



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

**Continuous Ambient Air Quality Monitoring Program
Monthly Report
October 2017**

November 30, 2017

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

RE: Peace Airshed Zone Association (PAZA) – October 2017 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of October 2017.

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 Rycroft-Portable.

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 meteorological 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 meteorological sensors at the Evergreen Park station had an operational uptime greater than 90% for the month of October.

Smoky Heights Station:

- ◆ The measured ambient air quality was within the AAAQO for the Smoky Heights station.
- ◆ All analyzers and meteorological 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 meteorological 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 meteorological sensors at the Valleyview station had an operational uptime greater than 90% for the month of October, with the exception of the relative humidity sensor which was not operational this month due to instrument malfunctioning.

Donnelly Station:

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

Rycroft-Portable Station:

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

◆ **Passive Monitoring - 27 Stations throughout the PAZA zone:**

There were six duplicate sites sampled in the month of October: Saddle Hills and Wanham (SO₂), Crooked Creek (O₃), Eaglesham and Smokey Heights (NO₂), and Girouxville 4 (H₂S). 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 BDL ppb to 0.3 ppb, with a mean of 0.1 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.4 ppb to 8.4 ppb, with a mean of 1.6 ppb.
- Monthly average concentrations for O₃ passives ranged from 23.9 ppb to 30.4 ppb, with a mean of 27.1 ppb.
- Monthly average concentrations for H₂S passives were 0.2 ppb.

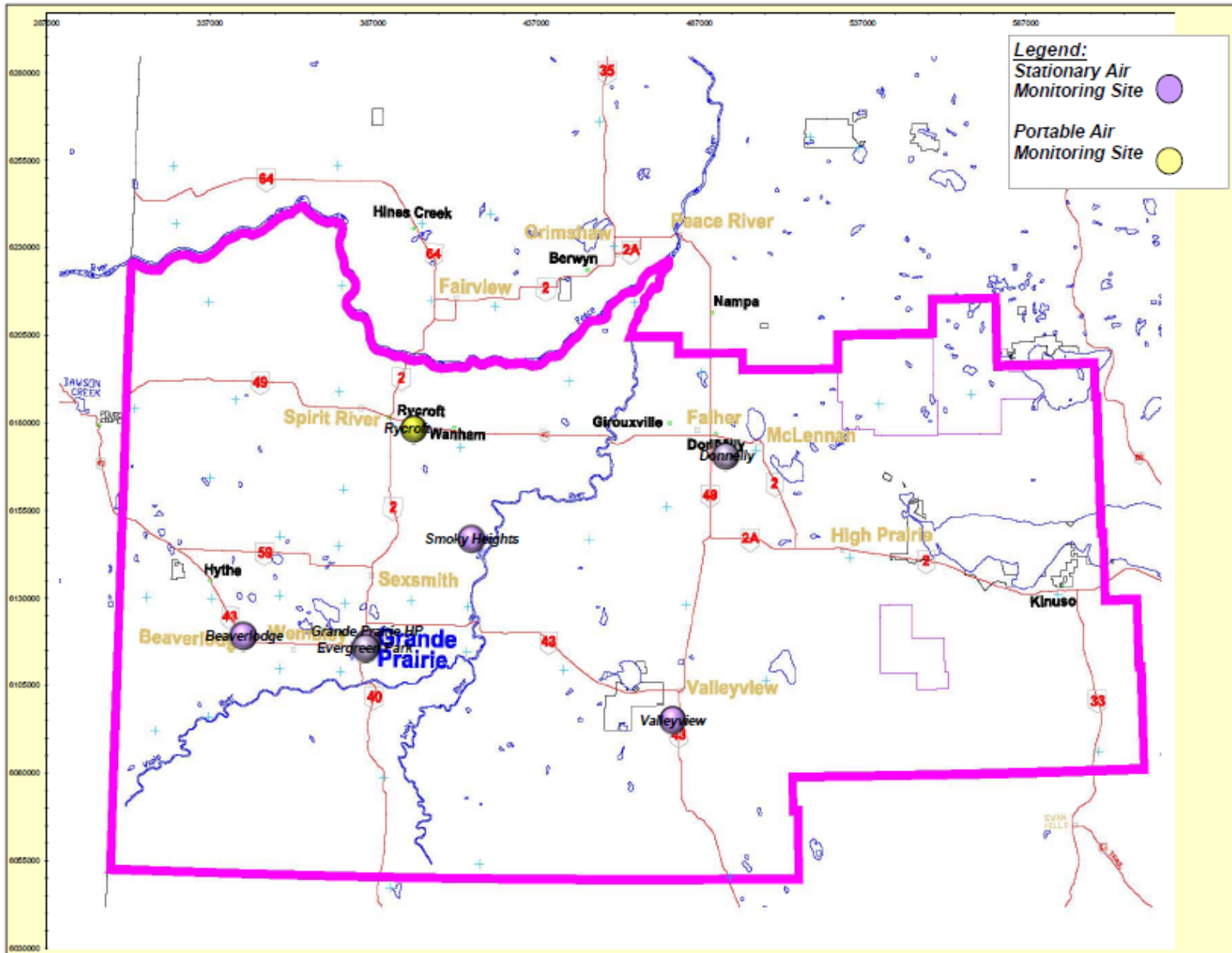
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

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-2017 Peace Airshed Zone Association							Maximum Recorded Values				Operational Time (%)	Calibration Date
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		1-hr		24-hr / 8-hr			
	1-hr	24-hr			1-hr	24-hr	Conc	Day	Conc	Day		
SO ₂ (ppb)	172	48	Henry Pirker	0.2	0	0	3.6	Oct-15 07:00	0.7	Oct-15	100.0%	Oct-17
SO ₂ (ppb)	172	48	Evergreen Park	0.1	0	0	5.7	Oct-30 14:00	0.5	Oct-30	100.0%	Oct-19
SO ₂ (ppb)	172	48	Smoky Heights	0.3	0	0	15.5	Oct-10 01:00	1.2	Oct-10	100.0%	Oct-20
SO ₂ (ppb)	172	48	Beaverlodge	0.1	0	0	0.6	Oct-04 19:00	0.2	Oct-04	100.0%	Oct-04
SO ₂ (ppb)	172	48	Valleyview	0.6	0	0	13.9	Oct-23 04:00	2.6	Oct-06	100.0%	Oct-23
SO ₂ (ppb)	172	48	Donnelly	0.1	0	0	1.0	Oct-27 12:00	0.3	Oct-04	99.9%	Oct-24
SO ₂ (ppb)	172	48	Rycroft-Portable	0.2	0	0	3.6	Oct-14 16:00	0.6	Oct-03	99.6%	Oct-12
NO (ppb)			Henry Pirker	3.0	-	-	74.2	Oct-27 10:00	14.3	Oct-04	100.0%	Oct-17
NO ₂ (ppb)	159	106	Henry Pirker	7.9	0	0	33.3	Oct-04 20:00	17.3	Oct-19	100.0%	Oct-17
NO _x (ppb)			Henry Pirker	11.0	-	-	99.2	Oct-27 10:00	29.7	Oct-04	100.0%	Oct-17
NO (ppb)			Beaverlodge	0.2	-	-	4.5	Oct-05 10:00	0.8	Oct-12	100.0%	Oct-04
NO ₂ (ppb)	159	106	Beaverlodge	2.4	0	0	14.8	Oct-13 02:00	4.8	Oct-18	100.0%	Oct-04
NO _x (ppb)			Beaverlodge	2.6	-	-	16.7	Oct-13 02:00	5.2	Oct-12	100.0%	Oct-04
NO (ppb)			Rycroft-Portable	0.2	-	-	8.6	Oct-26 15:00	0.8	Oct-26	99.6%	Oct-12
NO ₂ (ppb)	159	106	Rycroft-Portable	1.8	0	0	11.2	Oct-21 18:00	3.8	Oct-12	99.6%	Oct-12
NO _x (ppb)			Rycroft-Portable	2.0	-	-	17.3	Oct-26 15:00	4.2	Oct-12	99.6%	Oct-12
O ₃ (ppb)	82		Henry Pirker	21.1	0	-	41.1	Oct-06 14:00	35.0	Oct-06	100.0%	Oct-17
O ₃ (ppb) - 8-hr			Henry Pirker		0				40.2	Oct-06		-
O ₃ (ppb)	82		Beaverlodge	25.5	0	-	42.2	Oct-06 09:00	37.0	Oct-06	100.0%	Oct-04
O ₃ (ppb) - 8-hr			Beaverlodge		0				40.4	Oct-06		-
O ₃ (ppb)	82		Rycroft-Portable	25.2	0	-	42.6	Oct-05 16:00	35.0	Oct-06	99.6%	Oct-12
O ₃ (ppb) - 8-hr			Rycroft-Portable		0				38.2	Oct-16		-
CO (ppm)	13		Henry Pirker	0.19	0	-	1.0	Oct-04 21:00	0.3	Oct-04	100.0%	Oct-16
CO (ppm) - 8-hr		5	Henry Pirker		0				0.5	Oct-05		-

PAZA Monthly Continuous Data Summary – continued

Oct-2017		Peace Airshed Zone Association					Maximum Recorded Values						
							1-hr		24-hr / 8-hr				
THC (ppm)			Henry Pirker	2.0	-	-	4.6	Oct-03 08:00	2.5	Oct-03	100.0%	Oct-16	
CH ₄ (ppm)			Henry Pirker	1.9	-	-	3.9	Oct-29 23:00	2.2	Oct-30	100.0%	Oct-16	
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Oct-22 12:00	0.0	Oct-22	100.0%	Oct-16	
THC (ppm)			Rycroft-Portable	2.0	-	-	2.1	Oct-02 09:00	2.0	Oct-26	100.0%	Oct-10	
CH ₄ (ppm)			Rycroft-Portable	2.0	-	-	2.1	Oct-02 09:00	2.0	Oct-26	100.0%	Oct-10	
NMHC (ppm)			Rycroft-Portable	0.0	-	-	0.0	Oct-25 01:00	0.0	Oct-24	100.0%	Oct-10	
TRS (ppb)			Henry Pirker	0.1	-	-	1.8	Oct-24 03:00	0.3	Oct-04	100.0%	Oct-16	
TRS (ppb)			Evergreen Park	0.2	-	-	3.3	Oct-22 21:00	0.5	Oct-22	100.0%	Oct-19	
TRS (ppb)			Smoky Heights	0.4	-	-	1.6	Oct-04 01:00	0.6	Oct-04	100.0%	Oct-20	
TRS (ppb)			Rycroft-Portable	0.2	-	-	3.2	Oct-27 16:00	0.3	Oct-27	99.6%	Oct-10	
H ₂ S (ppb)	10	3	Valleyview	0.1	0	0	3.4	Oct-17 19:00	0.3	Oct-17	100.0%	Oct-23	
H ₂ S (ppb)	10	3	Donnelly	0.1	0	0	0.9	Oct-19 19:00	0.3	Oct-17	99.9%	Oct-24	
PM _{2.5} (µg/m ³)	80	30	Henry Pirker	4.1	0	0	53.9	Oct-04 23:00	15.7	Oct-04	100.0%	Oct-27	
PM _{2.5} (µg/m ³)	80	30	Evergreen Park	3.1	0	0	35.6	Oct-09 11:00	7.9	Oct-05	99.1%	Oct-19	
PM _{2.5} (µg/m ³)	80	30	Smoky Heights	2.9	0	0	60.0	Oct-03 21:00	10.7	Oct-03	99.7%	Oct-20	
PM _{2.5} (µg/m ³)	80	30	Beaverlodge	2.6	0	0	20.1	Oct-07 03:00	7.8	Oct-04	99.6%	Oct-04	
PM _{2.5} (µg/m ³)	80	30	Rycroft-Portable	2.0	0	0	11.2	Oct-28 09:00	5.0	Oct-27	99.5%	Oct-10	
RH (%)			Henry Pirker	62.9	-	-	89.9	Oct-17 09:00	82.2	Oct-17	100.0%	-	
RH (%)			Evergreen Park	67.6	-	-	99.0	Oct-25 02:00	89.2	Oct-17	100.0%	-	
RH (%)			Beaverlodge	65.0	-	-	100.0	Oct-16 22:00	88.3	Oct-25	100.0%	-	
RH (%)			Valleyview	-	-	-	-	-	-	-	0.0%	-	
SR (W/m ²)			Henry Pirker	63.0	-	-	511.3	Oct-03 13:00	138.9	Oct-02	100.0%	-	
Temp (°C)			Henry Pirker	4.9	-	-	22.6	Oct-05 15:00	12.2	Oct-05	100.0%	-	
Temp (°C)			Evergreen Park	4.7	-	-	23.0	Oct-05 16:00	11.7	Oct-05	100.0%	-	
Temp (°C)			Smoky Heights	4.2	-	-	22.0	Oct-05 16:00	11.9	Oct-05	100.0%	-	
Temp (°C)			Beaverlodge	4.8	-	-	21.5	Oct-05 15:00	13.5	Oct-05	100.0%	-	
Temp (°C)			Valleyview	4.9	-	-	23.2	Oct-05 18:00	12.7	Oct-05	99.7%	-	
Temp (°C)			Donnelly	4.5	-	-	22.2	Oct-05 17:00	14.8	Oct-05	100.0%	-	
Temp (°C)			Rycroft-Portable	4.7	-	-	23.2	Oct-05 15:00	14.4	Oct-05	100.0%	-	

PAZA Monthly Continuous Data Summary – continued

Oct-2017		Peace Airshed Zone Association					Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
WSPD s (km/hr)		Henry Pirker	9.6	-	-	32.0	Oct-24 06:00	18.0	Oct-07	100.0%	-	
WSPD s (km/hr)		Evergreen Park	13.0	-	-	48.0	Oct-09 11:00	28.5	Oct-09	100.0%	-	
WSPD s (km/hr)		Smoky Heights	14.8	-	-	46.0	Oct-06 13:00	27.9	Oct-06	100.0%	-	
WSPD s (km/hr)		Beaverlodge	13.0	-	-	50.0	Oct-24 03:00	24.6	Oct-24	100.0%	-	
WSPD s (km/hr)		Valleyview	6.4	-	-	24.0	Oct-07 03:00	15.2	Oct-07	99.7%	-	
WSPD s (km/hr)		Donnelly	14.3	-	-	44.0	Oct-06 12:00	26.3	Oct-06	100.0%	-	
WSPD s (km/hr)		Rycroft-Portable	12.1	-	-	40.0	Oct-17 15:00	29.0	Oct-07	98.3%	-	
WSPD v (km/hr)		Henry Pirker	5.5	-	-	32.0	Oct-24 06:00	16.8	Oct-07	100.0%	-	
WSPD v (km/hr)		Evergreen Park	8.1	-	-	48.0	Oct-09 11:00	28.0	Oct-09	100.0%	-	
WSPD v (km/hr)		Smoky Heights	9.7	-	-	46.0	Oct-06 13:00	27.4	Oct-06	100.0%	-	
WSPD v (km/hr)		Beaverlodge	7.1	-	-	50.0	Oct-24 03:00	23.7	Oct-24	100.0%	-	
WSPD v (km/hr)		Valleyview	3.2	-	-	23.0	Oct-07 03:00	13.5	Oct-07	99.7%	-	
WSPD v (km/hr)		Donnelly	8.0	-	-	44.0	Oct-06 12:00	25.6	Oct-06	100.0%	-	
WSPD v (km/hr)		Rycroft-Portable	7.7	-	-	40.0	Oct-17 15:00	27.8	Oct-07	98.3%	-	
WDIR		Henry Pirker	W	-	-	-	-	-	-	100.0%	-	
WDIR		Evergreen Park	WSW	-	-	-	-	-	-	100.0%	-	
WDIR		Smoky Heights	WSW	-	-	-	-	-	-	100.0%	-	
WDIR		Beaverlodge	W	-	-	-	-	-	-	100.0%	-	
WDIR		Valleyview	WNW	-	-	-	-	-	-	99.7%	-	
WDIR		Donnelly	WSW	-	-	-	-	-	-	100.0%	-	
WDIR		Rycroft-Portable	SW	-	-	-	-	-	-	98.3%	-	

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues:

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
NOx/NO/NO ₂	TEI	42i	No operational issues observed.
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	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
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

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	Sharp	5030	Routine maintenance and analyzer malfunctioning resulted in an uptime of 99.1%.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43i	No operational issues observed.
PM _{2.5}	Sharp	5030	Routine analyzer maintenance resulted in an uptime of 99.7%.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Beaverlodge Station

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	No operational issues observed.
NOx/NO/NO ₂	TEI	42C	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
PM _{2.5}	Sharp	5030	Routine analyzer maintenance resulted in an uptime of 99.6%.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Met One	50.5H	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

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	Instrument malfunctioning resulted in an uptime of 99.7%.
RH	Gill	Met Pak 3	The relative humidity sensor was not operational for the month of October due to instrument malfunctioning.
WS / WD	Gill	Met Pak 3	Instrument malfunctioning resulted in an uptime of 99.7%.

PAZA – Donnelly Station

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43i	A power disruption at the station resulted in an uptime of 99.9%.
H ₂ S	Thermo	450i	A power disruption at the station resulted in an uptime of 99.9%.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

PAZA – Portable-Rycroft

General Station Issues

Parameter	Make	Model	Notes
SO ₂	TEI	43i	Analyzer malfunctioning resulted in an uptime of 99.6%.
NOx/NO/NO ₂	TEI	42i	Analyzer malfunctioning resulted in an uptime of 99.6%.
O ₃	TEI	49i	Analyzer malfunctioning resulted in an uptime of 99.6%.
TRS	TEI	43i	Analyzer malfunctioning resulted in an uptime of 99.6%.
THC/CH ₄ /NMHC	TEI	55i	No operational issues observed.
PM _{2.5}	Sharp	5030	Routine maintenance and analyzer malfunctioning resulted in an uptime of 99.5%.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	Instrument malfunctioning resulted in an uptime of 98.3%.

PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - October 2017

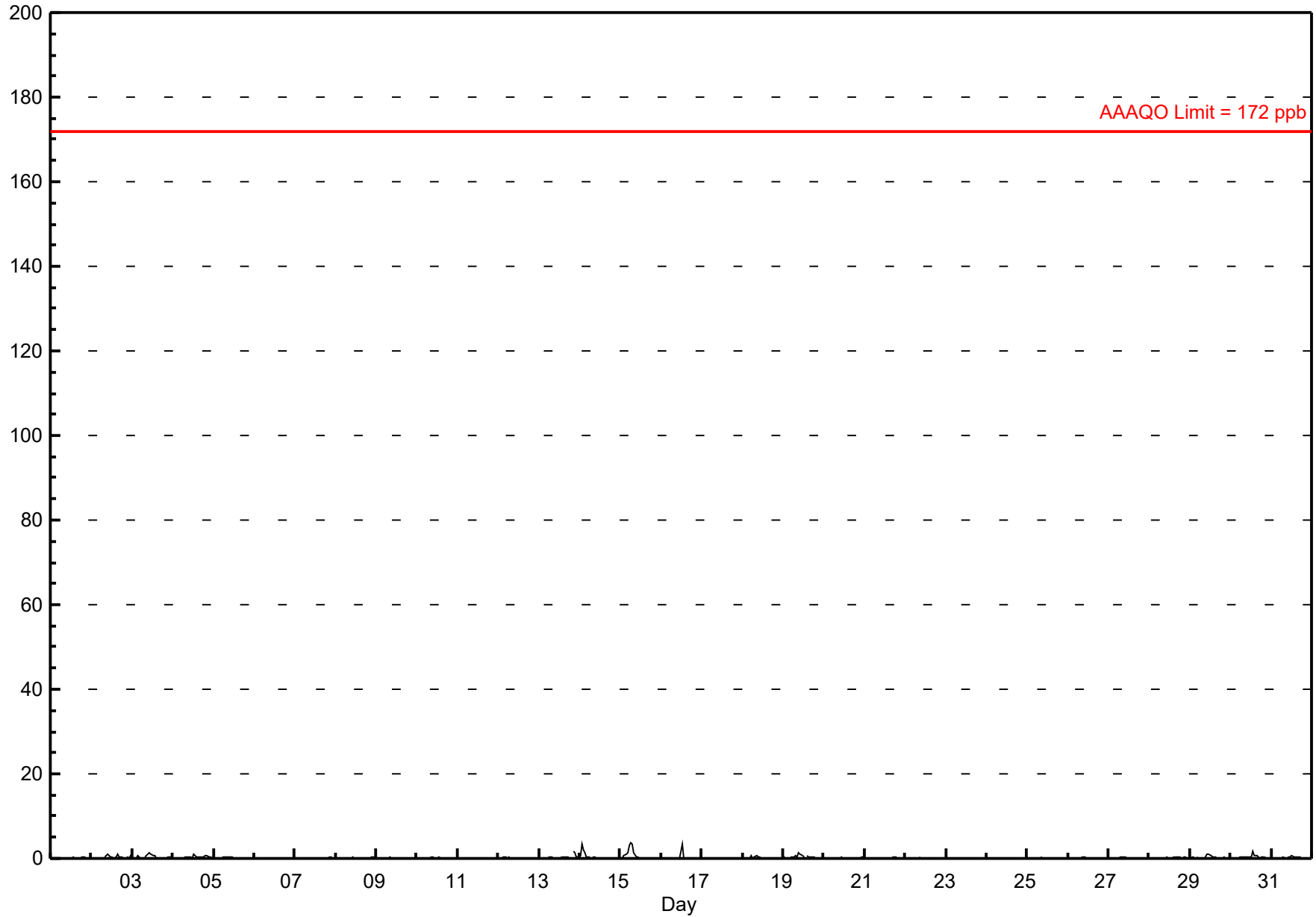
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 3.6 ppb on Oct 15 07:00	Maximum Daily Average: 0.7 ppb on Oct 15		Hours of Data:	708
Minimum Value: 0 ppb on Oct 1 06:00	Minimum Daily Average: 0.0 ppb on Oct 11		Hours of Missing Data:	36
Maximum Diurnal Average: 0.3 ppb at hour 13	Minimum Diurnal Average: 0.1 ppb at hour 20		Hours of Calibration:	36
Monthly Average: 0.18 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.4 P ₉₉ = 1.4		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	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	0.2
2-Oct	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0.3	1.1
3-Oct	0	0	0	1	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.4	1.2	
4-Oct	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0.3	1.0	
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	0.1	0.5	
6-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	0.1	
7-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
8-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
9-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	0.3	
10-Oct	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	
11-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	0.1	
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.4	
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	1	0	0.3	1.7	
14-Oct	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	3.3	
15-Oct	0	0	1	1	1	3	4	3	2	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.7	3.6	
16-Oct	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	A	0	0	0	0	0	0	0	0.2	3.3	
17-Oct	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	A	0	0	0	0	0	0	0	0.1	0.1	
18-Oct	0	0	0	0	0	1	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.6	
19-Oct	0	0	0	0	0	0	0	1	0	1	1	1	0	A	1	0	1	0	0	0	0	0	0	0.4	1.3	
20-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
21-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
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	0.1	0.2	
23-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
24-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	0.1	
25-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	0.2	
26-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
27-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
28-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
29-Oct	0	0	0	A	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0.3	1.2	
30-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0.3	1.6	
31-Oct	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	Diurnal Average	
	0.6	3.3	2.1	1.3	1.4	3.2	3.6	3.4	1.5	1.3	1.2	1.2	3.3	1.6	0.7	1.1	0.5	0.4	0.4	0.5	1.7	1.2	0.4	0.5	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 2017



Hourly Maximums

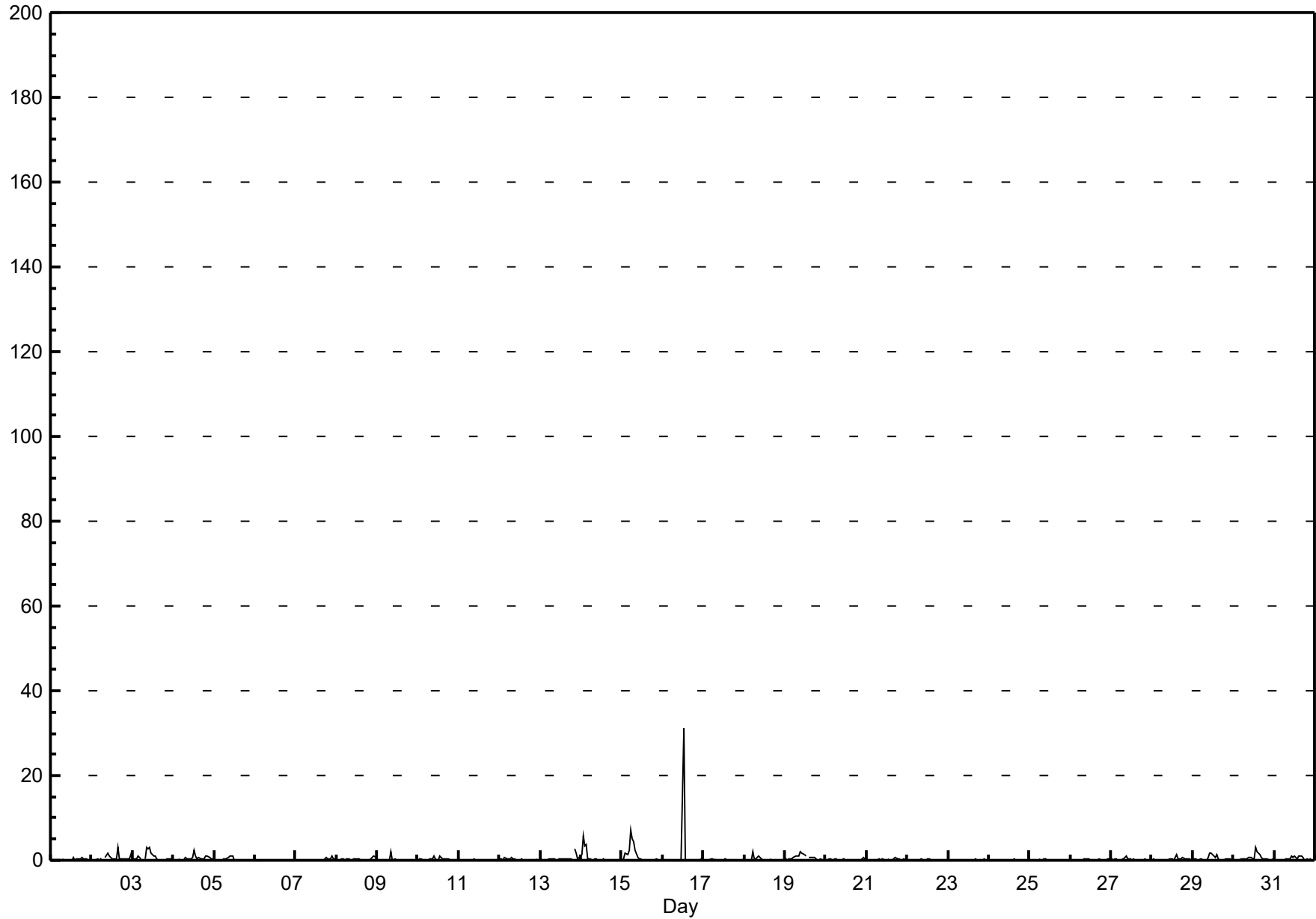
Sulphur Dioxide (SO₂) - ppb

Henry Pirker - October 2017

Maximum Value: 31.2 ppb on Oct 16 13:00		Maximum Daily Average: 1.5 ppb on Oct 16		Hours in Service: 744																						
Minimum Value: 0 ppb on Oct 2 01:00		Minimum Daily Average: 0.1 ppb on Oct 6		Hours of Data: 708																						
Maximum Diurnal Average: 1.4 ppb at hour 13		Minimum Diurnal Average: 0.2 ppb at hour 1		Hours of Missing Data: 36																						
Monthly Average: 0.40 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.7 P ₉₉ = 3.4		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	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0.2	0.6
2-Oct	0	0	0	0	0	0	0	A	1	2	1	1	0	0	0	3	0	0	0	0	0	0	0	1	0.5	2.9
3-Oct	0	0	0	1	1	0	A	0	3	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0.8	3.0
4-Oct	0	0	0	0	0	A	0	1	0	0	0	1	2	1	0	1	0	0	0	1	1	1	0	0	0.5	2.5
5-Oct	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
6-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
7-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0.2	0.9
8-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	1.2
9-Oct	A	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
10-Oct	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0.3	0.9
11-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	0.2
12-Oct	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.7
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	3	2	0	1	0.4	2.6
14-Oct	1	6	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.8	5.8
15-Oct	0	0	2	1	2	7	5	4	2	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1.2	7.0
16-Oct	0	0	0	0	0	0	0	0	0	0	0	31	0	0	0	A	0	0	0	0	0	0	0	1	1.5	31.2
17-Oct	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
18-Oct	0	0	0	0	0	2	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	2.0
19-Oct	0	0	0	0	0	1	1	1	1	2	2	1	1	A	1	1	1	1	0	0	0	0	0	0	0.6	2.0
20-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0.2	0.6
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0.2	0.6
22-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	0.2	0.4
23-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
24-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	0.1	0.3
25-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	0.4
26-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	0.2	0.3
27-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	0.3	0.9
28-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0.3	1.3
29-Oct	0	0	0	A	0	0	0	0	0	1	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0.5	1.7
30-Oct	0	0	A	0	0	0	0	0	0	1	1	0	0	3	2	1	1	0	0	0	0	0	0	0	0.6	3.1
31-Oct	0	A	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0.4	1.2
		0.2	0.4	0.3	0.4	0.3	0.5	0.4	0.4	0.6	0.5	0.5	0.4	1.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	Diurnal Average
		1.3	5.8	3.5	3.7	2.5	7.0	5.1	4.4	3.0	2.8	2.9	1.7	31.2	3.1	1.9	2.9	1.1	0.7	0.6	0.9	2.6	1.7	1.2	1.4	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

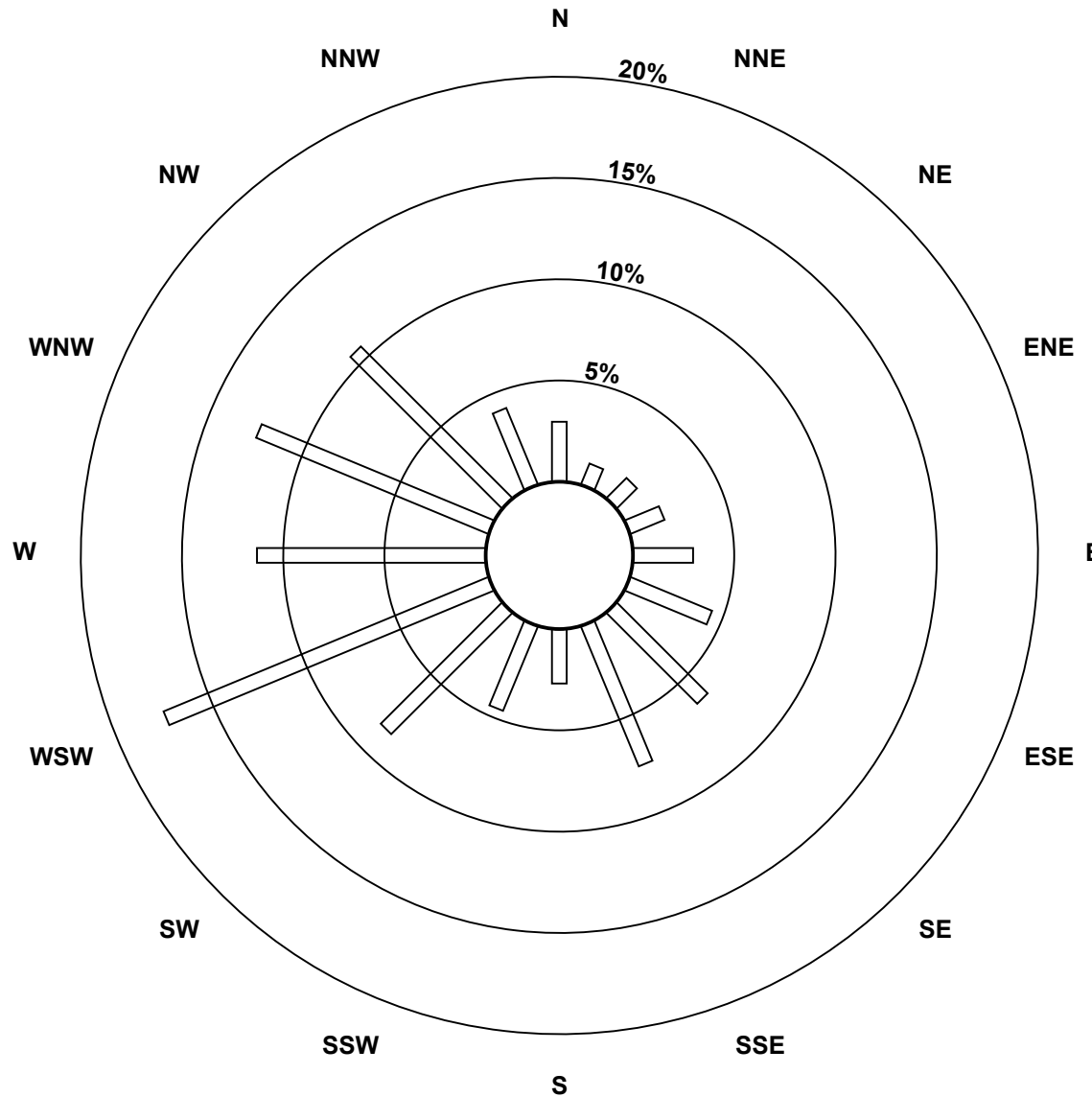
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - October 2017

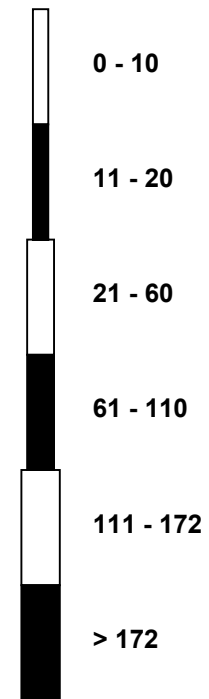


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - October 2017

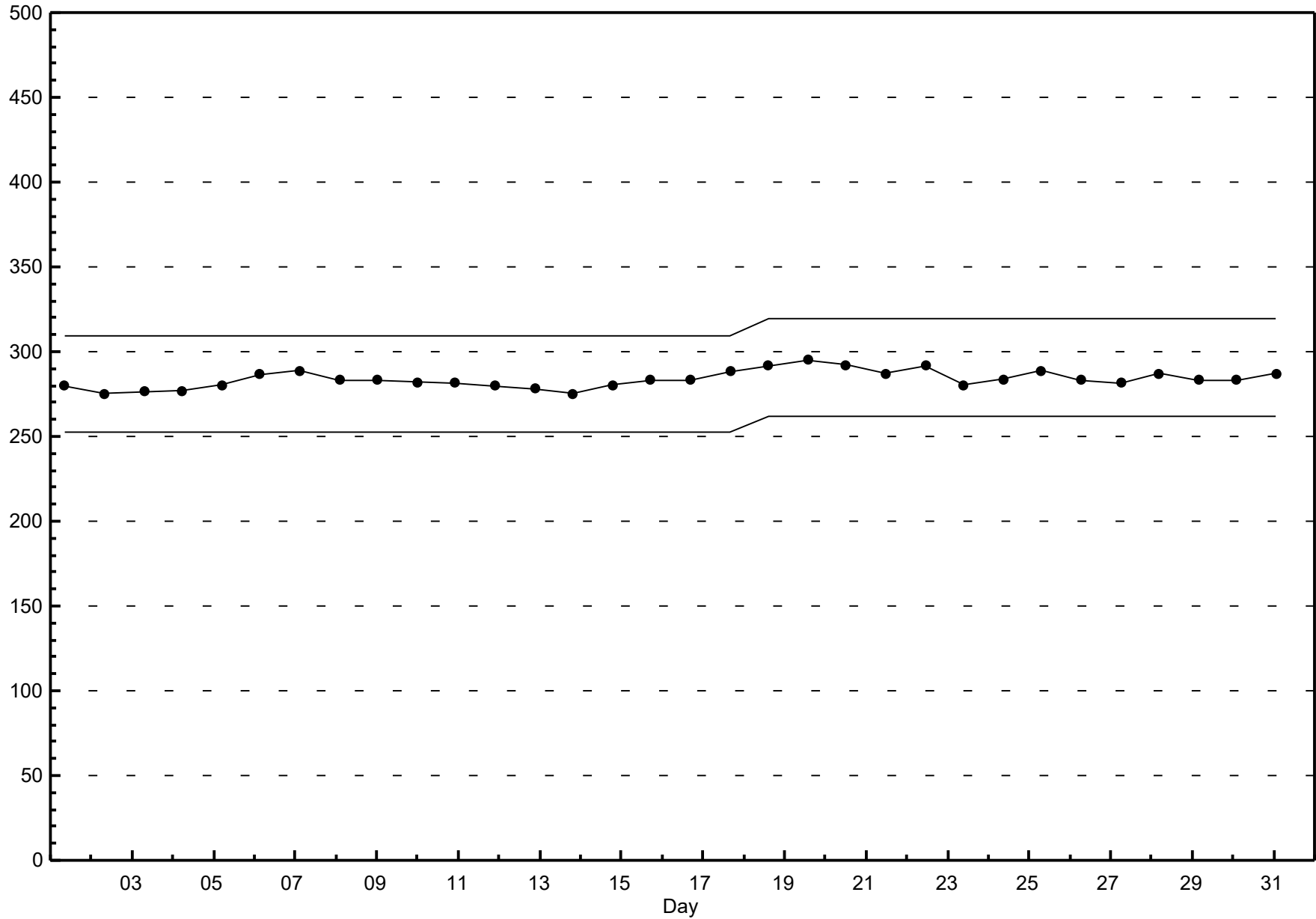


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - October 2017

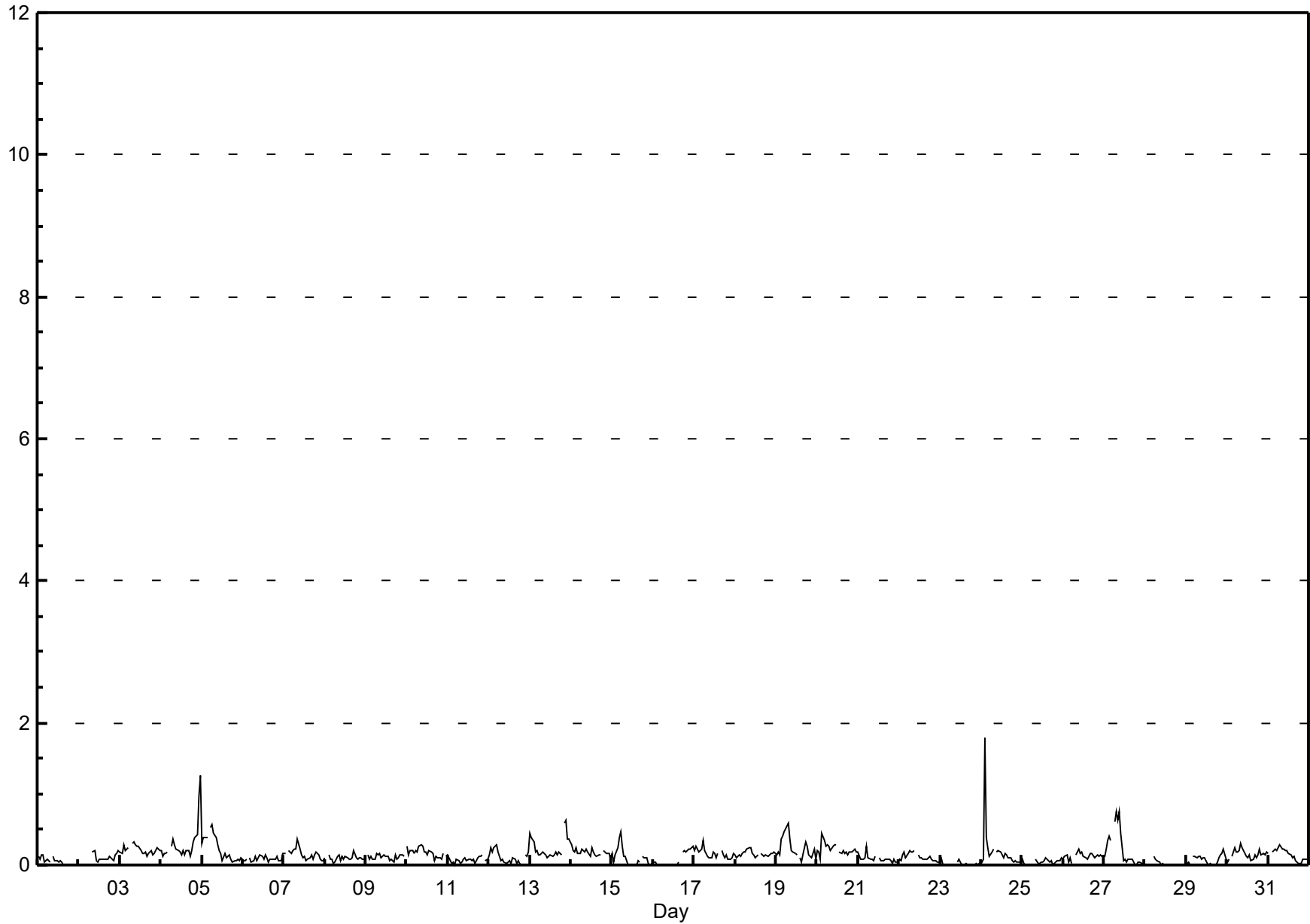


Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2017

Maximum Value: 1.8 ppb on Oct 24 03:00		Maximum Daily Average: 0.3 ppb on Oct 4		Hours in Service: 744																						
Minimum Value: 0 ppb on Oct 1 16:00		Minimum Daily Average: 0.0 ppb on Oct 23		Hours of Data: 708																						
Maximum Diurnal Average: 0.2 ppb at hour 8		Minimum Diurnal Average: 0.1 ppb at hour 15		Hours of Missing Data: 36																						
Monthly Average: 0.14 ppb		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 = 0.6		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	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
2-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
3-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	0.2	0.3
4-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	1.3
5-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	0.6
6-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
7-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
8-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
9-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	0.1	0.2
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0.2	0.3
11-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	0.1
12-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
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0.2	0.6
14-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	0.3
15-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	0.1	0.5
16-Oct	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
17-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	0.2	0.3
18-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	0.2	0.2
19-Oct	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6
20-Oct	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
21-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	0.1	0.3
22-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	0.2
23-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	0.1
24-Oct	0	0	2	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8
25-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
26-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	0.1	0.2
27-Oct	0	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
28-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
29-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
30-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	0.3
31-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
																								Diurnal Average	Diurnal Maximum	
																								0.1	0.4	
																								0.1	0.4	
																								0.2	1.8	
																								0.2	0.5	
																								0.2	0.4	
																								0.2	0.5	
																								0.2	0.6	
																								0.2	0.8	
																								0.2	0.6	
																								0.2	0.8	
																								0.1	0.4	
																								0.1	0.3	
																								0.1	0.2	
																								0.1	0.2	
																								0.1	0.2	
																								0.1	0.2	
																								0.1	0.2	
																								0.1	0.2	
																								0.1	0.3	
																								0.1	0.3	
																								0.1	0.3	
																								0.1	0.6	
																								0.1	0.6	
																								0.1	1.0	
																								0.1	1.3	

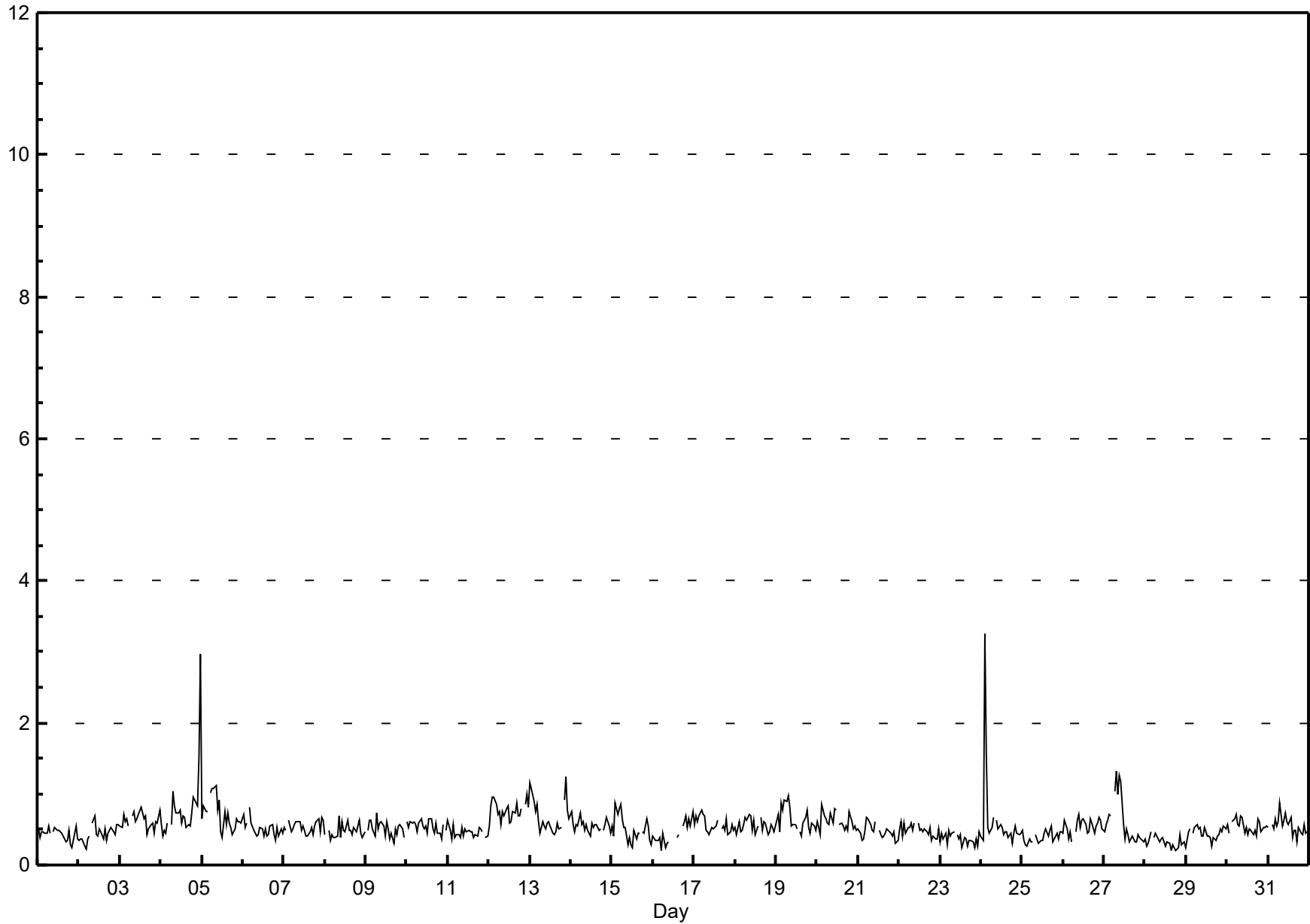


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2017

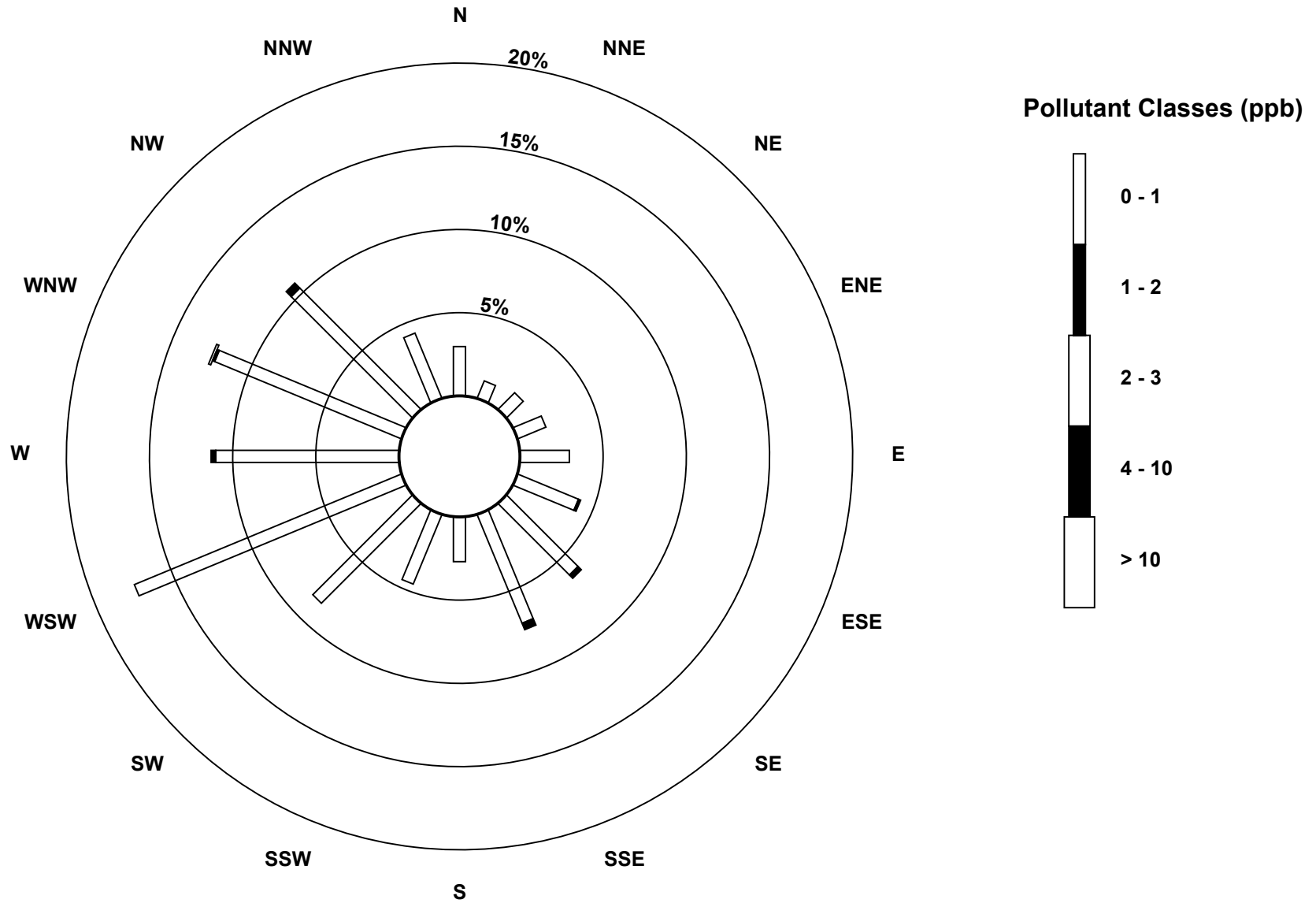
Maximum Value: 3.2 ppb on Oct 24 03:00		Maximum Daily Average: 0.8 ppb on Oct 4		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 28 19:00		Minimum Daily Average: 0.3 ppb on Oct 28		Hours of Data: 708																							
Maximum Diurnal Average: 0.6 ppb at hour 3		Minimum Diurnal Average: 0.5 ppb at hour 16		Hours of Missing Data: 36																							
Monthly Average: 0.54 ppb		Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 1.2		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	0	0	0	0	0	1	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.6	
2-Oct	0	0	0	0	0	0	0	A	1	1	0	0	1	0	0	1	0	0	0	1	0	0	1	1	0.4	0.7	
3-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0.6	0.8	
4-Oct	1	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	0.8	3.0	
5-Oct	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0.7	1.1	
6-Oct	1	1	1	A	1	1	0	0	0	0	1	0	0	1	0	0	1	1	0	0	1	0	1	0	0.5	0.8	
7-Oct	1	0	A	1	0	1	1	1	1	1	0	1	0	0	0	1	0	1	1	1	1	0	1	1	0.5	0.7	
8-Oct	0	A	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	1	1	0	0	0	0.5	0.7	
9-Oct	A	0	1	1	1	0	1	1	1	1	0	1	1	0	0	0	0	1	0	1	1	1	0	A	0.5	0.7	
10-Oct	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	0	1	0	0	0	1	A	0	0.5	0.7	
11-Oct	1	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	0	A	0	0	0.5	0.6	
12-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	1.0	
13-Oct	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	1	1	1	A	1	1	1	1	0.7	1.2	
14-Oct	1	1	0	1	1	1	1	1	0	1	0	0	1	1	1	1	0	1	A	0	1	1	1	0	0.6	0.7	
15-Oct	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0	0.5	0.9	
16-Oct	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	A	1	1	1	1	1	1	1	0.4	0.8	
17-Oct	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	A	1	1	0	1	0	0	1	0	0.6	0.8	
18-Oct	1	0	1	0	0	1	1	1	1	1	0	1	0	1	A	1	0	1	1	1	0	0	1	0	0.6	0.7	
19-Oct	1	1	0	1	1	1	1	1	1	1	1	1	1	A	0	0	1	1	1	1	0	1	1	0	0.6	1.0	
20-Oct	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	0	1	1	1	1	0	0.6	0.9	
21-Oct	1	0	0	0	0	1	1	1	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7	
22-Oct	1	1	0	1	0	1	1	1	0	1	A	1	0	1	0	1	0	0	1	0	0	0	0	1	0.5	0.6	
23-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	0.4	0.5	
24-Oct	0	0	3	2	1	0	1	1	A	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0.6	3.2	
25-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0.4	0.6	
26-Oct	0	1	1	0	0	0	A	0	1	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	0.5	0.7	
27-Oct	0	1	1	1	1	A	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.6	1.3	
28-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	
29-Oct	0	0	1	A	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	0.4	0.6	
30-Oct	1	0	A	1	1	1	1	1	1	1	0	1	0	1	0	0	0	0	1	1	0	1	1	1	0.5	0.7	
31-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	1	0	0	0.5	0.9	
		0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	Diurnal Average		
		1.2	1.1	3.2	1.5	0.9	1.0	1.1	1.3	1.1	1.3	1.2	0.8	0.8	0.8	0.7	0.7	0.9	0.7	0.8	1.0	0.9	1.2	1.5	3.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

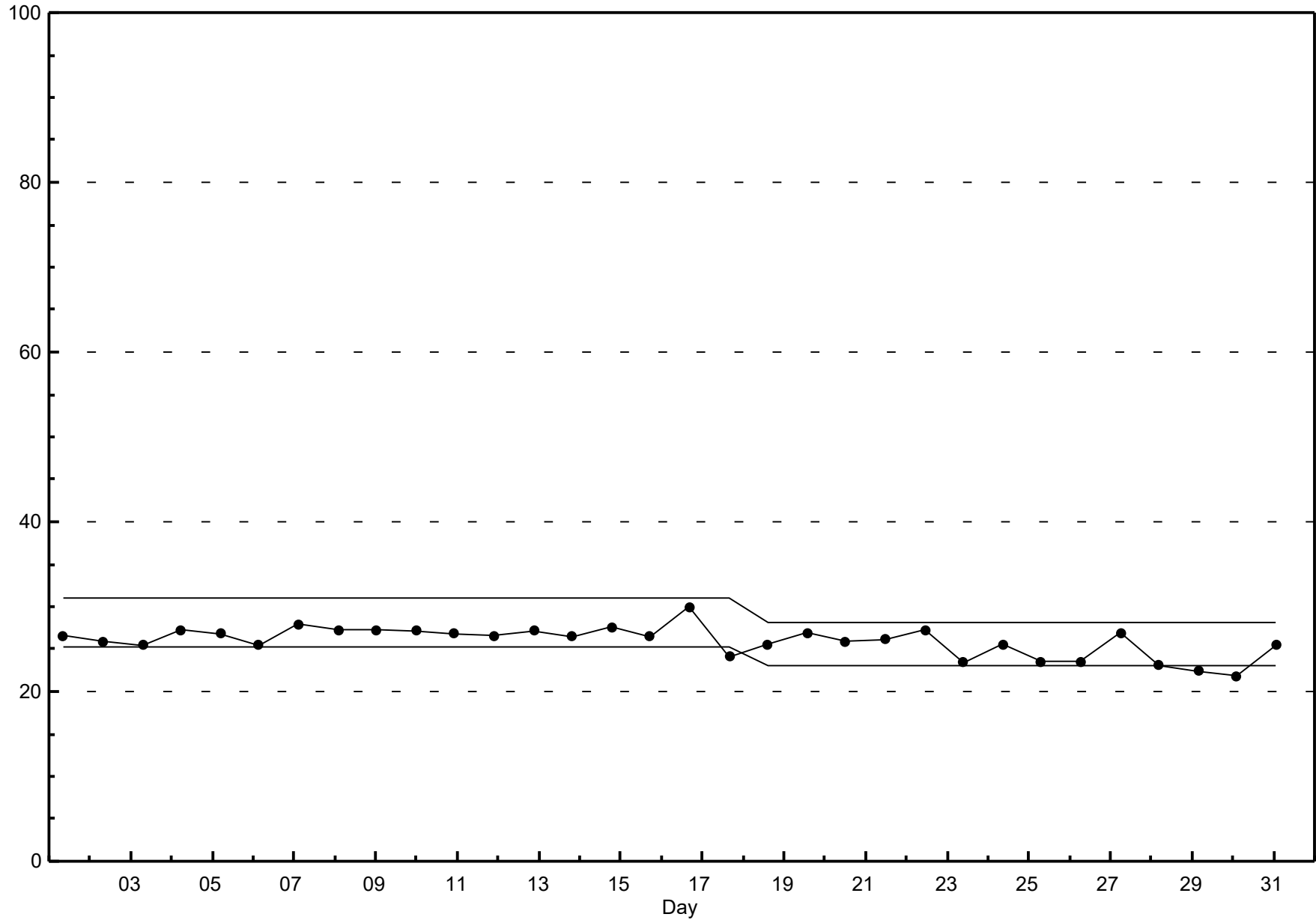


Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2017





Hourly Averages

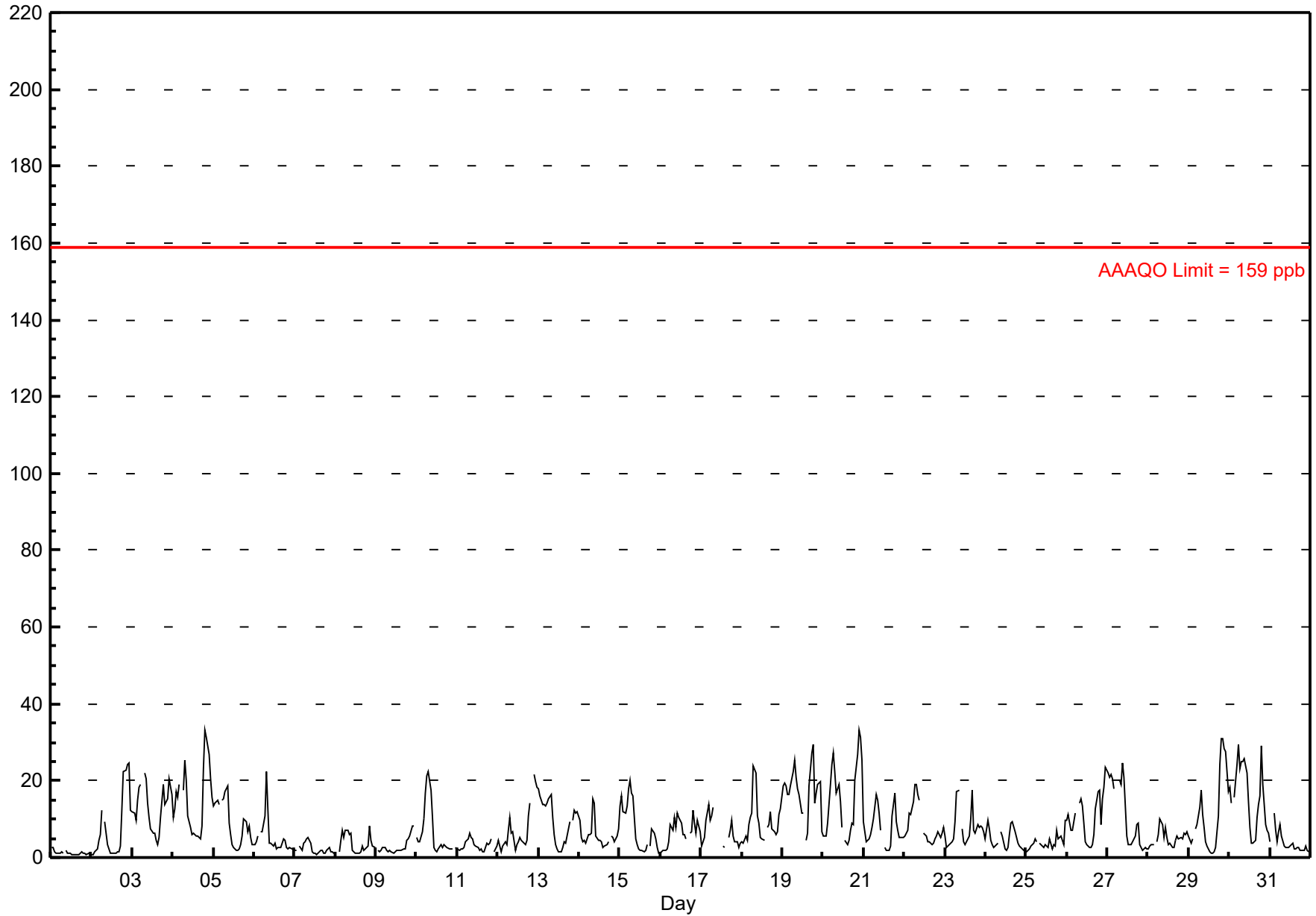
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - October 2017

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 33.3 ppb on Oct 4 20:00	Maximum Daily Average: 17.3 ppb on Oct 19		Hours of Data:	707
Minimum Value: 1 ppb on Oct 1 14:00	Minimum Daily Average: 1.2 ppb on Oct 1		Hours of Missing Data:	37
Maximum Diurnal Average: 14.5 ppb at hour 8	Minimum Diurnal Average: 3.1 ppb at hour 15		Hours of Calibration:	37
Monthly Average: 7.89 ppb	Percentiles: P ₁ = 0.9 P ₁₀ = 1.7 Q ₁ = 2.7 Median = 5.4 Q ₃ = 11.0 P ₉₀ = 18.8 P ₉₉ = 28.9		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	3	3	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.8	
2-Oct	1	1	1	2	5	6	12	A	9	3	2	1	1	1	1	1	2	3	12	22	23	24	25	12	7.5	24.7	
3-Oct	12	12	10	15	18	19	A	22	20	14	10	7	6	6	5	4	5	10	19	14	15	15	21	16	12.9	22.0	
4-Oct	10	13	17	15	19	A	18	25	20	11	8	6	6	6	6	6	5	8	23	33	31	27	20	16	15.2	33.3	
5-Oct	13	14	15	14	A	15	15	17	19	9	6	3	3	2	2	2	3	6	10	9	7	8	5	3	8.7	18.8	
6-Oct	3	4	5	A	7	7	11	22	13	4	4	3	4	2	2	3	3	5	4	3	2	2	2	2	5.1	22.3	
7-Oct	2	2	A	3	2	4	4	5	5	4	1	1	1	1	1	2	2	1	1	2	3	1	1	1	2.2	5.2	
8-Oct	1	A	2	5	7	5	7	7	6	6	2	1	1	1	1	2	3	2	2	5	3	8	5	3	3.6	8.2	
9-Oct	A	2	1	2	3	3	2	2	2	1	1	1	2	2	2	2	2	2	2	5	6	8	8	A	2.9	8.3	
10-Oct	5	4	4	7	10	17	21	22	18	10	2	2	2	2	3	3	3	3	3	3	2	2	2	A	3	6.6	22.4
11-Oct	2	2	2	2	3	4	5	6	5	5	3	3	2	2	2	2	2	4	3	4	5	A	2	3	3.2	6.3	
12-Oct	5	3	2	3	4	4	7	10	6	7	2	3	4	5	4	4	3	5	11	14	A	22	20	18	7.2	21.5	
13-Oct	18	16	14	14	13	14	15	16	11	6	3	2	2	1	3	4	4	6	9	A	10	12	11	12	9.4	17.8	
14-Oct	10	5	4	4	4	6	6	6	15	14	6	4	4	4	2	3	3	4	A	6	5	4	6	8	5.9	15.3	
15-Oct	13	16	12	12	14	18	20	17	16	5	3	2	2	2	2	3	A	3	8	6	5	2	1	7.9	20.1		
16-Oct	1	2	2	2	2	4	9	7	11	8	12	11	9	6	6	5	A	6	7	12	9	6	10	7	6.6	12.3	
17-Oct	3	4	5	10	14	10	11	13	C	C	C	C	C	3	3	A	5	7	10	6	4	4	3	4	6.5	13.8	
18-Oct	4	4	5	4	9	10	12	24	22	11	9	5	5	4	A	8	9	12	7	7	6	7	11	13	9.1	24.0	
19-Oct	19	20	19	17	16	19	22	25	21	18	16	12	11	A	4	6	19	27	30	14	17	19	20	7	17.3	29.5	
20-Oct	6	6	6	9	19	24	27	23	17	19	14	8	A	5	3	5	7	9	8	20	27	33	31	25	15.3	33.2	
21-Oct	9	4	4	5	6	8	10	16	15	12	7	A	2	2	2	2	3	11	17	9	7	5	5	5	7.3	17.0	
22-Oct	5	6	7	12	11	15	19	19	16	15	A	6	6	6	4	4	3	4	5	6	7	5	6	8	8.5	19.0	
23-Oct	6	3	3	4	4	5	9	17	17	A	7	4	3	4	6	10	18	7	6	9	8	8	8	7	7.5	17.6	
24-Oct	5	10	7	4	3	3	4	4	A	7	6	2	2	2	6	9	9	7	5	4	3	3	2	2	4.7	9.6	
25-Oct	2	2	2	3	4	5	4	A	4	3	2	3	3	2	5	2	3	3	7	5	5	5	4	10	3.8	9.8	
26-Oct	10	11	7	7	9	11	A	14	15	13	9	4	3	3	3	6	13	17	17	9	15	18	23	10.5	23.4		
27-Oct	22	21	22	20	18	A	20	20	19	25	21	5	4	3	3	4	5	9	9	3	3	2	3	2	11.4	24.5	
28-Oct	2	3	3	3	A	4	6	10	9	5	8	5	3	4	3	2	4	6	5	5	5	6	6	7	5.0	10.2	
29-Oct	6	4	5	A	7	9	13	17	11	8	4	3	2	1	1	2	3	11	24	31	31	28	28	17	11.5	31.0	
30-Oct	18	14	A	16	24	30	23	25	25	26	22	14	8	4	4	5	10	14	16	29	19	9	7	6	16.0	29.6	
31-Oct	4	A	11	7	4	7	9	6	3	3	2	3	3	4	2	2	3	3	2	2	2	3	2	2	3.8	11.4	
	7.3	7.2	6.9	7.6	9.0	9.8	11.8	14.5	13.2	9.3	6.8	4.4	3.6	3.1	3.1	3.6	5.0	6.9	9.4	10.2	9.5	9.9	9.7	8.1	Diurnal Average		
	21.9	20.8	21.5	20.3	24.3	29.6	27.2	25.2	24.9	25.6	22.2	14.4	11.4	6.2	6.1	10.2	18.7	27.2	29.5	33.3	31.4	33.2	31.3	25.3	Diurnal Maximum		

C - Calibration A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb



Hourly Maximums

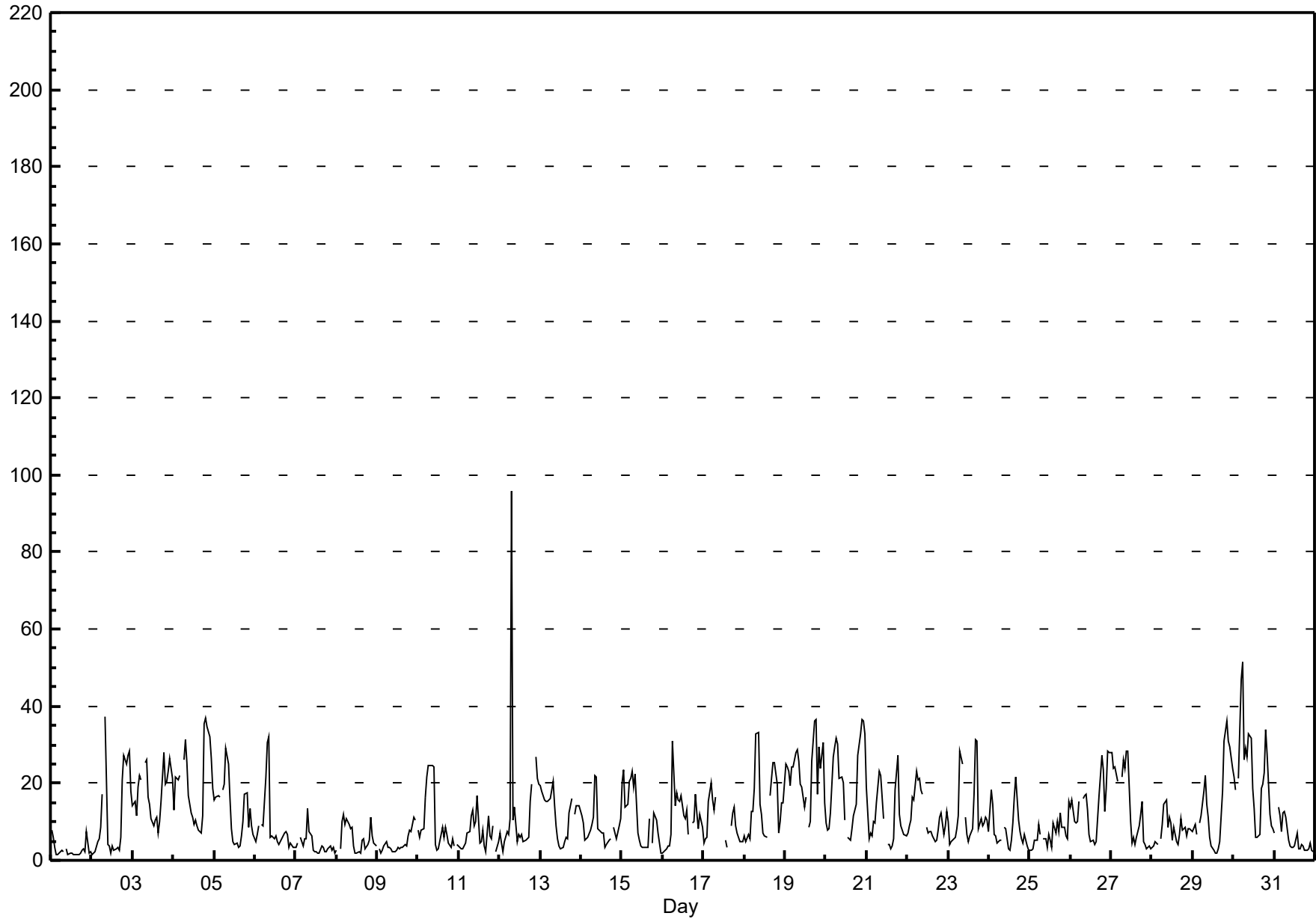
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - October 2017

Maximum Value: 95.8 ppb on Oct 12 08:00		Maximum Daily Average: 22.8 ppb on Oct 19		Hours in Service: 744																							
Minimum Value: 1 ppb on Oct 2 01:00		Minimum Daily Average: 2.7 ppb on Oct 1		Hours of Data: 707																							
Maximum Diurnal Average: 22.3 ppb at hour 8		Minimum Diurnal Average: 5.3 ppb at hour 14		Hours of Missing Data: 37																							
Monthly Average: 11.49 ppb		Percentiles: P ₁ = 1.7 P ₁₀ = 3.0 Q ₁ = 4.8 Median = 8.5 Q ₃ = 16.3 P ₉₀ = 24.8 P ₉₉ = 36.5		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	8	6	3	2	2	2	3	2	A	3	2	2	2	1	2	2	2	2	3	3	2	7	2	2	2.7	7.7	
2-Oct	1	2	2	5	6	8	17	A	37	4	4	2	4	3	3	3	2	6	21	27	25	27	28	18	11.1	37.1	
3-Oct	14	15	12	19	22	21	A	25	26	16	15	11	9	10	11	7	10	15	28	20	21	23	26	21	17.3	27.9	
4-Oct	13	22	21	21	22	A	26	31	25	17	12	11	9	11	9	8	7	12	35	37	35	32	27	19	20.1	36.9	
5-Oct	16	17	17	16	A	18	20	29	25	16	8	5	4	4	3	4	6	10	17	18	9	13	9	7	12.6	28.9	
6-Oct	5	7	9	A	9	9	22	30	32	6	6	5	6	5	4	5	5	7	7	7	3	4	3	3	8.8	31.9	
7-Oct	3	4	A	6	4	6	6	13	8	6	3	2	2	2	2	4	3	2	2	3	4	3	3	2	4.0	13.3	
8-Oct	3	A	3	10	12	9	11	9	8	9	4	2	2	2	2	5	6	3	4	5	11	6	4	4	5.8	12.0	
9-Oct	A	3	2	3	4	5	3	3	3	2	2	2	3	3	3	3	4	4	6	8	8	11	11	A	4.4	11.1	
10-Oct	8	6	8	8	16	22	25	24	25	24	4	3	3	5	9	6	9	7	5	3	6	4	A	4	10.1	24.7	
11-Oct	4	3	3	4	4	7	8	12	13	9	10	17	4	5	8	4	2	12	6	6	9	A	2	5	6.7	16.8	
12-Oct	7	5	2	5	7	7	11	96	11	14	5	7	6	7	5	5	6	6	15	20	A	27	21	20	13.6	95.8	
13-Oct	19	18	16	15	15	16	16	21	14	9	5	4	3	3	5	6	5	12	16	A	12	14	14	14	11.8	20.6	
14-Oct	12	10	5	6	6	8	9	11	22	22	8	8	7	7	3	4	5	6	A	8	7	6	9	11	8.7	22.1	
15-Oct	20	23	14	15	20	21	23	19	23	7	5	4	3	3	3	4	11	A	5	12	10	7	5	2	11.3	23.4	
16-Oct	2	3	3	4	4	7	31	14	18	16	15	17	11	11	13	7	A	10	10	17	12	8	12	9	11.0	30.8	
17-Oct	5	6	6	15	20	16	13	16	C	C	C	C	C	5	3	A	9	12	14	9	7	5	5	5	9.5	20.2	
18-Oct	6	5	7	6	13	13	19	33	33	14	12	7	6	6	A	17	21	25	25	20	7	10	15	15	14.6	33.1	
19-Oct	25	24	23	20	24	24	28	29	26	20	19	14	16	A	9	10	26	36	37	17	29	24	30	15	22.8	36.7	
20-Oct	10	8	8	12	27	29	32	30	21	22	20	10	A	6	5	8	12	13	15	27	33	37	36	33	19.7	36.6	
21-Oct	19	6	7	6	10	10	15	23	22	16	11	A	4	4	3	4	6	18	27	12	9	8	7	6	11.0	27.2	
22-Oct	7	9	11	16	15	23	21	21	18	17	A	9	7	7	7	6	5	5	8	11	12	7	9	13	11.6	23.0	
23-Oct	10	4	5	6	6	8	11	28	25	A	11	7	5	6	8	17	31	31	8	11	9	10	11	10	12.2	31.1	
24-Oct	8	18	14	7	6	5	5	5	A	9	8	3	3	5	10	16	21	11	8	5	4	7	4	3	8.0	21.5	
25-Oct	3	2	3	5	5	9	7	A	6	5	4	7	5	3	10	7	10	8	12	9	9	6	6	15	6.8	15.2	
26-Oct	14	16	10	10	10	15	A	16	17	17	13	7	5	5	4	5	11	17	27	23	13	19	29	28	14.4	28.5	
27-Oct	28	24	24	22	20	A	22	26	24	28	28	10	4	6	4	6	9	12	15	5	4	3	4	3	14.5	28.4	
28-Oct	3	4	5	4	A	5	9	14	16	9	11	10	5	9	5	4	7	11	8	8	6	8	8	8	7.7	15.6	
29-Oct	7	9	7	A	10	12	18	22	15	11	6	4	2	2	2	3	5	18	31	34	36	31	29	24	14.7	36.1	
30-Oct	22	18	A	21	47	51	26	29	27	33	32	19	14	6	6	7	19	20	23	34	28	12	9	8	22.1	51.5	
31-Oct	7	A	14	12	7	12	13	11	5	4	3	3	4	7	3	3	4	4	3	3	3	4	3	2	5.8	13.9	
		10.2	10.2	9.1	10.3	12.9	13.7	16.1	22.3	19.4	13.3	9.9	7.2	5.5	5.3	5.5	6.3	9.3	11.8	14.7	14.0	12.7	12.8	12.7	11.0	Diurnal Average	
		28.0	24.1	24.1	22.4	46.9	51.5	31.6	95.8	37.1	32.8	31.7	18.6	16.5	10.8	12.9	17.1	31.1	36.1	36.7	36.9	36.1	36.6	36.3	33.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

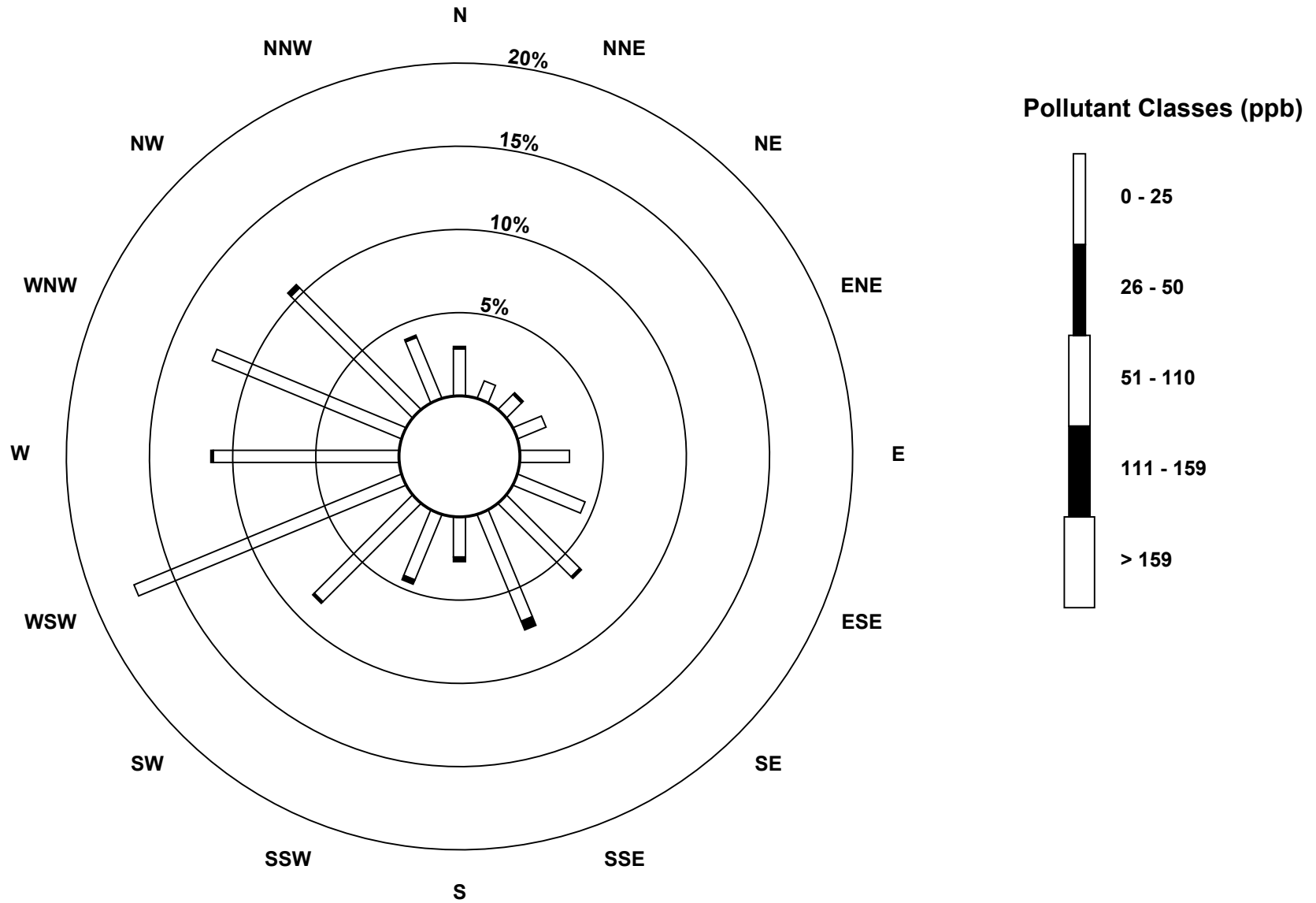
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - October 2017



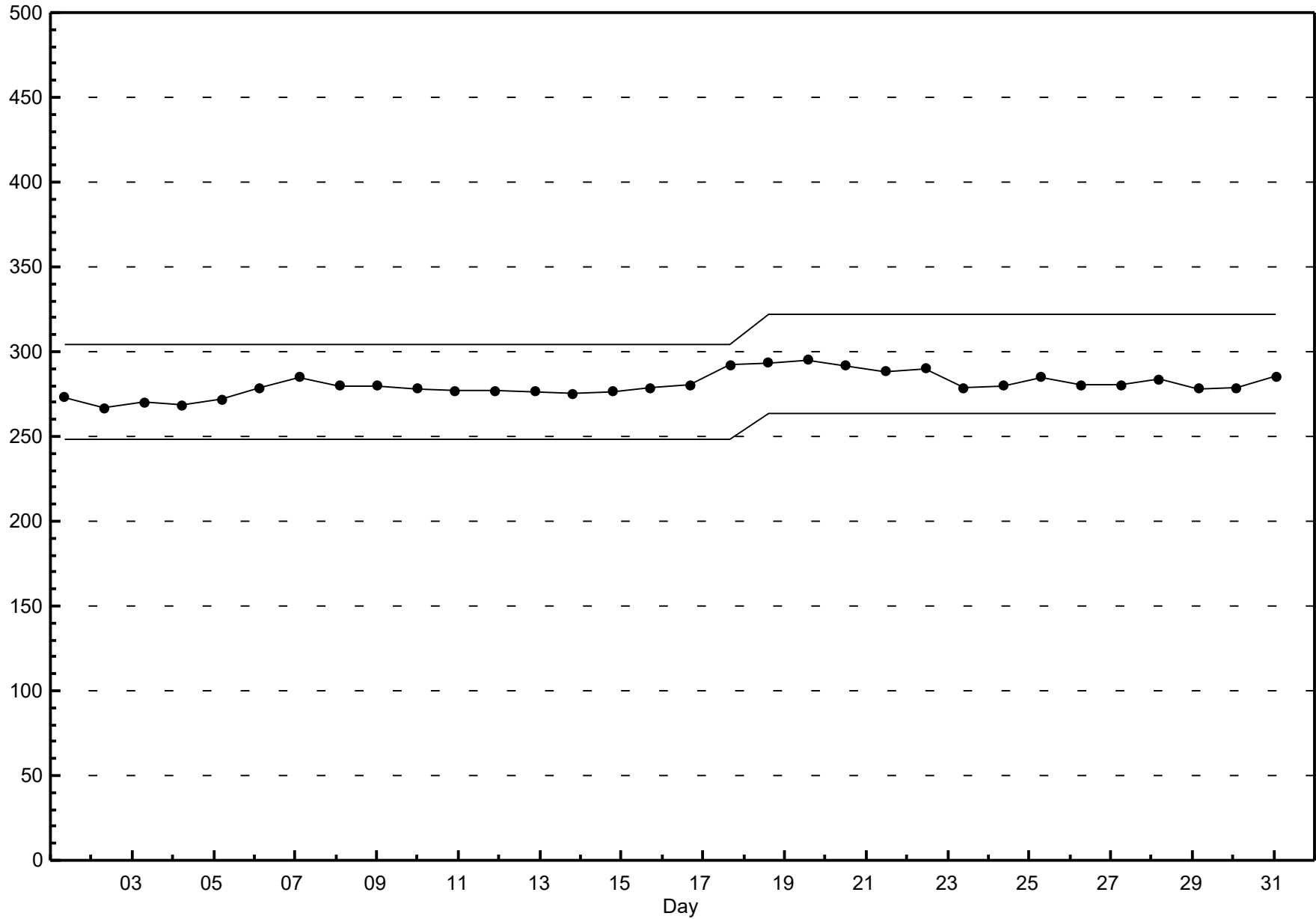
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - October 2017



Span Responses

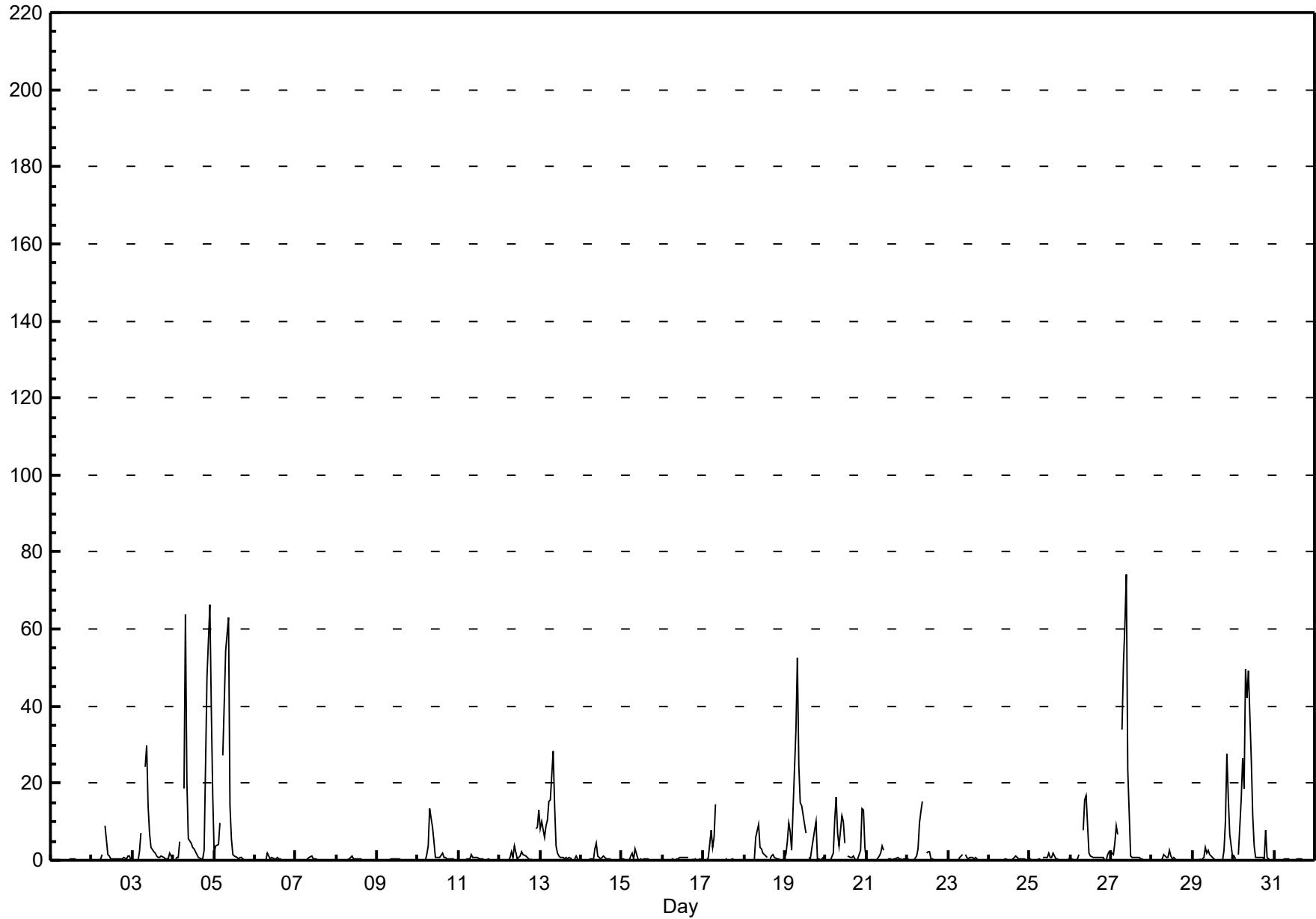
Nitrogen Dioxide (NO₂)
Henry Pirker - October 2017



Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - October 2017

Maximum Value: 74.2 ppb on Oct 27 10:00		Maximum Daily Average: 14.3 ppb on Oct 4		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 16 01:00		Minimum Daily Average: 0.1 ppb on Oct 1		Hours of Data: 707																							
Maximum Diurnal Average: 13.7 ppb at hour 8		Minimum Diurnal Average: 0.5 ppb at hour 16		Hours of Missing Data: 37																							
Monthly Average: 2.99 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.3 Q ₃ = 1.1 P ₉₀ = 8.1 P ₉₉ = 51.8		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	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
2-Oct	0	0	0	0	0	0	2	A	9	2	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0.9	9.1	
3-Oct	0	0	0	0	2	7	A	24	30	14	7	3	2	2	1	1	1	1	1	0	1	0	2	0	4.3	29.8	
4-Oct	0	0	1	1	5	A	19	64	20	6	5	3	3	2	1	1	0	0	3	25	48	66	40	17	14.3	66.4	
5-Oct	2	4	4	10	A	27	41	54	63	14	6	2	1	1	1	1	1	0	0	0	0	0	0	0	10.0	63.1	
6-Oct	0	0	0	A	0	0	0	2	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	1.8	
7-Oct	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1	
8-Oct	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1	
9-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	0.1	0.3	
10-Oct	0	0	0	0	0	1	4	13	8	5	1	1	1	1	2	1	1	1	0	0	1	0	A	0	1.8	13.4	
11-Oct	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	A	0	0	0.3	1.4	
12-Oct	0	0	0	0	0	0	1	2	1	4	0	1	1	2	1	1	1	0	0	0	A	8	9	13	2.0	13.0	
13-Oct	8	10	6	9	11	15	16	28	14	4	2	1	1	1	1	0	1	0	A	0	1	0	0	0	5.7	28.3	
14-Oct	0	0	0	0	0	0	0	0	3	5	1	0	1	1	1	1	1	0	A	0	0	0	0	0	0.6	4.6	
15-Oct	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	2.9	
16-Oct	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0.3	0.9	
17-Oct	0	0	0	1	8	3	6	15	C	C	C	C	C	0	0	A	0	0	0	0	0	0	0	0	1.9	14.6	
18-Oct	0	0	0	0	0	0	0	6	9	3	3	2	1	1	A	1	1	2	1	1	0	0	0	0	1.3	9.4	
19-Oct	1	5	10	7	3	13	34	53	25	15	14	9	7	A	1	0	3	8	10	0	0	0	1	0	9.5	52.7	
20-Oct	0	0	0	0	2	10	16	7	4	11	10	4	A	1	1	1	1	0	0	0	3	13	13	3	4.5	16.4	
21-Oct	0	0	0	0	0	0	0	1	2	4	2	A	0	0	0	0	0	1	1	0	0	0	0	0	0.6	3.6	
22-Oct	0	0	0	0	0	1	3	10	13	15	A	2	2	2	1	0	0	0	0	0	0	0	0	0	2.2	15.2	
23-Oct	0	0	0	0	0	0	0	1	2	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.5	
24-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.2	1.2	
25-Oct	0	0	0	0	0	0	0	A	1	1	1	2	1	1	2	0	0	0	0	0	0	0	0	0	0.4	1.8	
26-Oct	0	0	0	0	0	2	A	8	16	17	9	2	1	1	1	1	1	1	1	1	0	0	1	2	2.8	16.9	
27-Oct	2	2	5	9	7	A	34	51	61	74	24	1	1	1	1	1	1	0	0	0	0	0	0	0	11.9	74.2	
28-Oct	0	0	0	0	0	A	0	1	1	1	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	2.6	
29-Oct	0	0	0	A	0	0	1	3	2	3	1	1	0	0	0	0	0	0	2	10	28	16	7	1	3.3	27.6	
30-Oct	1	0	A	2	16	26	19	50	42	49	26	11	4	1	1	1	1	1	0	8	1	0	0	0	11.3	49.8	
31-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	0.5	
		0.5	0.8	0.9	1.3	1.9	3.8	6.9	13.7	11.8	8.6	4.2	1.8	1.1	0.8	0.6	0.5	0.5	0.6	0.7	1.6	2.7	3.6	2.5	1.3	Diurnal Average	
		8.2	9.9	9.6	9.8	16.0	27.4	40.7	63.7	63.1	74.2	25.9	11.4	6.9	2.4	2.0	1.2	3.1	7.8	10.0	24.7	47.6	66.4	39.7	16.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



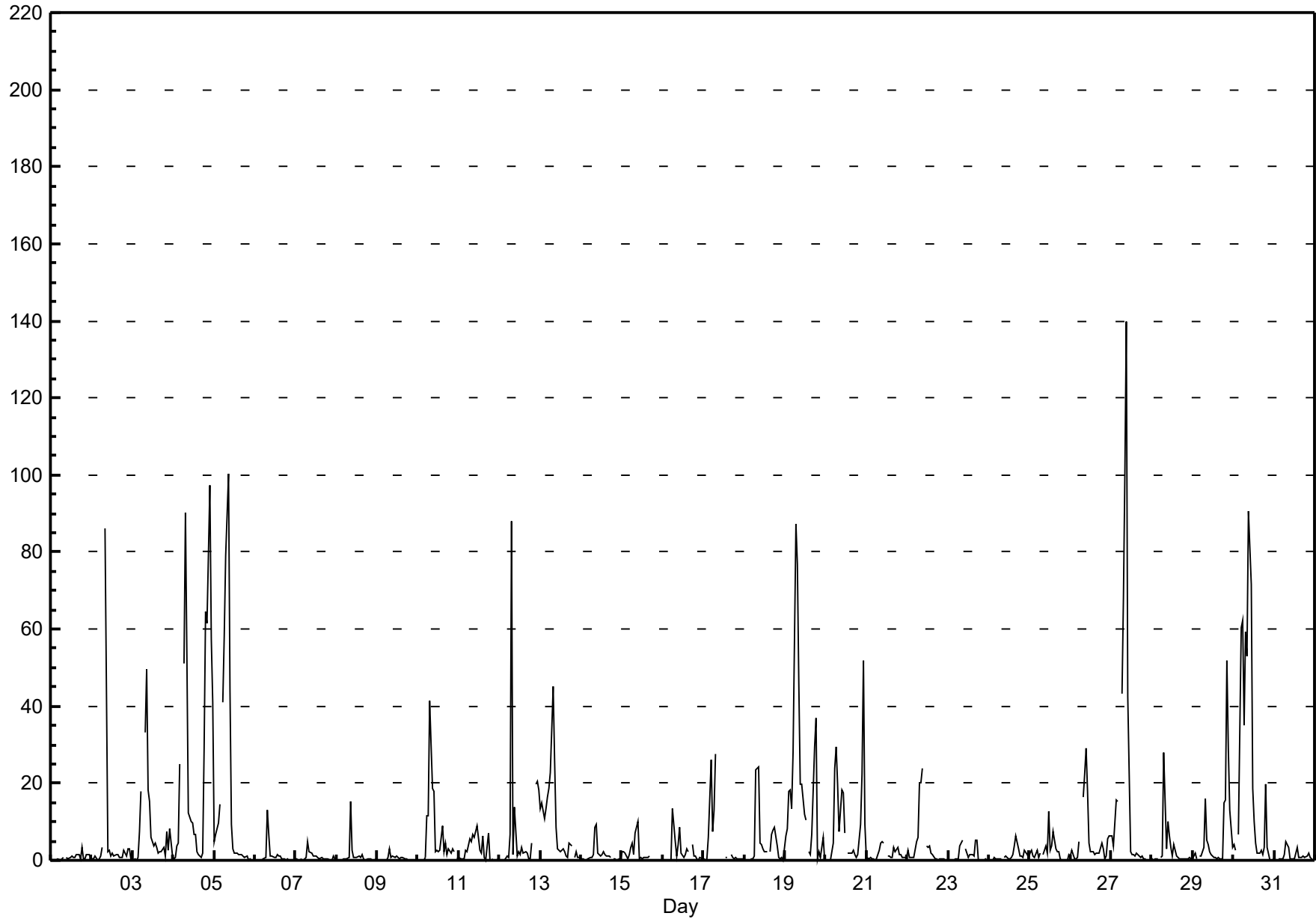
Hourly Maximums

Nitrogen Oxide (NO) - ppb
Henry Pirker - October 2017

Maximum Value: 139.7 ppb on Oct 27 10:00		Maximum Daily Average: 27.5 ppb on Oct 4		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 16 22:00		Minimum Daily Average: 0.5 ppb on Oct 9		Hours of Data: 707																							
Maximum Diurnal Average: 26.9 ppb at hour 8		Minimum Diurnal Average: 1.5 ppb at hour 16		Hours of Missing Data: 37																							
Monthly Average: 6.57 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.4 Median = 1.2 Q ₃ = 4.3 P ₉₀ = 18.0 P ₉₉ = 86.5		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	0	0	0	0	1	A	1	0	1	1	1	1	2	1	0	3	0	0	1	1	1	0.7	3.5	
2-Oct	0	0	1	0	0	1	3	A	86	2	3	1	2	1	2	1	1	1	1	3	1	3	3	1	5.1	86.3	
3-Oct	0	1	0	1	7	18	A	33	50	18	15	6	4	4	3	2	2	2	3	1	8	2	8	1	8.3	49.7	
4-Oct	0	1	4	5	25	A	51	90	53	12	10	10	7	7	2	2	1	2	29	64	62	97	57	41	27.5	97.4	
5-Oct	5	7	10	14	A	41	58	79	100	45	9	3	2	2	1	2	2	1	1	1	0	0	0	0	16.6	100.5	
6-Oct	0	0	0	A	0	0	1	13	7	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1.3	13.1	
7-Oct	0	0	A	0	0	0	1	5	2	2	1	1	1	1	0	1	0	0	0	0	0	0	1	1	0.9	4.9	
8-Oct	0	A	0	0	0	0	0	1	15	3	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1.2	15.4	
9-Oct	A	0	0	0	0	0	0	1	3	1	1	1	1	0	1	1	1	0	0	0	0	0	0	A	0.5	2.9	
10-Oct	0	0	0	0	1	12	12	42	19	18	2	3	2	3	9	2	5	2	3	2	3	2	A	0	6.1	41.5	
11-Oct	1	0	1	0	2	2	5	5	7	6	7	9	3	2	7	1	0	7	0	0	0	A	0	0	2.9	8.8	
12-Oct	0	0	0	0	1	1	7	88	1	14	1	2	2	3	2	2	2	1	0	4	A	20	21	18	8.3	87.9	
13-Oct	13	15	11	14	16	19	23	45	26	9	3	2	2	3	2	1	1	4	4	A	1	2	1	1	9.4	45.3	
14-Oct	0	0	0	0	0	1	1	1	9	9	2	1	2	2	1	1	1	1	A	0	0	0	0	0	1.5	9.5	
15-Oct	2	2	2	0	1	3	5	1	7	10	1	1	0	1	1	1	1	A	0	0	0	0	0	0	1.7	10.2	
16-Oct	0	0	0	0	0	0	14	5	1	4	8	2	1	1	3	2	A	4	1	1	0	0	1	0	2.1	13.6	
17-Oct	0	0	0	6	26	8	13	28	C	C	C	C	C	1	1	A	1	1	0	1	0	0	0	0	4.9	27.8	
18-Oct	0	0	0	0	0	0	1	24	24	5	4	3	2	2	A	2	7	8	9	4	1	1	1	0	4.2	24.3	
19-Oct	6	8	18	18	13	28	87	77	46	20	20	12	11	A	2	1	7	29	37	0	2	1	6	0	19.6	87.2	
20-Oct	0	0	0	0	5	24	30	20	7	18	17	7	A	2	2	2	3	1	1	1	9	22	52	9	10.1	51.7	
21-Oct	1	0	1	0	0	0	0	3	5	5	5	A	1	1	1	1	3	2	3	1	2	1	1	1	1.6	5.0	
22-Oct	3	1	1	1	1	5	6	20	20	24	A	4	3	4	2	1	0	0	0	1	0	0	0	0	4.2	24.0	
23-Oct	0	0	0	0	0	0	0	4	5	A	3	2	1	2	1	1	5	5	0	0	0	0	0	0	1.3	5.3	
24-Oct	0	0	0	1	0	1	1	0	A	1	1	0	0	1	1	4	6	3	1	1	1	3	1	1	1.2	6.4	
25-Oct	2	3	1	1	3	1	2	A	1	4	2	13	3	4	8	3	2	2	1	0	0	0	0	1	2.4	12.7	
26-Oct	1	3	0	0	1	5	A	16	22	29	18	4	2	2	1	2	2	2	5	3	0	1	6	6	5.8	29.2	
27-Oct	6	4	10	16	15	A	43	68	101	140	43	2	1	1	1	2	1	1	1	0	0	0	0	0	19.9	139.7	
28-Oct	0	0	0	0	A	1	1	28	3	10	6	3	1	4	1	1	0	0	1	0	0	0	1	0	2.8	27.9	
29-Oct	1	2	0	A	1	1	3	16	5	4	2	2	1	1	1	1	0	1	15	16	52	29	13	3	7.3	51.7	
30-Oct	4	3	A	7	60	62	35	59	53	91	72	19	10	4	2	2	3	2	3	20	3	0	0	0	22.3	90.7	
31-Oct	1	A	0	0	0	0	2	5	4	1	1	0	0	4	1	1	1	1	1	1	2	1	0	0	1.1	4.8	
		1.6	1.7	2.1	2.9	6.3	8.1	14.0	26.9	24.3	17.4	9.0	3.9	2.3	2.2	2.0	1.5	2.0	2.8	4.1	4.3	5.0	6.3	5.8	2.9	Daily Average	
		13.4	14.8	18.1	18.4	60.3	62.3	87.2	90.3	100.8	139.7	71.5	18.5	10.6	6.9	8.8	3.7	6.7	29.4	36.9	64.5	61.5	97.4	57.4	40.9	Daily Maximum	
C - Calibration		A - Automated Daily Zero Span																									

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Henry Pirker - October 2017

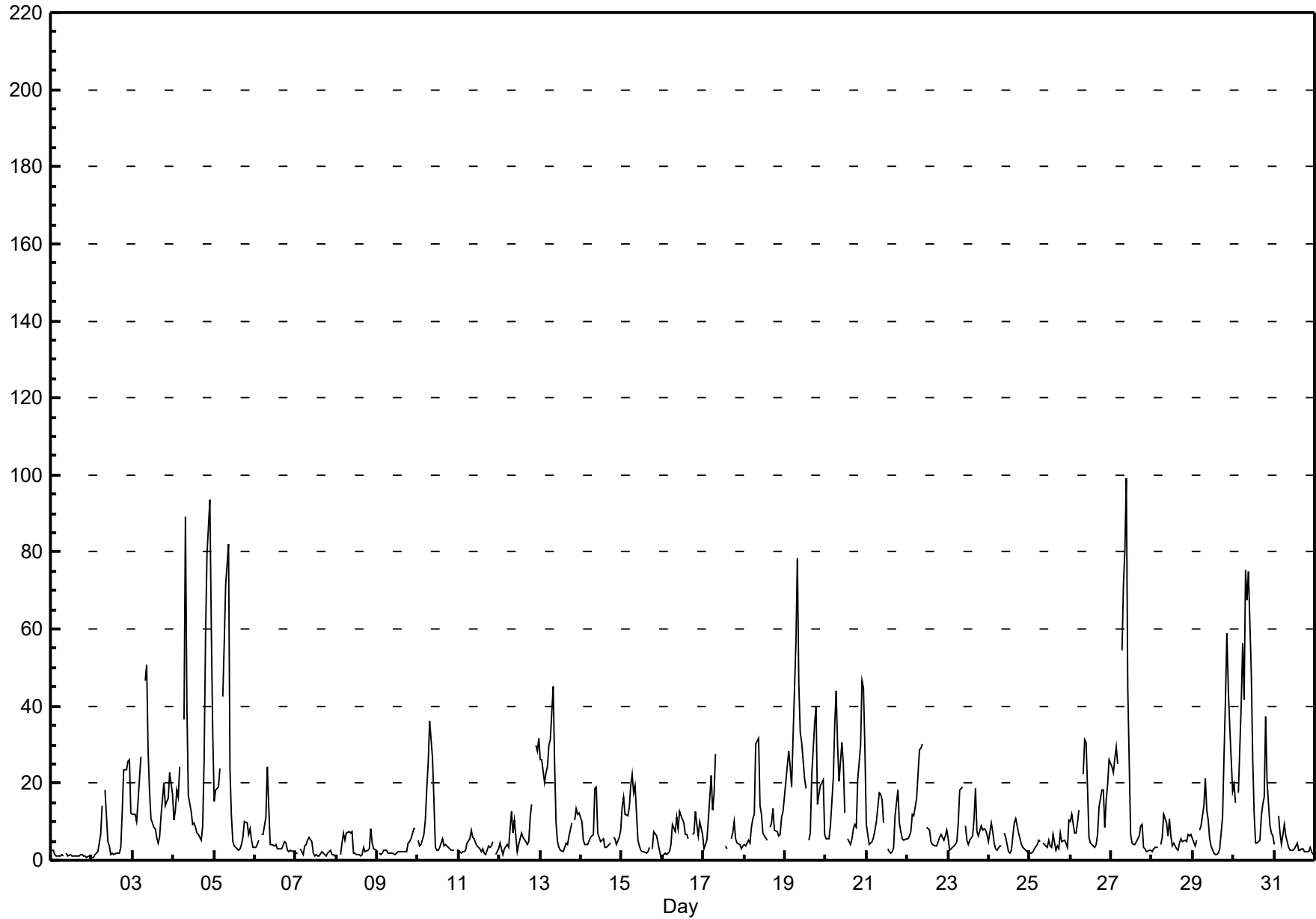


Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - October 2017

Maximum Value: 99.2 ppb on Oct 27 10:00		Maximum Daily Average: 29.7 ppb on Oct 4		Hours in Service: 744																							
Minimum Value: 1 ppb on Oct 2 00:00		Minimum Daily Average: 1.3 ppb on Oct 1		Hours of Data: 707																							
Maximum Diurnal Average: 28.4 ppb at hour 8		Minimum Diurnal Average: 3.8 ppb at hour 15		Hours of Missing Data: 37																							
Monthly Average: 10.98 ppb		Percentiles: P ₁ = 1.0 P ₁₀ = 1.9 Q ₁ = 3.1 Median = 5.8 Q ₃ = 12.4 P ₉₀ = 26.2 P ₉₉ = 77.7		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	3	3	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	2.7	
2-Oct	1	1	1	2	5	7	14	A	18	5	4	1	2	1	2	2	2	3	13	24	24	26	26	12	8.5	26.2	
3-Oct	12	12	10	15	21	27	A	47	51	28	18	11	9	8	6	4	6	12	20	14	15	16	23	17	17.5	50.5	
4-Oct	10	13	18	16	24	A	37	89	41	17	13	9	10	9	7	7	5	9	26	58	79	94	60	33	29.7	93.5	
5-Oct	15	18	19	24	A	43	56	72	82	23	11	5	4	3	2	3	4	6	10	10	7	8	5	3	18.8	82.2	
6-Oct	3	4	5	A	7	7	11	24	14	4	4	4	4	3	3	3	3	5	4	3	2	2	2	2	5.4	24.3	
7-Oct	2	2	A	3	2	4	4	5	6	5	2	1	1	1	1	2	2	1	1	2	3	1	2	1	2.3	6.0	
8-Oct	1	A	2	5	7	5	7	7	7	7	2	2	2	1	1	2	3	2	3	3	8	5	3	2	3.8	8.3	
9-Oct	A	2	1	2	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	5	5	6	8	8	A	3.0	8.3
10-Oct	5	4	4	7	10	19	25	36	26	15	3	3	2	3	6	4	4	4	3	3	3	2	A	3	8.5	36.0	
11-Oct	2	2	2	2	3	5	6	8	6	6	4	4	3	2	3	2	2	4	3	4	5	A	2	3	3.5	7.7	
12-Oct	4	3	2	3	4	3	8	13	7	11	2	4	5	7	6	5	4	5	11	15	A	30	29	32	9.3	31.5	
13-Oct	26	26	20	23	24	30	31	45	25	10	5	3	3	2	3	5	4	6	10	A	10	14	12	12	15.2	45.0	
14-Oct	10	5	4	4	4	6	6	7	19	19	7	5	5	6	3	4	4	4	A	6	5	4	6	8	6.5	19.0	
15-Oct	14	16	12	12	14	19	22	17	19	5	4	3	2	2	2	2	3	A	3	8	6	5	2	1	8.5	22.4	
16-Oct	1	2	2	2	2	4	9	7	11	8	13	11	10	7	7	6	A	7	7	13	9	6	10	7	7.0	12.8	
17-Oct	3	4	5	10	22	13	17	28	C	C	C	C	C	4	3	A	6	7	10	6	4	4	3	4	8.5	27.6	
18-Oct	4	4	5	4	9	11	12	30	32	14	12	7	6	5	A	9	10	14	8	7	6	7	11	13	10.4	31.6	
19-Oct	20	25	29	24	19	32	57	78	46	33	31	21	18	A	5	7	22	35	40	14	17	19	21	7	27.0	78.3	
20-Oct	6	6	6	9	21	35	44	30	20	31	25	12	A	6	4	5	8	9	9	21	30	47	45	29	19.9	46.8	
21-Oct	9	4	4	5	6	8	10	18	17	15	10	A	3	2	2	2	3	11	18	10	8	6	5	5	8.0	18.1	
22-Oct	6	6	7	12	11	16	22	29	29	30	A	9	8	8	5	4	4	4	5	6	7	5	6	8	10.7	30.2	
23-Oct	6	3	3	4	4	5	10	18	19	A	9	5	4	5	6	11	18	7	6	9	8	8	8	7	8.0	19.2	
24-Oct	5	10	7	4	3	3	4	4	A	7	6	2	2	3	6	10	11	7	5	4	3	3	2	2	4.9	10.8	
25-Oct	2	2	2	3	4	5	5	A	5	4	3	5	4	3	7	3	4	3	7	5	5	5	3	10	4.3	10.3	
26-Oct	10	12	7	7	10	13	A	22	31	30	19	6	5	4	3	4	7	14	18	18	9	16	20	26	13.5	31.2	
27-Oct	24	23	26	30	25	A	54	72	80	99	45	7	4	4	4	5	6	9	9	4	3	2	3	2	23.5	99.2	
28-Oct	2	3	3	3	A	4	6	12	10	6	11	6	4	4	3	3	4	6	5	5	5	7	6	7	5.4	11.8	
29-Oct	6	4	5	A	8	9	14	21	13	11	6	4	2	1	1	2	3	11	27	41	59	44	35	18	15.0	58.8	
30-Oct	20	15	A	17	41	56	42	75	67	75	48	26	12	5	4	5	11	15	17	37	20	9	7	6	27.4	75.2	
31-Oct	4	A	12	7	4	7	9	6	3	3	3	3	3	4	3	3	3	3	2	2	2	3	2	2	4.0	11.6	
		7.9	8.0	7.8	9.0	10.9	13.7	18.8	28.4	25.3	18.1	11.1	6.3	4.8	3.9	3.8	4.1	5.7	7.6	10.2	11.9	12.3	13.5	12.3	9.4	Diurnal Average	
		26.2	26.3	28.5	29.6	40.6	56.3	56.8	89.3	82.2	99.2	48.3	26.0	18.5	8.6	7.2	10.9	22.1	35.3	39.8	58.3	79.3	93.5	60.4	32.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

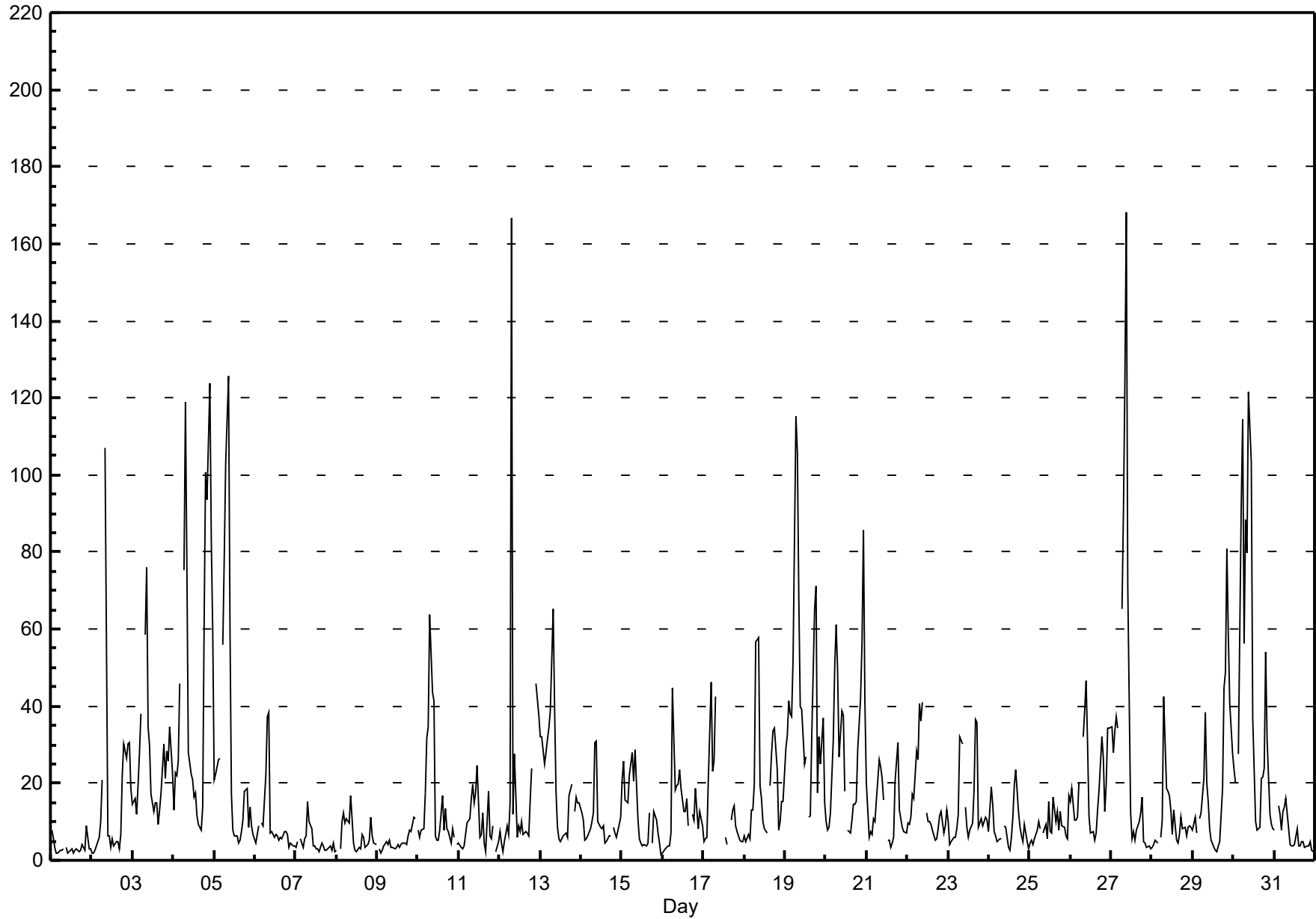


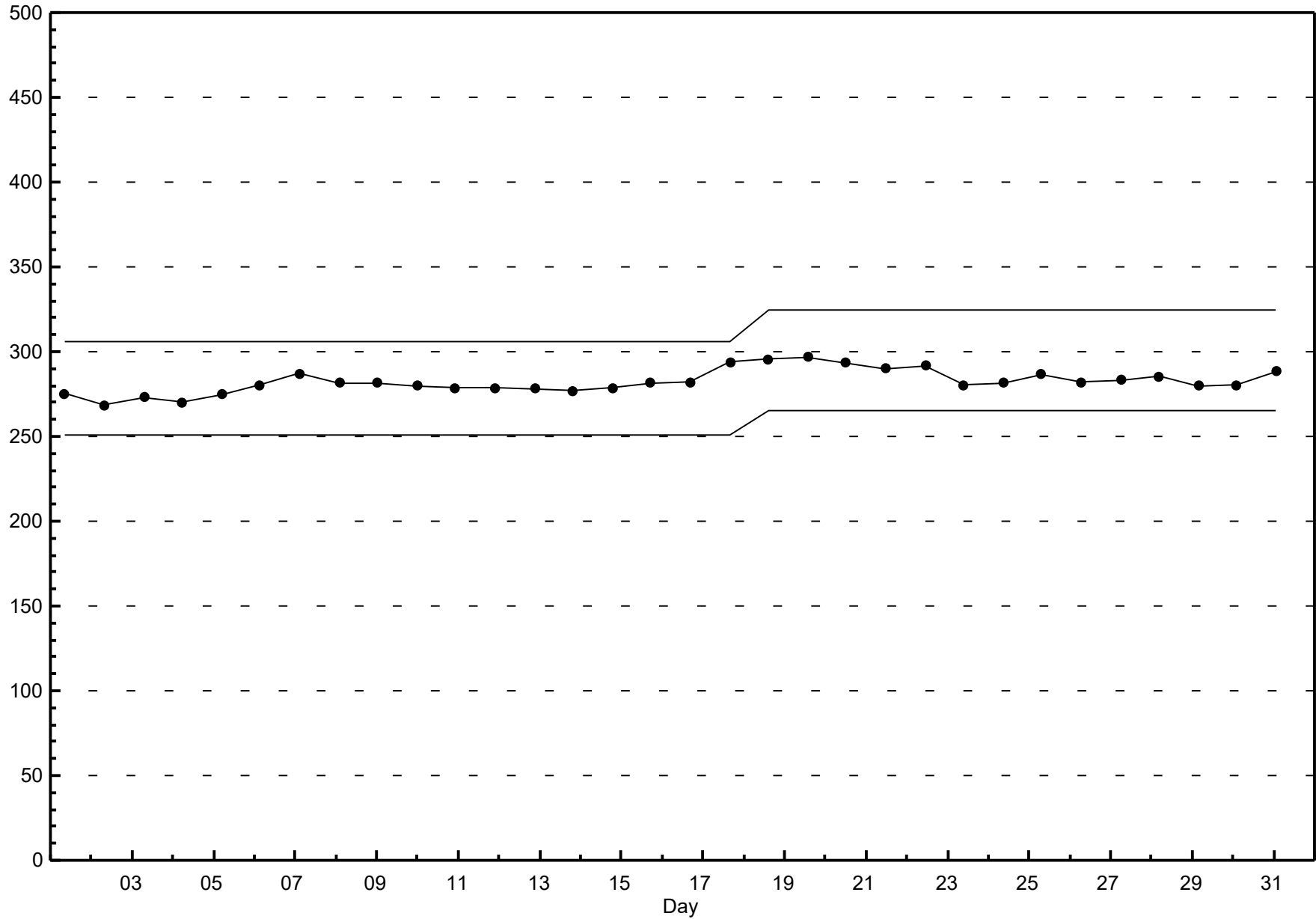
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - October 2017

Maximum Value: 168.0 ppb on Oct 27 10:00		Maximum Daily Average: 46.5 ppb on Oct 4		Hours in Service: 744																							
Minimum Value: 2 ppb on Oct 16 00:00		Minimum Daily Average: 3.3 ppb on Oct 1		Hours of Data: 707																							
Maximum Diurnal Average: 47.6 ppb at hour 8		Minimum Diurnal Average: 7.4 ppb at hour 15		Hours of Missing Data: 37																							
Monthly Average: 17.72 ppb		Percentiles: P ₁ = 2.0 P ₁₀ = 3.5 Q ₁ = 5.5 Median = 9.8 Q ₃ = 20.7 P ₉₀ = 38.9 P ₉₉ = 117.3		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	8	6	3	2	2	3	3	3	A	3	2	3	3	2	2	3	2	3	4	3	2	9	3	3	3.3	8.9	
2-Oct	2	2	3	5	6	10	21	A	107	6	6	3	6	4	5	5	3	7	22	30	26	30	31	19	15.5	106.8	
3-Oct	15	16	12	20	28	38	A	59	76	35	30	17	13	15	15	9	13	18	30	21	28	26	35	23	25.6	76.2	
4-Oct	13	23	22	26	46	A	75	119	76	28	22	21	16	18	11	9	8	14	61	101	93	124	83	59	46.5	123.6	
5-Oct	21	22	26	27	A	56	78	103	126	61	17	8	6	6	5	5	7	11	18	19	8	14	9	7	28.7	125.6	
6-Oct	5	7	9	A	10	9	22	37	38	7	7	6	7	6	5	6	6	7	7	7	3	4	4	4	9.7	38.3	
7-Oct	4	5	A	6	4	6	6	15	10	8	4	4	3	3	2	5	4	3	3	3	4	3	4	2	4.7	15.3	
8-Oct	3	A	3	10	12	10	11	10	17	11	4	3	2	3	3	7	6	3	4	5	11	6	4	4	6.7	16.8	
9-Oct	A	3	2	3	4	5	4	5	3	3	3	4	3	4	4	4	4	6	8	8	11	11	A	4.8	11.3		
10-Oct	8	6	8	8	17	32	35	64	44	41	6	5	5	8	17	8	13	8	7	5	8	6	A	4	15.8	63.9	
11-Oct	5	3	3	4	7	10	11	16	20	15	18	24	6	7	12	4	2	18	6	5	9	A	2	5	9.2	24.5	
12-Oct	7	4	2	5	9	7	15	167	12	28	6	9	7	10	7	7	7	6	15	24	A	46	42	38	20.9	166.7	
13-Oct	32	32	25	28	31	34	39	65	39	18	9	6	5	6	7	7	6	17	20	A	13	16	15	15	21.1	65.3	
14-Oct	12	10	5	6	6	8	10	12	31	31	10	9	8	9	4	5	6	6	A	9	7	6	9	11	10.1	31.1	
15-Oct	21	26	16	15	22	25	28	21	29	11	5	4	4	4	4	4	12	A	4	13	11	7	4	2	12.7	28.9	
16-Oct	2	3	3	4	4	7	45	18	19	20	23	19	13	13	16	9	A	12	10	19	13	8	13	9	13.1	44.6	
17-Oct	5	6	6	21	46	23	26	43	C	C	C	C	C	6	4	A	10	13	14	9	7	5	5	5	14.2	46.2	
18-Oct	6	5	7	6	13	13	20	57	58	19	16	10	8	7	A	19	28	34	34	23	8	10	15	15	18.8	57.8	
19-Oct	29	32	41	38	37	52	115	106	68	40	39	25	27	A	11	12	32	65	71	18	32	25	37	15	42.0	115.3	
20-Oct	10	8	8	12	31	50	61	49	27	39	37	18	A	8	7	10	14	14	15	29	42	57	86	41	29.4	85.7	
21-Oct	20	6	8	7	11	10	16	26	24	21	16	A	5	5	4	4	6	20	31	13	11	8	7	7	12.4	30.5	
22-Oct	10	9	11	17	16	28	26	41	36	41	A	12	10	10	9	8	5	6	8	12	13	7	9	13	15.6	41.1	
23-Oct	10	4	5	6	6	8	12	32	30	A	14	9	6	8	10	18	37	36	8	11	9	10	11	10	13.5	36.6	
24-Oct	8	19	15	7	6	5	5	5	A	9	9	3	3	6	11	20	24	12	9	6	5	9	5	3	8.9	23.6	
25-Oct	4	5	4	5	8	10	8	A	7	9	6	15	7	7	17	10	13	8	13	9	9	6	6	17	8.8	16.8	
26-Oct	15	19	10	10	11	20	A	32	39	47	31	11	7	7	5	7	13	18	32	26	13	20	34	34	20.1	46.8	
27-Oct	35	28	33	37	34	A	65	91	124	168	71	12	5	7	5	8	10	12	16	5	4	3	4	3	34.1	168.0	
28-Oct	3	4	5	5	A	6	10	42	19	18	17	13	7	13	5	4	7	11	8	9	6	9	9	9	10.4	42.4	
29-Oct	8	11	7	A	11	12	21	38	20	15	8	5	3	3	2	4	5	19	45	49	81	58	41	28	21.5	80.7	
30-Oct	24	20	A	28	92	114	56	88	80	122	103	37	24	10	8	8	21	22	24	54	31	12	9	8	43.3	121.7	
31-Oct	8	A	14	12	8	13	14	16	8	4	4	4	4	8	4	4	5	5	3	4	4	5	3	2	6.7	16.1	
		11.7	11.9	10.9	13.0	18.6	21.5	29.6	47.6	42.4	30.3	18.7	11.0	7.7	7.4	7.4	7.8	11.0	14.4	18.4	18.2	17.4	18.7	18.3	13.8	Diurnal Average	
		34.7	32.3	41.2	38.1	92.2	114.4	115.3	166.7	125.6	168.0	103.3	37.1	26.9	17.6	17.0	19.5	36.6	65.3	71.1	100.8	93.4	123.6	85.7	59.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									





Hourly Averages

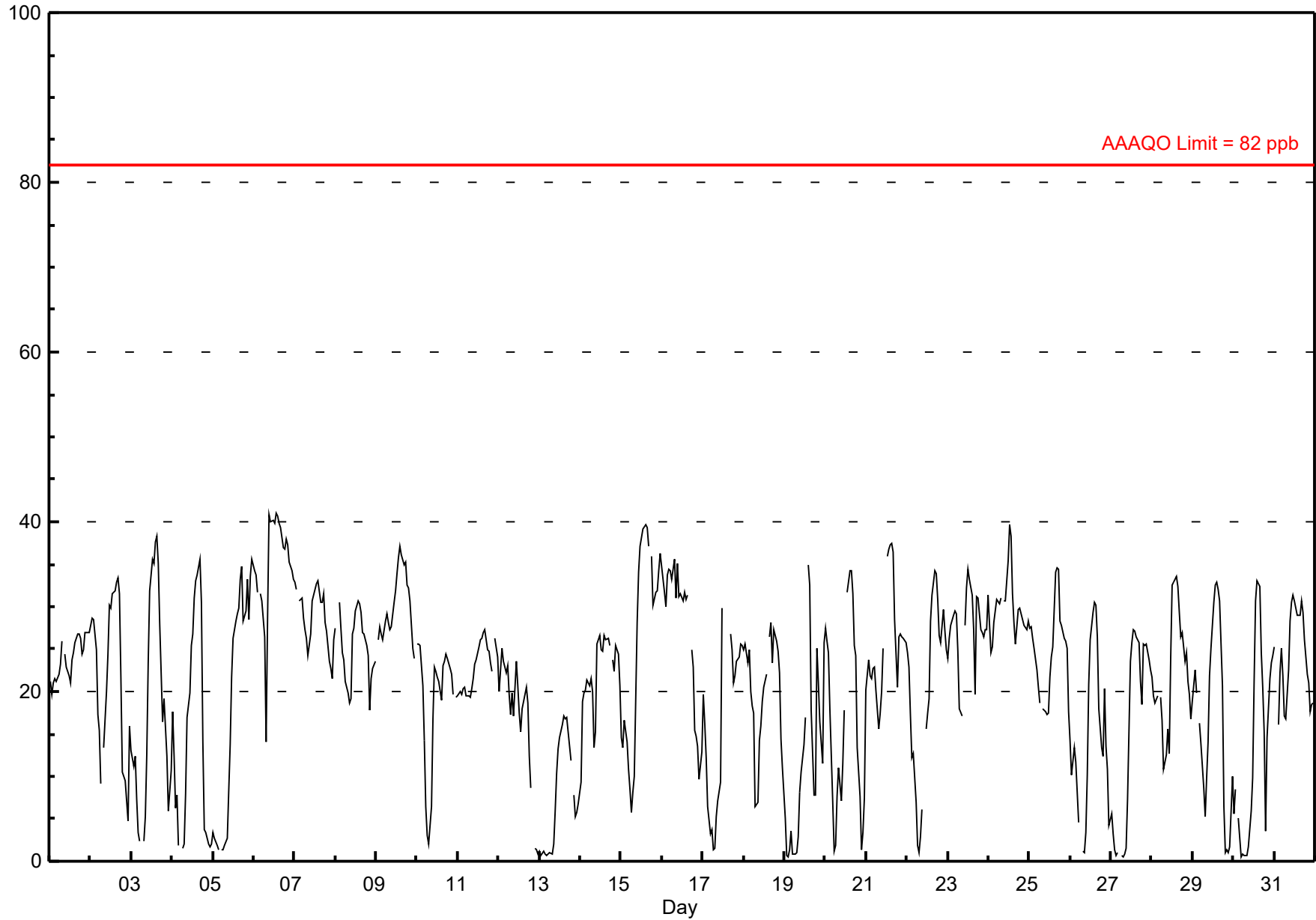
Ozone (O₃) - ppb

Henry Pirker - October 2017

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 41.1 ppb on Oct 6 14:00	Maximum Daily Average: 35.0 ppb on Oct 6		Hours of Data:	709
Minimum Value: 1 ppb on Oct 19 03:00	Minimum Daily Average: 7.5 ppb on Oct 13		Hours of Missing Data:	35
Maximum Diurnal Average: 30.5 ppb at hour 15	Minimum Diurnal Average: 11.8 ppb at hour 8		Hours of Calibration:	35
Monthly Average: 21.11 ppb	Percentiles: P ₁ = 0.7 P ₁₀ = 3.6 Q ₁ = 14.2 Median = 23.3 Q ₃ = 28.4 P ₉₀ = 33.2 P ₉₉ = 39.9		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	21	20	21	22	21	22	23	26	A	24	23	22	21	24	25	26	27	27	26	24	25	27	27	27	23.9	27.0																							
2-Oct	28	29	28	25	17	16	9	A	13	20	24	30	30	32	32	33	33	31	22	11	10	7	5	16	21.7	33.4																							
3-Oct	13	11	12	7	3	2	A	2	5	12	23	32	36	35	38	38	35	28	17	19	16	12	6	11	18.1	38.3																							
4-Oct	18	12	6	8	2	A	1	2	8	17	20	25	27	31	33	34	36	31	14	4	3	2	2	2	14.7	35.5																							
5-Oct	3	3	2	1	A	1	1	2	3	8	14	22	26	28	29	30	33	35	28	29	33	28	34	36	18.7	35.6																							
6-Oct	34	34	32	A	32	31	26	14	29	41	40	40	40	41	41	40	39	37	37	38	37	35	34	33	35.0	41.1																							
7-Oct	33	32	A	31	31	29	27	26	24	27	31	31	32	33	33	30	31	32	28	27	24	23	22	26	28.8	33.0																							
8-Oct	27	A	31	27	25	24	21	20	19	27	27	29	31	30	29	27	27	25	24	18	22	23	24	24	25.0	30.7																							
9-Oct	A	26	28	27	26	28	29	28	27	28	31	32	34	36	37	36	35	35	33	32	31	25	24	A	30.3	37.1																							
10-Oct	26	26	25	21	14	6	3	2	6	17	23	22	22	21	19	23	24	24	24	23	22	20	A	19	18.8	25.6																							
11-Oct	19	20	20	20	21	20	19	19	20	21	23	24	25	26	26	27	27	25	25	23	22	A	26	24	22.8	27.3																							
12-Oct	20	23	25	24	22	23	20	17	20	17	24	21	17	15	18	20	20	19	12	9	A	1	1	1	16.9	25.0																							
13-Oct	1	1	1	1	1	1	1	1	2	6	10	13	15	16	17	17	17	15	12	A	8	5	6	7	7.5	17.2																							
14-Oct	9	19	20	20	21	21	22	20	13	15	26	27	25	25	27	26	26	25	A	24	22	26	24	21	21.9	26.6																							
15-Oct	15	13	17	14	11	8	6	8	10	28	34	37	38	39	40	39	37	A	36	30	32	32	34	36	25.9	39.6																							
16-Oct	35	32	30	34	34	34	33	36	31	35	31	32	31	32	31	31	A	25	23	15	15	13	10	13	27.6	35.5																							
17-Oct	20	16	12	6	3	4	1	2	5	7	9	30	C	C	C	A	27	25	21	22	24	24	26	25	15.5	29.8																							
18-Oct	25	26	23	25	20	18	17	6	7	14	16	19	21	22	A	26	28	23	27	26	25	22	14	11	20.1	28.1																							
19-Oct	5	1	1	1	3	1	1	1	3	8	10	14	17	A	35	33	18	8	8	25	21	16	12	26	11.6	35.0																							
20-Oct	27	26	25	18	7	1	2	8	11	7	12	18	A	32	34	34	32	25	24	13	8	1	3	7	16.3	34.3																							
21-Oct	20	24	22	22	23	23	20	16	17	20	25	A	36	37	37	37	36	28	21	26	27	27	26	26	25.9	37.4																							
22-Oct	25	23	17	12	13	7	2	1	3	6	A	16	17	19	28	31	34	34	31	27	26	30	27	25	19.7	34.2																							
23-Oct	24	26	28	29	30	29	25	18	17	A	28	32	34	33	31	27	20	31	31	27	27	26	27	27	27.3	34.4																							
24-Oct	31	25	25	28	30	31	30	31	A	31	31	35	40	38	32	28	26	30	30	29	28	28	27	28	30.1	39.7																							
25-Oct	28	28	26	25	23	21	19	A	18	18	17	18	22	24	25	34	35	34	28	28	26	26	25	18	24.5	34.5																							
26-Oct	14	10	13	12	8	5	A	1	1	3	10	21	26	29	30	30	26	18	13	12	20	14	11	4	14.5	30.5																							
27-Oct	6	3	1	1	1	A	1	1	1	2	7	24	26	27	27	26	26	21	18	26	25	26	24	22	14.8	27.4																							
28-Oct	22	20	19	20	A	19	17	11	13	16	13	24	33	33	34	32	29	26	27	24	25	21	20	17	22.2	33.5																							
29-Oct	19	23	20	A	16	14	9	5	10	14	22	25	31	33	33	32	31	21	6	1	1	1	2	10	16.4	32.8																							
30-Oct	6	8	A	5	1	1	1	1	1	2	6	10	21	31	33	32	25	21	15	4	15	21	23	24	13.2	33.1																							
31-Oct	25	A	16	22	25	22	17	17	22	28	30	31	31	29	29	29	31	29	26	22	21	18	18	19	24.3	31.4																							
																								20.0	19.2	18.8	17.5	16.7	15.9	13.9	11.8	12.4	17.1	21.3	25.1	27.6	29.3	30.5	30.5	29.0	26.4	23.0	21.5	21.2	19.3	18.8	19.5	Diurnal Average	
																								34.8	33.7	31.7	33.7	34.3	34.2	33.3	35.5	31.1	40.8	39.9	40.2	39.9	41.1	40.6	39.9	39.3	36.9	36.8	38.0	37.4	35.2	34.2	36.3	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na



Hourly Maximums

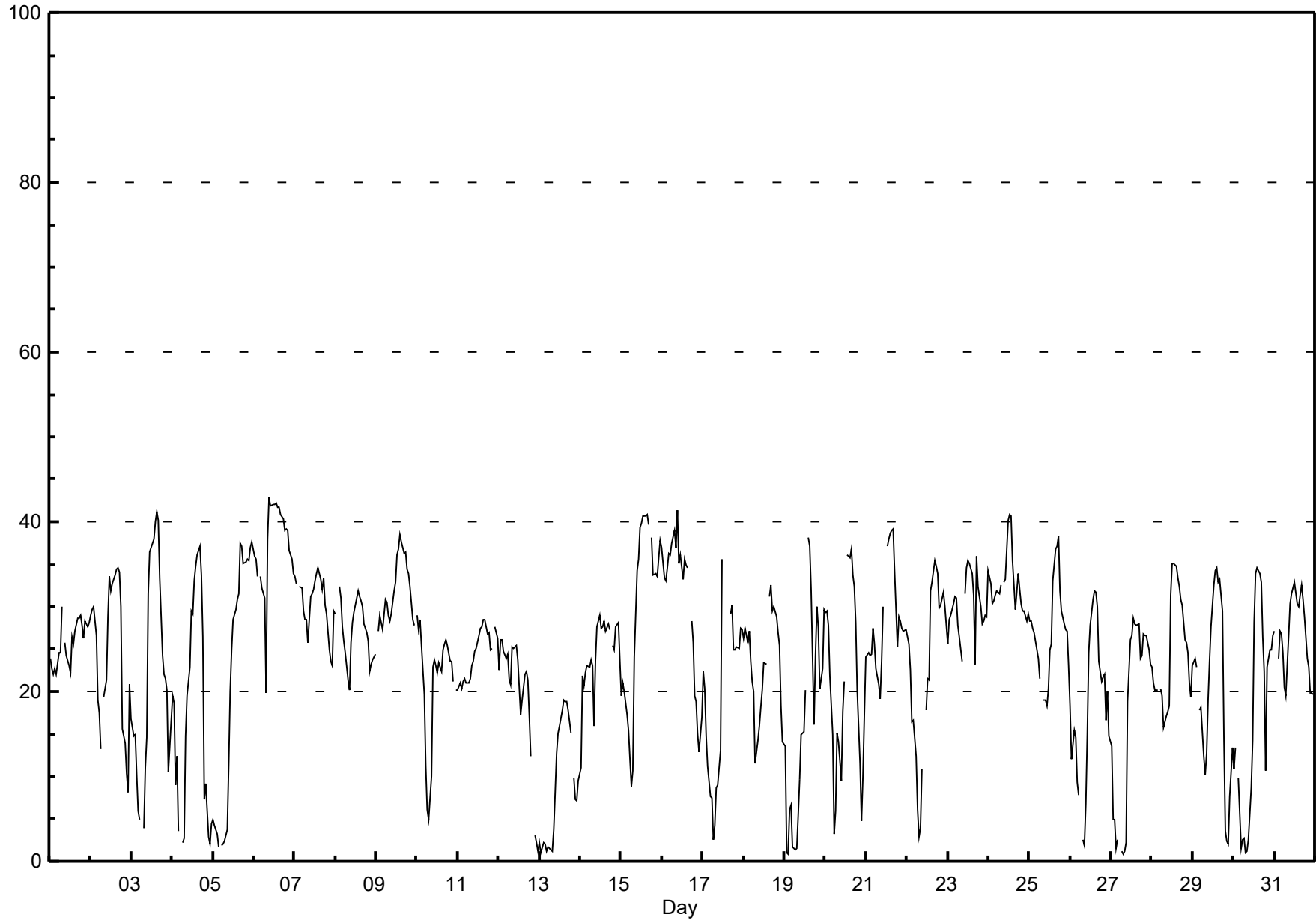
Ozone (O₃) - ppb

Henry Pirker - October 2017

Maximum Value: 42.9 ppb on Oct 6 10:00 Maximum Daily Average: 37.3 ppb on Oct 6 Minimum Value: 1 ppb on Oct 27 08:00 Minimum Daily Average: 9.1 ppb on Oct 13 Maximum Diurnal Average: 32.6 ppb at hour 16 Minimum Diurnal Average: 14.6 ppb at hour 8 Monthly Average: 23.91 ppb Percentiles: P ₁ = 1.2 P ₁₀ = 7.5 Q ₁ = 18.9 Median = 25.5 Q ₃ = 31.3 P ₉₀ = 35.5 P ₉₉ = 41.6																								Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 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	24	23	22	23	22	25	25	30	A	26	24	23	22	27	26	27	29	29	29	28	26	28	28	28	28	25.7	30.0																						
2-Oct	29	30	30	27	19	17	13	A	19	21	29	34	32	33	34	34	34	34	30	16	14	10	8	21	24.7	34.5																							
3-Oct	17	15	15	10	6	5	A	4	11	15	32	36	37	38	40	41	40	33	24	22	21	20	11	17	22.2	41.2																							
4-Oct	20	19	9	12	3	A	2	3	15	19	23	30	29	33	35	36	37	34	26	7	9	3	2	4	17.9	37.2																							
5-Oct	5	4	3	2	A	2	2	2	4	11	20	25	29	30	31	32	37	37	35	35	36	35	37	38	21.4	37.6																							
6-Oct	36	36	34	A	34	32	31	20	38	43	42	42	42	42	42	41	40	39	39	39	39	37	36	34	37.3	42.9																							
7-Oct	34	33	A	32	32	29	29	28	26	31	32	32	33	34	35	33	32	33	30	29	25	23	23	30	30.4	34.6																							
8-Oct	29	A	32	31	28	26	25	21	20	26	28	29	30	32	31	31	30	28	27	26	22	23	24	24	27.1	32.3																							
9-Oct	A	27	29	28	27	31	30	29	28	29	32	33	36	37	38	38	36	37	34	34	32	29	28	A	31.9	38.4																							
10-Oct	29	27	28	23	20	11	6	5	10	23	24	23	22	23	22	25	26	26	25	24	24	21	A	20	21.2	28.9																							
11-Oct	20	21	20	21	21	21	21	22	23	24	25	25	27	28	28	28	28	27	27	25	25	A	28	26	24.4	28.5																							
12-Oct	22	26	26	25	24	24	22	21	25	25	25	24	20	17	19	22	22	21	17	12	A	3	2	1	19.5	26.2																							
13-Oct	2	1	2	2	1	2	1	1	4	8	13	15	16	18	19	19	19	18	15	A	10	7	7	9	9.1	19.0																							
14-Oct	11	22	21	22	23	23	24	23	16	24	28	29	27	28	28	27	28	27	A	25	25	28	28	24	24.3	28.9																							
15-Oct	20	21	20	17	15	12	9	11	24	34	36	39	40	41	41	41	40	A	38	34	34	34	36	38	29.2	40.9																							
16-Oct	37	33	33	35	36	36	38	39	37	41	35	36	33	36	35	35	A	28	26	20	19	15	13	17	31.0	41.4																							
17-Oct	22	20	15	11	8	7	2	4	9	9	13	36	C	C	C	A	29	30	25	25	25	25	28	27	18.6	35.6																							
18-Oct	26	27	26	27	24	21	20	12	14	16	18	20	23	A	38	31	33	29	30	29	27	25	18	14	23.3	32.6																							
19-Oct	14	1	1	6	7	2	1	1	5	10	15	15	20	A	38	37	32	16	24	30	28	20	23	30	16.3	38.1																							
20-Oct	29	29	28	22	15	3	6	15	14	9	18	21	A	36	36	37	34	32	28	20	12	5	10	17	20.7	36.7																							
21-Oct	24	24	24	24	27	26	23	21	19	24	30	A	37	38	39	39	39	34	25	29	28	28	27	27	28.6	39.1																							
22-Oct	26	26	23	16	17	12	6	3	4	11	A	18	22	21	32	33	36	35	34	30	30	32	30	28	22.7	35.5																							
23-Oct	26	28	29	30	31	31	28	26	24	A	31	35	35	35	34	31	23	36	32	30	28	28	29	29	30.0	35.9																							
24-Oct	34	33	30	31	31	32	32	33	A	33	33	40	41	41	35	32	30	34	32	30	29	30	28	29	32.8	40.9																							
25-Oct	28	28	27	27	25	24	21	A	19	19	18	20	25	26	33	37	37	38	32	30	28	27	27	23	27.0	38.4																							
26-Oct	18	12	15	15	9	8	A	3	2	7	15	24	28	31	32	32	30	24	21	22	22	17	20	15	18.3	31.9																							
27-Oct	14	5	5	2	3	A	1	1	1	2	19	26	27	29	28	28	28	24	24	27	27	27	25	23	17.1	28.6																							
28-Oct	23	21	20	20	A	20	20	16	17	18	18	31	35	35	35	33	32	31	30	26	26	24	21	19	24.9	35.1																							
29-Oct	23	24	23	A	18	18	12	10	13	19	24	28	33	34	35	33	33	29	15	4	2	2	8	13	19.6	34.5																							
30-Oct	11	13	A	10	2	3	3	1	1	3	9	14	28	34	35	34	33	26	22	11	23	25	25	27	17.0	34.6																							
31-Oct	27	A	24	27	27	25	20	19	27	30	32	32	33	30	30	31	33	31	29	24	23	20	20	20	26.6	32.9																							
																								22.7	21.7	21.2	19.9	19.1	18.2	16.3	14.6	16.2	20.3	24.6	27.9	29.8	31.3	32.5	32.6	32.0	30.1	27.6	24.7	24.0	21.7	21.6	22.4	Diurnal Average	
																								36.9	35.5	33.5	34.6	36.3	36.1	37.5	39.0	38.0	42.9	41.8	42.1	42.0	42.2	41.8	41.7	40.8	40.3	39.0	39.1	39.0	36.6	36.9	37.8	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

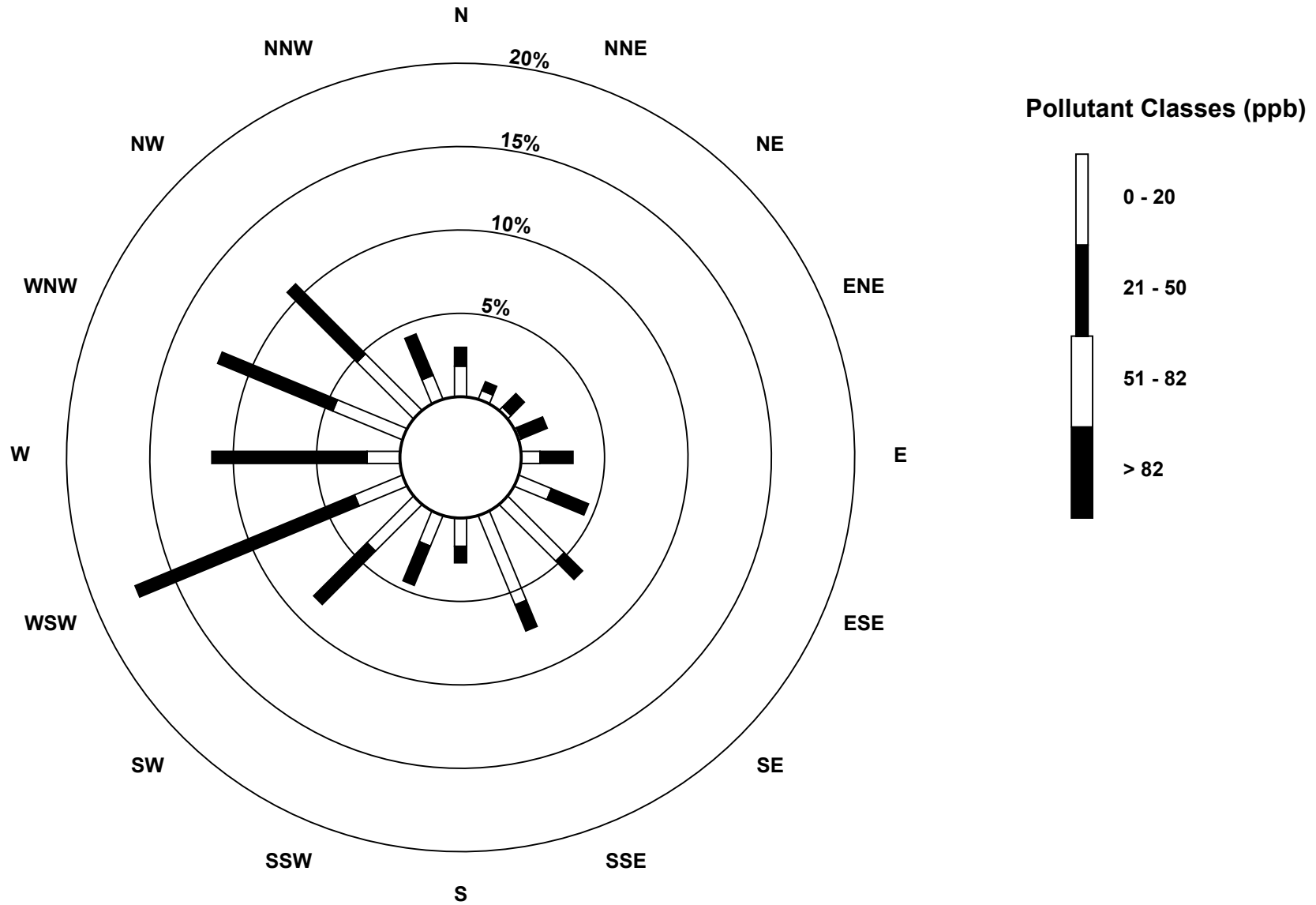
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - October 2017



Pollutant Rose

Ozone (O₃) - ppb
Henry Pirker - October 2017





Peace Airshed Zone Association

Eight Hour Running Averages

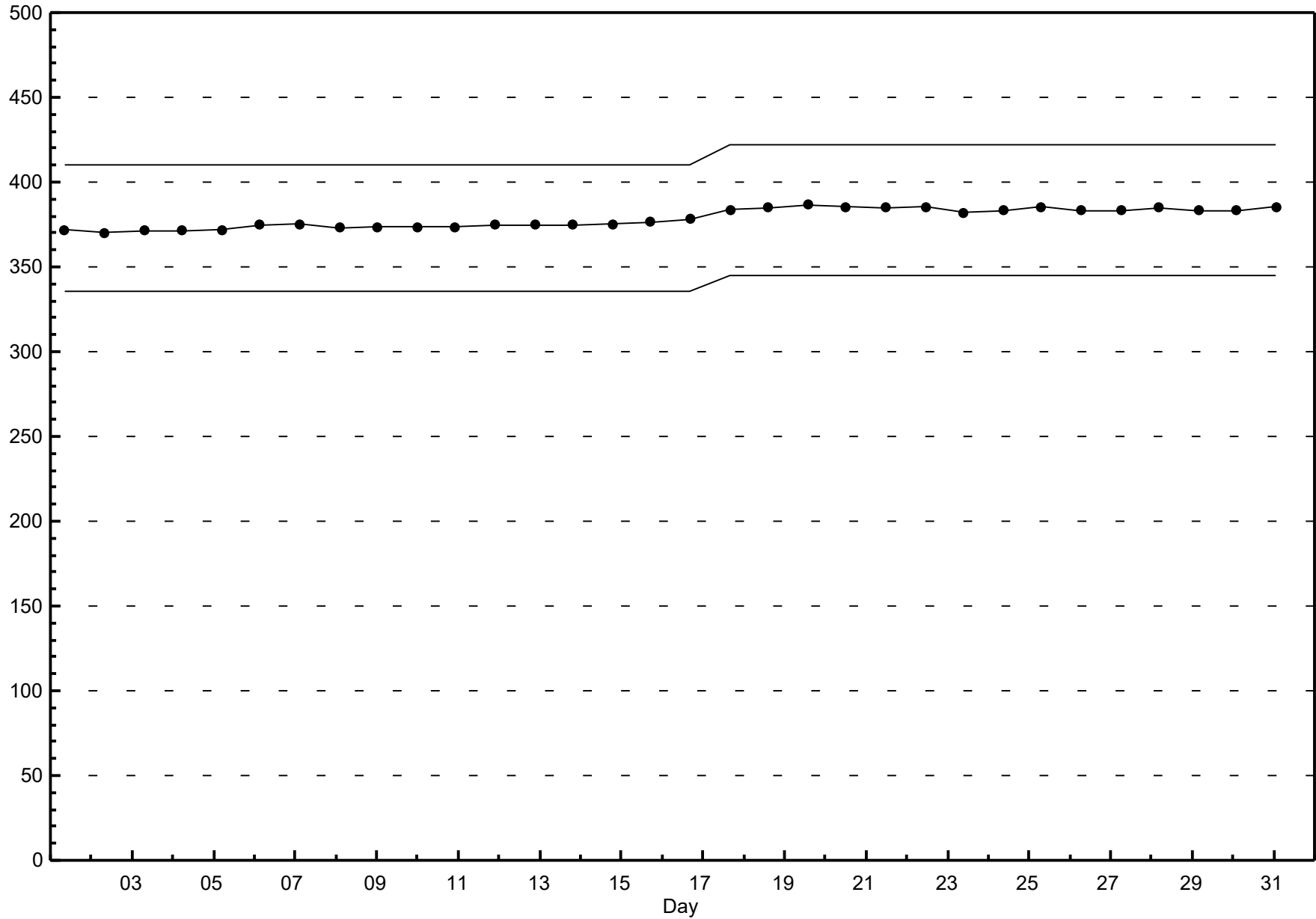
Ozone (O₃) - ppb

Henry Pirker - October 2017

Maximum Value: 40.2 ppb on Oct 6 17:00																					Hours in Service:	744			
Minimum Value: 0.9 ppb on Oct 13 08:00																					Hours of Data:	737			
Percentiles: P ₁ = 1.2 P ₁₀ = 7.5 Q ₁ = 15.5 Median = 22.5 Q ₃ = 27.2 P ₉₀ = 31.5 P ₉₉ = 37.5																					Hours of Missing Data:	7			
																					Hours of Calibration:	7			
																					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	26	24	23	23	22	22	21	22	22	23	23	23	23	23	23	23	24	24	25	25	25	26	26	26	26.2
2-Oct	26	27	27	27	26	25	22	22	20	18	18	19	20	23	26	27	29	31	30	28	25	22	19	17	30.7
3-Oct	14	12	11	10	9	9	9	7	6	7	8	12	16	21	23	27	31	33	32	31	28	25	21	18	33.1
4-Oct	16	14	13	11	9	9	8	7	6	6	8	11	14	16	20	24	28	30	29	26	23	20	16	12	29.5
5-Oct	8	4	3	2	2	2	2	2	2	3	4	7	10	13	17	20	24	27	29	30	31	31	31	32	32.1
6-Oct	32	32	32	33	33	33	32	29	28	29	30	32	33	34	36	39	40	40	39	39	39	38	37	36	40.2
7-Oct	36	35	35	34	33	32	31	30	29	28	28	28	28	29	30	30	31	32	31	31	30	28	27	26	35.6
8-Oct	26	25	26	26	26	26	26	25	24	23	23	23	24	25	26	28	28	28	28	28	26	25	24	24	28.5
9-Oct	23	23	23	24	25	26	27	27	27	28	28	29	30	31	32	33	33	34	35	35	34	33	31	31	34.7
10-Oct	29	28	27	25	23	20	17	15	13	12	12	12	13	15	17	19	21	22	22	22	22	22	23	22	29.3
11-Oct	22	21	20	20	20	20	20	20	20	20	21	21	22	22	23	24	25	25	26	26	25	25	25	25	25.7
12-Oct	24	23	23	23	23	23	23	22	22	21	21	20	20	19	19	19	19	19	18	16	16	14	12	9	23.7
13-Oct	6	4	2	1	1	1	1	1	1	2	3	4	6	8	10	12	14	15	15	16	15	13	11	10	15.5
14-Oct	9	9	10	12	13	15	17	19	19	19	20	21	21	22	22	23	25	26	26	25	25	25	25	24	25.8
15-Oct	22	21	20	19	18	15	13	12	11	13	15	18	21	25	29	33	37	38	38	37	36	35	34	34	38.1
16-Oct	34	33	33	33	33	34	34	33	33	33	34	33	33	33	32	32	32	30	29	27	25	22	19	16	33.7
17-Oct	17	16	14	13	12	11	9	8	6	5	5	8	8	9	N	N	N	N	N	N	N	24	24	24	24.2
18-Oct	24	24	24	25	24	24	23	20	18	16	16	15	15	15	15	18	21	22	24	25	25	25	24	22	25.4
19-Oct	19	16	13	10	7	5	3	2	1	2	4	5	7	8	13	17	19	19	19	20	21	20	17	17	21.0
20-Oct	18	20	22	21	20	18	16	14	12	10	8	8	8	13	17	21	24	27	28	28	25	22	18	14	28.5
21-Oct	13	13	12	13	15	18	20	21	21	20	21	21	22	24	27	30	33	34	33	32	31	30	29	27	33.9
22-Oct	26	25	25	23	21	19	16	12	10	8	6	7	7	9	13	17	22	26	26	28	29	30	30	29	30.1
23-Oct	28	27	26	27	27	27	27	26	25	25	25	25	26	27	28	29	29	30	30	29	28	28	27	27	30.0
24-Oct	29	28	27	27	27	28	28	29	29	29	30	31	33	34	34	33	32	32	32	31	30	29	28	28	33.9
25-Oct	28	28	28	27	27	26	25	24	23	21	20	19	19	20	22	24	26	27	29	29	30	30	27	27	29.6
26-Oct	25	22	20	18	16	13	11	9	7	6	6	7	10	13	15	19	22	24	24	23	23	21	18	15	25.0
27-Oct	12	10	9	7	5	4	2	2	1	1	2	5	9	11	14	17	21	23	24	25	25	24	24	24	24.7
28-Oct	23	23	23	22	22	21	20	18	17	16	15	16	18	20	22	24	27	28	30	30	29	27	25	24	29.7
29-Oct	22	22	21	20	19	18	17	15	14	13	13	14	16	18	22	25	27	28	26	23	20	16	12	9	28.3
30-Oct	6	4	4	5	5	5	4	3	2	1	2	3	5	9	13	17	20	22	23	23	22	21	19	18	23.4
31-Oct	19	18	18	21	23	23	22	21	20	21	23	24	25	26	27	29	30	30	29	28	27	26	24	23	29.9
35.6 35.0 34.7 33.7 33.3 33.7 33.5 33.4 33.0 33.4 33.5 33.3 32.8 33.9 35.6 38.9 40.2 39.7 39.3 39.1 38.7 38.0 37.2 36.4																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Henry Pirker - October 2017



Hourly Averages

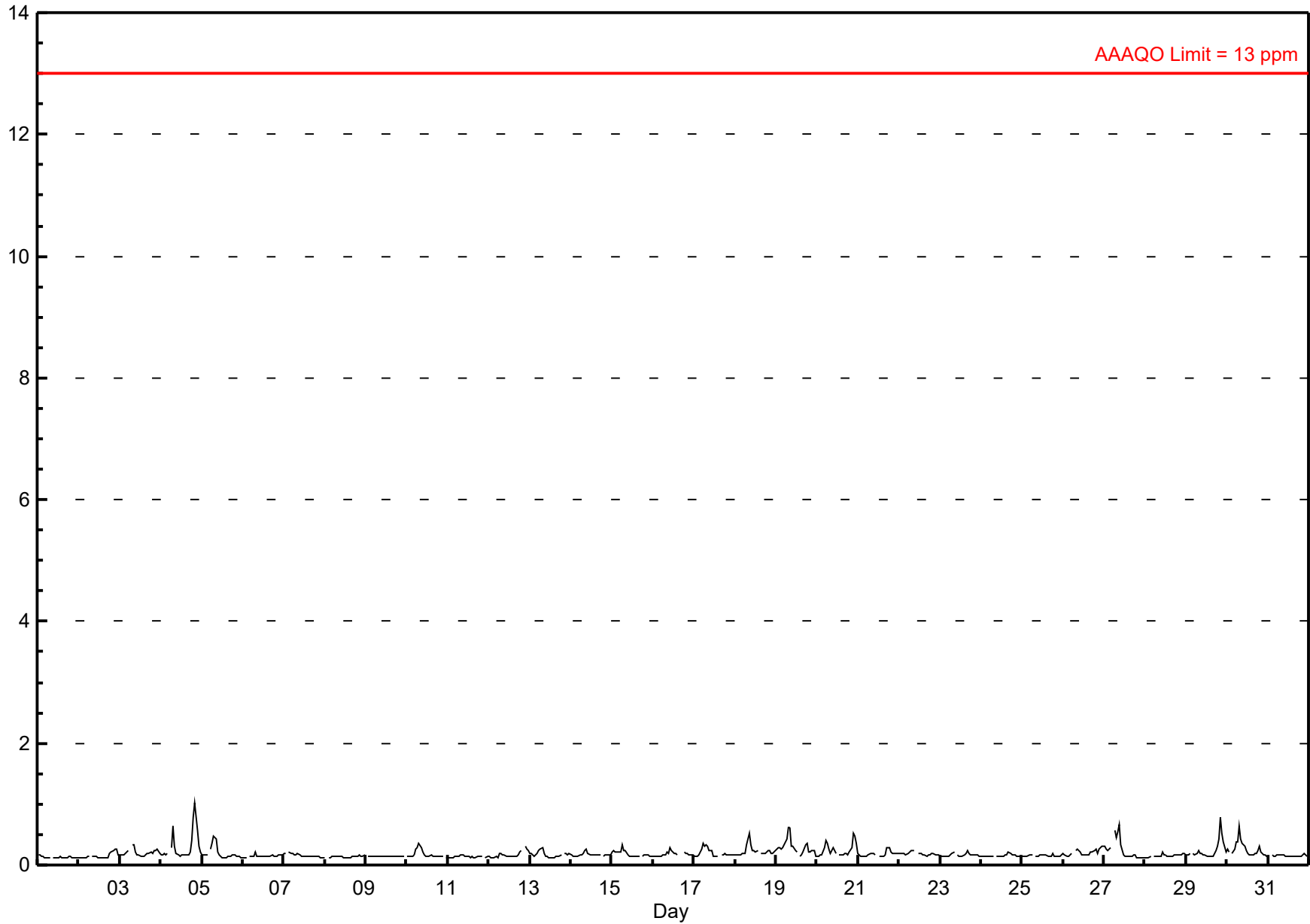
Carbon Monoxide (CO) - ppm

Henry Pirker - October 2017

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.03 ppm on Oct 4 21:00	Maximum Daily Average: 0.30 ppm on Oct 4		Hours of Data:	710
Minimum Value: 0.1 ppm on Oct 28 00:00	Minimum Daily Average: 0.13 ppm on Oct 1		Hours of Missing Data:	34
Maximum Diurnal Average: 0.28 ppm at hour 8	Minimum Diurnal Average: 0.15 ppm at hour 15		Hours of Calibration:	34
Monthly Average: 0.188 ppm	Percentiles: P ₁ = 0.12 P ₁₀ = 0.13 Q ₁ = 0.14 Median = 0.16 Q ₃ = 0.19 P ₉₀ = 0.27 P ₉₉ = 0.62		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	0.2	0.2	0.1	0.1	0.1	0.1	0.1	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	0.13	0.16	
2-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	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	0.3	0.3	0.2	0.15	0.27	
3-Oct	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	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	0.3	0.2	0.20	0.33	
4-Oct	0.2	0.2	0.2	0.2	0.2	A	0.3	0.6	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.8	1.0	0.6	0.3	0.2	0.30	1.03	
5-Oct	0.2	0.2	0.2	0.2	A	0.3	0.4	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.19	0.49	
6-Oct	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.15	0.22	
7-Oct	0.2	0.2	A	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.22	
8-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	0.1	0.2	0.2	0.2	0.2	0.14	0.16	
9-Oct	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	0.1	0.1	0.14	0.15	
10-Oct	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.17	0.35	
11-Oct	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	0.1	A	0.1	0.1	0.14	0.17	
12-Oct	0.1	0.1	0.1	0.1	0.1	0.1	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	0.2	A	0.3	0.3	0.2	0.17	0.30	
13-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	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	0.17	0.29	
14-Oct	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	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	0.2	0.17	0.27	
15-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.2	0.2	0.1	0.1	0.18	0.33	
16-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	C	C	C	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.28	
17-Oct	0.1	0.1	0.2	0.2	0.3	0.4	0.3	0.3	0.3	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	0.20	0.36	
18-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.2	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	0.23	0.52	
19-Oct	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.6	0.3	0.3	0.2	0.2	A	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.29	0.63	
20-Oct	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.4	0.25	0.52
21-Oct	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.18	0.29	
22-Oct	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	0.2	0.2	0.2	0.2	0.2	0.18	0.25	
23-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.23	
24-Oct	0.1	0.1	0.1	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	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.15	0.21	
25-Oct	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	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	0.1	0.1	0.2	0.16	0.19	
26-Oct	0.2	0.2	0.2	0.2	0.2	0.2	A	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	0.2	0.3	0.3	0.3	0.21	0.31	
27-Oct	0.3	0.3	0.2	0.3	0.3	A	0.6	0.5	0.5	0.7	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.25	0.66	
28-Oct	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.2	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	0.15	0.22	
29-Oct	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.8	0.5	0.4	0.2	0.24	0.77
30-Oct	0.3	0.2	A	0.2	0.3	0.4	0.4	0.6	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.26	0.64	
31-Oct	0.2	A	0.2	0.2	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	0.2	0.2	0.2	0.2	0.2	0.16	0.18	
	0.17	0.17	0.16	0.16	0.18	0.20	0.23	0.28	0.26	0.21	0.19	0.16	0.15	0.15	0.15	0.15	0.16	0.18	0.19	0.21	0.23	0.21	0.20	0.18		Diurnal Average	
	0.30	0.28	0.28	0.27	0.29	0.40	0.58	0.64	0.62	0.66	0.34	0.25	0.22	0.23	0.17	0.18	0.23	0.32	0.40	0.79	1.03	0.56	0.49	0.36		Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na



Hourly Maximums

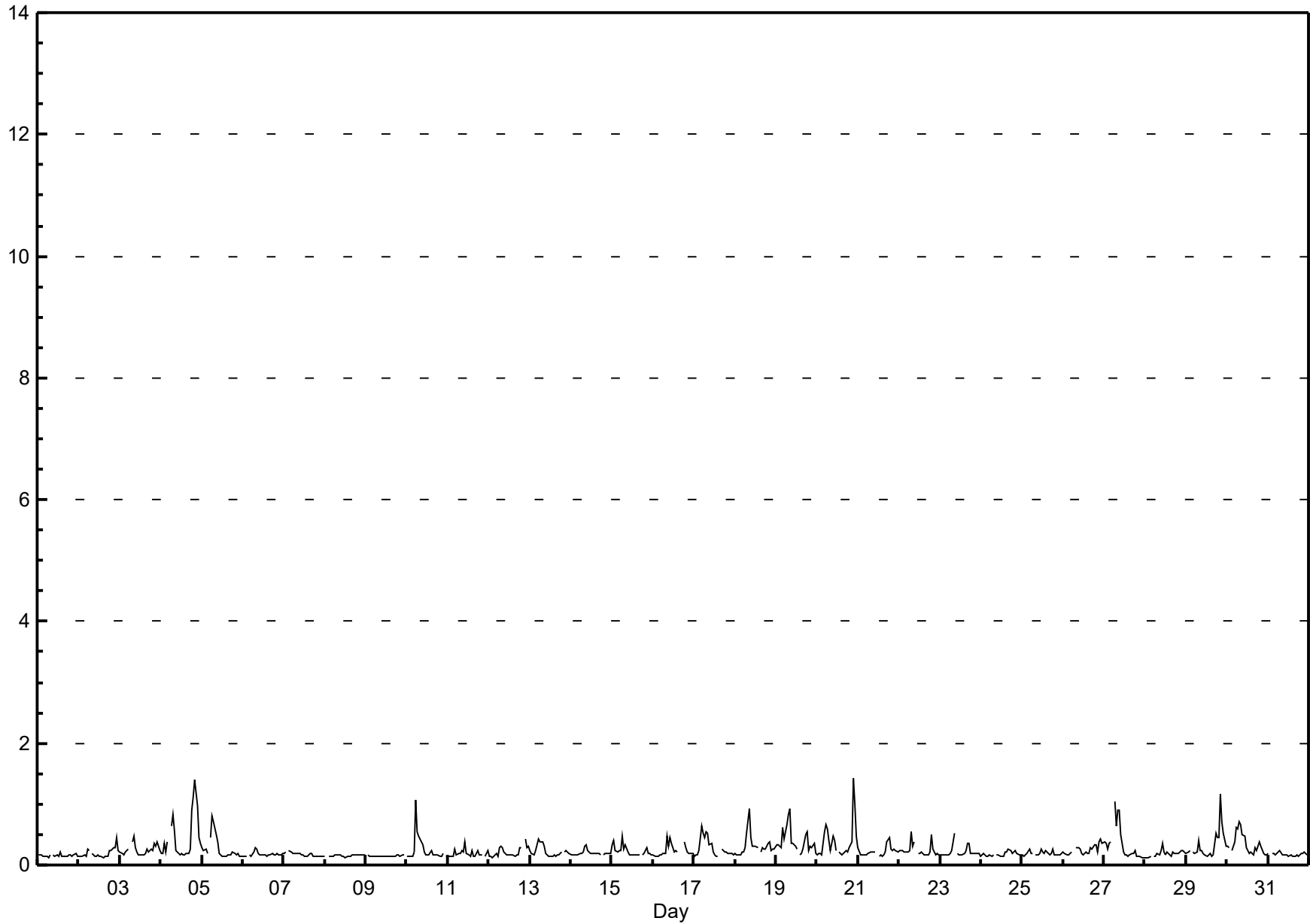
Carbon Monoxide (CO) - ppm

Henry Pirker - October 2017

Maximum Value: 1.43 ppm on Oct 20 22:00		Maximum Daily Average: 0.45 ppm on Oct 4		Hours in Service: 744																							
Minimum Value: 0.1 ppm on Oct 28 03:00		Minimum Daily Average: 0.15 ppm on Oct 9		Hours of Data: 710																							
Maximum Diurnal Average: 0.38 ppm at hour 9		Minimum Diurnal Average: 0.17 ppm at hour 16		Hours of Missing Data: 34																							
Monthly Average: 0.244 ppm		Percentiles: P ₁ = 0.13 P ₁₀ = 0.15 Q ₁ = 0.16 Median = 0.19 Q ₃ = 0.25 P ₉₀ = 0.39 P ₉₉ = 0.98		Hours of Calibration: 34																							
				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	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	A	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.15	0.21
2-Oct	0.1	0.1	0.1	0.2	0.1	0.3	0.2	A	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.5	0.2	0.20	0.46	
3-Oct	0.2	0.2	0.2	0.2	0.2	0.3	A	0.4	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.4	0.3	0.4	0.2	0.25	0.48	
4-Oct	0.2	0.2	0.4	0.2	0.4	A	0.6	0.8	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.9	1.1	1.4	1.0	0.4	0.4	0.45	1.39	
5-Oct	0.3	0.2	0.3	0.2	A	0.4	0.8	0.7	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.27	0.82		
6-Oct	0.1	0.1	0.2	A	0.2	0.2	0.2	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	0.2	0.2	0.2	0.2	0.17	0.28	
7-Oct	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	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17	0.23	
8-Oct	0.1	A	0.1	0.1	0.1	0.1	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	0.2	0.15	0.17	
9-Oct	A	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	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	0.15	0.16	
10-Oct	0.1	0.1	0.2	0.1	0.2	1.1	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.25	1.06	
11-Oct	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	A	0.1	0.2	0.19	0.37	
12-Oct	0.1	0.1	0.1	0.1	0.2	0.2	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	0.3	A	0.4	0.3	0.3	0.21	0.42	
13-Oct	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.22	0.44	
14-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	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	0.2	0.20	0.34	
15-Oct	0.3	0.4	0.2	0.2	0.2	0.2	0.5	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	0.3	0.2	0.2	0.2	0.23	0.48	
16-Oct	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.5	0.3	0.4	0.3	0.2	0.2	0.2	C	C	C	0.4	0.3	0.2	0.2	0.2	0.2	0.24	0.48	
17-Oct	0.2	0.2	0.2	0.2	0.6	0.5	0.4	0.5	0.5	0.3	0.4	0.2	0.2	0.2	0.2	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28	0.63	
18-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.9	0.5	0.3	0.3	0.3	0.3	A	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.2	0.2	0.30	0.93	
19-Oct	0.3	0.3	0.3	0.3	0.6	0.4	0.7	0.8	0.9	0.4	0.4	0.3	0.3	A	0.2	0.2	0.3	0.5	0.5	0.2	0.3	0.3	0.4	0.2	0.40	0.93	
20-Oct	0.2	0.2	0.2	0.2	0.5	0.7	0.6	0.4	0.2	0.5	0.4	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	1.4	1.0	0.5	0.39	1.43	
21-Oct	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.2	0.2	0.2	0.4	0.5	0.3	0.2	0.3	0.2	0.2	0.2	0.22	0.46	
22-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.4	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.2	0.2	0.2	0.24	0.55	
23-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	A	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.52	
24-Oct	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	A	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.27	
25-Oct	0.2	0.2	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.19	0.27	
26-Oct	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.4	0.4	0.4	0.25	0.44	
27-Oct	0.4	0.3	0.3	0.4	0.4	A	1.0	0.6	0.9	0.9	0.5	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	0.34	1.04	
28-Oct	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	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	0.19	0.35	
29-Oct	0.2	0.2	0.2	A	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.5	0.4	0.5	1.2	0.7	0.5	0.3	0.32	1.17	
30-Oct	0.3	0.3	A	0.2	0.4	0.6	0.6	0.7	0.7	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.34	0.71	
31-Oct	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.24	
		0.20	0.20	0.18	0.19	0.25	0.29	0.34	0.37	0.38	0.28	0.25	0.20	0.18	0.18	0.17	0.17	0.20	0.23	0.27	0.26	0.29	0.30	0.26	0.21	Diurnal Average	
		0.39	0.41	0.36	0.36	0.63	1.06	1.04	0.84	0.93	0.89	0.51	0.35	0.31	0.28	0.25	0.24	0.35	0.52	0.91	1.10	1.39	1.43	1.00	0.47	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

