

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

AIR QUALITY MONITORING
August 2016
Monthly Report

Prepared by:

West Central Airshed Society
Drayton Valley, Alberta





September 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 August 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 two readings occurring in August 2016 in excess of the 1-hour average guideline as indicated in Air Monitoring Directive Section III.A.3. (a) for TRS. The concentrations recorded were 12 ppb and 17 ppb for the hours ending at 06:00 MST and 09:00 MST on August 23, 2016 (respectively). There was one reading occurring in August 2016 in excess of the 24-hour average guideline as indicated in Air Monitoring Directive Section III.A.3. (a) for TRS. The concentration recorded was 3.6 ppb on August 23, 2016.

2. Operational times less than 90 percent:

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

3. Monitoring Notes:

AMS 906 (Hinton)

The PM2.5 analyzer returned an uptime of 97.7% due to a power disruption at the station, maintenance and instrument malfunctioning. All other analyzers and meteorological equipment returned uptimes of 99.6% for the month of August 2016, due to a power disruption at the station. The station was audited by Alberta Environment and Parks on August 9.

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

Sincerely,

Handwritten signature of Robert Scotten in cursive.

Robert Scotten
Executive Director

Handwritten signature of Patrick Andersen in cursive.

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 | August |

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 | 99.6 | n/a | n/a | n/a | n/a |
| TRS | 906 | 99.6 | 0.017 | 2 | 0.004 | 1 |
| PM _{2.5} | 906 | 97.7 | 25.8 µg/m ³ | 0 | 12.85 µg/m ³ | 1 |
| | | | | | | |
| | | | | | | |
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| | | | | | | |

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
AUGUST 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 | | | | | | | | | | | | | August 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) | 40 | 701 | 99.6 | 1.0 | 0.0 | 17.0 | 0.3 | 0.3 | 0.5 | 1.2 | 2.2 | 2 | 1 | 0.004 | |
| SO ₂ (ppb) | 40 | 701 | 99.6 | 0.2 | 0.0 | 3.5 | 0.0 | 0.0 | 0.1 | 0.2 | 0.4 | 0 | - | 0.001 | |
| O ₃ (ppb) | 44 | 697 | 99.6 | 16.0 | 0.7 | 40.3 | 2.1 | 6.4 | 16.3 | 24.4 | 29.2 | 0 | 0 | 0.026 | |
| NO (ppb) | 41 | 700 | 99.6 | 1.2 | 0.0 | 9.5 | 0.1 | 0.3 | 0.6 | 1.5 | 3.0 | - | - | - | |
| NO ₂ (ppb) | 41 | 700 | 99.6 | 2.6 | 0.2 | 8.8 | 1.0 | 1.5 | 2.3 | 3.4 | 4.7 | 0 | 0 | 0.004 | |
| NO _x (ppb) | 41 | 700 | 99.6 | 3.8 | 0.3 | 16.5 | 1.2 | 1.9 | 3.2 | 5.0 | 7.0 | - | - | - | |
| Particulate Matter 2.5 microns (µm ³) | 8 | 719 | 97.7 | 6.8 | 0.0 | 25.8 | 2.2 | 3.8 | 6.2 | 8.6 | 12.3 | 0 | 0 | 12.85 ug/m3 | |
| Wind Speed (kph) | 0 | 741 | 99.6 | 2.2 | 0.0 | 11.8 | 0.5 | 0.9 | 1.7 | 3.0 | 4.4 | - | - | - | |
| Temperature (°C) | 0 | 741 | 99.6 | 14.8 | 3.6 | 27.8 | 8.6 | 11.1 | 14.1 | 18.4 | 22.1 | - | - | - | |
| Relative Humidity (%) | 0 | 741 | 99.6 | 68.7 | 20.2 | 91.2 | 38.9 | 55.0 | 74.1 | 85.3 | 89.3 | - | - | - | |
| Std Dev Wind Direction (deg) | 0 | 741 | 99.6 | 54.9 | 18.7 | 105.1 | 32.9 | 41.2 | 51.5 | 67.0 | 83.5 | - | - | - | |
| Std Dev Wind Speed (kph) | 0 | 741 | 99.6 | 2.1 | 0.1 | 5.8 | 1.0 | 1.3 | 2.0 | 2.7 | 3.4 | - | - | - | |



WCAS - Hinton
Summary of Hourly Averages

Total Reduced Sulphur (TRS) - ppb
August 2016

| Maximum Value: 16.90 ppb on Aug 23 09:00 | | Maximum Daily Average: 3.61 ppb on Aug 23 | | Hours in Service: 744 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------|--|---|--------------------------------|---|----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|---------------|---------------|----|------|-------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|--|
| Minimum Value: 0 ppb on Aug 29 03:00 | | Minimum Daily Average: 0.20 ppb on Aug 29 | | Hours of Data: 701 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Diurnal Average: 2.46 ppb at hour 9 | | Minimum Diurnal Average: 0.51 ppb at hour 17 | | Hours of Missing Data: 43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Monthly Average: 1.013 ppb | | Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.3 Median = 0.5 Q ₃ = 1.2 P ₉₀ = 2.2 P ₉₉ = 5.8 | | Hours of Calibration: 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Percent Operational Time: 99.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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-Aug | 0 | 2 | 2 | Z | 1 | 4 | 2 | 1 | 3 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1.10 | 3.86 | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Aug | 2 | 1 | 4 | Z | 6 | 6 | 5 | 3 | 3 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1.85 | 5.89 | | | | | | | | | | | | | | | | | | | | | | | |
| 3-Aug | 1 | 1 | 1 | Z | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 3 | 2 | 1.12 | 3.19 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-Aug | 1 | 0 | 1 | Z | 1 | 1 | 2 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0.77 | 2.44 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5-Aug | 0 | 2 | 6 | Z | 5 | 4 | 4 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.42 | 5.99 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6-Aug | 0 | 0 | 0 | Z | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.37 | 1.13 | | | | | | | | | | | | | | | | | | | | | | | | |
| 7-Aug | 0 | 0 | 0 | Z | 1 | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.63 | 2.22 | | | | | | | | | | | | | | | | | | | | | | | | |
| 8-Aug | PF | PF | 0 | Z | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0.54 | 1.67 | | | | | | | | | | | | | | | | | | | | | | | |
| 9-Aug | 1 | 0 | 1 | Z | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | C | C | C | C | C | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0.53 | 1.20 | | | | | | | | | | | | | | | | | | | | | | | |
| 10-Aug | 0 | 1 | 2 | Z | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 0.90 | 2.53 | | | | | | | | | | | | | | | | | | | | | | | |
| 11-Aug | 2 | 1 | 0 | Z | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.68 | 1.80 | | | | | | | | | | | | | | | | | | | | | | | |
| 12-Aug | 0 | 1 | 1 | Z | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.62 | 1.53 | | | | | | | | | | | | | | | | | | | | | | | |
| 13-Aug | 1 | 3 | 2 | Z | 4 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.50 | 3.86 | | | | | | | | | | | | | | | | | | | | | | | |
| 14-Aug | 1 | 1 | 1 | Z | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 0.85 | 1.80 | | | | | | | | | | | | | | | | | | | | | | | |
| 15-Aug | 2 | 2 | 2 | Z | 4 | 1 | 1 | 2 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1.34 | 3.80 | | | | | | | | | | | | | | | | | | | | | | | |
| 16-Aug | 4 | 2 | 2 | Z | 4 | 3 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1.33 | 4.79 | | | | | | | | | | | | | | | | | | | | | | | |
| 17-Aug | 0 | 0 | 0 | Z | 0 | 0 | 0 | 3 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.79 | 4.22 | | | | | | | | | | | | | | | | | | | | | | | |
| 18-Aug | 0 | 0 | 0 | Z | 2 | 2 | 3 | 1 | 3 | 4 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1.15 | 3.84 | | | | | | | | | | | | | | | | | | | | | | | |
| 19-Aug | 2 | 5 | 3 | Z | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1.28 | 5.37 | | | | | | | | | | | | | | | | | | | | | | | |
| 20-Aug | 1 | 0 | 1 | Z | 3 | 5 | 4 | 3 | 6 | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1.87 | 6.44 | | | | | | | | | | | | | | | | | | | | | | | |
| 21-Aug | 0 | 0 | 0 | Z | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0.43 | 1.18 | | | | | | | | | | | | | | | | | | | | | | | |
| 22-Aug | 1 | 1 | 1 | Z | 0 | 1 | 3 | 1 | 4 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 1 | 1.10 | 3.59 | | | | | | | | | | | | | | | | | | | | | | | |
| 23-Aug | 1 | 3 | 2 | Z | 3 | 12 | 8 | 4 | 17 | 5 | 1 | 1 | 0 | 2 | 1 | 1 | 0 | 2 | 1 | 2 | 9 | 5 | 1 | 0 | 3.61 | 16.90 | | | | | | | | | | | | | | | | | | | | | | | |
| 24-Aug | 0 | 0 | 3 | Z | 4 | 3 | 1 | 6 | C | C | C | C | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1.43 | 5.76 | | | | | | | | | | | | | | | | | | | | | | | |
| 25-Aug | 2 | 3 | 1 | Z | 1 | 2 | 1 | 2 | 7 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.14 | 7.16 | | | | | | | | | | | | | | | | | | | | | | | |
| 26-Aug | 1 | 1 | 2 | Z | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0.75 | 2.22 | | | | | | | | | | | | | | | | | | | | | | | |
| 27-Aug | 0 | 0 | 0 | Z | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0.66 | 2.00 | | | | | | | | | | | | | | | | | | | | | | | |
| 28-Aug | 0 | 0 | 1 | Z | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.31 | 0.80 | | | | | | | | | | | | | | | | | | | | | | | |
| 29-Aug | 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 | 0.35 | | | | | | | | | | | | | | | | | | | | | | | |
| 30-Aug | 0 | 0 | 0 | Z | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.27 | 0.89 | | | | | | | | | | | | | | | | | | | | | | | |
| 31-Aug | 1 | 0 | 0 | Z | 1 | 1 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 0.78 | 1.99 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 0.90 | 1.18 | 1.30 | -- | 1.60 | 1.80 | 1.68 | 1.48 | 2.46 | 1.58 | 1.07 | 0.76 | 0.61 | 0.58 | 0.53 | 0.52 | 0.51 | 0.65 | 0.53 | 0.55 | 0.81 | 0.76 | 0.65 | 0.78 | Diurnal Average | |
| | | | | | | | | | | | | | | | | | | | | | | | | 3.89 | 5.37 | 5.99 | -- | 5.89 | 12.35 | 7.57 | 5.76 | 16.90 | 5.34 | 3.50 | 2.15 | 2.06 | 1.94 | 1.44 | 1.65 | 1.42 | 2.09 | 1.57 | 1.61 | 8.61 | 5.40 | 3.19 | 2.53 | Diurnal Maximum | |
| Z - zerospan C - Calibration 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
August 2016

| Maximum Value: 3.45 ppb on Aug 24 13:00 | | Maximum Daily Average: 0.69 ppb on Aug 15 | | Hours in Service: 744 | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------|--|------|--------------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|-----------------|--|
| Minimum Value: 0.0 ppb on Aug 1 01:00 | | Minimum Daily Average: 0.02 ppb on Aug 25 | | Hours of Data: 701 | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Diurnal Average: 0.65 ppb at hour 13 | | Minimum Diurnal Average: 0.04 ppb at hour 5 | | Hours of Missing Data: 43 | | | | | | | | | | | | | | | | | | | | | | | |
| Monthly Average: 0.205 ppb | | Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 2.3 | | Hours of Calibration: 40 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Percent Operational Time: 99.6 | | | | | | | | | | | | | | | | | | | | | | | |
| 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-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.2 | 0.1 | 0.5 | 1.1 | 0.7 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.12 | 1.11 | |
| 2-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.6 | 1.0 | 2.3 | 0.5 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.1 | 0.25 | 2.30 | |
| 3-Aug | 0.1 | 0.0 | 0.1 | Z | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.8 | 0.9 | 1.3 | 1.5 | 0.1 | 0.0 | 0.2 | 0.0 | 0.0 | 0.2 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.27 | 1.50 | |
| 4-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 1.0 | 1.0 | 2.3 | 0.4 | 0.1 | 0.0 | 0.2 | 0.1 | 0.0 | 0.3 | 0.1 | 0.1 | 0.1 | 0.0 | 0.26 | 2.34 | |
| 5-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.10 | 0.26 | |
| 6-Aug | 0.1 | 0.2 | 0.2 | Z | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.09 | 0.19 | |
| 7-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.06 | 0.13 | |
| 8-Aug | PF | PF | 0.2 | Z | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 1.4 | 2.3 | 0.4 | 0.3 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.30 | 2.34 | |
| 9-Aug | 0.1 | 0.2 | 0.1 | Z | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.6 | 0.2 | C | C | C | C | C | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.20 | 0.57 | |
| 10-Aug | 0.4 | 0.3 | 0.3 | Z | 0.3 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0 | 0.1 | 0.1 | 0.23 | 0.38 | |
| 11-Aug | 0.1 | 0.1 | 0.1 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.5 | 0.4 | 0.4 | 2.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.19 | 2.18 | |
| 12-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 1.6 | 1.4 | 0.2 | 0.2 | 0.2 | 0.4 | 0.5 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.21 | 1.56 | |
| 13-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.4 | 0.9 | 1.7 | 0.5 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.20 | 1.67 | |
| 14-Aug | 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 | 0.6 | 0.3 | 0.1 | 0.6 | 0.4 | 0.1 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 | 0.18 | 0.63 | |
| 15-Aug | 0.1 | 0.1 | 0.1 | Z | 0.0 | 0.1 | 0.2 | 0.1 | 0.3 | 0.4 | 0.7 | 0.5 | 2.9 | 2.4 | 1.5 | 1.9 | 1.1 | 1.6 | 0.6 | 0.5 | 0.2 | 0.1 | 0.1 | 0.1 | 0.69 | 2.93 | |
| 16-Aug | 0.2 | 0.1 | 0.1 | Z | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.3 | 0.2 | 0.0 | 0.3 | 1.1 | 2.3 | 0.2 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.27 | 2.30 | |
| 17-Aug | 0.1 | 0.1 | 0.1 | Z | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.19 | 0.37 | |
| 18-Aug | 0.2 | 0.2 | 0.3 | Z | 0.2 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 1.1 | 0.4 | 0.3 | 0.3 | 0.2 | 0.7 | 0.8 | 1.2 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.36 | 1.17 | |
| 19-Aug | 0.1 | 0.2 | 0.2 | Z | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 1.2 | 0.7 | 0.2 | 0.7 | 1.2 | 0.3 | 2.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.34 | 2.27 | |
| 20-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.8 | 0.6 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.10 | 0.79 | |
| 21-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.02 | 0.13 | |
| 22-Aug | 0.1 | 0.2 | 0.1 | Z | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.06 | 0.20 | |
| 23-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 1.4 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.11 | 1.40 | |
| 24-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.1 | C | C | C | C | 3.5 | 3.1 | 0.7 | 0.6 | 0.5 | 0.2 | 0.2 | 0.0 | 0.3 | 0.1 | 0.0 | 0.0 | 0.49 | 3.45 | |
| 25-Aug | 0.1 | 0.0 | 0.0 | Z | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.02 | 0.09 | |
| 26-Aug | 0.0 | 0.0 | 0.0 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.6 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.08 | 0.63 | |
| 27-Aug | 0.1 | 0.0 | 0.1 | Z | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.2 | 0.3 | 0.4 | 0.6 | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.18 | 0.56 | |
| 28-Aug | 0.2 | 0.2 | 0.3 | Z | 0.1 | 0.2 | 0.1 | 0.1 | 0.4 | 0.5 | 0.6 | 0.7 | 0.3 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.21 | 0.71 | |
| 29-Aug | 0.0 | 0.1 | 0.1 | Z | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 1.2 | 2.2 | 0.4 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.25 | 2.25 | |
| 30-Aug | 0.1 | 0.2 | 0.1 | Z | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.09 | 0.16 | |
| 31-Aug | 0.0 | 0.1 | 0.1 | Z | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 2.7 | 0.8 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.25 | 2.70 | |
| | | 0.08 | 0.09 | 0.09 | -- | 0.04 | 0.05 | 0.06 | 0.06 | 0.09 | 0.20 | 0.53 | 0.58 | 0.65 | 0.44 | 0.44 | 0.30 | 0.27 | 0.19 | 0.12 | 0.12 | 0.10 | 0.08 | 0.09 | 0.10 | Diurnal Average | |
| | | 0.38 | 0.35 | 0.34 | -- | 0.31 | 0.23 | 0.35 | 0.22 | 0.39 | 0.81 | 2.70 | 2.34 | 3.45 | 3.07 | 2.30 | 1.89 | 2.27 | 1.62 | 0.62 | 0.54 | 0.32 | 0.31 | 0.30 | 0.62 | 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
August 2016

| Maximum Value: 40.34 ppb on Aug 5 15:00 | | Maximum Daily Average: 26.23 ppb on Aug 6 | | Hours in Service: 744 | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------|--|-------|--------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|-----------------|-------|
| Minimum Value: 0.7 ppb on Aug 24 05:00 | | Minimum Daily Average: 9.03 ppb on Aug 10 | | Hours of Data: 697 | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Diurnal Average: 26.60 ppb at hour 15 | | Minimum Diurnal Average: 5.25 ppb at hour 7 | | Hours of Missing Data: 47 | | | | | | | | | | | | | | | | | | | | | | | |
| Monthly Average: 15.980 ppb | | Percentiles: P ₁ = 0.9 P ₁₀ = 2.1 Q ₁ = 6.4 Median = 16.3 Q ₃ = 24.4 P ₉₀ = 29.2 P ₉₉ = 37.1 | | Hours of Calibration: 44 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Percent Operational Time: 99.6 | | | | | | | | | | | | | | | | | | | | | | | |
| 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-Aug | 11.7 | 10.0 | 5.7 | Z | 4.8 | 6.6 | 6.3 | 10.7 | 12.8 | 15.4 | 22.4 | 18.7 | 21.7 | 22.0 | 24.0 | 26.0 | 26.6 | 23.1 | 27.6 | 22.1 | 14.4 | 3.4 | 2.5 | 2.8 | 14.84 | 27.56 | |
| 2-Aug | 2.5 | 2.0 | 2.2 | Z | 1.3 | 2.1 | 2.4 | 6.1 | 9.4 | 14.1 | 20.2 | 26.5 | 28.7 | 25.6 | 27.7 | 28.2 | 31.7 | 32.2 | 28.9 | 21.9 | 24.1 | 27.7 | 31.2 | 27.9 | 18.46 | 32.23 | |
| 3-Aug | 20.0 | 20.6 | 20.8 | Z | 13.4 | 11.1 | 9.4 | 11.9 | 16.4 | 19.3 | 25.9 | 28.7 | 31.1 | 31.4 | 31.8 | 29.8 | 28.5 | 26.0 | 30.4 | 29.8 | 28.2 | 16.5 | 10.6 | 8.5 | 21.74 | 31.78 | |
| 4-Aug | 8.4 | 11.7 | 8.0 | Z | 4.4 | 3.8 | 3.5 | 7.3 | 14.1 | 20.5 | 26.8 | 37.0 | 40.0 | 37.3 | 35.4 | 33.8 | 35.8 | 36.1 | 34.4 | 26.3 | 26.7 | 24.0 | 18.3 | 15.5 | 22.14 | 40.03 | |
| 5-Aug | 8.7 | 6.3 | 3.9 | Z | 2.4 | 2.5 | 3.0 | 4.1 | 6.4 | 17.9 | 25.8 | 29.6 | 33.4 | 36.3 | 40.3 | 40.1 | 38.1 | 35.3 | 33.5 | 35.2 | 33.4 | 35.3 | 35.2 | 31.7 | 23.40 | 40.34 | |
| 6-Aug | 26.4 | 23.6 | 20.8 | Z | 35.4 | 32.1 | 32.1 | 27.9 | 23.5 | 28.1 | 31.5 | 29.2 | 26.0 | 25.8 | 24.2 | 25.1 | 25.5 | 22.9 | 18.9 | 17.7 | 25.5 | 24.8 | 28.1 | 28.1 | 26.23 | 35.43 | |
| 7-Aug | 25.7 | 25.5 | 26.9 | Z | 6.0 | 5.7 | 5.6 | 8.3 | 17.9 | 20.9 | 27.4 | 29.0 | 27.7 | 26.4 | 28.3 | 30.9 | 36.7 | 36.9 | 29.8 | 23.4 | 16.5 | 11.3 | 9.5 | PF | 21.65 | 36.92 | |
| 8-Aug | PF | PF | 23.0 | Z | 7.9 | 1.9 | 2.5 | 4.2 | 5.9 | 8.8 | 20.4 | 29.2 | 33.0 | 37.4 | 37.1 | 35.2 | 31.2 | 27.9 | 24.7 | 17.5 | 11.8 | 21.2 | 29.6 | 21.7 | 20.57 | 37.44 | |
| 9-Aug | 10.3 | 7.0 | 4.8 | Z | 1.8 | 3.4 | 4.3 | 7.4 | C | C | C | C | C | C | C | C | C | C | 27.0 | 17.7 | 17.6 | 19.0 | 14.6 | 10.5 | 6.5 | -- | 27.02 |
| 10-Aug | 3.9 | 7.1 | 4.2 | Z | 1.0 | 2.0 | 2.6 | 4.6 | 4.6 | 5.9 | 6.6 | 13.6 | 13.7 | 20.0 | 19.6 | 16.6 | 17.1 | 18.9 | 14.8 | 11.8 | 9.9 | 4.8 | 2.2 | 2.3 | 9.03 | 20.04 | |
| 11-Aug | 1.3 | 0.9 | 1.2 | Z | 1.0 | 1.0 | 1.3 | 1.9 | 4.9 | 6.3 | 11.5 | 18.9 | 21.5 | 26.1 | 27.8 | 29.5 | 24.5 | 22.4 | 23.3 | 21.3 | 13.0 | 10.1 | 6.7 | 4.9 | 12.24 | 29.54 | |
| 12-Aug | 3.4 | 2.3 | 2.9 | Z | 1.9 | 1.9 | 4.1 | 7.8 | 12.8 | 18.1 | 24.1 | 28.1 | 28.2 | 29.1 | 28.6 | 29.4 | 30.6 | 29.8 | 28.5 | 21.5 | 9.2 | 5.0 | 3.2 | 2.7 | 15.35 | 30.61 | |
| 13-Aug | 2.8 | 1.7 | 1.4 | Z | 1.7 | 2.0 | 2.2 | 6.7 | 12.8 | 16.8 | 20.1 | 29.0 | 32.0 | 24.4 | 24.9 | 20.6 | 13.9 | 14.4 | 13.7 | 11.6 | 12.8 | 11.6 | 17.6 | 16.9 | 13.55 | 32.05 | |
| 14-Aug | 21.1 | 22.8 | 24.3 | Z | 21.8 | 13.9 | 7.7 | 12.0 | 20.5 | 23.8 | 26.0 | 28.9 | 30.9 | 31.8 | 29.1 | 27.6 | 27.4 | 28.6 | 22.6 | 25.2 | 22.3 | 20.6 | 22.9 | 16.7 | 22.98 | 31.77 | |
| 15-Aug | 11.6 | 9.6 | 5.7 | Z | 3.6 | 3.1 | 3.1 | 6.3 | 9.6 | 13.2 | 19.6 | 24.3 | 27.0 | 27.8 | 29.2 | 30.7 | 30.2 | 30.3 | 29.4 | 24.7 | 12.4 | 8.9 | 5.0 | 4.0 | 16.06 | 30.73 | |
| 16-Aug | 3.0 | 2.4 | 2.1 | Z | 2.1 | 2.0 | 2.4 | 5.3 | 9.9 | 22.0 | 11.2 | 9.7 | 19.0 | 23.6 | 26.7 | 26.7 | 23.9 | 14.2 | 19.1 | 17.8 | 10.9 | 9.0 | 7.0 | 2.6 | 11.86 | 26.71 | |
| 17-Aug | 1.4 | 1.8 | 4.1 | Z | 2.1 | 1.3 | 1.8 | 4.1 | 8.4 | 13.8 | 27.9 | 30.0 | 29.9 | 29.3 | 31.6 | 30.6 | 31.2 | 31.1 | 30.0 | 25.7 | 21.8 | 13.3 | 13.7 | 13.8 | 17.34 | 31.60 | |
| 18-Aug | 6.7 | 3.9 | 2.9 | Z | 1.9 | 1.8 | 3.3 | 3.9 | 7.0 | 12.1 | 17.1 | 24.6 | 24.1 | 23.9 | 23.7 | 22.4 | 23.5 | 21.8 | 22.5 | 19.3 | 10.0 | 3.8 | 2.6 | 2.0 | 12.38 | 24.58 | |
| 19-Aug | 1.7 | 1.2 | 1.1 | Z | 0.9 | 0.9 | 1.2 | 2.4 | 6.7 | 13.1 | 16.5 | 20.0 | 22.5 | 25.6 | 25.8 | 25.7 | 26.0 | 26.7 | 22.9 | 21.8 | 11.7 | 9.0 | 2.8 | 2.6 | 12.56 | 26.69 | |
| 20-Aug | 2.7 | 3.3 | 2.4 | Z | 1.3 | 1.3 | 1.7 | 3.1 | 9.1 | 16.1 | 21.3 | 23.0 | 24.7 | 24.2 | 20.8 | 19.7 | 18.1 | 17.9 | 18.7 | 16.1 | 13.4 | 11.6 | 8.3 | 5.2 | 12.35 | 24.66 | |
| 21-Aug | 4.9 | 5.1 | 4.5 | Z | 3.0 | 5.3 | 6.2 | 9.7 | 12.3 | 15.2 | 16.0 | 19.9 | 20.6 | 23.8 | 26.8 | 27.5 | 24.4 | 24.6 | 25.3 | 25.6 | 24.0 | 19.0 | 20.5 | 24.7 | 16.90 | 27.47 | |
| 22-Aug | 27.4 | 25.3 | 15.8 | Z | 12.7 | 18.2 | 12.4 | 16.1 | 17.2 | 14.9 | 17.9 | 15.9 | 17.7 | 19.9 | 19.5 | 15.8 | 14.4 | 13.5 | 14.6 | 14.3 | 12.6 | 12.3 | 12.7 | 11.7 | 16.21 | 27.35 | |
| 23-Aug | 14.2 | 11.2 | 10.4 | Z | 8.7 | 4.0 | 3.0 | 5.3 | 5.1 | 5.9 | 13.9 | 21.1 | 25.8 | 25.7 | 24.6 | 25.1 | 24.9 | 23.2 | 20.8 | 15.3 | 11.2 | 3.9 | 1.5 | 1.4 | 13.31 | 25.79 | |
| 24-Aug | 1.0 | 1.0 | 1.0 | Z | 0.7 | 0.8 | 1.0 | 3.0 | C | C | C | C | 25.1 | 29.7 | 33.1 | 34.4 | 30.5 | 23.0 | 19.3 | 23.3 | 15.9 | 15.1 | 11.7 | 12.3 | 14.84 | 34.42 | |
| 25-Aug | 9.5 | 8.0 | 12.6 | Z | 9.8 | 7.3 | 5.5 | 8.2 | 10.9 | 19.2 | 18.9 | 22.5 | 24.3 | 24.6 | 23.8 | 25.4 | 24.8 | 20.1 | 12.6 | 6.4 | 7.0 | 4.0 | 2.1 | 1.6 | 13.43 | 25.42 | |
| 26-Aug | 1.1 | 1.0 | 1.0 | Z | 0.9 | 0.9 | 1.3 | 2.0 | 6.4 | 10.8 | 16.4 | 18.7 | 22.6 | 24.2 | 25.6 | 21.6 | 17.3 | 19.6 | 10.3 | 7.7 | 5.0 | 3.8 | 2.8 | 3.2 | 9.74 | 25.58 | |
| 27-Aug | 2.7 | 2.7 | 2.7 | Z | 1.8 | 2.0 | 1.7 | 2.2 | 8.7 | 15.7 | 16.5 | 15.7 | 22.8 | 26.7 | 27.9 | 24.5 | 19.0 | 17.9 | 14.8 | 14.6 | 13.0 | 12.9 | 14.1 | 15.5 | 12.88 | 27.88 | |
| 28-Aug | 16.0 | 16.3 | 15.9 | Z | 16.7 | 17.3 | 15.9 | 16.6 | 17.1 | 17.8 | 17.2 | 19.1 | 20.2 | 21.1 | 22.1 | 21.2 | 20.9 | 20.7 | 19.6 | 18.3 | 17.9 | 19.3 | 19.3 | 18.6 | 18.47 | 22.07 | |
| 29-Aug | 14.6 | 11.7 | 8.6 | Z | 7.1 | 4.0 | 2.6 | 5.8 | 8.8 | 10.0 | 11.1 | 11.7 | 12.9 | 16.2 | 19.5 | 19.8 | 24.1 | 27.0 | 27.7 | 22.8 | 20.5 | 19.0 | 20.0 | 19.2 | 15.00 | 27.71 | |
| 30-Aug | 18.9 | 18.5 | 17.2 | Z | 11.7 | 9.1 | 8.1 | 6.9 | 7.3 | 7.7 | 9.1 | 11.2 | 13.9 | 14.3 | 14.4 | 15.4 | 18.3 | 20.3 | 15.3 | 9.8 | 5.5 | 1.9 | 1.8 | 1.7 | 11.22 | 20.28 | |
| 31-Aug | 1.8 | 1.2 | 1.1 | Z | 1.4 | 1.7 | 4.4 | 5.5 | 7.5 | 15.1 | 23.1 | 23.6 | 26.8 | 26.4 | 24.2 | 26.6 | 27.8 | 28.3 | 25.8 | 22.7 | 21.8 | 19.7 | 16.3 | 21.1 | 16.25 | 28.26 | |
| | | 9.52 | 8.86 | 8.35 | -- | 6.16 | 5.52 | 5.25 | 7.33 | 10.82 | 15.13 | 19.39 | 22.66 | 24.92 | 26.02 | 26.60 | 26.20 | 25.57 | 24.58 | 22.50 | 19.64 | 16.18 | 13.46 | 12.59 | 11.57 | Diurnal Average | |
| | | 27.35 | 25.49 | 26.88 | -- | 35.43 | 32.14 | 32.13 | 27.92 | 23.50 | 28.08 | 31.54 | 37.02 | 40.03 | 37.44 | 40.34 | 40.07 | 38.14 | 36.92 | 34.35 | 35.17 | 33.42 | 35.27 | 35.20 | 31.66 | 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
Summary of Hourly Averages

