



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program

Monthly Report

October 2015

November 23rd, 2015

Alberta Environment
11th Floor, Oxbridge Place
9820-106 Street
Edmonton Alberta T5K 2J6

RE: Peace Airshed Zone Association (PAZA) – October 2015 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **October 2015**.

This report is submitted by PAZA on behalf of the industrial member companies to satisfy the requirements of the following facility Operating Approvals:

Company	Facility	LSD	EPEA Approval Number
Advantage Oil & Gas Ltd.	Glacier	05-02-076-13-W6	262479-00-00
Alberta Power (2000) Ltd. (an ATCO company)	Sturgeon	SW-06-069-21-W5	10283-02-02
ATCO Power Canada	Poplar Hill	11-19-073-08-W6	67774-01-01
ATCO Power Canada	Valleyview	SW-06-069-21-W5	147709-01-01
AltaGas Ltd.	Pouce Coupe	03-03-081-13-W6	247673-00-00
	Ante Creek	02-26-068-25-W5	266694-00-00
	Gordondale	16-31-78-11-W6M	287474-00-00
Apache Canada Ltd.	House Mountain	01-08-070-10-W5	10137-02-02
Birchcliff Energy Ltd.	Pouce Coupe	03-22-078-12-W6	252529-00-00
Canadian Natural Resources Limited	Bonanza	11-25-081-11-W6	00000029-01-00
	Progress/Gordondale	01-01-077-10-W6	00010036-02-00
	Gold Creek	13-26-067-05-W6	00010446-02-00

Company	Facility	LSD	EPEA Approval Number
	Teepee Creek	SE-2-074-04-W6	00001635-02-00
	Sturgeon/Valleyview	02-02-069-22-W5	1633-02-00
Canfor Forest Products	Grande Prairie	SW-23-071-06-W6	152645-01-00
Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	00000212-01-00
Devon Canada	NW Belloy (Dunvegan)	16-36-079-03-W6	00009810-02-00
	Eaglesham (South)	02-14-077-25-W5	00047669-01-00
	North Normanville	03-36-079-23-W5	00047455-01-00
	West Culp	05-34-078-25-W6	00136284-00-00
	Cecil	08-15-084-08-W6	00010032-02-00
Encana Corporation	Sexsmith	04-08-075-07-W6	00010002-01-00
Enerplus Resources	Pouce Coupe	SW-06-069-21-W5	1464-02-03
Exshaw Oil Corporation	Spirit River	03-10-077-07-W6	344521-00-00
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Long Run Exploration	Eaglesham	01-25-076-01-W6	00241532-00-00
	Kakut	14-12-075-03-W6	00248469-00-00
	Donnelly	06-01-077-21-W5	00000087-02-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
Longview Oil Corp.	Sunset House	06-22-070-20-W5	138884-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00

Company	Facility	LSD	EPEA Approval Number
	Pouce Coupe	16-07-078-11-W6	00000614-01-00
Petrus Resources	Rycroft	08-25-077-06-W6	11351-02-00
	Spirit River	08-34-077-06-W6	11096-02-00
Spectra Energy Midstream Corporation	Fourth Creek	16-11-082-09-W6	00000263-01-00
	Gordondale	11-26-079-09-W6	00011495-01-01
	Pouce Coupe/Bonanza	3-23-080-13-W6	00070203-01-01
Suncor Energy Inc.	Progress	07-22-078-09-W6	00011428-02-00
TAQA North Ltd.	Valhalla	13-21-076-09-W6	00017620-01-00
Veresen Energy	Hythe Brainard	11-18-074-12-W6	00010910-02-00
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	00000113-02-00

Included in this report is a summary of the monthly continuous monitoring, detailed hourly average reports and multipoint calibration reports of all instruments. Operational summaries can be found on the “Monthly Continuous Data Summary” and “Continuous Network Equipment Summary” pages of the report.

Continuous Monitoring: Six (6) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Valleyview, and Falher.

During the month of **October** the following events were noted:

Henry Pirker Station:

- ◆ The measured ambient air quality was within the AAAQO for the Henry Pirker station.
- ◆ All analyzers and sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of October.

Evergreen Park Station:

- ◆ The measured ambient air quality was within the AAAQO for the Evergreen Park station.
- ◆ All analyzers and sensors at the Evergreen Park station had an operational uptime greater than 90% for the month of October with the exception of the Temperature/RH probe, which was vandalized and returned to service October 19th.

Smoky Heights Station:

- ◆ The measured ambient air quality was within the AAAQO for the Smoky Heights station.
- ◆ All analyzers and sensors at the Smoky Heights station had an operational uptime greater than 90% for the month of October.

Beaverlodge Station:

- ◆ The measured ambient air quality was within the AAAQO for the Beaverlodge station.
- ◆ All analyzers and sensors at the Beaverlodge station had an operational uptime greater than 90% for the month of October.

Valleyview Station:

- ◆ The measured ambient air quality was within the AAAQO for the Valleyview station.
- ◆ All analyzers and sensors at the Valleyview station had an operational uptime greater than 90% for the month of October.

Falher Station:

- ◆ The measured ambient air quality was within the AAAQO for the Falher station.
- ◆ All analyzers and sensors at the Falher station had an operational uptime greater than 90% for the month of October.

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of October: Spirit River, Clairmont Lake, Gold Creek, Kinuso, and Gift Lake. The passive sample analyses were performed by MAXXAM Analytics Inc.

A summary of the passive data collected are reported as follows:

- Monthly average concentrations for SO₂ passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.1 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.1 ppb to 12.1 ppb, with a mean of 2.2 ppb.
- Monthly average concentrations for O₃ passives ranged from 15.5 ppb to 34.7 ppb, with a mean of 24.9 ppb.
- Monthly average concentrations for H₂S passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.2 ppb.

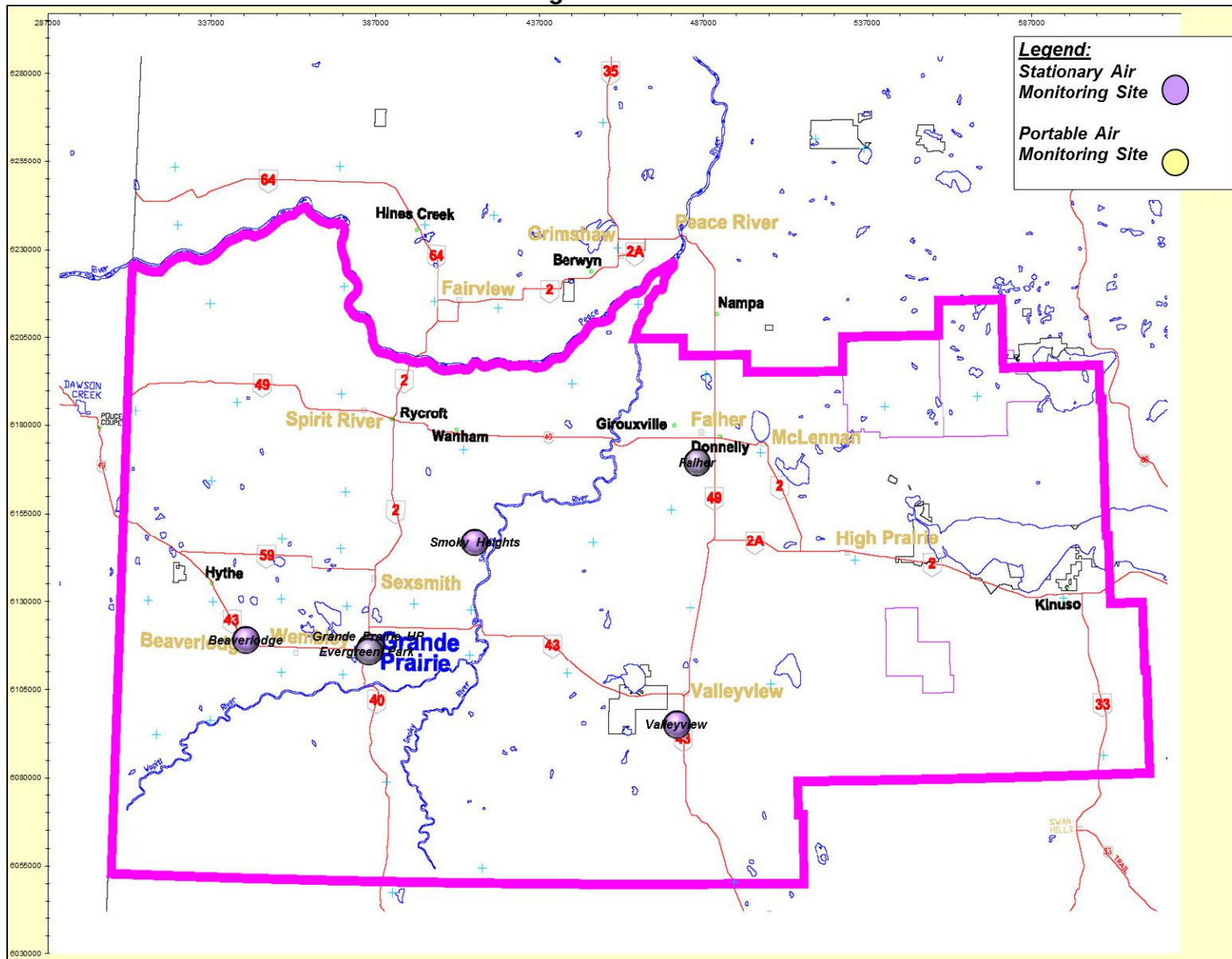
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

On Behalf of the
Peace Airshed Zone Association



Patrick Andersen, B.Sc.
Program Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Oct-2015 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	Day	Conc	Day	Operational Time (%)
	1-hr	24-hr			1-hr	24-hr					
SO ₂ (ppb)	172	48	Henry Pirker	0.1	0	0	1.4	Oct-17 13:00	0.3	Oct-17	100%
SO ₂ (ppb)	172	48	Evergreen Park	0.1	0	0	1.3	Oct-16 13:00	0.2	Oct-26	100%
SO ₂ (ppb)	172	48	Smoky Heights	0.4	0	0	5.3	Oct-30 22:00	1.2	Oct-13	100%
SO ₂ (ppb)	172	48	Beaverlodge	0.1	0	0	4.5	Oct-28 23:00	0.5	Oct-28	99%
SO ₂ (ppb)	172	48	Valleyview	1.3	0	0	85.7	Oct-12 18:00	8.6	Oct-12	100%
SO ₂ (ppb)	172	48	Falher	0.1	0	0	0.9	Oct-17 03:00	0.4	Oct-17	100%
NO (ppb)			Henry Pirker	5.6	0	0	109.1	Oct-30 09:00	14.8	Oct-28	100%
NO ₂ (ppb)	159	106	Henry Pirker	9.6	0	0	40.5	Oct-30 09:00	17.2	Oct-28	100%
NO _x (ppb)			Henry Pirker	15.3	0	0	150.3	Oct-30 09:00	32.1	Oct-28	100%
NO (ppb)			Beaverlodge	0.5	0	0	27.1	Oct-16 10:00	2.6	Oct-16	99%
NO ₂ (ppb)	159	106	Beaverlodge	3.5	0	0	16.5	Oct-28 08:00	8.2	Oct-28	99%
NO _x (ppb)			Beaverlodge	4.0	0	0	42.1	Oct-16 10:00	10.2	Oct-28	99%
O ₃ (ppb)	82		Henry Pirker	17.6	0	-	44.3	Oct-10 07:00	33.5	Oct-13	100%
O ₃ (ppb) - 8-hr			Henry Pirker		0				38.5	Oct-18	
O ₃ (ppb)	82		Beaverlodge	25.4	0	-	44.3	Oct-18 15:00	37.1	Oct-13	99%
O ₃ (ppb) - 8-hr			Beaverlodge		0				40.8	Oct-18	
CO (ppm)	13		Henry Pirker	0.21	0	-	0.9	Oct-30 09:00	0.3	Oct-29	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.5	Oct-29	

PAZA Monthly Continuous Data Summary – continued

Oct-2015Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	2.1	-	-	3.6	Oct-07 07:00	2.4	Oct-07	100%
CH ₄ (ppm)			Henry Pirker	2.1	-	-	3.6	Oct-07 07:00	2.4	Oct-07	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.2	Oct-12 06:00	0.0	Oct-12	100%
TRS (ppb)			Henry Pirker	0.3	-	-	1.3	Oct-07 08:00	0.5	Oct-07	100%
TRS (ppb)			Evergreen Park	0.3	-	-	3.1	Oct-19 03:00	0.8	Oct-19	100%
TRS (ppb)			Smoky Heights	0.0	-	-	0.5	Oct-05 07:00	0.1	Oct-07	100%
H ₂ S (ppb)	10	3	Valleyview	0.2	0	0	4.7	Oct-12 19:00	0.4	Oct-12	100%
H ₂ S (ppb)	10	3	Falher	0.2	0	0	4.7	Oct-31 08:00	0.7	Oct-07	100%
PM _{2.5} (µg/m3)	80	30	Henry Pirker	5.2	0	0	29.4	Oct-24 21:00	9.9	Oct-07	98%
PM _{2.5} (µg/m3)	80	30	Evergreen Park	3.1	0	0	24.5	Oct-08 11:00	6.6	Oct-07	100%
PM _{2.5} (µg/m3)	80	30	Smoky Heights	4.5	0	0	73.8	Oct-06 15:00	11.2	Oct-07	100%
PM _{2.5} (µg/m3)	80	30	Beaverlodge	3.9	0	0	14.5	Oct-15 19:00	7.0	Oct-25	99%
RH (%)			Henry Pirker	64.7	-	-	87.8	Oct-02 01:00	81.4	Oct-02	100%
RH (%)			Evergreen Park	73.7	-	-	100.0	Oct-31 21:00	88.1	Oct-31	40%
RH (%)			Beaverlodge	67.2	-	-	100.0	Oct-04 05:00	91.1	Oct-04	99%
RH (%)			Valleyview	59.8	-	-	95.7	Oct-01 08:00	87.8	Oct-02	100%
SR (W/m ²)			Henry Pirker	73.0	-	-	458.9	Oct-05 13:00	122.1	Oct-05	100%
Temp (°C)			Henry Pirker	6.3	-	-	23.1	Oct-01 15:00	14.4	Oct-01	100%
Temp (°C)			Evergreen Park	2.7	-	-	17.0	Oct-21 15:00	7.7	Oct-22	40%
Temp (°C)			Smoky Heights	5.7	-	-	23.9	Oct-01 15:00	14.4	Oct-10	100%
Temp (°C)			Beaverlodge	6.2	-	-	22.6	Oct-01 15:00	15.1	Oct-01	99%
Temp (°C)			Valleyview	7.1	-	-	24.9	Oct-01 17:00	15.3	Oct-10	100%
Temp (°C)			Falher	6.1	-	-	23.5	Oct-01 15:00	15.4	Oct-10	100%

PAZA Monthly Continuous Data Summary – continued

Oct-2015 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	6.5	-	-	34.0	Oct-12 15:00	16.7	Oct-13	100%
WSPD s (km/hr)			Evergreen Park	9.8	-	-	58.0	Oct-12 14:00	29.1	Oct-13	100%
WSPD s (km/hr)			Smoky Heights	11.1	-	-	45.0	Oct-12 15:00	21.7	Oct-22	100%
WSPD s (km/hr)			Beaverlodge	10.5	-	-	44.0	Oct-22 15:00	26.0	Oct-13	99%
WSPD s (km/hr)			Valleyview	4.2	-	-	23.0	Oct-13 16:00	10.4	Oct-02	100%
WSPD s (km/hr)			Falher	14.1	-	-	36.0	Oct-13 13:00	24.9	Oct-13	100%
WSPD v (km/hr)			Henry Pirker	3.5	-	-	34.0	Oct-12 15:00	16.2	Oct-13	100%
WSPD v (km/hr)			Evergreen Park	6.2	-	-	58.0	Oct-12 14:00	28.1	Oct-13	100%
WSPD v (km/hr)			Smoky Heights	5.7	-	-	45.0	Oct-12 14:00	21.3	Oct-22	100%
WSPD v (km/hr)			Beaverlodge	5.1	-	-	43.0	Oct-22 15:00	25.5	Oct-13	99%
WSPD v (km/hr)			Valleyview	1.9	-	-	22.0	Oct-13 16:00	10.0	Oct-02	100%
WSPD v (km/hr)			Falher	5.1	-	-	36.0	Oct-13 13:00	23.7	Oct-13	100%
WDIR			Henry Pirker	SW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	WSW	-	-	-	-	-	-	100%
WDIR			Smoky Heights	SW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	W	-	-	-	-	-	-	99%
WDIR			Valleyview	W	-	-	-	-	-	-	100%
WDIR			Falher	SSW	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on October 13th (CO, TRS), SO₂), 15th (THC), and 16th (SO₂, NO_x, O₃).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
NOx/NO/NO ₂	TEI	42i	Irregular span October 11 th which self corrected. No action taken.
O ₃	TEI	49i	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH ₄ /NMHC	TEI	55i	No operational issues observed.
TRS	TEI	45C/43C	No operational issues observed.
PM _{2.5}	Sharp	5030	Manifold cleaned during calibration period. Power bump October 8 th caused unstable operation for 8 hours.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Evergreen Park Station

General Station Issues

Routine monthly calibration performed on October 19th (SO₂, TRS, PM_{2.5}).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Met One/Gill	083D	Sensor vandalized September 1 st , replacement installed in October.
RH	Met One/Gill		Sensor vandalized September 1 st , replacement installed in October.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Routine monthly calibration performed on October 29th (SO₂, TRS, PM_{2.5}).

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	Invalid readings returned for one hour of data.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on October 7th (O₃, NO_x, PM_{2.5}) and 9th (SO₂). Power outage October 9th invalidated 8 hours of data.

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	No operational issues observed.
NO _x /NO/NO ₂	TEI	42C	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on October 22nd (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	TEI	43A	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA – Falher Station

General Station Issues

Routine monthly calibrations were performed on October 21st (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	Thermo	450i	No operational issues observed.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

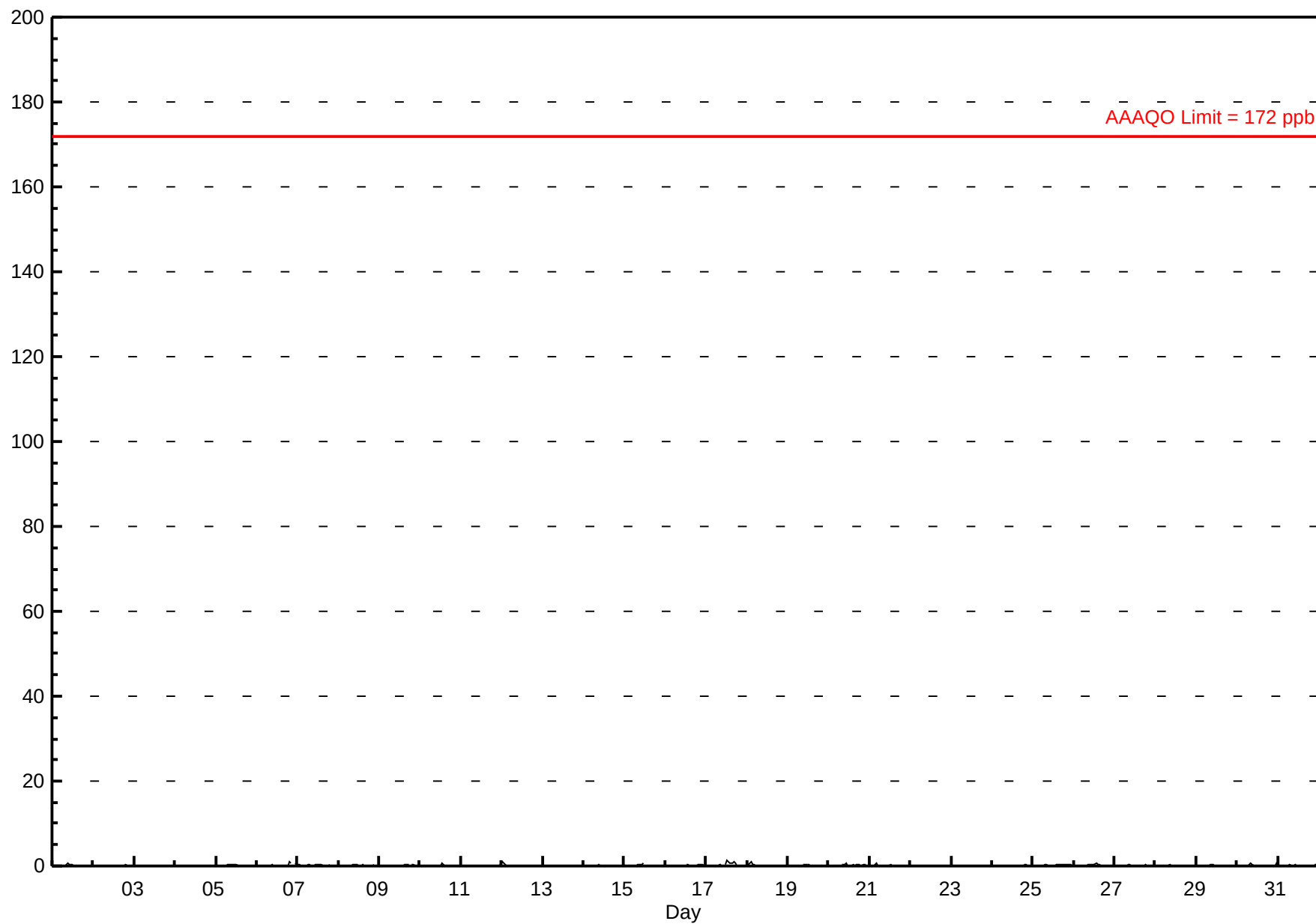
Sulphur Dioxide (SO₂) - ppb

Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.4 ppb on Oct 17 13:00 Maximum Daily Average: 0.3 ppb on Oct 17																				Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Oct 1 01:00 Maximum Diurnal Average: 0.2 ppb at hour 10 Monthly Average: 0.08 ppb										Minimum Daily Average: 0.0 ppb on Oct 13 Minimum Diurnal Average: 0.0 ppb at hour 6 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.3 P ₉₉ = 0.8																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
2-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
5-Oct	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.5
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0	0.2	0.9
7-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.4
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0.0	0.8
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.2
12-Oct	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.9
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.0
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.2
15-Oct	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
16-Oct	0	0	0	0	0	0	0	0	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
17-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0.3	1.4
18-Oct	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.2
19-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
20-Oct	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
21-Oct	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
22-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
26-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.5
27-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.3
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
30-Oct	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.1	0.6
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - October 2015



Hourly Maximums

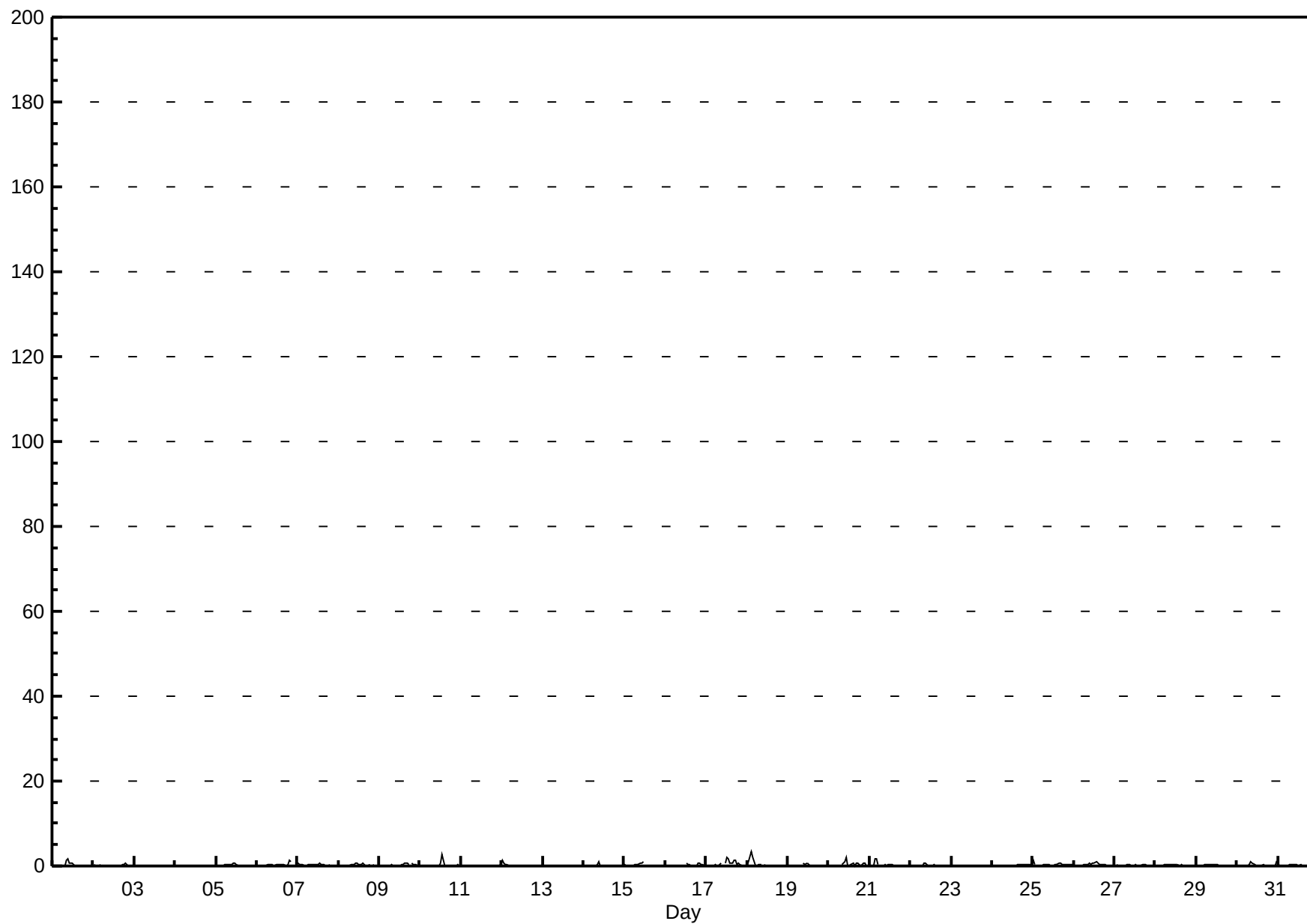
Sulphur Dioxide (SO₂) - ppb

Henry Pirker - October 2015

Maximum Value: 3.5 ppb on Oct 18 03:00																				Maximum Daily Average: 0.5 ppb on Oct 17										Hours in Service: 744	
Minimum Value: 0 ppb on Oct 9 02:00																				Minimum Daily Average: 0.0 ppb on Oct 13										Hours of Data: 708	
Maximum Diurnal Average: 0.4 ppb at hour 10																				Minimum Diurnal Average: 0.1 ppb at hour 22										Hours of Missing Data: 36	
Monthly Average: 0.20 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 1.5										Hours of Calibration: 36	
																														Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Oct	0	0	0	A	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5					
2-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	0.6					
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2					
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.2					
5-Oct	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.7					
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	1	0.3	1.3					
7-Oct	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0.3	0.6					
8-Oct	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	A	0	0	0	0	0.2	0.7					
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	1	0	0	0	0	0.2	0.7					
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	A	0	0	0	0	0	0	0.2	2.8					
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.4					
12-Oct	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	1.3					
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1					
14-Oct	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	1.1					
15-Oct	0	0	0	0	0	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0					
16-Oct	0	0	0	0	0	0	0	0	C	C	C	A	1	0	0	0	0	0	0	1	1	1	0	0	0.2	0.6					
17-Oct	0	0	0	0	0	0	0	0	0	1	A	1	2	2	1	1	1	1	0	1	0	0	0	0	0.5	2.1					
18-Oct	0	1	4	2	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.5					
19-Oct	0	0	0	0	0	0	0	0	A	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7					
20-Oct	0	0	0	0	0	0	0	A	0	1	2	0	0	0	1	0	1	1	0	0	1	1	0	0	0.4	2.0					
21-Oct	0	0	0	2	2	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7					
22-Oct	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5					
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2					
24-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4					
25-Oct	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.3	1.4					
26-Oct	0	A	0	0	0	0	0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	0.8					
27-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4					
28-Oct	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.5					
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5					
30-Oct	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.2	0.9					
31-Oct	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.6					
0.2 0.1 0.2 0.2 0.2 0.1 0.1 0.2 0.3 0.4 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.1 0.2 0.2 0.1 0.1 0.1																								Diurnal Average							
1.4 1.0 3.5 2.1 1.7 0.3 0.4 0.5 1.5 1.5 2.0 1.0 2.1 2.8 0.7 0.8 1.3 1.3 0.4 1.3 1.1 0.6 0.8 0.9																								Diurnal Maximum							
C - Calibration A - Automated Daily Zero Span																															

Hourly Maximums

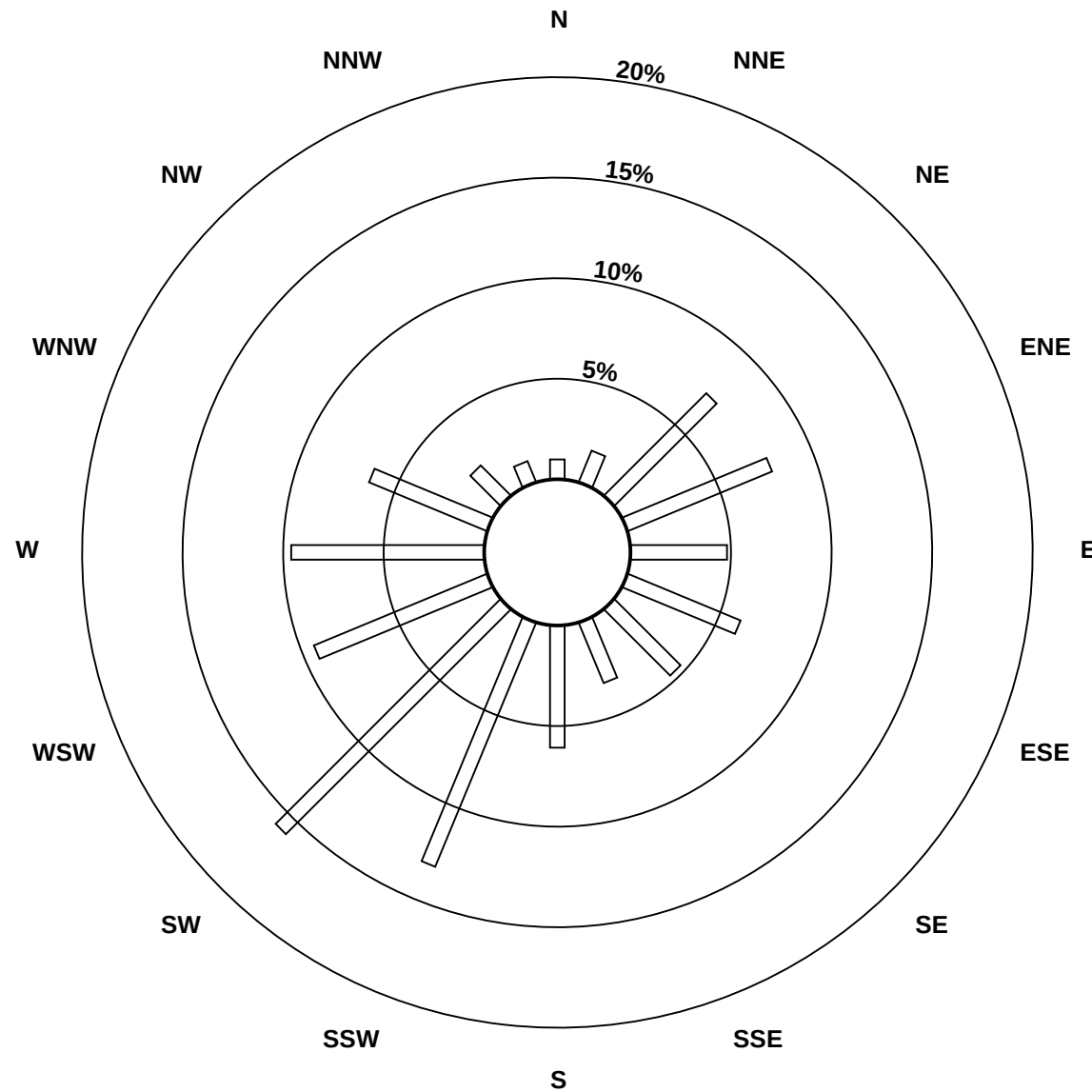
Sulphur Dioxide (SO₂) - ppb
Henry Pirker - October 2015



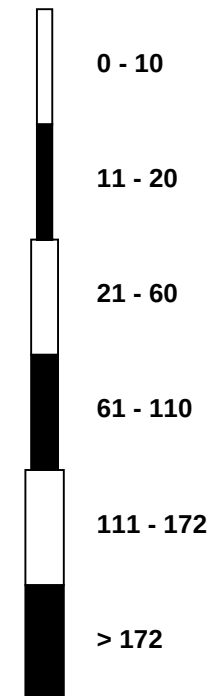
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - October 2015

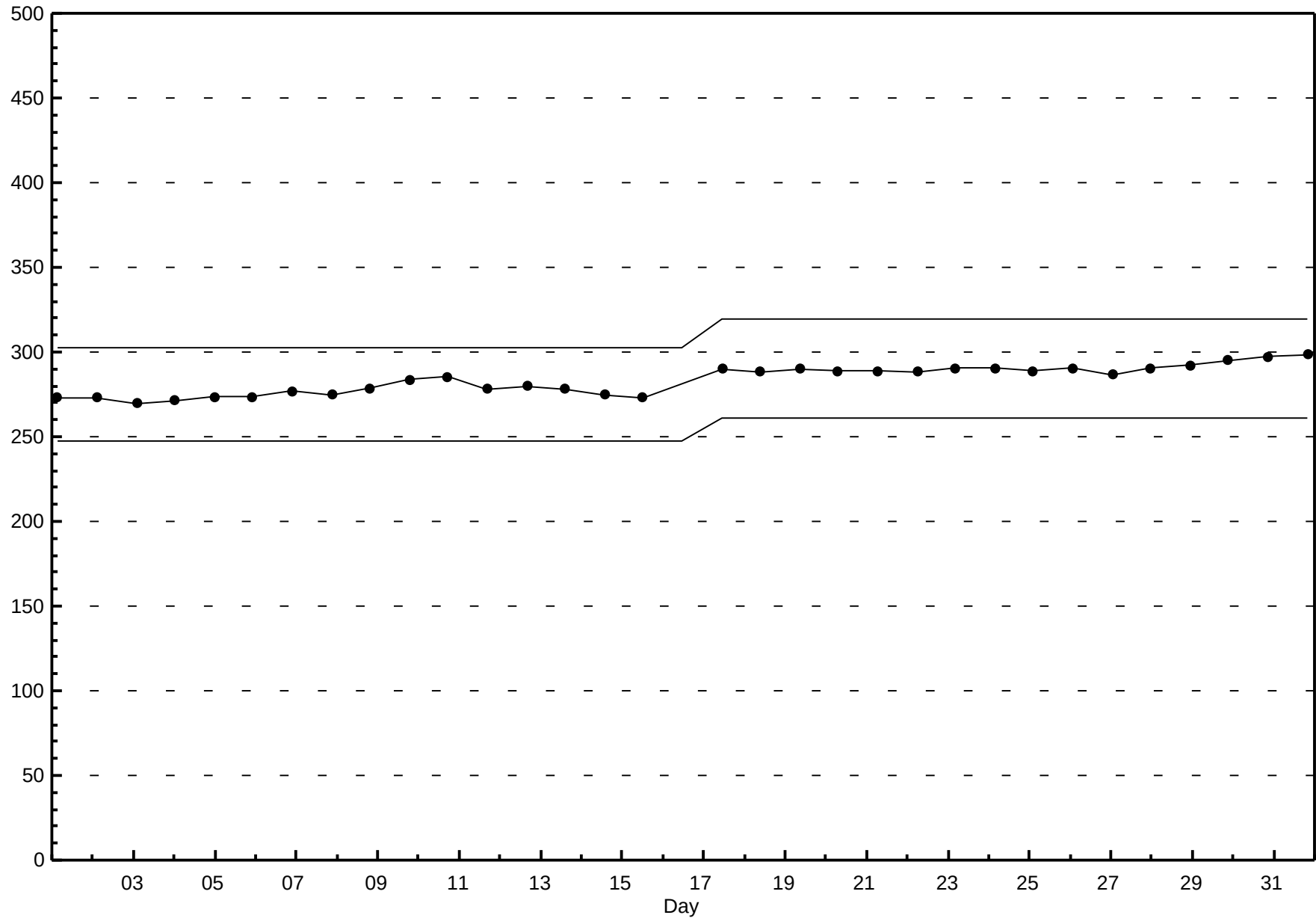


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - October 2015



Hourly Averages

Total Reduced Sulphur (TRS) - ppb

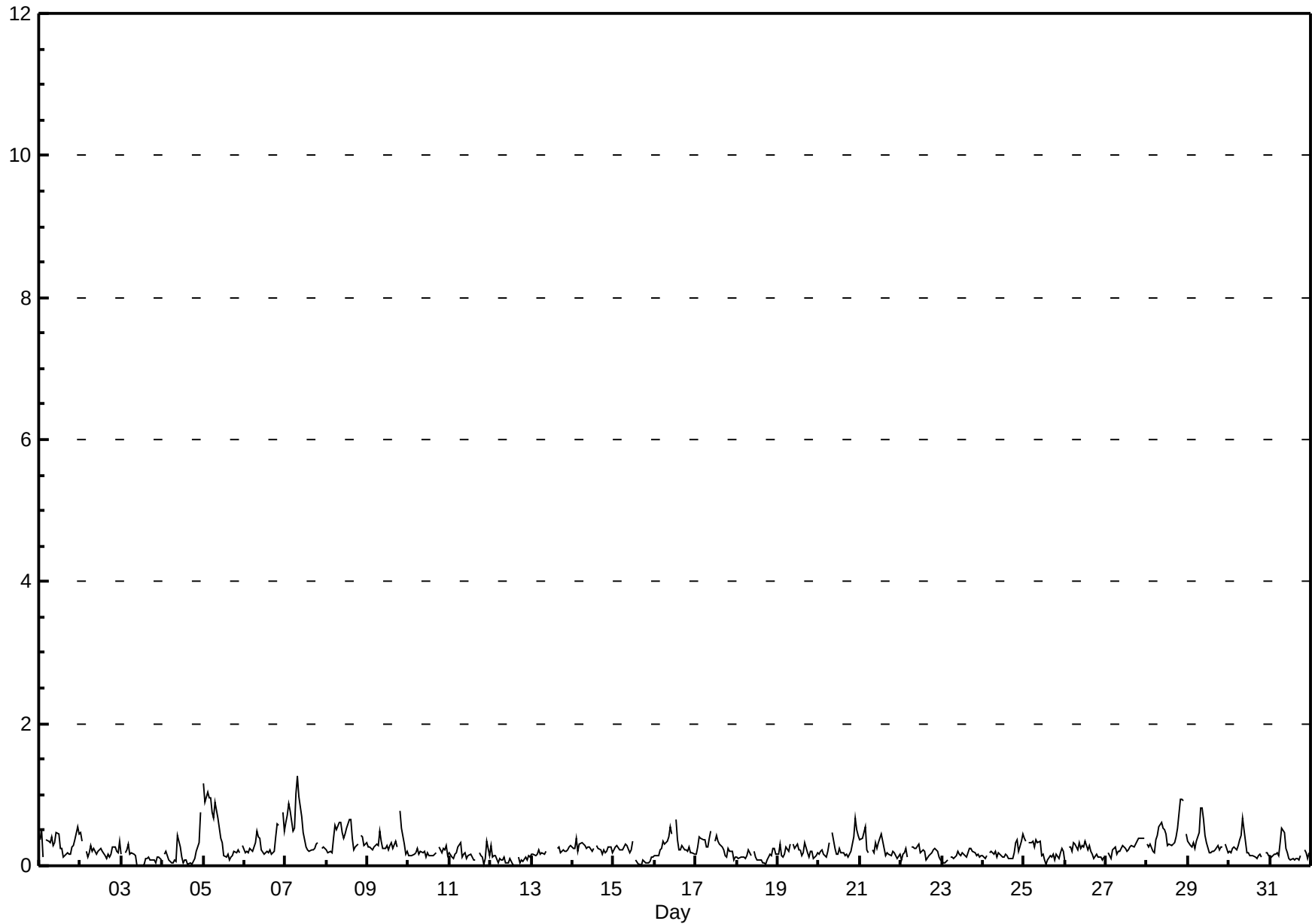
Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 1.3 ppb on Oct 7 08:00																				Maximum Daily Average: 0.5 ppb on Oct 7		Hours of Data: 707				
Minimum Value: 0 ppb on Oct 3 10:00																				Minimum Daily Average: 0.1 ppb on Oct 12		Hours of Missing Data: 37				
Maximum Diurnal Average: 0.4 ppb at hour 8																				Minimum Diurnal Average: 0.2 ppb at hour 16		Hours of Calibration: 37				
Monthly Average: 0.25 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 0.9		Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.5
2-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0.2	0.7
5-Oct	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.5	1.2
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0	0.3	0.8
7-Oct	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.5	1.3
8-Oct	0	0	0	0	0	1	0	1	1	0	0	0	1	1	1	0	0	0	0	A	0	0	0	0	0.4	0.7
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0.3	0.8
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.3
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.4
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
13-Oct	0	0	0	0	0	0	0	0	0	C	C	C	C	0	A	0	0	0	0	0	0	0	0	0	0.2	0.3
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.4
15-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
16-Oct	0	0	0	0	0	0	0	0	0	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
17-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
18-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
20-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.3	0.7
21-Oct	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
22-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
25-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
26-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
27-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4
28-Oct	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	A	0	0.5	0.9
29-Oct	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.8
30-Oct	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.7
31-Oct	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.5
0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.2 0.3 0.2																									Diurnal Average	
1.2 0.9 1.0 1.0 0.9 0.8 1.0 1.3 1.0 0.7 0.5 0.5 0.6 0.6 0.7 0.4 0.3 0.4 0.5 0.9 0.9 0.9 0.8 0.5																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2015



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

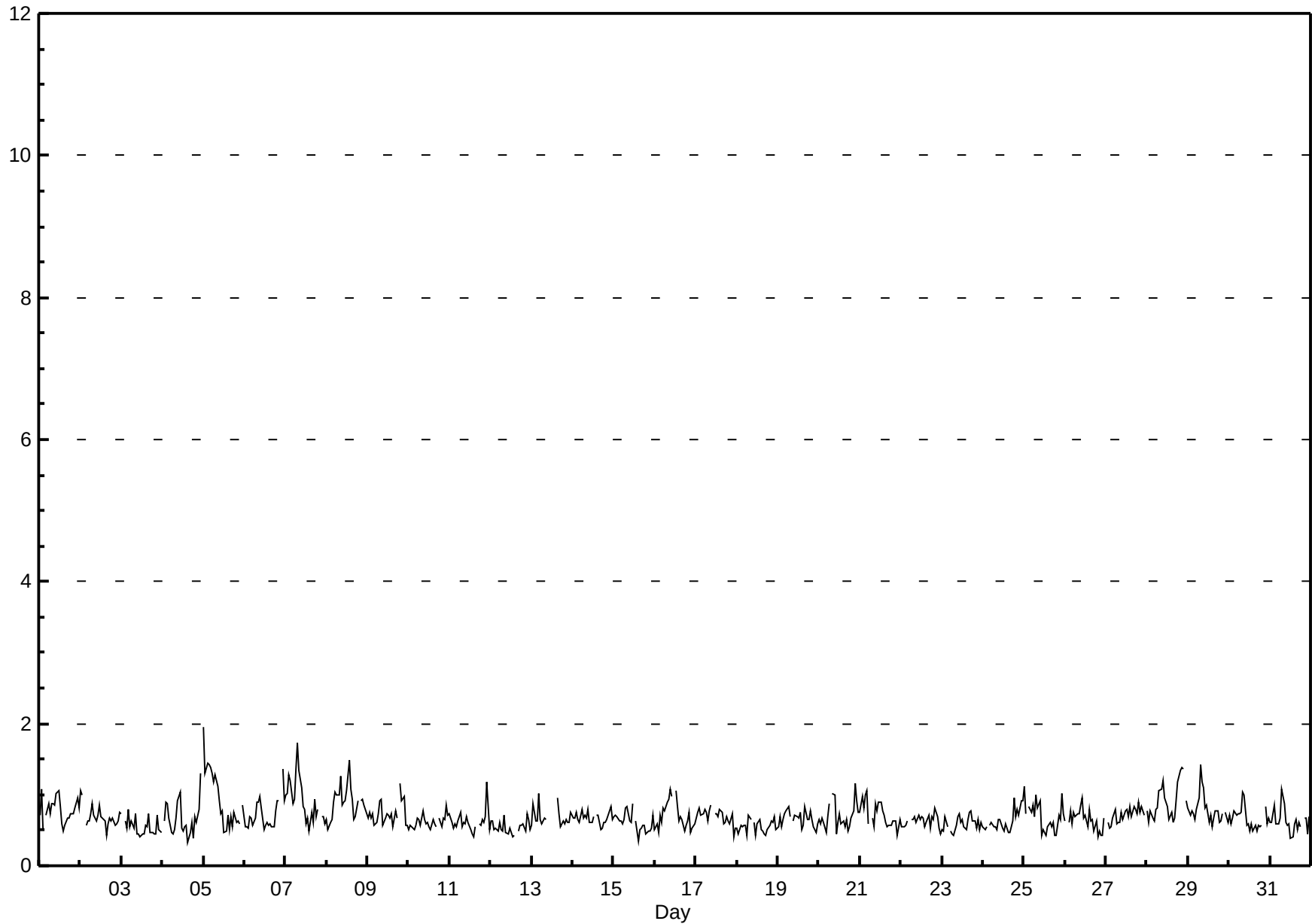
Henry Pirker - October 2015

Maximum Value: 2.0 ppb on Oct 5 01:00																			Maximum Daily Average: 0.9 ppb on Oct 5						Hours in Service: 744	
Minimum Value: 0 ppb on Oct 4 16:00																			Minimum Daily Average: 0.5 ppb on Oct 12						Hours of Data: 707	
Maximum Diurnal Average: 0.8 ppb at hour 9																			Minimum Diurnal Average: 0.6 ppb at hour 15						Hours of Missing Data: 37	
Monthly Average: 0.70 ppb																			Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.8 P ₉₀ = 0.9 P ₉₉ = 1.4						Hours of Calibration: 37	
																			Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.8	1.1
2-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.1
3-Oct	1	A	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	0	0	0	0	1	1	0	0.6	0.8
4-Oct	A	1	1	1	1	0	0	1	1	1	1	1	0	1	1	0	0	1	0	1	1	1	1	A	0.7	1.3
5-Oct	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	A	1	0.9	2.0
6-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.4
7-Oct	1	1	1	1	1	1	1	2	1	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	0.9	1.7
8-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.5
9-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.2
10-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	0.6	0.9
11-Oct	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	A	1	1	1	1	1	1	1	0.6	1.2
12-Oct	1	1	1	1	0	1	1	0	1	0	0	1	0	0	0	A	0	1	1	1	0	1	1	1	0.5	0.7
13-Oct	1	1	1	1	1	1	1	1	1	C	C	C	C	1	A	1	1	1	1	1	1	1	1	1	0.7	1.0
14-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.8
15-Oct	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	0	0	0	1	1	0.6	0.9
16-Oct	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	0	1	1	0.7	1.1
17-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	0.7	0.9
18-Oct	1	0	1	1	1	1	0	1	1	A	1	0	1	1	1	0	0	0	1	1	1	1	1	1	0.6	0.7
19-Oct	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.7	0.8
20-Oct	1	1	1	1	0	1	1	A	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0.7	1.2
21-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.7	1.1
22-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	0.8
23-Oct	1	0	1	1	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
24-Oct	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	0.6	1.0
25-Oct	1	1	A	1	1	1	1	1	1	1	0	1	0	0	1	1	1	1	0	0	1	1	1	1	0.7	1.1
26-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	0.6	1.0
27-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	0.9
28-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.4
29-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.4
30-Oct	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	A	1	1	1	0.7	1.0
31-Oct	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	A	1	1	0	1	0.6	1.1
0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.8 0.8 0.8 0.7 0.7 0.7 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.7 0.7 0.7 0.7 0.7																									Diurnal Average	
2.0 1.3 1.4 1.4 1.4 1.3 1.4 1.7 1.3 1.2 1.0 1.1 1.1 1.5 1.1 1.0 0.8 0.9 1.2 1.3 1.4 1.4 1.4 0.9																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

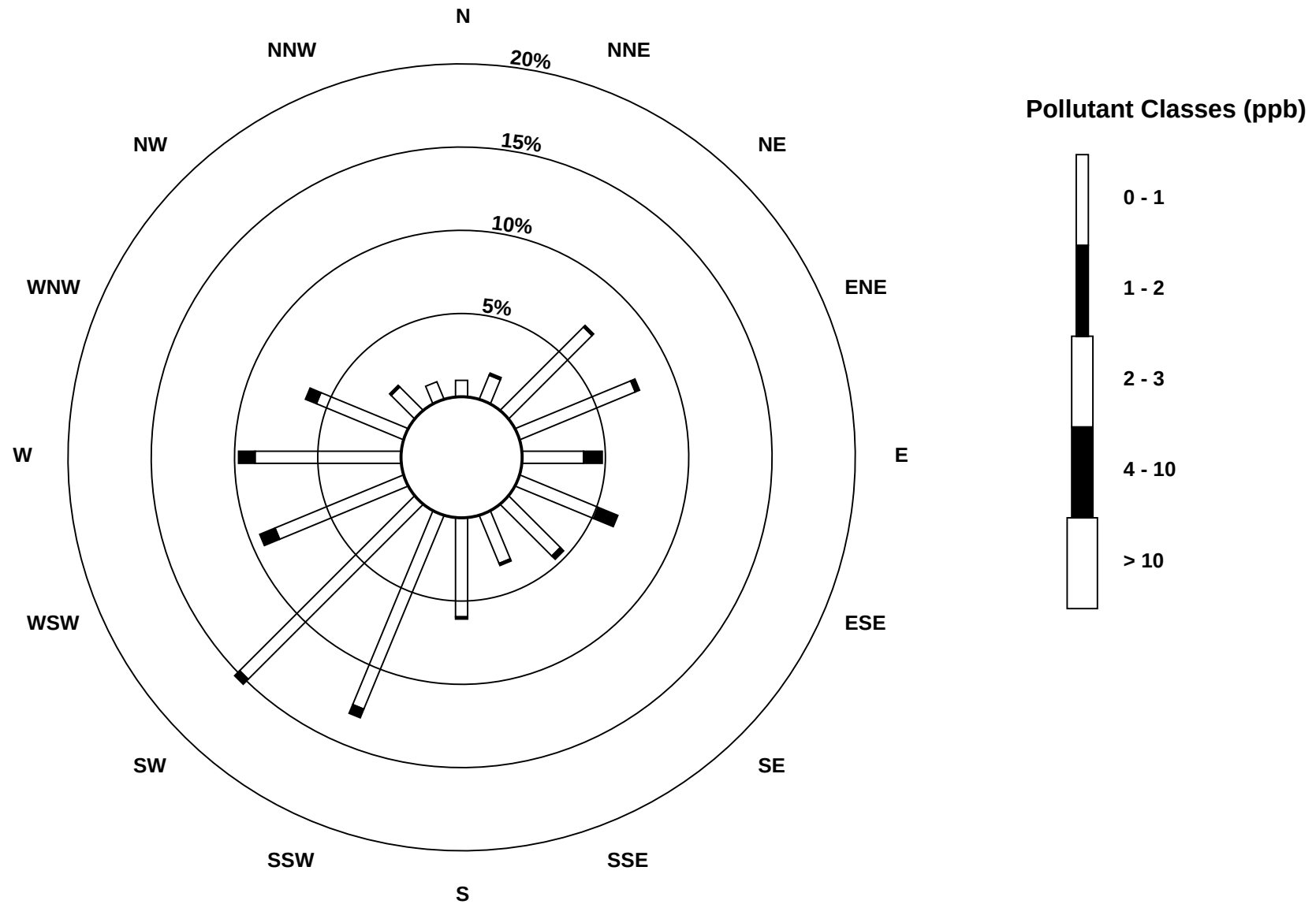
Henry Pirker - October 2015



Pollutant Rose

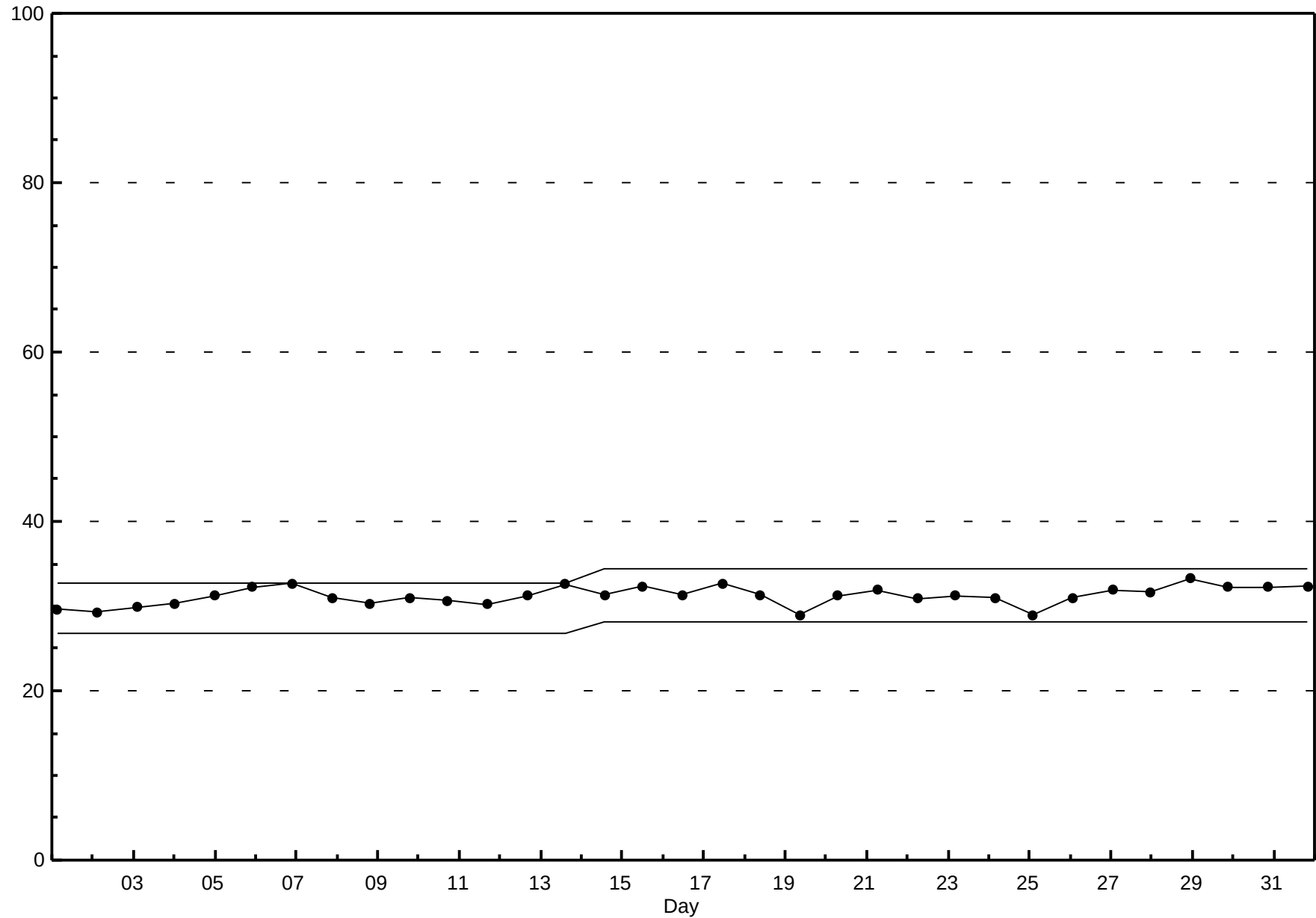
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2015



Span Responses

Total Reduced Sulphur (TRS)
Henry Pirker - October 2015



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

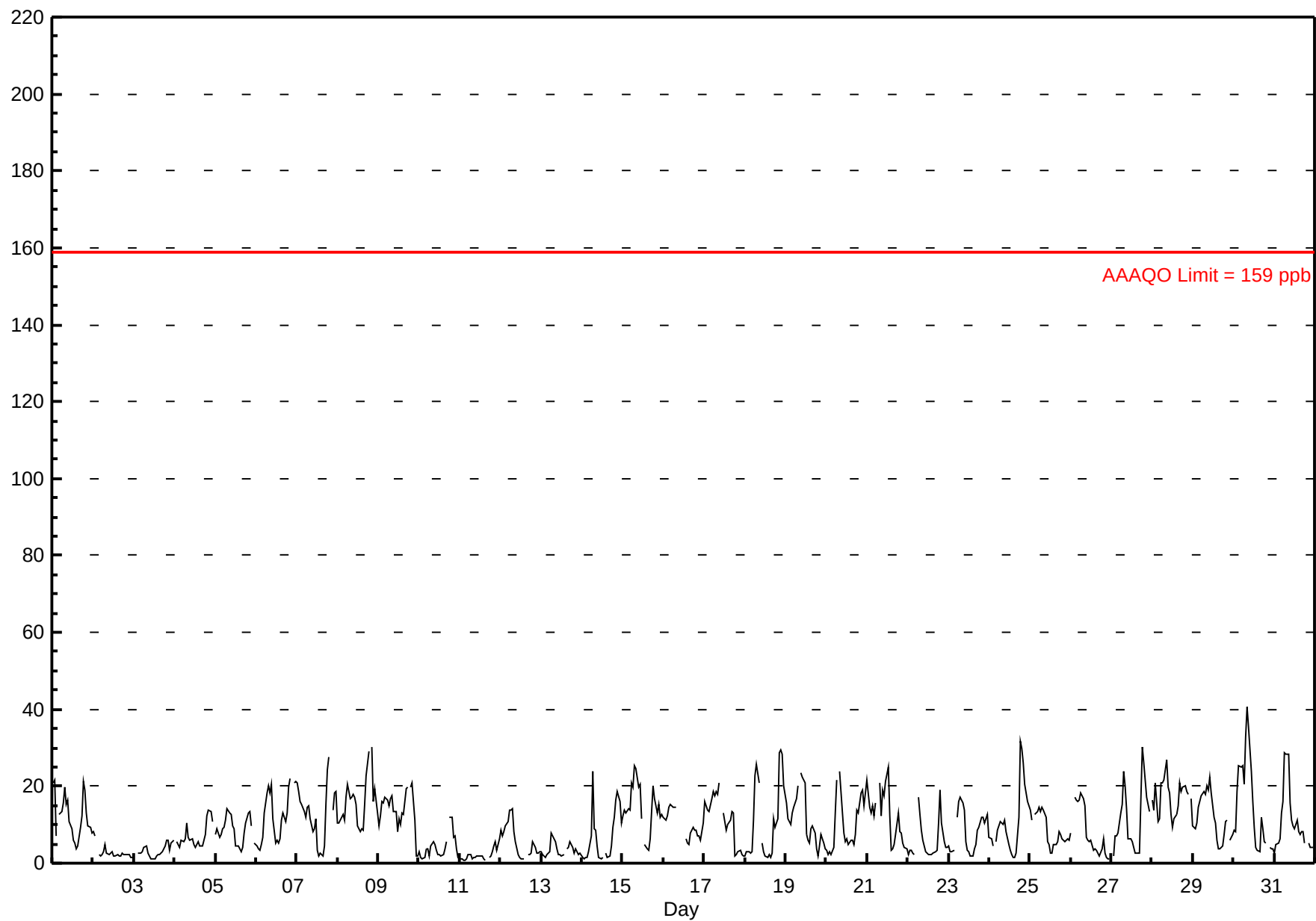
Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 40.5 ppb on Oct 30 09:00 Maximum Daily Average: 17.2 ppb on Oct 28																					Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0						
Minimum Value: 1 ppb on Oct 11 04:00 Maximum Diurnal Average: 16.0 ppb at hour 8 Monthly Average: 9.63 ppb										Minimum Daily Average: 2.1 ppb on Oct 11 Minimum Diurnal Average: 4.6 ppb at hour 15 Percentiles: P ₁ = 1.1 P ₁₀ = 2.1 Q ₁ = 3.5 Median = 8.1 Q ₃ = 14.1 P ₉₀ = 19.9 P ₉₉ = 29.6																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Oct	21	22	7	A	13	13	16	20	15	16	11	9	6	5	4	4	9	12	21	19	13	10	9	8	12.3	21.7	
2-Oct	8	7	A	2	2	2	3	5	3	2	3	3	2	2	2	2	2	2	2	2	2	1	1	1	2.7	8.2	
3-Oct	1	A	2	3	3	3	4	4	3	2	1	1	1	2	2	2	3	3	4	6	6	3	5	6	3.1	6.1	
4-Oct	A	6	5	4	6	5	6	10	7	6	6	5	4	5	6	5	4	6	7	12	14	13	11	A	7.0	13.8	
5-Oct	8	9	7	8	9	9	11	14	13	13	10	9	5	4	4	3	4	8	11	13	13	10	A	5	8.6	14.1	
6-Oct	4	4	3	5	7	13	18	20	18	20	12	5	6	5	6	11	13	11	13	20	22	A	21	21	12.2	21.9	
7-Oct	21	18	16	15	13	12	15	15	11	8	9	12	3	2	2	2	5	15	24	28	A	14	18	19	12.9	27.6	
8-Oct	10	11	12	13	11	17	20	17	17	18	17	15	10	8	9	15	23	29	A	30	16	20	13	15.7	30.4		
9-Oct	10	12	16	16	17	17	15	17	18	13	14	8	12	10	13	13	19	20	A	20	21	11	2	2	13.6	20.9	
10-Oct	3	2	1	2	4	4	2	5	6	5	3	2	2	2	2	4	6	A	12	12	7	7	4	2	4.2	12.0	
11-Oct	1	1	1	1	1	2	2	1	1	1	2	2	2	2	1	1	A	2	2	3	5	6	3	6	2.1	6.5	
12-Oct	9	7	8	10	11	14	14	14	8	6	2	1	1	1	1	A	2	2	3	6	4	3	3	3	5.8	14.3	
13-Oct	3	2	2	2	3	3	8	6	6	4	2	2	2	2	A	4	4	6	4	3	4	3	2	3	3.4	7.7	
14-Oct	1	1	1	2	3	7	24	9	9	4	2	1	1	A	3	2	2	4	9	12	16	19	16	10	6.9	24.0	
15-Oct	12	14	13	14	14	21	20	25	25	20	21	12	A	5	4	3	7	13	20	17	13	15	12	13	14.4	25.2	
16-Oct	12	11	12	14	15	15	14	14	C	C	C	C	C	6	5	5	8	9	9	9	7	7	6	10	10.0	15.4	
17-Oct	16	15	14	14	17	19	18	19	18	21	A	13	11	9	10	11	13	13	2	2	3	3	2	2	11.5	20.9	
18-Oct	2	3	3	3	3	11	23	26	21	A	5	3	2	2	2	1	3	11	9	12	29	29	28	20	10.9	29.4	
19-Oct	16	11	11	10	13	15	17	20	A	23	22	21	7	6	5	9	10	8	4	2	4	7	5	4	10.9	23.4	
20-Oct	3	2	3	2	4	13	21	A	24	13	8	6	7	5	6	6	5	7	14	13	18	19	15	18	10.1	23.9	
21-Oct	21	14	13	15	12	16	A	21	12	19	18	21	25	12	3	4	5	7	13	8	8	5	4	4	12.3	24.8	
22-Oct	2	3	3	3	2	A	17	13	9	6	3	2	2	2	2	3	3	3	11	19	10	6	4	4	5.8	19.1	
23-Oct	5	3	3	3	A	12	16	17	16	14	6	3	3	2	2	4	5	8	9	12	12	10	11	13	8.2	17.2	
24-Oct	7	6	5	A	6	9	11	10	10	11	8	5	3	2	2	1	3	12	32	30	26	20	16	15	10.9	31.7	
25-Oct	14	11	A	13	13	15	14	15	14	12	5	5	3	3	5	5	6	8	7	6	6	6	6	6	8.6	14.7	
26-Oct	8	A	17	16	16	16	18	17	15	7	6	5	6	3	4	3	3	2	4	6	3	1	1	1	7.8	18.1	
27-Oct	A	2	7	7	8	13	15	24	20	14	6	6	6	4	3	3	3	17	30	26	22	17	13	A	12.1	30.4	
28-Oct	17	14	21	11	12	21	21	22	27	20	18	13	9	12	13	15	21	19	20	20	19	18	A	17	17.2	26.8	
29-Oct	10	9	10	14	16	18	19	18	20	19	22	18	12	10	6	4	4	4	7	11	11	A	6	7	12.0	22.3	
30-Oct	8	8	19	25	25	25	20	33	40	36	24	16	9	4	3	3	12	9	6	5	A	4	4	4	14.9	40.5	
31-Oct	3	5	5	6	13	16	29	28	28	16	11	10	9	11	8	7	8	8	5	A	5	4	4	4	10.7	28.7	
8.8 8.1 8.3 8.7 9.7 12.5 15.0 16.0 14.9 12.7 9.6 7.8 5.9 5.0 4.6 4.9 6.8 9.2 11.5 12.1 12.2 10.0 8.8 8.3																										Diurnal Average	Diurnal Maximum
21.4 21.7 20.7 25.3 25.0 25.5 28.7 32.9 40.5 35.5 23.8 21.2 24.8 12.4 13.0 14.9 20.8 22.7 31.7 29.9 30.4 29.4 28.2 21.4																											
C - Calibration A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																											

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - October 2015



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

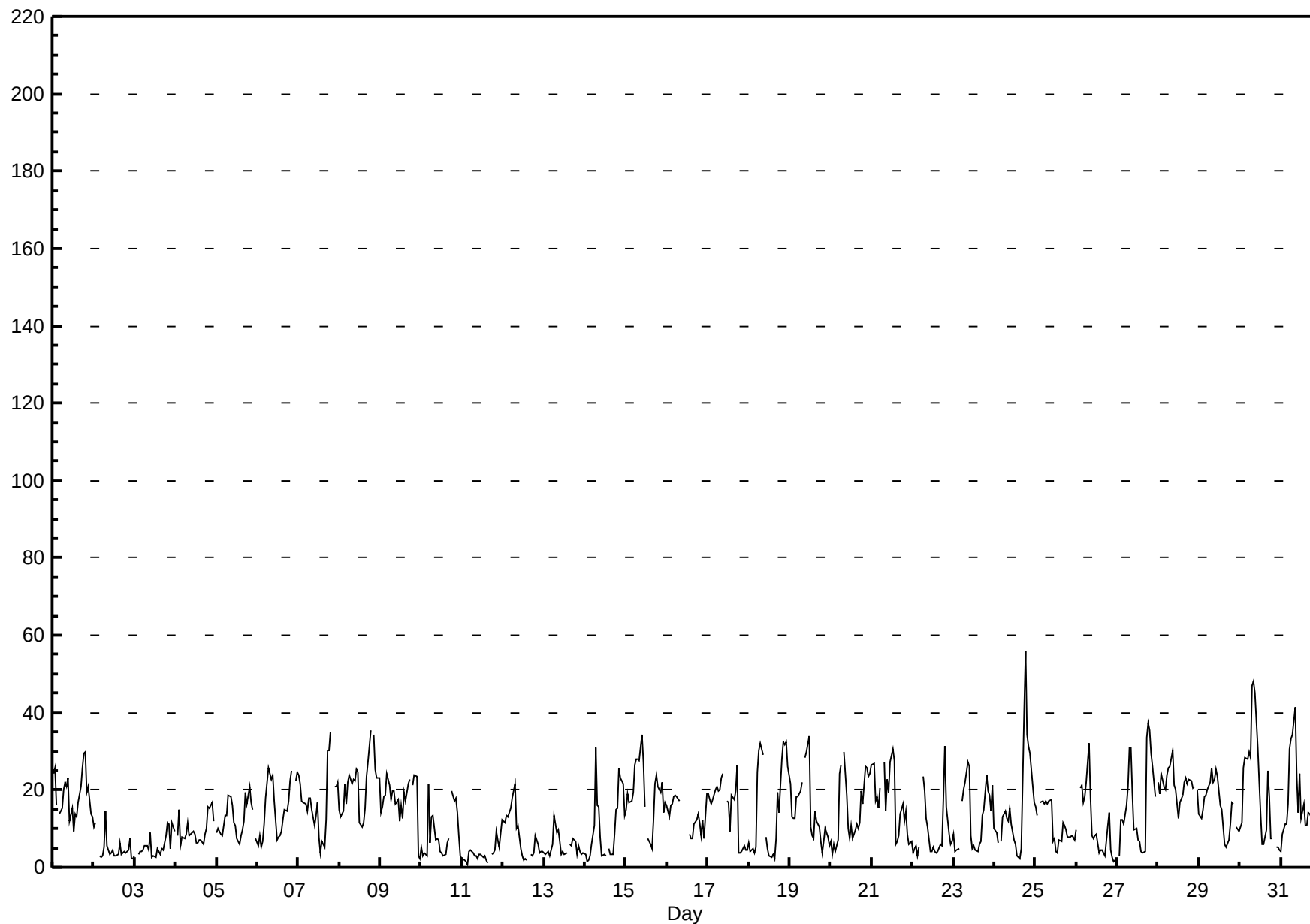
Henry Pirker - October 2015

Maximum Value: 55.9 ppb on Oct 24 19:00																				Maximum Daily Average: 21.3 ppb on Oct 28					Hours in Service: 744	
Minimum Value: 1 ppb on Oct 11 04:00																				Minimum Daily Average: 3.8 ppb on Oct 11					Hours of Data: 707	
Maximum Diurnal Average: 21.1 ppb at hour 8																				Minimum Diurnal Average: 7.5 ppb at hour 15					Hours of Missing Data: 37	
Monthly Average: 13.55 ppb																				Percentiles: P ₁ = 1.8 P ₁₀ = 3.5 Q ₁ = 5.8 Median = 12.1 Q ₃ = 19.6 P ₉₀ = 25.7 P ₉₉ = 35.6					Hours of Calibration: 37	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	24	26	16	A	14	15	20	22	21	23	12	15	9	14	13	17	21	26	29	30	19	21	14	13	18.9	29.8
2-Oct	10	12	A	3	2	3	5	14	5	3	4	5	3	3	3	6	3	4	4	4	4	7	2	2	5.0	14.4
3-Oct	3	A	3	4	4	5	6	5	4	9	2	3	3	5	4	3	5	4	8	11	11	5	12	9	5.6	11.5
4-Oct	A	8	15	5	8	8	9	12	8	9	9	9	6	6	7	7	6	9	10	16	15	17	12	A	9.6	16.9
5-Oct	9	10	9	8	11	13	13	18	18	16	12	11	7	6	8	10	12	19	17	21	17	15	A	7	12.5	20.7
6-Oct	5	8	5	7	11	18	26	24	23	24	17	7	8	8	9	12	15	15	17	23	25	A	23	25	15.4	25.9
7-Oct	24	22	17	17	16	15	18	18	15	11	13	17	8	4	7	5	12	30	30	35	A	21	21	22	17.3	34.9
8-Oct	15	13	14	21	17	22	24	22	23	22	26	25	12	10	12	15	24	27	35	A	34	25	23	23	21.1	35.3
9-Oct	14	16	18	19	24	21	17	20	20	17	17	12	16	13	19	17	22	23	A	21	24	24	3	2	17.3	24.4
10-Oct	5	3	4	3	22	6	13	14	7	7	7	4	4	3	4	6	7	A	20	17	18	14	8	3	8.6	21.7
11-Oct	2	2	1	1	4	4	4	3	3	2	3	3	3	3	2	1	A	3	4	5	9	7	5	12	3.8	12.2
12-Oct	12	12	13	13	15	18	20	22	10	11	5	3	2	2	2	A	3	3	4	8	6	4	4	4	8.5	21.6
13-Oct	4	3	4	3	4	6	14	9	10	7	3	4	3	4	A	6	6	7	7	3	5	4	3	4	5.4	13.6
14-Oct	3	2	2	3	6	11	31	16	16	8	3	3	3	A	5	3	3	9	15	15	26	23	22	13	10.5	30.8
15-Oct	15	19	17	17	19	26	28	28	27	34	27	16	A	7	6	5	12	22	24	21	19	22	14	17	19.3	34.4
16-Oct	16	13	16	16	18	19	18	17	C	C	C	C	C	8	8	7	11	12	14	11	8	12	7	19	13.3	19.1
17-Oct	19	18	16	17	20	21	20	20	23	24	A	17	17	9	19	18	20	27	4	4	4	6	4	4	15.2	26.5
18-Oct	6	4	5	4	5	25	30	32	29	A	8	5	3	3	2	7	19	14	28	32	32	32	26	26	15.5	32.4
19-Oct	22	13	13	13	18	18	20	22	A	28	30	34	11	8	7	15	12	10	7	4	7	10	8	5	14.5	33.8
20-Oct	7	4	6	4	7	24	26	A	30	19	10	8	11	7	10	11	10	11	20	16	26	26	23	24	14.8	30.0
21-Oct	27	27	17	18	15	21	A	27	15	23	19	27	31	27	6	7	8	14	16	12	14	9	6	7	17.1	30.6
22-Oct	4	5	6	3	5	A	23	20	13	10	4	4	5	4	4	4	6	6	18	31	16	8	6	7	9.2	31.4
23-Oct	9	4	5	5	A	17	20	22	27	26	8	5	6	4	4	6	7	13	15	24	20	19	14	21	13.1	27.3
24-Oct	10	9	6	A	7	13	14	13	12	15	11	7	6	3	3	2	5	41	56	34	31	29	21	17	15.9	55.9
25-Oct	16	14	A	17	17	16	17	17	17	17	7	8	4	4	7	7	12	11	10	8	8	8	8	7	11.1	17.4
26-Oct	10	A	21	21	17	18	22	32	18	8	8	8	9	4	5	4	4	3	11	14	4	3	2	2	10.7	31.9
27-Oct	A	3	12	12	11	16	21	31	31	19	10	10	7	7	4	4	4	34	37	35	29	26	18	A	17.4	37.4
28-Oct	22	19	24	21	20	24	26	26	30	21	20	16	13	17	19	22	23	22	23	22	20	21	A	20	21.3	30.1
29-Oct	14	13	15	18	19	20	22	26	22	23	25	24	16	15	10	6	5	7	11	17	16	A	10	9	15.8	25.9
30-Oct	10	12	26	28	28	30	29	47	48	45	31	22	14	6	6	10	25	18	8	7	A	5	5	5	20.1	48.1
31-Oct	4	9	11	11	16	31	33	34	42	23	14	24	13	17	11	11	14	14	13	A	8	6	6	6	16.1	41.6
11.7 11.0 11.6 11.5 13.4 16.8 19.6 21.1 19.5 17.4 12.6 11.8 8.6 7.7 7.5 8.4 10.8 15.4 16.6 17.2 16.5 14.8 11.7 11.6																									Diurnal Average	
26.7 26.7 25.6 28.3 28.0 30.7 33.2 46.8 48.1 45.0 31.1 33.8 30.6 27.5 19.3 22.1 24.9 40.5 55.9 35.5 34.4 31.6 32.3 26.3																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

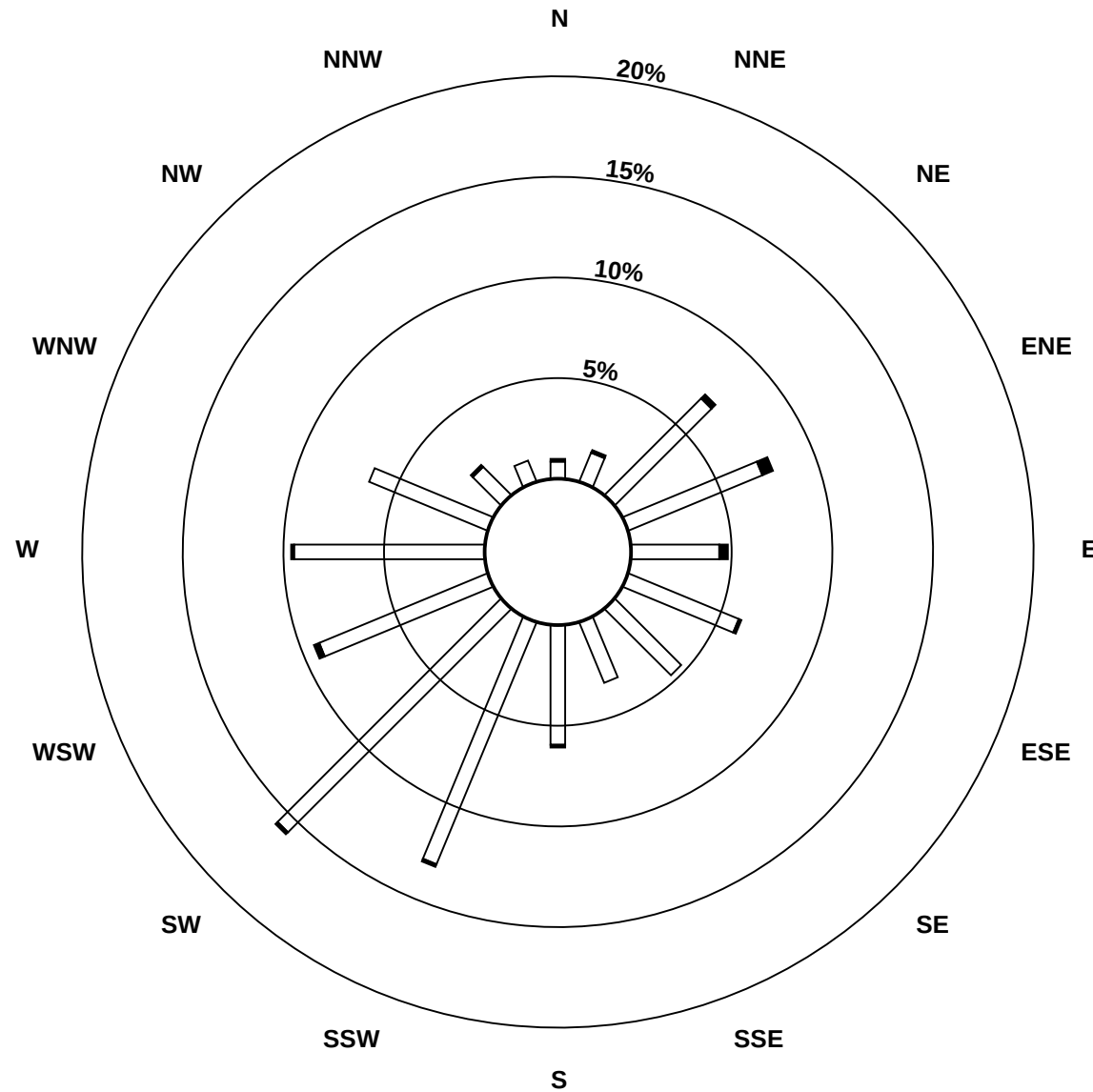
Henry Pirker - October 2015



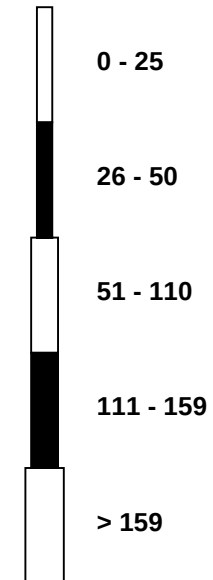
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - October 2015

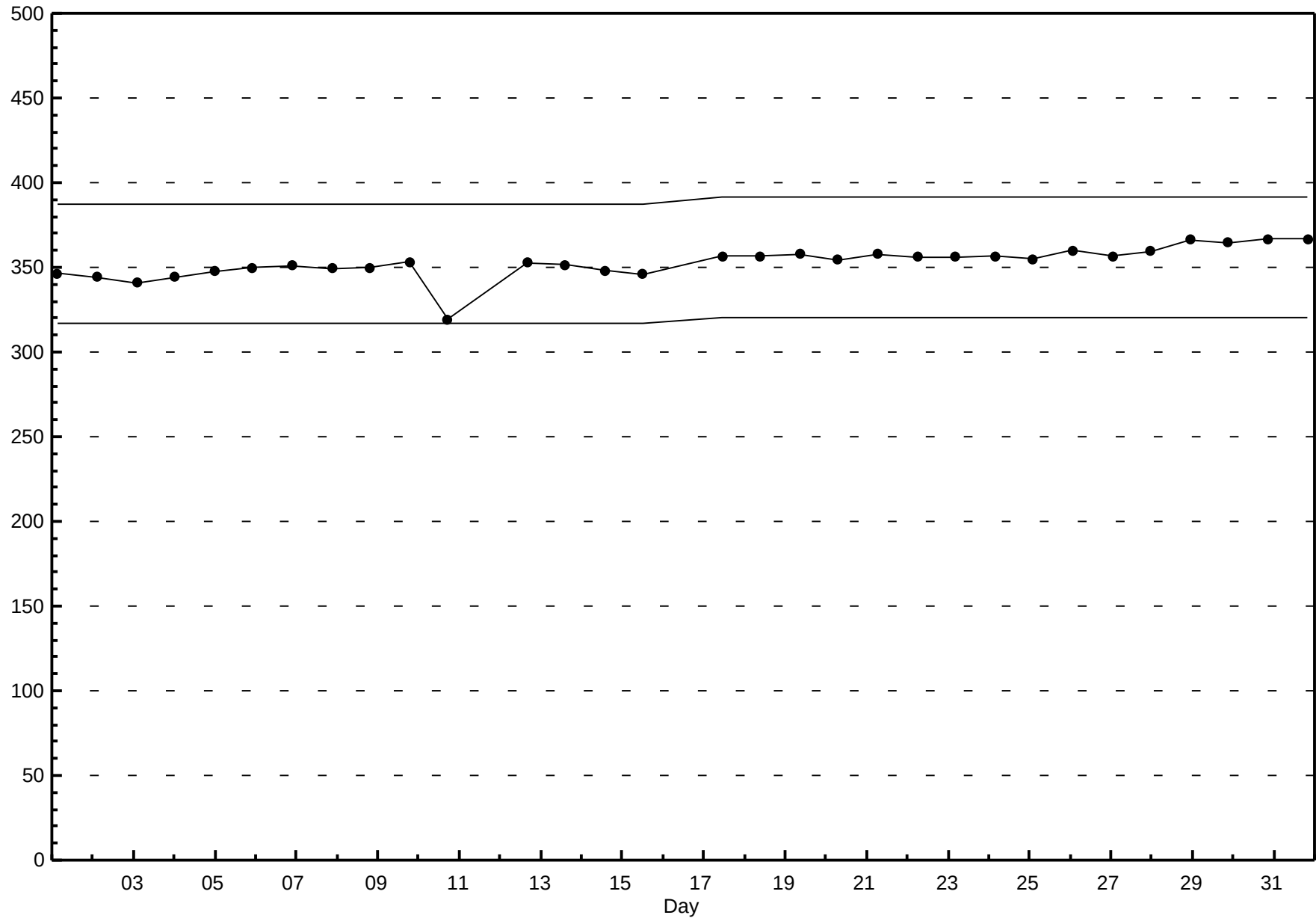


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - October 2015



Hourly Averages

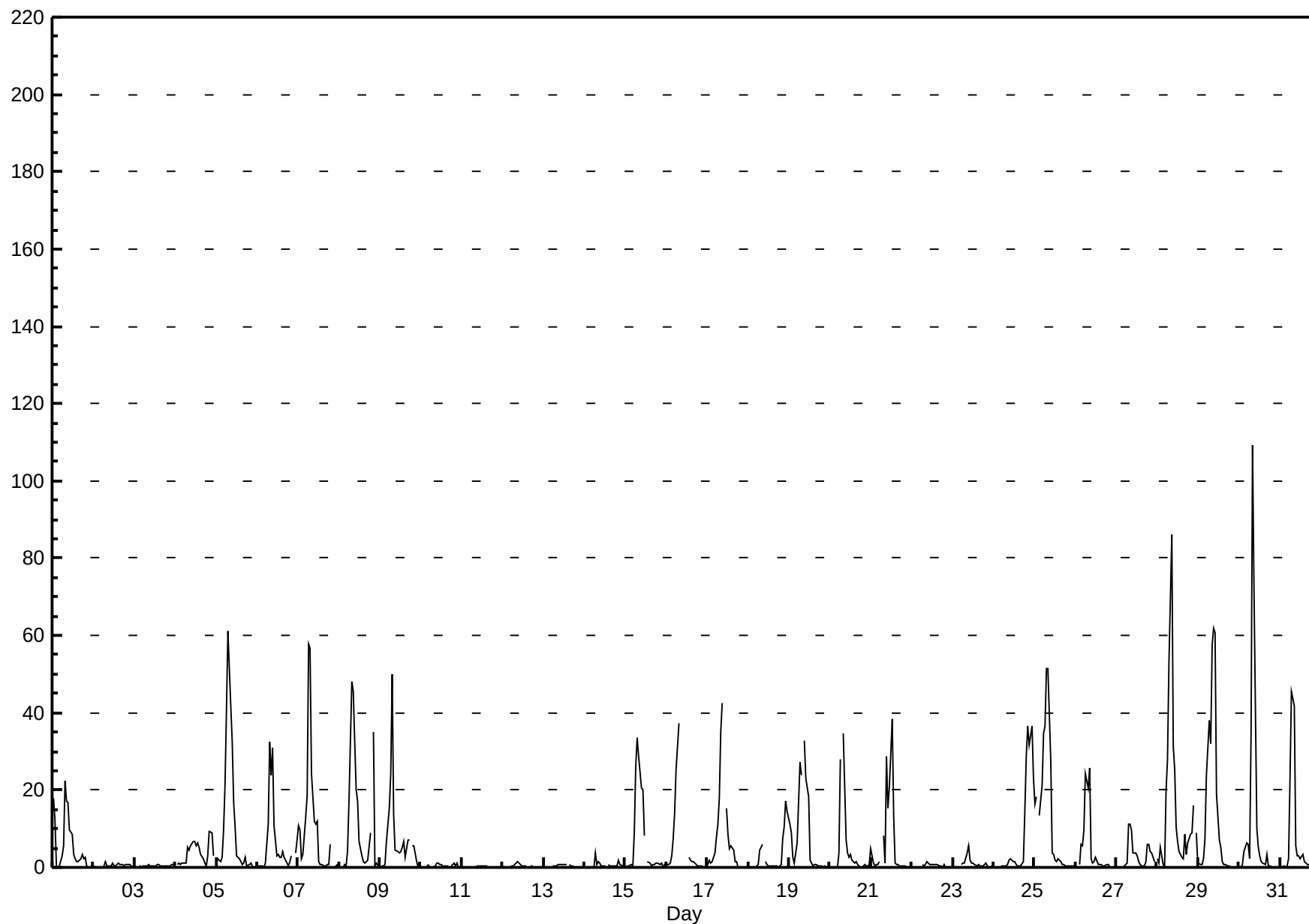
Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 109.1 ppb on Oct 30 09:00 Maximum Daily Average: 14.8 ppb on Oct 28																				Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Oct 14 03:00 Maximum Diurnal Average: 23.1 ppb at hour 9 Monthly Average: 5.62 ppb										Minimum Daily Average: 0.2 ppb on Oct 11 Minimum Diurnal Average: 0.7 ppb at hour 3 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.3 Median = 0.8 Q ₃ = 3.9 P ₉₀ = 18.6 P ₉₉ = 56.3																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	18	12	0	A	0	3	5	22	17	17	10	8	3	2	2	2	3	2	3	0	0	0	0	5.8	22.3	
2-Oct	0	0	A	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0.5	1.4	
3-Oct	0	A	0	0	0	0	0	1	1	1	0	0	0	1	1	0	0	0	0	0	0	1	1	0.4	0.9	
4-Oct	A	1	1	1	1	1	1	5	4	5	7	7	5	6	5	3	2	1	0	3	9	9	3	A	3.8	9.3
5-Oct	1	2	2	2	10	21	41	61	42	32	17	10	3	2	1	1	1	2	1	1	1	0	A	0	11.1	61.3
6-Oct	0	0	0	0	0	1	11	32	24	31	11	3	3	3	3	4	3	1	0	1	3	A	4	7	6.4	32.3
7-Oct	11	10	2	3	13	19	58	57	24	12	11	12	2	1	1	1	0	1	1	6	A	0	0	1	10.6	57.9
8-Oct	0	0	0	1	0	4	17	48	45	33	20	17	7	3	2	1	2	9	A	35	0	1	0	10.7	48.2	
9-Oct	0	0	1	1	7	15	24	50	14	4	4	4	4	5	7	3	7	7	A	6	2	0	0	7.4	49.8	
10-Oct	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0	0	0	A	0	1	0	1	0	0	0.5	1.2
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.5
12-Oct	0	0	0	0	0	0	1	1	1	2	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	1.6
13-Oct	0	0	0	0	0	0	0	0	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0.3	0.9
14-Oct	0	0	0	0	0	0	4	1	1	1	1	0	0	A	1	0	0	0	0	0	2	1	0	0	0.6	3.7
15-Oct	0	0	0	1	1	9	26	34	29	21	20	8	A	1	1	0	1	1	1	1	1	1	0	1	6.8	33.5
16-Oct	1	1	1	3	8	14	25	37	C	C	C	C	C	3	2	1	1	1	0	0	0	0	0	0	5.2	37.3
17-Oct	1	2	1	2	4	8	11	18	35	43	A	15	9	5	6	5	1	1	0	0	0	0	0	0	7.2	42.6
18-Oct	0	0	0	0	0	0	1	5	6	A	1	1	0	0	0	0	0	0	0	1	8	11	17	15	2.9	17.1
19-Oct	11	9	3	1	4	6	27	24	A	33	23	18	2	1	0	1	1	0	0	0	0	1	0	0	7.2	32.7
20-Oct	0	0	0	0	0	4	28	A	34	7	4	3	3	2	1	1	1	0	0	0	1	1	0	1	4.0	34.5
21-Oct	5	1	0	1	1	1	A	8	1	29	15	21	38	13	1	1	1	0	0	0	0	0	0	0	6.0	38.3
22-Oct	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0.4	1.3
23-Oct	0	0	0	0	A	1	1	1	4	6	2	1	1	1	1	1	0	0	0	1	1	0	0	0	1.0	5.7
24-Oct	0	0	0	A	0	0	0	0	1	2	2	1	1	1	0	0	0	1	15	29	36	32	37	23	8.0	36.7
25-Oct	16	18	A	13	21	35	37	51	51	28	4	4	2	2	2	1	1	1	0	0	0	0	0	0	12.6	51.4
26-Oct	0	A	1	6	6	10	24	21	26	2	1	2	1	2	1	1	1	0	1	1	0	0	0	0	4.6	25.8
27-Oct	A	0	0	0	0	1	1	11	11	10	4	4	3	2	1	1	0	2	6	6	4	4	1	A	3.2	11.3
28-Oct	2	1	5	1	0	20	28	53	86	31	25	11	7	4	3	2	9	4	6	9	9	16	A	9	14.8	86.1
29-Oct	1	1	1	2	8	24	38	32	57	62	61	19	7	5	2	1	1	0	0	0	0	A	0	0	14.0	61.8
30-Oct	0	0	1	4	6	6	2	35	109	73	10	5	3	1	1	1	3	0	0	0	A	0	0	0	11.4	109.1
31-Oct	0	0	0	0	0	2	23	45	42	6	3	3	2	3	2	1	1	1	1	A	1	1	1	1	6.0	45.4
2.4 2.1 0.7 1.5 3.0 6.9 14.5 21.9 23.1 17.0 9.0 6.1 3.9 2.4 1.6 1.2 1.4 1.1 1.6 2.5 4.1 2.8 2.3 2.1 18.0 18.2 5.4 13.4 21.1 34.6 57.9 61.3 109.1 72.8 60.8 20.8 38.3 13.1 6.6 4.6 8.7 7.1 14.7 28.6 36.4 31.5 36.7 23.1																								Diurnal Average	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - October 2015



Hourly Maximums

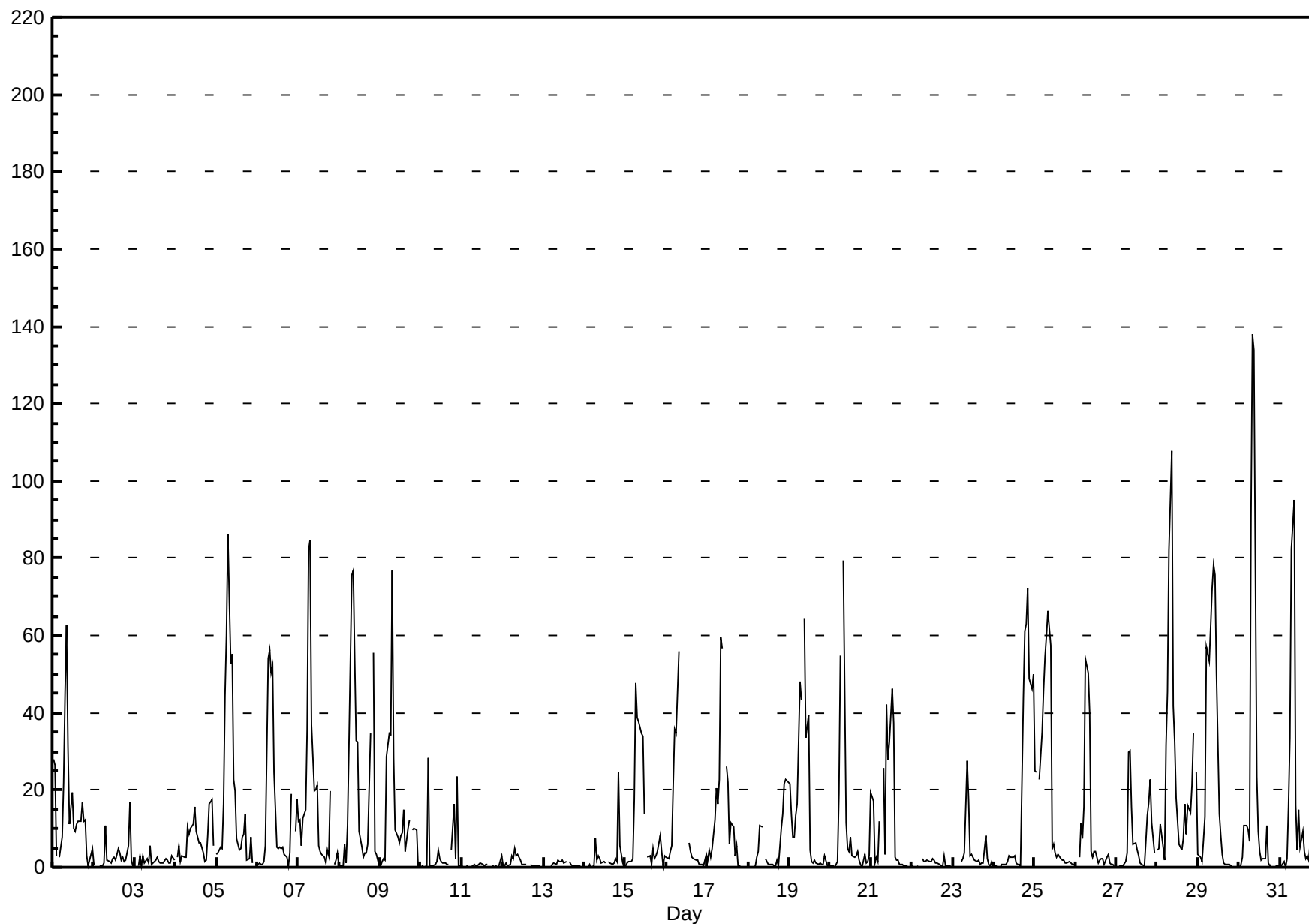
Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2015

Maximum Value: 137.9 ppb on Oct 30 09:00																				Maximum Daily Average: 24.0 ppb on Oct 28										Hours in Service: 744	
Minimum Value: 0 ppb on Oct 9 23:00																				Minimum Daily Average: 0.5 ppb on Oct 11										Hours of Data: 707	
Maximum Diurnal Average: 37.9 ppb at hour 9																				Minimum Diurnal Average: 2.2 ppb at hour 3										Hours of Missing Data: 37	
Monthly Average: 10.79 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.8 Median = 2.5 Q ₃ = 10.8 P ₉₀ = 34.7 P ₉₉ = 83.7										Hours of Calibration: 37	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
1-Oct	28	26	3	A	3	8	22	45	63	31	11	19	10	9	11	12	12	17	12	12	3	0	3	5	15.9	62.6					
2-Oct	1	1	A	0	0	0	1	11	2	2	1	2	3	2	5	4	2	2	1	2	6	17	2	1	2.9	16.9					
3-Oct	0	A	1	3	0	3	1	2	1	6	1	1	2	2	2	1	1	1	2	2	1	1	3	2	1.7	5.6					
4-Oct	A	3	6	1	3	2	3	11	9	10	11	16	9	8	6	6	4	2	2	8	16	17	5	A	7.2	17.5					
5-Oct	3	4	5	5	16	44	60	86	52	55	23	20	7	4	5	8	9	14	2	2	8	1	A	1	18.9	86.0					
6-Oct	1	1	1	1	2	6	54	56	50	52	25	5	5	5	5	5	3	3	0	4	19	A	9	18	14.3	56.4					
7-Oct	12	12	6	13	15	36	82	85	37	20	20	21	5	4	3	3	1	4	3	20	A	1	2	4	17.7	84.5					
8-Oct	0	0	0	6	1	11	32	76	77	54	33	32	9	5	3	4	4	6	35	A	55	4	4	0	19.6	76.9					
9-Oct	0	1	2	2	29	35	34	77	28	10	8	6	8	9	15	4	10	12	A	10	10	10	0	0	13.9	77.0					
10-Oct	0	0	0	0	28	0	0	0	1	2	4	2	1	1	1	1	1	A	5	17	2	23	0	0	4.0	28.2					
11-Oct	0	0	0	0	0	0	0	1	0	1	1	1	1	0	1	1	A	0	0	0	0	0	0	3	0.5	2.8					
12-Oct	0	0	1	0	1	3	2	5	3	3	2	1	1	1	1	A	1	0	0	0	0	0	0	0	1.2	4.9					
13-Oct	0	0	0	0	0	1	1	1	2	1	1	2	1	2	A	1	1	1	0	0	0	0	0	0	0.7	1.9					
14-Oct	0	0	0	1	0	0	7	2	3	2	1	1	1	A	2	1	1	1	2	1	25	6	1	0	2.6	24.6					
15-Oct	0	1	2	2	2	18	48	39	38	35	34	14	A	3	3	1	5	2	3	4	8	4	0	3	11.6	47.8					
16-Oct	2	2	4	6	21	36	35	56	C	C	C	C	C	6	4	2	2	2	2	1	1	1	1	3	9.8	55.9					
17-Oct	2	4	3	5	12	20	16	23	60	57	A	26	22	6	12	10	3	6	1	0	0	0	0	0	12.5	59.7					
18-Oct	0	0	0	0	1	2	4	11	11	A	2	1	1	1	0	0	2	0	10	14	22	23	22	5.6	22.7						
19-Oct	22	14	8	8	14	16	48	43	A	64	33	40	4	2	1	2	1	1	1	1	1	3	0	0	14.2	64.5					
20-Oct	0	0	0	0	2	19	55	A	79	11	5	4	8	3	3	3	4	2	1	0	3	1	1	3	9.0	79.4					
21-Oct	19	17	1	3	1	12	A	26	3	42	28	32	46	37	2	2	2	1	1	1	0	0	0	0	12.0	46.2					
22-Oct	0	0	0	0	0	A	2	1	2	2	1	2	2	1	1	1	1	0	0	3	0	0	0	0	1.0	3.1					
23-Oct	0	0	0	0	A	2	2	4	28	18	3	3	3	2	1	2	1	1	1	8	2	1	0	1	3.6	27.7					
24-Oct	0	0	0	A	0	1	1	1	2	3	3	3	3	1	1	1	0	44	61	63	72	49	46	50	17.6	72.2					
25-Oct	25	25	A	23	35	46	54	60	66	58	5	6	4	3	3	2	2	2	1	1	2	1	1	1	18.4	66.2					
26-Oct	1	A	3	12	7	16	54	50	40	4	3	4	4	1	2	2	2	1	3	3	1	1	1	0	9.3	54.1					
27-Oct	A	0	0	1	0	2	4	30	30	15	6	6	4	3	1	1	0	7	14	17	23	11	4	A	8.2	30.2					
28-Oct	4	5	11	5	2	32	46	82	108	42	32	18	12	6	5	7	17	9	16	14	21	35	A	24	24.0	107.9					
29-Oct	3	3	1	7	13	57	53	63	72	78	76	50	14	8	4	1	1	1	1	0	0	A	0	0	22.0	78.4					
30-Oct	0	1	3	11	11	10	7	91	138	134	23	9	4	2	2	2	11	1	0	1	A	0	0	0	20.1	137.9					
31-Oct	0	1	1	0	2	16	34	82	95	16	4	15	5	9	4	2	3	2	6	A	4	6	2	5	13.7	95.0					
4.4 4.2 2.2 3.9 7.4 15.1 25.4 37.3 37.9 28.5 13.8 12.1 6.9 4.9 3.6 3.1 3.5 4.9 5.9 7.1 10.3 7.4 3.8 5.1																									Diurnal Average						
28.1 26.3 11.1 22.7 35.2 57.1 82.0 91.0 137.9 133.8 75.8 49.8 46.2 37.1 15.1 11.8 16.5 44.1 61.1 63.1 72.2 48.7 46.3 50.1																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Henry Pirker - October 2015



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

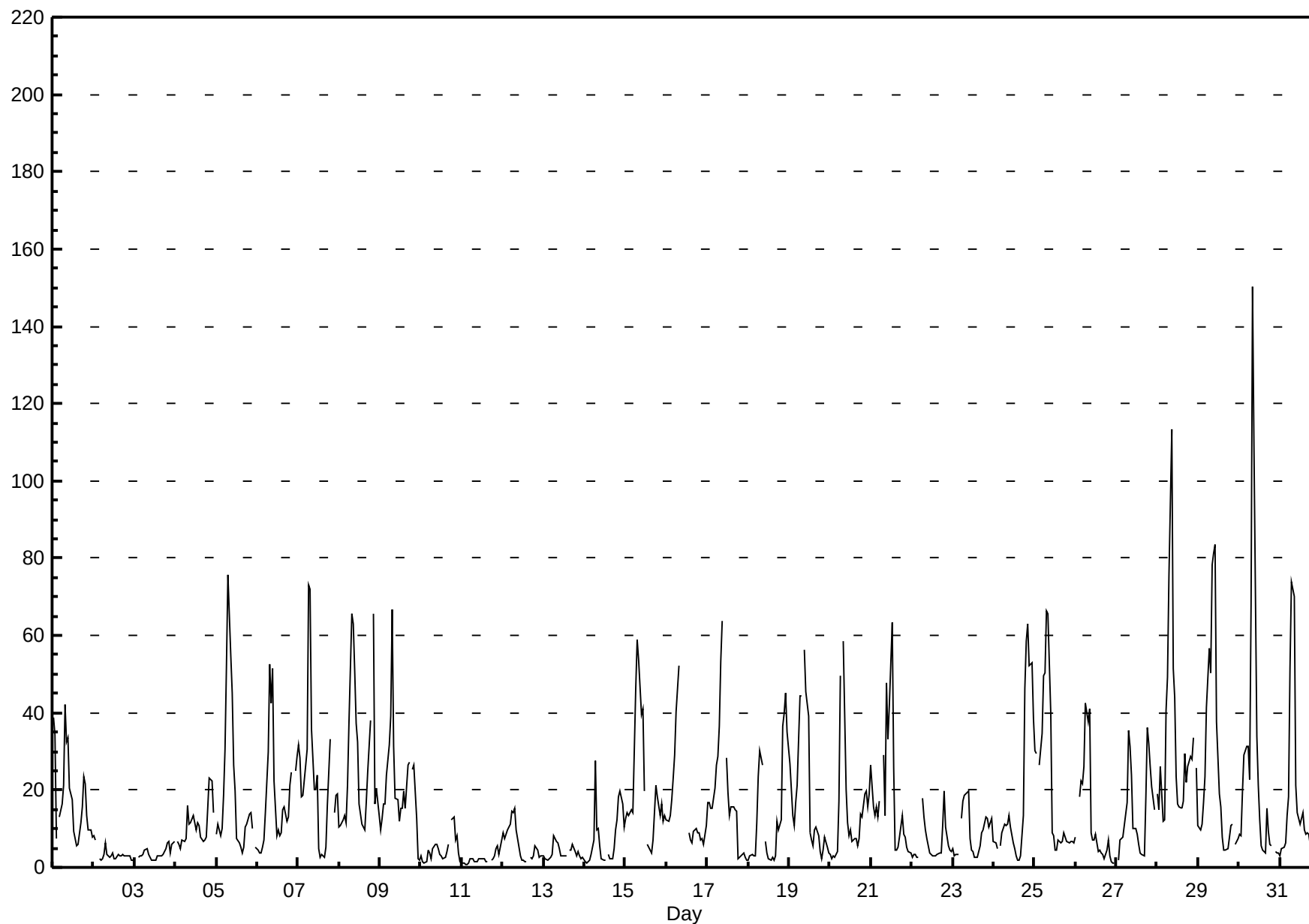
Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 150.3 ppb on Oct 30 09:00 Maximum Daily Average: 32.1 ppb on Oct 28																								Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0		
Minimum Value: 1 ppb on Oct 11 04:00 Minimum Daily Average: 2.4 ppb on Oct 11 Maximum Diurnal Average: 38.2 ppb at hour 9 Minimum Diurnal Average: 6.1 ppb at hour 16 Monthly Average: 15.31 ppb Percentiles: P ₁ = 1.3 P ₁₀ = 2.4 Q ₁ = 4.0 Median = 9.5 Q ₃ = 19.2 P ₉₀ = 37.5 P ₉₉ = 74.6																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	39	34	7	A	13	16	21	42	32	33	21	18	9	8	6	6	12	16	24	22	14	10	10	8	18.2	42.2
2-Oct	8	7	A	2	2	2	3	6	3	3	3	4	2	2	3	3	3	3	3	3	3	3	2	2	3.3	8.4
3-Oct	2	A	3	3	3	3	5	5	3	2	2	2	2	3	3	3	3	3	5	7	7	4	6	7	3.6	6.9
4-Oct	A	7	6	5	7	7	8	16	11	12	13	12	10	11	11	8	7	7	8	15	23	22	14	A	10.8	23.1
5-Oct	9	11	8	10	19	31	52	76	55	45	27	20	8	6	5	4	5	10	11	14	14	10	A	5	19.8	75.9
6-Oct	5	4	4	5	7	14	30	53	42	52	23	8	10	8	9	15	16	12	13	21	25	A	25	29	18.6	52.7
7-Oct	32	28	18	19	26	31	73	72	36	20	20	24	5	2	3	2	5	16	25	33	A	14	19	19	23.6	73.0
8-Oct	10	11	12	13	12	21	37	65	63	51	37	33	17	11	11	10	17	25	38	A	66	17	21	13	26.5	65.6
9-Oct	10	13	16	16	24	32	39	67	31	18	18	12	15	15	20	15	27	27	A	25	26	13	2	2	21.0	66.9
10-Oct	3	2	1	2	4	4	2	5	6	6	5	3	3	2	3	4	6	A	12	13	7	8	4	2	4.6	13.0
11-Oct	1	1	1	1	1	2	2	1	2	2	2	2	2	2	2	1	A	2	2	3	5	6	3	7	2.4	7.0
12-Oct	9	7	8	10	11	14	14	15	10	7	3	2	2	2	2	A	3	2	3	6	4	3	3	3	6.2	15.2
13-Oct	3	2	2	2	3	3	8	7	6	5	3	3	3	3	A	4	4	6	4	3	4	3	2	3	3.8	8.0
14-Oct	1	1	2	2	3	7	28	10	10	6	2	2	2	A	3	2	2	5	10	12	18	20	16	10	7.6	27.7
15-Oct	13	14	13	15	14	30	46	59	54	40	41	20	A	6	5	4	7	14	21	18	14	16	12	13	21.3	59.0
16-Oct	12	12	13	18	23	29	40	52	C	C	C	C	C	9	7	6	9	10	9	9	7	7	6	11	15.3	52.1
17-Oct	17	17	15	15	20	27	29	37	53	64	A	28	20	14	16	16	15	15	2	2	3	4	2	2	18.7	63.8
18-Oct	2	3	3	3	3	12	23	30	27	A	7	4	2	2	3	2	3	12	10	12	36	40	45	35	13.9	45.3
19-Oct	27	20	13	11	17	21	44	44	A	56	45	39	9	7	6	10	10	8	4	2	5	8	5	4	18.1	56.4
20-Oct	3	2	3	2	4	17	49	A	59	20	11	8	10	7	7	7	6	8	14	13	19	20	16	19	14.1	58.6
21-Oct	26	16	13	16	13	17	A	29	13	48	33	42	63	26	5	5	5	8	14	9	8	5	4	4	18.3	63.5
22-Oct	3	3	3	3	2	A	18	13	10	7	4	3	3	3	3	3	4	4	11	20	10	6	4	4	6.3	19.8
23-Oct	5	3	3	3	A	13	17	18	19	20	7	4	4	3	3	4	5	9	10	13	13	11	12	13	9.2	19.7
24-Oct	7	6	5	A	6	9	11	11	11	13	10	6	5	3	2	2	3	13	46	59	63	52	53	38	18.9	62.9
25-Oct	30	30	A	26	35	50	50	67	66	40	9	8	4	4	7	6	7	9	8	7	6	7	7	6	21.2	66.5
26-Oct	8	A	18	22	22	26	42	38	41	9	7	7	9	4	5	4	3	2	5	7	3	2	1	1	12.4	42.4
27-Oct	A	2	7	7	8	14	17	35	32	24	10	10	9	6	4	3	3	18	36	32	26	21	15	A	15.4	36.1
28-Oct	19	15	26	12	12	41	49	75	113	51	44	23	16	16	15	17	29	22	26	29	28	34	A	26	32.1	113.4
29-Oct	11	10	11	17	23	41	57	50	78	81	84	37	19	16	8	4	4	5	8	11	11	A	6	7	26.1	83.6
30-Oct	8	8	20	29	31	31	23	68	150	109	34	21	12	5	5	4	15	9	6	6	A	4	4	4	26.4	150.3
31-Oct	3	5	5	6	14	18	52	74	70	21	14	13	11	14	10	8	9	9	6	A	6	5	5	5	16.7	73.8
11.2 10.2 9.1 10.2 12.8 19.5 29.7 38.0 38.2 29.8 18.6 13.9 9.8 7.4 6.2 6.1 8.2 10.3 13.1 14.6 16.3 12.8 11.2 10.4																								Diurnal Average		
38.9 34.2 26.1 29.2 34.6 49.6 73.0 75.9 150.3 108.7 83.6 42.1 63.5 25.6 19.7 17.2 29.5 27.0 46.4 58.6 65.6 52.2 53.1 38.2																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - October 2015



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

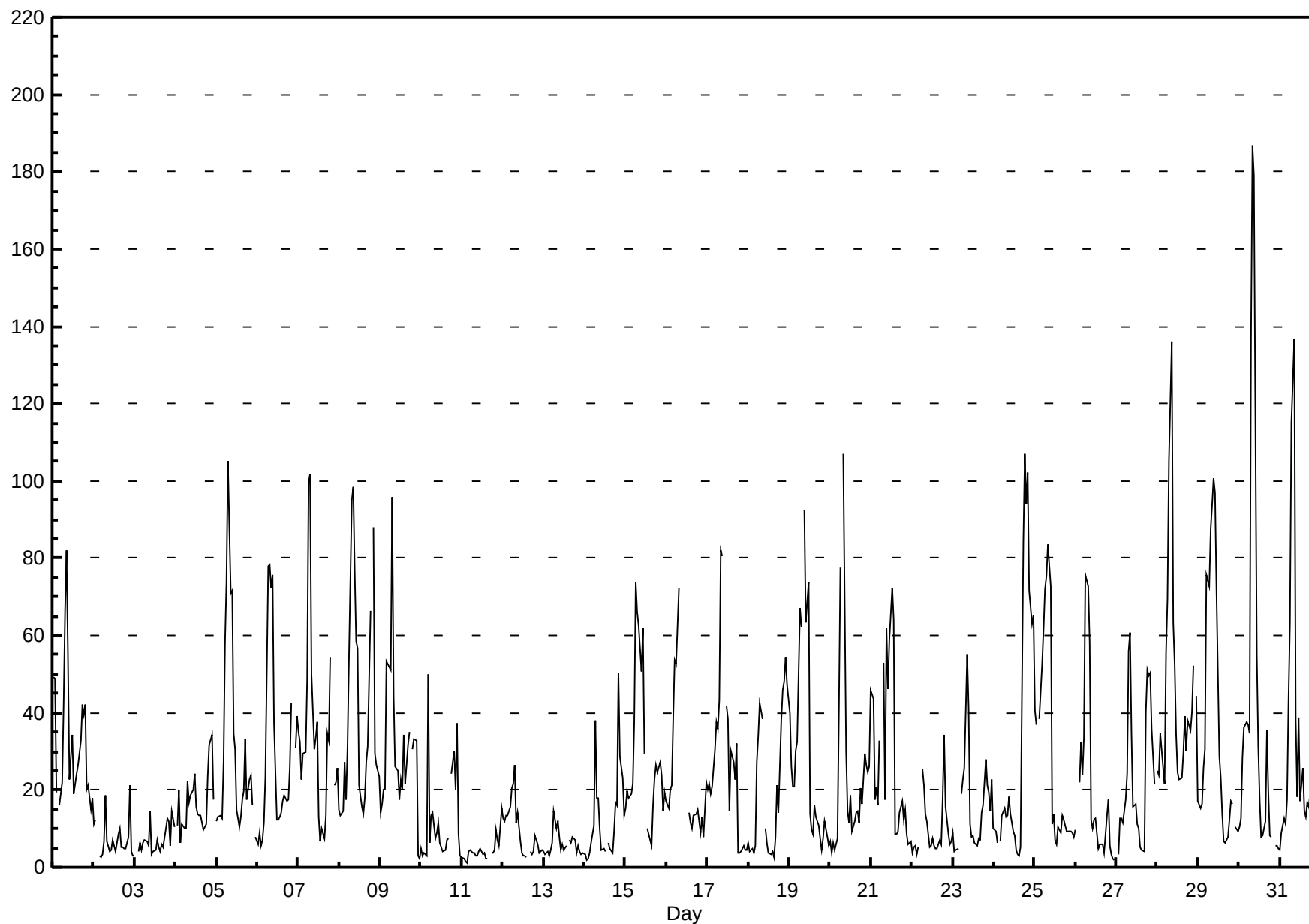
Henry Pirker - October 2015

Maximum Value: 186.8 ppb on Oct 30 09:00																					Maximum Daily Average: 44.6 ppb on Oct 28										Hours in Service: 744	
Minimum Value: 1 ppb on Oct 11 04:00																					Minimum Daily Average: 4.3 ppb on Oct 11										Hours of Data: 707	
Maximum Diurnal Average: 57.0 ppb at hour 8																					Minimum Diurnal Average: 11.0 ppb at hour 15										Hours of Missing Data: 37	
Monthly Average: 23.82 ppb																					Percentiles: P ₁ = 2.1 P ₁₀ = 4.1 Q ₁ = 7.0 Median = 14.7 Q ₃ = 30.9 P ₉₀ = 58.1 P ₉₉ = 102.3										Hours of Calibration: 37	
																					Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
1-Oct	49	49	19	A	16	22	42	66	82	55	23	34	19	22	24	26	33	42	40	42	20	21	15	18	33.9	82.1						
2-Oct	11	12	A	3	3	3	7	19	7	4	5	7	6	4	9	10	5	5	5	5	8	21	4	3	7.2	21.1						
3-Oct	3	A	4	6	4	6	7	7	6	15	3	4	5	7	5	4	6	5	10	13	12	6	15	11	7.1	14.7						
4-Oct	A	11	20	6	11	10	10	22	17	19	20	24	16	14	13	14	10	10	11	23	32	34	17	A	16.6	34.4						
5-Oct	12	13	14	13	27	58	74	105	71	72	35	30	15	10	13	18	20	33	17	23	24	16	A	8	31.3	105.2						
6-Oct	6	9	6	7	12	23	78	78	72	76	37	12	12	13	14	17	18	17	18	26	42	A	31	39	28.9	78.5						
7-Oct	35	32	23	29	30	49	100	102	50	31	34	38	13	7	10	8	13	35	33	55	A	21	22	26	34.4	101.7						
8-Oct	15	13	15	27	18	31	54	95	99	76	59	57	21	16	14	18	27	31	66	A	88	29	27	23	40.0	98.6						
9-Oct	14	16	20	20	53	52	51	96	45	26	25	18	23	20	34	21	32	35	A	31	33	33	3	2	30.6	95.8						
10-Oct	5	3	4	3	50	6	13	14	8	9	11	6	5	4	4	7	8	A	24	30	20	37	9	3	12.3	50.1						
11-Oct	3	2	2	1	4	4	4	4	3	3	4	5	3	4	2	2	A	4	4	5	10	7	5	15	4.3	15.2						
12-Oct	13	12	14	13	16	21	22	26	11	14	7	4	3	3	2	A	4	4	4	8	6	4	4	4	9.5	26.5						
13-Oct	4	3	4	3	4	6	15	10	12	8	5	6	4	5	A	7	6	8	7	4	6	4	3	4	6.0	14.6						
14-Oct	3	2	2	4	6	11	38	18	18	10	4	5	4	A	6	5	4	9	17	16	50	29	23	14	12.9	50.5						
15-Oct	15	20	18	19	21	38	74	66	62	51	62	30	A	10	7	6	16	23	26	25	27	24	15	19	29.3	73.9						
16-Oct	17	15	20	21	39	54	53	72	C	C	C	C	C	14	12	10	13	14	15	12	9	13	8	22	22.8	72.5						
17-Oct	20	22	19	21	31	38	36	43	82	81	A	42	38	15	30	27	23	32	4	4	4	6	4	4	27.2	82.1						
18-Oct	6	4	5	4	6	27	34	42	39	A	10	6	4	3	4	3	8	21	14	38	46	48	54	47	20.6	54.3						
19-Oct	40	26	21	21	30	33	67	62	A	93	64	74	14	10	8	16	13	11	7	4	7	12	8	6	28.1	92.6						
20-Oct	7	4	6	4	7	41	77	A	107	30	15	12	19	9	12	14	14	12	20	17	29	26	24	26	23.2	106.9						
21-Oct	46	44	18	21	16	33	A	53	17	62	46	59	72	64	8	9	9	14	17	12	15	9	6	7	28.6	72.4						
22-Oct	4	5	6	3	5	A	25	21	14	12	5	6	7	6	5	5	7	6	18	34	16	9	6	7	10.1	34.5						
23-Oct	9	4	5	5	A	19	23	26	55	41	11	8	8	6	5	8	7	14	16	28	21	19	15	23	16.3	55.2						
24-Oct	10	9	6	A	7	14	15	13	13	18	14	9	8	4	3	3	5	85	107	94	102	72	63	65	32.2	107.0						
25-Oct	41	37	A	38	53	61	72	75	83	73	11	14	7	6	10	9	13	12	11	9	9	9	9	8	29.2	83.4						
26-Oct	10	A	22	32	24	34	76	73	58	12	10	12	13	5	6	6	6	4	13	17	6	3	2	2	19.4	75.7						
27-Oct	A	3	13	13	12	17	24	56	61	35	16	16	11	10	5	4	4	40	51	50	50	36	22	A	25.0	60.7						
28-Oct	25	24	35	26	22	56	69	105	136	63	53	34	25	23	23	29	39	30	38	36	40	52	A	44	44.6	136.0						
29-Oct	17	15	16	26	31	76	73	88	94	101	97	72	29	23	14	7	6	8	12	17	16	A	11	9	37.2	100.6						
30-Oct	10	13	28	36	38	37	35	137	187	179	55	31	18	8	8	12	36	20	8	8	A	5	5	5	39.9	186.8						
31-Oct	4	9	13	11	17	43	63	115	137	38	18	39	17	26	14	13	17	16	19	A	11	11	7	11	29.2	137.0						
15.7 14.9 13.6 15.1 20.4 30.8 44.3 57.0 56.7 45.0 26.1 23.8 15.1 12.4 11.0 11.2 14.1 20.0 21.8 23.6 26.3 21.3 15.1 16.4																									Diurnal Average							
49.2 48.9 34.6 38.5 53.2 75.7 99.6 137.1 186.8 178.9 97.0 73.8 72.4 64.2 34.3 29.4 39.2 84.8 107.0 93.8 102.3 71.6 62.8 65.1																									Diurnal Maximum							
C - Calibration																									A - Automated Daily Zero Span							

Hourly Maximums

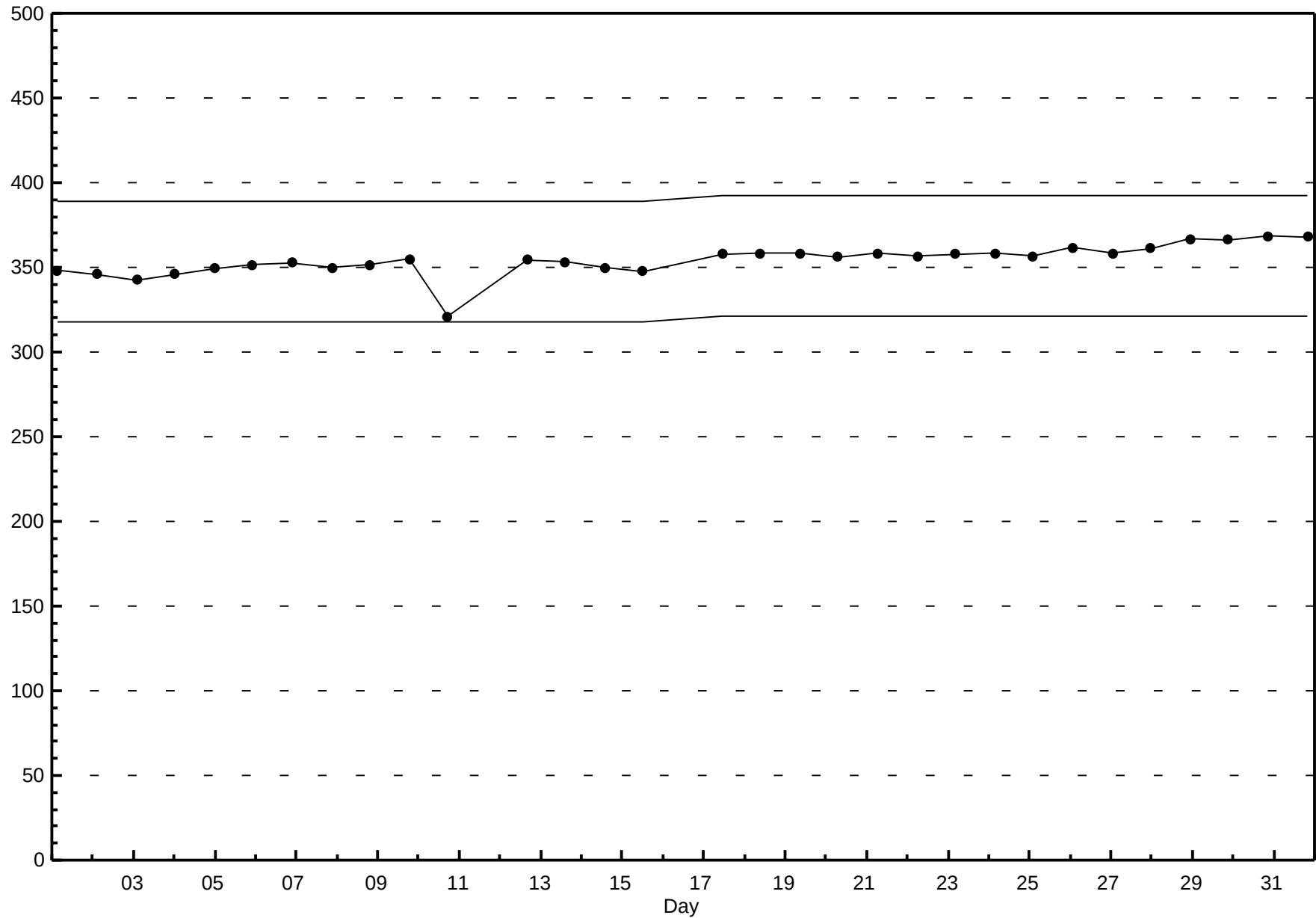
Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - October 2015



Span Responses

Oxides of Nitrogen (NO_x)
Henry Pirker - October 2015



Hourly Averages

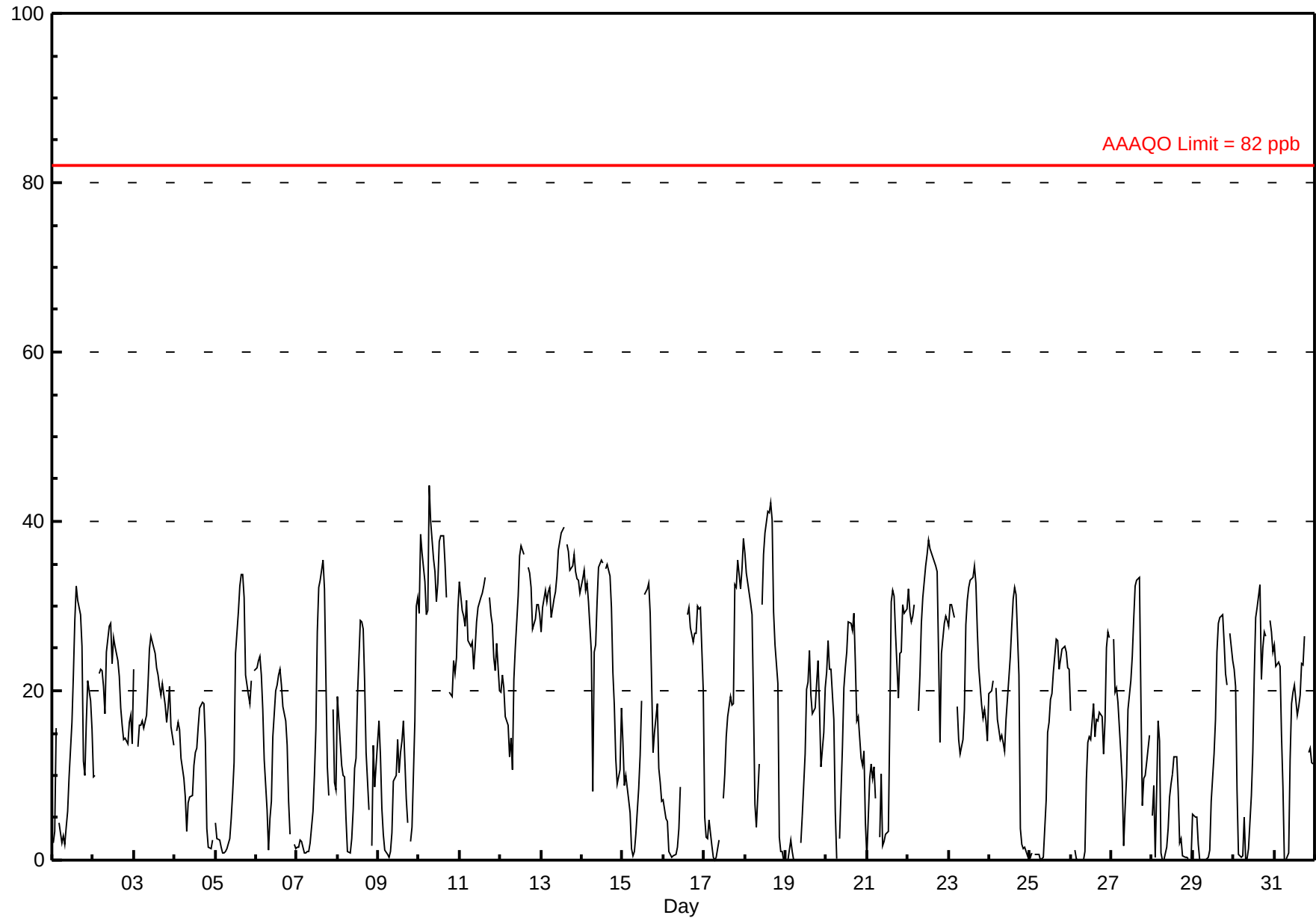
Ozone (O₃) - ppb

Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 44.3 ppb on Oct 10 07:00 Maximum Daily Average: 33.5 ppb on Oct 13																				Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Oct 19 00:00 Maximum Diurnal Average: 27.8 ppb at hour 16 Monthly Average: 17.64 ppb										Minimum Daily Average: 5.1 ppb on Oct 28 Minimum Diurnal Average: 7.9 ppb at hour 8 Percentiles: P ₁ = 0.0 P ₁₀ = 1.1 Q ₁ = 7.4 Median = 18.0 Q ₃ = 27.6 P ₉₀ = 32.7 P ₉₉ = 38.9																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	2	3	16	A	4	2	3	2	4	6	10	16	22	28	32	31	29	25	12	10	16	21	19	15	14.3	32.4
2-Oct	10	10	A	22	23	22	21	17	25	28	28	23	26	25	23	22	18	16	14	14	14	16	17	14	19.5	27.9
3-Oct	22	A	13	16	16	16	16	17	21	25	26	26	24	23	22	21	19	21	18	16	18	20	16	14	19.4	26.5
4-Oct	A	15	16	15	12	10	7	3	7	7	8	11	13	13	16	18	19	19	14	4	2	1	2	A	10.6	18.6
5-Oct	4	3	2	1	1	1	1	1	2	5	8	12	24	29	32	34	34	31	22	19	19	21	A	22	14.3	33.7
6-Oct	23	24	24	22	18	12	6	1	5	7	15	20	21	22	22	21	18	17	14	7	3	A	2	1	14.0	24.0
7-Oct	1	2	2	2	1	1	1	1	2	6	10	15	27	32	33	35	32	21	11	8	A	18	9	8	12.2	35.4
8-Oct	19	17	11	10	10	5	1	1	3	6	11	12	19	28	28	27	21	13	6	A	2	14	9	14	12.4	28.3
9-Oct	16	12	6	3	1	1	0	1	3	9	10	14	10	13	14	16	7	4	A	2	4	16	30	31	9.9	31.1
10-Oct	29	38	36	33	29	30	44	40	36	34	31	33	38	38	38	35	31	A	20	19	24	22	24	30	31.8	44.3
11-Oct	33	30	29	28	31	26	25	26	23	25	28	30	31	31	32	33	A	31	29	28	24	22	26	20	27.8	33.3
12-Oct	20	22	20	17	16	12	14	11	21	25	31	36	37	37	36	A	35	34	32	27	28	30	30	29	26.1	37.1
13-Oct	27	30	32	31	32	32	29	31	32	34	37	38	39	39	A	37	36	34	35	36	34	33	33	31	33.5	39.3
14-Oct	33	34	32	33	30	25	8	25	25	30	35	35	35	A	34	35	34	30	22	18	12	9	11	18	26.2	35.4
15-Oct	14	9	10	7	6	1	0	1	3	9	12	19	A	31	32	33	29	21	13	15	18	11	9	7	13.5	32.7
16-Oct	7	5	5	1	1	0	0	1	2	4	9	A	C	C	29	30	28	26	27	27	30	30	30	20	14.7	29.9
17-Oct	5	3	3	5	2	0	0	0	1	2	A	7	10	15	17	19	18	19	33	32	36	32	34	38	14.4	38.0
18-Oct	36	34	32	30	29	18	7	4	11	A	30	36	39	41	41	42	40	29	25	21	3	1	1	0	24.0	42.2
19-Oct	0	0	1	2	1	0	0	0	A	2	5	12	20	21	25	19	17	18	21	24	18	11	15	20	11.0	24.7
20-Oct	22	26	23	23	17	6	0	A	3	13	20	23	25	28	28	27	29	23	16	17	12	11	13	4	17.8	29.1
21-Oct	0	10	11	10	11	7	A	3	10	2	2	3	3	16	30	32	31	27	19	24	25	30	29	30	15.9	31.9
22-Oct	32	29	28	29	30	A	18	22	28	31	35	36	38	37	36	36	35	34	24	14	24	28	29	28	29.6	37.8
23-Oct	28	30	30	29	A	18	14	13	14	18	28	31	32	33	33	35	33	27	23	18	17	18	16	14	24.0	34.7
24-Oct	20	20	21	A	20	17	14	15	14	13	17	21	24	28	31	32	31	22	4	2	1	2	1	1	16.1	32.3
25-Oct	0	1	A	1	1	1	0	0	0	7	15	16	19	20	22	26	26	23	24	25	25	25	23	23	14.0	26.0
26-Oct	18	A	1	0	0	0	0	0	1	10	14	14	14	18	15	17	16	17	17	13	16	25	27	26	12.2	26.9
27-Oct	A	26	20	20	19	13	9	2	6	10	18	21	24	29	32	33	33	19	6	10	10	12	15	A	17.6	33.3
28-Oct	5	9	0	16	14	1	0	0	2	4	7	9	10	12	12	8	2	3	1	0	0	0	A	0	5.1	16.4
29-Oct	5	5	5	2	0	0	0	0	0	0	1	7	13	17	25	28	29	29	26	22	21	A	27	24	12.4	29.0
30-Oct	23	20	8	1	0	1	5	0	0	1	8	13	22	29	30	32	21	25	27	26	A	28	27	25	16.2	32.5
31-Oct	25	23	23	23	15	9	0	0	1	12	18	20	21	17	18	20	23	23	26	A	13	13	12	11	15.9	26.5
16.6 16.9 15.9 14.9 12.9 9.5 8.2 7.9 10.2 12.8 17.5 20.3 23.4 25.9 27.4 27.8 25.8 22.7 19.3 17.2 16.1 18.0 18.4 17.9																								Diurnal Average		
36.3 38.5 36.3 32.9 31.7 32.3 44.3 40.1 35.6 34.0 36.6 37.6 38.7 41.2 41.1 42.2 40.3 34.2 34.8 36.2 35.5 33.2 34.4 38.0																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Henry Pirker - October 2015