Hourly Maximums

Carbon Monoxide (CO) - ppm
Henry Pirker - October 2017



Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2017

Number of Exceedences (AAAQO): 8-hr: 0	Hours in Service: 744
Maximum Value: 0.46 ppm on Oct 5 01:00	Hours of Data: 738
Minimum Value: 0.12 ppm on Oct 28 05:00	Hours of Missing Data: 6
	Hours of Calibration: 6
	Percent Operational Time: 100.0
Percentiles: P ₁ = 0.12 P ₁₀ = 0.13 Q ₁ = 0.15 Median = 0.17 Q ₃ = 0.21 P ₉₀ = 0.27 P ₉₉ = 0.43	

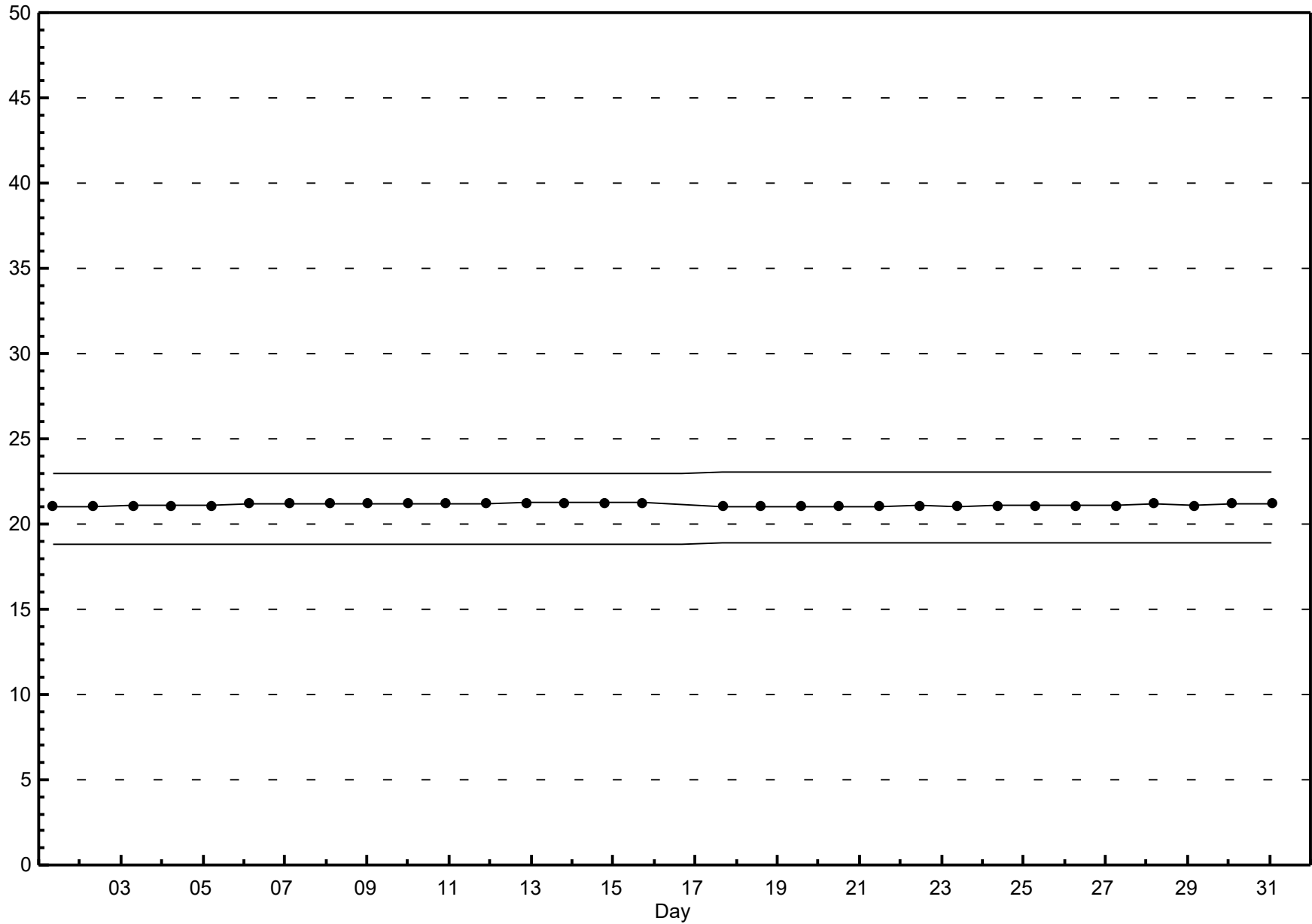
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Oct	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
2-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.20
3-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	0.2	0.2	0.2	0.2	0.2	0.24
4-Oct	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	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.46
5-Oct	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.46
6-Oct	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	0.2	0.15
7-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	0.1	0.1	0.19
8-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	0.15
9-Oct	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	0.1	0.1	0.1	0.1	0.15
10-Oct	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.23
11-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	0.15
12-Oct	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	0.2	0.2	0.2	0.2	0.2	0.2	0.22
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	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.23
14-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	0.2	0.2	0.2	0.2	0.2	0.20
15-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	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.24
16-Oct	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	0.2	0.2	0.2	0.2	N	N	N	N	N	N	0.2	0.21
17-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28
18-Oct	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	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
19-Oct	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	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	0.3	0.2	0.2	0.40
20-Oct	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	0.3	0.3	0.3	0.30
21-Oct	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
22-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	0.2	0.2	0.2	0.2	0.2	0.22
23-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	0.2	0.2	0.2	0.2	0.2	0.18
24-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
25-Oct	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16
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	0.2	0.2	0.2	0.2	0.2	0.2	0.24
27-Oct	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.45
28-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	0.17
29-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	0.2	0.3	0.3	0.4	0.4	0.38
30-Oct	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.40
31-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	0.2	0.2	0.2	0.20
	0.46	0.46	0.43	0.37	0.29	0.28	0.32	0.34	0.39	0.43	0.45	0.43	0.41	0.39	0.35	0.29	0.24	0.23	0.24	0.28	0.38	0.43	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 2017

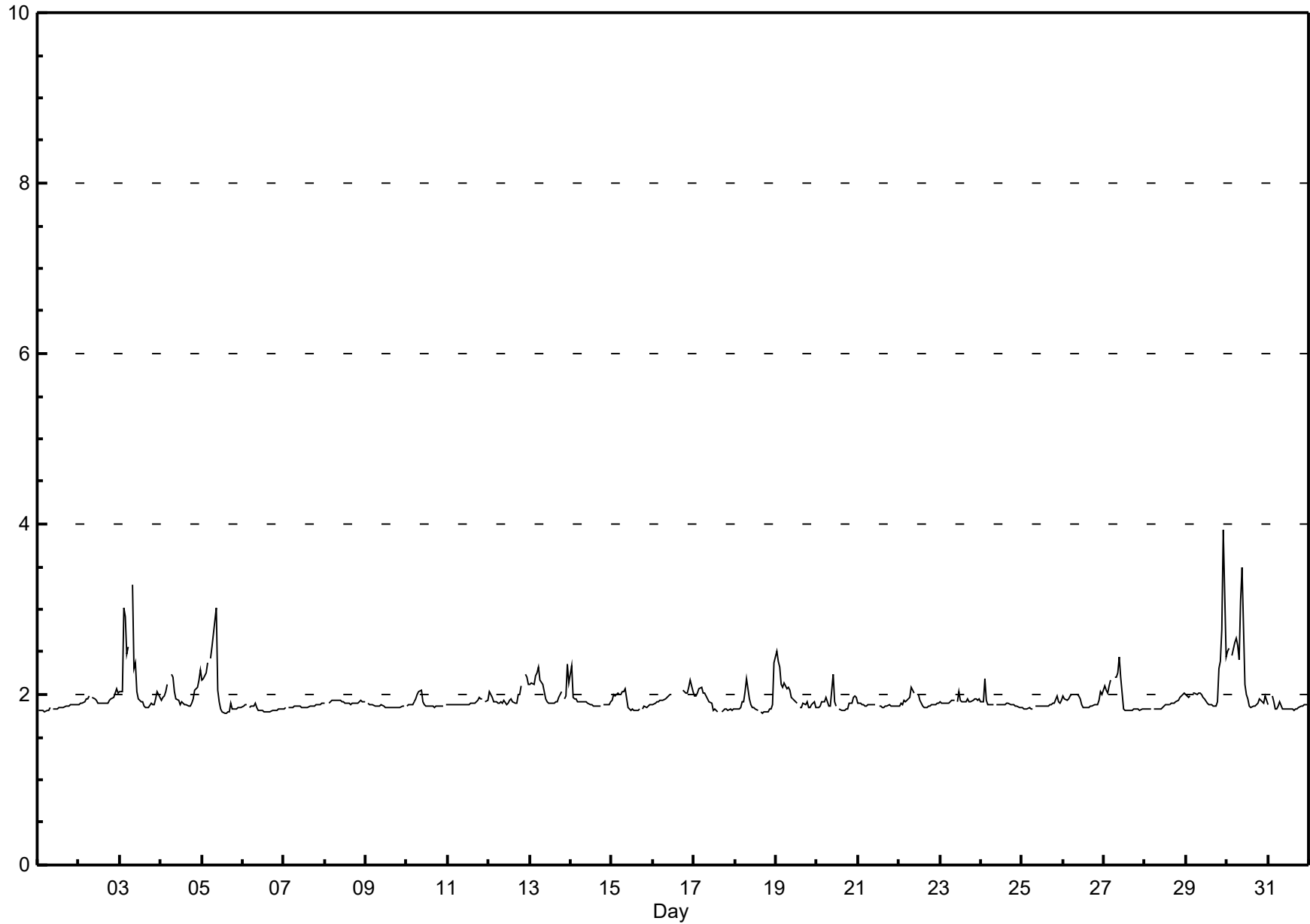


Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2017

Maximum Value: 3.93 ppm on Oct 29 23:00		Maximum Daily Average: 2.23 ppm on Oct 30		Hours in Service: 744																							
Minimum Value: 1.8 ppm on Oct 5 14:00		Minimum Daily Average: 1.83 ppm on Oct 6		Hours of Data: 708																							
Maximum Diurnal Average: 2.06 ppm at hour 8		Minimum Diurnal Average: 1.86 ppm at hour 15		Hours of Missing Data: 36																							
Monthly Average: 1.945 ppm		Percentiles: P ₁ = 1.79 P ₁₀ = 1.83 Q ₁ = 1.86 Median = 1.89 Q ₃ = 1.95 P ₉₀ = 2.09 P ₉₉ = 2.85		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	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.88
2-Oct	1.9	1.9	1.9	1.9	1.9	1.9	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	2.0	2.0	2.1	2.0	1.94	2.07
3-Oct	2.0	2.0	3.0	2.9	2.5	2.6	A	3.3	2.3	2.4	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.17	3.29	
4-Oct	1.9	2.0	2.0	2.0	2.1	A	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.00	2.28	
5-Oct	2.2	2.2	2.3	2.4	A	2.4	2.6	2.7	3.0	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8	2.06	3.02	
6-Oct	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.89	
7-Oct	1.8	1.8	A	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.86	1.90	
8-Oct	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.93	
9-Oct	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.86	1.89
10-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	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	A	1.9	1.90	2.05	
11-Oct	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	1.9	1.9	1.9	1.9	2.0	1.9	2.0	A	1.9	1.9	1.90	1.96	
12-Oct	2.0	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	1.9	1.9	1.9	2.0	2.0	2.1	A	2.2	2.2	2.1	1.97	2.24	
13-Oct	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	2.0	2.4	2.1	2.05	2.36	
14-Oct	2.3	2.0	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	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.92	2.34	
15-Oct	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.08	
16-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	C	C	C	C	A	2.1	2.0	2.0	2.0	2.1	2.2	2.0	1.99	2.16	
17-Oct	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.90	2.09	
18-Oct	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.2	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.4	1.89	2.37	
19-Oct	2.5	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	A	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	2.01	2.52	
20-Oct	1.8	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.2	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0	1.90	2.24	
21-Oct	1.9	1.9	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.90	
22-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	A	2.0	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.08	
23-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.04	
24-Oct	1.9	1.9	2.2	1.9	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	1.8	1.8	1.89	2.19	
25-Oct	1.8	1.8	1.8	1.8	1.8	1.8	1.8	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	2.0	1.9	1.9	1.9	1.87	1.98	
26-Oct	2.0	2.0	1.9	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	1.9	1.9	1.9	2.0	2.0	1.93	2.03	
27-Oct	2.1	2.1	2.0	2.1	2.2	A	2.2	2.2	2.2	2.4	2.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.98	2.44	
28-Oct	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	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	1.88	2.02	
29-Oct	2.0	2.0	2.0	A	2.0	2.0	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	2.3	2.4	2.8	3.9	2.4	2.13	3.93	
30-Oct	2.5	2.6	A	2.5	2.6	2.7	2.6	2.4	3.1	3.5	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.23	3.50	
31-Oct	1.9	A	2.0	1.9	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.86	1.99	
		1.98	1.97	1.99	2.01	1.99	2.00	2.00	2.06	2.04	2.01	1.92	1.89	1.87	1.86	1.86	1.86	1.86	1.88	1.89	1.90	1.91	1.95	2.02	1.97	Diurnal Average	
		2.52	2.55	3.02	2.91	2.60	2.66	2.58	3.29	3.11	3.50	2.21	2.04	1.95	1.95	1.92	1.91	1.95	2.05	2.03	2.31	2.40	2.76	3.93	2.44	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



Hourly Maximums

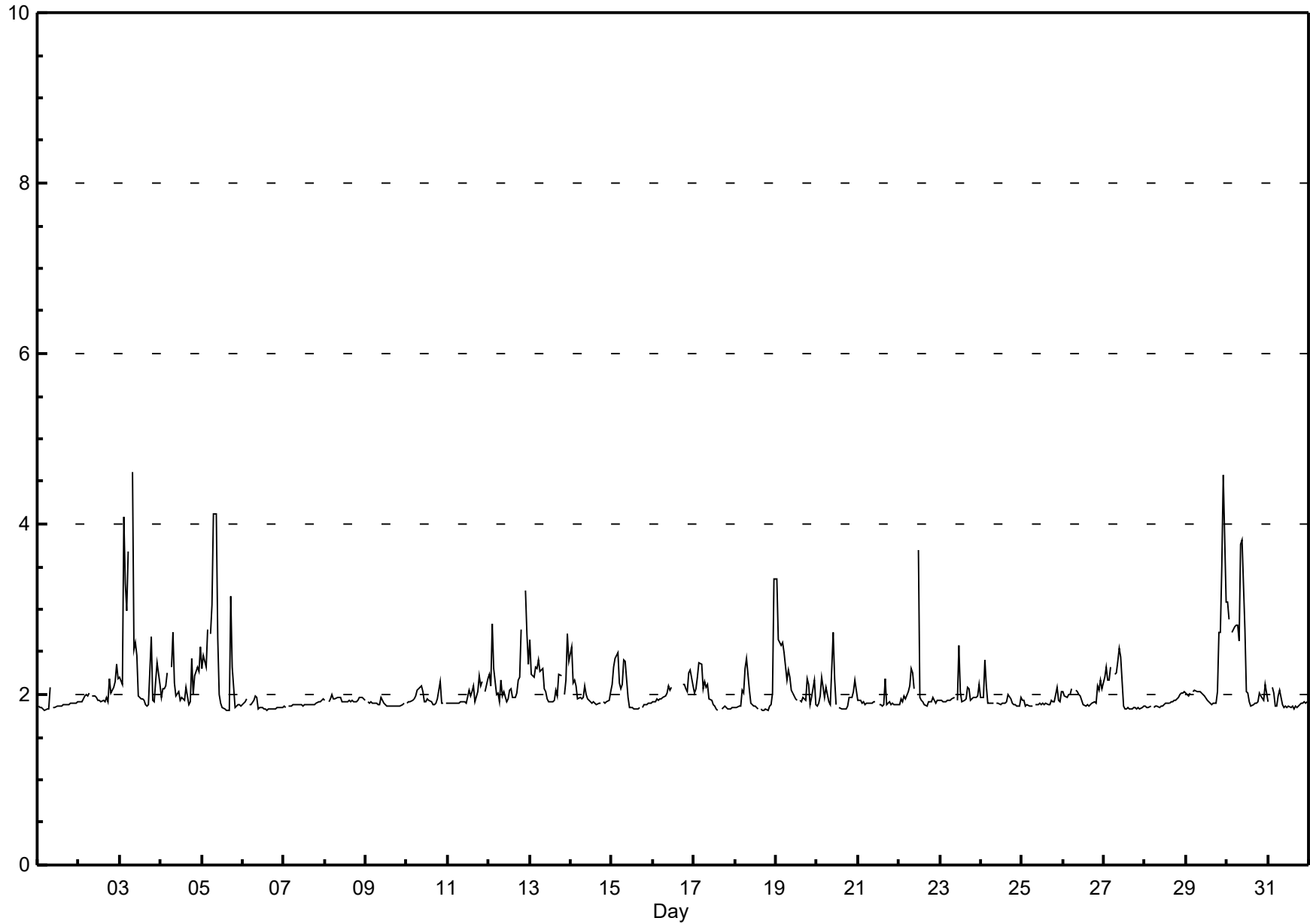
Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2017

Maximum Value: 4.61 ppm on Oct 3 08:00		Maximum Daily Average: 2.49 ppm on Oct 3		Hours in Service: 744																																													
Minimum Value: 1.8 ppm on Oct 5 15:00		Minimum Daily Average: 1.87 ppm on Oct 6		Hours of Data: 708																																													
Maximum Diurnal Average: 2.26 ppm at hour 8		Minimum Diurnal Average: 1.89 ppm at hour 15		Hours of Missing Data: 36																																													
Monthly Average: 2.043 ppm		Percentiles: P ₁ = 1.82 P ₁₀ = 1.85 Q ₁ = 1.88 Median = 1.93 Q ₃ = 2.05 P ₉₀ = 2.32 P ₉₉ = 3.73		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	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.1	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	1.9	1.88	2.08																							
2-Oct	1.9	1.9	1.9	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	2.0	1.9	2.2	2.0	2.1	2.1	2.4	2.2	2.01	2.35																							
3-Oct	2.2	2.1	4.1	3.3	3.0	3.7	A	4.6	2.5	2.6	2.5	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.7	1.9	1.9	2.1	2.4	2.1	2.49	4.61																							
4-Oct	2.0	2.1	2.1	2.1	2.2	A	2.3	2.7	2.1	2.0	2.0	1.9	2.0	2.0	1.9	2.1	1.9	1.9	2.4	2.0	2.2	2.3	2.3	2.6	2.13	2.73																							
5-Oct	2.3	2.5	2.3	2.8	A	2.7	3.0	4.1	4.1	2.7	2.0	1.9	1.9	1.8	1.8	1.8	1.8	3.1	2.3	1.9	1.9	1.9	1.9	1.9	2.36	4.12																							
6-Oct	1.9	1.9	2.0	A	1.9	1.9	1.9	2.0	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.87	1.98																							
7-Oct	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.94																							
8-Oct	1.9	A	1.9	2.0	2.0	1.9	2.0	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	2.0	2.0	2.0	1.9	1.94	1.99																							
9-Oct	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.89	1.97																							
10-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.2	1.9	1.9	A	1.9	1.95	2.16																							
11-Oct	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	2.1	1.9	2.0	2.2	2.1	2.2	A	2.0	2.2	1.99	2.22																								
12-Oct	2.2	2.1	2.8	2.3	2.0	2.0	1.9	2.2	2.0	2.0	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.2	2.2	2.8	A	3.2	2.7	2.3	2.21	3.21																							
13-Oct	2.7	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.2	A	2.0	2.2	2.7	2.4	2.18	2.70																							
14-Oct	2.6	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	1.99	2.55																							
15-Oct	2.1	2.3	2.4	2.5	2.1	2.1	2.1	2.4	2.4	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	1.9	1.9	1.9	1.9	2.03	2.49																							
16-Oct	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	C	C	C	C	A	2.1	2.1	2.1	2.0	2.2	2.3	2.1	2.04	2.29																							
17-Oct	2.0	2.1	2.2	2.4	2.4	2.1	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.98	2.38																							
18-Oct	1.8	1.8	1.9	1.9	2.0	2.0	2.3	2.4	2.1	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	3.4	1.99	3.35																							
19-Oct	3.4	2.6	2.6	2.6	2.6	2.5	2.2	2.3	2.2	2.0	1.9	1.9	A	1.8	1.9	1.9	2.0	1.9	2.2	2.1	1.9	2.0	2.2	1.9	2.21	3.35																							
20-Oct	1.9	1.9	2.0	2.2	2.0	2.1	2.0	1.9	1.9	2.7	2.2	1.9	A	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	2.0	2.2	2.1	1.99	2.73																							
21-Oct	1.9	1.9	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	1.9	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.18																							
22-Oct	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.3	2.3	2.1	A	3.7	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.05	3.70																							
23-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	2.6	2.0	1.9	1.9	1.9	1.9	2.1	2.1	1.9	2.0	2.0	2.0	2.1	1.99	2.58																							
24-Oct	2.0	2.0	2.4	2.1	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.94	2.41																							
25-Oct	1.9	1.9	1.9	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	2.1	1.9	1.9	2.0	1.91	2.09																							
26-Oct	2.0	2.0	2.0	2.0	2.0	2.1	A	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	2.1	2.0	2.2	2.1	1.98	2.17																							
27-Oct	2.2	2.3	2.2	2.2	2.3	A	2.2	2.3	2.4	2.5	2.4	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.9	2.04	2.55																							
28-Oct	1.9	1.9	1.9	1.9	A	1.8	1.9	1.9	1.8	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	1.91	2.03																							
29-Oct	2.0	2.0	2.0	A	2.0	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	2.0	2.7	2.7	3.5	4.6	3.1	2.27	4.58																							
30-Oct	3.1	2.9	A	2.7	2.8	2.8	2.8	2.6	3.8	3.8	2.8	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.1	2.0	2.42	3.81																							
31-Oct	1.9	A	2.1	2.0	1.9	1.9	2.0	2.0	1.9	1.8	1.9	1.8	1.9	1.8	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.09																							
																								2.10	2.06	2.14	2.15	2.08	2.10	2.08	2.26	2.18	2.11	2.00	1.99	1.92	1.90	1.89	1.90	1.91	1.97	2.01	1.99	1.98	2.06	2.15	2.11	Diurnal Average	
																								3.35	2.89	4.08	3.31	2.98	3.69	3.04	4.61	4.12	3.81	2.77	3.70	2.05	2.07	2.04	2.10	2.18	3.15	2.68	2.77	2.73	3.50	4.58	3.35	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									

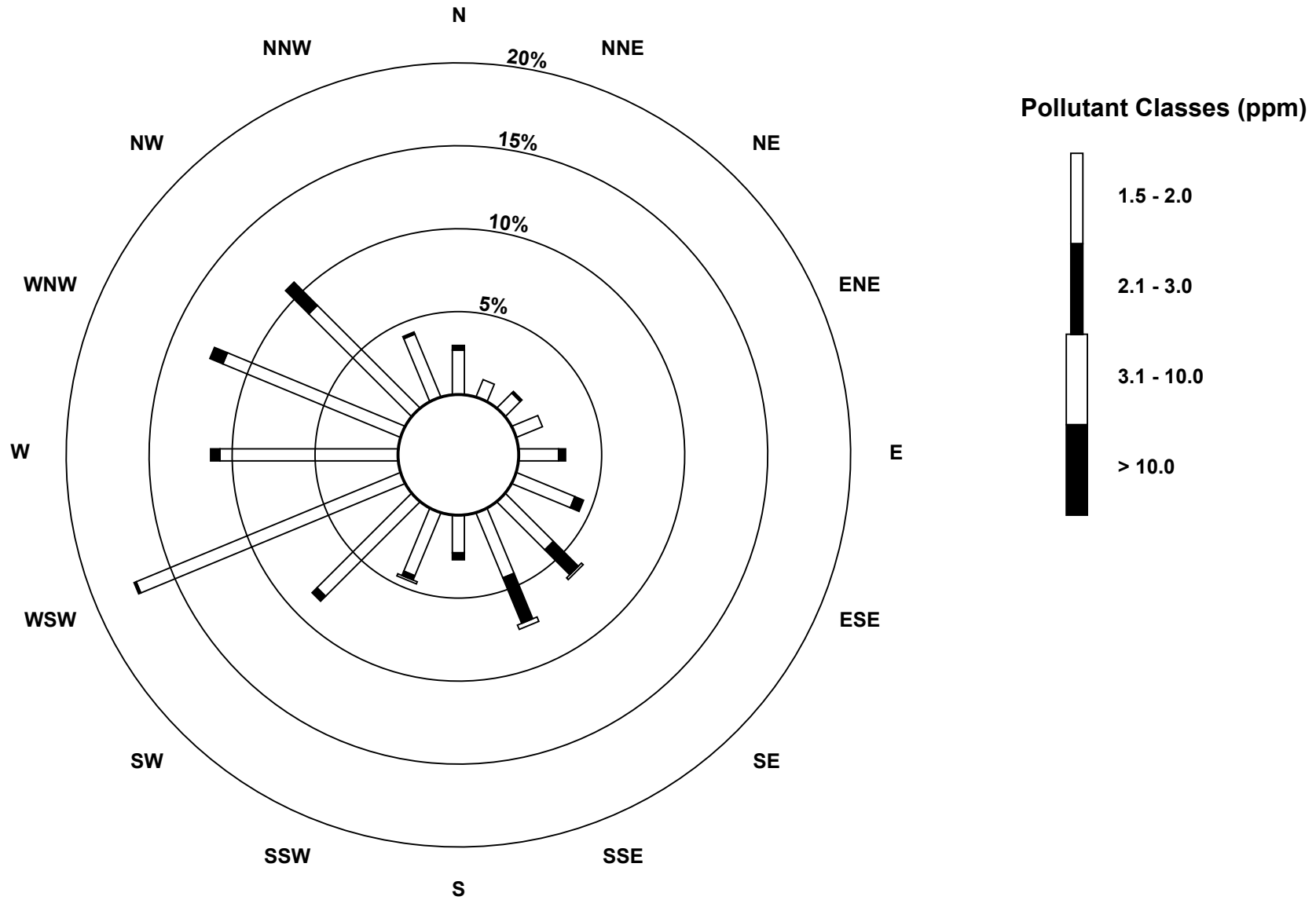
Hourly Maximums

Total Hydrocarbons (THC) - ppm
Henry Pirker - October 2017



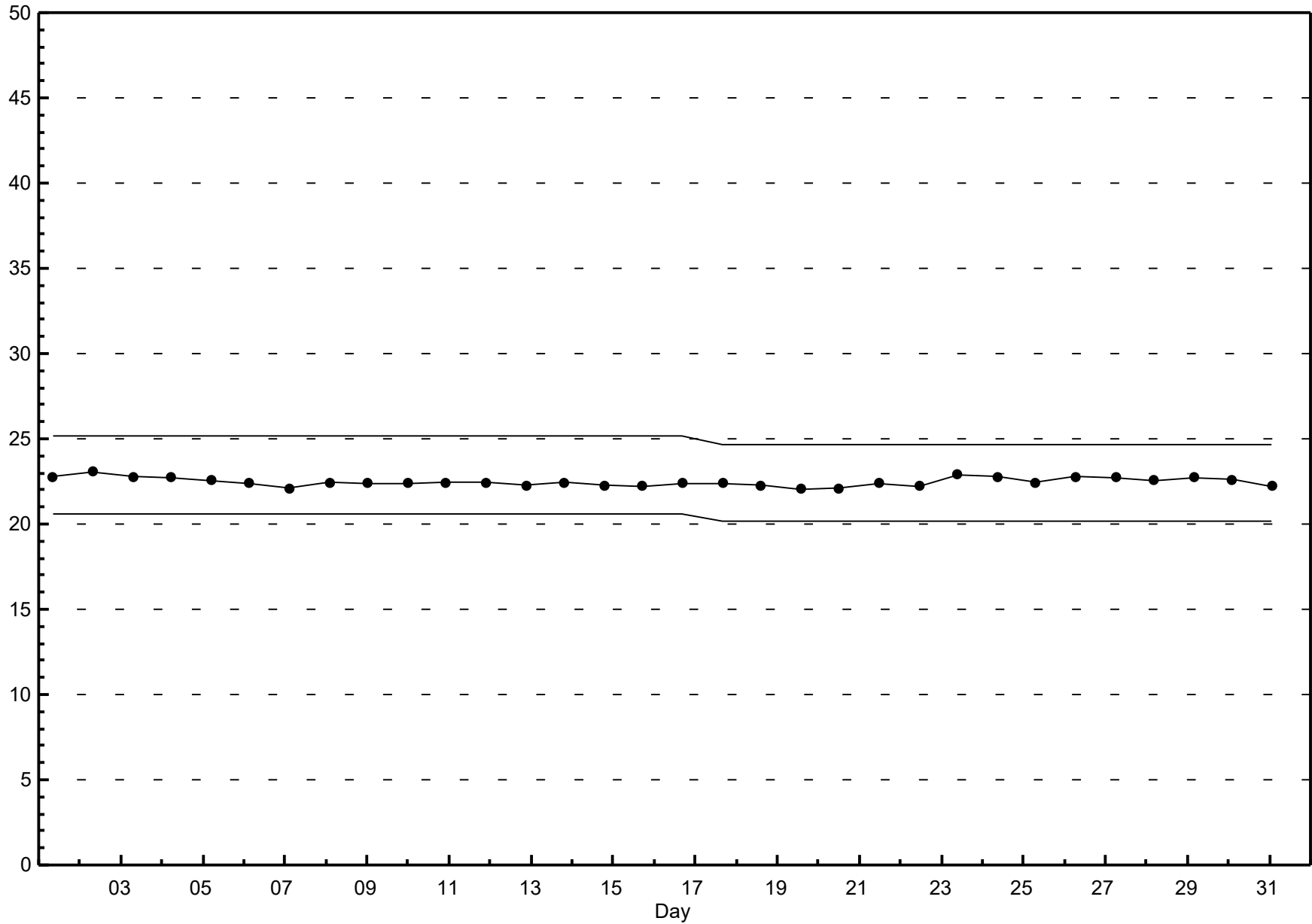
Pollutant Rose

Total Hydrocarbons (THC) - ppm
Henry Pirker - October 2017



Span Responses

**Total Hydrocarbons (THC)
Henry Pirker - October 2017**

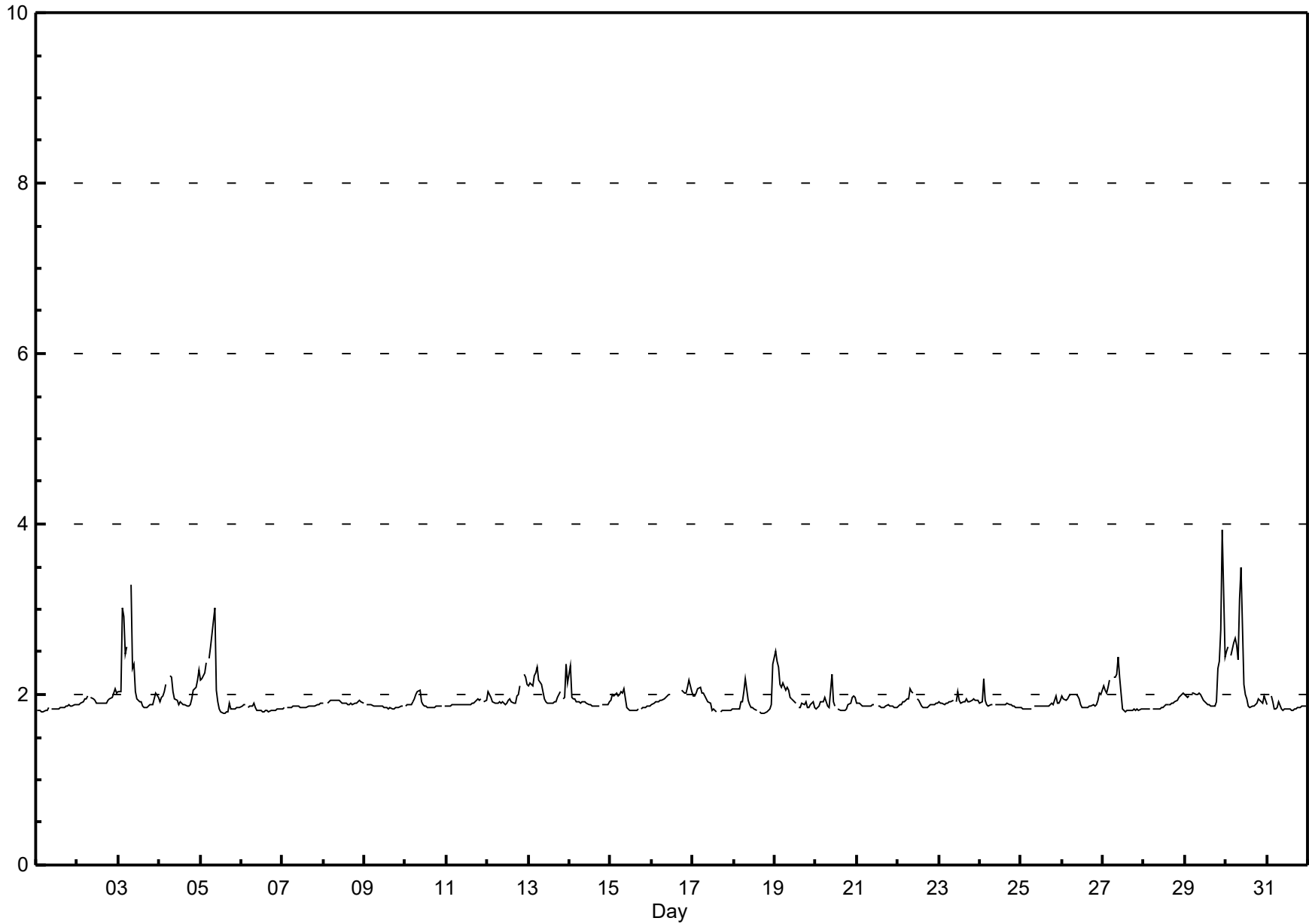


Hourly Averages

Methane (CH₄) - ppm

Henry Pirker - October 2017

Maximum Value: 3.93 ppm on Oct 29 23:00		Maximum Daily Average: 2.23 ppm on Oct 30		Hours in Service: 744																							
Minimum Value: 1.8 ppm on Oct 5 14:00		Minimum Daily Average: 1.83 ppm on Oct 6		Hours of Data: 708																							
Maximum Diurnal Average: 2.06 ppm at hour 8		Minimum Diurnal Average: 1.85 ppm at hour 15		Hours of Missing Data: 36																							
Monthly Average: 1.942 ppm		Percentiles: P ₁ = 1.79 P ₁₀ = 1.82 Q ₁ = 1.85 Median = 1.89 Q ₃ = 1.95 P ₉₀ = 2.08 P ₉₉ = 2.85		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	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.84	1.88	
2-Oct	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	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	2.1	2.0	1.94	2.07	
3-Oct	2.0	2.0	3.0	2.9	2.5	2.6	A	3.3	2.3	2.4	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.16	3.29	
4-Oct	1.9	2.0	2.0	2.0	2.1	A	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.2	2.3	2.00	2.28	
5-Oct	2.2	2.2	2.3	2.4	A	2.4	2.6	2.7	3.0	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8	2.06	3.02	
6-Oct	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.89	
7-Oct	1.8	1.8	A	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.86	1.90	
8-Oct	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.93	
9-Oct	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.86	1.89	
10-Oct	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	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	A	1.9	1.90	2.05	
11-Oct	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	1.9	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.90	1.96	
12-Oct	2.0	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	1.9	1.9	1.9	2.0	2.0	2.1	A	2.2	2.2	2.1	1.97	2.24	
13-Oct	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	2.0	2.4	2.1	2.05	2.35	
14-Oct	2.3	2.0	1.9	2.0	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	A	1.9	1.9	1.9	1.9	1.9	1.92	2.34	
15-Oct	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.07	
16-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	C	C	C	C	A	2.1	2.0	2.0	2.0	2.1	2.2	2.0	1.98	2.16		
17-Oct	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.90	2.09	
18-Oct	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.2	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.4	1.88	2.36	
19-Oct	2.5	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	A	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	2.01	2.51	
20-Oct	1.8	1.8	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.2	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0	1.90	2.24	
21-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.90	
22-Oct	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.0	A	2.0	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.07	
23-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.03	
24-Oct	1.9	1.9	2.2	1.9	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	1.8	1.8	1.89	2.18	
25-Oct	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.87	1.98	
26-Oct	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.93	2.03	
27-Oct	2.1	2.1	2.0	2.1	2.2	A	2.2	2.2	2.2	2.4	2.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.97	2.44	
28-Oct	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	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	1.88	2.01	
29-Oct	2.0	2.0	2.0	A	2.0	2.0	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	2.3	2.4	2.8	3.9	2.4	2.13	3.93	
30-Oct	2.5	2.6	A	2.5	2.6	2.7	2.6	2.4	3.1	3.5	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.23	3.50	
31-Oct	1.9	A	2.0	1.9	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.85	1.99	
		1.98	1.97	1.99	2.00	1.99	2.00	2.00	2.06	2.04	2.01	1.91	1.88	1.87	1.86	1.85	1.86	1.86	1.88	1.89	1.90	1.91	1.94	2.02	1.97	Diurnal Average	
		2.51	2.55	3.02	2.91	2.60	2.66	2.58	3.29	3.11	3.50	2.20	2.03	1.95	1.94	1.92	1.91	1.95	2.05	2.03	2.31	2.40	2.76	3.93	2.44	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



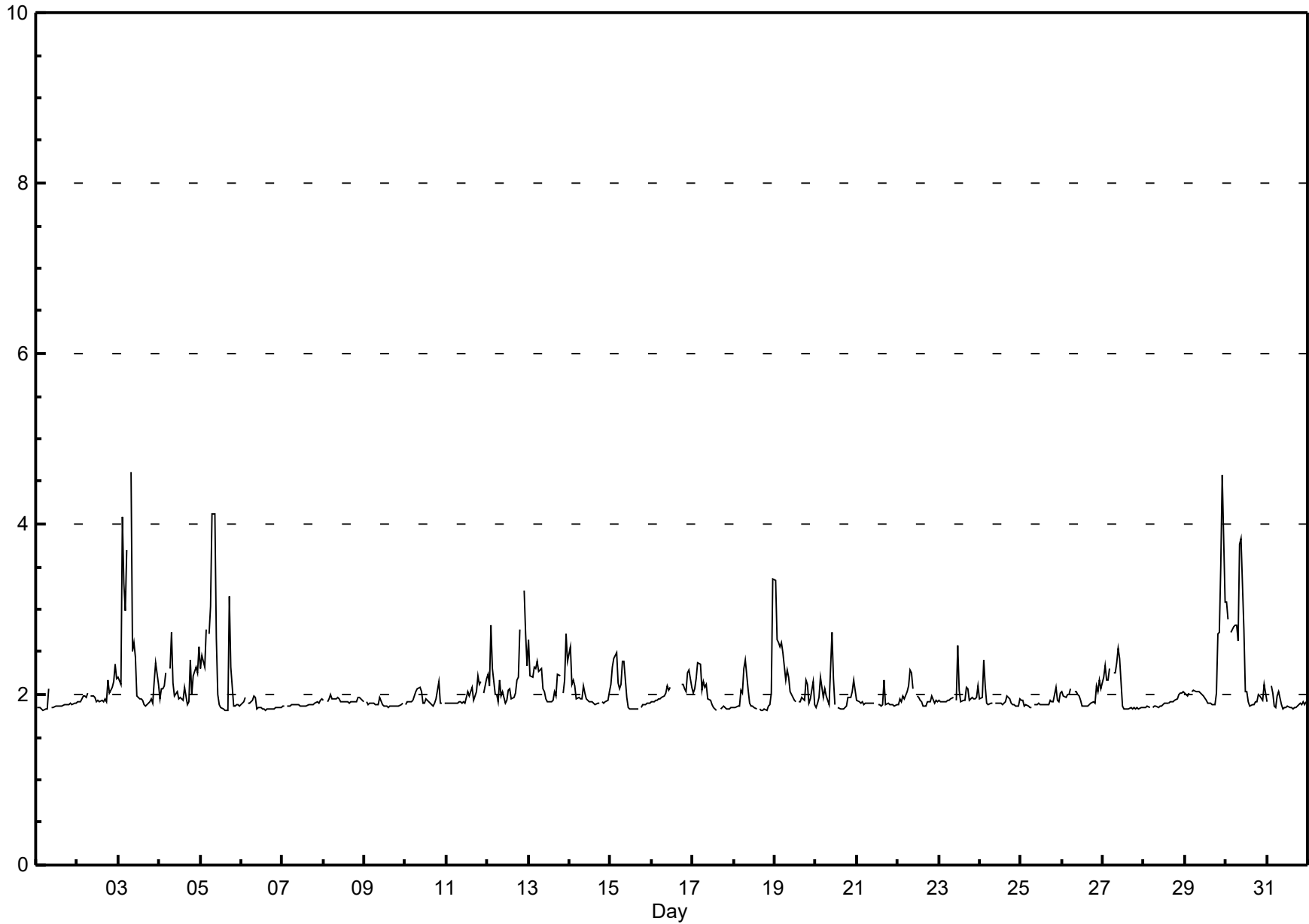
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - October 2017

Maximum Value: 4.61 ppm on Oct 3 08:00		Maximum Daily Average: 2.45 ppm on Oct 3		Hours in Service: 744																							
Minimum Value: 1.8 ppm on Oct 18 17:00		Minimum Daily Average: 1.87 ppm on Oct 6		Hours of Data: 708																							
Maximum Diurnal Average: 2.26 ppm at hour 8		Minimum Diurnal Average: 1.89 ppm at hour 15		Hours of Missing Data: 36																							
Monthly Average: 2.037 ppm		Percentiles: P ₁ = 1.82 P ₁₀ = 1.85 Q ₁ = 1.88 Median = 1.92 Q ₃ = 2.04 P ₉₀ = 2.32 P ₉₉ = 3.73		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	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.1	A	1.9	1.8	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	1.87	2.07	
2-Oct	1.9	1.9	1.9	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	2.0	1.9	2.2	2.0	2.1	2.1	2.3	2.2	2.00	2.35	
3-Oct	2.2	2.1	4.1	3.3	3.0	3.7	A	4.6	2.5	2.6	2.4	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.4	2.1	2.45	4.61	
4-Oct	2.0	2.1	2.1	2.1	2.2	A	2.3	2.7	2.1	2.0	2.0	1.9	2.0	1.9	1.9	2.1	1.9	1.9	2.4	2.0	2.2	2.3	2.3	2.6	2.13	2.73	
5-Oct	2.3	2.5	2.3	2.8	A	2.7	3.0	4.1	4.1	2.7	2.0	1.9	1.8	1.8	1.8	1.8	1.8	3.1	2.3	1.9	1.9	1.9	1.9	1.9	2.36	4.12	
6-Oct	1.9	1.9	2.0	A	1.9	1.9	1.9	2.0	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.87	1.98	
7-Oct	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.95	
8-Oct	1.9	A	1.9	1.9	2.0	1.9	2.0	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	2.0	2.0	2.0	1.9	1.94	1.99	
9-Oct	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.88	1.97	
10-Oct	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	A	1.9	1.95	2.15	
11-Oct	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	2.1	1.9	2.0	2.2	2.1	2.2	A	2.0	2.2	1.98	2.22		
12-Oct	2.2	2.1	2.8	2.3	2.0	2.0	1.9	2.2	2.0	2.0	1.9	1.9	2.1	2.1	2.0	2.0	2.0	2.2	2.2	2.8	A	3.2	2.7	2.3	2.21	3.22	
13-Oct	2.7	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.2	A	2.0	2.2	2.7	2.4	2.18	2.71	
14-Oct	2.6	2.1	2.2	2.1	2.0	2.0	1.9	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	1.99	2.56	
15-Oct	2.1	2.3	2.4	2.5	2.1	2.1	2.1	2.4	2.4	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	1.9	1.9	1.9	1.9	2.02	2.48	
16-Oct	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.1	C	C	C	C	A	2.1	2.1	2.1	2.0	2.2	2.3	2.1	2.04	2.29	
17-Oct	2.0	2.1	2.2	2.4	2.4	2.1	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.8	1.8	A	A	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.97	2.38	
18-Oct	1.9	1.8	1.9	1.9	2.0	2.0	2.3	2.4	2.1	1.9	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	3.4	1.99	3.35	
19-Oct	3.3	2.6	2.6	2.6	2.6	2.5	2.2	2.3	2.2	2.0	1.9	1.9	A	A	1.9	1.9	2.0	1.9	2.2	2.1	1.9	2.0	2.2	1.9	2.21	3.34	
20-Oct	1.9	1.9	2.0	2.2	2.0	2.1	2.0	1.9	1.9	2.7	2.2	1.9	A	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	2.0	2.2	2.1	1.99	2.73	
21-Oct	1.9	1.9	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	1.9	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.17	
22-Oct	1.9	1.9	1.9	2.0	1.9	2.0	2.1	2.3	2.2	2.1	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.97	2.29	
23-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	2.6	2.0	1.9	1.9	1.9	2.1	2.1	1.9	2.0	2.0	2.0	2.0	2.1	1.99	2.57	
24-Oct	2.0	2.0	2.4	2.1	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.94	2.41	
25-Oct	1.9	1.9	1.9	1.9	1.9	1.9	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	2.0	1.91	2.08		
26-Oct	2.0	2.0	2.0	2.0	2.0	2.1	A	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	2.1	2.0	2.2	2.1	1.98	2.17	
27-Oct	2.2	2.3	2.2	2.2	2.3	A	2.2	2.3	2.4	2.5	2.4	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	2.04	2.55	
28-Oct	1.9	1.8	1.9	1.9	A	1.8	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	1.90	2.04		
29-Oct	2.0	2.0	2.0	A	2.0	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	2.0	2.7	2.7	3.5	4.6	3.1	2.27	4.58	
30-Oct	3.1	2.9	A	2.7	2.8	2.8	2.8	2.6	3.8	3.8	2.8	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.1	2.0	2.42	3.82	
31-Oct	1.9	A	2.1	2.0	1.9	1.9	2.0	2.0	1.9	1.8	1.9	1.8	1.9	1.8	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.09	
		2.10	2.06	2.14	2.14	2.08	2.10	2.08	2.26	2.18	2.11	1.99	1.93	1.91	1.89	1.89	1.90	1.90	1.97	1.98	1.99	1.98	2.06	2.14	2.11	Diurnal Average	
		3.34	2.88	4.08	3.31	2.98	3.69	3.04	4.61	4.12	3.82	2.76	2.57	2.05	2.06	2.03	2.09	2.17	3.15	2.41	2.76	2.73	3.51	4.58	3.35	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

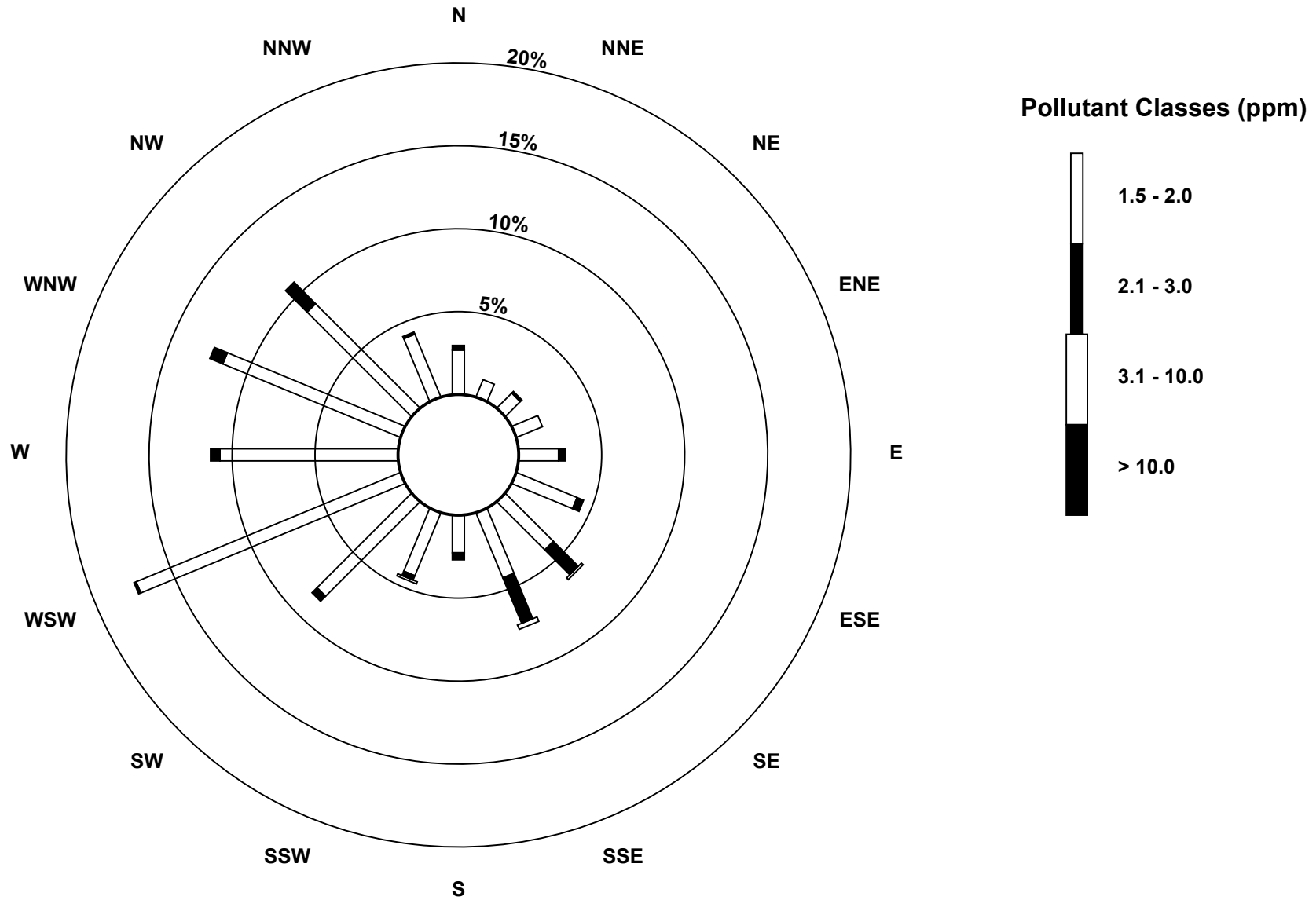
Hourly Maximums

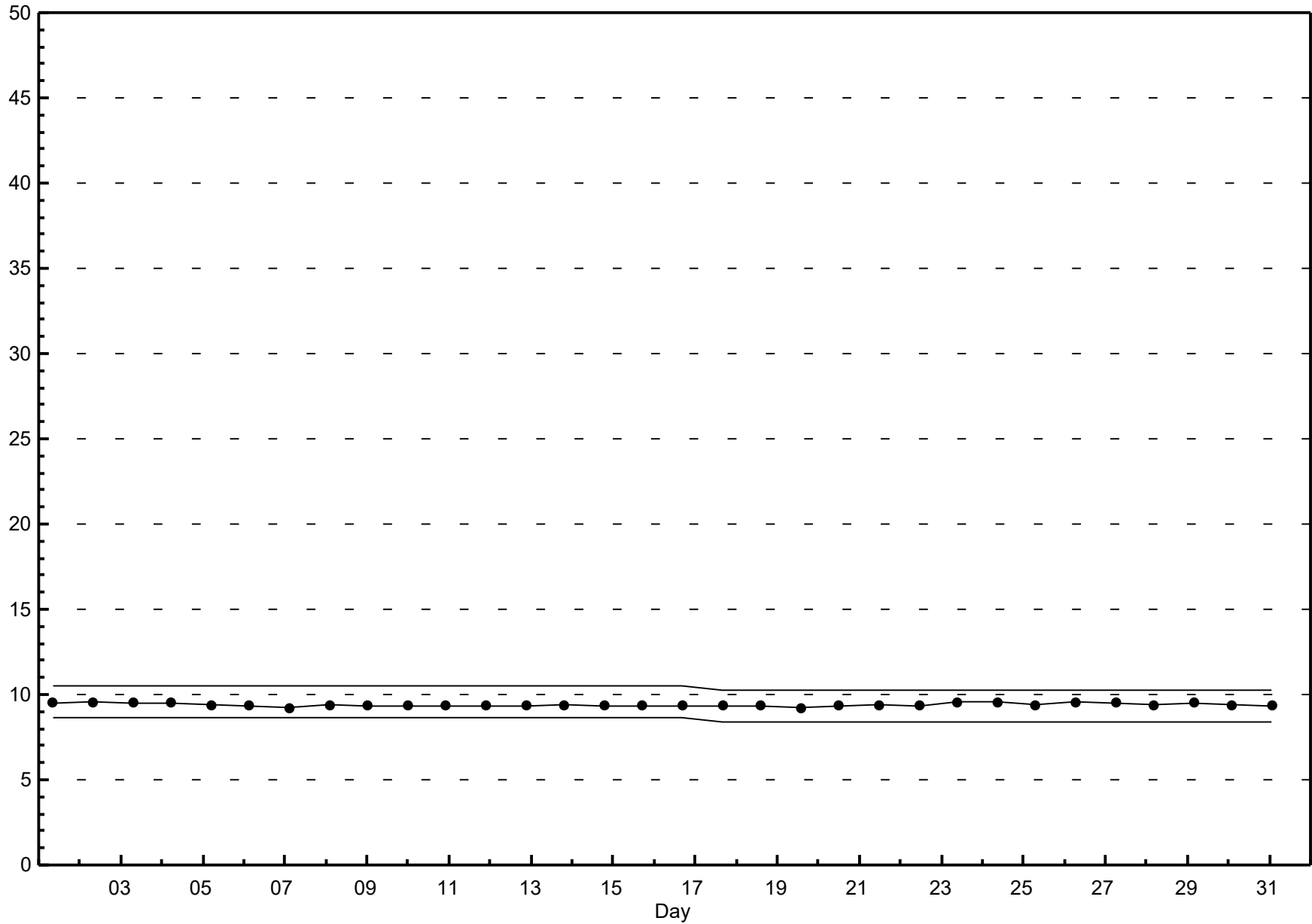
Methane (CH₄) - ppm
Henry Pirker - October 2017

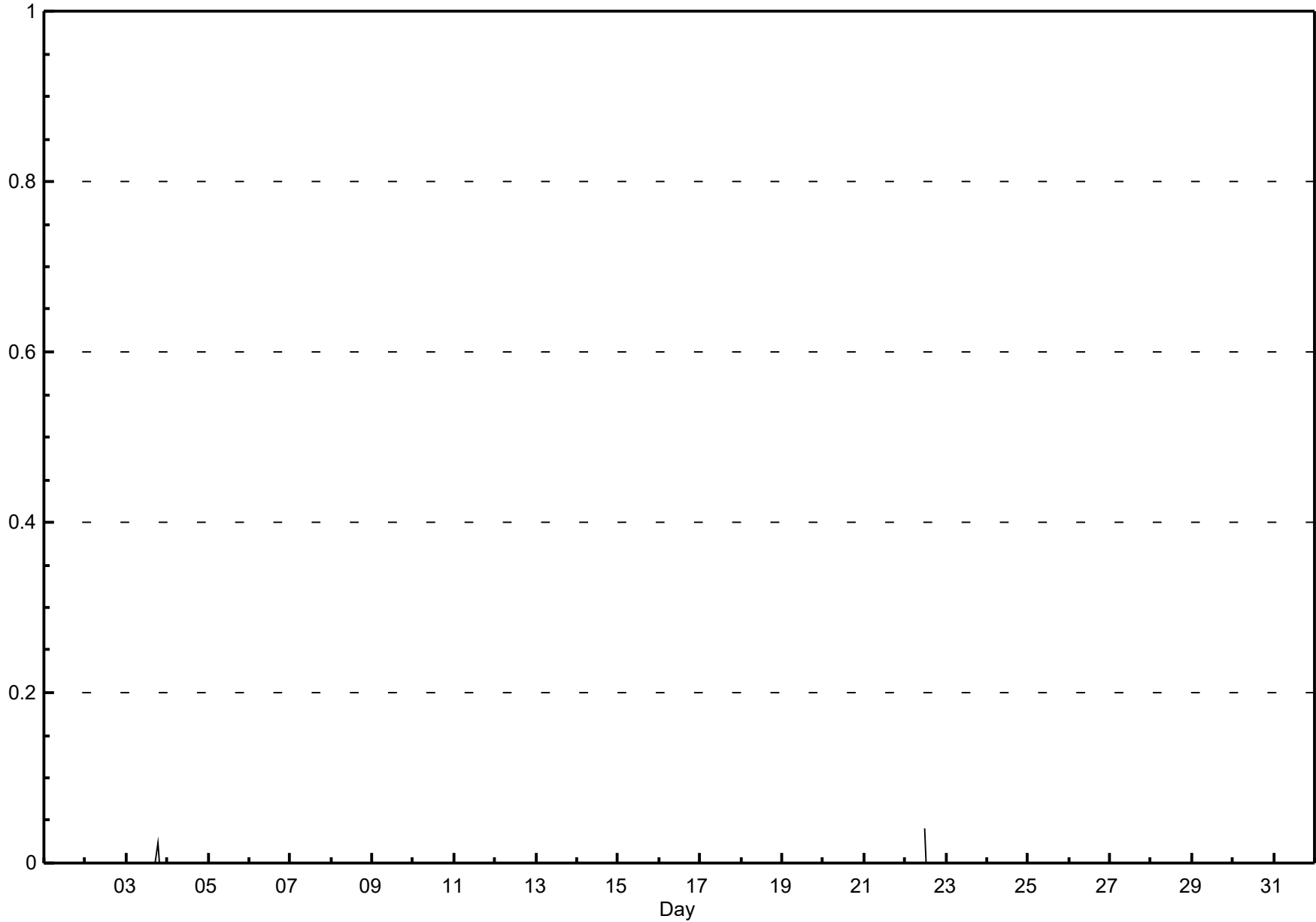


Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - October 2017





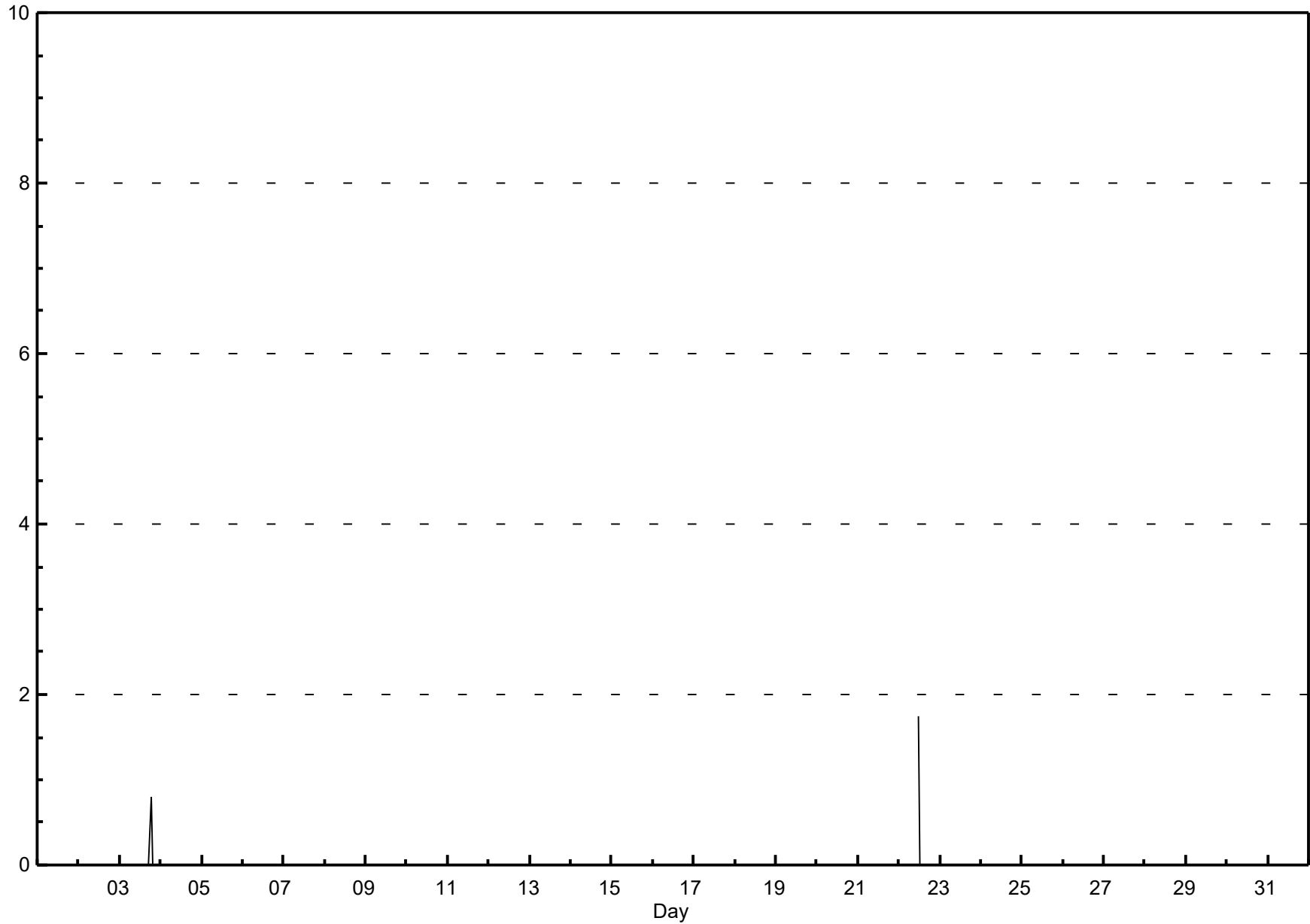


Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2017

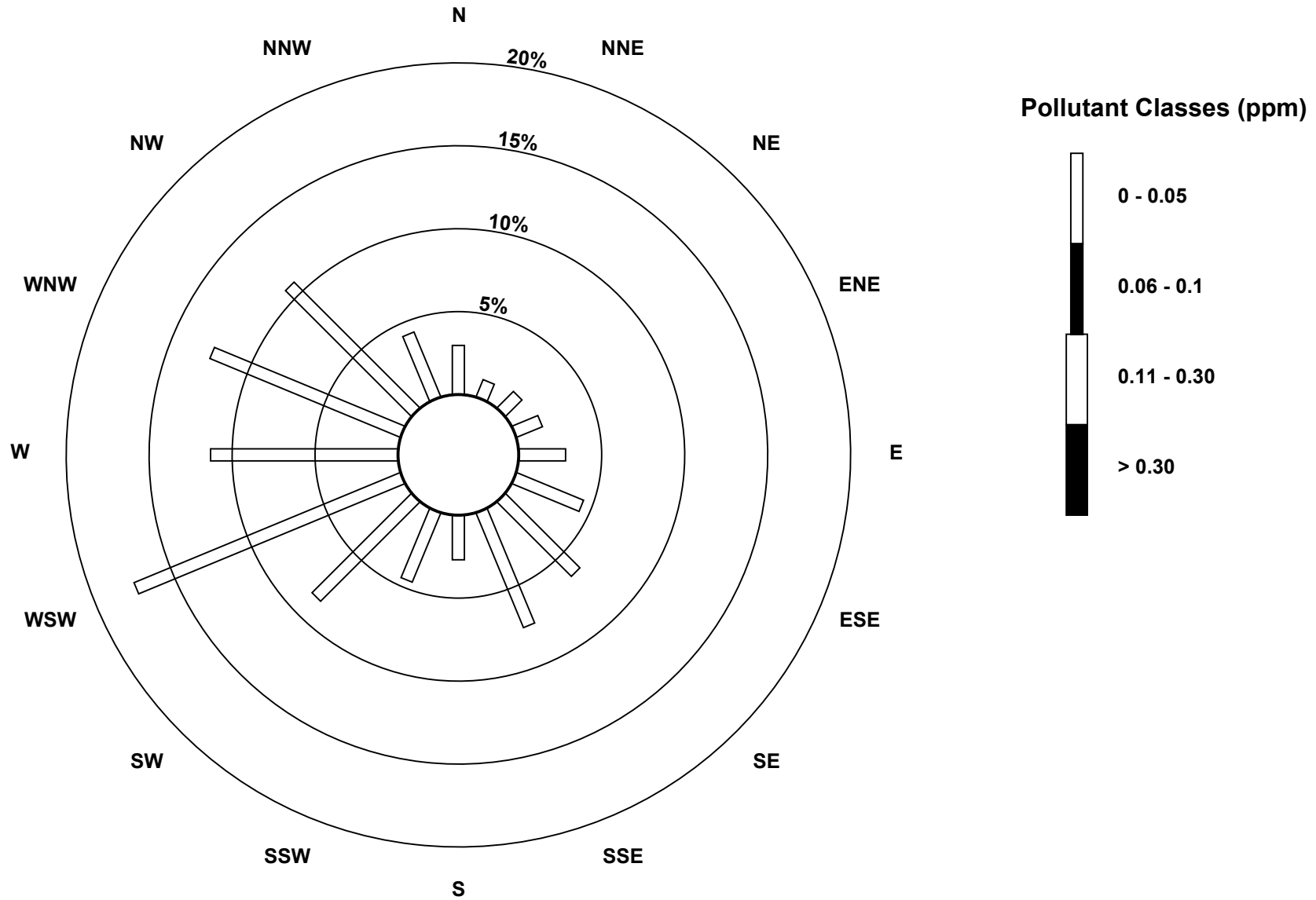
Maximum Value: 1.75 ppm on Oct 22 12:00 Maximum Daily Average: 0.08 ppm on Oct 22 Minimum Value: 0.0 ppm on Oct 4 19:00 Minimum Daily Average: 0.00 ppm on Oct 5 Maximum Diurnal Average: 0.06 ppm at hour 12 Minimum Diurnal Average: 0.00 ppm at hour 8 Monthly Average: 0.004 ppm Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00																								Hours in Service:	744	
																								Hours of Data:	708	
																								Hours of Missing Data:	36	
																								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	0.0	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
2-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
3-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	0.8	0.0	0.0	0.0	0.0	0.0	0.04	0.80
4-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
5-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
6-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
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	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
8-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
9-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	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	0.0	0.0	0.0	0.0	0.0	0.0	A	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	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
12-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
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	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
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	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
15-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	A	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	C	C	C	C	A	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	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	0.00	0.00
18-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	A	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	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	0.00	0.00
20-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
21-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
22-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	1.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08	1.75
23-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
24-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
25-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
26-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
27-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
28-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
29-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
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	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
31-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
																								0.00	0.00	
																								0.00	0.00	
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

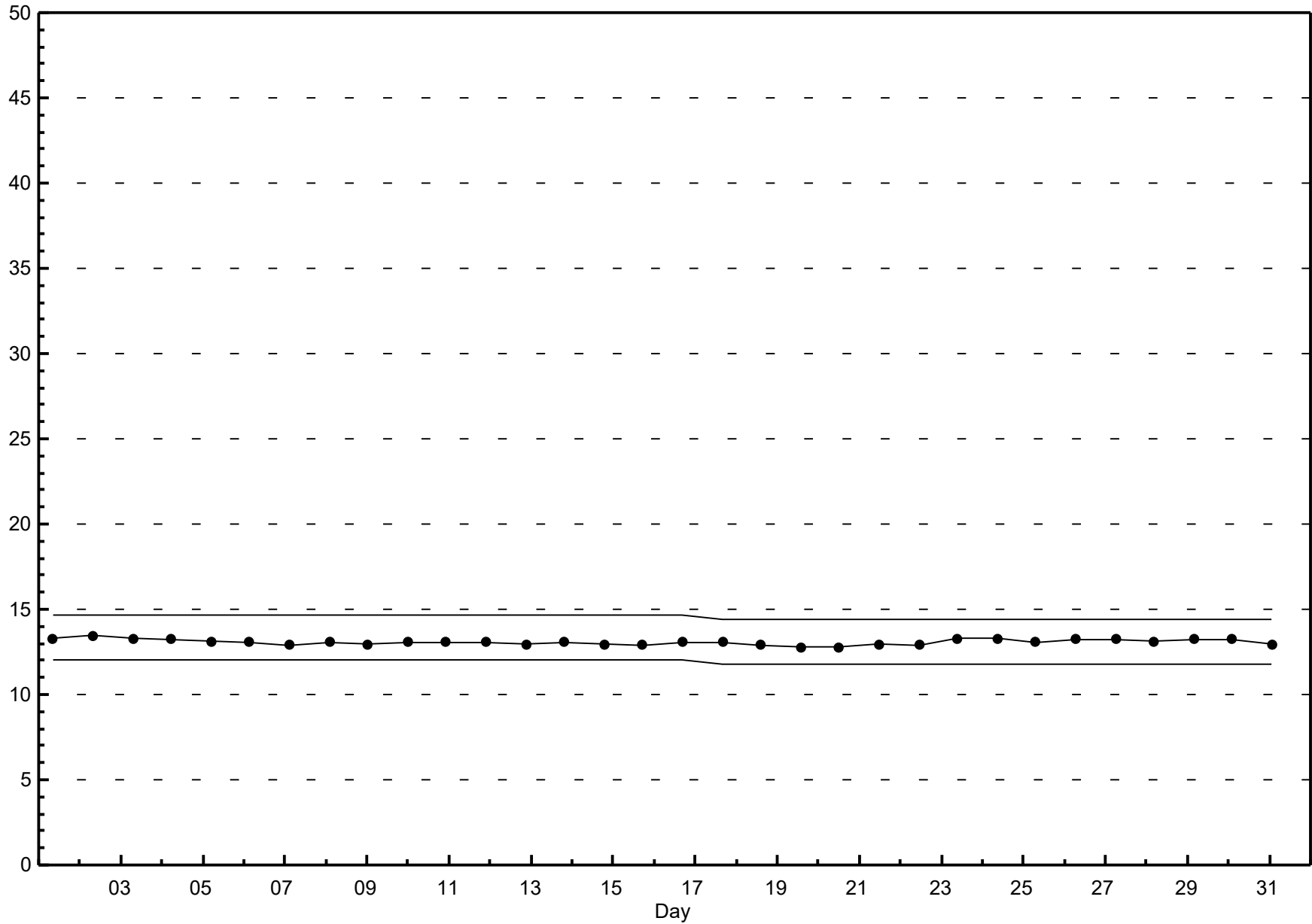


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - October 2017







Peace Airshed Zone Association

Hourly Averages

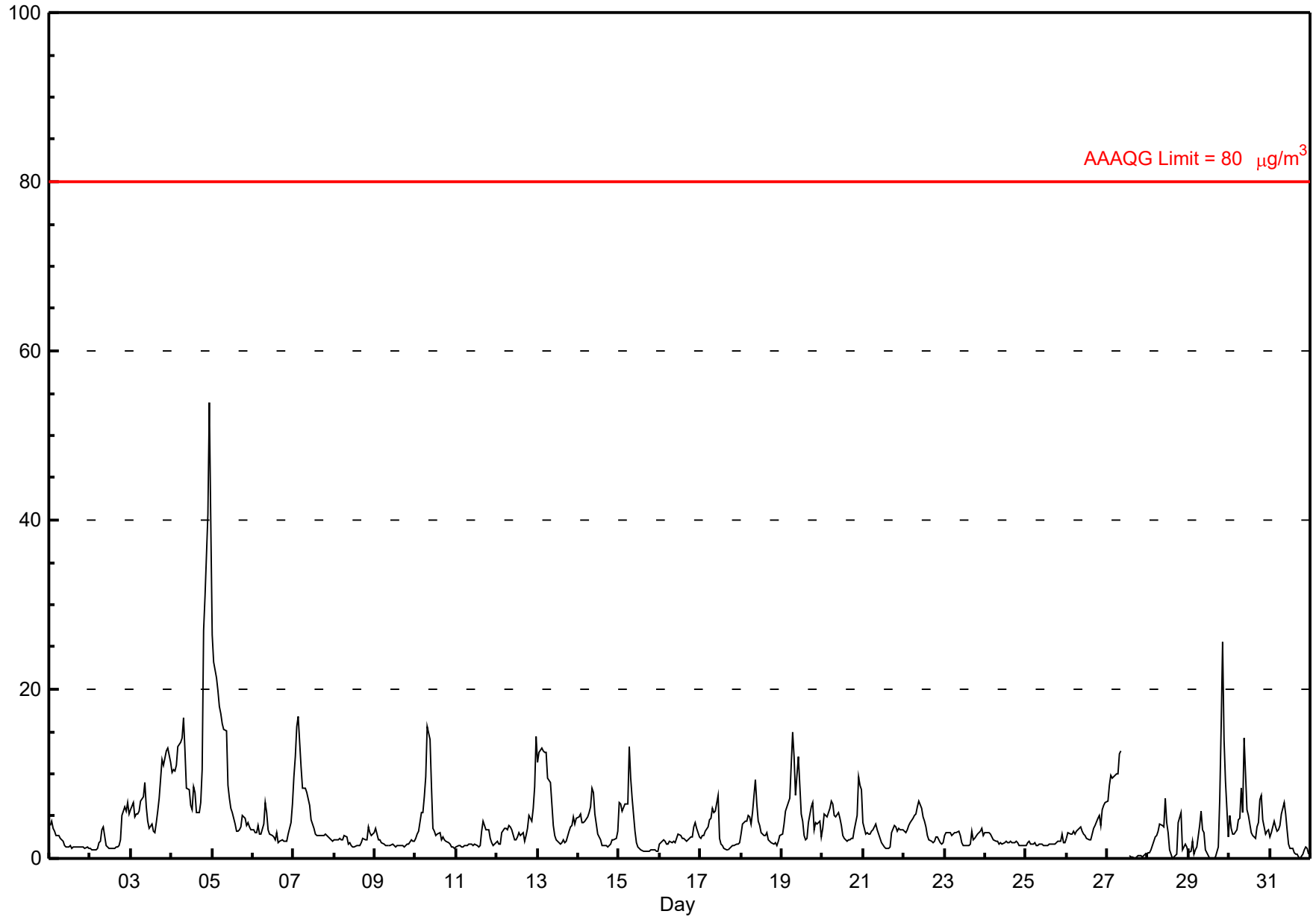
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - October 2017

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 53.9 µg/m ³ on Oct 4 23:00	Maximum Daily Average: 15.7 µg/m ³ on Oct 4
Minimum Value: 0 µg/m ³ on Oct 28 15:00	Hours of Data: 740
Minimum Daily Average: 1.8 µg/m ³ on Oct 25	Hours of Missing Data: 4
Maximum Diurnal Average: 6.3 µg/m ³ at hour 8	Hours of Calibration: 4
Monthly Average: 4.13 µg/m ³	Percent Operational Time: 100.0
Percentiles: P ₁ = 0.1 P ₁₀ = 1.3 Q ₁ = 1.7 Median = 2.8 Q ₃ = 4.7 P ₉₀ = 8.4 P ₉₉ = 24.9	

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	4	4	3	3	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.0	4.4																						
2-Oct	1	1	1	1	1	2	2	3	4	2	1	1	1	1	1	1	1	2	2	5	6	6	7	5	2.5	6.5																						
3-Oct	6	7	5	5	5	6	7	7	9	6	4	4	4	3	3	4	6	7	12	11	12	13	13	11	7.1	13.1																						
4-Oct	10	11	10	11	13	14	14	17	13	8	8	6	6	8	8	5	5	7	11	27	31	41	54	40	15.7	53.9																						
5-Oct	26	23	21	20	18	17	16	15	15	9	7	6	5	4	3	3	3	4	5	5	4	4	4	3	10.1	26.4																						
6-Oct	3	3	3	4	3	3	4	7	5	3	3	3	2	3	2	2	2	2	2	2	2	3	4	6	3.2	6.5																						
7-Oct	10	12	16	17	11	8	8	8	8	6	5	4	4	3	3	3	3	3	3	3	3	2	2	2	6.0	16.7																						
8-Oct	2	2	2	2	2	2	3	3	2	2	1	1	1	1	1	2	2	2	2	2	4	3	3	3	2.2	3.8																						
9-Oct	4	3	2	2	2	2	1	2	1	1	2	1	1	1	2	2	1	1	1	2	2	2	2	2	1.8	3.6																						
10-Oct	2	3	3	5	5	7	10	16	14	8	4	3	3	3	3	2	2	2	2	2	2	1	1	1	4.4	15.6																						
11-Oct	1	2	2	1	1	1	2	2	2	2	2	2	1	1	2	3	4	3	3	3	2	2	2	2	2.0	4.4																						
12-Oct	2	2	2	3	3	3	3	4	4	3	2	2	3	3	3	3	2	3	4	5	4	6	8	14	3.8	14.3																						
13-Oct	11	13	13	13	13	12	10	9	6	4	3	2	2	2	2	2	2	2	3	4	4	5	4	5	6.0	13.0																						
14-Oct	5	5	4	4	4	5	5	6	8	8	5	3	3	2	1	1	2	1	2	2	2	2	2	3	3.6	8.3																						
15-Oct	7	6	6	6	6	6	13	10	7	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3.6	13.2																						
16-Oct	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	3	3	4	4	4	3	2.4	4.3																						
17-Oct	2	3	3	3	4	5	5	6	5	6	7	2	2	1	1	1	1	1	1	1	2	2	2	2	2.8	7.5																						
18-Oct	3	4	4	4	5	5	4	5	9	6	4	4	3	3	3	2	2	2	2	2	2	1	2	3	3.6	9.3																						
19-Oct	3	4	6	6	7	7	15	12	8	10	12	5	4	3	2	2	4	6	7	3	4	4	4	3	5.9	14.9																						
20-Oct	4	5	5	5	6	7	6	5	5	5	5	4	3	2	2	2	2	2	2	3	5	10	9	8	4.7	9.6																						
21-Oct	4	3	3	3	3	3	3	4	3	3	2	2	1	1	1	1	1	3	4	4	3	4	3	3	2.8	4.2																						
22-Oct	3	3	3	4	4	5	5	5	6	7	6	5	4	4	3	2	2	2	2	2	3	2	2	2	3.6	6.8																						
23-Oct	3	3	3	3	3	3	3	3	3	3	2	1	1	1	1	2	3	2	2	3	3	3	4	3	2.6	3.6																						
24-Oct	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2.1	3.1																						
25-Oct	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	1.8	2.9																						
26-Oct	2	3	3	3	3	3	3	3	4	3	3	3	2	2	2	3	4	4	5	5	4	6	6	7	3.6	6.6																						
27-Oct	7	9	10	9	10	10	10	12	13	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	4.6	12.8																						
28-Oct	1	1	1	2	2	3	3	4	4	4	7	4	3	1	0	0	0	1	4	5	1	1	2	1	2.3	7.2																						
29-Oct	1	1	2	1	1	1	4	6	3	3	1	1	0	0	0	0	0	1	7	16	26	14	9	2	4.1	25.6																						
30-Oct	5	4	3	3	3	5	5	8	5	14	6	5	4	3	3	2	4	4	7	7	5	3	3	3	4.8	14.2																						
31-Oct	3	3	4	4	3	3	4	5	7	5	3	2	1	1	1	1	1	0	0	1	1	1	1	1	2.3	6.6																						
																								4.6	4.8	4.9	5.0	4.9	5.1	5.7	6.3	5.8	4.7	3.8	2.9	2.5	2.2	2.0	2.0	2.2	2.5	3.4	4.3	4.7	4.9	5.3	4.7	Diurnal Average
																								26.4	23.2	21.4	19.8	18.0	17.1	15.9	16.7	15.1	14.2	12.1	6.2	5.8	8.4	7.8	5.5	5.6	7.2	11.7	26.9	31.0	40.7	53.9	39.8	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

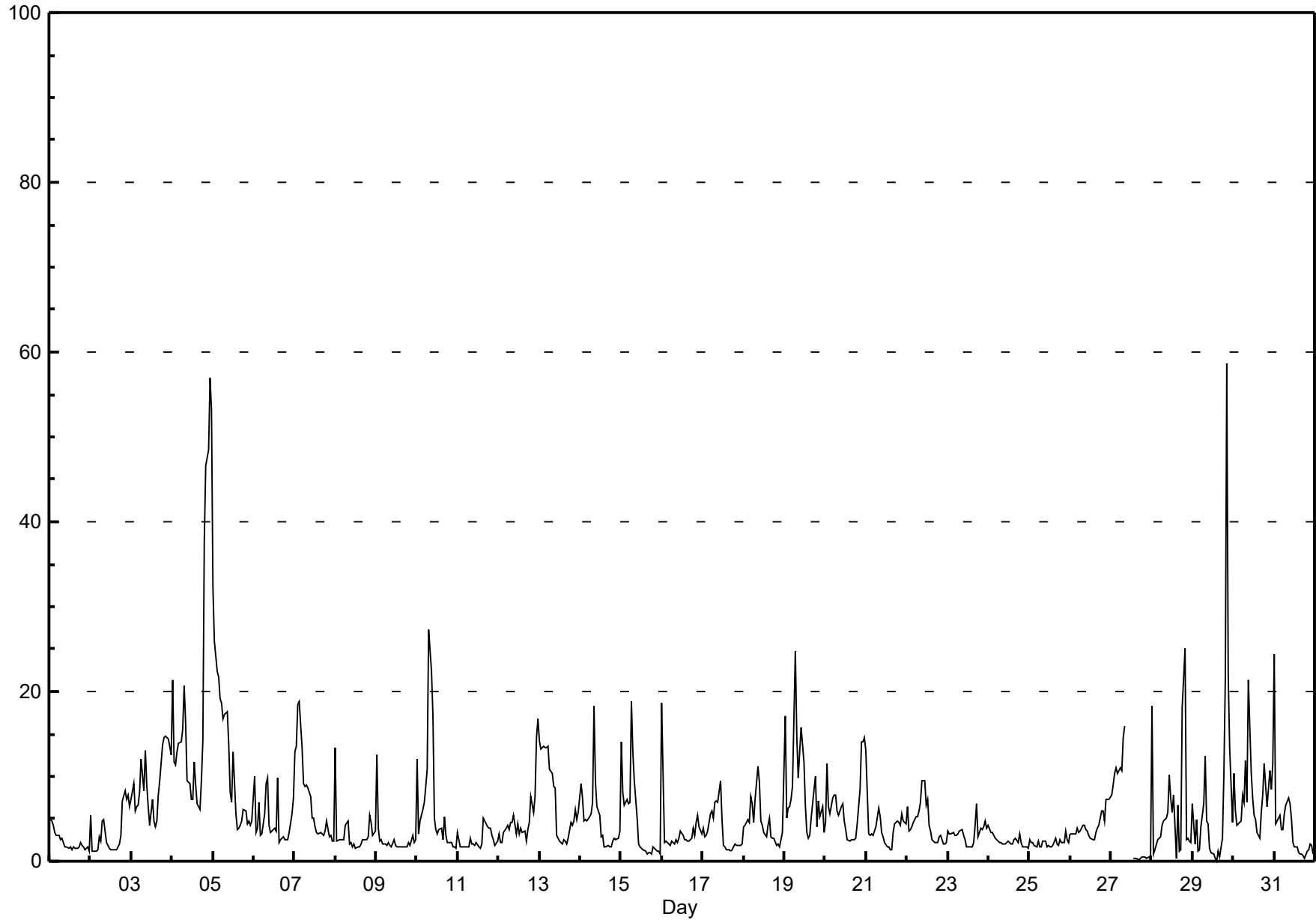


Hourly Maximums

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

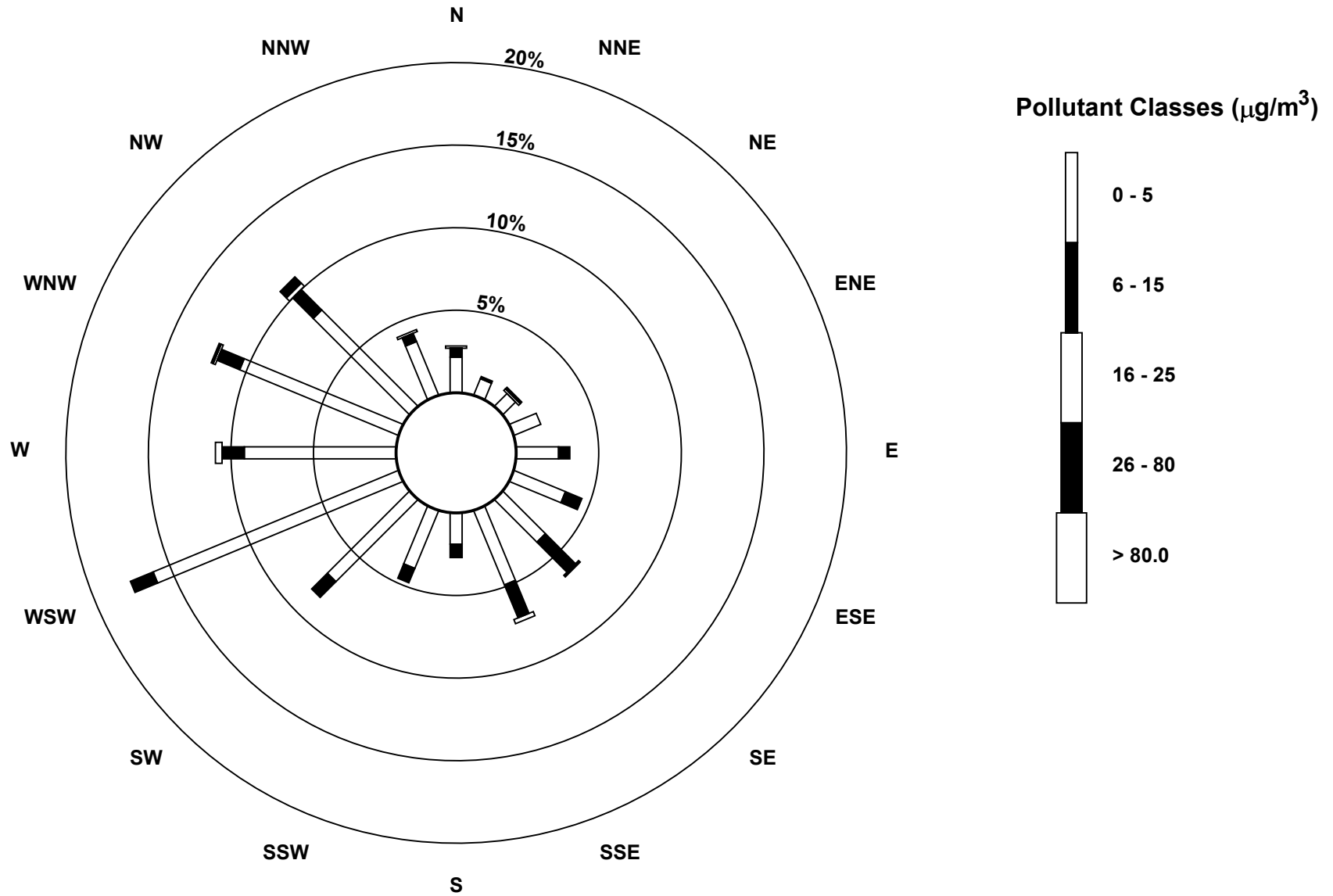
Henry Pirker - October 2017

Maximum Value: 58.7 µg/m ³ on Oct 29 21:00		Maximum Daily Average: 19.6 µg/m ³ on Oct 4		Hours in Service: 744																							
Minimum Value: 0 µg/m ³ on Oct 29 15:00		Minimum Daily Average: 2.2 µg/m ³ on Oct 25		Hours of Data: 740																							
Maximum Diurnal Average: 10.5 µg/m ³ at hour 1		Minimum Diurnal Average: 2.7 µg/m ³ at hour 15		Hours of Missing Data: 4																							
Monthly Average: 5.59 µg/m ³		Percentiles: P ₁ = 0.4 P ₁₀ = 1.6 Q ₁ = 2.2 Median = 3.6 Q ₃ = 6.7 P ₉₀ = 12.5 P ₉₉ = 27.4		Hours of Calibration: 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	5	5	4	3	3	3	3	3	2	2	2	2	2	1	2	2	2	2	2	2	2	1	2	1	2.3	4.9	
2-Oct	5	1	1	1	1	3	2	5	5	2	2	2	1	1	1	1	2	2	3	7	8	7	8	6	3.3	8.3	
3-Oct	7	9	6	7	7	8	12	8	13	9	6	4	7	5	4	5	8	9	14	15	15	15	14	12	9.1	14.8	
4-Oct	21	12	11	13	14	14	16	21	16	9	9	7	7	12	9	7	6	10	14	38	47	48	57	53	19.6	57.0	
5-Oct	32	26	22	22	19	19	17	17	18	14	8	7	13	6	4	4	4	5	6	6	4	5	4	5	11.9	32.3	
6-Oct	10	3	4	7	3	3	6	9	10	4	3	4	4	4	10	2	2	3	2	2	3	3	6	7	4.8	10.0	
7-Oct	13	14	18	19	13	9	9	9	9	8	5	5	4	3	3	3	3	4	5	3	3	2	2	2	7.1	18.8	
8-Oct	13	2	2	2	3	2	4	5	2	2	2	2	2	2	2	2	3	2	3	3	5	5	3	4	3.2	13.3	
9-Oct	12	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2.6	12.5	
10-Oct	12	3	5	6	7	9	11	27	22	17	5	4	3	4	4	3	5	3	2	2	2	2	2	2	6.7	27.2	
11-Oct	3	2	2	2	2	2	2	3	2	2	2	2	2	2	2	5	5	4	4	4	3	2	2	2	2.6	5.0	
12-Oct	3	2	2	3	4	4	4	5	5	5	3	4	3	4	3	4	2	4	5	8	6	8	15	17	5.1	16.9	
13-Oct	14	13	14	13	13	14	11	10	9	9	3	3	2	2	2	2	2	3	5	4	5	6	5	6	7.1	14.2	
14-Oct	9	7	5	5	5	5	6	7	18	9	6	5	3	3	2	2	2	2	2	2	3	2	3	4	4.9	18.3	
15-Oct	14	8	7	7	7	7	19	13	9	5	2	2	2	1	1	1	1	1	1	2	1	1	1	1	4.7	18.8	
16-Oct	19	2	2	2	2	2	2	2	2	2	3	4	3	3	3	2	2	3	4	3	5	5	4	3	3.5	18.7	
17-Oct	4	3	3	4	6	6	5	7	7	7	9	5	2	2	1	1	1	1	2	2	2	2	2	2	3.6	9.4	
18-Oct	4	4	5	5	8	7	5	7	11	9	5	4	3	3	4	5	3	3	3	2	2	2	3	3	4.6	11.3	
19-Oct	17	5	6	7	7	9	25	15	10	13	16	12	6	3	3	3	5	8	10	4	7	5	7	3	8.6	24.8	
20-Oct	5	12	7	6	7	8	8	6	5	6	7	5	4	3	2	3	3	3	3	4	8	14	14	15	6.5	14.6	
21-Oct	13	3	3	3	3	4	4	6	5	3	3	2	2	2	1	1	3	4	5	5	4	6	5	4	4.0	13.1	
22-Oct	6	4	4	4	5	5	5	6	7	10	9	7	7	4	4	2	2	2	2	3	3	2	2	2	4.5	9.5	
23-Oct	4	3	3	3	3	3	3	4	4	3	2	2	2	2	2	2	4	7	3	4	4	4	5	4	3.3	6.9	
24-Oct	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2	2	2.4	4.2	
25-Oct	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	4	2	2	2.2	3.6	
26-Oct	3	3	3	3	4	3	4	4	4	4	4	3	3	2	2	3	4	4	6	6	5	7	7	7	4.2	7.3	
27-Oct	8	9	10	11	10	11	11	15	16	C	C	C	C	0	0	0	0	0	1	1	1	0	1	1	5.3	16.0	
28-Oct	18	1	1	2	3	3	4	5	5	6	10	7	6	8	0	7	1	1	18	25	3	3	2	2	5.9	25.1	
29-Oct	7	2	5	1	1	4	7	12	5	4	2	1	1	0	0	1	1	3	10	22	59	22	13	5	7.8	58.7	
30-Oct	10	6	4	4	5	8	7	12	7	21	11	7	5	5	3	3	6	8	12	9	6	11	8	12	7.9	21.3	
31-Oct	24	4	5	5	4	4	6	7	7	7	5	2	2	2	1	1	1	1	0	1	1	2	2	1	3.9	24.4	
		10.5	5.8	5.6	5.8	5.6	6.0	7.1	8.2	7.8	6.6	5.0	4.0	3.5	3.0	2.7	2.7	2.9	3.4	4.9	6.3	7.2	6.5	6.6	6.2	Diurnal Average	
		32.3	25.9	22.5	21.7	19.2	18.7	24.8	27.2	22.3	21.3	15.8	11.7	12.8	11.6	9.9	6.7	7.7	9.5	18.1	37.8	58.7	48.4	57.0	53.1	Diurnal Maximum	
C - Calibration																											



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - μg/m³
Henry Pirker - October 2017

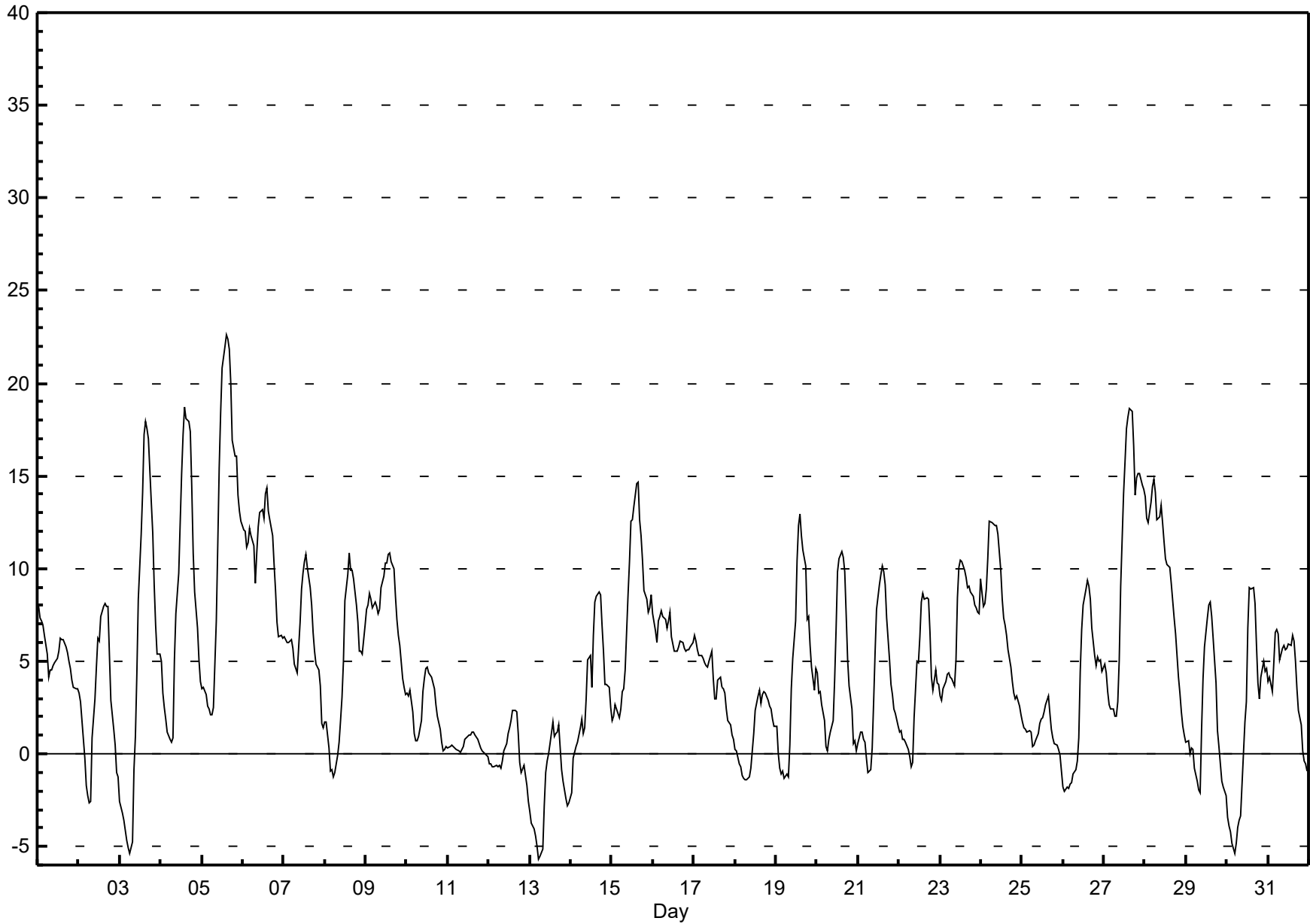


Hourly Averages

External Temperature (ET) - °C

Henry Pirker - October 2017

Maximum Value: 22.6 °C on Oct 5 15:00		Maximum Daily Average: 12.2 °C 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: -6 °C on Oct 13 06:00		Minimum Daily Average: -1.9 °C on Oct 13																								
Maximum Diurnal Average: 9.2 °C at hour 15		Minimum Diurnal Average: 1.9 °C at hour 8																								
Monthly Average: 4.87 °C		Percentiles: P ₁ = -4.8 P ₁₀ = -0.9 Q ₁ = 1.0 Median = 4.1 Q ₃ = 8.0 P ₉₀ = 12.0 P ₉₉ = 17.5																								
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	7	7	7	6	5	4	5	4	5	5	6	6	6	6	6	5	5	5	4	4	4	4	5.4	8.0	
2-Oct	3	3	2	0	-2	-2	-3	-3	1	3	5	6	6	7	8	8	8	8	5	3	1	0	-1	-1	2.8	8.1
3-Oct	-3	-3	-4	-4	-5	-5	-5	-5	-1	1	4	8	12	14	17	18	18	17	14	12	9	7	5	5	5.3	17.9
4-Oct	5	3	2	2	1	1	1	1	5	8	10	12	15	17	19	18	18	17	14	11	9	7	5	4	8.6	18.7
5-Oct	4	4	3	3	2	2	2	2	7	11	15	18	21	22	23	22	22	20	17	16	16	14	13	13	12.2	22.6
6-Oct	12	12	11	11	12	12	11	9	11	12	13	13	13	14	14	13	13	12	10	9	7	6	6	6	11.0	14.4
7-Oct	6	6	6	6	6	6	5	5	4	7	9	10	10	11	10	9	8	7	6	5	5	4	2	1	6.3	10.8
8-Oct	2	2	0	-1	-1	-1	-1	0	1	2	3	5	8	10	11	10	10	9	8	7	6	6	5	7	4.5	10.8
9-Oct	8	8	9	8	8	8	8	8	8	9	10	10	10	11	11	10	10	9	7	6	6	4	4	3	8.0	10.8
10-Oct	3	3	3	2	1	1	1	1	2	3	4	5	5	4	4	4	4	3	2	1	1	0	0	0	2.4	4.7
11-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.5	1.2
12-Oct	-1	-1	-1	-1	-1	-1	-1	-1	0	0	1	1	1	2	2	2	2	1	0	-1	-1	-1	-2	-3	0.0	2.4
13-Oct	-3	-4	-4	-4	-5	-6	-6	-5	-3	-1	0	0	1	2	1	1	1	2	-1	-2	-2	-2	-3	-3	-1.9	1.7
14-Oct	-2	0	0	0	1	1	2	1	1	3	5	5	4	6	8	9	9	9	7	6	4	4	4	2	3.7	8.7
15-Oct	2	2	3	2	2	2	3	4	4	9	10	13	13	13	15	15	13	12	10	9	8	8	8	9	7.8	14.6
16-Oct	8	7	6	7	7	8	7	7	7	7	8	6	6	6	6	6	6	6	6	6	6	6	6	6	6.4	7.7
17-Oct	6	6	6	5	5	5	5	5	5	5	6	4	3	3	4	4	4	4	3	2	2	2	1	1	3.9	6.4
18-Oct	0	0	-1	-1	-1	-1	-1	-1	-1	-1	0	1	2	3	3	3	3	3	3	3	3	2	2	1	1.1	3.5
19-Oct	1	0	-1	-1	-1	-1	-1	-1	0	4	5	7	10	12	13	12	11	10	7	7	6	5	3	5	4.7	13.0
20-Oct	4	3	3	3	2	0	0	1	1	2	4	7	10	11	11	11	10	7	5	4	2	1	1	0	4.3	11.0
21-Oct	1	1	1	1	1	0	-1	-1	0	3	5	8	9	10	10	10	9	7	5	4	3	2	2	2	3.8	10.2
22-Oct	1	1	1	1	1	0	0	-1	0	2	5	5	6	8	9	8	8	8	7	4	3	5	4	4	3.8	8.6
23-Oct	3	3	4	4	4	4	4	4	4	5	8	10	10	10	10	10	9	9	9	9	8	8	8	8	6.8	10.4
24-Oct	9	8	8	9	11	13	12	12	12	12	12	10	8	7	7	6	6	5	4	3	3	3	3	2	7.7	12.5
25-Oct	2	1	1	1	1	1	0	0	1	1	2	2	2	2	3	3	2	1	1	1	0	0	0	-1	1.2	3.1
26-Oct	-2	-2	-2	-2	-2	-2	-1	-1	0	1	4	7	8	9	9	9	8	7	5	5	5	5	5	4	3.3	9.4
27-Oct	5	4	3	3	2	2	2	2	3	5	9	14	16	18	18	19	18	17	14	15	15	15	14	14	10.3	18.6
28-Oct	14	13	12	14	14	15	14	13	13	13	12	11	11	10	10	9	8	7	7	4	3	2	1	1	9.7	14.8
29-Oct	1	1	0	0	0	-1	-2	-2	-2	1	4	6	7	8	8	7	6	4	1	0	-1	-1	-2	-2	1.8	8.2
30-Oct	-3	-4	-4	-5	-5	-5	-4	-4	-3	-2	2	3	7	9	9	9	8	6	4	3	4	5	4	5	1.6	9.0
31-Oct	4	4	3	5	7	7	6	5	6	6	6	6	6	6	6	6	5	4	2	2	0	0	-1	-1	4.1	6.7
		3.2	2.9	2.6	2.4	2.4	2.2	2.1	1.9	2.9	4.4	6.0	7.1	8.0	8.8	9.2	9.0	8.5	7.6	6.1	5.1	4.4	3.8	3.3	3.1	Diurnal Average
		13.9	12.7	12.5	13.6	14.4	14.8	14.2	12.6	12.8	13.4	15.4	18.4	20.8	22.0	22.6	22.3	21.9	20.0	16.9	16.1	16.1	15.1	14.5	14.2	Diurnal Maximum



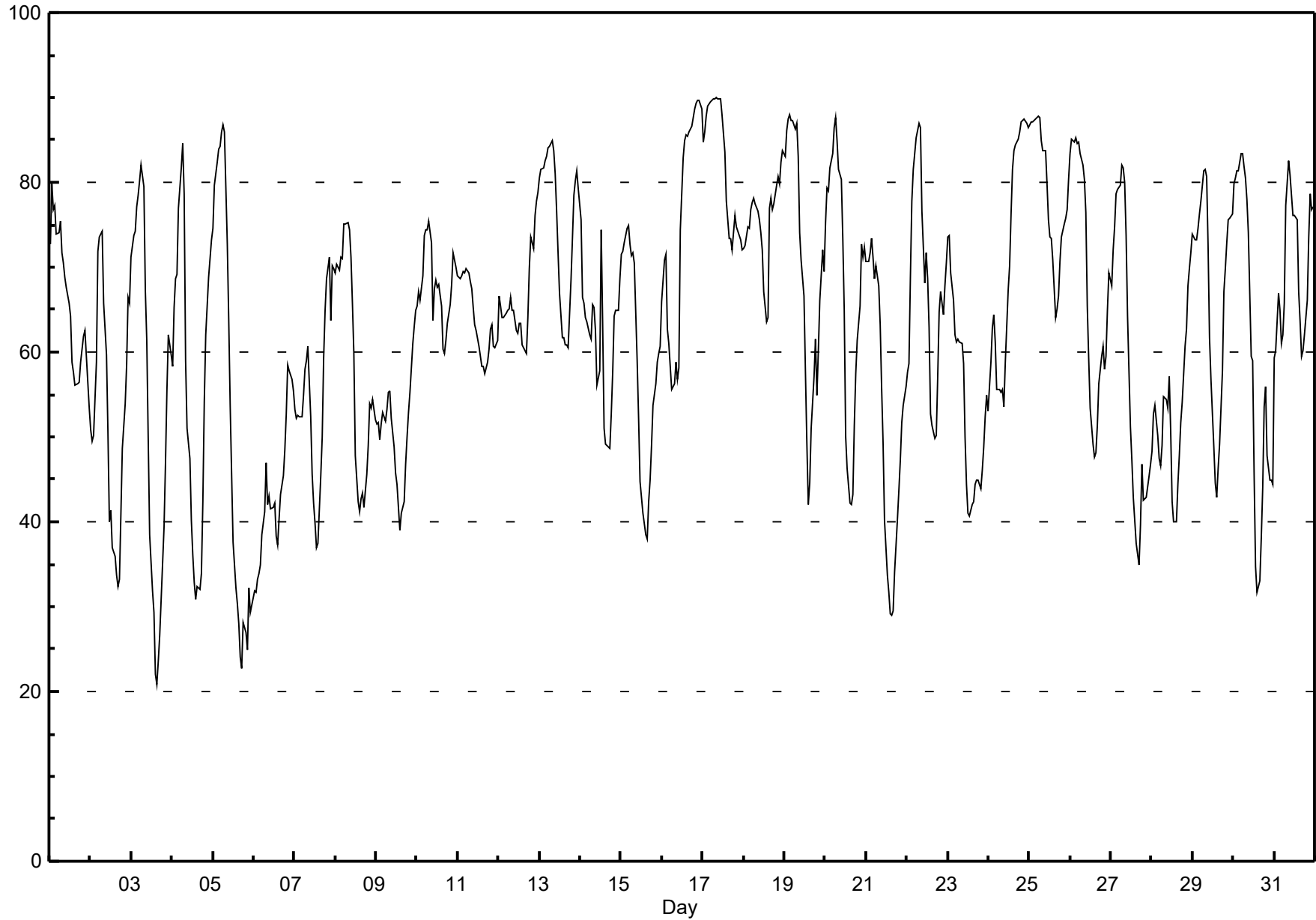
Hourly Averages

Relative Humidity (RH) - %
Henry Pirker - October 2017

Maximum Value: 89.9 % on Oct 17 09:00		Maximum Daily Average: 82.2 % on Oct 17		Hours in Service: 744																						
Minimum Value: 21 % on Oct 3 16:00		Minimum Daily Average: 43.2 % on Oct 6		Hours of Data: 744																						
Maximum Diurnal Average: 73.2 % at hour 8		Minimum Diurnal Average: 49.2 % at hour 15		Hours of Missing Data: 0																						
Monthly Average: 62.94 %		Percentiles: P ₁ = 26.9 P ₁₀ = 41.3 Q ₁ = 51.7 Median = 64.1 Q ₃ = 74.8 P ₉₀ = 83.5 P ₉₉ = 89.5		Hours of Calibration: 0																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	73	80	77	77	74	74	75	72	71	69	68	66	64	59	58	56	56	56	59	60	62	63	56	53	65.7	79.8
2-Oct	51	49	50	59	72	73	74	74	66	60	50	40	41	37	36	34	32	33	41	49	54	58	66	66	52.8	74.2
3-Oct	71	74	74	77	79	80	82	80	67	61	50	38	32	29	22	21	23	27	35	39	47	55	62	60	53.6	82.1
4-Oct	58	65	69	69	77	82	85	79	59	51	47	40	36	33	31	32	32	34	42	54	62	69	71	73	56.3	84.6
5-Oct	75	80	82	84	84	86	87	86	73	64	54	46	38	32	30	28	24	23	28	27	25	32	29	30	51.9	86.7
6-Oct	32	32	33	34	35	38	41	47	42	43	42	42	42	38	37	40	43	45	49	53	59	58	57	55	43.2	58.5
7-Oct	53	52	53	52	52	55	58	59	61	52	46	42	40	37	37	46	50	59	65	69	71	64	70	70	54.7	71.2
8-Oct	69	70	70	71	71	75	75	75	74	71	66	60	48	42	41	43	43	42	46	49	54	53	54	52	59.0	75.2
9-Oct	52	52	50	51	53	52	53	55	55	52	49	46	44	42	39	41	42	47	50	53	55	61	63	65	50.9	65.0
10-Oct	65	67	66	69	74	74	74	75	73	64	67	68	68	68	65	60	60	61	63	66	68	72	71	70	67.9	75.4
11-Oct	69	69	69	69	69	70	69	68	67	65	63	63	61	60	58	58	58	59	60	63	63	61	61	61	63.9	69.8
12-Oct	67	65	64	64	65	65	65	66	65	65	63	62	63	63	61	60	60	64	70	74	72	76	78	79	66.5	78.9
13-Oct	81	81	82	83	83	84	84	85	84	81	77	72	67	62	62	61	61	61	68	73	78	80	81	79	75.4	84.9
14-Oct	76	66	66	64	64	62	62	66	65	63	56	58	74	63	51	49	49	49	53	58	64	65	65	69	61.5	75.7
15-Oct	72	72	73	75	75	73	71	72	70	59	52	45	43	41	38	38	42	45	49	54	56	59	60	61	58.1	74.8
16-Oct	66	71	72	63	61	58	56	56	59	57	58	74	83	85	86	86	86	87	88	89	89	90	90	89	74.8	89.7
17-Oct	85	86	88	89	89	90	90	90	90	90	88	86	84	78	73	73	72	74	76	75	74	73	72	72	82.2	89.9
18-Oct	72	73	75	75	77	78	78	78	77	76	74	72	67	63	64	77	78	77	80	81	80	82	84	84	75.5	83.8
19-Oct	83	86	87	88	87	87	86	87	83	74	71	67	58	49	42	45	51	57	62	55	60	66	72	69	69.7	88.0
20-Oct	75	79	79	82	83	86	88	85	82	80	73	65	50	46	42	42	43	51	57	61	65	73	71	72	68.0	87.7
21-Oct	71	71	72	73	71	69	70	68	63	56	49	40	34	32	29	29	29	34	40	44	47	52	54	56	52.2	73.4
22-Oct	58	59	69	78	81	85	86	87	86	77	68	72	69	63	53	51	50	50	57	65	67	64	68	70	68.0	87.0
23-Oct	74	74	69	66	62	61	62	61	61	59	50	44	41	41	42	42	44	45	45	44	46	49	52	55	53.7	73.8
24-Oct	53	59	63	64	61	56	56	55	56	54	59	67	70	76	82	84	84	85	86	87	87	87	87	86	71.0	87.4
25-Oct	87	87	87	87	88	88	88	85	84	84	80	76	74	73	71	64	65	67	71	73	75	76	77	80	78.5	87.8
26-Oct	83	85	85	85	85	85	83	82	80	76	65	59	53	49	48	48	51	56	60	61	58	59	65	69	68.0	85.3
27-Oct	68	72	75	79	79	80	82	82	80	74	64	51	47	43	40	37	35	40	47	43	43	43	45	47	58.1	82.0
28-Oct	48	53	54	50	47	47	49	55	54	53	57	51	42	40	40	44	48	52	54	61	63	68	70	72	53.0	71.8
29-Oct	74	73	73	75	76	78	81	82	81	73	62	57	49	45	43	46	49	58	67	70	73	76	76	76	67.1	81.6
30-Oct	80	81	81	81	83	83	82	80	78	74	59	59	46	35	32	33	38	44	54	56	48	45	45	44	60.1	83.4
31-Oct	59	60	67	65	61	62	66	77	83	81	79	76	76	76	67	64	60	60	62	66	74	79	77	77	69.7	82.6
		67.7	69.1	70.1	70.9	71.6	72.1	72.8	73.2	70.6	66.3	61.5	58.2	55.0	51.8	49.2	49.5	50.4	52.9	57.3	60.3	62.6	64.7	66.1	66.6	Diurnal Average
		86.8	87.0	87.8	89.1	89.5	89.6	89.8	89.9	89.9	89.9	89.8	88.0	85.8	84.9	85.6	85.5	85.9	86.6	87.7	88.6	89.4	89.7	89.6	88.6	Diurnal Maximum

Hourly Averages

Relative Humidity (RH) - %
Henry Pirker - October 2017

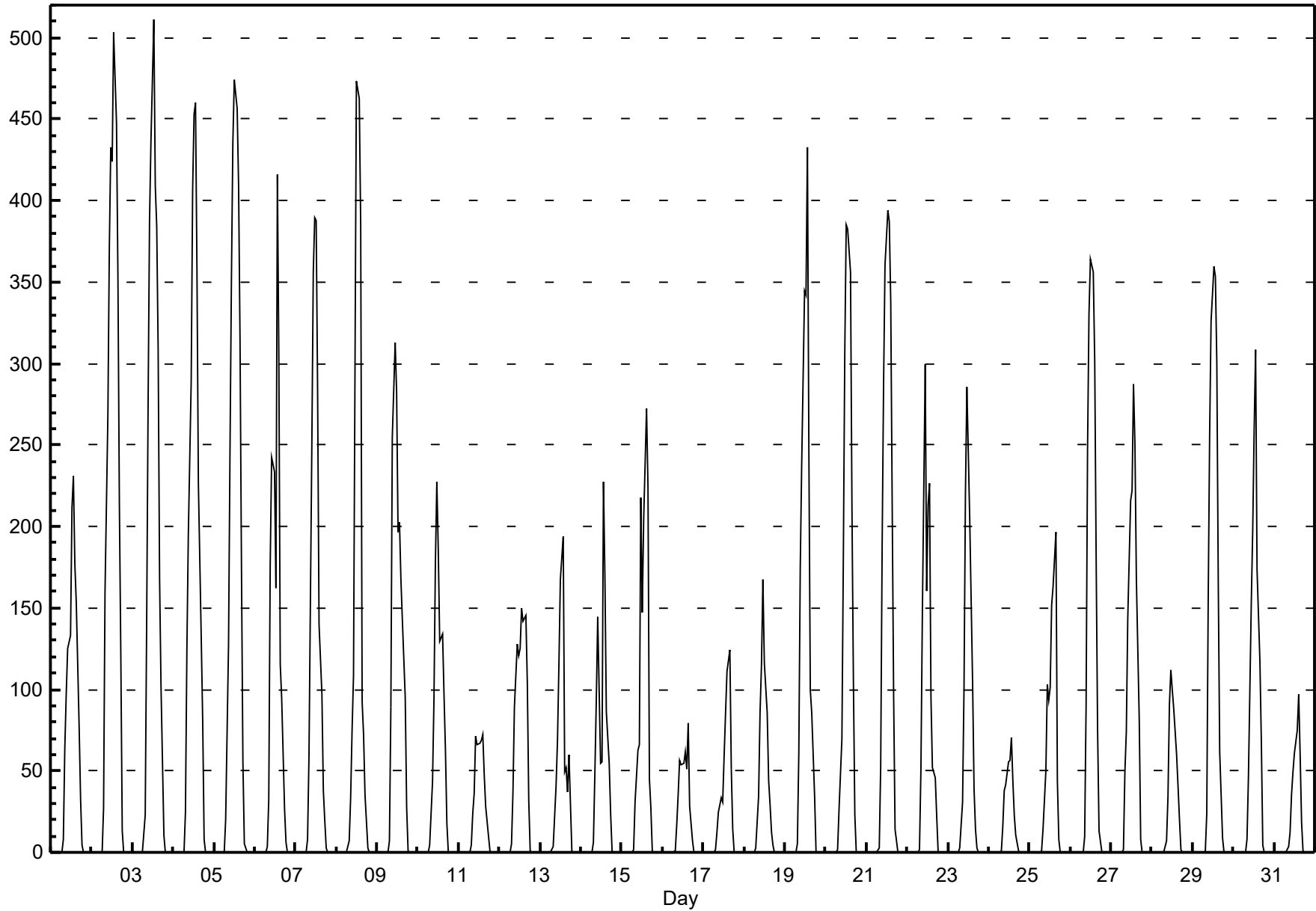


Hourly Averages

Solar Radiation (SR) - W/m²

Henry Pirker - October 2017

Maximum Value: 511.3 W/m² on Oct 3 13:00		Maximum Daily Average: 138.9 W/m² 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: 0 W/m² on Oct 1 01:00		Minimum Daily Average: 14.9 W/m² on Oct 24																								
Maximum Diurnal Average: 256.6 W/m² at hour 14		Minimum Diurnal Average: 0.0 W/m² at hour 1																								
Monthly Average: 63.02 W/m²		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 78.9 P ₉₀ = 228.5 P ₉₉ = 453.4																								
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	8	64	97	125	133	212	231	178	154	77	33	4	0	0	0	0	0	54.7	230.9
2-Oct	0	0	0	0	0	0	0	27	160	268	370	433	424	503	448	352	214	121	14	0	0	0	0	0	138.9	503.3
3-Oct	0	0	0	0	0	0	0	23	141	275	388	437	511	409	384	308	168	101	10	0	0	0	0	0	131.5	511.3
4-Oct	0	0	0	0	0	0	0	25	124	195	289	407	453	460	359	226	131	81	8	0	0	0	0	0	114.9	460.2
5-Oct	0	0	0	0	0	0	0	20	127	245	351	435	474	457	409	313	175	55	6	0	0	0	0	0	127.8	473.9
6-Oct	0	0	0	0	0	0	0	4	32	176	243	233	162	416	306	116	95	26	6	0	0	0	0	0	75.6	416.1
7-Oct	0	0	0	0	0	0	0	8	59	251	356	390	387	283	140	97	38	19	3	0	0	0	0	0	84.7	389.9
8-Oct	0	0	0	0	0	0	0	7	33	75	108	291	473	463	385	93	72	36	2	0	0	0	0	0	84.9	473.4
9-Oct	0	0	0	0	0	0	0	7	89	255	313	283	197	203	167	143	95	28	1	0	0	0	0	0	74.2	312.8
10-Oct	0	0	0	0	0	0	0	4	43	93	177	227	186	129	134	97	63	18	0	0	0	0	0	0	48.8	227.2
11-Oct	0	0	0	0	0	0	0	4	24	36	71	66	67	69	72	48	29	10	0	0	0	0	0	0	20.7	72.3
12-Oct	0	0	0	0	0	0	0	5	37	89	128	120	125	150	142	145	104	32	1	0	0	0	0	0	44.9	149.8
13-Oct	0	0	0	0	0	0	0	3	22	40	69	115	167	194	49	52	37	60	1	0	0	0	0	0	33.8	193.8
14-Oct	0	0	0	0	0	0	0	6	48	93	144	54	55	228	170	86	55	24	1	0	0	0	0	0	40.1	227.7
15-Oct	0	0	0	0	0	0	0	2	30	63	66	218	147	204	273	224	45	28	1	0	0	0	0	0	54.2	272.7
16-Oct	0	0	0	0	0	0	0	1	17	35	56	54	55	62	51	80	28	7	0	0	0	0	0	0	18.6	79.5
17-Oct	0	0	0	0	0	0	0	2	13	25	33	31	59	86	111	124	51	14	0	0	0	0	0	0	22.9	124.3
18-Oct	0	0	0	0	0	0	0	3	35	86	115	167	116	86	44	29	13	4	0	0	0	0	0	0	29.0	167.3
19-Oct	0	0	0	0	0	0	0	5	61	175	238	344	342	433	247	100	86	34	0	0	0	0	0	0	86.0	432.8
20-Oct	0	0	0	0	0	0	0	2	26	69	181	307	385	382	356	211	106	23	0	0	0	0	0	0	85.4	385.0
21-Oct	0	0	0	0	0	0	0	3	53	187	286	360	394	387	338	214	97	14	0	0	0	0	0	0	97.2	393.6
22-Oct	0	0	0	0	0	0	0	1	50	145	300	160	213	226	96	52	46	22	0	0	0	0	0	0	54.7	300.0
23-Oct	0	0	0	0	0	0	0	3	31	101	220	285	245	204	103	39	14	3	0	0	0	0	0	0	52.0	285.2
24-Oct	0	0	0	0	0	0	0	1	16	38	41	56	56	71	44	23	11	1	0	0	0	0	0	0	14.9	70.6
25-Oct	0	0	0	0	0	0	0	1	14	50	103	93	101	152	163	197	44	8	0	0	0	0	0	0	38.6	196.9
26-Oct	0	0	0	0	0	0	0	0	10	91	247	331	364	356	302	180	75	14	0	0	0	0	0	0	82.0	364.3
27-Oct	0	0	0	0	0	0	0	2	50	74	144	216	222	287	250	168	81	8	0	0	0	0	0	0	62.6	287.3
28-Oct	0	0	0	0	0	0	0	0	7	35	91	112	100	88	60	41	20	2	0	0	0	0	0	0	23.1	111.5
29-Oct	0	0	0	0	0	0	0	1	24	154	257	326	359	353	301	167	62	9	0	0	0	0	0	0	83.9	359.4
30-Oct	0	0	0	0	0	0	0	0	8	46	153	198	260	309	173	117	68	4	0	0	0	0	0	0	55.7	308.8
31-Oct	0	0	0	0	0	0	0	0	3	12	36	49	60	75	97	60	18	1	0	0	0	0	0	0	17.2	97.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	46.8	115.3	183.8	223.6	237.8	256.6	204.8	137.3	71.5	27.1	1.9	0.0	0.0	0.0	0.0	0.0	Diurnal Average
		0.0	0.0	0.0	0.0	0.0	0.0	0.4	27.1	159.7	275.3	387.9	437.1	511.3	503.3	447.7	352.3	214.3	121.3	13.7	0.0	0.0	0.0	0.0	0.0	Diurnal Maximum



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - October 2017

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	13	11	11	15	14	16	14	14	16	17	18	21	22	20	20	21	21	19	17	16	13	13	12	12	15.8	22.0
Dir	298	274	292	292	311	309	312	321	314	310	309	311	311	318	312	314	312	315	320	320	318	331	340	339	312.9	310.6
2 Spd	11	9	7	7	7	7	8	7	9	12	11	9	12	11	10	10	9	7	5	4	3	3	2	3	6.6	11.8
Dir	342	344	337	321	317	311	289	306	306	298	302	291	290	287	282	293	293	284	240	227	228	214	221	233	297.2	297.6
3 Spd	3	5	4	3	4	4	6	5	3	5	7	5	5	4	9	13	12	7	7	8	3	3	3	3	3.2	12.7
Dir	174	163	152	142	139	146	158	154	145	158	185	211	211	195	249	279	288	273	273	263	298	294	225	242	223.6	278.6
4 Spd	3	2	3	3	1	1	1	2	3	4	4	5	4	3	2	3	1	3	2	1	0	2	3	4	1.1	5.2
Dir	281	237	286	313	321	257	277	154	206	220	197	206	162	169	142	157	166	97	83	47	315	307	321	298	219.1	205.6
5 Spd	3	3	2	0	1	0	1	2	2	5	6	13	20	20	17	21	20	17	12	14	15	10	10	12	8.8	20.7
Dir	312	320	301	48	331	308	278	155	154	201	229	254	253	260	273	272	270	264	273	266	249	255	256	240	260.4	272.4
6 Spd	10	7	4	8	8	13	10	7	11	19	17	19	19	22	26	26	22	16	16	21	19	16	17	19	15.0	26.1
Dir	236	235	217	203	221	237	262	278	264	256	245	249	248	248	265	273	271	246	255	246	241	243	242	247	250.4	265.4
7 Spd	22	18	17	21	16	17	16	16	14	16	25	22	21	21	19	16	20	22	20	17	11	14	12	11	16.4	24.6
Dir	247	261	275	276	281	265	259	259	252	255	279	287	284	285	298	319	320	311	300	292	312	326	314	320	285.3	279.5
8 Spd	11	14	14	10	9	10	8	10	7	7	12	8	7	7	8	3	3	18	16	14	5	6	5	13	7.9	18.4
Dir	306	311	305	275	264	269	265	249	257	269	299	303	290	256	270	291	235	253	244	243	222	174	172	226	265.4	252.9
9 Spd	15	12	15	12	8	19	21	26	29	29	30	24	20	19	22	21	22	18	12	10	9	4	4	4	16.8	29.8
Dir	243	224	230	249	252	242	245	249	256	256	248	250	248	248	252	246	244	241	239	244	252	264	259	244	247.0	247.8
10 Spd	5	8	7	4	3	3	2	2	5	7	9	10	9	10	10	10	11	9	8	9	11	8	7	6	5.6	10.9
Dir	264	274	276	297	308	327	332	10	351	32	48	48	45	33	28	37	29	36	39	40	33	25	26	19	21.4	29.0
11 Spd	8	7	7	8	10	10	8	8	7	7	7	7	5	6	3	3	0	3	5	6	6	3	2	1	3.7	9.7
Dir	7	8	6	0	355	355	356	1	7	351	338	340	358	307	352	303	102	249	214	204	219	203	228	109	343.4	355.4
12 Spd	3	3	2	2	2	3	3	2	4	3	5	3	2	3	2	4	3	4	4	2	2	1	1	2	2.1	5.3
Dir	174	155	174	125	139	119	63	128	97	124	131	112	189	180	214	145	134	155	155	165	91	151	351	305	139.8	130.6
13 Spd	3	2	3	2	4	4	4	1	4	7	12	12	10	6	7	4	5	5	5	6	6	6	5	6	2.3	11.8
Dir	319	297	306	324	324	323	328	301	305	302	302	304	301	294	307	245	225	176	164	147	153	151	154	161	274.7	303.6
14 Spd	5	6	7	4	8	10	11	6	3	4	12	19	18	13	27	23	21	19	19	14	11	13	9	5	11.2	26.8
Dir	171	193	168	218	259	268	253	242	301	283	261	256	254	231	250	255	260	261	257	254	239	247	247	226	249.4	249.5
15 Spd	2	4	4	4	6	6	4	5	7	10	14	19	22	23	22	22	22	29	19	9	9	11	16	21	11.0	29.3
Dir	129	138	131	144	141	130	126	149	173	206	220	233	235	238	230	234	230	247	248	235	208	204	220	246	223.5	247.3
16 Spd	18	15	9	14	11	12	12	11	5	1	3	4	7	8	6	6	6	5	5	5	5	5	6	7	2.9	18.5
Dir	266	261	272	244	243	239	237	246	337	5	102	115	118	101	81	78	90	83	99	122	129	165	179	206	218.6	265.9
17 Spd	10	3	0	3	3	4	4	4	4	3	5	16	22	23	24	22	15	10	9	10	13	14	12	9	7.0	24.1
Dir	233	208	209	127	95	106	116	111	117	93	339	318	303	291	291	293	282	271	251	266	265	245	233	235	275.8	290.9
18 Spd	9	9	5	4	4	5	5	4	5	6	7	10	10	11	9	13	13	14	12	8	8	6	3	4	5.7	13.7
Dir	222	231	245	241	201	165	162	134	101	96	99	101	104	103	131	127	111	110	109	104	110	118	148	156	127.1	109.9
19 Spd	1	2	3	5	2	5	4	4	4	5	5	6	5	8	5	3	2	3	4	6	3	3	4	12	2.2	11.7
Dir	298	133	132	158	151	140	137	116	105	119	126	124	122	119	138	161	277	353	230	222	205	218	295	263	157.7	262.7
20 Spd	8	4	1	1	1	1	4	6	4	2	5	7	11	13	14	13	12	10	10	5	1	1	2	2	5.1	13.6
Dir	254	209	173	219	316	213	279	311	288	265	220	246	263	243	239	258	263	280	282	241	335	187	189	221	256.2	239.3
21 Spd	7	10	9	9	6	5	7	7	5	4	5	7	7	7	6	6	4	6	6	9	9	9	9	8	2.9	9.6
Dir	234	229	225	227	265	251	238	227	236	248	206	215	224	211	203	192	104	92	82	79	85	82	87	91	192.2	228.9
22 Spd	7	1	3	4	2	2	1	2	1	2	4	6	9	10	20	22	24	21	13	7	7	12	6	5	6.6	23.8
Dir	82	146	313	226	291	249	303	232	224	165	231	193	209	226	250	248	252	258	270	304	242	249	226	247	246.6	252.0

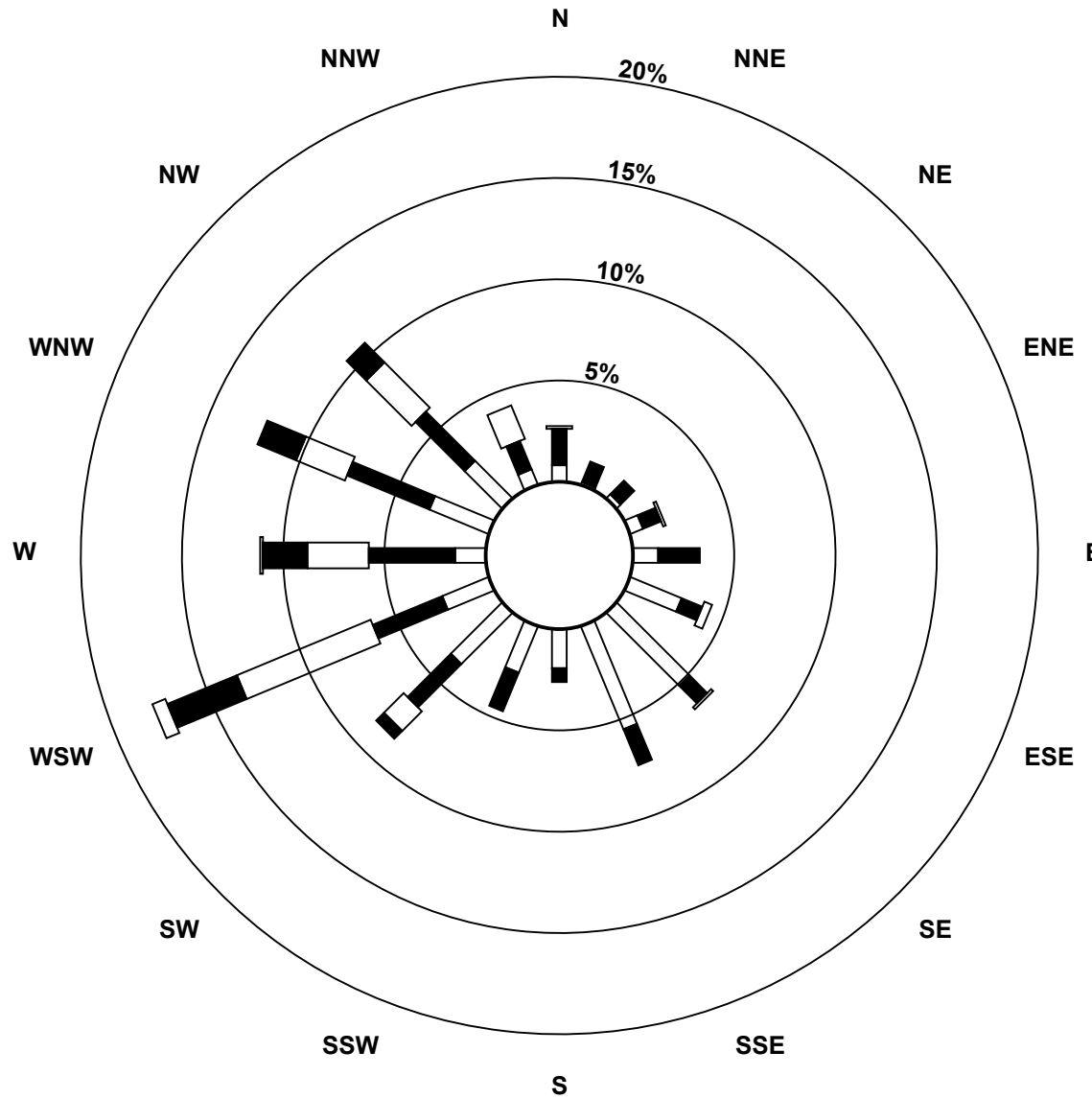
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - October 2017

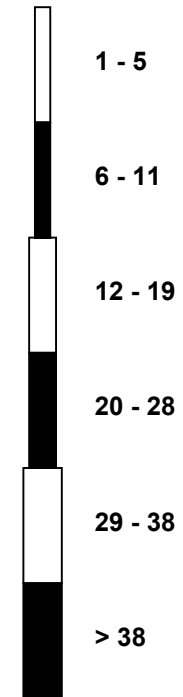
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	6	11	11	11	14	14	12	9	4	4	3	14	19	18	13	8	4	11	10	10	11	11	7	10	7.3	19.3
Dir	238	234	238	245	250	250	247	248	305	259	259	257	252	241	226	221	149	145	147	146	148	143	134	168	220.6	252.5
24 Spd	8	4	10	6	9	32	25	24	22	16	20	26	25	19	9	6	4	5	7	9	11	11	11	12	7.3	31.7
Dir	195	264	283	295	264	270	262	252	253	255	271	292	297	300	318	353	48	59	83	77	82	75	72	68	282.7	269.9
25 Spd	9	8	3	3	2	12	11	12	14	15	16	12	12	11	8	10	7	3	5	6	6	7	5	6	4.5	15.6
Dir	58	63	59	67	60	330	318	301	315	318	341	348	347	342	351	334	344	26	118	164	163	163	150	118	347.3	341.3
26 Spd	4	6	8	7	5	2	4	4	3	3	6	13	18	21	20	18	11	7	4	3	2	2	3	3	4.8	21.4
Dir	128	141	153	146	148	162	216	190	220	244	239	263	262	269	277	275	277	274	241	283	248	163	119	146	245.9	269.4
27 Spd	3	3	3	2	2	2	1	3	1	4	7	17	26	27	26	26	21	12	10	19	31	20	21	20	11.3	30.6
Dir	95	142	125	114	120	137	274	307	136	156	219	259	259	256	258	267	264	259	267	253	249	247	251	254	252.8	248.7
28 Spd	18	15	14	17	20	19	10	5	10	11	10	13	17	12	13	14	10	7	9	8	10	9	7	7	9.5	20.3
Dir	256	243	239	236	247	258	271	299	287	297	0	351	340	333	317	301	288	281	310	308	313	319	327	315	289.8	246.7
29 Spd	8	6	7	7	6	6	5	4	4	8	11	10	9	9	11	7	2	2	3	2	5	4	2	2	4.7	10.9
Dir	314	310	325	325	326	298	297	320	290	290	302	290	286	297	307	304	303	294	182	154	139	151	165	195	298.6	303.7
30 Spd	5	3	3	4	3	1	2	5	4	2	5	6	11	19	18	12	8	8	3	3	5	8	6	6	3.2	19.5
Dir	151	152	187	149	137	157	134	156	142	198	242	241	293	305	303	308	286	304	322	209	220	210	173	197	258.3	305.1
31 Spd	3	3	4	5	10	9	8	13	20	21	20	20	16	17	24	24	22	19	18	17	14	10	12	10	12.7	24.0
Dir	289	193	139	265	263	263	301	296	292	298	295	297	294	285	295	307	317	332	325	332	344	335	336	329	305.3	294.8
Spd	4.3	3.9	3.5	3.9	3.9	5.5	5.1	4.6	4.6	5.3	6.3	8.1	9.5	9.4	10.3	9.6	7.8	6.3	4.7	4.2	3.3	3.0	2.7	3.9	Diurnal Average	
Dir	257.7	248.3	256.8	254.8	263.4	264.4	264.8	262.5	274.8	271.7	273.6	276.2	274.4	270.7	273.6	277.0	276.8	271.3	266.1	257.3	246.8	238.2	242.9	247.1	Diurnal Maximum	
Spd	22.3	18.0	17.0	21.4	20.3	31.7	25.0	25.6	29.5	29.2	29.8	25.8	25.8	27.3	26.8	26.1	23.8	29.3	20.5	20.6	30.6	20.3	20.9	21.0	Diurnal Maximum	
Dir	246.7	261.2	274.9	275.9	246.7	269.9	262.2	248.7	256.4	256.3	247.8	291.7	259.3	255.8	249.5	266.9	252.0	247.3	299.9	246.1	248.7	246.7	250.5	245.8	Diurnal Maximum	
Maximum Speed Value: 32 km/h on Oct 24 06:00																		Minimum Speed Value: 0 km/h on Oct 17 03:00						Hours in Service: 744		
Maximum Daily Speed Average: 16.8 km/h on Oct 7																		Minimum Daily Speed Average: 1.1 km/h on Oct 4						Hours of Data: 744		
Maximum Diurnal Speed Average: 10.3 km/h at hour 15																		Minimum Diurnal Speed Average: 2.7 km/h at hour 23						Hours of Missing Data: 0		
Monthly Average Velocity: 5.48 km/h 266.71 deg																		Speed Percentiles: P ₁ = 0.6 P ₁₀ = 2.5 Q ₁ = 4.1 Median = 7.5 Q ₃ = 12.7 P ₉₀ = 20.0 P ₉₉ = 25.6						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	7	21	8	0	0	0	36																			
NorthEast	9	16	0	0	0	0	25																			
East	17	23	6	0	0	0	46																			
SouthEast	68	26	3	0	0	0	97																			
South	33	21	0	0	0	0	54																			
SouthWest	41	57	36	14	1	0	149																			
West	25	56	56	46	5	0	188																			
NorthWest	42	44	42	21	0	0	149																			
Total	242	264	151	81	6	0	744																			

Wind Rose

Wind Speed (WS) (km/h)
Henry Pirker - October 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - October 2017

Maximum Speed: 32 km/h on Oct 24 06:00	Maximum Daily Speed Average: 18.0 km/h on Oct 7	Hours in Service: 744
Minimum Speed: 1 km/h on Oct 4 21:00	Minimum Daily Speed Average: 2.9 km/h on Oct 4	Hours of Data: 744
Maximum Diurnal Speed Average: 14.3 km/h at hour 15	Minimum Diurnal Speed Average: 6.8 km/h at hour 3	Hours of Missing Data: 0
Monthly Average Speed: 9.60 km/h	Percentiles: P ₁ = 1.4 P ₁₀ = 2.9 Q ₁ = 4.5 Median = 7.7 Q ₃ = 13.0 P ₉₀ = 20.0 P ₉₉ = 25.7	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	14	11	11	15	14	16	14	14	16	17	18	21	22	21	20	21	21	20	18	16	13	13	12	12	16.3	22.3
2-Oct	11	9	7	7	7	7	8	7	9	12	12	9	12	11	11	10	9	8	5	4	3	3	2	3	7.8	12.2
3-Oct	3	5	4	3	4	4	6	5	3	5	8	6	6	4	9	13	12	7	7	8	3	3	3	4	5.6	13.5
4-Oct	3	3	3	3	2	1	2	3	4	5	5	6	5	4	3	3	2	3	2	1	1	3	3	4	2.9	5.6
5-Oct	3	3	2	1	1	1	1	2	2	6	6	14	20	20	18	21	21	17	12	14	15	11	10	12	9.7	21.0
6-Oct	10	7	4	8	9	13	11	7	12	19	17	19	19	23	27	26	22	17	17	21	19	17	17	20	15.8	26.6
7-Oct	22	18	17	22	16	17	16	16	14	16	25	22	21	22	20	16	20	23	21	17	11	14	12	11	18.0	24.9
8-Oct	11	14	14	10	9	11	8	10	7	7	12	8	7	9	9	4	4	19	16	15	6	6	5	14	9.7	18.5
9-Oct	15	12	15	12	8	19	21	26	30	30	24	21	19	22	21	22	19	12	10	9	5	5	5	5	17.2	30.0
10-Oct	6	8	7	4	3	3	2	2	5	7	10	11	10	10	10	10	11	10	8	9	11	9	7	7	7.5	11.3
11-Oct	8	8	7	8	10	10	8	8	7	7	7	7	5	7	4	4	1	4	5	6	6	4	3	3	6.1	9.8
12-Oct	3	3	3	3	3	3	4	3	4	5	6	4	3	4	3	4	4	4	4	3	2	2	2	2	3.4	6.0
13-Oct	3	2	3	2	4	4	4	1	5	7	12	12	10	7	7	5	6	5	5	6	6	6	5	6	5.5	11.9
14-Oct	5	6	7	4	9	11	11	7	4	4	12	19	18	14	27	23	21	19	19	14	11	13	10	5	12.2	27.1
15-Oct	3	4	4	4	6	6	5	6	7	10	14	19	22	23	22	23	22	30	19	9	9	11	16	21	13.2	29.6
16-Oct	19	16	9	14	11	12	12	11	5	4	3	5	7	8	6	6	6	5	5	5	5	5	6	8	8.0	18.7
17-Oct	10	4	2	3	3	4	4	4	5	3	5	16	22	24	24	22	15	10	9	12	13	14	12	9	10.4	24.3
18-Oct	9	9	5	5	5	5	5	4	5	6	7	10	10	11	10	14	13	14	12	8	8	6	3	4	7.9	13.9
19-Oct	2	3	4	5	3	5	5	4	4	5	5	6	5	8	6	3	3	4	4	6	4	3	4	12	4.8	12.0
20-Oct	8	5	3	2	2	2	4	6	4	3	6	7	12	13	14	14	13	10	10	5	3	2	3	4	6.5	14.2
21-Oct	7	10	9	9	6	5	7	7	5	5	6	7	8	7	7	6	5	6	6	9	9	9	9	8	7.2	9.7
22-Oct	7	4	5	4	3	3	2	2	2	3	4	6	9	10	21	22	24	21	13	7	7	13	6	5	8.4	24.0
23-Oct	7	11	12	11	15	14	12	9	5	4	5	14	20	19	13	8	4	11	10	10	11	12	7	10	10.6	19.5
24-Oct	8	5	10	7	10	32	25	24	22	17	20	26	25	19	9	6	4	5	8	9	11	11	12	12	14.1	31.8
25-Oct	10	8	4	4	3	12	11	12	14	16	16	12	12	11	8	11	7	4	5	6	6	7	5	6	8.7	15.7
26-Oct	4	6	8	7	5	3	5	5	3	4	6	13	18	22	20	18	11	7	5	4	3	2	3	3	7.7	21.6
27-Oct	3	4	3	2	3	2	2	3	2	4	8	17	26	28	26	26	21	13	10	20	31	21	21	20	13.1	30.7
28-Oct	18	16	14	18	20	20	10	6	10	12	10	13	17	12	14	14	10	7	9	8	10	9	8	7	12.1	20.4
29-Oct	8	6	7	7	6	7	5	5	4	8	11	10	10	10	9	11	7	2	2	3	2	5	4	2	6.3	11.1
30-Oct	5	3	3	4	3	1	2	5	4	3	5	6	12	20	18	12	8	9	4	4	5	8	6	6	6.5	19.6
31-Oct	4	4	4	6	11	9	10	14	20	21	20	20	16	17	24	24	22	19	18	18	14	10	12	10	14.4	24.2
	8.1	7.3	6.8	6.9	6.8	8.4	7.7	7.6	7.8	8.9	10.7	12.6	13.9	14.1	14.3	13.7	11.9	11.3	9.6	9.3	8.6	8.3	7.6	8.2	Diurnal Average	
	22.4	18.5	17.1	21.5	20.4	31.8	25.2	25.7	30.0	29.6	30.0	25.9	26.0	27.6	27.1	26.3	24.0	29.6	20.6	20.9	30.7	20.5	21.1	21.3	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg
Henry Pirker - October 2017

Maximum Value: 93.5 deg on Oct 5 06:00		Hours in Service: 744																							
Minimum Value: 4.3 deg on Oct 13 23:00		Hours of Data: 744																							
Percentiles: P ₁ = 5.1 P ₁₀ = 7.0 Q ₁ = 8.8 Median = 12.8 Q ₃ = 22.9 P ₉₀ = 44.8 P ₉₉ = 79.1		Hours of Missing Data: 0																							
		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	12	10	7	6	7	5	6	9	8	7	8	8	9	12	8	9	9	7	9	7	8	10	7	9	12.4
2-Oct	9	10	11	6	5	9	5	9	8	9	10	22	20	19	27	21	18	11	19	7	11	22	46	13	46.1
3-Oct	22	13	5	16	9	10	8	10	20	16	20	24	25	27	21	21	8	10	17	11	52	34	28	20	51.8
4-Oct	23	25	26	26	46	66	39	71	21	16	17	24	48	37	71	34	84	13	15	16	74	26	13	10	83.6
5-Oct	15	14	27	81	80	94	65	48	19	14	15	18	12	11	13	10	7	8	9	10	7	24	17	7	93.5
6-Oct	10	11	20	9	11	8	14	11	16	10	9	12	13	11	12	7	11	13	17	9	8	7	7	7	20.1
7-Oct	5	12	7	5	8	9	7	6	9	10	9	9	10	9	18	13	10	7	6	7	8	7	5	8	18.1
8-Oct	9	11	9	13	14	16	21	7	12	15	12	14	27	45	19	69	49	7	9	13	35	20	31	13	68.8
9-Oct	11	7	9	8	11	8	7	6	11	9	7	9	10	8	13	10	8	9	9	9	10	28	40	38	40.5
10-Oct	24	9	7	15	26	20	17	18	14	16	12	15	17	18	15	14	16	15	14	13	12	14	17	16	25.9
11-Oct	11	10	13	13	8	7	8	13	15	12	14	13	20	23	67	38	89	53	30	12	17	79	40	71	89.4
12-Oct	17	33	57	48	46	52	27	45	26	55	34	56	59	57	55	33	39	25	7	37	28	60	84	29	83.5
13-Oct	21	30	21	35	17	12	22	45	12	9	9	10	12	28	25	26	18	19	8	5	5	6	4	6	44.8
14-Oct	11	15	12	29	13	13	10	17	35	48	11	12	16	19	9	8	7	9	7	12	10	6	12	14	48.1
15-Oct	45	31	23	11	7	15	24	9	21	13	9	10	9	10	12	11	9	8	10	17	8	8	8	10	45.0
16-Oct	9	10	15	9	11	9	9	12	33	83	33	21	11	12	19	23	14	17	14	11	14	16	14	10	83.3
17-Oct	16	58	92	14	19	19	23	22	19	39	33	11	8	6	8	8	6	12	9	31	16	7	8	9	91.9
18-Oct	8	6	20	32	18	11	12	26	12	12	11	10	8	9	15	17	7	7	10	9	7	17	20	15	31.9
19-Oct	66	56	41	8	65	12	49	33	31	15	24	23	24	17	30	38	49	47	44	25	40	44	55	15	66.3
20-Oct	11	44	76	69	89	81	24	22	18	66	15	18	23	11	17	15	11	7	6	28	59	52	70	90	90.1
21-Oct	22	9	7	6	20	18	10	8	11	31	18	20	20	24	32	26	49	11	7	6	7	7	7	9	49.1
22-Oct	14	80	61	23	69	59	64	52	57	56	37	23	12	12	8	6	7	8	11	21	34	10	15	17	80.0
23-Oct	22	8	6	11	10	8	7	11	29	27	76	11	10	11	9	11	27	10	7	7	6	9	34	13	75.5
24-Oct	11	29	18	22	29	5	7	6	7	7	12	6	5	5	9	16	22	18	11	10	10	12	11	10	28.8
25-Oct	12	16	44	55	49	17	11	8	7	12	8	10	8	13	14	11	15	64	18	18	9	14	19	9	63.9
26-Oct	16	10	8	10	22	29	21	19	35	52	23	13	10	8	8	9	7	12	27	28	51	26	27	20	51.5
27-Oct	22	29	28	38	42	35	88	38	57	12	30	9	7	7	8	6	8	9	13	7	5	9	8	6	88.3
28-Oct	8	6	7	7	7	13	14	19	7	25	13	8	6	10	10	7	7	9	6	6	5	5	8	11	24.6
29-Oct	11	19	11	11	15	12	18	12	15	10	8	11	14	19	16	10	9	52	27	11	23	9	25	43	52.2
30-Oct	6	40	23	15	29	37	44	9	15	49	11	13	25	7	8	7	8	21	28	19	21	15	14	19	48.7
31-Oct	56	35	12	34	8	10	30	14	6	6	5	5	8	7	7	9	7	11	9	14	8	7	6	7	56.4
	66.3	80.0	91.9	80.6	88.9	93.5	88.3	71.2	56.6	83.3	75.5	56.1	59.5	56.8	71.2	68.8	89.4	63.9	44.5	37.0	74.5	78.6	83.5	90.1	

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb Evergreen Park - October 2017

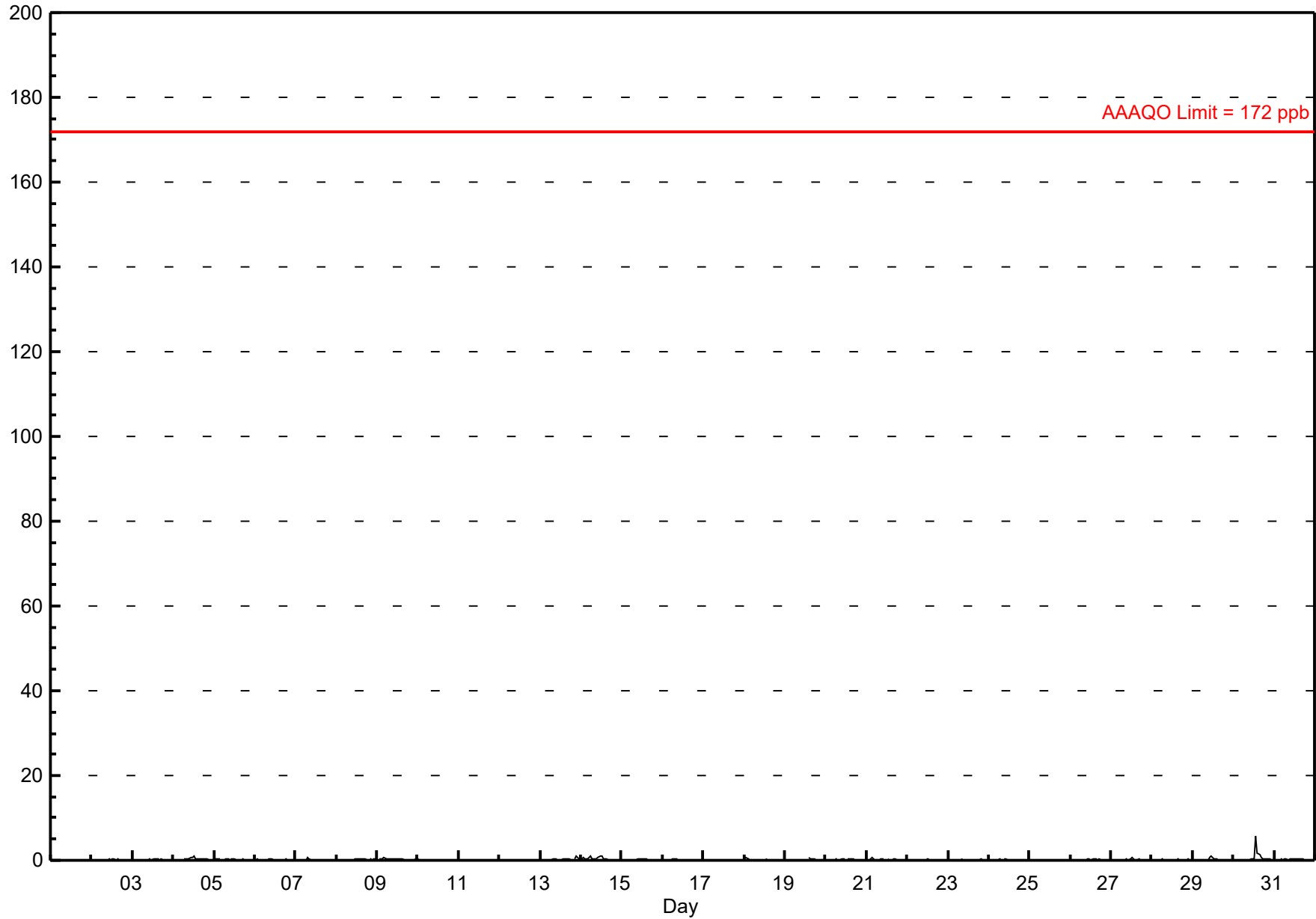
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 5.7 ppb on Oct 30 14:00	Maximum Daily Average: 0.5 ppb on Oct 30		Hours of Data:	709
Minimum Value: 0 ppb on Oct 1 02:00	Minimum Daily Average: 0.0 ppb on Oct 25		Hours of Missing Data:	35
Maximum Diurnal Average: 0.4 ppb at hour 14	Minimum Diurnal Average: 0.1 ppb at hour 24		Hours of Calibration:	35
Monthly Average: 0.14 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 = 1.0		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	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	0.1
2-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	0.4
3-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	0.1	0.4
4-Oct	0	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
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	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
7-Oct	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
8-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	0.4
9-Oct	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
10-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	0.3
11-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	0.1
12-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	0.0	0.1
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0.2	1.0
14-Oct	0	1	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	A	A	0	0	0	0	0	0.4	1.1
15-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
16-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	0.5
17-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	0.1
18-Oct	0	1	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
19-Oct	0	0	0	0	0	0	0	0	0	0	C	C	C	C	1	0	0	0	0	0	0	0	0	0	0.1	0.5
20-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	0.1	0.3
21-Oct	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
22-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	0.2
23-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	0.2
24-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	0.5
25-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	0.1
26-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	0.1	0.4
27-Oct	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
28-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
29-Oct	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
30-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	6	2	1	1	0	0	0	0	0	0	0	0.5	5.7
31-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	0.4
	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	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.5	0.6	0.5	0.6	0.6	0.9	0.5	0.5	0.4	0.5	0.8	1.1	1.0	5.7	1.9	1.4	0.5	0.3	0.4	0.2	0.4	1.0	0.6	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
Evergreen Park - October 2017



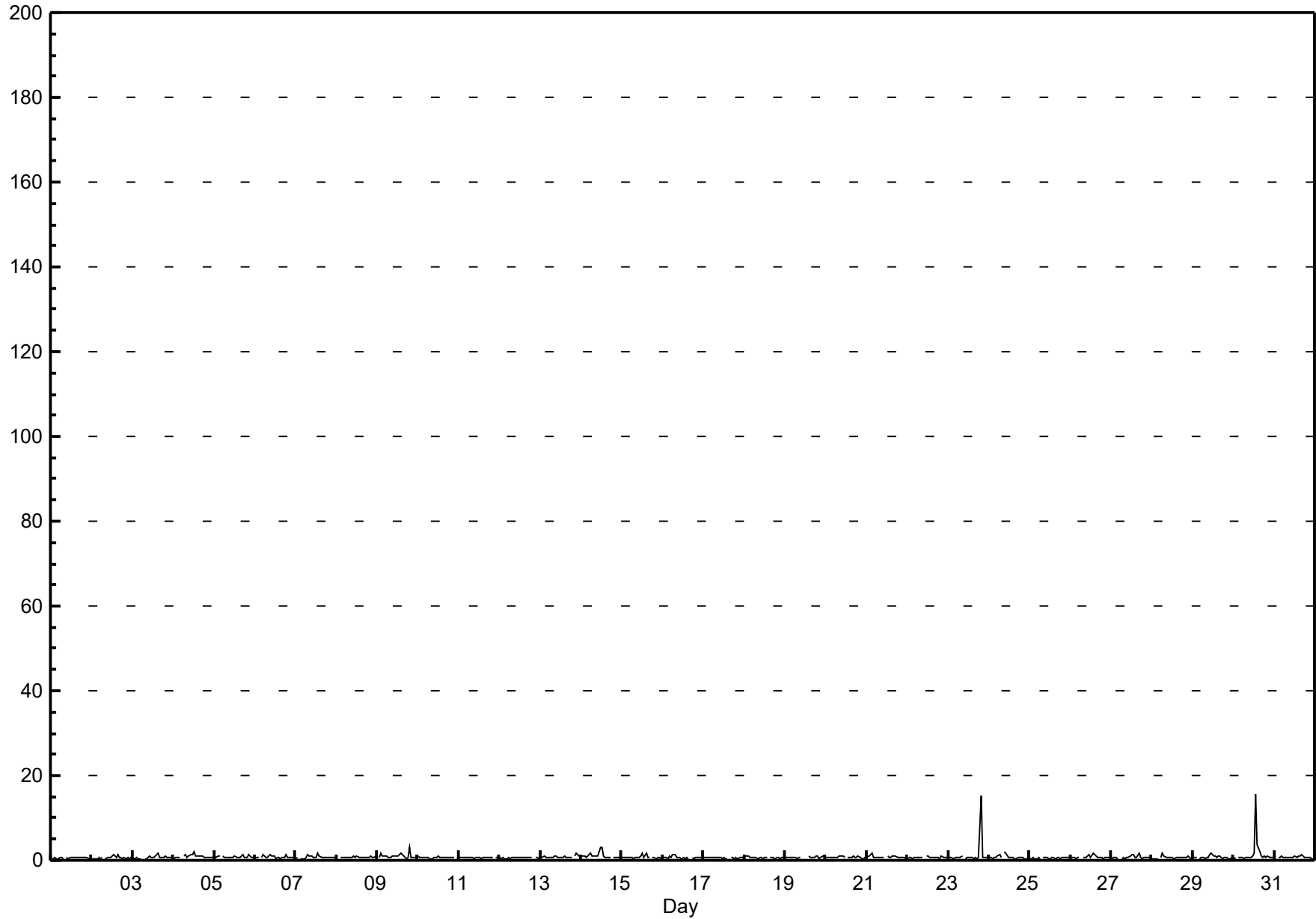
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Evergreen Park - October 2017

Maximum Value: 15.5 ppb on Oct 30 14:00		Maximum Daily Average: 1.6 ppb on Oct 30		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 3 06:00		Minimum Daily Average: 0.5 ppb on Oct 25		Hours of Data: 709																							
Maximum Diurnal Average: 1.3 ppb at hour 14		Minimum Diurnal Average: 0.6 ppb at hour 24		Hours of Missing Data: 35																							
Monthly Average: 0.77 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 1.1 P ₉₉ = 1.6		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	0	0	1	0	0	1	1	0	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	0.8	
2-Oct	0	0	0	0	1	0	1	A	0	1	1	1	1	2	1	1	1	1	1	0	1	0	1	0	1	0.6	1.5
3-Oct	1	0	1	0	0	0	A	0	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	0.7	1.8	
4-Oct	0	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1	
5-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	0.8	1.2	
6-Oct	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	0.7	1.3	
7-Oct	0	1	A	0	0	0	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0.7	1.8	
8-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	0.7	1.1	
9-Oct	A	1	2	1	1	1	1	1	1	1	1	1	1	1	2	2	1	0	1	3	1	1	1	A	1.0	3.0	
10-Oct	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.9	
11-Oct	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	A	1	0.6	0.8	
12-Oct	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	0.8	
13-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	0.8	1.6	
14-Oct	1	1	1	1	1	2	1	1	1	1	1	3	3	1	1	1	1	1	A	1	1	1	1	1	1.1	3.2	
15-Oct	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	A	1	1	1	1	1	1	0	0.7	1.6	
16-Oct	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0	A	1	0	1	1	1	1	1	1	0.7	1.4	
17-Oct	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	A	1	1	1	1	1	0	1	1	0.6	0.8	
18-Oct	1	1	1	1	1	1	1	1	0	1	1	0	1	1	A	1	1	1	0	1	1	0	1	1	0.7	1.1	
19-Oct	1	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	0	1	1	1	0.7	1.1	
20-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	0.7	1.0	
21-Oct	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6	
22-Oct	0	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.1	
23-Oct	1	1	1	0	1	1	1	1	1	1	A	0	1	1	1	0	1	0	1	15	1	1	1	1	1.2	15.1	
24-Oct	1	1	1	1	1	1	1	1	A	2	2	1	1	1	1	0	0	1	1	1	1	0	0	1	0.7	1.9	
25-Oct	0	0	1	0	0	1	0	A	1	1	1	0	0	1	1	0	1	1	1	0	1	1	1	1	0.5	0.7	
26-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	0	1	1	1	1	0.8	1.5	
27-Oct	0	1	1	1	0	A	0	1	0	1	1	1	1	1	1	2	1	0	1	1	1	1	1	0	0.7	1.6	
28-Oct	0	0	0	0	A	1	2	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0.7	1.6	
29-Oct	1	1	1	A	0	1	1	0	1	1	1	2	1	1	1	1	1	0	1	1	1	0	0	1	0.7	1.6	
30-Oct	0	1	A	1	1	1	0	1	1	1	1	2	15	4	2	1	1	1	1	1	1	1	1	1	1.6	15.5	
31-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.2	
		0.6	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.9	1.0	1.3	0.9	0.8	0.8	0.7	0.7	1.2	0.7	0.6	0.7	0.6	Diurnal Average	
		1.1	1.1	1.5	1.6	1.2	1.5	1.6	1.4	1.1	1.9	1.7	3.0	3.2	15.5	3.6	2.1	1.6	1.2	1.3	15.1	1.2	1.6	1.2	1.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

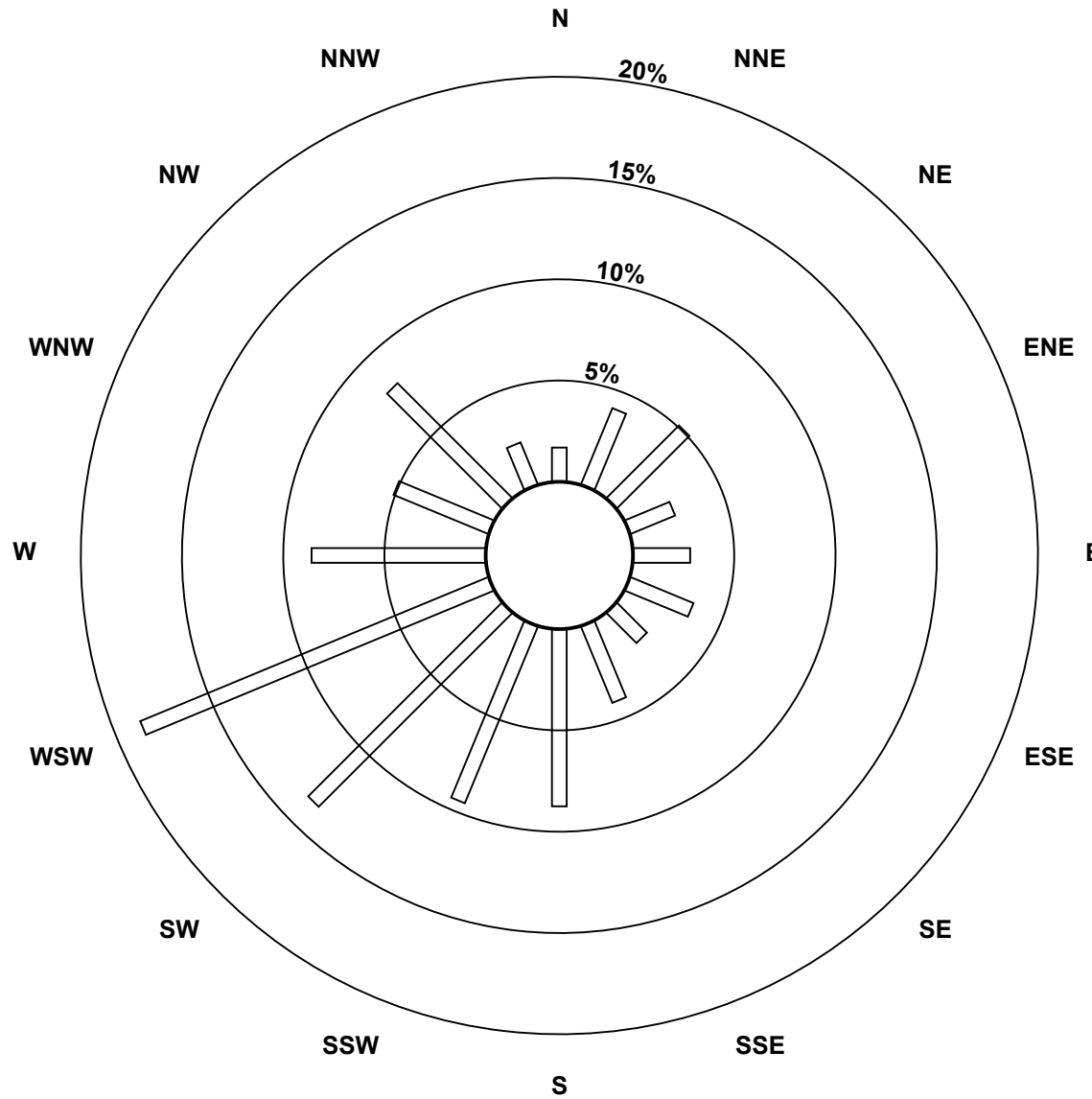
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - October 2017

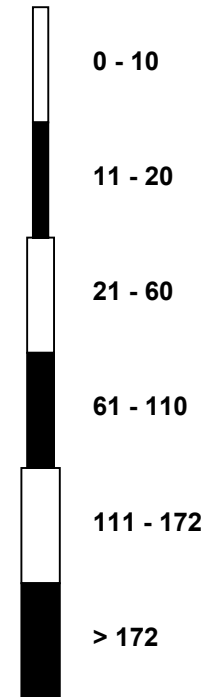


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - October 2017

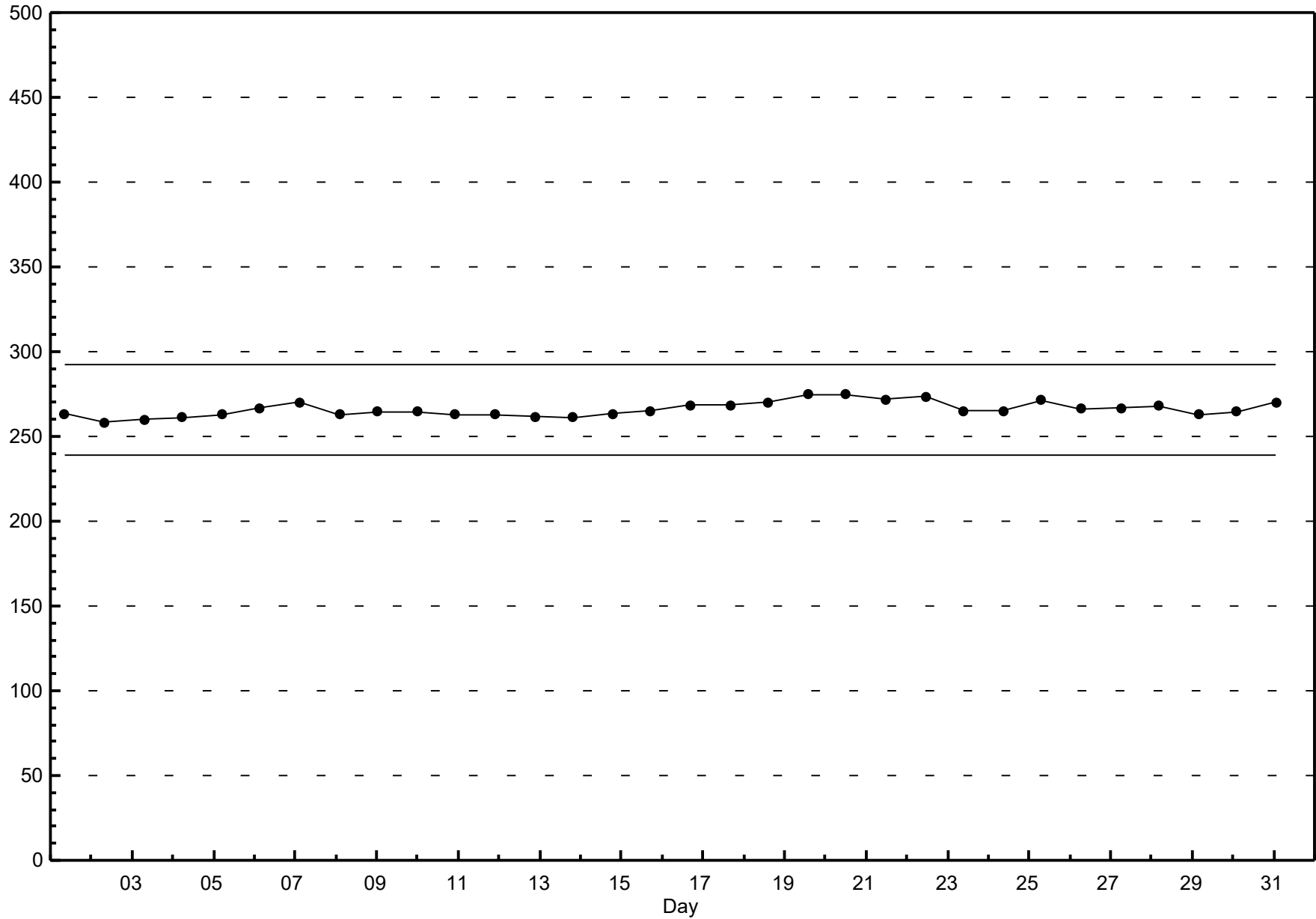


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - October 2017

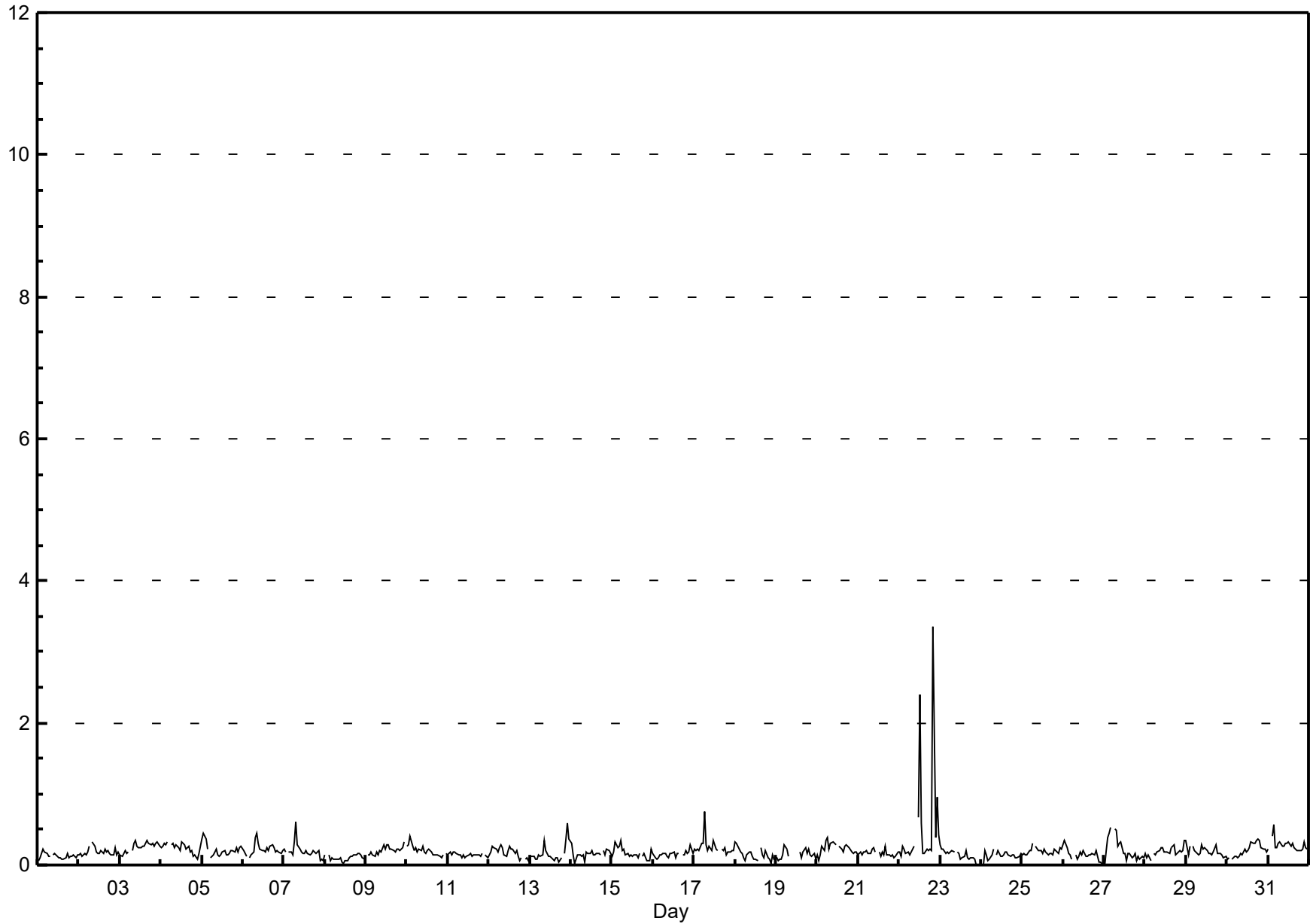


Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2017

Maximum Value: 3.3 ppb on Oct 22 21:00		Maximum Daily Average: 0.5 ppb on Oct 22		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 23 22:00		Minimum Daily Average: 0.1 ppb on Oct 8		Hours of Data: 708																							
Maximum Diurnal Average: 0.3 ppb at hour 21		Minimum Diurnal Average: 0.2 ppb at hour 22		Hours of Missing Data: 36																							
Monthly Average: 0.20 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.6		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	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
2-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	0.2	0.3	
3-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	0.3	0.3	
4-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	
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	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	
7-Oct	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
8-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	
9-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	0.2	0.3	
10-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	
11-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	0.2	
12-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	0.3	
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0.2	0.6	
14-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	
15-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	0.3	
16-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	0.3	
17-Oct	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.8	
18-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	
19-Oct	0	0	0	0	0	0	0	0	C	C	C	C	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
20-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	
21-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	0.2	0.3	
22-Oct	0	0	0	0	0	0	0	0	0	0	A	1	2	1	0	0	0	0	0	0	0	3	0	1	0	0.5	3.3
23-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	0.3	
24-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	0.1	0.2	
25-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	0.2	0.3	
26-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	0.1	0.4	
27-Oct	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
28-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	
29-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	0.3	
30-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	
31-Oct	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	Diurnal Average	
		0.4	0.4	0.4	0.6	0.5	0.4	0.8	0.6	0.4	0.3	0.3	0.7	2.4	0.6	0.3	0.3	0.3	0.4	0.4	0.3	3.3	0.4	1.0	0.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