Nitrogen Oxide (NO) - ppb
August 2016

| Maximum Value: 9.50 ppb on Aug 16 08:00 | | Maximum Daily Average: 2.08 ppb on Aug 24 | | Hours in Service: 744 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------|--|-----|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|---------------|---------------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|--|
| Minimum Value: 0.0 ppb on Aug 14 03:00 | | Minimum Daily Average: 0.26 ppb on Aug 6 | | Hours of Data: 700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Diurnal Average: 2.98 ppb at hour 7 | | Minimum Diurnal Average: 0.36 ppb at hour 21 | | Hours of Missing Data: 44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Monthly Average: 1.158 ppb | | Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.3 Median = 0.6 Q ₃ = 1.5 P ₉₀ = 3.0 P ₉₉ = 6.8 | | Hours of Calibration: 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Percent Operational Time: 99.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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-Aug | 0.1 | 0.1 | 0.1 | Z | 0.1 | 0.4 | 0.6 | 0.7 | 0.9 | 1.2 | 0.4 | 1.0 | 0.8 | 1.1 | 1.2 | 0.7 | 0.5 | 0.2 | 0.6 | 0.5 | 0.3 | 2.8 | 1.6 | 0.4 | 0.71 | 2.81 | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Aug | 2.6 | 0.9 | 0.6 | Z | 3.0 | 4.0 | 7.2 | 3.5 | 5.4 | 5.7 | 3.0 | 2.1 | 0.7 | 0.5 | 1.5 | 1.0 | 0.4 | 0.7 | 0.8 | 0.4 | 0.3 | 0.2 | 0.5 | 0.2 | 1.96 | 7.20 | | | | | | | | | | | | | | | | | | | | | | | |
| 3-Aug | 0.1 | 0.0 | 0.1 | Z | 0.2 | 0.5 | 1.6 | 1.3 | 2.3 | 2.7 | 1.7 | 1.3 | 1.0 | 0.3 | 0.6 | 0.5 | 0.2 | 0.2 | 0.3 | 0.5 | 0.4 | 0.1 | 0.0 | 0.0 | 0.69 | 2.66 | | | | | | | | | | | | | | | | | | | | | | | |
| 4-Aug | 0.1 | 0.0 | 0.0 | Z | 0.2 | 1.8 | 3.7 | 2.7 | 1.4 | 1.2 | 1.5 | 0.5 | 0.6 | 0.3 | 0.1 | 0.1 | 0.2 | 0.3 | 1.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.74 | 3.75 | | | | | | | | | | | | | | | | | | | | | | | |
| 5-Aug | 0.3 | 0.1 | 0.3 | Z | 0.3 | 0.6 | 5.4 | 3.2 | 4.9 | 1.6 | 0.9 | 0.6 | 0.4 | 0.4 | 0.5 | 0.4 | 0.7 | 0.5 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.97 | 5.37 | | | | | | | | | | | | | | | | | | | | | | | |
| 6-Aug | 0.1 | 0.1 | 0.1 | Z | 0.2 | 0.0 | 0.0 | 0.1 | 0.5 | 0.2 | 0.2 | 0.6 | 0.6 | 0.7 | 0.8 | 0.4 | 0.3 | 0.2 | 0.1 | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.26 | 0.77 | | | | | | | | | | | | | | | | | | | | | | | |
| 7-Aug | 0.1 | 0.0 | 0.1 | Z | 0.0 | 0.2 | 3.8 | 1.3 | 0.7 | 0.8 | 0.7 | 0.3 | 0.4 | 0.3 | 0.3 | 0.7 | 0.4 | 0.4 | 0.2 | 0.4 | 0.3 | 0.2 | 0.4 | PF | 0.54 | 3.80 | | | | | | | | | | | | | | | | | | | | | | | |
| 8-Aug | PF | PF | 0.5 | Z | 0.9 | 6.4 | 2.8 | 6.5 | 3.9 | 3.9 | 2.5 | 1.6 | 0.4 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 0.2 | 0.2 | 0.1 | 0.1 | 1.57 | 6.51 | | | | | | | | | | | | | | | | | | | | | | | |
| 9-Aug | 0.1 | 0.1 | 0.2 | Z | 2.0 | 0.3 | 0.2 | 1.2 | C | C | C | C | C | 0.4 | 0.4 | 0.7 | 1.0 | 0.7 | 0.4 | 0.5 | 0.2 | 0.1 | 0.1 | 0.3 | 0.49 | 2.02 | | | | | | | | | | | | | | | | | | | | | | | |
| 10-Aug | 0.3 | 0.1 | 0.6 | Z | 4.3 | 1.4 | 0.7 | 0.9 | 1.0 | 1.0 | 2.2 | 2.0 | 0.9 | 0.9 | 0.9 | 2.1 | 0.4 | 1.3 | 0.8 | 0.3 | 0.2 | 0.6 | 0.5 | 0.3 | 1.04 | 4.34 | | | | | | | | | | | | | | | | | | | | | | | |
| 11-Aug | 1.3 | 1.2 | 0.5 | Z | 1.1 | 1.7 | 3.5 | 3.3 | 1.9 | 3.0 | 3.2 | 1.9 | 1.4 | 1.7 | 1.8 | 0.4 | 0.1 | 0.2 | 0.1 | 0.1 | 0.5 | 0.3 | 0.3 | 0.1 | 1.28 | 3.53 | | | | | | | | | | | | | | | | | | | | | | | |
| 12-Aug | 0.1 | 2.5 | 2.1 | Z | 0.5 | 3.0 | 0.8 | 0.9 | 2.9 | 2.3 | 3.8 | 1.6 | 0.4 | 0.2 | 0.3 | 0.2 | 0.3 | 0.4 | 0.2 | 0.2 | 0.8 | 1.2 | 1.0 | 0.2 | 1.14 | 3.77 | | | | | | | | | | | | | | | | | | | | | | | |
| 13-Aug | 0.5 | 1.9 | 1.5 | Z | 0.7 | 0.5 | 2.2 | 3.0 | 1.8 | 2.1 | 1.6 | 1.3 | 1.3 | 0.4 | 0.6 | 0.5 | 1.1 | 1.9 | 0.8 | 0.2 | 0.2 | 0.7 | 0.1 | 0.0 | 1.08 | 2.97 | | | | | | | | | | | | | | | | | | | | | | | |
| 14-Aug | 0.0 | 0.0 | 0.0 | Z | 0.2 | 0.2 | 2.2 | 0.5 | 2.4 | 0.3 | 0.4 | 0.6 | 1.3 | 0.3 | 0.2 | 0.5 | 0.5 | 0.3 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.46 | 2.38 | | | | | | | | | | | | | | | | | | | | | | | |
| 15-Aug | 0.1 | 0.0 | 0.4 | Z | 0.1 | 0.2 | 1.2 | 2.0 | 2.6 | 2.5 | 1.6 | 0.6 | 2.0 | 1.5 | 1.0 | 0.6 | 0.3 | 0.4 | 0.2 | 0.2 | 0.5 | 0.5 | 0.2 | 0.2 | 0.83 | 2.62 | | | | | | | | | | | | | | | | | | | | | | | |
| 16-Aug | 2.2 | 2.7 | 0.8 | Z | 0.6 | 2.7 | 2.9 | 9.5 | 3.8 | 1.1 | 1.6 | 1.3 | 2.3 | 3.4 | 3.5 | 0.2 | 0.7 | 0.7 | 0.6 | 0.3 | 0.2 | 0.3 | 0.2 | 0.5 | 1.83 | 9.50 | | | | | | | | | | | | | | | | | | | | | | | |
| 17-Aug | 0.3 | 0.9 | 0.4 | Z | 1.1 | 5.1 | 3.5 | 7.4 | 6.9 | 4.8 | 1.1 | 0.4 | 0.6 | 0.1 | 0.2 | 0.2 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 1.49 | 7.40 | | | | | | | | | | | | | | | | | | | | | | | |
| 18-Aug | 0.2 | 1.6 | 0.5 | Z | 2.7 | 6.6 | 4.9 | 2.5 | 5.2 | 3.0 | 2.1 | 0.7 | 0.4 | 0.4 | 0.5 | 1.1 | 1.3 | 1.3 | 0.5 | 0.5 | 0.4 | 1.2 | 0.7 | 1.2 | 1.71 | 6.59 | | | | | | | | | | | | | | | | | | | | | | | |
| 19-Aug | 0.7 | 1.3 | 1.4 | Z | 2.8 | 2.8 | 8.3 | 2.0 | 1.7 | 1.5 | 1.8 | 1.4 | 0.9 | 0.9 | 1.2 | 0.3 | 1.5 | 0.3 | 0.9 | 0.3 | 1.5 | 0.8 | 3.0 | 1.3 | 1.66 | 8.26 | | | | | | | | | | | | | | | | | | | | | | | |
| 20-Aug | 1.3 | 0.4 | 0.3 | Z | 1.3 | 1.6 | 7.3 | 4.1 | 3.6 | 1.8 | 1.0 | 1.4 | 0.9 | 0.4 | 0.4 | 0.6 | 0.7 | 0.5 | 0.3 | 0.2 | 0.3 | 0.3 | 0.6 | 0.6 | 1.30 | 7.33 | | | | | | | | | | | | | | | | | | | | | | | |
| 21-Aug | 0.5 | 0.2 | 0.4 | Z | 0.6 | 0.6 | 0.5 | 0.8 | 1.0 | 1.4 | 1.3 | 2.1 | 0.4 | 0.4 | 0.2 | 0.5 | 0.3 | 0.3 | 0.4 | 0.5 | 0.2 | 0.1 | 0.1 | 0.1 | 0.56 | 2.08 | | | | | | | | | | | | | | | | | | | | | | | |
| 22-Aug | 0.1 | 0.0 | 0.1 | Z | 0.4 | 0.4 | 0.5 | 0.7 | 0.4 | 2.0 | 1.0 | 2.4 | 0.6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.41 | 2.43 | | | | | | | | | | | | | | | | | | | | | | | |
| 23-Aug | 0.0 | 0.0 | 0.3 | Z | 0.8 | 3.3 | 4.3 | 4.3 | 3.9 | 4.0 | 5.0 | 0.5 | 0.1 | 0.2 | 1.0 | 1.4 | 0.8 | 0.4 | 0.3 | 0.3 | 0.2 | 1.8 | 2.9 | 2.7 | 1.67 | 5.02 | | | | | | | | | | | | | | | | | | | | | | | |
| 24-Aug | 3.9 | 2.9 | 1.4 | Z | 7.3 | 6.9 | 5.7 | 3.3 | C | C | C | C | C | 2.0 | 0.7 | 0.6 | 0.6 | 0.3 | 0.2 | 0.5 | 0.6 | 0.5 | 0.1 | 0.1 | 2.08 | 7.28 | | | | | | | | | | | | | | | | | | | | | | | |
| 25-Aug | 0.1 | 0.1 | 0.2 | Z | 0.4 | 1.5 | 1.9 | 1.3 | 0.8 | 0.3 | 0.2 | 1.1 | 0.7 | 0.5 | 0.5 | 0.9 | 2.0 | 1.4 | 1.2 | 1.2 | 0.4 | 0.6 | 0.9 | 2.9 | 0.92 | 2.90 | | | | | | | | | | | | | | | | | | | | | | | |
| 26-Aug | 3.8 | 3.8 | 3.2 | Z | 2.5 | 3.9 | 3.7 | 3.0 | 2.4 | 1.4 | 1.6 | 1.9 | 2.5 | 1.1 | 0.6 | 0.7 | 1.0 | 1.6 | 1.4 | 0.6 | 0.9 | 1.3 | 0.6 | 0.4 | 1.92 | 3.94 | | | | | | | | | | | | | | | | | | | | | | | |
| 27-Aug | 0.3 | 0.9 | 0.2 | Z | 1.7 | 2.8 | 3.8 | 3.1 | 3.7 | 1.7 | 1.6 | 1.8 | 2.4 | 1.0 | 0.6 | 0.6 | 1.8 | 0.6 | 0.2 | 0.4 | 0.1 | 0.0 | 0.3 | 0.0 | 1.29 | 3.79 | | | | | | | | | | | | | | | | | | | | | | | |
| 28-Aug | 0.0 | 0.0 | 0.0 | Z | 0.1 | 0.2 | 0.1 | 0.2 | 1.6 | 1.6 | 1.3 | 0.9 | 0.6 | 0.4 | 0.5 | 1.2 | 0.8 | 0.8 | 0.6 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.50 | 1.60 | | | | | | | | | | | | | | | | | | | | | | | |
| 29-Aug | 1.3 | 1.2 | 0.2 | Z | 0.8 | 2.3 | 3.7 | 2.7 | 1.7 | 1.5 | 2.2 | 2.5 | 2.0 | 1.1 | 1.3 | 1.0 | 0.8 | 1.5 | 0.5 | 0.3 | 0.6 | 0.5 | 0.2 | 0.1 | 1.31 | 3.74 | | | | | | | | | | | | | | | | | | | | | | | |
| 30-Aug | 0.3 | 0.3 | 0.3 | Z | 0.6 | 0.7 | 1.9 | 2.5 | 2.7 | 2.8 | 2.6 | 1.7 | 1.7 | 1.9 | 2.4 | 2.2 | 1.4 | 0.7 | 1.0 | 0.4 | 0.7 | 4.0 | 1.8 | 1.6 | 1.57 | 3.95 | | | | | | | | | | | | | | | | | | | | | | | |
| 31-Aug | 1.0 | 3.0 | 3.1 | Z | 5.9 | 5.6 | 3.2 | 2.4 | 5.3 | 5.0 | 3.3 | 0.9 | 0.5 | 0.5 | 0.8 | 0.5 | 1.1 | 1.1 | 0.8 | 0.8 | 0.4 | 0.2 | 0.4 | 0.3 | 2.00 | 5.94 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 0.71 | 0.88 | 0.64 | -- | 1.41 | 2.21 | 2.98 | 2.60 | 2.67 | 2.15 | 1.76 | 1.28 | 1.00 | 0.76 | 0.80 | 0.68 | 0.72 | 0.64 | 0.51 | 0.37 | 0.36 | 0.63 | 0.56 | 0.48 | Diurnal Average | |
| | | | | | | | | | | | | | | | | | | | | | | | | 3.86 | 3.80 | 3.17 | -- | 7.28 | 6.89 | 8.26 | 9.50 | 6.92 | 5.68 | 5.02 | 2.55 | 2.50 | 3.38 | 3.54 | 2.22 | 2.03 | 1.91 | 1.44 | 1.22 | 1.46 | 3.95 | 2.98 | 2.90 | 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
August 2016

| Maximum Value: 8.76 ppb on Aug 22 10:00 | | Maximum Daily Average: 4.15 ppb on Aug 16 | | Hours in Service: 744 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------|--|-----|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------|---------------|---------------|----|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|--|
| Minimum Value: 0.2 ppb on Aug 11 17:00 | | Minimum Daily Average: 1.15 ppb on Aug 28 | | Hours of Data: 700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Diurnal Average: 3.70 ppb at hour 9 | | Minimum Diurnal Average: 1.59 ppb at hour 14 | | Hours of Missing Data: 44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Monthly Average: 2.614 ppb | | Percentiles: P ₁ = 0.3 P ₁₀ = 1.0 Q ₁ = 1.5 Median = 2.3 Q ₃ = 3.4 P ₉₀ = 4.7 P ₉₉ = 7.3 | | Hours of Calibration: 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Percent Operational Time: 99.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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-Aug | 2.5 | 5.1 | 2.7 | Z | 1.3 | 6.1 | 3.7 | 2.6 | 2.8 | 2.4 | 0.9 | 3.3 | 2.1 | 2.2 | 2.5 | 1.6 | 1.0 | 0.7 | 1.1 | 2.9 | 2.3 | 7.7 | 7.1 | 3.6 | 2.96 | 7.74 | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Aug | 4.1 | 4.5 | 4.3 | Z | 4.6 | 3.8 | 3.4 | 3.7 | 7.0 | 6.1 | 6.3 | 4.5 | 2.3 | 1.2 | 2.3 | 1.2 | 1.1 | 1.5 | 1.8 | 4.2 | 1.7 | 1.7 | 4.5 | 2.8 | 3.41 | 7.00 | | | | | | | | | | | | | | | | | | | | | | | |
| 3-Aug | 2.0 | 1.1 | 4.6 | Z | 4.4 | 6.3 | 6.0 | 3.1 | 3.6 | 3.7 | 2.8 | 2.7 | 2.2 | 1.0 | 1.4 | 1.6 | 1.0 | 0.8 | 3.1 | 3.7 | 3.0 | 1.8 | 2.0 | 1.6 | 2.77 | 6.29 | | | | | | | | | | | | | | | | | | | | | | | |
| 4-Aug | 4.8 | 2.6 | 2.3 | Z | 1.6 | 3.3 | 3.8 | 3.0 | 2.5 | 2.2 | 3.3 | 1.7 | 2.2 | 1.2 | 0.6 | 0.4 | 1.2 | 1.3 | 2.3 | 2.7 | 2.0 | 1.6 | 1.4 | 4.6 | 2.28 | 4.78 | | | | | | | | | | | | | | | | | | | | | | | |
| 5-Aug | 4.4 | 2.3 | 3.1 | Z | 3.0 | 2.5 | 3.7 | 3.5 | 5.6 | 4.2 | 2.5 | 2.0 | 2.0 | 2.1 | 2.1 | 1.6 | 1.8 | 1.9 | 1.6 | 1.5 | 1.3 | 1.5 | 1.4 | 1.9 | 2.50 | 5.63 | | | | | | | | | | | | | | | | | | | | | | | |
| 6-Aug | 2.8 | 3.6 | 4.0 | Z | 2.2 | 1.9 | 1.4 | 1.6 | 4.9 | 2.0 | 1.8 | 2.5 | 2.0 | 2.5 | 2.6 | 2.5 | 2.0 | 2.0 | 1.6 | 1.8 | 0.9 | 1.9 | 0.8 | 0.9 | 2.18 | 4.91 | | | | | | | | | | | | | | | | | | | | | | | |
| 7-Aug | 1.4 | 1.6 | 2.6 | Z | 3.1 | 2.6 | 5.0 | 4.3 | 1.6 | 1.5 | 1.2 | 1.0 | 0.8 | 0.8 | 0.9 | 1.6 | 1.2 | 1.8 | 2.7 | 3.7 | 2.7 | 4.4 | 4.7 | PF | 2.32 | 4.97 | | | | | | | | | | | | | | | | | | | | | | | |
| 8-Aug | PF | PF | 2.0 | Z | 3.4 | 5.8 | 4.2 | 7.2 | 6.7 | 4.6 | 4.6 | 3.4 | 1.4 | 1.2 | 1.2 | 1.5 | 1.5 | 1.8 | 3.3 | 4.1 | 1.6 | 2.3 | 1.4 | 1.6 | 3.08 | 7.20 | | | | | | | | | | | | | | | | | | | | | | | |
| 9-Aug | 1.4 | 1.2 | 1.6 | Z | 1.6 | 1.6 | 1.1 | 2.2 | C | C | C | C | C | 0.8 | 1.2 | 2.3 | 2.6 | 2.5 | 2.3 | 3.5 | 2.1 | 3.0 | 2.9 | 1.9 | 2.00 | 3.46 | | | | | | | | | | | | | | | | | | | | | | | |
| 10-Aug | 1.3 | 2.7 | 3.1 | Z | 2.9 | 2.0 | 1.3 | 1.5 | 1.5 | 1.8 | 3.1 | 2.4 | 1.5 | 1.2 | 2.1 | 3.1 | 1.0 | 2.8 | 2.9 | 1.5 | 4.2 | 3.1 | 2.1 | 1.7 | 2.20 | 4.22 | | | | | | | | | | | | | | | | | | | | | | | |
| 11-Aug | 1.4 | 0.9 | 1.0 | Z | 0.9 | 1.4 | 1.7 | 1.7 | 1.6 | 2.8 | 3.8 | 3.3 | 2.4 | 1.8 | 3.8 | 1.3 | 0.2 | 0.4 | 0.3 | 0.5 | 3.0 | 1.7 | 2.2 | 1.4 | 1.71 | 3.84 | | | | | | | | | | | | | | | | | | | | | | | |
| 12-Aug | 2.0 | 3.0 | 2.7 | Z | 1.5 | 2.0 | 1.4 | 1.6 | 4.1 | 3.8 | 4.7 | 3.0 | 0.9 | 0.7 | 0.9 | 0.8 | 0.9 | 0.8 | 1.0 | 2.6 | 7.4 | 6.8 | 5.3 | 2.7 | 2.63 | 7.42 | | | | | | | | | | | | | | | | | | | | | | | |
| 13-Aug | 3.2 | 4.8 | 5.1 | Z | 4.5 | 2.6 | 1.8 | 3.4 | 3.3 | 4.0 | 3.6 | 4.3 | 4.6 | 1.0 | 1.5 | 1.6 | 2.3 | 3.5 | 4.3 | 1.6 | 2.2 | 3.0 | 3.1 | 2.0 | 3.10 | 5.07 | | | | | | | | | | | | | | | | | | | | | | | |
| 14-Aug | 1.8 | 2.7 | 1.0 | Z | 2.2 | 3.0 | 2.7 | 1.9 | 1.4 | 0.9 | 0.9 | 1.2 | 1.7 | 1.0 | 1.1 | 1.4 | 2.0 | 1.6 | 0.6 | 2.2 | 3.5 | 3.9 | 2.7 | 1.6 | 1.88 | 3.88 | | | | | | | | | | | | | | | | | | | | | | | |
| 15-Aug | 3.7 | 2.0 | 5.3 | Z | 2.7 | 2.2 | 2.0 | 2.4 | 3.1 | 3.1 | 2.8 | 1.5 | 3.2 | 2.7 | 1.8 | 1.9 | 1.4 | 2.0 | 2.1 | 2.7 | 5.3 | 3.9 | 3.6 | 3.6 | 2.82 | 5.28 | | | | | | | | | | | | | | | | | | | | | | | |
| 16-Aug | 7.2 | 7.9 | 6.0 | Z | 3.9 | 4.7 | 3.7 | 7.0 | 6.2 | 4.0 | 5.7 | 3.2 | 3.4 | 5.1 | 7.3 | 0.8 | 1.4 | 2.7 | 2.9 | 3.0 | 2.8 | 2.0 | 2.0 | 2.4 | 4.15 | 7.92 | | | | | | | | | | | | | | | | | | | | | | | |
| 17-Aug | 1.0 | 1.6 | 1.1 | Z | 1.8 | 2.7 | 2.4 | 4.5 | 6.6 | 5.9 | 2.4 | 0.8 | 1.1 | 0.5 | 0.6 | 0.9 | 0.8 | 0.5 | 0.6 | 1.0 | 0.6 | 2.8 | 1.0 | 1.1 | 1.84 | 6.61 | | | | | | | | | | | | | | | | | | | | | | | |
| 18-Aug | 3.3 | 3.5 | 2.5 | Z | 3.9 | 4.8 | 4.1 | 3.6 | 4.9 | 3.6 | 3.8 | 1.5 | 1.2 | 1.2 | 1.2 | 2.7 | 2.4 | 3.1 | 2.2 | 3.4 | 5.0 | 7.0 | 5.2 | 5.0 | 3.44 | 7.01 | | | | | | | | | | | | | | | | | | | | | | | |
| 19-Aug | 3.5 | 3.5 | 3.1 | Z | 1.7 | 1.2 | 1.3 | 1.0 | 2.1 | 2.3 | 2.9 | 2.7 | 1.5 | 1.9 | 2.6 | 1.0 | 3.3 | 1.1 | 2.3 | 1.6 | 8.1 | 5.0 | 7.7 | 6.9 | 2.97 | 8.07 | | | | | | | | | | | | | | | | | | | | | | | |
| 20-Aug | 5.6 | 3.2 | 3.0 | Z | 3.5 | 3.9 | 4.0 | 2.8 | 4.0 | 3.1 | 3.1 | 3.8 | 2.4 | 1.3 | 2.0 | 1.6 | 2.2 | 1.5 | 1.3 | 1.6 | 1.7 | 3.1 | 2.8 | 3.8 | 2.85 | 5.55 | | | | | | | | | | | | | | | | | | | | | | | |
| 21-Aug | 2.4 | 1.8 | 2.1 | Z | 2.8 | 2.7 | 2.3 | 1.7 | 1.5 | 1.3 | 1.3 | 2.4 | 2.2 | 2.0 | 1.4 | 1.6 | 1.3 | 1.5 | 1.5 | 1.8 | 1.1 | 1.0 | 0.7 | 1.2 | 1.72 | 2.84 | | | | | | | | | | | | | | | | | | | | | | | |
| 22-Aug | 3.7 | 0.9 | 1.5 | Z | 2.3 | 4.3 | 6.1 | 7.6 | 3.7 | 8.8 | 7.2 | 6.6 | 2.9 | 0.6 | 0.3 | 0.3 | 0.4 | 0.6 | 0.5 | 0.3 | 0.8 | 0.4 | 0.5 | 0.3 | 2.63 | 8.76 | | | | | | | | | | | | | | | | | | | | | | | |
| 23-Aug | 0.4 | 2.3 | 4.1 | Z | 5.2 | 4.5 | 5.6 | 5.9 | 4.7 | 3.0 | 5.5 | 1.2 | 0.3 | 0.5 | 2.5 | 2.8 | 1.5 | 1.3 | 1.5 | 1.8 | 1.0 | 2.3 | 2.5 | 2.3 | 2.74 | 5.91 | | | | | | | | | | | | | | | | | | | | | | | |
| 24-Aug | 1.9 | 1.3 | 0.9 | Z | 1.7 | 2.0 | 1.4 | 1.9 | C | C | C | C | C | 3.4 | 1.4 | 1.4 | 1.9 | 1.0 | 1.1 | 0.8 | 6.8 | 2.5 | 3.6 | 2.4 | 2.08 | 6.78 | | | | | | | | | | | | | | | | | | | | | | | |
| 25-Aug | 2.4 | 3.7 | 2.9 | Z | 3.2 | 4.2 | 3.4 | 3.3 | 1.2 | 0.7 | 0.5 | 2.1 | 1.0 | 1.0 | 1.1 | 1.3 | 4.2 | 3.1 | 4.0 | 3.9 | 2.8 | 2.8 | 1.9 | 2.1 | 2.47 | 4.24 | | | | | | | | | | | | | | | | | | | | | | | |
| 26-Aug | 2.4 | 2.3 | 2.0 | Z | 1.8 | 1.6 | 1.5 | 1.0 | 2.5 | 1.8 | 2.0 | 2.8 | 2.7 | 2.2 | 1.8 | 3.0 | 3.8 | 3.2 | 2.4 | 3.8 | 3.4 | 3.2 | 2.4 | 2.4 | 2.44 | 3.81 | | | | | | | | | | | | | | | | | | | | | | | |
| 27-Aug | 1.6 | 2.1 | 1.5 | Z | 1.7 | 2.9 | 2.8 | 3.6 | 7.1 | 3.2 | 3.7 | 3.8 | 3.9 | 2.0 | 1.1 | 1.3 | 4.2 | 3.8 | 1.1 | 0.7 | 0.4 | 0.3 | 0.4 | 0.3 | 2.33 | 7.10 | | | | | | | | | | | | | | | | | | | | | | | |
| 28-Aug | 0.4 | 0.3 | 1.0 | Z | 0.7 | 1.7 | 0.7 | 1.0 | 2.8 | 1.9 | 2.2 | 1.2 | 0.8 | 0.7 | 0.7 | 0.9 | 1.0 | 1.1 | 1.5 | 0.9 | 1.1 | 1.2 | 1.2 | 1.3 | 1.15 | 2.84 | | | | | | | | | | | | | | | | | | | | | | | |
| 29-Aug | 3.3 | 3.3 | 1.8 | Z | 3.5 | 6.6 | 5.7 | 3.9 | 2.5 | 2.0 | 2.0 | 3.0 | 3.0 | 1.8 | 1.9 | 1.6 | 2.0 | 2.6 | 2.7 | 3.1 | 3.7 | 3.0 | 2.2 | 3.1 | 2.97 | 6.64 | | | | | | | | | | | | | | | | | | | | | | | |
| 30-Aug | 3.7 | 3.6 | 3.0 | Z | 4.5 | 5.4 | 6.0 | 5.1 | 3.2 | 2.3 | 2.2 | 1.7 | 1.9 | 1.9 | 2.6 | 2.7 | 2.5 | 2.6 | 5.5 | 4.5 | 5.8 | 5.8 | 3.6 | 5.4 | 3.71 | 6.03 | | | | | | | | | | | | | | | | | | | | | | | |
| 31-Aug | 4.6 | 3.2 | 2.3 | Z | 4.2 | 5.0 | 4.6 | 4.0 | 4.5 | 5.9 | 6.7 | 3.1 | 1.6 | 1.6 | 2.1 | 1.8 | 3.3 | 3.2 | 2.9 | 2.8 | 2.1 | 1.7 | 1.9 | 7.2 | 3.49 | 7.23 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 2.80 | 2.76 | 2.71 | -- | 2.79 | 3.40 | 3.19 | 3.28 | 3.70 | 3.20 | 3.23 | 2.64 | 2.05 | 1.59 | 1.83 | 1.61 | 1.85 | 1.88 | 2.09 | 2.39 | 2.92 | 2.98 | 2.74 | 2.63 | Diurnal Average | |
| | | | | | | | | | | | | | | | | | | | | | | | | 7.17 | 7.92 | 6.00 | -- | 5.17 | 6.64 | 6.07 | 7.62 | 7.10 | 8.76 | 7.22 | 6.63 | 4.57 | 5.05 | 7.33 | 3.11 | 4.24 | 3.80 | 5.46 | 4.49 | 8.07 | 7.74 | 7.72 | 7.23 | 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
August 2016