Hourly Maximums

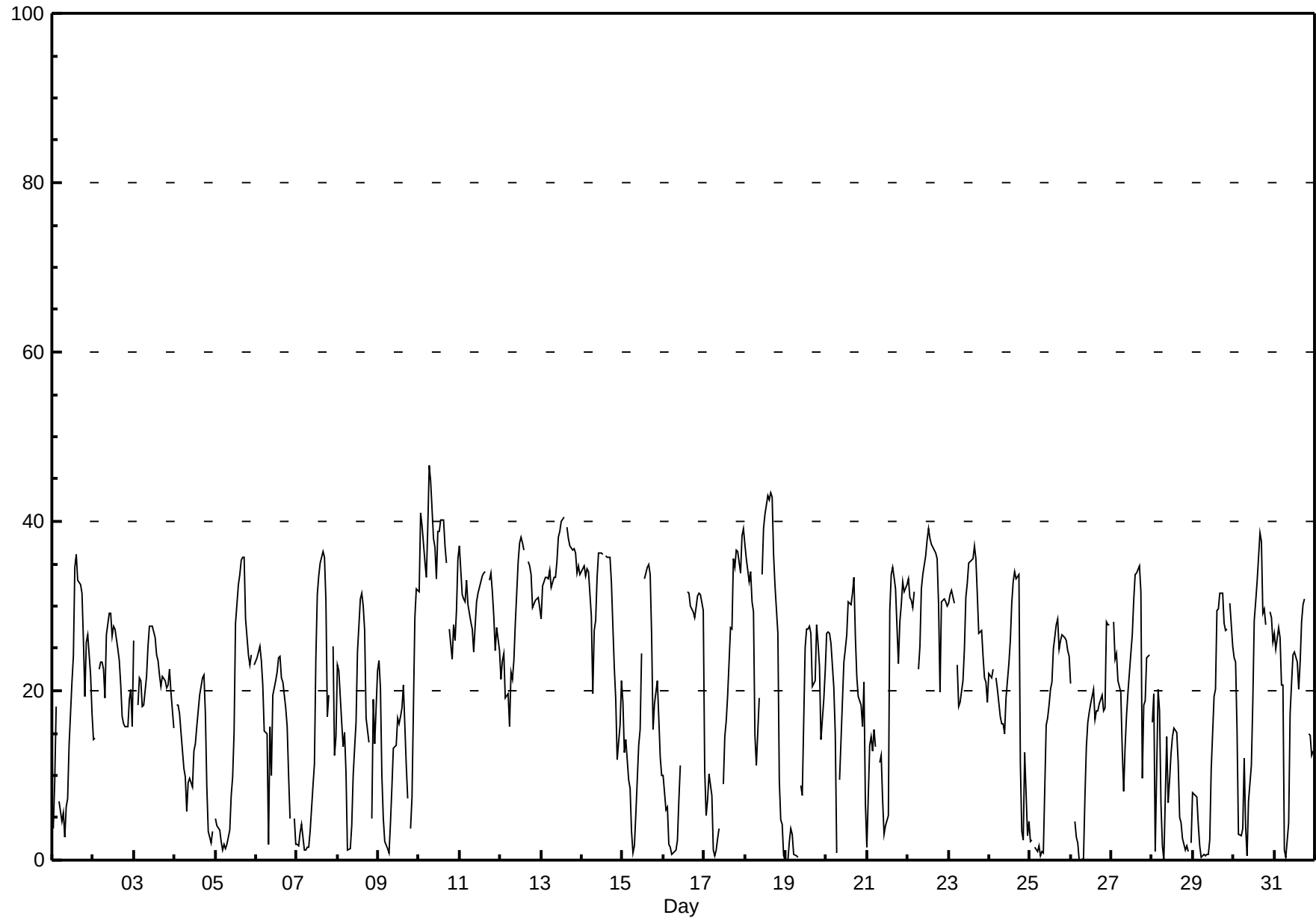
Ozone (O₃) - ppb

Henry Pirker - October 2015

Maximum Value: 46.6 ppb on Oct 10 07:00																				Maximum Daily Average: 35.6 ppb on Oct 10					Hours in Service: 744	
Minimum Value: 0 ppb on Oct 19 01:00																				Minimum Daily Average: 8.8 ppb on Oct 28					Hours of Data: 709	
Maximum Diurnal Average: 30.3 ppb at hour 16																				Minimum Diurnal Average: 10.5 ppb at hour 8					Hours of Missing Data: 35	
Monthly Average: 20.84 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 2.6 Q ₁ = 12.3 Median = 21.8 Q ₃ = 30.5 P ₉₀ = 35.2 P ₉₉ = 40.1					Hours of Calibration: 35	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	4	9	18	A	7	5	6	3	6	7	14	21	24	35	36	33	33	31	26	19	26	27	22	17	18.6	36.0
2-Oct	14	14	A	22	23	23	22	19	27	29	29	26	28	27	25	24	21	17	16	16	16	19	20	16	21.5	29.2
3-Oct	26	A	18	22	21	18	18	22	25	28	28	28	26	24	24	22	20	22	21	20	21	23	20	16	22.2	27.7
4-Oct	A	18	18	17	15	11	10	6	9	10	9	13	14	16	18	20	21	22	17	9	3	2	3	A	12.8	21.9
5-Oct	5	4	4	2	1	2	1	2	4	8	10	15	28	33	34	35	36	36	28	24	23	24	A	23	16.6	35.8
6-Oct	24	25	25	24	21	15	15	2	16	10	19	21	22	24	24	22	21	18	16	10	5	A	5	2	16.7	25.3
7-Oct	2	2	3	4	1	1	1	2	3	9	11	24	31	34	35	36	36	31	17	20	A	25	12	15	15.5	36.4
8-Oct	23	22	16	13	15	10	1	1	4	10	13	16	24	31	32	30	27	17	14	A	5	19	14	22	16.6	31.6
9-Oct	24	20	10	5	2	1	1	4	9	13	13	17	16	17	18	21	11	7	A	4	7	29	32	32	13.6	32.0
10-Oct	32	41	40	35	33	39	47	45	38	37	33	39	39	40	40	37	35	A	27	24	28	26	29	36	35.6	46.6
11-Oct	37	31	31	31	33	30	28	27	25	28	31	32	33	34	34	34	A	33	34	32	29	25	27	25	30.5	37.2
12-Oct	21	24	24	19	20	16	22	21	24	28	35	37	38	37	37	A	35	35	34	30	31	31	31	30	28.7	38.1
13-Oct	28	32	33	33	33	34	32	33	33	35	38	39	40	41	A	39	38	37	37	37	36	34	35	34	35.4	40.5
14-Oct	34	35	34	34	34	29	20	27	28	33	36	36	36	A	36	36	36	33	28	23	19	12	16	21	29.4	36.3
15-Oct	19	13	14	10	8	3	1	2	5	14	15	24	A	33	35	35	34	27	15	19	21	17	12	10	16.8	34.9
16-Oct	10	6	6	2	2	1	1	1	2	7	11	A	C	C	32	32	30	29	29	30	31	31	31	29	16.8	31.7
17-Oct	11	5	7	10	8	1	0	1	2	4	A	9	15	16	19	27	27	36	35	37	37	34	38	39	18.2	39.2
18-Oct	37	36	33	34	30	29	15	11	19	A	34	39	41	43	43	43	43	36	32	27	9	5	4	1	28.0	43.5
19-Oct	0	0	2	4	3	1	1	0	A	9	8	25	27	27	28	27	21	21	28	26	23	14	19	22	14.6	27.8
20-Oct	27	27	27	26	20	15	1	A	9	19	23	25	27	30	30	32	33	26	22	19	18	16	21	7	21.7	33.4
21-Oct	1	14	15	13	15	13	A	12	12	7	3	4	5	29	34	35	33	32	23	28	30	33	32	33	19.8	34.6
22-Oct	33	31	31	30	32	A	23	25	32	34	36	38	39	38	37	37	36	36	30	20	30	31	30	30	32.1	39.1
23-Oct	30	31	32	30	A	23	18	19	21	25	31	33	35	35	36	37	36	31	27	27	24	22	21	19	27.9	37.1
24-Oct	22	22	23	A	22	20	17	16	16	15	19	23	26	30	33	34	33	34	11	3	2	13	3	5	19.2	34.0
25-Oct	2	2	A	2	1	2	0	1	1	16	17	18	20	21	25	28	29	25	26	27	26	26	25	24	15.8	28.6
26-Oct	21	A	5	3	2	0	0	0	7	13	16	17	19	20	17	18	18	18	19	18	18	28	28	28	14.5	28.2
27-Oct	A	28	24	24	21	20	13	8	13	17	20	24	27	31	34	34	35	32	10	18	19	24	24	A	22.7	34.7
28-Oct	16	20	1	20	18	7	2	0	15	7	10	13	15	16	15	12	5	4	2	1	2	1	A	2	8.8	20.1
29-Oct	8	8	7	4	2	0	1	0	1	1	2	11	19	20	29	30	31	32	28	27	27	A	30	25	15.0	31.5
30-Oct	24	23	15	3	3	4	12	4	1	7	11	19	28	30	33	39	38	29	30	28	A	29	29	26	20.2	38.7
31-Oct	27	25	27	26	21	21	1	0	4	17	21	24	25	23	20	23	28	30	31	A	15	15	12	13	19.6	30.9
19.4 19.6 18.7 17.3 15.6 13.2 11.0 10.5 13.8 16.5 19.9 23.7 26.4 28.8 29.7 30.3 29.3 27.2 23.8 21.4 20.1 21.8 21.6 20.7																								Diurnal Average		
37.2 41.0 39.5 35.2 34.1 39.3 46.6 44.8 37.9 36.9 38.2 39.2 40.9 43.0 42.6 43.5 42.8 37.1 36.6 36.8 36.5 34.0 38.3 39.2																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

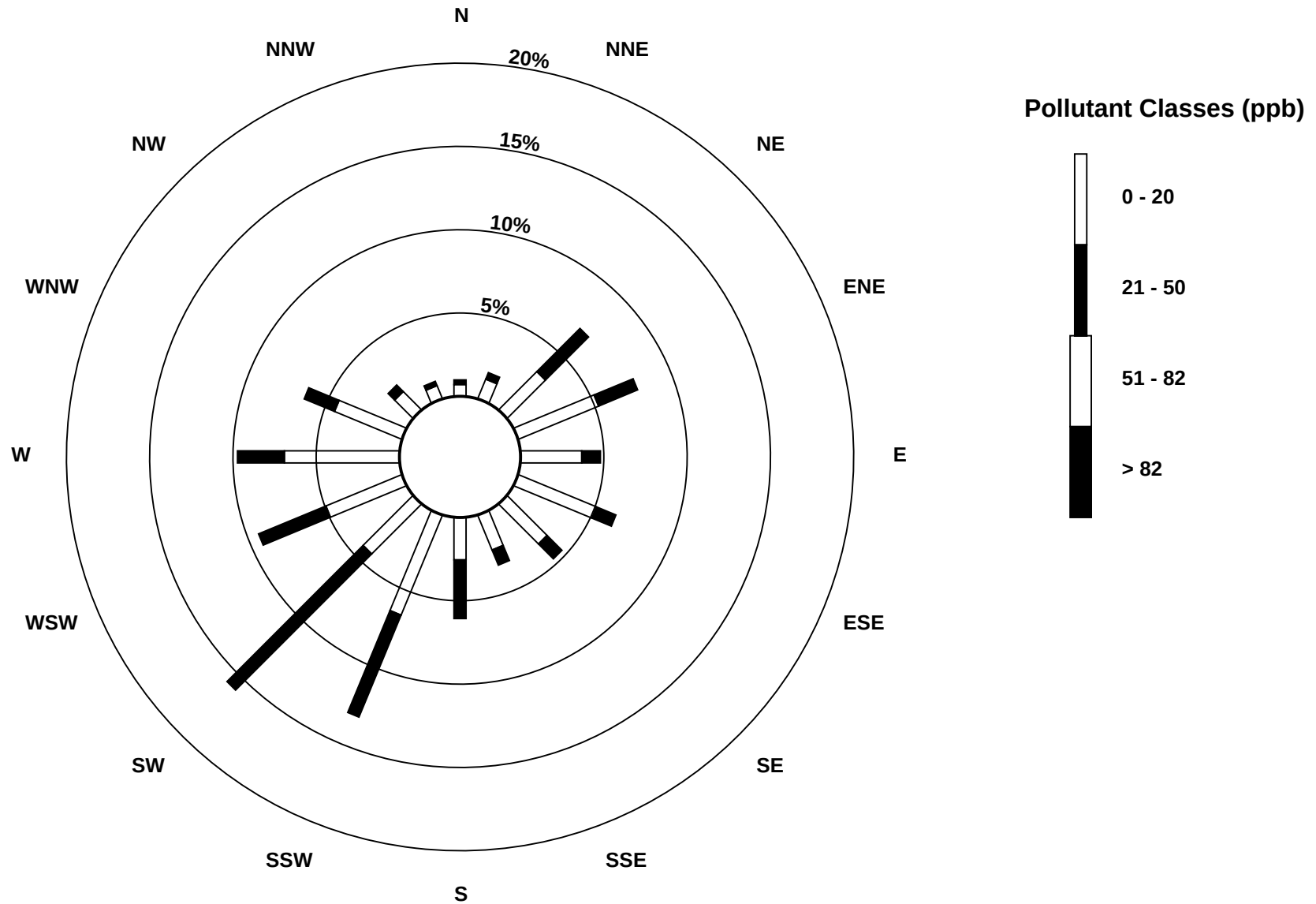
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - October 2015



Pollutant Rose

Ozone (O_3) - ppb
Henry Pirker - October 2015



Eight Hour Running Averages

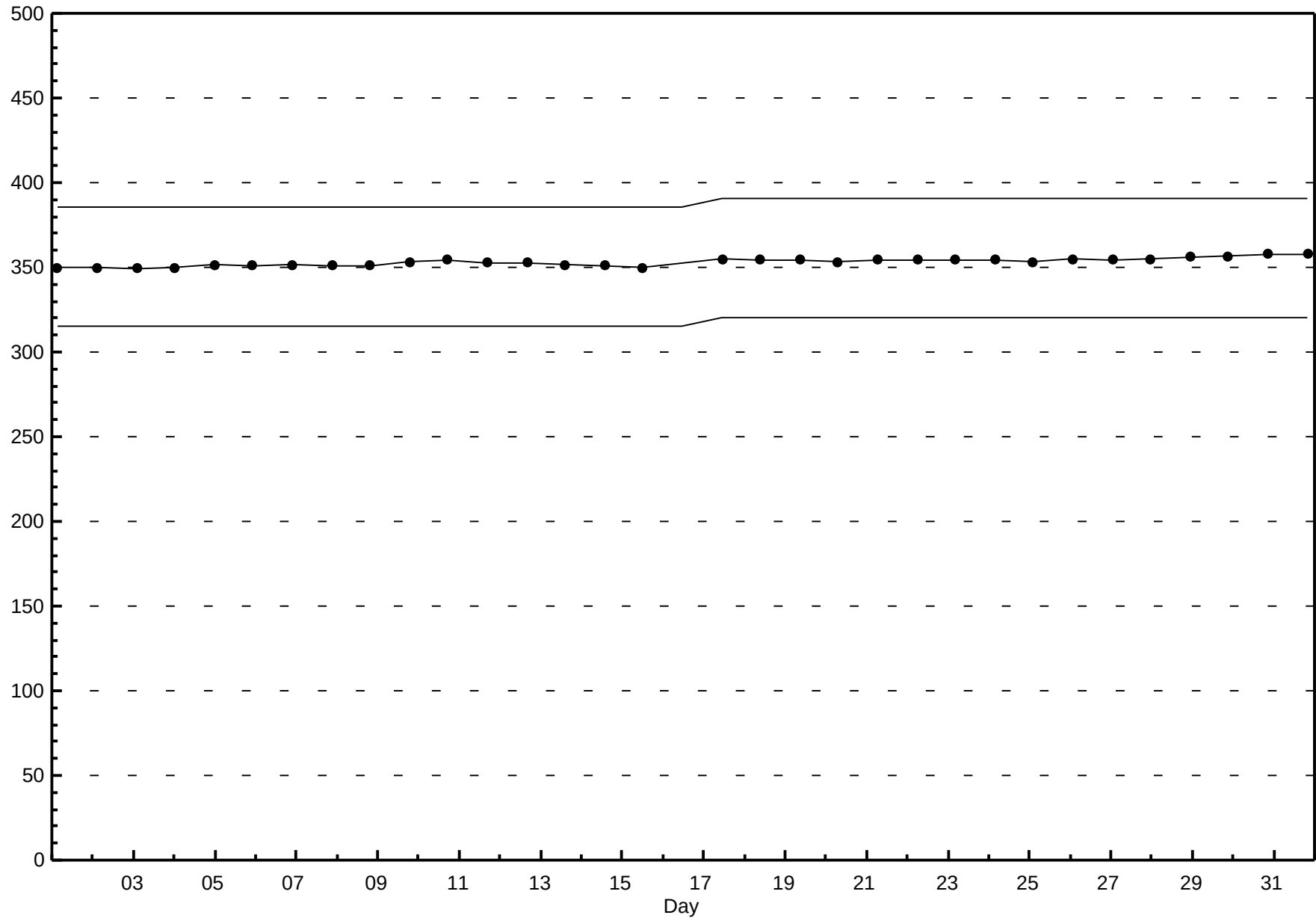
Ozone (O₃) - ppb

Henry Pirker - October 2015

Maximum Value: 38.5 ppb on Oct 18 17:00																								Hours in Service: 744	
Minimum Value: 0.1 ppb on Oct 26 09:00																								Hours of Data: 738	
																								Hours of Missing Data: 6	
Percentiles: P ₁ = 0.6 P ₁₀ = 3.5 Q ₁ = 9.6 Median = 18.2 Q ₃ = 25.3 P ₉₀ = 30.4 P ₉₉ = 36.6																								Hours of Calibration: 6	
																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																							Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	13	10	9	7	5	5	5	5	5	5	4	6	8	11	15	19	22	24	24	24	23	22	20	18	24.4
2-Oct	16	14	14	16	17	17	18	18	20	22	23	23	24	24	24	25	24	23	21	20	18	17	16	15	25.0
3-Oct	16	16	16	16	16	16	16	17	16	18	19	20	21	22	23	23	23	23	22	21	20	19	19	18	23.4
4-Oct	18	17	16	16	16	14	13	11	11	10	9	8	8	9	10	12	13	14	15	14	13	11	10	9	17.6
5-Oct	7	4	3	2	2	2	2	2	2	2	3	4	7	10	14	18	22	26	27	28	27	26	26	24	28.2
6-Oct	22	21	22	22	22	21	19	16	14	12	11	10	11	12	14	17	18	19	19	18	15	14	12	9	22.4
7-Oct	6	4	3	2	2	2	1	1	1	2	3	5	8	12	16	20	24	26	26	25	25	23	19	15	25.9
8-Oct	14	13	13	13	13	11	10	9	7	6	6	6	7	10	13	17	19	20	19	20	18	16	13	11	20.4
9-Oct	10	10	10	9	9	8	7	5	3	3	4	5	6	8	9	11	12	11	11	10	9	9	12	14	13.6
10-Oct	17	22	23	27	30	32	34	35	36	35	34	34	36	37	36	35	35	35	33	31	29	27	25	24	36.6
11-Oct	24	25	26	27	28	29	29	28	27	26	26	27	27	27	28	29	30	31	31	31	30	29	28	26	31.2
12-Oct	25	24	23	21	20	19	18	16	17	17	18	21	24	27	29	32	34	35	35	34	33	32	31	31	35.2
13-Oct	30	29	29	30	30	30	30	30	31	31	32	33	34	35	35	36	37	37	37	37	36	35	35	34	37.2
14-Oct	34	34	33	33	33	31	28	27	26	26	26	27	27	28	31	33	34	34	32	30	26	24	21	19	34.1
15-Oct	17	14	13	11	10	9	8	6	5	5	5	6	7	11	15	20	24	25	25	25	24	21	19	15	25.4
16-Oct	13	11	10	8	6	4	3	2	2	2	2	3	N	N	N	N	N	N	28	28	28	28	27	28.3	
17-Oct	24	21	18	16	12	8	5	2	2	2	2	3	5	8	10	13	15	17	20	23	26	28	30	30.2	
18-Oct	32	34	34	34	33	31	28	24	21	19	19	19	21	24	29	34	39	37	37	35	30	25	20	15	38.5
19-Oct	10	6	3	1	1	1	0	0	1	1	2	3	6	9	12	15	15	17	19	21	20	19	18	18	20.7
20-Oct	19	20	20	20	20	19	17	17	14	12	12	12	13	16	20	21	24	25	25	24	23	21	19	16	25.4
21-Oct	12	10	10	9	9	8	8	7	9	8	6	5	4	6	9	12	15	18	20	23	26	27	27	27	27.3
22-Oct	27	27	28	29	30	30	28	27	26	26	27	28	30	30	33	35	35	36	34	32	30	29	28	27	35.8
23-Oct	26	26	26	28	29	27	25	23	21	19	19	19	21	23	25	28	30	31	31	29	27	25	23	21	31.4
24-Oct	19	18	18	18	18	18	18	18	17	16	16	16	17	18	20	22	25	26	24	22	19	16	12	8	25.8
25-Oct	4	1	1	1	1	1	1	0	1	1	3	5	7	10	12	16	19	21	22	23	24	24	24	24	24.5
26-Oct	23	23	20	16	13	9	6	2	0	1	3	5	6	9	11	13	15	16	16	16	16	17	19	20	23.1
27-Oct	20	22	22	23	23	22	19	16	14	12	12	12	13	15	18	22	25	26	25	23	22	19	17	15	26.2
28-Oct	11	10	9	10	10	9	7	6	5	5	5	4	5	7	8	8	8	7	6	5	3	2	1	11.0	
29-Oct	1	2	2	3	3	2	2	2	1	1	0	1	3	5	8	11	15	18	22	23	24	26	26	25	25.8
30-Oct	24	23	21	18	15	13	10	7	4	2	2	3	6	10	13	17	19	22	25	27	27	27	27	26	27.3
31-Oct	26	26	25	25	24	21	18	15	12	10	10	9	10	11	13	16	19	20	21	21	20	19	19	17	26.2
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Henry Pirker - October 2015



Hourly Averages

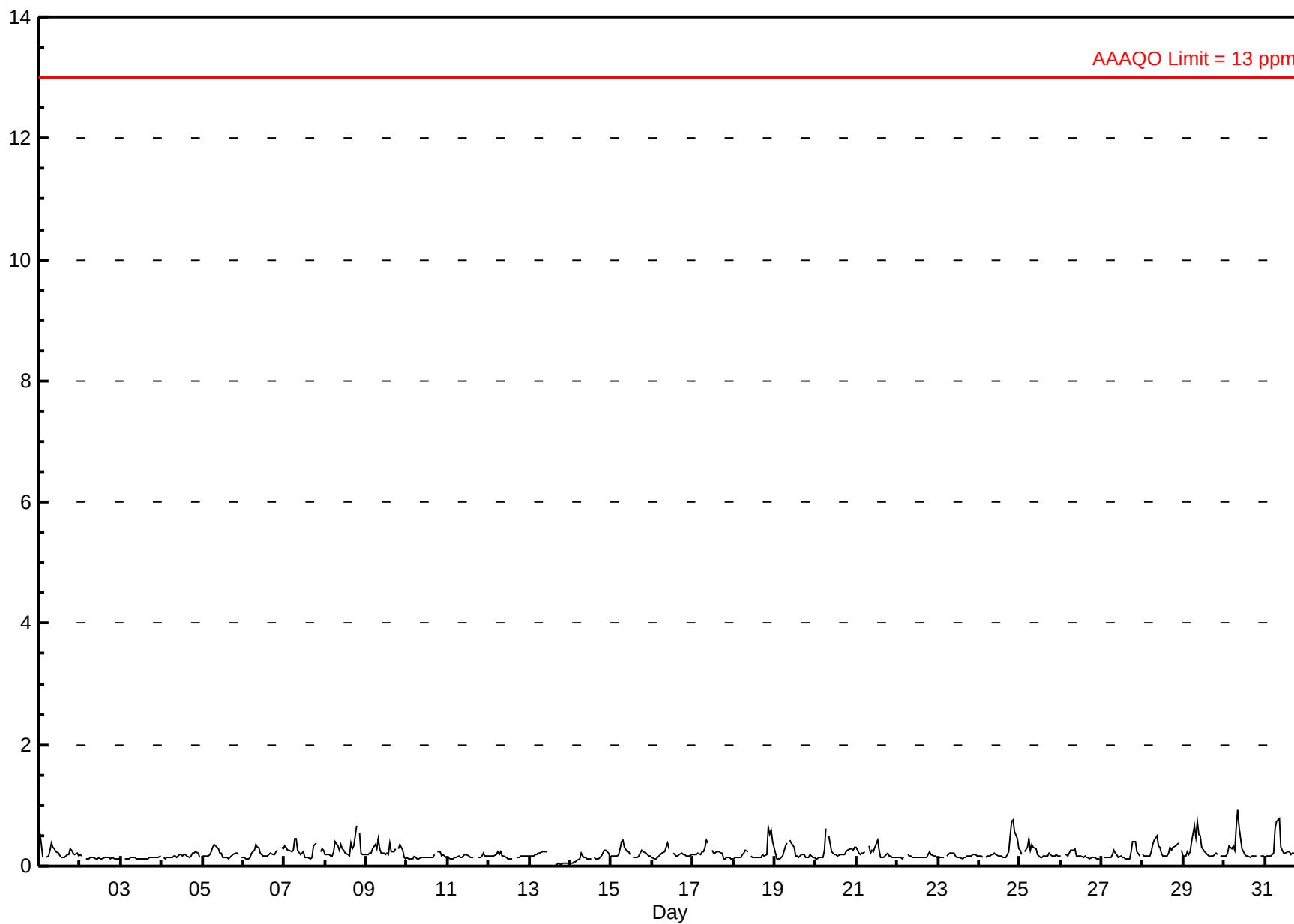
Carbon Monoxide (CO) - ppm

Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.93 ppm on Oct 30 09:00 Maximum Daily Average: 0.29 ppm on Oct 29																				Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 0.0 ppm on Oct 13 16:00 Maximum Diurnal Average: 0.31 ppm at hour 8 Monthly Average: 0.207 ppm										Minimum Daily Average: 0.13 ppm on Oct 3 Minimum Diurnal Average: 0.16 ppm at hour 3 Percentiles: P ₁ = 0.05 P ₁₀ = 0.13 Q ₁ = 0.14 Median = 0.17 Q ₃ = 0.23 P ₉₀ = 0.32 P ₉₉ = 0.64																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	0.5	0.4	0.1	A	0.1	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.23	0.53	
2-Oct	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.18	
3-Oct	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.13	0.16	
4-Oct	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.17	0.23	
5-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.1	0.20	0.37	
6-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.3	0.3	0.21	0.36	
7-Oct	0.3	0.3	0.3	0.3	0.2	0.3	0.5	0.5	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.4	A	0.2	0.3	0.3	0.26	0.46	
8-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.4	0.3	0.3	0.7	A	0.6	0.2	0.2	0.2	0.28	0.67	
9-Oct	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.3	A	0.3	0.4	0.2	0.1	0.1	0.25	0.45	
10-Oct	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.2	0.2	0.1	0.15	0.24	
11-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.15	0.22	
12-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.16	0.24	
13-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.13	0.25	
14-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.14	0.26
15-Oct	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	A	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.22	0.44	
16-Oct	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.38	
17-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.21	0.44	
18-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.6	0.5	0.6	0.4	0.23	0.64	
19-Oct	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.4	A	0.4	0.4	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.20	0.42	
20-Oct	0.1	0.1	0.1	0.1	0.1	0.3	0.6	A	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.24	0.62	
21-Oct	0.3	0.2	0.2	0.2	0.2	0.2	A	0.3	0.2	0.3	0.2	0.3	0.4	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.22	0.42	
22-Oct	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.15	0.24	
23-Oct	0.2	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.22	
24-Oct	0.2	0.2	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.5	0.7	0.8	0.6	0.5	0.3	0.27	0.77	
25-Oct	0.3	0.2	A	0.2	0.3	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.44	
26-Oct	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.17	0.28	
27-Oct	A	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.4	0.2	0.2	A	0.20	0.40	
28-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.4	A	0.3	0.27	0.50	
29-Oct	0.2	0.2	0.2	0.2	0.2	0.4	0.7	0.5	0.7	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.29	0.73	
30-Oct	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.6	0.9	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.28	0.93	
31-Oct	0.1	0.2	0.2	0.2	0.2	0.2	0.6	0.7	0.8	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.27	0.79	
0.18 0.17 0.16 0.16 0.18 0.22 0.28 0.31 0.31 0.26 0.22 0.19 0.18 0.16 0.16 0.16 0.17 0.19 0.22 0.23 0.25 0.22 0.19 0.18																								Diurnal Average			
0.53 0.35 0.27 0.32 0.32 0.44 0.68 0.73 0.93 0.64 0.50 0.32 0.42 0.25 0.38 0.37 0.31 0.34 0.67 0.74 0.77 0.56 0.59 0.41																								Diurnal Maximum			
C - Calibration A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na																											

Hourly Averages

Carbon Monoxide (CO) - ppm
Henry Pirker - October 2015



Hourly Maximums

Carbon Monoxide (CO) - ppm

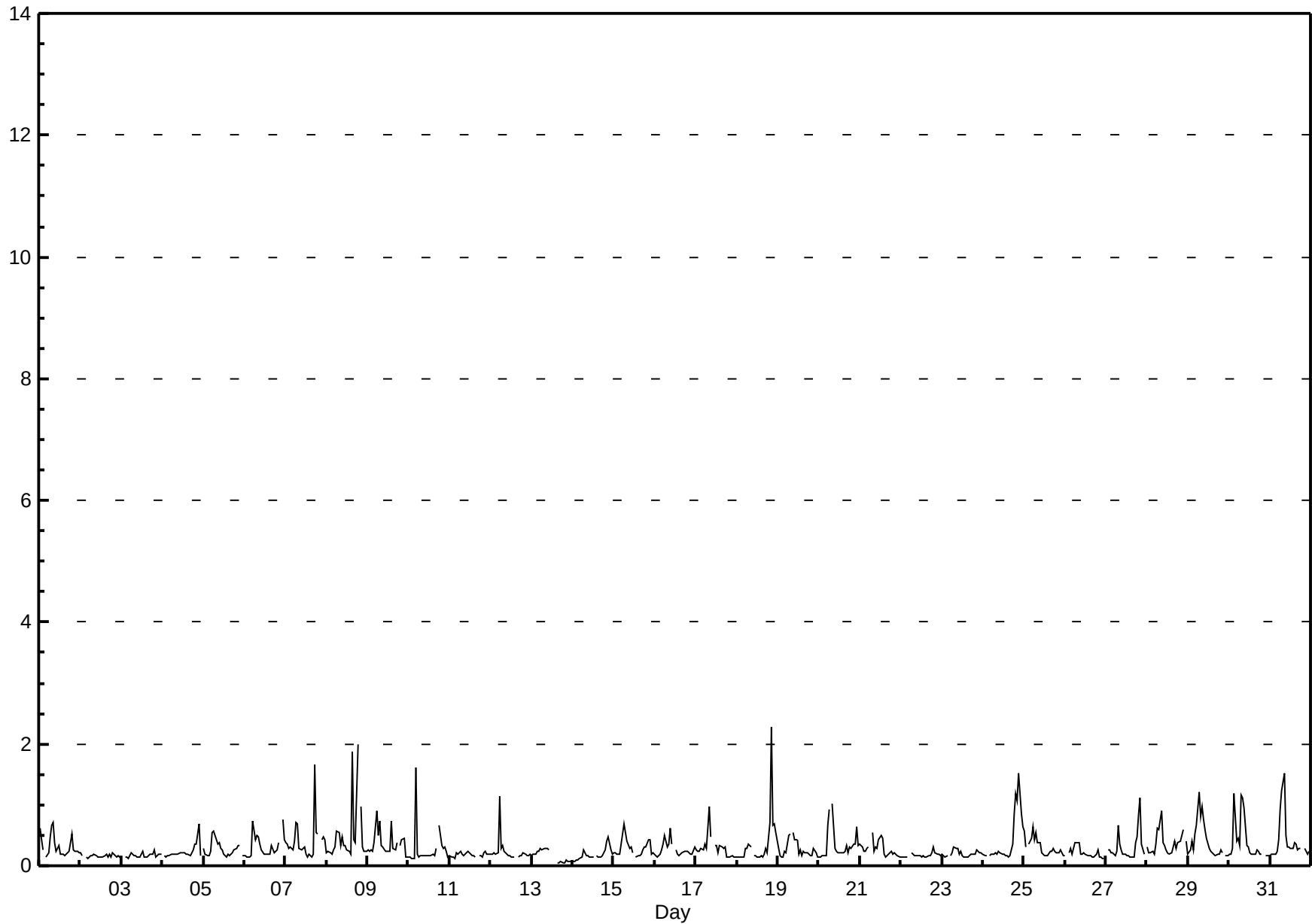
Henry Pirker - October 2015

Maximum Value: 2.27 ppm on Oct 18 21:00																					Maximum Daily Average: 0.49 ppm on Oct 8				Hours in Service: 744	
Minimum Value: 0.0 ppm on Oct 13 17:00																					Minimum Daily Average: 0.16 ppm on Oct 13				Hours of Data: 708	
Maximum Diurnal Average: 0.48 ppm at hour 8																					Minimum Diurnal Average: 0.19 ppm at hour 14				Hours of Missing Data: 36	
Monthly Average: 0.294 ppm																					Percentiles: P ₁ = 0.07 P ₁₀ = 0.15 Q ₁ = 0.17 Median = 0.21 Q ₃ = 0.32 P ₉₀ = 0.52 P ₉₉ = 1.52				Hours of Calibration: 36	
																					Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0.6	0.4	0.3	A	0.1	0.2	0.5	0.7	0.7	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.3	0.2	0.2	0.2	0.33	0.72
2-Oct	0.2	0.2	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.16	0.22
3-Oct	0.1	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.17	0.26
4-Oct	A	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.7	0.2	A	0.23	0.70
5-Oct	0.3	0.2	0.2	0.2	0.2	0.5	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	A	0.2	0.28	0.57
6-Oct	0.2	0.2	0.1	0.1	0.2	0.7	0.4	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.4	A	0.8	0.4	0.31	0.76
7-Oct	0.4	0.4	0.3	0.3	0.3	0.4	0.7	0.7	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	1.7	0.6	0.5	A	0.4	0.5	0.4	0.41	1.65
8-Oct	0.2	0.2	0.2	0.2	0.3	0.3	0.6	0.6	0.3	0.5	0.3	0.3	0.3	0.2	0.2	1.9	0.4	0.4	2.0	A	1.0	0.3	0.2	0.2	0.49	2.00
9-Oct	0.3	0.2	0.3	0.2	0.4	0.9	0.5	0.7	0.3	0.3	0.2	0.2	0.2	0.2	0.7	0.3	0.3	0.4	A	0.3	0.4	0.4	0.2	0.1	0.36	0.91
10-Oct	0.1	0.1	0.1	0.1	1.6	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.7	0.3	0.3	0.3	0.2	0.1	0.27	1.61
11-Oct	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.24
12-Oct	0.2	0.2	0.2	0.2	0.2	1.1	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	1.13
13-Oct	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.2	C	C	C	C	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.16	0.29
14-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.1	0.1	A	0.2	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.3	0.2	0.18	0.48
15-Oct	0.2	0.2	0.2	0.2	0.4	0.5	0.7	0.5	0.4	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.2	0.2	0.30	0.70
16-Oct	0.2	0.1	0.2	0.2	0.3	0.3	0.5	0.3	0.4	0.6	0.4	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.27	0.62
17-Oct	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.6	1.0	0.5	A	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.31	0.98
18-Oct	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	A	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.7	2.3	0.7	0.7	0.6	0.37	2.27
19-Oct	0.3	0.2	0.2	0.1	0.2	0.2	0.5	0.5	A	0.5	0.4	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.26	0.54
20-Oct	0.1	0.1	0.2	0.2	0.2	0.7	0.9	A	1.0	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.4	0.6	0.3	0.34	1.02
21-Oct	0.4	0.3	0.2	0.2	0.3	0.3	A	0.5	0.2	0.3	0.3	0.4	0.5	0.5	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.27	0.53
22-Oct	0.2	0.2	0.2	0.1	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.18	0.32
23-Oct	0.2	0.2	0.1	0.2	A	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.31
24-Oct	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.9	1.2	1.1	1.5	0.8	0.7	0.41	1.53
25-Oct	0.6	0.3	A	0.3	0.4	0.6	0.4	0.6	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.31	0.65
26-Oct	0.2	A	0.2	0.3	0.2	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.21	0.39
27-Oct	A	0.3	0.3	0.2	0.2	0.2	0.2	0.7	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.4	0.5	0.8	1.1	0.4	0.2	A	0.32	1.12
28-Oct	0.3	0.2	0.2	0.2	0.2	0.4	0.6	0.6	0.9	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.4	0.5	0.6	A	0.4	0.37	0.89
29-Oct	0.2	0.3	0.4	0.3	0.5	0.7	1.2	0.8	1.0	0.8	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.2	0.2	0.41	1.21
30-Oct	0.2	0.2	0.3	1.2	0.4	0.5	0.3	1.2	1.1	1.0	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.40	1.19
31-Oct	0.2	0.2	0.2	0.2	0.2	0.4	0.9	1.2	1.5	0.5	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	A	0.3	0.2	0.2	0.2	0.41	1.53
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																										
A - Automated Daily Zero Span																										

Hourly Maximums

Carbon Monoxide (CO) - ppm

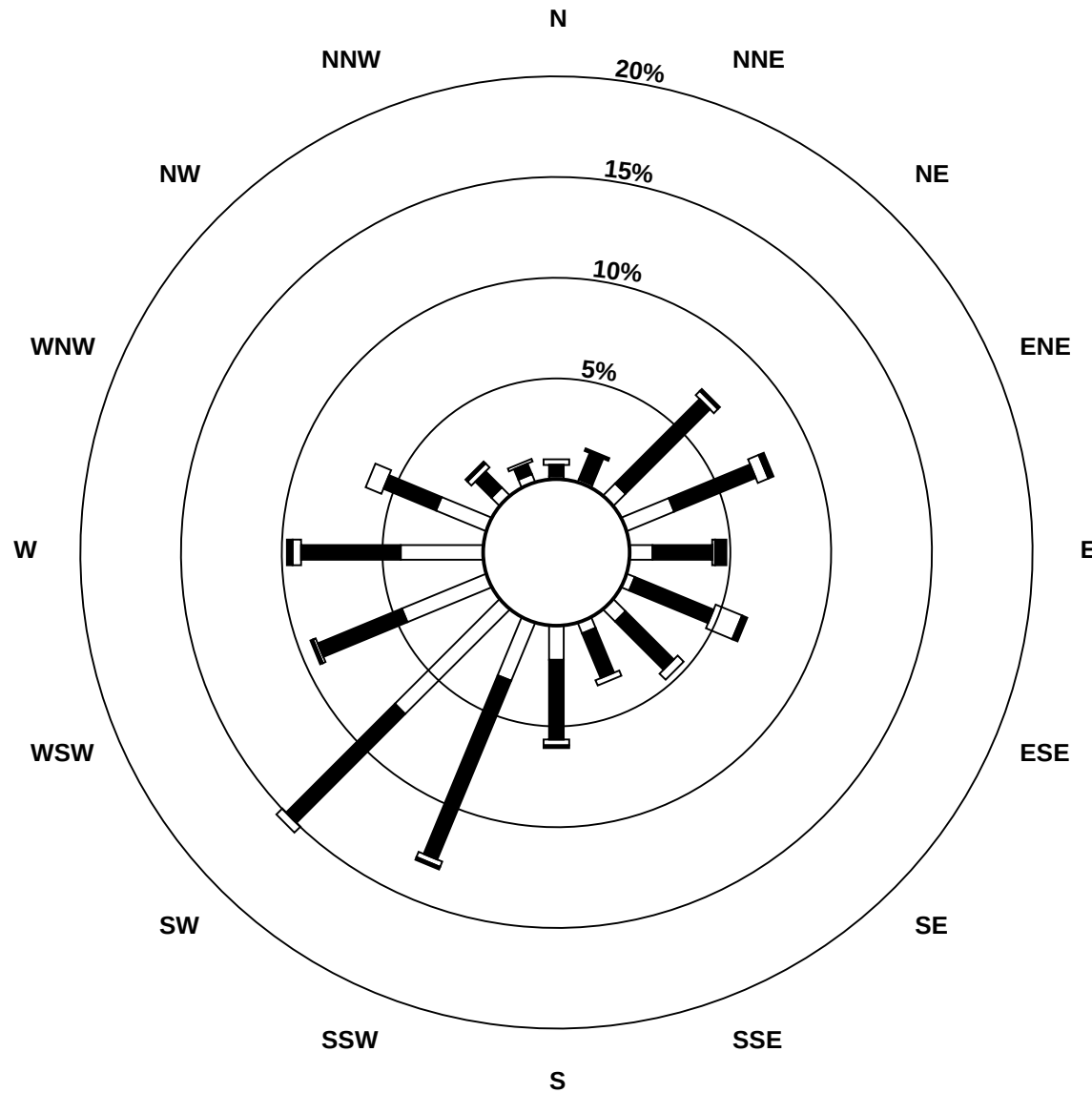
Henry Pirker - October 2015



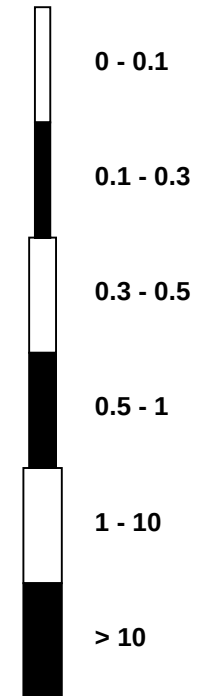
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2015



Pollutant Classes (ppm)



Eight Hour Running Averages

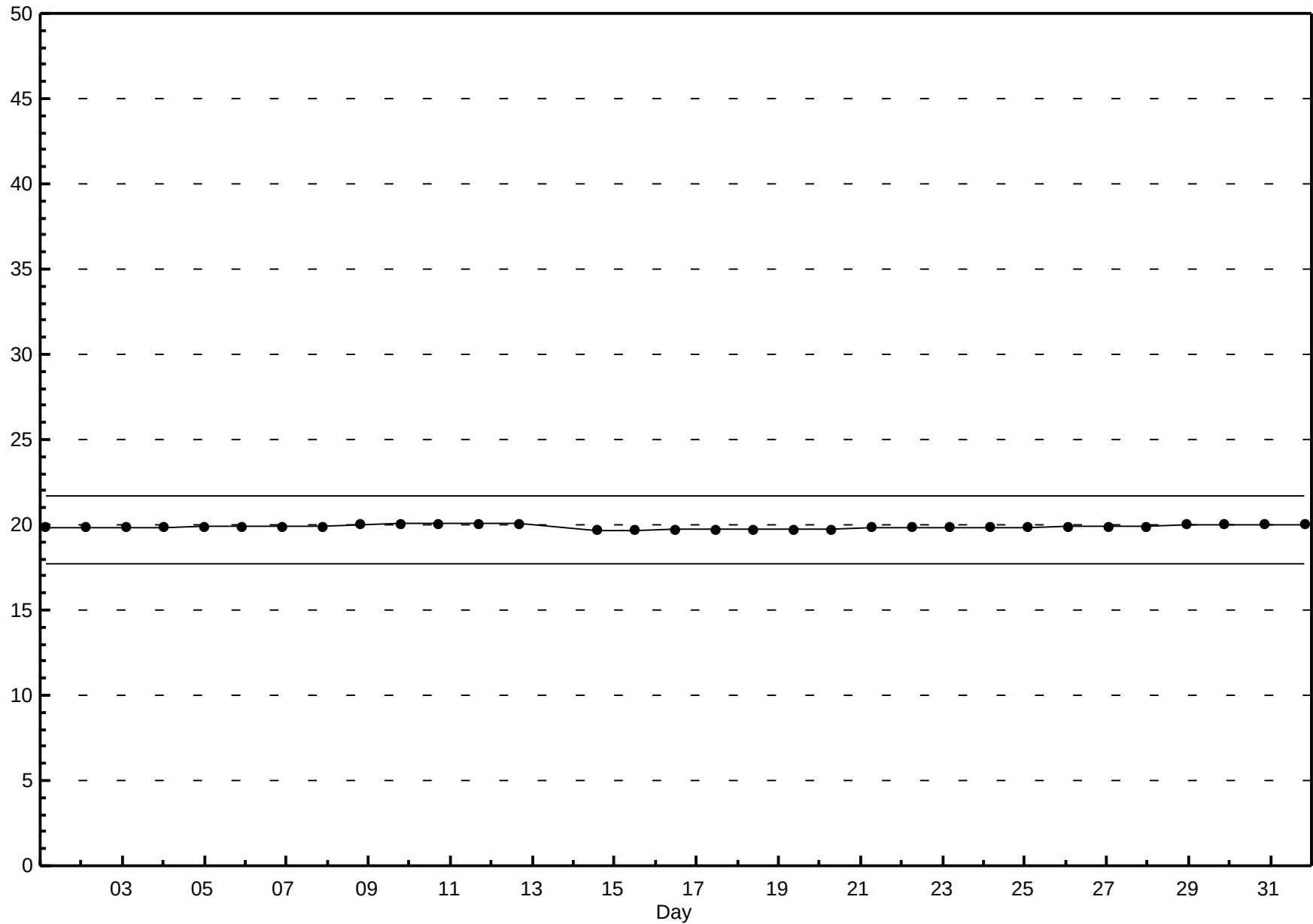
Carbon Monoxide (CO) - ppm

Henry Pirker - October 2015

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.48 ppm on Oct 29 12:00																									Hours in Service: 744 Hours of Data: 737 Hours of Missing Data: 7 Hours of Calibration: 7 Percent Operational Time: 100.0
Minimum Value: 0.04 ppm on Oct 13 21:00 Percentiles: P ₁ = 0.06 P ₁₀ = 0.14 Q ₁ = 0.16 Median = 0.19 Q ₃ = 0.25 P ₉₀ = 0.30 P ₉₉ = 0.46																									
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.38
2-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.21
3-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
4-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
5-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
6-Oct	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
7-Oct	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.32
8-Oct	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.37
9-Oct	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.34
10-Oct	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.22
11-Oct	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.18
12-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.19
13-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	0.0	0.0	0.0	0.0	0.23
14-Oct	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.19
15-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
16-Oct	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	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
17-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
18-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.36
19-Oct	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.36
20-Oct	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.32
21-Oct	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
22-Oct	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.17
23-Oct	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.19
24-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.46
25-Oct	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.48
26-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.23
27-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.28
28-Oct	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.31
29-Oct	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.48
30-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.46
31-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.42
0.48 0.47 0.47 0.39 0.37 0.34 0.31 0.32 0.39 0.45 0.47 0.48 0.48 0.46 0.41 0.36 0.28 0.26 0.31 0.32 0.37 0.41 0.45 0.46 Diurnal Maximums																									
N - Not Valid Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																									

Span Responses

Carbon Monoxide (CO)
Henry Pirker - October 2015



Hourly Averages

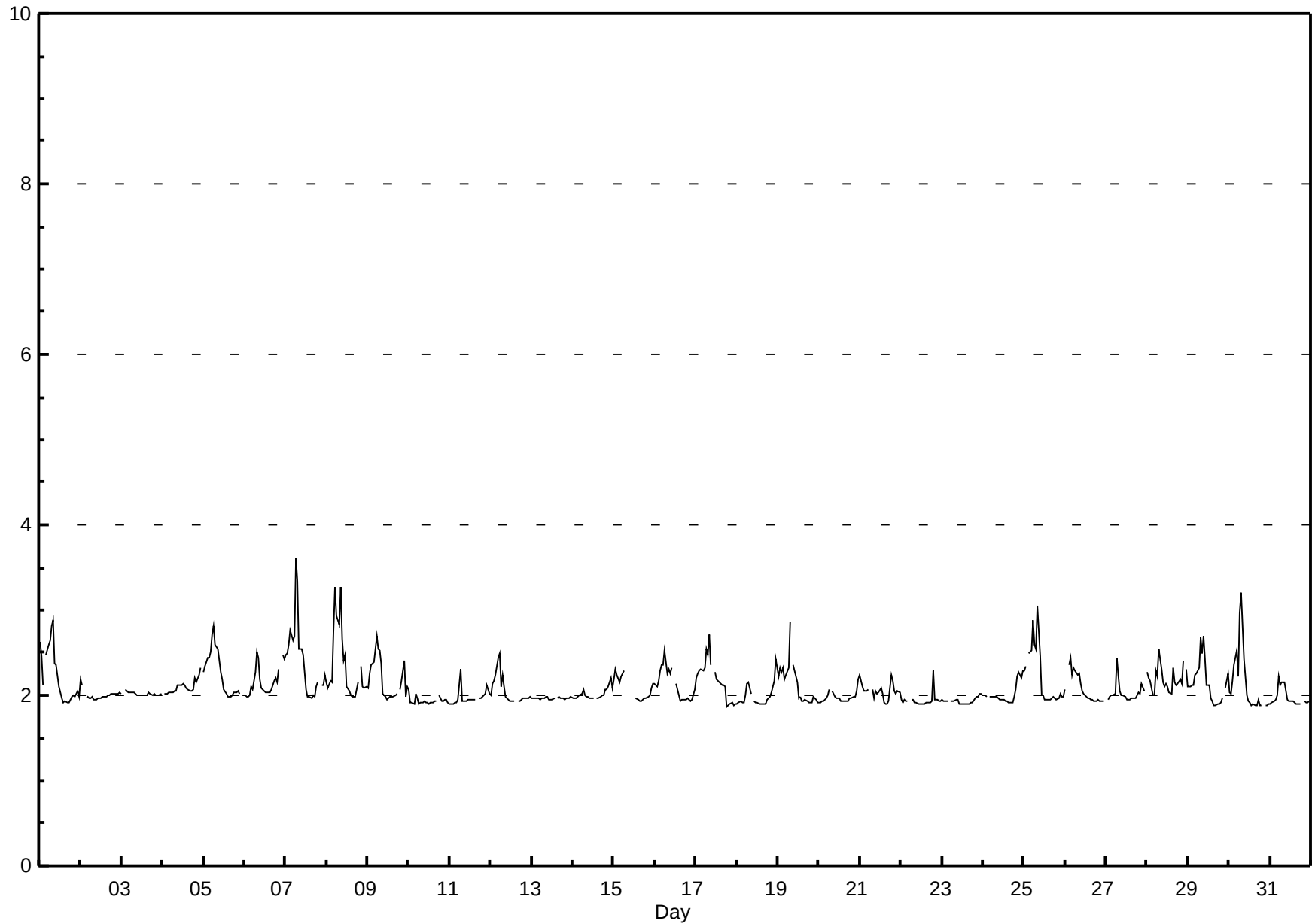
Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.60 ppm on Oct 7 07:00 Maximum Daily Average: 2.40 ppm on Oct 7																				Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0						
Minimum Value: 1.9 ppm on Oct 17 19:00 Maximum Diurnal Average: 2.34 ppm at hour 8 Monthly Average: 2.091 ppm										Minimum Daily Average: 1.94 ppm on Oct 23 Minimum Diurnal Average: 1.96 ppm at hour 15 Percentiles: P ₁ = 1.88 P ₁₀ = 1.92 Q ₁ = 1.95 Median = 2.00 Q ₃ = 2.15 P ₉₀ = 2.40 P ₉₉ = 2.91																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	2.6	2.5	2.1	A	2.5	2.6	2.6	2.8	2.9	2.4	2.4	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.22	2.87
2-Oct	2.2	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.18
3-Oct	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.06
4-Oct	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	A	2.09	2.33
5-Oct	2.3	2.3	2.4	2.4	2.5	2.7	2.8	2.6	2.6	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.25	2.81
6-Oct	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.5	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.3	A	2.5	2.4	2.16	2.51	
7-Oct	2.5	2.5	2.6	2.8	2.6	2.7	3.6	3.3	2.5	2.5	2.5	2.3	2.1	2.0	2.0	2.0	2.0	2.1	2.1	A	2.1	2.1	2.2	2.40	3.60	
8-Oct	2.2	2.1	2.2	2.2	2.8	3.3	2.9	2.8	3.3	2.7	2.4	2.5	2.1	2.0	2.0	2.0	2.0	2.2	A	2.3	2.1	2.1	2.1	2.15	3.27	
9-Oct	2.1	2.3	2.4	2.4	2.4	2.7	2.6	2.5	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.2	2.4	2.0	2.1	2.18	2.69
10-Oct	2.1	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	2.0	1.94	2.07	
11-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.3	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.1	2.0	1.97	2.30	
12-Oct	2.0	2.1	2.2	2.2	2.4	2.5	2.1	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.05	2.49	
13-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	1.98	
14-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.01	2.20
15-Oct	2.2	2.3	2.2	2.2	2.2	2.2	2.3	C	C	C	C	C	A	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.08	2.31	
16-Oct	2.1	2.1	2.2	2.3	2.4	2.4	2.5	2.3	2.3	2.2	2.3	A	2.1	2.1	2.0	1.9	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.1	2.13	2.52
17-Oct	2.2	2.2	2.3	2.3	2.3	2.3	2.5	2.5	2.7	2.4	A	2.3	2.2	2.2	2.2	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.18	2.71
18-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.2	2.4	1.99	2.43
19-Oct	2.2	2.3	2.3	2.3	2.2	2.2	2.3	2.9	A	2.4	2.3	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.12	2.86
20-Oct	1.9	1.9	1.9	1.9	2.0	2.0	2.1	A	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.2	1.98	2.19	
21-Oct	2.2	2.1	2.0	2.0	2.1	2.1	A	2.1	2.0	2.1	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	2.2	2.2	2.0	2.0	2.0	2.0	2.04	2.24
22-Oct	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.0	1.9	1.9	1.9	1.94	2.29
23-Oct	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.94	2.02
24-Oct	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.3	2.2	2.3	2.01	2.28
25-Oct	2.3	2.3	A	2.5	2.5	2.9	2.6	2.5	3.0	2.5	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.21	3.05
26-Oct	2.1	A	2.4	2.4	2.2	2.3	2.3	2.2	2.3	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.08	2.45
27-Oct	A	2.0	2.0	2.0	2.0	2.0	2.4	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	A	2.03	2.44
28-Oct	2.3	2.2	2.2	2.0	2.0	2.3	2.2	2.5	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.3	2.2	2.1	2.1	2.2	2.1	2.4	A	2.3	2.19	2.54
29-Oct	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.7	2.5	2.7	2.4	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.1	2.3	2.15	2.69
30-Oct	2.0	2.0	2.2	2.3	2.5	2.2	3.0	3.2	2.8	2.4	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.15	3.20
31-Oct	1.9	1.9	1.9	2.0	2.0	2.2	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.97	2.22
2.11 2.10 2.11 2.14 2.19 2.26 2.33 2.34 2.27 2.17 2.08 2.04 2.00 1.98 1.96 1.97 1.97 1.97 1.99 2.02 2.03 2.05 2.05 2.07																								Diurnal Average		
2.63 2.49 2.60 2.77 2.76 3.27 3.60 3.34 3.27 2.69 2.48 2.47 2.19 2.16 2.15 2.33 2.15 2.17 2.24 2.29 2.33 2.41 2.48 2.43																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Total Hydrocarbons (THC) - ppm
Henry Pirker - October 2015



Hourly Maximums

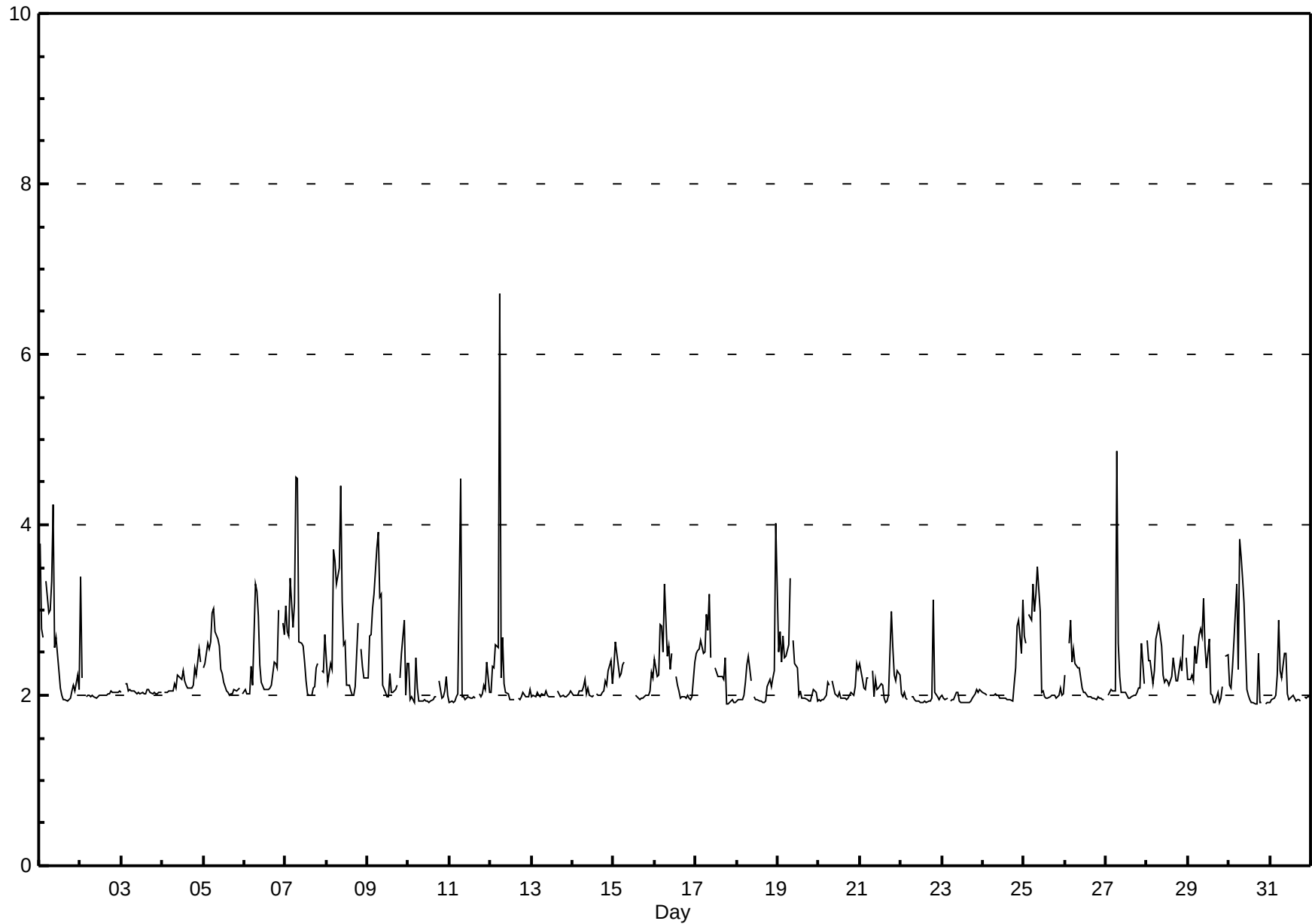
Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2015

Maximum Value: 6.71 ppm on Oct 12 06:00																					Maximum Daily Average: 2.67 ppm on Oct 7				Hours in Service: 744	
Minimum Value: 1.9 ppm on Oct 17 19:00																					Minimum Daily Average: 1.97 ppm on Oct 23				Hours of Data: 706	
Maximum Diurnal Average: 2.78 ppm at hour 7																					Minimum Diurnal Average: 2.00 ppm at hour 16				Hours of Missing Data: 38	
Monthly Average: 2.239 ppm																					Percentiles: P ₁ = 1.91 P ₁₀ = 1.94 Q ₁ = 1.98 Median = 2.05 Q ₃ = 2.33 P ₉₀ = 2.74 P ₉₉ = 4.12				Hours of Calibration: 38	
																					Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	3.8	2.8	2.7	A	3.3	3.0	3.0	3.3	4.2	2.6	2.7	2.3	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.1	2.0	2.2	2.1	2.52	4.24
2-Oct	3.4	2.2	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.08	3.40
3-Oct	2.0	A	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.13
4-Oct	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.5	2.4	A	2.16	2.55
5-Oct	2.3	2.4	2.6	2.5	2.6	3.0	3.0	2.7	2.7	2.6	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	A	2.0	2.33	3.02	
6-Oct	2.1	2.0	2.0	2.0	2.3	2.1	3.3	3.2	2.9	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.4	2.3	3.0	A	2.8	2.7	2.38	3.31
7-Oct	3.1	2.8	2.7	3.4	2.8	3.1	4.6	4.6	2.6	2.6	2.6	2.4	2.2	2.0	2.0	2.0	2.1	2.1	2.3	2.4	A	2.3	2.3	2.7	2.67	4.55
8-Oct	2.4	2.2	2.4	2.3	3.7	3.6	3.3	3.5	4.5	3.1	2.6	2.6	2.1	2.1	2.0	2.0	2.0	2.1	2.9	A	2.5	2.3	2.2	2.2	2.64	4.46
9-Oct	2.2	2.7	2.7	3.0	3.2	3.7	3.9	3.2	3.2	2.1	2.0	2.0	2.0	2.3	2.0	2.0	2.1	2.1	A	2.2	2.5	2.9	2.0	2.4	2.54	3.92
10-Oct	2.4	1.9	2.0	1.9	2.4	2.1	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.2	2.0	2.0	2.0	2.2	2.0	2.02	2.43
11-Oct	1.9	1.9	1.9	1.9	2.0	2.0	4.5	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.4	2.0	2.11	4.54
12-Oct	2.0	2.3	2.3	2.6	2.6	6.7	2.2	2.7	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.32	6.71
13-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.05
14-Oct	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.0	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.3	2.4	2.1	2.07	2.40
15-Oct	2.3	2.6	2.5	2.2	2.3	2.4	2.4	C	C	C	C	C	A	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.17	2.62
16-Oct	2.4	2.2	2.2	2.8	2.8	2.5	3.3	2.4	2.6	2.3	2.5	A	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.29	3.31
17-Oct	2.5	2.5	2.5	2.6	2.5	2.5	2.9	2.8	3.2	2.4	A	2.3	2.3	2.2	2.2	2.2	2.2	2.4	1.9	1.9	1.9	1.9	1.9	1.9	2.34	3.19
18-Oct	1.9	1.9	2.0	2.0	2.0	2.2	2.4	2.5	2.2	A	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.1	2.2	2.1	2.2	2.3	4.0	2.14	4.01
19-Oct	2.5	2.7	2.4	2.7	2.4	2.5	2.6	3.4	A	2.6	2.4	2.3	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.0	1.9	2.27	3.37
20-Oct	1.9	1.9	2.0	1.9	2.0	2.2	2.1	A	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.4	2.3	2.04	2.38
21-Oct	2.4	2.2	2.1	2.1	2.2	2.2	A	2.3	2.0	2.2	2.1	2.1	2.1	2.1	2.0	1.9	1.9	2.0	3.0	2.6	2.2	2.2	2.3	2.2	2.19	2.98
22-Oct	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	3.1	2.0	2.0	2.0	2.0	2.01	3.12
23-Oct	2.0	2.0	1.9	2.0	A	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.1	1.97	2.07
24-Oct	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.1	2.3	2.8	2.9	2.5	3.1	2.15	3.11
25-Oct	2.7	2.6	A	3.0	2.9	3.3	3.0	3.2	3.5	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.40	3.51
26-Oct	2.2	A	2.6	2.9	2.4	2.5	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.16	2.88
27-Oct	A	2.0	2.0	2.1	2.1	2.1	4.9	2.6	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.6	2.1	A	2.22	4.86
28-Oct	2.6	2.4	2.4	2.1	2.3	2.7	2.7	2.8	2.6	2.2	2.2	2.2	2.2	2.1	2.2	2.4	2.3	2.2	2.2	2.4	2.3	2.7	A	2.4	2.38	2.83
29-Oct	2.2	2.2	2.2	2.2	2.6	2.4	2.7	2.8	2.7	3.1	2.6	2.3	2.7	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.1	A	2.5	2.5	2.32	3.13
30-Oct	2.1	2.1	2.3	2.6	3.3	2.3	3.8	3.6	3.4	3.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.5	1.9	1.9	A	1.9	1.9	1.9	2.36	3.83
31-Oct	1.9	2.0	2.0	2.0	2.2	2.9	2.3	2.2	2.5	2.5	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	2.09	2.89
2.33 2.23 2.23 2.31 2.44 2.59 2.78 2.63 2.54 2.32 2.14 2.09 2.06 2.02 2.00 2.00 2.00 2.05 2.09 2.14 2.15 2.18 2.18 2.26																									Diurnal Average	
3.79 2.77 2.71 3.37 3.72 6.71 4.86 4.55 4.46 3.13 2.68 2.63 2.65 2.26 2.22 2.44 2.31 2.50 2.98 3.12 2.99 2.89 2.84 4.01																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

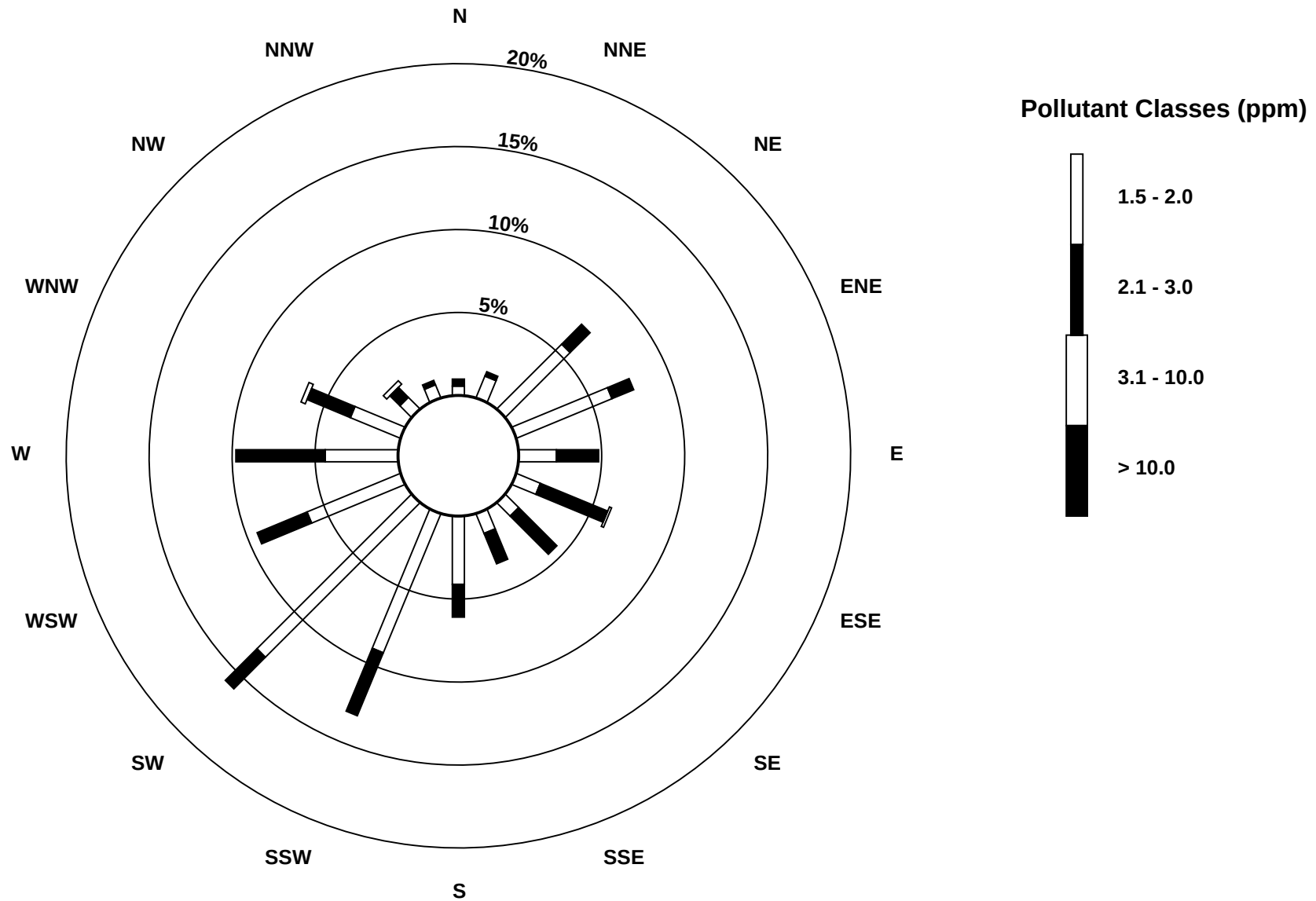
Total Hydrocarbons (THC) - ppm
Henry Pirker - October 2015



Pollutant Rose

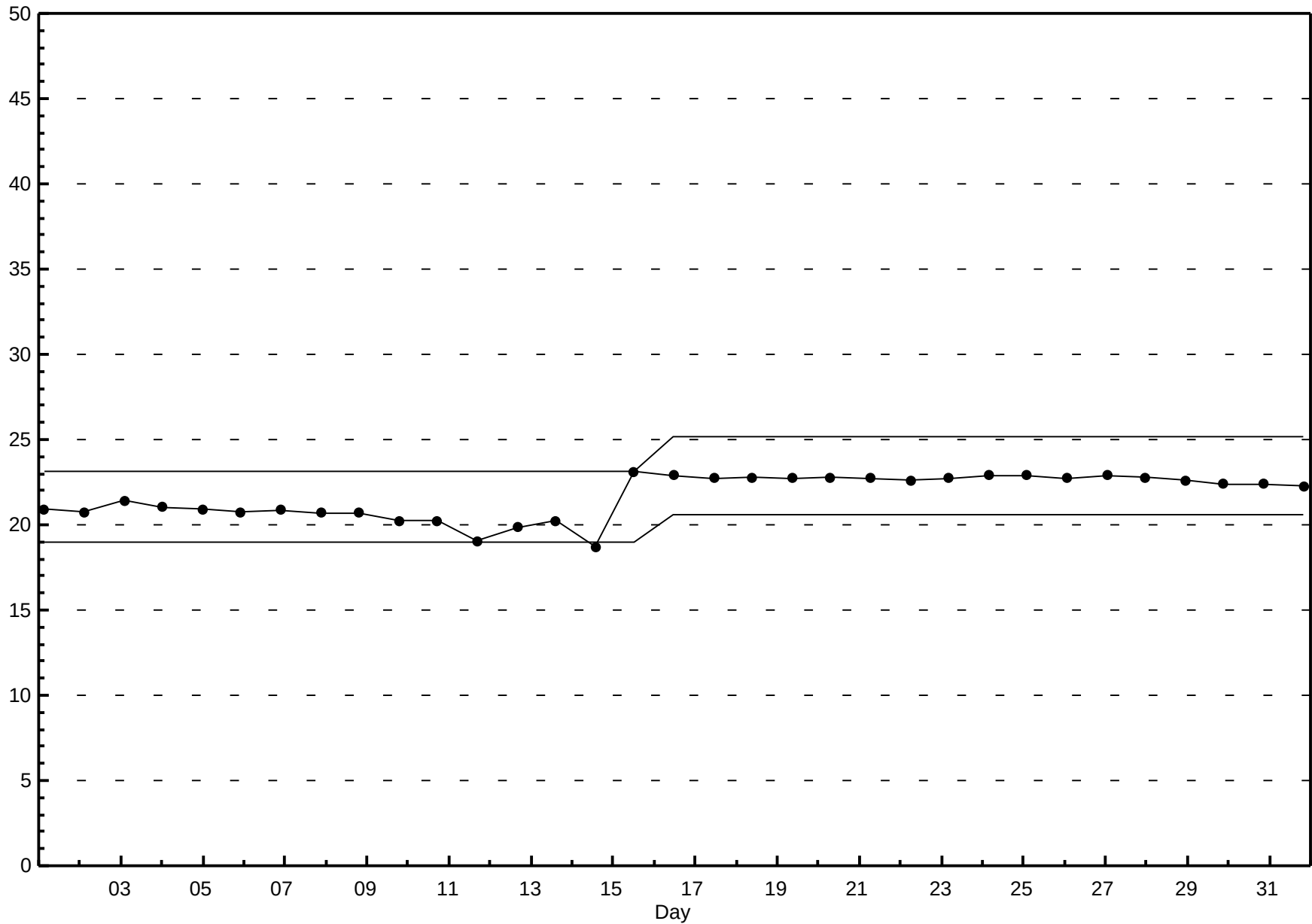
Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2015



Span Responses

Total Hydrocarbons (THC)
Henry Pirker - October 2015



Hourly Averages

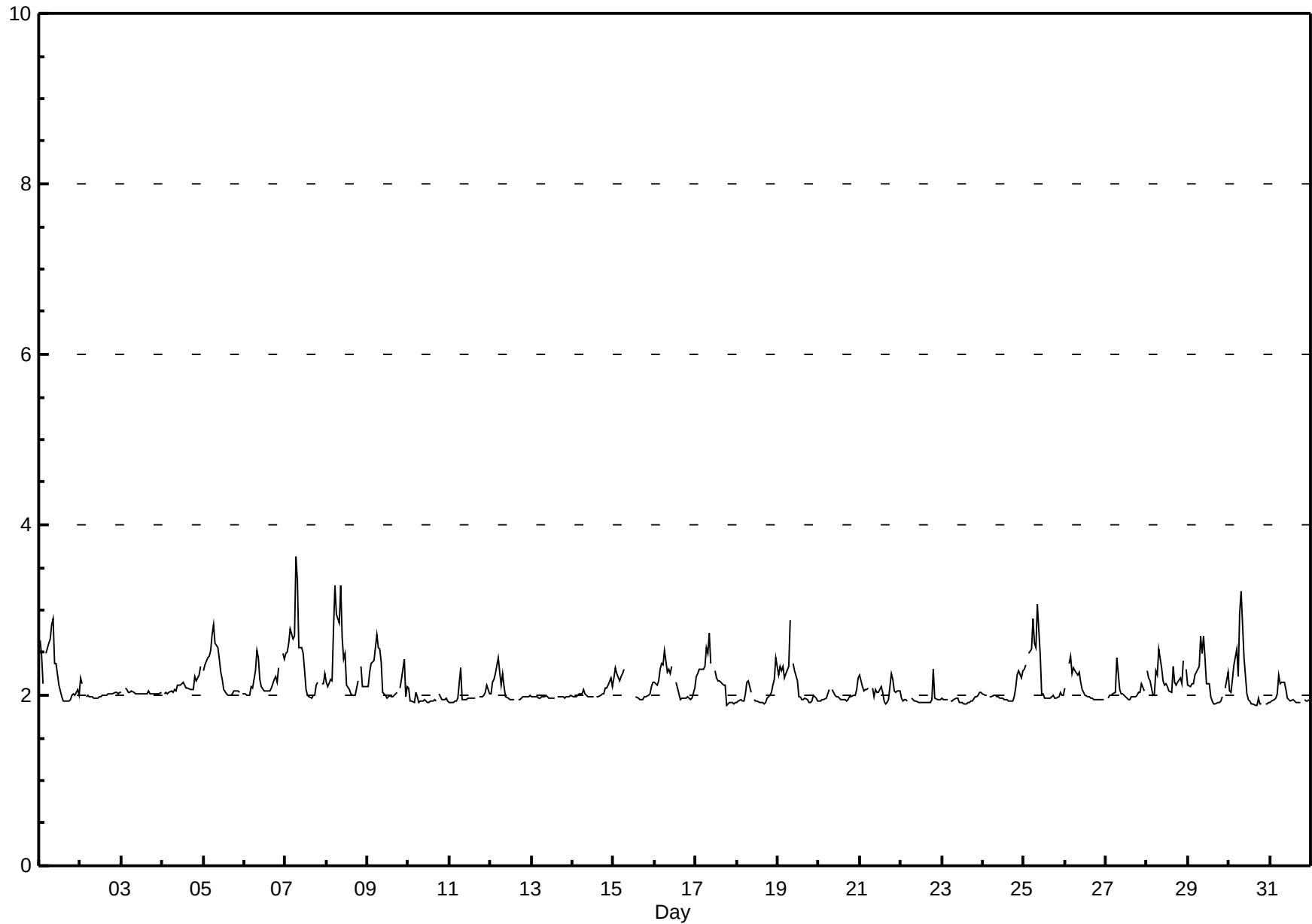
Methane (CH₄) - ppm

Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.63 ppm on Oct 7 07:00 Maximum Daily Average: 2.41 ppm on Oct 7																								Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0		
Minimum Value: 1.9 ppm on Oct 17 19:00 Maximum Diurnal Average: 2.36 ppm at hour 8 Monthly Average: 2.103 ppm												Minimum Daily Average: 1.95 ppm on Oct 23 Minimum Diurnal Average: 1.97 ppm at hour 15 Percentiles: P ₁ = 1.90 P ₁₀ = 1.93 Q ₁ = 1.96 Median = 2.01 Q ₃ = 2.16 P ₉₀ = 2.39 P ₉₉ = 2.92														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	2.6	2.5	2.1	A	2.5	2.6	2.7	2.8	2.9	2.4	2.4	2.1	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	2.24	2.89
2-Oct	2.2	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.20
3-Oct	2.0	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.08
4-Oct	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	A	2.11	2.34
5-Oct	2.3	2.4	2.4	2.5	2.5	2.7	2.8	2.6	2.6	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	A	2.0	2.26	2.83
6-Oct	2.0	2.0	2.0	2.0	2.1	2.1	2.3	2.5	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.3	A	2.5	2.4	2.17	2.53
7-Oct	2.5	2.5	2.6	2.8	2.7	2.7	3.6	3.4	2.6	2.6	2.5	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	A	2.1	2.1	2.3	2.41	3.63
8-Oct	2.2	2.1	2.2	2.2	2.8	3.3	2.9	2.8	3.3	2.7	2.4	2.5	2.1	2.1	2.0	2.0	2.0	2.0	2.2	A	2.3	2.1	2.1	2.1	2.36	3.29
9-Oct	2.1	2.3	2.4	2.4	2.4	2.7	2.6	2.5	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.2	2.4	2.0	2.1	2.20	2.71
10-Oct	2.1	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	2.0	2.0	2.0	1.9	1.95	2.08
11-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.3	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.98	2.32
12-Oct	2.0	2.2	2.2	2.3	2.4	2.3	2.1	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.45
13-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.00
14-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.02	2.21
15-Oct	2.2	2.3	2.3	2.2	2.2	2.3	2.3	C	C	C	C	C	A	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.10	2.32
16-Oct	2.1	2.1	2.2	2.3	2.4	2.4	2.5	2.3	2.3	2.3	2.3	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.14	2.53
17-Oct	2.2	2.3	2.3	2.3	2.3	2.3	2.6	2.5	2.7	2.4	A	2.3	2.2	2.2	2.2	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.19	2.72
18-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.4	2.01	2.44
19-Oct	2.2	2.3	2.3	2.3	2.2	2.2	2.3	2.9	A	2.4	2.3	2.2	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.14	2.87
20-Oct	1.9	1.9	1.9	1.9	2.0	2.0	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2	1.99	2.20
21-Oct	2.2	2.1	2.1	2.1	2.1	2.1	A	2.1	2.0	2.1	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	2.3	2.2	2.1	2.0	2.1	2.0	2.05	2.26
22-Oct	2.0	1.9	2.0	1.9	1.9	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.0	2.0	1.9	2.0	1.95	2.30
23-Oct	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.95	2.03
24-Oct	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.3	2.2	2.3	2.03	2.30
25-Oct	2.3	2.4	A	2.5	2.5	2.9	2.6	2.6	3.1	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.22	3.07
26-Oct	2.1	A	2.4	2.5	2.3	2.3	2.3	2.2	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.09	2.46
27-Oct	A	2.0	2.0	2.0	2.0	2.0	2.4	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.04	2.45
28-Oct	2.3	2.2	2.2	2.0	2.0	2.3	2.2	2.5	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.3	2.2	2.1	2.1	2.2	2.1	2.4	A	2.3	2.20	2.55
29-Oct	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.7	2.5	2.7	2.4	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.1	2.3	2.16	2.70
30-Oct	2.0	2.0	2.2	2.4	2.5	2.2	3.0	3.2	2.8	2.4	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	2.16	3.22
31-Oct	1.9	1.9	2.0	2.0	2.0	2.2	2.1	2.2	2.2	2.1	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.99	2.24
2.12 2.11 2.12 2.15 2.20 2.26 2.34 2.36 2.29 2.18 2.09 2.05 2.01 1.99 1.97 1.98 1.98 1.99 2.01 2.03 2.04 2.06 2.06 2.08																								Diurnal Average		
2.64 2.50 2.61 2.79 2.77 3.29 3.63 3.36 3.28 2.70 2.49 2.49 2.20 2.17 2.16 2.34 2.16 2.18 2.26 2.30 2.34 2.43 2.49 2.44																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - October 2015



Hourly Maximums

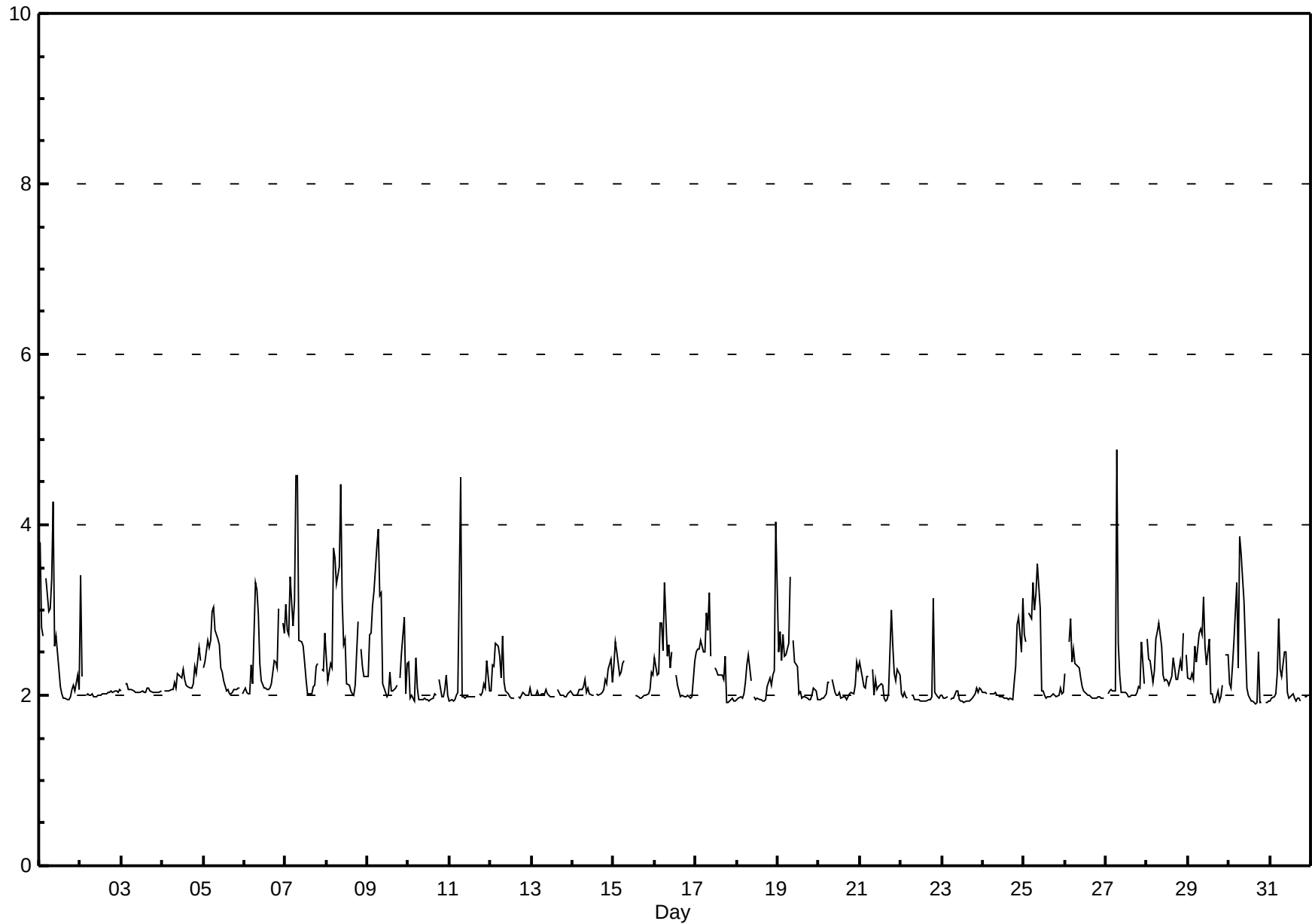
Methane (CH₄) - ppm

Henry Pirker - October 2015

Maximum Value: 4.89 ppm on Oct 27 07:00																					Maximum Daily Average: 2.69 ppm on Oct 7					Hours in Service: 744	
Minimum Value: 1.9 ppm on Oct 30 16:00																					Minimum Daily Average: 1.98 ppm on Oct 23					Hours of Data: 706	
Maximum Diurnal Average: 2.80 ppm at hour 7																					Minimum Diurnal Average: 2.01 ppm at hour 15					Hours of Missing Data: 38	
Monthly Average: 2.246 ppm																					Percentiles: P ₁ = 1.92 P ₁₀ = 1.96 Q ₁ = 1.99 Median = 2.06 Q ₃ = 2.34 P ₉₀ = 2.75 P ₉₉ = 3.92					Hours of Calibration: 38	
																					Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	3.8	2.8	2.7	A	3.4	3.0	3.0	3.4	4.3	2.6	2.7	2.3	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.54	4.27	
2-Oct	3.4	2.2	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.09	3.41	
3-Oct	2.0	A	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.13	
4-Oct	A	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.6	2.4	A	2.17	2.57	
5-Oct	2.3	2.4	2.6	2.6	2.6	3.0	3.0	2.8	2.7	2.6	2.3	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	A	2.0	2.34	3.03	
6-Oct	2.1	2.0	2.0	2.0	2.3	2.1	3.3	3.2	2.9	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.4	2.3	3.0	A	2.9	2.7	2.39	3.32	
7-Oct	3.1	2.8	2.7	3.4	2.8	3.1	4.6	4.6	2.7	2.6	2.6	2.4	2.2	2.0	2.0	2.0	2.1	2.1	2.3	2.4	A	2.3	2.3	2.7	2.69	4.58	
8-Oct	2.4	2.2	2.4	2.3	3.7	3.6	3.3	3.5	4.5	3.1	2.6	2.7	2.1	2.1	2.0	2.0	2.0	2.1	2.9	A	2.5	2.3	2.2	2.2	2.65	4.48	
9-Oct	2.2	2.7	2.7	3.0	3.2	3.8	3.9	3.2	3.2	2.1	2.0	2.0	2.0	2.3	2.0	2.1	2.1	2.1	A	2.2	2.5	2.9	2.0	2.4	2.55	3.94	
10-Oct	2.4	2.0	2.0	1.9	2.4	2.1	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	A	2.2	2.0	2.0	2.1	2.2	2.0	2.04	2.44	
11-Oct	1.9	1.9	1.9	1.9	2.0	2.0	4.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.4	2.0	2.13	4.57	
12-Oct	2.0	2.4	2.3	2.6	2.6	2.5	2.2	2.7	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.15	2.69	
13-Oct	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.07	
14-Oct	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.0	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.3	2.4	2.1	2.08	2.42	
15-Oct	2.4	2.6	2.5	2.2	2.3	2.4	2.4	C	C	C	C	C	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.18	2.63	
16-Oct	2.4	2.2	2.3	2.8	2.8	2.5	3.3	2.5	2.6	2.3	2.5	A	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.31	3.32	
17-Oct	2.5	2.5	2.5	2.7	2.5	2.5	3.0	2.8	3.2	2.5	A	2.3	2.3	2.2	2.2	2.2	2.2	2.5	1.9	1.9	1.9	2.0	1.9	1.9	2.36	3.21	
18-Oct	1.9	2.0	2.0	2.0	2.0	2.2	2.4	2.5	2.2	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.1	2.2	2.1	2.2	2.3	4.0	2.16	4.04	
19-Oct	2.5	2.8	2.4	2.7	2.5	2.5	2.6	3.4	A	2.7	2.4	2.3	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.1	2.0	2.0	2.29	3.39	
20-Oct	2.0	1.9	2.0	2.0	2.0	2.2	2.1	A	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.3	2.05	2.40	
21-Oct	2.4	2.2	2.1	2.1	2.2	2.2	A	2.3	2.0	2.2	2.1	2.1	2.1	2.1	2.0	1.9	1.9	2.0	3.0	2.6	2.3	2.2	2.3	2.2	2.20	3.00	
22-Oct	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	3.1	2.0	2.0	2.0	2.0	2.02	3.13	
23-Oct	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.1	1.98	2.08	
24-Oct	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.8	2.9	2.5	3.1	2.17	3.14	
25-Oct	2.7	2.6	A	3.0	2.9	3.3	3.0	3.2	3.5	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.41	3.54	
26-Oct	2.2	A	2.6	2.9	2.4	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.17	2.90	
27-Oct	A	2.0	2.0	2.1	2.1	2.1	4.9	2.6	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.6	2.1	A	2.23	4.89	
28-Oct	2.7	2.4	2.4	2.2	2.3	2.7	2.8	2.9	2.6	2.2	2.2	2.2	2.2	2.1	2.2	2.4	2.3	2.2	2.2	2.4	2.3	2.7	A	2.5	2.39	2.85	
29-Oct	2.2	2.2	2.3	2.2	2.6	2.4	2.7	2.8	2.7	3.1	2.6	2.3	2.7	2.0	2.0	1.9	1.9	2.1	1.9	2.0	2.1	A	2.5	2.5	2.33	3.15	
30-Oct	2.1	2.1	2.3	2.6	3.3	2.3	3.9	3.7	3.4	3.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	2.5	1.9	1.9	A	1.9	1.9	1.9	2.38	3.86	
31-Oct	1.9	2.0	2.0	2.0	2.3	2.9	2.3	2.2	2.5	2.5	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	2.10	2.90	
2.34 2.24 2.24 2.32 2.45 2.47 2.80 2.64 2.55 2.33 2.15 2.10 2.07 2.03 2.01 2.01 2.01 2.06 2.11 2.15 2.16 2.19 2.19 2.27																									Diurnal Average		
3.80 2.79 2.73 3.39 3.73 3.75 4.89 4.58 4.48 3.15 2.69 2.65 2.67 2.26 2.23 2.44 2.32 2.52 3.00 3.13 3.02 2.91 2.85 4.04																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

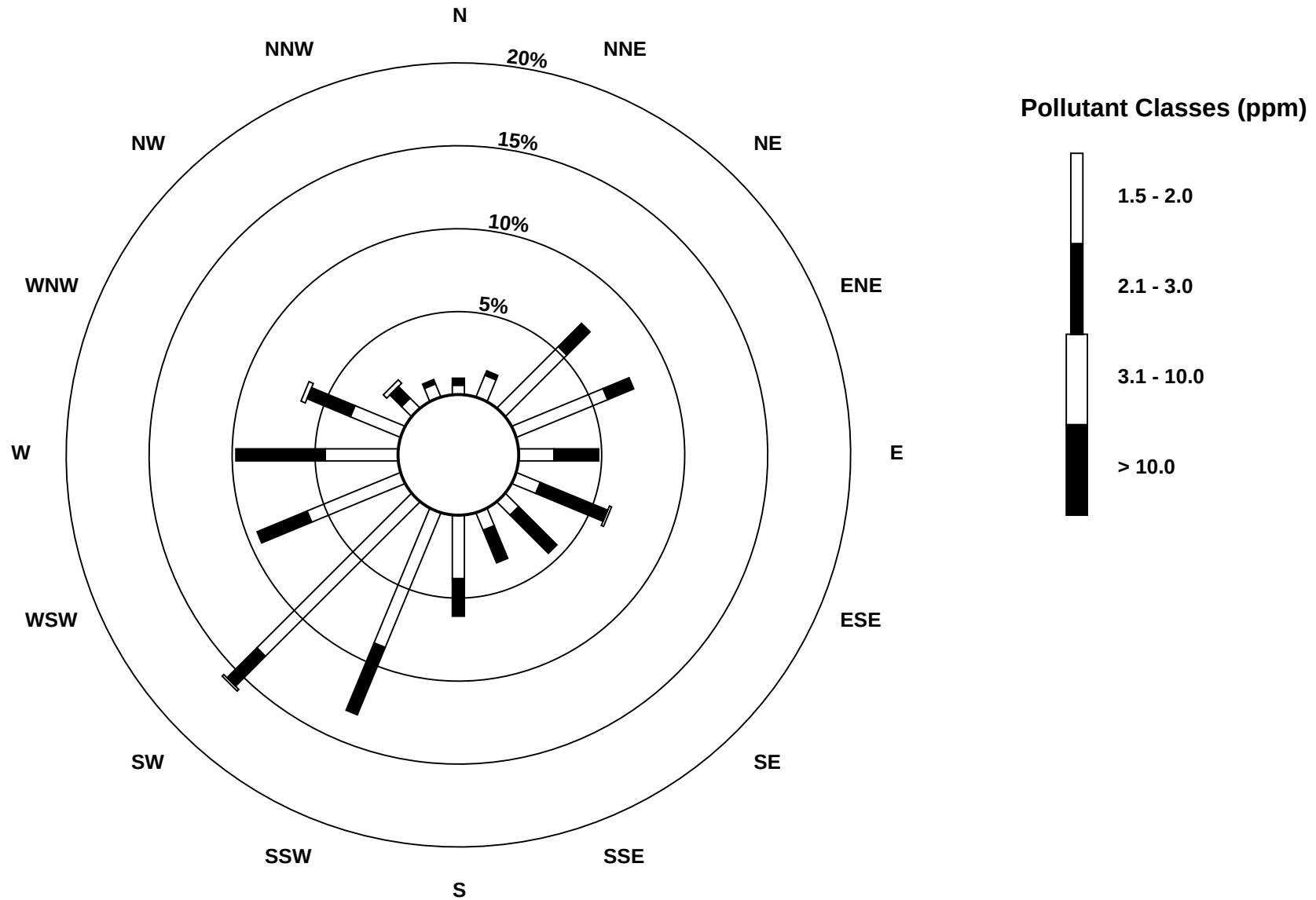
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - October 2015



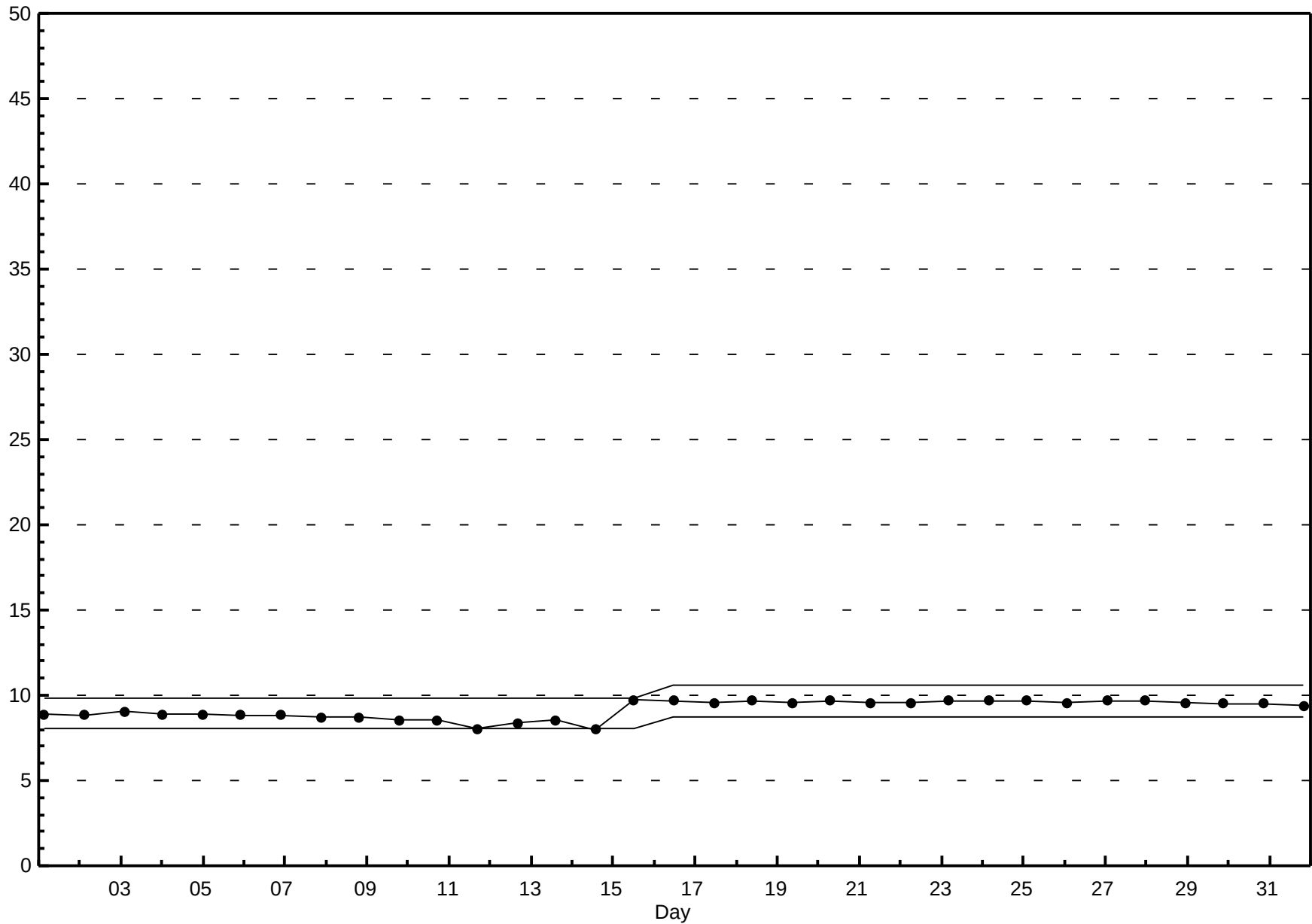
Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - October 2015



Span Responses

Methane (CH₄)
Henry Pirker - October 2015

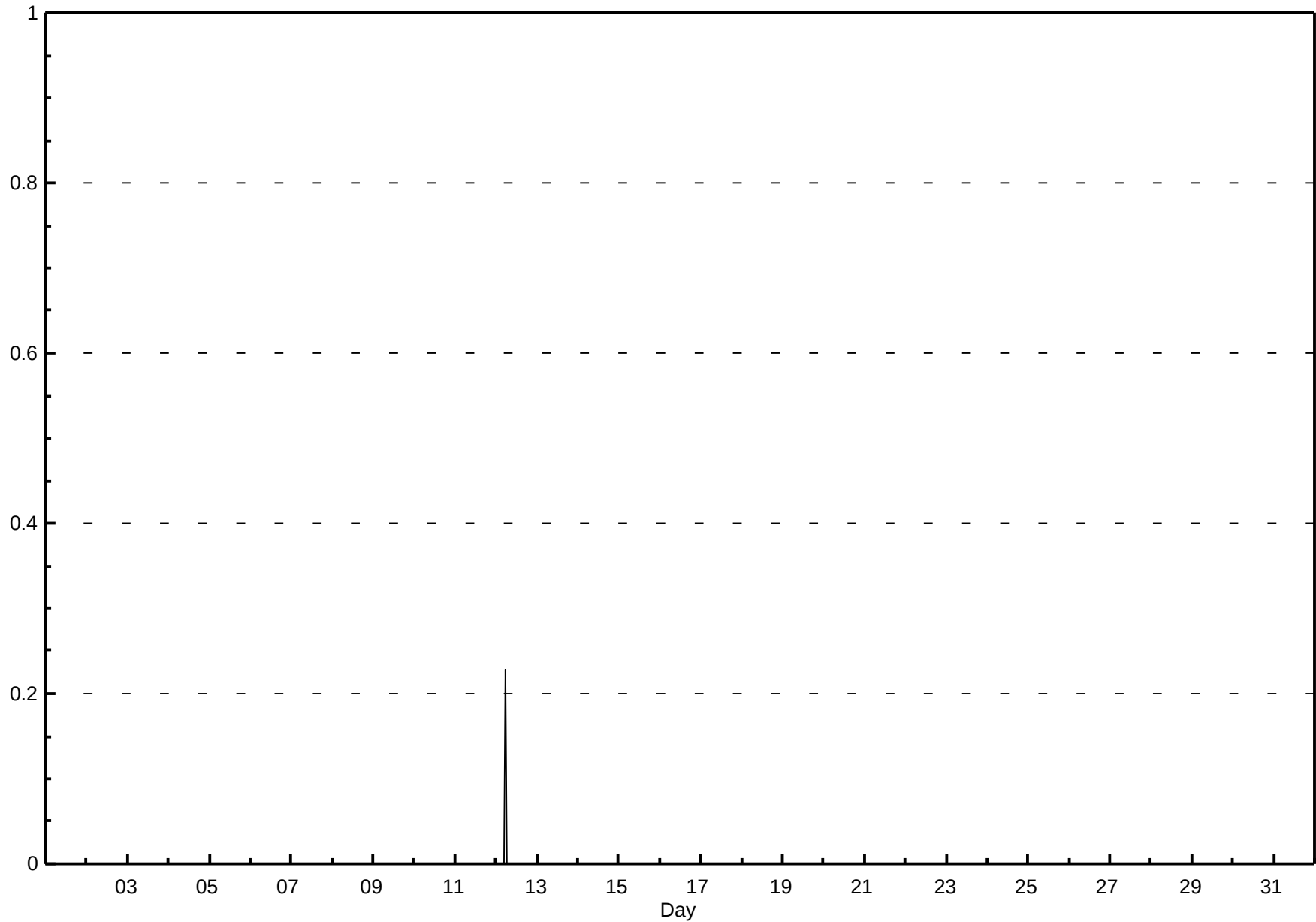


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.23 ppm on Oct 12 06:00 Maximum Daily Average: 0.01 ppm on Oct 12																				Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0						
Minimum Value: 0.0 ppm on Oct 1 01:00 Maximum Diurnal Average: 0.01 ppm at hour 6 Monthly Average: 0.000 ppm										Minimum Daily Average: 0.00 ppm on Oct 7 Minimum Diurnal Average: 0.00 ppm at hour 10 Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-Oct	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-Oct	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-Oct	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-Oct	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.23
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
20-Oct	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-Oct	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
22-Oct	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
23-Oct	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Oct	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-Oct	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-Oct	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-Oct	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
28-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
30-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
0.00 0.00 0.00 0.00 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00																								Diurnal Average		
0.00 0.00 0.00 0.00 0.00 0.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

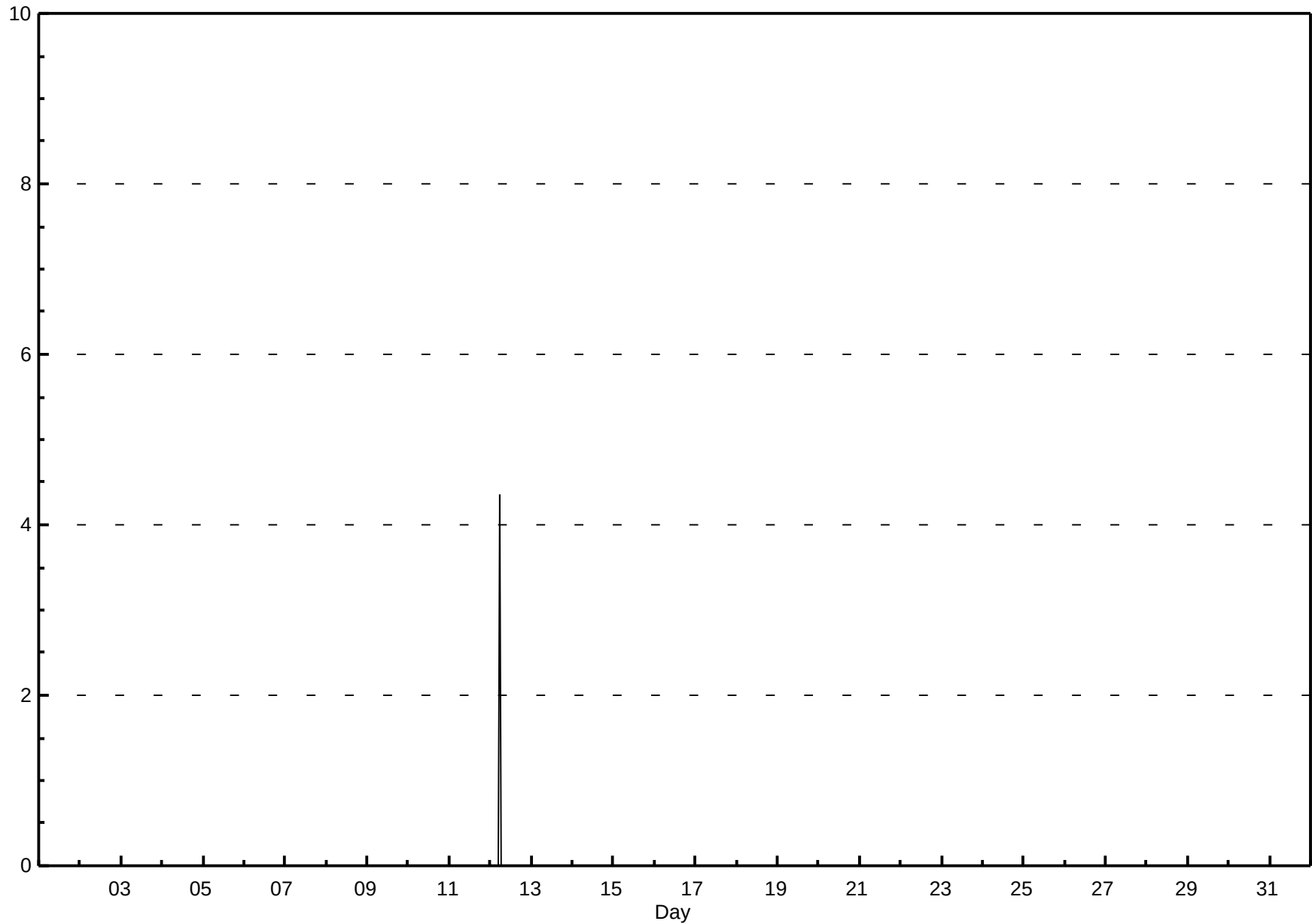


Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2015

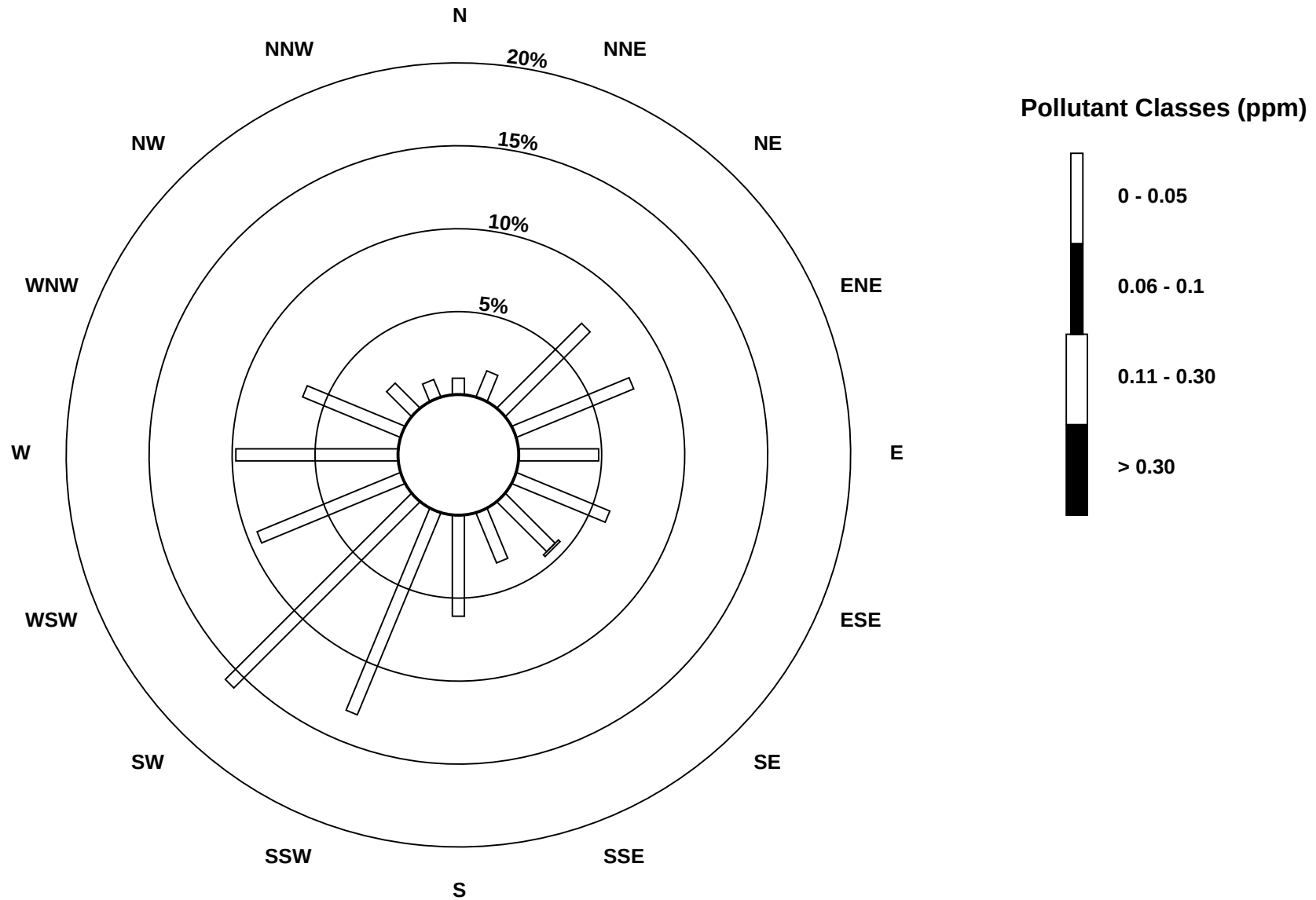
Maximum Value: 4.36 ppm on Oct 12 06:00																					Maximum Daily Average: 0.19 ppm on Oct 12				Hours in Service: 744	
Minimum Value: 0.0 ppm on Oct 8 13:00																					Minimum Daily Average: 0.00 ppm on Oct 13				Hours of Data: 706	
Maximum Diurnal Average: 0.15 ppm at hour 6																					Minimum Diurnal Average: 0.00 ppm at hour 24				Hours of Missing Data: 38	
Monthly Average: 0.007 ppm																					Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00				Hours of Calibration: 38	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-Oct	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-Oct	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-Oct	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-Oct	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.19	4.36
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
20-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-Oct	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
22-Oct	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
23-Oct	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Oct	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-Oct	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-Oct	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-Oct	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
28-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
30-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
0.00 0.00 0.00 0.00 0.00 0.15 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00																									Diurnal Average	
0.00 0.00 0.00 0.00 0.00 4.36 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

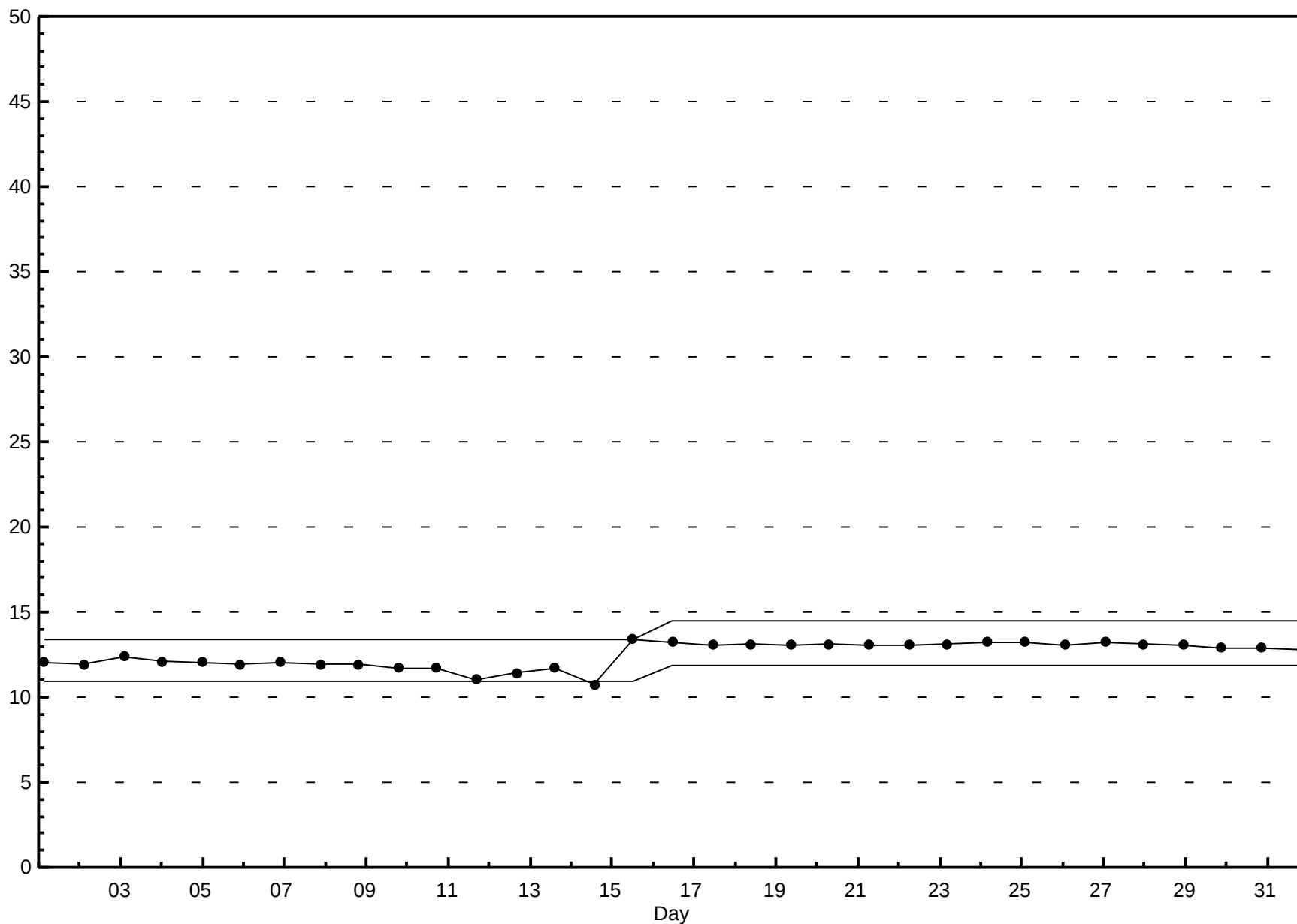


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2015



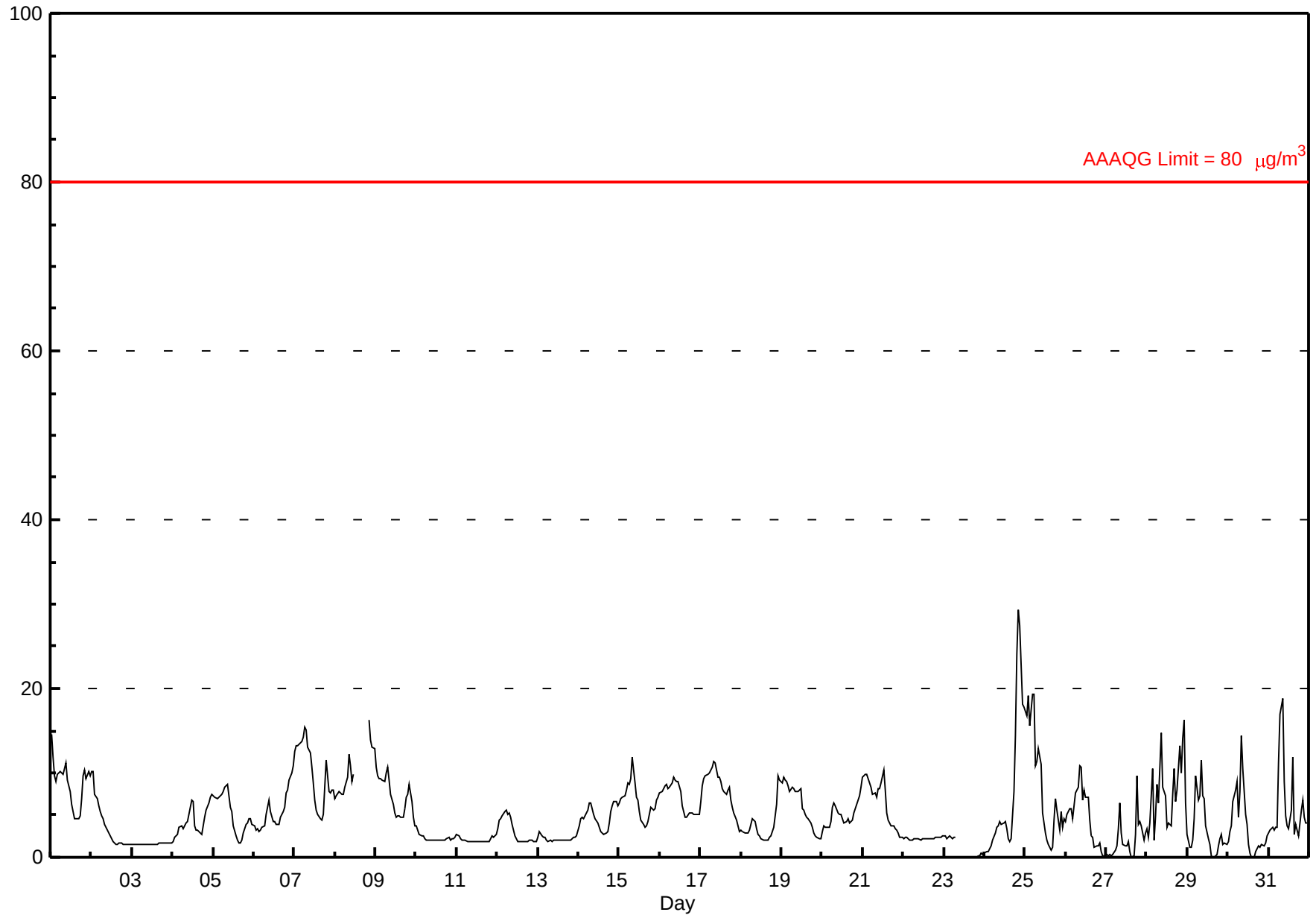


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - October 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 29.4 µg/m³ on Oct 24 21:00 Maximum Daily Average: 9.9 µg/m³ on Oct 7																								Hours in Service: 744 Hours of Data: 731 Hours of Missing Data: 13 Hours of Calibration: 0 Percent Operational Time: 98.3		
Minimum Value: 0 µg/m³ on Oct 23 14:00 Maximum Diurnal Average: 8.0 µg/m³ at hour 9 Monthly Average: 5.15 µg/m³ Minimum Daily Average: 1.1 µg/m³ on Oct 23 Minimum Diurnal Average: 2.9 µg/m³ at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 1.6 Q ₁ = 2.1 Median = 4.1 Q ₃ = 7.4 P ₉₀ = 9.8 P ₉₉ = 18.7																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	15	12	10	9	10	10	10	10	10	11	9	8	6	6	5	5	5	5	7	10	10	9	10	10	8.8	14.6
2-Oct	10	10	7	7	6	5	5	5	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3.7	10.2
3-Oct	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.6	1.8
4-Oct	2	2	3	3	4	4	3	4	4	4	6	7	7	4	3	3	3	3	4	5	6	6	7	7	4.3	7.5
5-Oct	7	7	7	7	7	8	8	8	9	7	6	5	4	3	2	2	2	2	3	4	4	5	4	4	5.2	8.7
6-Oct	4	3	3	3	3	4	4	5	6	7	5	4	4	4	4	4	5	5	6	8	8	9	10	11	5.4	10.9
7-Oct	12	13	13	13	14	14	16	15	13	12	11	9	7	6	5	4	4	5	8	11	8	8	8	8	9.9	15.5
8-Oct	7	7	8	8	7	7	8	10	12	11	9	10	N	N	N	N	N	N	N	N	16	14	13	13	--	16.3
9-Oct	11	10	9	9	9	9	10	11	9	7	6	5	5	5	5	5	6	7	8	9	7	5	4	4	7.3	10.7
10-Oct	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.3	3.6
11-Oct	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.1	2.8
12-Oct	3	4	5	5	5	6	5	5	5	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3.1	5.6
13-Oct	2	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.2	3.0
14-Oct	4	5	5	5	5	6	7	6	6	5	5	4	4	3	3	3	3	3	4	5	6	7	7	6	4.7	6.6
15-Oct	6	7	7	7	8	9	9	9	12	9	7	7	5	4	4	4	4	4	5	6	6	6	7	7	6.6	11.8
16-Oct	8	8	8	8	9	8	8	9	9	9	9	9	8	6	5	5	5	5	5	5	5	5	5	5	7.0	9.5
17-Oct	7	8	9	10	10	10	10	11	11	11	9	9	9	8	8	7	8	8	7	6	5	4	4	3	8.1	11.4
18-Oct	3	3	3	3	3	3	4	5	4	3	3	3	2	2	2	2	2	2	3	4	5	6	10	9	3.7	9.6
19-Oct	9	9	9	9	8	8	8	8	8	8	8	8	6	6	5	5	5	4	4	3	3	2	2	2	6.1	9.4
20-Oct	3	4	4	4	4	4	6	6	6	5	5	5	5	4	4	4	4	4	4	5	6	7	7	8	5.0	8.3
21-Oct	10	10	10	9	9	8	7	8	7	8	8	9	10	8	5	4	4	4	4	3	3	3	2	2	6.5	10.3
22-Oct	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.2	2.6	
23-Oct	3	3	2	3	2	2	2	2	M	M	M	M	M	0	0	0	0	0	0	0	0	0	0	0	1.1	2.6
24-Oct	1	1	1	1	1	2	3	4	4	4	4	4	4	3	2	2	2	8	14	24	29	28	18	18	7.6	29.4
25-Oct	17	17	19	16	19	19	11	11	13	11	5	4	3	2	2	1	1	4	7	6	3	5	4	5	8.6	19.4
26-Oct	4	5	6	6	5	6	8	8	11	11	7	8	7	7	4	3	2	1	1	1	2	1	0	0	4.7	10.9
27-Oct	0	0	0	0	0	1	1	3	6	3	2	1	1	2	1	0	0	3	10	4	4	4	2	3	2.2	9.7
28-Oct	3	2	4	11	2	5	9	6	15	8	8	7	4	4	4	7	10	7	8	13	10	14	16	6	7.7	16.4
29-Oct	3	1	1	2	5	10	7	7	12	7	7	4	2	2	0	0	0	0	1	2	3	1	2	2	3.4	11.5
30-Oct	2	3	4	7	8	9	5	8	14	11	5	4	1	1	0	0	1	1	1	1	2	1	2	2	3.8	14.4
31-Oct	3	3	4	3	4	4	11	17	19	9	5	4	3	6	12	3	4	3	3	6	7	5	4	4	6.0	18.9
																								Diurnal Average		
																								Diurnal Maximum		
M - Maintenance N - Not Valid Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										

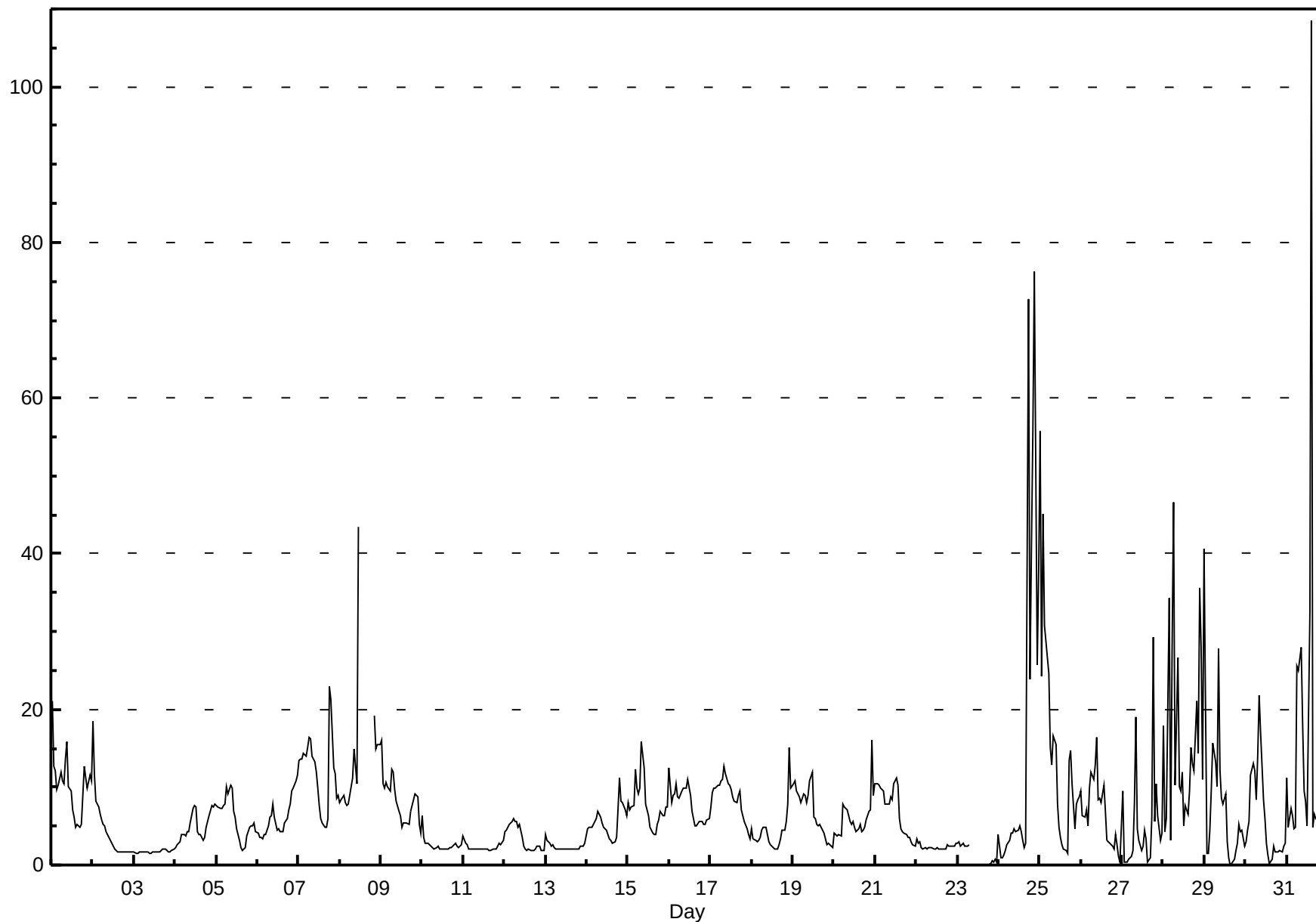


Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - October 2015

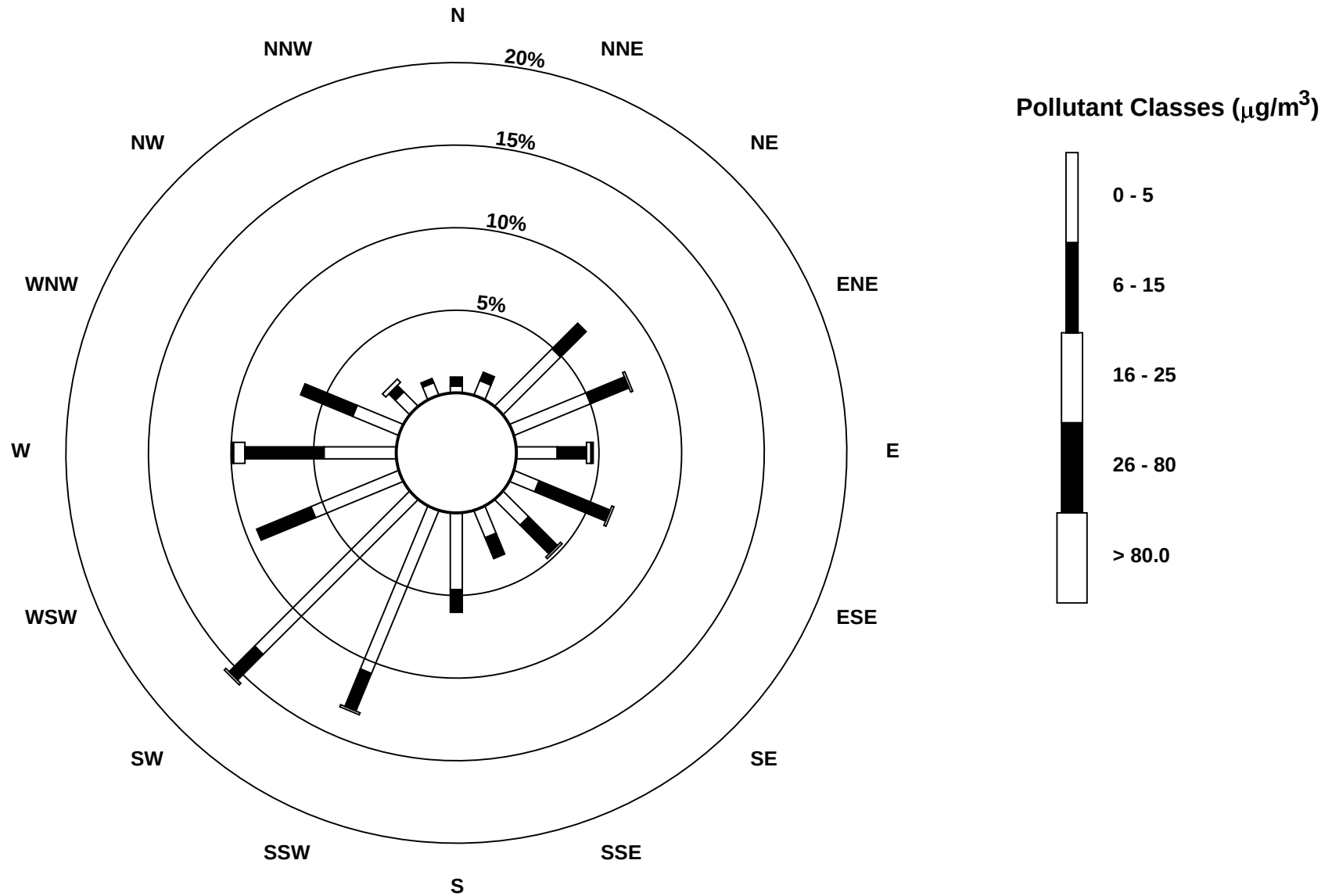
Maximum Value: 108.5 μg/m ³ on Oct 31 15:00																					Maximum Daily Average: 16.1 μg/m ³ on Oct 28					Hours in Service: 744	
Minimum Value: 0 μg/m ³ on Oct 23 14:00																					Minimum Daily Average: 1.2 μg/m ³ on Oct 23					Hours of Data: 731	
Maximum Diurnal Average: 10.7 μg/m ³ at hour 9																					Minimum Diurnal Average: 3.3 μg/m ³ at hour 16					Hours of Missing Data: 13	
Monthly Average: 7.16 μg/m ³																					Percentiles: P ₁ = 0.2 P ₁₀ = 1.9 Q ₁ = 2.5 Median = 5.0 Q ₃ = 9.0 P ₉₀ = 12.8 P ₉₉ = 43.8					Hours of Calibration: 0	
																					Percent Operational Time: 98.3						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	21	13	12	10	10	12	11	10	14	16	10	9	7	6	5	5	5	5	9	13	11	10	12	11	10.3	21.0	
2-Oct	18	12	8	7	7	6	5	5	4	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	4.3	18.4	
3-Oct	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.7	2.1	
4-Oct	2	3	3	3	4	4	4	4	4	5	7	8	7	4	4	4	3	3	5	6	6	8	7	8	4.9	7.7	
5-Oct	8	7	7	7	8	8	10	9	10	10	7	6	5	3	2	2	2	2	4	5	5	5	5	4	5.9	10.2	
6-Oct	4	3	3	3	4	4	5	6	6	8	6	5	5	4	4	4	5	6	7	8	10	10	11	12	6.0	11.6	
7-Oct	13	14	14	14	14	15	17	16	14	13	12	10	8	6	5	5	5	6	23	21	12	12	9	9	11.9	22.9	
8-Oct	8	8	9	8	8	8	9	11	15	13	11	44	N	N	N	N	N	N	N	N	19	15	16	16	--	43.5	
9-Oct	16	10	10	11	10	10	12	12	10	8	7	6	5	5	5	5	5	7	8	8	9	9	5	4	8.3	16.1	
10-Oct	6	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	3	2.6	6.4	
11-Oct	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2.3	3.7	
12-Oct	4	5	5	5	6	6	6	6	5	5	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3.4	5.9	
13-Oct	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2.3	3.8	
14-Oct	5	5	5	5	5	6	7	7	6	5	5	4	4	3	3	3	3	4	7	11	8	8	7	6	5.5	11.3	
15-Oct	8	7	7	8	12	10	9	10	16	12	8	7	6	5	4	4	4	5	6	7	6	6	7	7	7.6	15.9	
16-Oct	12	8	9	9	10	9	9	9	10	10	10	11	9	7	6	5	5	6	6	6	5	5	6	6	7.8	12.5	
17-Oct	7	9	10	10	10	10	11	11	13	12	11	10	10	9	8	8	9	10	7	6	6	5	4	3	8.7	12.7	
18-Oct	5	3	3	3	3	4	4	5	5	4	3	3	2	2	2	2	3	3	5	4	6	8	15	10	4.4	15.2	
19-Oct	11	11	10	9	9	8	9	9	8	9	11	12	6	6	5	5	5	4	4	3	3	3	2	2	6.8	12.0	
20-Oct	4	4	4	4	4	8	7	7	7	6	5	6	5	4	5	5	4	4	5	6	7	7	16	9	5.9	16.1	
21-Oct	11	11	10	10	10	9	8	8	8	9	8	10	11	10	6	5	4	4	4	4	3	3	3	3	7.1	11.3	
22-Oct	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	3	2	3	2.4	3.3	
23-Oct	3	3	2	3	2	2	2	3	M	M	M	M	M	0	0	0	0	0	0	0	1	0	1	0	1.2	3.0	
24-Oct	4	1	1	1	2	3	3	4	4	5	4	5	5	4	3	2	3	73	24	41	56	76	26	38	16.1	76.3	
25-Oct	56	24	45	31	27	25	15	13	17	16	8	5	3	3	2	2	1	13	15	11	5	8	8	9	15.0	55.8	
26-Oct	9	6	6	7	5	10	12	11	13	16	8	9	8	10	7	3	3	3	2	2	4	3	1	0	6.7	16.5	
27-Oct	10	0	0	0	1	1	2	8	19	5	3	2	2	5	3	0	1	6	29	6	10	6	3	4	5.3	29.3	
28-Oct	18	4	6	34	3	28	47	10	27	10	9	12	5	8	6	9	15	13	12	21	14	36	28	11	16.1	46.7	
29-Oct	41	1	2	5	10	16	13	10	28	12	9	8	9	3	1	0	0	1	2	3	5	4	4	2	7.8	40.6	
30-Oct	3	4	6	12	13	12	8	14	22	17	8	6	3	1	0	1	2	2	2	2	2	2	2	3	6.1	21.8	
31-Oct	11	5	7	6	5	5	26	25	28	18	9	8	5	33	109	5	6	6	6	6	8	7	6	7	14.9	108.5	
10.7 6.3 7.0 7.6 6.8 8.0 9.1 8.2 10.7 8.6 6.5 7.3 5.0 5.2 7.0 3.3 3.6 6.7 6.9 7.1 7.6 8.7 7.1 6.5																									Diurnal Average		
55.8 24.2 45.1 34.3 26.7 28.2 46.7 25.0 27.9 17.9 11.9 43.5 11.3 32.6 108.5 9.4 15.2 72.6 29.3 40.6 55.9 76.3 28.0 37.8																									Diurnal Maximum		
M - Maintenance N - Not Valid																											



