	89.8	89.0	84.8	83.0	83.1	82.8	85.2	84.8	83.2	76.0	71.1	65.7	66.8	63.7	62.2	63.3	63.5	63.3	67.3	68.5	69.5	67.7	69.0	74.72	89.99																					
3-Jan	71.0	72.7	72.9	74.2	70.3	69.6	71.8	72.2	67.4	67.7	65.3	58.1	49.3	51.8	53.4	62.0	66.5	71.1	71.5	71.6	71.1	71.9	71.2	70.8	67.31	74.23																					
4-Jan	69.8	68.8	68.1	66.8	66.4	65.5	65.2	64.7	64.7	64.5	64.8	65.8	68.7	68.5	68.1	69.4	73.3	74.5	73.0	73.2	73.3	73.4	73.8	74.5	69.11	74.52																					
5-Jan	74.4	74.7	75.5	76.0	76.0	77.0	76.8	75.6	75.3	74.7	73.8	72.6	73.0	73.0	73.2	73.9	73.9	76.6	77.4	76.7	75.6	76.6	77.1	78.4	75.33	78.40																					
6-Jan	79.3	79.6	79.7	79.7	79.9	80.0	79.9	79.6	79.6	79.6	79.4	78.2	76.4	75.4	75.3	76.2	77.6	78.8	79.0	79.2	79.2	79.5	79.2	79.1	78.72	79.98																					
7-Jan	78.5	78.1	78.5	78.8	78.9	79.4	79.1	79.4	79.9	81.5	85.4	82.3	81.2	77.8	76.8	82.7	85.1	86.7	81.5	74.2	72.0	69.0	67.0	65.3	78.30	86.65																					
8-Jan	66.4	71.4	69.5	71.8	69.6	76.0	74.9	78.2	79.3	78.4	72.6	67.4	59.4	57.9	59.5	60.0	69.1	77.0	77.9	78.6	76.9	77.7	74.6	72.9	71.55	79.34																					
9-Jan	72.3	71.2	70.6	70.7	70.7	72.4	72.6	73.6	75.3	76.6	78.3	81.8	84.3	84.8	80.7	77.4	77.5	78.0	80.7	83.0	84.2	85.7	84.8	85.5	78.03	85.71																					
10-Jan	86.0	86.3	86.2	87.1	87.0	87.5	87.0	84.3	83.1	83.3	84.2	81.8	78.7	73.4	74.9	77.8	80.2	84.3	84.4	84.7	85.0	85.0	85.2	84.8	83.43	87.53																					
11-Jan	83.7	84.2	82.5	82.8	83.9	84.4	83.8	82.7	83.0	83.8	83.7	83.5	82.8	68.3	65.1	65.6	78.1	83.7	85.1	83.8	82.2	81.4	82.2	80.9	80.88	85.09																					
12-Jan	80.6	79.0	78.5	77.7	77.6	77.3	77.3	77.3	77.8	78.0	79.9	83.0	85.2	79.0	65.5	52.5	55.2	70.3	76.6	73.2	59.6	56.2	59.4	56.9	72.23	85.18																					
13-Jan	57.8	57.7	56.9	56.1	55.9	55.5	55.1	54.2	54.6	53.8	53.1	51.8	50.6	48.9	49.1	46.7	46.5	49.1	51.4	54.3	55.3	49.6	47.8	49.6	52.56	57.80																					
14-Jan	49.4	49.3	44.6	42.9	43.7	44.9	47.5	46.0	47.2	44.1	46.6	44.2	42.5	41.5	40.9	44.8	47.4	47.7	48.8	60.7	73.6	76.9	69.3	57.2	50.07	76.94																					
15-Jan	57.0	59.8	63.5	63.1	54.1	61.5	61.8	64.2	49.7	45.6	38.2	32.2	26.6	26.2	25.5	26.8	27.1	29.5	29.6	31.0	34.7	36.0	40.6	44.5	42.87	64.19																					