| Maximum Value: 16.52 ppb on Aug 16 08:00 | | Maximum Daily Average: 5.98 ppb on Aug 16 | | Hours in Service: 744 | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------|---|-------|--------------------------------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|-------|------|------|------|------|------|------|-------|-------|---------------|-----------------|--|
| Minimum Value: 0.3 ppb on Aug 23 00:00 | | Minimum Daily Average: 1.65 ppb on Aug 28 | | Hours of Data: 700 | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Diurnal Average: 6.37 ppb at hour 9 | | Minimum Diurnal Average: 2.29 ppb at hour 16 | | Hours of Missing Data: 44 | | | | | | | | | | | | | | | | | | | | | | | |
| Monthly Average: 3.771 ppb | | Percentiles: P ₁ = 0.4 P ₁₀ = 1.2 Q ₁ = 1.9 Median = 3.2 Q ₃ = 5.0 P ₉₀ = 7.0 P ₉₉ = 11.7 | | Hours of Calibration: 41 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Percent Operational Time: 99.6 | | | | | | | | | | | | | | | | | | | | | | | |
| 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-Aug | 2.6 | 5.2 | 2.8 | Z | 1.4 | 6.5 | 4.3 | 3.3 | 3.7 | 3.6 | 1.3 | 4.3 | 2.9 | 3.3 | 3.7 | 2.3 | 1.5 | 0.9 | 1.7 | 3.4 | 2.6 | 10.5 | 8.7 | 4.1 | 3.67 | 10.54 | |
| 2-Aug | 6.7 | 5.4 | 4.9 | Z | 7.6 | 7.8 | 10.6 | 7.2 | 12.4 | 11.7 | 9.3 | 6.6 | 3.0 | 1.7 | 3.8 | 2.2 | 1.4 | 2.2 | 2.6 | 4.6 | 2.0 | 1.8 | 4.9 | 3.1 | 5.37 | 12.43 | |
| 3-Aug | 2.1 | 1.1 | 4.6 | Z | 4.6 | 6.8 | 7.6 | 4.3 | 5.9 | 6.3 | 4.5 | 4.0 | 3.2 | 1.3 | 2.0 | 2.1 | 1.2 | 1.0 | 3.5 | 4.2 | 3.4 | 1.9 | 2.1 | 1.6 | 3.45 | 7.64 | |
| 4-Aug | 4.9 | 2.6 | 2.3 | Z | 1.8 | 5.1 | 7.5 | 5.8 | 3.9 | 3.4 | 4.8 | 2.2 | 2.8 | 1.5 | 0.7 | 0.5 | 1.5 | 1.6 | 3.5 | 2.9 | 2.2 | 1.8 | 1.5 | 4.8 | 3.02 | 7.53 | |
| 5-Aug | 4.7 | 2.4 | 3.4 | Z | 3.2 | 3.2 | 9.1 | 6.7 | 10.6 | 5.9 | 3.4 | 2.6 | 2.5 | 2.5 | 2.6 | 2.0 | 2.5 | 2.4 | 1.9 | 1.8 | 1.5 | 1.6 | 1.5 | 1.9 | 3.47 | 10.55 | |
| 6-Aug | 2.9 | 3.7 | 4.1 | Z | 2.4 | 2.0 | 1.4 | 1.6 | 5.4 | 2.2 | 2.0 | 3.0 | 2.7 | 3.2 | 3.4 | 3.0 | 2.3 | 2.2 | 1.7 | 2.1 | 1.0 | 2.0 | 0.9 | 1.0 | 2.44 | 5.38 | |
| 7-Aug | 1.4 | 1.6 | 2.7 | Z | 3.2 | 2.8 | 8.8 | 5.5 | 2.2 | 2.3 | 1.9 | 1.2 | 1.2 | 1.1 | 1.1 | 2.2 | 1.5 | 2.2 | 2.9 | 4.1 | 2.9 | 4.6 | 5.1 | PF | 2.85 | 8.77 | |
| 8-Aug | PF | PF | 2.5 | Z | 4.3 | 12.2 | 7.0 | 13.7 | 10.6 | 8.6 | 7.1 | 5.0 | 1.9 | 1.5 | 1.5 | 1.9 | 1.9 | 2.2 | 3.8 | 4.7 | 1.8 | 2.5 | 1.4 | 1.7 | 4.65 | 13.71 | |
| 9-Aug | 1.5 | 1.3 | 1.8 | Z | 3.6 | 1.9 | 1.4 | 3.4 | C | C | C | C | C | 1.2 | 1.6 | 3.0 | 3.6 | 3.1 | 2.7 | 3.9 | 2.3 | 3.1 | 3.0 | 2.1 | 2.49 | 3.94 | |
| 10-Aug | 1.6 | 2.9 | 3.7 | Z | 7.2 | 3.4 | 2.0 | 2.4 | 2.5 | 2.7 | 5.3 | 4.4 | 2.5 | 2.1 | 3.0 | 5.2 | 1.3 | 4.2 | 3.6 | 1.8 | 4.5 | 3.7 | 2.6 | 2.0 | 3.25 | 7.23 | |
| 11-Aug | 2.6 | 2.1 | 1.5 | Z | 2.0 | 3.1 | 5.3 | 4.9 | 3.5 | 5.8 | 7.0 | 5.3 | 3.8 | 3.5 | 5.6 | 1.6 | 0.3 | 0.5 | 0.4 | 0.6 | 3.5 | 2.0 | 2.6 | 1.5 | 3.00 | 7.02 | |
| 12-Aug | 2.1 | 5.5 | 4.8 | Z | 2.0 | 5.0 | 2.2 | 2.5 | 7.0 | 6.1 | 8.5 | 4.6 | 1.3 | 0.9 | 1.1 | 1.0 | 1.2 | 1.3 | 1.1 | 2.8 | 8.2 | 8.1 | 6.2 | 2.9 | 3.77 | 8.49 | |
| 13-Aug | 3.7 | 6.7 | 6.6 | Z | 5.2 | 3.1 | 4.0 | 6.4 | 5.2 | 6.1 | 5.2 | 5.6 | 5.9 | 1.4 | 2.1 | 2.0 | 3.4 | 5.4 | 5.1 | 1.8 | 2.4 | 3.7 | 3.2 | 2.0 | 4.18 | 6.72 | |
| 14-Aug | 1.8 | 2.7 | 1.0 | Z | 2.4 | 3.2 | 4.9 | 2.4 | 3.8 | 1.2 | 1.3 | 1.8 | 3.0 | 1.3 | 1.3 | 1.9 | 2.5 | 2.0 | 0.7 | 2.3 | 3.6 | 4.1 | 2.8 | 1.6 | 2.33 | 4.94 | |
| 15-Aug | 3.8 | 2.0 | 5.6 | Z | 2.9 | 2.3 | 3.2 | 4.4 | 5.7 | 5.6 | 4.4 | 2.1 | 5.2 | 4.3 | 2.8 | 2.4 | 1.7 | 2.4 | 2.3 | 2.8 | 5.8 | 4.4 | 3.8 | 3.9 | 3.65 | 5.80 | |
| 16-Aug | 9.4 | 10.6 | 6.8 | Z | 4.4 | 7.5 | 6.6 | 16.5 | 10.0 | 5.1 | 7.4 | 4.5 | 5.7 | 8.4 | 10.9 | 1.0 | 2.1 | 3.4 | 3.5 | 3.4 | 3.1 | 2.3 | 2.1 | 2.9 | 5.98 | 16.52 | |
| 17-Aug | 1.3 | 2.4 | 1.5 | Z | 2.9 | 7.7 | 5.9 | 11.9 | 13.5 | 10.6 | 3.5 | 1.3 | 1.7 | 0.6 | 0.7 | 1.0 | 1.1 | 0.7 | 0.7 | 1.1 | 0.7 | 3.1 | 1.1 | 1.2 | 3.31 | 13.53 | |
| 18-Aug | 3.4 | 5.0 | 3.0 | Z | 6.7 | 11.4 | 8.9 | 6.1 | 10.1 | 6.5 | 5.9 | 2.2 | 1.6 | 1.6 | 1.7 | 3.7 | 3.7 | 4.5 | 2.7 | 4.0 | 5.4 | 8.2 | 6.0 | 6.2 | 5.15 | 11.37 | |
| 19-Aug | 4.1 | 4.8 | 4.5 | Z | 4.5 | 4.0 | 9.6 | 3.1 | 3.7 | 3.8 | 4.7 | 4.1 | 2.4 | 2.8 | 3.8 | 1.3 | 4.8 | 1.3 | 3.2 | 1.9 | 9.5 | 5.8 | 10.7 | 8.3 | 4.65 | 10.72 | |
| 20-Aug | 6.8 | 3.6 | 3.3 | Z | 4.8 | 5.4 | 11.4 | 6.9 | 7.7 | 4.9 | 4.1 | 5.2 | 3.2 | 1.7 | 2.4 | 2.3 | 2.9 | 1.9 | 1.6 | 1.8 | 2.0 | 3.4 | 3.4 | 4.4 | 4.15 | 11.37 | |
| 21-Aug | 2.9 | 2.0 | 2.5 | Z | 3.5 | 3.3 | 2.8 | 2.5 | 2.5 | 2.8 | 2.6 | 4.5 | 2.6 | 2.4 | 1.6 | 2.1 | 1.6 | 1.7 | 1.8 | 2.3 | 1.3 | 1.1 | 0.7 | 1.2 | 2.27 | 4.46 | |
| 22-Aug | 3.8 | 1.0 | 1.6 | Z | 2.7 | 4.7 | 6.5 | 8.3 | 4.1 | 10.8 | 8.2 | 9.1 | 3.5 | 0.7 | 0.4 | 0.4 | 0.5 | 0.7 | 0.6 | 0.3 | 0.8 | 0.4 | 0.6 | 0.3 | 3.04 | 10.78 | |
| 23-Aug | 0.4 | 2.3 | 4.4 | Z | 5.9 | 7.8 | 9.9 | 10.2 | 8.6 | 7.0 | 10.6 | 1.7 | 0.5 | 0.7 | 3.5 | 4.2 | 2.4 | 1.6 | 1.8 | 2.1 | 1.2 | 4.1 | 5.4 | 5.0 | 4.40 | 10.57 | |
| 24-Aug | 5.8 | 4.1 | 2.3 | Z | 9.0 | 8.9 | 7.1 | 5.2 | C | C | C | C | C | 5.4 | 2.2 | 2.1 | 2.6 | 1.3 | 1.4 | 1.3 | 7.4 | 3.0 | 3.7 | 2.5 | 4.17 | 8.98 | |
| 25-Aug | 2.5 | 3.8 | 3.0 | Z | 3.6 | 5.7 | 5.4 | 4.6 | 2.0 | 1.0 | 0.7 | 3.2 | 1.7 | 1.4 | 1.6 | 2.1 | 6.3 | 4.5 | 5.2 | 5.1 | 3.1 | 3.4 | 2.9 | 4.9 | 3.39 | 6.26 | |
| 26-Aug | 6.2 | 6.1 | 5.2 | Z | 4.3 | 5.5 | 5.2 | 4.0 | 4.9 | 3.2 | 3.6 | 4.7 | 5.2 | 3.3 | 2.5 | 3.7 | 4.8 | 4.8 | 3.8 | 4.4 | 4.3 | 4.5 | 3.0 | 2.8 | 4.35 | 6.19 | |
| 27-Aug | 1.8 | 3.0 | 1.7 | Z | 3.4 | 5.7 | 6.6 | 6.8 | 10.8 | 4.9 | 5.4 | 5.6 | 6.3 | 3.0 | 1.6 | 1.9 | 6.0 | 4.4 | 1.2 | 1.1 | 0.5 | 0.4 | 0.7 | 0.4 | 3.62 | 10.79 | |
| 28-Aug | 0.4 | 0.3 | 1.0 | Z | 0.8 | 1.9 | 0.7 | 1.3 | 4.4 | 3.5 | 3.5 | 2.1 | 1.4 | 1.1 | 1.1 | 2.1 | 1.8 | 1.9 | 2.1 | 1.0 | 1.3 | 1.3 | 1.4 | 1.4 | 1.65 | 4.42 | |
| 29-Aug | 4.6 | 4.5 | 2.0 | Z | 4.3 | 8.9 | 9.4 | 6.6 | 4.2 | 3.5 | 4.1 | 5.5 | 5.1 | 2.9 | 3.2 | 2.6 | 2.8 | 4.1 | 3.2 | 3.4 | 4.3 | 3.5 | 2.4 | 3.3 | 4.28 | 9.41 | |
| 30-Aug | 4.0 | 3.9 | 3.2 | Z | 5.1 | 6.1 | 7.9 | 7.6 | 6.0 | 5.1 | 4.7 | 3.4 | 3.6 | 3.9 | 5.0 | 5.0 | 3.8 | 3.3 | 6.4 | 4.9 | 6.5 | 9.7 | 5.4 | 7.0 | 5.28 | 9.70 | |
| 31-Aug | 5.6 | 6.3 | 5.3 | Z | 10.1 | 10.6 | 7.9 | 6.4 | 9.8 | 11.0 | 10.0 | 4.0 | 2.1 | 2.1 | 2.9 | 2.2 | 4.5 | 4.2 | 3.6 | 3.6 | 2.5 | 1.9 | 2.2 | 7.5 | 5.48 | 10.96 | |
| | | 3.51 | 3.63 | 3.35 | -- | 4.19 | 5.60 | 6.16 | 5.89 | 6.37 | 5.36 | 5.00 | 3.92 | 3.05 | 2.35 | 2.63 | 2.29 | 2.57 | 2.51 | 2.59 | 2.76 | 3.28 | 3.61 | 3.29 | 3.11 | Diurnal Average | |
| | | 9.39 | 10.58 | 6.77 | -- | 10.09 | 12.15 | 11.37 | 16.52 | 13.53 | 11.74 | 10.57 | 9.07 | 6.31 | 8.44 | 10.87 | 5.24 | 6.26 | 5.39 | 6.42 | 5.15 | 9.54 | 10.54 | 10.72 | 8.26 | 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
August 2016

| Maximum Value: 25.77 µg/m ³ on Aug 19 23:00 | | Maximum Daily Average: 12.85 µg/m ³ on Aug 30 | | Hours in Service: 744 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------|--|------|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|---------------|---------------|-------|-----------------------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|--|
| Minimum Value: 0.0 µg/m ³ on Aug 10 14:00 | | Minimum Daily Average: 2.28 µg/m ³ on Aug 25 | | Hours of Data: 719 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Diurnal Average: 9.19 µg/m ³ at hour 21 | | Minimum Diurnal Average: 4.71 µg/m ³ at hour 4 | | Hours of Missing Data: 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Monthly Average: 6.837 µg/m ³ | | Percentiles: P ₁ = 0.0 P ₁₀ = 2.2 Q ₁ = 3.8 Median = 6.2 Q ₃ = 8.6 P ₉₀ = 12.3 P ₉₉ = 21.0 | | Hours of Calibration: 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Percent Operational Time: 97.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Day | Hourly Period Ending At | | | | | | | | | | | | | | | | | | | | | | | | Daily Average | Daily Maximum | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-Aug | 3.5 | 6.8 | 7.2 | 5.1 | 4.0 | 6.5 | 7.0 | 5.3 | 6.4 | 4.7 | 2.6 | 7.1 | 4.3 | 5.1 | 4.4 | 4.5 | 6.0 | 5.5 | 4.4 | 7.1 | 8.6 | 15.8 | 10.6 | 6.8 | 6.22 | 15.78 | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Aug | 7.3 | 6.7 | 5.1 | 5.0 | 4.7 | 6.0 | 8.0 | 8.1 | 12.5 | 13.7 | 13.8 | 11.1 | 7.4 | 4.4 | 3.0 | 5.9 | 5.6 | 6.4 | 10.1 | 12.1 | 11.1 | 12.2 | 8.3 | 6.3 | 8.11 | 13.77 | | | | | | | | | | | | | | | | | | | | | | | |
| 3-Aug | 5.8 | 5.3 | 5.6 | 4.6 | 5.7 | 6.2 | 8.5 | 7.3 | 8.0 | 8.1 | 6.8 | 6.2 | 3.8 | 2.4 | 3.6 | 7.5 | 6.9 | 8.0 | 4.2 | 5.2 | 5.9 | 7.7 | 5.3 | 4.3 | 5.95 | 8.48 | | | | | | | | | | | | | | | | | | | | | | | |
| 4-Aug | 6.6 | 5.0 | 4.8 | 4.3 | 6.1 | 5.7 | 7.1 | 6.8 | 7.4 | 8.2 | 2.4 | 8.8 | 8.6 | 7.8 | 11.2 | 9.7 | 6.6 | 6.8 | 12.3 | 8.7 | 10.7 | 10.3 | 10.3 | | 7.57 | 12.34 | | | | | | | | | | | | | | | | | | | | | | | |
| 5-Aug | 10.3 | 8.5 | 7.8 | 7.3 | 7.2 | 7.7 | 11.2 | 9.9 | 13.7 | 14.1 | 13.4 | 13.8 | 12.7 | 10.8 | 9.4 | 9.2 | 6.1 | 7.7 | 8.3 | 10.2 | 9.6 | 8.0 | 8.5 | 8.0 | 9.72 | 14.11 | | | | | | | | | | | | | | | | | | | | | | | |
| 6-Aug | 8.2 | 8.5 | 8.5 | 3.7 | 2.2 | 3.4 | 2.9 | 3.4 | 4.9 | 3.8 | 5.8 | 8.8 | 8.9 | 7.4 | 8.4 | 8.6 | 7.5 | 9.3 | 11.1 | 8.6 | 4.8 | 4.4 | 4.3 | 5.2 | 6.36 | 11.05 | | | | | | | | | | | | | | | | | | | | | | | |
| 7-Aug | 5.1 | 5.5 | 7.4 | 7.5 | 7.0 | 7.3 | 9.9 | 11.0 | 6.9 | 8.5 | 6.4 | 8.3 | 9.5 | 7.3 | 5.2 | 8.4 | 9.1 | 10.6 | 19.8 | 17.6 | 25.2 | 19.1 | 14.1 | PF | 10.29 | 25.19 | | | | | | | | | | | | | | | | | | | | | | | |
| 8-Aug | PF | PF | 4.8 | 6.5 | 5.4 | 6.9 | 8.4 | 10.1 | 11.9 | 8.0 | 6.3 | 11.7 | 7.2 | 4.5 | 7.2 | 8.2 | 7.8 | 8.7 | 11.1 | 6.8 | 6.4 | 2.4 | 1.3 | 3.7 | 7.07 | 11.85 | | | | | | | | | | | | | | | | | | | | | | | |
| 9-Aug | 2.6 | 2.6 | 3.3 | 3.7 | 4.0 | 4.6 | 7.0 | 8.2 | 6.0 | C | C | C | C | C | C | C | C | C | 6.7 | 7.7 | 4.1 | 3.4 | 4.5 | 3.2 | 3.6 | -- | 8.24 | | | | | | | | | | | | | | | | | | | | | | |
| 10-Aug | 3.4 | 5.3 | 3.9 | 4.4 | 7.4 | 4.7 | 8.0 | 8.4 | 6.4 | 3.6 | 5.4 | 4.5 | 8.6 | 0.0 | 5.6 | 9.8 | 0.9 | 3.8 | 3.4 | 3.5 | 4.4 | 3.3 | 1.4 | 0.6 | 4.61 | 9.80 | | | | | | | | | | | | | | | | | | | | | | | |
| 11-Aug | 2.0 | 2.7 | 1.1 | 1.7 | 2.8 | 4.5 | 5.9 | 7.1 | 9.2 | 7.4 | 7.0 | 4.6 | 4.7 | 1.5 | 6.6 | 3.1 | 4.5 | 6.8 | 3.7 | 6.4 | 9.6 | 6.5 | 7.3 | 6.1 | 5.12 | 9.58 | | | | | | | | | | | | | | | | | | | | | | | |
| 12-Aug | 5.7 | 3.2 | 3.9 | 3.3 | 2.4 | 2.9 | 10.1 | 2.8 | 7.4 | 7.1 | 5.9 | 5.6 | 2.8 | 3.8 | 6.4 | 6.9 | 6.3 | 4.8 | 7.6 | 12.9 | 14.8 | 11.7 | 12.0 | 11.4 | 6.75 | 14.79 | | | | | | | | | | | | | | | | | | | | | | | |
| 13-Aug | 8.4 | 7.1 | 7.5 | 6.8 | 6.0 | 5.3 | 11.4 | 7.7 | 6.9 | 9.9 | 11.8 | 11.5 | 11.7 | 10.6 | 4.9 | 8.2 | 7.6 | 7.9 | 6.8 | 5.4 | 3.7 | 5.4 | 3.1 | 3.8 | 7.47 | 11.81 | | | | | | | | | | | | | | | | | | | | | | | |
| 14-Aug | 1.9 | 3.1 | 2.4 | 2.3 | 3.6 | 3.6 | 5.6 | 7.5 | 3.0 | 2.6 | 3.3 | 2.0 | 0.5 | 4.6 | 8.3 | 5.0 | 6.7 | 5.6 | 7.4 | 3.9 | 6.9 | 6.4 | 8.3 | 6.5 | 4.63 | 8.32 | | | | | | | | | | | | | | | | | | | | | | | |
| 15-Aug | 6.0 | 4.6 | 3.7 | 3.1 | 3.2 | 3.3 | 9.6 | 5.0 | 8.2 | 7.5 | 6.0 | 2.9 | 4.8 | 5.6 | 5.9 | 6.1 | 8.7 | 11.5 | 14.5 | 15.7 | 15.0 | 13.0 | 17.7 | 7.2 | 7.87 | 17.75 | | | | | | | | | | | | | | | | | | | | | | | |
| 16-Aug | 6.6 | 5.9 | 6.8 | 7.7 | 8.4 | 10.8 | 9.2 | 9.3 | 14.0 | 5.1 | 16.7 | 10.2 | 2.8 | 7.8 | 7.1 | 4.5 | 11.9 | 11.3 | 3.4 | 7.8 | 8.6 | 5.5 | 4.0 | 3.6 | 7.87 | 16.68 | | | | | | | | | | | | | | | | | | | | | | | |
| 17-Aug | 2.2 | 4.2 | 4.2 | 2.9 | 4.5 | 6.7 | 7.5 | 9.8 | 12.6 | 12.3 | 0.0 | 2.8 | 4.4 | 5.7 | 3.8 | 5.5 | 9.7 | 6.9 | 6.8 | 8.5 | 14.7 | 16.3 | 8.5 | 5.8 | 6.94 | 16.28 | | | | | | | | | | | | | | | | | | | | | | | |
| 18-Aug | 8.2 | 6.1 | 5.4 | 6.5 | 7.5 | 10.2 | 11.5 | 10.4 | 13.9 | 10.9 | 13.8 | 6.1 | 4.7 | 7.2 | 7.5 | 8.5 | 6.2 | 7.4 | 3.9 | 6.4 | 13.4 | 7.4 | 6.8 | 5.4 | 8.15 | 13.89 | | | | | | | | | | | | | | | | | | | | | | | |
| 19-Aug | 3.6 | 3.3 | 3.9 | 2.7 | 2.6 | 3.2 | 8.9 | 10.0 | 8.4 | 3.0 | 7.4 | 3.8 | 3.3 | 2.9 | 4.6 | 7.1 | 4.5 | 10.4 | 15.5 | 14.9 | 16.7 | 25.6 | 25.8 | 17.4 | 8.73 | 25.77 | | | | | | | | | | | | | | | | | | | | | | | |
| 20-Aug | 11.6 | 8.6 | 6.8 | 6.3 | 6.0 | 7.6 | 10.0 | 11.0 | 10.8 | 10.4 | 9.4 | 11.6 | 6.5 | 4.5 | 20.1 | 12.8 | 6.2 | 13.0 | 5.9 | 11.6 | 10.5 | 6.1 | 11.5 | 4.6 | 9.31 | 20.07 | | | | | | | | | | | | | | | | | | | | | | | |
| 21-Aug | 2.6 | 2.9 | 4.6 | 4.0 | 4.8 | 3.2 | 5.3 | 4.0 | 4.5 | 3.7 | 7.3 | 10.1 | 12.9 | 9.9 | 10.8 | 10.5 | 8.9 | 13.7 | 2.6 | 2.9 | 1.8 | 3.2 | 0.0 | 1.3 | 5.66 | 13.72 | | | | | | | | | | | | | | | | | | | | | | | |
| 22-Aug | 0.7 | 2.0 | 3.0 | 2.1 | 2.0 | 3.2 | 6.1 | 4.8 | 4.1 | 10.6 | 11.5 | 5.2 | 6.0 | 4.8 | 4.6 | 4.9 | 5.7 | 4.4 | 3.8 | 3.7 | 3.5 | 3.4 | 3.9 | 3.7 | 4.48 | 11.45 | | | | | | | | | | | | | | | | | | | | | | | |
| 23-Aug | 2.8 | 5.3 | 5.7 | 4.3 | 5.9 | 6.6 | 5.2 | 7.8 | 9.9 | 7.7 | 6.7 | 4.1 | 4.2 | 2.7 | 8.8 | 8.8 | 3.5 | 5.8 | 5.6 | 6.3 | 4.3 | 2.8 | 3.4 | 3.9 | 5.51 | 9.88 | | | | | | | | | | | | | | | | | | | | | | | |
| 24-Aug | 3.4 | 3.9 | 3.4 | 3.1 | 2.9 | 3.6 | 5.6 | 14.2 | 5.8 | 8.2 | M | M | M | M | AF | AF | AF | AF | AF | AF | AF | 0.0 | 0.0 | 8.0 | -- | 14.18 | | | | | | | | | | | | | | | | | | | | | | | |
| 25-Aug | 8.0 | 2.9 | 2.7 | 2.0 | 1.1 | 0.0 | 0.0 | 3.7 | 0.0 | 1.3 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 2.5 | 6.0 | 0.1 | 0.0 | 2.5 | 4.4 | 4.7 | 7.1 | 4.2 | 2.28 | 8.01 | | | | | | | | | | | | | | | | | | | | | | | |
| 26-Aug | 0.0 | 11.8 | 10.6 | 6.9 | 3.9 | 2.4 | 0.3 | 4.6 | 7.3 | 7.3 | AF | AF | AF | 0.0 | 0.8 | 3.0 | 3.3 | 7.4 | 3.8 | 7.9 | 11.6 | 8.2 | 8.5 | 0.5 | 5.24 | 11.76 | | | | | | | | | | | | | | | | | | | | | | | |
| 27-Aug | 5.4 | 8.2 | 9.8 | 4.4 | 5.7 | 5.1 | 6.7 | 5.6 | 5.9 | 2.3 | 0.0 | 4.2 | 6.1 | 5.7 | 2.6 | 2.2 | 1.3 | 5.6 | 5.5 | 0.0 | 2.7 | 0.0 | 0.6 | 0.0 | 3.99 | 9.83 | | | | | | | | | | | | | | | | | | | | | | | |
| 28-Aug | 2.2 | 1.9 | 2.1 | 1.7 | 2.6 | 0.8 | 2.1 | 1.4 | 5.2 | 4.5 | 4.4 | 3.7 | 2.2 | 1.4 | 0.8 | 4.8 | 12.3 | 20.8 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 3.15 | 20.81 | | | | | | | | | | | | | | | | | | | | | | | |
| 29-Aug | 0.9 | 4.7 | 0.6 | 2.1 | 6.4 | 4.9 | 6.1 | 2.5 | 5.9 | 6.7 | 1.1 | 4.8 | 6.5 | 7.1 | 17.5 | 24.9 | 0.0 | 0.3 | 3.0 | 3.2 | 8.7 | 7.7 | 9.1 | 17.9 | 6.36 | 24.90 | | | | | | | | | | | | | | | | | | | | | | | |
| 30-Aug | 14.2 | 11.4 | 8.0 | 8.0 | 11.1 | 12.8 | 13.2 | 13.5 | 13.5 | 11.0 | 6.4 | 5.7 | 4.1 | 7.7 | 10.5 | 8.2 | 11.8 | 13.1 | 14.2 | 22.3 | 24.4 | 19.9 | 24.4 | 19.2 | 12.85 | 24.38 | | | | | | | | | | | | | | | | | | | | | | | |
| 31-Aug | 18.6 | 18.0 | 14.4 | 12.3 | 10.3 | 11.5 | 9.4 | 5.7 | 7.5 | 10.6 | 17.3 | 13.9 | 12.8 | 7.7 | 11.7 | 10.6 | 11.5 | 10.6 | 12.4 | 14.5 | 12.4 | 17.5 | 16.9 | 12.7 | 12.54 | 18.58 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 5.59 | 5.87 | 5.46 | 4.71 | 5.08 | 5.53 | 7.31 | 7.34 | 7.98 | 7.41 | 7.31 | 6.67 | 6.20 | 5.23 | 6.82 | 7.63 | 6.77 | 8.03 | 7.11 | 8.14 | 9.19 | 8.39 | 7.94 | 6.40 | Diurnal Average | |
| | | | | | | | | | | | | | | | | | | | | | | | | 18.58 | 18.03 | 14.36 | 12.34 | 11.10 | 12.81 | 13.17 | 14.18 | 13.95 | 14.11 | 17.35 | 13.92 | 12.90 | 10.78 | 20.07 | 24.90 | 12.26 | 20.81 | 19.81 | 22.35 | 25.19 | 25.63 | 25.77 | 19.19 | Diurnal Maximum | |
| C - Calibration | | | | | | | | | | | | | | | | | | | | | | | | M - Maintenance | | | | AF - Analyzer Failure | | | | PF - Power Failure | | | | | | | | | | | | | | | | | |
| 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: August 24, 2016

