

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

AIR QUALITY MONITORING
July 2018
Monthly Report

Prepared by:

West Central Airshed Society
Drayton Valley, Alberta

August 20, 2018

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

Dear Mr. Whitney:

**Monthly Ambient Air Quality Monitoring Report for July 2018
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 identified as: AMS 906 Hinton

The person responsible for this reporting is Gary Redmond, 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 was one 1-hour TRS exceedence of the AAAQO recorded in July.

2. Operational times less than 90 percent:

All analyzers and meteorological equipment returned operational times greater than 90%.

3. Monitoring Notes:

AMS 906 (Hinton)

All analyzers and meteorological equipment returned uptimes of 100% in July.

If additional information is required, please call (587) 499-4900.

Sincerely,



Patrick Andersen
Network Manager

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
	2018	July

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	0.011	1	0.002	0
PM _{2.5}	906	100.0	30.2 µg/m ³	0	19.76 µg/m ³	0
H ₂ S	906	100.0	0.010	0	0.002	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
JULY 2018**

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												July 2018		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)	42	702	100.0	1.4	0.0	11.0	0.3	0.4	0.7	1.8	3.6	1	0	0.002
SO ₂ (ppb)	35	709	100.0	0.5	0.0	10.6	0.0	0.0	0.1	0.3	1.4	0	-	0.003
H ₂ S (ppb)	42	702	100.0	1.0	0.0	10.0	0.0	0.1	0.4	1.3	2.9	0	0	0.002
O ₃ (ppb)	35	709	100.0	18.3	0.6	50.9	2.1	6.4	16.9	29.0	36.7	0	-	0.031
NO (ppb)	37	707	100.0	1.4	0.0	15.7	0.1	0.2	0.7	1.7	3.2	-	-	-
NO ₂ (ppb)	37	707	100.0	4.7	0.9	17.1	2.5	3.1	4.3	5.8	7.4	0	0	0.007
NO _x (ppb)	37	707	100.0	6.1	0.8	24.0	2.8	3.8	5.3	7.8	10.3	-	-	-
Particulate Matter 2.5 microns (µm ³)	0	744	100.0	8.7	0.4	30.2	2.1	3.6	6.5	12.5	18.3	0	0	19.76 ug/m3
Wind Speed (kph)	0	744	100.0	2.4	0.0	14.8	0.4	0.8	1.7	3.1	5.8	-	-	-
Temperature (°C)	0	744	100.0	15.3	5.1	30.7	7.7	10.3	14.5	19.5	24.6	-	-	-
Relative Humidity (%)	0	744	100.0	65.1	10.8	97.0	22.6	39.9	72.1	91.0	94.9	-	-	-
Std Dev Wind Direction (deg)	0	744	100.0	57.1	17.5	107.0	33.9	43.3	54.5	71.2	83.9	-	-	-
Std Dev Wind Speed (kph)	0	744	100.0	2.3	0.0	9.3	0.9	1.3	2.0	2.9	4.2	-	-	-



WCAS - Hinton
Summary of Hourly Averages

Total Reduced Sulphur (TRS) - ppb
July 2018

Maximum Value: 10.67 ppb on Jul 28 08:00		Maximum Daily Average: 2.27 ppb on Jul 3		Hours in Service: 744																													
Minimum Value: 0 ppb on Jul 15 00:00		Minimum Daily Average: 0.58 ppb on Jul 23		Hours of Data: 702																													
Maximum Diurnal Average: 3.76 ppb at hour 8		Minimum Diurnal Average: 0.52 ppb at hour 16		Hours of Missing Data: 42																													
Monthly Average: 1.412 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.7 O ₃ = 1.8 P ₉₀ = 3.6 P ₉₉ = 7.1		Hours of Calibration: 42																													
				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-Jul	1	0	1	Z	2	1	1	1	2	2	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0.74	2.05							
2-Jul	0	0	2	Z	1	1	2	2	1	1	2	1	0	1	1	0	0	0	0	0	1	4	6	7	1.49	6.86							
3-Jul	7	4	3	Z	5	2	6	5	1	1	1	2	1	2	1	1	3	1	1	2	1	0	0	2	2.27	6.59							
4-Jul	2	1	1	Z	3	2	3	2	3	5	3	3	1	0	1	1	1	1	0	2	1	1	0	0	1.63	4.89							
5-Jul	0	0	2	Z	2	1	1	4	2	5	C	C	C	C	C	C	C	C	C	C	C	1	0	0	--	5.12							
6-Jul	2	4	2	Z	3	2	3	1	2	1	1	1	2	3	1	2	2	2	2	1	2	0	1	0	1.60	4.19							
7-Jul	0	0	1	Z	1	1	1	1	1	2	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0.65	1.99							
8-Jul	0	0	0	Z	1	1	1	2	3	2	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0.92	2.98							
9-Jul	0	1	2	Z	6	1	5	4	3	2	2	0	0	0	0	0	0	0	1	0	0	0	5	4	1.69	5.62							
10-Jul	1	1	0	Z	2	4	3	4	0	1	1	1	1	1	0	0	0	0	0	0	0	0	3	3	1.15	3.84							
11-Jul	7	6	6	Z	2	1	1	1	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	1.33	7.09							
12-Jul	0	0	0	Z	6	8	6	3	2	1	1	1	1	1	0	1	1	2	0	0	0	0	0	0	1.70	8.35							
13-Jul	1	1	1	Z	2	1	1	1	1	2	2	2	1	1	0	0	0	0	0	0	0	0	1	1	0.77	2.02							
14-Jul	1	1	2	Z	2	1	2	3	2	1	2	0	0	1	1	1	1	1	1	2	1	0	0	0	1.04	2.77							
15-Jul	0	4	5	Z	4	1	2	7	5	3	2	0	0	0	0	0	0	0	1	2	1	0	0	0	1.76	6.78							
16-Jul	0	1	1	Z	2	1	9	7	5	3	2	1	1	1	1	1	1	1	2	1	0	0	0	0	1.80	9.38							
17-Jul	0	1	1	Z	8	4	4	7	5	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	1.79	7.76							
18-Jul	0	0	0	Z	2	1	1	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0.81	2.27							
19-Jul	1	0	0	Z	2	1	1	2	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.93	3.28							
20-Jul	0	0	0	Z	2	1	1	1	1	1	1	0	1	2	2	1	2	1	1	2	1	1	2	1	1.13	2.39							
21-Jul	0	0	0	Z	1	1	1	1	1	4	4	3	2	2	3	1	2	2	2	1	2	1	1	3	1.58	4.11							
22-Jul	2	1	1	Z	8	1	2	4	1	0	3	2	2	1	0	0	1	1	1	0	1	1	1	1	1.65	8.49							
23-Jul	1	1	1	Z	2	1	0	0	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0.58	1.69							
24-Jul	0	0	0	Z	2	1	2	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.80	2.83							
25-Jul	0	0	0	Z	3	2	3	8	4	4	3	1	1	1	1	1	1	1	0	0	0	0	0	0	1.58	8.39							
26-Jul	1	0	1	Z	4	4	3	6	7	4	2	1	0	0	0	0	1	1	0	0	1	1	1	2	1.90	7.07							
27-Jul	3	3	3	Z	3	0	2	6	4	4	4	2	1	0	0	0	0	0	0	0	0	0	1	2	1.69	5.74							
28-Jul	1	1	0	Z	3	4	5	11	6	5	4	2	1	0	0	0	0	0	0	0	0	0	0	0	1.95	10.67							
29-Jul	0	0	0	Z	6	7	7	10	5	4	2	2	0	0	0	0	0	0	0	0	0	2	1	1	2.07	10.38							
30-Jul	1	1	2	Z	4	2	4	4	4	2	0	1	0	0	1	1	1	1	1	1	4	2	1	1	1.67	4.38							
31-Jul	1	1	2	Z	3	2	2	6	3	5	3	1	0	0	0	0	0	0	1	1	1	1	1	3	1.63	5.99							
		1.16	1.14	1.34	--	3.09	2.00	2.71	3.76	2.67	2.45	1.82	1.13	0.75	0.69	0.64	0.52	0.70	0.63	0.72	0.70	0.77	0.69	0.97	1.21	Diurnal Average							
		7.09	6.15	5.62	--	8.49	8.35	9.38	10.67	7.07	5.16	4.01	3.25	2.07	2.62	3.03	1.50	2.56	1.66	1.91	1.94	3.62	3.52	6.00	6.86	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
July 2018

Maximum Value: 10.64 ppb on Jul 6 14:00		Maximum Daily Average: 2.59 ppb on Jul 6		Hours in Service: 744																							
Minimum Value: 0.0 ppb on Jul 1 01:00		Minimum Daily Average: 0.04 ppb on Jul 3		Hours of Data: 709																							
Maximum Diurnal Average: 1.25 ppb at hour 13		Minimum Diurnal Average: 0.04 ppb at hour 5		Hours of Missing Data: 35																							
Monthly Average: 0.458 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 1.4 P ₉₉ = 5.3		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-Jul	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.0	0.9	0.3	0.0	1.7	0.7	0.0	0.0	0.0	0.7	0.9	2.1	2.1	0.2	0.2	0.1	0.2	0.46	2.14	
2-Jul	0.2	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.10	0.16	
3-Jul	0.0	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.04	0.13	
4-Jul	0.0	0.1	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.3	0.6	0.0	0.1	0.3	0.4	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.14	0.60	
5-Jul	0.1	0.0	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.2	0.6	1.4	5.3	4.5	2.4	0.9	2.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.81	5.33	
6-Jul	0.0	0.0	0.0	Z	0.0	0.1	0.2	0.0	0.4	1.6	1.5	2.1	8.2	10.6	6.6	4.4	4.1	5.2	5.6	3.5	1.4	0.2	2.6	0.9	2.59	10.64	
7-Jul	0.3	0.3	0.9	Z	0.3	0.4	0.3	1.7	5.5	7.1	4.4	1.1	1.6	0.6	1.0	1.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	1.22	7.09	
8-Jul	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.3	0.4	0.6	1.7	5.4	1.2	1.2	1.8	3.9	0.4	1.5	2.1	0.8	0.2	0.2	0.1	0.0	0.97	5.40	
9-Jul	0.0	0.1	0.0	Z	0.0	0.0	0.1	0.3	1.5	1.8	2.2	0.5	2.1	0.4	2.1	3.3	0.9	0.3	0.2	0.4	0.0	0.1	0.2	0.2	0.73	3.33	
10-Jul	0.1	0.1	0.0	Z	0.2	0.0	0.0	0.1	0.0	0.0	1.1	1.9	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.22	1.93	
11-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.2	1.0	0.4	1.0	1.8	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.24	1.76	
12-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.4	1.2	0.8	2.3	1.5	1.3	0.5	0.7	1.2	0.2	0.2	0.2	0.1	0.1	0.2	0.50	2.34	
13-Jul	0.2	0.2	0.1	Z	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.08	0.38	
14-Jul	0.5	0.2	0.0	Z	0.0	0.0	0.0	0.0	0.0	1.3	0.6	0.0	0.0	1.9	2.6	1.4	1.2	1.6	0.7	0.1	0.1	0.1	0.1	0.0	0.54	2.57	
15-Jul	0.0	0.1	0.1	Z	0.0	0.1	0.0	0.1	1.8	2.7	1.7	0.6	0.3	0.3	0.1	0.1	0.7	0.9	0.4	0.2	0.1	0.2	0.1	0.0	0.46	2.68	
16-Jul	0.0	0.1	0.0	Z	0.0	0.0	0.1	0.2	0.5	1.2	1.9	3.3	1.4	3.0	3.7	0.4	1.1	0.4	0.6	0.1	0.1	0.2	0.1	0.1	0.80	3.65	
17-Jul	0.0	0.1	0.0	Z	0.0	0.0	0.0	0.4	0.6	0.9	1.1	2.5	1.9	2.0	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.50	2.54	
18-Jul	0.1	0.1	0.1	Z	0.0	0.1	0.1	0.1	0.1	1.6	1.7	0.5	1.7	1.6	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.38	1.74	
19-Jul	0.1	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.04	0.18	
20-Jul	0.1	0.0	0.1	Z	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.09	0.31	
21-Jul	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.13	0.21	
22-Jul	0.1	0.1	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.8	3.3	0.2	0.1	0.1	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.32	3.31	
23-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.11	0.55	
24-Jul	0.1	0.1	0.1	Z	0.0	0.1	0.2	0.3	0.2	0.7	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.25	0.68	
25-Jul	0.2	0.3	0.2	Z	0.1	0.2	0.2	0.2	0.3	0.6	1.1	1.8	1.8	1.9	3.3	2.3	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.72	3.32	
26-Jul	0.1	0.2	0.1	Z	0.0	0.1	0.2	0.1	0.2	0.7	0.7	1.7	0.4	C	C	C	C	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.35	1.67	
27-Jul	0.3	0.2	0.3	Z	0.1	0.1	0.2	0.2	0.3	0.7	1.2	1.2	2.1	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.38	2.05	
28-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	1.5	2.9	1.9	1.6	0.3	0.6	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.42	2.90	
29-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	1.0	1.4	1.3	0.8	0.5	0.6	0.3	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.28	1.44	
30-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.07	1.19	
31-Jul	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.2	0.9	1.7	1.4	0.4	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.24	1.75	
		0.09	0.09	0.09	--	0.04	0.06	0.07	0.15	0.48	0.88	0.98	1.13	1.25	1.22	0.97	0.72	0.56	0.50	0.48	0.31	0.13	0.10	0.17	0.11	Diurnal Average	
		0.51	0.28	0.92	--	0.33	0.42	0.29	1.70	5.54	7.09	4.41	5.40	8.24	10.64	6.64	4.44	4.11	5.20	5.65	3.49	1.38	0.22	2.61	0.89	Diurnal Maximum	
Z - zerospan		C - Calibration																									
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																											



WCAS - Hinton
Summary of Hourly Averages

Hydrogen Sulphide (H2S) - ppb
July 2018

Maximum Value: 10.38 ppb on Jul 28 08:00		Maximum Daily Average: 1.82 ppb on Jul 15		Hours in Service: 744																													
Minimum Value: 0 ppb on Jul 1 14:00		Minimum Daily Average: 0.26 ppb on Jul 1		Hours of Data: 702																													
Maximum Diurnal Average: 3.23 ppb at hour 8		Minimum Diurnal Average: 0.24 ppb at hour 16		Hours of Missing Data: 42																													
Monthly Average: 1.004 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.4 Q ₃ = 1.3 P ₉₀ = 2.9 P ₉₉ = 6.8		Hours of Calibration: 42																													
				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-Jul	0	0	0	Z	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.26	1.13							
2-Jul	0	0	1	Z	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3	5	5	0.85	5.34							
3-Jul	5	3	2	Z	4	1	5	3	1	1	1	1	1	0	1	2	0	0	1	1	0	0	1	1.54	5.24								
4-Jul	1	0	1	Z	1	2	2	1	2	4	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0.96	3.71							
5-Jul	0	0	1	Z	0	0	1	3	1	4	C	C	C	C	C	C	C	C	C	C	C	0	0	0	--	4.08							
6-Jul	2	3	1	Z	1	2	2	0	1	1	0	0	1	2	1	1	1	1	1	1	1	0	0	0	1.05	2.93							
7-Jul	0	0	1	Z	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.38	1.39							
8-Jul	0	0	0	Z	0	0	1	1	2	2	0	0	1	0	0	1	0	0	0	0	0	1	1	0	0.58	2.41							
9-Jul	0	1	1	Z	5	1	4	3	2	1	1	0	0	0	0	0	0	0	1	0	0	0	4	3	1.32	4.84							
10-Jul	1	0	0	Z	1	4	2	3	0	1	1	1	1	0	0	0	0	0	0	0	0	0	3	3	0.91	3.56							
11-Jul	8	6	5	Z	1	0	1	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	1.11	7.51							
12-Jul	0	0	0	Z	5	8	6	3	2	1	1	0	1	1	0	0	1	1	1	0	0	0	0	0	1.52	8.20							
13-Jul	1	1	0	Z	0	0	0	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0.45	1.72							
14-Jul	0	1	1	Z	1	0	1	2	1	1	1	0	0	1	1	1	1	1	1	2	1	0	0	0	0.88	2.25							
15-Jul	0	4	6	Z	4	2	2	7	4	3	2	0	0	0	0	0	0	0	1	2	1	1	0	0	1.82	6.68							
16-Jul	1	0	0	Z	1	1	9	6	4	3	2	1	0	0	0	0	0	0	1	0	0	0	0	0	1.28	9.35							
17-Jul	0	0	0	Z	5	3	3	5	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.00	5.36							
18-Jul	0	0	0	Z	0	1	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.38	1.68							
19-Jul	0	0	0	Z	0	0	0	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.43	2.53							
20-Jul	0	0	0	Z	0	0	1	0	0	0	0	0	0	2	1	1	2	0	1	1	1	1	2	1	0.73	1.95							
21-Jul	0	0	0	Z	0	1	1	0	1	4	4	3	2	2	3	0	1	1	1	0	2	0	0	3	1.36	4.01							
22-Jul	2	0	1	Z	8	1	2	4	1	0	3	2	2	1	0	0	0	1	0	0	1	1	1	1	1.37	7.75							
23-Jul	0	1	0	Z	1	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.40	0.99							
24-Jul	0	0	0	Z	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.57	2.41							
25-Jul	0	0	0	Z	1	2	3	8	4	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1.28	8.19							
26-Jul	0	0	0	Z	3	3	3	6	7	3	2	1	0	0	0	0	0	0	0	0	0	1	1	2	1.53	6.76							
27-Jul	3	3	3	Z	1	0	1	6	3	3	3	1	0	0	0	0	0	0	0	0	0	0	1	2	1.33	5.64							
28-Jul	1	0	0	Z	2	4	5	10	5	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1.56	10.38							
29-Jul	0	0	0	Z	4	6	6	9	3	3	1	1	0	0	0	0	0	0	0	0	0	1	0	0	1.56	8.78							
30-Jul	1	0	2	Z	2	1	3	4	3	1	0	0	0	0	0	0	1	0	0	0	3	1	0	0	0.90	3.63							
31-Jul	0	0	1	Z	1	1	2	5	2	4	2	0	0	0	0	0	0	0	0	0	0	0	1	2	0.86	4.65							
		0.88	0.84	1.04	--	1.84	1.46	2.31	3.23	2.09	1.87	1.33	0.67	0.39	0.38	0.34	0.24	0.39	0.33	0.42	0.38	0.50	0.40	0.69	0.89	Diurnal Average							
		7.51	6.01	5.56	--	7.75	8.20	9.35	10.38	6.76	4.08	3.96	2.70	1.68	2.12	2.87	1.16	1.87	1.66	1.45	1.93	2.96	2.86	4.71	5.34	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

Ozone (O₃) - ppb
July 2018

Maximum Value: 50.87 ppb on Jul 27 17:00 Maximum Daily Average: 30.71 ppb on Jul 6																						Hours in Service: 744 Hours of Data: 709																											
Minimum Value: 0.6 ppb on Jul 25 05:00 Minimum Daily Average: 8.49 ppb on Jul 23 Maximum Diurnal Average: 30.21 ppb at hour 16 Minimum Diurnal Average: 4.99 ppb at hour 5 Monthly Average: 18.337 ppb Percentiles: P ₁ = 0.7 P ₁₀ = 2.1 Q ₁ = 6.4 Median = 16.9 Q ₃ = 29.0 P ₉₀ = 36.7 P ₉₉ = 47.4																						Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0																											
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jul	2.3	1.7	1.7	Z	0.9	1.1	1.7	15.0	29.1	33.5	36.6	37.1	33.5	32.5	35.3	36.4	35.0	29.4	32.1	33.0	26.9	25.6	25.2	20.2	22.86	37.10																							
2-Jul	17.4	15.8	13.7	Z	13.0	18.4	16.0	14.6	13.1	19.6	19.4	19.7	18.7	18.7	15.7	17.4	16.9	16.1	14.7	10.5	10.1	9.3	9.5	8.7	15.09	19.73																							
3-Jul	7.9	6.4	5.7	Z	9.2	11.7	10.2	10.0	9.0	10.4	8.6	9.4	8.3	8.9	7.6	11.7	12.1	12.1	13.9	14.0	10.7	10.7	10.4	5.6	9.75	14.04																							
4-Jul	5.1	4.4	5.6	Z	4.1	2.8	3.6	3.6	7.4	9.3	9.7	19.5	23.4	24.3	23.0	25.8	30.8	29.6	23.1	20.9	20.2	9.5	1.4	0.9	13.40	30.80																							
5-Jul	0.7	1.3	0.7	Z	0.7	0.8	1.1	2.4	4.7	9.0	13.6	19.6	28.6	34.3	36.3	37.2	40.6	36.2	32.6	33.0	30.3	23.7	15.8	14.7	18.17	40.58																							
6-Jul	5.6	5.6	5.3	Z	6.3	17.9	22.2	22.1	29.0	37.2	45.2	46.8	43.3	39.9	42.3	43.2	42.0	39.4	38.2	38.7	35.0	34.3	33.1	33.7	30.71	46.75																							
7-Jul	31.1	30.5	26.3	Z	26.4	22.7	23.8	29.2	29.8	29.0	31.1	31.2	29.5	28.8	27.1	22.8	18.5	17.2	16.0	13.4	11.0	13.9	8.4	4.9	22.72	31.19																							
8-Jul	3.3	2.4	1.6	Z	1.8	1.6	2.8	3.6	6.3	11.4	18.9	24.5	27.3	29.7	30.7	28.9	29.5	30.4	31.1	27.4	36.8	29.7	15.8	8.1	17.55	36.75																							
9-Jul	4.9	3.4	2.9	Z	1.3	1.6	3.0	7.2	9.6	14.5	20.7	26.5	28.0	31.1	35.6	37.8	38.4	39.8	37.9	36.1	35.5	33.7	28.0	21.1	21.67	39.76																							
10-Jul	13.2	7.9	24.9	Z	28.3	23.6	20.3	22.2	31.6	31.3	31.5	34.5	35.2	35.0	33.3	33.9	32.8	31.2	29.6	31.1	31.6	24.7	16.8	11.8	26.79	35.21																							
11-Jul	7.9	5.8	2.9	Z	1.3	1.5	3.3	16.7	21.8	28.3	33.7	35.3	37.1	38.2	38.5	36.6	31.9	26.9	26.2	33.0	32.9	27.3	22.0	12.5	22.68	38.52																							
12-Jul	7.8	7.6	5.0	Z	3.6	2.3	3.5	7.1	12.3	21.9	32.5	35.7	36.1	37.3	39.0	40.0	39.3	37.4	31.5	26.6	22.0	19.4	25.7	29.5	22.74	39.96																							
13-Jul	22.7	17.0	9.6	Z	3.0	2.4	3.7	5.1	6.2	14.3	18.7	20.8	19.1	21.4	20.9	19.3	17.4	20.0	16.4	11.3	14.0	14.3	14.2	23.6	14.58	23.60																							
14-Jul	24.6	22.0	18.4	Z	9.5	7.2	11.4	13.9	15.9	20.6	19.7	23.4	24.4	23.7	23.8	24.4	24.7	24.7	25.7	25.3	19.0	9.4	3.3	3.0	18.18	25.74																							
15-Jul	2.0	1.9	1.6	Z	1.1	1.3	1.7	5.9	11.9	16.8	24.1	27.5	29.5	30.8	30.7	33.5	35.7	37.7	34.2	30.5	23.6	9.1	6.0	4.6	17.47	37.66																							
16-Jul	4.8	3.1	2.7	Z	1.1	1.0	3.3	8.9	16.9	24.0	34.8	43.3	41.7	39.1	39.8	38.9	36.6	37.4	37.1	31.5	29.0	18.6	6.5	5.6	21.99	43.34																							
17-Jul	4.8	4.1	3.8	Z	1.4	1.6	3.9	13.1	20.4	26.2	34.5	38.4	36.7	37.1	32.5	29.3	28.1	25.8	31.4	27.9	26.6	21.2	17.0	16.2	20.94	38.36																							
18-Jul	12.0	8.5	9.4	Z	3.4	2.5	3.5	9.1	10.5	19.5	25.4	34.7	43.7	33.6	25.4	26.3	27.0	22.2	20.8	14.8	8.7	8.7	11.1	4.2	16.74	43.65																							
19-Jul	1.7	1.9	0.7	Z	0.7	0.8	1.1	1.0	1.6	2.6	6.8	15.0	17.5	21.0	21.5	24.7	25.2	28.2	40.7	31.3	30.2	22.2	13.8	6.0	13.75	40.75																							
20-Jul	5.9	4.6	5.2	Z	13.2	14.3	12.4	11.7	17.2	14.9	15.9	11.1	17.4	19.9	31.4	29.0	25.8	22.8	27.5	22.6	19.9	16.8	15.0	13.2	16.85	31.36																							
21-Jul	9.4	6.3	4.6	Z	3.2	3.2	4.6	9.8	13.0	17.7	15.2	14.2	16.3	19.1	17.8	17.7	17.9	18.9	24.1	27.7	22.2	21.2	20.3	16.1	14.80	27.68																							
22-Jul	16.2	16.2	13.5	Z	5.1	7.9	6.3	4.7	6.1	8.5	7.3	13.6	21.4	23.1	20.6	17.6	21.8	16.9	13.4	10.8	11.4	7.1	9.4	7.6	12.45	23.13																							
23-Jul	3.7	3.9	3.4	Z	5.8	4.3	4.0	6.5	7.4	7.3	9.2	9.8	10.9	14.4	15.7	16.9	15.4	15.0	14.1	12.5	6.7	4.8	2.3	1.2	8.49	16.94																							
24-Jul	0.9	0.7	0.7	Z	0.7	0.7	0.9	2.1	3.6	6.8	11.8	20.5	23.5	22.8	22.8	26.0	26.9	28.7	29.7	26.1	18.2	11.2	7.2	3.1	12.85	29.70																							
25-Jul	0.9	1.0	0.9	Z	0.6	0.7	1.1	3.1	6.9	12.0	19.1	28.6	35.9	38.3	36.7	39.6	39.2	37.8	41.9	42.9	36.3	23.6	9.8	5.3	20.10	42.95																							
26-Jul	5.5	5.3	3.2	Z	1.9	0.9	2.1	6.9	14.5	21.8	27.5	38.0	44.0	C	C	C	C	28.4	22.8	24.9	19.9	13.6	2.4	1.5	15.01	44.03																							
27-Jul	2.0	1.2	1.0	Z	0.8	0.7	0.9	3.3	8.2	14.1	20.4	32.0	41.4	49.3	50.0	49.4	50.9	48.1	45.9	44.7	29.8	28.6	16.9	8.1	23.81	50.87																							
28-Jul	6.7	5.6	5.5	Z	1.8	1.6	3.2	9.7	18.9	24.5	31.6	42.4	47.8	47.4	48.6	46.6	47.4	45.4	45.2	41.6	32.6	22.7	6.8	7.5	25.69	48.60																							
29-Jul	4.7	3.6	3.0	Z	1.8	2.4	4.2	12.0	20.5	22.8	31.9	35.1	42.8	47.1	45.2	43.7	40.5	40.7	38.2	31.0	28.2	15.9	10.3	7.5	23.16	47.09																							
30-Jul	3.6	1.8	2.3	Z	2.2	2.1	3.1	4.8	6.5	12.5	16.6	25.5	19.3	17.1	5.5	17.9	16.3	19.2	14.3	10.9	11.0	7.5	3.5	2.7	9.83	25.47																							
31-Jul	1.0	0.7	0.7	Z	0.7	0.9	1.2	2.3	8.1	19.0	28.9	33.2	32.5	32.0	34.1	33.9	29.1	29.8	30.7	22.5	13.4	13.6	11.4	12.0	17.03	34.09																							
																								7.76	6.51	6.02	--	4.99	5.24	5.94	9.28	13.48	18.11	22.61	27.31	29.50	29.86	29.59	30.21	29.79	28.82	28.42	26.09	22.69	17.80	12.87	10.35	Diurnal Average	
																								31.08	30.48	26.32	--	28.26	23.61	23.82	29.23	31.58	37.23	45.16	46.75	47.75	49.29	50.04	49.37	50.87	48.12	45.95	44.65	36.75	34.29	33.11	33.65	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82.5 ppb 24-hr -- ppb																																																	



