

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

AIR QUALITY MONITORING
October 2016
Monthly Report

Prepared by:

West Central Airshed Society
Drayton Valley, Alberta





November 15, 2016

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 October 2016
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 no readings in October 2016 in excess of the 1-hour or 24-hour average guidelines as indicated in Air Monitoring Directive Section III.A.3. (a).

2. Operational times less than 90 percent:

The wind instrument was less than 90% operational for the month of October, due to a power disruption at the station and instrument malfunctioning, attributed to snow/rain causing the instrument to freeze up. All other analyzers and meteorological equipment returned operational times greater than 90% in the month of October.

3. Monitoring Notes:

AMS 906 (Hinton)

The TRS analyzer returned an uptime of 98.4% due to a power disruption at the station and a re-audit performed by AEP (flagged as maintenance on October 26). The SO₂, NO_x, and O₃ analyzers, as well as the external temperature and relative humidity sensors returned uptimes of 98.9% due to the power disruption at the station. The PM_{2.5} analyzer returned an uptime of 92.9% due to the power disruption at the station and instrument malfunctioning. The wind instrument returned an uptime of 79.0% due to the power disruption at the station and instrument malfunctioning, attributed to snow/rain causing the instrument to freeze up.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "R. Scotten".

Robert Scotten
Executive Director

A handwritten signature in cursive script, appearing to read "Pat Andersen".

Patrick Andersen
Environmental Specialist

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
	2016	October

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	79.0	n/a	n/a	n/a	n/a
TRS	906	98.4	0.008	0	0.002	0
PM _{2.5}	906	92.9	59.4 µg/m ³	0	19.14 µg/m ³	0

SIGNATURE OF COMPANY REPRESENTATIVE

FOR ALBERTA ENVIRONMENT USE ONLY

WEST CENTRAL AIRSHED SOCIETY

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

**AMS 906
HINTON
OCTOBER 2016**

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

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

Summary Report

Continuous air quality/meteorological monitoring measurements

West Central Airshed Society

Hinton Pulp / Hinton Station 906													October 2016		24 Hour Average Max (ppm)
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Min	Max	Percentile					Exceedences			
							P10	Q1	Median	Q3	P90	1-hour	24-hour		
TRS (ppb)	38	694	98.4	0.6	0.0	8.0	0.2	0.2	0.3	0.4	1.5	0	0	0.002	
SO ₂ (ppb)	38	698	98.9	0.4	0.0	8.1	0.0	0.1	0.1	0.2	0.6	0	-	0.002	
O ₃ (ppb)	35	701	98.9	10.6	0.4	39.8	1.0	3.5	8.7	14.8	25.2	0	0	0.026	
NO (ppb)	36	700	98.9	3.7	0.0	64.6	0.3	0.9	2.1	4.7	8.5	-	-	-	
NO ₂ (ppb)	36	700	98.9	5.6	0.8	20.6	2.2	3.4	5.1	6.8	9.2	0	0	0.011	
NO _x (ppb)	36	700	98.9	9.2	1.1	81.4	3.4	5.1	8.0	11.2	15.5	-	-	-	
Particulate Matter 2.5 microns (µm ³)	0	691	92.9	7.1	0.0	59.4	0.4	3.3	6.4	9.4	13.0	0	0	19.14 ug/m3	
Wind Speed (kph)	0	588	79.0	3.4	0.0	13.4	0.6	1.6	3.0	4.7	6.7	-	-	-	
Temperature (°C)	0	736	98.9	1.0	-9.1	12.4	-2.9	-1.4	0.2	3.0	6.4	-	-	-	
Relative Humidity (%)	0	736	98.9	76.9	23.2	92.5	51.3	73.0	82.2	88.6	90.4	-	-	-	
Std Dev Wind Direction (deg)	0	588	79.0	38.7	16.9	97.7	22.6	28.8	35.3	43.5	62.4	-	-	-	
Std Dev Wind Speed (kph)	0	588	79.0	2.5	0.0	8.2	1.2	1.8	2.3	3.0	3.8	-	-	-	



WCAS - Hinton
Summary of Hourly Averages

Total Reduced Sulphur (TRS) - ppb
October 2016

Maximum Value: 7.72 ppb on Oct 22 06:00		Maximum Daily Average: 2.24 ppb on Oct 31		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 3 00:00		Minimum Daily Average: 0.14 ppb on Oct 6		Hours of Data: 694																							
Maximum Diurnal Average: 1.11 ppb at hour 6		Minimum Diurnal Average: 0.28 ppb at hour 24		Hours of Missing Data: 50																							
Monthly Average: 0.575 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 1.5 P ₉₉ = 4.6		Hours of Calibration: 38																							
				Percent Operational Time: 98.4																							
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-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.23	0.30	
2-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.21	0.36	
3-Oct	0	0	1	Z	3	2	2	2	3	3	2	1	1	0	0	0	PF	PF	PF	PF	PF	PF	PF	PF	--	3.16	
4-Oct	0	0	0	Z	4	4	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.79	4.06	
5-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.16	0.22	
6-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.14	0.23	
7-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.19	0.24	
8-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.19	0.24	
9-Oct	0	0	1	Z	3	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.46	2.84	
10-Oct	0	0	0	Z	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.33	1.57	
11-Oct	0	0	0	Z	0	1	2	1	3	2	1	0	0	0	0	1	1	1	1	3	0	0	0	0	0.90	2.83	
12-Oct	1	1	1	Z	2	0	0	C	C	C	C	C	C	C	1	0	0	0	0	0	0	0	0	0	--	1.50	
13-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.23	0.27	
14-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.24	0.36	
15-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.20	0.29	
16-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.36	0.60	
17-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.21	0.30	
18-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0.41	1.40	
19-Oct	0	0	1	Z	1	1	1	1	1	0	1	3	1	1	1	1	0	0	0	0	0	0	0	0	0.68	2.92	
20-Oct	0	0	0	Z	0	0	0	0	0	0	1	2	1	0	1	1	2	1	1	1	2	0	0	0	0.78	2.38	
21-Oct	1	1	1	Z	1	4	3	1	3	1	0	1	1	1	0	2	2	2	0	1	4	0	0	0	1.34	4.02	
22-Oct	0	0	0	Z	2	8	7	6	1	2	1	0	0	1	0	1	0	0	3	4	1	1	0	0	1.72	7.72	
23-Oct	0	2	3	Z	2	1	1	2	3	3	4	3	1	0	1	0	0	0	0	0	0	0	0	0	1.25	3.88	
24-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.27	0.31	
25-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0.40	0.82	
26-Oct	1	1	0	Z	1	1	2	2	1	M	M	M	M	1	0	0	0	0	0	0	0	0	0	0	0.64	2.12	
27-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.32	0.82	
28-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.21	0.28	
29-Oct	0	0	0	Z	1	0	0	0	0	0	1	1	3	3	1	0	0	0	0	0	0	0	0	0	0.62	3.05	
30-Oct	0	0	0	Z	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	2	0.48	2.52	
31-Oct	2	2	2	Z	6	5	2	4	5	4	3	5	3	3	1	1	0	0	0	0	0	1	1	1	2.24	6.32	
		0.29	0.39	0.45	--	0.99	1.11	0.98	0.92	0.92	0.73	0.65	0.78	0.62	0.52	0.44	0.47	0.44	0.38	0.36	0.49	0.44	0.28	0.30	0.28	Diurnal Average	
		1.60	2.26	2.83	--	6.32	7.72	6.65	6.31	4.89	3.83	3.88	4.69	3.08	2.87	1.40	1.58	2.07	1.86	2.77	4.29	3.92	1.36	2.52	1.77	Diurnal Maximum	
Z - zeronpan		C - Calibration		M - Maintenance		PF - Power Failure																					
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr		10 ppb		24-hr		3 ppb																			



WCAS - Hinton
Summary of Hourly Averages

Sulphur Dioxide (SO₂) - ppb
October 2016

Maximum Value: 8.15 ppb on Oct 20 12:00		Maximum Daily Average: 2.04 ppb on Oct 20		Hours in Service: 744																																												
Minimum Value: 0.0 ppb on Oct 1 05:00		Minimum Daily Average: 0.02 ppb on Oct 10		Hours of Data: 698																																												
Maximum Diurnal Average: 1.03 ppb at hour 13		Minimum Diurnal Average: 0.07 ppb at hour 5		Hours of Missing Data: 46																																												
Monthly Average: 0.350 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.6 P ₉₉ = 5.4		Hours of Calibration: 38																																												
				Percent Operational Time: 98.9																																												
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-Oct	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.05	0.10																						
2-Oct	0.1	0.2	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.12	0.43																						
3-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.8	1.2	0.6	0.3	0.2	PF	PF	PF	PF	PF	PF	PF	PF	--	1.23																						
4-Oct	0.1	0.1	0.1	Z	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.18	0.28																						
5-Oct	0.2	0.3	0.3	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.22	0.35																						
6-Oct	0.1	0.1	0.1	Z	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.3	0.3	0.3	0.13	0.35																						
7-Oct	0.6	0.5	0.4	Z	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.14	0.65																						
8-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.07	0.13																						
9-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.07	0.16																						
10-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.02	0.15																						
11-Oct	0.1	0.1	0.1	Z	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.6	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.13	0.61																						
12-Oct	0.2	0.2	0.2	Z	0.1	0.2	0.4	C	C	C	C	C	C	C	4.7	0.7	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	--	4.69																						
13-Oct	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.0	0.1	0.0	0.2	0.1	0.16	0.28																						
14-Oct	0.1	0.1	0.1	Z	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.13	0.27																						
15-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.10	0.15																						
16-Oct	0.1	0.0	0.1	Z	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.4	0.4	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.19	0.55																						
17-Oct	0.2	0.1	0.2	Z	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.22	0.29																						
18-Oct	0.3	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	1.0	1.2	1.0	1.2	0.7	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.39	1.23																						
19-Oct	0.1	0.2	0.1	Z	0.1	0.2	0.3	0.4	0.3	0.2	0.3	1.7	6.0	4.1	2.9	4.3	1.4	0.9	0.3	0.3	0.3	0.2	0.2	0.1	1.08	6.02																						
20-Oct	0.2	0.1	0.1	Z	0.1	0.2	0.6	0.3	0.2	0.1	1.5	8.1	7.3	1.4	5.6	6.7	6.3	3.9	1.6	0.8	0.6	0.3	0.2	0.7	2.04	8.15																						
21-Oct	0.7	0.2	0.2	Z	0.2	0.6	2.7	2.6	2.3	2.2	1.3	2.2	3.5	3.8	1.8	4.6	6.0	5.0	0.7	0.2	0.4	0.3	0.2	0.2	1.81	5.96																						
22-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.0	0.2	0.3	1.1	0.6	0.6	0.9	0.5	1.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.32	1.10																						
23-Oct	0.2	0.1	0.2	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	1.2	2.5	5.4	3.9	0.8	0.5	0.3	0.3	0.2	0.1	0.1	0.1	0.76	5.41																						
24-Oct	0.2	0.1	0.1	Z	0.0	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.0	0.2	0.2	0.16	0.27																						
25-Oct	0.1	0.6	0.6	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.12	0.57																						
26-Oct	0.1	0.1	0.1	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.09	0.16																						
27-Oct	0.0	0.0	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.2	1.1	3.8	1.6	0.5	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.41	3.79																						
28-Oct	0.2	0.2	0.2	Z	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.16	0.26																						
29-Oct	0.1	0.0	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.6	1.8	2.1	1.8	2.9	1.2	0.5	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.54	2.89																						
30-Oct	0.0	0.1	0.1	Z	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.3	1.3	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.16	1.29																						
31-Oct	0.2	0.2	0.1	Z	0.0	0.1	0.2	0.5	0.2	0.1	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.11	0.49																						
																								0.16	0.14	0.14	--	0.07	0.12	0.22	0.22	0.21	0.21	0.30	0.67	1.03	0.71	0.96	0.87	0.64	0.47	0.20	0.16	0.15	0.13	0.13	0.15	Diurnal Average
																								0.75	0.57	0.55	--	0.23	0.57	2.69	2.58	2.32	2.18	1.46	8.15	7.34	4.08	5.60	6.69	6.29	5.03	1.56	0.82	0.61	0.31	0.25	0.66	Diurnal Maximum
Z - zerospan C - Calibration PF - Power Failure																																																
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																																																



WCAS - Hinton
Summary of Hourly Averages

Ozone (O₃) - ppb
October 2016

Maximum Value: 39.78 ppb on Oct 30 16:00		Maximum Daily Average: 26.26 ppb on Oct 21		Hours in Service: 744																																												
Minimum Value: 0.4 ppb on Oct 27 05:00		Minimum Daily Average: 1.78 ppb on Oct 28		Hours of Data: 701																																												
Maximum Diurnal Average: 18.08 ppb at hour 15		Minimum Diurnal Average: 6.31 ppb at hour 5		Hours of Missing Data: 43																																												
Monthly Average: 10.609 ppb		Percentiles: P ₁ = 0.5 P ₁₀ = 1.0 Q ₁ = 3.5 Median = 8.7 Q ₃ = 14.8 P ₉₀ = 25.2 P ₉₉ = 37.0		Hours of Calibration: 35																																												
Percentiles: P ₁ = 0.5 P ₁₀ = 1.0 Q ₁ = 3.5 Median = 8.7 Q ₃ = 14.8 P ₉₀ = 25.2 P ₉₉ = 37.0		Percent Operational Time: 98.9																																														
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-Oct	13.6	13.3	15.9	Z	16.7	15.8	14.3	11.4	10.9	10.4	10.4	10.0	9.6	9.6	10.1	10.0	7.2	5.5	4.2	2.6	3.0	4.1	5.0	5.7	9.53	16.66																						
2-Oct	3.5	4.1	3.3	Z	2.9	2.7	2.5	3.1	4.0	8.3	11.7	10.7	11.6	12.6	13.4	12.1	11.6	9.6	8.6	2.0	0.8	0.7	0.7	0.8	6.14	13.43																						
3-Oct	1.1	2.0	1.1	Z	0.6	0.6	0.8	1.0	1.5	4.0	4.8	8.0	11.2	16.2	19.8	25.3	PF	PF	PF	PF	PF	PF	PF	PF	--	25.29																						
4-Oct	0.9	0.9	0.8	Z	0.8	1.1	0.9	0.9	1.4	7.4	10.4	9.2	9.1	9.4	10.7	11.4	10.9	10.8	11.1	9.7	10.5	13.9	17.4	17.7	7.71	17.73																						
5-Oct	17.5	17.8	16.6	Z	14.6	13.5	12.9	11.6	11.1	11.8	13.3	12.9	14.4	16.7	16.0	16.9	17.0	16.5	17.8	17.9	15.7	15.0	14.8	14.6	15.10	17.95																						
6-Oct	15.1	16.9	16.2	Z	13.5	12.6	12.4	12.1	12.9	14.9	16.0	16.5	20.9	21.3	18.6	19.4	18.5	21.1	19.5	19.6	22.3	21.5	21.0	18.3	17.44	22.29																						
7-Oct	17.3	15.8	16.6	Z	13.7	11.8	11.1	12.2	11.7	11.1	11.0	11.4	12.4	12.5	12.8	12.1	12.5	16.3	16.1	16.4	14.9	13.8	13.1	13.2	13.47	17.27																						
8-Oct	12.7	12.2	11.3	Z	9.1	6.0	5.4	4.2	6.3	9.1	10.0	10.3	10.0	9.7	9.0	8.5	8.6	9.1	9.6	10.2	9.9	8.6	5.2	4.6	8.67	12.68																						
9-Oct	3.7	2.9	3.4	Z	3.1	3.6	5.3	5.7	9.3	15.2	17.0	16.5	17.3	19.0	20.4	19.5	18.4	17.2	11.6	6.9	12.6	14.6	12.8	11.9	11.65	20.41																						
10-Oct	14.8	14.5	10.6	Z	16.2	14.2	11.8	11.4	13.2	19.0	21.1	22.3	22.3	23.2	22.1	20.9	21.1	16.5	10.1	8.0	8.8	7.7	5.0	3.9	14.73	23.17																						
11-Oct	4.5	4.3	3.6	Z	2.6	7.7	8.3	6.3	12.4	17.9	22.6	24.6	26.2	29.2	31.3	31.3	30.4	25.1	18.1	1.8	4.3	2.0	1.5	1.0	13.78	31.30																						
12-Oct	6.5	16.3	18.4	Z	17.0	10.2	1.4	C	C	C	C	25.3	23.0	29.5	32.7	32.4	27.3	24.3	13.9	11.4	9.6	12.9	11.6	5.5	17.34	32.74																						
13-Oct	4.4	4.8	9.6	Z	16.4	15.9	14.3	13.1	14.2	14.5	13.9	13.5	14.9	13.2	14.9	16.0	14.9	13.3	9.7	8.4	6.9	8.3	9.4	9.5	11.91	16.38																						
14-Oct	7.8	7.8	7.4	Z	6.8	4.5	4.2	3.6	6.0	8.2	8.7	11.1	12.4	14.2	14.1	13.1	12.6	8.6	10.6	13.0	14.0	13.2	13.7	13.9	9.98	14.22																						
15-Oct	12.9	12.7	13.8	Z	12.9	11.5	9.2	9.7	9.9	11.4	12.5	11.8	11.6	11.6	11.9	11.0	10.2	8.4	8.9	10.9	9.8	9.6	8.7	8.8	10.85	13.79																						
16-Oct	8.9	9.0	8.8	Z	7.0	6.1	4.8	3.7	4.5	6.2	7.2	7.8	8.3	8.4	7.7	6.9	6.1	5.9	4.5	4.3	3.3	3.1	3.2	4.4	6.10	9.05																						
17-Oct	4.7	5.0	4.7	Z	2.6	2.1	1.7	1.4	2.3	3.8	4.1	5.3	6.6	8.0	7.1	6.9	7.3	5.9	5.2	4.6	4.4	6.3	5.2	8.4	4.95	8.37																						
18-Oct	7.8	7.5	7.0	Z	4.9	3.9	3.1	2.0	3.1	3.9	4.2	5.1	5.6	6.7	7.3	6.9	3.8	2.4	1.6	1.2	1.0	0.7	0.7	0.6	3.95	7.79																						
19-Oct	0.6	0.6	0.6	Z	0.5	0.6	0.8	0.9	0.9	1.7	7.9	15.3	27.9	30.6	31.5	29.1	28.3	29.4	22.0	8.7	6.3	6.1	7.6	7.1	11.52	31.49																						
20-Oct	5.9	6.0	4.8	Z	3.1	2.3	20.7	30.1	31.4	31.6	30.3	27.7	29.9	32.9	30.2	30.1	27.3	25.6	27.8	33.9	30.5	29.9	25.4	28.1	23.71	33.90																						
21-Oct	26.0	16.2	11.1	Z	8.9	28.6	28.8	29.1	28.5	30.2	35.3	35.7	34.7	35.6	38.0	34.6	32.1	29.7	33.7	31.2	25.9	11.2	8.6	10.4	26.26	38.00																						
22-Oct	13.3	8.8	5.2	Z	1.9	8.3	12.5	17.7	16.6	25.2	30.1	34.6	36.4	37.2	37.4	37.0	37.0	34.1	27.7	14.7	6.5	2.9	4.2	2.1	19.63	37.40																						
23-Oct	2.7	2.7	2.5	Z	2.7	1.8	1.3	1.1	1.8	2.7	5.1	13.3	22.4	28.3	27.5	27.3	25.0	18.2	19.5	13.2	9.7	4.2	4.2	2.1	10.39	28.27																						
24-Oct	4.0	1.9	3.8	Z	5.9	7.5	6.8	6.8	6.0	7.9	10.6	10.9	10.9	11.2	10.2	7.9	7.8	7.1	7.4	6.4	6.2	5.9	6.8	6.6	7.24	11.24																						
25-Oct	6.0	6.6	5.8	Z	4.2	3.1	2.2	1.4	1.6	1.9	2.0	2.4	2.0	3.7	5.0	4.6	2.5	1.7	1.2	0.9	0.6	0.6	0.7	0.6	2.66	6.57																						
26-Oct	0.5	0.5	0.6	Z	0.6	0.6	0.9	0.8	0.8	1.4	2.7	3.5	5.0	4.9	5.2	4.9	3.7	2.8	1.1	0.9	0.6	0.5	0.5	0.5	1.89	5.22																						
27-Oct	0.5	0.5	0.4	Z	0.4	0.5	0.5	0.6	1.1	1.9	3.2	10.2	14.6	12.5	6.3	5.4	5.1	4.9	4.5	3.4	1.4	1.5	1.2	1.0	3.54	14.56																						
28-Oct	0.7	0.7	0.6	Z	0.5	0.6	0.6	0.6	0.8	2.0	3.1	4.4	4.1	4.3	4.3	3.8	2.4	1.6	1.1	0.9	1.3	1.1	1.0	0.7	1.78	4.36																						
29-Oct	0.6	0.7	3.1	Z	2.3	2.1	2.5	3.2	2.7	3.1	4.8	7.0	9.8	16.5	20.6	18.4	17.4	14.6	13.7	8.8	8.2	5.1	4.1	3.0	7.48	20.56																						
30-Oct	2.5	1.9	1.0	Z	1.0	0.9	0.8	0.8	1.3	2.3	3.5	4.4	16.7	39.0	39.1	39.8	38.5	35.5	18.1	6.0	6.4	6.1	4.9	1.4	11.82	39.78																						
31-Oct	1.3	1.1	1.4	Z	2.3	1.3	1.1	1.2	2.4	10.0	17.5	17.1	21.7	23.5	25.3	24.1	17.8	15.6	19.4	15.8	11.5	6.7	5.1	6.6	10.86	25.35																						
																								7.17	6.97	6.78	--	6.31	6.51	6.58	6.93	7.69	9.96	11.83	13.52	15.61	17.77	18.08	17.66	16.11	14.58	12.62	9.79	8.89	7.93	7.45	7.09	Diurnal Average
																								26.03	17.82	18.43	--	16.98	28.60	28.80	30.14	31.42	31.64	35.28	35.65	36.44	38.96	39.08	39.78	38.54	35.54	33.70	33.90	30.51	29.93	25.36	28.05	Diurnal Maximum
Z - zerospan C - Calibration PF - Power Failure																																																
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82.5 ppb 24-hr -- ppb																																																