Parameter: NO/NO₂/NO_x

Instrument: Teco 42i

Serial Number: CM13040041

Previous Calibration Date: July 28 2016

Calibration: Routine

Calibration Equipment: SABIO 2010 sn # 04300810

Barometric Pressure: 27.00" Hg

Calibration Method: Std.Gas Dilution / GPT

Cylinder ID: FF16109

Temperature: 20.0° C

Cylinder Concentration: 12.5 ppm NO & NO_x

In Service: January 14, 2015

Technician: Dean Yustak

| Instrument Settings | NO bkg ppb | NO _x bkg ppb | Pre-reactor bkg ppb | NO Coefficient | NO _x Coefficient | NO ₂ Coefficient | Monitoring Range |
|---------------------|---------------|----------------------------|------------------------|-------------------|--------------------------------|--------------------------------|---------------------|
| Previous | 5.8 | 6.0 | na | 0.915 | 1.001 | 1.000 | 200 ppb |
| Current | 5.6 | 5.7 | na | 0.900 | 1.002 | 1.000 | 200 ppb |

| | | | |
|-----------------|----------------------|-----------------------|-----------------------------------|
| NO | Final Zero: -0.1 ppb | Final Span: 156.6 ppb | As Found Correction Factor: 0.968 |
| NO ₂ | Final Zero: -0.4 ppb | Final Span: 0.0 ppb | As Found Correction Factor: NA |
| NO _x | Final Zero: -0.1 ppb | Final Span: 156.7 ppb | As Found Correction Factor: 0.969 |

| Results of Linear Regression | | | Slope | Intercept | R ² |
|------------------------------|----------------------------------|----------|------------|------------|----------------|
| NO | R _c vs C _c | Previous | 149.672400 | -57.345250 | 0.999945 |
| | | Current | 149.498800 | 43.235870 | 0.999987 |
| | C _i vs C _c | Current | 1.000000 | 0.000000 | 0.999988 |
| NO ₂ | R _c vs C _c | Previous | 150.175600 | -18.722080 | 0.999945 |
| | | Current | 149.826200 | 45.494920 | 0.999963 |
| | C _i vs C _c | Current | 1.000000 | -0.000010 | 0.999964 |
| NO _x | R _c vs C _c | Previous | 149.971000 | -60.691690 | 0.999945 |
| | | Current | 149.950100 | 28.782510 | 0.999991 |
| | C _i vs C _c | Current | 1.000000 | 0.000020 | 0.999990 |

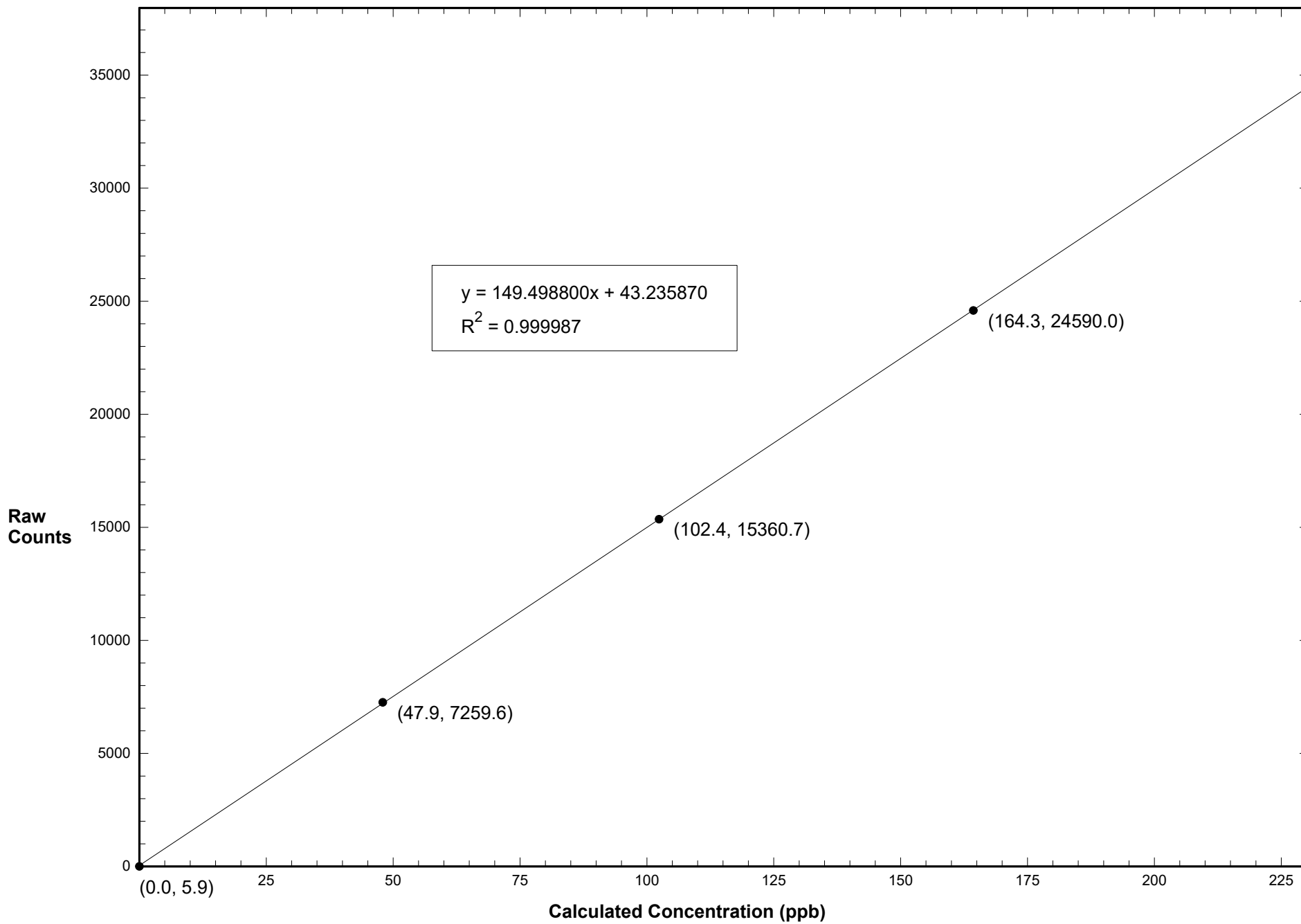
Comments:

Calibration Data Summary (Page 2)

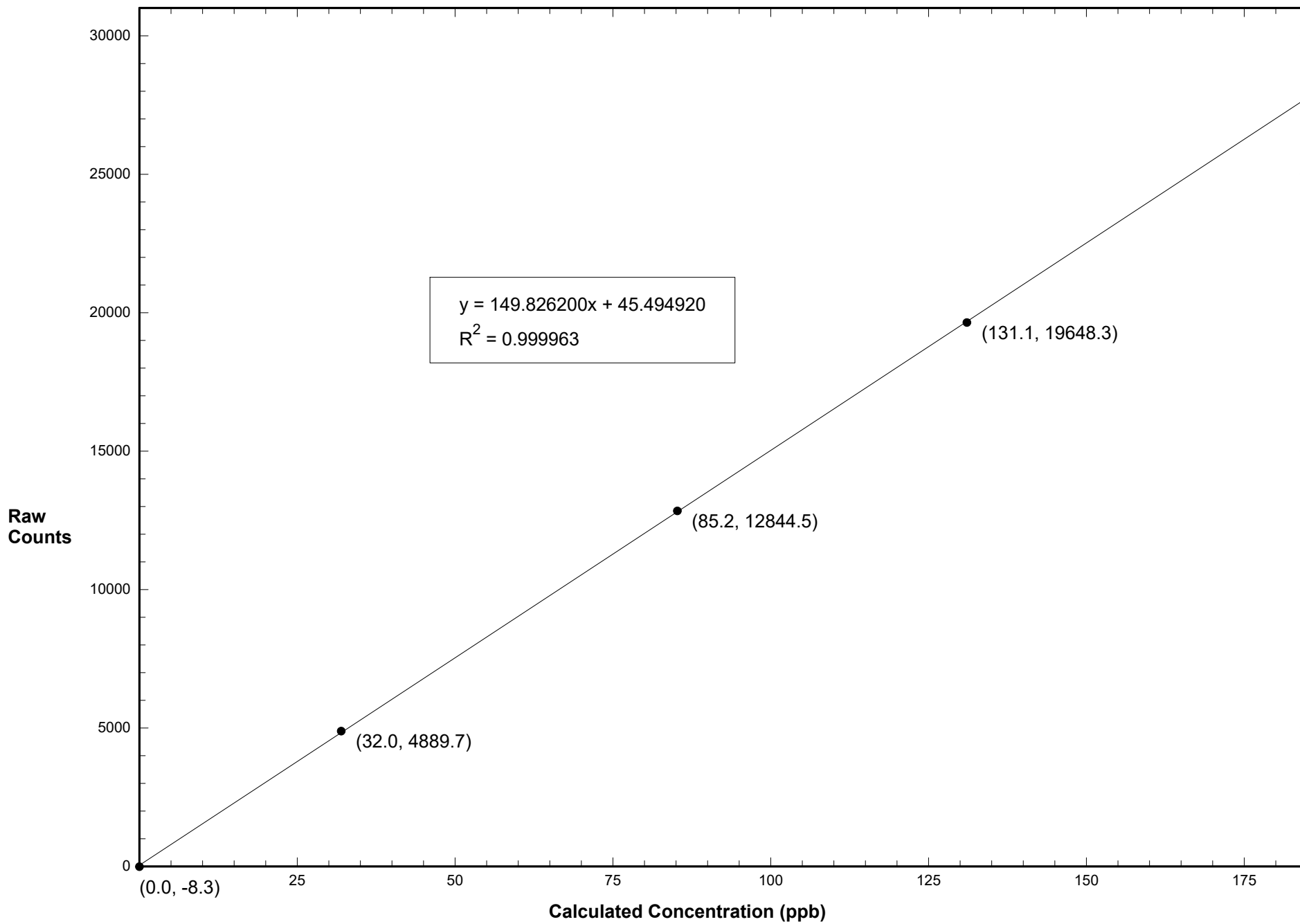
August 24, 2016 - Station 906

| 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 | | |
|-------------------------------------|------------------------------|---|---|--|--|--|---|
| 0.06731 | 5.053 | 164.3 | 24590.0 | 164.2 | 1.001 | | |
| 0.04178 | 5.058 | 102.4 | 15360.7 | 102.5 | 0.999 | | |
| 0.01946 | 5.054 | 47.9 | 7259.6 | 48.3 | 0.993 | | |
| 0.00000 | 5.030 | 0.0 | 5.9 | -0.2 | | | |
| NO Calibration | | | | | Average Correction Factor: | 0.998 | |
| 0.06731 | 5.053 | 164.3 | 24663.2 | 164.3 | 1.000 | | |
| 0.04178 | 5.058 | 102.4 | 15371.5 | 102.3 | 1.001 | | |
| 0.01946 | 5.054 | 47.9 | 7265.3 | 48.3 | 0.993 | | |
| 0.00000 | 5.030 | 0.0 | 0.4 | -0.2 | | | |
| NO _x Calibration | | | | | Average Correction Factor: | 0.998 | |
| 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 |
| 165.1 | 5129.9 | 34.0 | 131.1 | 19648.3 | 130.8 | 1.002 | 0.998 |
| 165.1 | 11986.7 | 79.9 | 85.2 | 12844.5 | 85.4 | 0.997 | 1.003 |
| 165.1 | 19947.0 | 133.1 | 32.0 | 4889.7 | 32.3 | 0.988 | 1.012 |
| | | | 0.0 | -8.3 | -0.4 | | |
| | | | | | Average Correction Factor: | 0.996 | |
| NO ₂ Gas Phase Titration | | | | | Average Converter Efficiency: 1.004 | | |
| Parameter | Correction Factor (Previous) | Correction Factor: (Current) | Percent Change of Correction Factor | | | | |
| NO | 0.997 | 1.001 | 0.4 | | | | |
| NO ₂ | 1.000 | 1.002 | 0.2 | | | | |
| NO _x | 0.997 | 1.000 | 0.3 | | | | |

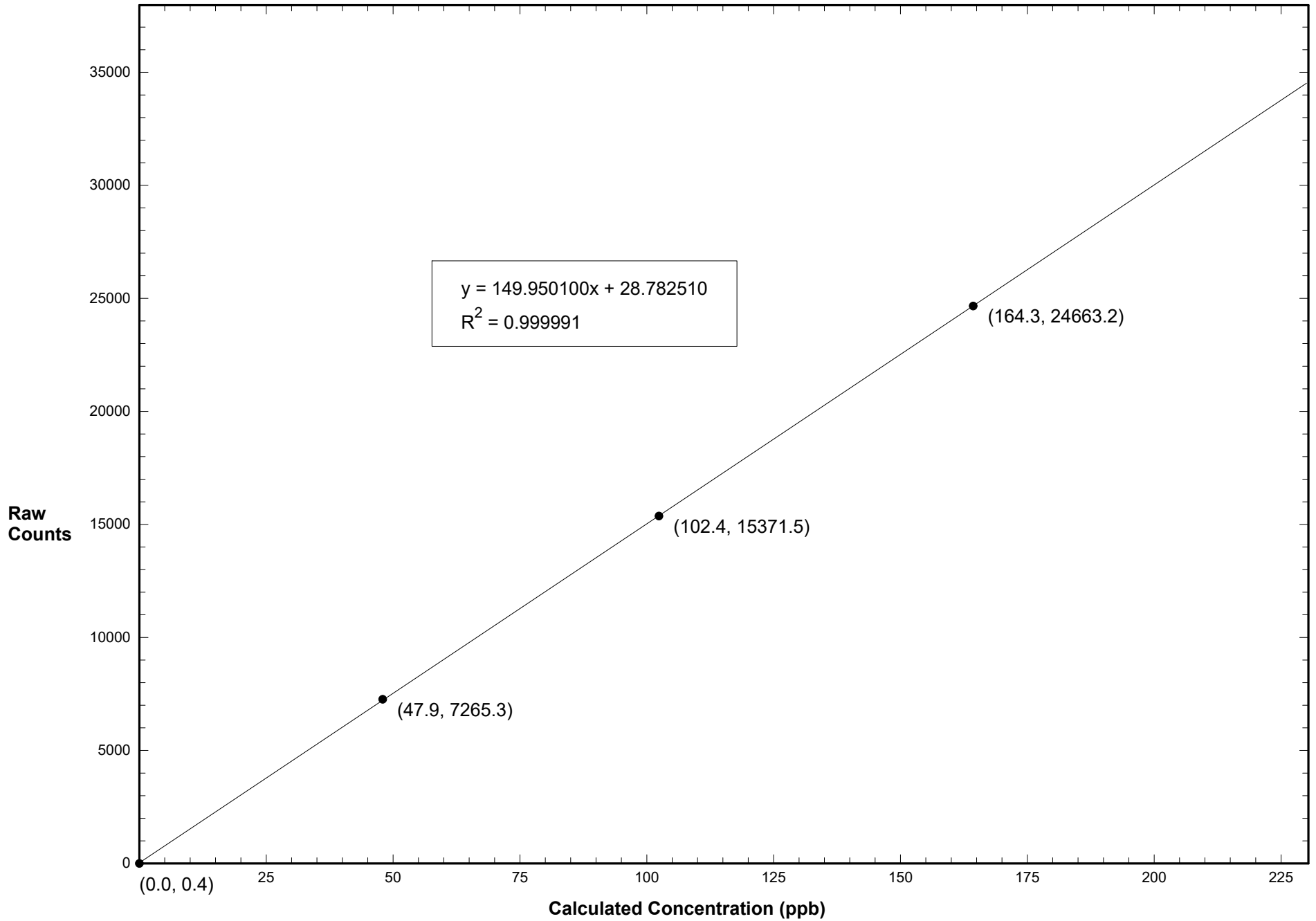
Station 906 NO August 24, 2016: Linear Regression



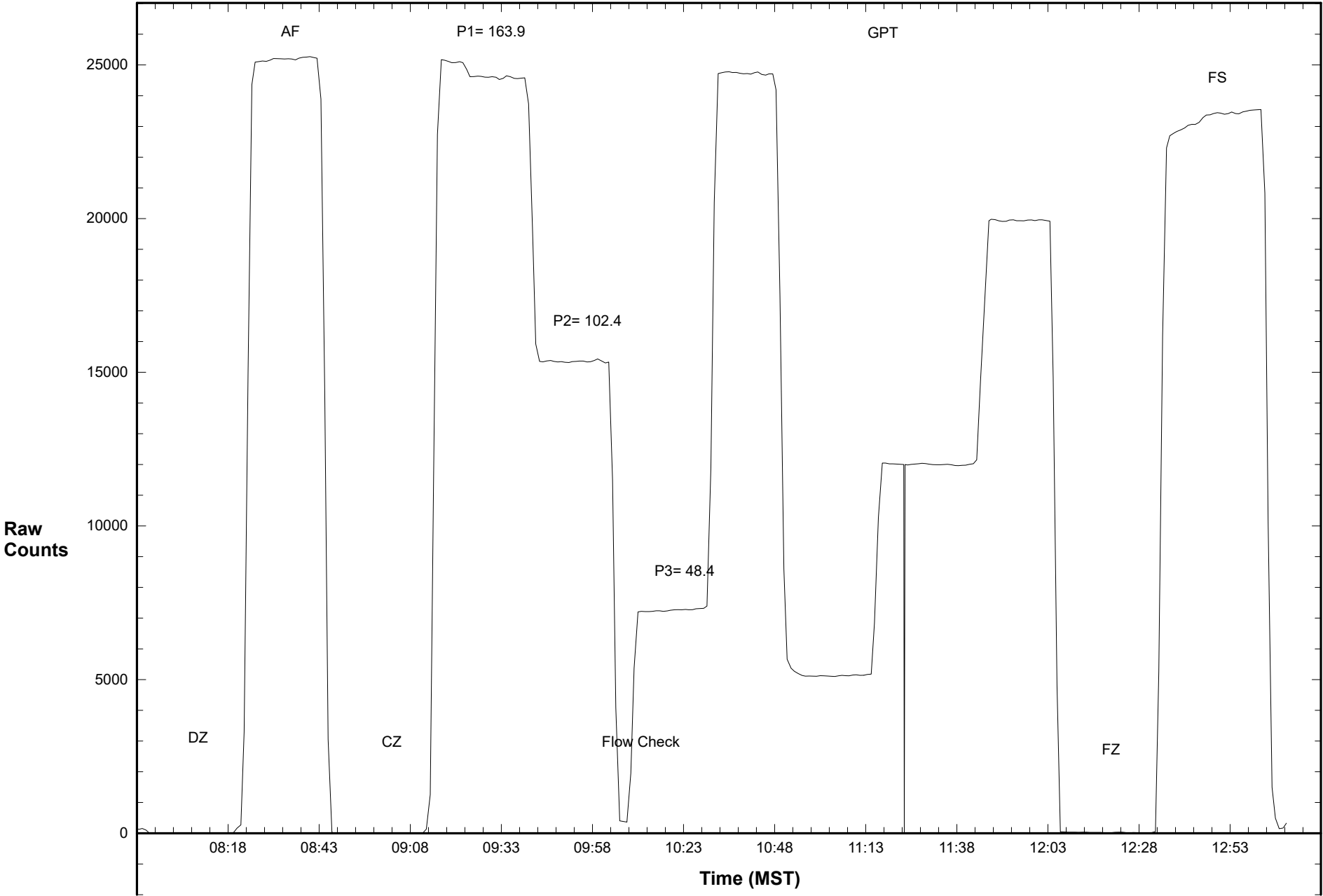
Station 906 NO2 August 24, 2016: Linear Regression



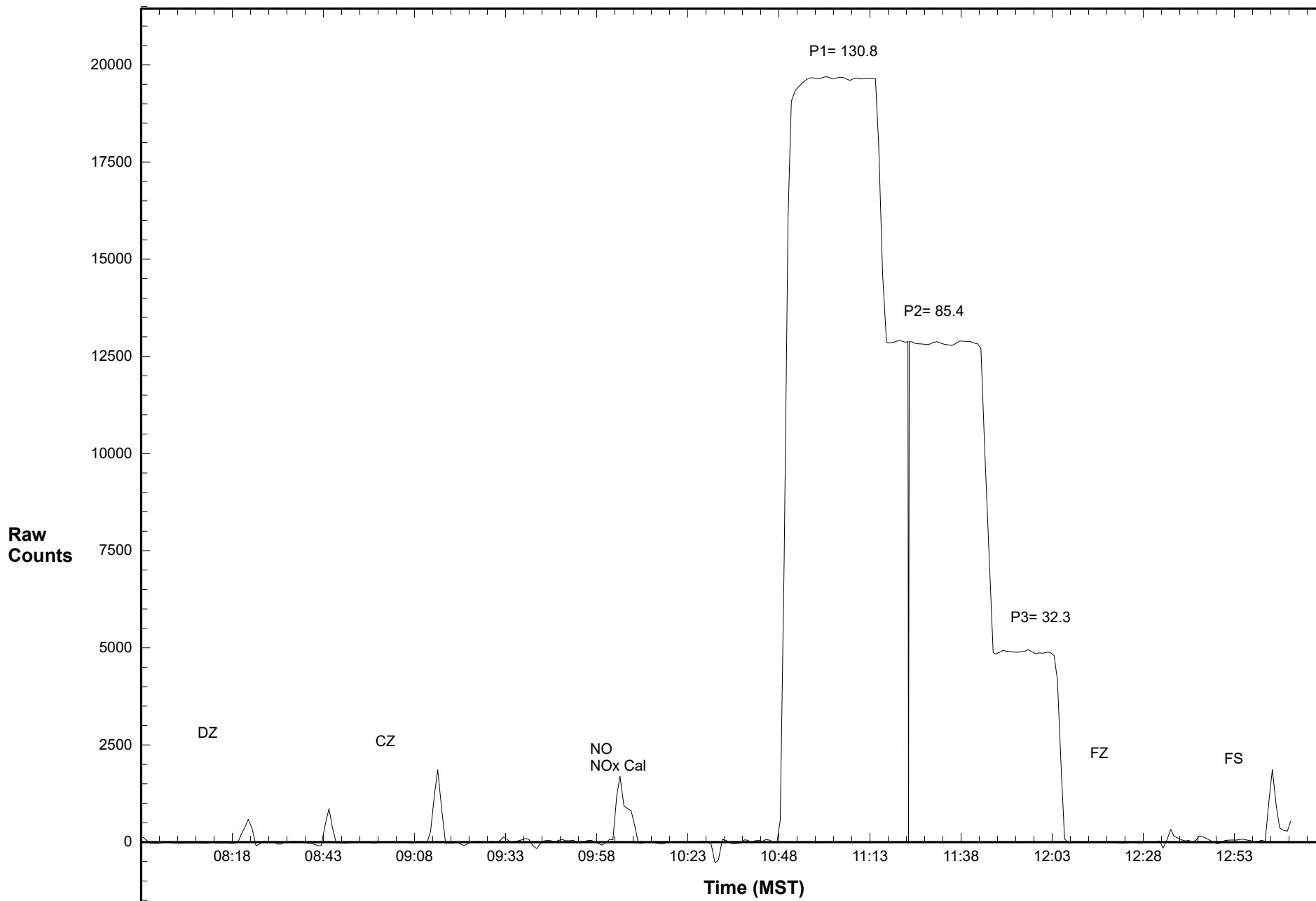
Station 906 NOX August 24, 2016: Linear Regression