WCAS - Hinton
Eight Hour Running Averages

Ozone (O₃) - ppb
July 2018

Maximum Value: 47.46 ppb on Jul 27 20:00 Maximum Daily Average: 28.28 ppb on Jul 6																								Hours in Service: 744		
Minimum Value: 0.8 ppb on Jul 24 07:00 Minimum Daily Average: 8.95 ppb on Jul 23																								Hours of Data: 737		
Maximum Diurnal Average: 29.11 ppb at hour 19 Minimum Diurnal Average: 6.53 ppb at hour 8																								Hours of Missing Data: 7		
Monthly Average: 17.857 ppb Percentiles: P₁ = 1.1 P₁₀ = 4.5 Q₁ = 8.9 Median = 16.7 Q₃ = 26.2 P₉₀ = 33.4 P₉₉ = 43.2																								Hours of Calibration: 7		
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-Jul	13.4	10.5	7.5	5.6	3.1	1.9	1.6	3.5	7.3	11.9	16.8	19.4	23.4	27.4	31.6	34.2	35.0	34.5	33.9	33.4	32.6	31.7	30.5	28.4	19.96	34.99
2-Jul	26.2	24.5	22.2	20.7	18.7	17.7	16.3	15.6	14.9	15.5	16.3	16.7	17.4	17.5	17.4	17.8	18.3	17.8	17.2	16.1	15.0	13.8	13.1	12.0	17.45	26.23
3-Jul	10.8	9.6	8.5	8.2	8.1	8.4	8.5	8.7	8.9	9.4	9.8	9.8	9.7	9.3	9.0	9.2	9.6	9.8	10.5	11.1	11.4	11.6	11.9	11.2	9.73	11.95
4-Jul	10.3	9.3	8.3	7.5	6.5	5.4	4.5	4.2	4.5	5.2	5.8	5.8	5.9	12.6	15.0	17.8	20.7	23.3	24.9	25.1	24.7	22.9	20.2	17.1	13.06	25.12
5-Jul	13.3	9.8	7.0	5.0	2.2	0.9	0.9	1.1	1.7	2.8	4.6	6.5	10.0	14.2	18.6	22.9	27.4	30.8	33.2	34.9	35.1	33.7	31.2	28.4	15.66	35.07
6-Jul	24.0	20.2	16.7	14.4	11.0	10.2	11.1	12.1	15.5	20.0	25.7	28.3	33.0	35.7	38.2	40.9	42.5	42.7	41.9	40.9	39.8	39.1	38.0	36.8	28.28	42.75
7-Jul	35.4	34.3	32.8	32.0	30.8	29.1	27.8	27.1	27.0	26.7	27.4	27.9	28.3	29.1	29.5	28.7	27.3	25.8	23.9	21.7	19.3	17.5	15.1	12.9	26.56	35.44
8-Jul	11.0	9.2	7.4	6.5	5.2	3.4	2.6	2.4	2.9	4.1	6.6	8.9	12.0	15.6	19.1	22.2	25.1	27.5	29.0	29.4	30.6	30.6	28.7	26.1	15.26	30.57
9-Jul	23.0	19.6	16.1	14.5	9.5	5.4	3.6	3.5	4.2	5.7	8.3	10.5	13.9	17.6	21.6	25.5	29.1	32.2	34.4	35.6	36.5	36.8	35.9	33.8	19.87	36.82
10-Jul	30.6	26.7	25.0	23.5	22.4	21.0	19.9	20.1	22.7	26.0	27.0	27.9	28.8	30.2	31.8	33.3	33.4	33.4	33.2	32.8	32.3	31.0	29.0	26.2	27.84	33.42
11-Jul	23.1	19.9	16.6	14.5	10.2	6.8	4.9	5.6	7.6	10.8	15.2	17.7	22.2	26.8	31.2	33.7	34.9	34.8	33.8	33.6	33.0	31.7	29.6	26.6	21.87	34.94
12-Jul	23.6	21.2	18.5	16.4	12.3	8.7	6.0	5.3	5.9	8.0	11.9	14.9	18.9	23.3	27.7	31.8	35.2	37.2	37.0	35.9	34.1	31.9	30.2	28.9	21.87	37.16
13-Jul	26.8	24.3	21.6	20.8	18.1	15.7	12.6	9.1	6.7	6.3	7.6	9.3	11.3	13.6	15.8	17.6	19.0	19.7	19.4	18.2	17.6	16.7	15.9	16.4	15.84	26.85
14-Jul	17.3	17.6	17.8	18.7	18.1	17.1	16.7	15.3	14.0	13.8	14.0	15.2	17.1	19.1	20.7	22.0	23.1	23.6	24.4	24.6	23.9	22.1	19.6	16.9	18.86	24.60
15-Jul	14.1	11.2	8.2	5.7	3.2	2.0	1.8	2.2	3.6	5.8	9.0	11.3	14.8	18.5	22.2	25.6	28.6	31.2	32.5	32.8	32.1	29.4	26.3	22.7	16.45	32.84
16-Jul	18.8	14.5	10.5	7.7	4.5	3.3	2.9	3.6	5.3	8.3	12.9	16.7	21.8	26.5	31.1	34.8	37.3	38.9	39.2	37.8	36.2	33.6	29.5	25.3	20.87	39.24
17-Jul	21.3	17.2	13.0	10.4	6.4	4.0	3.6	4.7	6.9	10.1	14.4	17.4	21.8	26.3	29.9	31.9	32.8	32.8	32.4	31.1	29.8	27.8	25.9	24.3	19.84	32.83
18-Jul	22.3	20.1	17.3	15.8	12.5	9.8	7.9	6.9	6.7	8.3	10.6	13.6	18.6	22.5	25.2	27.4	29.4	29.8	29.2	26.7	22.3	19.2	17.4	14.7	18.10	29.78
19-Jul	11.5	9.0	6.5	5.3	4.2	3.0	1.6	1.1	1.1	1.2	2.1	3.7	5.8	8.3	10.9	13.8	16.8	20.0	24.2	26.3	27.9	28.0	27.1	24.7	11.84	28.02
20-Jul	22.3	19.3	14.9	12.5	10.1	9.0	8.8	9.6	11.2	12.7	14.2	13.8	14.4	15.1	17.4	19.6	20.7	21.7	23.1	24.6	24.9	24.5	22.4	20.5	16.96	24.86
21-Jul	18.4	16.4	13.5	12.2	9.8	7.9	6.4	5.9	6.4	8.0	9.5	10.1	11.7	13.7	15.4	16.4	17.0	17.1	18.2	19.9	20.7	20.9	21.2	21.0	14.08	21.24
22-Jul	20.8	20.5	19.2	18.0	15.5	13.6	11.6	10.0	8.5	7.4	6.6	7.4	9.5	11.4	13.2	14.8	16.7	17.8	18.5	18.2	16.9	14.9	13.5	12.3	14.03	20.83
23-Jul	10.0	8.4	7.2	6.6	5.8	5.4	4.7	4.5	5.0	5.5	6.4	6.8	7.4	8.7	10.2	11.5	12.5	13.4	14.0	14.4	13.8	12.6	11.0	9.0	8.95	14.37
24-Jul	7.2	5.4	3.7	2.4	1.6	1.0	0.8	1.0	1.4	2.2	3.8	5.9	8.7	11.5	14.2	17.2	20.1	22.9	25.1	25.8	25.1	23.7	21.8	18.9	11.31	25.80
25-Jul	15.6	12.2	8.6	6.1	3.6	2.1	1.2	1.2	2.1	3.6	6.2	9.0	13.4	18.1	22.6	27.1	31.2	34.4	37.2	39.0	39.1	37.3	33.9	29.6	18.10	39.09
26-Jul	25.4	21.3	16.5	12.7	7.8	4.6	3.5	3.7	5.0	7.3	10.8	14.2	19.5	22.1	25.5	C	C	C	C	C	C	C	18.7	16.2	--	25.47
27-Jul	14.4	11.0	8.3	5.9	3.2	1.4	1.2	1.4	2.3	4.1	6.9	10.0	15.1	21.2	27.3	33.1	38.4	42.7	45.9	47.5	46.0	43.4	39.3	34.1	21.01	47.46
28-Jul	28.6	23.3	18.2	14.5	10.5	6.6	4.6	4.9	6.6	9.3	13.0	16.7	22.5	28.2	33.9	38.5	42.0	44.7	46.3	46.2	44.3	41.3	36.0	31.1	25.50	46.35
29-Jul	25.8	20.6	15.3	11.5	7.1	4.2	3.9	4.5	6.8	9.5	13.6	16.3	21.4	27.0	32.2	36.1	38.6	40.9	41.6	41.1	39.3	35.4	31.0	26.5	22.94	41.64
30-Jul	21.9	17.0	12.6	9.9	6.2	4.3	3.2	2.8	3.3	4.8	6.8	9.1	11.3	13.2	13.5	15.1	16.3	17.2	16.9	15.1	14.0	12.8	12.6	10.7	11.28	21.90
31-Jul	8.8	6.4	4.7	3.9	2.4	1.5	1.1	1.1	2.1	4.7	8.7	11.8	15.8	19.7	23.8	27.7	30.3	31.7	31.9	30.6	28.2	25.9	23.0	20.3	15.25	31.92
19.23 16.47 13.69 11.92 9.37 7.59 6.64 6.53 7.35 9.01 11.38 13.37 16.43 19.48 22.43 24.94 26.98 28.34 29.11 29.00 28.23 26.74 24.50 22.05																								Diurnal Average		
35.44 34.32 32.83 31.99 30.76 29.10 27.78 27.14 26.96 26.75 27.43 28.34 32.96 35.71 38.22 40.85 42.47 44.65 46.35 47.46 46.01 43.42 39.28 36.80																								Diurnal Maximum		
C - Calibration																										



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Oxide (NO) - ppb
July 2018

Maximum Value: 15.69 ppb on Jul 26 07:00		Maximum Daily Average: 3.11 ppb on Jul 5		Hours in Service: 744																									
Minimum Value: 0.0 ppb on Jul 1 14:00		Minimum Daily Average: 0.47 ppb on Jul 10		Hours of Data: 707																									
Maximum Diurnal Average: 3.77 ppb at hour 7		Minimum Diurnal Average: 0.28 ppb at hour 19		Hours of Missing Data: 37																									
Monthly Average: 1.381 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.7 O ₃ = 1.7 P ₉₀ = 3.2 P ₉₉ = 10.2		Hours of Calibration: 37																									
				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-Jul	1.0	0.4	0.4	Z	7.9	11.5	4.9	0.7	0.9	0.3	0.0	0.6	0.2	0.0	0.0	0.0	0.3	2.8	0.7	0.4	0.0	0.0	0.0	0.0	1.43	11.49			
2-Jul	0.0	0.0	0.0	Z	0.2	0.3	0.2	0.5	1.0	0.5	0.6	0.6	1.4	1.9	1.4	0.8	0.5	0.4	0.3	0.8	0.4	0.3	0.1	0.1	0.54	1.89			
3-Jul	0.1	0.4	0.3	Z	0.2	0.4	0.2	0.5	2.8	2.0	2.7	1.9	3.0	2.3	4.9	1.7	0.5	1.4	0.1	0.2	0.3	0.4	0.2	0.4	1.17	4.88			
4-Jul	0.0	0.0	0.0	Z	0.5	0.6	2.5	4.0	1.6	1.7	1.5	2.1	1.0	0.0	0.6	0.5	0.2	1.1	0.2	0.1	0.1	0.2	1.8	1.4	0.94	4.02			
5-Jul	2.1	2.5	9.9	Z	7.3	6.2	6.4	14.9	6.2	2.6	2.3	2.2	2.3	1.8	2.0	0.5	0.5	0.4	0.3	0.4	0.1	0.3	0.2	0.1	3.11	14.94			
6-Jul	0.7	0.1	0.8	Z	0.9	0.1	0.6	2.5	4.2	1.1	0.9	1.1	2.6	2.9	1.9	1.6	0.9	1.0	1.2	0.5	0.1	0.1	0.2	0.2	1.13	4.19			
7-Jul	0.1	0.1	0.1	Z	0.2	0.3	1.4	0.6	1.6	2.0	1.5	0.5	0.7	0.5	0.6	0.4	1.6	1.4	0.8	0.5	0.3	0.4	0.2	0.2	0.69	1.96			
8-Jul	0.4	0.2	0.7	Z	0.6	2.0	1.8	2.6	4.9	4.3	1.5	2.5	0.4	0.9	1.5	1.2	0.3	0.5	0.3	0.0	0.0	0.0	0.0	0.1	1.16	4.87			
9-Jul	0.0	0.0	0.2	Z	0.9	1.4	3.7	5.5	3.0	2.4	2.4	0.8	1.4	0.7	0.9	0.9	0.6	0.5	0.1	0.5	0.0	0.0	0.0	0.0	1.13	5.55			
10-Jul	0.0	0.9	0.0	Z	1.9	0.1	1.2	0.5	0.2	0.4	1.2	1.0	1.1	0.8	0.1	0.2	0.2	0.1	0.3	0.2	0.3	0.0	0.0	0.0	0.47	1.94			
11-Jul	0.0	0.1	0.2	Z	8.3	6.8	4.9	2.0	1.1	1.0	0.7	1.2	1.2	1.7	0.7	1.2	0.8	0.1	0.1	0.1	0.2	3.2	1.4	0.4	1.62	8.29			
12-Jul	0.1	0.1	0.5	Z	0.3	3.0	6.3	10.2	5.3	1.9	1.4	0.8	1.0	0.7	0.9	0.7	0.2	0.2	0.1	0.1	0.2	0.3	0.1	0.1	1.51	10.25			
13-Jul	0.1	0.2	0.1	Z	1.9	2.1	4.6	2.3	3.3	1.3	1.2	1.0	0.5	0.9	0.7	0.7	0.9	0.6	0.3	0.1	0.5	0.6	0.0	0.0	1.04	4.59			
14-Jul	0.2	0.0	0.0	Z	0.2	7.6	1.1	2.3	1.4	1.8	1.2	0.0	1.1	1.7	1.2	0.8	1.1	0.3	0.0	0.2	0.6	2.6	0.7	1.13	7.55				
15-Jul	0.5	0.2	0.3	Z	2.0	5.9	4.2	4.1	2.3	2.5	2.0	2.3	0.9	0.4	1.1	0.9	0.7	0.4	0.1	0.2	0.1	0.9	0.6	1.1	1.47	5.86			
16-Jul	0.1	0.5	1.0	Z	11.6	8.0	6.2	7.1	2.2	0.9	1.5	1.1	0.9	1.6	2.1	0.3	0.3	0.2	0.2	0.1	0.1	1.8	2.2	2.1	2.27	11.55			
17-Jul	0.4	0.3	0.5	Z	2.8	3.4	4.4	3.3	0.8	0.8	0.9	1.0	0.4	0.9	0.5	0.7	0.6	0.1	0.1	0.2	0.3	0.4	0.1	0.1	1.00	4.35			
18-Jul	0.1	0.2	0.5	Z	1.0	3.9	3.5	2.4	2.4	3.3	2.3	1.8	0.7	0.8	1.3	0.6	0.7	1.3	0.2	0.2	1.1	0.2	0.2	0.7	1.28	3.93			
19-Jul	2.2	0.3	0.8	Z	3.4	5.0	4.7	8.7	9.8	13.8	4.0	1.5	0.6	0.3	0.5	0.6	0.7	0.7	0.4	0.0	0.3	0.2	0.4	0.1	2.56	13.77			
20-Jul	0.7	0.0	0.1	Z	0.1	0.3	0.5	0.6	2.1	0.9	2.2	0.7	0.7	1.0	0.8	1.0	0.4	0.1	0.0	0.2	0.2	0.8	0.0	0.1	0.58	2.21			
21-Jul	0.1	0.3	0.3	Z	1.1	1.2	1.5	0.3	1.3	0.4	0.2	0.5	0.7	1.1	0.1	0.7	1.0	0.1	0.2	0.7	0.2	0.7	0.1	0.4	0.57	1.54			
22-Jul	0.0	0.4	0.1	Z	0.1	0.4	1.2	1.3	1.3	1.7	1.3	2.1	1.7	2.0	0.5	0.5	0.4	0.9	0.2	0.8	0.6	0.0	0.0	0.9	0.81	2.05			
23-Jul	0.1	0.0	0.0	Z	1.0	1.2	1.3	1.4	4.0	4.8	4.5	3.1	2.5	1.9	1.1	0.7	2.1	0.1	0.1	0.0	1.1	0.1	0.7	0.7	1.41	4.79			
24-Jul	1.3	0.8	1.0	Z	2.0	4.8	7.6	7.1	8.8	8.7	2.9	1.2	1.1	0.4	0.3	0.9	0.7	0.4	0.1	0.1	0.1	0.3	0.2	1.6	2.29	8.81			
25-Jul	1.6	0.2	0.9	Z	2.4	2.1	5.6	2.9	1.9	2.2	2.3	1.9	2.2	0.6	4.6	1.2	0.2	0.3	0.1	0.0	0.1	0.1	0.1	0.5	1.49	5.63			
26-Jul	0.1	0.5	0.9	Z	2.5	13.7	15.7	1.2	0.5	2.4	2.5	1.2	0.5	C	C	C	C	C	C	0.1	0.1	0.7	1.3	1.1	--	15.69			
27-Jul	0.9	1.1	1.2	Z	1.8	4.9	5.5	2.5	2.2	2.7	2.7	2.0	0.9	0.7	0.1	0.5	0.4	0.2	0.1	0.8	0.0	0.0	0.3	1.41	5.52				
28-Jul	0.0	0.0	0.0	Z	1.5	1.5	2.7	0.7	1.9	1.9	1.8	1.2	1.7	0.8	0.4	1.5	0.5	0.8	0.1	0.2	0.0	1.3	3.7	0.0	1.06	3.67			
29-Jul	0.0	0.4	0.1	Z	0.7	1.3	1.6	0.9	1.3	1.7	1.2	0.7	1.0	0.2	0.6	0.4	0.5	0.3	0.2	0.0	0.3	0.2	0.1	0.8	0.63	1.69			
30-Jul	0.5	0.9	0.2	Z	2.9	2.3	0.8	1.8	3.1	1.3	0.4	2.0	2.2	2.3	4.4	1.1	1.2	0.9	0.7	1.5	0.8	2.8	0.7	2.2	1.61	4.37			
31-Jul	3.4	4.3	4.2	Z	7.4	6.8	9.9	12.2	5.8	3.8	1.7	0.6	0.6	1.3	1.0	0.1	0.4	0.6	0.3	1.8	0.2	1.3	0.2	0.3	2.97	12.21			
		0.55	0.50	0.83	--	2.44	3.52	3.77	3.47	2.88	2.49	1.73	1.33	1.17	1.10	1.26	0.76	0.65	0.65	0.28	0.32	0.30	0.59	0.56	0.54	Diurnal Average			
		3.36	4.28	9.91	--	11.55	13.65	15.69	14.94	9.84	13.77	4.53	3.06	3.03	2.88	4.88	1.66	2.15	2.76	1.19	1.85	1.12	3.24	3.67	2.16	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
July 2018