WCAS - Hinton
Eight Hour Running Averages

Ozone (O₃) - ppb
October 2016

Maximum Value: 35.47 ppb on Oct 22 18:00																								Maximum Daily Average: 27.81 ppb on Oct 21																								Hours in Service: 744	
Minimum Value: 0.5 ppb on Oct 27 05:00																								Minimum Daily Average: 1.85 ppb on Oct 26																								Hours of Data: 724	
Maximum Diurnal Average: 15.75 ppb at hour 19																								Minimum Diurnal Average: 6.68 ppb at hour 9																								Hours of Missing Data: 20	
Monthly Average: 10.438 ppb																								Percentiles: P ₁ = 0.6 P ₁₀ = 1.6 Q ₁ = 4.1 Median = 9.2 Q ₃ = 14.4 P ₉₀ = 21.1 P ₉₉ = 33.9																								Hours of Calibration: 8	
																																																Percent Operational Time: 98.4	
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-Oct	8.2	9.0	10.3	11.2	12.7	13.9	14.6	14.4	14.0	13.6	12.8	12.5	11.6	10.8	10.3	10.1	9.7	9.0	8.3	7.4	6.5	5.8	5.2	4.7	10.28	14.60																							
2-Oct	4.2	4.0	3.9	4.1	4.1	3.9	3.5	3.2	3.2	3.8	5.0	5.7	6.8	8.1	9.4	10.5	11.5	11.7	11.3	10.2	8.8	7.3	5.8	4.3	6.43	11.66																							
3-Oct	3.0	2.1	1.2	1.0	1.0	1.0	1.0	1.0	1.1	1.4	1.9	2.6	4.0	5.9	8.3	11.3	12.7	14.2	PF	PF	PF	PF	PF	PF	4.15	14.21																							
4-Oct	PF	PF	PF	PF	PF	PF	0.9	0.9	1.0	1.9	3.3	4.0	5.1	6.1	7.3	8.6	9.8	10.3	10.3	10.4	10.6	11.1	12.0	12.7	7.02	12.75																							
5-Oct	13.6	14.5	15.1	15.9	16.5	16.4	15.8	14.9	14.0	13.2	12.7	12.7	12.7	13.1	13.5	14.2	14.9	15.5	16.1	16.7	16.8	16.6	16.5	16.2	14.92	16.83																							
6-Oct	15.9	16.0	15.8	15.5	15.2	14.8	14.5	14.1	13.8	13.5	13.5	13.9	14.8	15.9	16.6	17.6	18.3	19.0	19.5	19.9	20.0	20.1	20.4	20.2	16.61	20.36																							
7-Oct	20.1	19.4	19.1	19.0	17.8	16.4	14.9	14.1	13.3	12.6	11.8	11.8	11.6	11.7	11.9	11.9	12.0	12.7	13.3	13.9	14.2	14.4	14.4	14.5	14.44	20.07																							
8-Oct	14.5	14.0	13.4	13.0	12.2	11.1	10.0	8.7	7.8	7.4	7.2	7.5	7.7	8.1	8.6	9.1	9.4	9.4	9.3	9.3	9.3	9.2	8.7	8.2	9.72	14.55																							
9-Oct	7.6	6.8	6.0	5.4	4.5	3.8	3.8	3.9	4.8	6.5	8.5	9.5	11.2	13.2	15.1	16.8	17.9	18.2	17.5	16.3	15.7	15.1	14.2	13.3	10.65	18.16																							
10-Oct	12.8	12.5	12.3	13.1	13.6	13.6	13.4	13.4	13.1	13.8	15.3	16.2	16.9	18.0	19.3	20.5	21.5	21.2	19.8	18.0	16.3	14.4	12.3	10.1	15.48	21.49																							
11-Oct	8.1	6.5	5.7	5.4	4.5	4.5	5.0	5.3	6.5	8.4	11.1	12.8	15.7	18.4	21.3	24.4	26.7	27.6	27.0	24.2	21.4	18.0	14.3	10.5	13.90	27.59																							
12-Oct	7.6	6.5	6.5	7.2	9.0	10.1	10.1	11.7	Z	Z	Z	C	C	C	C	C	28.4	27.8	26.1	24.3	22.7	20.6	17.9	14.6	--	28.37																							
13-Oct	11.7	9.3	8.7	8.4	9.3	9.7	10.1	11.2	12.6	14.0	14.6	14.5	14.3	13.9	14.0	14.4	14.5	14.3	13.8	13.2	12.2	11.6	10.9	10.1	12.13	14.61																							
14-Oct	9.2	8.5	8.2	8.2	8.1	7.6	6.9	6.0	5.7	5.8	6.0	6.6	7.3	8.5	9.8	11.0	11.8	11.9	12.1	12.3	12.5	12.4	12.4	12.5	9.22	12.54																							
15-Oct	12.5	13.0	13.4	13.5	13.3	13.1	12.4	11.8	11.4	11.2	11.0	11.1	11.0	11.0	11.3	11.5	11.5	11.1	10.7	10.6	10.3	10.1	9.7	9.4	11.49	13.45																							
16-Oct	9.2	9.3	9.3	9.1	8.7	8.2	7.6	6.9	6.3	5.9	5.7	5.9	6.1	6.4	6.7	7.1	7.3	7.3	7.0	6.5	5.9	5.2	4.7	4.4	6.95	9.33																							
17-Oct	4.2	4.1	4.1	4.1	4.0	3.8	3.6	3.2	2.9	2.7	2.6	2.9	3.4	4.2	4.8	5.5	6.1	6.4	6.5	6.5	6.2	6.0	5.7	5.9	4.56	6.54																							
18-Oct	6.0	6.2	6.4	6.7	6.7	6.4	6.1	5.2	4.5	4.0	3.6	3.8	3.8	4.2	4.7	5.3	5.4	5.2	4.9	4.4	3.9	3.1	2.3	1.5	4.76	6.73																							
19-Oct	1.1	0.9	0.8	0.7	0.6	0.6	0.6	0.7	0.7	0.9	1.9	3.6	7.0	10.7	14.6	18.1	21.5	25.0	26.8	25.9	23.2	20.2	17.2	14.4	9.90	26.76																							
20-Oct	11.6	8.7	6.5	6.2	5.8	5.2	7.1	10.4	14.0	17.7	21.4	22.2	25.5	29.3	30.5	30.5	30.0	29.3	28.9	29.7	29.8	29.4	28.8	28.6	20.30	30.53																							
21-Oct	28.4	27.2	25.1	23.9	20.8	20.6	21.1	21.2	21.6	23.6	27.1	28.1	31.3	32.2	33.4	34.1	34.5	34.4	34.2	33.7	32.6	29.5	25.9	22.8	27.81	34.50																							
22-Oct	20.5	17.9	14.3	11.9	8.5	8.1	8.6	9.7	10.1	12.5	16.0	18.4	22.7	26.3	29.4	31.8	34.4	35.5	35.2	32.7	29.0	24.7	20.5	16.2	20.61	35.47																							
23-Oct	11.9	8.0	4.8	3.4	2.8	2.7	2.3	2.1	2.0	2.0	2.3	3.7	6.2	9.5	12.8	16.0	18.9	20.9	22.7	22.7	21.1	18.1	15.2	12.0	10.16	22.69																							
24-Oct	9.4	7.3	5.4	4.3	3.7	4.2	4.6	5.2	5.5	6.4	7.4	7.8	8.4	8.9	9.3	9.5	9.7	9.6	9.2	8.6	8.0	7.4	6.9	6.8	7.23	9.69																							
25-Oct	6.6	6.5	6.3	6.3	6.0	5.6	4.9	4.2	3.5	2.9	2.3	2.3	2.1	2.1	2.5	2.9	3.0	3.0	2.9	2.7	2.5	2.1	1.6	1.1	3.58	6.55																							
26-Oct	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.8	1.1	1.4	2.0	2.5	3.0	3.6	3.9	4.1	3.9	3.6	3.0	2.5	1.9	1.3	1.85	4.09																						
27-Oct	0.9	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.8	1.2	2.3	4.1	5.6	6.3	6.9	7.4	7.8	7.9	7.1	5.4	4.0	3.4	2.9	3.25	7.93																							
28-Oct	2.3	1.8	1.3	1.0	0.9	0.8	0.7	0.6	0.6	0.8	1.2	1.6	2.0	2.5	2.9	3.3	3.5	3.5	3.2	2.8	2.5	2.1	1.6	1.3	1.86	3.53																							
29-Oct	1.0	0.9	1.2	1.2	1.4	1.5	1.7	2.1	2.4	2.7	2.9	3.5	4.4	6.2	8.4	10.3	12.2	13.6	14.7	14.9	14.7	13.3	11.3	9.3	6.50	14.95																							
30-Oct	7.5	5.9	4.3	3.7	2.6	2.1	1.6	1.3	1.1	1.2	1.5	1.9	3.8	8.6	13.4	18.3	22.9	27.1	28.9	29.1	27.8	23.7	19.4	14.6	11.34	29.09																							
31-Oct	10.0	5.7	3.6	3.2	2.6	1.9	1.4	1.4	1.5	2.8	5.1	6.6	9.0	11.8	14.8	17.7	19.6	20.3	20.6	20.4	19.1	17.0	14.5	12.3	10.13	20.57																							
9.35 8.46 7.81 7.58 7.27 7.09 6.77 6.77 6.68 7.15 7.93 8.58 9.75 11.13 12.48 13.76 15.19 15.70 15.75 15.26 14.40 13.17 11.85 10.56																								Diurnal Average																									
28.40 27.23 25.14 23.89 20.80 20.61 21.10 21.25 21.60 23.59 27.05 28.13 31.35 32.22 33.37 34.06 34.50 35.47 35.18 33.68 32.58 29.53 28.82 28.56																								Diurnal Maximum																									
Z - zerospan			C - Calibration				PF - Power Failure																																										



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Oxide (NO) - ppb
October 2016

Maximum Value: 64.61 ppb on Oct 31 08:00		Maximum Daily Average: 11.32 ppb on Oct 19		Hours in Service: 744																							
Minimum Value: 0.0 ppb on Oct 9 23:00		Minimum Daily Average: 0.84 ppb on Oct 9		Hours of Data: 700																							
Maximum Diurnal Average: 8.21 ppb at hour 8		Minimum Diurnal Average: 1.74 ppb at hour 3		Hours of Missing Data: 44																							
Monthly Average: 3.690 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.3 Q ₁ = 0.9 Median = 2.1 Q ₃ = 4.7 P ₉₀ = 8.5 P ₉₉ = 21.6		Hours of Calibration: 36																							
				Percent Operational Time: 98.9																							
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-Oct	0.1	0.2	0.1	Z	0.1	0.1	0.5	0.9	1.2	1.3	1.2	1.2	1.7	2.2	1.5	1.4	4.2	0.8	1.9	0.6	1.0	0.5	0.3	0.3	1.00	4.16	
2-Oct	0.7	0.4	0.4	Z	1.1	1.6	2.2	1.5	1.7	1.7	2.0	2.1	2.5	1.0	1.6	2.1	1.7	2.4	1.7	7.2	8.9	6.3	2.7	1.8	2.41	8.89	
3-Oct	2.2	0.6	3.6	Z	8.0	4.3	5.8	7.7	12.3	10.4	9.4	8.4	5.3	2.7	2.4	2.3	PF	PF	PF	PF	PF	PF	PF	PF	--	12.33	
4-Oct	1.1	4.3	1.6	Z	3.9	9.9	2.5	12.2	8.4	3.7	3.5	3.2	3.0	3.1	2.6	3.2	2.0	1.1	1.1	0.6	0.4	0.1	0.2	0.2	3.13	12.20	
5-Oct	0.1	0.0	0.0	Z	0.7	1.1	2.0	2.6	2.3	2.1	2.4	2.1	1.9	1.0	2.8	1.8	1.8	1.4	0.8	0.5	0.2	0.1	0.1	0.1	1.20	2.83	
6-Oct	0.6	0.1	0.2	Z	0.7	1.8	1.4	1.9	2.7	2.9	2.9	3.8	2.0	2.4	3.7	1.3	1.8	1.5	2.0	0.5	0.7	0.3	0.2	0.2	1.54	3.77	
7-Oct	0.4	0.2	0.3	Z	0.9	1.1	3.3	2.7	3.0	3.2	3.5	3.8	4.2	4.3	4.2	4.1	3.3	2.1	0.6	0.6	1.0	0.8	0.6	0.1	2.11	4.30	
8-Oct	0.7	0.3	0.2	Z	1.3	0.9	2.0	2.9	1.9	2.3	2.4	1.8	2.9	3.4	2.3	2.9	2.1	1.4	0.5	0.8	0.9	0.8	2.2	0.9	1.64	3.43	
9-Oct	0.9	2.0	0.7	Z	1.1	2.3	2.0	2.3	2.1	0.9	0.8	0.6	0.7	0.4	0.3	0.3	0.3	0.3	0.7	0.3	0.0	0.1	0.0	0.1	0.84	2.33	
10-Oct	0.0	0.1	0.0	Z	1.0	0.0	0.1	0.5	1.6	2.3	2.1	1.8	1.0	1.0	0.7	0.4	0.3	0.1	2.1	0.8	0.1	1.1	2.9	0.7	0.90	2.91	
11-Oct	1.9	0.7	1.6	Z	4.5	2.7	0.1	0.5	2.8	5.1	2.7	2.8	2.8	2.5	1.4	1.0	0.5	1.5	0.3	13.1	7.6	6.6	5.4	9.1	3.35	13.14	
12-Oct	0.4	0.0	0.0	Z	0.1	1.1	23.7	C	C	C	C	C	1.4	1.9	2.5	1.1	1.3	2.0	3.9	2.7	2.2	1.5	0.9	4.9	2.86	23.69	
13-Oct	4.5	2.6	0.7	Z	0.9	1.4	1.5	1.8	1.3	2.0	4.4	4.5	3.3	4.9	3.7	4.1	3.4	2.5	2.4	1.1	1.3	0.6	2.2	0.9	2.43	4.86	
14-Oct	0.4	0.1	0.6	Z	0.9	2.2	2.2	4.7	6.0	5.5	9.5	6.3	4.6	4.4	6.0	4.6	3.1	3.0	1.3	2.0	0.8	0.3	0.4	0.7	3.03	9.50	
15-Oct	0.2	0.3	0.2	Z	0.8	0.9	1.0	1.8	1.7	2.6	2.0	2.9	3.4	3.8	2.8	3.6	2.6	2.0	1.3	0.6	0.4	0.6	0.6	0.4	1.60	3.81	
16-Oct	0.2	0.6	0.3	Z	0.9	1.5	1.7	3.0	4.1	2.0	3.2	2.9	3.7	5.1	4.5	4.7	4.4	2.3	2.4	1.0	0.7	1.3	0.4	0.3	2.23	5.07	
17-Oct	1.4	0.6	0.3	Z	1.1	2.1	4.3	5.2	7.5	6.4	7.2	5.2	4.6	4.1	4.9	3.7	3.5	3.3	2.4	1.6	0.9	0.7	0.6	0.5	3.13	7.47	
18-Oct	1.8	1.0	0.8	Z	1.6	3.3	2.9	7.3	4.0	4.9	4.1	5.6	5.5	4.7	4.7	5.8	8.2	6.9	3.4	6.0	18.2	8.5	7.7	4.6	5.28	18.21	
19-Oct	10.4	13.2	9.1	Z	10.7	22.4	44.6	51.8	37.1	15.8	11.1	10.4	3.1	1.9	1.3	1.1	1.4	0.4	2.8	4.5	2.7	3.3	0.5	0.6	11.32	51.82	
20-Oct	2.3	0.7	1.2	Z	5.7	12.6	9.0	2.9	1.4	1.8	2.7	4.3	3.2	1.0	2.6	1.8	1.6	0.7	0.3	0.2	0.2	0.2	0.2	0.2	2.47	12.58	
21-Oct	0.2	0.3	1.0	Z	11.5	0.0	0.2	0.3	1.2	1.9	0.6	0.9	1.8	2.5	1.0	1.9	1.6	0.8	0.6	1.5	0.3	4.0	2.6	1.3	1.66	11.52	
22-Oct	0.2	0.4	1.1	Z	9.9	1.7	2.2	0.2	2.2	1.2	1.1	0.9	0.7	0.7	0.6	0.6	0.3	0.2	0.4	1.8	9.6	6.4	1.9	8.1	2.28	9.93	
23-Oct	8.8	3.7	2.7	Z	4.4	3.3	11.0	12.3	11.2	17.1	12.9	10.5	3.4	1.9	2.3	2.0	2.6	3.5	1.1	3.4	1.7	1.6	1.4	2.1	5.43	17.07	
24-Oct	2.8	3.8	0.4	Z	2.0	2.7	4.7	3.5	5.1	7.6	6.7	5.2	4.7	4.0	4.3	4.0	4.2	3.8	1.6	1.6	0.8	0.5	0.3	0.5	3.25	7.62	
25-Oct	1.1	0.3	0.8	Z	1.8	1.8	1.7	7.9	7.1	6.6	9.3	6.5	9.5	5.0	5.5	8.3	9.6	4.2	5.6	6.5	7.9	5.8	5.0	6.3	5.39	9.61	
26-Oct	3.7	7.2	5.6	Z	9.4	7.0	11.4	15.6	13.6	13.7	10.9	11.0	9.0	10.3	8.9	6.4	6.9	7.6	8.5	8.6	4.8	5.7	4.9	4.0	8.45	15.56	
27-Oct	4.9	3.0	4.3	Z	7.9	8.3	10.1	9.3	13.9	11.4	10.7	6.4	7.5	5.5	9.0	7.5	4.7	3.2	1.7	1.4	1.3	0.8	1.6	0.9	5.88	13.86	
28-Oct	2.0	1.9	1.0	Z	2.5	3.8	7.7	8.2	12.1	7.8	7.3	7.5	7.4	5.3	4.7	4.3	7.0	4.8	2.7	3.0	2.4	2.2	1.1	2.7	4.76	12.11	
29-Oct	2.9	3.8	0.5	Z	5.2	6.2	6.3	3.8	11.8	7.9	9.2	14.8	16.2	5.8	2.9	1.6	2.0	1.3	0.6	1.7	1.0	1.3	0.6	0.7	4.69	16.18	
30-Oct	0.6	1.4	5.6	Z	4.2	5.3	5.9	6.4	9.2	8.2	6.8	6.9	8.7	0.6	0.4	0.2	0.2	0.2	1.3	2.6	1.0	0.8	5.0	17.3	4.30	17.34	
31-Oct	24.2	18.9	9.1	Z	9.3	18.1	29.6	64.6	35.8	5.9	1.2	3.2	2.8	2.1	0.5	0.2	5.0	6.5	0.1	1.0	2.6	1.6	0.7	1.4	10.63	64.61	
		2.64	2.34	1.74	--	3.67	4.25	6.57	8.21	7.54	5.54	5.12	4.92	4.28	3.21	3.11	2.85	3.05	2.39	1.88	2.59	2.72	2.15	1.78	2.41	Diurnal Average	
		24.24	18.87	9.13	--	11.52	22.40	44.60	64.61	37.06	17.07	12.89	14.78	16.18	10.27	9.01	8.30	9.61	7.60	8.49	13.14	18.21	8.45	7.70	17.34	Diurnal Maximum	
Z - zerospan		C - Calibration		PF - Power Failure																							
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr --- ppb		24-hr --- ppb																							