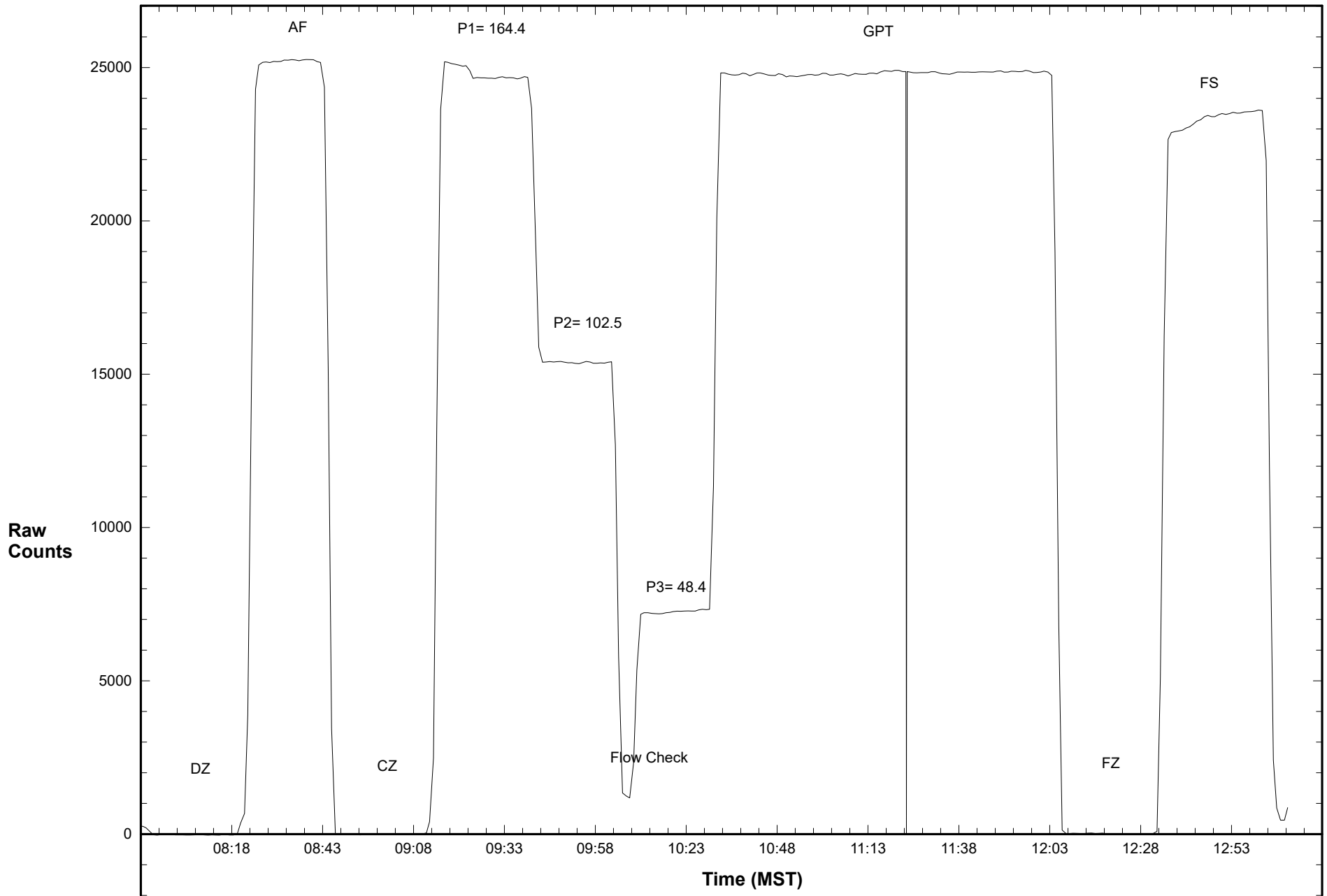
Station 906 NO August 24, 2016: Calibration Graph



Station 906 NO2 August 24, 2016: Calibration Graph



Station 906 NOX August 24, 2016: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: August 24, 2016
 Parameter: O₃

Instrument: Teco 49i

Serial Number: 1150790050

Previous Calibration Date: July 28 2016

Calibration: Routine

Calibration Equipment: 2B Tech 306 SN-135

Barometric Pressure: 27.00" Hg

Calibration Method: Certified Ozone Generator

Temperature: 20.0° C

Technician: Dean Yustak

| Instrument Settings | Background | Coefficient | Monitoring Range |
|---------------------|------------|-------------|------------------|
| Previous | -0.1 | 1.005 | 500 ppb |
| Current | 0.0 | 1.017 | 500 ppb |

Final Zero: -1.2 ppb

Final Span: 339.9 ppb

As Found Correction Factor: 0.992

| 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 | 24520.7 | 408.0 | 1.002 |
| 3.000 | 255.0 | 15431.3 | 256.6 | 0.994 |
| 3.000 | 102.3 | 6166.7 | 102.2 | 1.001 |
| 3.000 | 0.0 | 2.7 | -0.5 | |

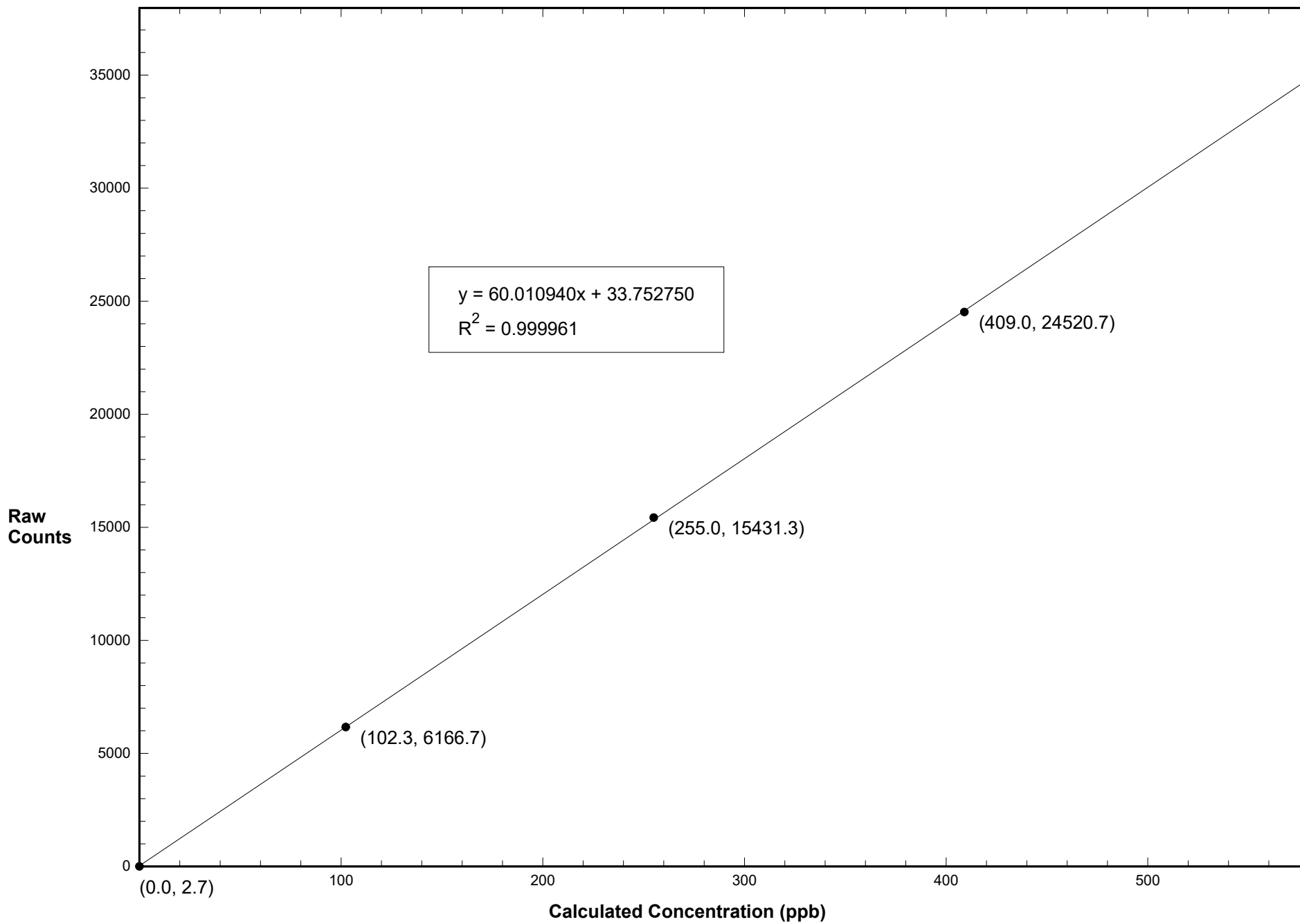
Results of Linear Regression

| R _c vs C _c | Slope | Intercept | R ² |
|----------------------------------|-----------|-----------|----------------|
| Previous | 60.008300 | 30.633710 | 0.999984 |
| Current | 60.010940 | 33.752750 | 0.999961 |
| C _i vs C _c | | | |
| Current | 1.000000 | 0.000007 | 0.999961 |

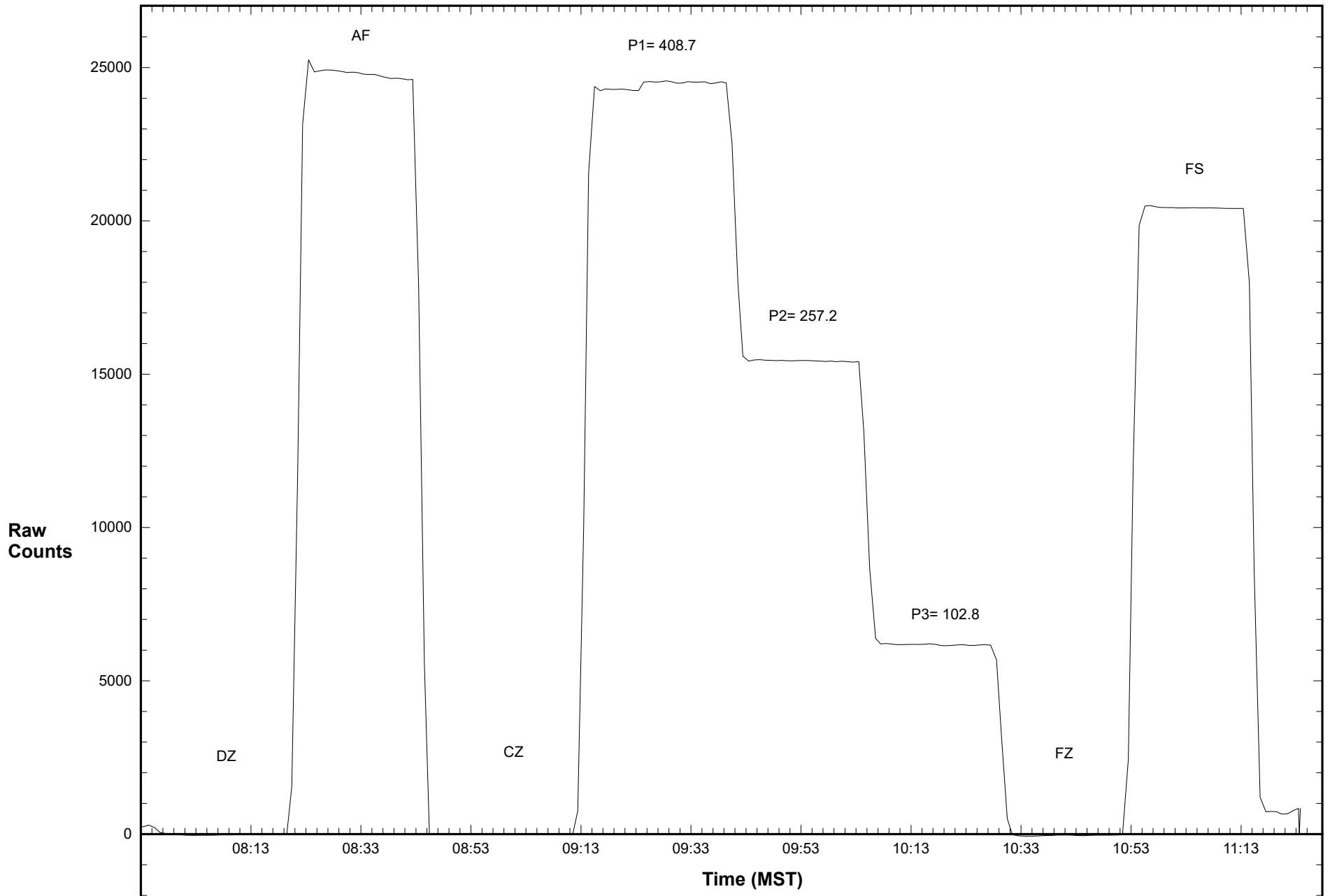
Average Correction Factor: 0.999
 Previous Correction Factor: 1.002
 Current Correction Factor: 1.002
 Percent Change of Correction Factor: 0.0

Comments:

Station 906 O3 August 24, 2016: Linear Regression



Station 906 O3 August 24, 2016: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: August 24, 2016
 Parameter: SO₂

| | | |
|--|---|---|
| Instrument: Teco 43i | Serial Number: CM 12499009 | Previous Calibration Date: July 28 2016 |
| Calibration: Routine | Calibration Equipment: SABIO 2010 sn # 04300810 | Barometric Pressure: 27.00" Hg |
| Calibration Method: Std.Gas Dilution | Cylinder ID: FF16109 | Temperature: 20.0° C |
| Cylinder Concentration: 6.40 ppm SO ₂ | In Service: January 14, 2015 | Technician: Dean Yustak |

| Instrument Settings | SO ₂ bkg ppb | SO ₂ Coefficient | Monitoring Range |
|---------------------|-------------------------|-----------------------------|------------------|
| Previous | 25.0 | 0.966 | 100 ppb |
| Current | 26.9 | 1.029 | 100 ppb |

Final Zero: -0.4 ppm Final Span: 70.5 ppm As Found Correction Factor: 1.055

| 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 |
|---------------------------------|--------------------------|---|---------------------------------|--|--|
| 0.0673 | 5.053 | 84.1 | 25102.2 | 84.1 | 1.001 |
| 0.0418 | 5.058 | 52.4 | 15713.8 | 52.5 | 0.998 |
| 0.0195 | 5.054 | 24.5 | 7378.3 | 24.6 | 0.999 |
| 0.0000 | 5.030 | 0.0 | 44.9 | -0.1 | |

| Results of Linear Regression | | | |
|----------------------------------|------------|------------|----------------|
| R _c vs C _c | Slope | Intercept | R ² |
| Previous | 300.352200 | -46.808350 | 0.999908 |
| Current | 297.906500 | 60.676700 | 0.999995 |
| C _i vs C _c | | | |
| Current | 1.000000 | -0.000010 | 0.999995 |

Average Correction Factor: 0.999

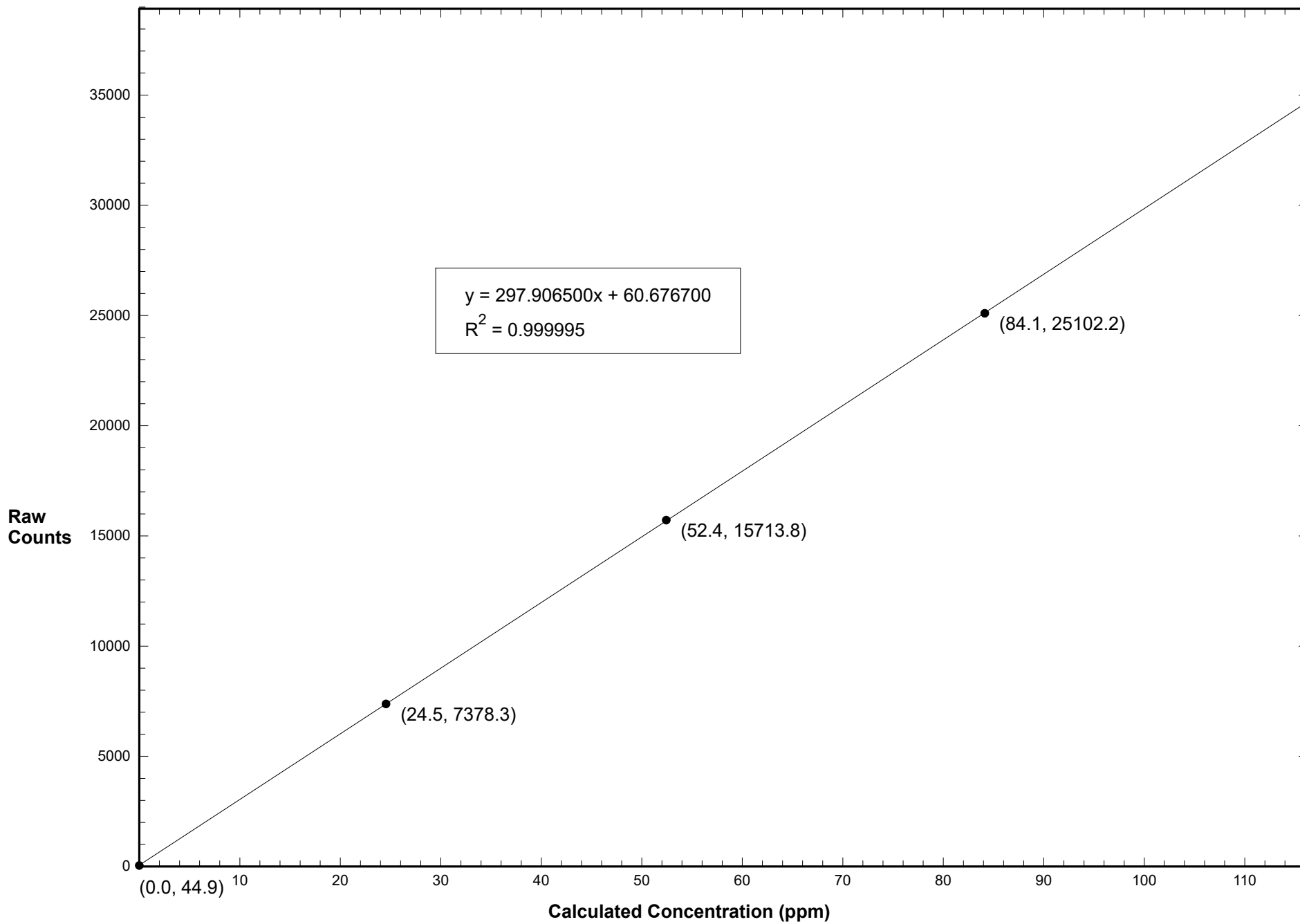
Previous Correction Factor: 0.997

Current Correction Factor: 1.001

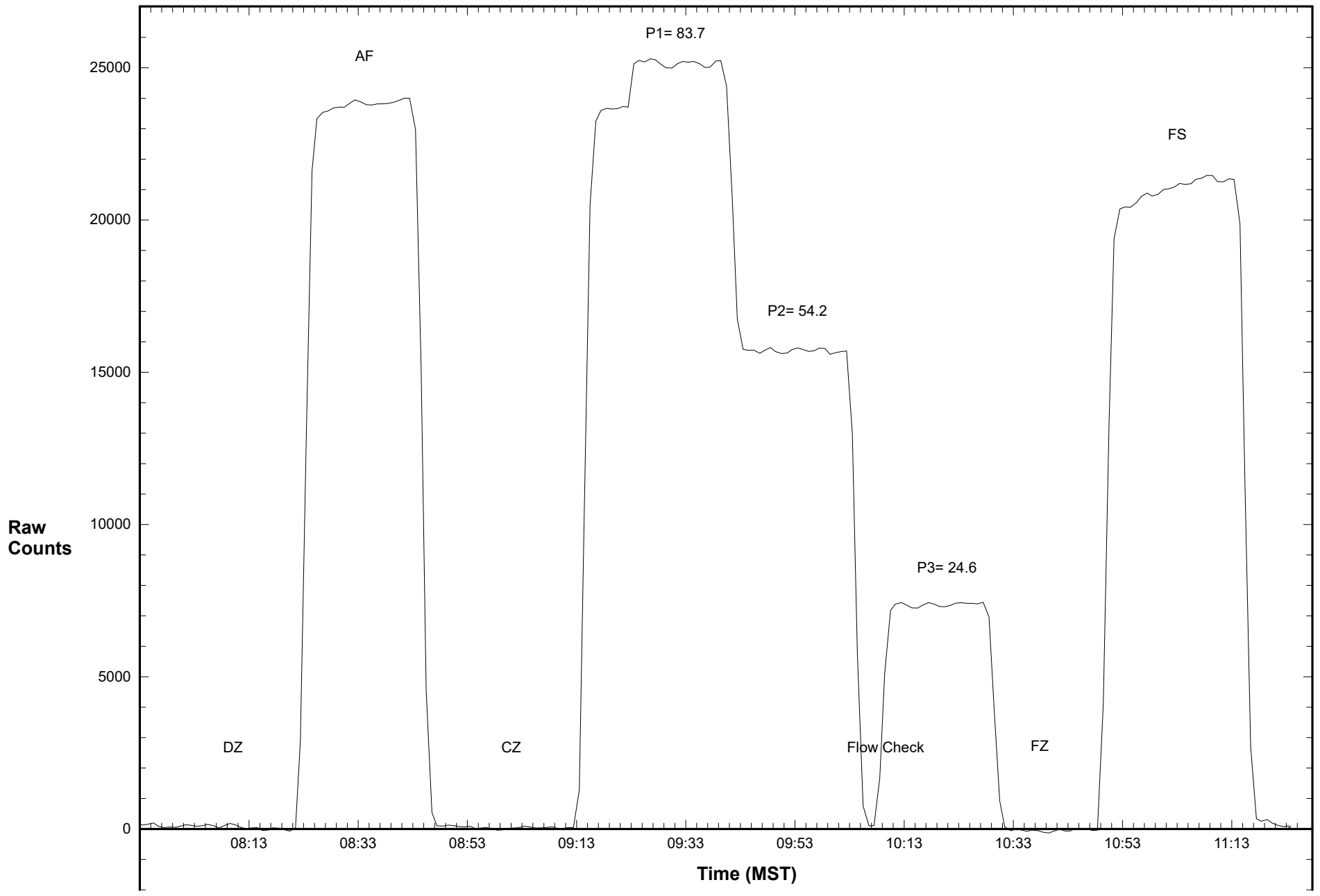
Percent Change of Correction Factor: 0.4

Comments:

Station 906 SO2 August 24, 2016: Linear Regression



Station 906 SO2 August 24, 2016: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: August 9, 2016
 Parameter: TRS

| | | |
|--------------------------------------|---|--|
| Instrument: Teco 43C | Serial Number: 43CTL - 60324 - 326 | Previous Calibration Date: July 28, 2016 |
| Calibration: Audit failure | Calibration Equipment: SABIO 2010 sn # 11100113 | Barometric Pressure: 28.10" Hg |
| Calibration Method: Std.Gas Dilution | Permeation Device ID: SV14360, 4.89 ppm H2S | Temperature: 26.5° C |
| Permeation Rate: 0 ng/min | In Service: February 5, 2013 | Technician: G. Swain |

| Instrument Settings | H ₂ S bkg ppb | H ₂ S Coefficient | Monitoring Range |
|---------------------|--------------------------|------------------------------|------------------|
| Previous | 2.56 | 0.885 | 100 ppb |
| Current | 2.56 | 0.835 | 100 ppb |

Final Zero: -0.4 ppb Final Span: 71.6 ppb As Found Correction Factor: 0.976

| 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 |
|------------------------------------|---|---------------------------------|--|--|
| 0.080 | 77.3 | 23220.0 | 77.5 | 0.997 |
| 0.050 | 48.8 | 14599.8 | 48.7 | 1.003 |
| 0.026 | 24.8 | 7332.3 | 24.5 | 1.015 |
| 0.000 | 0.0 | 91.5 | 0.3 | |

| Results of Linear Regression | | | |
|----------------------------------|------------|-------------|----------------|
| R _c vs C _c | Slope | Intercept | R ² |
| Previous | 302.130600 | -125.899600 | 0.000000 |
| Current | 299.681500 | 1.121103 | 0.999912 |
| C _i vs C _c | | | |
| Current | 1.000000 | 0.000011 | 0.999912 |

Average Correction Factor: 1.005

Previous Correction Factor: 0.000

Current Correction Factor: 0.997

Percent Change of Correction Factor: 0.3

Comments:

Station 906 TRS August 9, 2016: Initial Zero, As Found, and Final Zero/Span

08:15:25 183
 08:15:57 181
 08:17:01 180
 08:17:55 223
 08:18:59 303
 08:19:53 410
 08:20:57 488
 08:22:01 452
 08:22:55 309
 08:23:59 160

Initial Zero
 Average = 288.9 (1.4 ppb)

16:41:57 -52
 16:43:01 -76
 16:43:55 -92
 16:44:59 -106
 16:46:04 -122
 16:46:57 -136
 16:48:01 -141
 16:48:55 -165
 16:50:00 -165
 16:51:04 -165

Final Zero
 Average = -122.0 (-0.4 ppb)

15:11:54 23969
 15:12:58 24085
 15:14:03 24230
 15:14:57 24236
 15:16:01 24203
 15:16:55 24286
 15:17:59 24327
 15:19:03 24275
 15:19:57 24261
 15:21:01 24295

As Found
 Raw Count Average (R_c) = 24216.7
 Indicated Concentration (C_i) = 79.2
 Calculated Concentration (C_c) = 77.3
 Correction Factor (C_c/C_i) = 0.976

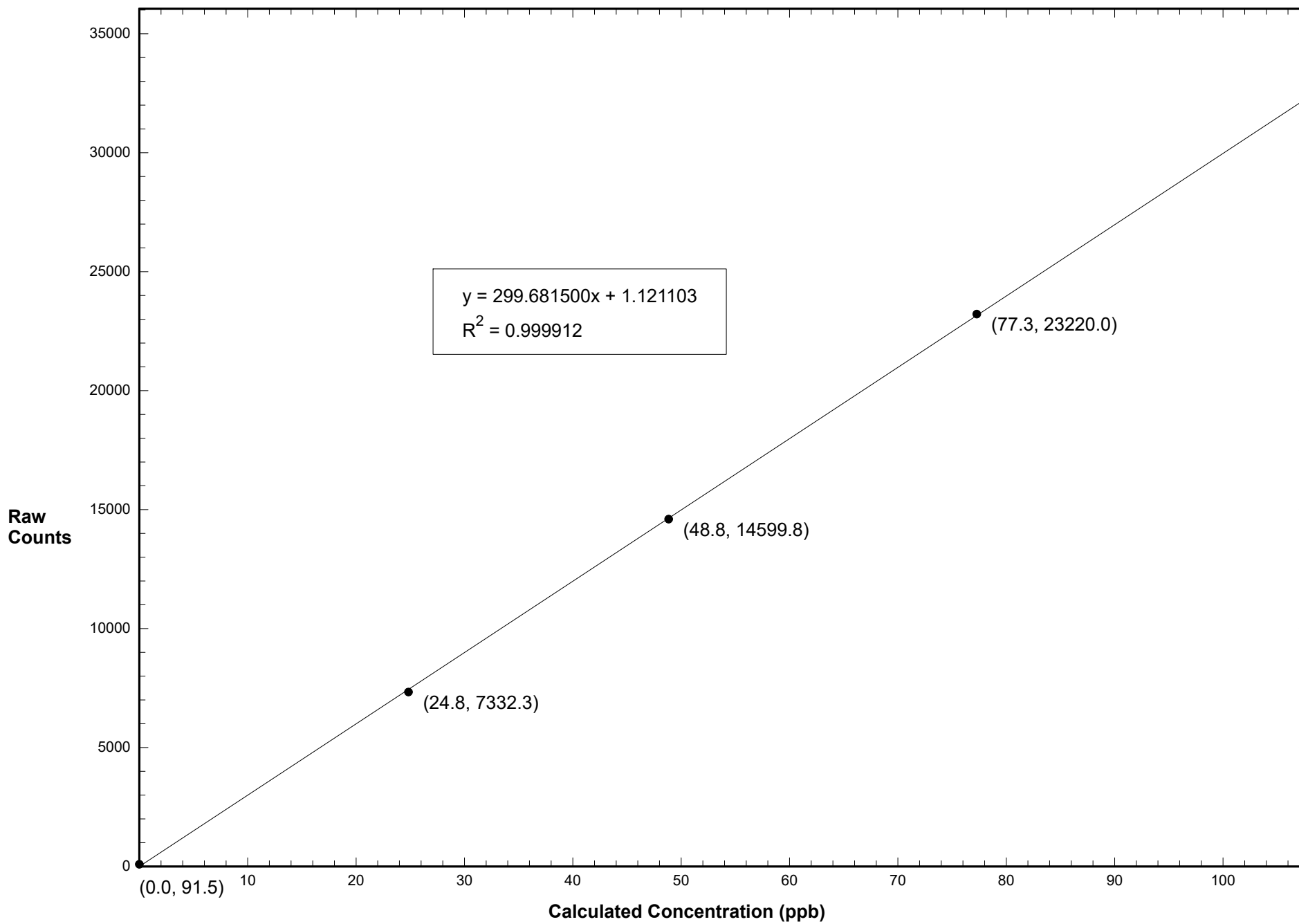
16:26:56 21361
 16:28:00 21318
 16:29:04 21434
 16:29:58 21536
 16:31:02 21516
 16:31:56 21470
 16:33:00 21488
 16:33:54 21518
 16:34:58 21572
 16:36:03 21518