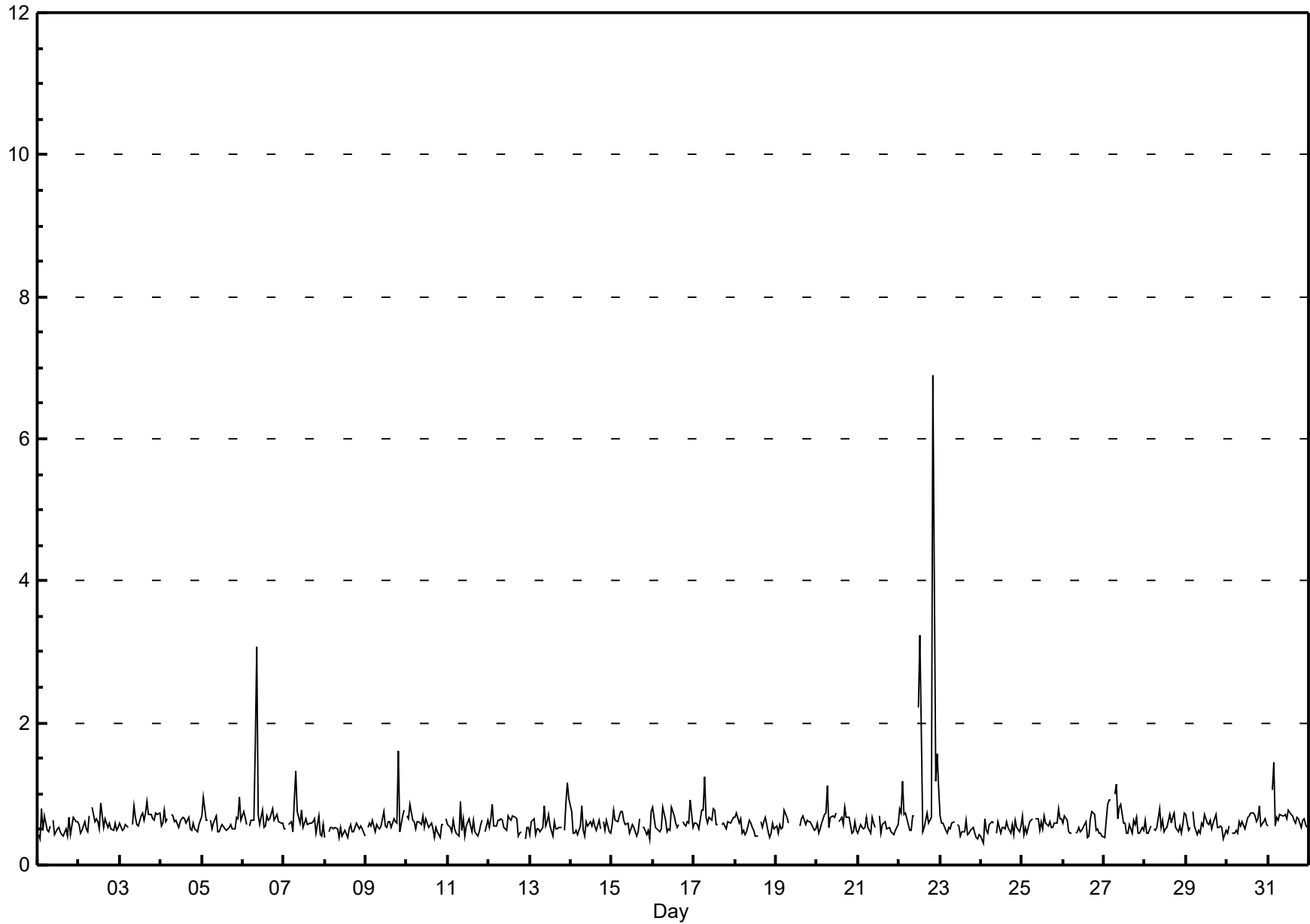


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

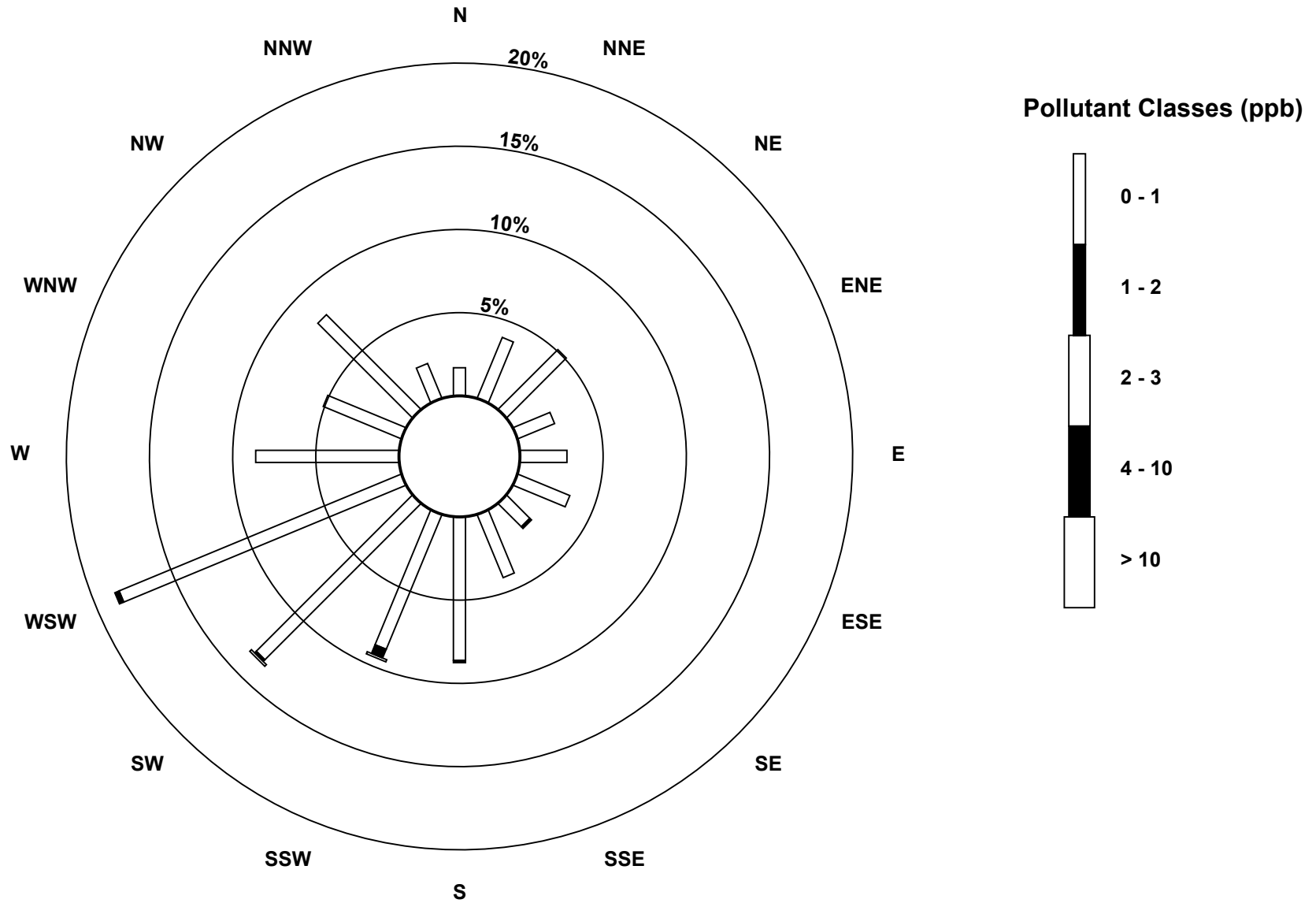
Evergreen Park - October 2017

Maximum Value: 6.9 ppb on Oct 22 21:00 Maximum Daily Average: 1.2 ppb on Oct 22 Minimum Value: 0 ppb on Oct 24 02:00 Minimum Daily Average: 0.5 ppb on Oct 8 Maximum Diurnal Average: 0.8 ppb at hour 21 Minimum Diurnal Average: 0.6 ppb at hour 2 Monthly Average: 0.61 ppb Percentiles: P ₁ = 0.4 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 1.5																								Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 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	1	0	1	0	0	1	A	1	0	1	1	0	0	0	1	0	1	0	1	1	1	1	0.5	0.8																							
2-Oct	1	0	0	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0.6	0.9																							
3-Oct	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																							
4-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0.6	0.8																							
5-Oct	1	1	1	1	A	1	1	1	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	1.0																							
6-Oct	1	1	1	A	1	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	3.1																							
7-Oct	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0.6	1.3																							
8-Oct	0	A	0	1	1	1	1	1	0	1	0	0	0	0	1	1	0	0	1	1	1	1	1	0	0.5	0.6																							
9-Oct	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0	1	1	A	0.6	1.6																							
10-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	A	1	0.6	0.9																							
11-Oct	1	1	0	1	1	0	0	1	0	1	0	1	1	1	0	1	0	0	0	1	1	A	0	1	0.5	0.9																							
12-Oct	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	A	0	1	1	0.6	0.9																							
13-Oct	0	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	A	0	1	1	1	0.6	1.2																							
14-Oct	1	0	0	0	0	1	1	0	0	1	1	1	1	1	1	0	1	1	A	1	0	1	0	0	0.5	0.8																							
15-Oct	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	A	1	1	1	0	0	0	1	0.6	0.8																						
16-Oct	1	1	1	0	0	1	1	1	0	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	0.6	0.9																							
17-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.2																							
18-Oct	1	1	1	1	0	0	0	0	1	1	0	0	0	0	A	1	1	1	1	1	0	0	1	1	0.5	0.7																							
19-Oct	1	0	1	1	1	1	1	1	C	C	C	C	1	A	1	1	1	1	1	1	1	1	0	1	0.6	0.8																							
20-Oct	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	0	0.6	1.1																						
21-Oct	0	1	1	0	1	1	1	0	1	1	1	A	1	0	1	1	1	1	1	1	0	0	0	0	1	0.5	0.7																						
22-Oct	1	1	1	1	1	1	0	0	1	1	A	2	3	2	0	1	1	1	1	1	1	7	1	2	1	1.2	6.9																						
23-Oct	1	1	1	0	0	1	1	1	1	A	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0.5	0.7																						
24-Oct	0	0	1	0	0	1	1	1	A	0	1	0	1	1	1	1	1	0	1	0	1	1	0	1	0.5	0.7																							
25-Oct	1	0	1	0	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8																							
26-Oct	1	1	1	0	0	0	A	0	0	1	0	0	1	1	0	0	1	1	1	0	1	0	0	0	0.5	0.7																							
27-Oct	0	1	1	1	1	A	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	1	0	0.7	1.1																							
28-Oct	1	0	0	1	A	1	0	1	1	1	1	0	1	1	1	1	1	1	1	0	1	0	1	1	0.6	0.8																							
29-Oct	1	0	1	A	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	0.8																							
30-Oct	0	1	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8																							
31-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	0.7	1.4																							
																								0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8	0.6	0.6	0.6	Diurnal Average
																								0.8	1.0	1.2	1.4	0.9	0.8	1.2	1.7	3.1	0.8	0.8	2.2	3.2	1.9	0.7	0.7	0.9	0.8	0.7	1.6	6.9	1.2	1.6	1.1	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									



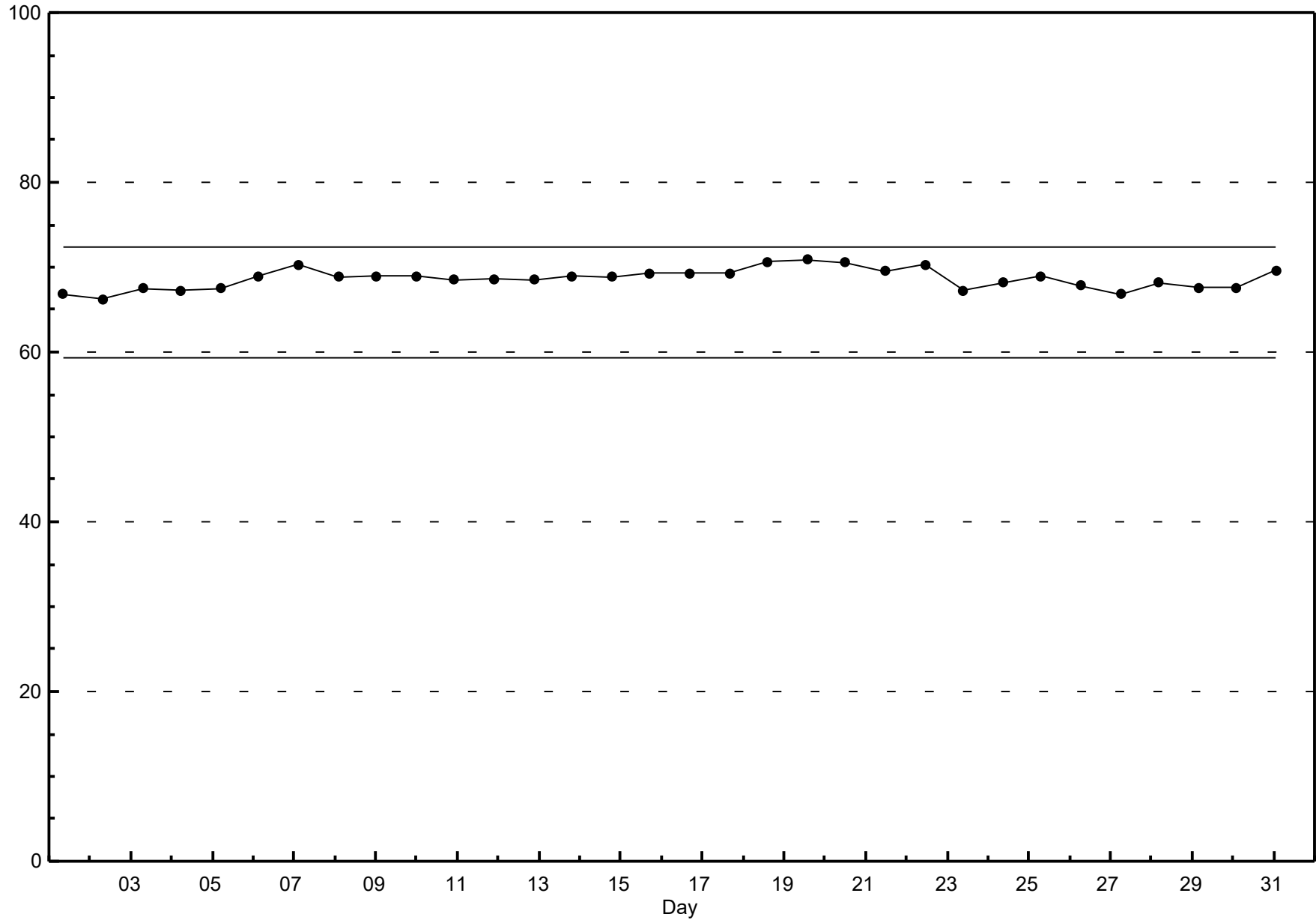
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - October 2017



Span Responses

**Total Reduced Sulphur (TRS)
Evergreen Park - October 2017**



Hourly Averages

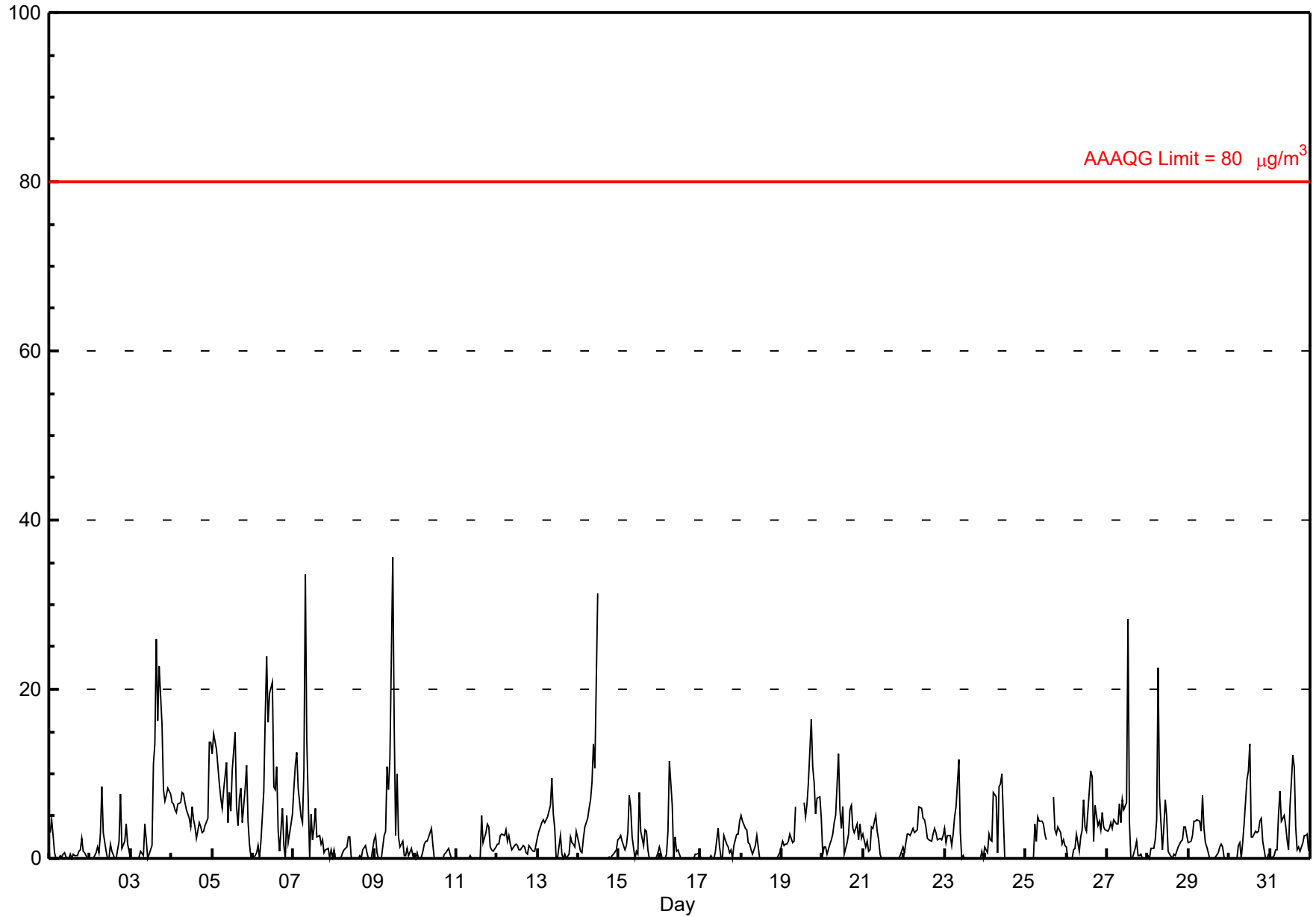
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - October 2017

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 35.6 µg/m ³ on Oct 9 11:00	Maximum Daily Average: 7.9 µg/m ³ on Oct 5
Minimum Value: 0 µg/m ³ on Oct 1 05:00	Hours of Data: 733
Maximum Diurnal Average: 5.4 µg/m ³ at hour 8	Hours of Missing Data: 11
Monthly Average: 3.07 µg/m ³	Hours of Calibration: 4
Minimum Daily Average: 0.6 µg/m ³ on Oct 8	Percent Operational Time: 99.1
Minimum Diurnal Average: 1.8 µg/m ³ at hour 22	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 1.7 Q ₃ = 4.1 P ₉₀ = 7.7 P ₉₉ = 21.8	

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	3	5	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	2	1	1	0	0	0.8	4.6																						
2-Oct	0	0	0	1	1	1	3	8	3	1	0	0	2	1	0	0	1	2	8	1	2	4	2	1	1.7	8.4																						
3-Oct	0	0	0	0	0	0	1	0	4	2	0	1	2	11	14	26	16	23	16	8	7	7	8	8	6.4	25.9																						
4-Oct	7	6	6	5	7	7	8	8	7	6	5	4	6	4	4	2	4	4	3	3	4	5	14	14	5.9	13.7																						
5-Oct	12	15	13	11	9	7	6	8	11	4	8	6	11	15	6	4	7	8	4	8	11	4	2	0	7.9	15.0																						
6-Oct	0	0	1	2	0	2	8	17	24	16	19	21	9	8	11	3	1	6	2	0	5	2	4	5	6.9	23.8																						
7-Oct	8	11	12	8	5	4	10	33	14	0	5	2	4	6	3	3	2	2	1	1	1	0	1	0	5.7	33.5																						
8-Oct	1	0	0	0	0	1	1	1	2	3	0	0	0	0	0	0	0	1	1	1	0	0	0	2	0.6	2.6																						
9-Oct	3	1	0	0	0	3	3	11	8	12	36	16	3	10	3	1	2	0	0	1	0	1	0	0	4.7	35.6																						
10-Oct	0	1	0	0	1	2	2	2	3	4	2	0	0	0	0	0	0	1	1	1	0	0	0	0	0.8	3.5																						
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	3	4	4	1	1	1	1	1.0	5.0																						
12-Oct	2	2	3	3	3	3	2	3	2	1	1	2	2	1	1	2	1	1	1	1	2	1	1	1	2	1.6	3.3																					
13-Oct	3	3	4	4	4	5	5	6	9	5	4	0	0	3	1	0	1	0	0	2	2	2	1	3	2.8	9.4																						
14-Oct	2	1	1	2	4	5	6	7	9	14	11	31	N	N	N	N	0	0	0	0	0	0	1	2	4.8	31.3																						
15-Oct	2	3	2	1	1	3	7	6	3	0	1	0	8	3	2	3	3	1	0	0	0	0	0	1	2.1	7.7																						
16-Oct	1	0	0	0	0	3	12	6	0	3	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1.2	11.5																						
17-Oct	0	0	0	0	0	0	0	0	0	1	4	1	0	0	3	2	1	1	1	0	1	3	3	4	1.0	4.5																						
18-Oct	5	4	4	3	2	2	1	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1.2	5.1																						
19-Oct	2	1	2	2	2	3	2	2	6	C	C	C	C	7	5	6	9	16	11	9	5	7	7	5	5.5	16.4																						
20-Oct	1	1	1	0	2	2	3	4	5	12	6	4	6	0	2	3	6	6	4	3	4	2	4	2	3.5	12.3																						
21-Oct	3	1	2	1	1	4	4	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1.2	5.1																						
22-Oct	1	2	3	3	3	4	3	3	3	6	6	5	5	4	2	2	2	3	3	3	2	2	2	3	3.1	6.1																						
23-Oct	4	2	3	3	2	3	5	6	12	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1.8	11.6																						
24-Oct	1	1	3	2	2	8	7	1	8	9	10	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2	10.0																						
25-Oct	0	0	0	0	0	4	2	5	4	4	4	3	2	M	M	M	7	3	3	4	3	2	2	1	2.6	7.4																						
26-Oct	1	0	0	0	1	1	3	1	3	3	7	4	3	8	10	10	2	6	4	4	3	5	4	3	3.7	10.3																						
27-Oct	3	4	4	4	5	4	4	6	4	7	6	7	28	4	0	0	1	2	0	0	1	0	0	0	3.9	28.3																						
28-Oct	0	0	1	1	2	5	23	7	1	4	7	5	1	0	0	1	0	1	1	2	2	4	4	3	3.1	22.6																						
29-Oct	2	2	3	4	4	5	4	3	7	4	2	1	0	0	0	0	0	1	1	2	1	0	0	0	2.0	7.4																						
30-Oct	0	0	0	0	0	2	2	0	2	4	9	10	14	3	3	3	3	3	3	4	5	2	0	0	2.9	13.5																						
31-Oct	0	0	0	1	1	5	8	4	5	4	2	1	6	12	11	4	1	1	1	2	3	3	3	1	3.3	12.2																						
																								2.2	2.1	2.3	2.0	2.0	3.1	4.7	5.4	5.4	4.5	5.2	4.1	3.8	3.5	2.7	2.8	2.4	3.1	2.4	2.2	2.1	1.8	2.1	2.1	Diurnal Average
																								12.3	14.7	12.8	10.8	8.8	7.8	22.6	33.5	23.8	16.1	35.6	31.3	28.3	15.0	13.5	25.9	16.2	22.7	15.7	9.0	11.1	7.4	13.7	13.7	Diurnal Maximum

C - Calibration 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

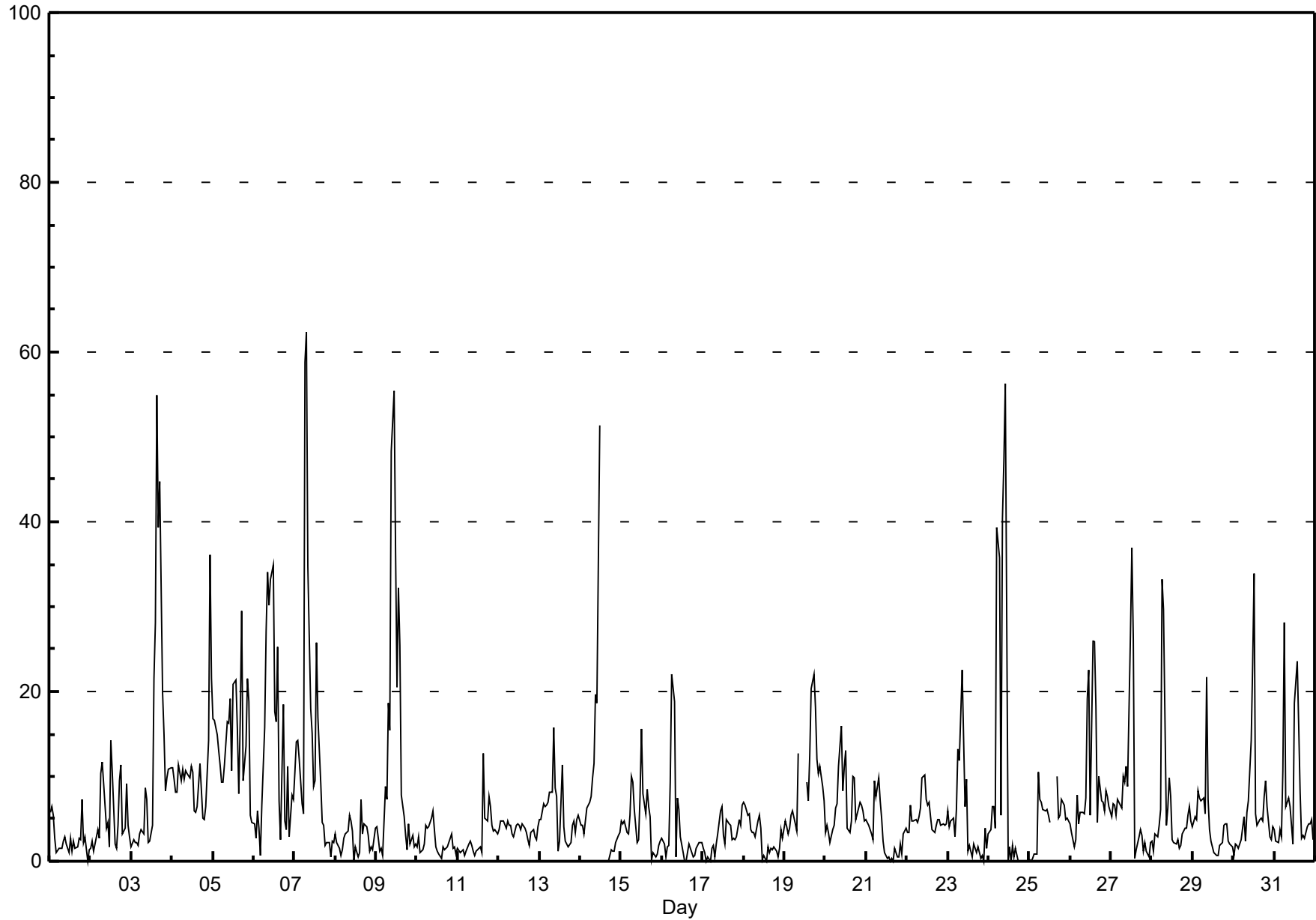


Hourly Maximums

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

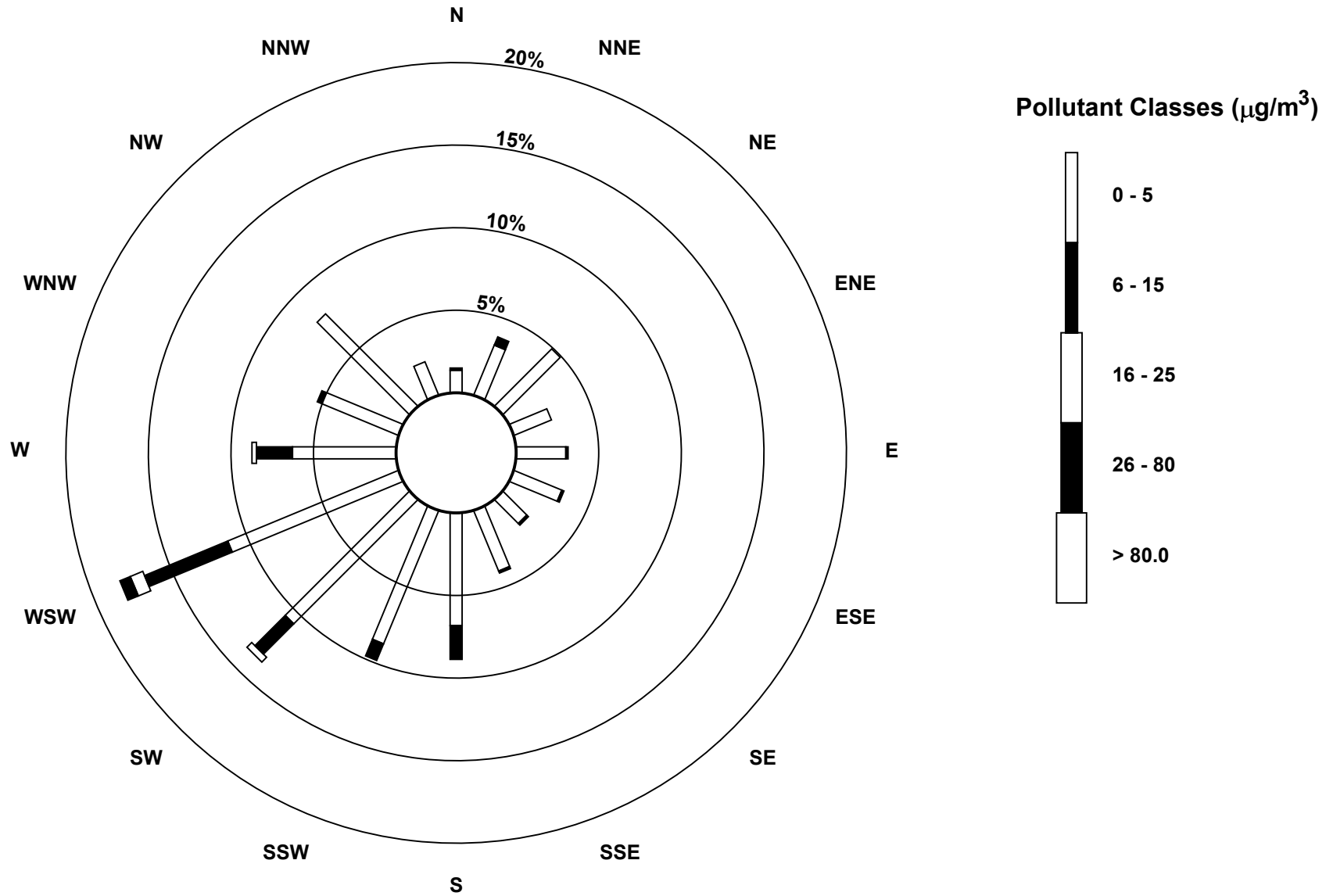
Evergreen Park - October 2017

Maximum Value: 62.3 µg/m ³ on Oct 7 08:00 Minimum Value: 0 µg/m ³ on Oct 8 12:00 Maximum Diurnal Average: 11.6 µg/m ³ at hour 11 Monthly Average: 6.91 µg/m ³		Maximum Daily Average: 14.6 µg/m ³ on Oct 5 Minimum Daily Average: 2.3 µg/m ³ on Oct 10 Minimum Diurnal Average: 4.0 µg/m ³ at hour 5 Percentiles: P ₁ = 0.0 P ₁₀ = 1.0 Q ₁ = 2.2 Median = 4.3 Q ₃ = 7.6 P ₉₀ = 15.8 P ₉₉ = 45.9		Hours in Service: 744 Hours of Data: 733 Hours of Missing Data: 11 Hours of Calibration: 4 Percent Operational Time: 99.1																										
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	6	5	3	1	2	2	2	2	3	2	1	3	1	2	2	2	3	2	7	2	3	0	1	2.6	7.2				
2-Oct	2	2	1	3	4	3	10	12	9	4	5	2	14	11	2	1	4	10	11	3	4	9	4	3	5.5	14.2				
3-Oct	2	2	2	2	2	3	4	3	9	7	2	2	4	22	28	55	39	45	20	15	8	10	11	11	12.9	55.0				
4-Oct	11	10	8	8	11	10	11	10	11	10	10	11	11	6	6	6	12	8	5	5	6	14	36	22	10.7	36.2				
5-Oct	17	17	15	13	11	9	9	11	16	16	19	11	21	21	16	8	17	30	10	14	22	19	5	5	14.6	29.6				
6-Oct	4	3	6	4	1	7	16	27	34	30	33	35	18	16	25	7	2	19	5	4	11	3	8	7	13.5	35.0				
7-Oct	11	14	14	12	7	6	59	62	35	18	15	9	10	26	17	9	5	4	2	2	2	1	2	2	14.3	62.3				
8-Oct	3	2	1	1	1	3	3	4	5	5	4	0	2	1	1	7	3	4	4	3	1	2	1	4	2.7	7.3				
9-Oct	4	3	1	1	1	9	7	19	15	48	55	37	21	32	25	8	5	3	1	4	2	3	2	2	12.9	55.5				
10-Oct	2	3	1	1	2	4	4	4	5	6	4	2	1	1	0	2	1	2	2	3	3	1	2	1	2.3	5.9				
11-Oct	2	1	1	1	1	1	2	2	2	1	1	1	1	2	1	13	5	5	8	6	4	3	4	3	3.0	12.7				
12-Oct	4	5	5	5	4	5	4	4	3	3	4	4	4	4	4	4	3	2	2	3	4	3	3	4	3.8	4.8				
13-Oct	5	5	7	6	7	7	8	8	16	9	8	1	2	11	4	2	2	2	2	4	5	3	5	5	5.6	15.7				
14-Oct	4	4	3	5	6	7	8	10	12	20	19	51	N	N	N	N	0	1	1	1	1	2	3	3	8.1	51.3				
15-Oct	5	4	5	3	3	5	10	9	6	2	3	8	16	8	6	8	6	5	0	1	0	1	2	2	5.0	15.7				
16-Oct	3	2	0	2	2	9	22	19	1	7	6	3	1	0	0	1	2	1	1	1	1	2	2	2	3.8	22.0				
17-Oct	1	1	0	1	0	1	2	1	2	3	6	6	3	2	5	4	4	2	3	2	3	5	4	7	2.9	6.6				
18-Oct	7	7	5	6	4	3	3	3	5	5	4	0	1	0	2	1	1	1	2	1	1	1	4	3	2.9	6.9				
19-Oct	5	4	3	4	5	6	4	4	13	C	C	C	C	9	7	12	20	22	18	12	10	11	9	7	9.3	22.0				
20-Oct	3	4	3	2	4	4	6	7	11	16	8	11	13	4	3	5	10	10	5	6	7	7	6	5	6.7	16.0				
21-Oct	5	4	4	3	3	9	8	10	7	5	2	1	0	1	0	0	0	2	1	0	2	1	3	4	3.1	9.8				
22-Oct	3	3	7	5	5	5	5	5	6	10	10	7	7	7	5	4	3	4	5	5	4	4	4	4	5.4	10.1				
23-Oct	6	4	5	5	3	6	13	12	22	14	6	10	1	2	1	2	2	1	2	0	1	0	4	2	5.1	22.5				
24-Oct	3	4	6	6	4	39	36	5	40	47	56	0	2	0	2	1	2	0	0	0	0	0	0	0	10.6	56.2				
25-Oct	0	0	0	1	1	11	7	7	6	6	6	5	5	M	M	M	10	5	5	7	7	5	5	5	5.0	10.5				
26-Oct	4	3	2	2	8	4	6	6	6	7	19	22	5	26	26	18	5	10	7	7	6	8	8	6	9.3	25.9				
27-Oct	5	7	7	5	7	7	6	10	9	11	9	27	37	26	0	1	3	4	3	1	2	1	0	2	8.0	36.9				
28-Oct	2	1	3	3	4	6	33	30	4	6	10	8	2	2	2	2	2	2	3	4	4	5	6	5	6.3	33.2				
29-Oct	4	5	5	8	7	7	7	6	22	7	4	2	1	1	1	1	2	2	4	4	4	2	2	2	4.7	21.8				
30-Oct	1	2	2	1	3	4	5	2	6	7	14	23	34	6	4	5	5	5	8	10	6	3	2	4	6.7	33.9				
31-Oct	4	2	2	4	3	11	28	6	7	6	4	2	19	23	16	8	3	3	3	4	4	4	5	2	7.3	28.1				
		4.4	4.4	4.2	4.1	4.0	6.9	11.3	10.3	11.2	11.4	11.6	10.1	8.9	9.3	7.3	6.9	5.8	7.0	4.6	4.6	4.5	4.5	4.9	4.4	Diurnal Average				
		16.9	16.6	15.0	13.0	11.4	39.4	58.9	62.3	40.3	48.4	56.2	51.3	36.9	32.2	28.1	55.0	39.4	44.7	19.8	15.0	21.5	18.8	36.2	21.5	Diurnal Maximum				
C - Calibration		M - Maintenance					N - Not Valid																							



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - μg/m³
Evergreen Park - October 2017



Hourly Averages

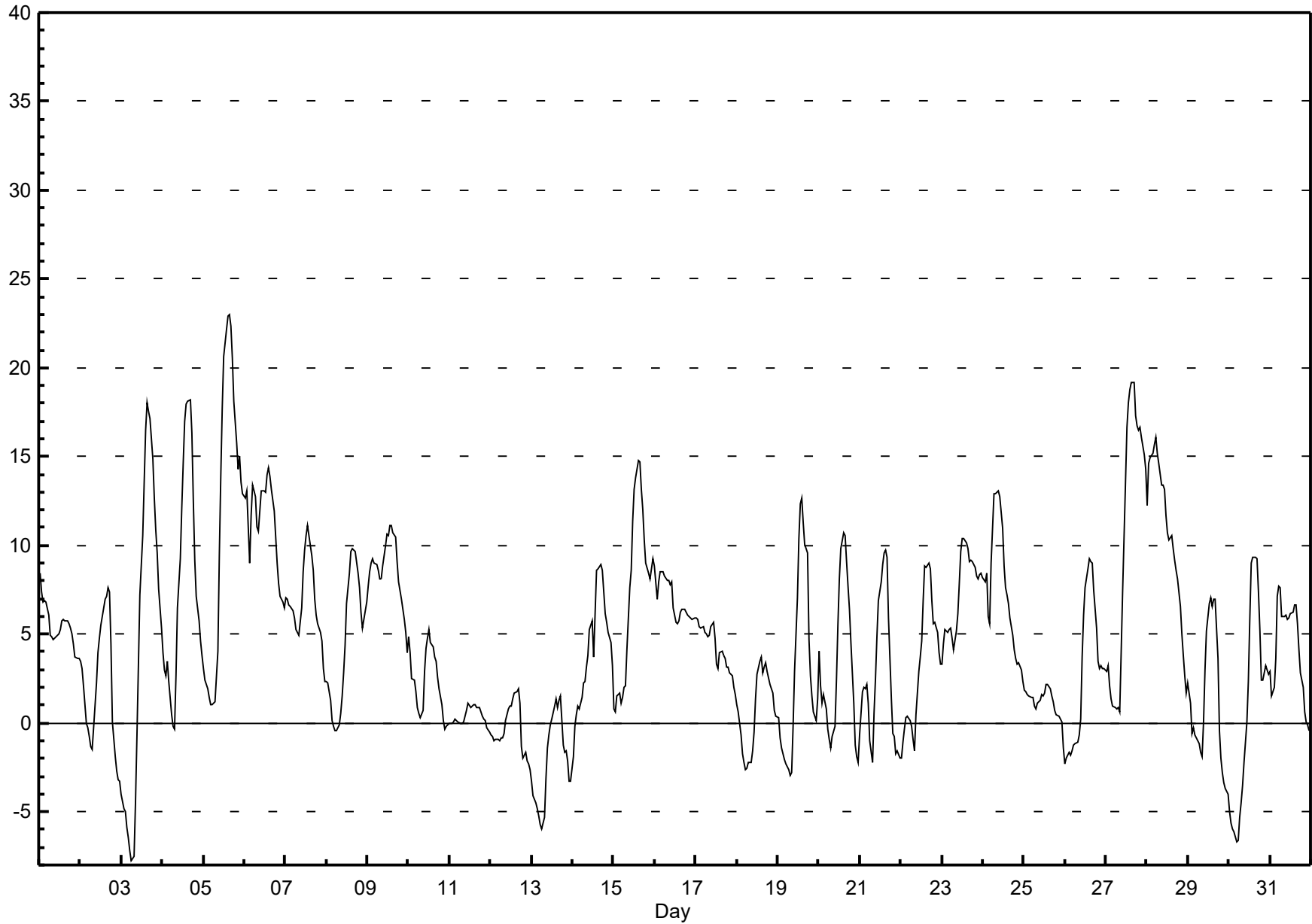
External Temperature (ET) - °C

Evergreen Park - October 2017

Maximum Value: 23.0 °C on Oct 5 16:00 Maximum Daily Average: 11.7 °C 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: -8 °C on Oct 3 07:00 Minimum Daily Average: -2.1 °C on Oct 13 Maximum Diurnal Average: 9.1 °C at hour 15 Minimum Diurnal Average: 1.8 °C at hour 8 Monthly Average: 4.67 °C Percentiles: P ₁ = -6.0 P ₁₀ = -1.5 Q ₁ = 0.6 Median = 4.1 Q ₃ = 8.1 P ₉₀ = 12.3 P ₉₉ = 17.9																										
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	7	7	7	7	6	5	5	5	5	5	5	6	6	6	6	6	5	5	4	4	4	4	5.5	8.4	
2-Oct	3	3	2	0	0	-1	-1	-1	0	2	4	5	5	6	7	7	8	7	4	0	-2	-3	-3	-3	2.1	7.6
3-Oct	-4	-5	-5	-6	-6	-7	-8	-8	-4	-1	3	7	11	14	16	18	18	17	15	13	11	10	8	5	4.6	18.0
4-Oct	4	3	3	3	2	0	0	0	3	6	9	12	15	17	18	18	18	16	12	9	7	6	5	4	7.9	18.2
5-Oct	3	2	2	1	1	1	1	1	4	9	14	18	21	22	23	23	22	21	18	16	14	15	14	13	11.7	23.0
6-Oct	13	13	11	9	12	13	13	11	11	12	13	13	13	14	14	14	13	12	10	9	8	7	7	6	11.3	14.4
7-Oct	7	7	7	7	6	6	5	5	5	6	8	10	11	11	11	9	9	7	6	6	5	5	3	2	6.8	11.1
8-Oct	2	2	1	0	0	0	0	0	1	1	3	4	7	8	10	10	10	10	8	8	6	5	6	7	4.5	9.8
9-Oct	8	9	9	9	9	9	9	8	8	9	10	11	11	11	11	11	11	9	8	7	7	6	5	4	8.6	11.1
10-Oct	5	4	2	2	2	1	1	0	1	3	4	5	5	5	4	4	3	3	2	1	0	0	0	0	2.3	5.3
11-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	-1	0.4	1.1
12-Oct	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	1	1	1	1	2	2	2	1	-1	-2	-2	-2	-2	-3	-0.4	1.9
13-Oct	-3	-4	-4	-5	-5	-6	-6	-5	-3	-1	-1	0	0	1	1	1	1	2	-1	-2	-2	-2	-3	-3	-2.1	1.5
14-Oct	-2	0	0	1	1	1	2	2	3	4	5	6	4	6	9	9	9	9	7	6	6	5	5	3	4.2	8.9
15-Oct	1	1	1	2	1	1	2	2	4	8	9	11	13	14	15	15	13	12	10	9	8	8	9	9	7.4	14.8
16-Oct	9	7	8	9	9	9	8	8	8	8	8	6	6	6	6	6	6	6	6	6	6	6	6	6	7.0	8.9
17-Oct	6	6	5	5	5	5	5	5	5	5	6	5	3	3	4	4	4	4	3	3	3	3	2	2	4.2	5.9
18-Oct	1	1	-1	-2	-2	-3	-3	-2	-2	-2	-1	1	3	3	4	3	3	3	3	2	2	2	1	0	0.6	3.7
19-Oct	0	-1	-1	-2	-2	-2	-3	-3	-3	0	3	7	10	12	13	11	10	10	5	3	2	1	0	1	2.9	12.6
20-Oct	4	2	1	2	1	0	-1	-1	-1	0	2	6	8	10	11	11	9	8	6	5	1	-1	-2	-2	3.2	10.7
21-Oct	-1	2	2	2	2	1	-1	-2	1	3	5	7	8	9	10	10	9	6	1	-1	-1	-2	-2	-2	2.8	9.8
22-Oct	-2	-1	0	0	0	0	0	-1	-2	0	3	4	5	7	9	9	9	9	7	6	6	5	4	3	3.3	9.0
23-Oct	3	4	5	5	5	5	5	4	5	6	8	10	10	10	10	10	9	9	9	9	8	8	8	8	7.4	10.4
24-Oct	8	8	8	6	6	9	13	13	13	13	13	11	9	8	7	7	6	5	4	4	3	3	3	2	7.6	13.1
25-Oct	2	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	0	0	0	0	-1	1.2	2.2
26-Oct	-2	-2	-2	-2	-2	-1	-1	-1	-1	0	4	6	8	9	9	9	9	7	5	3	3	3	3	3	2.9	9.2
27-Oct	3	3	2	1	1	1	1	1	1	4	7	14	17	18	19	19	19	17	17	16	17	16	15	14	10.1	19.2
28-Oct	12	15	15	15	16	16	15	15	13	13	13	12	11	10	11	10	9	9	8	7	5	4	3	2	10.7	16.1
29-Oct	2	1	-1	0	-1	-1	-1	-2	-2	0	3	5	7	7	7	7	7	4	0	-2	-3	-3	-4	-4	1.1	7.1
30-Oct	-5	-6	-6	-6	-7	-7	-5	-5	-4	-2	0	2	6	9	9	9	9	7	5	2	2	3	3	3	0.8	9.4
31-Oct	3	2	2	4	7	8	8	6	6	6	6	6	6	6	7	7	6	4	3	2	1	0	0	0	4.3	7.7
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C
Evergreen Park - October 2017



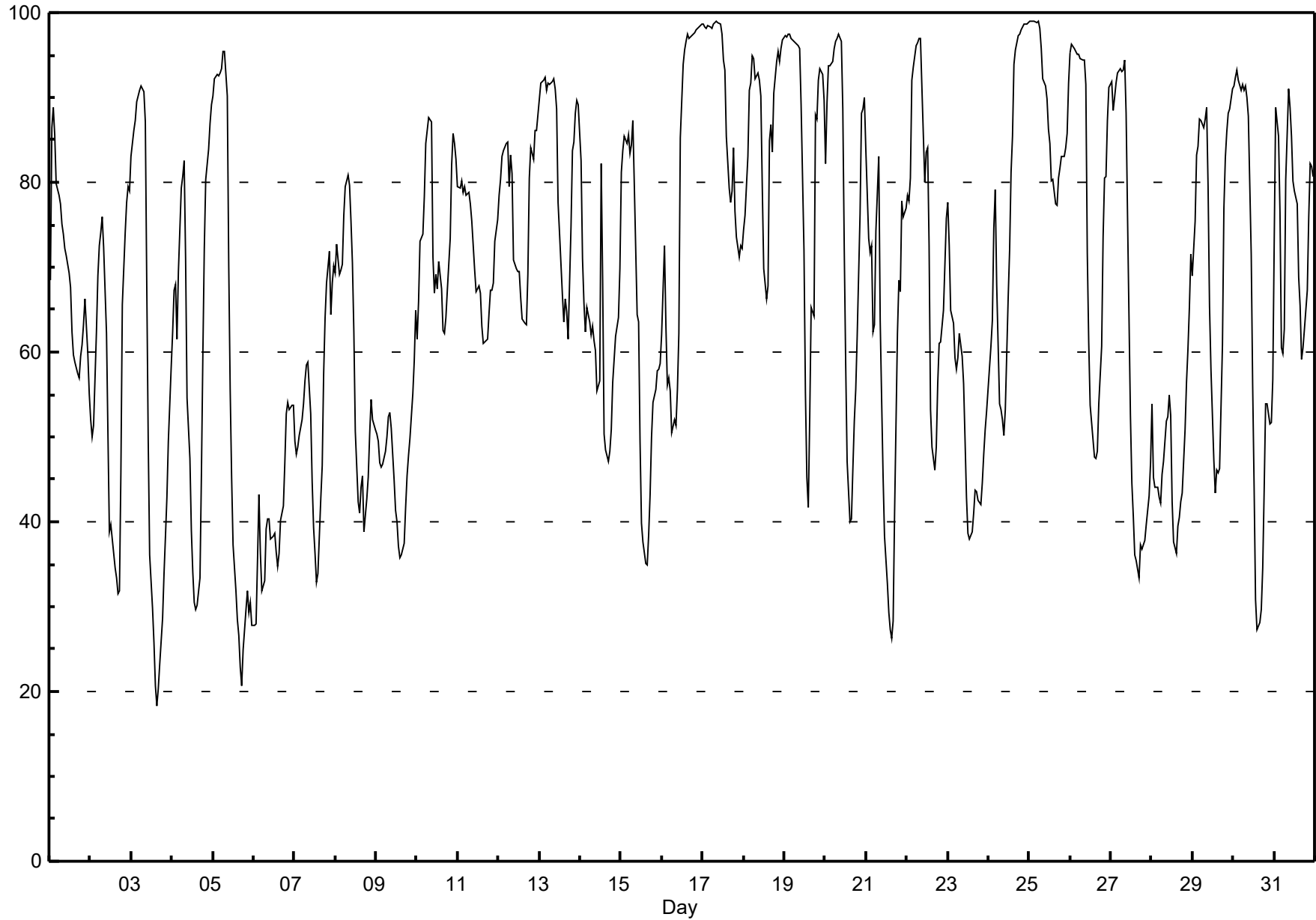
Hourly Averages

Relative Humidity (RH) - % Evergreen Park - October 2017

Maximum Value: 99.0 % on Oct 25 02:00		Maximum Daily Average: 89.2 % on Oct 17		Hours in Service: 744																							
Minimum Value: 18 % on Oct 3 16:00		Minimum Daily Average: 40.6 % on Oct 6		Hours of Data: 744																							
Maximum Diurnal Average: 79.4 % at hour 8		Minimum Diurnal Average: 49.7 % at hour 15		Hours of Missing Data: 0																							
Monthly Average: 67.59 %		Percentiles: P ₁ = 25.8 P ₁₀ = 38.4 Q ₁ = 50.8 Median = 68.8 Q ₃ = 85.9 P ₉₀ = 94.3 P ₉₉ = 98.8		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	69	86	89	86	80	78	77	75	74	72	71	69	68	62	60	59	57	57	60	61	63	66	60	55	68.9	88.9	
2-Oct	52	50	51	62	69	73	74	76	72	62	50	39	40	38	35	33	32	32	46	66	74	78	79	79	56.7	79.4	
3-Oct	83	86	87	90	90	91	91	91	87	68	50	36	30	26	21	18	20	23	29	34	38	43	50	58	55.8	91.4	
4-Oct	62	67	68	62	69	79	81	83	71	55	47	39	34	31	30	30	33	46	60	72	80	84	87	89	60.8	89.2	
5-Oct	90	92	93	93	93	93	95	95	90	70	56	45	37	32	29	27	23	21	25	30	32	29	31	28	56.2	95.5	
6-Oct	28	28	35	43	36	32	33	39	40	40	38	38	39	36	35	36	40	42	47	53	54	53	54	54	40.6	54.1	
7-Oct	50	48	49	50	52	54	57	58	59	53	45	39	36	33	34	43	47	57	64	68	72	64	68	70	52.9	71.9	
8-Oct	69	73	69	70	70	76	80	81	80	75	70	62	51	42	41	44	45	39	43	45	50	54	52	51	59.7	80.8	
9-Oct	50	49	47	46	47	48	50	52	53	51	45	41	40	37	36	36	37	42	45	48	50	55	59	65	47.1	65.0	
10-Oct	62	66	73	74	78	85	86	88	87	71	67	69	67	71	67	63	62	64	67	73	82	86	85	83	74.0	87.6	
11-Oct	80	79	80	79	79	78	79	77	75	72	70	67	68	67	63	61	61	62	65	67	67	68	73	76	71.4	80.2	
12-Oct	78	80	83	84	85	85	79	83	81	71	70	69	70	66	64	63	63	69	80	84	83	86	86	88	77.2	88.0	
13-Oct	90	92	92	92	91	92	92	92	92	91	89	78	74	67	64	66	65	62	75	84	85	88	90	89	82.9	92.3	
14-Oct	83	71	66	62	65	64	62	63	61	60	55	57	82	68	50	49	47	48	51	57	59	62	64	70	61.5	82.5	
15-Oct	81	84	85	85	86	83	84	87	80	64	64	49	40	38	35	35	38	43	50	54	56	58	58	59	62.4	87.3	
16-Oct	62	72	63	56	57	55	51	52	51	56	62	85	94	96	97	97	97	97	97	98	98	98	98	99	78.7	98.7	
17-Oct	99	98	98	99	98	98	99	99	99	99	99	97	94	93	85	79	78	79	84	77	74	71	73	72	89.2	98.9	
18-Oct	74	76	83	91	92	95	95	92	93	92	90	79	70	66	68	85	87	84	90	94	95	94	96	97	86.6	96.8	
19-Oct	97	97	97	97	97	97	96	96	96	96	89	72	55	45	42	52	65	64	88	87	92	93	93	90	83.2	97.4	
20-Oct	82	89	94	94	94	96	97	97	98	97	89	72	59	47	40	40	46	52	56	62	76	88	89	90	76.8	97.5	
21-Oct	84	73	72	72	62	63	74	83	64	54	45	38	33	29	27	26	28	41	62	69	67	78	76	77	58.3	83.9	
22-Oct	78	78	81	92	94	96	96	97	97	91	80	83	84	72	53	49	46	49	56	61	61	65	70	76	75.3	97.0	
23-Oct	78	72	65	63	59	58	59	62	59	56	50	43	39	38	39	41	44	44	43	42	45	48	51	53	52.1	77.6	
24-Oct	56	61	64	75	79	68	54	53	52	50	53	66	72	81	85	94	96	97	98	98	98	99	99	99	76.9	98.8	
25-Oct	99	99	99	99	99	99	98	96	92	91	90	86	85	80	80	77	77	81	82	83	83	84	86	92	89.0	99.0	
26-Oct	95	96	96	95	95	95	95	94	94	91	72	61	54	50	48	47	48	54	61	73	80	81	87	91	77.3	96.2	
27-Oct	92	88	90	92	93	93	93	93	94	88	76	53	45	41	36	35	33	37	37	37	38	40	43	47	63.1	94.3	
28-Oct	54	45	44	44	43	42	46	47	52	52	55	53	42	38	36	40	41	42	43	51	56	60	65	72	48.5	71.6	
29-Oct	69	75	83	84	87	87	86	87	89	80	65	58	47	43	46	46	46	61	77	83	86	88	89	91	73.1	91.0	
30-Oct	91	92	93	92	91	92	91	91	90	88	72	56	44	31	27	28	30	35	44	54	54	52	52	57	64.4	93.2	
31-Oct	73	89	85	76	60	60	63	80	91	89	85	80	79	77	69	65	59	61	63	67	76	82	82	81	74.7	91.1	
		74.5	76.0	76.6	77.4	77.2	77.6	77.8	79.4	77.9	72.5	66.4	60.8	57.1	53.0	49.7	50.6	51.4	54.3	60.8	65.5	68.6	70.8	72.3	74.0	Diurnal Average	
		98.9	99.0	98.9	98.9	98.9	98.9	98.6	98.7	98.9	98.9	98.7	97.5	94.4	95.6	96.5	97.4	96.9	97.3	97.5	98.0	98.4	98.7	98.7	98.8	Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - October 2017



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - October 2017

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	12	14	10	15	18	19	25	21	24	25	28	31	32	31	30	30	32	29	28	22	24	19	14	12	21.9	32.5
Dir	270	271	265	290	311	304	317	322	319	317	317	320	317	315	315	312	318	320	322	322	327	349	346	315.1	316.9	
2 Spd	12	13	9	5	11	10	5	7	10	13	14	13	14	13	13	16	12	8	4	3	2	2	3	2	7.1	16.0
Dir	356	354	8	324	312	306	284	269	282	272	304	311	298	279	271	295	285	267	215	187	191	197	199	185	295.9	295.4
3 Spd	1	3	3	2	0	0	1	0	2	8	11	8	6	7	16	18	16	9	10	10	10	7	5	2	5.5	18.0
Dir	194	168	188	33	77	121	171	121	189	189	190	190	188	236	233	252	252	262	249	253	253	265	251	246	232.8	251.9
4 Spd	3	2	2	3	3	2	5	4	4	6	4	5	6	4	4	3	2	1	0	0	0	0	1	2	1.9	5.8
Dir	253	262	235	234	243	200	194	190	187	228	195	182	171	164	81	125	113	64	332	208	316	336	358	203	191.4	227.6
5 Spd	1	0	2	2	3	2	4	4	9	9	12	17	28	25	23	23	28	20	14	12	12	15	8	16	11.2	28.2
Dir	181	207	197	185	184	192	186	193	191	209	235	234	238	245	264	261	263	256	249	246	243	232	262	239	242.6	237.9
6 Spd	11	10	3	6	16	19	12	10	11	17	34	35	31	36	32	27	20	30	27	30	35	24	26	27	21.5	35.9
Dir	234	225	215	209	214	244	251	250	263	246	234	236	234	235	254	266	271	233	234	234	238	232	234	236	239.6	234.7
7 Spd	32	31	27	29	30	30	30	28	27	30	33	31	28	30	24	21	32	36	22	21	18	24	22	21	24.1	35.7
Dir	243	255	264	259	253	250	248	251	250	251	263	269	265	266	284	325	325	315	297	293	315	324	320	323	276.0	314.9
8 Spd	15	17	18	13	12	14	12	10	8	11	10	6	6	16	12	0	4	26	22	24	15	13	15	20	11.4	26.1
Dir	308	303	296	263	260	272	269	270	254	258	279	312	261	242	249	159	212	247	237	239	208	198	199	222	252.5	246.8
9 Spd	18	25	24	29	25	38	38	40	34	35	48	38	38	31	32	34	34	31	19	22	18	9	9	6	28.0	48.0
Dir	232	220	226	236	235	231	235	236	241	250	243	243	246	247	248	244	239	238	240	244	246	234	231	230	239.2	242.7
10 Spd	10	4	5	5	2	1	0	2	3	14	16	20	20	18	20	23	19	20	18	20	18	15	12	11	10.5	22.9
Dir	240	265	302	270	270	237	26	40	21	34	48	46	43	38	32	39	37	37	36	38	34	28	28	26	32.7	38.9
11 Spd	9	8	7	10	9	10	7	8	9	10	9	7	8	4	6	6	6	5	5	6	8	1	2	1	3.7	10.2
Dir	24	15	17	17	17	17	29	22	14	13	10	12	24	35	332	259	241	228	208	205	213	101	84	177	7.5	17.2
12 Spd	0	1	1	0	1	1	2	1	1	4	5	5	3	2	7	4	4	4	1	0	0	1	1	1	1.7	6.7
Dir	163	179	83	69	104	35	166	112	112	100	134	141	153	192	172	172	140	117	137	68	98	173	46	207	142.0	171.6
13 Spd	0	0	1	3	1	1	1	1	4	6	8	15	13	9	8	5	1	6	5	7	6	6	2	3	2.8	14.8
Dir	188	239	201	196	245	290	340	216	276	278	273	309	290	263	266	322	330	191	179	169	159	173	185	183	253.0	309.5
14 Spd	8	12	14	18	18	20	23	16	10	6	13	25	27	23	38	36	38	32	30	24	25	21	14	3	19.8	38.0
Dir	191	200	204	209	214	226	231	231	229	263	258	248	246	228	241	245	246	246	250	240	242	243	233	207	236.4	240.8
15 Spd	3	3	2	2	3	4	2	1	12	10	9	24	46	44	43	47	48	34	13	13	15	20	33	38	18.4	47.8
Dir	121	139	136	148	161	172	158	122	193	192	203	228	236	231	238	235	242	241	215	213	220	213	220	232	226.8	241.8
16 Spd	33	14	33	28	30	27	23	13	17	2	2	4	7	6	5	4	5	2	2	1	3	1	5	8	8.1	33.0
Dir	246	247	234	234	230	237	243	236	225	103	113	113	101	92	50	65	68	46	53	120	124	181	198	201	228.8	245.9
17 Spd	7	4	2	2	1	2	1	1	1	1	5	20	25	24	26	29	20	15	15	28	27	27	26	21	11.2	29.3
Dir	202	198	162	113	88	110	134	56	104	130	326	311	292	285	281	281	269	250	226	240	245	241	229	225	257.9	280.9
18 Spd	19	15	2	4	1	1	4	4	3	4	3	7	9	8	7	11	10	10	9	2	3	1	0	1	3.3	19.2
Dir	221	231	215	212	150	129	184	178	92	50	67	88	93	97	142	119	101	109	104	67	93	71	210	149	134.5	221.1
19 Spd	2	1	2	2	1	1	1	2	2	2	2	3	4	7	3	0	1	2	1	3	0	1	1	8	0.8	7.6
Dir	25	163	170	41	110	178	80	52	28	138	48	127	131	127	115	99	185	214	23	188	240	185	275	256	138.0	255.7
20 Spd	5	6	2	0	2	1	3	1	3	4	5	14	14	18	22	19	9	11	8	6	2	1	3	3	6.2	22.3
Dir	249	207	5	318	334	209	296	305	261	190	212	246	234	251	254	251	256	245	249	226	200	168	187	196	243.9	254.3
21 Spd	8	14	14	12	18	10	7	5	15	13	15	13	13	13	10	7	7	5	5	6	3	4	4	3	6.5	18.2
Dir	227	220	223	236	232	232	207	233	222	216	208	194	199	204	196	197	105	82	78	52	48	48	51	55	208.9	231.6
22 Spd	2	1	1	4	1	2	0	3	0	4	4	6	11	15	29	38	42	30	13	12	20	16	8	1	10.4	42.1
Dir	37	292	317	220	238	215	254	203	202	235	255	202	198	228	244	245	245	246	249	222	234	234	204	266	237.5	245.3



Peace Airshed Zone Association

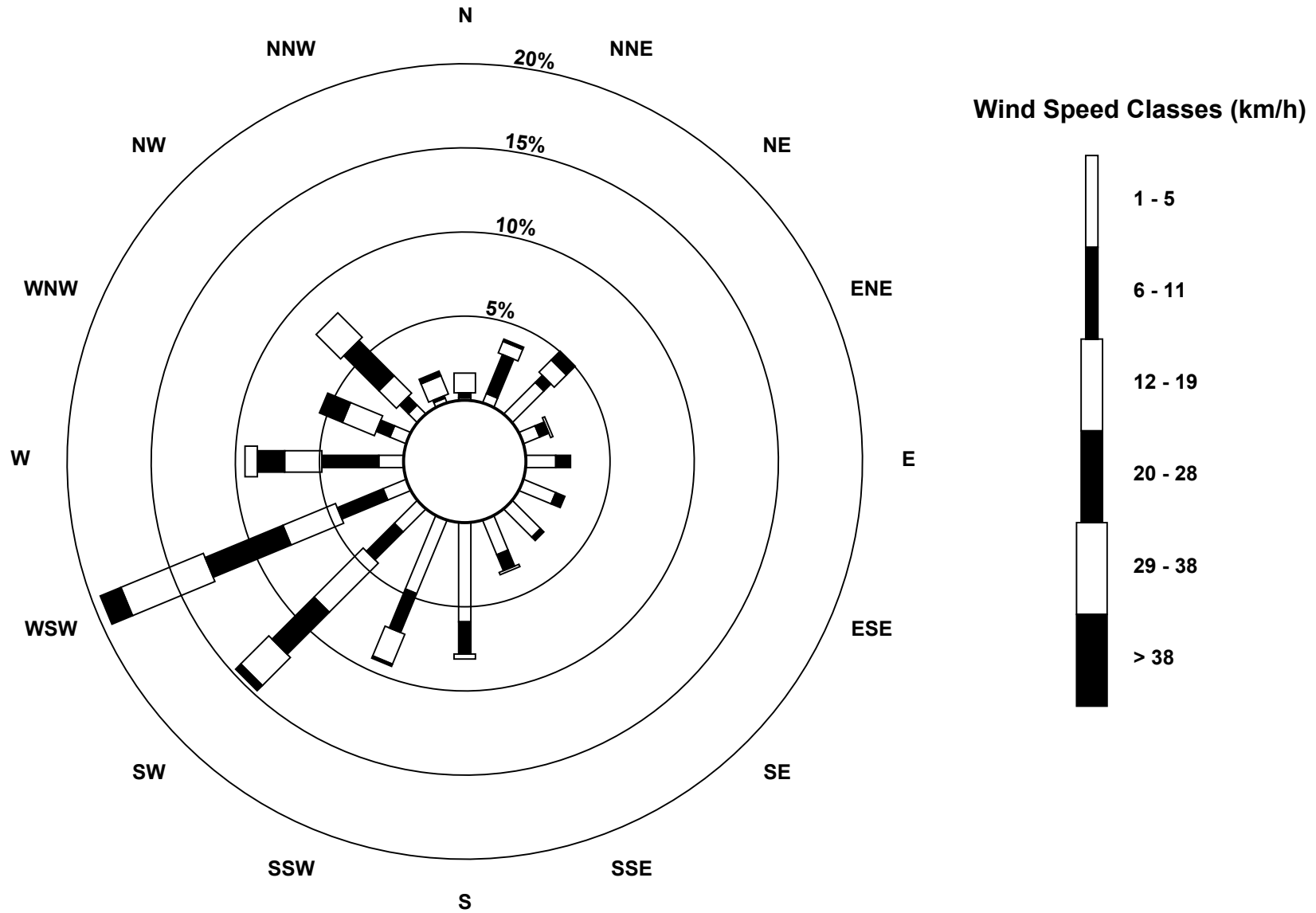
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - October 2017

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	10	23	28	20	22	27	20	17	22	16	21	21	37	34	22	9	3	8	10	10	10	12	14	15	16.0	36.7
Dir	227	232	234	233	241	238	235	239	239	234	227	241	239	236	229	215	144	153	160	160	157	162	178	188	223.5	238.7
24 Spd	14	5	8	1	3	11	28	29	36	33	22	29	35	20	16	6	6	8	7	9	10	11	14	13	7.4	35.7
Dir	193	222	279	323	210	256	256	250	247	246	259	311	313	305	322	18	36	48	62	62	72	62	58	52	284.9	247.3
25 Spd	12	8	5	3	3	16	21	14	26	26	15	12	12	13	11	9	6	3	4	6	7	5	2	2	6.2	26.0
Dir	50	52	38	68	43	333	320	286	320	323	349	1	11	5	13	26	32	86	130	180	174	154	145	112	351.9	320.1
26 Spd	2	4	5	6	4	0	5	2	2	0	10	23	32	30	28	25	16	10	7	1	1	2	1	1	7.7	31.9
Dir	163	147	164	150	170	91	207	167	186	171	237	252	251	256	257	258	262	246	225	35	118	196	151	66	243.2	251.4
27 Spd	2	3	1	0	2	2	0	2	2	2	5	24	43	41	48	33	29	17	24	36	43	28	19	21	17.3	48.0
Dir	86	185	85	175	200	187	207	180	191	190	190	249	246	244	247	245	245	242	242	242	243	239	235	238	241.3	246.7
28 Spd	9	23	23	29	32	22	20	12	6	11	16	15	14	15	21	19	15	12	9	10	10	9	5	5	10.7	32.2
Dir	246	232	232	228	227	246	248	263	290	261	16	15	349	328	322	303	300	298	274	261	260	248	259	282	270.0	227.0
29 Spd	7	5	2	2	2	6	5	2	6	8	14	10	12	10	10	12	7	0	1	2	1	2	3	1	4.6	14.5
Dir	268	249	287	287	228	233	255	270	255	290	309	296	270	302	315	302	300	287	199	195	178	171	189	198	280.3	309.2
30 Spd	1	0	0	0	1	0	0	3	5	5	7	9	16	25	26	19	8	7	2	6	4	7	5	5	4.4	26.2
Dir	179	178	194	149	27	35	57	178	186	205	232	247	262	315	317	309	277	310	309	198	210	190	195	187	273.4	316.7
31 Spd	6	3	0	8	16	12	12	17	22	23	22	21	19	22	25	30	37	25	32	23	19	12	15	17	15.8	36.9
Dir	207	79	155	250	254	264	280	304	282	294	289	291	288	271	289	307	322	333	324	334	350	341	336	327	304.2	322.4
Spd	5.6	6.0	5.9	6.4	7.3	7.9	8.0	6.8	7.9	7.7	8.2	10.2	13.2	13.5	14.5	12.8	11.0	9.1	6.8	7.2	6.9	5.4	4.8	5.3	Diurnal Average	
Dir	241.9	239.7	243.0	239.8	241.5	251.5	253.0	254.1	255.5	260.8	263.1	268.4	260.9	259.4	266.5	269.6	271.0	262.8	256.5	247.3	247.0	242.1	237.9	243.4	Diurnal Maximum	
Spd	33.0	31.4	32.7	29.3	32.2	37.9	37.7	40.1	35.7	35.3	48.0	38.2	45.7	44.2	48.0	47.4	47.8	35.7	32.1	36.1	42.9	28.1	33.1	37.5	Diurnal Maximum	
Dir	245.9	254.7	234.1	227.8	227.0	231.2	235.1	236.3	247.3	249.8	242.7	242.6	236.2	230.9	246.7	235.2	241.8	314.9	323.9	241.6	243.2	238.6	219.9	231.9	Diurnal Maximum	
Maximum Speed Value: 48 km/h on Oct 9 11:00		Minimum Speed Value: 0 km/h on Oct 4 21:00		Hours in Service: 744																						
Maximum Daily Speed Average: 28.0 km/h on Oct 9		Minimum Daily Speed Average: 0.8 km/h on Oct 12		Hours of Data: 744																						
Maximum Diurnal Speed Average: 14.5 km/h at hour 15		Minimum Diurnal Speed Average: 4.8 km/h at hour 23		Hours of Missing Data: 0																						
Monthly Average Velocity: 8.14 km/h 255.99 deg				Speed Percentiles: P ₁ = 0.2 P ₁₀ = 1.2 Q ₁ = 3.2 Median = 9.4 Q ₃ = 19.8 P ₉₀ = 29.5 P ₉₉ = 42.1				Percent Operational Time: 100.0																		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Direction	Speed Range (km/h)							Total																		
	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38																				
North	4	12	14	0	0	0	30																			
NorthEast	33	11	13	6	0	0	63																			
East	32	10	0	0	0	0	42																			
SouthEast	37	7	0	0	0	0	44																			
South	81	31	10	0	0	0	122																			
SouthWest	32	36	46	46	42	14	216																			
West	19	41	33	29	18	0	140																			
NorthWest	14	10	22	27	14	0	87																			
Total	252	158	138	108	74	14	744																			

Wind Rose

Wind Speed (WS) (km/h)
Evergreen Park - October 2017



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - October 2017

Maximum Speed: 48 km/h on Oct 9 11:00	Maximum Daily Speed Average: 28.5 km/h on Oct 9	Hours in Service: 744
Minimum Speed: 0 km/h on Oct 4 21:00	Minimum Daily Speed Average: 2.9 km/h on Oct 12	Hours of Data: 744
Maximum Diurnal Speed Average: 20.8 km/h at hour 15	Minimum Diurnal Speed Average: 9.0 km/h at hour 4	Hours of Missing Data: 0
Monthly Average Speed: 13.02 km/h	Percentiles: $P_1 = 0.5$ $P_{10} = 1.8$ $Q_1 = 3.9$ Median = 9.9 $Q_3 = 20.2$ $P_{90} = 29.7$ $P_{99} = 42.7$	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	13	15	10	15	18	20	25	22	24	25	29	31	33	31	31	30	32	29	28	22	24	20	15	13	23.2	33.1
2-Oct	13	14	10	5	11	10	5	7	11	14	15	15	17	16	15	18	14	9	5	3	2	2	3	2	9.8	17.5
3-Oct	2	3	4	2	1	1	2	1	2	8	11	9	7	8	16	19	16	9	10	10	10	8	5	2	6.9	18.8
4-Oct	3	2	2	3	3	2	5	4	4	7	4	7	7	6	6	4	2	2	0	0	0	0	1	2	3.2	7.1
5-Oct	1	1	2	2	3	2	4	4	9	10	12	17	29	26	24	24	28	21	15	12	12	15	10	16	12.4	28.5
6-Oct	11	10	3	6	17	19	12	10	12	18	35	35	32	37	32	27	21	31	27	30	35	24	26	28	22.5	36.6
7-Oct	32	32	28	30	30	31	31	28	27	30	33	33	30	31	26	22	32	36	23	22	19	25	23	21	28.1	36.5
8-Oct	16	18	19	13	13	14	12	11	8	12	10	7	8	17	12	3	5	26	22	24	15	13	16	20	14.0	26.3
9-Oct	18	25	24	29	25	38	38	40	35	36	48	39	38	31	32	35	34	31	19	22	18	9	10	6	28.5	48.5
10-Oct	10	5	5	5	3	1	1	2	3	15	17	20	21	19	20	23	19	21	18	21	18	15	12	11	12.8	23.2
11-Oct	9	8	7	10	9	10	8	8	9	10	9	8	8	5	8	7	7	6	6	6	8	2	2	2	7.2	10.4
12-Oct	1	2	1	0	1	1	2	2	1	5	6	6	6	5	8	7	6	4	1	1	1	1	1	1	2.9	8.3
13-Oct	0	0	2	3	2	2	1	1	4	6	8	16	14	10	11	6	2	6	5	7	7	6	2	4	5.2	15.6
14-Oct	8	12	14	18	18	20	24	16	10	7	13	25	27	23	38	36	38	33	31	24	25	21	14	4	20.8	38.4
15-Oct	3	3	3	3	3	4	2	2	12	11	9	25	46	45	44	48	48	34	13	14	15	20	33	38	19.9	48.2
16-Oct	34	15	33	28	30	27	23	14	17	4	3	4	8	7	5	5	5	2	2	1	3	1	5	8	11.9	33.9
17-Oct	7	4	3	2	1	2	2	1	2	2	6	22	26	24	27	30	21	15	15	28	27	27	26	21	14.3	29.9
18-Oct	19	15	4	4	3	2	4	4	3	4	3	8	9	8	12	10	11	10	3	4	2	1	1	1	6.4	19.4
19-Oct	5	2	2	2	2	2	2	2	3	3	3	5	5	8	5	3	2	2	2	3	1	2	2	8	3.2	8.1
20-Oct	6	6	3	2	3	1	3	2	4	4	7	15	15	19	23	20	9	11	9	7	4	3	3	3	7.6	23.0
21-Oct	8	14	14	12	18	10	7	6	15	13	16	14	14	14	11	8	8	5	5	6	4	4	4	3	9.8	18.3
22-Oct	3	2	6	4	4	3	2	4	1	5	4	6	11	15	30	38	42	31	14	13	20	17	8	3	11.8	42.5
23-Oct	10	23	28	20	22	28	21	17	22	16	21	21	37	35	23	10	4	9	10	10	11	13	14	15	18.3	37.1
24-Oct	14	7	10	6	8	16	28	30	36	33	23	30	36	20	16	7	6	9	7	10	10	12	14	14	16.7	36.2
25-Oct	13	8	5	3	4	17	21	14	26	26	16	13	13	14	12	9	6	3	4	7	7	6	3	2	10.5	26.3
26-Oct	2	4	6	6	5	1	6	4	2	3	11	24	33	30	28	26	16	10	7	2	1	2	2	1	9.7	32.5
27-Oct	2	5	2	1	2	2	1	3	3	2	5	25	43	42	48	34	29	17	24	36	43	28	19	21	18.3	48.3
28-Oct	9	23	23	30	32	23	20	13	7	11	18	16	15	16	21	19	16	13	9	10	10	9	6	5	15.5	32.3
29-Oct	8	6	3	3	4	7	6	3	6	9	15	11	13	13	10	12	7	2	2	2	1	2	4	1	6.2	14.9
30-Oct	1	1	1	1	1	1	1	3	5	5	7	10	17	26	27	20	8	8	4	6	5	7	5	5	7.3	26.5
31-Oct	8	4	1	9	17	13	14	18	23	23	22	22	19	22	26	31	37	26	33	24	20	13	16	17	19.0	37.4
	9.3	9.3	9.1	9.0	10.2	10.6	10.7	9.5	11.3	12.2	14.2	17.3	20.5	20.1	20.8	19.1	17.2	15.2	12.2	12.5	12.3	10.6	9.8	9.6	Diurnal Average	
	33.9	32.0	33.1	29.8	32.3	38.3	38.0	40.3	36.2	35.8	48.5	38.7	46.3	44.6	48.3	47.9	48.2	36.5	32.5	36.3	43.1	28.3	33.3	38.0	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg
Evergreen Park - October 2017

Maximum Value: 100.0 deg on Oct 18 23:00																							Hours in Service:	744	
Minimum Value: 5.0 deg on Oct 5 09:00																							Hours of Data:	744	
Percentiles: P ₁ = 5.8 P ₁₀ = 7.8 Q ₁ = 11.1 Median = 18.6 Q ₃ = 40.0 P ₉₀ = 69.2 P ₉₉ = 92.1																							Hours of Missing Data:	0	
																							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	22	23	13	15	17	15	9	15	12	11	12	10	12	12	12	13	11	11	10	11	11	16	22	22	22.7
2-Oct	23	21	21	28	11	13	15	14	17	23	27	33	34	41	27	25	29	31	34	10	23	34	39	46	46.2
3-Oct	25	23	55	53	88	90	74	75	67	16	17	23	38	44	12	18	10	18	9	11	10	17	17	33	90.3
4-Oct	29	47	28	15	48	55	9	34	16	30	38	41	41	54	55	42	53	33	48	73	61	74	58	59	74.3
5-Oct	54	74	24	17	13	61	15	23	5	17	19	13	9	10	20	16	12	15	12	11	8	13	38	9	73.8
6-Oct	7	7	23	7	12	8	14	9	18	19	9	9	10	11	14	15	18	14	8	8	7	8	6	6	23.2
7-Oct	7	10	10	11	9	8	8	8	8	10	12	17	19	18	20	19	11	12	16	14	12	9	9	10	20.1
8-Oct	18	20	18	13	13	13	17	17	15	15	24	40	57	19	24	82	58	7	8	8	5	7	7	12	81.7
9-Oct	6	7	8	8	9	8	7	6	10	10	8	9	10	10	11	9	9	8	11	10	7	9	8	13	13.5
10-Oct	14	30	27	26	41	74	92	45	23	15	16	15	26	14	17	11	12	12	11	20	14	14	14	11	91.9
11-Oct	13	18	16	15	13	12	18	19	15	20	26	30	23	39	51	33	37	44	35	12	13	56	40	68	67.7
12-Oct	78	56	69	83	81	60	32	28	60	32	39	43	83	78	38	67	48	17	75	75	79	60	65	73	83.2
13-Oct	84	56	20	12	44	42	28	62	16	18	20	19	26	40	46	17	88	24	10	14	14	14	41	53	87.7
14-Oct	10	12	9	6	9	8	7	6	24	40	19	11	11	11	8	7	7	8	7	6	6	7	8	65	64.6
15-Oct	28	52	69	46	56	33	51	67	8	15	9	13	9	7	11	9	8	9	14	8	9	6	6	9	69.2
16-Oct	14	21	8	9	8	9	10	12	12	77	45	25	17	27	27	56	40	29	23	59	32	50	21	13	76.6
17-Oct	13	23	57	25	35	46	84	66	49	64	57	28	17	14	15	11	15	14	12	6	5	7	6	7	83.9
18-Oct	7	6	84	53	71	40	14	19	28	21	29	20	17	19	27	28	17	19	22	35	30	80	100	81	100.0
19-Oct	61	70	72	46	69	87	73	67	39	74	59	79	50	37	53	94	92	63	78	68	85	65	55	23	94.3
20-Oct	39	33	66	91	84	84	48	82	42	61	59	13	15	16	14	18	19	8	12	22	86	83	38	52	91.4
21-Oct	15	9	5	7	7	9	18	47	6	10	13	24	23	29	45	41	22	11	13	8	34	9	15	32	47.2
22-Oct	57	63	100	33	83	41	86	43	96	33	37	29	13	14	9	8	8	7	14	24	9	10	17	65	100.0
23-Oct	22	7	6	8	8	8	8	10	7	12	10	14	8	8	11	16	24	22	18	14	15	15	19	9	24.5
24-Oct	10	51	38	81	88	78	10	11	9	8	17	13	11	16	14	21	18	16	19	21	21	18	16	18	87.8
25-Oct	21	28	29	44	39	23	14	18	8	8	23	19	20	21	26	22	26	31	24	13	20	23	41	54	54.1
26-Oct	57	24	25	27	51	78	29	55	64	88	17	11	11	11	12	12	15	11	11	70	74	31	69	73	87.8
27-Oct	57	69	57	70	91	60	94	60	73	33	43	14	6	8	7	8	7	6	8	7	6	7	10	8	94.1
28-Oct	9	6	8	8	6	15	9	23	29	14	31	17	24	20	15	13	15	16	20	12	10	10	26	36	36.0
29-Oct	31	27	57	68	85	38	22	58	22	19	14	27	23	38	20	17	18	92	58	77	60	38	21	72	92.3
30-Oct	53	80	92	73	50	73	83	48	33	14	28	16	17	16	9	13	20	28	74	15	39	8	10	22	92.2
31-Oct	70	44	85	19	15	19	33	21	14	12	13	16	17	12	16	17	9	20	10	22	19	21	24	14	84.6
84.0	80.4	100.0	91.4	90.5	90.3	94.1	82.2	96.3	87.8	59.3	78.5	83.1	78.4	55.3	94.3	91.9	92.3	77.9	77.3	86.2	82.9	100.0	81.4		

PAZA

Smoky Heights Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb Smoky Heights - October 2017

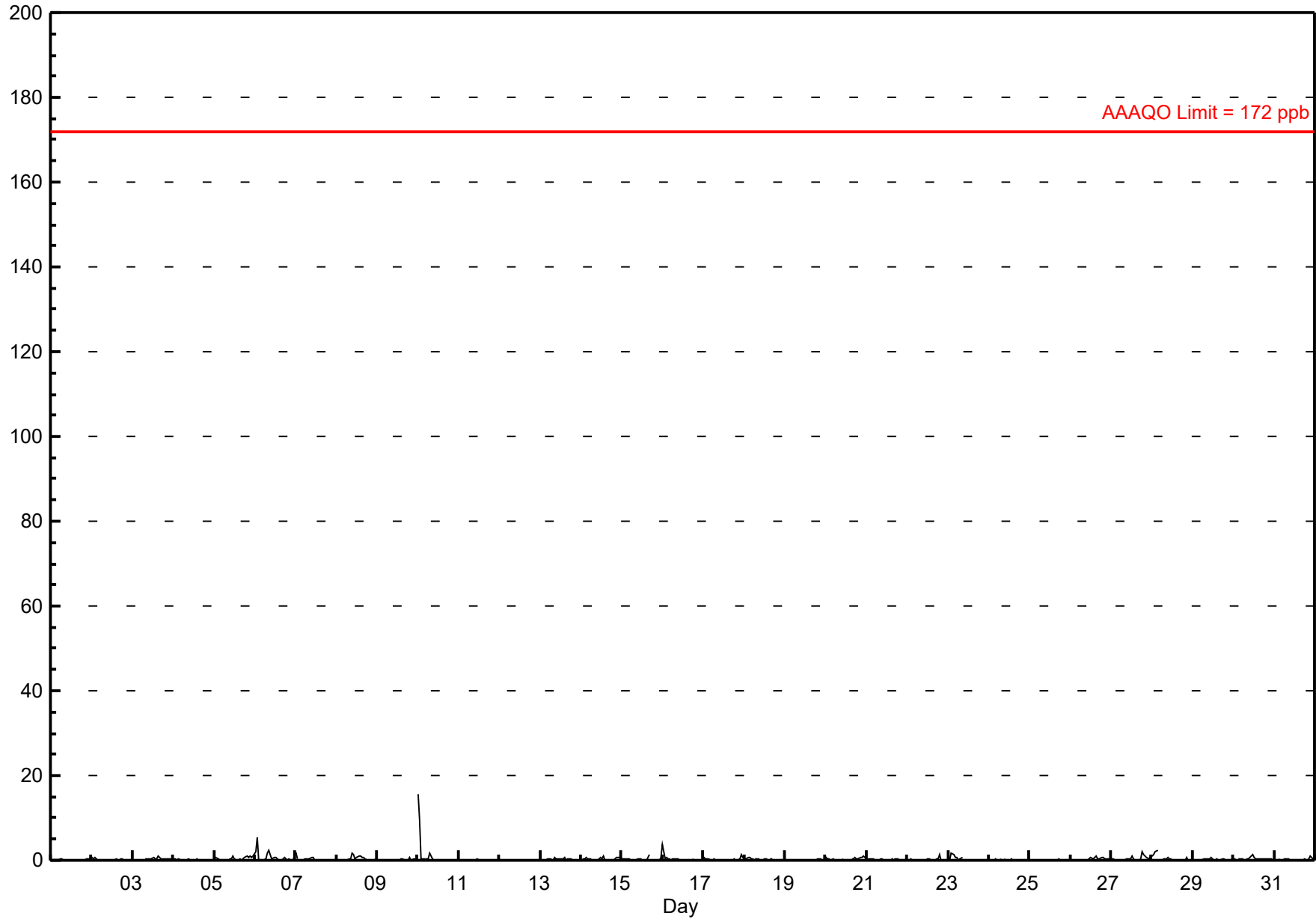
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 15.5 ppb on Oct 10 01:00	Maximum Daily Average: 1.2 ppb on Oct 10		Hours of Data:	709
Minimum Value: 0 ppb on Oct 6 23:00	Minimum Daily Average: 0.0 ppb on Oct 11		Hours of Missing Data:	35
Maximum Diurnal Average: 1.0 ppb at hour 1	Minimum Diurnal Average: 0.1 ppb at hour 6		Hours of Calibration:	35
Monthly Average: 0.28 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 1.9		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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.5	
2-Oct	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Oct	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.9
4-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	0.1	0.2
5-Oct	0	1	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	1	1	0.4	1.2	
6-Oct	2	5	0	A	0	0	0	2	2	1	0	1	1	0	0	0	0	1	0	0	0	0	0	1	0.8	5.4	
7-Oct	2	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7	
8-Oct	0	A	0	0	0	0	0	0	0	2	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0.4	1.6	
9-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0.1	0.6	
10-Oct	15	10	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1.2	15.5	
11-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	0.0	0.2	
12-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	0.1	
13-Oct	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0.2	0.6	
14-Oct	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	A	0	0	1	1	1	0.3	1.0	
15-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	1	0.3	1.5	
16-Oct	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	3.7	
17-Oct	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0.3	1.4	
18-Oct	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6	
19-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	0.4	
20-Oct	1	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	1	0	0	0	1	1	1	1	0.3	1.2	
21-Oct	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
22-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	1.3	
23-Oct	0	0	2	1	1	1	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8	
24-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	0.1	0.3	
25-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	
26-Oct	0	0	0	0	0	0	A	0	0	0	0	1	0	1	1	0	0	1	1	0	0	0	0	0	0.3	1.1	
27-Oct	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	2	1	1	1	0	1	0.4	2.0	
28-Oct	1	1	2	2	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.5	2.5	
29-Oct	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	
30-Oct	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5	
31-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.2	0.9	
	1.0	0.7	0.3	0.3	0.2	0.1	0.1	0.3	0.3	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	0.3	0.3	Diurnal Average		
	15.5	9.6	2.0	2.5	0.7	0.7	0.4	1.8	2.3	1.6	1.4	1.5	0.9	1.1	0.9	1.1	1.5	0.7	2.0	1.4	1.1	0.9	1.4	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 2017



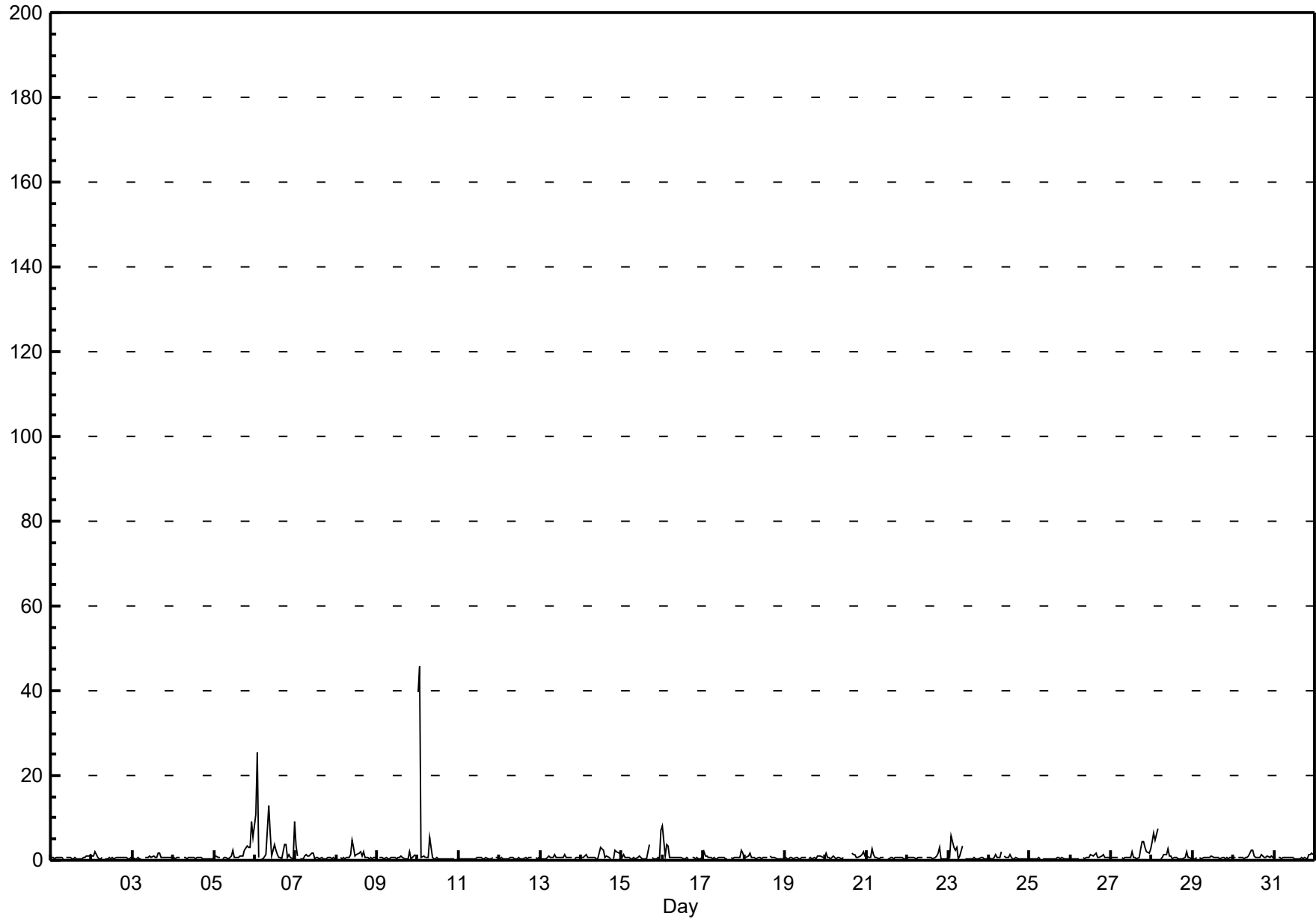
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Smoky Heights - October 2017

Maximum Value: 45.6 ppb on Oct 10 02:00		Maximum Daily Average: 4.4 ppb on Oct 10		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 11 00:00		Minimum Daily Average: 0.4 ppb on Oct 25		Hours of Data: 709																							
Maximum Diurnal Average: 3.3 ppb at hour 2		Minimum Diurnal Average: 0.6 ppb at hour 7		Hours of Missing Data: 35																							
Monthly Average: 1.07 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 1.7 P ₉₉ = 9.0		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	1	1	0	1	1	1	1	0	A	1	1	1	0	0	1	0	0	0	0	1	1	1	1	1	0.6	1.4	
2-Oct	1	1	2	1	0	0	1	A	0	0	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0.7	2.1	
3-Oct	1	0	1	1	0	1	A	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	0.8	1.9	
4-Oct	1	0	1	1	1	A	1	1	0	1	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0.5	0.8	
5-Oct	1	1	1	1	A	0	1	1	0	1	1	2	1	1	1	1	1	1	2	4	3	3	9	5	1.7	9.0	
6-Oct	11	25	1	A	0	0	1	7	13	6	1	4	2	1	1	1	0	4	4	1	1	1	0	9	4.1	25.3	
7-Oct	3	1	A	0	0	1	1	1	1	2	2	0	1	1	0	1	0	0	0	1	1	0	1	0	0.9	3.5	
8-Oct	1	A	1	0	1	0	1	1	1	5	3	1	1	2	2	1	2	1	1	0	1	0	1	1	1.1	4.7	
9-Oct	A	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0	2	0	1	1	A	0.7	2.0	
10-Oct	40	46	1	1	1	1	1	5	1	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	4.4	45.6	
11-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	1	A	1	1	0.5	0.8	
12-Oct	0	1	0	0	0	0	1	1	1	0	0	1	0	0	0	1	0	1	1	1	A	1	0	1	0.5	0.8	
13-Oct	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.3	
14-Oct	1	1	1	1	1	1	1	1	1	0	0	3	3	2	1	1	1	0	A	0	2	2	2	1	1.1	3.1	
15-Oct	1	1	1	1	1	0	0	1	1	1	1	1	0	0	0	2	4	A	1	0	1	1	0	7	1.1	7.2	
16-Oct	8	1	4	3	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	0	1	0	0	1	1.2	8.2	
17-Oct	2	1	1	1	1	0	1	0	0	1	1	1	1	0	0	A	1	0	1	1	1	1	2	2	0.8	2.4	
18-Oct	1	1	1	2	1	1	1	0	1	1	0	1	1	1	A	1	1	1	1	1	0	0	0	0	0.7	1.6	
19-Oct	1	0	0	1	1	0	1	1	0	0	1	1	1	A	0	1	0	1	0	1	1	1	1	1	0.6	1.1	
20-Oct	2	1	1	0	1	1	0	1	1	0	1	C	C	C	C	2	1	1	1	1	1	1	2	1	0.9	1.9	
21-Oct	1	1	1	3	1	1	1	0	1	1	1	A	0	0	1	1	0	1	1	1	1	1	0	0	0.7	2.7	
22-Oct	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	0	1	1	1	2	3	0	0	0	0.8	3.1	
23-Oct	1	1	6	3	2	3	0	1	3	A	0	0	0	1	0	1	0	0	0	1	1	0	0	0	1.2	5.7	
24-Oct	1	0	0	1	1	1	1	2	A	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0.6	2.0	
25-Oct	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0.4	0.8	
26-Oct	0	0	0	0	0	0	A	1	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	0.7	1.7	
27-Oct	1	1	1	1	1	A	1	0	1	1	1	1	2	1	1	0	1	3	4	4	3	2	2	3	1.4	4.5	
28-Oct	5	6	5	8	A	1	1	1	1	3	1	1	0	1	1	0	0	0	0	1	2	1	1	1	1.7	7.5	
29-Oct	0	0	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.2	
30-Oct	1	1	A	1	1	1	0	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.4	
31-Oct	1	A	1	1	0	1	1	1	1	1	1	1	0	0	0	0	1	0	1	0	1	1	2	1	0.7	1.5	
		2.8	3.3	1.1	1.1	0.7	0.7	0.6	1.1	1.2	1.0	0.8	1.0	0.8	0.7	0.6	0.7	0.8	0.8	0.9	0.9	0.9	0.8	1.1	1.4	Diurnal Average	
		39.7	45.6	5.7	7.5	2.3	2.9	1.3	7.0	12.8	6.3	3.0	3.7	2.6	2.2	1.9	2.0	3.9	3.9	4.5	4.3	3.2	2.9	9.0	9.0	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

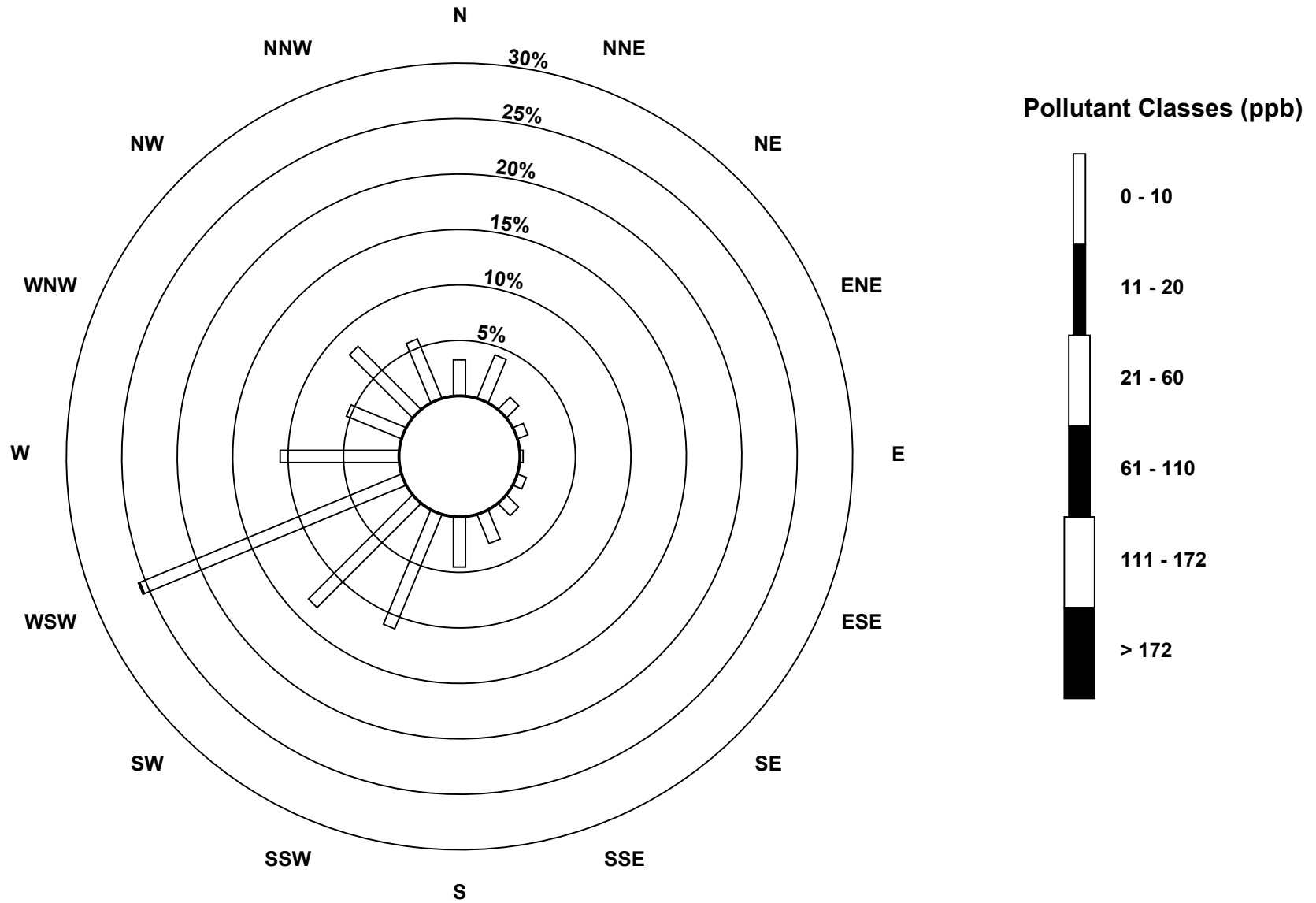
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - October 2017



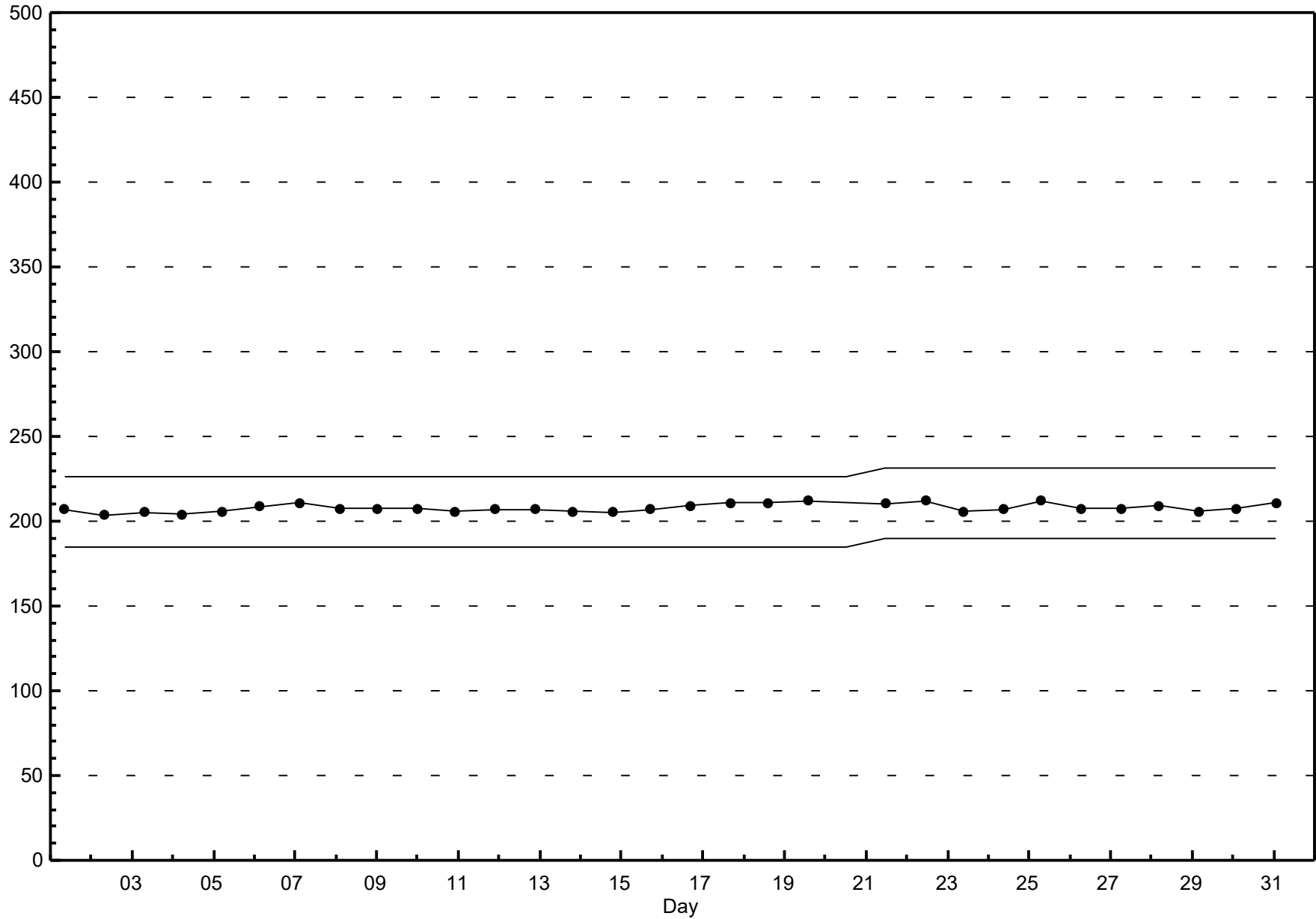
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - October 2017



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - October 2017

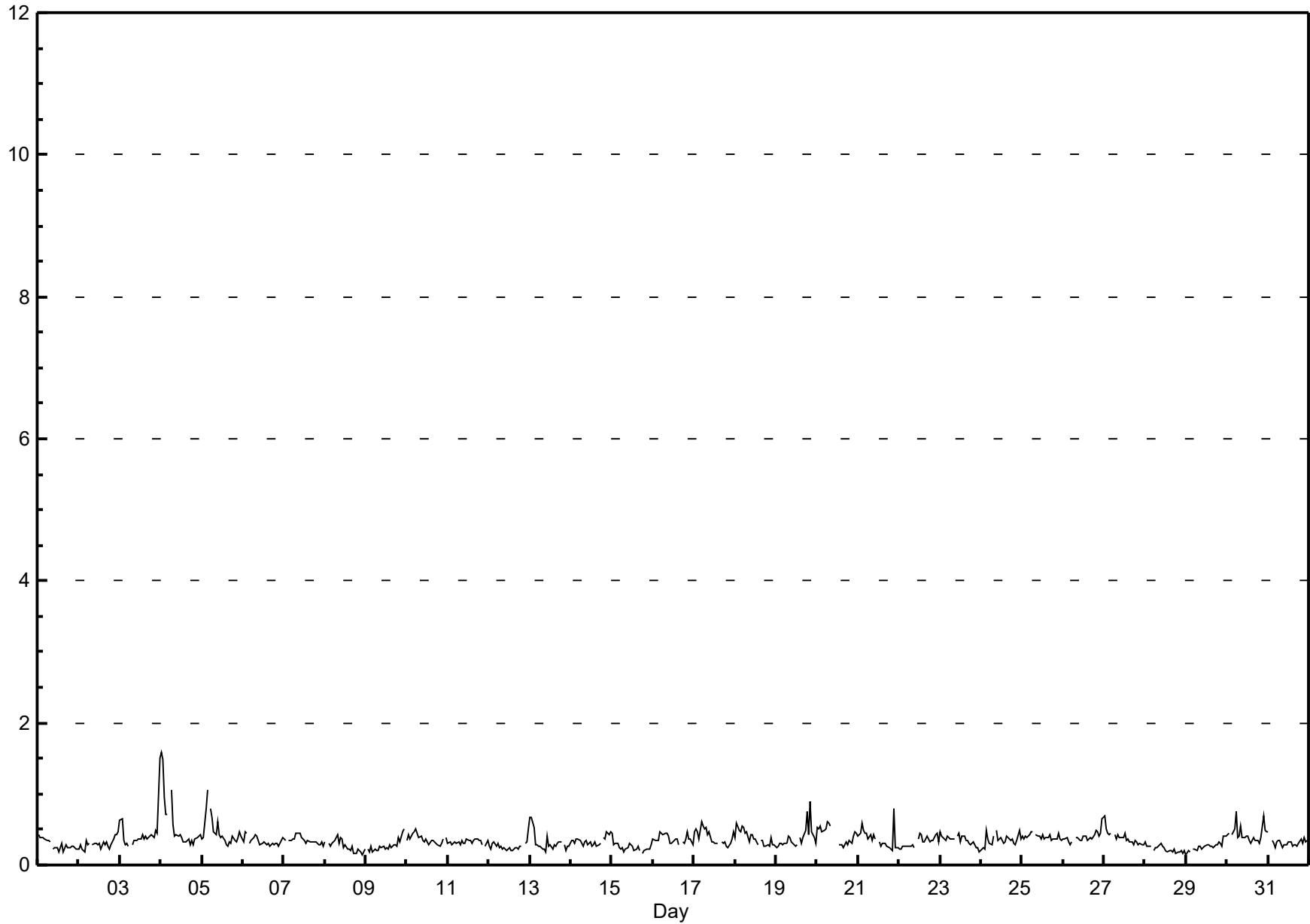


Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2017

Maximum Value: 1.6 ppb on Oct 4 01:00 Minimum Value: 0 ppb on Oct 29 01:00 Maximum Diurnal Average: 0.4 ppb at hour 1 Monthly Average: 0.35 ppb		Maximum Daily Average: 0.6 ppb on Oct 4 Minimum Daily Average: 0.2 ppb on Oct 28 Minimum Diurnal Average: 0.3 ppb at hour 16 Percentiles: P ₁ = 0.2 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.5 P ₉₉ = 0.9		Hours in Service: 744 Hours of Data: 709 Hours of Missing Data: 35 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	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	0.3	0.4
2-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	0.3	0.5
3-Oct	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.4	1.5	
4-Oct	2	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.6	
5-Oct	0	0	1	1	A	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.1	
6-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	0.3	0.5	
7-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	0.3	0.4	
8-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	0.3	0.4	
9-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	0.3	0.5	
10-Oct	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5	
11-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	0.3	0.4	
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0.3	0.5	
13-Oct	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.7	
14-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	0.3	0.5	
15-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	0.3	0.5	
16-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	0.4	0.5	
17-Oct	0	1	0	0	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.6	
18-Oct	0	1	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.6	
19-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	1	0	0	0	0.4	0.9	
20-Oct	1	0	1	0	0	1	1	1	1	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6	
21-Oct	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.8	
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	0.3	0.5	
23-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	0.4	0.5	
24-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	0.3	0.5	
25-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	0.4	0.5	
26-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.7	
27-Oct	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7	
28-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	
29-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	0.3	0.4	
30-Oct	0	0	A	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.8	
31-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	0.3	0.5	
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	Diurnal Average		
	1.6	1.5	1.0	1.1	0.7	0.8	1.1	0.6	0.6	0.6	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.8	0.5	0.9	0.8	0.5	1.5	Diurnal Maximum		
C - Calibration																								A - Automated Daily Zero Span			

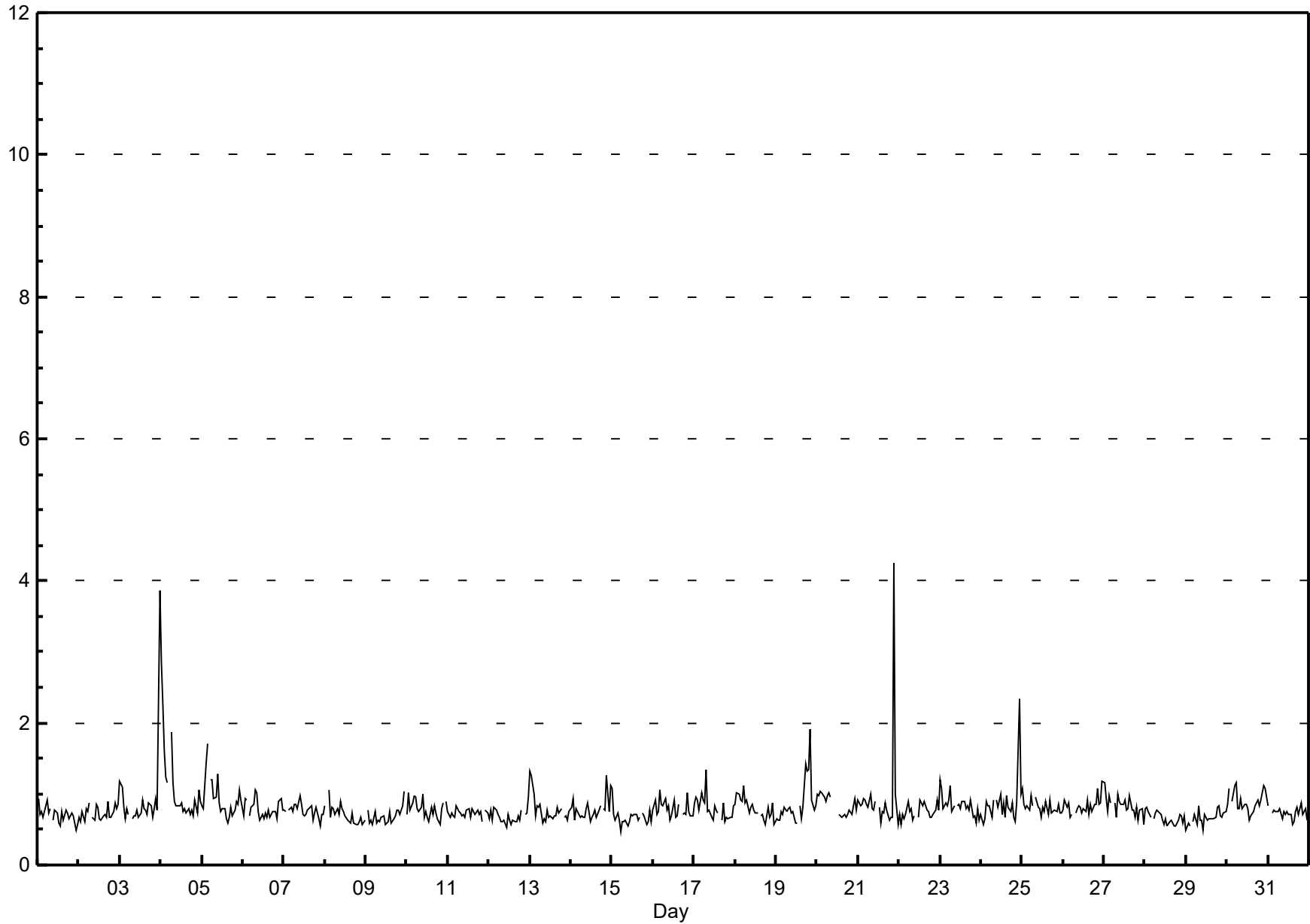


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

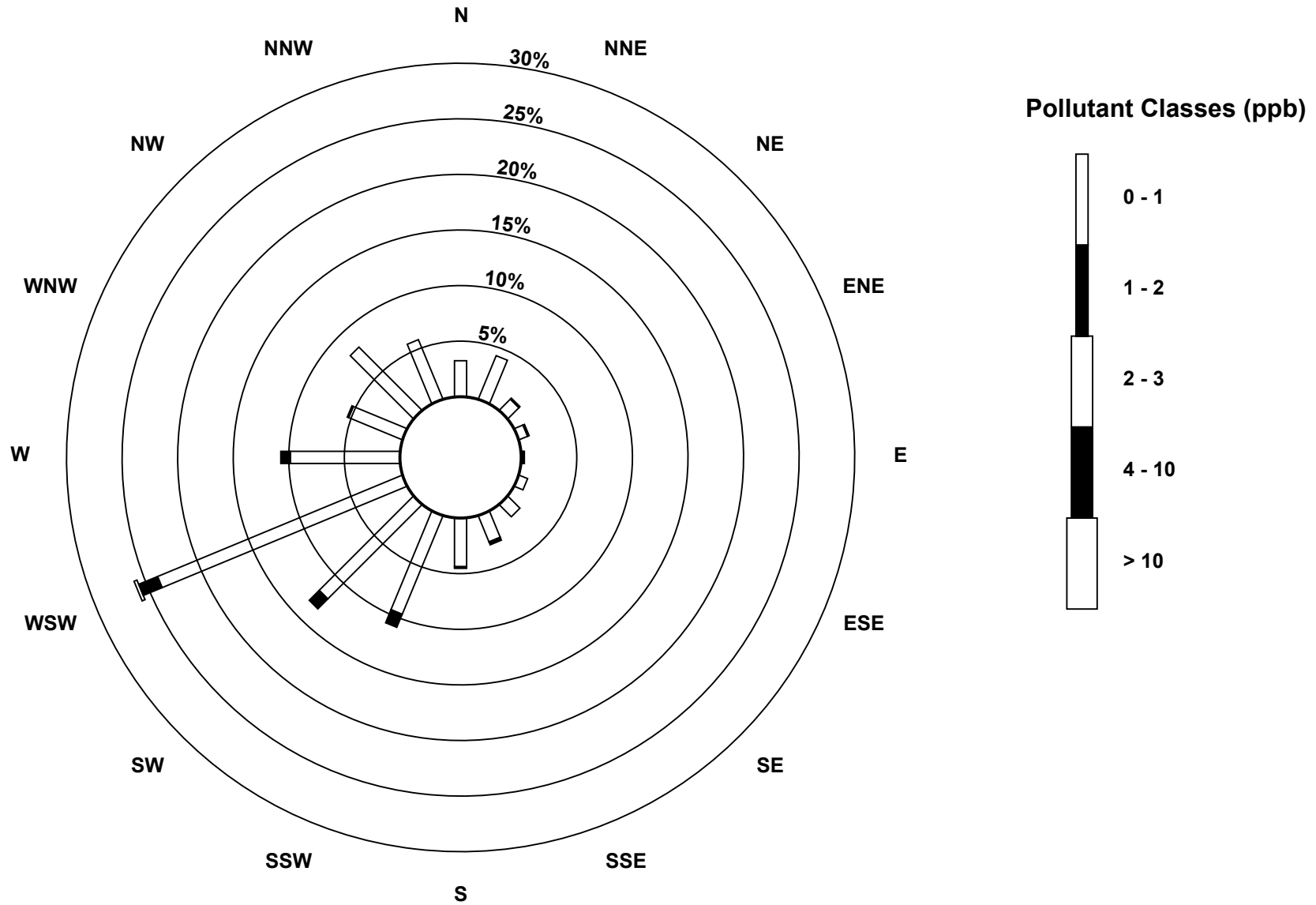
Smoky Heights - October 2017

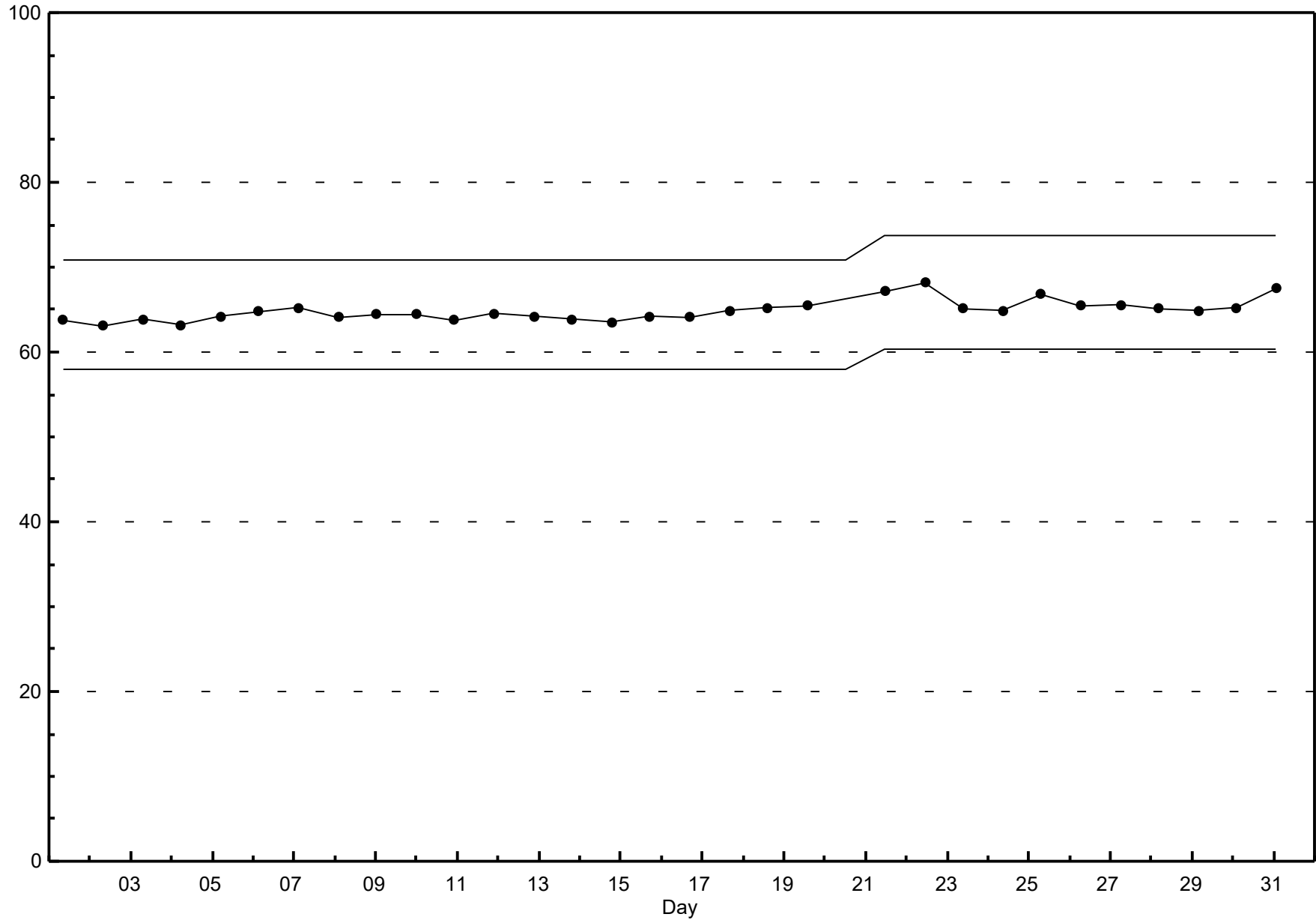
Maximum Value: 4.2 ppb on Oct 21 22:00		Maximum Daily Average: 1.1 ppb on Oct 4		Hours in Service: 744																																													
Minimum Value: 0 ppb on Oct 15 06:00		Minimum Daily Average: 0.7 ppb on Oct 29		Hours of Data: 709																																													
Maximum Diurnal Average: 0.9 ppb at hour 1		Minimum Diurnal Average: 0.7 ppb at hour 14		Hours of Missing Data: 35																																													
Monthly Average: 0.80 ppb		Percentiles: P ₁ = 0.5 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.8 Q ₃ = 0.9 P ₉₀ = 1.0 P ₉₉ = 1.9		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	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	0.9																							
2-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																							
3-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	0.9	3.9																							
4-Oct	3	2	2	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.9																							
5-Oct	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7																							
6-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	0.8	1.1																							
7-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	0.8	1.0																							
8-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	0.7	1.1																							
9-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0																							
10-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	0.8	1.0																							
11-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	0.7	0.8																							
12-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0																							
13-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																							
14-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	1.3																							
15-Oct	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.1																							
16-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	1.1																							
17-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.4																							
18-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	1.1																							
19-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	0.9	1.9																							
20-Oct	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0																							
21-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	4	1	1.0	4.2																							
22-Oct	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9																							
23-Oct	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2																							
24-Oct	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0.9	2.3																							
25-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1																							
26-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2																							
27-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	0.8	1.2																							
28-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	0.7	0.8																							
29-Oct	0	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8																							
30-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	1.2																							
31-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	0.7	0.9																							
																								0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.8	0.8	0.9	0.9	0.9	Diurnal Average	
																								2.9	2.3	1.6	1.7	1.2	1.2	1.9	1.4	1.0	1.3	0.9	1.0	0.9	0.9	0.9	1.0	0.9	1.4	1.3	1.3	1.9	4.2	2.3	3.9	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																									



Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - October 2017





Hourly Averages

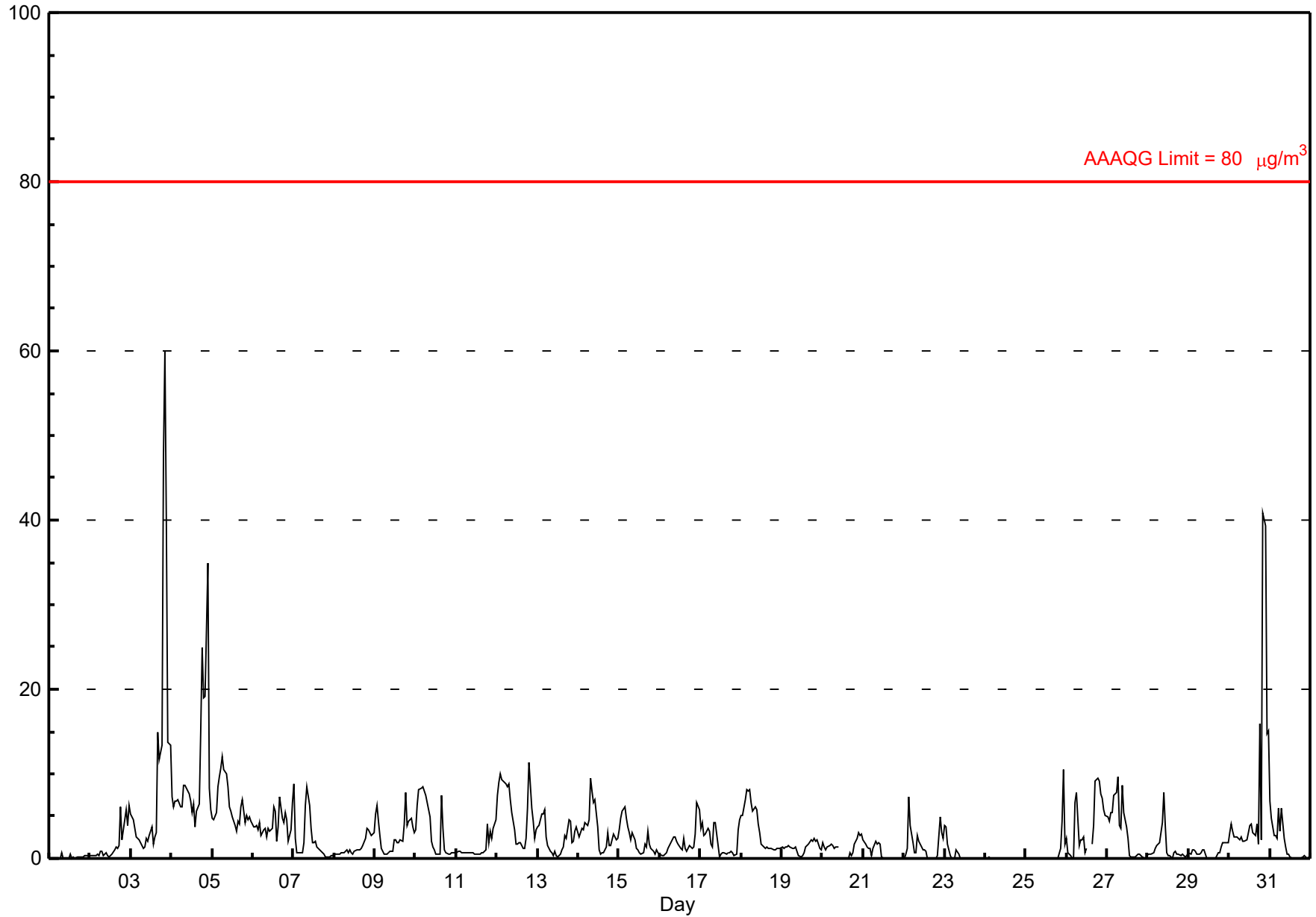
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - October 2017

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 60.0 µg/m ³ on Oct 3 21:00	Maximum Daily Average: 10.7 µg/m ³ on Oct 3
Minimum Value: 0 µg/m ³ on Oct 1 02:00	Hours of Data: 737
Minimum Daily Average: 0.0 µg/m ³ on Oct 24	Hours of Missing Data: 7
Maximum Diurnal Average: 5.7 µg/m ³ at hour 22	Hours of Calibration: 5
Monthly Average: 2.90 µg/m ³	Percent Operational Time: 99.7
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.5 Median = 1.4 Q ₃ = 3.8 P ₉₀ = 6.9 P ₉₉ = 16.1	

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	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7																						
2-Oct	0	0	0	0	1	0	1	1	0	1	0	0	0	1	1	1	1	1	6	2	5	6	4	6	1.7	6.2																						
3-Oct	5	5	3	3	2	2	2	1	1	2	2	3	4	2	3	3	15	12	13	48	60	40	14	13	10.7	60.0																						
4-Oct	7	6	7	7	7	6	6	9	9	8	8	7	5	6	4	6	6	15	25	19	19	35	8	6	10.0	34.9																						
5-Oct	5	4	5	9	10	11	12	10	10	9	6	6	5	4	3	4	4	6	7	4	5	5	5	4	6.4	12.0																						
6-Oct	4	4	4	3	4	3	3	3	3	4	3	4	6	6	2	4	7	5	4	5	5	2	3	7	4.0	7.3																						
7-Oct	9	2	1	1	1	1	2	6	8	6	4	2	2	2	1	1	1	1	0	0	0	0	0	0	2.1	8.8																						
8-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	3	3	3	3	1.4	3.6																						
9-Oct	5	6	4	3	1	1	1	1	1	1	1	2	2	2	2	2	2	4	8	4	4	5	4	3	2.8	7.8																						
10-Oct	3	6	8	8	8	8	7	7	5	2	1	1	1	0	1	7	4	1	1	1	0	1	1	1	3.4	8.4																						
11-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	2	3	2	4	4	1.3	4.5																						
12-Oct	7	9	10	9	9	9	9	9	7	5	3	2	2	2	2	1	1	2	6	11	6	4	2	3	5.5	11.4																						
13-Oct	4	4	5	5	6	2	2	1	1	0	1	0	0	1	1	1	3	2	5	4	2	2	3	4	2.5	5.8																						
14-Oct	3	3	3	3	4	4	5	10	8	7	7	4	1	1	1	1	1	3	1	2	2	3	2	2	3.3	9.5																						
15-Oct	3	5	6	6	5	4	3	2	3	2	1	1	1	0	1	2	1	3	2	1	1	1	1	1	2.3	6.0																						
16-Oct	1	0	0	0	1	1	2	2	3	3	2	2	1	1	2	1	1	1	1	1	1	3	7	6	1.8	6.7																						
17-Oct	4	4	3	3	4	3	2	1	4	4	2	0	0	1	1	1	1	1	1	1	0	1	3	5	2.0	4.6																						
18-Oct	5	5	7	8	8	8	7	6	6	6	4	3	2	1	1	1	1	1	1	1	1	1	1	1	3.6	8.1																						
19-Oct	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	2	2	2	2	2	2	2	1	1	1.4	2.5																						
20-Oct	2	1	1	1	2	2	2	1	1	1	C	C	C	C	C	0	1	0	1	2	2	3	3	3	1.5	3.1																						
21-Oct	2	2	1	1	1	0	1	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.2																						
22-Oct	0	0	1	7	4	2	1	1	3	2	1	1	1	1	0	0	0	0	0	0	0	5	3	2	1.5	7.2																						
23-Oct	4	4	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.9																						
24-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	0.1																						
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	10	2	0.7	10.5																						
26-Oct	2	1	0	0	0	7	8	2	2	2	3	1	1	M	M	2	4	9	10	9	8	7	6	5	4.0	9.5																						
27-Oct	5	4	5	5	7	8	10	4	4	9	5	4	2	0	0	0	0	0	0	0	0	0	0	0	3.2	9.6																						
28-Oct	1	0	1	1	1	2	2	2	4	8	4	1	0	0	0	1	1	1	1	0	0	0	0	0	1.2	7.8																						
29-Oct	1	0	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	1	1	1	2	2	2	2	0.8	1.9																						
30-Oct	3	4	3	2	3	2	2	3	2	2	2	3	4	4	3	3	4	2	16	2	41	39	15	15	7.5	40.8																						
31-Oct	7	5	3	3	2	6	3	6	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.7	6.9																						
																								3.0	2.9	2.9	3.0	3.0	3.0	3.0	3.0	2.9	2.2	1.6	1.4	1.3	1.1	1.5	2.0	2.5	3.8	4.1	5.7	5.7	3.4	3.2	Diurnal Average	
																								8.8	9.0	10.1	9.3	9.6	10.7	12.0	10.4	9.9	8.6	7.6	6.8	6.0	6.4	3.7	7.4	14.9	15.0	24.9	47.7	60.0	39.8	14.8	15.2	Diurnal Maximum

C - Calibration M - Maintenance
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³

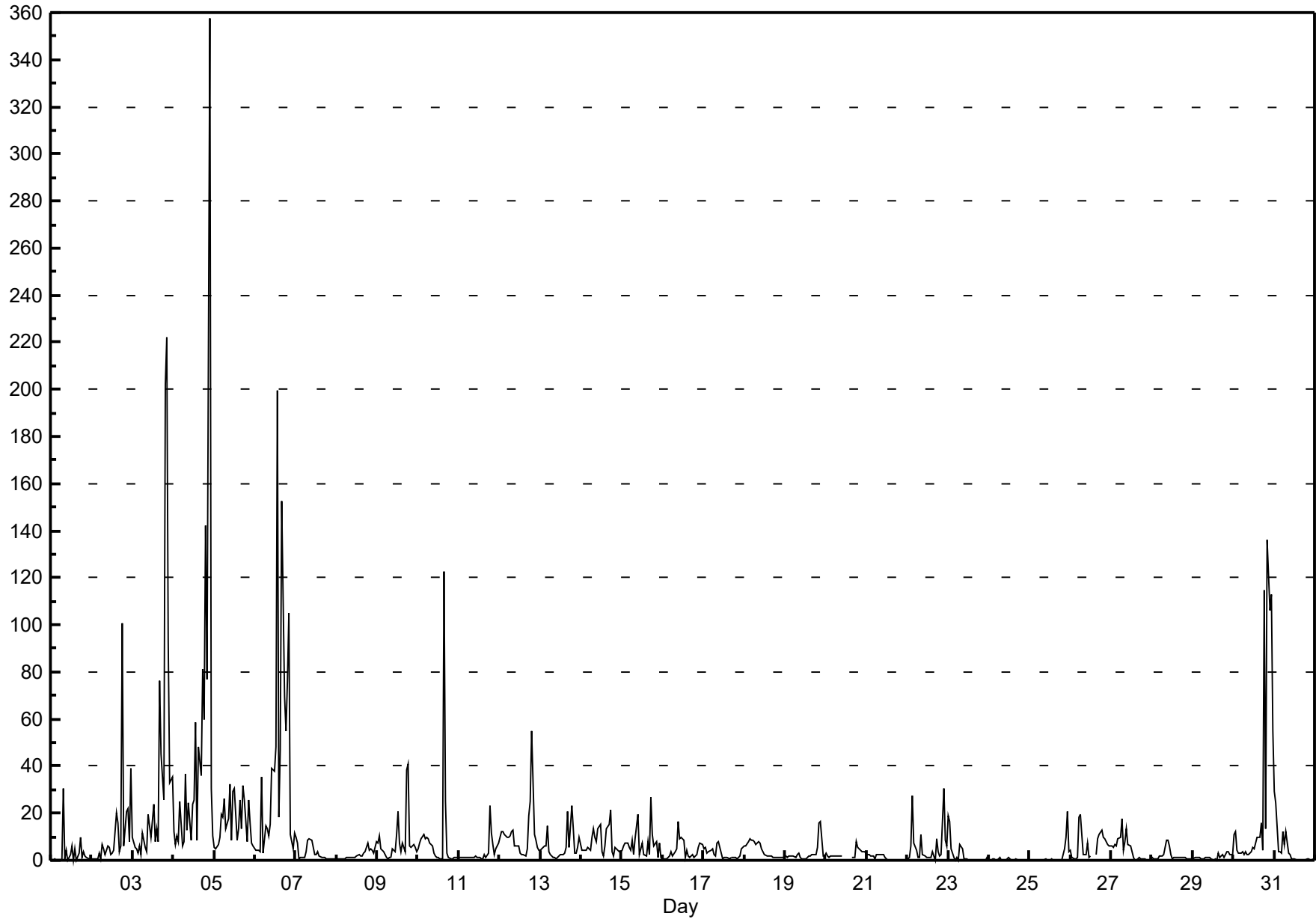


Hourly Maximums

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

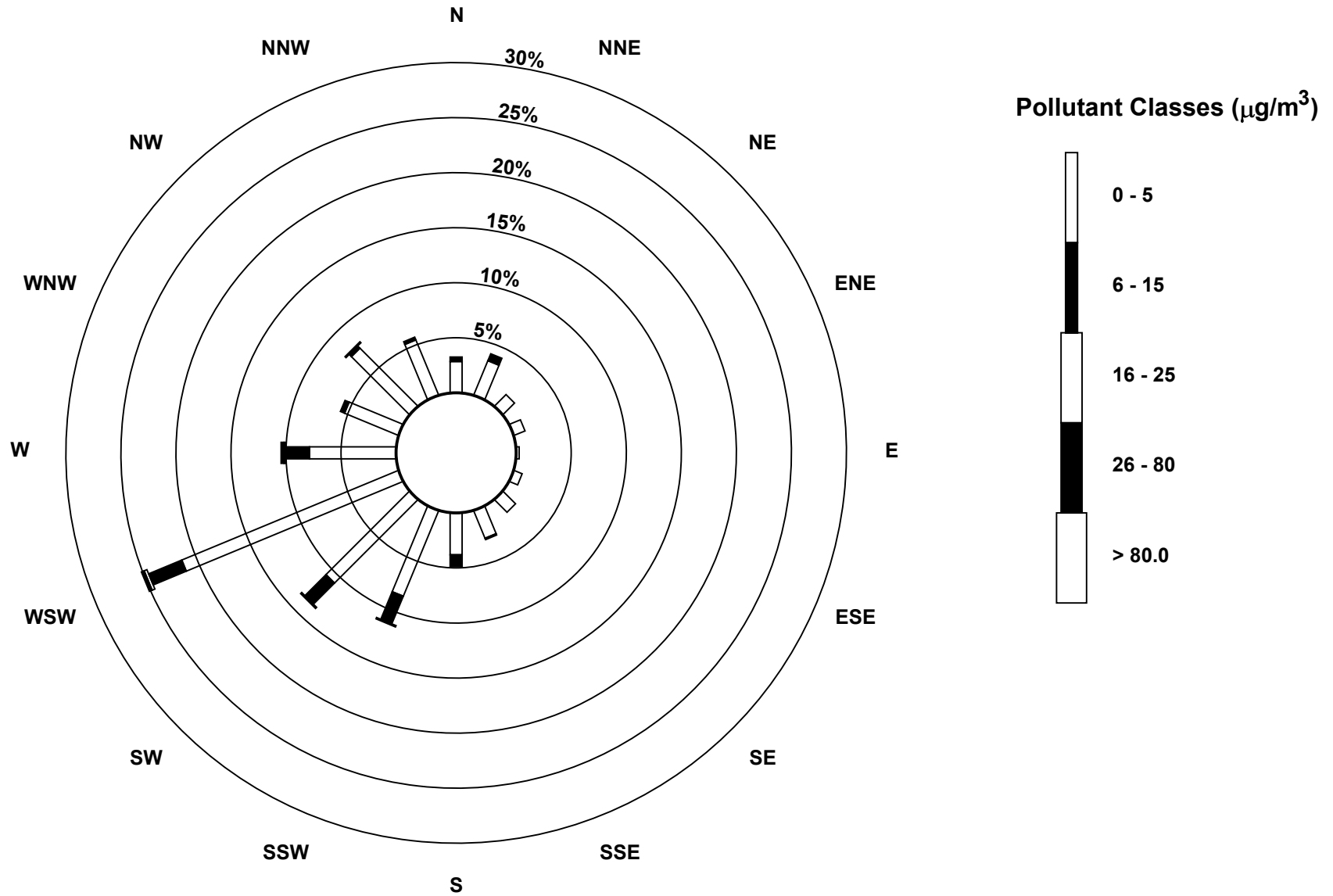
Smoky Heights - October 2017

Maximum Value: 357.6 µg/m ³ on Oct 4 22:00		Maximum Daily Average: 46.6 µg/m ³ on Oct 4		Hours in Service: 744																							
Minimum Value: 0 µg/m ³ on Oct 1 05:00		Minimum Daily Average: 0.2 µg/m ³ on Oct 24		Hours of Data: 737																							
Maximum Diurnal Average: 23.2 µg/m ³ at hour 22		Minimum Diurnal Average: 3.8 µg/m ³ at hour 3		Hours of Missing Data: 7																							
Monthly Average: 9.34 µg/m ³		Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 1.0 Median = 2.9 Q ₃ = 7.8 P ₉₀ = 19.5 P ₉₉ = 131.0		Hours of Calibration: 5																							
				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	0	0	0	1	31	1	4	0	2	6	0	5	0	3	10	1	3	2	1	0	0	3.0	30.8	
2-Oct	0	0	0	0	3	0	7	5	2	6	6	2	3	4	20	16	4	6	100	6	21	22	8	39	11.8	100.4	
3-Oct	10	5	5	3	6	3	12	6	4	20	14	9	24	8	13	8	76	45	25	202	222	93	33	35	36.7	221.8	
4-Oct	12	7	10	8	25	6	8	37	13	24	9	24	26	58	9	48	36	81	60	142	77	358	30	10	46.6	357.6	
5-Oct	5	5	7	10	20	18	26	14	18	32	9	29	31	8	13	26	14	32	26	8	25	16	7	6	16.8	32.4	
6-Oct	4	4	4	4	35	3	15	13	10	15	39	38	48	200	19	47	153	70	55	76	105	11	5	11	41.0	199.8	
7-Oct	10	7	1	1	1	1	4	8	9	9	6	2	2	4	2	1	1	1	1	0	0	0	0	0	3.1	10.0	
8-Oct	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	4	7	4	5	4	3	8	2.4	7.8	
9-Oct	7	10	5	4	3	1	1	1	1	1	5	4	11	21	7	4	7	4	39	41	6	6	7	5	4	8.5	41.0
10-Oct	5	7	9	11	9	9	9	8	6	3	2	1	1	1	1	123	25	3	1	1	1	1	1	1	10.0	122.9	
11-Oct	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	3	23	11	7	3	5	7	3.2	23.4	
12-Oct	9	12	12	11	10	9	10	12	13	6	6	6	3	2	2	2	5	19	25	55	11	9	6	4	10.8	54.9	
13-Oct	4	5	6	6	15	4	2	1	1	1	1	2	2	2	3	6	21	5	23	13	3	3	6	10	6.1	23.4	
14-Oct	4	4	4	4	6	4	10	13	10	8	14	15	3	2	6	14	15	21	4	2	5	5	3	3	7.5	21.2	
15-Oct	4	6	7	7	5	4	9	2	9	20	3	5	7	2	2	8	2	27	11	6	8	1	7	1	6.8	27.1	
16-Oct	1	1	0	1	2	4	2	4	5	17	9	10	9	1	4	2	1	2	1	2	2	6	8	7	4.1	16.6	
17-Oct	5	6	3	3	4	5	3	2	7	8	3	0	1	1	1	1	1	1	1	1	0	2	5	6	2.9	7.8	
18-Oct	6	6	8	9	9	9	8	7	8	7	5	4	2	2	2	2	2	1	1	1	1	1	1	1	4.3	9.0	
19-Oct	2	1	2	2	2	2	1	2	3	1	1	0	1	1	2	2	2	3	2	6	16	16	2	2	3.1	16.4	
20-Oct	3	2	1	2	2	2	2	2	2	2	C	C	C	C	C	1	1	1	8	5	4	4	4	3	2.7	7.8	
21-Oct	3	3	2	2	2	1	2	3	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1.0	2.7	
22-Oct	0	1	6	27	7	4	1	1	11	3	2	1	1	1	1	4	0	9	4	2	3	31	8	6	5.6	30.5	
23-Oct	19	16	5	1	0	1	0	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2.4	18.8	
24-Oct	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9	
25-Oct	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	10	21	4	1.7	20.7	
26-Oct	4	1	0	0	1	19	20	2	3	3	7	1	2	M	M	2	9	11	13	10	9	8	7	6	6.3	19.8	
27-Oct	6	6	7	6	9	10	18	4	8	13	7	6	4	1	0	0	1	0	0	0	0	0	0	0	4.5	17.6	
28-Oct	1	1	1	1	2	2	2	2	9	9	6	2	1	1	1	1	1	1	1	1	1	1	0	0	2.0	8.5	
29-Oct	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	3	1	3	1	3	4	3	2	2	1.5	3.6	
30-Oct	11	12	4	3	3	4	3	4	3	2	4	5	5	7	9	10	16	4	115	13	136	106	113	55	27.0	136.3	
31-Oct	29	24	4	4	3	12	7	12	3	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	4.4	29.0	
		5.5	5.1	3.8	4.4	6.0	4.5	5.9	6.6	5.4	7.3	5.4	6.2	6.9	11.0	4.2	10.9	12.9	13.0	17.8	18.8	21.9	23.2	9.4	7.6	Diurnal Average	
		29.0	24.1	12.0	27.3	35.1	18.5	26.1	36.6	17.8	32.4	38.8	37.8	48.1	199.8	20.0	122.9	152.7	81.3	114.5	202.0	221.8	357.6	112.8	54.9	Diurnal Maximum	
C - Calibration		M - Maintenance																									



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - μg/m³
Smoky Heights - October 2017

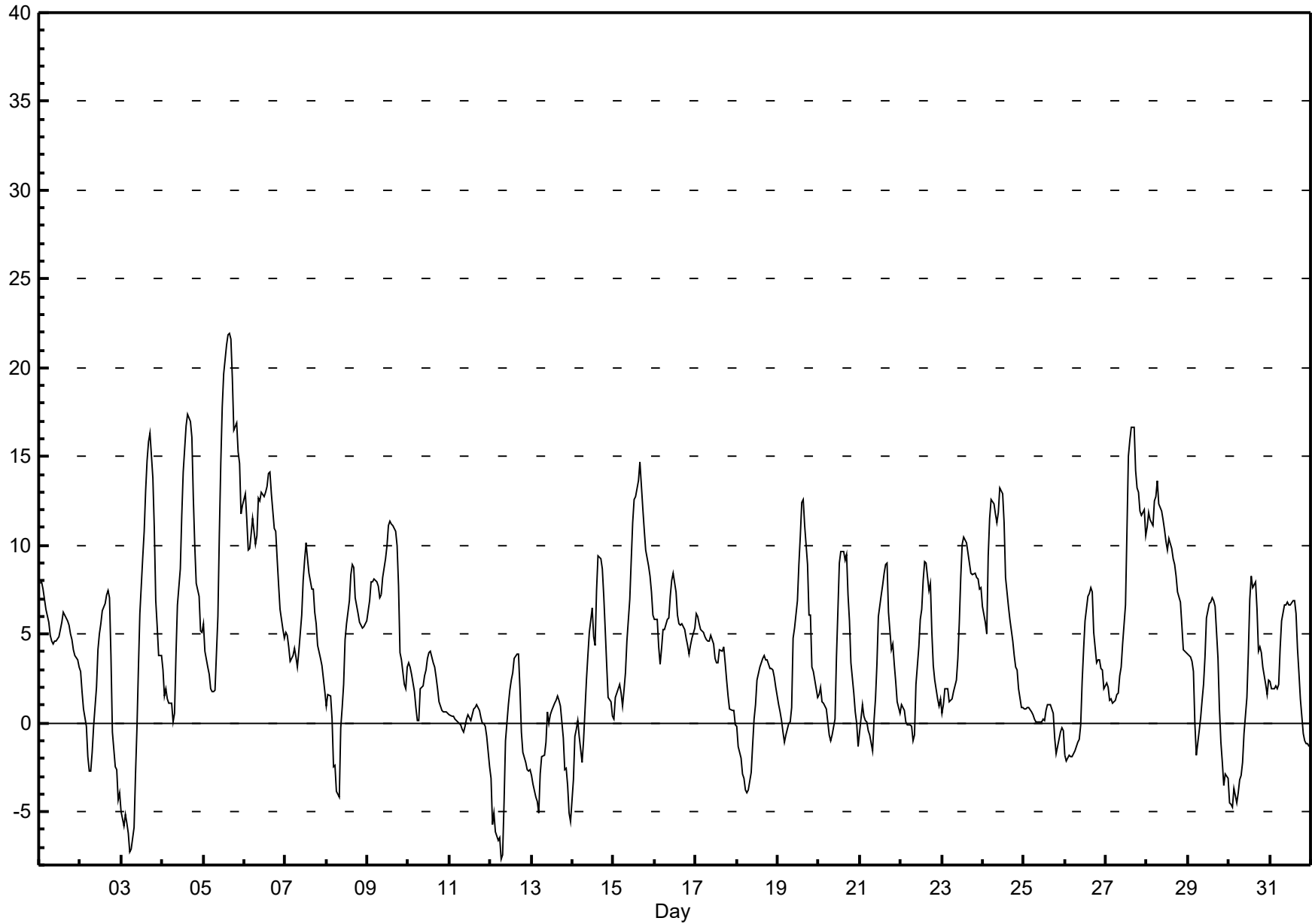


Hourly Averages

External Temperature (ET) - °C

Smoky Heights - October 2017

Maximum Value: 22.0 °C on Oct 5 16:00 Maximum Daily Average: 11.9 °C 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: -8 °C on Oct 12 07:00 Minimum Daily Average: -1.9 °C on Oct 12 Maximum Diurnal Average: 8.6 °C at hour 16 Minimum Diurnal Average: 1.2 °C at hour 6 Monthly Average: 4.17 °C Percentiles: P ₁ = -6.2 P ₁₀ = -1.8 Q ₁ = 0.6 Median = 3.6 Q ₃ = 7.3 P ₉₀ = 11.3 P ₉₉ = 16.4																										
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	8	8	7	6	6	5	5	4	5	5	5	6	6	6	6	5	5	5	4	4	4	3	5.4	7.9	
2-Oct	3	2	1	0	-2	-3	-3	-2	0	2	4	5	6	6	7	7	7	7	4	-1	-2	-3	-4	-4	1.6	7.4
3-Oct	-5	-6	-5	-6	-6	-7	-7	-6	-3	0	3	6	9	11	13	15	16	16	14	11	7	5	4	4	3.5	16.3
4-Oct	3	2	2	1	1	1	0	1	4	7	9	12	14	15	17	17	17	16	13	10	8	7	5	5	7.8	17.4
5-Oct	6	4	3	3	2	2	2	2	6	11	15	18	20	21	22	22	22	19	17	17	15	15	12	12	11.9	22.0
6-Oct	13	11	10	10	11	12	10	11	13	13	13	13	13	14	14	13	11	11	9	8	6	5	5	10.8	14.1	
7-Oct	5	5	4	3	4	4	4	3	4	6	8	9	10	9	8	8	8	6	6	4	4	3	2	2	5.4	10.2
8-Oct	1	2	2	0	-2	-2	-4	-4	0	1	2	5	6	7	8	9	9	7	6	6	5	5	5	6	3.3	8.9
9-Oct	6	7	8	8	8	8	8	7	7	8	9	10	11	11	11	11	11	10	8	4	4	2	2	3	7.6	11.4
10-Oct	3	3	3	2	1	0	0	2	2	3	3	4	4	4	3	3	3	2	1	1	1	1	1	1	2.0	4.1
11-Oct	0	0	0	0	0	0	0	0	-1	0	0	0	0	0	1	1	1	1	0	0	0	0	-1	-3	0.1	1.0
12-Oct	-3	-6	-5	-6	-7	-6	-8	-7	-4	-1	1	2	2	3	4	4	4	2	0	-2	-2	-3	-3	-3	-1.9	3.9
13-Oct	-3	-3	-4	-4	-5	-3	-2	-2	-1	1	0	0	1	1	1	1	1	-1	-3	-3	-4	-5	-6	-1.7	1.5	
14-Oct	-3	-1	0	0	-1	-2	-1	1	2	4	5	6	5	4	7	9	9	9	7	5	3	1	1	0	3.0	9.4
15-Oct	0	1	2	2	2	1	2	3	5	7	9	11	13	13	14	15	13	12	11	10	9	8	7	6	7.3	14.7
16-Oct	6	6	4	3	4	5	5	6	6	7	8	8	7	6	6	6	6	5	5	4	4	4	5	5	5.5	8.5
17-Oct	6	6	6	5	5	5	5	5	5	5	4	4	3	3	4	4	4	3	2	1	1	1	1	0	3.7	6.2
18-Oct	0	-1	-2	-3	-3	-4	-4	-4	-3	-1	0	1	2	3	3	4	4	4	4	3	3	3	3	2	0.6	3.8
19-Oct	1	1	0	-1	-1	-1	0	0	1	5	5	7	9	11	12	13	11	9	6	6	3	3	2	1	4.3	12.6
20-Oct	2	2	1	1	1	0	-1	-1	-1	0	4	6	9	10	10	9	9	7	6	3	2	1	0	-1	3.3	9.7
21-Oct	-1	1	0	0	0	0	-1	-2	0	1	3	6	7	8	8	9	9	6	4	4	3	2	1	1	3.0	9.0
22-Oct	1	1	1	0	0	0	0	-1	-1	2	4	6	6	8	9	9	7	8	5	3	2	1	1	1	3.1	9.1
23-Oct	1	1	2	2	1	1	1	2	2	4	6	8	10	10	10	10	9	8	8	8	8	8	8	8	5.7	10.5
24-Oct	7	6	5	9	12	13	12	12	11	12	13	13	11	8	7	7	6	5	4	3	3	2	1	1	7.6	13.2
25-Oct	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	-1	-2	-1	-1	0	0	0.2	1.1
26-Oct	-2	-2	-2	-2	-2	-2	-2	-1	-1	0	2	4	6	7	7	8	7	5	3	4	4	3	3	2	2.1	7.6
27-Oct	2	2	1	1	1	1	2	2	3	3	4	7	11	15	16	17	17	14	13	13	12	12	12	11	8.0	16.6
28-Oct	11	12	11	11	13	13	14	12	12	11	11	10	10	10	10	9	9	8	7	7	6	4	4	4	9.6	13.7
29-Oct	4	4	3	3	0	-2	0	0	1	2	4	6	7	7	7	7	7	4	1	-1	-2	-4	-3	-3	2.1	7.1
30-Oct	-4	-5	-5	-4	-4	-4	-3	-3	-2	-1	1	4	7	8	8	8	6	4	4	4	3	2	2	2	1.2	8.3
31-Oct	2	2	2	2	2	2	4	6	7	7	7	7	7	7	7	6	4	3	1	-1	-1	-1	-1	-1	3.3	6.9
																								Diurnal Average		
																								Diurnal Maximum		





Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - October 2017

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	13	11	10	16	17	17	18	16	19	22	23	22	22	22	22	23	24	20	21	18	20	19	21	18	18.3	24.2
Dir	277	287	304	306	309	310	321	319	317	319	318	314	311	313	317	316	316	323	324	327	335	347	346	350	319.3	316.5
2 Spd	20	20	15	12	11	12	14	14	14	14	13	15	14	12	13	12	10	8	6	5	10	9	9	8	10.7	20.5
Dir	353	351	340	317	298	289	286	284	287	287	316	325	326	305	295	306	310	303	292	273	263	269	259	237	304.7	353.3
3 Spd	8	8	5	5	6	9	11	12	12	13	14	18	20	19	16	14	7	8	6	7	7	11	6	6	8.8	20.3
Dir	205	201	200	193	206	199	193	214	208	203	197	203	229	236	227	246	271	297	323	308	273	265	252	247	227.4	228.8
4 Spd	5	8	7	6	6	9	6	6	7	10	9	9	11	10	9	9	8	6	3	4	7	8	5	3	6.4	10.9
Dir	237	223	248	221	224	201	207	191	204	206	167	179	193	203	195	175	180	183	205	253	251	252	272	218	207.5	193.2
5 Spd	6	8	9	11	9	8	8	8	10	15	21	26	26	32	34	32	32	24	18	28	22	23	16	23	17.8	34.5
Dir	218	220	240	198	202	208	208	210	199	213	230	244	245	259	258	256	255	250	243	249	239	255	242	248	242.0	258.2
6 Spd	23	13	12	14	18	23	19	19	28	42	37	44	46	39	39	34	36	17	30	25	27	29	25	25	27.4	45.8
Dir	249	256	238	227	234	230	241	253	250	255	248	242	249	247	248	253	263	250	245	246	245	239	241	250	246.8	248.8
7 Spd	24	34	33	37	35	24	19	21	21	25	22	23	26	21	22	20	28	24	22	18	20	16	16	15	21.5	36.5
Dir	253	271	271	268	271	263	253	244	248	263	277	292	292	313	313	303	296	293	313	322	320	322	328	312	284.5	268.4
8 Spd	15	15	18	15	10	9	10	8	8	7	3	1	6	10	13	15	10	10	11	15	19	17	16	16	9.5	19.3
Dir	290	296	300	288	233	267	250	234	270	263	14	345	228	238	258	246	240	197	186	233	240	225	202	202	246.6	240.2
9 Spd	17	20	23	22	28	32	33	31	28	33	41	39	38	34	34	29	30	27	16	14	16	16	17	19	26.1	40.7
Dir	223	231	228	228	235	242	244	240	244	241	252	259	254	251	253	255	261	266	260	226	240	258	256	248	247.0	252.5
10 Spd	19	18	9	5	4	2	3	8	11	15	18	18	18	21	21	23	21	20	20	20	17	16	16	15	11.3	22.8
Dir	254	260	263	225	265	301	19	9	10	26	25	28	29	23	20	21	23	24	30	27	23	12	11	15	12.3	21.2
11 Spd	14	13	13	11	9	9	8	8	9	8	9	8	5	4	3	1	3	4	4	2	4	1	3	3	4.8	14.0
Dir	19	19	10	6	358	359	359	0	351	356	350	338	340	352	28	20	105	166	168	164	182	172	235	242	2.4	18.6
12 Spd	4	3	3	2	2	3	2	4	4	4	5	5	2	5	4	5	4	5	7	5	4	5	6	8	1.6	8.0
Dir	274	271	274	264	325	7	357	14	18	48	138	154	210	145	153	127	156	163	194	237	259	217	221	247	202.3	247.5
13 Spd	7	3	4	1	2	9	9	8	5	3	8	7	8	11	13	15	13	10	9	13	12	4	3	7	4.9	15.1
Dir	264	273	265	335	329	337	346	338	345	304	236	271	273	264	254	247	233	210	178	185	179	192	242	210	248.4	247.3
14 Spd	13	21	16	14	12	11	8	12	17	19	19	28	38	22	21	34	31	25	28	22	19	17	17	14	18.6	37.6
Dir	200	208	205	206	223	217	203	236	230	235	241	251	244	242	238	261	263	262	262	259	257	255	259	262	243.3	244.2
15 Spd	10	3	8	7	8	10	12	13	17	22	23	27	33	34	30	45	37	30	31	31	25	25	24	20	20.7	45.0
Dir	247	226	216	213	194	197	209	186	181	196	210	218	236	232	233	248	252	245	234	237	229	221	220	243	227.7	247.9
16 Spd	19	21	16	17	20	23	20	18	17	16	18	23	21	17	6	3	5	4	3	1	5	9	13	16	11.7	23.2
Dir	245	247	257	244	239	240	240	240	239	237	226	213	202	183	187	64	57	35	27	308	219	216	202	196	228.1	212.5
17 Spd	13	10	5	6	2	1	0	1	4	7	15	17	19	24	27	28	26	21	18	20	14	14	21	20	11.4	27.9
Dir	238	244	195	164	164	42	234	98	16	353	338	329	314	292	287	293	287	264	264	285	275	246	257	260	281.1	292.7
18 Spd	21	19	15	12	8	8	6	8	6	2	1	2	11	18	18	15	15	18	14	9	8	9	7	6.5	21.4	
Dir	257	261	257	259	249	240	204	224	212	217	118	117	120	117	135	143	157	141	139	136	125	156	190	214	179.7	257.4
19 Spd	7	6	6	8	8	8	5	6	6	5	9	7	8	6	9	6	1	2	8	10	9	8	10	12	5.6	12.2
Dir	224	205	196	211	235	218	230	228	234	200	183	183	175	165	160	150	161	256	267	283	281	257	263	250	223.1	250.1
20 Spd	14	12	11	10	9	11	11	9	3	8	6	7	23	25	23	18	19	16	18	14	10	11	11	11	12.4	25.0
Dir	257	241	247	249	212	211	245	216	197	210	211	211	254	251	254	252	248	257	268	257	258	262	268	260	247.7	251.4
21 Spd	12	19	18	18	18	17	23	18	24	23	17	18	20	18	14	9	5	6	9	10	11	10	7	5	9.4	24.0
Dir	248	244	242	246	249	232	237	239	244	244	232	234	230	234	220	198	156	82	65	69	63	60	28	51	235.2	243.7
22 Spd	6	0	2	2	1	3	3	5	5	6	12	12	17	20	21	26	20	18	13	12	8	11	11	16	9.5	26.2
Dir	145	348	290	31	139	105	202	204	219	207	205	225	224	239	237	241	240	248	242	248	264	235	239	235	233.2	241.3



Peace Airshed Zone Association

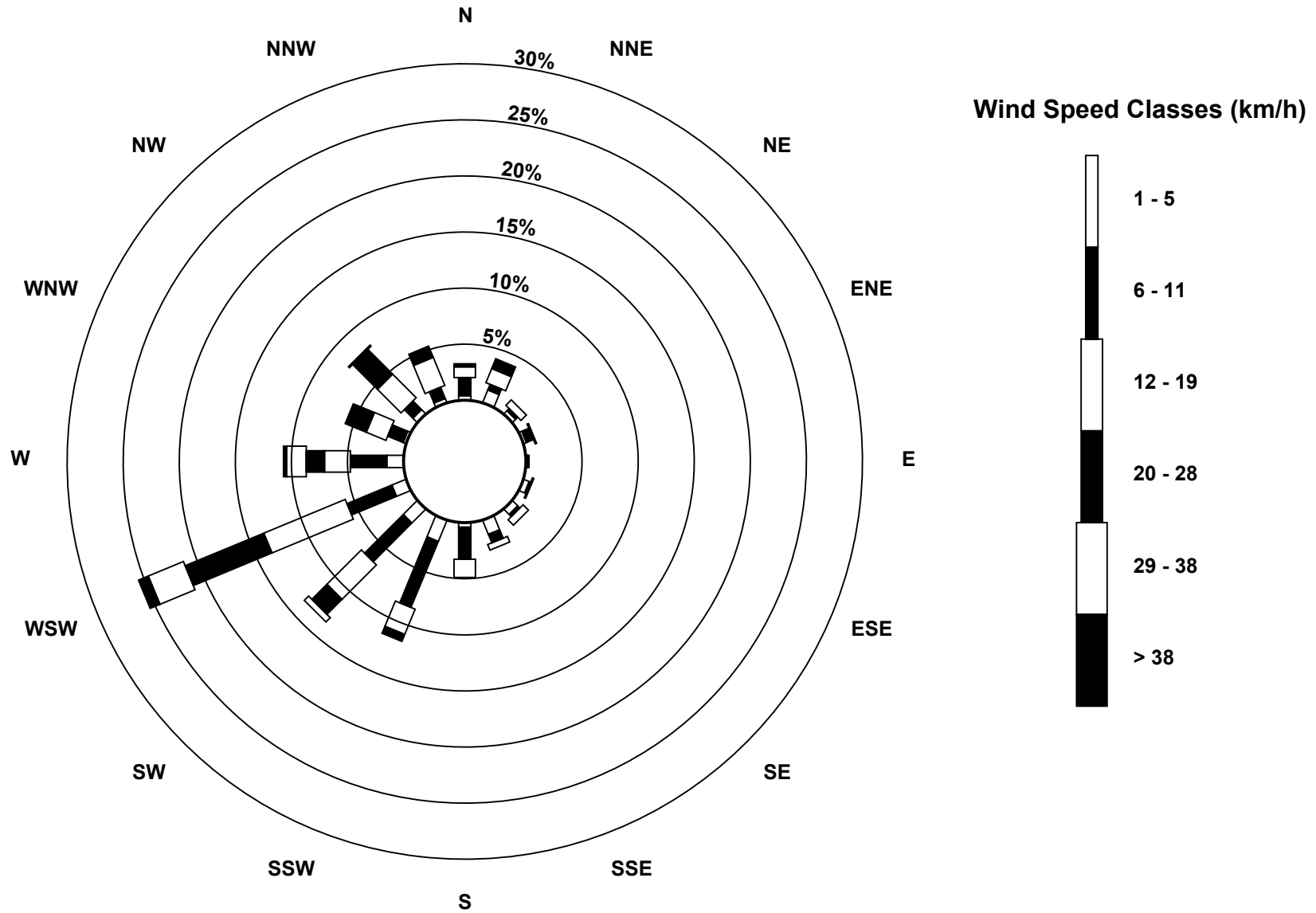
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - October 2017

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	12	15	18	19	16	18	19	16	12	12	14	24	31	34	28	15	11	16	13	17	16	16	12	14	15.0	33.7
Dir	250	251	251	237	231	242	239	251	229	207	215	241	244	241	243	229	209	207	174	158	159	163	170	178	223.5	241.0
24 Spd	10	16	11	20	30	39	33	26	23	21	24	36	20	11	8	9	6	9	9	9	13	14	17	18	9.0	39.5
Dir	192	195	218	243	248	261	252	242	232	242	260	277	291	336	311	321	13	42	42	61	74	47	45	34	267.1	261.0
25 Spd	19	14	13	10	9	17	16	18	20	20	19	18	14	13	13	10	5	1	3	3	2	3	9	8	8.7	20.2
Dir	46	36	30	22	12	344	344	343	340	345	354	346	356	348	355	1	348	307	203	229	133	194	190	177	357.3	339.9
26 Spd	9	9	13	16	13	7	5	13	14	9	10	20	24	26	25	17	17	10	8	5	7	11	8	6	9.9	25.8
Dir	182	171	174	181	179	195	191	190	208	195	208	233	250	273	278	285	269	252	219	251	240	229	224	253	229.8	272.6
27 Spd	5	5	3	3	2	6	6	10	9	11	10	9	13	31	34	31	37	23	28	29	21	26	24	22	15.3	37.4
Dir	236	157	204	249	211	216	221	235	210	184	176	183	229	262	261	261	258	255	254	251	246	243	244	239	243.8	257.8
28 Spd	26	24	27	24	27	20	22	18	8	13	17	21	22	23	25	21	21	21	22	19	15	11	14	18	15.9	27.2
Dir	241	253	241	258	253	253	256	248	312	346	346	337	326	317	313	314	311	319	319	327	345	336	324	310	296.1	252.8
29 Spd	18	17	17	13	11	9	4	10	11	10	11	8	11	12	11	11	6	2	6	8	8	6	6	4	8.2	17.6
Dir	307	302	306	300	234	231	274	268	288	270	250	297	335	334	318	299	299	251	267	257	238	233	247	218	284.0	306.5
30 Spd	10	11	10	13	10	13	13	13	12	12	14	11	15	14	14	13	12	13	11	10	8	8	10	4	9.8	14.6
Dir	192	200	227	224	221	223	236	238	236	238	244	247	308	313	282	275	267	272	274	290	231	242	228	253	249.7	307.6
31 Spd	4	7	10	6	5	9	13	15	19	22	23	21	21	22	23	31	25	22	21	18	19	14	14	15	13.1	31.0
Dir	222	174	192	190	201	249	263	268	280	284	304	314	297	298	300	317	327	328	341	350	345	347	342	338	307.1	317.0
Spd	8.7	8.8	8.6	8.9	9.4	9.8	9.6	9.5	9.0	9.6	9.5	11.8	13.8	13.6	13.8	13.3	12.2	8.9	7.8	7.6	6.8	7.4	7.4	7.9	Diurnal Average	
Dir	251.2	250.8	252.1	247.4	244.2	248.1	250.1	248.0	252.0	252.2	255.9	261.8	262.4	265.5	265.3	269.7	270.2	267.0	263.8	264.6	260.3	254.2	255.5	255.0	Diurnal Maximum	
Spd	25.7	33.8	33.3	36.5	35.3	39.5	33.5	31.5	28.2	41.9	40.7	43.9	45.8	39.2	39.4	45.0	37.4	29.7	31.4	30.6	26.5	28.7	25.4	25.1	Diurnal Maximum	
Dir	241.2	270.5	271.0	268.4	271.5	261.0	243.7	240.1	243.6	254.9	252.5	242.2	248.8	246.9	248.4	247.9	257.8	244.7	233.8	237.4	244.7	239.4	240.6	249.5	Diurnal Maximum	
Maximum Speed Value: 46 km/h on Oct 6 13:00		Minimum Speed Value: 0 km/h on Oct 22 02:00		Hours in Service: 744																						
Maximum Daily Speed Average: 27.4 km/h on Oct 6		Minimum Daily Speed Average: 1.6 km/h on Oct 12		Hours of Data: 744																						
Maximum Diurnal Speed Average: 13.8 km/h at hour 15		Minimum Diurnal Speed Average: 6.8 km/h at hour 21		Hours of Missing Data: 0																						
Monthly Average Velocity: 9.66 km/h 257.74 deg		Speed Percentiles: P ₁ = 1.2 P ₁₀ = 4.5 Q ₁ = 8.0 Median = 13.1 Q ₃ = 19.8 P ₉₀ = 25.7 P ₉₉ = 39.3		Percent Operational Time: 100.0																						
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Direction	Speed Range (km/h)						Total																			
	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38																				
North	11	21	25	9	0	0	66																			
NorthEast	9	6	12	5	0	0	32																			
East	3	2	1	0	0	0	6																			
SouthEast	10	6	8	0	0	0	24																			
South	15	46	25	2	0	0	88																			
SouthWest	19	81	70	53	17	2	242																			
West	16	42	54	45	29	8	194																			
NorthWest	7	14	34	36	1	0	92																			
Total	90	218	229	150	47	10	744																			

Wind Rose

Wind Speed (WS) (km/h)
Smoky Heights - October 2017



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - October 2017

Maximum Speed: 46 km/h on Oct 6 13:00	Maximum Daily Speed Average: 27.9 km/h on Oct 6	Hours in Service: 744
Minimum Speed: 1 km/h on Oct 17 06:00	Minimum Daily Speed Average: 4.6 km/h on Oct 12	Hours of Data: 744
Maximum Diurnal Speed Average: 20.1 km/h at hour 14	Minimum Diurnal Speed Average: 12.1 km/h at hour 5	Hours of Missing Data: 0
Monthly Average Speed: 14.80 km/h	Percentiles: P ₁ = 1.8 P ₁₀ = 5.0 Q ₁ = 8.4 Median = 13.4 Q ₃ = 20.1 P ₉₀ = 25.7 P ₉₉ = 39.5	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	13	11	10	16	17	17	18	17	19	22	23	22	22	22	24	24	20	21	19	20	19	21	18	19.1	24.4	
2-Oct	21	20	15	12	11	12	14	14	14	15	14	16	15	13	14	13	11	8	6	5	10	9	9	10	12.5	20.6
3-Oct	8	8	5	5	6	9	11	12	12	13	14	18	21	19	17	14	8	9	6	7	7	11	7	7	10.7	20.8
4-Oct	8	8	7	6	6	9	7	7	7	10	9	10	11	11	10	9	8	6	3	4	7	8	5	3	7.5	11.1
5-Oct	6	8	10	11	9	8	8	8	10	15	21	26	26	32	35	33	32	24	19	28	22	23	17	23	18.9	34.7
6-Oct	23	13	12	15	18	23	19	19	28	42	38	44	46	40	40	35	36	17	30	25	27	29	25	25	27.9	46.0
7-Oct	24	34	33	37	35	25	19	21	21	25	22	23	26	22	23	21	28	24	22	19	20	16	16	16	23.8	36.6
8-Oct	15	15	18	15	10	11	11	9	9	7	5	5	7	11	13	15	11	10	11	15	19	17	16	16	12.1	19.3
9-Oct	17	20	23	22	28	32	34	32	28	34	41	39	39	34	34	29	30	27	17	14	17	16	17	19	26.8	40.9
10-Oct	19	18	10	5	5	3	4	8	11	15	18	19	18	21	21	23	21	20	20	20	17	16	16	15	15.2	22.9
11-Oct	14	13	13	11	9	9	8	8	9	8	9	9	8	5	4	4	2	3	4	4	3	4	2	3	6.9	14.1
12-Oct	4	3	3	2	2	4	2	4	4	4	5	6	5	6	6	6	5	5	7	5	4	5	7	8	4.6	8.1
13-Oct	7	4	4	2	3	9	9	8	5	4	9	8	9	12	14	15	13	10	10	13	12	5	3	7	8.1	15.4
14-Oct	13	21	16	14	12	11	8	12	17	19	19	28	38	22	21	34	31	25	28	22	19	17	17	14	19.9	37.8
15-Oct	10	4	9	7	8	10	12	13	17	22	23	27	33	34	31	45	37	30	32	31	25	25	24	20	22.0	45.2
16-Oct	19	21	16	17	21	23	20	19	17	17	18	23	21	17	7	3	5	4	3	2	5	9	13	16	14.0	23.4
17-Oct	14	11	5	6	3	1	2	2	4	7	15	17	20	24	28	28	26	21	18	21	16	15	21	20	14.3	28.1
18-Oct	21	19	15	12	8	8	6	8	6	3	2	3	11	18	18	18	16	15	18	15	9	8	9	8	11.5	21.4
19-Oct	8	7	7	9	9	8	6	7	6	5	9	7	8	6	9	6	2	4	9	10	9	8	10	12	7.5	12.4
20-Oct	14	13	12	11	10	11	11	11	7	8	6	9	23	25	24	18	19	16	18	14	10	11	11	11	13.4	25.3
21-Oct	13	19	18	18	18	17	23	18	24	23	17	18	20	18	15	10	6	6	10	10	12	10	7	5	14.8	24.0
22-Oct	6	2	2	2	2	4	3	5	6	6	12	12	17	20	21	26	20	19	13	12	9	11	11	16	10.8	26.3
23-Oct	12	15	18	19	16	18	19	16	12	12	15	24	31	34	28	15	11	17	13	17	16	16	12	14	17.5	33.8
24-Oct	12	16	11	21	31	40	33	26	23	21	25	37	23	11	8	9	6	9	9	9	13	15	17	19	18.4	39.6
25-Oct	19	15	13	10	10	17	17	18	20	20	19	18	14	13	14	10	5	2	3	4	3	3	9	8	11.9	20.3
26-Oct	9	9	13	17	14	8	6	14	14	9	11	20	24	26	26	17	17	10	8	5	8	11	8	6	12.8	26.0
27-Oct	5	6	4	3	3	6	6	10	9	11	10	9	15	31	34	31	37	23	28	29	21	26	24	22	16.9	37.4
28-Oct	26	24	27	24	27	20	22	18	14	13	17	21	22	23	25	22	21	21	22	20	15	11	14	18	20.3	27.3
29-Oct	18	17	17	14	11	9	5	10	12	10	12	11	11	12	12	12	6	2	7	8	9	7	6	5	10.1	17.6
30-Oct	10	11	10	14	11	13	13	13	12	12	14	11	15	14	14	13	12	13	12	11	8	8	10	5	11.6	15.4
31-Oct	5	7	11	6	5	9	13	16	19	22	23	22	21	23	23	31	26	23	21	18	19	14	14	15	16.9	31.3
	13.3	13.3	12.4	12.3	12.1	13.0	12.6	13.0	13.4	14.7	15.9	18.2	20.0	20.1	19.6	19.0	17.2	14.4	14.5	14.1	13.2	13.0	13.0	13.0	Diurnal Average	
	25.7	33.9	33.4	36.6	35.4	39.6	33.6	31.5	28.3	42.1	40.9	44.3	46.0	39.6	39.6	45.2	37.4	29.9	31.5	30.7	26.6	28.8	25.5	25.1	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg
Smoky Heights - October 2017