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
October 2016

Maximum Value: 20.62 ppb on Oct 21 05:00		Maximum Daily Average: 10.66 ppb on Oct 23		Hours in Service: 744																																													
Minimum Value: 0.8 ppb on Oct 9 14:00		Minimum Daily Average: 2.42 ppb on Oct 2		Hours of Data: 700																																													
Maximum Diurnal Average: 7.51 ppb at hour 20		Minimum Diurnal Average: 4.07 ppb at hour 14		Hours of Missing Data: 44																																													
Monthly Average: 5.557 ppb		Percentiles: P ₁ = 1.1 P ₁₀ = 2.2 Q ₁ = 3.4 Median = 5.1 Q ₃ = 6.8 P ₉₀ = 9.2 P ₉₉ = 16.6		Hours of Calibration: 36																																													
				Percent Operational Time: 98.9																																													
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-Oct	1.4	2.1	1.2	Z	1.6	1.4	3.0	3.5	2.9	2.9	2.5	2.4	2.4	2.6	2.0	2.5	3.9	2.7	3.7	2.6	2.4	2.3	2.2	2.1	2.45	3.88																							
2-Oct	2.4	2.1	2.1	Z	2.3	2.7	2.9	2.6	2.1	2.4	3.1	2.2	2.3	1.2	1.5	2.1	2.2	2.4	2.9	5.3	3.4	1.9	1.8	1.9	2.42	5.28																							
3-Oct	2.8	3.0	5.5	Z	7.2	4.3	4.2	3.5	4.3	5.2	4.7	4.4	3.6	2.3	2.5	2.5	PF	PF	PF	PF	PF	PF	PF	PF	--	7.25																							
4-Oct	2.2	2.0	2.1	Z	2.9	3.1	3.0	4.7	5.3	5.9	5.9	5.6	5.5	5.2	5.3	5.7	5.5	5.6	5.8	4.7	3.8	2.1	1.9	1.8	4.15	5.92																							
5-Oct	1.5	2.0	2.6	Z	3.8	4.0	4.6	5.3	4.7	4.5	3.4	3.8	3.8	3.1	4.2	3.7	4.1	4.6	4.0	3.5	3.0	2.3	1.7	1.8	3.49	5.26																							
6-Oct	3.1	2.1	3.1	Z	4.7	5.6	5.7	6.0	5.7	4.3	4.2	4.6	3.3	3.8	5.2	3.5	4.7	3.7	5.9	3.5	2.9	3.7	4.0	5.1	4.27	5.97																							
7-Oct	6.3	7.5	6.2	Z	6.9	7.7	8.6	6.6	6.2	6.4	6.3	6.0	5.8	6.0	5.9	6.9	6.4	4.8	3.3	3.1	3.6	3.5	3.1	2.6	5.65	8.62																							
8-Oct	2.6	2.6	2.4	Z	4.4	5.3	5.6	5.3	2.7	2.4	2.5	2.2	3.0	3.2	3.2	3.3	3.6	3.6	2.7	3.0	3.4	3.5	5.6	3.9	3.47	5.60																							
9-Oct	4.6	6.5	4.9	Z	5.1	8.3	7.1	7.1	4.6	2.2	1.4	0.9	0.8	0.8	0.9	1.0	1.0	1.6	4.2	6.4	1.5	1.5	1.1	2.1	3.28	8.34																							
10-Oct	1.2	1.6	3.5	Z	5.7	4.1	5.8	6.5	4.4	3.9	4.0	3.1	2.5	2.3	2.1	1.9	2.1	2.8	7.9	7.5	3.5	4.4	8.7	6.5	4.18	8.74																							
11-Oct	7.6	5.7	5.6	Z	6.9	5.1	2.5	3.3	4.6	6.3	3.1	2.6	2.9	2.6	2.7	2.3	2.2	7.5	11.2	18.0	13.6	9.1	7.1	10.0	6.19	18.03																							
12-Oct	3.5	2.8	3.8	Z	4.6	6.5	11.8	C	C	C	C	C	4.0	4.2	6.2	3.4	5.9	8.3	14.6	12.0	8.8	6.1	7.9	13.9	7.12	14.55																							
13-Oct	9.8	7.3	4.7	Z	6.5	6.9	8.4	8.8	7.0	7.0	8.1	8.1	6.1	8.1	6.6	4.9	5.9	6.7	8.4	9.2	10.7	9.4	8.4	6.8	7.55	10.68																							
14-Oct	7.2	6.9	7.4	Z	7.2	9.6	8.1	10.3	10.3	6.9	6.8	4.8	4.9	4.3	5.8	7.2	6.9	8.7	6.8	6.1	5.2	4.5	4.4	4.4	6.72	10.32																							
15-Oct	4.0	4.3	4.0	Z	4.1	4.7	4.7	4.9	5.0	3.5	2.4	2.0	2.3	2.6	2.2	3.5	5.4	5.8	5.1	3.9	4.3	4.9	5.6	4.8	4.09	5.76																							
16-Oct	4.6	5.1	5.4	Z	5.5	5.3	6.0	6.5	5.8	3.4	3.6	3.0	3.4	4.2	4.4	4.4	3.6	4.2	6.6	7.5	8.4	7.8	6.2	5.6	5.23	8.37																							
17-Oct	5.2	4.5	4.0	Z	5.1	5.3	5.7	6.1	5.4	3.8	4.3	3.3	3.0	3.1	4.6	5.3	5.6	7.1	6.8	6.5	6.4	5.3	4.2	3.4	4.95	7.15																							
18-Oct	4.3	3.3	3.5	Z	3.5	4.4	4.3	5.8	3.5	3.1	3.6	4.3	3.5	4.6	5.3	7.0	8.5	6.0	5.2	5.6	4.8	2.7	2.2	1.4	4.36	8.47																							
19-Oct	1.7	2.3	1.8	Z	1.9	2.7	3.3	4.4	2.9	1.9	5.8	10.0	6.4	4.5	3.7	6.4	6.0	4.0	10.8	15.3	10.5	9.2	4.7	5.4	5.46	15.34																							
20-Oct	6.2	5.9	6.5	Z	8.8	9.2	8.0	6.3	3.5	2.7	4.4	7.9	6.2	2.6	6.1	5.6	7.3	9.0	6.5	5.0	4.1	2.9	4.4	3.7	5.77	9.19																							
21-Oct	6.8	4.9	9.9	Z	20.6	3.9	8.7	10.7	8.9	9.0	4.0	5.3	7.0	6.4	3.0	7.3	8.3	11.0	5.7	6.0	6.4	17.1	13.9	7.4	8.36	20.62																							
22-Oct	4.9	5.7	9.7	Z	14.9	9.4	6.7	4.9	7.3	4.4	3.2	2.6	1.9	2.1	1.6	2.5	2.2	4.3	7.6	13.5	18.7	18.1	14.3	18.6	7.79	18.71																							
23-Oct	15.5	11.7	11.1	Z	8.5	8.7	11.9	11.6	11.2	11.2	12.2	11.7	6.3	4.3	6.0	6.4	6.8	12.8	8.4	13.3	13.1	15.5	13.3	13.8	10.66	15.51																							
24-Oct	8.1	12.5	7.7	Z	8.2	8.3	9.4	8.9	9.6	6.9	4.0	4.8	5.4	5.2	6.1	7.0	7.2	8.4	7.7	8.3	7.0	6.6	6.2	6.0	7.37	12.50																							
25-Oct	6.0	5.7	5.8	Z	6.1	6.3	4.9	6.6	5.6	4.5	4.4	4.4	5.3	4.1	4.5	7.4	7.1	4.9	5.1	4.3	4.4	3.1	2.0	1.7	4.97	7.37																							
26-Oct	1.5	1.4	1.4	Z	2.5	2.9	3.7	4.0	3.4	3.3	3.2	4.0	4.6	6.0	6.1	5.3	5.6	7.6	8.2	6.9	7.5	7.3	6.7	6.4	4.77	8.23																							
27-Oct	6.2	6.0	5.4	Z	5.0	4.9	4.7	5.3	5.1	3.9	3.4	5.3	9.3	5.5	4.7	6.5	7.6	8.7	9.0	8.9	8.9	8.0	7.2	6.2	6.33	9.27																							
28-Oct	6.6	6.0	5.6	Z	5.4	5.6	5.8	5.5	5.8	4.9	4.2	3.9	4.5	4.4	4.2	4.4	6.0	6.0	6.0	5.4	5.1	5.1	4.6	4.1	5.18	6.62																							
29-Oct	4.0	4.6	4.1	Z	5.8	7.5	6.7	4.2	7.4	6.6	8.2	8.7	10.9	8.0	6.3	5.1	6.7	6.8	6.2	7.4	5.7	5.9	5.7	5.7	6.44	10.86																							
30-Oct	4.9	4.9	5.4	Z	5.2	5.7	5.3	4.9	4.5	4.1	2.7	2.3	7.2	1.7	1.8	1.3	1.9	3.8	10.6	14.5	9.8	7.1	10.4	15.6	5.90	15.61																							
31-Oct	13.3	11.9	10.7	Z	11.4	14.2	13.8	16.7	12.3	7.8	3.8	7.3	6.3	7.2	2.8	2.4	8.7	13.1	5.6	8.1	12.2	12.9	8.1	7.3	9.48	16.74																							
																								5.16	5.00	5.07	--	6.20	5.92	6.29	6.36	5.74	4.85	4.45	4.72	4.66	4.07	4.10	4.47	5.29	6.21	6.74	7.51	6.76	6.45	5.92	6.00	Diurnal Average	
																								15.51	12.50	11.08	--	20.62	14.19	13.79	16.74	12.27	11.22	12.16	11.68	10.86	8.08	6.60	7.37	8.74	13.10	14.55	18.03	18.71	18.07	14.35	18.59	Diurnal Maximum	
Z - zerospan																								C - Calibration				PF - Power Failure																					
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

NOx (NO_x) - ppb
October 2016

Maximum Value: 81.38 ppb on Oct 31 08:00		Maximum Daily Average: 20.12 ppb on Oct 31		Hours in Service: 744																																													
Minimum Value: 1.1 ppb on Oct 9 23:00		Minimum Daily Average: 3.45 ppb on Oct 1		Hours of Data: 700																																													
Maximum Diurnal Average: 14.57 ppb at hour 8		Minimum Diurnal Average: 6.81 ppb at hour 3		Hours of Missing Data: 44																																													
Monthly Average: 9.248 ppb		Percentiles: P ₁ = 1.4 P ₁₀ = 3.4 Q ₁ = 5.1 Median = 8.0 Q ₃ = 11.2 P ₉₀ = 15.5 P ₉₉ = 36.4		Hours of Calibration: 36																																													
Percentiles: P ₁ = 1.4 P ₁₀ = 3.4 Q ₁ = 5.1 Median = 8.0 Q ₃ = 11.2 P ₉₀ = 15.5 P ₉₉ = 36.4		Percent Operational Time: 98.9																																															
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-Oct	1.4	2.3	1.3	Z	1.7	1.5	3.5	4.4	4.1	4.2	3.8	3.6	4.1	4.8	3.5	3.9	8.0	3.4	5.6	3.1	3.5	2.8	2.5	2.4	3.45	8.01																							
2-Oct	3.1	2.4	2.5	Z	3.4	4.2	5.1	4.1	3.9	4.1	5.1	4.3	4.7	2.2	3.1	4.1	3.9	4.9	4.6	12.5	12.2	8.1	4.5	3.7	4.81	12.46																							
3-Oct	5.0	3.6	9.1	Z	15.2	8.6	9.9	11.2	16.5	15.5	14.1	12.8	8.9	5.0	4.9	4.7	PF	PF	PF	PF	PF	PF	PF	PF	--	16.54																							
4-Oct	3.3	6.3	3.6	Z	6.8	12.9	5.6	16.8	13.6	9.5	9.4	8.8	8.5	8.3	7.8	8.9	7.5	6.7	6.9	5.3	4.1	2.2	2.1	2.0	7.26	16.78																							
5-Oct	1.6	2.0	2.6	Z	4.5	5.1	6.6	7.8	7.0	6.6	5.8	5.9	5.7	4.0	7.1	5.6	5.9	6.0	4.8	4.0	3.2	2.3	1.8	1.8	4.69	7.84																							
6-Oct	3.6	2.1	3.3	Z	5.4	7.4	7.1	7.9	8.4	7.2	7.0	8.4	5.3	6.1	8.9	4.8	6.5	5.2	7.9	4.0	3.5	4.0	4.2	5.3	5.81	8.86																							
7-Oct	6.7	7.7	6.5	Z	7.8	8.8	11.9	9.3	9.2	9.6	9.7	9.7	10.0	10.3	10.0	10.9	9.7	6.9	3.9	3.7	4.6	4.3	3.8	2.7	7.73	11.95																							
8-Oct	3.3	2.8	2.6	Z	5.7	6.1	7.5	8.2	4.6	4.6	4.9	4.1	5.9	6.6	5.5	6.2	5.6	4.9	3.2	3.8	4.4	4.3	7.8	4.8	5.10	8.17																							
9-Oct	5.5	8.5	5.6	Z	6.2	10.7	9.1	9.4	6.7	3.1	2.1	1.5	1.5	1.1	1.1	1.2	1.3	1.9	4.8	6.6	1.5	1.6	1.1	2.2	4.10	10.66																							
10-Oct	1.2	1.7	3.5	Z	6.7	4.1	5.9	6.9	6.0	6.2	6.1	4.9	3.6	3.3	2.8	2.3	2.3	2.9	10.0	8.2	3.5	5.4	11.6	7.2	5.06	11.63																							
11-Oct	9.4	6.4	7.1	Z	11.3	7.7	2.6	3.8	7.4	11.3	5.8	5.4	5.7	5.1	4.1	3.3	2.6	9.0	11.5	31.1	21.1	15.6	12.5	19.0	9.51	31.08																							
12-Oct	3.9	2.9	3.8	Z	4.7	7.7	35.5	C	C	C	C	C	5.8	6.3	8.8	4.5	7.4	10.4	18.6	14.8	11.0	7.7	8.8	18.9	10.07	35.52																							
13-Oct	14.4	9.9	5.4	Z	7.4	8.3	9.9	10.5	8.4	9.0	12.6	12.5	9.4	13.0	10.3	9.0	9.3	9.2	10.8	10.3	12.0	9.9	10.6	7.7	10.00	14.39																							
14-Oct	7.5	6.9	8.0	Z	8.1	11.8	10.3	15.0	16.3	12.3	16.3	11.1	9.6	8.7	11.8	11.9	10.0	11.8	8.1	8.1	5.9	4.9	4.7	5.2	9.76	16.34																							
15-Oct	4.2	4.6	4.3	Z	4.9	5.6	5.8	6.7	6.8	6.1	4.4	4.9	5.8	6.4	5.0	7.2	8.0	7.7	6.4	4.5	4.8	5.5	6.2	5.2	5.70	8.01																							
16-Oct	4.8	5.7	5.7	Z	6.4	6.9	7.8	9.5	10.0	5.4	6.8	5.9	7.1	9.2	8.9	9.1	8.1	6.5	9.0	8.4	9.0	9.1	6.6	5.8	7.46	9.96																							
17-Oct	6.6	5.0	4.3	Z	6.2	7.3	10.0	11.3	12.8	10.1	11.5	8.5	7.5	7.1	9.5	9.0	9.1	10.4	9.2	8.1	7.3	6.0	4.8	4.0	8.08	12.85																							
18-Oct	6.2	4.3	4.3	Z	5.0	7.7	7.2	13.2	7.5	8.1	7.7	9.9	9.0	9.3	10.0	12.8	16.7	12.9	8.6	11.6	23.0	11.2	9.9	6.0	9.66	23.05																							
19-Oct	12.1	15.4	10.9	Z	12.5	25.1	47.9	56.3	40.0	17.6	16.9	20.4	9.5	6.4	5.0	7.6	7.5	4.4	13.6	19.9	13.2	12.5	5.2	6.0	16.78	56.28																							
20-Oct	8.5	6.6	7.7	Z	14.5	21.8	17.1	9.2	4.9	4.4	7.1	12.3	9.5	3.6	8.7	7.5	8.9	9.7	6.9	5.1	4.3	3.1	4.6	3.9	8.25	21.79																							
21-Oct	6.9	5.3	11.0	Z	32.2	4.0	8.9	11.0	10.1	11.0	4.6	6.2	8.8	8.9	4.0	9.2	10.0	11.8	6.3	7.6	6.7	21.0	16.6	8.6	10.03	32.17																							
22-Oct	5.1	6.1	10.8	Z	24.9	11.1	9.0	5.1	9.5	5.6	4.2	3.5	2.7	2.8	2.2	3.1	2.5	4.4	8.0	15.4	28.4	24.5	16.3	26.8	10.09	28.37																							
23-Oct	24.4	15.4	13.8	Z	13.0	12.1	22.9	24.0	22.4	28.3	25.1	22.2	9.7	6.3	8.3	8.5	9.4	16.3	9.5	16.7	14.8	17.1	14.6	15.9	16.12	28.31																							
24-Oct	10.9	16.3	8.1	Z	10.1	11.1	14.1	12.4	14.7	14.6	10.7	10.0	10.1	9.2	10.4	11.0	11.4	12.2	9.3	10.0	7.8	7.0	6.5	6.5	10.63	16.30																							
25-Oct	7.1	5.9	6.6	Z	7.9	8.1	6.5	14.4	12.7	11.2	13.7	10.9	14.9	9.2	10.0	15.7	16.7	9.1	10.7	10.8	12.3	8.8	7.0	8.0	10.37	16.74																							
26-Oct	5.2	8.6	7.0	Z	11.9	9.9	15.1	19.6	16.9	17.1	14.0	14.9	13.6	16.2	15.0	11.8	12.5	15.3	16.7	15.5	12.4	13.0	11.6	10.4	13.23	19.55																							
27-Oct	11.1	9.0	9.7	Z	12.8	13.2	14.9	14.6	19.0	15.2	14.0	11.7	16.7	11.1	13.7	14.0	12.3	11.9	10.7	10.3	10.2	8.8	8.8	7.1	12.22	18.99																							
28-Oct	8.7	7.9	6.6	Z	7.9	9.4	13.5	13.7	17.9	12.8	11.5	11.5	11.9	9.7	8.9	8.7	13.0	10.8	8.7	8.4	7.6	7.3	5.7	6.8	9.95	17.92																							
29-Oct	6.9	8.5	4.6	Z	11.1	13.8	13.0	8.0	19.2	14.5	17.4	23.5	27.1	13.8	9.2	6.7	8.7	8.0	6.8	9.1	6.7	7.2	6.3	6.4	11.14	27.06																							
30-Oct	5.5	6.3	11.0	Z	9.4	11.0	11.2	11.4	13.7	12.3	9.5	9.1	15.9	2.3	2.2	1.5	2.0	4.0	11.9	17.2	10.9	7.9	15.5	33.0	10.20	33.00																							
31-Oct	37.6	30.8	19.8	Z	20.8	32.4	43.4	81.4	48.1	13.7	5.1	10.5	9.1	9.3	3.2	2.6	13.7	19.7	5.7	9.1	14.8	14.5	8.8	8.7	20.12	81.38																							
																								7.79	7.33	6.81	--	9.88	10.17	12.86	14.57	13.28	10.39	9.57	9.64	8.95	7.28	7.21	7.33	8.35	8.61	8.63	10.10	9.48	8.60	7.70	8.40	Diurnal Average	
																								37.60	30.84	19.80	--	32.17	32.37	47.89	81.38	48.08	28.31	25.08	23.51	27.06	16.23	14.99	15.68	16.74	19.67	18.55	31.08	28.37	24.53	16.56	33.00	Diurnal Maximum	
Z - zerospan C - Calibration PF - Power Failure																																																	
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
October 2016

Maximum Value: 59.44 µg/m ³ on Oct 12 09:00		Maximum Daily Average: 19.14 µg/m ³ on Oct 12		Hours in Service: 744																																													
Minimum Value: 0.0 µg/m ³ on Oct 1 01:00		Minimum Daily Average: 1.72 µg/m ³ on Oct 1		Hours of Data: 691																																													
Maximum Diurnal Average: 9.51 µg/m ³ at hour 13		Minimum Diurnal Average: 5.57 µg/m ³ at hour 24		Hours of Missing Data: 53																																													
Monthly Average: 7.114 µg/m ³		Percentiles: P ₁ = 0.0 P ₁₀ = 0.4 Q ₁ = 3.3 Median = 6.4 Q ₃ = 9.4 P ₉₀ = 13.0 P ₉₉ = 31.9		Hours of Calibration: 0																																													
				Percent Operational Time: 92.9																																													
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-Oct	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	2.5	3.3	0.0	1.1	1.4	1.0	2.3	2.6	2.8	2.8	2.3	3.4	2.6	6.2	0.0	4.2	1.72	6.19																							
2-Oct	1.3	1.5	6.2	5.4	3.0	2.7	0.0	3.1	5.2	4.2	7.3	8.1	7.0	6.5	6.0	8.9	10.1	5.9	8.5	13.0	16.3	11.9	8.7	2.9	6.40	16.35																							
3-Oct	0.7	6.3	0.0	10.9	6.3	9.2	10.1	1.1	9.7	13.3	15.7	17.2	11.9	15.4	8.6	8.1	PF	PF	PF	PF	PF	PF	PF	PF	--	17.22																							
4-Oct	12.4	6.3	14.9	11.6	8.7	6.9	4.8	9.5	7.4	14.4	15.2	13.1	15.0	11.1	8.4	15.2	12.4	7.2	7.7	8.9	6.9	5.6	5.1	8.6	9.88	15.17																							
5-Oct	5.5	4.5	7.6	8.4	3.7	10.7	7.6	14.5	9.8	10.7	9.6	9.3	10.8	9.4	11.3	10.2	11.7	11.2	6.4	7.5	8.9	5.1	5.9	0.0	8.34	14.50																							
6-Oct	7.5	5.7	1.6	7.6	6.2	13.4	2.6	9.6	0.5	12.2	0.0	10.3	7.7	7.3	5.8	7.5	8.8	8.9	7.2	3.7	1.4	6.3	0.4	4.1	6.10	13.39																							
7-Oct	0.0	10.3	0.7	10.8	4.8	8.1	7.9	8.9	9.8	3.1	11.4	2.0	7.6	3.9	7.4	0.5	5.4	0.0	1.9	2.3	0.5	1.9	4.3	0.0	4.74	11.43																							
8-Oct	2.9	1.3	8.4	0.0	3.9	0.0	7.7	0.0	6.2	1.5	5.3	2.6	0.0	6.4	0.5	0.0	3.2	0.0	3.0	0.0	4.2	0.0	10.6	0.0	2.82	10.59																							
9-Oct	2.9	0.0	7.8	0.0	7.2	2.6	5.3	0.0	4.9	0.0	6.0	2.0	0.0	1.2	0.0	0.3	2.5	0.0	2.3	3.8	4.4	2.5	1.8	0.0	2.40	7.82																							
10-Oct	0.0	0.0	8.3	1.6	4.2	0.0	8.2	5.1	8.9	5.8	6.9	0.0	6.5	0.0	0.0	4.8	2.2	0.0	5.1	2.3	8.9	3.3	4.0	0.0	3.59	8.94																							
11-Oct	1.3	8.5	4.0	9.0	7.3	15.5	3.8	4.0	2.8	8.3	4.5	4.5	4.9	3.9	3.1	3.6	0.2	4.0	9.6	23.6	28.4	26.3	20.2	14.2	8.98	28.40																							
12-Oct	8.0	10.5	3.9	6.5	4.4	5.8	11.5	42.7	59.4	24.9	15.2	23.5	48.0	42.2	10.5	13.0	54.4	16.1	13.5	11.5	10.8	5.3	8.4	9.3	19.14	59.44																							
13-Oct	6.2	15.9	10.0	6.9	10.6	8.7	7.3	11.7	8.5	17.8	8.6	17.8	7.0	13.9	11.2	11.1	13.0	6.7	15.1	15.6	8.0	10.5	21.4	16.0	11.65	21.41																							
14-Oct	15.0	11.7	12.5	8.5	14.3	6.9	9.1	6.2	7.2	0.7	6.6	10.2	6.6	5.1	6.8	4.8	8.1	13.5	2.2	9.6	4.9	11.8	2.3	3.4	7.84	15.05																							
15-Oct	3.3	AF	AF	AF	AF	AF	AF	7.8	3.5	3.9	0.9	8.0	6.9	4.3	7.2	4.9	6.2	7.2	3.8	3.6	3.7	3.8	1.5	7.1	4.86	7.96																							
16-Oct	0.0	AF	AF	AF	AF	AF	7.2	3.1	10.9	2.2	6.0	12.8	4.9	9.2	AF	AF	AF	AF	AF	AF	8.2	1.2	6.6	0.0	--	12.81																							
17-Oct	1.9	10.7	7.2	0.3	7.8	4.0	3.0	9.1	6.2	11.1	3.7	5.6	2.4	1.9	5.0	2.3	5.6	6.4	0.0	10.1	5.1	3.8	3.6	2.0	4.94	11.15																							
18-Oct	13.4	7.2	11.6	9.3	10.9	12.1	5.4	14.6	4.9	7.5	7.4	9.4	9.0	8.2	12.3	13.9	13.0	14.8	4.5	7.7	8.1	12.3	7.8	0.0	9.38	14.77																							
19-Oct	2.4	8.6	14.5	7.2	5.2	2.0	5.1	11.3	6.4	10.3	5.5	14.0	15.4	3.3	2.5	1.2	3.5	1.4	0.0	8.1	7.2	13.5	7.6	1.5	6.57	15.35																							
20-Oct	0.0	6.6	8.0	3.3	11.9	7.1	6.0	0.5	0.0	0.0	3.9	11.7	15.2	7.9	5.4	5.3	7.4	3.3	9.2	3.0	2.7	5.4	3.9	8.0	5.65	15.17																							
21-Oct	11.4	11.7	5.9	5.2	9.7	0.0	2.2	8.0	7.2	5.4	4.2	9.6	6.7	7.7	8.9	7.5	9.2	9.1	7.7	7.5	3.7	6.9	10.8	5.7	7.17	11.67																							
22-Oct	10.6	7.6	8.0	5.7	14.6	9.7	8.6	5.9	0.9	10.0	6.5	3.6	5.9	2.3	0.0	2.7	2.0	0.0	4.7	2.2	21.7	32.4	20.2	24.3	8.75	32.36																							
23-Oct	22.5	20.0	10.2	6.2	9.9	10.9	6.3	9.9	10.0	14.3	15.8	20.8	11.2	8.7	5.2	6.3	7.8	8.1	9.2	6.2	9.4	2.1	12.4	18.4	10.90	22.51																							
24-Oct	18.3	15.1	10.2	11.6	10.6	10.7	10.7	12.2	6.4	11.1	7.7	1.3	9.8	9.0	7.1	8.4	11.7	9.0	10.1	12.5	2.4	4.8	4.2	4.9	9.15	18.29																							
25-Oct	3.3	4.9	8.7	8.3	2.5	13.3	3.3	2.7	6.2	2.0	7.1	6.6	6.4	15.3	10.9	7.8	12.6	7.4	3.4	0.0	3.5	2.3	2.5	3.9	6.04	15.33																							
26-Oct	7.8	10.5	4.8	8.3	0.0	9.4	9.1	9.1	1.1	4.8	0.0	7.5	2.0	6.6	7.9	5.9	4.0	5.4	6.1	5.5	4.2	6.6	12.1	7.7	6.09	12.12																							
27-Oct	9.7	10.5	7.0	4.2	5.2	5.5	0.0	6.7	7.7	4.9	5.8	5.1	13.3	8.0	8.6	7.2	5.1	0.9	12.0	7.6	9.2	6.9	7.2	6.1	6.85	13.31																							
28-Oct	0.0	11.7	9.0	4.4	5.1	5.8	4.5	4.8	9.8	10.0	4.8	5.2	8.3	3.4	2.4	3.1	4.0	8.4	2.4	3.5	5.0	2.9	6.0	0.0	5.19	11.73																							
29-Oct	2.5	8.8	4.5	4.9	4.5	4.4	6.2	1.9	1.3	5.5	11.5	22.1	25.8	33.6	10.2	7.6	8.0	2.8	0.6	3.4	6.2	0.0	4.2	3.7	7.67	33.56																							
30-Oct	0.0	5.0	10.4	AF	AF	AF	0.9	5.2	7.4	6.3	3.9	5.9	7.9	7.1	0.0	0.0	0.4	0.0	8.0	7.7	14.2	3.8	6.8	AF	5.05	14.15																							
31-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--	--	--																					
																								5.69	7.90	7.35	6.15	6.77	6.96	5.67	7.64	7.75	7.65	6.90	9.03	9.51	8.79	6.04	6.03	8.41	5.72	5.94	6.92	7.61	7.08	7.26	5.57	Diurnal Average	
																								22.51	19.97	14.90	11.64	14.63	15.48	11.51	42.70	59.44	24.94	15.80	23.53	47.99	42.20	12.27	15.16	54.42	16.08	15.14	23.61	28.40	32.36	21.41	24.26	Diurnal Maximum	
AF - Analyzer Failure PF - Power Failure Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 µl/m ³ 24-hr 30 µl/m ³																																																	

Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: October 12, 2016

Parameter: NO/NO₂/NO_x

Instrument: Teco 42i

Serial Number: CM 13040041

Previous Calibration Date: Sept 4,2016

Calibration: Routine

Calibration Equipment: Sabio 2010 sn 05200311

Barometric Pressure: 26.77" Hg

Calibration Method: Standard Gas Dilution/GPT

Cylinder ID: FF27716

Temperature: 20.0° C

Cylinder Concentration: 12.0 ppm NO/NO_x

In Service: June 2/16:Expiry Jan 20/19

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	5.5	5.8	na	0.911	1.007	1.000	200 ppb
Current	5.8	6.0	na	0.929	1.000	1.000	200 ppb

NO	Final Zero: 0.1 ppb	Final Span: 160.8 ppb	As Found Correction Factor: 1.021
NO ₂	Final Zero: 0.0 ppb	Final Span: NA	As Found Correction Factor: 1.006
NO _x	Final Zero: 0.1 ppb	Final Span: 161.1 ppb	As Found Correction Factor: 1.024

Results of Linear Regression			Slope	Intercept	R ²
NO	R _c vs C _c	Previous	150.169000	28.754140	0.999979
		Current	150.104100	13.064510	0.999999
	C _i vs C _c	Current	1.000000	-0.000002	0.999999
NO ₂	R _c vs C _c	Previous	151.165300	33.690610	0.999979
		Current	150.180200	-15.888710	0.999997
	C _i vs C _c	Current	1.000000	0.000021	0.999997
NO _x	R _c vs C _c	Previous	151.330600	9.446004	0.999979
		Current	150.060700	5.182094	1.000000
	C _i vs C _c	Current	1.000000	-0.000021	1.000000

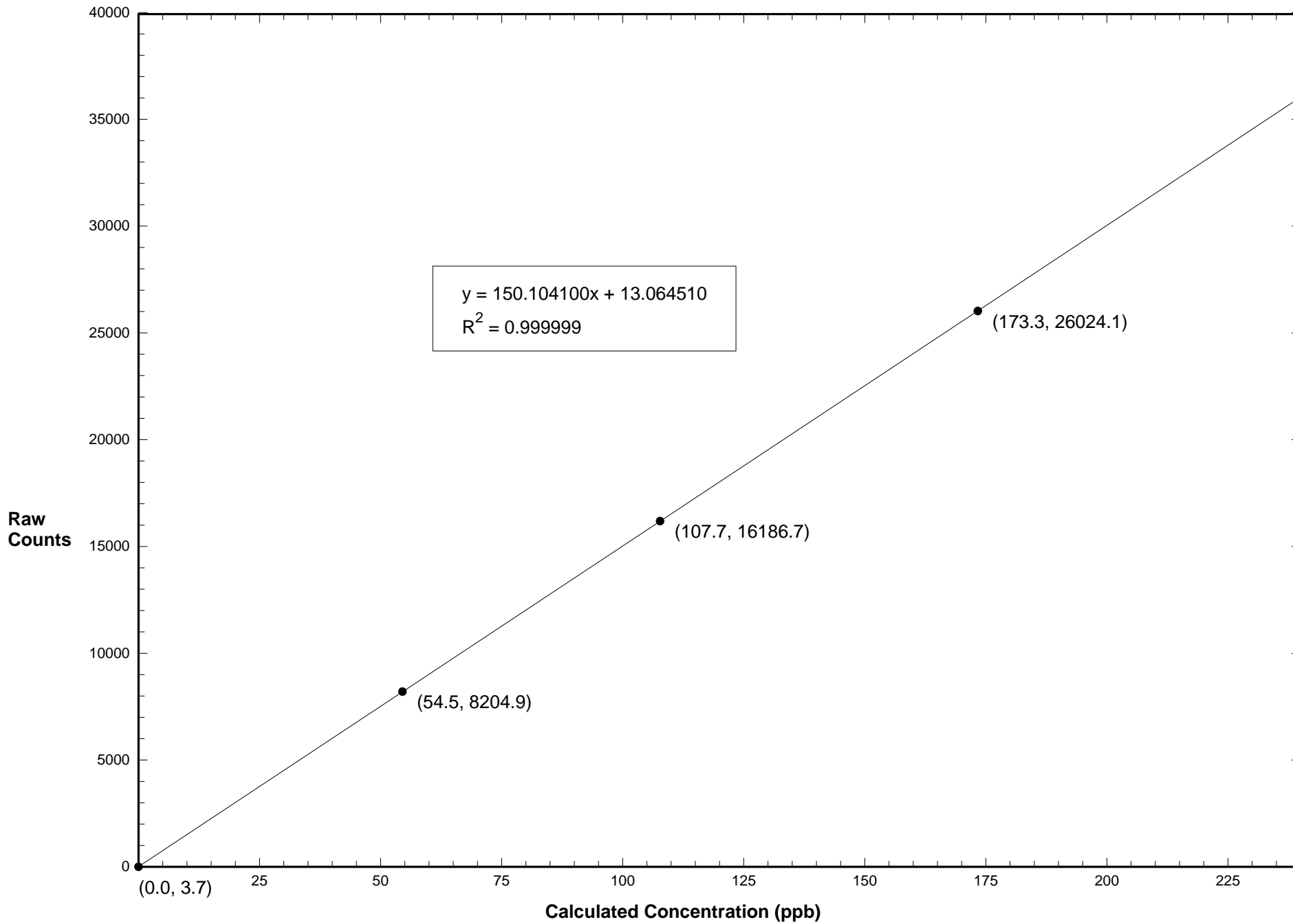
Comments: Inlet Flow =0.33 lpm

Calibration Data Summary (Page 2)

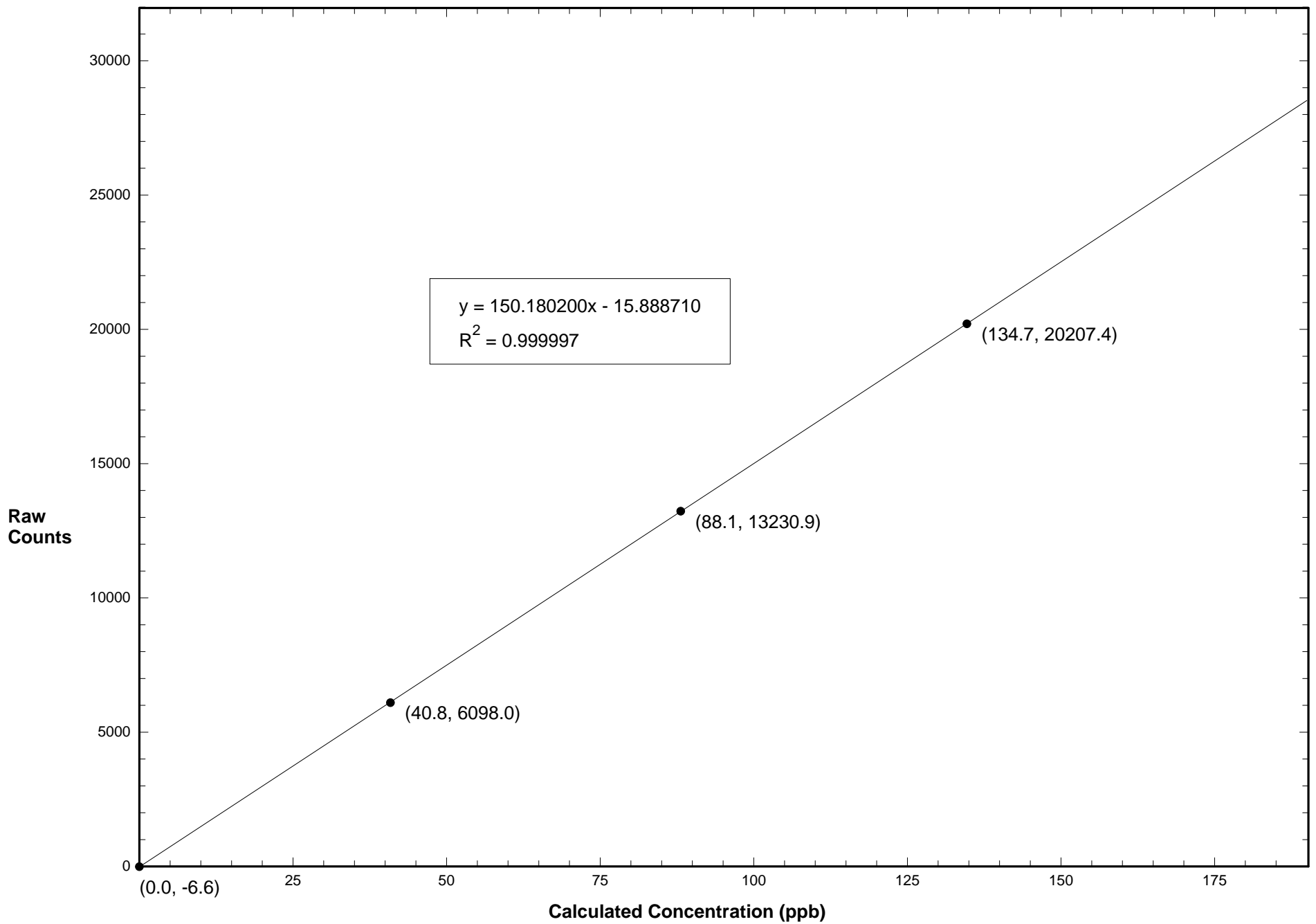
October 12, 2016 - Station 906

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		
0.06620	4.517	173.3	26024.1	173.3	1.000		
0.04090	4.516	107.7	16186.7	107.7	1.000		
0.02060	4.514	54.5	8204.9	54.6	0.999		
0.00000	4.500	0.0	3.7	-0.1			
NO Calibration					Average Correction Factor:	1.000	
0.06620	4.517	173.3	26013.7	173.3	1.000		
0.04090	4.516	107.7	16165.8	107.7	1.000		
0.02060	4.514	54.5	8195.2	54.6	0.999		
0.00000	4.500	0.0	-1.4	0.0			
NO _x Calibration					Average Correction Factor:	1.000	
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
171.4	5526.4	36.7	134.7	20207.4	134.7	1.000	1.000
171.4	12518.4	83.3	88.1	13230.9	88.2	0.999	1.001
171.4	19611.4	130.6	40.8	6098.0	40.7	1.003	0.997
			0.0	-6.6	0.1		
					Average Correction Factor:	1.001	
NO ₂ Gas Phase Titration					Average Converter Efficiency:	0.999	
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	0.998	1.000	0.2				
NO ₂	0.997	1.000	0.3				
NO _x	0.999	1.000	0.1				

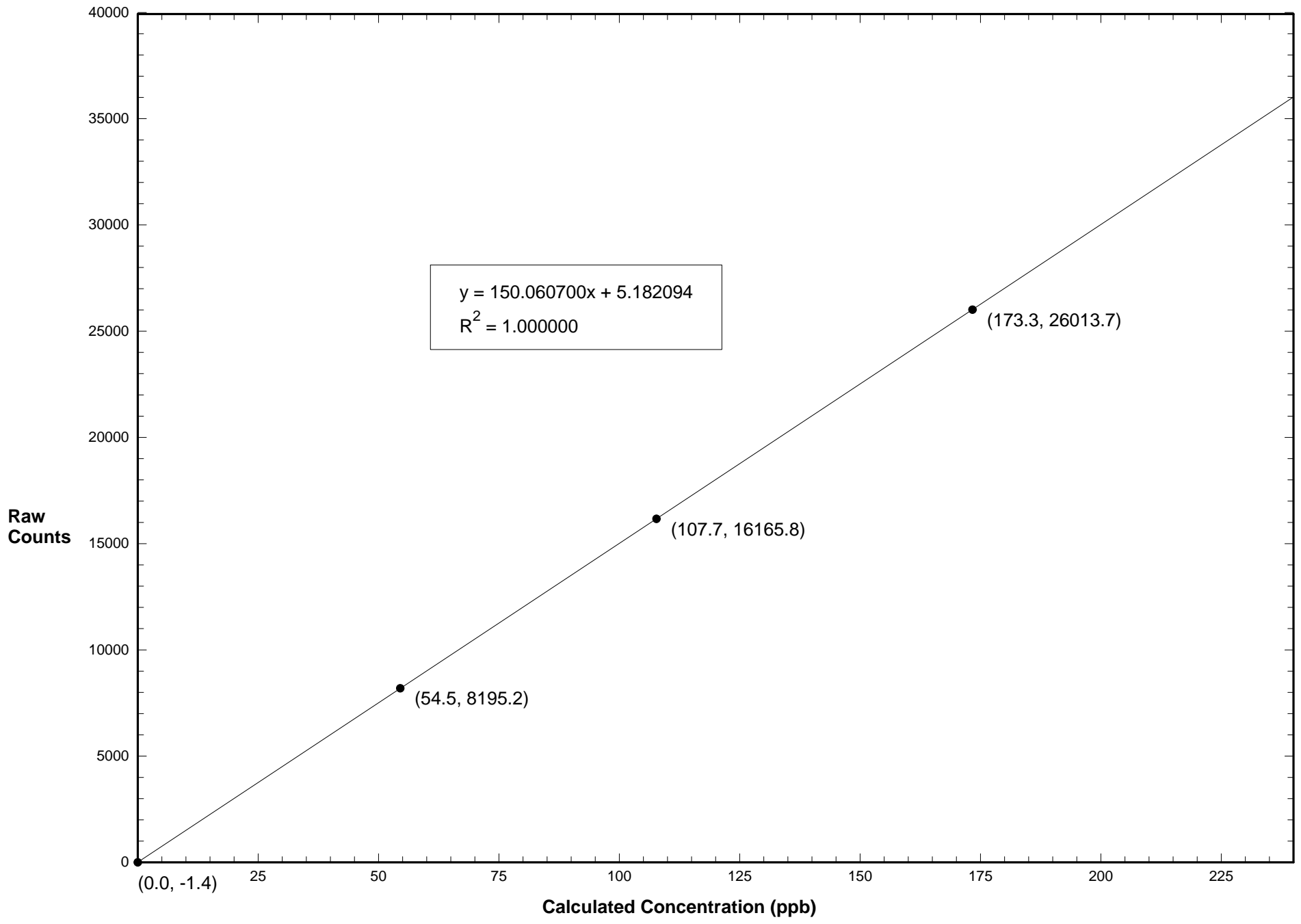
Station 906 NO October 12, 2016: Linear Regression



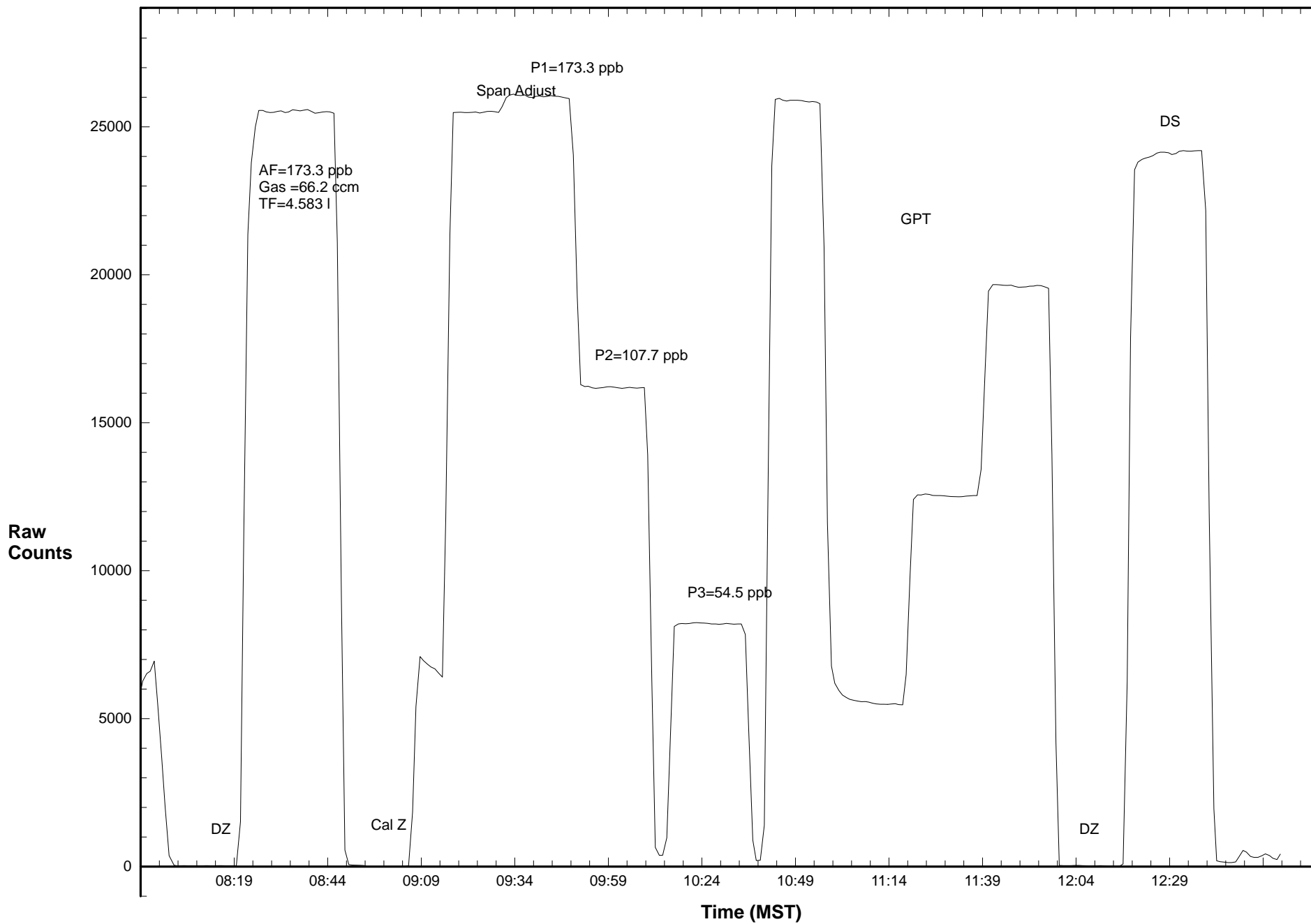
Station 906 NO2 October 12, 2016: Linear Regression