16-Jan	43.1	43.5	44.2	44.3	49.5	48.2	52.4	52.4	54.6	50.9	50.0	46.2	45.1	39.9	31.3	29.3	34.9	39.5	38.0	38.5	34.8	36.1	38.4	35.0	42.51	54.58																					
17-Jan	42.0	39.1	36.5	34.0	31.7	33.7	34.5	38.2	34.5	35.2	41.1	30.8	28.1	28.8	31.0	32.8	34.5	37.3	38.3	43.4	47.6	46.3	42.7	43.4	36.89	47.63																					
18-Jan	47.4	48.3	50.3	49.3	51.2	54.3	58.5	61.5	66.6	65.0	73.8	74.5	71.6	70.6	69.2	67.1	63.2	63.8	55.7	49.1	49.9	50.3	52.0	48.5	58.83	74.52																					
19-Jan	47.1	50.5	53.9	53.5	47.7	46.3	48.9	48.2	47.7	46.7	45.5	40.9	37.2	35.6	36.7	38.8	43.9	43.8	44.3	53.8	61.8	64.3	62.9	63.1	48.46	64.32																					
20-Jan	65.2	68.7	74.7	77.3	79.2	80.3	81.8	82.2	82.0	81.9	68.1	53.9	35.6	29.0	29.1	28.9	32.9	38.9	47.5	55.4	63.3	58.8	47.7	47.4	58.74	82.23																					
21-Jan	47.1	47.7	47.9	47.3	45.1	40.3	36.2	33.1	31.7	30.2	29.0	30.3	31.5	34.8	36.9	38.0	40.5	45.5	46.3	43.6	40.5	41.0	41.0	42.3	39.49	47.88																					
22-Jan	41.6	42.2	45.4	47.7	44.1	43.8	43.5	45.5	48.3	43.5	38.2	37.6	36.3	34.2	37.2	37.3	36.7	37.8	36.8	36.0	37.1	36.2	36.6	38.1	40.08	48.27																					
23-Jan	36.5	38.7	37.7	39.5	45.4	42.9	44.0	44.1	43.5	44.3	42.4	45.7	42.9	38.5	39.6	54.6	58.2	56.9	51.2	53.3	55.5	55.3	55.1	54.6	46.69	58.23																					
24-Jan	54.6	56.2	61.0	70.0	73.4	64.0	57.7	58.6	61.0	61.3	44.7	32.9	28.2	27.4	27.5	27.9	29.0	30.5	41.1	42.0	44.4	51.1	46.9	46.3	47.40	73.44																					
25-Jan	47.4	52.2	47.2	41.2	40.6	45.1	42.7	37.0	38.1	51.0	51.5	46.6	39.8	36.2	33.2	35.0	39.1	43.9	54.3	59.9	61.7	69.5	74.3	78.2	48.58	78.24																					
26-Jan	80.2	78.5	77.3	79.8	82.2	84.5	84.6	85.5	85.9	85.6	82.7	78.3	74.3	68.7	67.7	67.1	53.2	52.4	68.2	73.8	75.1	75.4	77.6	79.4	75.75	85.90																					
27-Jan	81.3	84.2	85.9	87.7	88.8	89.7	90.3	90.4	90.9	91.7	91.6	91.7	91.7	89.7	83.9	80.9	77.5	80.8	75.5	65.5	77.3	83.4	86.9	85.9	85.13	91.74																					
28-Jan	86.8	87.0	88.9	89.3	89.1	88.9	89.0	89.2	89.2	88.4	78.3	69.6	45.2	25.4	24.4	24.8	24.1	24.7	36.2	52.6	58.3	62.9	68.8	72.1	64.71	89.34																					
29-Jan	76.9	78.1	76.8	76.7	76.7	77.9	79.0	80.1	79.9	79.0	77.4	67.0	36.3	23.0	22.7	21.7	21.2	23.6	21.1	24.4	31.0	41.8	46.7	40.9	53.31	80.06																					