Maximum Value: 89.0 deg on Oct 22 02:00																								Hours in Service: 744	
Minimum Value: 2.2 deg on Oct 21 07:00																								Hours of Data: 744	
Percentiles: P ₁ = 2.7 P ₁₀ = 4.3 Q ₁ = 6.0 Median = 8.8 Q ₃ = 14.9 P ₉₀ = 27.6 P ₉₉ = 82.9																								Hours of Missing Data: 0	
																								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	11	12	9	7	6	9	9	8	8	8	8	7	8	7	10	7	8	6	8	7	8	7	7	8	11.6
2-Oct	8	10	8	9	5	7	4	3	3	8	17	19	21	24	26	19	19	17	8	10	6	6	11	37	36.8
3-Oct	12	13	8	13	14	10	6	7	11	8	15	10	12	7	11	12	15	30	27	17	13	6	35	16	35.3
4-Oct	49	19	14	22	17	15	13	7	8	14	12	14	13	16	20	15	13	13	18	16	3	10	27	30	49.1
5-Oct	9	4	5	9	7	6	9	9	7	18	9	7	10	8	7	8	5	5	11	8	5	7	12	7	17.7
6-Oct	3	4	5	16	5	3	10	9	5	6	6	8	5	7	7	11	6	9	5	5	5	3	3	3	16.0
7-Oct	6	5	4	5	4	8	3	2	3	6	14	9	9	16	9	14	10	7	11	7	5	7	11	8	15.8
8-Oct	6	6	6	8	20	29	15	11	17	20	51	87	44	28	20	10	13	8	6	13	3	11	4	4	86.9
9-Oct	8	4	4	3	5	4	4	3	4	6	5	5	6	7	6	7	5	6	7	4	11	4	6	3	10.8
10-Oct	3	3	69	32	31	67	68	11	9	7	5	8	8	8	8	6	6	6	6	5	8	7	6	6	68.9
11-Oct	7	6	7	7	8	8	9	8	10	13	12	14	12	17	26	40	67	16	13	5	55	14	67	15	67.4
12-Oct	18	22	13	15	26	16	20	12	10	29	25	40	80	42	50	44	26	8	18	15	24	11	28	9	80.2
13-Oct	28	23	20	85	81	6	8	9	22	37	27	26	14	13	9	12	7	10	8	4	4	64	49	17	85.3
14-Oct	5	8	7	7	18	12	10	7	4	4	6	5	5	12	8	8	6	5	3	4	4	3	3	5	18.1
15-Oct	11	53	24	15	10	9	5	4	5	7	5	11	5	6	7	6	5	6	4	5	3	4	7	10	52.8
16-Oct	9	9	5	7	5	7	4	8	5	5	8	7	8	6	39	46	18	18	18	39	17	6	5	6	45.6
17-Oct	17	23	26	8	50	67	83	27	16	12	10	10	10	7	6	6	9	5	6	20	33	6	5	3	83.5
18-Oct	4	3	5	9	15	12	27	9	10	70	48	62	7	6	9	6	15	9	5	13	20	12	16	13	69.6
19-Oct	19	26	16	17	17	13	23	18	11	22	10	12	17	30	20	14	59	86	11	6	10	8	11	11	85.6
20-Oct	3	20	9	12	24	12	12	36	86	13	19	37	7	9	9	5	6	3	6	6	8	13	11	6	86.2
21-Oct	6	6	5	6	4	4	2	5	5	7	6	10	9	12	19	19	25	13	7	10	8	12	9	35	34.6
22-Oct	39	89	43	83	47	52	18	5	22	21	9	9	11	9	7	5	3	7	14	19	14	8	9	5	89.0
23-Oct	10	3	6	3	4	4	3	4	16	9	14	5	6	5	6	8	7	13	14	7	4	5	7	7	15.5
24-Oct	29	8	11	7	15	4	4	5	6	9	5	9	31	10	15	18	13	8	7	8	7	15	11	15	30.6
25-Oct	11	23	10	6	10	11	6	7	6	6	7	7	10	10	11	15	20	77	11	32	67	51	9	9	76.6
26-Oct	5	4	8	6	11	16	34	17	6	12	21	8	7	7	7	7	9	7	13	25	18	7	7	14	33.9
27-Oct	15	37	38	28	32	14	9	6	17	7	11	13	24	4	4	4	4	4	5	3	4	4	4	4	38.2
28-Oct	3	4	3	10	3	5	3	4	54	7	7	8	8	10	6	6	9	5	4	9	7	7	9	5	53.6
29-Oct	4	5	5	25	9	8	48	9	14	14	9	40	13	12	18	13	14	29	25	16	15	26	14	30	47.8
30-Oct	11	6	17	10	8	3	4	4	9	4	5	8	27	11	11	10	9	11	19	18	22	14	9	58	58.0
31-Oct	42	15	4	18	28	19	9	21	11	6	10	9	8	8	8	8	8	10	7	7	6	8	9	7	41.5
49.1	89.0	68.9	85.3	80.8	67.1	83.5	36.3	86.2	69.6	51.1	86.9	80.2	41.9	50.0	45.6	67.4	85.6	27.4	39.3	66.6	63.9	67.0	58.0		

PAZA

Beaverlodge Station

Monthly Summary Tables, Graphs and
Roses

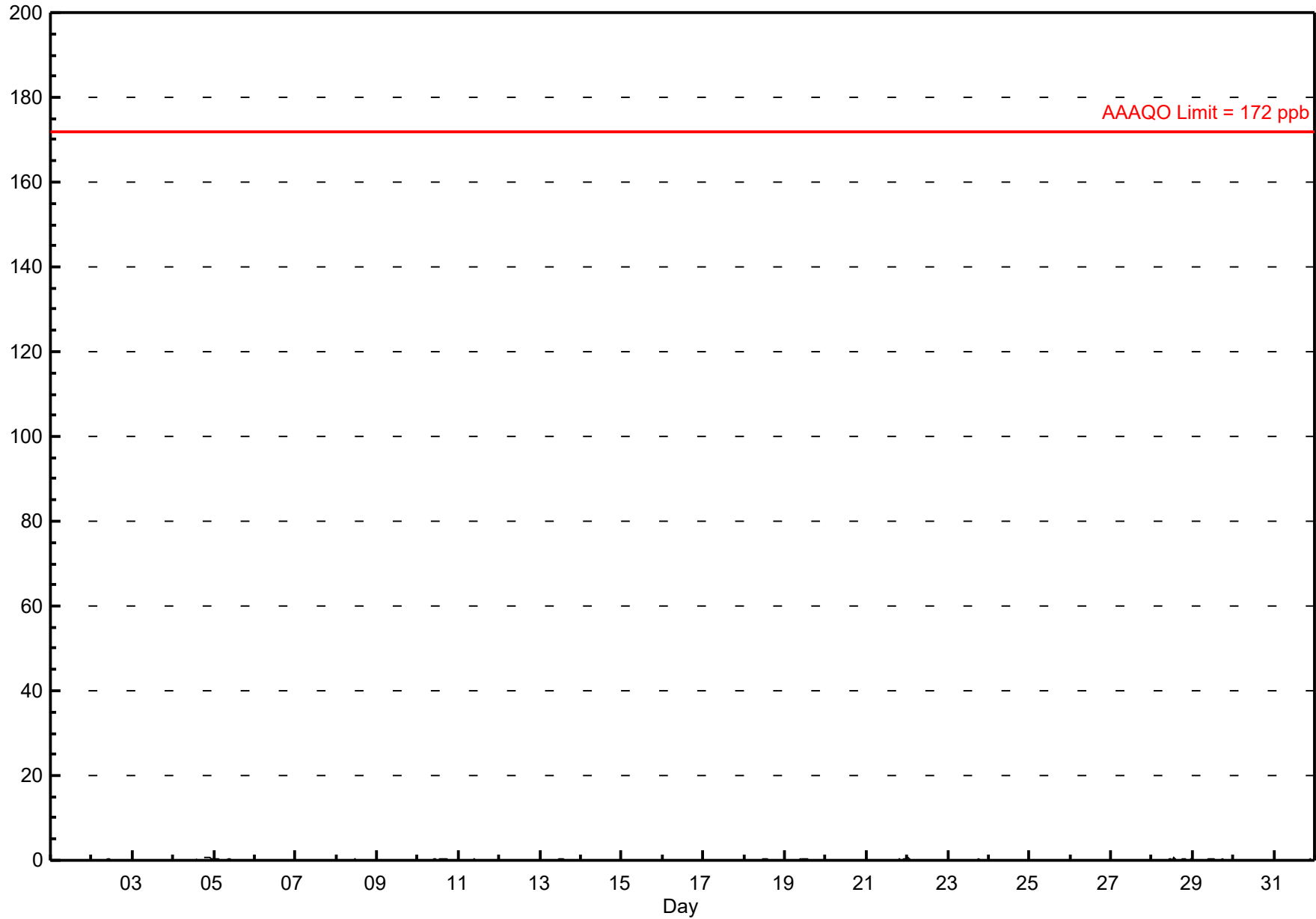
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Beaverlodge - October 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.6 ppb on Oct 4 19:00 Maximum Daily Average: 0.2 ppb on Oct 4		Hours in Service: 744 Hours of Data: 710 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0																								
Minimum Value: 0 ppb on Oct 5 17:00 Maximum Diurnal Average: 0.1 ppb at hour 12 Monthly Average: 0.07 ppb		Minimum Daily Average: 0.0 ppb on Oct 9 Minimum Diurnal Average: 0.0 ppb at hour 8 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 = 0.5																								
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	0.0	0.1
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	0.2
4-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	C	C	C	1	1	1	1	0	0	0.2	0.6	
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	0.1	0.4	
6-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	0.2	
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	0.1	0.1	
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	0.2	
9-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	
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	0.1	0.5	
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	0.1	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	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	0.1	0.3	
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	0.1	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	0.1	0.1	
16-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	
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	0.0	
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	0.1	0.2	
19-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
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	0.1	
21-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.5	
22-Oct	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6	
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	0.1	0.2	
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	0.1	
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	0.1	
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	0.1	0.1	
27-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	0.1	
28-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	0.6	
29-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
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	0.1	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	0.1	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
Beaverlodge - October 2017



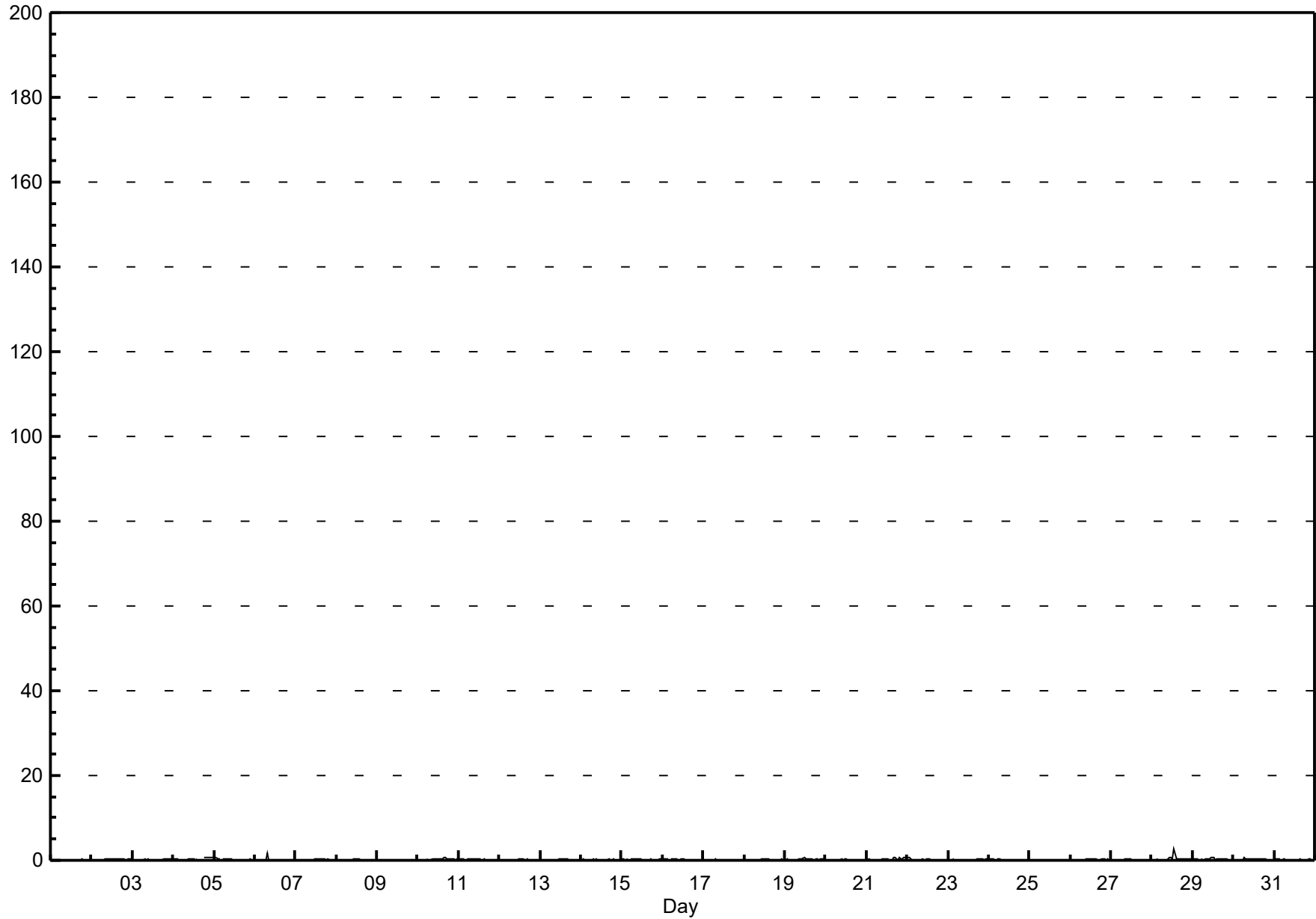
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Beaverlodge - October 2017

Maximum Value: 2.7 ppb on Oct 28 14:00 Minimum Value: 0 ppb on Oct 12 21:00 Maximum Diurnal Average: 0.3 ppb at hour 14 Monthly Average: 0.18 ppb		Maximum Daily Average: 0.4 ppb on Oct 4 Minimum Daily Average: 0.1 ppb on Oct 9 Minimum Diurnal Average: 0.1 ppb at hour 6 Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.8		Hours in Service: 744 Hours of Data: 710 Hours of Missing Data: 34 Hours of Calibration: 34 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	A	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	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
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	0.2	0.2
4-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	C	C	C	1	1	1	1	1	1	1	0.4	0.8	
5-Oct	1	1	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	0.6
6-Oct	0	0	0	0	A	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8
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	0.2	0.3
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	0.1	0.3
9-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	0.1	0.1
10-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	0.3	0.8
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	0.2	0.3
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	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	0.2	0.4
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	0.1	0.2
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	0.2	0.3
16-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	0.2	0.2
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	0.1	0.2
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	0.2	0.3
19-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	0.2	0.5
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	0.1	0.2
21-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1	0	0	1	0.3	0.7
22-Oct	1	1	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	0.7
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	0.2	0.3
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	0.1	0.2
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	0.1	0.1
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	0.2	0.2
27-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	0.1	0.2
28-Oct	0	0	0	0	A	0	0	0	0	0	1	1	0	3	0	0	0	0	0	1	0	0	0	0	0	0.4	2.7
29-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	0.2	0.6
30-Oct	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
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	0.2	0.4
		0.2	0.2	0.2	0.1	--	0.1	0.2	0.2	0.2	0.2	0.2	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	0.2	Diurnal Average
		0.7	0.6	0.3	0.3	--	0.2	0.6	1.8	0.3	0.4	0.8	0.6	2.7	0.5	0.8	0.8	0.6	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.7	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																									

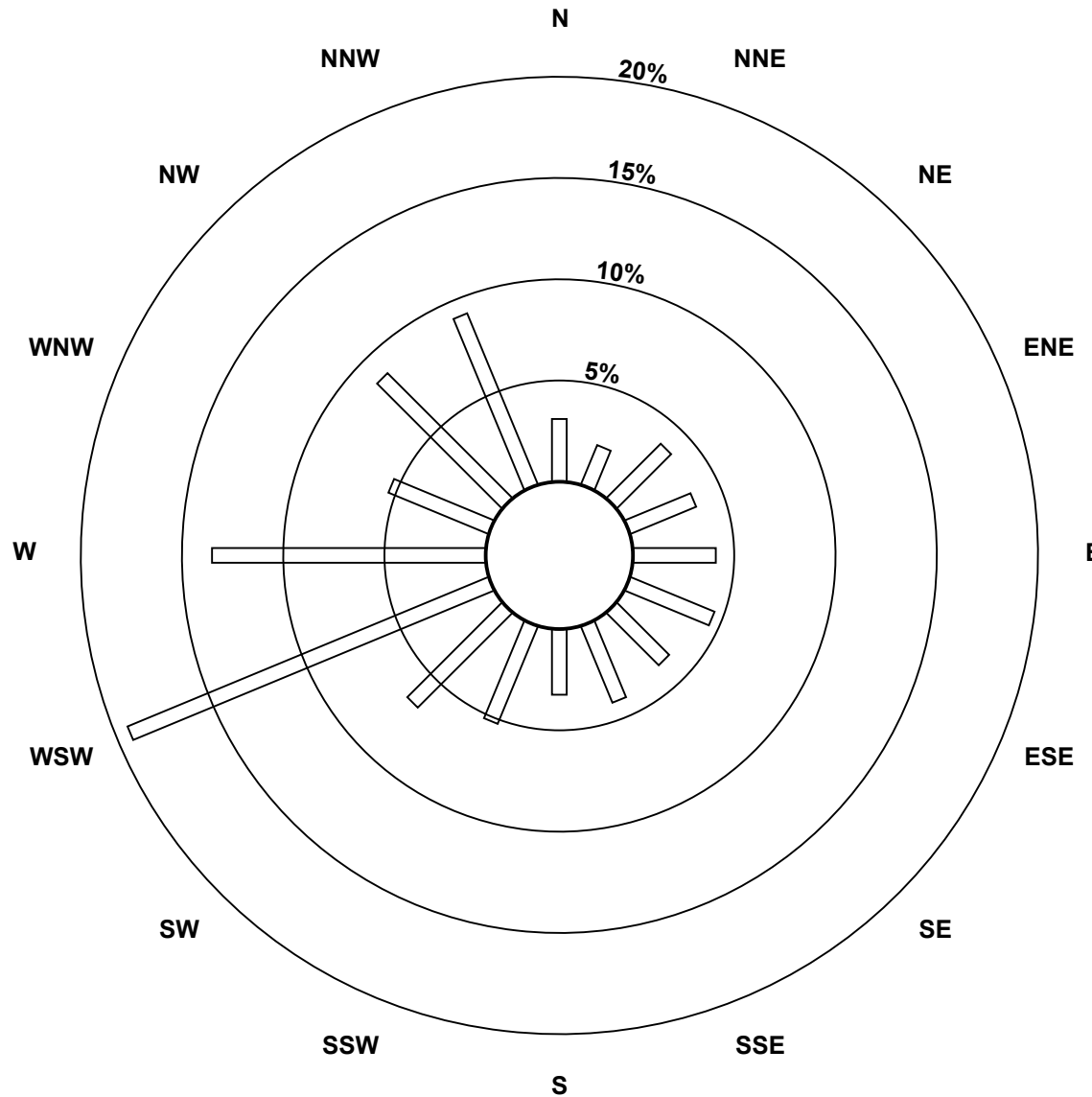
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - October 2017

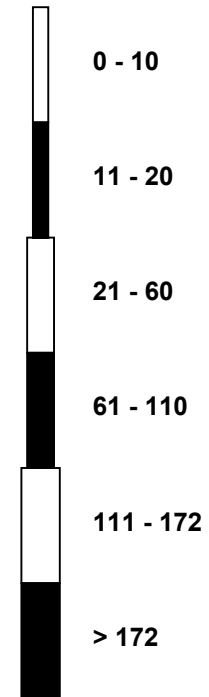


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - October 2017

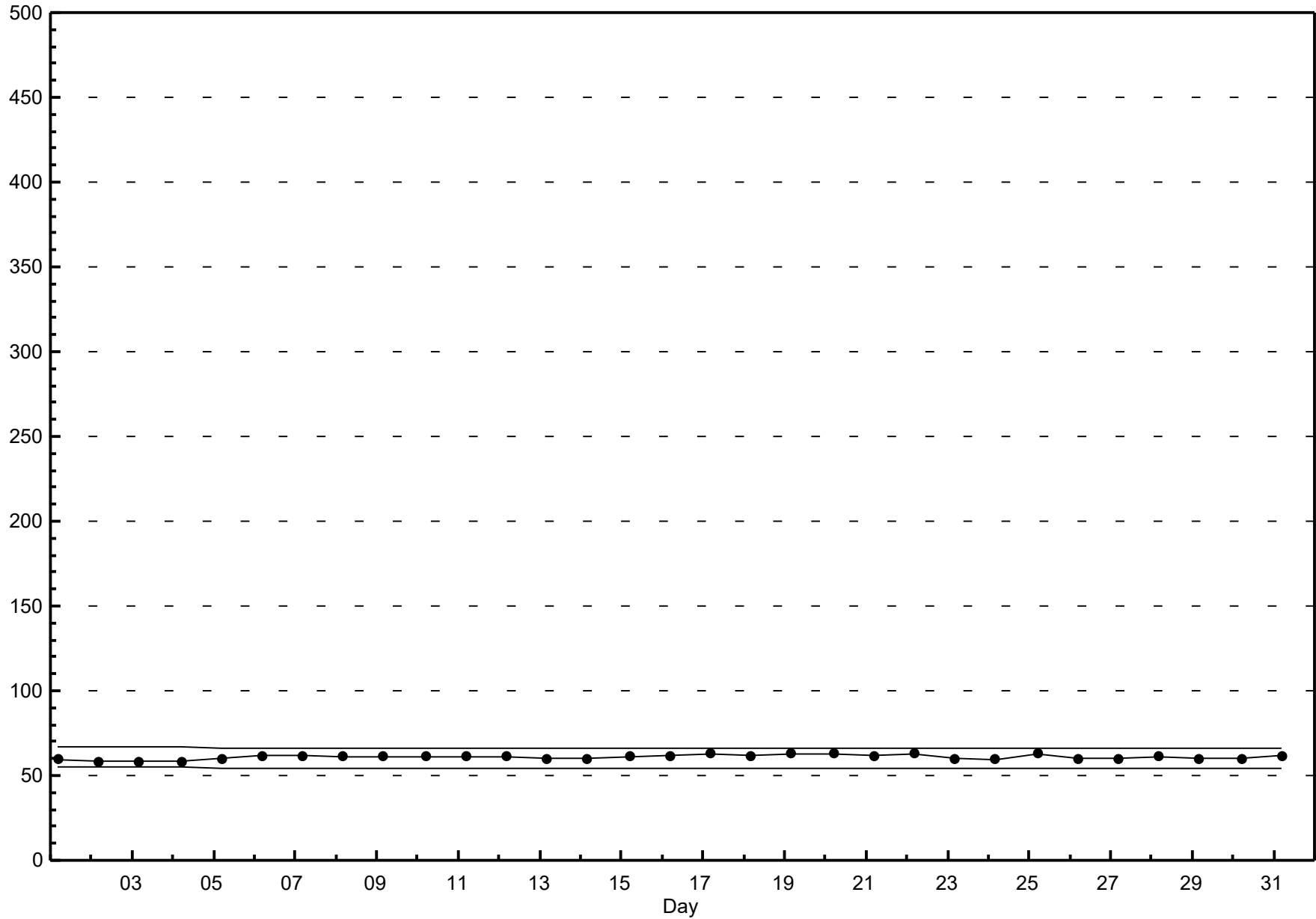


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - October 2017



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - October 2017

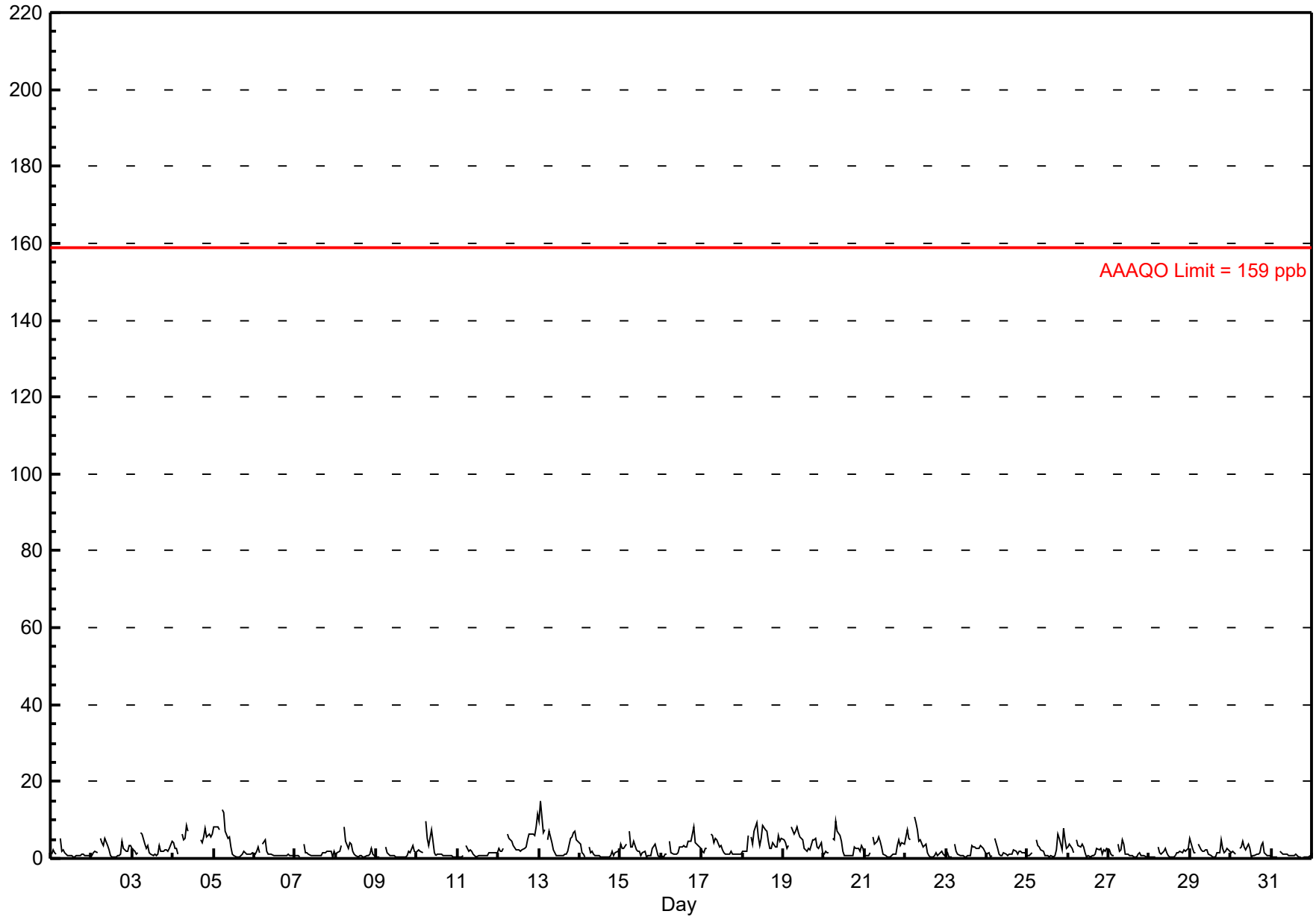
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 14.8 ppb on Oct 13 02:00	Maximum Daily Average: 4.8 ppb on Oct 18		Hours of Data:	707
Minimum Value: 0 ppb on Oct 9 04:00	Minimum Daily Average: 0.7 ppb on Oct 31		Hours of Missing Data:	37
Maximum Diurnal Average: 5.4 ppb at hour 6	Minimum Diurnal Average: 1.1 ppb at hour 16		Hours of Calibration:	37
Monthly Average: 2.38 ppb	Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.8 Median = 1.6 Q ₃ = 3.2 P ₉₀ = 5.4 P ₉₉ = 9.7		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	1	1	A	5	2	2	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1.2	5.2
2-Oct	1	2	2	2	A	5	4	3	5	3	2	1	0	0	1	1	1	1	4	3	2	2	3	3	2.2	5.1
3-Oct	3	2	1	1	A	7	6	4	3	3	1	1	1	1	1	3	2	2	2	2	2	3	4	2.4	6.6	
4-Oct	4	3	3	1	A	6	5	5	9	7	C	C	C	C	C	C	5	4	6	8	6	6	6	6	--	8.7
5-Oct	8	8	8	7	A	13	12	7	5	6	3	1	1	1	1	1	1	1	2	1	1	1	1	1	3.9	12.7
6-Oct	1	2	3	1	A	4	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	4.9
7-Oct	1	1	1	1	A	4	2	1	1	1	1	1	1	1	1	1	2	1	1	2	2	2	0	2	1.2	3.5
8-Oct	1	1	2	3	A	8	4	3	4	4	2	1	1	0	1	1	0	0	1	1	1	3	1	0	1.9	8.2
9-Oct	0	0	0	0	A	3	1	1	1	1	1	0	0	0	0	0	0	0	1	2	2	3	2	2	1.0	3.3
10-Oct	2	2	2	2	A	10	5	3	7	4	2	1	1	1	1	1	1	1	1	1	1	0	0	0	2.2	9.8
11-Oct	0	0	0	1	A	3	2	2	2	1	1	0	1	1	1	1	1	1	1	2	1	1	1	2	1.2	3.3
12-Oct	3	2	2	3	A	6	5	5	5	3	2	2	2	2	3	3	5	6	6	6	6	8	11	4.3	11.4	
13-Oct	10	15	7	8	A	5	7	4	2	2	1	1	1	1	1	1	2	5	6	7	7	5	4	4.4	14.8	
14-Oct	4	2	1	0	A	3	2	2	1	1	1	1	0	0	0	0	0	1	1	2	1	1	2	2	1.2	3.6
15-Oct	4	3	3	4	A	7	3	3	4	2	2	2	1	2	2	0	1	1	1	2	4	2	1	0	2.3	7.3
16-Oct	1	1	1	1	A	4	2	1	1	1	2	3	3	4	3	3	5	5	6	8	4	4	4	3	3.0	8.4
17-Oct	2	2	2	3	A	6	6	4	5	5	3	3	2	1	1	1	1	2	1	1	1	1	1	1	2.5	6.3
18-Oct	2	2	2	6	A	5	4	7	9	6	3	5	8	8	7	5	3	3	4	3	3	6	5	5	4.8	9.3
19-Oct	5	4	3	3	A	8	6	7	8	7	6	5	2	2	2	2	5	5	5	5	3	4	1	4.3	8.4	
20-Oct	1	2	2	2	A	5	5	10	7	6	4	2	1	1	1	1	1	1	3	2	3	2	3	2	2.8	9.7
21-Oct	1	1	1	1	A	5	4	5	5	4	3	1	0	0	0	1	1	1	3	5	3	4	4	4	2.5	5.5
22-Oct	6	7	5	5	A	11	9	8	4	5	3	3	4	1	1	0	0	1	2	1	1	2	1	1	3.5	10.7
23-Oct	1	2	0	0	A	4	2	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3	2	1.8	3.7
24-Oct	1	2	0	1	A	5	2	1	1	1	1	1	1	1	1	1	2	2	1	2	2	2	1	1	1.5	5.1
25-Oct	1	1	1	1	A	5	3	3	2	2	1	1	1	1	1	1	1	2	6	5	2	8	5	3	2.4	7.7
26-Oct	3	4	3	1	A	5	3	3	4	3	1	1	1	1	1	1	3	2	2	1	2	2	2	2	2.1	4.9
27-Oct	2	1	1	1	A	4	2	2	5	4	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1.4	4.8
28-Oct	0	0	0	1	A	3	2	1	2	3	1	1	0	0	0	1	2	2	2	2	2	2	3	3	1.4	2.9
29-Oct	5	3	2	1	A	4	2	2	2	2	2	1	1	0	0	0	1	2	5	3	1	2	2	2	2.0	5.1
30-Oct	1	2	2	1	A	2	3	5	3	2	4	3	1	1	1	1	1	1	3	4	1	1	1	1	1.9	4.5
31-Oct	1	0	0	0	A	2	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0.7	1.7
	2.4	2.5	1.9	2.1	--	5.4	3.9	3.5	3.7	3.0	1.9	1.5	1.3	1.1	1.1	1.1	1.4	1.7	2.6	2.7	2.3	2.6	2.4	2.3		Diurnal Average
	9.8	14.8	8.1	7.5	--	12.7	12.0	9.7	9.3	7.2	5.5	5.2	8.5	7.6	7.2	4.5	4.7	4.7	6.4	8.4	6.9	7.7	8.2	11.4		Diurnal Maximum

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
Beaverlodge - October 2017



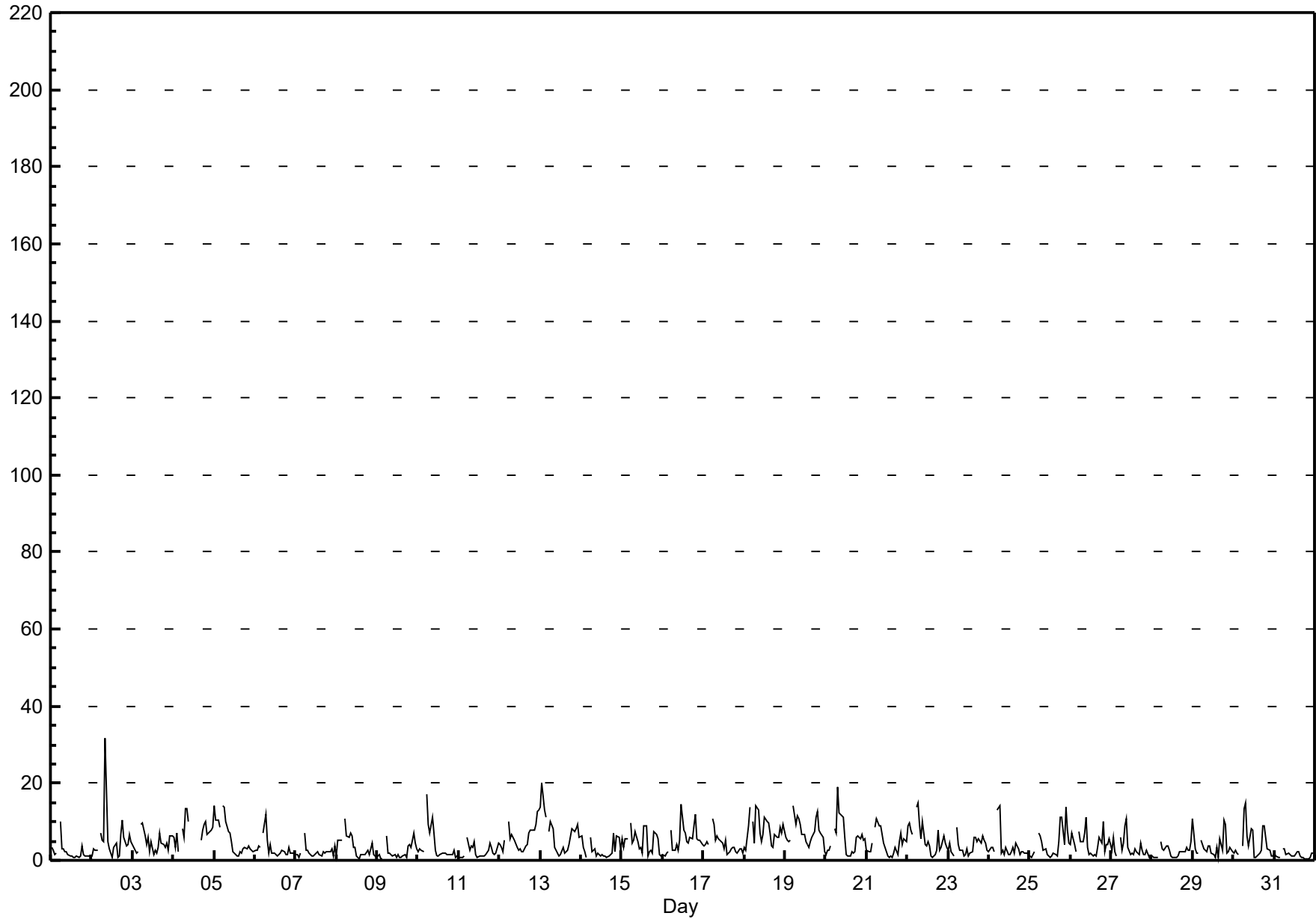
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb Beaverlodge - October 2017

Maximum Value: 31.8 ppb on Oct 2 09:00		Maximum Daily Average: 7.7 ppb on Oct 18		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 31 19:00		Minimum Daily Average: 1.4 ppb on Oct 31		Hours of Data: 707																							
Maximum Diurnal Average: 8.7 ppb at hour 6		Minimum Diurnal Average: 2.1 ppb at hour 16		Hours of Missing Data: 37																							
Monthly Average: 4.27 ppb		Percentiles: P ₁ = 0.6 P ₁₀ = 1.1 Q ₁ = 1.7 Median = 3.1 Q ₃ = 5.9 P ₉₀ = 9.2 P ₉₉ = 14.6		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	3	3	2	2	A	10	3	3	2	2	2	1	1	1	1	1	1	1	4	2	1	1	1	1	2.1	10.0	
2-Oct	1	3	3	2	A	7	5	5	32	5	3	2	1	4	4	1	1	7	11	6	4	4	7	5	5.2	31.8	
3-Oct	4	3	2	2	A	9	10	7	4	6	2	5	1	2	2	3	7	4	4	3	4	2	6	6	4.4	9.6	
4-Oct	6	3	7	2	A	8	6	13	13	10	C	C	C	C	C	C	5	8	9	10	7	8	8	8	--	13.5	
5-Oct	14	11	10	9	A	14	14	10	8	7	5	2	2	1	1	2	2	3	3	3	4	3	3	2	5.7	14.0	
6-Oct	3	3	4	3	A	7	12	5	2	4	2	2	1	1	2	2	2	2	2	1	3	2	2	2	3.0	11.9	
7-Oct	1	1	1	2	A	7	3	2	2	1	1	1	2	2	2	1	2	2	2	2	2	3	1	4	2.1	7.0	
8-Oct	1	5	5	5	A	11	6	6	7	6	3	3	1	1	1	1	1	2	3	2	3	4	1	1	3.5	10.9	
9-Oct	1	2	0	0	A	6	2	2	1	1	1	1	1	1	1	1	1	1	4	4	3	7	5	3	2.2	7.1	
10-Oct	2	3	3	2	A	17	9	7	11	7	3	1	1	2	2	2	2	2	1	1	1	3	1	1	3.6	17.0	
11-Oct	1	1	1	1	A	6	3	4	3	5	1	1	1	1	1	1	1	3	5	4	2	2	2	4	2.3	6.1	
12-Oct	4	3	2	5	A	10	6	7	6	5	3	3	3	2	2	4	4	7	8	8	8	9	13	13	5.9	13.1	
13-Oct	14	20	13	11	A	7	10	8	3	2	2	1	1	3	2	2	3	4	8	8	8	8	10	6	6.8	20.0	
14-Oct	6	3	2	1	A	6	2	3	3	1	2	1	2	1	1	1	1	2	2	7	2	6	6	3	2.8	6.9	
15-Oct	5	3	5	6	A	10	4	5	7	5	3	3	2	9	9	1	2	3	2	7	7	6	2	1	4.7	9.6	
16-Oct	1	1	2	2	A	8	3	3	4	3	5	15	8	7	5	4	6	6	9	12	5	5	5	4	5.3	14.6	
17-Oct	4	4	5	4	A	11	9	5	6	6	5	5	3	5	1	2	3	3	3	2	2	3	3	2	4.3	10.7	
18-Oct	3	3	9	14	A	10	4	14	13	7	5	7	11	10	10	7	4	3	7	6	6	9	7	9	7.7	14.0	
19-Oct	6	5	5	5	A	14	9	11	11	9	7	7	5	4	3	5	6	8	11	13	8	7	6	2	7.3	14.3	
20-Oct	1	3	2	4	A	8	7	19	12	11	11	6	1	1	1	2	2	2	6	6	6	7	5	5	5.7	19.1	
21-Oct	3	2	2	5	A	8	11	9	9	7	4	3	1	1	1	1	2	3	2	5	7	4	6	5	4.4	10.9	
22-Oct	9	10	8	7	A	14	15	9	6	10	4	4	5	4	1	1	1	2	8	2	4	6	4	3	6.0	14.9	
23-Oct	3	4	2	1	A	9	4	3	2	1	1	3	1	2	2	6	6	5	6	5	6	5	4	2	3.7	8.6	
24-Oct	2	3	3	2	A	13	14	2	3	1	3	2	1	2	3	2	4	3	2	2	2	2	2	1	3.3	14.2	
25-Oct	1	1	2	2	A	7	6	5	3	3	1	1	1	1	2	1	1	5	11	11	4	14	8	5	4.2	13.7	
26-Oct	4	7	4	2	A	7	5	5	7	11	3	2	2	1	1	1	3	6	5	10	2	4	4	6	4.5	11.2	
27-Oct	3	6	2	1	A	6	2	5	9	11	3	2	2	2	3	2	2	4	3	2	2	3	1	1	3.2	10.7	
28-Oct	1	1	1	1	A	5	3	3	4	4	3	1	1	1	1	1	2	2	2	2	3	3	3	5	2.2	5.0	
29-Oct	11	3	2	2	A	5	3	2	2	4	4	2	1	1	3	1	6	2	11	9	2	2	4	2	3.7	10.9	
30-Oct	2	2	2	2	A	4	13	15	6	4	8	8	1	1	1	2	2	9	9	6	3	3	1	1	4.5	14.8	
31-Oct	2	1	1	1	A	3	3	1	2	1	1	1	1	2	2	1	1	1	0	0	0	1	2	2	1.4	3.1	
		4.0	4.0	3.6	3.5	--	8.7	6.7	6.4	6.6	5.2	3.4	3.1	2.2	2.5	2.4	2.1	2.8	3.7	5.1	5.2	3.9	4.7	4.2	3.7	Diurnal Average	
		14.0	20.0	13.2	13.7	--	17.0	14.9	19.1	31.8	11.4	11.2	14.6	11.0	9.9	9.8	6.9	7.1	9.1	11.3	12.7	7.9	13.7	12.7	13.1	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

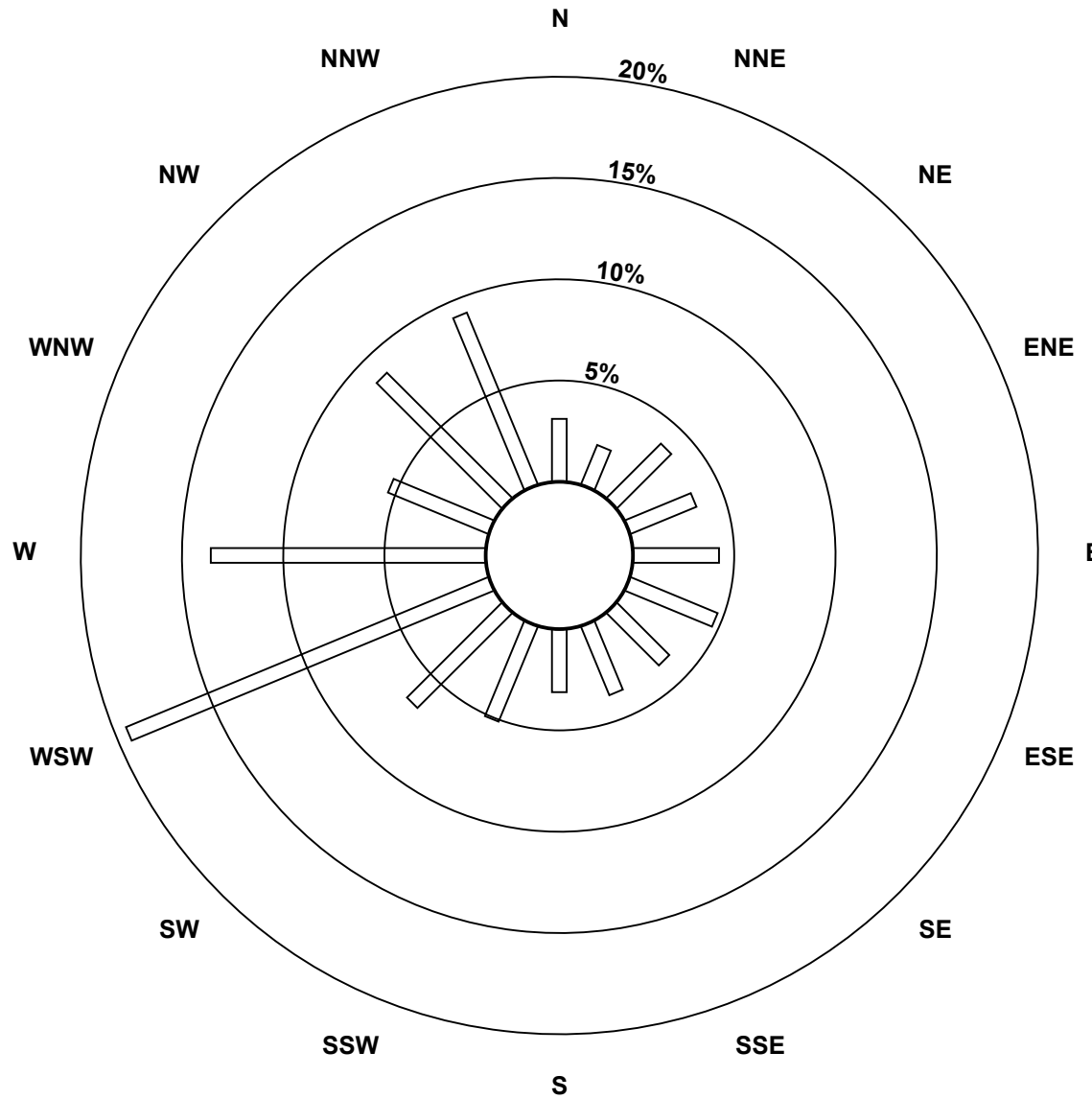
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - October 2017

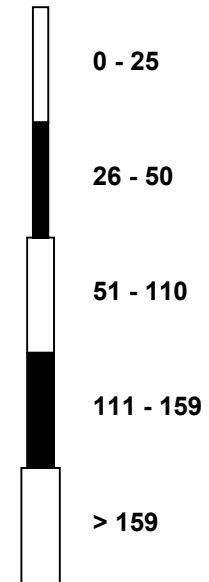


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - October 2017

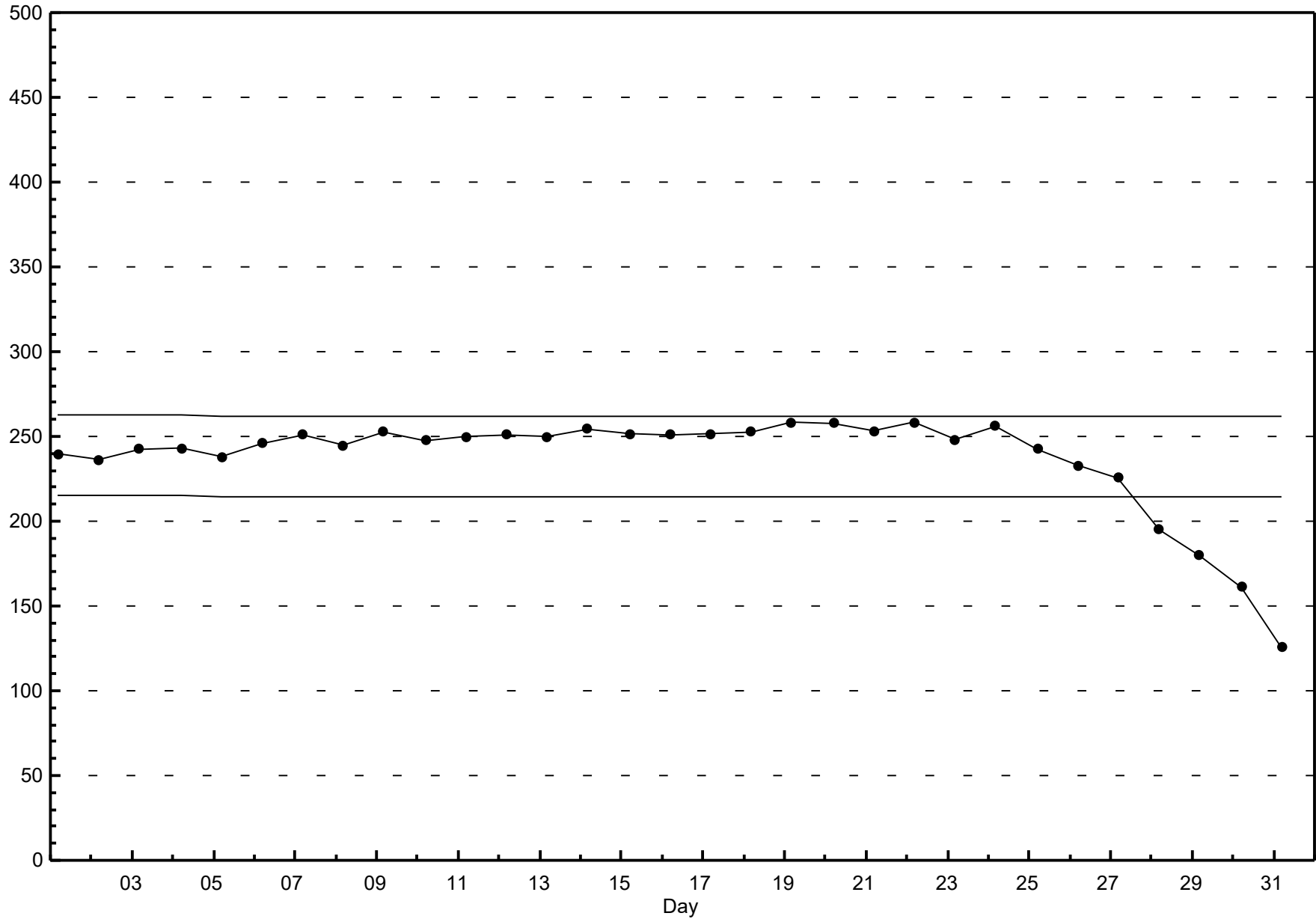


Pollutant Classes (ppb)



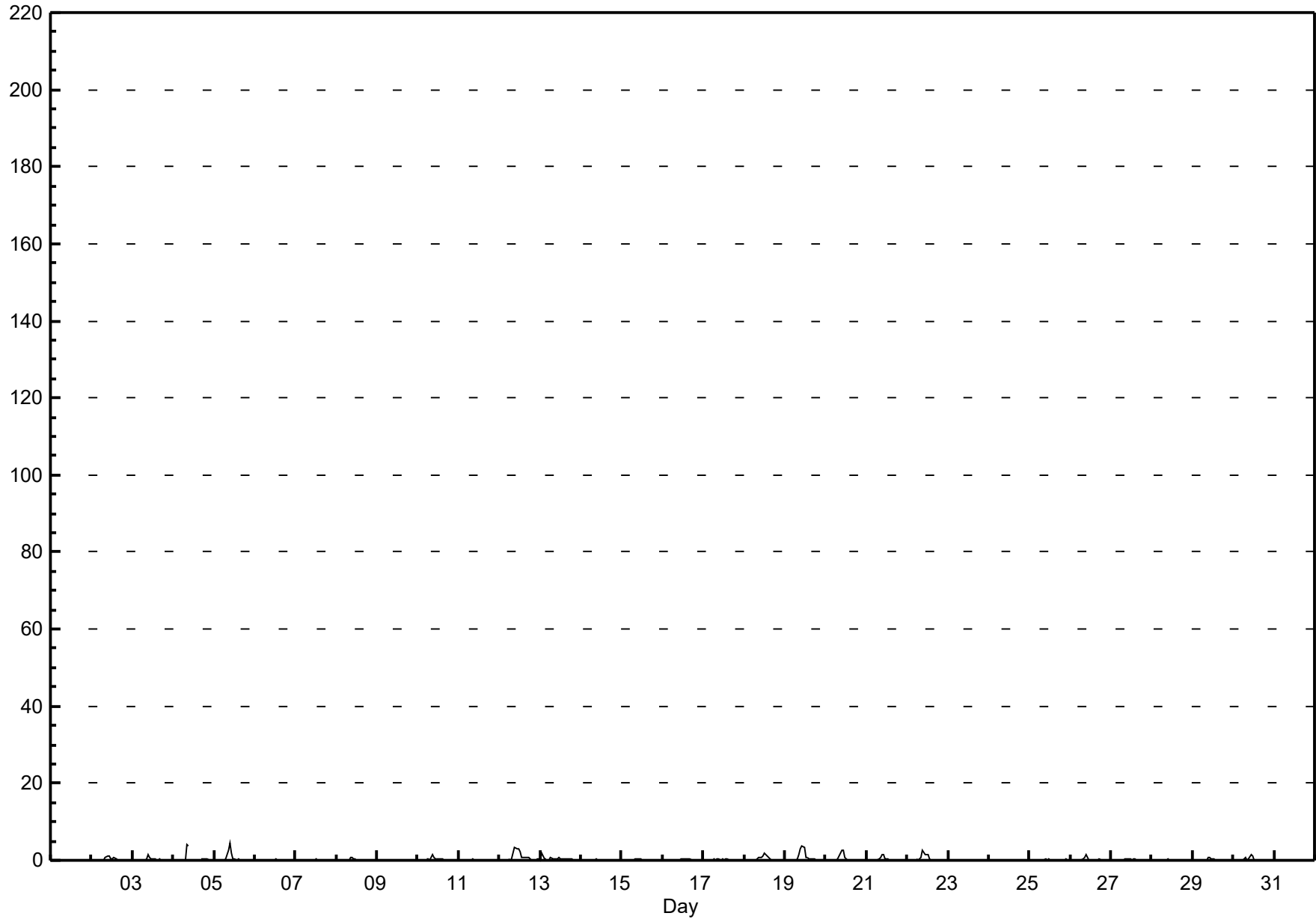
Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - October 2017



Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - October 2017



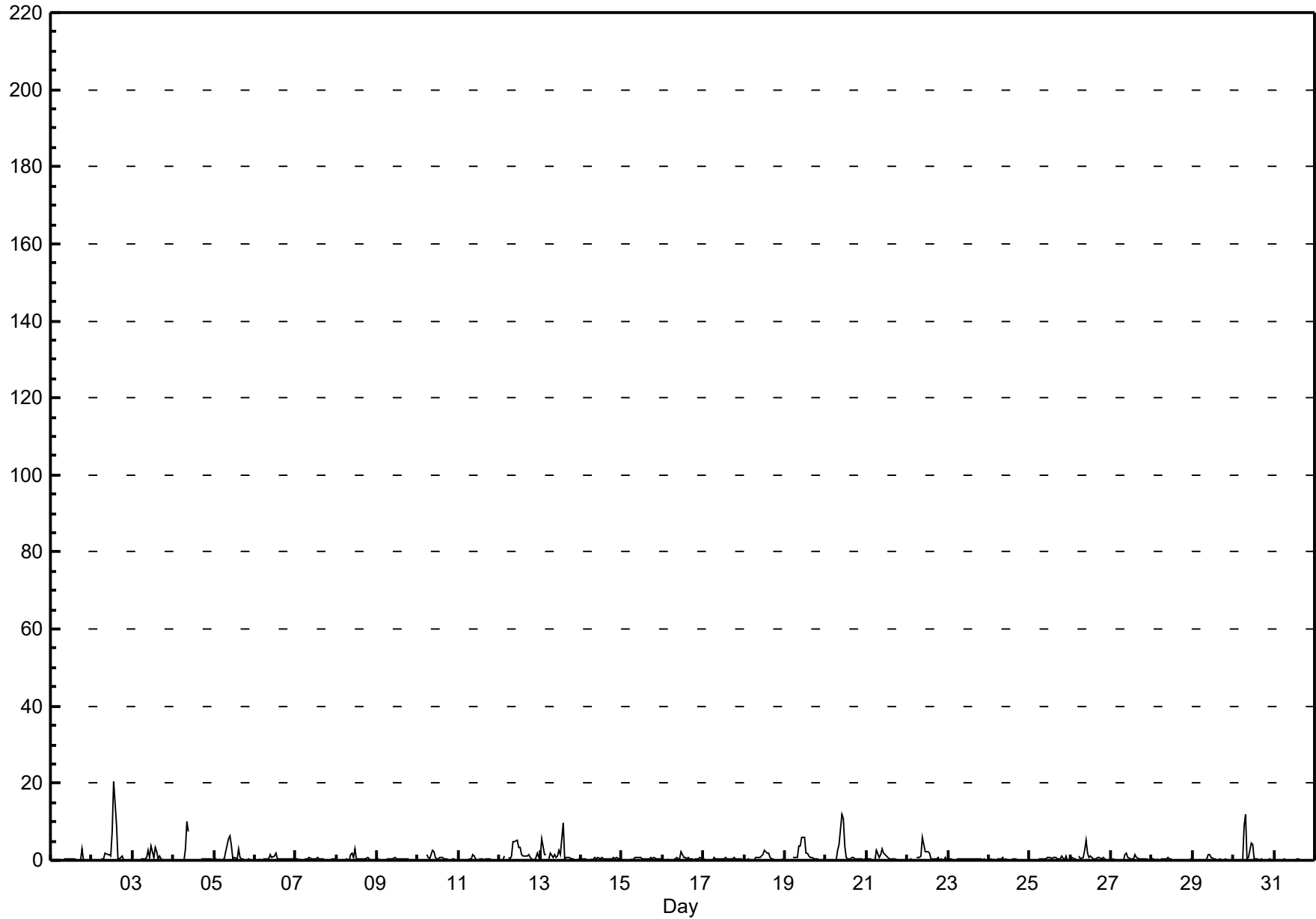
Hourly Maximums

Nitrogen Oxide (NO) - ppb Beaverlodge - October 2017

Maximum Value: 20.5 ppb on Oct 2 14:00		Maximum Daily Average: 2.0 ppb on Oct 2		Hours in Service: 744																									
Minimum Value: 0 ppb on Oct 4 07:00		Minimum Daily Average: 0.2 ppb on Oct 31		Hours of Data: 707																									
Maximum Diurnal Average: 2.2 ppb at hour 10		Minimum Diurnal Average: 0.2 ppb at hour 21		Hours of Missing Data: 37																									
Monthly Average: 0.71 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 1.5 P ₉₉ = 9.2		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	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0.3	3.1			
2-Oct	0	0	0	0	A	0	0	0	2	2	2	1	7	20	9	0	0	1	1	0	0	0	0	0	2.0	20.5			
3-Oct	0	0	0	0	A	0	0	0	1	3	1	4	1	3	2	1	1	0	0	0	0	0	0	0	0.8	3.7			
4-Oct	0	0	0	0	A	0	0	3	10	7	C	C	C	C	C	C	0	1	1	0	0	0	0	0	--	10.0			
5-Oct	0	0	0	0	A	0	1	2	6	6	4	1	1	0	3	1	0	0	0	0	0	0	0	0	1.1	6.3			
6-Oct	0	0	0	0	A	0	0	0	0	2	1	1	2	1	0	0	1	0	0	0	0	0	0	0	0.5	1.8			
7-Oct	0	0	0	0	A	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.8			
8-Oct	0	0	0	0	A	0	0	0	1	2	1	3	1	0	0	1	1	1	0	0	0	0	0	0	0.5	2.8			
9-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	0.3	0.6			
10-Oct	0	0	0	0	A	2	1	0	3	2	1	0	0	1	1	0	0	0	0	0	0	1	0	0	0.6	2.7			
11-Oct	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4			
12-Oct	0	0	0	1	A	1	0	1	5	5	5	3	3	1	1	1	1	2	1	0	0	1	2	1	1.6	5.1			
13-Oct	1	5	1	1	A	1	2	1	2	1	1	3	1	10	1	1	1	1	0	0	0	0	0	0	1.5	9.5			
14-Oct	0	0	0	0	A	0	0	0	1	0	1	0	1	0	1	0	0	0	0	1	0	1	0	0	0.4	0.7			
15-Oct	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	1	0	1	0	0	1	0	0	0.4	0.8			
16-Oct	0	0	0	0	A	0	0	0	1	0	1	2	1	1	0	1	0	0	0	0	0	0	1	0	0.5	2.3			
17-Oct	0	0	0	0	A	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0.3	0.8			
18-Oct	0	0	0	0	A	0	0	1	1	1	1	1	3	2	2	1	0	0	0	0	0	0	0	0	0.6	2.8			
19-Oct	0	0	0	0	A	1	1	1	4	4	6	6	2	2	1	1	1	1	0	1	0	0	0	0	1.3	5.9			
20-Oct	0	0	0	0	A	0	0	2	4	12	11	4	1	1	0	1	1	0	0	0	0	0	0	0	1.7	12.1			
21-Oct	0	0	0	0	A	0	2	1	1	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0.7	2.9			
22-Oct	0	0	0	0	A	1	1	1	1	6	2	2	2	2	0	0	0	0	1	0	0	0	1	0	0.9	5.9			
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	0.3	0.4			
24-Oct	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6			
25-Oct	0	0	0	0	A	0	0	0	0	0	1	1	1	0	1	1	0	0	0	1	0	1	0	0	0.4	1.2			
26-Oct	0	1	0	1	A	1	1	1	3	5	2	1	1	0	1	0	1	1	0	1	0	0	0	0	0.9	5.2			
27-Oct	0	0	0	0	A	0	0	0	2	2	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0.5	2.0			
28-Oct	1	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6			
29-Oct	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0.3	1.5			
30-Oct	0	0	0	0	A	0	9	12	0	1	4	4	0	0	0	0	0	0	0	0	0	0	0	0	1.4	11.8			
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	0.3	0.2	0.2	--	0.3	0.7	1.0	1.7	2.2	1.7	1.4	1.1	1.7	0.9	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.2	0.2	Diurnal Average			
		0.7	5.5	1.5	1.3	--	1.5	8.8	11.8	10.0	12.1	10.8	5.9	7.4	20.5	9.4	1.1	1.1	1.7	3.1	1.0	0.5	1.2	1.8	0.8	Diurnal Maximum			
C - Calibration					A - Automated Daily Zero Span																								

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - October 2017

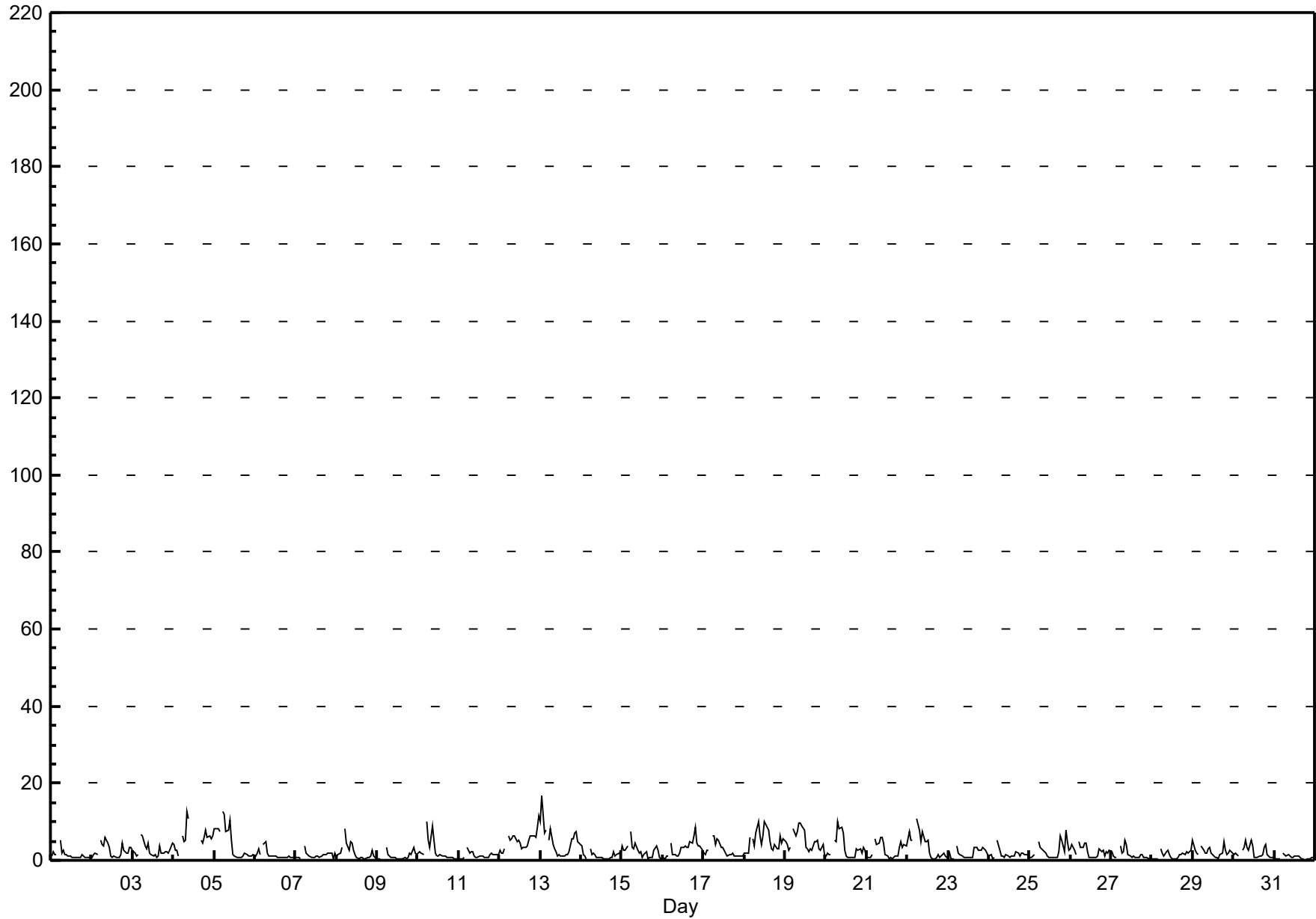


Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - October 2017

Maximum Value: 16.7 ppb on Oct 13 02:00		Maximum Daily Average: 5.2 ppb on Oct 12		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 9 04:00		Minimum Daily Average: 0.8 ppb on Oct 31		Hours of Data: 707																							
Maximum Diurnal Average: 5.5 ppb at hour 6		Minimum Diurnal Average: 1.2 ppb at hour 16		Hours of Missing Data: 37																							
Monthly Average: 2.59 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 1.7 Q ₃ = 3.5 P ₉₀ = 5.9 P ₉₉ = 10.8		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	2	1	1	A	5	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	5.3	
2-Oct	1	2	2	2	A	5	4	4	6	4	3	1	1	1	1	1	1	1	4	3	2	2	3	3	2.4	5.9	
3-Oct	3	2	1	1	A	7	6	4	3	5	2	2	1	1	1	1	4	2	2	2	2	2	3	4	2.6	6.6	
4-Oct	4	3	3	1	A	6	5	5	13	11	C	C	C	C	C	C	5	5	6	8	6	6	6	6	--	12.8	
5-Oct	8	8	8	7	A	13	12	8	8	10	5	1	1	1	1	1	1	1	2	1	1	1	1	1	4.4	12.7	
6-Oct	1	2	3	2	A	4	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	4.9	
7-Oct	1	1	1	1	A	4	2	1	1	1	1	1	1	1	1	1	2	1	1	2	2	2	0	2	1.3	3.6	
8-Oct	1	1	2	3	A	8	4	3	5	4	3	1	1	0	1	1	0	1	1	1	1	3	1	0	2.0	8.2	
9-Oct	0	0	0	0	A	3	1	1	1	1	1	1	1	0	0	0	1	0	1	2	2	3	2	2	1.0	3.3	
10-Oct	2	2	2	2	A	10	5	4	9	5	2	1	1	1	1	1	1	1	1	1	1	0	0	0	2.4	9.9	
11-Oct	0	1	0	1	A	3	2	2	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1.3	3.4	
12-Oct	3	2	2	3	A	7	5	6	6	6	5	5	5	3	3	4	4	5	6	7	7	6	9	12	5.2	11.6	
13-Oct	10	17	7	8	A	5	8	4	3	2	1	2	1	1	1	1	1	2	6	6	7	7	5	4	4.8	16.7	
14-Oct	4	2	1	0	A	3	2	2	1	1	1	1	1	0	0	0	0	1	1	2	1	1	2	2	1.2	3.8	
15-Oct	4	3	3	4	A	7	3	3	5	3	2	2	1	2	2	1	1	1	1	3	4	2	1	0	2.4	7.3	
16-Oct	1	1	1	1	A	5	2	1	1	1	2	3	3	4	3	3	5	5	6	9	4	4	4	3	3.1	8.5	
17-Oct	2	2	3	3	A	6	6	4	5	5	3	3	3	2	1	1	1	2	1	1	1	1	1	1	2.6	6.3	
18-Oct	2	2	2	6	A	5	4	7	10	6	4	6	10	9	8	5	3	3	4	3	3	6	5	5	5.1	10.2	
19-Oct	5	4	3	3	A	8	6	7	10	10	9	8	3	3	2	3	3	5	5	5	3	3	4	1	4.9	9.8	
20-Oct	1	2	2	2	A	5	5	10	8	8	7	3	1	1	1	1	1	1	3	3	3	2	3	2	3.2	10.0	
21-Oct	1	1	1	2	A	6	4	5	6	6	4	2	1	0	1	0	1	1	1	3	5	3	4	4	2.7	6.1	
22-Oct	6	7	5	5	A	11	9	8	5	8	5	5	5	2	1	1	1	1	2	1	1	2	1	1	3.9	11.0	
23-Oct	1	2	1	0	A	4	2	1	1	1	1	1	1	1	1	4	3	3	3	3	3	3	3	2	1.8	3.8	
24-Oct	1	2	0	1	A	5	2	1	1	1	2	1	1	1	1	1	2	2	1	2	2	2	1	1	1.5	5.1	
25-Oct	1	1	1	2	A	5	3	3	2	2	1	1	1	1	1	1	1	2	6	5	2	8	5	3	2.5	8.0	
26-Oct	3	4	3	2	A	5	3	3	4	5	2	1	1	1	1	1	1	3	2	3	1	2	2	2	2.3	5.0	
27-Oct	2	1	1	1	A	4	2	2	5	4	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1.5	5.2	
28-Oct	0	0	0	0	A	3	2	1	2	3	1	1	0	0	0	1	2	2	2	2	2	2	2	3	1.4	2.9	
29-Oct	5	3	2	1	A	4	2	2	2	3	3	2	1	1	1	0	2	2	5	3	1	2	3	2	2.2	5.2	
30-Oct	1	2	2	1	A	3	3	5	3	3	5	4	1	1	1	1	1	1	3	4	1	1	1	1	2.1	5.3	
31-Oct	1	0	0	0	A	2	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0.8	1.7	
		2.4	2.5	2.0	2.1	--	5.5	4.0	3.7	4.3	4.0	2.7	2.1	1.7	1.4	1.3	1.2	1.6	1.9	2.6	2.8	2.3	2.6	2.4	2.3	Diurnal Average	
		9.9	16.7	8.1	7.9	--	12.7	12.1	10.0	12.8	10.9	9.1	8.0	10.2	8.7	8.0	4.8	5.1	5.4	6.5	8.5	6.9	8.0	8.6	11.6	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



Hourly Maximums

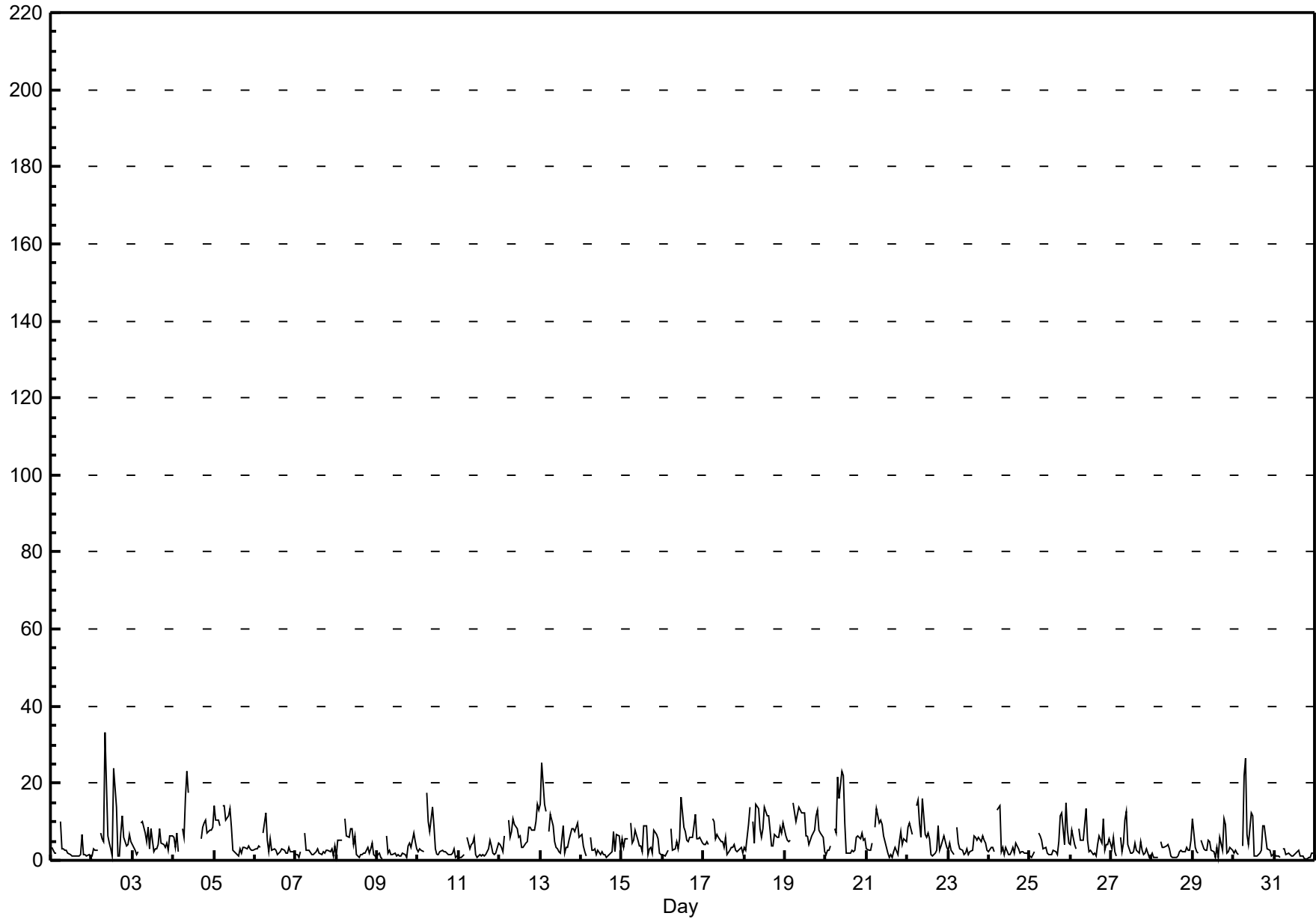
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - October 2017

Maximum Value: 33.3 ppb on Oct 2 09:00		Maximum Daily Average: 8.5 ppb on Oct 19		Hours in Service: 744																						
Minimum Value: 0 ppb on Oct 31 19:00		Minimum Daily Average: 1.4 ppb on Oct 31		Hours of Data: 707																						
Maximum Diurnal Average: 8.8 ppb at hour 6		Minimum Diurnal Average: 2.5 ppb at hour 16		Hours of Missing Data: 37																						
Monthly Average: 4.86 ppb		Percentiles: P ₁ = 0.6 P ₁₀ = 1.3 Q ₁ = 2.0 Median = 3.4 Q ₃ = 6.4 P ₉₀ = 10.1 P ₉₉ = 21.5		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	3	3	2	2	A	10	3	3	2	2	2	1	1	1	1	1	1	7	2	1	1	1	1	2.4	10.1	
2-Oct	1	3	3	2	A	7	5	5	33	6	5	3	1	24	14	1	1	7	12	6	4	4	7	5	6.9	33.3
3-Oct	4	3	2	2	A	10	10	7	5	9	3	8	2	3	3	4	8	5	4	3	4	3	6	6	5.0	9.9
4-Oct	6	3	7	2	A	8	6	17	23	17	C	C	C	C	C	C	6	9	10	10	7	8	8	9	--	23.2
5-Oct	14	10	10	9	A	14	14	10	12	13	9	3	2	1	1	3	2	3	3	3	4	3	3	3	6.5	14.2
6-Oct	3	3	4	3	A	7	12	5	2	6	3	3	3	2	2	2	3	3	2	2	3	2	2	2	3.4	12.2
7-Oct	2	2	1	2	A	7	3	3	2	1	2	2	2	3	2	1	2	2	2	2	2	3	1	4	2.4	7.0
8-Oct	1	5	5	5	A	11	6	6	8	8	4	6	1	1	2	2	2	2	3	2	3	5	1	1	3.9	10.9
9-Oct	1	2	1	0	A	6	2	3	2	1	2	1	2	1	1	2	2	1	4	4	3	7	5	3	2.4	7.2
10-Oct	2	3	3	2	A	18	10	7	14	9	3	1	2	2	3	2	2	2	1	1	2	3	1	1	4.1	17.6
11-Oct	1	1	1	1	A	6	3	4	5	6	1	1	1	1	1	1	2	3	5	4	2	2	2	4	2.5	6.1
12-Oct	4	3	2	6	A	10	6	7	11	9	8	6	6	3	3	5	5	9	9	8	8	10	14	13	7.3	14.4
13-Oct	14	25	15	13	A	7	12	9	5	4	3	2	2	9	2	3	3	5	8	8	8	8	10	6	7.9	25.4
14-Oct	7	4	2	1	A	6	2	3	3	2	3	1	2	1	1	1	1	2	2	8	2	7	6	3	3.1	7.5
15-Oct	5	3	5	6	A	10	4	5	8	5	4	4	2	9	9	1	3	3	2	8	7	6	2	1	4.9	9.7
16-Oct	2	1	2	2	A	8	3	3	5	3	6	17	8	8	5	5	6	6	9	12	6	6	6	5	5.7	16.6
17-Oct	4	4	5	4	A	11	10	5	7	6	5	5	3	6	2	2	3	4	4	3	2	3	3	2	4.5	10.9
18-Oct	3	3	9	14	A	10	4	14	13	8	6	8	14	12	12	8	4	4	7	6	6	9	7	10	8.2	14.4
19-Oct	6	5	5	5	A	15	10	12	14	13	12	12	6	6	4	5	6	8	12	13	8	7	6	2	8.5	15.1
20-Oct	2	3	3	4	A	8	7	21	16	23	22	10	2	2	2	3	2	2	6	6	6	7	5	5	7.2	23.2
21-Oct	3	2	2	5	A	9	13	10	10	9	6	5	2	1	2	1	2	3	2	5	7	4	6	5	4.9	13.3
22-Oct	9	10	8	7	A	14	16	10	6	16	7	6	7	5	1	1	2	3	9	3	4	6	5	3	6.8	15.9
23-Oct	3	5	3	1	A	9	4	3	3	1	2	3	2	2	3	6	6	5	6	5	6	5	4	2	3.9	8.6
24-Oct	2	3	3	2	A	13	14	2	3	2	3	2	1	2	3	2	4	3	2	2	2	2	2	1	3.4	14.2
25-Oct	1	1	2	2	A	7	6	5	3	3	2	1	1	1	3	2	1	5	12	12	4	15	8	4	4.5	14.8
26-Oct	4	8	4	3	A	8	5	5	9	13	5	2	3	1	2	1	4	7	5	11	3	4	4	6	5.1	13.3
27-Oct	3	6	2	1	A	6	2	5	10	13	4	2	2	2	4	3	2	5	3	2	2	3	1	1	3.6	12.7
28-Oct	2	1	1	1	A	5	3	3	4	4	3	1	1	1	1	1	2	2	2	2	3	3	3	5	2.4	5.2
29-Oct	11	3	2	2	A	5	3	2	3	5	5	3	2	1	4	1	6	3	11	9	2	2	4	2	3.9	10.9
30-Oct	2	3	2	2	A	4	22	26	7	4	12	12	1	1	1	2	3	9	9	6	3	3	1	1	5.9	26.5
31-Oct	2	1	1	1	A	3	3	2	2	2	1	1	1	2	2	1	1	1	0	0	1	1	2	2	1.4	3.1
		4.1	4.2	3.7	3.7	--	8.8	7.3	7.2	8.0	7.2	5.1	4.4	2.9	3.8	3.2	2.5	3.2	4.0	5.5	5.4	4.0	4.8	4.4	3.8	Daily Average
		14.4	25.4	14.6	13.7	--	17.6	22.1	26.5	33.3	23.2	22.0	16.6	13.7	23.8	13.7	7.7	8.1	9.1	11.7	13.1	8.0	14.8	14.4	13.2	Daily Maximum
C - Calibration		A - Automated Daily Zero Span																								

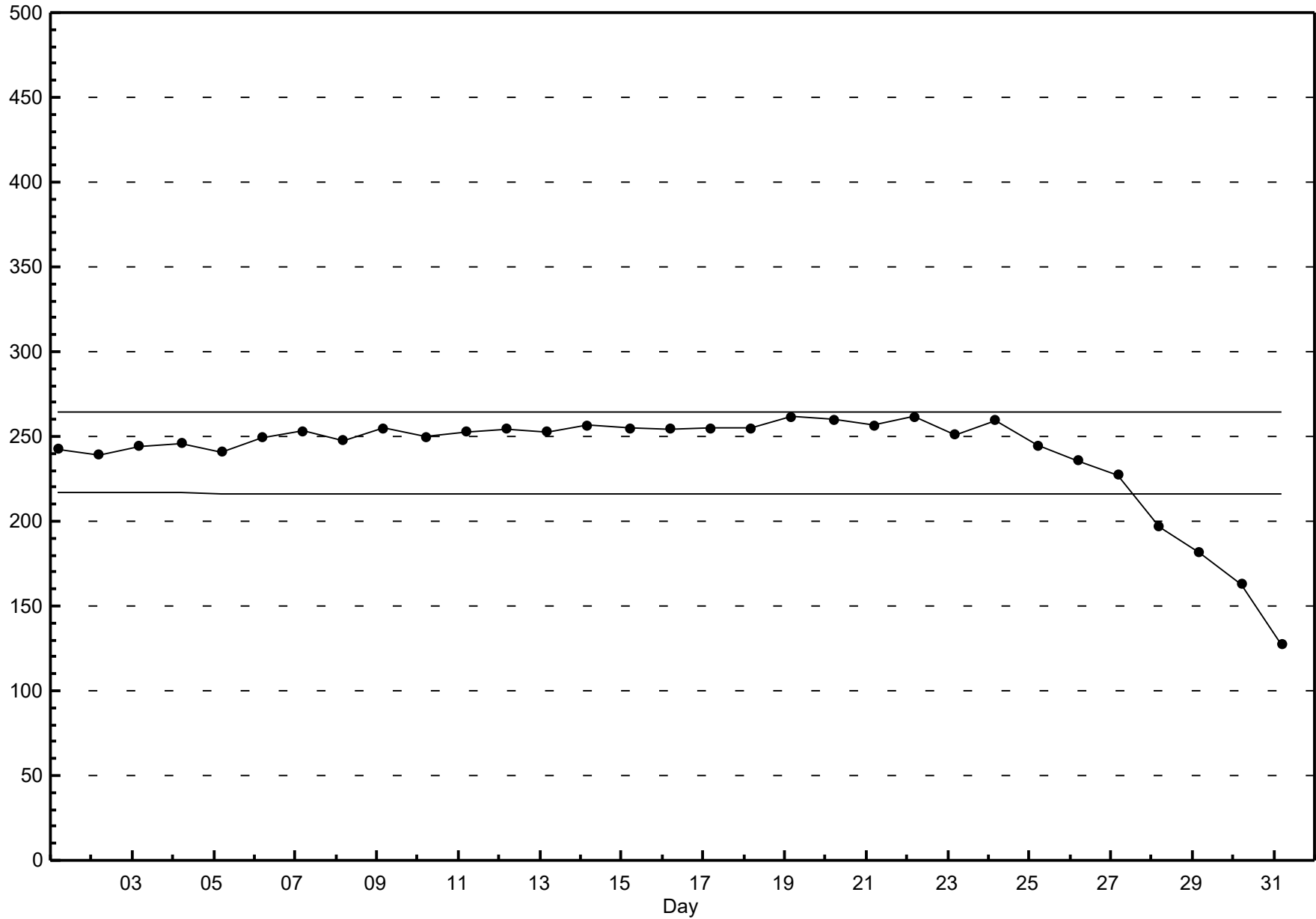
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - October 2017



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - October 2017



Hourly Averages

Ozone (O₃) - ppb

Beaverlodge - October 2017

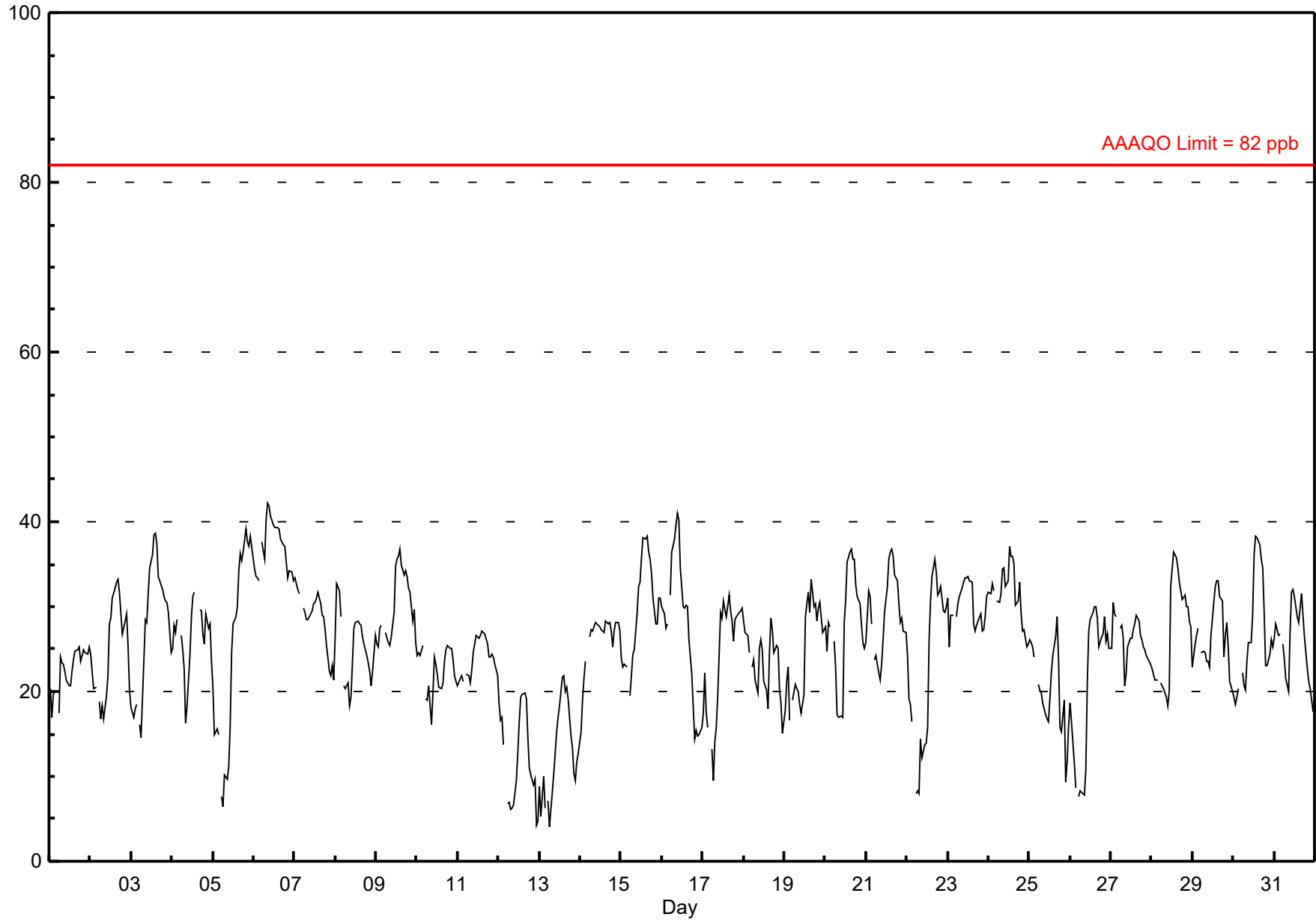
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 42.2 ppb on Oct 6 09:00	Maximum Daily Average: 37.0 ppb on Oct 6		Hours of Data:	711
Minimum Value: 4 ppb on Oct 13 07:00	Minimum Daily Average: 12.1 ppb on Oct 12		Hours of Missing Data:	33
Maximum Diurnal Average: 30.7 ppb at hour 16	Minimum Diurnal Average: 21.0 ppb at hour 7		Hours of Calibration:	33
Monthly Average: 25.45 ppb	Percentiles: P ₁ = 6.4 P ₁₀ = 16.0 Q ₁ = 20.9 Median = 26.3 Q ₃ = 30.3 P ₉₀ = 34.3 P ₉₉ = 39.5		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	20	17	20	20	A	18	24	23	23	22	21	21	21	22	24	25	25	25	24	24	25	25	24	25	22.5	25.2																						
2-Oct	24	22	20	20	A	19	17	18	17	19	22	28	29	31	32	33	33	32	29	27	28	29	25	20	25.0	33.2																						
3-Oct	18	17	18	18	A	16	15	24	28	28	32	35	36	38	39	37	34	33	32	31	31	30	29	25	28.0	38.7																						
4-Oct	25	28	27	28	A	27	25	23	16	18	24	29	31	32	C	C	30	30	27	26	29	27	28	24	26.3	31.6																						
5-Oct	21	15	16	15	A	8	6	10	10	11	16	24	28	29	30	34	36	35	36	39	38	37	38	37	24.8	39.2																						
6-Oct	34	34	33	33	A	38	36	40	42	42	41	40	39	39	39	39	38	37	37	35	33	34	34	33	37.0	42.2																						
7-Oct	33	33	32	31	A	30	29	29	28	29	30	30	31	31	32	30	29	29	27	25	22	22	23	21	28.6	33.4																						
8-Oct	26	33	32	29	A	21	20	21	18	19	23	27	28	28	28	28	26	26	24	23	22	21	22	27	24.9	32.7																						
9-Oct	26	25	27	28	A	27	26	26	25	26	29	35	36	36	37	35	34	34	34	32	32	28	30	26	30.1	36.8																						
10-Oct	24	25	24	25	A	19	19	21	16	20	24	23	22	20	20	21	24	25	25	25	25	24	22	21	22.4	25.4																						
11-Oct	21	22	22	21	A	22	22	21	23	25	26	27	26	27	27	27	27	26	24	24	24	24	23	22	23.9	27.1																						
12-Oct	18	17	17	14	A	7	7	6	6	7	9	13	16	19	20	20	19	15	11	10	9	10	4	5	12.1	19.8																						
13-Oct	9	5	10	6	A	7	4	8	10	13	15	17	18	22	22	20	21	19	15	13	10	10	12	13	13.0	21.8																						
14-Oct	15	19	22	23	A	26	27	27	28	28	28	28	27	27	27	28	28	28	27	25	27	28	28	27	26.1	28.2																						
15-Oct	24	23	23	23	A	19	22	24	25	29	32	33	36	38	38	38	37	36	34	31	28	28	31	31	29.7	38.3																						
16-Oct	30	29	27	28	A	31	36	38	40	41	40	35	30	30	30	30	26	22	18	14	15	15	16	16	27.7	41.0																						
17-Oct	17	22	18	16	A	13	9	14	16	19	29	29	31	30	29	31	30	28	26	29	29	29	30	30	24.1	31.3																						
18-Oct	28	27	27	25	A	23	24	21	20	25	26	25	21	20	18	25	29	27	25	25	20	19	15	15	23.4	28.7																						
19-Oct	18	21	23	17	A	19	21	20	20	18	18	20	29	30	32	29	33	30	30	28	30	31	27	27	24.8	33.2																						
20-Oct	28	25	28	28	A	26	23	17	17	17	17	28	31	35	36	37	36	36	33	31	30	28	26	25	27.7	36.8																						
21-Oct	26	32	31	28	A	24	24	22	21	23	26	29	32	36	36	37	36	34	33	30	28	29	27	27	29.2	36.9																						
22-Oct	24	19	19	17	A	8	8	8	14	12	14	14	16	26	31	34	36	34	31	32	32	30	29	30	22.5	35.7																						
23-Oct	31	25	29	29	A	29	30	31	32	33	33	33	34	33	33	28	27	28	28	29	27	27	29	31	30.0	33.6																						
24-Oct	32	31	33	32	A	31	31	31	34	35	32	33	37	36	36	35	30	31	33	29	27	27	25	26	31.6	37.1																						
25-Oct	26	26	25	24	A	21	20	20	19	17	17	16	19	22	24	26	29	24	16	15	19	9	12	16	20.1	28.8																						
26-Oct	19	17	12	9	A	8	8	8	8	11	21	27	28	29	30	30	29	25	26	27	29	26	27	25	20.7	30.0																						
27-Oct	25	30	29	29	A	27	28	26	21	22	25	26	26	27	28	29	28	27	26	25	25	24	24	23	26.2	30.4																						
28-Oct	23	22	21	21	A	21	21	20	19	18	20	32	34	36	36	34	33	32	31	31	30	30	28	28	27.1	36.5																						
29-Oct	23	26	27	27	A	25	25	25	24	23	23	27	31	32	33	33	31	31	24	27	28	25	21	20	26.5	33.1																						
30-Oct	19	19	19	20	A	22	21	20	24	26	26	29	36	38	38	37	36	35	29	23	23	24	26	25	26.8	38.3																						
31-Oct	26	28	27	27	A	26	24	21	20	27	32	32	31	29	28	30	32	29	26	23	21	20	19	18	25.9	32.0																						
																								23.7	23.6	23.8	23.0	--	21.1	21.0	21.5	21.4	22.8	24.9	27.2	28.7	30.0	30.4	30.7	30.3	29.1	27.2	26.2	25.9	24.9	24.4	23.8	Diurnal Average
																								34.4	33.6	33.3	33.0	--	37.6	36.4	40.3	42.2	41.8	40.7	39.7	39.3	39.4	39.4	39.1	38.0	37.3	37.2	39.2	37.6	37.1	38.2	37.0	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
Beaverlodge - October 2017



Hourly Maximums

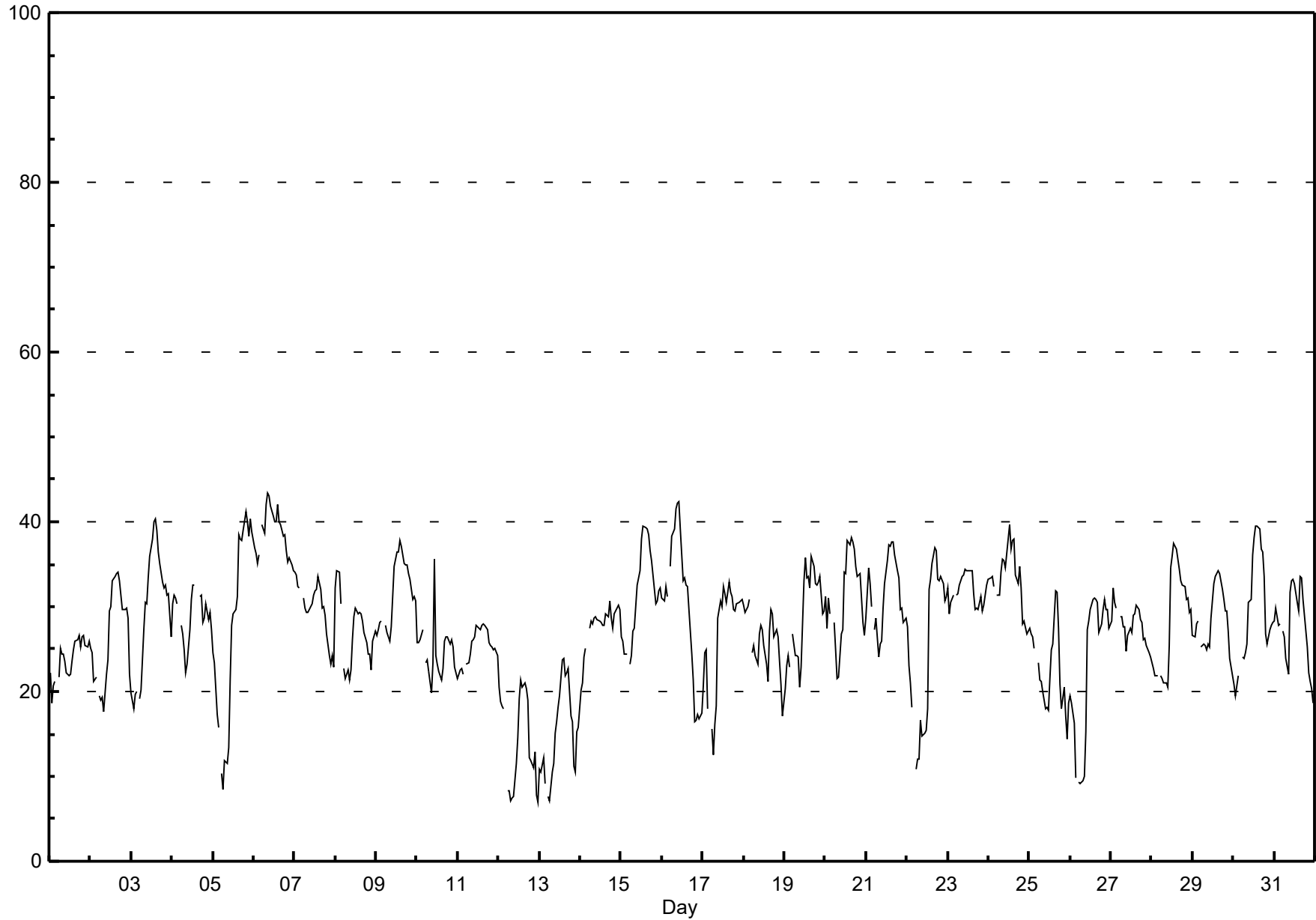
Ozone (O₃) - ppb

Beaverlodge - October 2017

Maximum Value: 43.4 ppb on Oct 6 09:00		Maximum Daily Average: 38.7 ppb on Oct 6		Hours in Service: 744																						
Minimum Value: 7 ppb on Oct 13 00:00		Minimum Daily Average: 14.1 ppb on Oct 12		Hours of Data: 711																						
Maximum Diurnal Average: 32.6 ppb at hour 16		Minimum Diurnal Average: 23.1 ppb at hour 7		Hours of Missing Data: 33																						
Monthly Average: 27.54 ppb		Percentiles: P ₁ = 8.3 P ₁₀ = 18.2 Q ₁ = 23.4 Median = 28.1 Q ₃ = 32.4 P ₉₀ = 36.1 P ₉₉ = 41.9		Hours of Calibration: 33																						
				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	22	19	21	21	A	22	25	24	24	24	22	22	24	25	26	26	27	25	26	27	25	26	23.9	26.7		
2-Oct	25	25	21	22	A	19	19	19	18	22	24	30	30	33	33	34	34	33	31	30	30	30	26.6	34.1		
3-Oct	20	18	20	20	A	19	20	28	30	30	33	36	38	40	40	39	36	35	33	32	32	31	30.0	40.3		
4-Oct	30	31	31	30	A	28	27	25	22	23	27	31	33	33	C	C	31	31	28	29	30	28	28.8	32.6		
5-Oct	24	23	17	16	A	10	9	12	12	13	21	28	29	30	31	39	38	38	39	41	40	38	27.3	41.1		
6-Oct	37	36	35	36	A	40	39	42	43	43	42	41	40	40	42	40	40	38	39	37	35	36	38.7	43.4		
7-Oct	34	34	32	32	A	31	30	29	29	30	30	31	32	32	34	32	30	30	29	27	24	23	29.7	34.0		
8-Oct	32	34	34	30	A	23	22	23	21	23	26	29	30	29	29	29	28	27	26	24	24	23	26.9	34.2		
9-Oct	27	27	28	28	A	28	27	26	26	28	35	36	37	37	38	37	35	35	35	34	33	31	31.7	37.8		
10-Oct	26	26	26	27	A	23	24	22	20	23	36	24	23	22	21	23	26	26	26	26	26	25	24.7	35.6		
11-Oct	21	23	23	22	A	23	23	24	26	26	26	28	27	27	28	28	27	26	25	25	25	25	25.3	27.9		
12-Oct	20	19	18	18	A	8	8	7	7	8	12	15	19	21	21	21	20	19	12	12	11	13	14.1	21.4		
13-Oct	11	10	12	9	A	8	7	11	12	15	16	18	20	24	24	22	22	23	17	17	11	11	15.2	24.0		
14-Oct	20	21	24	25	A	27	28	28	29	29	29	28	28	28	28	29	29	31	29	27	29	29	27.6	30.7		
15-Oct	26	26	24	24	A	23	24	27	27	33	33	34	38	39	39	39	38	37	35	34	30	31	31.7	39.5		
16-Oct	31	31	32	31	A	35	38	39	42	42	42	39	33	33	33	32	30	24	21	17	17	17	30.2	42.4		
17-Oct	21	25	25	18	A	16	13	16	18	29	31	30	32	32	30	33	32	31	30	30	30	31	26.6	32.9		
18-Oct	30	29	30	31	A	25	25	24	23	27	28	27	25	23	21	27	30	29	26	27	26	23	26.0	30.8		
19-Oct	20	23	24	23	A	27	24	24	24	21	23	33	36	33	34	32	36	35	33	32	33	34	28.8	36.0		
20-Oct	31	27	31	29	A	28	25	22	22	27	27	34	34	38	37	38	38	37	35	34	34	31	31.0	38.1		
21-Oct	29	35	33	30	A	27	29	24	26	26	30	33	35	37	37	38	38	36	34	33	30	30	31.5	37.7		
22-Oct	28	23	21	18	A	11	12	12	17	15	15	15	18	32	33	35	37	37	33	33	34	33	24.9	36.9		
23-Oct	32	29	31	31	A	31	31	32	34	34	34	34	34	34	34	31	30	30	30	31	29	30	31.9	34.3		
24-Oct	33	33	34	32	A	31	31	34	36	35	35	38	40	37	38	38	34	33	35	32	28	28	33.4	39.7		
25-Oct	27	27	27	25	A	23	21	21	20	18	18	22	25	26	32	32	32	27	21	18	21	17	22.5	31.8		
26-Oct	19	19	16	10	A	9	9	9	10	15	27	28	30	31	31	31	30	27	28	30	31	30	23.0	31.0		
27-Oct	28	32	31	30	A	29	29	28	28	25	27	27	27	29	29	30	30	28	28	26	26	25	27.9	32.1		
28-Oct	23	23	22	22	A	22	22	21	21	20	25	35	36	37	37	36	34	33	32	32	31	31	28.5	37.5		
29-Oct	27	26	28	28	A	25	26	25	25	26	25	29	33	33	34	34	34	32	31	30	30	27	28.4	34.2		
30-Oct	21	20	21	22	A	24	24	25	26	30	31	36	38	40	40	39	37	37	34	27	26	27	29.4	39.5		
31-Oct	28	30	28	28	A	27	26	24	22	32	33	33	33	31	30	34	33	31	29	25	22	21	27.8	33.6		
		26.0	25.9	25.8	24.9	--	23.3	23.1	23.5	23.8	25.5	27.9	29.7	30.7	31.8	31.9	32.6	32.1	31.1	29.4	28.3	27.6	26.9	Diurnal Average		
		37.0	36.3	35.1	36.1	--	39.7	38.7	42.0	43.4	43.0	42.4	40.6	40.0	40.0	42.1	39.9	39.7	38.3	38.9	41.1	40.1	38.3	40.4	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																								

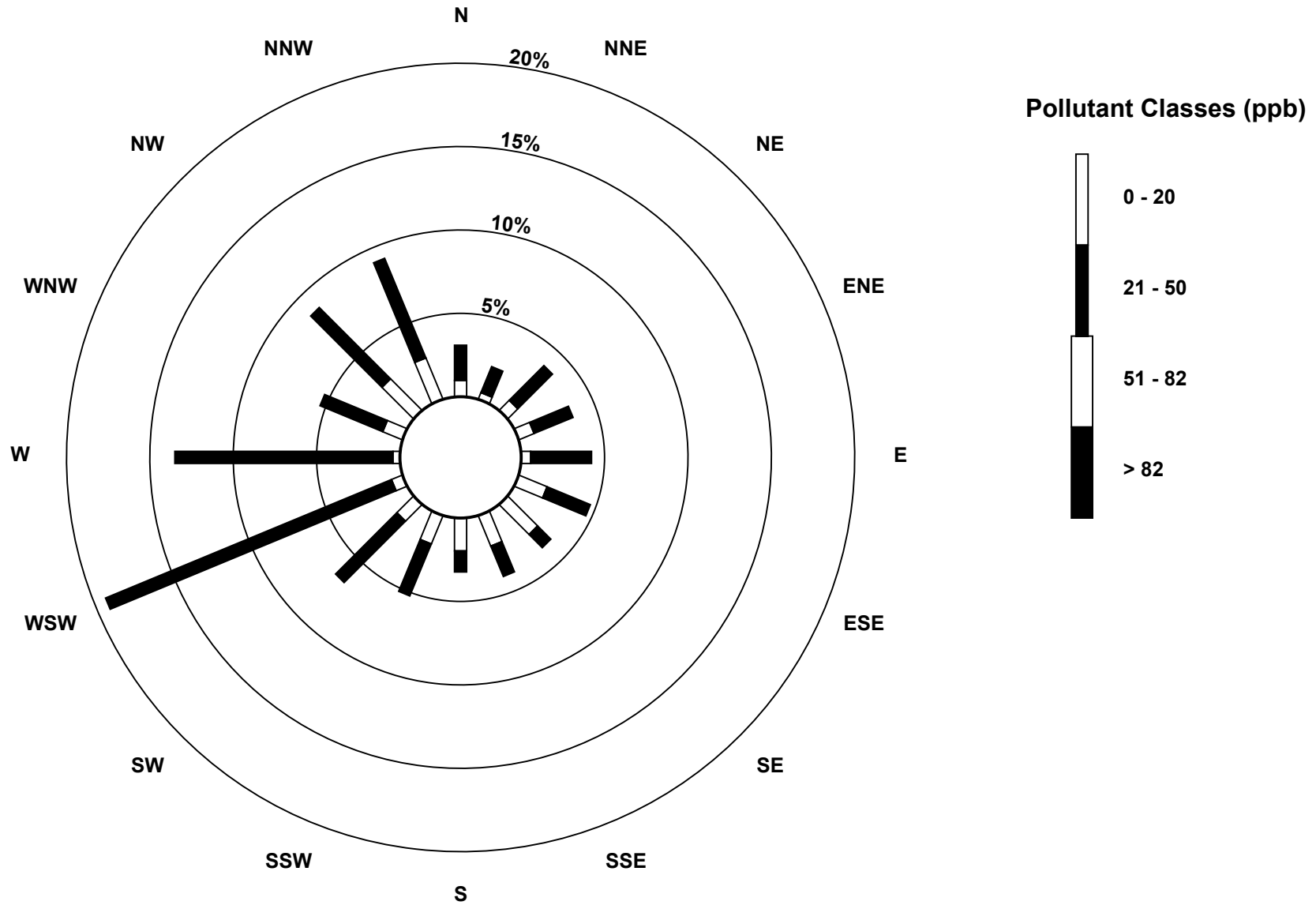
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - October 2017



Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - October 2017



Eight Hour Running Averages

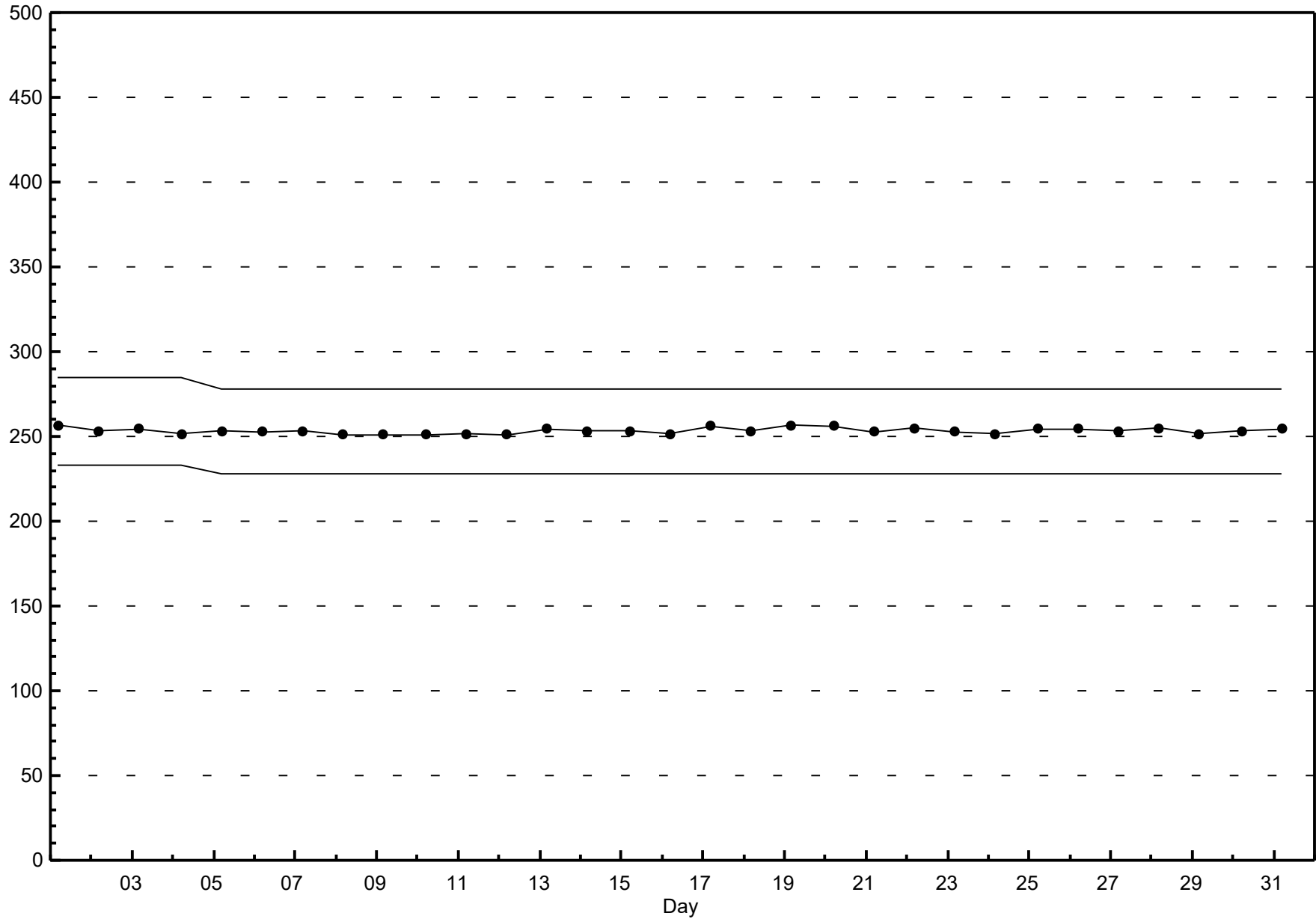
Ozone (O₃) - ppb

Beaverlodge - October 2017

Maximum Value: 40.4 ppb on Oct 6 15:00																						Hours in Service: 744			
Minimum Value: 6.6 ppb on Oct 13 07:00																						Hours of Data: 744			
Percentiles: P ₁ = 7.8 P ₁₀ = 16.6 Q ₁ = 21.9 Median = 25.9 Q ₃ = 29.5 P ₉₀ = 33.3 P ₉₉ = 38.6																						Hours of Missing Data: 0			
																						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	25	23	22	21	21	20	20	20	21	21	22	22	22	22	22	22	23	23	23	24	24	24	25	25	24.7
2-Oct	25	24	24	23	23	22	21	20	19	19	19	20	21	23	25	26	28	30	31	31	31	30	30	28	30.8
3-Oct	26	24	23	22	21	19	17	18	19	21	23	25	27	29	32	34	35	35	35	35	34	33	32	31	35.5
4-Oct	30	29	28	28	28	27	26	26	25	23	23	23	24	25	25	25	27	29	30	29	29	28	28	27	29.6
5-Oct	26	24	23	22	21	18	15	13	11	11	11	12	14	17	20	23	26	29	32	34	35	36	37	37	37.1
6-Oct	37	37	36	36	35	35	35	35	37	38	39	40	40	40	40	40	40	39	39	38	37	37	36	35	40.4
7-Oct	35	34	33	33	33	32	32	31	30	30	29	29	29	30	30	30	30	30	29	28	27	26	25	24	34.7
8-Oct	25	25	26	26	27	26	26	26	25	23	22	21	22	23	24	25	26	27	27	26	26	25	24	24	27.0
9-Oct	24	24	24	25	25	26	27	26	26	27	27	28	29	30	31	32	33	34	35	35	34	33	32	31	34.9
10-Oct	30	29	28	27	26	25	23	22	21	21	21	20	21	21	21	21	22	22	23	23	23	24	24	24	30.0
11-Oct	23	23	23	22	22	21	21	21	22	22	23	23	24	24	25	26	26	26	26	26	26	25	25	24	26.5
12-Oct	23	22	21	20	19	17	15	12	11	9	8	8	9	10	12	14	15	16	17	16	15	14	12	10	23.2
13-Oct	9	8	8	7	7	7	7	7	7	8	9	11	12	13	16	17	18	19	19	19	18	16	15	14	19.2
14-Oct	13	13	14	15	16	19	21	23	25	26	27	27	27	28	27	28	28	28	28	27	27	27	28	27	27.7
15-Oct	27	26	26	25	25	24	23	23	23	24	25	26	28	30	32	34	35	36	36	36	35	34	33	32	36.1
16-Oct	31	30	29	29	29	30	30	31	33	35	36	37	36	36	35	34	33	30	28	25	23	21	19	18	37.3
17-Oct	17	17	17	17	17	17	16	16	15	15	17	19	20	22	25	27	28	30	29	29	29	29	29	29	29.5
18-Oct	29	28	28	28	28	27	26	25	24	23	23	23	23	23	22	23	24	24	24	24	24	24	24	23	28.6
19-Oct	22	21	21	20	19	19	19	20	20	20	19	19	21	22	23	24	26	28	29	30	30	30	30	30	30.4
20-Oct	29	28	28	28	28	27	26	25	23	22	21	21	22	23	25	27	30	32	34	34	34	33	32	30	34.3
21-Oct	29	29	29	28	28	27	27	27	26	25	24	24	25	27	28	30	32	33	34	34	34	33	32	31	34.3
22-Oct	29	27	25	24	23	20	17	15	13	12	12	11	12	14	17	20	23	25	28	30	32	32	32	32	32.4
23-Oct	31	30	30	29	29	29	29	29	29	30	31	32	32	32	33	32	32	31	31	30	29	28	28	28	32.8
24-Oct	29	29	30	30	31	31	31	31	32	32	32	32	33	34	34	35	34	34	34	33	32	31	30	29	34.8
25-Oct	28	27	26	26	26	25	24	23	22	21	20	19	19	19	20	21	22	22	22	22	20	19	17	17	28.0
26-Oct	16	15	15	14	13	13	12	11	10	9	10	13	15	18	20	23	26	27	28	28	28	28	27	27	28.1
27-Oct	26	27	27	27	27	28	28	28	27	26	25	25	25	25	25	26	27	27	27	27	27	27	26	25	27.8
28-Oct	25	24	23	23	23	22	22	21	21	20	20	22	23	25	27	29	31	32	34	34	33	32	31	30	33.6
29-Oct	29	28	28	27	27	26	26	25	25	25	24	24	25	26	27	28	29	30	30	30	30	29	28	26	30.2
30-Oct	24	23	22	22	21	20	20	20	21	22	23	24	25	27	30	32	33	34	35	34	32	31	29	28	34.8
31-Oct	27	26	25	26	26	26	26	26	25	24	25	26	27	27	28	29	30	30	30	28	27	26	25	24	30.3
36.9 36.7 36.3 35.5 35.2 35.3 34.9 35.4 36.5 37.7 38.8 39.7 39.7 39.9 40.4 40.2 39.7 39.1 38.7 38.1 37.4 36.7 36.8 37.1																									
Diurnal Maximums																									

Span Responses

Ozone (O₃)
Beaverlodge - October 2017



Hourly Averages

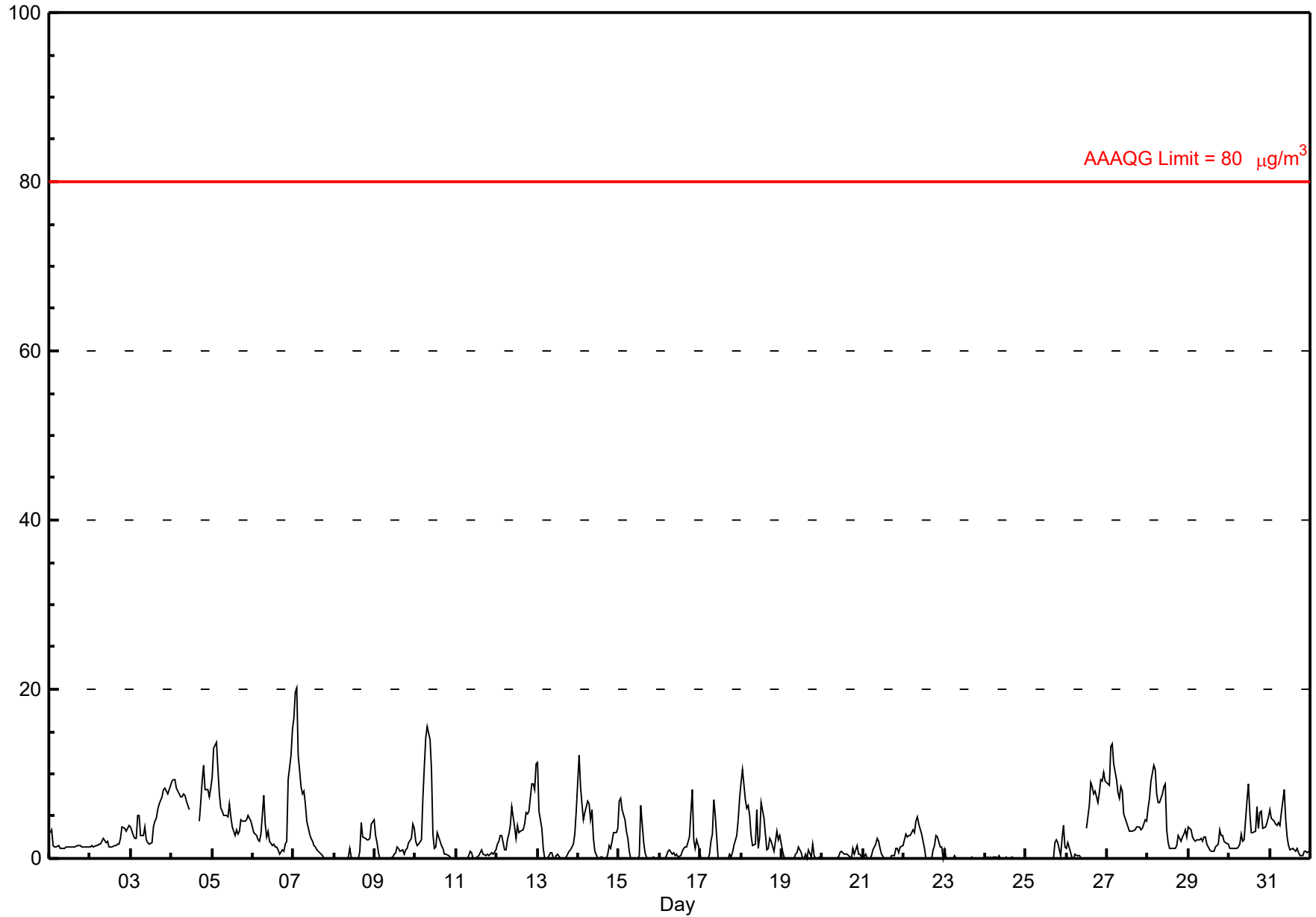
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - October 2017

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 20.1 µg/m ³ on Oct 7 03:00	Maximum Daily Average: 7.8 µg/m ³ on Oct 4
Minimum Value: 0 µg/m ³ on Oct 7 19:00	Hours of Data: 736
Maximum Diurnal Average: 4.0 µg/m ³ at hour 1	Hours of Missing Data: 8
Monthly Average: 2.62 µg/m ³	Hours of Calibration: 5
Minimum Daily Average: 0.1 µg/m ³ on Oct 24	Percent Operational Time: 99.6
Minimum Diurnal Average: 1.4 µg/m ³ at hour 16	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 1.4 Q ₃ = 3.7 P ₉₀ = 7.5 P ₉₉ = 13.8	

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	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	3.4																						
2-Oct	1	2	1	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	4	4	3	4	4	2.1	3.8																						
3-Oct	4	3	2	2	5	5	3	3	4	2	2	2	4	4	5	6	6	7	8	8	8	8	9	4.6	8.6																							
4-Oct	9	9	9	8	8	7	7	8	7	7	6	C	C	C	C	C	4	7	9	11	8	8	7	8	7.8	11.1																						
5-Oct	10	13	14	11	8	6	6	5	5	5	7	5	4	3	3	3	3	5	4	4	4	5	5	4	5.9	13.7																						
6-Oct	3	3	3	2	2	3	7	4	3	3	2	1	2	1	1	1	1	1	2	2	9	12	15	3.5	15.3																							
7-Oct	17	20	20	12	9	8	8	7	4	3	2	2	2	1	1	1	0	0	0	0	0	0	0	0	4.8	20.1																						
8-Oct	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4	3	2	2	2	4	5	1.1	4.5																							
9-Oct	3	2	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1	2	2	4	4	1.1	4.0																						
10-Oct	2	1	2	2	7	11	14	16	14	10	3	1	1	3	2	2	1	0	1	0	0	0	0	0	3.9	15.6																						
11-Oct	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	0	0	1	1	1	0.4	1.1																						
12-Oct	2	2	3	3	1	1	2	3	4	6	4	2	4	3	3	3	4	5	5	6	9	9	8	11	4.3	11.1																						
13-Oct	11	6	4	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	1	2	3	6	1.6	11.4																						
14-Oct	12	8	6	4	5	7	6	5	6	2	1	0	0	0	0	0	0	1	2	1	2	3	3	4	3.3	12.2																						
15-Oct	7	7	6	5	3	2	1	0	0	0	0	0	0	6	2	1	0	0	0	0	0	0	0	0	1.7	7.2																						
16-Oct	0	0	0	0	0	1	1	1	1	0	1	0	0	1	1	1	1	3	5	8	2	1	2	1	1.3	8.1																						
17-Oct	0	0	0	0	0	1	2	3	7	5	0	0	0	0	0	0	0	0	0	1	2	3	5	7	1.4	7.1																						
18-Oct	9	11	7	6	6	5	3	1	2	6	1	3	7	5	3	1	1	2	2	1	2	3	2	3	3.8	10.6																						
19-Oct	1	0	0	0	0	0	0	0	1	1	1	1	0	0	1	0	1	0	2	0	0	0	0	0	0.3	1.7																						
20-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	1	1	1	0	0.3	1.4																						
21-Oct	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	1	1	1	1	2	0.7	2.4																						
22-Oct	2	3	3	3	3	3	3	4	5	4	3	2	1	0	0	0	0	1	2	3	3	1	1	0	2.1	4.9																						
23-Oct	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0																						
24-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																						
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	2	4	1	0.6	3.8																						
26-Oct	1	2	1	0	0	1	0	0	0	M	M	M	4	6	9	8	8	8	7	8	9	9	10	9	4.8	10.1																						
27-Oct	9	9	13	14	11	9	8	7	9	8	5	4	4	3	3	3	3	4	4	4	3	3	5	4	6.2	13.5																						
28-Oct	6	7	9	11	10	8	7	7	8	9	9	3	2	1	1	1	1	1	3	2	3	3	3	3	4.9	11.0																						
29-Oct	4	3	3	2	2	2	2	2	2	2	3	2	1	1	1	1	1	2	3	3	3	2	2	2	2.1	3.7																						
30-Oct	1	1	1	1	1	1	2	3	2	2	7	9	5	3	3	3	6	4	5	6	4	4	4	5	3.5	8.7																						
31-Oct	6	5	4	4	4	4	4	5	8	5	3	2	1	1	1	1	1	1	0	0	1	1	1	1	2.6	8.2																						
																								4.0	3.9	3.6	3.1	2.9	2.9	2.9	2.9	3.2	2.9	2.1	1.5	1.5	1.6	1.5	1.4	1.7	1.9	2.4	2.6	2.5	2.9	3.3	3.5	Diurnal Average
																								16.7	19.7	20.1	13.5	11.1	10.8	14.2	15.6	14.0	10.5	8.9	8.7	6.7	6.2	8.9	8.5	7.6	7.9	9.2	11.1	9.2	9.3	12.1	15.3	Diurnal Maximum

C - Calibration M - Maintenance
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³

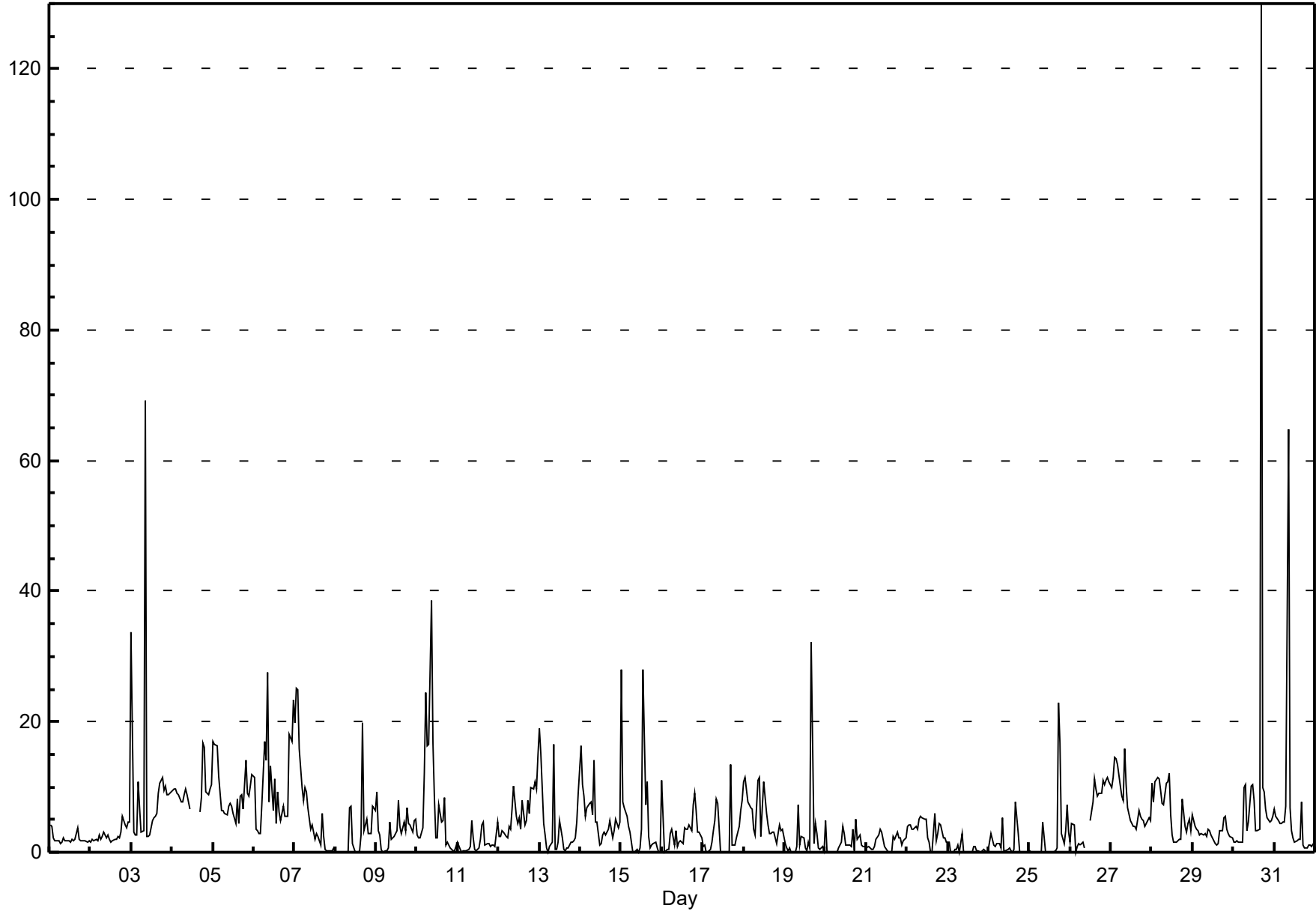


Hourly Maximums

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

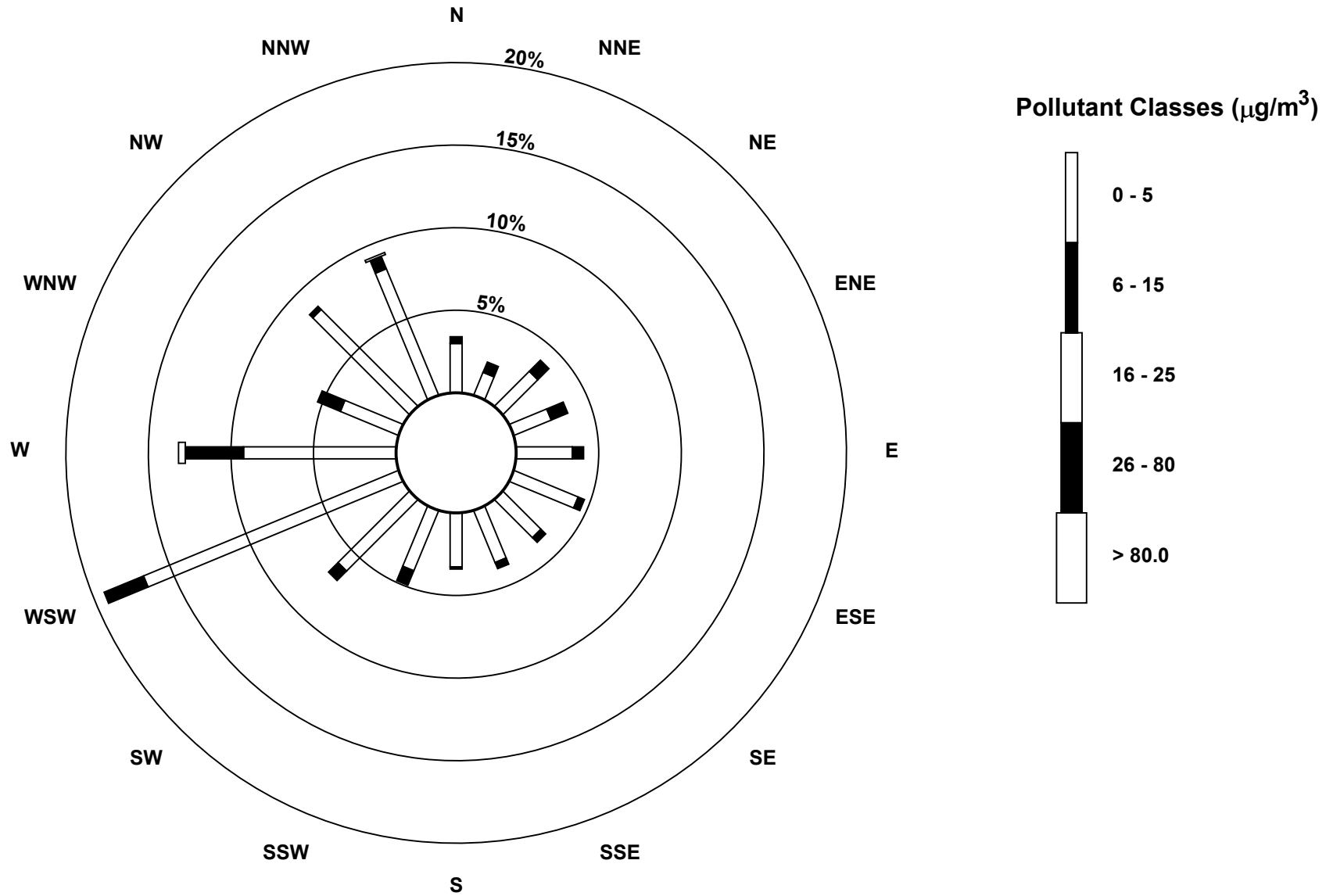
Beaverlodge - October 2017

Maximum Value: 130.0 µg/m ³ on Oct 30 17:00		Maximum Daily Average: 10.6 µg/m ³ on Oct 30		Hours in Service: 744																						
Minimum Value: 0 µg/m ³ on Oct 8 01:00		Minimum Daily Average: 0.5 µg/m ³ on Oct 23		Hours of Data: 736																						
Maximum Diurnal Average: 11.8 µg/m ³ at hour 9		Minimum Diurnal Average: 2.8 µg/m ³ at hour 12		Hours of Missing Data: 8																						
Monthly Average: 4.81 µg/m ³		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 1.2 Median = 3.1 Q ₃ = 6.3 P ₉₀ = 10.5 P ₉₉ = 24.5		Hours of Calibration: 5																						
				Percent Operational Time: 99.6																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	4	4	2	2	2	2	1	1	2	2	2	1	2	2	2	4	2	2	2	2	2	2	2	2	2.0	4.1
2-Oct	2	2	2	2	2	3	2	2	3	2	3	2	2	2	2	2	2	2	3	6	4	4	5	5	2.6	5.6
3-Oct	34	3	3	3	11	7	3	3	69	2	2	3	5	5	6	6	9	10	11	9	10	9	9	9	10.1	69.2
4-Oct	10	10	10	9	9	8	8	9	10	9	7	C	C	C	C	C	6	8	17	16	9	9	10	10	9.6	16.8
5-Oct	17	17	16	12	9	6	6	6	6	7	8	7	6	4	8	4	9	9	7	14	9	9	10	12	9.1	17.1
6-Oct	11	4	3	3	3	7	17	14	28	8	13	6	11	4	9	6	5	7	6	6	6	18	17	23	9.8	27.6
7-Oct	20	25	25	16	10	8	10	9	7	4	4	3	2	3	2	1	6	2	0	0	0	0	0	1	6.6	25.2
8-Oct	0	0	0	0	0	0	0	0	7	7	1	1	0	0	0	3	20	3	5	3	3	3	7	6	2.9	19.8
9-Oct	9	3	3	0	0	0	0	1	5	2	2	3	3	8	4	3	5	3	7	4	4	3	5	5	3.5	9.2
10-Oct	3	2	2	4	12	24	16	17	39	17	8	2	2	7	5	5	8	1	2	1	0	0	0	1	7.4	38.7
11-Oct	2	0	0	0	0	0	0	1	5	2	0	0	1	2	4	5	1	1	1	1	1	1	1	5	1.5	4.8
12-Oct	2	2	3	3	2	2	4	4	7	10	6	4	5	4	8	4	5	8	6	10	10	11	10	15	6.1	14.9
13-Oct	19	15	4	3	1	0	1	2	17	0	0	2	5	2	0	0	1	1	2	2	2	2	5	9	3.9	19.1
14-Oct	16	10	9	6	7	8	8	6	14	5	5	1	1	3	3	3	4	5	4	2	3	5	4	5	5.6	16.4
15-Oct	28	8	7	6	4	3	1	0	0	0	0	1	3	28	7	11	2	1	1	1	2	1	0	0	4.8	28.1
16-Oct	11	0	0	0	0	3	4	1	3	1	2	2	1	4	4	4	4	3	7	9	6	3	3	2	3.3	11.0
17-Oct	1	1	0	0	0	2	3	5	8	8	0	0	0	0	0	0	13	1	1	1	2	4	6	8	2.7	13.4
18-Oct	11	11	8	7	7	7	4	3	11	11	2	7	11	6	4	3	3	3	3	1	3	4	3	4	5.7	11.5
19-Oct	1	1	0	1	0	0	0	1	7	1	2	2	1	0	2	1	32	1	4	3	1	0	1	0	2.6	32.3
20-Oct	5	0	0	0	0	0	0	0	1	2	4	3	1	1	1	1	4	0	5	2	3	1	1	1	1.5	5.1
21-Oct	1	1	1	0	0	1	2	3	4	3	2	1	0	0	0	0	2	2	3	2	2	1	2	2	1.5	3.6
22-Oct	4	4	4	4	4	4	4	5	6	5	5	5	2	2	0	0	6	2	3	4	4	2	2	2	3.4	6.1
23-Oct	2	2	0	0	0	0	1	0	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.5	2.9
24-Oct	0	3	2	1	1	1	1	1	5	0	0	0	1	0	0	0	8	3	0	0	0	0	0	0	1.2	7.8
25-Oct	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	1	23	17	3	1	3	7	3	2.6	23.0
26-Oct	2	4	4	0	1	1	1	2	1	M	M	M	5	8	11	10	9	9	9	11	10	11	11	11	6.2	11.5
27-Oct	10	11	15	14	13	10	9	8	16	10	7	5	4	4	4	4	6	6	5	5	4	4	5	5	7.7	15.9
28-Oct	10	8	11	11	11	10	8	7	10	11	12	6	3	2	2	2	2	8	4	3	4	5	3	3	6.5	12.2
29-Oct	6	4	3	3	3	3	3	3	2	4	3	3	2	1	1	1	3	3	5	6	4	3	2	2	3.1	5.8
30-Oct	2	1	2	2	2	2	10	10	3	5	10	10	8	3	3	4	130	10	9	7	5	5	5	6	10.6	130.0
31-Oct	7	6	5	4	4	5	5	7	65	7	3	2	2	2	2	2	8	1	1	1	1	1	1	1	5.9	64.8
		8.0	5.3	4.6	3.7	3.8	4.1	4.3	4.2	11.8	4.8	3.8	2.8	2.9	3.6	3.2	2.9	10.3	4.3	5.0	4.4	3.7	4.0	4.5	5.1	Diurnal Average
		33.8	25.2	24.9	15.9	13.4	24.4	17.1	16.6	69.2	16.8	13.2	10.5	11.2	28.1	11.2	10.7	130.0	23.0	16.8	16.1	10.5	18.1	17.1	23.3	Diurnal Maximum
C - Calibration		M - Maintenance																								



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - October 2017

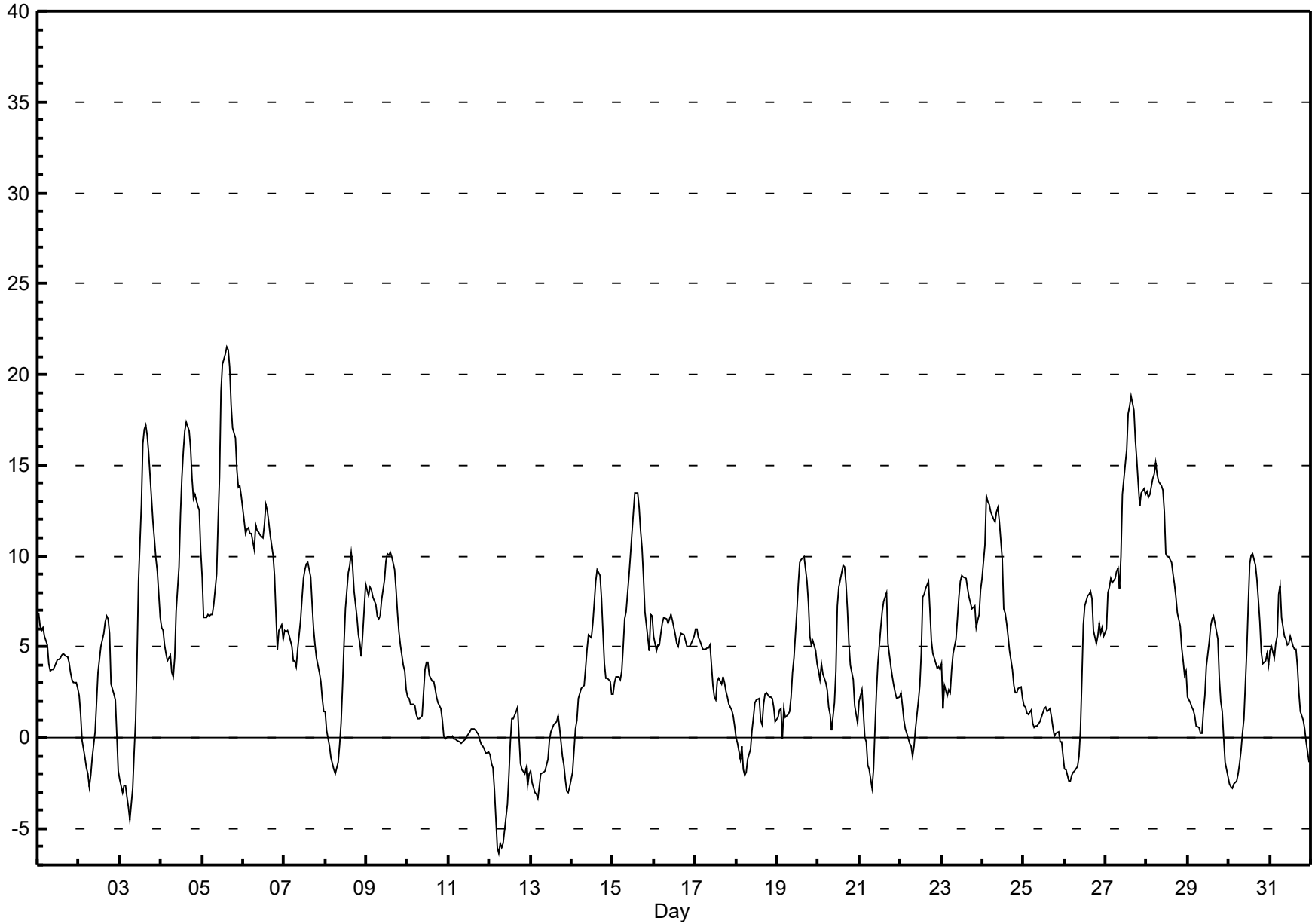


Hourly Averages

External Temperature (ET) - °C

Beaverlodge - October 2017

Maximum Value: 21.5 °C on Oct 5 15:00		Maximum Daily Average: 13.5 °C 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: -6 °C on Oct 12 06:00		Minimum Daily Average: -2.2 °C on Oct 12																								
Maximum Diurnal Average: 8.2 °C at hour 15		Minimum Diurnal Average: 2.7 °C at hour 7																								
Monthly Average: 4.79 °C		Percentiles: P ₁ = -3.8 P ₁₀ = -1.4 Q ₁ = 1.1 Median = 4.4 Q ₃ = 7.7 P ₉₀ = 11.9 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	7	6	6	6	6	5	4	4	4	4	4	4	4	5	5	4	4	4	4	3	3	3	3	4.4	6.8	
2-Oct	2	1	0	-1	-2	-2	-3	-2	-1	0	2	4	4	5	6	6	7	7	6	3	2	2	0	-2	1.9	6.7
3-Oct	-2	-3	-3	-3	-3	-4	-5	-3	-1	1	4	9	13	16	17	17	17	16	13	12	11	10	9	7	6.1	17.2
4-Oct	6	6	5	5	4	5	4	3	4	7	9	12	14	16	17	17	17	16	14	13	13	13	13	10	10.2	17.4
5-Oct	9	7	7	7	7	7	7	7	9	12	14	19	21	21	21	21	20	18	17	17	15	14	14	13	13.5	21.5
6-Oct	12	11	11	12	11	11	10	12	11	11	11	11	12	13	13	12	11	10	9	7	5	6	6	5	10.2	12.9
7-Oct	6	6	6	6	5	4	4	4	5	6	8	9	9	10	10	9	7	6	5	4	4	3	2	1	5.8	9.7
8-Oct	1	0	0	-1	-1	-2	-2	-1	0	1	3	5	7	9	9	10	9	8	7	6	5	4	6	8	3.8	10.2
9-Oct	8	8	8	8	8	7	7	7	7	8	9	10	10	10	10	10	9	8	7	6	5	4	4	3	7.5	10.2
10-Oct	2	2	2	2	2	1	1	1	1	3	4	4	4	3	3	3	3	2	2	2	1	0	0	0	2.0	4.1
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	-1	-1	-1	-0.1	0.5
12-Oct	-1	-1	-2	-3	-6	-6	-6	-6	-6	-5	-4	-2	0	1	1	1	2	0	-1	-2	-2	-2	-3	-2	-2.2	1.6
13-Oct	-2	-2	-3	-3	-3	-3	-2	-2	-2	-1	-1	0	0	1	1	1	1	1	-1	-2	-2	-3	-3	-3	-1.4	1.2
14-Oct	-2	-1	0	1	2	3	3	3	4	5	6	5	6	7	9	9	9	8	6	4	3	3	3	2	4.1	9.3
15-Oct	2	3	3	3	3	4	5	7	7	9	10	11	12	13	13	13	11	10	9	7	6	5	7	7	7.6	13.5
16-Oct	6	5	5	5	6	6	7	7	6	7	7	7	6	5	5	6	6	6	5	5	5	5	5	6	5.7	6.8
17-Oct	6	6	6	5	5	5	5	5	5	5	3	2	2	3	3	3	3	3	3	2	2	2	1	1	3.6	6.0
18-Oct	0	0	-1	0	-2	-2	-2	-1	-1	0	1	2	2	2	1	1	2	2	2	2	2	2	2	1	0.7	2.5
19-Oct	1	2	2	0	2	1	1	1	2	4	4	7	8	10	10	10	10	9	7	6	5	5	5	4	4.8	10.0
20-Oct	4	3	4	4	3	3	2	1	0	2	4	7	8	9	10	9	8	7	5	4	3	2	1	1	4.3	9.5
21-Oct	2	3	1	0	0	-1	-2	-3	-2	0	2	4	6	7	8	8	8	5	4	3	3	2	2	2	2.6	8.0
22-Oct	2	2	1	1	0	0	0	-1	0	0	2	3	5	8	8	8	9	7	5	5	4	4	4	4	3.3	8.6
23-Oct	4	2	3	2	3	2	4	5	5	7	8	9	9	9	9	8	8	7	7	7	6	6	7	8	6.0	8.9
24-Oct	9	11	13	13	13	12	12	12	12	13	12	10	7	7	6	6	5	4	3	2	2	3	3	2	8.0	13.3
25-Oct	2	2	1	1	2	1	1	1	1	1	1	1	2	2	1	2	1	1	0	0	0	0	0	-1	0.9	1.8
26-Oct	-2	-2	-2	-2	-2	-2	-2	-2	-1	0	3	6	7	8	8	8	8	6	5	6	6	6	6	6	3.0	8.0
27-Oct	6	8	8	9	9	9	9	9	8	10	13	15	16	18	18	19	18	16	15	14	13	14	14	13	12.6	18.8
28-Oct	14	13	13	14	15	15	15	14	14	14	12	10	10	10	10	9	8	7	6	5	4	3	4	4	10.3	15.1
29-Oct	2	2	2	2	1	1	1	0	0	1	2	4	5	6	7	7	6	5	3	2	1	0	-1	-2	2.4	6.7
30-Oct	-3	-3	-3	-3	-2	-2	-1	-1	0	1	5	7	10	10	10	10	9	8	6	5	4	4	5	4	3.3	10.1
31-Oct	5	5	4	5	6	8	8	7	6	5	5	5	6	5	5	5	4	3	1	1	0	0	-1	-1	4.0	8.4
		3.5	3.2	3.2	3.0	2.8	2.8	2.7	2.8	3.2	4.2	5.3	6.5	7.3	8.0	8.2	8.1	7.8	6.8	5.7	4.8	4.3	3.9	3.7	3.3	Diurnal Average
		13.6	13.2	13.4	14.3	14.5	15.1	14.5	14.1	13.8	13.6	14.3	19.0	20.6	21.1	21.5	21.3	20.4	18.3	17.1	16.5	14.8	13.8	13.9	13.4	Diurnal Maximum



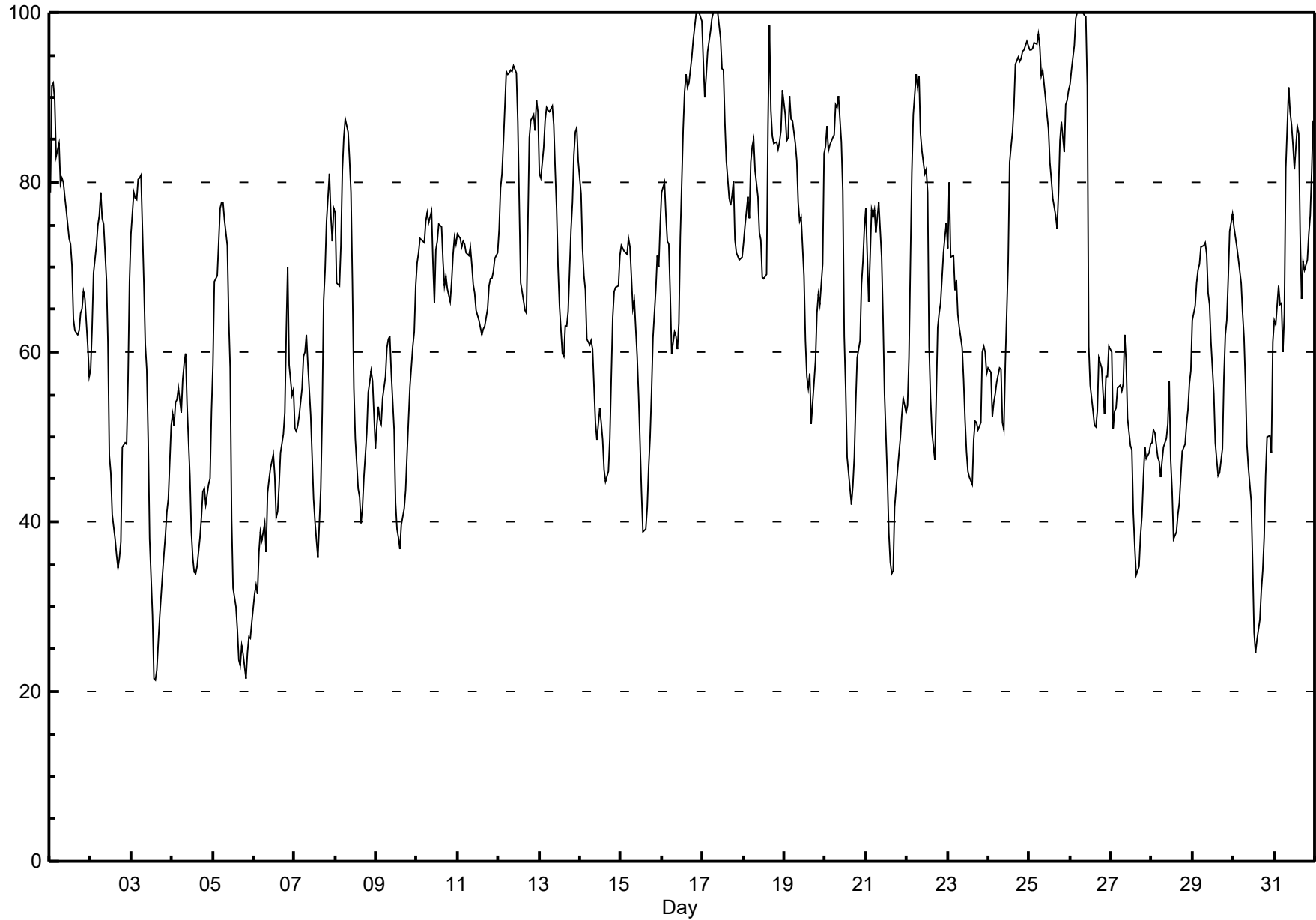
Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - October 2017

Maximum Value: 100.0 % on Oct 16 22:00		Maximum Daily Average: 88.3 % on Oct 25		Hours in Service: 744																						
Minimum Value: 21 % on Oct 3 15:00		Minimum Daily Average: 45.5 % on Oct 6		Hours of Data: 744																						
Maximum Diurnal Average: 73.7 % at hour 6		Minimum Diurnal Average: 52.8 % at hour 16		Hours of Missing Data: 0																						
Monthly Average: 65.03 %		Percentiles: P ₁ = 24.5 P ₁₀ = 40.8 Q ₁ = 51.3 Median = 65.7 Q ₃ = 78.3 P ₉₀ = 89.7 P ₉₉ = 100.0		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	79	91	92	90	83	85	80	81	80	78	77	73	70	64	62	62	63	65	65	67	66	61	57	73.5	91.7	
2-Oct	58	63	69	72	75	76	79	76	75	68	61	48	46	41	38	36	35	36	38	49	49	49	57	68	56.8	78.9
3-Oct	74	79	78	78	80	80	81	68	61	58	50	38	29	22	21	23	26	29	34	36	39	41	43	51	50.7	80.9
4-Oct	53	51	54	54	56	53	57	59	60	54	45	39	36	34	34	35	38	40	44	44	42	44	45	53	46.8	59.9
5-Oct	58	68	69	73	77	78	78	76	73	64	58	40	32	30	27	24	23	25	24	22	25	26	26	28	46.8	77.7
6-Oct	31	32	31	36	39	38	40	36	43	45	46	48	45	40	41	44	48	50	53	62	70	58	55	56	45.5	70.0
7-Oct	51	51	51	53	56	60	60	62	59	53	48	43	40	38	36	44	53	66	70	75	81	76	73	77	57.2	81.0
8-Oct	76	68	68	73	81	85	87	86	83	79	68	56	50	44	43	40	42	45	50	55	56	58	57	49	62.5	87.5
9-Oct	51	54	52	52	55	57	61	62	62	58	51	42	39	38	37	40	42	44	48	52	56	61	62	68	51.7	67.8
10-Oct	70	72	73	73	73	75	76	75	77	71	66	72	73	75	75	71	68	69	67	66	68	72	74	73	71.8	76.5
11-Oct	74	73	72	73	73	72	71	72	70	68	67	65	64	63	62	63	63	65	68	69	69	70	71	72	68.7	73.8
12-Oct	74	79	81	85	93	93	93	93	93	94	93	87	78	68	67	65	65	75	85	87	88	86	90	88	83.3	93.7
13-Oct	81	81	84	87	89	88	88	89	87	81	77	70	65	60	59	63	63	65	74	78	83	86	86	83	77.9	89.0
14-Oct	79	72	69	67	62	61	61	60	56	52	50	53	52	50	46	45	46	50	57	64	67	68	68	71	59.4	78.7
15-Oct	73	72	72	72	73	72	69	65	66	60	55	49	44	39	39	42	46	50	55	62	67	71	70	75	60.8	75.0
16-Oct	79	80	76	73	73	67	60	62	62	60	63	73	86	91	93	91	92	95	97	98	100	100	100	99	82.1	100.0
17-Oct	94	90	93	95	98	99	100	100	100	100	97	93	93	87	83	78	77	79	80	73	72	71	71	71	87.3	100.0
18-Oct	73	75	78	76	82	84	85	81	78	74	73	69	69	69	87	98	88	86	85	85	84	85	86	91	80.9	98.4
19-Oct	88	85	85	90	87	87	85	82	78	75	76	69	61	57	56	57	52	56	59	65	67	66	70	83	72.4	90.1
20-Oct	84	87	84	84	85	86	89	89	90	85	79	62	56	48	44	42	44	48	54	59	61	68	71	75	69.7	90.1
21-Oct	77	66	71	77	76	77	74	78	74	71	64	55	45	39	35	34	34	42	46	48	50	53	55	53	58.0	77.7
22-Oct	54	59	70	81	88	93	91	93	86	84	81	82	79	61	55	51	47	55	63	65	66	72	74	75	71.7	92.7
23-Oct	72	80	71	71	67	68	64	63	60	57	52	48	46	45	44	50	52	52	51	52	60	61	60	57	58.5	80.0
24-Oct	58	58	52	54	55	56	58	58	52	51	59	71	82	84	86	89	94	95	94	95	96	96	97	96	74.4	96.6
25-Oct	96	96	96	97	96	98	96	93	93	90	88	86	82	80	78	76	75	79	85	87	84	89	90	91	88.3	97.5
26-Oct	91	93	96	99	100	100	100	100	100	100	91	61	56	53	51	51	53	59	58	55	53	57	57	61	74.8	100.0
27-Oct	60	51	53	53	56	56	55	56	62	59	52	49	48	41	37	34	35	38	41	45	49	47	48	49	49.0	62.0
28-Oct	49	51	50	48	47	45	47	49	50	52	57	47	44	38	39	41	42	45	48	49	52	53	56	58	48.2	57.8
29-Oct	64	65	68	70	70	72	73	73	72	67	66	61	55	49	47	45	46	49	57	62	64	69	74	76	63.1	76.3
30-Oct	75	74	72	71	68	65	62	56	49	46	42	35	27	25	26	29	32	34	38	45	50	50	48	61	49.2	74.8
31-Oct	64	63	68	66	66	60	64	82	91	88	87	84	81	87	86	74	66	71	70	71	74	76	81	87	75.3	91.2
		69.7	70.3	71.0	72.4	73.5	73.7	73.7	73.4	72.3	69.0	65.7	60.3	57.3	53.7	52.8	52.8	53.2	56.6	59.9	62.6	64.7	65.9	66.9	69.4	Diurnal Average
		95.5	95.6	96.1	99.4	100.0	100.0	100.0	100.0	100.0	100.0	97.0	93.4	93.2	90.6	92.8	98.4	93.9	94.7	96.7	98.2	99.8	100.0	100.0	99.0	Diurnal Maximum

Hourly Averages

**Relative Humidity (RH) - %
Beaverlodge - October 2017**





Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - October 2017

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	11	7	8	10	12	12	16	14	13	15	15	19	19	20	20	18	17	15	16	17	13	13	12	13	14.2	20.3
Dir	314	308	291	306	334	325	341	334	329	332	330	334	342	339	333	337	338	336	339	341	346	344	351	334	333	
2 Spd	8	8	8	11	11	10	4	7	8	8	8	9	9	8	9	10	8	7	2	3	4	2	4	4	5.9	10.9
Dir	338	324	316	318	322	321	328	325	311	310	301	303	311	322	302	306	316	312	318	78	60	94	109	94	321	322
3 Spd	5	4	5	4	2	4	5	3	5	7	9	10	11	15	21	19	12	11	9	8	8	7	7	2	4.9	20.6
Dir	127	115	184	186	176	161	134	169	188	192	187	202	224	284	277	279	280	273	275	282	297	304	295	105	250	277
4 Spd	2	2	2	0	1	3	2	2	1	3	4	7	7	7	4	5	7	7	6	7	6	5	1	2	2.6	7.5
Dir	48	34	79	192	36	50	78	73	186	100	200	191	158	164	168	126	90	114	94	77	75	80	215	21	112	114
5 Spd	3	1	5	4	5	4	4	4	2	3	8	23	28	34	31	35	28	20	19	25	18	18	18	10	11.7	34.5
Dir	71	22	60	58	54	55	56	54	56	185	218	256	262	275	264	270	271	257	268	266	245	259	259	254	265	270
6 Spd	7	3	6	17	19	19	13	24	34	34	35	33	33	35	31	32	30	28	30	25	17	24	25	23	23.7	35.3
Dir	240	210	213	232	238	248	253	260	265	254	252	254	259	257	260	247	253	247	244	245	245	257	258	255	253	252
7 Spd	31	28	28	26	24	20	20	19	22	27	27	26	23	23	24	19	18	18	17	15	11	12	13	11	19.1	30.7
Dir	267	268	271	275	270	269	269	270	272	276	280	288	293	284	286	331	330	334	316	306	308	334	347	333	288	267
8 Spd	14	14	8	3	8	8	7	6	3	3	4	6	8	15	14	18	29	24	17	13	7	6	8	29	9.7	29.2
Dir	327	333	306	258	293	293	272	273	299	276	351	275	237	280	295	265	251	249	249	241	214	183	227	260	268	251
9 Spd	24	19	28	29	32	36	36	29	26	23	32	34	36	33	33	29	26	22	16	7	9	2	8	3	23.5	36.0
Dir	248	237	249	252	248	249	246	250	256	251	247	273	265	261	255	253	259	264	268	276	265	257	262	156	255	265
10 Spd	2	2	4	4	2	5	5	9	10	13	15	16	17	19	18	18	18	15	16	15	17	20	13	13	10.9	19.6
Dir	139	139	49	46	359	300	329	334	23	32	59	64	51	38	39	39	45	50	40	45	48	50	42	33	41	50
11 Spd	10	11	10	9	10	9	8	6	6	4	4	4	2	2	4	3	5	5	7	5	3	2	4	1	2.9	11.4
Dir	17	24	19	358	357	16	22	19	10	22	37	318	299	223	238	266	208	206	235	236	197	19	36	97	360	24
12 Spd	2	3	3	3	5	2	1	4	2	3	6	6	4	3	5	3	4	6	6	2	2	3	1	2	1.9	6.1
Dir	178	122	90	206	227	232	212	236	250	226	202	192	181	138	140	122	163	216	238	325	3	337	248	328	199	216
13 Spd	5	9	9	11	13	14	11	10	11	10	10	10	10	8	8	11	11	11	5	5	4	2	2	6	4.5	13.9
Dir	327	331	336	334	329	333	334	329	326	330	343	325	322	310	228	211	213	207	177	148	142	135	144	196	307	333
14 Spd	9	11	19	16	21	23	22	17	18	30	26	30	28	32	38	40	34	26	21	14	15	12	7	2	20.8	40.5
Dir	217	225	238	250	255	252	249	252	265	263	270	259	253	264	267	266	264	257	248	253	251	250	180	257	257	267
15 Spd	2	3	3	3	5	3	5	12	9	15	21	20	26	46	46	39	31	33	19	13	10	7	30	26	16.4	46.5
Dir	127	151	93	102	151	161	216	234	223	222	226	229	248	258	255	263	242	242	241	239	249	252	240	246	243	258
16 Spd	14	9	12	16	17	15	20	23	21	24	14	4	7	12	11	12	9	6	6	6	6	7	12	11	7.3	24.1
Dir	260	250	239	228	229	249	243	246	243	239	256	352	93	106	100	97	114	108	122	150	182	197	223	220	222	239
17 Spd	11	6	2	4	4	6	6	9	9	3	16	19	20	23	25	17	13	13	15	20	17	17	17	13	8.6	25.4
Dir	248	300	179	117	102	116	140	135	127	5	328	316	308	300	309	292	284	276	251	259	265	266	262	273	282	309
18 Spd	6	2	11	4	5	4	6	4	4	7	12	19	19	17	10	20	22	23	17	12	10	5	5	2	8.3	22.6
Dir	271	154	244	266	126	88	100	95	96	81	102	110	113	127	134	101	104	109	113	103	111	141	195	121	115	109
19 Spd	3	4	4	4	6	5	6	4	3	3	4	5	7	11	8	4	11	10	7	6	5	4	10	7	3.2	11.4
Dir	75	59	101	118	67	110	66	104	113	135	163	165	180	197	206	138	238	219	201	190	217	256	241	231	184	197
20 Spd	2	3	8	8	9	6	3	4	1	1	4	12	19	21	24	26	22	22	12	13	12	4	2	7	9.4	25.8
Dir	158	157	233	244	226	249	219	226	79	330	209	241	236	260	251	258	268	270	270	259	245	238	108	218	249	258
21 Spd	12	17	11	6	5	5	4	6	4	5	7	10	5	9	14	9	2	7	11	12	16	17	12	4	3.5	17.5
Dir	245	253	244	225	179	210	216	212	223	168	200	211	173	213	207	216	91	58	53	81	92	97	93	102	178	253
22 Spd	2	4	7	5	4	7	2	3	4	4	3	5	6	20	27	31	36	22	11	15	14	11	13	7	9.1	36.1
Dir	130	241	293	353	7	292	298	69	74	186	150	180	205	247	252	255	254	251	255	249	254	240	236	253	251	254

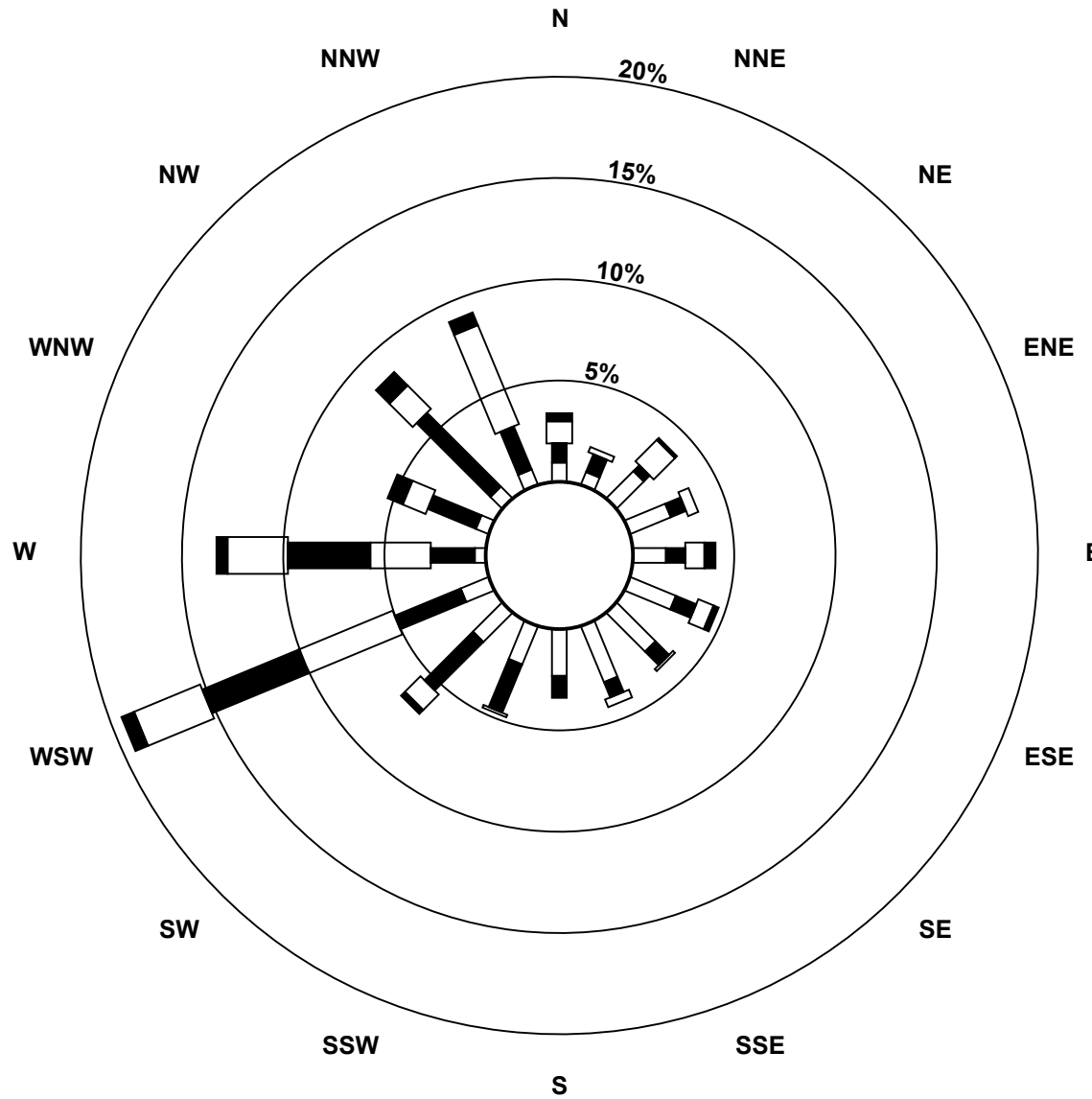
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - October 2017

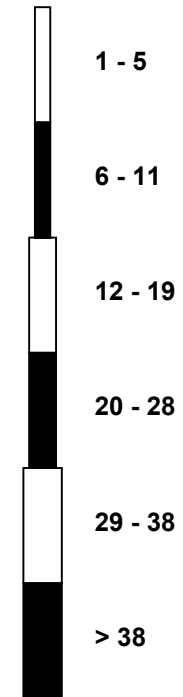
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	6	10	19	10	1	13	15	19	20	18	22	38	34	21	15	5	8	12	13	15	10	8	6	6	10.8	38.4
Dir	259	225	243	245	228	242	240	238	243	241	250	247	246	242	241	201	166	158	157	150	128	138	77	50	228	247
24 Spd	2	24	50	45	46	48	43	36	31	30	20	20	19	14	14	13	10	14	13	16	21	20	20	16	11.5	49.6
Dir	258	263	266	264	257	257	256	256	264	270	287	318	340	338	353	11	38	54	84	86	88	83	83	77	280	266
25 Spd	16	11	10	11	4	15	15	15	15	15	15	15	14	13	11	11	7	3	6	6	3	3	3	4	6.7	15.9
Dir	74	82	106	117	33	336	344	319	322	345	350	355	2	2	6	7	4	339	284	325	321	137	147	107	4	74
26 Spd	5	8	9	10	6	4	7	6	3	2	10	25	29	29	30	23	16	11	10	10	10	1	3	3	8.4	30.1
Dir	111	142	194	171	151	142	172	150	136	198	251	267	269	268	273	268	259	257	245	243	250	201	213	205	246	273
27 Spd	3	11	11	9	10	7	8	7	0	6	22	22	18	28	31	32	30	24	21	19	13	15	18	21	15.7	32.1
Dir	272	272	269	271	270	287	293	273	13	271	258	262	250	264	268	273	269	269	259	256	244	237	244	248	263	273
28 Spd	23	21	21	24	24	20	19	14	12	11	20	25	19	21	18	14	11	10	8	8	9	11	11	11	11.3	24.8
Dir	248	246	249	250	246	272	277	277	284	283	10	10	360	350	345	338	324	315	314	322	326	332	328	344	302	10
29 Spd	9	10	9	9	9	10	10	11	9	10	10	12	9	5	8	8	5	3	0	2	2	3	4	3	5.8	12.3
Dir	319	315	325	320	327	324	325	320	345	326	322	310	306	312	276	295	286	315	235	65	109	134	150	148	317	310
30 Spd	5	4	3	3	2	2	1	4	3	3	7	14	21	23	20	14	9	7	4	4	7	11	9	6	4.4	22.5
Dir	164	158	160	186	184	184	35	55	60	27	295	296	309	316	311	307	328	354	252	211	223	223	215	228	289	316
31 Spd	5	8	9	7	2	13	17	13	19	17	16	18	13	8	17	23	22	21	20	19	16	17	13	12	12.5	23.4
Dir	226	231	233	256	253	270	295	333	309	317	318	308	298	334	297	315	333	341	346	339	348	349	335	330	317	315
Spd	4.1	4.7	7.2	6.8	6.4	7.6	6.8	6.9	6.8	7.4	8.0	10.4	10.2	12.4	13.6	11.8	9.7	7.5	5.8	4.5	3.0	2.1	4.1	3.8	Diurnal Average	
Dir	267	263	258	259	262	270	271	270	277	274	274	278	276	277	274	279	272	269	265	263	260	270	259	265	Diurnal Maximum	
Spd	30.7	28.4	49.6	45.5	45.9	47.5	42.7	36.0	34.5	33.7	35.3	38.4	36.0	46.5	45.6	40.5	36.1	33.2	30.2	24.8	21.0	24.3	29.7	28.7	Diurnal Maximum	
Dir	267	268	266	264	257	257	256	256	265	254	252	247	265	258	255	267	254	242	247	244	88	257	240	260	Diurnal Maximum	
Maximum Speed Value: 50 km/h on Oct 24 03:00																		Minimum Speed Value: 0 km/h on Oct 29 19:00						Hours in Service:		744
Maximum Daily Speed Average: 23.7 km/h on Oct 24																		Minimum Daily Speed Average: 1.9 km/h on Oct 12						Hours of Data:		744
Maximum Diurnal Speed Average: 13.6 km/h at hour 15																		Minimum Diurnal Speed Average: 2.1 km/h at hour 22						Hours of Missing Data:		0
Monthly Average Velocity: 7.10 km/h 270.7 deg																		Speed Percentiles: P ₁ = 1.1 P ₁₀ = 3.0 Q ₁ = 5.1 Median = 10.3 Q ₃ = 18.1 P ₉₀ = 26.2 P ₉₉ = 40.1						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	12	15	26	7	0	0	60																			
NorthEast	22	8	16	1	0	0	47																			
East	31	13	14	6	0	0	64																			
SouthEast	32	20	4	1	0	0	57																			
South	33	24	2	0	0	0	59																			
SouthWest	24	43	36	15	8	1	127																			
West	12	34	44	58	43	9	200																			
NorthWest	14	62	42	12	0	0	130																			
Total	180	219	184	100	51	10	744																			