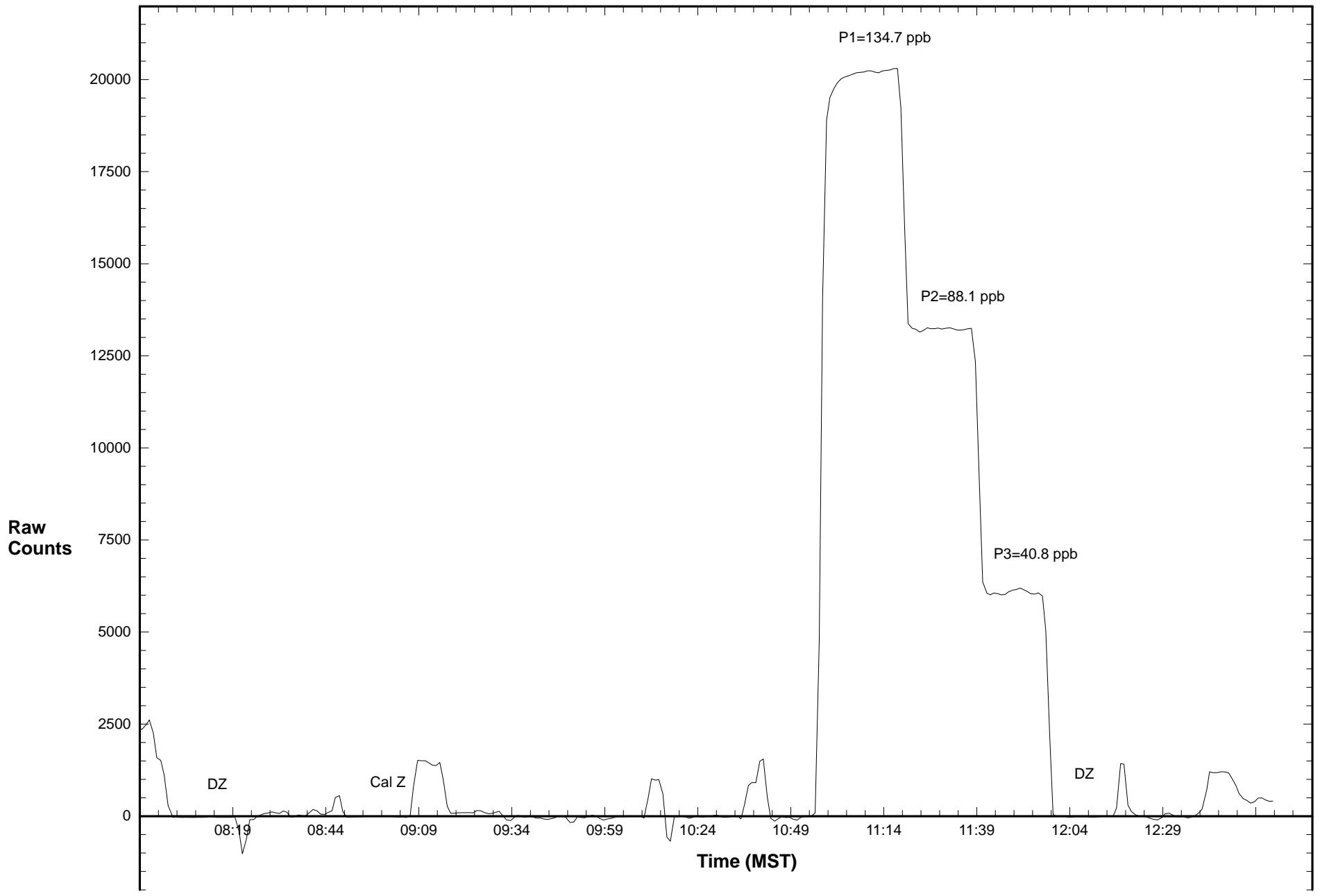
Station 906 NOX October 12, 2016: Linear Regression



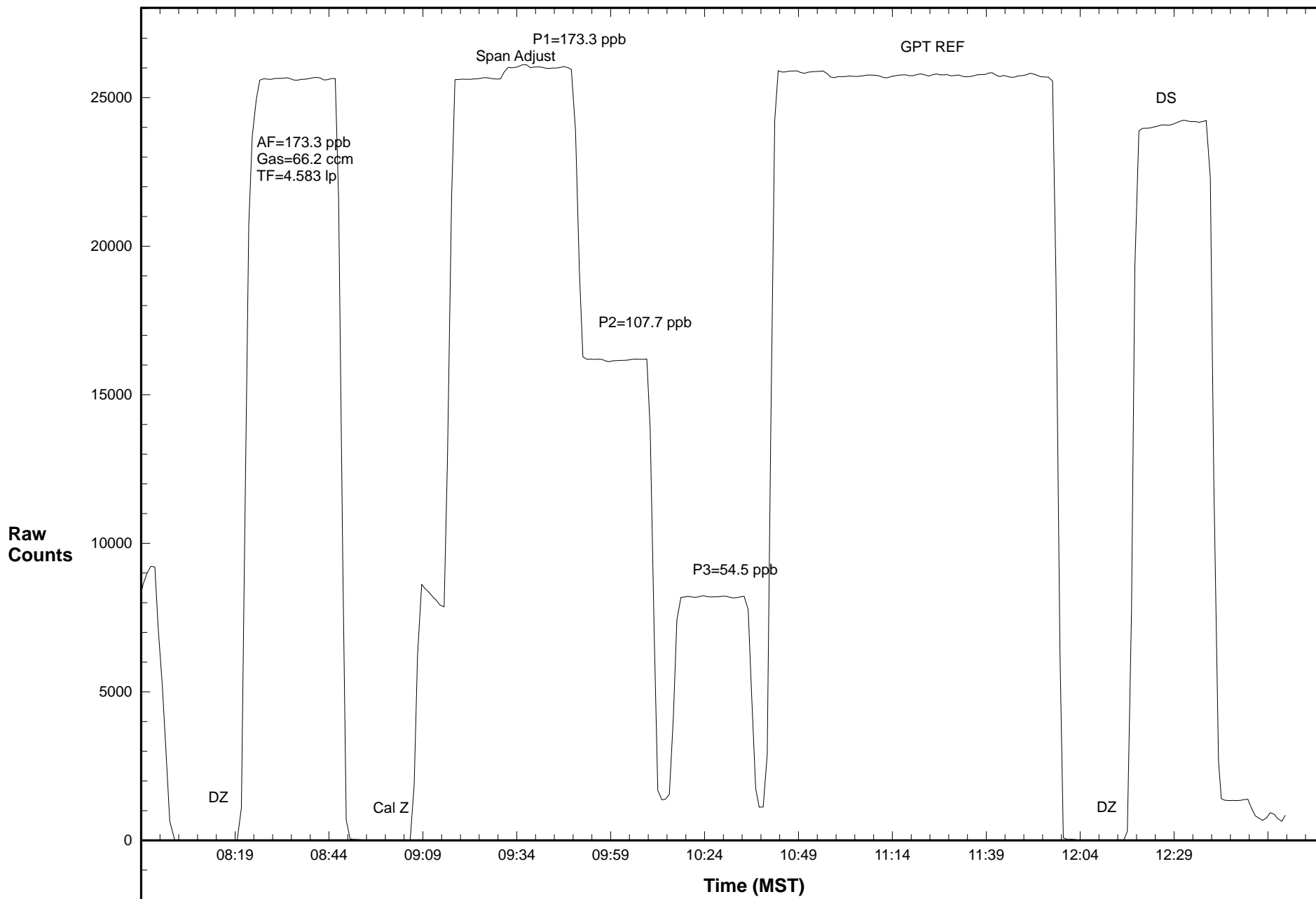
Station 906 NO October 12, 2016: Calibration Graph



Station 906 NO2 October 12, 2016: Calibration Graph



Station 906 NOX October 12, 2016: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: October 12, 2016

Parameter: O₃

Instrument: Teco 49i

Serial Number: 1150790050

Previous Calibration Date: Sept 4, 2016

Calibration: Routine

Calibration Equipment: 2B Tech 306 sn#145

Barometric Pressure: 26.77" Hg

Calibration Method: Certified Ozone Generator

Temperature: 20.0° C

Technician: J.McClintock

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	-0.4	1.014	500 ppb
Current	0.0	0.964	500 ppb

Final Zero: -0.5 ppb

Final Span: 345.6 ppb

As Found Correction Factor: 0.953

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	409.0	24537.9	408.7	1.001
3.000	256.0	15400.5	256.4	0.998
3.000	102.0	6130.1	101.9	1.001
3.000	0.0	5.3	-0.1	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	60.094100	75.733110	0.999943
Current	60.002320	13.006060	0.999997
C _i vs C _c			
Current	1.000000	0.000000	0.999997

Average Correction Factor: 1.000

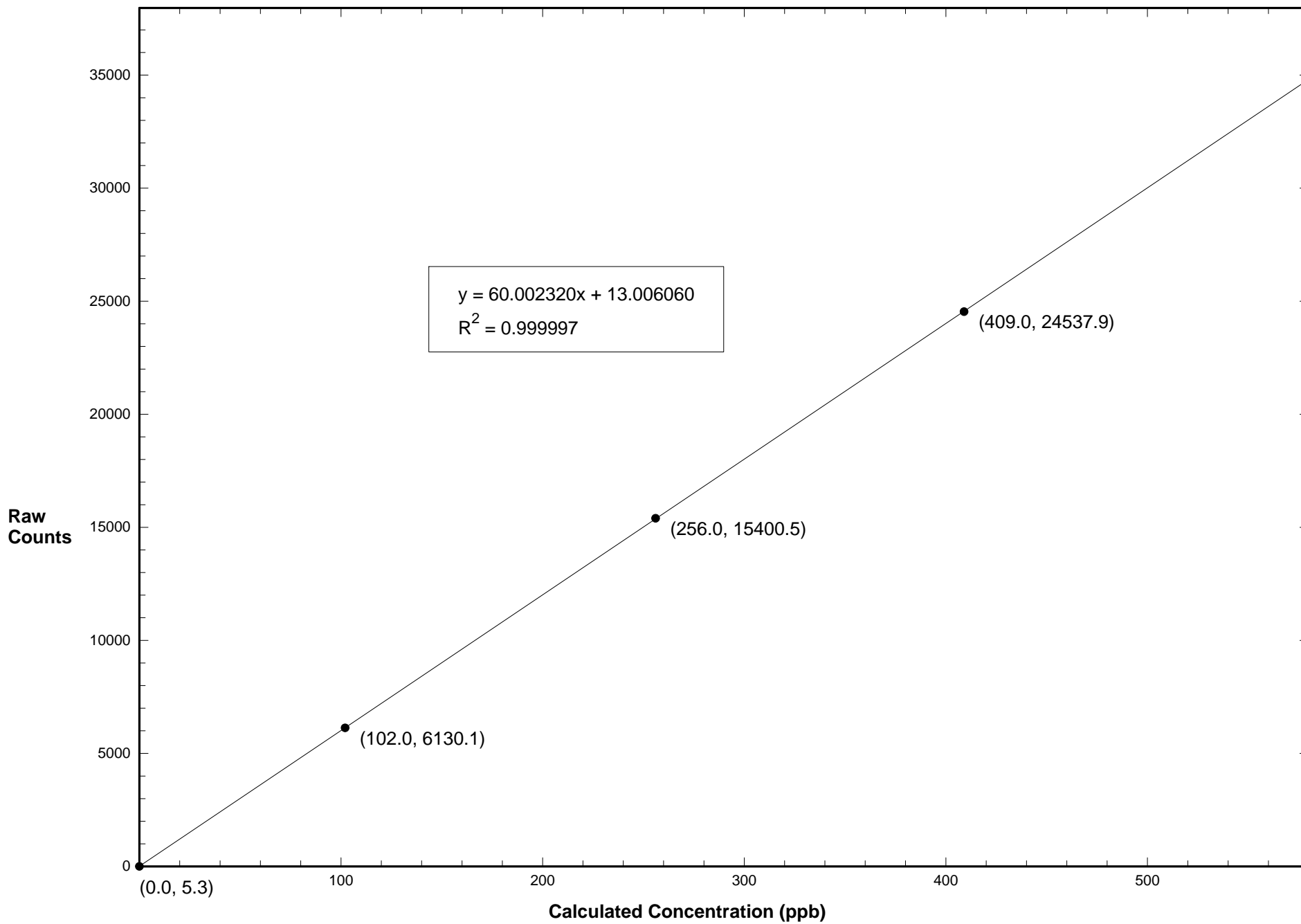
Previous Correction Factor: 1.002

Current Correction Factor: 1.001

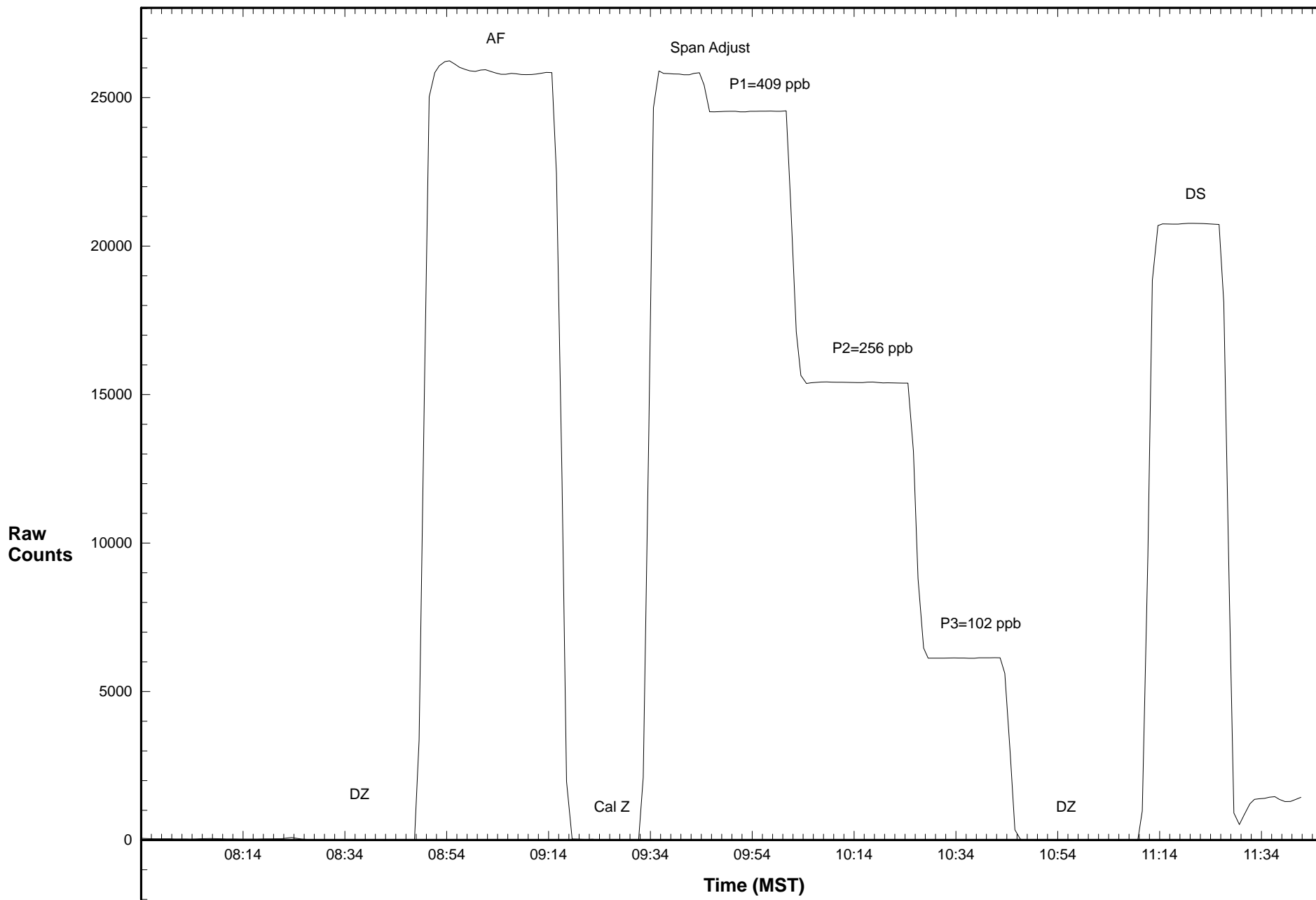
Percent Change of Correction Factor: -0.1

Comments: Inlet Flow =1.257 lpm In Service April 1, 2016

Station 906 O3 October 12, 2016: Linear Regression



Station 906 O3 October 12, 2016: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: October 12, 2016

Parameter: SO₂

Instrument: Teco 43i

Serial Number: CM12499009

Previous Calibration Date: Sept 4,2016

Calibration: Routine

Calibration Equipment: Sabio 2010 sn 05200311

Barometric Pressure: 26.77" Hg

Calibration Method: Standard Gas Dilution

Cylinder ID: FF27716

Temperature: 20.0° C

Cylinder Concentration: 5.8 ppm SO₂

In Service: June 2/16: Expiry Jan 20/19

Technician: J.McClintock

Instrument Settings	SO ₂ bkg ppb	SO ₂ Coefficient	Monitoring Range
Previous	26.0	0.980	100 ppb
Current	26.5	0.993	100 ppb

Final Zero: -0.1 ppm

Final Span: 69.8 ppm

As Found Correction Factor: 1.005

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
0.0662	4.517	83.8	25057.5	83.7	1.001
0.0409	4.516	52.1	15584.5	52.2	0.998
0.0206	4.514	26.3	7826.2	26.3	1.001
0.0000	4.500	0.0	-72.7	0.0	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	298.846400	-2.457175	0.999993
Current	300.099100	-68.760680	0.999996
C _i vs C _c			
Current	1.000000	0.000010	0.999996