30-Jan	34.0	35.2	50.5	45.6	56.6	64.7	73.7	80.8	83.2	85.6	88.7	89.5	89.9	90.4	90.6	90.5	89.6	87.9	87.1	86.0	86.0	85.9	85.5	84.7	76.76	90.63																					
31-Jan	83.5	82.8	82.4	82.4	82.3	82.1	82.0	81.5	80.8	81.0	78.2	75.3	74.1	75.1	73.1	73.5	78.9	82.1	83.3	82.8	81.7	81.7	81.0	80.2	80.07	83.54																					
																						64.00	64.82	65.51	65.59	65.71	66.39	66.91	67.30	67.13	67.08	65.34	62.14	57.80	54.78	53.75	54.95	56.89	59.62	61.11	62.61	64.10	65.11	64.97	64.50	Diurnal Average	
																						89.99	89.75	89.00	89.34	89.10	89.73	90.28	90.35	90.93	91.65	91.56	91.74	91.70	90.35	90.63	90.48	89.60	88.09	89.28	89.67	89.90	89.97	90.19	90.25	Diurnal Maximum	



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Speed (WS) - kph
January 2015

Maximum Value: 9.15 kph on Jan 21 13:00		Maximum Daily Average: 6.53 kph on Jan 21		Hours in Service: 744																						
Minimum Value: 0.1 kph on Jan 11 14:00		Minimum Daily Average: 1.04 kph on Jan 11		Hours of Data: 744																						
Maximum Diurnal Average: 3.58 kph at hour 14		Minimum Diurnal Average: 2.33 kph at hour 10		Hours of Missing Data: 0																						
Monthly Average: 2.913 kph		Percentiles: P ₁ = 0.6 P ₁₀ = 1.0 Q ₁ = 1.4 Median = 2.3 Q ₃ = 4.2 P ₉₀ = 5.8 P ₉₉ = 8.5		Hours of Calibration: 0																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	4.7	3.9	3.9	3.7	3.6	3.1	2.3	1.8	2.9	1.6	1.5	2.1	2.3	3.1	1.4	1.2	0.3	1.3	1.4	1.7	1.7	1.6	2.0	2.2	2.31	4.73
2-Jan	2.6	2.0	3.7	4.6	4.8	4.6	3.6	2.7	2.5	3.1	3.9	3.5	3.0	3.4	3.4	3.3	2.5	2.0	2.3	1.9	1.4	1.7	1.7	2.5	2.94	4.76
3-Jan	1.5	1.3	0.6	1.4	1.5	1.5	1.2	1.3	1.6	1.1	1.2	1.8	1.8	2.6	1.7	1.0	1.6	1.5	1.1	1.4	1.0	0.9	1.0	1.3	1.37	2.58
4-Jan	0.9	0.8	1.0	1.1	0.7	0.6	0.6	1.6	1.0	1.2	1.4	1.0	0.9	1.0	1.0	0.9	1.0	1.7	2.3	2.2	2.4	2.4	2.4	1.4	1.31	2.39
5-Jan	1.3	1.2	0.7	0.9	1.2	1.1	1.4	2.1	1.5	1.3	1.7	1.7	1.6	1.5	0.9	1.2	0.9	1.4	1.3	1.2	1.6	1.9	1.8	1.8	1.38	2.14
6-Jan	2.1	1.7	1.7	1.3	1.0	1.2	1.6	1.9	1.8	1.9	2.0	2.9	2.5	2.2	2.4	2.2	2.7	2.4	2.1	2.0	2.6	2.2	2.2	1.9	2.02	2.91
7-Jan	1.2	1.5	1.8	2.1	1.9	2.0	1.4	1.0	1.7	1.2	1.5	2.5	1.8	1.4	1.2	1.3	1.9	2.3	4.8	3.1	4.4	2.7	2.7	3.1	2.11	4.84
8-Jan	3.0	1.9	1.9	2.7	2.9	1.5	1.7	1.8	1.4	1.2	1.7	1.3	1.3	1.4	1.4	1.7	1.6	1.2	0.9	0.9	0.9	1.3	1.1	1.3	1.59	3.05