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - October 2015



Hourly Averages

External Temperature (ET) - °C

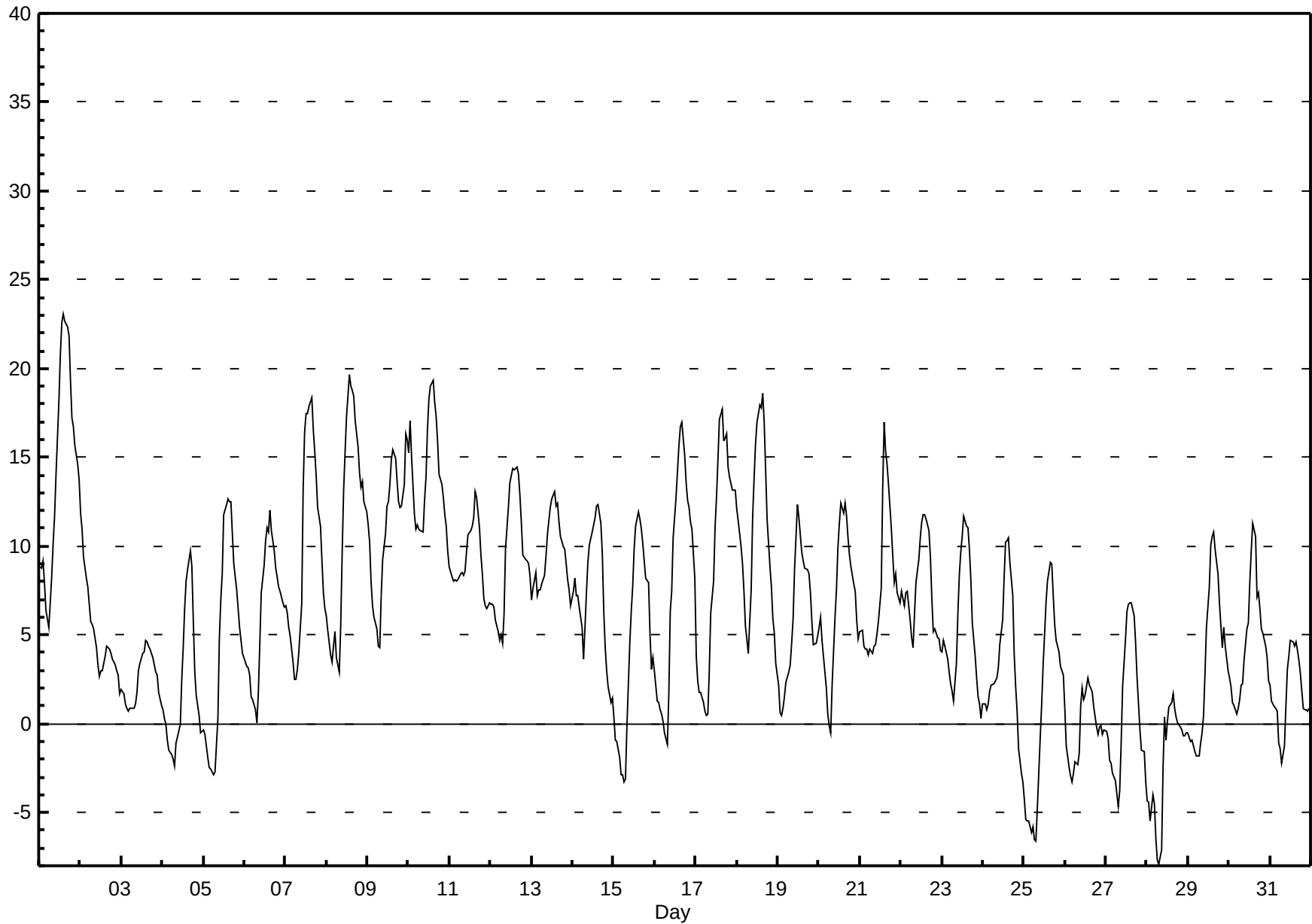
Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 23.1 °C on Oct 1 15:00 Maximum Daily Average: 14.4 °C on Oct 1																							Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0			
Minimum Value: -8 °C on Oct 28 08:00 Maximum Diurnal Average: 11.9 °C at hour 16 Monthly Average: 6.28 °C																							Minimum Daily Average: -2.2 °C on Oct 28 Minimum Diurnal Average: 1.6 °C at hour 8 Percentiles: P ₁ = -5.8 P ₁₀ = -0.8 Q ₁ = 1.8 Median = 5.9 Q ₃ = 10.5 P ₉₀ = 13.8 P ₉₉ = 18.6			
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-Oct	9	9	9	8	6	5	7	8	10	12	14	18	21	23	23	23	22	22	19	17	17	16	15	14	14.4	23.1
2-Oct	12	11	9	8	8	7	6	6	5	4	3	3	3	3	4	4	4	4	4	4	3	3	3	2	5.1	11.9
3-Oct	2	2	1	1	1	1	1	1	1	2	3	3	4	4	5	5	4	4	4	3	3	3	2	1	2.5	4.7
4-Oct	1	0	0	-1	-2	-2	-2	-2	-1	-1	0	2	4	6	8	9	10	9	6	3	2	0	-1	0	2.0	9.7
5-Oct	0	-1	-2	-2	-3	-3	-3	-3	0	5	7	8	12	12	13	13	13	11	9	8	7	5	5	4	4.8	12.6
6-Oct	3	3	3	3	2	1	1	0	2	5	7	9	10	11	11	12	11	10	9	8	8	7	7	7	6.2	12.0
7-Oct	7	6	5	5	3	3	3	3	4	7	13	16	17	17	18	18	17	15	14	12	11	9	7	6	9.9	18.4
8-Oct	6	5	4	3	4	5	4	3	6	10	13	15	17	20	19	19	18	17	16	14	13	14	12	12	11.2	19.6
9-Oct	11	10	8	7	6	5	4	4	7	9	11	12	13	14	15	15	14	12	12	12	13	16	16	16	11.0	16.3
10-Oct	15	17	15	12	11	11	11	11	11	13	14	17	18	19	19	18	17	16	14	13	13	12	11	10	14.1	19.4
11-Oct	9	8	8	8	8	8	8	9	8	9	10	11	11	11	12	13	13	11	10	8	7	7	6	7	9.1	13.1
12-Oct	7	7	7	6	5	5	5	5	6	10	12	14	14	14	14	14	14	13	11	9	9	9	9	8	9.5	14.4
13-Oct	7	8	8	7	8	8	8	8	9	11	11	12	13	13	12	12	11	11	10	10	9	8	8	7	9.5	13.1
14-Oct	7	8	7	7	7	5	4	5	7	9	10	11	11	12	12	12	11	10	6	4	3	2	1	1	7.3	12.4
15-Oct	0	-1	-1	-2	-3	-3	-3	-3	0	5	6	8	10	11	12	12	11	10	9	8	8	5	3	4	4.4	11.9
16-Oct	3	1	1	1	1	0	-1	-1	2	6	7	11	13	14	16	17	17	15	14	13	12	11	11	8	8.0	17.0
17-Oct	4	2	2	2	1	1	0	1	3	6	8	11	13	15	17	18	16	16	16	14	14	13	13	13	9.1	17.7
18-Oct	12	11	10	9	7	6	5	4	8	12	14	16	17	18	18	19	17	14	12	9	8	6	5	3	10.8	18.6
19-Oct	2	1	0	1	2	2	3	3	5	6	9	12	12	11	10	9	9	8	7	6	4	4	5	5	5.8	12.3
20-Oct	5	6	5	4	2	1	0	-1	2	6	8	10	11	12	12	12	12	10	9	9	8	7	6	5	6.7	12.4
21-Oct	5	5	4	4	4	4	4	4	4	4	5	6	8	13	17	15	15	14	11	9	8	8	7	7	7.8	17.0
22-Oct	7	7	7	7	7	6	5	4	6	8	9	10	11	12	12	12	11	9	7	5	5	5	4	4	7.6	11.8
23-Oct	4	5	4	4	3	2	2	1	3	6	8	10	11	12	11	11	10	8	6	4	3	2	1	0	5.4	11.7
24-Oct	1	1	1	1	2	2	2	2	3	3	4	6	8	10	10	10	9	7	4	2	1	-1	-3	-3	3.5	10.5
25-Oct	-4	-5	-5	-5	-6	-6	-7	-7	-5	-1	1	3	5	7	8	9	9	7	6	5	4	3	3	3	0.9	9.1
26-Oct	1	-1	-2	-3	-3	-3	-2	-2	-2	1	2	1	2	3	2	2	2	1	0	-1	0	0	-1	0	-0.2	2.6
27-Oct	0	-1	-2	-2	-3	-3	-4	-5	-4	-1	2	5	6	7	7	7	6	5	3	1	0	-2	-2	-3	0.7	6.8
28-Oct	-4	-4	-6	-4	-4	-6	-8	-8	-7	-2	0	-1	0	1	1	2	1	0	0	0	0	-1	-1	-1	-2.2	1.6
29-Oct	-1	-1	-1	-1	-2	-2	-2	-1	0	0	3	5	8	10	11	11	10	8	7	6	4	5	4	3	3.5	10.8
30-Oct	3	2	1	1	1	1	1	2	2	4	5	6	8	10	11	11	7	7	6	5	5	4	4	2	4.6	11.3
31-Oct	2	1	1	1	1	-1	-1	-2	-1	1	3	4	5	5	4	5	4	4	3	1	1	1	1	1	1.7	4.7
4.4 4.0 3.3 2.8 2.4 1.9 1.6 1.6 3.1 5.4 7.2 8.8 10.2 11.3 11.7 11.9 11.1 10.0 8.5 7.2 6.5 5.8 5.3 4.7 Diurnal Average																										
15.3 17.1 15.0 11.8 11.0 11.2 10.9 10.9 10.8 12.6 14.0 18.2 20.8 22.6 23.1 22.6 22.3 21.8 19.3 17.2 16.7 15.7 16.3 16.0 Diurnal Maximum																										

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - October 2015



Hourly Averages

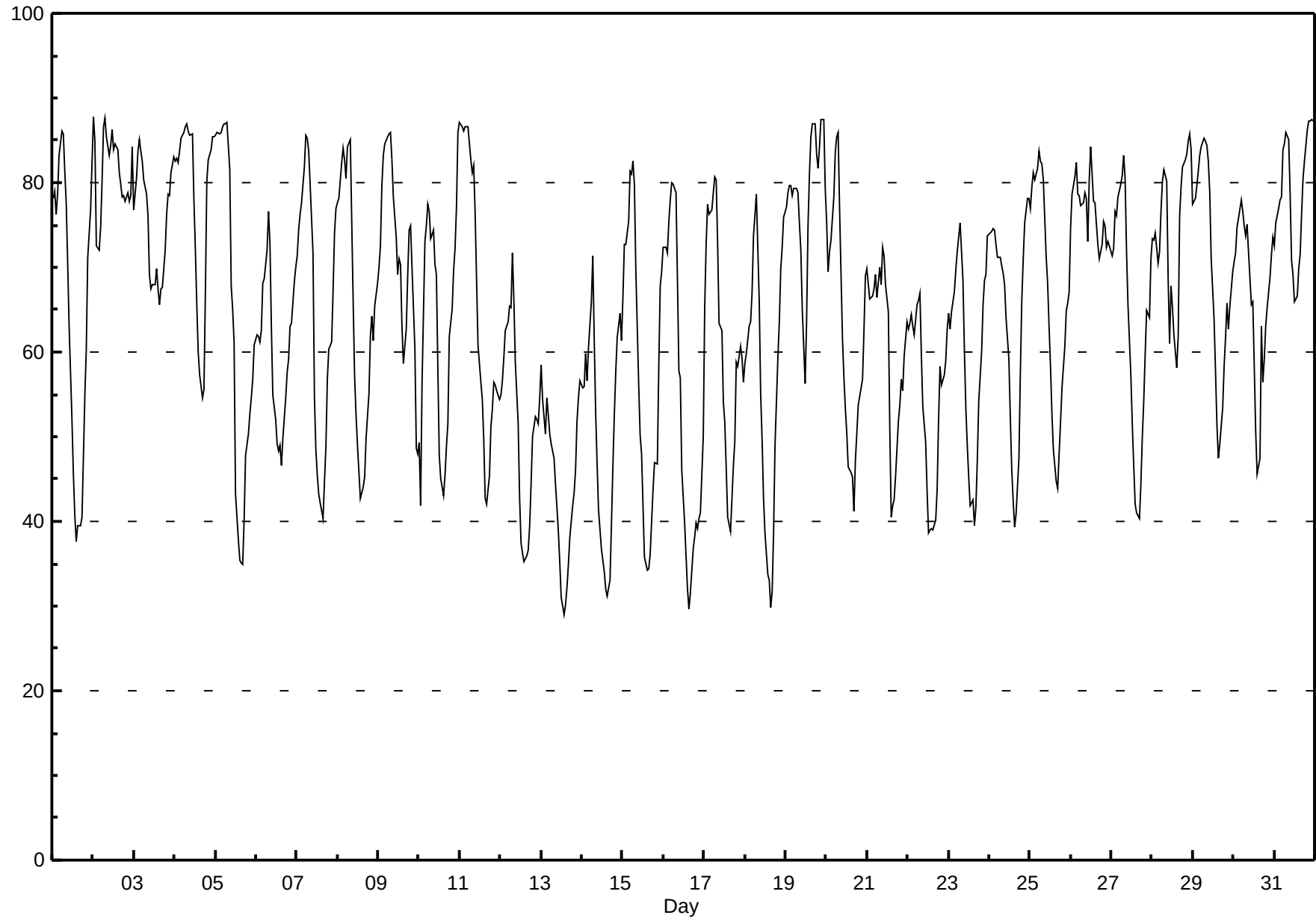
Relative Humidity (RH) - %

Henry Pirker - October 2015

Number of Exceedences (AAQO): Maximum Value: 87.8 % on Oct 2 01:00																					1-hr: 0 24-hr: 0 Maximum Daily Average: 81.4 % on Oct 2				Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0			
Minimum Value: 29 % on Oct 13 14:00 Maximum Diurnal Average: 78.2 % at hour 7 Monthly Average: 64.66 %										Minimum Daily Average: 44.5 % on Oct 13 Minimum Diurnal Average: 47.4 % at hour 16 Percentiles: P ₁ = 31.6 P ₁₀ = 41.9 Q ₁ = 52.6 Median = 66.9 Q ₃ = 77.9 P ₉₀ = 83.8 P ₉₉ = 87.2																		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-Oct	78	79	76	79	83	86	86	81	78	71	63	52	46	41	38	39	40	41	48	55	60	71	77	82	64.5	86.0		
2-Oct	88	85	73	72	75	80	87	88	85	83	84	86	84	85	84	81	80	78	79	78	79	78	78	84	81.4	87.8		
3-Oct	77	80	84	85	84	82	80	79	76	69	67	68	68	70	67	66	68	68	72	76	79	79	81	83	75.3	85.1		
4-Oct	83	83	82	84	85	86	87	87	86	86	86	78	72	66	60	57	55	56	67	80	83	84	85	85	77.6	87.0		
5-Oct	86	86	86	86	87	87	87	87	82	68	65	61	43	38	35	35	35	40	48	50	53	55	57	61	63.2	87.1		
6-Oct	62	62	61	62	68	69	72	77	73	63	55	52	49	48	49	47	50	55	58	59	63	63	68	70	60.6	76.7		
7-Oct	71	74	76	78	82	86	85	84	80	72	55	49	45	43	42	40	45	49	57	60	61	67	74	77	64.7	85.5		
8-Oct	78	78	82	84	83	81	84	85	75	66	57	53	49	43	43	44	45	50	55	62	64	61	65	68	64.8	85.1		
9-Oct	70	73	80	83	85	85	86	86	83	78	74	69	71	70	63	59	63	69	74	75	70	61	49	48	71.8	85.9		
10-Oct	49	42	56	73	75	77	77	73	74	70	69	58	48	45	43	45	49	52	62	65	70	72	77	86	62.9	86.0		
11-Oct	87	87	86	87	87	87	83	81	82	76	69	61	56	54	50	43	42	45	51	53	56	56	55	54	66.2	87.1		
12-Oct	55	57	59	63	64	66	65	72	66	59	52	43	37	36	35	36	37	40	44	50	52	52	51	55	51.9	71.6		
13-Oct	58	54	50	54	53	50	49	47	44	42	39	35	31	29	30	32	35	38	42	43	46	52	55	57	44.5	58.4		
14-Oct	56	56	60	57	60	66	71	62	53	47	41	37	35	34	32	31	33	40	46	53	58	62	65	61	50.6	71.3		
15-Oct	66	73	73	75	81	81	83	80	70	56	50	48	42	36	34	34	36	40	44	47	47	58	68	70	58.0	82.6		
16-Oct	72	72	72	75	78	80	80	79	69	58	57	46	40	36	32	30	31	37	38	40	39	40	41	50	53.8	80.1		
17-Oct	65	73	78	76	77	79	81	80	73	63	63	54	52	46	40	39	43	47	49	59	58	61	59	56	61.3	80.8		
18-Oct	59	60	63	64	67	74	76	79	66	55	50	43	39	34	33	30	32	39	49	59	64	70	72	76	56.2	78.7		
19-Oct	77	79	80	80	78	79	79	79	75	72	65	56	64	75	81	85	87	87	83	82	84	87	87	79	78.4	87.5		
20-Oct	75	70	72	73	78	84	85	86	77	62	57	53	51	46	46	45	41	47	50	54	56	57	63	69	62.4	85.9		
21-Oct	70	66	67	67	67	69	67	70	68	72	71	68	65	51	40	42	42	45	52	54	57	55	59	64	60.4	72.4		
22-Oct	63	63	64	63	62	66	66	67	60	54	49	44	39	39	39	39	40	44	52	58	56	57	59	63	54.4	66.9		
23-Oct	65	63	65	67	70	72	74	75	69	60	53	49	45	42	42	39	42	47	54	60	66	68	69	74	59.6	75.3		
24-Oct	74	74	75	74	73	71	71	70	69	68	64	59	52	46	42	39	41	47	58	66	71	75	78	78	64.1	78.2		
25-Oct	77	79	81	80	82	84	83	82	80	71	68	63	58	53	48	45	44	48	52	56	61	65	66	67	66.4	83.8		
26-Oct	75	79	81	82	79	79	77	78	79	78	73	80	84	78	78	75	73	71	73	75	75	72	73	73	76.6	84.2		
27-Oct	71	72	77	76	78	80	81	83	80	72	66	57	51	47	42	41	40	44	50	54	60	65	64	71	63.5	83.3		
28-Oct	73	73	74	71	72	77	80	81	80	69	61	68	65	62	58	62	76	80	82	83	83	85	86	84	74.4	85.7		
29-Oct	77	78	80	81	83	84	85	85	84	83	79	71	64	58	51	48	49	53	58	62	66	63	66	69	69.9	85.2		
30-Oct	71	72	75	76	78	77	75	74	75	72	66	66	59	51	46	47	63	56	59	63	65	69	72	74	66.6	78.0		
31-Oct	73	75	77	78	78	84	85	86	85	79	71	69	66	67	70	71	76	81	82	86	87	87	87	87	78.7	87.4		
71.0 71.5 73.0 74.4 75.8 77.6 78.2 78.1 74.1 67.5 62.5 57.9 53.9 50.6 48.3 47.4 49.4 52.6 57.7 61.9 64.1 66.1 68.0 70.2																									Diurnal Average			
87.8 86.6 86.1 86.6 86.6 87.0 87.0 87.7 86.1 85.7 85.7 86.3 84.2 84.6 83.9 85.4 86.9 86.9 83.4 86.3 87.3 87.5 87.4 87.2																									Diurnal Maximum			

Hourly Averages

Relative Humidity (RH) - %
Henry Pirker - October 2015



Hourly Averages

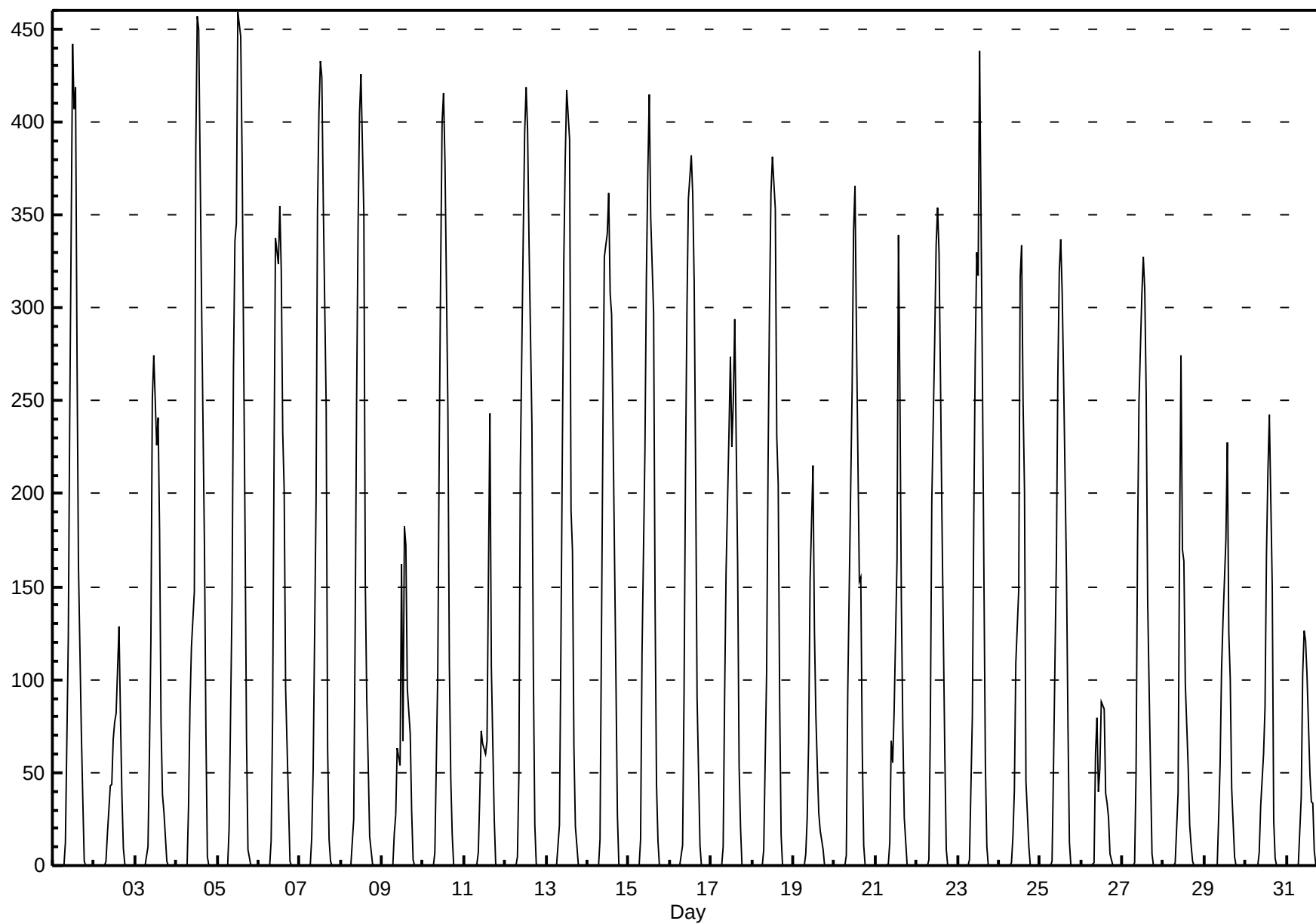
Solar Radiation (SR) - W/m²

Henry Pirker - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 458.9 W/m ² on Oct 5 13:00 Maximum Daily Average: 122.1 W/m ² on Oct 5																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 0 W/m ² on Oct 1 01:00 Minimum Daily Average: 21.2 W/m ² on Oct 26 Maximum Diurnal Average: 289.8 W/m ² at hour 13 Minimum Diurnal Average: 0.0 W/m ² at hour 22 Monthly Average: 73.04 W/m ² Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 100.4 P ₉₀ = 295.6 P ₉₉ = 427.3																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	0	0	13	67	122	242	442	407	419	277	162	72	36	3	0	0	0	0	0	94.2	441.9
2-Oct	0	0	0	0	0	0	0	2	17	43	44	68	77	82	128	80	38	10	1	0	0	0	0	0	24.6	128.3
3-Oct	0	0	0	0	0	0	0	10	60	121	251	275	226	241	180	76	38	29	3	0	0	0	0	0	62.9	274.6
4-Oct	0	0	0	0	0	0	0	32	87	117	147	386	457	450	376	303	170	71	5	0	0	0	0	0	108.3	457.1
5-Oct	0	0	0	0	0	0	0	20	142	268	336	345	459	446	379	277	180	69	8	0	0	0	0	0	122.1	458.9
6-Oct	0	0	0	0	0	0	0	13	78	218	338	323	355	319	233	202	95	33	2	0	0	0	0	0	92.1	354.8
7-Oct	0	0	0	0	0	0	0	15	52	195	352	405	432	424	356	246	62	14	2	0	0	0	0	0	106.5	432.4
8-Oct	0	0	0	0	0	0	0	25	127	250	343	404	426	350	152	90	54	15	1	0	0	0	0	0	93.2	425.5
9-Oct	0	0	0	0	0	0	0	17	27	63	54	162	67	182	172	95	71	29	3	0	0	0	0	0	39.3	182.5
10-Oct	0	0	0	0	0	0	0	7	103	222	319	400	416	378	245	109	47	16	0	0	0	0	0	0	94.2	415.5
11-Oct	0	0	0	0	0	0	0	1	7	38	73	66	60	67	157	243	107	25	1	0	0	0	0	0	35.2	243.1
12-Oct	0	0	0	0	0	0	0	5	48	214	338	394	419	396	335	237	104	22	1	0	0	0	0	0	104.7	418.7
13-Oct	0	0	0	0	0	0	0	22	117	223	324	381	417	391	191	169	63	21	1	0	0	0	0	0	96.6	417.1
14-Oct	0	0	0	0	0	0	0	14	124	235	328	340	362	308	296	235	100	27	1	0	0	0	0	0	98.7	361.7
15-Oct	0	0	0	0	0	0	0	14	114	223	316	373	415	349	297	142	44	14	0	0	0	0	0	0	95.8	414.8
16-Oct	0	0	0	0	0	0	0	11	92	211	299	358	382	361	313	212	91	11	0	0	0	0	0	0	97.5	381.8
17-Oct	0	0	0	0	0	0	0	10	91	157	232	273	225	251	294	162	54	20	0	0	0	0	0	0	73.7	294.1
18-Oct	0	0	0	0	0	0	0	9	104	216	301	362	381	353	231	205	88	17	0	0	0	0	0	0	94.4	381.2
19-Oct	0	0	0	0	0	0	0	7	26	67	154	215	126	80	53	28	19	9	0	0	0	0	0	0	32.6	215.2
20-Oct	0	0	0	0	0	0	0	6	93	202	256	341	366	286	153	155	63	11	0	0	0	0	0	0	80.5	365.9
21-Oct	0	0	0	0	0	0	0	1	12	67	55	83	165	340	254	142	74	26	0	0	0	0	0	0	50.8	339.5
22-Oct	0	0	0	0	0	0	0	3	76	195	282	334	354	329	262	187	59	9	0	0	0	0	0	0	87.2	353.8
23-Oct	0	0	0	0	0	0	0	3	81	188	275	330	317	438	258	153	54	10	0	0	0	0	0	0	87.8	437.8
24-Oct	0	0	0	0	0	0	0	1	15	40	109	148	316	334	249	201	46	10	0	0	0	0	0	0	61.3	333.6
25-Oct	0	0	0	0	0	0	0	2	52	165	263	320	337	308	261	155	75	13	0	0	0	0	0	0	81.2	336.5
26-Oct	0	0	0	0	0	0	0	2	60	80	39	52	88	85	39	33	26	6	0	0	0	0	0	0	21.2	87.9
27-Oct	0	0	0	0	0	0	0	1	50	171	250	307	327	309	253	143	50	6	0	0	0	0	0	0	77.8	327.1
28-Oct	0	0	0	0	0	0	0	2	39	170	275	170	164	98	52	22	11	3	0	0	0	0	0	0	41.8	274.8
29-Oct	0	0	0	0	0	0	0	0	26	54	105	132	175	228	126	101	42	5	0	0	0	0	0	0	41.4	227.7
30-Oct	0	0	0	0	0	0	0	0	7	32	60	85	167	212	243	150	24	4	0	0	0	0	0	0	41.0	242.8
31-Oct	0	0	0	0	0	0	0	1	37	103	126	121	102	49	34	34	8	1	0	0	0	0	0	0	25.6	126.5
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

Solar Radiation (SR) - W/m^2
Henry Pirker - October 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - October 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	1	4	2	1	1	1	1	0	3	1	2	4	5	7	5	4	3	3	5	4	4	3	1	1.2	7.4
Dir	102	212	259	293	264	142	102	111	117	134	140	41	78	78	64	47	34	24	294	283	93	118	122	67	69.5	63.8
2 Spd	1	10	24	14	15	17	14	10	11	14	14	15	16	14	15	17	14	10	10	9	9	10	9	8	12.3	24.5
Dir	270	271	273	278	265	266	279	276	298	295	289	279	296	292	294	299	293	288	283	293	293	309	305	278	285.6	273.4
3 Spd	6	4	4	2	1	1	3	4	5	4	2	4	3	5	2	2	1	3	3	5	7	7	6	5	2.1	7.4
Dir	319	273	263	315	328	24	75	74	73	72	101	85	62	114	102	97	229	277	76	85	84	77	69	76	69.0	77.4
4 Spd	6	5	6	5	5	5	2	1	1	3	1	4	5	4	3	3	2	1	3	1	2	2	3	4	0.8	6.1
Dir	75	64	70	66	73	70	72	128	186	147	195	106	161	212	214	199	214	283	296	274	287	274	282	286	104.6	70.0
5 Spd	5	4	2	2	1	1	1	1	1	3	3	3	2	1	2	2	2	6	4	4	4	4	6	6	0.8	6.4
Dir	282	300	271	271	276	280	208	214	241	223	219	189	199	331	8	339	55	62	64	58	52	47	48	46	24.0	46.3
6 Spd	6	7	7	4	1	2	1	1	1	2	3	2	2	0	2	1	2	4	3	3	1	1	1	0	1.2	7.1
Dir	47	46	55	62	83	52	149	297	128	187	226	213	213	199	140	157	125	134	129	98	132	131	258	56	94.6	46.0
7 Spd	1	3	2	1	1	1	1	1	2	2	1	3	3	8	7	5	3	1	1	1	2	1	1	1	1.3	8.3
Dir	16	123	123	237	293	248	306	288	277	277	196	215	252	287	287	283	244	67	146	11	222	176	151	203	261.7	286.7
8 Spd	0	0	1	2	2	2	0	1	1	2	2	3	4	3	4	3	2	1	0	1	2	7	4	3	1.1	6.5
Dir	219	234	105	109	109	112	351	256	287	136	166	96	95	86	90	62	40	32	13	242	199	200	176	151	130.7	199.9
9 Spd	3	1	1	1	1	1	1	1	2	3	3	4	2	3	3	1	3	4	5	4	6	10	12	10	2.5	12.1
Dir	121	67	7	97	65	296	285	67	70	54	73	54	64	281	332	64	127	114	98	87	107	132	134	131	105.7	134.0
10 Spd	11	15	11	2	3	13	18	10	8	7	11	13	17	14	14	10	8	5	2	3	7	1	10	12	7.6	18.5
Dir	142	204	245	277	212	218	187	188	180	160	162	178	217	227	220	228	215	217	226	340	318	76	247	241	208.9	187.2
11 Spd	14	11	11	14	7	7	10	14	10	10	13	17	20	19	23	25	21	15	10	5	4	7	5	6	10.7	24.9
Dir	240	249	246	255	244	216	228	238	250	243	236	225	220	217	219	226	231	222	206	177	119	121	118	83	225.6	226.3
12 Spd	6	4	2	4	2	1	1	3	3	1	9	18	29	30	34	28	25	24	16	8	9	11	11	8	10.7	34.0
Dir	91	122	96	144	164	127	291	207	174	216	218	223	215	216	218	219	218	216	216	185	167	172	178	198	207.1	217.6
13 Spd	6	9	10	8	8	13	15	16	14	16	29	29	31	32	29	21	21	13	17	22	14	11	9	4	16.2	31.6
Dir	192	205	209	208	225	235	213	220	227	221	226	218	226	228	232	237	226	209	215	220	217	194	199	222	221.1	228.0
14 Spd	14	21	12	9	9	6	5	12	11	13	20	20	18	16	15	17	14	8	5	2	2	1	2	2	10.0	20.7
Dir	206	212	237	265	227	220	192	232	236	232	246	252	251	253	239	257	267	268	263	266	264	198	193	210	240.7	212.5
15 Spd	1	1	2	1	0	0	3	2	2	0	2	4	6	7	6	5	4	1	1	2	2	4	1	1	1.3	7.3
Dir	233	239	254	273	287	340	108	133	108	127	103	77	84	92	86	81	39	6	9	0	37	288	300	279	75.2	91.5
16 Spd	4	2	0	1	1	1	1	2	1	1	3	2	3	6	8	8	9	8	9	8	9	7	7	1	3.2	9.3
Dir	276	275	258	268	315	276	275	263	268	112	108	100	55	46	46	52	49	44	46	52	56	62	62	105	49.4	46.0
17 Spd	1	2	1	1	1	1	1	1	0	2	2	2	1	1	2	2	4	10	21	20	15	8	12	11	4.8	21.0
Dir	303	251	238	204	239	141	164	163	285	231	262	208	214	157	189	243	241	240	244	222	218	212	215	216	225.3	243.7
18 Spd	14	14	11	8	6	2	2	3	4	4	5	8	8	9	8	10	6	4	4	0	2	1	0	1	5.0	13.9
Dir	215	223	217	240	265	202	214	220	233	223	196	214	214	220	221	245	287	279	267	304	55	103	277	281	229.5	222.9
19 Spd	2	2	2	1	2	1	2	3	3	2	0	2	4	4	5	4	6	7	14	11	6	1	3	8	2.8	13.6
Dir	279	283	275	275	292	105	114	121	105	109	148	228	260	260	247	240	179	191	238	263	257	266	239	220	234.7	238.2
20 Spd	10	13	7	6	2	1	0	1	1	3	5	3	1	5	3	2	5	0	4	4	3	3	1	0	2.0	12.7
Dir	223	227	226	270	276	42	98	123	204	194	215	229	26	175	249	314	293	117	121	126	103	84	65	199	217.8	226.7
21 Spd	1	3	3	3	2	1	2	2	1	1	2	0	1	11	18	24	17	11	7	8	8	7	7	6	4.3	24.0
Dir	70	83	83	69	52	51	37	38	73	271	254	137	171	205	236	236	232	222	202	199	181	184	198	194	213.1	236.3
22 Spd	8	7	7	10	12	8	7	9	11	13	19	21	29	26	26	24	22	21	7	4	7	7	6	6	12.8	28.7
Dir	183	169	188	194	191	203	198	205	190	198	211	210	214	211	220	221	218	215	215	209	175	193	193	198	206.6	214.1

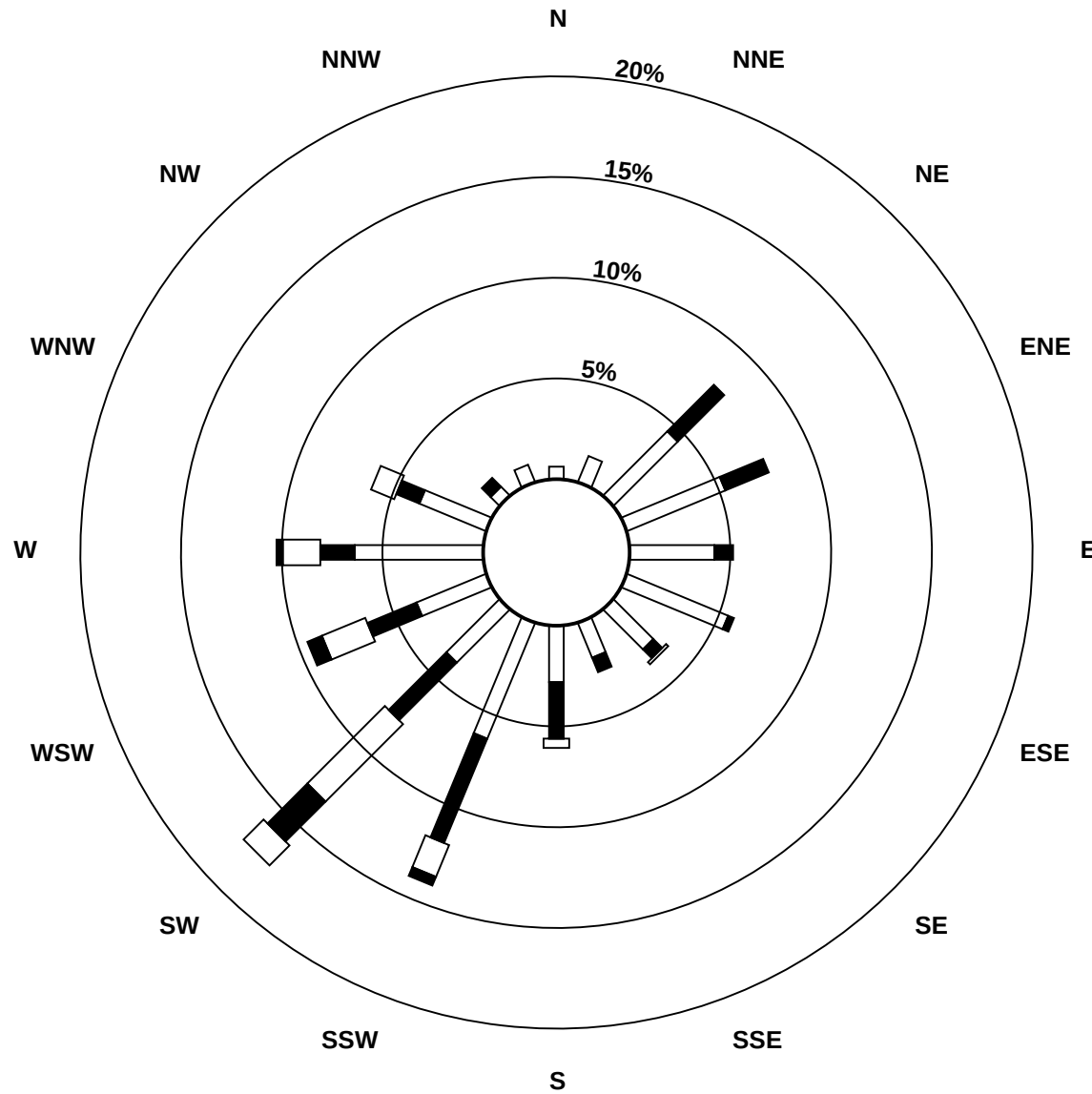
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - October 2015

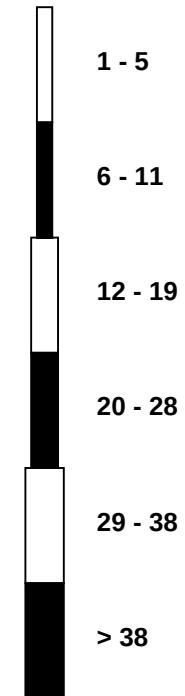
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	6	8	8	7	7	8	7	3	3	6	12	14	17	16	14	15	14	11	8	7	3	3	4	3	7.7	16.7	
Dir	185	165	192	188	192	194	199	254	218	232	222	225	235	259	258	230	222	228	241	257	285	205	208	201	223.9	234.5	
24 Spd	7	7	7	5	6	5	5	6	5	4	5	9	7	4	5	6	5	2	1	1	0	2	0	4	4.0	9.1	
Dir	229	220	213	205	215	214	211	217	211	203	205	219	197	175	184	182	180	300	78	80	94	272	263	268	209.9	218.6	
25 Spd	2	1	1	1	1	2	0	1	0	2	4	3	6	6	8	10	9	7	8	9	8	7	6	6	3.9	9.9	
Dir	277	266	227	308	116	267	307	322	235	60	77	64	66	61	50	55	55	47	46	49	63	66	58	71	55.2	54.9	
26 Spd	1	1	0	1	1	0	1	3	5	11	13	13	13	19	20	19	19	14	11	8	10	13	14	12	8.9	19.7	
Dir	86	253	185	236	239	304	184	209	244	272	276	259	246	258	260	266	265	258	254	246	259	276	277	283	262.2	260.2	
27 Spd	11	6	5	6	6	6	4	3	3	3	4	3	2	3	4	5	4	3	3	3	3	4	2	1	1.5	11.3	
Dir	277	257	205	213	208	210	245	248	271	275	252	204	205	120	144	140	137	93	64	50	36	43	49	72	214.6	277.1	
28 Spd	2	0	2	4	2	2	2	1	2	2	2	2	3	2	3	0	2	3	1	1	1	0	1	2	0.6	4.3	
Dir	47	213	322	47	98	307	295	225	238	210	201	163	161	159	146	338	55	127	87	125	101	154	131	189	141.2	47.3	
29 Spd	3	3	3	2	1	0	2	1	2	1	2	3	2	3	15	23	23	20	13	4	5	6	6	3	5.2	23.5	
Dir	181	224	221	95	112	96	116	106	119	261	182	183	230	176	212	218	219	224	227	199	153	177	137	135	205.2	219.5	
30 Spd	2	2	1	1	1	4	3	0	1	4	6	8	8	17	19	22	15	12	16	13	13	12	10	8	7.5	22.5	
Dir	172	116	83	38	107	141	127	325	248	187	180	170	204	211	214	231	234	226	215	209	208	203	199	194	207.3	231.5	
31 Spd	8	3	2	3	2	1	1	2	2	4	3	4	5	5	6	8	5	5	7	4	5	3	3	4	2.4	8.5	
Dir	199	198	179	196	334	204	61	80	59	62	50	36	29	32	36	75	50	56	49	19	19	31	11	32	49.8	198.8	
Spd	2.7	3.5	3.2	2.1	2.1	2.2	2.3	2.5	2.2	2.8	4.5	5.3	6.0	6.2	6.8	6.9	5.9	4.5	3.5	2.3	1.4	1.8	1.9	1.9	Diurnal Average		
Dir	211.1	217.1	231.4	235.5	226.0	221.3	208.6	219.8	224.0	222.9	222.5	217.3	222.3	225.4	229.2	233.8	232.9	226.6	227.9	223.8	193.2	177.4	191.3	208.6	Diurnal Maximum		
Spd	14.1	20.7	24.5	14.5	15.3	16.8	18.5	15.6	14.0	15.6	29.0	28.7	31.4	31.6	34.0	28.3	24.9	24.0	21.0	22.0	14.9	13.2	14.0	12.4	Diurnal Maximum		
Dir	206.0	212.5	273.4	278.1	264.9	265.8	187.2	220.2	227.4	221.4	225.9	218.2	226.4	228.0	217.6	219.0	218.1	216.4	243.7	220.1	217.7	275.7	276.9	282.5			
Maximum Speed Value: 34 km/h on Oct 12 15:00							Minimum Speed Value: 0 km/h on Oct 7 00:00													Hours in Service: 744							
Maximum Daily Speed Average: 16.2 km/h on Oct 13							Minimum Daily Speed Average: 0.6 km/h on Oct 28													Hours of Data: 744							
Maximum Diurnal Speed Average: 6.9 km/h at hour 16							Minimum Diurnal Speed Average: 1.4 km/h at hour 21													Hours of Missing Data: 0							
Monthly Average Velocity: 3.47 km/h 222.40 deg							Speed Percentiles: P ₁ = 0.2 P ₁₀ = 0.9 Q ₁ = 1.7 Median = 3.9 Q ₃ = 8.4 P ₉₀ = 14.4 P ₉₉ = 28.3													Percent Operational Time: 100.0							
All monthly, daily, and diurnal averages have been calculated using vector methods																											
Frequency Distribution																											

Wind Rose

Wind Speed (WS) (km/h)
Henry Pirker - October 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - October 2015

Maximum Speed: 34 km/h on Oct 12 15:00																				Maximum Daily Speed Average: 16.7 km/h on Oct 13										Hours in Service: 744	
Minimum Speed: 0 km/h on Oct 18 23:00																				Minimum Daily Speed Average: 2.1 km/h on Oct 28										Hours of Data: 744	
Maximum Diurnal Speed Average: 11.0 km/h at hour 16																				Minimum Diurnal Speed Average: 3.7 km/h at hour 5										Hours of Missing Data: 0	
Monthly Average Speed: 6.45 km/h																				Percentiles: P ₁ = 0.3 P ₁₀ = 1.2 Q ₁ = 2.2 Median = 4.2 Q ₃ = 8.6 P ₉₀ = 15.0 P ₉₉ = 28.7										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Oct	1	2	4	2	1	2	1	1	1	3	2	3	4	6	8	5	4	4	3	5	5	4	4	2	3.2	7.7					
2-Oct	2	10	25	15	15	17	14	10	11	14	14	15	16	14	15	17	14	10	10	9	9	10	9	8	12.7	24.6					
3-Oct	6	4	4	3	2	2	3	4	5	4	3	5	4	5	2	2	3	4	4	5	7	8	6	5	4.2	7.6					
4-Oct	6	5	6	5	5	5	3	2	1	3	2	5	6	4	3	4	2	2	3	1	2	2	3	4	3.6	6.4					
5-Oct	5	4	2	2	1	1	1	1	1	3	3	3	2	2	3	3	2	6	5	4	4	4	6	6	3.1	6.4					
6-Oct	6	7	7	4	1	2	2	1	1	3	3	3	2	2	2	2	2	4	3	3	2	1	1	1	2.7	7.1					
7-Oct	2	3	2	2	1	1	1	1	2	2	1	3	5	9	8	6	3	1	1	2	3	1	1	2	2.6	8.7					
8-Oct	0	1	1	2	2	2	0	1	2	3	2	3	4	4	4	3	2	1	0	1	3	7	4	3	2.2	6.6					
9-Oct	3	2	1	1	1	1	2	2	2	3	4	4	3	3	3	2	3	4	5	4	6	10	12	10	3.8	12.2					
10-Oct	11	16	12	4	3	13	19	10	8	7	11	15	17	14	14	11	8	5	3	4	7	4	12	13	10.0	19.4					
11-Oct	14	11	11	14	7	7	10	14	10	10	13	17	20	19	23	25	22	15	10	5	4	7	5	6	12.5	25.3					
12-Oct	6	4	2	4	2	2	1	4	3	3	10	19	29	30	34	29	25	24	16	8	9	11	11	8	12.3	34.3					
13-Oct	7	9	10	8	9	14	15	16	14	16	29	29	32	32	29	21	21	13	17	22	14	11	10	5	16.7	32.0					
14-Oct	14	21	12	9	9	6	5	12	11	13	20	20	18	16	15	18	14	8	5	2	3	1	2	3	10.8	21.1					
15-Oct	1	1	2	1	0	0	3	2	2	1	3	4	6	8	7	6	4	1	1	2	2	4	1	1	2.6	7.8					
16-Oct	4	2	1	1	2	2	2	2	2	1	4	2	3	6	8	8	9	8	9	8	9	7	7	3	4.6	9.4					
17-Oct	1	2	1	1	1	1	2	1	1	2	2	2	2	1	2	3	4	10	21	20	15	9	12	11	5.3	21.2					
18-Oct	14	14	11	8	6	2	2	4	5	4	5	9	9	9	8	10	6	4	5	0	2	1	0	2	5.9	14.1					
19-Oct	2	3	2	2	2	2	2	3	3	3	1	2	4	4	5	4	6	7	14	11	6	2	3	8	4.2	14.3					
20-Oct	10	13	8	6	2	1	0	1	2	3	5	3	3	6	4	3	5	2	4	4	3	3	2	1	3.9	12.8					
21-Oct	1	4	3	3	2	2	2	2	2	1	2	1	2	12	18	24	17	11	7	8	8	7	7	6	6.4	24.2					
22-Oct	8	7	8	10	12	8	7	9	11	13	20	22	29	26	26	25	22	21	7	5	7	7	6	6	13.4	28.9					
23-Oct	6	8	8	7	8	8	7	3	4	6	12	14	17	17	15	16	14	11	9	8	3	4	4	3	8.8	17.2					
24-Oct	7	7	7	5	6	5	6	6	5	4	6	9	7	4	6	7	5	2	1	1	1	2	0	4	4.7	9.3					
25-Oct	2	1	1	1	1	2	0	1	0	2	4	4	6	6	9	10	10	7	8	9	8	7	6	6	4.7	10.1					
26-Oct	2	2	0	1	1	0	1	3	5	11	13	13	13	19	20	19	19	14	11	8	11	13	14	13	9.4	19.8					
27-Oct	11	7	5	6	6	6	4	3	3	3	4	4	2	3	4	5	4	3	3	3	3	4	2	1	4.1	11.4					
28-Oct	2	2	2	4	3	3	3	1	2	2	2	3	3	3	3	1	2	3	1	2	1	1	1	2	2.1	4.4					
29-Oct	3	3	3	2	1	1	2	1	2	1	2	4	2	3	15	23	24	20	14	5	5	6	6	3	6.3	23.7					
30-Oct	3	3	2	1	2	4	3	0	1	4	6	8	9	18	19	24	15	13	16	13	13	12	10	8	8.6	24.2					
31-Oct	9	5	4	3	2	1	1	2	3	4	3	4	5	6	7	8	6	6	8	5	5	3	3	4	4.3	8.6					
5.4 5.9 5.4 4.5 3.7 3.9 4.0 4.1 4.0 5.0 6.8 8.1 9.2 10.1 11.0 11.0 9.6 7.9 7.2 6.1 5.7 5.6 5.5 5.1																									Diurnal Average						
14.3 21.1 24.6 14.9 15.4 17.0 19.4 15.9 14.1 15.8 29.3 29.0 31.8 32.0 34.3 28.6 25.2 24.2 21.2 22.1 15.0 13.3 14.1 12.9																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - October 2015

Maximum Value: 96.7 deg on Oct 30 08:00																			Hours in Service: 744						
Minimum Value: 5.1 deg on Oct 27 19:00																			Hours of Data: 744						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 5.9 P ₁₀ = 7.4 Q ₁ = 9.9 Median = 19.5 Q ₃ = 38.1 P ₉₀ = 63.5 P ₉₉ = 89.8																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	64	63	16	55	70	86	45	52	52	44	82	42	32	26	19	23	17	22	10	8	49	24	39	70	86.0
2-Oct	73	11	6	14	6	8	7	7	8	8	7	8	7	7	7	9	8	6	10	9	10	11	16	9	72.7
3-Oct	20	11	15	40	43	33	21	18	13	41	66	36	41	35	51	65	89	17	71	13	13	11	10	9	88.9
4-Oct	10	10	9	9	6	9	18	22	42	23	64	32	36	32	32	28	29	64	23	23	33	20	23	12	64.5
5-Oct	8	13	29	38	32	69	53	46	33	24	25	19	22	82	63	66	66	15	9	9	8	7	7	6	81.9
6-Oct	7	7	9	12	41	35	78	23	32	31	23	36	45	94	44	63	43	8	11	21	86	76	65	88	94.1
7-Oct	64	9	10	64	54	43	39	27	18	24	29	27	57	18	16	25	12	81	67	91	31	62	24	37	91.3
8-Oct	52	44	22	24	34	32	79	36	29	76	42	38	25	35	20	19	16	16	61	72	35	9	27	34	78.6
9-Oct	18	60	56	26	49	75	64	59	43	45	31	23	55	47	28	55	24	9	7	22	8	7	6	7	75.0
10-Oct	9	16	15	90	45	18	19	13	16	17	16	26	11	12	13	9	13	21	47	36	8	73	74	16	90.3
11-Oct	7	11	6	6	14	15	8	7	6	7	6	9	6	7	8	10	8	16	10	20	20	7	18	12	20.3
12-Oct	7	34	18	13	58	75	61	39	35	64	20	12	8	9	8	9	8	6	8	16	9	7	8	11	75.0
13-Oct	12	8	10	15	19	11	8	12	9	9	7	8	9	8	8	7	10	9	7	7	9	8	12	29	28.7
14-Oct	10	12	11	12	13	24	16	7	7	8	10	11	12	14	11	12	8	7	19	20	27	70	26	33	69.9
15-Oct	40	27	20	17	86	63	13	31	18	69	37	30	24	21	21	23	18	20	27	20	34	9	55	53	85.9
16-Oct	16	28	91	60	53	78	31	17	34	57	20	40	42	16	13	12	7	8	8	6	7	7	7	86	90.6
17-Oct	29	54	58	62	88	36	51	45	70	40	47	44	42	59	38	36	11	18	7	8	7	10	8	10	87.6
18-Oct	7	8	11	15	19	35	35	34	18	27	17	18	16	19	17	18	8	7	21	80	36	42	66	52	80.4
19-Oct	44	19	43	65	21	70	24	12	22	32	94	42	19	15	12	35	12	12	18	6	10	43	25	12	93.7
20-Oct	9	6	34	23	64	53	90	62	46	20	15	25	74	30	39	39	16	77	15	12	21	17	74	75	89.6
21-Oct	65	17	21	13	43	48	48	67	78	50	63	90	70	31	9	6	7	11	11	10	13	10	10	13	90.3
22-Oct	11	7	26	12	8	12	9	9	9	10	8	8	9	8	9	9	8	7	13	21	7	10	7	12	26.4
23-Oct	13	10	8	9	7	6	10	45	35	15	10	11	12	22	19	10	10	7	8	22	37	23	21	19	44.7
24-Oct	11	9	8	12	8	8	10	9	14	14	14	9	17	41	23	22	23	36	32	22	79	20	87	11	87.4
25-Oct	34	34	36	63	32	23	37	35	38	44	14	33	21	19	14	11	9	7	6	6	11	8	6	10	62.8
26-Oct	57	62	60	37	32	67	38	25	32	10	8	12	7	6	7	7	7	7	8	7	10	8	7	7	67.2
27-Oct	8	28	16	17	11	11	16	20	14	10	16	26	32	36	20	20	10	25	5	8	9	8	26	63	62.7
28-Oct	58	91	43	11	50	41	37	51	36	29	40	44	34	34	96	52	22	46	58	71	67	65	38	95.6	
29-Oct	31	21	35	24	72	67	56	37	31	51	30	24	48	25	21	7	8	8	11	37	18	15	11	23	72.2
30-Oct	22	36	57	61	45	24	16	97	61	16	9	7	12	8	9	20	11	7	6	6	7	7	8	7	96.7
31-Oct	8	67	83	37	68	30	63	36	30	18	18	15	21	16	13	15	15	18	21	16	17	19	30	14	82.7
72.7 91.3 90.6 90.3 87.6 86.0 89.6 96.7 78.2 76.4 93.7 90.3 73.6 94.1 63.4 95.6 88.9 80.9 71.3 91.3 85.9 75.6 87.4 87.5																									

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and
Roses

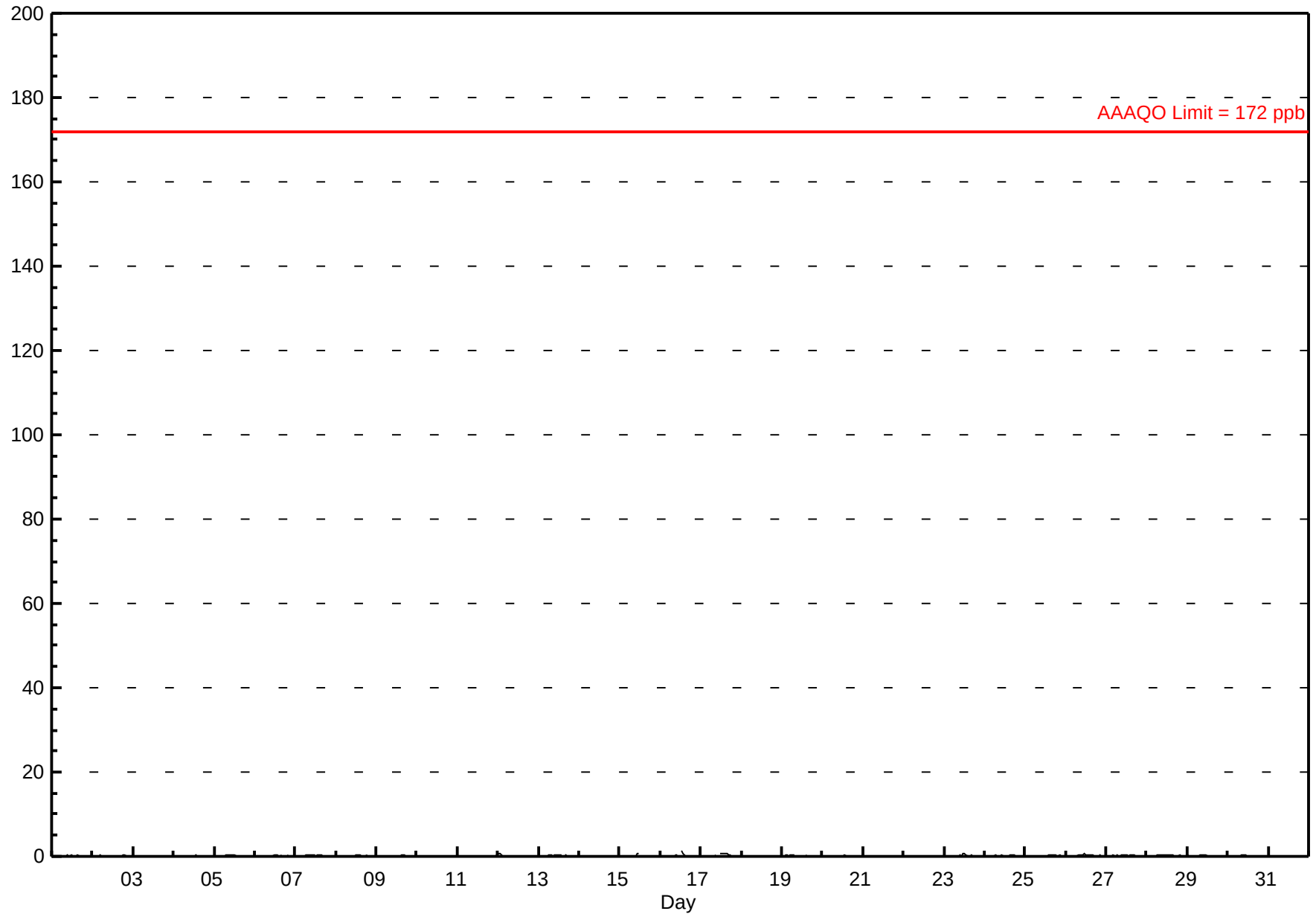
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Evergreen Park - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 1.3 ppb on Oct 16 13:00																				Maximum Daily Average: 0.2 ppb on Oct 26		Hours of Data: 705				
Minimum Value: 0 ppb on Oct 1 01:00																				Minimum Daily Average: 0.0 ppb on Oct 21		Hours of Missing Data: 39				
Maximum Diurnal Average: 0.2 ppb at hour 12																				Minimum Diurnal Average: 0.0 ppb at hour 3		Hours of Calibration: 37				
Monthly Average: 0.10 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.7		Percent Operational Time: 99.7				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.4
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	P	0	0	A	0	0	0	0.1	0.3
7-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.4
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.2
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.1
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.4
12-Oct	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.7
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.4
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.1
15-Oct	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
16-Oct	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0.2	1.3
17-Oct	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0.2	0.8
18-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
19-Oct	0	0	0	0	0	0	0	0	A	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
21-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Oct	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
24-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
25-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
26-Oct	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
27-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.4
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.4
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.1
0.1 0.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
0.7 0.6 0.3 0.2 0.2 0.2 0.3 0.4 0.4 0.4 0.8 0.8 1.3 0.6 0.7 0.7 0.5 0.3 0.2 0.3 0.2 0.1 0.1 0.4																								Diurnal Maximum		
C - Calibration		P - Power Failure		A - Automated Daily Zero Span																						
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - October 2015



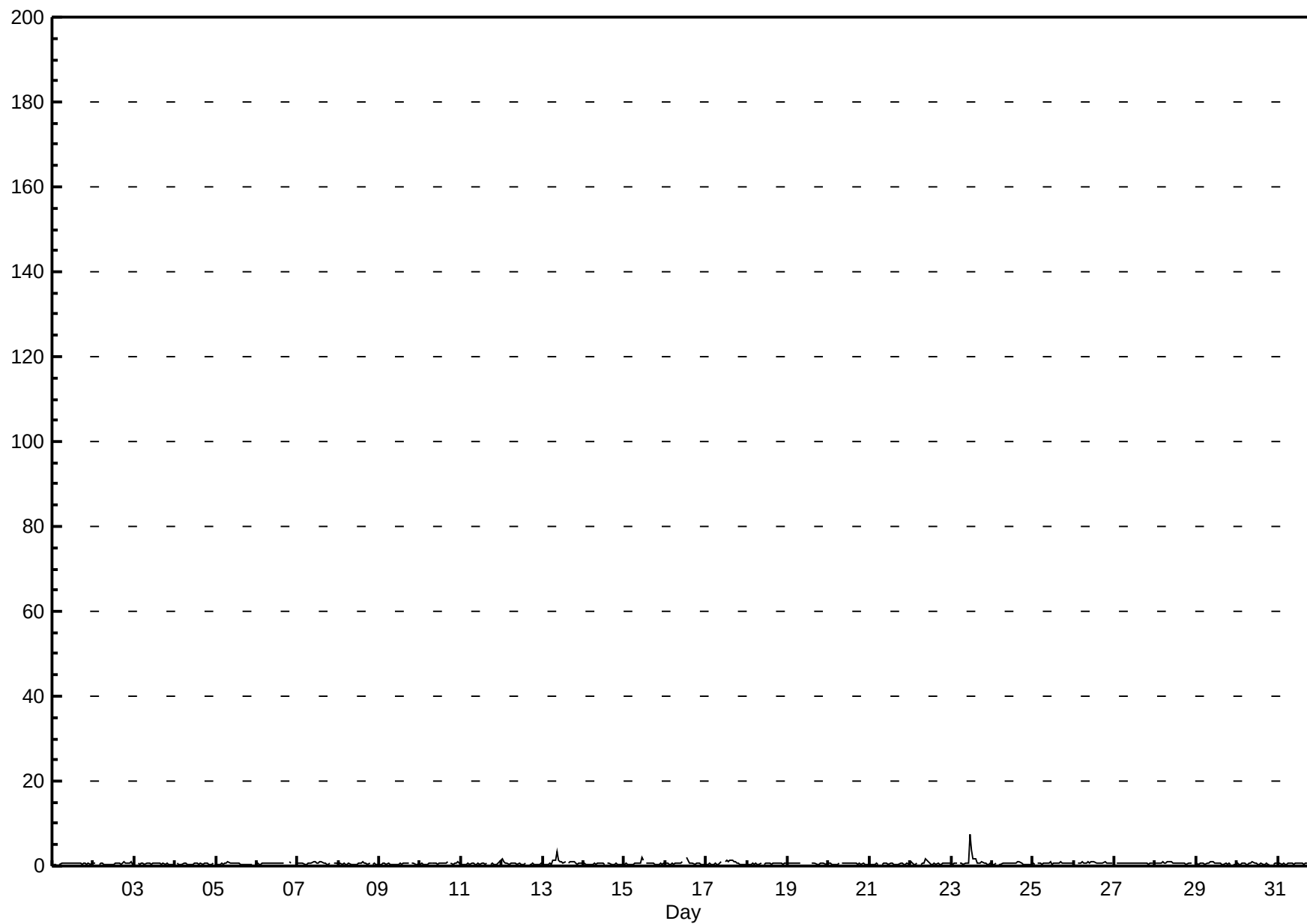
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Evergreen Park - October 2015

Maximum Value: 7.3 ppb on Oct 23 12:00																				Maximum Daily Average: 1.1 ppb on Oct 23					Hours in Service: 744		
Minimum Value: 0 ppb on Oct 31 03:00																				Minimum Daily Average: 0.5 ppb on Oct 21					Hours of Data: 705		
Maximum Diurnal Average: 0.9 ppb at hour 12																				Minimum Diurnal Average: 0.5 ppb at hour 3					Hours of Missing Data: 39		
Monthly Average: 0.62 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 1.6					Hours of Calibration: 37		
																				Percent Operational Time: 99.7							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	1	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	0	0.6	0.8	
2-Oct	1	1	A	0	1	1	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	1	0	0.6	1.0	
3-Oct	0	A	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0.5	0.7	
4-Oct	A	1	0	0	0	1	1	0	1	0	0	1	1	1	0	1	0	1	1	1	0	0	1	A	0.5	0.8	
5-Oct	0	0	0	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0.5	0.9	
6-Oct	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	P	P	1	1	A	1	1	0.6	1.0		
7-Oct	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	1	1	0.6	0.9		
8-Oct	0	1	0	1	0	0	1	0	0	0	0	0	1	1	1	1	0	1	A	0	1	0	0	0.6	0.9		
9-Oct	0	0	1	1	0	1	0	0	1	0	0	0	1	0	1	1	1	1	A	1	1	0	0	1	0.5	0.8	
10-Oct	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	A	1	0	1	1	1	1	1	0.6	0.9	
11-Oct	0	0	1	0	1	0	1	1	0	0	1	0	1	1	0	1	A	0	1	0	0	0	1	1	0.5	1.3	
12-Oct	2	1	1	1	0	1	1	1	1	0	1	0	0	0	1	A	0	0	1	0	0	0	0	1	0.6	1.6	
13-Oct	0	0	0	0	1	0	1	1	3	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	0.9	3.3	
14-Oct	1	0	0	0	0	0	1	0	1	1	1	1	0	A	1	1	0	0	0	1	0	0	0	0	0.5	0.8	
15-Oct	1	1	0	0	0	0	1	1	1	1	2	1	A	1	1	1	1	1	0	0	0	1	0	1	0.7	2.2	
16-Oct	1	1	0	0	1	0	1	1	1	1	1	A	2	1	1	1	1	1	1	1	0	0	0	0.7	2.1		
17-Oct	0	0	1	0	0	1	0	0	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	0.7	1.5		
18-Oct	0	0	0	1	0	1	0	0	1	A	0	1	1	1	0	1	1	1	1	1	1	0	1	1	0.5	0.8	
19-Oct	1	1	1	1	1	1	1	1	A	1	C	C	C	C	1	1	1	0	0	1	1	1	0	1	0.6	0.8	
20-Oct	1	1	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	0.6	0.8	
21-Oct	0	0	0	0	1	1	A	1	1	1	1	0	1	1	0	0	0	0	1	1	0	0	1	0	0.5	0.7	
22-Oct	1	1	0	0	1	A	0	1	1	2	1	1	0	0	1	1	1	0	0	1	1	1	1	1	0.6	1.6	
23-Oct	1	0	1	1	A	1	1	0	1	1	1	7	4	2	2	1	1	1	1	1	1	0	0	1	1.1	7.3	
24-Oct	0	0	1	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0.6	1.0		
25-Oct	1	0	A	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0	
26-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
27-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	0.7	0.8	
28-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	0.7	1.0	
29-Oct	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	1	0	1	0	A	0	0	0.6	1.1	
30-Oct	1	0	0	1	1	0	0	1	1	1	1	1	0	0	1	0	0	1	0	0	A	0	1	1	0.5	1.0	
31-Oct	1	1	0	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	A	1	1	1	1	0.5	0.7	
																								Diurnal Average			
																								Diurnal Maximum			
C - Calibration																								P - Power Failure		A - Automated Daily Zero Span	

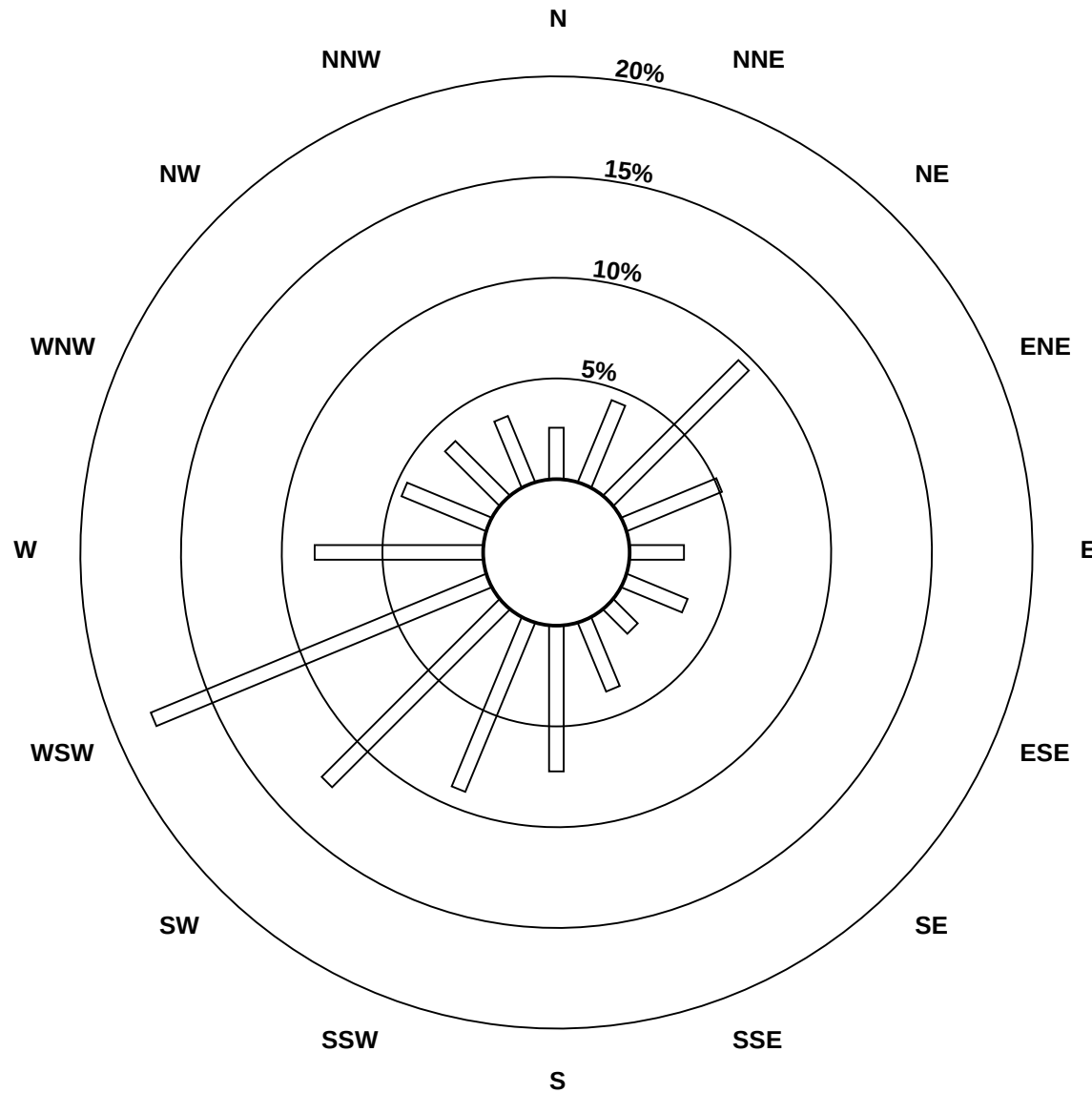
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - October 2015

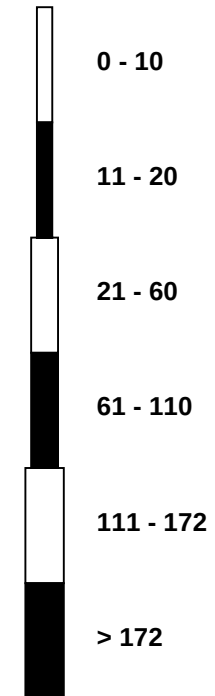


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - October 2015

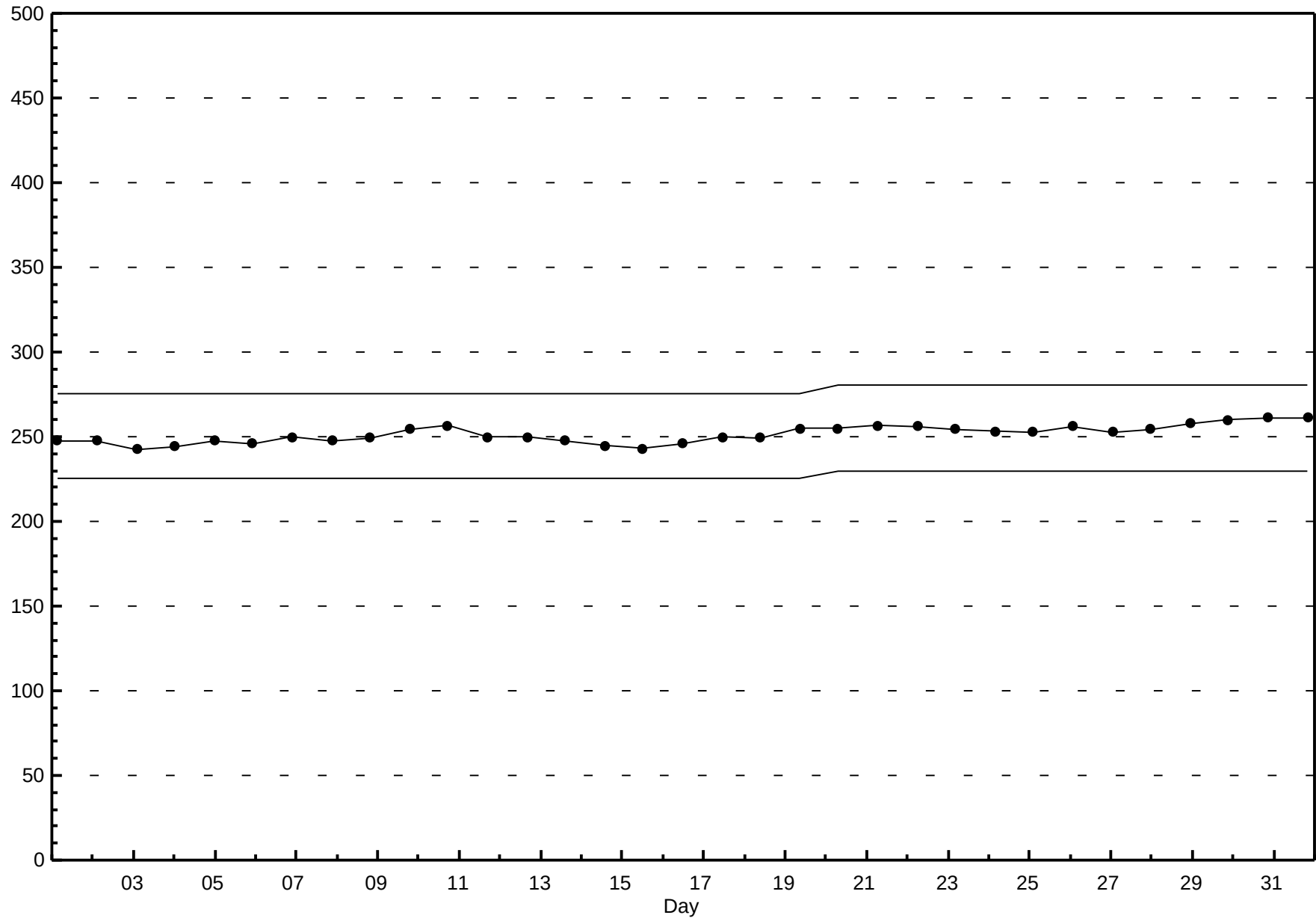


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - October 2015



Hourly Averages

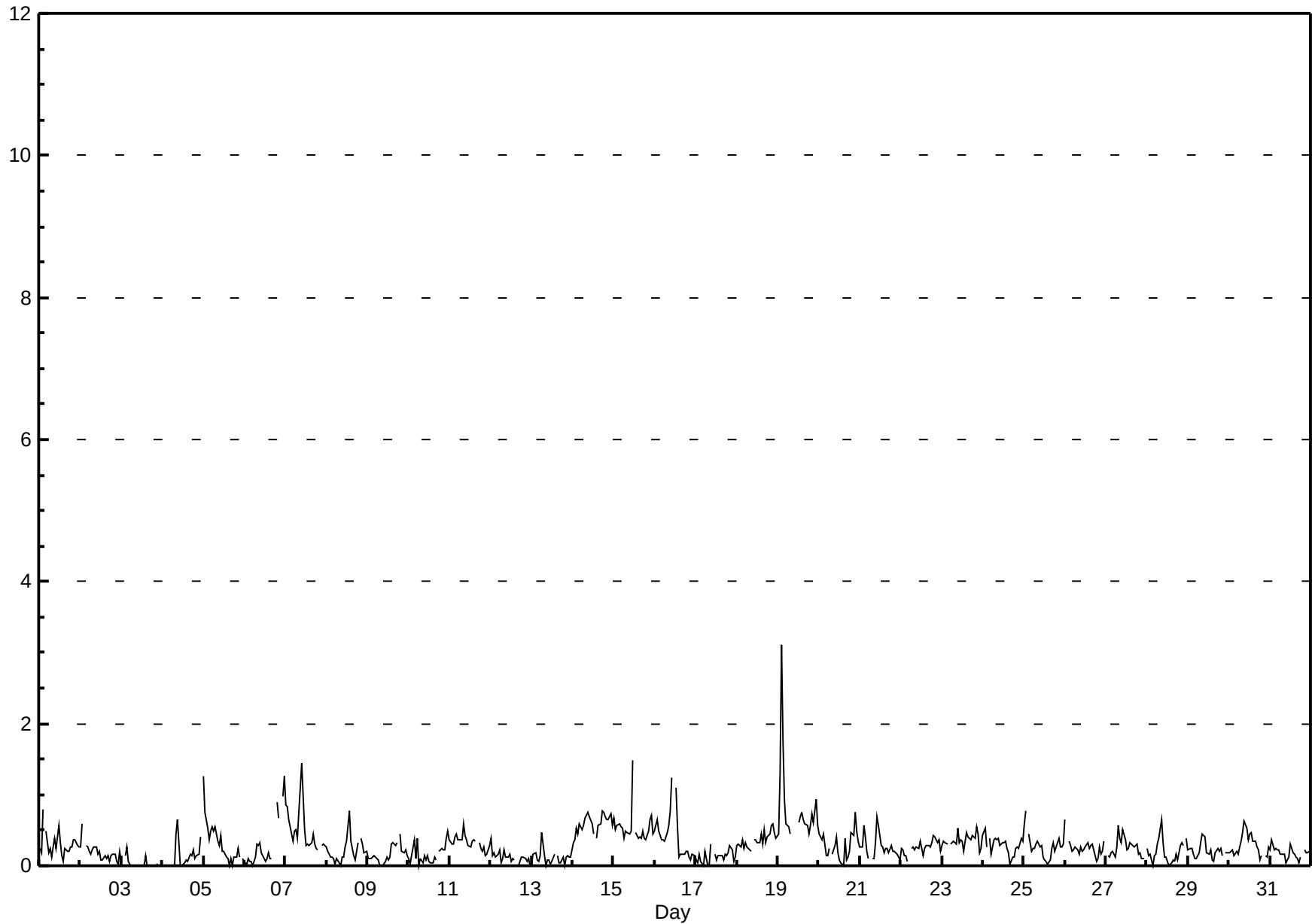
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 3.1 ppb on Oct 19 03:00																				Maximum Daily Average: 0.8 ppb on Oct 19		Hours of Data: 706				
Minimum Value: 0 ppb on Oct 3 07:00																				Minimum Daily Average: 0.0 ppb on Oct 3		Hours of Missing Data: 38				
Maximum Diurnal Average: 0.4 ppb at hour 3																				Minimum Diurnal Average: 0.2 ppb at hour 17		Hours of Calibration: 36				
Monthly Average: 0.28 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.6 P ₉₉ = 1.3		Percent Operational Time: 99.7				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	1	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
2-Oct	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
4-Oct	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.6
5-Oct	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.3
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	P	1	1	A	1	1	0.3	1.3	
7-Oct	1	1	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0.5	1.5
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0.2	0.8
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.5
11-Oct	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.6
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.4
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.5
14-Oct	0	0	1	0	1	1	1	1	1	1	1	1	0	A	0	1	1	1	1	1	1	1	1	1	0.6	0.8
15-Oct	1	1	1	1	1	1	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	1	1	0	0.5	1.5
16-Oct	0	1	0	0	0	0	0	0	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.2
17-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
18-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.6
19-Oct	0	1	3	2	1	1	1	0	A	C	C	C	1	1	1	1	1	1	0	1	1	1	1	1	0.8	3.1
20-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.7
21-Oct	0	0	1	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
22-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
23-Oct	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.5
24-Oct	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
25-Oct	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
26-Oct	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
27-Oct	A	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.6
28-Oct	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.7
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4
30-Oct	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.6
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.4
0.3 0.3 0.4 0.3 0.2 0.2 0.3 0.3 0.3 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3																								Diurnal Average		
1.3 1.3 3.1 1.8 0.9 0.6 0.6 0.7 0.7 1.5 1.2 1.5 1.1 0.8 0.7 0.6 0.6 0.8 0.8 0.9 0.7 0.7 1.0 1.3																								Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - October 2015



Hourly Maximums

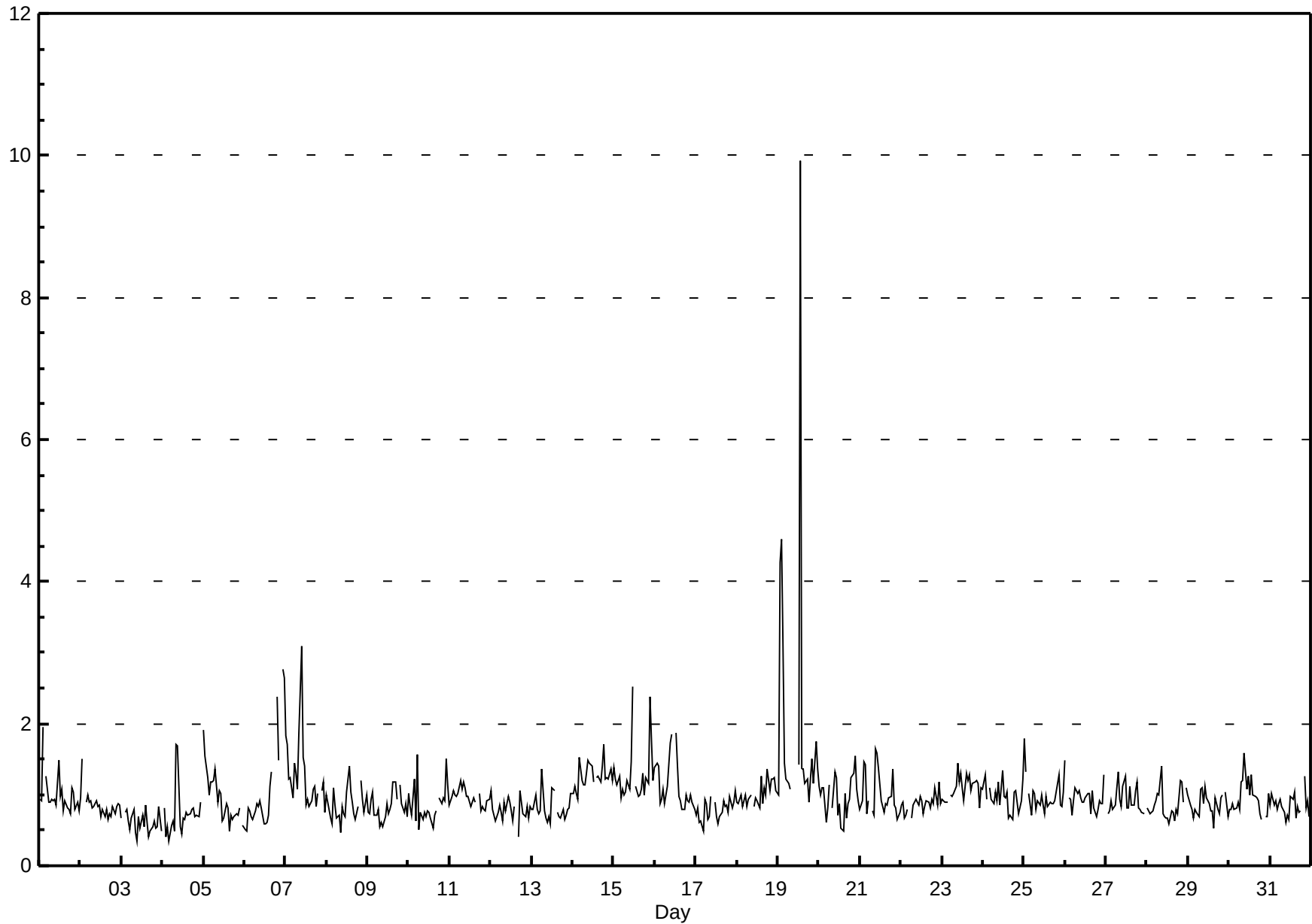
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2015

Maximum Value: 9.9 ppb on Oct 19 14:00																				Maximum Daily Average: 2.1 ppb on Oct 19										Hours in Service: 744	
Minimum Value: 0 ppb on Oct 3 10:00																				Minimum Daily Average: 0.6 ppb on Oct 3										Hours of Data: 706	
Maximum Diurnal Average: 1.2 ppb at hour 14																				Minimum Diurnal Average: 0.9 ppb at hour 5										Hours of Missing Data: 38	
Monthly Average: 0.98 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 0.7 Q ₁ = 0.8 Median = 0.9 Q ₃ = 1.1 P ₉₀ = 1.3 P ₉₉ = 2.6										Hours of Calibration: 36	
																				Percent Operational Time: 99.7											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Oct	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9					
2-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5					
3-Oct	1	A	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0	1	1	1	1	1	0	0.6	0.8					
4-Oct	A	1	0	1	0	1	1	0	2	2	1	0	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.7					
5-Oct	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1.0	1.9					
6-Oct	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	P	P	2	1	A	3	3	1.1	2.8						
7-Oct	2	2	1	1	1	1	1	1	2	3	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1.3	3.1					
8-Oct	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.4					
9-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.2					
10-Oct	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	0.9	1.6					
11-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	1.2					
12-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	1	1	1	0.8	1.1					
13-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.4					
14-Oct	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1.3	1.7					
15-Oct	1	1	1	1	1	1	1	1	1	1	1	3	A	1	1	1	1	1	1	1	1	2	2	1	1.3	2.5					
16-Oct	1	1	1	1	1	1	1	1	1	2	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1.1	1.9					
17-Oct	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1					
18-Oct	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4					
19-Oct	1	4	5	3	1	1	1	1	A	C	C	C	1	10	1	1	1	1	1	1	2	1	2	1	2.1	9.9					
20-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	2	1	1	1.0	1.5					
21-Oct	1	1	1	1	1	1	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6					
22-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2					
23-Oct	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5					
24-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3					
25-Oct	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8					
26-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5					
27-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.3					
28-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.4					
29-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.1					
30-Oct	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	1.6					
31-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.3					
1.0 1.1 1.1 1.0 0.9 0.9 0.9 0.9 1.0 1.1 1.0 1.0 0.9 1.2 0.9 0.9 0.9 0.9 0.9 1.0 1.0 0.9 1.1 1.0																									Diurnal Average						
1.9 4.3 4.6 3.1 1.5 1.6 1.4 1.4 1.8 3.1 1.9 2.5 1.9 9.9 1.4 1.4 1.3 1.4 1.7 2.4 1.5 2.4 2.8 2.6																									Diurnal Maximum						
C - Calibration					P - Power Failure					A - Automated Daily Zero Span																					

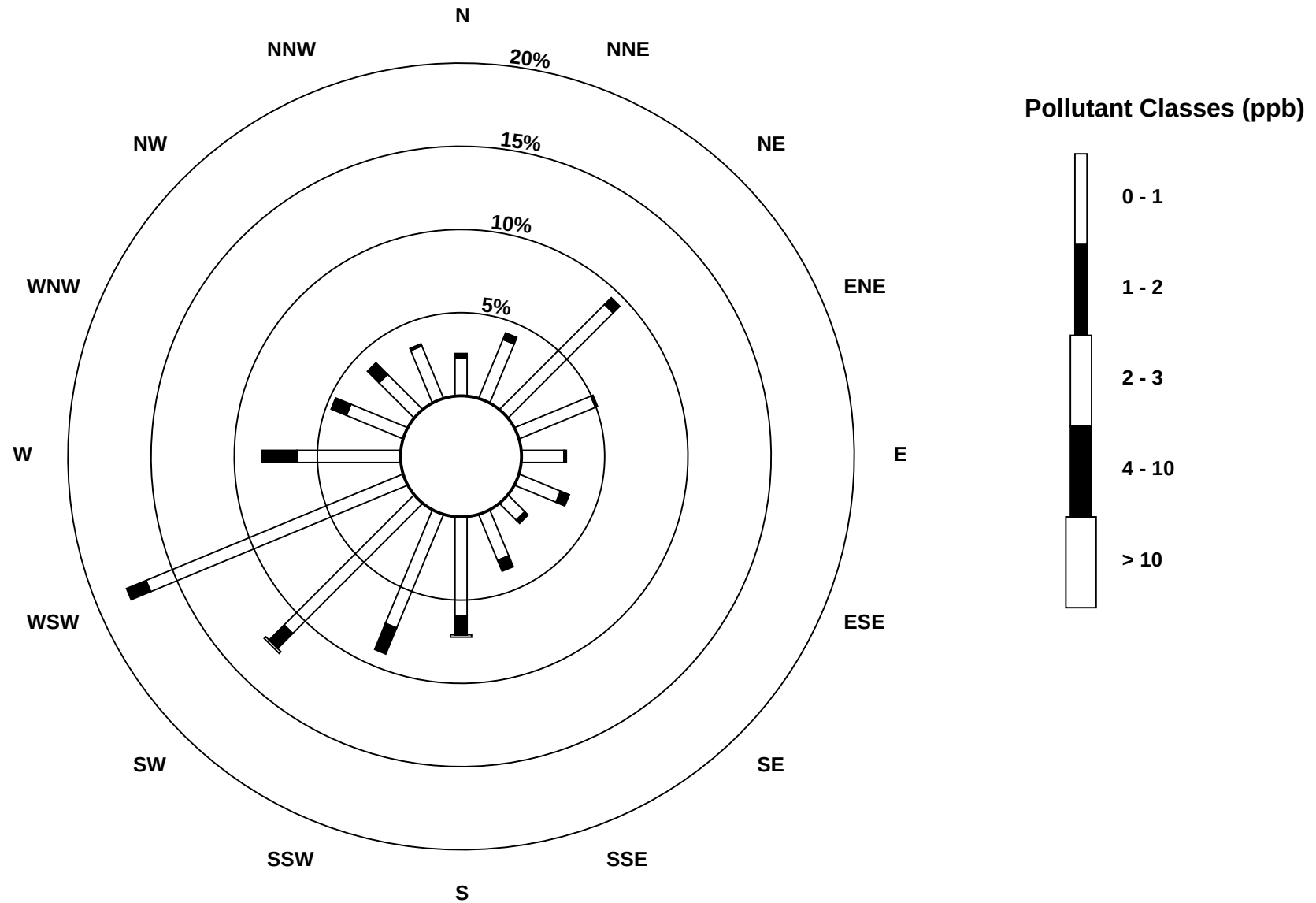
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - October 2015



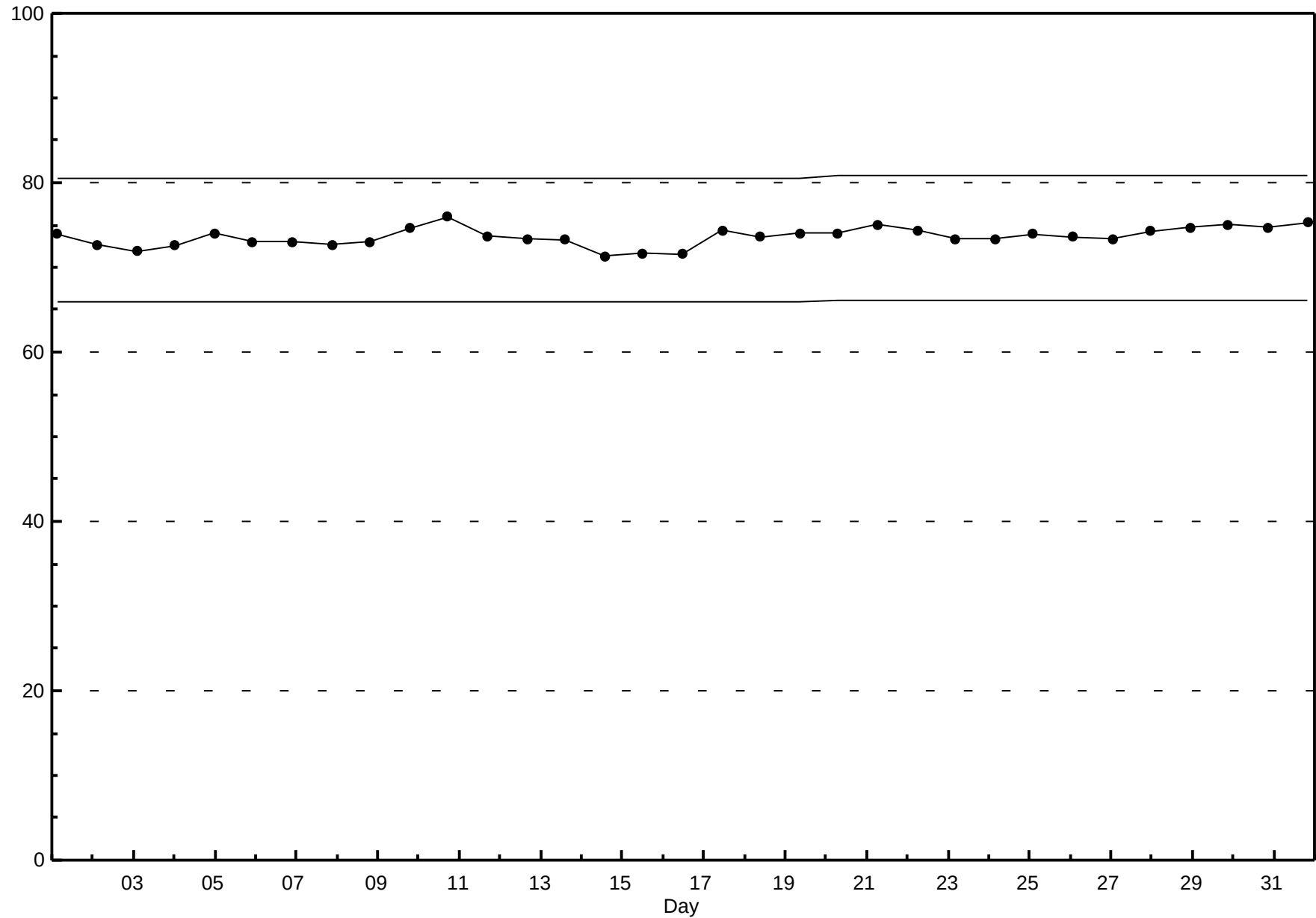
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - October 2015



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - October 2015

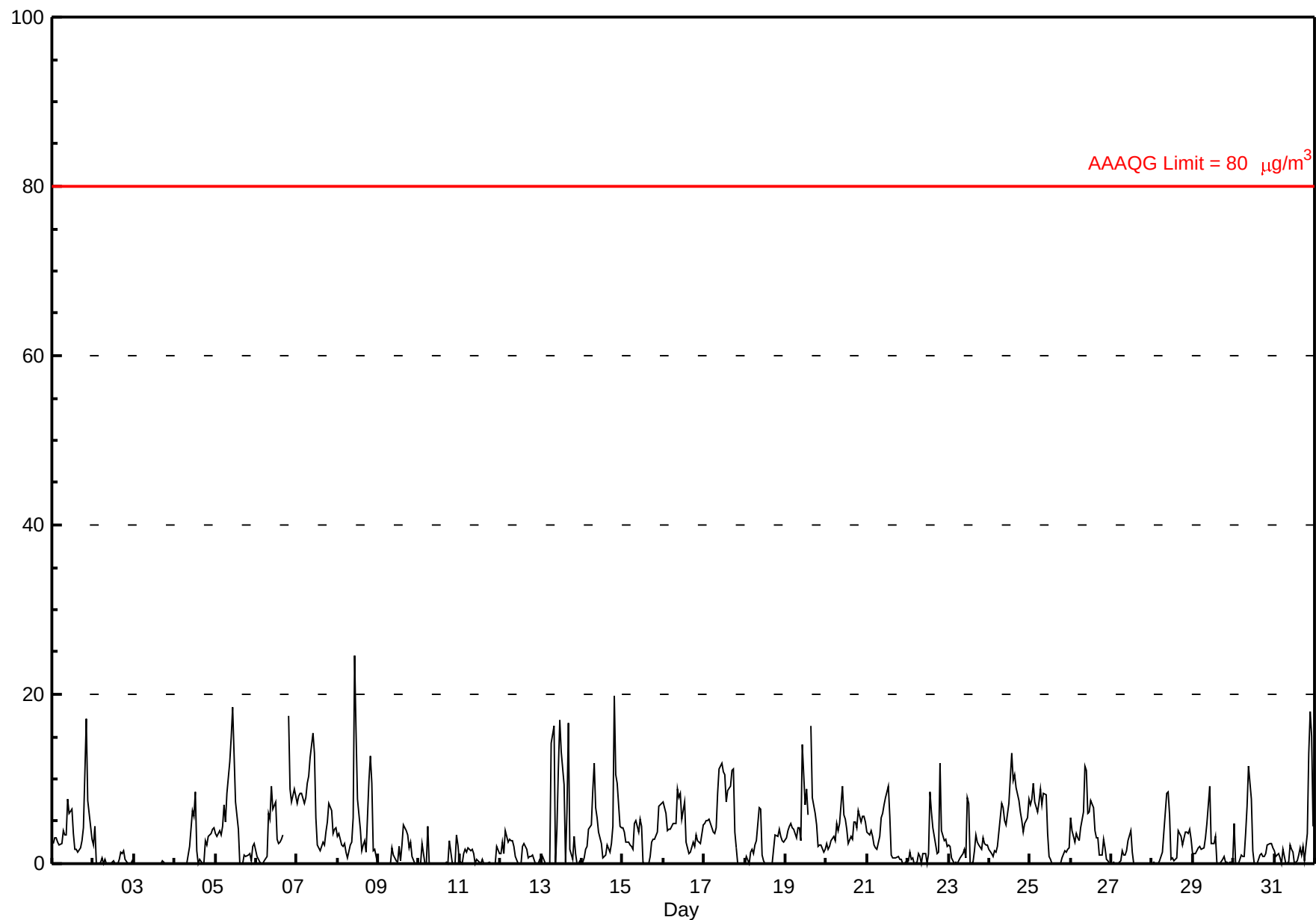


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - October 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 24.5 µg/m³ on Oct 8 11:00 Maximum Daily Average: 6.6 µg/m³ on Oct 7																					Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 1 Percent Operational Time: 99.7					
Minimum Value: 0 µg/m³ on Oct 2 03:00 Maximum Diurnal Average: 6.0 µg/m³ at hour 11 Monthly Average: 3.11 µg/m³										Minimum Daily Average: 0.0 µg/m³ on Oct 3 Minimum Diurnal Average: 1.7 µg/m³ at hour 15 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.3 Median = 2.1 Q ₃ = 4.4 P ₉₀ = 7.9 P ₉₉ = 16.7																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	2	3	3	3	2	2	4	3	3	8	6	6	4	2	2	1	2	3	4	11	17	7	4	3	4.4	17.1
2-Oct	2	4	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0.6	4.4
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
4-Oct	0	0	0	0	0	0	0	0	1	2	6	6	8	2	0	0	0	0	3	2	3	4	4	4	1.9	8.4
5-Oct	4	3	4	3	4	7	5	8	12	15	18	13	7	4	0	0	0	1	1	1	1	0	2	2	4.9	18.4
6-Oct	1	1	0	0	0	0	1	6	5	9	6	7	3	2	3	3	3	P	P	17	9	7	9	8	4.6	17.5
7-Oct	7	8	8	8	7	8	10	10	13	15	13	5	2	2	2	2	2	4	5	7	6	4	4	4	6.6	15.4
8-Oct	3	3	2	2	2	1	1	2	3	5	25	16	8	4	2	2	3	1	10	13	10	2	2	0	5.0	24.5
9-Oct	0	0	0	0	0	0	0	0	2	1	0	0	2	0	2	5	4	3	2	3	1	0	0	0	1.0	4.6
10-Oct	0	0	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	2	0.6	4.4
11-Oct	0	0	1	2	1	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0.7	2.0
12-Oct	1	3	1	4	3	3	3	3	2	1	0	0	0	2	2	2	1	1	1	1	0	0	0	0	1.4	3.9
13-Oct	1	1	0	0	0	0	14	16	0	4	11	17	13	9	0	6	17	2	0	3	1	0	0	0	4.9	16.9
14-Oct	0	1	2	2	4	5	9	12	7	5	4	2	1	1	1	2	1	2	4	20	11	9	4	4	4.7	19.9
15-Oct	4	4	3	2	2	2	2	5	5	4	5	4	0	0	0	0	1	3	3	3	4	7	7	7	3.2	7.1
16-Oct	7	6	4	4	4	4	5	5	9	8	8	5	7	3	2	1	1	3	2	3	3	3	2	5	4.3	8.8
17-Oct	5	5	5	5	4	4	4	4	8	11	12	11	11	7	9	9	11	11	4	2	0	0	0	0	5.9	11.9
18-Oct	0	1	0	1	2	1	2	3	7	6	1	0	0	0	0	0	0	2	3	3	4	3	3	2	1.9	6.6
19-Oct	3	4	4	5	4	4	3	4	4	3	14	7	9	6	C	16	8	6	5	2	2	2	1	2	5.1	16.2
20-Oct	2	2	2	3	3	3	5	4	5	9	6	5	4	2	3	3	5	5	4	6	5	6	6	5	4.3	9.1
21-Oct	4	3	4	3	2	2	2	3	5	6	7	8	9	6	1	1	1	1	1	1	1	0	0	0	2.9	9.2
22-Oct	0	1	1	1	0	0	1	1	0	1	1	0	1	9	6	4	2	1	1	12	4	3	3	2	2.3	11.8
23-Oct	2	2	1	0	0	0	0	1	1	2	1	8	7	0	0	2	3	3	2	2	3	2	2	2	1.9	7.8
24-Oct	2	1	1	2	1	2	5	7	7	5	5	7	10	13	10	11	9	7	6	5	4	5	5	8	5.7	13.0
25-Oct	7	8	9	7	6	7	9	7	8	8	4	1	1	0	0	0	0	0	0	1	1	1	2	2	3.7	9.5
26-Oct	5	4	3	4	3	3	4	6	12	11	6	6	8	7	4	3	3	1	1	3	2	1	0	0	4.1	11.5
27-Oct	0	0	0	0	0	0	2	1	1	1	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0.6	3.9
28-Oct	0	0	0	0	0	1	1	4	8	9	6	0	1	0	1	4	4	3	2	4	4	4	4	3	2.6	8.5
29-Oct	1	1	2	2	2	2	2	3	5	7	9	2	2	3	0	0	0	0	1	0	0	0	0	0	1.9	9.1
30-Oct	5	0	0	0	1	1	1	4	7	12	8	2	0	0	0	1	1	1	1	1	2	2	2	2	2.2	11.6
31-Oct	1	1	1	1	0	2	1	0	0	2	2	1	0	0	1	2	1	2	0	4	13	18	15	4	3.0	18.0
2.3 2.2 2.0 2.1 1.9 2.3 3.1 4.0 4.5 5.5 6.0 4.7 3.8 2.7 1.7 2.6 2.7 2.2 2.4 4.2 3.5 2.9 2.8 2.4																								Diurnal Average		
7.3 7.9 9.5 8.3 7.2 7.7 14.2 16.3 12.6 15.4 24.5 16.9 13.2 13.0 9.8 16.2 16.6 11.1 9.8 19.9 17.1 18.0 15.1 8.0																								Diurnal Maximum		
C - Calibration P - Power Failure																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										



Hourly Maximums

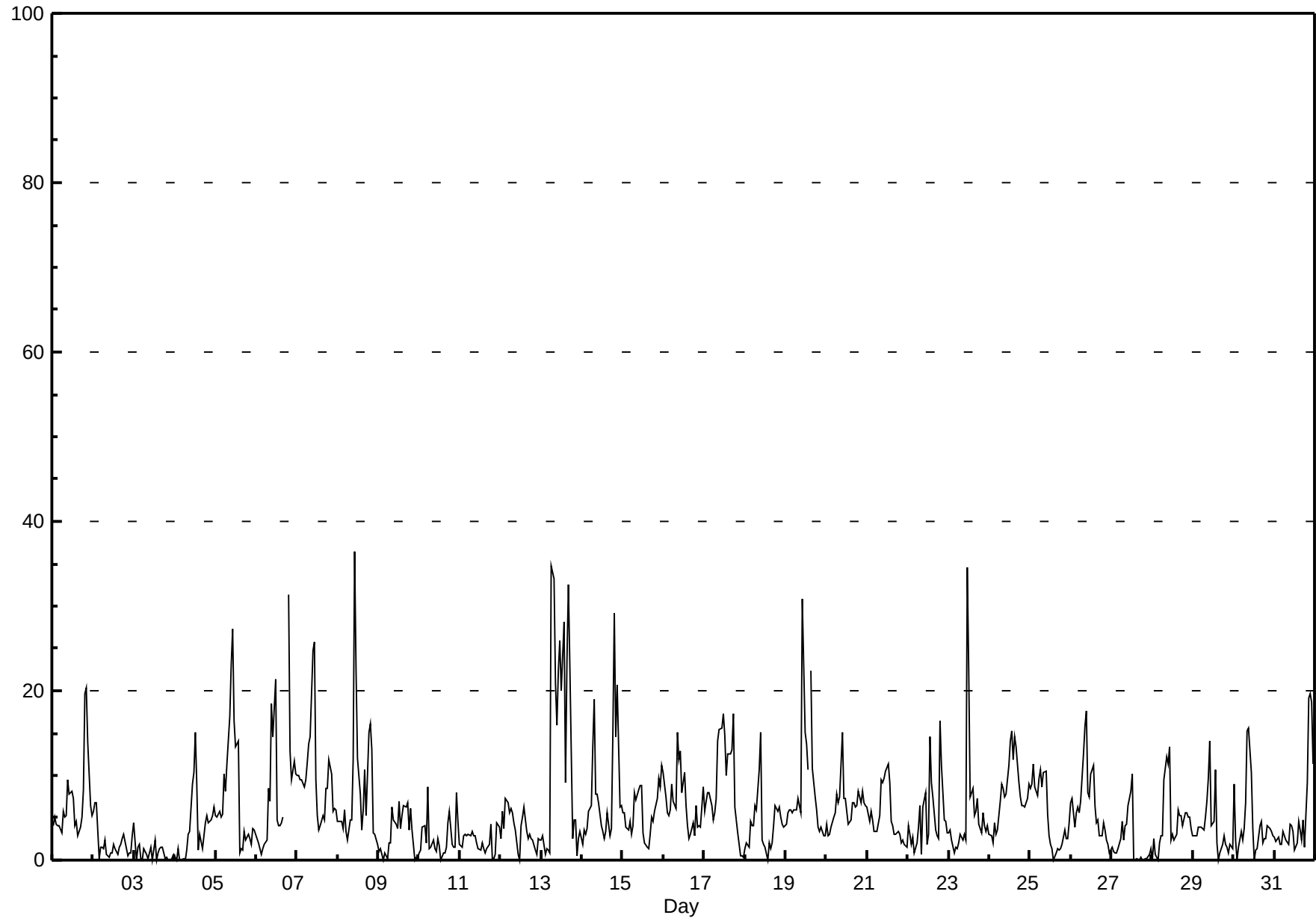
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - October 2015

Maximum Value: 36.5 μg/m³ on Oct 8 11:00																					Maximum Daily Average: 13.2 μg/m³ on Oct 13					Hours in Service: 744	
Minimum Value: 0 μg/m³ on Oct 3 02:00																					Minimum Daily Average: 0.9 μg/m³ on Oct 3					Hours of Data: 741	
Maximum Diurnal Average: 10.6 μg/m³ at hour 11																					Minimum Diurnal Average: 3.6 μg/m³ at hour 4					Hours of Missing Data: 3	
Monthly Average: 5.75 μg/m³																					Percentiles: P ₁ = 0.0 P ₁₀ = 0.9 Q ₁ = 2.1 Median = 4.1 Q ₃ = 7.2 P ₉₀ = 12.5 P ₉₉ = 30.4					Hours of Calibration: 1	
																										Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	4	5	4	4	4	3	6	5	5	9	8	8	7	4	5	3	4	5	8	20	20	14	7	5	7.0	20.4	
2-Oct	6	7	7	0	2	2	1	2	1	0	1	1	2	1	1	2	2	3	3	2	1	1	1	3	2.1	6.7	
3-Oct	4	0	2	2	0	0	1	1	0	1	2	0	2	0	1	1	2	2	0	0	0	0	0	1	0.9	4.3	
4-Oct	0	0	1	0	0	0	0	1	3	3	9	10	15	9	1	3	1	3	4	5	4	5	5	6	3.8	15.0	
5-Oct	5	5	6	5	5	10	8	11	17	23	27	16	13	14	1	1	1	3	2	3	3	2	4	4	8.0	27.2	
6-Oct	3	2	1	1	1	2	2	8	7	18	15	21	5	4	4	4	5	P	P	31	13	9	12	10	8.2	31.4	
7-Oct	10	10	9	9	9	9	12	14	15	25	26	9	5	4	4	5	5	8	8	12	10	6	6	6	9.8	25.8	
8-Oct	5	5	5	4	6	3	2	5	5	12	36	23	12	8	4	6	11	5	15	16	13	3	3	2	8.6	36.5	
9-Oct	1	1	1	0	1	0	2	2	6	5	4	4	7	4	5	6	6	7	4	6	4	0	0	0	3.2	7.0	
10-Oct	1	1	4	4	2	9	1	2	2	1	1	2	2	0	1	1	2	4	6	2	2	2	8	5	2.7	8.7	
11-Oct	2	2	3	3	3	3	3	3	3	3	2	1	1	2	1	1	1	2	4	0	0	1	4	4	2.2	4.3	
12-Oct	3	6	4	7	7	6	6	6	4	4	1	0	4	5	6	3	3	3	3	2	1	1	3	2	3.7	7.2	
13-Oct	2	3	1	1	1	1	35	33	21	16	22	26	20	28	9	24	33	23	3	5	5	1	3	3	13.2	34.8	
14-Oct	2	4	3	4	6	7	13	19	8	8	7	4	3	3	3	6	3	4	15	29	15	21	6	7	8.2	29.2	
15-Oct	6	6	4	4	5	3	4	8	7	8	9	9	3	2	2	1	3	5	5	6	7	10	9	11	5.6	11.2	
16-Oct	10	7	6	5	6	9	7	6	15	12	13	8	10	7	4	3	3	4	3	7	4	4	4	9	6.9	15.0	
17-Oct	6	7	8	8	6	5	6	7	14	15	16	17	15	10	13	13	13	17	6	5	3	1	1	0	8.8	17.2	
18-Oct	1	2	2	5	4	4	7	6	11	15	2	2	2	0	2	1	2	4	6	6	6	5	4	4	4.3	15.0	
19-Oct	4	6	6	6	6	6	6	7	6	6	31	15	14	11	C	22	11	7	6	4	3	4	3	3	8.4	30.9	
20-Oct	4	3	3	4	5	6	8	7	7	15	7	7	6	4	5	7	7	6	7	8	7	8	7	6	6.4	15.0	
21-Oct	6	5	6	5	3	3	3	5	9	9	10	10	11	9	5	4	3	3	3	3	2	2	2	2	5.2	11.4	
22-Oct	4	3	2	3	1	2	4	7	1	6	8	2	3	15	9	7	4	3	3	16	11	5	5	3	5.2	16.5	
23-Oct	3	3	2	1	2	1	2	3	2	3	2	35	23	7	8	5	6	7	4	3	6	4	3	4	5.9	34.5	
24-Oct	3	3	2	4	3	4	7	9	8	7	8	11	14	15	12	15	13	9	7	7	6	6	7	9	8.0	15.3	
25-Oct	8	9	11	9	8	10	11	9	10	11	5	3	2	1	0	1	1	1	1	2	4	3	3	4	5.3	11.4	
26-Oct	7	7	4	6	6	6	7	13	16	18	8	7	10	11	6	4	5	3	3	4	4	2	2	1	6.6	17.7	
27-Oct	2	1	1	1	1	3	5	2	4	4	6	8	10	0	0	0	0	0	0	0	0	0	1	1	2.1	10.2	
28-Oct	0	3	1	0	2	3	3	9	12	11	13	2	3	2	3	6	5	5	4	6	6	5	5	4	4.7	13.3	
29-Oct	3	3	3	4	4	4	4	5	7	10	14	4	4	11	2	0	1	2	3	2	2	1	2	1	3.9	14.0	
30-Oct	9	2	0	2	3	2	4	7	15	16	10	4	0	1	1	4	5	2	3	3	4	4	3	3	4.4	15.5	
31-Oct	3	2	3	2	2	3	3	2	2	4	4	3	1	2	5	4	2	5	2	9	19	20	19	11	5.5	19.6	
4.1 3.9 3.6 3.6 3.7 4.1 5.9 7.2 7.9 9.6 10.6 8.9 7.4 6.3 4.1 5.3 5.2 5.2 4.7 7.2 5.9 4.7 4.5 4.3																								Diurnal Average			
10.4 9.9 11.4 9.4 8.7 10.1 34.8 33.3 20.9 24.8 36.5 34.5 22.6 28.2 12.6 23.6 32.5 23.0 15.0 31.4 20.4 20.6 18.6 11.4																								Diurnal Maximum			
C - Calibration P - Power Failure																											

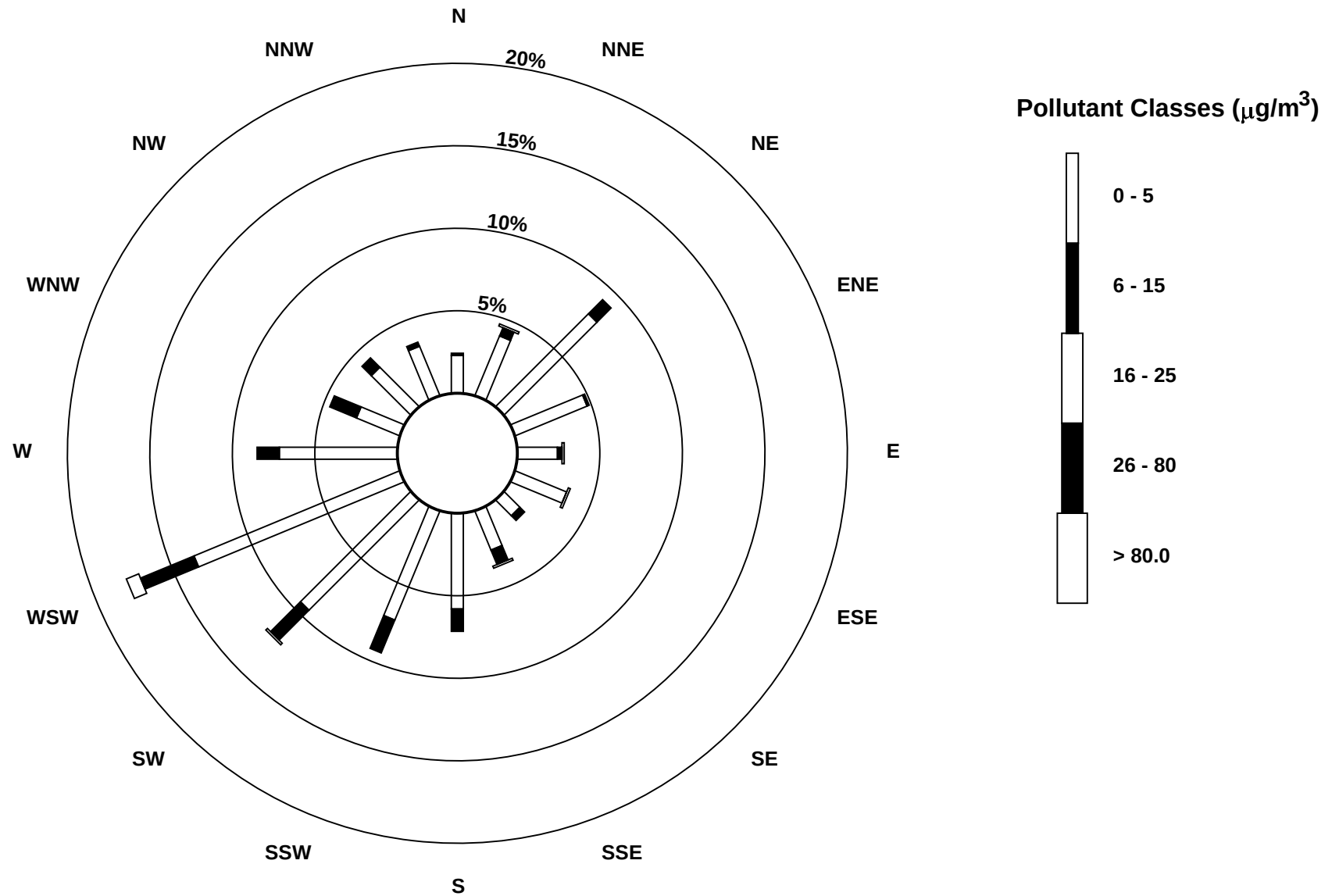
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - October 2015



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - October 2015



Hourly Averages

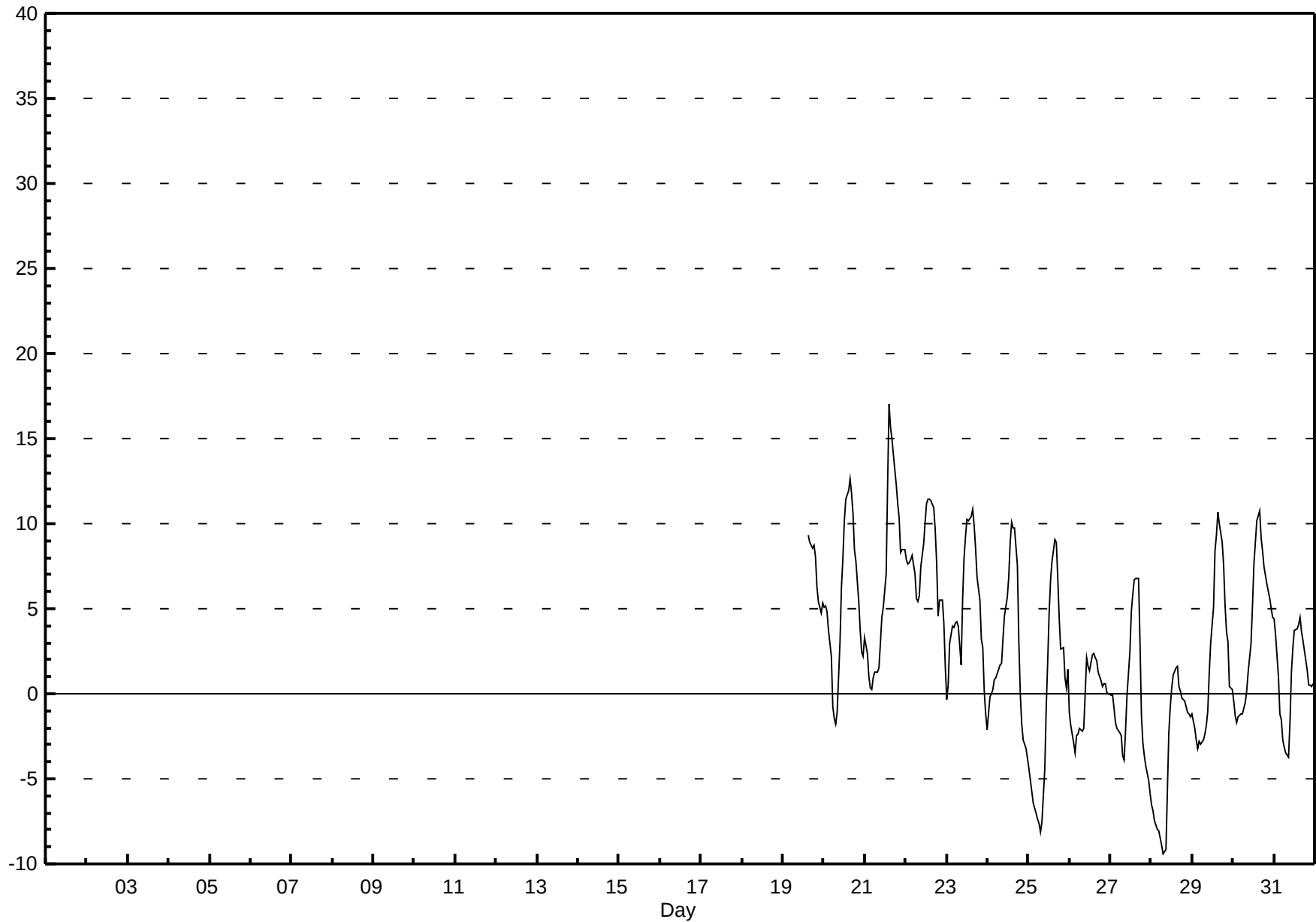
External Temperature (ET) - °C

Evergreen Park - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 17.0 °C on Oct 21 15:00 Maximum Daily Average: 7.7 °C on Oct 22																			Hours in Service: 744 Hours of Data: 297 Hours of Missing Data: 447 Hours of Calibration: 0 Percent Operational Time: 39.9							
Minimum Value: -9 °C on Oct 28 08:00 Minimum Daily Average: -3.4 °C on Oct 28 Maximum Diurnal Average: 8.9 °C at hour 16 Minimum Diurnal Average: -1.6 °C at hour 8 Monthly Average: 2.72 °C Percentiles: P ₁ = -8.7 P ₁₀ = -3.2 Q ₁ = -1.1 Median = 2.2 Q ₃ = 6.8 P ₉₀ = 9.9 P ₉₉ = 14.7																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
2-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
3-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
4-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
5-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
6-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
7-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
8-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
9-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
10-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
11-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
12-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
13-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
14-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
15-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
16-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
17-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
18-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
19-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	9	9	9	9	8	6	5	5	5	--	9.3
20-Oct	5	5	5	4	2	-1	-1	-2	-1	3	6	8	10	11	12	13	12	11	8	8	5	4	2	2	5.5	12.6
21-Oct	3	2	1	0	0	1	1	1	2	3	5	5	7	12	17	16	15	14	12	11	10	8	8	8	6.9	17.0
22-Oct	8	8	8	8	8	7	6	5	6	7	9	10	11	11	11	11	11	10	8	5	5	6	4	2	7.7	11.5
23-Oct	0	0	3	4	4	4	4	4	2	5	8	9	10	10	10	11	10	9	7	6	3	3	0	-1	5.2	10.8
24-Oct	-2	0	0	0	1	1	1	2	2	3	5	6	7	9	10	10	10	8	3	0	-2	-3	-3	-4	2.6	10.0
25-Oct	-4	-5	-6	-6	-7	-7	-8	-8	-8	-4	-1	2	5	7	8	9	9	7	4	3	3	1	0	1	-0.3	9.1
26-Oct	-1	-2	-3	-3	-2	-2	-2	-2	-2	0	2	2	1	2	2	2	2	1	1	0	1	1	0	0	-0.1	2.3
27-Oct	0	0	-1	-2	-2	-2	-2	-4	-4	-2	0	2	5	6	7	7	7	3	-1	-3	-4	-4	-5	-6	-0.3	6.8
28-Oct	-6	-7	-7	-8	-8	-8	-9	-9	-9	-6	-2	-1	0	1	2	2	0	0	0	0	-1	-1	-1	-1	-3.4	1.7
29-Oct	-1	-2	-3	-3	-3	-3	-3	-2	-2	-1	1	3	5	8	9	11	10	9	8	5	4	3	0	0	2.2	10.7
30-Oct	0	-1	-2	-1	-1	-1	-1	-1	0	1	3	5	8	9	10	11	9	8	7	7	6	6	5	4	3.8	10.8
31-Oct	4	3	1	-1	-2	-3	-3	-3	-4	-2	1	3	4	4	4	4	4	3	3	1	0	0	0	1	1.0	4.5
Diurnal Average																										
Diurnal Maximum																										
N - Not Valid																										

Hourly Averages

External Temperature (ET) - °C
Evergreen Park - October 2015



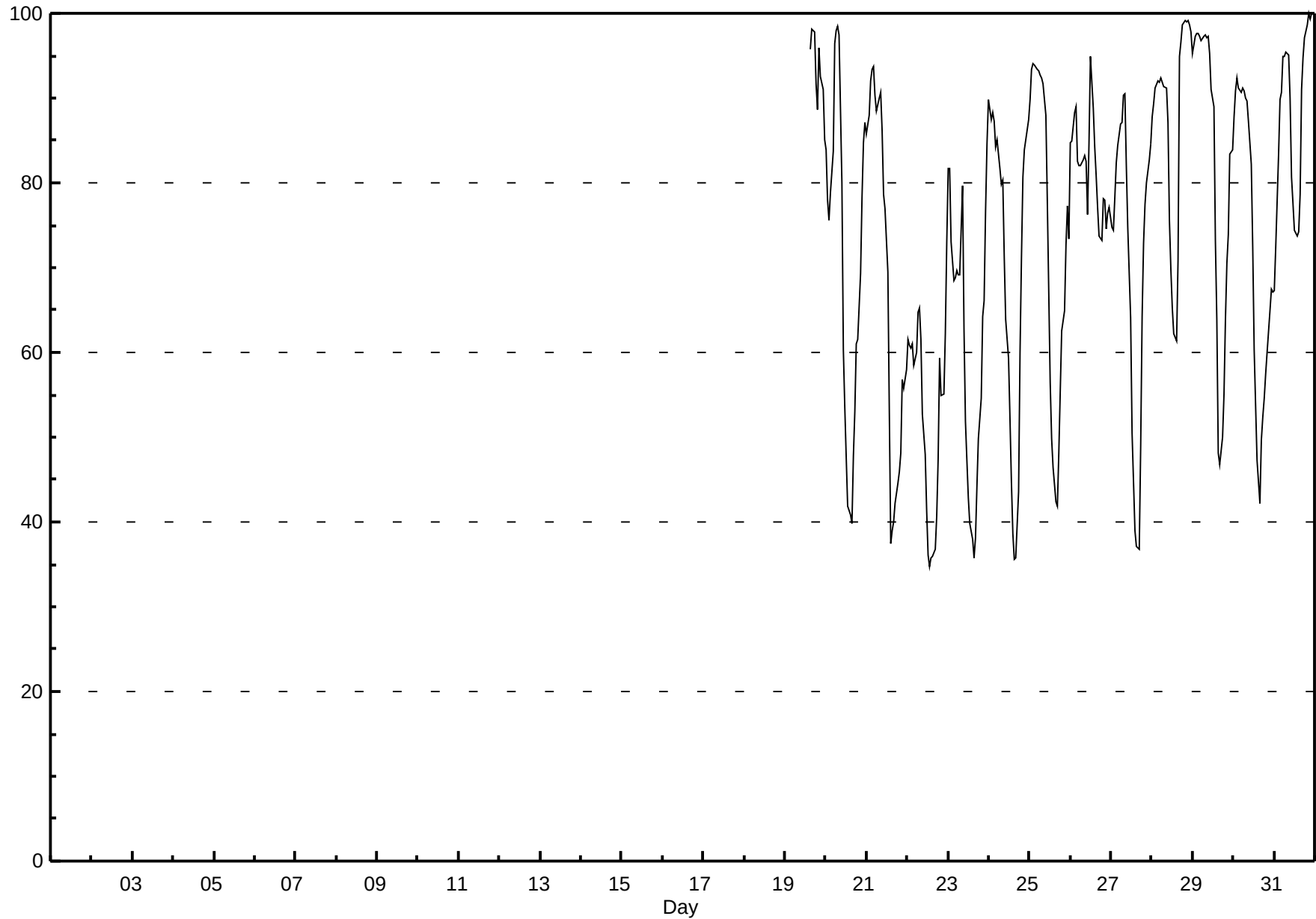
Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Oct 31 21:00 Maximum Daily Average: 88.1 % on Oct 31																								Hours in Service: 744 Hours of Data: 297 Hours of Missing Data: 447 Hours of Calibration: 0 Percent Operational Time: 39.9		
Minimum Value: 35 % on Oct 22 14:00 Minimum Daily Average: 52.8 % on Oct 22 Maximum Diurnal Average: 87.4 % at hour 9 Minimum Diurnal Average: 50.6 % at hour 15 Monthly Average: 73.72 % Percentiles: P ₁ = 35.8 P ₁₀ = 44.4 Q ₁ = 60.0 Median = 77.9 Q ₃ = 89.9 P ₉₀ = 95.8 P ₉₉ = 99.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
2-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
3-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
4-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
5-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
6-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
7-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
8-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
9-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
10-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
11-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
12-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
13-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
14-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
15-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
16-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
17-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
18-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
19-Oct	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	96	98	98	92	89	96	93	91	85	--	98.2
20-Oct	84	78	76	79	84	97	98	99	97	80	60	53	48	42	41	40	48	53	61	62	69	78	85	87	70.7	98.5
21-Oct	86	88	92	93	94	90	89	90	91	86	79	77	70	53	37	39	40	42	45	46	48	57	56	58	68.5	93.7
22-Oct	61	61	61	61	59	60	65	65	62	53	48	41	36	35	36	36	37	41	47	59	55	55	62	73	52.8	73.0
23-Oct	82	82	73	68	69	70	69	69	80	63	52	47	43	40	38	36	38	44	50	55	64	66	77	85	60.8	84.6
24-Oct	90	87	88	87	84	85	82	80	80	71	64	59	52	45	39	36	36	44	60	71	81	84	86	88	70.0	89.8
25-Oct	90	93	94	94	93	93	93	92	92	88	78	67	56	50	47	42	42	48	55	63	65	73	77	73	73.3	94.1
26-Oct	85	85	88	89	83	82	82	83	83	82	76	85	95	89	84	81	77	74	73	78	78	75	76	77	81.7	95.0
27-Oct	75	74	78	82	84	87	87	90	90	82	75	64	50	45	39	37	37	49	64	73	77	80	83	85	70.4	90.5
28-Oct	88	89	91	92	92	92	92	91	91	87	76	70	65	62	61	71	95	97	99	99	99	99	99	98	87.3	99.2
29-Oct	95	97	98	98	97	97	97	97	97	97	95	91	89	73	64	48	47	50	55	64	71	74	83	84	81.6	97.7
30-Oct	88	91	92	91	91	91	91	90	90	87	82	72	60	54	47	42	50	52	54	58	60	65	67	67	72.2	92.4
31-Oct	67	72	83	90	91	95	95	95	95	90	81	78	74	74	74	79	91	95	97	99	100	99	100	100	88.1	100.0
82.5 83.2 84.6 85.4 85.0 86.6 86.6 86.9 87.4 80.6 72.1 67.1 61.6 55.0 50.6 52.5 56.5 60.5 65.6 70.3 74.1 76.7 80.2 81.5																								Diurnal Average		
95.3 97.3 97.7 97.6 97.4 96.9 98.0 98.5 97.5 97.3 95.3 91.0 95.0 88.8 84.3 95.8 98.2 97.8 98.7 99.2 100.0 99.3 100.0 100.0																								Diurnal Maximum		
N - Not Valid																										

Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - October 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - October 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	0	1	1	1	1	0	1	1	3	2	5	4	8	8	7	6	6	4	2	3	2	2	2	1.3	8.4
Dir	185	344	292	123	178	159	263	26	42	212	299	359	60	119	50	47	35	45	339	221	152	148	109	179	64.3	118.8
2 Spd	0	10	28	18	19	20	16	18	19	21	24	25	21	23	25	19	22	18	18	17	11	11	9	9	17.0	28.1
Dir	32	281	302	316	298	293	314	315	323	331	325	322	327	325	326	332	327	323	318	330	336	357	5	334	321.0	302.2
3 Spd	7	4	2	4	3	2	2	3	5	5	3	5	5	6	6	7	6	4	4	5	5	6	5	2	2.3	7.0
Dir	350	26	331	335	31	85	104	83	66	73	44	77	12	4	126	185	228	138	103	101	104	101	89	117	75.3	349.6
4 Spd	3	2	2	2	1	2	2	0	2	4	2	5	11	7	7	6	6	2	1	1	1	1	1	2	1.3	10.9
Dir	94	58	61	53	69	42	59	226	317	233	254	154	217	258	267	271	260	342	327	352	225	221	267	304	255.3	216.8
5 Spd	3	2	2	3	6	6	5	5	7	8	7	8	5	4	6	6	6	5	4	1	0	1	1	4	2.0	8.4
Dir	263	281	198	197	243	256	238	232	252	250	243	230	246	319	336	333	29	74	76	68	10	30	31	55	263.4	249.9
6 Spd	4	7	4	1	0	2	1	2	4	7	9	6	6	4	1	3	3	P	P	0	1	2	3	2	1.4	8.9
Dir	52	52	61	210	74	194	39	191	205	239	238	249	227	263	216	205	170	P	P	119	148	147	319	164	219.6	238.4
7 Spd	2	1	3	1	2	2	2	0	0	2	2	3	5	9	8	6	1	1	0	1	1	0	1	1	1.0	8.8
Dir	30	132	189	210	34	192	200	286	336	229	238	289	311	338	343	339	92	181	182	44	347	169	6	197	317.7	337.7
8 Spd	1	0	1	1	1	0	1	0	1	1	3	4	4	3	4	3	2	1	1	1	7	6	0	4	0.8	6.5
Dir	180	139	106	163	171	222	45	53	52	19	225	99	135	129	101	63	46	19	201	213	215	235	139	177	153.7	215.4
9 Spd	3	1	1	1	0	0	1	2	2	4	2	3	3	4	5	1	3	1	2	2	9	17	17	14	1.7	16.6
Dir	111	156	356	51	23	64	70	52	63	41	66	39	27	342	352	331	176	122	94	158	178	187	187	179	159.8	187.1
10 Spd	16	22	14	3	2	15	35	20	9	9	13	35	30	20	15	10	9	3	2	3	6	4	12	16	11.2	35.5
Dir	193	229	268	259	206	259	233	209	213	210	194	220	239	255	257	273	246	286	68	36	29	154	276	273	236.7	219.6
11 Spd	20	19	19	15	9	10	17	17	10	14	23	31	35	38	37	34	25	21	22	10	4	2	6	9	17.2	37.9
Dir	274	264	256	278	254	243	241	248	270	265	261	250	248	247	253	258	259	235	235	210	160	180	161	156	249.8	247.4
12 Spd	9	10	6	2	6	3	4	2	15	13	17	30	42	58	57	50	42	40	29	14	18	23	23	17	20.4	57.8
Dir	159	175	157	203	187	204	53	204	215	235	238	239	242	247	242	246	245	244	242	216	210	209	211	218	232.7	246.9
13 Spd	16	10	20	20	19	18	24	30	26	29	40	48	40	42	35	31	36	29	37	44	28	27	23	16	28.1	47.9
Dir	228	220	237	233	244	248	251	252	268	265	255	253	252	255	266	264	252	252	243	246	240	227	228	238	249.0	252.8
14 Spd	29	40	13	13	13	8	10	13	13	22	25	29	26	30	23	23	24	13	7	3	3	0	1	0	14.1	40.0
Dir	234	237	273	280	262	218	235	247	264	256	265	271	299	314	291	279	306	304	279	247	215	34	198	167	270.0	236.5
15 Spd	0	2	2	2	1	2	4	4	0	1	4	6	9	8	8	7	3	1	1	1	1	1	2	2	1.9	8.6
Dir	107	212	191	186	182	177	181	184	194	19	111	122	116	113	104	107	51	1	9	4	220	286	204	188	128.5	116.0
16 Spd	2	1	2	1	0	0	1	0	2	3	2	3	6	8	8	9	9	8	7	4	4	3	3	1	2.4	9.4
Dir	283	262	177	202	173	334	324	61	210	185	198	105	24	50	54	51	54	55	50	46	46	53	50	239	54.7	54.2
17 Spd	1	0	2	1	1	0	1	1	1	1	2	4	4	1	3	3	4	12	26	29	23	22	25	21	7.2	29.2
Dir	225	227	199	203	120	214	166	215	64	313	247	246	279	320	292	299	213	266	263	255	247	230	240	229	247.0	255.2
18 Spd	23	21	18	7	1	3	3	3	1	7	6	13	11	16	15	11	8	1	1	1	1	0	0	1	6.6	22.9
Dir	240	248	239	255	357	236	231	222	165	229	244	238	242	255	264	268	307	352	203	84	207	47	298	28	249.2	239.5
19 Spd	1	0	1	2	1	1	1	2	1	1	3	7	5	8	5	6	8	12	19	10	3	5	5	15	3.8	19.5
Dir	26	358	234	182	69	165	105	186	124	27	195	198	291	310	285	238	208	215	249	283	263	274	305	238	247.5	249.0
20 Spd	18	19	18	8	4	2	1	2	1	3	8	11	10	13	8	5	4	2	5	3	1	1	1	1	4.8	18.5
Dir	237	240	240	243	274	26	244	267	284	235	262	264	266	239	234	336	31	143	153	185	138	148	39	32	245.8	240.2
21 Spd	0	2	1	2	3	3	2	0	1	1	2	4	2	15	24	30	25	18	16	18	22	13	18	23	8.4	29.9
Dir	165	43	29	51	45	54	32	343	253	257	314	187	215	240	265	265	255	238	228	228	212	205	225	220	238.1	265.2
22 Spd	17	15	18	22	23	17	10	20	24	29	34	39	40	50	49	43	35	26	11	6	16	15	6	1	23.0	49.9
Dir	209	208	221	223	225	238	228	221	218	229	235	239	238	251	251	247	247	247	224	222	214	212	203	180	234.1	250.6

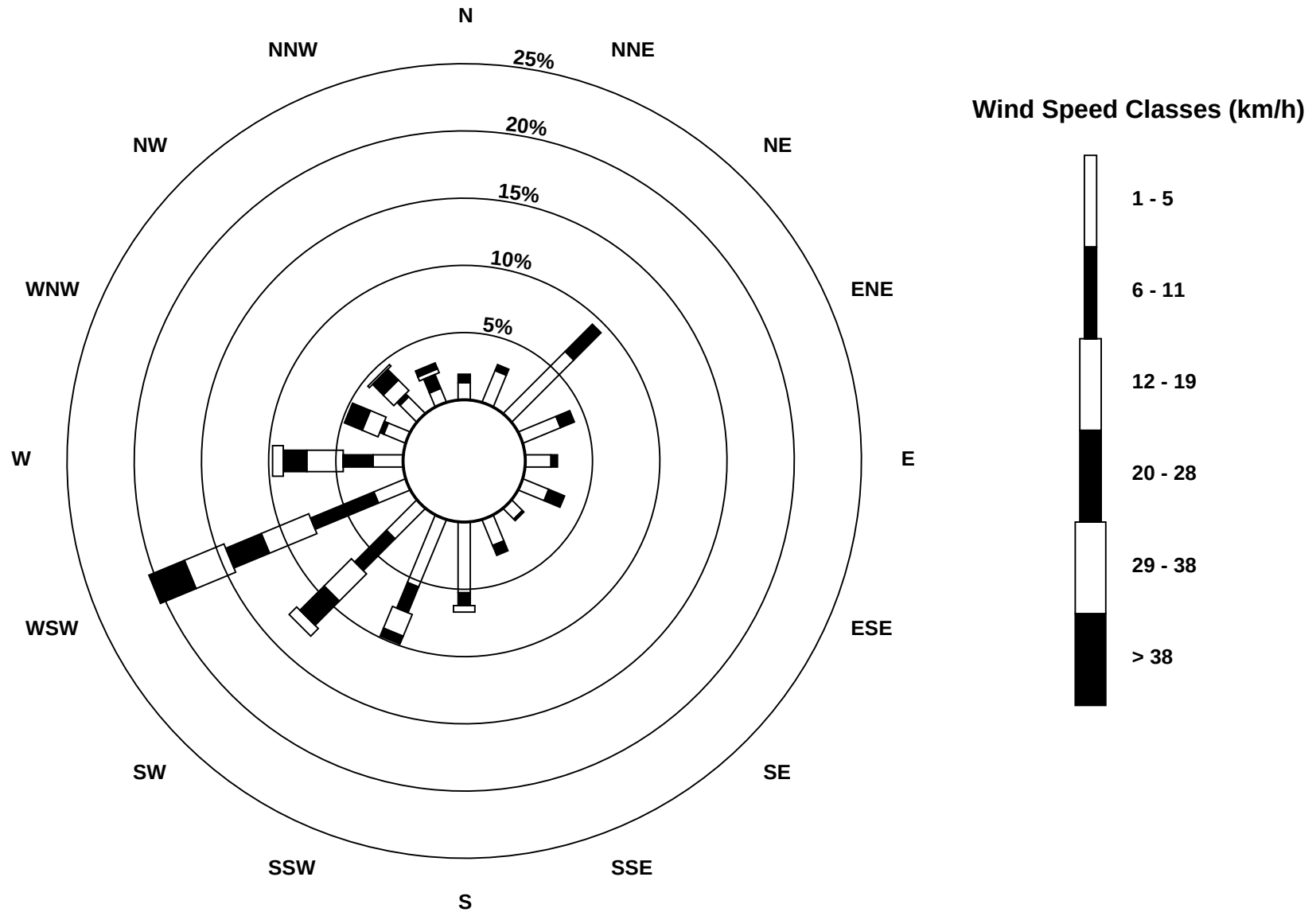
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - October 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	3	4	17	18	17	17	18	12	2	7	24	24	26	22	23	27	21	11	11	8	5	6	2	3	12.5	26.9	
Dir	176	201	209	212	216	216	220	225	322	261	246	255	261	284	266	256	249	252	259	272	224	235	204	236	243.7	255.6	
24 Spd	4	6	7	6	4	4	5	6	4	8	12	13	11	8	8	10	3	2	0	0	1	1	0	1	4.9	12.7	
Dir	261	238	244	237	244	236	241	228	225	234	240	243	257	232	219	244	299	290	178	80	25	353	174	215	241.3	243.0	
25 Spd	0	0	2	1	0	0	0	1	0	4	3	6	5	6	11	10	11	8	8	7	8	4	5	2	4.0	11.3	
Dir	41	80	181	47	47	319	146	33	98	35	50	42	97	79	64	71	78	67	65	56	83	63	82	161	69.8	78.1	
26 Spd	1	3	1	3	6	5	7	7	12	11	15	17	17	17	22	23	23	22	16	13	13	26	18	15	12.2	25.6	
Dir	221	262	221	233	243	256	231	226	262	284	292	287	266	291	294	298	296	291	287	277	281	310	303	302	285.7	310.3	
27 Spd	22	18	11	10	8	8	6	5	5	9	11	5	2	3	7	7	5	1	0	1	0	1	0	1	4.0	22.4	
Dir	318	311	265	238	249	243	247	314	270	257	245	243	195	126	203	167	162	126	245	46	27	12	220	187	261.5	317.7	
28 Spd	2	1	1	1	2	1	0	3	3	6	5	3	8	6	4	1	2	1	1	1	1	1	2	5	1.6	7.8	
Dir	45	246	47	59	212	35	4	198	206	251	239	242	202	199	178	14	113	290	105	314	60	183	200	196	207.5	201.8	
29 Spd	6	1	4	2	4	1	1	0	1	1	5	2	3	2	12	28	45	34	19	3	14	6	6	6	6.8	44.5	
Dir	208	25	36	42	188	61	173	148	224	265	185	173	41	103	217	240	246	251	243	207	201	194	182	183	229.8	245.9	
30 Spd	1	1	1	1	1	1	1	1	2	4	9	10	17	26	30	34	26	26	31	33	32	22	19	21	13.6	34.4	
Dir	185	72	43	46	185	88	176	338	189	187	195	199	224	237	239	251	262	248	243	240	239	234	228	224	237.0	251.3	
31 Spd	21	14	2	2	2	1	1	1	1	3	3	7	7	8	9	10	4	8	8	10	5	2	2	6	2.5	21.0	
Dir	228	215	47	97	39	26	67	87	75	35	29	39	50	47	62	108	52	79	71	44	44	27	43	53	65.7	228.4	
Spd	5.1	5.5	5.0	3.9	3.7	3.7	4.3	4.4	3.7	5.6	8.0	9.5	9.7	10.5	10.4	10.6	9.3	7.4	7.0	5.0	4.9	4.5	4.2	4.8	Diurnal Average		
Dir	236.9	241.3	248.5	246.7	243.4	244.5	239.7	240.1	252.9	255.1	251.3	249.0	253.4	263.4	262.6	261.8	262.6	257.0	251.0	250.7	227.5	226.0	230.0	226.7	Diurnal Maximum		
Spd	29.2	40.0	28.1	21.9	23.4	19.8	34.6	30.0	26.0	29.4	40.0	47.9	42.4	57.8	56.7	49.5	44.5	39.7	37.3	43.7	32.3	26.6	24.8	23.3	Diurnal Maximum		
Dir	234.1	236.5	302.2	223.0	224.9	293.3	233.2	251.6	268.2	228.9	254.9	252.8	241.6	246.9	241.9	245.9	245.9	243.6	243.4	245.8	239.4	227.1	239.7	220.1			
Maximum Speed Value: 58 km/h on Oct 12 14:00																				Minimum Speed Value: 0 km/h on Oct 27 19:00				Hours in Service: 744			
Maximum Daily Speed Average: 28.1 km/h on Oct 13																				Minimum Daily Speed Average: 0.8 km/h on Oct 8				Hours of Data: 742			
Maximum Diurnal Speed Average: 10.6 km/h at hour 16																				Minimum Diurnal Speed Average: 3.7 km/h at hour 5				Hours of Missing Data: 2			
Monthly Average Velocity: 6.16 km/h 249.83 deg																				Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.7 Q ₁ = 1.7 Median = 4.8 Q ₃ = 13.6 P ₉₀ = 23.7 P ₉₉ = 41.5				Percent Operational Time: 99.7			
All monthly, daily, and diurnal averages have been calculated using vector methods																											
P - Power Failure																											
Frequency Distribution																											
Speed Range (km/h)																											
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total														
North	26		8		0		0		0		0		34														
NorthEast	91		25		1		0		0		0		117														
East	38		13		1		0		0		0		52														
SouthEast	28		7		0		0		0		0		35														
South	74		16		6		0		0		0		96														
SouthWest	67		46		44		30		16		12		215														
West	30		29		27		25		15		6		132														
NorthWest	24		6		12		17		2		0		61														
Total	378		150		91		72		33		18		742														

Wind Rose

Wind Speed (WS) (km/h)
Evergreen Park - October 2015



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - October 2015

Maximum Speed: 58 km/h on Oct 12 14:00																				Maximum Daily Speed Average: 29.1 km/h on Oct 13										Hours in Service: 744	
Minimum Speed: 0 km/h on Oct 25 06:00																				Minimum Daily Speed Average: 2.7 km/h on Oct 8										Hours of Data: 742	
Maximum Diurnal Speed Average: 16.5 km/h at hour 14																				Minimum Diurnal Speed Average: 5.7 km/h at hour 6										Hours of Missing Data: 2	
Monthly Average Speed: 9.83 km/h																				Percentiles: P ₁ = 0.5 P ₁₀ = 1.3 Q ₁ = 2.5 Median = 5.8 Q ₃ = 14.1 P ₉₀ = 24.4 P ₉₉ = 41.3										Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Oct	3	2	1	2	1	2	1	1	2	3	4	7	6	9	8	7	6	6	5	4	7	4	3	3	4.1	9.3					
2-Oct	4	11	29	19	20	21	17	19	19	21	24	26	22	23	25	20	23	18	19	18	12	11	9	10	18.3	28.7					
3-Oct	8	4	2	5	3	2	2	3	6	6	4	6	7	8	7	9	7	5	4	5	6	6	5	2	5.1	8.6					
4-Oct	3	3	2	2	1	2	2	0	2	4	4	7	12	8	8	7	6	3	1	1	2	1	1	3	3.6	11.7					
5-Oct	3	3	2	3	6	7	5	5	7	9	8	9	6	7	8	7	7	6	4	1	0	1	1	4	5.0	8.8					
6-Oct	4	7	4	1	1	3	2	2	4	7	9	7	7	6	3	4	4	P	P	3	4	3	3	3	4.2	9.4					
7-Oct	3	3	3	1	2	2	2	1	1	3	3	4	8	10	10	8	2	1	1	3	2	1	1	1	3.1	10.2					
8-Oct	2	0	2	2	1	2	2	1	2	2	3	5	6	5	4	3	2	1	1	1	7	6	1	4	2.7	6.6					
9-Oct	5	2	2	1	2	1	4	5	4	4	3	4	5	6	6	4	3	2	3	3	9	17	17	14	5.2	16.8					
10-Oct	16	22	14	7	3	16	35	20	10	10	14	36	31	20	16	10	9	4	4	5	6	5	13	17	14.3	36.1					
11-Oct	21	19	19	16	9	10	17	17	10	14	24	32	35	38	37	35	25	21	22	11	4	3	7	9	18.9	38.3					
12-Oct	9	10	6	3	6	4	5	4	15	17	19	31	43	58	57	50	43	40	29	14	18	23	23	17	22.7	58.3					
13-Oct	16	11	20	20	19	18	24	30	26	30	41	49	41	43	36	32	37	30	38	44	28	27	24	17	29.1	48.7					
14-Oct	29	40	16	14	14	9	10	13	13	23	25	30	28	31	24	24	25	13	7	3	3	1	1	1	16.6	40.3					
15-Oct	1	2	2	2	1	2	4	4	1	1	5	7	9	10	9	7	3	1	1	1	1	2	2	2	3.4	10.1					
16-Oct	3	2	3	2	2	2	1	1	2	4	3	5	6	9	8	10	10	8	7	4	4	3	3	2	4.3	9.6					
17-Oct	1	1	3	2	1	1	2	2	2	2	3	4	5	3	4	4	4	12	27	30	23	22	25	21	8.5	29.6					
18-Oct	23	21	18	9	5	4	4	3	2	7	7	14	12	18	16	12	9	2	2	2	1	1	1	1	8.0	23.3					
19-Oct	1	1	1	3	1	2	3	2	2	2	4	7	6	8	5	6	9	12	20	10	4	6	6	16	5.7	20.5					
20-Oct	18	19	18	10	4	2	2	4	3	4	9	12	11	14	8	7	4	2	5	4	1	3	3	2	7.0	18.6					
21-Oct	2	3	1	2	3	4	3	2	2	2	3	4	4	18	25	31	26	18	17	18	22	13	19	23	11.0	30.6					
22-Oct	17	15	19	22	24	17	10	20	24	30	34	39	41	50	49	44	35	27	12	6	16	15	6	2	24.0	50.5					
23-Oct	4	6	17	18	17	17	18	13	4	7	24	24	28	23	24	28	21	11	11	8	5	7	3	3	14.3	28.3					
24-Oct	4	6	7	6	4	5	5	6	4	8	12	13	12	9	9	11	4	2	1	1	1	1	1	1	5.5	13.0					
25-Oct	1	1	2	1	0	0	0	1	1	4	4	7	8	8	12	11	12	8	8	7	8	4	5	3	4.9	12.0					
26-Oct	1	3	1	3	6	6	7	8	12	12	16	18	17	18	23	23	23	22	17	13	13	26	19	16	13.6	26.4					
27-Oct	23	19	12	11	8	8	7	5	5	9	11	5	5	6	9	8	5	1	0	1	0	1	0	2	6.8	22.8					
28-Oct	2	2	2	1	3	2	1	3	3	6	5	4	8	6	5	2	3	2	2	3	2	2	2	6	3.3	8.3					
29-Oct	6	3	4	2	5	2	2	1	1	2	5	3	3	3	13	29	45	35	19	6	14	7	6	6	9.3	44.9					
30-Oct	2	3	2	3	3	3	2	1	2	5	9	10	18	26	30	35	29	26	31	33	32	22	19	21	15.3	35.5					
31-Oct	21	14	3	5	2	1	2	1	2	4	4	7	7	8	9	11	4	8	8	11	5	2	3	6	6.1	21.1					
8.3 8.3 7.7 6.4 5.8 5.7 6.6 6.4 6.2 8.5 11.0 14.0 14.7 16.5 16.4 16.1 14.4 11.6 10.9 8.9 8.5 7.9 7.5 7.7																									Diurnal Average						
29.5 40.3 28.7 22.2 23.5 20.6 35.5 30.5 26.5 30.0 41.0 48.7 43.2 58.3 57.2 50.1 44.9 40.1 37.7 44.0 32.5 26.9 25.0 23.5																									Diurnal Maximum						
P - Power Failure																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Evergreen Park - October 2015

Maximum Value: 98.9 deg on Oct 6 21:00																			Hours in Service: 744						
Minimum Value: 3.4 deg on Oct 12 22:00																			Hours of Data: 742						
																			Hours of Missing Data: 2						
Percentiles: P ₁ = 5.3 P ₁₀ = 8.5 Q ₁ = 14.6 Median = 32.4 Q ₃ = 65.4 P ₉₀ = 81.7 P ₉₉ = 93.8																			Hours of Calibration: 0						
																			Percent Operational Time: 99.7						
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Oct	85	87	87	61	73	85	96	41	49	47	84	56	57	33	29	25	13	13	33	71	81	72	84	68	95.6
2-Oct	86	25	11	20	14	16	16	9	11	14	10	10	15	13	10	22	11	9	11	17	22	22	19	21	86.1
3-Oct	29	45	42	43	34	45	54	26	26	27	55	60	38	47	41	42	29	35	14	17	26	22	14	33	59.8
4-Oct	28	43	31	44	59	37	57	76	49	48	78	49	22	26	22	35	25	51	51	65	74	70	45	44	78.2
5-Oct	49	89	37	40	19	21	43	28	16	15	20	23	49	74	52	40	40	23	12	79	39	49	57	7	88.7
6-Oct	7	5	45	49	90	84	85	61	25	17	20	32	25	51	88	58	47	P	P	91	99	84	64	74	98.9
7-Oct	58	88	68	69	23	61	45	68	75	24	51	60	67	41	39	36	59	81	86	80	91	89	86	86	90.8
8-Oct	84	86	71	74	86	91	89	92	84	71	61	68	57	56	40	23	15	59	39	52	13	22	73	62	91.9
9-Oct	53	84	86	81	98	83	71	67	72	32	64	55	51	53	32	90	38	53	69	69	11	7	9	9	97.8
10-Oct	18	12	19	69	77	38	14	6	34	28	28	11	12	17	15	20	15	41	78	69	17	48	60	19	77.5
11-Oct	12	11	9	16	18	17	7	14	17	15	12	8	8	8	9	11	10	10	8	36	36	64	23	14	63.6
12-Oct	13	15	25	81	16	73	33	67	25	70	35	12	12	8	8	9	9	7	8	10	5	3	5	6	81.5
13-Oct	5	8	11	6	10	9	10	10	12	15	12	11	11	10	13	14	10	9	8	7	8	8	14	15	15.4
14-Oct	7	7	38	17	23	44	25	18	18	10	16	18	25	15	22	18	16	14	19	34	72	85	88	90	90.4
15-Oct	85	36	34	24	48	34	35	54	89	71	69	33	27	44	33	26	16	31	31	27	76	58	23	72	89.0
16-Oct	81	70	70	99	90	91	89	61	40	38	63	77	32	34	32	20	13	10	6	9	29	26	37	76	98.7
17-Oct	72	95	53	73	83	74	89	96	90	57	60	44	48	78	59	75	28	41	13	10	7	10	8	8	95.8
18-Oct	10	7	10	48	71	76	73	69	72	16	24	15	20	21	20	23	29	72	64	88	93	84	95	70	94.7
19-Oct	74	71	80	72	76	70	65	76	66	72	77	16	38	15	12	19	9	8	18	20	43	27	17	9	80.2
20-Oct	6	6	5	65	48	66	63	58	56	73	22	28	28	15	17	50	26	80	33	35	60	70	83	86	85.8
21-Oct	84	47	66	54	16	29	60	74	96	81	74	38	74	70	15	11	12	6	7	7	5	58	8	7	95.6
22-Oct	8	7	7	9	6	16	16	9	8	8	9	9	10	8	9	8	8	10	13	9	4	7	44	71	71.4
23-Oct	75	71	6	5	5	8	7	24	59	25	10	15	19	16	13	19	8	11	14	20	23	30	67	31	75.0
24-Oct	22	15	7	17	13	18	11	12	12	10	8	12	19	25	35	28	51	60	65	82	64	53	73	80	81.5
25-Oct	80	89	45	49	90	52	62	32	83	13	53	25	53	46	24	23	19	11	10	10	17	10	13	66	89.9
26-Oct	62	88	45	38	18	28	29	37	18	27	19	17	11	18	15	14	15	13	17	13	17	16	18	16	88.3
27-Oct	11	15	18	6	10	11	15	19	31	19	16	44	75	75	50	33	28	40	77	41	47	37	86	79	86.4
28-Oct	55	82	82	75	48	82	88	36	42	22	34	51	28	23	37	88	58	85	60	86	74	79	49	56	88.0
29-Oct	54	81	16	62	78	90	77	89	74	66	16	67	44	56	32	10	7	7	11	78	15	35	19	61	89.9
30-Oct	91	81	82	91	93	65	83	82	50	65	51	14	10	8	8	15	26	8	6	5	6	7	5	6	92.7
31-Oct	6	7	90	72	45	62	68	64	86	15	18	9	19	15	19	27	13	20	18	13	27	44	64	16	89.8
90.6 94.6 89.8 98.7 97.8 90.8 95.6 95.8 95.6 81.2 83.5 76.6 74.5 77.8 88.1 89.8 58.9 85.5 86.2 91.3 98.9 88.7 94.7 90.4																									
P - Power Failure																									

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

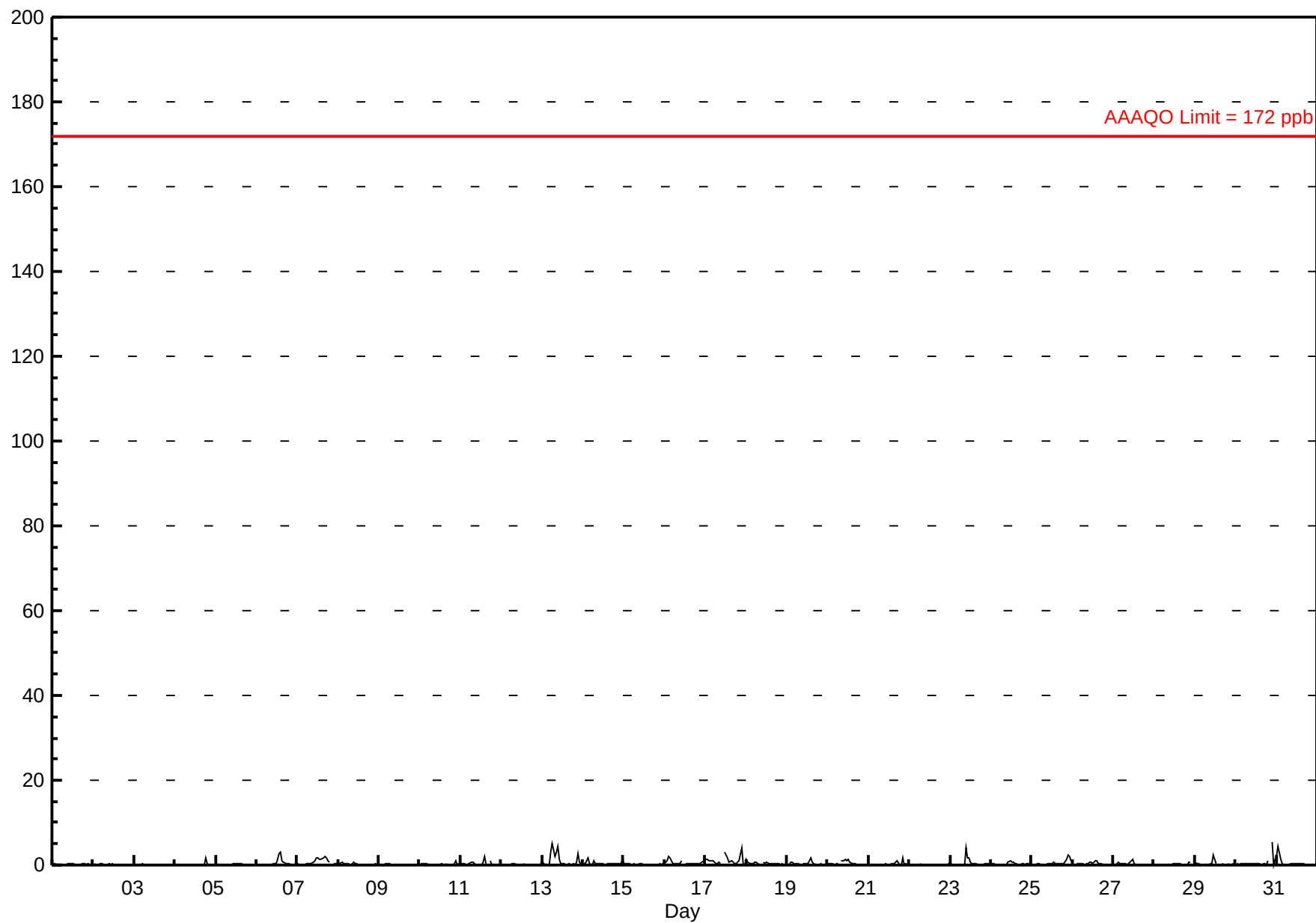
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Smoky Heights - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744							
Maximum Value: 5.3 ppb on Oct 30 22:00																				Maximum Daily Average: 1.2 ppb on Oct 13				Hours of Data: 708			
Minimum Value: 0 ppb on Oct 3 20:00																				Minimum Daily Average: 0.1 ppb on Oct 3				Hours of Missing Data: 36			
Maximum Diurnal Average: 0.7 ppb at hour 22																				Minimum Diurnal Average: 0.2 ppb at hour 20				Hours of Calibration: 36			
Monthly Average: 0.37 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 2.7				Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
2-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	A	0.2	1.7	
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3	
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	1	1	0	0	0	0	A	0	0	0.5	3.2	
7-Oct	0	0	0	0	0	0	0	0	0	1	1	2	2	1	1	2	2	2	1	1	A	0	0	1	0.8	2.1	
8-Oct	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.6	
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0.1	0.4	
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	A	0	0	1	0	0	0.2	0.9	
11-Oct	0	0	0	0	0	0	1	1	0	0	0	0	0	1	2	1	A	1	0	0	0	0	0	0	0.3	2.1	
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2	
13-Oct	1	1	0	0	0	3	5	2	3	4	1	0	0	0	A	0	0	0	0	0	1	3	1	0	1.2	5.0	
14-Oct	0	0	1	2	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0.5	1.5	
15-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
16-Oct	0	1	2	2	1	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	1	1	0.5	1.9	
17-Oct	1	1	1	1	1	1	0	0	1	0	A	3	2	2	1	1	1	0	0	1	1	4	0	0	1.1	4.2	
18-Oct	1	1	0	0	0	1	1	0	0	A	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3	
19-Oct	0	0	1	1	0	0	0	0	A	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0.4	1.7	
20-Oct	0	0	0	0	0	0	0	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.4	
21-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0.3	1.7	
22-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
23-Oct	1	0	0	0	A	0	0	0	0	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0.5	4.0	
24-Oct	0	0	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.0	
25-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	2	2	1	0.5	2.3	
26-Oct	1	A	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.9	
27-Oct	A	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.3	
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0.2	1.1	
29-Oct	1	0	0	0	0	0	0	0	0	0	0	2	0	C	C	C	0	0	0	0	0	A	0	0	0.3	2.4	
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	5	0	1	0.5	5.3	
31-Oct	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.5	4.4	
		0.4	0.4	0.4	0.3	0.2	0.3	0.4	0.2	0.3	0.5	0.5	0.6	0.4	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.7	0.3	0.3	Diurnal Average	
		2.1	4.4	1.9	1.7	0.9	3.1	5.0	2.2	3.2	4.4	1.5	3.1	2.4	2.7	3.2	1.8	2.1	1.5	1.7	1.0	1.7	5.3	2.0	1.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 172 ppb		24-hr 48 ppb		30-day 11 ppb																					

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - October 2015



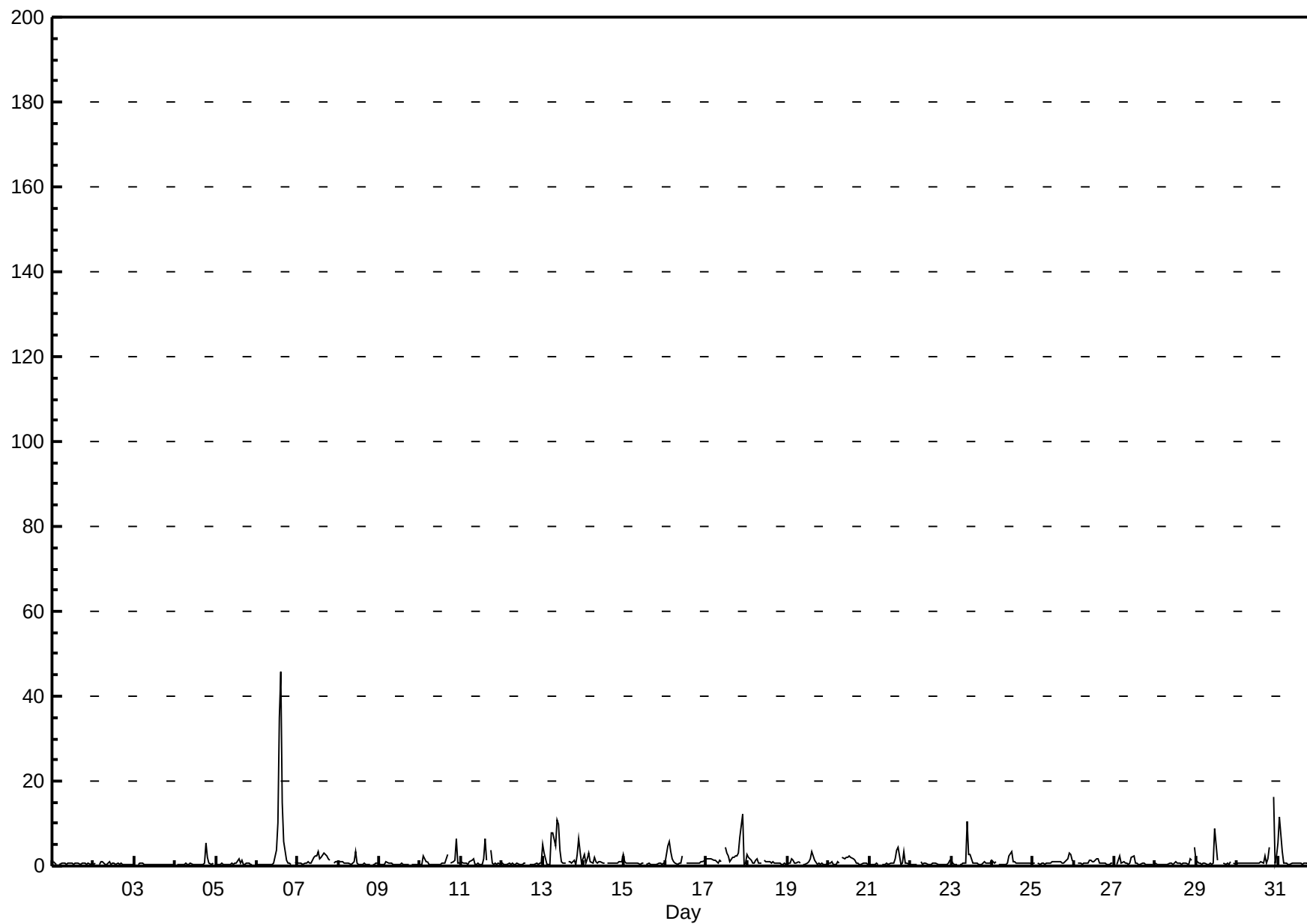
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Smoky Heights - October 2015

Maximum Value: 45.7 ppb on Oct 6 15:00																				Maximum Daily Average: 5.4 ppb on Oct 6										Hours in Service: 744									
Minimum Value: 0 ppb on Oct 4 03:00																				Minimum Daily Average: 0.4 ppb on Oct 3										Hours of Data: 708									
Maximum Diurnal Average: 2.6 ppb at hour 15																				Minimum Diurnal Average: 0.7 ppb at hour 5										Hours of Missing Data: 36									
Monthly Average: 1.18 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.9 P ₉₀ = 2.1 P ₉₉ = 10.4										Hours of Calibration: 36									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Oct	1	1	0	A	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1	0	1	0	1	0.6	1.2													
2-Oct	0	1	A	1	1	1	1	0	0	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0	0.6	1.0													
3-Oct	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6													
4-Oct	A	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0	0	1	5	2	1	0	1	A	0.7	5.4													
5-Oct	0	0	0	1	0	0	0	1	0	1	0	1	1	2	1	1	0	0	1	1	1	0	A	0	0.6	1.5													
6-Oct	0	0	0	0	1	0	0	0	0	0	1	4	10	35	46	15	6	1	1	1	0	A	1	1	5.4	45.7													
7-Oct	1	1	1	0	1	1	1	1	1	2	3	2	3	2	2	3	3	2	2	1	A	1	1	1	1.4	3.3													
8-Oct	1	1	1	1	1	1	1	0	1	1	3	1	0	0	0	1	0	0	0	A	0	0	1	1	0.7	3.5													
9-Oct	0	0	0	0	1	1	1	1	1	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0.5	1.0													
10-Oct	0	1	2	1	1	0	1	0	0	0	0	0	1	1	1	2	3	A	1	1	2	6	1	1	1.1	6.3													
11-Oct	1	1	1	1	0	1	1	2	0	0	1	0	0	2	7	1	A	4	1	0	1	0	1	0	1.1	6.6													
12-Oct	1	0	0	0	1	0	1	1	0	1	1	0	0	1	1	A	0	0	0	0	1	0	1	1	0.5	0.7													
13-Oct	5	3	0	0	0	8	8	5	11	10	4	1	1	1	A	1	1	1	1	0	3	7	3	1	3.2	10.8													
14-Oct	3	1	2	3	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	3	1.1	2.9													
15-Oct	1	1	1	1	1	1	1	1	1	0	1	1	A	0	1	0	0	0	0	0	1	1	0	1	0.6	1.0													
16-Oct	1	5	6	4	2	1	1	0	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1.4	5.9													
17-Oct	2	2	2	2	1	1	1	1	1	1	1	A	4	3	2	1	2	2	3	2	3	7	12	0	1	2.4	12.1												
18-Oct	3	2	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1.0	2.7													
19-Oct	1	1	2	1	1	1	1	1	A	0	0	1	1	2	3	2	1	0	1	0	1	0	0	1	1.0	3.5													
20-Oct	1	1	1	0	0	1	1	A	2	2	2	2	3	2	2	1	1	1	0	0	1	1	1	0	1.1	2.5													
21-Oct	0	0	0	0	1	0	A	0	0	0	1	0	1	1	1	2	4	4	0	1	4	1	1	0	1.0	4.2													
22-Oct	0	0	0	0	0	A	1	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	1	1	0.5	1.3													
23-Oct	1	1	0	0	A	0	0	1	1	11	3	3	2	1	1	1	0	0	0	1	1	1	1	1	1.3	10.5													
24-Oct	1	1	1	A	0	0	0	0	0	1	2	4	1	1	1	1	1	1	1	1	1	1	1	0	0.8	3.6													
25-Oct	1	1	A	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	2	1.0	3.0													
26-Oct	1	A	1	1	1	0	1	1	1	1	1	1	1	2	2	1	1	1	1	0	0	0	1	1	0.8	1.7													
27-Oct	A	0	1	3	1	1	1	1	0	1	2	2	1	1	0	0	1	1	0	0	0	0	0	A	0.8	2.5													
28-Oct	1	0	0	0	0	0	1	0	1	1	0	1	1	1	1	0	1	1	1	0	2	1	A	4	0.8	4.4													
29-Oct	1	1	1	0	1	1	0	0	1	1	1	9	1	C	C	C	1	0	1	0	1	A	1	0	1.1	8.8													
30-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	4	A	16	1	2	1.7	16.2													
31-Oct	5	11	3	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	0	A	0	1	0	1	1.4	11.4													
		1.2	1.3	1.1	0.9	0.7	0.9	1.0	0.7	1.0	1.3	1.2	1.5	1.2	2.1	2.6	1.4	1.1	0.9	0.9	0.8	1.0	2.0	0.8	0.9	Diurnal Average													
		5.3	11.4	5.9	3.5	1.8	7.8	7.7	4.7	10.8	10.5	3.7	8.8	10.2	34.9	45.7	14.9	5.8	4.2	5.4	4.3	6.9	16.2	3.4	4.4	Diurnal Maximum													
C - Calibration		A - Automated Daily Zero Span																																					

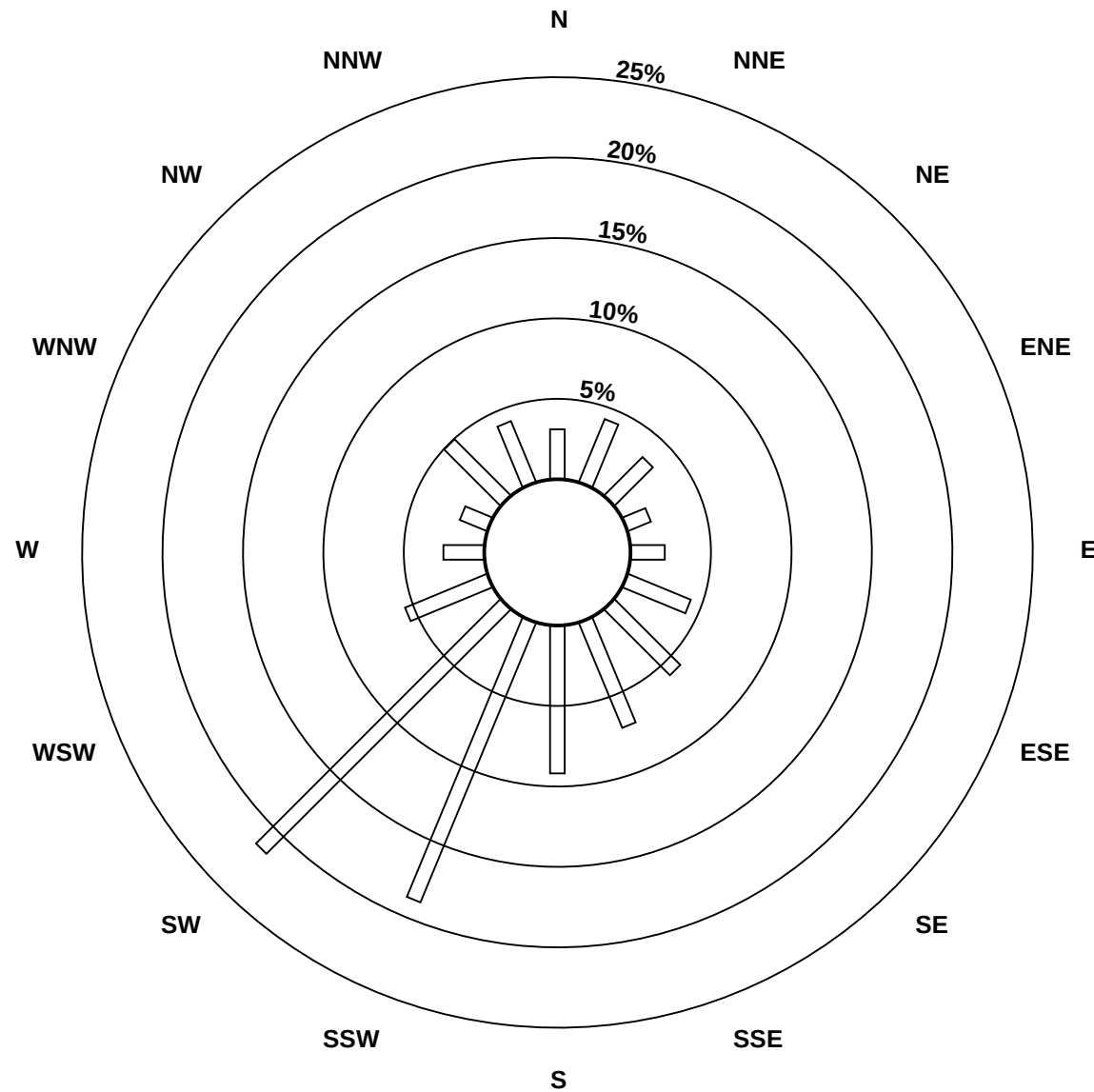
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - October 2015

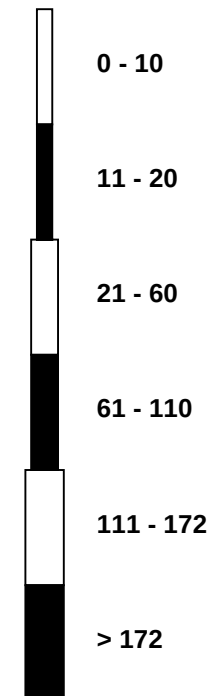


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - October 2015

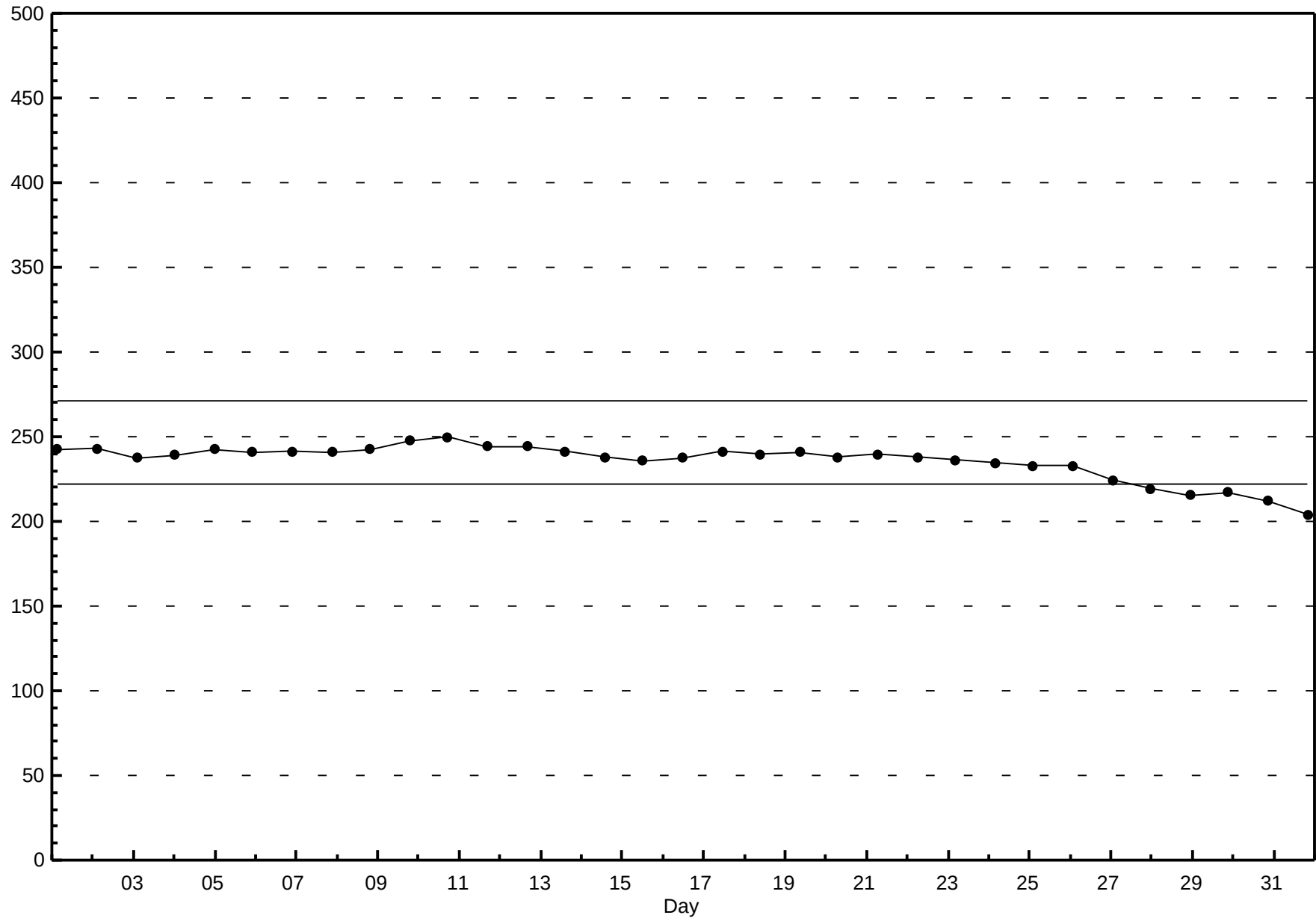


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - October 2015



Hourly Averages

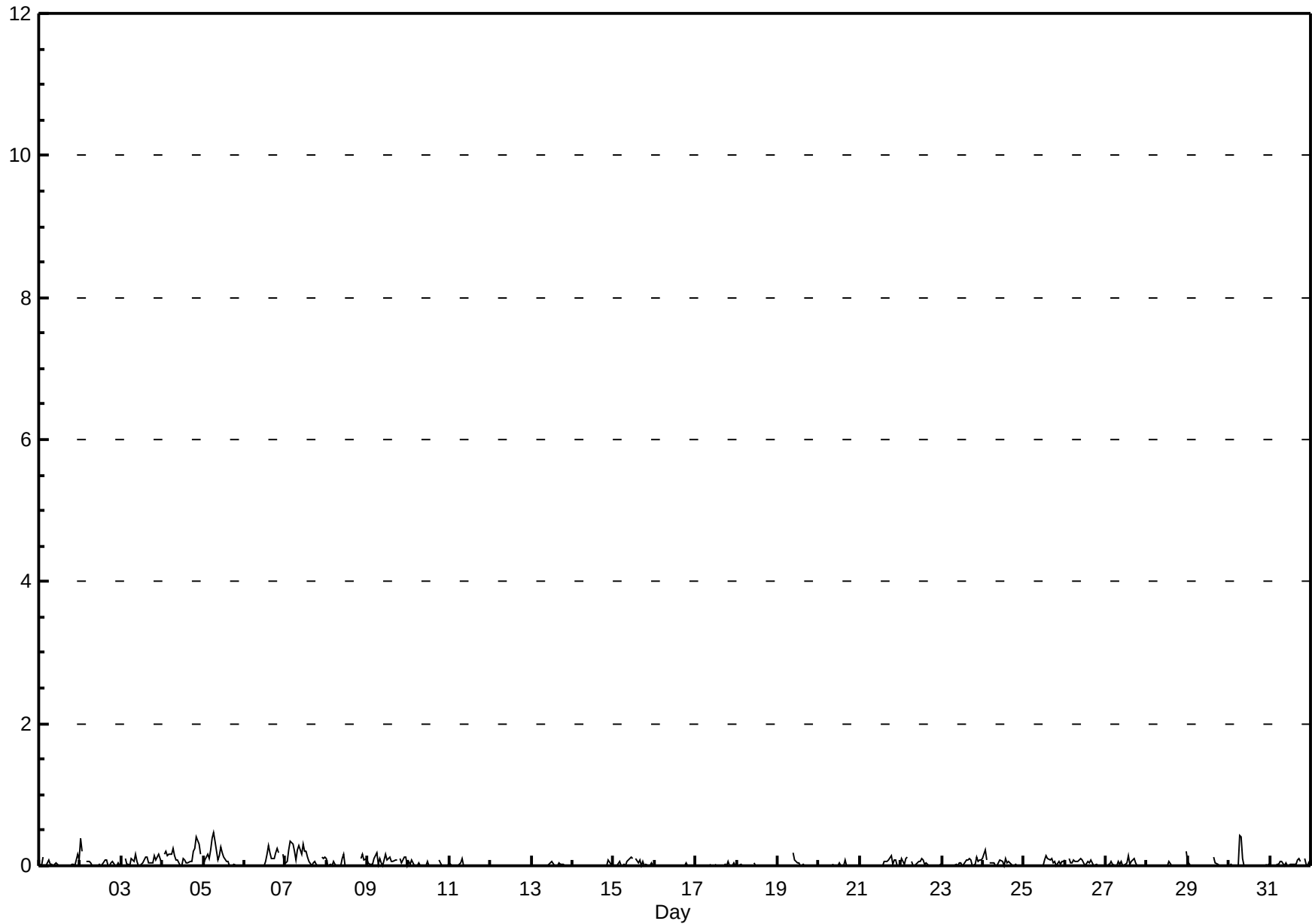
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2015

Number of Exceedences (AAAQO): Maximum Value: 0.5 ppb on Oct 5 07:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.1 ppb on Oct 7						Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 39 Percent Operational Time: 100.0					
Minimum Value: 0 ppb on Oct 1 02:00 Maximum Diurnal Average: 0.1 ppb at hour 7 Monthly Average: 0.04 ppb																			Minimum Daily Average: 0.0 ppb on Oct 12 Minimum Diurnal Average: 0.0 ppb at hour 18 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.1 P ₉₉ = 0.3											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2				
2-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4				
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.4				
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.5				
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3				
7-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3				
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.2				
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.2				
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1				
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1				
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.0				
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1				
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
15-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
16-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0				
17-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
18-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0				
19-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2				
20-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
21-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
22-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
24-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2				
25-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
26-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
27-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1				
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.2				
29-Oct	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	A	0	0	--	0.1				
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.4				
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1				
0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0																									Diurnal Average					
0.4 0.2 0.2 0.3 0.3 0.4 0.5 0.4 0.3 0.2 0.3 0.2 0.2 0.2 0.3 0.2 0.1 0.1 0.2 0.3 0.4 0.3 0.2 0.2																									Diurnal Maximum					
C - Calibration A - Automated Daily Zero Span																														
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																														

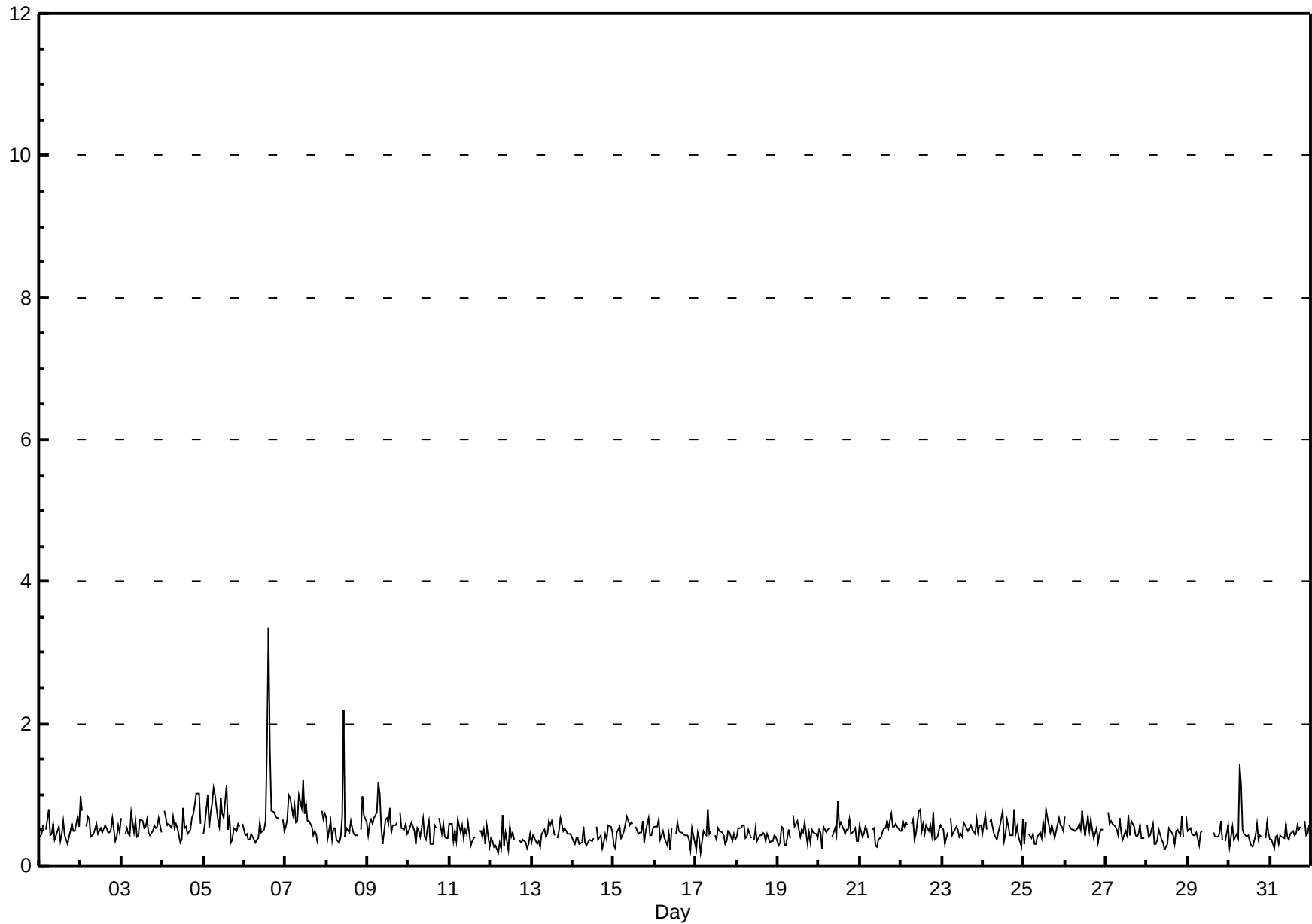
Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - October 2015



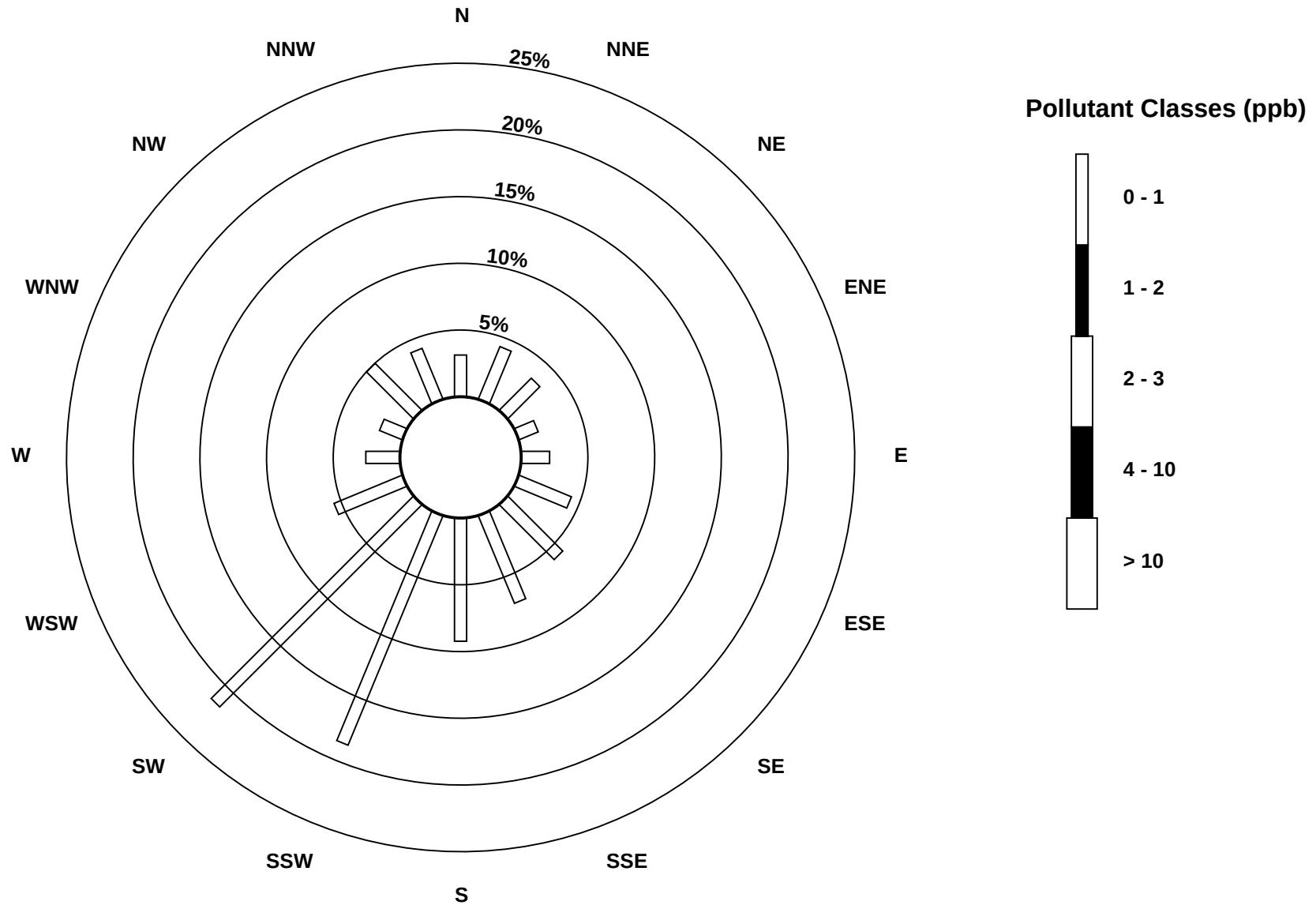
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - October 2015



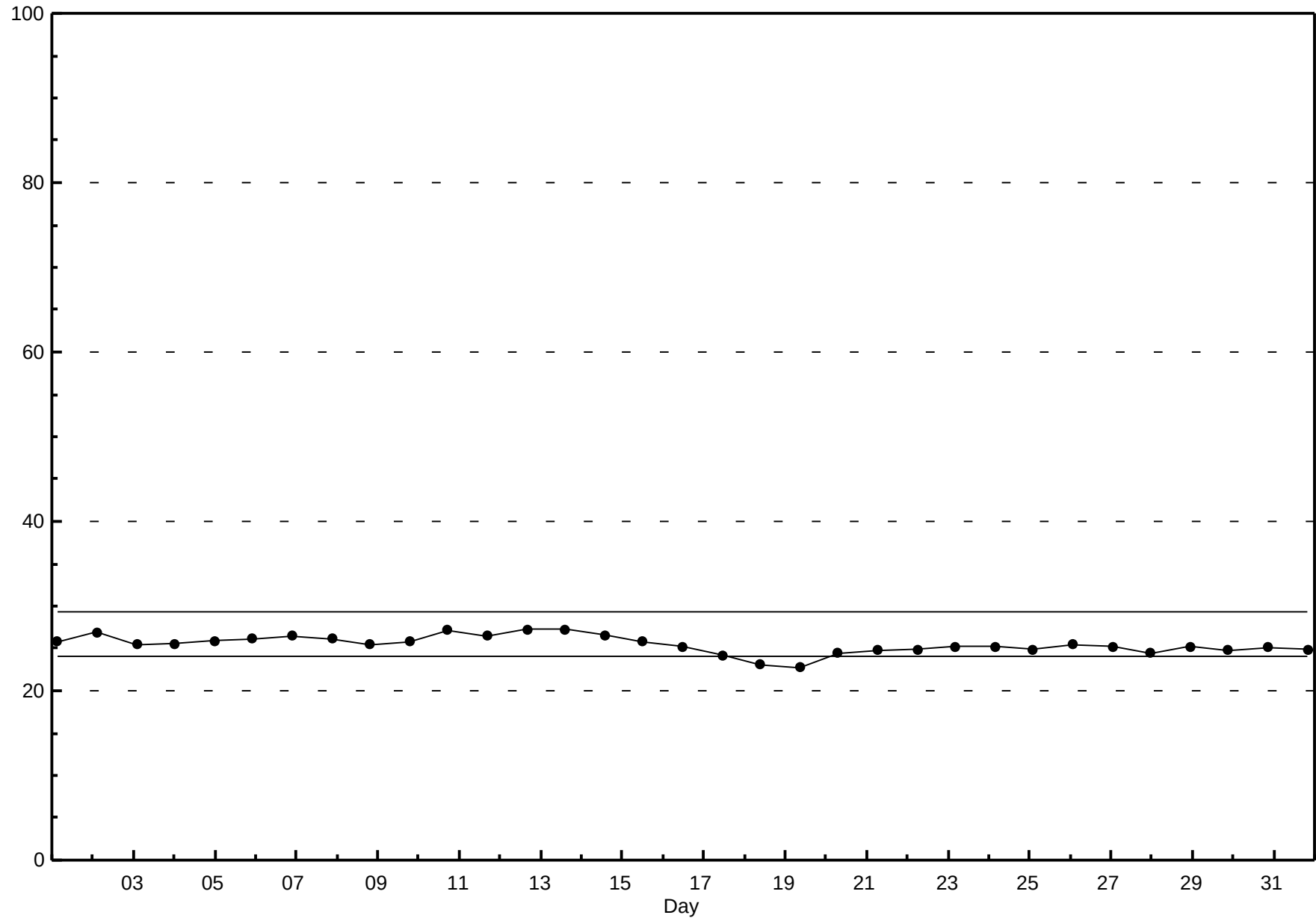
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - October 2015



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - October 2015

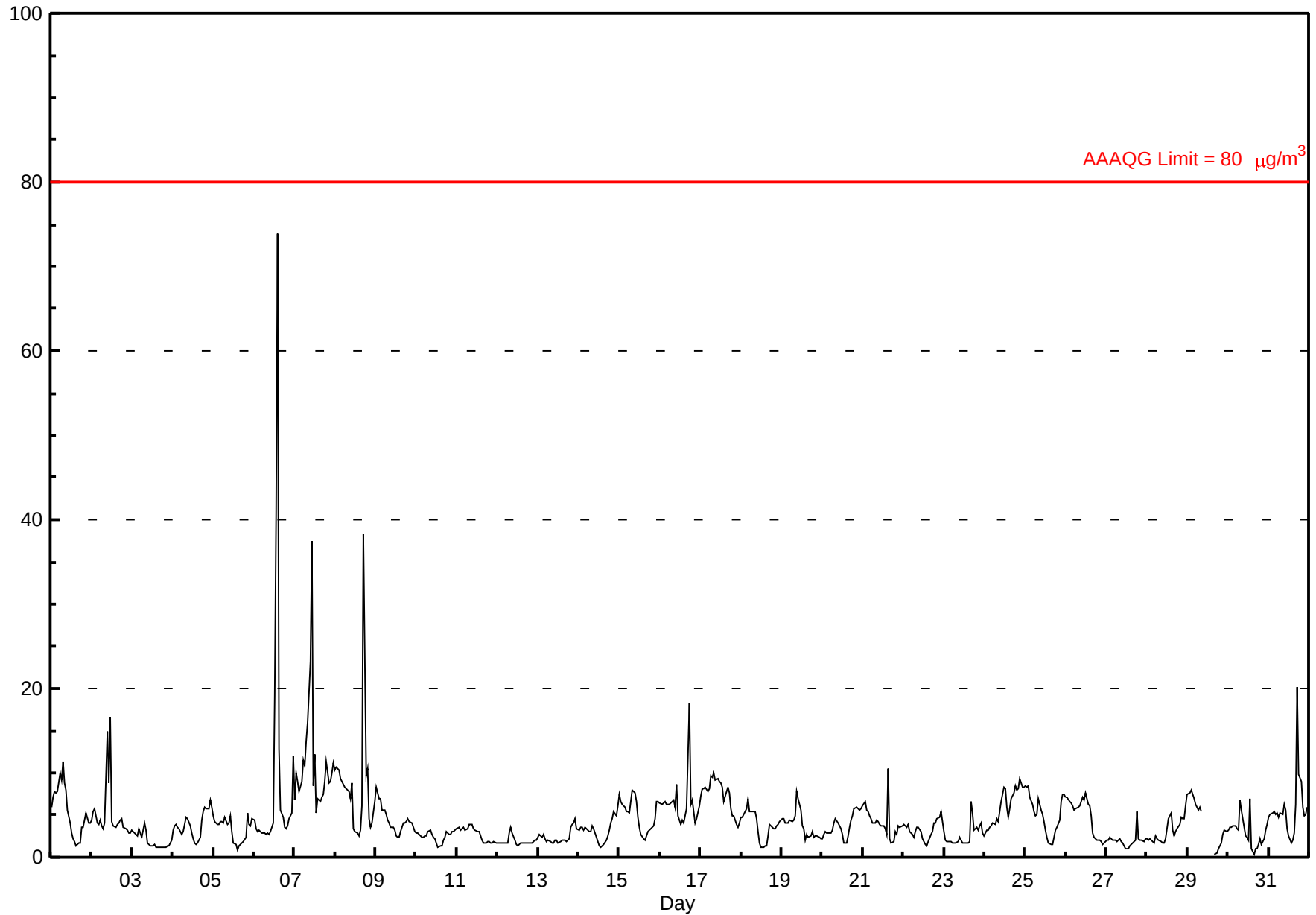


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - October 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 73.8 µg/m³ on Oct 6 15:00 Maximum Daily Average: 11.2 µg/m³ on Oct 7																					Hours in Service: 744 Hours of Data: 737 Hours of Missing Data: 7 Hours of Calibration: 7 Percent Operational Time: 100.0					
Minimum Value: 0 µg/m³ on Oct 30 16:00 Maximum Diurnal Average: 5.6 µg/m³ at hour 11 Monthly Average: 4.53 µg/m³																					Minimum Daily Average: 1.9 µg/m³ on Oct 12 Minimum Diurnal Average: 3.3 µg/m³ at hour 16 Percentiles: P ₁ = 1.0 P ₁₀ = 1.7 Q ₁ = 2.3 Median = 3.6 Q ₃ = 5.6 P ₉₀ = 7.9 P ₉₉ = 18.1					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	6	7	8	8	8	10	9	11	9	8	6	4	3	2	2	1	2	2	3	4	4	5	4	4	5.4	11.4
2-Oct	4	5	6	4	4	4	4	3	4	15	9	17	4	4	4	4	4	5	4	4	3	3	3	3	5.2	16.7
3-Oct	3	3	3	3	3	3	2	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2.0	4.1
4-Oct	3	4	4	4	3	3	3	4	5	5	4	3	2	2	2	2	2	4	5	6	6	6	7	6	3.9	6.7
5-Oct	5	4	4	4	4	4	4	5	4	4	5	3	2	2	1	1	1	2	2	2	5	4	4	5	3.4	5.2
6-Oct	4	3	3	3	3	3	3	3	3	3	3	4	19	41	74	13	6	5	3	3	4	5	5	12	9.5	73.8
7-Oct	7	10	9	8	9	11	11	14	16	23	37	8	12	5	7	7	7	7	9	11	9	9	10	11	11.2	37.5
8-Oct	10	11	10	9	9	9	8	8	8	7	9	3	3	3	2	3	6	38	10	10	5	4	4	7	8.2	38.3
9-Oct	8	8	7	7	6	6	5	4	4	4	4	3	2	2	3	4	4	4	5	4	4	3	3	3	4.5	8.2
10-Oct	3	3	3	2	2	3	3	3	3	3	2	2	2	1	1	1	2	2	3	3	3	3	3	3	2.5	3.2
11-Oct	3	4	3	3	4	3	3	4	4	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2.8	4.0
12-Oct	2	2	2	2	2	2	2	3	4	3	2	2	1	1	2	2	2	2	2	2	2	2	2	2	1.9	3.6
13-Oct	2	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4	5	3	2.4	4.6
14-Oct	3	4	4	3	4	3	3	3	4	3	3	2	1	1	1	1	2	3	3	4	5	5	5	6	3.2	6.1
15-Oct	7	7	6	6	5	5	5	7	8	8	7	5	4	3	2	2	3	3	3	3	4	5	7	7	5.0	7.9
16-Oct	6	6	7	7	6	6	6	7	7	6	9	5	4	4	4	5	6	18	6	7	5	4	5	6	6.3	18.4
17-Oct	7	8	8	8	8	8	10	9	10	9	9	9	9	8	7	8	8	8	6	5	5	4	4	4	7.5	10.0
18-Oct	5	5	6	6	7	5	5	5	5	5	3	2	1	1	1	2	4	4	3	3	4	4	4	4	3.9	7.0
19-Oct	5	5	4	4	4	4	4	4	4	5	8	7	6	4	3	2	3	2	3	2	3	3	2	2	3.8	7.8
20-Oct	2	3	3	3	3	3	3	4	5	4	4	3	3	2	2	3	4	4	5	6	6	6	6	6	3.7	5.9
21-Oct	6	7	6	5	5	5	4	4	4	4	4	4	4	3	3	11	2	2	2	3	3	4	4	4	4.2	10.5
22-Oct	4	4	4	4	3	3	2	3	4	4	3	2	2	2	1	2	3	3	4	4	5	5	5	4	3.3	5.5
23-Oct	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	7	5	3	4	3	4	4	3	2.6	6.6
24-Oct	3	3	3	4	4	4	4	5	4	5	7	8	8	6	5	6	7	8	9	8	8	9	8	8	6.0	9.3
25-Oct	8	8	8	7	6	5	5	5	7	6	5	4	3	2	2	2	2	2	3	4	4	7	7	7	5.1	8.4
26-Oct	7	7	7	6	6	6	6	6	6	7	7	7	8	6	6	5	3	2	2	2	2	2	1	2	4.9	7.7
27-Oct	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	5	2	2	2	2	2	2.0	5.4
28-Oct	2	2	2	2	2	3	2	2	2	2	2	2	3	5	5	3	2	3	3	4	5	5	5	6	3.1	6.0
29-Oct	7	8	8	7	7	6	6	6	5	C	C	C	C	C	C	C	0	0	1	1	2	3	3	3	--	8.0
30-Oct	3	4	3	4	4	3	3	7	6	5	3	2	2	7	1	0	1	1	2	2	2	2	3	4	3.0	7.0
31-Oct	5	5	5	5	5	5	5	5	5	6	6	3	3	2	2	3	6	20	10	9	6	5	5	6	5.7	20.2
4.8 5.0 4.9 4.7 4.6 4.6 4.4 5.0 5.1 5.5 5.6 4.1 3.9 4.3 5.0 3.3 3.3 5.4 4.1 4.2 4.0 4.1 4.3 4.7																								Diurnal Average		
10.3 10.6 10.4 9.3 9.1 11.5 10.9 13.7 16.0 23.2 37.5 16.7 19.1 41.0 73.8 12.8 8.3 38.3 9.8 11.3 8.8 9.3 10.0 12.0																								Diurnal Maximum		
C - Calibration																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										

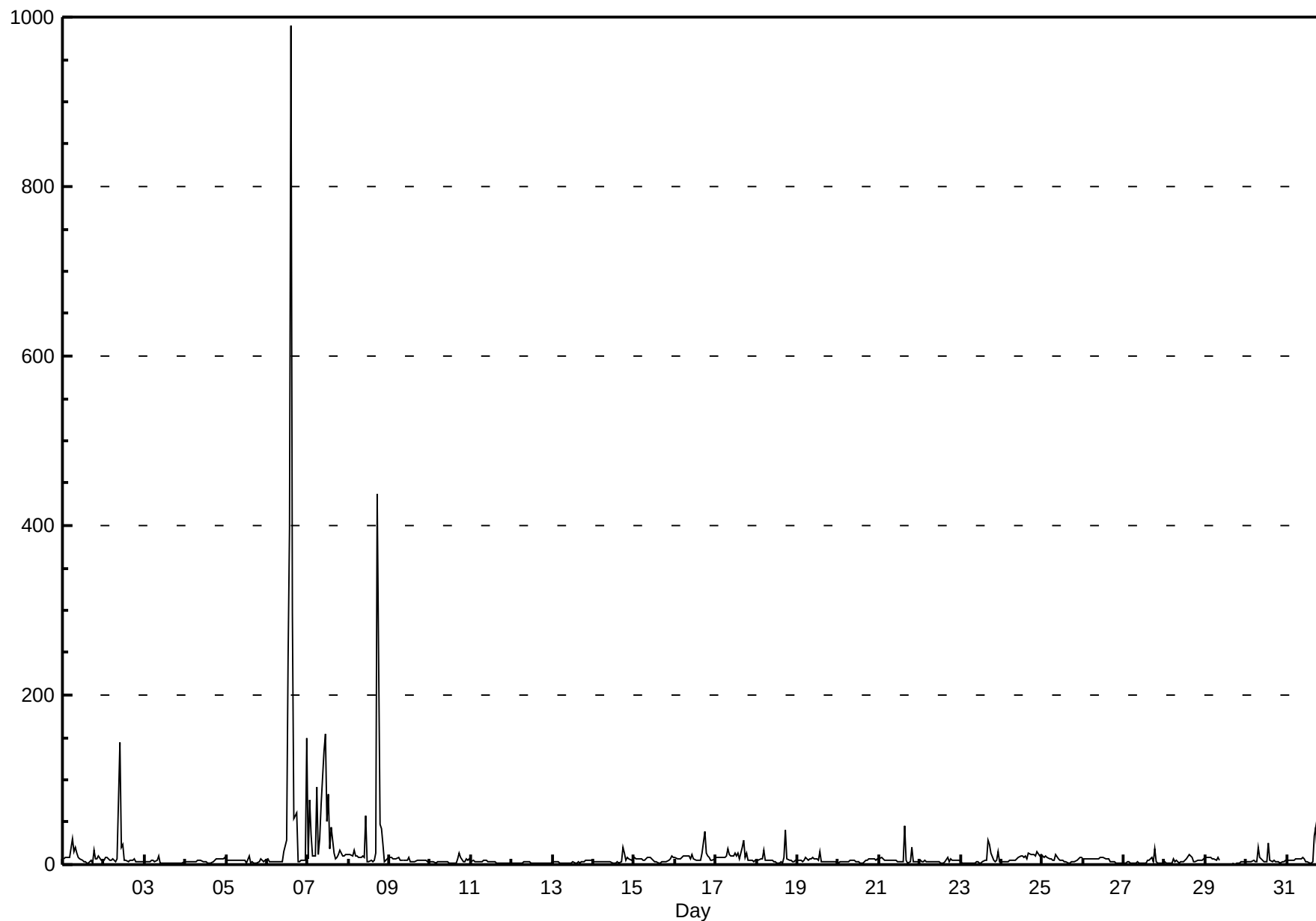


Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

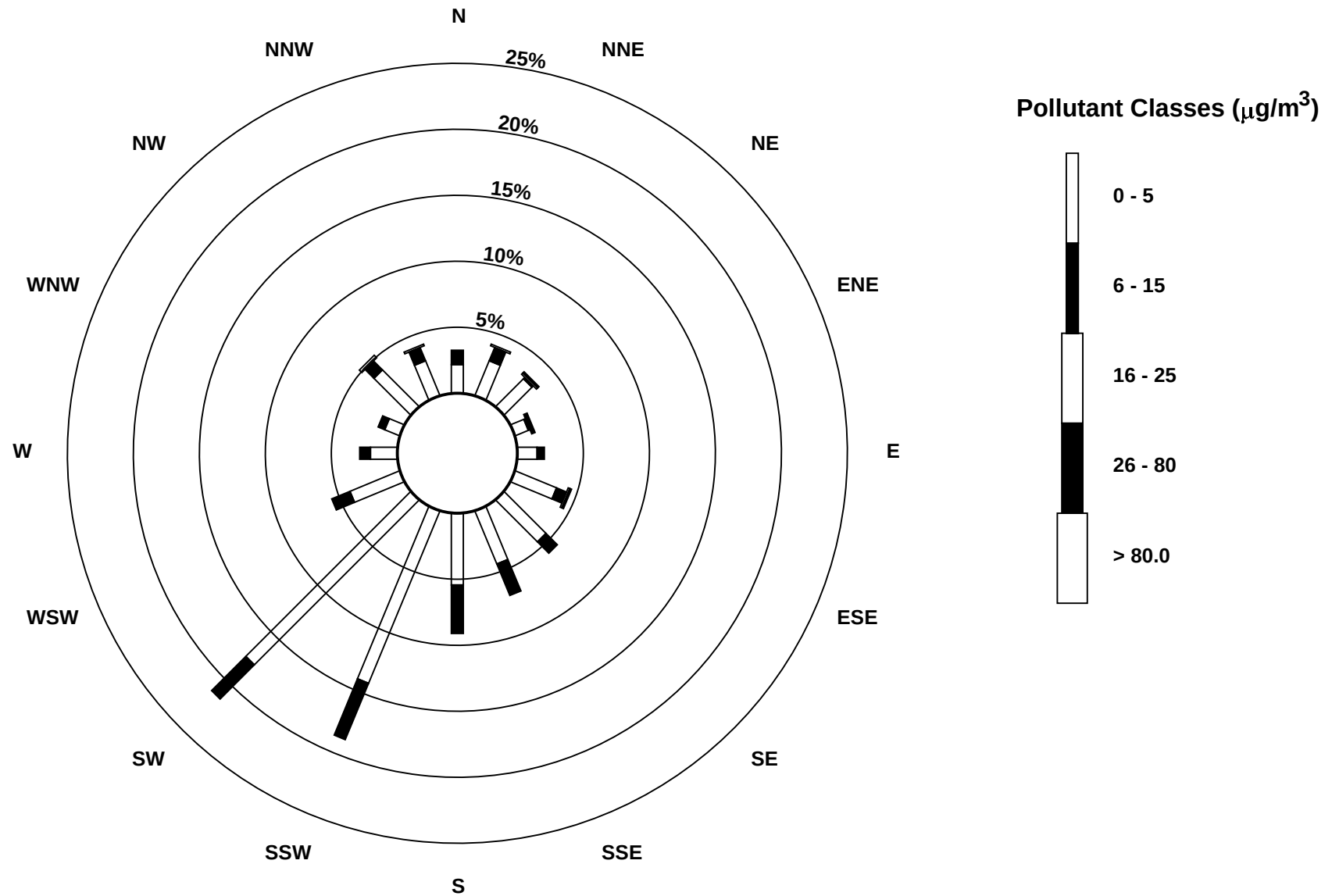
Smoky Heights - October 2015

Maximum Value: 990.0 μg/m ³ on Oct 6 15:00																								Maximum Daily Average: 95.6 μg/m ³ on Oct 6										Hours in Service: 744	
Minimum Value: 1 μg/m ³ on Oct 29 18:00																								Minimum Daily Average: 2.1 μg/m ³ on Oct 12										Hours of Data: 737	
Maximum Diurnal Average: 37.9 μg/m ³ at hour 15																								Minimum Diurnal Average: 5.1 μg/m ³ at hour 22										Hours of Missing Data: 7	
Monthly Average: 10.61 μg/m ³																								Percentiles: P ₁ = 1.4 P ₁₀ = 2.2 Q ₁ = 2.9 Median = 4.6 Q ₃ = 7.3 P ₉₀ = 11.7 P ₉₉ = 145.2										Hours of Calibration: 7	
																								Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum									
1-Oct	7	8	8	8	8	30	16	21	14	9	7	5	4	3	2	5	2	16	7	6	10	5	5	8.7	30.3										
2-Oct	5	8	9	5	5	6	6	4	6	144	21	23	5	4	4	5	4	5	7	4	4	4	3	3	12.2	143.6									
3-Oct	3	3	3	3	5	5	4	6	10	2	2	2	1	2	1	1	1	1	1	1	1	1	3	2.8	10.2										
4-Oct	4	4	4	4	4	3	4	5	5	5	4	3	3	2	2	2	3	6	6	7	6	7	8	8	4.5	7.8									
5-Oct	6	5	4	4	5	5	4	5	5	5	6	5	2	9	1	3	2	2	2	3	7	5	4	6	4.4	9.5									
6-Oct	7	4	3	4	4	3	4	3	3	3	15	29	243	396	990	297	54	61	4	4	4	5	6	150	95.6	990.0									
7-Oct	8	76	35	9	10	92	12	30	72	134	154	51	83	18	44	13	7	8	12	17	11	10	12	12	38.8	154.4									
8-Oct	12	11	11	17	9	9	9	10	8	57	4	3	5	3	5	14	438	47	43	24	4	5	9	9	31.9	437.5									
9-Oct	9	9	7	7	6	8	6	6	5	5	8	4	3	3	4	4	5	5	5	4	4	4	3	3	5.4	9.3									
10-Oct	3	3	3	2	3	3	3	3	4	3	3	2	2	1	2	2	7	13	8	4	3	6	5	6	3.9	12.9									
11-Oct	4	4	4	4	4	3	4	5	4	4	4	4	3	3	3	2	2	2	2	2	2	2	2	2	3.1	4.6									
12-Oct	2	2	2	2	2	2	2	4	4	4	3	2	1	2	2	2	2	2	2	2	2	2	2	2	2.1	4.1									
13-Oct	3	3	3	3	2	2	2	2	2	2	2	2	3	2	2	3	2	3	3	4	4	5	5	4	2.9	4.9									
14-Oct	4	4	4	3	4	4	3	4	4	4	3	2	2	2	3	2	3	20	14	5	9	7	6	7	5.2	20.2									
15-Oct	8	7	7	6	6	6	6	7	9	9	7	6	4	3	2	2	3	3	3	4	4	6	11	9	5.7	11.0									
16-Oct	9	7	7	7	8	11	9	9	10	7	11	7	5	5	4	6	14	39	14	9	9	4	5	7	9.3	39.3									
17-Oct	8	9	9	9	8	9	11	19	11	10	10	14	11	14	7	20	28	9	13	5	5	5	4	5	10.5	28.0									
18-Oct	5	5	6	6	16	6	6	6	6	5	4	3	2	1	4	2	8	41	7	5	5	4	4	5	6.7	40.5									
19-Oct	5	5	5	4	4	8	6	7	8	9	7	8	5	15	3	3	3	3	3	3	3	3	3	2	5.1	14.6									
20-Oct	2	3	3	3	3	3	3	5	5	5	4	4	4	2	2	3	5	5	6	6	7	6	6	6	4.2	6.6									
21-Oct	6	9	6	6	5	5	4	5	5	4	4	4	4	4	3	46	4	2	3	21	3	4	4	4	6.9	45.9									
22-Oct	4	4	4	5	4	4	3	4	4	4	3	3	2	2	2	4	9	4	7	4	5	6	6	6	4.2	9.0									
23-Oct	3	2	2	2	2	2	2	2	2	3	3	2	2	4	5	5	30	24	14	5	3	6	15	4	5.9	29.5									
24-Oct	3	4	4	4	4	5	4	6	5	6	8	10	10	9	9	7	14	12	12	11	10	15	10	12	8.0	14.9									
25-Oct	9	9	10	8	7	6	5	6	12	6	6	5	5	3	3	2	2	3	4	4	5	7	8	8	5.8	11.7									
26-Oct	7	7	7	7	7	6	6	7	7	8	8	8	8	7	7	6	4	4	3	2	2	2	2	2	5.6	8.3									
27-Oct	2	2	3	3	2	2	2	3	2	2	1	1	2	4	5	8	4	19	3	2	2	2	2	2	3.5	18.8									
28-Oct	3	2	2	2	2	7	4	5	2	4	3	3	5	7	12	10	9	3	4	6	6	5	5	7	4.8	11.9									
29-Oct	8	8	9	8	7	7	6	8	6	C	C	C	C	C	C	C	1	1	1	2	2	3	3	3	--	8.5									
30-Oct	4	4	4	4	4	4	4	20	9	6	4	3	4	25	5	4	5	3	3	3	2	3	4	5	5.7	25.1									
31-Oct	6	6	6	6	6	6	8	7	6	8	7	4	3	2	2	3	33	44	12	12	7	6	7	7	8.9	44.0									
5.4 7.6 6.2 5.3 5.4 8.8 5.4 7.4 8.3 14.2 12.6 7.5 14.4 18.7 37.9 15.7 9.4 24.9 8.3 6.9 5.4 5.1 5.3 10.1																								Diurnal Average											
11.7 75.7 34.9 17.1 16.3 91.8 15.9 30.0 72.0 143.6 154.4 51.3 243.1 396.3 990.0 297.0 53.9 437.5 46.9 43.0 23.7 14.9 14.6 149.5																								Diurnal Maximum											
C - Calibration																																			



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - October 2015



Hourly Averages

External Temperature (ET) - °C

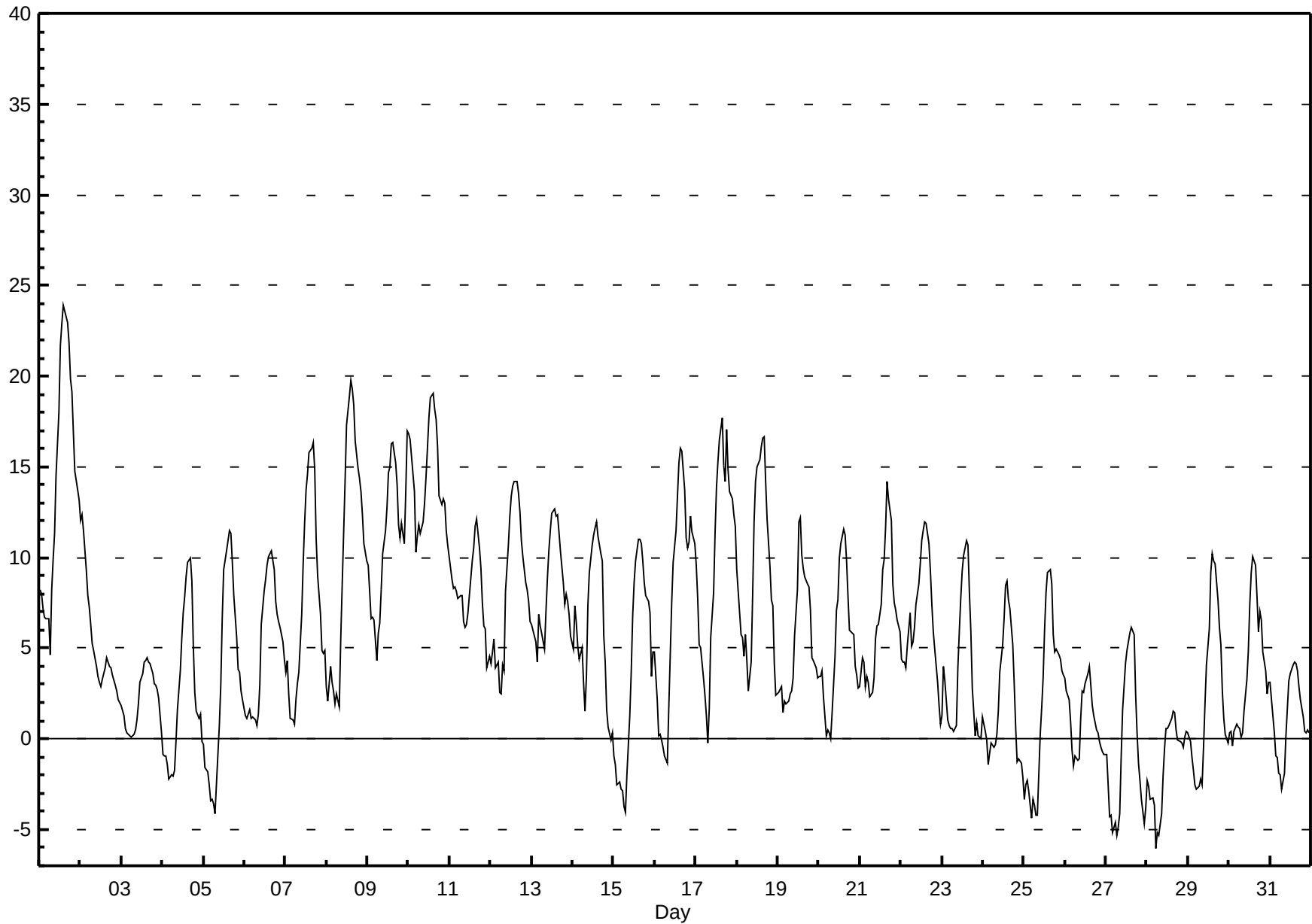
Smoky Heights - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 23.9 °C on Oct 1 15:00 Maximum Daily Average: 14.4 °C on Oct 10																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -6 °C on Oct 28 06:00 Maximum Diurnal Average: 11.3 °C at hour 16 Monthly Average: 5.66 °C																								Minimum Daily Average: -1.4 °C on Oct 28 Minimum Diurnal Average: 1.2 °C at hour 8 Percentiles: P ₁ = -4.6 P ₁₀ = -1.0 Q ₁ = 1.3 Median = 4.9 Q ₃ = 9.6 P ₉₀ = 13.6 P ₉₉ = 18.1		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	8	8	7	7	7	7	5	8	10	11	15	18	22	23	24	24	23	22	20	19	17	15	14	13	14.3	23.9
2-Oct	12	12	11	9	8	7	6	5	5	4	3	3	3	3	4	5	4	4	4	3	3	3	2	2	5.3	12.4
3-Oct	2	1	1	0	0	0	0	0	1	1	2	3	4	4	4	4	4	4	4	3	3	3	2	0	2.1	4.5
4-Oct	-1	-1	-1	-1	-2	-2	-2	-2	0	2	4	5	7	8	9	10	10	9	5	3	2	1	1	0	2.6	10.0
5-Oct	0	-2	-2	-3	-3	-3	-4	-4	-1	1	3	7	9	10	11	11	11	10	8	6	4	4	3	2	3.2	11.5
6-Oct	1	1	1	2	1	1	1	1	1	3	6	8	9	10	10	10	10	9	8	7	6	6	5	4	5.1	10.4
7-Oct	4	4	2	1	1	1	2	3	4	7	10	12	14	15	16	16	16	15	11	9	7	5	5	5	7.6	16.3
8-Oct	3	2	4	3	3	2	2	2	6	8	11	14	17	19	20	19	18	16	15	14	14	12	11	10	10.3	19.8
9-Oct	10	8	7	7	7	4	6	6	8	10	11	13	15	15	16	16	15	14	12	11	12	11	14	17	11.0	17.0
10-Oct	17	17	16	14	10	11	12	11	12	13	14	16	18	19	19	18	18	16	13	13	13	13	12	11	14.4	19.1
11-Oct	10	9	8	8	8	8	8	8	6	6	6	7	9	10	11	12	12	11	9	8	6	6	4	5	8.1	12.2
12-Oct	4	5	6	4	4	3	2	4	4	8	11	12	13	14	14	14	14	12	11	10	9	8	8	6	8.3	14.2
13-Oct	6	6	5	4	7	6	6	5	7	9	10	11	12	13	12	12	11	10	9	7	8	8	7	6	8.3	12.7
14-Oct	5	7	6	5	4	5	3	1	3	7	9	11	11	12	12	11	10	10	6	4	2	1	0	0	6.1	11.9
15-Oct	-1	-1	-3	-2	-3	-3	-4	-4	-2	1	4	7	9	10	11	11	11	10	9	8	8	7	3	5	3.7	11.0
16-Oct	5	2	0	0	0	0	-1	-1	2	5	7	10	11	13	15	16	16	14	11	11	11	12	11	11	7.5	16.1
17-Oct	10	8	5	5	3	2	1	0	2	6	8	11	14	15	17	18	15	14	17	15	14	13	12	12	9.9	17.7
18-Oct	9	8	6	6	5	6	4	3	4	8	12	14	15	15	16	17	17	14	12	9	8	7	4	2	9.2	16.7
19-Oct	3	3	3	1	2	2	2	2	3	3	6	8	12	12	10	9	9	8	7	4	4	4	4	3	5.4	12.2
20-Oct	3	3	4	2	0	1	0	0	1	5	7	8	10	11	12	11	10	8	6	6	6	4	4	3	5.2	11.6
21-Oct	3	4	4	3	3	3	2	3	3	6	6	6	7	9	10	12	14	13	12	9	7	7	7	6	6.7	14.2
22-Oct	4	4	4	4	5	7	5	5	6	7	9	10	11	11	12	12	11	9	7	6	5	3	2	1	6.7	12.0
23-Oct	1	4	3	1	1	1	1	0	1	4	6	8	9	10	11	11	8	6	3	0	1	0	0	0	3.7	10.9
24-Oct	1	0	0	-1	-1	0	0	0	0	2	4	5	7	8	9	8	7	5	3	1	-1	-1	-1	-2	2.1	8.7
25-Oct	-3	-3	-2	-3	-4	-3	-4	-4	-4	0	2	3	6	8	9	9	9	6	5	5	5	4	4	4	2.0	9.3
26-Oct	3	3	2	1	-1	-2	-1	-1	-1	1	3	3	3	4	4	3	2	1	0	0	0	0	-1	-1	1.1	4.0
27-Oct	-1	-3	-4	-4	-5	-5	-5	-5	-4	-1	2	4	5	5	6	6	6	2	0	-1	-2	-3	-5	-4	-0.7	6.1
28-Oct	-2	-3	-3	-3	-4	-6	-5	-5	-5	-4	-2	-1	1	1	1	2	1	0	0	0	0	0	0	0	-1.4	1.5
29-Oct	0	0	-1	-2	-3	-3	-3	-2	-3	0	2	4	6	9	10	10	10	8	6	5	3	1	0	0	2.4	10.2
30-Oct	0	0	0	0	1	1	1	0	0	2	3	5	7	9	10	10	8	6	7	7	5	4	2	3	3.8	10.0
31-Oct	3	2	0	-1	-1	-2	-2	-3	-2	0	2	3	4	4	4	4	4	3	2	1	0	0	0	0	1.2	4.2
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Smoky Heights - October 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - October 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	8	7	11	8	8	7	7	6	5	5	7	6	5	9	10	12	9	6	5	7	9	6	2	6	3.2	12.4
Dir	204	218	235	203	164	233	183	218	157	142	149	135	132	132	104	77	54	42	29	29	243	140	46	126	151.3	76.7
2 Spd	5	6	11	21	15	14	13	13	17	19	20	20	20	18	20	19	16	18	18	19	14	14	13	10	15.4	20.7
Dir	270	304	312	305	318	320	315	319	315	313	309	307	314	314	314	314	314	314	316	318	318	317	311	315	313.1	304.8
3 Spd	10	9	9	9	7	5	4	3	4	5	3	3	3	2	5	5	8	6	4	6	6	7	5	7	1.5	9.8
Dir	313	315	315	311	310	319	346	7	16	22	5	347	31	58	86	105	109	105	116	125	120	125	158	129	32.7	312.9
4 Spd	6	4	3	3	4	7	6	8	11	14	17	13	11	9	6	8	10	11	8	8	9	10	9	5	5.2	16.5
Dir	118	109	89	116	97	137	140	138	133	130	134	132	141	159	130	148	182	213	241	252	254	256	255	270	161.9	134.4
5 Spd	3	3	3	2	4	4	3	4	4	5	6	6	4	4	4	5	3	3	4	4	5	5	4	5	1.6	5.8
Dir	359	157	192	203	182	166	205	164	146	119	127	121	102	119	130	123	108	64	81	2	356	355	344	324	115.4	127.3
6 Spd	5	5	6	8	6	6	5	5	3	2	4	4	5	3	2	2	2	2	1	3	3	7	6	2	1.5	7.7
Dir	332	339	338	344	329	330	335	336	348	335	163	114	113	64	48	72	118	105	209	201	226	250	255	177	328.6	343.7
7 Spd	2	2	2	4	4	4	6	6	1	2	4	4	4	5	5	7	6	5	4	5	3	7	6	5	0.9	7.5
Dir	156	304	267	215	228	194	223	196	30	38	69	39	23	8	358	12	20	21	17	339	320	239	235	213	315.1	239.4
8 Spd	6	10	10	6	9	8	8	10	8	N	6	8	12	10	8	8	2	1	0	1	2	9	11	12	6.1	12.4
Dir	193	210	217	191	184	191	202	196	200	N	144	150	152	150	149	143	162	113	315	6	247	231	232	226	188.7	152.0
9 Spd	11	9	7	3	3	1	3	5	6	3	2	2	1	1	0	3	7	5	7	10	13	8	14	25	5.1	25.0
Dir	209	225	205	198	272	147	199	204	205	180	338	326	137	87	167	146	126	177	203	175	178	223	159	161	184.6	161.1
10 Spd	23	22	20	15	8	15	29	23	26	28	23	19	26	27	26	19	12	11	8	8	10	10	11	8	15.3	28.9
Dir	169	182	227	236	181	193	202	208	207	198	185	194	212	218	216	215	207	209	206	231	290	342	344	237	208.6	202.0
11 Spd	18	28	20	18	11	10	13	8	7	4	3	2	8	13	23	28	31	18	20	14	14	9	8	8	11.8	30.8
Dir	226	228	241	252	247	218	222	238	1	20	60	117	225	222	228	226	225	219	219	205	188	174	162	131	221.9	225.0
12 Spd	5	9	7	0	6	9	5	7	5	16	31	37	41	45	45	39	34	35	27	27	18	16	18	15	20.1	44.9
Dir	152	148	198	225	185	181	177	236	215	200	207	207	212	223	223	216	216	217	217	211	201	196	218	228	211.5	223.5
13 Spd	18	18	17	14	20	20	14	11	20	23	16	18	19	15	17	15	19	26	32	28	20	19	22	21	8.2	31.5
Dir	221	207	222	212	212	229	239	227	45	43	28	35	28	33	36	41	41	43	48	51	43	36	42	46	41.2	48.2
14 Spd	21	16	19	22	23	19	17	10	9	15	15	22	21	19	21	19	13	13	8	9	13	14	15	15	5.4	22.9
Dir	39	30	42	46	44	32	33	22	28	31	29	254	260	259	269	262	279	273	265	240	229	239	237	237	320.2	44.4
15 Spd	7	7	9	10	9	10	6	7	6	6	6	4	7	8	8	8	6	5	5	4	4	4	2	4	3.1	10.4
Dir	209	190	207	195	189	188	181	175	174	164	154	146	131	118	119	95	70	30	24	15	350	325	315	336	159.5	188.5
16 Spd	6	2	1	3	2	1	5	1	2	3	5	5	6	5	6	9	8	8	7	7	5	15	15	16	2.3	15.5
Dir	331	332	297	25	294	198	231	201	123	162	146	109	105	74	11	5	357	341	359	351	85	112	124	120	68.8	120.4
17 Spd	10	10	7	5	7	6	8	9	9	9	11	10	7	7	6	8	4	6	22	22	23	24	23	21	10.2	24.4
Dir	130	153	195	189	177	165	179	186	200	196	189	180	185	184	133	197	150	186	227	211	216	220	215	229	199.0	220.4
18 Spd	11	11	9	13	6	12	8	8	14	14	15	19	19	20	18	12	9	5	7	5	4	3	2	5	9.1	20.0
Dir	226	206	220	221	230	210	226	208	227	220	218	228	218	220	220	212	236	300	324	327	349	344	210	204	225.5	219.6
19 Spd	6	6	5	6	7	7	5	5	5	8	7	7	8	18	13	11	12	13	17	14	9	4	7	11	8.0	17.9
Dir	200	191	209	190	208	206	216	146	160	146	140	163	189	223	218	204	200	198	219	240	226	210	202	212	202.9	222.6
20 Spd	9	7	10	7	10	13	15	15	13	11	12	16	18	15	17	14	8	5	7	6	3	4	6	4	9.8	18.0
Dir	233	203	240	217	194	206	229	227	223	214	214	203	205	234	228	202	182	200	155	175	215	237	217	223	213.6	205.4
21 Spd	1	1	5	5	3	4	4	3	2	8	10	9	8	8	6	15	30	22	19	14	18	20	19	23	9.8	29.7
Dir	92	108	194	227	251	261	249	261	225	203	196	186	171	168	127	208	225	225	216	230	217	221	220	208	213.2	225.2
22 Spd	13	11	6	7	12	24	18	20	27	27	36	37	35	37	33	34	32	24	18	15	14	11	11	14	21.3	36.7
Dir	212	192	216	188	205	212	212	206	206	209	206	210	215	223	221	216	215	217	209	211	210	213	225	228	212.5	222.9

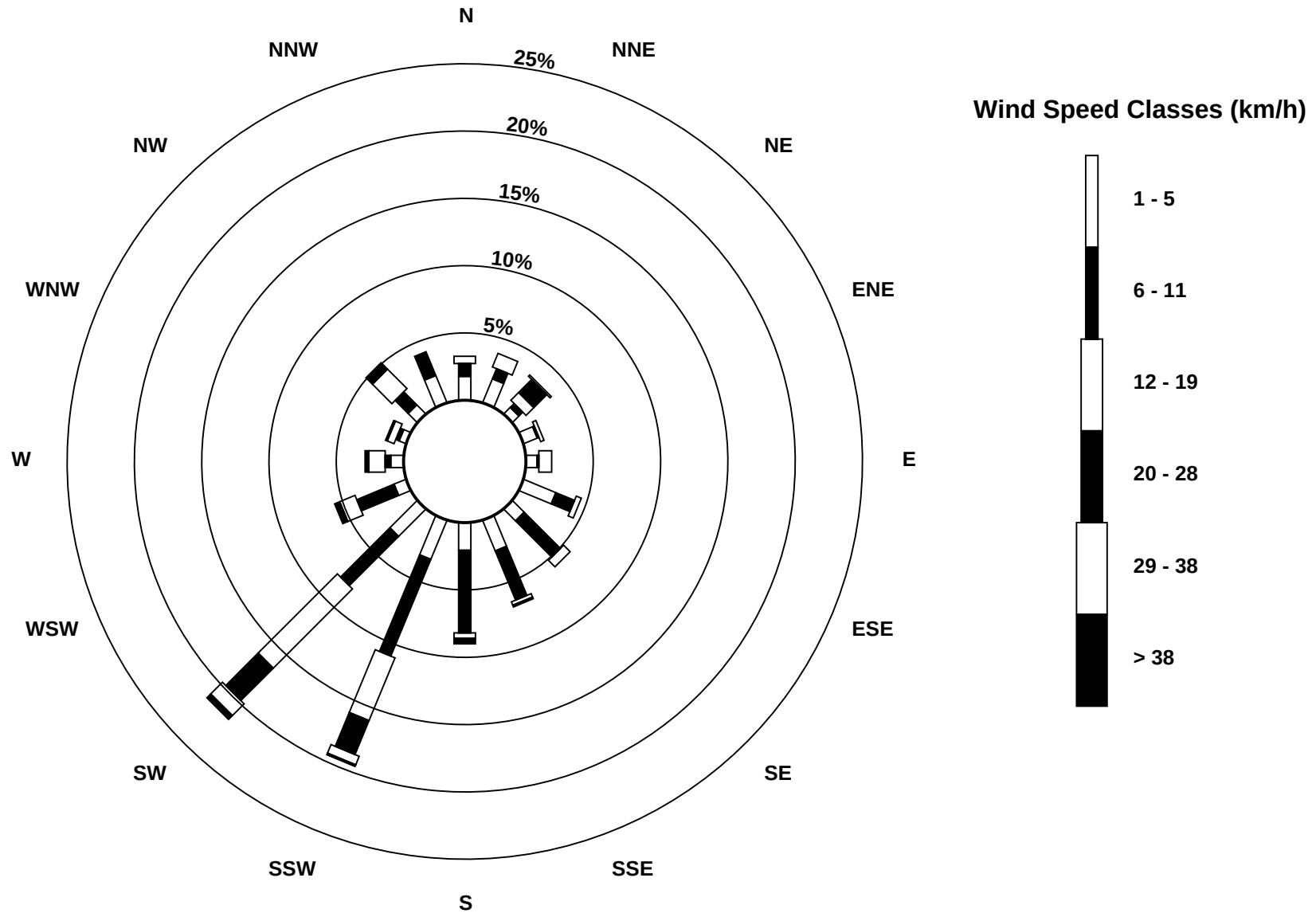


Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - October 2015

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Wind Rose

Wind Speed (WS) (km/h)
Smoky Heights - October 2015



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - October 2015

Maximum Speed: 45 km/h on Oct 12 15:00																				Maximum Daily Speed Average: 21.7 km/h on Oct 22										Hours in Service: 744	
Minimum Speed: 1 km/h on Oct 27 22:00																				Minimum Daily Speed Average: 4.4 km/h on Oct 5										Hours of Data: 743	
Maximum Diurnal Speed Average: 15.0 km/h at hour 15																				Minimum Diurnal Speed Average: 8.5 km/h at hour 5										Hours of Missing Data: 1	
Monthly Average Speed: 11.06 km/h																				Percentiles: P ₁ = 1.8 P ₁₀ = 3.8 Q ₁ = 5.7 Median = 9.1 Q ₃ = 14.6 P ₉₀ = 20.4 P ₉₉ = 36.5										Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Oct	9	7	11	10	8	7	7	6	6	5	7	6	6	10	10	13	9	6	5	8	13	8	4	7	7.8	12.7					
2-Oct	6	6	11	21	15	14	13	13	17	20	20	20	20	18	20	19	16	18	18	19	14	14	14	10	15.7	20.9					
3-Oct	10	9	9	9	7	5	5	4	4	5	3	4	4	4	6	6	8	6	5	6	6	8	6	7	6.0	9.9					
4-Oct	6	4	4	3	4	7	6	8	11	14	17	14	12	10	7	9	12	11	8	8	9	10	9	6	8.6	16.7					
5-Oct	4	3	3	3	4	4	3	4	4	5	6	6	5	4	6	6	5	3	4	4	5	5	4	5	4.4	6.0					
6-Oct	5	5	6	8	6	6	5	5	8	3	4	5	6	4	3	3	3	2	2	3	3	7	6	3	4.8	8.3					
7-Oct	3	2	2	5	4	5	6	6	3	2	5	5	5	5	6	8	6	5	4	5	4	8	6	6	4.8	7.6					
8-Oct	6	11	10	7	9	9	8	10	8	N	6	8	13	11	8	8	3	2	2	2	3	10	11	12	7.7	12.6					
9-Oct	11	9	8	4	4	2	4	5	6	4	3	3	4	3	2	4	7	5	7	10	13	8	14	25	6.9	25.1					
10-Oct	23	22	20	16	9	16	29	24	26	28	23	20	27	28	27	19	12	12	9	9	10	10	11	10	18.3	29.2					
11-Oct	18	28	20	18	11	10	13	11	8	4	3	3	9	13	23	28	31	18	20	14	14	9	8	8	14.4	31.0					
12-Oct	6	9	8	3	6	9	6	8	7	16	32	38	41	45	45	39	35	35	27	27	18	16	18	15	21.2	45.3					
13-Oct	18	18	17	14	20	20	14	12	25	24	17	18	20	16	18	16	19	26	32	28	20	19	22	21	19.9	31.6					
14-Oct	21	17	19	22	23	19	17	10	9	15	18	23	21	20	22	19	13	13	9	9	13	14	15	15	16.5	23.0					
15-Oct	9	7	9	11	10	10	6	7	6	6	7	5	7	8	9	9	6	5	5	4	4	4	3	4	6.7	10.7					
16-Oct	6	2	2	3	2	3	5	2	2	3	5	5	6	6	7	9	8	8	8	7	6	15	15	16	6.2	15.5					
17-Oct	10	10	7	5	8	7	8	9	9	9	11	10	8	8	7	8	6	7	22	22	24	25	23	21	11.7	24.5					
18-Oct	11	11	9	13	7	12	9	10	15	14	15	19	20	20	19	12	9	8	8	5	4	4	3	5	11.0	20.3					
19-Oct	7	6	5	6	7	7	6	5	6	8	7	7	8	18	13	11	12	13	18	15	9	5	8	11	9.1	18.2					
20-Oct	9	8	10	8	10	13	15	15	13	12	12	16	18	16	18	15	8	6	7	6	3	4	7	5	10.6	18.3					
21-Oct	2	3	5	5	3	4	4	4	3	8	10	9	8	8	7	17	30	23	19	14	18	20	19	23	11.1	29.8					
22-Oct	14	11	6	7	13	24	18	21	27	27	37	37	35	37	33	34	32	24	18	15	14	11	11	14	21.7	37.0					
23-Oct	11	20	19	13	15	13	13	15	11	15	20	24	24	27	25	19	10	7	7	12	14	14	15	14	15.7	26.9					
24-Oct	16	11	7	5	5	5	6	6	7	6	8	11	11	8	9	10	10	5	3	5	4	4	3	3	7.0	15.5					
25-Oct	4	3	4	4	5	5	6	6	5	4	6	5	5	6	13	18	12	8	10	12	14	13	15	12	8.2	18.1					
26-Oct	12	11	12	10	2	3	3	3	5	5	13	15	10	11	14	19	19	17	11	14	15	19	21	11	11.5	20.7					
27-Oct	12	8	12	12	11	13	15	17	14	12	11	15	14	11	11	10	7	5	2	2	1	1	3	3	9.3	16.9					
28-Oct	5	3	7	6	3	6	6	11	5	10	8	9	8	11	10	13	8	7	7	6	9	8	11	14	7.9	13.7					
29-Oct	10	9	8	7	8	7	7	5	5	8	13	15	17	20	24	25	27	23	21	22	15	13	12	11	13.8	26.6					
30-Oct	12	10	10	7	11	8	4	6	5	6	11	11	16	26	28	28	15	11	18	21	17	17	17	17	13.8	27.9					
31-Oct	18	17	16	14	13	10	8	10	4	4	3	2	7	14	14	9	6	9	13	13	11	10	10	8	10.2	18.2					
10.1 9.7 9.5 9.0 8.5 9.2 9.0 9.0 9.3 10.1 11.7 12.5 13.4 14.4 15.0 14.9 13.0 11.2 11.2 11.1 10.6 10.7 11.1 11.1																									Diurnal Average						
22.8 28.3 20.2 22.5 23.0 24.3 29.2 23.8 27.4 28.1 36.6 37.6 40.8 45.2 45.3 38.8 34.6 35.1 31.6 27.6 23.5 24.5 22.8 25.1																									Diurnal Maximum						
N - Not Valid																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Smoky Heights - October 2015

Maximum Value: 95.3 deg on Oct 8 19:00																			Hours in Service: 744						
Minimum Value: 1.9 deg on Oct 13 20:00																			Hours of Data: 744						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 3.0 P ₁₀ = 5.0 Q ₁ = 7.5 Median = 12.7 Q ₃ = 22.8 P ₉₀ = 40.6 P ₉₉ = 79.8																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	28	18	10	33	17	13	15	9	29	18	12	18	34	21	23	14	9	8	13	17	55	64	93	37	92.5
2-Oct	20	62	14	9	9	8	8	8	6	6	8	8	7	6	6	7	6	6	7	6	6	8	7	8	61.8
3-Oct	8	7	5	6	9	9	26	29	23	18	40	40	62	76	33	24	16	16	20	10	10	14	24	11	76.4
4-Oct	16	26	30	54	40	11	10	5	5	6	9	12	20	30	37	24	34	20	7	3	3	3	5	34	54.5
5-Oct	48	25	18	50	12	36	19	16	13	18	12	17	39	42	61	40	57	33	21	21	9	17	9	7	61.4
6-Oct	7	6	6	5	11	20	12	8	56	63	51	47	38	57	64	61	56	63	41	20	15	17	25	37	64.2
7-Oct	57	40	51	33	18	38	15	64	68	49	23	24	29	25	28	31	17	11	18	8	49	8	15	13	67.7
8-Oct	16	16	12	30	9	10	10	4	17	16	24	13	10	20	16	11	34	52	95	29	51	8	4	14	95.3
9-Oct	13	15	20	44	48	72	37	16	24	71	69	51	75	77	93	43	16	24	20	16	18	20	5	3	92.7
10-Oct	4	11	9	21	29	17	8	11	5	7	12	17	10	8	13	9	6	11	15	22	15	16	12	57	57.4
11-Oct	15	6	6	5	15	7	4	63	10	25	25	30	41	9	7	7	6	6	7	10	9	14	17	10	62.8
12-Oct	34	9	30	90	23	16	56	24	52	17	5	6	7	7	8	6	5	4	5	3	4	4	6	9	89.7
13-Oct	8	4	10	11	3	7	7	28	67	7	25	16	18	28	24	25	12	5	3	2	7	6	5	8	67.3
14-Oct	8	8	8	4	6	4	4	5	17	8	39	9	11	16	11	10	9	5	9	6	9	5	3	4	39.2
15-Oct	38	6	15	16	7	6	9	5	9	16	11	20	21	24	15	13	14	13	15	14	18	24	55	15	54.8
16-Oct	9	50	40	27	43	63	16	81	31	35	17	32	21	40	13	12	14	5	19	20	54	6	5	4	81.4
17-Oct	8	7	13	17	13	21	11	13	13	12	15	14	26	29	19	21	42	35	10	8	5	4	4	4	41.5
18-Oct	9	6	9	11	36	8	17	29	8	8	7	9	20	10	16	13	17	52	8	17	31	42	81	34	80.6
19-Oct	26	30	31	16	13	18	24	14	27	12	11	11	21	9	6	4	8	6	15	22	8	24	13	5	30.5
20-Oct	13	17	11	18	8	9	5	4	6	17	10	6	10	22	12	8	15	34	9	18	21	20	19	23	34.3
21-Oct	73	63	22	15	21	11	23	53	49	20	10	13	17	19	33	36	5	8	5	11	7	5	8	3	73.1
22-Oct	13	5	26	22	6	3	13	6	4	11	5	4	9	7	8	8	6	5	4	3	3	6	12	8	25.9
23-Oct	9	2	3	7	3	5	5	5	12	7	8	6	8	8	9	11	6	13	7	15	7	7	3	6	14.8
24-Oct	3	58	20	19	18	20	13	6	9	18	13	8	10	21	24	6	5	20	15	15	9	8	12	13	58.0
25-Oct	11	14	15	12	12	12	10	13	10	34	16	41	18	29	13	10	6	12	17	6	6	4	3	3	41.0
26-Oct	11	10	4	7	79	45	34	83	24	36	11	13	12	17	28	7	7	12	16	12	13	10	8	21	83.0
27-Oct	18	17	8	3	9	6	4	3	5	16	18	8	11	17	16	14	13	9	39	11	65	45	32	23	64.8
28-Oct	18	38	12	41	84	16	10	43	20	8	14	16	14	16	10	7	9	38	24	13	19	21	13	13	84.3
29-Oct	8	23	10	16	15	21	11	25	24	22	5	7	7	5	7	5	5	4	7	4	4	10	7	5	25.5
30-Oct	7	24	16	22	14	71	31	12	39	31	9	7	7	8	10	21	22	18	10	4	4	5	5	6	71.1
31-Oct	5	6	6	5	7	24	21	52	27	18	27	57	8	8	12	18	28	8	7	6	6	6	5	6	56.8
73.1 63.3 50.7 89.7 84.3 71.9 55.7 83.0 67.7 71.4 68.8 56.8 74.9 77.2 92.7 60.5 56.6 63.4 95.3 28.8 64.8 64.4 92.5 57.4																									

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

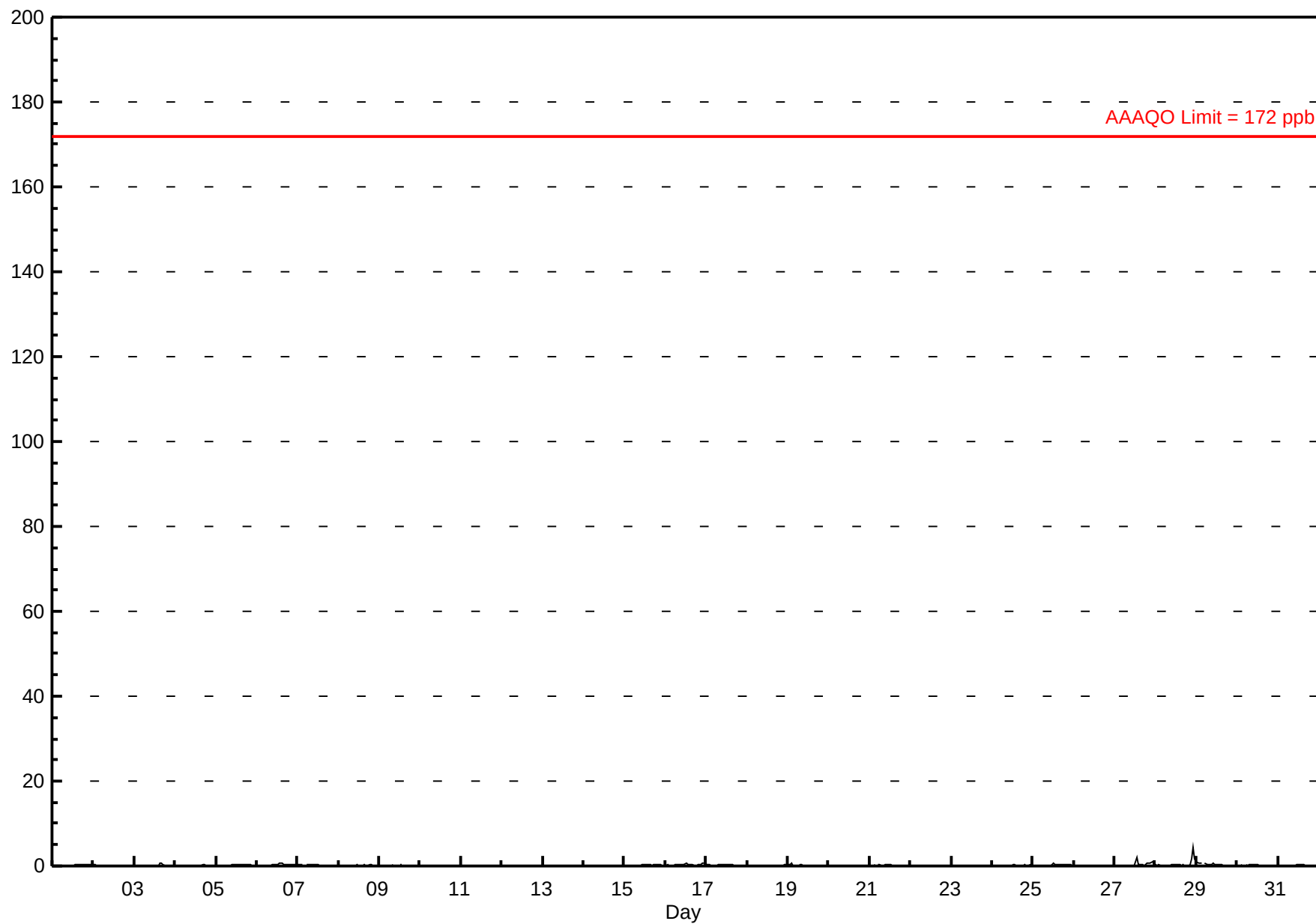
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.5 ppb on Oct 28 23:00 Maximum Daily Average: 0.5 ppb on Oct 28																				Hours in Service: 744 Hours of Data: 702 Hours of Missing Data: 42 Hours of Calibration: 34 Percent Operational Time: 98.9						
Minimum Value: 0 ppb on Oct 11 13:00 Maximum Diurnal Average: 0.3 ppb at hour 23 Monthly Average: 0.14 ppb										Minimum Daily Average: 0.0 ppb on Oct 11 Minimum Diurnal Average: 0.1 ppb at hour 7 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.9																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
2-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
3-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.1	0.6
4-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
5-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
6-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0.3	0.8
7-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
8-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
9-Oct	0	0	0	0	A	0	0	0	0	C	C	C	0	0	P	P	P	P	P	P	P	P	0	0	--	0.3
10-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
11-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
14-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
15-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
16-Oct	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0.3	0.7
17-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
19-Oct	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
20-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
21-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
22-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
25-Oct	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
26-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
27-Oct	0	0	0	0	A	0	0	0	0	0	0	0	1	2	0	0	0	0	0	1	1	1	1	0	0.4	1.9
28-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	2	0.5	4.5
29-Oct	1	1	1	1	A	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
30-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
31-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
0.1 0.1 0.1 0.1 -- 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.2 0.3 0.2																									Diurnal Average	
1.0 0.6 0.6 0.6 -- 0.5 0.4 0.4 0.5 0.4 0.5 0.5 1.0 1.9 0.8 0.6 0.5 0.4 0.4 0.6 0.6 1.6 4.5 1.9																									Diurnal Maximum	
C - Calibration P - Power Failure A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - October 2015



Hourly Maximums

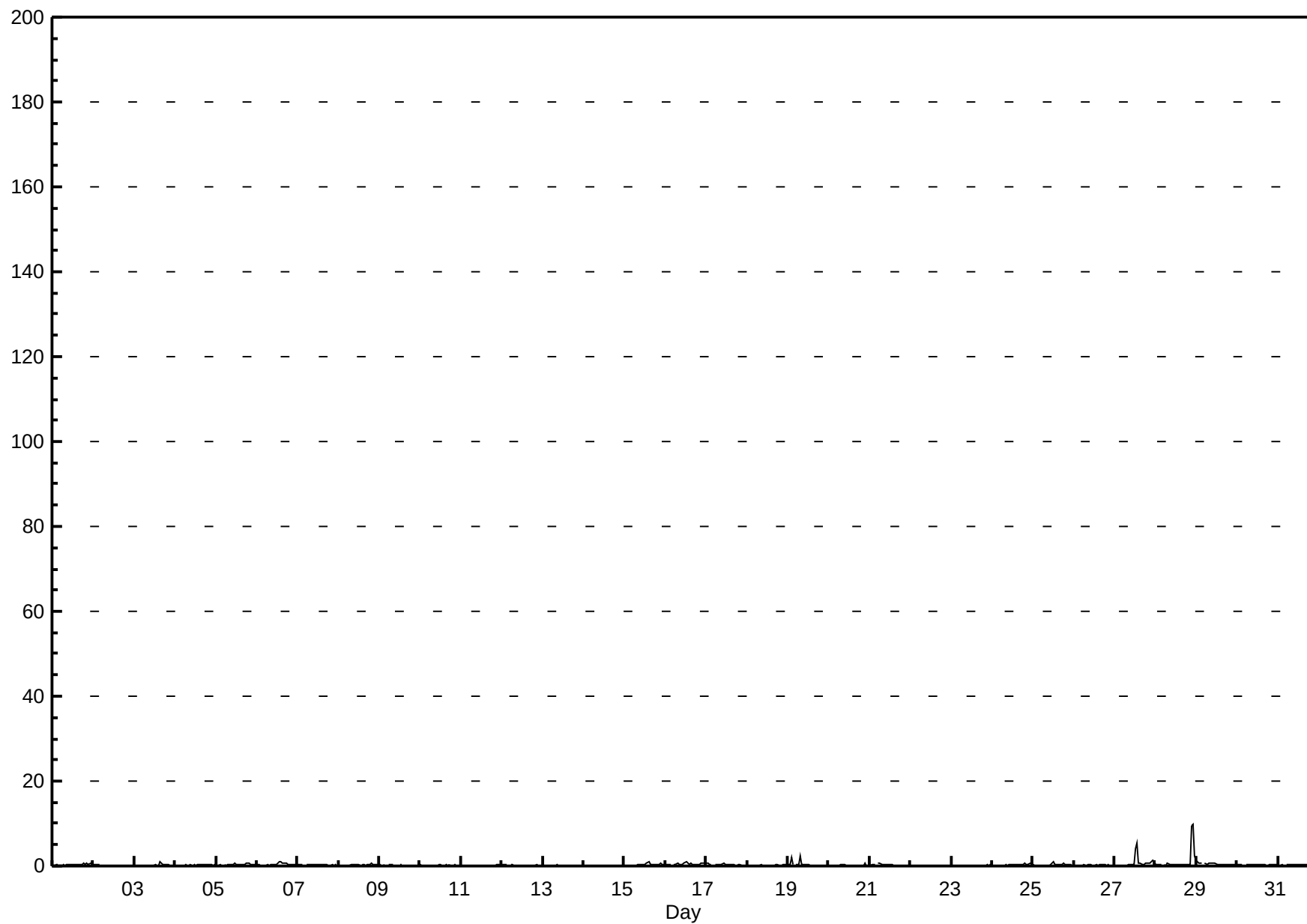
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - October 2015

Maximum Value: 9.7 ppb on Oct 28 23:00																			Maximum Daily Average: 1.2 ppb on Oct 28										Hours in Service: 744	
Minimum Value: 0 ppb on Oct 11 16:00																			Minimum Daily Average: 0.1 ppb on Oct 11										Hours of Data: 702	
Maximum Diurnal Average: 0.6 ppb at hour 22																			Minimum Diurnal Average: 0.2 ppb at hour 7										Hours of Missing Data: 42	
Monthly Average: 0.29 ppb																			Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 2.0										Hours of Calibration: 34	
																													Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0.3	0.6				
2-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3				
3-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.2	0.9				
4-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3				
5-Oct	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0	0	0.3	0.6				
6-Oct	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	1	0	0.4	0.9				
7-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5				
8-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.5				
9-Oct	0	0	0	0	A	0	0	0	0	C	C	C	0	0	P	P	P	P	P	P	P	P	0	0	--	0.5				
10-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3				
11-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3				
13-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
14-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
15-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0.3	0.9				
16-Oct	0	0	0	0	A	0	0	1	0	0	0	1	1	1	0	1	0	0	0	0	0	1	1	1	0.5	1.1				
17-Oct	1	1	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6				
18-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3				
19-Oct	0	0	2	0	A	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.3				
20-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6				
21-Oct	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5				
22-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3				
24-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0.2	0.5				
25-Oct	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0.3	0.9				
26-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2				
27-Oct	0	0	0	0	A	0	0	0	0	0	0	0	4	5	1	1	0	0	1	1	1	1	1	1	0.8	5.5				
28-Oct	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	2	1.2	9.7				
29-Oct	1	1	1	1	A	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.5				
30-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3				
31-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3				
0.2 0.2 0.3 0.2 -- 0.2 0.2 0.3 0.2 0.2 0.2 0.3 0.4 0.4 0.3 0.3 0.3 0.2 0.2 0.3 0.2 0.6 0.6 0.3																									Diurnal Average					
1.5 0.8 2.1 0.8 -- 0.7 0.5 2.3 0.6 0.6 0.6 0.8 4.2 5.5 0.9 0.9 0.8 0.5 0.6 0.7 0.8 9.5 9.7 2.2																									Diurnal Maximum					
C - Calibration					P - Power Failure					A - Automated Daily Zero Span																				