Maximum Value: 17.05 ppb on Jul 28 23:00		Maximum Daily Average: 6.56 ppb on Jul 3		Hours in Service: 744																													
Minimum Value: 0.9 ppb on Jul 1 16:00		Minimum Daily Average: 2.57 ppb on Jul 1		Hours of Data: 707																													
Maximum Diurnal Average: 5.79 ppb at hour 24		Minimum Diurnal Average: 3.27 ppb at hour 19		Hours of Missing Data: 37																													
Monthly Average: 4.681 ppb		Percentiles: P ₁ = 1.4 P ₁₀ = 2.5 Q ₁ = 3.1 Median = 4.3 O ₃ = 5.8 P ₉₀ = 7.4 P ₉₉ = 11.1		Hours of Calibration: 37																													
				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-Jul	4.2	3.0	2.9	Z	3.0	4.1	3.0	2.4	2.9	1.5	1.0	2.6	2.3	1.0	1.0	0.9	2.3	6.2	3.4	4.6	1.1	1.1	2.0	2.5	2.57	6.25							
2-Jul	2.5	2.3	3.1	Z	4.7	5.2	3.2	5.0	6.5	3.8	4.7	4.1	4.9	4.7	7.0	3.8	3.7	3.2	3.8	7.6	6.6	6.7	6.1	6.5	4.77	7.58							
3-Jul	7.7	9.7	11.9	Z	7.9	6.5	4.2	5.9	7.9	6.7	7.7	6.3	7.5	6.1	7.5	4.0	4.7	5.8	2.9	4.6	6.9	6.3	4.3	7.8	6.56	11.88							
4-Jul	4.6	5.2	3.7	Z	5.2	6.6	8.6	8.7	5.9	5.3	4.1	5.2	3.3	1.5	3.1	2.4	1.7	3.4	2.5	2.1	2.6	2.6	2.7	1.3	4.01	8.66							
5-Jul	1.9	2.4	4.2	Z	2.7	2.1	2.2	5.7	3.9	3.7	4.0	4.9	6.0	4.9	3.6	2.3	3.2	2.6	2.0	2.9	2.5	4.3	6.2	6.6	3.68	6.56							
6-Jul	9.2	7.1	7.1	Z	5.3	4.8	5.4	7.8	8.5	4.6	3.7	4.3	8.9	10.1	7.0	5.7	5.4	7.0	7.1	5.7	4.3	2.6	6.9	4.2	6.21	10.14							
7-Jul	5.5	3.8	5.7	Z	4.7	6.4	6.7	3.9	6.4	8.0	5.4	2.5	2.9	2.3	2.8	2.8	4.4	4.1	2.8	3.0	2.5	3.3	2.7	2.8	4.16	7.99							
8-Jul	3.4	5.0	3.6	Z	3.7	4.3	5.1	4.7	6.1	5.6	3.7	5.1	2.9	3.0	3.9	4.7	2.4	3.3	3.4	2.9	2.6	3.8	6.3	9.1	4.28	9.06							
9-Jul	7.0	5.0	5.2	Z	5.5	4.2	5.5	7.4	5.6	5.3	5.7	2.9	3.9	3.1	4.0	4.7	4.2	4.1	4.1	5.6	4.3	4.6	7.0	7.4	5.06	7.40							
10-Jul	6.7	8.0	3.3	Z	8.7	7.7	8.3	8.0	2.8	3.1	4.9	4.3	3.8	3.0	1.7	1.6	1.6	1.7	1.8	2.0	3.1	3.0	2.8	4.3	4.18	8.66							
11-Jul	6.9	8.8	9.4	Z	5.6	5.3	5.6	4.5	3.3	2.9	2.4	3.2	2.8	3.2	2.8	3.5	4.4	2.1	2.1	1.8	2.8	6.6	6.9	10.1	4.64	10.05							
12-Jul	8.8	6.3	7.4	Z	4.8	6.8	8.4	10.4	8.2	6.0	4.2	3.2	3.5	3.1	3.5	3.1	2.8	4.3	3.3	2.9	5.0	4.6	3.5	2.6	5.07	10.36							
13-Jul	4.5	4.7	6.1	Z	5.9	5.3	5.5	5.6	8.3	5.7	6.4	5.1	3.8	4.3	3.7	4.1	3.8	3.7	3.8	2.5	3.8	5.5	3.0	2.8	4.69	8.30							
14-Jul	5.0	4.1	4.3	Z	2.7	5.9	4.4	6.1	3.7	3.6	3.6	1.4	1.4	3.4	4.3	3.6	3.3	3.8	2.8	1.8	3.8	6.0	7.7	5.5	4.01	7.74							
15-Jul	5.9	5.0	5.0	Z	4.7	4.7	3.9	5.4	4.6	5.3	5.7	3.1	2.4	2.5	3.1	3.0	3.2	3.3	2.9	5.0	6.5	13.5	11.2	9.7	5.20	13.52							
16-Jul	6.6	7.4	6.8	Z	8.2	5.9	7.2	12.6	6.5	4.3	5.9	6.6	4.1	4.7	5.3	2.4	2.9	2.4	3.1	2.2	3.0	8.9	14.5	13.8	6.31	14.47							
17-Jul	10.6	8.1	6.6	Z	8.7	6.9	6.5	8.9	4.4	4.3	5.2	5.5	3.2	4.0	3.4	3.3	3.5	2.1	2.3	3.3	4.1	5.2	3.4	2.8	5.06	10.65							
18-Jul	2.9	2.1	4.3	Z	6.2	7.7	4.9	5.2	8.7	5.9	5.8	5.3	4.6	4.0	2.4	1.9	2.4	3.6	1.7	2.6	4.7	3.0	2.3	3.7	4.18	8.74							
19-Jul	4.1	2.0	3.0	Z	3.2	3.8	2.6	4.9	7.1	10.0	5.8	2.7	2.4	1.7	2.4	2.6	2.6	2.6	2.8	2.2	3.1	2.8	4.5	3.2	3.56	10.04							
20-Jul	2.8	1.9	1.9	Z	2.9	3.0	3.2	3.5	5.4	5.8	5.7	3.8	2.7	5.0	7.3	6.3	5.1	3.5	2.9	7.2	3.7	6.1	3.9	4.2	4.26	7.30							
21-Jul	3.0	3.4	3.0	Z	3.7	4.9	5.8	2.5	4.9	3.1	2.5	3.4	3.1	4.0	1.5	2.7	3.7	2.1	3.9	5.2	4.6	4.4	3.0	4.3	3.60	5.78							
22-Jul	3.3	2.8	3.2	Z	4.1	3.7	4.8	4.1	4.6	3.0	3.3	3.4	3.5	4.0	1.8	2.0	2.7	4.7	3.5	3.8	5.8	3.8	2.8	6.5	3.71	6.54							
23-Jul	4.7	3.0	2.2	Z	3.9	5.0	5.0	2.9	5.9	7.2	6.9	5.6	4.9	3.3	3.1	3.1	4.5	1.8	1.9	1.9	4.7	3.9	3.2	3.0	3.98	7.17							
24-Jul	3.2	2.8	2.8	Z	3.0	3.6	4.4	5.4	6.5	6.8	5.6	4.0	3.0	2.6	2.2	2.4	2.8	2.9	2.5	3.0	4.2	3.9	4.7	6.9	3.86	6.88							
25-Jul	7.1	2.5	2.8	Z	3.1	2.7	3.2	4.0	3.7	4.5	5.5	5.3	5.6	4.1	5.5	4.4	3.0	2.7	2.0	2.6	4.3	6.8	10.6	9.7	4.59	10.64							
26-Jul	7.3	6.8	6.6	Z	6.1	7.4	6.3	4.3	3.8	8.1	8.4	5.9	3.2	C	C	C	C	C	C	4.3	5.0	5.6	5.4	4.0	--	8.37							
27-Jul	3.8	4.3	4.5	Z	3.9	3.7	3.7	4.2	4.8	5.8	6.7	7.4	5.7	4.7	4.2	3.3	4.2	4.9	4.7	5.5	10.2	5.8	8.3	9.2	5.38	10.24							
28-Jul	6.7	6.4	5.1	Z	6.7	6.9	5.8	4.5	8.2	7.4	7.9	7.1	6.4	4.3	3.7	4.6	3.8	4.8	4.3	4.7	5.4	8.7	17.1	9.4	6.51	17.05							
29-Jul	7.9	8.3	6.2	Z	7.8	6.8	5.8	5.9	6.7	7.9	6.0	5.1	4.2	3.1	3.8	3.6	3.6	3.5	5.3	3.0	3.3	5.1	2.8	4.4	5.22	8.33							
30-Jul	4.9	4.3	3.6	Z	4.7	5.6	2.9	4.1	4.9	4.0	2.5	5.9	5.5	5.4	11.5	5.3	6.2	6.3	5.2	7.9	7.5	7.9	5.1	5.6	5.52	11.50							
31-Jul	4.6	3.8	4.3	Z	4.1	3.7	4.2	6.3	6.1	9.0	6.1	3.7	3.1	3.6	3.7	2.5	4.8	4.5	3.3	7.7	5.1	5.1	5.1	6.0	4.79	8.96							
		5.40	4.85	4.83	--	5.01	5.20	5.04	5.64	5.70	5.43	5.07	4.47	4.05	3.82	4.02	3.35	3.57	3.71	3.27	3.94	4.42	5.21	5.67	5.79	Diurnal Average							
		10.65	9.71	11.88	--	8.70	7.74	8.64	12.58	8.74	10.04	8.37	7.37	8.88	10.14	11.50	6.32	6.21	7.00	7.06	7.90	10.24	13.52	17.05	13.75	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
July 2018

Maximum Value: 23.97 ppb on Jul 19 10:00		Maximum Daily Average: 8.68 ppb on Jul 16		Hours in Service: 744																							
Minimum Value: 0.8 ppb on Jul 1 16:00		Minimum Daily Average: 4.02 ppb on Jul 1		Hours of Data: 707																							
Maximum Diurnal Average: 9.19 ppb at hour 8		Minimum Diurnal Average: 3.58 ppb at hour 19		Hours of Missing Data: 37																							
Monthly Average: 6.113 ppb		Percentiles: P ₁ = 1.4 P ₁₀ = 2.8 Q ₁ = 3.8 Median = 5.3 Q ₃ = 7.8 P ₉₀ = 10.3 P ₉₉ = 19.8		Hours of Calibration: 37																							
				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-Jul	5.3	3.4	3.4	Z	11.0	15.7	7.9	3.2	3.8	1.8	1.1	3.3	2.4	1.0	1.1	0.8	2.7	9.1	4.1	5.0	0.9	1.1	2.0	2.5	4.02	15.70	
2-Jul	2.5	2.2	3.1	Z	5.0	5.5	3.4	5.6	7.6	4.4	5.4	4.7	6.4	6.6	8.5	4.6	4.2	3.6	4.2	8.5	7.1	7.1	6.2	6.6	5.35	8.53	
3-Jul	8.0	10.3	12.4	Z	8.2	6.9	4.4	6.5	10.9	8.9	10.6	8.2	10.7	8.5	12.6	5.8	5.3	7.3	3.1	4.9	7.3	6.8	4.6	8.3	7.84	12.56	
4-Jul	4.7	5.3	3.7	Z	5.8	7.2	11.2	12.8	7.6	7.0	5.6	7.3	4.4	1.5	3.8	2.9	1.9	4.5	2.7	2.2	2.7	2.8	4.4	2.7	4.98	12.80	
5-Jul	4.0	4.9	14.3	Z	10.1	8.4	8.7	20.8	10.1	6.3	6.4	7.1	8.3	6.8	5.6	2.8	3.8	3.0	2.3	3.3	2.6	4.7	6.4	6.8	6.84	20.77	
6-Jul	10.0	7.4	8.0	Z	6.2	4.9	6.1	10.4	12.8	5.8	4.7	5.5	11.6	13.2	9.0	7.3	6.4	8.1	8.3	6.2	4.4	2.7	7.2	4.4	7.42	13.16	
7-Jul	5.7	3.9	5.9	Z	5.0	6.8	8.1	4.5	8.1	10.1	7.0	3.1	3.6	2.8	3.5	3.3	6.0	5.6	3.7	3.5	2.8	3.7	3.0	3.0	4.90	10.08	
8-Jul	3.8	5.2	4.3	Z	4.3	6.4	7.0	7.4	11.2	10.1	5.2	7.7	3.4	3.9	5.4	6.0	2.7	3.9	3.7	2.9	2.4	3.7	6.3	9.3	5.48	11.15	
9-Jul	7.1	5.1	5.5	Z	6.5	5.7	9.3	13.1	8.7	7.7	8.3	3.7	5.4	3.8	4.9	5.7	4.9	4.7	4.2	6.2	4.3	4.6	7.1	7.4	6.25	13.10	
10-Jul	6.8	8.9	3.4	Z	10.7	8.0	9.6	8.6	3.0	3.6	6.1	5.4	4.9	3.9	1.8	1.7	1.8	1.9	2.2	2.2	3.4	3.0	2.9	4.3	4.70	10.72	
11-Jul	7.0	9.0	9.7	Z	14.0	12.2	10.7	6.6	4.4	3.9	3.1	4.4	4.0	5.0	3.5	4.7	5.2	2.2	2.2	1.9	3.0	9.9	8.4	10.6	6.32	13.97	
12-Jul	9.0	6.5	8.0	Z	5.1	10.0	14.9	20.8	13.7	8.1	5.6	4.0	4.5	3.9	4.4	3.8	3.1	4.6	3.4	3.0	5.4	5.0	3.6	2.8	6.66	20.81	
13-Jul	4.6	5.0	6.3	Z	7.9	7.5	10.3	8.0	11.7	7.1	7.7	6.2	4.3	5.3	4.4	4.9	4.8	4.4	4.1	2.6	4.4	6.2	3.0	2.8	5.80	11.74	
14-Jul	5.2	4.1	4.4	Z	2.9	13.5	5.6	8.5	5.1	5.5	4.9	1.4	1.4	4.6	6.0	4.9	4.2	5.0	3.1	1.8	4.0	6.6	10.4	6.2	5.20	13.52	
15-Jul	6.5	5.3	5.4	Z	6.8	10.7	8.2	9.7	7.0	8.0	7.9	5.4	3.3	2.9	4.2	4.0	3.9	3.8	3.1	5.3	6.6	14.7	11.9	10.9	6.76	14.67	
16-Jul	6.8	8.0	7.9	Z	19.9	14.1	13.6	19.9	8.8	5.3	7.5	7.8	5.1	6.4	7.4	2.7	3.3	2.6	3.3	2.4	3.1	10.9	16.9	16.0	8.68	19.92	
17-Jul	11.2	8.4	7.2	Z	11.7	10.4	11.0	12.4	5.2	5.2	6.2	6.6	3.6	4.9	4.0	4.1	4.2	2.3	2.4	3.5	4.4	5.6	3.5	2.9	6.13	12.38	
18-Jul	3.0	2.4	4.9	Z	7.3	11.8	8.5	7.7	11.3	9.3	8.2	7.2	5.4	4.9	3.7	2.6	3.1	5.0	2.0	2.8	5.9	3.2	2.5	4.4	5.52	11.81	
19-Jul	6.3	2.2	3.7	Z	6.7	8.9	7.3	13.7	17.1	24.0	9.9	4.2	3.0	2.0	2.9	3.2	3.4	3.2	3.1	2.3	3.4	3.0	4.8	3.3	6.16	23.97	
20-Jul	3.5	1.9	2.1	Z	3.0	3.3	3.8	4.2	7.5	6.7	8.0	4.5	3.4	6.0	8.2	7.4	5.6	3.6	3.0	7.5	3.9	6.9	4.0	4.3	4.89	8.18	
21-Jul	3.1	3.8	3.3	Z	4.8	6.1	7.4	2.8	6.3	3.5	2.7	3.9	3.8	5.1	1.7	3.4	4.7	2.2	4.2	5.9	4.9	5.1	3.2	4.8	4.20	7.39	
22-Jul	3.3	3.2	3.3	Z	4.2	4.1	6.1	5.4	6.0	4.7	4.6	5.4	5.2	6.0	2.2	2.5	3.2	5.7	3.7	4.7	6.4	3.8	2.8	7.6	4.53	7.58	
23-Jul	4.9	3.1	2.3	Z	4.9	6.2	6.3	4.3	10.0	12.1	11.5	8.7	7.5	5.2	4.1	3.8	6.7	1.8	2.1	2.0	5.8	4.0	3.9	3.8	5.43	12.08	
24-Jul	4.5	3.6	3.8	Z	5.0	8.5	12.1	12.7	15.5	15.8	8.6	5.3	4.1	3.0	2.4	3.3	3.5	3.4	2.6	3.1	4.4	4.3	4.9	8.6	6.21	15.76	
25-Jul	8.9	2.8	3.7	Z	5.5	4.9	8.9	6.9	5.6	6.7	7.8	7.3	7.8	4.7	10.2	5.6	3.3	3.0	2.1	2.5	4.4	7.0	10.9	10.3	6.13	10.91	
26-Jul	7.5	7.3	7.6	Z	8.7	21.3	22.2	5.7	4.5	10.8	11.3	7.4	4.2	C	C	C	C	C	C	4.0	4.7	6.0	6.4	4.8	--	22.24	
27-Jul	4.5	5.3	5.7	Z	5.7	8.6	9.2	6.7	7.0	8.5	9.4	9.5	6.7	5.6	4.9	3.5	4.7	5.4	4.9	5.6	11.2	5.8	8.3	9.6	6.79	11.16	
28-Jul	6.7	6.4	5.1	Z	8.3	8.4	8.5	5.2	10.2	9.4	9.8	8.4	8.2	5.1	4.0	6.1	4.4	5.6	4.5	4.9	5.4	10.0	20.9	9.4	7.59	20.89	
29-Jul	7.9	8.8	6.4	Z	8.5	8.1	7.4	6.7	7.9	9.7	7.3	5.9	5.3	3.3	4.4	3.9	4.1	3.8	5.4	3.0	3.6	5.3	2.9	5.3	5.86	9.71	
30-Jul	5.4	5.2	3.8	Z	7.7	7.9	3.7	6.0	8.0	5.3	2.8	8.0	7.8	7.7	16.0	6.4	7.5	7.3	5.9	9.5	8.4	10.8	5.9	7.8	7.16	16.02	
31-Jul	8.0	8.0	8.5	Z	11.5	10.5	14.2	18.7	12.0	12.9	7.8	4.3	3.6	4.9	4.8	2.6	5.3	5.2	3.6	9.6	5.4	6.5	5.3	6.3	7.81	18.68	
		5.99	5.39	5.70	--	7.51	8.78	8.88	9.19	8.67	8.00	6.87	5.86	5.27	4.95	5.32	4.14	4.26	4.39	3.58	4.28	4.73	5.83	6.28	6.39	Diurnal Average	
		11.22	10.28	14.26	--	19.91	21.27	22.24	20.81	17.11	23.97	11.54	9.47	11.61	13.16	16.02	7.37	7.49	9.11	8.34	9.61	11.16	14.67	20.89	16.04	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
July 2018

Maximum Value: 30.24 µg/m ³ on Jul 29 10:00		Maximum Daily Average: 19.76 µg/m ³ on Jul 25		Hours in Service: 744																							
Minimum Value: 0.4 µg/m ³ on Jul 23 18:00		Minimum Daily Average: 2.67 µg/m ³ on Jul 21		Hours of Data: 744																							
Maximum Diurnal Average: 11.94 µg/m ³ at hour 10		Minimum Diurnal Average: 6.94 µg/m ³ at hour 16		Hours of Missing Data: 0																							
Monthly Average: 8.656 µg/m ³		Percentiles: P ₁ = 0.8 P ₁₀ = 2.1 Q ₁ = 3.6 Median = 6.5 Q ₃ = 12.5 P ₉₀ = 18.3 P ₉₉ = 26.5		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-Jul	7.7	5.6	6.2	5.8	7.3	5.6	5.8	0.9	2.1	1.1	0.7	2.3	2.9	0.7	1.3	1.9	1.7	4.2	3.2	3.9	0.8	1.5	2.1	2.2	3.23	7.68	
2-Jul	1.2	1.0	1.7	1.2	1.9	2.7	1.8	5.2	2.7	3.2	6.3	1.8	2.5	3.1	10.4	1.2	2.5	1.3	1.2	2.1	2.7	8.2	10.1	9.4	3.56	10.35	
3-Jul	11.3	12.4	15.6	13.2	13.9	5.7	5.0	12.3	4.0	5.2	5.9	4.2	3.5	3.7	2.4	0.7	1.5	2.4	0.9	1.8	2.9	1.1	0.5	3.0	5.55	15.64	
4-Jul	2.6	1.9	1.7	3.2	3.3	4.2	6.5	4.6	7.5	6.2	1.9	11.9	7.8	1.9	5.5	5.3	3.6	6.3	3.6	4.0	5.6	4.8	4.2	4.1	4.68	11.92	
5-Jul	5.3	7.6	14.2	8.2	10.3	8.9	8.5	12.7	7.3	10.6	10.0	9.9	10.1	6.6	4.3	7.0	8.1	6.7	10.3	4.8	4.6	5.9	7.6	9.6	8.29	14.23	
6-Jul	16.3	13.8	16.2	14.2	14.1	12.4	13.8	10.6	14.7	7.6	5.9	8.7	13.3	15.2	13.0	12.3	14.7	15.5	14.9	11.8	9.6	4.4	5.0	3.3	11.72	16.32	
7-Jul	3.2	2.6	3.3	5.6	3.1	5.1	2.7	3.8	8.3	10.2	7.0	2.2	2.7	1.4	2.0	2.2	2.1	2.9	3.0	1.1	1.4	2.4	2.1	3.2	3.48	10.22	
8-Jul	3.8	3.6	3.9	4.3	5.9	11.6	22.0	22.0	29.5	20.5	7.0	4.3	1.8	1.1	1.3	2.4	0.8	1.6	1.7	1.9	0.9	2.2	2.6	3.4	6.67	29.46	
9-Jul	2.3	1.2	0.9	1.2	1.1	0.9	3.3	5.6	4.6	4.4	6.1	2.4	2.9	2.3	3.9	4.0	3.8	3.0	3.5	3.6	3.0	3.5	11.4	10.7	3.74	11.36	
10-Jul	8.9	10.4	7.3	4.8	7.6	11.5	12.7	9.8	3.9	5.7	9.7	9.3	8.5	5.0	2.4	2.8	4.5	5.4	3.9	3.3	3.3	5.2	4.9	6.6	6.56	12.74	
11-Jul	14.8	14.9	8.4	6.4	9.8	9.2	14.8	7.7	4.8	3.7	3.1	4.0	3.2	4.6	3.9	3.6	4.9	2.1	2.2	2.4	4.3	4.9	5.8	6.0	6.23	14.92	
12-Jul	5.4	4.2	4.5	4.7	5.6	6.2	8.2	12.3	11.3	9.6	7.2	6.2	5.5	5.4	5.5	4.8	4.3	4.6	8.8	11.8	12.0	10.5	8.7	6.6	7.24	12.30	
13-Jul	7.2	10.6	14.3	9.0	8.1	7.9	8.5	8.9	11.8	12.4	14.7	12.9	9.2	5.3	5.1	5.8	6.5	5.8	7.0	6.6	5.0	8.4	3.6	3.7	8.27	14.66	
14-Jul	6.4	5.5	4.1	1.7	1.2	1.6	3.8	10.2	2.6	4.0	4.5	1.2	1.2	3.5	3.7	2.6	2.8	3.0	2.3	1.5	1.7	4.4	6.3	6.4	3.61	10.19	
15-Jul	8.1	4.9	5.1	7.0	4.7	4.9	3.3	8.2	7.5	8.3	8.1	3.9	3.2	3.4	3.3	3.8	3.9	3.7	3.3	4.5	5.4	10.0	8.5	7.1	5.58	10.03	
16-Jul	6.6	7.2	7.3	7.7	7.8	6.9	9.6	18.2	9.8	9.5	13.9	13.4	7.3	6.6	6.3	3.2	3.5	3.2	4.2	2.9	3.1	8.8	11.8	10.8	7.90	18.20	
17-Jul	13.4	13.3	10.7	10.9	11.6	9.9	11.9	18.1	13.0	13.4	13.8	10.7	5.9	6.4	5.1	5.9	5.6	6.5	7.2	6.0	6.5	6.3	6.2	5.5	9.32	18.15	
18-Jul	5.1	5.4	6.0	6.4	7.1	8.4	7.4	9.6	14.7	16.7	14.0	10.7	9.0	7.9	5.3	4.8	4.8	5.7	5.4	6.1	6.8	5.0	5.6	6.3	7.68	16.70	
19-Jul	6.9	6.2	7.5	7.0	7.2	8.7	6.6	19.9	18.3	25.7	14.0	7.3	5.1	4.6	4.5	4.8	4.6	5.7	8.4	8.3	6.8	5.7	5.0	5.5	8.51	25.67	
20-Jul	5.1	4.8	5.2	5.8	6.7	8.7	9.2	8.0	7.6	6.4	6.2	4.9	5.0	7.3	9.8	5.4	6.4	2.3	3.1	10.6	2.4	8.1	4.7	2.3	6.08	10.63	
21-Jul	1.4	3.3	2.2	2.1	2.0	2.9	3.5	1.0	2.1	3.5	1.4	2.5	2.9	4.8	0.5	1.5	4.6	2.0	3.6	2.0	5.1	3.0	3.1	3.1	2.67	5.05	
22-Jul	2.0	0.8	1.7	3.6	4.6	1.9	5.9	3.5	3.2	2.0	4.2	4.6	5.6	7.5	3.1	2.7	6.6	10.4	7.2	5.2	5.4	4.4	4.0	6.7	4.45	10.40	
23-Jul	6.7	6.9	5.8	1.0	1.8	2.3	1.8	1.0	2.7	7.7	7.9	4.2	5.1	4.0	3.6	5.8	3.2	0.4	0.9	1.1	2.1	2.3	2.7	3.0	3.50	7.92	
24-Jul	3.0	5.9	3.8	3.3	3.0	8.1	18.0	26.2	18.0	12.3	6.5	4.6	3.1	2.6	2.6	5.7	10.2	12.0	12.0	13.2	16.9	18.6	18.5	18.3	10.26	26.24	
25-Jul	20.9	18.1	15.8	16.3	15.7	15.3	16.0	17.4	18.5	16.6	17.2	21.2	25.3	24.4	23.9	22.0	20.4	19.0	15.5	21.7	20.4	21.4	25.6	25.5	19.76	25.61	
26-Jul	24.3	25.3	23.0	21.7	21.9	21.0	21.1	23.1	23.9	27.7	26.5	26.7	27.2	22.4	17.2	17.3	15.1	11.1	10.2	9.1	12.5	10.3	8.5	9.0	19.00	27.72	
27-Jul	8.1	6.0	6.5	6.6	6.3	6.7	6.9	10.3	14.4	19.2	20.3	20.9	19.1	14.9	13.3	12.1	12.5	12.5	11.8	12.8	14.1	14.1	17.9	23.0	12.94	23.03	
28-Jul	19.7	19.6	17.5	16.3	15.2	15.3	15.8	16.7	19.7	22.4	22.7	21.9	20.6	17.4	15.9	16.8	16.9	17.3	16.7	15.8	16.3	21.2	26.5	25.3	18.74	26.49	
29-Jul	23.8	23.2	19.7	18.3	19.3	19.7	20.3	24.1	26.5	30.2	27.2	23.7	19.9	17.1	16.7	16.7	17.2	16.3	17.8	14.4	8.3	9.5	9.0	8.8	18.66	30.24	
30-Jul	9.2	8.9	8.8	9.8	11.4	13.2	13.1	14.2	14.6	16.6	15.8	19.8	17.7	19.9	19.7	19.0	19.7	19.2	17.8	16.8	16.4	13.3	12.2	12.4	14.98	19.91	
31-Jul	12.8	13.1	13.7	12.4	12.5	9.8	12.3	17.4	21.9	27.4	22.6	21.7	17.4	14.4	12.4	11.3	13.4	13.1	14.5	16.8	14.6	14.2	15.2	17.2	15.51	27.38	
		8.82	8.65	8.48	7.74	8.13	8.31	9.68	11.72	11.33	11.94	10.72	9.81	8.85	7.92	7.35	6.94	7.43	7.27	7.29	7.36	7.12	7.86	8.39	8.64	Diurnal Average	
		24.34	25.34	23.03	21.67	21.88	21.02	22.05	26.24	29.46	30.24	27.20	26.65	27.16	24.42	23.87	22.01	20.39	19.19	17.85	21.74	20.36	21.44	26.49	25.47	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: July 5, 2018