9-Jan	1.7	1.4	1.0	0.8	0.8	1.2	1.0	1.2	1.1	1.1	1.0	1.0	1.1	1.1	1.2	1.3	1.2	1.2	0.7	0.6	1.1	0.8	1.0	0.9	1.06	1.67
10-Jan	1.2	1.6	1.3	1.6	1.9	1.3	3.2	2.6	2.3	2.8	2.6	3.4	2.9	2.0	1.9	1.5	1.7	1.6	1.7	1.4	2.0	1.7	1.4	1.9	1.98	3.41
11-Jan	1.2	1.3	1.7	0.8	0.8	1.1	1.1	1.2	1.5	1.1	0.9	0.9	0.9	0.1	1.5	1.2	1.0	1.4	0.9	0.9	1.0	1.0	1.2	0.5	1.04	1.69
12-Jan	0.5	0.7	0.7	0.7	1.0	1.0	0.9	1.0	1.2	0.9	0.8	0.2	0.7	1.4	1.7	3.8	4.4	1.4	1.9	2.2	4.0	3.7	3.9	5.0	1.82	5.02
13-Jan	6.2	6.0	5.0	5.0	4.9	4.8	4.6	4.5	4.4	4.9	5.1	5.0	4.3	4.4	4.0	4.5	5.1	4.6	3.7	4.3	5.2	4.4	4.4	4.5	4.75	6.23
14-Jan	3.6	3.9	4.7	4.2	3.8	4.1	4.3	5.0	4.2	4.4	5.1	4.7	4.2	3.9	4.5	4.6	4.5	4.7	4.7	1.6	1.2	1.8	2.9	3.9	3.94	5.14
15-Jan	4.1	4.2	2.8	3.9	3.6	2.0	2.0	2.0	4.2	4.2	4.2	4.0	7.1	6.5	8.0	7.2	6.9	6.9	7.8	5.8	5.7	6.7	7.2	6.6	5.15	7.96
16-Jan	5.7	5.3	4.3	5.3	4.5	7.0	6.1	4.5	5.5	4.4	3.2	4.5	5.1	5.3	5.5	4.7	3.9	2.9	3.7	3.4	4.7	4.8	5.8	7.4	4.89	7.41
17-Jan	4.0	5.8	5.9	7.1	9.1	5.7	6.3	3.8	6.7	2.4	1.6	5.4	6.8	8.9	6.9	6.8	6.6	6.7	6.4	4.1	3.8	4.0	3.8	2.8	5.48	9.06
18-Jan	3.7	3.7	3.5	3.4	3.1	3.1	2.2	1.5	1.1	1.2	1.5	2.3	1.4	1.5	1.5	1.9	1.3	1.7	3.7	3.8	3.2	2.8	2.1	3.4	2.44	3.78
19-Jan	4.0	2.9	1.8	1.2	1.7	1.7	1.3	2.1	2.1	3.8	3.7	4.9	4.7	3.8	2.6	2.5	1.8	2.3	2.3	1.5	1.2	1.3	1.3	1.3	2.41	4.94
20-Jan	1.4	1.3	1.2	1.1	1.1	0.9	0.8	1.0	0.7	0.9	0.9	1.6	4.5	5.4	4.2	4.1	3.6	3.0	1.1	1.0	1.0	2.0	2.8	3.3	2.04	5.44
21-Jan	4.7	4.0	3.2	3.2	4.1	5.1	5.8	8.8	7.0	5.7	7.2	8.0	9.2	8.6	9.0	8.6	6.6	5.2	5.1	6.2	8.5	7.6	8.0	7.3	6.53	9.15
22-Jan	7.3	9.1	5.1	5.1	5.4	6.0	5.9	4.8	3.6	4.6	5.5	6.4	7.4	7.7	6.5	6.2	6.4	5.6	6.1	6.2	6.3	7.0	5.0	6.3	6.07	9.14
23-Jan	7.1	5.2	6.2	7.4	5.5	6.1	6.7	5.3	4.0	3.8	3.9	1.9	3.7	5.6	6.7	4.4	2.9	3.8	6.6	6.1	3.8	4.8	6.9	6.7	5.21	7.41
24-Jan	5.6	4.6	4.0	3.3	2.4	3.3	4.0	2.4	2.3	1.7	1.5	6.1	6.1	6.6	6.7	6.7	5.0	4.6	5.8	5.1	4.7	2.5	3.3	4.5	4.29	6.72
25-Jan	3.6	2.9	5.0	7.6	7.2	4.1	3.4	3.7	3.1	2.5	2.9	2.6	3.0	3.2	2.8	1.8	2.0	1.6	1.5	1.4	2.6	1.3	1.8	1.4	3.05	7.63
26-Jan	2.0	2.9	2.7	2.1	1.5	1.3	1.4	2.0	2.1	2.0	3.0	2.2	2.7	2.4	2.3	2.6	4.3	3.2	2.8	2.8	2.5	1.9	1.9	1.6	2.35	4.34
27-Jan	1.8	1.6	1.7	1.4	1.3	1.1	2.0	1.1	1.3	2.0	1.4	1.6	1.4	2.2	2.7	2.4	2.8	3.4	4.1	4.4	1.7	2.3	2.0	1.5	2.06	4.44
28-Jan	2.0	1.3	1.7	1.5	1.6	1.1	1.3	1.1	1.0	0.9	0.7	1.6	5.6	5.0	4.8	5.1	4.6	3.7	1.6	1.5	1.6	1.3	0.9	1.1	2.19	5.60