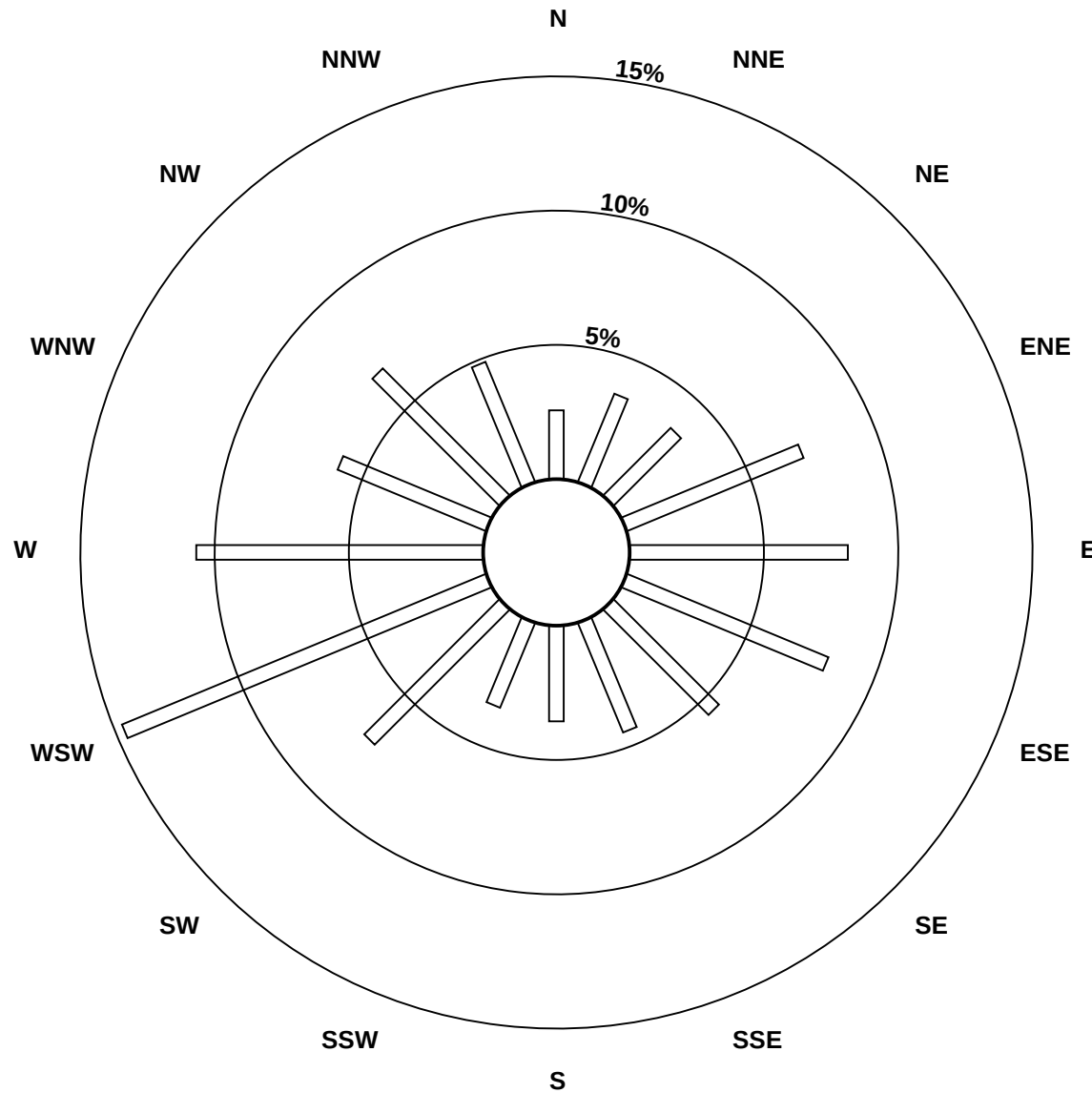
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - October 2015

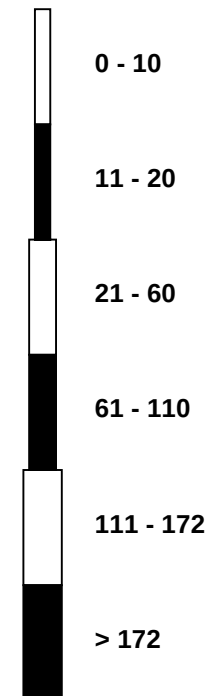


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - October 2015

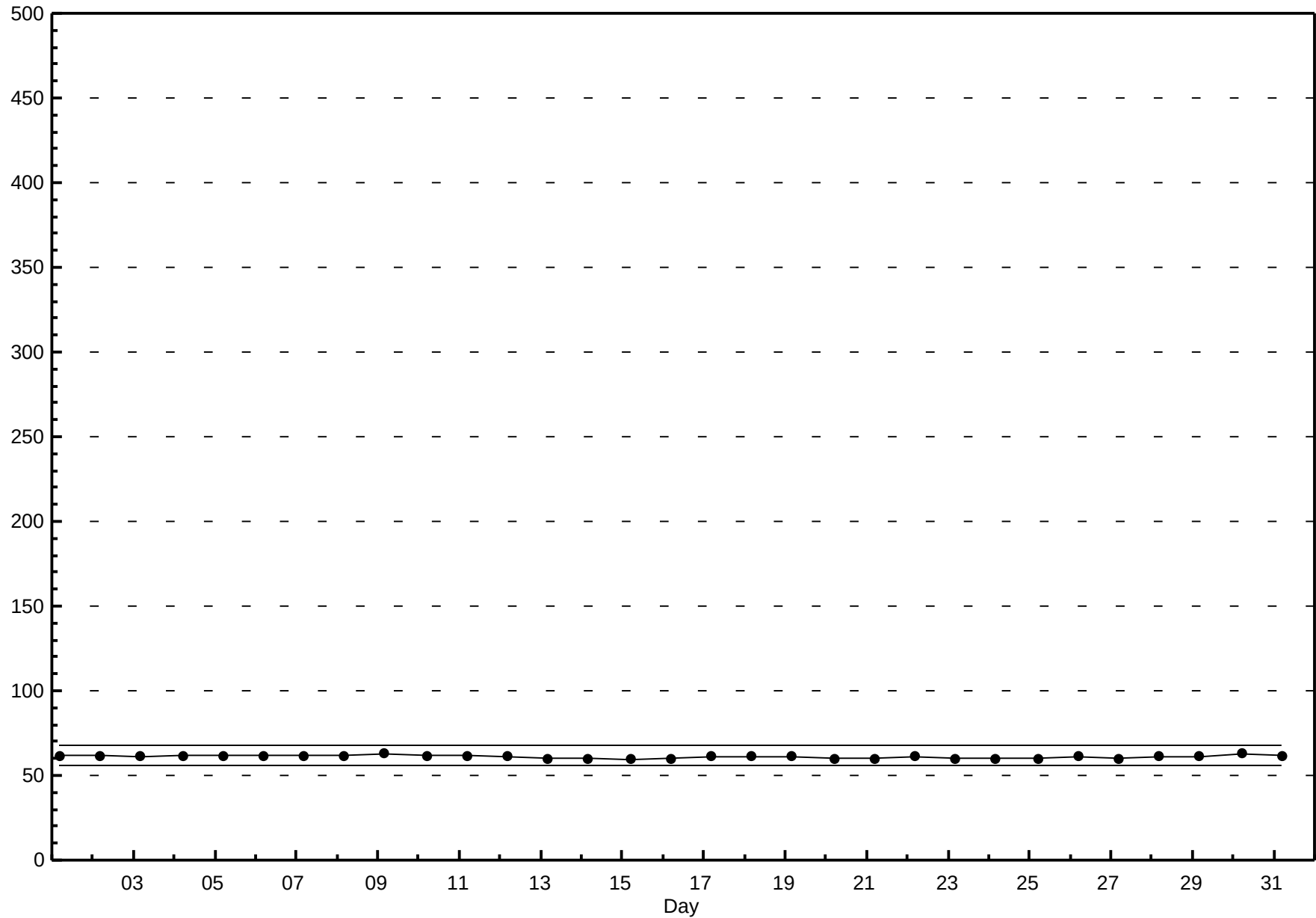


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - October 2015



Hourly Averages

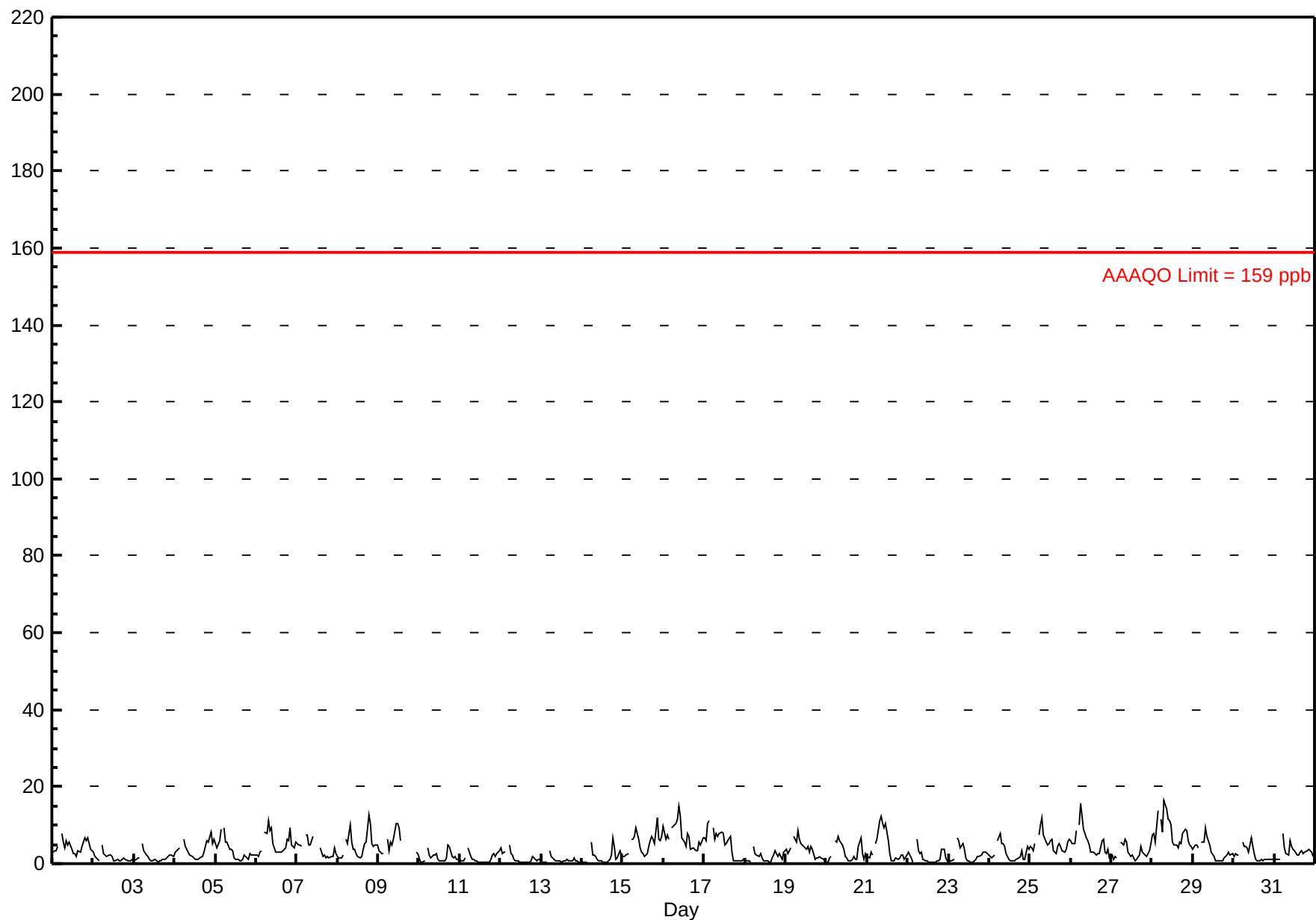
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16.5 ppb on Oct 28 08:00 Maximum Daily Average: 8.2 ppb on Oct 28																				Hours in Service: 744 Hours of Data: 701 Hours of Missing Data: 43 Hours of Calibration: 35 Percent Operational Time: 98.9						
Minimum Value: 0 ppb on Oct 13 02:00 Maximum Diurnal Average: 6.6 ppb at hour 6 Monthly Average: 3.48 ppb										Minimum Daily Average: 0.8 ppb on Oct 13 Minimum Diurnal Average: 1.8 ppb at hour 15 Percentiles: P ₁ = 0.3 P ₁₀ = 0.7 Q ₁ = 1.2 Median = 2.7 Q ₃ = 5.1 P ₉₀ = 7.2 P ₉₉ = 12.3																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	3	3	3	5	A	8	6	4	6	5	6	4	3	3	2	3	3	5	6	7	6	7	4	3	4.4	7.8
2-Oct	3	2	1	1	A	5	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.6	4.9
3-Oct	1	1	1	2	A	5	3	2	2	1	1	1	1	1	0	1	1	1	1	2	2	2	2	2	1.6	5.1
4-Oct	3	3	4	4	A	6	4	4	3	2	2	2	1	1	1	1	2	3	4	6	6	8	5	6	3.6	8.2
5-Oct	5	4	6	9	A	9	6	6	4	4	3	2	1	1	1	1	1	2	2	1	3	2	2	2	3.4	9.2
6-Oct	2	2	3	3	A	8	8	11	8	9	5	3	3	3	3	3	3	4	6	6	9	5	4	6	5.2	11.1
7-Oct	5	5	5	4	A	8	7	5	5	7	C	C	C	C	4	2	2	2	2	1	2	2	4	3	3.9	7.6
8-Oct	2	1	2	2	A	6	5	10	5	4	4	3	2	1	2	4	5	5	13	10	5	5	5	5	4.6	12.8
9-Oct	4	3	3	2	A	6	4	5	5	7	10	11	9	6	P	P	P	P	P	P	P	P	3	3	--	10.5
10-Oct	2	0	0	1	A	4	2	2	2	2	3	1	1	1	1	1	2	5	5	2	1	2	1	1	1.7	4.7
11-Oct	1	1	1	1	A	4	2	1	1	1	1	1	0	0	0	0	0	0	1	2	2	2	3	3	1.3	4.3
12-Oct	4	3	3	3	A	5	3	2	1	1	1	1	0	0	0	0	0	0	1	2	1	1	1	1	1.5	5.0
13-Oct	0	0	0	0	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.8	3.3
14-Oct	0	0	0	1	A	6	2	2	2	1	1	1	1	0	1	0	1	2	7	5	1	1	3	2	1.8	6.9
15-Oct	2	2	2	3	A	6	6	7	9	6	4	3	3	2	3	4	6	7	6	5	12	6	6	7	5.2	12.0
16-Oct	10	6	8	6	A	9	10	11	12	15	12	7	6	5	8	7	4	4	4	3	3	6	5	7	7.2	15.0
17-Oct	7	6	11	11	A	9	7	8	7	8	8	8	5	5	6	7	3	1	1	1	1	1	1	1	5.2	11.3
18-Oct	1	1	1	0	A	4	2	2	2	3	1	1	1	1	0	1	1	2	3	2	3	2	1	3	1.7	4.4
19-Oct	4	3	3	4	A	7	6	9	6	5	5	4	4	4	3	5	4	1	2	2	2	2	1	0	3.7	8.8
20-Oct	0	0	1	2	A	6	6	7	6	5	4	2	1	1	1	1	2	1	1	5	7	3	1	2	2.8	7.0
21-Oct	2	2	3	2	A	5	6	11	12	11	9	10	6	3	1	1	1	1	1	1	2	2	1	2	4.2	12.4
22-Oct	3	2	2	0	A	7	3	3	3	1	1	1	0	0	0	0	1	1	1	1	4	4	1	1	1.7	6.5
23-Oct	1	1	1	1	A	7	6	4	5	4	1	1	1	0	0	1	1	2	2	2	3	3	3	3	2.2	6.8
24-Oct	2	2	2	2	A	6	8	5	5	5	3	1	1	1	1	1	1	1	2	3	1	1	4	4	2.7	8.0
25-Oct	5	4	3	5	A	7	10	12	7	6	5	5	6	6	3	3	5	5	4	3	3	4	6	6	5.4	12.1
26-Oct	6	5	5	9	A	10	16	9	8	7	6	5	3	3	3	2	2	3	6	6	3	3	4	1	5.5	15.8
27-Oct	2	1	2	2	A	6	5	5	6	6	3	2	2	1	1	1	2	4	3	3	2	2	3	5	3.0	6.5
28-Oct	7	8	6	14	A	12	8	17	14	11	11	10	5	5	5	4	6	5	8	9	8	6	5	4	8.2	16.5
29-Oct	4	5	5	4	A	6	6	9	7	6	5	3	2	1	1	1	1	1	1	2	2	3	2	3	3.4	9.2
30-Oct	2	3	2	2	A	6	4	5	4	3	7	5	3	1	1	1	1	1	1	1	1	1	1	1	2.4	6.6
31-Oct	1	1	1	1	A	8	4	3	2	6	5	4	3	2	2	3	3	3	3	3	4	3	3	2	3.1	7.9
3.0 2.6 2.9 3.5 -- 6.6 5.4 5.9 5.3 4.9 4.3 3.3 2.5 2.0 1.8 2.0 2.2 2.5 3.3 3.3 3.4 2.9 2.8 3.0 Diurnal Average																										
9.6 7.7 10.5 13.8 -- 11.5 15.8 16.5 14.1 15.0 12.4 10.5 9.2 6.2 7.7 7.1 5.9 7.1 12.8 10.4 12.0 8.2 5.8 7.2 Diurnal Maximum																										
C - Calibration P - Power Failure A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - October 2015



Hourly Maximums

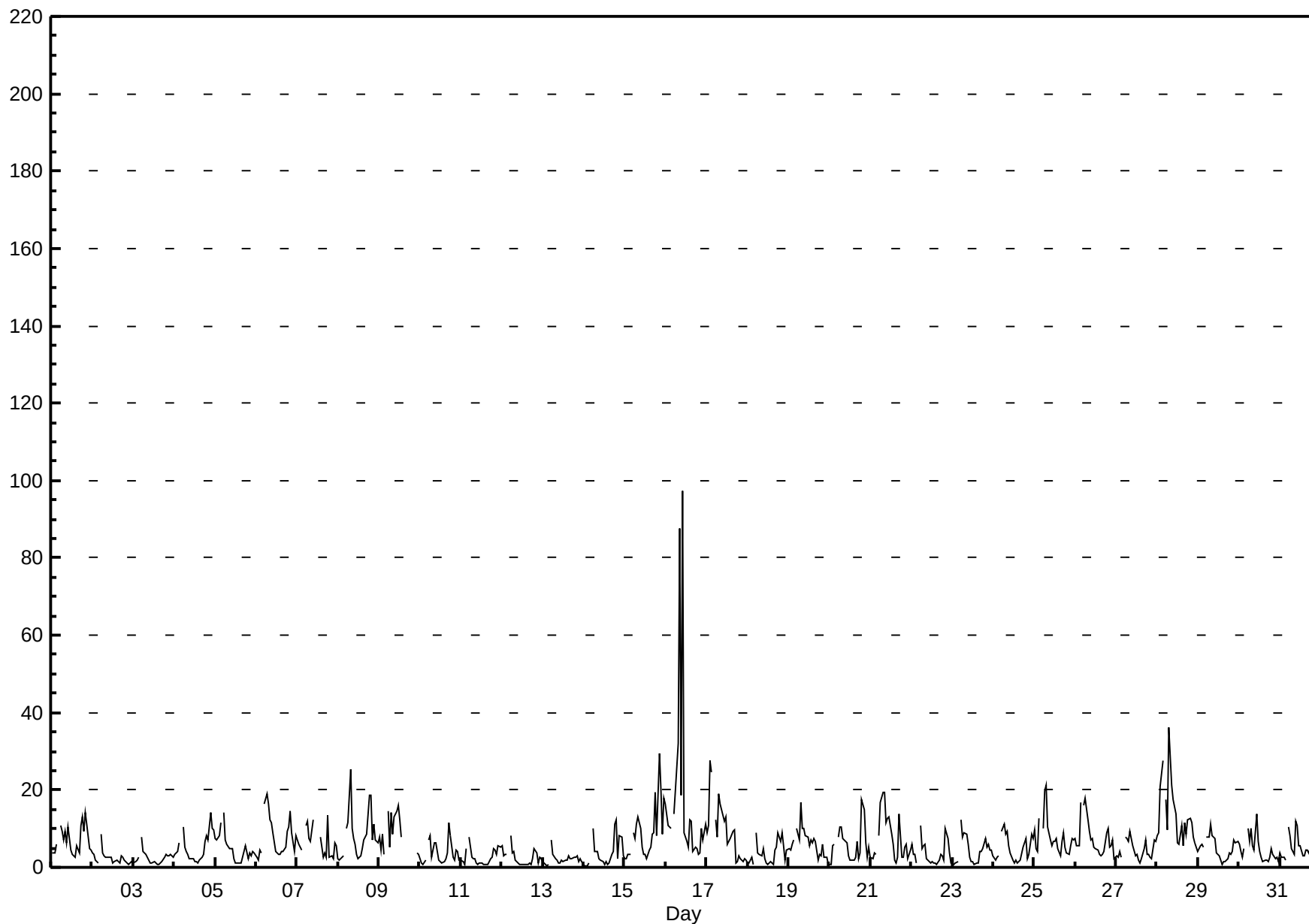
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - October 2015

Maximum Value: 97.3 ppb on Oct 16 11:00																				Maximum Daily Average: 17.9 ppb on Oct 16										Hours in Service: 744	
Minimum Value: 0 ppb on Oct 14 01:00																				Minimum Daily Average: 2.1 ppb on Oct 13										Hours of Data: 701	
Maximum Diurnal Average: 11.0 ppb at hour 8																				Minimum Diurnal Average: 3.0 ppb at hour 14										Hours of Missing Data: 43	
Monthly Average: 6.03 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 1.2 Q ₁ = 2.3 Median = 4.3 Q ₃ = 7.8 P ₉₀ = 12.1 P ₉₉ = 27.3										Hours of Calibration: 35	
																				Percent Operational Time: 98.9											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
1-Oct	4	4	4	6	A	11	9	7	9	6	10	5	3	3	2	5	4	11	13	9	14	11	5	5	7.0	14.0					
2-Oct	4	3	2	1	A	9	4	3	3	3	3	3	1	2	2	2	1	3	2	2	1	1	1	2	2.4	8.7					
3-Oct	1	1	2	3	A	8	4	3	3	2	1	1	2	1	1	1	1	2	3	3	3	3	4	3	2.3	7.7					
4-Oct	4	4	4	7	A	10	5	4	4	2	2	2	2	1	1	2	3	3	7	8	7	14	10	10	5.1	14.2					
5-Oct	8	7	8	12	A	14	7	6	5	5	5	2	1	1	1	1	3	4	6	2	4	3	4	4	4.9	14.3					
6-Oct	2	2	4	4	A	16	19	16	12	12	9	4	4	3	3	4	4	5	9	10	14	9	4	8	7.9	19.1					
7-Oct	7	6	5	5	A	11	12	7	7	12	C	C	C	C	8	3	4	2	13	3	3	2	6	6	6.4	13.4					
8-Oct	2	2	3	3	A	10	12	25	10	8	6	3	2	3	5	7	8	9	19	19	7	11	7	6	8.1	25.3					
9-Oct	8	4	9	3	A	15	5	14	9	13	15	16	12	8	P	P	P	P	P	P	P	P	4	3	--	16.1					
10-Oct	2	1	1	2	A	7	8	3	6	6	4	2	2	1	1	2	4	12	8	3	2	5	4	2	3.8	11.7					
11-Oct	2	1	1	5	A	8	3	2	2	1	1	1	1	1	1	1	1	2	3	5	5	4	6	5	2.6	7.9					
12-Oct	5	3	3	3	A	8	4	4	2	1	1	1	1	1	1	1	1	1	2	5	4	1	3	2	2.5	8.3					
13-Oct	1	1	0	1	A	7	3	2	2	1	1	2	1	2	2	3	2	2	3	3	3	1	2	2	2.1	6.9					
14-Oct	0	1	1	1	A	10	4	4	4	2	2	2	1	1	1	1	3	4	11	12	2	8	8	3	3.8	12.5					
15-Oct	2	2	3	3	A	9	7	11	13	10	5	4	3	2	5	5	8	9	19	8	29	20	9	18	9.0	29.5					
16-Oct	16	11	11	10	A	14	20	32	88	19	97	9	7	5	12	12	4	5	5	4	4	10	7	11	17.9	97.3					
17-Oct	9	11	28	25	A	12	8	19	16	15	12	13	6	7	8	9	10	1	2	3	2	2	2	2	9.6	27.7					
18-Oct	1	1	2	1	A	9	4	3	3	5	2	1	1	1	1	1	4	5	9	7	9	6	2	4	3.6	9.0					
19-Oct	5	4	6	7	A	10	7	17	10	10	8	8	6	7	6	7	7	2	4	3	6	3	2	1	6.3	16.7					
20-Oct	1	1	5	6	A	8	10	11	7	7	6	3	2	2	2	3	7	2	4	18	15	6	3	5	5.8	17.7					
21-Oct	3	2	4	3	A	8	17	20	19	12	13	13	9	6	2	1	3	14	2	3	5	6	2	4	7.4	19.5					
22-Oct	6	3	3	1	A	11	5	5	6	2	1	1	1	1	1	1	2	3	3	2	10	7	4	1	3.6	10.9					
23-Oct	1	1	1	1	A	12	8	9	9	6	3	2	2	1	1	1	4	4	5	7	5	6	5	4	4.3	12.3					
24-Oct	3	2	3	3	A	9	11	8	9	6	4	2	1	2	1	1	2	5	6	7	2	3	8	8	4.7	11.2					
25-Oct	10	5	4	13	A	10	20	21	10	7	5	7	7	7	5	3	7	9	5	4	4	6	8	7	8.0	21.2					
26-Oct	7	6	5	17	A	16	18	12	9	7	7	5	5	5	3	3	4	4	9	10	5	5	7	2	7.5	17.9					
27-Oct	3	3	4	2	A	8	8	7	9	7	5	3	4	2	1	2	5	7	3	3	3	2	7	7	4.6	9.2					
28-Oct	8	9	21	27	A	18	10	36	21	17	16	14	6	6	11	6	11	9	12	13	11	8	6	5	13.1	36.2					
29-Oct	4	5	6	5	A	8	8	11	8	8	7	4	3	2	1	2	2	2	4	4	4	7	6	7	5.1	11.4					
30-Oct	6	4	2	5	A	10	7	10	5	4	14	7	4	3	2	2	2	2	3	5	3	2	2	1	4.6	13.8					
31-Oct	4	3	3	2	A	11	8	5	3	12	11	5	5	3	3	4	5	4	5	5	5	5	3	2	5.0	11.9					
4.5 3.7 5.1 6.0 -- 10.5 8.8 11.0 10.5 7.3 9.2 4.8 3.5 3.0 3.1 3.2 4.1 4.9 6.6 6.3 6.4 5.9 4.9 4.9																									Diurnal Average						
16.4 10.8 27.7 27.5 -- 17.7 19.7 36.2 87.8 18.7 97.3 16.1 12.3 7.8 12.2 11.8 11.5 13.8 19.4 18.5 29.5 20.3 10.3 18.0																									Diurnal Maximum						
C - Calibration P - Power Failure A - Automated Daily Zero Span																															

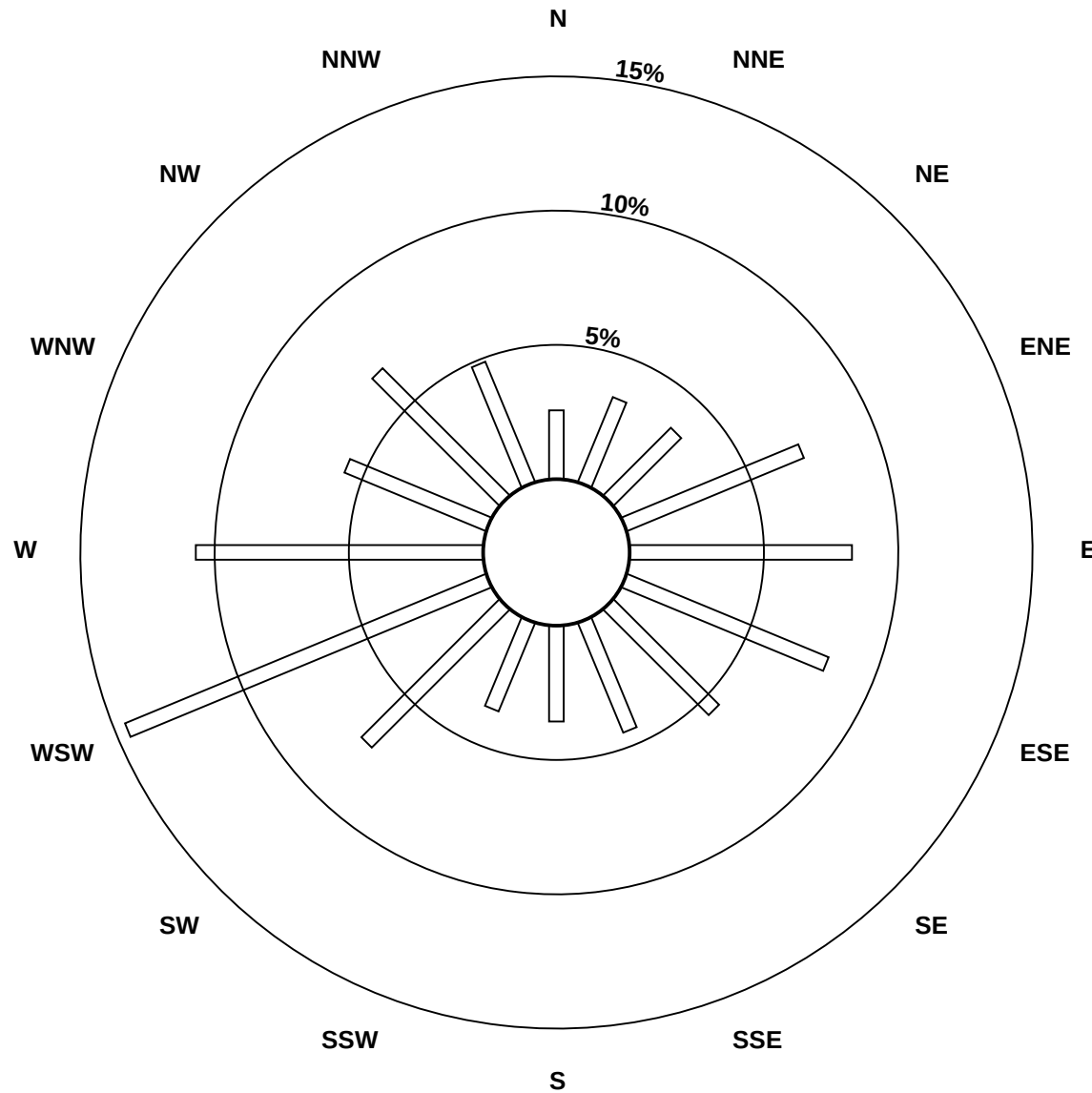
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - October 2015

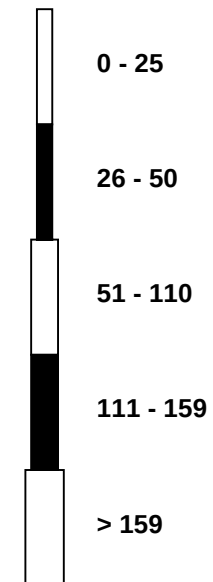


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - October 2015

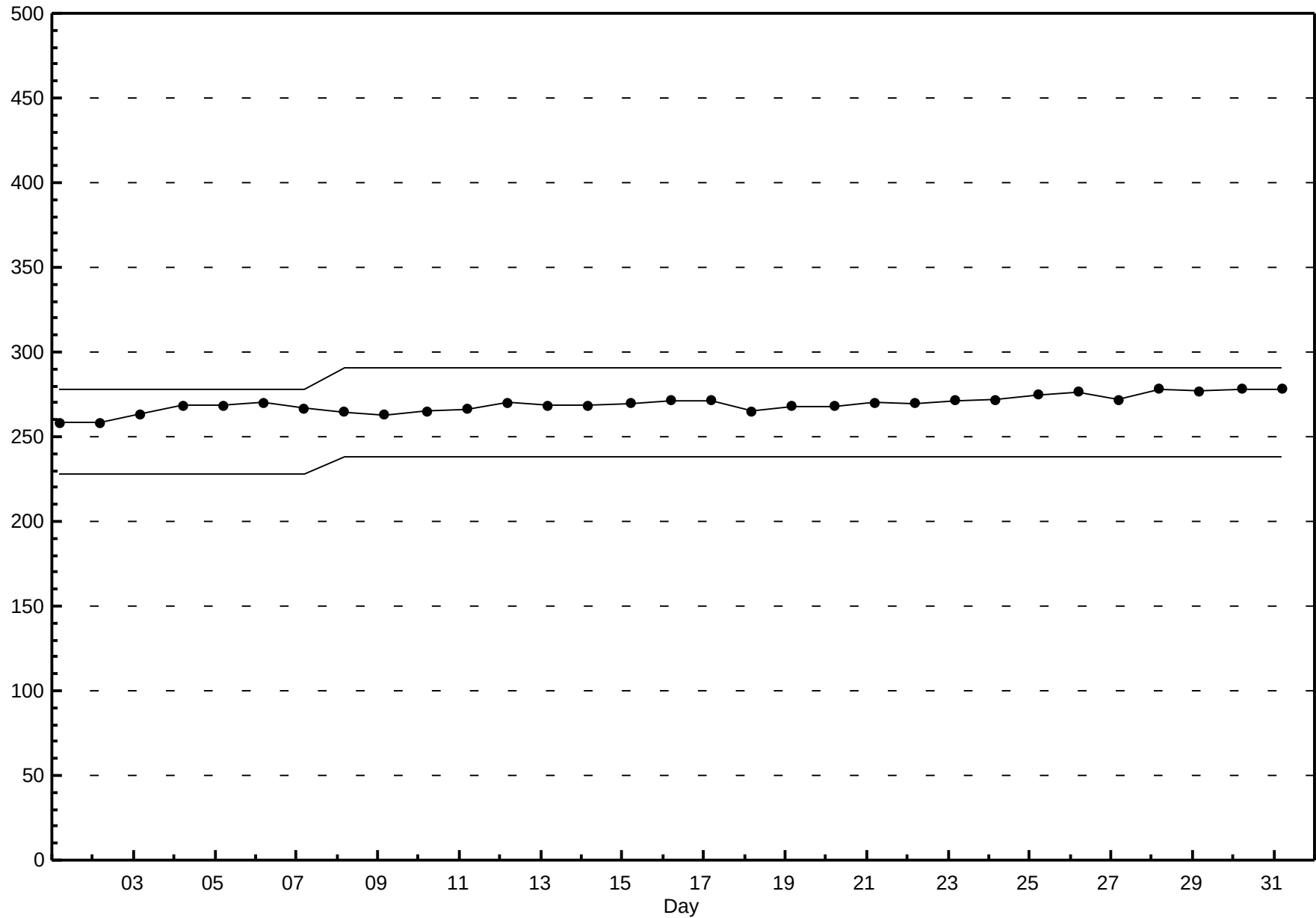


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - October 2015



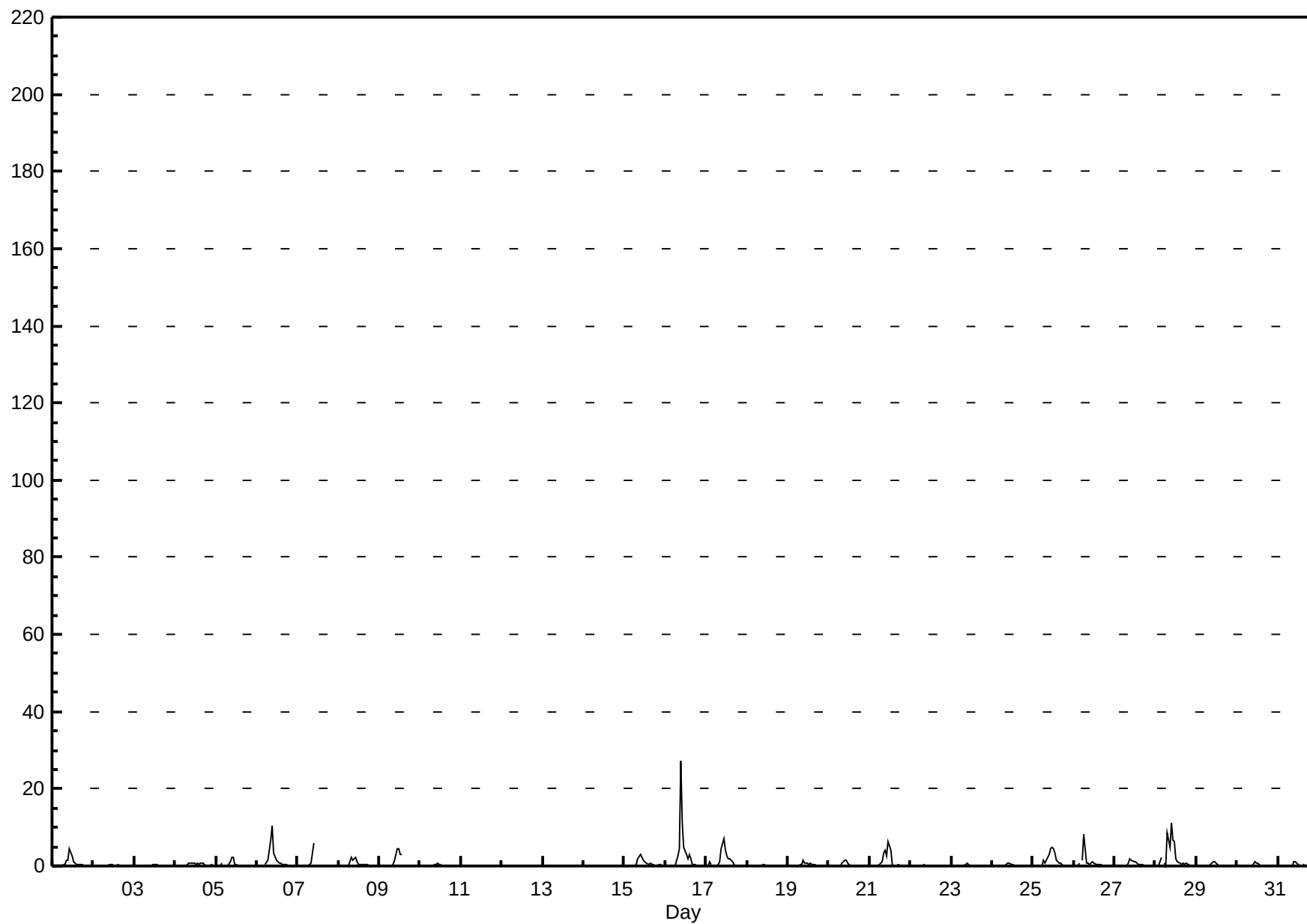
Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 27.1 ppb on Oct 16 10:00 Maximum Daily Average: 2.6 ppb on Oct 16																				Hours in Service: 744 Hours of Data: 701 Hours of Missing Data: 43 Hours of Calibration: 35 Percent Operational Time: 98.9						
Minimum Value: 0 ppb on Oct 4 19:00 Maximum Diurnal Average: 2.9 ppb at hour 10 Monthly Average: 0.54 ppb										Minimum Daily Average: 0.1 ppb on Oct 13 Minimum Diurnal Average: 0.0 ppb at hour 2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 1.3 P ₉₉ = 6.7																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	A	0	0	0	2	2	4	2	1	1	0	1	0	0	0	0	0	0	0	0	0.7	4.4
2-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Oct	0	0	0	0	A	0	0	0	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0.3	0.8
5-Oct	0	0	0	1	A	0	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.2
6-Oct	0	0	0	0	A	0	2	4	7	11	3	1	1	1	1	1	0	0	0	0	0	0	0	0	1.4	10.6
7-Oct	0	0	0	0	A	0	0	0	1	6	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.4	6.0
8-Oct	0	0	0	0	A	0	0	2	2	2	2	1	1	0	0	0	1	0	0	0	0	0	0	0	0.5	2.3
9-Oct	0	0	0	0	A	0	0	0	0	2	4	5	3	3	P	P	P	P	P	P	P	P	P	0	--	4.6
10-Oct	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
11-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
13-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Oct	0	0	0	0	A	0	0	0	2	3	2	1	1	1	1	1	0	0	0	0	0	0	1	0	0.6	2.9
16-Oct	0	0	0	0	A	0	0	2	4	27	11	5	3	2	3	2	1	0	0	0	0	0	0	0	2.6	27.1
17-Oct	0	0	1	0	A	0	0	0	1	5	7	4	3	2	2	1	0	0	0	0	0	0	0	0	1.2	7.2
18-Oct	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
19-Oct	0	0	0	0	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.3
20-Oct	0	0	0	0	A	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
21-Oct	0	0	0	0	A	0	0	1	3	4	3	7	4	0	0	0	0	0	0	0	0	0	0	0	1.0	6.5
22-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
23-Oct	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
24-Oct	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
25-Oct	0	0	0	0	A	0	2	1	1	3	4	5	4	3	1	1	1	0	0	0	0	0	0	0	1.2	4.7
26-Oct	0	0	0	1	A	2	8	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.7	8.1
27-Oct	0	0	0	0	A	0	0	0	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	2.0
28-Oct	0	0	0	2	A	1	0	8	5	11	7	6	2	1	1	0	1	0	1	0	0	0	0	0	2.1	11.3
29-Oct	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
30-Oct	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
31-Oct	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - October 2015



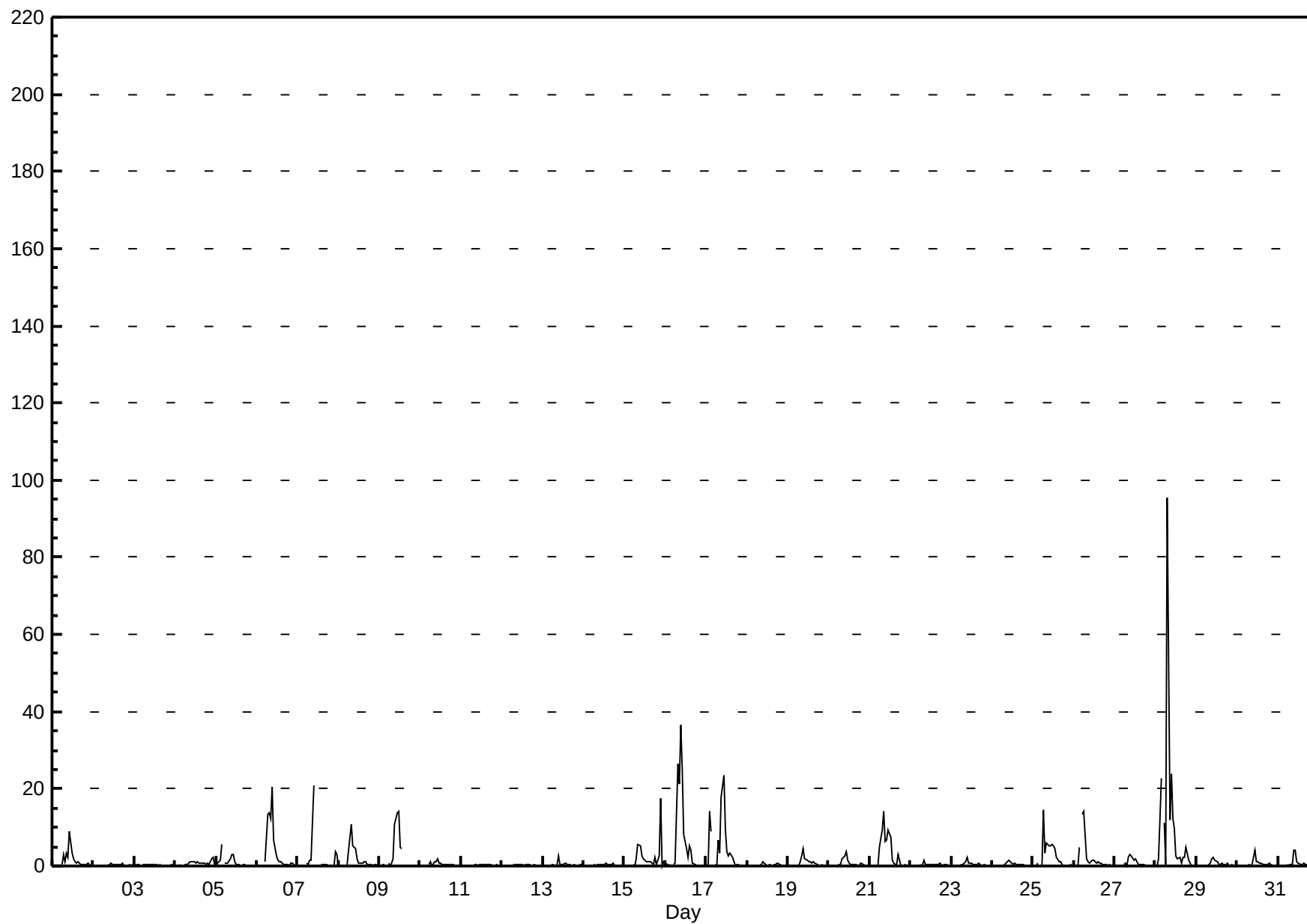
Hourly Maximums

Nitrogen Oxide (NO) - ppb Beaverlodge - October 2015

Maximum Value: 95.5 ppb on Oct 28 08:00																				Maximum Daily Average: 9.1 ppb on Oct 28					Hours in Service: 744	
Minimum Value: 0 ppb on Oct 5 01:00																				Minimum Daily Average: 0.2 ppb on Oct 12					Hours of Data: 701	
Maximum Diurnal Average: 6.0 ppb at hour 10																				Minimum Diurnal Average: 0.2 ppb at hour 2					Hours of Missing Data: 43	
Monthly Average: 1.57 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.9 P ₉₀ = 3.3 P ₉₉ = 22.4					Hours of Calibration: 35	
																				Percent Operational Time: 98.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	A	0	3	1	3	2	9	4	2	1	1	1	0	0	0	0	0	1	0	0	1.3	8.9
2-Oct	0	0	0	0	A	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0.3	0.8
3-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
4-Oct	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	0	2	2	0	0.7	2.3
5-Oct	0	1	1	6	A	1	1	1	2	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0.9	5.6
6-Oct	0	0	0	0	A	1	13	14	12	20	7	3	2	1	1	1	0	1	0	0	1	1	0	0	3.4	20.4
7-Oct	0	0	0	0	A	1	0	1	1	21	C	C	C	C	0	0	0	0	0	0	0	0	4	3	1.8	21.0
8-Oct	0	0	0	0	A	0	4	11	5	5	5	2	1	1	1	1	1	0	0	0	0	0	0	0	1.6	10.9
9-Oct	0	0	0	0	A	1	0	1	2	11	14	14	5	4	P	P	P	P	P	P	P	P	0	0	--	14.0
10-Oct	0	0	0	0	A	0	1	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9
11-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
13-Oct	0	0	0	0	A	0	0	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.4	2.6
14-Oct	0	0	0	0	A	0	0	0	0	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0.3	0.6
15-Oct	0	0	0	0	A	0	0	2	5	5	3	2	2	1	1	1	1	0	2	0	3	18	0	1	2.1	17.6
16-Oct	1	0	0	0	A	0	1	26	21	37	25	8	4	2	5	4	1	0	0	0	0	0	0	0	6.0	36.6
17-Oct	0	0	14	9	A	0	0	7	3	18	24	9	4	3	3	2	1	0	0	0	0	0	0	0	4.3	23.5
18-Oct	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	1.0
19-Oct	0	0	0	0	A	0	0	1	3	4	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0.8	4.4
20-Oct	0	0	0	0	A	0	0	0	2	2	4	1	1	0	0	0	0	0	0	1	0	0	0	0	0.6	3.8
21-Oct	0	0	0	0	A	0	5	9	14	6	7	9	8	1	1	0	0	3	0	0	0	0	0	0	2.9	14.3
22-Oct	0	0	0	0	A	0	0	0	2	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0.4	1.5
23-Oct	0	0	0	0	A	0	0	0	1	2	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0.4	2.1
24-Oct	0	0	0	0	A	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	1.4
25-Oct	0	0	0	1	A	0	15	3	6	5	5	6	5	5	2	1	1	1	0	0	0	0	0	0	2.5	14.6
26-Oct	0	0	0	5	A	13	14	2	1	1	1	1	2	1	1	1	1	1	0	0	0	0	0	0	2.0	14.3
27-Oct	0	0	0	0	A	0	1	0	2	3	3	2	2	1	0	1	1	0	0	0	0	0	0	0	0.7	2.9
28-Oct	0	0	2	23	A	11	0	96	12	24	12	10	3	2	2	1	2	2	5	2	1	0	0	0	9.1	95.5
29-Oct	0	0	0	0	A	0	0	0	1	2	2	2	1	0	0	1	1	0	1	0	0	0	0	0	0.5	2.2
30-Oct	0	0	0	0	A	0	0	0	0	0	4	1	1	1	1	0	0	0	0	1	0	0	0	0	0.5	4.1
31-Oct	0	0	0	0	A	0	0	0	0	4	4	1	1	0	0	1	0	0	0	0	0	0	0	0	0.6	4.0
0.2 0.2 0.7 1.5 -- 1.1 2.0 5.8 3.4 6.0 4.7 2.8 1.6 1.0 0.8 0.7 0.6 0.5 0.5 0.3 0.3 0.9 0.3 0.3																									Diurnal Average	
0.9 0.7 14.0 22.8 -- 13.4 14.6 95.5 21.1 36.6 25.0 14.0 7.6 4.6 5.1 4.2 2.1 3.1 4.9 1.7 2.7 17.6 3.8 3.2																									Diurnal Maximum	
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - October 2015



Hourly Averages

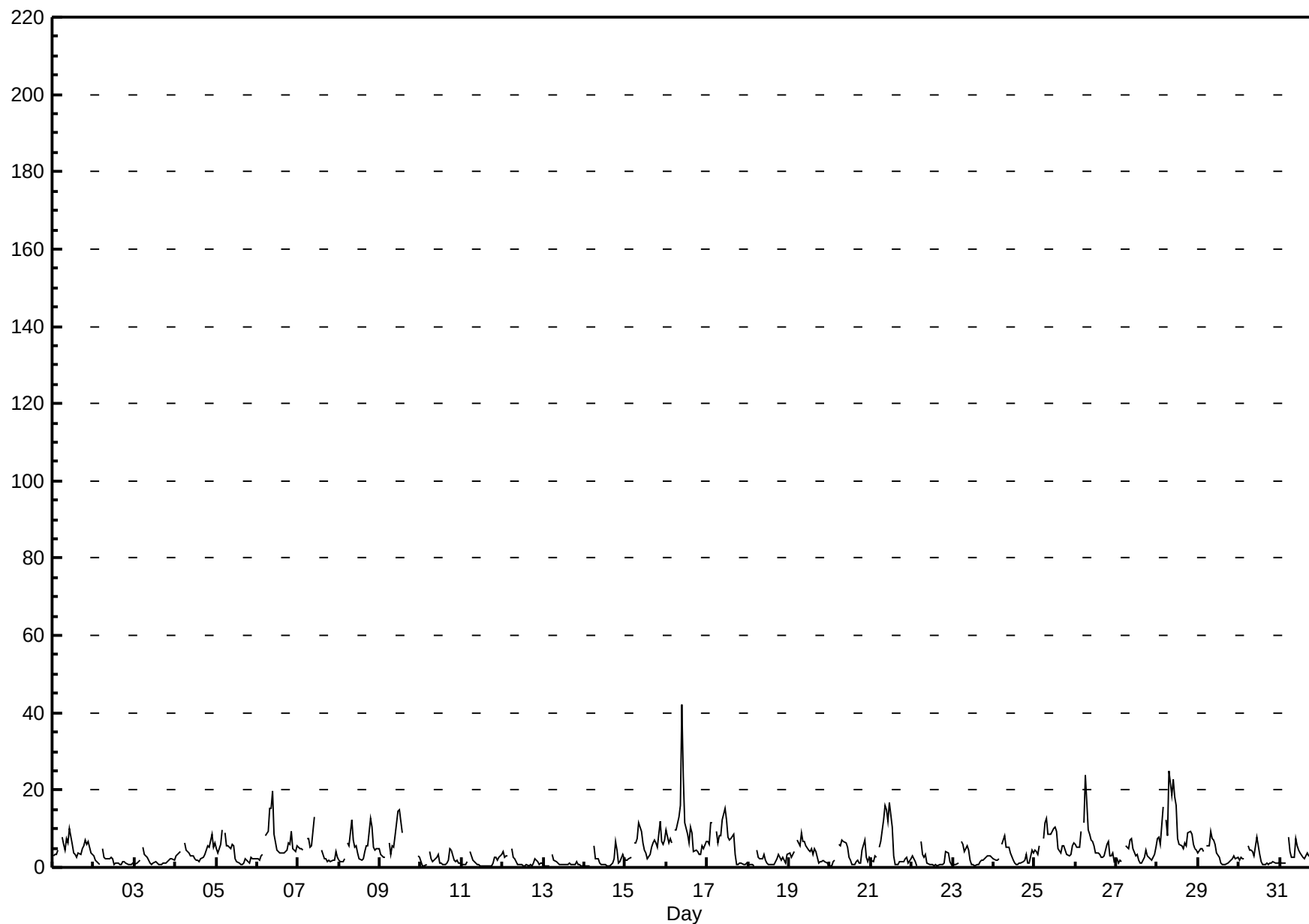
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 42.1 ppb on Oct 16 10:00 Maximum Daily Average: 10.2 ppb on Oct 28																				Hours in Service: 744 Hours of Data: 701						
Minimum Value: 0 ppb on Oct 14 01:00 Maximum Diurnal Average: 7.7 ppb at hour 10 Monthly Average: 3.99 ppb																				Minimum Daily Average: 0.9 ppb on Oct 13 Minimum Diurnal Average: 2.2 ppb at hour 15 Percentiles: P ₁ = 0.4 P ₁₀ = 0.7 Q ₁ = 1.3 Median = 2.9 Q ₃ = 5.5 P ₉₀ = 8.4 P ₉₉ = 18.3		Hours of Missing Data: 43 Hours of Calibration: 35 Percent Operational Time: 98.9				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	3	3	3	5	A	8	6	5	7	6	10	6	4	3	2	4	3	5	6	7	6	7	4	3	5.1	9.9
2-Oct	3	2	2	1	A	5	3	2	2	2	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1.7	5.0
3-Oct	1	1	1	2	A	5	3	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1.7	5.2
4-Oct	3	3	4	4	A	6	4	4	4	3	3	2	2	2	2	2	3	3	4	6	5	8	5	6	3.9	8.4
5-Oct	5	4	6	10	A	9	5	6	5	6	6	2	1	1	1	1	1	2	2	1	3	2	2	2	3.6	9.6
6-Oct	2	2	3	3	A	8	9	15	15	20	9	4	4	4	4	4	4	4	6	6	9	5	4	6	6.5	19.7
7-Oct	5	5	5	4	A	8	7	5	5	13	C	C	C	C	4	2	2	2	2	1	2	2	4	3	4.3	12.9
8-Oct	2	1	2	2	A	6	5	12	7	5	6	4	2	2	2	4	6	6	13	10	5	5	5	5	5.1	12.7
9-Oct	4	3	3	2	A	6	4	6	5	8	15	15	12	9	P	P	P	P	P	P	P	P	3	3	--	15.1
10-Oct	2	0	0	1	A	4	2	2	2	3	3	1	1	1	1	1	2	5	5	2	1	2	1	1	1.9	4.8
11-Oct	1	1	1	1	A	4	2	1	1	1	1	1	1	0	0	0	0	1	1	2	2	2	3	4	1.4	4.3
12-Oct	4	3	3	3	A	5	3	2	1	1	1	1	1	0	1	1	1	0	1	2	1	1	1	1	1.6	5.0
13-Oct	0	0	0	0	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.9	3.4
14-Oct	0	0	0	0	A	6	2	2	2	1	1	1	1	1	1	1	1	2	7	5	1	1	3	2	1.8	6.8
15-Oct	2	2	2	3	A	6	6	7	11	9	6	4	4	2	3	5	6	7	6	5	12	7	6	7	5.7	12.1
16-Oct	10	6	8	6	A	10	10	13	16	42	23	12	9	6	11	9	4	4	4	3	3	6	5	7	9.8	42.1
17-Oct	7	6	12	12	A	9	6	8	8	12	15	12	8	7	8	8	3	1	1	1	1	1	1	1	6.4	15.4
18-Oct	1	1	1	1	A	4	2	2	2	3	2	1	1	1	1	1	1	2	3	2	3	2	1	3	1.8	4.4
19-Oct	4	3	3	4	A	7	5	9	7	7	6	5	4	5	3	5	4	1	2	2	2	2	1	0	3.9	8.9
20-Oct	0	0	1	2	A	6	6	7	7	6	5	3	2	1	1	1	2	1	1	5	7	3	1	3	3.1	7.0
21-Oct	2	2	3	2	A	5	7	12	16	15	12	17	10	3	1	1	1	2	1	1	2	2	1	2	5.3	16.8
22-Oct	3	2	2	0	A	7	3	3	3	1	1	1	1	1	1	1	1	1	1	1	4	4	1	1	1.8	6.6
23-Oct	1	1	1	1	A	7	6	4	6	5	2	1	1	0	1	1	1	2	2	2	3	3	3	3	2.4	6.9
24-Oct	2	2	2	2	A	6	8	5	5	5	4	2	1	1	1	1	1	1	2	3	1	1	4	4	2.8	8.0
25-Oct	5	4	3	5	A	7	11	13	9	9	9	10	10	9	5	4	5	5	4	3	3	4	5	6	6.5	12.6
26-Oct	6	5	5	9	A	12	24	10	8	7	7	6	4	4	3	3	3	3	6	7	3	3	4	1	6.2	23.7
27-Oct	2	1	2	2	A	6	5	5	7	8	5	3	3	2	1	1	3	5	3	3	2	2	3	5	3.4	7.6
28-Oct	7	8	6	16	A	12	8	25	19	23	18	16	7	6	6	5	6	6	9	9	8	6	5	4	10.2	24.9
29-Oct	4	5	5	4	A	6	6	9	7	7	6	4	3	1	1	1	1	1	2	2	2	3	2	3	3.6	9.2
30-Oct	2	3	2	2	A	6	4	5	4	3	8	5	3	2	1	1	1	1	1	1	1	1	1	1	2.6	7.7
31-Oct	1	1	1	1	A	8	4	3	3	7	6	4	4	3	2	3	4	3	3	3	4	3	3	2	3.3	8.0
3.0 2.6 3.0 3.6 -- 6.7 5.8 6.6 6.4 7.7 6.4 4.9 3.5 2.7 2.2 2.4 2.5 2.6 3.4 3.4 3.4 3.0 2.8 3.0																									Diurnal Average	
9.7 7.7 11.5 15.8 -- 12.2 23.7 24.9 18.8 42.1 23.4 16.8 12.0 9.5 10.6 8.9 6.3 7.3 12.7 10.4 12.1 8.4 5.8 7.2																									Diurnal Maximum	
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - October 2015



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

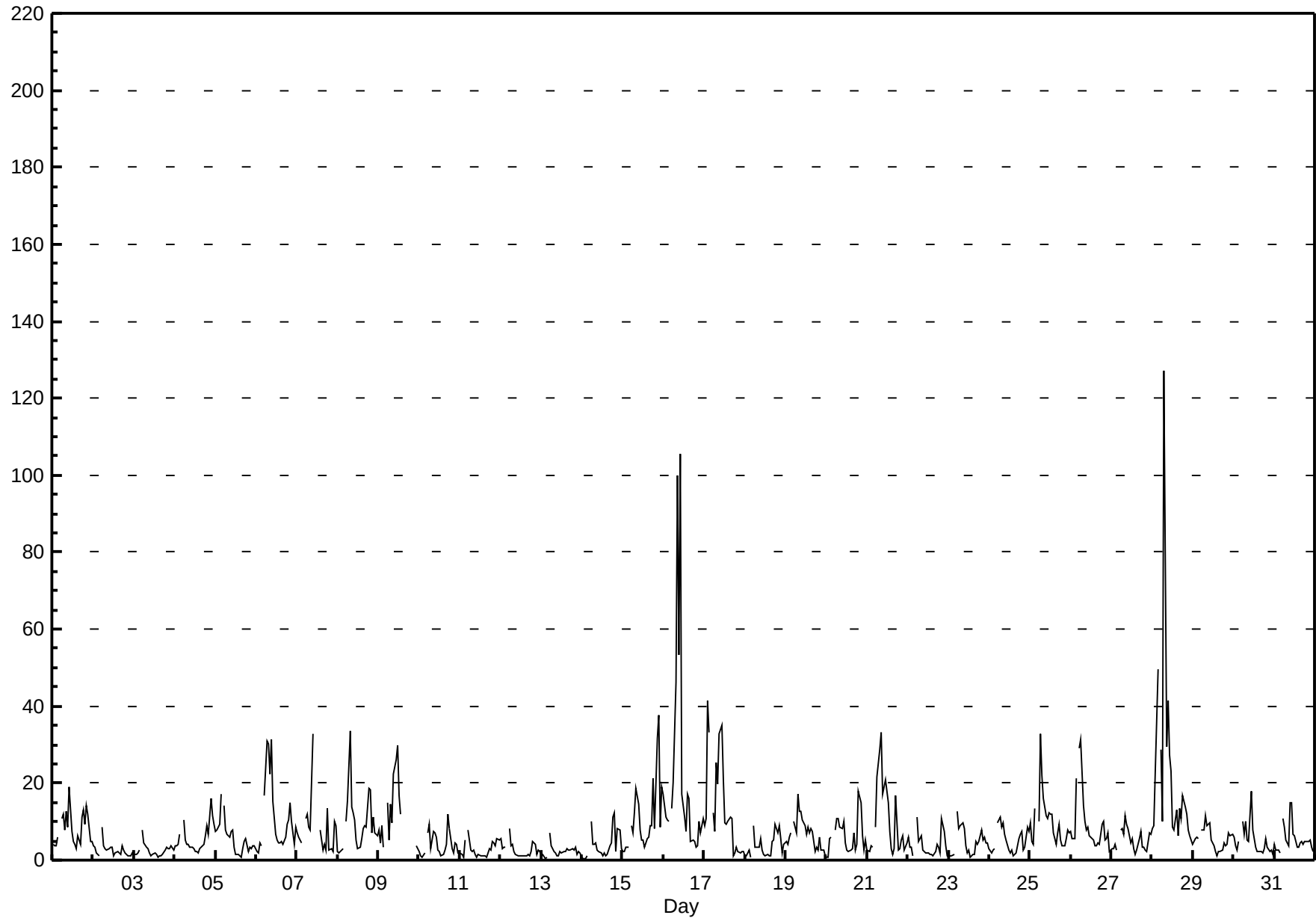
Beaverlodge - October 2015

Maximum Value: 127.3 ppb on Oct 28 08:00																								Maximum Daily Average: 22.0 ppb on Oct 16						Hours in Service: 744	
Minimum Value: 0 ppb on Oct 14 01:00																								Minimum Daily Average: 2.3 ppb on Oct 13						Hours of Data: 701	
Maximum Diurnal Average: 15.9 ppb at hour 8																								Minimum Diurnal Average: 3.7 ppb at hour 2						Hours of Missing Data: 43	
Monthly Average: 7.37 ppb																								Percentiles: P ₁ = 0.7 P ₁₀ = 1.5 Q ₁ = 2.6 Median = 4.7 Q ₃ = 8.8 P ₉₀ = 14.8 P ₉₉ = 38.8						Hours of Calibration: 35	
																								Percent Operational Time: 98.9							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
1-Oct	4	4	4	6	A	11	12	8	13	8	19	7	5	4	3	6	4	11	13	10	14	12	5	5	8.2	19.1					
2-Oct	4	3	2	1	A	9	4	3	3	3	3	3	1	2	2	2	1	4	3	2	1	1	1	2	2.6	8.8					
3-Oct	1	2	2	3	A	8	4	3	3	2	1	1	2	2	1	1	1	2	3	3	3	3	4	3	2.5	7.8					
4-Oct	4	4	4	7	A	10	5	4	4	3	3	3	2	2	2	3	4	4	6	9	7	16	12	9	5.6	15.9					
5-Oct	7	8	9	17	A	14	8	7	6	7	8	3	1	1	1	1	3	5	6	2	3	3	4	4	5.6	17.3					
6-Oct	2	2	4	4	A	17	31	30	22	31	15	7	5	4	4	5	4	6	9	10	15	10	4	9	11.0	31.4					
7-Oct	7	6	5	5	A	11	12	9	8	33	C	C	C	C	8	3	4	3	13	3	3	2	10	9	8.0	32.6					
8-Oct	2	2	3	3	A	10	15	33	14	12	11	5	3	3	6	8	9	9	19	18	7	11	7	6	9.4	33.5					
9-Oct	8	4	9	3	A	15	5	14	10	22	26	30	17	12	P	P	P	P	P	P	P	P	4	3	--	29.7					
10-Oct	2	1	1	2	A	7	9	3	8	7	6	3	2	1	2	3	4	12	8	3	2	5	4	2	4.1	11.8					
11-Oct	2	1	1	5	A	8	3	2	3	2	1	1	1	1	1	1	1	3	3	5	5	4	6	5	2.7	7.9					
12-Oct	6	3	3	3	A	8	4	4	2	2	1	1	1	1	1	1	2	1	2	5	4	1	3	2	2.7	8.3					
13-Oct	2	1	0	1	A	7	4	2	2	1	1	2	2	2	2	3	2	3	3	3	3	1	2	2	2.3	7.2					
14-Oct	0	0	0	1	A	10	4	4	5	3	2	2	1	2	1	2	4	4	11	12	2	8	8	3	3.9	12.4					
15-Oct	2	2	3	3	A	9	7	12	19	15	8	5	5	3	5	6	9	9	21	8	32	38	9	19	10.9	37.6					
16-Oct	17	11	11	10	A	14	20	46	100	53	106	17	11	7	17	16	5	5	5	3	4	10	7	11	22.0	105.6					
17-Oct	9	11	41	33	A	12	8	25	20	33	35	21	10	9	10	11	11	1	2	3	2	2	2	2	13.7	41.3					
18-Oct	1	1	3	1	A	9	4	3	3	6	3	1	1	2	1	1	5	5	9	7	9	6	2	4	3.8	9.5					
19-Oct	5	4	6	7	A	10	7	17	13	13	10	9	7	8	7	8	8	2	4	3	6	3	2	1	6.9	17.2					
20-Oct	1	1	5	6	A	8	11	11	9	8	10	5	2	2	2	3	7	3	4	18	15	6	3	5	6.3	18.0					
21-Oct	3	2	4	3	A	8	22	29	33	17	19	21	15	7	3	1	3	17	3	3	5	6	3	4	10.1	33.3					
22-Oct	6	3	4	1	A	11	5	6	6	2	2	2	2	2	1	1	2	4	3	2	11	8	4	1	3.9	11.3					
23-Oct	1	1	1	1	A	12	8	9	10	8	4	2	3	1	1	1	5	4	5	8	5	6	5	4	4.6	12.5					
24-Oct	3	2	3	3	A	10	11	9	10	7	5	3	2	2	1	2	2	6	7	8	2	3	9	8	5.0	11.3					
25-Oct	10	5	4	14	A	10	33	22	16	12	11	12	12	12	7	4	7	9	5	4	4	5	8	7	10.1	32.9					
26-Oct	8	5	5	21	A	29	31	14	10	8	8	6	6	5	4	4	4	4	9	10	5	6	7	2	9.3	31.5					
27-Oct	3	3	4	3	A	8	8	7	12	9	8	5	5	3	1	3	5	7	3	3	3	2	7	7	5.2	11.6					
28-Oct	8	9	23	50	A	29	10	127	29	41	27	23	9	8	13	6	14	11	17	14	12	8	6	5	21.7	127.3					
29-Oct	4	5	6	5	A	8	8	12	9	9	10	5	4	2	1	2	2	3	4	4	4	7	6	7	5.5	11.5					
30-Oct	6	4	3	5	A	10	7	10	5	5	18	8	6	3	2	2	2	2	3	6	3	2	3	2	5.0	17.8					
31-Oct	4	3	3	2	A	11	8	5	4	15	15	7	6	3	3	5	5	4	5	5	5	5	3	2	5.5	15.0					
4.6 3.7 5.7 7.4 -- 11.4 10.6 15.9 13.2 12.9 13.2 7.4 4.9 4.0 3.9 3.8 4.6 5.4 7.0 6.5 6.6 6.7 5.1 5.0																								Diurnal Average							
17.2 11.1 41.3 49.6 -- 29.1 32.9 127.3 99.9 53.5 105.6 29.7 16.8 12.1 17.3 15.9 13.5 16.8 21.3 18.4 31.8 37.6 11.7 19.0																								Diurnal Maximum							
C - Calibration P - Power Failure A - Automated Daily Zero Span																															

Hourly Maximums

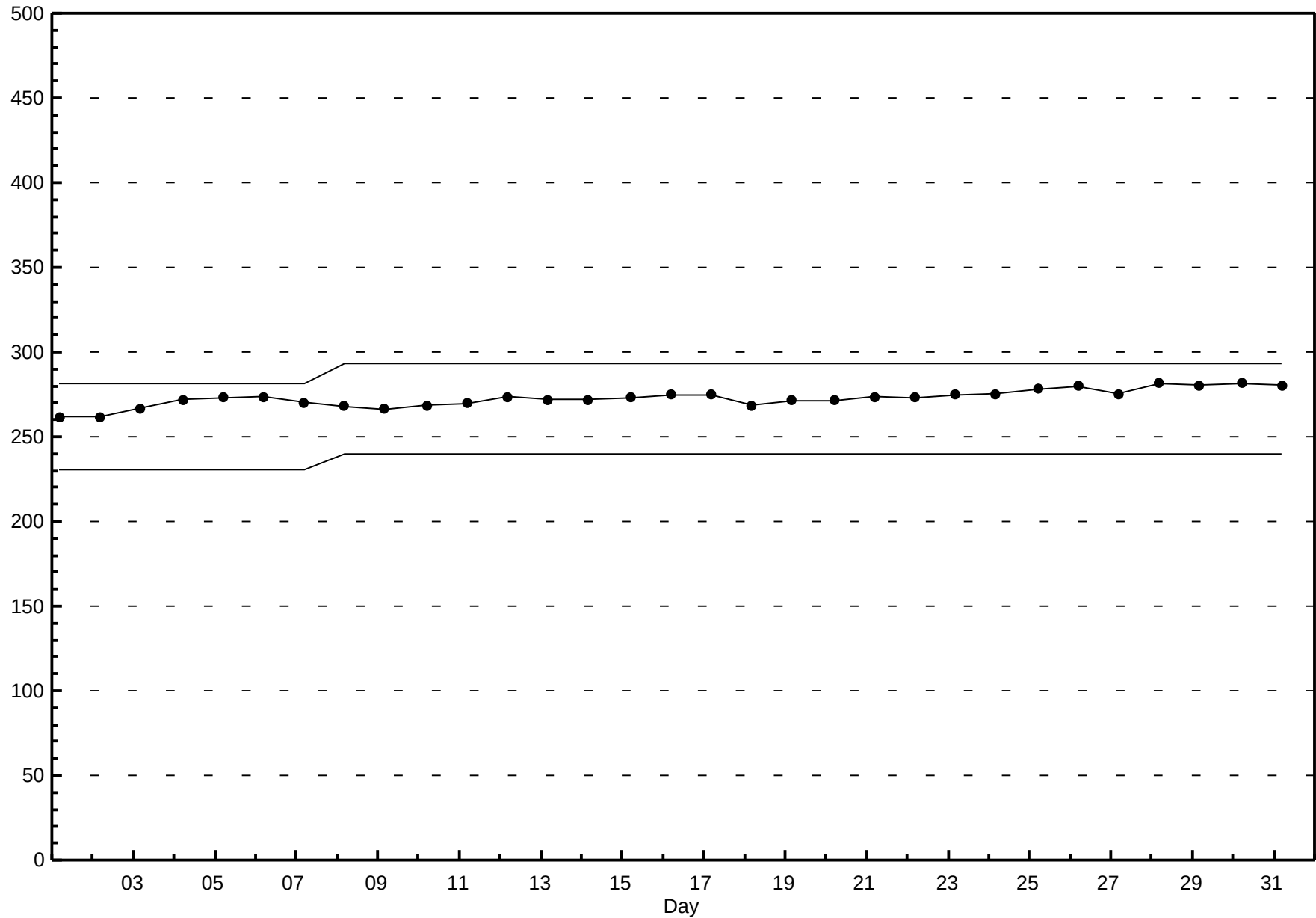
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - October 2015



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - October 2015



Hourly Averages

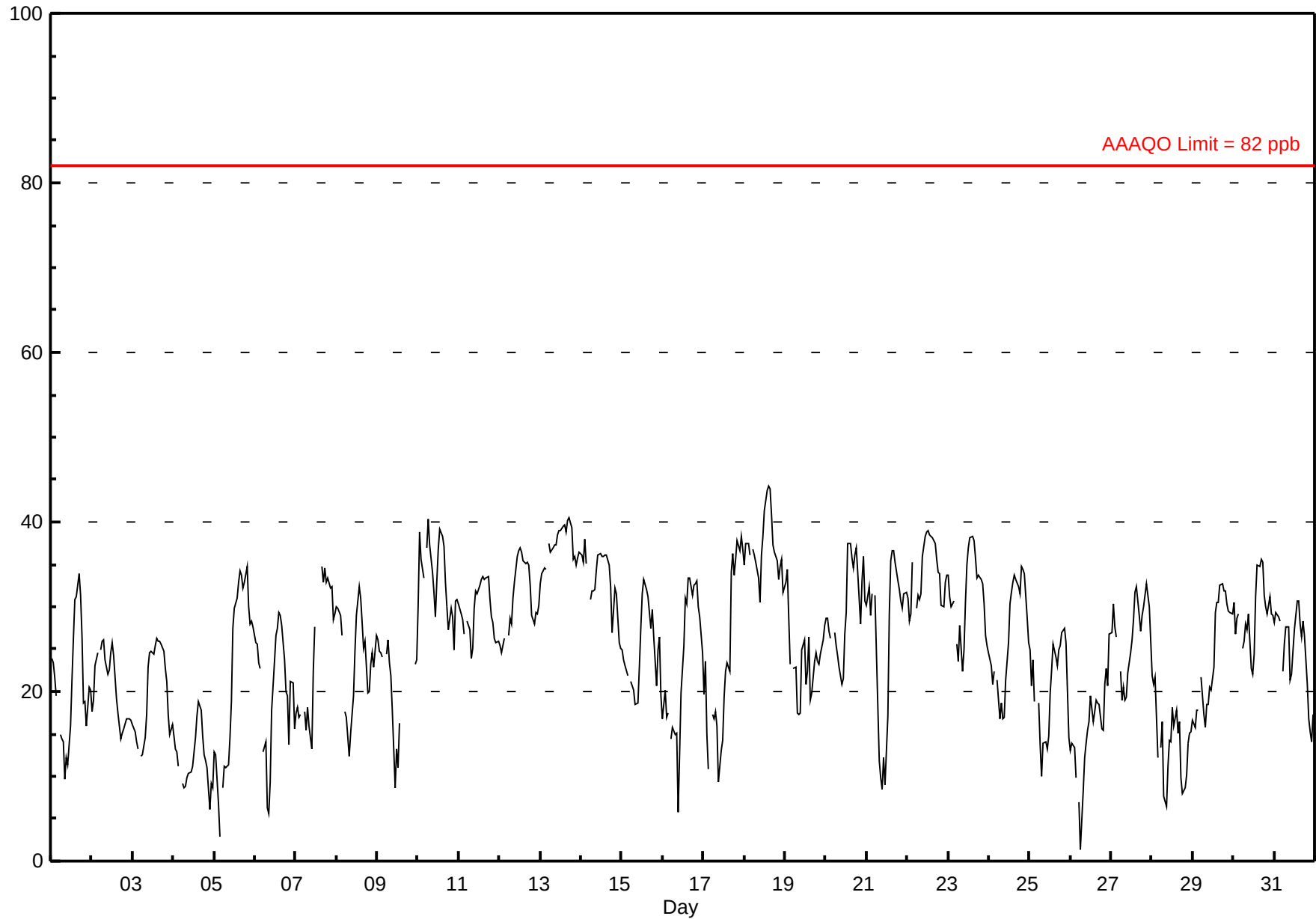
Ozone (O₃) - ppb

Beaverlodge - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 44.3 ppb on Oct 18 15:00 Maximum Daily Average: 37.1 ppb on Oct 13																								Hours in Service: 744 Hours of Data: 702 Hours of Missing Data: 42 Hours of Calibration: 34 Percent Operational Time: 98.9		
Minimum Value: 1 ppb on Oct 26 07:00 Maximum Diurnal Average: 30.9 ppb at hour 15 Monthly Average: 25.36 ppb												Minimum Daily Average: 12.0 ppb on Oct 4 Minimum Diurnal Average: 19.9 ppb at hour 9 Percentiles: P ₁ = 6.7 P ₁₀ = 13.8 Q ₁ = 18.7 Median = 26.1 Q ₃ = 32.0 P ₉₀ = 36.0 P ₉₉ = 40.3														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	24	23	22	20	A	15	14	14	10	12	11	16	21	26	31	31	34	31	26	19	19	16	20	20	20.7	33.9
2-Oct	18	19	23	25	A	25	26	26	24	22	23	24	26	24	19	17	16	14	15	16	17	17	17	17	20.4	26.2
3-Oct	16	15	14	13	A	12	13	15	17	23	25	25	24	25	26	26	26	26	25	23	21	17	15	16	19.9	26.4
4-Oct	15	13	13	11	A	9	9	9	10	10	10	11	13	15	17	19	18	15	13	12	11	6	9	9	12.0	18.9
5-Oct	13	13	7	3	A	9	11	11	11	15	19	27	30	31	33	34	34	32	33	35	30	28	28	28	22.3	34.8
6-Oct	26	26	23	23	A	13	14	6	6	9	18	24	27	27	29	29	28	24	20	20	14	21	21	16	20.1	29.3
7-Oct	17	18	17	17	A	18	15	18	16	13	22	28	C	C	C	35	33	35	33	33	32	32	29	29	24.5	34.7
8-Oct	30	30	29	27	A	18	17	12	15	17	20	25	29	32	31	28	25	26	20	20	23	25	23	27	23.8	32.3
9-Oct	26	25	24	24	A	24	26	23	22	18	9	13	11	16	P	P	P	P	P	P	P	P	23	24	--	26.1
10-Oct	30	39	36	33	A	37	40	37	34	32	29	33	37	39	38	37	33	30	27	30	29	25	31	31	33.3	40.4
11-Oct	30	29	29	27	A	28	27	24	25	30	32	32	32	33	34	33	33	34	31	29	28	26	26	26	29.5	33.6
12-Oct	25	25	25	26	A	27	29	28	31	33	36	37	37	37	35	35	35	35	33	29	28	29	29	30	31.0	37.0
13-Oct	33	34	35	34	A	37	36	37	37	37	38	39	39	40	40	39	40	41	39	36	36	35	36	37	37.1	40.5
14-Oct	36	35	38	35	A	31	32	32	32	34	36	36	36	36	36	36	35	32	27	30	32	32	26	25	33.0	38.0
15-Oct	25	24	23	22	A	21	21	20	18	19	23	27	31	33	32	31	29	28	30	27	21	25	26	20	25.0	33.2
16-Oct	17	20	17	17	A	14	16	15	15	6	13	20	25	31	30	33	33	31	33	33	33	30	29	25	23.3	33.4
17-Oct	20	24	15	11	A	17	17	18	16	9	13	14	19	22	23	22	34	36	34	36	38	37	38	37	23.9	38.3
18-Oct	35	38	37	36	A	37	36	35	33	31	36	38	41	44	44	44	41	37	36	35	33	35	36	32	37.0	44.3
19-Oct	33	34	29	23	A	23	23	17	17	17	25	26	21	22	26	19	20	24	25	24	23	24	26	28	23.9	34.4
20-Oct	29	29	27	26	A	27	25	24	23	21	22	27	29	38	37	36	35	36	37	34	28	33	36	31	29.9	37.5
21-Oct	30	32	29	32	A	31	25	12	10	9	12	9	17	29	35	37	37	35	33	32	31	30	31	32	26.5	36.6
22-Oct	31	28	29	35	A	30	31	31	32	36	38	39	39	38	38	38	37	36	34	34	30	30	33	34	34.0	39.0
23-Oct	34	31	30	31	A	26	24	28	22	25	31	35	37	38	38	38	36	33	34	33	33	30	27	26	31.2	38.3
24-Oct	25	23	21	22	A	21	17	19	17	17	21	26	30	32	33	34	33	32	31	35	34	34	29	26	26.6	34.8
25-Oct	25	21	24	19	A	19	14	10	14	14	13	15	20	23	26	24	23	25	25	27	27	26	20	15	20.3	27.4
26-Oct	13	14	13	10	A	7	1	8	12	14	15	16	19	16	18	19	19	18	16	15	21	23	21	27	15.5	26.9
27-Oct	27	30	28	26	A	22	19	20	19	19	22	25	26	28	32	32	29	27	29	30	31	33	30	26	26.6	32.7
28-Oct	22	21	22	12	A	13	16	8	6	11	14	14	18	16	18	15	16	10	8	9	10	14	15	15	14.1	21.9
29-Oct	17	16	18	18	A	22	17	16	19	18	21	20	23	29	31	31	33	33	32	32	30	29	29	29	24.4	32.7
30-Oct	31	27	29	29	A	25	26	28	27	29	23	22	24	31	35	35	36	35	31	30	29	31	29	29	29.2	35.6
31-Oct	28	29	29	28	A	22	26	28	28	21	22	25	27	31	31	28	27	28	27	21	17	15	14	17	24.7	30.6
25.1 25.3 24.3 23.1 -- 22.0 21.4 20.3 19.9 20.1 22.3 24.7 27.1 29.5 30.9 30.5 30.2 29.3 27.9 27.2 26.3 26.3 25.8 25.1																								Diurnal Average		
36.0 38.7 38.0 36.1 -- 37.5 40.4 37.2 37.2 37.2 38.5 38.9 41.4 43.7 44.3 43.8 40.8 40.5 39.3 35.6 37.7 36.6 38.3 36.8																								Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Beaverlodge - October 2015



Hourly Maximums

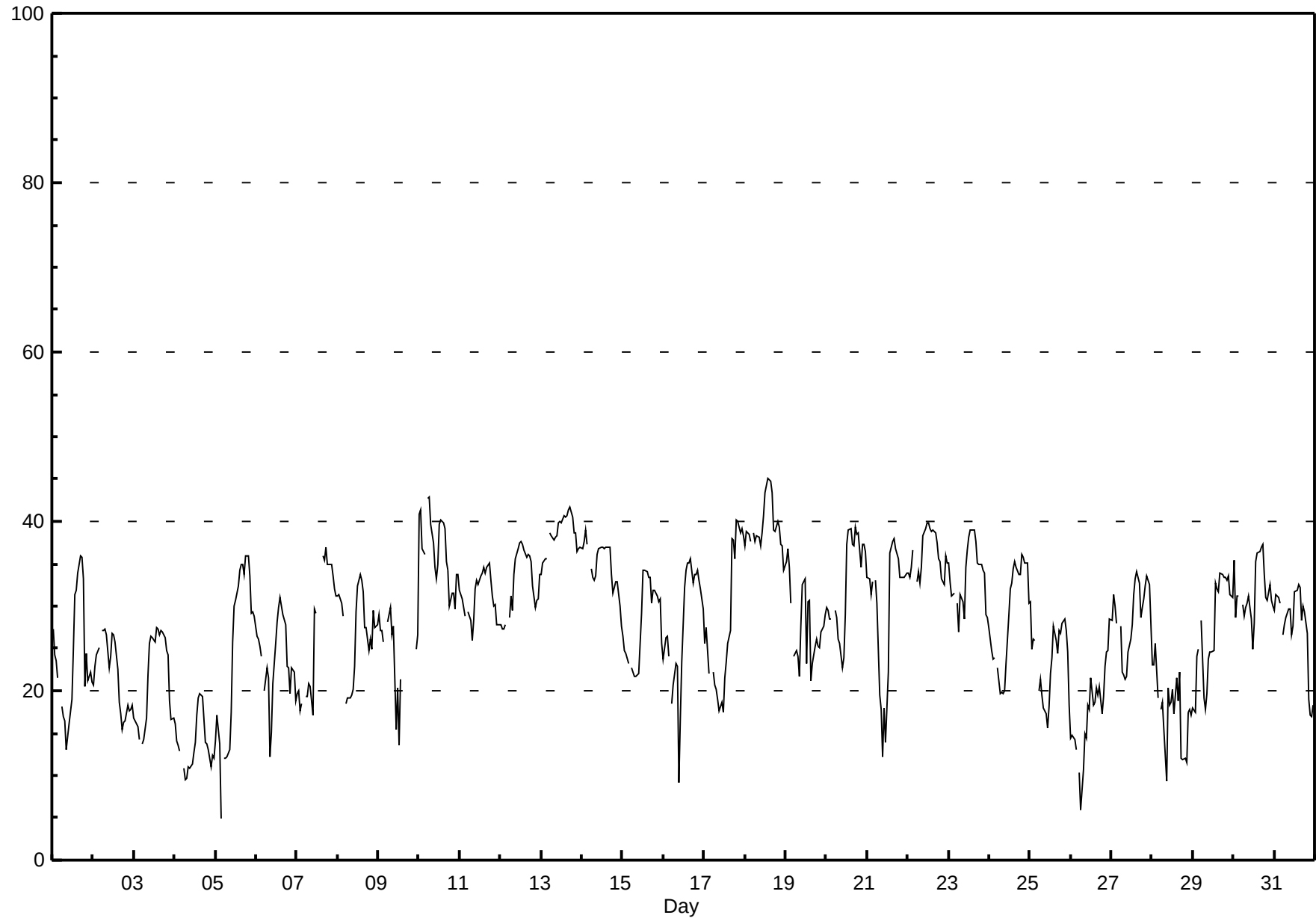
Ozone (O₃) - ppb

Beaverlodge - October 2015

Maximum Value: 45.2 ppb on Oct 18 14:00																				Maximum Daily Average: 39.5 ppb on Oct 18					Hours in Service: 744	
Minimum Value: 5 ppb on Oct 5 04:00																				Minimum Daily Average: 13.7 ppb on Oct 4					Hours of Data: 702	
Maximum Diurnal Average: 32.7 ppb at hour 15																				Minimum Diurnal Average: 23.5 ppb at hour 9					Hours of Missing Data: 42	
Monthly Average: 28.03 ppb																				Percentiles: P ₁ = 10.7 P ₁₀ = 17.1 Q ₁ = 22.1 Median = 28.9 Q ₃ = 34.2 P ₉₀ = 37.6 P ₉₉ = 42.8					Hours of Calibration: 34	
																									Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	27	24	24	21	A	18	17	16	13	15	16	19	25	31	32	34	36	36	33	21	24	21	22	21	23.8	36.0
2-Oct	21	23	24	25	A	27	27	27	27	23	24	27	27	26	23	19	17	16	16	16	18	18	18	18	22.0	27.3
3-Oct	17	16	16	14	A	14	14	17	22	26	27	26	26	28	27	27	27	27	26	25	24	19	17	17	21.6	27.5
4-Oct	16	14	14	13	A	11	9	10	11	11	11	13	14	17	19	20	19	17	14	14	13	11	12	12	13.7	19.6
5-Oct	14	17	14	5	A	12	12	12	13	18	26	30	31	32	34	35	35	34	36	36	34	29	29	29	24.6	36.0
6-Oct	26	26	25	24	A	20	23	22	12	15	21	26	28	30	31	30	29	28	23	23	20	23	22	19	23.7	31.0
7-Oct	20	20	18	18	A	19	19	21	21	17	30	29	C	C	C	36	35	37	35	35	35	34	32	31	27.1	36.9
8-Oct	31	31	30	29	A	18	19	19	19	20	23	29	32	34	33	32	27	28	25	26	25	29	27	28	26.8	33.7
9-Oct	29	27	27	26	A	28	29	30	27	28	15	20	14	21	P	P	P	P	P	P	P	25	27	27	--	29.8
10-Oct	41	41	37	36	A	43	43	40	37	35	33	35	40	40	40	39	35	34	30	31	31	30	34	34	36.5	42.8
11-Oct	32	31	30	29	A	29	28	26	28	32	33	33	34	34	35	34	35	35	33	31	30	30	28	28	31.1	35.0
12-Oct	28	27	27	28	A	29	31	29	34	36	37	37	38	37	37	36	36	36	35	32	30	31	31	34	32.8	37.6
13-Oct	34	35	36	36	A	39	38	38	38	38	40	40	40	41	41	41	41	42	40	39	39	36	37	37	38.4	41.8
14-Oct	37	38	39	37	A	34	33	33	34	36	37	37	37	37	37	37	37	34	31	32	33	33	30	28	34.8	38.9
15-Oct	27	25	24	23	A	23	22	22	22	22	26	29	34	34	34	33	33	30	32	32	31	30	31	26	28.0	34.2
16-Oct	24	26	26	24	A	18	21	23	23	9	17	23	32	34	35	35	36	33	34	34	34	33	32	30	27.7	35.6
17-Oct	26	27	25	22	A	22	21	20	19	18	19	17	21	23	26	27	38	38	36	40	40	39	39	38	27.9	40.1
18-Oct	37	39	39	38	A	39	38	38	38	37	39	41	43	45	45	45	43	39	39	40	39	37	37	34	39.5	45.2
19-Oct	35	37	35	30	A	24	25	24	22	28	33	33	23	31	31	21	23	25	26	25	25	27	28	29	27.8	36.7
20-Oct	30	30	28	28	A	29	29	26	26	23	24	29	37	39	39	37	37	39	38	39	35	37	37	37	32.8	39.3
21-Oct	33	33	31	33	A	33	30	19	18	12	18	14	22	36	37	38	38	37	36	33	33	33	33	34	29.8	38.0
22-Oct	34	33	35	37	A	33	34	33	35	38	39	40	40	39	39	39	39	37	36	35	33	33	36	35	36.1	39.9
23-Oct	35	33	31	32	A	30	27	31	30	28	35	37	38	39	39	39	38	35	35	35	34	34	29	29	33.6	39.0
24-Oct	27	25	24	24	A	23	20	20	20	20	23	29	32	33	34	35	35	34	34	36	36	35	35	30	28.8	36.2
25-Oct	30	25	26	26	A	20	21	19	18	17	16	18	22	24	28	26	24	27	27	28	28	27	25	18	23.5	30.4
26-Oct	14	15	14	13	A	10	6	11	15	14	18	18	21	18	19	20	19	20	17	19	23	25	25	29	17.6	28.6
27-Oct	28	31	30	28	A	28	22	22	21	22	25	26	28	31	33	34	33	29	30	31	32	34	33	28	28.6	34.0
28-Oct	23	23	26	19	A	18	19	15	9	20	18	19	20	17	22	19	22	12	12	12	12	17	18	17	17.8	25.6
29-Oct	18	18	24	25	A	28	19	18	20	24	25	24	25	33	32	32	34	34	33	33	33	34	31	31	27.3	33.9
30-Oct	35	29	31	31	A	30	29	30	30	31	28	25	28	35	36	36	37	37	34	31	31	33	31	30	31.7	37.3
31-Oct	29	31	31	30	A	27	28	29	30	30	27	28	32	32	33	32	28	30	29	27	19	17	17	18	27.5	32.6
27.7 27.5 27.1 26.0 -- 25.0 24.3 23.9 23.5 23.9 25.8 27.4 29.4 31.7 32.7 32.2 32.3 31.3 30.2 29.7 29.2 28.9 28.4 27.5																									Diurnal Average	
40.9 41.3 38.9 37.6 -- 42.8 42.8 39.7 38.1 38.3 39.8 40.6 43.3 45.2 45.0 44.7 43.5 41.8 40.4 40.1 40.1 38.7 39.1 38.4																									Diurnal Maximum	
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

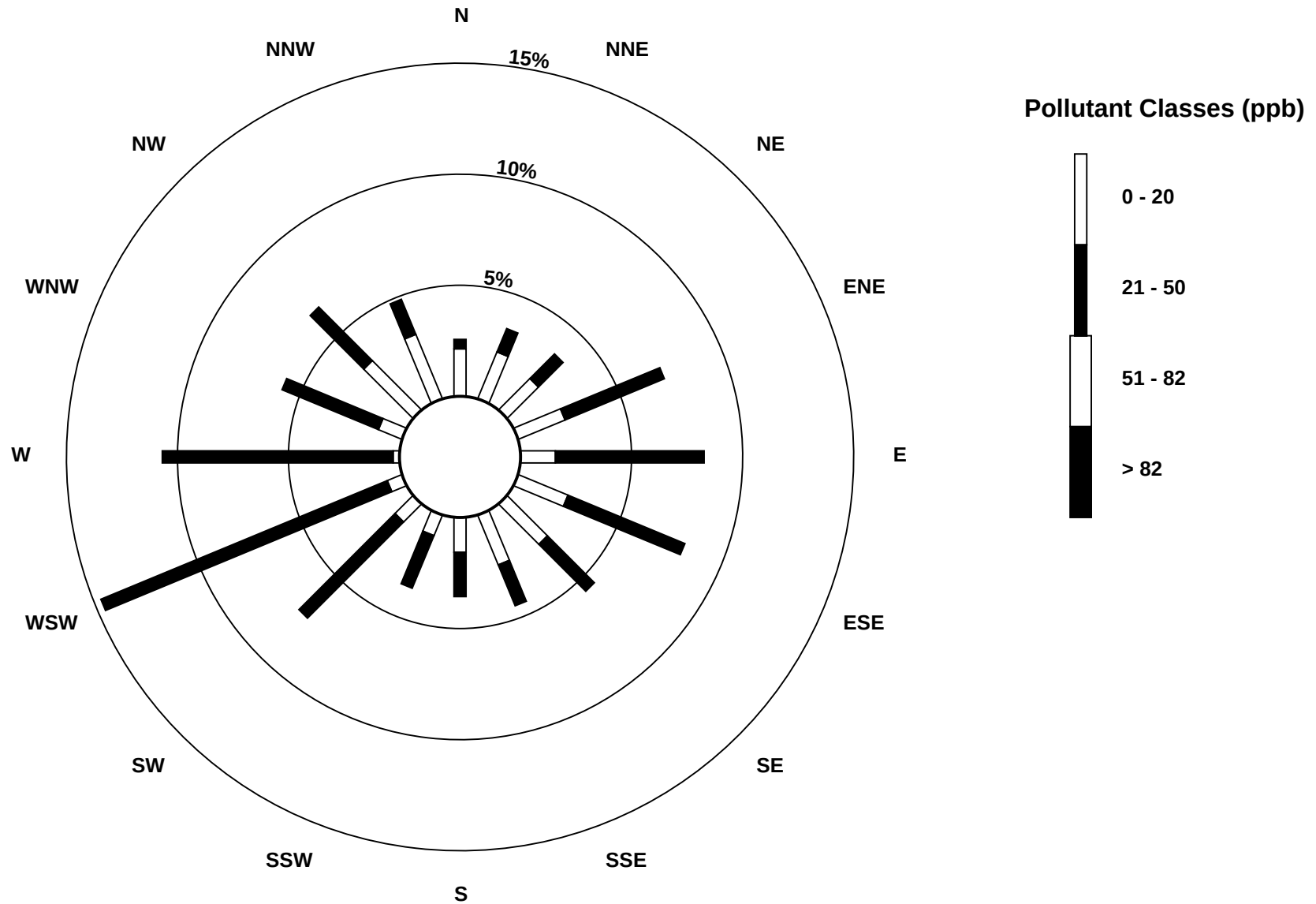
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - October 2015



Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - October 2015



Eight Hour Running Averages

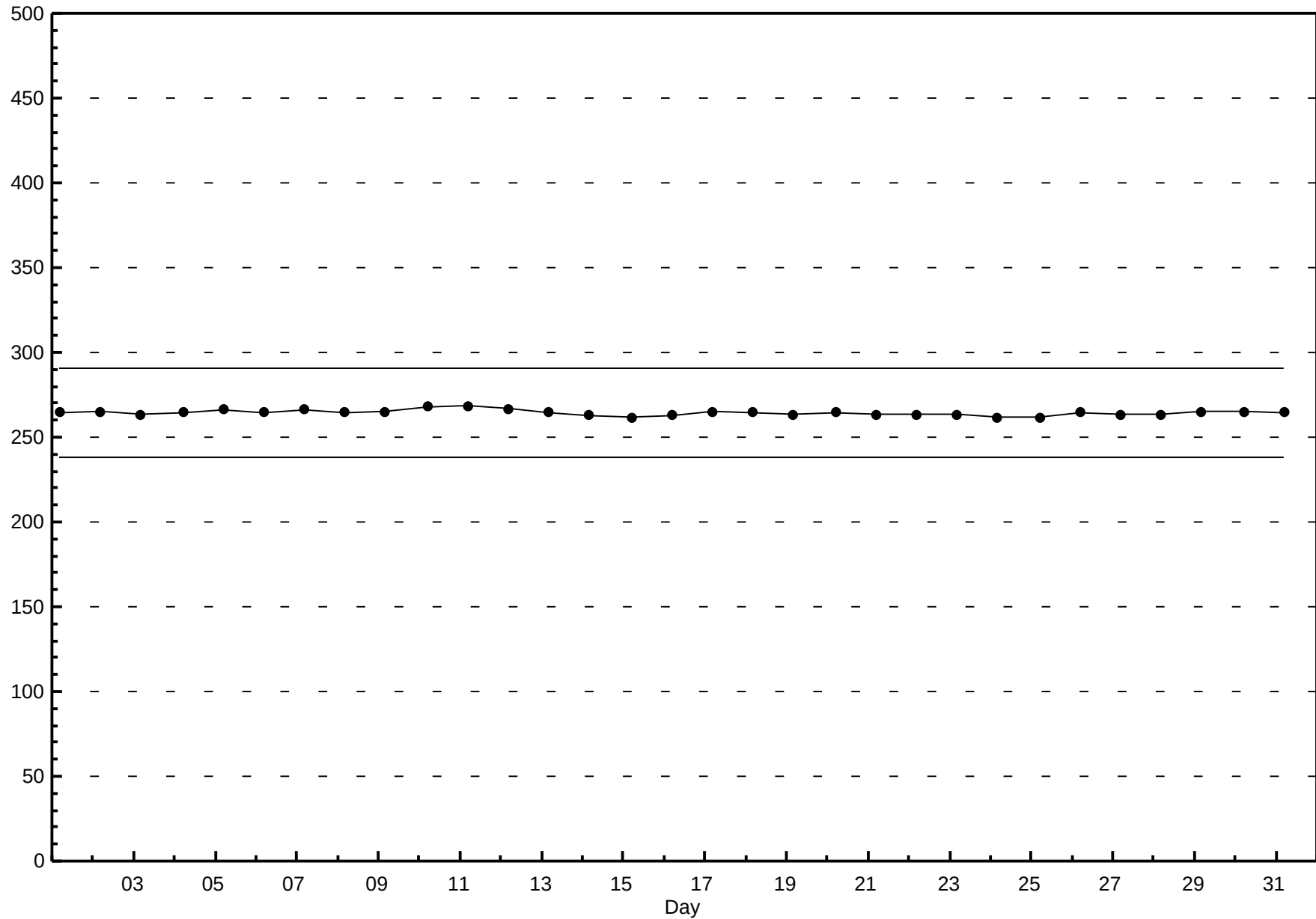
Ozone (O₃) - ppb

Beaverlodge - October 2015

Maximum Value: 40.8 ppb on Oct 18 19:00																								Hours in Service: 744	
Minimum Value: 8.4 ppb on Oct 5 05:00																								Hours of Data: 727	
																								Hours of Missing Data: 17	
Percentiles: P ₁ = 9.4 P ₁₀ = 14.8 Q ₁ = 19.3 Median = 25.9 Q ₃ = 31.3 P ₉₀ = 34.9 P ₉₉ = 39.4																								Hours of Calibration: 6	
																								Percent Operational Time: 98.5	
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	28	27	26	25	24	22	20	19	17	15	14	13	14	16	18	20	23	25	27	28	27	26	25	23	28.0
2-Oct	21	20	19	20	20	21	22	23	24	24	24	24	24	24	22	21	21	20	18	17	16	16	16	16	24.5
3-Oct	16	16	16	16	16	15	14	14	14	15	17	18	19	21	23	24	25	25	25	25	25	24	22	21	25.4
4-Oct	20	18	17	15	14	13	12	11	11	10	10	10	10	11	12	13	14	15	15	15	15	14	13	12	19.7
5-Oct	11	11	10	9	8	9	9	9	9	9	11	15	17	19	22	25	28	30	32	33	33	32	32	31	32.7
6-Oct	30	29	28	26	26	24	22	19	16	13	13	13	15	16	18	21	24	26	26	25	24	23	22	20	30.0
7-Oct	19	18	18	18	18	18	17	17	17	16	17	19	19	19	N	N	N	N	N	N	33	33	33	32	33.4
8-Oct	32	31	31	30	29	27	26	23	21	19	18	18	19	21	23	25	26	27	27	26	26	25	24	24	31.6
9-Oct	24	24	24	25	25	25	25	25	24	23	21	19	18	17	16	15	N	N	N	N	N	N	N	N	25.2
10-Oct	N	N	N	31	31	32	34	36	37	36	35	35	35	35	35	35	35	34	34	34	33	31	30	29	36.6
11-Oct	29	29	29	29	29	29	29	28	27	27	28	28	29	29	30	31	32	33	33	32	32	31	30	29	32.9
12-Oct	28	27	26	26	26	26	26	26	27	28	30	31	32	33	34	35	36	36	35	34	33	32	32	31	35.8
13-Oct	31	31	31	32	32	33	34	35	36	36	37	38	38	38	38	39	39	39	39	39	39	38	38	37	39.5
14-Oct	37	36	36	36	36	35	35	34	34	33	33	33	34	34	35	35	36	35	34	33	33	32	31	30	36.8
15-Oct	29	27	27	26	25	24	23	22	21	21	21	21	23	24	26	27	28	29	30	30	29	28	27	26	30.2
16-Oct	24	23	21	20	20	19	17	17	16	14	14	14	15	18	19	22	24	27	30	31	32	32	32	31	32.2
17-Oct	29	28	26	23	22	20	18	17	17	15	14	15	15	16	17	17	20	23	26	28	31	32	34	36	36.1
18-Oct	36	36	37	37	37	37	37	36	36	35	35	35	36	37	38	39	40	41	41	40	39	38	37	36	40.8
19-Oct	35	34	33	32	32	30	28	26	24	21	21	21	21	21	22	22	22	23	23	23	23	23	23	24	34.7
20-Oct	25	26	26	27	27	27	27	27	26	25	24	24	25	26	28	29	30	32	34	35	35	34	34	34	35.2
21-Oct	33	33	32	31	32	32	30	27	24	21	19	15	16	15	17	20	23	26	29	32	34	34	33	33	33.7
22-Oct	32	31	31	31	31	31	31	31	31	32	33	34	34	36	36	37	38	38	37	37	36	35	34	33	38.0
23-Oct	33	32	32	32	32	31	30	29	27	26	26	27	28	30	32	33	35	36	36	36	35	34	33	31	36.1
24-Oct	30	29	27	26	25	23	22	21	20	19	19	20	21	22	24	26	28	30	31	33	33	33	33	32	33.4
25-Oct	31	29	28	26	25	23	21	19	17	16	15	14	15	15	17	19	20	21	23	24	25	25	25	24	30.8
26-Oct	22	21	19	17	16	13	10	10	9	9	10	11	12	13	15	16	17	18	18	18	18	19	19	20	22.3
27-Oct	21	22	24	25	26	26	26	25	24	22	21	21	22	22	24	25	27	28	29	29	30	30	30	29	30.4
28-Oct	29	28	27	25	24	21	19	16	14	13	12	12	13	13	13	14	15	15	14	14	13	12	12	12	28.5
29-Oct	12	13	14	15	16	17	17	18	18	18	19	19	19	20	22	24	26	27	29	30	31	31	31	31	31.2
30-Oct	31	30	29	29	29	28	28	28	27	28	27	26	26	26	27	28	29	30	31	32	33	33	32	31	32.8
31-Oct	30	30	29	29	29	28	27	27	27	26	25	24	25	26	26	27	26	27	28	27	26	24	22	21	30.4
36.8 36.4 36.9 36.9 36.8 36.8 36.5 36.3 36.6 36.3 36.9 37.5 37.7 38.0 38.4 39.0 39.9 40.7 40.8 40.4 39.4 38.3 37.6 37.3																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - October 2015

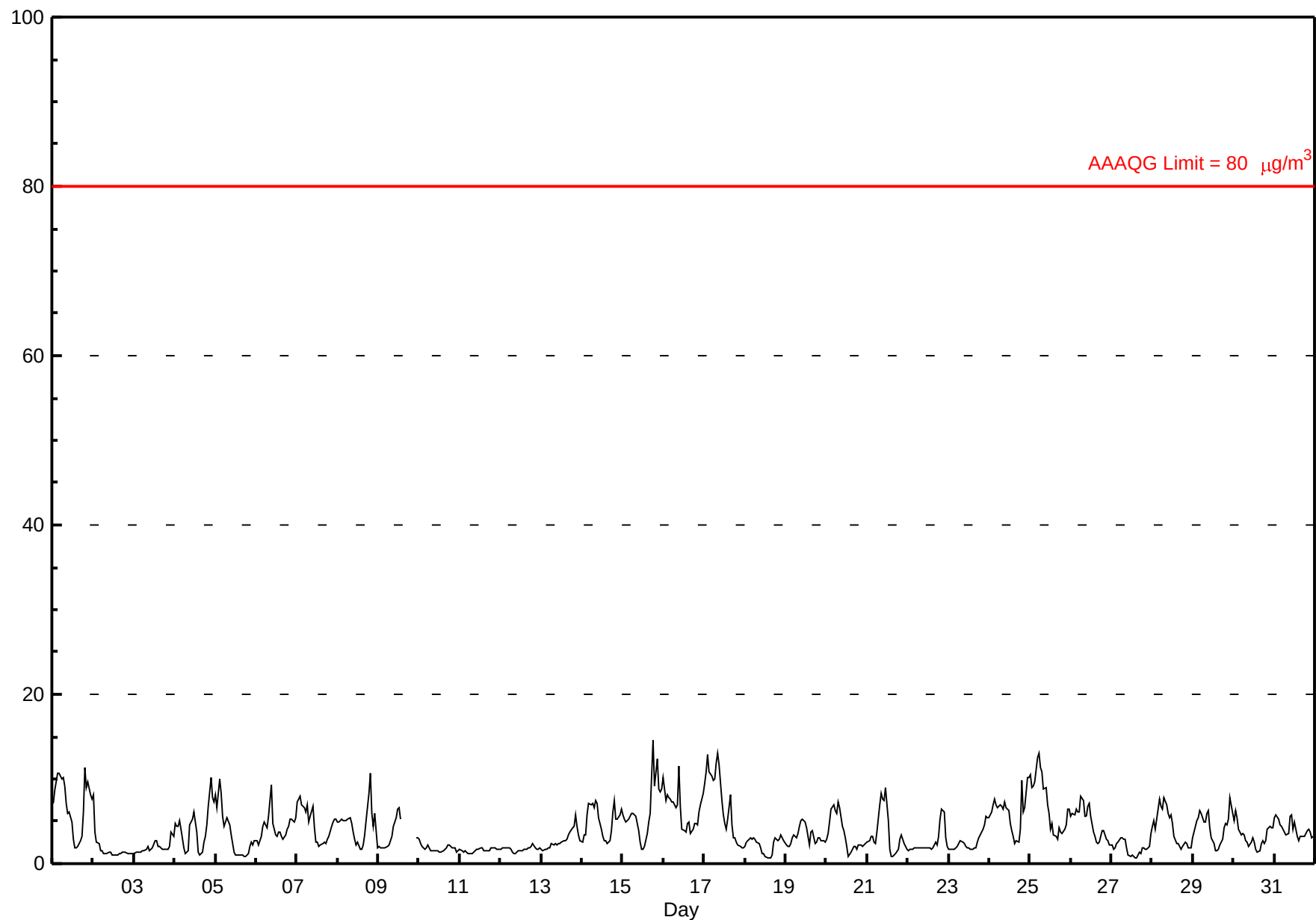


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - October 2015

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 14.5 µg/m ³ on Oct 15 19:00																								
Maximum Daily Average: 7.0 µg/m ³ on Oct 25																								
Minimum Value: 1 µg/m ³ on Oct 18 15:00 Maximum Diurnal Average: 4.8 µg/m ³ at hour 10 Monthly Average: 3.91 µg/m ³																								
Minimum Daily Average: 1.6 µg/m ³ on Oct 11 Minimum Diurnal Average: 2.2 µg/m ³ at hour 15 Percentiles: P ₁ = 0.9 P ₁₀ = 1.5 Q ₁ = 1.9 Median = 3.1 Q ₃ = 5.4 P ₉₀ = 7.4 P ₉₉ = 11.4																								
Day	Hourly Period Ending At (MST)																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1-Oct	7	9	10	11	11	10	10	9	7	6	6	5	3	2	2	2	3	3	6	11	9	10	8	8
2-Oct	8	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3-Oct	1	1	1	1	1	1	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	4	3	
4-Oct	5	4	4	5	4	2	1	1	1	5	5	6	5	4	1	1	1	3	3	5	7	10	8	7
5-Oct	8	7	10	8	6	4	5	5	5	3	2	1	1	1	1	1	1	1	1	2	2	2	3	
6-Oct	3	2	3	3	4	5	4	6	8	9	5	3	3	4	4	3	3	3	4	4	5	5	5	
7-Oct	7	8	8	7	7	6	7	5	6	7	4	3	3	2	2	2	3	2	3	3	4	5	5	
8-Oct	5	5	5	5	5	5	5	5	5	4	3	2	3	2	2	2	3	5	8	11	6	4	6	
9-Oct	2	2	2	2	2	2	2	3	3	4	5	6	7	5	P	P	P	P	P	P	P	P	3	
10-Oct	3	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	1	
11-Oct	2	1	1	2	1	1	1	1	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	
12-Oct	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	
13-Oct	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	6	4	3	
14-Oct	2	3	3	6	7	7	7	7	7	7	5	4	3	3	3	2	3	4	6	8	5	5	6	
15-Oct	6	5	5	5	6	6	6	6	6	4	3	2	2	2	4	5	6	10	15	9	12	9	9	
16-Oct	10	8	8	8	8	7	7	7	7	12	7	4	4	4	5	5	4	4	5	5	5	6	7	
17-Oct	10	11	13	11	10	10	10	12	13	12	7	6	5	4	5	8	5	3	3	3	2	2	2	
18-Oct	2	2	3	3	3	3	3	2	2	2	1	1	1	1	1	1	1	3	3	3	3	3	3	
19-Oct	2	2	2	2	3	3	3	4	4	5	5	5	4	3	2	4	4	2	3	3	3	3	3	
20-Oct	3	4	5	6	7	6	6	7	7	4	4	3	2	1	1	2	2	2	2	2	2	2	2	
21-Oct	3	3	3	3	3	2	4	7	8	8	7	9	5	2	1	1	1	1	2	3	3	3	2	
22-Oct	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	5	6	6	3	
23-Oct	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	3	4	4	5	6	
24-Oct	5	6	7	8	7	7	7	7	6	7	7	6	5	4	3	2	3	3	4	10	6	7	10	
25-Oct	11	9	9	10	13	13	11	11	9	9	7	6	4	5	3	3	3	4	4	4	4	5	6	
26-Oct	6	6	6	6	6	6	8	8	6	6	7	7	6	4	3	3	2	3	4	4	3	3	3	
27-Oct	2	2	2	2	3	3	3	3	3	2	1	1	1	1	1	1	1	1	2	2	2	2	4	
28-Oct	4	5	4	6	8	7	6	8	7	6	5	6	5	3	2	2	2	2	2	3	2	2	2	
29-Oct	3	4	5	5	6	6	5	5	6	6	4	3	2	2	1	2	2	3	4	5	5	5	8	
30-Oct	5	6	5	4	3	4	3	3	2	2	3	3	3	2	1	2	2	3	2	3	4	4	4	
31-Oct	5	6	5	5	4	4	4	3	4	6	6	4	5	3	3	3	3	3	3	4	4	4	3	
Diurnal Average																								
Diurnal Maximum																								
P - Power Failure Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m ³																								



Hourly Maximums

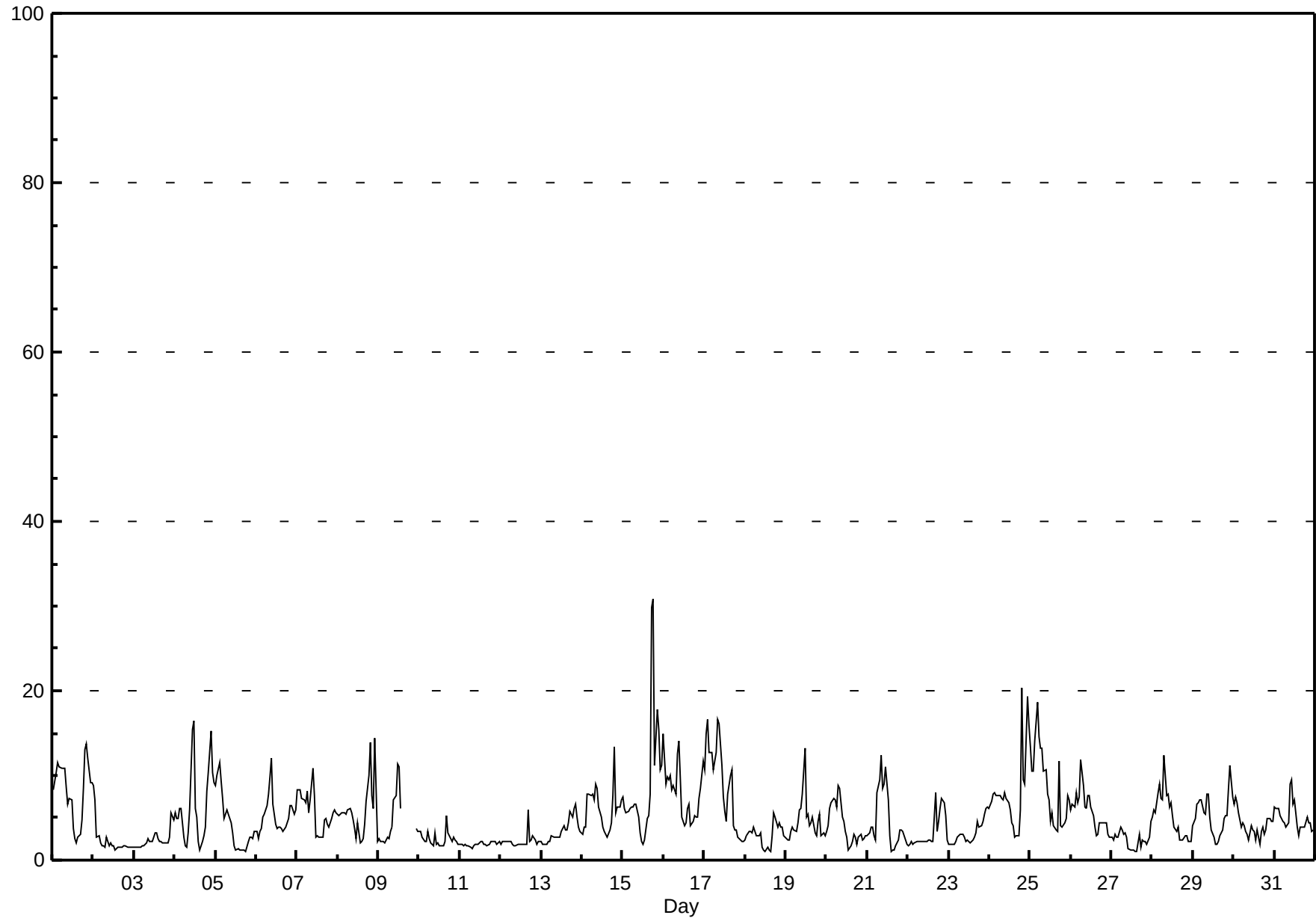
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - October 2015

Maximum Value: 30.8 μg/m³ on Oct 15 19:00																				Maximum Daily Average: 9.0 μg/m³ on Oct 15					Hours in Service: 744	
Minimum Value: 1 μg/m³ on Oct 18 16:00																				Minimum Daily Average: 1.9 μg/m³ on Oct 11					Hours of Data: 736	
Maximum Diurnal Average: 6.2 μg/m³ at hour 10																				Minimum Diurnal Average: 2.9 μg/m³ at hour 15					Hours of Missing Data: 8	
Monthly Average: 4.98 μg/m³																				Percentiles: P ₁ = 1.1 P ₁₀ = 1.9 Q ₁ = 2.4 Median = 3.9 Q ₃ = 6.5 P ₉₀ = 9.5 P ₉₉ = 15.5					Hours of Calibration: 0	
																									Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	8	9	10	12	11	11	11	11	9	7	7	7	4	2	2	3	3	5	9	13	14	12	9	9	8.2	13.7
2-Oct	9	7	3	3	2	2	2	2	3	2	2	2	2	1	1	1	2	2	2	2	1	1	1	1	2.3	8.9
3-Oct	1	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	3	6	5	2.4	5.7
4-Oct	6	5	5	6	6	3	2	1	3	6	15	16	6	5	2	1	2	3	4	8	10	15	10	9	6.3	16.4
5-Oct	9	10	12	9	7	5	5	6	5	4	3	2	1	1	1	1	1	1	1	2	3	3	2	3	4.2	11.5
6-Oct	3	2	3	4	5	5	6	8	10	12	7	4	4	4	4	4	3	4	4	5	6	6	5	6	5.3	12.0
7-Oct	8	8	8	7	7	7	8	6	7	11	8	3	3	3	3	3	5	5	4	4	5	6	6	6	5.8	10.8
8-Oct	5	5	6	6	6	5	6	6	6	5	4	2	4	2	2	2	4	7	10	14	8	6	14	2	5.8	14.5
9-Oct	2	2	2	2	2	3	2	3	4	7	8	11	11	6	P	P	P	P	P	P	P	P	4	3	--	11.3
10-Oct	3	3	3	2	2	3	2	2	2	3	2	2	2	2	2	2	5	3	3	2	3	2	2	2	2.5	5.3
11-Oct	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	2.2
12-Oct	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6	2	2	3	2	2	2	2	2.2	5.9
13-Oct	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	6	5	6	7	5	4	3	3.5	6.5
14-Oct	3	4	4	8	8	8	8	7	9	9	6	5	4	3	3	3	4	4	8	13	6	6	6	7	6.0	13.4
15-Oct	8	6	6	6	6	6	6	7	7	5	3	2	2	2	5	5	8	30	31	11	18	15	11	11	9.0	30.8
16-Oct	15	9	10	10	10	8	9	8	12	14	10	5	4	4	6	7	4	5	5	5	5	7	9	12	8.0	14.9
17-Oct	11	15	17	13	13	11	12	13	17	16	11	8	6	5	8	10	11	4	4	4	3	2	2	2	8.9	16.6
18-Oct	2	3	3	3	3	4	3	3	3	3	1	1	1	1	1	1	3	6	5	4	4	4	4	3	3.0	5.6
19-Oct	2	2	2	3	4	4	3	4	6	6	8	13	5	5	4	4	5	3	3	5	5	3	3	3	4.5	13.2
20-Oct	3	4	6	7	7	7	6	9	9	5	5	3	3	1	2	2	3	3	2	3	3	2	3	3	4.2	8.8
21-Oct	3	3	4	4	3	2	8	9	12	9	9	11	7	3	1	1	1	2	2	4	4	3	3	2	4.6	12.4
22-Oct	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	8	3	5	6	7	7	5	2	3.2	8.0
23-Oct	2	2	2	2	2	3	3	3	3	3	2	2	2	2	2	3	3	5	4	4	5	5	6	6	3.2	6.3
24-Oct	6	7	8	8	8	8	8	7	7	8	7	7	6	4	4	3	3	3	6	20	9	9	19	16	7.9	20.3
25-Oct	13	10	10	14	19	15	13	13	10	11	8	7	5	6	4	4	3	12	4	4	4	5	8	7	8.7	18.6
26-Oct	6	7	6	8	7	8	12	9	6	6	8	8	6	5	4	3	3	4	4	4	4	4	3	3	5.8	11.9
27-Oct	3	2	3	3	3	4	4	3	3	3	1	1	1	1	1	1	3	1	2	2	2	3	5	2.4	4.6	
28-Oct	5	6	6	8	9	7	7	12	8	8	6	7	5	4	3	4	2	2	2	3	3	2	2	2	5.2	12.4
29-Oct	4	5	7	7	7	7	6	5	8	8	5	4	3	2	2	2	3	4	5	5	5	8	11	8	5.4	11.2
30-Oct	7	8	7	6	4	4	4	3	3	2	4	4	3	2	4	2	3	4	3	4	5	5	5	5	4.2	7.5
31-Oct	6	6	6	5	5	5	4	4	4	9	10	7	7	4	3	4	4	4	4	5	4	4	3	4	5.0	9.5
5.3 5.2 5.4 5.6 5.6 5.3 5.5 5.6 6.0 6.2 5.5 5.0 3.9 3.1 2.9 2.9 3.8 4.6 4.9 5.6 5.3 5.3 5.6 5.0																									Diurnal Average	
14.9 14.9 16.6 14.1 18.6 14.6 13.2 13.2 16.6 16.1 15.4 16.4 11.0 6.1 7.8 10.0 10.7 29.8 30.8 20.3 17.8 15.4 19.3 15.9																									Diurnal Maximum	
P - Power Failure																										

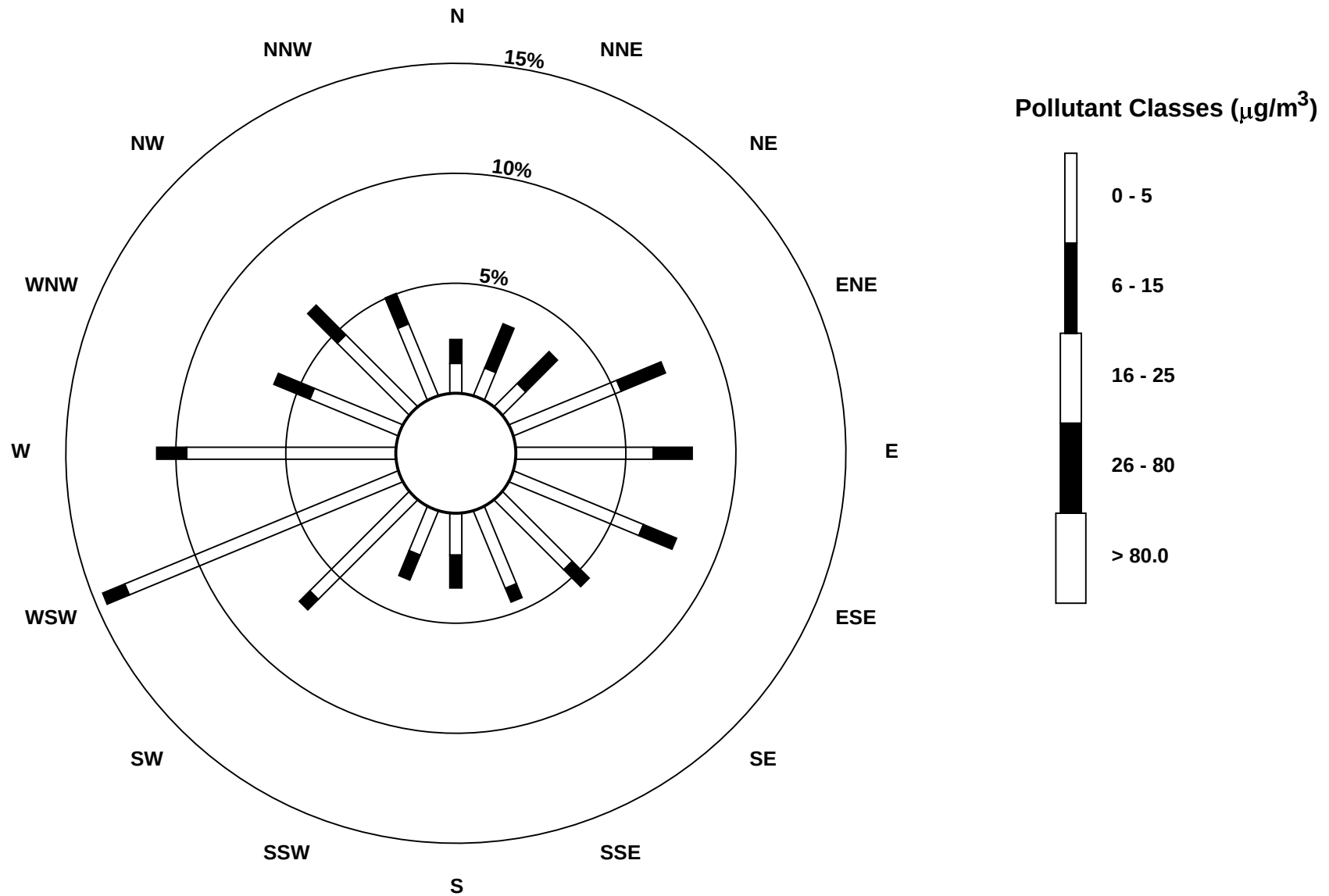
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - October 2015



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - October 2015



Hourly Averages

External Temperature (ET) - °C

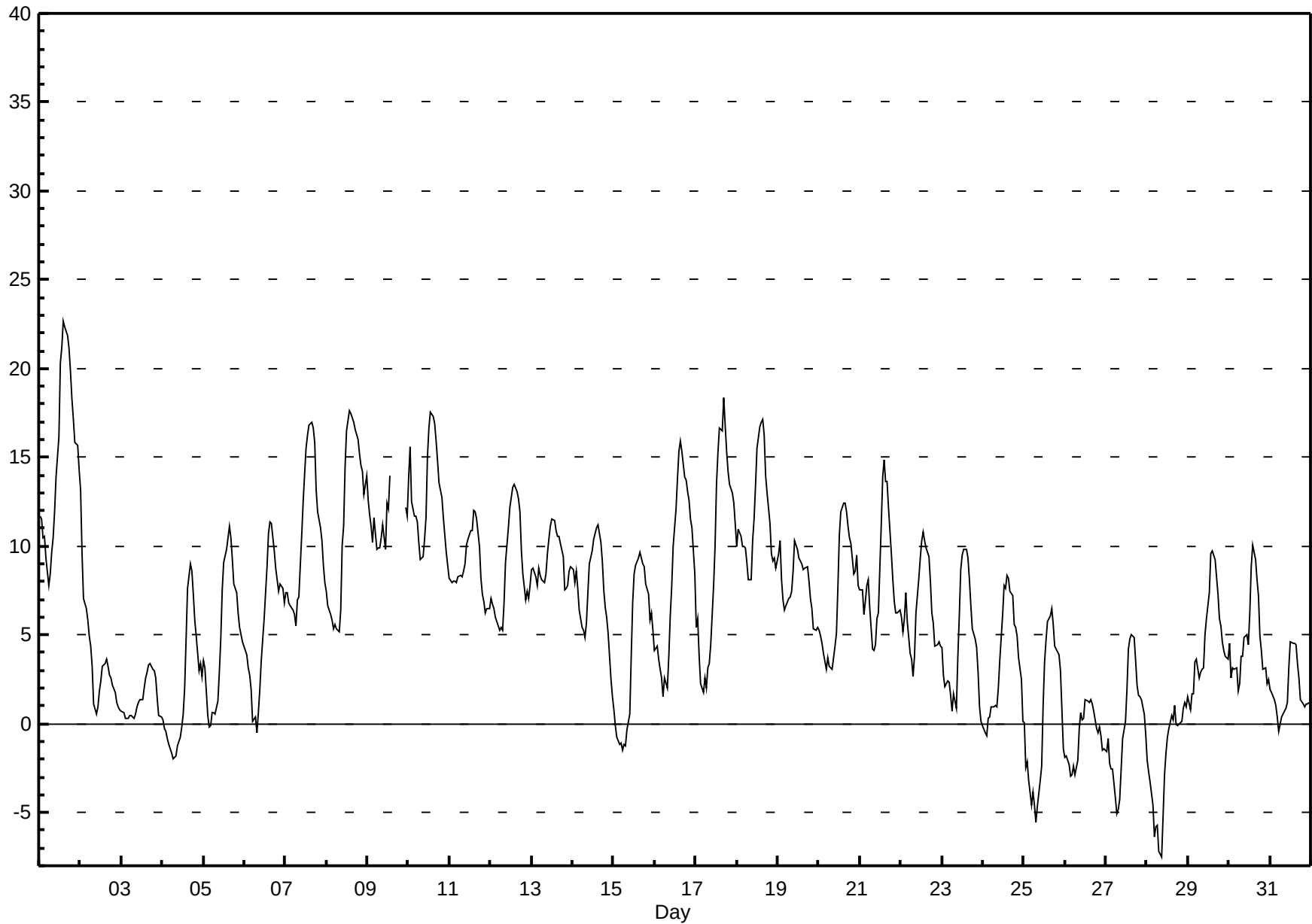
Beaverlodge - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 22.6 °C on Oct 1 15:00 Maximum Daily Average: 15.1 °C on Oct 1																			Hours in Service: 744							
Minimum Value: -7 °C on Oct 28 09:00 Maximum Diurnal Average: 10.5 °C at hour 16 Monthly Average: 6.23 °C																			Hours of Data: 736							
Minimum Daily Average: -2.1 °C on Oct 28 Minimum Diurnal Average: 2.8 °C at hour 8 Percentiles: P ₁ = -5.1 P ₁₀ = -0.2 Q ₁ = 2.0 Median = 6.2 Q ₃ = 9.8 P ₉₀ = 13.1 P ₉₉ = 19.4																			Hours of Missing Data: 8							
																			Hours of Calibration: 0							
																			Percent Operational Time: 98.9							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	12	12	11	11	9	8	8	10	10	12	14	16	20	21	23	22	22	21	20	18	17	16	16	14	15.1	22.6
2-Oct	13	10	7	6	6	5	4	3	1	1	1	2	2	3	3	4	3	3	3	2	2	1	1	1	3.6	13.1
3-Oct	1	1	0	0	0	0	0	0	1	1	1	1	1	2	3	3	3	3	3	3	3	1	0	0	1.4	3.4
4-Oct	0	0	0	-1	-1	-2	-2	-2	-2	-1	-1	0	1	2	5	8	9	9	7	6	5	3	3	3	2.0	9.0
5-Oct	4	3	0	0	0	1	1	1	1	3	5	8	9	10	10	11	10	9	8	7	6	5	5	5	5.1	11.1
6-Oct	4	4	3	3	2	0	0	-1	1	2	4	6	7	9	11	11	11	10	9	8	7	8	8	7	5.6	11.4
7-Oct	7	7	7	7	6	6	6	7	7	11	13	14	15	16	17	17	17	16	13	12	11	10	9	8	10.8	17.0
8-Oct	7	7	6	6	5	6	5	5	6	10	11	14	16	18	17	17	17	16	15	15	14	13	14	14	11.6	17.6
9-Oct	13	12	11	10	12	10	10	10	10	11	10	12	12	14	P	P	P	P	P	P	P	P	12	12	--	14.0
10-Oct	14	16	13	12	12	11	10	9	9	10	12	15	17	18	17	17	16	15	14	13	12	11	10	9	12.9	17.5
11-Oct	8	8	8	8	8	8	8	8	9	9	10	10	11	11	12	12	12	10	8	7	7	6	6	6	8.8	12.0
12-Oct	7	7	6	6	6	5	5	5	7	9	11	12	13	13	13	13	13	12	10	8	7	7	7	8	8.8	13.5
13-Oct	9	9	8	8	9	8	8	8	8	10	10	11	11	11	11	11	11	10	9	8	8	8	9	9	9.2	11.5
14-Oct	9	8	9	8	6	5	5	5	6	7	9	10	10	11	11	11	10	9	8	7	6	5	3	2	7.4	11.2
15-Oct	1	0	-1	-1	-1	-1	-1	-1	0	1	4	7	8	9	9	10	9	9	9	8	7	6	6	5	4.2	9.7
16-Oct	4	4	4	3	3	2	3	2	4	6	8	10	12	14	15	16	15	14	14	13	13	12	11	8	8.7	15.9
17-Oct	5	6	4	2	2	3	2	3	3	4	8	10	14	15	17	16	18	17	15	14	13	13	12	11	9.6	18.4
18-Oct	10	11	11	10	10	10	9	8	8	10	12	13	15	17	17	17	16	14	13	11	10	9	9	9	11.6	17.1
19-Oct	10	10	8	7	6	7	7	7	7	9	10	10	9	9	9	9	9	8	7	6	5	5	5	5	7.9	10.3
20-Oct	5	5	5	4	3	4	3	3	3	4	5	8	11	12	12	12	12	11	10	10	8	9	9	8	7.4	12.4
21-Oct	7	8	6	7	8	8	7	4	4	4	6	6	11	14	15	14	14	12	10	8	7	6	6	6	8.3	14.9
22-Oct	6	5	6	7	6	4	4	3	4	6	8	9	10	11	10	10	9	8	6	6	4	4	5	4	6.5	10.8
23-Oct	4	3	2	2	2	2	1	2	1	4	6	9	9	10	10	9	8	7	5	5	4	3	1	0	4.5	9.8
24-Oct	0	0	-1	0	0	1	1	1	1	2	4	6	8	8	8	8	7	7	6	5	5	4	3	0	3.5	8.4
25-Oct	0	-2	-2	-3	-5	-4	-5	-6	-5	-3	-2	1	4	5	6	6	6	6	4	4	4	3	1	-1	0.5	6.5
26-Oct	-2	-2	-2	-3	-3	-2	-3	-2	0	1	0	0	1	1	1	1	1	1	0	-1	0	-1	-1	-1	-0.7	1.4
27-Oct	-2	-1	-2	-3	-3	-4	-5	-5	-4	-3	-1	0	2	4	5	5	5	4	2	2	2	1	1	-1	0.0	5.0
28-Oct	-2	-3	-3	-5	-6	-6	-6	-7	-7	-5	-3	-2	-1	0	0	0	1	0	0	0	0	1	1	1	-2.1	1.2
29-Oct	2	1	2	2	4	4	3	3	3	3	5	6	7	10	10	9	9	7	6	5	5	4	4	4	4.8	9.8
30-Oct	5	3	3	3	3	2	2	4	4	5	5	4	6	9	10	9	8	7	5	4	3	3	2	3	4.7	10.0
31-Oct	2	2	1	1	0	0	0	0	1	1	1	3	5	4	5	4	3	3	1	1	1	1	1	1	1.8	4.6
5.2 4.8 4.1 3.8 3.5 3.2 3.0 2.8 3.3 4.6 5.9 7.5 9.0 10.0 10.4 10.5 10.2 9.3 8.0 7.3 6.6 6.0 5.7 5.1																									Diurnal Average	
13.9 15.6 12.5 11.7 11.7 11.4 10.2 9.9 10.5 11.9 13.8 16.2 20.3 21.2 22.6 22.3 21.8 21.2 19.8 18.3 17.1 15.8 15.7 14.3																									Diurnal Maximum	
P - Power Failure																										