Final Span
 Average = 21473.1 (71.6 ppb)

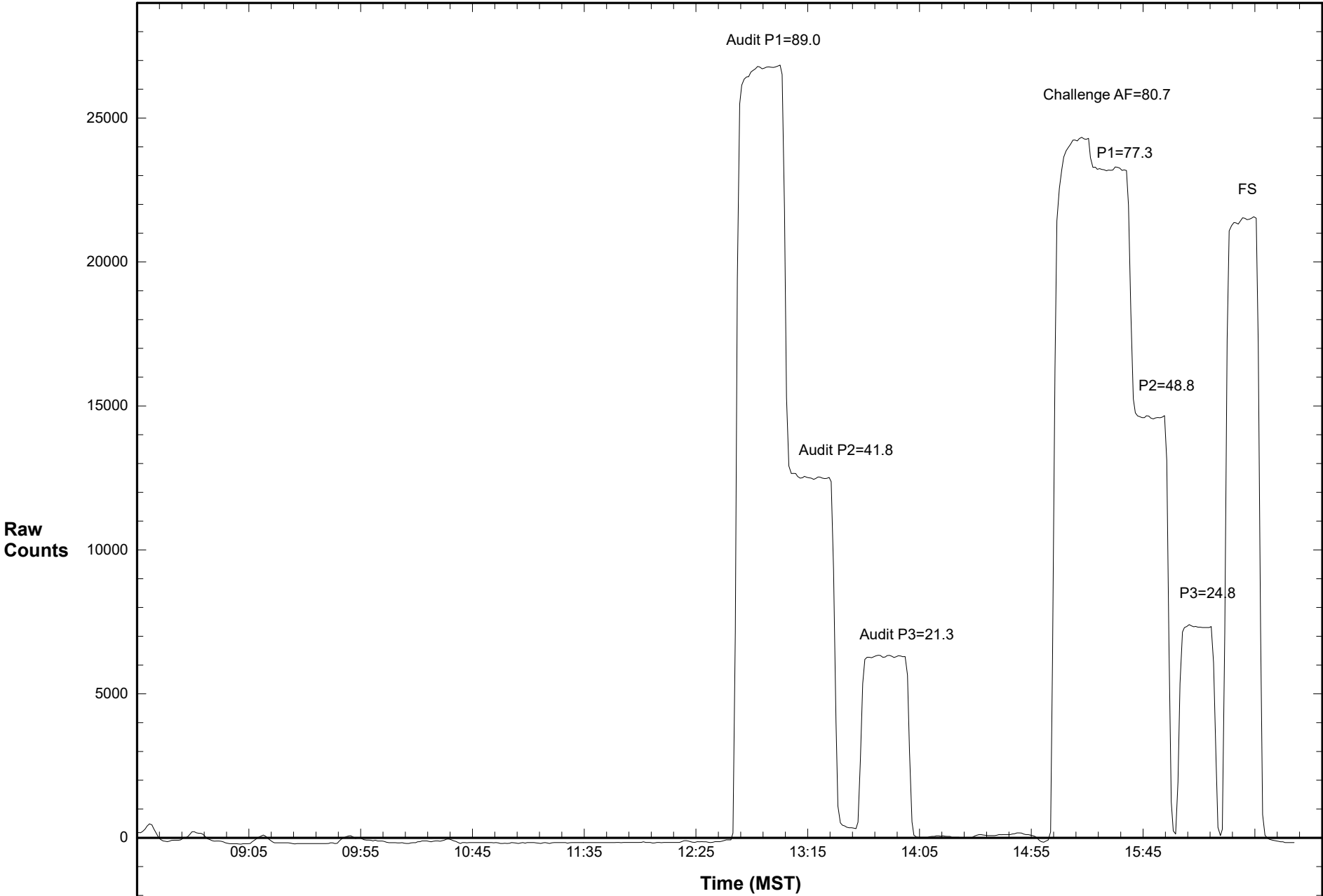
Previous Correlation of C_c vs R_c :
 $y = 0.003309827x + 0.416706$

Current Correlation of C_c vs R_c :
 $y = 0.003336876x - 0.003741$

Station 906 TRS August 9, 2016: Linear Regression



Station 906 TRS August 9, 2016: Calibration Graph



WEST CENTRAL AIRSHED SOCIETY

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

**AMS 906
HINTON
AUGUST 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
August 2016

| Maximum Value: 27.81 C on Aug 15 18:00 Maximum Daily Average: 18.48 C on Aug 15 | | | | | | | | | | | | | | | | | | | | | | Hours in Service: 744 Hours of Data: 741 | | | | |
|---|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|---------------|---------------|
| Minimum Value: 3.6 C on Aug 19 06:00 Minimum Daily Average: 9.52 C on Aug 28 Maximum Diurnal Average: 20.49 C at hour 15 Minimum Diurnal Average: 9.23 C at hour 6 Monthly Average: 14.761 C Percentiles: P ₁ = 4.9 P ₁₀ = 8.6 Q ₁ = 11.1 Median = 14.1 Q ₃ = 18.4 P ₉₀ = 22.1 P ₉₉ = 25.3 | | | | | | | | | | | | | | | | | | | | | | Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6 | | | | |
| 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-Aug | 11.0 | 11.0 | 10.3 | 9.8 | 9.8 | 10.5 | 11.2 | 12.4 | 14.2 | 16.2 | 17.8 | 17.5 | 19.0 | 20.7 | 21.4 | 22.7 | 20.4 | 20.2 | 20.4 | 18.7 | 15.5 | 13.1 | 11.6 | 11.1 | 15.27 | 22.73 |
| 2-Aug | 10.9 | 9.8 | 8.7 | 7.9 | 7.2 | 6.9 | 7.7 | 10.0 | 12.3 | 15.7 | 17.8 | 20.0 | 22.2 | 22.2 | 22.5 | 23.9 | 24.4 | 24.0 | 22.5 | 19.2 | 17.9 | 14.6 | 12.2 | 12.0 | 15.53 | 24.42 |
| 3-Aug | 11.7 | 11.4 | 11.3 | 11.2 | 11.0 | 10.9 | 11.0 | 12.1 | 14.4 | 17.0 | 18.5 | 20.3 | 21.9 | 22.6 | 23.0 | 21.7 | 20.9 | 20.0 | 18.1 | 17.2 | 16.7 | 15.0 | 13.7 | 12.6 | 16.01 | 23.04 |
| 4-Aug | 12.6 | 12.6 | 12.3 | 11.4 | 11.2 | 11.2 | 10.6 | 12.9 | 15.6 | 17.7 | 20.1 | 22.4 | 23.4 | 24.3 | 23.1 | 23.5 | 24.0 | 24.3 | 23.3 | 20.5 | 18.0 | 17.2 | 16.2 | 15.5 | 17.66 | 24.35 |
| 5-Aug | 13.4 | 12.0 | 10.8 | 10.0 | 9.0 | 8.5 | 9.4 | 10.7 | 12.2 | 14.2 | 16.4 | 18.5 | 20.1 | 22.1 | 23.4 | 24.5 | 22.9 | 20.0 | 21.1 | 21.0 | 19.0 | 18.3 | 18.1 | 17.6 | 16.37 | 24.49 |
| 6-Aug | 16.9 | 16.7 | 16.1 | 15.6 | 15.0 | 14.5 | 14.1 | 14.2 | 14.5 | 15.3 | 15.9 | 16.5 | 17.4 | 18.2 | 18.2 | 17.7 | 17.8 | 17.4 | 16.9 | 15.6 | 14.9 | 14.5 | 14.3 | 13.9 | 15.91 | 18.22 |
| 7-Aug | 13.9 | 13.9 | 14.0 | 13.0 | 11.7 | 11.2 | 11.9 | 13.2 | 15.2 | 17.3 | 18.1 | 20.3 | 21.8 | 23.2 | 24.0 | 23.1 | 23.5 | 21.7 | 19.6 | 19.1 | 18.0 | 17.1 | 16.3 | PF | 17.45 | 24.00 |
| 8-Aug | PF | PF | 13.0 | 12.7 | 11.9 | 11.3 | 11.4 | 12.1 | 13.0 | 13.7 | 15.6 | 18.4 | 19.6 | 21.2 | 22.0 | 22.3 | 22.5 | 22.0 | 16.4 | 15.2 | 15.3 | 14.7 | 14.2 | 13.0 | 15.98 | 22.52 |
| 9-Aug | 11.8 | 10.7 | 10.1 | 9.4 | 8.8 | 8.7 | 9.9 | 11.5 | 13.6 | 16.0 | 18.7 | 20.3 | 21.4 | 21.3 | 21.5 | 18.4 | 17.8 | 14.8 | 13.8 | 14.0 | 13.4 | 12.6 | 12.0 | 11.5 | 14.25 | 21.49 |
| 10-Aug | 10.8 | 11.0 | 10.6 | 9.9 | 9.8 | 10.2 | 11.1 | 12.6 | 13.5 | 14.1 | 14.6 | 16.8 | 18.2 | 19.5 | 18.5 | 17.1 | 17.8 | 18.2 | 17.3 | 16.7 | 16.2 | 14.4 | 13.2 | 12.1 | 14.34 | 19.50 |
| 11-Aug | 11.1 | 10.0 | 9.2 | 8.6 | 8.0 | 8.3 | 9.2 | 10.4 | 11.9 | 14.1 | 17.4 | 19.5 | 19.8 | 21.1 | 21.9 | 23.3 | 21.5 | 21.2 | 20.9 | 18.4 | 16.8 | 15.0 | 14.5 | 13.3 | 15.23 | 23.27 |
| 12-Aug | 13.0 | 12.7 | 12.4 | 11.3 | 9.8 | 8.9 | 9.4 | 13.0 | 16.3 | 18.4 | 20.8 | 22.4 | 23.1 | 23.4 | 23.8 | 24.7 | 25.6 | 25.5 | 23.7 | 20.5 | 17.5 | 15.7 | 14.0 | 12.7 | 17.44 | 25.59 |
| 13-Aug | 11.5 | 10.6 | 9.9 | 9.4 | 8.8 | 8.3 | 8.6 | 12.6 | 15.4 | 17.6 | 19.7 | 23.1 | 24.9 | 22.4 | 22.8 | 19.9 | 17.3 | 16.5 | 15.7 | 14.6 | 14.2 | 13.8 | 13.8 | 13.0 | 15.19 | 24.93 |
| 14-Aug | 13.0 | 13.8 | 13.6 | 13.5 | 13.0 | 11.8 | 10.5 | 13.0 | 16.8 | 18.5 | 20.4 | 22.6 | 23.7 | 24.8 | 20.9 | 20.5 | 23.1 | 23.7 | 20.7 | 19.4 | 17.7 | 17.1 | 15.9 | 14.4 | 17.60 | 24.83 |
| 15-Aug | 14.2 | 13.6 | 13.3 | 12.0 | 10.9 | 10.1 | 10.2 | 12.8 | 15.9 | 18.2 | 20.3 | 22.5 | 23.6 | 24.8 | 25.9 | 26.6 | 27.6 | 27.8 | 25.3 | 22.5 | 19.2 | 17.1 | 15.3 | 13.8 | 18.48 | 27.81 |
| 16-Aug | 12.7 | 12.2 | 11.5 | 11.4 | 11.4 | 11.7 | 12.1 | 14.1 | 17.3 | 20.2 | 16.2 | 14.9 | 17.4 | 19.7 | 23.0 | 24.4 | 23.1 | 19.2 | 20.0 | 19.1 | 17.2 | 15.6 | 14.7 | 12.9 | 16.33 | 24.37 |
| 17-Aug | 11.2 | 10.2 | 9.6 | 9.2 | 8.9 | 8.8 | 9.2 | 11.3 | 13.8 | 16.5 | 19.3 | 20.3 | 20.4 | 20.7 | 20.5 | 20.0 | 22.2 | 21.1 | 19.1 | 17.2 | 14.8 | 13.7 | 13.0 | 12.0 | 15.13 | 22.16 |
| 18-Aug | 9.9 | 8.1 | 6.8 | 5.8 | 5.3 | 5.3 | 6.1 | 6.9 | 9.5 | 13.5 | 16.1 | 17.2 | 19.5 | 19.4 | 19.1 | 18.2 | 19.1 | 18.7 | 18.2 | 16.9 | 13.6 | 11.2 | 9.4 | 8.3 | 12.58 | 19.54 |
| 19-Aug | 7.4 | 6.6 | 5.8 | 5.1 | 4.2 | 3.6 | 3.9 | 6.1 | 9.7 | 13.2 | 16.0 | 19.2 | 20.7 | 23.5 | 24.4 | 25.4 | 25.3 | 25.1 | 22.5 | 20.7 | 18.0 | 14.9 | 12.9 | 11.5 | 14.41 | 25.41 |
| 20-Aug | 10.1 | 9.1 | 8.4 | 7.6 | 6.7 | 6.2 | 6.6 | 7.8 | 11.7 | 17.1 | 20.0 | 21.6 | 24.1 | 25.3 | 23.4 | 23.2 | 24.2 | 23.8 | 21.1 | 19.3 | 18.0 | 16.7 | 15.8 | 14.7 | 15.93 | 25.27 |
| 21-Aug | 14.1 | 13.3 | 12.5 | 12.1 | 12.3 | 12.3 | 12.6 | 13.5 | 15.2 | 15.6 | 16.2 | 16.3 | 17.0 | 17.1 | 18.4 | 19.0 | 18.4 | 19.1 | 16.7 | 11.2 | 11.3 | 10.9 | 11.0 | 10.1 | 14.42 | 19.10 |
| 22-Aug | 9.6 | 8.7 | 8.3 | 8.4 | 8.7 | 9.2 | 9.0 | 9.0 | 9.0 | 9.3 | 9.5 | 9.8 | 10.3 | 10.8 | 10.9 | 11.3 | 11.5 | 11.7 | 11.8 | 11.7 | 10.6 | 10.4 | 10.6 | 10.4 | 10.03 | 11.84 |
| 23-Aug | 10.7 | 10.8 | 10.8 | 11.1 | 10.9 | 9.7 | 8.9 | 10.0 | 11.3 | 12.4 | 14.2 | 15.4 | 16.0 | 16.5 | 17.1 | 16.7 | 16.2 | 17.1 | 15.4 | 13.8 | 11.9 | 10.4 | 8.8 | 7.9 | 12.66 | 17.08 |
| 24-Aug | 7.1 | 6.4 | 6.3 | 5.8 | 5.4 | 4.9 | 4.8 | 7.5 | 11.2 | 13.9 | 16.7 | 21.6 | 24.7 | 22.1 | 22.0 | 21.9 | 21.4 | 21.0 | 18.6 | 15.8 | 14.4 | 13.7 | 13.3 | 12.8 | 13.89 | 24.70 |
| 25-Aug | 12.5 | 12.1 | 12.1 | 11.2 | 10.9 | 10.5 | 10.6 | 11.6 | 13.9 | 16.6 | 16.3 | 17.3 | 16.8 | 15.2 | 15.3 | 15.8 | 14.3 | 14.6 | 14.3 | 13.0 | 11.8 | 10.5 | 9.2 | 8.0 | 13.10 | 17.33 |
| 26-Aug | 7.5 | 6.8 | 6.0 | 5.4 | 4.9 | 4.8 | 4.7 | 6.0 | 9.2 | 12.4 | 14.5 | 16.8 | 17.7 | 18.7 | 19.4 | 18.6 | 17.7 | 15.2 | 13.9 | 13.6 | 13.1 | 12.6 | 12.0 | 11.6 | 11.79 | 19.44 |
| 27-Aug | 11.5 | 11.4 | 11.3 | 11.2 | 11.1 | 10.9 | 11.0 | 11.4 | 11.9 | 12.1 | 13.1 | 14.3 | 16.4 | 18.0 | 18.7 | 14.0 | 12.7 | 11.9 | 10.4 | 9.9 | 8.3 | 7.4 | 6.6 | 6.6 | 11.76 | 18.73 |
| 28-Aug | 6.6 | 6.4 | 6.5 | 6.4 | 6.3 | 6.1 | 6.0 | 6.5 | 7.7 | 9.3 | 9.4 | 10.7 | 11.4 | 12.3 | 13.1 | 13.3 | 13.9 | 13.7 | 12.3 | 11.1 | 10.5 | 10.1 | 9.6 | 9.2 | 9.52 | 13.86 |
| 29-Aug | 8.4 | 8.1 | 6.7 | 6.4 | 6.5 | 6.6 | 6.7 | 7.2 | 8.5 | 9.9 | 11.4 | 12.9 | 14.3 | 16.5 | 18.7 | 20.1 | 20.3 | 20.1 | 18.3 | 16.0 | 14.4 | 13.5 | 13.1 | 13.0 | 12.41 | 20.33 |
| 30-Aug | 12.8 | 12.4 | 12.2 | 11.8 | 11.4 | 11.1 | 10.8 | 10.9 | 11.8 | 13.2 | 14.7 | 16.6 | 17.0 | 17.0 | 15.5 | 15.6 | 16.7 | 16.6 | 16.2 | 14.8 | 13.9 | 13.3 | 13.1 | 13.3 | 13.87 | 17.05 |
| 31-Aug | 13.0 | 12.4 | 12.4 | 12.8 | 12.8 | 13.1 | 13.1 | 13.2 | 15.3 | 17.8 | 19.2 | 20.1 | 21.4 | 22.0 | 22.8 | 23.2 | 23.2 | 22.6 | 20.4 | 18.3 | 17.2 | 16.6 | 16.1 | 15.4 | 17.27 | 23.20 |
| 11.36 10.82 10.41 9.91 9.48 9.23 9.43 10.86 12.96 15.06 16.62 18.28 19.53 20.22 20.49 20.34 20.23 19.63 18.22 16.61 15.14 13.93 13.05 12.14 | | | | | | | | | | | | | | | | | | | | | | Diurnal Average | | | | |
| 16.90 16.67 16.08 15.62 15.01 14.50 14.07 14.19 17.31 20.19 20.84 23.12 24.93 25.27 25.86 26.63 27.58 27.81 25.27 22.45 19.16 18.32 18.05 17.56 | | | | | | | | | | | | | | | | | | | | | | Diurnal Maximum | | | | |
| PF - Power Failure | | | | | | | | | | | | | | | | | | | | | | | | | | |



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
August 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 | 2.5 | 2.0 | 1.2 | 1.4 | 0.9 | 2.1 | 1.4 | 2.6 | 1.5 | 3.1 | 8.1 | 2.5 | 5.7 | 3.5 | 4.0 | 2.9 | 2.8 | 1.7 | 3.0 | 1.4 | 0.2 | 0.9 | 0.8 | 0.7 | 1.59 | 8.13 | |
| Dir | SW | WSW | WNW | WNW | WNW | W | W | WSW | W | WSW | SW | SW | SW | SW | SW | W | ENE | NNE | ESE | E | WSW | SSW | SSW | SW | SW | SW | |
| 2 Spd | 0.8 | 1.3 | 0.9 | 1.2 | 1.2 | 1.1 | 1.0 | 0.5 | 0.6 | 1.1 | 0.5 | 1.6 | 3.2 | 1.7 | 4.8 | 3.5 | 2.8 | 4.4 | 4.4 | 1.7 | 2.9 | 4.6 | 6.5 | 2.6 | 1.07 | 6.55 | |
| Dir | ESE | SW | WSW | SW | WSW | SW | WNW | SSW | WNW | W | SSE | ENE | NE | ENE | SE | E | E | SE | ESE | ENE | ENE | SSW | S | S | SE | S | |
| 3 Spd | 0.5 | 0.3 | 2.1 | 0.6 | 1.9 | 2.3 | 0.8 | 1.2 | 1.6 | 1.6 | 4.2 | 1.7 | 1.9 | 1.2 | 2.8 | 2.8 | 0.9 | 1.0 | 4.6 | 6.4 | 5.4 | 0.9 | 0.4 | 0.6 | 1.50 | 6.41 | |
| Dir | W | W | SW | WSW | SW | SW | W | WNW | WSW | SW | SSW | SW | SW | ESE | SE | WSW | NNE | NE | SW | SSW | SSW | W | W | WSW | SSW | SSW | |
| 4 Spd | 0.9 | 2.2 | 0.8 | 0.5 | 0.4 | 0.4 | 0.7 | 1.8 | 2.4 | 3.6 | 1.7 | 3.0 | 1.3 | 4.1 | 2.9 | 3.2 | 1.0 | 3.5 | 7.1 | 1.7 | 2.1 | 1.3 | 1.6 | 2.3 | 0.26 | 7.06 | |
| Dir | W | SW | WSW | WSW | WNW | WSW | W | WNW | W | SW | SSW | SSE | NNW | NE | NNE | NW | NNE | ENE | SE | NE | NE | ENE | ENE | ESE | E | SE | |
| 5 Spd | 0.4 | 1.4 | 1.0 | 1.9 | 0.9 | 0.8 | 0.5 | 0.7 | 0.7 | 1.7 | 3.0 | 3.9 | 4.7 | 4.5 | 5.8 | 6.9 | 11.8 | 3.3 | 3.5 | 4.7 | 1.7 | 1.4 | 1.1 | 3.1 | 2.03 | 11.76 | |
| Dir | E | W | W | WSW | WSW | W | W | NNE | NW | ENE | NE | NE | NE | NE | E | ENE | E | E | NE | NE | NNE | NE | SSW | ENE | ENE | E | |
| 6 Spd | 0.8 | 3.5 | 1.5 | 2.5 | 1.7 | 0.4 | 1.1 | 1.3 | 2.2 | 0.9 | 0.6 | 2.7 | 3.7 | 4.3 | 4.7 | 2.7 | 1.7 | 1.7 | 1.5 | 2.8 | 4.3 | 4.7 | 6.0 | 3.7 | 1.96 | 5.98 | |
| Dir | ENE | ENE | ENE | NE | ENE | NNW | SW | SW | SW | W | WNW | ENE | NE | NE | NE | ENE | NE | NE | ENE | NE | ENE | ENE | ENE | E | ENE | ENE | |
| 7 Spd | 1.2 | 3.0 | 2.4 | 1.0 | 0.5 | 0.7 | 1.4 | 0.6 | 1.3 | 3.4 | 3.1 | 3.5 | 4.4 | 5.2 | 4.8 | 6.2 | 6.7 | 4.5 | 0.7 | 0.7 | 0.2 | 0.8 | 1.0 | PF | 1.77 | 6.69 | |
| Dir | ENE | ENE | E | WNW | W | WSW | S | NNW | SW | ENE | ESE | NE | NE | NE | NE | ESE | E | E | NNE | ENE | NNW | ENE | SSW | PF | ENE | E | |
| 8 Spd | PF | PF | 1.0 | 0.5 | 0.2 | 0.2 | 0.4 | 0.3 | 0.6 | 1.8 | 2.2 | 2.6 | 3.0 | 3.1 | 3.4 | 3.3 | 2.7 | 1.5 | 1.2 | 1.6 | 0.7 | 2.3 | 4.3 | 2.3 | 0.62 | 4.27 | |
| Dir | PF | PF | SE | E | NNE | NNE | NNW | SW | W | WSW | SSE | E | ENE | ENE | ENE | E | ESE | NNE | E | NE | SSW | SW | W | E | E | SW | |
| 9 Spd | 1.1 | 1.3 | 1.1 | 0.3 | 0.5 | 0.3 | 0.4 | 1.7 | 2.3 | 5.4 | 7.0 | 8.9 | 3.9 | 2.7 | 0.5 | 3.8 | 3.2 | 1.4 | 0.6 | 3.1 | 2.8 | 2.3 | 0.9 | 1.1 | 1.50 | 8.85 | |
| Dir | WNW | W | NW | NE | W | NW | WNW | W | WSW | SW | SW | SSW | SW | W | NW | ENE | ESE | E | WSW | SW | WSW | WSW | WSW | WSW | SW | SW | |
| 10 Spd | 0.3 | 2.2 | 0.3 | 0.5 | 0.0 | 0.5 | 0.5 | 0.9 | 1.0 | 1.3 | 1.3 | 3.7 | 1.3 | 0.4 | 0.3 | 2.2 | 1.8 | 4.8 | 3.4 | 1.3 | 1.5 | 1.2 | 0.6 | 0.7 | 1.05 | 4.81 | |
| Dir | WNW | SW | NW | NNW | N | WNW | WNW | W | WNW | WSW | WSW | SW | NNW | S | ESE | SSE | SW | SSW | SW | WSW | SW | SW | SW | W | SW | SSW | |
| 11 Spd | 0.7 | 0.5 | 0.5 | 0.7 | 0.5 | 0.6 | 0.6 | 0.6 | 0.4 | 0.9 | 1.4 | 2.3 | 5.2 | 5.0 | 3.3 | 1.1 | 3.2 | 2.5 | 2.4 | 0.4 | 1.3 | 1.2 | 0.8 | 0.5 | 0.26 | 5.15 | |
| Dir | SW | WSW | WSW | SW | W | WSW | W | WNW | NW | WNW | SSW | S | SE | SSE | S | NNW | NNW | N | N | NNE | ENE | NE | SSE | WNW | S | SSE | |
| 12 Spd | 0.2 | 0.3 | 1.2 | 1.3 | 0.4 | 0.5 | 0.6 | 1.2 | 1.8 | 2.0 | 2.1 | 1.5 | 1.5 | 1.3 | 1.1 | 1.2 | 0.3 | 2.3 | 1.4 | 0.9 | 0.7 | 0.5 | 0.4 | 0.9 | 0.32 | 2.31 | |
| Dir | W | SSE | S | W | W | W | W | WNW | W | W | SSW | SW | NNW | SW | N | N | NNW | SE | NE | NE | NE | ENE | ENE | W | W | SE | |
| 13 Spd | 1.4 | 1.4 | 1.3 | 1.4 | 1.2 | 0.8 | 0.8 | 0.5 | 1.9 | 1.9 | 1.7 | 0.4 | 0.1 | 2.0 | 4.3 | 3.4 | 1.5 | 3.9 | 4.1 | 0.8 | 1.7 | 2.4 | 2.3 | 1.5 | 0.58 | 4.25 | |
| Dir | WSW | SW | WSW | WSW | WSW | W | NW | WNW | W | W | NW | NNE | NNE | N | NE | NE | NNE | SSE | SSW | W | WSW | SSW | WSW | W | WSW | NE | |
| 14 Spd | 2.5 | 4.9 | 5.0 | 5.7 | 7.4 | 1.9 | 1.3 | 0.9 | 4.7 | 6.1 | 7.9 | 7.4 | 8.1 | 1.1 | 4.0 | 1.6 | 1.1 | 2.9 | 1.3 | 3.3 | 1.6 | 2.9 | 3.9 | 1.5 | 3.06 | 8.13 | |
| Dir | WSW | SW | SW | SW | SW | W | NW | WNW | SW | SW | SSW | SSW | SSW | S | N | ESE | WNW | WSW | WNW | WSW | SW | SW | SW | WSW | SW | SSW | |
| 15 Spd | 2.4 | 1.2 | 1.6 | 1.7 | 0.8 | 0.6 | 1.0 | 1.9 | 1.8 | 2.3 | 3.1 | 2.5 | 2.7 | 3.6 | 3.0 | 2.0 | 1.4 | 0.6 | 1.7 | 1.4 | 1.1 | 0.4 | 1.0 | 1.2 | 1.10 | 3.64 | |
| Dir | SW | WSW | WSW | WSW | WNW | WNW | WNW | W | W | W | SW | SW | SW | SSW | SW | SW | NW | NNE | NE | NE | NE | W | W | SW | WSW | SSW | |
| 16 Spd | 2.3 | 2.1 | 0.9 | 1.4 | 1.9 | 0.7 | 0.9 | 3.6 | 0.9 | 0.8 | 1.2 | 1.3 | 2.8 | 1.2 | 0.8 | 2.1 | 3.7 | 2.1 | 1.1 | 1.2 | 0.8 | 0.4 | 0.4 | 0.2 | 0.30 | 3.70 | |
| Dir | SW | SSW | W | WSW | W | WSW | W | S | NW | SW | W | W | SSW | SSW | NW | N | ENE | NNE | NNE | NE | NE | NNE | E | ENE | WSW | ENE | |
| 17 Spd | 0.3 | 0.4 | 0.3 | 0.4 | 0.2 | 0.5 | 0.8 | 1.0 | 0.6 | 1.9 | 3.6 | 3.0 | 1.6 | 2.8 | 2.9 | 2.8 | 3.6 | 3.0 | 3.1 | 1.7 | 0.7 | 0.6 | 1.0 | 1.0 | 0.89 | 3.59 | |
| Dir | WNW | W | N | NNW | WSW | WNW | NW | WNW | W | ENE | E | E | SE | NNW | NNW | N | NNE | N | N | N | NNE | NNW | WSW | WSW | N | NNE | |
| 18 Spd | 0.4 | 0.3 | 0.2 | 0.7 | 0.7 | 1.0 | 0.9 | 0.3 | 1.4 | 0.8 | 3.5 | 3.8 | 2.5 | 2.0 | 3.8 | 6.0 | 7.3 | 4.1 | 2.9 | 3.0 | 0.7 | 0.1 | 0.2 | 1.5 | 0.88 | 7.33 | |
| Dir | NNE | NNE | NNE | WSW | SW | SW | WSW | W | W | WNW | NE | E | ENE | NE | SW | SW | SW | SW | SW | SW | SW | NE | WSW | NE | SW | SW | SW |
| 19 Spd | 0.6 | 1.1 | 0.9 | 1.3 | 0.7 | 0.8 | 0.7 | 0.9 | 1.7 | 3.8 | 3.6 | 4.5 | 9.9 | 8.7 | 7.3 | 2.6 | 4.2 | 0.9 | 1.8 | 0.9 | 1.1 | 0.8 | 0.2 | 0.3 | 1.94 | 9.95 | |
| Dir | W | WSW | WSW | SW | WSW | W | WSW | WNW | WNW | WSW | SW | SW | SSW | SW | SW | WSW | SW | WNW | NE | NNE | ESE | ENE | SSE | SSW | SW | SSW | |
| 20 Spd | 0.2 | 0.3 | 0.7 | 0.1 | 0.8 | 2.0 | 1.1 | 0.6 | 0.7 | 0.3 | 0.7 | 2.5 | 2.1 | 2.5 | 1.8 | 3.1 | 1.4 | 2.9 | 4.3 | 2.6 | 1.8 | 2.9 | 0.8 | 1.1 | 0.38 | 4.27 | |
| Dir | NE | N | W | SSW | W | W | SW | WSW | W | SSW | SW | SW | W | W | NNE | E | ENE | NE | NE | NE | NE | ENE | E | E | NE | NE | |
| 21 Spd | 2.7 | 1.7 | 2.7 | 1.1 | 0.8 | 2.0 | 1.4 | 2.1 | 3.5 | 5.5 | 5.6 | 4.5 | 1.8 | 2.9 | 2.9 | 4.8 | 3.2 | 3.3 | 4.8 | 3.7 | 1.5 | 0.9 | 2.4 | 1.5 | 2.04 | 5.64 | |
| Dir | ENE | ENE | ENE | NE | NNE | NNE | NNE | ENE | NE | ESE | E | ESE | NE | NE | NNE | NE | NNE | NNE | NE | E | ENE | W | SSW | S | ENE | E | |
| 22 Spd | 4.2 | 0.8 | 1.5 | 1.0 | 4.6 | 6.0 | 3.9 | 5.0 | 2.7 | 5.9 | 5.6 | 6.7 | 2.1 | 1.7 | 2.1 | 2.3 | 1.8 | 2.1 | 2.0 | 2.5 | 1.6 | 1.8 | 1.7 | 1.9 | 2.41 | 6.68 | |
| Dir | SSW | SW | SW | SW | SSW | SW | SW | SW | WSW | SW | SW | SSW | WSW | NW | NW | WNW | WNW | WNW | WNW | WNW | W | NW | WSW | WNW | WSW | SSW | |