Parameter: TRS

Instrument: Teco 43C

Serial Number: 43CTL - 60324 - 326

Previous Calibration Date: June 20 2018

Calibration: Routine

Calibration Equipment: SABIO 2010 sn # 11100113

Barometric Pressure: 26.80" Hg

Calibration Method: Std.Gas Dilution

Permeation Device ID: Cyl DT0014794 10.5 ppm H2S

Temperature: 22.0° C

Permeation Rate: 0 ng/min

In Service: Oct 21 2016; Exp Oct 2019

Technician: Dean Yustak

Instrument Settings	H ₂ S bkg ppb	H ₂ S Coefficient	Monitoring Range
Previous	2.02	0.807	100 ppb
Current	2.02	0.807	100 ppb

Final Zero: -0.3 ppb

Final Span: -0.3 ppb

As Found Correction Factor: 1.093

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
0.037	78.1	22169.3	77.5	1.008
0.025	52.6	15477.9	53.5	0.984
0.013	28.1	8422.9	28.2	0.997
0.000	0.0	494.4	-0.3	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	310.013700	-39.176130	0.999992
Current	278.434600	584.586700	0.999650
C _i vs C _c			
Current	1.000000	0.000011	0.999650

Average Correction Factor: 0.996

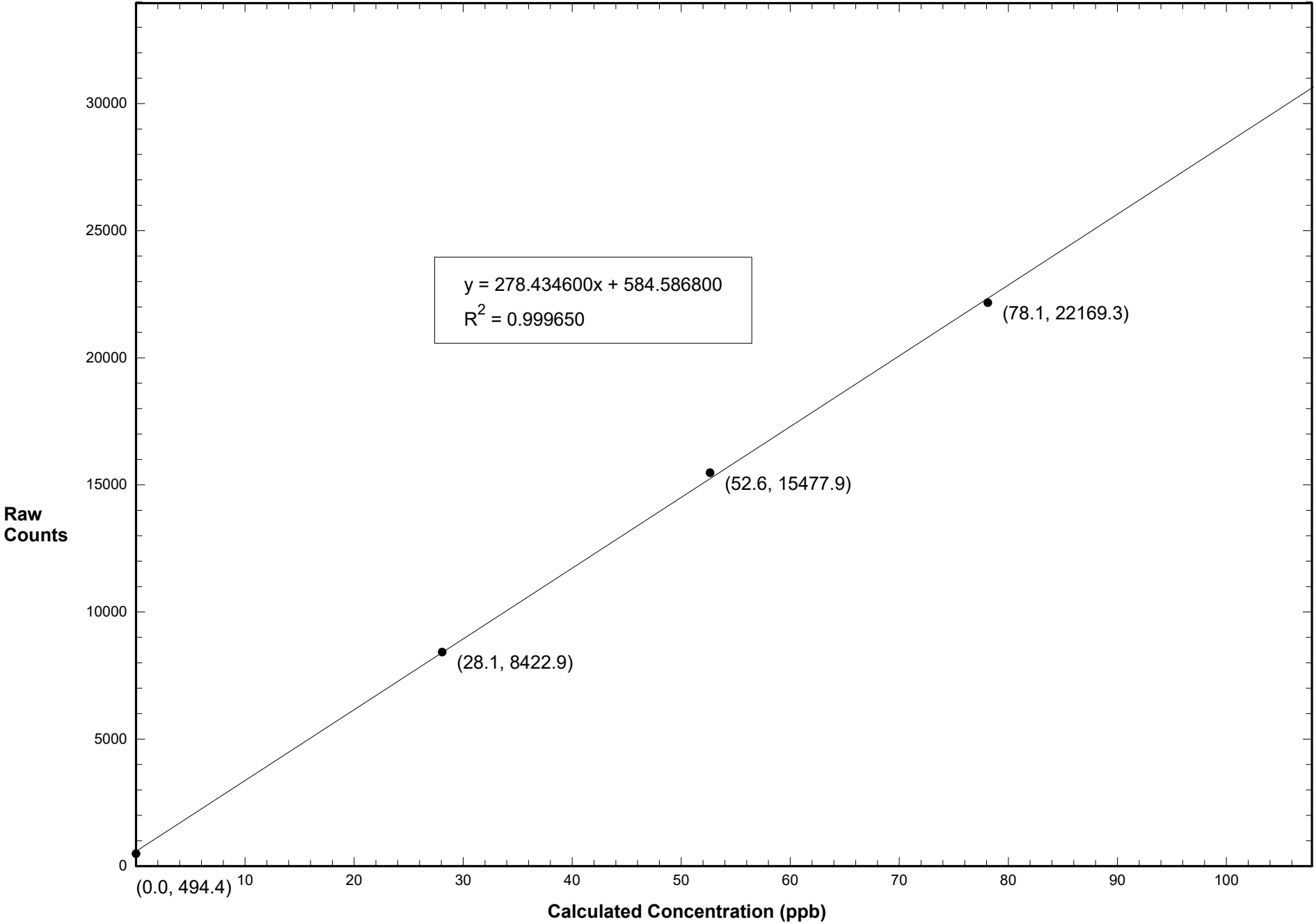
Previous Correction Factor: 0.999

Current Correction Factor: 1.008

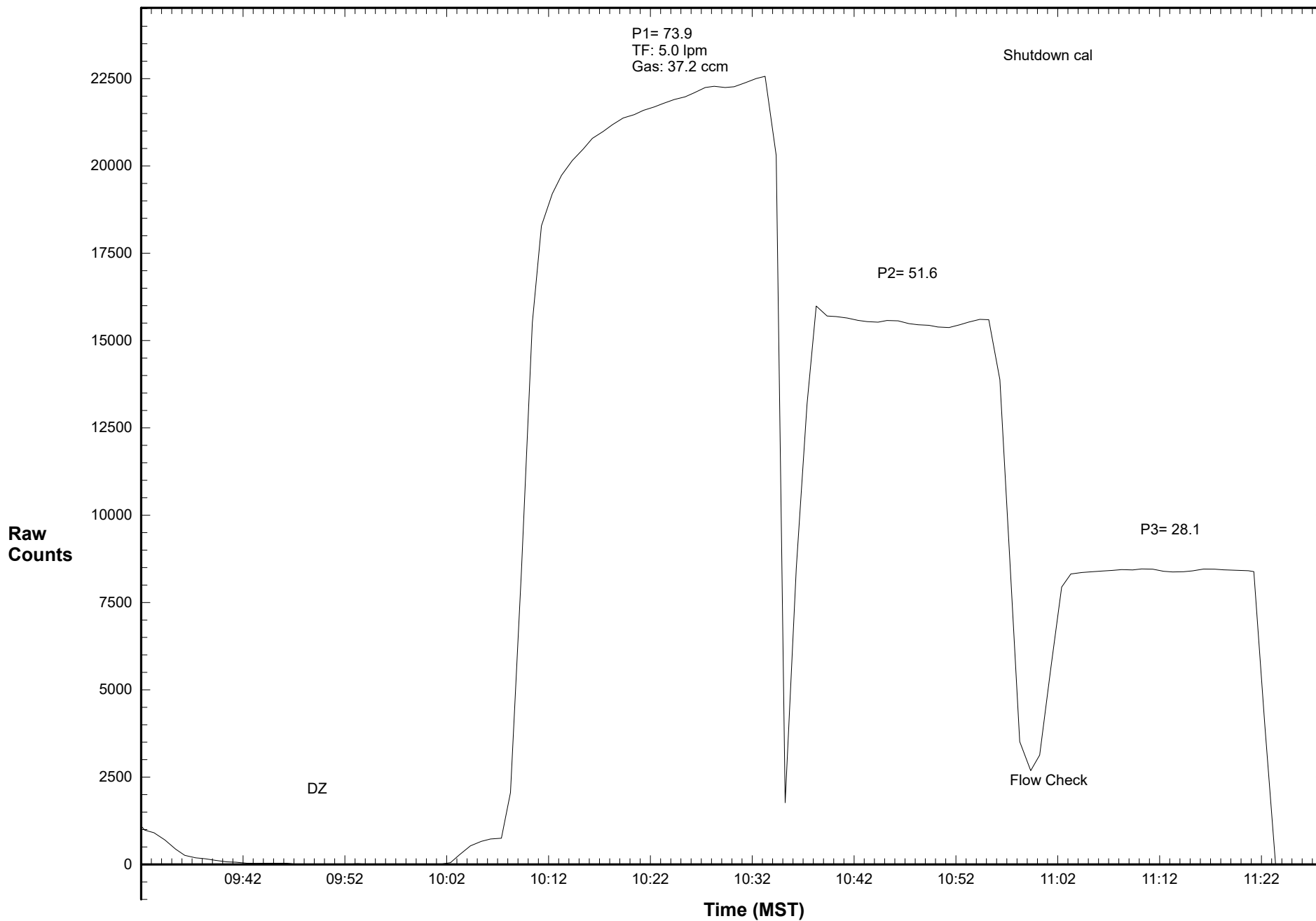
Percent Change of Correction Factor: 0.8

Comments: Sample Flow: 0.376 lpm

Station 906 TRS July 5, 2018: Linear Regression



Station 906 TRS July 5, 2018: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: July 5, 2018

Parameter: TRS

Instrument: Teco 43C

Serial Number: 43CTL-61218-330

Previous Calibration Date: June 27 2018

Calibration: Routine

Calibration Equipment: SABIO 2010 sn # 11100113

Barometric Pressure: 26.80" Hg

Calibration Method: Std.Gas Dilution

Permeation Device ID: Cyl DT0014794 10.5 ppm H2S

Temperature: 22.0° C

Permeation Rate: 0 ng/min

In Service: Oct 21 2016; Exp Oct 2019

Technician: Dean Yustak

Instrument Settings

H₂S bkg ppb

H₂S Coefficient

Monitoring Range

Previous

6.61

1.139

100 ppb

Current

5.91

1.031

100 ppb

Final Zero: 0.4 ppb

Final Span: 70.5 ppb

As Found Correction Factor: 5.196

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

0.037	78.4	23501.6	78.6	0.998
0.022	46.3	13785.2	46.2	1.002
0.013	28.1	8252.0	27.8	1.013
0.000	0.0	-11.9	0.3	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	303.266800	-84.946100	0.999712
Current	300.337400	-91.070510	0.999927
C _i vs C _c			
Current	1.000000	0.000012	0.999927

Average Correction Factor: 1.004

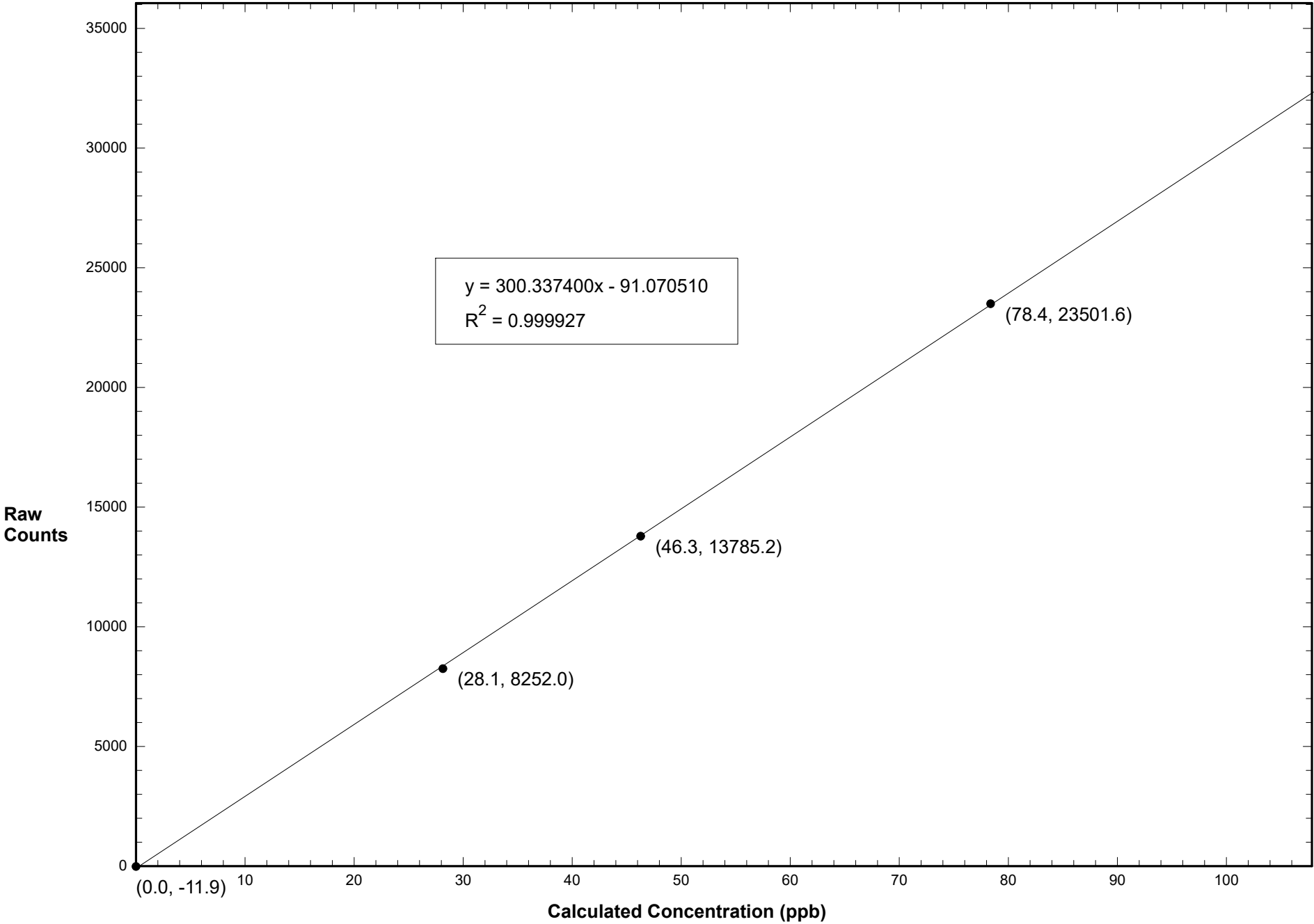
Previous Correction Factor: 1.002

Current Correction Factor: 0.998

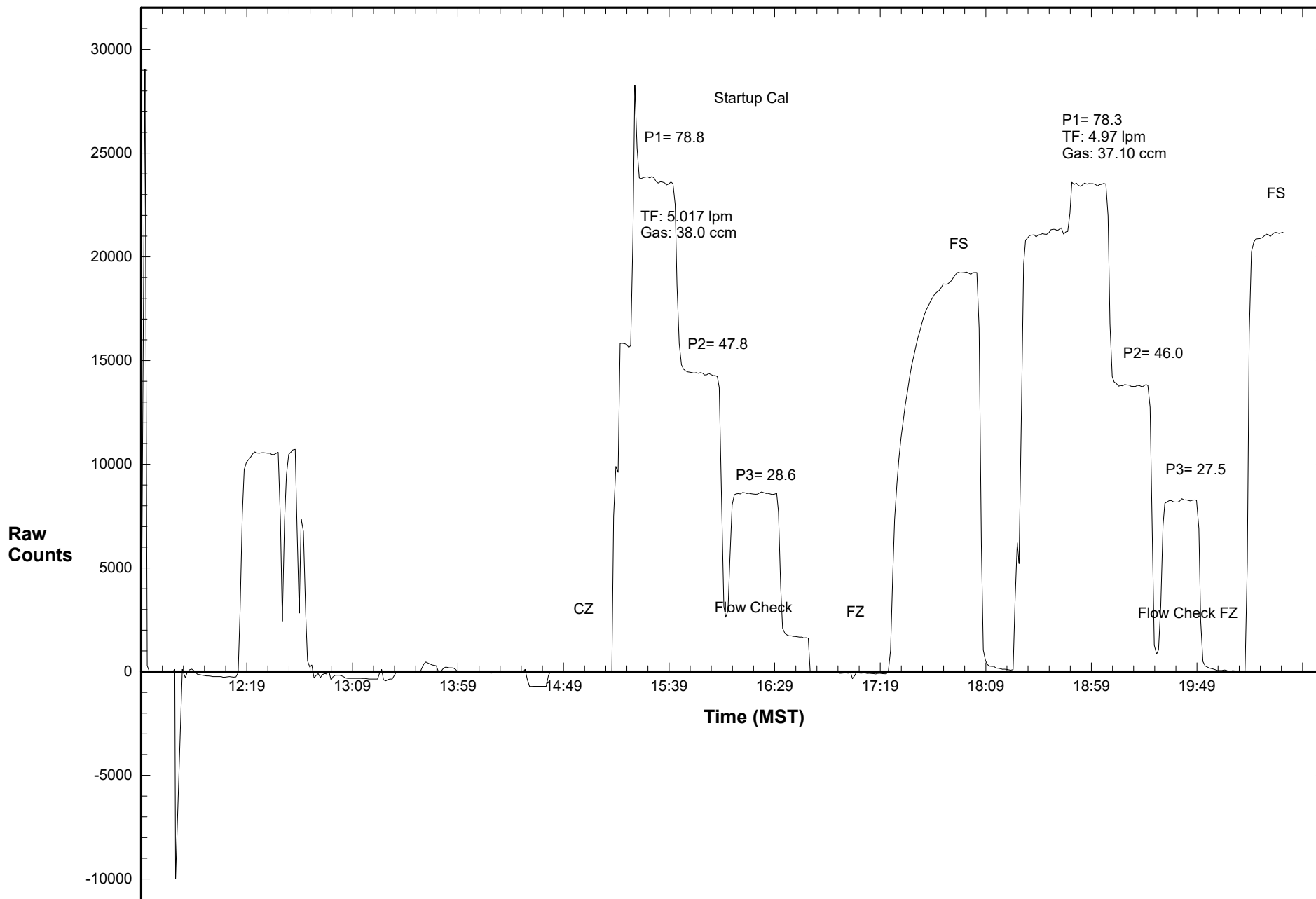
Percent Change of
Correction Factor: -0.4

Comments: Sample Flow: 0.353 lpm

Station 906 TRS July 5, 2018: Linear Regression



Station 906 TRS July 5, 2018: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: July 5, 2018

Parameter: H₂S

Instrument: Teco 43C

Serial Number: 45c-71671-369

Previous Calibration Date: June 27 2018

Calibration: Routine

Calibration Equipment: SABIO 2010 sn # 11100113 Barometric Pressure: 26.80" Hg

Calibration Method: Std.Gas Dilution

Permeation Device ID: Cyl DT0014794 10.5 ppm H₂S Temperature: 22.0° C

Permeation Rate: 0 ng/min

In Service: Oct 21 2016; Exp Oct 2019

Technician: Dean Yustak

Instrument Settings	H ₂ S bkg ppb	H ₂ S Coefficient	Monitoring Range
Previous	19.1	1.195	100 ppb
Current	18.6	1.147	100 ppb

Final Zero: 0.4 ug/m³

Final Span: 37.9 ug/m³

As Found Correction Factor: 1.004

Calibration System Flow Rate (LPM)	Calculated Concentration C _c (ug/m ³)	Raw Count Output R _c	Indicated Concentration C _i (ug/m ³)	Correction Factor C _c /C _i
0.038	79.5	24002.3	79.2	1.004
0.022	46.7	14343.2	47.2	0.989
0.012	26.2	7967.4	26.1	1.002
0.000	0.0	16.9	-0.2	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	304.413400	-5.477973	0.999929
Current	302.184000	74.596510	0.999878
C _i vs C _c			
Current	1.000000	0.000010	0.999878

Average Correction Factor: 0.998

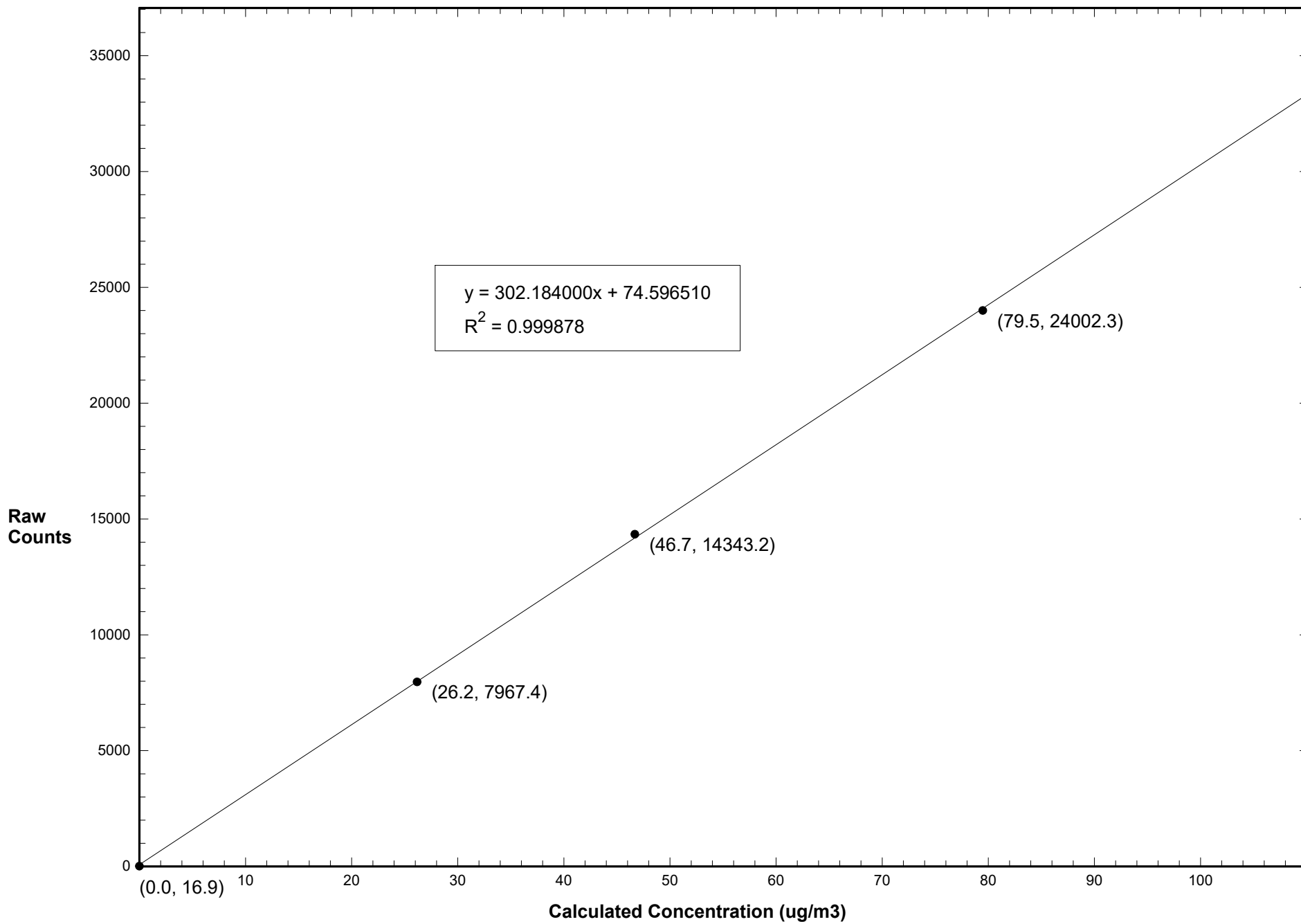
Previous Correction Factor: 1.004

Current Correction Factor: 1.004

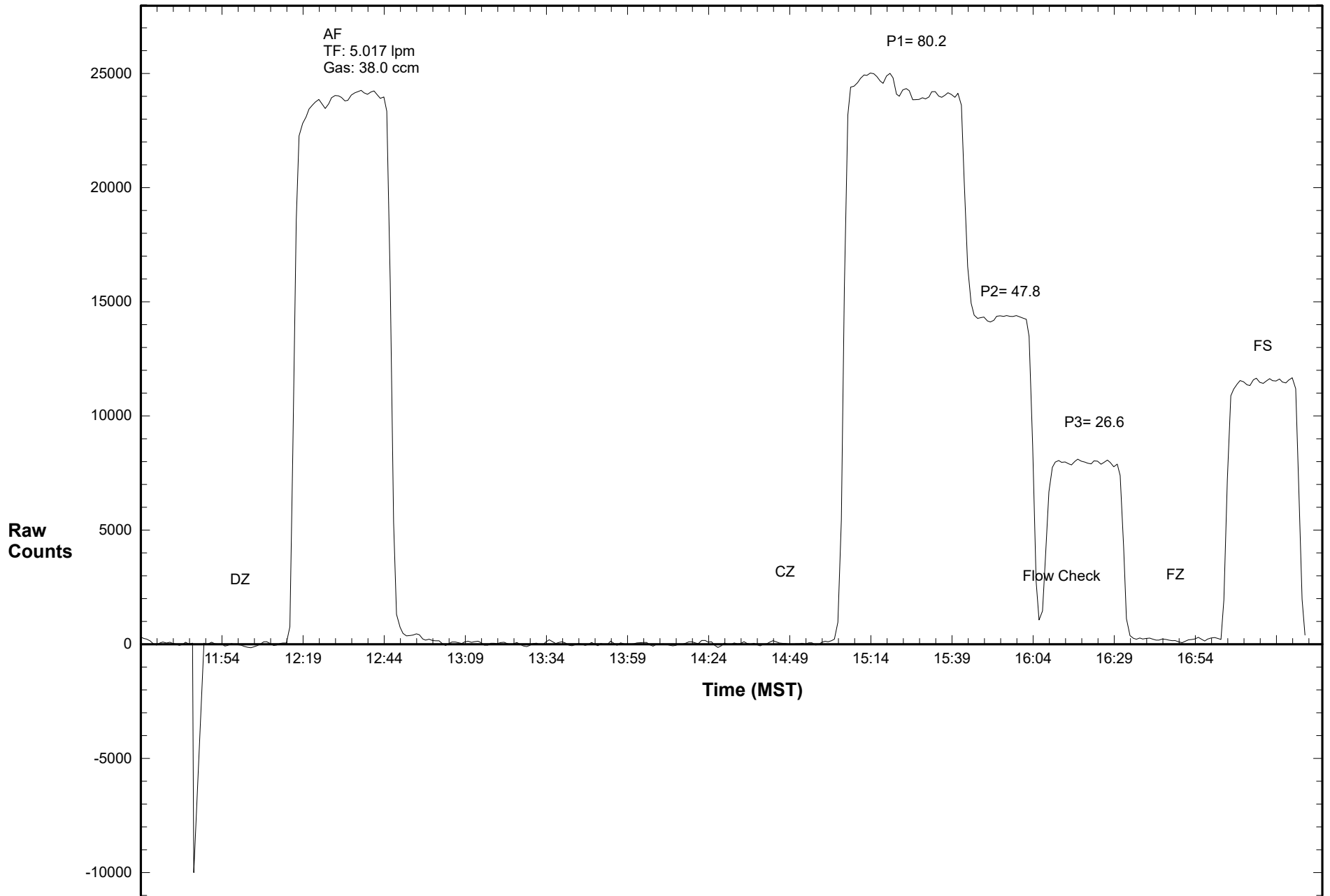
Percent Change of Correction Factor: 0.0