Hourly Averages

External Temperature (ET) - °C

Beaverlodge - October 2015



Hourly Averages

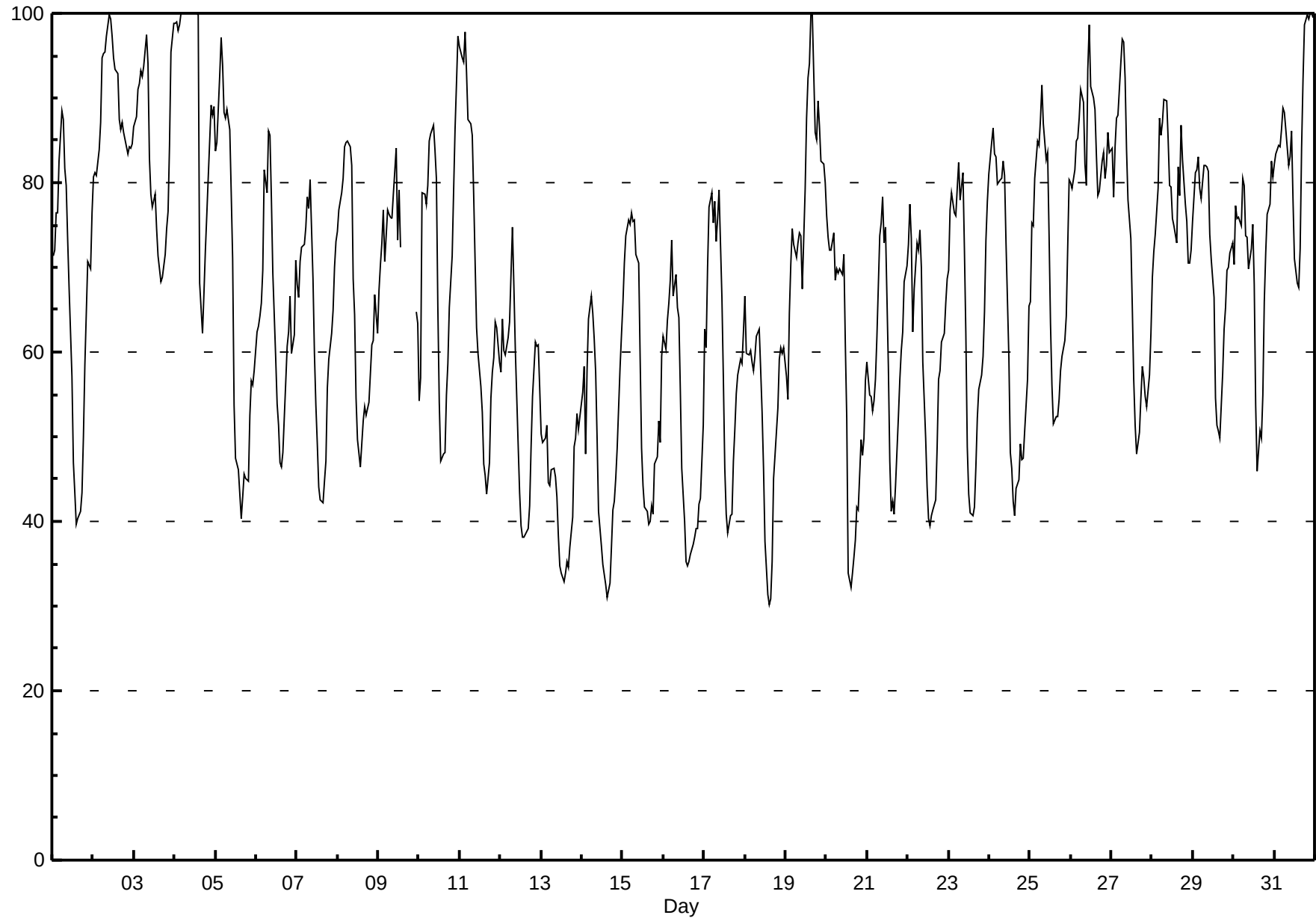
Relative Humidity (RH) - %

Beaverlodge - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Oct 4 05:00 Maximum Daily Average: 91.1 % on Oct 4																				Hours in Service: 744 Hours of Data: 736 Hours of Missing Data: 8 Hours of Calibration: 0 Percent Operational Time: 98.9						
Minimum Value: 30 % on Oct 18 15:00 Maximum Diurnal Average: 80.0 % at hour 8 Monthly Average: 67.17 %										Minimum Daily Average: 43.6 % on Oct 13 Minimum Diurnal Average: 51.0 % at hour 16 Percentiles: P ₁ = 32.7 P ₁₀ = 42.5 Q ₁ = 53.6 Median = 69.2 Q ₃ = 80.7 P ₉₀ = 88.6 P ₉₉ = 100.0																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	71	72	76	76	83	88	88	82	80	73	68	57	47	43	40	40	41	43	50	58	65	71	70	76	65.0	88.5
2-Oct	81	81	81	84	87	95	95	95	97	100	99	97	95	93	93	87	86	87	86	85	83	84	84	85	89.3	99.9
3-Oct	87	88	91	92	93	92	94	97	94	83	79	77	79	75	71	70	68	69	72	75	77	84	95	99	83.3	98.8
4-Oct	99	99	98	99	100	100	100	100	100	100	100	100	100	100	100	68	62	67	72	76	81	89	88	89	91.1	100.0
5-Oct	84	85	93	97	94	88	88	89	86	79	71	54	47	46	43	40	43	46	45	45	53	57	56	58	66.0	97.1
6-Oct	62	63	64	66	70	81	79	86	86	78	69	59	54	51	47	46	48	56	61	62	67	60	62	71	64.6	86.0
7-Oct	68	66	71	72	73	75	78	77	80	69	60	54	49	44	43	42	45	47	56	59	62	65	70	73	62.4	80.3
8-Oct	74	77	79	80	84	85	85	84	82	69	64	55	50	46	49	52	53	53	54	57	61	61	67	62	66.0	84.9
9-Oct	67	70	73	77	71	77	76	76	76	79	84	73	79	72	P	P	P	P	P	P	P	P	65	63	--	84.0
10-Oct	54	57	79	79	78	80	85	86	87	84	81	65	54	47	48	48	55	59	65	71	79	86	92	97	71.4	97.3
11-Oct	96	95	94	98	93	88	87	86	79	71	63	60	56	53	47	45	43	47	55	58	59	63	63	59	69.0	97.8
12-Oct	58	64	60	60	62	64	69	75	68	60	49	43	40	38	38	39	39	42	49	55	61	61	61	56	54.5	74.8
13-Oct	50	49	50	51	45	44	46	46	45	43	38	35	34	33	34	35	35	37	40	49	50	53	51	52	43.6	52.7
14-Oct	55	58	48	58	64	67	65	61	58	50	41	37	35	34	33	31	33	37	41	42	45	49	58	62	48.4	66.6
15-Oct	66	71	74	76	75	76	75	76	72	71	59	49	44	42	41	40	40	42	41	47	48	52	49	59	57.6	76.5
16-Oct	62	60	64	66	69	73	67	69	65	64	56	46	40	35	35	35	36	37	38	39	39	42	43	51	51.3	73.2
17-Oct	63	61	70	77	79	75	78	73	76	79	66	57	46	41	39	41	41	47	51	55	57	59	59	62	60.5	79.2
18-Oct	67	60	60	60	59	58	59	62	63	58	53	46	38	31	30	31	35	45	48	53	59	61	60	60	52.3	66.6
19-Oct	57	54	65	70	75	73	71	73	74	74	67	79	88	92	94	100	100	86	85	90	87	83	82	80	79.1	99.9
20-Oct	76	74	72	72	74	68	70	69	70	69	71	61	52	34	32	34	36	38	42	41	50	48	50	57	56.6	76.1
21-Oct	59	55	55	53	54	57	62	74	75	78	73	75	58	47	41	42	41	44	52	57	60	62	68	70	58.9	78.3
22-Oct	73	77	73	62	67	73	72	74	70	59	50	44	40	39	41	41	43	49	57	58	61	62	66	69	59.2	77.5
23-Oct	70	77	79	76	76	79	82	78	81	72	62	49	43	41	41	42	46	52	56	57	59	65	73	78	64.0	82.4
24-Oct	81	85	86	83	83	80	80	80	83	81	73	59	48	46	42	41	44	45	49	47	47	51	57	65	64.1	86.5
25-Oct	66	75	75	81	85	84	88	92	87	83	84	74	63	56	52	52	52	54	58	59	61	64	72	80	70.7	91.5
26-Oct	80	79	82	85	85	88	91	89	82	80	93	99	91	90	89	83	79	79	82	84	81	82	86	84	85.1	98.7
27-Oct	84	78	84	88	88	94	97	97	92	84	78	73	65	57	51	48	51	55	58	57	55	54	57	62	71.1	97.0
28-Oct	69	72	74	79	88	86	87	90	90	85	80	79	76	75	73	82	79	87	83	78	75	70	70	72	79.0	89.9
29-Oct	75	81	82	83	79	78	82	82	82	81	74	71	66	55	51	51	50	57	63	65	70	70	72	73	70.6	83.1
30-Oct	70	77	76	76	75	80	80	74	74	70	72	75	68	54	46	51	50	55	66	72	76	77	83	81	69.8	82.6
31-Oct	82	83	84	84	86	89	88	86	82	83	86	78	71	68	68	72	84	92	99	100	99	100	100	100	86.1	100.0
71.1 72.4 74.5 76.1 77.2 78.6 79.5 80.0 78.5 74.4 69.8 63.9 58.6 54.2 51.7 51.0 51.9 55.1 59.1 61.7 64.2 66.2 68.7 71.2 98.8 99.0 98.0 98.6 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 99.8 99.9 99.8 92.3 98.7 99.8 99.2 100.0 100.0 99.6																								Diurnal Average		
P - Power Failure																										

Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - October 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - October 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	2	3	4	2	1	5	3	2	4	5	2	4	4	4	10	7	5	5	10	7	9	8	13	2.0	13.4
Dir	110	90	95	58	105	138	54	81	120	38	187	156	102	105	76	119	124	123	318	332	353	336	353	325	46	325
2 Spd	16	25	20	18	19	16	17	21	19	15	15	16	19	20	20	18	17	15	16	16	13	9	13	13	16.6	25.2
Dir	321	322	330	332	323	324	325	314	318	320	327	337	345	344	342	344	340	332	333	336	340	347	345	353	332	322
3 Spd	14	9	7	7	5	3	5	6	8	9	7	9	7	8	7	4	1	2	7	7	7	7	7	10	3.5	13.9
Dir	354	357	11	337	340	47	143	144	140	113	115	125	109	117	139	194	233	167	153	162	130	117	79	102	105	354
4 Spd	8	7	8	4	8	6	2	2	2	2	5	4	4	3	4	3	4	4	1	1	4	3	5	6	2.0	8.4
Dir	106	105	109	176	153	190	140	134	194	154	153	168	233	33	115	117	144	103	177	260	302	306	347	21	132	153
5 Spd	7	6	6	7	10	11	18	15	6	9	11	6	2	3	2	2	6	9	6	6	7	8	8	10	4.8	18.0
Dir	27	7	344	332	337	338	326	325	345	347	4	1	76	107	71	65	116	121	73	61	75	76	77	81	18	326
6 Spd	11	11	3	3	4	3	2	1	1	4	7	6	6	3	2	1	2	7	5	4	4	3	4	5	0.8	11.4
Dir	88	99	193	229	268	23	1	322	28	286	283	309	326	330	328	128	86	165	161	117	109	101	119	139	108	88
7 Spd	2	2	2	1	3	3	2	3	3	1	4	6	4	11	9	6	1	15	13	9	1	2	2	4	1.7	15.0
Dir	20	83	82	146	52	49	55	54	48	137	258	285	25	299	320	343	28	242	252	259	104	114	155	50	298	242
8 Spd	4	3	2	4	4	3	4	4	4	2	4	4	6	6	6	6	6	4	3	6	7	9	4	6	2.7	8.9
Dir	66	85	100	100	94	150	58	130	68	172	216	154	176	161	141	124	112	111	141	210	237	232	200	230	154	232
9 Spd	9	3	2	4	5	5	4	3	7	4	4	2	5	5	P	P	P	P	P	P	P	P	9	4	--	9.5
Dir	220	202	101	51	62	73	80	83	73	88	196	234	358	354	P	P	P	P	P	P	P	P	186	184	--	220
10 Spd	6	30	19	5	18	35	27	17	14	20	26	25	25	24	19	21	12	6	3	11	14	11	15	12	13.7	35.3
Dir	217	267	302	251	244	231	226	241	223	218	224	234	263	250	252	231	220	214	38	13	11	334	305	273	250	231
11 Spd	15	14	19	8	7	12	17	14	15	22	34	32	34	37	37	30	32	22	12	7	4	5	7	7	16.2	37.3
Dir	291	284	299	299	275	275	273	279	264	262	266	263	264	258	258	260	253	255	234	203	174	87	104	136	263	258
12 Spd	5	4	6	3	3	2	7	6	14	21	34	39	40	38	38	39	38	29	12	14	14	19	18	22	18.0	39.6
Dir	105	165	177	127	147	142	256	244	244	246	253	256	255	250	249	247	253	259	242	227	231	235	240	248	246	255
13 Spd	21	18	13	14	29	21	23	24	28	29	34	35	37	40	31	25	37	28	20	11	17	13	33	38	25.5	39.5
Dir	245	249	251	258	263	269	258	263	265	263	262	254	258	254	262	266	265	260	255	233	232	242	251	259	257	254
14 Spd	36	31	41	20	11	13	13	9	13	25	26	28	24	23	23	25	19	13	7	7	8	5	2	4	16.7	41.4
Dir	259	259	264	261	288	279	271	275	263	271	281	285	289	298	294	281	297	296	294	307	310	299	114	63	279	264
15 Spd	4	4	2	3	5	3	1	5	3	4	2	2	9	9	7	7	7	3	2	4	4	5	0	2	2.7	9.3
Dir	65	63	126	84	64	81	174	54	136	155	140	141	125	138	122	104	133	106	20	49	301	5	114	210	104	138
16 Spd	8	11	1	2	4	7	5	4	3	2	3	2	5	9	13	15	17	11	8	7	11	1	3	2	4.2	17.0
Dir	354	27	25	117	272	24	31	30	4	152	235	151	122	123	117	100	94	84	81	97	103	197	188	177	87	94
17 Spd	2	4	2	4	4	3	3	2	1	2	2	2	2	1	5	7	22	38	27	22	20	22	18	12	7.2	37.8
Dir	16	21	239	10	12	15	61	71	106	55	23	181	239	218	256	298	277	277	256	247	246	247	244	237	263	277
18 Spd	9	10	10	16	13	9	10	3	3	0	7	12	11	15	14	12	9	10	6	4	0	4	5	5	6.2	15.9
Dir	243	260	255	272	284	299	306	307	302	146	249	247	244	263	278	311	311	302	312	31	32	75	92	93	280	272
19 Spd	2	2	2	1	1	2	3	3	1	4	8	5	4	6	5	8	11	19	11	5	6	10	10	12	4.0	18.6
Dir	55	9	101	173	126	83	65	87	0	286	318	288	197	273	262	215	229	266	299	316	268	266	277	268	271	266
20 Spd	16	17	11	7	2	9	13	9	4	2	4	4	1	22	20	15	14	16	15	9	2	1	8	7	8.5	21.6
Dir	268	277	298	282	258	281	285	296	283	109	168	165	201	265	277	288	283	273	266	264	191	227	265	222	272	265
21 Spd	3	6	4	6	3	3	4	5	6	3	1	4	3	22	36	33	30	19	14	15	10	14	9	11	8.2	35.8
Dir	97	89	114	79	73	92	208	214	297	64	49	240	160	266	265	258	252	250	242	246	224	240	229	237	248	265
22 Spd	8	14	13	21	13	9	8	11	15	22	35	40	39	36	43	37	38	28	14	7	11	10	8	7	19.7	43.3
Dir	228	223	230	241	234	214	223	230	223	245	253	253	256	264	263	257	254	247	255	247	212	223	242	253	248	263

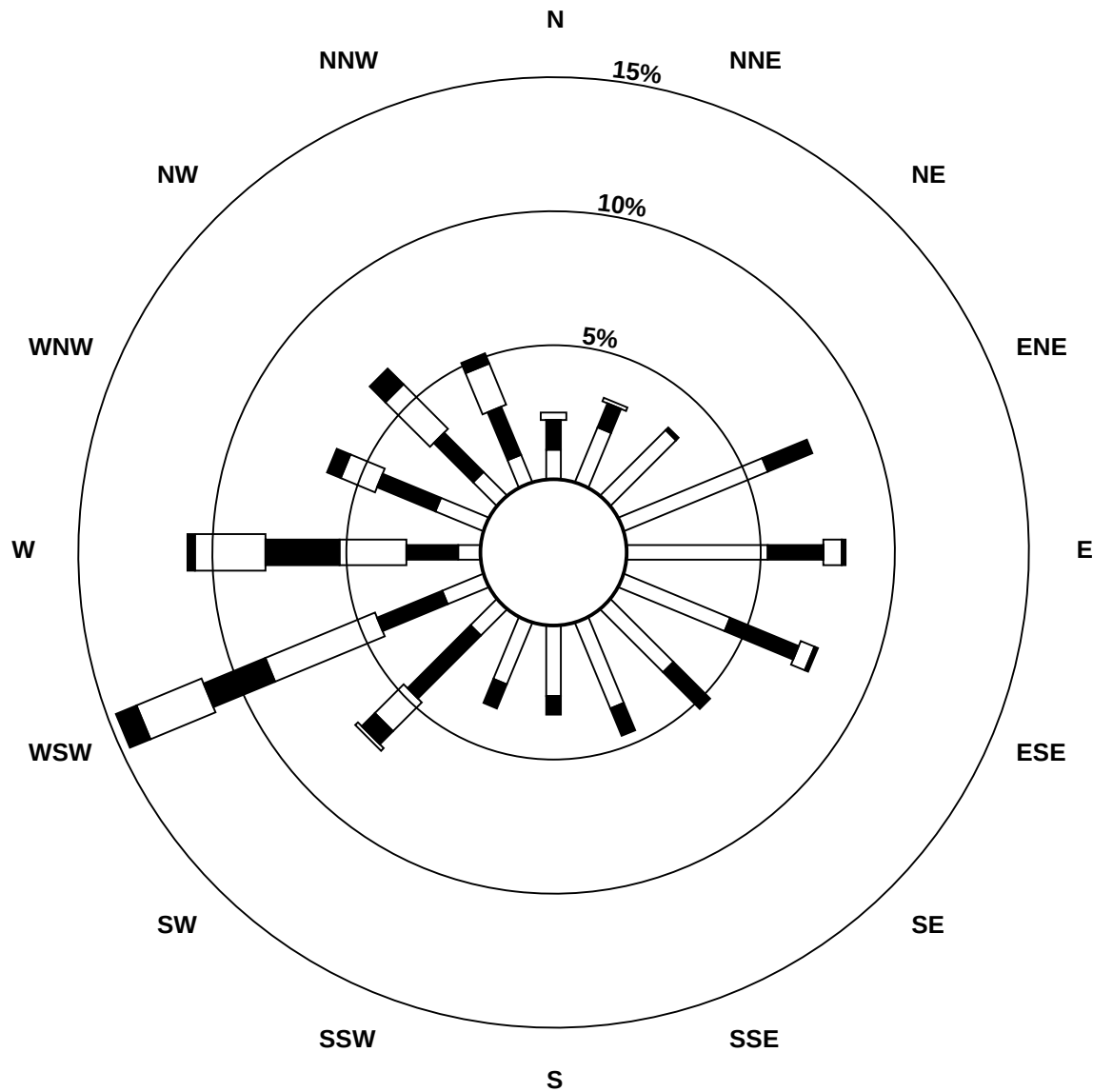
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - October 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	11	13	3	5	10	8	7	11	4	2	13	26	35	35	28	23	16	10	11	9	9	3	2	2	11.1	34.9
Dir	260	239	227	227	245	234	227	245	47	167	257	276	277	261	259	261	266	267	275	298	293	282	137	63	263	277
24 Spd	3	3	4	3	4	3	3	2	3	1	6	7	6	8	5	1	3	3	5	5	5	4	2	4	1.3	7.9
Dir	69	81	59	81	63	96	104	96	74	110	214	245	297	318	295	314	94	73	50	54	66	80	190	63	54	318
25 Spd	1	5	2	2	3	3	1	2	1	2	5	4	8	13	18	15	10	8	11	16	12	10	6	7	5.7	18.0
Dir	200	49	57	55	72	46	50	57	140	151	205	171	143	110	97	106	103	73	83	91	99	110	167	172	105	97
26 Spd	5	2	1	2	3	2	7	13	18	17	15	15	18	22	23	20	20	14	9	5	9	5	7	8	10.1	22.6
Dir	151	77	172	297	335	330	306	318	323	330	325	312	313	312	313	313	316	315	305	288	319	316	306	334	316	313
27 Spd	7	11	5	8	6	3	3	2	3	4	4	7	6	4	6	8	7	6	7	8	9	9	5	4	1.8	11.0
Dir	322	337	240	262	258	78	74	94	86	74	181	195	202	173	146	159	147	101	77	78	80	82	117	205	128	337
28 Spd	5	1	8	7	5	4	2	2	6	5	3	2	4	5	2	5	1	4	4	3	5	3	1	3	0.1	8.1
Dir	241	243	32	258	293	346	325	330	30	309	255	202	165	178	124	111	318	160	159	145	69	72	148	61	104	32
29 Spd	2	2	3	2	3	1	2	2	2	1	8	7	6	22	35	36	37	26	14	10	13	11	13	4	9.9	36.6
Dir	206	81	25	275	265	188	141	70	105	181	223	218	231	250	248	253	259	253	253	239	249	235	243	261	248	259
30 Spd	3	4	3	2	1	2	3	2	1	2	5	7	11	18	34	26	24	28	21	19	16	16	12	16	9.8	33.5
Dir	254	92	107	126	146	145	41	75	103	175	212	215	224	255	269	271	275	258	249	252	250	252	255	250	254	269
31 Spd	12	9	5	6	2	4	5	6	5	2	5	6	3	11	21	21	15	11	11	9	3	3	4	7	4.7	21.3
Dir	255	248	237	209	106	149	63	59	83	103	85	43	78	80	88	105	105	81	78	62	282	83	53	74	90	105
Spd	3.5	3.7	3.3	3.1	3.3	2.6	3.3	3.1	2.6	4.1	7.7	8.6	8.1	10.1	10.5	8.7	9.1	8.3	4.9	2.6	2.4	2.7	3.4	3.2	Diurnal Average	
Dir	271	282	282	274	280	274	281	286	280	264	258	258	262	264	265	259	261	261	263	267	259	255	249	255	Diurnal Maximum	
Spd	36.1	31.3	41.4	21.0	28.9	35.3	27.2	24.0	27.6	28.9	35.4	40.3	39.6	39.5	43.3	39.1	37.8	37.8	27.0	21.6	20.0	22.4	33.0	38.5	Diurnal Maximum	
Dir	259	259	264	241	263	231	226	263	265	263	253	253	255	254	263	247	253	277	256	247	246	247	251	259		
Maximum Speed Value: 43 km/h on Oct 22 15:00																								Hours in Service: 744		
Maximum Daily Speed Average: 25.5 km/h on Oct 13																								Hours of Data: 736		
Maximum Diurnal Speed Average: 10.5 km/h at hour 15																								Hours of Missing Data: 8		
Minimum Speed Value: 0 km/h on Oct 18 10:00																								Percent Operational Time: 98.9		
Minimum Daily Speed Average: 0.1 km/h on Oct 28																										
Minimum Diurnal Speed Average: 2.4 km/h at hour 21																										
Monthly Average Velocity: 5.05 km/h 264.9 deg																										
Speed Percentiles: P ₁ = 0.7 P ₁₀ = 1.9 Q ₁ = 3.4 Median = 6.6 Q ₃ = 13.4 P ₉₀ = 22.6 P ₉₉ = 38.6																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	16	15	9	3	0	0	43																			
NorthEast	54	13	0	0	0	0	67																			
East	76	37	11	2	0	0	126																			
SouthEast	50	30	1	0	0	0	81																			
South	43	12	0	0	0	0	55																			
SouthWest	24	34	32	13	1	1	105																			
West	16	27	42	34	37	8	164																			
NorthWest	18	37	29	11	0	0	95																			
Total	297	205	124	63	38	9	736																			

Wind Rose

Wind Speed (WS) (km/h)
Beaverlodge - October 2015



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - October 2015

Maximum Speed: 44 km/h on Oct 22 15:00																				Maximum Daily Speed Average: 26.0 km/h on Oct 13										Hours in Service: 744	
Minimum Speed: 1 km/h on Oct 7 04:00																				Minimum Daily Speed Average: 4.3 km/h on Oct 24										Hours of Data: 736	
Maximum Diurnal Speed Average: 17.7 km/h at hour 15																				Minimum Diurnal Speed Average: 7.1 km/h at hour 4										Hours of Missing Data: 8	
Monthly Average Speed: 10.51 km/h																				Percentiles: P ₁ = 1.9 P ₁₀ = 3.0 Q ₁ = 4.4 Median = 7.1 Q ₃ = 13.5 P ₉₀ = 22.8 P ₉₉ = 39.2										Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Oct	4	3	5	4	3	2	5	4	2	4	6	4	4	5	5	10	7	5	6	10	9	11	10	13	5.9	13.4					
2-Oct	16	25	20	18	19	16	18	22	19	15	15	16	19	20	21	18	17	15	16	16	13	9	13	14	17.1	25.5					
3-Oct	14	9	8	7	5	4	5	6	8	10	8	10	8	8	8	4	2	3	7	7	7	7	8	10	7.1	14.0					
4-Oct	8	7	8	5	9	7	4	3	3	3	5	5	5	4	5	4	4	4	1	2	4	3	6	7	4.8	8.7					
5-Oct	7	6	7	7	10	11	18	15	7	9	11	7	4	4	4	3	6	9	6	7	8	8	8	10	8.1	18.1					
6-Oct	11	11	4	3	4	3	3	3	2	5	8	6	6	5	4	2	2	7	5	4	5	3	4	5	4.8	11.4					
7-Oct	5	2	2	1	3	4	3	4	3	2	4	6	5	11	9	7	2	15	13	9	2	2	3	5	5.1	15.4					
8-Oct	4	3	4	5	5	4	5	5	4	3	5	5	7	6	6	6	6	4	4	6	7	9	5	6	5.1	9.0					
9-Oct	10	6	3	5	5	5	5	5	7	5	5	7	6	6	P	P	P	P	P	P	P	P	9	8	--	9.7					
10-Oct	13	32	19	7	19	36	27	17	14	20	26	25	25	24	19	21	12	6	5	11	14	14	15	13	18.2	35.8					
11-Oct	16	14	19	8	8	12	17	14	15	22	34	32	34	38	37	31	33	22	12	7	4	5	7	8	18.7	37.6					
12-Oct	7	6	6	4	5	4	9	7	15	21	35	39	40	38	38	39	38	29	13	14	15	19	18	22	19.9	40.1					
13-Oct	21	18	14	14	29	21	23	24	28	29	34	35	37	40	31	25	38	28	20	12	17	13	33	39	26.0	40.3					
14-Oct	36	31	41	20	12	13	13	9	13	25	26	28	25	23	23	25	20	13	7	7	8	6	3	4	18.0	41.5					
15-Oct	4	5	4	3	5	3	1	5	4	4	3	2	10	10	7	7	7	3	3	4	6	7	3	3	4.6	9.6					
16-Oct	9	11	5	3	5	8	5	4	4	2	4	3	6	9	13	16	17	11	8	7	11	7	4	4	7.3	17.1					
17-Oct	4	5	3	6	7	5	4	2	3	4	5	3	3	3	5	7	23	38	28	22	20	22	18	12	10.5	37.9					
18-Oct	9	10	10	16	13	10	10	7	5	3	8	12	12	16	15	13	9	11	6	6	3	4	5	5	9.1	16.3					
19-Oct	3	3	4	2	3	3	3	3	4	5	8	6	4	6	6	8	12	19	12	5	7	11	10	12	6.6	18.7					
20-Oct	16	17	11	9	5	9	13	9	5	2	4	4	5	22	21	15	14	16	15	9	3	4	8	8	10.2	22.0					
21-Oct	5	6	5	6	4	4	5	5	8	4	4	4	4	23	36	33	30	19	14	15	10	15	9	11	11.6	36.1					
22-Oct	8	14	13	21	13	9	8	11	15	23	36	41	39	37	44	38	38	28	14	8	11	10	8	7	20.5	43.6					
23-Oct	11	13	3	5	10	8	7	11	5	4	13	27	35	35	28	23	17	10	12	9	9	4	2	3	12.7	35.2					
24-Oct	3	3	4	3	4	4	3	2	3	2	6	7	7	8	6	2	3	3	5	5	5	4	3	4	4.3	8.4					
25-Oct	4	5	2	3	3	3	2	3	3	3	5	4	8	13	18	16	10	8	11	16	13	10	6	8	7.4	18.2					
26-Oct	6	2	2	3	4	4	8	13	18	17	15	15	18	22	23	21	20	14	9	5	10	5	7	8	11.2	22.6					
27-Oct	7	11	5	8	6	3	3	2	3	4	4	7	7	5	7	9	7	6	7	8	9	10	6	4	6.2	11.1					
28-Oct	5	3	9	8	7	6	4	5	7	6	4	3	5	5	4	6	5	6	4	3	5	3	2	3	5.0	8.9					
29-Oct	3	4	5	3	3	3	2	2	3	4	8	7	6	22	35	36	37	26	14	10	13	12	13	5	11.6	36.9					
30-Oct	5	5	3	6	2	4	3	3	2	2	5	7	11	19	34	27	24	28	22	19	16	16	12	16	12.2	33.8					
31-Oct	12	10	7	9	4	5	5	6	6	5	6	6	4	11	21	21	15	11	11	9	6	3	5	7	8.6	21.5					
9.3 9.7 8.2 7.1 7.5 7.5 7.8 7.4 7.7 8.6 11.6 12.4 13.2 16.1 17.7 16.4 15.8 13.9 10.4 9.1 9.0 8.6 8.5 9.2																									Diurnal Average						
36.3 31.6 41.5 21.1 29.0 35.8 27.2 24.1 27.8 29.1 35.5 40.6 40.1 40.3 43.6 39.2 38.0 37.9 27.7 21.8 20.1 22.5 33.1 38.5																									Diurnal Maximum						
P - Power Failure																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Beaverlodge - October 2015

Maximum Value: 96.0 deg on Oct 18 21:00																		Hours in Service: 744							
Minimum Value: 2.3 deg on Oct 13 00:00																		Hours of Data: 736							
																		Hours of Missing Data: 8							
Percentiles: P ₁ = 3.2 P ₁₀ = 5.7 Q ₁ = 8.2 Median = 17.2 Q ₃ = 40.7 P ₉₀ = 65.0 P ₉₉ = 87.3																		Hours of Calibration: 0							
																		Percent Operational Time: 98.9							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	36	27	59	12	70	58	15	26	42	61	69	66	38	39	63	19	19	12	64	8	34	38	37	5	69.6
2-Oct	7	7	11	8	7	7	8	7	5	6	6	8	6	9	8	10	8	7	6	7	7	8	7	9	10.9
3-Oct	6	12	24	13	17	39	14	12	9	19	31	23	33	28	38	48	77	33	23	12	15	11	14	12	77.1
4-Oct	5	10	7	36	16	27	64	62	50	69	27	46	57	74	33	46	37	13	67	84	27	44	29	24	83.8
5-Oct	8	14	36	43	12	9	3	3	47	12	15	31	74	65	87	67	31	10	14	7	7	4	3	6	87.5
6-Oct	4	4	33	28	18	25	63	84	67	35	10	20	22	54	71	50	38	9	7	17	46	37	25	20	84.5
7-Oct	76	19	30	48	11	13	86	30	45	39	38	22	49	18	15	22	73	54	5	11	76	44	48	12	85.5
8-Oct	9	32	57	42	34	35	28	38	17	35	42	28	25	21	14	10	9	24	26	15	18	8	39	13	57.4
9-Oct	12	82	61	23	17	28	26	64	26	57	36	75	39	34	P	P	P	P	P	P	P	P	7	65	82.1
10-Oct	76	17	8	46	24	43	3	8	8	6	5	12	13	12	12	4	6	22	84	5	11	36	6	12	83.6
11-Oct	9	7	13	8	15	7	4	4	8	5	5	6	6	7	8	7	6	9	19	15	12	20	14	20	20.2
12-Oct	39	35	28	38	53	64	57	47	43	11	8	9	9	7	7	5	5	6	8	7	10	4	6	2	63.6
13-Oct	4	5	10	10	4	6	6	6	7	6	10	9	8	11	6	6	6	4	9	14	9	9	5	3	13.7
14-Oct	5	5	5	7	9	13	15	12	3	6	7	8	15	9	10	10	11	5	5	13	8	33	71	16	70.5
15-Oct	22	32	55	32	12	19	31	16	41	18	45	54	21	14	20	12	12	18	33	20	81	43	87	79	87.1
16-Oct	34	5	87	52	39	29	64	14	67	36	51	53	33	15	16	9	6	5	9	12	6	68	50	56	86.8
17-Oct	60	56	80	56	59	79	32	42	89	83	85	54	72	77	31	15	12	4	13	7	5	4	4	6	88.9
18-Oct	36	10	14	14	14	37	26	65	59	88	41	12	19	16	14	13	13	7	18	66	96	19	19	33	96.0
19-Oct	53	58	60	86	64	45	24	22	69	52	11	30	13	18	23	8	12	7	13	17	15	12	3	5	85.9
20-Oct	4	3	12	58	84	7	7	6	68	35	26	17	76	11	14	7	9	8	9	17	47	79	11	29	84.3
21-Oct	62	12	28	10	12	42	23	28	60	57	71	36	55	14	8	5	9	7	6	5	13	13	27	6	71.4
22-Oct	8	6	9	5	11	7	46	13	10	8	5	7	6	7	7	6	5	6	4	33	12	6	51	38	50.9
23-Oct	13	6	54	53	16	13	23	6	50	65	17	8	7	6	9	6	6	9	7	6	9	68	50	78	78.1
24-Oct	47	37	39	28	15	38	39	35	28	46	16	21	39	20	26	72	17	22	21	6	27	19	49	24	71.9
25-Oct	73	7	49	73	18	13	75	87	66	69	20	29	17	12	8	10	6	9	8	4	11	20	23	24	87.4
26-Oct	31	22	45	67	40	59	31	7	6	6	6	7	7	7	5	7	7	5	7	7	15	30	27	10	67.4
27-Oct	11	9	35	8	9	54	35	35	20	17	23	17	24	31	19	12	17	14	4	5	4	4	31	17	53.7
28-Oct	16	92	28	26	62	52	67	66	30	63	44	60	22	22	57	33	74	48	40	36	21	42	53	46	91.7
29-Oct	53	69	65	92	25	72	59	19	47	73	15	16	18	14	4	5	7	6	8	12	8	18	7	38	92.3
30-Oct	76	38	22	60	82	58	49	51	66	51	33	10	12	17	8	25	6	4	2	3	4	5	8	3	82.2
31-Oct	4	12	79	67	55	50	21	11	17	66	55	10	42	12	6	7	8	6	15	9	77	60	45	16	79.0
76.2 91.7 86.8 92.3 84.3 78.8 85.5 87.4 88.9 88.0 85.2 75.1 76.1 77.2 87.5 71.9 77.1 54.0 83.6 83.8 96.0 79.3 87.1 78.6																									
P - Power Failure																									

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

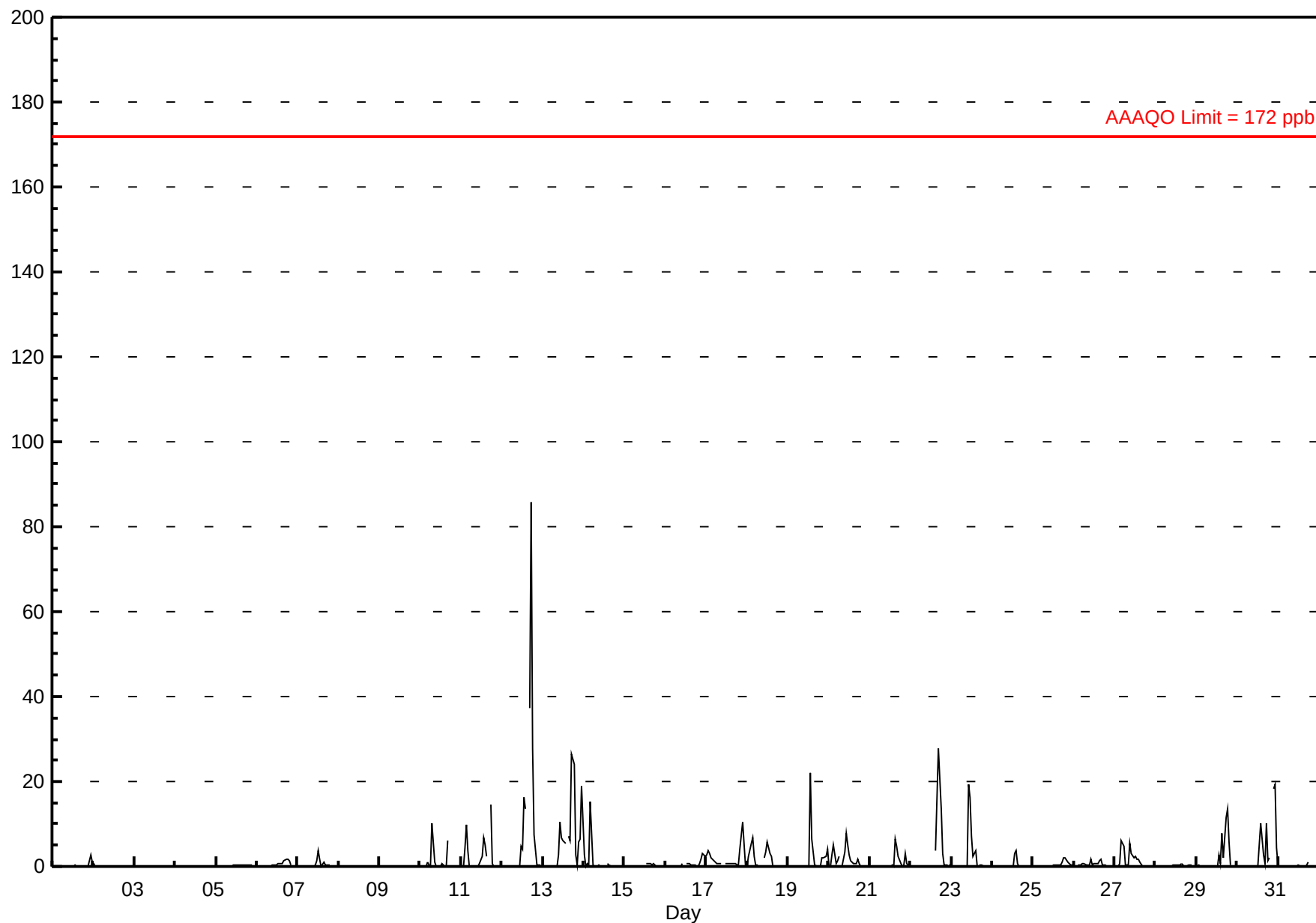
Sulphur Dioxide (SO₂) - ppb

Valleyview - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 85.7 ppb on Oct 12 18:00 Maximum Daily Average: 8.6 ppb on Oct 12																					Hours in Service: 744 Hours of Data: 707					
Minimum Value: 0 ppb on Oct 1 01:00 Maximum Diurnal Average: 6.0 ppb at hour 18 Monthly Average: 1.34 ppb																					Minimum Daily Average: 0.0 ppb on Oct 9 Minimum Diurnal Average: 0.1 ppb at hour 9 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.5 P ₉₀ = 3.2 P ₉₉ = 20.7		Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0.2	2.6
2-Oct	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	2	1	0	A	0	0	0.5	1.7
7-Oct	0	0	0	0	0	0	0	0	0	0	0	1	4	2	0	1	0	0	0	0	A	0	0	0	0.4	3.6
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
10-Oct	0	0	0	0	1	0	0	10	1	0	0	0	0	1	0	0	6	A	0	0	0	0	0	0	0.9	10.0
11-Oct	0	0	4	10	4	0	0	0	0	0	0	1	2	7	5	2	A	15	1	0	0	0	0	0	2.2	14.7
12-Oct	0	0	0	0	0	0	0	0	0	0	0	5	4	16	13	A	37	86	28	7	0	0	0	0	8.6	85.7
13-Oct	0	0	0	0	0	0	0	0	0	3	10	7	6	5	A	7	6	26	24	3	0	6	6	19	5.6	26.4
14-Oct	3	0	1	0	15	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0.9	15.4
15-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	1	0	0	0	0	0	0	0.2	0.8
16-Oct	0	0	0	0	0	0	0	0	0	0	1	A	1	1	1	0	0	0	0	0	1	2	3	2	0.5	3.0
17-Oct	3	4	3	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	4	10	5	0	1.8	10.4
18-Oct	0	2	5	7	2	0	0	0	0	0	A	2	3	6	3	2	0	0	0	0	0	0	0	0	1.5	6.7
19-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	22	6	3	0	0	0	0	2	2	2	4	1.9	21.9
20-Oct	0	0	3	5	1	1	3	A	0	4	8	5	3	1	1	1	1	2	1	0	0	0	0	0	1.6	7.7
21-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	6	5	2	1	0	0	3	1	0	0.8	6.4
22-Oct	0	0	0	0	0	A	0	0	0	0	0	C	C	C	C	4	28	21	14	3	0	0	0	0	3.7	27.9
23-Oct	0	0	0	0	A	0	0	0	0	0	19	16	7	2	4	0	0	0	0	0	0	0	0	0	2.2	19.4
24-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	3	4	1	0	0	0	0	0	0	0	0	0.3	3.8
25-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	0	0	0.4	2.0
26-Oct	0	A	0	0	0	1	1	0	0	0	2	0	1	1	1	1	2	0	0	0	0	0	0	0	0.5	1.6
27-Oct	A	0	0	1	6	5	0	0	0	5	3	2	2	2	2	1	0	0	0	0	0	0	0	A	1.4	6.0
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0.2	0.5
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	8	2	12	14	6	0	A	0	0	2.0	13.6
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10	3	1	10	1	2	A	18	19	5	3.2	19.3
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0.1	1.0
0.2 0.2 0.6 0.9 1.0 0.3 0.2 0.4 0.1 0.5 1.6 1.5 1.3 2.6 1.9 1.4 3.1 6.0 3.0 0.9 0.4 1.5 1.4 1.1																									Diurnal Average	
2.8 3.6 5.4 9.8 15.4 4.9 2.5 10.0 1.0 5.4 19.4 16.3 7.1 21.9 13.5 7.7 37.2 85.7 27.9 7.5 4.1 18.4 19.3 19.0																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Valleyview - October 2015



Hourly Maximums

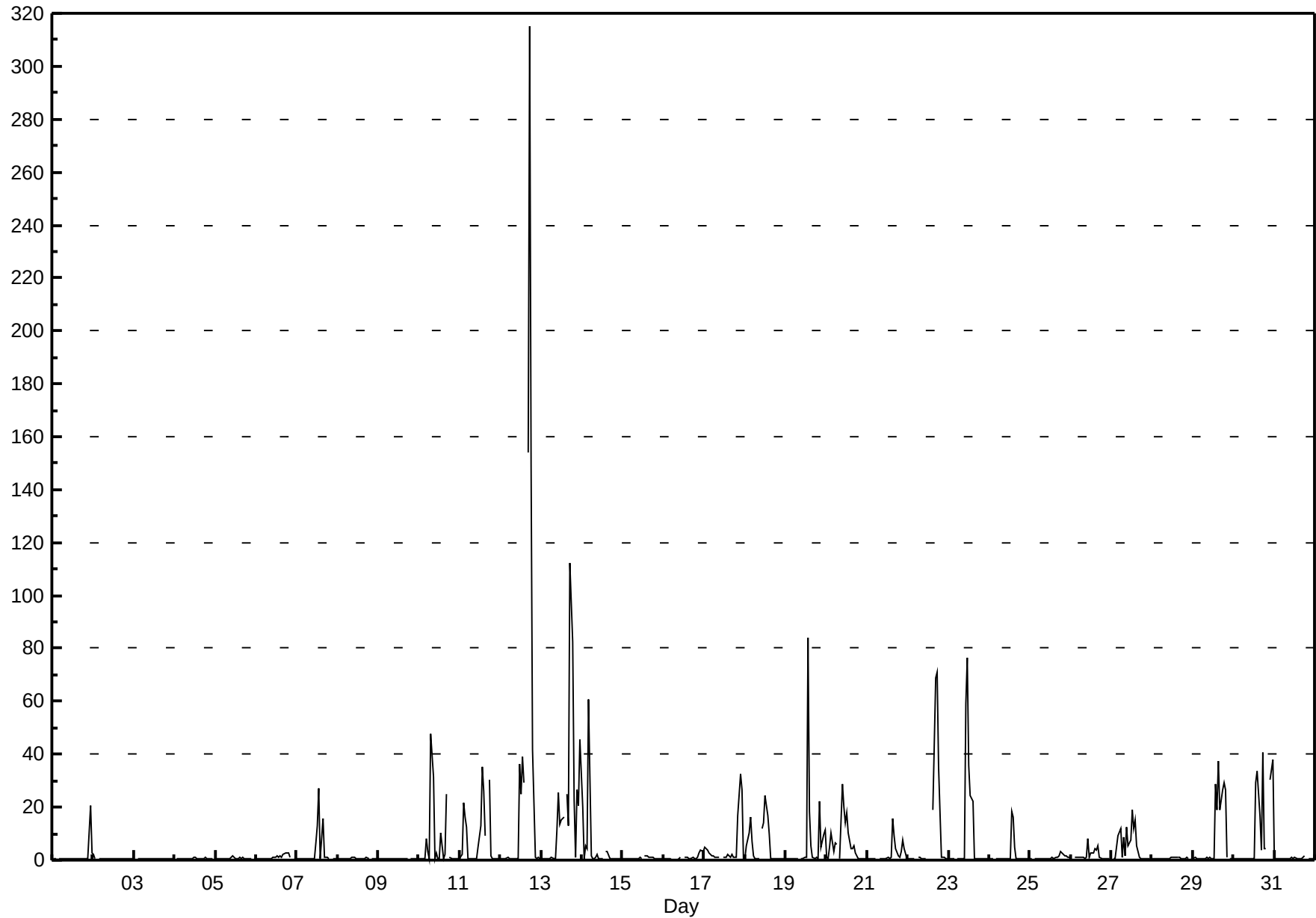
Sulphur Dioxide (SO₂) - ppb

Valleyview - October 2015

Maximum Value: 315.1 ppb on Oct 12 18:00																				Maximum Daily Average: 34.8 ppb on Oct 12					Hours in Service: 744		
Minimum Value: 0 ppb on Oct 16 09:00																				Minimum Daily Average: 0.4 ppb on Oct 9					Hours of Data: 707		
Maximum Diurnal Average: 20.7 ppb at hour 18																				Minimum Diurnal Average: 0.7 ppb at hour 7					Hours of Missing Data: 37		
Monthly Average: 5.18 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 1.2 P ₉₀ = 15.3 P ₉₉ = 72.6					Hours of Calibration: 37		
																									Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	0	1	1	A	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	21	3	1.5	20.6	
2-Oct	2	0	A	0	0	0	0	0	0	0	1	1	0	1	0	1	1	0	1	0	1	1	1	1	0.5	2.0	
3-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	0.6	
4-Oct	A	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	0	0	0	1	A	0.5	0.9	
5-Oct	0	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.5	
6-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	3	1	A	0	0	1.1	2.9	
7-Oct	0	1	0	1	0	0	0	1	0	1	1	6	13	27	1	16	1	1	1	1	A	0	1	0	3.2	27.3	
8-Oct	0	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	1	1	0	A	0	0	0	1	0.5	0.9	
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	A	0	0	0	1	0	0.4	0.6	
10-Oct	0	0	0	0	8	3	1	48	32	0	3	0	0	10	0	2	25	A	1	0	0	1	0	0	6.0	48.0	
11-Oct	0	2	22	16	13	0	0	0	0	0	0	5	13	35	26	9	A	30	1	0	0	0	1	0	7.8	35.0	
12-Oct	1	0	0	0	1	1	1	1	0	0	0	37	25	39	29	A	154	315	149	42	1	1	1	1	34.8	315.1	
13-Oct	0	0	0	1	1	0	1	1	0	11	25	14	15	17	A	25	13	112	83	23	1	26	20	46	19.0	112.1	
14-Oct	20	1	5	4	61	1	0	0	1	2	1	0	1	A	3	3	0	0	1	1	1	0	0	0	4.7	60.7	
15-Oct	0	0	0	0	0	0	0	0	1	1	1	0	A	1	1	1	1	1	1	1	1	0	0	0	0.7	1.4	
16-Oct	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	1	1	1	3	4	3	1.0	4.0	
17-Oct	5	5	4	3	2	2	1	1	1	1	1	A	1	1	1	2	1	2	1	1	1	17	33	26	1	4.9	32.7
18-Oct	1	6	11	16	7	2	1	1	1	A	12	14	25	17	10	1	1	1	1	1	1	1	1	1	5.5	24.6	
19-Oct	1	0	0	0	0	0	0	0	A	0	0	1	1	84	18	5	1	0	1	0	22	5	10	11	7.2	84.1	
20-Oct	1	0	5	10	3	7	6	A	1	29	20	14	18	10	4	4	5	3	1	1	0	1	0	0	6.3	29.0	
21-Oct	0	0	0	0	0	0	A	0	1	0	0	0	1	1	1	16	9	4	1	1	3	8	4	0	2.4	15.8	
22-Oct	0	0	0	0	0	A	1	1	0	0	1	C	C	C	C	19	69	71	35	18	1	1	1	1	11.6	71.2	
23-Oct	1	1	1	1	A	1	1	1	1	1	59	76	36	24	22	1	1	1	1	1	1	1	1	1	9.9	76.2	
24-Oct	1	1	1	A	1	1	1	1	0	0	0	0	1	18	17	5	0	0	0	0	0	0	0	0	2.1	18.2	
25-Oct	0	0	A	0	0	0	0	1	0	1	0	1	1	1	1	1	1	2	3	3	2	2	1	1	1.0	3.0	
26-Oct	1	A	1	1	1	1	1	1	1	1	8	1	3	3	4	4	5	1	1	1	1	1	1	1	1.8	8.2	
27-Oct	A	1	1	5	9	12	1	9	1	12	6	8	19	12	15	6	1	1	1	1	1	1	1	A	5.5	19.2	
28-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	A	1	0.7	1.0	
29-Oct	1	1	0	1	0	1	0	0	1	0	1	0	0	29	19	37	19	27	29	26	1	A	1	0	8.6	37.3	
30-Oct	1	0	1	1	0	0	0	0	0	0	1	0	0	29	34	17	4	41	4	4	A	30	34	38	10.5	40.8	
31-Oct	1	1	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	2	A	1	0	0	0	0.6	1.6	
1.4 0.9 2.0 2.3 3.8 1.3 0.7 2.4 1.6 2.3 4.9 6.4 6.2 12.7 7.4 6.0 10.7 20.7 10.9 4.5 2.1 4.1 4.6 3.9																								Diurnal Average			
20.0 5.6 21.9 16.5 60.7 12.0 6.2 48.0 31.5 29.0 58.9 76.2 35.9 84.1 33.6 37.3 153.9 315.1 149.0 41.8 22.5 32.7 34.4 45.8																								Diurnal Maximum			
C - Calibration A - Automated Daily Zero Span																											

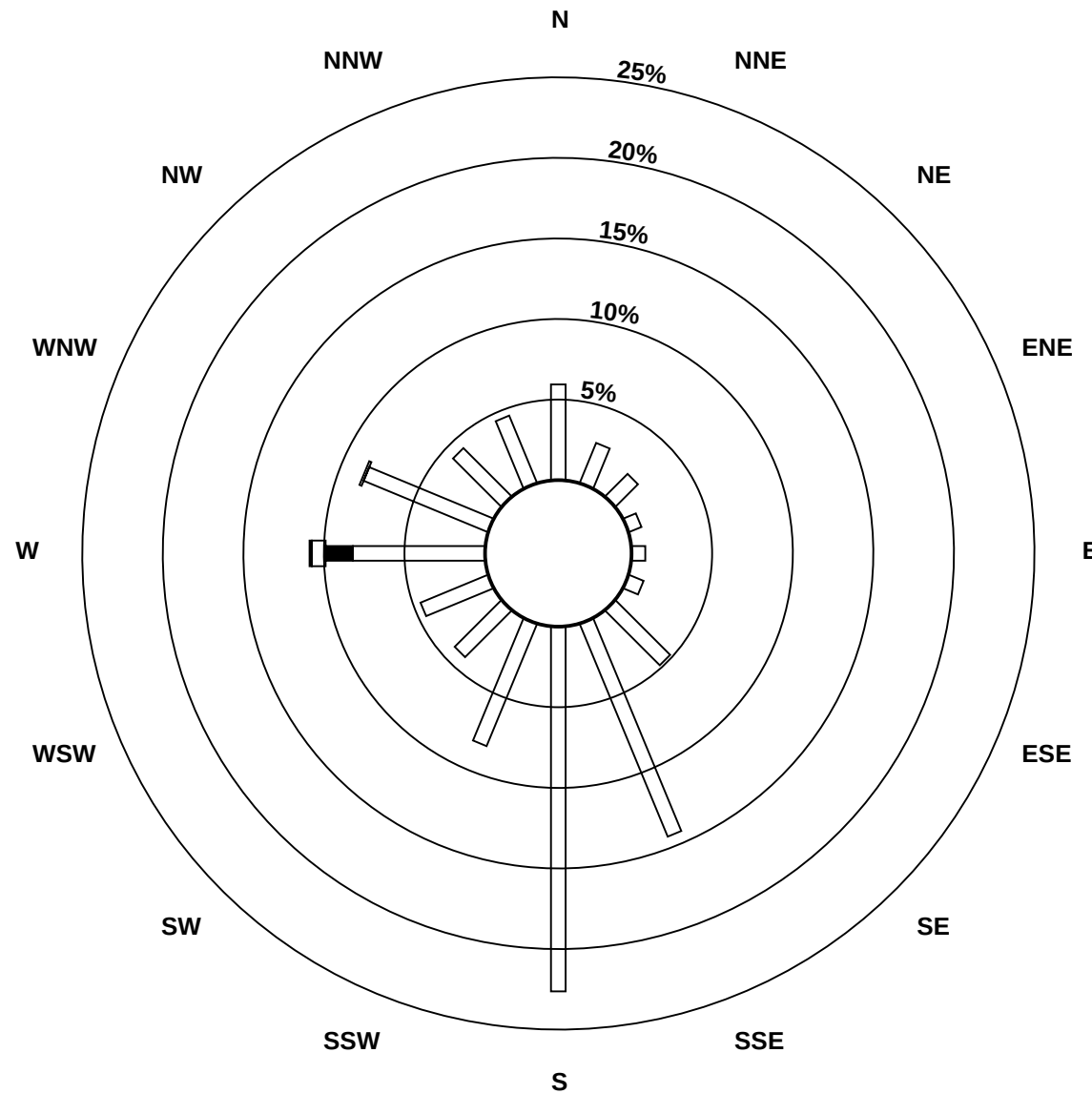
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - October 2015

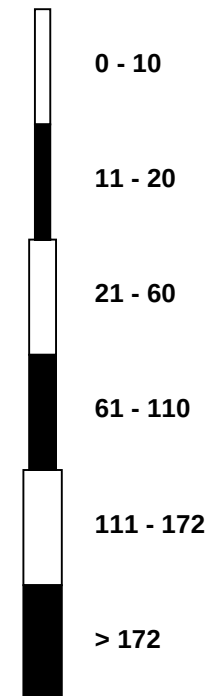


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - October 2015

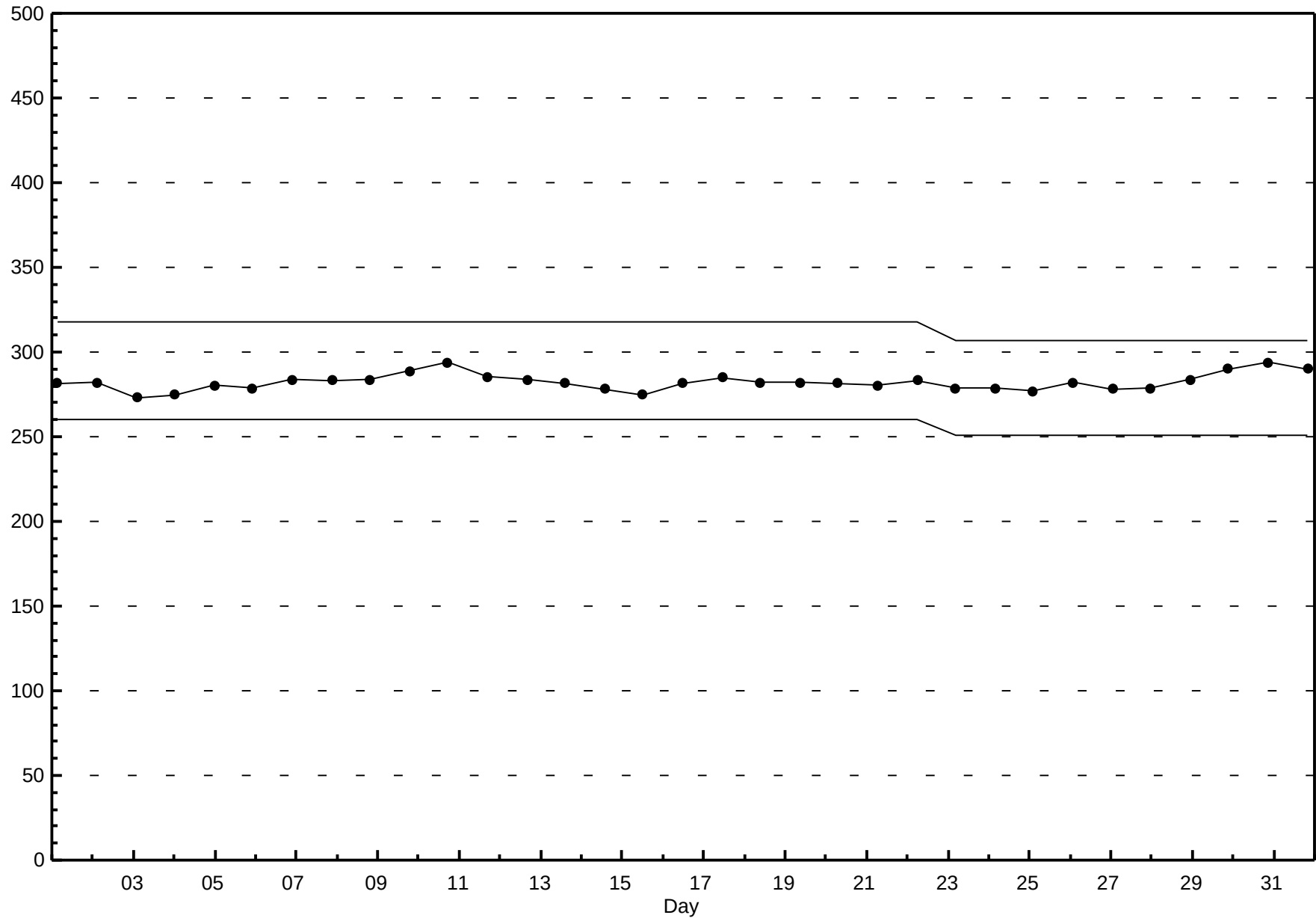


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - October 2015



Hourly Averages

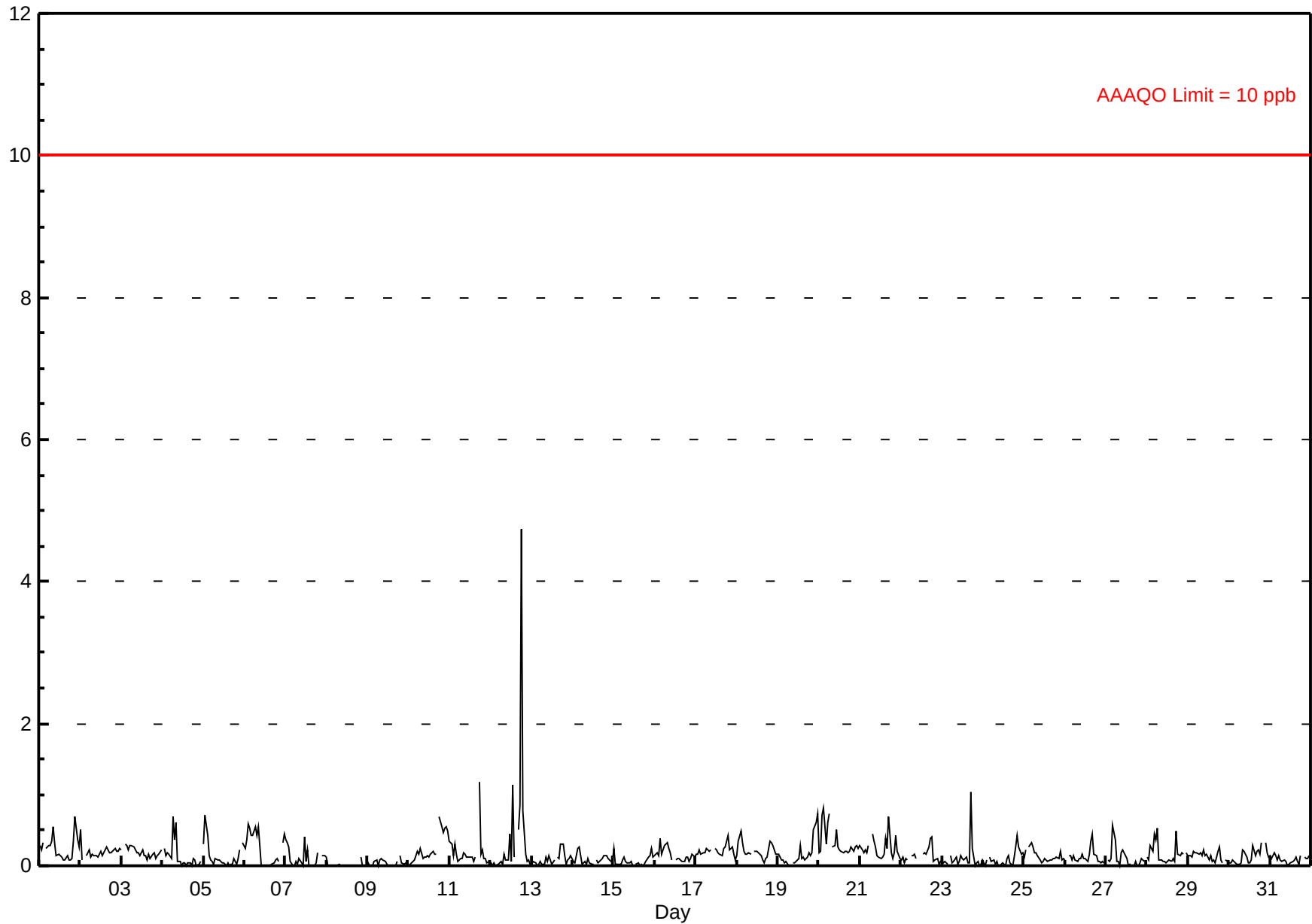
Hydrogen Sulphide (H₂S) - ppb

Valleyview - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.7 ppb on Oct 12 19:00 Maximum Daily Average: 0.4 ppb on Oct 12																				Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Oct 4 12:00 Maximum Diurnal Average: 0.3 ppb at hour 19 Monthly Average: 0.16 ppb										Minimum Daily Average: 0.0 ppb on Oct 8 Minimum Diurnal Average: 0.1 ppb at hour 13 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.7																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.7
2-Oct	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
4-Oct	A	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.7
5-Oct	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.7
6-Oct	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.6
7-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.4
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	0	0	0.2	0.7
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0.2	1.2
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	1	5	1	0	0	0	0	0.4	4.7
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
15-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
16-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
17-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
19-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	0.7
20-Oct	0	0	1	1	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
21-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.7
22-Oct	0	0	0	0	0	A	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	1.0
24-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
25-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
27-Oct	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.6
28-Oct	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.5
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.3 0.2 0.2 0.2 0.2 0.2																								Diurnal Average		
0.5 0.7 0.7 0.8 0.6 0.6 0.7 0.4 0.6 0.3 0.5 0.5 0.2 1.1 0.3 0.4 0.5 1.2 4.7 0.8 0.5 0.7 0.6 0.7																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Valleyview - October 2015



Hourly Maximums

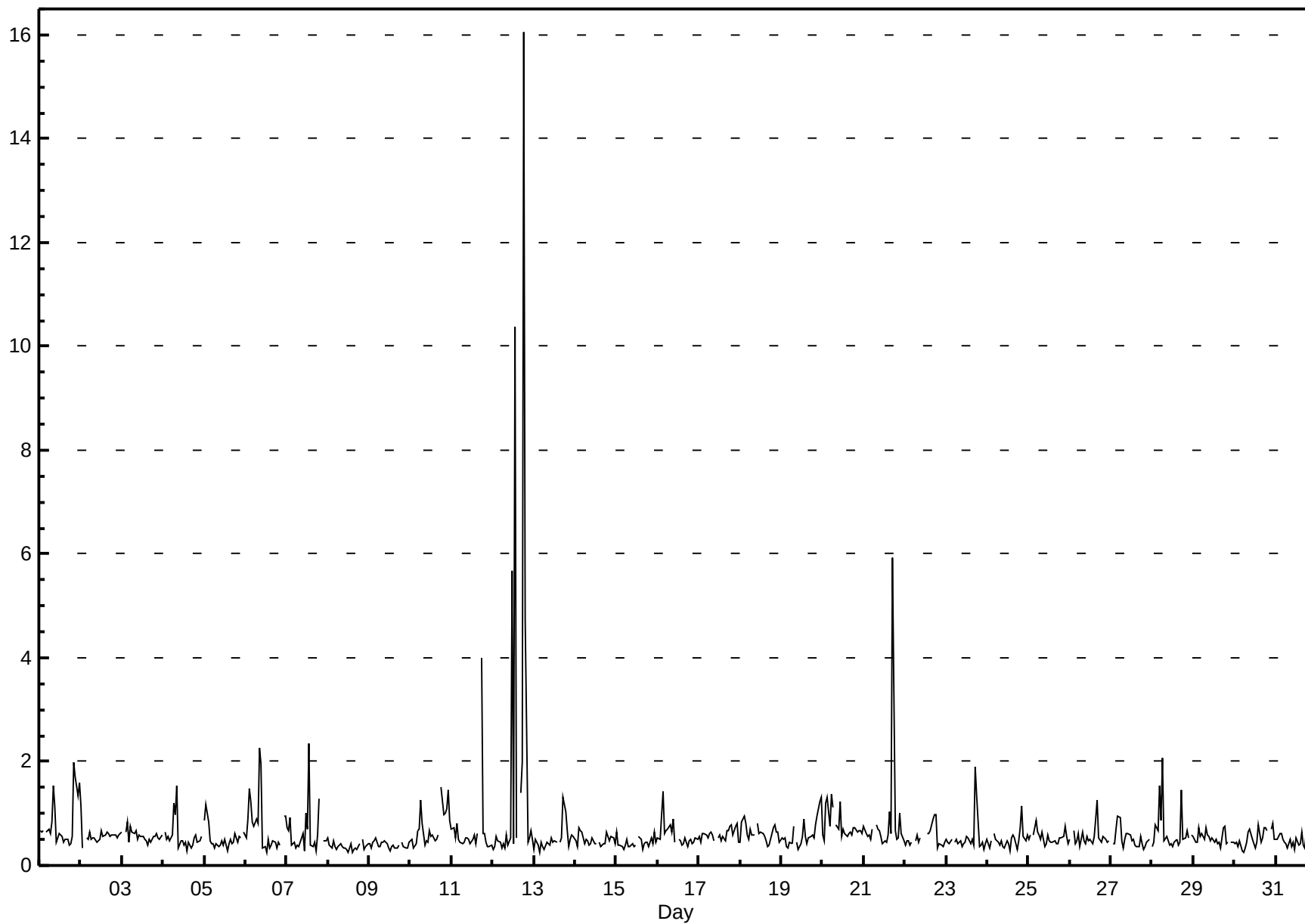
Hydrogen Sulphide (H₂S) - ppb

Valleyview - October 2015

Maximum Value: 16.0 ppb on Oct 12 19:00																			Maximum Daily Average: 2.1 ppb on Oct 12																			Hours in Service: 744	
Minimum Value: 0 ppb on Oct 8 13:00																			Minimum Daily Average: 0.4 ppb on Oct 8																			Hours of Data: 708	
Maximum Diurnal Average: 1.2 ppb at hour 19																			Minimum Diurnal Average: 0.5 ppb at hour 15																			Hours of Missing Data: 36	
Monthly Average: 0.63 ppb																			Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.9 P ₉₉ = 1.4																			Hours of Calibration: 36	
																																						Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Oct	1	1	1	A	1	1	1	1	2	1	0	1	1	1	0	1	0	0	0	1	2	2	1	2	0.8	2.0													
2-Oct	1	0	A	1	0	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.2													
3-Oct	1	A	1	1	0	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	1	0.6	0.8													
4-Oct	A	1	0	1	0	1	1	1	2	0	0	0	0	0	0	0	0	0	1	1	0	0	1	A	0.6	1.5													
5-Oct	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	A	1	0.5	1.2													
6-Oct	1	1	1	1	1	1	1	1	2	2	0	0	0	1	0	0	0	0	0	0	0	A	1	1	0.8	2.3													
7-Oct	1	1	1	0	0	0	0	0	0	1	0	1	1	2	0	0	0	0	1	1	A	0	0	0	0.6	2.4													
8-Oct	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0.4	0.5													
9-Oct	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5													
10-Oct	0	1	0	0	1	1	1	1	0	0	0	1	1	1	0	1	1	A	1	1	1	1	1	1	0.7	1.5													
11-Oct	1	1	1	1	0	0	0	0	1	1	0	0	1	1	0	1	A	4	1	1	0	0	0	0	0.7	4.0													
12-Oct	0	0	1	0	0	0	0	0	1	0	1	6	0	10	1	A	1	2	16	5	0	1	1	1	2.1	16.0													
13-Oct	0	1	0	0	0	0	0	0	0	0	1	0	0	0	A	0	1	1	1	1	0	1	1	1	0.5	1.3													
14-Oct	0	0	1	1	1	0	1	0	0	0	1	0	0	A	0	0	0	0	1	1	0	1	1	0	0.5	0.7													
15-Oct	1	0	0	0	0	0	1	0	0	0	0	0	A	1	1	0	0	0	0	0	1	0	1	0	0.4	0.7													
16-Oct	1	1	1	1	1	1	1	1	1	1	0	A	1	0	0	0	1	0	0	1	0	0	1	0	0.6	1.4													
17-Oct	1	0	1	1	1	1	1	1	1	0	A	1	1	0	1	0	1	1	1	1	1	1	1	0	0.6	0.8													
18-Oct	0	1	1	1	1	0	1	1	1	A	1	1	1	1	1	0	0	0	1	1	1	1	1	0	0.6	1.0													
19-Oct	1	0	1	0	0	0	0	1	A	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	0.6	1.3													
20-Oct	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4													
21-Oct	1	1	1	1	1	1	A	1	1	1	1	0	0	0	1	1	1	6	1	1	1	1	1	0	0.9	5.9													
22-Oct	0	0	0	0	0	A	0	1	0	1	C	C	C	1	1	1	1	1	1	0	0	0	0	0	0.5	1.0													
23-Oct	0	0	0	0	A	0	1	0	0	0	0	0	1	1	0	1	0	2	1	0	0	0	0	0	0.5	1.9													
24-Oct	1	0	0	A	1	1	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	0	1	0.5	1.1													
25-Oct	1	1	A	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	1	1	1	1	1	0	0.5	0.9													
26-Oct	1	A	1	0	0	1	0	1	0	0	1	0	0	0	1	1	1	1	0	1	1	0	0	0	0.6	1.3													
27-Oct	A	0	0	1	1	1	0	0	0	1	1	1	0	1	0	0	0	1	0	0	0	0	1	A	0.5	1.0													
28-Oct	0	0	1	1	2	1	2	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	0.7	2.1													
29-Oct	1	0	0	1	1	1	0	1	1	1	0	1	0	1	0	0	0	1	1	0	0	A	0	0	0.5	0.7													
30-Oct	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	1	1	1	A	1	1	1	0.5	0.8													
31-Oct	0	1	1	1	1	0	0	0	1	0	0	0	1	0	0	1	0	0	1	A	0	0	1	0	0.5	0.7													
0.6 0.5 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.5 0.7 0.5 0.9 0.5 0.5 0.5 0.9 1.2 0.7 0.6 0.6 0.6 0.6																								Diurnal Average															
1.2 1.2 1.5 1.4 1.5 1.4 2.1 1.0 2.3 2.0 1.2 5.7 0.7 10.4 0.8 1.0 1.4 5.9 16.0 4.8 2.0 1.7 1.5 1.6																								Diurnal Maximum															
C - Calibration A - Automated Daily Zero Span																																							

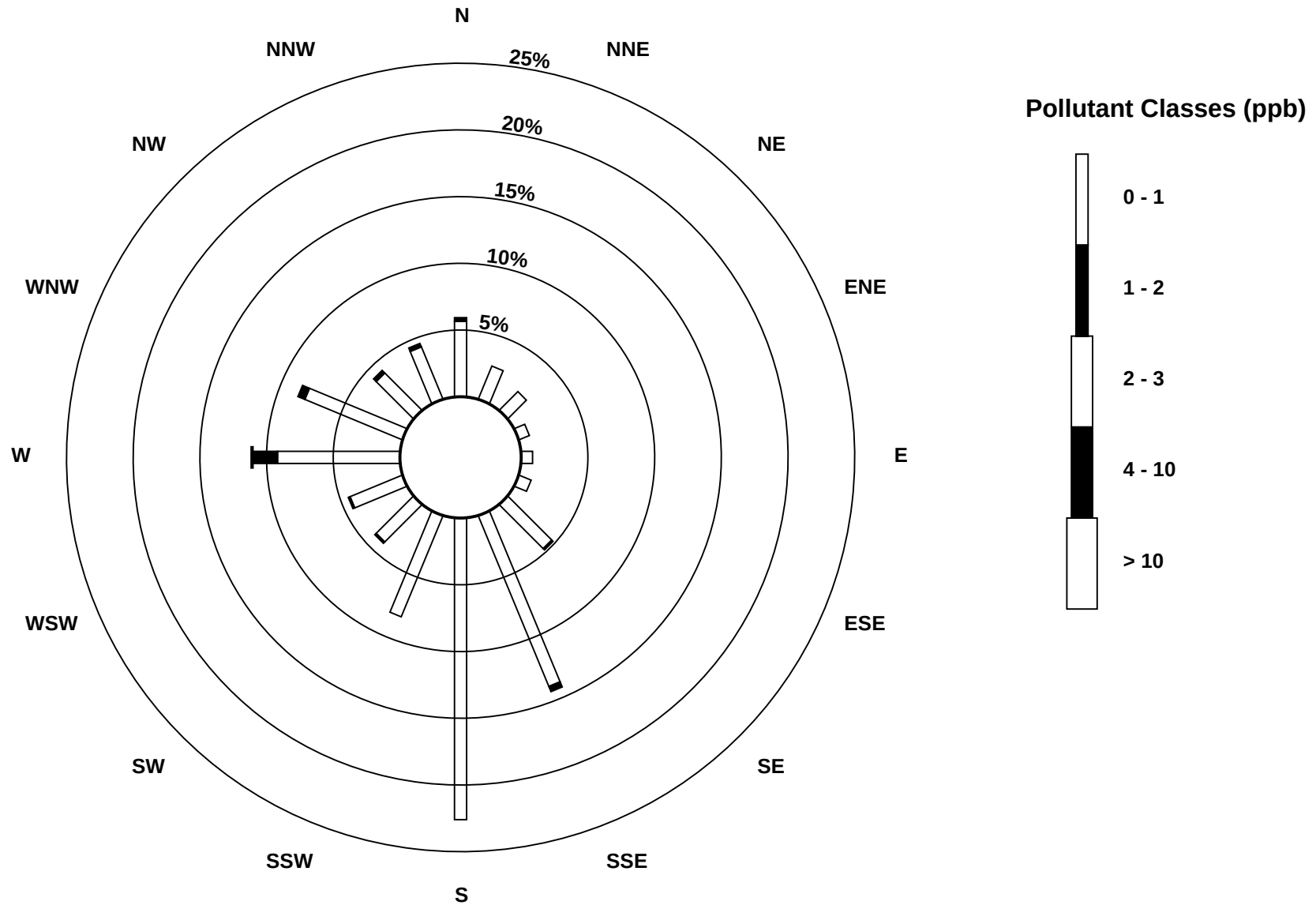
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - October 2015



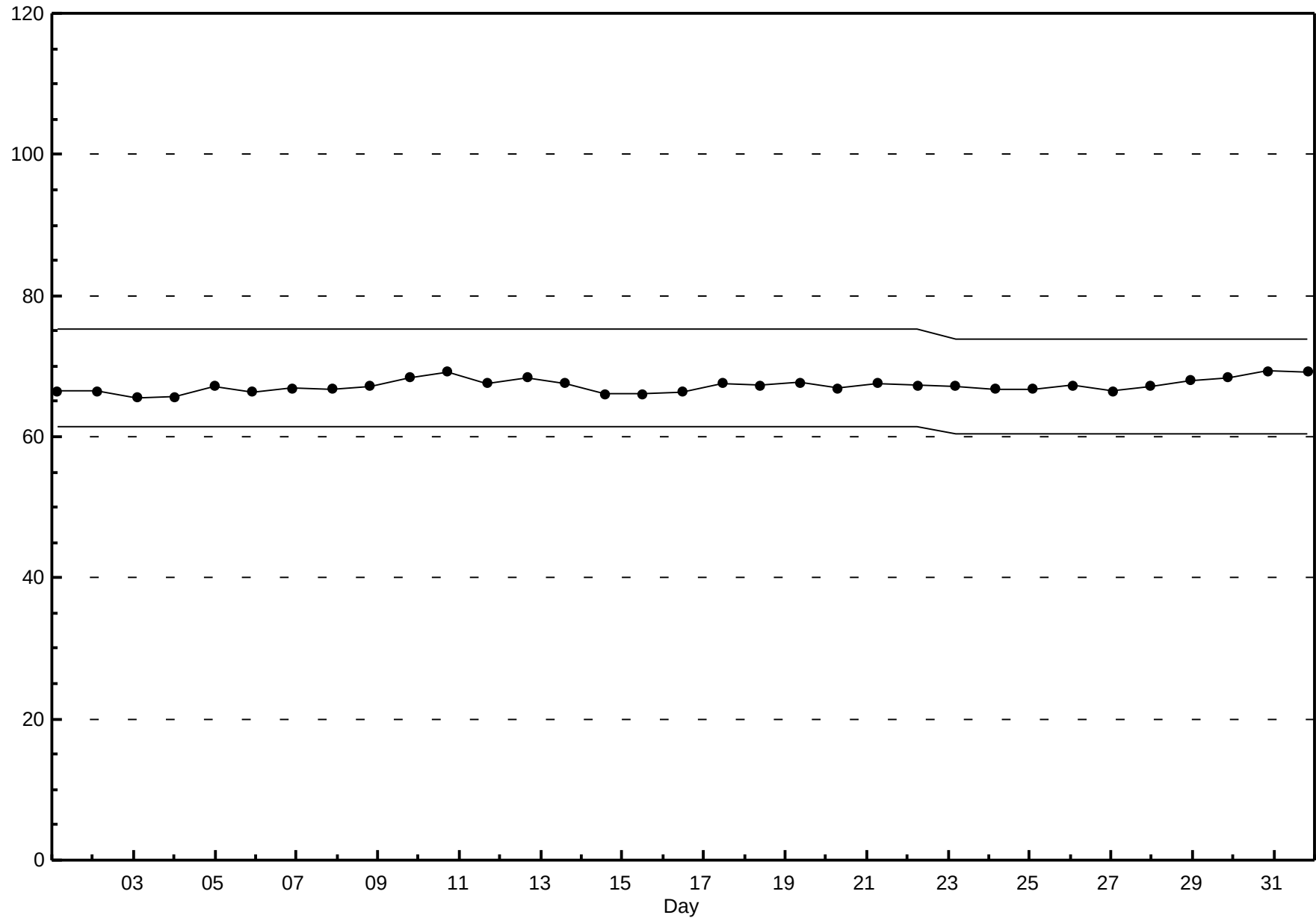
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - October 2015



Span Responses

Hydrogen Sulphide (H₂S)
Valleyview - October 2015



Hourly Averages

External Temperature (ET) - °C

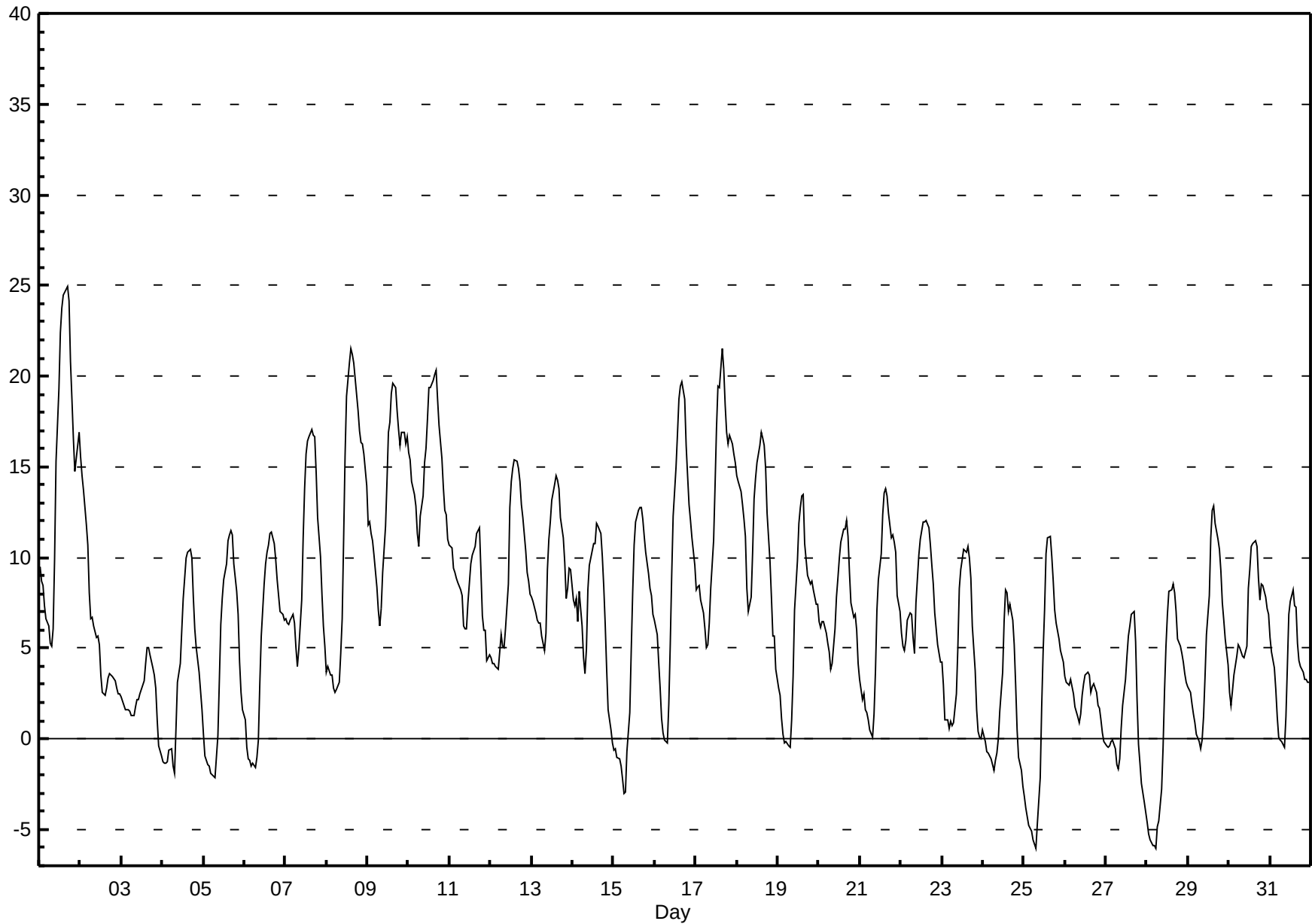
Valleyview - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 24.9 °C on Oct 1 17:00 Maximum Daily Average: 15.3 °C on Oct 10																						Hours in Service: 744 Hours of Data: 744				
Minimum Value: -6 °C on Oct 25 08:00 Minimum Daily Average: 1.1 °C on Oct 27 Maximum Diurnal Average: 12.7 °C at hour 16 Minimum Diurnal Average: 2.1 °C at hour 8 Monthly Average: 7.06 °C Percentiles: P ₁ = -5.2 P ₁₀ = -0.4 Q ₁ = 2.8 Median = 6.6 Q ₃ = 10.9 P ₉₀ = 15.4 P ₉₉ = 20.7																						Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	10	9	8	7	7	6	5	5	6	10	15	19	22	24	24	25	25	24	21	19	17	15	16	17	14.8	24.9
2-Oct	16	15	14	12	11	8	7	7	6	6	6	5	4	3	2	3	3	4	3	3	3	3	2	3	6.1	15.5
3-Oct	2	2	2	2	2	2	1	1	2	2	2	3	3	3	4	5	5	5	4	4	3	1	0	-1	2.4	5.1
4-Oct	-1	-1	-1	-1	-1	-1	-1	-2	1	3	4	6	8	9	10	10	10	10	8	6	5	4	3	2	3.7	10.5
5-Oct	0	-1	-1	-1	-2	-2	-2	-2	0	3	6	8	9	10	11	11	12	11	10	8	7	4	3	2	4.3	11.5
6-Oct	1	0	-1	-1	-1	-1	-2	-1	0	3	6	8	10	10	11	11	11	11	10	9	8	7	7	7	5.1	11.4
7-Oct	7	6	6	7	7	6	5	4	5	8	11	14	16	16	17	17	17	17	15	12	10	8	6	5	10.0	17.1
8-Oct	4	4	3	3	3	3	3	3	5	7	11	16	19	21	21	21	21	20	18	17	16	16	16	14	11.8	21.5
9-Oct	12	12	11	11	10	8	7	6	7	9	12	14	17	17	19	20	19	18	17	16	17	17	16	17	13.8	19.6
10-Oct	16	15	14	14	13	11	11	12	13	15	16	18	19	19	20	20	20	19	17	15	14	13	12	11	15.3	20.3
11-Oct	11	11	9	9	9	9	8	8	6	6	6	7	10	10	10	11	11	12	9	7	6	6	4	5	8.3	11.6
12-Oct	4	4	4	4	4	5	6	5	5	6	9	13	14	15	15	15	15	14	13	12	10	9	9	8	9.1	15.4
13-Oct	8	8	7	7	6	6	6	5	6	9	11	12	13	14	15	14	14	12	11	10	8	8	9	9	9.5	14.5
14-Oct	8	7	8	6	8	6	4	4	5	8	10	10	11	11	12	12	11	10	8	6	4	2	0	0	7.2	11.9
15-Oct	-1	-1	-1	-1	-2	-2	-3	-3	-1	1	5	8	11	12	13	13	13	12	11	10	9	8	8	7	5.3	12.8
16-Oct	7	6	4	3	1	0	0	0	2	5	9	12	15	17	19	19	20	19	16	14	13	12	11	10	9.7	19.7
17-Oct	8	8	8	8	7	6	5	5	6	8	11	14	17	19	19	22	20	18	17	16	17	16	16	15	12.9	21.5
18-Oct	14	14	14	13	12	11	8	7	8	10	13	14	15	16	17	17	16	15	12	10	8	6	6	4	11.7	16.9
19-Oct	3	2	1	0	0	0	0	0	1	3	7	10	12	13	13	13	11	9	9	9	9	8	7	7	6.1	13.5
20-Oct	6	6	6	6	6	5	5	4	4	6	8	9	10	11	12	12	12	11	9	7	7	7	6	4	7.5	12.1
21-Oct	3	2	2	2	1	1	1	0	1	4	7	9	10	12	14	14	13	12	11	11	11	10	8	7	7.0	13.8
22-Oct	6	5	5	5	7	7	7	6	5	8	10	11	11	12	12	12	12	11	10	9	7	5	5	4	7.9	12.1
23-Oct	4	3	1	1	1	1	1	1	3	5	8	9	10	10	10	11	10	9	6	4	2	0	0	0	4.6	10.6
24-Oct	0	0	-1	-1	-1	-1	-2	-1	-1	0	1	4	6	8	8	7	7	7	5	3	0	-1	-2	-3	1.9	8.2
25-Oct	-3	-4	-4	-5	-5	-6	-6	-6	-5	-2	2	5	7	10	11	11	10	9	7	6	6	5	5	4	2.2	11.1
26-Oct	3	3	3	3	3	2	2	1	1	1	2	3	4	4	4	3	3	3	3	2	2	1	0	0	2.3	3.7
27-Oct	0	0	0	0	0	-1	-1	-2	-1	1	2	3	5	6	6	7	7	5	2	0	-1	-2	-4	-4	1.1	7.0
28-Oct	-5	-5	-6	-6	-6	-6	-5	-5	-3	0	3	5	7	8	8	9	8	7	5	5	5	4	4	3	1.5	8.5
29-Oct	3	3	2	1	1	0	0	-1	0	1	3	6	8	11	13	13	12	11	10	9	8	7	6	4	5.4	12.8
30-Oct	3	2	3	4	5	5	5	5	5	5	5	8	9	11	11	11	11	9	8	9	8	8	7	7	6.7	10.9
31-Oct	6	5	4	3	1	0	0	0	-1	1	4	7	8	8	7	7	5	4	4	4	3	3	3	3	3.7	8.2
5.0 4.5 4.0 3.7 3.4 2.9 2.4 2.1 3.0 4.9 7.3 9.4 10.9 12.0 12.5 12.7 12.4 11.5 10.0 8.8 7.7 6.8 6.1 5.5 Diurnal Average																										
15.8 15.4 14.2 13.5 12.9 11.4 10.6 12.3 13.4 15.2 16.0 19.3 22.4 23.7 24.4 24.6 24.9 24.2 20.8 18.7 16.9 16.9 16.3 16.9 Diurnal Maximum																										

Hourly Averages

External Temperature (ET) - °C

Valleyview - October 2015



Hourly Averages

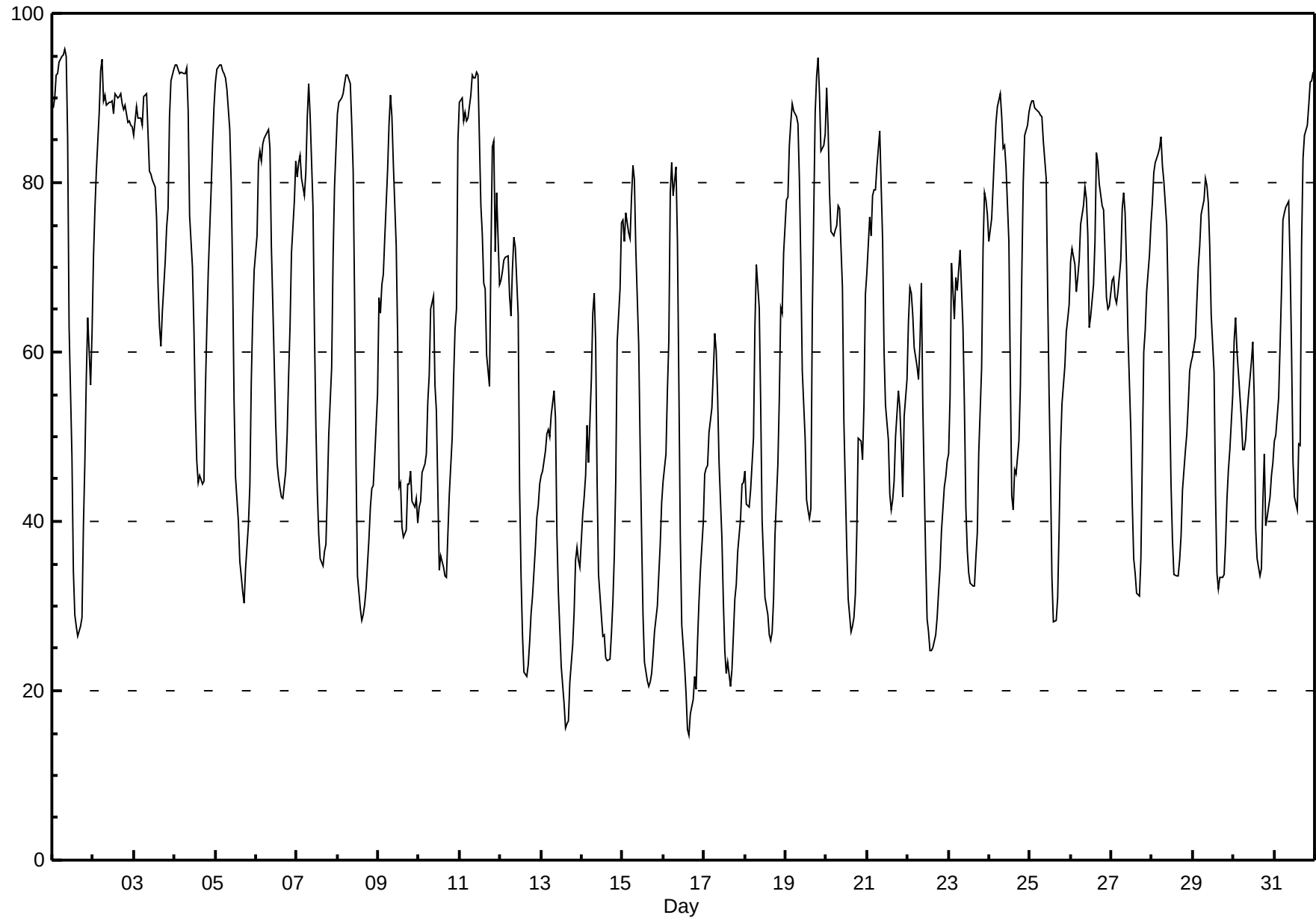
Relative Humidity (RH) - %

Valleyview - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 95.7 % on Oct 1 08:00 Maximum Daily Average: 87.8 % on Oct 2																				Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0						
Minimum Value: 15 % on Oct 16 16:00 Minimum Daily Average: 35.7 % on Oct 13 Maximum Diurnal Average: 79.5 % at hour 8 Minimum Diurnal Average: 37.2 % at hour 16 Monthly Average: 59.80 % Percentiles: P ₁ = 18.9 P ₁₀ = 30.5 Q ₁ = 42.1 Median = 60.8 Q ₃ = 79.1 P ₉₀ = 89.0 P ₉₉ = 94.0																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	89	90	93	93	94	95	95	96	95	85	63	48	34	29	28	26	28	29	39	47	57	64	56	62	63.9	95.7
2-Oct	71	77	81	88	93	94	90	90	89	89	90	88	90	90	90	90	91	89	89	89	87	87	87	87	87.8	94.5
3-Oct	86	89	88	88	88	87	90	90	86	81	81	80	79	76	68	63	61	65	71	75	77	88	92	93	80.9	93.3
4-Oct	94	94	93	93	93	93	93	94	89	76	70	63	53	47	45	45	44	45	55	63	69	79	85	89	73.5	94.0
5-Oct	92	93	94	94	93	93	92	91	86	80	69	54	45	40	35	34	32	30	34	40	44	57	64	70	64.9	93.9
6-Oct	74	82	84	83	85	85	86	86	84	72	66	52	47	45	44	43	43	46	50	57	63	72	78	83	67.0	86.3
7-Oct	81	82	83	80	78	81	88	92	88	77	63	51	44	39	36	35	36	37	44	50	58	71	80	84	64.9	91.6
8-Oct	88	90	90	91	92	93	93	92	87	81	66	47	34	30	28	29	30	32	38	42	44	44	48	55	60.9	92.8
9-Oct	66	65	68	69	73	81	87	90	88	82	73	62	44	45	39	38	39	44	44	46	42	42	43	40	58.8	90.3
10-Oct	42	42	46	47	48	54	57	65	67	56	53	44	34	36	35	34	33	39	43	50	57	63	65	85	49.7	85.0
11-Oct	89	90	87	88	87	88	90	93	92	92	93	93	77	74	68	67	60	56	71	84	85	72	79	68	81.0	93.1
12-Oct	68	69	71	71	71	67	64	70	74	72	64	44	34	27	22	22	23	26	29	31	37	40	42	44	49.3	73.5
13-Oct	46	46	48	50	51	50	52	55	52	38	32	27	23	18	16	16	16	21	25	29	35	37	36	35	35.7	55.5
14-Oct	41	43	45	51	47	57	65	67	61	45	34	29	26	27	24	23	24	27	31	36	45	61	67	75	43.8	75.2
15-Oct	76	73	76	74	73	78	82	80	72	61	49	39	29	23	21	21	21	22	24	27	30	34	37	42	48.6	82.0
16-Oct	45	48	55	61	79	82	79	82	73	56	38	28	23	20	15	15	17	19	22	20	26	31	34	40	42.0	82.3
17-Oct	46	46	47	51	53	58	62	60	55	47	38	31	25	22	23	20	23	27	31	33	36	40	44	45	40.1	62.3
18-Oct	46	42	42	44	47	50	63	70	65	54	40	36	31	29	27	26	27	31	38	47	55	65	65	72	46.2	71.6
19-Oct	78	78	84	87	89	89	88	87	80	70	58	50	43	41	40	42	65	88	93	95	91	84	84	86	74.5	94.7
20-Oct	91	86	79	74	74	74	75	77	77	68	52	44	37	31	27	28	29	31	39	50	49	47	54	67	56.7	91.2
21-Oct	69	76	74	78	79	79	82	86	80	73	60	54	50	43	41	43	45	50	55	53	49	43	52	57	61.3	86.1
22-Oct	64	68	67	64	60	58	57	61	68	54	36	28	27	25	25	25	27	29	32	34	39	44	45	47	45.2	68.1
23-Oct	48	55	71	64	69	67	70	72	63	54	42	37	34	33	32	32	36	39	48	58	72	79	78	76	55.3	78.8
24-Oct	73	76	80	84	87	89	91	88	84	84	82	73	57	43	41	46	46	50	56	69	80	86	87	88	72.4	90.5
25-Oct	89	90	90	89	88	88	88	88	85	81	67	55	46	33	28	28	31	39	49	54	58	62	64	66	64.9	89.6
26-Oct	71	72	70	67	69	71	75	77	79	78	74	63	64	68	73	84	82	80	77	77	72	67	65	65	72.5	83.6
27-Oct	68	69	66	66	67	71	77	79	76	70	62	51	42	36	34	32	31	36	48	60	63	67	72	75	59.0	78.8
28-Oct	78	81	82	83	84	85	82	80	75	66	55	44	38	34	34	34	35	38	44	48	50	54	58	59	59.3	85.5
29-Oct	60	62	66	70	73	76	78	80	80	78	72	64	58	43	34	32	33	33	34	37	43	46	49	55	56.5	80.5
30-Oct	61	64	60	57	52	49	48	50	53	55	59	61	55	39	36	34	34	42	48	39	40	43	45	47	48.8	64.1
31-Oct	50	50	55	61	67	76	76	77	78	71	60	47	43	41	49	49	73	83	86	87	89	92	92	93	68.5	93.0
69.0 70.6 72.1 72.9 74.4 76.1 77.9 79.5 76.8 69.3 60.0 51.2 44.0 39.5 37.3 37.2 39.1 42.7 48.0 52.5 56.2 60.0 62.8 66.1 Diurnal Average																										
94.0 93.9 93.9 93.9 94.3 94.9 95.1 95.7 95.0 92.3 93.1 92.7 88.2 90.4 90.0 90.2 90.6 89.4 92.5 94.7 90.5 91.8 92.1 93.3 Diurnal Maximum																										

Hourly Averages

Relative Humidity (RH) - %
Valleyview - October 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - October 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	1	0	0	0	0	0	0	0	0	1	1	2	2	2	2	1	1	3	2	0	0	3	3	0.2	3.2
Dir	161	185	221	171	275	125	314	23	166	204	7	319	195	175	166	128	357	53	17	349	282	165	255	296	258	255
2 Spd	1	1	0	0	1	14	12	8	12	11	10	14	16	12	12	14	13	15	16	16	15	14	12	9	10.0	16.0
Dir	241	236	248	129	22	358	358	4	352	336	341	348	338	328	336	340	347	354	357	354	355	353	355	354	348	338
3 Spd	13	8	8	6	6	4	5	4	4	2	3	3	4	6	2	1	4	4	5	2	1	0	0	0	3.7	12.5
Dir	346	349	351	351	348	4	14	19	24	69	42	12	22	4	1	13	330	326	326	335	66	177	179	354	357	346
4 Spd	0	0	0	0	1	1	0	1	1	6	6	8	7	8	5	5	4	3	1	2	2	2	1	0	2.5	8.1
Dir	118	216	54	340	187	147	9	353	145	161	169	162	172	173	176	204	185	189	175	171	176	179	168	322	173	162
5 Spd	0	0	1	1	1	1	0	1	1	2	0	2	2	3	2	2	1	1	2	2	1	2	1	0	0.5	2.9
Dir	76	350	181	199	179	164	176	188	164	149	115	11	41	11	45	23	19	61	87	77	42	333	310	282	48	11
6 Spd	0	0	2	1	1	0	1	0	1	1	1	3	2	1	1	1	0	1	1	0	0	0	0	1	0.2	3.0
Dir	334	34	340	334	331	198	167	155	287	176	187	165	185	179	268	355	5	307	15	335	258	208	242	322	235	165
7 Spd	1	0	1	1	1	0	0	0	1	2	2	2	3	10	11	10	7	2	1	2	1	0	1	0	1.9	11.4
Dir	350	123	253	189	171	146	160	191	28	43	40	353	341	321	302	321	341	343	35	358	317	160	182	198	329	302
8 Spd	1	2	1	2	1	2	1	1	0	1	2	2	5	4	4	4	3	1	0	0	1	2	1	1	1.7	5.4
Dir	187	195	195	197	186	192	202	178	188	172	164	158	166	167	164	148	146	166	176	220	197	183	178	148	171	166
9 Spd	1	2	1	1	2	1	0	1	1	0	1	1	4	4	3	1	1	0	2	2	5	6	5	5	1.9	6.3
Dir	161	155	183	183	197	199	255	353	340	31	312	145	171	171	169	169	177	200	181	181	173	178	178	173	176	178
10 Spd	5	6	4	4	2	2	1	11	5	4	12	13	13	6	7	5	2	1	2	2	1	2	2	1	3.0	12.8
Dir	171	170	164	170	293	152	273	283	235	207	242	239	246	279	311	310	276	7	308	302	43	324	289	101	249	239
11 Spd	2	12	19	16	18	14	7	5	6	3	4	0	9	9	12	6	4	2	1	1	2	2	1	3	5.4	19.0
Dir	296	289	283	277	283	302	293	345	9	3	11	212	286	284	285	291	301	266	198	170	163	156	182	182	290	283
12 Spd	2	3	2	3	3	6	3	1	0	1	2	7	17	20	20	21	19	13	11	11	4	3	3	4	6.3	21.1
Dir	175	185	184	176	168	170	174	260	275	193	175	232	258	262	266	267	266	271	267	259	216	186	178	197	248	267
13 Spd	4	3	3	2	3	3	3	2	3	5	12	16	17	18	21	22	20	14	12	3	1	8	10	9	8.0	22.3
Dir	201	198	198	192	198	213	215	178	162	249	271	278	275	273	273	273	272	275	272	247	175	262	261	264	264	273
14 Spd	1	2	1	1	6	1	1	1	1	9	15	16	15	14	13	13	12	7	2	2	1	2	1	2	4.9	15.7
Dir	194	229	336	217	276	179	205	192	162	286	296	295	308	310	300	306	306	308	290	229	183	159	170	158	294	295
15 Spd	2	1	1	1	0	0	0	0	0	3	2	3	5	6	7	6	4	3	2	2	0	1	0	1	1.9	6.6
Dir	155	161	170	180	196	181	214	232	174	163	177	157	161	160	157	147	129	126	105	139	354	172	189	180	154	157
16 Spd	1	0	0	0	0	1	1	0	0	1	3	3	1	1	4	6	5	2	4	6	4	5	4	1	2.1	5.8
Dir	174	340	286	284	145	316	215	106	166	177	168	157	169	111	138	130	142	145	135	146	159	170	168	174	152	130
17 Spd	4	7	6	3	5	3	3	4	5	6	5	4	3	3	3	1	4	5	2	1	5	4	5	8	2.4	7.9
Dir	168	171	173	179	180	194	192	181	177	169	161	172	179	179	259	205	293	301	304	294	274	261	272	293	210	293
18 Spd	9	10	10	7	2	3	1	1	1	2	9	9	10	6	4	6	5	3	1	0	1	2	1	1	3.4	10.5
Dir	296	279	275	264	247	249	164	184	212	203	289	276	275	288	294	329	355	25	183	207	184	162	184	174	281	275
19 Spd	0	0	0	0	0	1	1	1	1	3	3	1	0	1	1	4	12	5	1	2	4	7	5	3	1.4	12.2
Dir	187	295	167	189	175	187	176	178	213	172	160	165	240	284	354	327	321	311	189	180	262	279	279	270	279	321
20 Spd	2	5	6	9	7	8	9	5	1	2	8	9	12	11	10	6	1	0	0	1	1	1	0	0	4.3	11.8
Dir	227	245	271	273	292	278	267	243	149	230	277	277	283	293	287	287	277	87	169	189	163	182	137	190	274	283
21 Spd	0	0	0	0	0	1	0	0	1	1	2	2	3	3	1	1	1	1	3	2	4	3	1	2	1.0	3.8
Dir	210	173	234	147	308	326	308	161	252	187	197	173	170	176	201	322	158	289	152	222	254	263	157	194	205	254
22 Spd	2	1	2	2	1	2	3	3	2	3	10	19	18	20	19	17	16	13	10	8	4	2	2	4	6.8	20.0
Dir	174	164	196	179	174	201	232	238	162	174	238	263	260	264	281	285	272	275	268	254	243	226	203	233	259	264

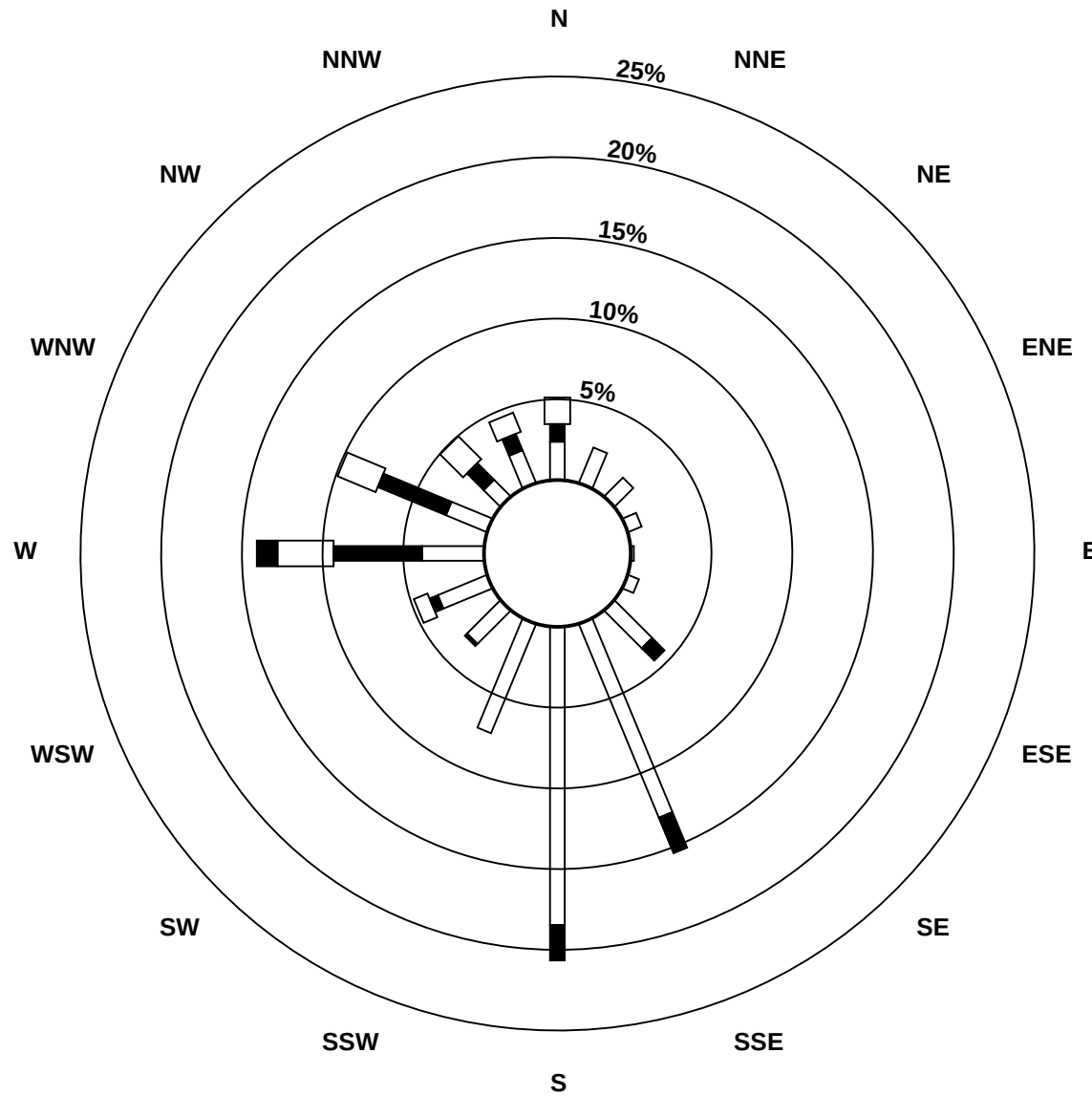
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - October 2015

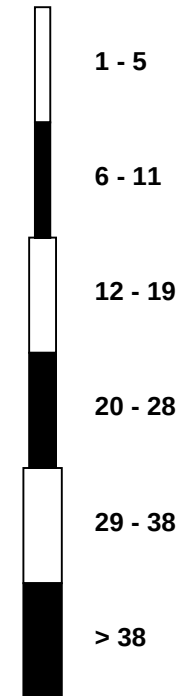
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
23 Spd	3	1	2	2	2	2	2	2	3	3	11	13	15	12	13	11	6	2	1	1	1	1	2	2	3.3	15.5			
Dir	219	162	158	193	187	163	157	177	203	177	260	272	278	287	286	303	294	279	194	182	157	165	174	154	264	278			
24 Spd	2	2	2	2	2	1	2	2	2	1	2	2	3	3	4	0	1	0	0	0	0	0	0	0	1.0	3.9			
Dir	163	153	142	151	143	153	149	136	181	176	162	166	168	260	275	202	146	22	295	360	128	177	219	163	175	275			
25 Spd	0	0	0	0	0	0	0	0	0	1	1	1	1	8	8	6	7	8	6	6	4	2	3	4	2.6	8.3			
Dir	145	334	227	177	355	169	231	136	155	224	169	139	11	139	152	145	146	132	141	140	149	174	173	153	146	152			
26 Spd	3	2	8	8	6	5	5	3	2	2	2	7	8	9	10	8	7	9	12	11	12	13	15	13	4.6	14.7			
Dir	168	194	166	166	170	175	175	180	200	202	261	308	289	288	293	280	281	300	308	305	304	309	320	323	285	320			
27 Spd	12	9	10	9	9	5	2	2	3	2	5	9	8	5	3	2	1	0	0	0	0	0	0	0	3.4	11.7			
Dir	324	321	306	288	274	260	187	201	233	259	286	279	288	278	263	271	162	82	165	76	225	196	166	223	286	324			
28 Spd	0	0	1	0	2	0	1	2	4	5	10	8	8	6	3	2	2	1	1	4	3	4	2	3	2.6	9.9			
Dir	80	356	279	135	341	247	230	185	168	160	166	170	171	175	185	187	253	257	138	160	188	165	165	176	174	166			
29 Spd	2	1	1	1	0	1	1	1	1	1	1	1	1	5	11	14	12	11	11	5	2	2	3	1	3.1	14.4			
Dir	181	196	197	179	357	208	194	190	205	247	178	163	154	257	249	261	253	268	269	251	144	173	179	189	244	261			
30 Spd	1	1	1	0	3	5	3	2	1	0	2	5	3	8	13	14	12	10	4	13	10	11	10	5	4.5	13.8			
Dir	203	188	185	176	183	171	172	179	280	265	169	174	183	265	272	283	288	300	262	279	267	268	263	245	261	283			
31 Spd	2	3	2	1	1	2	2	1	0	0	1	3	4	3	2	5	8	3	2	4	4	2	2	1	1.2	7.7			
Dir	207	222	231	197	185	166	178	199	190	79	177	137	127	117	356	164	157	120	42	64	41	42	19	34	139	157			
Spd	0.8	1.3	1.5	1.5	1.5	1.0	0.7	0.7	0.4	0.9	2.4	3.3	4.2	4.5	5.1	4.5	3.7	2.6	1.8	1.3	1.0	1.4	1.4	1.2	Diurnal Average				
Dir	243	245	254	240	252	251	242	241	215	209	250	259	264	271	275	283	282	293	288	270	260	254	259	254	Diurnal Maximum				
Spd	12.5	12.2	19.0	15.7	18.0	14.4	11.6	10.6	12.2	11.3	15.2	18.7	18.0	20.0	21.4	22.3	20.4	14.7	15.6	15.8	14.9	13.5	14.7	13.0	Diurnal Maximum				
Dir	346	289	283	277	283	302	358	283	352	336	296	263	260	264	273	273	272	354	357	354	355	353	320	323					
Maximum Speed Value: 22 km/h on Oct 13 16:00																		Minimum Speed Value: 0 km/h on Oct 28 01:00										Hours in Service: 744	
Maximum Daily Speed Average: 10.0 km/h on Oct 2																		Minimum Daily Speed Average: 0.2 km/h on Oct 6										Hours of Data: 744	
Maximum Diurnal Speed Average: 5.1 km/h at hour 15																		Minimum Diurnal Speed Average: 0.4 km/h at hour 9										Hours of Missing Data: 0	
Monthly Average Velocity: 1.93 km/h 265.2 deg																		Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.9 Median = 2.1 Q ₃ = 5.4 P ₉₀ = 11.4 P ₉₉ = 20.0										Percent Operational Time: 100.0	
All monthly, daily, and diurnal averages have been calculated using vector methods																													
Frequency Distribution																													
		Speed Range (km/h)																											
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																						
North	47	11	14	0	0	0	72																						
NorthEast	24	0	0	0	0	0	24																						
East	13	0	0	0	0	0	13																						
SouthEast	59	13	0	0	0	0	72																						
South	255	27	0	0	0	0	282																						
SouthWest	59	4	3	0	0	0	66																						
West	51	42	36	8	0	0	137																						
NorthWest	41	16	21	0	0	0	78																						
Total	549	113	74	8	0	0	744																						

Wind Rose

Wind Speed (WS) (km/h)
Valleyview - October 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - October 2015

Maximum Speed: 23 km/h on Oct 13 16:00																				Maximum Daily Speed Average: 10.4 km/h on Oct 2										Hours in Service: 744	
Minimum Speed: 0 km/h on Oct 7 07:00																				Minimum Daily Speed Average: 1.2 km/h on Oct 6										Hours of Data: 744	
Maximum Diurnal Speed Average: 7.9 km/h at hour 15																				Minimum Diurnal Speed Average: 2.2 km/h at hour 9										Hours of Missing Data: 0	
Monthly Average Speed: 4.23 km/h																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.6 Q ₁ = 1.1 Median = 2.4 Q ₃ = 5.6 P ₉₀ = 11.6 P ₉₉ = 20.3										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Oct	1	1	1	1	1	0	1	0	1	1	2	2	2	2	2	2	1	1	3	2	1	0	4	3	1.4	4.0					
2-Oct	1	1	0	0	1	14	12	8	12	11	10	14	16	12	12	14	13	15	16	16	15	14	12	9	10.4	16.1					
3-Oct	13	8	9	7	6	4	6	4	4	3	3	4	4	6	3	2	5	4	5	2	1	0	0	1	4.3	12.7					
4-Oct	1	1	1	1	1	1	0	1	1	6	6	8	7	8	5	5	4	3	1	2	2	2	1	0	2.9	8.2					
5-Oct	0	0	1	1	1	1	0	1	1	2	2	3	3	4	3	3	2	2	2	2	1	2	1	1	1.6	3.9					
6-Oct	1	0	2	1	1	0	1	0	1	1	2	3	2	2	2	1	1	1	1	1	1	2	1	1	1.2	3.2					
7-Oct	1	1	1	1	1	0	0	0	1	3	2	3	4	11	12	11	7	2	1	3	1	0	1	1	2.8	11.7					
8-Oct	1	2	1	2	1	2	1	1	1	1	2	3	6	4	4	4	3	1	0	0	2	2	1	1	1.9	5.6					
9-Oct	1	2	1	1	2	1	0	1	1	1	2	1	4	4	3	1	1	1	2	2	5	6	5	5	2.3	6.3					
10-Oct	5	6	4	4	3	2	2	11	5	4	12	13	13	6	7	5	2	2	3	2	2	2	3	2	5.1	13.0					
11-Oct	3	13	19	16	18	15	7	6	7	3	4	2	9	10	12	6	5	2	1	2	2	2	1	3	7.0	19.2					
12-Oct	3	3	2	3	3	6	3	2	1	1	3	9	17	20	21	21	20	13	11	11	4	3	3	4	7.8	21.4					
13-Oct	4	3	3	3	3	3	3	2	3	5	12	16	17	18	22	23	21	14	12	4	1	9	10	9	9.1	22.6					
14-Oct	1	2	4	2	6	1	1	1	1	9	16	16	15	15	14	14	13	7	2	2	1	2	1	2	6.2	16.0					
15-Oct	2	1	1	1	0	0	0	0	0	3	2	3	5	7	7	6	4	3	3	2	1	1	0	1	2.2	6.9					
16-Oct	1	1	0	1	0	1	1	0	0	2	3	3	2	3	4	6	6	2	4	6	4	5	4	1	2.5	5.9					
17-Oct	4	7	7	3	5	3	3	4	5	6	5	4	3	3	3	1	4	5	2	2	6	4	5	8	4.2	8.1					
18-Oct	9	10	10	7	3	3	1	1	1	2	9	9	11	6	5	7	5	3	1	0	1	2	1	1	4.5	10.9					
19-Oct	1	0	0	0	1	1	1	1	1	3	3	2	1	2	1	4	12	5	1	2	5	7	5	3	2.6	12.3					
20-Oct	2	5	6	9	7	8	9	5	1	4	8	9	12	12	10	6	1	0	1	1	1	1	0	0	5.0	12.1					
21-Oct	0	1	0	0	0	1	1	1	1	1	2	2	3	3	2	2	2	2	3	2	4	4	2	3	1.7	3.9					
22-Oct	2	2	2	2	2	2	3	4	2	3	10	19	18	21	19	17	17	13	10	8	4	2	2	4	7.8	20.6					
23-Oct	3	1	2	2	2	2	2	3	3	3	12	13	16	13	13	11	6	2	1	1	1	1	2	2	4.7	15.8					
24-Oct	2	2	2	2	2	1	2	2	2	1	2	3	3	4	4	1	1	1	0	0	1	0	1	0	1.6	4.4					
25-Oct	0	0	0	0	0	0	0	0	1	1	2	1	2	8	9	6	8	8	6	6	4	2	3	4	3.0	8.5					
26-Oct	3	2	8	8	6	5	5	4	2	2	4	7	8	9	10	8	7	9	12	11	12	13	15	13	7.6	14.9					
27-Oct	12	9	10	9	9	5	2	2	4	3	5	9	9	6	4	2	1	0	0	0	0	0	0	0	4.3	11.9					
28-Oct	0	1	1	1	2	1	1	2	4	5	10	9	8	6	3	2	2	1	1	4	3	4	2	3	3.2	10.0					
29-Oct	2	1	1	1	1	1	1	1	1	1	1	1	1	5	12	15	12	11	12	5	2	3	3	1	4.0	14.8					
30-Oct	1	1	1	1	3	5	3	2	3	1	2	5	3	9	13	14	12	12	4	13	10	11	10	5	6.0	14.1					
31-Oct	2	3	3	1	2	2	2	1	0	1	1	3	4	3	3	6	8	3	2	4	4	2	2	1	2.6	7.9					
2.7 2.9 3.3 2.9 3.0 3.0 2.4 2.3 2.2 2.9 5.1 6.4 7.5 7.7 7.9 7.4 6.5 4.7 3.9 3.8 3.3 3.5 3.3 3.0																									Diurnal Average						
12.7 12.7 19.2 15.9 18.2 14.7 11.8 11.1 12.4 11.4 15.5 19.2 18.3 20.6 21.9 22.6 20.7 14.9 15.7 16.0 15.2 13.6 14.9 13.1																									Diurnal Maximum						

All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - October 2015

Maximum Value: 97.6 deg on Oct 1 06:00																			Hours in Service: 744						
Minimum Value: 4.6 deg on Oct 9 23:00																			Hours of Data: 744						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 5.7 P ₁₀ = 8.6 Q ₁ = 12.3 Median = 20.6 Q ₃ = 45.9 P ₉₀ = 71.1 P ₉₉ = 93.1																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	27	45	45	48	77	98	81	62	72	93	49	62	54	33	33	59	70	49	29	68	67	58	50	21	97.6
2-Oct	39	54	70	91	80	10	11	11	12	8	13	8	8	9	9	8	9	9	7	8	11	7	8	11	90.9
3-Oct	8	13	9	8	11	12	14	15	19	33	40	35	40	19	62	90	55	17	8	37	39	28	84	80	90.4
4-Oct	50	43	92	87	44	80	84	44	47	11	10	11	11	12	19	27	16	14	8	6	7	7	18	87	92.2
5-Oct	94	77	20	13	9	6	24	25	16	17	86	56	72	51	72	57	66	32	15	16	35	42	49	66	94.1
6-Oct	93	95	15	84	53	46	48	46	71	39	20	19	31	68	76	65	55	73	53	92	82	83	78	85	94.7
7-Oct	56	63	61	21	17	70	69	30	72	13	44	42	54	22	14	27	17	60	60	17	58	58	39	35	72.0
8-Oct	26	7	10	14	12	18	42	44	37	26	24	29	14	19	23	19	13	6	20	23	27	7	13	10	43.7
9-Oct	9	11	33	13	7	18	58	60	62	97	69	77	13	13	15	56	9	73	13	15	6	6	5	6	97.2
10-Oct	5	5	7	5	63	27	73	21	21	32	23	13	13	29	18	25	67	78	54	86	49	62	58	86	86.1
11-Oct	69	34	9	8	9	11	12	31	26	26	20	67	12	11	12	19	24	37	20	55	22	32	17	16	69.4
12-Oct	12	11	8	9	9	5	13	67	84	65	33	39	13	12	10	11	10	9	11	10	17	11	7	7	84.4
13-Oct	8	12	8	8	9	8	11	24	24	36	17	14	13	14	12	9	10	9	9	31	26	32	11	10	35.8
14-Oct	46	18	85	60	16	17	20	11	23	32	11	11	14	18	20	18	9	10	59	13	17	11	23	14	84.6
15-Oct	17	13	31	28	19	71	42	38	34	13	39	33	27	15	16	16	11	6	41	13	78	20	42	20	77.6
16-Oct	50	78	75	76	52	77	48	75	26	35	24	30	73	81	22	13	14	11	10	8	9	7	7	12	80.6
17-Oct	6	7	8	13	7	13	11	6	11	10	13	16	16	21	33	54	33	6	72	64	33	19	35	13	71.6
18-Oct	13	9	9	9	22	14	42	21	16	31	19	17	18	27	53	13	17	32	40	21	23	8	35	38	53.1
19-Oct	87	80	34	65	42	36	18	34	53	10	29	54	76	53	65	65	7	12	50	14	42	14	12	14	86.7
20-Oct	23	9	11	7	11	11	8	19	27	47	16	15	13	18	16	15	28	72	45	30	17	18	68	92	91.8
21-Oct	65	80	49	59	88	53	83	47	52	59	21	13	8	13	31	59	58	58	24	27	21	28	71	14	87.8
22-Oct	18	22	12	16	28	42	21	20	17	22	23	13	11	14	12	11	10	10	10	9	16	18	15	12	41.6
23-Oct	29	32	13	11	24	38	13	41	8	19	15	13	12	16	14	12	16	27	19	18	42	17	19	21	41.6
24-Oct	15	26	19	16	17	24	17	21	15	42	11	11	40	39	32	63	36	94	88	95	97	18	67	62	96.6
25-Oct	63	75	79	44	88	49	73	50	16	45	41	56	60	20	14	16	12	9	8	8	17	34	11	15	87.7
26-Oct	19	20	7	7	8	9	8	10	14	17	46	15	13	11	10	9	11	14	9	11	10	10	9	9	46.0
27-Oct	12	15	11	13	9	24	23	24	26	68	40	22	17	33	46	46	34	42	49	90	64	79	66	40	90.4
28-Oct	82	93	64	63	29	71	37	15	14	10	9	10	10	11	14	19	38	40	33	11	24	9	13	6	92.7
29-Oct	8	14	14	23	81	23	21	29	54	60	45	56	22	59	11	13	11	14	14	26	23	40	7	14	81.4
30-Oct	12	30	23	89	8	6	10	16	88	68	57	8	21	19	13	12	12	28	28	8	13	9	10	29	89.4
31-Oct	13	11	28	13	29	13	12	11	70	93	58	21	12	13	67	56	11	22	31	26	14	60	22	25	93.4
94.1 94.7 92.2 90.9 87.8 97.6 84.5 74.9 87.9 97.2 86.1 76.9 76.1 80.6 76.4 90.4 70.1 93.6 88.5 94.6 96.6 83.0 83.6 91.8																									

PAZA
Falher Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

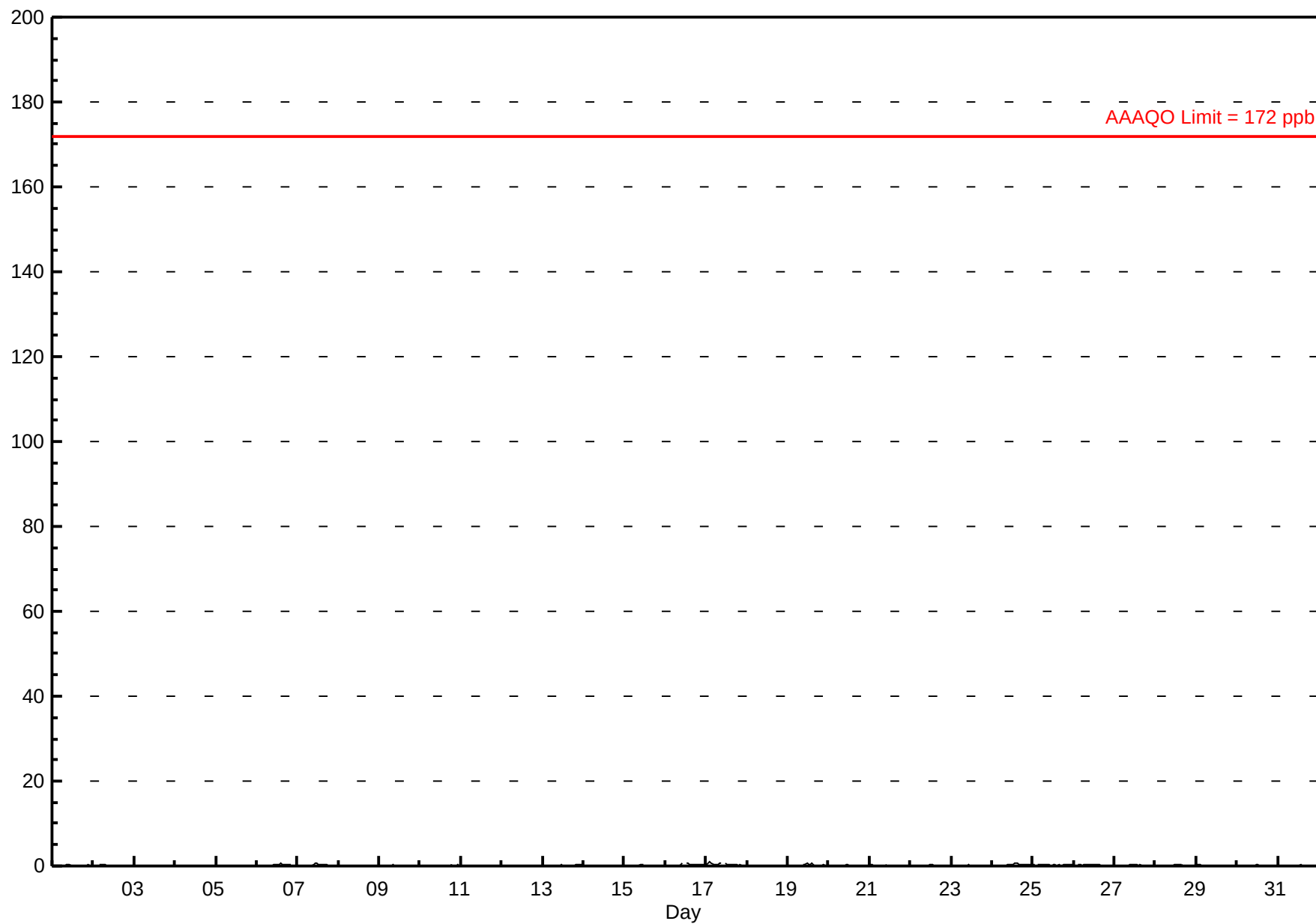
Sulphur Dioxide (SO₂) - ppb

Falher - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 0.9 ppb on Oct 17 03:00																				Maximum Daily Average: 0.4 ppb on Oct 17		Hours of Data: 707				
Minimum Value: 0 ppb on Oct 1 01:00																				Minimum Daily Average: 0.0 ppb on Oct 3		Hours of Missing Data: 37				
Maximum Diurnal Average: 0.2 ppb at hour 12																				Minimum Diurnal Average: 0.1 ppb at hour 23		Hours of Calibration: 37				
Monthly Average: 0.12 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.5		Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
6-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0.2	0.5
7-Oct	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.6
8-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1
9-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.2
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.1
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
16-Oct	0	0	0	0	0	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6
17-Oct	0	1	1	1	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
18-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
19-Oct	0	0	0	0	0	0	0	0	A	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.7
20-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
21-Oct	0	0	0	0	0	0	A	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Oct	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.3	0.8
25-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
26-Oct	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
27-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
28-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3
29-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
30-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.2
31-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
0.5 0.8 0.9 0.8 0.5 0.4 0.4 0.3 0.5 0.8 0.6 0.6 0.5 0.8 0.7 0.6 0.4 0.3 0.3 0.3 0.2 0.3 0.3 0.4																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Falher - October 2015