29-Jan	0.7	1.3	1.6	1.3	2.4	1.3	1.6	1.9	1.5	1.4	1.3	1.8	4.0	5.1	5.0	4.2	3.7	2.7	3.2	2.5	1.3	2.3	1.3	5.1	2.43	5.11
30-Jan	2.8	3.2	2.3	2.5	1.3	1.4	1.5	1.7	2.5	1.9	1.8	1.8	2.5	2.7	3.0	4.5	4.2	3.8	4.4	3.6	3.4	2.9	2.7	3.0	2.72	4.50
31-Jan	2.6	2.3	2.3	1.8	1.7	1.6	1.1	1.2	0.9	0.9	0.9	1.2	1.3	1.3	1.5	1.4	1.5	1.5	1.4	1.0	0.9	0.7	1.1	0.8	1.36	2.63
																								Diurnal Average		
																								Diurnal Maximum		
																								3.06 7.30		
																								2.93 9.14		
																								2.75 6.24		
																								2.91 7.63		
																								2.85 9.06		
																								2.64 6.95		
																								2.66 6.69		
																								2.53 8.77		
																								2.54 6.99		
																								2.33 5.66		
																								2.44 7.19		
																								2.90 7.99		
																								3.41 9.15		
																								3.58 8.85		
																								3.47 9.03		
																								3.38 8.64		
																								3.19 6.94		
																								2.94 6.89		
																								3.15 7.81		
																								2.77 6.16		
																								2.82 8.52		
																								2.72 7.63		
																								2.83 8.05		
																								3.10 7.41		

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



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Direction (WD) - deg
January 2015

Maximum Value: 111.89 deg on Jan 29 00:00 Maximum Daily Average: 65.13 deg on Jan 28 Minimum Value: 16.2 deg on Jan 21 03:00 Minimum Daily Average: 26.11 deg on Jan 13 Maximum Diurnal Average: 57.25 deg at hour 8 Minimum Diurnal Average: 37.00 deg at hour 17 Monthly Average: 46.978 deg Percentiles: P ₁ = 18.2 P ₁₀ = 23.8 Q ₁ = 30.3 Median = 41.3 Q ₃ = 57.5 P ₉₀ = 82.8 P ₉₉ = 101.2																							Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0			
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	24.3	27.4	25.5	32.0	37.1	31.0	49.4	53.5	62.3	43.7	36.0	44.7	51.7	43.4	50.1	42.8	43.6	37.9	22.0	23.9	27.9	40.1	42.9	30.5	38.50	62.27
2-Jan	21.1	34.0	33.1	25.7	22.7	24.1	20.3	41.9	45.8	46.3	39.0	42.3	46.9	40.7	38.1	41.1	41.3	33.7	33.7	50.1	78.1	53.1	30.9	35.2	38.29	78.09
3-Jan	42.7	47.1	74.6	42.7	56.1	23.5	25.7	57.3	47.2	100.3	47.4	66.7	71.6	68.1	70.4	36.3	84.1	47.0	99.8	77.5	67.4	97.1	50.1	80.0	61.69	100.27