Average Correction Factor: 1.000

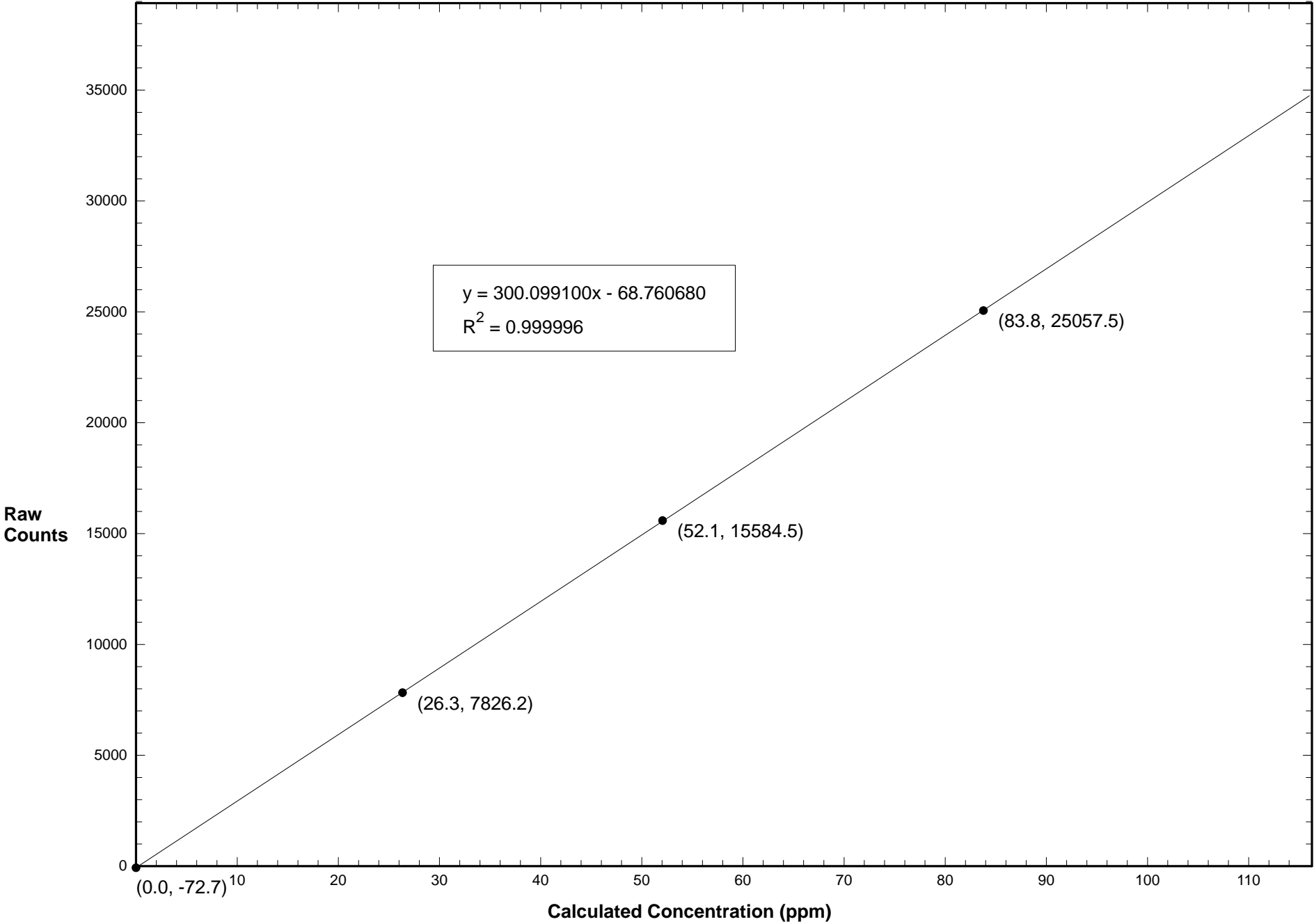
Previous Correction Factor: 0.999

Current Correction Factor: 1.001

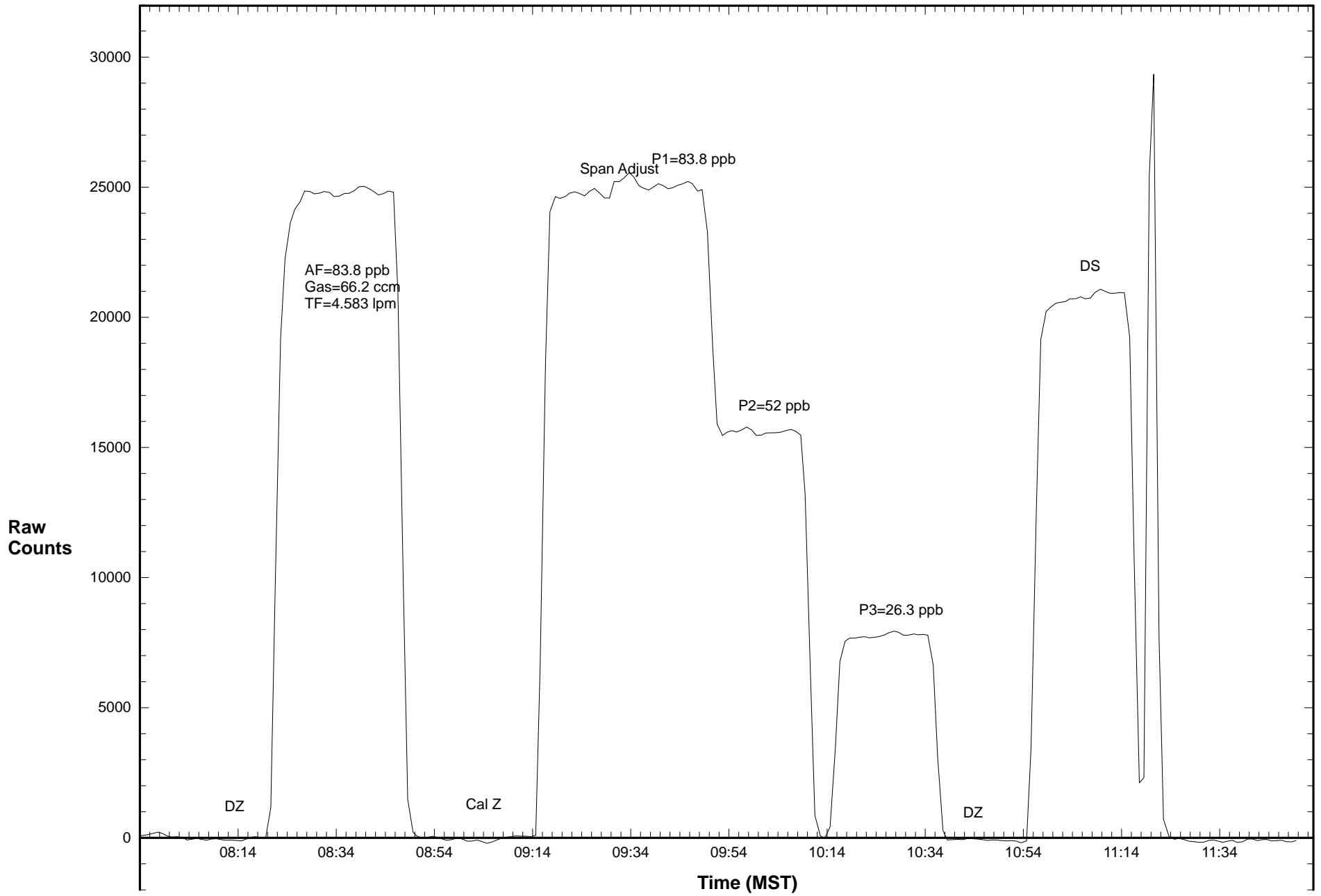
Percent Change of Correction Factor: 0.2

Comments: Inlet flow =0.341

Station 906 SO2 October 12, 2016: Linear Regression



Station 906 SO2 October 12, 2016: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: October 12, 2016

Parameter: TRS

Instrument: Teco 43C

Serial Number: 43CTL-60324-326

Previous Calibration Date: September 4, 2016

Calibration: Routine

Calibration Equipment: Sabio 2010 sn 05200311

Barometric Pressure: 26.77" Hg

Calibration Method: Standard Gas Dilution

Permeation Device ID:

Temperature: 22.0° C

Permeation Rate: 0 ng/min

In Service: Jan 17/16: Expiry Oct 10/18

Technician: J.McClintock

Instrument Settings

H₂S bkg ppb

H₂S Coefficient

Monitoring Range

Previous

1.75

0.744

100 ppb

Current

1.73

0.774

100 ppb

Final Zero: 0.5 ppb

Final Span: 65.0 ppb

As Found Correction Factor: 1.000

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

0.071	82.1	24714.3	82.3	0.998
0.041	47.7	14229.7	47.5	1.002
0.021	24.0	7011.7	23.6	1.018
0.000	0.0	-8.6	0.3	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	301.639900	-110.630300	0.999998
Current	301.622000	-112.278200	0.999907
C _i vs C _c			
Current	1.000000	0.000010	0.999907

Average Correction Factor: 1.006

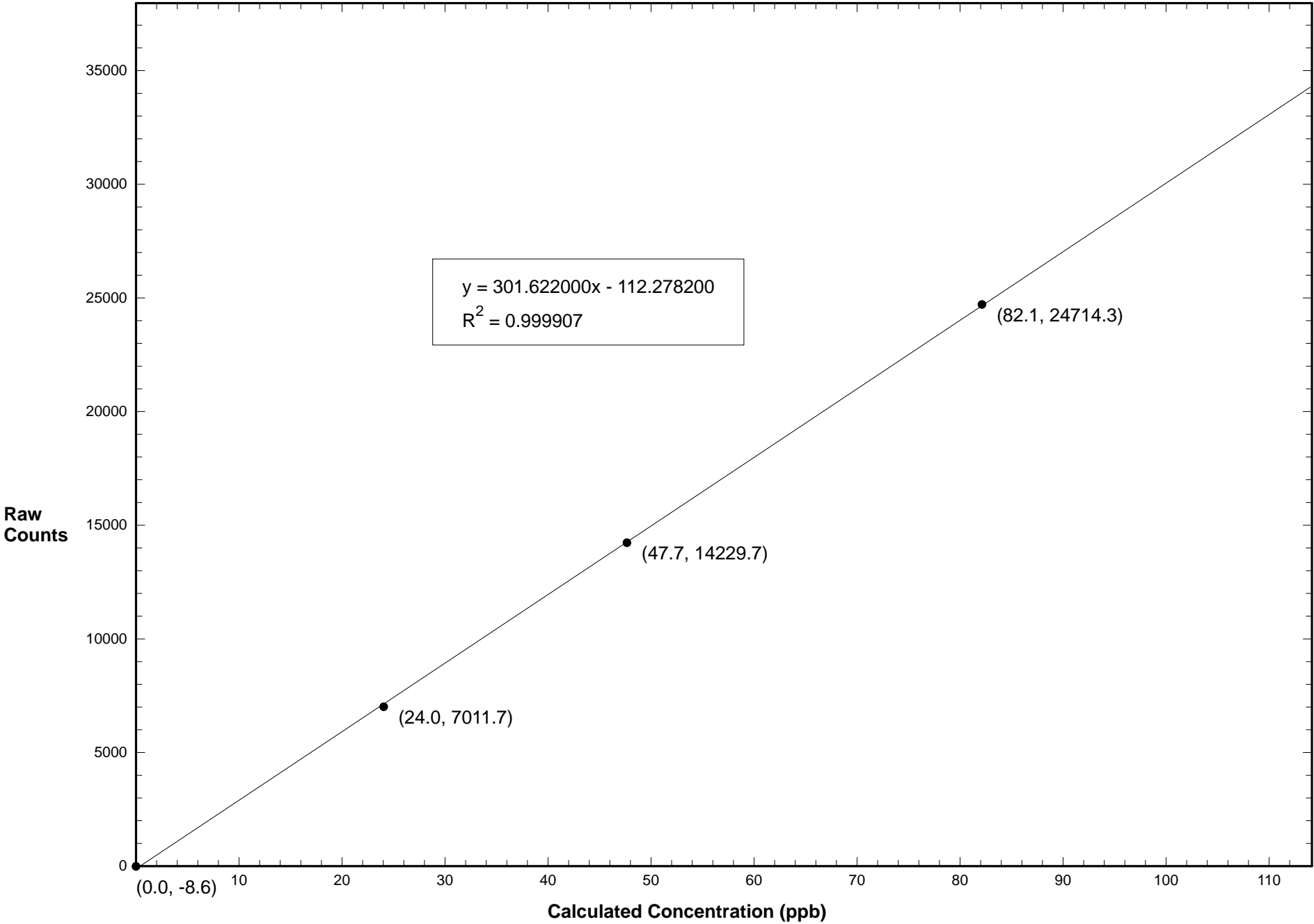
Previous Correction Factor: 1.000

Current Correction Factor: 0.998

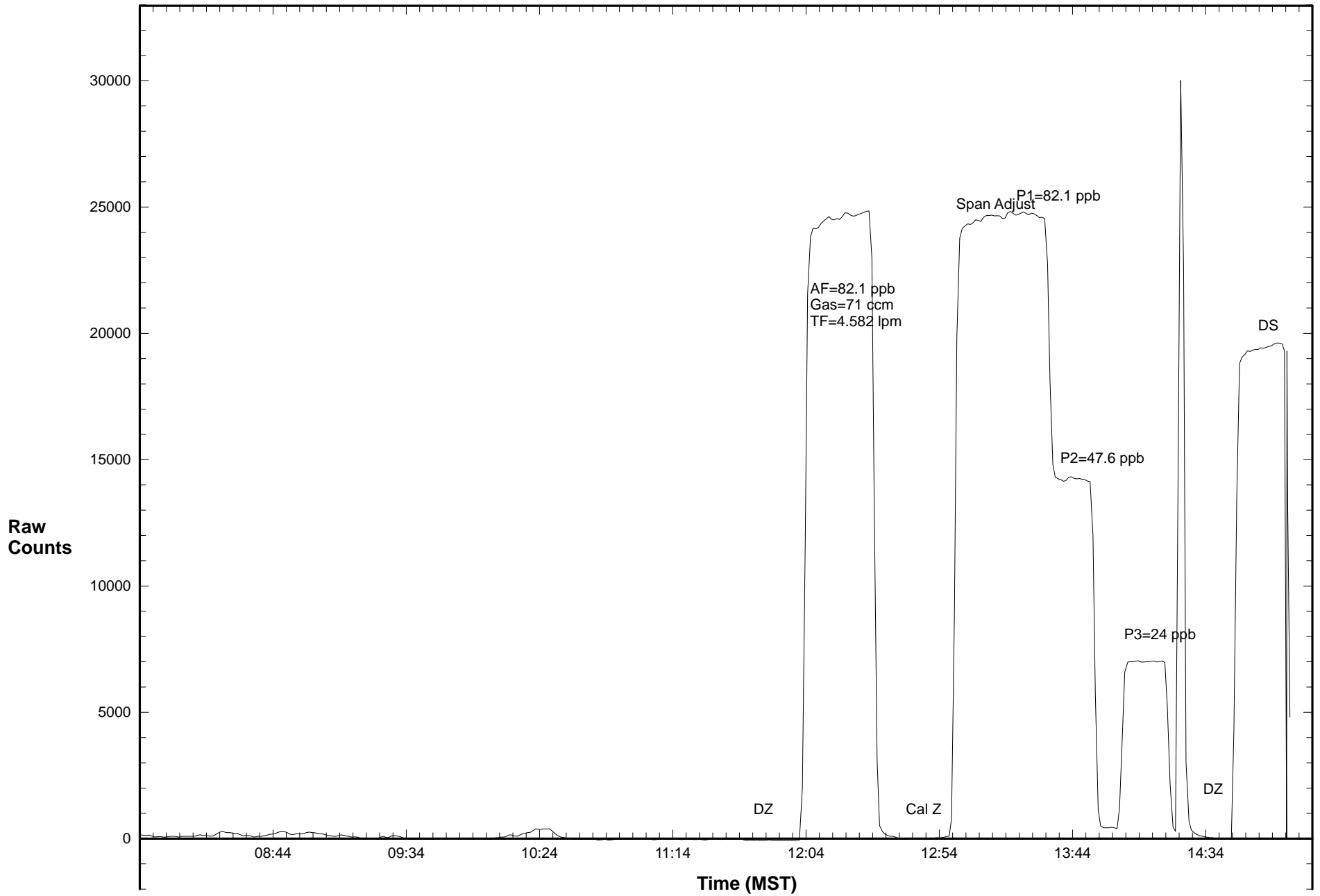
Percent Change of
Correction Factor: -0.2

Comments: Inlet Flow 0.337 lpm Gas 5.3 ppm

Station 906 TRS October 12, 2016: Linear Regression



Station 906 TRS October 12, 2016: Calibration Graph



WEST CENTRAL AIRSHED SOCIETY

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

**AMS 906
HINTON
OCTOBER 2016**

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

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



WCAS - Hinton
Summary of Hourly Averages

External Temperature (ET) - C
October 2016

Maximum Value: 12.38 C on Oct 20 15:00		Maximum Daily Average: 6.44 C on Oct 20		Hours in Service: 744																						
Minimum Value: -9.1 C on Oct 11 08:00		Minimum Daily Average: -2.93 C on Oct 11		Hours of Data: 736																						
Maximum Diurnal Average: 4.99 C at hour 15		Minimum Diurnal Average: -1.27 C at hour 6		Hours of Missing Data: 8																						
Monthly Average: 1.013 C		Percentiles: P₁ = -7.0 P₁₀ = -2.9 Q₁ = -1.4 Median = 0.2 Q₃ = 3.0 P₉₀ = 6.4 P₉₉ = 11.5		Hours of Calibration: 0																						
				Percent Operational Time: 98.9																						
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-Oct	6.5	6.3	6.0	5.8	5.6	5.3	5.0	4.7	4.6	4.4	4.6	4.9	5.3	6.0	6.7	6.8	7.0	6.5	6.2	6.0	5.8	5.4	4.4	3.6	5.55	6.96
2-Oct	3.5	3.4	3.2	2.8	2.5	2.3	2.0	1.8	2.2	2.9	4.0	4.5	6.0	7.3	8.5	8.6	8.5	7.2	5.5	3.4	1.9	1.1	1.0	0.9	3.96	8.64
3-Oct	0.6	0.2	-0.1	-0.4	-0.6	-0.7	-0.9	-1.0	-0.8	-0.3	1.0	3.0	7.6	10.3	12.1	12.4	PF	PF	PF	PF	PF	PF	PF	PF	--	12.35
4-Oct	-0.4	-0.2	0.5	1.1	1.2	1.3	1.5	2.0	2.6	3.4	4.0	4.4	4.7	4.9	5.4	5.9	6.1	6.1	5.3	4.6	4.4	4.3	4.2	3.9	3.39	6.14
5-Oct	3.6	3.3	3.1	2.8	2.5	2.2	2.0	2.0	2.0	2.4	2.9	3.4	3.7	3.9	4.0	4.5	4.4	3.9	3.5	3.1	2.8	2.5	2.2	1.9	3.02	4.48
6-Oct	1.4	1.0	0.3	-0.5	-1.2	-1.5	-1.7	-1.9	-1.9	-1.4	0.0	1.9	2.7	3.2	3.6	3.9	4.0	3.3	1.6	0.8	0.2	-0.1	0.0	-0.2	0.72	4.02
7-Oct	-0.5	-0.9	-2.1	-2.6	-2.9	-3.1	-3.1	-3.3	-3.6	-3.5	-3.3	-3.0	-2.6	-2.0	-1.2	-0.9	-0.6	-0.9	-1.4	-1.7	-1.8	-1.8	-1.8	-1.8	-2.10	-0.52
8-Oct	-1.7	-1.7	-1.7	-1.8	-1.9	-2.0	-2.0	-1.9	-1.7	-1.1	-0.2	-0.1	-0.4	-0.5	-0.4	-0.4	-0.5	-0.8	-1.2	-1.5	-1.6	-1.8	-1.9	-1.8	-1.28	-0.08
9-Oct	-1.8	-1.8	-1.8	-1.8	-1.8	-1.7	-1.8	-1.8	-1.5	-1.1	-0.5	0.4	1.1	1.0	1.2	0.9	0.2	-0.4	-0.9	-1.0	-1.2	-1.3	-1.5	-1.7	-0.85	1.19
10-Oct	-2.0	-2.2	-2.4	-2.4	-2.5	-2.7	-2.7	-2.8	-2.5	-1.7	-1.8	-0.7	-0.5	-1.8	-0.8	-0.8	-0.7	-1.1	-1.5	-1.8	-2.1	-2.8	-3.9	-5.1	-2.06	-0.48
11-Oct	-6.1	-6.7	-7.6	-8.3	-7.6	-7.9	-8.9	-9.1	-6.6	-3.8	-2.2	-0.7	0.8	2.3	3.5	4.3	4.5	2.7	0.9	-1.2	-2.3	-2.8	-3.5	-4.2	-2.93	4.50
12-Oct	-4.6	-4.1	-3.7	-3.2	-3.8	-5.3	-6.6	-7.3	-5.2	-0.5	2.0	2.9	5.3	6.8	8.1	7.8	6.4	4.2	1.6	-0.2	-1.3	-1.4	-2.2	-3.3	-0.32	8.09
13-Oct	-4.1	-4.5	-4.4	-4.0	-3.8	-3.7	-3.8	-3.7	-3.4	-3.1	-2.6	-2.2	-1.7	-1.1	-0.9	0.6	1.0	0.3	-1.2	-2.5	-3.1	-3.2	-2.9	-3.0	-2.54	0.95
14-Oct	-2.8	-2.6	-2.6	-2.6	-2.6	-2.7	-2.7	-2.7	-2.7	-2.5	-1.7	-1.0	-0.6	-0.5	-0.8	-0.8	-0.9	-1.2	-1.5	-1.6	-1.7	-1.9	-2.1	-2.1	-1.86	-0.48
15-Oct	-2.3	-2.6	-2.7	-2.8	-2.9	-2.9	-2.9	-2.9	-2.6	-2.3	-1.4	-0.2	0.9	1.7	2.3	1.6	0.9	0.3	-0.1	-0.3	-0.5	-0.7	-0.8	-1.0	-1.01	2.33
16-Oct	-1.0	-1.0	-1.1	-1.1	-1.1	-1.2	-1.1	-1.0	-0.8	-0.5	-0.1	0.6	1.5	2.4	3.0	3.0	2.4	1.1	0.8	0.7	0.5	0.4	0.3	0.1	0.28	3.02
17-Oct	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	0.2	0.6	1.1	1.2	1.7	2.3	2.3	1.9	1.4	0.9	0.7	0.5	0.3	0.2	-0.1	-0.4	0.57	2.33
18-Oct	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.5	-0.2	0.4	0.9	1.9	2.8	4.1	4.7	4.9	4.6	3.4	2.1	1.5	1.0	0.5	-0.1	-0.3	1.16	4.91
19-Oct	-0.8	-0.8	-0.9	-1.1	-1.2	-1.4	-1.6	-1.5	-1.5	0.0	4.6	8.4	11.4	11.6	11.4	10.3	10.3	9.3	7.4	3.9	0.7	-0.4	-1.1	-1.2	3.16	11.59
20-Oct	-1.1	-0.5	-0.2	-0.4	-0.9	-0.6	4.3	6.7	7.1	8.2	9.5	11.3	11.8	12.0	12.4	11.7	10.5	9.4	8.8	8.1	7.0	6.9	6.4	6.2	6.44	12.38
21-Oct	5.1	2.2	0.6	-0.5	0.1	2.8	5.0	5.3	5.7	6.4	6.9	7.7	8.9	10.2	10.0	9.9	8.6	7.4	6.3	4.6	2.5	0.0	-1.8	-2.6	4.64	10.23
22-Oct	-2.4	-2.6	-3.3	-3.7	-3.7	-2.9	-2.4	-1.0	0.8	5.0	7.6	9.1	10.0	10.4	10.3	10.2	9.1	7.6	5.0	1.6	-1.2	-2.4	-3.0	-3.6	2.27	10.39
23-Oct	-4.2	-4.7	-5.0	-5.2	-4.6	-4.1	-3.7	-3.5	-3.1	-2.3	-1.4	0.9	3.6	6.1	7.4	8.2	7.4	5.0	2.5	0.6	-1.0	-2.3	-2.9	-3.1	-0.39	8.23
24-Oct	-3.0	-2.8	-2.4	-2.2	-1.8	-1.4	-1.3	-1.2	-0.9	-0.5	0.1	1.0	0.7	0.8	0.6	0.2	-0.2	-0.2	-0.2	-0.1	-0.1	0.1	0.3	0.3	-0.59	0.99
25-Oct	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.3	0.6	1.0	1.2	1.0	1.5	2.7	3.0	2.9	1.8	1.2	1.0	1.0	0.7	0.4	0.0	0.93	3.04
26-Oct	0.0	-0.1	-0.1	-0.3	-0.5	-0.6	-0.7	-0.7	-0.7	-0.4	1.4	3.5	5.0	6.0	6.3	6.1	5.7	4.9	4.0	3.3	2.9	2.6	2.5	2.4	2.19	6.33
27-Oct	2.1	1.8	1.5	1.2	0.8	0.7	0.6	0.5	0.8	1.1	2.4	5.6	7.9	8.5	6.0	3.8	3.1	2.4	2.2	2.1	1.8	1.5	1.3	1.0	2.54	8.50
28-Oct	0.7	0.5	0.4	0.2	0.1	0.1	0.2	0.2	0.4	0.7	1.1	1.6	2.4	3.0	3.5	3.7	3.5	3.1	2.7	2.5	2.3	2.2	2.1	2.1	1.64	3.66
29-Oct	2.1	2.2	1.9	1.3	0.7	-0.2	-0.6	-0.8	-1.0	-0.8	-0.4	1.0	4.3	6.5	7.7	8.0	7.0	4.9	3.6	2.3	1.3	0.6	0.2	0.1	2.17	7.98
30-Oct	0.0	-0.3	-0.5	-0.5	-0.5	-0.5	-0.6	-0.9	-1.2	-1.1	-0.2	2.4	7.5	10.7	10.8	10.2	9.2	7.4	3.9	0.8	-1.4	-2.7	-2.9	-3.6	1.91	10.79
31-Oct	-4.1	-4.7	-5.2	-5.6	-5.8	-6.0	-6.5	-6.9	-5.8	-2.2	-0.6	0.5	2.3	4.4	4.1	3.8	3.3	2.5	0.9	0.4	0.3	0.1	0.1	0.1	-1.28	4.38
																								Diurnal Average		
-0.57 -0.78 -0.99 -1.17 -1.25 -1.27 -1.16 -1.07 -0.68 0.24 1.25 2.43 3.71 4.58 4.99 4.94 4.30 3.37 2.29 1.33 0.58 0.11 -0.23 -0.55																								Diurnal Maximum		
6.45 6.30 6.01 5.76 5.57 5.30 4.99 6.73 7.06 8.18 9.48 11.33 11.84 12.01 12.38 12.35 10.54 9.36 8.80 8.10 7.04 6.90 6.36 6.19																										
PF - Power Failure																										