Hourly Maximums

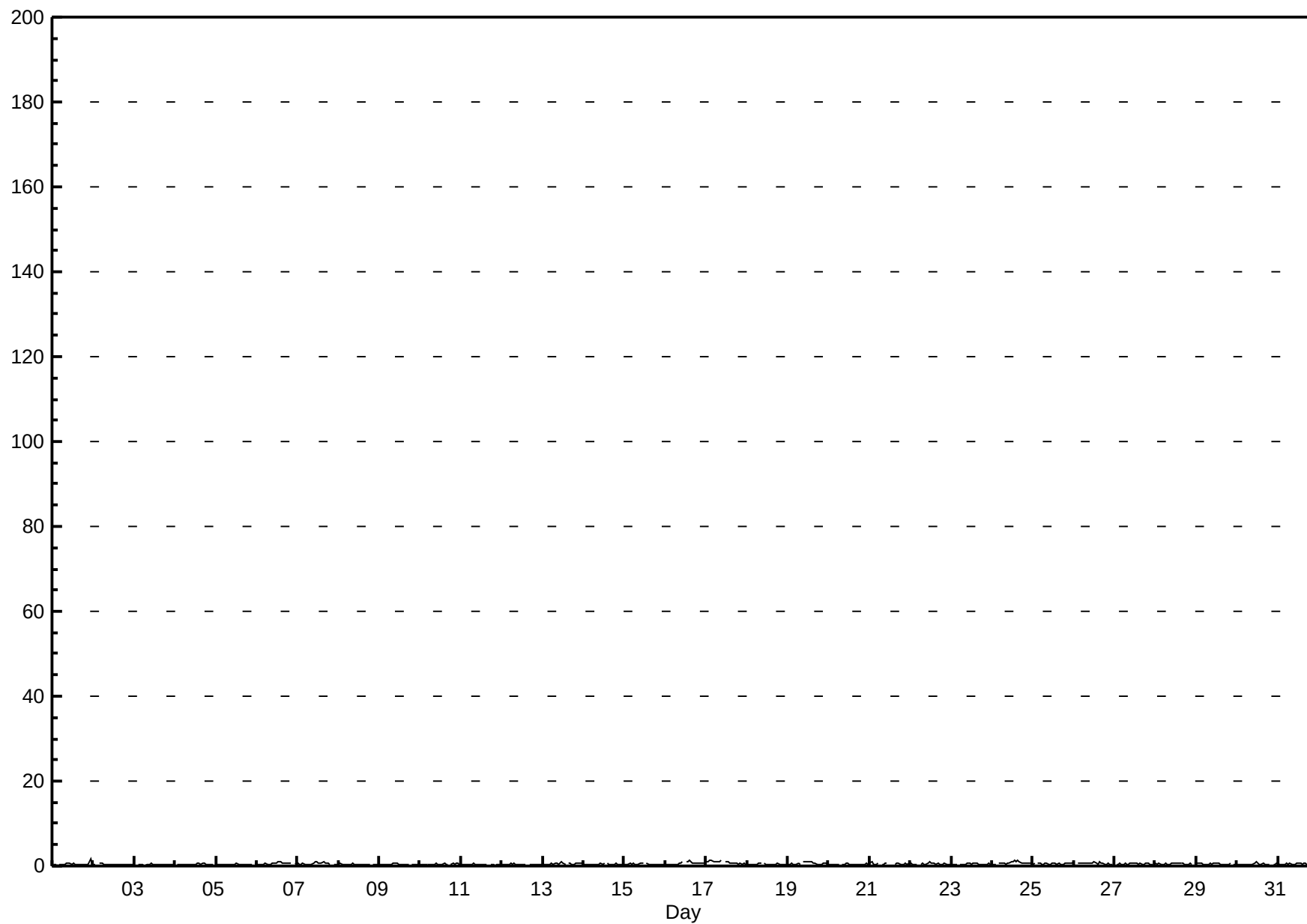
Sulphur Dioxide (SO₂) - ppb

Falher - October 2015

Maximum Value: 1.5 ppb on Oct 1 23:00																				Maximum Daily Average: 0.9 ppb on Oct 17																				Hours in Service: 744	
Minimum Value: 0 ppb on Oct 3 07:00																				Minimum Daily Average: 0.3 ppb on Oct 3																				Hours of Data: 707	
Maximum Diurnal Average: 0.6 ppb at hour 12																				Minimum Diurnal Average: 0.4 ppb at hour 19																				Hours of Missing Data: 37	
Monthly Average: 0.49 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.4 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 1.2																				Hours of Calibration: 37	
																																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																	
1-Oct	0	0	0	A	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	2	1	0.5	1.5																
2-Oct	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8															
3-Oct	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5															
4-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	A	0.4	0.6															
5-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	1	0.4	0.6																
6-Oct	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0.6	1.1															
7-Oct	1	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0.6	1.1															
8-Oct	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5															
9-Oct	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.8															
10-Oct	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	A	0	1	0	1	1	0	0.4	0.6															
11-Oct	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.6															
12-Oct	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.6															
13-Oct	0	0	0	0	0	1	0	1	1	0	1	1	1	0	A	1	1	0	0	1	1	1	1	1	0.5	1.0															
14-Oct	0	0	0	0	0	0	0	0	0	0	1	0	1	A	1	0	0	0	0	1	0	0	0	0	0.4	0.6															
15-Oct	0	0	0	1	0	1	0	0	0	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0.5	0.8															
16-Oct	0	0	0	0	0	0	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.2															
17-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0.9	1.4															
18-Oct	0	0	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0.4	0.7															
19-Oct	0	1	1	0	0	0	1	0	A	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0	0.6	1.1															
20-Oct	0	0	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.6															
21-Oct	1	1	0	0	0	1	A	0	1	1	1	C	C	C	C	0	1	1	0	0	0	1	0	1	0.5	0.9															
22-Oct	1	0	0	1	0	A	0	1	0	0	1	1	1	1	1	0	1	0	0	0	1	0	0	0	0.5	1.0															
23-Oct	0	0	0	0	A	0	1	0	0	1	1	1	0	1	1	1	0	0	0	0	0	0	1	0	0.5	0.7															
24-Oct	0	0	0	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2															
25-Oct	0	1	A	1	1	1	0	1	1	0	0	1	1	1	0	1	0	1	0	1	1	1	1	1	0.6	0.8															
26-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	0	0	0	0.6	1.1															
27-Oct	A	1	0	1	0	0	1	0	0	1	1	1	1	1	0	1	0	0	1	1	1	0	0	A	0.5	0.6															
28-Oct	1	0	1	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	0	1	0	A	1	0.6	0.8															
29-Oct	1	1	1	1	0	0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	1	A	0	0	0.5	0.7															
30-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	A	0	0	1	0.4	1.0															
31-Oct	1	0	0	1	1	1	0	1	0	0	0	1	1	1	0	1	1	0	0	A	1	0	0	0	0.5	0.8															
0.5 0.5 0.4 0.5 0.4 0.5 0.4 0.4 0.5 0.5 0.6 0.6 0.6 0.6 0.5 0.5 0.5 0.4 0.4 0.4 0.4 0.4 0.5 0.5																								Diurnal Average																	
1.1 1.2 1.4 1.3 1.0 1.0 0.9 1.0 1.1 1.3 1.1 1.1 1.0 1.2 1.2 1.2 0.9 0.8 0.6 0.7 0.8 0.8 1.5 0.8																								Diurnal Maximum																	
C - Calibration A - Automated Daily Zero Span																																									

Hourly Maximums

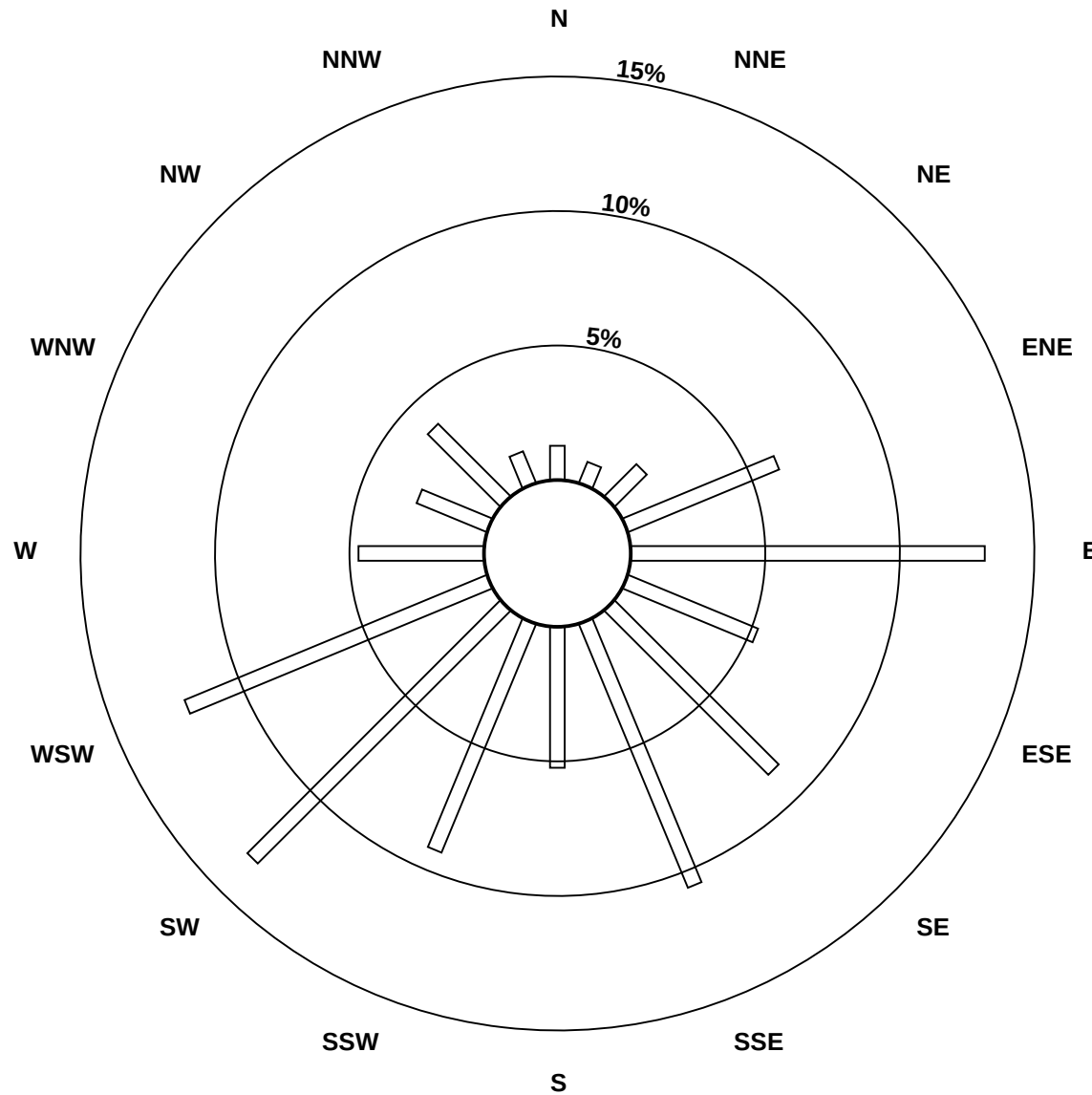
Sulphur Dioxide (SO₂) - ppb
Falher - October 2015



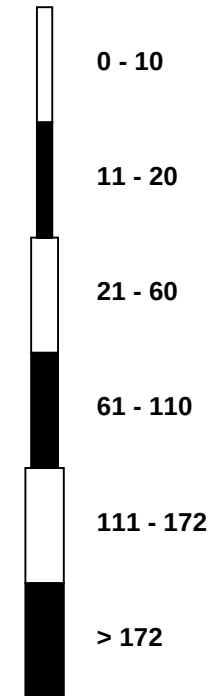
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Falher - October 2015



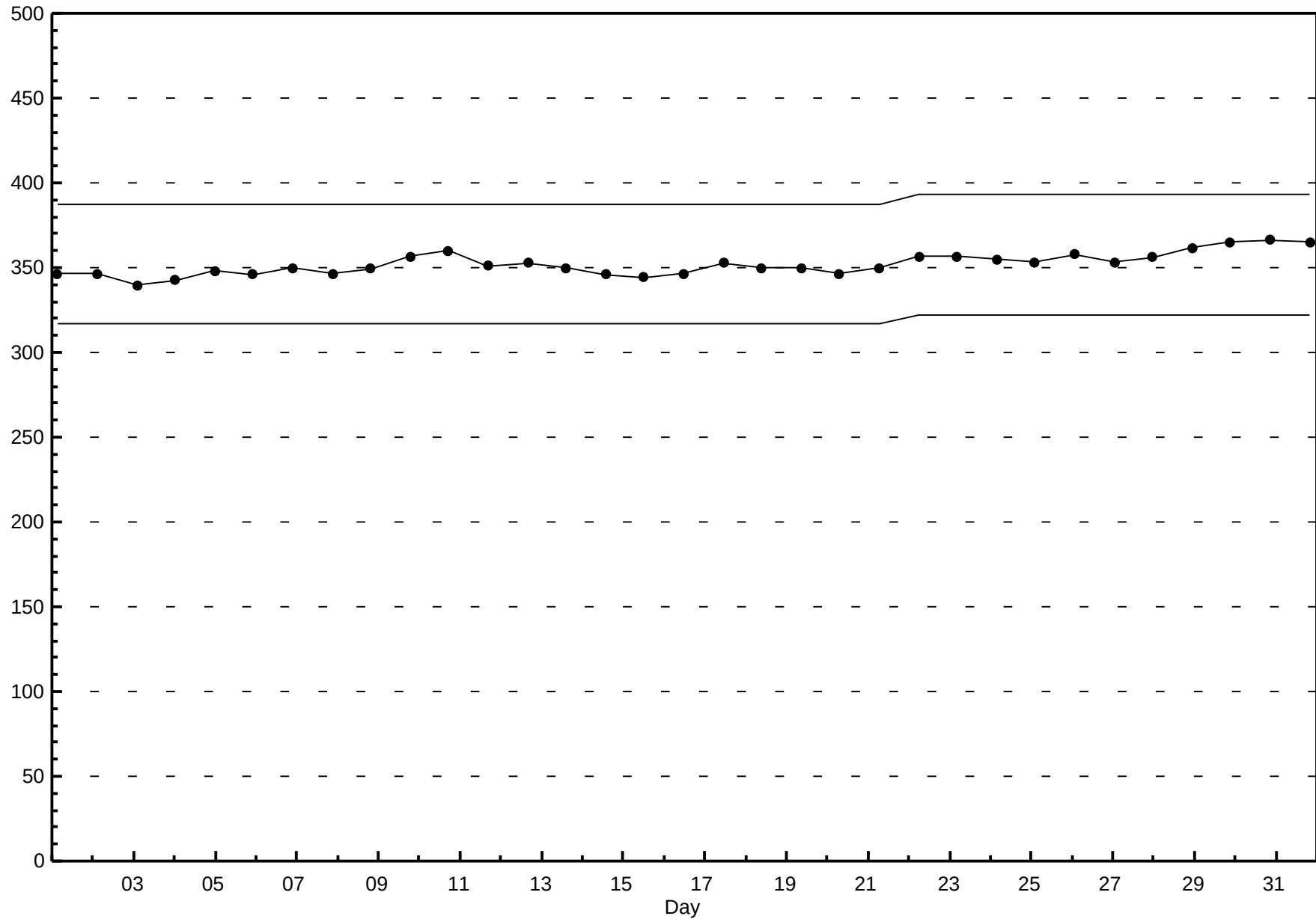
Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)

Falher - October 2015

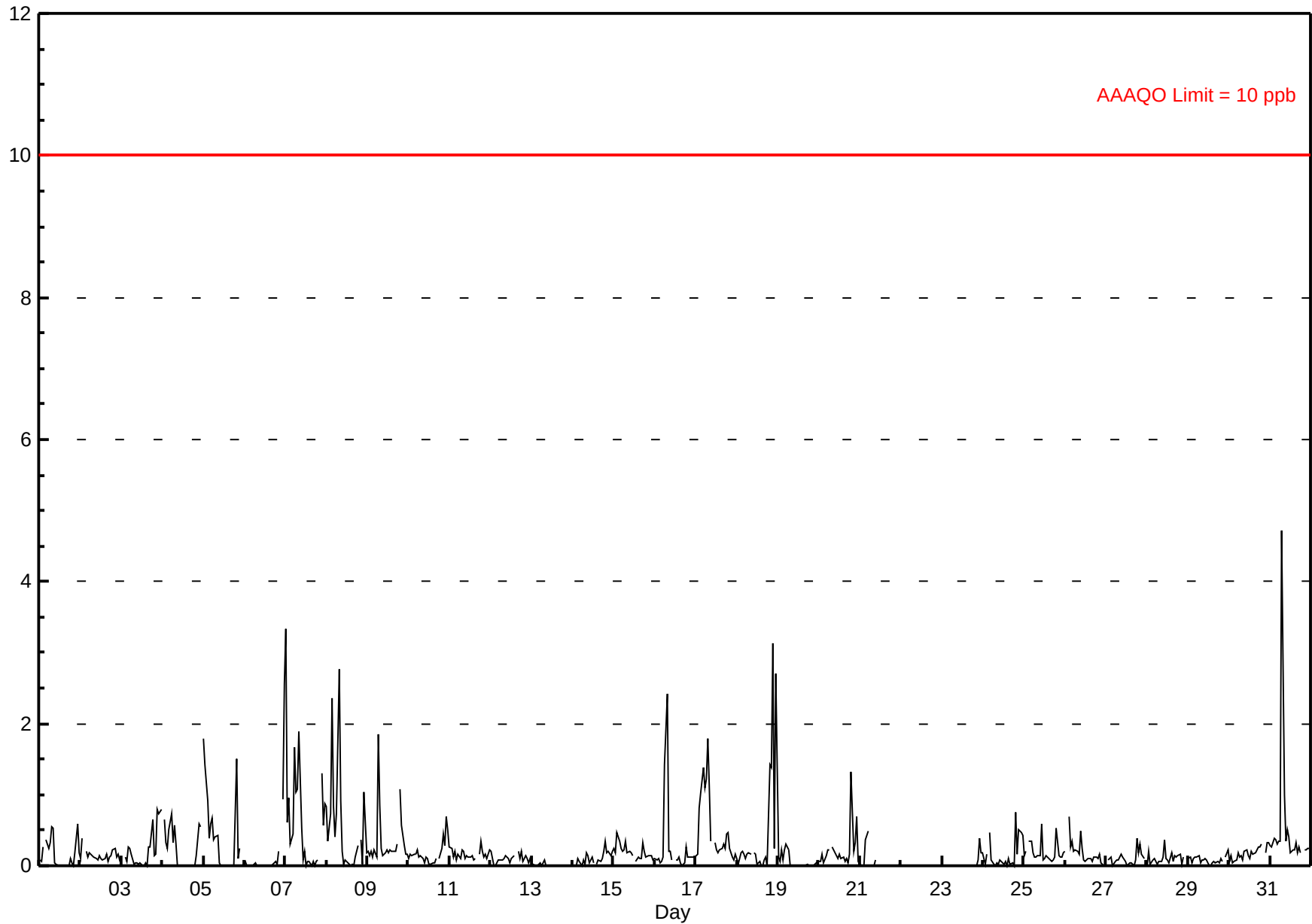


[illegible]

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

Falher - October 2015



Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb

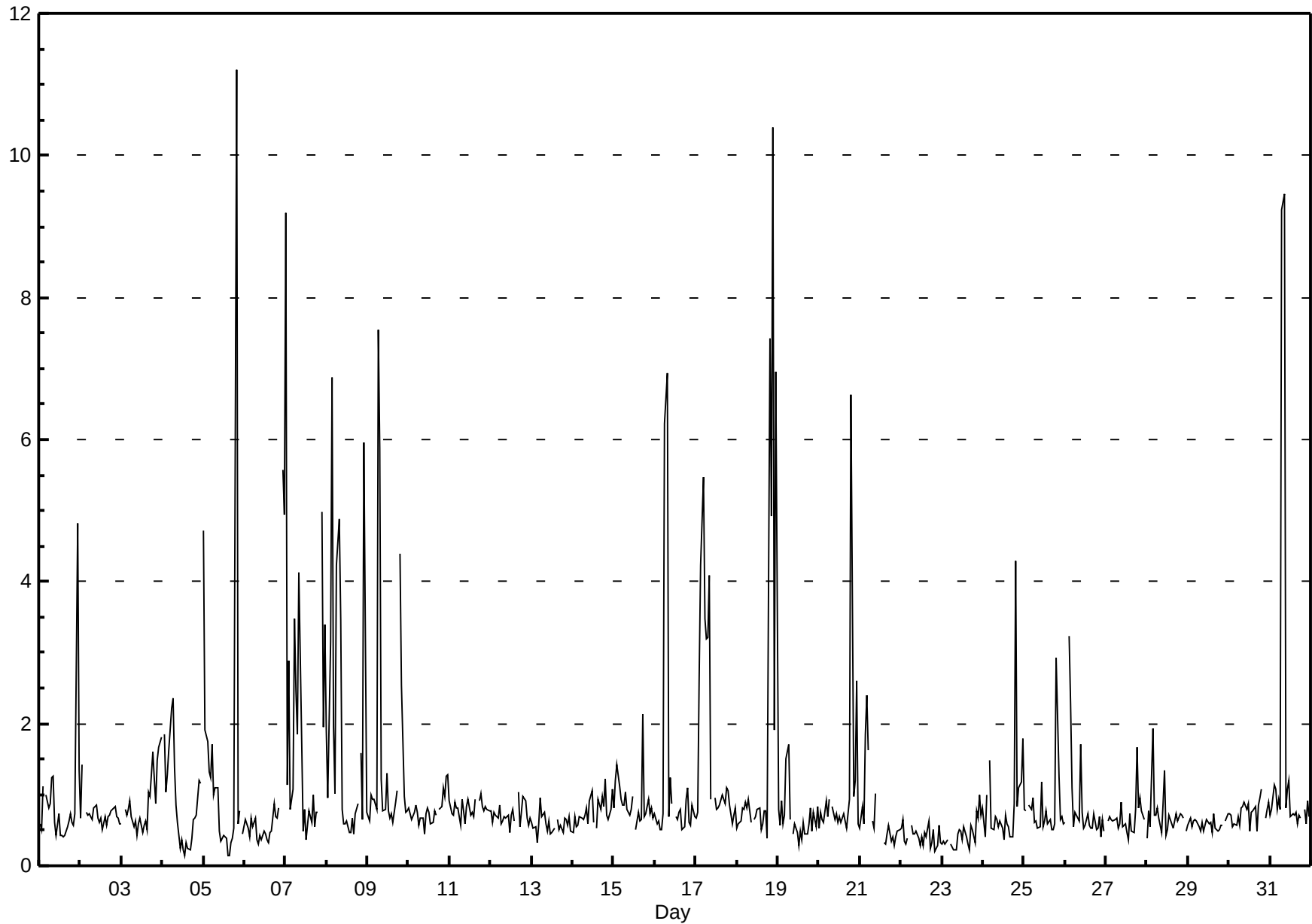
Falher - October 2015

Maximum Value: 11.2 ppb on Oct 5 20:00																				Maximum Daily Average: 2.0 ppb on Oct 7										Hours in Service: 744	
Minimum Value: 0 ppb on Oct 5 15:00																				Minimum Daily Average: 0.4 ppb on Oct 22										Hours of Data: 707	
Maximum Diurnal Average: 1.9 ppb at hour 20																				Minimum Diurnal Average: 0.6 ppb at hour 13										Hours of Missing Data: 37	
Monthly Average: 1.00 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.5 P ₉₉ = 7.4										Hours of Calibration: 37	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Oct	1	1	1	A	1	1	1	1	1	1	0	1	0	0	0	0	1	1	1	1	1	1	5	1	0.9	4.8					
2-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4					
3-Oct	1	A	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	2	1	1	1	2	2	0.9	1.8					
4-Oct	A	2	1	1	2	2	2	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	A	0.9	2.4					
5-Oct	5	2	2	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	1	11	1	1	A	0	1.4	11.2					
6-Oct	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	6	5	0.9	5.6					
7-Oct	9	1	3	1	1	3	2	2	4	2	0	1	0	1	1	1	1	1	1	1	A	5	2	3	2.0	9.2					
8-Oct	2	1	3	7	2	1	4	5	3	1	1	1	1	0	0	1	0	1	1	A	2	1	6	1	1.9	6.9					
9-Oct	1	1	1	1	1	1	8	6	1	1	1	1	1	1	1	1	1	1	A	4	3	1	1	1	1.6	7.5					
10-Oct	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.3					
11-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.0					
12-Oct	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.0					
13-Oct	1	1	1	0	1	1	1	1	1	0	1	0	0	1	A	1	1	1	1	0	1	1	1	0	0.6	1.0					
14-Oct	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.2					
15-Oct	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	0.9	2.1					
16-Oct	1	1	1	1	1	1	6	7	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1.2	6.9					
17-Oct	1	1	3	4	5	3	3	3	4	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.7	5.5					
18-Oct	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	7	5	10	2	7	1.9	10.4					
19-Oct	1	1	1	1	1	2	2	1	A	0	1	0	0	0	0	1	0	0	1	1	0	1	1	1	0.7	1.7					
20-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	7	1	1	3	1	1.1	6.6					
21-Oct	1	1	1	2	2	2	A	1	1	1	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0.7	2.4					
22-Oct	1	1	0	0	0	A	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0.4	0.7					
23-Oct	0	0	0	0	A	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	1	1	1	0.4	1.0					
24-Oct	1	0	1	A	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	4	1	1	1	2	0.9	4.3					
25-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	0.8	2.9					
26-Oct	1	A	3	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0.9	3.2					
27-Oct	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	2	1	1	1	1	A	0.7	1.7					
28-Oct	0	1	1	2	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1	1	A	0	0.7	1.9					
29-Oct	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0	1	1	0	1	1	1	A	1	1	0.6	0.7					
30-Oct	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	A	1	1	1	0.7	1.1					
31-Oct	1	1	1	1	1	1	1	9	9	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.6	9.4					
1.1 0.8 1.1 1.2 1.1 1.1 1.4 1.6 1.3 0.7 0.7 0.7 0.6 0.6 0.6 0.6 0.6 0.7 0.8 1.9 1.0 1.2 1.4 1.2																									Diurnal Average						
9.2 1.9 3.2 6.9 5.5 3.5 7.5 9.2 9.4 1.7 1.4 1.3 0.8 0.8 0.9 1.0 1.0 2.1 1.7 11.2 4.9 10.4 6.0 6.9																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb

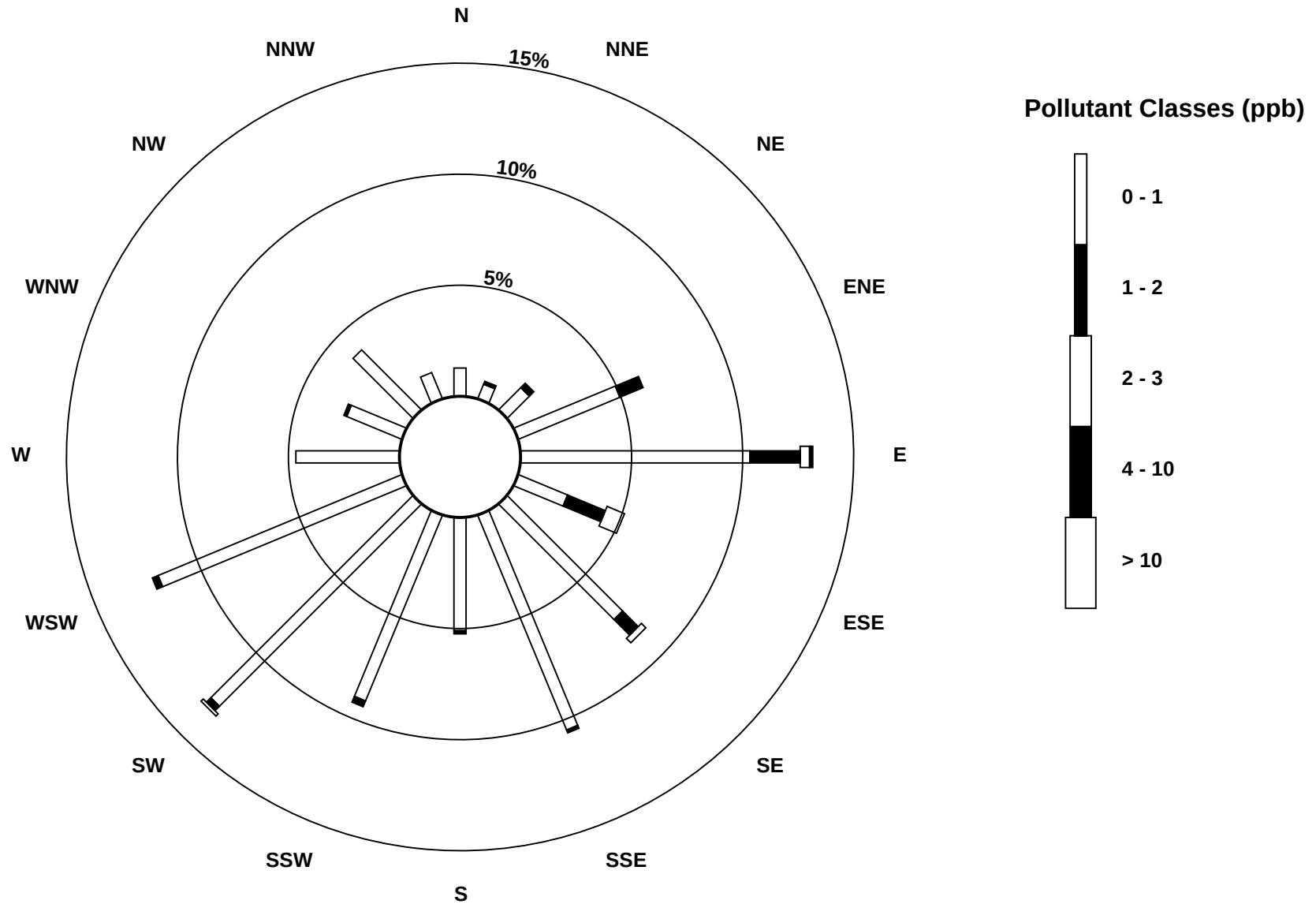
Falher - October 2015

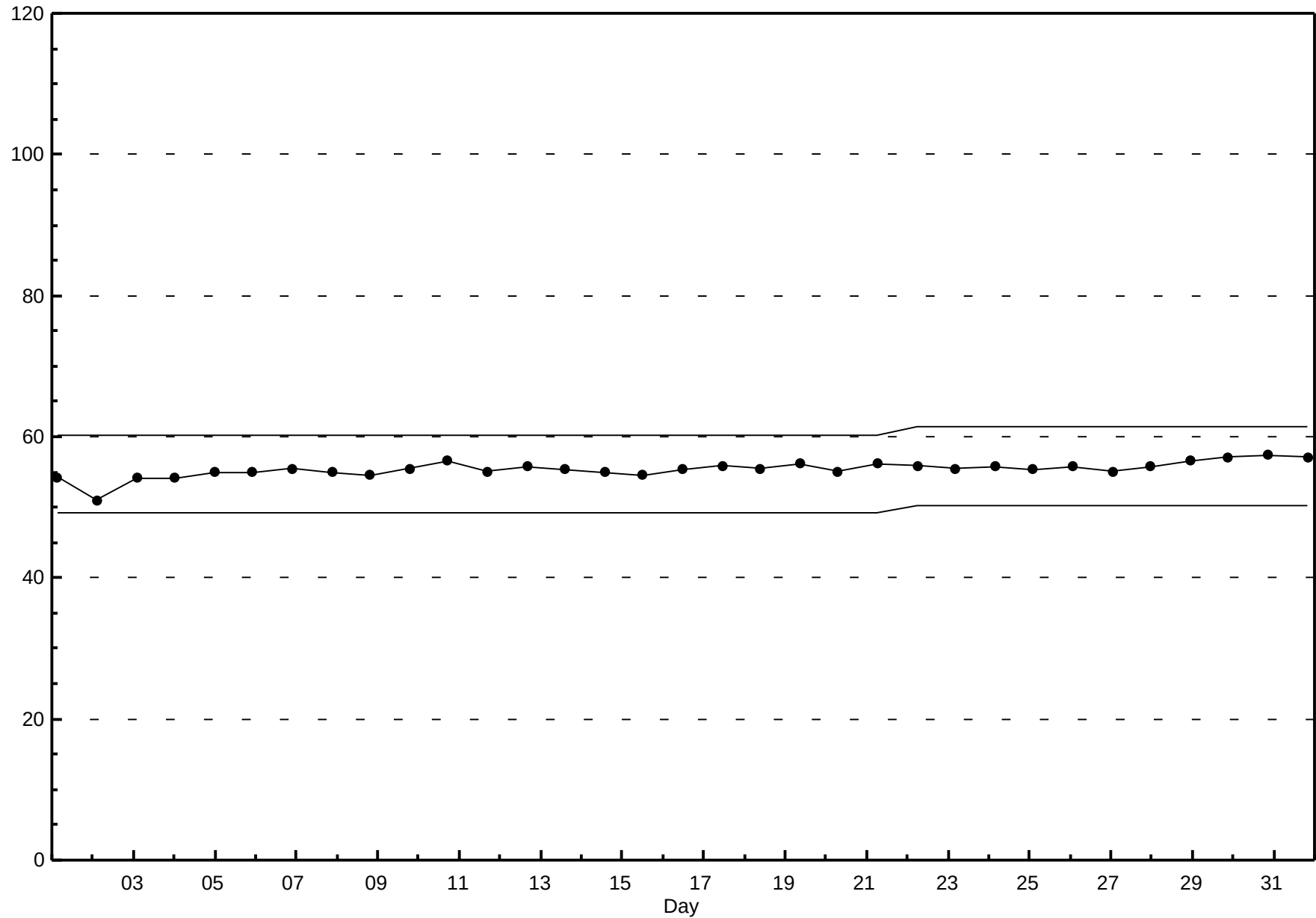


Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Falher - October 2015





Hourly Averages

External Temperature (ET) - °C

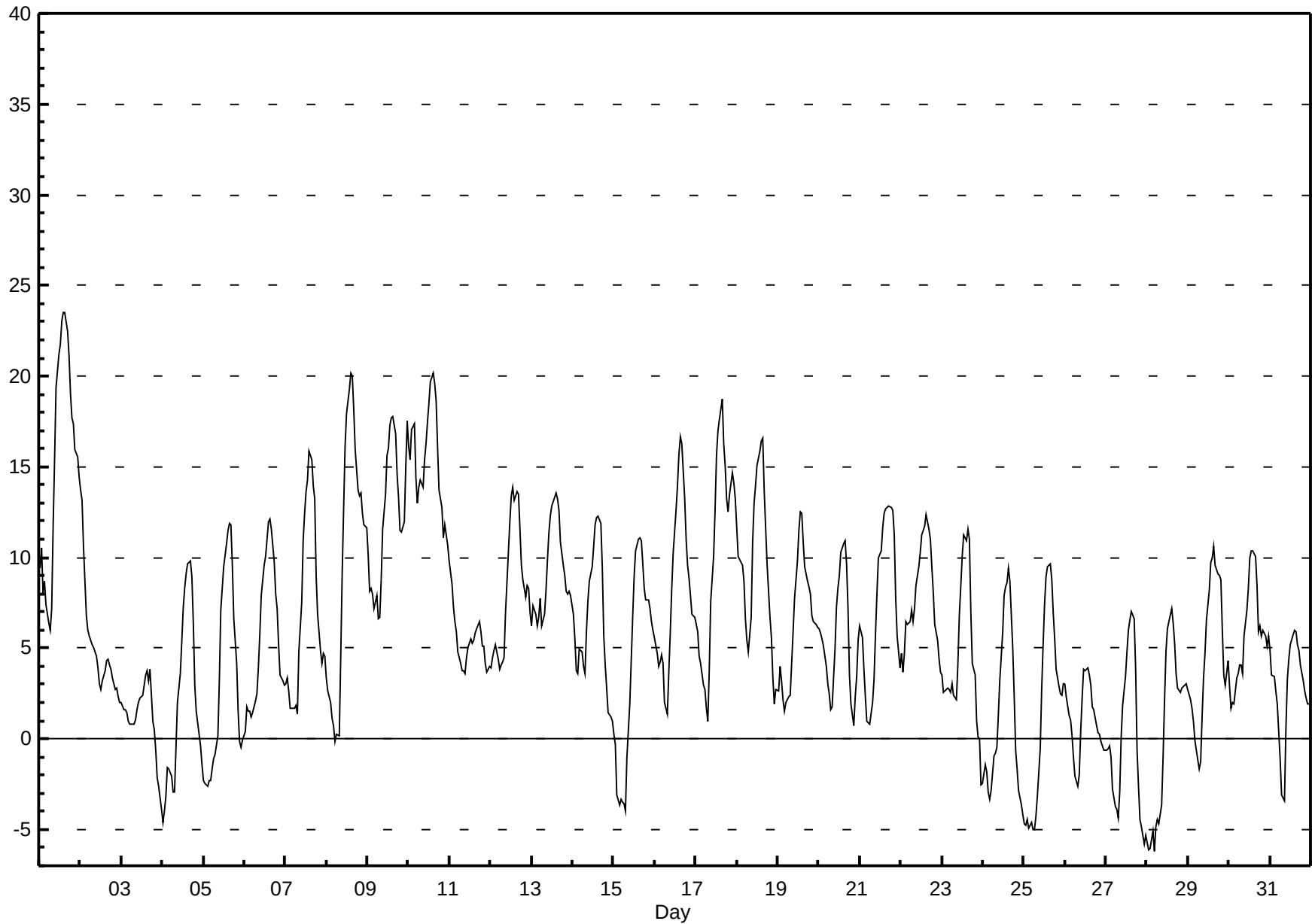
Falher - October 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 23.5 °C on Oct 1 15:00 Maximum Daily Average: 15.4 °C on Oct 10																			Hours in Service: 744 Hours of Data: 744							
Minimum Value: -6 °C on Oct 28 05:00 Maximum Diurnal Average: 11.8 °C at hour 16 Monthly Average: 6.06 °C																			Minimum Daily Average: -0.1 °C on Oct 27 Minimum Diurnal Average: 1.7 °C at hour 8 Percentiles: P ₁ = -5.0 P ₁₀ = -1.0 Q ₁ = 2.2 Median = 5.5 Q ₃ = 9.8 P ₉₀ = 13.6 P ₉₉ = 21.0		Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Oct	9	11	8	9	7	6	6	7	12	15	19	21	22	23	24	23	22	21	19	18	17	16	16	14	15.3	23.5
2-Oct	14	13	11	7	6	6	5	5	5	5	4	3	3	3	4	4	4	4	3	3	3	2	2	2	5.1	13.7
3-Oct	2	2	2	1	1	1	1	1	1	2	2	2	2	3	4	4	3	4	1	0	-1	-2	-3	-4	1.2	3.8
4-Oct	-5	-4	-3	-2	-2	-2	-3	-3	0	2	4	5	7	8	9	10	10	9	6	3	2	0	0	-1	2.1	9.8
5-Oct	-2	-2	-3	-2	-2	-2	-1	-1	0	3	7	8	10	11	11	12	12	10	7	4	2	0	0	0	3.3	11.9
6-Oct	0	2	2	2	1	1	2	2	4	6	8	10	10	11	12	12	12	10	8	7	5	4	3	3	5.7	12.1
7-Oct	3	3	3	2	2	2	2	1	5	7	11	12	14	14	16	15	14	13	9	7	5	4	5	5	7.2	15.9
8-Oct	3	3	2	1	1	0	0	0	5	9	13	16	18	19	20	20	18	16	14	13	14	12	12	12	10.0	20.1
9-Oct	10	8	8	8	7	8	7	7	9	12	13	16	16	17	18	18	17	15	13	11	11	12	15	18	12.2	17.8
10-Oct	16	15	17	17	14	13	14	14	14	15	16	17	18	20	20	20	19	16	14	13	11	12	11	11	15.4	20.1
11-Oct	10	9	7	6	6	5	4	4	4	4	4	5	5	5	5	6	6	6	6	5	5	4	4	4	5.4	9.8
12-Oct	4	4	5	5	4	4	4	4	5	7	10	12	13	14	13	14	13	12	10	9	8	8	8	7	8.2	13.9
13-Oct	6	7	7	6	7	8	6	7	8	10	11	12	13	13	14	13	13	11	10	9	8	8	8	8	9.3	13.6
14-Oct	7	6	4	4	5	5	4	4	6	8	9	10	11	12	12	12	12	9	6	4	3	1	1	1	6.4	12.3
15-Oct	0	0	-3	-4	-3	-4	-4	-4	-1	2	4	7	9	10	11	11	11	10	8	8	8	7	6	6	4.0	11.1
16-Oct	6	5	4	4	5	4	2	1	4	6	8	10	13	14	16	17	16	13	11	10	9	8	7	7	8.2	16.6
17-Oct	6	6	5	4	3	3	2	1	4	8	10	13	16	17	18	19	16	15	13	13	13	15	14	13	10.2	18.7
18-Oct	12	10	10	10	9	7	5	5	7	11	13	14	15	16	16	17	14	12	10	7	6	3	2	3	9.6	16.6
19-Oct	3	4	3	2	1	2	2	2	4	6	8	10	11	12	12	11	10	9	8	8	7	6	6	6	6.5	12.5
20-Oct	6	6	6	5	4	3	2	2	2	5	7	8	9	10	11	11	10	7	3	2	1	2	3	5	5.5	10.9
21-Oct	6	6	4	2	1	1	1	2	3	6	8	10	10	12	12	13	13	13	13	13	11	8	6	4	7.3	12.8
22-Oct	5	4	5	6	6	6	7	6	7	8	10	10	11	12	12	12	12	11	10	8	6	5	4	4	7.8	12.4
23-Oct	3	3	3	3	3	3	3	2	2	4	7	8	10	11	11	12	11	7	4	4	1	0	0	-3	4.6	11.5
24-Oct	-2	-1	-2	-3	-3	-3	-1	-1	0	1	3	6	8	8	9	9	9	5	2	-1	-2	-3	-4	-4	1.3	9.4
25-Oct	-5	-5	-4	-5	-5	-5	-5	-4	-3	-1	3	5	7	9	10	10	9	7	5	4	3	2	2	3	1.6	9.7
26-Oct	3	2	1	1	0	-1	-2	-3	-2	0	2	4	4	4	3	3	2	2	1	0	0	0	0	-1	1.0	3.9
27-Oct	-1	-1	0	-1	-3	-4	-4	-4	-3	0	2	3	5	6	7	7	7	4	-1	-3	-4	-5	-6	-5	-0.1	7.0
28-Oct	-6	-6	-6	-5	-6	-5	-4	-5	-4	-1	2	5	6	6	7	6	5	4	3	3	3	3	3	3	0.5	7.1
29-Oct	3	2	2	1	0	-1	-2	-1	1	3	5	7	8	10	10	11	10	9	9	9	6	4	3	4	4.6	10.6
30-Oct	3	2	2	2	3	4	4	4	4	6	7	8	10	10	10	10	8	6	6	6	6	6	5	6	5.7	10.4
31-Oct	5	4	3	3	2	0	-1	-3	-3	1	3	4	5	6	6	6	5	5	4	3	3	2	2	2	2.8	6.0
4.0 3.7 3.2 2.9 2.4 2.1 1.9 1.7 3.1 5.4 7.6 9.1 10.3 11.2 11.7 11.8 11.0 9.4 7.6 6.4 5.4 4.7 4.4 4.2 Diurnal Average 16.1 15.4 17.1 17.3 14.5 13.0 13.9 14.3 13.9 15.4 19.4 21.2 21.8 23.0 23.5 23.5 22.5 21.1 19.1 17.7 17.4 16.0 15.6 17.5 Diurnal Maximum																										

Hourly Averages

External Temperature (ET) - °C

Falher - October 2015



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Falher - October 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	7	10	8	13	8	9	8	9	6	7	8	9	11	9	7	13	12	12	10	11	9	14	8	5	6.7	13.8
Dir	174	165	140	154	108	86	67	96	126	136	160	197	159	143	96	102	81	83	63	48	59	112	172	335	115	112
2 Spd	13	10	18	26	28	21	21	22	21	24	28	27	32	34	32	30	28	27	21	22	19	22	19	19	23.1	33.8
Dir	9	317	325	329	331	322	319	319	315	311	309	306	314	318	320	320	322	321	312	304	303	312	310	317	318	318
3 Spd	19	12	10	10	9	8	5	5	4	3	2	5	3	3	2	3	6	4	5	5	4	4	5	8	3.3	18.5
Dir	316	317	328	308	295	320	1	354	352	289	267	277	310	197	242	254	276	267	229	173	161	105	69	69	309	316
4 Spd	9	8	9	12	12	14	13	13	12	22	28	27	25	24	19	19	18	12	6	2	4	4	5	1	10.2	27.6
Dir	64	73	71	82	87	85	82	87	106	142	142	142	142	154	167	154	166	193	213	302	56	54	30	81	128	142
5 Spd	6	6	6	7	5	7	4	4	5	7	6	6	7	9	7	5	5	6	6	9	9	9	9	12	1.9	11.8
Dir	219	218	208	215	240	245	219	214	242	271	296	311	281	280	290	253	254	209	143	110	89	73	70	70	233	70
6 Spd	11	11	13	14	13	17	20	19	20	24	20	15	11	10	7	8	9	8	5	7	3	3	5	5	8.2	23.5
Dir	67	79	89	74	65	65	70	72	80	90	98	120	147	151	149	166	193	218	231	245	296	42	99	121	97	90
7 Spd	5	5	7	7	3	4	4	3	2	2	2	2	2	3	4	4	4	3	5	7	8	10	6	7	2.2	9.6
Dir	88	64	160	156	99	115	75	84	90	194	243	255	28	239	253	234	324	14	10	46	78	104	77	117	96	104
8 Spd	8	11	10	8	8	10	12	9	9	12	10	12	14	15	10	13	12	12	12	13	15	8	8	13	8.9	15.1
Dir	72	80	99	103	83	87	97	110	124	148	156	164	178	192	180	161	133	136	130	112	108	101	123	181	131	108
9 Spd	12	9	13	13	14	15	13	9	13	18	18	12	17	15	16	10	10	13	16	14	15	14	21	25	13.4	24.5
Dir	186	161	172	164	149	156	144	126	151	160	153	135	150	151	160	167	159	141	143	124	131	143	191	198	157	198
10 Spd	21	17	24	27	16	21	28	35	29	31	25	30	34	33	33	29	23	12	3	5	6	7	6	9	18.8	34.6
Dir	186	188	218	238	220	204	211	216	215	223	232	224	233	237	241	230	230	235	219	207	45	272	302	36	224	216
11 Spd	16	12	25	24	21	23	22	16	11	9	9	9	5	1	4	5	9	9	10	11	13	13	14	15	4.0	24.8
Dir	354	286	284	309	312	316	328	334	333	333	288	302	276	251	159	132	121	123	146	156	180	164	148	134	299	284
12 Spd	16	21	23	22	16	17	17	13	14	21	35	32	34	31	23	27	19	17	16	19	14	18	19	18	14.9	34.7
Dir	132	140	147	146	132	145	153	163	167	188	213	232	242	255	268	268	260	245	228	218	197	209	203	186	205	213
13 Spd	14	16	15	15	18	20	19	19	20	26	32	35	36	36	35	36	33	31	27	25	19	20	23	23	23.7	36.3
Dir	194	209	206	201	218	225	210	223	220	230	246	257	257	254	250	250	242	245	241	234	226	224	233	231	236	257
14 Spd	22	19	12	15	21	22	19	16	19	19	24	27	28	25	25	23	22	15	11	7	11	10	9	9	16.9	27.7
Dir	220	210	224	236	238	240	234	237	250	261	264	259	270	268	277	268	263	255	241	250	225	228	222	219	248	270
15 Spd	11	2	8	6	9	11	11	11	12	9	8	8	9	11	11	14	13	9	11	13	15	16	16	16	8.8	16.3
Dir	217	164	144	155	159	153	146	124	157	163	171	152	139	143	139	140	140	107	72	80	84	87	89	94	128	89
16 Spd	15	15	14	11	11	12	12	6	4	10	8	8	11	14	11	12	15	14	17	21	24	21	18	19	12.9	23.8
Dir	98	92	98	87	93	96	103	93	91	144	142	124	142	140	132	109	100	90	89	93	100	102	101	97	104	100
17 Spd	18	22	17	15	15	16	15	12	13	17	15	14	7	8	9	7	8	6	10	11	18	24	24	23	8.0	24.2
Dir	91	97	104	102	101	112	107	113	133	158	155	139	173	139	160	159	244	211	183	208	245	243	235	238	156	243
18 Spd	21	21	21	19	16	11	14	16	11	12	23	24	21	18	17	13	9	5	0	5	6	9	12	11	10.7	24.2
Dir	230	220	224	227	231	213	192	211	222	242	259	263	259	258	261	266	261	259	62	108	137	137	126	107	231	263
19 Spd	7	6	8	7	6	9	11	7	7	9	10	9	8	9	15	17	9	10	14	21	19	20	18	13	5.6	20.7
Dir	83	101	101	66	76	84	93	82	147	177	180	163	178	211	253	269	241	200	197	246	248	245	248	238	210	246
20 Spd	12	13	12	12	10	7	4	6	8	7	18	22	20	17	17	17	7	3	7	11	9	10	11	12	6.9	21.6
Dir	235	239	261	256	252	242	208	186	210	222	244	251	256	252	253	252	247	174	133	98	86	89	106	140	231	251
21 Spd	13	16	13	12	14	13	13	17	17	19	14	21	15	11	7	9	13	19	21	20	17	11	12	13	9.1	20.9
Dir	140	138	124	108	90	90	84	87	95	102	123	139	162	192	202	179	176	211	237	239	235	207	182	177	153	139
22 Spd	12	14	16	21	22	22	23	24	28	32	33	33	31	29	25	24	18	22	20	18	17	18	14	17	21.4	33.3
Dir	186	190	204	209	205	212	218	216	219	224	228	230	236	243	250	249	245	240	230	220	216	211	198	202	223	230

Hourly Averages

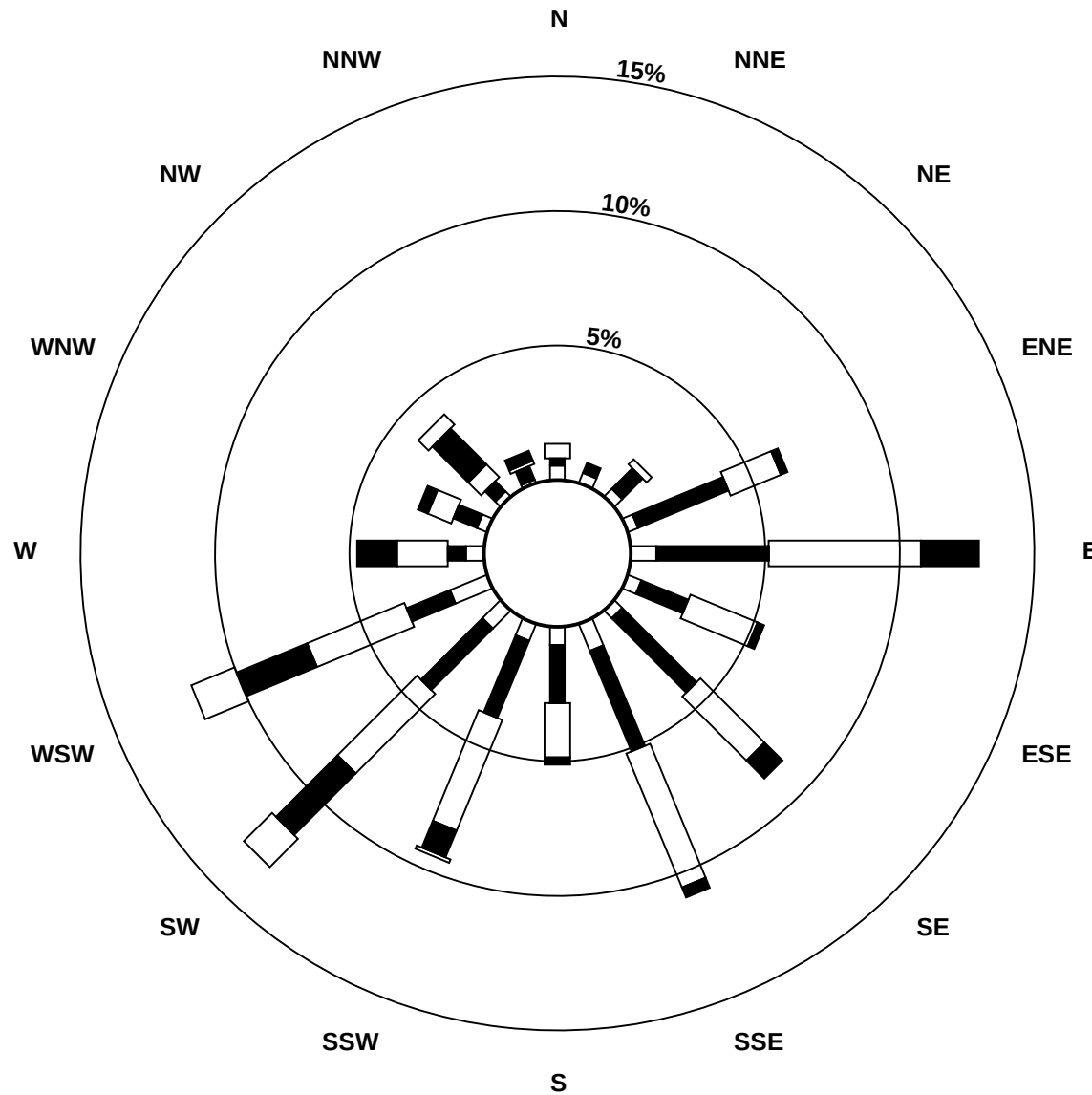
Wind Speed (km/h)
Wind Direction (deg)
Falher - October 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	18	16	13	18	17	17	17	14	14	9	16	20	18	19	14	15	14	11	5	9	8	6	8	4	11.2	20.1	
Dir	199	201	203	200	201	194	198	194	201	199	234	236	246	270	300	286	252	250	243	219	216	191	217	167	223	236	
24 Spd	7	3	2	5	4	8	7	7	4	4	5	10	11	11	11	7	7	11	10	6	9	10	10	10	4.7	11.3	
Dir	193	178	151	155	146	140	145	150	127	140	172	212	231	219	220	219	183	176	168	90	89	86	72	78	161	176	
25 Spd	8	7	7	8	9	11	13	14	14	14	18	18	19	18	21	24	23	23	23	20	19	19	20	21	15.8	24.3	
Dir	68	49	66	57	51	55	59	64	80	93	103	99	110	114	99	95	89	82	82	95	90	87	88	85	86	95	
26 Spd	21	17	18	18	13	12	12	11	9	4	15	20	19	20	19	22	17	16	17	15	16	15	19	18	4.7	21.6	
Dir	90	90	95	97	92	89	90	83	83	200	258	277	274	262	251	294	292	287	284	274	276	273	271	259	276	294	
27 Spd	16	19	22	15	13	13	11	8	11	12	18	18	17	16	13	10	6	5	7	8	8	9	11	12	7.4	21.6	
Dir	231	224	236	226	201	208	223	214	231	245	258	255	262	256	252	245	236	158	112	80	66	63	62	60	232	236	
28 Spd	11	12	14	11	15	20	19	16	19	21	20	18	22	19	12	9	7	8	4	8	6	10	16	16	10.2	22.5	
Dir	66	71	64	88	61	71	75	78	85	91	108	134	140	148	154	211	215	227	178	147	162	139	147	157	113	140	
29 Spd	16	15	13	12	13	15	11	10	12	13	12	14	17	18	24	27	23	15	18	26	18	13	14	18	13.5	26.7	
Dir	153	149	144	147	155	152	134	135	149	158	164	175	213	221	216	207	219	228	232	233	214	192	191	198	190	207	
30 Spd	13	16	15	8	10	11	11	11	14	11	11	16	22	24	22	19	18	9	14	13	14	14	15	17	11.9	24.5	
Dir	158	151	173	144	159	145	158	167	165	191	194	215	227	237	238	249	253	237	225	222	234	229	230	229	209	237	
31 Spd	11	7	11	6	7	9	2	6	10	9	8	9	14	16	16	13	8	11	9	12	12	9	8	8	4.1	15.8	
Dir	238	203	209	208	196	181	216	92	72	93	92	52	70	73	53	37	29	20	28	2	355	352	341	358	47	53	
Spd	4.9	5.7	5.4	4.5	3.5	4.6	4.7	4.3	5.2	6.9	8.3	9.0	9.7	9.9	8.6	7.8	6.4	5.1	4.3	3.8	3.3	4.0	4.6	5.1	Diurnal Average		
Dir	164	161	172	175	165	154	145	148	164	183	207	217	224	228	235	235	229	220	202	196	178	172	176	170	Diurnal Maximum		
Spd	22.1	22.1	24.8	26.6	28.5	23.5	27.7	34.6	29.2	32.0	34.7	34.8	36.3	35.9	34.8	36.3	32.5	31.4	27.2	25.6	23.8	24.2	24.0	24.5	Diurnal Maximum		
Dir	220	97	284	238	331	316	211	216	215	224	213	257	257	254	250	250	242	245	241	233	100	243	235	198			
Maximum Speed Value: 36 km/h on Oct 13 13:00																									Hours in Service: 744		
Maximum Daily Speed Average: 23.7 km/h on Oct 13																									Hours of Data: 744		
Maximum Diurnal Speed Average: 9.9 km/h at hour 14																									Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Oct 18 19:00																									Percent Operational Time: 100.0		
Minimum Daily Speed Average: 1.9 km/h on Oct 7																											
Minimum Diurnal Speed Average: 3.3 km/h at hour 21																											
Monthly Average Velocity: 5.07 km/h 195.5 deg																											
Speed Percentiles: P ₁ = 1.9 P ₁₀ = 5.5 Q ₁ = 8.6 Median = 12.7 Q ₃ = 18.3 P ₉₀ = 23.3 P ₉₉ = 34.5																											
All monthly, daily, and diurnal averages have been calculated using vector methods																											
Frequency Distribution																											
Speed Range (km/h)																											
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	3	5	5	0	0	0	13																				
NorthEast	7	19	12	0	0	0	38																				
East	8	54	65	24	0	0	151																				
SouthEast	6	43	59	10	0	0	118																				
South	11	42	53	5	0	0	111																				
SouthWest	11	45	52	53	19	0	180																				
West	12	10	36	22	6	0	86																				
NorthWest	5	11	7	18	6	0	47																				
Total	63	229	289	132	31	0	744																				

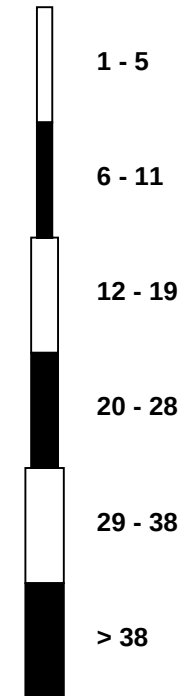
Wind Rose

Wind Speed (WS) (km/h)

Falher - October 2015



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - October 2015

Maximum Speed: 36 km/h on Oct 13 13:00																						Maximum Daily Speed Average: 24.9 km/h on Oct 13										Hours in Service: 744	
Minimum Speed: 0 km/h on Oct 18 19:00																						Minimum Daily Speed Average: 5.2 km/h on Oct 7										Hours of Data: 744	
Maximum Diurnal Speed Average: 17.8 km/h at hour 13																						Minimum Diurnal Speed Average: 11.8 km/h at hour 19										Hours of Missing Data: 0	
Monthly Average Speed: 14.08 km/h																						Percentiles: P ₁ = 2.9 P ₁₀ = 5.7 Q ₁ = 8.8 Median = 12.9 Q ₃ = 18.5 P ₉₀ = 23.3 P ₉₉ = 34.4										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
1-Oct	7	10	9	13	8	9	8	9	7	7	8	9	12	10	8	14	12	12	10	12	10	14	15	6	10.0	15.1							
2-Oct	13	13	18	26	29	21	21	22	21	24	28	27	32	34	32	30	29	27	21	22	19	22	19	19	23.7	33.9							
3-Oct	19	12	10	10	9	8	5	5	5	4	3	5	5	4	4	4	6	4	5	5	4	4	6	8	6.4	18.7							
4-Oct	9	8	9	12	12	14	13	14	12	22	28	27	25	25	20	19	18	12	6	3	4	5	5	2	13.5	27.7							
5-Oct	6	6	6	7	5	7	5	5	5	7	6	6	8	10	8	6	5	6	6	9	9	9	9	12	6.9	11.8							
6-Oct	11	12	13	14	13	17	20	19	21	24	20	15	12	11	8	9	10	8	5	7	5	3	5	6	12.0	23.6							
7-Oct	5	5	7	7	3	5	4	3	2	3	2	3	4	5	5	6	5	3	6	7	8	10	7	8	5.2	9.9							
8-Oct	8	11	10	8	8	10	13	9	9	12	10	12	14	15	10	13	12	12	12	13	15	8	9	14	11.1	15.1							
9-Oct	12	9	13	14	14	15	13	9	13	18	18	13	17	15	17	11	10	13	16	14	15	14	22	25	14.5	24.5							
10-Oct	21	17	25	27	17	21	28	35	29	31	25	30	34	34	33	29	23	12	4	7	7	10	6	9	21.4	34.7							
11-Oct	16	16	25	24	21	24	22	16	11	9	10	9	5	2	5	7	9	9	10	11	13	14	14	15	13.2	25.0							
12-Oct	16	21	23	22	16	18	17	13	14	22	35	32	34	32	23	27	19	17	16	19	14	18	19	18	21.0	35.1							
13-Oct	14	16	15	15	18	20	20	20	20	26	32	35	36	36	35	36	33	31	27	25	19	20	23	23	24.9	36.4							
14-Oct	22	19	12	15	21	22	19	16	19	19	24	27	28	26	25	23	22	15	11	8	11	10	9	9	18.0	28.0							
15-Oct	11	3	8	6	9	11	12	11	12	9	8	8	9	12	11	14	13	9	11	13	15	16	16	16	11.0	16.4							
16-Oct	15	15	14	11	11	12	12	6	4	10	8	9	11	14	11	13	15	14	17	21	24	21	18	19	13.6	23.9							
17-Oct	18	22	17	15	15	16	15	12	13	17	15	14	7	8	9	8	8	6	11	11	19	24	24	23	14.5	24.4							
18-Oct	21	21	21	19	16	12	14	16	11	12	23	24	21	19	17	14	10	5	0	5	7	9	12	11	14.1	24.3							
19-Oct	8	7	8	7	7	9	11	7	7	9	10	9	9	10	15	17	10	11	15	21	19	20	18	14	11.6	20.8							
20-Oct	12	13	12	12	10	8	5	6	8	7	18	22	20	18	18	17	7	4	7	11	9	10	11	12	11.6	21.7							
21-Oct	13	16	13	12	14	13	13	18	17	19	14	21	15	11	7	10	13	20	21	20	17	12	12	13	14.8	21.0							
22-Oct	13	14	16	21	22	23	23	24	28	32	33	33	31	29	25	25	18	22	21	18	17	18	14	17	22.3	33.4							
23-Oct	18	16	13	18	17	17	17	14	14	9	16	20	18	20	15	16	14	11	5	9	8	6	8	5	13.3	20.2							
24-Oct	7	6	4	5	4	8	7	7	4	4	5	10	11	11	11	7	7	11	10	6	9	10	10	10	7.7	11.4							
25-Oct	8	7	7	8	9	11	13	14	14	14	18	18	20	18	22	24	23	23	23	20	19	19	20	21	16.5	24.3							
26-Oct	21	17	18	18	13	12	12	11	9	6	15	20	19	20	19	22	17	16	17	16	16	15	19	18	16.1	21.8							
27-Oct	17	19	22	15	13	13	11	8	11	12	18	18	17	16	14	10	6	5	8	8	8	9	11	12	12.4	21.7							
28-Oct	11	12	14	11	15	20	19	16	19	21	20	19	23	19	13	10	7	8	5	8	7	10	16	16	14.1	22.6							
29-Oct	16	15	13	12	13	15	11	10	12	13	13	14	17	19	24	27	23	15	19	26	18	14	14	18	16.2	26.7							
30-Oct	14	16	15	8	10	11	11	11	14	11	11	16	22	25	22	19	19	11	14	14	14	14	15	17	14.8	24.6							
31-Oct	11	7	11	6	7	9	3	6	10	9	8	9	14	16	16	13	8	11	9	12	12	9	8	8	9.8	15.9							
	13.3	12.9	13.6	13.5	12.9	14.0	13.5	12.7	12.8	14.3	16.2	17.3	17.8	17.5	16.2	16.0	13.9	12.4	11.8	12.9	12.6	12.9	13.4	13.6	Diurnal Average								
	22.1	22.2	25.1	26.9	28.6	23.5	28.0	34.7	29.4	32.0	35.1	35.0	36.4	36.2	35.1	36.4	32.7	31.5	27.2	25.6	23.9	24.4	24.0	24.5	Diurnal Maximum								

All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

Wind Direction (WD) - deg

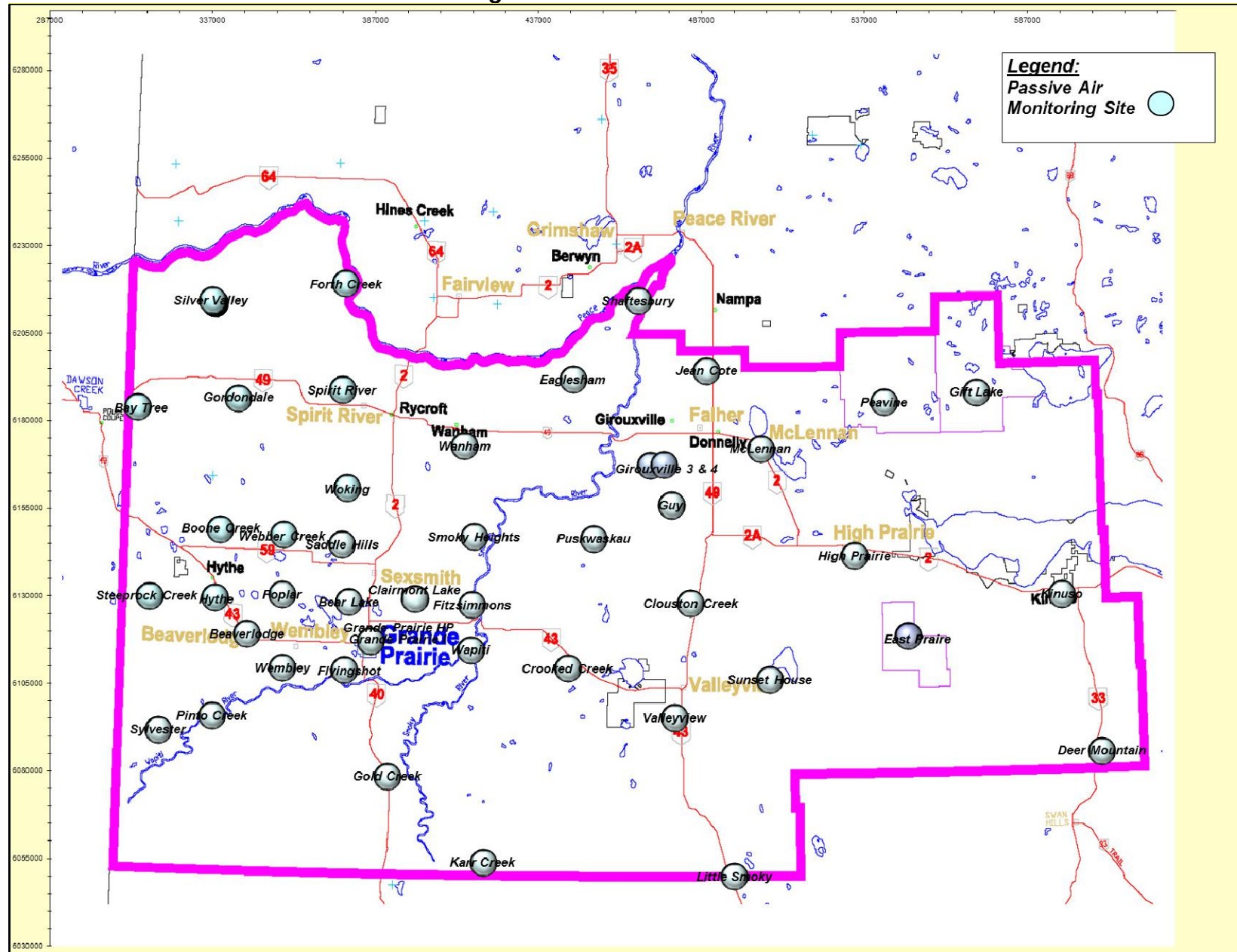
Falher - October 2015

Maximum Value: 92.2 deg on Oct 11 14:00																			Hours in Service: 744						
Minimum Value: 0.9 deg on Oct 16 20:00																			Hours of Data: 744						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 1.6 P ₁₀ = 3.1 Q ₁ = 4.7 Median = 7.7 Q ₃ = 13.4 P ₉₀ = 22.7 P ₉₉ = 60.4																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	16	14	15	8	21	21	9	6	25	10	25	21	19	26	37	20	10	4	9	10	13	19	66	35	65.9
2-Oct	17	36	16	6	5	7	5	5	5	5	6	4	5	4	4	5	4	4	5	4	5	5	4	5	35.6
3-Oct	7	9	9	17	6	21	18	11	23	26	57	46	78	49	64	57	10	13	11	12	23	24	7	9	77.8
4-Oct	4	6	3	5	4	3	2	5	13	6	5	7	9	8	12	11	11	12	13	41	18	11	11	42	42.4
5-Oct	14	6	4	8	9	8	16	17	21	7	23	21	33	18	39	35	28	11	20	13	4	9	5	5	39.2
6-Oct	4	6	6	3	5	3	1	1	4	4	8	11	19	25	35	25	23	8	15	4	59	12	24	16	59.3
7-Oct	16	21	50	10	12	44	22	14	22	54	49	60	74	81	50	41	39	23	23	16	21	18	28	30	81.2
8-Oct	15	9	14	14	12	10	13	5	8	6	9	15	15	14	23	11	5	3	3	10	2	9	30	10	29.6
9-Oct	7	9	8	16	8	3	5	19	17	5	6	26	6	10	9	15	15	6	2	7	6	17	16	2	26.0
10-Oct	5	4	16	9	18	5	9	5	7	4	6	8	7	9	8	5	4	18	49	59	31	49	11	26	58.8
11-Oct	10	46	7	9	6	3	7	8	12	11	15	14	21	92	36	35	8	5	10	13	6	16	14	4	92.2
12-Oct	6	3	4	4	7	7	3	6	9	4	9	6	7	7	8	4	9	3	8	3	7	7	8	4	9.4
13-Oct	13	5	10	7	4	3	5	5	3	6	7	7	5	7	7	4	6	4	5	3	5	3	3	3	12.8
14-Oct	3	3	8	4	3	2	3	2	6	5	6	6	8	8	9	8	9	6	5	22	5	7	3	7	21.8
15-Oct	5	66	13	15	8	5	8	5	6	5	10	15	15	13	16	8	7	14	5	10	3	5	3	5	66.5
16-Oct	3	3	6	6	4	2	4	20	17	11	15	20	13	12	13	11	7	6	4	1	3	2	2	2	20.3
17-Oct	3	2	3	4	2	7	5	9	7	10	9	8	23	17	14	18	21	18	8	11	20	6	3	2	22.5
18-Oct	4	2	2	2	5	16	6	8	7	8	5	6	8	10	11	14	4	41	1	18	30	15	10	10	41.5
19-Oct	32	23	8	17	37	19	5	9	22	7	8	19	15	23	8	7	17	11	17	3	3	3	5	4	37.5
20-Oct	6	5	8	4	6	14	44	23	12	12	6	7	7	9	8	11	10	52	20	8	9	6	11	5	51.7
21-Oct	4	4	4	11	3	5	3	6	4	6	5	6	10	12	13	13	16	9	3	4	4	29	10	11	28.9
22-Oct	10	9	3	2	3	5	2	3	4	3	5	5	6	7	5	7	5	5	7	2	3	2	12	6	11.9
23-Oct	2	2	3	2	2	2	2	3	4	12	9	6	10	16	18	11	8	8	6	4	9	22	5	15	22.5
24-Oct	15	73	64	13	15	11	7	7	30	22	17	20	11	14	9	19	18	3	14	14	8	8	6	4	72.9
25-Oct	6	9	6	5	5	4	2	4	4	4	5	6	12	10	6	4	4	2	3	3	4	2	2	3	11.8
26-Oct	3	4	3	2	4	2	3	2	9	50	13	6	7	8	6	8	8	4	8	7	6	4	6	8	50.2
27-Oct	9	5	5	5	7	7	9	3	5	12	5	7	9	8	15	12	13	24	18	10	7	6	3	4	23.6
28-Oct	5	5	2	9	5	2	4	3	4	4	6	17	7	7	11	25	8	9	39	13	36	7	14	3	38.6
29-Oct	4	6	3	3	3	6	10	4	3	4	5	8	8	5	5	4	11	6	9	4	8	5	6	3	10.7
30-Oct	23	7	7	9	5	4	9	10	13	10	9	7	8	6	5	8	8	39	14	8	9	5	2	3	38.7
31-Oct	15	20	5	10	13	10	79	18	13	4	10	13	13	12	8	4	13	9	19	5	5	3	8	4	79.4
32.0 72.9 64.1 16.7 37.5 44.4 79.4 23.5 29.8 53.6 56.7 60.0 77.8 92.2 63.7 57.1 39.2 51.7 49.2 58.8 59.3 48.7 65.9 42.4																									

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for October 2015

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
9a	Spirit River	0.2	33.4	2.2		
9b	Spirit River	BDL	20.5	2.8		
28a	Clairmont Lake	0.1	25.0	1.6		
28b	Clairmont Lake	0.2	18.8	1.5		
32a	Gold Creek	0.2	16.6	3.5		
32b	Gold Creek	0.1	35.0	11.2		
47a	Kinuso	0.1	24.4	0.9		
47b	Kinuso	BDL	20.1	4.2		
45a	Gift Lake				0.1	
45b	Gift Lake				0.1	
1	Silver Valley	0.2	31.9	2.1		08-27-081-11 W6M
2	Bay Tree	0.1	24.0	1.2		13-16-078-13 W6M
3	Fourth Creek	0.1	30.1	1.7		04-13-082-07 W6M
4	Gordondale	0.2	30.3	1.3		04-34-078-10 W6M
5	Boone Creek	BDL	22.2	0.8		16-36-074-11 W6M
7	Steeprock Creek	BDL	33.3	0.9		09-35-072-13 W6M
9	Spirit River	0.2	27.0	2.5		08-12-079-07 W6M
10	Woking	0.3	27.5	1.4		01-13-076-07 W6M
11	Webber Creek	0.2	26.2	2.0		09-36-074-09 W6M
12	Hythe	0.1	24.0	3.2		14-36-072-11 W6M
14	Sylvester	BDL	22.3	0.9		08-06-069-12 W6M
16	Beaverlodge	0.1	26.7	2.6		15-36-071-10 W6M
17	Poplar	0.1	21.6	3.8		13-06-073-08 W6M
18	Saddle Hills	0.1	26.3	1.0		04-25-074-07 W6M
19	Wanham	0.3	31.3	1.1		16-22-077-03 W6M
20	Shaftesbury	0.1	28.2	1.1		04-03-082-23 W5M
21	Eaglesham	0.1	19.9	1.1		16-21-079-25 W5M
23	Bear Lake	0.1	19.5	2.5		15-31-072-06 W6M
24	Wembley	0.1	22.7	3.2		12-31-070-08 W6M
25	Pinto Creek	BDL	24.5	1.3		04-24-069-11 W6M
26	Flyingshot	0.1	22.3	2.8		15-36-070-07 W6M
27	Grande Prairie I	0.1	19.1	10.8		08-15-071-06 W6M

PAZA Passive Results for October 2015 (Continued)

28	Clairmont Lake	0.2	21.9	1.6		09-06-073-04 W6M
29	Smoky Heights	0.2	27.6	1.3		04-06-075-02 W6M
30	Fitzsimmons	0.2	20.5	1.7		15-36-072-03 W6M
32	Gold Creek	0.1	25.8	7.3		06-33-067-05 W6M
33	Wapiti	0.1	24.3	1.5		02-25-071-03 W6M
34	Puskwaskau	BDL	23.7	0.8		15-35-074-25 W5M
35	Jean Cote	0.1	24.1	3.9		12-35-079-21 W5M
36	Guy	0.1	25.6	0.9		03-04-076-22 W5M
37	Crooked Creek	0.1	25.5	1.8		16-01-071-26 W5M
38	Karr Creek	BDL	17.6	0.9		10-16-065-02 W6M
39	Clouston Creek	0.1	25.8	0.8		12-01-073-22 W5M
40	McLennan	0.1	26.3	1.7		03-29-077-19 W5M
41	Valleyview	0.1	33.4	2.3		09-30-069-22 W5M
42	Sunset House	0.2	34.7	1.3		05-32-070-19 W5M
43	High Prairie	0.1	26.1	1.6		16-13-074-17 W5M
44	Peavine	0.1	24.2	0.5		03-05-079-15 W5M
45	Gift Lake	0.1	15.5	0.3	0.1	10-07-079-12 W5M
46	Little Smoky	0.1	25.7	2.8		12-01-065-21 W5M
47	Kinuso	0.1	22.3	2.5		12-10-073-10 W5M
65	Deer Mountain 2	0.1	22.7	0.6		15-22-068-09 W5M
49	Grande Prairie HP	0.1	19.0	12.1		17-26-071-06 W6M
50	East Prairie	0.1	22.5	0.4		13-02-072-15 W5M
63	Girouxville 3				0.3	14-02-077-23 W5M
64	Girouxville 4				0.3	4-08-077-22 W5M

*BDL = Below Detection Level

*NS - No sample

Passive Summary for October 2015

Stats	Sulphur Dioxide SO ₂	Ozone O ₃	Nitrogen Dioxide NO ₂	Hydrogen Sulphide H ₂ S
	ppb	ppb	ppb	ppb

Passive Summary for October 2015 (PAZA Zone)				
Mean	0.1	24.9	2.2	0.2
Standard Deviation	0.1	4.3	2.4	0.1
Minimum	0.1	15.5	0.3	0.1
Minimum At	Peavine (#44)	Gift Lake (#45)	Gift Lake (#45)	Gift Lake (#45)
Maximum	0.3	34.7	12.1	0.3
Maximum At	Woking (#10)	Sunset House (#42)	Grande Prairie HP	Girouxville 3 (#63)

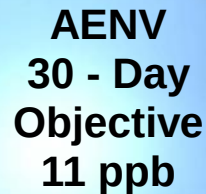
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

	SO ₂	O ₃	NO ₂
PAZA Beaverlodge station	0.1	25.4	3.5
PAZA Beaverlodge passive	0.1	26.7	2.6

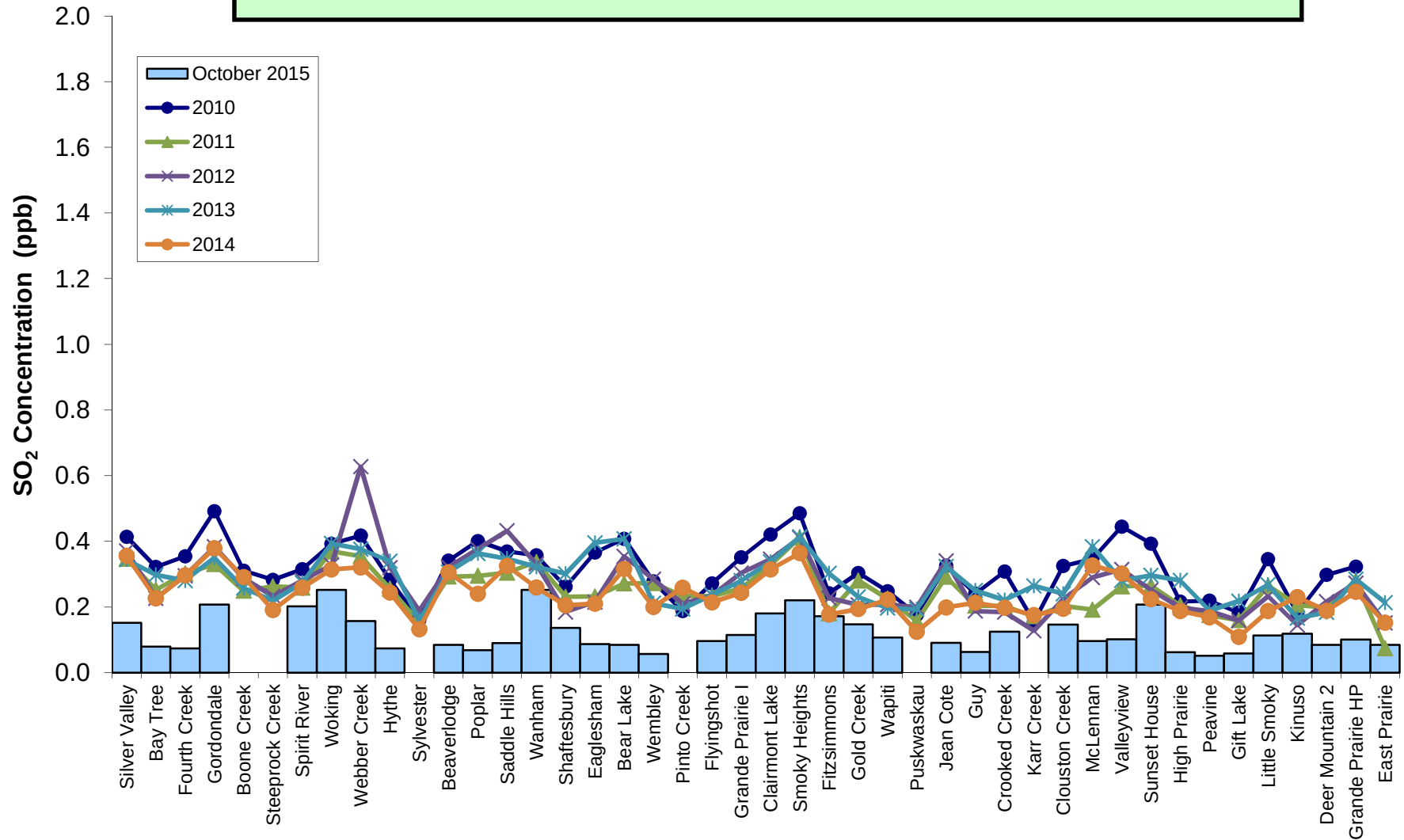
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

	SO ₂	O ₃	NO ₂
PAZA Henry Pirker station	0.1	17.6	9.6
PAZA Grande Prairie passive	0.1	19.0	12.1

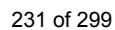
October 2015



Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb

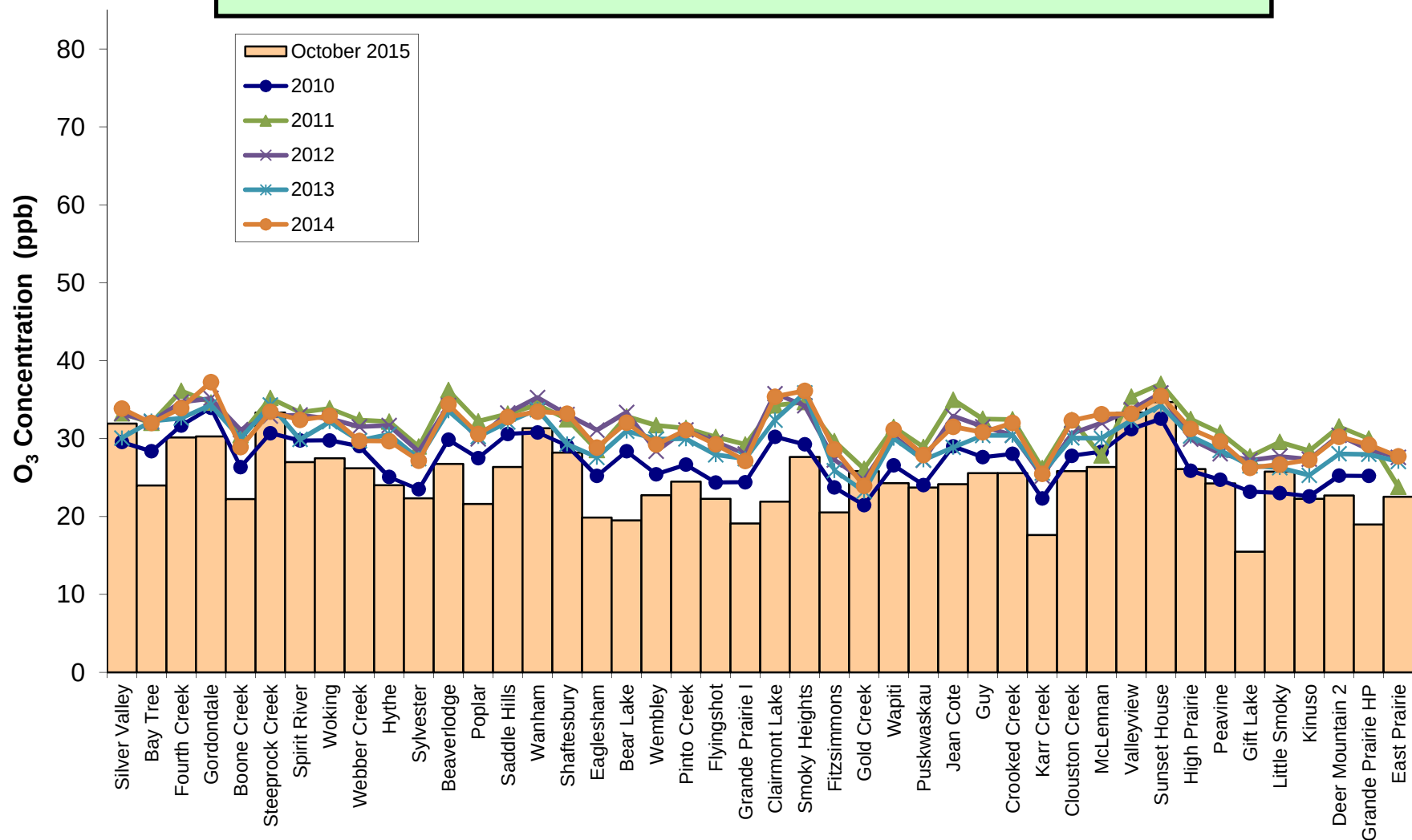


October 2015

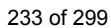


No AENV 30-Day Objective

Alberta Ambient Air Quality Objective - No Annual O₃ Objective

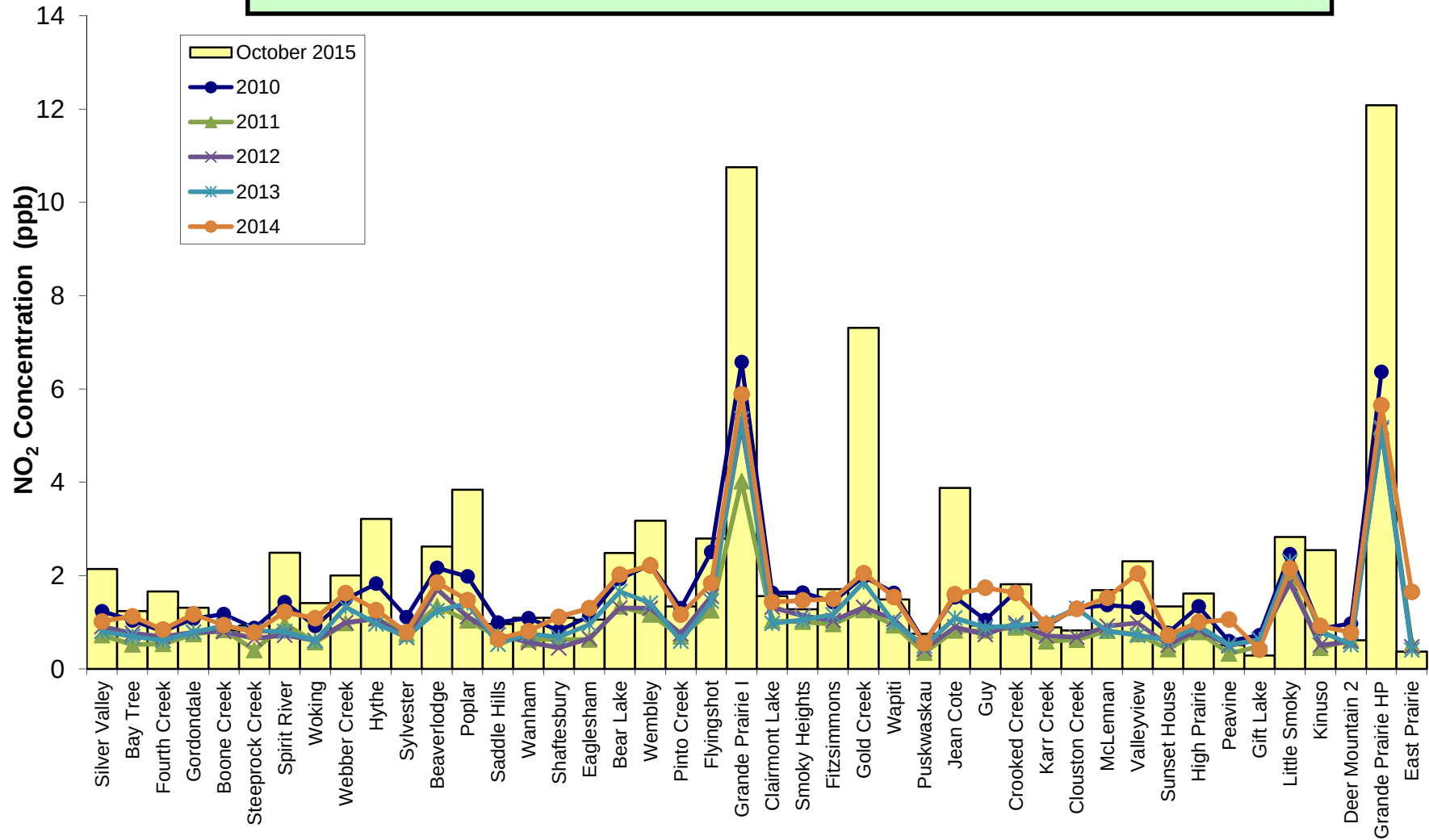


October 2015

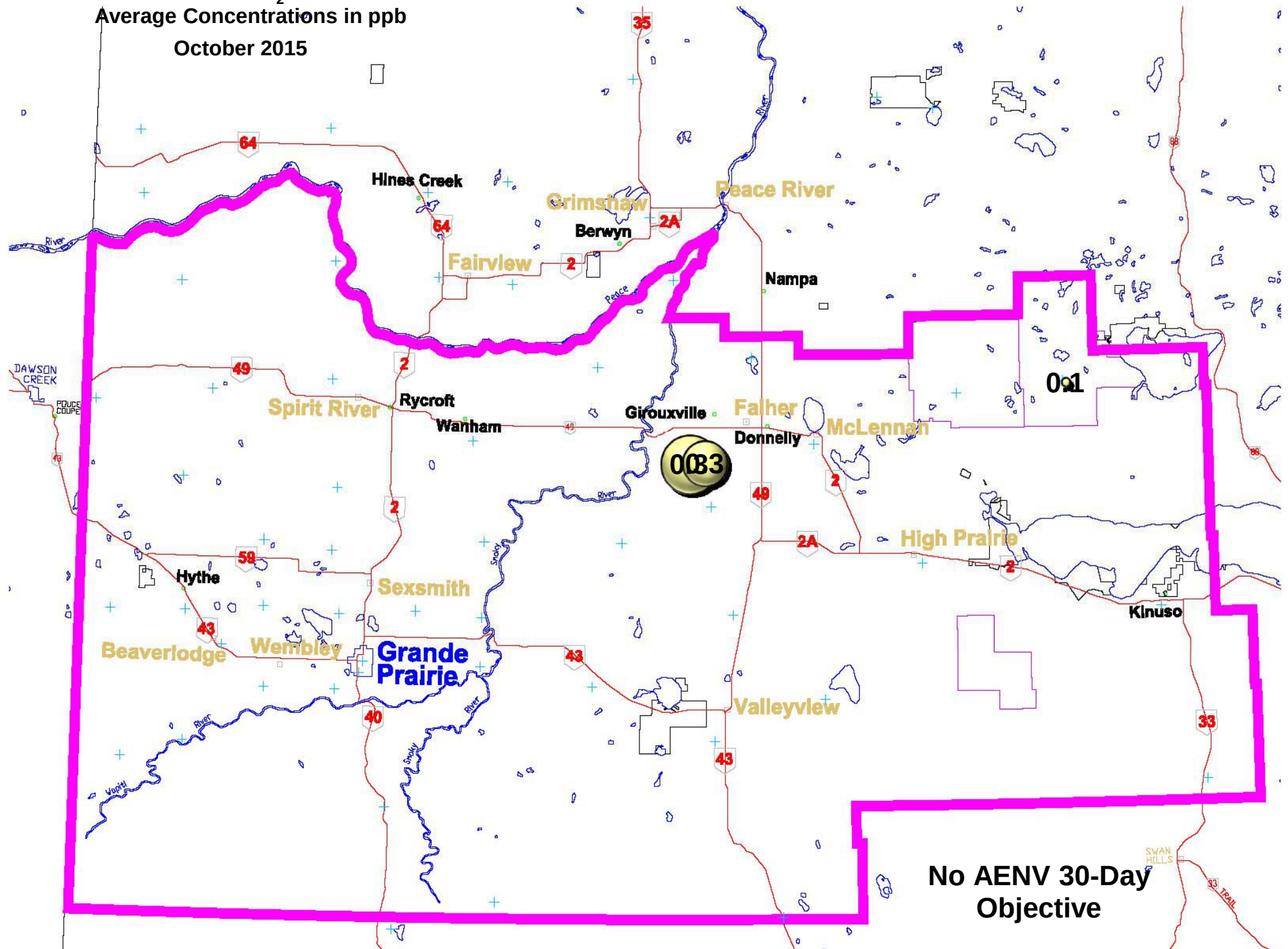


**AENV
Annual
Objective
24 ppb**

Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 24 ppb



**PAZA Passive H₂S Stations
Average Concentrations in ppb
October 2015**



October 2015 Calibration Reports

PAZA - Henry Pirker Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃, CO, THC, TRS

PAZA – Evergreen Park Station with the following calibrations:

SO₂, TRS, PM_{2.5}

PAZA – Smoky Heights Station with the following calibrations:

SO₂, TRS, PM_{2.5}

PAZA – Beaverlodge Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃, PM_{2.5}

PAZA – Valleyview Station with the following calibrations:

SO₂ & H₂S

PAZA – Falher Station with the following calibrations:

SO₂ & H₂S

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	October 16, 2015	Previous Calibration	September 22, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	8:05	End Time (MST)	10:55
Barometric Pressure	721.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Conc	49.7 ppm	Cal Gas Cert Date	October 5, 2018
		Cal Gas Cylinder #	LL103793
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.997271	Calculated slope	0.992491
Calculated intercept	-0.544839	Calculated intercept	1.055981
Analyzer make	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.39		1.44	
Coefficient	0.997		1.038	
Pressure	676.1	mm Hg	681.3	mm Hg
Flow	0.444	lpm	0.445	lpm
Lamp intensity	81	Hz	82	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.3	N/A
4995	39.93	394.2	396.8	0.9933
4995	19.97	197.9	197.4	1.0024
4995	9.97	99.0	97.5	1.0150
4995	0.00	0.0	0.3	As Found Zero
4995	39.93	394.2	378.1	As Found Span
Average Correction Factor				1.0036

Calculated value of As Found Response: 376.3 ppb Percent Change of As Found: 4.5%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	273.1	ppb	288.1	ppb

Notes:

Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



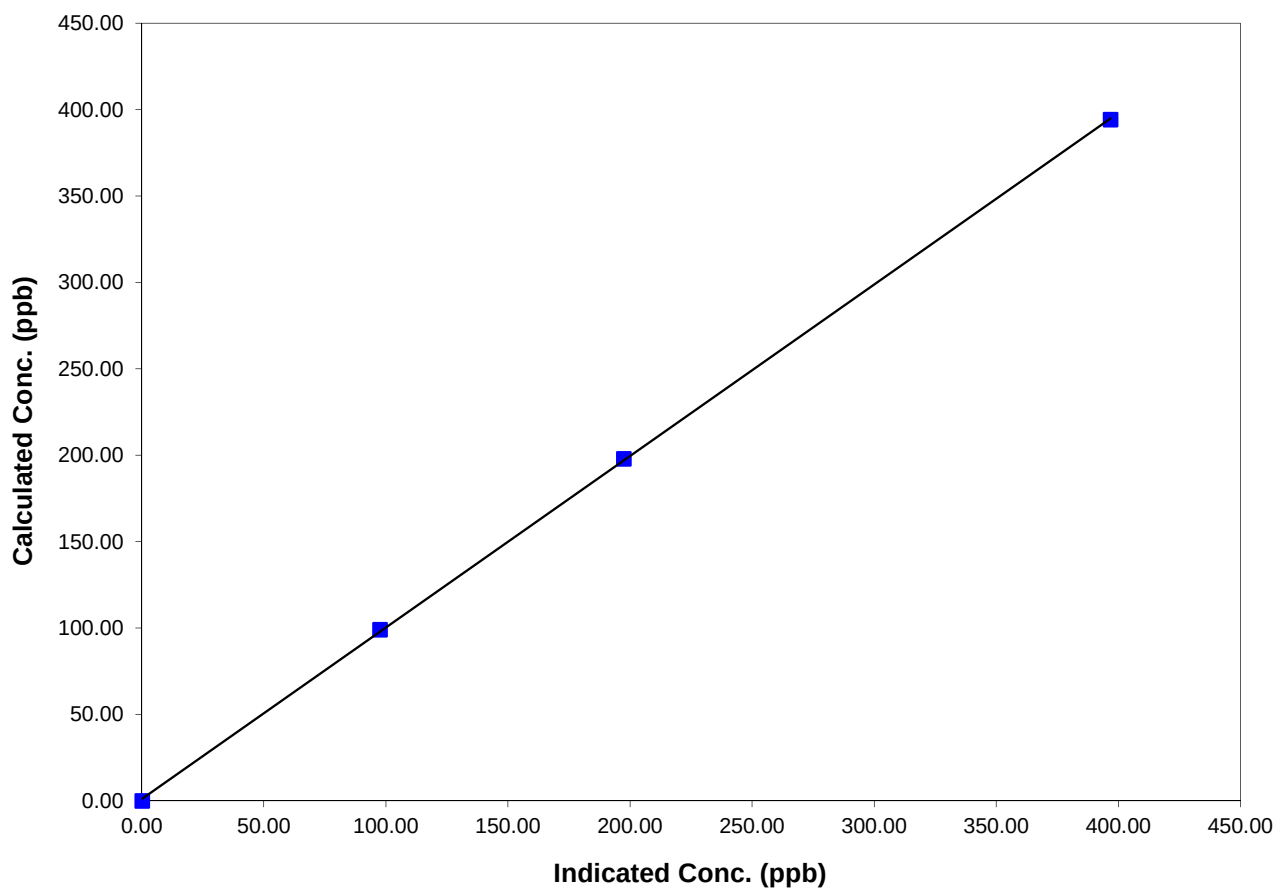
Station Information

Calibration Date	October 16, 2015	Previous Calibration	September 22, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:05	End Time (MST)	10:55
Analyzer make/model	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

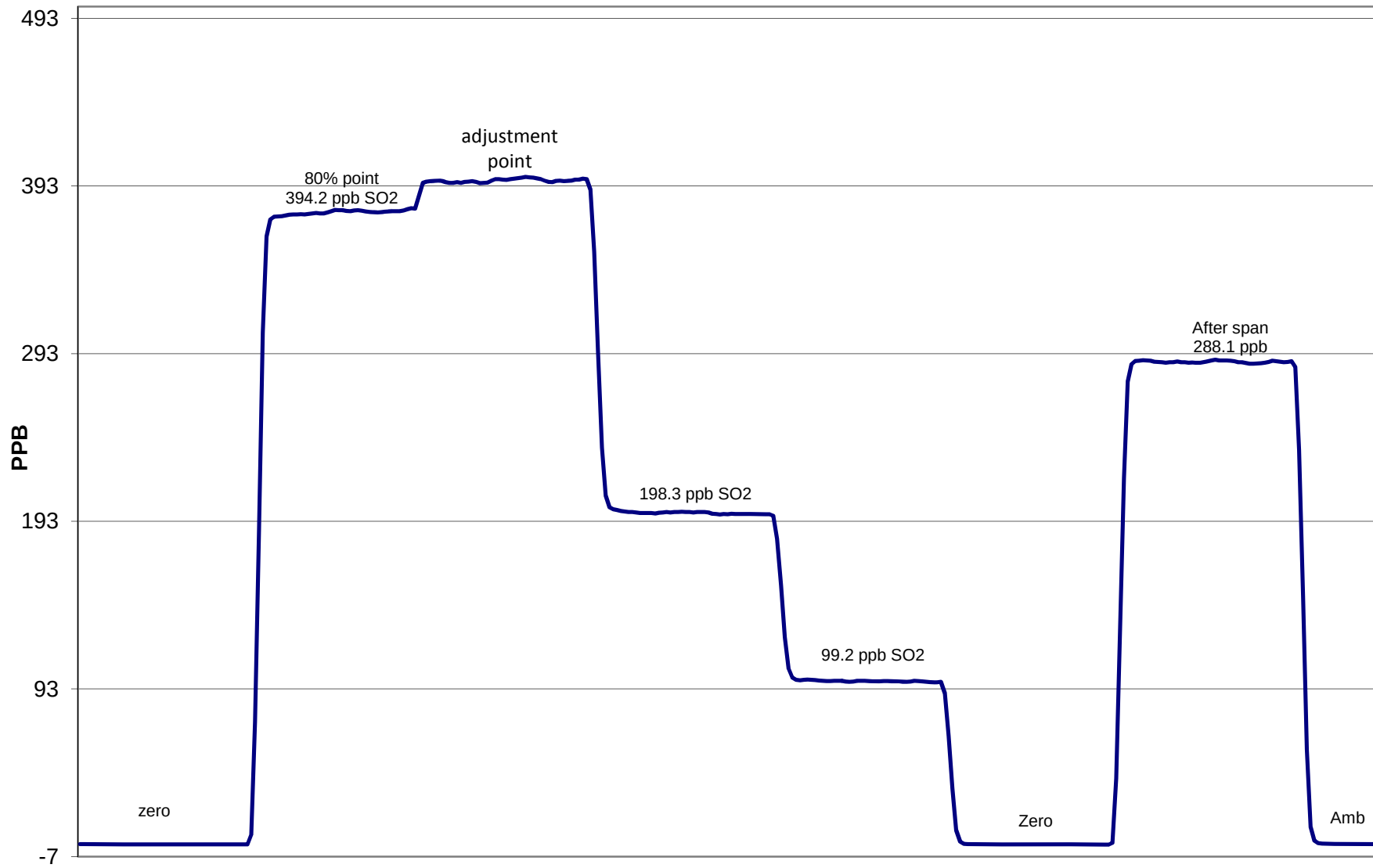
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999948
394.2	396.8	0.9933		
197.9	197.4	1.0024		
99.0	97.5	1.0150	Slope	0.992491
			Intercept	1.055981

SO2 Calibration Curve



SO2 Calibration



October 16, 2015

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	October 16, 2015		Previous Calibration	September 22, 2015	
Station Number	1		Station Location	Henry Pirker	
Reason:	Routine Installation Removal		Other:		
Start Time (MST)	8:10		End Time (MST)	12:55	
Barometric Pressure	721.000	mm	Station Temperature	21.0	Deg C
Calibrator	EnviroNics		Serial Number	6586	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	October 5, 2018	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL103793	

DACS Information

DACS make	CR3000	DACS serial No.	5408	
	Parameter	NO2	NOx	NO
Before	Data Slope	0.995043	0.999200	0.993747
	Data Offset	0.054861	-0.298742	-0.146813
After	Data Slope	1.000501	1.003140	0.997343
	Data Offset	-0.340070	-0.125743	0.099328
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	5.3	mV	5.4	mV
NOx bkgnd	5.4	mV	5.3	mV
NO coefficient	0.904		0.917	
NOx coefficient	1.000		1.000	
NO2 conv temp	322.6	Deg C	322.6	Deg C
Cooler Temp	-2.7	Deg C	-2.7	Deg C
PMT Volt	-844.3	mV	-844.3	mV
R Cell Press	166.7	in Hg	172.8	in Hg
Sample Flow	0.667	LPM	0.668	LPM

Notes: Span adjustment made

Calibration Report

Parameter **NOX-NO-NO2**
Air Monitoring Network **PAZA**

Station Information

Calibration Date: October 16, 2015 Station Location: Henry Pirker

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.1	0.3	0.0	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	404.8	404.9	0.1	1.0029	0.9968
2	4995	19.96	203.8	202.6	1.2	203.4	202.4	0.5	1.0019	1.0009
3	4995	9.93	101.6	101.0	0.6	101.3	101.1	0.3	1.0027	0.9990
AFZ	4995	0.00	0.0	0.0	0.0	0.1	0.3	0.0	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	398.4	398.6	0.1	1.0189	1.0124
Average Correction Factor									1.0025	0.9989

As Found Concentrations: NO_x= 397.7 NO= 395.7 As Found Percent Change NO_x= -2.0% NO= -1.9%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.3	0.3	0.0	0.1	0.3	0.0	N/A	N/A	N/A	N/A
NO point	404.7	404.7	0.0	405.3	404.7	0.3	0.9987	1.0000	N/A	N/A
300	404.7	75.9	328.9	404.8	75.9	328.8	0.9997	1.0000	1.0002	100.0%
200	404.7	184.1	220.6	406.0	184.1	221.0	0.9969	1.0000	0.9982	100.2%
100	404.7	299.2	105.5	406.4	299.2	106.3	0.9959	1.0000	0.9932	100.7%
Average Correction Factor							0.9975	1.0000	0.9972	100.3%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.6	0.4	0.3	ppb	0.2	0.1	0.3	ppb
Auto span	353.4	349.7	3.2	ppb	362.0	358.5	3.2	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



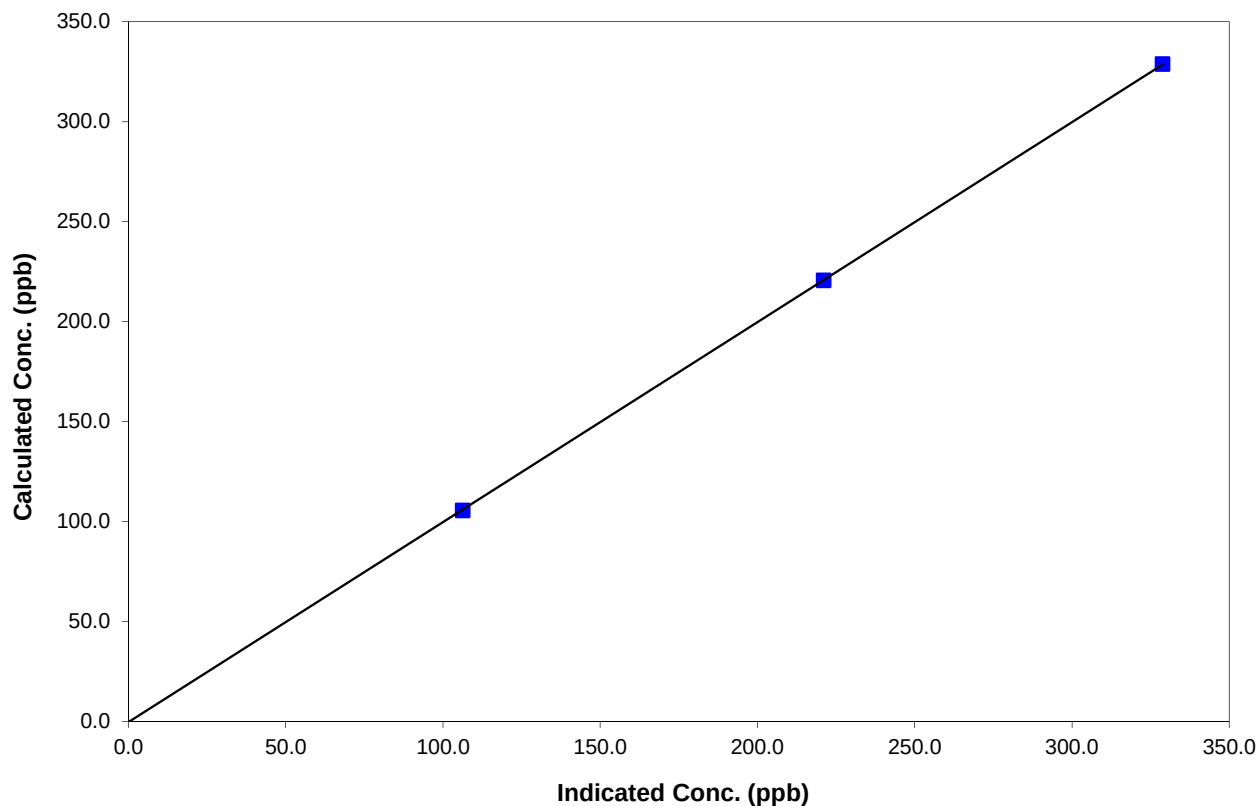
Station Information

Calibration Date	October 16, 2015	Previous Calibration	September 22, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:10	End Time (MST)	12:55
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999993
328.9	328.8	1.0002		
220.6	221.0	0.9982		
105.5	106.3	0.9932	Slope	1.000501
			Intercept	-0.340070

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



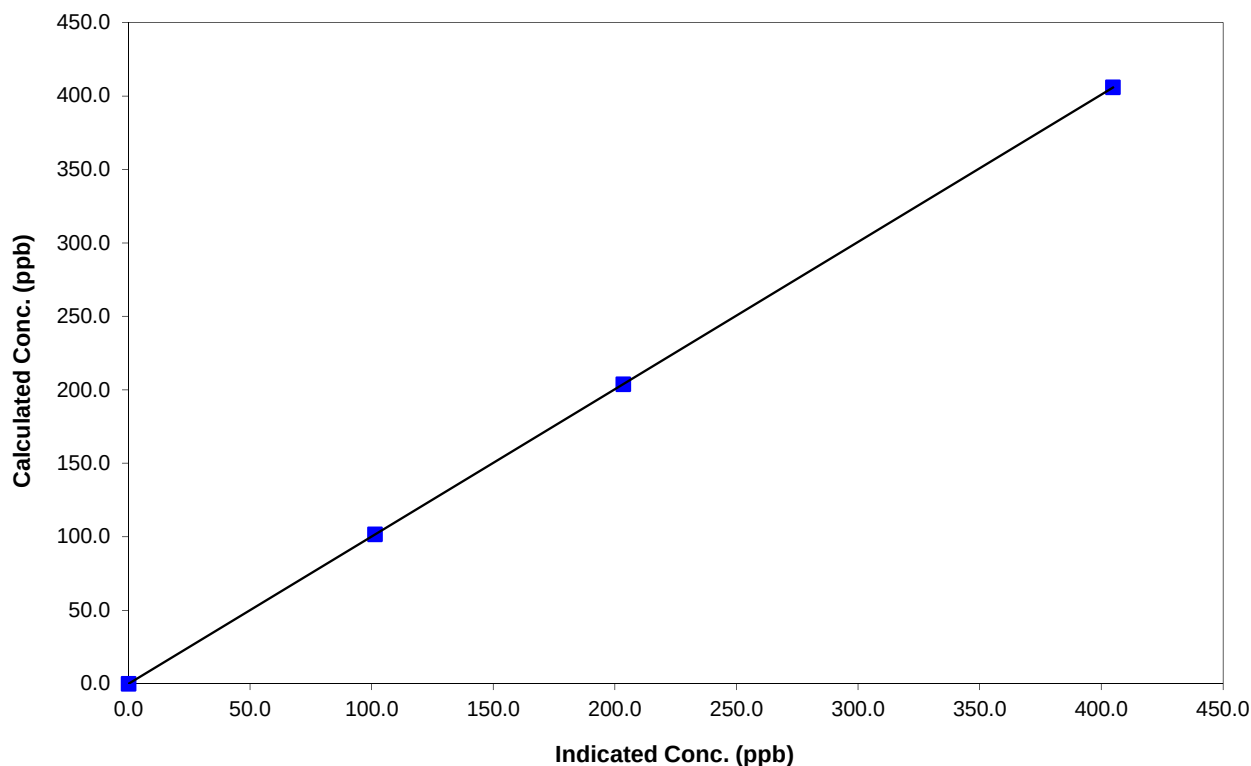
Station Information

Calibration Date	October 16, 2015	Previous Calibration	September 22, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:10	End Time (MST)	12:55
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	1.000000
405.9	404.8	1.0029		
203.8	203.4	1.0019		
101.6	101.3	1.0027	Slope	1.003140
			Intercept	-0.125743

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



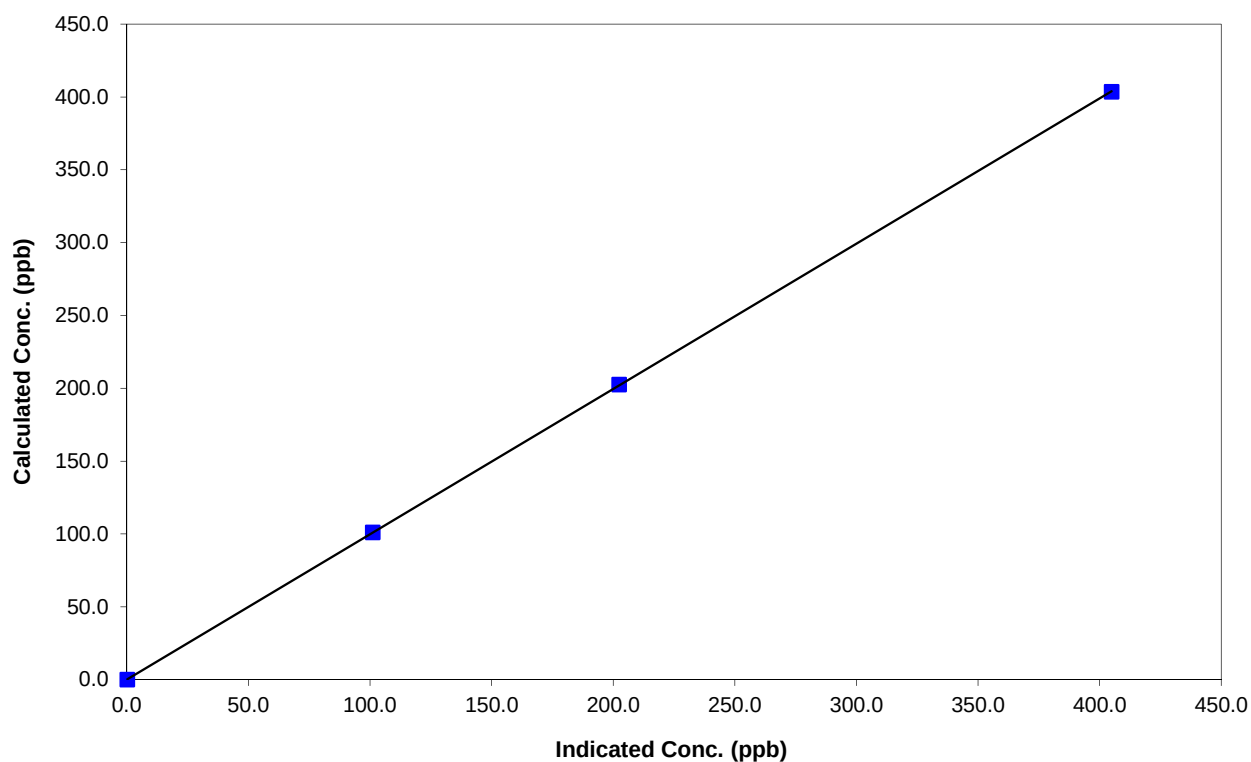
Station Information

Calibration Date	October 16, 2015	Previous Calibration	September 22, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:10	End Time (MST)	12:55
Analyzer make	42i	Analyzer serial #	906535087

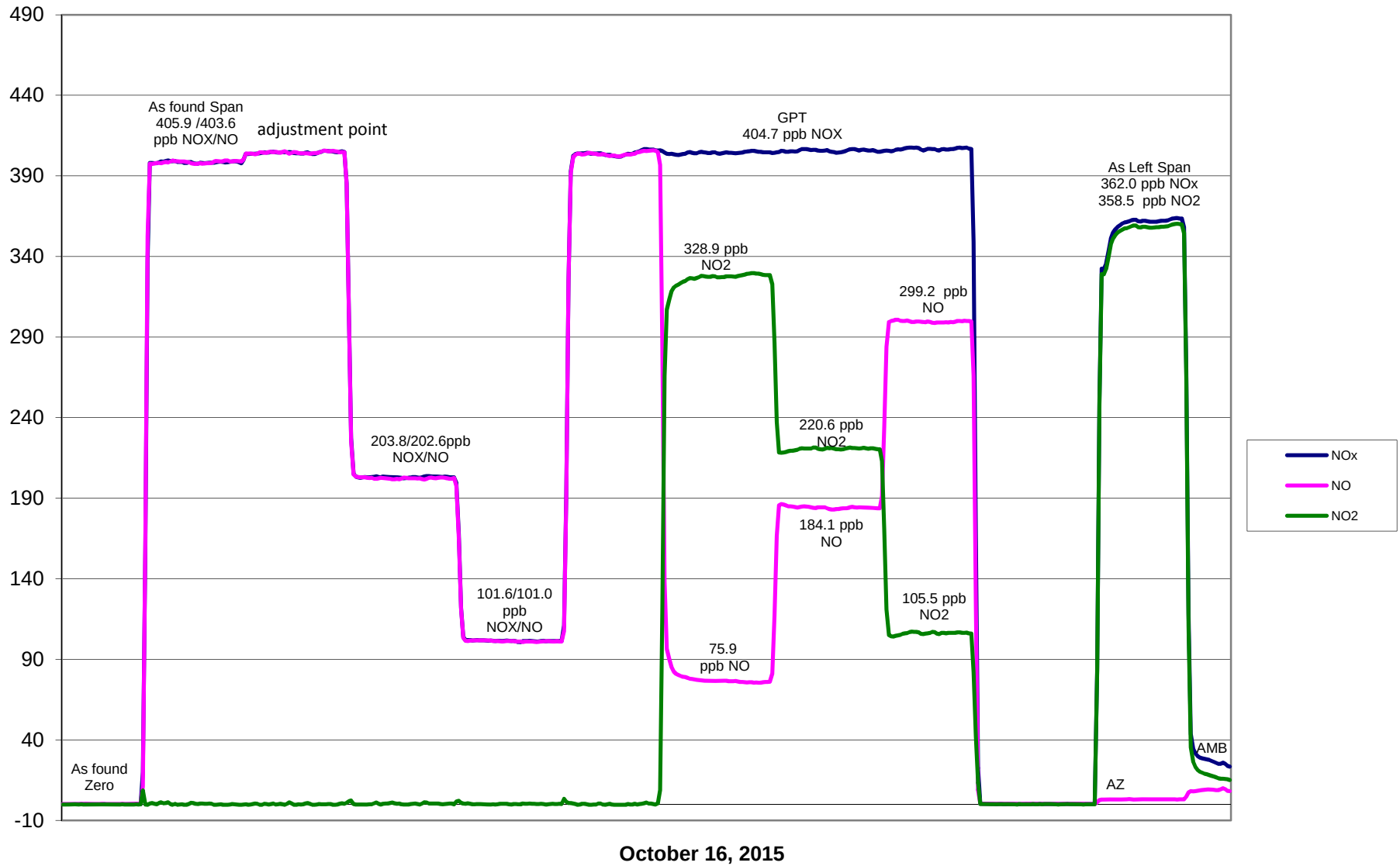
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999993
403.6	404.9	0.9968		
202.6	202.4	1.0009		
101.0	101.1	0.9990	Slope	0.997343
			Intercept	0.099328

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	October 16, 2015	Previous Calibration	September 22, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	11:35	End Time (MST)	13:55:00 PM
Barometric Pressure	721.000 mm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.006811	Calculated slope	0.999595
Calculated intercept	-0.548550	Calculated intercept	-0.929969

Analyzer make	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.80	ppb	-1.80	ppb
slope	1.002		1.002	
Lamp temp	53.7	mV	53.7	mV
Lamp Intensity A/B	91638/100355	mV	97772/102896	mV
Pressure	698.2	mm Hg	701.5	mm Hg
Flow A	0.735	ccm	0.737	ccm
Flow B	0.737	ccm	0.739	ccm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.0	0.0	0.7	N/A
5035	0.3	328.9	330.5	0.9952
5035	0.2	220.6	220.4	1.0011
5035	0.1	105.5	107.4	0.9821
5035	0.0	0.0	0.7	As found zero
5035	0.3	328.9	330.5	As found span
Average Correction Factor				0.9928

Calculated value of As Found Response: 331.5 ppm Percent Change of As Found: 0.8%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.7	ppb
Auto span	353.2	ppb	355.8	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



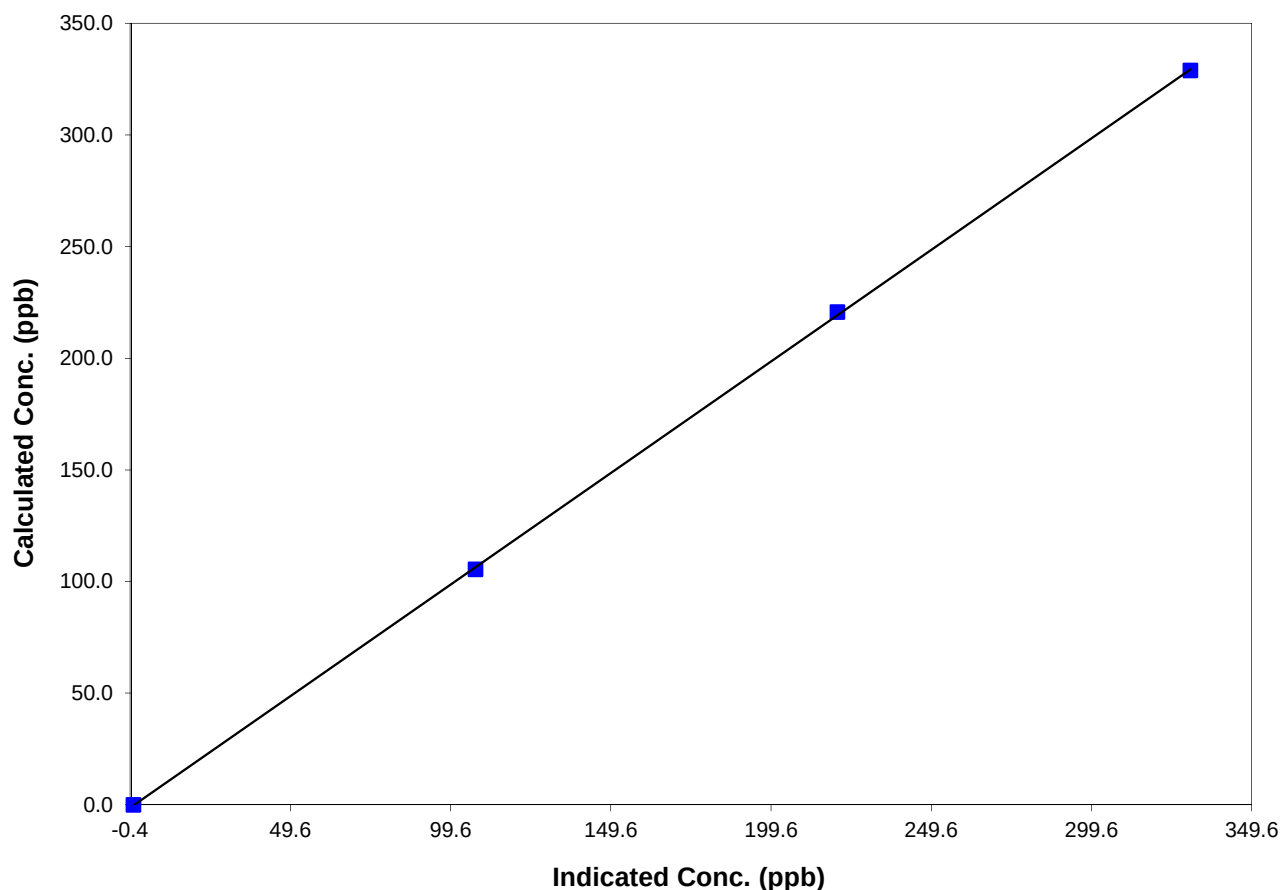
Station Information

Calibration Date	October 16, 2015	Previous Calibration	September 22, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:35	End Time (MST)	13:55:00 PM
Analyzer make/model	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

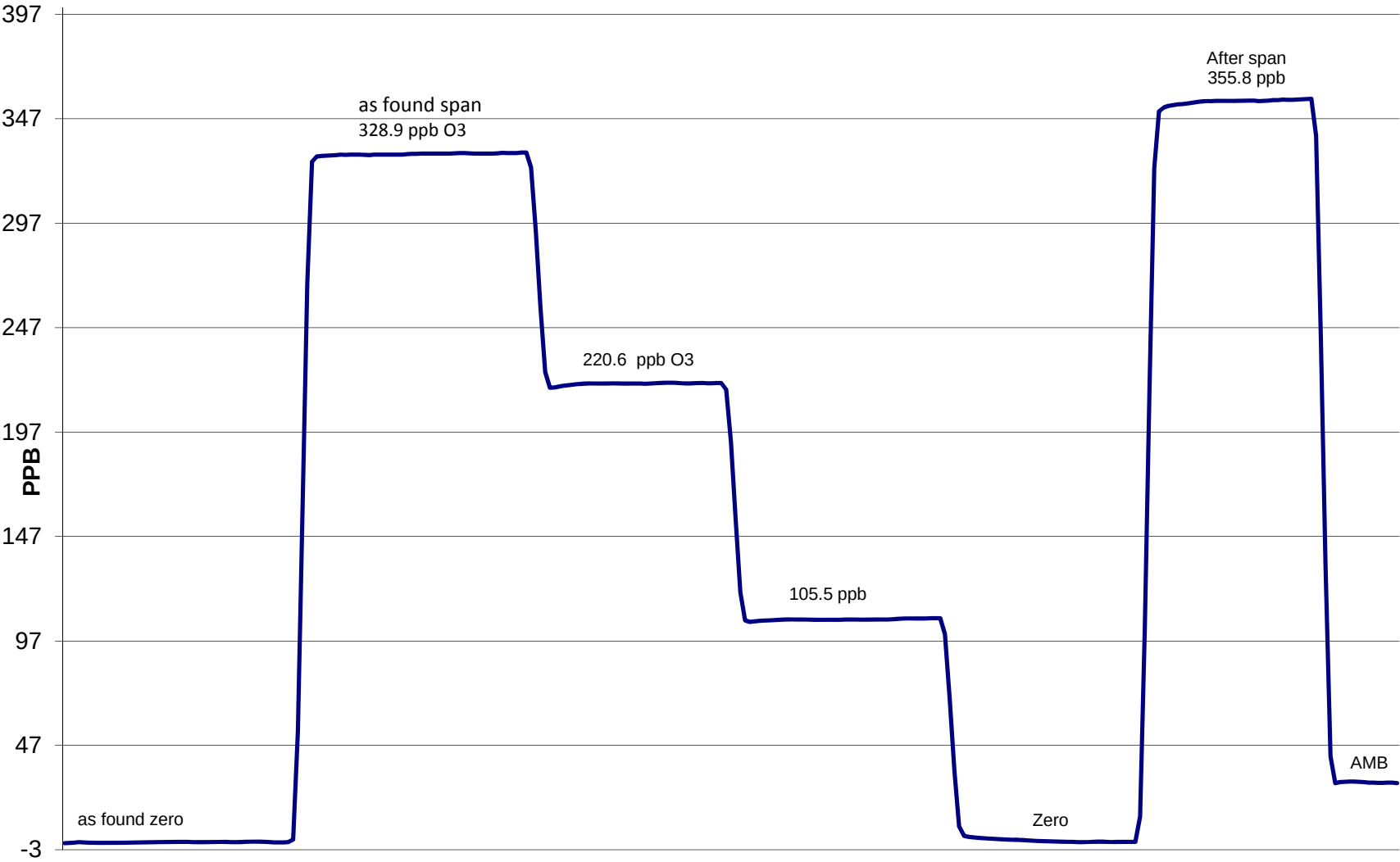
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	NA	Correlation Coefficient	0.999954
328.9	330.5	0.9952		
220.6	220.4	1.0011		
105.5	107.4	0.9821	Slope	0.999595
			Intercept	-0.929969

O3 Calibration Curve



O3 Calibration



October 16, 2015

Calibration Report



Parameter CO

Air Monitoring Network PAZA

Station Information

Calibration Date	October 13, 2015	Previous Calibration	September 23, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	11:50	End Time (MST)	15:15:00 PM
Barometric Pressure	726.0 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	6586
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
		Cal Gas Cylinder #	LL83909
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.010238	Calculated slope	1.017535
Calculated intercept	-0.156808	Calculated intercept	-0.318285
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	3.167		2.932	
CO span setting	1.001		1.001	
Sample pressure	697.7	mm Hg	698	mm Hg
Sample Flow	0.454	LPM	0.453	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.25	N/A
4995	69.94	40.02	39.61	1.0102
4995	34.96	20.14	20.13	1.0007
4995	17.96	10.38	10.58	0.9810
4995	0.00	0.00	0.25	As Found Zero
4995	69.94	40.02	40.30	As Found Span
Average Correction Factor				0.9973

Calculated value of As Found Response: 40.296 ppm Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.00	ppm	-0.01	ppm
Auto span	19.65	ppm	19.63	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CO

Air Monitoring Network PAZA



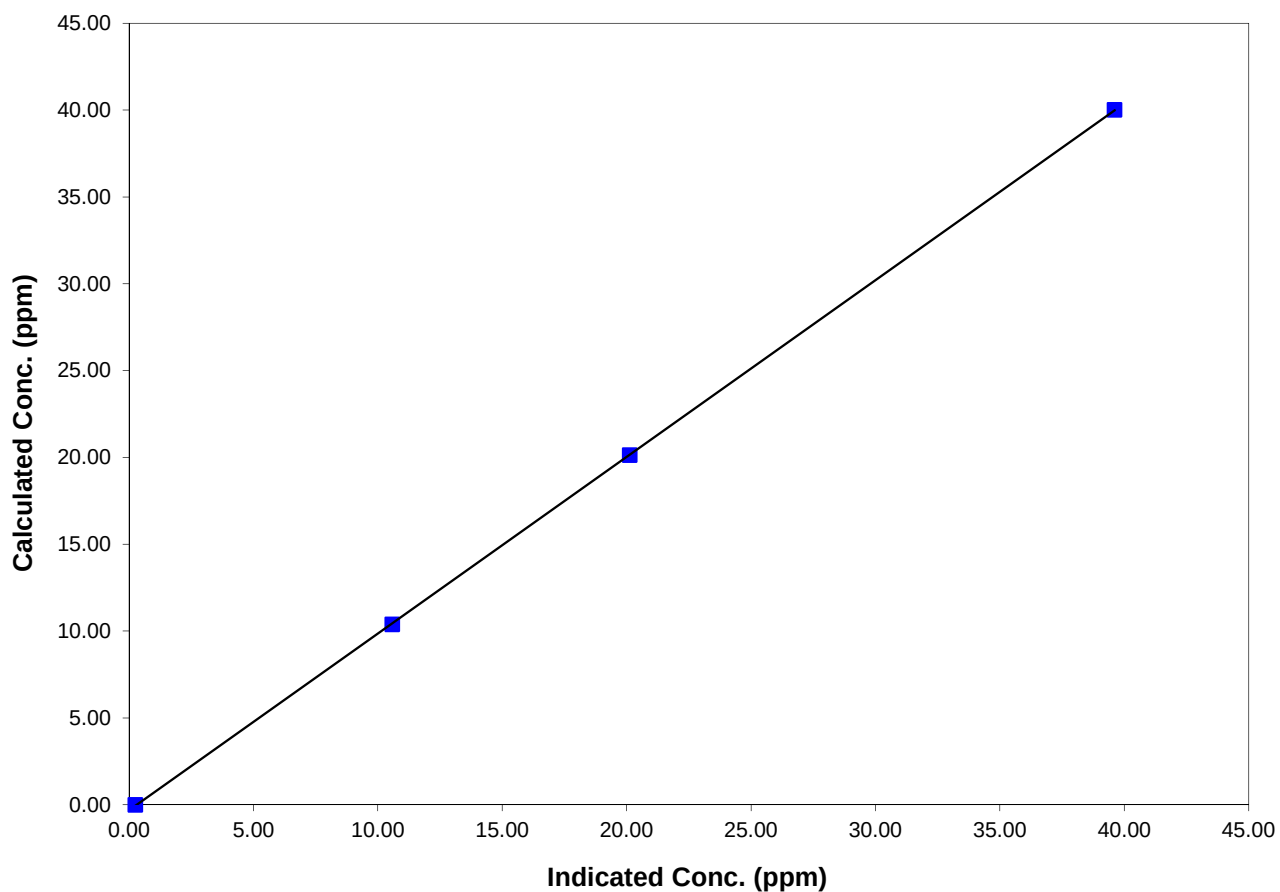
Station Information

Calibration Date	October 13, 2015	Previous Calibration	September 23, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:50	End Time (MST)	15:15:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