Wind Rose

Wind Speed (WS) (km/h)
Beaverlodge - October 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - October 2017

Maximum Speed: 50 km/h on Oct 24 03:00	Maximum Daily Speed Average: 24.6 km/h on Oct 24	Hours in Service: 744
Minimum Speed: 1 km/h on Oct 12 07:00	Minimum Daily Speed Average: 4.1 km/h on Oct 12	Hours of Data: 744
Maximum Diurnal Speed Average: 19.5 km/h at hour 15	Minimum Diurnal Speed Average: 8.9 km/h at hour 1	Hours of Missing Data: 0
Monthly Average Speed: 12.96 km/h	Percentiles: P ₁ = 2.0 P ₁₀ = 3.7 Q ₁ = 5.7 Median = 10.6 Q ₃ = 18.3 P ₉₀ = 26.5 P ₉₉ = 40.1	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	11	8	8	11	12	12	17	14	13	15	15	19	20	21	21	18	18	16	16	17	14	13	12	13	14.7	20.8
2-Oct	8	8	8	11	11	10	5	7	8	9	8	9	9	9	10	11	8	7	2	3	4	2	4	4	7.4	10.9
3-Oct	5	5	5	4	3	4	5	4	5	7	9	11	12	16	21	19	12	11	9	8	8	7	8	3	8.3	20.9
4-Oct	3	3	2	2	3	3	3	2	3	3	4	7	8	8	5	5	7	8	7	7	7	5	2	3	4.5	7.8
5-Oct	3	4	5	4	5	4	4	4	2	3	8	24	29	34	32	35	28	20	19	25	18	18	18	10	14.8	34.7
6-Oct	7	4	6	17	19	19	13	24	35	34	35	33	33	35	31	32	30	28	30	25	17	24	26	23	24.2	35.4
7-Oct	31	28	29	27	24	20	20	19	22	27	27	26	23	24	24	20	19	18	17	15	11	12	13	11	21.1	30.8
8-Oct	15	15	8	3	8	8	7	6	4	4	4	7	9	15	14	19	29	24	17	13	8	6	9	29	11.7	29.4
9-Oct	24	19	28	29	32	36	36	29	27	23	33	34	36	33	34	29	27	22	17	8	9	4	8	4	24.2	36.4
10-Oct	2	3	4	4	3	5	7	9	10	14	15	17	18	19	18	18	18	15	16	15	17	20	14	13	12.2	19.8
11-Oct	10	11	10	9	10	9	9	6	7	5	4	4	4	4	6	4	5	5	7	7	4	3	4	2	6.3	11.5
12-Oct	2	4	4	6	5	2	1	4	2	3	6	6	5	4	6	5	5	7	6	3	3	4	2	3	4.1	6.7
13-Oct	5	9	9	11	13	14	11	10	11	10	11	10	10	9	10	11	11	12	5	5	4	2	3	6	8.8	13.9
14-Oct	10	11	19	16	21	23	22	17	18	30	26	30	28	32	38	41	34	27	21	14	15	12	7	3	21.4	40.7
15-Oct	3	3	3	3	6	4	6	12	9	15	21	20	27	47	46	39	31	33	20	13	10	8	30	26	18.1	46.7
16-Oct	15	9	12	16	17	15	20	23	21	24	14	6	8	12	11	12	9	6	6	7	6	7	12	11	12.4	24.2
17-Oct	11	7	3	4	4	6	9	9	9	6	16	19	21	24	26	18	14	13	15	21	17	17	17	13	13.3	25.6
18-Oct	7	4	11	7	6	4	6	5	5	7	12	19	19	18	13	20	22	23	17	13	10	5	6	3	10.9	22.8
19-Oct	4	4	4	6	6	6	6	4	4	3	4	5	7	12	8	5	11	11	8	7	7	5	10	7	6.4	11.9
20-Oct	5	5	9	9	9	7	4	5	3	5	5	12	19	22	24	26	22	23	12	13	12	7	3	8	11.2	26.0
21-Oct	12	18	11	6	6	6	7	6	5	5	7	10	6	9	15	10	3	7	11	12	16	17	12	5	9.2	17.6
22-Oct	4	4	7	6	7	7	4	4	4	4	4	5	6	21	27	31	36	22	11	16	14	12	13	7	11.5	36.3
23-Oct	7	10	19	11	4	13	15	19	20	18	23	39	35	21	15	6	8	12	13	15	10	9	7	6	14.7	38.6
24-Oct	4	25	50	46	46	48	43	36	31	30	21	20	19	14	14	13	10	14	13	16	21	21	20	17	24.6	49.8
25-Oct	16	12	10	11	8	17	16	15	15	15	15	15	14	13	12	11	7	4	6	6	4	3	4	4	10.6	16.9
26-Oct	6	8	9	10	6	5	7	6	3	4	11	25	29	29	30	23	16	11	10	11	10	5	3	4	11.8	30.3
27-Oct	6	11	11	10	10	7	8	7	5	8	22	22	19	28	31	32	30	24	21	19	13	15	19	21	16.5	32.3
28-Oct	23	21	21	24	24	21	19	15	12	11	22	25	19	21	18	14	11	10	8	8	9	11	11	11	16.2	24.9
29-Oct	9	10	9	10	9	10	10	11	9	11	11	12	9	6	9	8	6	3	2	2	2	4	4	4	7.5	12.4
30-Oct	5	4	3	3	2	3	3	4	4	4	7	15	21	23	20	14	9	7	5	4	7	11	10	6	8.1	22.7
31-Oct	5	8	9	7	3	14	17	14	19	18	16	18	13	9	17	24	23	22	20	19	16	18	13	12	14.7	23.8
	8.9	9.5	11.2	11.0	11.0	11.6	11.5	11.3	11.2	12.2	14.1	16.9	17.2	19.0	19.5	18.5	16.8	15.0	12.4	11.8	10.5	9.9	10.4	9.5	Diurnal Average	
	30.8	28.4	49.8	45.7	46.1	47.7	42.8	36.2	34.8	33.9	35.4	38.6	36.4	46.7	45.9	40.7	36.3	33.3	30.3	24.9	21.1	24.4	29.8	28.8	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg
Beaverlodge - October 2017

Maximum Value: 89.6 deg on Oct 4 05:00		Hours in Service: 744																							
Minimum Value: 2.6 deg on Oct 2 06:00		Hours of Data: 744																							
Percentiles: P ₁ = 3.4 P ₁₀ = 5.0 Q ₁ = 6.7 Median = 10.7 Q ₃ = 23.0 P ₉₀ = 45.6 P ₉₉ = 82.7		Hours of Missing Data: 0																							
		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	18	10	7	12	10	13	9	8	8	12	10	10	14	14	10	9	9	11	7	7	9	9	9	8	18.3
2-Oct	11	8	5	4	4	3	40	7	8	23	18	23	25	36	27	24	20	16	22	22	8	17	15	19	40.2
3-Oct	20	22	25	28	50	25	13	39	16	14	13	15	20	21	11	8	7	9	7	12	8	10	45	32	49.7
4-Oct	62	55	51	81	90	32	23	41	79	44	22	21	18	26	39	26	10	6	15	4	5	6	61	66	89.6
5-Oct	61	84	9	9	7	8	16	12	53	25	15	13	9	7	10	6	9	10	7	4	11	10	8	9	83.9
6-Oct	62	59	13	13	6	5	4	8	7	6	4	6	8	9	6	5	11	7	4	4	4	6	6	5	61.8
7-Oct	4	4	5	4	4	4	3	4	5	6	8	8	10	13	10	16	12	13	6	6	5	13	8	11	15.8
8-Oct	11	9	14	16	4	4	8	9	37	52	28	36	22	15	13	17	6	6	7	7	28	15	18	5	52.3
9-Oct	6	11	5	4	5	5	4	4	6	7	11	6	9	5	8	11	7	6	11	24	17	78	10	43	77.5
10-Oct	43	38	12	9	61	25	54	7	15	12	13	11	13	13	11	8	11	8	5	6	6	6	10	10	61.3
11-Oct	7	8	11	6	6	14	11	12	14	31	41	61	64	65	48	56	29	29	15	42	56	77	10	53	77.3
12-Oct	28	28	16	72	26	36	26	11	19	25	14	18	36	66	26	53	39	28	9	52	66	67	61	41	72.2
13-Oct	13	5	4	5	4	4	4	7	7	11	13	16	19	20	39	9	13	13	10	16	9	31	47	7	46.8
14-Oct	11	7	8	5	4	4	4	5	10	6	7	8	9	5	8	6	6	10	4	3	3	7	14	51	50.9
15-Oct	60	30	20	24	18	55	39	16	18	6	5	8	11	5	7	6	12	4	7	8	6	79	4	7	78.9
16-Oct	17	22	11	7	4	7	3	4	4	6	18	53	14	7	9	10	9	6	7	15	10	16	9	6	53.3
17-Oct	14	13	56	22	22	11	46	5	10	60	11	8	11	8	6	12	8	12	5	6	5	5	5	6	60.4
18-Oct	59	61	10	74	34	16	19	21	34	12	11	6	5	12	47	4	4	9	5	7	8	15	23	49	73.8
19-Oct	23	15	28	52	14	35	12	27	32	37	32	19	24	18	23	31	14	11	20	37	62	35	6	28	62.2
20-Oct	72	49	27	15	12	62	59	45	89	85	36	14	6	11	8	8	6	5	10	6	9	85	36	14	88.6
21-Oct	5	7	6	40	24	29	76	16	40	23	24	10	34	26	12	11	45	14	5	12	4	3	5	43	75.5
22-Oct	65	35	15	36	61	14	80	20	28	21	24	22	8	17	8	6	5	5	8	6	6	17	4	12	80.2
23-Oct	20	17	6	34	83	10	6	5	8	8	9	5	6	5	6	24	9	5	7	5	25	14	29	16	83.5
24-Oct	68	12	5	5	5	4	4	6	5	6	13	8	6	7	9	9	5	13	6	8	6	9	9	10	67.5
25-Oct	9	15	10	11	66	34	12	6	6	11	8	7	7	11	9	13	8	31	20	13	29	26	46	19	65.6
26-Oct	15	13	8	12	28	24	14	31	38	83	19	7	6	6	6	8	9	9	5	13	7	73	36	66	82.8
27-Oct	80	9	7	7	7	14	8	11	90	71	7	6	5	7	6	5	5	5	5	4	9	8	10	10	89.6
28-Oct	4	6	3	3	5	12	8	8	6	7	36	4	7	9	7	6	8	5	8	9	5	6	4	10	35.8
29-Oct	9	6	8	15	11	9	4	5	13	33	47	9	14	38	25	18	13	15	77	25	38	27	15	27	76.9
30-Oct	19	21	31	22	31	52	88	21	23	39	13	7	10	6	6	7	16	28	28	27	7	3	14	21	88.3
31-Oct	20	6	8	7	79	19	16	16	6	8	7	7	9	26	9	11	8	9	8	7	8	8	8	5	79.4
	80.2	83.9	56.3	80.8	89.6	62.3	88.3	45.4	89.6	85.1	47.0	61.3	64.0	66.2	48.3	55.8	45.1	31.2	76.9	52.0	66.1	85.1	61.0	66.0	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

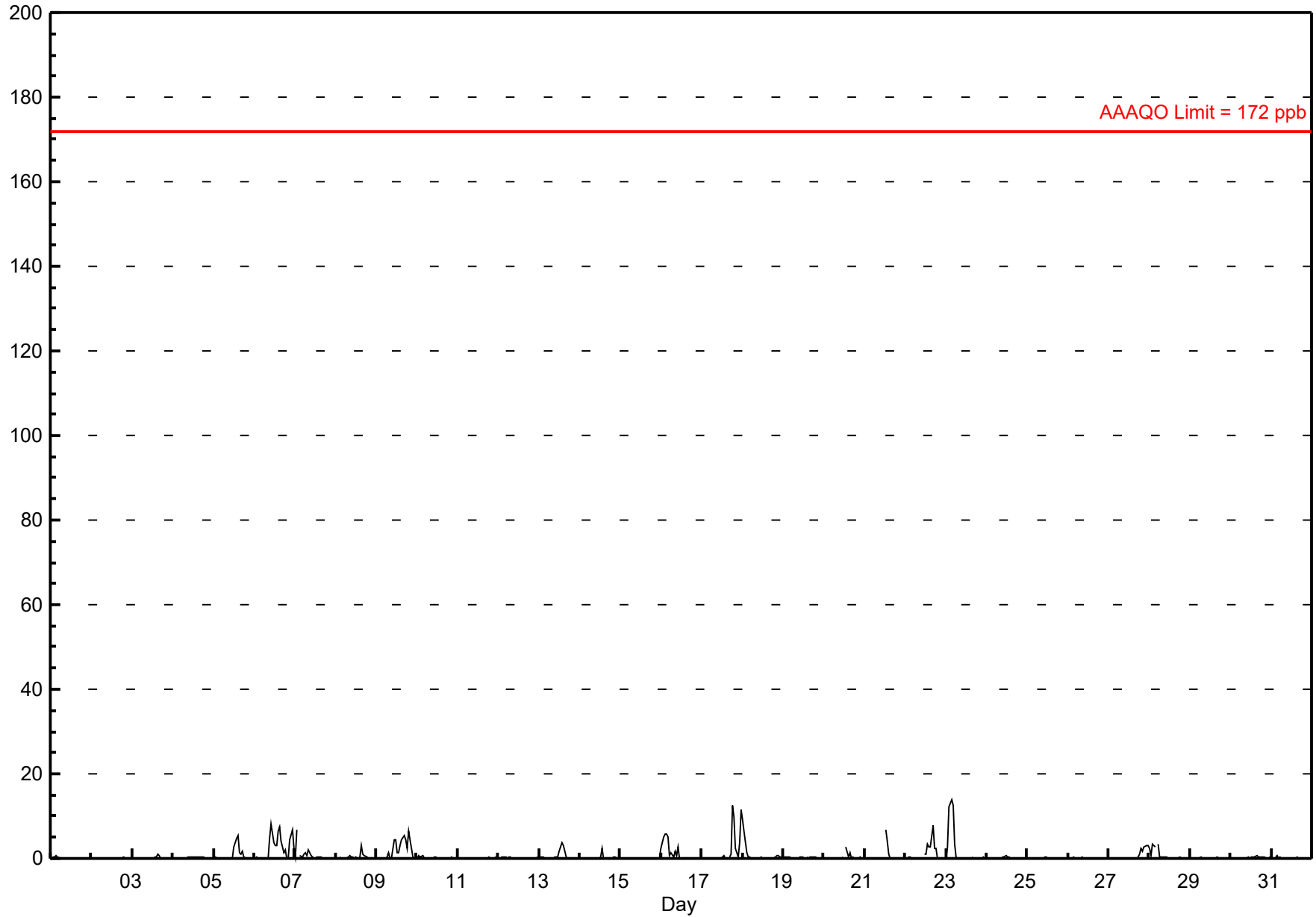
Sulphur Dioxide (SO₂) - ppb

Valleyview - October 2017

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 13.9 ppb on Oct 23 04:00	Maximum Daily Average: 2.6 ppb on Oct 6		Hours of Data:	710
Minimum Value: 0 ppb on Oct 1 14:00	Minimum Daily Average: 0.0 ppb on Oct 15		Hours of Missing Data:	34
Maximum Diurnal Average: 1.0 ppb at hour 14	Minimum Diurnal Average: 0.2 ppb at hour 8		Hours of Calibration:	34
Monthly Average: 0.58 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 1.4 P ₉₉ = 9.1		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	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
2-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
3-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.2	1.1
4-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	0.4
5-Oct	0	0	0	0	A	0	0	0	0	0	0	0	3	5	5	1	1	2	0	0	0	0	0	0	0.8	5.3
6-Oct	0	0	0	A	0	0	0	0	0	5	8	4	3	3	6	7	4	1	2	0	0	4	7	2	2.6	8.3
7-Oct	0	7	A	1	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	6.9
8-Oct	0	A	0	0	0	0	0	0	1	0	0	0	0	0	3	1	1	1	0	0	0	0	0	0	0.4	2.9
9-Oct	A	0	0	0	0	0	0	1	0	0	4	4	1	1	3	4	5	5	2	7	4	0	0	A	2.0	6.6
10-Oct	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.8
11-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
12-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
13-Oct	0	0	0	0	0	0	0	0	0	0	0	2	4	3	2	0	0	0	A	0	0	0	0	0	0.5	3.6
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	A	0	0	0	0	0	0	0.2	2.4
15-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
16-Oct	2	5	6	6	5	1	1	0	2	1	3	0	0	0	0	A	0	0	0	0	0	0	0	0	1.4	5.9
17-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	1	13	10	2	0	4	12	1.9	12.6
18-Oct	9	6	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0.9	9.3
19-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	0.2	0.5
20-Oct	0	0	0	0	0	0	0	0	0	0	0	A	3	0	1	0	0	0	0	0	0	0	0	0	0.3	2.9
21-Oct	0	0	0	0	0	0	0	0	0	0	0	A	7	4	1	0	0	0	0	0	0	0	0	0	0.5	6.8
22-Oct	0	0	0	0	0	0	0	0	0	0	A	1	1	3	3	3	8	2	2	0	0	0	0	0	1.1	7.9
23-Oct	0	3	12	14	13	3	0	0	0	A	0	0	0	C	C	0	0	0	0	0	0	0	0	0	2.2	13.9
24-Oct	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
25-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
26-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	0.1	0.2
27-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	3	3	3	0.7	3.2
28-Oct	2	1	4	3	A	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.5
29-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
30-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.5
31-Oct	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
	0.5	0.9	0.9	0.9	0.7	0.3	0.2	0.2	0.2	0.3	0.6	0.4	0.7	1.0	0.8	0.8	0.7	0.5	0.8	0.7	0.4	0.3	0.5	0.6	Diurnal Average	
	9.3	6.9	12.2	13.9	12.5	3.3	1.5	1.3	2.0	4.9	8.3	4.4	6.8	4.7	6.3	7.5	7.9	4.5	12.6	9.7	4.4	4.5	6.6	11.7	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 Maximums

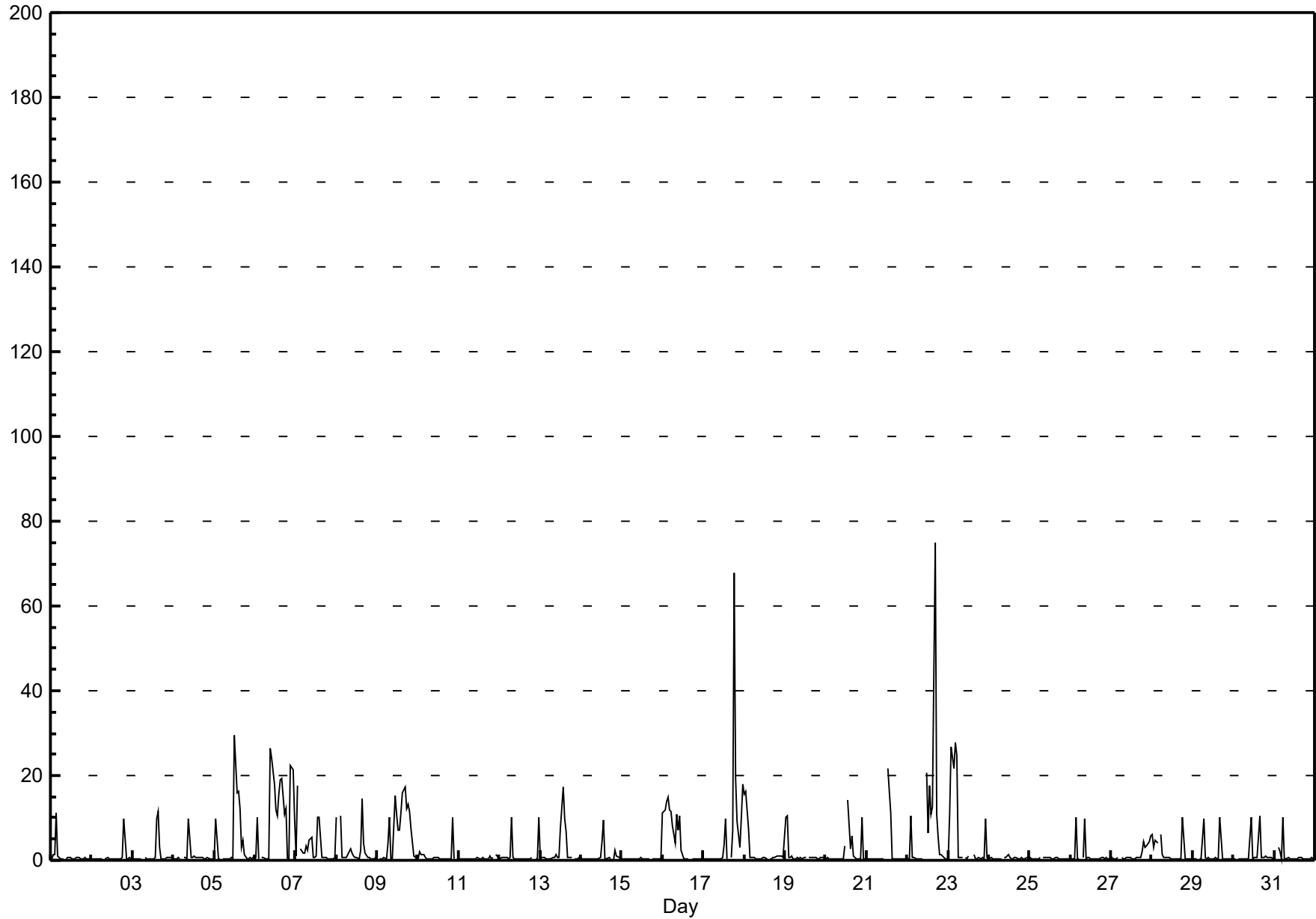
Sulphur Dioxide (SO₂) - ppb

Valleyview - October 2017

Maximum Value: 74.9 ppb on Oct 22 17:00		Maximum Daily Average: 10.2 ppb on Oct 6		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 14 20:00		Minimum Daily Average: 0.4 ppb on Oct 15		Hours of Data: 710																							
Maximum Diurnal Average: 4.8 ppb at hour 17		Minimum Diurnal Average: 1.3 ppb at hour 7		Hours of Missing Data: 34																							
Monthly Average: 2.60 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.8 P ₉₀ = 10.1 P ₉₉ = 23.8		Hours of Calibration: 34																							
				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	11	1	0	0	0	A	1	1	1	0	0	0	1	1	0	0	0	1	0	0	0	1.0	11.2	
2-Oct	0	0	0	0	0	0	0	A	0	1	0	0	1	0	0	0	0	0	1	10	0	0	1	0	0.8	9.7	
3-Oct	0	0	0	0	0	0	A	1	0	0	0	0	1	10	12	3	0	0	0	1	1	1	1	1	1.5	11.5	
4-Oct	0	0	0	1	0	A	1	1	0	10	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1.0	9.9	
5-Oct	0	10	0	0	A	0	0	0	0	0	1	0	30	16	16	12	3	5	1	0	0	1	0	1	4.3	29.6	
6-Oct	1	10	0	A	1	1	0	0	0	26	24	18	12	10	16	19	19	11	12	0	0	23	21	10	10.2	26.4	
7-Oct	1	18	A	3	2	2	3	2	5	5	1	1	1	10	10	1	1	1	1	0	0	0	0	1	2.9	17.6	
8-Oct	10	A	10	1	1	1	1	2	3	2	1	1	1	0	2	15	4	2	1	1	0	0	0	1	2.5	14.6	
9-Oct	A	0	0	0	1	0	4	10	0	0	15	11	7	7	11	16	17	12	13	12	7	1	1	A	6.7	17.1	
10-Oct	0	2	2	2	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	10	0	A	0	1.0	10.0	
11-Oct	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	A	1	1	0.5	1.3	
12-Oct	0	1	1	1	1	0	1	10	1	0	0	0	0	1	0	0	0	0	0	1	A	0	0	10	1.3	10.3	
13-Oct	1	1	1	0	0	0	0	1	1	1	1	1	7	17	10	7	1	1	1	A	0	0	0	1	2.3	17.4	
14-Oct	0	0	0	0	0	0	0	0	0	0	0	1	5	9	0	0	1	0	A	0	2	1	1	0	1.1	9.5	
15-Oct	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.6	
16-Oct	11	12	14	15	12	11	8	4	11	7	11	3	0	0	0	0	A	0	0	0	0	0	0	0	5.3	15.0	
17-Oct	0	0	0	0	0	0	0	0	0	0	1	1	4	10	0	A	1	7	68	19	9	3	10	18	6.7	68.0	
18-Oct	16	16	7	1	1	1	1	0	0	0	1	1	0	0	A	1	0	1	1	1	1	1	1	1	2.3	16.3	
19-Oct	10	10	1	1	1	0	0	1	0	1	0	1	1	A	1	1	1	1	1	1	0	1	1	0	1.4	10.4	
20-Oct	0	1	0	0	0	0	0	0	0	0	0	3	A	14	3	6	1	1	0	0	0	10	0	0	1.9	14.3	
21-Oct	0	0	0	0	0	0	0	0	0	0	0	A	22	16	11	0	0	0	0	0	0	0	0	0	2.5	21.8	
22-Oct	0	0	11	1	1	0	0	1	0	0	A	21	6	18	11	12	75	11	6	1	1	1	0	0	7.7	74.9	
23-Oct	0	11	27	22	28	25	1	1	1	A	1	0	1	C	C	1	0	0	1	0	1	0	10	1	6.2	28.0	
24-Oct	0	1	0	0	0	0	0	0	A	1	1	1	1	0	0	1	1	0	0	1	0	0	1	0	0.5	1.3	
25-Oct	1	0	0	0	0	0	1	A	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0.5	0.6	
26-Oct	0	0	0	10	0	0	A	1	10	0	1	1	0	0	0	0	0	0	1	1	0	1	0	0	1.3	10.1	
27-Oct	1	0	0	0	1	A	1	0	0	1	1	1	0	0	0	1	1	1	2	4	3	3	4	6	1.4	5.7	
28-Oct	6	3	5	4	A	6	1	1	1	1	1	0	0	0	0	0	0	10	0	0	0	0	0	0	1.9	10.1	
29-Oct	0	0	0	A	0	0	10	1	0	1	0	0	1	0	0	10	0	0	0	0	0	0	0	0	1.3	10.1	
30-Oct	0	0	A	0	0	0	0	0	0	0	10	0	1	1	1	10	1	1	1	1	1	1	1	0	1.4	10.4	
31-Oct	1	A	3	2	0	10	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	1.1	10.3	
		2.1	3.5	3.0	2.7	1.9	2.2	1.3	1.4	1.4	2.1	2.5	2.3	3.5	4.7	3.8	4.0	4.8	2.0	4.1	1.9	1.5	1.8	2.0	1.8	Diurnal Average	
		15.6	17.6	26.8	21.7	28.0	24.8	9.9	10.1	11.0	26.4	24.1	20.8	29.6	17.5	16.2	18.9	74.9	12.3	68.0	19.3	10.0	22.5	21.4	17.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

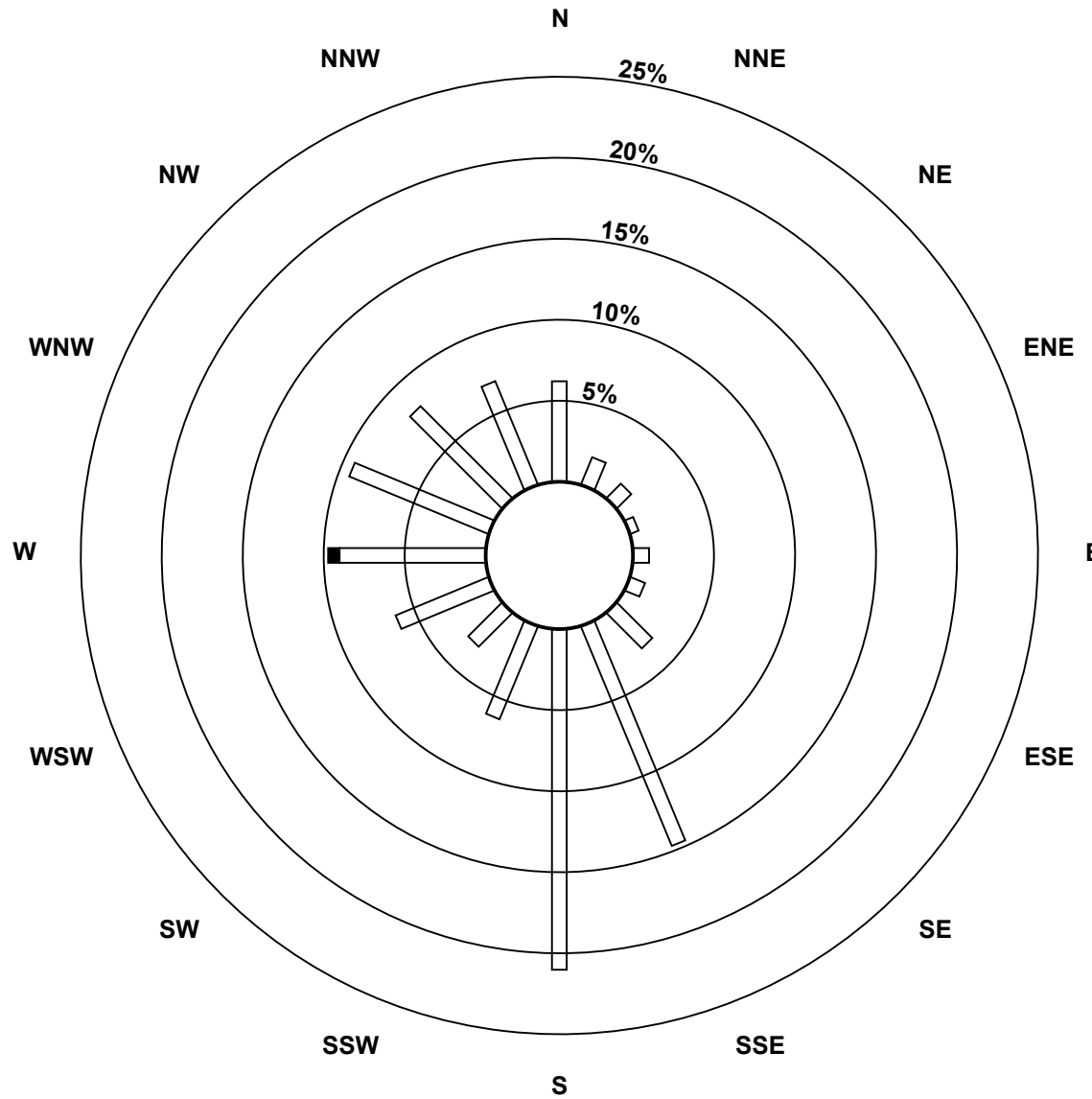
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - October 2017

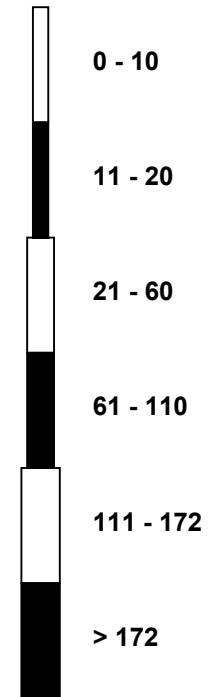


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - October 2017

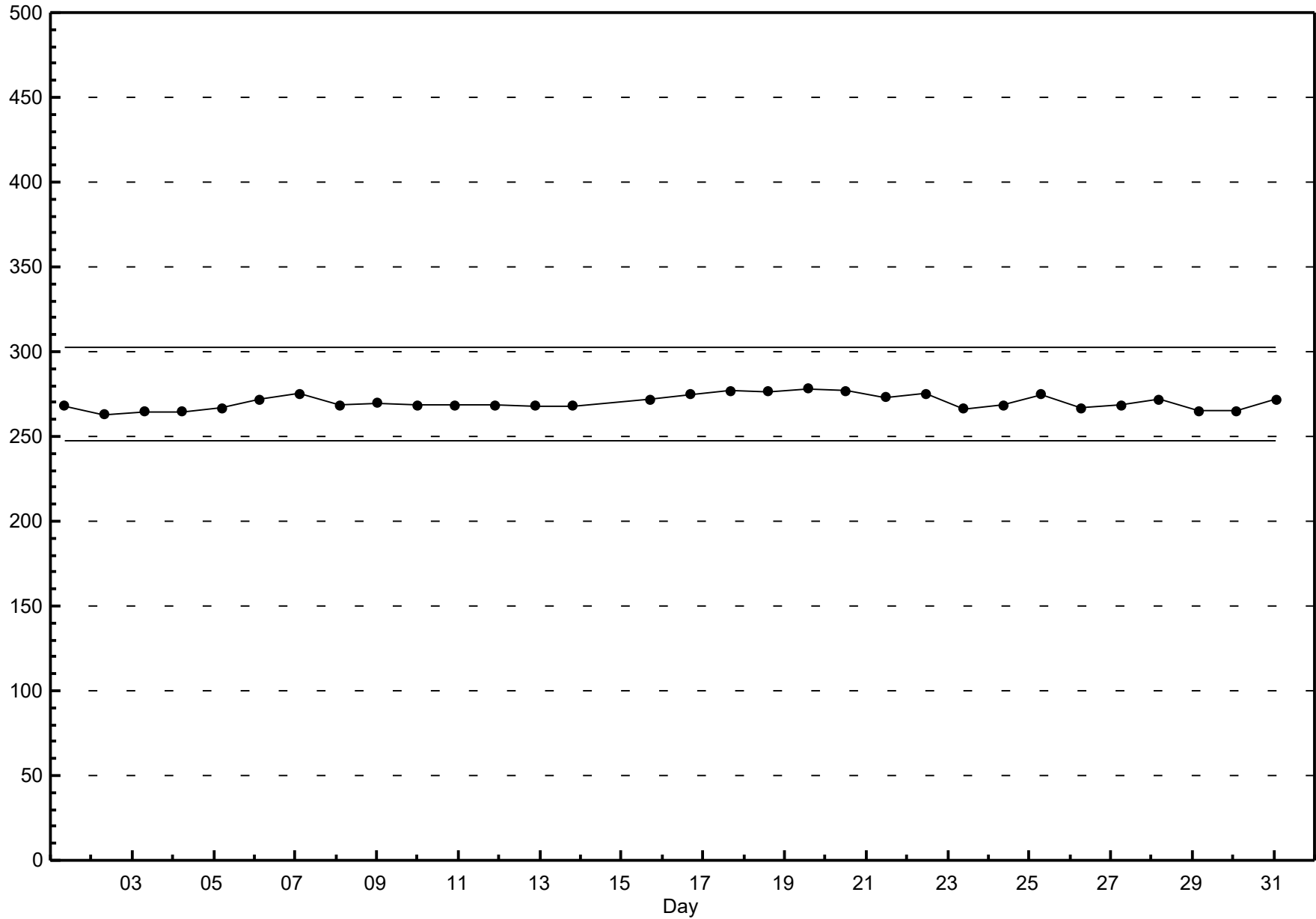


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - October 2017



Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

Valleyview - October 2017

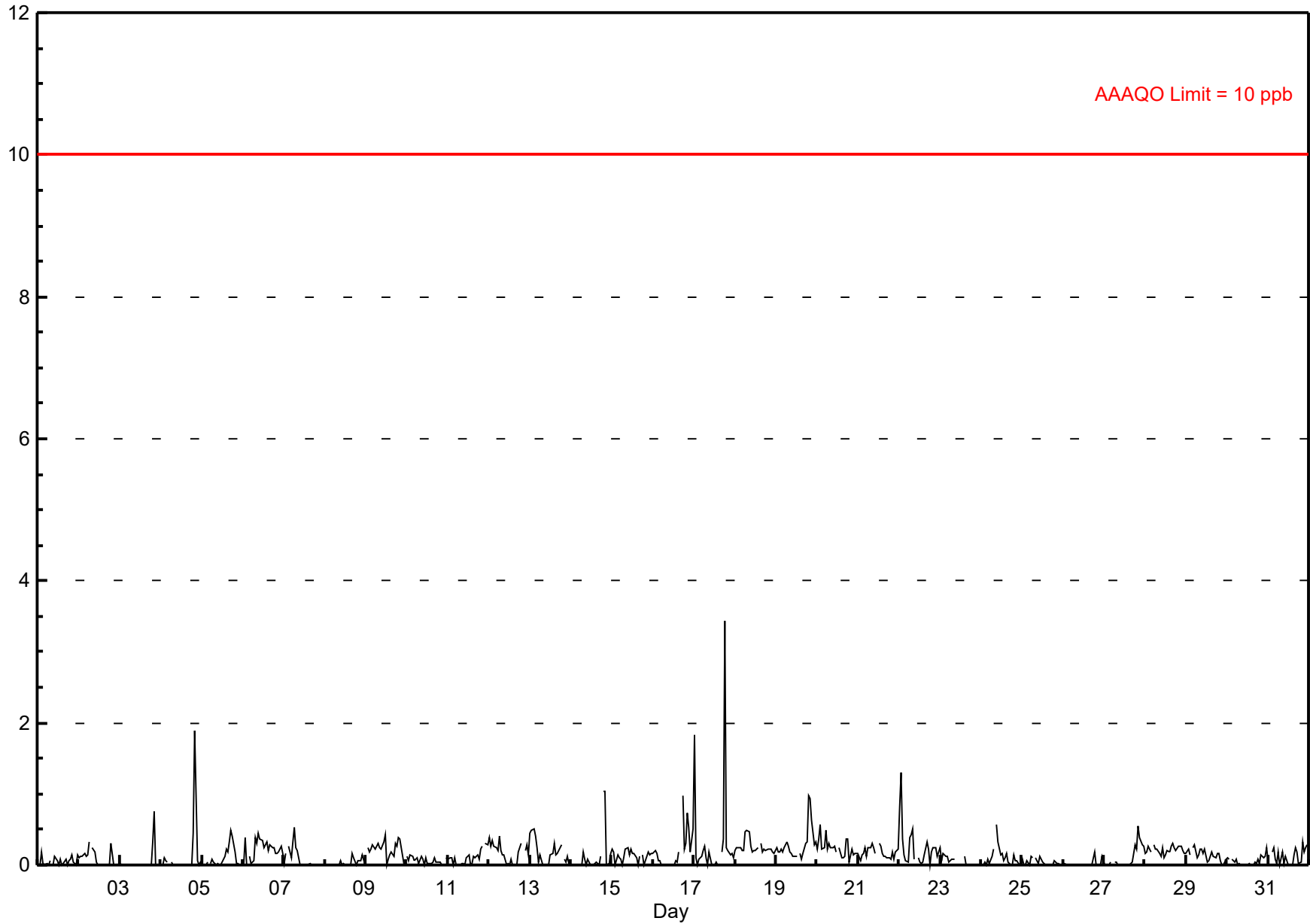
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 3.4 ppb on Oct 17 19:00	Maximum Daily Average: 0.3 ppb on Oct 17		Hours of Data:	709
Minimum Value: 0 ppb on Oct 1 01:00	Minimum Daily Average: 0.0 ppb on Oct 26		Hours of Missing Data:	35
Maximum Diurnal Average: 0.3 ppb at hour 21	Minimum Diurnal Average: 0.1 ppb at hour 13		Hours of Calibration:	35
Monthly Average: 0.14 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 = 1.0		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	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
2-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	0.3
3-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.0	0.8	
4-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0.1	1.9	
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	0.1	0.5	
6-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
7-Oct	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
8-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	0.2	
9-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
10-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0.1	0.2	
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3	
12-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4	
13-Oct	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5	
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0.1	1.0	
15-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2	
16-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	1	1	0	0.2	1.0	
17-Oct	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	3	0	0	0	0	0.3	3.4	
18-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.5	
19-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	0	0.3	1.0	
20-Oct	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
21-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
22-Oct	1	1	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3	
23-Oct	0	0	0	0	0	0	0	0	0	A	0	C	C	C	0	0	0	0	0	0	0	0	0	0.1	0.2	
24-Oct	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6	
25-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	0.1	
26-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	0.2	
27-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.5	
28-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
29-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
30-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
31-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
	0.2	0.2	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	0.2	0.2	0.2	0.3	0.1	0.1	0.1	Diurnal Average	
	1.8	1.3	0.6	0.4	0.3	0.5	0.5	0.5	0.5	0.6	0.4	0.4	0.3	0.3	0.3	0.3	1.0	3.4	1.0	1.9	0.6	0.3	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

Hydrogen Sulphide (H₂S) - ppb
Valleyview - October 2017



Hourly Maximums

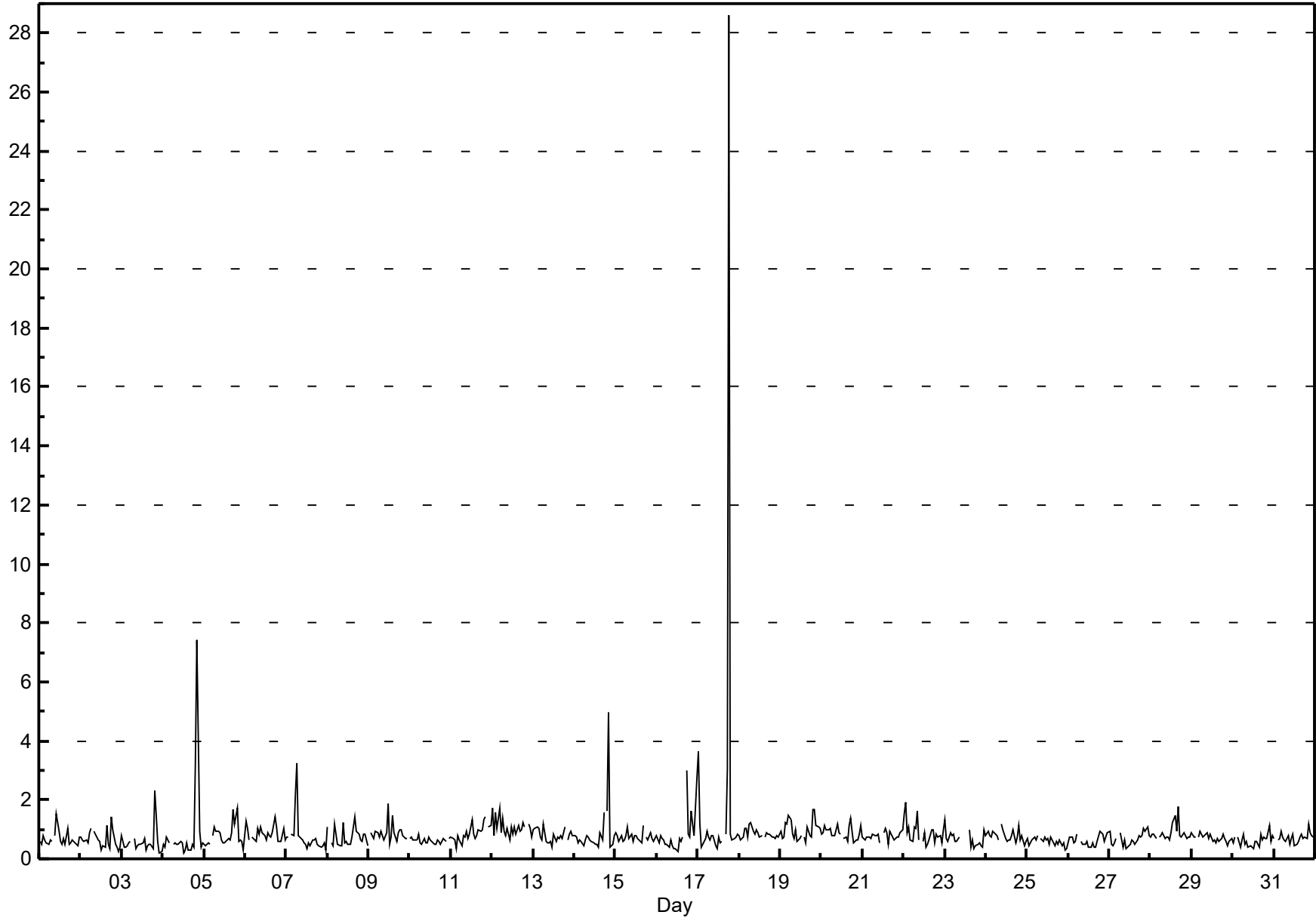
Hydrogen Sulphide (H₂S) - ppb

Valleyview - October 2017

Maximum Value: 28.6 ppb on Oct 17 19:00		Maximum Daily Average: 2.1 ppb on Oct 17		Hours in Service: 744																						
Minimum Value: 0 ppb on Oct 3 23:00		Minimum Daily Average: 0.6 ppb on Oct 25		Hours of Data: 709																						
Maximum Diurnal Average: 1.7 ppb at hour 19		Minimum Diurnal Average: 0.6 ppb at hour 13		Hours of Missing Data: 35																						
Monthly Average: 0.82 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.1 P ₉₉ = 3.0		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	1	0	1	1	1	1	1	1	A	1	2	1	1	1	1	0	1	0	1	1	1	1	0	1	0.7	1.5
2-Oct	1	1	1	1	1	1	1	A	1	1	1	0	0	0	1	0	0	1	1	1	0	0	0	0	0.7	1.4
3-Oct	1	0	0	0	1	1	A	1	0	0	0	1	1	1	0	0	0	0	0	2	1	1	0	0	0.6	2.3
4-Oct	0	0	1	1	1	A	0	1	0	0	1	1	0	0	1	0	0	0	0	3	7	1	0	1	0.9	7.4
5-Oct	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	0	0.8	1.7
6-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	0.8	1.4
7-Oct	1	1	A	1	1	2	3	1	1	1	1	0	0	1	0	1	1	1	0	0	0	0	1	0	0.8	3.2
8-Oct	1	A	1	0	1	1	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0	0.7	1.4
9-Oct	A	1	1	1	1	1	1	1	1	1	2	0	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.9
10-Oct	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	A	1	0.6	0.8
11-Oct	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.4
12-Oct	2	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.7
13-Oct	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.2
14-Oct	1	1	1	1	1	0	1	1	1	1	1	1	0	0	1	1	2	A	2	5	0	0	1	1	0.9	5.0
15-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	0.7	1.1
16-Oct	1	1	1	1	1	0	0	0	1	0	0	0	0	1	1	1	A	3	1	1	2	1	1	3	0.9	3.0
17-Oct	4	1	0	0	1	1	1	1	1	1	0	0	1	1	1	A	1	3	29	1	1	1	1	1	2.1	28.6
18-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	1.2
19-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	2	1	1	1	1.0	1.7
20-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
21-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0.8	1.1
22-Oct	2	2	1	1	1	1	1	1	2	1	A	1	1	0	0	1	1	1	1	1	1	1	1	1	0.9	1.9
23-Oct	1	1	1	1	1	1	1	1	1	1	A	1	C	C	C	1	0	1	0	0	1	1	0	0	0.7	1.3
24-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	0.8	1.2
25-Oct	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	0.6	0.8
26-Oct	1	1	1	1	1	1	A	1	1	0	0	1	0	0	1	0	0	1	1	1	1	1	1	1	0.6	0.9
27-Oct	1	0	0	1	1	A	1	1	0	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.1
28-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0.9	1.8
29-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	0.9
30-Oct	1	1	A	1	0	1	1	0	1	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	0.6	1.1
31-Oct	1	A	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
		0.9	0.8	0.7	0.7	0.8	0.8	0.9	0.7	0.7	0.8	0.7	0.7	0.6	0.6	0.7	0.7	0.8	1.0	1.7	1.0	1.2	0.7	0.7	0.8	Diurnal Average
		3.6	1.9	1.6	1.2	1.7	2.2	3.2	1.2	1.6	1.2	1.5	1.9	1.3	1.3	1.5	1.1	1.8	3.1	28.6	3.2	7.4	1.2	1.1	2.7	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

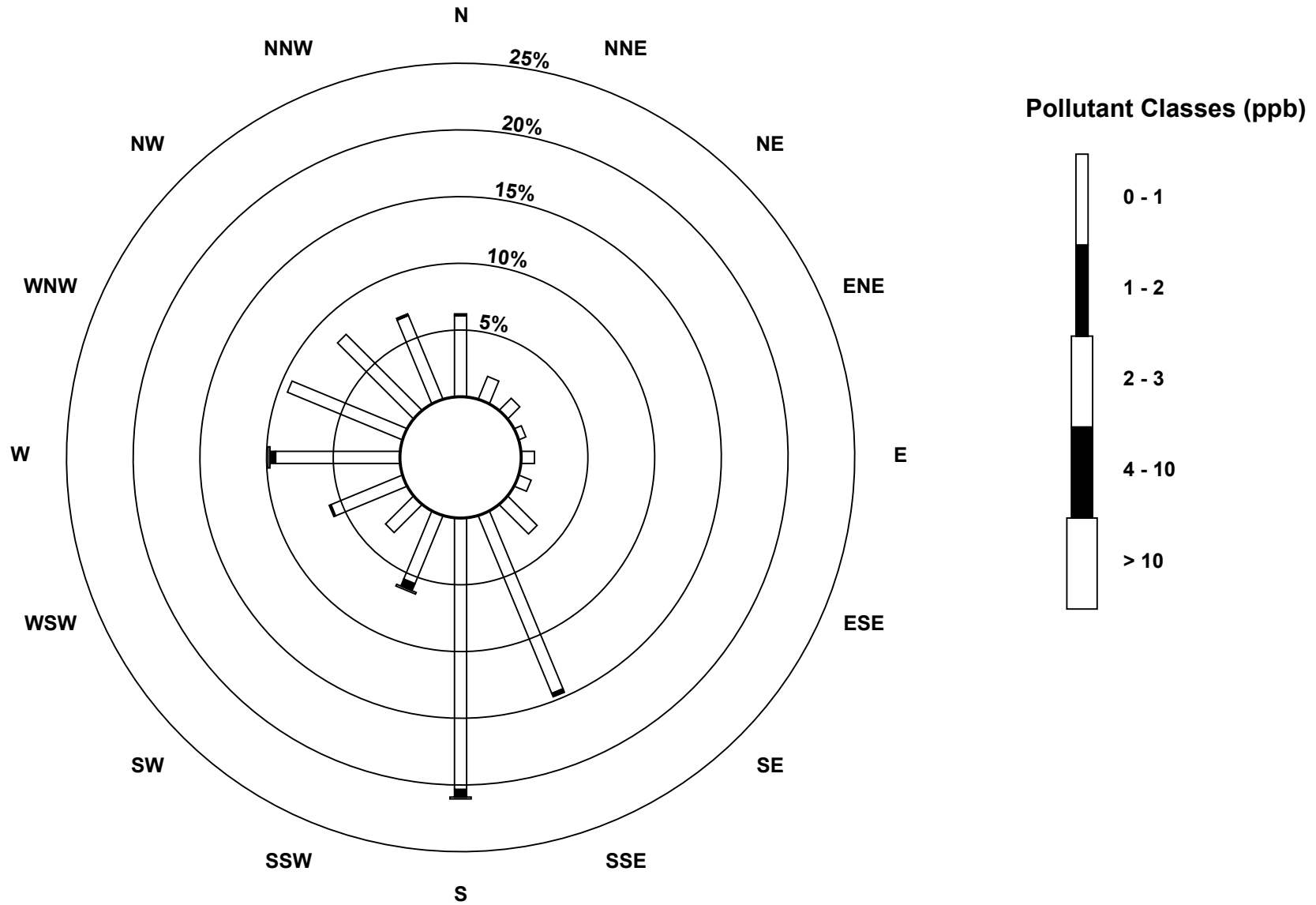
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - October 2017



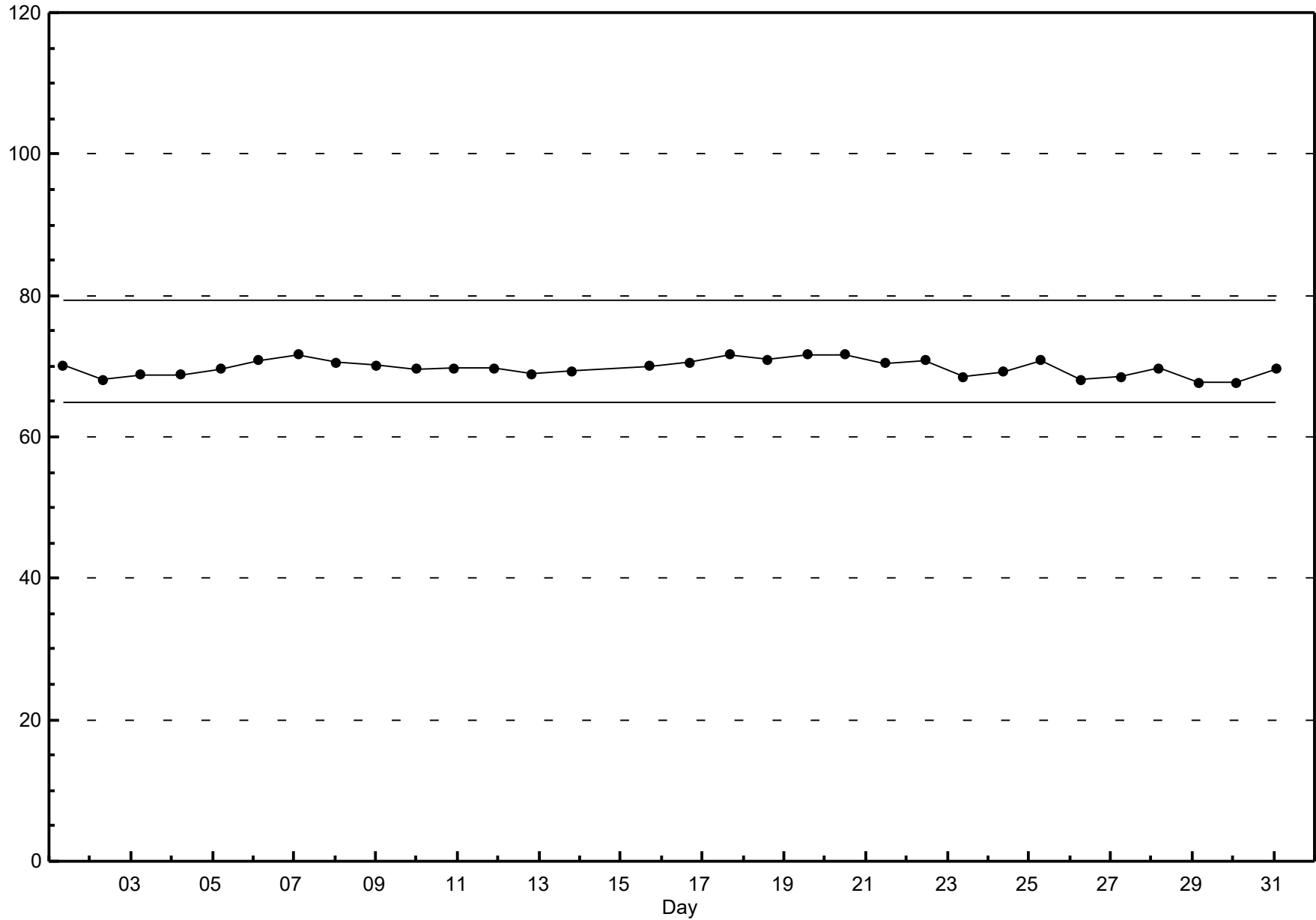
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - October 2017



Span Responses

Hydrogen Sulphide (H₂S)
Valleyview - October 2017

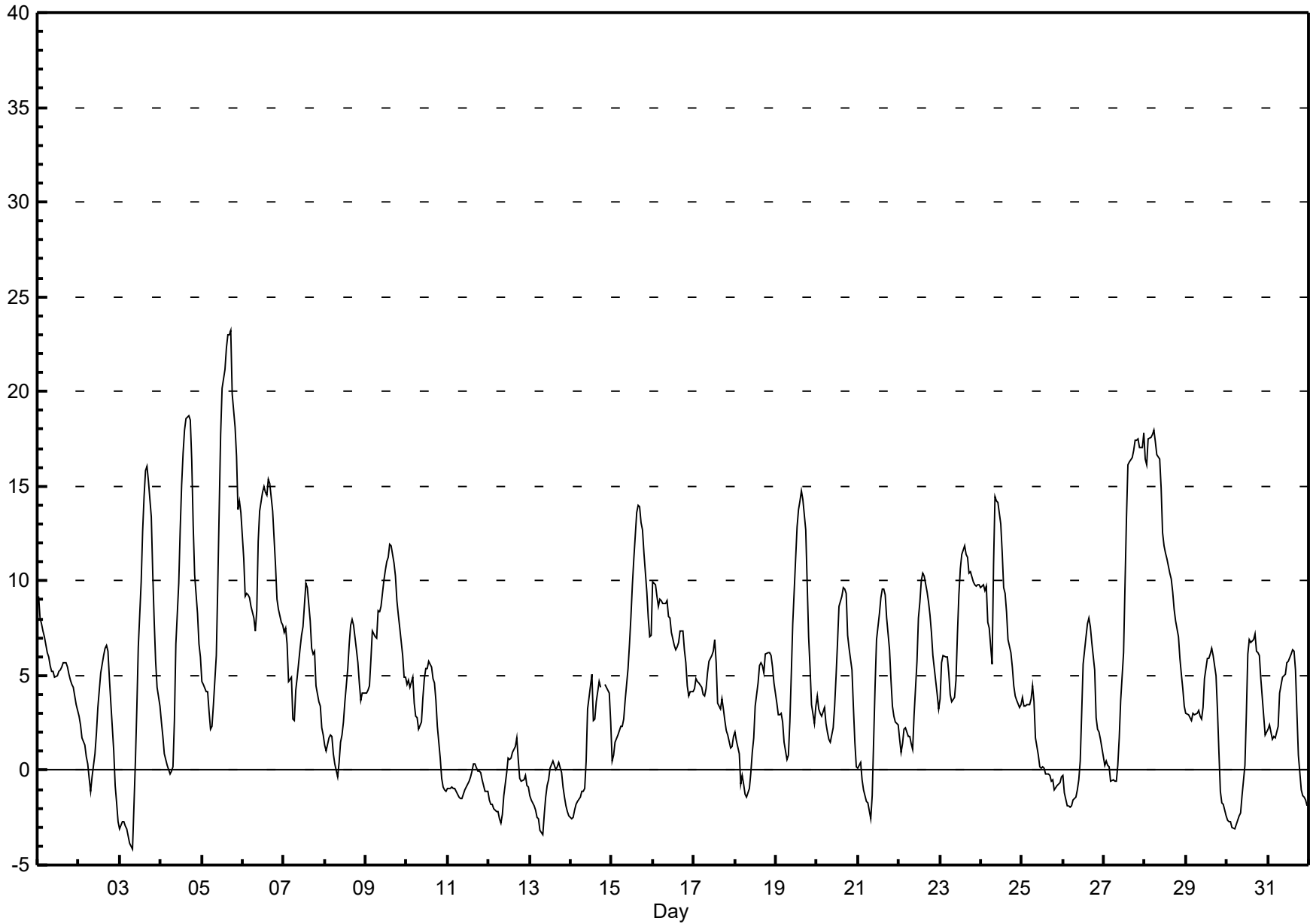


Hourly Averages

External Temperature (ET) - °C

Valleyview - October 2017

Maximum Value: 23.2 °C on Oct 5 18:00 Minimum Value: -4 °C on Oct 3 08:00 Maximum Diurnal Average: 8.7 °C at hour 16 Monthly Average: 4.91 °C		Maximum Daily Average: 12.7 °C on Oct 5 Minimum Daily Average: -1.3 °C on Oct 13 Minimum Diurnal Average: 2.1 °C at hour 7 Percentiles: P ₁ = -3.1 P ₁₀ = -1.3 Q ₁ = 0.8 Median = 4.3 Q ₃ = 7.8 P ₉₀ = 12.5 P ₉₉ = 19.7		Hours in Service: 744 Hours of Data: 742 Hours of Missing Data: 2 Hours of Calibration: 0 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	9	8	8	7	7	6	6	6	5	5	5	5	5	5	6	6	5	5	5	5	4	3	3	5.6	9.2		
2-Oct	3	2	2	1	1	0	0	-1	0	1	2	3	4	5	6	6	7	6	5	4	1	-1	-2	-3	2.2	6.6	
3-Oct	-3	-3	-3	-3	-3	-4	-4	-4	-2	0	3	7	10	13	14	16	16	15	13	10	8	6	4	3	4.7	16.1	
4-Oct	3	2	1	1	0	0	0	0	3	7	10	13	15	17	18	19	19	18	16	13	10	8	7	6	8.5	18.7	
5-Oct	5	5	4	4	3	2	2	3	6	10	14	18	20	21	22	23	23	23	20	18	17	14	14	14	12.7	23.2	
6-Oct	11	9	9	9	9	9	8	7	8	12	14	15	15	15	15	15	15	14	12	11	9	8	8	8	11.1	15.3	
7-Oct	7	8	7	5	5	3	3	4	5	6	7	8	9	10	10	8	6	6	6	4	4	3	2	2	5.7	9.9	
8-Oct	1	1	2	2	2	1	0	0	0	1	2	3	4	5	7	8	8	8	6	6	5	4	4	4	3.4	8.0	
9-Oct	4	4	4	6	7	7	7	8	8	9	10	11	11	11	12	12	11	10	9	8	8	6	5	5	8.1	11.9	
10-Oct	5	5	4	5	4	3	3	2	3	4	5	5	5	6	5	5	4	2	1	0	-1	-1	-1	3.2	5.7		
11-Oct	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	0	0	0	0	0	0	-1	-1	-1	-1	-0.7	0.4	
12-Oct	-2	-2	-2	-2	-2	-2	-3	-3	-2	-1	0	1	1	1	1	2	1	0	-1	-1	0	-1	-1	-0.7	1.7		
13-Oct	-1	-2	-2	-2	-3	-3	-3	-3	-2	-1	-1	0	0	1	0	0	0	0	0	-1	-1	-2	-2	-2	-1.3	0.5	
14-Oct	-3	-3	-2	-2	-2	-1	-1	-1	-1	0	3	4	5	3	3	4	5	4	N	N	5	4	4	3	1.4	5.1	
15-Oct	0	1	1	2	2	2	2	3	4	5	7	8	10	11	14	14	14	13	13	11	9	8	7	7	7.1	14.0	
16-Oct	10	10	9	9	9	9	9	9	9	8	8	7	7	6	7	7	7	7	6	6	4	4	4	4	7.3	9.9	
17-Oct	4	5	5	5	4	4	4	4	5	6	6	6	7	6	4	3	4	3	3	2	2	1	1	2	4.0	6.9	
18-Oct	2	2	1	-1	0	-1	-1	-1	-1	0	1	2	3	5	5	6	6	5	6	6	6	5	5	5	2.8	6.2	
19-Oct	4	3	3	3	3	1	1	1	3	5	8	11	13	14	14	15	14	13	10	7	5	3	2	3	6.6	14.8	
20-Oct	4	3	3	3	3	2	2	2	2	2	3	5	7	9	9	10	10	9	7	6	5	3	1	0	4.6	9.7	
21-Oct	0	0	-1	-1	-1	-2	-2	-3	-1	2	4	7	8	9	10	10	9	8	6	5	3	3	3	2	3.3	9.6	
22-Oct	2	1	1	2	2	2	2	1	1	3	6	8	9	10	10	10	9	9	8	7	6	5	4	3	5.1	10.4	
23-Oct	4	6	6	6	6	5	4	4	4	5	7	9	11	11	12	11	11	10	11	10	10	10	10	10	8.0	11.8	
24-Oct	10	10	9	10	8	8	6	11	14	14	14	13	11	10	9	8	7	6	5	4	4	4	3	4	8.4	14.5	
25-Oct	4	3	3	3	3	4	4	4	2	1	0	0	0	0	0	0	-1	-1	-1	-1	-1	-1	0	1.1	4.5		
26-Oct	0	-1	-2	-2	-2	-2	-2	-1	-1	0	1	3	6	7	8	8	8	7	5	3	2	2	2	1	2.0	8.1	
27-Oct	0	1	0	0	-1	-1	-1	-1	0	2	4	6	10	13	16	16	16	17	17	17	17	17	17	18	8.5	17.8	
28-Oct	16	16	18	18	18	18	17	17	16	15	13	12	12	11	10	10	9	8	8	7	6	5	4	3	12.0	18.0	
29-Oct	3	3	3	3	3	3	3	3	3	3	3	5	6	6	6	6	6	5	3	1	-1	-2	-2	-2	2.9	6.4	
30-Oct	-3	-3	-3	-3	-3	-3	-3	-2	-2	-1	0	3	6	7	7	7	7	6	6	6	5	3	2	2	1.7	7.2	
31-Oct	2	2	2	2	2	2	2	4	5	5	5	6	6	6	6	6	5	3	1	-1	-1	-1	-2	-2	2.7	6.3	
		3.2	3.1	2.9	2.8	2.7	2.4	2.1	2.3	2.9	4.0	5.3	6.5	7.5	8.1	8.6	8.7	8.6	7.9	7.0	5.9	4.8	4.0	3.5	3.2	Diurnal Average	
		16.4	16.2	17.5	17.5	17.7	18.0	17.3	16.6	16.5	14.9	14.2	17.7	20.1	21.1	22.3	23.0	23.0	23.2	19.9	18.1	17.5	17.1	17.1	17.8	Diurnal Maximum	
N - Not Valid																											



Hourly Averages

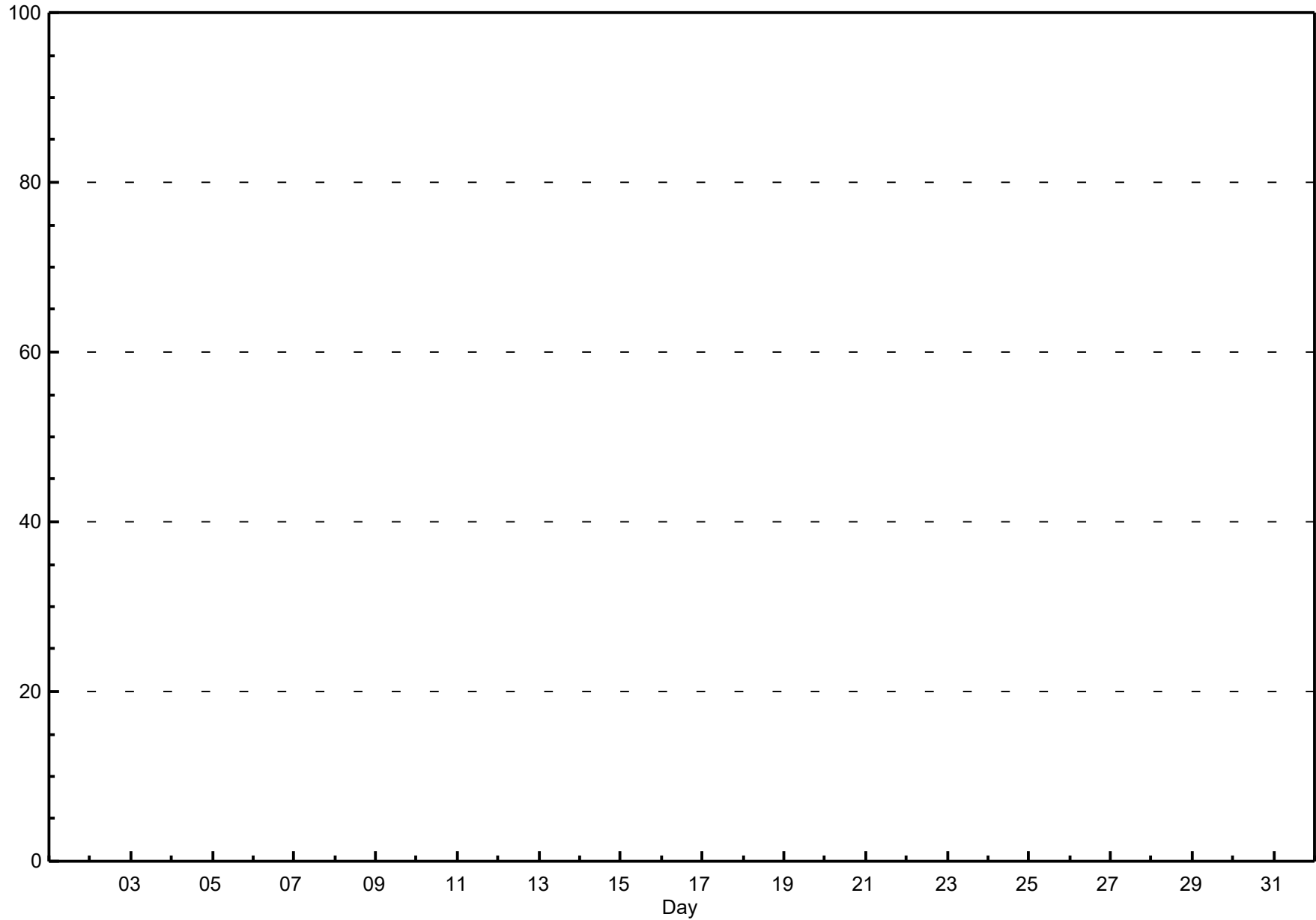
Relative Humidity (RH) - %
Valleyview - October 2017

Maximum Value: -- % on Oct 1 00:00 Minimum Value: -- % on Oct 1 00:00 Maximum Diurnal Average: -- % at hour 0 Monthly Average: -- %		Maximum Daily Average: -- % on Sep 30 Minimum Daily Average: -- % on Sep 30 Minimum Diurnal Average: -- % at hour 0 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.0 P ₉₉ = 0.0		Hours in Service: 744 Hours of Data: 0 Hours of Missing Data: 744 Hours of Calibration: 0 Percent Operational Time: 0.0																								
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	N	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	N	N	--	--
19-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	N	N	--	--
20-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	N	N	--	--
21-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	N	N	--	--
22-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	N	N	--	--
23-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	N	N	--	--
24-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	N	N	--	--
25-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	N	N	--	--
26-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	N	N	--	--
27-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	N	N	--	--
28-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	N	N	--	--
29-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	N	N	--	--
30-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	N	N	--	--
31-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	N	N	--	--
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Diurnal Average	Diurnal Maximum
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

N - Not Valid

Hourly Averages

**Relative Humidity (RH) - %
Valleyview - October 2017**



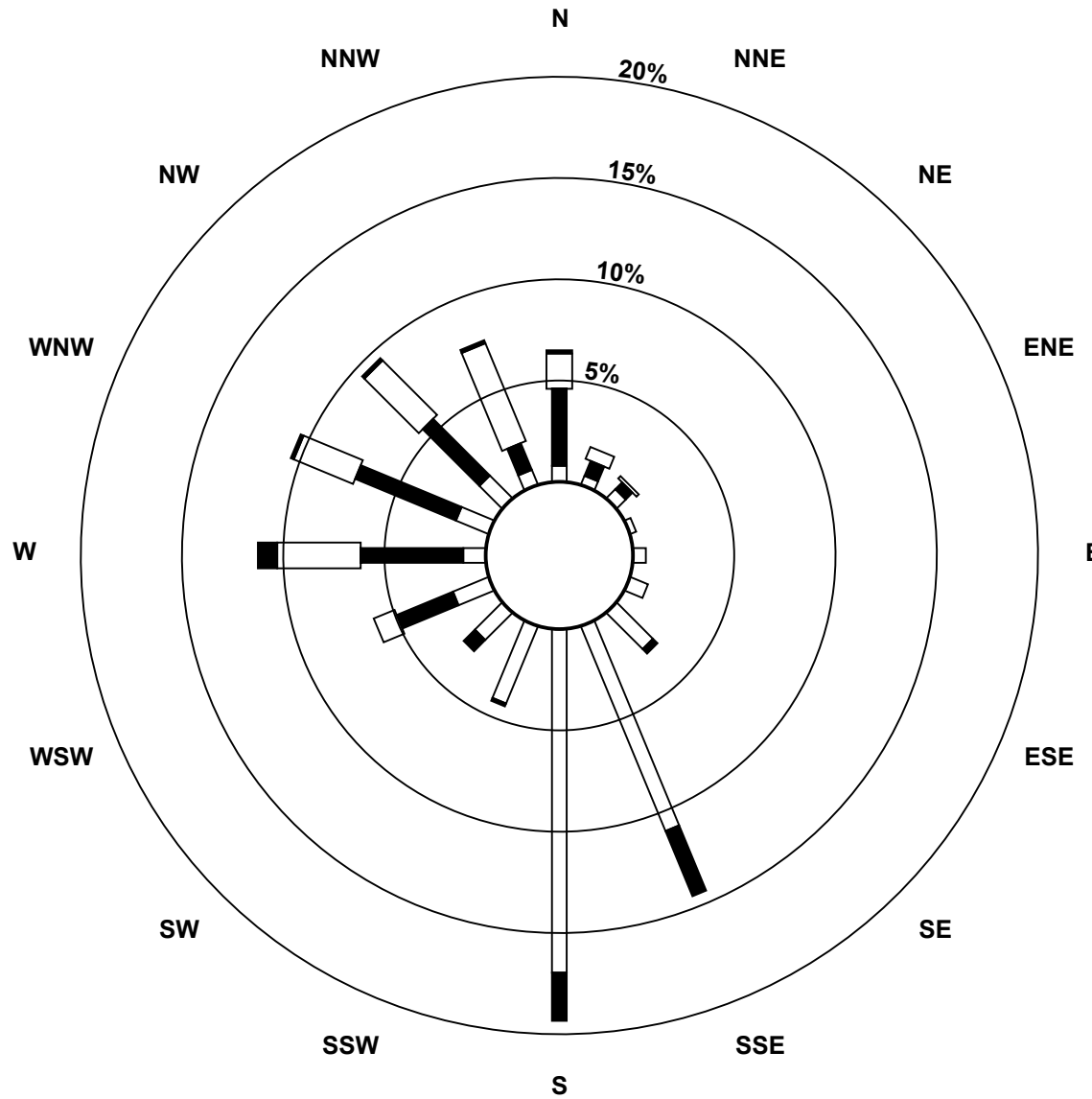
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - October 2017

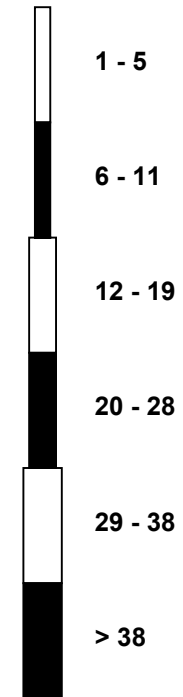
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	2	6	9	11	14	4	2	1	1	2	5	9	13	11	10	8	3	4	5	6	8	8	9	9	5.0	14.4
Dir	147	274	269	266	261	237	171	182	172	212	238	242	250	270	267	248	206	206	196	161	170	170	171	171	231	261
24 Spd	8	8	7	4	1	2	1	10	21	21	20	15	16	12	6	4	4	1	3	3	4	3	6	5	3.8	21.2
Dir	168	167	170	173	233	196	34	287	284	277	278	277	291	306	297	321	41	107	81	88	77	80	44	48	281	277
25 Spd	6	6	3	3	0	1	3	12	14	20	20	19	17	16	17	11	10	4	3	0	2	2	2	2	7.2	20.0
Dir	35	35	24	335	256	195	278	318	324	337	351	352	345	349	343	354	359	1	344	87	359	179	174	197	347	337
26 Spd	2	4	6	7	7	7	8	7	6	5	4	4	3	11	11	10	8	4	1	1	1	1	2	1	2.7	11.3
Dir	162	157	163	169	166	167	167	171	170	166	169	173	195	286	296	295	300	279	252	189	198	194	202	176	207	296
27 Spd	0	1	1	2	1	1	2	3	4	4	4	3	2	3	2	3	2	4	16	20	20	17	16	13	4.5	20.3
Dir	177	182	195	177	194	186	186	187	180	170	177	168	170	141	160	156	145	277	269	271	271	269	267	267	250	271
28 Spd	1	4	9	7	8	11	8	10	12	11	13	13	10	12	15	10	8	9	8	11	12	11	4	8.3	14.6	
Dir	192	244	262	260	263	279	300	307	303	339	7	5	345	321	319	320	321	312	303	313	321	338	329	293	316	320
29 Spd	6	8	9	8	9	8	6	9	8	9	10	14	13	17	14	11	8	3	1	1	1	2	2	3	6.6	17.2
Dir	300	293	306	306	304	306	307	287	301	304	316	320	324	338	337	335	314	305	230	181	170	178	179	171	312	338
30 Spd	2	4	3	4	3	3	2	3	2	1	2	2	3	17	13	9	4	7	9	7	0	2	2	3	2.1	16.8
Dir	190	173	172	171	175	171	177	179	176	170	181	173	273	318	320	323	300	284	276	282	272	163	162	163	267	318
31 Spd	3	2	3	4	3	3	2	7	10	9	9	12	12	13	13	13	17	19	19	19	16	16	14	14	7.7	19.1
Dir	170	186	167	174	174	164	188	288	287	302	287	296	311	292	286	300	342	5	6	358	347	345	348	350	326	6
Spd	1.5	1.8	2.1	2.0	2.5	2.1	1.7	2.6	3.4	3.5	3.7	4.2	5.7	6.6	6.5	5.9	4.7	3.4	3.0	2.6	2.3	2.0	1.8	1.6	Diurnal Average	
Dir	276	273	271	268	269	268	273	282	280	288	294	295	294	298	299	299	303	311	298	295	293	288	296	279		
Spd	16.4	17.1	23.2	13.4	18.3	17.5	17.0	13.2	20.5	21.2	19.6	20.7	17.9	18.2	19.2	19.9	18.0	19.0	19.1	20.3	19.9	17.2	18.0	15.9	Diurnal Maximum	
Dir	347	351	280	323	289	280	279	335	284	277	278	270	285	282	304	325	332	5	6	271	271	269	356	348		
Maximum Speed Value: 23 km/h on Oct 7 03:00		Minimum Speed Value: 0 km/h on Oct 25 21:00																Hours in Service: 744								
Maximum Daily Speed Average: 13.5 km/h on Oct 7		Minimum Daily Speed Average: 0.7 km/h on Oct 12																Hours of Data: 742								
Maximum Diurnal Speed Average: 6.6 km/h at hour 14		Minimum Diurnal Speed Average: 1.5 km/h at hour 1																Hours of Missing Data: 2								
Monthly Average Velocity: 3.16 km/h 290.9 deg		Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.7 Q ₁ = 1.8 Median = 4.1 Q ₃ = 10.0 P ₉₀ = 14.6 P ₉₉ = 19.8																Percent Operational Time: 99.7								
All monthly, daily, and diurnal averages have been calculated using vector methods																										
N - Not Valid																										
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	13	26	30	3	0	0	72																			
NorthEast	8	5	3	0	0	0	16																			
East	14	0	0	0	0	0	14																			
SouthEast	52	5	0	0	0	0	57																			
South	226	38	1	0	0	0	265																			
SouthWest	43	16	1	0	0	0	60																			
West	23	58	52	8	0	0	141																			
NorthWest	20	42	52	3	0	0	117																			
Total	399	190	139	14	0	0	742																			

Wind Rose

Wind Speed (WS) (km/h)
Valleyview - October 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - October 2017

Maximum Speed: 24 km/h on Oct 7 03:00	Maximum Daily Speed Average: 15.2 km/h on Oct 7	Hours in Service: 744
Minimum Speed: 0 km/h on Oct 4 21:00	Minimum Daily Speed Average: 1.2 km/h on Oct 12	Hours of Data: 742
Maximum Diurnal Speed Average: 10.2 km/h at hour 14	Minimum Diurnal Speed Average: 4.2 km/h at hour 7	Hours of Missing Data: 2
Monthly Average Speed: 6.36 km/h	Percentiles: P ₁ = 0.2 P ₁₀ = 0.9 Q ₁ = 1.9 Median = 4.3 Q ₃ = 10.2 P ₉₀ = 14.8 P ₉₉ = 20.3	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	8	6	3	6	11	12	11	13	15	13	15	16	17	17	17	16	18	18	16	16	15	13	18	17	13.6	18.3
2-Oct	17	17	16	13	11	9	6	5	9	10	14	17	17	15	13	14	11	9	4	2	1	1	1	0	9.7	17.3
3-Oct	1	2	2	3	2	3	2	3	6	6	5	5	4	4	3	6	6	3	0	1	0	1	1	1	2.8	6.0
4-Oct	1	1	1	1	1	1	1	1	2	2	2	2	2	3	3	4	3	2	0	0	0	0	0	0	1.4	3.8
5-Oct	0	0	0	0	0	1	1	2	2	4	3	3	8	9	12	11	8	2	3	3	2	3	6	2	3.6	12.2
6-Oct	1	1	2	2	2	2	1	2	2	10	9	16	18	17	17	15	12	12	7	6	7	13	12	13	8.3	18.0
7-Oct	12	15	24	12	19	18	17	10	12	14	15	15	18	20	20	16	12	13	16	13	13	16	11	15.2	23.6	
8-Oct	10	8	13	14	8	9	5	6	8	13	13	12	10	8	10	10	7	1	1	2	2	3	4	7.4	13.5	
9-Oct	3	3	3	3	3	3	3	10	10	6	19	21	18	19	18	18	14	9	7	10	8	3	1	4	9.1	21.0
10-Oct	3	4	1	2	1	1	1	1	0	1	3	7	8	9	13	13	12	12	12	11	11	11	10	11	6.6	13.4
11-Oct	11	10	9	10	10	10	10	11	9	10	10	10	10	9	8	7	6	4	2	2	3	2	2	1	7.3	10.8
12-Oct	0	0	0	1	1	0	0	1	1	1	2	3	3	3	3	2	2	1	0	0	0	1	1	0	1.2	3.5
13-Oct	1	0	0	0	0	1	1	1	1	1	2	3	2	5	6	6	6	2	2	2	3	3	5	6	2.5	6.1
14-Oct	5	5	3	3	3	3	2	2	2	2	3	3	5	10	3	3	3	2	N	N	8	7	6	2	3.9	9.8
15-Oct	2	2	2	3	4	5	6	6	7	6	7	6	5	4	8	8	6	5	11	7	2	3	2	5	5.1	11.0
16-Oct	12	10	11	10	12	11	11	8	14	15	6	3	3	2	2	1	2	2	2	1	1	1	1	1	5.9	14.8
17-Oct	1	1	1	0	1	2	2	6	6	3	2	3	12	15	16	15	17	16	14	15	11	11	9	14	8.1	17.0
18-Oct	11	6	3	2	4	3	2	1	2	2	3	4	6	6	8	8	11	10	8	10	6	8	7	4	5.7	11.4
19-Oct	2	2	4	2	1	2	1	2	3	5	6	5	8	9	6	2	1	0	0	1	1	1	1	1	2.8	8.7
20-Oct	1	2	1	1	1	1	1	0	1	1	1	2	4	5	8	5	4	1	1	1	0	2	1	1	2.0	7.6
21-Oct	2	2	1	2	2	2	1	1	2	1	3	3	12	8	7	6	4	3	3	3	4	3	2	2	3.3	12.0
22-Oct	1	1	2	4	1	1	2	1	1	2	2	4	7	10	10	10	9	6	1	1	1	2	2	2	3.4	10.2
23-Oct	2	7	9	11	15	5	2	1	1	2	5	10	13	11	10	8	4	4	5	6	8	8	9	9	6.9	14.6
24-Oct	8	8	7	4	2	2	3	12	21	21	20	16	16	12	6	5	4	1	3	4	4	3	6	5	8.0	21.4
25-Oct	7	6	3	3	2	3	6	12	14	20	20	19	17	16	17	12	11	10	5	3	1	2	2	2	8.8	20.3
26-Oct	2	4	6	7	7	7	8	7	6	5	4	5	4	12	12	10	9	4	1	1	1	2	2	1	5.2	11.6
27-Oct	0	1	1	2	1	2	2	3	4	4	4	3	2	3	2	3	3	5	16	20	20	17	16	13	6.2	20.4
28-Oct	3	5	9	8	8	11	9	10	13	13	13	13	13	10	12	15	10	8	9	8	12	13	11	4	10.0	14.8
29-Oct	7	8	9	8	9	9	6	9	8	9	10	14	13	17	14	11	8	3	1	1	1	2	2	3	7.6	17.4
30-Oct	2	4	3	4	3	3	2	3	2	1	2	2	5	17	13	9	4	7	9	7	1	2	2	3	4.6	17.0
31-Oct	3	3	3	4	3	3	2	8	10	9	10	13	12	14	13	13	19	19	19	19	16	16	15	14	10.7	19.3
	4.5	4.7	4.9	4.6	4.8	4.6	4.2	5.1	6.2	7.0	7.5	8.3	9.3	10.2	10.0	9.3	8.0	6.3	6.0	6.0	5.3	5.5	5.5	5.0	Diurnal Average	
	16.6	17.3	23.6	13.5	18.9	17.7	17.2	13.4	20.9	21.4	19.9	21.0	18.3	18.6	20.3	20.1	18.5	19.2	19.3	20.4	20.0	17.3	18.3	16.5	Diurnal Maximum	

N - Not Valid
 All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - October 2017

Maximum Value: 97.6 deg on Oct 25 21:00		Hours in Service: 744																							
Minimum Value: 4.7 deg on Oct 24 02:00		Hours of Data: 742																							
Percentiles: P ₁ = 5.6 P ₁₀ = 7.6 Q ₁ = 9.7 Median = 14.0 Q ₃ = 25.1 P ₉₀ = 45.8 P ₉₉ = 88.9		Hours of Missing Data: 2																							
		Hours of Calibration: 0																							
		Percent Operational Time: 99.7																							
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	10	13	16	8	11	7	9	10	9	12	11	10	8	8	8	7	8	7	7	6	8	11	10	17	17.4
2-Oct	9	9	10	6	7	7	9	8	10	11	12	13	15	18	14	14	15	9	23	19	32	8	15	14	32.2
3-Oct	7	5	12	7	6	6	7	9	8	9	14	15	18	20	17	54	20	41	53	66	73	36	55	20	73.3
4-Oct	21	40	32	21	27	21	12	12	11	28	18	35	38	39	26	23	16	10	20	64	46	18	40	33	64.5
5-Oct	30	91	15	22	16	18	23	7	10	11	15	17	43	18	14	13	14	17	24	25	21	17	11	31	90.6
6-Oct	69	47	15	8	11	11	28	10	19	15	12	15	14	15	12	14	17	10	25	17	19	14	11	11	68.7
7-Oct	11	11	11	17	14	9	9	13	8	11	11	11	15	12	19	8	11	12	12	14	5	15	8	10	19.2
8-Oct	15	10	15	8	12	9	15	13	11	11	12	14	17	20	19	17	42	12	13	35	6	9	8	8	42.4
9-Oct	11	10	7	32	32	15	45	8	8	14	11	11	11	12	11	13	11	16	9	8	12	43	24	17	45.2
10-Oct	14	30	52	77	26	17	41	63	74	92	34	21	19	16	12	12	9	9	10	9	9	9	10	9	91.6
11-Oct	8	10	9	8	7	8	8	8	9	8	10	9	12	14	14	17	13	10	20	12	12	11	17	75	75.0
12-Oct	29	54	22	78	61	90	30	19	58	33	36	27	18	27	22	29	30	18	29	61	58	72	44	79	89.7
13-Oct	68	71	53	69	19	17	12	19	38	60	31	35	43	28	14	15	14	26	13	6	6	6	6	6	71.2
14-Oct	6	6	11	12	7	16	9	9	8	11	13	16	31	14	24	17	22	17	N	N	8	7	10	22	31.4
15-Oct	12	13	7	9	8	6	6	7	7	6	6	7	7	9	22	18	14	14	18	27	25	13	22	37	36.8
16-Oct	12	11	13	10	11	10	9	18	11	10	23	37	10	30	27	56	51	64	17	60	14	33	39	83	83.2
17-Oct	35	34	35	74	56	23	13	13	41	30	25	23	35	17	18	12	13	9	9	9	21	15	14	8	74.0
18-Oct	8	11	33	6	9	11	27	21	31	11	15	12	13	11	11	13	10	11	12	9	10	7	8	6	33.2
19-Oct	10	10	7	9	20	18	53	12	21	15	12	12	10	12	13	38	51	62	37	91	85	49	53	23	91.5
20-Oct	68	49	24	17	21	14	92	55	38	17	41	21	32	55	23	19	13	63	37	49	46	11	15	25	91.9
21-Oct	12	15	30	40	9	19	29	43	53	36	15	80	13	21	45	15	15	9	16	23	10	31	59	42	80.1
22-Oct	46	19	23	9	65	40	58	66	61	18	15	36	15	17	16	13	12	19	45	30	62	17	27	25	65.6
23-Oct	31	53	14	14	10	46	19	40	66	47	15	17	16	14	16	21	18	21	21	8	7	6	6	6	66.0
24-Oct	5	5	6	15	51	30	88	68	11	9	9	10	11	10	16	30	35	23	25	20	19	27	13	20	87.8
25-Oct	25	22	27	38	91	62	59	15	11	10	10	8	7	10	7	10	11	9	45	34	98	21	16	27	97.6
26-Oct	26	9	6	7	7	9	7	9	8	15	9	10	27	21	14	13	14	10	72	18	21	12	22	46	71.9
27-Oct	73	31	13	35	28	42	8	5	6	6	8	12	16	19	37	21	57	64	8	7	6	6	7	11	73.2
28-Oct	59	43	10	13	16	12	12	9	10	31	12	11	9	19	10	8	8	8	8	6	10	8	13	12	59.4
29-Oct	9	9	9	9	10	11	13	10	12	10	9	11	15	9	10	16	11	10	43	16	19	10	11	6	42.8
30-Oct	10	6	7	6	9	9	14	7	8	13	17	15	50	8	12	14	23	9	8	14	75	15	14	14	74.7
31-Oct	10	47	22	13	10	18	23	43	11	14	14	12	10	11	12	12	23	8	7	8	7	6	7	8	46.7
	73.2	90.6	53.5	78.3	91.5	89.7	91.9	68.2	73.8	91.6	41.2	80.1	50.5	54.7	44.6	55.6	57.1	63.9	71.9	91.5	97.6	72.1	58.7	83.2	
N - Not Valid																									

PAZA

Donnelly Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Donnelly - October 2017

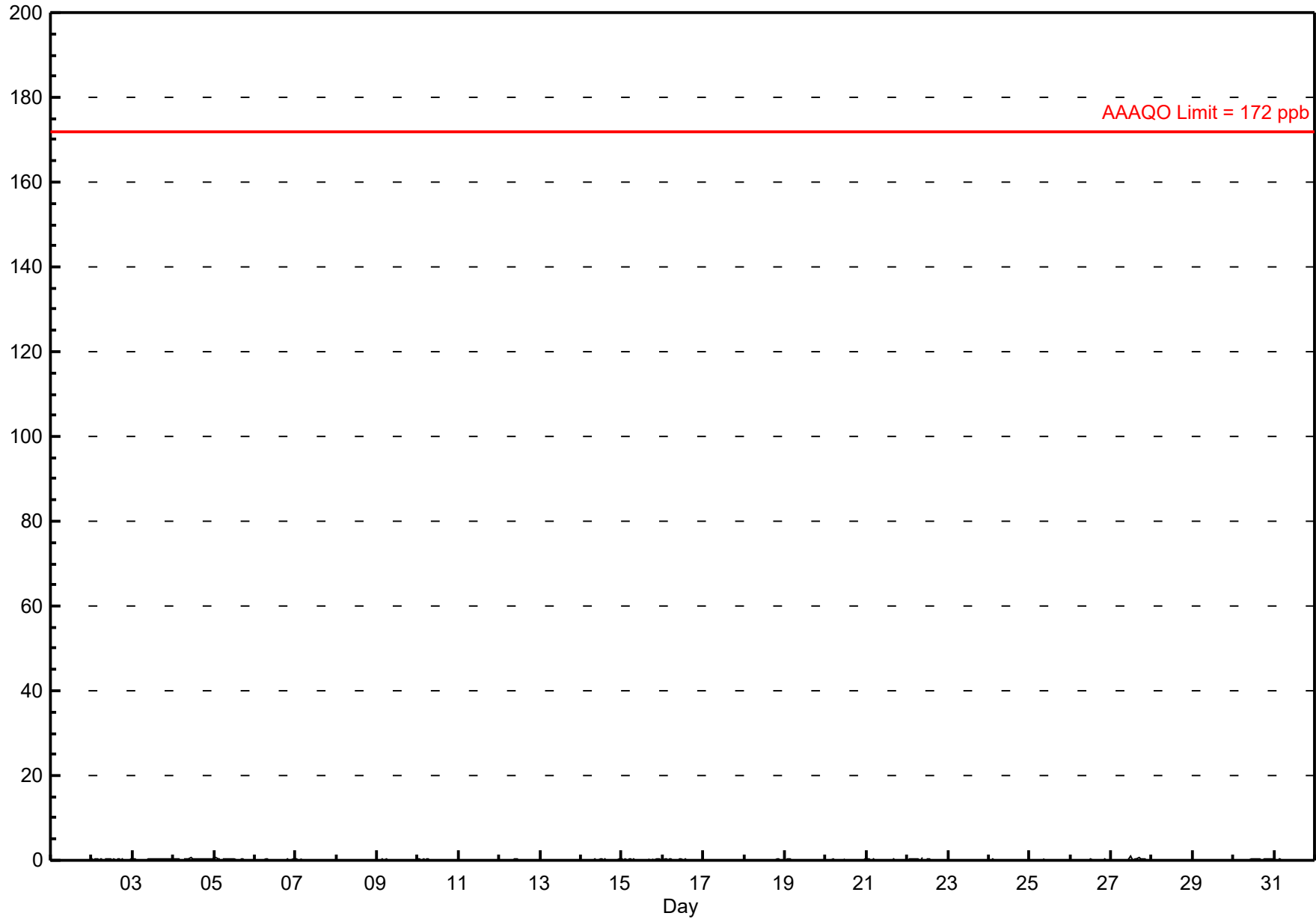
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.0 ppb on Oct 27 12:00	Maximum Daily Average: 0.3 ppb on Oct 4		Hours of Data:	708
Minimum Value: 0 ppb on Oct 1 06:00	Minimum Daily Average: 0.0 ppb on Oct 13		Hours of Missing Data:	36
Maximum Diurnal Average: 0.2 ppb at hour 12	Minimum Diurnal Average: 0.1 ppb at hour 23		Hours of Calibration:	35
Monthly Average: 0.12 ppb	Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.2 P ₉₉ = 0.4		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	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	0.2
2-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	0.2	0.2
3-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	0.2	0.3
4-Oct	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
5-Oct	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
6-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
7-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
8-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
9-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	0.1	0.3
10-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	0.2
11-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	0.1
12-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
13-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	0.1
14-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
15-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
16-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
17-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
18-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
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	0.1	0.2
20-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	P	0	0	0	0	0	0	0.1	0.2
21-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	0.3
22-Oct	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
23-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
24-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.0	0.3
25-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	0.3
26-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	0.1	0.2
27-Oct	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	1.0
28-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
29-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	0.1
30-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
31-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
	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.7	0.6	0.4	0.4	0.3	0.4	0.5	0.4	0.4	0.7	0.5	1.0	0.4	0.4	0.3	0.4	0.6	0.4	0.4	0.5	0.4	0.4	0.3	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
Donnelly - October 2017



Hourly Maximums

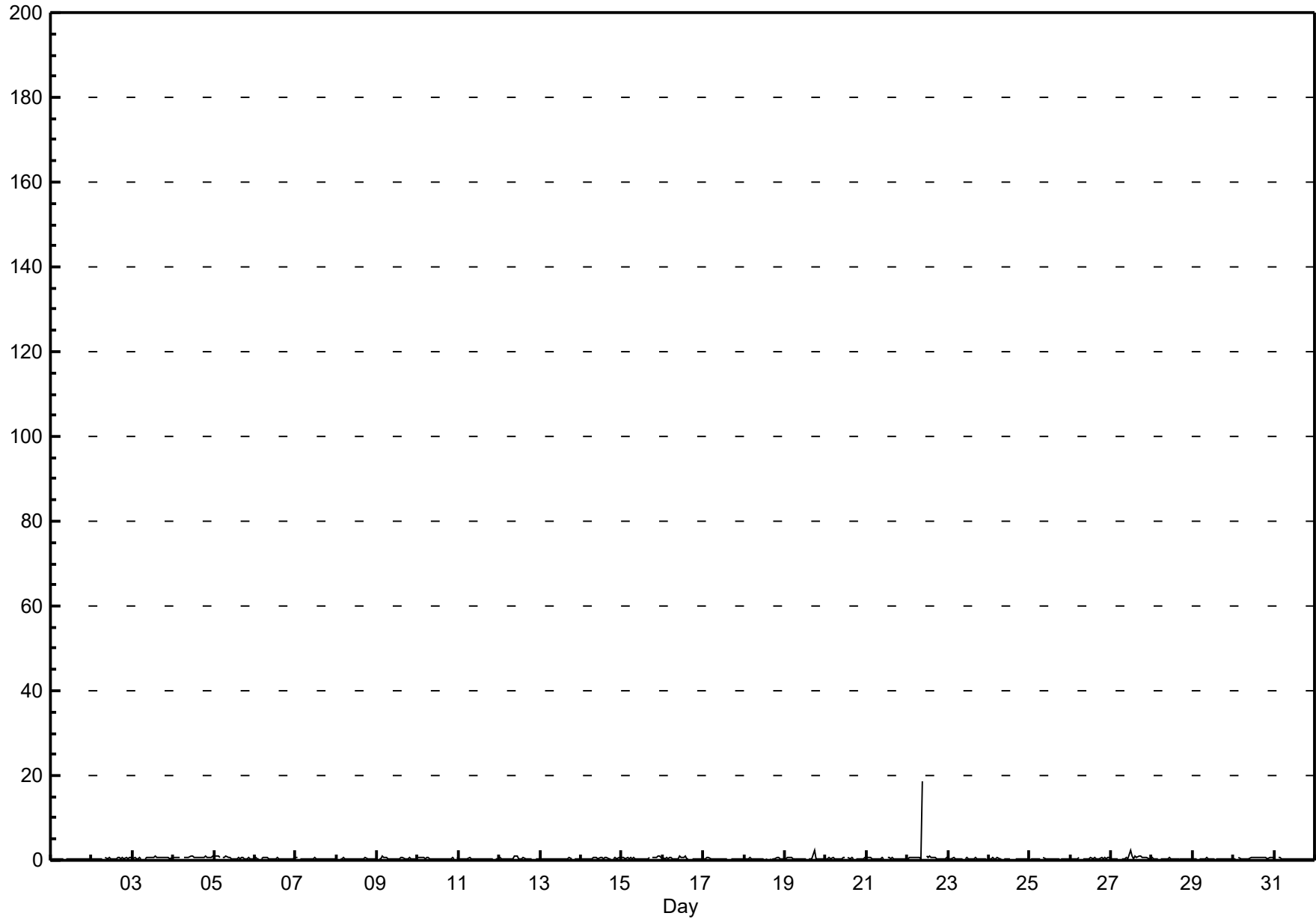
Sulphur Dioxide (SO₂) - ppb

Donnelly - October 2017

Maximum Value: 18.8 ppb on Oct 22 10:00		Maximum Daily Average: 1.4 ppb on Oct 22		Hours in Service: 744																						
Minimum Value: 0 ppb on Oct 24 00:00		Minimum Daily Average: 0.3 ppb on Oct 25		Hours of Data: 708																						
Maximum Diurnal Average: 1.1 ppb at hour 10		Minimum Diurnal Average: 0.4 ppb at hour 20		Hours of Missing Data: 36																						
Monthly Average: 0.48 ppb		Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.5 P ₉₀ = 0.7 P ₉₉ = 1.1		Hours of Calibration: 35																						
				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	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
2-Oct	0	0	0	0	0	0	1	A	1	0	1	0	0	0	0	1	1	0	1	0	1	0	1	1	0.5	0.6
3-Oct	0	1	0	0	1	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.6	1.0
4-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	0.7	1.0
5-Oct	1	1	1	1	A	1	1	1	1	1	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0.6	1.2
6-Oct	1	0	0	A	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6
7-Oct	1	1	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
8-Oct	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.4	0.6
9-Oct	A	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	A	0.5	0.9
10-Oct	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	0.4	0.6
11-Oct	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.6
12-Oct	1	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0.5	1.1
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0.3	0.5
14-Oct	0	0	0	0	0	0	0	1	1	1	0	1	1	0	1	1	0	0	A	0	1	0	1	1	0.5	0.8
15-Oct	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	0.5	1.0
16-Oct	1	0	1	0	1	1	0	0	0	0	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0.5	0.9
17-Oct	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.7
18-Oct	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	1	0.4	0.8
19-Oct	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	2	0	0	0	0	0	0	0.5	2.5
20-Oct	0	0	1	0	1	0	0	0	0	0	1	1	A	1	0	1	0	P	0	0	1	0	0	1	0.5	0.8
21-Oct	1	1	1	0	0	0	0	0	0	1	0	A	1	1	0	1	0	0	0	0	0	0	0	0	0.5	0.8
22-Oct	0	1	1	1	1	1	1	1	0	19	A	1	1	1	1	1	1	0	0	0	0	0	0	1	1.4	18.8
23-Oct	0	0	0	1	0	0	0	0	0	A	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0.4	0.8
24-Oct	0	0	1	0	0	1	0	0	A	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.3	0.7
25-Oct	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
26-Oct	0	0	0	0	0	1	A	0	0	0	0	0	1	0	1	0	0	0	1	0	1	1	1	1	0.5	0.7
27-Oct	0	0	0	0	0	A	0	0	0	1	0	3	1	0	1	1	1	1	1	1	1	1	0	0	0.6	2.5
28-Oct	1	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
29-Oct	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.6
30-Oct	0	0	A	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.8
31-Oct	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
		0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	1.1	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	Diurnal Average
		1.0	1.2	0.9	0.9	0.8	0.8	0.8	1.0	0.8	18.8	1.1	2.5	1.1	1.0	0.9	0.8	1.1	2.5	0.7	0.9	0.7	0.9	1.0	0.9	Diurnal Maximum
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																		

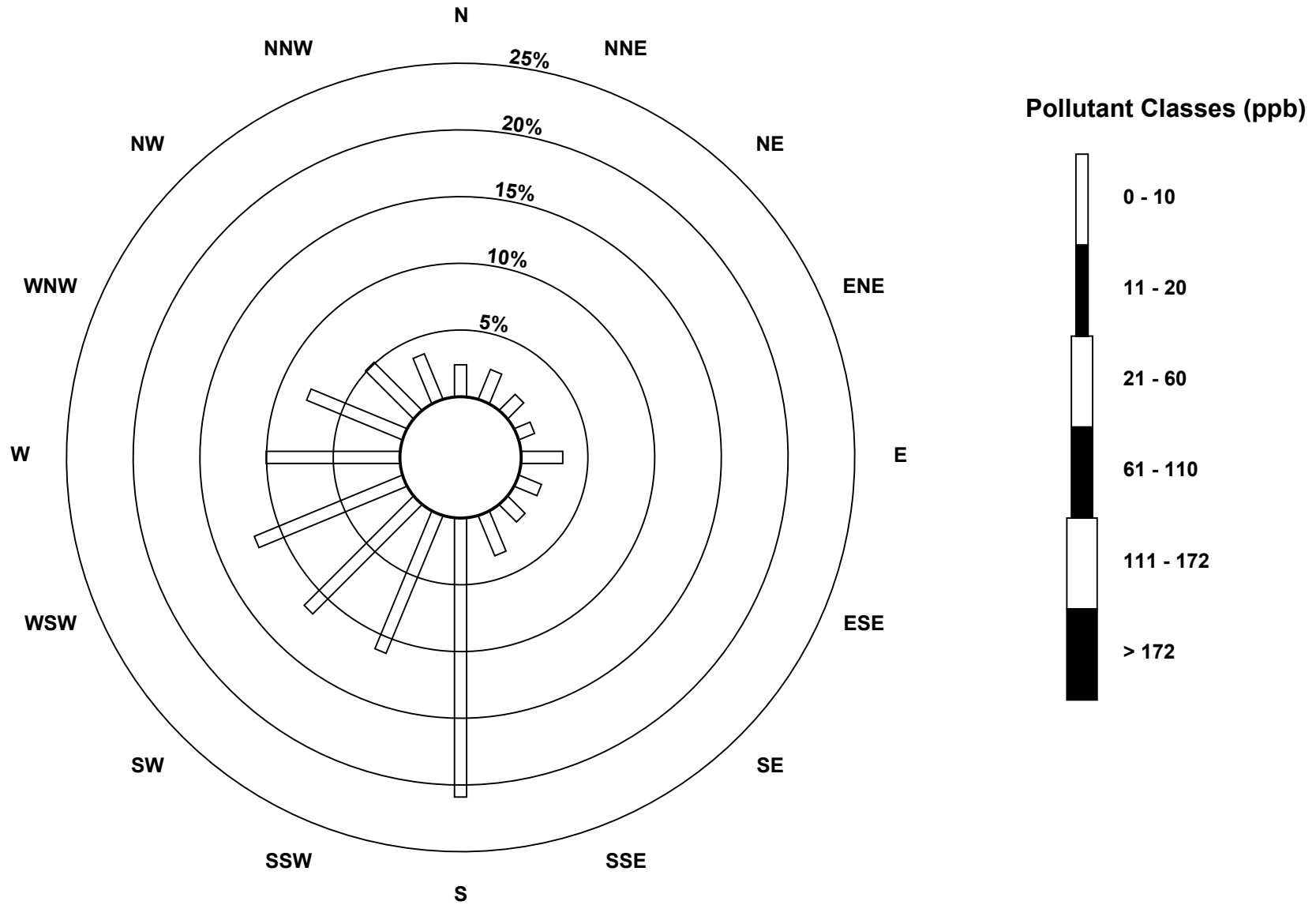
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Donnelly - October 2017



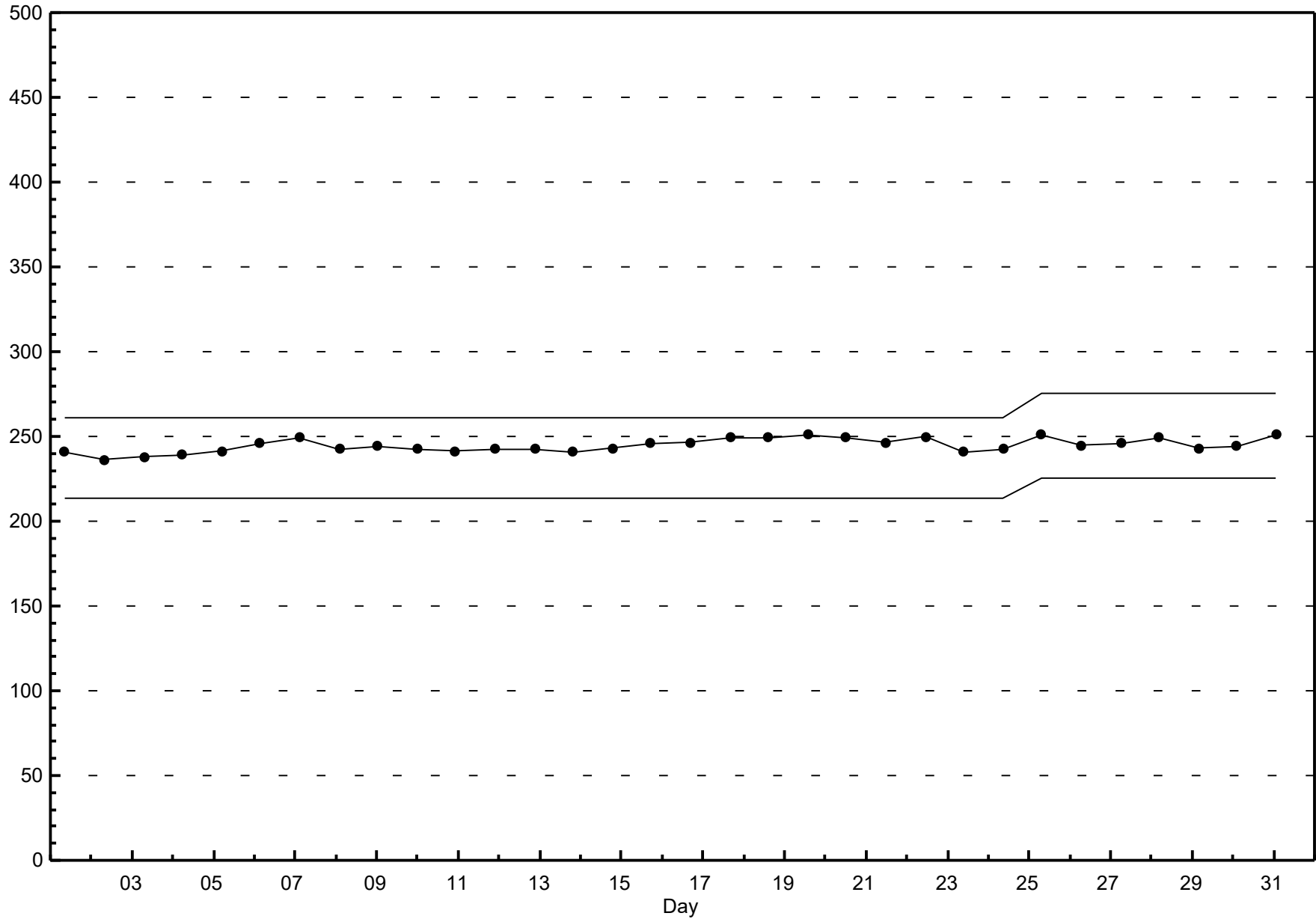
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Donnelly - October 2017



Span Responses

**Sulphur Dioxide (SO₂)
Donnelly - October 2017**



Hourly Averages

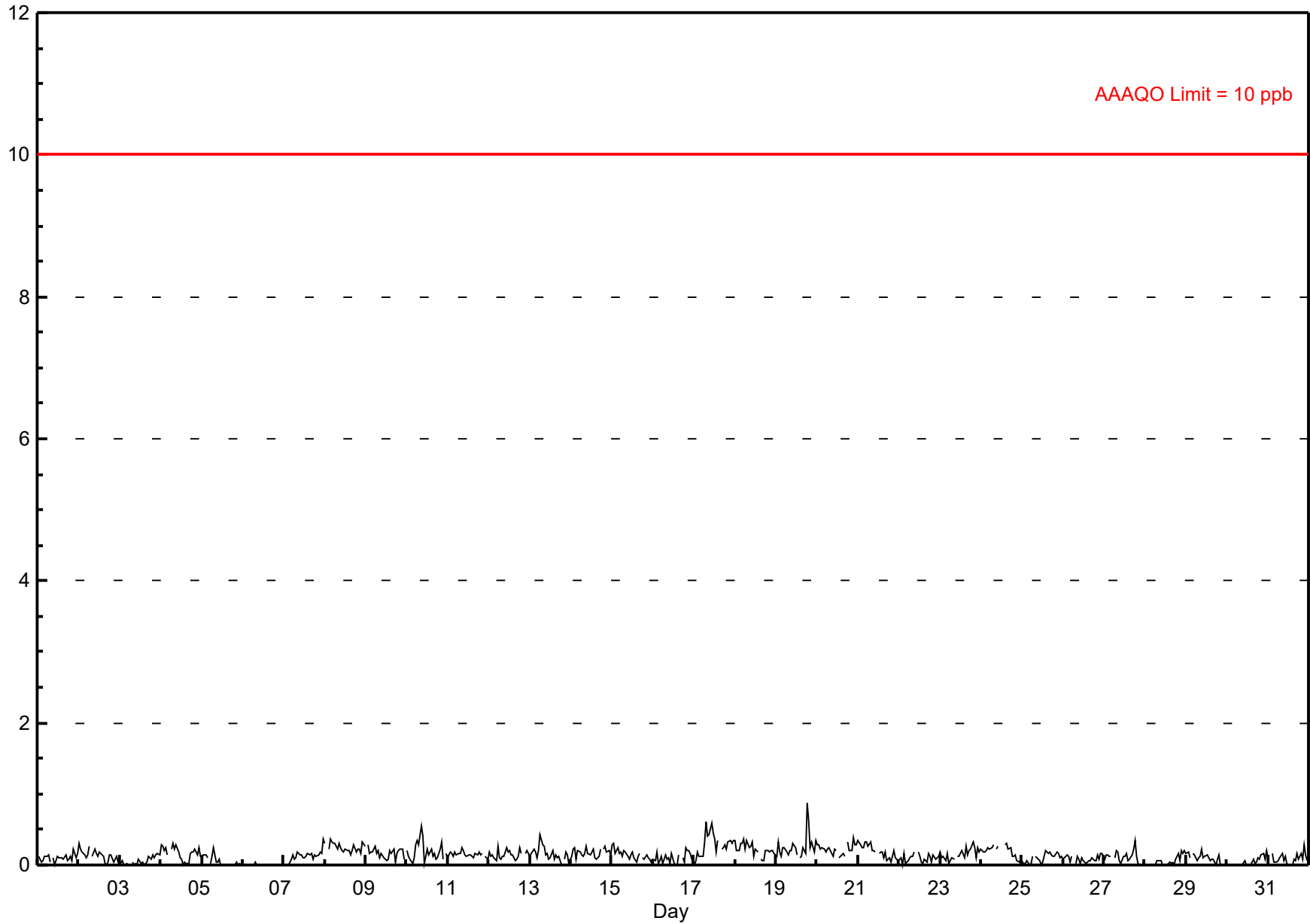
Hydrogen Sulphide (H₂S) - ppb

Donnelly - October 2017

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 0.9 ppb on Oct 19 19:00	Maximum Daily Average: 0.3 ppb on Oct 17		Hours of Data:	708
Minimum Value: 0 ppb on Oct 1 11:00	Minimum Daily Average: 0.0 ppb on Oct 6		Hours of Missing Data:	36
Maximum Diurnal Average: 0.2 ppb at hour 8	Minimum Diurnal Average: 0.1 ppb at hour 16		Hours of Calibration:	35
Monthly Average: 0.14 ppb	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 = 0.4		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	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	0.2
2-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	0.3
3-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	0.1	0.2
4-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
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	0.0	0.2
6-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	0.0
7-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
8-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	0.4
9-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	0.2	0.3
10-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	0.5
11-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	0.3
12-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
13-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
14-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	A	0	0	0	0	0.2	0.3
15-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	0.3
16-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
17-Oct	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.6
18-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	0.2	0.4
19-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0.3	0.9
20-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	P	0	0	0	0	0	0	0.2	0.4
21-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	0.2	0.3
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	0.1	0.2
23-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	0.3
24-Oct	0	0	0	0	0	0	0	0	A	A	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.3
25-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
26-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	0.1	0.2
27-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	0.3
28-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
29-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
30-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	0.2
31-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
	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	Diurnal Average	
	0.3	0.3	0.2	0.4	0.3	0.4	0.4	0.6	0.5	0.4	0.6	0.4	0.4	0.2	0.3	0.3	0.2	0.3	0.9	0.6	0.3	0.4	0.3	0.4	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 Maximums

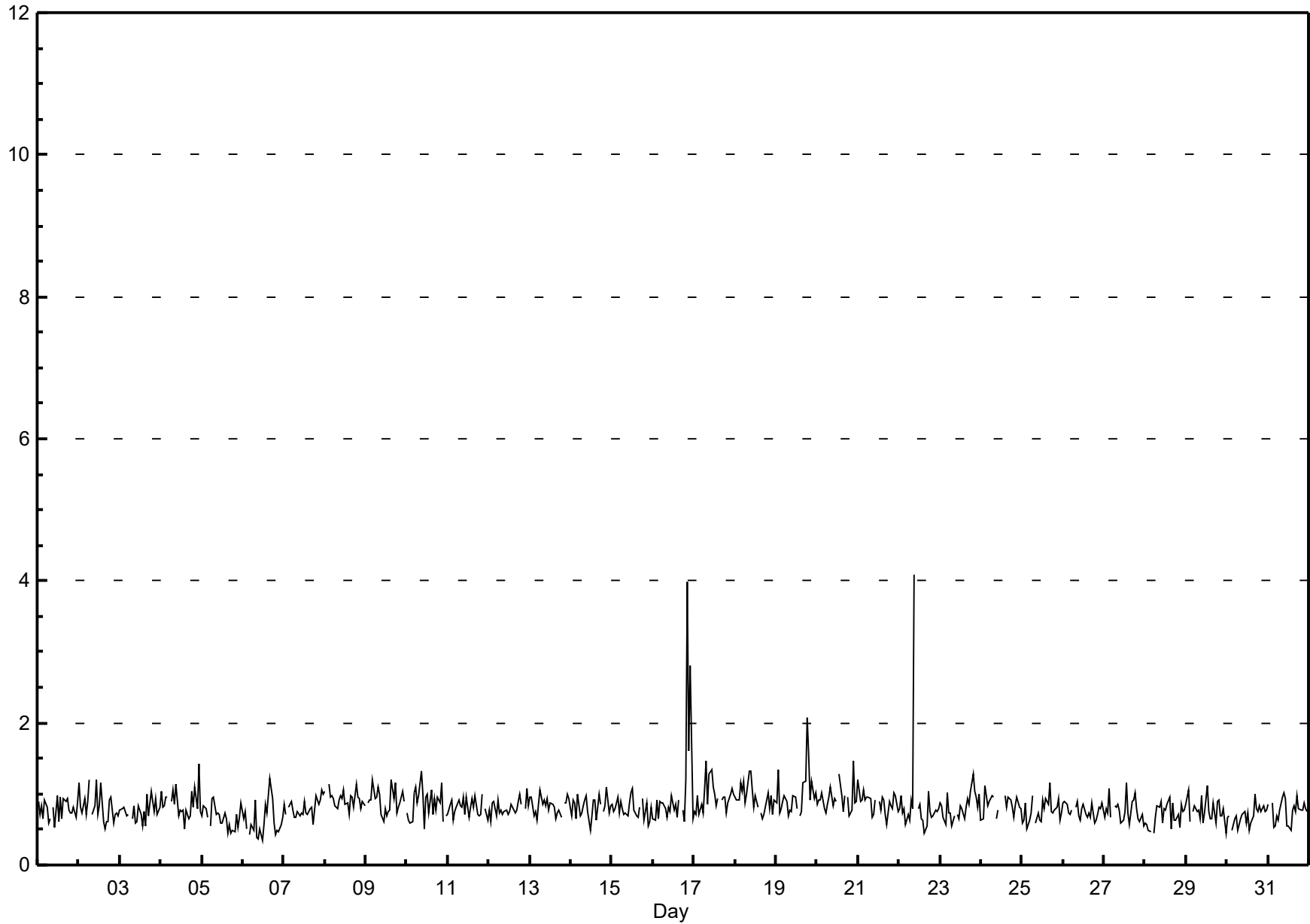
Hydrogen Sulphide (H₂S) - ppb

Donnelly - October 2017

Maximum Value: 4.1 ppb on Oct 22 10:00		Maximum Daily Average: 1.1 ppb on Oct 16		Hours in Service: 744																																													
Minimum Value: 0 ppb on Oct 6 12:00		Minimum Daily Average: 0.6 ppb on Oct 6		Hours of Data: 708																																													
Maximum Diurnal Average: 0.9 ppb at hour 10		Minimum Diurnal Average: 0.7 ppb at hour 16		Hours of Missing Data: 36																																													
Monthly Average: 0.83 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.8 Q ₃ = 0.9 P ₉₀ = 1.0 P ₉₉ = 1.4		Hours of Calibration: 35																																													
				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	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0																							
2-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2																							
3-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0																							
4-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	1.4																							
5-Oct	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	1	1	0.7	1.0																							
6-Oct	1	1	1	A	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	0	0	0	1	1	0.6	1.2																							
7-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	0.8	1.1																							
8-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	0.9	1.1																							
9-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2																							
10-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	1.3																							
11-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	1.0																							
12-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.1																							
13-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	1.1																							
14-Oct	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.1																							
15-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	1.1																							
16-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	4	2	3	1	1.1	4.0																							
17-Oct	1	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	1.5																							
18-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3																							
19-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	2	1	1	1	1	1.0	2.1																							
20-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	P	1	1	1	1	1	1	0.9	1.5																							
21-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2																							
22-Oct	1	1	1	1	1	1	1	1	1	4	A	1	1	1	1	0	1	1	1	1	1	1	1	1	0.9	4.1																							
23-Oct	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3																							
24-Oct	1	1	1	1	1	1	1	1	A	1	1	C	C	C	1	1	1	1	1	1	1	1	1	1	0.9	1.1																							
25-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2																							
26-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9																							
27-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	0.8	1.2																							
28-Oct	1	1	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0																							
29-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.8	1.1																							
30-Oct	1	1	A	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0																							
31-Oct	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0																							
																								0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.9	0.8	0.9	0.8	0.9	0.9	0.9	0.8	Diurnal Average	
																								1.2	1.3	1.1	1.2	1.2	1.2	1.2	1.5	1.3	4.1	1.3	1.1	1.1	1.3	1.1	1.2	1.2	1.2	2.1	1.6	4.0	1.6	2.8	1.0	Diurnal Maximum	
C - Calibration																								P - Power Failure				A - Automated Daily Zero Span																					

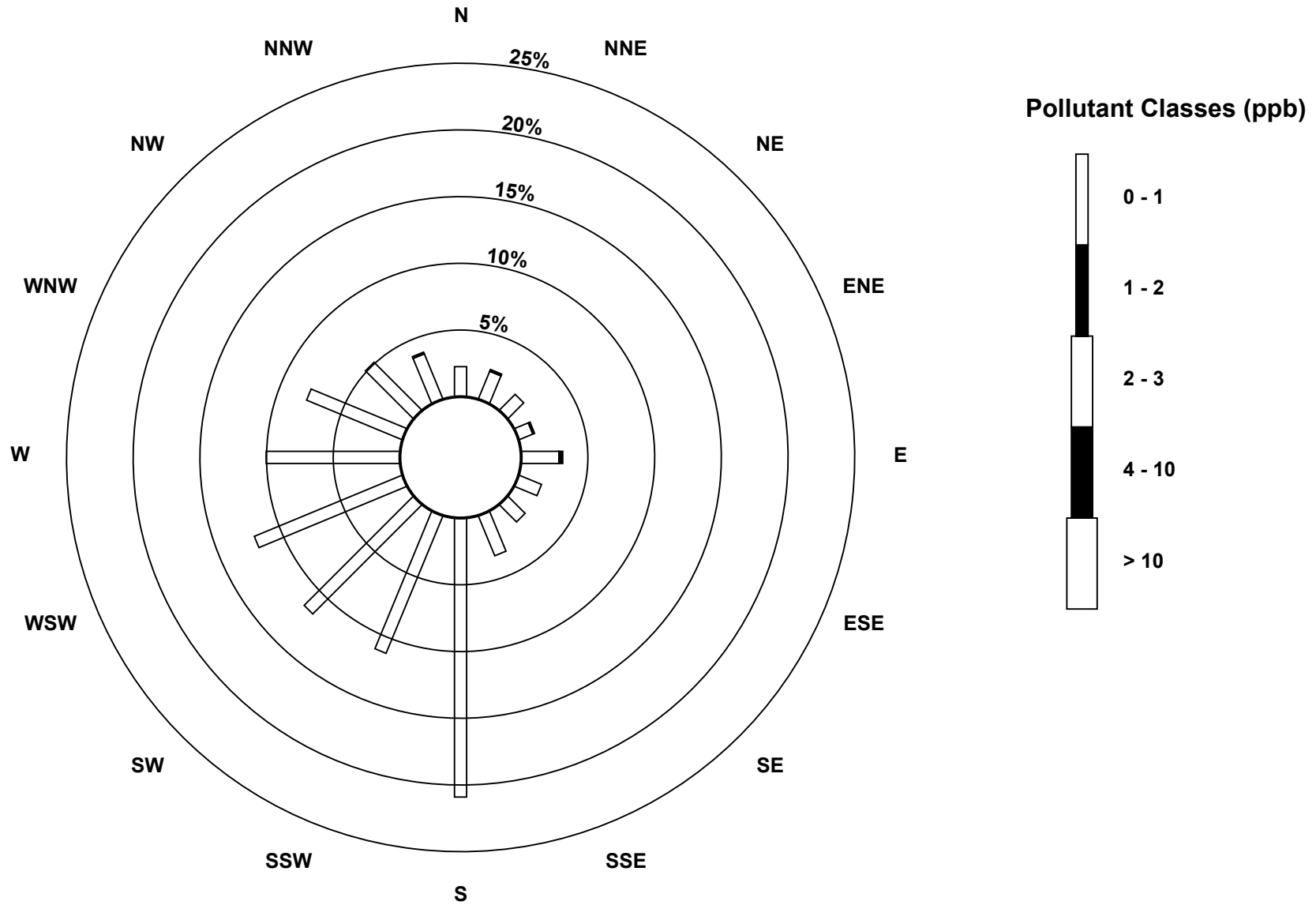
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Donnelly - October 2017



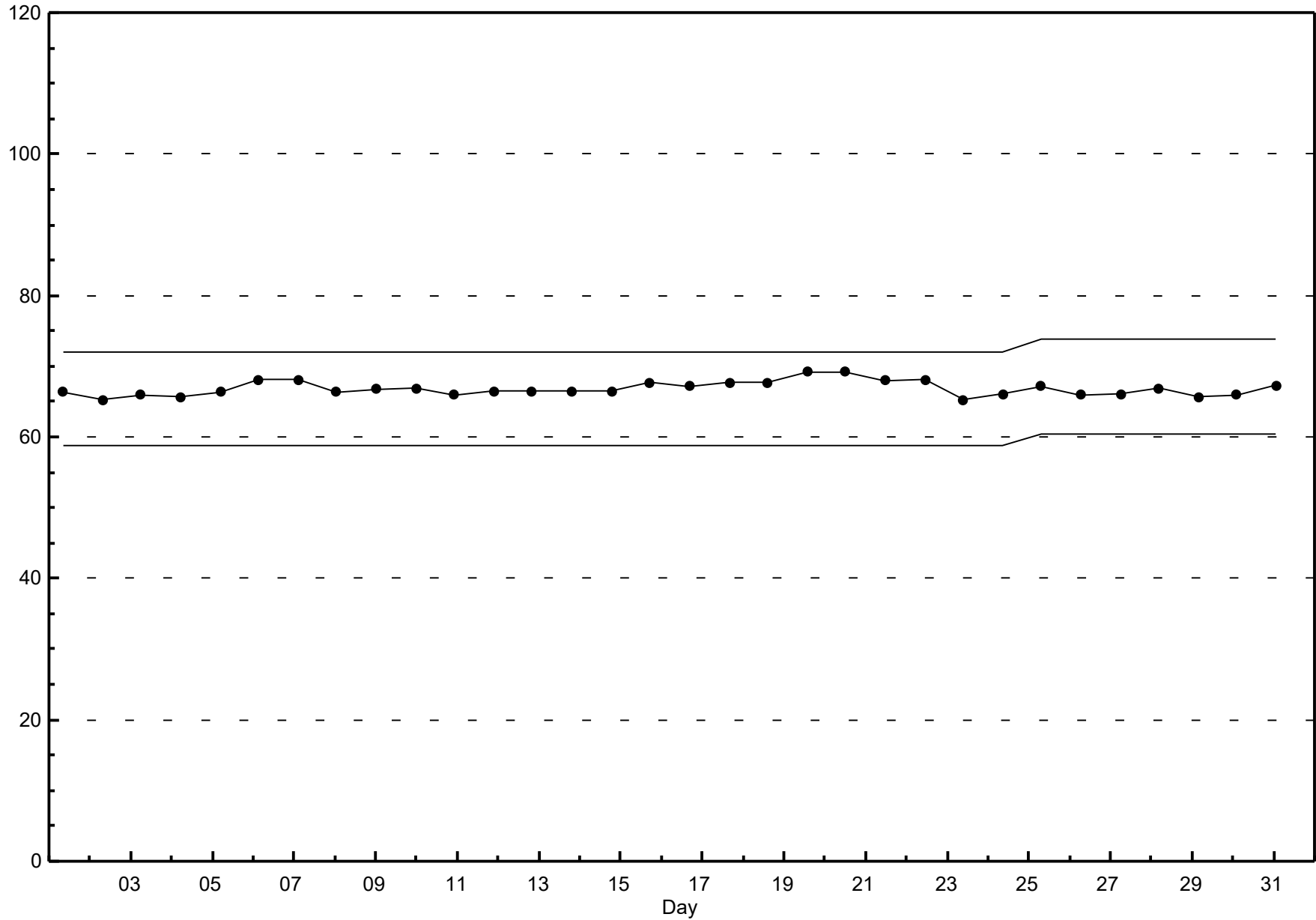
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Donnelly - October 2017



Span Responses

Hydrogen Sulphide (H₂S)
Donnelly - October 2017



Hourly Averages

External Temperature (ET) - °C

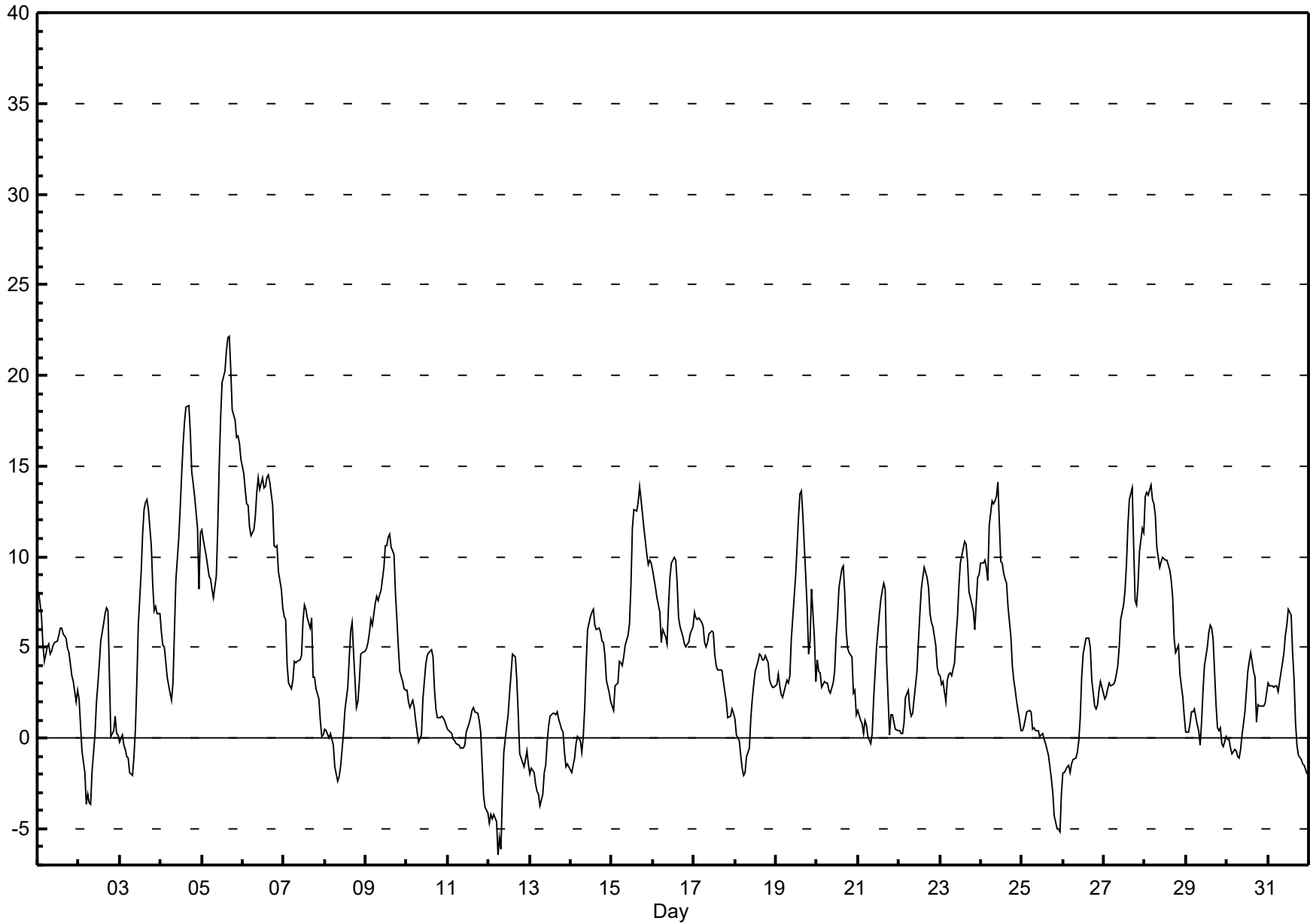
Donnelly - October 2017

Maximum Value: 22.2 °C on Oct 5 17:00 Maximum Daily Average: 14.8 °C 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: -6 °C on Oct 12 06:00 Minimum Daily Average: -1.2 °C on Oct 12 Maximum Diurnal Average: 8.1 °C at hour 15 Minimum Diurnal Average: 2.4 °C at hour 8 Monthly Average: 4.53 °C Percentiles: P ₁ = -4.6 P ₁₀ = -1.0 Q ₁ = 0.9 Median = 3.7 Q ₃ = 7.3 P ₉₀ = 11.5 P ₉₉ = 17.2																										
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	8	7	7	5	4	5	5	5	5	5	5	5	6	6	6	6	5	5	5	4	3	3	2	3	5.0	8.1
2-Oct	2	1	-1	-2	-4	-3	-4	-4	-2	0	2	3	4	5	6	7	7	7	4	0	0	1	0	0	1.3	7.2
3-Oct	0	0	0	-1	-1	-1	-2	-2	-1	0	3	6	9	11	13	13	13	13	11	8	7	7	7	7	5.0	13.2
4-Oct	6	5	5	4	3	2	2	3	6	9	11	13	15	16	17	18	18	17	15	14	13	12	8	11	10.2	18.4
5-Oct	11	11	10	10	9	9	8	8	9	12	15	18	20	20	21	22	22	20	18	18	17	17	16	15	14.8	22.2
6-Oct	15	14	13	13	12	11	11	12	14	14	14	14	14	14	15	14	13	11	11	11	9	8	7	12.3	14.6	
7-Oct	7	7	4	3	3	3	4	4	4	4	5	6	7	7	7	6	7	3	3	3	2	1	0	0	4.2	7.4
8-Oct	1	0	0	0	0	0	-2	-2	-2	-2	-1	0	1	3	4	6	6	5	2	2	3	5	5	5	1.6	6.4
9-Oct	5	5	6	7	6	7	8	8	8	8	9	11	11	11	11	11	10	8	7	5	4	3	3	3	7.2	11.2
10-Oct	3	2	2	2	2	1	0	0	0	2	3	4	5	5	5	5	3	2	1	1	1	1	1	1	2.1	4.9
11-Oct	1	0	0	0	0	0	0	-1	-1	-1	0	0	1	1	1	2	1	1	1	0	-1	-3	-4	-4	-0.2	1.7
12-Oct	-5	-4	-4	-4	-5	-6	-6	-6	-3	-1	1	1	2	4	5	4	3	1	-1	-1	-2	-1	-1	-1	-1.2	4.6
13-Oct	-2	-2	-2	-3	-3	-3	-4	-3	-2	-1	0	1	1	1	1	1	1	1	0	-1	-2	-1	-2	-2	-0.9	1.4
14-Oct	-2	-1	-1	0	0	0	-1	0	2	4	6	7	7	7	6	6	6	6	5	5	5	3	2	2	3.1	7.1
15-Oct	2	2	3	3	4	4	4	4	5	6	6	8	12	13	13	13	14	13	12	12	10	10	10	10	8.0	13.8
16-Oct	9	8	8	7	7	5	6	6	5	7	9	10	10	10	9	7	6	6	5	5	5	5	6	6	6.9	9.9
17-Oct	7	7	7	7	6	6	5	5	5	6	6	6	5	4	4	4	4	3	3	2	1	1	2	1	4.4	6.9
18-Oct	1	0	0	-1	-2	-2	-2	-1	-1	1	2	3	4	4	5	5	4	4	5	4	3	3	3	3	1.9	4.6
19-Oct	3	4	3	2	2	3	3	3	3	5	7	9	11	12	13	14	12	9	7	5	5	8	5	3	6.4	13.7
20-Oct	4	4	4	3	3	3	3	3	2	3	4	5	7	8	9	10	8	6	5	5	4	2	3	1	4.5	9.5
21-Oct	2	1	1	0	1	1	0	0	0	2	4	5	7	8	8	9	8	4	0	1	1	1	0	0	2.7	8.5
22-Oct	0	0	0	1	2	3	2	1	1	2	4	5	7	8	9	9	9	8	7	6	6	5	4	3	4.3	9.4
23-Oct	3	3	3	2	3	3	4	3	4	6	7	8	10	10	11	11	10	8	8	7	6	7	9	9	6.5	10.8
24-Oct	10	10	10	9	9	12	13	13	13	13	14	10	10	9	9	9	7	6	4	3	3	2	1	0	8.2	14.1
25-Oct	0	1	1	1	2	1	1	1	0	0	0	0	0	0	-1	-2	-2	-3	-4	-5	-5	-5	-3	-0.9	1.5	
26-Oct	-2	-2	-2	-1	-2	-1	-1	-1	-1	0	1	3	5	6	5	6	5	3	2	2	2	3	3	3	1.4	5.5
27-Oct	2	2	3	3	3	3	3	4	4	5	7	7	8	10	12	13	14	11	8	7	8	10	12	11	7.0	13.8
28-Oct	13	14	13	14	13	13	12	11	9	10	10	10	10	10	9	9	8	5	5	5	4	3	2	1	8.9	13.9
29-Oct	0	0	1	1	1	2	1	0	0	1	3	4	5	6	6	6	5	2	1	0	1	0	0	0	1.9	6.2
30-Oct	0	0	-1	-1	-1	-1	-1	-1	-1	0	1	3	4	4	5	4	3	1	2	2	2	2	2	3	1.3	4.7
31-Oct	3	3	3	3	3	3	3	3	4	5	6	6	7	7	5	3	1	0	-1	-1	-1	-2	-2	-2	2.4	7.1
																		3.5 3.2 3.0 2.8 2.7 2.6 2.5 2.4 3.0 4.1 5.2 6.2 7.1 7.7 8.1 8.0 7.6 6.1 4.8 4.2 3.8 3.6 3.2 3.1				Diurnal Average				
																		14.6 13.7 13.4 13.9 13.2 12.9 13.1 12.9 13.6 14.3 15.0 17.7 19.6 20.2 21.3 22.1 22.2 20.3 18.1 17.6 16.6 16.6 16.3 15.4				Diurnal Maximum				

Hourly Averages

External Temperature (ET) - °C

Donnelly - October 2017



Hourly Averages

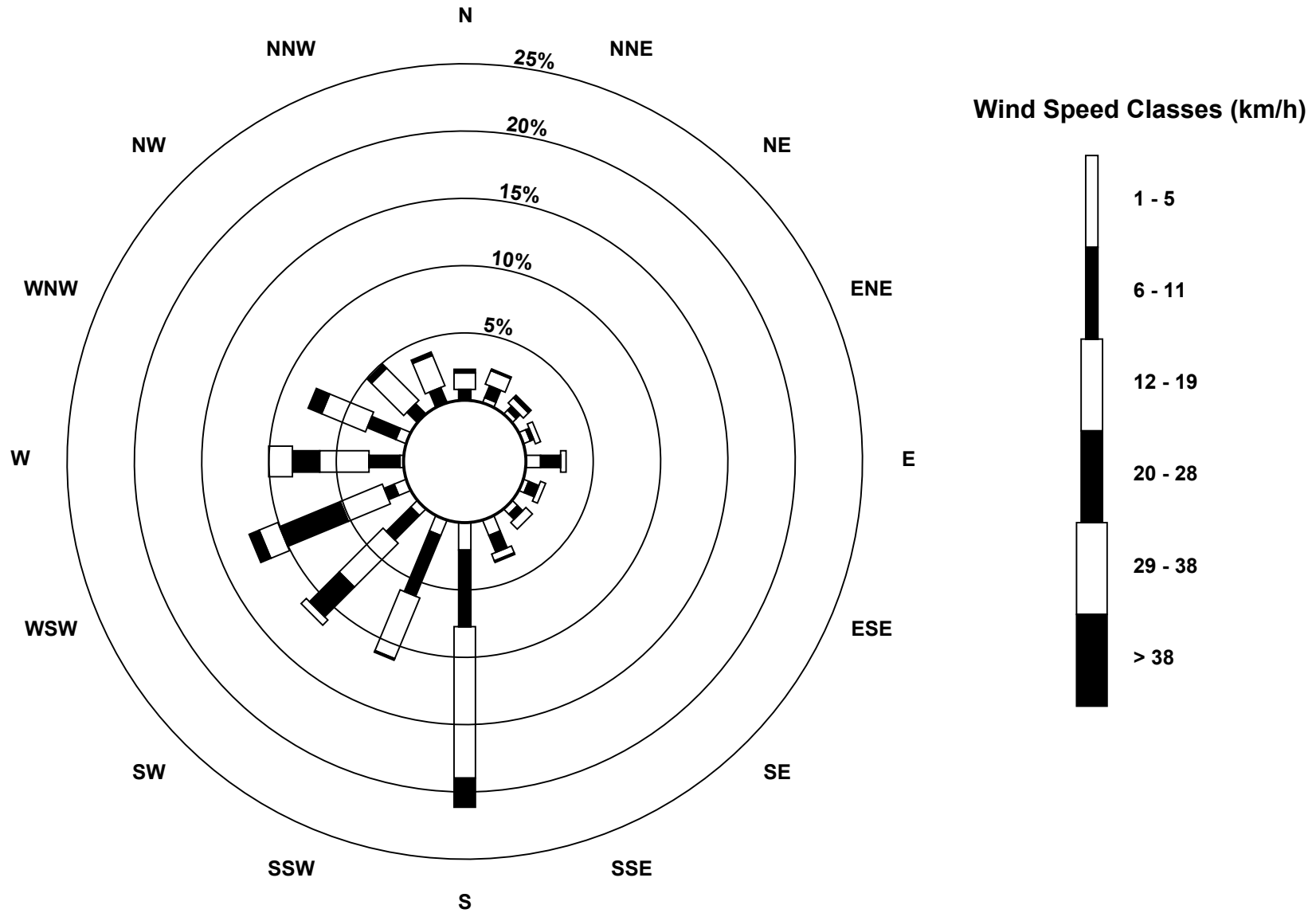
Wind Speed (km/h)
Wind Direction (deg)
Donnelly - October 2017

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	17	16	14	12	16	19	21	20	20	20	21	23	26	24	19	21	21	11	12	11	7	16	20	23	15.6	26.3
Dir	225	226	229	222	237	240	237	235	235	238	242	247	246	246	244	232	225	217	191	185	113	136	168	177	224	246
24 Spd	22	18	16	17	18	33	39	37	36	31	32	16	14	14	9	7	8	9	6	5	5	8	11	12	8.0	39.4
Dir	176	175	180	190	199	233	242	243	246	249	270	349	341	327	340	338	337	12	42	73	95	68	65	67	245	242
25 Spd	13	13	11	12	10	14	14	20	19	19	18	17	14	16	15	15	15	12	10	4	3	7	4	10	8.4	19.7
Dir	70	75	86	89	91	47	22	28	19	9	2	0	350	330	340	330	328	7	37	74	153	178	124	172	23	28
26 Spd	13	14	16	19	21	22	23	24	21	19	18	17	18	22	22	18	10	7	7	3	3	5	9	11	12.0	23.6
Dir	172	170	174	171	170	175	180	179	186	188	182	203	235	266	271	269	258	221	240	185	163	140	171	177	198	179
27 Spd	13	11	12	12	13	14	13	10	16	15	13	16	14	13	11	8	2	2	4	3	11	18	19	19	10.9	19.3
Dir	181	189	191	199	191	186	179	179	186	182	181	181	186	196	209	244	217	52	142	134	204	234	227	223	197	227
28 Spd	28	27	23	24	19	19	15	9	8	12	14	18	18	20	20	18	15	14	14	16	14	15	13	9	14.6	28.3
Dir	240	234	234	236	246	249	270	321	289	289	302	304	300	301	294	295	288	282	293	320	308	289	292	280	276	240
29 Spd	14	12	14	17	16	16	11	11	11	13	15	16	17	16	16	11	9	9	5	8	11	13	11	13	9.6	17.4
Dir	272	279	277	283	282	276	273	276	269	269	284	299	307	325	321	310	278	261	227	199	191	179	177	174	273	307
30 Spd	14	14	15	15	17	19	18	15	12	12	14	14	17	12	11	10	5	2	7	5	5	7	11	10	9.0	18.7
Dir	175	178	174	176	177	183	183	190	193	201	225	246	288	295	280	267	238	238	227	247	239	189	174	174	206	183
31 Spd	7	9	16	14	14	13	15	14	17	16	19	24	23	27	16	21	23	20	16	16	15	14	13	11	8.8	26.7
Dir	149	142	174	179	179	187	207	250	276	279	289	294	299	291	332	351	349	346	340	336	334	337	337	333	301	291
Spd	9.5	9.1	9.3	9.6	9.2	9.5	9.2	8.1	8.8	9.2	9.2	9.6	11.8	13.1	12.1	11.3	9.9	6.6	4.6	4.6	5.1	6.0	7.3	8.5	Diurnal Average	
Dir	210	209	211	213	210	215	221	224	231	236	248	256	267	270	268	267	270	275	251	238	227	214	207	206	Diurnal Maximum	
Spd	35.9	32.1	33.3	32.6	30.4	32.9	39.4	37.4	35.9	43.4	41.8	43.7	39.0	34.4	34.2	30.4	37.2	40.3	26.9	28.9	30.4	27.5	26.0	33.2	Diurnal Maximum	
Dir	245	264	264	269	274	233	242	243	246	247	251	247	255	239	246	271	246	250	266	235	247	234	243	235	Diurnal Maximum	
Maximum Speed Value: 44 km/h on Oct 6 12:00																		Minimum Speed Value: 0 km/h on Oct 11 22:00						Hours in Service: 744		
Maximum Daily Speed Average: 25.6 km/h on Oct 6																		Minimum Daily Speed Average: 4.6 km/h on Oct 12						Hours of Data: 744		
Maximum Diurnal Speed Average: 13.1 km/h at hour 14																		Minimum Diurnal Speed Average: 4.6 km/h at hour 20						Hours of Missing Data: 0		
Monthly Average Velocity: 7.98 km/h 236.7 deg																		Speed Percentiles: P ₁ = 1.6 P ₁₀ = 5.0 Q ₁ = 9.1 Median = 13.3 Q ₃ = 18.1 P ₉₀ = 23.2 P ₉₉ = 35.9						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	1	15	18	3	0	0	37																			
NorthEast	6	4	9	4	0	0	23																			
East	12	14	8	0	0	0	34																			
SouthEast	13	8	7	0	0	0	28																			
South	21	73	107	19	0	0	220																			
SouthWest	14	37	64	57	14	3	189																			
West	5	26	54	25	16	3	129																			
NorthWest	2	18	51	13	0	0	84																			
Total	74	195	318	121	30	6	744																			

Wind Rose

Wind Speed (WS) (km/h)

Donnelly - October 2017



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Donnelly - October 2017

Maximum Speed: 44 km/h on Oct 6 12:00	Maximum Daily Speed Average: 26.3 km/h on Oct 6	Hours in Service: 744
Minimum Speed: 1 km/h on Oct 11 22:00	Minimum Daily Speed Average: 5.2 km/h on Oct 12	Hours of Data: 744
Maximum Diurnal Speed Average: 18.1 km/h at hour 14	Minimum Diurnal Speed Average: 10.6 km/h at hour 19	Hours of Missing Data: 0
Monthly Average Speed: 14.26 km/h	Percentiles: P ₁ = 2.0 P ₁₀ = 5.3 Q ₁ = 9.2 Median = 13.4 Q ₃ = 18.2 P ₉₀ = 23.3 P ₉₉ = 35.7	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	16	13	13	11	10	11	13	14	17	20	20	22	23	19	20	19	21	18	19	19	18	15	13	17	16.7	22.6
2-Oct	16	11	10	9	9	12	10	10	9	12	13	16	15	17	17	16	13	7	3	3	5	8	11	10	11.0	17.2
3-Oct	12	14	13	13	13	14	12	14	20	19	17	19	17	16	14	16	13	7	5	7	6	9	7	7	12.6	19.8
4-Oct	6	5	4	3	4	4	4	4	6	7	6	9	10	8	10	13	10	9	9	10	10	6	5	8	7.1	12.8
5-Oct	14	16	15	15	13	13	9	10	14	14	16	15	19	20	20	21	22	18	19	22	22	23	24	25	17.6	24.6
6-Oct	18	16	17	22	16	14	15	18	31	44	42	44	39	35	34	31	28	26	15	18	30	28	26	24	26.3	44.0
7-Oct	26	32	33	33	30	20	24	20	20	19	13	23	27	30	27	30	28	19	15	16	15	13	7	9	22.1	33.4
8-Oct	14	13	10	10	7	14	13	14	17	15	15	13	12	10	10	11	9	3	4	7	13	15	16	17	11.7	17.2
9-Oct	17	18	18	23	18	23	24	23	26	25	27	30	33	34	32	25	18	12	10	10	11	15	13	13	20.7	34.3
10-Oct	12	9	8	5	2	2	3	3	5	10	15	14	14	16	15	19	22	21	17	16	13	12	13	12	11.5	22.0
11-Oct	10	10	9	8	8	8	9	10	9	11	11	12	11	12	11	10	8	10	8	7	4	1	1	1	8.3	11.7
12-Oct	3	4	5	5	6	4	6	5	5	2	4	9	5	5	3	6	8	4	4	7	3	6	9	8	5.2	9.1
13-Oct	7	8	7	7	7	4	3	5	5	7	7	9	12	13	15	17	14	11	8	10	12	17	19	21	10.2	20.6
14-Oct	21	21	19	17	16	17	17	15	16	21	24	26	22	22	25	20	15	13	10	13	10	8	12	13	17.2	26.2
15-Oct	13	13	14	15	15	19	20	22	19	18	18	20	24	31	26	23	37	40	27	29	27	25	24	33	23.0	40.5
16-Oct	36	31	24	25	23	17	19	17	15	16	17	20	18	19	16	9	5	2	3	4	3	3	10	20	15.4	36.0
17-Oct	20	11	6	7	7	4	2	2	2	4	5	10	17	20	22	30	30	25	27	23	21	18	22	21	14.9	29.9
18-Oct	21	12	11	9	9	11	10	8	7	8	8	13	10	12	12	13	11	11	16	13	12	8	7	3	10.6	20.9
19-Oct	9	17	16	15	16	15	14	15	11	17	15	12	14	17	15	14	5	3	3	5	8	10	8	4	11.6	17.4
20-Oct	6	10	8	10	8	7	7	8	10	12	11	8	13	13	13	8	6	7	10	10	12	5	9	14	9.4	13.9
21-Oct	13	12	15	13	15	13	14	16	12	11	9	10	12	12	17	13	7	4	4	7	9	11	11	12	11.4	17.5
22-Oct	11	10	10	10	12	13	13	7	6	5	9	10	13	15	20	23	21	20	12	15	17	17	16	17	13.4	22.9
23-Oct	17	16	14	12	16	19	21	20	20	20	21	23	26	24	19	21	22	11	12	13	7	16	21	23	18.1	26.5
24-Oct	22	18	16	17	18	33	39	37	36	31	33	16	14	14	9	8	10	9	6	5	5	8	11	12	17.8	39.4
25-Oct	13	13	11	12	11	15	14	20	19	19	19	17	14	16	15	15	16	13	10	4	4	8	4	10	12.9	19.8
26-Oct	13	14	16	19	21	22	23	24	21	19	18	17	18	23	22	18	10	7	7	3	4	5	9	11	15.1	23.7
27-Oct	13	11	12	13	13	14	13	11	16	15	13	16	14	13	11	8	3	3	4	4	11	19	19	19	12.0	19.4
28-Oct	28	27	23	24	19	19	16	10	8	12	14	18	18	20	20	18	15	14	14	16	14	15	13	9	16.8	28.3
29-Oct	14	12	15	17	16	16	11	11	11	13	15	16	18	17	16	11	9	9	5	8	11	13	11	13	12.9	17.6
30-Oct	14	14	15	15	17	19	18	15	12	12	14	14	18	12	11	10	6	2	7	5	5	8	11	10	11.8	18.7
31-Oct	7	9	16	14	14	13	15	15	17	16	19	24	23	27	18	21	23	20	16	16	15	14	13	11	16.5	26.9
	14.8	14.2	13.6	13.8	13.2	13.9	14.0	13.6	14.3	15.3	15.8	17.0	17.5	18.1	17.4	16.7	14.9	12.2	10.6	11.2	11.6	12.2	12.8	13.7	Diurnal Average	
	36.0	32.3	33.4	32.7	30.4	33.3	39.4	37.5	35.9	43.6	42.2	44.0	39.4	34.6	34.5	30.7	37.4	40.5	26.9	29.0	30.4	27.6	26.0	33.4	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Donnelly - October 2017

Maximum Value: 95.0 deg on Oct 12 15:00																		Hours in Service: 744							
Minimum Value: 1.6 deg on Oct 14 07:00																		Hours of Data: 744							
Percentiles: P ₁ = 2.1 P ₁₀ = 3.4 Q ₁ = 4.6 Median = 7.0 Q ₃ = 10.9 P ₉₀ = 18.7 P ₉₉ = 67.6																		Hours of Missing Data: 0							
																		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	6	7	4	4	6	7	12	5	8	7	9	11	10	10	12	10	10	7	5	6	7	8	4	10	12.1
2-Oct	8	8	6	7	3	5	4	5	7	9	15	15	17	13	12	14	11	21	85	9	5	5	3	2	85.5
3-Oct	3	3	4	3	4	4	6	5	4	5	6	7	10	9	12	20	10	9	22	7	6	8	9	13	22.3
4-Oct	12	8	9	17	18	5	9	7	6	10	18	11	12	16	16	11	10	6	5	5	4	25	26	6	25.9
5-Oct	2	3	3	2	3	3	6	7	5	6	8	14	13	12	11	11	8	8	3	5	3	2	3	3	13.8
6-Oct	4	6	7	5	12	9	5	4	11	4	8	6	8	5	7	9	6	4	7	5	3	5	4	4	11.8
7-Oct	5	7	4	4	4	7	4	5	3	5	7	5	5	7	4	4	4	17	12	12	12	6	8	12	17.1
8-Oct	6	7	15	17	18	6	5	8	5	6	11	15	15	23	19	17	12	79	13	6	8	13	3	3	78.8
9-Oct	3	5	7	7	7	8	4	4	3	4	9	9	7	6	8	5	7	12	14	9	12	4	7	4	14.3
10-Oct	5	5	8	16	58	23	25	12	8	13	9	19	12	10	16	9	4	5	9	5	7	6	5	5	58.2
11-Oct	7	5	6	7	8	7	6	7	9	7	8	10	14	12	14	20	12	7	5	6	32	71	52	66	71.4
12-Oct	9	10	6	5	3	4	3	4	16	37	36	13	39	60	95	31	9	15	7	7	32	24	5	5	95.0
13-Oct	5	2	5	6	16	15	16	11	10	10	13	18	12	11	7	7	8	10	14	4	4	2	2	3	17.7
14-Oct	4	4	4	3	5	2	2	4	4	7	7	8	5	6	6	5	7	8	10	22	9	11	7	4	21.6
15-Oct	3	4	4	3	5	4	2	3	5	6	6	6	18	4	5	4	6	6	4	4	6	4	7	5	18.2
16-Oct	5	4	5	6	14	7	8	12	2	6	6	8	8	8	18	6	47	50	56	15	62	79	13	4	79.1
17-Oct	4	10	10	19	15	30	36	19	27	34	13	15	6	6	8	3	5	5	2	4	3	5	5	5	36.4
18-Oct	3	7	5	18	8	3	8	14	10	6	11	9	9	6	5	5	6	10	6	15	19	8	8	26	26.3
19-Oct	46	3	2	3	5	4	5	4	20	4	6	8	7	5	14	23	19	15	59	42	28	8	36	28	59.2
20-Oct	8	9	7	10	10	4	11	7	7	8	9	10	10	13	11	13	20	12	17	4	11	58	8	4	58.1
21-Oct	3	5	10	7	9	7	3	6	8	9	9	11	28	16	9	15	21	34	5	6	5	4	4	4	33.6
22-Oct	4	4	4	9	13	17	6	9	28	23	10	10	10	12	5	6	6	4	7	4	7	11	4	3	27.5
23-Oct	5	8	5	7	5	2	2	3	2	4	3	6	6	6	7	5	7	13	6	35	8	8	8	2	35.1
24-Oct	2	3	6	4	8	10	3	4	3	4	18	16	10	6	13	23	31	13	10	15	10	7	5	4	31.4
25-Oct	6	7	7	8	7	23	11	5	6	9	5	6	13	8	9	13	14	14	9	12	34	16	21	48	48.0
26-Oct	5	4	3	5	4	3	3	3	3	7	8	9	13	10	5	6	8	7	10	19	17	14	19	5	18.7
27-Oct	3	5	5	5	4	5	5	7	4	3	3	5	4	5	11	7	69	40	25	70	22	12	6	6	69.6
28-Oct	2	4	3	5	4	6	19	22	11	9	8	6	5	5	5	4	5	4	7	7	7	4	5	10	22.2
29-Oct	3	8	4	5	5	3	3	3	3	8	6	9	10	10	10	16	5	8	16	8	7	3	4	3	16.5
30-Oct	3	3	3	3	3	3	2	3	4	6	9	13	10	9	9	10	16	38	9	23	26	13	4	8	37.7
31-Oct	11	8	8	4	4	10	10	15	5	8	4	4	6	5	21	10	6	6	6	4	5	5	6	6	21.2
	46.0	10.4	14.5	19.0	58.2	30.2	36.4	22.2	27.5	37.3	35.6	19.0	39.0	60.0	95.0	31.3	68.5	78.8	85.5	69.6	62.2	79.1	51.6	65.8	

PAZA

Portable – Rycroft Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb Portable Rycroft - October 2017

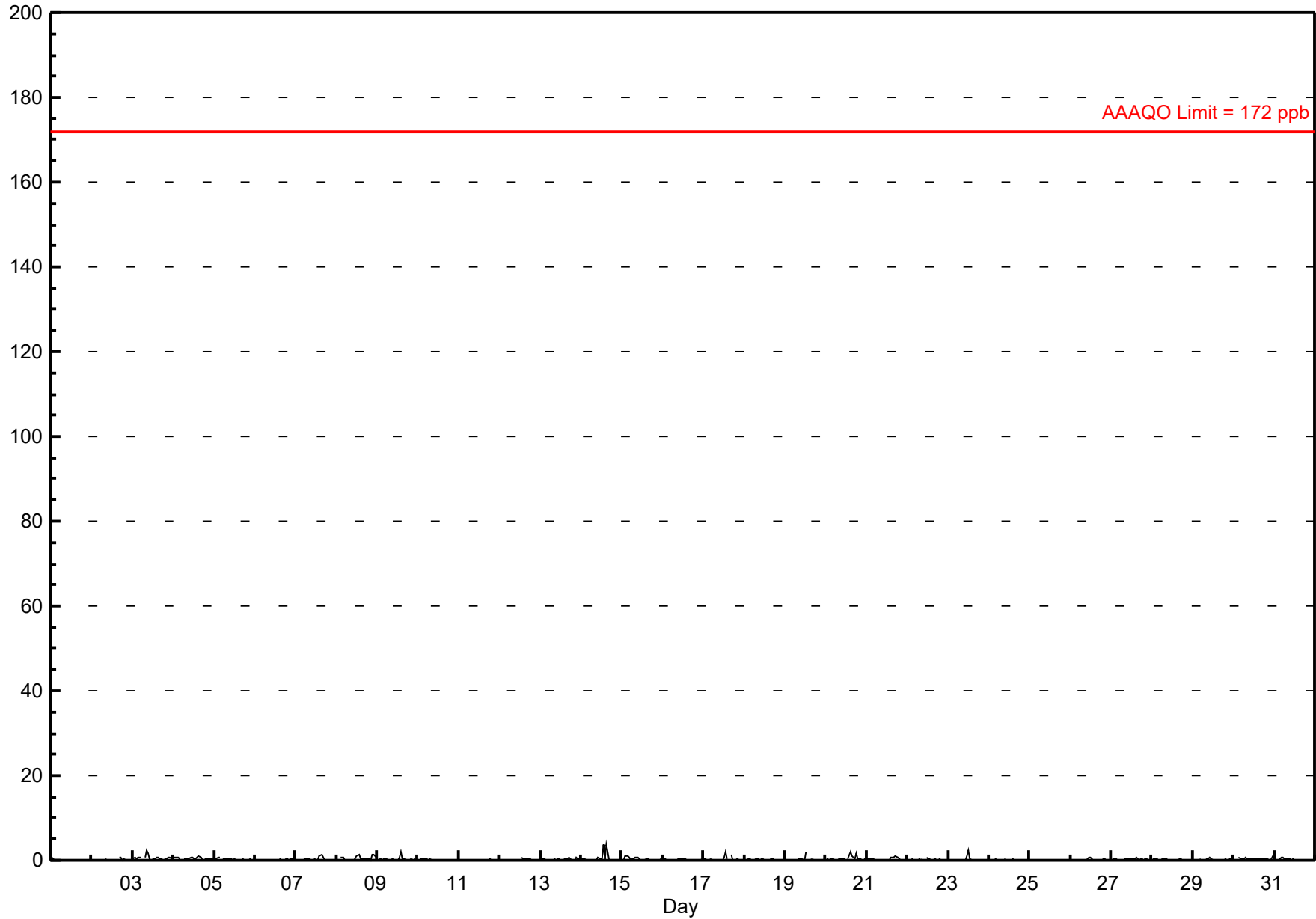
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 3.6 ppb on Oct 14 16:00	Maximum Daily Average: 0.6 ppb on Oct 3		Hours of Data:	706
Minimum Value: 0 ppb on Oct 1 14:00	Minimum Daily Average: 0.0 ppb on Oct 25		Hours of Missing Data:	38
Maximum Diurnal Average: 0.4 ppb at hour 16	Minimum Diurnal Average: 0.1 ppb at hour 7		Hours of Calibration:	35
Monthly Average: 0.22 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 = 1.9		Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	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	0.8
2-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	N	N	N	1	1	0	0	0	0	0	0	0.1	0.8
3-Oct	0	1	0	1	1	1	A	1	2	2	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0.6	2.2
4-Oct	1	1	1	1	0	A	0	0	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0.4	0.8
5-Oct	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
6-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
7-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0.2	1.2
8-Oct	0	A	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1	0.4	1.4
9-Oct	A	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0.3	2.2
10-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
11-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	0.0	0.4
12-Oct	0	0	0	0	0	0	0	0	0	0	C	C	C	1	1	0	0	0	0	0	A	0	0	0	0.1	0.7
13-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	1	0	0	0	0.2	0.6
14-Oct	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0	4	0	0	A	0	0	0	0	0	0.5	3.6
15-Oct	0	0	1	1	1	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	1.1
16-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	0.5
17-Oct	0	0	0	0	0	0	0	0	0	0	0	1	2	0	A	2	0	0	0	0	0	0	0	0	0.3	2.2
18-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	0.2	0.5
19-Oct	0	0	0	0	0	0	0	0	0	0	0	0	2	A	0	0	0	0	0	0	0	0	0	0	0.2	2.0
20-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	2	1	1	0	2	0	0	0	0	0	0	0.4	2.0
21-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0.3	1.0
22-Oct	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
23-Oct	0	0	0	0	0	0	0	0	0	A	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0.2	2.5
24-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	0.1	0.5
25-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	0.0
26-Oct	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
27-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.5
28-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	0.4
29-Oct	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
30-Oct	0	0	A	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	1.0
31-Oct	1	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2		Diurnal Average
	0.8	0.6	1.0	1.1	0.8	0.8	0.4	0.8	2.2	1.6	0.7	1.1	2.5	3.6	2.2	3.6	1.5	1.0	1.7	0.4	0.4	1.4	1.2	1.0		Diurnal Maximum

C - Calibration N - Not Valid 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
Portable Rycroft - October 2017



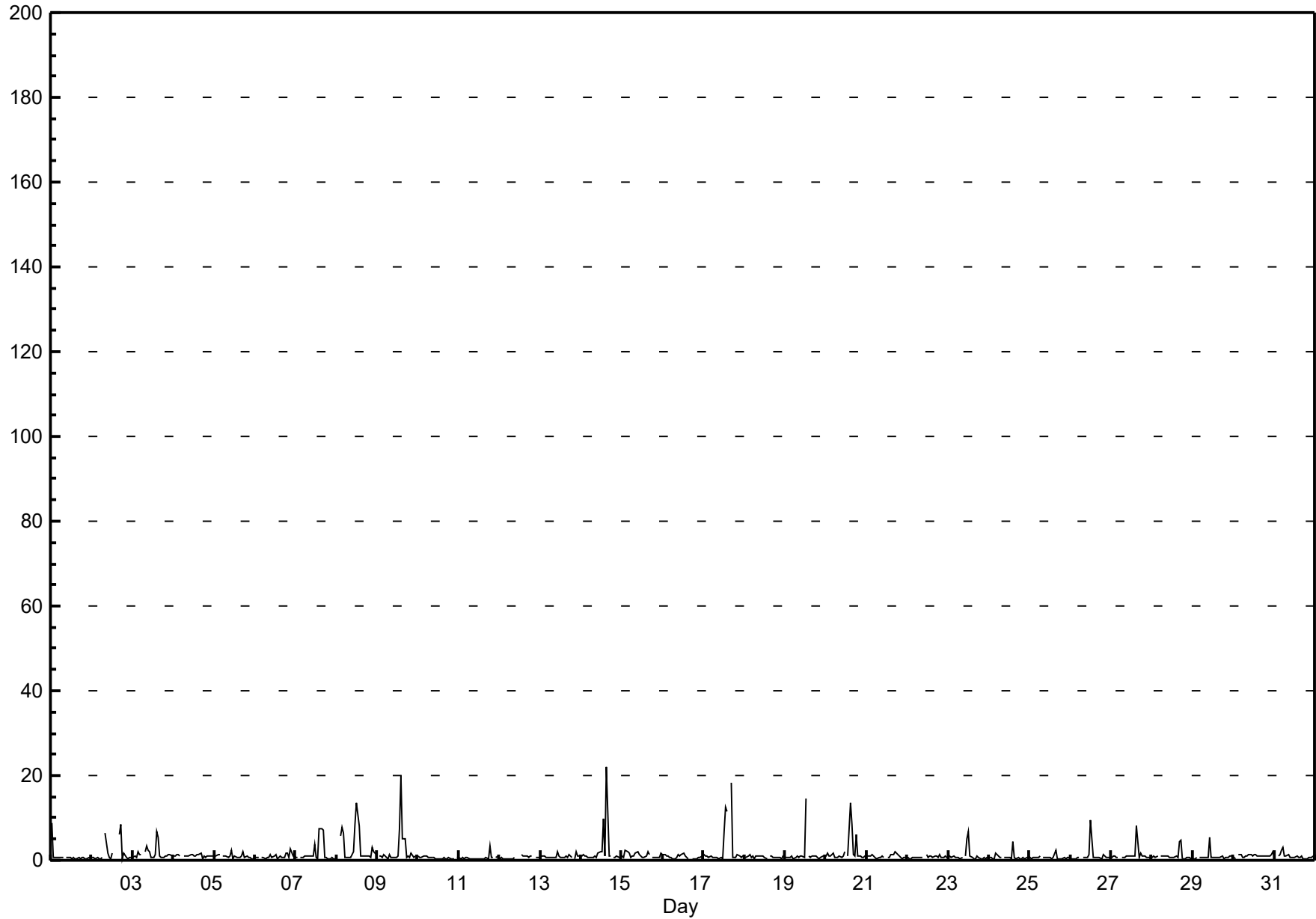
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Portable Rycroft - October 2017

Maximum Value: 22.0 ppb on Oct 14 16:00		Maximum Daily Average: 3.0 ppb on Oct 8		Hours in Service: 744																						
Minimum Value: 0 ppb on Oct 2 05:00		Minimum Daily Average: 0.6 ppb on Oct 11		Hours of Data: 706																						
Maximum Diurnal Average: 2.8 ppb at hour 15		Minimum Diurnal Average: 0.7 ppb at hour 7		Hours of Missing Data: 38																						
Monthly Average: 1.27 ppb		Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.6 Median = 0.8 Q ₃ = 1.0 P ₉₀ = 1.8 P ₉₉ = 12.1		Hours of Calibration: 35																						
				Percent Operational Time: 99.6																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	9	1	1	1	1	1	1	1	A	1	1	1	0	1	0	0	1	0	1	1	0	0	1	1	1.0	8.8
2-Oct	1	1	0	1	0	0	1	A	6	2	1	0	2	N	N	N	6	8	0	2	1	0	1	1	1.7	8.5
3-Oct	1	1	1	2	1	1	A	2	3	2	2	1	1	1	7	5	1	1	1	1	1	1	1	1	1.7	6.9
4-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	0	1	1	1	1	1	1	1.1	1.8
5-Oct	1	1	1	1	A	1	1	1	1	1	2	0	1	1	1	1	1	2	1	1	1	1	0	0	1.0	2.2
6-Oct	1	1	1	A	1	1	0	1	1	1	1	1	0	1	1	1	1	1	2	2	1	3	1	1	0.9	2.8
7-Oct	1	1	A	1	1	1	1	1	1	1	1	4	1	0	7	7	7	1	1	0	0	1	0	0	1.7	7.4
8-Oct	0	A	6	8	6	1	1	1	1	1	2	8	13	8	1	1	1	1	1	1	1	3	2	1	3.0	13.4
9-Oct	A	1	1	1	1	1	0	1	1	1	1	1	1	7	20	5	5	1	1	1	2	1	1	A	2.4	20.0
10-Oct	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	0	0	0	A	1	0.6	1.0
11-Oct	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	4	1	1	A	1	1	0.6	3.6
12-Oct	0	1	0	0	0	0	0	0	0	1	C	C	C	1	1	1	1	1	1	1	A	1	1	1	0.6	1.4
13-Oct	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	0	2	1	1	0.9	2.0
14-Oct	1	1	1	1	1	1	1	1	1	1	2	2	2	10	1	22	1	1	A	1	1	1	1	1	2.3	22.0
15-Oct	1	1	2	2	2	1	1	1	2	2	1	1	1	1	1	2	1	A	1	1	1	1	1	2	1.2	2.4
16-Oct	1	1	1	1	1	1	0	0	1	1	1	1	2	1	1	0	A	0	0	0	0	1	1	1	0.8	1.8
17-Oct	1	1	1	1	1	1	1	1	1	0	1	0	7	13	11	A	18	1	1	1	1	1	1	1	2.8	18.4
18-Oct	1	1	1	1	1	1	0	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	0	1	0.8	1.4
19-Oct	1	1	1	1	1	0	1	1	1	1	1	1	1	15	A	1	1	1	1	1	0	1	1	1	1.3	14.6
20-Oct	1	2	1	1	2	1	1	1	1	1	1	2	A	1	14	8	1	1	6	1	1	1	1	1	2.1	13.6
21-Oct	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	2	1	1	1	0	1	1	0.9	1.9
22-Oct	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5
23-Oct	1	1	1	1	1	1	1	0	1	A	1	5	7	1	1	0	0	1	1	0	0	1	0	1	1.1	6.8
24-Oct	1	1	0	0	2	1	1	1	A	1	1	1	1	0	4	1	1	1	1	0	1	0	1	1	0.9	4.4
25-Oct	1	0	1	1	1	1	1	A	1	1	1	1	1	0	1	2	0	1	0	0	1	0	1	1	0.7	2.5
26-Oct	0	0	0	0	1	1	A	1	1	1	1	1	9	1	1	1	1	1	0	1	1	1	1	1	1.1	9.4
27-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	8	1	2	1	1	1	1	1	1	1.2	8.2
28-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	5	5	0	0	1	1	1	0	1.1	4.8
29-Oct	0	0	1	A	1	1	1	1	1	1	5	1	1	1	1	1	1	1	0	1	1	1	1	1	0.9	5.3
30-Oct	1	0	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.1	1.9
31-Oct	1	A	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1.0	3.0
		1.0	0.8	1.0	1.2	1.1	0.8	0.7	0.8	1.1	0.9	1.2	1.4	2.5	2.0	2.8	2.7	2.1	1.3	1.0	0.8	0.7	0.9	0.8	0.9	Diurnal Average
		8.8	1.8	5.8	7.7	6.3	3.0	1.1	2.1	6.3	2.4	5.3	8.3	14.6	12.6	20.0	22.0	18.4	8.5	6.1	1.8	1.7	3.0	2.0	1.9	Diurnal Maximum
C - Calibration		N - Not Valid					A - Automated Daily Zero Span																			