4-Jan	39.4	17.7	28.1	26.6	43.3	67.4	48.9	39.5	47.6	71.2	71.2	28.4	63.7	100.8	40.1	73.6	41.3	49.5	27.0	35.6	31.4	26.3	28.5	40.5	45.32	100.84
5-Jan	34.9	77.2	27.6	43.7	46.4	58.8	27.8	37.7	32.7	28.0	23.9	21.3	22.7	47.1	43.1	30.2	26.1	23.0	28.5	21.4	28.0	42.7	21.3	25.6	34.16	77.18
6-Jan	35.0	35.0	41.3	46.2	33.5	44.8	32.8	22.7	25.6	41.2	38.3	42.1	32.3	26.7	28.4	25.8	27.2	27.7	23.7	18.9	27.2	32.5	23.8	19.2	31.34	46.21
7-Jan	18.1	21.5	41.7	27.9	32.1	58.6	40.7	102.2	83.0	37.5	27.6	54.2	94.9	76.2	85.3	95.2	27.9	33.6	47.7	43.8	43.5	39.1	45.7	52.8	51.29	102.20
8-Jan	49.8	66.2	82.9	52.6	69.9	80.6	93.9	75.5	70.8	75.7	78.8	39.6	56.6	61.5	22.4	17.2	22.7	20.8	56.1	95.6	45.6	29.1	70.2	63.0	58.21	95.64
9-Jan	51.1	72.2	79.6	59.8	48.4	31.9	25.7	50.6	64.0	58.7	39.3	32.0	78.1	52.2	28.7	36.4	54.4	40.2	75.4	97.6	73.8	94.0	74.6	72.9	57.98	97.56
10-Jan	29.0	34.4	49.3	25.4	27.6	23.6	25.1	18.6	21.5	26.9	24.0	22.2	32.6	23.8	31.3	35.2	23.5	23.4	52.9	25.6	30.7	26.2	25.4	29.0	28.62	52.87
11-Jan	21.9	27.8	34.2	32.3	36.3	80.6	40.2	22.6	34.7	28.6	21.0	48.3	85.7	79.8	61.6	32.9	56.8	55.6	97.2	104.9	95.2	94.2	36.9	73.2	54.28	104.92
12-Jan	63.7	25.4	95.2	92.4	89.6	99.2	58.8	74.6	85.2	88.2	101.3	74.6	32.5	29.8	43.9	23.7	38.5	41.7	38.4	33.1	25.2	20.5	32.1	23.6	55.47	101.25
13-Jan	24.5	22.1	21.9	21.0	21.7	23.6	25.2	25.7	25.0	23.8	25.1	26.7	27.7	33.2	33.4	22.5	29.3	19.3	29.6	49.6	29.3	20.9	18.2	27.4	26.11	49.62
14-Jan	42.4	46.1	30.2	24.0	16.4	21.8	28.3	19.7	19.7	23.5	16.6	25.9	38.9	27.7	22.7	26.6	23.5	21.9	30.8	54.5	30.9	26.3	49.3	30.8	29.10	54.49
15-Jan	34.2	39.1	31.7	35.7	26.0	101.3	81.8	99.9	94.2	17.5	30.3	30.5	40.1	32.4	24.6	32.9	35.2	28.6	23.8	30.9	38.9	40.1	44.3	30.1	42.68	101.30
16-Jan	25.0	39.8	36.4	64.3	77.0	34.2	42.0	46.6	37.8	47.2	52.5	55.4	54.8	52.8	46.4	44.6	49.0	41.8	46.9	54.4	29.3	41.8	45.8	37.6	45.97	77.05
17-Jan	55.3	49.7	53.4	54.2	40.5	36.2	31.1	62.9	35.2	25.7	66.3	53.4	49.2	39.5	52.2	46.8	29.5	38.2	37.0	42.4	47.5	63.3	24.4	19.7	43.89	66.26
18-Jan	37.1	28.2	42.0	32.2	36.9	51.8	44.5	100.0	97.2	39.1	44.0	53.0	62.0	44.0	54.2	66.7	46.9	93.0	62.5	46.7	53.6	49.3	55.7	59.1	54.15	99.96
19-Jan	48.9	52.6	48.2	59.6	58.5	54.2	37.5	49.4	55.4	51.9	59.7	37.5	36.8	53.6	63.7	52.8	39.7	47.1	38.0	87.8	78.1	39.1	36.5	54.4	51.71	87.77