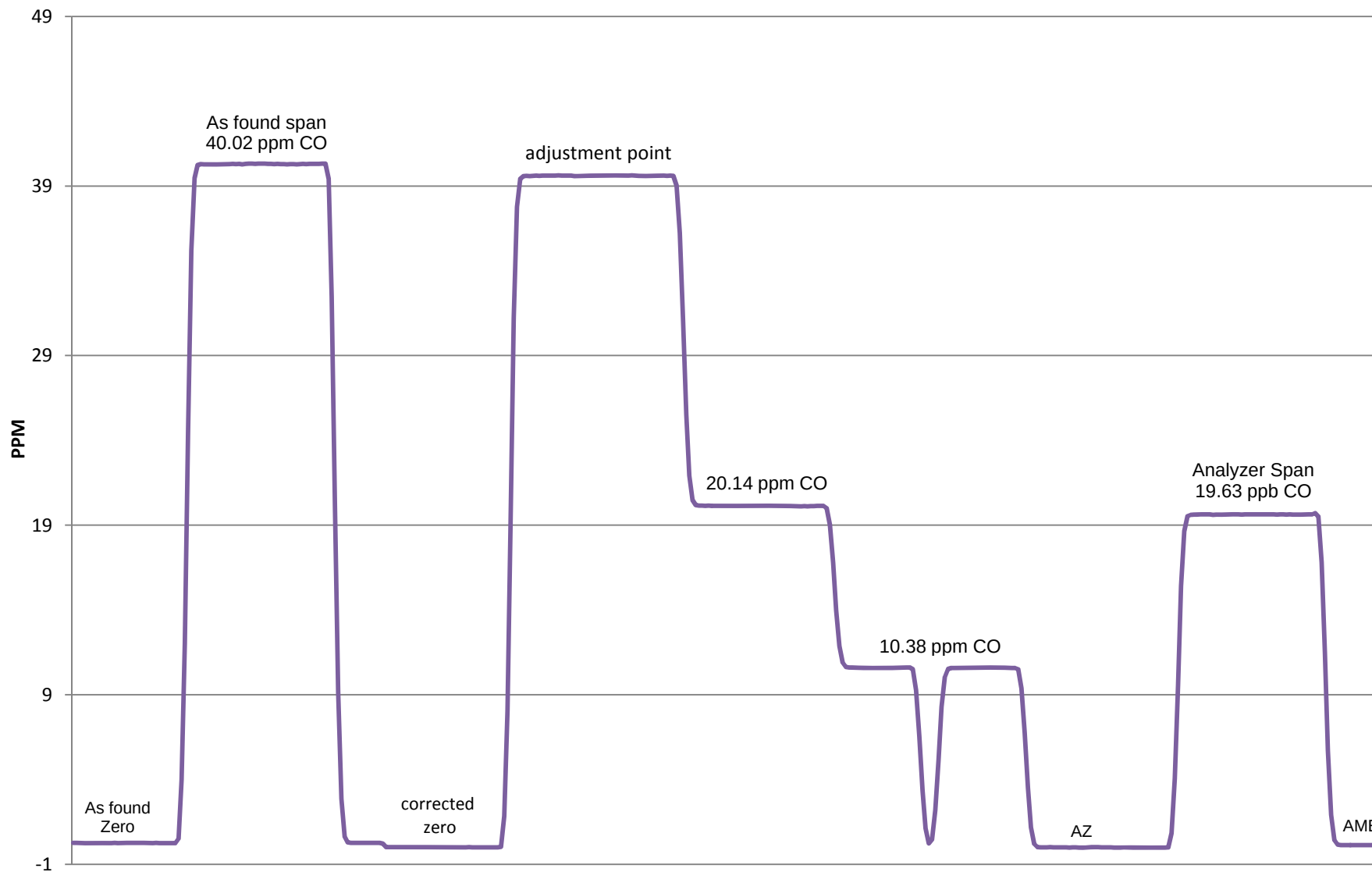
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.253	N/A	Correlation Coefficient	0.999989
40.017	39.613	1.0102		
20.142	20.128	1.0007		
10.383	10.584	0.9810	Slope	1.017535
			Intercept	-0.318285

CO Calibration Curve



CO Calibration



October 13, 2015

Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	October 15, 2015	Previous Calibration	September 23, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	7:15	End Time (MST)	11:45
Barometric Pressure	726.00 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	28/03/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make	TEI 55I	Analyzer serial #	1134650658
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	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	27.8	PSI	27.8	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	6.01		6.01	E ⁻⁴
NMHC cal factor	2.23		2.23	E ⁻⁴
Rt	12.74	Sec	12.74	Sec
Pk Index	23.22		23.22	

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.93	0.9971
1996	40.96	7.76	7.75	1.0015
1996	15.99	3.07	3.05	1.0063
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	13.36	As Found Span
Average Correction Factor				1.0016

Calculated value of As Found Response: 13.187 ppm Percent Change of As Found: -2.3%

	Before		After
Calculated slope	0.988653	Calculated slope	0.998240
Calculated intercept	0.000096	Calculated intercept	0.003545

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.70	ppm	9.55	ppm

NMHC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	19.01	19.08	0.9962
1996	40.96	11.45	11.67	0.9805
1996	15.99	4.52	4.70	0.9624
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	19.66	As Found Span
Average Correction Factor				0.9797

Calculated value of As Found Response: 19.361 ppm Percent Change of As Found: -1.9%

	Before		After
Calculated slope	0.992011	Calculated slope	0.997718
Calculated intercept	-0.126671	Calculated intercept	-0.103890

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.02	ppm	13.29	ppm

THC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.04	N/A
1996	68.96	31.90	31.98	0.9974
1996	40.96	19.21	19.40	0.9900
1996	15.99	7.59	7.73	0.9818
1996	0.00	0.00	0.04	As Found Zero
1996	68.93	31.89	33.01	As Found Span
Average Correction Factor				0.9897

Calculated value of As Found Response: 32.561 ppm Percent Change of As Found: -2.1%

	Before		After
Calculated slope	0.991021	Calculated slope	0.998629
Calculated intercept	-0.116969	Calculated intercept	-0.092704

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	20.71	ppm	22.83	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



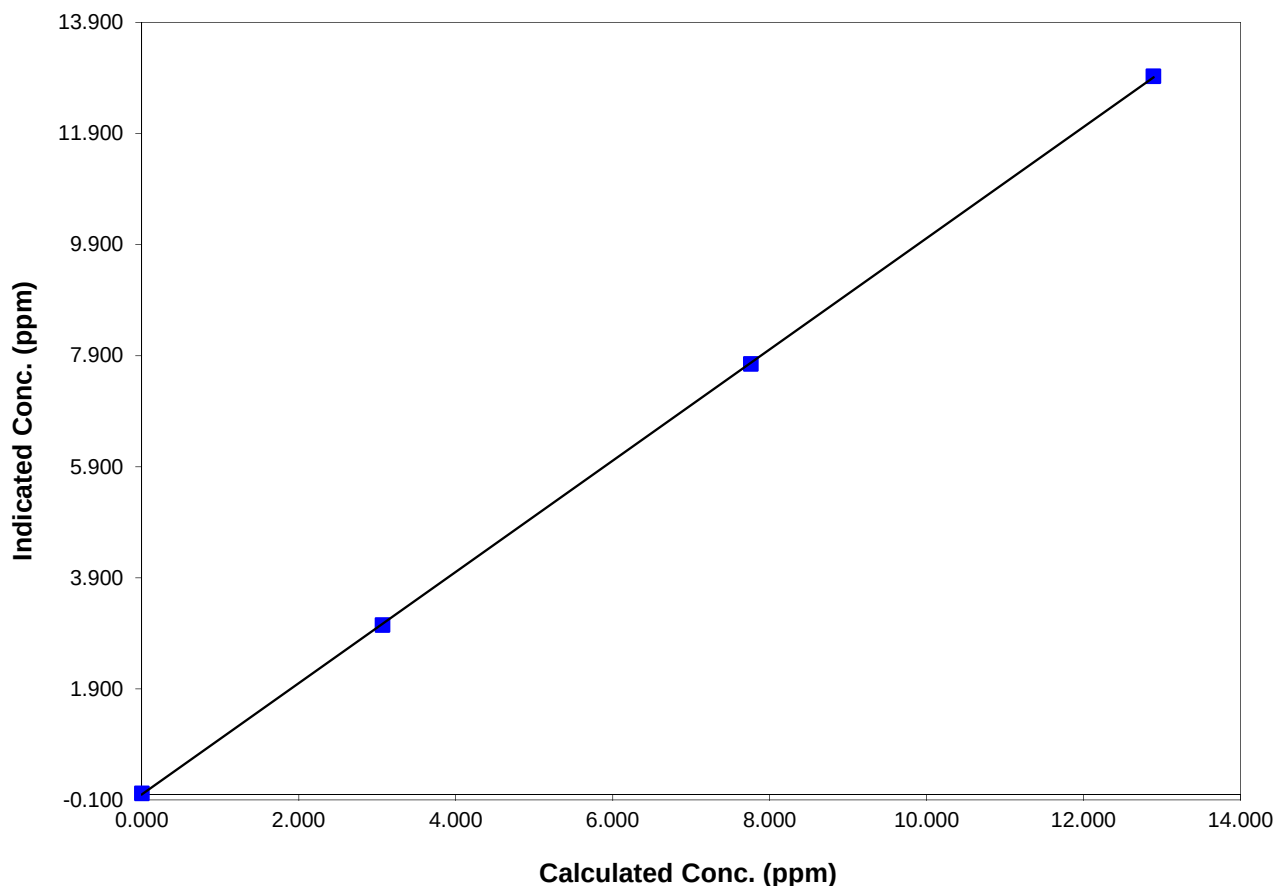
Station Information

Calibration Date	October 15, 2015	Previous Calibration	September 23, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:15	End Time (MST)	11:45
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.021	N/A	Correlation Coefficient	0.999981
12.891	12.928	0.9971		
7.762	7.750	1.0015		
3.068	3.049	1.0063	Slope	0.998240
			Intercept	0.003545

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



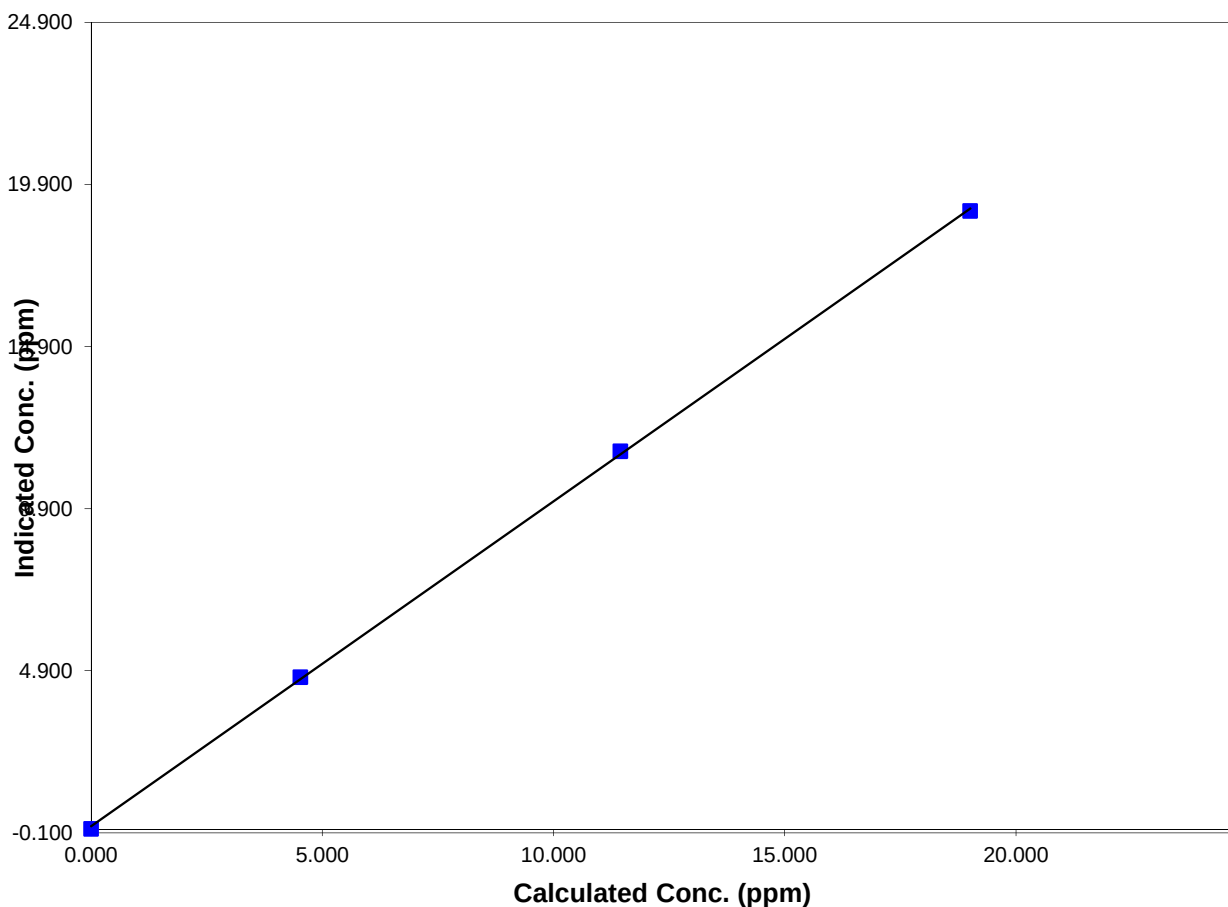
Station Information

Calibration Date	October 15, 2015	Previous Calibration	September 23, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:15	End Time (MST)	11:45
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A	Correlation Coefficient	0.999875
19.010	19.083	0.9962		
11.447	11.674	0.9805		
4.524	4.701	0.9624	Slope	0.997718
			Intercept	-0.103890

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



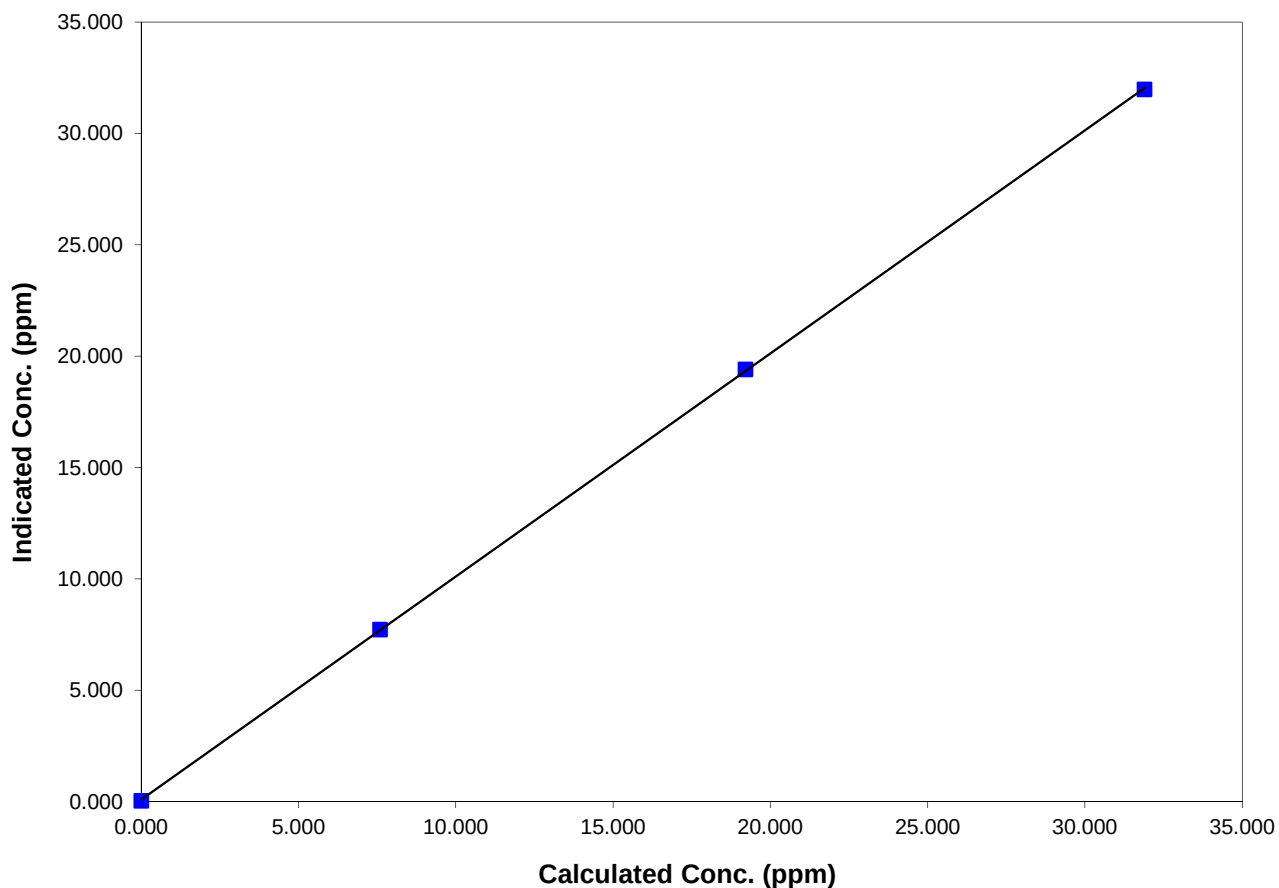
Station Information

Calibration Date	October 15, 2015	Previous Calibration	September 23, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:15	End Time (MST)	11:45
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

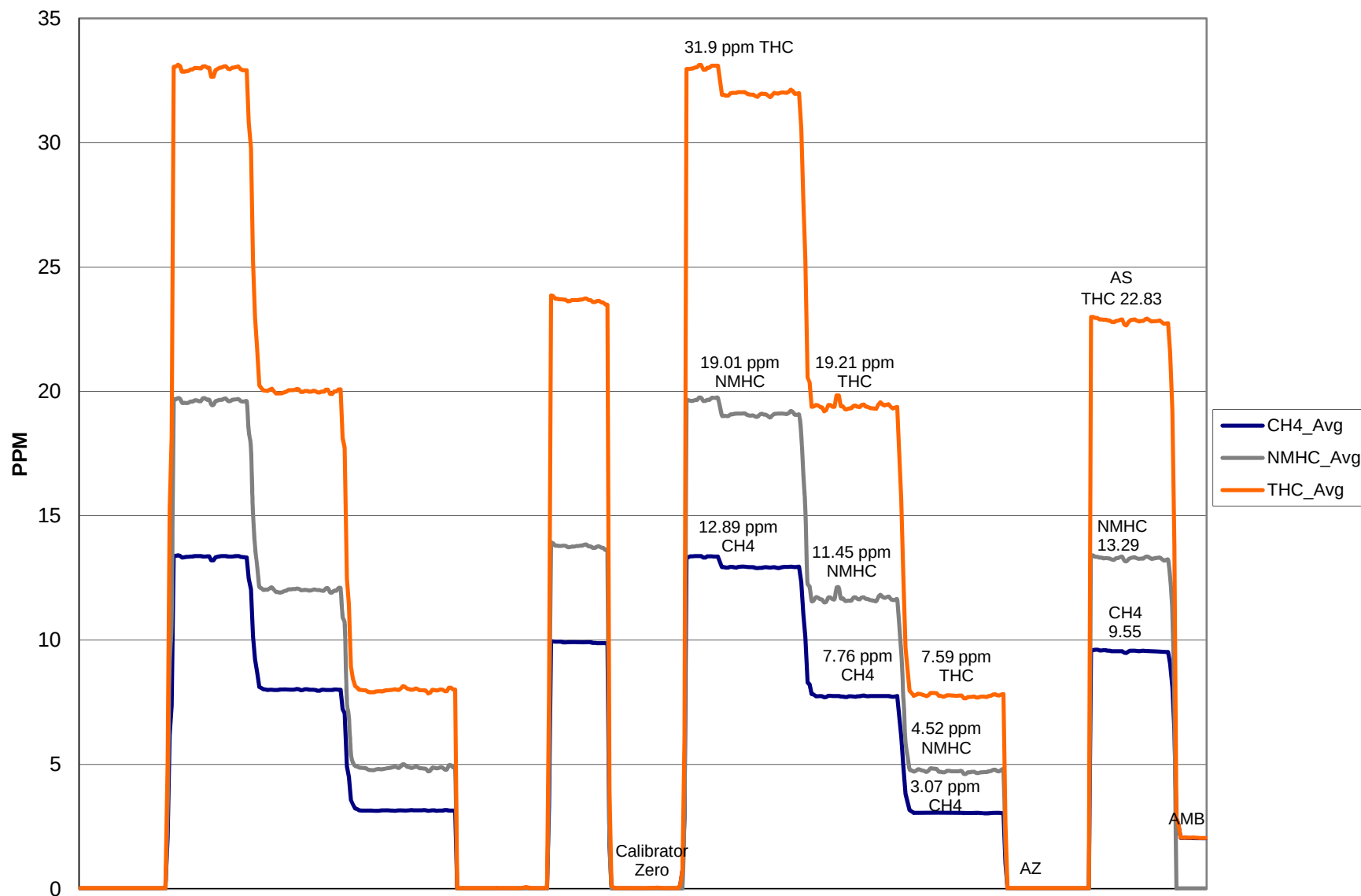
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.035	N/A	Correlation Coefficient	0.999977
31.901	31.983	0.9974		
19.209	19.402	0.9900		
7.592	7.732	0.9818	Slope	0.998629
			Intercept	-0.092704

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report

Parameter TR5

Air Monitoring Network PAZA



Station Information

Calibration Date	October 13, 2015	Previous Calibration	September 23, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	9:30	End Time (MST)	12:30
Barometric Pressure	726.00 mm/Hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	10.32 ppb	Cal Gas Expiry Date	08/07/2016
		Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.986504	Calculated slope	0.999260
Calculated intercept	0.056275	Calculated intercept	0.223257
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.935		0.935	
Background	18.3		18.2	
Pressure	663.0	mm Hg	663.9	mm Hg
Flow	0.449	ccm	0.448	ccm
Lamp Voltage	898	v	897	v

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.06	N/A
4995	39.93	81.84	81.84	1.0001
4995	19.95	41.05	40.61	1.0109
6995	9.95	14.66	14.26	1.0283
4995	0.00	0.00	0.06	As Found Zero
4995	39.93	81.84	81.84	As Found Span
Average Correction Factor				1.0131

Calculated value of As Found Response: 80.7 ppb Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	0.18	ppb	0.04	ppb
Auto span	33.35	ppb	33.26	ppb

Notes: No adjustment made
Scrubber material checked-still good.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



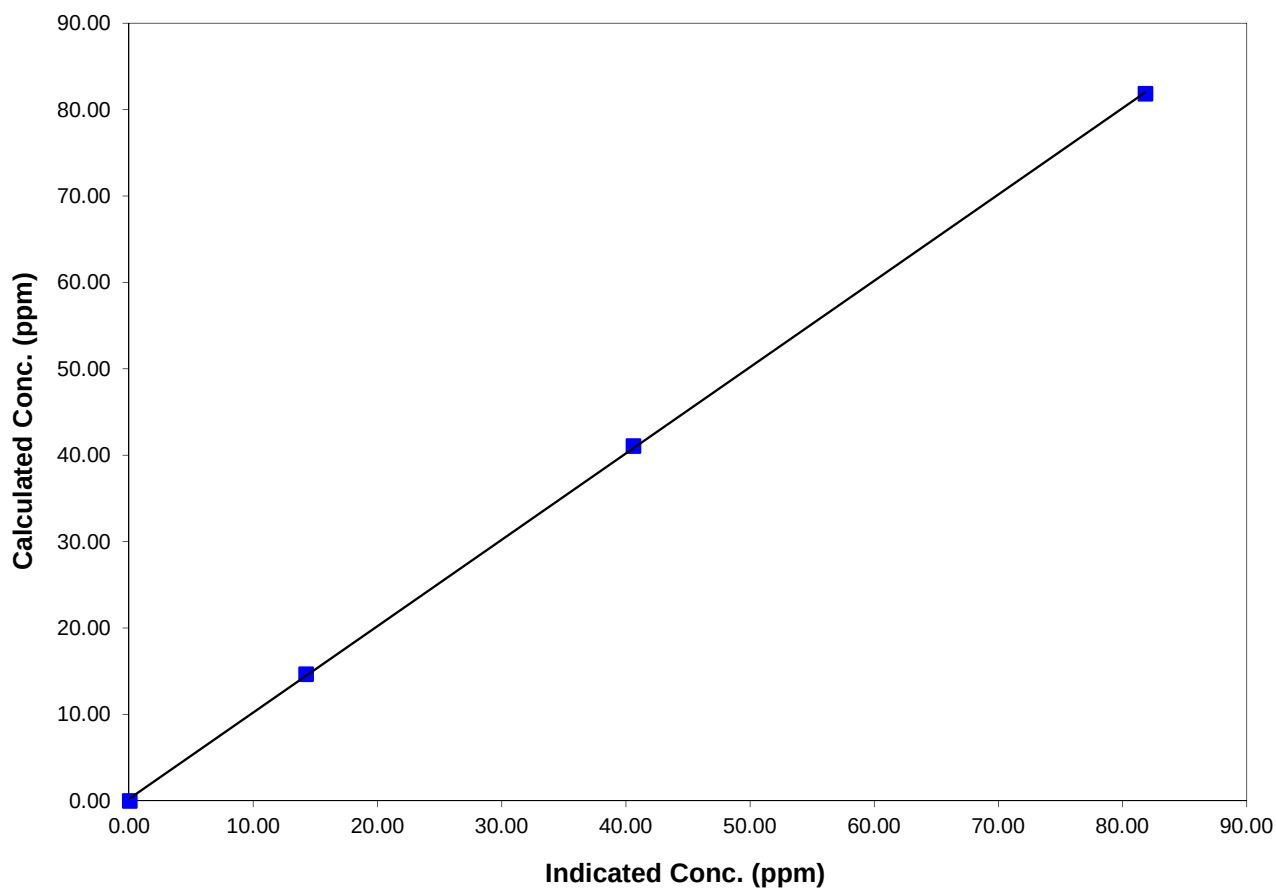
Station Information

Calibration Date	October 13, 2015	Previous Calibration	September 23, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	12:30
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

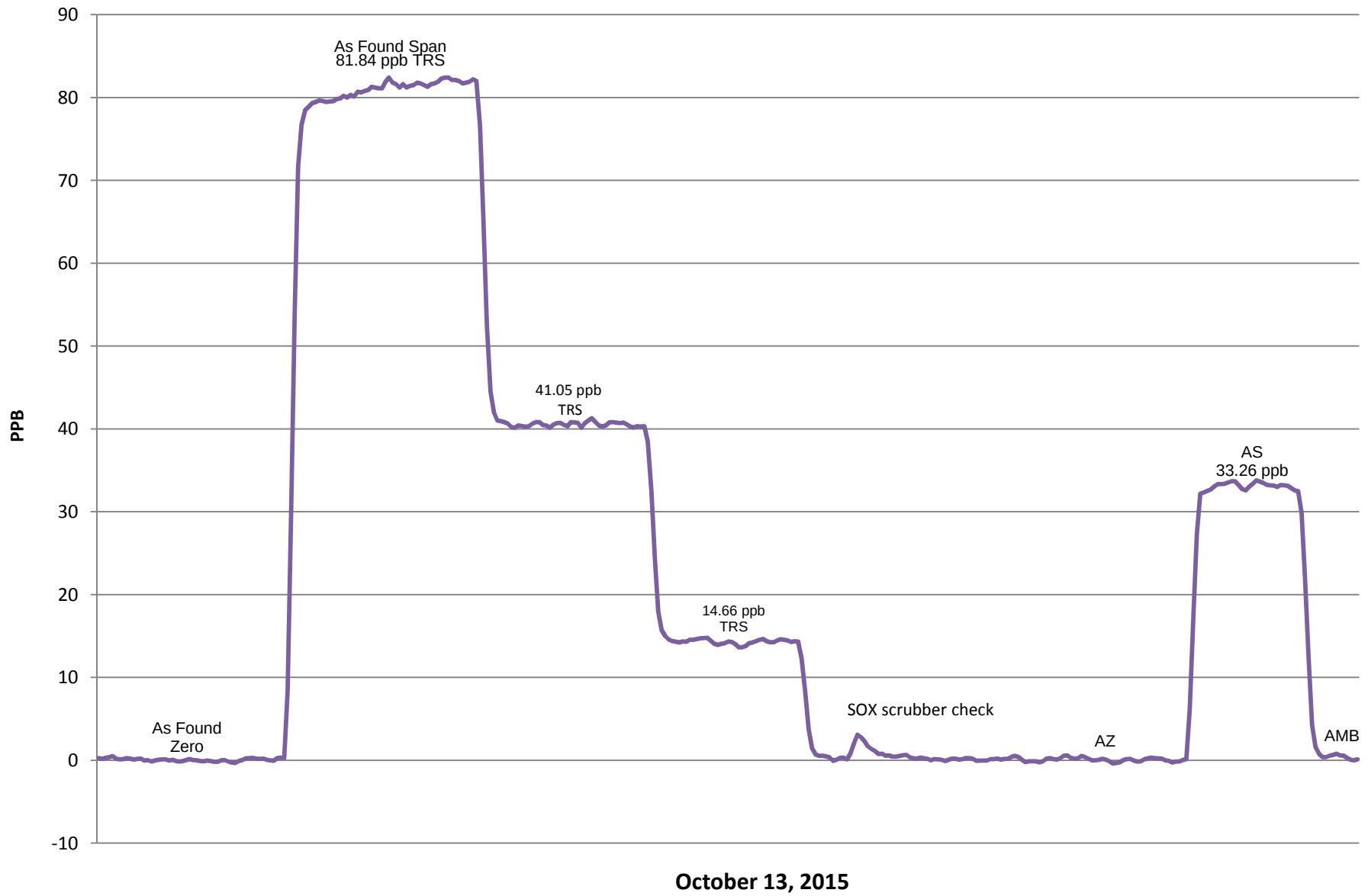
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.061	N/A	Correlation Coefficient	0.999947
81.844	81.839	1.0001		
41.054	40.609	1.0109		
14.659	14.255	1.0283	Slope	0.999260
			Intercept	0.223257

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	October 29, 2015	Previous Calibration	September 11, 2015
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	9:05	End Time (MST)	14:10:00 PM
Barometric Pressure	0.927 ATM	Station Temperature	18.5 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031673	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.995818	Calculated slope	0.993595
Calculated intercept	-0.220003	Calculated intercept	1.067642

Analyzer make TEI Model 43C Analyzer serial # 0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	23.9	ppb	21.8	ppb
coefficient	1.012		0.923	
Lamp Voltage	860	volts	858	volts
Chamber Temp	43.7	Deg C	43.9	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	605.5	mm Hg	608.9	mm Hg
Sample Flow	0.598	lpm	609.000	lpm
Lamp Intensity	34,342	mv	34,408	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4998	0.0	0.00	-0.1	N/A
4998	39.96	81.86	82.0	0.9985
4998	19.97	41.07	39.0	1.0533
6998	9.97	14.68	13.3	1.1043
4998	9.97		2.2	Sox test
4998	0.0	0.00	-0.1	As Found Zero
4998	39.96	81.86	89.4	As Found Span
Average Correction Factor				1.0520

Calculated value of As Found Response: 88.91 ppm Percent Change of As Found: -8.6%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.3	ppm
Auto span	31.5	ppm	30.5	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



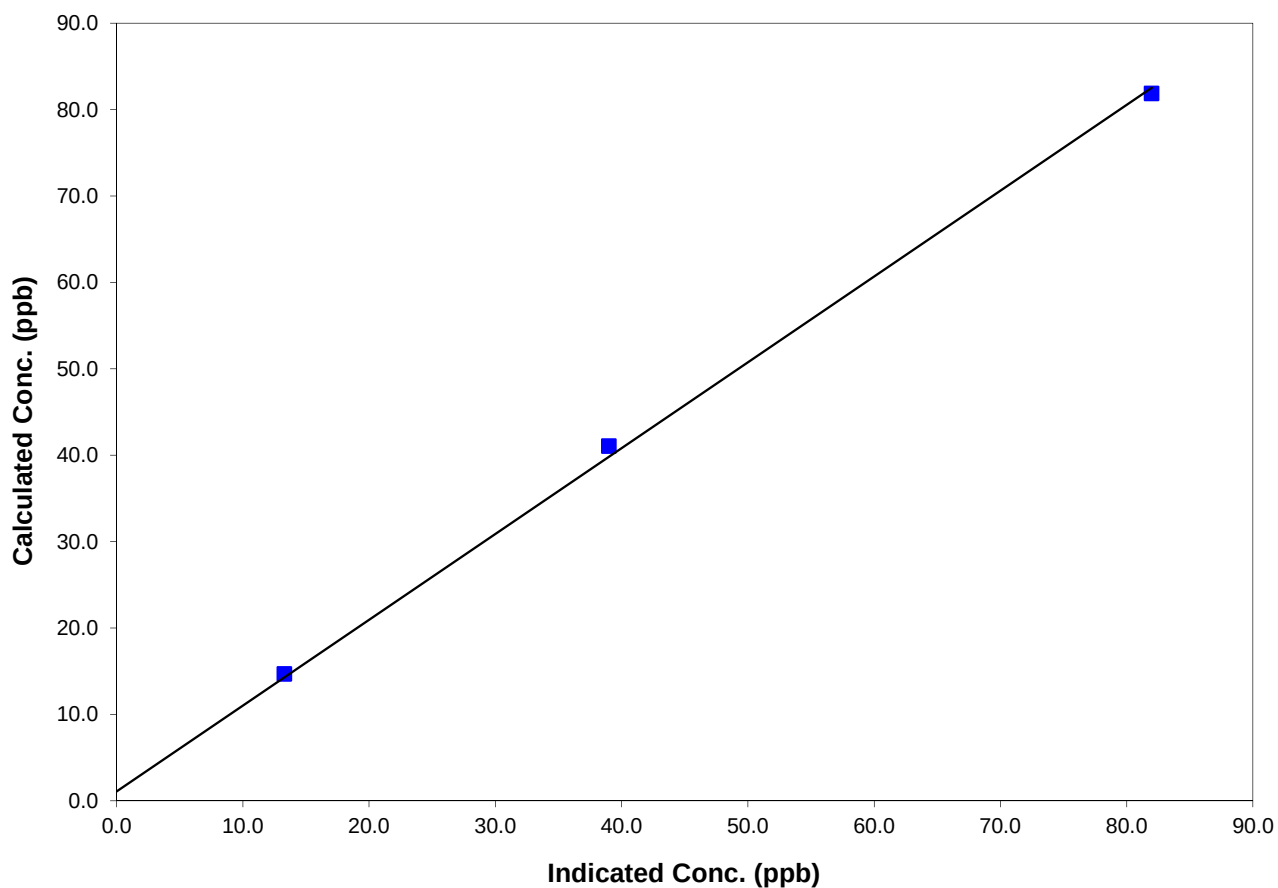
Station Information

Calibration Date	October 29, 2015	Previous Calibration	September 11, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:05	End Time (MST)	14:10:00 PM
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

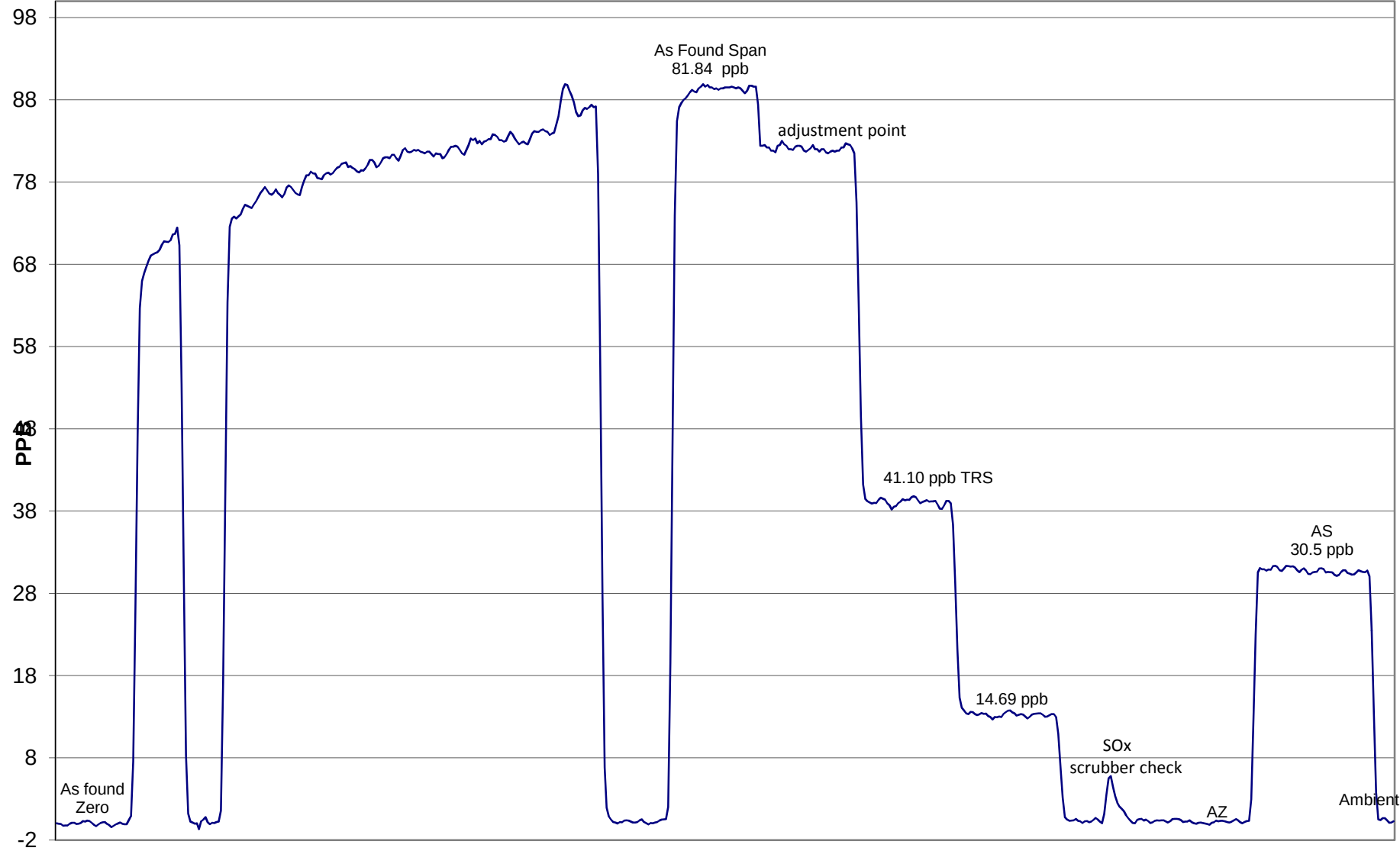
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999173
81.9	82.0	0.9985		
41.1	39.0	1.0533		
14.7	13.3	1.1043	Slope	0.993595
			Intercept	1.067642

TRS Calibration Curve



Smokey Heights TRS Calibration



October 29, 2015

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	October 29, 2015	Previous Calibration	September 10, 2015
Station Number	3	Station Location	Smokey Heights
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	13:10:00 AM	End Time (MST)	16:01:00 PM
Barometric Pressure	0.927 ATM	Station Temperature	18.5 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	49.7 ppm	Cal Gas Cert Date	05/11/2018
Correction factor	0.031673	Cal Gas Cylinder #	LL103793
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.001022	Calculated slope	0.990908
Calculated intercept	0.033222	Calculated intercept	0.043643
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.9		12.2	
coefficient	0.921		0.952	
Lamp Voltage	936	volts	933	volts
Chamber Temp	45.4	Deg C	45	Deg C
Perm Gas Temp	45.2	Deg C	45	Deg C
Pressure	659.9	mm Hg	662.4	mm Hg
Sample Flow	0.440	lpm	0.444	lpm
Lamp Intensity	88	%	88	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.8	N/A
4995	39.93	394.15	398.2	0.9898
4995	19.97	197.91	199.0	0.9943
4995	9.97	99.00	99.2	0.9982
4995	0.0	0.00	0.8	As Found Zero
4995	39.93	394.15	384.3	As Found Span
Average Correction Factor				0.9941

Calculated value of As Found Response: 383.924 ppm Percent Change of As Found: 2.6%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.8	ppb
Auto span	245.1	ppb	218.1	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



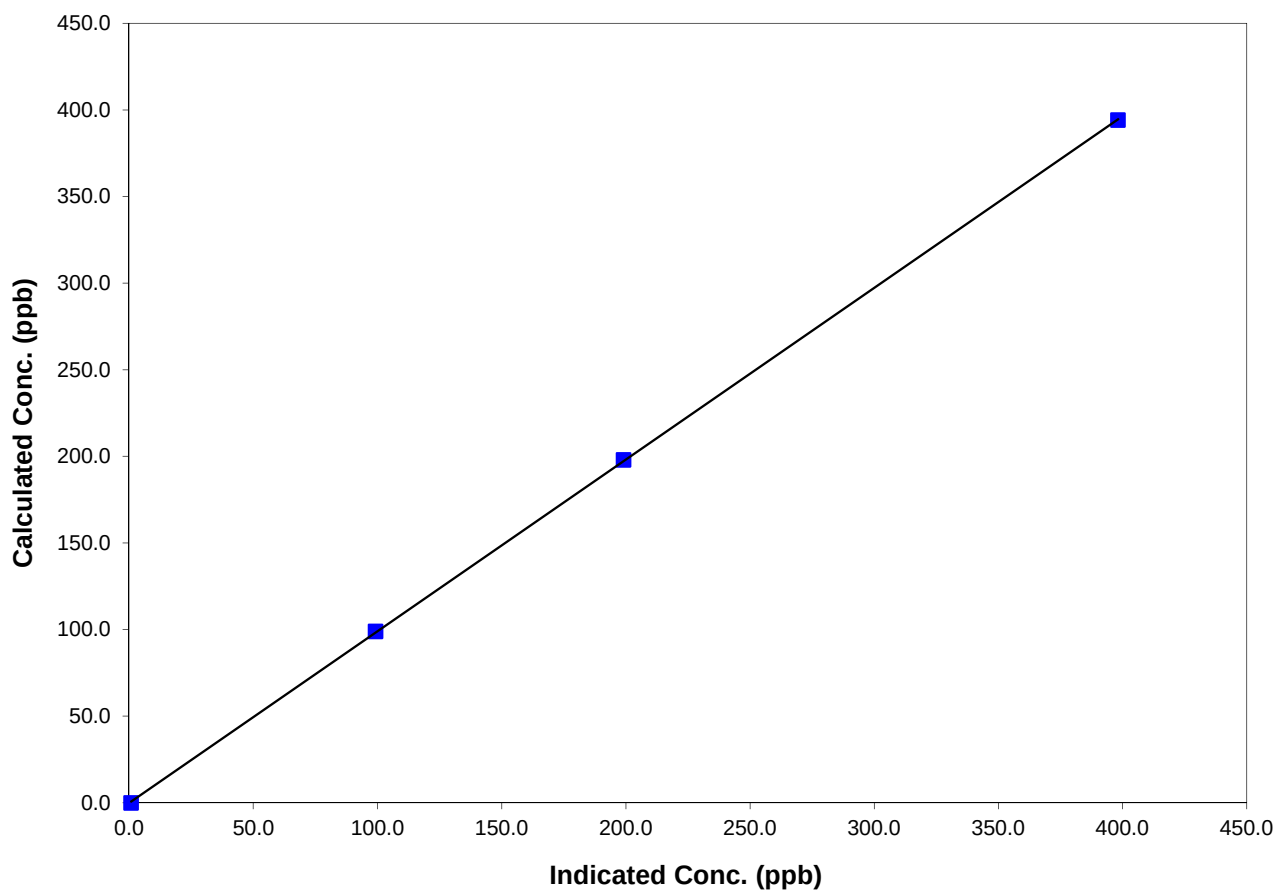
Station Information

Calibration Date	October 29, 2015	Previous Calibration	September 10, 2015
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	13:10:00 AM	End Time (MST)	16:01:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

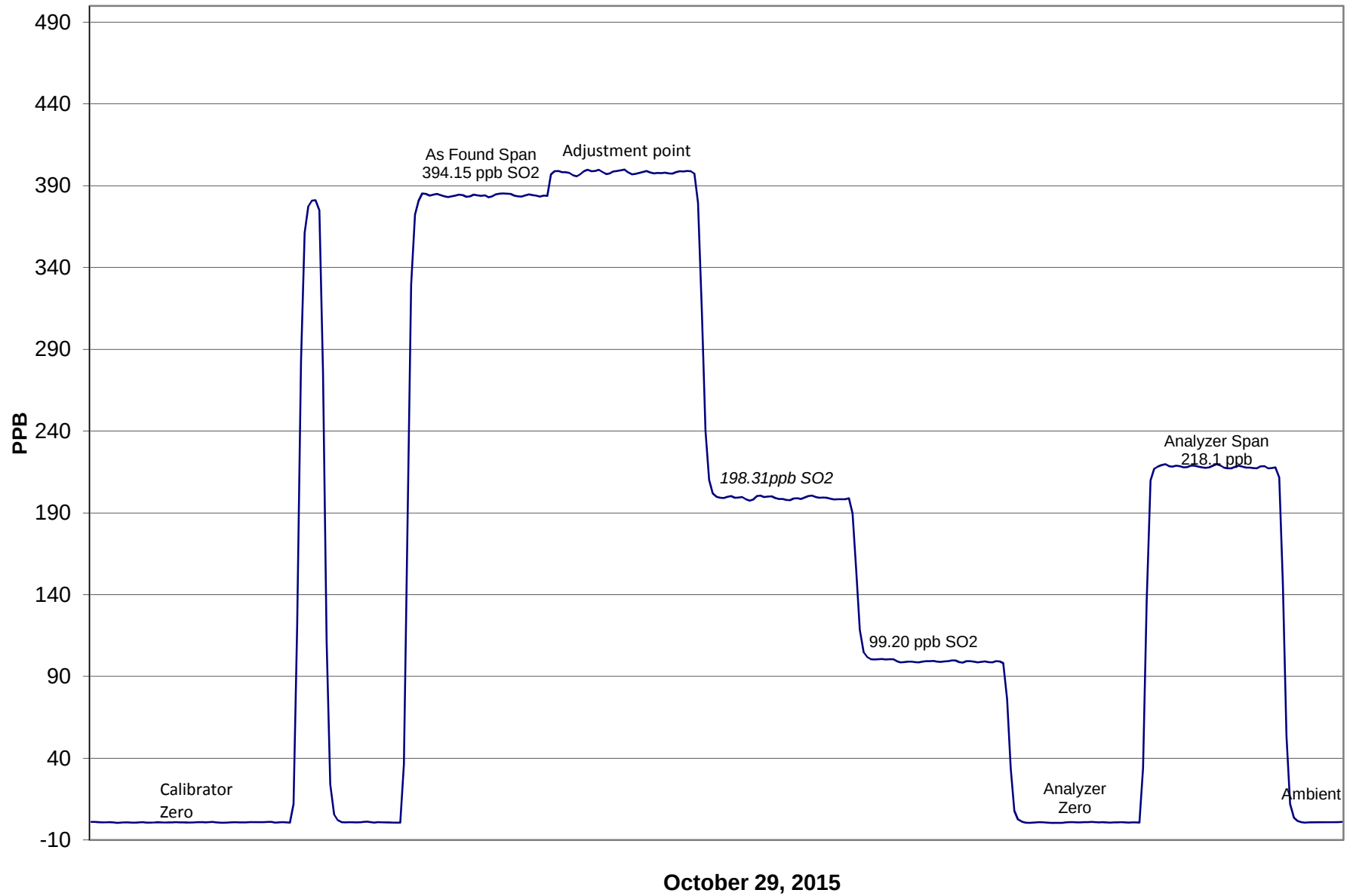
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	N/A	Correlation Coefficient	0.999979
394.2	398.2	0.9898		
197.9	199.0	0.9943		
99.0	99.2	0.9982	Slope	0.990908
			Intercept	0.043643

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	October 19 2015	Previous Calibration	September 15 2015
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	11:00	End Time (MST)	13:45:00 PM
Barometric Pressure	0.920 ATM	Station Temperature	21.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	49.7 ppm	Cal Gas Expiry Date	05/10/2018
Correction factor	0.031167	Cal Gas Cylinder #	LL103793
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.013392	Calculated slope	0.996026
Calculated intercept	0.386269	Calculated intercept	0.685035
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.3		11.7	
coefficient	1.195		1.233	
Lamp Voltage	828	volts	828	volts
Chamber Temp	44.8	Deg C	45	Deg C
Perm Gas Temp	44.96	Deg C	45	Deg C
Pressure	667.1	mm Hg	665.9	mm Hg
Sample Flow	0.449	ccm	0.448	ccm
Lamp Intensity	89	%	89	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.3	N/A
4995	39.93	394.2	395.7	0.9960
4995	19.97	197.9	196.9	1.0052
4995	9.95	98.8	98.0	1.0083
4995	0.0	0.0	0.3	As Found Zero
4995	39.93	394.9	381.8	As Found Span
Average Correction Factor				1.0032

Calculated value of As Found Response: 387.064 ppm Percent Change of As Found: 2.0%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.4	ppm
Auto span	253.0	ppm	261.2	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



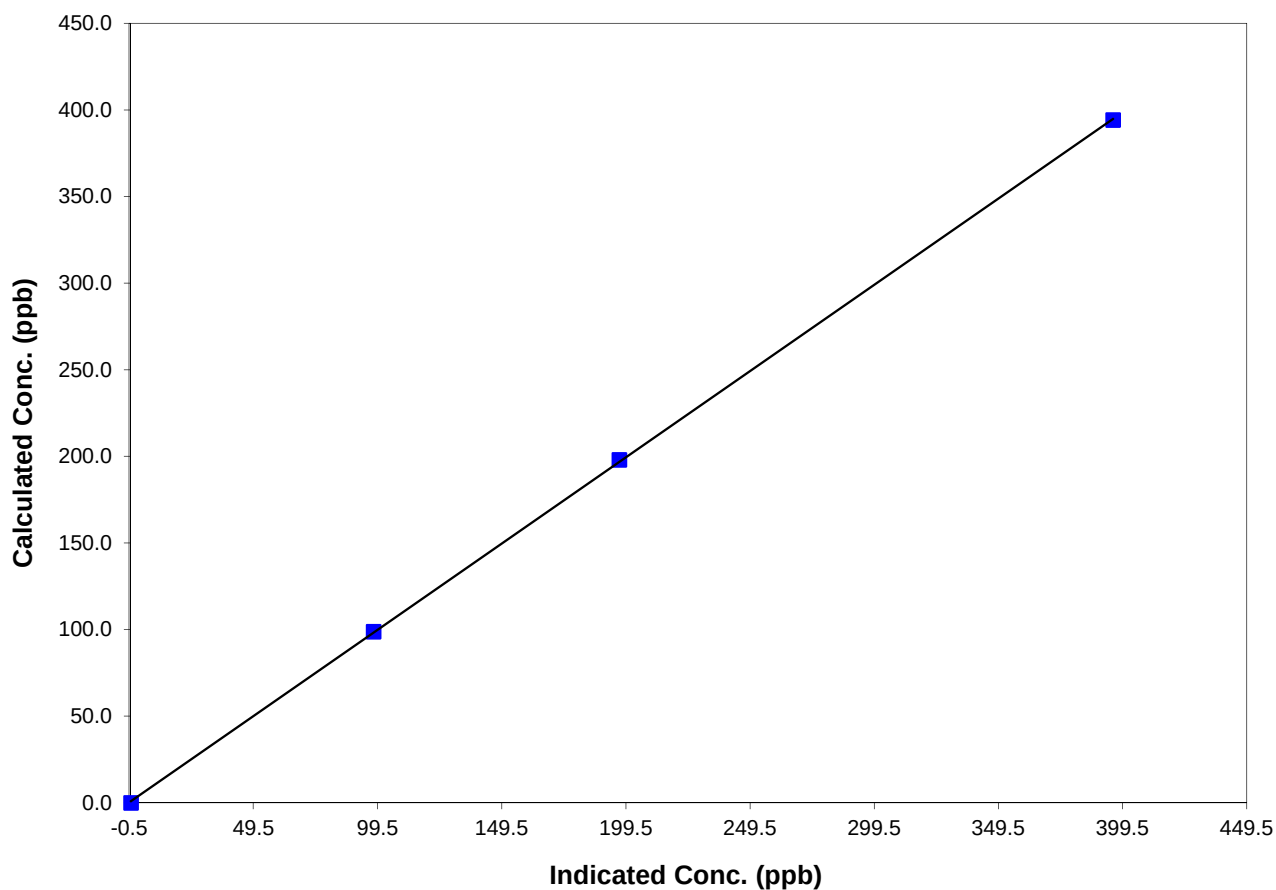
Station Information

Calibration Date	October 19 2015	Previous Calibration	September 15 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:00	End Time (MST)	13:45:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

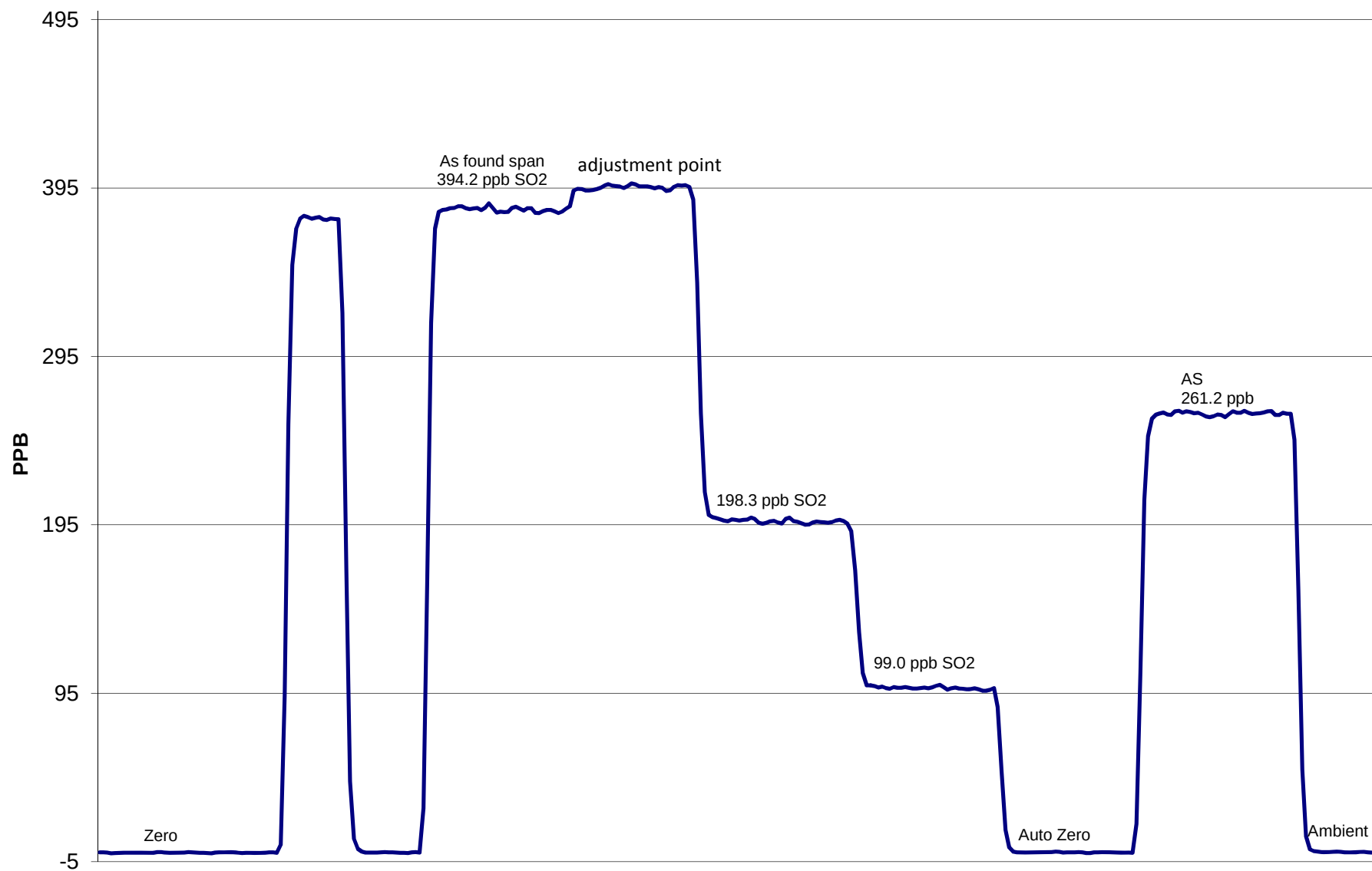
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999966
394.2	395.7	0.9960		
197.9	196.9	1.0052		
98.8	98.0	1.0083	Slope	0.996026
			Intercept	0.685035

SO2 Calibration Curve



SO2 Calibration



October 19 2015

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	October 19 2015	Previous Calibration	September 15 2015
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:50	End Time (MST)	12:00
Barometric Pressure	0.920 ATM	Station Temperature	21.0 Deg C
Calibrator	Envionics	Serial Number	6586
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031167	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.998662	Calculated slope	1.010160
Calculated intercept	0.227230	Calculated intercept	-0.488882

Analyzer make TEI Model 43C Analyzer serial # 3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	42	ppb	42.7	ppb
coefficient	0.947		0.963	
Lamp Voltage	1091	volts	1128	volts
Chamber Temp	44.2	Deg C	43.9	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	639.8	mm Hg	639.7	mm Hg
Sample Flow	0.585	ccm	0.579	ccm
Lamp Intensity	30,889	mv	30,660	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.7	N/A
4995	39.93	81.84	81.5	1.0044
4995	19.97	41.10	41.3	0.9947
6995	9.97	14.69	14.7	0.9995
4995	9.97		0.5	Sox Test
4995	0.00	0.00	0.7	As Found Zero
4995	39.93	81.84	80.2	As Found Span
Average Correction Factor				0.9995

Calculated value of As Found Response: 79.68 ppm Percent Change of As Found: **2.6%**

	before calibration		after calibration	
Auto zero	0.2	ppm	0.5	ppm
Auto span	73.6	ppm	74.0	ppm

Notes: Span adjustment made
Sox scrubber check performed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



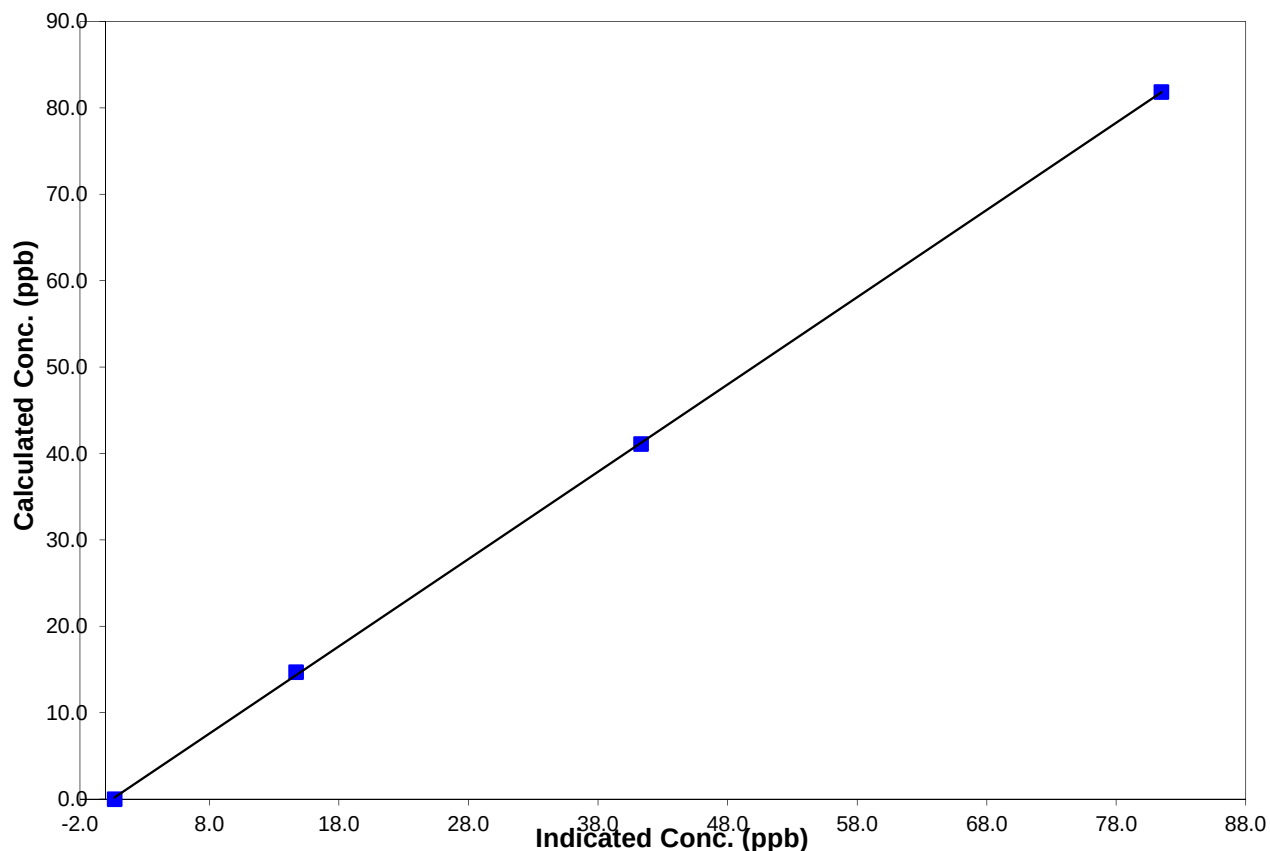
Station Information

Calibration Date	October 19 2015	Previous Calibration	September 15 2015
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:50	End Time (MST)	12:00
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

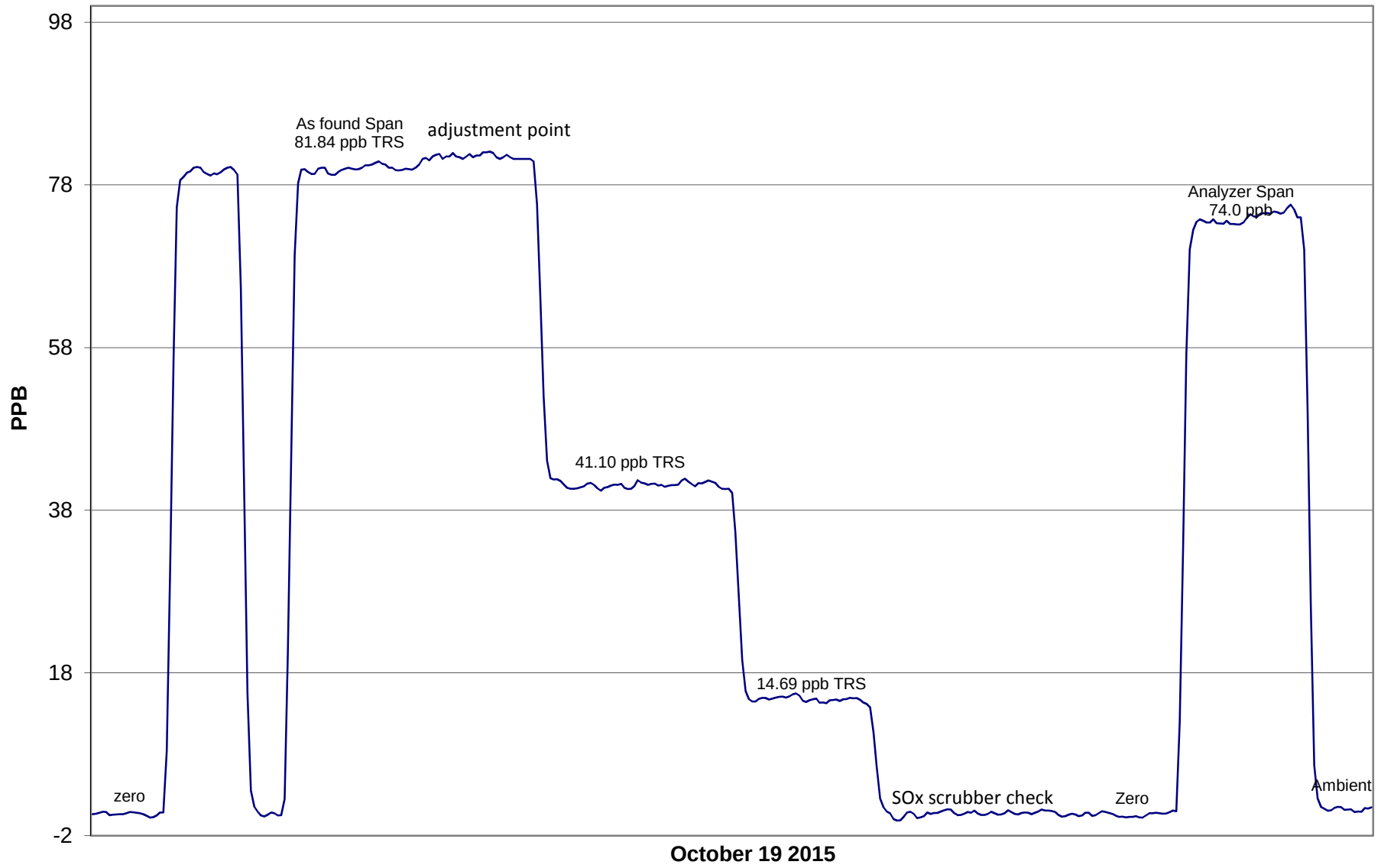
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A	Correlation Coefficient	0.999955
81.8	81.5	1.0044		
41.1	41.3	0.9947		
14.7	14.7	0.9995	Slope	1.010160
			Intercept	-0.488882

TRS Calibration Curve



TRS Calibration



AB TEOM PM2.5 Calibration



STATION: Evergreen Park
 LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen
 DATE: 19-Oct-15

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21554
Site Number	2
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

(vs. specified depth of 15.5 cm from top of
 flow tube to top of concentric 1/2 in. tube)

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	07-Jul-15

PUMP CAPACITY CHECK *	PASS
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* capacity test or pump on timed test utilized to verify pump integrity

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.065	0.150
PUMP OFF	0.000	0.000
NET	0.065	0.150
LIMITS	<0.15	<0.60

	Ambient Temp. (^o C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	16147	13.67	3.000
INDICATED (I)	9.6	0.918		13.66	2.999
MEASURED (AF)	9.7	0.918		13.69	3.000
MEASURED (M)	9.7	0.918	16250	13.69	3.000
DIFFERENCE (M-I)	0.1	0.000	0.6%	0.02	0.00
LIMITS	± 2^o C	± 0.005 atm	± 2.5 %	± 1.0 L/min	± 0.2 L/min

As Found Data
 Adjusted Data

Ko Audit Filter data

Weight:

0.11014

Serial #:

CVK 2123

COMMENTS: Pass.

Sample Head Inspection/Cleaning:

Large In Line Filter Inspection & Or Cleaning:

SHARP 5030 PM2.5 Calibration



STATION: Smokey Heights
LOCATION: Smokey Heights
START TIME (MST): 9:00

OPERATOR: Grover Christiansen/Dmytro
DATE: October 29 2015
END TIME (MST): 13:10:PM

MONITOR INFO / PARAMETER VALUES:

Make/Model SHARP 5030
Configuration PM 2.5
Serial Number CM-0271

Audit Device Model Delta cal
Audit Device S/N AMU 2024
Certification Date 16-May-15

AUDIT / CALIBRATION RESULTS:

		Ambient Temp. (^o C)	Ambient Pres. (mbar)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
As Found Data	Audit values (I)	7.1	925	16.67	16.66	14:00
	MEASURED (AF)	6.9	926	16.10	16.10	15:06
	AF Difference (AF-I)	-0.2	1	0.57	-0.56	0:01
Adjusted Data	MEASURED (M)	6.9	925	16.65	16.65	0:15
	Adj Difference (M-I)	-0.2	0	-0.02	-0.01	0:01
	LIMITS	± 4.0 ^o C	6.7 mbar	1.0 L/min	± 1.0 L/min	±2 min

Sample Head Inspect/Cleaning: Cleaned sample head

Status of sampling tape: 70% full

Nozzle Inspection / cleanliness: Good

COMMENTS: Full installation cal performed.

Foil calibration Old value 7054 New value 7015

Nephelometer zero. Analog as found = 2.2. After adjustment=0.0

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	October 9, 2015	Previous Calibration	September 9, 2015
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
Start Time (MST)	8:55	End Time (MST)	11:35
Barometric Pressure	0.928 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	10.8 ppm	Cal Gas Expiry Date	28/09/2012
Gas Cert Reference	FF14871		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.992287	Calculated slope	0.997905
Calculated intercept	-0.196357	Calculated intercept	-0.026292
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.76		2.76	
Coefficient	1.047		1.018	
PMT	-768.1	V	-768.5	V
UV Lamp Voltage	1087	V	1087	V
Chamber Temp	45.3	Deg C	45.04	Deg C
Pressure	655.6	mm Hg	656.1	mm Hg
Sample Flow	0.457	LPM	0.458	LPM
Lamp Intensity	96	%	96	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4994	0.00	0.0	0.1	N/A
4994	39.92	85.6	85.9	0.9976
4994	19.96	43.0	43.1	0.9967
4994	9.96	21.5	21.5	0.9990
4994	0.00	0.0	0.1	As found zero
4994	39.92	85.6	88.4	As found span
Average Correction Factor				0.9978

Calculated value of As Found Response: 87.439 ppm Percent Change of As Found: -2.1%

	before calibration		after calibration	
Auto zero	-0.2	ppb	0.1	ppb
Auto span	61.5	ppb	61.5	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



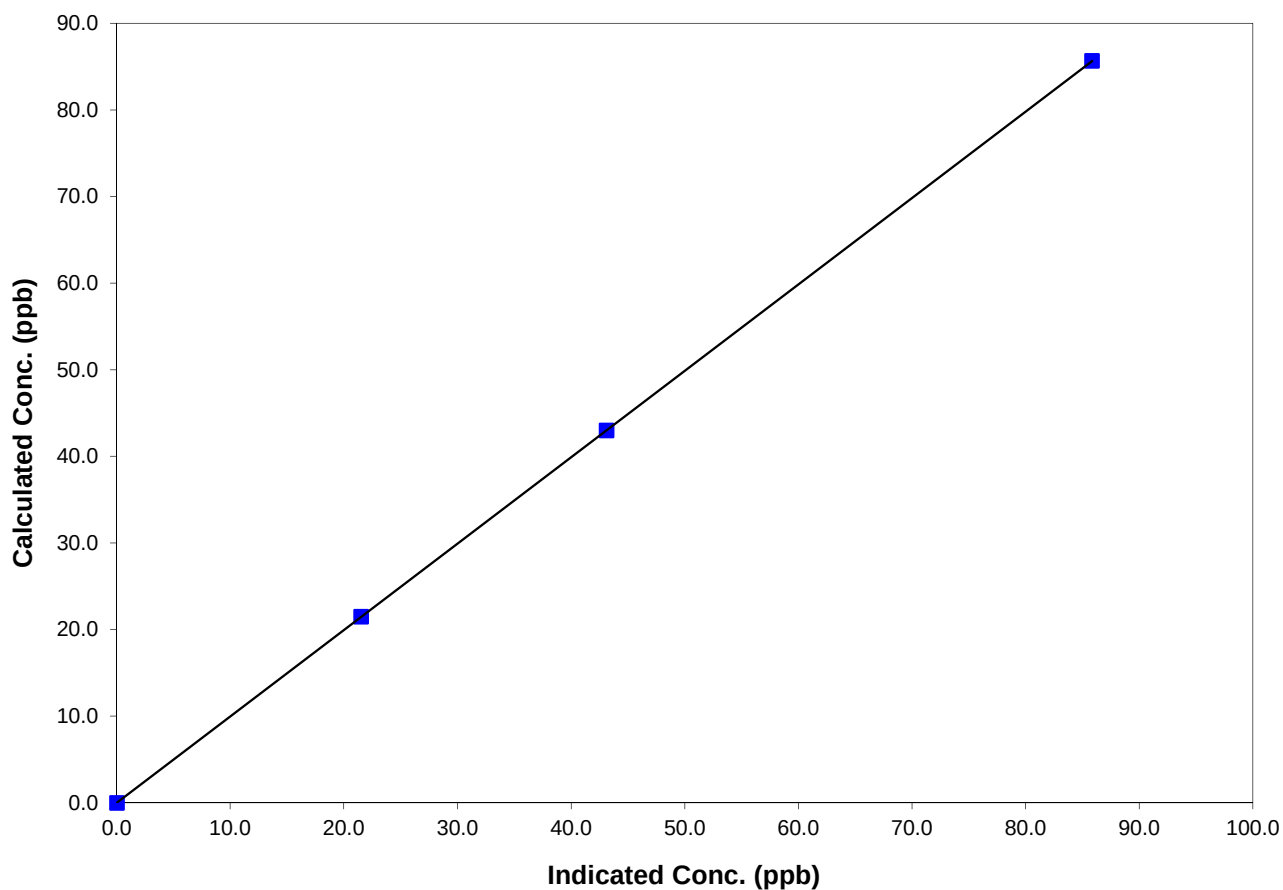
Station Information

Calibration Date	October 9, 2015	Previous Calibration	September 9, 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:55	End Time (MST)	11:35
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

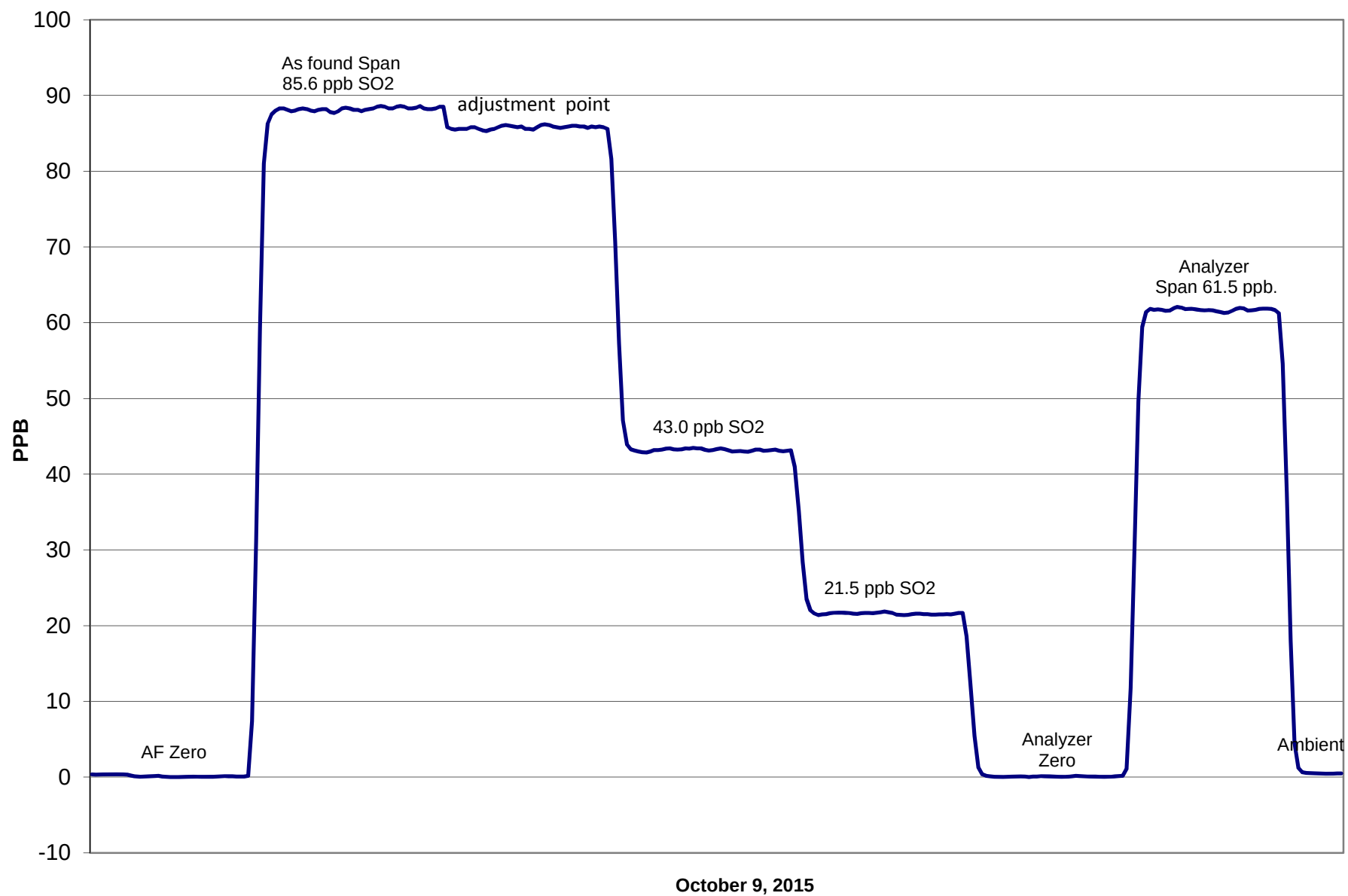
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999999
85.6	85.9	0.9976		
43.0	43.1	0.9967		
21.5	21.5	0.9990	Slope	0.997905
			Intercept	-0.026292

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	October 7 2015	Previous Calibration	September 9 2015
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Installation	Removal
Start Time (MST)	10:05	End Time (MST)	13:45:00 PM
Barometric Pressure	0.928 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
NO Cal Gas Conc	50.9 ppm	Cal Gas Expiry Date	November 5, 2018
NOx Cal Gas Conc	51.2 ppm	Cal Gas Serial #	LL103793

DACS Information

DACS make	CR3000	DACS serial No.	5237
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Parameter		NO2	NOx	NO
Before	Data Slope	0.995416	1.000781	1.000640
	Data Offset	-1.097095	-0.088392	0.168432
After	Data Slope	0.990663	1.002146	1.002943
	Data Offset	-1.466093	-0.234446	-0.055133
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068
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Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	2.6	mV	2.6	mV
NOx bkgnd	3.1	mV	3.1	mV
NO coefficient	1.108		1.108	
NOx coefficient	1.005		1.005	
NO2 conv temp	322.1	Deg C	322.3	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-729.3	mV	-730.0	mV
R Cell Press	186.7	in Hg	186.7	in Hg
Sample Flow	0.723	LPM	0.722	LPM

Notes: NO adjustments made

Calibration Report

Parameter **NOX-NO-NO2**
Air Monitoring Network **PAZA**



Station Information

Calibration Date: Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.3	0.1	0.0	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	405.3	402.5	2.0	1.0016	1.0025
2	4995	19.96	203.8	202.6	1.2	203.7	201.8	1.1	1.0003	1.0041
3	4995	9.93	101.6	101.0	0.6	101.4	100.9	0.4	1.0015	1.0008
AFZ	4995	0.00	0.0	0.0	0.0	0.3	0.1	0.0	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	405.3	402.5	2.0	1.0017	1.0025
Average Correction Factor									1.0012	1.0025

As Found Concentrations: NO_x= 405.2 NO= 402.9 As Found Percent Change NO_x= -0.2% NO= -0.2%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.1	0.1	0.0	0.3	0.1	0.0	N/A	N/A	N/A	N/A
NO point	401.1	401.1	0.0	403.5	401.1	1.7	0.9939	1.0000	N/A	N/A
300	401.1	76.9	324.2	405.6	76.9	327.9	0.9887	1.0000	0.9886	101.2%
200	401.1	183.7	217.3	405.6	183.7	221.0	0.9888	1.0000	0.9833	101.7%
100	401.1	298.1	103.0	406.2	298.1	107.5	0.9874	1.0000	0.9577	104.4%
Average Correction Factor							0.9883	1.0000	0.9765	102.4%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.0	0.0	ppb	0.0	-0.1	0.1	ppb
Auto span	265.1	261.5	2.7	ppb	279.0	275.6	2.5	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



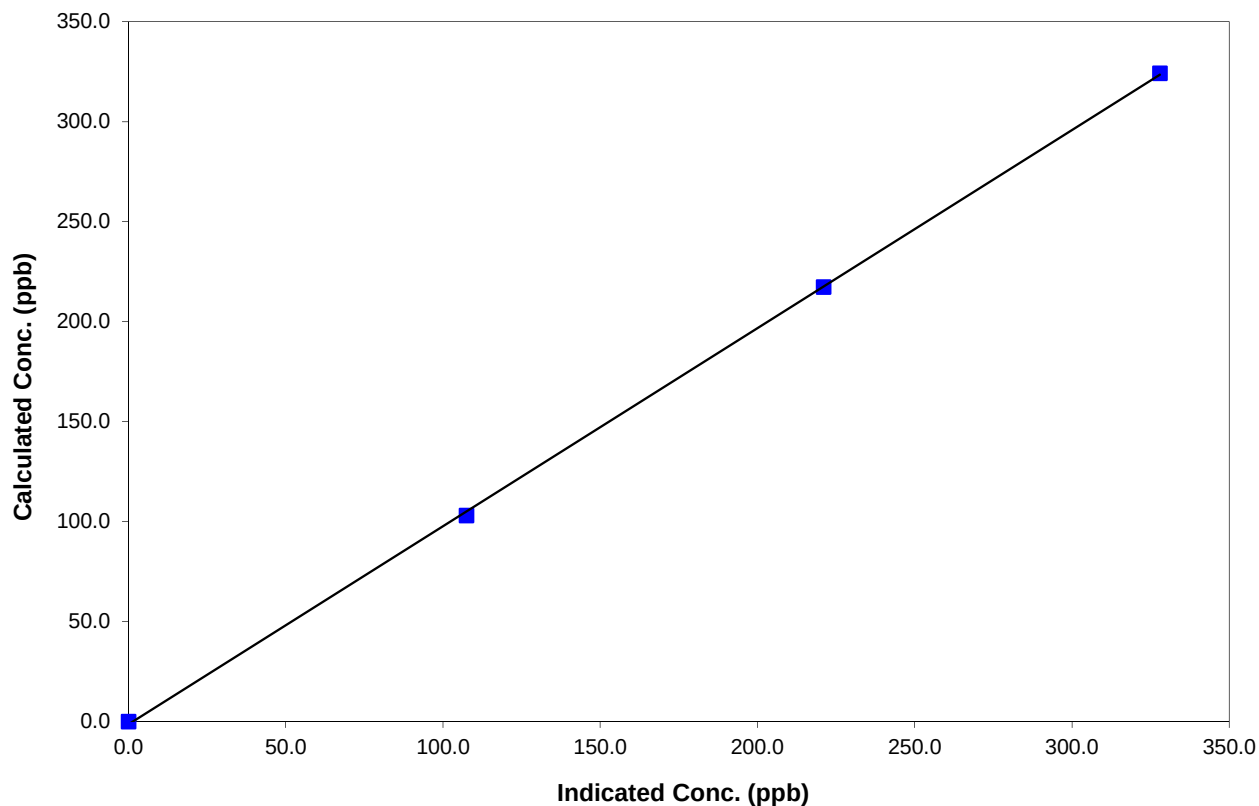
Station Information

Calibration Date	October 7 2015	Previous Calibration	September 9 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:05	End Time (MST)	13:45:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999880
324.2	327.9	0.9886		
217.3	221.0	0.9833		
103.0	107.5	0.9577	Slope	0.990663
			Intercept	-1.466093

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



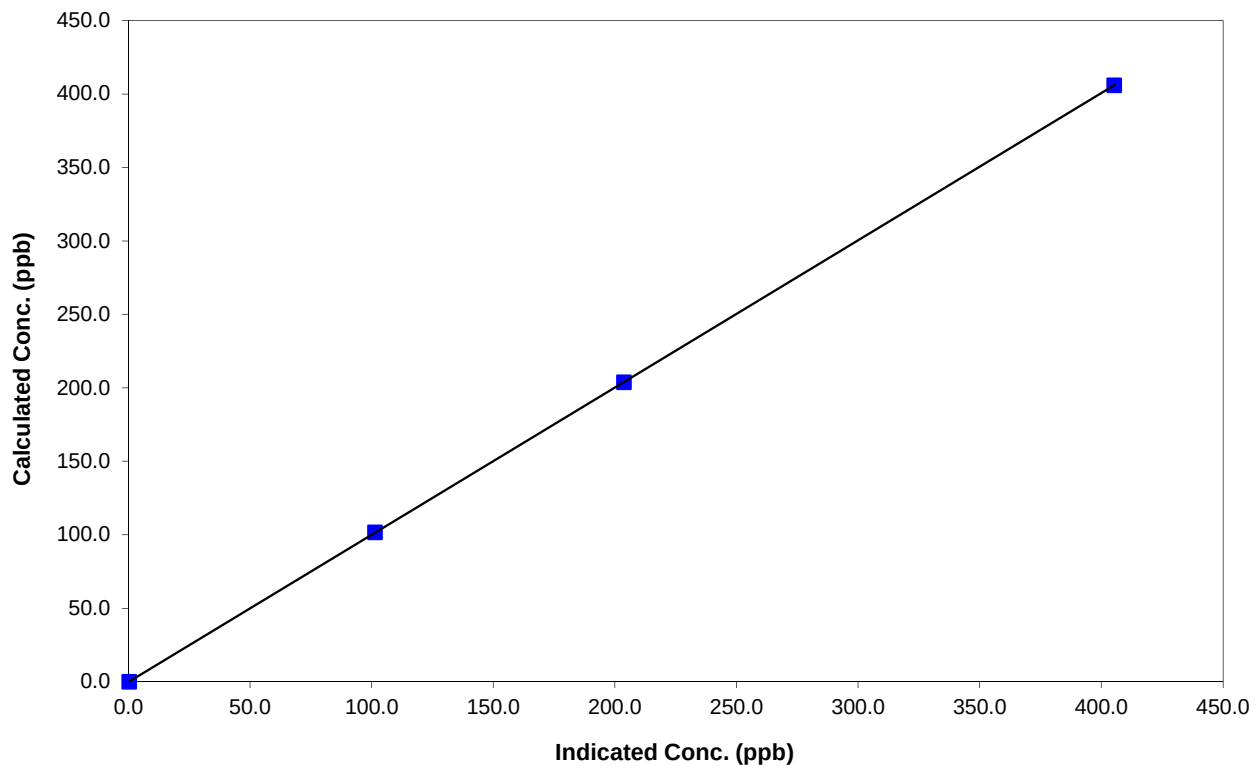
Station Information

Calibration Date	October 7 2015	Previous Calibration	September 9 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:05	End Time (MST)	13:45:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999999
405.9	405.3	1.0016		
203.8	203.7	1.0003		
101.6	101.4	1.0015	Slope	1.002146
			Intercept	-0.234446

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



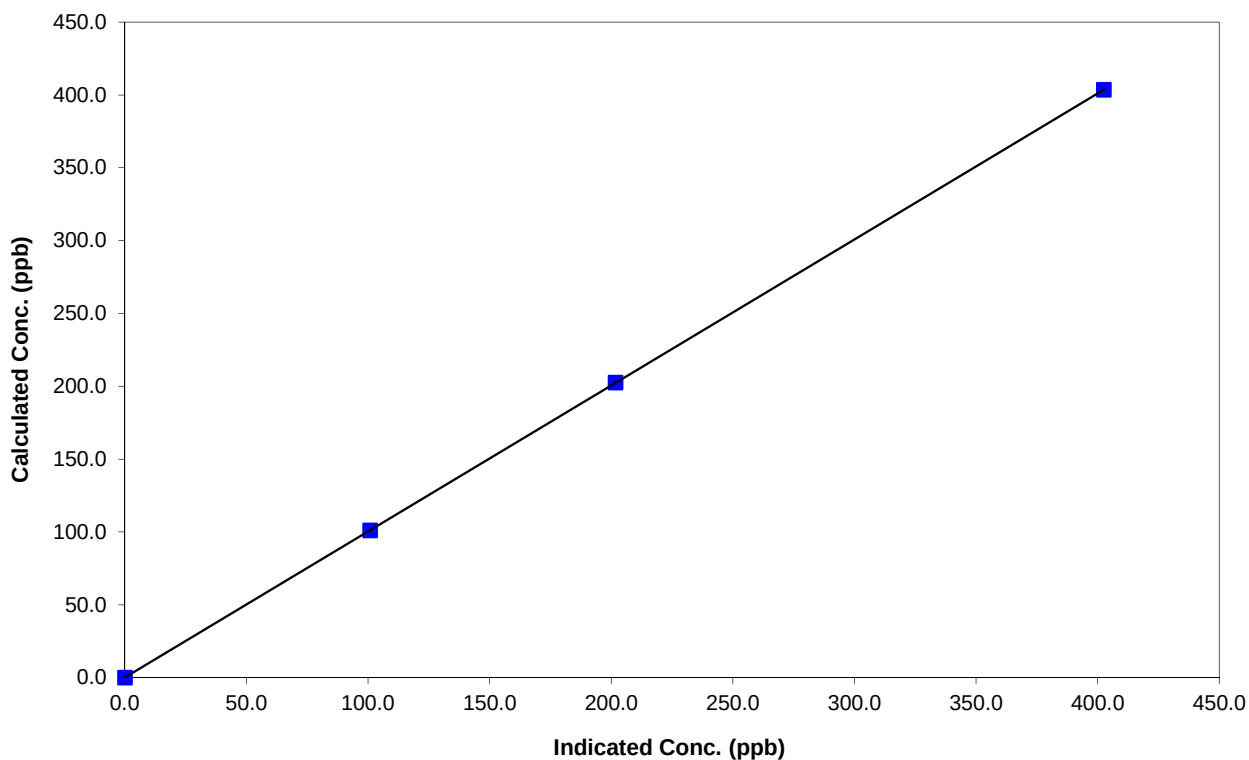
Station Information

Calibration Date	October 7 2015	Previous Calibration	September 9 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:05	End Time (MST)	13:45:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

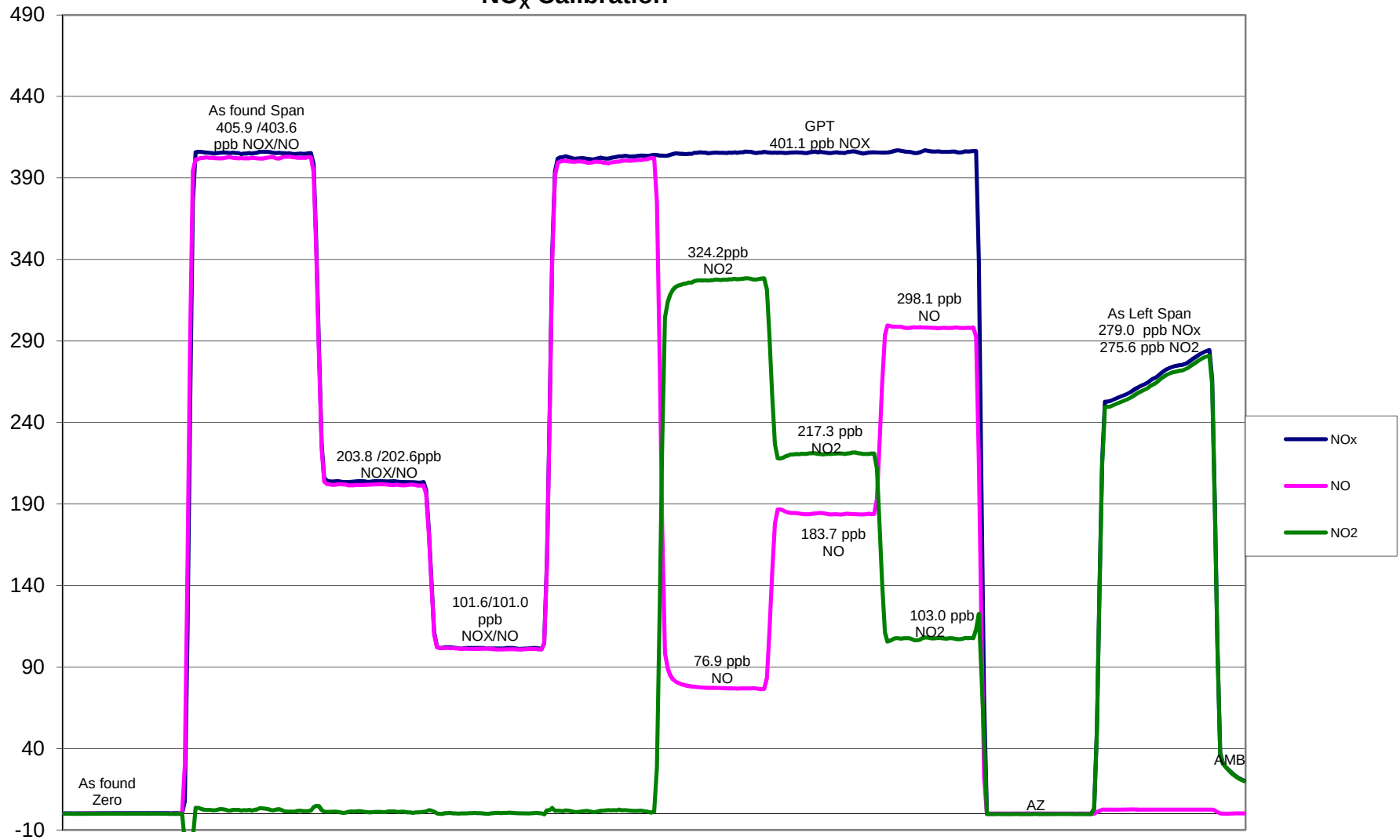
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999999
403.6	402.5	1.0025		
202.6	201.8	1.0041		
101.0	100.9	1.0008	Slope	1.002943
			Intercept	-0.055133

NO Calibration Curve



NO_x Calibration



October 7 2015

Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	October 7, 2015	Previous Calibration	September 9, 2015
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	11:20	End Time (MST)	13:45:00 PM
Barometric Pressure	0.928 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.012865	Calculated slope	0.991951
Calculated intercept	-0.269359	Calculated intercept	-1.744873

Analyzer make	Teco 49i	Analyzer serial #	1136451236,AMU 1879
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.20	ppb	-0.20	ppb
slope	1.004		1.004	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	55448/60360	mV	55893/61121	mV
Pressure	682.2	mm Hg	682.6	mm Hg
Flow A	0.784	LPM	0.784	LPM
Flow B	0.745	LPM	0.745	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.4	N/A
5035	0.30	324.2	327.8	0.9889
5035	0.20	217.3	221.0	0.9834
5035	0.10	103.0	107.6	0.9574
5035	0.00	0.0	0.4	As found zero
5035	0.30	324.2	327.8	As found span
Average Correction Factor				0.9766

Calculated value of As Found Response: 331.4 ppm Percent Change of As Found: 2.2%

	before calibration		after calibration	
Auto zero	0.1	ppb	-0.2	ppb
Auto span	262.7	ppb	269.6	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



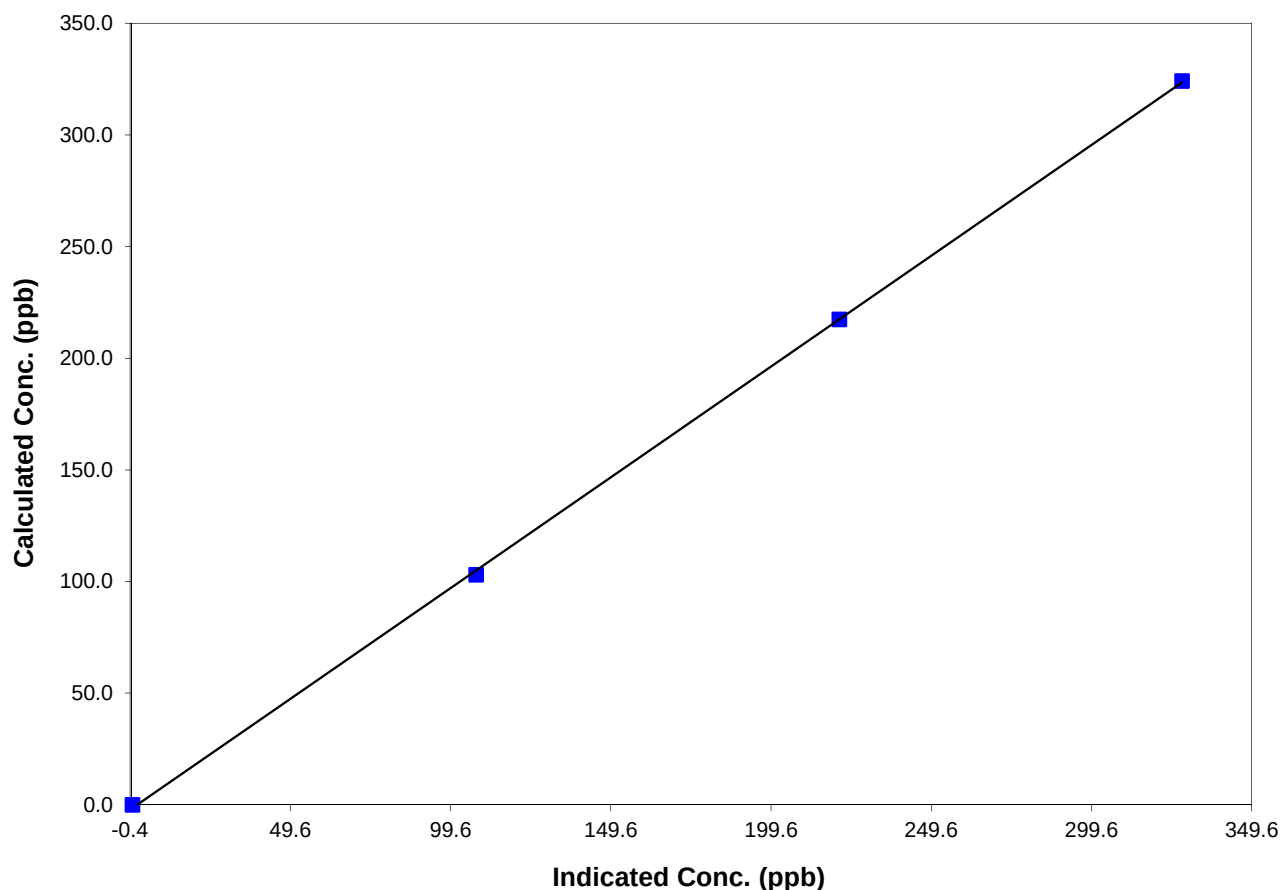
Station Information

Calibration Date	October 7, 2015	Previous Calibration	September 9, 2015
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:20	End Time (MST)	13:45:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA	Correlation Coefficient	0.999893
324.2	327.8	0.9889		
217.3	221.0	0.9834		
103.0	107.6	0.9574	Slope	0.991951
			Intercept	-1.744873

O3 Calibration Curve



O3 Calibration



October 7, 2015

SHARP 5030 PM2.5 Calibration



STATION: Beaverlodge
LOCATION: Beaverlodge agriculture centre
START TIME (MST): 9:00

OPERATOR: Dmytro Dolotii
DATE: October 12 2015
END TIME (MST): 15:05:00 PM

MONITOR INFO / PARAMETER VALUES:

Make/Model SHARP 5030
Configuration PM 2.5
Serial Number AMU 1969

Audit Device Model Delta cal
Audit Device S/N AMU 1789
Certification Date 01-Oct-15

AUDIT / CALIBRATION RESULTS:

		Ambient Temp. (°C)	Ambient Pres. (mbar)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
As Found Data	Audit values (I)	22.2	905	16.67	16.67	11:47
	MEASURED (AF)	22.2	906	17.31	16.73	11:48
	AF Difference (AF-I)	0.0	1	-0.64	0.06	0:01
Adjusted Data	MEASURED (M)	22.1	906	16.70	16.72	11:48
	Adj Difference (M-I)	-0.1	1	0.03	0.05	0:01
	LIMITS	± 4.0 °C	6.7 mbar	1.0 L/min	± 1.0 L/min	±2 min

Sample Head Inspect/Cleaning: Cleaned sample head

Status of sampling tape: 90% full

Nozzle Inspection / cleanliness: _____

COMMENTS: _____

Foil calibration Old value 6997 New value 6995

Nephelometer zero. Analog as found = 0.9 adsuted conc = -0.0

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	October 22 2015	Previous Calibration	Septemeber 18 2015
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	11:55	End Time (MST)	14:45:00 PM
Barometric Pressure	0.929 atm	Station Temperature	20.5 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	49.7 ppm	Cal Gas Exp Date	November 5, 2018
Gas Cylinder Num.	LL103793		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.992727	Calculated slope	1.012601
Calculated intercept	-0.013484	Calculated intercept	0.707907
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	15.5		15.6	
Coefficient	1.012		1.012	
UV Lamp Voltage	734	LPM	745	LPM
Chamber Temp	43	V	43	V
Perm Gas Temp	45	C	45	C
Pressure	672.1	in Hg	672.3	in Hg
Sample Flow	0.487	LPM	0.487	LPM
Lamp Intensity	47436	Hz	47760	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.6	N/A
4995	39.93	394.2	389.4	1.0122
4995	19.97	197.9	193.5	1.0231
4995	9.95	98.8	96.0	1.0287
4995	0.00	0.0	0.6	As found zero
4995	39.93	394.2	389.4	As found span
Average Correction Factor				1.0213

Calculated value of As Found Response: 386.0 ppm Percent Change of As Found: 2.1%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.6	ppm
Auto span	285.7	ppm	279.6	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



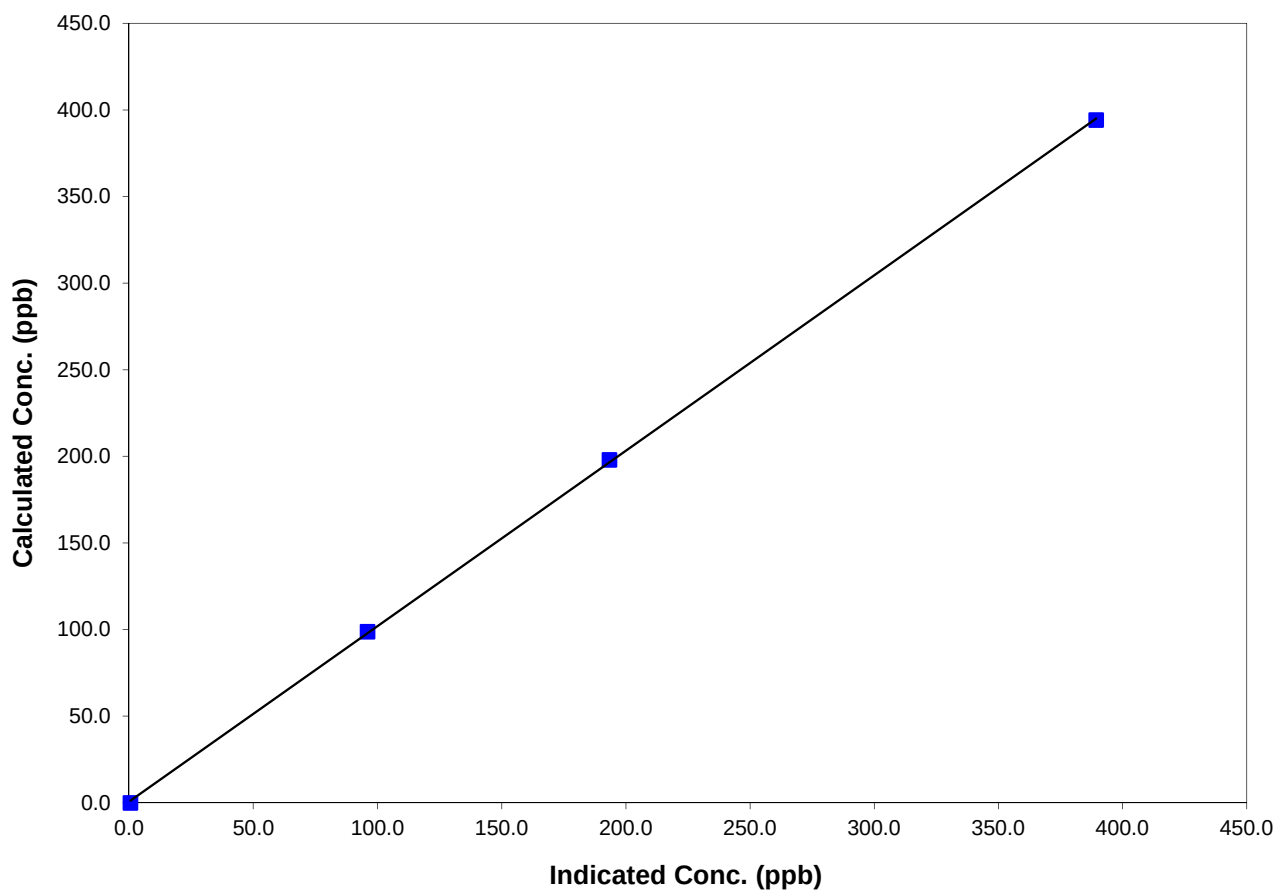
Station Information

Calibration Date	October 22 2015	Previous Calibration	Septemeber 18 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:55	End Time (MST)	14:45:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

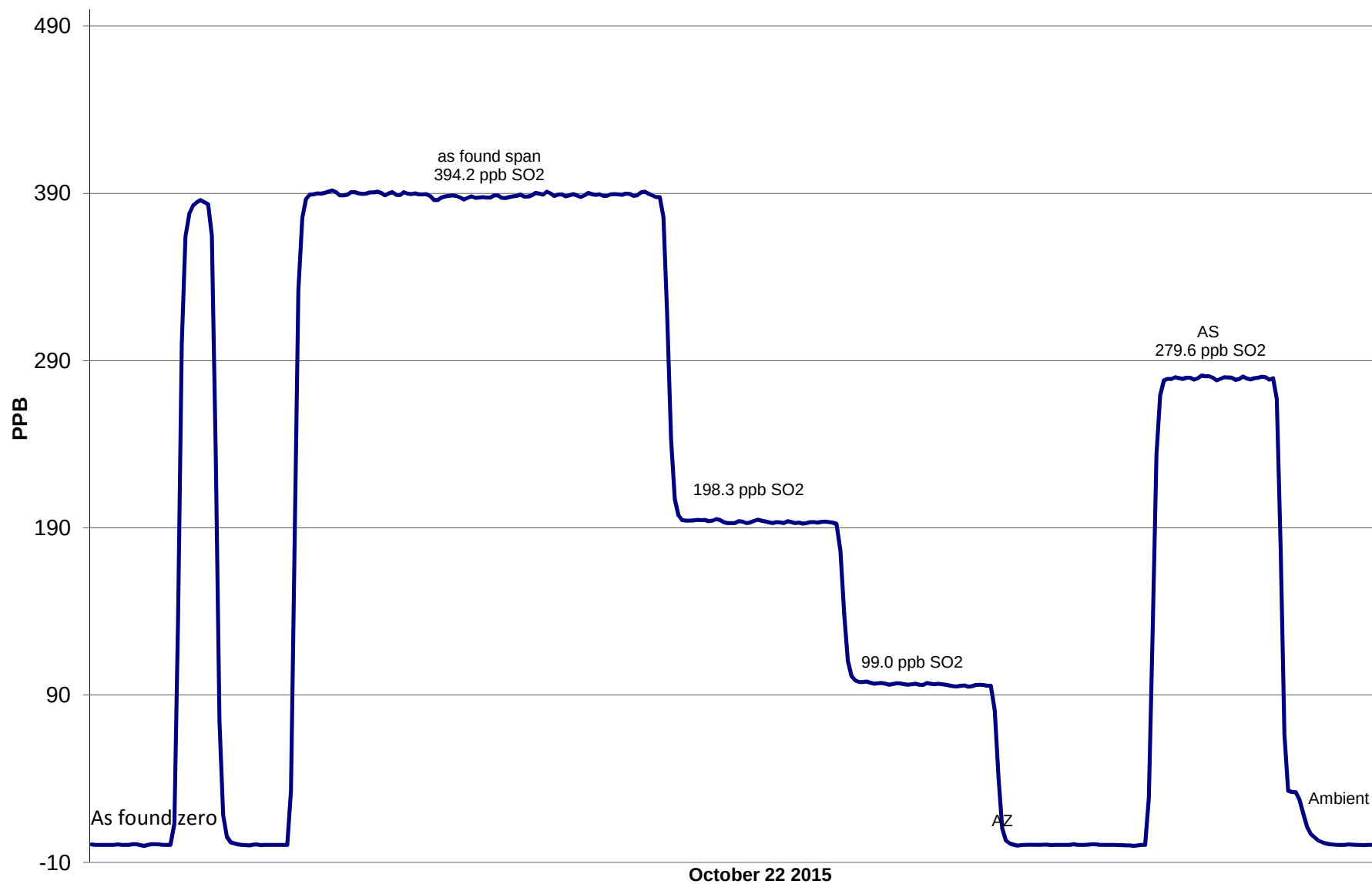
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999943
394.2	389.4	1.0122		
197.9	193.5	1.0231		
98.8	96.0	1.0287	Slope	1.012601
			Intercept	0.707907

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S
Air Monitoring Network

PAZA

Station Information

Calibration Date	October 22 2015	Previous Calibration	Septemeber 11 2015
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	10:11	End Time (MST)	12:30
Barometric Pressure	0.929 atm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	10.32 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.002039	Calculated slope	1.004818
Calculated intercept	-0.277156	Calculated intercept	-0.425601

Analyzer make TEI Model 43i - APSCB Analyzer serial # 701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.5	ppb	7.5	ppb
Coefficient	0.871		0.871	
Lamp Voltage	791	v	790	v
Chamber Temp	45.1	c	45	c
Perm Oven Temp	44.93	c	45	c
Pressure	551.30	mm Hg	553.00	mm Hg
Sample Flow	0.378	ccm	0.378	lpm
Lamp Intensity	91	%	91	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.5	N/A
4997	39.91	81.8	81.8	0.9992
4997	19.94	41.0	41.2	0.9962
6995	9.97	14.7	15.0	0.9762
4997	9.97		2.8	Sox Test
4997	0.00	0.0	0.5	As found zero
4997	39.93	81.8	81.8	As found span
Average Correction Factor				0.9905

Calculated value of As Found Response: 81.27 ppm Percent Change of As Found: 0.7%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.7	ppm
Auto span	67.4	ppm	66.8	ppm

Notes: No adjustment made
Sox scrubber test performed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



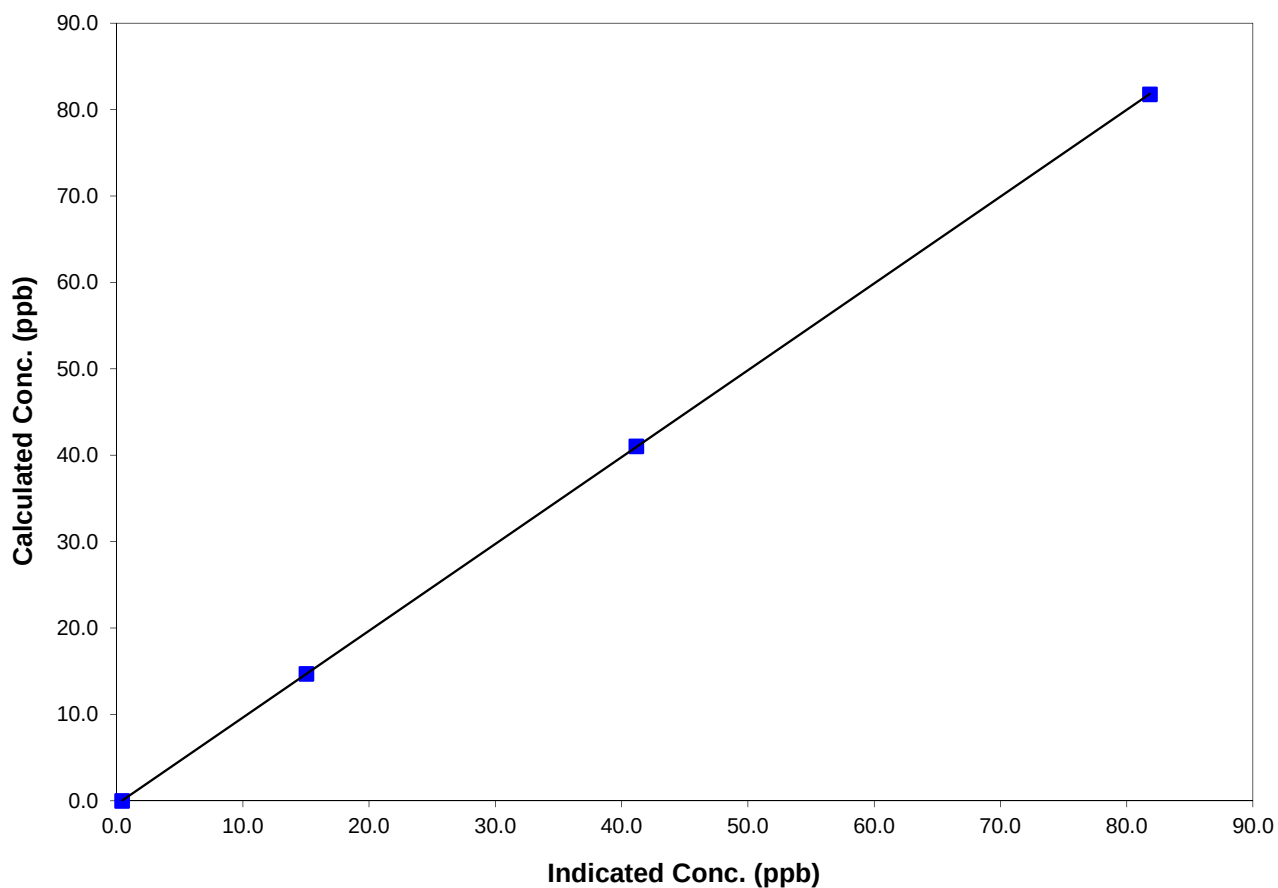
Station Information

Calibration Date	October 22 2015	Previous Calibration	Septemeber 11 2015
Station Number	6	Station Location	Valleyview
Start Time (MST)	10:11	End Time (MST)	12:30
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

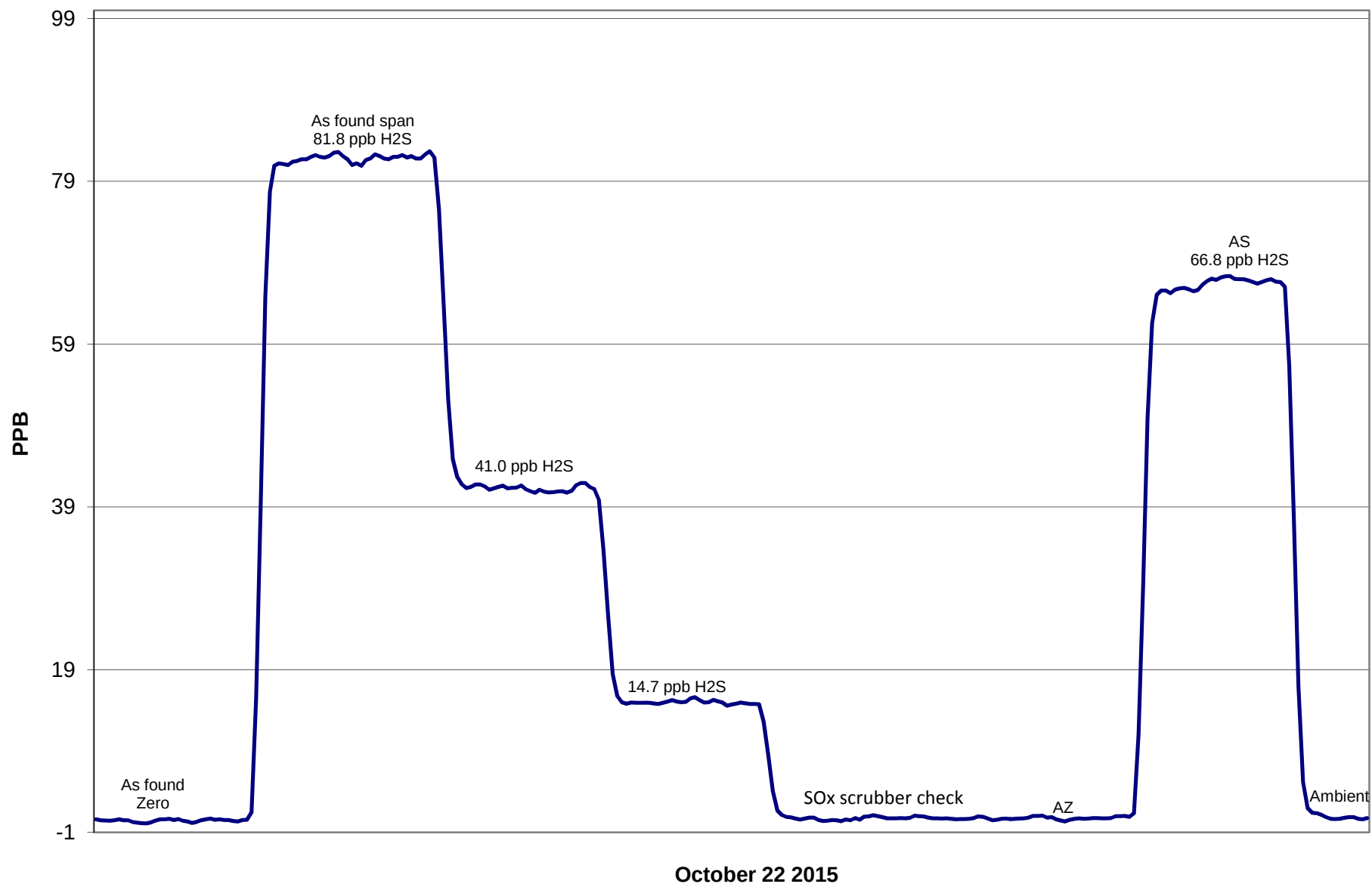
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999998
81.8	81.8	0.9992		
41.0	41.2	0.9962		
14.7	15.0	0.9762	Slope	1.004818
			Intercept	-0.425601

H2S Calibration Curve



H2S Calibration



Calibration Report

Parameter SO₂

Air Monitoring Network PAZA



Station Information

Calibration Date	October 21, 2015	Previous Calibration	September 17, 2015
Station Number	1	Station Location	Falher
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	11:45	End Time (MST)	14:40:00 PM
Barometric Pressure	0.921 mm	Station Temperature	21.5 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	49.7 ppm	Cal Gas Expiry Date	05/10/2018
Correction factor	0.031148	Cal Gas Cylinder #	LL103793
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.000774	Calculated slope	0.996489
Calculated intercept	0.094115	Calculated intercept	0.328046
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.5		6.6	
coefficient	0.887		0.905	
Lamp Voltage	846	volts	845	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	676.4	mm Hg	680.3	mm Hg
Sample Flow	0.405	ccm	0.405	ccm
Lamp Intensity	96	%	96	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.6	N/A
4995	39.93	394.2	395.7	0.9960
4995	19.96	197.8	197.6	1.0012
4995	9.97	99.0	98.1	1.0088
4995	0.0	0.0	0.6	As Found Zero
4995	39.93	394.2	385.3	As Found Span
Average Correction Factor				1.0020

Calculated value of As Found Response: 385.084 ppm Percent Change of As Found: **2.3%**

	before calibration		after calibration	
Auto zero	0.4	ppm	0.7	ppm
Auto span	348.4	ppm	356.1	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



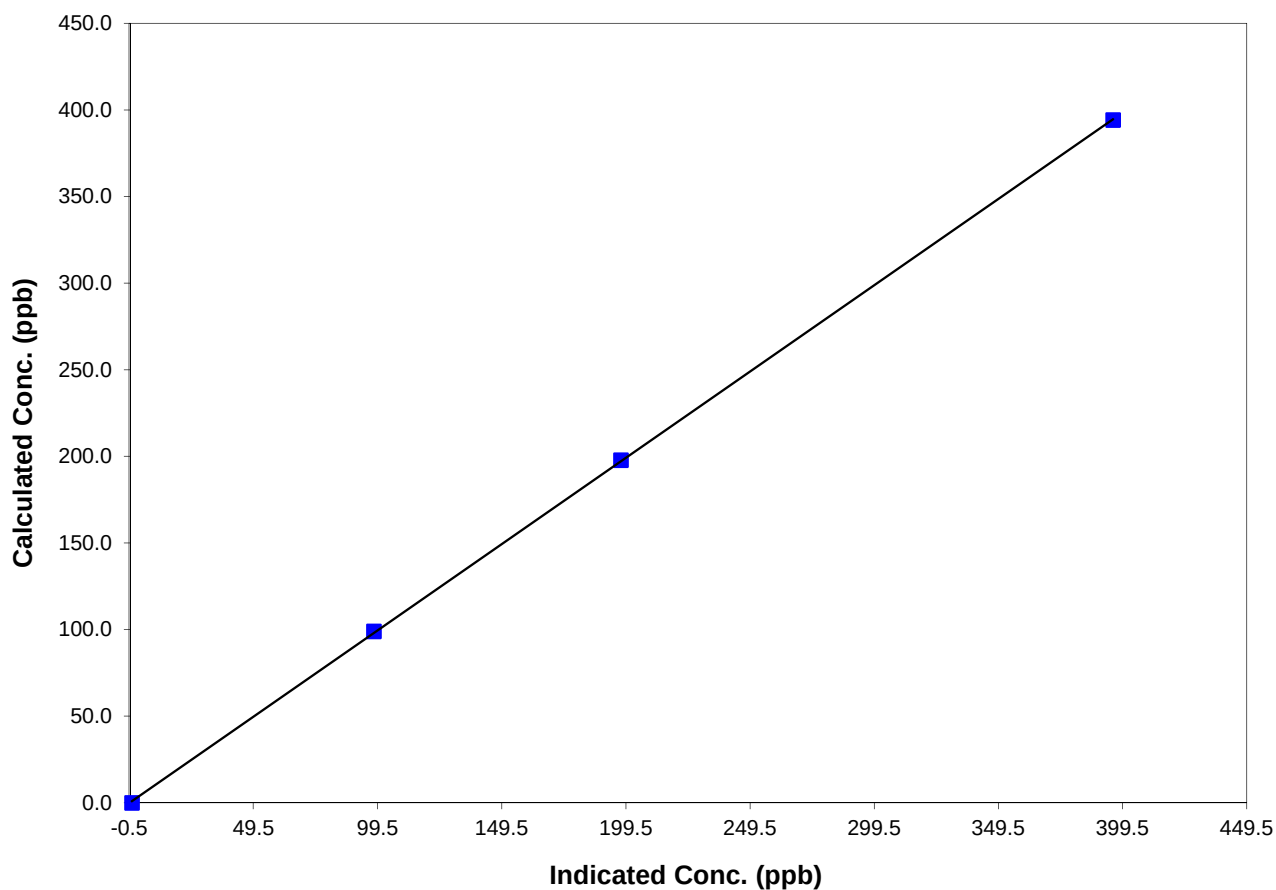
Station Information

Calibration Date	October 21, 2015	Previous Calibration	September 17, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	11:45	End Time (MST)	14:40:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

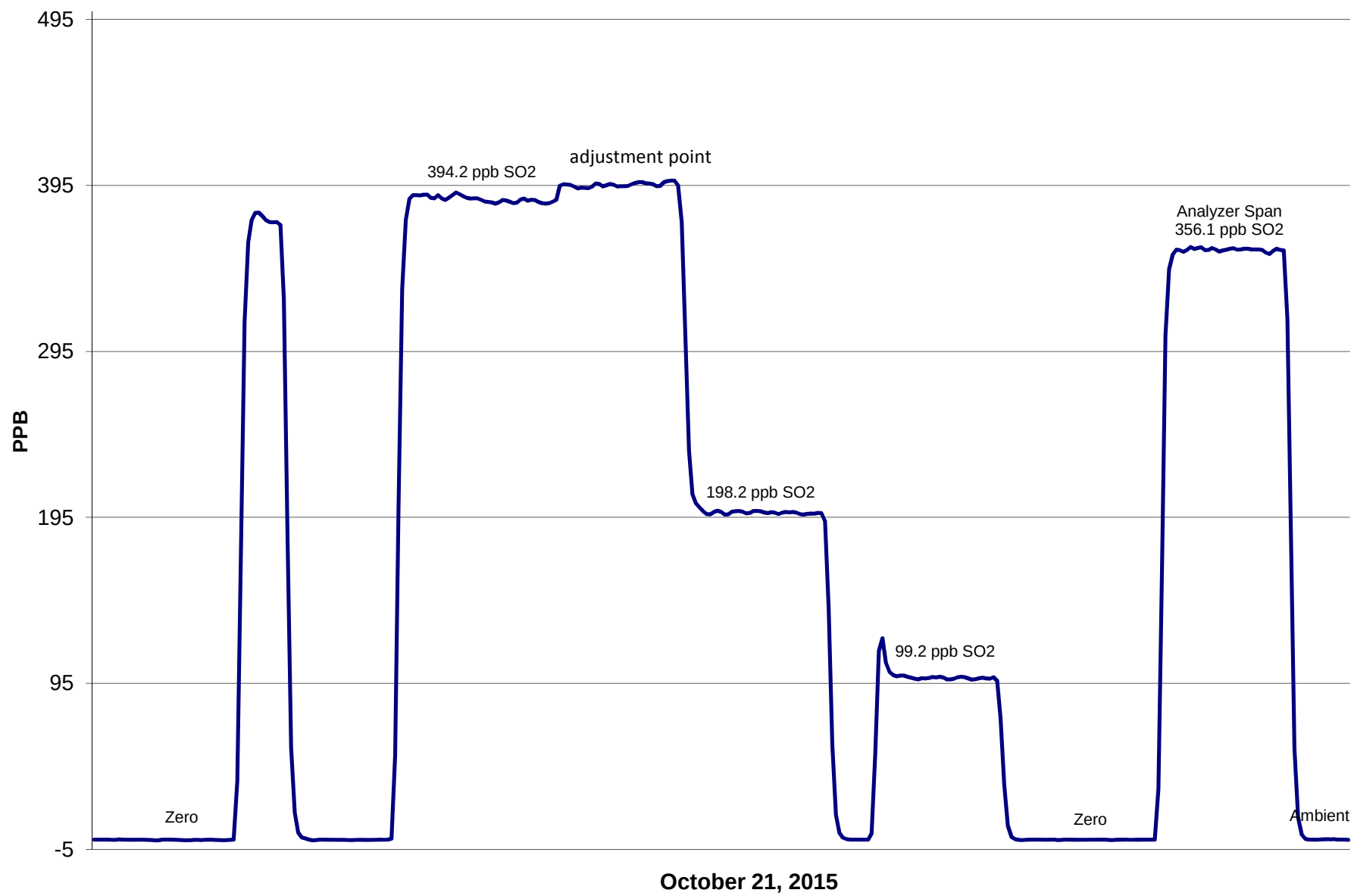
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999972
394.2	395.7	0.9960		
197.8	197.6	1.0012		
99.0	98.1	1.0088	Slope	0.996489
			Intercept	0.328046

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	October 21, 2015	Previous Calibration	Septemeber 17, 2015
Station Number	1	Station Location	Falher
Reason:	Routine	Install	Removal
Start Time (MST)	10:10	End Time (MST)	12:40
Barometric Pressure	0.926 mm	Station Temperature	20.5 Deg C
Calibrator	Envionics	Serial Number	6586
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031424	Cal Gas Cylinder #	LL110781
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.997175	Calculated slope	0.988674
Calculated intercept	-0.416593	Calculated intercept	0.118233
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	15.3	ppb	15.3	ppb
coefficient	1.109		1.109	
Lamp Voltage	800	volts	8001	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	518.3	mm Hg	518.3	mm Hg
Sample Flow	0.872	lpm	0.873	lpm
Lamp Intensity	90	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.0	N/A
4995	39.93	81.84	82.7	0.9892
4995	19.96	41.07	41.3	0.9944
6994	9.97	14.69	14.7	1.0010
4995	0.00	0.00	0.0	As Found Zero
4995	39.93	81.84	82.7	As Found Span
Average Correction Factor				0.9949

Calculated value of As Found Response: 82.09 ppm Percent Change of As Found: **-0.3%**

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.1	ppm
Auto span	54.8	ppm	56.6	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



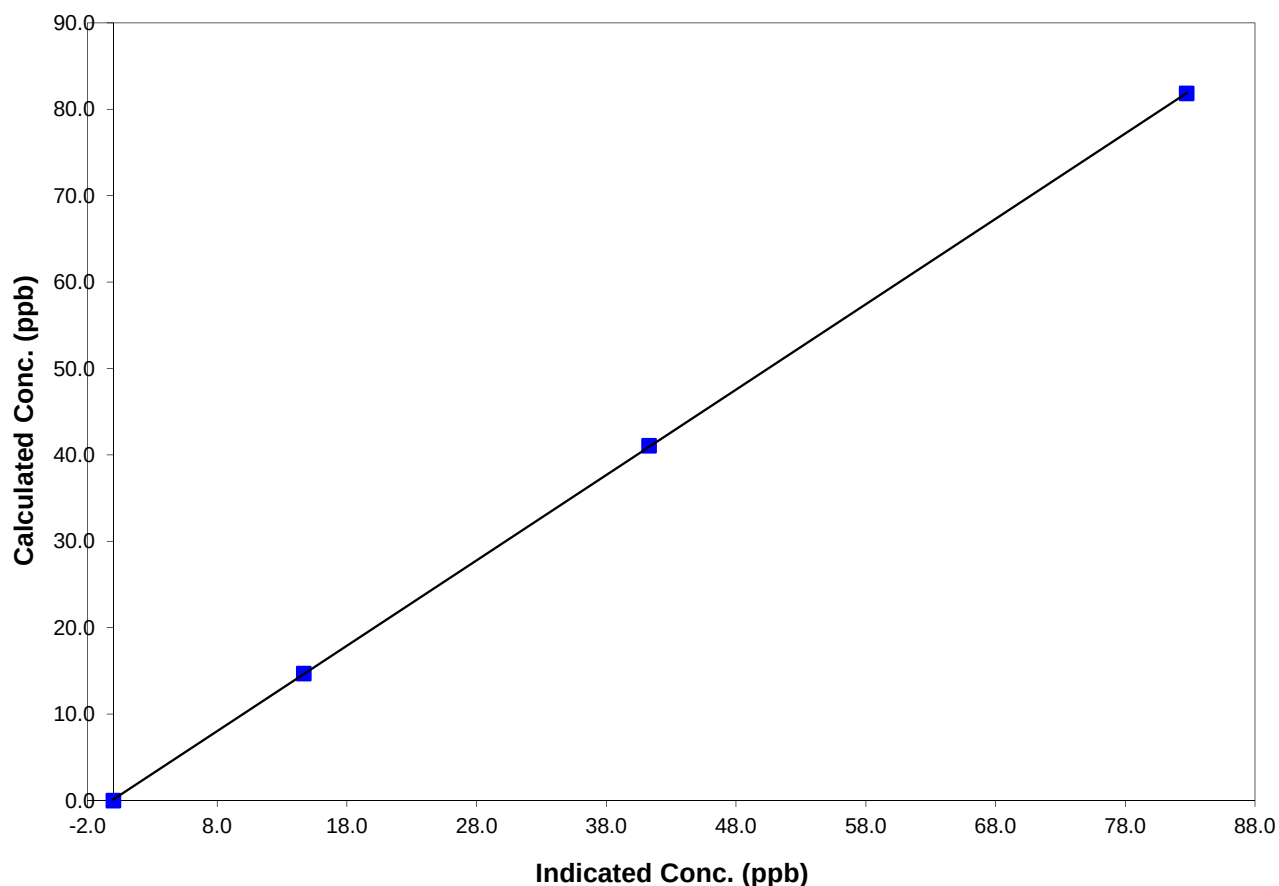
Station Information

Calibration Date	October 21, 2015	Previous Calibration	Septemeber 17, 2015
Station Number	1	Station Location	Falher
Start Time (MST)	10:10	End Time (MST)	12:40
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999991
81.8	82.7	0.9892		
41.1	41.3	0.9944		
14.7	14.7	1.0010	Slope	0.988674
			Intercept	0.118233

TRS Calibration Curve



H2S Calibration