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
October 2016

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3.3	3.8	4.3	3.8	3.7	3.1	3.2	3.3	4.7	4.4	5.5	3.9	2.9	3.4	4.8	2.7	2.4	0.7	1.5	0.3	0.2	1.4	1.8	0.7	2.80	5.52
Dir	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	NE	NE	NE	NE	NNE	NE	NE	ENE	ENE	NE	E	NNE	NNE	NNE	NNE	NNE	NE	NE
2 Spd	0.8	0.7	1.9	1.3	1.5	2.2	1.7	2.0	2.1	1.8	1.4	2.9	4.3	4.1	5.8	5.2	4.9	4.1	3.7	AF	AF	AF	AF	AF	2.72	5.80
Dir	NE	NE	NE	NNE	NE	NE	NE	NE	NE	NE	NE	NNE	NE	NNE	NE	NE	NE	NE	ENE	AF	AF	AF	AF	AF	NE	NE
3 Spd	AF	AF	AF	AF	AF	AF	AF	AF	AF	0.9	2.3	3.4	4.1	5.2	5.0	5.9	PF	PF	PF	PF	PF	PF	PF	PF	--	5.90
Dir	AF	AF	AF	AF	AF	AF	AF	AF	AF	E	NE	NE	NE	NE	NE	ENE	PF	PF	PF	PF	PF	PF	PF	PF	--	ENE
4 Spd	0.5	0.7	0.3	0.9	1.0	1.3	1.3	1.5	0.9	3.8	4.7	3.9	4.8	3.6	2.9	4.9	3.1	3.9	6.2	3.0	3.0	2.4	3.9	2.7	2.34	6.21
Dir	NNE	W	WSW	WNW	W	W	WNW	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NNE	NE	NE	NE	NE
5 Spd	3.3	3.8	2.6	3.1	5.6	5.2	4.2	2.9	1.6	1.8	4.1	4.2	4.0	2.4	5.5	4.7	4.6	4.5	5.1	3.1	1.4	0.4	2.7	5.1	3.51	5.58
Dir	NNE	NNE	NNE	NE	NE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	ENE	ENE	NE	ENE	NE	ENE	NE	NE
6 Spd	2.9	4.0	5.2	8.4	9.0	7.1	7.2	6.7	5.7	7.8	5.5	5.6	3.5	6.5	4.3	2.5	3.6	8.2	6.5	3.0	6.1	4.5	5.3	3.7	5.35	8.99
Dir	NE	NE	NE	ENE	ENE	ENE	ENE	ENE	NE	ENE	NE	NE	ENE	ESE	E	NE	NE	ENE	ENE	NE	ENE	ENE	NE	NE	ENE	ENE
7 Spd	4.0	4.8	6.3	5.5	5.4	5.1	5.6	5.8	4.5	2.8	3.0	2.3	3.1	3.2	2.3	2.4	2.0	4.8	2.4	2.0	3.4	2.5	2.8	3.4	3.68	6.27
Dir	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	ENE	NE	ENE	NE	NE	ENE	ENE	ENE	ENE	NE	NE
8 Spd	2.1	4.0	1.0	0.6	0.4	0.3	0.5	0.7	1.7	2.5	1.9	2.3	4.8	5.0	4.1	4.0	3.8	3.4	2.4	1.8	1.0	AF	AF	AF	2.26	4.95
Dir	ENE	ENE	NE	NE	ENE	NE	ENE	NE	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NNE	NE	NE	AF	AF	AF	NE	NE
9 Spd	AF	AF	AF	AF	AF	AF	4.5	4.1	2.3	1.0	0.1	1.1	3.1	2.9	1.9	2.1	2.7	1.3	AF	AF	AF	AF	AF	AF	--	4.47
Dir	AF	AF	AF	AF	AF	AF	SW	SW	SW	SW	NNW	NW	NNW	NNW	NNW	N	N	NNE	AF	AF	AF	AF	AF	AF	--	SW
10 Spd	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	1.7	0.6	1.2	3.0	0.7	0.4	AF	AF	AF	AF	AF	AF	AF	AF	--	2.95
Dir	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	S	S	NE	ENE	NNW	NW	AF	AF	AF	AF	AF	AF	AF	AF	--	ENE
11 Spd	AF	AF	AF	AF	AF	AF	0.4	0.5	1.0	2.1	6.0	8.1	8.3	8.1	4.8	2.5	0.6	1.0	0.2	0.2	0.7	0.2	0.1	0.2	2.29	8.30
Dir	AF	AF	AF	AF	AF	AF	W	WNW	W	WSW	SW	SW	SW	SW	SW	SW	WSW	SW	WSW	NE	ENE	NNE	N	NW	SW	SW
12 Spd	1.0	2.6	2.6	1.8	2.7	0.9	0.3	0.1	0.8	2.6	5.7	7.1	1.6	1.0	0.4	2.8	3.5	3.8	2.1	1.5	1.1	1.8	0.8	0.2	0.37	7.11
Dir	W	W	WSW	W	W	NW	NE	WNW	NW	WSW	SW	SSW	WNW	WNW	NNE	NE	NE	ENE	ENE	E	NNE	ENE	ENE	ENE	W	SSW
13 Spd	0.5	2.0	3.6	5.2	6.7	7.8	6.6	6.9	6.7	8.4	7.5	7.3	8.2	5.7	7.1	7.3	6.0	6.2	4.4	5.8	4.5	5.5	6.0	6.2	5.70	8.45
Dir	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	NE	ENE	ENE	ENE	ENE	ENE	E	SE	ENE	ENE
14 Spd	AF	AF	AF	AF	AF	AF	AF	AF	AF	2.8	3.3	3.3	2.7	4.7	5.8	4.7	3.4	2.4	3.2	3.4	3.7	2.6	3.7	3.1	--	5.78
Dir	AF	AF	AF	AF	AF	AF	AF	AF	AF	NE	NE	NE	NE	NE	ENE	ENE	ENE	NE	ENE	ENE	E	ENE	E	E	--	ENE
15 Spd	3.0	3.6	2.7	3.9	3.8	2.1	1.0	1.6	1.3	3.5	5.1	5.3	5.7	6.1	5.9	5.2	5.2	4.3	4.0	4.6	4.8	5.1	3.8	3.3	3.93	6.10
Dir	NE	NE	NE	ENE	ENE	ENE	NE	ENE	NE	ENE	ENE	NE	NE	NE	NE	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
16 Spd	3.7	3.8	2.5	2.2	3.2	2.7	1.3	0.6	1.2	1.8	3.0	1.7	2.2	3.2	4.3	5.4	6.4	7.9	6.9	6.5	2.5	1.0	1.2	2.8	3.22	7.86
Dir	NE	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	ENE	NE	NNE	NE	NE	NE	NE	ENE	NE	ENE	NE	NE	NE	NE	NE	ENE
17 Spd	3.3	3.5	1.3	0.4	0.2	0.2	0.3	0.3	0.8	2.2	2.6	5.5	5.8	5.4	4.6	5.4	6.0	4.4	3.2	3.1	2.6	3.1	3.3	5.1	3.00	6.00
Dir	ENE	ENE	ENE	NNE	NNE	N	NNE	NNE	NE	NE	NE	ENE	ENE	ENE	NE	NE	ENE	ENE	ENE	NE	NE	NE	NE	ENE	NE	ENE
18 Spd	3.4	4.1	3.2	3.3	3.1	3.9	1.9	2.7	3.6	3.3	2.9	2.0	1.6	1.6	0.5	2.7	1.9	2.6	AF	AF	AF	AF	AF	AF	2.51	4.09
Dir	NE	NE	NE	NE	NE	ENE	ENE	ENE	ENE	NE	NE	NNE	ESE	NW	NNE	ENE	NE	ENE	AF	AF	AF	AF	AF	AF	NE	NE
19 Spd	AF	AF	AF	AF	AF	AF	AF	AF	AF	1.6	1.8	0.8	6.9	8.9	9.8	6.1	7.7	7.9	4.4	1.5	0.6	3.2	2.6	2.0	--	9.76
Dir	AF	AF	AF	AF	AF	AF	AF	AF	AF	ENE	E	SSE	SW	SW	SW	SW	SW	SW	SSW	S	ENE	ENE	NE	ENE	--	SW
20 Spd	2.6	2.4	1.6	1.8	1.0	1.7	5.2	6.9	12.1	12.6	11.5	8.1	10.7	13.4	11.4	12.2	6.5	6.7	5.2	8.0	4.4	4.5	3.0	7.4	5.40	13.40
Dir	ENE	ENE	ENE	ENE	E	NE	SSW	SSE	SSW	S	SSW	SW	SW	SW	SW	SW	WSW	SW	SW	SW	SW	SSW	SW	SW	SW	SW
21 Spd	2.3	0.6	0.5	0.3	0.3	1.7	3.7	4.0	2.9	6.6	9.9	9.8	8.2	11.0	11.6	7.4	4.0	6.4	6.0	4.6	0.2	0.1	0.3	0.5	4.04	11.59
Dir	SW	ENE	ESE	NNW	SW	WSW	WSW	WSW	W	SW	SW	SW	SW	SW	SW	WSW	SW	SW	SSW	SSW	W	SSE	NE	NE	SW	SW
22 Spd	1.3	0.4	0.0	0.1	0.5	1.6	0.5	0.9	1.0	2.0	4.1	10.0	10.0	8.9	10.5	9.7	9.6	4.7	AF	AF	AF	AF	AF	AF	4.02	10.51
Dir	ENE	SSE	ENE	SE	SW	SW	SW	W	W	WSW	SW	SW	SW	SW	SW	SW	SW	SW	AF	AF	AF	AF	AF	AF	SW	SW



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
October 2016

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
23 Spd	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	1.3	0.9	1.1	3.3	4.1	2.4	3.9	1.7	AF	AF	AF	AF	--	4.14		
Dir	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	NE	NNE	NNE	ENE	ENE	ENE	ENE	E	AF	AF	AF	AF	--	ENE		
24 Spd	AF	AF	AF	AF	AF	AF	2.5	3.7	2.8	2.8	6.1	5.1	6.2	5.3	6.5	5.1	5.5	4.4	3.1	1.3	1.2	1.3	2.4	1.7	3.49	6.54			
Dir	AF	AF	AF	AF	AF	AF	ENE	ENE	E	ESE	ESE	ENE	NE	ENE	NE	NE	ENE	ENE	ENE	NE	NE	ENE	ENE	ENE	ENE	NE			
25 Spd	3.5	3.8	2.4	2.0	0.1	0.3	0.5	0.9	2.2	1.0	2.0	0.8	0.1	0.2	1.3	0.6	2.3	1.7	1.0	AF	AF	AF	AF	AF	1.17	3.76			
Dir	ENE	E	ENE	NE	NNE	ENE	NNE	ENE	ENE	NE	NE	SSW	NW	NNW	WNW	NE	NE	NNE	ENE	AF	AF	AF	AF	AF	NE	ENE			
26 Spd	AF	AF	AF	AF	AF	AF	AF	AF	1.9	2.4	3.5	3.5	3.8	3.6	4.6	6.2	4.0	2.3	1.0	2.0	4.1	4.2	6.2	6.0	--	6.22			
Dir	AF	AF	AF	AF	AF	AF	AF	AF	ENE	NE	NE	NE	NE	NE	NE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE			
27 Spd	4.4	2.7	0.4	2.1	1.3	1.5	4.5	1.0	0.3	0.3	2.5	3.1	3.6	6.4	7.4	9.7	9.8	7.9	5.4	3.8	4.5	3.8	3.6	1.6	3.77	9.84			
Dir	ENE	NE	ENE	ENE	E	ENE	ENE	NE	E	ESE	ENE	ENE	NE	NE	NE	NE	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	ENE			
28 Spd	2.7	3.6	1.1	1.1	0.4	0.8	0.4	0.2	0.8	2.1	2.6	3.1	2.7	1.9	1.9	2.1	2.4	2.1	2.7	0.5	2.4	1.9	2.5	0.3	1.74	3.59			
Dir	NE	ENE	NE	NE	NNE	NE	NNE	NNE	NNE	NE	NE	NE	NE	NNE	NE	NE	ENE	ENE	NE	NE	ENE	ENE	ENE	NNE	NE	ENE			
29 Spd	0.2	0.5	0.6	1.1	2.2	3.0	2.1	0.4	1.4	0.2	0.5	1.3	0.7	0.6	0.7	2.0	3.4	2.8	2.9	2.2	3.5	4.8	6.8	4.7	1.10	6.79			
Dir	ENE	SW	WNW	S	SW	SSW	SSW	SW	SSW	SE	ESE	SSE	S	NW	NE	NE	ENE	ENE	ENE	NE	ENE	NE	ENE	ENE	ENE	ENE			
30 Spd	4.4	2.3	1.1	1.9	2.5	2.1	1.7	2.0	2.6	0.4	3.7	3.8	0.8	10.1	8.3	9.5	7.8	4.7	AF	AF	AF	AF	AF	AF	1.47	10.08			
Dir	ENE	ENE	E	ENE	E	ESE	ESE	ESE	ESE	E	ENE	NE	SSW	SW	SW	SW	SW	SW	SW	AF	AF	AF	AF	AF	S	SW			
31 Spd	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--			
Dir	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--			
Spd	2.17	2.31	1.77	2.03	1.93	1.81	1.09	1.26	1.14	1.39	1.32	0.96	0.99	0.50	0.93	1.58	1.91	1.96	2.33	1.67	2.17	2.24	2.74	2.04	Diurnal Average				
Dir	NE	NE	NE	NE	NE	ENE	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE					
Spd	4.43	4.78	6.27	8.36	8.99	7.81	7.19	6.93	12.10	12.60	11.54	9.99	10.66	13.40	11.59	12.20	9.84	8.19	6.91	7.98	6.05	5.46	6.79	7.36	Diurnal Maximum				
Dir	57.99	50.17	55.43	57.09	60.14	61.42	60.22	62.37	194.61	173.02	202.71	219.77	234.95	230.28	227.21	229.55	57.72	62.84	53.89	231.38	63.14	56.76	63.60	219.73					
Maximum Speed Value: 13.4 kph on Oct 20 14:00																				Minimum Speed Value: 0.0 kph on Oct 22 03:00				Hours in Service:		744			
Maximum Daily Speed Average: 5.70 kph on Oct 20																				Minimum Daily Speed Average: 0.37 kph on Oct 25				Hours of Data:		588			
Maximum Diurnal Speed Average: 2.74 kph at hour 23																				Minimum Diurnal Speed Average: 0.50 kph at hour 14				Hours of Missing Data:		156			
Monthly Average Velocity: 1.600 kph 60.493 deg										Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.6 Q ₁ = 1.6 Median = 3.0 Q ₃ = 4.7 P ₉₀ = 6.7 P ₉₉ = 11.5										Percent Operational Time:		79.0							
All monthly, daily, and diurnal averages have been calculated using vector methods																													
AF - Analyzer Failure 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	19	0	0	0	0	0	19																						
NorthEast	289	80	0	0	0	0	369																						
East	58	7	0	0	0	0	65																						
SouthEast	8	2	0	0	0	0	10																						
South	10	1	2	0	0	0	13																						
SouthWest	27	38	5	0	0	0	70																						
West	25	0	0	0	0	0	25																						
NorthWest	17	0	0	0	0	0	17																						
Total	453	128	7	0	0	0	588																						



WCAS - Hinton
Summary of Hourly Averages

Relative Humidity (RH) - %
October 2016

Maximum Value: 92.50 % on Oct 3 08:00 Maximum Daily Average: 89.83 % on Oct 1 Minimum Value: 23.2 % on Oct 22 16:00 Minimum Daily Average: 46.05 % on Oct 21 Maximum Diurnal Average: 85.34 % at hour 6 Minimum Diurnal Average: 60.90 % at hour 15 Monthly Average: 76.944 % Percentiles: P ₁ = 24.9 P ₁₀ = 51.3 Q ₁ = 73.0 Median = 82.2 Q ₃ = 88.6 P ₉₀ = 90.4 P ₉₉ = 92.0																								Hours in Service:	744	
																								Hours of Data:	736	
																								Hours of Missing Data:	8	
																								Hours of Calibration:	0	
																								Percent Operational Time:	98.9	
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-Oct	91.1	91.2	91.3	91.4	91.4	91.3	91.3	91.3	91.3	91.2	91.2	91.1	90.9	90.0	86.3	83.4	86.2	88.1	88.7	89.3	89.8	89.9	89.3	88.8	89.83	91.37
2-Oct	89.3	89.4	89.6	89.9	90.1	90.2	90.4	90.5	90.4	89.2	83.3	83.0	79.6	74.7	69.6	69.6	69.1	74.4	79.1	85.5	87.8	89.3	90.1	90.7	84.37	90.71
3-Oct	91.2	91.5	91.8	92.1	92.2	92.3	92.4	92.5	92.4	92.1	91.4	69.8	56.1	48.0	42.6	PF	PF	PF	PF	PF	PF	PF	PF	PF	--	92.50
4-Oct	89.0	89.8	90.0	89.9	89.6	89.1	89.2	89.7	90.0	88.9	86.5	84.1	84.5	81.9	78.1	76.8	76.0	78.4	85.0	85.5	82.5	77.4	75.6	84.91	90.11	
5-Oct	75.4	73.7	73.8	74.2	75.8	77.3	77.1	77.0	77.2	75.8	73.7	71.7	69.8	68.3	67.4	65.7	65.4	67.3	66.8	67.5	70.3	71.7	73.2	74.3	72.10	77.26
6-Oct	74.0	73.1	74.0	77.0	78.2	78.8	79.1	78.9	77.9	75.2	70.2	63.8	57.0	54.9	56.1	56.9	57.8	56.7	60.0	63.2	60.4	59.4	58.6	59.8	66.71	79.10
7-Oct	60.8	62.9	67.6	70.4	71.8	73.5	75.0	77.8	85.5	87.6	87.9	88.4	87.8	87.2	85.8	85.6	86.2	85.1	86.6	88.5	88.9	88.6	88.3	88.0	81.50	88.90
8-Oct	87.8	87.9	88.6	89.1	89.3	89.5	89.6	89.7	89.5	86.9	81.4	81.2	85.9	88.5	89.3	89.7	89.9	90.2	90.4	90.5	90.6	90.5	90.6	90.6	88.64	90.64
9-Oct	90.6	90.7	90.8	90.7	90.5	90.3	89.7	88.8	85.5	79.4	75.2	73.7	70.4	70.2	68.1	71.3	73.4	75.1	81.2	84.0	83.5	80.4	81.6	83.6	81.62	90.75
10-Oct	85.7	87.3	88.1	88.2	87.3	87.3	88.0	88.0	86.5	78.2	77.4	73.6	71.6	82.6	77.1	78.0	75.1	79.7	83.6	85.5	86.8	87.3	87.7	87.8	83.27	88.20
11-Oct	88.1	86.9	87.0	86.7	87.1	86.8	86.5	86.9	82.7	72.0	63.9	59.4	56.3	50.6	46.6	47.0	49.0	55.7	63.2	79.4	85.1	87.2	88.3	88.9	73.80	88.86
12-Oct	89.3	84.4	79.0	73.2	73.9	79.2	84.1	85.6	81.5	62.7	48.8	45.4	41.6	35.3	31.3	38.5	47.9	55.7	68.0	76.5	81.3	78.6	79.5	82.2	66.82	89.25
13-Oct	84.5	87.4	87.7	85.5	83.9	83.8	83.9	83.2	79.7	77.5	75.6	74.1	72.9	72.7	68.1	66.8	70.2	76.9	81.8	84.3	86.1	85.5	81.3	79.81	87.69	
14-Oct	82.0	83.4	85.2	85.5	85.9	87.9	88.6	89.0	89.3	88.4	84.0	78.5	76.6	74.5	75.4	74.4	76.1	81.7	84.0	81.1	80.8	83.0	84.9	83.9	82.67	89.27
15-Oct	85.8	88.1	88.9	88.0	86.7	86.3	86.8	86.8	85.7	83.8	79.6	75.1	74.0	74.8	74.8	78.9	81.0	85.3	87.0	87.7	89.3	89.5	89.1	89.1	84.26	89.50
16-Oct	89.2	87.6	85.8	86.6	86.5	87.5	87.8	87.8	86.8	85.0	81.8	79.5	77.2	75.5	76.2	79.4	83.1	88.2	89.1	88.9	88.9	89.2	89.5	89.8	85.29	89.79
17-Oct	89.9	89.7	89.6	89.3	89.2	89.1	89.0	89.0	88.7	85.5	80.7	79.1	73.7	69.7	70.3	73.2	75.6	79.1	79.7	80.1	80.9	81.3	83.1	84.0	82.47	89.89
18-Oct	84.1	85.3	86.2	87.0	87.5	87.8	88.1	88.1	87.5	84.9	82.2	77.7	75.0	71.3	69.4	69.4	71.8	76.5	81.1	83.3	84.7	86.2	87.3	88.2	82.11	88.23
19-Oct	88.9	89.6	89.9	90.1	90.2	90.2	90.4	90.6	90.7	88.6	71.2	56.0	30.7	28.5	27.4	30.0	29.0	31.0	36.8	51.7	67.2	73.0	76.0	76.4	66.01	90.70
20-Oct	77.3	76.5	76.3	75.4	78.1	79.4	58.6	47.5	48.0	45.1	42.5	37.0	34.7	33.7	34.3	36.7	40.6	43.8	46.0	51.5	56.5	59.8	64.3	63.1	54.45	79.40
21-Oct	62.2	71.7	75.8	77.0	71.9	55.5	43.5	38.6	39.4	35.9	34.0	31.2	28.5	24.9	24.3	25.3	28.8	30.8	30.3	36.7	45.2	56.4	65.9	71.3	46.05	76.97
22-Oct	70.7	73.5	76.3	78.4	79.7	77.8	76.3	79.1	75.0	61.3	47.4	32.5	26.8	24.8	24.2	23.2	23.8	26.9	36.1	50.0	61.6	68.7	71.5	73.2	55.79	79.69
23-Oct	76.3	78.8	80.9	82.3	82.1	81.1	80.3	80.5	80.3	79.2	75.8	63.9	47.9	36.1	33.0	30.5	33.8	43.0	53.0	60.5	67.1	73.7	76.3	77.9	65.60	82.32
24-Oct	79.3	78.7	80.1	81.9	85.2	87.3	87.0	85.2	85.1	82.1	74.1	70.5	72.2	72.2	73.8	77.9	80.0	78.7	79.1	78.0	80.0	79.5	78.4	78.7	79.39	87.26
25-Oct	79.9	79.0	78.7	81.1	84.9	87.6	88.7	89.5	90.1	90.3	90.3	89.9	89.5	88.8	83.4	79.2	82.4	85.5	87.5	88.3	88.7	89.0	89.4	89.8	86.31	90.28
26-Oct	90.1	90.3	90.6	90.7	90.9	91.0	91.2	91.5	91.7	91.6	90.8	79.6	71.5	69.5	69.1	72.6	76.6	78.9	82.2	84.7	86.2	87.2	88.0	88.7	84.80	91.68
27-Oct	89.3	89.8	90.1	90.3	90.7	91.0	91.3	91.5	91.5	91.2	88.4	72.7	63.9	61.3	70.3	78.8	80.1	82.0	82.8	83.2	84.7	85.7	86.4	88.1	83.96	91.53
28-Oct	89.0	89.9	90.2	90.5	90.7	90.9	91.0	91.1	91.2	91.1	90.9	89.7	84.9	79.3	76.6	74.6	75.8	79.5	81.8	83.2	83.6	83.9	84.6	85.4	85.80	91.15
29-Oct	85.8	85.9	85.4	85.7	86.9	89.4	90.7	91.2	91.5	91.6	91.6	89.9	73.0	61.0	52.5	52.2	56.7	64.8	69.7	75.7	79.8	83.4	86.3	87.1	79.49	91.64
30-Oct	87.7	88.5	89.0	88.9	89.1	89.4	89.6	90.1	90.9	91.3	91.3	79.7	51.0	25.5	25.0	24.5	26.8	30.7	55.9	68.9	75.3	79.7	79.2	80.5	70.35	91.33
31-Oct	83.0	84.8	86.2	86.7	87.0	87.2	87.6	87.6	87.9	80.0	71.7	66.0	56.1	47.6	47.5	49.6	50.2	62.3	80.7	86.4	88.2	89.2	89.8	90.0	76.39	90.04
83.46 84.10 84.66 84.96 85.30 85.34 84.61 84.34 84.00 80.88 76.77 72.04 66.01 62.43 60.90 61.45 63.86 67.43 72.19 76.56 79.45 81.01 82.00 82.57																								Diurnal Average		
91.19 91.54 91.85 92.06 92.20 92.31 92.44 92.50 92.49 92.40 92.10 91.40 90.94 90.02 89.31 89.72 89.94 90.17 90.38 90.53 90.59 90.49 90.57 90.71																								Diurnal Maximum		
PF - Power Failure																										