Comments: Sample Flow: 0.448 lpm

Station 906 H2S July 5, 2018: Linear Regression



Station 906 H2S July 5, 2018: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: July 26, 2018
 Parameter: SO₂

Instrument: Teco 43i	Serial Number: CM 12499009	Previous Calibration Date: June 20 2018
Calibration: Routine	Calibration Equipment: SABIO 2010 sn # 11100113	Barometric Pressure: 26.90" Hg
Calibration Method: Std.Gas Dilution	Cylinder ID: EX0012497	Temperature: 21.0° C
Cylinder Concentration: 24.4 ppm SO ₂	In Service: Dec 6/17 exp: Oct/20	Technician: Dean Yustak

Instrument Settings	SO ₂ bkg ppb	SO ₂ Coefficient	Monitoring Range
Previous	28.5	0.983	500 ppb
Current	29.4	0.982	500 ppb

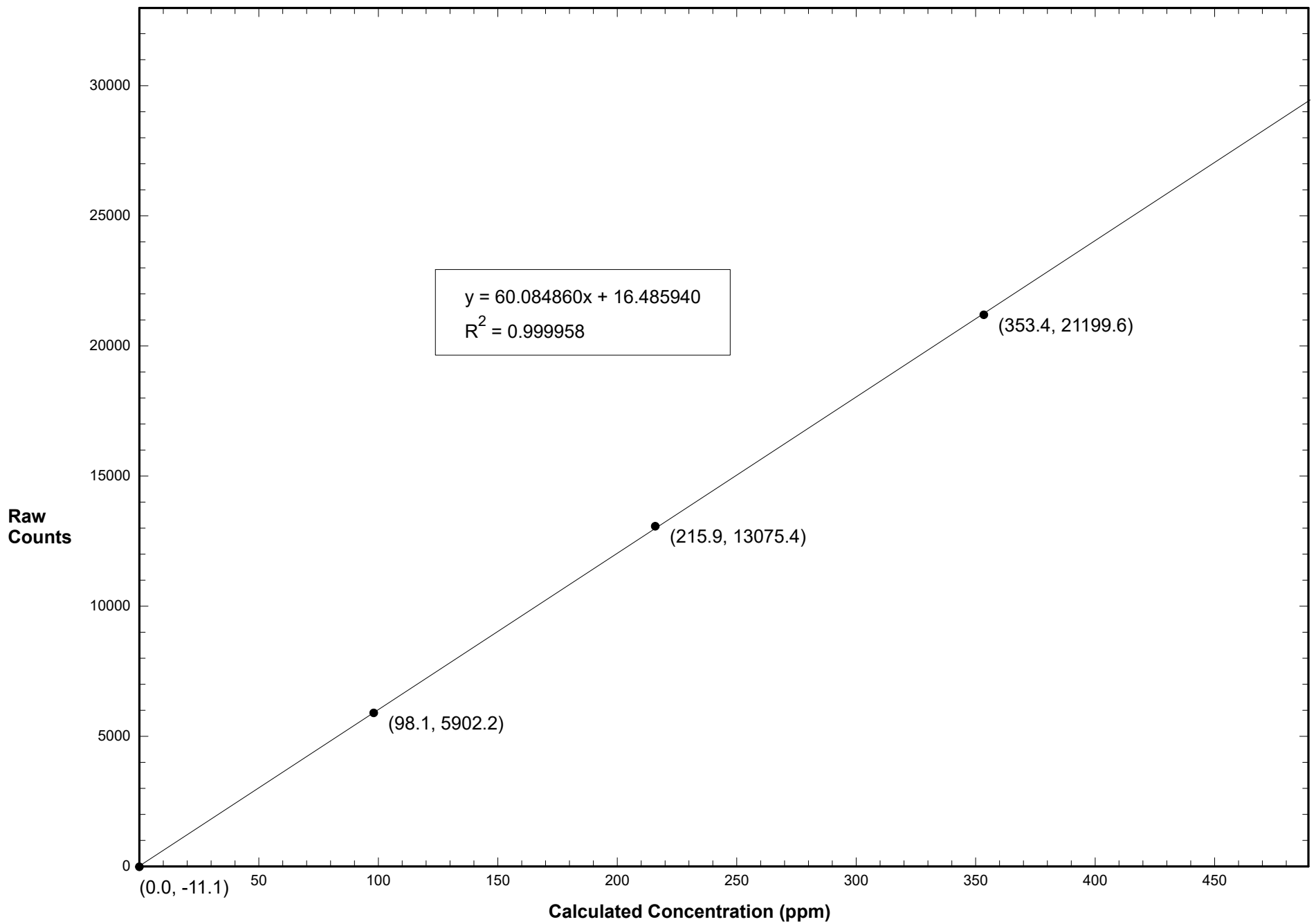
Final Zero: -0.7 ppm Final Span: 72.0 ppm As Found Correction Factor: 1.017

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
0.0732	4.981	353.4	21199.6	352.6	1.002
0.0444	4.973	215.9	13075.4	217.3	0.993
0.0201	4.980	98.1	5902.2	98.0	1.001
0.0000	4.956	0.0	-11.1	-0.5	

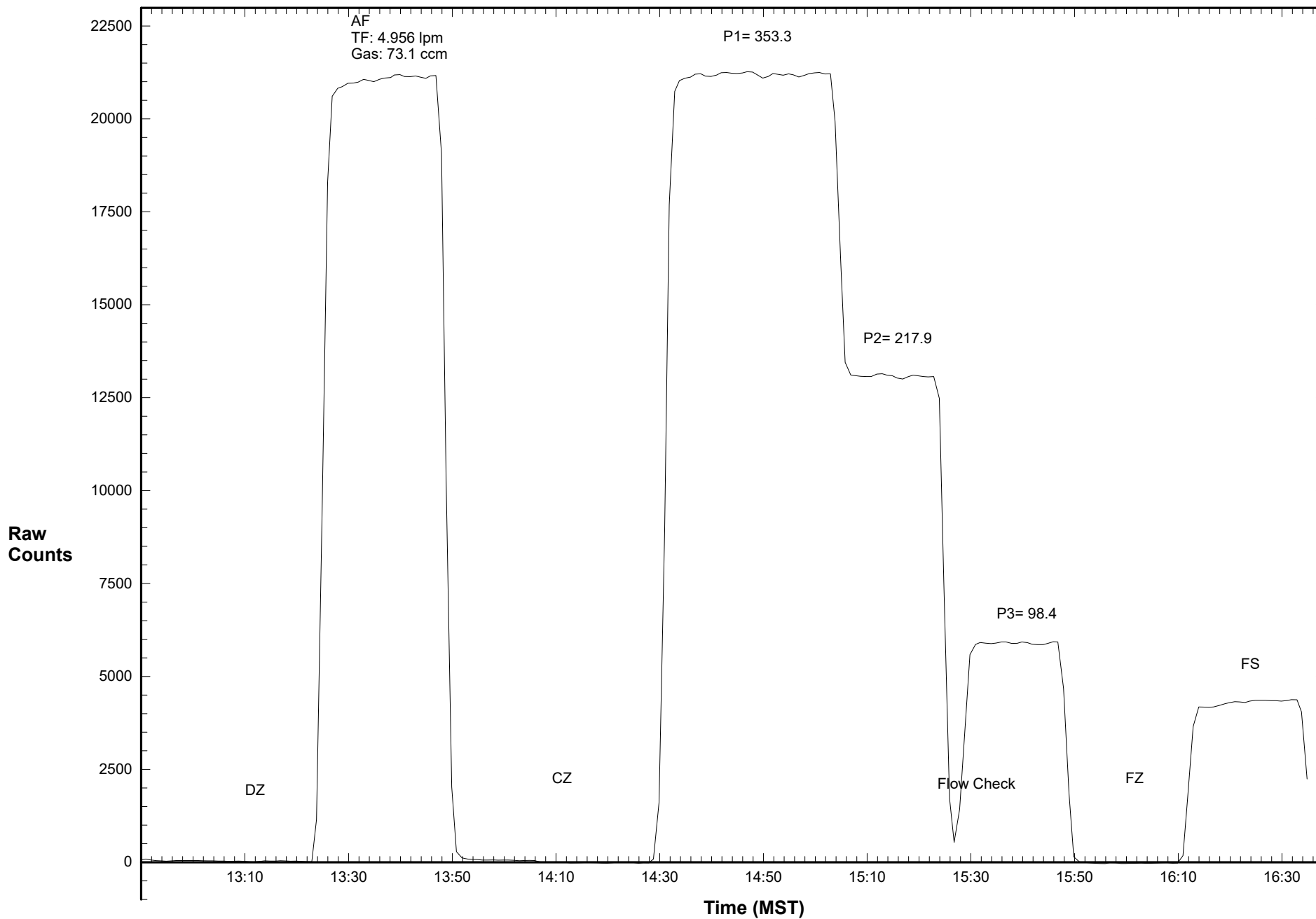
Results of Linear Regression				Average Correction Factor:	0.999
R _c vs C _c	Slope	Intercept	R ²	Previous Correction Factor:	1.003
Previous	60.500360	56.312600	0.999949	Current Correction Factor:	1.002
Current	60.084860	16.485950	0.999958	Percent Change of Correction Factor:	0.0
C _i vs C _c					
Current	1.000000	-0.000037	0.999958		

Comments: Sample Flow: 0.426 lpm

Station 906 SO2 July 26, 2018: Linear Regression



Station 906 SO2 July 26, 2018: Calibration Graph

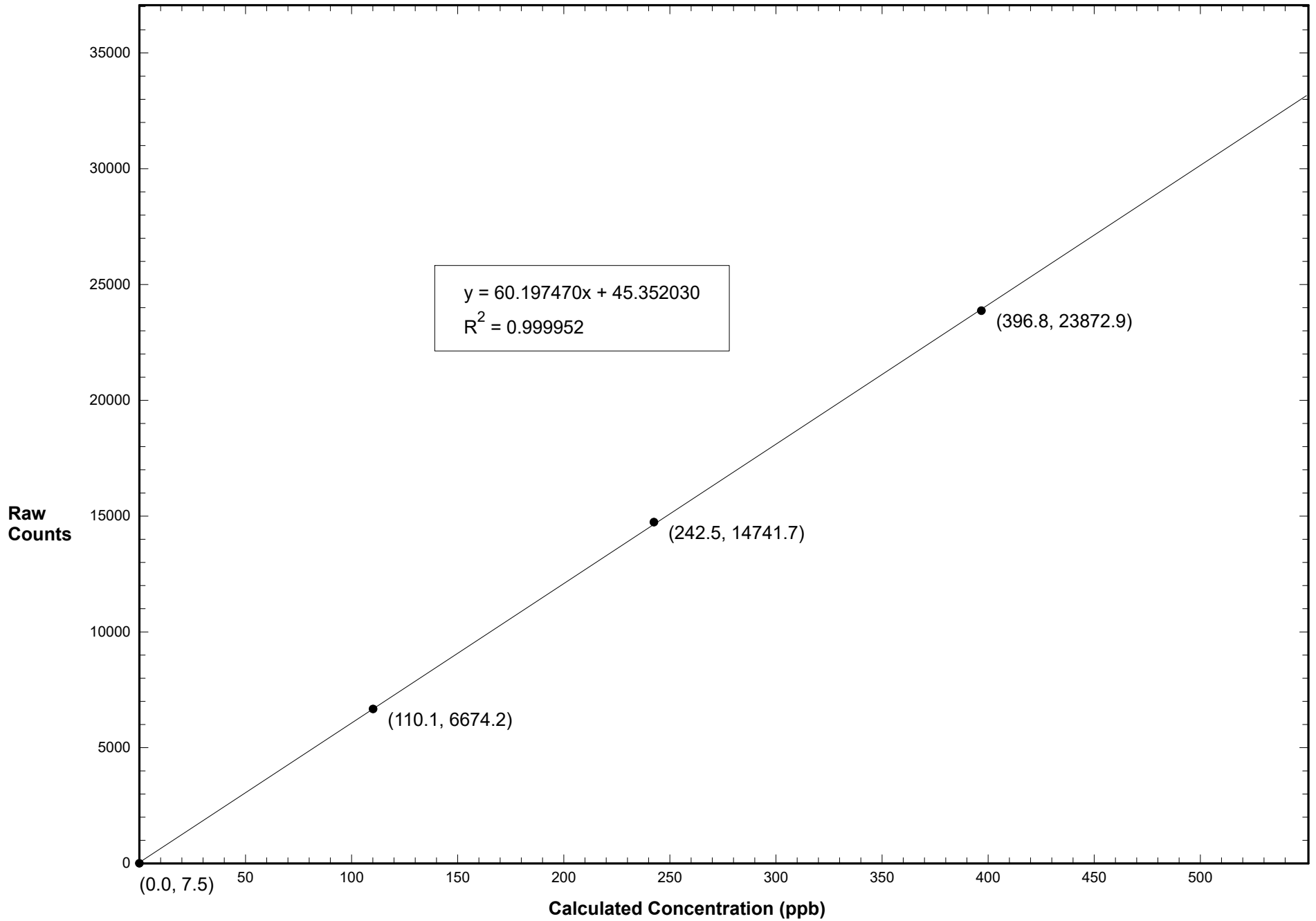


Calibration Data Summary (Page 2)

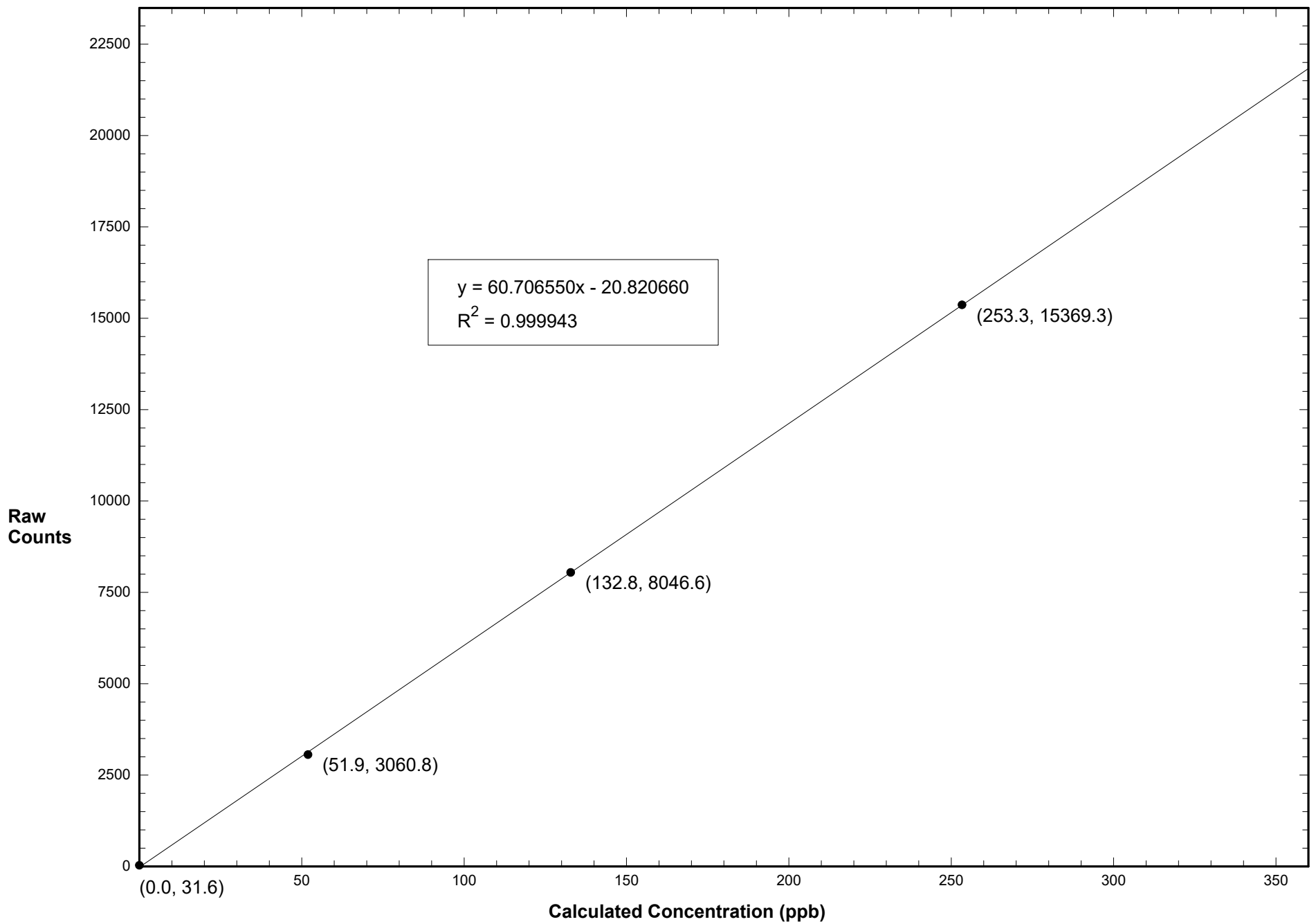
July 26, 2018 - Station 906

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		
0.07320	4.981	396.8	23872.9	395.8	1.003		
0.04440	4.973	242.5	14741.7	244.1	0.993		
0.02010	4.980	110.1	6674.2	110.1	1.000		
0.00000	4.956	0.0	7.5	-0.6			
NO Calibration					Average Correction Factor:	0.999	
0.07320	4.981	398.3	23980.6	397.2	1.003		
0.04440	4.973	243.4	14822.5	245.1	0.993		
0.02010	4.980	110.5	6712.7	110.5	1.001		
0.00000	4.956	0.0	23.3	-0.6			
NO _x Calibration					Average Correction Factor:	0.999	
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
396.7	8675.9	143.4	253.3	15369.3	253.5	0.999	1.001
396.7	15929.6	263.9	132.8	8046.6	132.9	0.999	1.001
396.7	20801.6	344.8	51.9	3060.8	50.8	1.022	0.978
			0.0	31.6	0.9		
						Average Correction Factor:	1.007
NO ₂ Gas Phase Titration						Average Converter Efficiency:	0.993
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	1.004	1.003	-0.1				
NO ₂	1.000	0.999	-0.1				
NO _x	1.004	1.003	-0.1				

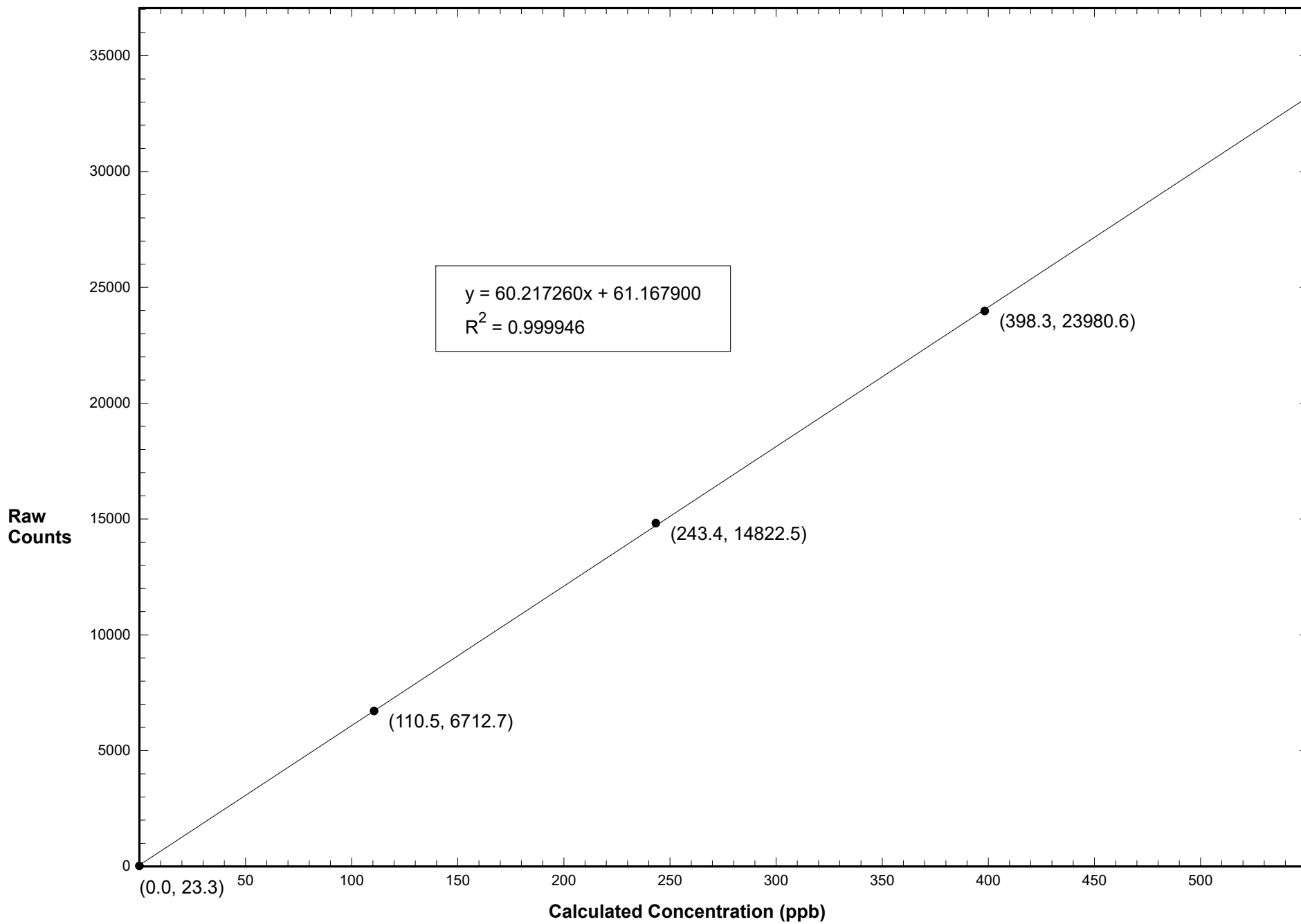
Station 906 NO July 26, 2018: Linear Regression