20-Jan	72.7	42.6	48.4	79.1	70.7	85.3	99.9	92.0	101.1	87.5	75.0	68.6	28.1	26.7	44.7	31.4	30.7	26.7	30.3	72.9	91.3	35.2	21.5	28.6	57.97	101.12
21-Jan	20.5	19.6	16.2	19.0	36.8	25.6	27.6	35.4	25.6	24.1	32.1	39.2	36.3	37.3	40.8	38.1	42.8	54.6	51.9	50.7	43.5	46.1	36.6	41.7	35.08	54.56
22-Jan	45.5	43.9	48.7	46.1	28.3	34.0	46.7	53.8	49.7	47.4	41.3	46.8	42.5	34.5	47.9	39.3	31.2	43.5	41.3	32.9	40.2	49.9	36.6	18.6	41.27	53.78
23-Jan	25.1	34.6	34.6	35.3	49.1	40.9	43.2	54.6	43.5	51.0	44.9	84.2	85.4	51.7	36.6	46.7	26.8	41.0	30.6	35.4	51.0	43.4	34.6	28.0	43.83	85.35
24-Jan	46.2	34.1	23.3	39.9	45.4	36.8	26.3	51.5	30.8	36.6	57.6	35.7	31.4	37.4	36.9	39.3	46.5	50.9	35.7	22.2	44.2	55.1	48.0	43.9	39.83	57.62
25-Jan	46.2	82.8	41.5	30.9	36.5	40.5	44.4	77.5	60.5	95.4	39.2	38.7	27.9	23.6	64.2	75.3	50.3	74.2	51.5	91.8	89.9	95.3	85.5	103.2	61.11	103.17
26-Jan	94.8	94.8	72.7	66.1	94.4	90.2	87.2	89.8	73.7	66.9	81.8	46.8	30.2	24.8	24.4	90.2	24.8	35.9	34.1	18.8	45.2	69.6	40.3	59.9	60.73	94.85
27-Jan	35.1	51.8	39.2	38.0	50.7	71.6	75.3	76.1	97.9	63.3	63.4	39.1	89.0	26.4	33.9	48.1	34.8	61.3	77.2	48.7	97.2	80.1	75.8	36.7	58.78	97.91
28-Jan	56.1	100.8	95.7	86.1	102.6	79.5	98.1	92.5	52.3	71.4	68.7	26.9	83.1	30.7	55.0	43.8	31.9	30.4	68.6	20.3	23.1	65.3	68.2	111.9	65.13	111.89
29-Jan	48.2	68.7	48.5	57.5	51.5	37.4	57.4	43.5	60.8	58.5	89.0	62.3	95.0	32.3	55.4	40.5	27.2	48.7	20.4	49.6	93.9	64.3	98.5	76.5	57.73	98.55
30-Jan	59.5	48.5	94.6	98.3	33.0	37.7	36.1	31.3	38.7	34.4	25.1	23.6	34.1	36.5	38.1	34.7	19.9	20.6	23.6	21.8	25.4	20.4	41.2	32.3	37.88	98.28
31-Jan	31.3	29.5	32.0	27.2	25.5	40.3	33.7	76.2	81.0	72.1	27.2	92.0	70.0	37.3	83.9	25.6	39.7	43.3	69.4	77.7	58.0	42.7	23.4	18.8	48.24	91.95
41.28 45.65 47.49 45.87 46.59 50.54 46.96 57.25 54.86 51.09 47.99 45.24 52.63 42.99 45.24 43.10 37.00 40.50 45.34 49.59 51.11 49.79 44.09 45.31 94.78 100.76 95.73 98.28 102.62 101.30 99.91 102.20 101.12 100.27 101.25 91.95 94.99 100.84 85.31 95.23 84.06 93.03 99.81 104.92 97.22 97.12 98.55 111.89																							Diurnal Average Diurnal Maximum			
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m ³ 24-hr 100 ul/m ³																										

WEST CENTRAL AIRSHED SOCIETY

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

**END OF REPORT
JANUARY 2015**