WCAS - Hinton Summary of Hourly Standard Deviations

Wind Speed (WS) - kph October 2016

Maximum Value: 8.23 kph on Oct 20 13:00																	Maximum Daily Average: 4.71 kph on Oct 20										Hours in Service: 744																																							
Minimum Value: 0.0 kph on Oct 22 03:00																	Minimum Daily Average: 1.54 kph on Oct 25										Hours of Data: 588																																							
Maximum Diurnal Average: 3.27 kph at hour 15																	Minimum Diurnal Average: 1.82 kph at hour 5										Hours of Missing Data: 156																																							
Monthly Average: 2.501 kph																	Percentiles: P ₁ = 0.3 P ₁₀ = 1.2 Q ₁ = 1.8 Median = 2.3 Q ₃ = 3.0 P ₉₀ = 3.8 P ₉₉ = 6.7										Hours of Calibration: 0																																							
																											Percent Operational Time: 79.0																																							
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-Oct	2.5	2.7	3.1	2.9	2.7	2.4	2.5	2.5	3.1	2.8	3.3	2.8	2.4	2.5	2.8	2.4	3.2	1.1	1.6	0.7	0.4	2.0	2.0	1.3	2.31	3.26																																								
2-Oct	1.2	1.3	1.7	1.6	1.6	1.8	1.9	2.0	1.9	1.8	2.5	2.9	2.8	3.1	3.4	3.4	3.5	3.2	2.2	AF	AF	AF	AF	AF	2.30	3.46																																								
3-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	1.4	2.1	2.3	2.7	3.3	3.3	3.7	PF	PF	PF	PF	PF	PF	PF	PF	--	3.73																																								
4-Oct	1.3	1.2	0.9	1.2	1.2	1.3	1.3	1.5	1.3	2.5	2.4	2.3	2.7	2.3	2.2	3.3	3.3	3.5	3.5	2.8	2.7	2.9	3.2	3.2	2.24	3.52																																								
5-Oct	3.3	3.7	3.0	3.1	3.3	2.7	2.9	3.0	2.4	2.6	2.7	2.9	3.0	3.2	3.6	3.4	3.4	2.7	2.3	2.6	2.0	1.2	2.8	2.7	2.86	3.74																																								
6-Oct	3.0	3.0	3.5	3.4	3.5	2.7	2.7	3.5	3.4	2.9	3.4	3.3	3.4	3.8	3.4	2.2	2.7	3.3	2.2	2.7	2.8	2.9	3.4	2.9	3.09	3.79																																								
7-Oct	2.9	2.8	3.0	3.3	3.2	2.7	2.8	2.7	3.6	3.0	3.1	2.7	2.9	2.8	2.5	2.5	2.4	3.2	2.9	2.3	2.1	2.3	2.2	2.3	2.75	3.55																																								
8-Oct	2.1	2.5	1.7	1.1	0.9	0.5	1.0	1.3	2.0	2.1	2.0	2.5	2.7	3.1	2.8	3.0	3.2	2.9	2.5	2.3	1.6	AF	AF	AF	2.09	3.18																																								
9-Oct	AF	AF	AF	AF	AF	AF	2.5	2.8	2.5	1.7	1.1	1.9	2.8	2.9	2.3	2.2	2.5	1.9	AF	AF	AF	AF	AF	AF	--	2.92																																								
10-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	2.2	1.6	2.5	2.2	1.2	0.8	AF	AF	AF	AF	AF	AF	AF	AF	--	2.47																																								
11-Oct	AF	AF	AF	AF	AF	AF	0.7	0.9	1.6	2.6	4.6	4.2	3.9	3.9	3.9	3.3	1.3	1.5	0.4	0.7	1.1	0.6	0.2	0.6	2.00	4.59																																								
12-Oct	1.4	2.4	2.6	1.8	1.9	1.3	0.7	0.5	1.2	2.9	4.3	3.5	2.1	2.0	1.5	2.3	2.8	2.5	1.8	2.4	2.4	2.8	2.0	0.6	2.07	4.30																																								
13-Oct	1.3	2.6	2.3	2.0	2.6	3.0	2.7	2.9	3.0	2.8	3.0	3.2	4.0	3.2	3.2	3.8	2.9	2.6	2.3	2.3	2.3	2.5	2.7	3.3	2.77	3.98																																								
14-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	2.0	2.4	2.3	2.0	2.3	2.4	2.1	2.1	2.1	2.3	2.1	2.5	2.3	2.1	2.2	--	2.52																																								
15-Oct	2.1	2.5	2.6	2.3	2.3	2.0	1.5	1.9	1.9	2.3	2.3	2.5	2.8	2.8	3.2	3.1	3.3	2.8	3.1	2.7	3.0	3.2	2.9	2.8	2.58	3.29																																								
16-Oct	3.1	3.1	2.7	2.4	2.5	2.3	2.0	1.2	1.9	2.4	1.8	1.8	2.0	2.3	2.8	2.8	3.3	3.3	3.6	3.1	3.0	1.8	2.0	2.6	2.49	3.59																																								
17-Oct	2.7	2.9	1.9	0.9	0.2	0.4	0.5	0.7	1.3	2.1	2.2	2.3	2.4	2.7	2.6	2.7	2.3	1.9	2.2	2.0	1.8	1.9	2.2	2.1	1.87	2.88																																								
18-Oct	1.7	2.0	1.9	2.0	2.1	1.8	1.9	1.8	1.7	1.8	2.2	1.6	2.8	1.6	1.3	1.6	1.7	1.9	AF	AF	AF	AF	AF	AF	1.86	2.84																																								
19-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	2.0	1.4	1.8	5.5	6.3	6.8	4.8	4.6	4.2	3.3	2.6	1.5	2.7	2.4	2.2	--	6.82																																								
20-Oct	2.2	2.6	2.2	2.5	2.2	2.3	5.4	4.9	5.9	4.8	6.5	6.5	8.2	7.6	7.4	6.8	5.9	4.6	4.4	5.5	3.7	3.8	3.6	3.6	4.71	8.23																																								
21-Oct	2.7	1.4	1.9	1.2	1.1	2.4	4.1	4.3	3.5	4.2	5.8	6.3	6.8	7.9	7.1	6.5	4.6	4.5	3.9	4.0	1.7	0.4	0.7	1.0	3.67	7.91																																								
22-Oct	2.0	1.3	0.0	0.4	1.1	2.3	1.3	1.8	1.9	2.6	3.8	5.7	5.9	5.9	6.1	5.4	5.1	4.0	AF	AF	AF	AF	AF	AF	3.15	6.12																																								
23-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	1.8	1.8	1.9	2.8	3.0	2.8	2.8	1.9	AF	AF	AF	AF	--	3.04																																								
24-Oct	AF	AF	AF	AF	AF	AF	2.1	2.2	2.6	2.6	3.1	3.1	3.0	2.9	3.6	2.9	2.6	2.1	2.1	1.9	1.5	1.6	1.7	1.9	2.43	3.57																																								
25-Oct	2.0	2.6	2.0	2.1	0.0	0.7	0.9	1.3	2.4	1.6	2.1	2.2	0.3	0.3	1.7	1.5	2.2	2.0	1.3	AF	AF	AF	AF	AF	1.54	2.63																																								
26-Oct	AF	AF	AF	AF	AF	AF	AF	AF	1.6	2.4	2.7	2.3	2.1	2.2	2.5	2.3	1.8	2.0	1.4	2.3	2.3	2.3	2.3	2.5	--	2.67																																								
27-Oct	2.1	2.1	0.9	1.9	1.7	2.2	2.6	1.8	1.0	1.1	2.5	2.1	2.4	3.1	4.1	4.5	4.1	3.1	2.6	2.0	1.5	1.8	2.0	1.8	2.28	4.50																																								
28-Oct	2.1	2.1	1.5	1.4	0.8	1.2	0.8	0.3	1.2	2.0	2.1	2.2	1.9	1.7	1.8	1.9	2.0	1.9	1.8	1.0	1.8	1.8	1.6	0.4	1.55	2.22																																								
29-Oct	0.4	1.2	1.2	1.8	1.8	2.8	2.5	1.1	2.2	0.5	1.2	1.6	1.5	1.8	1.6	1.7	2.7	2.3	2.2	2.0	3.0	2.7	2.3	1.9	1.83	3.01																																								
30-Oct	1.9	1.7	1.4	1.6	1.4	1.8	1.7	1.9	1.7	0.9	2.4	2.2	4.1	5.7	5.2	5.3	4.4	4.2	AF	AF	AF	AF	AF	AF	2.76	5.75																																								
31-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--																																								
																	2.08		2.27		2.00		1.94		1.82		1.94		2.05		2.05		2.27		2.30		2.79		2.84		3.11		3.25		3.27		3.16		3.11		2.79		2.44		2.35		2.14		2.18		2.21		2.10		Diurnal Average	
																	3.28		3.74		3.53		3.38		3.47		3.03		5.37		4.93		5.91		4.76		6.49		6.54		8.23		7.91		7.36		6.80		5.86		4.62		4.45		5.54		3.69		3.80		3.56		3.64		Diurnal Maximum	
AF - Analyzer Failure PF - Power Failure																																																																		
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m^3 24-hr 100 ul/m^3																																																																		



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Direction (WD) - deg
October 2016

Maximum Value: 97.67 deg on Oct 11 20:00																								Hours in Service: 744		
Minimum Value: 16.9 deg on Oct 28 23:00																								Hours of Data: 588		
Maximum Diurnal Average: 45.19 deg at hour 3																								Hours of Missing Data: 156		
Monthly Average: 38.700 deg																								Hours of Calibration: 0		
Minimum Daily Average: 25.60 deg on Oct 13																								Percent Operational Time: 79.0		
Minimum Diurnal Average: 32.86 deg at hour 18																										
Percentiles: P ₁ = 18.1 P ₁₀ = 22.6 Q ₁ = 28.8 Median = 35.3 Q ₃ = 43.5 P ₉₀ = 62.4 P ₉₉ = 92.9																										
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-Oct	45.5	40.6	41.5	43.2	39.6	42.5	42.0	41.2	42.1	35.9	35.3	40.6	45.7	37.4	28.8	34.1	64.9	39.8	46.9	33.9	52.1	63.1	35.3	65.9	43.25	65.92
2-Oct	56.1	54.6	39.8	45.2	50.4	36.1	41.0	37.0	32.1	44.6	36.6	38.3	27.7	40.1	36.6	36.3	37.2	36.8	18.8	AF	AF	AF	AF	AF	39.23	56.06
3-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	57.0	43.6	33.8	32.6	34.4	38.6	45.5	PF	PF	PF	PF	PF	PF	PF	PF	--	57.02
4-Oct	69.3	78.2	78.5	47.9	37.3	46.9	51.8	36.3	55.2	29.2	24.7	33.0	32.0	34.5	43.2	33.1	43.1	36.1	26.7	41.8	47.3	46.3	38.4	45.5	44.02	78.53
5-Oct	40.4	44.1	46.8	42.0	31.8	20.7	24.1	21.0	38.7	38.5	26.1	30.7	35.0	47.9	39.6	36.2	38.6	29.0	19.7	27.9	33.9	39.2	34.0	25.8	33.83	47.90
6-Oct	36.0	30.6	36.1	21.5	18.9	20.1	18.6	24.9	28.2	22.6	35.9	32.8	45.4	30.6	43.0	43.2	33.3	22.0	18.1	44.1	27.6	40.8	31.8	41.9	31.16	45.41
7-Oct	41.6	32.3	27.2	36.8	37.4	35.8	31.0	24.4	33.2	39.2	39.1	45.9	43.3	34.3	42.0	34.6	41.5	26.3	40.1	39.5	19.7	22.2	18.8	21.0	33.63	45.90
8-Oct	19.3	20.4	42.0	29.2	33.5	30.4	26.4	26.5	28.3	23.9	34.8	35.5	28.4	32.1	35.1	39.2	41.7	43.4	40.8	40.5	23.1	AF	AF	AF	32.12	43.37
9-Oct	AF	AF	AF	AF	AF	AF	25.3	24.6	49.2	48.7	76.4	50.5	39.1	36.4	31.5	39.1	28.9	45.4	AF	AF	AF	AF	AF	AF	--	76.42
10-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	68.8	71.5	79.6	34.9	41.1	30.5	AF	AF	AF	AF	AF	AF	AF	AF	--	79.62
11-Oct	AF	AF	AF	AF	AF	AF	40.0	22.7	31.9	58.1	40.2	29.7	27.4	27.8	44.8	53.7	62.8	28.0	40.7	97.7	50.0	67.6	77.8	96.6	49.85	97.67
12-Oct	23.6	36.3	38.7	42.1	33.8	31.0	55.0	90.8	42.8	50.5	36.5	30.3	50.9	59.5	85.9	35.4	41.9	32.2	46.7	68.1	81.1	72.0	74.0	72.6	51.33	90.76
13-Oct	53.6	34.8	26.7	18.7	19.2	19.2	21.2	19.3	19.3	17.4	20.3	24.4	27.8	33.1	25.9	32.3	28.8	20.9	30.5	19.5	24.1	21.9	27.2	28.5	25.60	53.57
14-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	32.4	32.7	36.7	34.7	29.5	20.7	25.0	29.3	34.5	33.9	26.1	31.8	23.4	27.1	33.0	--	36.71
15-Oct	33.6	37.3	35.6	22.7	23.1	21.0	35.6	23.4	30.1	21.9	23.0	27.8	29.6	25.7	30.5	37.4	35.2	38.0	41.5	33.9	35.5	29.6	31.3	35.2	30.77	41.49
16-Oct	33.7	30.5	35.4	44.6	26.0	32.9	30.9	33.5	34.4	54.5	21.6	50.1	44.4	36.8	31.9	28.9	30.3	21.0	25.9	22.3	42.4	39.5	40.7	32.1	34.34	54.53
17-Oct	23.8	24.3	36.5	35.8	30.2	47.8	36.3	33.1	34.8	34.8	33.0	20.9	23.2	24.7	32.2	27.4	20.7	20.1	33.4	25.9	30.0	25.4	32.1	21.2	29.49	47.79
18-Oct	21.7	23.4	28.3	31.0	33.3	21.0	18.7	17.5	17.0	27.7	34.0	35.3	93.7	32.5	66.0	26.3	25.7	30.7	AF	AF	AF	AF	AF	AF	32.42	93.67
19-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	26.4	34.7	62.5	47.1	41.9	42.8	40.1	31.0	26.1	38.1	76.2	58.7	27.8	47.5	49.3	--	76.24
20-Oct	41.5	51.6	67.1	71.8	92.1	74.9	77.7	48.6	30.3	33.4	35.0	48.8	47.6	33.3	35.9	30.6	44.4	37.5	48.9	34.6	42.1	45.1	66.5	27.3	48.60	92.08
21-Oct	36.0	75.3	77.9	71.6	85.4	45.5	49.7	53.2	55.6	37.6	34.0	38.1	43.6	43.5	35.6	49.7	63.7	41.7	34.8	46.3	89.7	87.9	50.6	46.7	53.90	89.68
22-Oct	57.1	94.7	88.4	84.2	68.4	50.2	47.0	53.8	62.4	49.2	45.1	34.1	33.7	38.4	32.9	31.0	28.3	26.0	AF	AF	AF	AF	AF	AF	51.38	94.71
23-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	39.4	65.2	59.5	25.8	29.9	27.8	35.0	31.7	AF	AF	AF	--	65.23
24-Oct	AF	AF	AF	AF	AF	AF	22.2	23.1	31.0	37.2	22.9	39.0	30.6	35.3	33.6	35.6	25.6	24.0	29.2	42.2	54.4	44.4	32.9	52.4	34.19	54.42
25-Oct	28.5	38.1	25.7	40.3	49.8	67.8	28.9	31.8	41.7	43.0	36.8	77.4	58.7	38.2	49.6	86.6	37.5	41.3	36.7	AF	AF	AF	AF	AF	45.18	86.61
26-Oct	AF	AF	AF	AF	AF	AF	AF	AF	40.8	39.3	37.8	37.3	29.9	29.0	26.7	18.0	21.5	20.2	36.4	35.3	18.0	21.4	18.2	19.0	--	40.81
27-Oct	23.3	31.8	33.5	34.2	43.5	38.2	30.1	66.8	49.1	74.5	40.6	32.1	33.7	30.6	34.5	28.6	22.1	21.3	23.4	26.0	18.6	21.6	23.0	44.7	34.41	74.52
28-Oct	34.9	22.7	38.2	37.6	44.4	36.9	31.5	32.2	36.0	36.1	31.6	34.8	34.9	38.3	45.0	38.9	33.2	35.2	22.0	35.8	23.2	29.2	16.9	23.1	33.01	45.00
29-Oct	59.4	63.5	69.9	45.5	27.7	43.4	45.1	57.1	71.9	69.5	37.1	29.4	90.2	77.7	93.1	33.4	35.2	39.7	26.1	20.8	43.7	32.2	18.4	22.1	48.01	93.10
30-Oct	25.0	28.0	35.0	27.2	28.2	30.0	28.9	34.8	31.3	47.8	30.3	33.2	94.7	32.4	35.5	29.5	29.4	75.0	AF	AF	AF	AF	AF	AF	37.56	94.72
31-Oct	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--
38.27 42.53 45.19 41.58 40.67 37.73 35.80 36.56 38.70 40.40 36.16 39.12 44.15 37.87 41.40 36.20 35.92 32.86 33.09 39.54 40.33 40.04 37.12 40.20																								Diurnal Average		
69.26 94.71 88.41 84.23 92.08 74.93 77.75 90.76 71.88 74.52 76.42 77.37 94.72 77.70 93.10 86.61 64.92 74.95 48.88 97.67 89.68 87.86 77.84 96.61																								Diurnal Maximum		
AF - Analyzer Failure PF - Power Failure																										
,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
OCTOBER 2016**