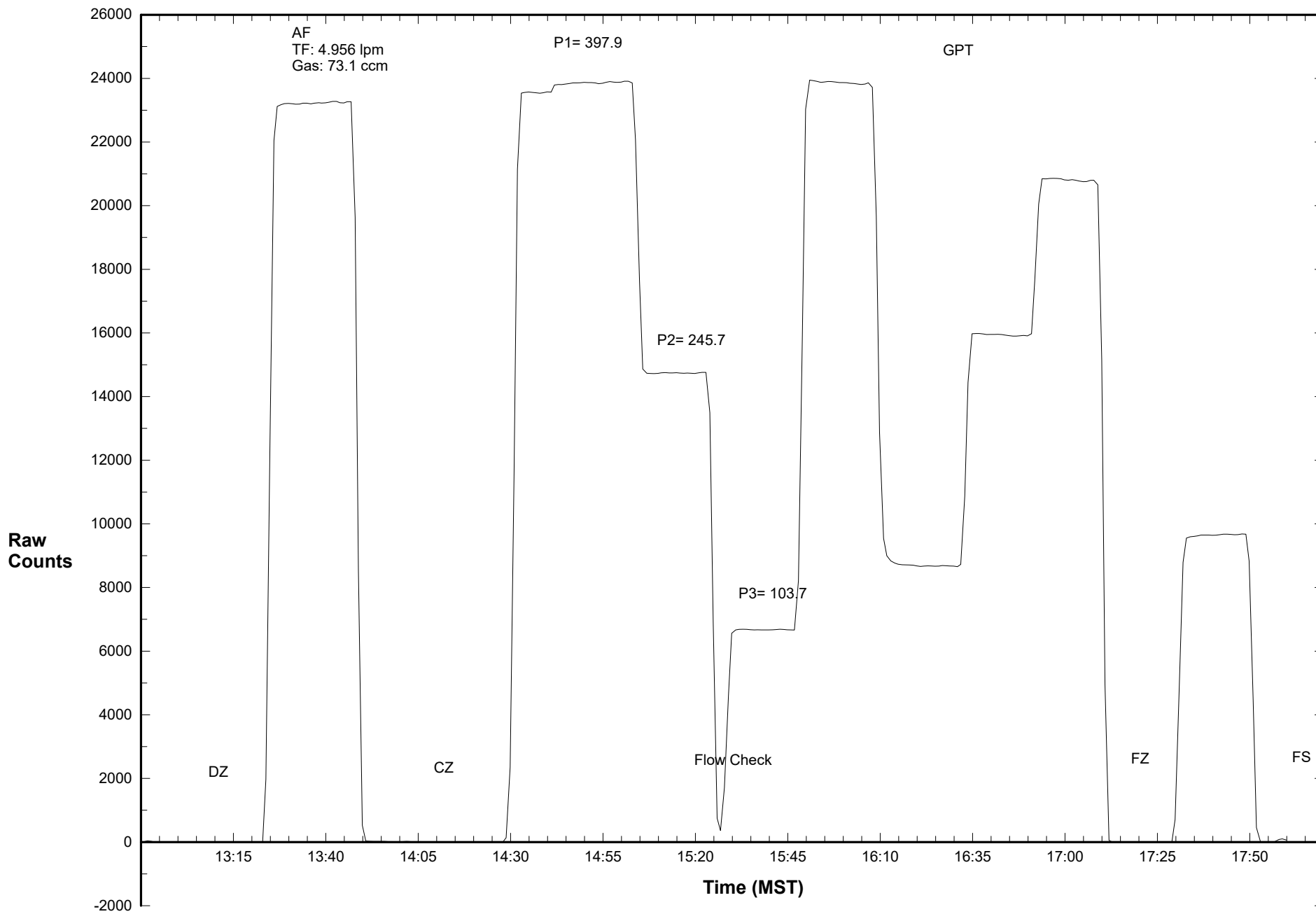
Station 906 NO2 July 26, 2018: Linear Regression



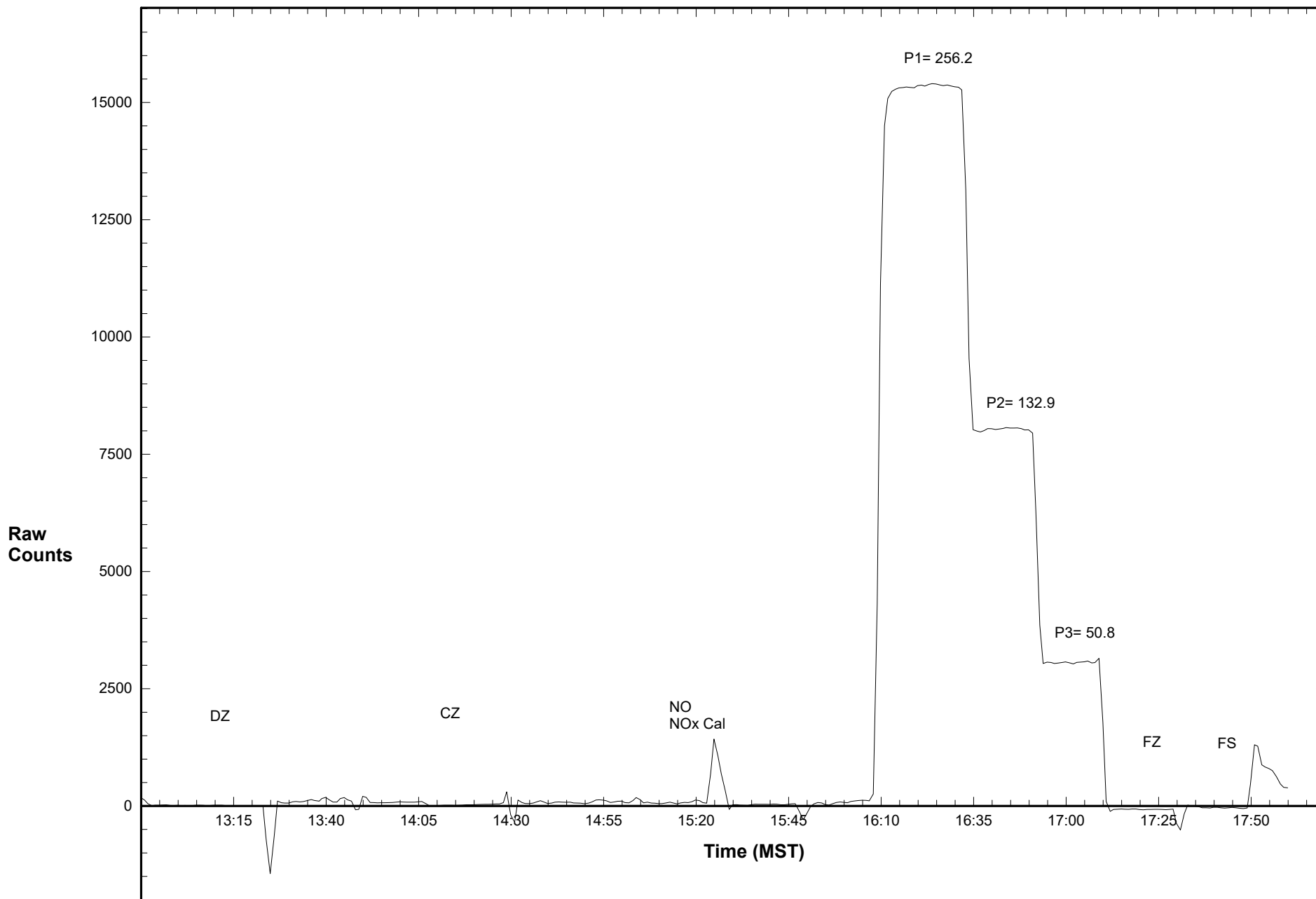
Station 906 NOX July 26, 2018: Linear Regression



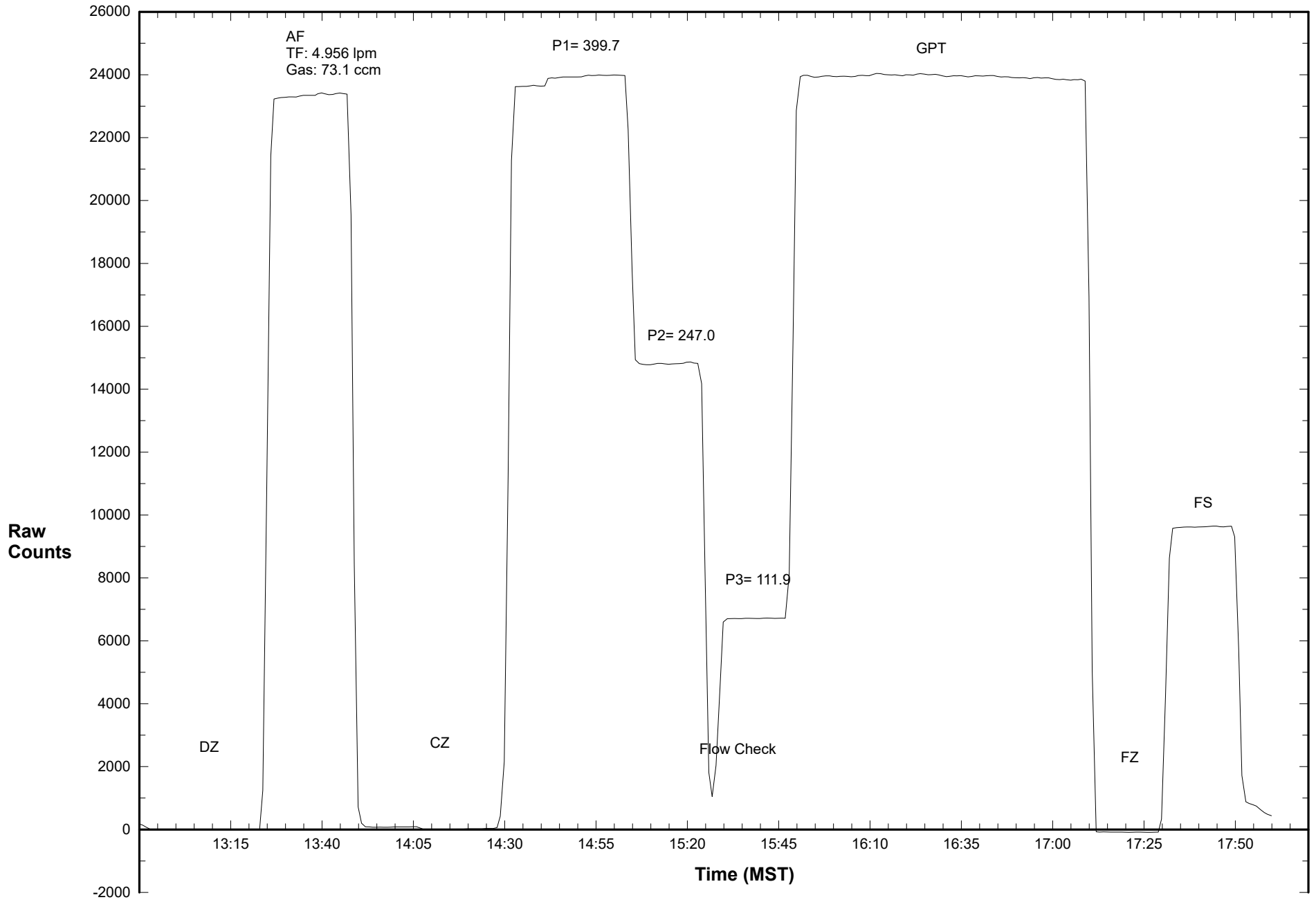
Station 906 NO July 26, 2018: Calibration Graph



Station 906 NO2 July 26, 2018: Calibration Graph



Station 906 NOX July 26, 2018: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: July 26, 2018

Parameter: O₃

Instrument: Teco 49i

Serial Number: 1150790050

Previous Calibration Date: June 20 2018

Calibration: Routine

Calibration Equipment: 2B Tech 306 SN-135

Barometric Pressure: 26.90" Hg

Calibration Method: Certified Ozone Generator May 29/18

Temperature: 21.0° C

Technician: Dean Yustak

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	-0.1	1.004	500 ppb
Current	0.0	1.030	500 ppb

Final Zero: -1.4 ppb

Final Span: 284.9 ppb

As Found Correction Factor: 1.009

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	400.0	24059.4	399.0	1.003
3.000	204.0	12443.4	205.8	0.991
3.000	101.9	6222.4	102.3	0.996
3.000	0.0	-3.6	-1.2	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	59.911430	88.790860	0.999946
Current	60.130720	68.829060	0.999933
C _i vs C _c			
Current	1.000000	0.000037	0.999932

Average Correction Factor: 0.997

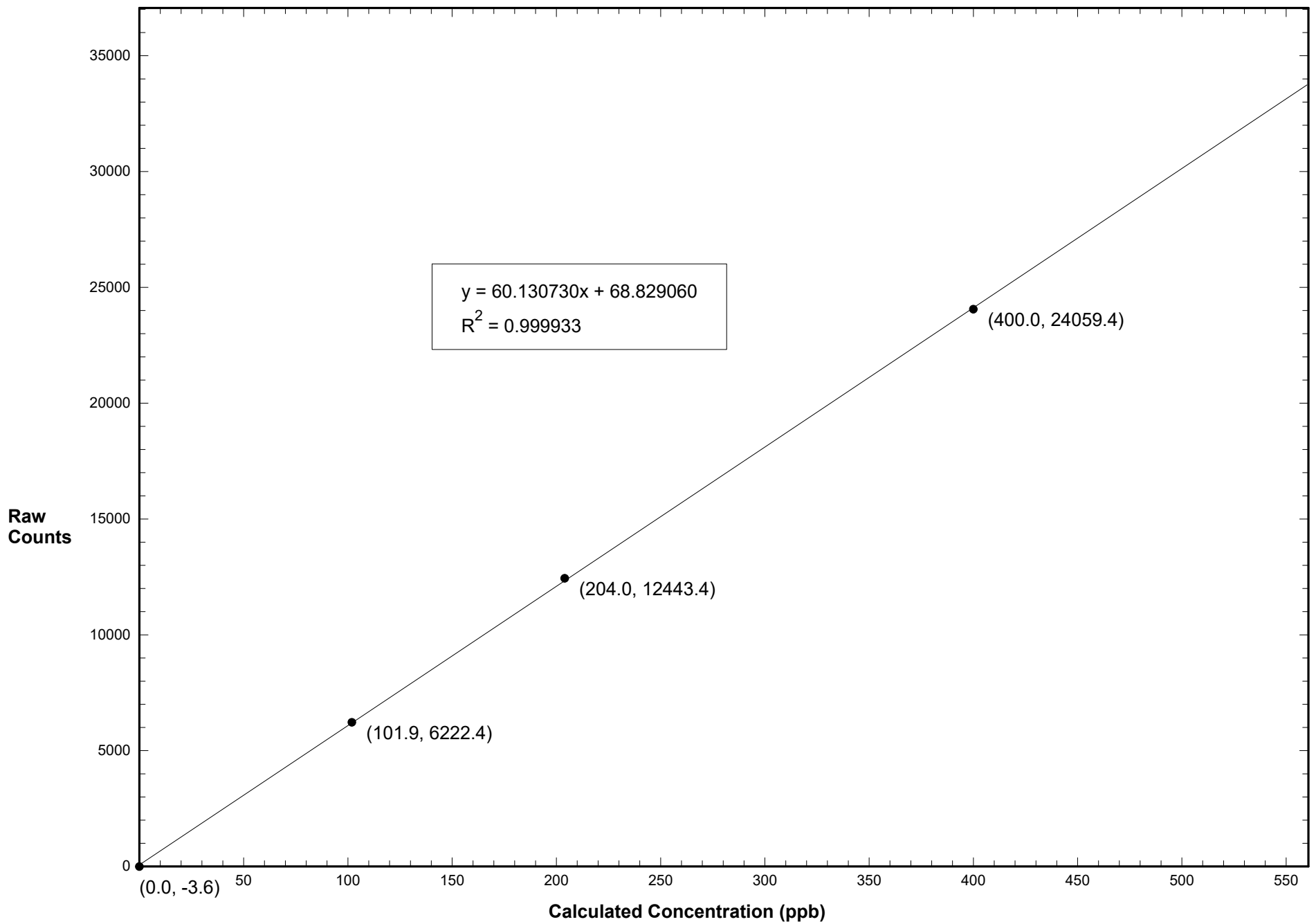
Previous Correction Factor: 1.002

Current Correction Factor: 1.003

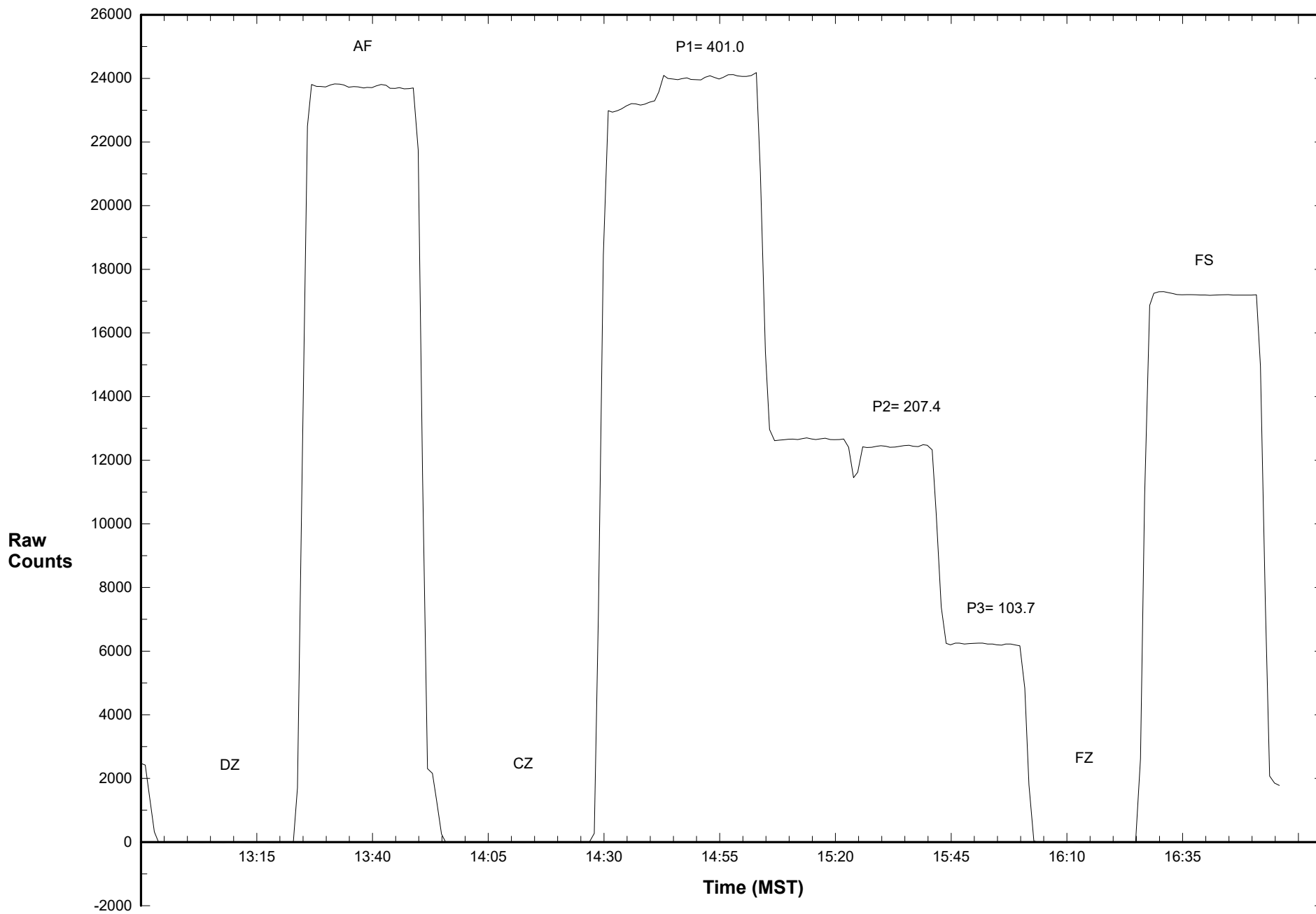
Percent Change of Correction Factor: 0.1