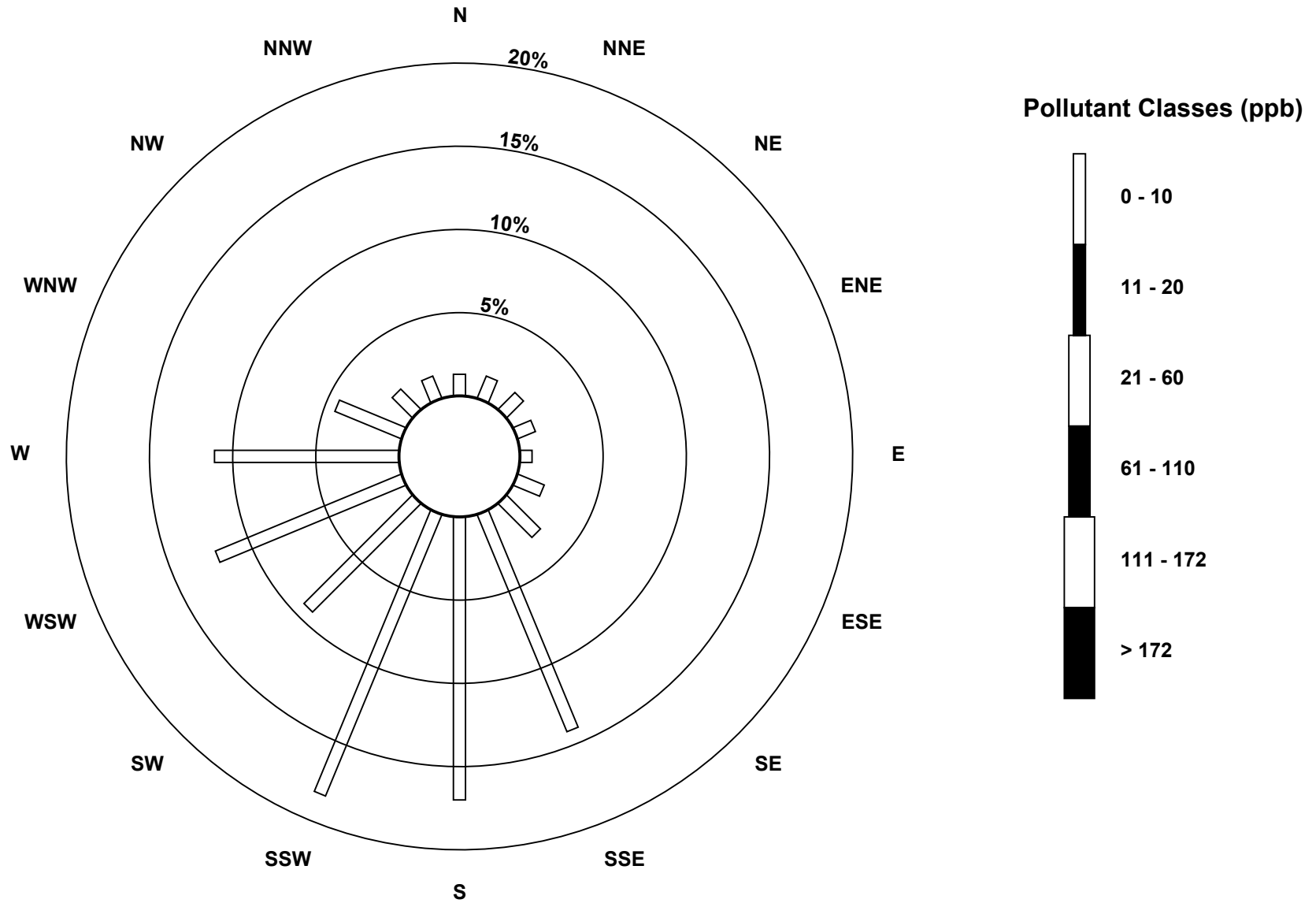
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Portable Rycroft - October 2017



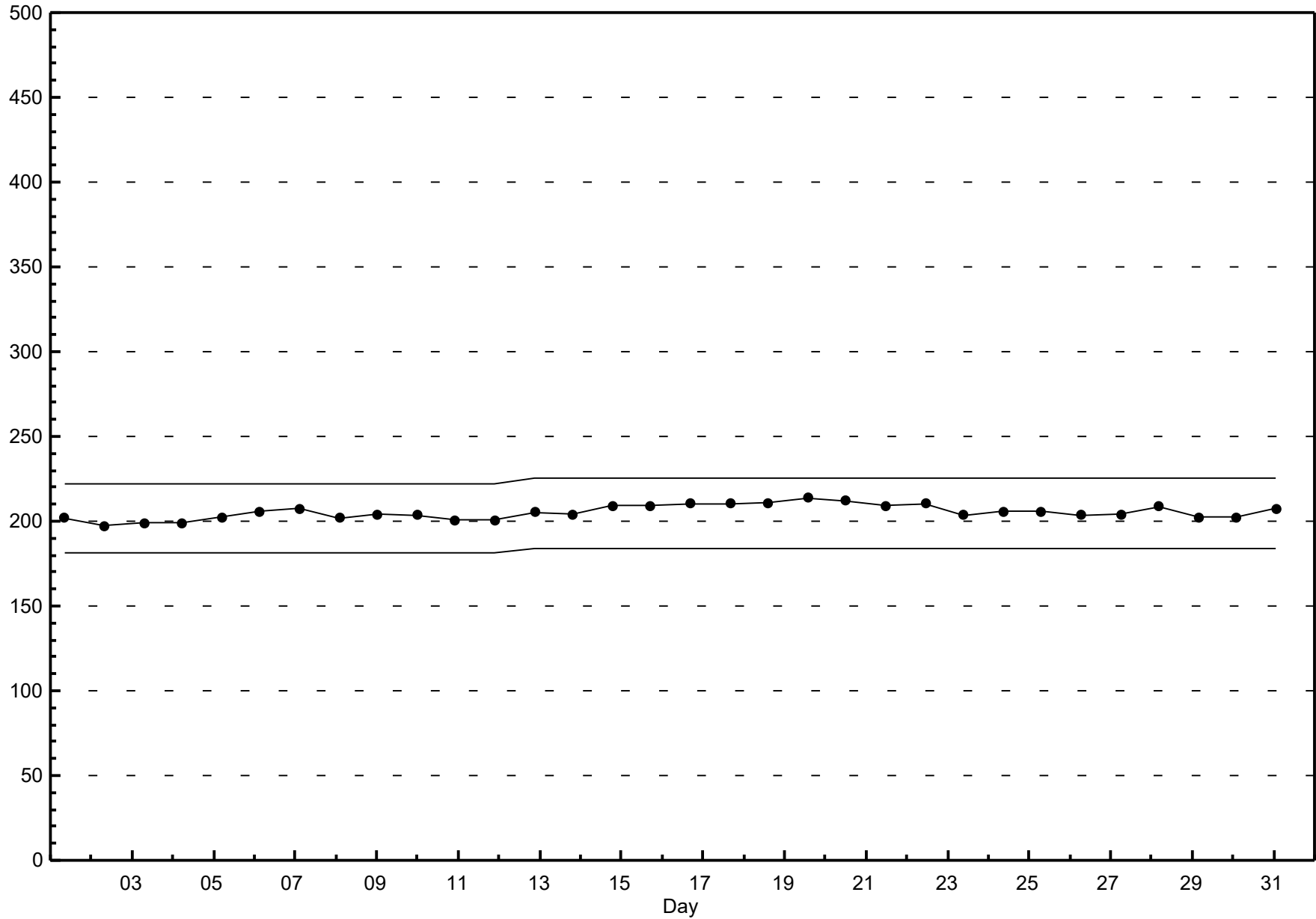
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Portable Rycroft - October 2017



Span Responses

Sulphur Dioxide (SO₂)
Portable Rycroft - October 2017

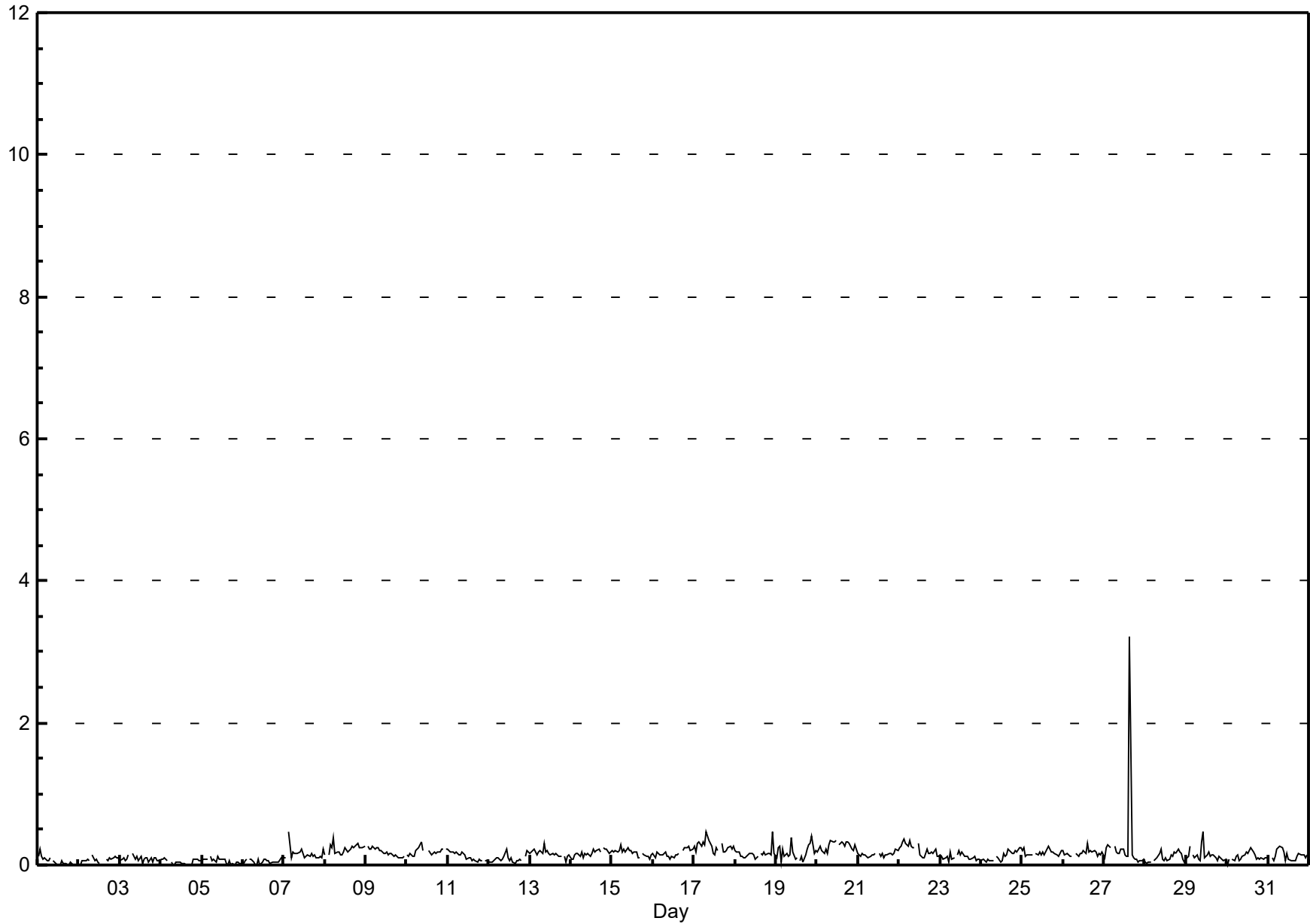


Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - October 2017

Maximum Value: 3.2 ppb on Oct 27 16:00		Maximum Daily Average: 0.3 ppb on Oct 27		Hours in Service: 744																								
Minimum Value: 0 ppb on Oct 1 12:00		Minimum Daily Average: 0.0 ppb on Oct 4		Hours of Data: 706																								
Maximum Diurnal Average: 0.2 ppb at hour 16		Minimum Diurnal Average: 0.1 ppb at hour 13		Hours of Missing Data: 38																								
Monthly Average: 0.15 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.2 P ₉₉ = 0.4		Hours of Calibration: 35																								
				Percent Operational Time: 99.6																								
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1-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	0.1	0.2		
2-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	N	N	N	0	0	0	0	0	0	0	0	0.1	0.1		
3-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	0.1	0.2		
4-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		
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	0.1	0.1		
6-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	0.1		
7-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		
8-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	0.4		
9-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	0.2	0.3		
10-Oct	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	A	0	0.2	0.3		
11-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	0.2		
12-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	0.2		
13-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	0.3		
14-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	0.2		
15-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	0.3		
16-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	0.3		
17-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	0.3	0.5		
18-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	0.2	0.5		
19-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	0.2	0.4		
20-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	0.3	0.4		
21-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	0.1	0.2		
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	0.2	0.4		
23-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	0.1	0.2		
24-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	0.1	0.2		
25-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	0.2	0.3		
26-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	0.2	0.3		
27-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0.3	3.2		
28-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		
29-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		
30-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		
31-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		
		0.1	0.1	0.2	0.2	0.1	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	0.1	0.1	0.1	0.1	0.1	Diurnal Average		
		0.3	0.3	0.3	0.5	0.3	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.2	0.3	0.3	3.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.3	Diurnal Maximum	
C - Calibration		N - Not Valid					A - Automated Daily Zero Span																					

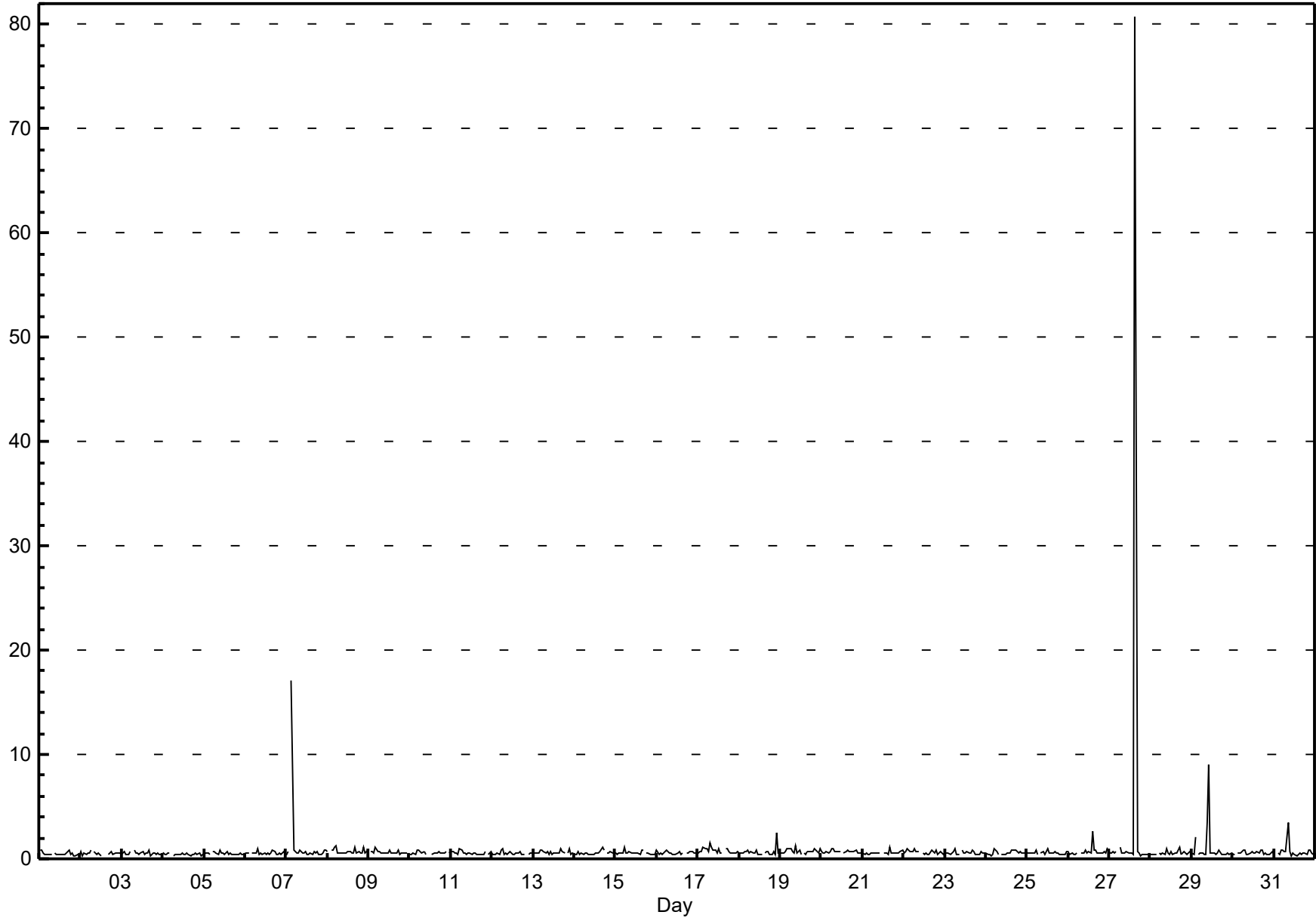


Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

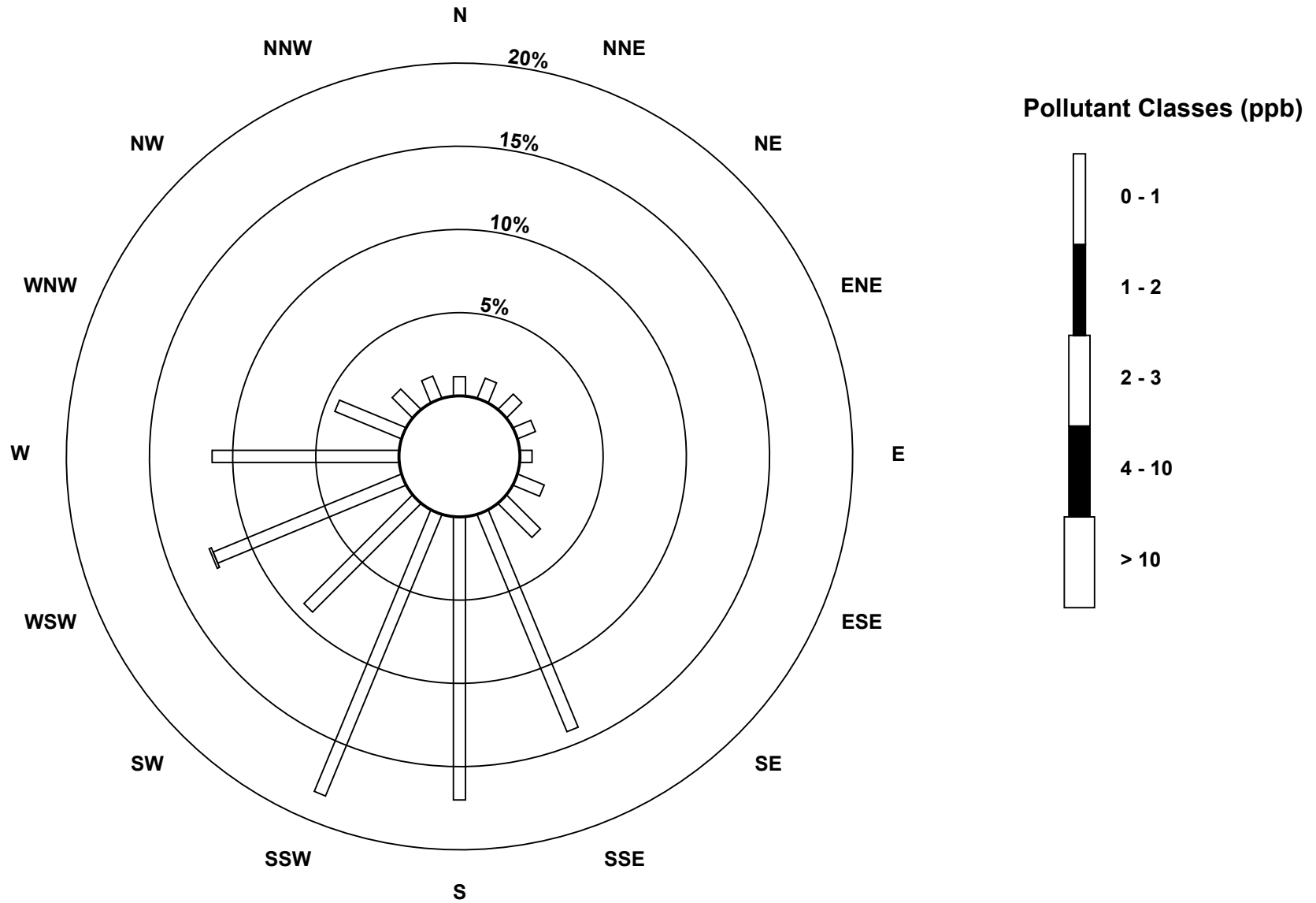
Portable Rycroft - October 2017

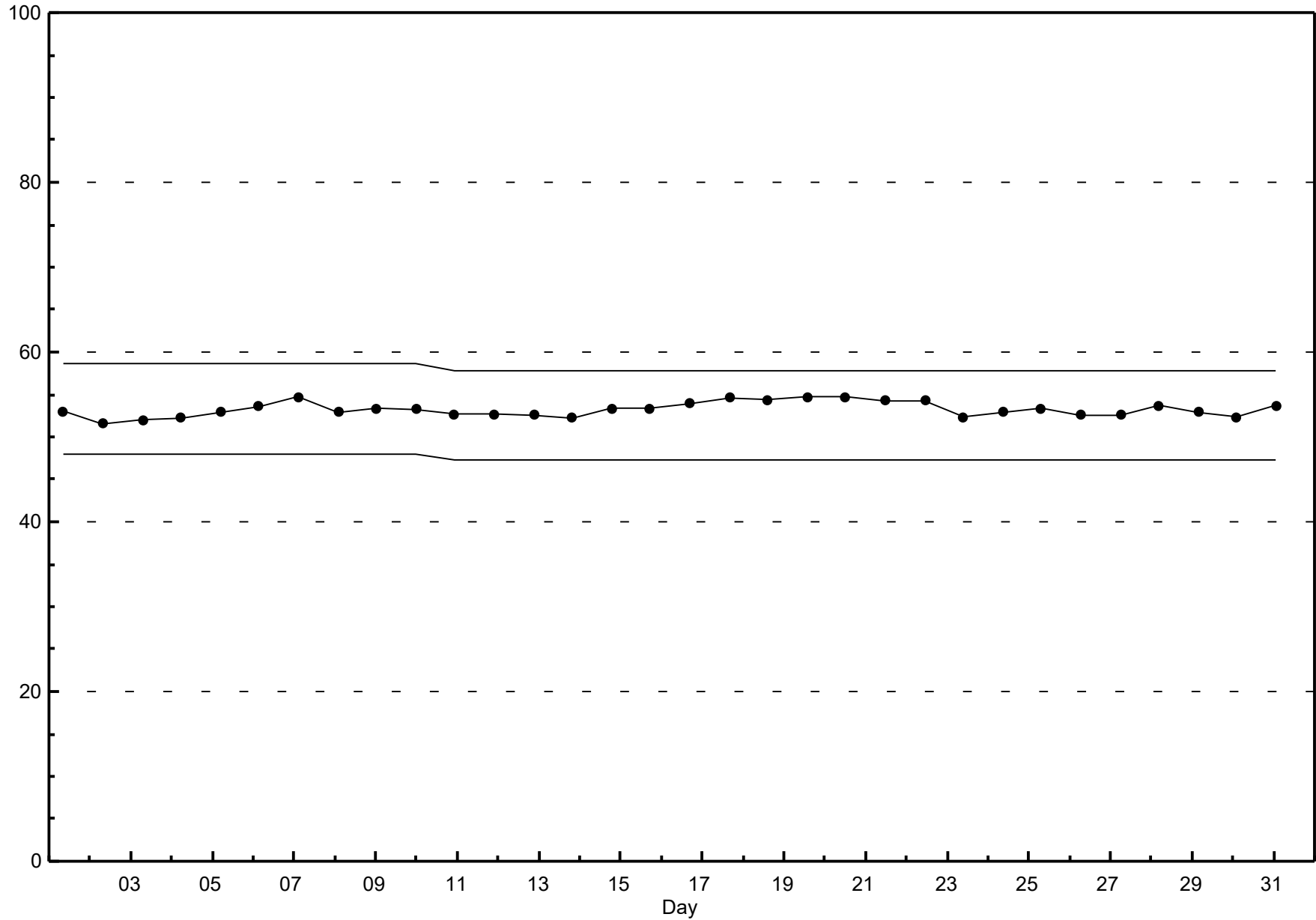
Maximum Value: 80.8 ppb on Oct 27 16:00		Maximum Daily Average: 4.1 ppb on Oct 27		Hours in Service: 744																						
Minimum Value: 0 ppb on Oct 2 02:00		Minimum Daily Average: 0.4 ppb on Oct 4		Hours of Data: 706																						
Maximum Diurnal Average: 3.3 ppb at hour 16		Minimum Diurnal Average: 0.5 ppb at hour 20		Hours of Missing Data: 38																						
Monthly Average: 0.75 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 = 2.4		Hours of Calibration: 35																						
				Percent Operational Time: 99.6																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	1	1	0	0	0	0	0	A	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0.5	0.9
2-Oct	1	0	1	0	1	1	1	A	1	0	1	0	0	N	N	N	0	1	1	0	1	1	1	1	0.5	0.8
3-Oct	0	1	0	0	0	1	A	1	1	1	0	0	1	0	1	1	0	1	0	1	0	0	1	0	0.5	0.9
4-Oct	0	0	0	1	1	A	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0.4	0.6
5-Oct	0	1	1	0	A	1	1	1	1	0	1	1	1	0	1	0	1	0	0	0	0	0	1	0	0.5	0.8
6-Oct	0	1	1	A	1	1	1	1	1	0	1	0	1	0	1	1	1	1	0	0	1	0	1	0	0.5	1.0
7-Oct	0	1	A	17	1	1	1	1	1	1	1	1	0	0	1	0	1	0	1	0	0	1	1	1	1.3	17.1
8-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	0.7	1.2
9-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	0	1	0.6	1.1
10-Oct	0	0	1	0	1	1	1	1	1	0	C	C	C	0	1	1	1	1	1	1	1	1	A	1	0.6	0.8
11-Oct	1	1	1	1	0	1	1	1	1	1	0	1	0	0	1	1	0	0	0	0	0	1	A	0	0.6	1.0
12-Oct	0	0	0	1	0	1	1	0	1	0	1	0	0	0	0	1	1	0	0	0	0	A	0	1	0.5	0.9
13-Oct	1	0	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	A	1	0	1	0.6	1.0
14-Oct	0	0	1	0	1	0	1	1	0	0	0	1	1	1	1	1	1	1	A	1	1	1	1	0	0.6	1.1
15-Oct	1	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	0	0	0	0	0	0.6	1.1
16-Oct	1	0	1	0	1	1	1	1	0	0	0	0	0	1	0	1	A	1	1	1	1	1	1	0	0.6	0.9
17-Oct	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.5
18-Oct	1	0	1	1	1	1	1	1	1	1	1	0	0	0	A	1	1	1	1	0	0	1	0	2	0.7	2.5
19-Oct	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	0	1	1	1	1	1	1	1	1	0.7	1.2
20-Oct	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
21-Oct	1	0	1	0	0	1	1	1	1	1	0	A	1	1	1	0	1	1	1	1	1	1	1	1	0.6	1.0
22-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	0	0	1	1	1	1	0	1	0	0.6	1.0
23-Oct	0	1	1	0	1	1	1	0	0	A	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0.6	1.0
24-Oct	1	0	0	0	0	1	1	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	0.6	0.9
25-Oct	0	1	1	1	1	1	0	A	0	1	0	1	1	1	1	1	1	1	1	0	0	0	0	1	0.6	0.9
26-Oct	1	0	1	0	0	1	A	1	1	1	1	1	1	0	3	1	1	1	0	1	1	1	1	1	0.7	2.6
27-Oct	1	1	1	1	1	A	1	1	1	1	1	1	0	1	0	81	1	1	0	0	0	0	0	0	4.1	80.8
28-Oct	0	0	0	0	A	1	0	1	0	1	0	1	0	1	0	1	1	0	1	0	1	1	1	1	0.6	1.1
29-Oct	1	0	2	A	0	1	1	1	0	0	3	9	1	1	0	0	1	0	0	0	0	1	0	1	1.1	9.0
30-Oct	0	0	A	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0.6	0.9
31-Oct	0	A	1	0	1	1	1	1	3	1	0	1	0	0	0	1	0	0	1	0	1	1	1	0	0.7	3.5
		0.6	0.5	0.6	1.1	0.6	0.7	0.7	0.6	0.7	0.7	0.9	0.5	0.5	0.5	0.6	3.3	0.7	0.6	0.5	0.5	0.6	0.6	0.6	0.6	Diurnal Average
		0.9	0.9	2.1	17.1	1.1	1.2	1.1	1.5	3.5	3.4	9.0	0.8	1.0	0.8	2.6	80.8	1.1	1.1	0.7	0.9	1.0	1.1	2.5	0.9	Diurnal Maximum
C - Calibration		N - Not Valid						A - Automated Daily Zero Span																		



Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Portable Rycroft - October 2017







Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb Portable Rycroft - October 2017

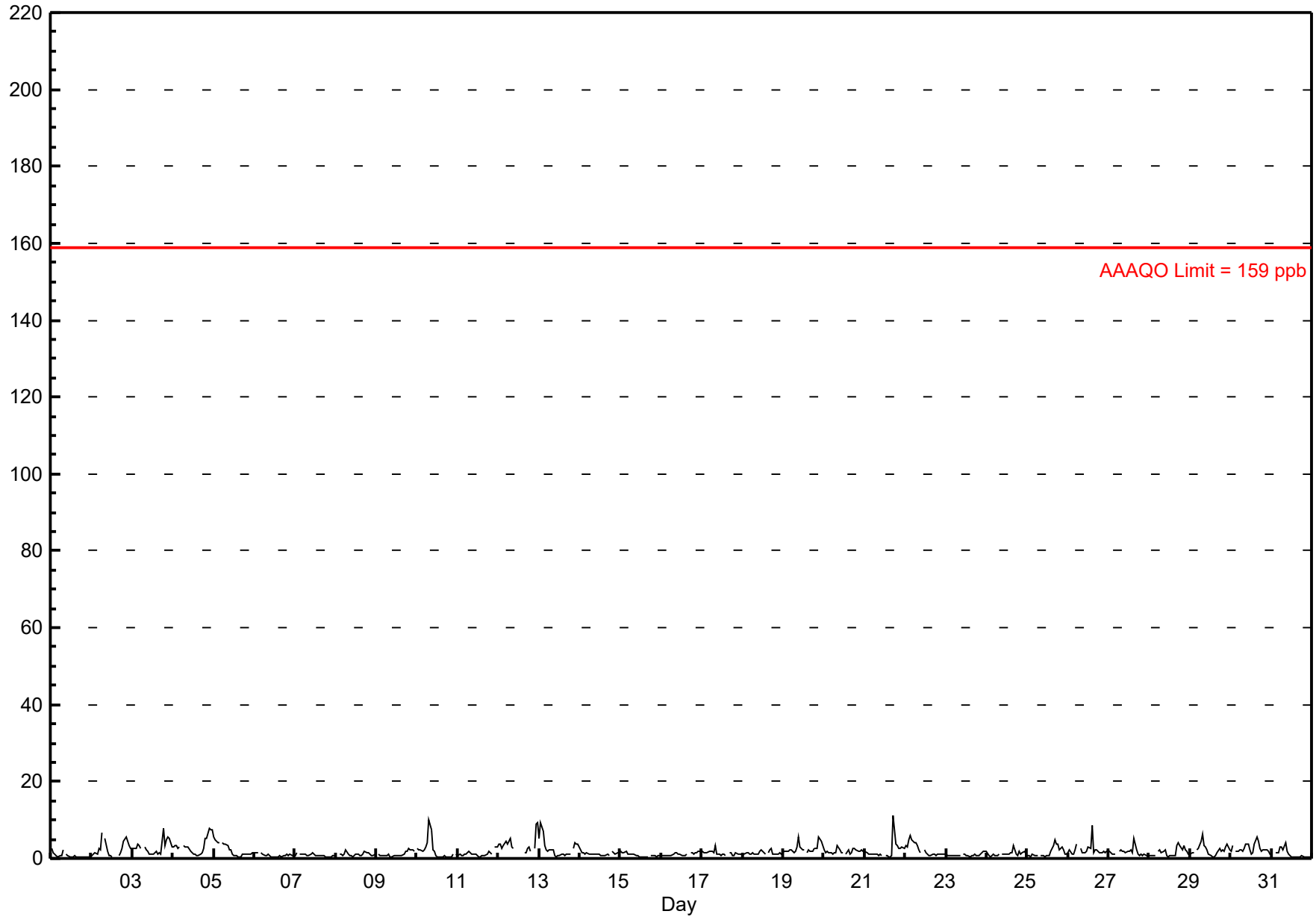
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 11.2 ppb on Oct 21 18:00	Maximum Daily Average: 3.8 ppb on Oct 12
Minimum Value: 0 ppb on Oct 2 00:00	Hours of Data: 704
Maximum Diurnal Average: 2.3 ppb at hour 23	Hours of Missing Data: 40
Monthly Average: 1.75 ppb	Hours of Calibration: 37
Minimum Daily Average: 0.8 ppb on Oct 1	Percent Operational Time: 99.6
Minimum Diurnal Average: 0.9 ppb at hour 14	
Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.8 Median = 1.3 Q ₃ = 2.2 P ₉₀ = 3.4 P ₉₉ = 7.6	

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	3	1	1	1	1	1	1	2	A	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0.8	2.7
2-Oct	1	1	1	1	3	2	7	A	5	2	1	1	0	N	N	N	1	2	3	5	6	4	3	3	2.5	6.7
3-Oct	3	3	3	4	4	3	A	3	2	2	1	1	1	1	2	1	1	1	8	3	5	6	5	3	2.8	7.8
4-Oct	3	3	3	3	3	A	3	3	3	3	2	2	1	1	1	1	1	1	3	5	5	8	8	8	3.2	8.0
5-Oct	6	5	4	4	A	4	4	4	3	2	2	1	1	1	0	0	1	1	1	1	1	1	1	1	2.2	5.5
6-Oct	1	1	2	A	2	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	0.8	1.6
7-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0.8	1.5
8-Oct	1	A	1	1	1	1	2	1	1	1	0	1	1	1	1	1	1	2	1	2	1	1	1	1	1.1	2.4
9-Oct	A	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	2	2	3	2	2	2	A	1.2	2.8
10-Oct	3	2	2	2	2	3	4	10	7	2	2	1	0	0	0	0	1	0	0	1	0	1	A	1	2.0	9.9
11-Oct	1	1	1	1	1	1	2	1	1	1	1	0	0	1	1	1	1	2	2	1	A	3	3	1.2	3.0	
12-Oct	4	4	3	3	5	4	5	5	3	3	C	C	C	C	C	1	1	3	3	2	A	2	9	9	3.8	9.5
13-Oct	5	9	7	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	A	2	4	4	4	2.6	9.4
14-Oct	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	2	1.2	2.3
15-Oct	2	2	2	2	1	1	1	1	1	1	1	0	0	0	0	0	0	A	1	1	1	1	1	1	0.9	1.8
16-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	2	1.1	1.8
17-Oct	2	1	1	2	2	2	2	2	3	1	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1.4	3.4
18-Oct	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	A	2	2	3	1	1	1	1	1	1.4	2.5
19-Oct	2	2	2	2	2	2	2	2	3	6	3	2	2	A	2	2	2	2	3	3	3	6	4	3	2.6	5.8
20-Oct	2	2	2	1	1	1	1	2	3	2	1	1	A	1	2	1	1	3	3	2	2	2	2	2	1.8	3.3
21-Oct	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	11	4	4	2	3	3	3	2.0	11.2
22-Oct	3	3	5	6	5	4	4	3	2	2	A	2	2	1	1	1	1	1	1	1	1	1	1	1	2.3	5.8
23-Oct	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	2	2	0.9	1.8
24-Oct	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	3	1	1	2	1	2	2	1	1.2	3.2
25-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	3	5	4	4	2	3	2	1	1	1.6	4.8
26-Oct	1	2	1	1	2	4	A	3	2	2	2	2	3	2	9	1	2	2	1	1	1	2	2	2	2.2	8.6
27-Oct	2	1	1	1	1	A	2	2	2	2	2	1	2	2	2	1	5	2	1	1	1	1	1	1	1.7	5.1
28-Oct	1	1	1	1	1	A	2	2	2	2	1	0	1	1	1	1	3	4	3	2	3	2	2	1	1.6	3.9
29-Oct	1	1	1	A	2	2	4	6	3	3	2	1	1	0	0	1	1	3	2	2	3	4	2	2	2.2	6.3
30-Oct	2	3	A	2	2	2	2	2	3	4	4	2	1	1	4	6	4	3	2	2	2	2	2	1	2.5	5.7
31-Oct	1	A	2	1	2	3	3	2	4	2	1	1	0	0	0	0	0	0	1	0	0	0	0	0	1.2	4.2
	2.0	2.0	1.9	1.7	1.8	1.9	2.1	2.3	2.3	1.7	1.3	1.1	1.0	0.9	1.2	1.3	1.5	1.9	1.8	1.8	1.9	2.2	2.3	2.1	Diurnal Average	
	5.5	9.4	7.2	5.8	4.9	4.3	6.7	9.9	7.5	5.8	3.8	2.2	2.8	2.5	8.6	5.7	4.8	11.2	7.8	5.0	5.5	8.0	9.1	9.5	Diurnal Maximum	

C - Calibration N - Not Valid 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
Portable Rycroft - October 2017



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb Portable Rycroft - October 2017

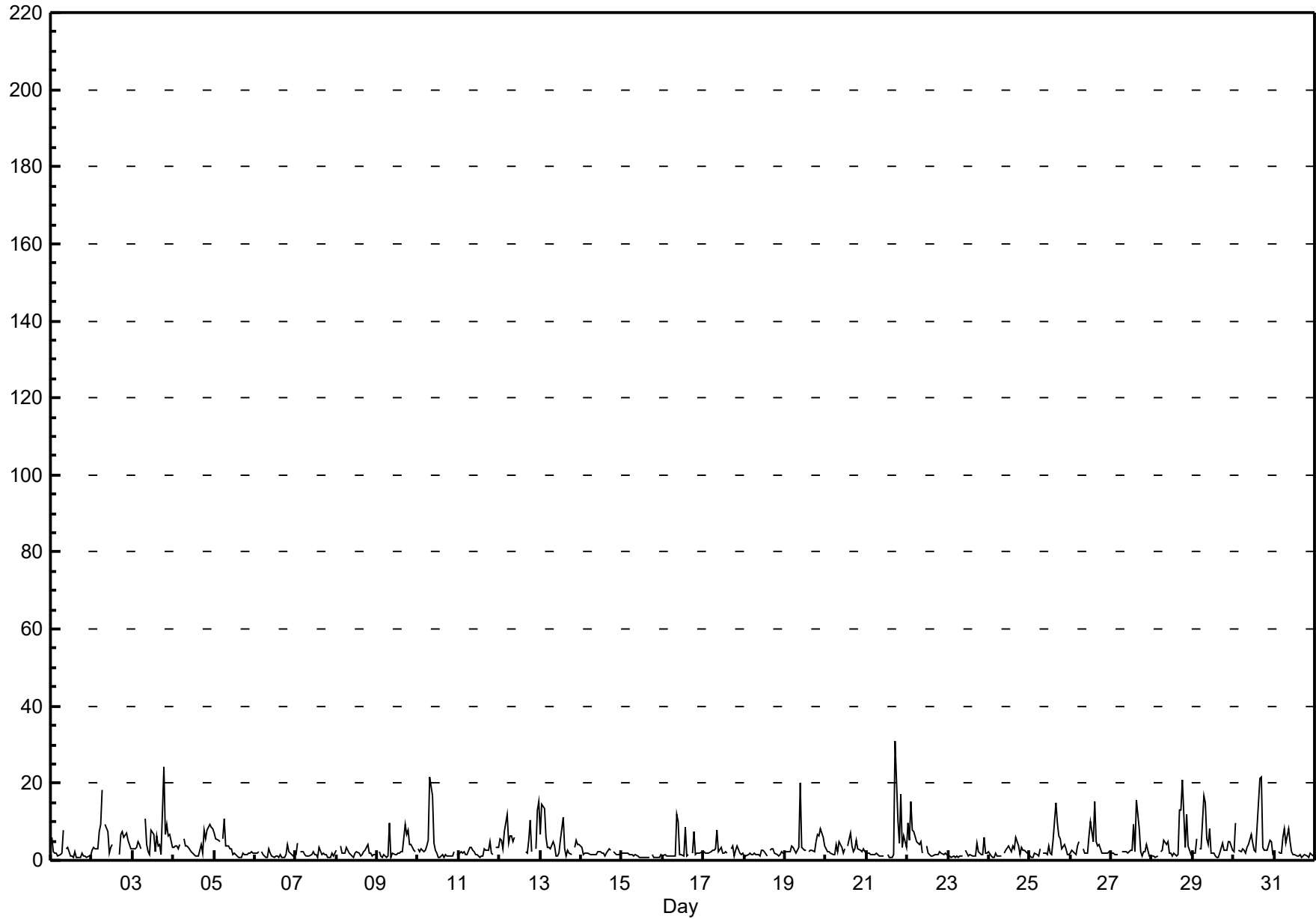
Maximum Value: 31.0 ppb on Oct 21 18:00	Maximum Daily Average: 6.4 ppb on Oct 12	Hours in Service: 744
Minimum Value: 1 ppb on Oct 6 17:00	Minimum Daily Average: 1.2 ppb on Oct 15	Hours of Data: 704
Maximum Diurnal Average: 5.0 ppb at hour 19	Minimum Diurnal Average: 2.3 ppb at hour 13	Hours of Missing Data: 40
Monthly Average: 3.27 ppb	Percentiles: P ₁ = 0.7 P ₁₀ = 1.0 Q ₁ = 1.4 Median = 2.1 Q ₃ = 3.6 P ₉₀ = 6.8 P ₉₉ = 19.9	Hours of Calibration: 37
		Percent Operational Time: 99.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	6	2	2	2	1	2	2	8	A	3	3	1	1	1	2	1	1	1	2	1	1	1	1	1	2.0	7.8
2-Oct	2	3	3	3	7	9	18	A	9	8	2	3	4	N	N	N	1	7	7	6	7	5	4	3	5.7	18.3
3-Oct	3	3	3	5	4	3	A	11	4	2	1	8	7	2	6	4	4	2	24	7	9	6	7	3	5.6	24.3
4-Oct	3	4	4	3	4	A	5	4	4	3	2	2	2	1	1	1	4	2	8	6	8	10	9	8	4.2	9.5
5-Oct	7	5	5	5	A	6	11	4	4	3	3	2	2	1	1	1	1	2	1	2	2	2	2	2	3.1	10.9
6-Oct	2	2	2	A	2	2	1	1	3	2	1	1	1	1	2	1	1	1	1	4	2	2	1	2	1.6	4.2
7-Oct	1	4	A	2	2	2	1	1	1	1	2	1	1	1	3	2	2	1	1	1	1	2	1	2	1.7	4.5
8-Oct	2	A	4	2	2	2	3	2	2	1	1	2	2	2	1	1	2	3	4	2	2	1	1	1	2.0	4.1
9-Oct	A	2	1	1	1	1	1	10	1	2	1	2	2	2	2	2	2	9	7	8	4	4	3	2	3.1	9.5
10-Oct	3	2	3	2	3	4	5	22	17	4	3	2	1	1	1	1	2	1	1	1	1	2	A	A	3.6	21.8
11-Oct	2	2	2	2	2	2	3	3	3	2	1	1	1	1	3	2	2	5	2	2	A	3	3	3	2.2	4.8
12-Oct	5	5	3	8	12	5	6	6	5	6	C	C	C	C	C	2	2	5	10	2	A	3	13	15	6.4	15.3
13-Oct	7	14	13	6	4	3	3	5	4	1	1	2	5	11	3	1	3	2	1	A	3	5	4	4	4.7	14.4
14-Oct	3	2	2	2	2	1	1	1	2	1	2	2	2	2	1	2	3	2	A	2	2	2	2	2	1.9	3.5
15-Oct	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	2	1.2	2.0
16-Oct	1	1	1	1	1	1	1	1	12	10	2	1	1	9	1	1	A	2	7	1	2	2	2	2	2.8	11.9
17-Oct	2	2	2	2	2	3	2	3	8	2	3	2	2	2	2	A	3	4	1	3	4	2	2	2	2.5	7.7
18-Oct	1	1	2	2	1	1	2	1	2	1	3	3	2	1	A	3	3	3	2	1	1	1	2	2	1.8	3.1
19-Oct	2	2	2	2	4	3	2	3	3	20	4	3	2	A	2	3	2	2	5	7	6	8	6	4	4.3	20.2
20-Oct	3	2	2	2	2	2	4	2	5	3	2	3	A	4	7	4	2	3	5	3	3	2	3	2	3.0	7.1
21-Oct	2	2	2	1	2	1	2	1	1	1	1	A	2	1	1	1	2	31	11	4	17	3	6	3	4.3	31.0
22-Oct	10	5	15	8	7	5	5	4	5	2	A	4	2	1	1	1	2	2	1	2	2	2	2	2	3.8	15.1
23-Oct	1	1	1	1	1	1	1	1	1	A	3	2	1	1	1	1	1	4	2	1	1	6	2	2	1.7	5.9
24-Oct	2	1	1	1	2	1	1	1	A	2	3	4	3	2	4	3	6	4	2	3	3	2	2	2	2.4	6.1
25-Oct	1	1	1	2	1	1	3	A	2	2	1	4	2	1	5	15	10	6	6	3	4	3	2	1	3.3	14.8
26-Oct	2	3	2	2	4	5	A	3	2	2	2	6	10	5	15	5	4	4	2	2	2	2	2	2	3.7	15.4
27-Oct	2	2	1	1	1	A	2	2	2	2	2	3	3	9	2	16	8	2	1	2	2	4	1	1	3.2	15.5
28-Oct	1	1	1	1	A	2	3	5	4	5	2	2	1	2	1	1	13	13	21	3	12	4	3	2	4.5	20.7
29-Oct	2	2	6	A	3	3	17	15	5	4	8	2	2	1	1	1	2	5	2	3	3	5	5	3	4.2	16.7
30-Oct	2	10	A	2	2	3	3	2	4	4	7	5	2	2	9	21	22	3	3	3	3	5	5	1	5.3	21.6
31-Oct	1	A	2	2	2	6	8	4	8	5	2	2	2	1	1	1	1	1	2	1	1	2	1	1	2.5	8.2
	2.9	3.1	3.1	2.6	2.8	2.8	4.1	4.4	4.2	3.6	2.4	2.5	2.3	2.5	2.8	3.4	3.9	4.2	5.0	2.8	3.6	3.2	3.2	2.8	Diurnal Average	
	9.9	14.4	15.1	7.7	12.0	9.3	18.3	21.8	16.6	20.2	8.1	7.8	9.9	11.3	15.4	21.3	21.6	31.0	24.3	6.8	17.0	9.5	13.0	15.3	Diurnal Maximum	

C - Calibration N - Not Valid A - Automated Daily Zero Span

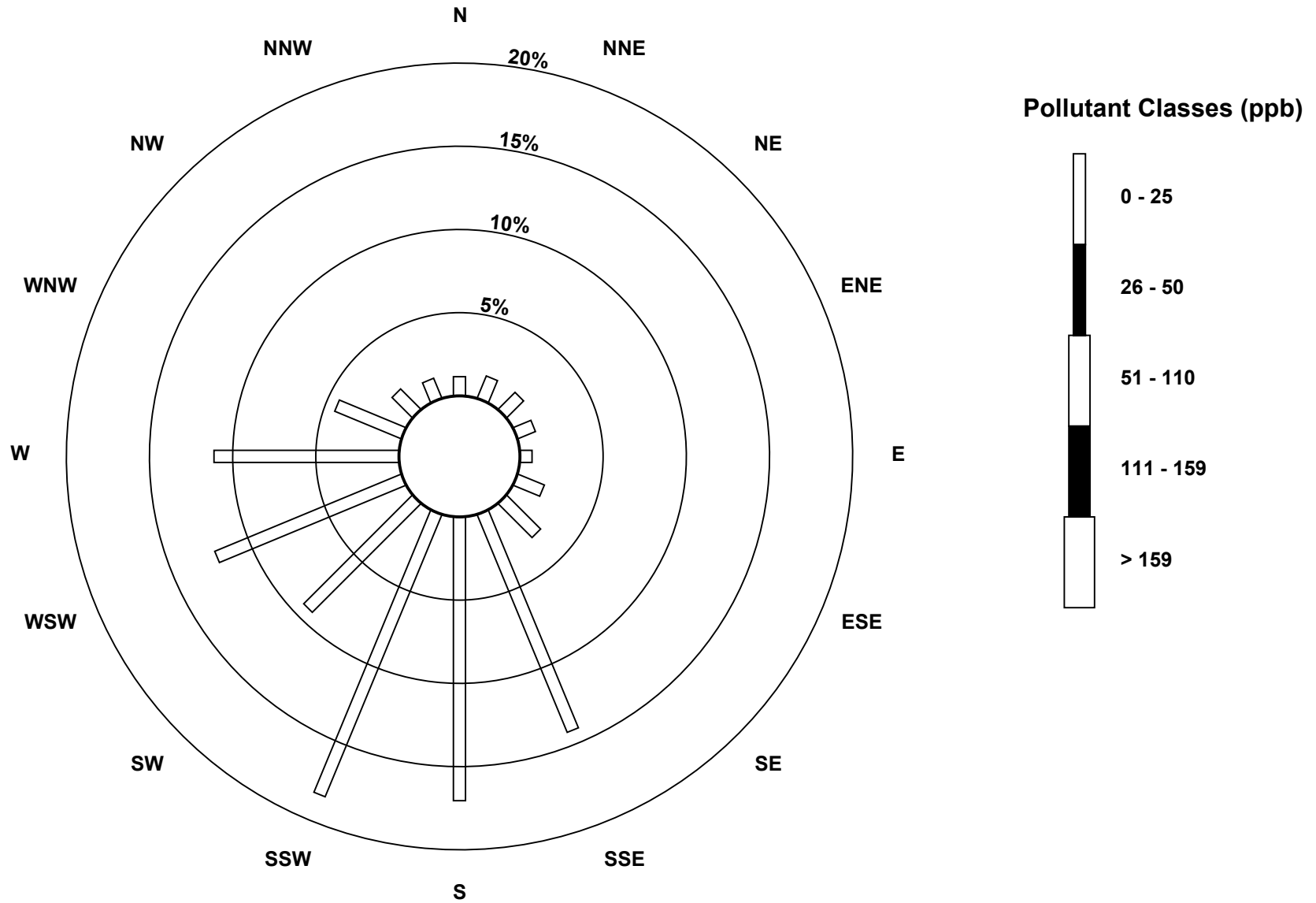
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Portable Rycroft - October 2017



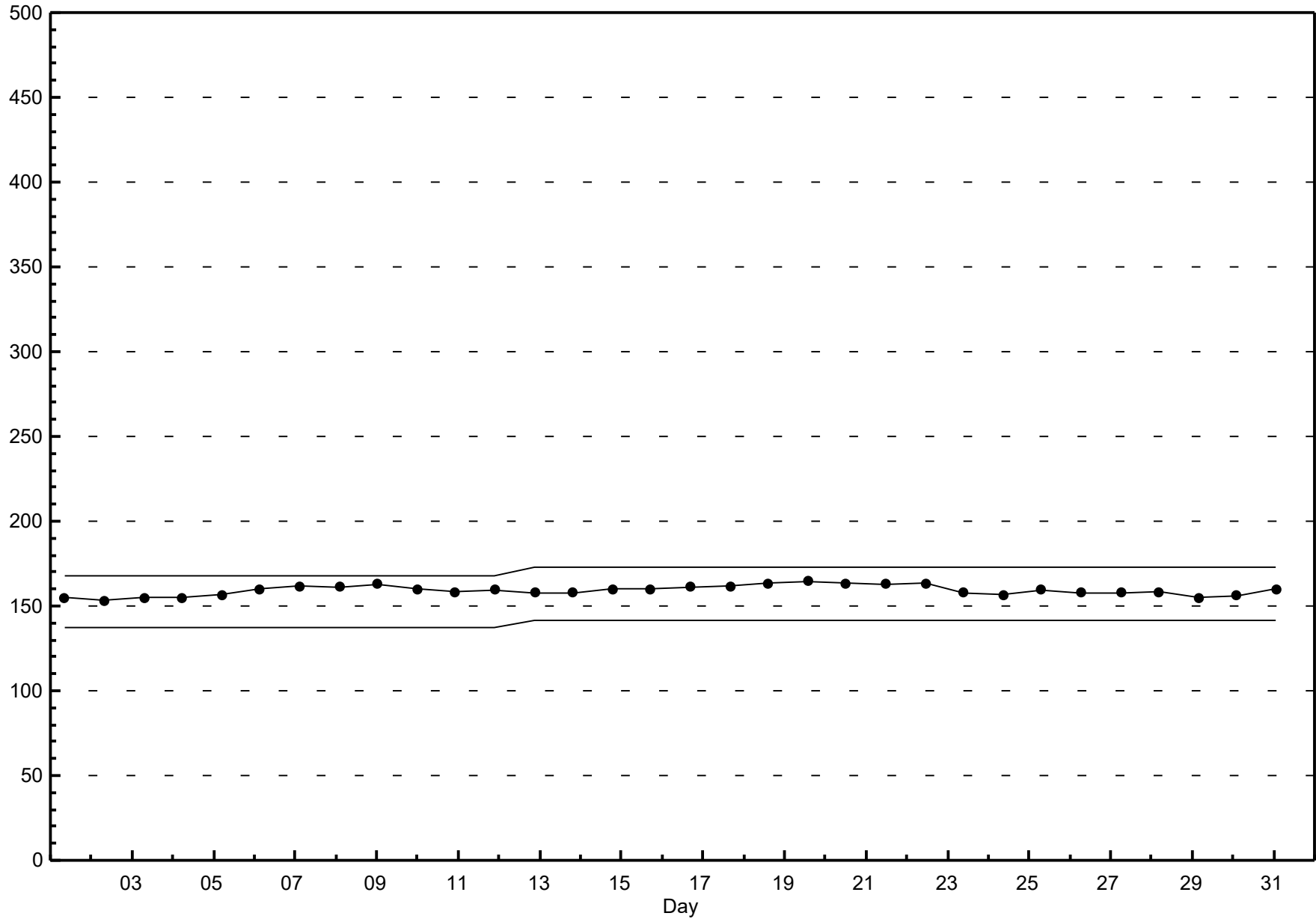
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Portable Rycroft - October 2017



Span Responses

Nitrogen Dioxide (NO₂)
Portable Rycroft - October 2017



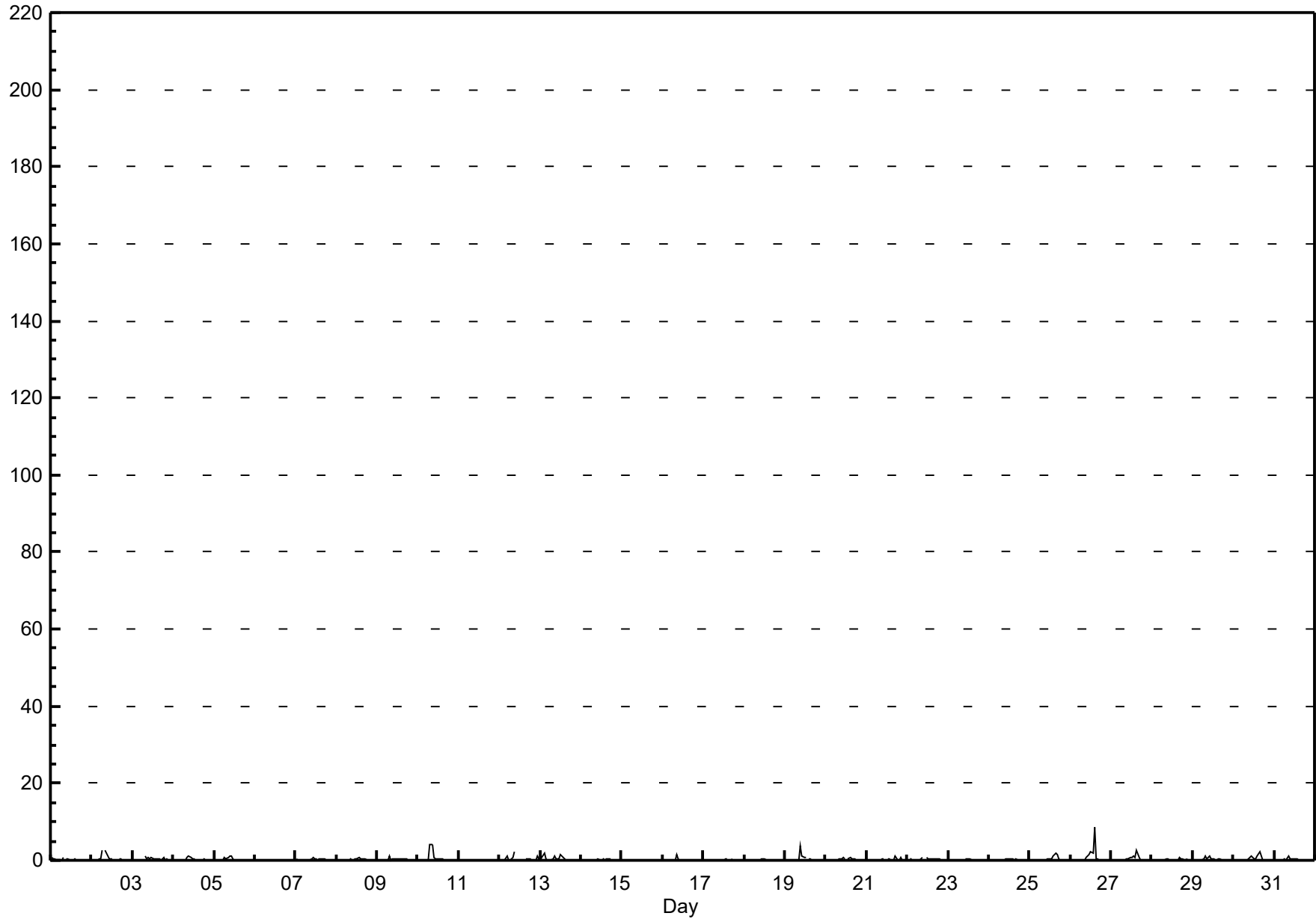
Hourly Averages

Nitrogen Oxide (NO) - ppb Portable Rycroft - October 2017

Maximum Value: 8.6 ppb on Oct 26 15:00		Maximum Daily Average: 0.8 ppb on Oct 26		Hours in Service: 744																						
Minimum Value: 0 ppb on Oct 3 03:00		Minimum Daily Average: 0.0 ppb on Oct 6		Hours of Data: 704																						
Maximum Diurnal Average: 0.6 ppb at hour 15		Minimum Diurnal Average: 0.0 ppb at hour 6		Hours of Missing Data: 40																						
Monthly Average: 0.24 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.5 P ₉₉ = 2.5		Hours of Calibration: 37																						
				Percent Operational Time: 99.6																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
2-Oct	0	0	0	0	0	0	3	A	3	1	0	1	0	N	N	N	0	0	0	0	0	0	0	0	0.5	2.5
3-Oct	0	0	0	0	0	0	A	1	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0.3	1.0
4-Oct	0	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
5-Oct	0	0	0	0	A	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
6-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	0.1
7-Oct	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
8-Oct	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6
9-Oct	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
10-Oct	0	0	0	0	0	0	0	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.5	4.2
11-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	0.2
12-Oct	0	0	0	0	1	0	0	0	1	2	C	C	C	C	C	1	0	0	0	0	A	0	1	0	0.4	2.2
13-Oct	0	1	2	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0.4	1.8
14-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	0.3
15-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	0.0	0.1
16-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	0.1	1.4
17-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
18-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	0.4
19-Oct	0	0	0	0	0	0	0	0	0	4	1	1	1	A	A	0	0	0	0	0	0	0	0	0	0.3	3.8
20-Oct	0	0	0	0	0	0	0	0	0	1	1	1	A	0	1	0	0	0	0	0	0	0	0	0	0.2	0.9
21-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	0	0	0	0.2	1.0
22-Oct	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
23-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	0.1	0.2
24-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	0.1	0.3
25-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0.3	1.9
26-Oct	0	0	0	0	0	0	A	0	0	1	1	2	2	2	9	1	0	0	0	0	0	0	0	0	0.8	8.6
27-Oct	0	0	0	0	0	A	0	0	0	0	0	1	1	1	3	1	0	0	0	0	0	0	0	0	0.3	2.7
28-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.7
29-Oct	0	0	0	A	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
30-Oct	0	0	A	0	0	0	0	0	0	0	1	1	0	0	1	2	1	0	0	0	0	0	0	0	0.4	2.4
31-Oct	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
		0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.4	0.6	0.6	0.4	0.4	0.4	0.3	0.6	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average
		0.6	0.9	1.8	0.3	1.2	0.2	2.5	4.2	4.2	3.8	1.1	1.6	2.4	2.0	8.6	2.7	1.6	1.0	0.7	0.2	0.7	0.2	1.1	0.4	Diurnal Maximum
C - Calibration		N - Not Valid					A - Automated Daily Zero Span																			

Hourly Averages

Nitrogen Oxide (NO) - ppb
Portable Rycroft - October 2017



Hourly Maximums

Nitrogen Oxide (NO) - ppb Portable Rycroft - October 2017

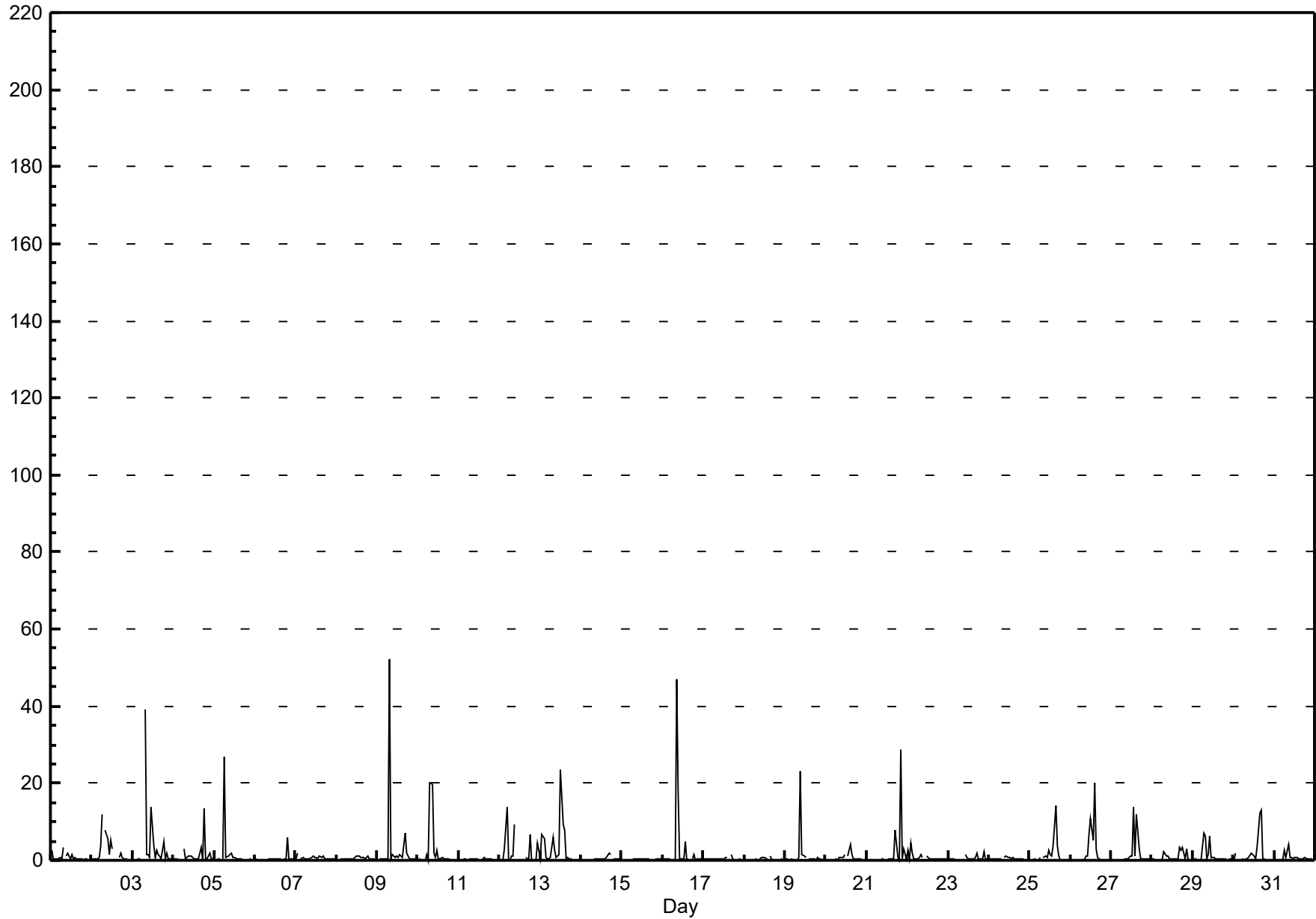
Maximum Value: 52.4 ppb on Oct 9 08:00	Maximum Daily Average: 3.3 ppb on Oct 9	Hours in Service: 744
Minimum Value: 0 ppb on Oct 12 06:00	Minimum Daily Average: 0.2 ppb on Oct 15	Hours of Data: 704
Maximum Diurnal Average: 4.7 ppb at hour 8	Minimum Diurnal Average: 0.3 ppb at hour 24	Hours of Missing Data: 40
Monthly Average: 1.34 ppb	Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.7 P ₉₀ = 2.4 P ₉₉ = 23.0	Hours of Calibration: 37
		Percent Operational Time: 99.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	3	0	0	0	0	1	0	3	A	1	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0.7	3.3
2-Oct	0	0	0	0	1	4	12	A	8	6	1	5	3	N	N	N	1	2	1	0	0	0	0	0	2.3	12.0
3-Oct	0	0	0	0	0	0	A	39	1	1	1	14	4	1	3	2	1	0	5	0	2	0	0	0	3.3	39.1
4-Oct	0	0	0	0	0	A	3	1	1	1	1	1	1	0	0	0	3	0	14	0	0	2	0	0	1.3	13.6
5-Oct	0	0	0	0	A	0	27	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1.6	26.7
6-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0.5	6.2
7-Oct	0	2	A	0	1	0	0	0	0	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0.6	1.8
8-Oct	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0.5	1.3
9-Oct	A	0	0	0	0	0	0	52	0	2	1	1	1	2	1	1	1	2	1	0	0	0	0	A	3.3	52.4
10-Oct	0	0	0	0	0	2	0	20	20	2	1	3	0	0	1	0	0	0	0	0	0	0	A	0	2.2	20.2
11-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	A	0	0	0.3	0.8
12-Oct	0	0	0	3	14	0	0	1	1	9	C	C	C	C	C	1	0	0	7	0	A	0	5	3	2.5	14.0
13-Oct	0	7	6	1	0	0	1	6	3	1	1	1	23	9	8	0	1	0	0	A	0	0	0	0	3.0	23.4
14-Oct	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	2	1	A	0	0	0	0	0	0.4	2.0
15-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
16-Oct	0	0	0	0	0	0	0	0	47	18	0	0	0	5	0	0	A	0	1	0	0	0	0	0	3.2	47.0
17-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0.3	1.3
18-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	0	A	1	0	0	0	0	0	0	0	0	0.3	1.1
19-Oct	0	0	0	0	0	0	0	0	0	1	23	1	1	1	A	0	0	0	0	1	0	0	0	0	1.4	23.1
20-Oct	0	0	0	0	0	0	0	0	1	1	1	2	A	1	4	1	0	0	0	0	0	0	0	0	0.6	4.2
21-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	8	1	0	29	0	3	0	2.0	28.9
22-Oct	3	0	5	2	0	0	0	1	2	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0.8	4.6
23-Oct	0	0	0	0	0	0	0	0	0	0	A	2	1	0	0	0	1	2	0	0	0	2	0	0	0.5	2.2
24-Oct	0	0	0	0	0	0	0	0	A	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0.4	1.0
25-Oct	0	0	0	0	0	0	1	A	1	1	1	3	2	1	4	14	4	1	0	0	0	0	0	0	1.4	14.0
26-Oct	0	0	0	0	0	0	A	0	0	1	1	7	11	5	20	3	1	0	0	0	0	0	0	0	2.2	20.2
27-Oct	0	0	0	0	0	A	0	0	0	0	1	1	1	14	1	12	3	0	0	0	0	0	0	0	1.6	13.7
28-Oct	0	0	0	0	A	0	0	2	1	1	0	0	0	0	0	0	3	3	3	0	3	0	0	0	0.9	3.4
29-Oct	0	0	0	A	0	0	7	6	1	2	6	1	1	0	0	0	0	0	0	0	0	0	0	0	1.2	7.1
30-Oct	0	2	A	0	0	0	0	0	0	1	2	1	1	0	3	12	13	0	0	0	0	0	0	0	1.7	13.1
31-Oct	0	A	0	0	0	0	2	1	4	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0.7	4.0
	0.4	0.5	0.5	0.4	0.7	0.4	2.0	4.7	3.3	2.6	1.1	1.7	2.0	1.6	1.9	1.9	1.6	0.8	1.3	0.4	1.3	0.4	0.4	0.3	Diurnal Average	
	2.6	6.7	5.6	2.8	14.0	3.8	26.7	52.4	47.0	23.1	6.3	13.8	23.4	13.7	20.2	14.0	13.1	7.9	13.6	6.2	28.9	2.2	4.6	2.7	Diurnal Maximum	

C - Calibration N - Not Valid A - Automated Daily Zero Span

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Portable Rycroft - October 2017

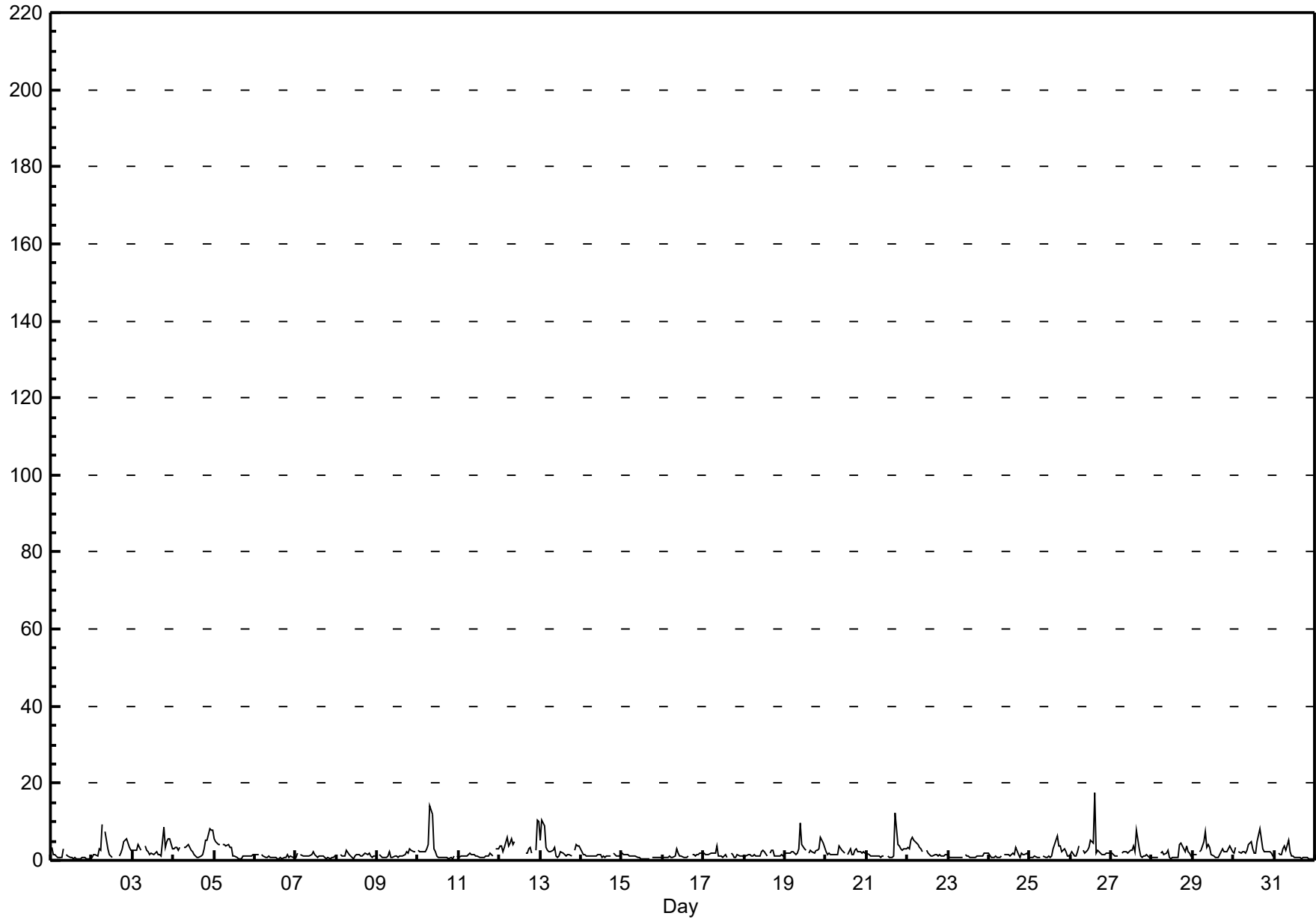


Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Portable Rycroft - October 2017

Maximum Value: 17.3 ppb on Oct 26 15:00		Maximum Daily Average: 4.2 ppb on Oct 12		Hours in Service: 744																							
Minimum Value: 0 ppb on Oct 2 00:00		Minimum Daily Average: 0.9 ppb on Oct 6		Hours of Data: 704																							
Maximum Diurnal Average: 2.8 ppb at hour 9		Minimum Diurnal Average: 1.3 ppb at hour 14		Hours of Missing Data: 40																							
Monthly Average: 2.00 ppb		Percentiles: P ₁ = 0.5 P ₁₀ = 0.7 Q ₁ = 1.0 Median = 1.4 Q ₃ = 2.4 P ₉₀ = 3.8 P ₉₉ = 9.8		Hours of Calibration: 37																							
				Percent Operational Time: 99.6																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Oct	3	2	2	1	1	1	1	3	A	2	1	1	1	0	1	1	0	0	1	1	1	0	1	0	1.0	3.4	
2-Oct	1	1	1	1	3	3	9	A	8	3	1	1	1	N	N	N	1	2	3	5	6	4	3	3	3.0	9.3	
3-Oct	3	3	3	4	4	3	A	4	3	2	2	2	2	2	2	2	1	9	3	5	6	5	3	3.1	8.6		
4-Oct	3	3	3	3	3	A	4	3	4	4	3	2	2	1	1	1	1	1	3	5	5	8	8	8	3.4	8.1	
5-Oct	6	5	4	4	A	4	4	4	4	3	3	1	1	1	0	0	1	1	1	1	1	1	1	1	2.4	5.6	
6-Oct	1	1	2	A	2	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0.9	1.6	
7-Oct	1	2	A	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.1	
8-Oct	1	A	1	1	1	1	2	1	1	1	1	1	1	2	1	1	1	2	2	2	2	1	1	1	1.2	2.4	
9-Oct	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	2	2	3	3	2	2	A	1.4	2.9	
10-Oct	3	2	2	2	2	3	4	14	12	3	2	1	1	1	1	1	1	1	1	1	1	1	A	1	2.6	14.3	
11-Oct	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	2	2	1	A	3	3	1.3	3.0	
12-Oct	4	4	2	4	6	4	4	6	4	5	C	C	C	C	C	2	2	3	3	2	A	2	10	10	4.2	10.3	
13-Oct	5	10	9	3	2	2	2	3	4	1	1	1	2	2	1	1	1	1	1	A	3	4	4	4	3.0	10.4	
14-Oct	2	1	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	2	1	1	1	2	1.3	2.4	
15-Oct	2	2	2	2	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	0.9	1.7	
16-Oct	1	1	1	1	1	1	1	1	3	2	1	1	1	1	1	1	A	1	1	1	2	2	2	2	1.2	2.9	
17-Oct	2	1	2	2	2	2	2	2	4	1	1	1	1	1	1	A	2	2	1	1	2	1	1	1	1.5	3.6	
18-Oct	1	1	1	1	1	1	1	1	1	1	2	2	2	1	A	2	2	3	1	1	1	1	1	1	1.5	2.6	
19-Oct	2	2	2	2	2	2	2	2	3	10	4	3	3	A	2	3	2	2	3	3	3	6	4	3	3.0	9.6	
20-Oct	2	2	2	1	1	1	1	2	4	3	2	2	A	1	3	2	2	3	3	2	2	2	2	2	2.0	3.8	
21-Oct	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	12	4	4	3	3	3	3	2.1	12.5	
22-Oct	3	3	5	6	5	4	4	3	3	2	A	3	2	1	1	1	1	1	1	1	1	1	1	1	2.5	6.0	
23-Oct	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	2	2	2	1.0	1.9	
24-Oct	2	1	1	1	1	1	1	1	A	1	2	1	1	1	2	2	3	1	1	2	1	2	2	1	1.4	3.5	
25-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	3	5	6	4	4	2	3	2	1	1	1.9	6.5	
26-Oct	1	2	1	1	2	4	A	3	2	2	3	3	5	4	17	2	2	2	2	1	2	2	2	2	3.0	17.3	
27-Oct	2	1	1	1	1	A	2	2	2	2	2	2	3	4	2	8	3	1	1	1	1	1	1	1	2.0	7.9	
28-Oct	1	1	1	1	1	A	2	2	1	2	3	1	1	1	1	1	4	4	4	2	4	2	2	1	1.8	4.4	
29-Oct	1	1	1	A	2	3	5	8	3	4	3	1	1	1	1	1	2	3	2	2	3	4	2	2	2.5	7.5	
30-Oct	2	3	A	2	2	2	2	2	3	4	5	3	2	2	5	8	6	3	2	2	2	2	2	1	2.9	8.2	
31-Oct	1	A	2	2	2	3	4	2	5	2	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1.4	5.2	
		2.0	2.1	2.0	1.8	1.9	1.9	2.3	2.6	2.8	2.3	1.8	1.5	1.4	1.3	1.9	1.7	1.8	2.1	2.0	1.9	2.0	2.2	2.4	2.1	Diurnal Average	
		5.6	10.4	9.0	6.0	5.8	4.3	9.3	14.3	11.9	9.6	4.8	3.4	5.2	4.5	17.3	8.2	6.5	12.5	8.6	5.1	5.6	8.1	10.3	10.0	Diurnal Maximum	
C - Calibration		N - Not Valid						A - Automated Daily Zero Span																			

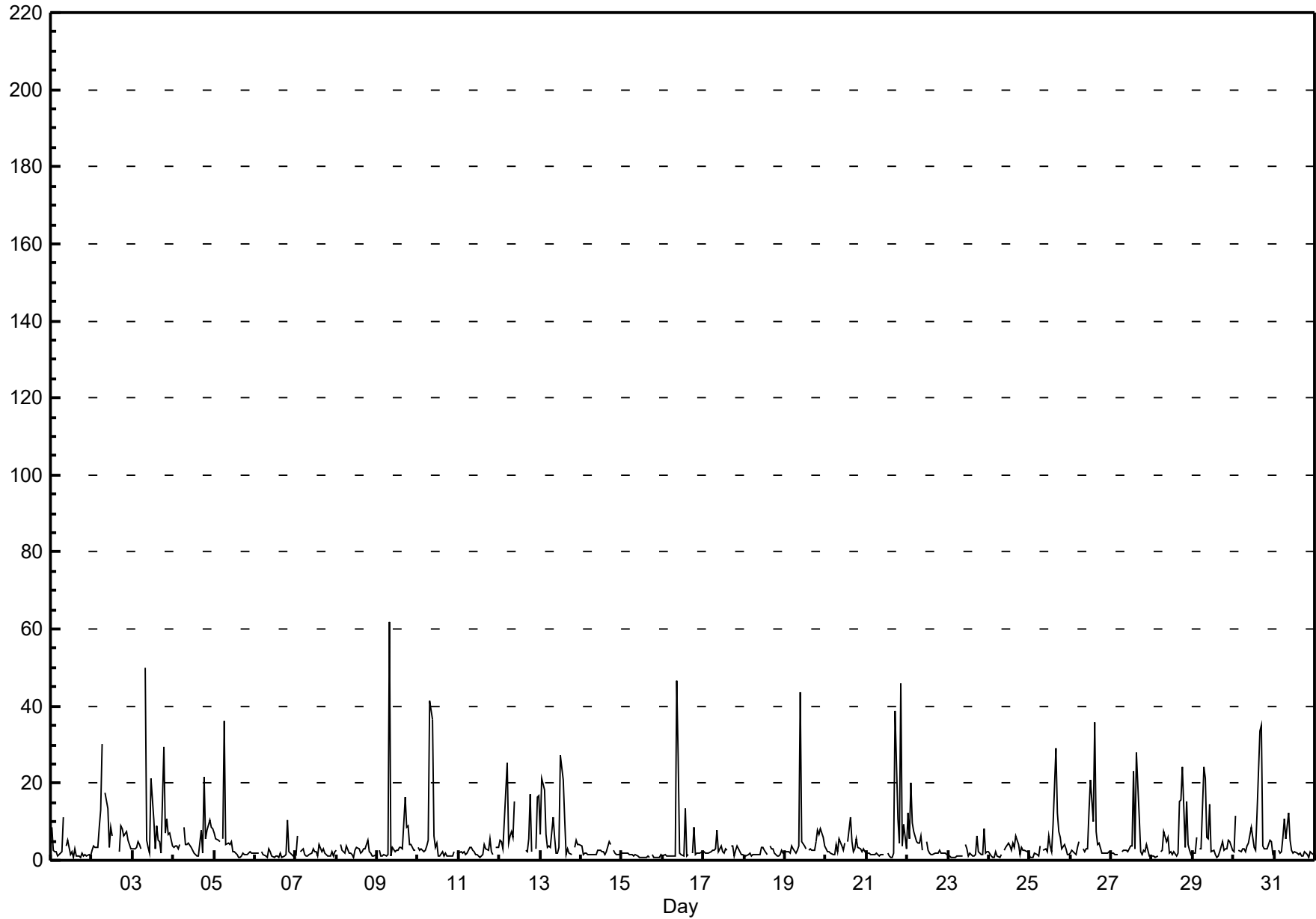


Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

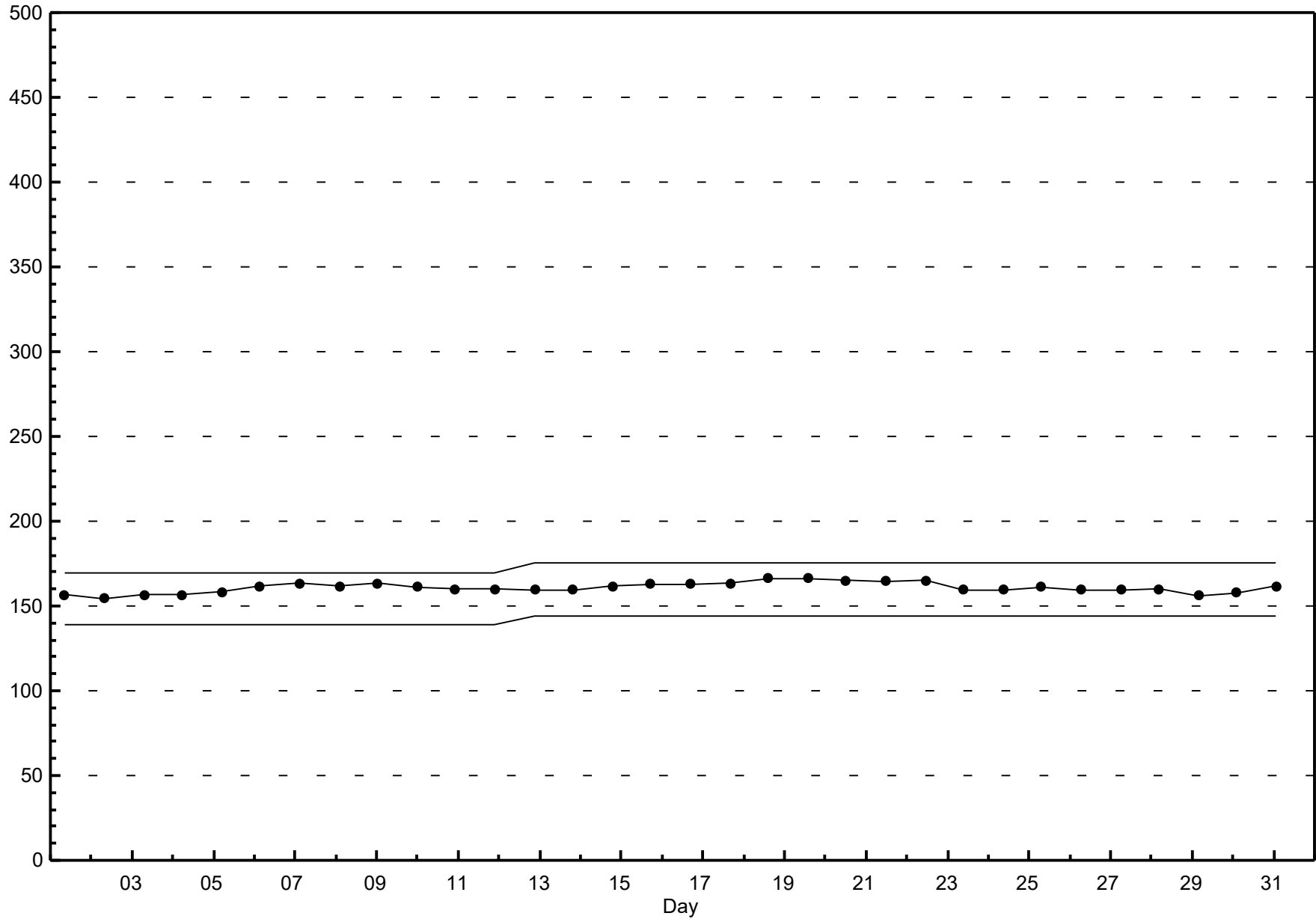
Portable Rycroft - October 2017

Maximum Value: 62.0 ppb on Oct 9 08:00		Maximum Daily Average: 8.8 ppb on Oct 3		Hours in Service: 744																						
Minimum Value: 1 ppb on Oct 6 17:00		Minimum Daily Average: 1.2 ppb on Oct 15		Hours of Data: 704																						
Maximum Diurnal Average: 9.0 ppb at hour 8		Minimum Diurnal Average: 2.8 ppb at hour 4		Hours of Missing Data: 40																						
Monthly Average: 4.46 ppb		Percentiles: P ₁ = 0.7 P ₁₀ = 1.1 Q ₁ = 1.6 Median = 2.3 Q ₃ = 4.2 P ₉₀ = 8.7 P ₉₉ = 37.6		Hours of Calibration: 37																						
				Percent Operational Time: 99.6																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	9	3	2	2	1	2	2	11	A	4	5	2	2	1	3	1	1	1	2	1	1	1	1	1	2.6	11.2
2-Oct	3	4	3	3	8	13	30	A	17	13	3	8	6	N	N	N	2	9	8	6	7	5	4	3	8.0	30.3
3-Oct	3	3	3	5	4	3	A	50	5	3	2	21	10	3	9	5	5	2	29	7	11	7	7	4	8.8	50.1
4-Oct	3	4	4	3	4	A	9	4	4	5	4	3	2	1	1	1	8	2	22	5	8	10	9	8	5.4	21.5
5-Oct	7	6	5	5	A	6	36	4	4	4	5	2	2	1	1	1	1	2	1	2	2	2	2	2	4.5	36.0
6-Oct	2	2	2	A	2	1	1	1	3	2	1	1	1	1	1	2	1	1	1	10	2	2	1	2	1.9	10.4
7-Oct	2	6	A	2	3	2	1	1	1	2	3	2	2	1	4	2	3	2	2	1	1	2	1	2	2.1	6.2
8-Oct	3	A	4	3	2	2	4	2	2	2	1	3	3	3	2	2	3	3	5	2	2	1	1	1	2.4	5.3
9-Oct	A	2	1	1	1	1	1	62	1	3	2	3	3	3	3	3	17	8	9	4	4	3	3	A	6.4	62.0
10-Oct	3	2	3	2	3	4	5	41	37	6	3	4	1	1	2	1	2	1	1	1	1	2	A	2	5.7	41.5
11-Oct	2	2	2	2	2	2	3	3	3	2	2	1	1	1	2	4	3	3	5	2	1	A	3	3	2.4	5.5
12-Oct	5	5	3	10	25	4	6	7	6	15	C	C	C	C	C	3	2	6	17	2	A	3	16	17	8.6	25.3
13-Oct	7	21	18	7	4	4	3	11	6	2	2	3	27	21	11	1	3	2	1	A	3	5	4	4	7.5	27.2
14-Oct	4	2	2	2	2	1	1	1	2	2	3	3	2	2	1	2	5	4	A	2	2	2	2	2	2.1	4.8
15-Oct	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	2	1.2	1.9
16-Oct	1	1	1	1	1	1	1	1	47	27	2	2	1	13	1	1	A	2	9	1	2	2	2	2	5.4	46.7
17-Oct	2	2	2	2	2	3	3	3	8	2	4	2	2	3	3	A	4	4	1	3	4	2	2	2	2.7	7.8
18-Oct	1	1	2	2	1	1	2	1	2	1	3	3	3	2	A	4	3	3	2	1	1	1	3	2	2.0	3.6
19-Oct	2	2	2	2	4	3	2	3	4	43	5	4	3	A	3	3	3	2	5	8	7	8	6	4	5.5	43.5
20-Oct	3	2	2	2	2	2	4	2	5	4	2	5	A	5	11	5	2	3	5	3	3	2	3	2	3.5	11.4
21-Oct	2	2	2	1	2	1	2	1	1	1	2	A	2	1	1	1	2	39	11	4	46	4	9	3	6.1	46.0
22-Oct	12	6	20	10	7	5	5	5	6	2	A	5	3	2	2	1	2	2	2	3	2	2	2	2	4.6	20.0
23-Oct	1	1	1	1	1	1	1	1	1	A	4	3	1	2	1	1	2	6	2	2	2	8	2	2	2.0	8.1
24-Oct	2	1	1	1	2	1	1	1	A	3	3	4	4	3	4	3	6	4	2	3	3	3	2	2	2.6	6.3
25-Oct	1	1	1	2	2	1	4	A	2	3	2	6	4	2	9	29	12	8	6	3	4	3	2	2	4.7	29.1
26-Oct	2	3	2	2	3	5	A	3	2	3	3	13	21	10	36	8	4	4	2	2	2	2	2	2	5.9	35.7
27-Oct	2	2	1	1	1	A	2	2	3	2	2	4	4	23	3	28	11	2	1	2	2	4	1	1	4.7	27.8
28-Oct	1	1	1	1	A	2	3	7	5	6	2	2	1	2	1	2	15	16	24	3	15	4	3	2	5.2	24.2
29-Oct	2	2	6	A	3	3	24	21	6	5	15	2	3	1	1	1	2	5	3	3	3	5	5	3	5.4	24.1
30-Oct	2	12	A	3	2	3	3	2	4	5	9	6	4	3	12	34	35	4	3	3	3	5	5	1	6.9	35.1
31-Oct	1	A	2	2	2	6	11	5	12	5	3	2	2	2	1	2	1	1	2	2	1	2	2	1	3.1	12.2
		3.1	3.5	3.5	2.8	3.4	2.9	5.9	9.0	6.9	6.0	3.3	4.1	4.2	4.1	4.6	5.2	5.4	5.0	6.2	3.1	4.9	3.5	3.5	2.9	Diurnal Average
		12.5	21.4	20.0	10.5	25.3	13.1	36.0	62.0	46.7	43.5	14.6	21.4	27.2	23.0	35.7	33.6	35.1	38.9	29.3	10.4	46.0	10.3	16.3	16.9	Diurnal Maximum
C - Calibration		N - Not Valid						A - Automated Daily Zero Span																		



Span Responses

Oxides of Nitrogen (NO_x)
Portable Rycroft - October 2017



Hourly Averages

Ozone (O₃) - ppb

Portable Rycroft - October 2017

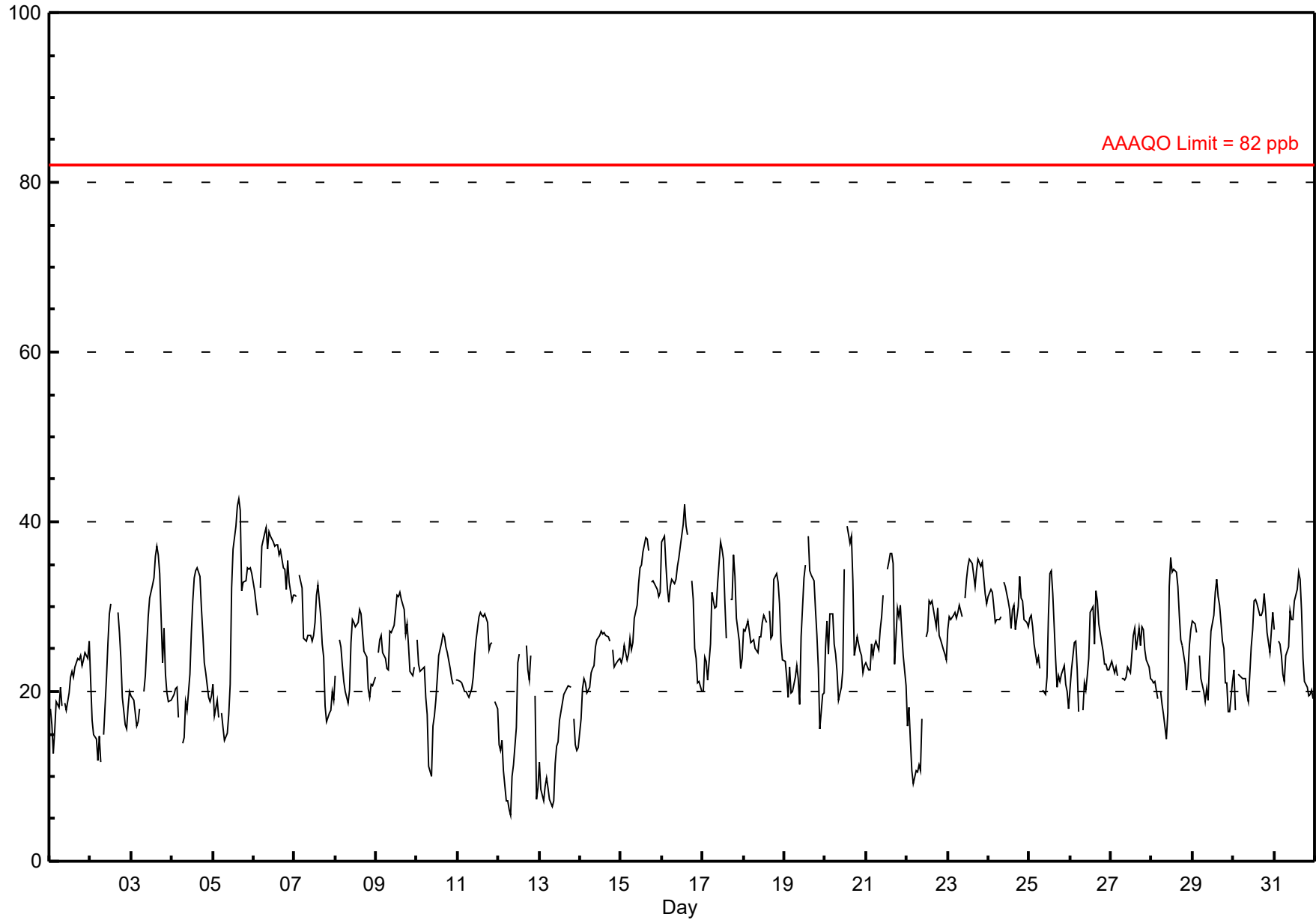
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 42.6 ppb on Oct 5 16:00	Maximum Daily Average: 35.0 ppb on Oct 6		Hours of Data:	706
Minimum Value: 5 ppb on Oct 12 08:00	Minimum Daily Average: 13.4 ppb on Oct 13		Hours of Missing Data:	38
Maximum Diurnal Average: 31.9 ppb at hour 15	Minimum Diurnal Average: 21.2 ppb at hour 8		Hours of Calibration:	35
Monthly Average: 25.24 ppb	Percentiles: P ₁ = 7.3 P ₁₀ = 17.2 Q ₁ = 20.9 Median = 25.3 Q ₃ = 30.0 P ₉₀ = 34.0 P ₉₉ = 39.5		Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	18	16	13	15	19	18	21	18	A	19	18	20	22	22	22	23	24	24	24	23	24	24	24	26	20.7	25.9
2-Oct	21	17	15	14	12	15	12	A	15	22	26	29	30	N	N	N	29	27	24	19	16	16	18	20	19.8	30.4
3-Oct	19	19	18	16	16	18	A	20	22	25	29	31	33	33	36	37	36	34	23	27	22	20	19	19	24.9	37.2
4-Oct	19	20	20	20	17	A	14	15	19	18	22	27	31	33	34	35	34	30	27	23	22	19	19	19	23.4	34.6
5-Oct	21	17	19	17	A	18	16	14	15	17	21	32	37	40	42	43	41	32	33	33	35	34	34	34	28.0	42.6
6-Oct	32	30	29	A	32	37	39	39	37	39	38	38	37	37	37	36	37	35	34	32	35	33	31	31	35.0	39.3
7-Oct	31	31	A	34	32	26	26	26	27	27	26	27	28	31	32	29	26	24	18	16	18	18	20	19	25.7	33.7
8-Oct	22	A	26	25	23	21	20	19	20	26	29	28	28	28	30	29	27	25	24	20	19	21	21	22	24.0	29.6
9-Oct	A	25	26	27	25	24	23	23	27	27	28	30	31	31	32	31	30	27	28	25	22	22	23	A	26.6	31.7
10-Oct	26	23	22	23	23	19	17	11	10	16	17	19	22	24	26	27	26	25	25	23	22	21	A	21	21.2	26.8
11-Oct	21	21	21	20	20	19	20	20	22	24	26	29	29	29	29	29	29	28	25	26	26	A	19	18	23.6	29.4
12-Oct	14	13	14	11	7	7	6	5	10	11	16	23	24	C	C	C	25	23	21	24	A	20	7	9	14.6	25.4
13-Oct	12	9	7	9	10	9	7	6	7	11	14	14	17	19	20	20	20	21	21	A	17	14	13	13	13.4	20.7
14-Oct	17	20	21	21	20	21	22	23	23	25	26	27	27	27	27	27	26	26	A	25	23	23	24	24	23.7	27.1
15-Oct	23	24	25	24	24	26	25	26	29	30	33	35	35	36	38	38	37	A	33	33	32	32	31	32	30.5	38.2
16-Oct	38	38	35	32	31	32	33	33	33	35	36	37	40	42	39	38	A	33	31	25	24	21	21	20	32.5	42.1
17-Oct	20	24	24	21	26	32	31	30	30	33	38	37	36	31	26	A	31	31	36	33	29	26	23	24	29.1	37.7
18-Oct	27	27	28	27	26	26	26	25	25	26	26	28	29	28	A	29	26	27	33	34	33	30	26	24	27.7	33.9
19-Oct	23	22	19	23	20	20	22	23	22	19	26	33	35	A	38	34	34	33	30	27	23	16	20	20	25.2	38.2
20-Oct	25	28	24	29	29	26	24	22	19	20	23	34	A	39	37	38	33	24	25	26	25	24	22	23	27.1	39.5
21-Oct	23	23	23	26	24	25	26	25	27	29	31	A	34	35	36	36	35	23	30	29	30	27	24	21	28.0	36.3
22-Oct	16	18	14	11	9	11	11	11	11	17	A	26	27	31	30	31	29	28	30	27	26	25	24	24	21.1	30.7
23-Oct	27	29	29	29	29	29	29	30	29	A	31	33	35	36	35	34	32	34	36	35	35	33	31	30	31.8	35.7
24-Oct	31	32	32	30	28	28	29	29	A	33	32	31	30	27	30	30	27	30	34	31	31	29	28	28	29.9	33.6
25-Oct	29	29	28	26	23	24	23	A	20	20	22	29	34	34	31	24	20	22	21	22	23	21	20	18	24.5	34.2
26-Oct	20	22	26	26	23	18	A	18	21	20	22	24	29	30	26	32	31	28	26	25	23	23	23	23	24.2	31.8
27-Oct	24	23	22	23	22	A	22	22	21	22	23	22	24	27	27	25	28	25	28	27	25	24	23	22	23.9	27.7
28-Oct	21	21	21	19	A	20	19	17	14	18	32	36	34	34	34	32	29	26	25	23	20	22	25	27	24.9	35.7
29-Oct	28	28	27	A	24	22	20	19	20	19	24	27	29	32	33	31	30	26	25	21	21	18	18	21	24.5	33.2
30-Oct	22	18	A	22	22	22	22	22	20	19	25	27	31	31	30	29	29	29	32	30	27	25	27	29	25.6	31.6
31-Oct	27	A	26	26	24	22	21	24	25	29	28	28	31	32	34	33	30	24	21	21	20	20	20	19	25.5	34.0

C - Calibration N - Not Valid A - Automated Daily Zero Span
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Hourly Averages

Ozone (O₃) - ppb
Portable Rycroft - October 2017



Hourly Maximums

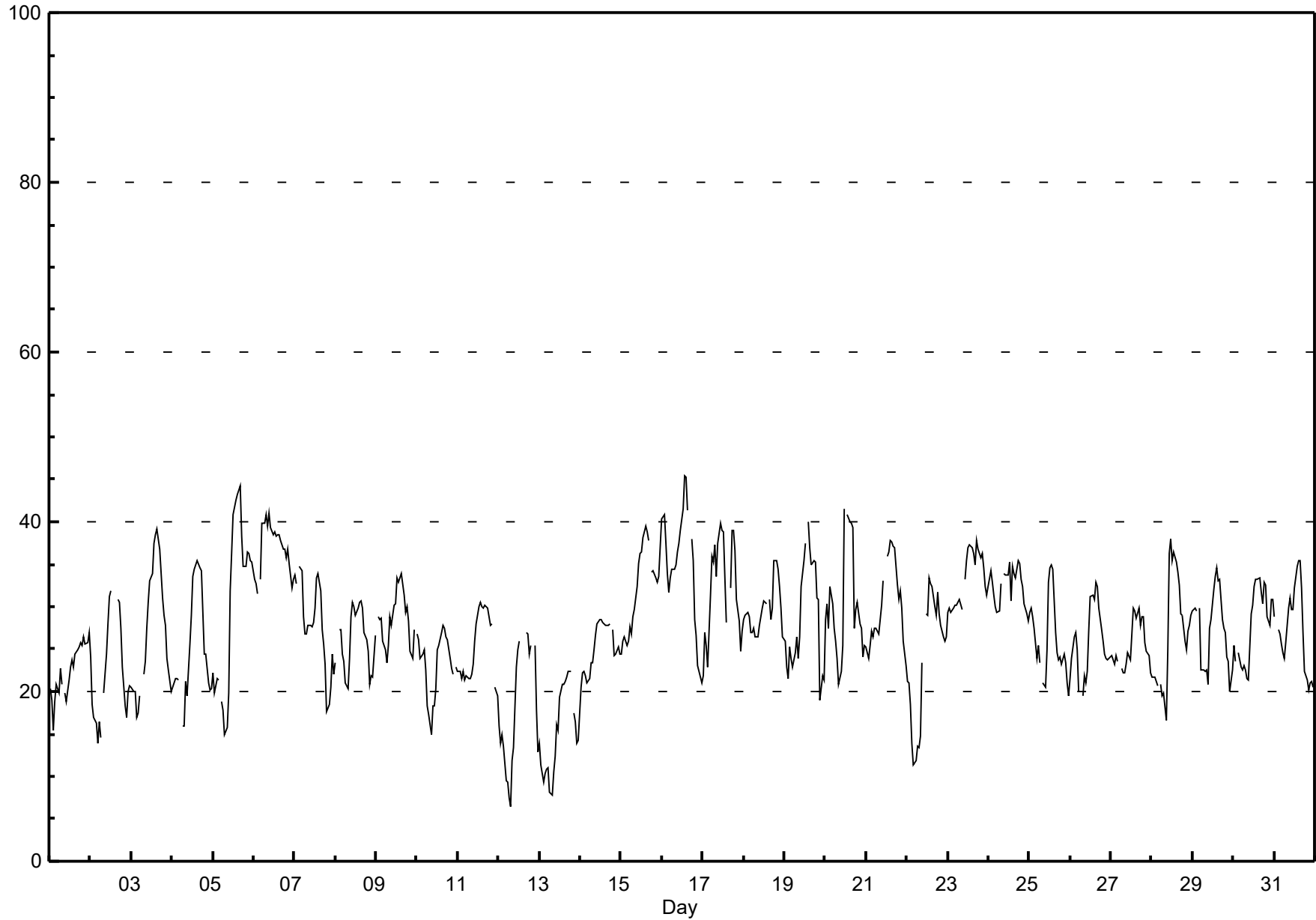
Ozone (O₃) - ppb

Portable Rycroft - October 2017

Maximum Value: 45.5 ppb on Oct 16 14:00		Maximum Daily Average: 36.9 ppb on Oct 6		Hours in Service: 744																						
Minimum Value: 6 ppb on Oct 12 08:00		Minimum Daily Average: 15.1 ppb on Oct 13		Hours of Data: 706																						
Maximum Diurnal Average: 33.9 ppb at hour 15		Minimum Diurnal Average: 23.1 ppb at hour 7		Hours of Missing Data: 38																						
Monthly Average: 27.41 ppb		Percentiles: P ₁ = 10.4 P ₁₀ = 19.7 Q ₁ = 22.7 Median = 27.4 Q ₃ = 32.4 P ₉₀ = 36.5 P ₉₉ = 40.8		Hours of Calibration: 35																						
				Percent Operational Time: 99.6																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	20	19	15	19	21	20	23	21	A	20	19	21	23	24	23	24	25	25	26	25	26	26	26	27	22.5	26.9
2-Oct	24	18	17	16	14	16	15	A	20	24	28	31	32	N	N	N	31	30	27	23	18	17	20	21	22.2	31.8
3-Oct	20	20	20	17	18	19	A	22	23	27	30	33	34	37	38	39	38	37	31	29	28	24	22	20	27.3	39.2
4-Oct	20	21	21	21	21	A	16	16	21	19	26	29	34	34	35	35	35	34	29	24	24	21	20	20	25.2	35.4
5-Oct	22	20	21	21	A	19	18	15	16	20	32	36	41	43	43	44	44	38	35	35	36	36	35	35	30.7	44.3
6-Oct	33	33	32	A	33	40	40	41	39	41	39	38	39	38	39	38	38	37	37	36	37	35	32	33	36.9	40.9
7-Oct	34	33	A	35	34	29	27	27	28	28	28	28	30	33	34	32	27	26	23	18	18	20	24	22	27.7	34.8
8-Oct	23	A	27	27	24	23	21	20	24	29	30	30	29	30	30	31	30	27	26	25	21	22	22	27	26.0	30.7
9-Oct	A	29	29	29	26	25	23	25	29	28	30	30	33	33	33	34	31	29	30	28	25	24	27	A	28.7	33.8
10-Oct	27	26	24	24	25	23	18	17	15	18	18	20	25	25	27	28	28	26	26	24	23	22	A	23	23.2	27.9
11-Oct	22	22	21	22	21	22	21	21	22	23	26	28	30	30	30	30	30	30	29	28	28	A	20	19	25.2	30.5
12-Oct	16	14	15	14	9	9	7	6	12	13	23	25	26	C	C	C	27	27	24	25	A	25	18	13	17.5	26.9
13-Oct	14	11	9	10	11	11	8	8	10	12	16	15	19	21	21	21	22	22	22	A	17	16	14	14	15.1	22.4
14-Oct	20	22	22	22	21	22	23	23	25	27	28	28	28	28	28	28	28	28	A	27	24	24	25	24	25.1	28.4
15-Oct	24	26	26	25	26	28	27	29	30	32	35	36	37	38	40	39	38	A	34	34	33	33	34	37	32.2	39.5
16-Oct	40	41	37	34	32	33	34	34	35	36	37	39	41	45	45	41	A	38	35	28	27	23	22	21	34.9	45.5
17-Oct	22	27	25	23	31	36	35	37	34	37	40	39	39	33	28	A	32	39	39	37	31	28	25	27	32.4	39.8
18-Oct	28	29	29	29	27	27	27	26	26	28	29	30	31	30	A	31	28	30	35	35	34	32	30	26	29.6	35.4
19-Oct	26	23	22	25	24	23	25	26	24	26	32	35	37	A	40	37	35	35	35	31	31	19	22	21	28.5	40.0
20-Oct	28	30	27	32	30	28	26	24	21	22	25	41	A	41	40	40	39	27	30	30	28	27	24	25	29.9	41.5
21-Oct	25	24	25	27	26	27	27	27	28	30	33	A	36	36	38	38	37	37	32	31	32	30	26	23	30.3	37.8
22-Oct	21	21	18	14	11	12	13	13	15	23	A	29	29	33	33	32	30	29	32	29	28	26	26	26	23.7	33.4
23-Oct	29	30	29	30	30	30	31	31	30	A	33	35	37	37	37	36	35	38	37	36	36	35	32	31	33.3	37.8
24-Oct	32	34	33	31	30	29	29	33	A	34	34	34	35	31	35	34	33	35	35	33	32	30	29	28	32.4	35.3
25-Oct	29	30	29	27	24	25	23	A	21	20	25	33	35	35	34	27	25	24	24	23	24	23	21	19	26.2	34.9
26-Oct	21	24	26	27	25	20	A	19	22	21	22	27	31	31	31	33	32	30	27	26	24	24	24	24	25.8	32.9
27-Oct	24	24	23	24	24	A	23	22	22	23	25	24	27	30	30	29	30	28	29	29	26	25	24	22	25.4	29.8
28-Oct	22	22	22	21	A	21	20	20	17	25	36	38	35	37	35	34	33	29	29	26	25	27	28	29	27.3	38.0
29-Oct	29	30	29	A	30	23	23	22	23	21	28	29	32	34	35	33	33	29	28	27	24	24	20	22	27.2	34.6
30-Oct	25	24	A	25	23	22	23	22	21	21	29	30	32	33	33	33	32	30	33	33	29	28	31	31	28.0	33.4
31-Oct	29	A	27	27	26	24	24	26	30	31	30	30	32	35	35	35	32	27	22	21	20	21	21	20	27.2	35.4
		25.2	25.0	24.3	24.1	24.1	23.7	23.1	23.3	23.5	25.5	28.9	30.8	32.3	33.5	33.9	33.5	31.9	30.7	30.1	28.6	27.0	25.6	24.9	24.5	Diurnal Average
		40.4	40.9	37.4	34.8	34.3	39.8	39.8	40.8	39.4	40.9	39.8	41.5	41.5	45.5	45.3	43.8	44.3	38.9	38.9	36.6	36.8	36.2	35.5	36.9	Diurnal Maximum
C - Calibration		N - Not Valid											A - Automated Daily Zero Span													

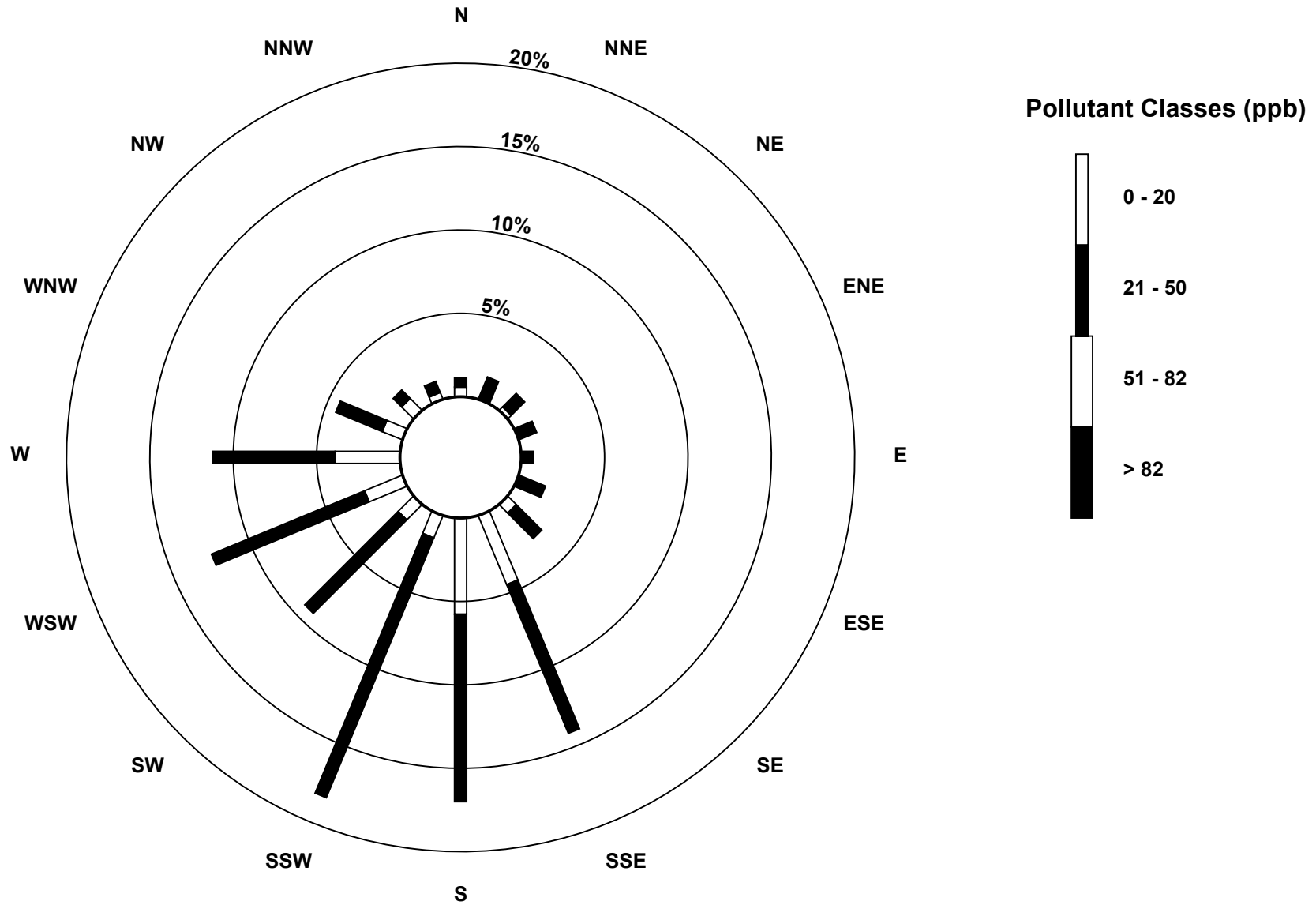
Hourly Maximums

Ozone (O₃) - ppb
Portable Rycroft - October 2017



Pollutant Rose

Ozone (O₃) - ppb
Portable Rycroft - October 2017





Peace Airshed Zone Association

Eight Hour Running Averages

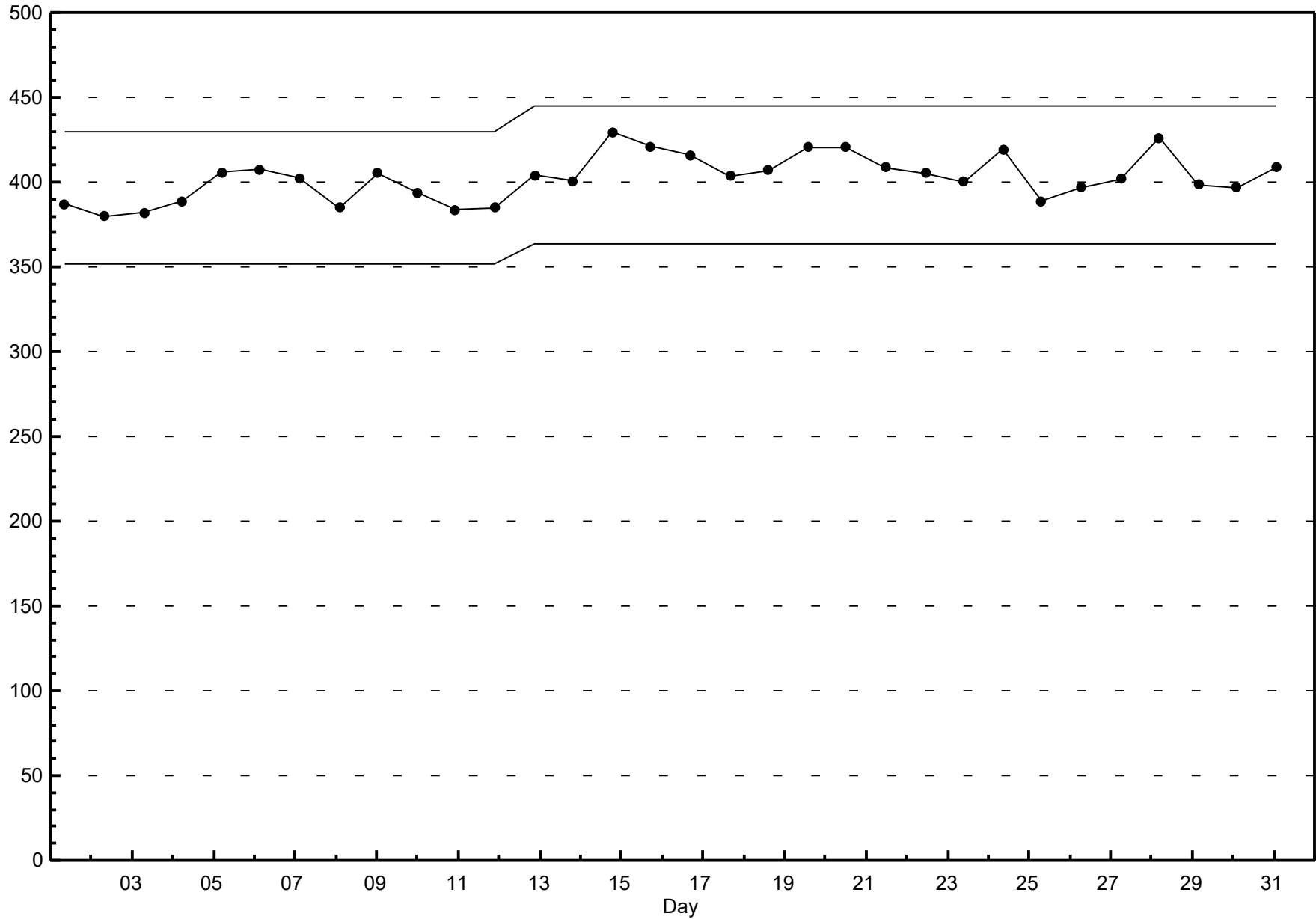
Ozone (O₃) - ppb

Portable Rycroft - October 2017

Maximum Value: 38.2 ppb on Oct 16 17:00																								Hours in Service:	744
Minimum Value: 8.0 ppb on Oct 13 09:00																								Hours of Data:	730
Percentiles: P ₁ = 9.2 P ₁₀ = 17.9 Q ₁ = 21.6 Median = 25.2 Q ₃ = 29.2 P ₉₀ = 33.0 P ₉₉ = 37.5																								Hours of Missing Data:	14
																								Hours of Calibration:	8
																								Percent Operational Time:	99.2
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	21	19	18	17	17	17	17	17	17	18	18	19	19	20	20	21	21	22	23	23	23	23	24	24	24.2
2-Oct	24	23	22	21	19	18	16	15	14	15	16	19	21	22	N	N	N	N	N	N	N	22	21	21	23.8
3-Oct	20	19	18	18	18	18	18	18	18	19	21	23	25	28	29	31	33	34	33	32	31	29	27	25	33.6
4-Oct	23	21	21	20	19	19	19	18	18	18	18	19	21	22	25	27	29	31	31	31	30	28	26	24	31.3
5-Oct	23	21	20	19	19	19	18	17	16	17	17	19	21	24	27	31	34	36	37	38	37	37	36	35	37.5
6-Oct	33	33	33	33	32	33	33	34	35	36	37	37	38	38	38	37	37	37	36	36	35	35	34	34	38.0
7-Oct	33	32	32	32	32	31	30	30	29	28	28	27	27	28	28	28	28	27	26	24	23	21	20	32.8	
8-Oct	19	19	20	21	22	22	22	22	22	23	23	24	25	26	27	28	28	28	27	26	25	24	23	22	28.0
9-Oct	22	22	22	23	24	24	24	24	25	25	25	26	27	27	29	30	30	30	30	29	28	27	26	25	29.9
10-Oct	25	24	23	23	23	23	22	21	19	18	17	17	16	17	18	20	22	23	24	25	25	24	24	23	24.8
11-Oct	23	22	21	21	21	21	21	20	20	20	21	21	23	24	25	26	27	28	28	28	28	27	26	24	28.1
12-Oct	22	20	18	16	14	13	11	10	9	9	9	11	13	14	15	N	N	N	N	N	N	N	20	18	22.1
13-Oct	16	14	12	10	10	9	9	9	8	8	9	10	11	12	13	15	17	18	19	20	20	19	18	17	19.6
14-Oct	16	16	17	17	17	18	19	21	21	22	23	23	24	25	26	26	27	27	27	26	26	25	25	24	26.7
15-Oct	24	24	24	24	24	24	25	25	25	26	27	28	30	31	33	34	35	36	36	36	35	35	34	33	36.0
16-Oct	33	34	34	34	34	34	34	34	33	33	33	34	35	36	37	38	38	38	37	36	33	30	28	25	38.2
17-Oct	24	23	22	22	22	23	25	26	27	28	30	32	33	33	32	33	33	33	32	32	31	30	30	29	33.1
18-Oct	29	28	27	26	26	26	26	27	26	26	26	26	26	27	27	27	28	28	29	30	30	30	30	29	30.4
19-Oct	29	28	26	25	23	22	22	21	21	21	22	23	25	26	28	30	31	33	34	33	31	29	27	25	33.9
20-Oct	24	23	23	23	24	25	26	26	25	24	24	25	24	26	28	30	32	33	33	32	31	29	27	25	33.2
21-Oct	24	24	24	24	23	24	24	24	25	26	27	27	28	30	31	33	34	33	33	32	32	31	29	27	33.9
22-Oct	25	24	22	20	17	15	14	13	12	12	11	14	16	19	22	25	27	29	29	29	29	28	27	26	28.9
23-Oct	26	26	26	27	27	27	28	29	29	29	29	30	31	32	33	33	34	34	34	35	35	34	34	33	34.6
24-Oct	33	33	33	32	31	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	33.3
25-Oct	30	30	29	28	27	27	26	26	25	23	22	23	24	26	27	27	27	27	27	26	25	23	22	21	29.8
26-Oct	21	21	22	22	22	22	22	22	22	22	21	21	22	23	24	25	27	28	28	28	27	27	26	25	28.2
27-Oct	24	24	23	23	23	23	23	22	22	22	22	22	22	23	24	24	25	25	26	26	26	26	26	25	26.5
28-Oct	24	24	23	22	21	20	20	19	18	20	22	24	26	27	29	31	32	31	30	28	27	26	25	32.2	
29-Oct	25	25	25	25	26	26	25	24	23	22	21	22	22	24	25	27	28	29	29	28	27	26	24	22	29.2
30-Oct	21	20	20	20	20	21	21	21	21	21	22	22	23	24	26	26	28	29	30	30	30	29	28	28	30.0
31-Oct	28	28	27	27	26	26	25	24	24	25	25	25	26	27	29	30	31	30	29	28	27	25	23	22	30.8
33.4 33.6 33.9 33.8 33.5 33.6 33.8 34.0 34.8 36.0 37.3 37.3 38.0 38.0 37.8 37.5 38.2 37.9 37.4 37.5 37.2 36.6 35.7 34.6																									
Diurnal Maximums																									
N - Not Valid																									

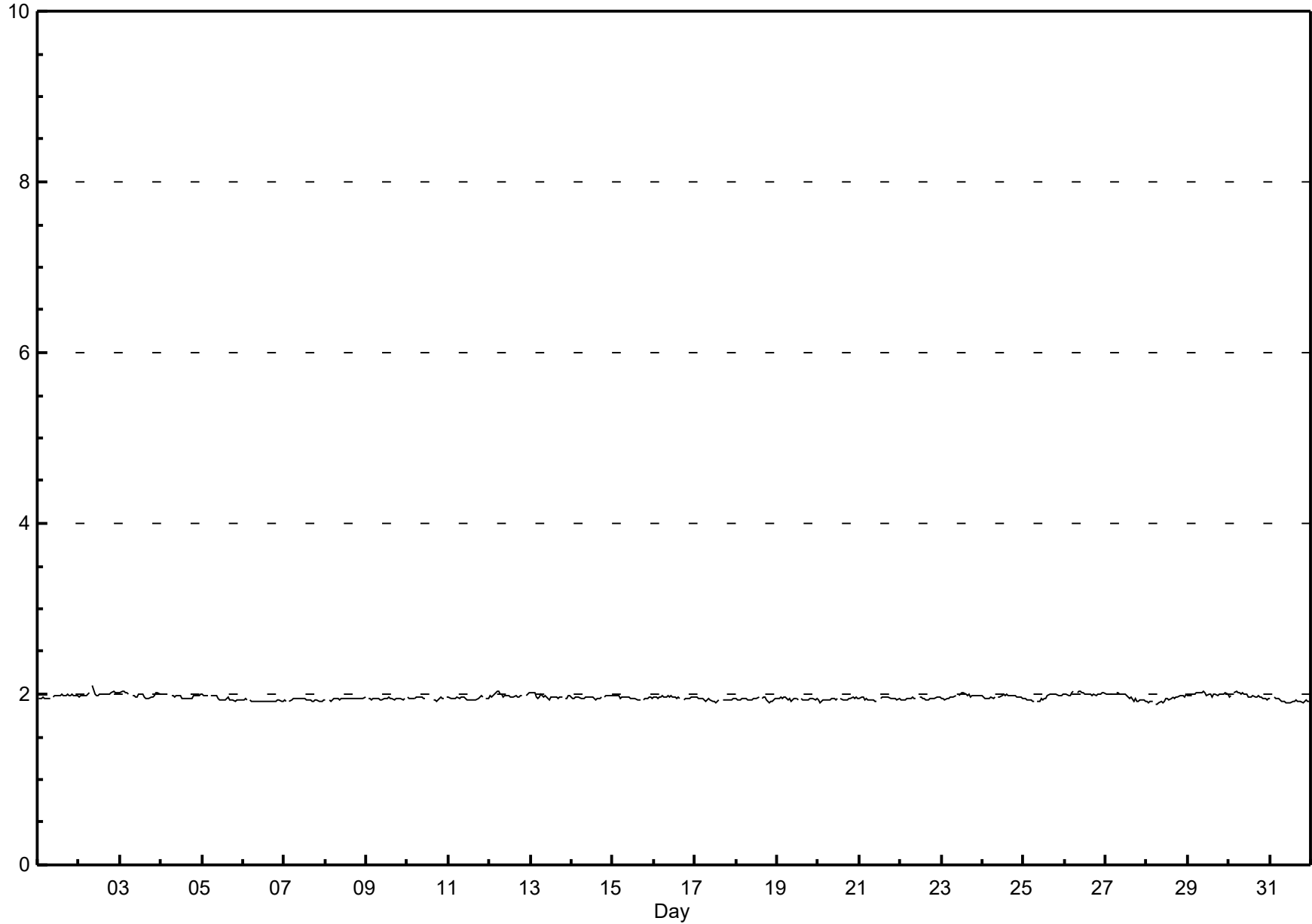
Span Responses

Ozone (O₃)
Portable Rycroft - October 2017



Hourly Averages

Total Hydrocarbons (THC) - ppm
Portable Rycroft - October 2017



Hourly Maximums

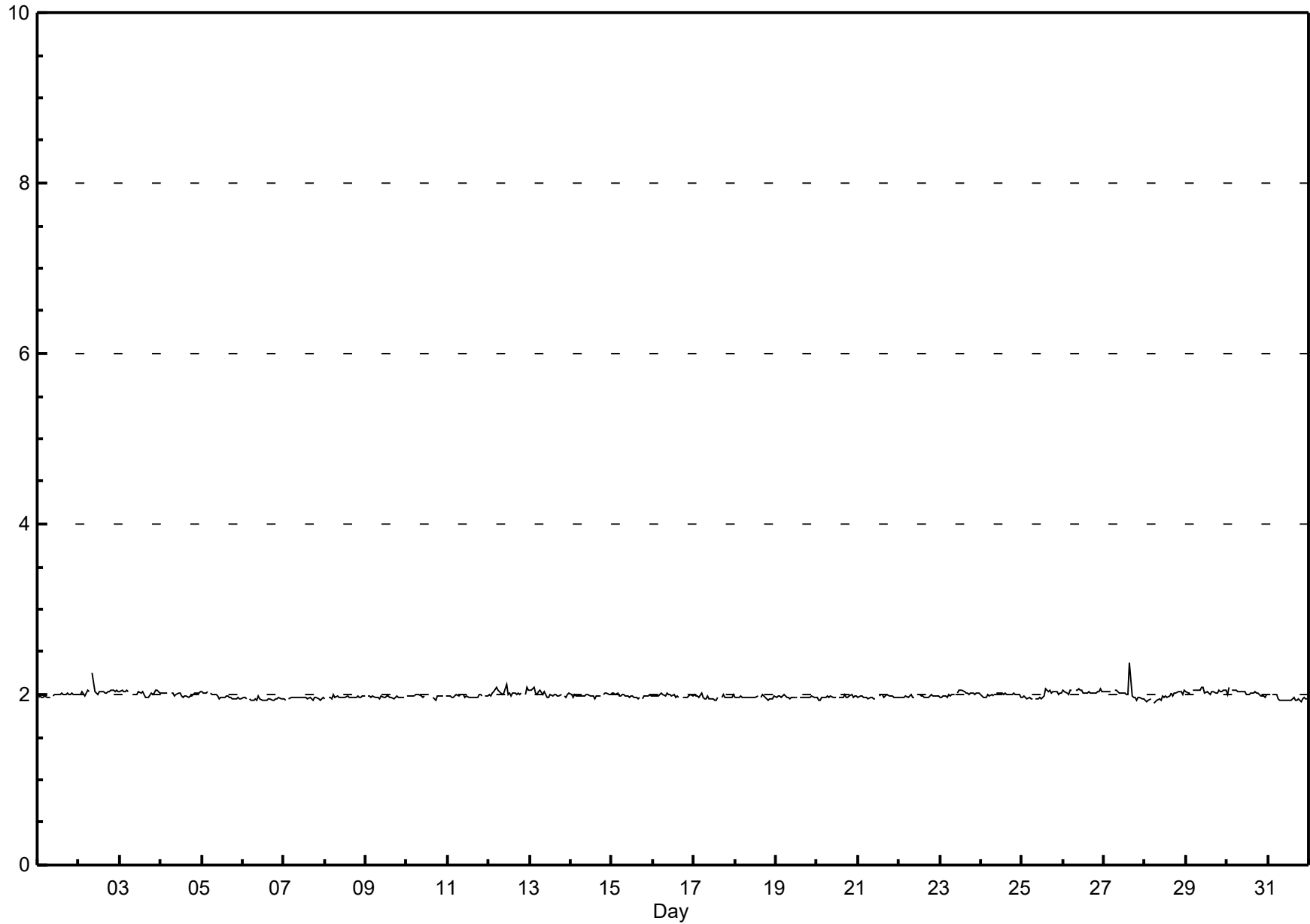
Total Hydrocarbons (THC) - ppm

Portable Rycroft - October 2017

Maximum Value: 2.37 ppm on Oct 27 16:00		Maximum Daily Average: 2.04 ppm on Oct 29		Hours in Service: 744																							
Minimum Value: 1.9 ppm on Oct 28 06:00		Minimum Daily Average: 1.95 ppm on Oct 6		Hours of Data: 708																							
Maximum Diurnal Average: 2.00 ppm at hour 16		Minimum Diurnal Average: 1.98 ppm at hour 17		Hours of Missing Data: 36																							
Monthly Average: 1.990 ppm		Percentiles: P ₁ = 1.93 P ₁₀ = 1.95 Q ₁ = 1.97 Median = 1.98 Q ₃ = 2.01 P ₉₀ = 2.03 P ₉₉ = 2.08		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	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.02
2-Oct	2.0	2.0	2.0	2.0	2.0	2.1	2.0	A	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.04	2.26
3-Oct	2.0	2.1	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	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.02	2.06	
4-Oct	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.04	
5-Oct	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.98	2.04	
6-Oct	2.0	2.0	2.0	A	2.0	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.95	1.97	
7-Oct	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.96	1.97	
8-Oct	1.9	A	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	1.99	
9-Oct	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	2.0	A	1.97	1.99	
10-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	C	2.0	1.9	1.9	2.0	2.0	2.0	2.0	A	2.0	1.98	2.01		
11-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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.98	2.01		
12-Oct	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.0	2.02	2.11	
13-Oct	2.0	2.1	2.1	2.0	2.0	2.0	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	A	2.0	2.0	2.0	2.0	2.01	2.08	
14-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	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.99	2.01	
15-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	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.01	
16-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	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.01	
17-Oct	2.0	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	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.02	
18-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	A	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.97	2.00	
19-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	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	1.97	2.00	
20-Oct	2.0	1.9	1.9	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	2.0	2.0	2.0	1.97	2.00	
21-Oct	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	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	1.97	2.01	
22-Oct	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	2.0	2.0	2.0	2.0	1.98	2.01	
23-Oct	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	2.0	2.0	2.0	2.0	2.0	2.01	2.04	
24-Oct	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	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.02	
25-Oct	2.0	2.0	2.0	1.9	2.0	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.06	
26-Oct	2.0	2.0	2.0	2.0	2.1	2.1	A	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.04	2.07		
27-Oct	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	2.4	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.02	2.37		
28-Oct	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.04		
29-Oct	2.0	2.0	2.0	A	2.0	2.1	2.0	2.0	2.1	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	2.04	2.08	
30-Oct	2.0	2.1	A	2.1	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	2.02	2.08		
31-Oct	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	2.0	1.9	1.9	2.0	1.9	2.0	2.0	1.9	2.0	1.95	2.01	
		1.99	1.99	1.99	1.99	2.00	1.99	1.99	1.99	2.00	1.99	1.99	1.99	1.99	1.98	1.99	2.00	1.98	1.98	1.99	1.99	1.99	1.99	2.00	Diurnal Average		
		2.04	2.08	2.08	2.05	2.08	2.06	2.05	2.04	2.26	2.08	2.11	2.04	2.04	2.04	2.06	2.37	2.05	2.04	2.03	2.05	2.05	2.06	2.08	2.04	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

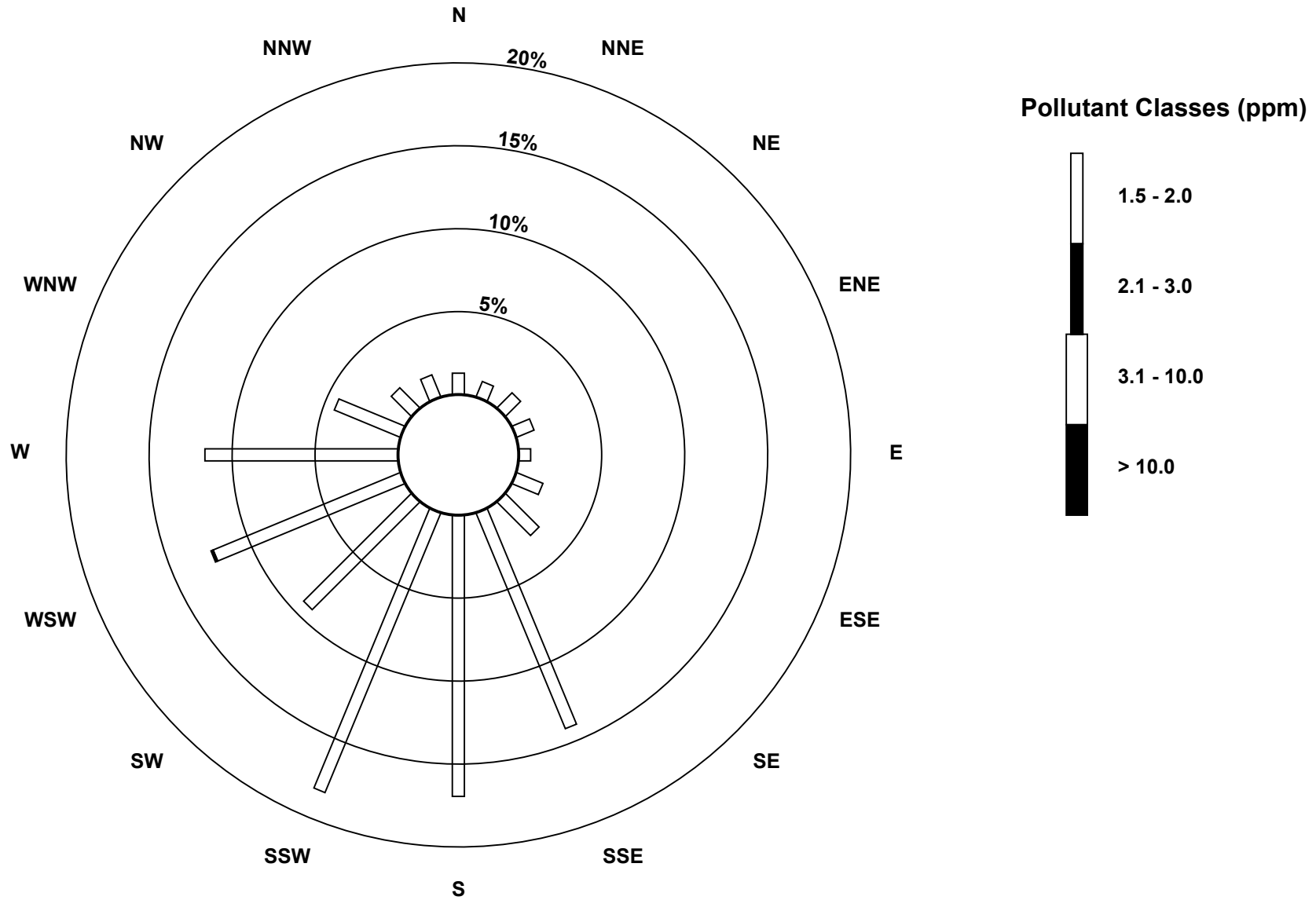
Hourly Maximums

Total Hydrocarbons (THC) - ppm
Portable Rycroft - October 2017



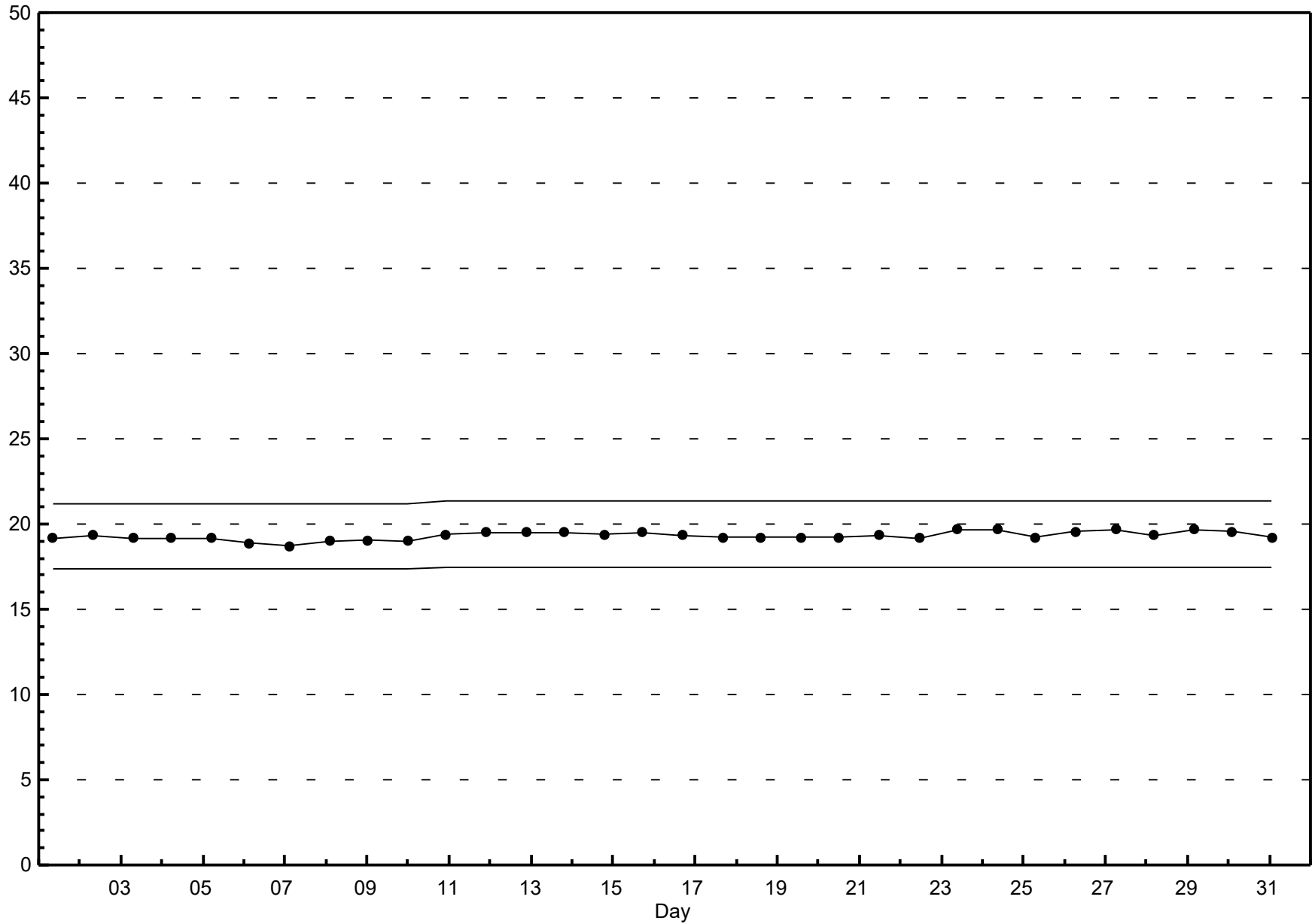
Pollutant Rose

Total Hydrocarbons (THC) - ppm
Portable Rycroft - October 2017



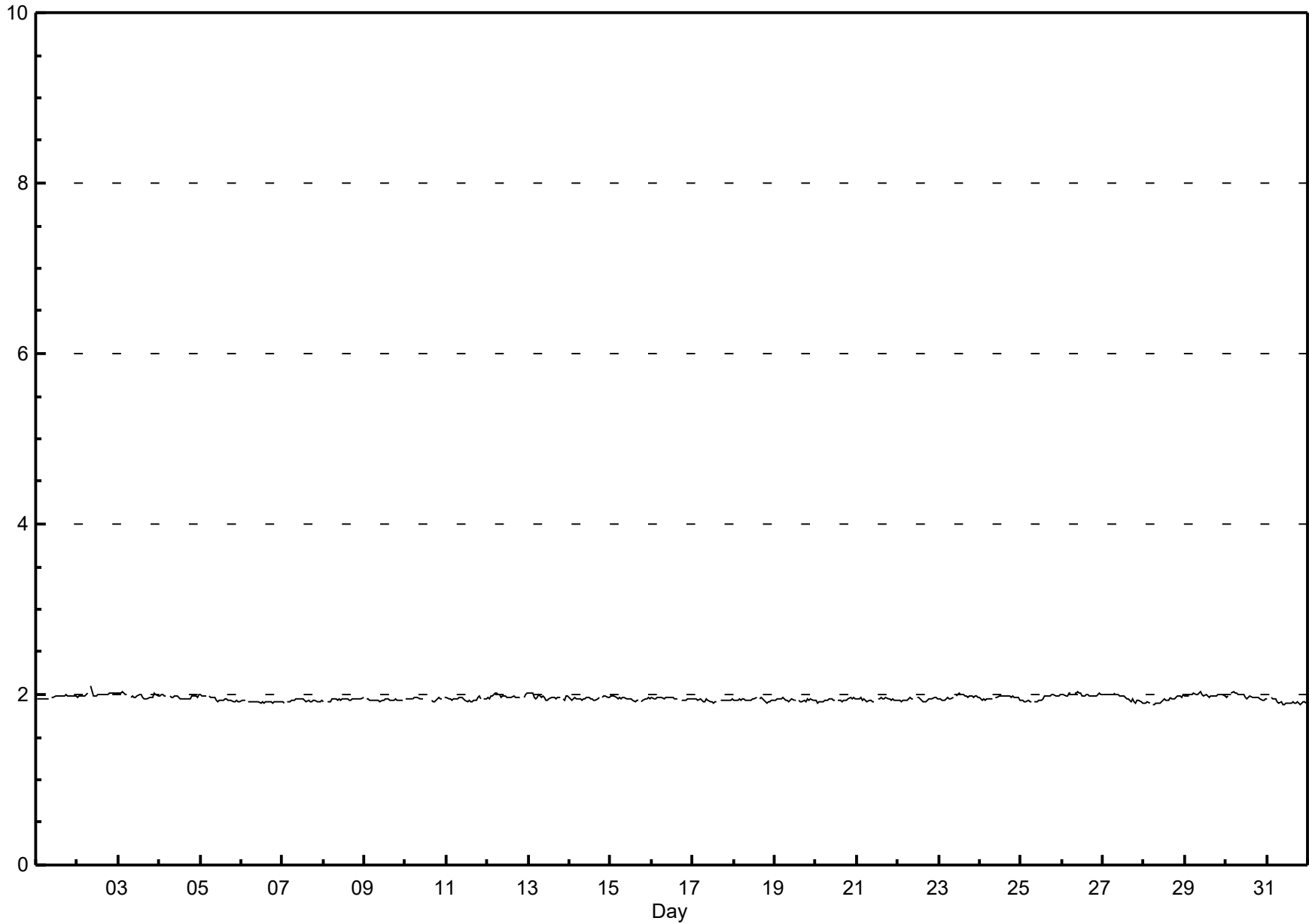
Span Responses

**Total Hydrocarbons (THC)
Portable Rycroft - October 2017**



Hourly Averages

Methane (CH₄) - ppm
Portable Rycroft - October 2017



Hourly Maximums

Methane (CH₄) - ppm

Portable Rycroft - October 2017

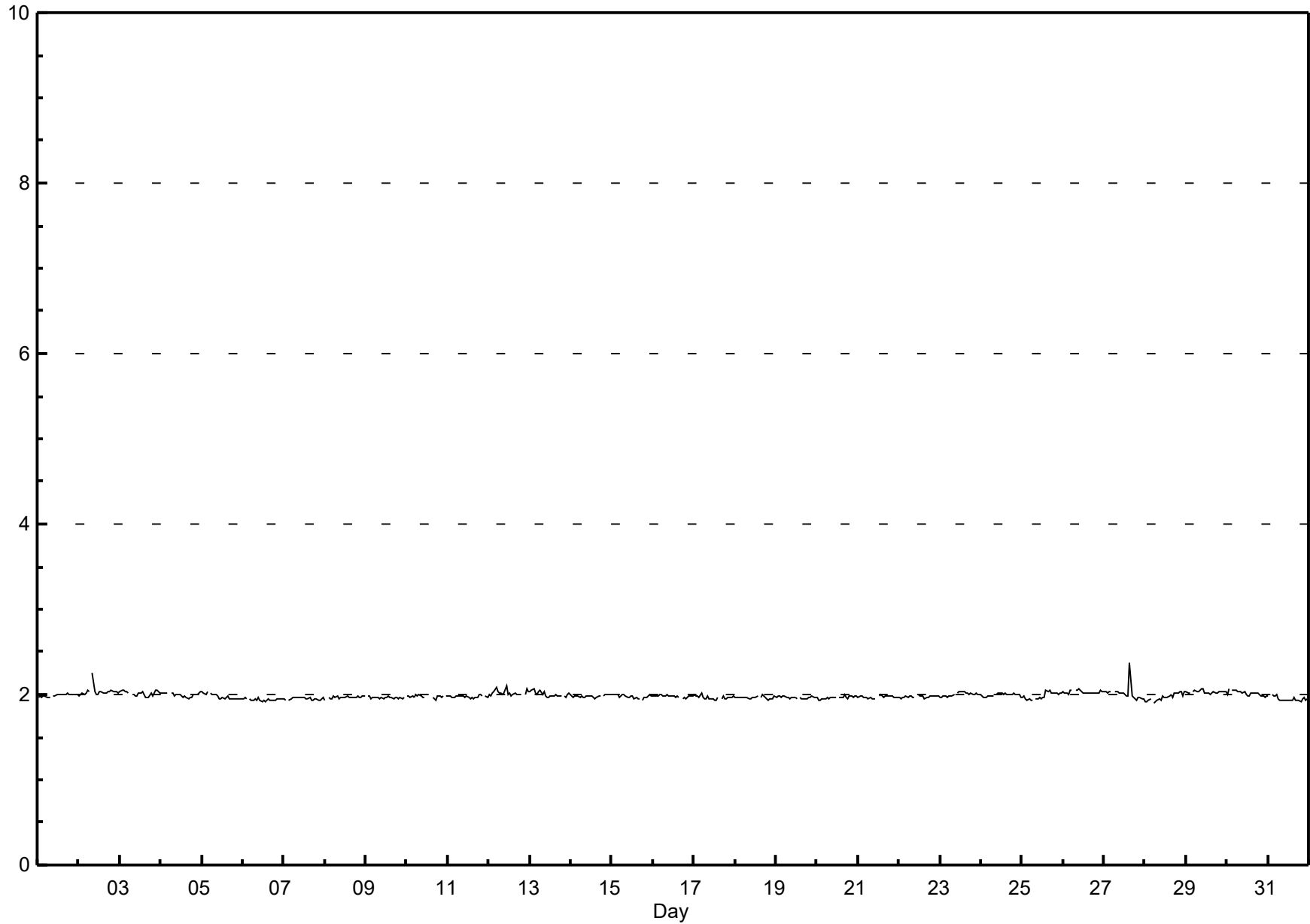
Maximum Value: 2.37 ppm on Oct 27 16:00		Maximum Daily Average: 2.03 ppm on Oct 2		Hours in Service: 744
Minimum Value: 1.9 ppm on Oct 28 06:00		Minimum Daily Average: 1.94 ppm on Oct 6		Hours of Data: 708
Maximum Diurnal Average: 1.99 ppm at hour 16		Minimum Diurnal Average: 1.98 ppm at hour 17		Hours of Missing Data: 36
Monthly Average: 1.985 ppm		Percentiles: P ₁ = 1.92 P ₁₀ = 1.95 Q ₁ = 1.96 Median = 1.98 Q ₃ = 2.01 P ₉₀ = 2.03 P ₉₉ = 2.07		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	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	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.02
2-Oct	2.0	2.0	2.0	2.0	2.0	2.1	2.0	A	2.3	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	2.26
3-Oct	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	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.01	2.05
4-Oct	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.03
5-Oct	2.0	2.0	2.0	2.0	A	2.0	2.0	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	2.0	1.9	1.9	1.98	2.04
6-Oct	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.94	1.96
7-Oct	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	1.95	1.97
8-Oct	1.9	A	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	1.99
9-Oct	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	1.9	2.0	2.0	2.0	2.0	1.9	2.0	A	1.97	1.98
10-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	C	2.0	1.9	1.9	2.0	2.0	2.0	2.0	A	2.0	1.98	2.00	
11-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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.98	2.01	
12-Oct	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.02	2.10
13-Oct	2.0	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	A	2.0	2.0	2.0	2.0	2.00	2.07
14-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	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.98	2.01
15-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	2.0	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.01
16-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	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.00
17-Oct	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.96	2.01
18-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	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.96	2.00
19-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	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	2.0	1.97	1.98
20-Oct	2.0	1.9	1.9	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	2.0	2.0	2.0	1.97	1.99
21-Oct	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	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	1.97	2.00
22-Oct	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	2.0	2.0	2.0	2.0	1.97	2.00
23-Oct	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	2.0	2.0	2.0	2.0	2.0	2.00	2.04
24-Oct	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	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.02
25-Oct	2.0	2.0	2.0	1.9	2.0	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.05
26-Oct	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	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	2.0	2.03	2.07
27-Oct	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	2.4	2.0	2.0	2.0	1.9	2.0	2.0	1.9	2.0	2.01	2.37
28-Oct	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	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	1.97	2.03
29-Oct	2.0	2.0	2.0	A	2.0	2.1	2.0	2.0	2.1	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	2.03	2.07
30-Oct	2.0	2.1	A	2.0	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	2.01	2.07
31-Oct	2.0	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.95	2.00
1.99		1.99	1.99	1.98	1.99	1.99	1.98	1.98	1.99	1.98	1.99	1.98	1.98	1.98	1.98	1.99	1.98	1.98	1.98	1.98	1.98	1.99	1.99	1.99	Diurnal Average	
2.04		2.07	2.07	2.05	2.08	2.05	2.04	2.04	2.26	2.07	2.10	2.04	2.04	2.03	2.05	2.37	2.05	2.03	2.03	2.05	2.04	2.05	2.07	2.04	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

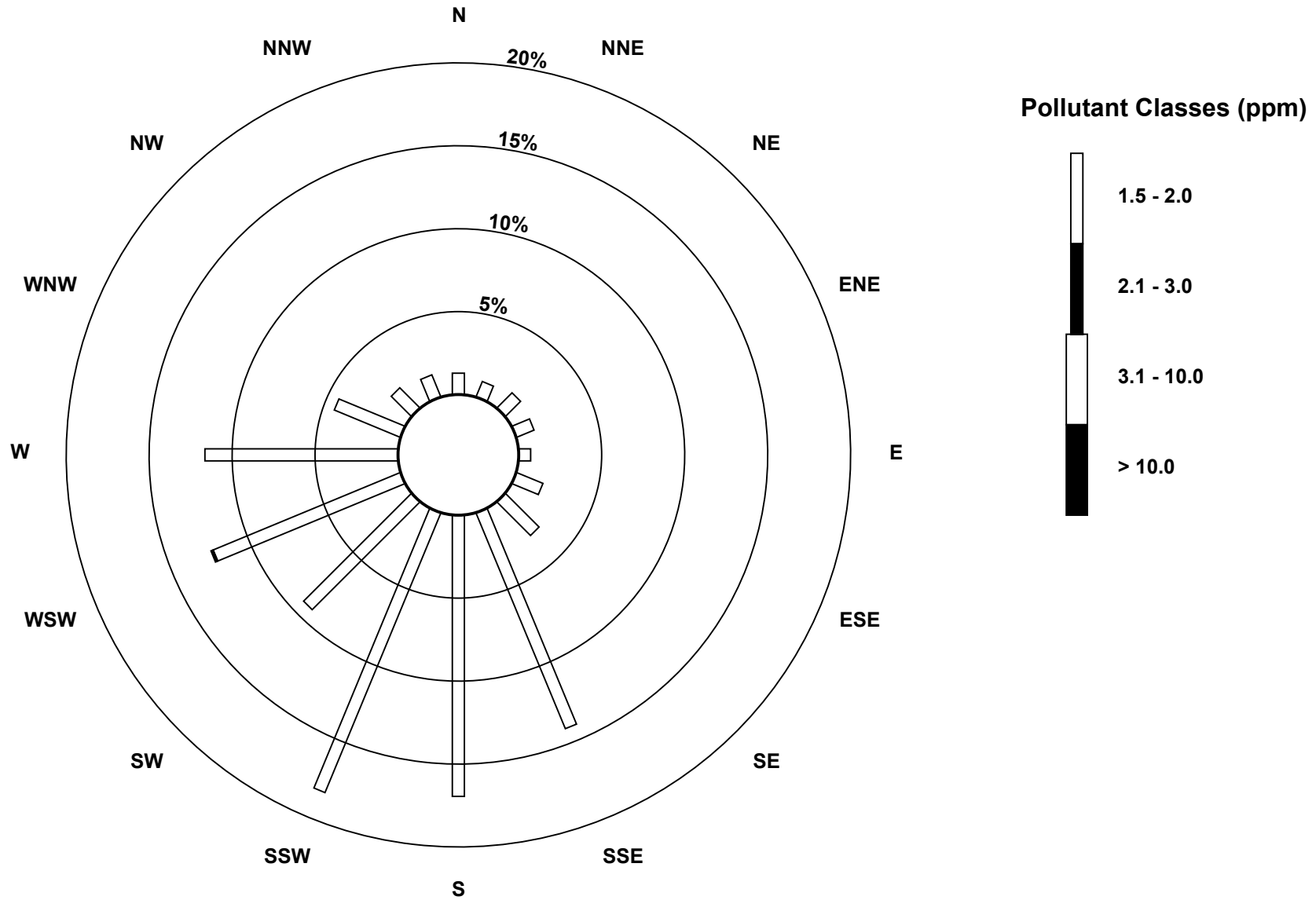
Hourly Maximums

Methane (CH₄) - ppm
Portable Rycroft - October 2017



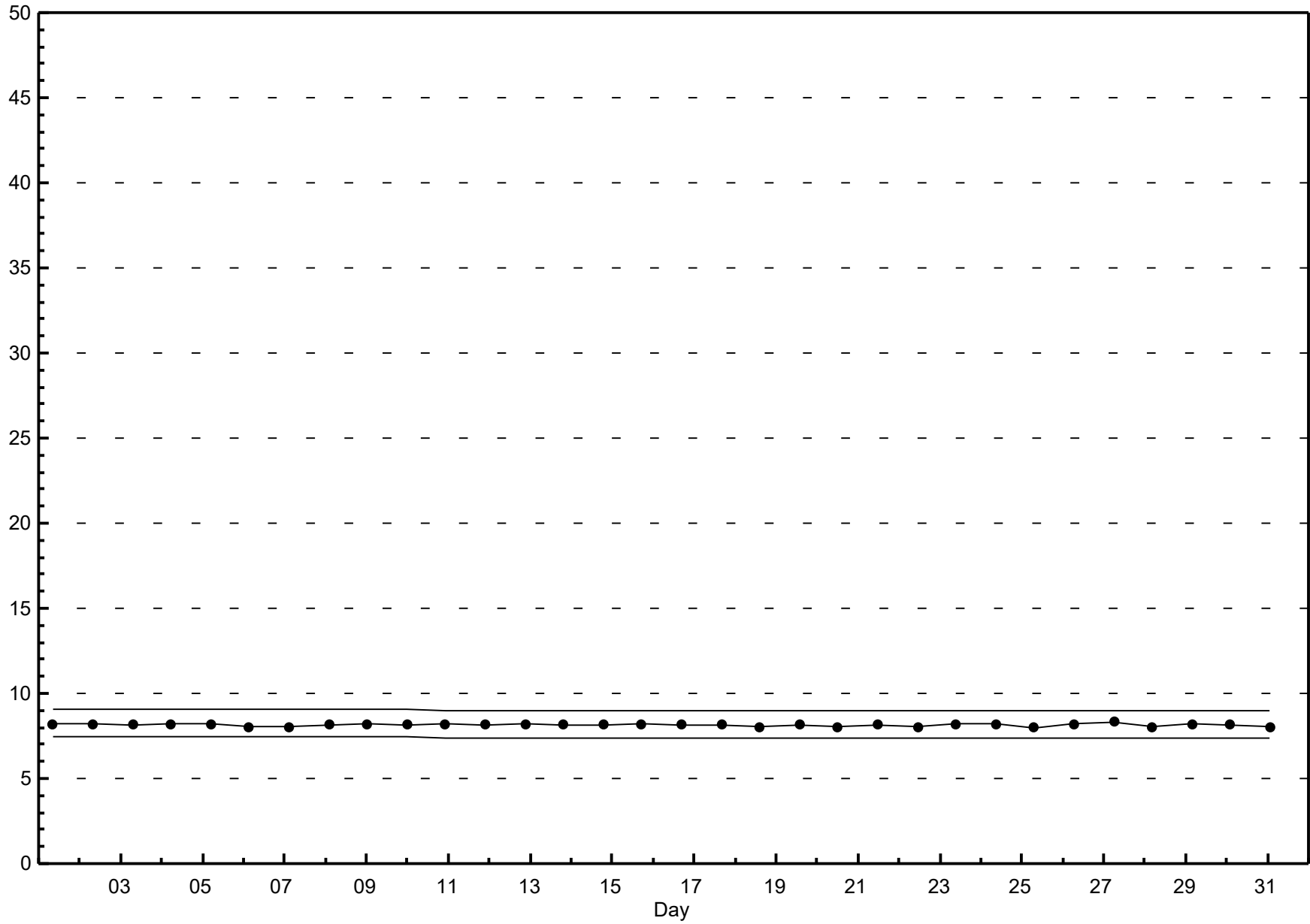
Pollutant Rose

Methane (CH₄) - ppm
Portable Rycroft - October 2017



Span Responses

Methane (CH₄)
Portable Rycroft - October 2017

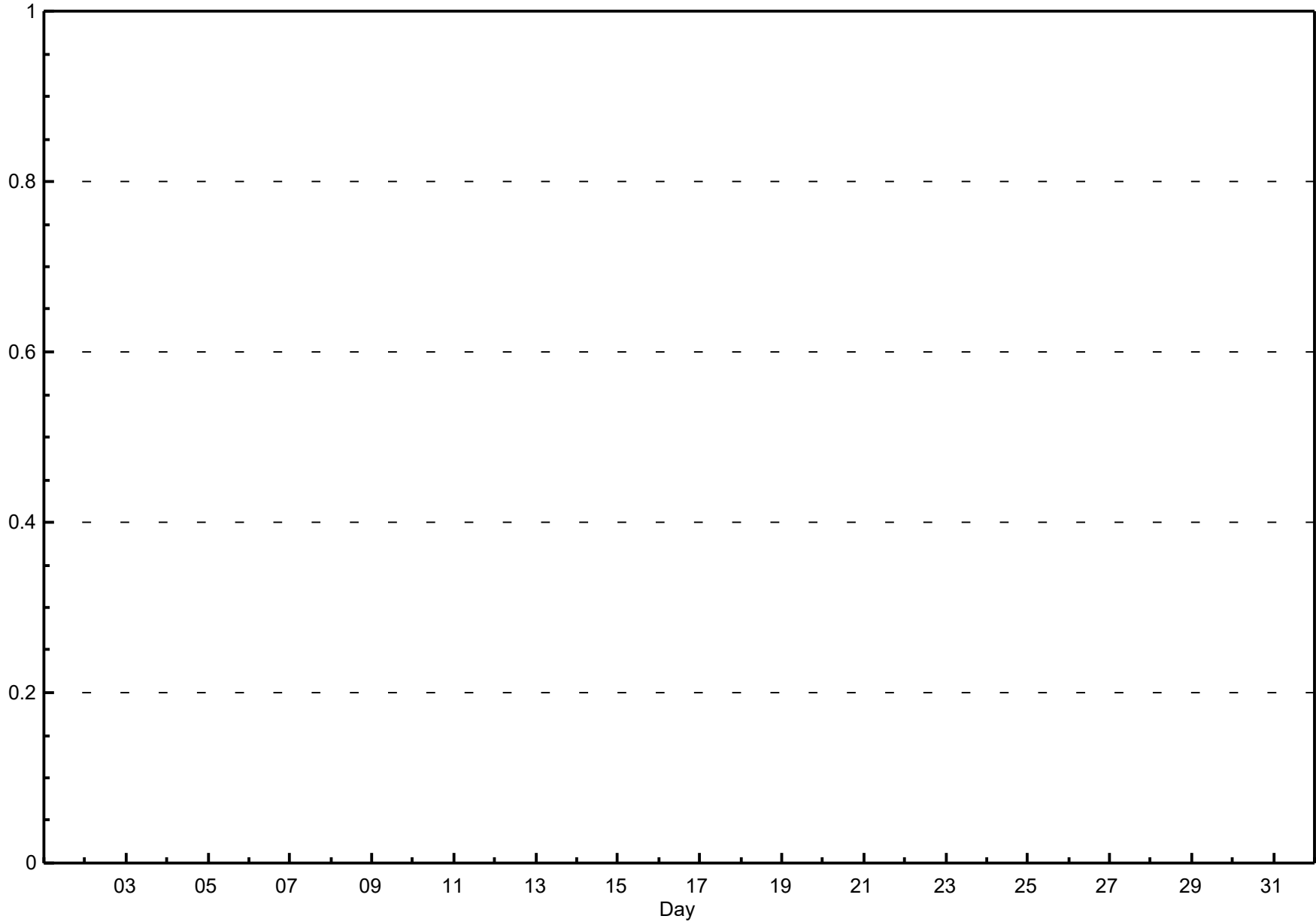


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - October 2017

Maximum Value: 0.00 ppm on Oct 25 01:00																								Hours in Service: 744		
Maximum Daily Average: 0.00 ppm on Oct 24																								Hours of Data: 708		
Minimum Value: 0.0 ppm on Oct 1 01:00																								Hours of Missing Data: 36		
Minimum Daily Average: 0.00 ppm on Oct 1																								Hours of Calibration: 36		
Maximum Diurnal Average: 0.00 ppm at hour 14																								Percent Operational Time: 100.0		
Minimum Diurnal Average: 0.00 ppm at hour 10																										
Monthly Average: 0.000 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																										
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	0.0	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
2-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
3-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
4-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
5-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
6-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
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	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
8-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
9-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	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	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
12-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
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	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
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	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
15-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	A	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	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
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	0.0	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
18-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	A	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	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
20-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
21-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
22-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
23-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
24-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
25-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
26-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
27-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
28-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
29-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
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	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
31-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
0.00																								Diurnal Average		
0.00																								Diurnal Maximum		
C - Calibration																										
A - Automated Daily Zero Span																										

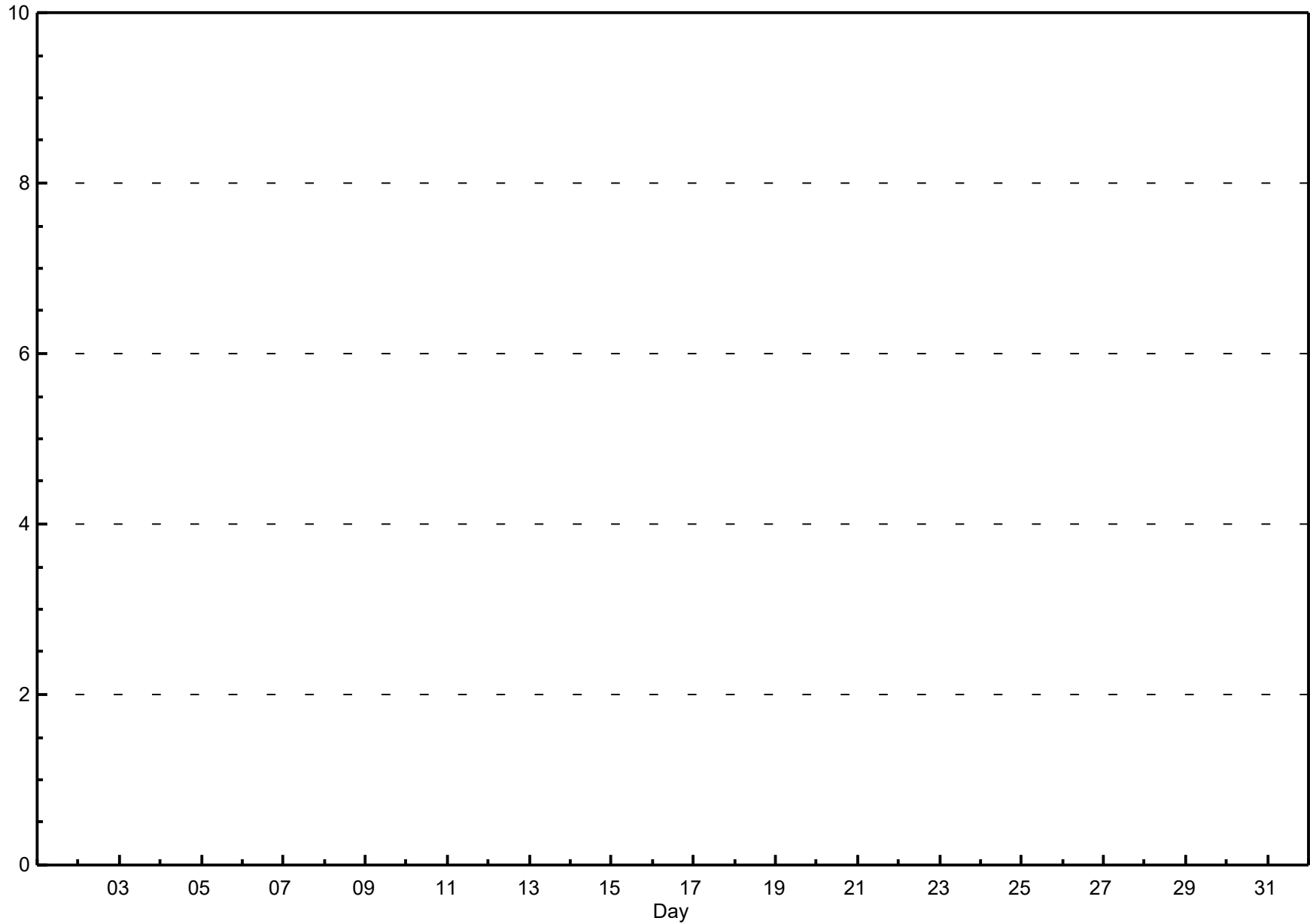


Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - October 2017

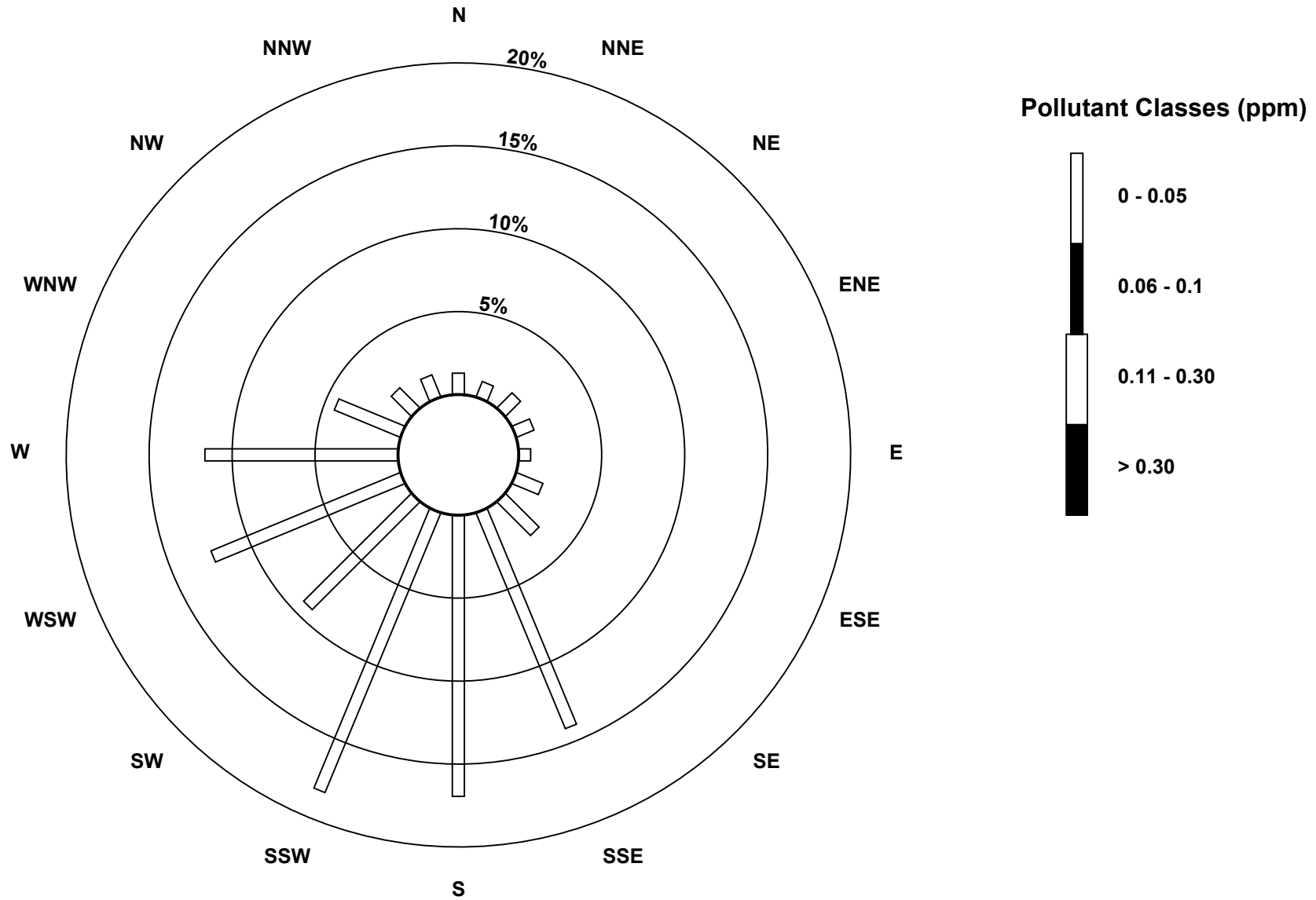
Maximum Value: 0.00 ppm on Oct 9 10:00		Maximum Daily Average: 0.00 ppm on Oct 25		Hours in Service: 744																							
Minimum Value: 0.0 ppm on Oct 1 10:00		Minimum Daily Average: 0.00 ppm on Oct 5		Hours of Data: 708																							
Maximum Diurnal Average: 0.00 ppm at hour 18		Minimum Diurnal Average: 0.00 ppm at hour 8		Hours of Missing Data: 36																							
Monthly Average: 0.000 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: 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	0.0	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
2-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	0.0	0.00	0.00
3-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	0.0	0.00	0.00
4-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	0.0	0.00	0.00
5-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	0.0	0.00	0.00
6-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	0.0	0.00	0.00
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	0.0	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
8-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	0.0	0.00	0.00
9-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	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	C	C	C	C	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
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
12-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	0.0	0.00	0.00
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	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
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	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
15-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	A	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	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
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	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-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	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
19-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	0.0	0.00	0.00
20-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	0.0	0.00	0.00
21-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	0.0	0.00	0.00
22-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	0.0	0.00	0.00
23-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	0.0	0.00	0.00
24-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	0.0	0.00	0.00
25-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	0.0	0.00	0.00
26-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	0.0	0.00	0.00
27-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	0.0	0.00	0.00
28-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	0.0	0.00	0.00
29-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	0.0	0.00	0.00
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	0.0	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
31-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	0.0	0.00	0.00
																								0.00	0.00		
																								0.00	0.00		
																								Diurnal Average			
																								Diurnal Maximum			
C - Calibration																											
A - Automated Daily Zero Span																											