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
August 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 | 2.0 | 2.4 | 4.1 | 2.4 | 3.6 | 1.6 | 2.2 | 3.3 | 1.6 | 2.4 | 3.2 | 1.0 | 1.9 | 2.1 | 4.4 | 5.5 | 4.8 | 2.1 | 2.2 | 1.0 | 1.3 | 0.3 | 0.8 | 0.2 | 2.19 | 5.49 | | |
| Dir | SW | SW | SW | WSW | SW | SW | SW | SW | W | SW | SSW | WNW | W | WNW | SW | SSW | SSW | WSW | SW | WSW | SW | SW | SSW | SSW | SW | SSW | | |
| 24 Spd | 0.3 | 0.3 | 0.4 | 0.2 | 0.3 | 0.9 | 0.4 | 1.4 | 2.0 | 2.1 | 2.3 | 2.6 | 2.2 | 3.4 | 3.1 | 3.3 | 1.4 | 1.0 | 0.8 | 2.0 | 4.7 | 2.9 | 2.2 | 2.3 | 1.08 | 4.70 | | |
| Dir | SSE | WSW | WSW | W | W | SW | WNW | W | W | W | W | WSW | SW | SSE | E | SE | SW | WSW | NW | W | SSW | SW | SW | SW | SW | SSW | | |
| 25 Spd | 1.5 | 1.6 | 2.8 | 4.6 | 2.7 | 2.3 | 1.0 | 3.0 | 2.1 | 1.8 | 0.6 | 1.9 | 1.4 | 1.0 | 3.1 | 2.9 | 3.9 | 3.6 | 0.8 | 2.0 | 1.1 | 0.5 | 1.0 | 0.9 | 1.24 | 4.61 | | |
| Dir | WSW | WSW | SW | SSW | SW | SW | WNW | WSW | WNW | W | WSW | SSW | SW | NW | SSW | E | SSE | S | SW | ENE | NE | SE | WSW | SW | SW | SSW | | |
| 26 Spd | 2.4 | 0.9 | 0.5 | 0.9 | 0.7 | 0.4 | 0.7 | 0.5 | 1.8 | 2.0 | 5.9 | 3.8 | 9.8 | 7.7 | 5.3 | 3.0 | 1.7 | 4.5 | 0.7 | 0.7 | 1.7 | 1.6 | 2.2 | 2.2 | 1.60 | 9.77 | | |
| Dir | SSW | WSW | WSW | W | WSW | W | WSW | NW | W | WNW | SW | SW | SSW | SSW | SW | SW | SSW | S | NE | NE | ENE | ENE | ENE | ENE | SW | SSW | | |
| 27 Spd | 1.6 | 2.9 | 1.4 | 1.5 | 3.0 | 1.9 | 1.1 | 0.2 | 3.8 | 1.1 | 1.7 | 1.2 | 1.6 | 3.2 | 4.7 | 3.6 | 2.9 | 1.7 | 0.7 | 0.8 | 1.9 | 2.6 | 1.1 | 2.0 | 0.54 | 4.67 | | |
| Dir | ENE | NE | NE | ENE | NE | ENE | E | E | S | S | S | NW | NNW | ESE | NE | NE | SSE | SSW | N | WNW | NW | W | WNW | SW | ENE | NE | | |
| 28 Spd | 2.7 | 1.9 | 1.4 | 1.1 | 0.4 | 1.9 | 0.9 | 1.0 | 3.3 | 2.4 | 2.8 | 0.1 | 2.5 | 2.8 | 4.7 | 5.0 | 4.8 | 4.4 | 4.2 | 2.5 | 3.3 | 2.8 | 3.4 | 3.0 | 1.21 | 4.95 | | |
| Dir | SW | WSW | SSW | SW | NNW | SW | WSW | SW | SSW | S | S | SW | ENE | ENE | NE | E | ENE | E | ENE | NNE | NE | NE | ENE | ENE | E | E | | |
| 29 Spd | 1.9 | 3.1 | 1.5 | 2.2 | 2.9 | 1.5 | 0.7 | 2.3 | 2.7 | 1.8 | 1.5 | 0.9 | 1.6 | 3.8 | 4.0 | 3.7 | 4.3 | 6.0 | 4.8 | 1.4 | 1.1 | 0.4 | 2.5 | 2.4 | 2.20 | 5.96 | | |
| Dir | ESE | ESE | ENE | NE | ENE | E | NE | NE | NE | NNE | NE | E | NE | NNE | NE | NE | NE | E | ENE | NE | ESE | E | ENE | E | ENE | E | | |
| 30 Spd | 4.3 | 4.4 | 4.0 | 3.6 | 2.7 | 2.0 | 2.5 | 2.7 | 2.5 | 3.7 | 3.5 | 4.2 | 5.6 | 6.6 | 8.0 | 6.2 | 4.2 | 3.0 | 1.0 | 0.3 | 0.7 | 0.2 | 0.8 | 1.5 | 3.06 | 8.04 | | |
| Dir | ENE | ENE | ESE | ENE | NE | NNE | NE | NE | NE | NE | NE | NE | NE | NE | NE | NE | NNE | ENE | E | NNE | ENE | NE | S | ENE | NE | NE | | |
| 31 Spd | 0.7 | 0.1 | 0.6 | 0.9 | 1.4 | 2.1 | 3.1 | 1.3 | 1.3 | 2.3 | 1.3 | 2.7 | 1.5 | 3.2 | 4.1 | 3.9 | 4.2 | 4.7 | 6.2 | 4.7 | 5.1 | 2.7 | 2.7 | 2.8 | 1.82 | 6.22 | | |
| Dir | ENE | W | NW | S | SW | NNE | ENE | NE | W | SW | ENE | N | NE | NE | NE | NNE | NE | NE | ENE | ENE | ENE | NE | ENE | WSW | NE | ENE | | |
| Spd | 0.49 | 0.45 | 0.51 | 0.57 | 0.64 | 0.63 | 0.44 | 0.68 | 1.03 | 1.20 | 1.49 | 1.00 | 0.58 | 0.50 | 0.94 | 1.20 | 1.12 | 0.94 | 0.90 | 0.52 | 0.43 | 0.09 | 0.51 | 0.36 | Diurnal Average | | | |
| Dir | SSW | SSW | SW | WSW | SW | WSW | W | WSW | W | SW | SSW | S | S | ENE | ENE | ENE | E | E | ENE | ENE | ENE | S | S | S | | | | |
| Spd | 4.25 | 4.93 | 5.03 | 5.69 | 7.38 | 6.05 | 3.85 | 5.02 | 4.68 | 6.11 | 8.13 | 8.85 | 9.95 | 8.74 | 8.04 | 6.95 | 11.76 | 5.96 | 7.06 | 6.41 | 5.41 | 4.73 | 6.55 | 3.73 | Diurnal Maximum | | | |
| Dir | 76.16 | 229.62 | 231.83 | 227.80 | 215.75 | 220.76 | 224.45 | 219.16 | 219.76 | 219.46 | 219.17 | 205.77 | 206.36 | 221.22 | 53.86 | 61.98 | 101.19 | 91.08 | 142.68 | 195.06 | 195.32 | 68.88 | 179.01 | 98.64 | | | | |
| Maximum Speed Value: 11.8 kph on Aug 5 17:00 | | | | | | | | | | | | | | | | | | | Minimum Speed Value: 0.0 kph on Aug 10 05:00 | | | | | Hours in Service: | | | | 744 |
| Maximum Daily Speed Average: 3.06 kph on Aug 14 | | | | | | | | | | | | | | | | | | | Minimum Daily Speed Average: 0.26 kph on Aug 12 | | | | | Hours of Data: | | | | 741 |
| Maximum Diurnal Speed Average: 1.49 kph at hour 11 | | | | | | | | | | | | | | | | | | | Minimum Diurnal Speed Average: 0.09 kph at hour 22 | | | | | Hours of Missing Data: | | | | 3 |
| Monthly Average Velocity: 0.217 kph 180.92 deg | | | | | | | | | | | | | | | | | | | Speed Percentiles: P ₁ = 0.2 P ₁₀ = 0.5 Q ₁ = 0.9 Median = 1.7 Q ₃ = 3.0 P ₉₀ = 4.4 P ₉₉ = 8.1 | | | | | Percent Operational Time: | | | | 99.6 |
| All monthly, daily, and diurnal averages have been calculated using vector methods | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PF - Power Failure | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Distribution | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Speed Range (kph) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Direction | 0 to 5 | 5 to 11 | 11 to 19 | 19 to 28 | 28 to 38 | > 38 | | | | | | | | | | | | | | | | | | | Total | | | |
| North | 48 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 48 | | | |
| NorthEast | 142 | 9 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 151 | | | |
| East | 76 | 5 | 1 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 82 | | | |
| SouthEast | 20 | 3 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 23 | | | |
| South | 43 | 5 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 48 | | | |
| SouthWest | 168 | 25 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 193 | | | |
| West | 139 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 139 | | | |
| NorthWest | 57 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 57 | | | |
| Total | 693 | 47 | 1 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | 741 | | | |



WCAS - Hinton
Summary of Hourly Averages

Relative Humidity (RH) - %
August 2016

| Maximum Value: 91.24 % on Aug 11 08:00 Maximum Daily Average: 84.37 % on Aug 22 | | | | | | | | | | | | | | | | | | | | | | | Hours in Service: 744 Hours of Data: 741 | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|-------|---------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|--|
| Minimum Value: 20.2 % on Aug 19 17:00 Minimum Daily Average: 56.83 % on Aug 4 Maximum Diurnal Average: 86.68 % at hour 7 Minimum Diurnal Average: 45.56 % at hour 15 Monthly Average: 68.738 % Percentiles: P₁ = 24.0 P₁₀ = 38.9 Q₁ = 55.0 Median = 74.1 Q₃ = 85.3 P₉₀ = 89.3 P₉₉ = 91.0 | | | | | | | | | | | | | | | | | | | | | | | Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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-Aug | 78.6 | 78.0 | 83.3 | 86.9 | 87.0 | 82.2 | 78.0 | 72.5 | 66.3 | 58.2 | 45.1 | 50.5 | 43.9 | 40.7 | 34.5 | 30.3 | 39.1 | 42.3 | 36.0 | 44.2 | 62.7 | 74.8 | 78.2 | 80.5 | 61.40 | 87.01 | | | | | | | | | | | | | | | | | | | | | | |
| 2-Aug | 79.8 | 84.0 | 85.7 | 86.5 | 87.2 | 88.0 | 87.2 | 78.2 | 65.1 | 53.3 | 47.6 | 41.4 | 38.6 | 38.2 | 29.1 | 28.5 | 24.3 | 25.5 | 34.0 | 49.4 | 55.7 | 74.3 | 85.6 | 87.9 | 60.64 | 88.01 | | | | | | | | | | | | | | | | | | | | | | |
| 3-Aug | 89.3 | 90.0 | 90.3 | 90.4 | 90.7 | 90.7 | 90.2 | 81.7 | 69.0 | 58.2 | 49.6 | 39.7 | 34.3 | 30.2 | 38.0 | 44.3 | 48.5 | 49.6 | 54.6 | 57.5 | 72.0 | 78.8 | 82.5 | 82.5 | 67.11 | 90.71 | | | | | | | | | | | | | | | | | | | | | | |
| 4-Aug | 82.0 | 80.6 | 82.7 | 85.4 | 87.3 | 87.8 | 88.4 | 80.9 | 66.7 | 57.1 | 48.1 | 29.5 | 28.1 | 28.7 | 32.3 | 33.5 | 28.9 | 27.1 | 28.0 | 46.5 | 51.7 | 54.3 | 63.1 | 65.3 | 56.83 | 88.36 | | | | | | | | | | | | | | | | | | | | | | |
| 5-Aug | 75.3 | 82.8 | 85.5 | 86.9 | 87.5 | 88.5 | 89.1 | 87.1 | 81.6 | 74.6 | 67.0 | 60.3 | 56.4 | 50.5 | 44.5 | 43.7 | 46.4 | 57.3 | 56.9 | 58.4 | 69.2 | 68.2 | 67.1 | 69.9 | 68.93 | 89.05 | | | | | | | | | | | | | | | | | | | | | | |
| 6-Aug | 73.0 | 73.8 | 76.0 | 73.1 | 63.8 | 66.5 | 68.6 | 70.2 | 69.8 | 67.7 | 66.3 | 66.9 | 68.4 | 65.8 | 67.5 | 68.3 | 68.5 | 71.2 | 75.1 | 83.9 | 82.7 | 82.2 | 81.4 | 83.2 | 72.24 | 83.89 | | | | | | | | | | | | | | | | | | | | | | |
| 7-Aug | 82.9 | 82.8 | 80.0 | 83.6 | 85.9 | 87.2 | 85.1 | 81.2 | 70.5 | 63.5 | 59.5 | 54.6 | 52.7 | 49.7 | 45.9 | 47.9 | 48.5 | 53.9 | 65.3 | 68.7 | 74.7 | 77.7 | 80.2 | PF | 68.79 | 87.17 | | | | | | | | | | | | | | | | | | | | | | |
| 8-Aug | PF | PF | 88.4 | 89.5 | 90.0 | 90.4 | 90.9 | 91.0 | 90.9 | 89.6 | 75.6 | 64.9 | 60.1 | 53.1 | 49.6 | 50.2 | 48.8 | 50.9 | 77.4 | 86.8 | 88.1 | 84.4 | 77.9 | 82.9 | 75.97 | 90.97 | | | | | | | | | | | | | | | | | | | | | | |
| 9-Aug | 88.1 | 89.6 | 90.1 | 90.4 | 90.6 | 90.9 | 91.2 | 91.2 | 85.9 | 71.8 | 59.1 | 49.2 | 50.9 | 55.0 | 52.1 | 58.6 | 65.1 | 77.7 | 87.8 | 86.4 | 84.0 | 87.1 | 87.8 | 89.1 | 77.91 | 91.21 | | | | | | | | | | | | | | | | | | | | | | |
| 10-Aug | 89.9 | 90.4 | 90.1 | 90.5 | 90.8 | 91.0 | 91.2 | 91.1 | 90.6 | 87.5 | 84.0 | 70.3 | 71.8 | 61.6 | 64.5 | 78.1 | 74.3 | 68.0 | 72.4 | 77.7 | 76.6 | 86.1 | 88.2 | 89.3 | 81.91 | 91.22 | | | | | | | | | | | | | | | | | | | | | | |
| 11-Aug | 89.8 | 90.1 | 90.4 | 90.6 | 90.8 | 91.1 | 91.2 | 91.2 | 90.8 | 83.5 | 66.0 | 51.3 | 46.0 | 39.0 | 36.2 | 30.7 | 36.9 | 39.9 | 38.8 | 47.4 | 58.7 | 67.2 | 73.1 | 79.7 | 67.10 | 91.24 | | | | | | | | | | | | | | | | | | | | | | |
| 12-Aug | 82.3 | 83.1 | 82.1 | 84.6 | 87.6 | 88.6 | 89.0 | 76.0 | 60.3 | 52.3 | 41.2 | 32.8 | 31.0 | 29.2 | 29.4 | 27.5 | 24.3 | 24.0 | 29.4 | 44.3 | 61.3 | 70.8 | 77.5 | 83.0 | 58.00 | 89.02 | | | | | | | | | | | | | | | | | | | | | | |
| 13-Aug | 84.0 | 85.0 | 85.4 | 86.2 | 86.7 | 87.6 | 88.4 | 75.3 | 61.1 | 52.5 | 48.5 | 38.0 | 31.5 | 45.1 | 46.9 | 60.8 | 75.2 | 77.0 | 81.4 | 84.7 | 83.5 | 84.3 | 78.8 | 82.8 | 71.28 | 88.44 | | | | | | | | | | | | | | | | | | | | | | |
| 14-Aug | 79.5 | 74.1 | 72.8 | 70.5 | 72.0 | 77.0 | 83.8 | 77.3 | 60.4 | 53.4 | 47.1 | 39.2 | 30.0 | 27.6 | 43.5 | 48.7 | 40.6 | 36.4 | 50.6 | 49.4 | 56.4 | 58.5 | 67.6 | 80.6 | 58.21 | 83.79 | | | | | | | | | | | | | | | | | | | | | | |
| 15-Aug | 82.1 | 84.5 | 83.8 | 85.8 | 87.5 | 88.7 | 89.3 | 81.5 | 67.0 | 58.1 | 49.5 | 39.6 | 32.7 | 28.4 | 25.9 | 24.4 | 23.4 | 23.7 | 30.5 | 43.5 | 62.4 | 69.2 | 76.2 | 77.7 | 58.97 | 89.27 | | | | | | | | | | | | | | | | | | | | | | |
| 16-Aug | 78.4 | 76.5 | 79.6 | 82.9 | 82.6 | 81.9 | 83.0 | 71.7 | 62.6 | 47.3 | 71.3 | 85.0 | 70.8 | 59.7 | 46.8 | 41.2 | 49.0 | 74.4 | 64.5 | 68.5 | 76.9 | 80.4 | 82.2 | 86.2 | 70.98 | 86.22 | | | | | | | | | | | | | | | | | | | | | | |
| 17-Aug | 88.3 | 89.2 | 89.5 | 88.9 | 89.0 | 89.4 | 89.3 | 84.4 | 71.4 | 61.8 | 38.9 | 32.9 | 31.3 | 32.1 | 29.2 | 31.0 | 26.1 | 27.8 | 30.6 | 37.8 | 48.3 | 58.4 | 62.1 | 62.7 | 57.94 | 89.52 | | | | | | | | | | | | | | | | | | | | | | |
| 18-Aug | 74.1 | 81.9 | 85.1 | 86.8 | 87.7 | 87.7 | 87.0 | 84.3 | 76.5 | 60.6 | 51.2 | 45.0 | 37.6 | 36.1 | 40.6 | 44.6 | 41.6 | 44.4 | 44.2 | 49.2 | 67.0 | 77.8 | 81.8 | 84.9 | 64.90 | 87.70 | | | | | | | | | | | | | | | | | | | | | | |
| 19-Aug | 86.1 | 87.7 | 88.5 | 89.0 | 89.3 | 89.5 | 90.1 | 90.3 | 83.6 | 59.3 | 48.9 | 38.3 | 31.2 | 23.1 | 21.1 | 22.7 | 20.2 | 22.3 | 28.6 | 33.8 | 46.0 | 59.6 | 69.7 | 74.9 | 58.08 | 90.26 | | | | | | | | | | | | | | | | | | | | | | |
| 20-Aug | 78.7 | 82.2 | 84.2 | 85.5 | 87.0 | 87.3 | 86.8 | 85.3 | 72.5 | 50.3 | 42.1 | 38.4 | 33.0 | 28.3 | 36.6 | 41.1 | 40.2 | 43.0 | 49.7 | 58.8 | 67.0 | 70.7 | 79.6 | 87.7 | 63.16 | 87.68 | | | | | | | | | | | | | | | | | | | | | | |
| 21-Aug | 87.7 | 88.5 | 89.0 | 89.2 | 89.7 | 89.7 | 89.5 | 86.2 | 75.3 | 68.8 | 65.5 | 64.8 | 65.1 | 63.9 | 60.5 | 60.7 | 66.0 | 65.1 | 67.5 | 85.8 | 85.1 | 87.6 | 85.1 | 83.2 | 77.48 | 89.70 | | | | | | | | | | | | | | | | | | | | | | |
| 22-Aug | 82.0 | 84.0 | 88.2 | 88.8 | 88.7 | 83.0 | 85.3 | 84.8 | 85.7 | 83.8 | 84.4 | 85.9 | 86.9 | 85.7 | 84.4 | 82.9 | 82.7 | 83.5 | 83.6 | 80.3 | 83.7 | 83.0 | 80.9 | 82.8 | 84.37 | 88.84 | | | | | | | | | | | | | | | | | | | | | | |
| 23-Aug | 78.5 | 77.4 | 76.4 | 74.1 | 74.3 | 82.0 | 85.2 | 81.0 | 80.2 | 77.9 | 65.2 | 59.3 | 56.1 | 54.5 | 55.0 | 58.4 | 60.0 | 58.4 | 65.7 | 75.3 | 84.4 | 87.0 | 88.1 | 88.7 | 72.63 | 88.66 | | | | | | | | | | | | | | | | | | | | | | |
| 24-Aug | 89.0 | 89.5 | 89.9 | 90.1 | 90.2 | 90.4 | 90.6 | 90.7 | 80.9 | 68.6 | 59.7 | 42.6 | 27.4 | 28.1 | 27.6 | 26.5 | 33.0 | 41.5 | 51.1 | 61.5 | 73.1 | 78.4 | 80.6 | 81.0 | 65.91 | 90.66 | | | | | | | | | | | | | | | | | | | | | | |
| 25-Aug | 82.5 | 84.7 | 83.2 | 84.0 | 84.2 | 87.4 | 85.8 | 85.3 | 78.7 | 60.5 | 60.8 | 51.4 | 52.8 | 63.5 | 66.0 | 58.6 | 63.9 | 69.3 | 71.5 | 83.8 | 85.9 | 88.0 | 88.9 | 89.4 | 75.42 | 89.35 | | | | | | | | | | | | | | | | | | | | | | |
| 26-Aug | 89.6 | 89.4 | 89.7 | 89.9 | 90.1 | 90.3 | 90.5 | 90.9 | 90.1 | 72.0 | 57.2 | 50.6 | 44.0 | 41.4 | 40.2 | 46.2 | 56.0 | 69.0 | 82.1 | 83.8 | 85.8 | 86.4 | 87.6 | 87.6 | 75.02 | 90.89 | | | | | | | | | | | | | | | | | | | | | | |
| 27-Aug | 87.6 | 87.4 | 87.6 | 88.1 | 89.4 | 90.1 | 90.4 | 90.2 | 88.0 | 87.4 | 82.4 | 82.0 | 69.0 | 55.4 | 49.7 | 70.0 | 79.0 | 81.5 | 83.0 | 74.1 | 75.8 | 75.0 | 72.4 | 68.4 | 79.33 | 90.43 | | | | | | | | | | | | | | | | | | | | | | |
| 28-Aug | 67.0 | 67.9 | 66.3 | 67.2 | 66.8 | 67.8 | 71.0 | 69.0 | 62.5 | 57.5 | 58.4 | 54.4 | 52.4 | 50.8 | 49.6 | 48.8 | 48.4 | 49.9 | 56.3 | 63.4 | 66.2 | 66.9 | 67.4 | 68.4 | 61.00 | 70.99 | | | | | | | | | | | | | | | | | | | | | | |
| 29-Aug | 71.6 | 73.0 | 79.5 | 82.7 | 81.2 | 82.3 | 83.7 | 82.2 | 76.3 | 70.6 | 66.2 | 62.6 | 60.0 | 57.0 | 51.5 | 48.5 | 47.2 | 47.5 | 56.9 | 68.1 | 74.4 | 77.1 | 78.5 | 79.2 | 69.06 | 83.67 | | | | | | | | | | | | | | | | | | | | | | |
| 30-Aug | 79.0 | 79.8 | 80.9 | 83.2 | 85.0 | 85.6 | 87.2 | 87.6 | 84.4 | 77.7 | 71.1 | 64.1 | 61.6 | 61.5 | 66.3 | 66.5 | 63.6 | 66.9 | 70.9 | 78.5 | 83.5 | 85.6 | 86.5 | 87.5 | 76.85 | 87.63 | | | | | | | | | | | | | | | | | | | | | | |
| 31-Aug | 88.7 | 89.3 | 89.8 | 90.1 | 90.2 | 90.2 | 89.7 | 89.3 | 85.1 | 68.9 | 60.7 | 60.0 | 54.1 | 54.7 | 55.4 | 55.5 | 54.9 | 57.2 | 65.8 | 72.5 | 77.0 | 79.3 | 82.6 | 76.9 | 74.08 | 90.18 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 82.17 | 83.24 | 84.32 | 85.20 | 85.51 | 86.15 | 86.68 | 83.48 | 76.20 | 66.61 | 59.57 | 53.41 | 48.87 | 46.54 | 45.56 | 47.50 | 49.04 | 52.42 | 57.58 | 64.55 | 71.13 | 75.89 | 78.58 | 80.79 | Diurnal Average | |
| | | | | | | | | | | | | | | | | | | | | | | | 89.86 | 90.41 | 90.41 | 90.61 | 90.81 | 91.07 | 91.22 | 91.24 | 90.88 | 89.56 | 84.39 | 85.86 | 86.87 | 85.68 | 84.44 | 82.94 | 82.73 | 83.55 | 87.80 | 86.83 | 88.07 | 88.05 | 88.94 | 89.35 | Diurnal Maximum | |
| PF - Power Failure | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Speed (WS) - kph
August 2016