Comments: Sample Flows: 0.675 & 0.657 lpm

Station 906 O3 July 26, 2018: Linear Regression



Station 906 O3 July 26, 2018: Calibration Graph



WEST CENTRAL AIRSHED SOCIETY

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

**AMS 906
HINTON
JULY 2018**

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
July 2018

Maximum Value: 30.66 C on Jul 16 17:00		Maximum Daily Average: 20.55 C on Jul 17		Hours in Service: 744																							
Minimum Value: 5.1 C on Jul 15 06:00		Minimum Daily Average: 6.87 C on Jul 2		Hours of Data: 744																							
Maximum Diurnal Average: 21.00 C at hour 16		Minimum Diurnal Average: 9.09 C at hour 6		Hours of Missing Data: 0																							
Monthly Average: 15.332 C		Percentiles: P₁ = 5.8 P₁₀ = 7.7 Q₁ = 10.3 Median = 14.5 Q₃ = 19.5 P₉₀ = 24.6 P₉₉ = 30.0		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-Jul	7.9	7.4	7.0	6.7	5.8	5.9	6.8	11.4	15.0	15.8	18.0	17.9	16.3	15.7	17.6	18.5	16.7	15.3	17.2	16.0	15.0	13.1	11.5	10.3	12.87	18.52	
2-Jul	8.5	7.0	6.3	6.2	6.8	7.7	7.1	7.4	7.2	7.3	7.5	7.0	6.8	6.8	7.1	6.4	6.3	6.4	6.3	6.4	6.5	6.6	6.6	6.7	6.87	8.54	
3-Jul	6.8	7.0	7.2	7.2	7.6	8.4	8.3	8.7	9.2	9.7	9.9	10.4	10.9	11.1	11.5	12.2	12.1	12.0	11.5	11.2	11.1	10.9	10.7	10.5	9.84	12.20	
4-Jul	10.3	10.2	10.2	10.1	10.2	10.2	10.4	10.6	10.8	11.5	12.1	13.9	15.7	14.4	14.6	16.4	17.8	17.0	15.4	15.2	15.0	13.3	11.6	10.1	12.79	17.78	
5-Jul	9.3	9.1	9.0	8.5	8.2	8.1	8.0	9.0	10.9	14.1	17.0	19.4	22.3	23.6	25.1	27.0	28.0	27.6	27.2	25.7	23.7	21.0	17.9	16.9	17.36	27.97	
6-Jul	15.2	15.0	14.7	14.2	13.8	15.0	16.0	16.9	20.4	22.5	23.4	23.0	23.5	22.6	22.3	23.1	22.4	21.8	22.4	21.8	20.2	17.9	17.3	16.5	19.24	23.46	
7-Jul	15.6	15.0	14.2	13.3	13.6	13.2	13.5	15.1	16.7	17.0	17.6	18.8	19.9	20.4	20.5	19.2	17.9	17.7	16.6	14.5	13.2	11.2	10.2	9.7	15.61	20.55	
8-Jul	9.4	9.2	8.6	8.1	8.3	8.5	8.8	9.2	10.2	13.4	17.3	18.9	19.9	20.2	21.3	21.5	20.7	22.0	21.5	19.0	16.4	14.6	11.9	10.1	14.54	21.96	
9-Jul	8.6	7.8	7.1	6.5	5.7	5.5	7.0	11.3	14.9	18.0	21.2	23.1	24.3	25.2	26.2	27.1	26.6	26.0	25.2	24.7	23.8	22.1	20.1	19.0	17.79	27.11	
10-Jul	17.0	16.1	16.1	17.4	17.1	15.9	15.4	16.3	17.0	17.5	18.5	19.4	20.6	22.0	21.6	21.4	22.9	21.2	20.6	19.1	17.8	16.9	15.7	14.6	18.25	22.89	
11-Jul	12.8	11.3	10.0	8.5	7.2	6.5	8.7	14.8	17.7	19.5	21.0	22.2	23.5	24.5	25.2	25.2	24.9	23.7	22.6	21.3	20.2	18.8	16.9	14.2	17.56	25.25	
12-Jul	12.0	10.5	9.5	8.6	8.1	8.1	8.9	11.4	15.7	18.4	21.9	23.2	24.7	25.1	25.5	25.3	25.7	24.4	22.6	21.4	20.3	19.1	17.8	16.3	17.69	25.66	
13-Jul	15.3	13.5	11.9	11.4	11.0	11.1	11.9	12.8	13.7	14.8	15.7	16.9	16.0	13.7	13.4	12.8	12.4	11.6	11.3	11.4	11.0	10.5	10.0	8.8	12.62	16.87	
14-Jul	9.1	8.5	7.9	7.2	6.2	5.8	7.1	8.1	10.8	13.3	13.9	16.3	18.0	18.5	19.3	20.5	20.9	21.2	21.4	20.5	18.4	14.9	11.8	9.9	13.73	21.37	
15-Jul	8.2	7.1	6.4	6.1	5.2	5.1	5.6	8.5	13.6	17.3	20.3	23.2	24.3	25.0	24.9	25.6	27.1	27.3	25.8	24.8	22.3	19.8	17.3	14.7	16.91	27.32	
16-Jul	12.6	11.2	9.8	8.7	7.8	7.3	9.4	12.8	16.9	20.1	22.3	25.8	28.1	29.4	30.0	30.2	30.7	30.1	29.6	27.8	25.8	22.9	19.3	17.3	20.24	30.66	
17-Jul	15.1	13.5	12.3	11.5	10.5	9.9	11.7	15.6	19.4	22.8	25.3	27.8	29.5	30.3	29.4	29.7	28.9	26.8	25.2	22.7	21.0	19.5	18.1	16.9	20.55	30.32	
18-Jul	15.6	14.6	14.8	15.3	14.1	14.0	14.4	16.4	16.9	19.1	20.8	23.7	26.0	24.7	23.2	25.6	26.5	22.6	19.4	18.2	17.3	16.3	15.3	14.7	18.73	26.53	
19-Jul	14.4	13.8	13.3	12.8	12.3	11.8	11.8	12.3	12.5	13.2	14.1	16.8	17.4	18.8	18.9	18.8	18.4	18.8	18.6	17.4	17.3	16.5	15.5	14.4	15.41	18.94	
20-Jul	14.3	14.1	14.1	13.5	13.1	13.1	12.8	12.6	12.5	12.4	12.3	12.1	12.0	13.1	10.7	11.3	11.4	10.0	8.8	9.0	8.9	9.0	8.6	8.0	11.58	14.27	
21-Jul	7.3	7.4	7.4	7.4	7.5	7.6	7.9	8.4	8.8	8.9	9.2	9.5	9.6	11.0	12.0	11.9	12.8	12.1	10.8	10.7	10.3	10.3	10.3	10.1	9.55	12.82	
22-Jul	10.1	10.2	10.4	10.1	9.7	9.9	10.4	10.9	11.1	11.8	13.3	15.7	18.2	18.8	17.3	15.2	17.6	16.9	16.3	14.1	13.4	13.0	12.5	12.3	13.30	18.79	
23-Jul	12.1	12.0	11.8	10.9	10.6	10.6	10.5	10.1	10.1	10.4	11.5	12.0	13.1	14.6	14.7	12.8	12.9	12.4	12.5	12.5	11.6	10.8	10.5	10.2	11.72	14.69	
24-Jul	9.7	9.4	8.9	8.1	8.0	8.0	8.3	8.6	9.5	11.9	13.8	14.7	16.2	17.4	17.2	18.5	19.5	19.3	18.2	16.5	14.6	12.6	11.0	9.9	12.92	19.48	
25-Jul	8.5	7.7	7.0	6.3	5.8	5.2	6.1	8.5	12.3	16.1	18.8	20.7	22.1	23.0	23.4	24.2	24.8	24.5	23.2	21.6	19.5	16.4	13.7	11.5	15.45	24.81	
26-Jul	9.8	8.7	7.8	7.2	6.8	6.1	7.0	9.7	13.7	17.4	20.2	22.2	23.5	24.1	24.0	23.2	16.2	15.7	15.8	15.9	15.7	14.0	12.7	11.5	14.53	24.10	
27-Jul	10.8	9.7	9.2	8.2	7.5	6.9	7.2	9.9	13.4	16.5	19.1	21.4	23.6	24.9	25.1	25.4	25.8	25.7	24.4	23.2	20.7	17.7	15.0	12.7	16.83	25.79	
28-Jul	11.1	9.6	8.4	7.5	7.1	6.7	7.7	11.3	15.7	19.4	22.1	24.6	26.6	27.2	27.9	28.5	28.7	28.5	27.2	25.3	22.2	19.1	16.5	14.5	18.48	28.70	
29-Jul	12.8	11.5	10.4	9.7	9.3	8.9	9.8	13.5	17.9	20.4	23.5	26.3	28.2	29.0	29.9	30.1	30.2	30.1	27.5	21.4	16.6	16.1	15.0	14.6	19.28	30.22	
30-Jul	13.8	13.0	12.3	11.8	11.6	11.6	11.9	14.1	16.9	19.8	21.8	23.7	22.1	17.8	17.9	19.1	18.0	17.9	16.6	16.4	15.5	14.9	13.7	13.3	16.07	23.68	
31-Jul	12.4	11.6	11.2	10.7	10.1	9.3	9.3	10.2	12.8	16.0	18.9	20.8	22.7	24.4	25.3	24.3	21.3	21.7	22.7	20.8	18.6	18.6	17.8	16.5	17.00	25.25	
		11.50	10.73	10.16	9.67	9.24	9.09	9.67	11.50	13.68	15.69	17.50	19.08	20.18	20.56	20.75	21.00	20.85	20.27	19.50	18.28	16.90	15.42	13.97	12.80	Diurnal Average	
		17.00	16.09	16.06	17.38	17.08	15.86	16.02	16.91	20.36	22.77	25.27	27.78	29.49	30.32	30.02	30.23	30.66	30.10	29.57	27.76	25.76	22.88	20.09	18.96	Diurnal Maximum	



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
July 2018

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	0.7	0.6	0.7	0.3	1.0	0.5	0.8	1.5	2.6	4.5	4.4	5.6	1.9	1.7	1.5	3.7	3.6	6.0	4.5	1.5	1.3	2.5	1.3	1.6	1.37	6.01
Dir	SW	SW	SSW	W	E	E	N	W	WSW	WSW	WSW	SW	W	WSW	NNW	NW	SW	S	SW	W	N	NNW	SE	SW	WSW	S
2 Spd	1.2	0.6	1.2	0.9	0.9	2.8	1.7	2.6	2.5	5.0	3.9	7.3	7.3	8.4	7.3	8.3	6.4	4.5	4.8	3.1	2.5	1.8	1.9	1.7	3.61	8.41
Dir	WSW	W	WSW	WSW	WSW	SW	WSW	SW	WSW	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	W	WSW	W	SW	SW
3 Spd	2.4	3.9	3.4	2.9	4.0	4.8	2.5	2.5	4.4	4.3	4.8	4.2	4.4	3.6	3.7	1.6	3.0	5.3	1.1	2.3	3.2	3.2	3.0	1.1	3.29	5.33
Dir	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	SW	SW	SSW	SW	WSW	SW	SW
4 Spd	0.6	0.7	0.6	0.4	1.0	0.6	1.1	0.9	0.9	1.4	1.6	2.7	1.3	1.3	1.9	1.7	1.3	5.6	2.1	0.4	0.3	0.4	0.2	0.3	0.99	5.63
Dir	WNW	WSW	W	W	SW	W	SW	W	WNW	WSW	WNW	SW	WSW	WNW	W	WNW	WNW	SSW	SW	WNW	NE	NNE	ENE	N	WSW	SSW
5 Spd	0.3	0.8	1.1	0.5	1.3	0.4	0.6	0.2	1.1	1.3	1.8	1.6	1.4	2.3	2.4	0.2	0.4	1.9	2.4	5.1	3.5	3.3	1.1	0.5	0.27	5.06
Dir	NNE	SW	SW	SW	SW	W	WNW	SSW	WNW	WNW	WNW	WNW	WNW	SSW	S	ENE	NW	NE	NE	ENE	ENE	ENE	NE	ENE	NE	ENE
6 Spd	0.3	1.3	2.5	1.1	1.1	1.6	1.7	4.7	1.7	8.0	10.5	14.8	10.3	6.7	10.7	8.9	7.3	6.4	6.1	6.7	2.8	1.2	5.1	5.1	5.05	14.85
Dir	E	WSW	S	WNW	WSW	W	WSW	SSW	WSW	SW	SW	SW	SW	WSW	SW	SW	WSW	SW	SW	SW	W	W	SSW	SSW	SW	SW
7 Spd	6.4	7.0	2.9	0.8	6.5	2.7	6.4	6.9	8.8	7.6	10.1	10.8	10.3	12.5	11.4	2.5	3.9	4.0	4.3	3.9	2.6	1.4	1.4	1.3	3.81	12.47
Dir	SSW	SSW	SW	WNW	SSW	SW	SSW	SW	SW	WSW	SW	SW	SW	SW	SW	NW	E	E	ENE	E	ENE	E	ENE	ENE	SW	SW
8 Spd	1.6	0.6	0.4	2.4	1.0	0.6	0.2	0.5	0.8	1.5	2.1	1.3	1.3	6.1	5.8	6.9	10.2	4.2	2.9	1.8	2.1	0.8	1.2	1.0	1.70	10.18
Dir	E	NE	SSE	SW	SSW	NE	WSW	W	WSW	NE	NNE	W	W	SSW	SW	SW	SW	SW	WSW	W	NW	SW	SSW	WSW	SW	SW
9 Spd	0.2	0.7	1.2	2.4	1.8	1.6	1.1	1.8	1.9	2.1	2.2	6.2	6.5	7.3	3.3	3.2	5.8	8.7	3.0	4.9	6.3	3.2	1.8	0.4	3.02	8.68
Dir	W	WSW	SSW	WSW	WSW	W	WNW	WSW	W	W	WSW	SSW	SSW	SSW	SW	SW	SW	SSW	SW	SSW	SW	SW	SW	W	SW	SSW
10 Spd	0.9	0.4	2.6	3.4	6.1	1.8	1.8	1.3	0.5	2.6	2.1	2.2	4.4	1.2	1.9	5.2	4.5	3.3	1.5	3.0	2.1	0.4	0.6	0.8	0.88	6.13
Dir	ENE	ENE	N	SSW	SSW	WSW	SSE	W	WNW	SW	WSW	SW	SSW	SSW	NW	NNW	NNW	NW	NW	N	ESE	WSW	WNW	WSW	W	SSW
11 Spd	1.4	1.5	2.3	0.3	0.3	0.3	1.2	4.7	5.7	10.6	11.8	9.8	7.9	6.4	9.7	7.0	6.4	2.4	2.5	1.4	0.8	1.0	1.1	0.9	3.35	11.84
Dir	WSW	WSW	W	W	N	WNW	NW	SW	SW	SSW	SSW	SSW	SSW	SW	SSW	SSW	SW	WNW	NW	N	NNE	ENE	ENE	SE	SW	SSW
12 Spd	0.4	0.7	0.3	0.3	1.3	1.5	0.7	0.3	1.5	0.9	6.9	10.8	5.4	6.2	6.9	9.0	2.7	3.5	1.0	1.1	0.7	0.6	2.8	0.9	1.82	10.81
Dir	ENE	NE	E	NNW	WSW	W	WNW	NNE	NE	ESE	SSW	SSW	WSW	SW	SW	SSW	WSW	SW	NNW	NNE	NNE	ENE	ENE	E	SW	SSW
13 Spd	2.2	0.6	0.6	0.6	0.4	0.7	1.2	0.4	0.4	1.7	0.7	1.0	2.5	3.3	3.0	2.7	2.5	1.1	0.8	0.8	0.6	2.1	1.3	4.5	0.30	4.48
Dir	SW	ESE	NNE	SW	NNW	NE	ENE	NNW	NW	SW	W	NW	N	ENE	ENE	ENE	SE	S	N	SE	SSE	W	SSW	E	E	SSW
14 Spd	4.5	3.6	2.5	1.0	0.3	1.8	2.3	4.4	4.2	6.2	2.4	4.5	4.5	2.5	2.4	2.8	2.1	4.7	2.9	1.3	0.2	0.8	0.6	0.6	1.98	6.18
Dir	SSW	SW	WSW	W	N	SSW	SW	SW	WSW	SW	W	NW	NW	W	WSW	SW	SW	SW	SW	WSW	NE	E	NE	ENE	WSW	SW
15 Spd	0.1	1.7	1.5	1.6	0.7	0.9	0.5	1.2	2.0	2.4	1.8	7.6	9.2	7.4	10.4	10.9	7.6	7.6	3.3	3.0	0.3	0.1	0.8	0.6	3.11	10.91
Dir	SSE	WSW	WSW	SW	WSW	SW	W	WNW	WNW	WNW	WNW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	WNW	N	SSW	SSE	SSW	SSW
16 Spd	0.5	0.4	0.2	0.6	0.9	0.9	0.8	0.6	1.9	1.7	0.9	0.6	5.9	9.6	6.7	2.3	2.0	2.0	1.8	0.4	1.7	1.4	0.5	1.0	1.25	9.65
Dir	SSE	SSE	WNW	SW	S	W	W	W	W	WSW	WNW	NE	SSW	SSW	SSW	WSW	W	WSW	WNW	NW	ENE	E	ESE	SE	SW	SSW
17 Spd	0.8	0.3	0.5	1.9	0.8	0.7	1.0	1.2	1.8	1.9	1.8	1.1	0.6	0.7	2.2	3.1	2.7	3.3	3.1	2.1	3.8	1.8	1.5	2.0	0.51	3.80
Dir	SW	SSW	SW	WSW	WSW	W	WSW	WSW	W	W	SW	SW	NW	S	ENE	NE	NE	NNE	N	NNE	ENE	ENE	NNE	E	NNE	ENE
18 Spd	0.8	1.1	1.6	1.1	0.7	0.4	0.7	1.2	1.3	2.8	3.8	1.2	0.2	4.8	7.6	5.6	5.1	5.7	3.6	1.0	1.7	2.6	0.6	0.2	1.37	7.60
Dir	NE	NE	ENE	E	NNE	SSE	NNE	WSW	WSW	SW	SSW	ESE	ENE	NE	ENE	ENE	ESE	ESE	NE	NE	ESE	ENE	ENE	W	E	ENE
19 Spd	1.3	0.4	1.7	0.1	0.5	0.8	1.0	1.0	1.5	1.7	0.6	3.8	3.1	4.2	4.4	7.1	7.6	8.8	6.7	2.2	4.0	5.3	1.4	0.4	2.52	8.77
Dir	S	N	NE	N	ENE	E	NE	WSW	E	ESE	NNE	NE	NE	NE	NE	NE	ENE	ENE	E	N	NE	ENE	NE	NNW	ENE	ENE
20 Spd	0.8	0.7	0.9	1.5	0.8	1.0	1.2	2.4	1.8	1.5	4.0	1.3	0.5	3.9	4.0	2.4	3.2	1.9	1.9	1.9	0.2	3.1	2.5	1.2	1.04	4.02
Dir	ENE	N	NE	NNW	NNE	ESE	SW	SW	ESE	SSW	S	NE	S	SW	WSW	SSW	WSW	NW	WSW	SW	SE	S	SW	SW	SW	WSW
21 Spd	0.5	1.8	2.0	2.0	0.3	1.0	0.2	0.7	2.8	2.2	1.0	1.8	0.7	3.4	1.9	2.0	3.6	1.7	4.6	7.7	4.4	7.7	5.1	5.8	1.90	7.66
Dir	NE	ENE	NE	NE	E	ENE	NNE	NNW	SW	WSW	SW	SW	W	WSW	WNW	SW	SW	WSW	SW	SW	SSW	SW	SW	SW	SW	SSW
22 Spd	3.6	6.6	4.4	2.7	1.6	2.5	2.2	1.1	4.1	5.5	1.3	3.8	2.6	2.1	5.1	0.7	1.5	1.0	0.7	0.8	4.1	0.4	0.4	2.3	1.72	6.61
Dir	SW	SW	SW	WSW	WSW	WSW	WSW	W	SW	SW	W	SW	SW	SE	NE	NNE	W	WSW	N	N	SSW	WNW	WSW	SSE	SW	SW



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
July 2018

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	0.2	0.1	0.3	0.3	1.3	1.2	1.3	0.6	4.3	3.4	3.0	3.6	1.9	3.5	2.4	0.4	3.4	1.9	1.3	1.2	0.6	0.2	0.5	0.82	4.26			
Dir	N	E	SW	WNW	SSE	ESE	SSW	SE	S	SSW	SSW	SSW	ESE	SSE	SW	SSE	NNE	NE	ENE	ENE	NE	NNE	NE	SSE	S			
24 Spd	0.3	0.7	0.7	1.0	0.6	1.1	0.1	0.4	0.7	1.1	1.3	1.1	1.9	2.1	1.6	3.1	3.1	3.1	2.2	1.8	1.0	0.5	1.3	0.8	0.94	3.11		
Dir	ENE	ESE	E	E	NE	E	ESE	W	WSW	NNW	NNW	NNE	SE	NE	ENE	SE	NE	NE	NE	ENE	ENE	ENE	ENE	ENE	ENE	SE		
25 Spd	0.3	0.5	0.6	0.3	0.8	0.8	0.6	1.3	1.6	2.1	1.7	2.5	3.1	1.0	4.6	0.9	0.6	1.6	2.7	1.5	0.6	0.1	1.0	0.8	0.39	4.56		
Dir	ENE	WSW	WSW	W	WSW	WSW	W	WNW	WNW	W	W	SSW	SSE	SE	SSW	E	NE	NE	NNE	NNE	NNE	NE	SSW	SW	SW	SSW		
26 Spd	0.1	0.5	0.2	0.8	0.8	0.3	0.3	1.8	1.8	2.0	2.2	1.2	2.5	3.2	4.7	1.4	7.2	2.9	2.1	0.3	0.2	1.2	2.4	0.5	0.52	7.23		
Dir	NW	SSE	NW	SW	SW	NNW	W	WNW	WNW	W	W	SSW	ENE	ENE	ENE	ENE	SW	WSW	S	SE	WNW	SW	SW	WSW	SW	SW		
27 Spd	0.3	0.4	0.5	0.9	0.7	0.7	0.3	1.4	2.0	2.4	2.3	2.0	1.4	2.5	3.0	0.7	4.6	3.0	1.5	2.1	1.7	1.2	0.7	0.3	0.18	4.61		
Dir	WSW	W	W	WSW	W	SW	WNW	WNW	WNW	WNW	W	WSW	WNW	E	ESE	NNE	E	ENE	NE	E	E	NNE	WSW	WNW	NE	E		
28 Spd	0.6	0.2	0.1	0.0	2.0	1.9	0.8	1.2	1.5	2.3	2.1	0.8	0.5	2.4	1.3	2.6	3.7	3.4	3.2	2.7	0.7	0.6	0.3	0.4	0.30	3.74		
Dir	WSW	NE	NNE	N	WSW	WSW	W	WNW	W	W	WNW	W	ENE	ESE	ESE	E	E	E	ENE	ENE	NE	N	ENE	WNW	ENE	E		
29 Spd	0.2	0.1	0.2	0.6	1.5	0.9	0.5	1.3	1.6	2.3	2.4	1.7	2.2	1.5	1.8	2.1	3.0	1.8	2.0	6.4	2.0	1.5	0.8	1.4	0.29	6.40		
Dir	NE	NNW	WNW	W	SW	WSW	W	WNW	W	WNW	WSW	SW	SE	ENE	ESE	ENE	NE	ENE	ENE	NNW	ENE	WNW	WSW	SSW	NNW	NNW		
30 Spd	0.8	0.5	0.4	0.6	1.4	1.4	1.4	1.6	1.8	2.4	1.9	3.0	2.5	1.1	1.5	2.9	2.3	4.5	1.1	1.9	0.2	3.0	0.9	1.2	0.55	4.49		
Dir	SSW	WSW	W	W	SE	W	W	WNW	WNW	WNW	NW	ENE	NE	NNE	SW	SW	WSW	SSW	NNW	SSE	SSE	S	S	ESE	SW	SSW		
31 Spd	0.5	1.7	1.0	1.2	0.7	1.2	0.5	0.9	0.9	1.3	1.4	1.7	3.2	4.4	4.6	3.6	3.5	0.4	2.4	2.7	0.6	2.1	1.4	4.0	0.40	4.58		
Dir	S	S	SW	SSW	WSW	SSW	N	E	SE	WNW	NNE	ENE	NE	NE	NE	NNE	NE	WSW	SW	SSE	WNW	ESE	SSW	SW	ENE	NE		
Spd	0.66	0.82	0.53	0.70	0.95	0.78	0.76	1.37	1.64	2.52	2.46	2.86	2.13	2.01	1.90	1.26	1.28	1.21	0.42	0.26	0.25	0.40	0.55	0.80	Diurnal Average			
Dir	SSW	SW	SW	WSW	SW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SSW	SSW	SW	SSW	SSW	WSW	WSW	ESE	SSE	SSW	SSW	Diurnal Maximum			
Spd	6.36	6.95	4.35	3.42	6.52	4.80	6.41	6.86	8.76	10.56	11.84	14.85	10.35	12.47	11.40	10.91	10.18	8.77	6.74	7.66	6.31	7.66	5.06	5.75	Diurnal Maximum			
Dir	207.66	203.38	235.66	203.69	211.25	221.89	211.01	231.61	230.35	211.25	205.77	216.89	234.04	219.31	220.08	195.71	220.49	77.15	91.76	215.81	218.11	212.66	206.15	219.30	Diurnal Maximum			
Maximum Speed Value: 14.8 kph on Jul 6 12:00																			Minimum Speed Value: 0.0 kph on Jul 28 04:00					Hours in Service:				744
Maximum Daily Speed Average: 5.05 kph on Jul 7																			Minimum Daily Speed Average: 0.18 kph on Jul 4					Hours of Data:				744
Maximum Diurnal Speed Average: 2.86 kph at hour 12																			Minimum Diurnal Speed Average: 0.25 kph at hour 21					Hours of Missing Data:				0
Monthly Average Velocity: 1.124 kph 222.39 deg																			Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.4 Q ₁ = 0.8 Median = 1.7 Q ₃ = 3.1 P ₉₀ = 5.8 P ₉₉ = 10.7					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	45	0	0	0	0	0	45																					
NorthEast	100	6	0	0	0	0	106																					
East	67	4	0	0	0	0	71																					
SouthEast	31	1	0	0	0	0	32																					
South	41	5	0	0	0	0	46																					
SouthWest	177	70	4	0	0	0	251																					
West	142	1	0	0	0	0	143																					
NorthWest	48	2	0	0	0	0	50																					
Total	651	89	4	0	0	0	744																					