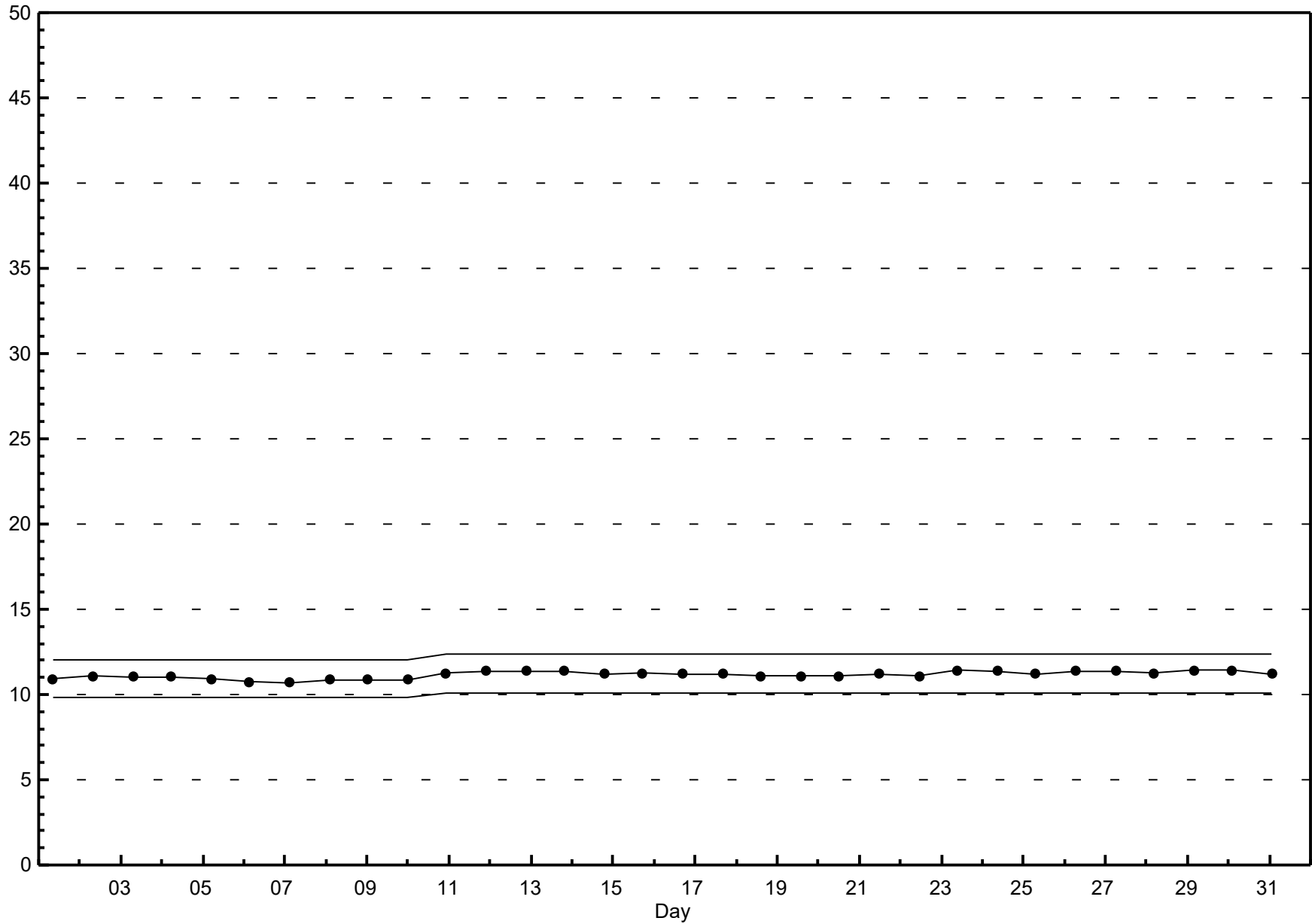


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - October 2017





Hourly Averages

PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - October 2017

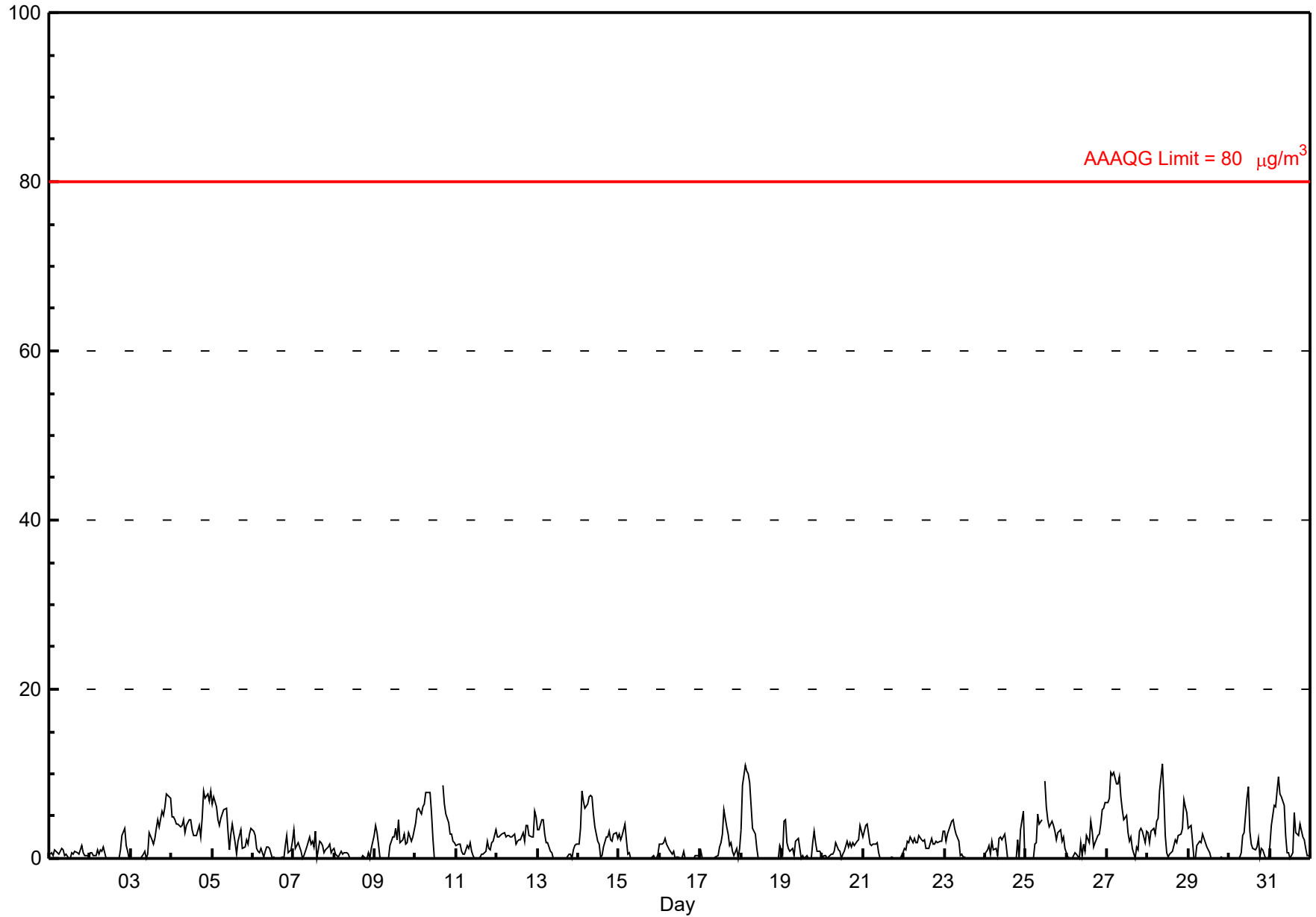
Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 11.2 µg/m ³ on Oct 28 09:00	Maximum Daily Average: 5.0 µg/m ³ on Oct 27
Minimum Value: 0 µg/m ³ on Oct 1 12:00	Hours of Data: 737
Maximum Diurnal Average: 3.0 µg/m ³ at hour 3	Hours of Missing Data: 7
Monthly Average: 2.04 µg/m ³	Hours of Calibration: 3
Minimum Daily Average: 0.4 µg/m ³ on Oct 8	Percent Operational Time: 99.5
Minimum Diurnal Average: 1.1 µg/m ³ at hour 14	
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 1.5 Q ₃ = 2.9 P ₉₀ = 5.3 P ₉₉ = 9.8	

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	1	0	1	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	2	1	0	0	0	0.6	1.5
2-Oct	1	1	0	0	1	0	1	1	1	0	0	0	0	N	N	N	0	0	1	3	4	2	1	0	0.8	3.6
3-Oct	0	0	0	0	0	0	0	0	1	0	0	3	2	2	2	4	5	4	6	5	6	8	7	7	2.6	7.7
4-Oct	5	5	5	4	4	4	4	5	3	4	5	5	3	3	3	3	4	3	5	8	7	8	7	8	4.6	7.9
5-Oct	6	7	6	5	4	5	5	6	6	3	1	3	4	2	0	2	3	3	1	1	2	2	3	4	3.5	7.2
6-Oct	3	3	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	1	3	1	1	2	1.0	3.2
7-Oct	3	1	2	2	1	0	0	1	1	2	2	2	1	3	0	2	2	1	1	1	1	2	1	1	1.4	3.4
8-Oct	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0.4	2.7
9-Oct	4	3	2	0	0	0	0	0	0	2	3	3	4	2	5	2	2	3	2	2	3	2	3	3	2.0	4.6
10-Oct	4	6	6	5	6	6	8	8	8	5	2	0	0	C	C	C	9	6	5	4	3	3	2	2	4.7	8.7
11-Oct	1	2	2	1	1	1	2	1	2	1	0	0	0	0	0	0	1	1	2	1	1	2	2	3	1.1	3.3
12-Oct	3	3	3	3	3	3	3	3	3	2	3	2	2	2	2	3	2	4	4	3	3	3	6	5	2.9	5.5
13-Oct	3	3	5	5	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1	2	1.2	4.6
14-Oct	2	4	8	7	6	6	7	7	7	5	4	2	2	0	0	1	3	3	3	2	2	3	3	2	3.8	7.9
15-Oct	3	2	3	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.1
16-Oct	2	2	2	2	2	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.7	2.5
17-Oct	1	0	0	0	0	0	0	0	0	0	0	1	2	3	6	4	3	2	2	1	0	1	0	1	1.1	5.7
18-Oct	3	9	11	10	10	9	6	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2.8	11.0
19-Oct	0	4	5	2	1	1	1	0	2	2	2	0	0	0	0	0	0	0	2	3	2	1	1	1	1.3	4.6
20-Oct	0	0	0	0	0	0	1	1	2	1	1	0	1	1	2	1	2	1	2	2	2	2	4	3	1.2	3.9
21-Oct	3	4	4	3	2	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1.0	4.0
22-Oct	1	1	2	2	3	2	2	2	2	3	2	2	2	1	1	1	2	2	2	2	2	2	2	3	1.9	3.2
23-Oct	3	2	3	4	4	5	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.3	4.5
24-Oct	1	1	2	0	2	1	1	0	2	3	2	3	2	0	0	0	0	0	0	2	0	3	6	0	1.3	5.5
25-Oct	0	0	0	0	0	2	2	5	4	5	M	9	6	5	4	4	4	3	2	3	3	2	3	1	2.9	9.1
26-Oct	1	0	0	0	0	1	0	0	2	0	2	1	3	2	4	3	1	2	3	3	4	6	6	7	2.1	6.6
27-Oct	7	7	10	10	10	9	9	10	7	6	5	5	3	2	2	1	0	1	1	3	4	3	2	3	5.0	10.2
28-Oct	3	2	3	3	3	4	5	8	11	7	3	1	0	0	1	2	2	2	3	3	4	7	6	5	3.7	11.2
29-Oct	4	4	2	0	0	2	2	2	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1.0	3.9
30-Oct	0	0	0	0	0	0	0	1	3	3	7	8	3	2	1	1	1	2	0	1	1	0	0	0	1.5	8.5
31-Oct	2	4	6	6	8	10	8	7	6	3	1	1	0	1	5	3	3	3	4	2	2	1	0	0	3.6	9.6
	2.3	2.6	3.0	2.6	2.5	2.5	2.5	2.6	2.8	2.1	1.6	1.7	1.3	1.1	1.4	1.4	1.6	1.5	1.6	1.9	1.9	2.1	2.2	2.3	Diurnal Average	
	6.6	8.7	11.0	10.3	10.1	9.6	8.8	9.6	11.2	7.4	7.0	9.1	6.1	4.6	5.7	4.5	8.7	6.4	5.5	7.9	7.1	7.7	7.5	7.9	Diurnal Maximum	

C - Calibration 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 Averages

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - October 2017



Hourly Maximums

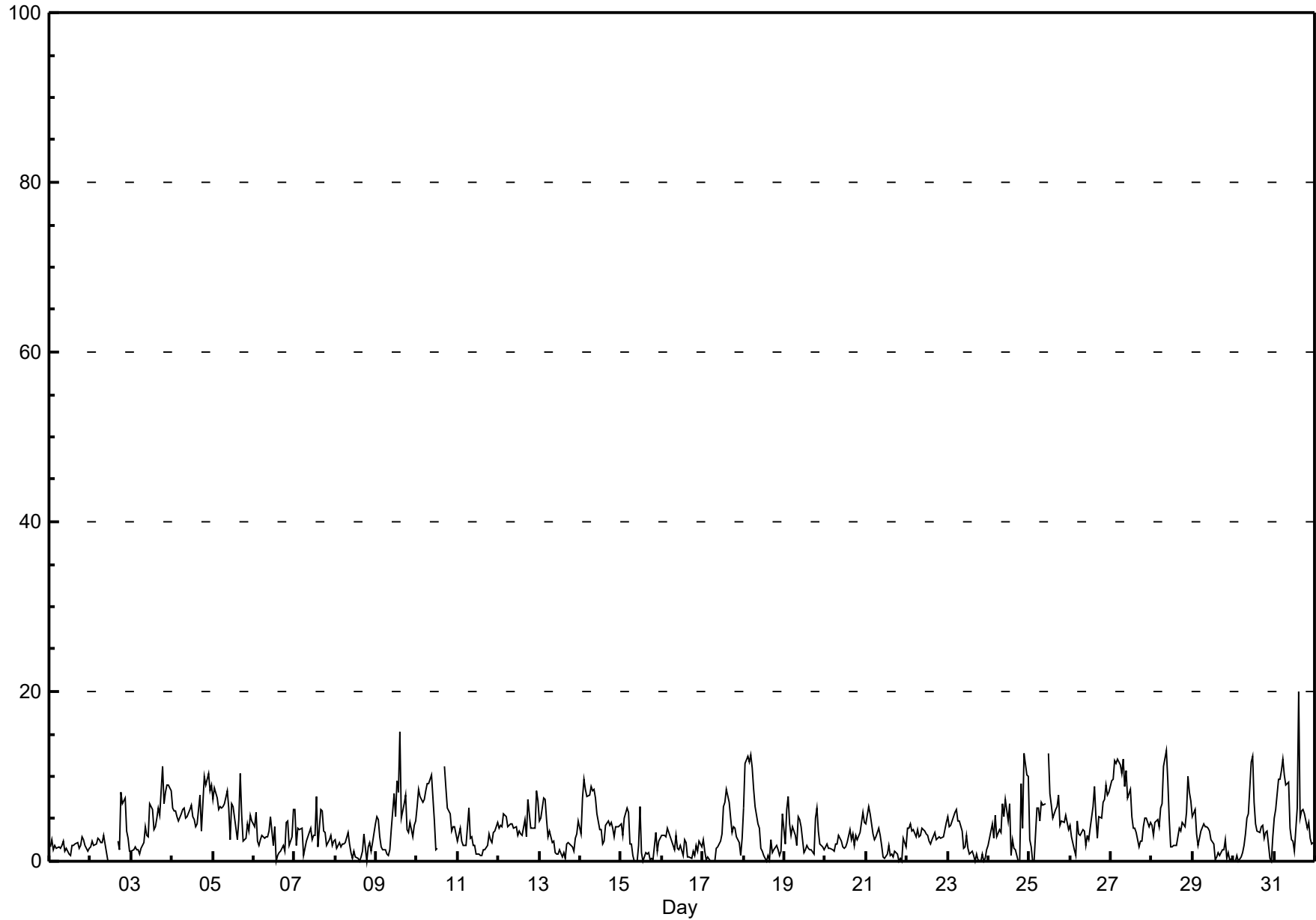
PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - October 2017

Maximum Value: 19.9 µg/m ³ on Oct 31 15:00		Maximum Daily Average: 7.1 µg/m ³ on Oct 27		Hours in Service: 744																						
Minimum Value: 0 µg/m ³ on Oct 2 11:00		Minimum Daily Average: 1.6 µg/m ³ on Oct 8		Hours of Data: 737																						
Maximum Diurnal Average: 4.7 µg/m ³ at hour 9		Minimum Diurnal Average: 2.9 µg/m ³ at hour 16		Hours of Missing Data: 7																						
Monthly Average: 3.84 µg/m ³		Percentiles: P ₁ = 0.0 P ₁₀ = 0.8 Q ₁ = 1.8 Median = 3.3 Q ₃ = 5.3 P ₉₀ = 7.8 P ₉₉ = 12.3		Hours of Calibration: 3																						
				Percent Operational Time: 99.5																						
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	1	2	2	2	2	2	2	1	2	1	1	2	2	2	2	2	2	3	2	2	1	1	1.8	2.8
2-Oct	2	2	2	2	3	3	2	2	3	1	0	0	0	N	N	N	2	1	8	7	7	4	3	1	2.6	8.2
3-Oct	1	1	2	1	1	1	2	2	4	3	3	7	6	4	4	5	6	6	11	7	8	9	9	8	4.6	11.2
4-Oct	6	6	6	5	5	6	6	6	5	5	6	7	5	5	4	4	8	4	7	10	9	10	8	9	6.4	10.3
5-Oct	7	9	8	6	6	6	7	7	8	6	3	7	6	4	3	5	10	5	2	3	4	4	5	5	5.7	10.3
6-Oct	4	6	2	2	3	3	3	3	3	3	5	2	4	0	1	1	1	2	1	5	5	2	3	6	2.9	6.1
7-Oct	6	2	4	4	4	1	1	2	3	4	3	3	3	8	2	6	6	4	3	2	3	3	2	2	3.3	7.6
8-Oct	2	2	2	2	2	2	2	3	2	1	0	1	0	0	0	0	1	3	0	2	2	1	2	4	1.6	4.4
9-Oct	5	5	3	2	1	1	1	1	1	4	8	5	9	8	15	5	7	8	4	3	5	3	4	5	4.7	15.2
10-Oct	6	8	8	7	7	8	9	9	10	8	5	1	1	C	C	C	11	9	6	6	4	4	4	3	6.4	11.2
11-Oct	2	4	2	2	2	2	6	3	3	2	2	1	1	1	1	1	1	2	3	3	2	3	4	5	2.4	6.2
12-Oct	4	4	4	6	5	4	4	4	4	4	4	3	4	3	3	5	3	7	6	4	4	4	8	7	4.5	8.3
13-Oct	5	5	8	7	5	3	4	2	2	1	1	1	1	1	1	0	2	2	2	2	1	3	3	5	2.8	7.5
14-Oct	3	8	10	8	8	8	9	8	9	8	6	4	4	2	2	4	5	4	5	4	3	4	4	4	5.5	9.6
15-Oct	4	3	5	6	6	2	2	1	0	0	2	7	1	0	1	1	1	0	0	0	3	1	2	3	2.2	6.5
16-Oct	3	3	3	4	3	3	2	1	3	2	1	2	1	3	2	0	0	0	1	1	2	1	2	2	1.9	3.8
17-Oct	3	1	0	0	0	0	0	0	2	2	2	3	6	7	8	7	5	3	4	4	3	2	1	3	2.8	8.4
18-Oct	6	11	12	12	12	11	8	6	4	4	2	1	1	0	1	0	3	1	1	2	1	1	1	6	4.5	12.5
19-Oct	2	6	8	4	3	4	3	2	5	5	4	1	1	2	2	1	1	1	5	6	4	2	2	1	3.2	7.7
20-Oct	2	2	1	1	1	1	2	2	3	2	2	1	2	2	4	2	3	2	3	3	3	5	6	5	2.6	5.8
21-Oct	4	7	6	4	3	3	3	4	3	2	0	0	1	2	1	1	0	1	1	0	0	0	3	2	2.1	6.5
22-Oct	4	4	4	3	4	3	4	3	3	4	4	3	3	2	2	3	3	3	3	3	3	3	4	5	3.3	4.6
23-Oct	5	4	4	5	6	6	5	5	4	2	2	3	2	1	1	1	0	1	0	0	1	0	0	1	2.4	6.0
24-Oct	2	4	4	3	5	3	4	3	7	5	7	5	7	1	3	1	1	0	0	9	4	13	10	10	4.6	12.7
25-Oct	3	2	0	0	6	6	5	7	7	7	M	13	8	7	5	6	6	8	4	5	5	5	5	4	5.3	12.7
26-Oct	4	3	1	1	5	3	3	4	4	2	3	3	4	6	9	5	3	5	5	7	7	9	8	8	4.6	9.1
27-Oct	9	10	12	11	12	11	10	12	9	11	7	9	5	4	4	3	2	2	2	4	5	5	4	5	7.1	12.0
28-Oct	4	3	5	5	4	6	7	11	13	9	5	2	2	2	2	3	4	4	5	4	6	10	8	7	5.4	13.0
29-Oct	5	6	3	2	3	4	4	4	4	4	4	3	2	0	0	1	1	1	1	2	0	1	0	0	2.4	6.0
30-Oct	0	0	1	0	0	1	2	3	5	6	12	12	7	4	4	3	4	4	3	3	4	0	0	3	3.4	12.4
31-Oct	5	6	10	10	11	12	10	9	9	4	3	2	1	6	20	5	6	6	6	4	5	3	2	2	6.5	19.9
		4.0	4.5	4.6	4.1	4.5	4.1	4.3	4.3	4.7	3.9	3.5	3.6	3.2	3.0	3.6	2.9	3.6	3.3	3.4	3.7	3.7	3.8	3.8	4.2	Diurnal Average
		9.5	11.5	12.4	11.7	12.5	12.0	10.3	12.0	13.0	10.7	11.7	12.7	9.5	8.2	19.9	7.0	11.2	8.6	11.2	10.0	9.0	12.7	10.2	10.0	Diurnal Maximum
C - Calibration		M - Maintenance					N - Not Valid																			

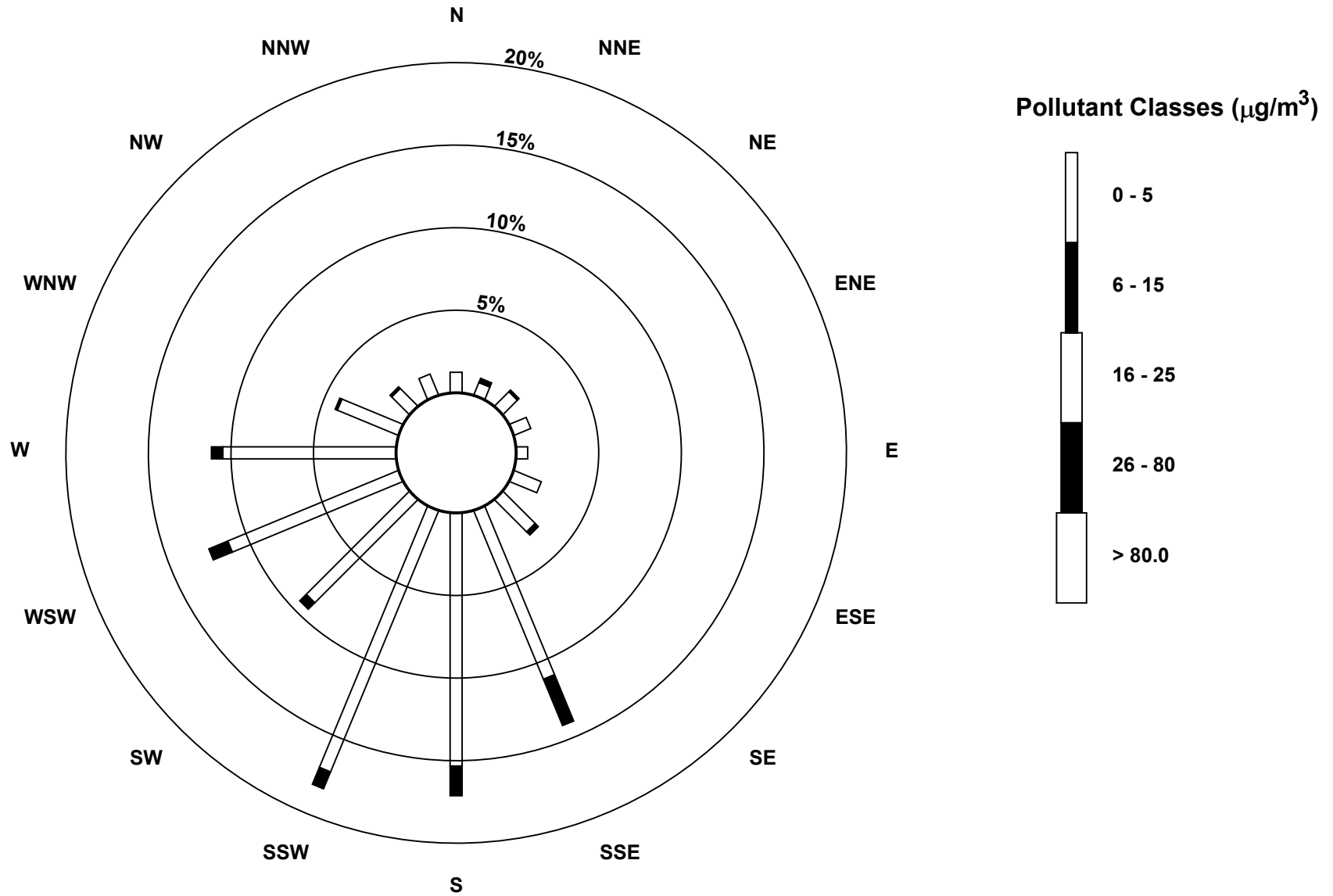
Hourly Maximums

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - October 2017



Pollutant Rose

**PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - October 2017**

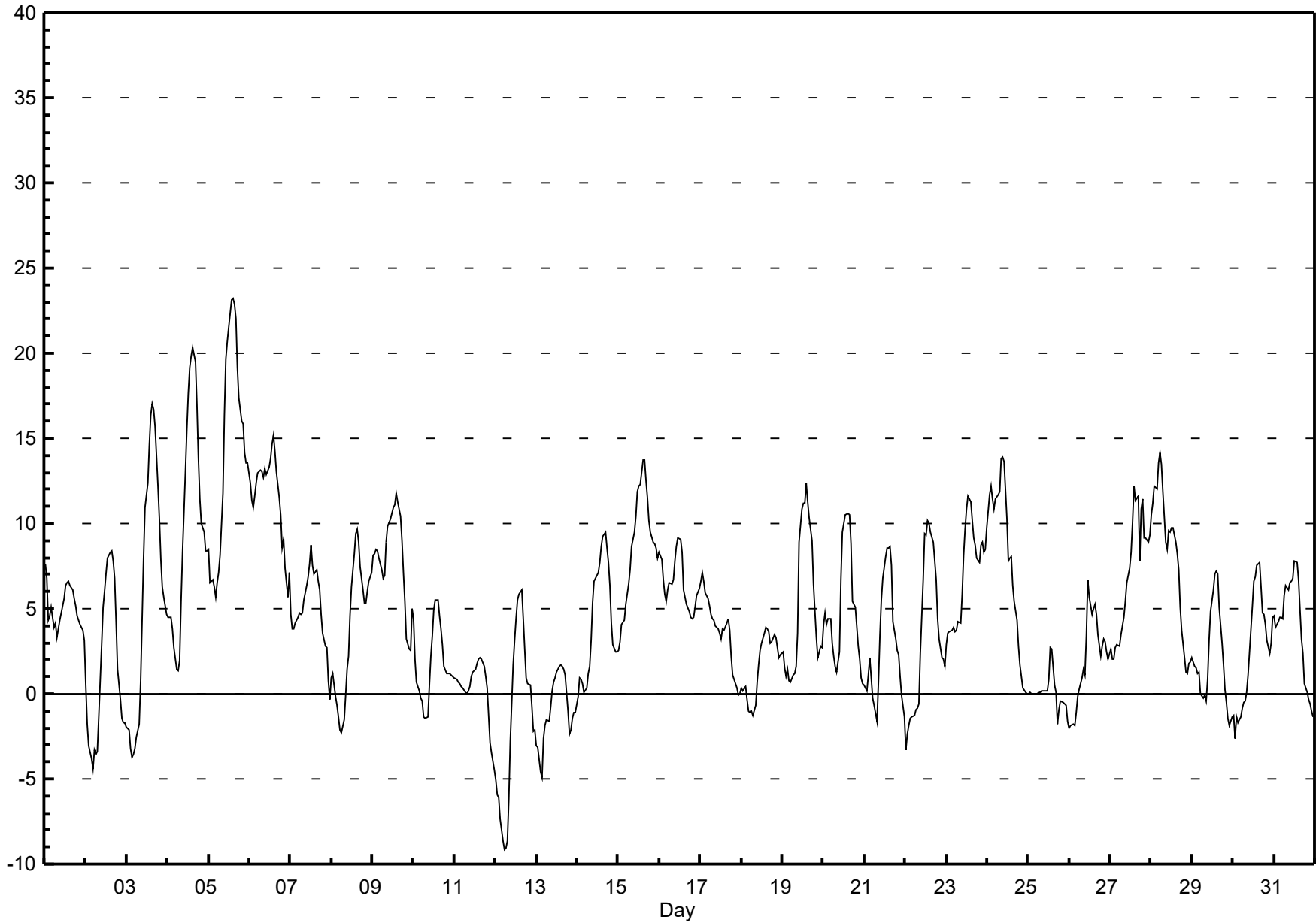


Hourly Averages

External Temperature (ET) - °C

Portable Rycroft - October 2017

Maximum Value: 23.2 °C on Oct 5 15:00		Maximum Daily Average: 14.4 °C 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: -9 °C on Oct 12 06:00		Minimum Daily Average: -1.6 °C on Oct 12																									
Maximum Diurnal Average: 9.0 °C at hour 15		Minimum Diurnal Average: 2.3 °C at hour 6																									
Monthly Average: 4.73 °C		Percentiles: P ₁ = -6.0 P ₁₀ = -1.2 Q ₁ = 0.9 Median = 4.3 Q ₃ = 8.0 P ₉₀ = 11.4 P ₉₉ = 20.0																									
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	8	7	4	5	5	4	4	3	4	4	5	6	6	6	7	6	6	6	5	5	4	4	4	3	5.0	7.6	
2-Oct	1	-2	-3	-4	-4	-3	-4	-3	-1	3	5	6	7	8	8	8	8	7	4	1	0	-1	-2	-2	1.5	8.4	
3-Oct	-2	-2	-3	-4	-4	-3	-3	-2	1	4	8	11	12	15	16	17	17	16	12	10	8	6	6	5	5.9	17.0	
4-Oct	5	5	4	4	3	1	1	2	5	8	13	15	18	19	20	20	19	17	14	11	10	9	8	8	10.1	20.3	
5-Oct	8	7	7	6	6	6	7	8	12	16	20	21	22	23	23	23	22	19	17	16	16	14	14	14	14.4	23.2	
6-Oct	12	11	11	12	12	13	13	13	13	13	13	13	14	15	15	14	13	12	10	9	9	7	6	7	11.7	15.2	
7-Oct	5	4	4	4	4	5	5	5	5	6	7	8	9	8	7	7	7	6	5	4	3	3	1	0	5.0	8.7	
8-Oct	1	1	0	-1	-1	-2	-2	-2	0	1	2	5	6	8	9	10	9	7	6	5	5	6	7	7	3.7	9.7	
9-Oct	8	8	8	8	8	7	7	7	9	10	10	11	11	11	12	11	10	9	7	5	3	3	3	5	8.0	11.8	
10-Oct	4	2	1	0	0	0	-1	-1	-1	0	2	3	5	5	5	5	4	3	2	1	1	1	1	1	1.8	5.5	
11-Oct	1	1	1	1	0	0	0	0	0	0	1	1	1	2	2	2	2	2	1	0	-1	-3	-3	-4	0.3	2.1	
12-Oct	-5	-6	-6	-7	-9	-9	-9	-9	-6	-3	2	3	4	5	6	6	4	3	1	1	0	-1	-2	-2	-1.6	6.1	
13-Oct	-3	-3	-5	-5	-3	-2	-2	-2	-1	0	1	1	1	2	2	2	1	1	-1	-2	-2	-1	-1	-1	-0.9	1.7	
14-Oct	0	1	1	1	0	0	1	2	3	5	7	7	7	8	9	9	10	9	8	6	4	3	2	2	4.3	9.5	
15-Oct	3	3	4	4	5	6	6	7	9	9	10	12	12	12	14	14	13	12	10	10	9	9	9	8	8.7	13.7	
16-Oct	8	8	7	6	5	6	7	6	7	8	9	9	9	8	6	6	5	5	4	4	4	5	6	6	6.5	9.2	
17-Oct	7	7	7	6	6	5	5	4	4	4	4	4	3	4	4	4	4	4	2	1	1	0	0	0	3.7	7.1	
18-Oct	0	0	0	0	-1	-1	-1	-1	-1	1	2	3	3	4	4	4	3	3	4	3	3	3	2	2	1.6	3.9	
19-Oct	2	2	1	1	1	1	1	1	2	4	9	11	11	11	12	11	10	9	6	5	3	2	3	3	5.1	12.3	
20-Oct	4	5	4	4	4	3	2	2	1	2	7	9	10	11	11	10	9	5	5	5	3	2	1	1	5.0	10.6	
21-Oct	1	0	1	2	1	0	-1	-2	1	3	6	7	8	9	9	9	8	4	3	3	2	1	0	-1	3.0	8.6	
22-Oct	-3	-2	-2	-1	-1	-1	-1	-1	-1	2	7	9	9	10	10	9	9	8	7	4	3	2	2	2	3.3	10.2	
23-Oct	3	4	4	4	4	4	4	4	4	6	8	10	11	12	11	10	9	9	8	8	9	9	8	8	7.0	11.6	
24-Oct	10	12	12	11	11	11	12	12	14	14	14	10	8	8	8	6	5	4	3	2	1	0	0	0	7.9	13.9	
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	1	0	-2	-1	0	-1	-1	-1	-2	0.1	2.8	
26-Oct	-2	-2	-2	-2	-1	0	0	1	1	1	3	7	6	5	5	5	5	3	2	3	3	3	2	2	2.1	6.7	
27-Oct	3	2	2	3	3	3	3	4	4	5	7	7	8	10	12	11	12	8	11	11	9	9	9	9	6.9	12.2	
28-Oct	11	11	12	12	14	14	13	12	9	8	10	10	10	10	9	8	7	5	4	2	1	1	2	2	8.2	14.1	
29-Oct	2	2	2	1	1	0	0	0	0	1	3	5	6	7	7	7	5	3	2	0	-1	-1	-2	-1	2.0	7.2	
30-Oct	-1	-3	-1	-2	-1	-1	-1	0	0	1	4	5	7	7	8	8	6	5	5	4	3	2	3	4	2.6	7.7	
31-Oct	5	4	4	4	4	4	6	6	6	7	7	7	8	8	7	5	3	2	1	0	0	-1	-1	-1	3.9	7.8	
		3.0	2.7	2.5	2.4	2.3	2.3	2.4	2.5	3.3	4.8	6.5	7.6	8.2	8.8	9.0	8.7	7.9	6.5	5.4	4.4	3.7	3.1	2.7	2.7	Diurnal Average	
		12.4	11.7	12.2	12.0	13.6	14.1	13.5	13.1	13.9	16.4	19.6	20.6	21.5	23.1	23.2	22.9	22.0	19.2	17.3	16.0	15.8	14.2	13.6	13.5	Diurnal Maximum	





Peace Airshed Zone Association

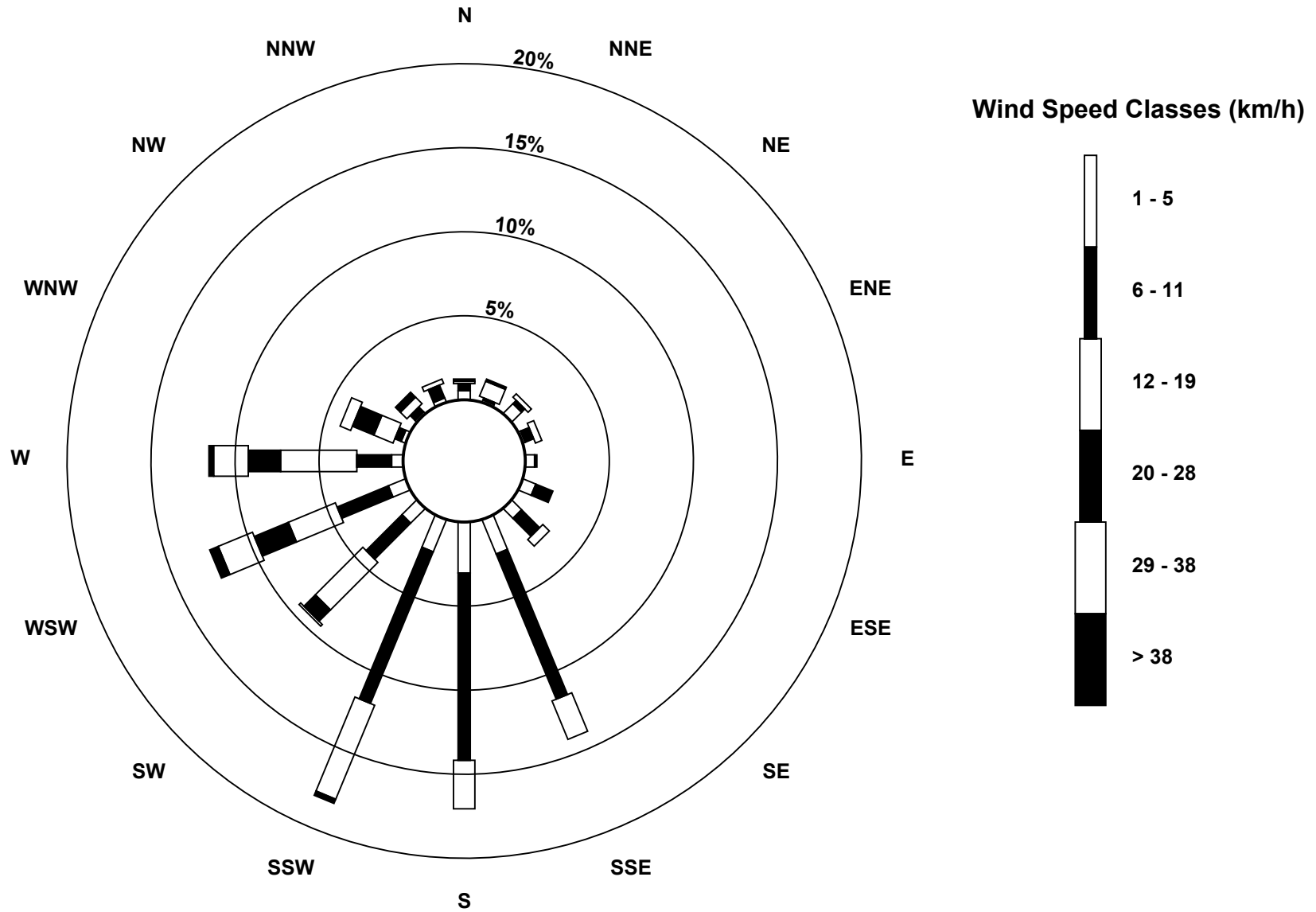
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - October 2017

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	9	11	13	12	10	10	10	10	10	9	9	12	15	15	13	11	9	13	8	7	15	16	13	14	10.0	15.5
Dir	203	206	200	203	206	202	203	207	199	196	204	212	219	217	207	198	187	158	136	129	140	141	139	149	186.6	140.8
24 Spd	17	18	14	13	9	14	14	15	33	39	34	19	14	7	7	6	8	12	10	11	N	N	N	8.5	39.3	
Dir	166	195	204	201	204	195	200	214	236	240	244	329	306	308	253	234	285	22	49	70	58	N	N	N	231.2	240.4
25 Spd	N	N	N	N	N	N	N	N	N	N	5	7	8	12	5	8	4	5	3	7	7	5	7	6	--	12.4
Dir	N	N	N	N	N	N	N	N	N	N	116	126	155	150	218	255	270	182	158	170	178	157	148	139	--	150.0
26 Spd	9	12	15	15	9	15	14	13	8	8	6	4	15	22	17	13	7	4	5	9	10	7	6	7	8.2	21.6
Dir	142	151	145	148	147	160	184	177	204	179	197	199	253	248	248	236	218	189	165	155	168	173	178	175	187.5	248.2
27 Spd	9	6	5	6	7	7	8	7	8	5	7	6	5	4	4	9	15	6	15	16	9	12	16	13	7.4	16.1
Dir	166	155	158	147	148	157	162	166	151	166	155	169	186	201	181	240	236	204	226	221	204	202	191	202	190.6	220.7
28 Spd	15	16	14	10	17	19	16	13	12	8	20	20	17	25	26	19	16	15	16	14	12	11	11	14	13.6	25.8
Dir	201	199	205	207	223	230	233	280	311	299	297	291	264	269	264	259	251	252	254	263	262	258	236	235	252.7	263.6
29 Spd	14	10	10	6	7	4	8	14	7	10	13	18	15	16	16	10	11	6	5	6	9	7	10	11	8.2	17.7
Dir	247	246	256	218	221	222	245	244	230	253	255	268	267	265	272	261	248	242	184	173	150	179	160	162	239.1	268.3
30 Spd	9	4	9	10	10	10	8	8	6	7	10	14	27	19	18	17	14	17	14	8	7	7	10	8	8.6	26.8
Dir	162	223	173	169	180	174	173	175	185	196	235	272	273	264	246	244	237	237	239	224	171	178	155	158	219.2	272.6
31 Spd	8	8	9	9	6	11	20	26	30	30	33	30	37	39	36	33	31	27	28	26	21	16	14	10	18.5	39.5
Dir	152	145	162	164	186	241	253	256	250	259	270	267	269	270	283	289	296	302	311	313	307	308	308	290	275.8	270.3
Spd	8.2	7.8	7.6	7.7	7.4	7.6	7.8	7.6	8.3	9.3	9.7	10.1	12.5	12.1	13.2	13.0	11.0	6.6	4.7	4.1	4.2	4.9	5.5	6.7	Diurnal Average	
Dir	206.5	210.3	208.8	208.8	210.9	205.8	210.6	214.9	223.8	233.7	242.9	246.9	247.7	248.1	249.1	251.6	250.3	251.1	241.1	213.1	194.7	193.7	192.2	203.5	Diurnal Maximum	
Spd	37.0	32.4	36.6	39.3	31.0	23.2	27.1	26.8	33.3	39.3	35.3	36.4	38.8	39.5	39.8	37.0	34.0	33.1	28.3	25.6	21.5	17.9	17.5	27.3	Diurnal Maximum	
Dir	248.7	245.4	251.7	249.8	242.5	235.9	238.3	238.0	236.4	240.4	239.3	241.8	246.0	270.3	265.3	263.7	258.0	271.5	311.4	313.4	197.2	282.7	293.7	250.3	Diurnal Maximum	
Maximum Speed Value: 40 km/h on Oct 17 15:00																		Minimum Speed Value: 0 km/h on Oct 22 03:00						Hours in Service: 744		
Maximum Daily Speed Average: 27.8 km/h on Oct 7																		Minimum Daily Speed Average: 1.9 km/h on Oct 12						Hours of Data: 731		
Maximum Diurnal Speed Average: 13.2 km/h at hour 15																		Minimum Diurnal Speed Average: 4.1 km/h at hour 20						Hours of Missing Data: 13		
Monthly Average Velocity: 7.72 km/h 228.49 deg																		Speed Percentiles: P ₁ = 1.5 P ₁₀ = 4.3 Q ₁ = 6.7 Median = 9.8 Q ₃ = 14.7 P ₉₀ = 22.1 P ₉₉ = 37.9						Percent Operational Time: 98.3		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
N - Not Valid																										
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	5	5	8	1	0	0	19																			
NorthEast	7	3	7	2	0	0	19																			
East	7	8	0	0	0	0	15																			
SouthEast	18	44	11	0	0	0	73																			
South	27	161	58	2	0	0	248																			
SouthWest	21	62	63	18	8	2	174																			
West	11	27	50	34	28	5	155																			
NorthWest	4	9	7	6	2	0	28																			
Total	100	319	204	63	38	7	731																			

Wind Rose

Wind Speed (WS) (km/h)
Portable Rycroft - October 2017



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Rycroft - October 2017

Maximum Speed: 40 km/h on Oct 17 15:00	Maximum Daily Speed Average: 29.0 km/h on Oct 7	Hours in Service: 744
Minimum Speed: 2 km/h on Oct 22 07:00	Minimum Daily Speed Average: 5.0 km/h on Oct 12	Hours of Data: 731
Maximum Diurnal Speed Average: 17.3 km/h at hour 15	Minimum Diurnal Speed Average: 9.5 km/h at hour 22	Hours of Missing Data: 13
Monthly Average Speed: 12.13 km/h	Percentiles: P ₁ = 2.2 P ₁₀ = 4.7 Q ₁ = 6.9 Median = 9.9 Q ₃ = 14.9 P ₉₀ = 22.9 P ₉₉ = 38.2	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	18	15	13	17	20	17	19	16	25	27	28	28	31	29	32	30	30	30	26	22	19	18	18	21	22.9	32.1																						
2-Oct	14	13	11	12	12	11	10	12	11	20	21	16	16	16	16	16	14	11	3	4	7	7	7	8	12.0	21.2																						
3-Oct	8	9	7	7	9	9	9	9	11	13	14	10	7	7	12	21	19	17	8	7	6	5	7	8	9.9	20.7																						
4-Oct	8	7	6	4	6	7	7	7	7	4	3	4	5	5	6	5	7	6	7	7	6	7	6	7	6.1	7.7																						
5-Oct	8	7	7	6	6	9	8	8	10	7	8	29	28	13	15	19	20	8	12	14	11	8	10	7	11.5	28.9																						
6-Oct	6	8	8	9	6	9	10	14	8	13	14	13	15	15	13	13	18	9	6	7	17	8	7	28	11.5	28.1																						
7-Oct	38	32	37	39	31	23	27	27	28	29	29	32	35	39	35	37	34	33	23	22	19	18	15	14	29.0	39.4																						
8-Oct	18	19	20	21	20	16	8	4	5	7	12	8	11	10	11	12	4	4	9	11	13	14	13	11.4	21.0																							
9-Oct	10	9	8	10	8	9	8	6	20	29	35	37	39	38	40	34	27	16	10	8	7	6	8	15	18.2	39.5																						
10-Oct	12	6	5	2	2	5	2	5	7	7	8	15	17	18	18	21	18	20	19	16	14	11	12	13	11.4	20.7																						
11-Oct	11	11	10	8	7	6	6	5	3	2	3	3	5	4	4	5	4	3	4	3	4	4	5	4	5.3	10.9																						
12-Oct	5	6	6	6	3	6	8	7	6	4	2	4	4	4	5	5	4	6	6	3	3	5	6	6	5.0	7.7																						
13-Oct	7	7	9	9	7	9	11	9	10	19	17	11	13	9	9	7	8	4	5	9	13	16	14	12	10.2	19.3																						
14-Oct	13	15	17	14	10	8	7	9	7	6	8	14	12	13	26	28	32	25	17	8	7	10	10	10	13.6	31.9																						
15-Oct	11	9	9	8	10	10	15	14	13	13	14	16	15	16	19	19	16	14	13	21	22	17	13	15	14.3	21.5																						
16-Oct	15	17	11	13	12	12	11	12	12	11	12	15	18	14	8	8	4	2	2	2	4	8	8	7	10.0	17.9																						
17-Oct	5	9	12	5	4	3	2	2	9	13	15	21	26	33	40	36	26	19	26	11	6	6	7	10	14.4	40.0																						
18-Oct	11	11	8	7	10	10	9	8	8	10	7	7	9	10	9	7	7	8	7	5	3	2	9	7.9	11.4																							
19-Oct	12	10	9	10	7	11	7	5	5	4	7	17	13	10	14	12	10	5	4	8	5	6	8	7	8.5	16.7																						
20-Oct	9	7	5	10	12	10	8	7	6	4	4	13	22	19	23	20	7	4	7	6	8	8	9	10	9.9	23.5																						
21-Oct	10	10	10	8	7	7	5	5	8	10	13	16	13	13	13	9	4	4	8	11	13	12	12	9	9.5	15.8																						
22-Oct	2	5	3	4	3	2	2	2	3	7	6	7	9	17	20	25	20	13	12	6	7	9	11	9	8.5	25.2																						
23-Oct	9	11	13	12	10	10	10	10	10	9	9	12	15	15	13	11	10	13	9	7	15	16	13	14	11.6	15.6																						
24-Oct	18	18	14	13	9	14	14	16	33	39	34	24	15	7	8	7	6	10	12	10	12	N	N	N	15.9	39.3																						
25-Oct	N	N	N	N	N	N	N	N	N	N	5	7	8	13	9	8	5	5	4	7	7	5	7	6	--	12.5																						
26-Oct	9	12	15	15	9	15	14	14	8	8	6	4	15	22	17	13	8	4	6	9	10	7	6	7	10.6	21.6																						
27-Oct	9	6	5	6	7	7	8	8	8	6	7	6	5	4	4	9	15	6	15	16	9	12	16	13	8.6	16.2																						
28-Oct	15	16	14	10	17	20	16	18	12	9	20	20	17	25	26	19	16	15	16	14	12	11	11	14	15.8	25.9																						
29-Oct	14	11	10	6	7	4	8	14	7	10	13	18	16	16	16	10	11	7	5	7	9	7	10	11	10.2	17.8																						
30-Oct	9	5	9	10	10	10	8	8	6	7	10	14	27	19	19	17	14	17	14	9	7	7	10	9	11.5	26.8																						
31-Oct	8	8	9	9	7	11	20	26	30	30	33	30	38	40	36	33	31	27	28	26	21	16	14	10	22.5	39.8																						
																								11.5	10.8	10.7	10.4	9.6	10.0	10.0	10.2	11.2	12.7	13.5	15.2	16.7	16.5	17.3	16.7	14.5	11.8	10.9	10.2	10.1	9.5	9.8	10.8	Diurnal Average
																								37.7	32.4	36.7	39.4	31.1	23.2	27.1	26.8	33.4	39.3	35.4	36.6	38.9	39.8	40.0	37.2	34.2	33.5	28.4	25.7	21.5	18.0	17.7	28.1	Diurnal Maximum

N - Not Valid
 All monthly, daily, and diurnal averages have been calculated using scalar methods

Hourly Standard Deviations

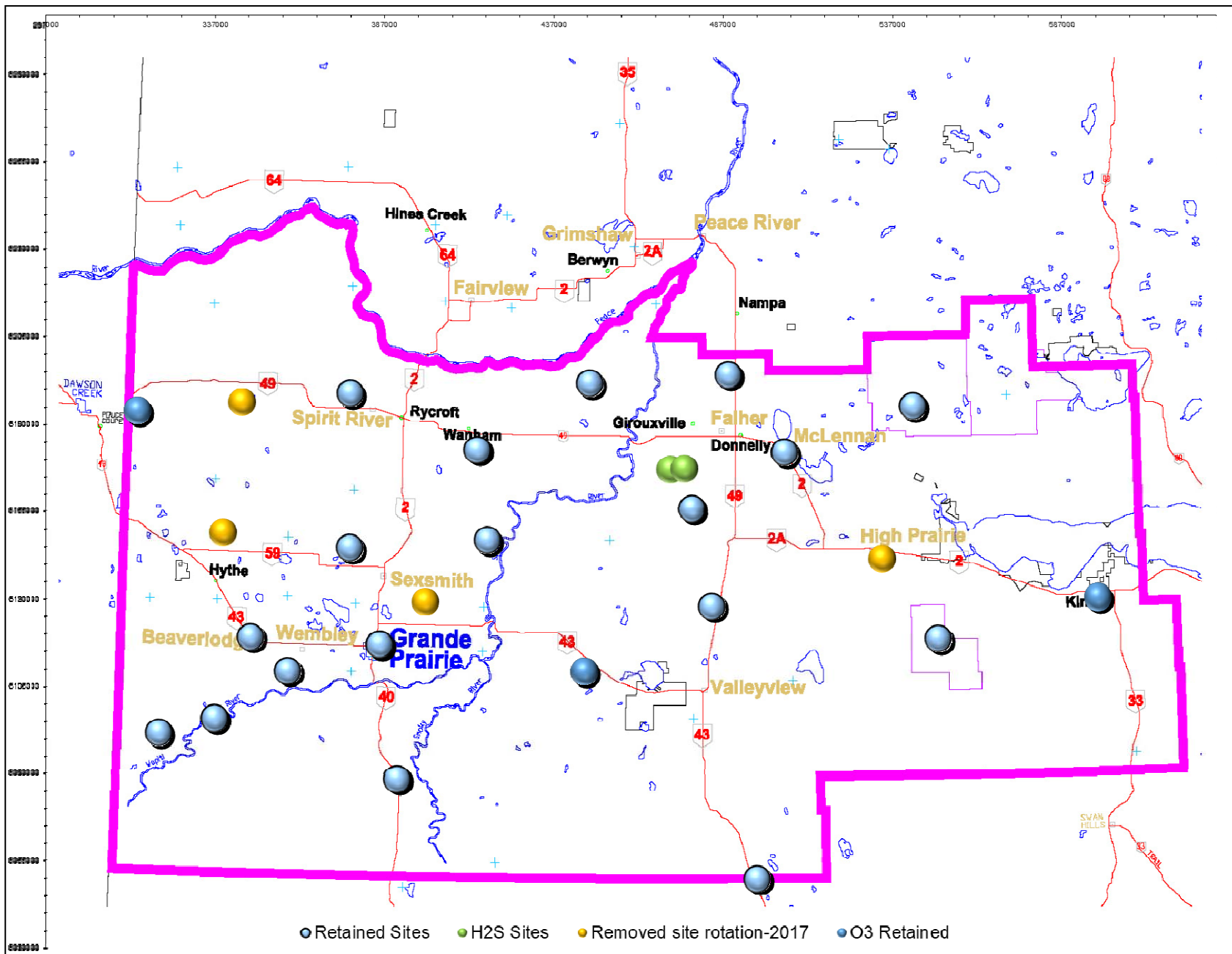
Wind Direction (WD) - deg
 Portable Rycroft - October 2017

Maximum Value: 95.7 deg on Oct 22 01:00		Hours in Service: 744																									
Minimum Value: 1.9 deg on Oct 8 04:00		Hours of Data: 731																									
Percentiles: P ₁ = 2.4 P ₁₀ = 3.7 Q ₁ = 4.9 Median = 7.5 Q ₃ = 13.0 P ₉₀ = 24.7 P ₉₉ = 62.8		Hours of Missing Data: 13																									
		Hours of Calibration: 0																									
		Percent Operational Time: 98.3																									
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	3	6	3	4	3	5	4	3	4	6	6	8	8	8	8	6	5	4	6	4	11	6	7	4	10.9		
2-Oct	8	3	4	3	6	5	4	2	7	6	9	19	18	22	18	17	14	9	21	13	6	7	11	6	22.5		
3-Oct	6	7	11	7	5	6	7	12	8	9	6	10	16	27	29	15	12	8	17	6	10	12	8	4	29.5		
4-Oct	5	4	8	12	7	4	5	5	4	31	56	42	31	39	33	28	15	10	4	4	10	5	8	4	55.9		
5-Oct	7	5	12	23	14	4	6	8	6	22	37	6	7	20	9	8	6	10	3	4	4	5	5	7	37.0		
6-Oct	12	9	5	6	8	5	6	5	5	6	4	6	8	8	10	8	5	9	7	12	9	10	10	14	13.5		
7-Oct	11	4	4	4	6	4	2	2	3	4	3	6	7	6	8	6	5	9	3	3	3	6	13	3	13.2		
8-Oct	5	3	6	2	3	4	10	22	21	16	8	13	20	21	21	14	59	21	16	17	6	4	6	10	58.9		
9-Oct	8	8	6	6	6	5	5	15	6	5	4	5	5	5	6	13	4	7	8	16	5	5	19	6	19.3		
10-Oct	4	50	33	39	53	11	23	18	9	15	21	12	10	9	12	11	12	5	5	5	6	7	5	3	52.9		
11-Oct	5	4	4	7	4	6	11	10	13	28	40	66	48	54	24	39	41	50	56	32	14	14	9	11	65.8		
12-Oct	5	6	4	30	18	7	3	2	7	28	34	33	63	60	42	33	17	6	21	10	15	12	20	8	63.5		
13-Oct	14	4	9	3	3	3	3	4	4	6	8	13	9	12	17	19	17	23	10	3	3	5	4	6	23.4		
14-Oct	8	6	5	8	5	5	5	6	7	7	7	8	6	13	5	9	6	4	7	14	8	8	7	4	13.7		
15-Oct	5	7	8	26	14	16	10	6	9	8	5	5	4	4	5	4	4	5	4	7	5	4	8	10	26.5		
16-Oct	7	8	3	6	5	4	3	5	5	6	6	8	6	18	7	9	18	65	71	36	29	6	27	15	71.4		
17-Oct	12	8	4	9	26	24	17	44	7	5	5	9	6	5	5	4	7	4	7	30	8	10	6	17	43.7		
18-Oct	5	4	5	22	5	7	5	8	8	10	11	15	15	21	9	10	11	13	12	17	14	49	79	11	78.8		
19-Oct	6	8	4	7	24	9	8	16	23	51	40	7	9	7	9	6	7	25	12	16	42	18	12	9	50.9		
20-Oct	7	35	10	10	14	7	17	11	89	23	58	16	9	9	8	9	9	8	11	12	13	4	8	6	89.0		
21-Oct	7	4	7	6	8	17	17	16	4	5	4	5	7	9	10	10	11	70	9	3	3	4	5	7	69.6		
22-Oct	96	23	92	47	30	46	24	24	18	16	23	21	6	13	11	5	4	4	6	5	5	6	4	3	95.7		
23-Oct	4	4	4	3	3	5	4	3	5	5	9	8	8	8	7	6	16	10	14	13	6	5	5	7	16.2		
24-Oct	10	6	4	3	4	5	3	15	5	3	4	37	19	6	26	11	13	37	10	7	7	N	N	N	37.1		
25-Oct	N	N	N	N	N	N	N	N	N	N	26	15	7	6	50	8	46	15	38	14	7	16	6	6	50.1		
26-Oct	5	4	5	4	21	9	6	8	5	10	8	50	13	3	2	4	27	30	28	8	4	7	5	8	49.6		
27-Oct	6	10	11	9	7	10	9	7	9	32	22	20	14	12	24	18	10	8	6	7	5	5	6	2	31.7		
28-Oct	2	3	3	3	6	6	4	43	9	31	7	8	8	5	2	5	2	8	6	9	8	17	3	4	42.8		
29-Oct	6	17	7	21	14	16	17	4	10	5	8	5	9	8	9	7	7	25	13	11	7	12	6	3	25.0		
30-Oct	7	21	10	3	3	5	9	8	15	5	15	7	4	7	4	3	5	3	4	26	7	11	6	7	25.8		
31-Oct	8	9	7	5	18	14	5	4	3	7	3	4	5	8	10	7	6	7	5	4	4	4	3	11	18.0		
	95.7	49.9	91.6	47.2	52.9	46.5	24.4	43.7	89.0	50.9	57.8	65.8	63.5	59.6	50.1	38.7	58.9	69.6	71.4	36.2	41.9	49.3	78.8	16.9			
N - Not Valid																											

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for October 2017

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
18a	Saddle Hills	0.3				
18b	Saddle Hills	0.2				
19a	Wanham	0.2				
19b	Wanham	0.2				
21a	Eaglesham			0.9		
21b	Eaglesham			1.0		
29a	Smoky Heights			1.3		
29b	Smoky Heights			1.5		
37a	Crooked Creek		22.6			
37b	Crooked Creek		25.2			
64a	Girouxville 4				0.2	
64b	Girouxville 4				0.2	
2	Bay Tree	0.2	30.4	1.1		13-16-078-13 W6M
4	Gordondale	0.2		1.8		04-34-078-10 W6M
5	Boone Creek	0.1		0.9		16-36-074-11 W6M
9	Spirit River	0.2		0.9		08-12-079-07 W6M
14	Sylvester	0.0		0.4		08-06-069-12 W6M
16	Beaverlodge	0.1		1.1		15-36-071-10 W6M
18	Saddle Hills	0.2		0.9		04-25-074-07 W6M
19	Wanham	0.2		1.2		16-22-077-03 W6M
21	Eaglesham	0.2		0.9		16-21-079-25 W5M
24	Wembley	0.1		1.7		12-31-070-08 W6M
25	Pinto Creek	0.0		0.8		04-24-069-11 W6M
27	Grande Prairie I	0.2		8.4		08-15-071-06 W6M
28	Clairmont Lake	0.2		2.5		09-06-073-04 W6M
29	Smoky Heights	0.2		1.3		04-06-075-02 W6M
32	Gold Creek	0.3		3.8		06-33-067-05 W6M
35	Jean Cote	0.1		0.9		12-35-079-21 W5M
36	Guy	0.1		1.1	Damaged	03-04-076-22 W5M
37	Crooked Creek	0.1	23.9	1.1		16-01-071-26 W5M
39	Clouston Creek	0.2		1.1		12-01-073-22 W5M
40	McLennan	0.1		1.2		03-29-077-19 W5M
43	High Prairie	0.1		0.9		16-13-074-17 W5M
44	Peavine	0.1		0.6		03-05-079-15 W5M
46	Little Smoky	0.1		3.9		12-01-065-21 W5M
47	Kinuso	0.1	27.1	0.8		12-10-073-10 W5M
49	Grande Prairie HP	0.0		BDL		17-26-071-06 W6M
50	East Prairie	0.1		0.6		13-02-072-15 W5M
63	Girouxville 3				0.2	14-02-077-23 W5M
64	Girouxville 4				0.2	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample

Passive Summary for October 2017

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

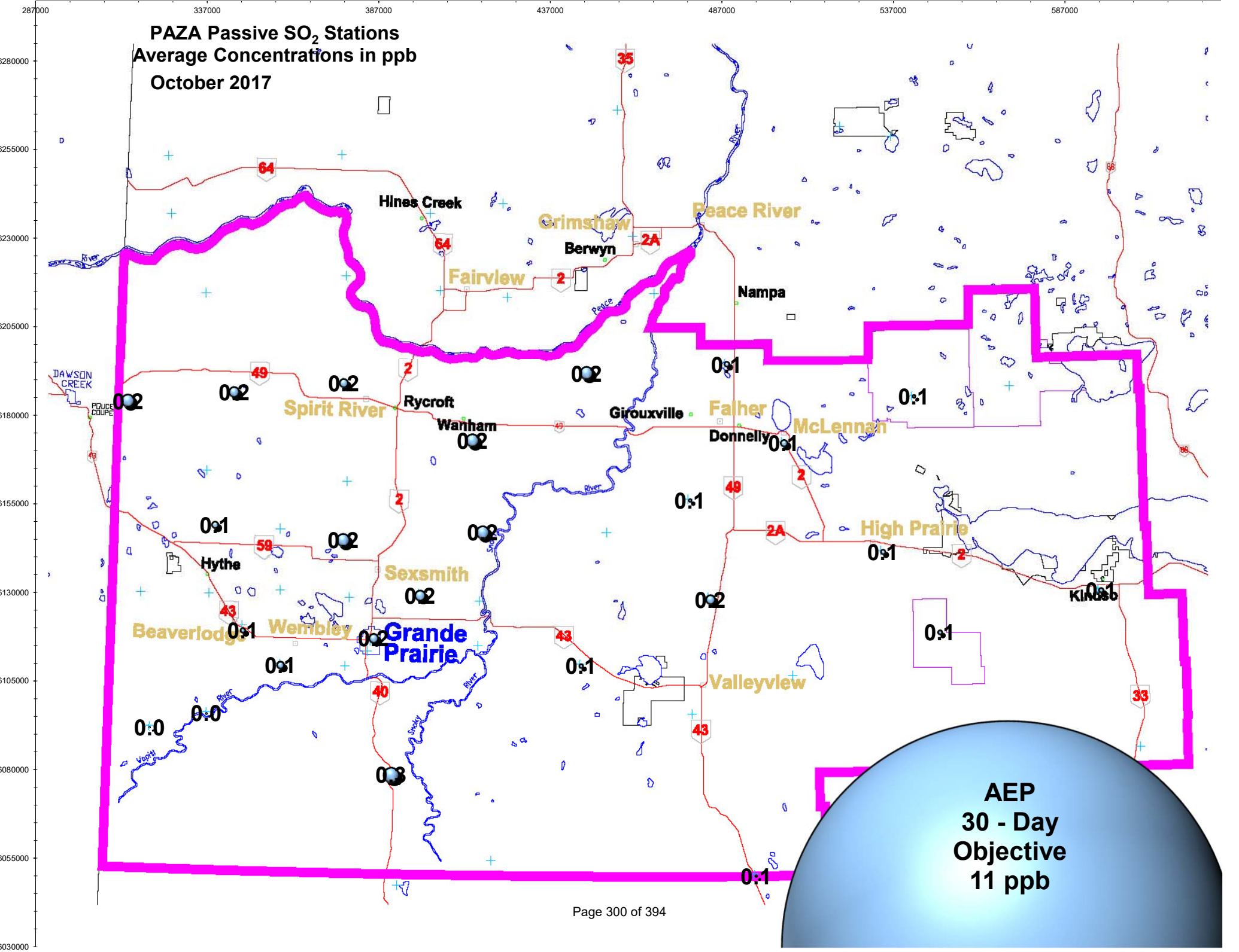
Passive Summary for October 2017 (PAZA Zone)				
Mean	0.1	27.1	1.6	0.2
Standard Deviation	0.1	3.2	1.7	0.0
Minimum	0.0	23.9	0.4	0.2
Minimum At	Grande Prairie HP	Crooked Creek (#37)	Sylvester (#14)	Girouxville 3 (#63)
Maximum	0.3	30.4	8.4	0.2
Maximum At	Gold Creek (#32)	Bay Tree (#2)	Grande Prairie I (#27)	Girouxville 4 (#64a)

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

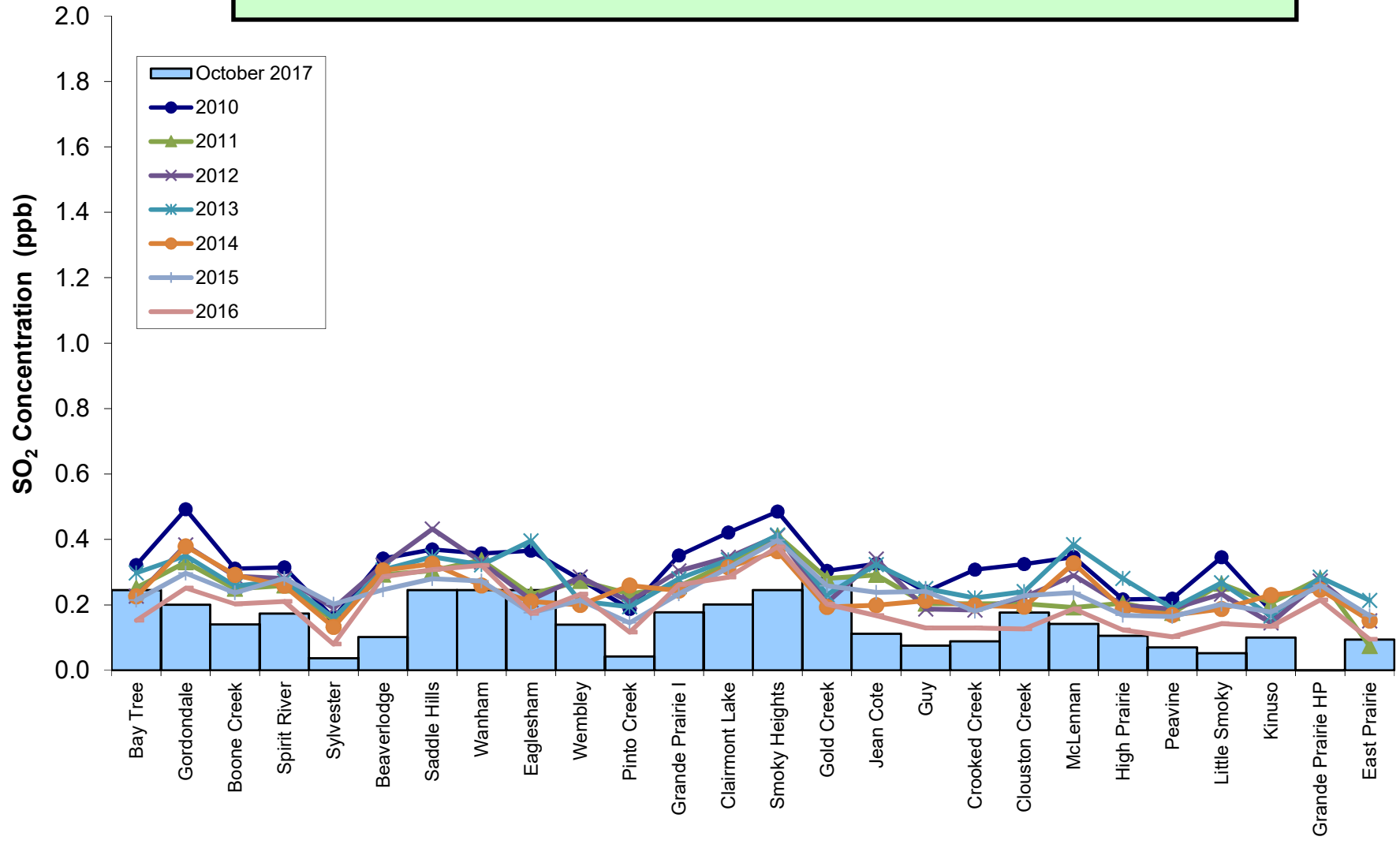
	SO ₂	NO ₂
PAZA Beaverlodge station	0.1	2.4
PAZA Beaverlodge passive	0.1	1.1

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

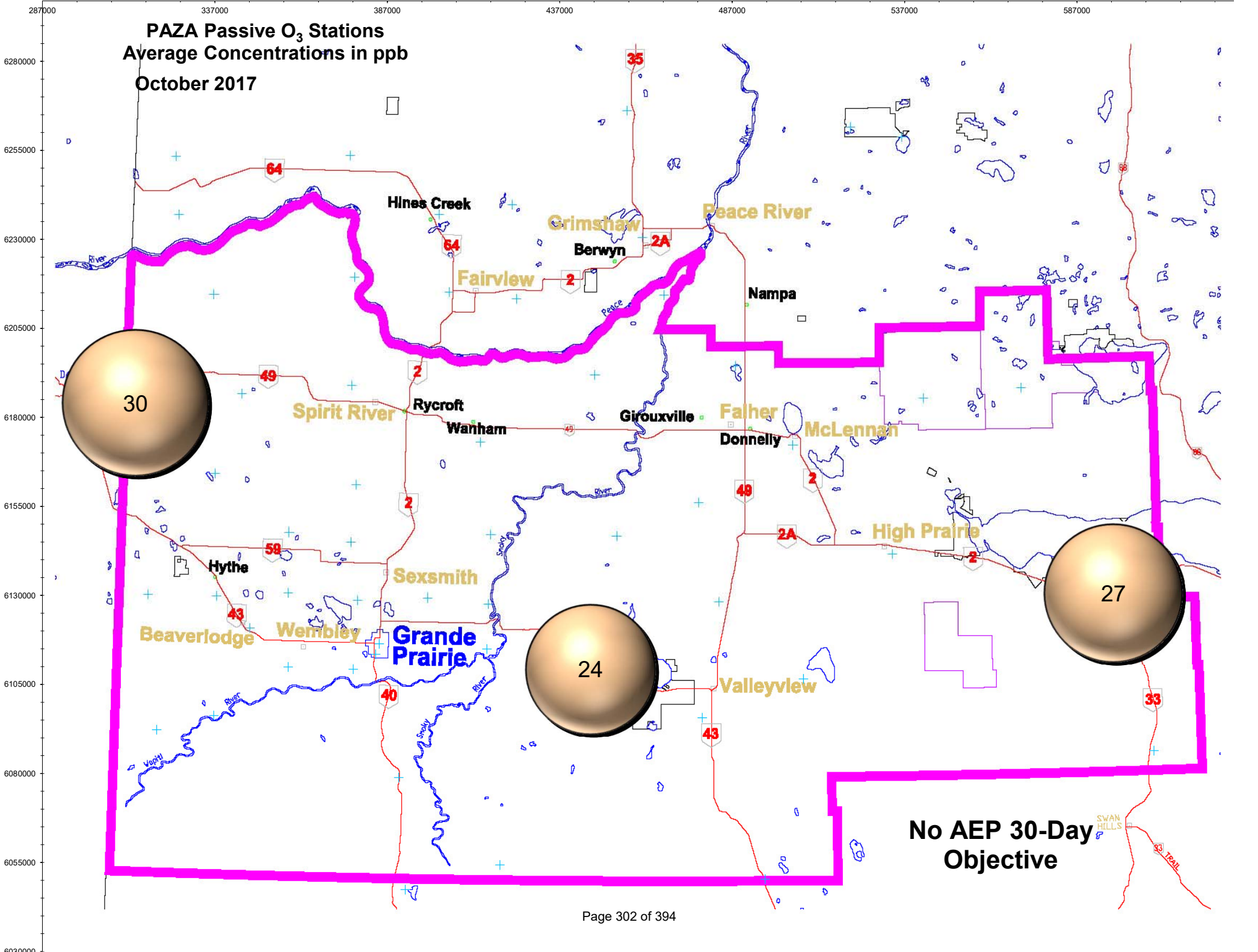
	SO ₂	NO ₂
PAZA Henry Pirker station	0.2	7.9
PAZA Grande Prairie passive	0.2	8.4



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

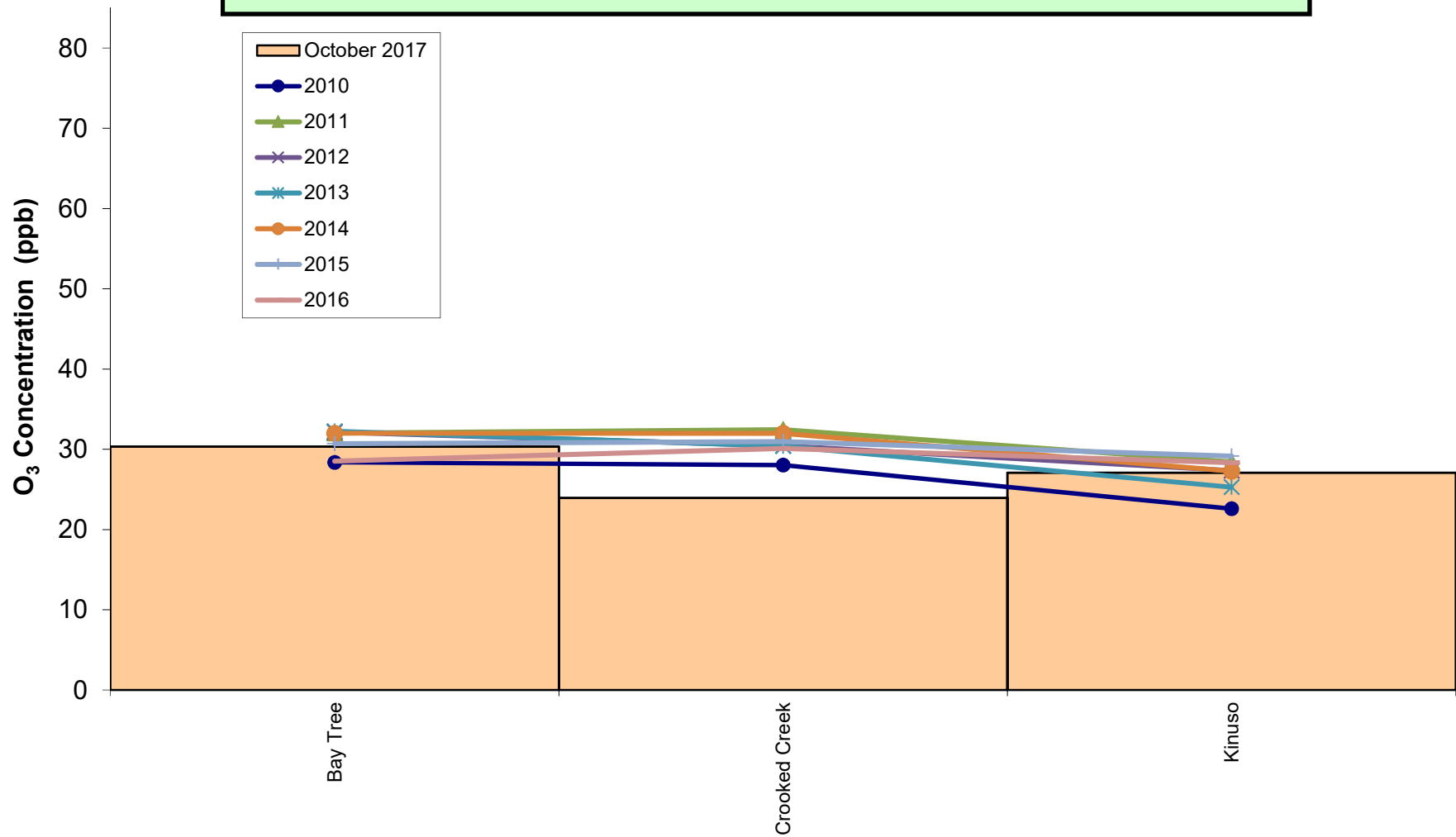


PAZA Passive O₃ Stations Average Concentrations in ppb October 2017

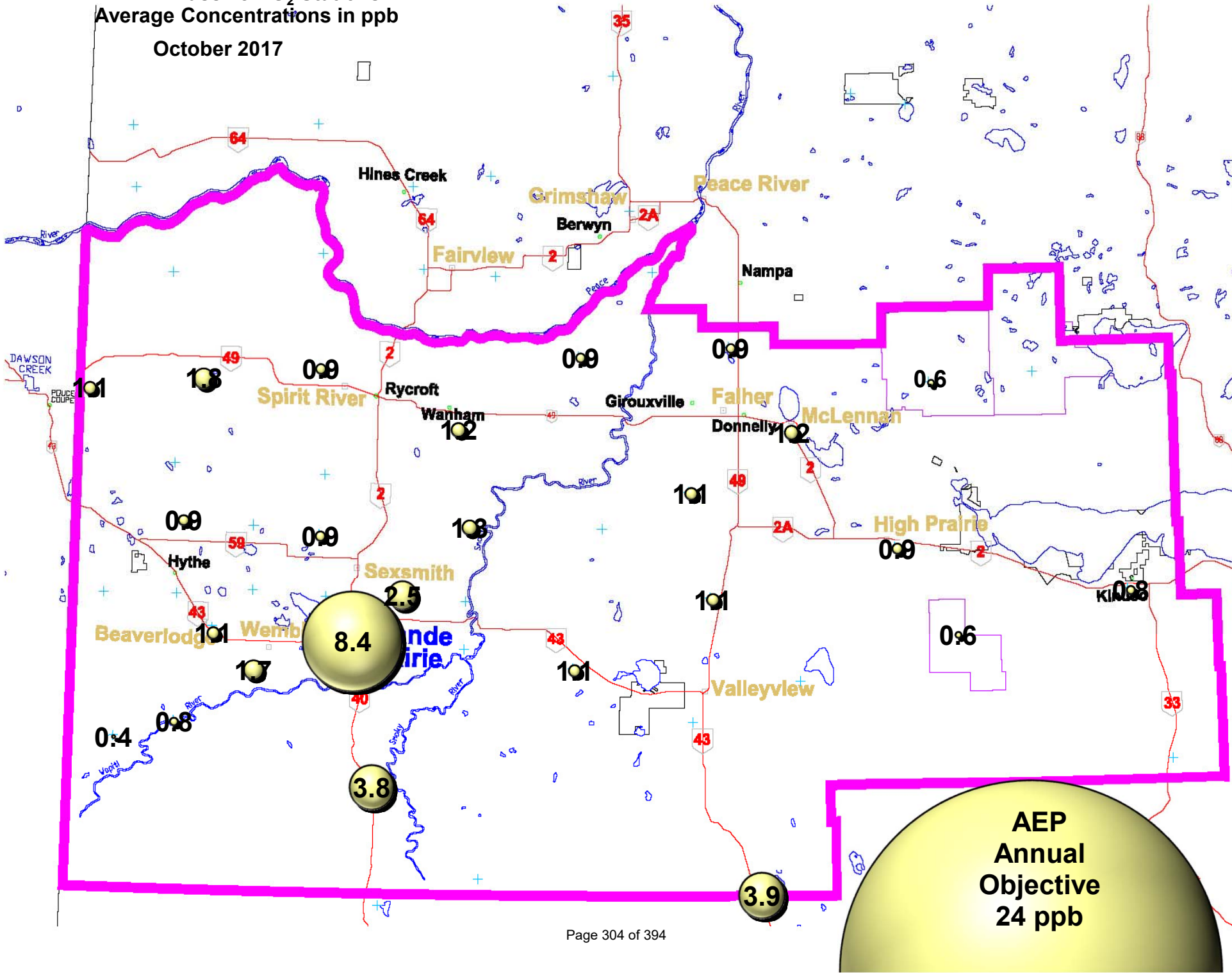


No AEP 30-Day Objective

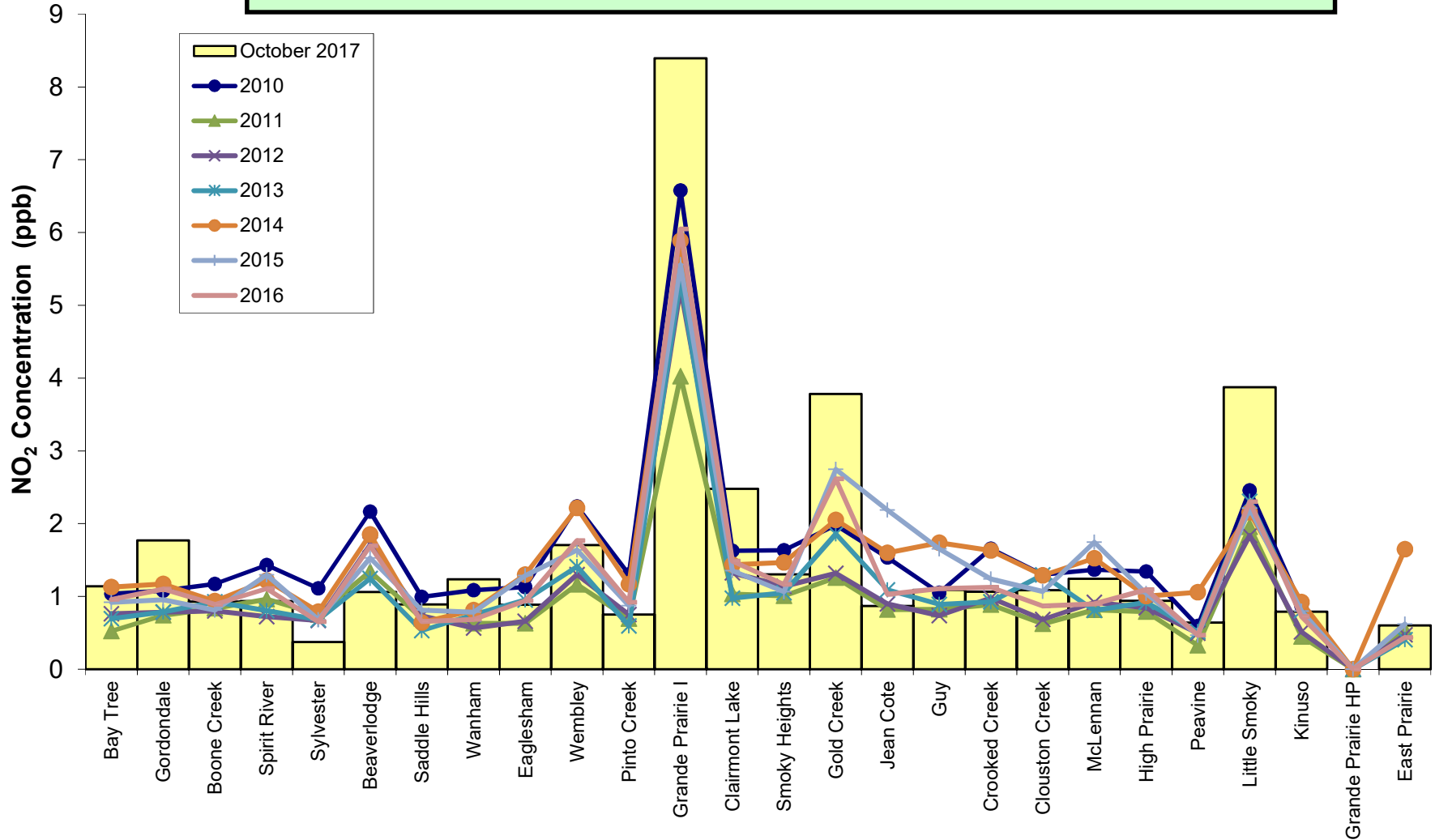
Alberta Ambient Air Quality Objective - No Annual O₃ Objective



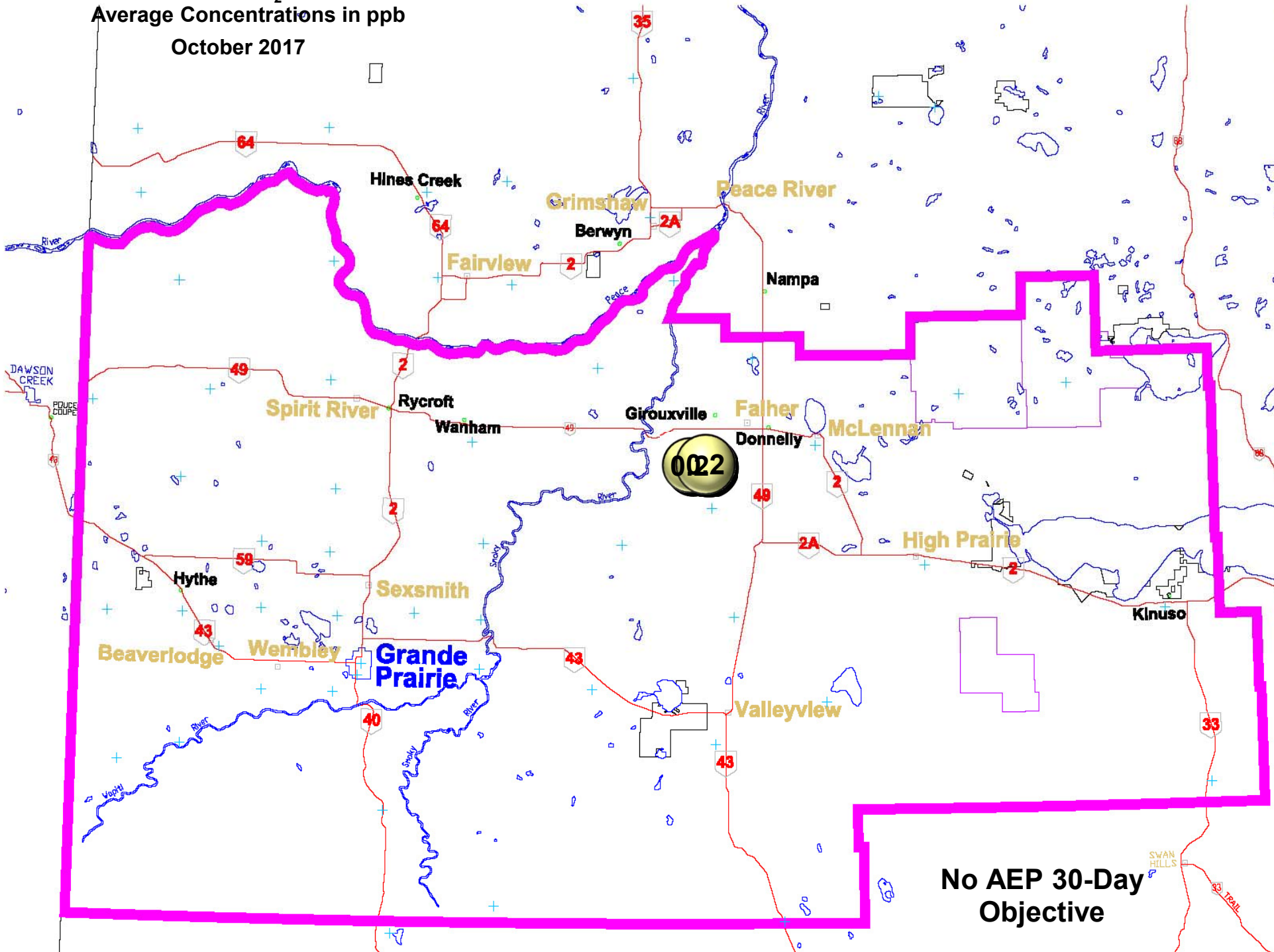
PAZA Passive NO₂ Stations
Average Concentrations in ppb
October 2017

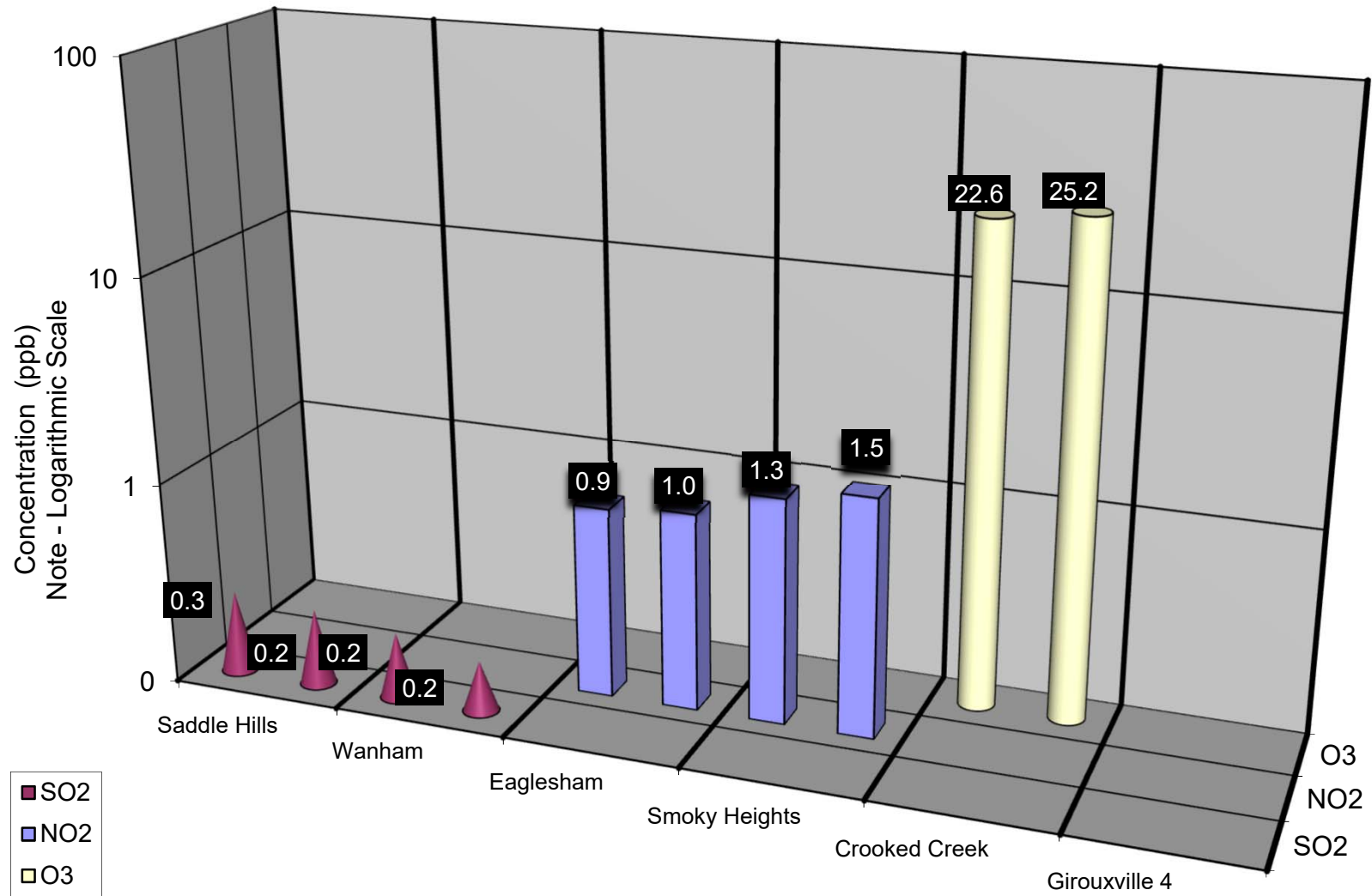


Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 24 ppb



PAZA Passive H₂S Stations
Average Concentrations in ppb
October 2017





Duplicate Summary Chart

October 2017 Calibration Reports

**PAZA - Henry Pirker Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃, CO, THC, TRS and PM_{2.5}**

**PAZA – Evergreen Park Station with the following calibrations:
SO₂, TRS, and PM_{2.5}**

**PAZA – Smoky Heights Station with the following calibrations:
SO₂, TRS, and PM_{2.5}**

**PAZA – Beaverlodge Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃ and PM_{2.5}**

**PAZA – Valleyview Station with the following calibrations:
SO₂ and H₂S**

**PAZA – Donnelly Station with the following calibrations:
SO₂ and H₂S**

**PAZA – Rycroft Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃, THC, TRS and PM_{2.5}**

Calibration Report



AIR QUALITY MONITORING

Parameter SO2

Air Monitoring Network PAZA

Station Information

Calibration Date	October 17, 2017	Previous Calibration	September 29, 2017
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:00	End Time (MST)	11:35
Barometric Pressure	920.0 mbar	Station Temperature	22.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Conc	49.4 ppm	Cal Gas Cert Date	02/21/2020
		Cal Gas Cylinder #	EY0000751
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.001848	Calculated slope	0.996315
Calculated intercept	-0.917785	Calculated intercept	-0.255567
Analyzer make	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.41		1.44	
Coefficient	0.897		0.915	
Pressure	654.9	mm Hg	655.5	mm Hg
Flow	0.434	lpm	0.434	lpm
Lamp intensity	80	Hz	81	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)
5208	0.00	0.0	0.1	N/A
5208	42.20	397.1	398.4	0.9967
5208	20.87	197.2	199.3	0.9896
5208	10.40	98.5	98.5	0.9994
5208	0.00	0.0	0.1	As Found Zero
5208	42.40	398.9	388.0	As Found Span
Average Correction Factor				0.9952

Calculated value of As Found Response: 387.7 ppb Percent Change of As Found: 2.8%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	284.2	ppb	292.5	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



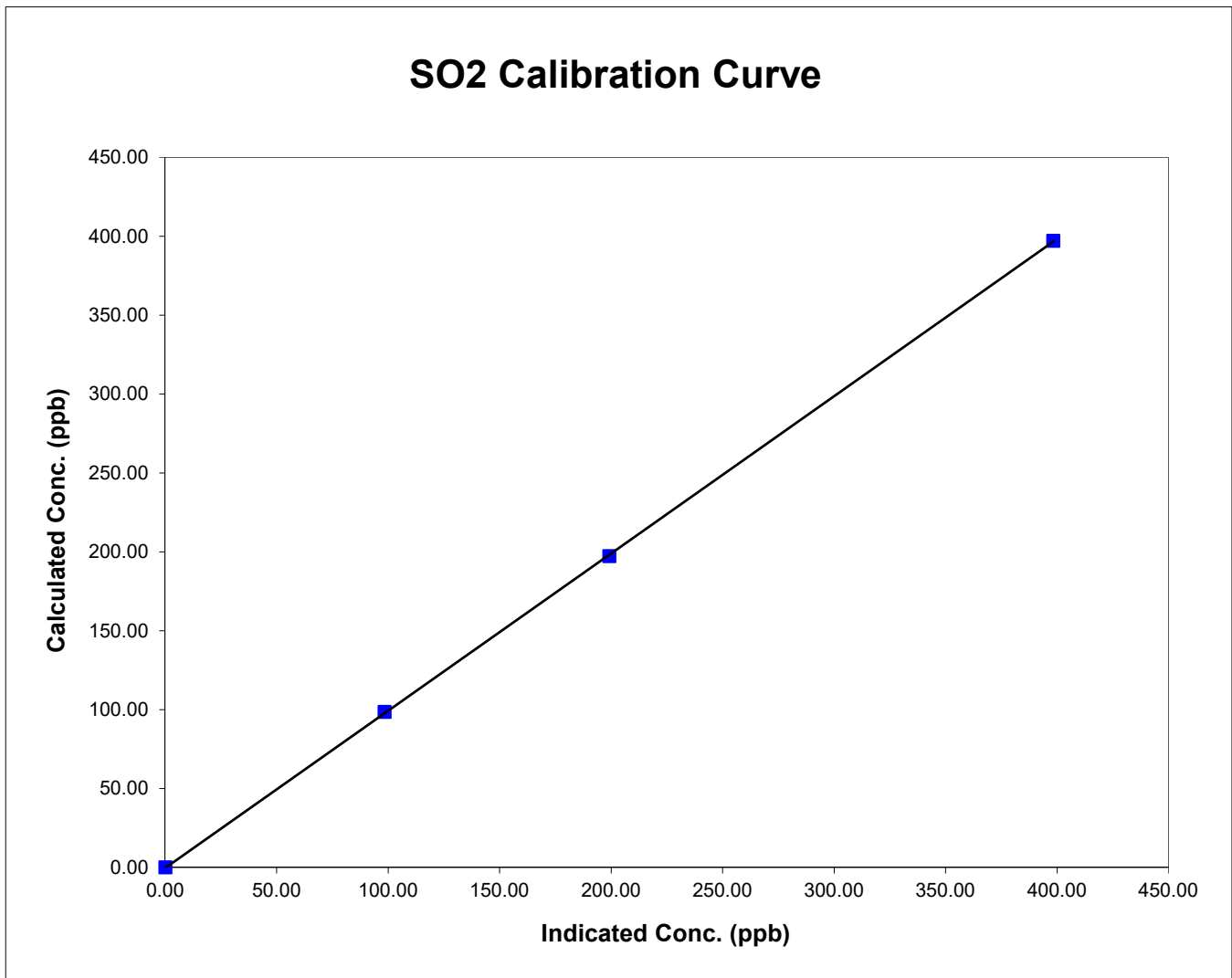
Parameter SO2
 Air Monitoring Network PAZA

Station Information

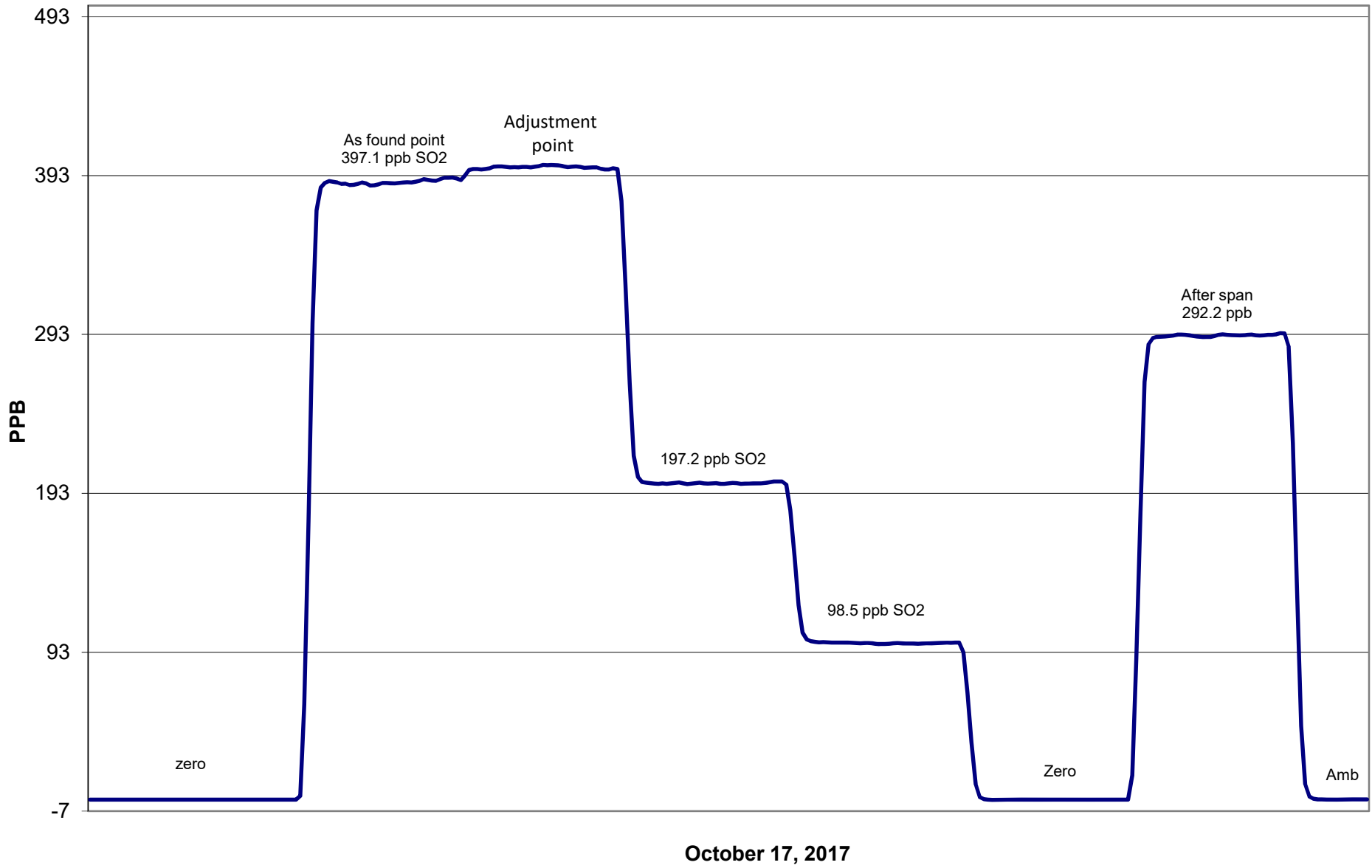
Calibration Date	October 17, 2017	Previous Calibration	September 29, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:00	End Time (MST)	11:35
Analyzer make/model	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
397.1	398.4	0.9967	Correlation Coefficient	0.999981
197.2	199.3	0.9896		
98.5	98.5	0.9994	Slope	0.996315
			Intercept	-0.255567



SO2 Calibration



Calibration Report

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



Station Information

Calibration Date	October 17, 2017	Previous Calibration	September 29, 2017
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Installation	Removal
Start Time (MST)	9:05	End Time (MST)	12:05
Barometric Pressure	0.920 mbar	Station Temperature	22.0 Deg C
Calibrator	Envionics 6103	Serial Number	906535067(AMU 197)
NO Cal Gas Conc	50.4 ppm	Cal Gas Expiry Date	02/21/2020
NO _x Cal Gas Conc	50.5 ppm	Cal Gas Serial #	EY0000751

DACS Information

DACS make	CR3000	DACS serial No.	5408
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Parameter	NO2	NO _x	NO	
Before	Data Slope	0.999040	1.017165	1.017128
	Data Offset	0.018375	-0.662299	-0.874598
After	Data Slope	1.004158	1.003320	1.000339
	Data Offset	0.104254	-0.341386	-0.354846
Channel #	8	6	7	
Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC	

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087
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Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	8.0	mV	8.2	mV
NO _x bkgnd	8.2	mV	8.5	mV
NO coefficient	1.061		1.093	
NO _x coefficient	1.000		1.000	
NO2 conv temp	326.8	Deg C	326.0	Deg C
Cooler Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-844.4	mV	-844.4	mV
R Cell Press	201.7	in Hg	202.6	in Hg
Sample Flow	0.555	LPM	0.559	LPM

Notes: Span adjustment made

Calibration Report



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

Station Information

Calibration Date: **October 17, 2017** 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	5208	0.00	0.0	0.0	0.0	0.0	0.1	0.0	N/A	N/A
1	5208	42.20	405.9	405.1	0.8	404.5	405.1	-0.1	1.0036	1.0000
2	5208	20.87	201.6	201.2	0.4	202.2	201.9	0.0	0.9969	0.9962
3	5208	10.40	100.6	100.4	0.2	100.5	100.7	0.1	1.0013	0.9972
AFZ	5208	0.00	0.0	0.0	0.0	0.0	0.1	0.0	0.0000	0.0000
AFS	5208	41.81	402.2	401.4	0.8	392.9	393.7	-0.2	1.0235	1.0194
Average Correction Factor									1.0006	0.9978

As Found Concentrations: **NO_x= 399.1** **NO= 399.5** As Found Percent Change **NO_x= -0.8%** **NO= -0.5%**

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	0.1	0.1	0.0	0.0	0.1	0.0	N/A	N/A	N/A	N/A
NO point	405.6	405.6	0.0	405.2	405.6	-0.1	1.0009	1.0000	N/A	N/A
300	405.6	111.9	293.7	404.6	111.9	292.5	1.0025	1.0000	1.0041	99.6%
200	405.6	208.4	197.1	405.4	208.4	196.1	1.0005	1.0000	1.0052	99.5%
100	405.6	310.6	95.0	405.9	310.6	94.4	0.9993	1.0000	1.0066	99.3%
Average Correction Factor							1.0007	1.0000	1.0053	99.5%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	0.1	ppb	0.0	0.0	0.1	ppb
Auto span	279.5	277.1	2.2	ppb	293.4	291.3	1.9	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter NO₂

Air Monitoring Network PAZA

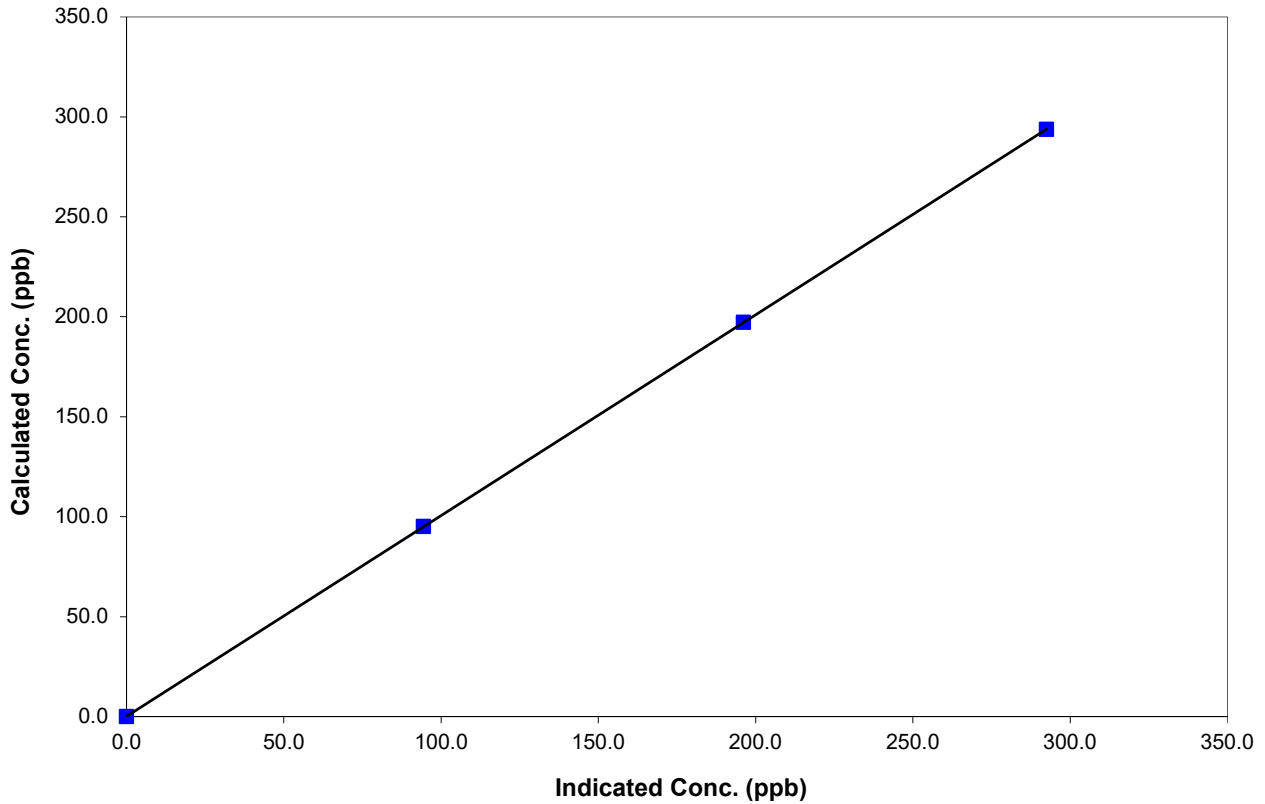
Station Information

Calibration Date	October 17, 2017	Previous Calibration	September 29, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:05	End Time (MST)	12:05
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	0.999999
293.7	292.5	1.0041		
197.1	196.1	1.0052	Slope	1.004158
95.0	94.4	1.0066		
			Intercept	0.104254

NO₂ Calibration Curve



Calibration Summary



Parameter NO_x

Air Monitoring Network PAZA

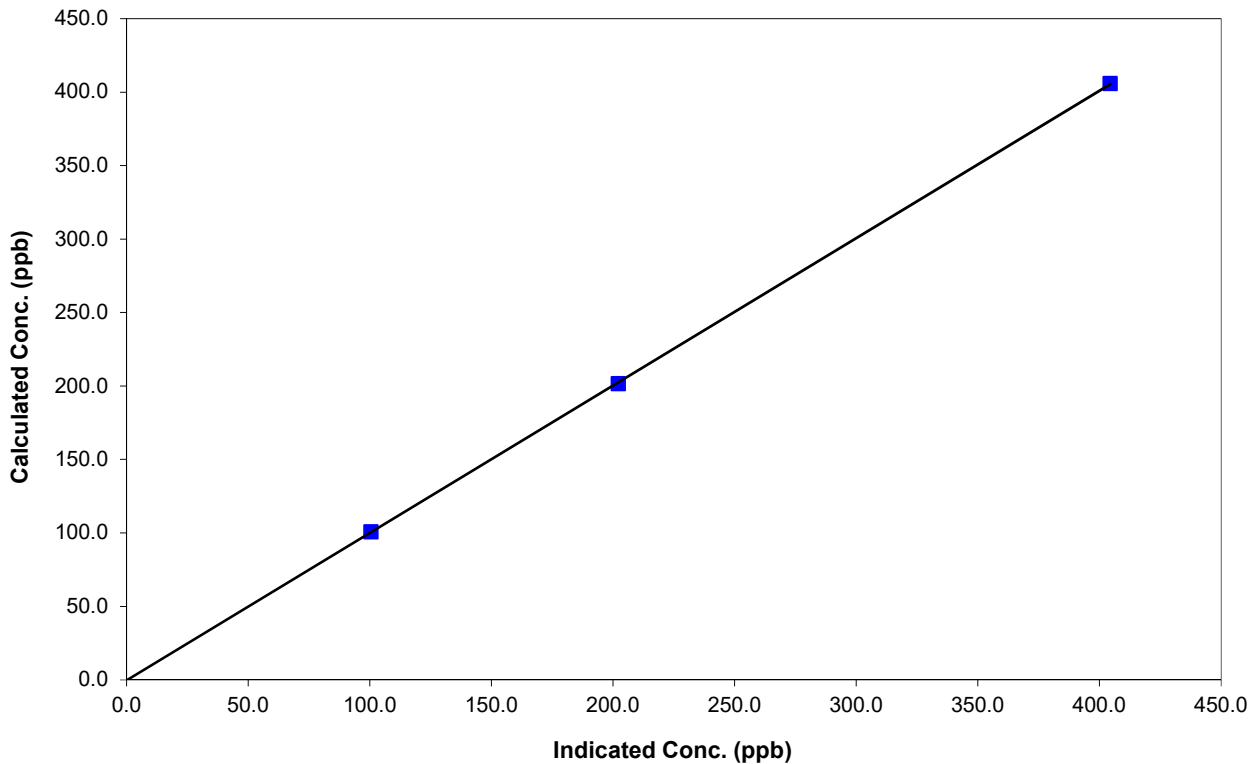
Station Information

Calibration Date	October 17, 2017	Previous Calibration	September 29, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:05	End Time (MST)	12:05
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	0.999986
405.9	404.5	1.0036		
201.6	202.2	0.9969	Slope	1.003320
100.6	100.5	1.0013		

NO_x Calibration Curve



Calibration Summary



Parameter NO
 Air Monitoring Network PAZA

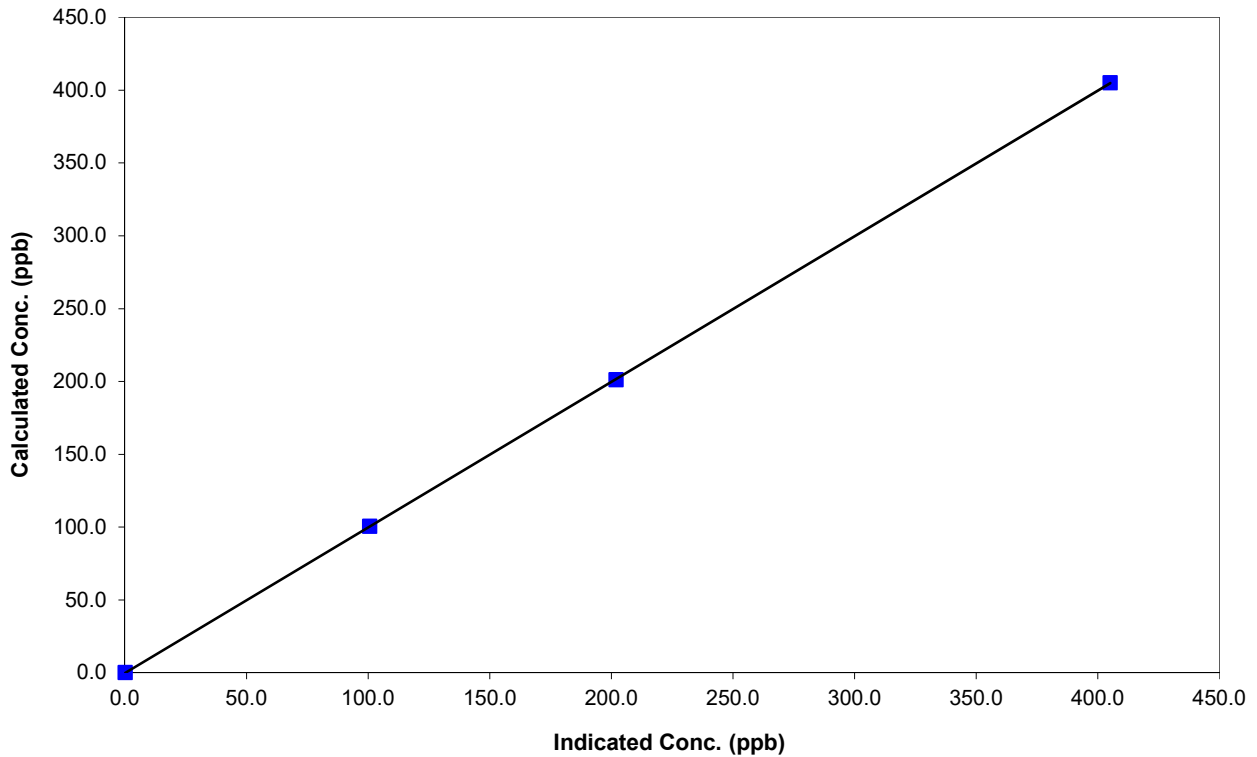
Station Information

Calibration Date	October 17, 2017	Previous Calibration	September 29, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:05	End Time (MST)	12:05
Analyzer make	42i	Analyzer serial #	906535087

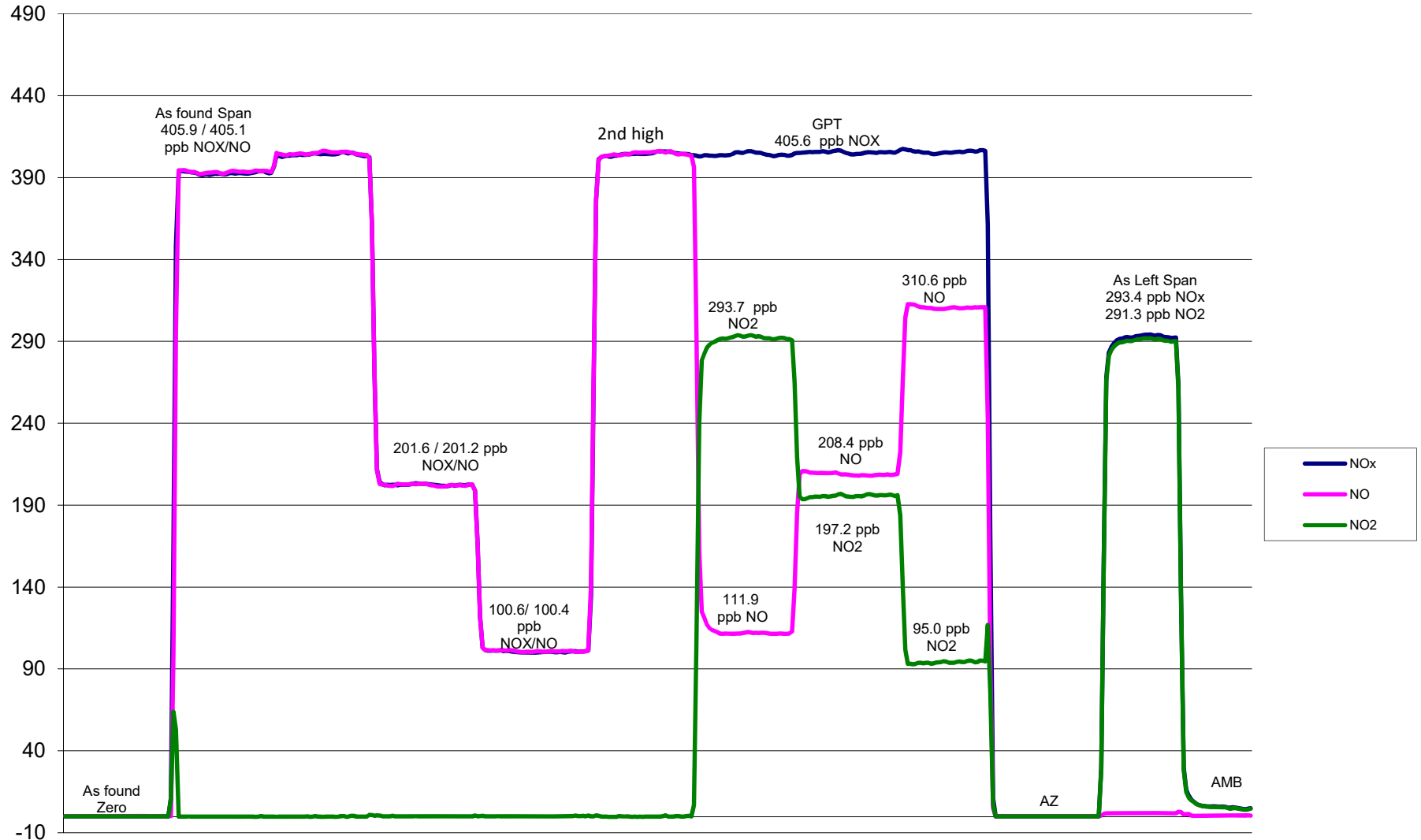
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999996
405.1	405.1	1.0000		
201.2	201.9	0.9962	Slope	1.000339
100.4	100.7	0.9972		
			Intercept	-0.354846

NO Calibration Curve



NO_x Calibration



October 17, 2017

Calibration Report



AIR QUALITY MONITORING

Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	<u>October 17, 2017</u>	Previous Calibration	<u>September 29, 2017</u>
Station Number	<u>1</u>	Station Location	<u>Henry Pirker</u>
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	<u>12:00</u>	End Time (MST)	<u>14:25:00 PM</u>
Barometric Pressure	<u>920.0</u> mbar	Station Temperature	<u>22.0</u> Deg C
Calibrator	<u>EnviroNics</u>	Serial Number	<u>6586</u>
Cal Gas Concentration	<u>NA</u>	Cal Gas Expiry Date	<u>NA</u>
DACS make	<u>CR3000</u>	DACS serial No.	<u>5237</u>
DACS voltage range	<u>0 - 5 volt</u>	DACS channel #	<u>9</u>
	<u>Before</u>		<u>After</u>
Calculated slope	<u>0.983251</u>	Calculated slope	<u>0.997792</u>
Calculated intercept	<u>0.093828</u>	Calculated intercept	<u>0.175108</u>
Analyzer make	<u>Teco 49I</u>	Analyzer serial #	<u>1507964699 (AMU:2015)</u>

	before		after	
Concentration range	<u>0 - 500</u>	<u>ppb</u>	<u>0 - 500</u>	<u>ppb</u>
offset	<u>-0.60</u>	<u>ppb</u>	<u>-0.70</u>	<u>ppb</u>
slope	<u>1.007</u>		<u>1.024</u>	
Lamp temp	<u>53.7</u>	<u>mV</u>	<u>53.7</u>	<u>mV</u>
Lamp Intensity A/B	<u>67517/72910</u>	<u>mV</u>	<u>67123/73768</u>	<u>mV</u>
Pressure	<u>676.9</u>	<u>mm Hg</u>	<u>695.2</u>	<u>mm Hg</u>
Flow A	<u>0.719</u>	<u>ccm</u>	<u>0.723</u>	<u>ccm</u>
Flow B	<u>0.720</u>	<u>ccm</u>	<u>0.724</u>	<u>ccm</u>

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)
<u>5208</u>	<u>0.0</u>	<u>0.0</u>	<u>-0.1</u>	<u>N/A</u>
<u>5208</u>	<u>0.3</u>	<u>293.7</u>	<u>294.6</u>	<u>0.9971</u>
<u>5208</u>	<u>0.2</u>	<u>197.1</u>	<u>196.7</u>	<u>1.0022</u>
<u>5208</u>	<u>0.1</u>	<u>95.0</u>	<u>95.3</u>	<u>0.9971</u>
<u>5208</u>	<u>0.0</u>	<u>0.0</u>	<u>-0.1</u>	<u>As found zero</u>
<u>5208</u>	<u>0.3</u>	<u>293.7</u>	<u>288.2</u>	<u>As found span</u>
Average Correction Factor				<u>0.9988</u>

Calculated value of As Found Response: 283.6 ppm Percent Change of As Found: -3.4%

	before calibration		after calibration	
Auto zero	<u>0.2</u>	<u>ppb</u>	<u>0.3</u>	<u>ppb</u>
Auto span	<u>373.3</u>	<u>ppb</u>	<u>385.7</u>	<u>ppb</u>

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



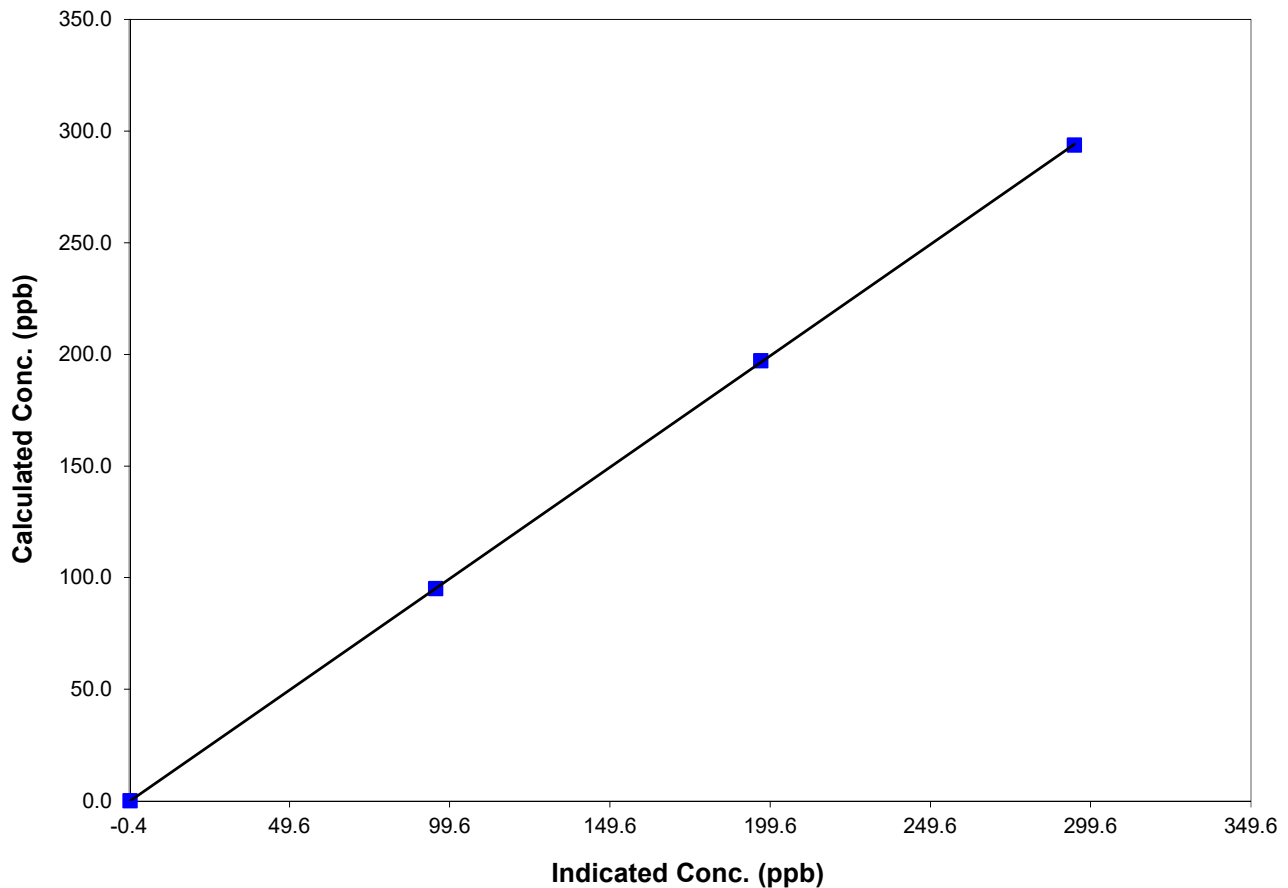
Station Information

Calibration Date	<u>October 17, 2017</u>	Previous Calibration	<u>September 29, 2017</u>
Station Number	<u>1</u>	Station Location	<u>Henry Pirker</u>
Start Time (MST)	<u>12:00</u>	End Time (MST)	<u>14:25:00 PM</u>
Analyzer make/model	<u>Teco 49I</u>	Analyzer serial #	<u>1507964699 (AMU:2015)</u>

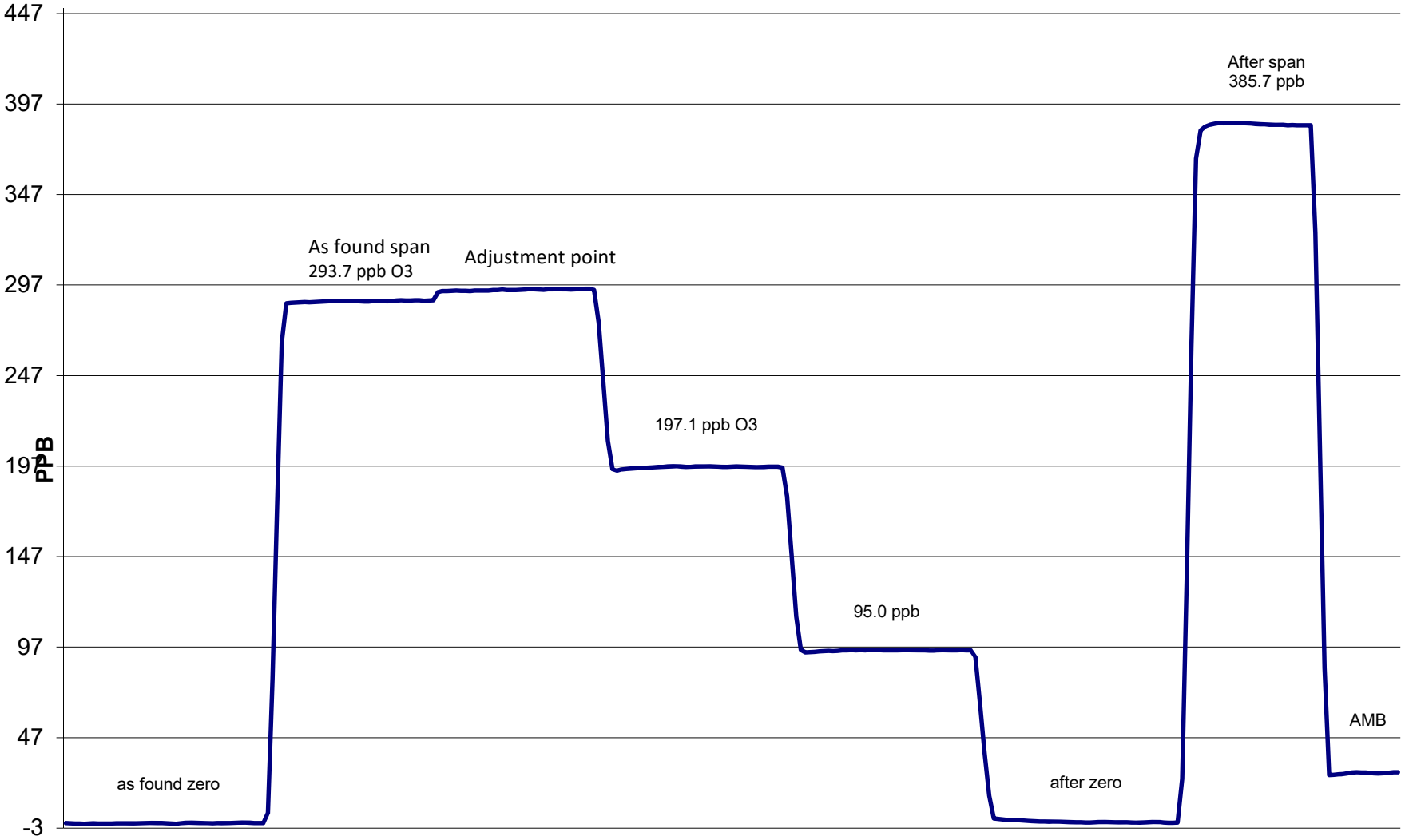
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	NA	Correlation Coefficient	0.999986
293.7	294.6	0.9971		
197.1	196.7	1.0022	Slope	0.997792
95.0	95.3	0.9971		
			Intercept	0.175108

O3 Calibration Curve



O3 Calibration



October 17, 2017

Calibration Report



AIR QUALITY MONITORING

Parameter CO

Air Monitoring Network PAZA

Station Information

Calibration Date	October 16, 2017	Previous Calibration	September 21, 2017
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	15:20:00 PM	End Time (MST)	18:15:00 PM
Barometric Pressure	0.919 mBar	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	6586
Cal Gas Conc	2906 ppm	Cal Gas Expiry Date	7/7/2023
		Cal Gas Cylinder #	LL109096
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.001699	Calculated slope	0.996674
Calculated intercept	-0.273276	Calculated intercept	-0.283324
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	8.761		9.008	
CO span setting	1.086		1.086	
Sample pressure	696.3	mm Hg	688.4	mm Hg
Sample Flow	0.435	LPM	0.433	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)
5153	0.00	0.00	0.00	N/A
5153	72.61	40.38	40.64	0.9935
5153	36.33	20.34	20.86	0.9755
5153	18.32	10.29	10.89	0.9452
5153	0.00	0.00	0.20	As Found Zero
5153	72.61	40.38	41.19	As Found Span
Average Correction Factor				0.9714

Calculated value of As Found Response: 40.784 ppm Percent Change of As Found: -1.0%

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	20.94	ppm	20.95	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



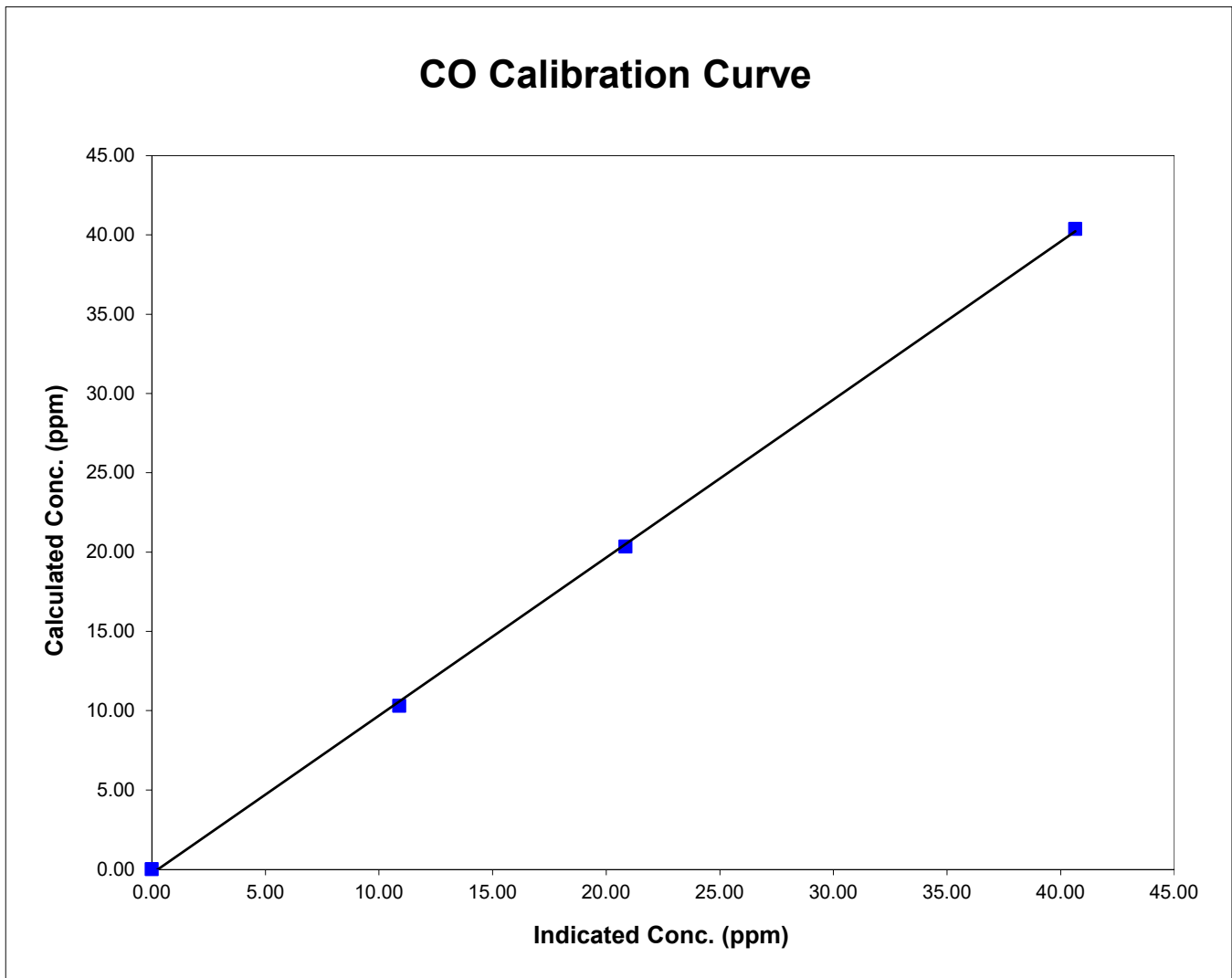
Parameter CO
 Air Monitoring Network PAZA

Station Information

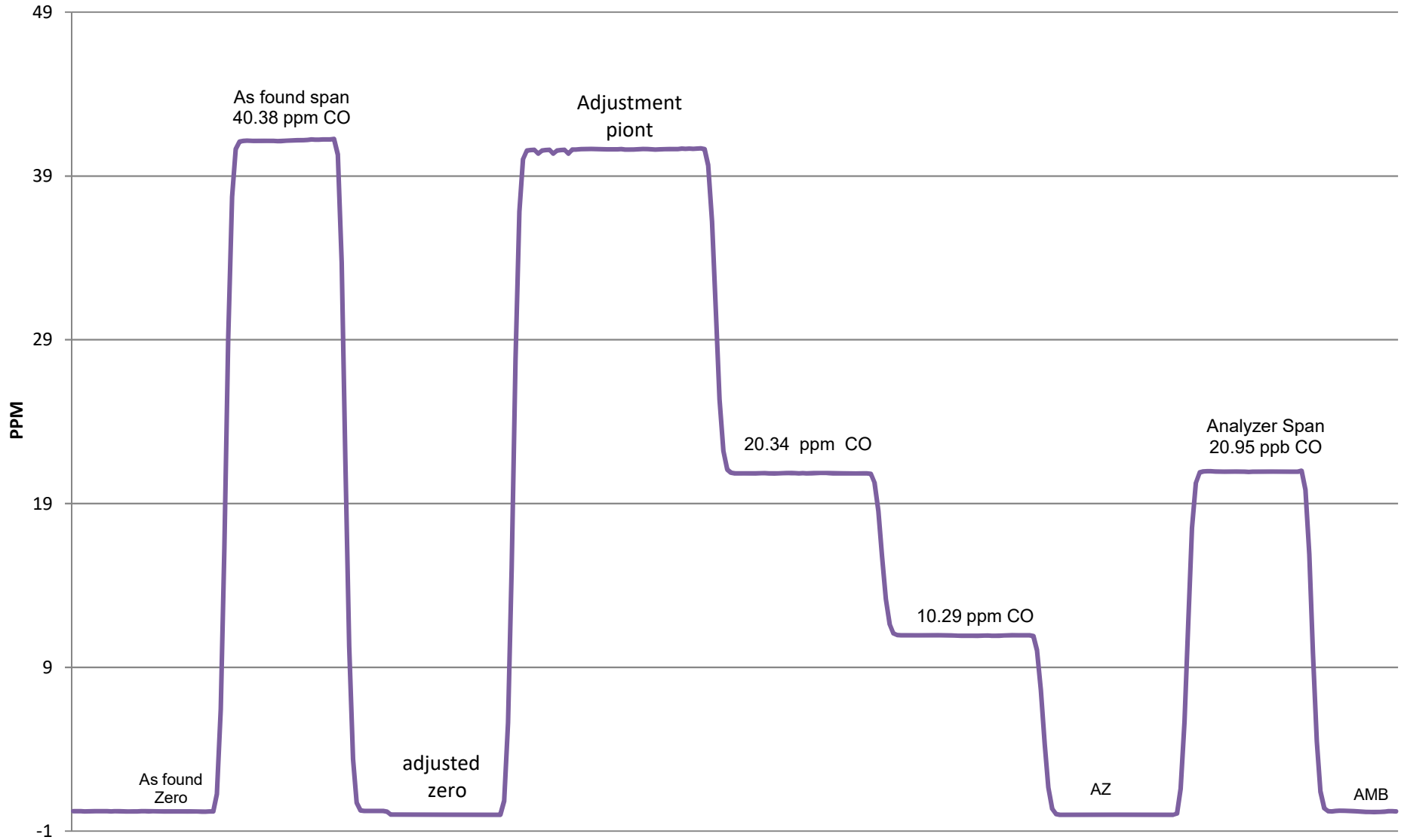
Calibration Date	October 16, 2017	Previous Calibration	September 21, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	15:20:00 PM	End Time (MST)	18:15:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.003	N/A		
40.379	40.642	0.9935	Correlation Coefficient	0.999770
20.345	20.856	0.9755		
10.295	10.892	0.9452	Slope	0.996674
			Intercept	-0.283324



CO Calibration



October 16, 2017

Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	October 16, 2017	Previous Calibration	September 21, 2017
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:Mair

Start Time (MST)	12:45	End Time (MST)	15:45:00 PM
Barometric Pressure	0.919 mBar	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	7/5/2015
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 551 Analyzer serial # 1134650658

	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	5.22		5.22	E ⁻⁴
NMHC cal factor	1.51		1.51	E ⁻⁴
Rt	12.31	Sec	12.31	Sec
Pk Index	23.43		23.43	

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)
2004	0.00	0.00	0.02	N/A
2005	72.61	13.49	13.51	0.9985
2005	42.43	8.00	8.14	0.9831
2005	16.23	3.10	3.21	0.9647
2005	0.00	0.00	0.02	As Found Zero
2005	70.65	13.14	13.26	As Found Span
Average Correction Factor				0.9821

Calculated value of As Found Response: 13.218 ppm Percent Change of As Found: -0.6%

	Before		After
Calculated slope	1.001388	Calculated slope	1.000459
Calculated intercept	-0.044832	Calculated intercept	-0.075392

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	9.58	ppm	9.40	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)
2005	0.00	0.00	0.02	N/A
2005	72.61	19.89	19.92	0.9987
2005	42.43	11.80	12.04	0.9799
2005	16.23	4.57	4.73	0.9666
2005	0.00	0.00	0.02	As Found Zero
2005	70.65	19.38	19.40	As Found Span
Average Correction Factor				0.9817

Calculated value of As Found Response: 19.224 ppm Percent Change of As Found: 0.8%

	<u>Before</u>		<u>After</u>
Calculated slope	0.995037	Calculated slope	0.999586
Calculated intercept	-0.059567	Calculated intercept	-0.107958

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	13.34	ppm	13.05	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)
2004	0.00	0.00	0.03	N/A
2005	72.61	33.38	33.41	0.9991
2005	42.43	19.80	20.17	0.9817
2005	16.23	7.67	7.93	0.9678
2005	0.00	0.00	0.03	As Found Zero
2005	70.65	32.51	32.65	As Found Span
Average Correction Factor				0.9829

Calculated value of As Found Response: 32.451 ppm Percent Change of As Found: 0.2%

	<u>Before</u>		<u>After</u>
Calculated slope	0.997970	Calculated slope	1.000164
Calculated intercept	-0.095268	Calculated intercept	-0.174080

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	22.92	ppm	22.44	ppm

Notes: Slight span adjustment made
Hydrogen cylinder changed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4
 Air Monitoring Network PAZA



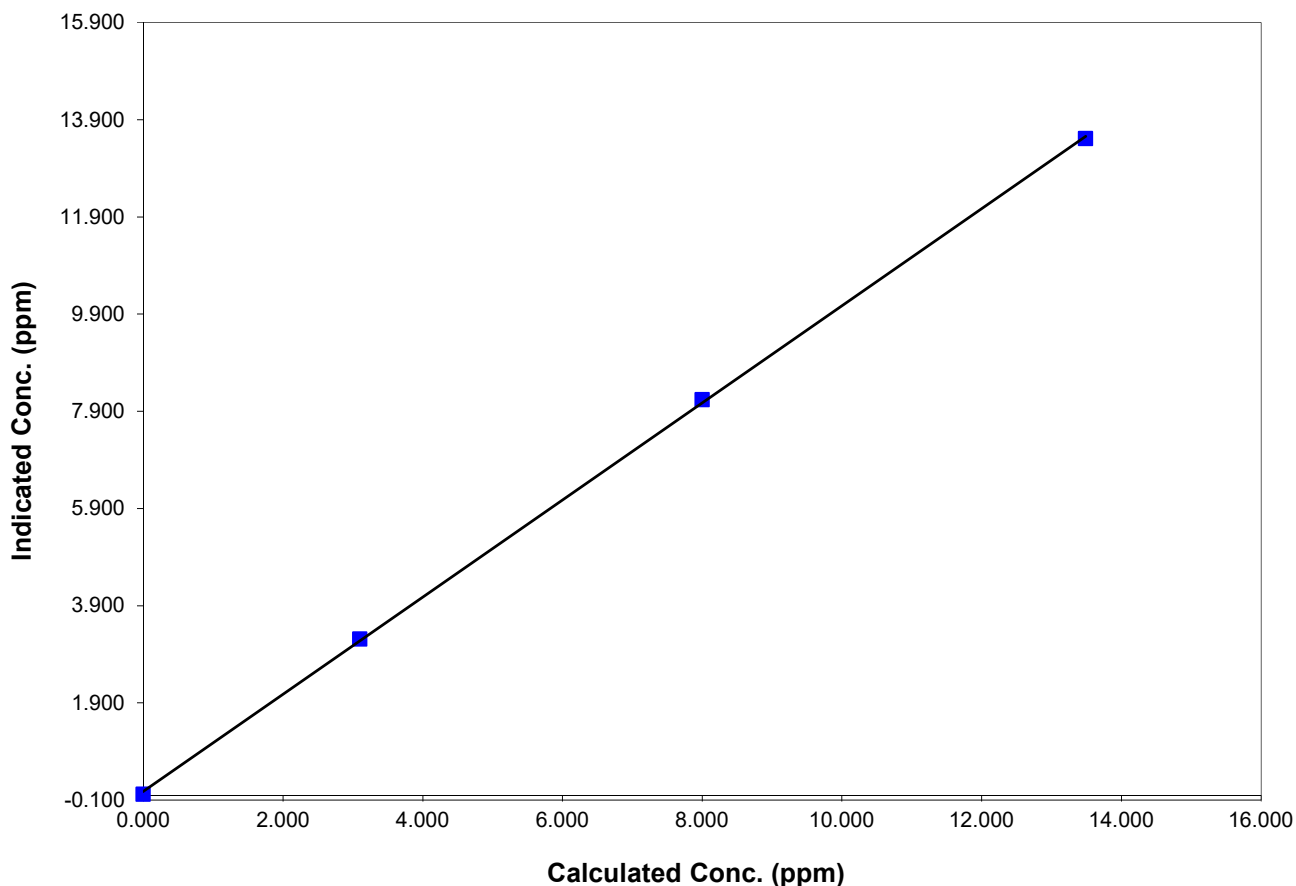
Station Information

Calibration Date	October 16, 2017	Previous Calibration	September 21, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:45	End Time (MST)	15:45:00 PM
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		
13.490	13.511	0.9985	Correlation Coefficient	0.999891
7.999	8.137	0.9831		
3.099	3.213	0.9647	Slope	1.000459
			Intercept	-0.075392

CH4 Calibration Data



Calibration Summary



Parameter THC
 Air Monitoring Network PAZA

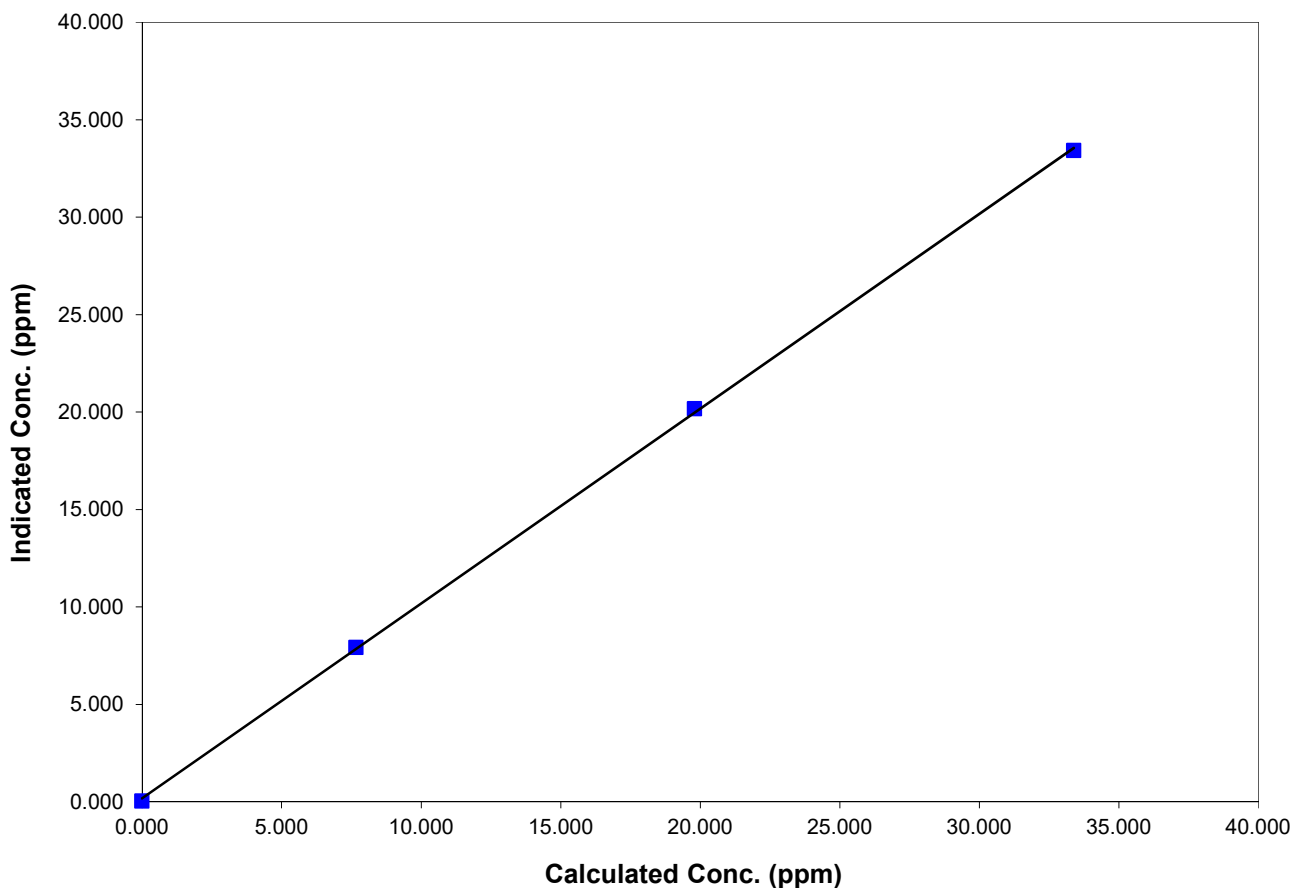
Station Information

Calibration Date	October 16, 2017	Previous Calibration	September 21, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:45	End Time (MST)	15:45:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

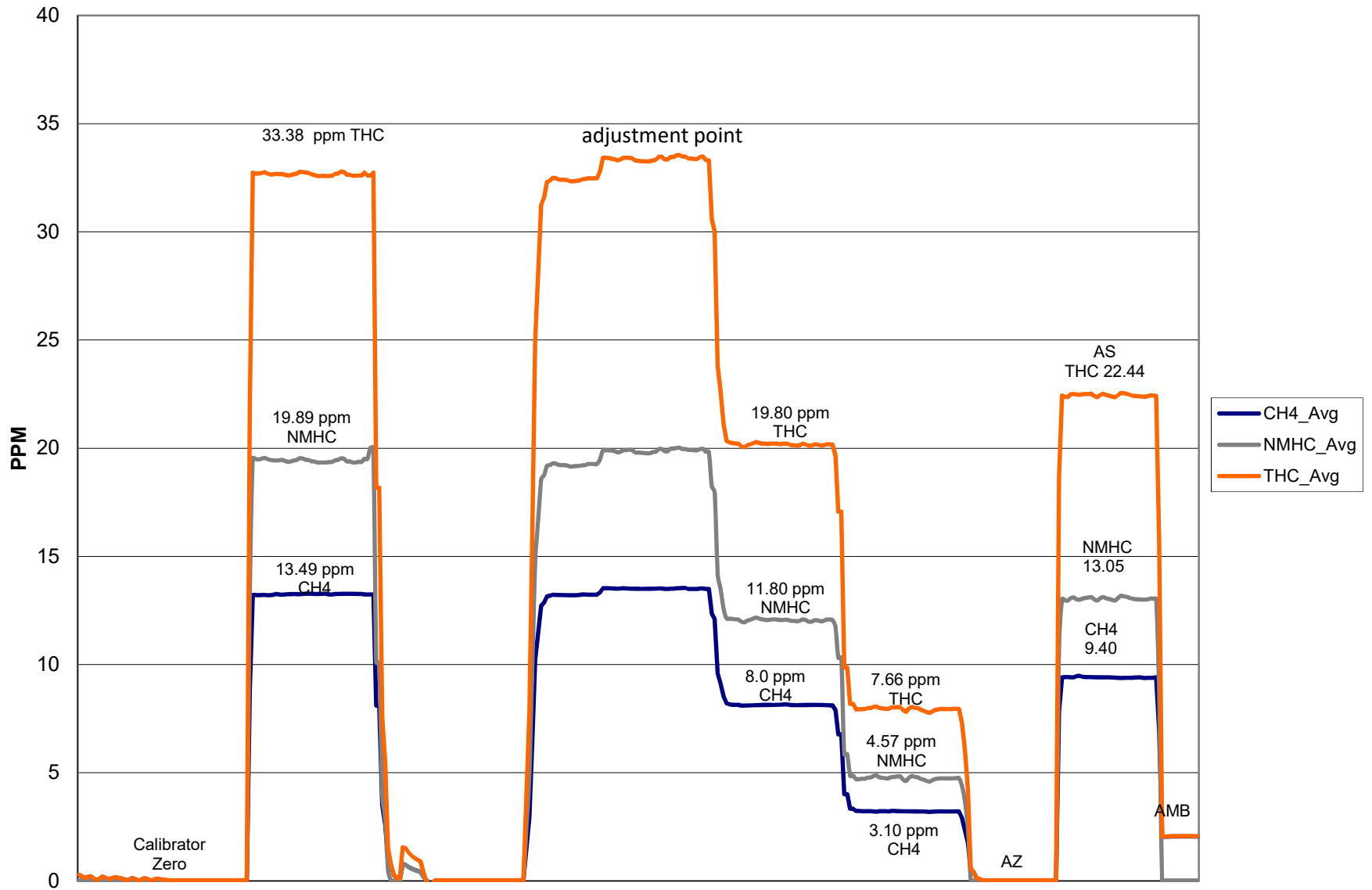
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.032	N/A		
33.385	33.414	0.9991	Correlation Coefficient	0.999866
19.796	20.165	0.9817		
7.670	7.926	0.9678	Slope	1.000164
			Intercept	-0.174080

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report



Parameter
 Air Monitoring Network

Station Information

Calibration Date	October 16, 2017	Previous Calibration	September 21, 2017
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:15	End Time (MST)	14:05:00 PM
Barometric Pressure	0.919 mBar	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	10.3 ppb	Cal Gas Expiry Date	02/23/2019
		Cal Gas Cylinder #	EY0000380
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.989642	Calculated slope	1.012991
Calculated intercept	-0.055801	Calculated intercept	-0.508764
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.094		1.066	
Background	13.0		13.0	
Pressure	658.1	mm Hg	659.4	mm Hg
Flow	0.434	ccm	0.436	ccm
Lamp Voltage	897	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)
5153	0.00	0.00	0.19	N/A
5153	41.80	82.88	82.19	1.0084
5153	20.80	41.41	41.54	0.9969
7298	10.08	14.21	14.81	0.9590
5153	0.00	0.00	0.63	As Found Zero
5153	41.20	81.70	82.07	As Found Span
Average Correction Factor				0.9881

Calculated value of As Found Response: 80.5 ppb Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	0.44	ppb	0.32	ppb
Auto span	30.57	ppb	28.82	ppb

Notes: Zero/span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



AIR QUALITY MONITORING

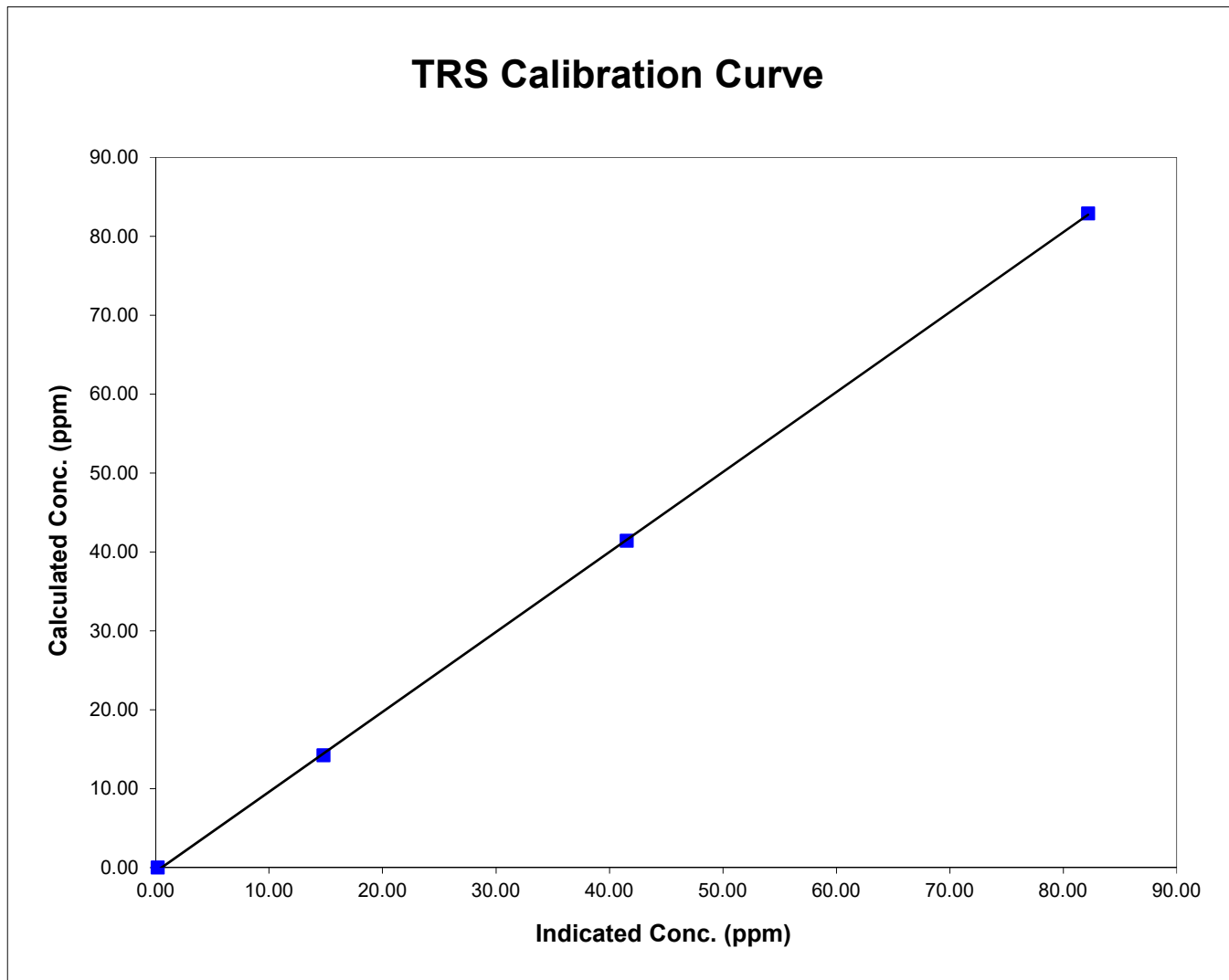
Parameter **TRS**
 Air Monitoring Network **PAZA**

Station Information

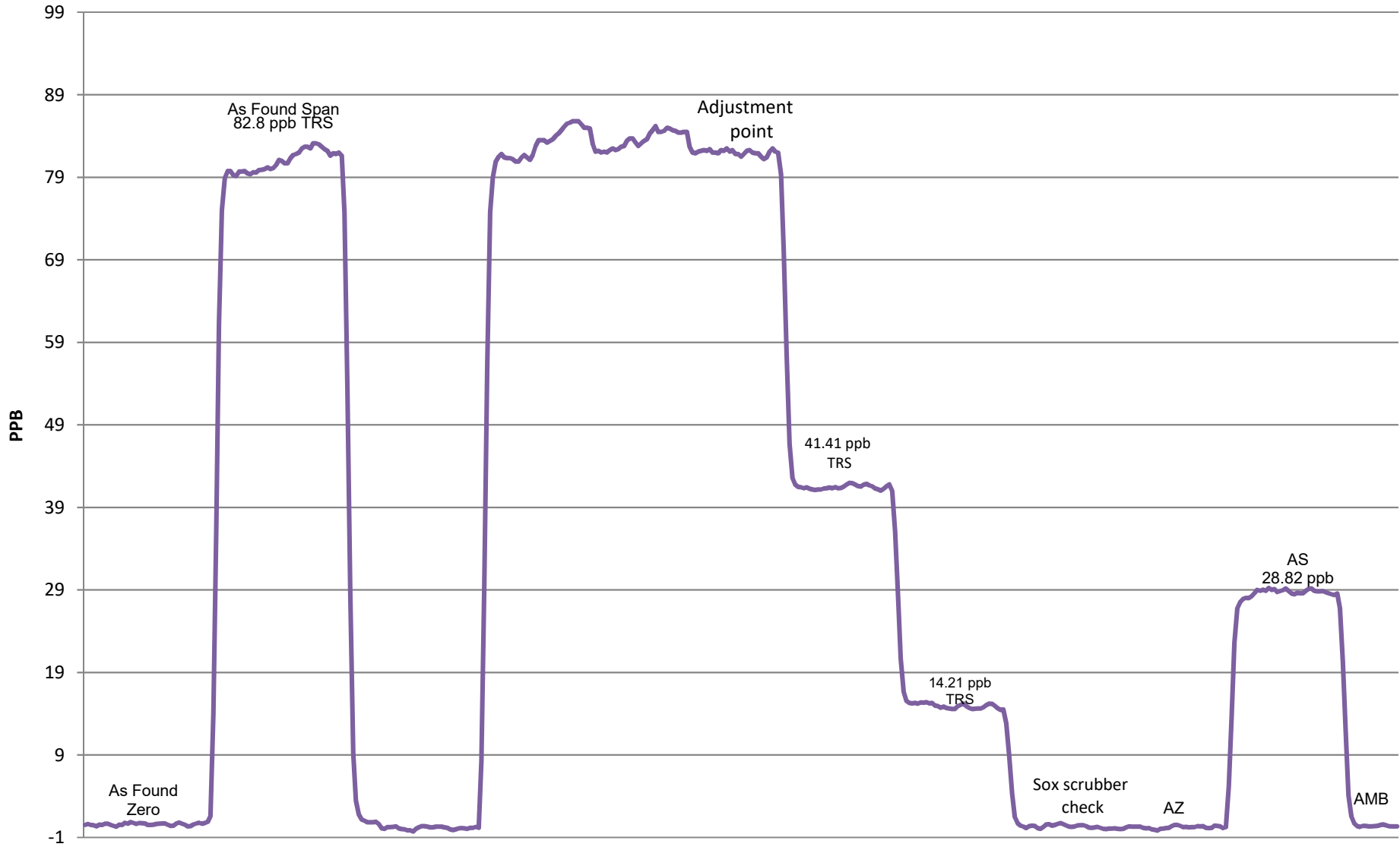
Calibration Date	<u> </u> October 16, 2017	Previous Calibration	<u> </u> September 21, 2017
Station Number	<u> </u> 1	Station Location	<u> </u> Henry Pirker
Start Time (MST)	<u> </u> 10:15	End Time (MST)	<u> </u> 14:05:00 PM
Analyzer make/model	<u> </u> TEI 45C	Analyzer serial #	<u> </u> 630718528

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.187	N/A	Correlation Coefficient	0.999942
82.879	82.187	1.0084		
41.409	41.539	0.9969		
14.207	14.814	0.9590		
			Slope	1.012991
			Intercept	-0.508764



TRS Calibration



October 16, 2017

SHARP 5030 PM2.5 Calibration



STATION: Henry Pirker
 LOCATION: Muskoseepi Park
 START TIME (MST): 9:00
 END TIME (MST): _____

OPERATOR: Dmytro Dolotii
 Last calibration date: June 5 2017
 Calibration date: October 27 2017

MONITOR INFO / PARAMETER VALUES:

Make/Model: **SHARP 5030**
 Configuration: **PM 2.5**
 Serial Number: **N-759**

Audit Device Model: **Delta cal**
 Audit Device S/N: **N402807**
 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)
<i>As Found Data</i>					
Audit values (I)	15.2	940	16.67	16.67	14:55
MEASURED (AF)	15.0	927	17.07	17.11	15:02
AF Difference (AF-I)	-0.2	-13	-0.40	0.44	0:07
<i>Adjusted Data</i>					
MEASURED (M)	15.2	927	17.07	17.11	14:55
Adj Difference (M-I)	0.0	-13	0.40	0.44	0:00
LIMITS	± 4.0 °C	13.33 mbar	0.8 L/min	± 1.0 L/min	±2 min

	As found	Adjusted
Nephelometer zero	2.8	0.04
Foil calibration	6940	6968

Sample Head Inspect/Cleaning: Cleaned sample head

Status of sampling tape: 40% full

Nozzle Inspection / cleanliness: _____

COMMENTS: Zero & BP adjustment made

Calibration Report



Parameter SO₂
 Air Monitoring Network PAZA

Station Information

Calibration Date	October 19 2017	Previous Calibration	September 8 2017
Station Number	2	Station Location	Evergreen Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	10:35	End Time (MST)	13:10:00 PM
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	50 ppm	Cal Gas Expiry Date	02/21/2020
Correction factor	0.031061	Cal Gas Cylinder #	EY0000740
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.005995	Calculated slope	0.998645
Calculated intercept	1.435920	Calculated intercept	0.516242
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.8		11.8	
coefficient	1.230		1.251	
Lamp Voltage	833	volts	833	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	653.2	mm Hg	658.3	mm Hg
Sample Flow	0.428	ccm	0.430	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)
5203	0.0	0.00	1.1	N/A
5203	42.16	401.9	403.2	0.9969
5203	21.25	203.4	201.0	1.0119
5203	10.55	101.2	100.1	1.0106
5203	0.0	0.0	1.1	As Found Zero
5203	42.16	401.9	393.6	As Found Span
Average Correction Factor				1.0064

Calculated value of As Found Response: 396.297 ppm Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	1.0	ppm	1.0	ppm
Auto span	263.4	ppm	272.0	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
 Air Monitoring Network PAZA

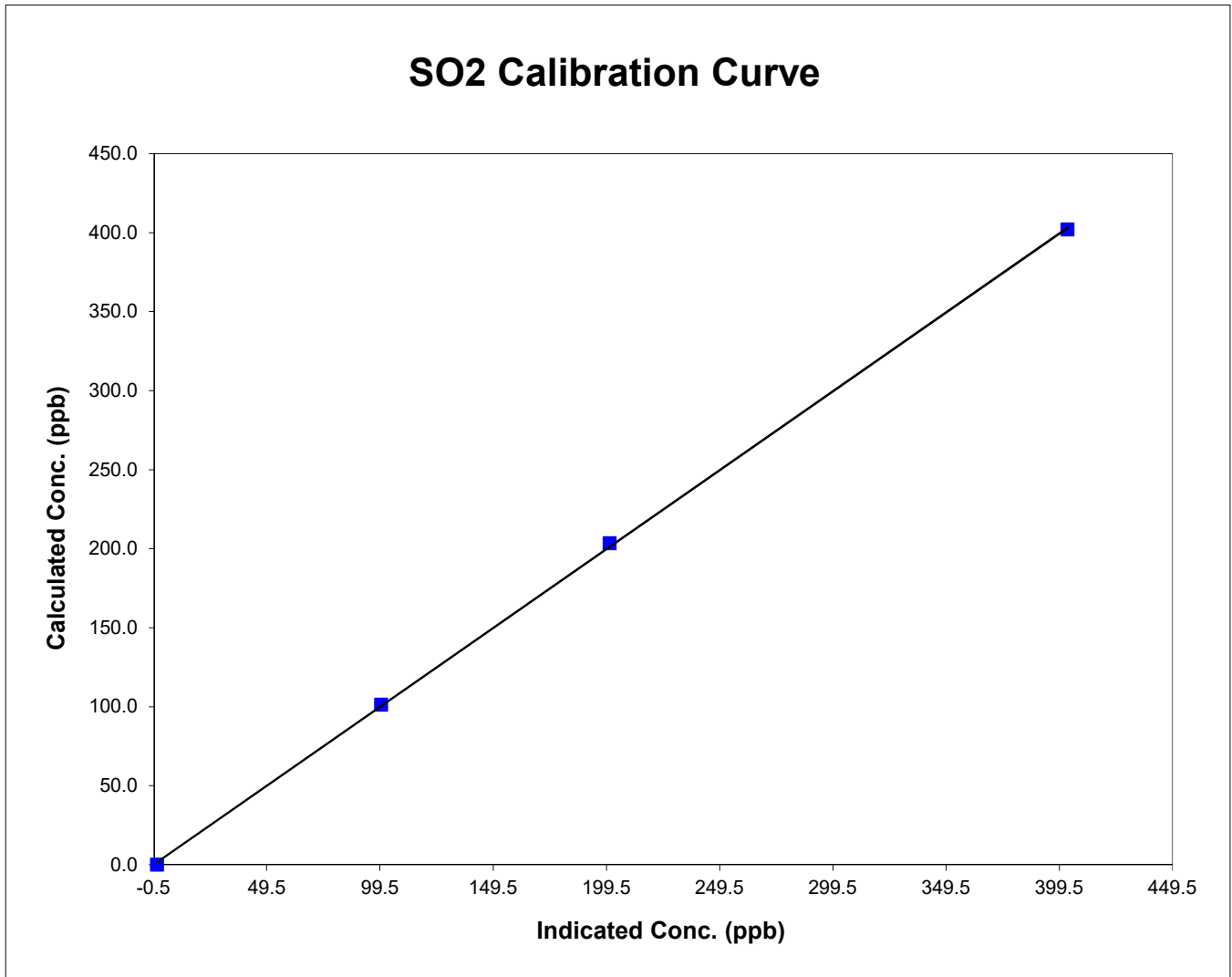


Station Information

Calibration Date	October 19 2017	Previous Calibration	September 8 2017
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:35	End Time (MST)	13:10:00 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	1.1	N/A		
401.9	403.2	0.9969	Correlation Coefficient	0.999897
203.4	201.0	1.0119		
101.2	100.1	1.0106	Slope	0.998645
			Intercept	0.516242



SO2 Calibration



October 19 2017

Calibration Report



Parameter TRS
 Air Monitoring Network PAZA

Station Information

Calibration Date	October 19 2017	Previous Calibration	September 8 2017
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:05	End Time (MST)	11:50
Barometric Pressure	0.920 ATM	Station Temperature	22.0 Deg C
Calibrator	Enviroics	Serial Number	6586
Cal Gas Conc	10.3 ppm	Cal Gas Expiry Date	2/28/2020
Correction factor	0.031061	Cal Gas Cylinder #	EY0000340
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.999929	Calculated slope	0.995513
Calculated intercept	0.159861	Calculated intercept	-0.271334
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background coefficient	17.4	ppb	17.4	ppb
Lamp Voltage	1002	volts	1002	volts
Chamber Temp	44.4	Deg C	44.7	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	622.7	mm Hg	623.3	mm Hg
Sample Flow	0.598	ccm	0.601	ccm
Lamp Intensity	36,906	mv	36,792	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)
5203	0.00	0.00	0.3	N/A
5203	42.16	82.79	83.4	0.9925
5203	21.25	41.90	42.4	0.9871
7259	10.55	14.95	15.2	0.9857
5203	10.55		0.7	Sox Test
5203	0.00	0.00	0.3	As Found Zero
5203	42.16	82.79	83.4	As Found Span
Average Correction Factor				0.9884

Calculated value of As Found Response: 83.24 ppm Percent Change of As Found: **-0.5%**

	before calibration		after calibration	
Auto zero	0.3	ppm	0.4	ppm
Auto span	65.1	ppm	71.5	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



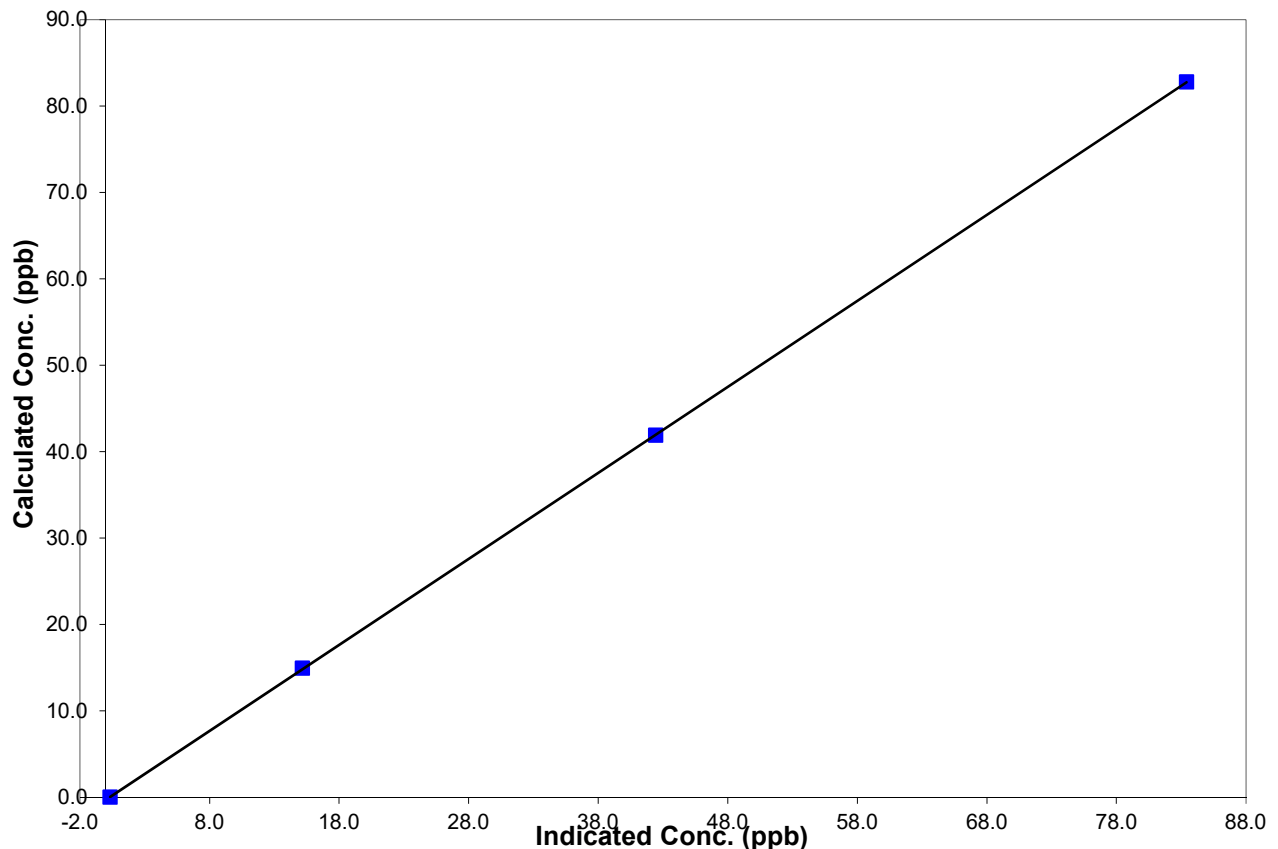
Station Information

Calibration Date	<u>October 19 2017</u>	Previous Calibration	<u>September 8 2017</u>
Station Number	<u>2</u>	Station Location	<u>Evergreen Park</u>
Start Time (MST)	<u>9:05</u>	End Time (MST)	<u>11:50</u>
Analyzer make/model	<u>TEI Model 43C</u>	Analyzer serial #	<u>3199000000491</u>

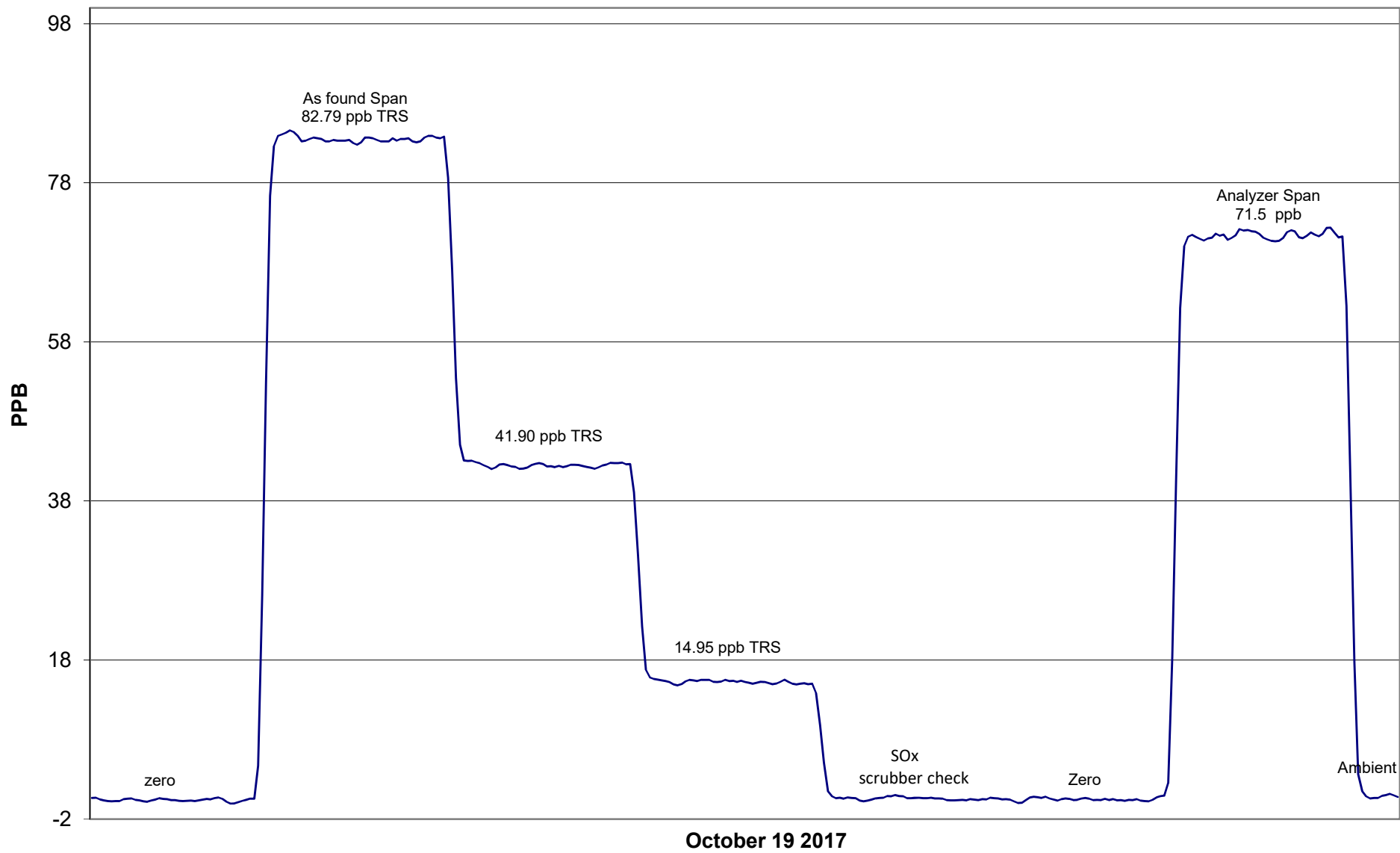
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999993
82.8	83.4	0.9925		
41.9	42.4	0.9871		
14.9	15.2	0.9857	Slope	0.995513
			Intercept	-0.271334

TRS Calibration Curve



TRS Calibration



AB TEOM PM2.5 Calibration



STATION: Evergreen Park
 LOCATION: PAZA - Grande Prairie

OPERATOR: Dmytro Dolotii
 DATE: 19-Oct-17

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	24634
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	13-Feb-17

PUMP CAPACITY CHECK *	PASS
-----------------------	------

* 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	0.010	0.010
PUMP OFF	0.000	-0.050
NET	0.010	0.060
LIMITS	<0.15	<0.60

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	16147	13.67	3.000
INDICATED (I)	4.8	0.903	16147	13.69	3.000
MEASURED (AF)	6.0	0.903	16147	14.08	3.050
MEASURED (M)	6.0	0.903	16250	14.08	3.050
DIFFERENCE (M-I)	1.2	0.000	0.6%	0.41	0.05
LIMITS	± 2 ° 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.