| Maximum Value: 5.84 kph on Aug 19 15:00 | | Maximum Daily Average: 2.86 kph on Aug 14 | | Hours in Service: 744 | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------------|--|-----|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------|---------------|---------------|
| Minimum Value: 0.1 kph on Aug 18 22:00 | | Minimum Daily Average: 1.62 kph on Aug 12 | | Hours of Data: 741 | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Diurnal Average: 3.13 kph at hour 15 | | Minimum Diurnal Average: 1.34 kph at hour 7 | | Hours of Missing Data: 3 | | | | | | | | | | | | | | | | | | | | | | |
| Monthly Average: 2.091 kph | | Percentiles: P ₁ = 0.5 P ₁₀ = 1.0 Q ₁ = 1.3 Median = 2.0 Q ₃ = 2.7 P ₉₀ = 3.4 P ₉₉ = 4.4 | | Hours of Calibration: 0 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Percent Operational Time: 99.6 | | | | | | | | | | | | | | | | | | | | | | |
| 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-Aug | 2.3 | 1.9 | 1.2 | 1.2 | 1.0 | 1.7 | 1.4 | 2.4 | 1.7 | 3.7 | 4.4 | 2.2 | 4.1 | 3.9 | 3.8 | 3.6 | 3.2 | 2.0 | 2.5 | 1.4 | 0.7 | 1.4 | 1.2 | 1.2 | 2.24 | 4.37 |
| 2-Aug | 2.5 | 1.5 | 1.4 | 1.3 | 1.2 | 1.2 | 1.1 | 1.4 | 1.0 | 1.8 | 1.5 | 2.0 | 2.6 | 2.5 | 2.9 | 3.2 | 3.0 | 3.5 | 3.7 | 1.6 | 2.3 | 4.6 | 4.6 | 2.5 | 2.29 | 4.63 |
| 3-Aug | 1.1 | 0.6 | 1.4 | 0.9 | 1.9 | 1.9 | 1.4 | 1.4 | 1.6 | 2.1 | 2.9 | 2.5 | 2.6 | 2.4 | 2.7 | 3.0 | 2.1 | 1.9 | 4.4 | 5.4 | 3.7 | 1.5 | 0.7 | 1.1 | 2.13 | 5.43 |
| 4-Aug | 1.5 | 2.0 | 1.3 | 0.9 | 0.8 | 1.3 | 1.0 | 1.6 | 2.3 | 2.9 | 2.0 | 2.7 | 2.5 | 3.0 | 2.9 | 2.6 | 1.5 | 2.9 | 3.1 | 2.1 | 2.2 | 2.8 | 1.6 | 1.3 | 2.03 | 3.08 |
| 5-Aug | 1.3 | 1.5 | 1.2 | 1.2 | 1.1 | 1.0 | 0.9 | 1.0 | 0.9 | 2.0 | 2.4 | 2.9 | 3.2 | 3.7 | 4.0 | 4.3 | 5.7 | 4.3 | 3.0 | 3.3 | 2.9 | 2.6 | 2.8 | 3.1 | 2.51 | 5.65 |
| 6-Aug | 1.2 | 1.8 | 1.6 | 2.7 | 2.8 | 1.2 | 1.4 | 1.7 | 2.2 | 1.3 | 1.3 | 2.2 | 2.7 | 2.8 | 3.2 | 2.4 | 1.7 | 1.7 | 1.7 | 2.4 | 2.9 | 2.1 | 3.3 | 2.1 | 2.10 | 3.26 |
| 7-Aug | 1.5 | 1.5 | 1.4 | 1.1 | 0.7 | 1.1 | 1.7 | 0.9 | 2.5 | 2.7 | 2.8 | 2.5 | 3.3 | 3.6 | 3.5 | 3.6 | 3.5 | 4.0 | 1.0 | 1.1 | 1.1 | 1.3 | 1.9 | PF | 2.10 | 4.03 |
| 8-Aug | PF | PF | 1.7 | 1.2 | 1.0 | 0.7 | 0.7 | 1.2 | 1.0 | 1.9 | 1.9 | 2.3 | 2.3 | 2.8 | 2.8 | 2.2 | 2.6 | 2.4 | 2.2 | 1.7 | 1.2 | 2.3 | 2.8 | 1.8 | 1.84 | 2.80 |
| 9-Aug | 1.2 | 1.3 | 1.1 | 0.7 | 1.1 | 0.5 | 0.6 | 2.4 | 2.4 | 4.6 | 4.3 | 4.6 | 3.8 | 2.3 | 3.3 | 2.9 | 4.9 | 3.6 | 1.0 | 2.2 | 2.3 | 1.7 | 1.4 | 2.2 | 2.35 | 4.88 |
| 10-Aug | 1.1 | 2.0 | 1.3 | 1.1 | 0.5 | 0.7 | 0.6 | 1.2 | 1.1 | 1.7 | 1.6 | 3.0 | 2.2 | 2.1 | 2.3 | 3.0 | 2.4 | 3.2 | 2.9 | 1.7 | 1.7 | 1.3 | 1.0 | 0.9 | 1.69 | 3.15 |
| 11-Aug | 1.0 | 0.8 | 0.8 | 1.3 | 0.9 | 0.8 | 0.9 | 0.8 | 1.0 | 1.5 | 2.4 | 2.5 | 3.5 | 2.7 | 2.8 | 1.9 | 2.3 | 2.2 | 2.5 | 1.4 | 1.3 | 1.4 | 2.5 | 1.3 | 1.70 | 3.50 |
| 12-Aug | 1.4 | 1.5 | 2.0 | 1.2 | 0.6 | 0.7 | 1.0 | 1.3 | 1.8 | 1.9 | 2.2 | 2.6 | 2.0 | 2.9 | 2.5 | 2.1 | 2.2 | 2.2 | 1.5 | 1.1 | 1.0 | 1.0 | 0.9 | 1.1 | 1.62 | 2.90 |
| 13-Aug | 1.2 | 1.3 | 1.1 | 1.2 | 1.2 | 1.0 | 1.0 | 1.0 | 2.0 | 2.1 | 1.6 | 1.3 | 2.0 | 2.7 | 2.7 | 1.9 | 4.1 | 2.7 | 1.7 | 2.2 | 2.2 | 2.3 | 1.9 | 1.9 | 1.88 | 4.07 |
| 14-Aug | 2.4 | 3.1 | 3.4 | 3.6 | 4.4 | 1.9 | 1.3 | 1.2 | 3.0 | 4.2 | 3.9 | 4.5 | 3.7 | 2.8 | 4.2 | 2.0 | 1.9 | 3.3 | 1.6 | 3.0 | 2.1 | 2.6 | 2.5 | 1.7 | 2.86 | 4.51 |
| 15-Aug | 2.1 | 1.4 | 1.6 | 1.5 | 1.0 | 0.7 | 1.1 | 1.8 | 1.8 | 2.0 | 2.7 | 2.7 | 3.1 | 3.6 | 3.5 | 2.5 | 1.7 | 1.4 | 1.7 | 1.3 | 1.3 | 1.3 | 1.2 | 1.7 | 1.87 | 3.61 |
| 16-Aug | 1.7 | 1.5 | 1.1 | 1.2 | 1.4 | 1.5 | 1.2 | 3.4 | 1.3 | 1.7 | 2.4 | 2.0 | 2.7 | 2.0 | 1.7 | 1.5 | 2.7 | 1.5 | 1.2 | 1.3 | 1.2 | 1.2 | 1.1 | 0.8 | 1.65 | 3.39 |
| 17-Aug | 0.6 | 1.3 | 0.6 | 0.5 | 1.0 | 0.9 | 1.0 | 1.2 | 1.1 | 1.8 | 2.3 | 3.0 | 3.1 | 2.3 | 3.0 | 2.5 | 3.3 | 3.0 | 2.3 | 1.6 | 1.2 | 1.0 | 1.3 | 1.0 | 1.71 | 3.35 |
| 18-Aug | 0.5 | 0.5 | 0.1 | 1.0 | 1.2 | 1.2 | 1.5 | 0.6 | 1.4 | 1.6 | 2.5 | 2.5 | 2.9 | 2.8 | 3.4 | 4.6 | 4.8 | 4.0 | 2.5 | 2.9 | 0.9 | 0.1 | 0.5 | 1.4 | 1.89 | 4.84 |
| 19-Aug | 0.9 | 1.3 | 1.3 | 1.3 | 0.9 | 1.0 | 1.0 | 1.1 | 1.4 | 3.3 | 3.1 | 4.4 | 4.6 | 5.4 | 5.8 | 3.2 | 3.8 | 3.1 | 1.7 | 1.6 | 1.8 | 1.7 | 1.1 | 1.0 | 2.32 | 5.84 |
| 20-Aug | 0.5 | 0.6 | 0.9 | 0.7 | 1.1 | 1.3 | 1.7 | 0.9 | 1.3 | 1.2 | 1.6 | 2.6 | 2.5 | 3.1 | 2.4 | 2.6 | 1.6 | 2.4 | 2.9 | 2.3 | 2.0 | 2.1 | 1.6 | 1.8 | 1.73 | 3.09 |
| 21-Aug | 2.1 | 1.5 | 2.2 | 1.9 | 1.2 | 1.6 | 1.5 | 1.5 | 2.0 | 2.8 | 3.1 | 2.3 | 1.9 | 2.3 | 2.5 | 3.5 | 3.0 | 2.5 | 3.5 | 3.5 | 3.4 | 1.5 | 3.0 | 3.5 | 2.40 | 3.53 |
| 22-Aug | 2.7 | 1.6 | 1.8 | 1.9 | 3.2 | 3.1 | 2.8 | 2.9 | 2.4 | 3.4 | 3.8 | 3.3 | 2.4 | 2.6 | 2.3 | 2.0 | 1.9 | 1.8 | 1.8 | 1.6 | 1.6 | 1.6 | 1.8 | 1.7 | 2.33 | 3.75 |
| 23-Aug | 2.1 | 2.0 | 2.5 | 2.5 | 2.5 | 1.9 | 2.3 | 2.4 | 1.7 | 2.6 | 3.1 | 1.7 | 2.2 | 2.2 | 3.3 | 3.8 | 2.8 | 2.0 | 2.1 | 1.6 | 1.2 | 0.9 | 1.1 | 0.7 | 2.14 | 3.83 |
| 24-Aug | 0.8 | 0.7 | 0.6 | 0.2 | 0.4 | 0.9 | 0.7 | 1.5 | 1.8 | 2.2 | 1.8 | 2.6 | 2.4 | 2.3 | 2.6 | 2.6 | 2.0 | 1.7 | 2.2 | 3.4 | 2.8 | 2.7 | 1.9 | 2.1 | 1.78 | 3.35 |
| 25-Aug | 1.7 | 1.7 | 2.9 | 3.1 | 2.9 | 2.4 | 2.4 | 2.6 | 2.0 | 1.9 | 1.2 | 2.3 | 2.7 | 3.7 | 3.0 | 3.3 | 3.1 | 3.2 | 1.6 | 1.7 | 1.7 | 1.4 | 1.0 | 1.4 | 2.28 | 3.70 |
| 26-Aug | 1.4 | 1.1 | 0.7 | 1.2 | 0.9 | 0.7 | 1.0 | 0.7 | 1.9 | 2.0 | 4.6 | 3.9 | 3.6 | 3.9 | 3.0 | 2.0 | 1.9 | 3.6 | 1.1 | 1.2 | 1.7 | 1.6 | 2.3 | 1.8 | 1.99 | 4.55 |
| 27-Aug | 1.7 | 2.4 | 1.8 | 1.7 | 2.0 | 1.9 | 1.8 | 2.0 | 3.5 | 2.2 | 2.0 | 1.3 | 1.6 | 3.0 | 3.9 | 3.1 | 3.5 | 3.1 | 2.2 | 2.8 | 2.3 | 2.1 | 2.0 | 3.0 | 2.37 | 3.87 |
| 28-Aug | 2.3 | 2.4 | 2.1 | 1.8 | 1.9 | 2.2 | 1.4 | 1.8 | 2.1 | 2.6 | 2.4 | 2.2 | 2.2 | 2.2 | 3.0 | 3.2 | 3.3 | 3.2 | 2.7 | 2.4 | 2.6 | 2.4 | 2.4 | 1.8 | 2.35 | 3.31 |
| 29-Aug | 1.9 | 2.3 | 1.5 | 2.3 | 2.4 | 1.5 | 1.1 | 1.8 | 2.2 | 1.6 | 1.9 | 1.7 | 1.6 | 2.4 | 2.6 | 2.9 | 3.1 | 3.4 | 2.9 | 1.8 | 2.0 | 1.4 | 2.0 | 1.8 | 2.08 | 3.37 |
| 30-Aug | 2.1 | 2.0 | 2.1 | 2.0 | 2.0 | 1.9 | 2.0 | 1.8 | 1.8 | 2.4 | 2.2 | 3.0 | 3.6 | 4.5 | 4.6 | 4.3 | 2.9 | 2.1 | 1.5 | 0.4 | 1.0 | 0.9 | 2.1 | 1.6 | 2.28 | 4.57 |
| 31-Aug | 1.3 | 0.5 | 1.0 | 2.5 | 1.8 | 1.7 | 2.0 | 1.6 | 1.6 | 2.7 | 2.1 | 2.1 | 1.6 | 2.4 | 3.1 | 3.2 | 3.1 | 3.5 | 3.5 | 2.5 | 2.4 | 2.6 | 2.6 | 3.6 | 2.29 | 3.60 |
| | | | | | | | | | | | | | | | | | | | | | | | | Diurnal Average | | |
| | | | | | | | | | | | | | | | | | | | | | | | | Diurnal Maximum | | |
| 1.53 1.52 1.48 1.52 1.52 1.35 1.34 1.59 1.81 2.33 2.51 2.62 2.75 2.93 3.13 2.91 2.82 2.80 2.29 2.06 1.89 1.78 1.89 1.77 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.68 3.13 3.43 3.64 4.45 3.10 2.84 3.39 3.54 4.63 4.55 4.56 4.58 5.42 5.84 4.61 5.65 4.26 4.39 5.43 3.70 4.63 4.62 3.60 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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
August 2016

| Maximum Value: 105.06 deg on Aug 2 11:00 Maximum Daily Average: 66.36 deg on Aug 27 | | | | | | | | | | | | | | | | | | | | | | | Hours in Service: 744 Hours of Data: 741 | | | |
|--|-------------------------|------|------|------|-------|------|------|------|------|------|-------|------|------|-------|------|------|------|------|------|------|------|------|---|-------|---------------|---------------|
| Minimum Value: 18.7 deg on Aug 26 01:00 Minimum Daily Average: 41.39 deg on Aug 30 Maximum Diurnal Average: 65.56 deg at hour 22 Minimum Diurnal Average: 45.06 deg at hour 2 Monthly Average: 54.919 deg Percentiles: P ₁ = 21.1 P ₁₀ = 32.9 Q ₁ = 41.2 Median = 51.5 Q ₃ = 67.0 P ₉₀ = 83.5 P ₉₉ = 97.9 | | | | | | | | | | | | | | | | | | | | | | | Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6 | | | |
| 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-Aug | 45.7 | 39.1 | 32.8 | 22.0 | 31.4 | 33.6 | 38.8 | 49.1 | 51.2 | 51.3 | 32.9 | 52.8 | 43.5 | 56.7 | 54.3 | 68.1 | 64.1 | 61.9 | 49.9 | 54.6 | 99.6 | 83.9 | 56.2 | 63.2 | 51.53 | 99.58 |
| 2-Aug | 86.8 | 46.9 | 48.7 | 42.5 | 33.1 | 35.5 | 31.8 | 88.8 | 87.0 | 82.9 | 105.1 | 69.9 | 54.3 | 64.7 | 52.9 | 61.5 | 61.0 | 52.1 | 45.3 | 35.0 | 59.9 | 68.3 | 35.4 | 82.3 | 59.65 | 105.06 |
| 3-Aug | 62.1 | 42.9 | 29.7 | 30.5 | 33.9 | 33.6 | 44.1 | 50.1 | 53.7 | 72.1 | 54.2 | 83.9 | 74.1 | 97.8 | 63.3 | 57.8 | 78.4 | 67.0 | 52.9 | 46.9 | 49.0 | 45.5 | 53.9 | 44.8 | 55.09 | 97.77 |
| 4-Aug | 52.2 | 34.0 | 58.1 | 59.1 | 55.0 | 71.8 | 55.6 | 39.3 | 49.5 | 50.7 | 78.2 | 71.5 | 84.3 | 50.5 | 56.9 | 50.1 | 70.7 | 51.4 | 40.8 | 68.3 | 57.8 | 82.0 | 55.0 | 24.8 | 56.99 | 84.30 |
| 5-Aug | 84.5 | 36.8 | 48.0 | 21.3 | 33.4 | 30.5 | 61.3 | 58.4 | 62.3 | 76.3 | 48.8 | 51.4 | 46.0 | 52.8 | 46.4 | 40.2 | 34.2 | 70.9 | 47.1 | 47.7 | 75.7 | 82.9 | 91.7 | 59.0 | 54.48 | 91.66 |
| 6-Aug | 47.9 | 21.8 | 58.1 | 53.0 | 87.4 | 85.2 | 58.2 | 49.0 | 52.3 | 70.5 | 83.2 | 53.2 | 49.7 | 39.0 | 40.2 | 47.9 | 58.1 | 46.3 | 50.1 | 48.4 | 35.1 | 23.4 | 30.6 | 37.9 | 51.11 | 87.43 |
| 7-Aug | 53.3 | 21.1 | 54.0 | 37.1 | 41.1 | 48.8 | 70.3 | 42.1 | 84.4 | 56.4 | 66.5 | 48.4 | 48.5 | 45.4 | 47.5 | 35.4 | 33.5 | 53.2 | 44.4 | 45.9 | 94.7 | 81.6 | 98.2 | PF | 54.43 | 98.16 |
| 8-Aug | PF | PF | 76.1 | 93.3 | 84.2 | 95.4 | 68.4 | 94.9 | 55.4 | 50.9 | 61.5 | 59.3 | 55.1 | 58.3 | 64.0 | 49.6 | 51.0 | 91.1 | 74.3 | 69.3 | 32.8 | 66.2 | 27.8 | 34.5 | 64.24 | 95.44 |
| 9-Aug | 34.6 | 30.0 | 40.1 | 75.6 | 55.4 | 43.9 | 28.3 | 48.2 | 56.6 | 47.0 | 39.2 | 32.7 | 57.5 | 51.9 | 83.6 | 36.4 | 59.3 | 97.2 | 51.3 | 35.9 | 42.6 | 32.8 | 57.1 | 68.1 | 50.21 | 97.20 |
| 10-Aug | 86.4 | 46.1 | 84.0 | 61.8 | 86.9 | 20.8 | 21.0 | 40.7 | 35.6 | 60.6 | 57.7 | 49.5 | 73.6 | 104.4 | 98.3 | 83.6 | 50.4 | 45.9 | 37.2 | 65.5 | 49.7 | 45.6 | 80.3 | 38.9 | 59.35 | 104.40 |
| 11-Aug | 46.8 | 55.0 | 33.9 | 67.1 | 49.9 | 36.5 | 50.4 | 49.8 | 63.4 | 57.6 | 84.0 | 76.3 | 52.1 | 32.6 | 73.5 | 82.5 | 38.5 | 48.0 | 42.1 | 92.8 | 46.1 | 57.0 | 98.6 | 79.3 | 58.91 | 98.63 |
| 12-Aug | 88.0 | 91.3 | 90.0 | 19.3 | 37.3 | 40.2 | 48.7 | 38.5 | 54.5 | 51.8 | 67.6 | 88.2 | 82.5 | 86.6 | 88.5 | 77.9 | 98.2 | 66.4 | 38.0 | 31.6 | 38.6 | 70.3 | 53.5 | 41.0 | 62.02 | 98.24 |
| 13-Aug | 31.9 | 33.6 | 27.1 | 28.6 | 32.0 | 37.1 | 50.0 | 81.5 | 49.1 | 55.7 | 49.8 | 95.4 | 90.5 | 74.7 | 39.0 | 49.4 | 72.5 | 86.8 | 49.4 | 70.0 | 62.6 | 65.5 | 44.4 | 42.8 | 54.99 | 95.40 |
| 14-Aug | 42.4 | 35.7 | 37.2 | 34.3 | 32.3 | 46.8 | 44.0 | 68.3 | 42.1 | 43.0 | 30.5 | 38.8 | 32.0 | 95.7 | 50.2 | 89.7 | 72.8 | 57.6 | 41.7 | 50.4 | 62.2 | 59.5 | 42.7 | 57.4 | 50.31 | 95.68 |
| 15-Aug | 37.4 | 36.0 | 44.1 | 31.6 | 26.5 | 19.9 | 20.8 | 40.6 | 50.1 | 51.0 | 56.5 | 65.8 | 69.8 | 73.1 | 67.9 | 66.4 | 77.1 | 77.1 | 31.2 | 28.0 | 69.7 | 87.5 | 51.1 | 44.6 | 50.99 | 87.51 |
| 16-Aug | 33.4 | 34.6 | 48.2 | 34.8 | 38.6 | 65.6 | 49.8 | 74.2 | 52.2 | 91.2 | 72.7 | 60.3 | 67.0 | 90.1 | 81.7 | 44.3 | 50.1 | 39.7 | 32.7 | 36.1 | 47.8 | 76.5 | 62.8 | 81.3 | 56.91 | 91.22 |
| 17-Aug | 78.3 | 86.1 | 58.6 | 33.6 | 73.3 | 72.2 | 34.7 | 38.8 | 72.5 | 53.2 | 52.1 | 64.1 | 99.4 | 48.2 | 59.4 | 40.7 | 53.6 | 48.1 | 40.5 | 44.9 | 48.5 | 77.4 | 86.2 | 24.8 | 57.89 | 99.42 |
| 18-Aug | 32.9 | 45.7 | 48.1 | 43.4 | 67.1 | 46.9 | 67.9 | 53.9 | 52.6 | 85.4 | 40.0 | 54.7 | 75.5 | 75.2 | 54.0 | 44.2 | 45.3 | 61.7 | 51.4 | 56.4 | 43.2 | 79.6 | 51.8 | 42.9 | 55.00 | 85.44 |
| 19-Aug | 44.7 | 31.7 | 53.8 | 36.0 | 34.9 | 38.6 | 39.5 | 42.0 | 38.6 | 45.7 | 54.6 | 61.5 | 25.9 | 39.5 | 50.8 | 60.1 | 51.7 | 74.8 | 41.0 | 67.2 | 78.4 | 80.6 | 85.3 | 83.5 | 52.51 | 85.29 |
| 20-Aug | 74.8 | 62.1 | 62.1 | 74.9 | 33.8 | 32.2 | 62.9 | 48.0 | 63.1 | 91.7 | 78.3 | 60.0 | 62.6 | 58.6 | 62.1 | 57.4 | 48.1 | 39.6 | 37.8 | 41.9 | 52.1 | 40.9 | 98.1 | 89.1 | 59.67 | 98.13 |
| 21-Aug | 44.8 | 30.1 | 48.7 | 54.0 | 47.5 | 52.8 | 49.6 | 37.0 | 32.3 | 32.0 | 35.6 | 36.1 | 43.8 | 42.1 | 43.0 | 46.0 | 58.7 | 43.6 | 59.0 | 65.3 | 97.8 | 78.2 | 67.5 | 101.9 | 51.98 | 101.88 |
| 22-Aug | 51.0 | 70.4 | 79.8 | 78.4 | 37.9 | 27.6 | 34.7 | 32.3 | 51.5 | 30.7 | 34.4 | 31.0 | 66.9 | 72.0 | 66.6 | 44.6 | 52.8 | 48.6 | 46.7 | 34.4 | 51.0 | 49.4 | 55.4 | 46.3 | 49.77 | 79.75 |
| 23-Aug | 64.6 | 42.1 | 42.3 | 51.2 | 38.0 | 45.6 | 49.2 | 41.6 | 52.0 | 59.4 | 56.3 | 83.0 | 54.2 | 56.2 | 49.8 | 47.1 | 30.3 | 54.9 | 52.5 | 47.6 | 29.2 | 73.0 | 67.0 | 83.9 | 52.96 | 83.94 |
| 24-Aug | 85.2 | 49.8 | 27.7 | 43.1 | 44.2 | 31.2 | 45.8 | 40.6 | 49.8 | 56.1 | 52.4 | 56.2 | 73.0 | 59.0 | 64.3 | 53.2 | 65.0 | 49.4 | 62.9 | 71.9 | 37.2 | 55.4 | 49.0 | 52.5 | 53.12 | 85.15 |
| 25-Aug | 47.5 | 37.5 | 64.2 | 56.8 | 59.9 | 69.1 | 77.5 | 59.9 | 51.1 | 65.3 | 72.5 | 66.3 | 80.9 | 90.7 | 52.8 | 81.4 | 67.3 | 64.7 | 75.7 | 35.0 | 67.5 | 89.7 | 29.9 | 70.9 | 63.93 | 90.75 |
| 26-Aug | 18.7 | 32.5 | 31.6 | 27.7 | 34.2 | 40.4 | 47.8 | 49.5 | 45.1 | 53.2 | 46.9 | 53.6 | 19.8 | 35.4 | 31.8 | 32.5 | 62.1 | 72.4 | 59.5 | 60.0 | 35.9 | 44.1 | 51.2 | 43.2 | 42.89 | 72.37 |
| 27-Aug | 54.8 | 43.8 | 61.1 | 68.5 | 37.4 | 50.4 | 69.7 | 89.1 | 62.4 | 84.3 | 68.3 | 46.1 | 61.8 | 52.8 | 60.6 | 52.6 | 83.2 | 86.9 | 85.5 | 96.1 | 65.2 | 47.9 | 82.5 | 81.4 | 66.36 | 96.12 |
| 28-Aug | 57.4 | 71.4 | 76.1 | 92.3 | 104.7 | 47.7 | 64.9 | 57.9 | 40.6 | 72.1 | 60.1 | 96.4 | 57.7 | 55.4 | 39.8 | 47.2 | 51.4 | 53.3 | 32.5 | 52.1 | 46.4 | 56.2 | 39.5 | 39.6 | 58.86 | 104.66 |
| 29-Aug | 50.5 | 36.1 | 32.0 | 33.3 | 29.3 | 37.5 | 41.7 | 31.4 | 48.3 | 52.9 | 68.4 | 82.6 | 56.0 | 42.0 | 42.0 | 44.5 | 47.3 | 35.3 | 34.8 | 55.3 | 84.3 | 97.6 | 48.9 | 44.6 | 49.03 | 97.59 |
| 30-Aug | 28.4 | 22.1 | 27.8 | 31.3 | 32.4 | 44.3 | 39.3 | 35.3 | 36.5 | 37.0 | 41.3 | 42.9 | 43.3 | 43.5 | 38.1 | 41.6 | 41.8 | 44.3 | 43.8 | 35.3 | 44.7 | 61.4 | 81.3 | 55.9 | 41.39 | 81.29 |
| 31-Aug | 65.2 | 85.1 | 53.0 | 87.9 | 69.5 | 55.5 | 32.9 | 54.0 | 62.0 | 57.9 | 87.1 | 46.4 | 74.0 | 46.6 | 42.6 | 50.6 | 44.1 | 40.7 | 31.0 | 31.8 | 28.0 | 72.7 | 61.6 | 80.9 | 56.72 | 87.85 |
| 54.40 45.06 50.87 49.18 48.46 46.36 48.37 52.41 53.47 59.55 59.24 60.60 60.49 61.03 56.97 54.33 57.19 59.07 47.84 52.31 55.92 65.56 61.11 58.04 | | | | | | | | | | | | | | | | | | | | | | | Diurnal Average | | | |
| 88.01 91.33 89.96 93.34 104.66 95.44 77.54 94.85 87.03 91.66 105.06 96.41 99.42 104.40 98.34 89.72 98.24 97.20 85.48 96.12 99.58 97.59 98.63 101.88 | | | | | | | | | | | | | | | | | | | | | | | Diurnal Maximum | | | |
| 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
AUGUST 2016**