WCAS - Hinton
Summary of Hourly Averages

Relative Humidity (RH) - %
July 2018

Maximum Value: 96.98 % on Jul 5 07:00 Maximum Daily Average: 91.01 % on Jul 3																							Hours in Service: 744			
Minimum Value: 10.8 % on Jul 15 18:00 Minimum Daily Average: 40.57 % on Jul 6																							Hours of Data: 744			
Maximum Diurnal Average: 87.63 % at hour 6 Minimum Diurnal Average: 42.71 % at hour 16																							Hours of Missing Data: 0			
Monthly Average: 65.052 % Percentiles: P₁ = 14.3 P₁₀ = 22.6 Q₁ = 39.9 Median = 72.1 Q₃ = 91.0 P₉₀ = 94.9 P₉₉ = 96.6																							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-Jul	92.7	93.6	94.3	94.3	95.1	95.5	95.0	77.3	43.9	35.3	26.0	23.6	30.7	34.7	27.2	24.3	30.3	39.4	29.5	33.0	39.8	45.9	51.1	57.4	54.58	95.48
2-Jul	64.6	70.5	74.5	74.8	73.8	71.4	82.8	88.1	90.1	89.9	89.4	89.9	91.8	91.4	92.2	92.8	93.0	93.2	93.7	94.3	95.0	95.5	95.9	96.0	86.85	95.96
3-Jul	96.1	95.9	95.5	95.3	94.4	89.1	91.8	91.3	89.0	87.0	87.4	86.8	87.5	89.1	89.8	88.3	89.0	88.5	90.7	90.2	91.8	93.1	92.9	93.8	91.01	96.09
4-Jul	94.3	94.9	95.1	95.3	95.5	95.5	95.6	95.4	95.4	94.6	93.5	84.1	70.6	72.7	77.8	69.0	56.8	64.1	72.1	72.0	73.8	82.9	92.1	93.9	84.46	95.59
5-Jul	95.1	95.8	96.3	96.6	96.8	96.9	97.0	96.6	92.1	75.5	62.9	56.6	38.5	27.6	22.6	20.4	17.9	20.3	21.0	25.6	32.7	44.8	58.4	62.8	60.45	96.98
6-Jul	71.9	70.7	71.0	72.0	71.3	64.0	60.3	57.3	47.4	33.5	23.1	21.8	21.2	23.7	22.4	20.6	22.0	22.4	21.2	20.4	26.9	35.8	34.6	37.9	40.57	72.04
7-Jul	42.2	45.2	50.7	54.8	52.5	54.9	54.0	47.4	40.0	38.5	35.5	32.5	29.9	27.0	25.8	37.3	47.6	49.2	59.6	72.6	83.1	85.9	92.6	94.1	52.21	94.10
8-Jul	94.9	95.4	95.9	96.3	96.0	95.7	95.9	95.8	94.7	79.3	53.7	39.0	34.8	28.6	24.2	24.9	26.1	23.4	23.7	33.8	41.5	49.1	63.1	69.6	61.48	96.29
9-Jul	77.3	81.8	85.6	88.5	92.0	92.8	89.6	70.9	58.8	47.8	37.3	24.3	21.0	18.8	16.5	15.2	14.5	14.5	17.7	18.0	19.5	22.7	28.6	34.7	45.35	92.83
10-Jul	47.4	53.6	51.2	41.2	41.3	48.1	51.5	54.0	54.3	52.6	48.8	46.0	43.5	38.0	39.8	39.5	34.7	37.9	39.9	45.5	50.4	57.3	66.8	72.1	48.14	72.05
11-Jul	74.8	76.8	81.9	89.6	92.3	93.6	87.9	59.2	45.8	35.0	26.6	23.8	22.4	20.3	19.1	18.8	21.1	25.1	27.8	27.9	29.4	34.6	41.7	53.6	47.04	93.55
12-Jul	63.8	69.7	73.4	77.4	80.7	80.0	76.8	67.5	54.0	45.6	30.3	24.1	22.2	21.0	19.5	18.9	20.5	21.4	30.3	37.9	43.5	48.0	51.3	56.4	47.26	80.65
13-Jul	59.4	66.9	74.5	77.2	78.9	79.6	78.1	75.7	73.6	69.6	66.0	64.4	71.4	77.1	79.2	84.7	91.2	89.1	93.2	94.2	94.3	92.5	93.7	86.1	79.61	94.27
14-Jul	71.6	75.4	84.3	91.0	93.9	94.4	89.7	85.6	76.8	59.0	57.3	44.4	36.4	34.3	30.6	26.8	24.6	23.5	22.9	24.7	37.1	56.4	69.3	75.2	57.72	94.41
15-Jul	80.3	86.3	89.9	90.3	91.4	92.3	91.9	80.5	55.7	43.4	34.7	21.1	17.0	16.4	16.2	14.1	11.5	10.8	17.8	20.3	29.8	45.8	53.3	60.0	48.78	92.30
16-Jul	66.7	71.0	75.2	79.2	82.3	86.4	77.8	65.2	49.1	38.9	32.6	25.0	15.0	12.2	10.8	12.7	13.6	13.8	15.0	19.7	23.8	33.2	48.8	54.9	42.62	86.42
17-Jul	62.9	68.3	73.3	76.2	79.3	81.5	75.0	59.8	46.4	36.4	29.5	22.3	17.2	15.6	19.5	20.8	22.0	27.2	34.0	42.3	49.0	56.7	66.5	72.0	48.08	81.51
18-Jul	78.1	84.9	83.1	76.9	84.6	86.5	87.1	74.5	72.0	62.7	55.4	40.7	29.3	36.9	45.1	36.9	31.7	53.0	67.3	74.6	87.1	88.6	89.5	92.0	67.43	91.97
19-Jul	92.7	93.3	94.1	94.5	94.9	95.3	95.7	95.8	95.8	95.3	94.5	83.8	81.1	68.4	66.9	65.3	62.0	61.3	55.3	63.8	65.1	69.4	75.7	90.9	81.30	95.82
20-Jul	91.6	92.0	91.0	88.9	88.3	88.1	89.8	92.2	90.9	90.1	89.2	90.7	91.1	81.9	87.8	86.9	84.2	90.4	92.8	92.8	93.8	92.4	93.0	92.2	90.09	93.84
21-Jul	94.4	95.7	96.1	96.3	96.5	96.5	96.1	95.9	93.5	91.2	92.6	91.9	92.6	90.4	88.0	80.4	74.0	83.1	89.4	80.4	84.8	88.7	89.6	91.3	90.39	96.48
22-Jul	90.5	88.5	88.2	90.3	92.7	91.3	90.0	91.4	89.8	85.8	85.2	71.7	52.8	49.2	59.0	74.2	61.0	69.5	71.9	85.6	90.9	92.9	94.0	93.6	81.25	94.00
23-Jul	94.3	94.7	95.0	92.7	91.7	91.6	92.4	93.4	92.2	90.4	84.1	83.1	78.7	68.0	68.6	80.0	85.1	83.8	77.3	76.5	82.4	91.3	93.0	94.0	86.43	94.97
24-Jul	94.7	95.2	95.6	96.1	96.6	96.7	96.7	96.6	96.1	88.1	71.6	58.0	50.2	47.9	47.4	40.3	39.9	40.8	44.8	53.5	65.1	76.4	83.0	87.2	73.28	96.75
25-Jul	92.3	94.2	95.2	95.7	96.1	96.4	96.4	93.5	77.9	59.9	50.8	38.1	31.6	29.9	27.2	25.2	24.8	24.2	24.7	27.5	36.1	50.9	65.4	72.9	59.46	96.40
26-Jul	77.5	79.9	83.8	89.6	91.9	93.2	93.2	86.4	67.4	52.5	44.3	35.5	27.4	26.4	29.1	30.2	64.2	68.8	75.0	71.3	73.5	79.7	89.9	92.1	67.61	93.18
27-Jul	93.6	94.3	94.9	95.5	95.9	96.3	96.6	94.7	81.4	63.9	55.8	46.9	34.6	21.6	20.0	20.5	16.0	18.0	20.1	21.9	34.5	44.1	57.2	69.0	57.81	96.56
28-Jul	74.4	78.7	82.1	85.6	91.1	92.6	90.3	74.4	57.5	45.4	38.5	30.5	23.5	20.5	18.4	16.9	15.7	16.3	19.4	25.1	37.9	48.5	60.8	69.6	50.57	92.55
29-Jul	75.0	78.5	83.1	87.9	89.7	90.4	88.2	72.3	53.1	47.9	36.4	30.1	21.1	18.0	16.8	18.2	18.5	19.0	24.5	54.3	81.4	87.3	92.6	93.5	57.41	93.47
30-Jul	93.6	94.4	94.8	95.1	95.4	93.4	95.0	93.6	84.7	68.4	60.7	49.6	60.3	76.5	84.3	68.4	71.6	70.6	78.7	80.3	87.4	89.2	92.5	93.2	82.15	95.40
31-Jul	94.2	94.8	95.0	95.3	95.8	96.3	96.6	96.4	91.5	74.1	58.8	54.7	52.4	49.5	48.2	51.0	61.3	63.8	56.6	64.4	75.6	75.7	81.5	82.6	75.25	96.59
																							Diurnal Average			
																							Diurnal Maximum			



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Speed (WS) - kph
July 2018

Maximum Value: 9.31 kph on Jul 6 12:00		Maximum Daily Average: 4.55 kph on Jul 6		Hours in Service: 744																							
Minimum Value: 0.0 kph on Jul 15 22:00		Minimum Daily Average: 1.44 kph on Jul 4		Hours of Data: 744																							
Maximum Diurnal Average: 3.70 kph at hour 14		Minimum Diurnal Average: 1.29 kph at hour 4		Hours of Missing Data: 0																							
Monthly Average: 2.312 kph		Percentiles: P₁ = 0.4 P₁₀ = 0.9 Q₁ = 1.3 Median = 2.0 Q₃ = 2.9 P₉₀ = 4.2 P₉₉ = 7.1		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-Jul	1.6	1.5	1.5	1.2	1.3	1.1	1.1	1.9	3.2	5.1	4.6	4.8	3.0	1.7	2.5	2.6	4.2	3.7	3.5	2.8	2.1	2.2	1.8	1.9	2.54	5.06	
2-Jul	1.2	0.9	1.5	1.2	1.5	2.2	1.7	2.9	2.3	3.3	3.5	3.7	3.8	3.7	3.6	3.8	4.4	3.2	3.2	2.9	2.4	1.9	2.1	1.9	2.62	4.45	
3-Jul	2.3	3.1	2.2	2.4	2.9	3.5	2.3	2.1	2.9	2.6	2.7	3.1	2.2	2.2	2.3	2.0	2.1	2.9	1.4	1.8	1.7	1.9	2.2	1.4	2.35	3.50	
4-Jul	1.1	1.2	0.8	0.6	1.3	0.9	1.7	1.2	1.4	1.8	1.7	2.6	2.4	1.6	1.8	1.8	2.1	3.2	1.5	0.7	0.7	0.7	0.8	1.0	1.44	3.21	
5-Jul	0.8	1.4	1.5	0.9	1.3	0.6	1.0	0.6	1.6	1.7	1.9	1.9	2.0	3.2	3.2	2.3	1.8	2.8	2.6	3.5	3.2	2.8	2.1	1.2	1.91	3.54	
6-Jul	1.7	2.1	1.9	1.7	1.7	1.8	2.8	3.2	2.1	6.6	7.0	9.3	8.5	7.0	8.4	7.1	6.7	6.1	5.3	5.4	3.6	2.3	2.9	3.8	4.55	9.31	
7-Jul	2.3	3.9	4.1	1.5	2.9	2.6	3.3	4.5	6.1	6.2	7.2	7.0	6.5	7.3	7.2	3.4	2.5	3.0	3.3	2.8	2.3	3.2	1.6	1.4	4.01	7.27	
8-Jul	1.7	1.1	1.4	1.5	1.7	1.1	1.5	1.0	1.5	1.6	1.8	2.7	3.2	4.6	5.0	5.3	6.1	4.5	3.3	3.8	2.2	1.4	1.7	1.5	2.55	6.06	
9-Jul	0.4	1.0	1.3	1.4	1.3	1.4	1.2	1.8	2.1	1.9	2.9	4.7	5.3	5.9	3.8	4.2	5.3	4.8	2.6	2.5	3.6	2.4	1.9	1.2	2.70	5.89	
10-Jul	1.2	1.4	2.5	2.2	2.3	1.7	2.7	1.7	0.9	2.8	2.0	2.1	3.1	3.3	2.3	3.3	3.1	2.1	1.7	2.6	2.5	0.8	0.9	1.0	2.09	3.34	
11-Jul	1.5	1.3	1.8	0.6	0.8	0.6	1.4	3.5	4.3	4.8	5.6	5.5	5.4	4.8	5.5	5.1	5.4	2.4	2.3	2.1	1.4	1.2	2.0	1.3	2.94	5.57	
12-Jul	1.1	1.1	1.1	0.7	1.1	1.4	1.0	0.9	1.5	1.7	6.0	6.6	5.0	5.9	5.0	6.0	3.4	3.6	1.6	1.7	1.1	1.6	2.8	2.3	2.67	6.58	
13-Jul	2.0	1.0	1.1	1.2	0.8	1.1	1.5	0.7	0.7	2.1	1.2	1.5	2.6	2.9	2.1	2.1	2.7	2.9	1.7	1.0	1.6	1.9	1.8	3.7	1.75	3.68	
14-Jul	4.3	2.9	2.0	1.6	1.3	1.7	2.4	2.9	3.5	4.3	2.6	2.3	2.8	3.0	3.3	3.2	3.4	3.5	2.3	1.7	0.9	1.6	1.5	1.1	2.51	4.26	
15-Jul	0.8	1.3	1.3	1.5	0.9	1.2	0.9	1.4	1.9	1.9	1.8	5.7	5.3	5.4	4.3	4.4	5.0	5.2	4.6	1.9	0.8	0.0	1.1	1.3	2.49	5.68	
16-Jul	1.3	1.2	0.9	1.2	1.3	1.1	1.3	1.0	1.7	1.8	1.5	1.8	4.9	6.1	4.6	3.4	2.8	2.8	2.6	1.1	2.6	1.6	1.3	1.6	2.15	6.14	
17-Jul	1.5	0.9	1.3	1.6	1.2	0.9	1.3	1.6	1.8	1.8	2.0	2.3	1.7	2.7	2.6	3.4	3.3	3.1	2.8	2.0	2.5	1.9	2.1	2.2	2.02	3.36	
18-Jul	1.2	1.9	2.0	2.0	1.7	1.5	1.5	1.6	2.0	2.7	3.1	2.1	2.0	4.4	3.9	2.9	3.2	4.7	2.9	1.7	2.2	2.4	1.4	0.8	2.32	4.69	
19-Jul	2.0	1.0	1.8	0.3	0.9	1.2	1.5	1.8	2.7	2.2	1.7	2.8	2.6	3.2	3.7	4.4	4.7	5.8	5.4	2.0	2.9	3.2	1.6	0.6	2.49	5.79	
20-Jul	1.3	0.9	1.3	1.6	1.7	2.0	2.4	3.1	3.3	2.5	3.1	2.1	3.4	3.1	4.4	2.3	2.7	1.7	2.2	2.0	1.2	3.4	2.0	1.8	2.31	4.38	
21-Jul	1.5	1.8	1.6	1.8	1.1	1.7	1.5	1.2	2.3	3.0	1.3	2.2	1.9	3.0	2.2	2.7	2.3	1.7	3.7	3.5	2.9	3.4	2.8	4.2	2.31	4.24	
22-Jul	2.8	3.0	2.8	2.4	1.7	2.1	2.2	1.6	2.9	3.4	1.7	3.5	2.6	3.9	3.9	2.0	1.7	1.8	0.8	1.9	2.0	0.8	0.6	1.9	2.25	3.95	
23-Jul	0.2	0.2	1.2	1.3	1.8	1.6	1.7	1.8	1.5	2.3	2.1	1.8	2.3	1.9	3.0	2.3	2.5	3.2	1.9	1.7	1.4	1.0	0.4	0.8	1.66	3.15	
24-Jul	0.6	1.2	1.1	1.2	1.0	1.2	0.8	1.0	1.3	1.5	1.4	1.6	1.7	2.0	2.0	3.1	2.6	2.4	2.0	1.6	1.4	0.7	1.4	1.2	1.51	3.15	
25-Jul	0.9	0.8	0.8	0.5	1.0	1.1	0.8	1.3	1.5	2.0	2.0	2.6	2.8	2.6	4.1	2.5	2.0	2.4	2.4	1.6	0.9	0.6	1.4	1.2	1.65	4.12	
26-Jul	0.7	1.0	0.7	1.3	1.2	1.0	0.6	1.3	1.5	2.0	2.0	2.1	3.6	3.3	3.5	3.0	7.4	3.0	4.3	1.3	0.0	1.1	1.3	0.8	2.00	7.36	
27-Jul	0.6	0.8	0.8	1.1	0.9	1.1	0.5	1.3	1.8	2.0	2.4	2.2	1.9	2.9	2.9	2.9	3.5	2.9	1.8	1.9	1.6	1.2	1.0	0.7	1.70	3.54	
28-Jul	1.0	0.4	0.1	0.6	1.4	1.5	1.1	1.3	1.6	2.1	1.8	1.7	1.7	3.0	2.7	3.6	3.4	2.9	2.5	2.4	1.2	1.3	0.8	0.8	1.71	3.60	
29-Jul	0.6	0.4	0.4	0.8	1.3	1.1	0.7	1.4	1.8	1.8	2.3	2.5	2.4	2.7	2.5	3.0	3.0	2.3	2.2	6.4	3.8	2.0	1.2	1.4	2.00	6.35	
30-Jul	1.3	1.0	0.6	0.8	2.8	2.3	1.3	1.5	1.6	1.7	1.5	2.7	2.6	3.9	2.6	3.4	3.3	4.4	2.4	3.0	2.8	2.3	2.6	2.0	2.27	4.41	
31-Jul	1.6	1.9	1.3	1.3	1.2	1.7	1.2	1.4	1.4	1.5	1.8	2.0	2.5	3.2	3.3	2.9	3.1	2.5	3.9	2.5	1.3	2.5	2.4	4.4	2.20	4.40	
		1.39	1.41	1.46	1.29	1.46	1.48	1.52	1.76	2.14	2.67	2.71	3.21	3.28	3.70	3.62	3.37	3.53	3.27	2.74	2.38	1.96	1.79	1.66	1.69	Diurnal Average	
		4.26	3.87	4.14	2.43	2.93	3.50	3.29	4.49	6.10	6.61	7.23	9.31	8.47	7.27	8.41	7.09	7.36	6.07	5.38	6.35	3.77	3.41	2.93	4.40	Diurnal Maximum	



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Direction (WD) - deg
July 2018

Maximum Value: 106.99 deg on Jul 18 13:00 Maximum Daily Average: 68.85 deg on Jul 16																							Hours in Service: 744			
Minimum Value: 17.5 deg on Jul 26 23:00 Minimum Daily Average: 39.31 deg on Jul 3																							Hours of Data: 744			
Maximum Diurnal Average: 64.48 deg at hour 1 Minimum Diurnal Average: 51.03 deg at hour 18																							Hours of Missing Data: 0			
Monthly Average: 57.080 deg Percentiles: P₁ = 22.6 P₁₀ = 33.9 Q₁ = 43.3 Median = 54.5 Q₃ = 71.2 P₉₀ = 83.9 P₉₉ = 97.1																							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-Jul	91.7	75.1	87.5	89.9	55.9	80.4	53.0	43.5	60.5	60.8	55.5	54.4	69.9	44.1	79.8	36.8	63.9	44.0	54.1	75.3	80.8	46.0	72.8	55.5	63.79	91.67
2-Jul	28.7	36.9	54.5	50.0	79.5	53.5	52.9	52.7	47.2	38.4	47.7	28.0	27.3	24.3	25.3	23.5	44.9	41.0	37.4	55.0	55.3	53.7	53.1	53.0	44.33	79.54
3-Jul	58.5	42.4	33.7	34.3	43.0	42.3	46.1	38.3	30.5	33.9	28.5	32.0	21.5	34.6	39.6	73.7	33.7	28.9	58.1	38.5	25.9	28.4	39.7	57.3	39.31	73.72
4-Jul	60.4	66.9	38.0	53.6	38.0	40.8	65.5	50.5	53.4	59.2	50.9	53.9	74.6	54.8	53.4	57.0	71.8	40.6	33.9	49.8	81.8	34.6	89.0	80.3	56.37	89.00
5-Jul	67.2	63.6	50.7	47.8	45.1	48.4	50.5	85.5	61.0	67.6	60.3	64.2	72.4	85.9	80.7	96.3	83.7	60.0	46.5	39.0	44.7	51.8	82.1	79.6	63.94	96.32
6-Jul	95.2	75.5	55.2	79.6	66.4	49.4	80.6	39.6	65.1	49.2	41.3	36.9	50.6	59.3	47.7	54.3	53.6	58.5	53.5	45.5	58.4	80.4	35.6	53.9	57.73	95.23
7-Jul	18.8	32.5	55.1	78.2	21.4	62.5	25.1	38.3	44.0	52.5	41.4	37.9	39.7	31.7	36.7	62.3	41.3	55.6	39.0	52.8	56.6	75.2	69.3	51.0	46.61	78.25
8-Jul	53.8	51.3	93.2	35.9	73.6	57.5	80.0	73.0	83.6	68.8	55.8	86.4	87.9	50.9	57.9	51.4	34.8	58.5	60.2	87.9	70.3	75.4	75.6	75.3	66.63	93.17
9-Jul	85.5	36.6	35.2	24.6	20.5	22.5	46.1	52.8	49.1	52.9	74.1	50.6	52.3	52.1	69.4	67.2	57.1	29.7	34.2	24.8	27.9	32.5	41.8	75.0	46.44	85.52
10-Jul	59.7	88.3	61.3	38.3	23.3	52.2	84.8	49.1	55.3	52.1	60.7	54.5	65.8	93.1	54.5	34.7	38.3	38.0	49.8	54.0	71.4	54.4	38.8	40.1	54.69	93.12
11-Jul	30.2	35.2	30.1	61.2	66.6	82.8	49.0	45.5	43.4	25.1	27.7	40.7	47.7	52.2	36.9	47.1	49.2	53.1	47.9	69.7	82.0	44.2	77.1	74.6	50.81	82.77
12-Jul	90.4	68.0	79.2	87.5	26.2	28.2	49.4	76.9	55.7	83.3	67.3	39.0	56.3	60.1	49.0	41.7	60.4	55.4	78.0	63.5	55.0	74.6	58.1	99.7	62.62	99.74
13-Jul	46.1	80.2	60.4	76.2	64.1	48.4	57.8	61.8	59.5	54.9	63.5	57.5	51.0	47.5	42.2	45.6	55.5	83.8	78.7	36.7	87.1	75.3	51.0	54.7	59.97	87.14
14-Jul	64.5	45.7	38.1	53.2	97.6	53.1	43.1	40.5	46.7	45.6	66.4	34.1	40.8	64.9	69.6	71.9	80.2	48.9	46.3	49.6	53.4	69.0	73.5	60.6	56.55	97.57
15-Jul	86.8	25.2	23.6	23.7	53.5	47.8	54.6	59.6	47.2	46.7	62.3	41.9	37.9	47.0	23.9	20.5	43.8	41.8	53.8	35.1	68.8	70.3	56.8	88.3	48.36	88.26
16-Jul	91.4	91.8	90.6	78.7	84.2	51.7	69.4	68.9	44.3	62.4	75.6	95.1	57.0	45.6	45.5	72.2	63.9	55.3	68.4	69.3	46.2	72.9	79.1	73.1	68.85	95.14
17-Jul	69.0	97.2	86.6	41.1	84.7	30.6	50.6	61.1	42.6	50.6	63.0	77.6	81.5	101.7	66.1	51.4	51.8	50.8	48.1	56.2	40.7	53.8	69.7	57.7	61.85	101.74
18-Jul	56.2	66.4	76.7	79.7	84.4	92.2	75.5	59.6	61.3	51.6	57.4	94.0	107.0	70.5	31.0	36.1	42.7	49.7	52.0	67.6	81.4	43.6	64.5	82.3	65.98	106.99
19-Jul	85.4	63.9	42.3	64.2	42.6	83.6	72.7	64.5	97.3	72.6	79.9	43.3	44.2	43.5	48.3	37.3	40.0	39.2	55.5	52.8	49.8	31.2	63.5	34.6	56.34	97.28
20-Jul	62.3	38.9	59.2	56.7	75.0	90.4	88.0	58.2	77.3	89.8	58.4	81.8	97.0	42.4	55.8	48.1	46.5	42.0	66.7	54.5	101.0	78.7	47.3	83.3	66.64	101.01
21-Jul	90.8	54.7	45.6	45.3	89.3	60.0	84.1	55.5	47.6	58.8	63.1	56.6	82.9	54.2	65.5	91.8	36.0	47.1	44.1	24.3	29.8	24.2	27.9	38.1	54.89	91.78
22-Jul	41.6	23.5	31.5	40.3	41.9	42.2	52.3	67.3	37.5	30.3	49.5	55.7	63.8	87.7	50.1	89.1	69.2	58.4	30.7	79.8	28.7	62.9	51.9	70.6	52.36	89.06
23-Jul	53.8	86.3	69.4	91.2	73.9	73.9	63.2	76.8	33.2	48.8	33.3	25.1	66.6	40.8	74.3	65.5	92.9	51.9	48.7	45.2	59.9	58.7	56.4	45.0	59.79	92.93
24-Jul	47.6	72.7	61.1	36.1	49.7	36.8	79.0	84.4	73.1	81.2	42.7	70.2	65.5	62.1	63.0	76.9	44.7	44.2	48.5	31.8	35.3	34.2	57.1	51.2	56.21	84.42
25-Jul	66.1	33.8	37.8	41.5	25.5	36.2	42.3	40.7	43.3	48.7	65.9	66.4	57.1	94.3	68.5	90.5	103.3	62.3	44.5	37.2	32.9	86.7	60.4	62.9	56.19	103.34
26-Jul	83.9	89.4	95.3	72.8	56.4	86.0	51.4	30.0	38.5	57.9	47.6	83.2	76.3	73.4	45.0	75.3	55.9	57.9	90.1	88.0	53.9	29.8	17.5	32.0	61.98	95.28
27-Jul	58.6	44.7	47.0	37.3	25.6	53.3	39.8	35.2	47.5	62.0	58.2	62.6	73.9	74.8	60.6	84.9	42.8	49.9	47.4	37.2	46.5	43.0	75.9	59.9	52.85	84.95
28-Jul	51.2	65.9	73.4	84.3	20.7	22.6	67.8	40.1	50.7	55.6	49.3	84.6	79.9	71.7	83.5	77.9	45.9	43.1	41.3	27.2	44.9	90.8	79.8	77.8	59.58	90.84
29-Jul	59.9	74.8	71.2	35.8	31.6	25.9	39.4	39.9	53.5	33.1	58.5	65.6	47.9	73.4	68.6	78.5	45.1	50.6	43.2	43.8	82.6	76.3	51.9	51.6	54.28	82.61
30-Jul	68.4	53.2	33.4	33.4	89.6	40.6	30.2	32.1	40.3	39.8	36.6	47.0	53.5	82.7	93.7	47.6	65.8	50.2	86.9	85.6	92.4	48.7	82.4	66.5	58.36	93.66
31-Jul	75.1	66.0	55.9	73.3	51.4	49.5	60.9	80.1	65.3	73.2	70.5	75.8	50.7	45.9	44.9	47.4	60.9	91.6	84.0	74.1	66.1	84.9	64.7	52.9	65.21	91.57
																							Diurnal Average			
																							Diurnal Maximum			

WEST CENTRAL AIRSHED SOCIETY

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

**END OF REPORT
JULY 2018**