Replaced the filter on the the main fow pass

Sample Head Inspection/Cleaning: Large In Line Filter Inspection & Or Cleaning:

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	October 20, 2017	Previous Calibration	September 27, 2017
Station Number	3	Station Location	Smokey Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:25	End Time (MST)	
Barometric Pressure	0.924 ATM	Station Temperature	18.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Concentration	49.4 ppm	Cal Gas Cert Date	02/21/2020
Correction factor	0.031625	Cal Gas Cylinder #	EY0000751
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.999088	Calculated slope	1.006975
Calculated intercept	-0.671821	Calculated intercept	3.026975
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	13.8		13.8	
coefficient	0.919		0.930	
Lamp Voltage	949	volts	946	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	656	mm Hg	656.6	mm Hg
Sample Flow	0.435	lpm	0.440	lpm
Lamp Intensity	87	%	87	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5206	0.0	0.00	0.3	N/A
5206	42.03	395.63	392.5	1.0080
5206	21.54	203.55	194.5	1.0464
5206	10.51	99.53	94.6	1.0524
5206	0.0	0.00	0.3	As Found Zero
5206	42.03	395.63	392.5	As Found Span
Average Correction Factor				1.0356

Calculated value of As Found Response: 391.163 ppm Percent Change of As Found: 1.1%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	203.8	ppb	203.8	ppb

Notes: Slight span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
 Air Monitoring Network PAZA

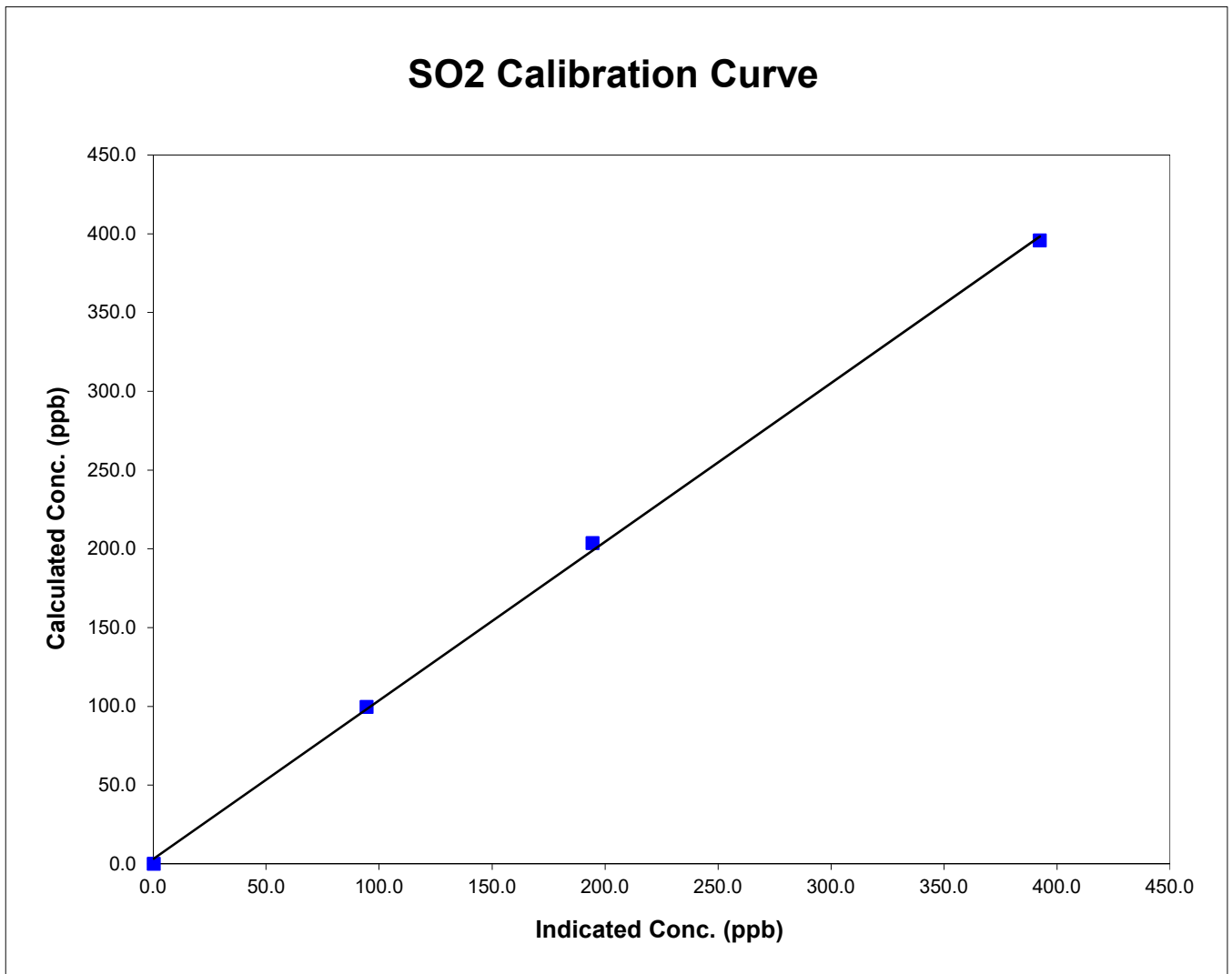


Station Information

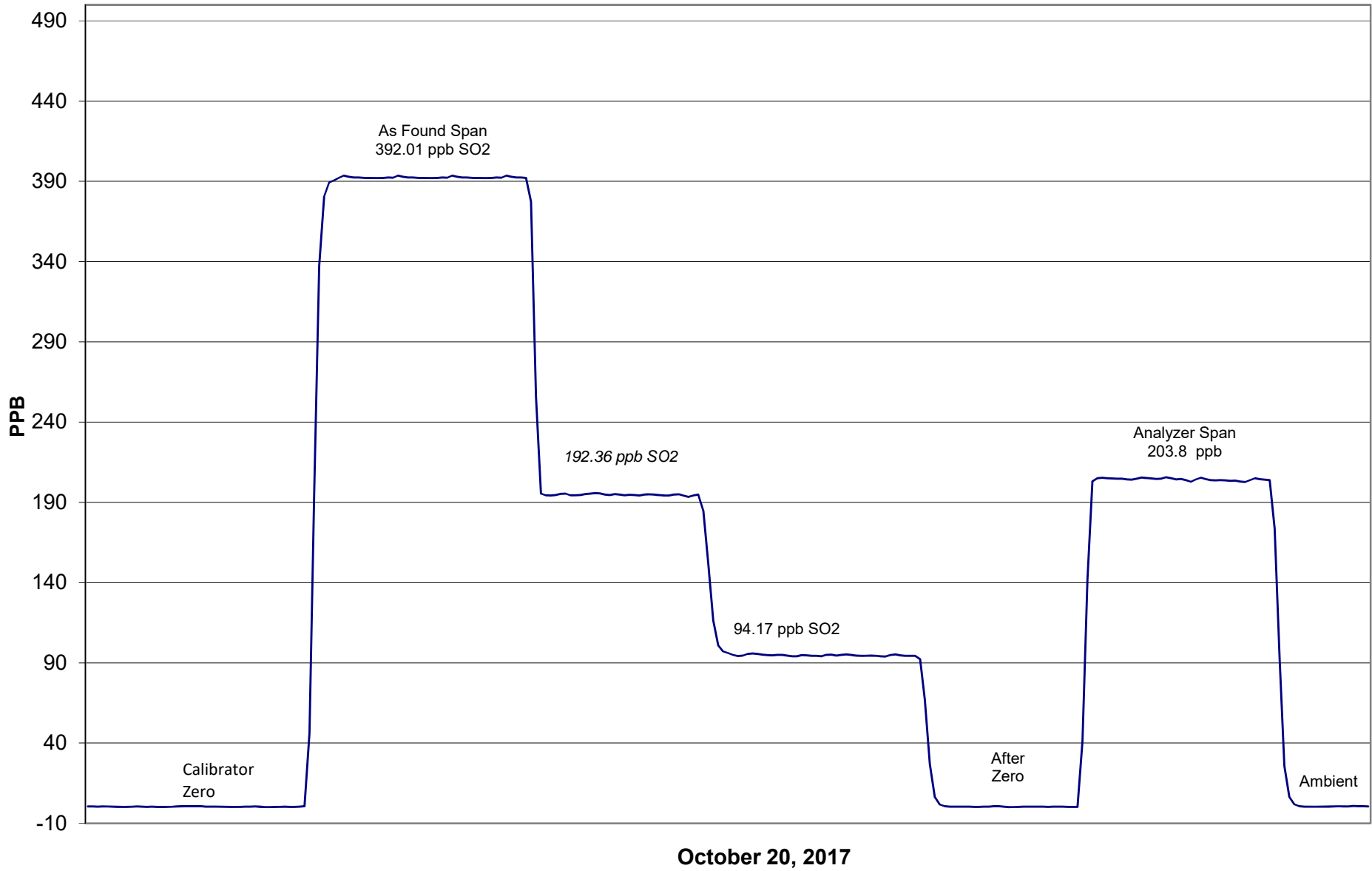
Calibration Date	October 20, 2017	Previous Calibration	September 27, 2017
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:25	End Time (MST)	0:00
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999523
395.6	392.5	1.0080		
203.6	194.5	1.0464		
99.5	94.6	1.0524	Slope	1.006975
			Intercept	3.026975



Smokey Heights SO₂ Calibration



Calibration Report



Parameter **TRS**
 Air Monitoring Network **PAZA**

Station Information

Calibration Date	October 20, 2017	Previous Calibration	September 28, 2017
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	10:00	End Time (MST)	13:00:00 PM
Barometric Pressure	0.923 ATM	Station Temperature	18.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	10.3 ppm	Cal Gas Expiry Date	02/23/2019
Correction factor	0.031591	Cal Gas Cylinder #	EY0000340
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.004949	Calculated slope	1.007320
Calculated intercept	-0.181137	Calculated intercept	0.302797

Analyzer make **TEI Model 43I APSAA** Analyzer serial # **1153630151**

	before		after	
Concentration range	100	ppb	100	ppb
Background	13.9	ppb	14.2	ppb
coefficient	0.996		1.027	
Lamp Voltage	805	volts	807	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	660.9	mm Hg	660.9	mm Hg
Sample Flow	0.414	lpm	0.412	lpm
Lamp Intensity	93	mv	91	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)
5206	0.0	0.00	0.1	N/A
5206	42.03	82.49	81.9	1.0066
5206	21.54	42.44	41.2	1.0313
7255	10.51	14.90	14.4	1.0347
5206	10.51		0.7	Sox test
5206	0.0	0.00	0.1	As Found Zero
5206	42.03	82.49	79.5	As Found Span
Average Correction Factor				1.0242

Calculated value of As Found Response: **79.64 ppm** Percent Change of As Found: **3.5%**

	before calibration		after calibration	
Auto zero	0.2	ppm	0.2	ppm
Auto span	64.3	ppm	67.9	ppm

Notes: **Span adjustment made**

Calibration Performed By: **Dmytro Dolotii**

Calibration Summary



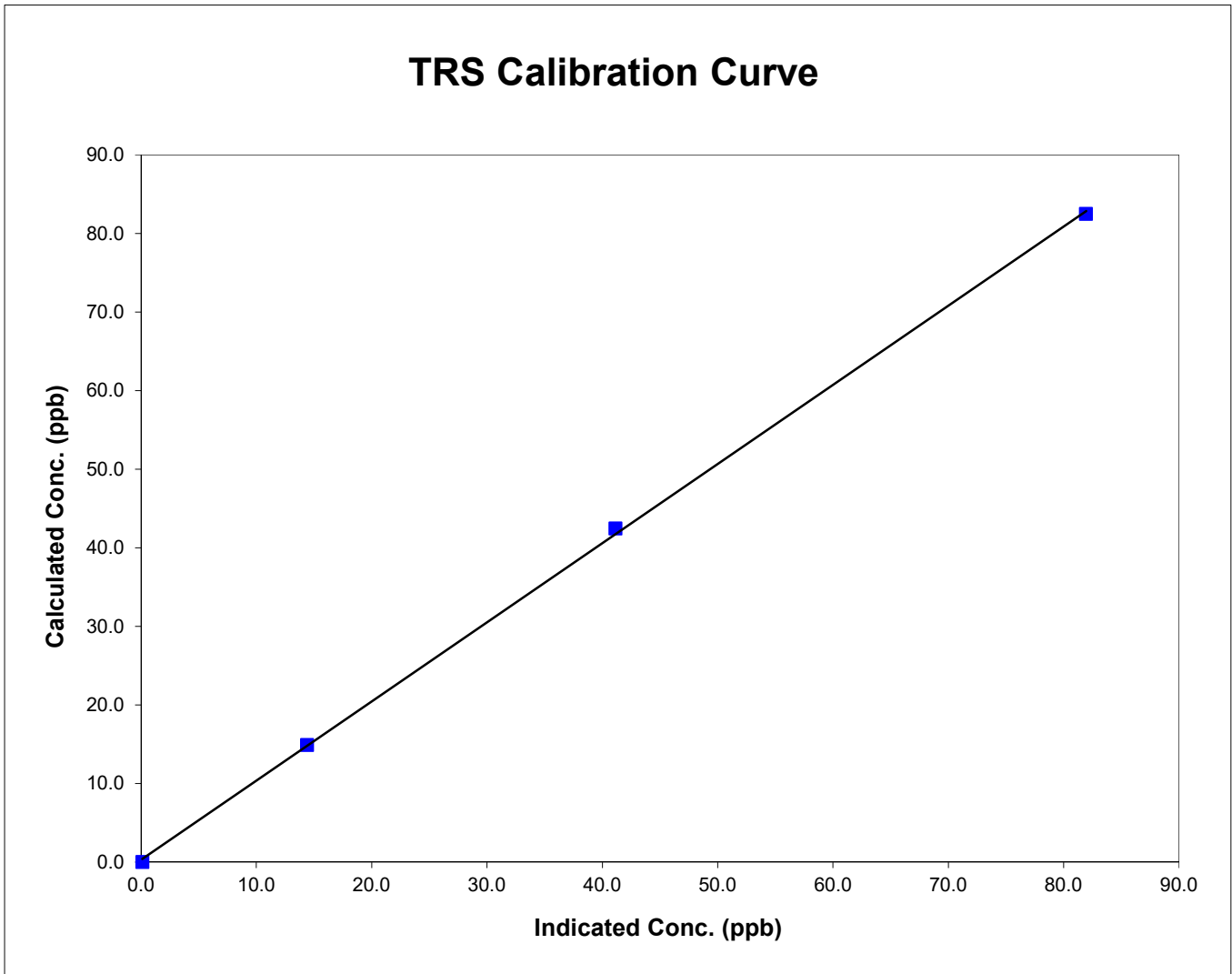
Parameter **TRS**
 Air Monitoring Network **PAZA**

Station Information

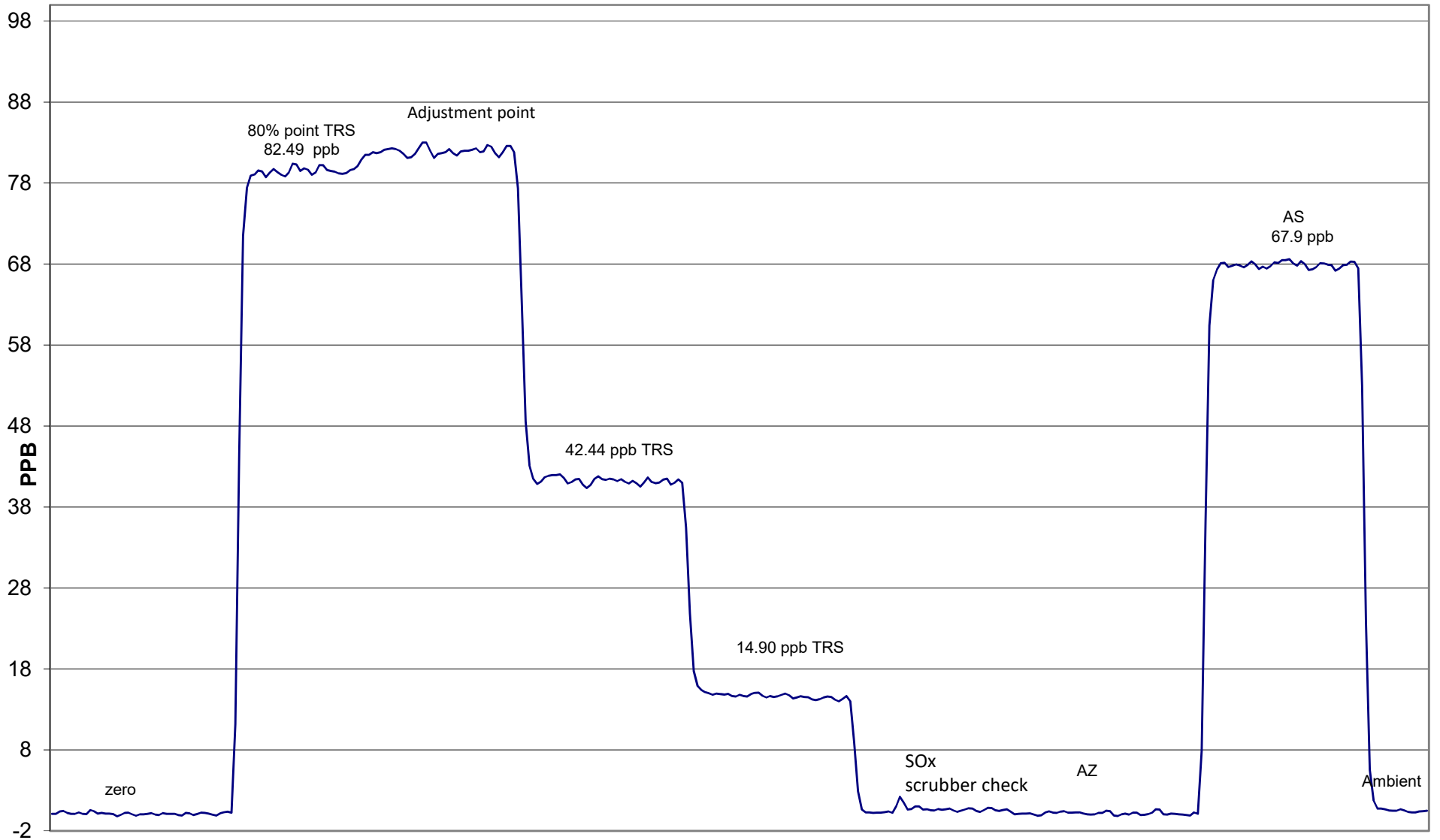
Calibration Date	October 20, 2017	Previous Calibration	September 28, 2017
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:00	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI Model 43I APSAA	Analyzer serial #	1153630151

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
			0.0	0.1
82.5	81.9	1.0066	Correlation Coefficient	0.999802
42.4	41.2	1.0313		
14.9	14.4	1.0347	Slope	1.007320
			Intercept	0.302797



Smokey Heights TRS Calibration



October 20, 2017

SHARP 5030 PM2.5 Calibration



Station: Smokey Heights
 Location: Smokey Heights
 Start Time (MST): 12:40

Operator: Dmytro Dolotii
 Date: October 20 2017
 End Time (MST): 14:20:00 PM

MONITOR INFO / PARAMETER VALUES:

Make/Model	SHARP 5030	Audit Device Model	Delta cal
Configuration	PM 2.5	AMU S/N	AMU 1789
AMU Number		Serial Number	1612
Serial Number	CM-0271	Certification Date	01-Oct-15

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (°C)	Ambient Pres. (mbar)	RH (%)	Leak Check (l/min)	Flow Rate (lpm)	Foil Calibration (ug)	Nephelometer (ug)	Time settings (hh:mm)
Audit values (I)	9.0	921	28.0	16.67	16.67	6999	1.5	14:13
MEASURED (AF)	9.7	908	27.8	16.33	16.63	7133	0.3	14:14
AF Difference (AF-I)	0.7	-13	-0.2	-0.34	-0.04	134	-1.2	0:01
MEASURED (M)	9.0	908	28.0	16.67	16.67	7133	0.0	14:14
Adj Difference (M-I)	0.0	-13	0.0	0.00	0.00	0	-1.5	0:01
<i>LIMITS</i>	$\pm 4.0 ^\circ C$	<i>13.33 mbar(hPa)</i>	$\pm 2.0\%$	<i>0.8 L/min</i>	$\pm 1.0 L/min$	<i>(+/-5%)</i>	<i>(<+/-2 ug/m3)</i>	$\pm 2 min$

Sample Head Inspect/Cleaning: Heads cleaned

Status of sampling tape: 40% roll

Nozzle Inspection / cleanliness: Clean

RH/Temp standard (make and s/n): _____

COMMENTS: Range 1: 176.7 Range 2: 30.3

Adjusted zeron & barometric pressure vallues.

Calibration Report



Parameter SO2

Air Monitoring Network PAZA

Station Information

Calibration Date	October 4, 2017	Previous Calibration	September 18, 2017
Station Number	4	Station Location	Beaverlodge
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	15:20:00 PM	End Time (MST)	17:35:00 PM
Barometric Pressure	0.921 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	10.5 ppm	Cal Gas Expiry Date	1/12/2019
Gas Cert Reference	FF16108		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.998339	Calculated slope	1.001933
Calculated intercept	-0.093275	Calculated intercept	-0.379776
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.5		2.54	
Coefficient	0.956		0.975	
PMT	-767.8	V	-768.2	V
UV Lamp Voltage	1120	V	1120	V
Chamber Temp	44.7	Deg C	44.9	Deg C
Pressure	666.4	mm Hg	666.8	mm Hg
Sample Flow	0.491	LPM	0.492	LPM
Lamp Intensity	94	%	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)
5211	0.00	0.0	0.3	N/A
5211	41.84	83.6	83.7	0.9987
5211	20.90	41.9	42.5	0.9872
5211	10.50	21.1	21.4	0.9870
5211	0.00	0.0	0.3	As found zero
5211	41.84	83.6	81.9	As found span
Average Correction Factor				0.9909

Calculated value of As Found Response: 81.407 ppm Percent Change of As Found: 2.7%

	before calibration		after calibration	
Auto zero	0.2	ppb	-0.1	ppb
Auto span	60.1	ppb	59.3	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
 Air Monitoring Network PAZA



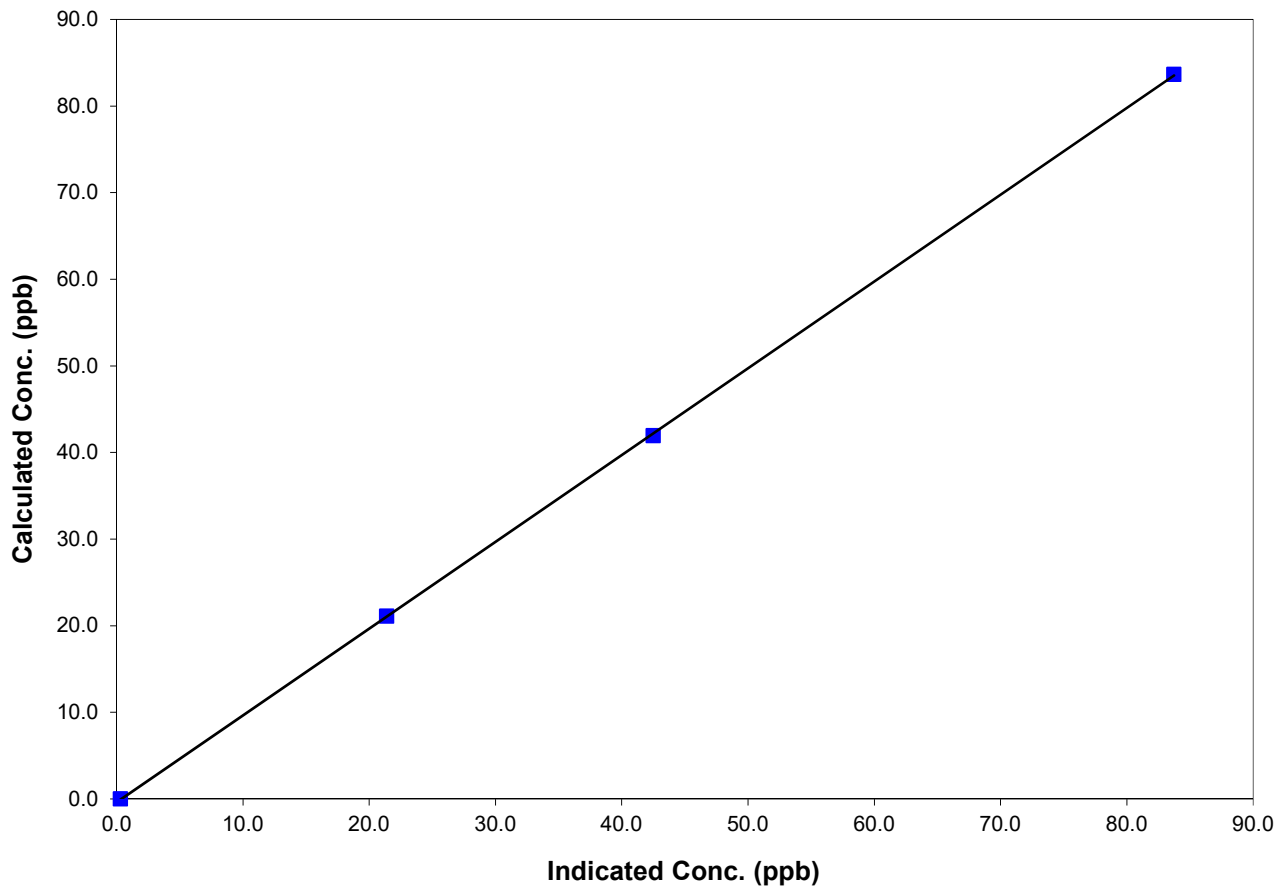
Station Information

Calibration Date	October 4, 2017	Previous Calibration	September 18, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	15:20:00 PM	End Time (MST)	17:35:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

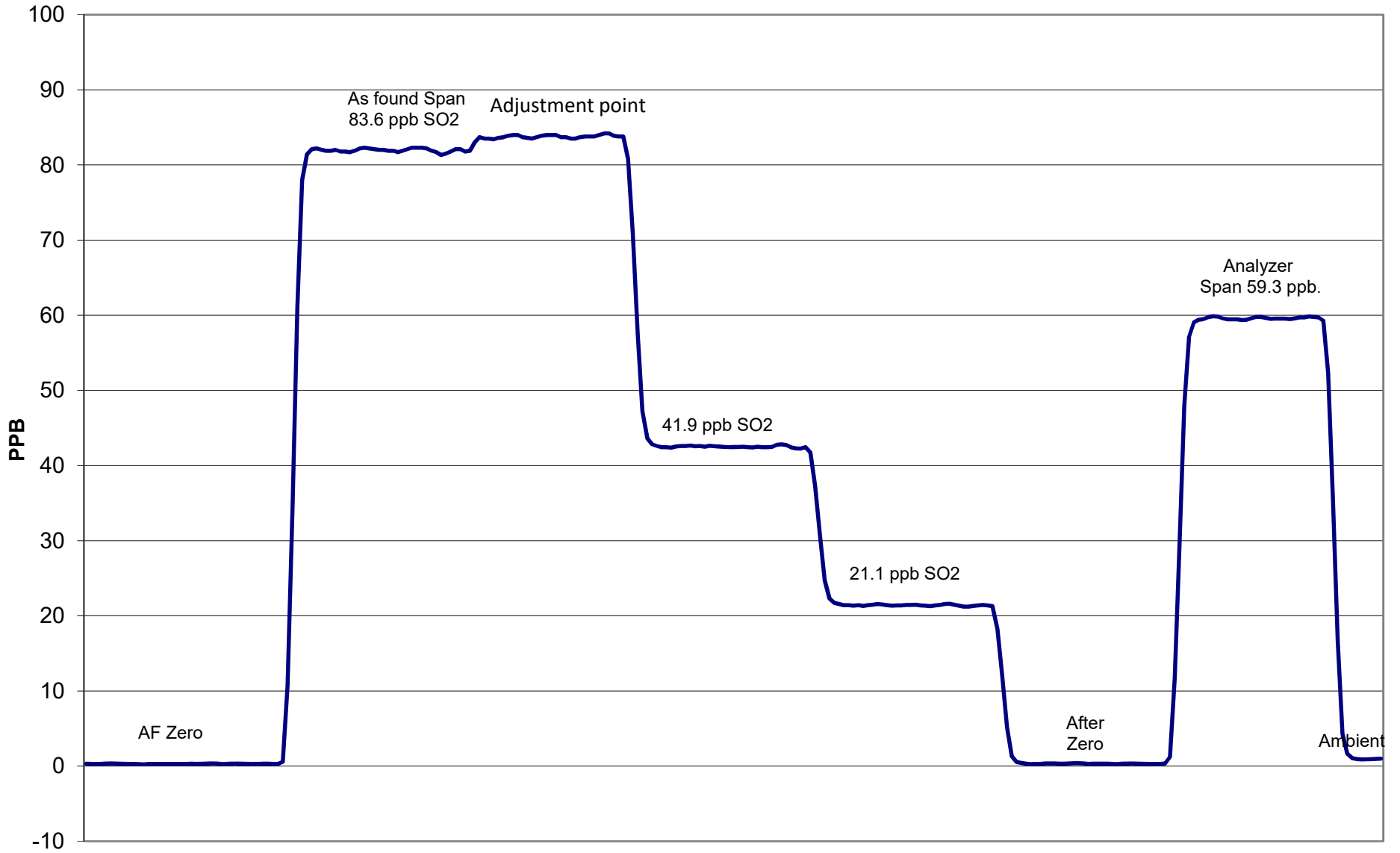
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
83.6	83.7	0.9987	Correlation Coefficient	0.999978
41.9	42.5	0.9872		
21.1	21.4	0.9870	Slope	1.001933
			Intercept	-0.379776

SO2 Calibration Curve



SO2 Calibration



October 4, 2017

Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	October 4, 2017	Previous Calibration	September 18, 2017
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Installation	Removal
Other:			
Start Time (MST)	10:45	End Time (MST)	15:15:00 PM
Barometric Pressure	0.921 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
NO Cal Gas Conc	50.4 ppm	Cal Gas Expiry Date	February 2, 2019
NO _x Cal Gas Conc	50.5 ppm	Cal Gas Serial #	EY0000751

DACS Information

DACS make	CR3000	DACS serial No.	5237																																	
<table border="1"> <thead> <tr> <th colspan="2">Parameter</th> <th>NO2</th> <th>NO_x</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Before</td> <td>Data Slope</td> <td>1.000495</td> <td>0.993301</td> <td>0.986501</td> </tr> <tr> <td>Data Offset</td> <td>0.374801</td> <td>2.194545</td> <td>2.257208</td> </tr> <tr> <td rowspan="2">After</td> <td>Data Slope</td> <td>1.006505</td> <td>0.997574</td> <td>0.991260</td> </tr> <tr> <td>Data Offset</td> <td>0.719640</td> <td>0.511845</td> <td>0.425322</td> </tr> <tr> <td colspan="2">Channel #</td> <td>8</td> <td>6</td> <td>7</td> </tr> <tr> <td colspan="2">Voltage Range</td> <td>0 - 5 VDC</td> <td>0 - 5 VDC</td> <td>0 - 5 VDC</td> </tr> </tbody> </table>				Parameter		NO2	NO _x	NO	Before	Data Slope	1.000495	0.993301	0.986501	Data Offset	0.374801	2.194545	2.257208	After	Data Slope	1.006505	0.997574	0.991260	Data Offset	0.719640	0.511845	0.425322	Channel #		8	6	7	Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC
Parameter		NO2	NO _x	NO																																
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	Data Offset	0.719640	0.511845	0.425322																																
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																																																							
<table border="1"> <thead> <tr> <th>Test Point</th> <th colspan="2">before</th> <th colspan="2">after</th> </tr> </thead> <tbody> <tr> <td>Concentration range</td> <td>0-500</td> <td>ppb</td> <td>0-500</td> <td>ppb</td> </tr> <tr> <td>NO offset</td> <td>3.0</td> <td>mV</td> <td>2.6</td> <td>mV</td> </tr> <tr> <td>NO_x bkgnd</td> <td>3.8</td> <td>mV</td> <td>3.4</td> <td>mV</td> </tr> <tr> <td>NO coefficient</td> <td>0.971</td> <td></td> <td>0.971</td> <td></td> </tr> <tr> <td>NO_x coefficient</td> <td>0.994</td> <td></td> <td>0.994</td> <td></td> </tr> <tr> <td>NO2 conv temp</td> <td>323.2</td> <td>Deg C</td> <td>322.1</td> <td>Deg C</td> </tr> <tr> <td>PMT Temp</td> <td>-3.0</td> <td>Deg C</td> <td>-3.0</td> <td>Deg C</td> </tr> <tr> <td>PMT Volt</td> <td>-742.2</td> <td>mV</td> <td>-742.3</td> <td>mV</td> </tr> <tr> <td>R Cell Press</td> <td>198.6</td> <td>in Hg</td> <td>199.2</td> <td>in Hg</td> </tr> <tr> <td>Sample Flow</td> <td>0.730</td> <td>LPM</td> <td>0.730</td> <td>LPM</td> </tr> </tbody> </table>				Test Point	before		after		Concentration range	0-500	ppb	0-500	ppb	NO offset	3.0	mV	2.6	mV	NO _x bkgnd	3.8	mV	3.4	mV	NO coefficient	0.971		0.971		NO _x coefficient	0.994		0.994		NO2 conv temp	323.2	Deg C	322.1	Deg C	PMT Temp	-3.0	Deg C	-3.0	Deg C	PMT Volt	-742.2	mV	-742.3	mV	R Cell Press	198.6	in Hg	199.2	in Hg	Sample Flow	0.730	LPM	0.730	LPM
Test Point	before		after																																																							
Concentration range	0-500	ppb	0-500	ppb																																																						
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PMT Volt	-742.2	mV	-742.3	mV																																																						
R Cell Press	198.6	in Hg	199.2	in Hg																																																						
Sample Flow	0.730	LPM	0.730	LPM																																																						

Notes: Slight zero adjustment made

Calibration Report



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

Station Information

Calibration Date: **October 4, 2017** 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	5211	0.00	0.0	0.0	0.0	0.0	-0.1	0.0	N/A	N/A
1	5211	41.84	402.2	401.4	0.8	402.7	404.5	-2.6	0.9989	0.9925
2	5211	20.92	201.9	201.5	0.4	202.5	203.4	-1.8	0.9972	0.9910
3	5211	10.50	101.6	101.4	0.2	100.2	101.1	-1.1	1.0135	1.0025
AFZ	5211	0.00	0.0	0.0	0.0	-0.1	-0.5	0.3	0.0000	0.0000
AFS	5211	43.84	421.3	420.5	0.8	400.9	403.0	-2.9	1.0510	1.0433
Average Correction Factor									1.0032	0.9953

As Found Concentrations: **NO_x= 400.5** **NO= 400.4** As Found Percent Change **NO_x= -4.9%** **NO= -4.8%**

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.94 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	-0.5	-0.5	0.0	0.0	-0.1	0.0	N/A	N/A	N/A	N/A
NO point	405.1	405.1	0.0	402.9	405.1	-3.1	1.0057	1.0000	N/A	N/A
300	405.1	107.0	298.1	403.7	107.0	296.1	1.0035	1.0000	1.0070	99.3%
200	405.1	206.1	199.0	403.6	206.1	196.5	1.0039	1.0000	1.0126	98.8%
100	405.1	309.9	95.2	403.4	309.9	93.1	1.0042	1.0000	1.0228	97.8%
Average Correction Factor							1.0039	1.0000	1.0141	98.6%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.7	-0.3	-0.5	ppb	-0.4	-0.4	-0.1	ppb
Auto span	273.4	270.5	1.9	ppb	260.6	257.7	2.1	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter NO₂

Air Monitoring Network PAZA

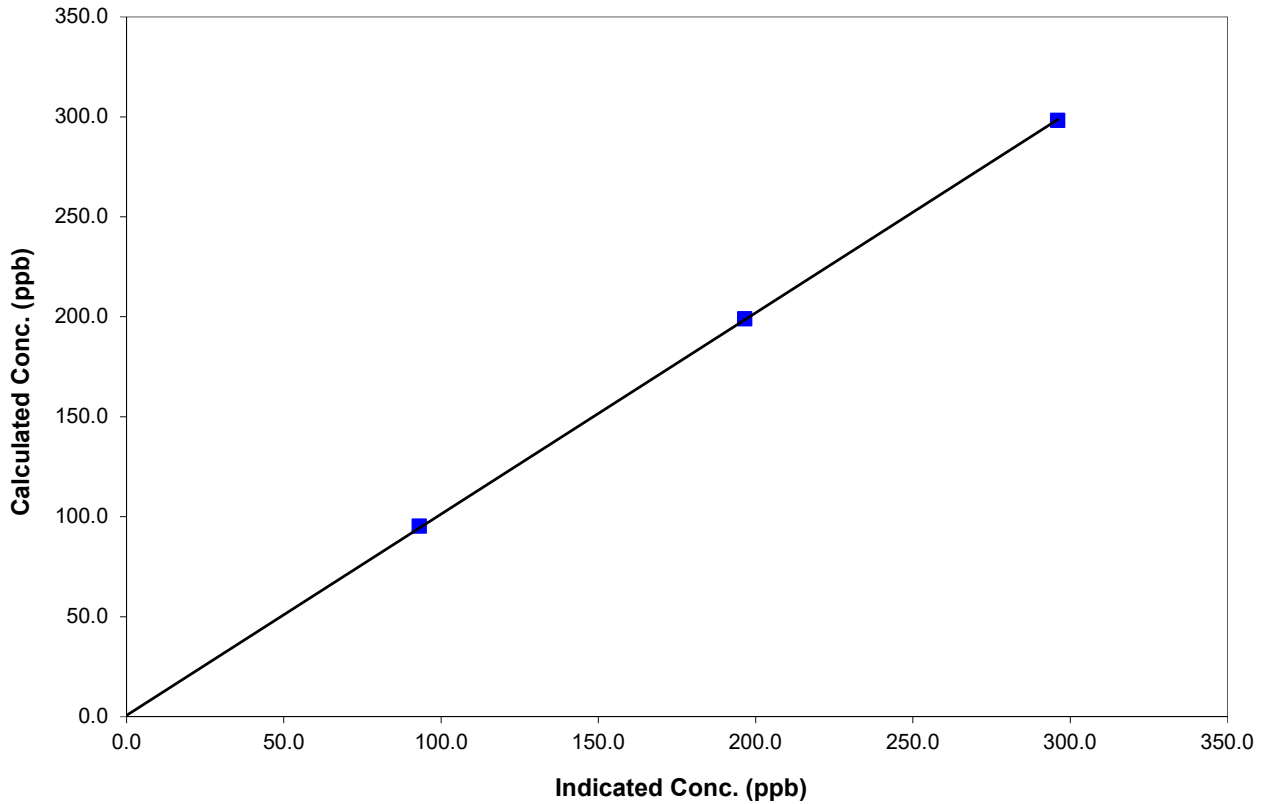
Station Information

Calibration Date	October 4, 2017	Previous Calibration	September 18, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:45	End Time (MST)	15:15:00 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	0.999966
298.1	296.1	1.0070		
199.0	196.5	1.0126		
95.2	93.1	1.0228		
			Slope	1.006505
			Intercept	0.719640

NO₂ Calibration Curve



Calibration Summary



Parameter NO_x

Air Monitoring Network PAZA

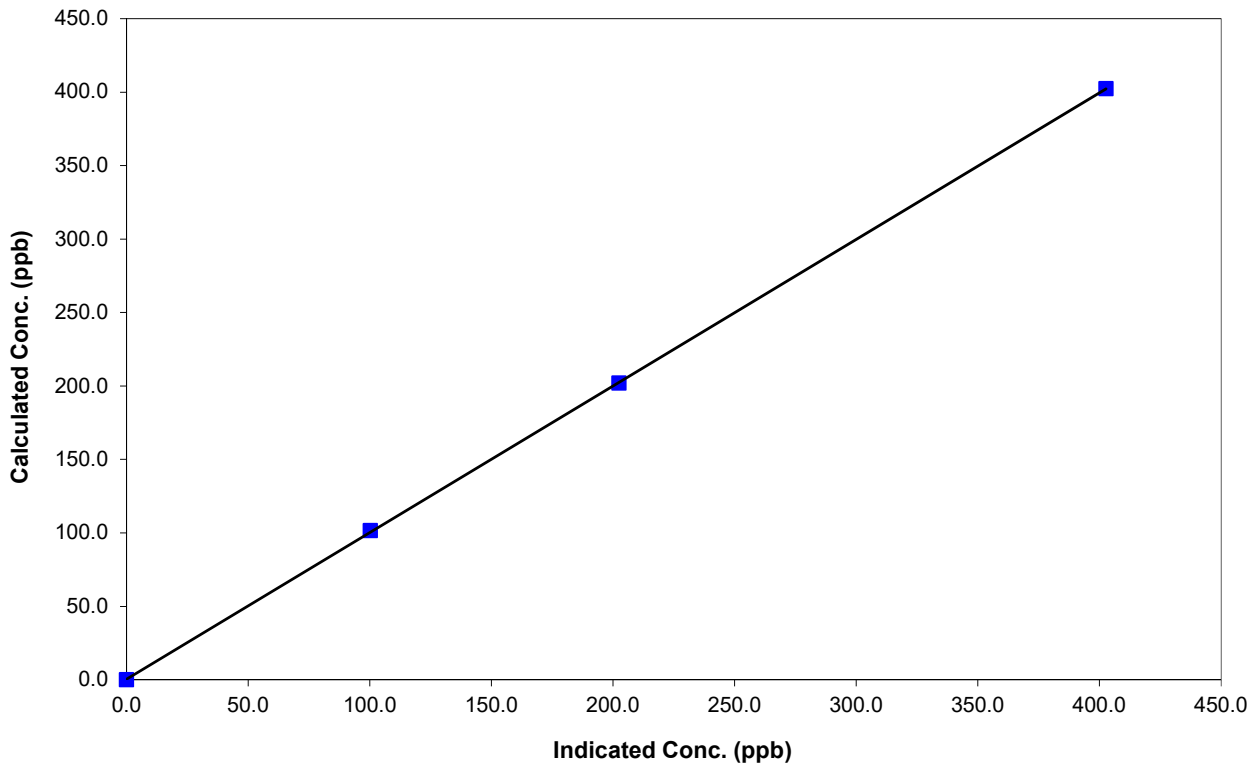
Station Information

Calibration Date	October 4, 2017	Previous Calibration	September 18, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:45	End Time (MST)	15:15:00 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	0.999980
402.2	402.7	0.9989		
201.9	202.5	0.9972	Slope	0.997574
101.6	100.2	1.0135		
			Intercept	0.511845

NO_x Calibration Curve



Calibration Summary



Parameter NO

Air Monitoring Network PAZA

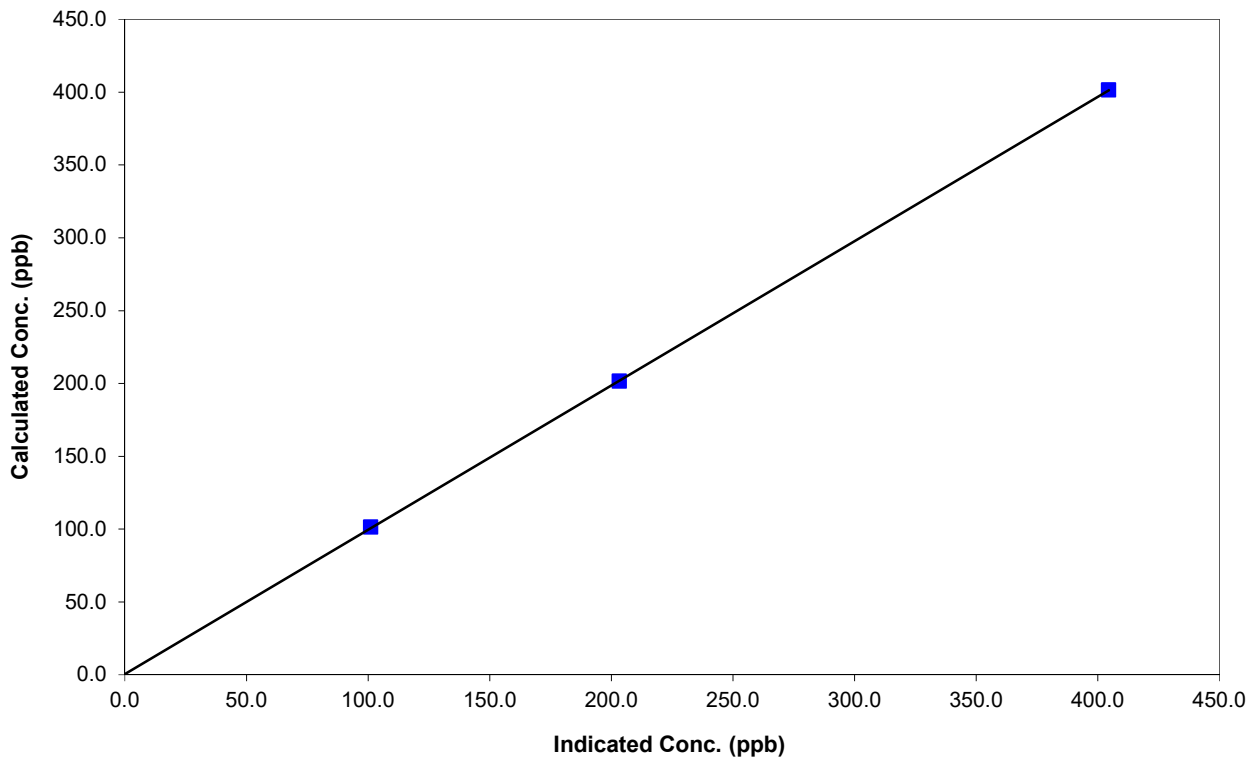
Station Information

Calibration Date	October 4, 2017	Previous Calibration	September 18, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:45	End Time (MST)	15:15:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

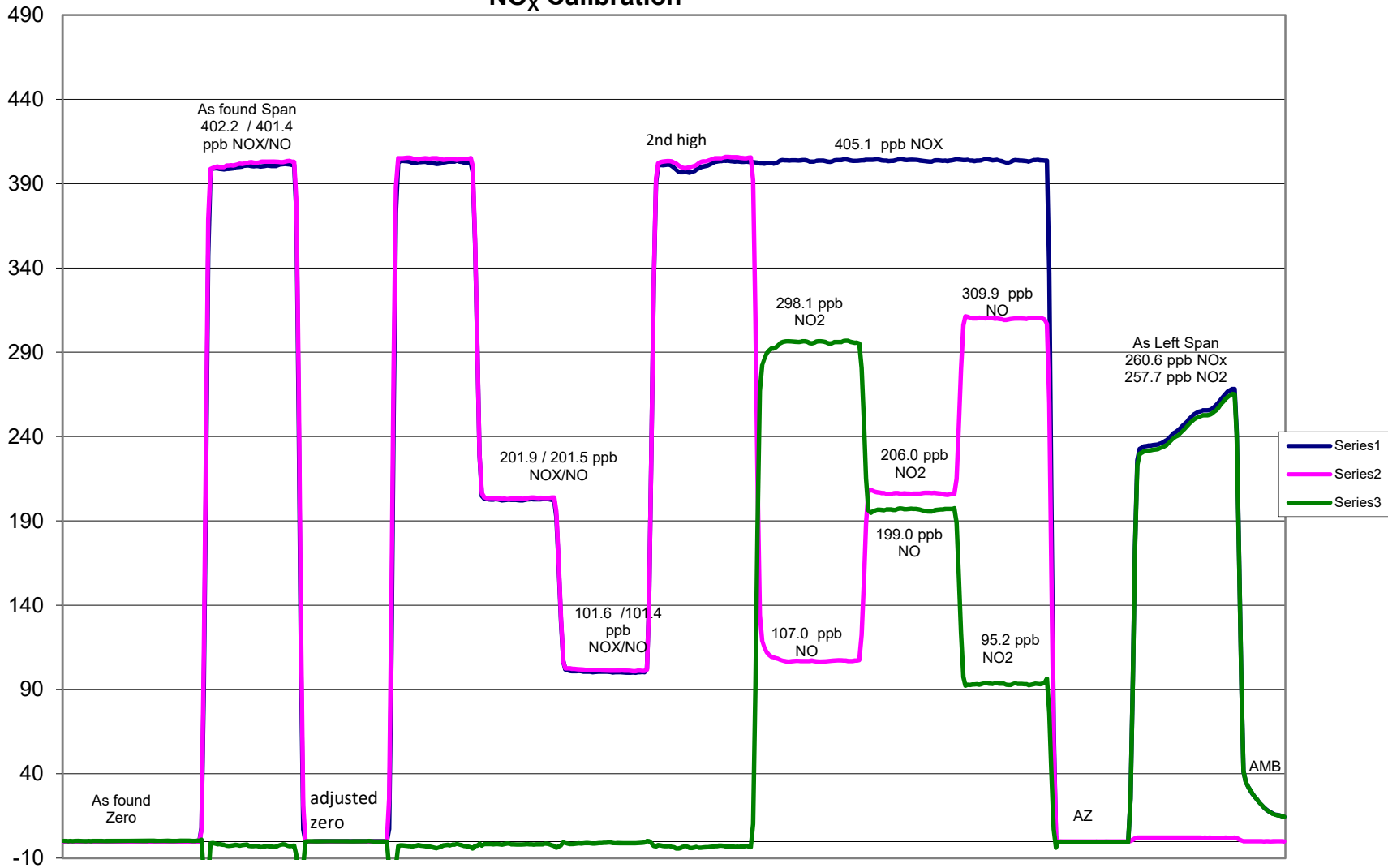
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999991
401.4	404.5	0.9925		
201.5	203.4	0.9910	Slope	0.991260
101.4	101.1	1.0025		
			Intercept	0.425322

NO Calibration Curve



NO_x Calibration



October 4, 2017

Calibration Report



Parameter 03
Air Monitoring Network PAZA

Station Information

Calibration Date	October 4, 2017	Previous Calibration	September 18, 2017
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	14:05:00 PM	End Time (MST)	16:25:00 PM
Barometric Pressure	0.921 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics 6103	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	0.996931	Calculated slope	1.020857
Calculated intercept	0.004459	Calculated intercept	-0.621676

Analyzer make Teco 49i Analyzer serial # 1136451236,AMU 1879

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.20	ppb
slope	1.021		1.021	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	58035/66849	mV	58774/67386	mV
Pressure	684.2	mm Hg	685.1	mm Hg
Flow A	0.796	LPM	0.795	LPM
Flow B	0.745	LPM	0.743	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5211	0.00	0.0	0.4	N/A
5211	0.30	298.1	292.7	1.0183
5211	0.20	199.0	195.1	1.0198
5211	0.10	95.2	94.4	1.0090
5211				
5211	0.00	0.0	0.4	As found zero
5211	0.30	298.1	292.7	As found span
Average Correction Factor				1.0157

Calculated value of As Found Response: 291.4 ppm Percent Change of As Found: -2.2%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	254.5	ppb	251.3	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03
Air Monitoring Network PAZA

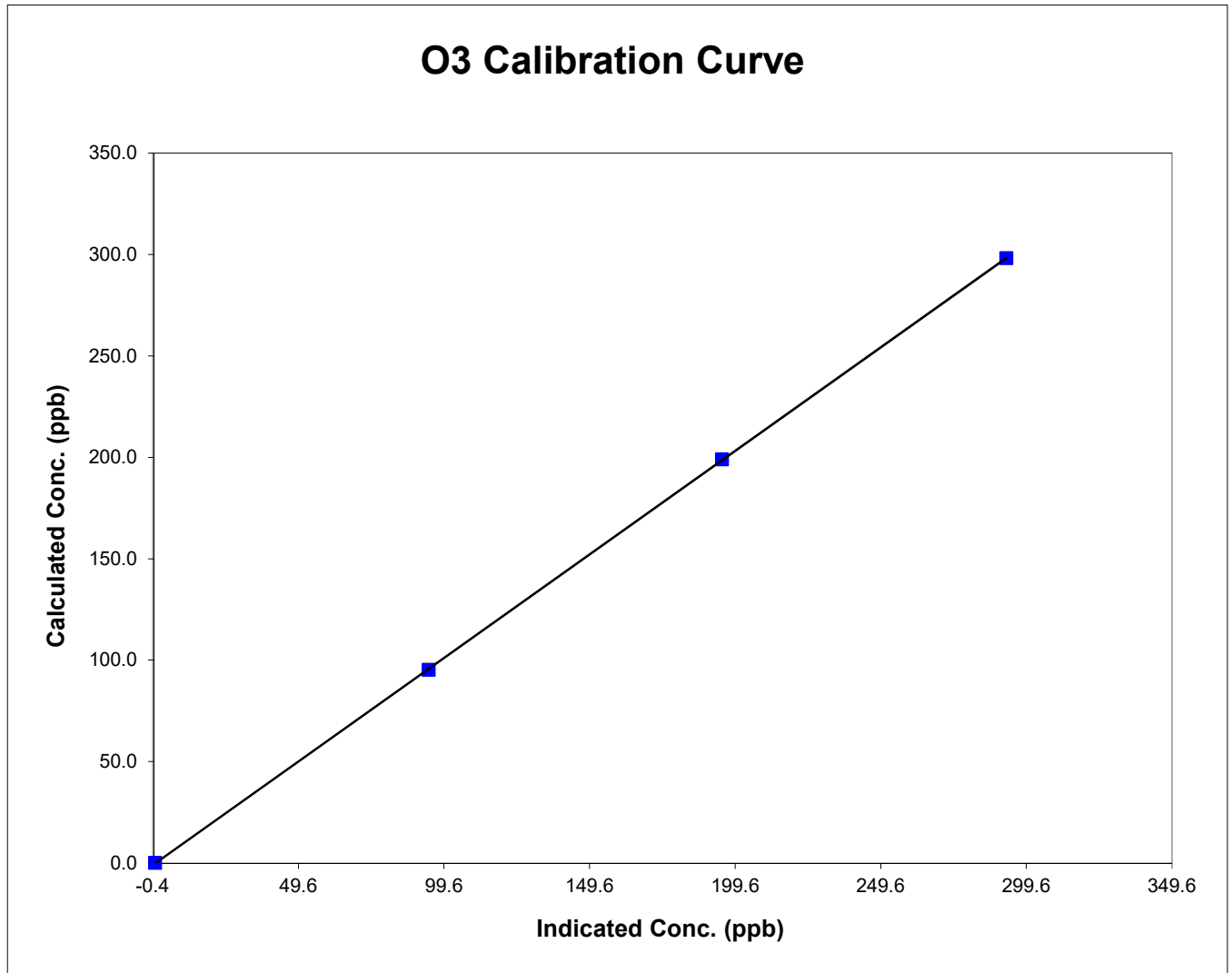


Station Information

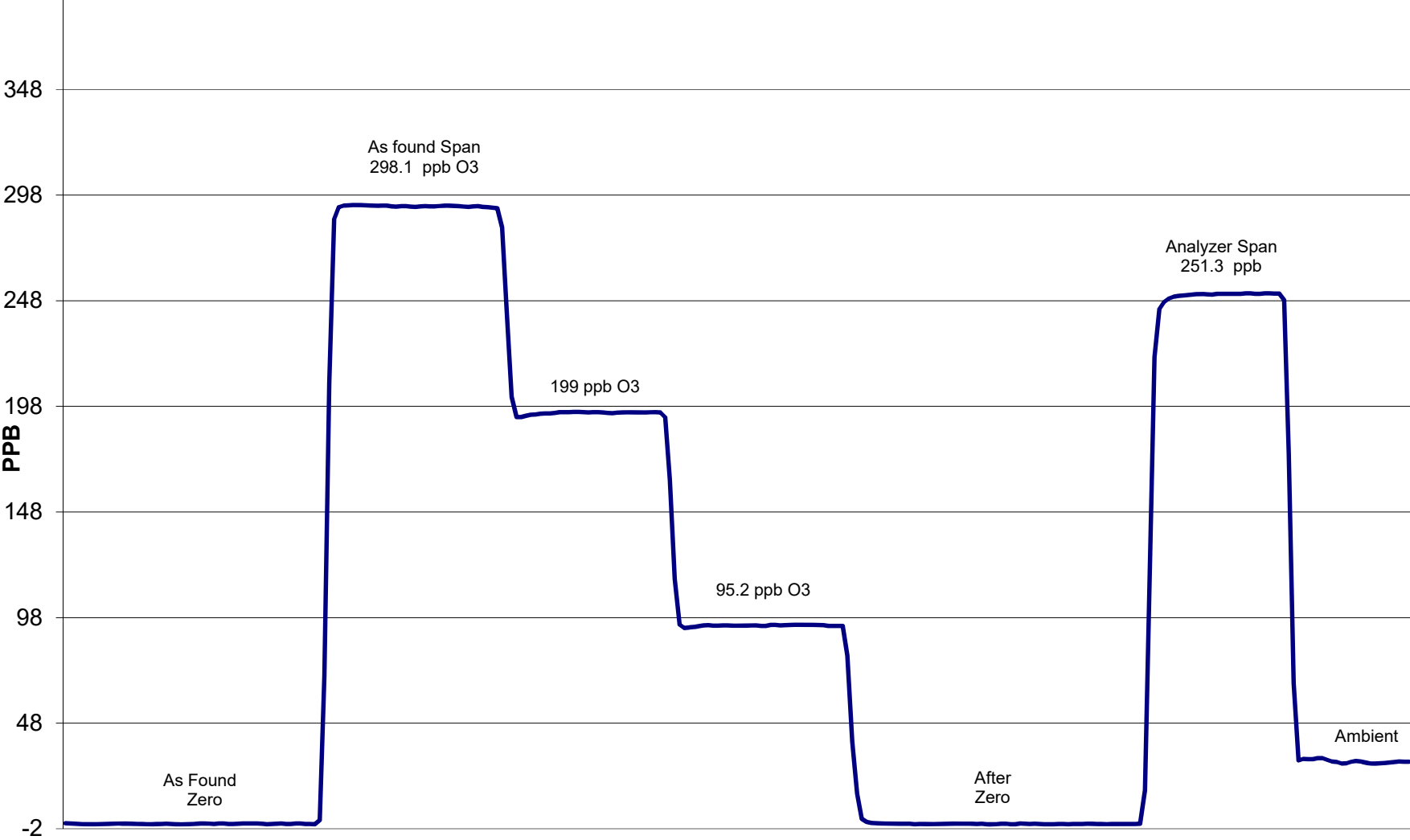
Calibration Date	October 4, 2017	Previous Calibration	September 18, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	14:05:00 PM	End Time (MST)	16:25:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA		
298.1	292.7	1.0183	Correlation Coefficient	0.999991
199.0	195.1	1.0198		
95.2	94.4	1.0090		
			Slope	1.020857
			Intercept	-0.621676



O3 Calibration



October 4, 2017

SHARP 5030 PM2.5 Calibration



Station: Beaverlodge
 Location: Agricultural centre
 Start Time (MST): 11:40

Operator: Grover Christiansen
 Date: October 4 2017
 End Time (MST): 16:00:00 PM

MONITOR INFO / PARAMETER VALUES:

Make/Model	SHARP 5030	Audit Device Model	Delta cal
Configuration	PM 2.5	AMU S/N	AMU 1789
AMU Number	AMU1969	Serial Number	1612
Serial Number	208	Certification Date	01-Oct-15

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (°C)	Ambient Pres. (mbar)	RH (%)	Leak Check (l/min)	Flow Rate (lpm)	Foil Calibration (ug)	Nephelometer (ug)	Time settings (hh:mm)
Audit values (I)	17.8	920	27.1	16.67	16.67	7029	0.0	14:47
MEASURED (AF)	18.1	920	26.7	16.45	16.35	7023	1.9	14:49
AF Difference (AF-I)	0.3	0	-0.4	-0.22	-0.32	-6	1.9	0:02
MEASURED (M)	18.1	920	26.7	16.45	16.35	7023	0.0	14:49
Adj Difference (M-I)	0.3	0	-0.4	-0.22	-0.32	0	0.0	0:02
<i>LIMITS</i>	$\pm 4.0^{\circ}C$	13.33 mbar(hPa)	$\pm 2.0\%$	0.8 L/min	$\pm 1.0 L/min$	(+/-5%)	(<+/-2 ug/m3)	$\pm 2 min$

Sample Head Inspect/Cleaning: Heads cleaned

Status of sampling tape: 20%

Nozzle Inspection / cleanliness: Clean

RH/Temp standard (make and s/n): _____

COMMENTS: _____

Calibration Report



AIR QUALITY MONITORING

Parameter SO2

Air Monitoring Network PAZA

Station Information

Calibration Date	October 23 2017	Previous Calibration	September 19 2017
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	12:55	End Time (MST)	15:15:00 PM
Barometric Pressure	0.924 atm	Station Temperature	22.0 Deg C
Calibrator	Envionics	Serial Number	6586
Cal Gas Concentration	49.4 ppm	Cal Gas Exp Date	February 18, 2019
Gas Cylinder Num.	LL105132		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.988990	Calculated slope	1.008861
Calculated intercept	-1.815751	Calculated intercept	-0.707840
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	7.2		7.2	
Coefficient	0.847		0.924	
UV Lamp Voltage	793	LPM	793	LPM
Chamber Temp	45	V	45	V
Perm Gas Temp	45	C	45	C
Pressure	684.6	in Hg	685.6	in Hg
Sample Flow	0.462	LPM	0.462	LPM
Lamp Intensity	92	Hz	92	%

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)
5203	0.00	0.0	0.3	N/A
5203	42.12	396.7	394.1	1.0065
5203	21.10	199.5	197.4	1.0106
5203	10.25	97.1	98.2	0.9888
5203	0.00	0.0	0.3	As found zero
5203	42.12	396.7	394.1	As found span
Average Correction Factor				1.0020

Calculated value of As Found Response: 387.7 ppm Percent Change of As Found: 2.3%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.4	ppm
Auto span	275.1	ppm	265.8	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
 Air Monitoring Network PAZA

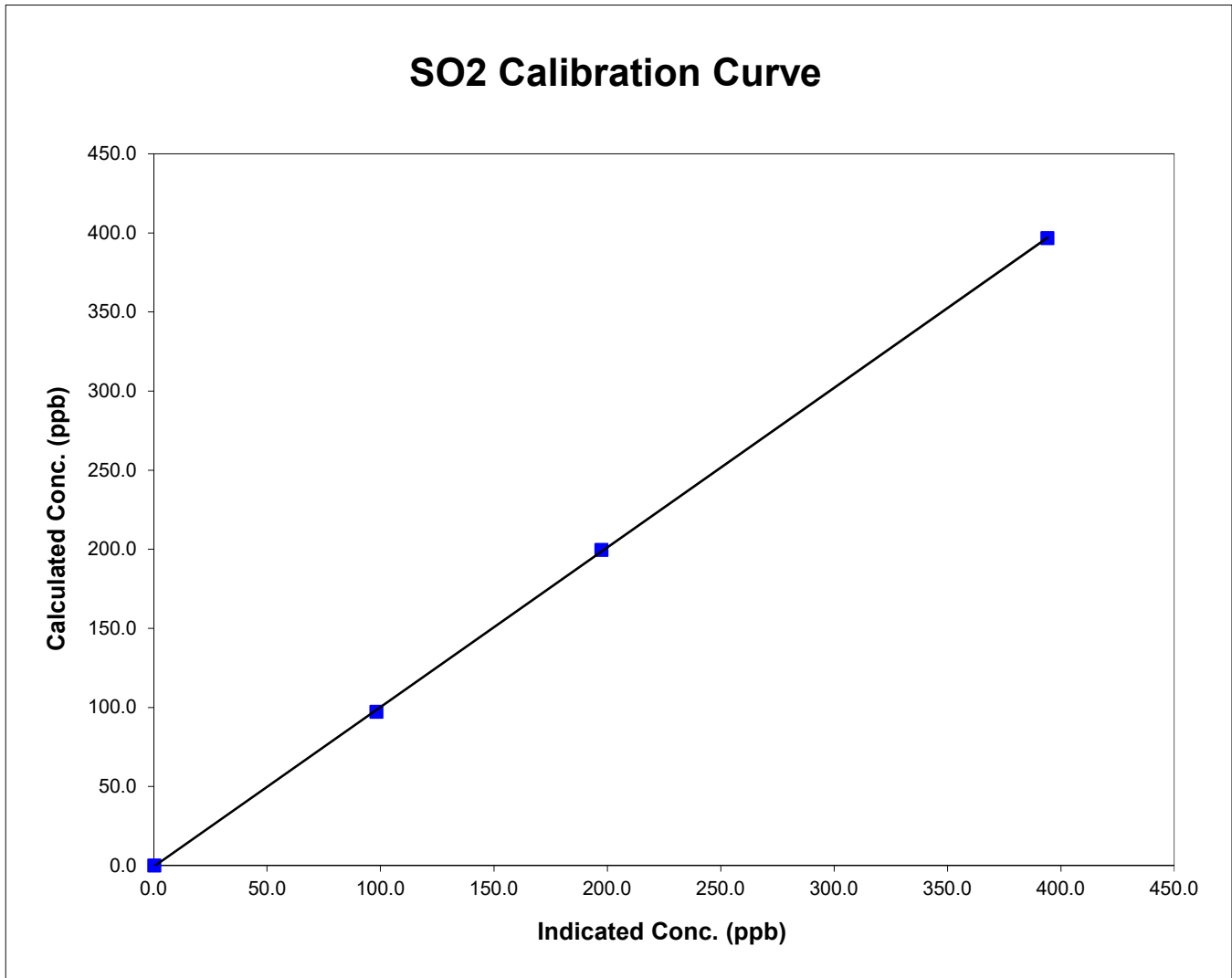


Station Information

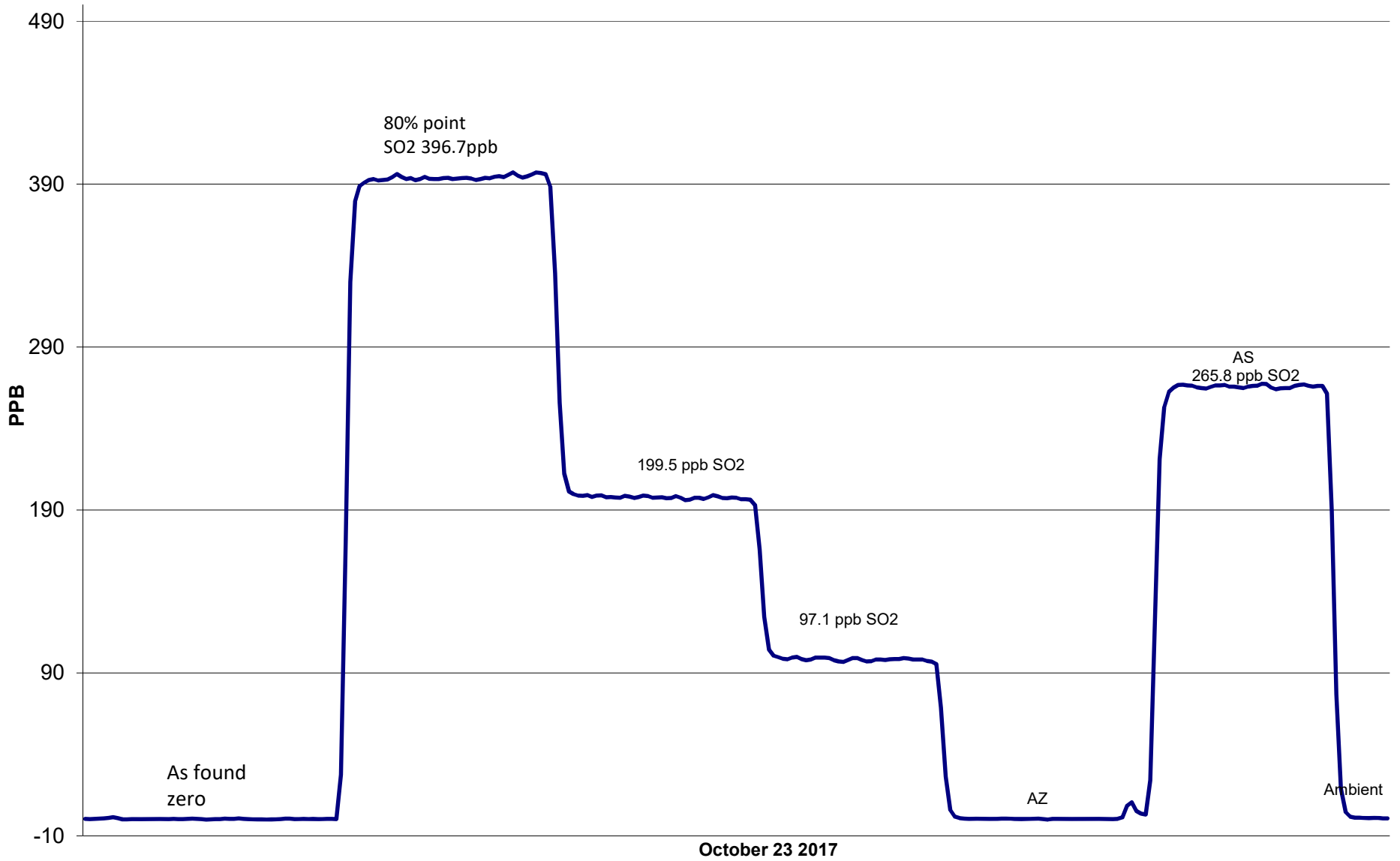
Calibration Date	October 23 2017	Previous Calibration	September 19 2017
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:55	End Time (MST)	15:15:00 PM
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
396.7	394.1	1.0065	Correlation Coefficient	0.999966
199.5	197.4	1.0106		
97.1	98.2	0.9888	Slope	1.008861
			Intercept	-0.707840



SO2 Calibration



Calibration Report



AIR QUALITY MONITORING

Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	October 23 2017	Previous Calibration	September 19 2017
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	11:10	End Time (MST)	14:10:00 PM
Barometric Pressure	0.924 atm	Station Temperature	20.5 Deg C
Calibrator	Envionics	Serial Number	6586
Cal Gas Concentration	10.3 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	1.016198	Calculated slope	1.014558
Calculated intercept	-0.582512	Calculated intercept	-0.330803
Analyzer make	TEI Model 450i-APHAA	Analyzer serial #	1170050144

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	12.7	ppb	12.7	ppb
Coefficient	0.980		0.980	
Lamp Voltage	761	v	760	v
Chamber Temp	45	c	45	c
Convertor	327.5	c	327.6	c
Pressure	569.40	mm Hg	570.20	mm Hg
Sample Flow	0.945	ccm	0.945	lpm
Lamp Intensity	89	%	89	%

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)
5203	0.00	0.0	0.4	N/A
5203	42.12	82.7	82.0	1.0088
5203	21.10	41.6	41.0	1.0139
7251	10.25	14.5	14.7	0.9877
5203	0.00	0.0	0.4	As found zero
5203	42.12	82.7	82.0	As found span
Average Correction Factor				1.0035

Calculated value of As Found Response: 82.30 ppm Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.5	ppm
Auto span	72.5	ppm	68.9	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter H2S
Air Monitoring Network PAZA

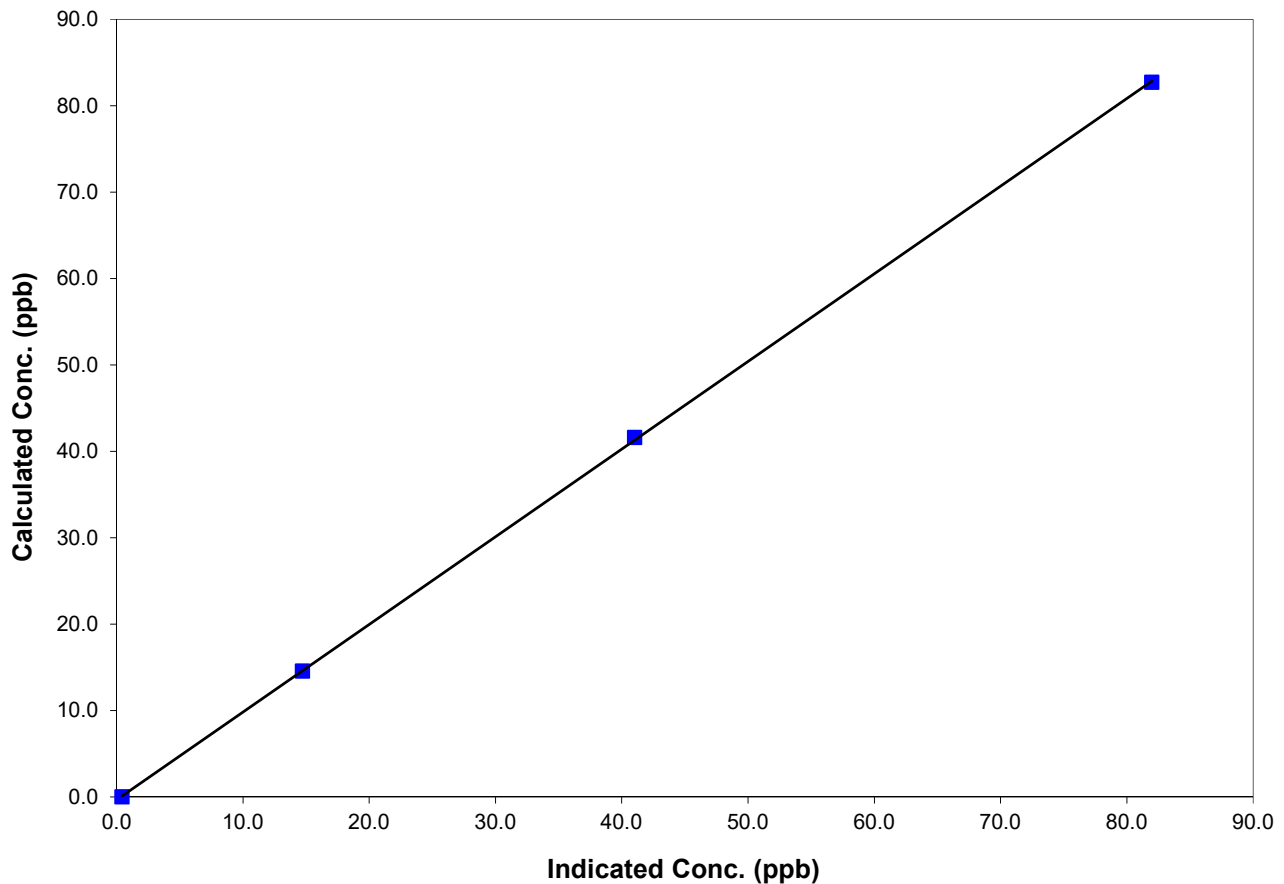
Station Information

Calibration Date	<u>October 23 2017</u>	Previous Calibration	<u>September 19 2017</u>
Station Number	<u>6</u>	Station Location	<u>Valleyview</u>
Start Time (MST)	<u>11:10</u>	End Time (MST)	<u>14:10:00 PM</u>
Analyzer make/model	<u>TEI Model 450i-APHAA</u>	Analyzer serial #	<u>1170050144</u>

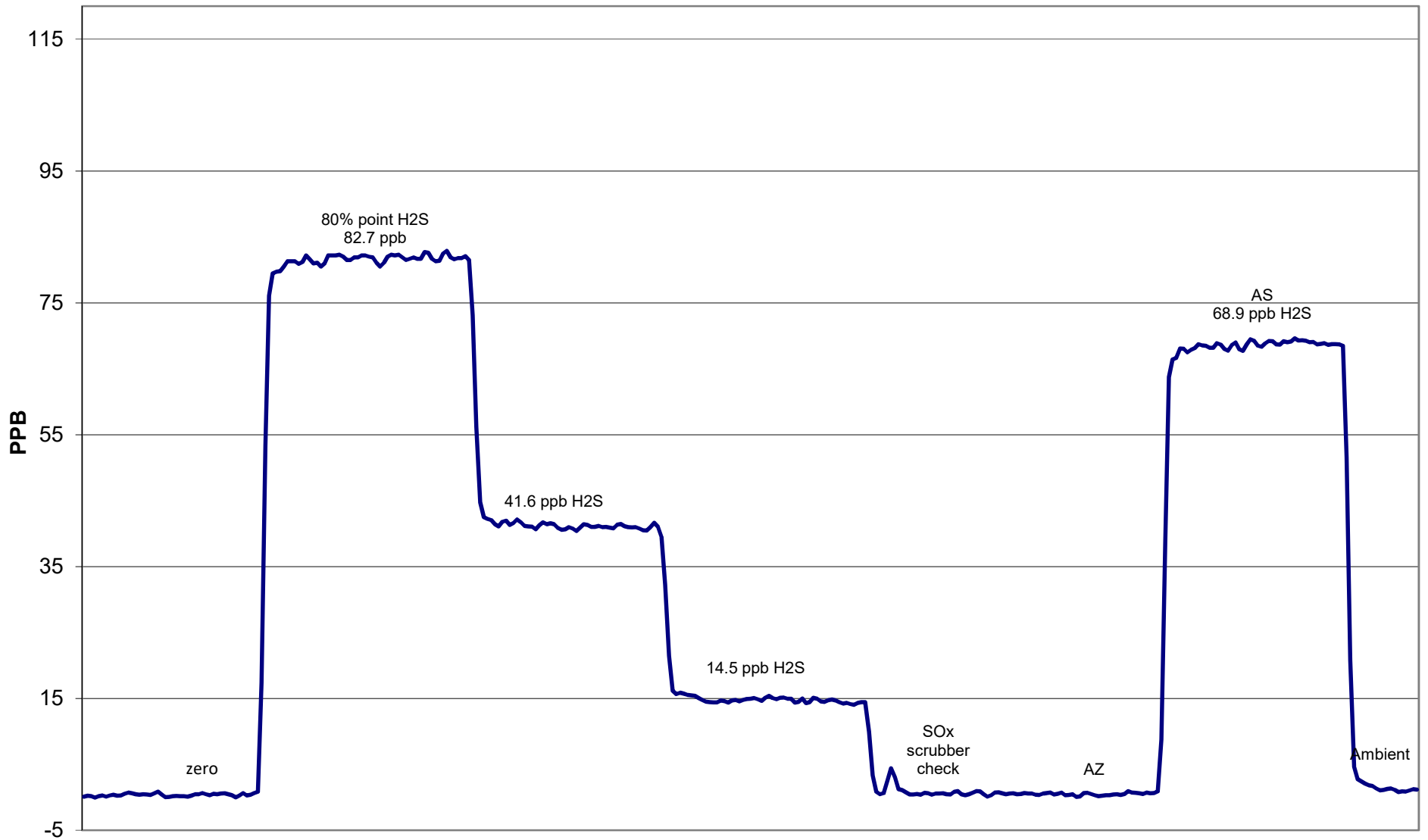
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
82.7	82.0	1.0088	Correlation Coefficient	0.999968
41.6	41.0	1.0139		
14.5	14.7	0.9877	Slope	1.014558
			Intercept	-0.330803

H2S Calibration Curve



H2S Calibration



October 23 2017

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	October 24, 2017	Previous Calibration	September 26, 2017
Station Number	1	Station Location	Donnelly
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	12:55	End Time (MST)	15:35:00 PM
Barometric Pressure	0.926 mm	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	49.4 ppm	Cal Gas Expiry Date	02/21/2020
Correction factor	0.031477	Cal Gas Cylinder #	EY0000740
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.996962	Calculated slope	0.994571
Calculated intercept	-0.495845	Calculated intercept	-1.015840
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.8		6.9	
coefficient	1.032		1.048	
Lamp Voltage	843	volts	845	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	680	mm Hg	682.6	mm Hg
Sample Flow	0.438	ccm	0.441	ccm
Lamp Intensity	98	%	97	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5201	0.0	0.00	0.7	N/A
5201	42.11	396.8	400.3	0.9912
5201	21.10	199.6	200.4	0.9960
5201	10.23	97.0	99.9	0.9712
5201	0.0	0.0	0.7	As Found Zero
5201	42.11	396.8	391.6	As Found Span
Average Correction Factor				0.9861

Calculated value of As Found Response: 389.226 ppm Percent Change of As Found: **1.9%**

	before calibration		after calibration	
Auto zero	0.4	ppm	0.8	ppm
Auto span	238.8	ppm	245.0	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



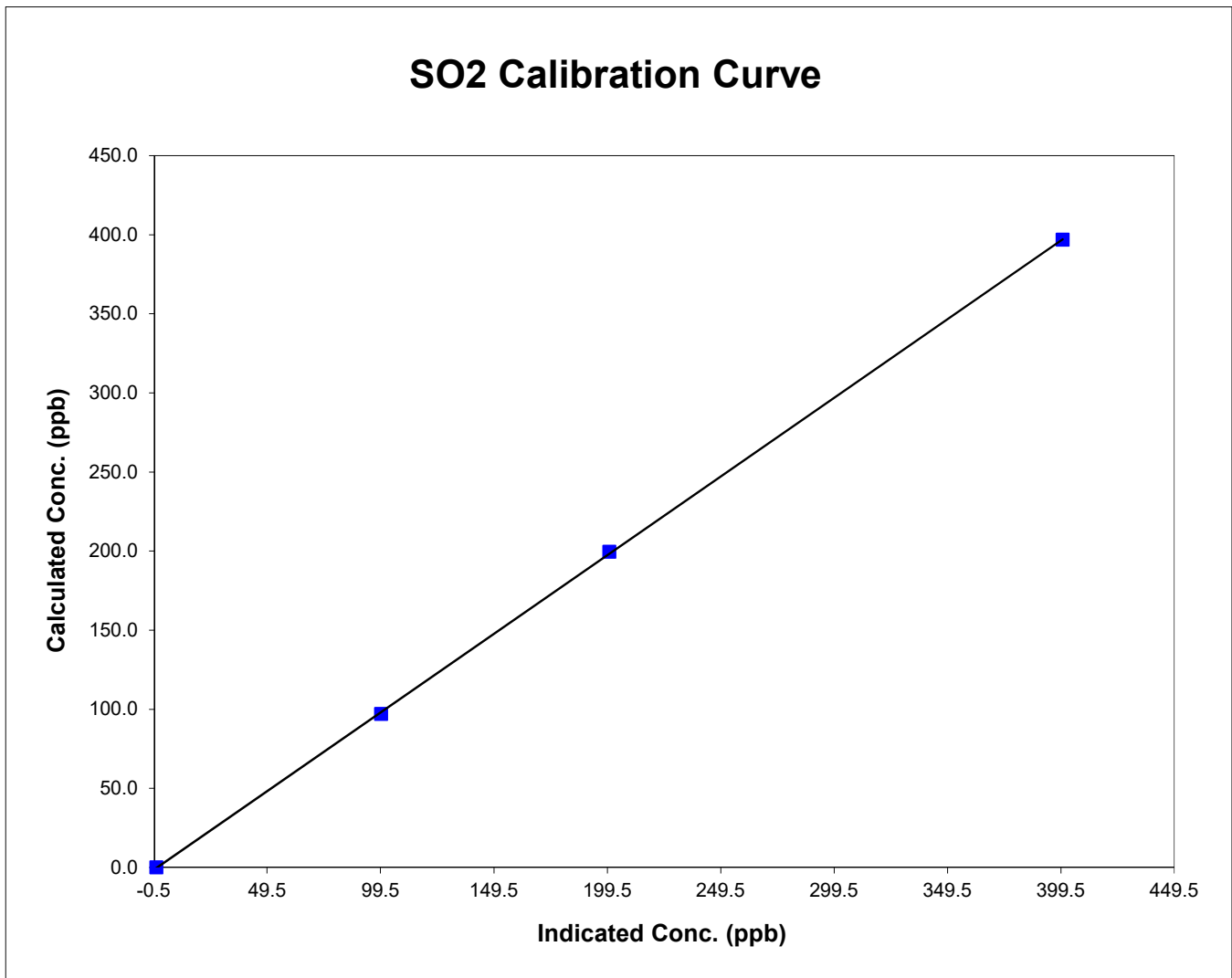
Parameter SO2
 Air Monitoring Network PAZA

Station Information

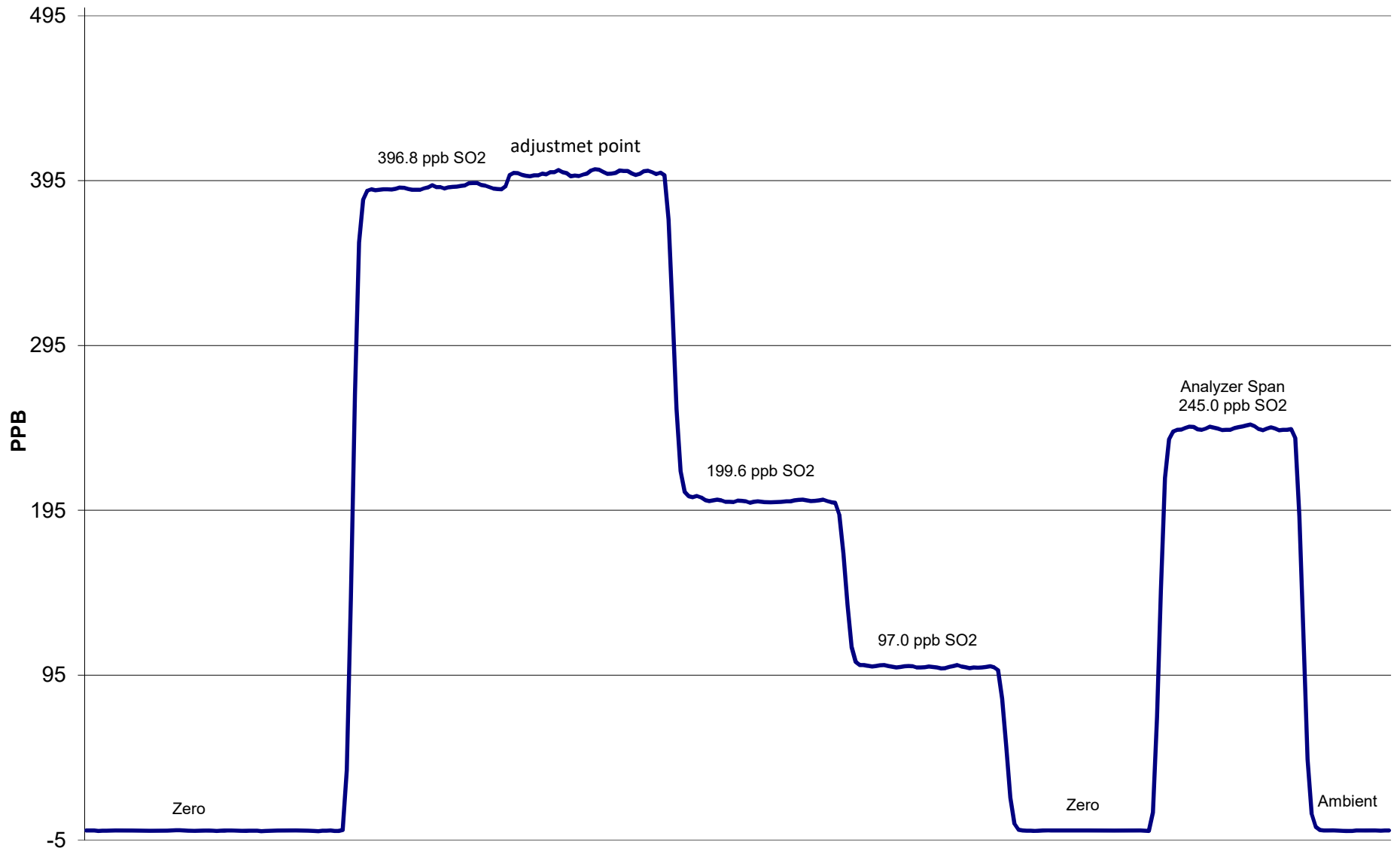
Calibration Date	October 24, 2017	Previous Calibration	September 26, 2017
Station Number	1	Station Location	Donnely
Start Time (MST)	12:55	End Time (MST)	15:35:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A		
396.8	400.3	0.9912	Correlation Coefficient	0.999958
199.6	200.4	0.9960		
97.0	99.9	0.9712	Slope	0.994571
			Intercept	-1.015840



SO2 Calibration



October 24, 2017

Calibration Report



Parameter H2S
Air Monitoring Network PAZA

Station Information

Calibration Date	October 24, 2017	Previous Calibration	September 26, 2017
Station Number	1	Station Location	Donnelly
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	11:45	End Time (MST)	14:55:00 PM
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	10.3 ppm	Cal Gas Expiry Date	2/28/2020
Correction factor	0.031477	Cal Gas Cylinder #	EY0000340
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.012742	Calculated slope	1.017651
Calculated intercept	-0.321811	Calculated intercept	-0.699625
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	16.6	ppb	16.6	ppb
coefficient	1.048		1.048	
Lamp Voltage	806	volts	805	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	489	mm Hg	490.2	mm Hg
Sample Flow	0.733	lpm	0.733	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)
5201	0.00	0.00	0.5	N/A
5201	42.11	82.72	81.9	1.0097
5201	21.10	41.62	41.6	1.0001
7250	10.23	14.51	15.1	0.9607
5201	0.00	0.00	0.5	As Found Zero
5201	42.11	82.72	81.9	As Found Span
Average Correction Factor				0.9901

Calculated value of As Found Response: 82.11 ppm Percent Change of As Found: **0.7%**

	before calibration		after calibration	
Auto zero	0.2	ppm	0.4	ppm
Auto span	66.3	ppm	65.8	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA

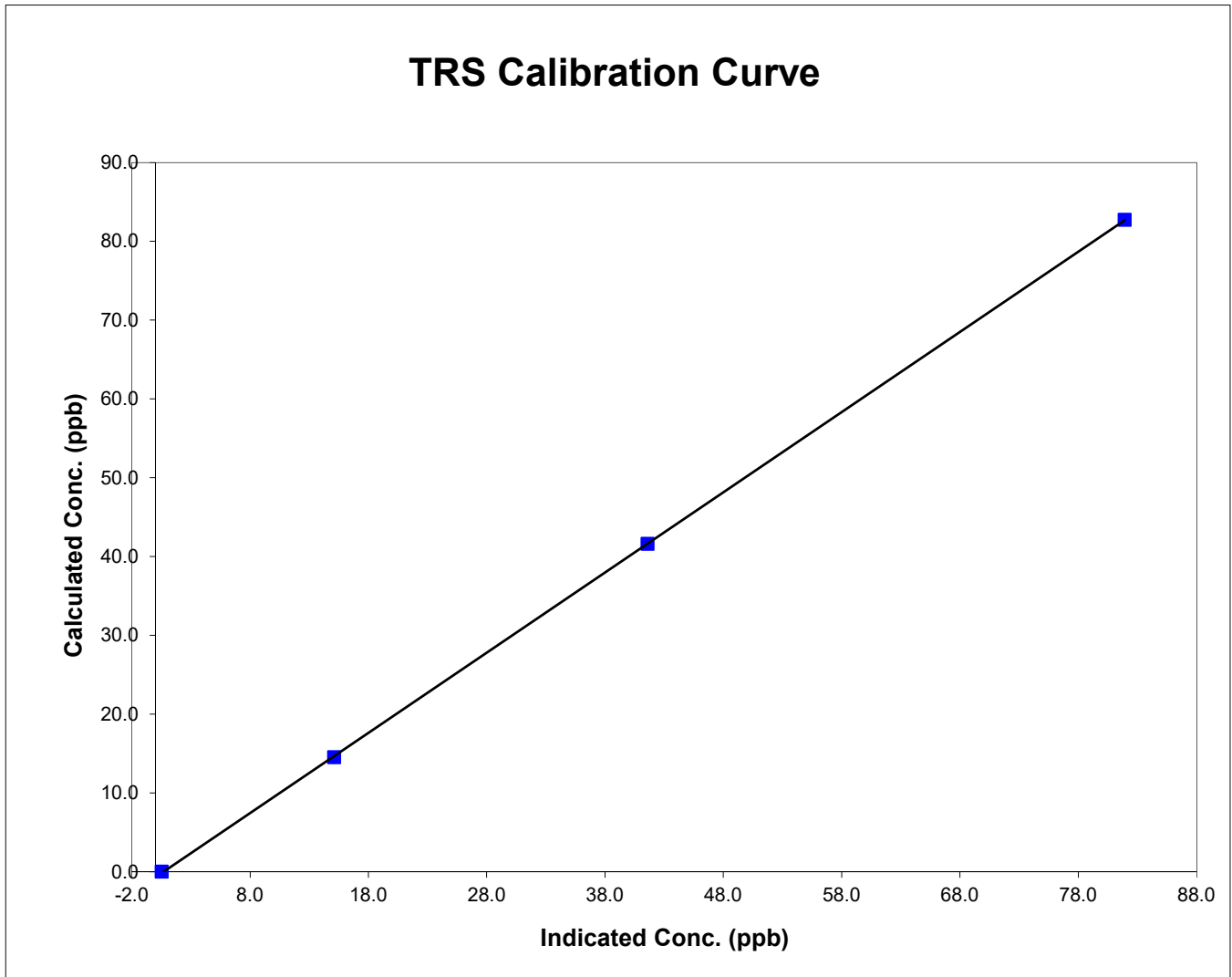


Station Information

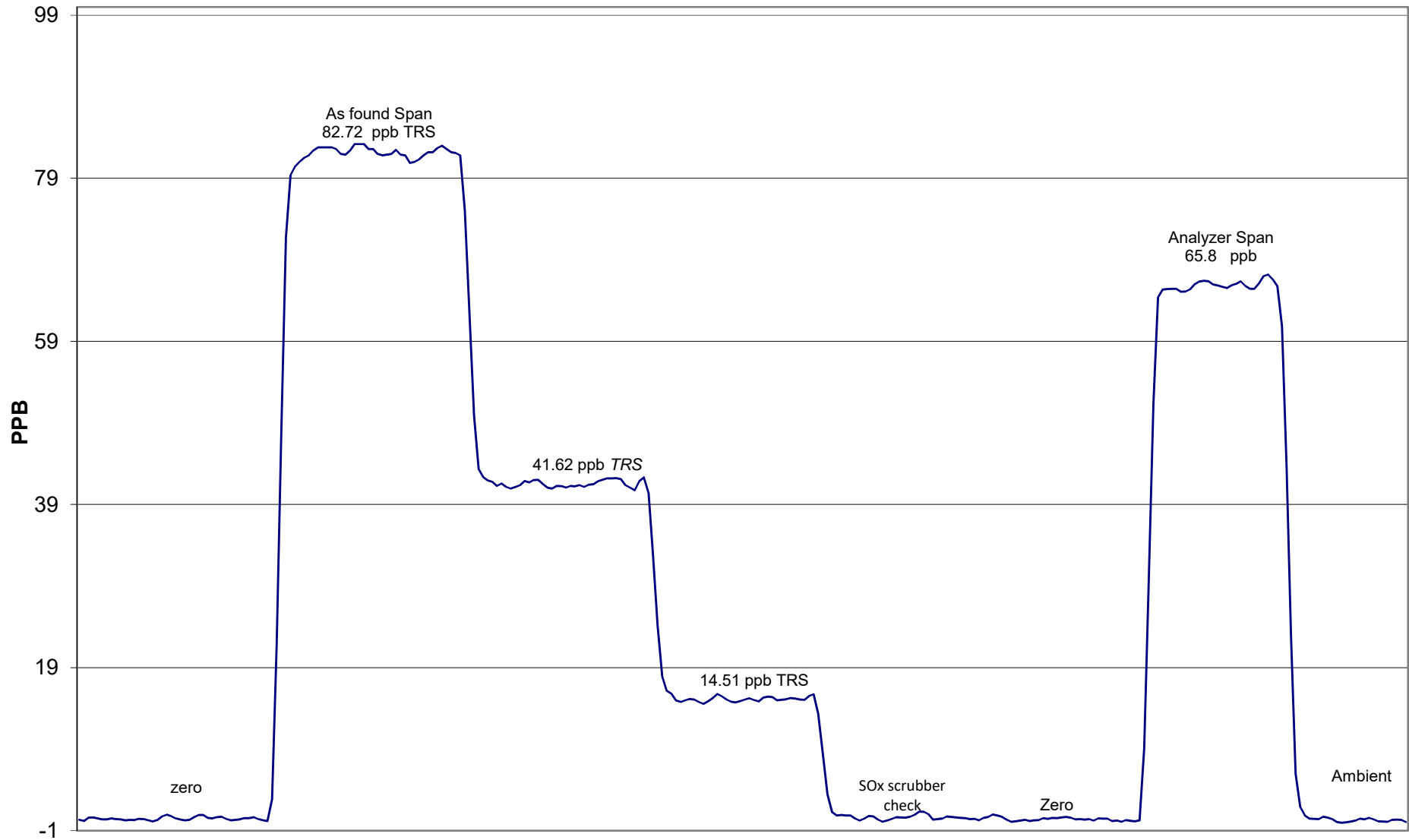
Calibration Date	<u>October 24, 2017</u>	Previous Calibration	<u>September 26, 2017</u>
Station Number	<u>1</u>	Station Location	<u>Donnely</u>
Start Time (MST)	<u>11:45</u>	End Time (MST)	<u>14:55:00 PM</u>
Analyzer make/model	<u>Thermo 450i</u>	Analyzer serial #	<u>1207452006</u>

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999987
82.7	81.9	1.0097		
41.6	41.6	1.0001	Slope	1.017651
14.5	15.1	0.9607		
			Intercept	-0.699625



H2S Calibration



October 24, 2017

Calibration Report



AIR QUALITY MONITORING

Parameter SO2
Air Monitoring Network _____

PAZA

Station Information

Calibration Date	October 12, 2017	Previous Calibration	September 25, 2017
Station Number	10	Station Location	Rycroft
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	10:00	End Time (MST)	12:50
Barometric Pressure	0.931 Atm	Station Temperature	18.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	49.4 ppm	Cal Gas Expiry Date	02/21/2020
Gas Cert Reference	EY0000751		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.995935	Calculated slope	1.000851
Calculated intercept	0.236273	Calculated intercept	-0.208708
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	24.1		24	
Coefficient	1.042		1.060	
UV Lamp Voltage	983	V	892	V
Chamber Temp	44.4	C	44.7	C
Perm Gas Temp	45	C	45	C
Pressure	677.2	mm Hg	676.4	mm Hg
Sample Flow	0.468	LPM	0.458	LPM
Lamp Intesity	30375	Hz	30385	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)
5208	0.00	0.0	0.3	N/A
5208	42.35	398.5	398.9	0.9988
5208	21.29	201.1	199.5	1.0082
5208	10.27	97.2	98.4	0.9884
5208	0.00	0.0	0.3	As found zero
5208	42.35	398.5	389.2	As found span
Average Correction Factor				0.9985

Calculated value of As Found Response: 387.568 ppm Percent Change of As Found: 2.7%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	204.3	ppm	206.3	ppm

Notes: Zero/span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
 Air Monitoring Network PAZA



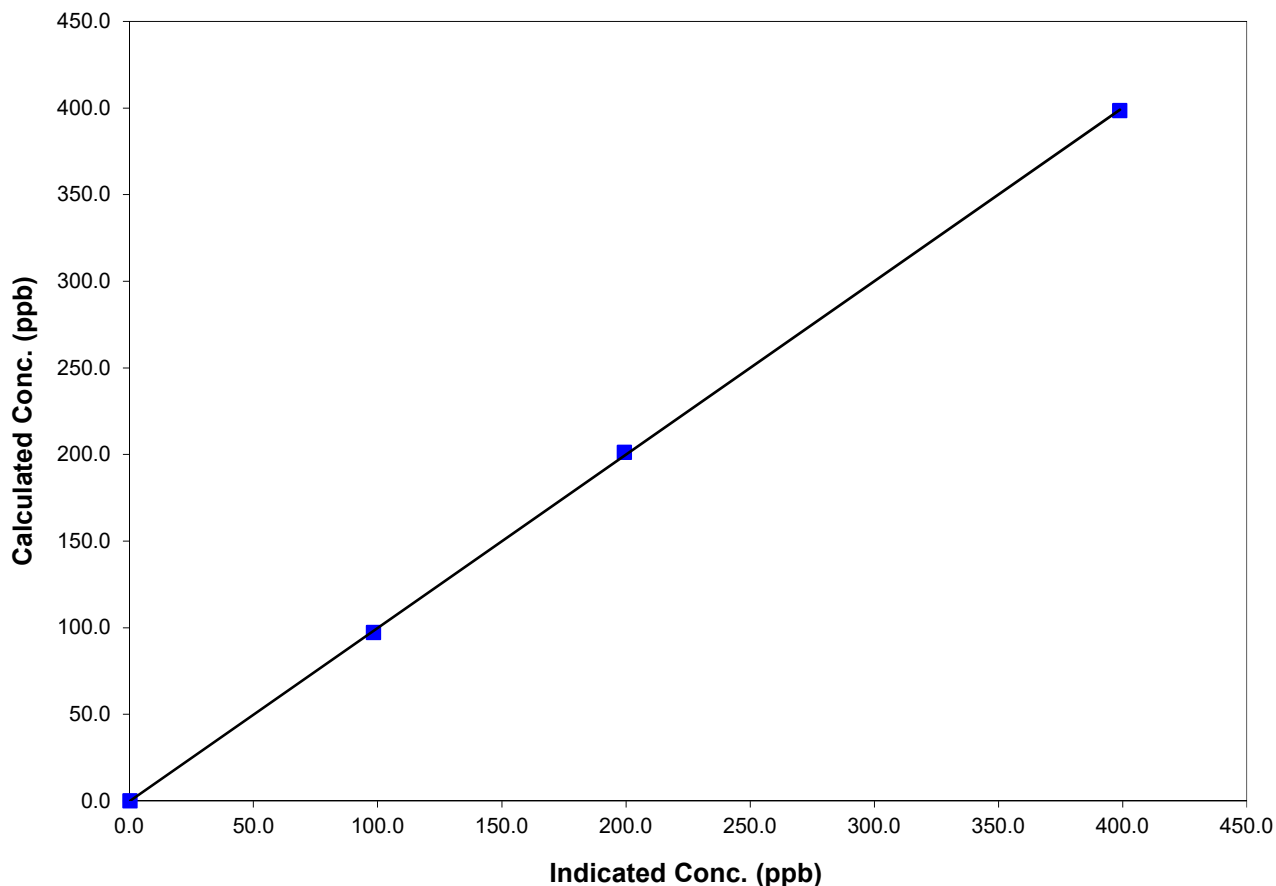
Station Information

Calibration Date	October 12, 2017	Previous Calibration	September 25, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:00	End Time (MST)	12:50
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

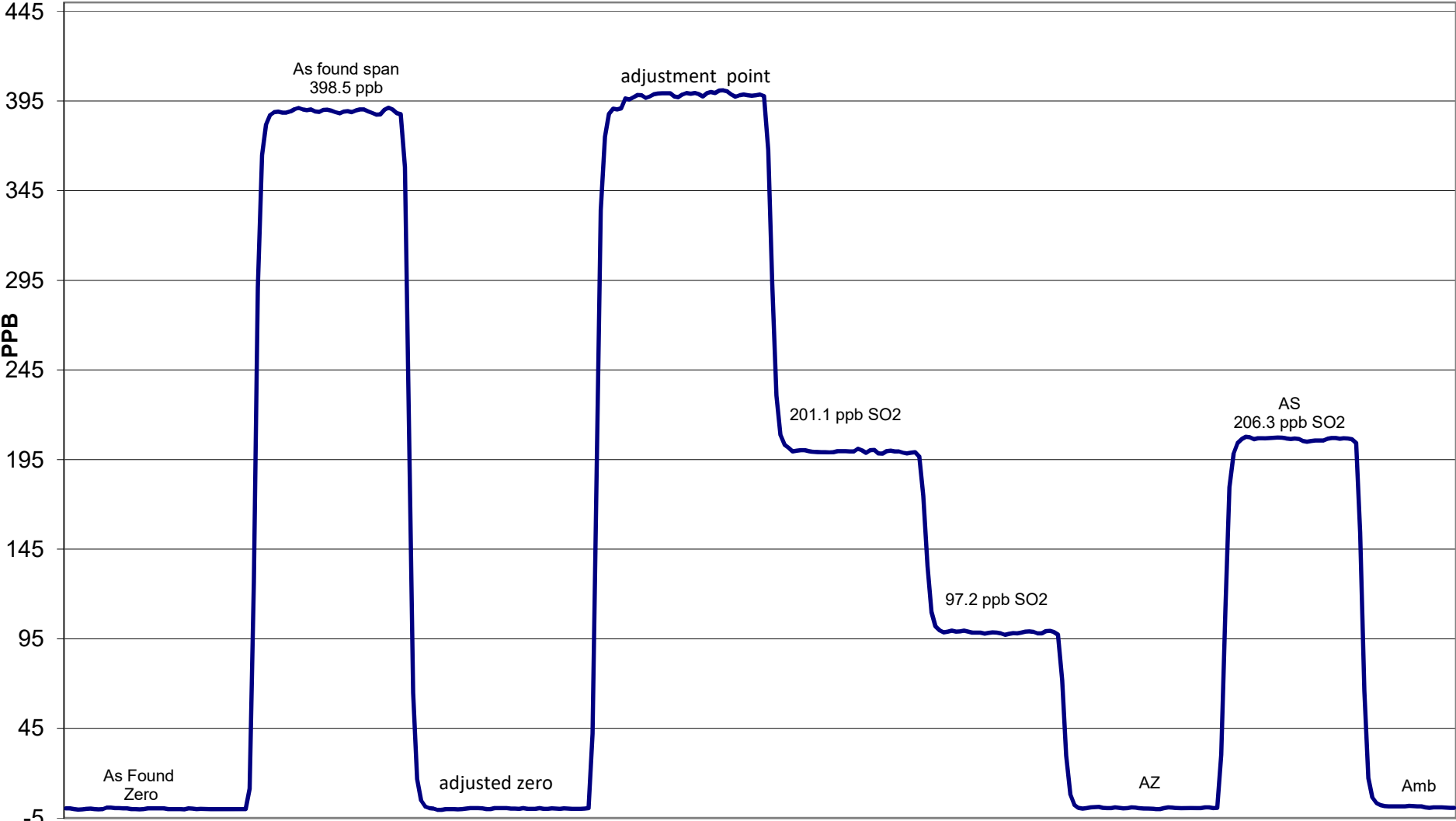
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999952
398.5	398.9	0.9988		
201.1	199.5	1.0082		
97.2	98.4	0.9884	Slope	1.000851
			Intercept	-0.208708

SO2 Calibration Curve



SO2 Calibration



October 12, 2017

Calibration Report

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



Station Information

Calibration Date	October 12, 2017	Previous Calibration	September 25, 2017		
Station Number	10	Station Location	Rycroft		
Reason:	Routine	Installation	Removal Other:		
Start Time (MST)	10:05	End Time (MST)	14:25:00 PM		
Barometric Pressure	0.931	Atm	Station Temperature	18.0	Deg C
Calibrator	EnviroNics	Serial Number	6586		
NO Cal Gas Conc	50.4	ppm	Cal Gas Expiry Date	02/21/2020	
NO _x Cal Gas Conc	50.5	ppm	Cal Gas Serial #	EY0000740	

DACS Information

DACS make	CR3000	DACS serial No.	5407	
Before	Parameter	NO ₂	NO _x	NO
	Data Slope	1.000041	0.998502	1.002762
After	Data Offset	-0.216965	0.023719	0.069609
	Data Slope	0.995895	1.000223	1.002724
	Data Offset	-0.131466	-0.579739	-0.810362
	Channel #	8	6	7
	Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011	
Test Point	before		after	
	Concentration range	0-500	ppb	0-500
NO offset	6.4	mV	6.0	mV
NO _x bkgnd	6.4	mV	6.1	mV
NO coefficient	0.962		0.953	
NO _x coefficient	1.001		1.001	
NO ₂ conv temp	326.8	Deg C	325.3	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-835.1	mV	-835.1	mV
R Cell Press	172.1	in Hg	174.1	in Hg
Sample Flow	0.922	LPM	0.924	LPM

Notes: Zero/span adjustment made

Calibration Report



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

Station Information

Calibration Date: **October 12, 2017** Station Location: **Rycroft**

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	5208	0.00	0.0	0.0	0.0	0.0	0.1	0.1	N/A	N/A	
1	5208	42.35	407.3	406.5	0.8	408.1	406.5	0.0	0.9982	1.0002	
2	5208	21.29	205.6	205.2	0.4	204.8	204.0	0.1	1.0037	1.0058	
3	5208	10.27	99.4	99.2	0.2	101.5	101.7	0.0	0.9789	0.9757	
AFZ	5208	0.00	0.0	0.0	0.0	-0.5	-0.5	0.1	0.0000	0.0000	
AFS	5208	42.35	407.3	406.5	0.8	414.1	412.6	-0.1	0.9837	0.9853	
									Average Correction Factor	0.9936	0.9939

As Found Concentrations: **NO_x= 413.9** **NO= 414.2** As Found Percent Change **NO_x= 1.6%** **NO= 1.9%**

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.94 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	-0.5	-0.5	0.0	0.0	0.1	0.1	N/A	N/A	N/A	N/A	
NO point	403.2	403.2	0.0	405.3	403.2	0.2	0.9948	1.0000	N/A	N/A	
300	403.2	109.4	293.8	406.3	109.4	295.1	0.9925	1.0000	0.9957	100.4%	
200	403.2	207.1	196.1	406.3	207.1	197.1	0.9923	1.0000	0.9947	100.5%	
100	403.2	309.0	94.2	405.6	309.0	94.8	0.9941	1.0000	0.9946	100.5%	
							Average Correction Factor	0.9930	1.0000	0.9950	100.5%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.2	0.0	ppb	0.2	0.1	0.2	ppb
Auto span	154.7	152.9	1.2	ppb	161.1	159.2	1.4	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter NO₂

Air Monitoring Network PAZA

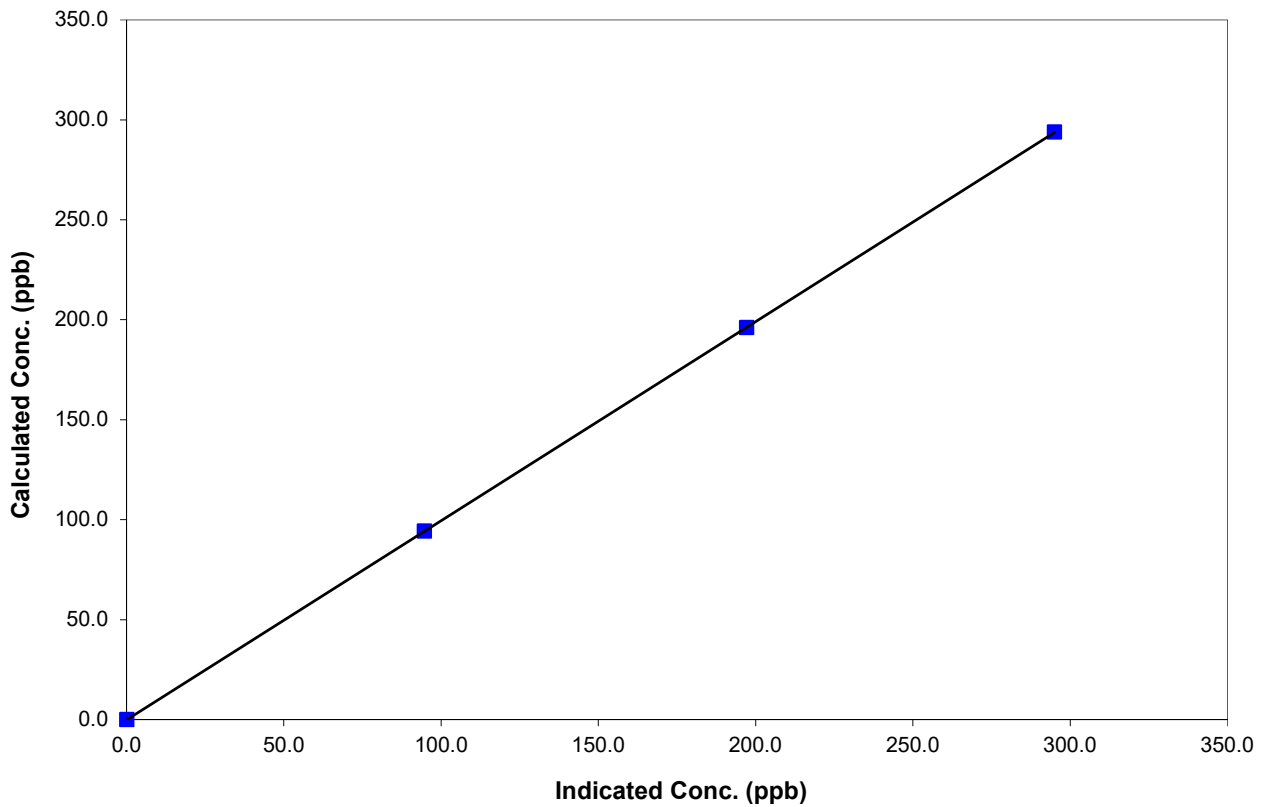
Station Information

Calibration Date	October 12, 2017	Previous Calibration	September 25, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:05	End Time (MST)	14:25:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

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
293.8	295.1	0.9957		
196.1	197.1	0.9947	Slope	0.995895
94.2	94.8	0.9946		
			Intercept	-0.131466

NO₂ Calibration Curve



Calibration Summary



Parameter NO_x

Air Monitoring Network PAZA

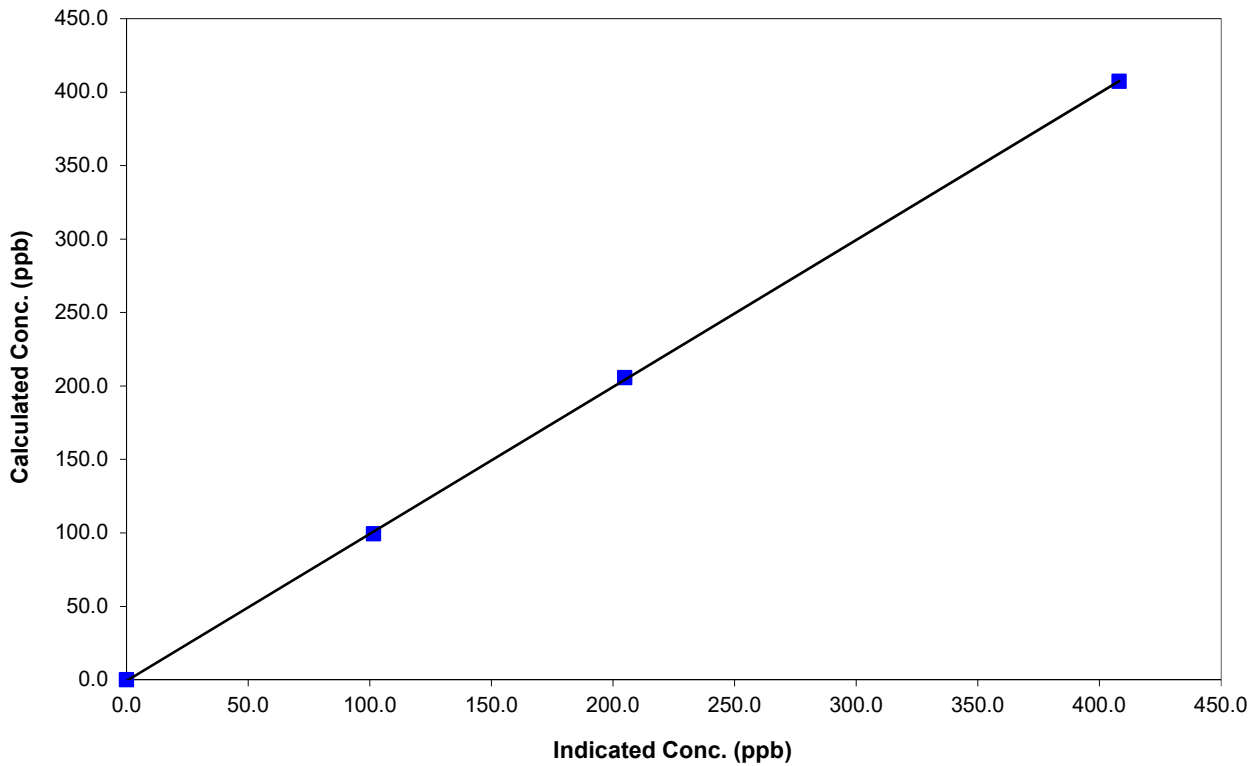
Station Information

Calibration Date	October 12, 2017	Previous Calibration	September 25, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:05	End Time (MST)	14:25:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999950
407.3	408.1	0.9982		
205.6	204.8	1.0037	Slope	1.000223
99.4	101.5	0.9789		
			Intercept	-0.579739

NO_x Calibration Curve



Calibration Summary



Parameter NO
 Air Monitoring Network PAZA

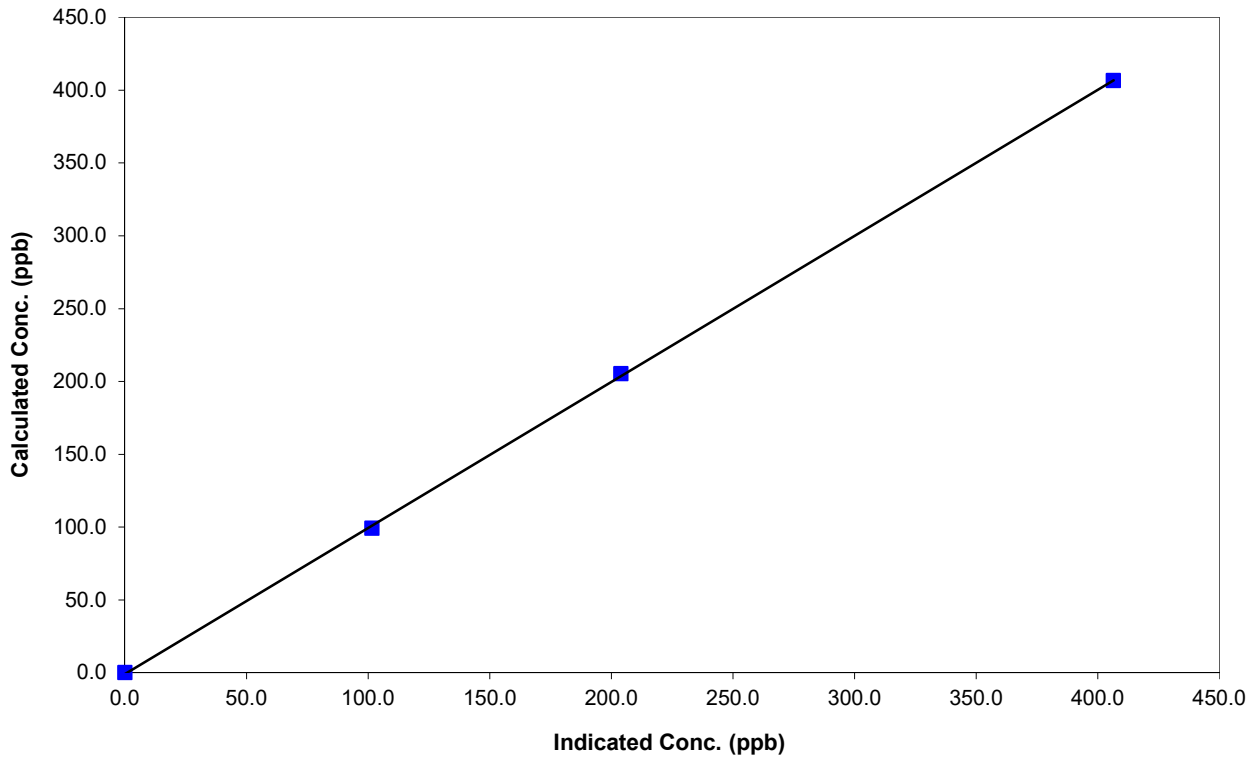
Station Information

Calibration Date	October 12, 2017	Previous Calibration	September 25, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:05	End Time (MST)	14:25:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

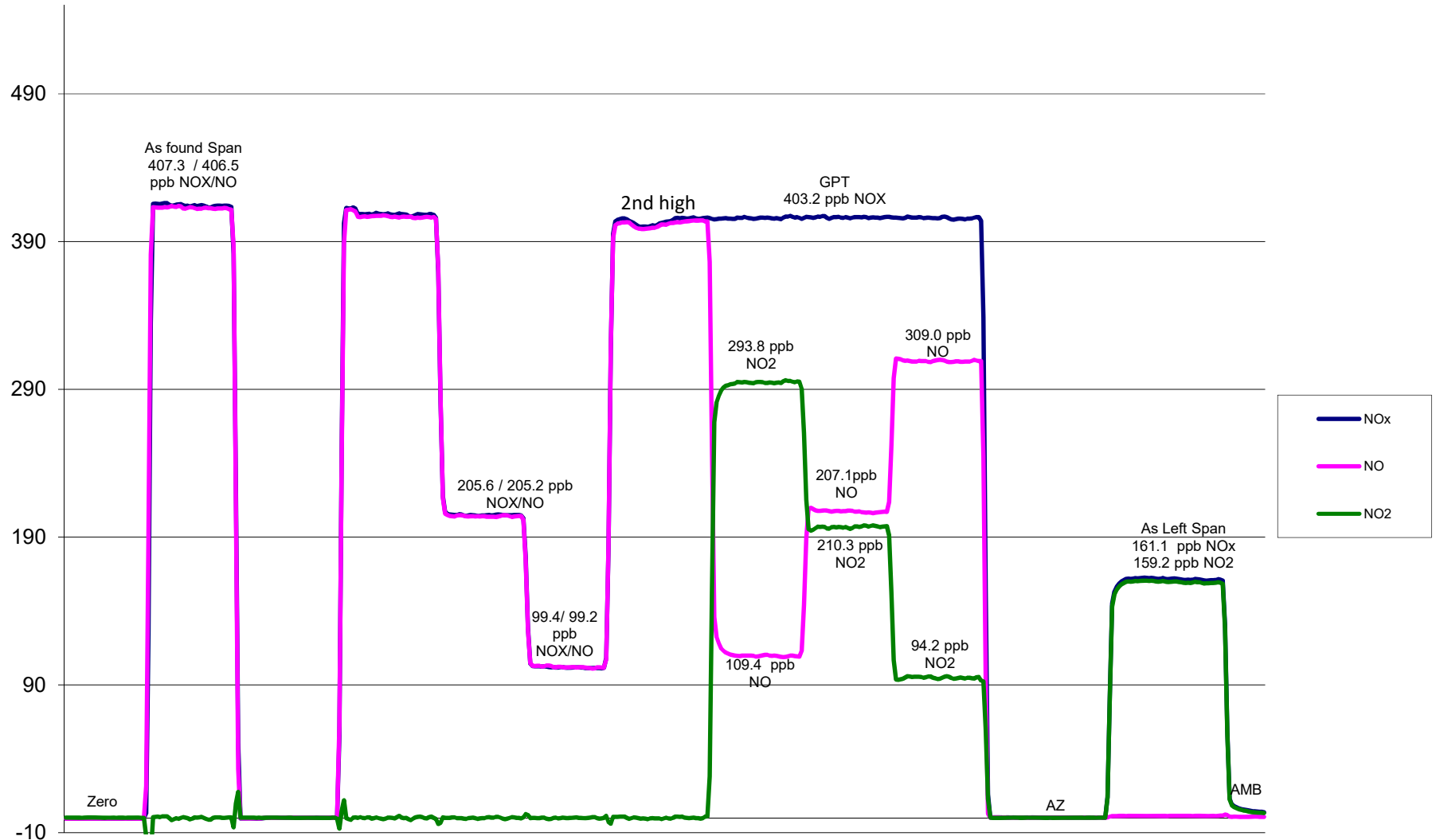
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999929
406.5	406.5	1.0002		
205.2	204.0	1.0058		
99.2	101.7	0.9757		
			Slope	1.002724
			Intercept	-0.810362

NO Calibration Curve



NO_x Calibration



October 12, 2017

Calibration Report



AIR QUALITY MONITORING

Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	October 10 2017	Previous Calibration	September 25 2017
Station Number	10	Station Location	Rycroft
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	13:10:00 PM	End Time (MST)	16:10:00 PM
Barometric Pressure	0.931 atm	Station Temperature	18.0 Deg C
Calibrator	Envionics 6103	Serial Number	6586
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	1.013688	Calculated slope	1.000802
Calculated intercept	0.037783	Calculated intercept	-0.392319
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	-0.4	ppb	-0.5	ppb
Span	0.968		0.968	
Cell A intensity	61594	Hz	62128	Hz
Cell B intensity	62915	Hz	63567	Hz
Pressure	672.20	in Hg	674.20	in Hg
CellA Flow	0.712	ccm	0.712	ccm
Cell B Flow	0.697	cmm	0.698	cmm

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)
5208	0.00	0.0	0.5	N/A
5208	0.30	293.8	294.2	0.9986
5208	0.20	196.1	195.9	1.0012
5208	0.10	94.2	94.7	0.9952
5208	0.00	0.0	0.5	As found zero
5208	0.30	293.8	286.0	As found span
Average Correction Factor				0.9983

Calculated value of As Found Response: 289.4 ppm Percent Change of As Found: -1.5%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.5	ppb
Auto span	392.2	ppb	409.0	ppb

Notes: Slight span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



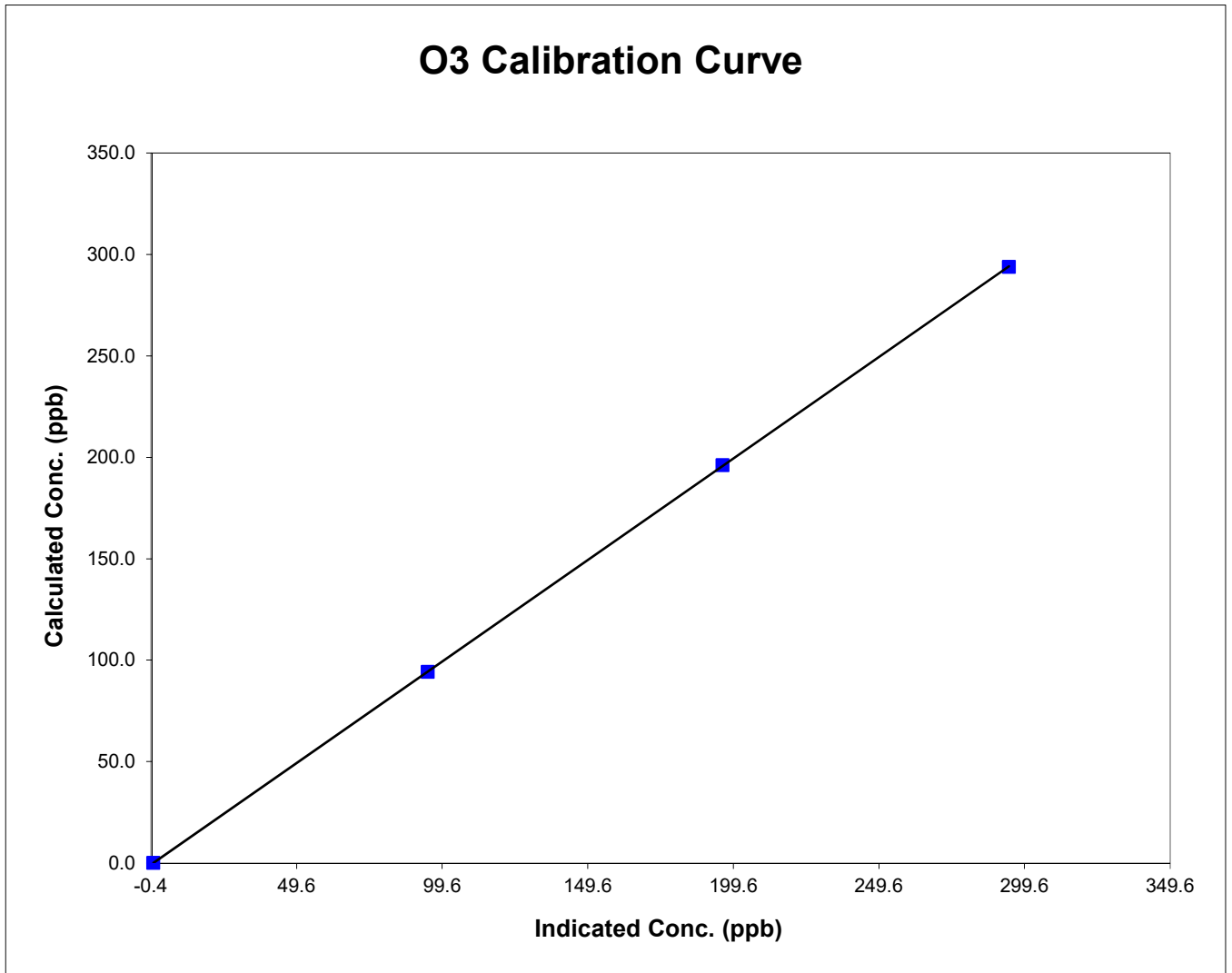
Parameter 03
Air Monitoring Network PAZA

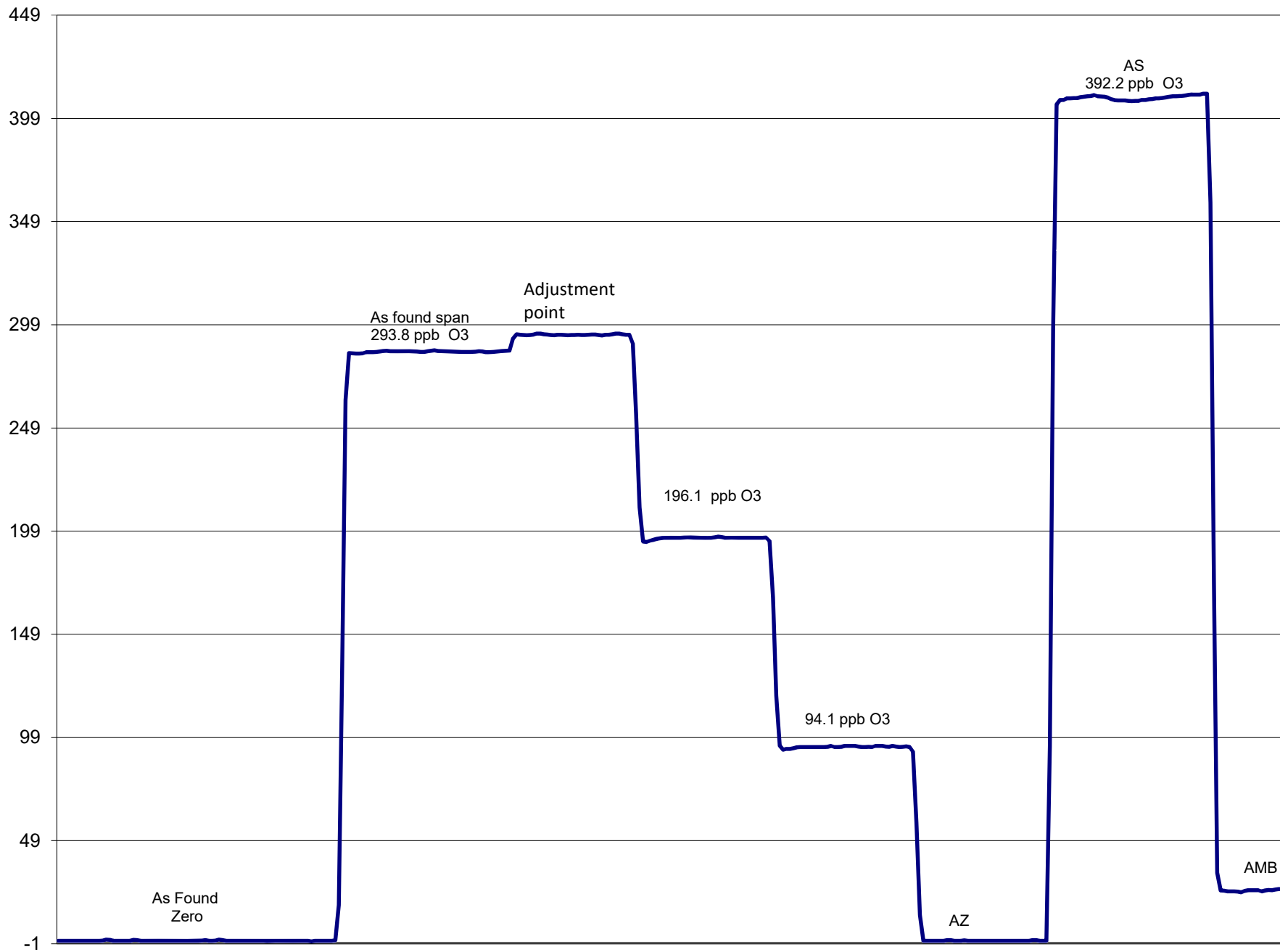
Station Information

Calibration Date	<u> October 10 2017 </u>	Previous Calibration	<u> September 25 2017 </u>
Station Number	<u> 10 </u>	Station Location	<u> Rycroft </u>
Start Time (MST)	<u> 13:10:00 PM </u>	End Time (MST)	<u> 16:10:00 PM </u>
Analyzer make/model	<u> TEI Model 49C </u>	Analyzer serial #	<u> 49C-0609716240 </u>

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	NA	Correlation Coefficient	0.999993
293.8	294.2	0.9986		
196.1	195.9	1.0012		
94.2	94.7	0.9952		
			Slope	1.000802
			Intercept	-0.392319





October 10 2017

Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	October 10, 2017	Previous Calibration	September 11, 2017
Station Number	1	Station Location	Rycroft
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:42	End Time (MST)	15:15:00 PM
Barometric Pressure	0.930 atm	Station Temperature	19.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas CH4 Conc	404 ppm CH4	Cal Gas Expiry Date	3/28/2014
Cal Gas C3H8 Conc	201 552.75 ppm CH4	Cal Gas Cylinder #	LL34988
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 12,13,14

Analyzer make TEI 55I-A3PHAA Analyzer serial # 1151980005

	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	34.7	PSI	34.7	PSI
Fuel pressure	49.4	PSI	49.4	PSI
Carrier pressure	40.1	PSI	40.1	PSI
CH4 cal factor				E ⁻⁴
NMHC cal factor				E ⁻⁴
Rt		Sec		Sec
Pk Index				

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)
2002	0.00	0.00	0.01	N/A
2002	66.12	12.92	12.96	0.9968
2002	42.10	8.32	8.19	1.0159
2002	16.30	3.26	3.24	1.0055
2002	0.00	0.00	0.01	As Found Zero
2002	66.12	12.92	12.94	As Found Span
Average Correction Factor				1.0061

Calculated value of As Found Response: 13.009 ppm Percent Change of As Found: -0.7%

	Before		After
Calculated slope	1.006775	Calculated slope	0.999706
Calculated intercept	-0.007183	Calculated intercept	0.026714

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	8.33	ppm	8.17	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)
2002	0.00	0.00	0.00	N/A
1997	66.12	17.71	17.88	0.9906
2002	42.10	11.38	11.23	1.0136
2002	16.30	4.46	4.36	1.0233
2002	0.00	0.00	0.00	As Found Zero
2002	66.12	17.67	17.43	As Found Span
Average Correction Factor				1.0091

Calculated value of As Found Response: 17.448 ppm Percent Change of As Found: 1.3%

	<u>Before</u>		<u>After</u>
Calculated slope	0.999337	Calculated slope	0.991523
Calculated intercept	0.027902	Calculated intercept	0.092093

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	11.27	ppm	11.13	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)
2002	0.00	0.00	0.00	N/A
2002	66.12	30.59	30.90	0.9900
2002	42.10	19.71	19.42	1.0149
2002	16.30	7.73	7.63	1.0124
2002	0.00	0.00	0.00	As Found Zero
2002	66.12	30.59	30.41	As Found Span
Average Correction Factor				1.0058

Calculated value of As Found Response: 30.437 ppm Percent Change of As Found: 0.5%

	<u>Before</u>		<u>After</u>
Calculated slope	1.000205	Calculated slope	0.992330
Calculated intercept	0.026639	Calculated intercept	0.128949

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	19.61	ppm	19.29	ppm

Notes: Slight span adjustment made
Hydrogen & nitrogen cylinders replaced

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter CH4
 Air Monitoring Network PAZA

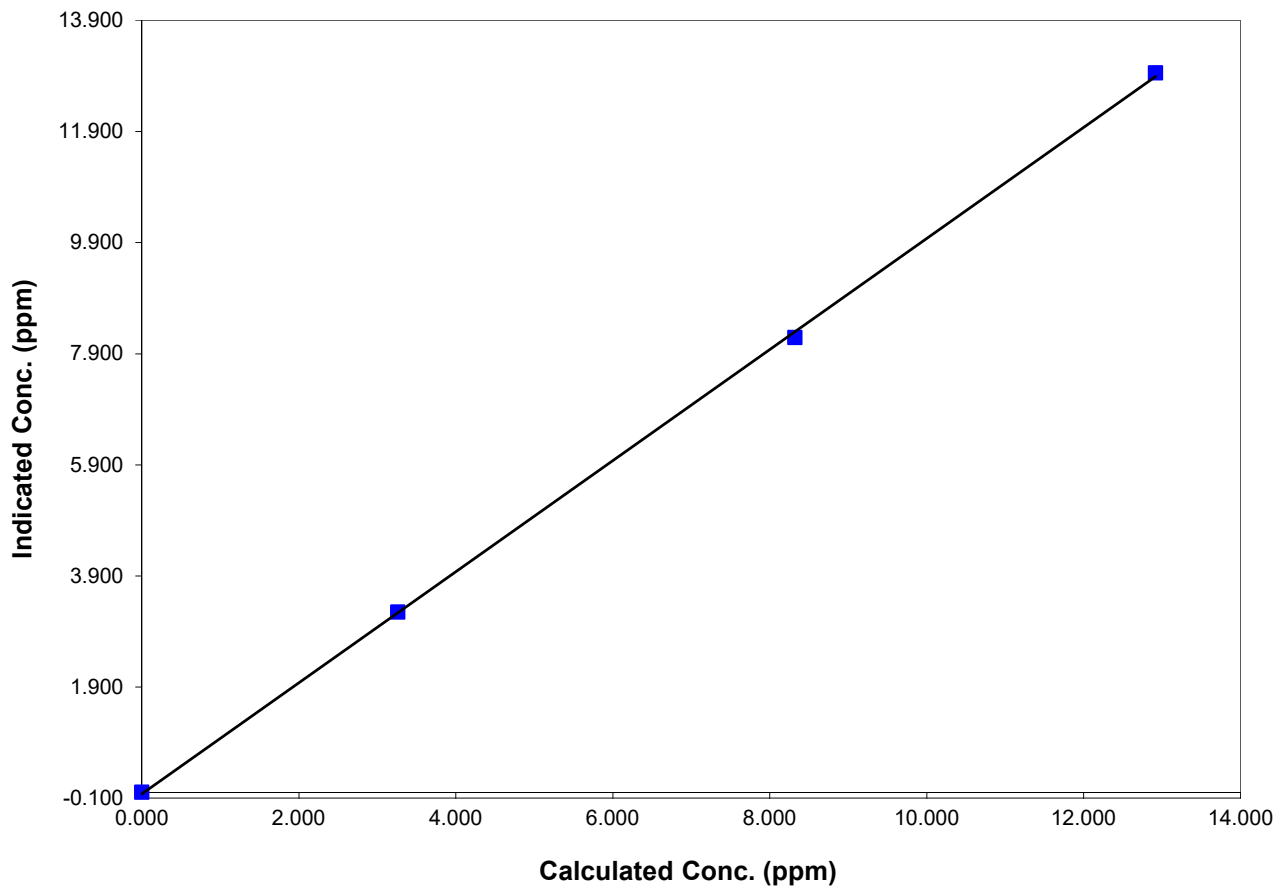
Station Information

Calibration Date	October 10, 2017	Previous Calibration	September 11, 2017
Station Number	1	Station Location	Rycroft
Start Time (MST)	11:42	End Time (MST)	15:15:00 PM
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.006	N/A		
12.916	12.958	0.9968	Correlation Coefficient	0.999828
8.321	8.191	1.0159		
3.263	3.245	1.0055	Slope	0.999706
			Intercept	0.026714

CH4 Calibration Data



Calibration Summary



AIR QUALITY MONITORING

Parameter NMHC
 Air Monitoring Network PAZA

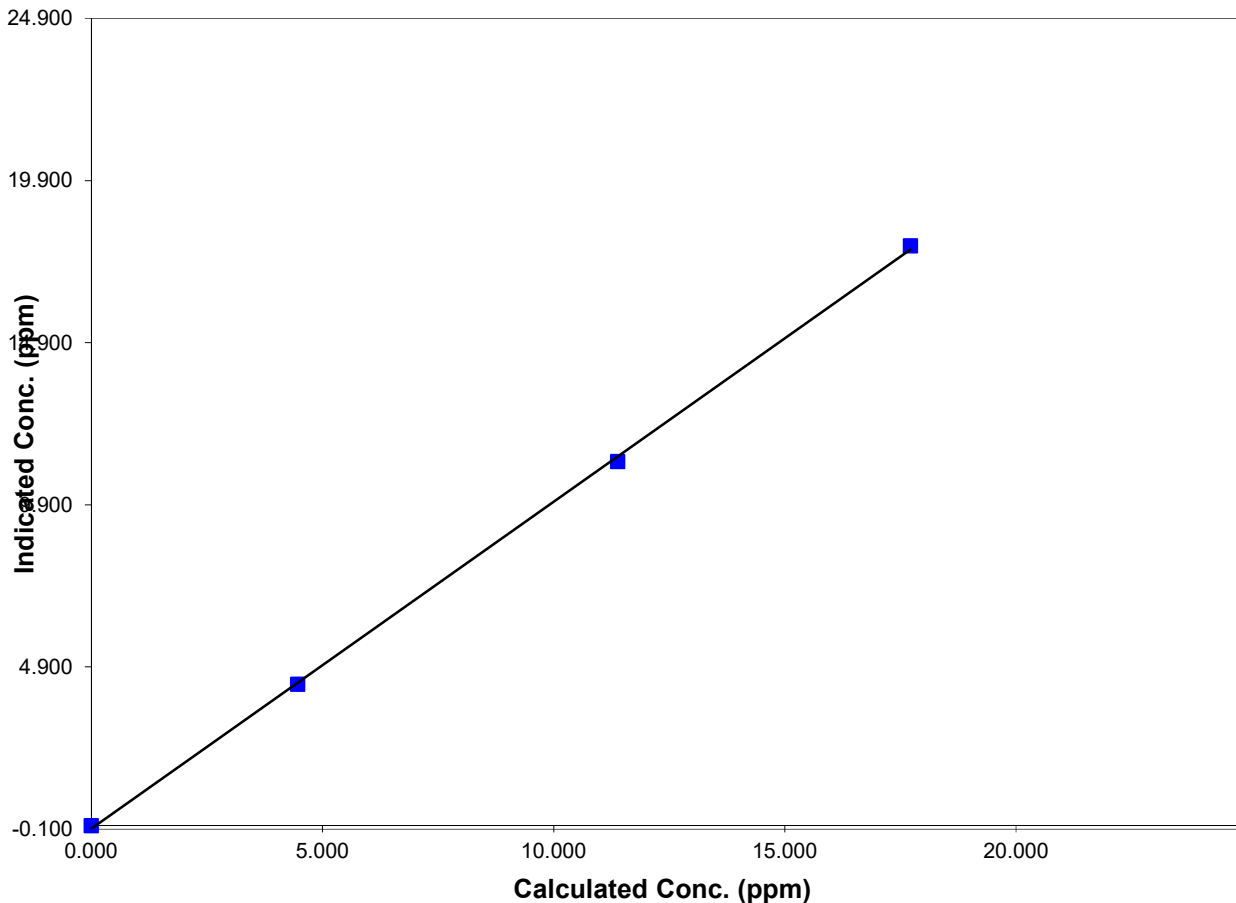
Station Information

Calibration Date	<u> October 10, 2017 </u>	Previous Calibration	<u> September 11, 2017 </u>
Station Number	<u> 1 </u>	Station Location	<u> Rycroft </u>
Start Time (MST)	<u> 11:42 </u>	End Time (MST)	<u> 15:15:00 PM </u>
Analyzer make/model	<u> TEI 55I-A3PHAA </u>	Analyzer serial #	<u> 1151980005 </u>

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.001	N/A	Correlation Coefficient	0.999741
17.715	17.884	0.9906		
11.384	11.232	1.0136	Slope	0.991523
4.464	4.363	1.0233		
			Intercept	0.092093

NMHC Calibration Data



Calibration Summary

Parameter THC
 Air Monitoring Network PAZA



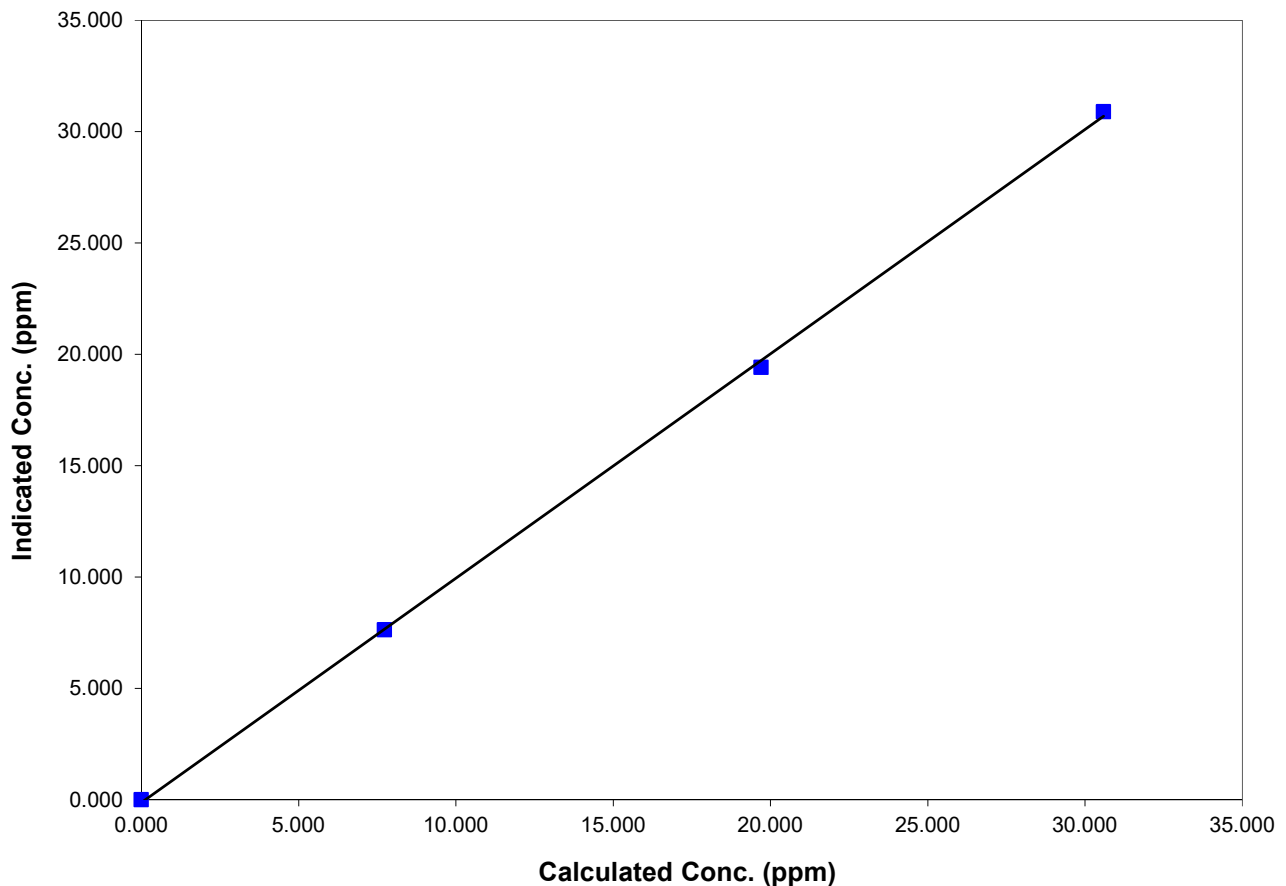
Station Information

Calibration Date	October 10, 2017	Previous Calibration	September 11, 2017
Station Number	1	Station Location	Rycroft
Start Time (MST)	11:42	End Time (MST)	15:15:00 PM
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

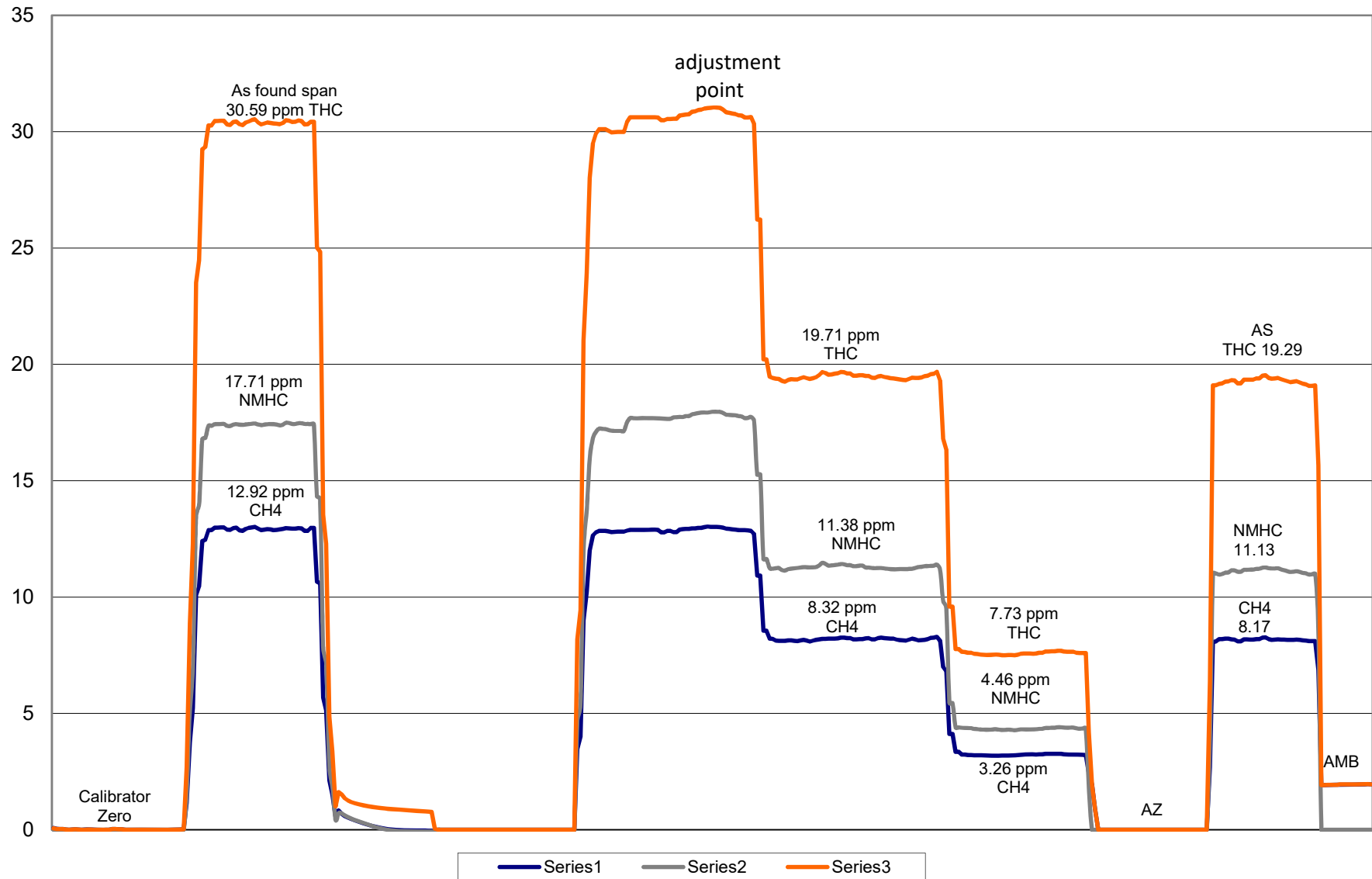
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.004	N/A	Correlation Coefficient	0.999716
30.588	30.896	0.9900		
19.705	19.416	1.0149	Slope	0.992330
7.727	7.632	1.0124		
			Intercept	0.128949

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report

Parameter **TRS**
 Air Monitoring Network **PAZA**



Station Information

Calibration Date	October 10, 2017	Previous Calibration	September 11, 2017
Station Name	PAZA Rover	Station Location	Rycroft
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:05 AM	End Time (MST)	12:35
Barometric Pressure	0.930 mbar	Station Temperature	19.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	10.3 ppm	Cal Gas Expiry Date	2/2/2020
Gas Cert Reference	EY0000340		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.001949	Calculated slope	1.007527
Calculated intercept	-0.417812	Calculated intercept	0.072080
Analyzer make	TEI 431	Analyzer serial #	1153630152

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	10.8	ppb	10.8	ppb
Coefficient	1.062		1.062	
Lamp Voltage	778	V	778	V
Chamber Temp	45.5	C	45.5	C
Perm gas Temp	45	C	45	C
Pressure	677.3	mmHg	677.6	mmHg
Sample Flow	0.390	lpm	0.390	lpm
Lamp Intensity	85	Hz	86	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)
5190	0.0	0.0	0.1	N/A
5190	41.91	82.5	82.0	1.0065
5190	20.93	41.4	40.7	1.0162
7156	10.09	14.5	14.2	1.0184
			0.2	Sox Test
5190	0.00	0.0	0.1	As found zero
5190	41.23	81.2	82.0	As found span
Average Correction Factor				1.0137

Calculated value of As Found Response: 81.58 ppm Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	0.1	ppm	0.1	ppm
Auto span	54.4	ppm	53.7	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**



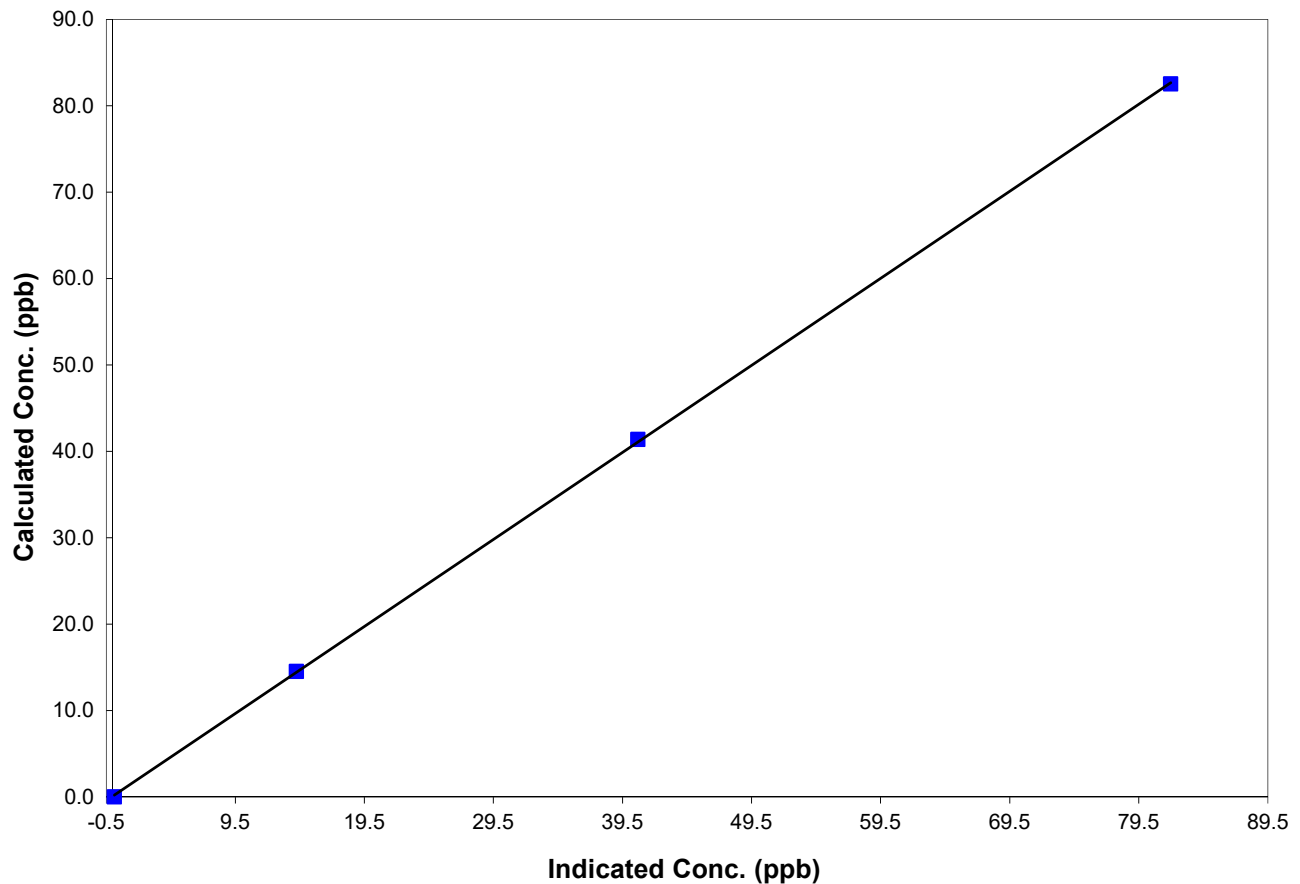
Station Information

Calibration Date	October 10, 2017	Previous Calibration	September 11, 2017
Station Number	PAZA Rover	Station Location	Rycroft
Start Time (MST)	10:05	End Time (MST)	12:35
Analyzer make/model	TEI 43I	Analyzer serial #	1153630152

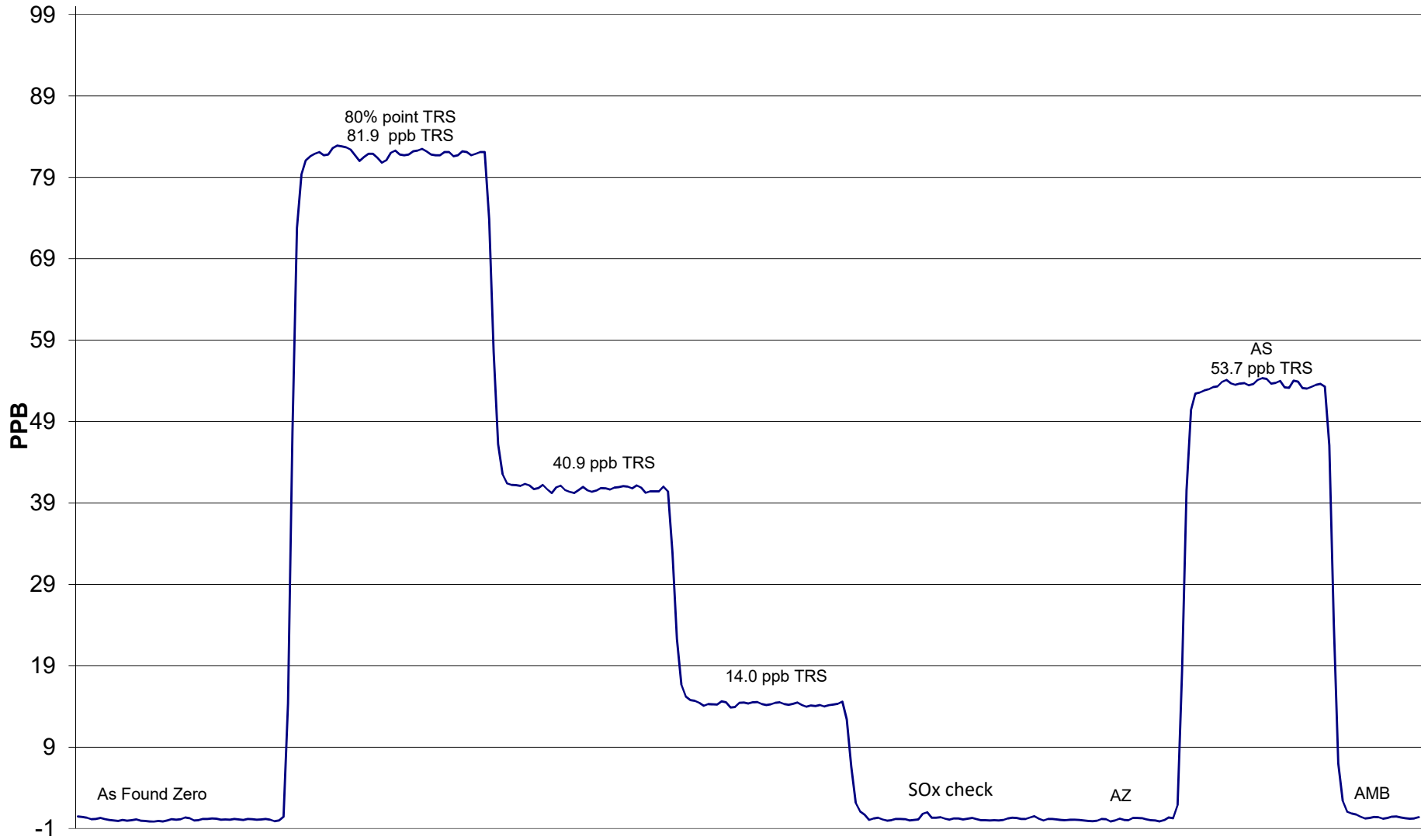
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
82.5	82.0	1.0065	Correlation Coefficient	0.999961
41.4	40.7	1.0162		
14.5	14.2	1.0184	Slope	1.007527
			Intercept	0.072080

TRS Calibration Curve



TRS Calibration



October 10, 2017

AB TEOM PM2.5 Calibration



STATION: **Rover-Rycroft**
 LOCATION: PAZA - Grande Prairie

OPERATOR: Dmytro Dolotii, Grover Christi
 DATE: 10-Oct-17

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	140AB245710304
Site Number	10
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	0.990
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	4-Nov-16

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	0.120	0.340
PUMP OFF	0.070	0.190
NET	0.050	0.150
LIMITS	<0.15	<0.60

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	12122	13.67	3.000
INDICATED (I)	4.4	0.931	12122	13.69	3.000
<i>As Found Data</i> MEASURED (AF)	20.5	0.931	12122	13.89	2.890
<i>Adjusted Data</i> MEASURED (M)	20.5	0.931	12177	13.89	2.890
DIFFERENCE (M-I)	16.1	0.000	0.5%	0.22	-0.11
LIMITS	± 2 ° C	± 0.005 atm	± 2.5 %	± 1.0 L/min	± 0.2 L/min

Ko Audit Filter data Weight: 0.11251 Serial #: CVK 3316

COMMENTS: Pass
Full audit was performed.

Sample Head Inspection/Cleaning: Large In Line Filter Inspection & Or Cleaning: