



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

**Continuous Ambient Air Quality Monitoring Program
Monthly Report
June 2018**

July 31, 2018

Alberta Environment and Parks

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

RE: Peace Airshed Zone Association (PAZA) – June 2018 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of June 2018.

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
	Teepee Creek	SE-2-074-04-W6	00001635-02-00

Company	Facility	LSD	EPEA Approval Number
	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
	Pouce Coupe	16-07-078-11-W6	00000614-01-00

Company	Facility	LSD	EPEA Approval Number
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 June, the following events were noted:

Henry Pirker Station:

- ♦ The measured ambient air quality was within the AAAQO for the Henry Pirker station with the exception of O₃ and PM_{2.5}, which each returned one (1) exceedence of the 1-hour AAAQO. Ref#341644 and 340365.
- ♦ All analyzers and meteorological sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of June.

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 June.

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 June.

Beaverlodge Station:

- ◆ The measured ambient air quality was within the AAAQO for the Beaverlodge station.
- ◆ The NOx analyzer experienced equipment malfunctioning, returning an uptime of 87.8%. All other analyzers and meteorological sensors at the Beaverlodge station had an operational uptime greater than 90% for the month of June.

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 June, with the exception of the relative humidity sensor which was offline 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 June.

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 June.

Passive Monitoring - 27 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of June: Fourth Creek and Eaglesham (SO₂), Crooked Creek (O₃), Spirit River and Wanham (NO₂), and Griouxville 3 (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 0.1 ppb to 0.6 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.2 ppb to 4.9 ppb, with a mean of 1.6 ppb.
- Monthly average concentrations for O₃ passives ranged from 30.8 ppb to 35.5 ppb, with a mean of 32.7 ppb.
- Monthly average concentrations for H₂S passives ranged from 0.1 to 0.2 ppb, with a mean of 0.2 ppb.

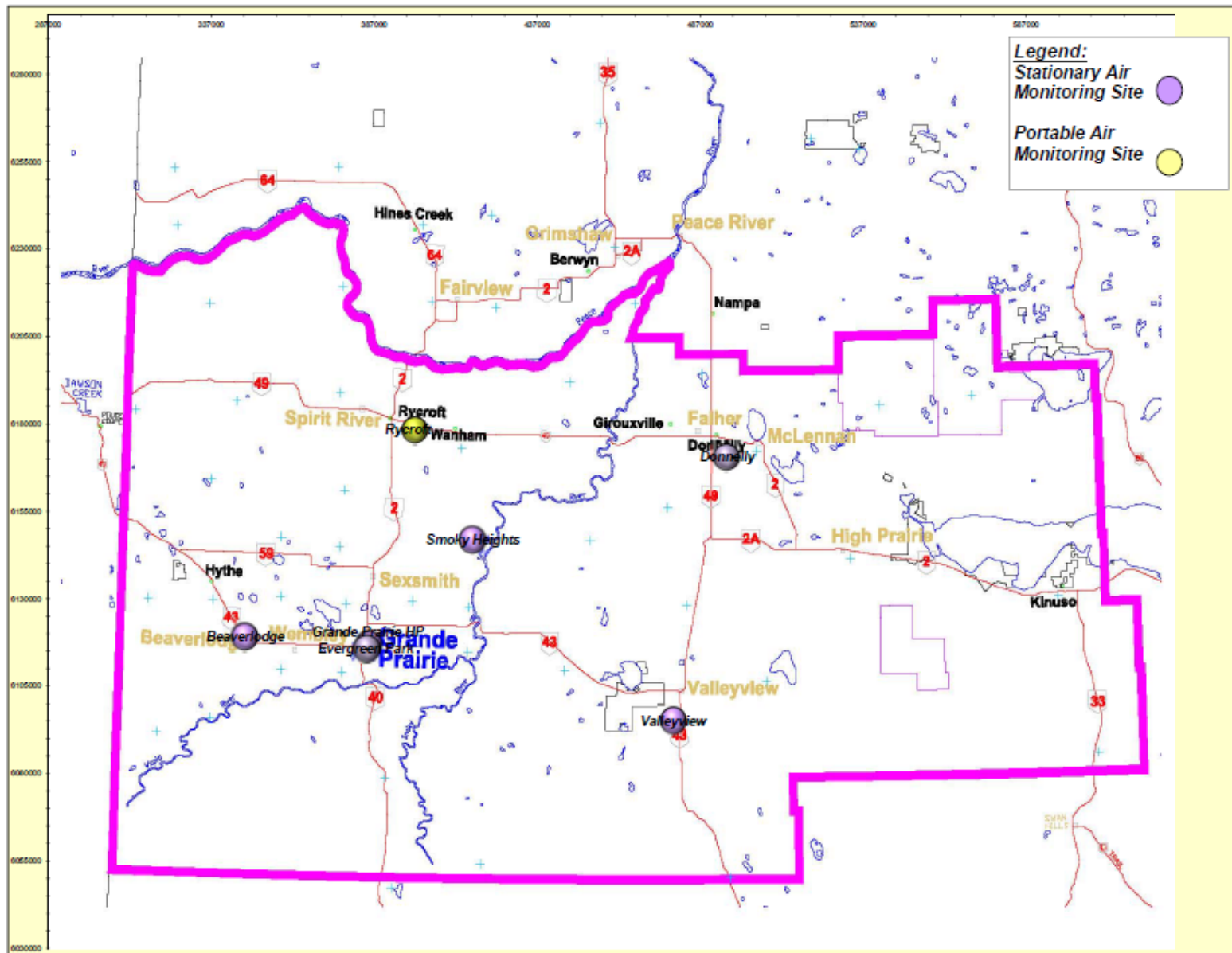
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

On Behalf of the
Peace Airshed Zone Association



Patrick Andersen, B.Sc.
Program Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Jun-2018Peace Airshed Zone Association							Maximum Recorded Values					
							1-hr			24-hr / 8-hr		
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	Day	Conc	Day	Operational Time (%)	Calibration Date
	1-hr	24-hr			1-hr	24-hr						
SO ₂ (ppb)	172	48	Henry Pirker	0.1	0	0	2.6	Jun-17 18:00	0.4	Jun-17	94.9	Jun-06
SO ₂ (ppb)	172	48	Evergreen Park	0.2	0	0	3.1	Jun-09 19:00	0.8	Jun-27	100.0	Jun-11
SO ₂ (ppb)	172	48	Smoky Heights	0.3	0	0	7.4	Jun-09 16:00	1.4	Jun-28	96.8	Jun-18
SO ₂ (ppb)	172	48	Beaverlodge	0.2	0	0	2.2	Jun-19 01:00	0.8	Jun-19	100.0	Jun-12
SO ₂ (ppb)	172	48	Valleyview	0.7	0	0	13.1	Jun-28 01:00	2.8	Jun-28	100.0	Jun-20
SO ₂ (ppb)	172	48	Donnelly	0.1	0	0	4.6	Jun-22 09:00	0.3	Jun-29	99.2	Jun-22
SO ₂ (ppb)	172	48	Rycroft-Portable	0.3	0	0	3.0	Jun-27 13:00	0.5	Jun-17	98.6	Jun-13
NO (ppb)			Henry Pirker	1.4	0	0	39.7	Jun-20 03:00	15.1	Jun-20	97.2	Jun-06
NO ₂ (ppb)	159	106	Henry Pirker	5.8	0	0	35.5	Jun-20 09:00	15.7	Jun-20	97.2	Jun-06
NO _x (ppb)			Henry Pirker	6.9	0	0	51.6	Jun-20 09:00	25.0	Jun-20	97.2	Jun-06
NO (ppb)			Beaverlodge	0.3	0	0	8.9	Jun-19 08:00	1.0	Jun-01	100.0	Jun-12
NO ₂ (ppb)	159	106	Beaverlodge	2.4	0	0	15.2	Jun-20 06:00	5.2	Jun-20	100.0	Jun-12
NO _x (ppb)			Beaverlodge	2.8	0	0	21.9	Jun-19 08:00	6.1	Jun-20	100.0	Jun-12
NO (ppb)			Rycroft-Portable	1.7	0	0	23.6	Jun-21 19:00	6.4	Jun-21	98.6	Jun-13
NO ₂ (ppb)	159	106	Rycroft-Portable	5.0	0	0	25.4	Jun-21 00:00	13.7	Jun-21	98.6	Jun-13
NO _x (ppb)			Rycroft-Portable	6.7	0	0	43.8	Jun-21 19:00	20.3	Jun-21	98.6	Jun-13
O ₃ (ppb)	82		Henry Pirker	28.9	1	0	82.6	Jun-20 12:00	39.2	Jun-19	96.7	Jun-07
O ₃ (ppb) - 8-hr			Henry Pirker		0				60.5	Jun-19		-
O ₃ (ppb)	82		Beaverlodge	31.4	0	0	76.6	Jun-19 16:00	48.1	Jun-19	100.0	Jun-12
O ₃ (ppb) - 8-hr			Beaverlodge		0				65.8	Jun-19		-
O ₃ (ppb)	82		Rycroft-Portable	32.0	0	0	76.0	Jun-20 11:00	44.2	Jun-19	98.6	Jun-14
O ₃ (ppb) - 8-hr			Rycroft-Portable		0				65.1	Jun-19		-
CO (ppm)	13		Henry Pirker	0.13	0	0	0.4	Jun-29 07:00	0.3	Jun-19	96.7	Jun-07
CO (ppm) - 8-hr	5		Henry Pirker		0				0.4	Jun-19		-

PAZA Monthly Continuous Data Summary – continued

Jun-2018 Peace Airshed Zone Association							Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
THC (ppm)			Henry Pirker	2.0	-	-	3.0	Jun-20 08:00	2.3	Jun-20	96.3	Jun-07
CH ₄ (ppm)			Henry Pirker	2.0	-	-	3.0	Jun-20 08:00	2.3	Jun-20	96.3	Jun-07
NMHC (ppm)			Henry Pirker	0.0	-	-	0.1	Jun-29 07:00	0.0	Jun-29	96.3	Jun-07
THC (ppm)			Rycroft-Portable	1.9	-	-	2.1	Jun-20 04:00	2.0	Jun-24	95.8	Jun-14
CH ₄ (ppm)			Rycroft-Portable	1.9	-	-	2.1	Jun-20 04:00	2.0	Jun-24	95.8	Jun-14
NMHC (ppm)			Rycroft-Portable	0.0	-	-	0.0	Jun-30 21:00	0.0	Jun-30	95.8	Jun-14
TRS (ppb)			Henry Pirker	0.1	-	-	1.5	Jul-01 00:00	0.4	Jun-19	96.7	Jun-07
TRS (ppb)			Evergreen Park	0.2	-	-	1.0	Jun-20 12:00	0.4	Jun-20	100.0	Jun-11
TRS (ppb)			Smoky Heights	0.4	-	-	1.5	Jun-03 05:00	0.5	Jun-03	96.8	Jun-18
TRS (ppb)			Rycroft-Portable	0.1	-	-	4.9	Jun-30 21:00	0.4	Jun-30	98.6	Jun-14
H ₂ S (ppb)	10	3	Valleyview	0.1	0	0	1.3	Jun-20 03:00	0.3	Jun-17	100.0	Jun-25
H ₂ S (ppb)	10	3	Donnelly	0.1	0	0	1.1	Jun-25 19:00	0.3	Jun-26	98.9	Jun-22
PM _{2.5} (µg/m3)	80	30	Henry Pirker	5.8	1	0	131.8	Jul-01 00:00	20.2	Jun-20	92.4	Jun-11
PM _{2.5} (µg/m3)	80	30	Evergreen Park	6.6	0	0	75.7	Jun-10 02:00	18.0	Jun-21	100.0	Jun-11
PM _{2.5} (µg/m3)	80	30	Smoky Heights	5.7	0	0	40.0	Jun-21 18:00	19.0	Jun-19	96.5	May-22
PM _{2.5} (µg/m3)	80	30	Beaverlodge	5.3	0	0	74.1	Jun-21 13:00	27.9	Jun-21	100.0	Apr-24
PM _{2.5} (µg/m3)	80	30	Rycroft-Portable	2.9	0	0	17.9	Jun-24 16:00	8.2	Jun-21	98.6	Jun-14
RH (%)			Henry Pirker	54.7	-	-	89.4	Jun-04 02:00	71.1	Jun-14	96.7	-
RH (%)			Evergreen Park	58.1	-	-	98.6	Jun-04 03:00	77.3	Jun-14	100.0	-
RH (%)			Beaverlodge	58.1	-	-	100.0	Jun-01 09:00	79.3	Jun-25	100.0	-
RH (%)			Valleyview	66.5	-	-	100.0	Jun-02 00:00	83.3	Jun-14	100.0	-
SR (W/m ²)			Henry Pirker	228.8	-	-	843.4	Jun-16 13:00	318.2	Jun-18	96.7	-
Temp (°C)			Henry Pirker	16.3	-	-	33.5	Jun-19 16:00	24.9	Jun-20	96.7	-
Temp (°C)			Evergreen Park	15.4	-	-	32.0	Jun-20 17:00	23.2	Jun-20	100.0	-
Temp (°C)			Smoky Heights	15.1	-	-	51.7	Jun-20 12:00	22.1	Jun-18	96.7	-
Temp (°C)			Beaverlodge	14.9	-	-	31.2	Jun-20 17:00	24.2	Jun-20	100.0	-
Temp (°C)			Valleyview	17.5	-	-	34.0	Jun-20 15:00	24.7	Jun-19	100.0	-
Temp (°C)			Donnelly	15.5	-	-	32.4	Jun-20 17:00	25.4	Jun-20	100.0	-
Temp (°C)			Rycroft-Portable	15.6	-	-	33.4	Jun-20 14:00	25.1	Jun-20	100.0	-

PAZA Monthly Continuous Data Summary – continued

Jun-2018Peace Airshed Zone Association							Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
WSPD s (km/hr)			Henry Pirker	5.8	-	-	28.0	Mar-31 22:00	12.4	Mar-22	97.7%	-
WSPD s (km/hr)			Evergreen Park	9.4	-	-	36.0	Mar-23 05:00	21.6	Mar-22	100.0%	-
WSPD s (km/hr)			Smoky Heights	11.0	-	-	34.0	Mar-22 17:00	27.1	Mar-22	100.0%	-
WSPD s (km/hr)			Beaverlodge	13.5	-	-	44.0	Mar-21 20:00	37.4	Mar-22	98.9%	-
WSPD s (km/hr)			Valleyview	4.4	-	-	19.0	Mar-01 15:00	11.0	Mar-01	100.0%	-
WSPD s (km/hr)			Donnelly	8.6	-	-	26.0	Mar-23 10:00	17.3	Mar-22	100.0%	-
WSPD s (km/hr)			Rycroft-Portable	10.2	-	-	36.0	Mar-02 02:00	27.4	Mar-22	100.0%	-
WSPD v (km/hr)			Henry Pirker	1.8	-	-	28.0	Mar-31 22:00	12.2	Mar-22	97.7%	-
WSPD v (km/hr)			Evergreen Park	2.9	-	-	36.0	Mar-23 05:00	21.1	Mar-22	100.0%	-
WSPD v (km/hr)			Smoky Heights	3.5	-	-	34.0	Mar-22 17:00	26.8	Mar-22	100.0%	-
WSPD v (km/hr)			Beaverlodge	5.0	-	-	44.0	Mar-21 20:00	37.1	Mar-22	98.9%	-
WSPD v (km/hr)			Valleyview	1.5	-	-	19.0	Mar-01 15:00	8.7	Mar-01	100.0%	-
WSPD v (km/hr)			Donnelly	1.9	-	-	26.0	Mar-23 10:00	17.2	Mar-22	100.0%	-
WSPD v (km/hr)			Rycroft-Portable	1.5	-	-	36.0	Mar-02 02:00	27.2	Mar-22	100.0%	-
WDIR			Henry Pirker	NNW	-	-	-	-	-	-	97.7%	-
WDIR			Evergreen Park	NNW	-	-	-	-	-	-	100.0%	-
WDIR			Smoky Heights	NNW	-	-	-	-	-	-	100.0%	-
WDIR			Beaverlodge	NE	-	-	-	-	-	-	98.9%	-
WDIR			Valleyview	N	-	-	-	-	-	-	100.0%	-
WDIR			Donnelly	ESE	-	-	-	-	-	-	100.0%	-
WDIR			Rycroft-Portable	N	-	-	-	-	-	-	100.0%	-

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues:

Datalogger power supply failed June 5, diagnosed and repaired June 6. HVAC unit malfunctioned and required repairs June 20.

Parameter	Make	Model	Notes
SO ₂	TEI	43i	Analyzer returned invalid data on June 2-5
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	Analyzer intake contaminated June 8-9, invalidating readings.
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	No operational issues observed.
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

Power outage affected station June 19 and 20-21. HVAC unit malfunctioned and required repairs June 20.

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43i	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	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	No operational issues observed.
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	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA – Donnelly Station

General Station Issues

Power outage June 22-23

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

PAZA – Portable-Rycroft

General Station Issues

HVAC unit failed June 20th, invalidating some data. Temporary unit in place while repairs completed.

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.
TRS	TEI	43i	No operational issues observed.
THC/CH ₄ /NMHC	TEI	55i	No operational issues observed.
PM _{2.5}	Sharp	5030	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

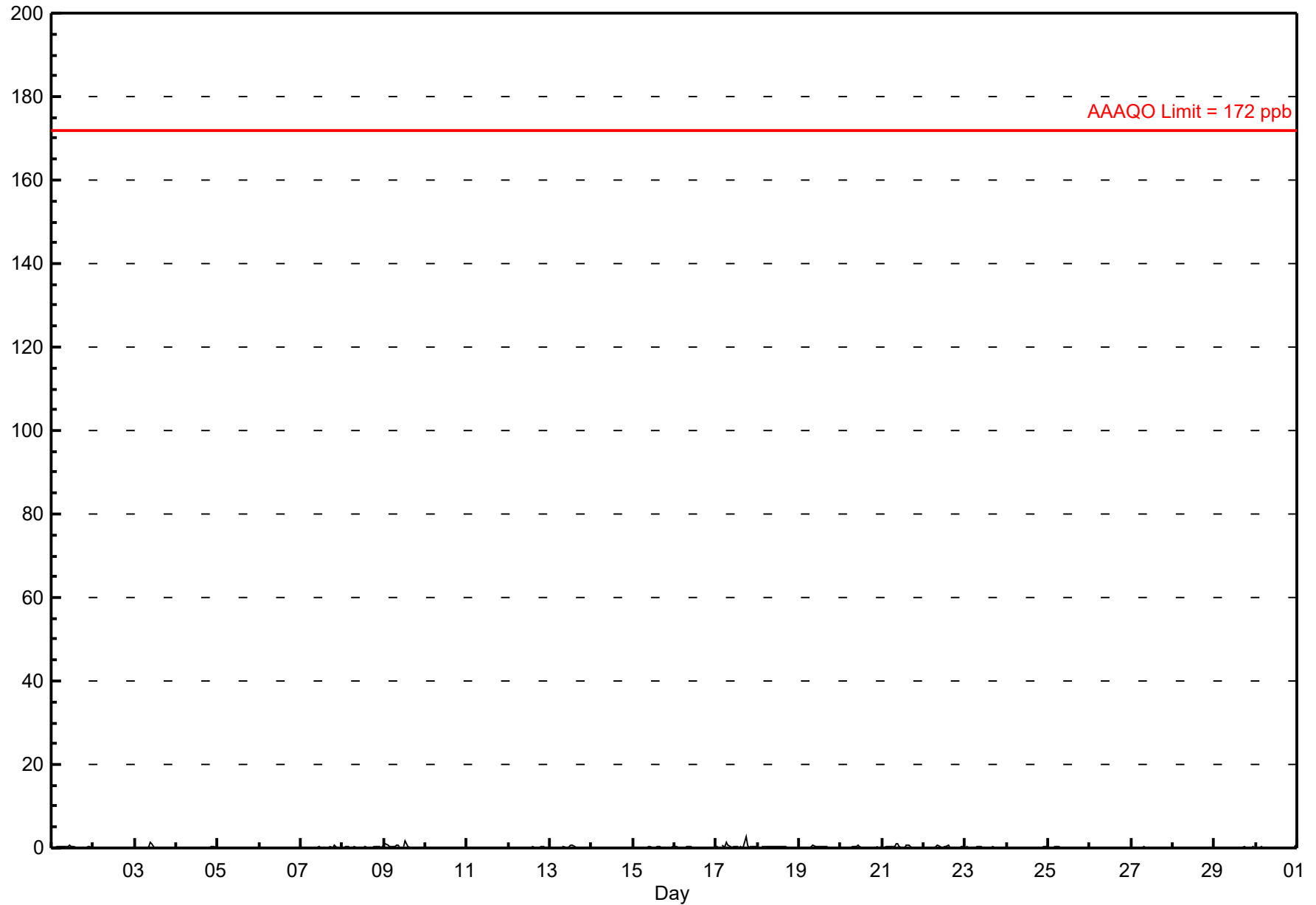
Henry Pirker - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.6 ppb on Jun 17 18:00 Maximum Daily Average: 0.4 ppb on Jun 17																				Hours in Service: 720 Hours of Data: 649 Hours of Missing Data: 71 Hours of Calibration: 34 Percent Operational Time: 94.9						
Minimum Value: 0 ppb on Jun 1 01:00 Maximum Diurnal Average: 0.2 ppb at hour 9 Monthly Average: 0.14 ppb																				Minimum Daily Average: 0.0 ppb on Jun 26 Minimum Diurnal Average: 0.1 ppb at hour 19 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.8
2-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0.0	0.1
3-Jun	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	N	A	0	0	N	N	0	0	0	0.2	1.2
4-Jun	0	0	0	0	0	N	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.4
5-Jun	0	N	0	0	N	N	1	N	N	N	N	N	N	N	D	D	D	D	D	D	D	D	D	D	--	0.6
6-Jun	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	0	0	0	0	0	0	0	0	--	0.0
7-Jun	0	0	0	0	0	0	0	M	M	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0.1	0.7
8-Jun	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
9-Jun	1	1	1	0	0	0	0	1	1	0	A	0	2	1	0	0	0	0	0	0	0	0	0	0	0.4	1.5
10-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
11-Jun	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
12-Jun	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
13-Jun	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.5
14-Jun	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	0.1
15-Jun	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
16-Jun	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
17-Jun	0	0	A	1	0	0	1	1	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0.4	2.6
18-Jun	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
19-Jun	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
20-Jun	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.6
21-Jun	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0.3	1.0
22-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0.2	0.7
23-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
24-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
25-Jun	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	0.3
26-Jun	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
27-Jun	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	0.3
28-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
29-Jun	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
30-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0.1	0.5
0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.1 0.2 0.1 0.2 0.1 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.1																									Diurnal Average	
0.8 0.9 0.5 0.6 0.3 0.3 1.2 0.8 0.9 1.2 0.9 0.5 1.5 1.0 0.6 0.6 0.3 2.6 0.6 0.7 0.3 0.4 0.4 0.5																									Diurnal Maximum	
C - Calibration D - DAS Failure M - Maintenance 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

Henry Pirker - June 2018



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

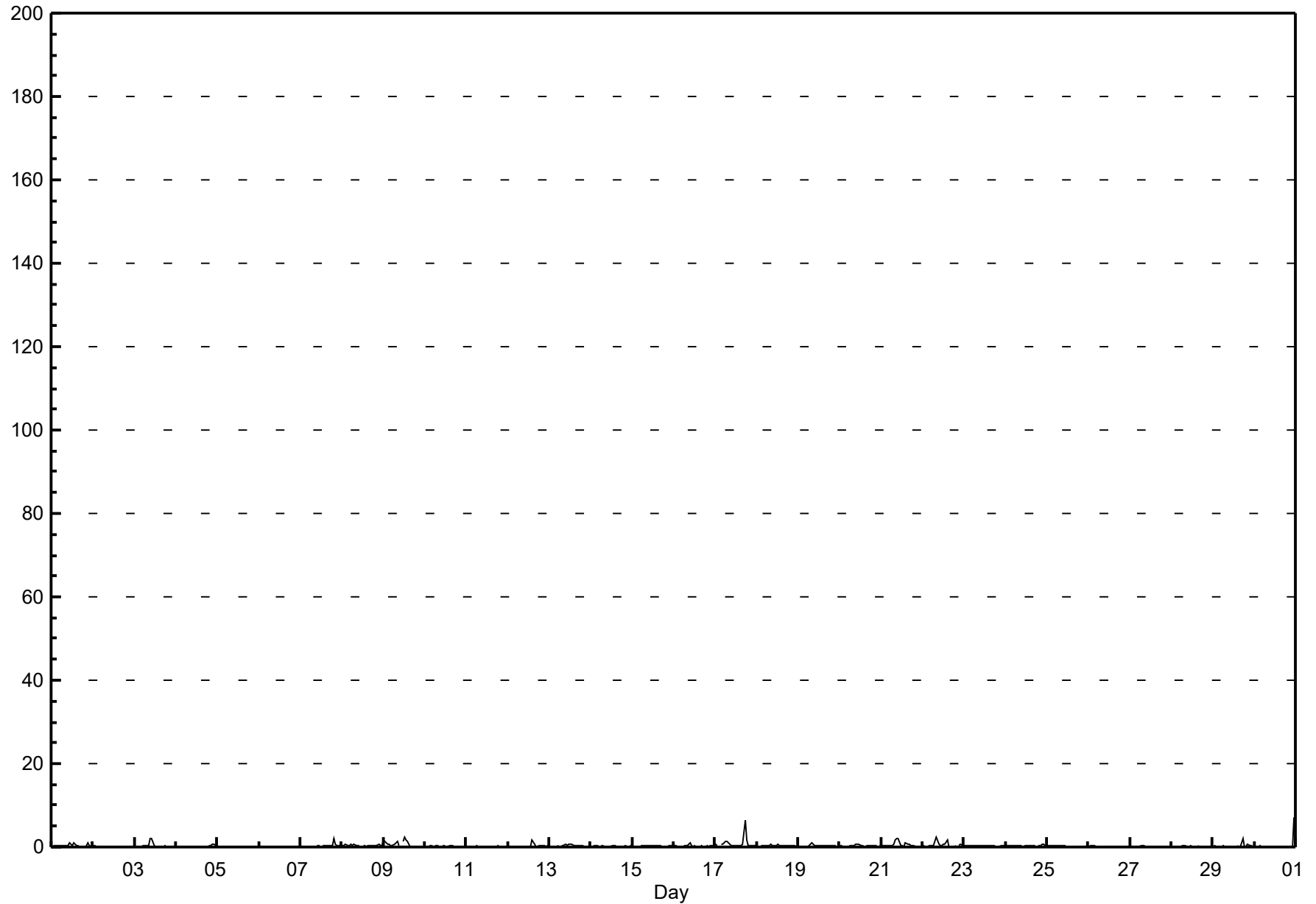
Henry Pirker - June 2018

Maximum Value: 7.0 ppb on Jul 1 00:00																			Maximum Daily Average: 0.8 ppb on Jun 17																			Hours in Service: 720	
Minimum Value: 0 ppb on Jun 6 17:00																			Minimum Daily Average: 0.1 ppb on Jun 26																			Hours of Data: 649	
Maximum Diurnal Average: 0.5 ppb at hour 9																			Minimum Diurnal Average: 0.2 ppb at hour 5																			Hours of Missing Data: 71	
Monthly Average: 0.30 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 2.1																			Hours of Calibration: 34	
																																						Percent Operational Time: 94.9	
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-Jun	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	A	0	0	1	0	0	0.4	1.1													
2-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0.1	0.3													
3-Jun	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	N	A	0	0	N	N	0	0	0	0.4	2.2													
4-Jun	0	0	0	0	0	N	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0.2	0.6													
5-Jun	0	N	0	0	N	N	2	N	N	N	N	N	N	N	D	D	D	D	D	D	D	D	D	D	--	1.9													
6-Jun	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	0	0	0	0	0	0	0	0	--	0.0													
7-Jun	0	0	0	0	0	0	0	M	M	0	0	0	A	0	0	0	0	0	0	2	1	0	0	0	0.3	2.1													
8-Jun	0	0	1	1	0	1	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.8													
9-Jun	2	2	1	1	0	0	1	1	1	0	A	1	2	2	2	0	0	0	0	0	0	0	0	0	0.7	2.4													
10-Jun	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													
11-Jun	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													
12-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0.2	1.7													
13-Jun	0	0	0	0	0	0	A	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	0.8													
14-Jun	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													
15-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5													
16-Jun	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9													
17-Jun	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	1	6	2	0	0	0	0	0	0.8	6.3													
18-Jun	0	A	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8													
19-Jun	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9													
20-Jun	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	A	1	0.3	0.7													
21-Jun	0	0	0	0	0	0	0	1	2	2	2	0	0	0	1	1	1	0	0	0	0	A	0	0	0.6	2.0													
22-Jun	0	0	0	0	0	0	0	1	2	1	0	0	1	1	2	0	0	0	0	0	A	0	1	0	0.5	2.4													
23-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.4													
24-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0.3	0.8													
25-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.5													
26-Jun	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													
27-Jun	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													
28-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2													
29-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	2	0	0	1	0	0	0	0.3	2.1													
30-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	7	0.4	7.0													
																									Diurnal Average														
																									Diurnal Maximum														
C - Calibration				D - DAS Failure				M - Maintenance				N - Not Valid				A - Automated Daily Zero Span																							

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

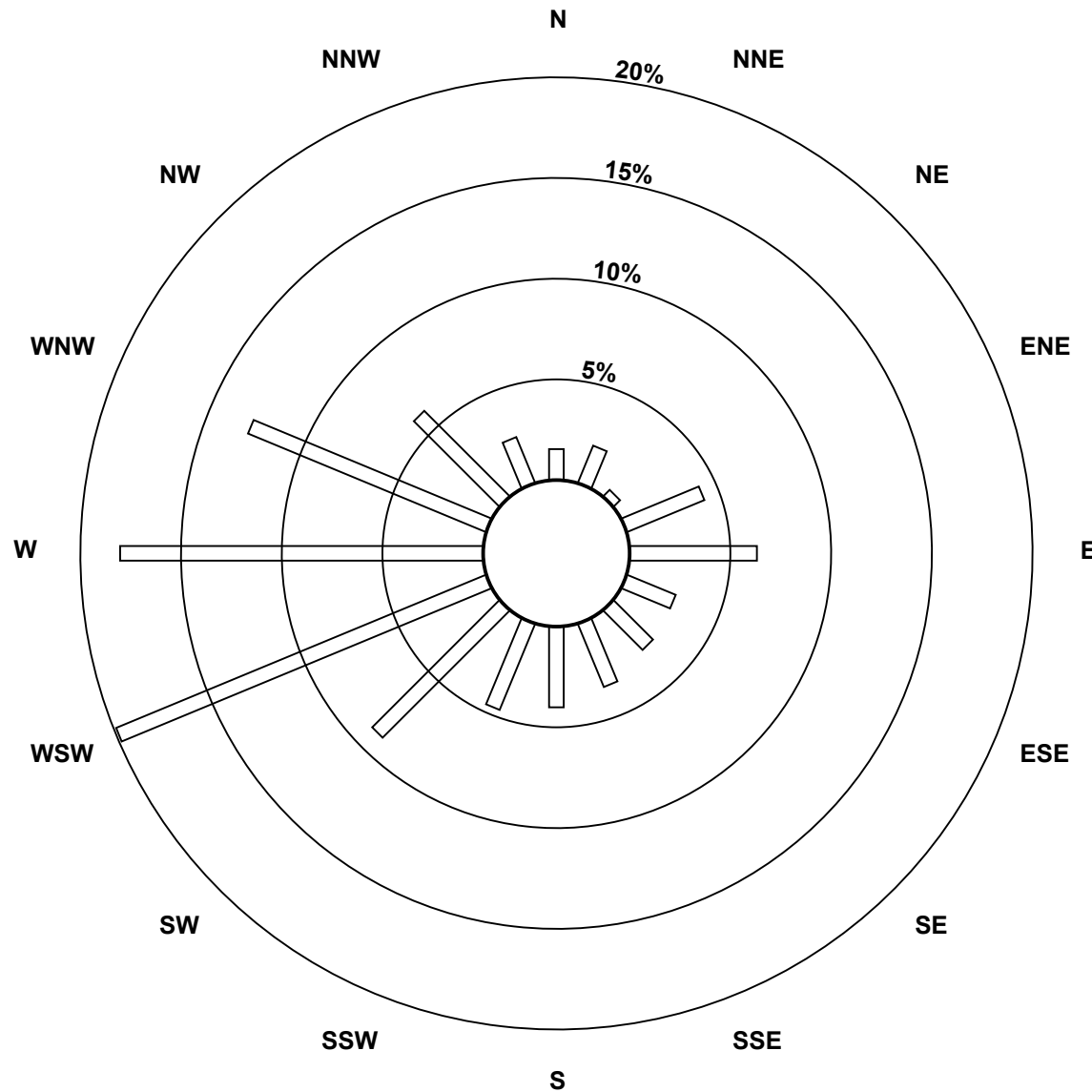
Henry Pirker - June 2018



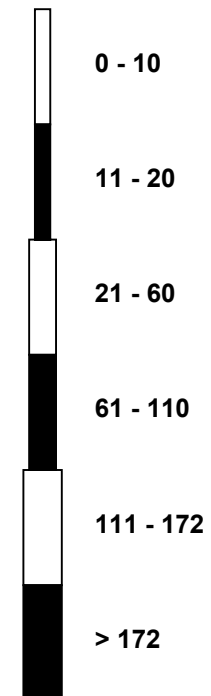
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - June 2018

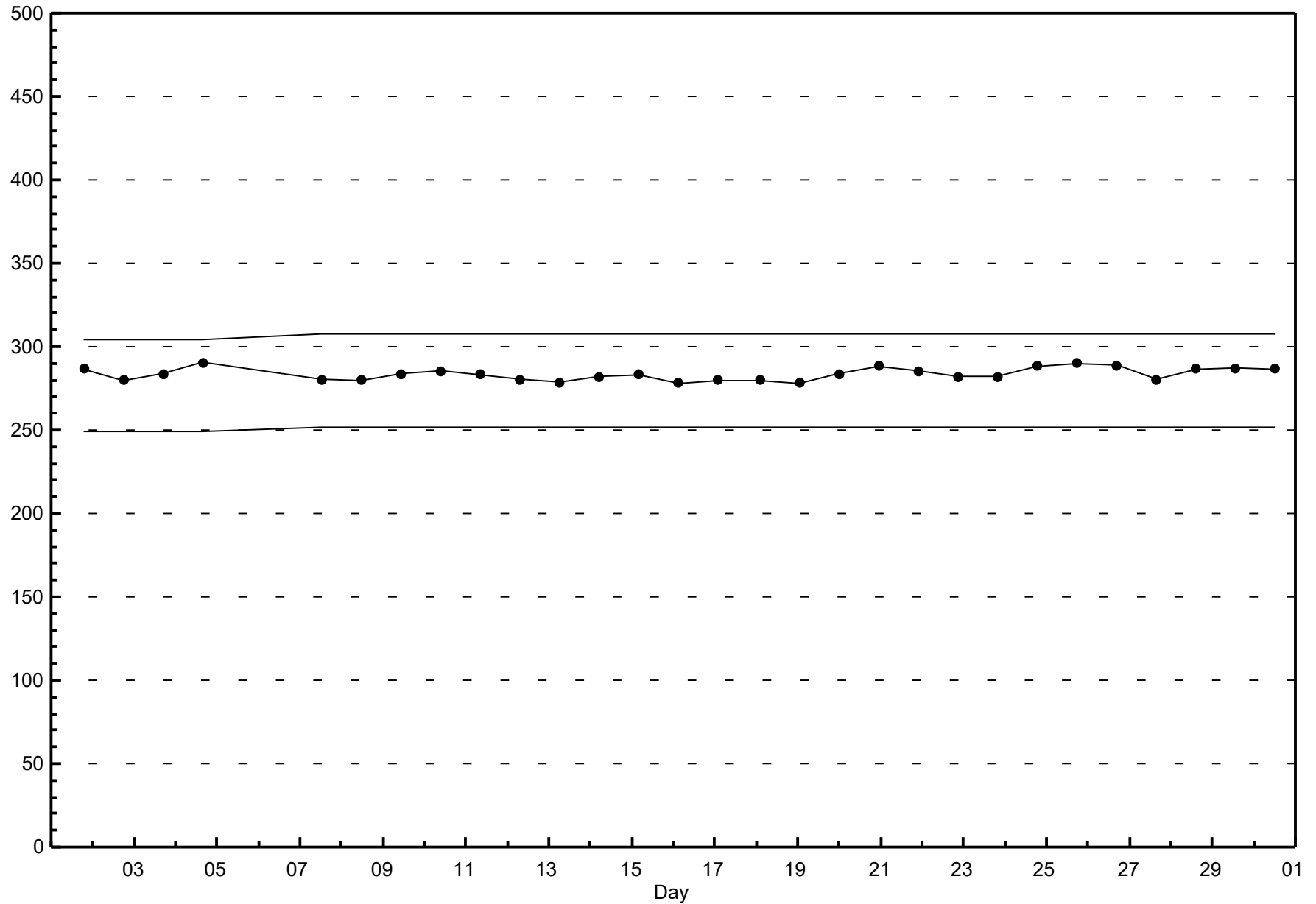


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - June 2018

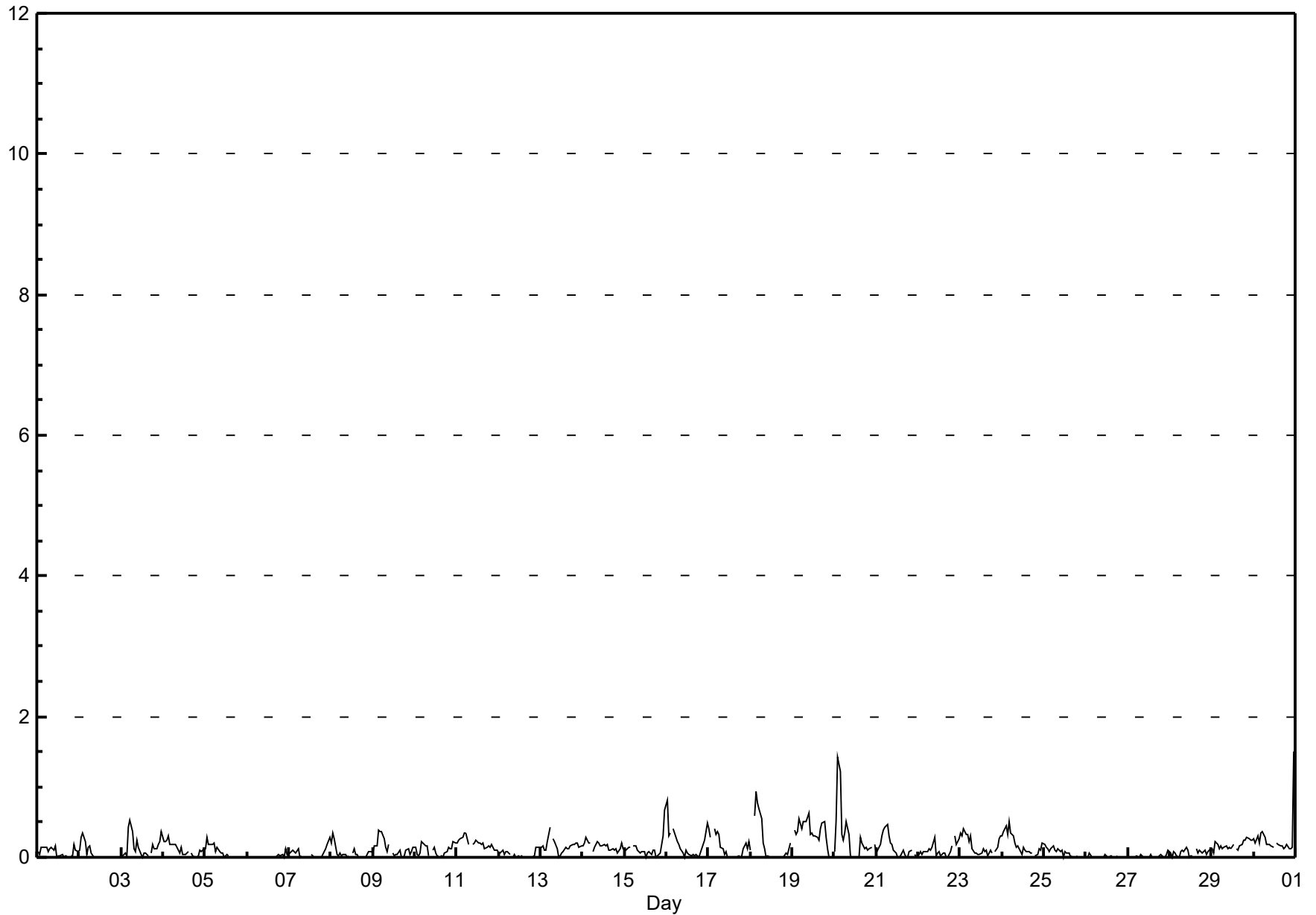


19 of 392

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - June 2018



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

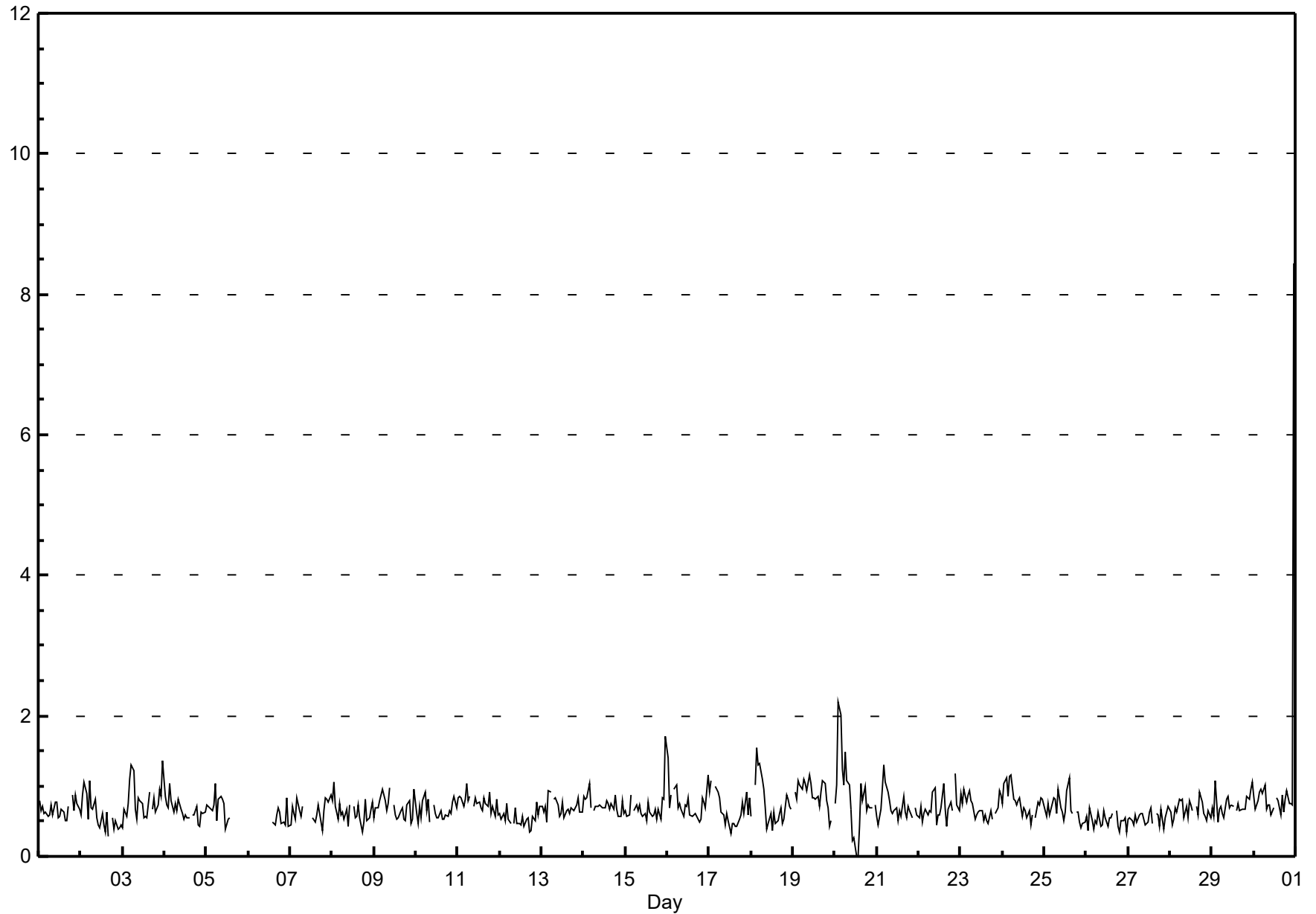
Henry Pirker - June 2018

Maximum Value: 8.4 ppb on Jul 1 00:00																		Maximum Daily Average: 1.1 ppb on Jun 30																		Hours in Service: 720			
Minimum Value: 0 ppb on Jun 20 13:00																		Minimum Daily Average: 0.5 ppb on Jun 26																		Hours of Data: 664			
Maximum Diurnal Average: 1.0 ppb at hour 24																		Minimum Diurnal Average: 0.6 ppb at hour 13																		Hours of Missing Data: 56			
Monthly Average: 0.71 ppb																		Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.8 P ₉₀ = 0.9 P ₉₉ = 1.4																		Hours of Calibration: 32			
																																				Percent Operational Time: 96.7			
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-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	0.7	0.9													
2-Jun	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	0	A	1	0	1	0	0	0	0.6	1.1													
3-Jun	0	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	1.4													
4-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	1	1	0.7	1.0													
5-Jun	1	1	1	1	1	1	1	1	1	1	1	0	1	1	D	D	D	D	D	D	D	D	D	D	--	1.0													
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	0	0	1	1	1	0	0	0	1	0	--	0.8													
7-Jun	0	1	1	1	1	1	1	1	C	C	C	1	A	1	0	1	1	1	0	1	1	1	1	1	0.7	0.9													
8-Jun	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	0	0	1	1	1	1	1	0.6	1.1													
9-Jun	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	0.7	1.0													
10-Jun	1	0	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9													
11-Jun	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													
12-Jun	1	1	1	1	1	1	0	A	0	1	0	0	0	1	0	1	1	0	0	1	1	1	1	1	0.5	0.8													
13-Jun	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9													
14-Jun	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													
15-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.7	1.7													
16-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.8	1.4													
17-Jun	1	1	A	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0.7	1.1													
18-Jun	1	A	1	2	1	1	1	1	1	0	0	1	0	1	0	1	1	1	0	1	1	1	1	1	0.8	1.5													
19-Jun	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	0.9	1.2													
20-Jun	1	1	2	2	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	A	1	0.9	2.2													
21-Jun	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.3													
22-Jun	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	A	1	1	1	0.7	1.2													
23-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	0.7	1.0													
24-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	0.8	1.2													
25-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0.7	1.1													
26-Jun	1	0	1	1	0	1	0	1	0	0	1	1	0	1	1	1	A	1	0	0	0	1	1	0	0.5	0.7													
27-Jun	1	1	1	0	1	0	1	1	1	1	0	0	1	1	0	A	1	1	0	1	0	1	1	1	0.6	0.7													
28-Jun	1	0	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													
29-Jun	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.1													
30-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	8	1.1	8.4														
0.7		0.7	0.8	0.8	0.8	0.9	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.7	0.7	1.0	Diurnal Average													
1.4		1.1	2.2	2.0	1.3	1.3	1.5	1.1	1.0	1.2	1.0	0.9	0.8	0.9	1.1	1.0	0.9	1.1	1.0	0.9	0.9	1.2	1.0	8.4	Diurnal Maximum														
C - Calibration		D - DAS Failure						A - Automated Daily Zero Span																															

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

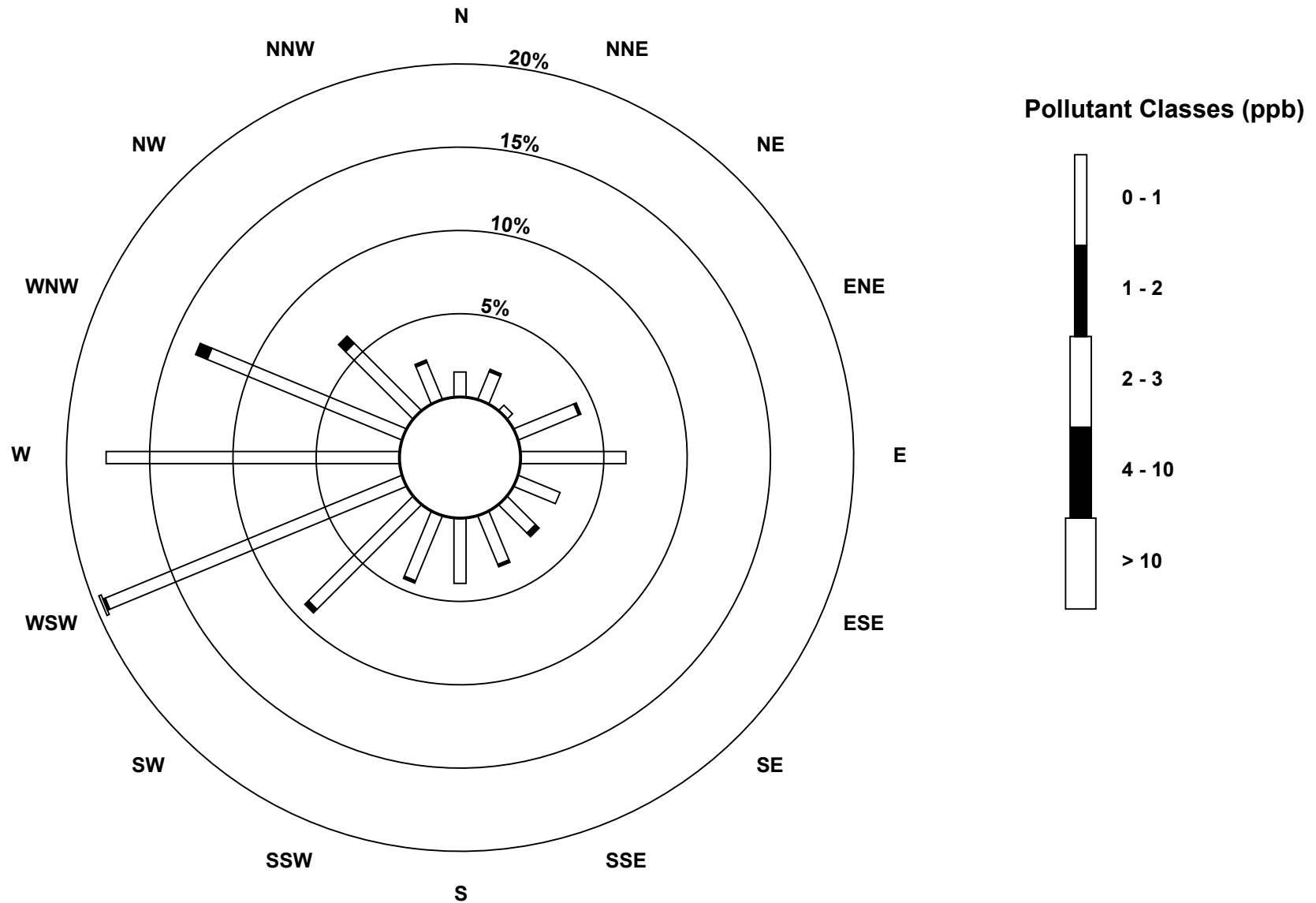
Henry Pirker - June 2018



Pollutant Rose

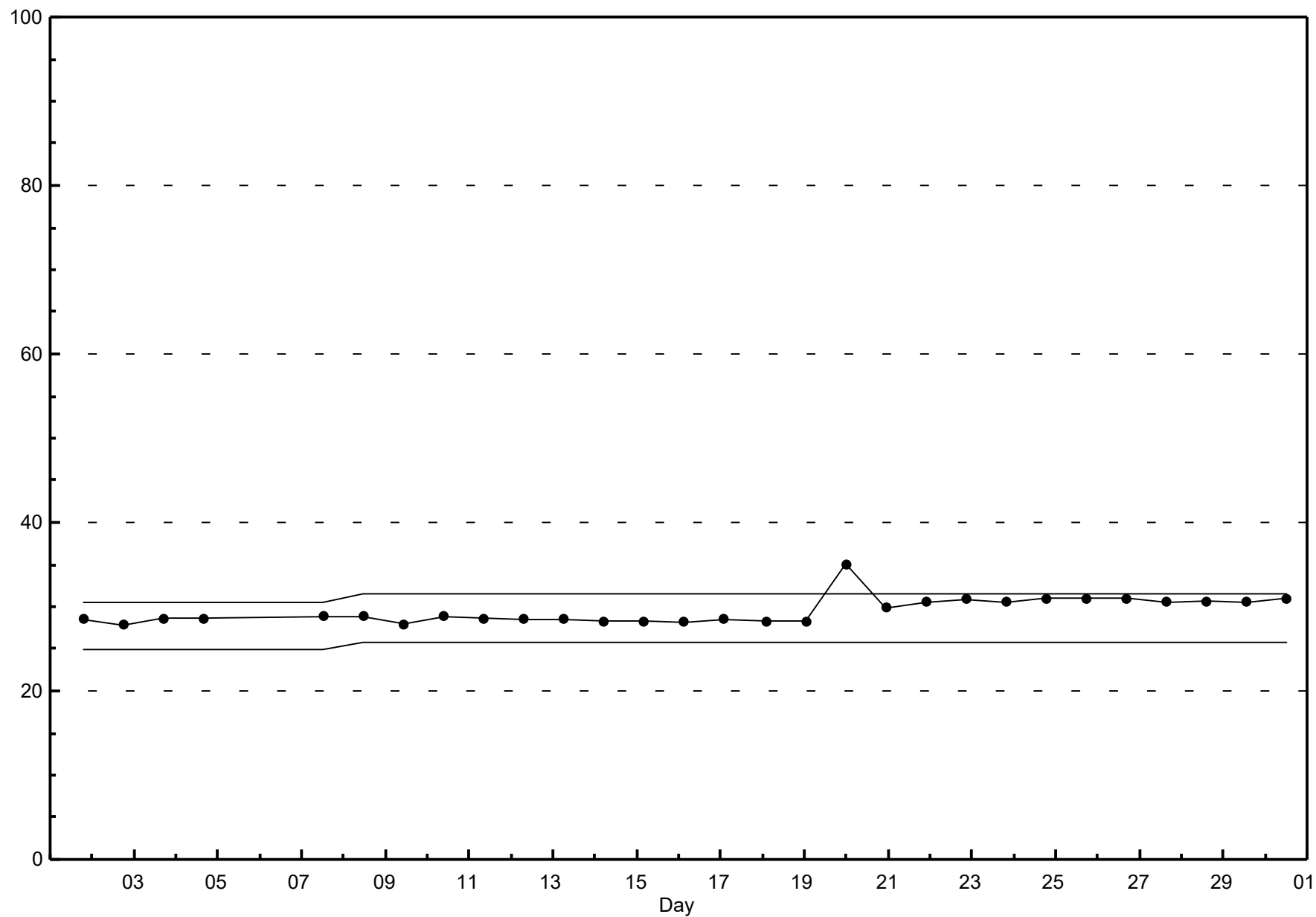
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - June 2018



Span Responses

Total Reduced Sulphur (TRS)
Henry Pirker - June 2018



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

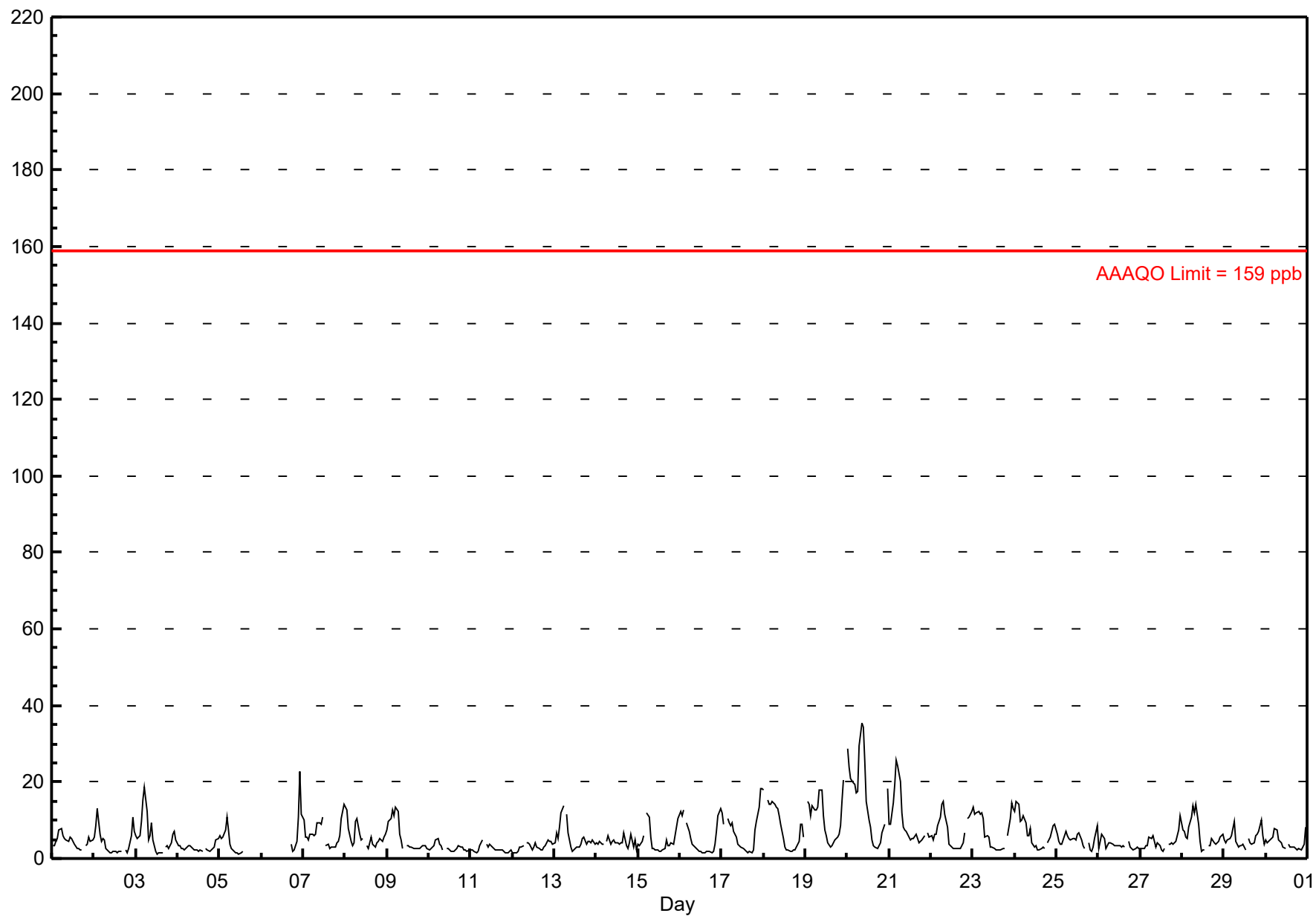
Henry Pirker - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 35.5 ppb on Jun 20 09:00 Maximum Daily Average: 15.7 ppb on Jun 20																				Hours in Service: 720 Hours of Data: 664 Hours of Missing Data: 56 Hours of Calibration: 36 Percent Operational Time: 97.2																													
Minimum Value: 1 ppb on Jun 3 13:00 Maximum Diurnal Average: 9.4 ppb at hour 6 Monthly Average: 5.82 ppb										Minimum Daily Average: 2.6 ppb on Jun 11 Minimum Diurnal Average: 3.0 ppb at hour 15 Percentiles: P ₁ = 1.4 P ₁₀ = 2.1 Q ₁ = 2.8 Median = 4.2 Q ₃ = 6.9 P ₉₀ = 12.1 P ₉₉ = 24.0																																							
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-Jun	3	4	5	5	8	8	6	5	5	5	6	5	5	4	3	2	2	2	A	3	4	6	4	5	4.5	7.9																							
2-Jun	5	9	13	6	4	5	5	3	2	2	2	2	2	2	2	2	2	A	2	2	2	6	11	7	4.2	13.2																							
3-Jun	6	5	6	10	15	19	12	5	6	9	5	2	1	1	1	2	A	3	3	3	4	7	7	5	6.0	18.8																							
4-Jun	3	3	3	3	2	3	3	3	3	2	2	2	2	2	2	A	3	2	2	2	3	3	5	5	2.8	5.2																							
5-Jun	6	5	6	7	11	8	4	3	2	2	1	1	1	2	D	D	D	D	D	D	D	D	D	D	--	10.7																							
6-Jun	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	C	4	2	2	4	11	23	11	--	22.7																							
7-Jun	10	6	5	5	6	6	6	7	9	9	9	11	A	3	4	3	3	3	3	4	4	6	10	14	6.4	14.3																							
8-Jun	13	13	8	5	4	4	10	10	6	5	5	A	3	3	4	6	4	3	4	4	5	5	5	6	5.9	13.4																							
9-Jun	7	10	11	13	11	13	12	6	5	3	A	3	3	3	3	3	2	3	3	2	3	3	3	3	5.6	13.4																							
10-Jun	2	2	3	3	5	5	4	3	2	A	3	3	2	2	2	2	3	3	3	3	2	2	2	2	2.8	5.0																							
11-Jun	2	2	2	2	2	4	4	5	A	4	3	4	3	3	2	2	2	2	2	2	2	2	2	2	2.6	4.8																							
12-Jun	1	1	1	2	3	3	4	A	4	4	4	2	3	4	3	3	2	2	3	3	5	5	5	4	3.1	5.0																							
13-Jun	4	7	5	8	12	14	A	11	7	3	2	2	3	3	3	4	5	5	4	5	5	4	5	4	5.4	13.8																							
14-Jun	4	4	4	4	4	A	5	6	4	4	5	4	4	4	4	4	7	3	3	4	6	3	5	2	4.2	6.6																							
15-Jun	4	3	4	6	A	12	11	6	3	3	2	2	2	2	2	3	5	3	3	4	4	6	8	10	4.7	11.9																							
16-Jun	12	11	13	A	9	7	5	4	3	3	2	2	2	2	2	2	2	2	2	2	4	7	11	13	5.2	13.1																							
17-Jun	12	9	A	10	9	9	9	7	6	4	3	3	3	2	2	2	2	2	2	8	10	13	18	18	7.1	18.4																							
18-Jun	18	A	15	14	14	15	14	14	13	11	9	5	3	2	2	2	2	2	2	3	5	9	9	6	8.2	18.0																							
19-Jun	A	15	14	11	14	13	13	13	18	18	11	8	6	4	3	3	4	5	6	6	9	15	21	A	10.4	20.6																							
20-Jun	29	24	21	20	19	17	18	29	36	34	25	15	10	8	5	3	3	3	3	4	7	9	A	18	15.7	35.5																							
21-Jun	9	9	15	19	26	24	20	12	8	8	7	6	5	5	5	6	5	4	5	5	6	A	7	5	9.6	25.7																							
22-Jun	6	5	6	6	9	11	14	15	12	8	4	3	3	3	3	3	3	3	4	7	A	11	11	12	7.0	14.7																							
23-Jun	13	12	12	12	12	12	11	6	6	5	3	3	3	2	2	2	2	3	2	A	6	11	14	13	7.3	14.4																							
24-Jun	12	15	14	10	10	11	9	6	6	8	4	3	3	2	2	3	3	3	A	4	6	7	8	9	6.9	15.0																							
25-Jun	6	4	4	4	5	7	6	5	5	5	5	5	6	7	5	3	3	A	4	2	2	3	5	8	4.8	8.4																							
26-Jun	3	4	6	5	3	3	4	4	4	3	3	3	3	3	3	3	A	4	3	2	2	3	3	3	3.4	6.4																							
27-Jun	2	2	3	3	3	6	5	6	5	3	4	4	2	2	2	A	4	4	4	4	4	6	8	11	4.2	11.1																							
28-Jun	7	7	6	5	8	11	14	12	14	9	4	2	2	2	3	A	3	3	5	4	4	4	6	6	6.3	14.2																							
29-Jun	5	4	5	5	6	8	10	4	3	3	3	4	2	A	5	4	4	4	6	6	7	10	6	4	5.1	9.9																							
30-Jun	5	4	5	5	6	8	7	5	4	4	3	2	A	4	3	3	3	3	2	2	2	3	4	8	4.2	8.2																							
																									7.6	7.1	7.7	7.5	8.6	9.4	8.7	7.7	7.1	6.4	5.0	3.9	3.3	3.1	3.0	3.0	3.1	3.2	3.2	3.7	4.5	6.3	8.0	7.7	Diurnal Average
																									28.6	23.8	21.0	19.8	25.7	24.3	20.0	29.3	35.5	34.3	25.4	15.1	10.0	8.3	5.3	6.3	6.6	5.4	5.9	7.6	9.7	14.8	22.7	18.4	Diurnal Maximum
C - Calibration D - DAS Failure A - Automated Daily Zero Span																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																																																	

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - June 2018



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

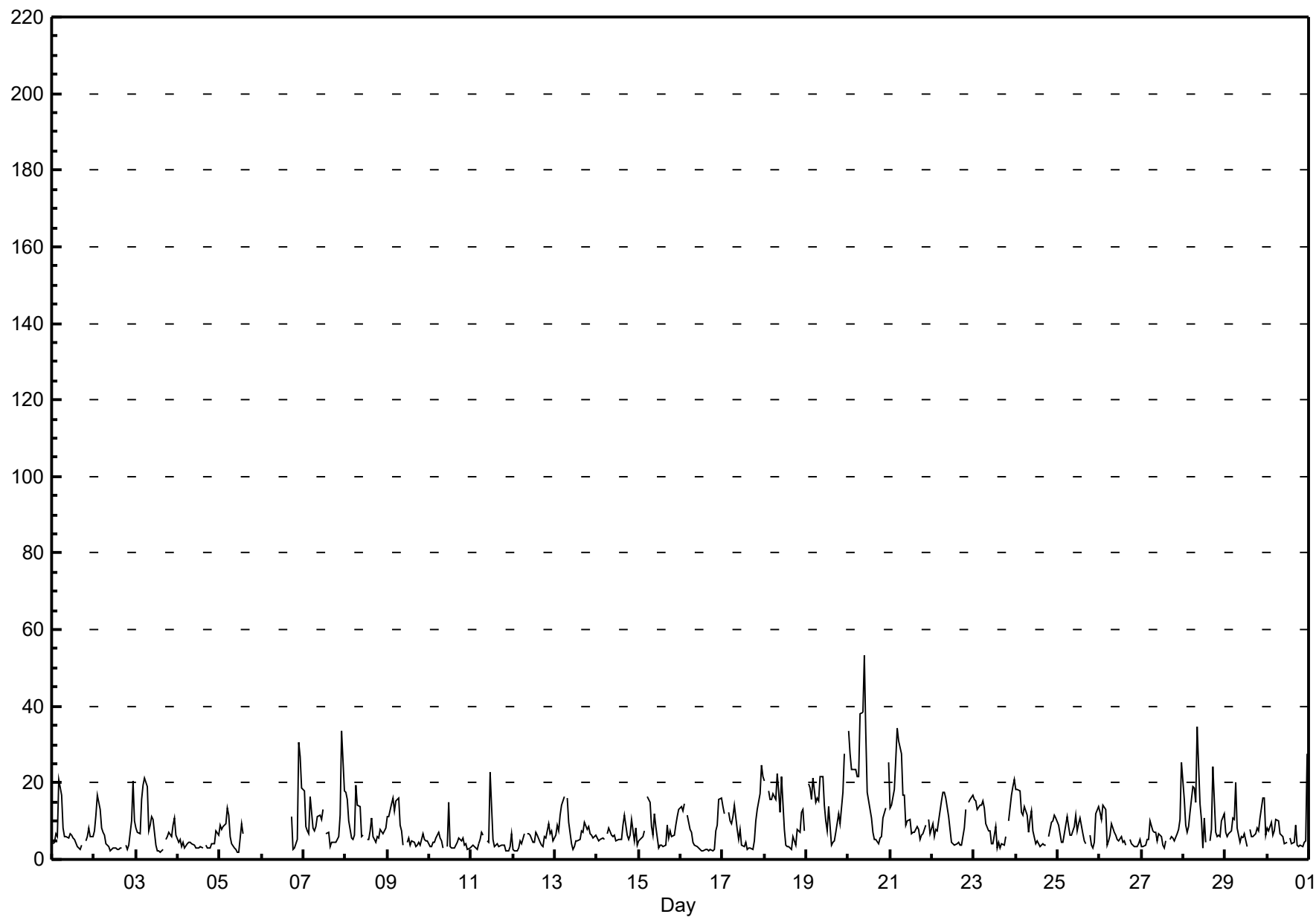
Henry Pirker - June 2018

Maximum Value: 53.2 ppb on Jun 20 10:00																				Maximum Daily Average: 20.0 ppb on Jun 20					Hours in Service: 720	
Minimum Value: 2 ppb on Jun 3 15:00																				Minimum Daily Average: 4.0 ppb on Jun 4					Hours of Data: 664	
Maximum Diurnal Average: 12.6 ppb at hour 6																				Minimum Diurnal Average: 4.6 ppb at hour 15					Hours of Missing Data: 56	
Monthly Average: 8.61 ppb																				Percentiles: P ₁ = 2.3 P ₁₀ = 3.2 Q ₁ = 4.4 Median = 6.6 Q ₃ = 10.9 P ₉₀ = 16.7 P ₉₉ = 33.3					Hours of Calibration: 36	
																									Percent Operational Time: 97.2	
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-Jun	4	5	7	6	21	17	8	6	6	6	7	6	5	5	3	3	3	4	A	5	6	8	6	6	6.6	21.0
2-Jun	7	11	17	13	8	7	6	4	3	2	3	3	3	3	3	3	3	A	4	3	4	10	20	10	6.5	20.5
3-Jun	8	7	7	16	19	21	19	7	9	11	10	4	2	2	2	3	A	5	6	7	6	9	11	6	8.6	21.2
4-Jun	4	5	3	4	3	4	5	5	4	4	3	3	3	3	3	A	4	3	3	4	4	4	7	6	4.0	7.3
5-Jun	9	8	8	9	13	11	6	4	3	3	2	2	9	7	D	D	D	D	D	D	D	D	D	D	--	13.3
6-Jun	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	C	11	3	3	5	31	27	19	--	30.6
7-Jun	18	9	8	7	16	8	8	9	11	11	10	13	A	7	7	3	4	5	5	5	6	12	34	18	10.1	33.7
8-Jun	18	16	10	6	5	6	20	14	14	6	6	A	5	5	7	11	6	4	6	6	8	7	7	8	8.7	19.5
9-Jun	11	11	15	16	13	15	16	9	7	4	A	4	6	4	5	4	3	4	5	4	7	5	5	5	7.7	16.0
10-Jun	3	3	4	4	5	7	6	5	3	A	3	15	3	3	3	4	5	5	5	6	4	4	3	3	4.6	15.0
11-Jun	3	4	3	3	4	5	7	6	A	5	4	23	5	3	4	4	3	4	4	4	2	2	3	7	4.9	22.7
12-Jun	3	2	2	3	5	4	7	A	7	7	6	4	5	7	6	5	4	3	6	6	9	7	7	5	5.2	9.5
13-Jun	6	9	7	12	14	16	A	16	10	4	3	3	5	5	5	8	7	10	8	9	7	6	6	6	7.9	16.4
14-Jun	6	5	5	5	5	A	7	8	6	6	6	5	5	5	5	9	12	6	5	6	10	5	8	4	6.3	11.5
15-Jun	5	5	6	8	A	16	15	9	6	12	9	3	4	4	4	4	9	6	8	6	6	9	11	13	7.6	16.3
16-Jun	14	13	14	A	11	8	7	5	4	3	3	3	2	2	3	3	2	3	2	3	7	9	16	16	6.6	16.1
17-Jun	14	12	A	12	10	9	11	14	8	5	8	4	3	5	3	3	3	3	5	10	13	17	25	22	9.5	24.8
18-Jun	20	A	18	16	15	17	16	22	18	12	22	8	4	3	3	3	6	5	4	8	7	12	13	8	11.3	22.3
19-Jun	A	20	19	16	21	15	16	15	22	22	14	10	7	14	4	4	5	7	12	9	14	17	28	A	14.1	27.6
20-Jun	34	28	23	24	23	21	22	38	38	53	33	17	13	11	7	5	5	4	6	6	11	13	A	25	20.0	53.2
21-Jun	14	14	18	26	34	31	28	17	17	9	10	10	7	7	7	9	8	5	6	7	9	A	11	7	13.5	34.3
22-Jun	9	6	8	7	10	15	18	17	16	11	8	5	4	4	4	5	4	4	8	13	A	15	16	17	9.7	17.5
23-Jun	16	15	13	14	14	15	13	9	8	8	4	4	9	3	5	3	4	4	6	A	10	17	19	21	10.2	20.9
24-Jun	18	18	18	12	11	14	11	7	10	13	8	4	5	4	3	4	4	4	A	6	10	10	12	11	9.5	18.4
25-Jun	9	7	4	5	7	11	9	7	6	8	12	7	9	11	7	5	4	A	7	4	3	4	12	14	7.4	13.7
26-Jun	12	10	14	13	4	5	6	9	7	6	5	5	6	4	5	4	A	5	4	4	3	3	4	5	6.3	14.1
27-Jun	4	3	4	5	5	10	8	7	7	5	7	6	4	3	5	A	5	6	6	5	7	8	10	25	6.7	25.4
28-Jun	16	9	7	8	12	19	18	15	35	14	11	3	11	4	A	5	8	24	7	6	6	6	10	12	11.6	34.8
29-Jun	7	6	7	7	11	11	20	8	4	6	6	7	3	A	8	6	6	7	8	8	11	16	16	6	8.5	20.1
30-Jun	8	8	10	6	8	10	10	7	6	6	4	4	A	6	4	4	9	4	3	4	3	4	5	28	7.0	27.6
10.7 9.6 10.0 10.1 11.8 12.6 12.2 10.7 10.6 9.4 8.1 6.6 5.5 5.2 4.6 4.7 5.2 5.7 5.5 5.8 7.1 9.7 12.5 11.8																								Diurnal Average		
33.5 27.6 23.4 26.1 34.3 30.8 27.7 38.1 38.4 53.2 33.2 22.7 13.1 13.9 7.7 11.0 11.5 24.2 11.9 13.2 13.6 30.6 33.7 27.6																								Diurnal Maximum		
C - Calibration D - DAS Failure A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

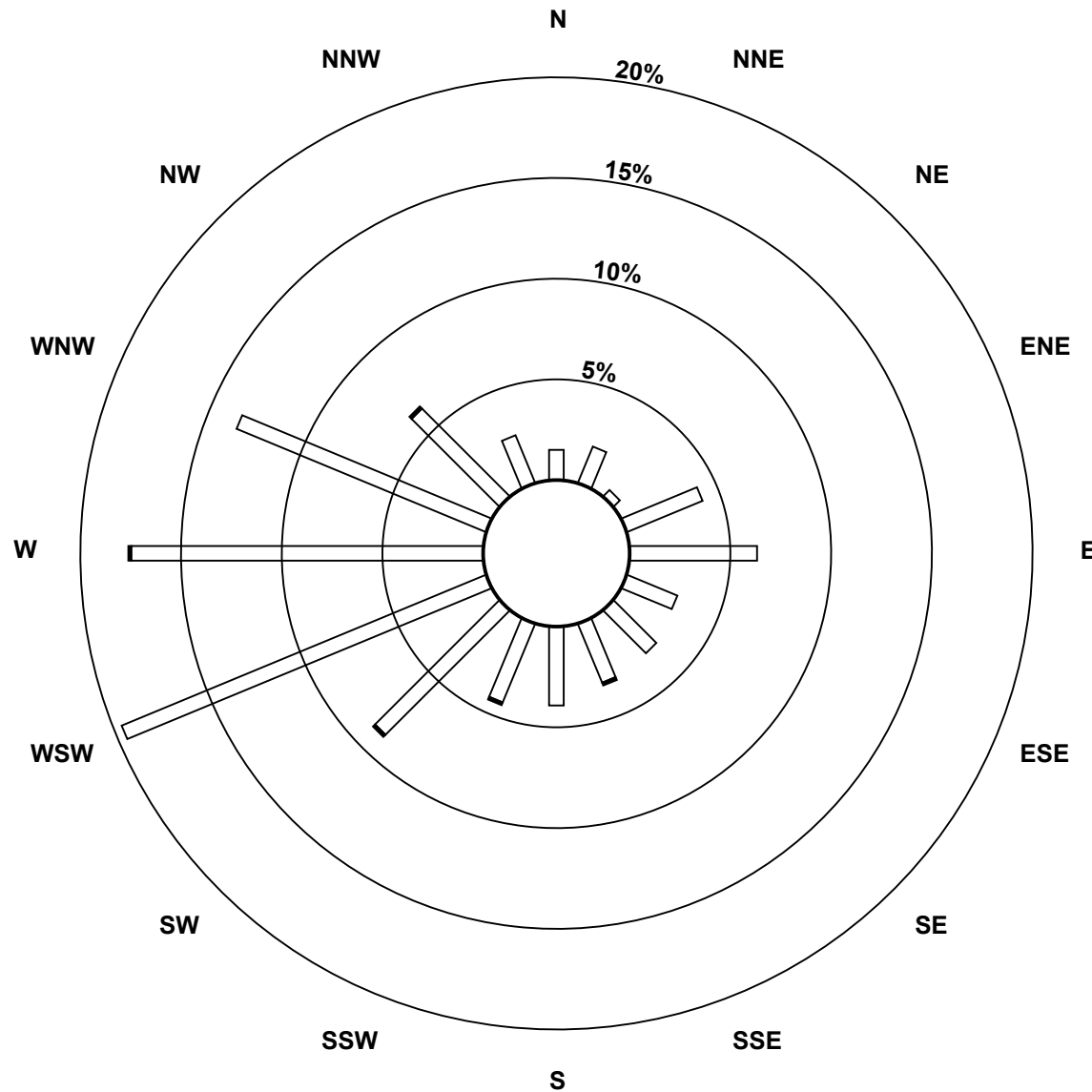
Henry Pirker - June 2018



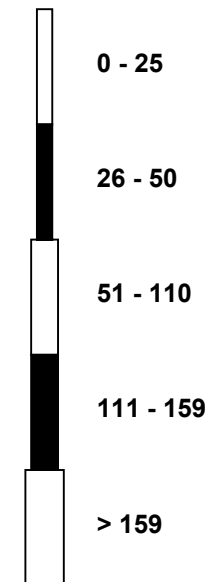
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - June 2018

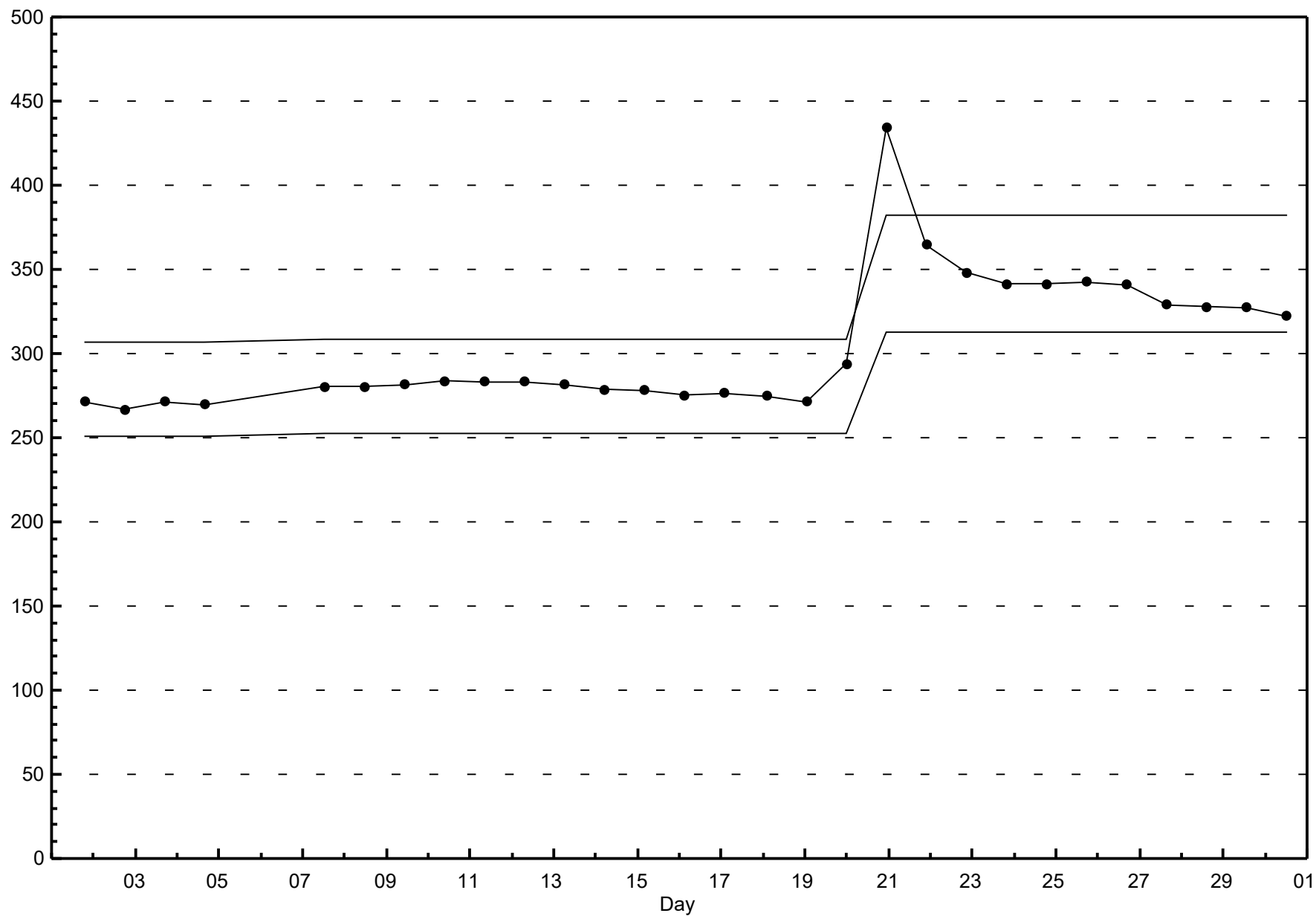


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - June 2018



Hourly Averages

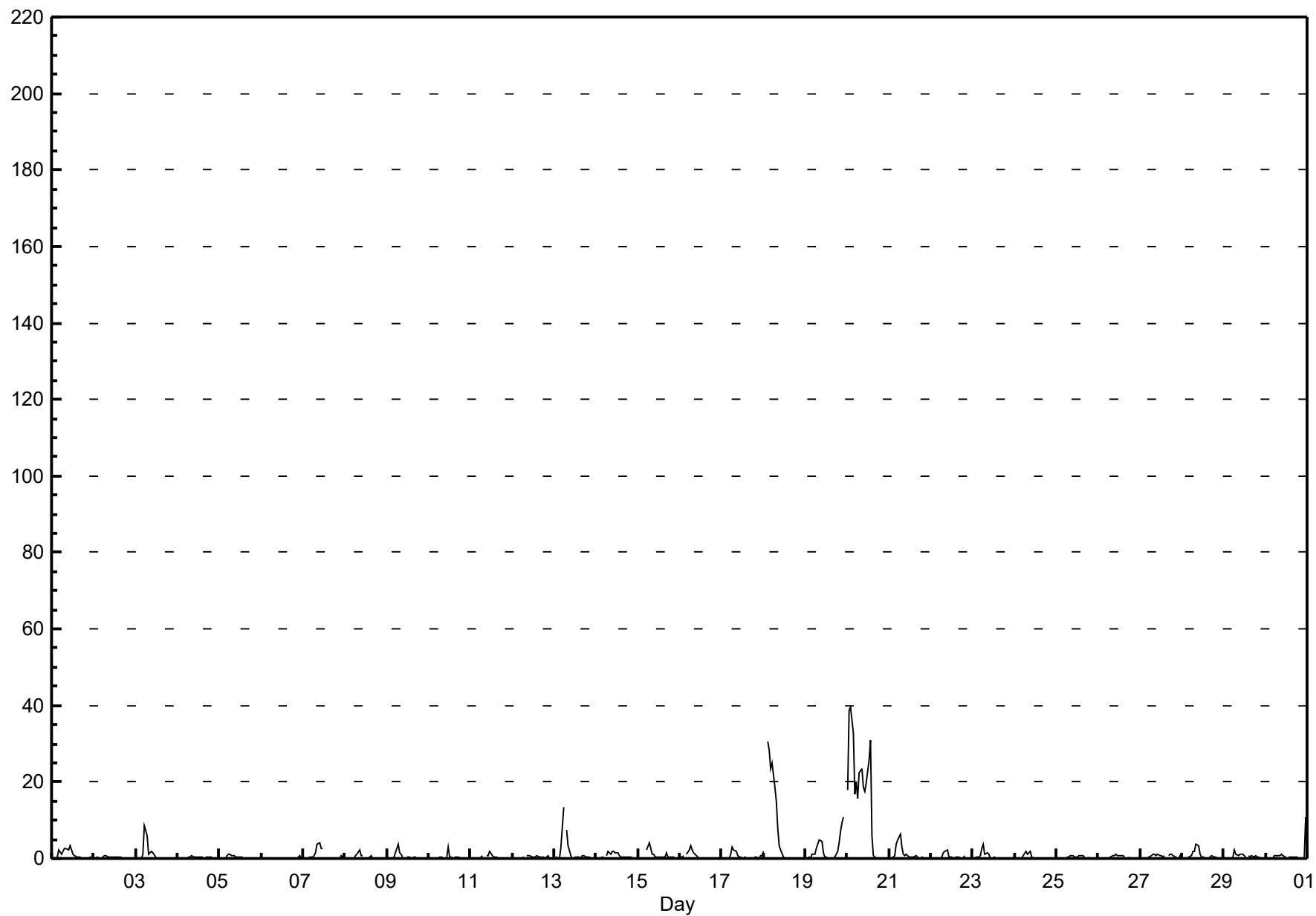
Nitrogen Oxide (NO) - ppb

Henry Pirker - June 2018

Maximum Value: 39.7 ppb on Jun 20 03:00																		Maximum Daily Average: 15.1 ppb on Jun 20						Hours in Service: 720		
Minimum Value: 0 ppb on Jun 6 21:00																		Minimum Daily Average: 0.3 ppb on Jun 2						Hours of Data: 664		
Maximum Diurnal Average: 3.2 ppb at hour 6																		Minimum Diurnal Average: 0.3 ppb at hour 18						Hours of Missing Data: 56		
Monthly Average: 1.36 ppb																		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.7 P ₉₀ = 2.1 P ₉₉ = 25.3						Hours of Calibration: 36		
																								Percent Operational Time: 97.2		
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-Jun	0	0	0	0	2	1	2	3	3	2	3	2	1	1	0	0	0	0	A	0	0	0	0	0	1.0	3.4
2-Jun	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.8
3-Jun	0	0	0	0	1	9	6	1	2	2	2	0	0	0	0	0	A	0	0	0	0	0	0	0	1.0	8.6
4-Jun	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0.3	0.6
5-Jun	0	0	0	0	1	1	1	1	1	0	0	0	0	1	D	D	D	D	D	D	D	D	D	D	--	1.1
6-Jun	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	C	0	0	0	0	0	1	0	--	0.9
7-Jun	0	0	0	0	0	0	1	2	4	4	3	3	A	0	0	0	0	0	0	0	0	0	1	0	0.8	4.0
8-Jun	0	0	0	0	0	0	1	1	2	1	1	A	0	0	0	1	0	0	0	0	0	0	0	0	0.3	2.1
9-Jun	0	0	0	0	0	1	4	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.7
10-Jun	0	0	0	0	0	0	0	0	0	A	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.9
11-Jun	0	0	0	0	0	0	1	1	A	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
12-Jun	0	0	0	0	0	0	0	A	1	1	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0.3	0.9
13-Jun	0	0	0	0	3	13	A	8	3	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1.4	13.4
14-Jun	0	0	0	0	0	A	1	2	1	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	2.0
15-Jun	0	0	0	0	A	2	4	3	1	1	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0.7	4.1
16-Jun	1	0	1	A	1	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.5
17-Jun	0	0	A	0	0	1	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.6	3.0
18-Jun	2	A	31	28	23	25	19	15	8	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	6.8	30.7
19-Jun	A	0	0	0	1	1	3	4	5	5	1	0	0	0	0	0	0	0	2	4	7	9	11	A	2.5	11.0
20-Jun	18	39	40	33	17	20	16	23	23	19	18	20	26	31	6	1	0	0	0	0	0	0	A	0	15.1	39.7
21-Jun	0	0	0	1	4	5	6	3	1	1	1	1	0	0	1	1	0	0	0	0	0	A	0	0	1.1	6.2
22-Jun	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	1	A	0	0	0	0.4	2.1
23-Jun	0	0	0	0	1	3	4	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.6	3.7
24-Jun	0	0	0	0	0	1	2	1	1	2	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	1.9
25-Jun	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0.3	0.9
26-Jun	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0.3	1.0
27-Jun	0	0	0	0	0	0	1	1	1	1	1	1	0	1	A	0	1	1	1	1	0	0	0	1	0.6	1.3
28-Jun	0	0	0	0	0	1	2	2	4	3	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0.7	3.6
29-Jun	0	0	0	0	0	1	2	1	1	1	1	1	0	A	1	1	1	0	1	0	0	0	0	0	0.5	2.4
30-Jun	0	0	0	0	0	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	11	0	0.8	10.9
0.8 1.5 2.6 2.3 2.0 3.2 3.0 2.9 2.6 2.0 1.6 1.4 1.3 1.4 0.5 0.3 0.3 0.3 0.3 0.3 0.4 0.4 0.5 0.5																								Diurnal Average		
17.9 38.9 39.7 32.8 23.4 25.0 18.8 22.6 23.5 18.5 17.7 19.8 25.6 31.0 6.0 0.9 1.6 0.9 1.7 4.0 7.0 9.2 11.0 10.9																								Diurnal Maximum		
C - Calibration D - DAS Failure A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - June 2018



Hourly Maximums

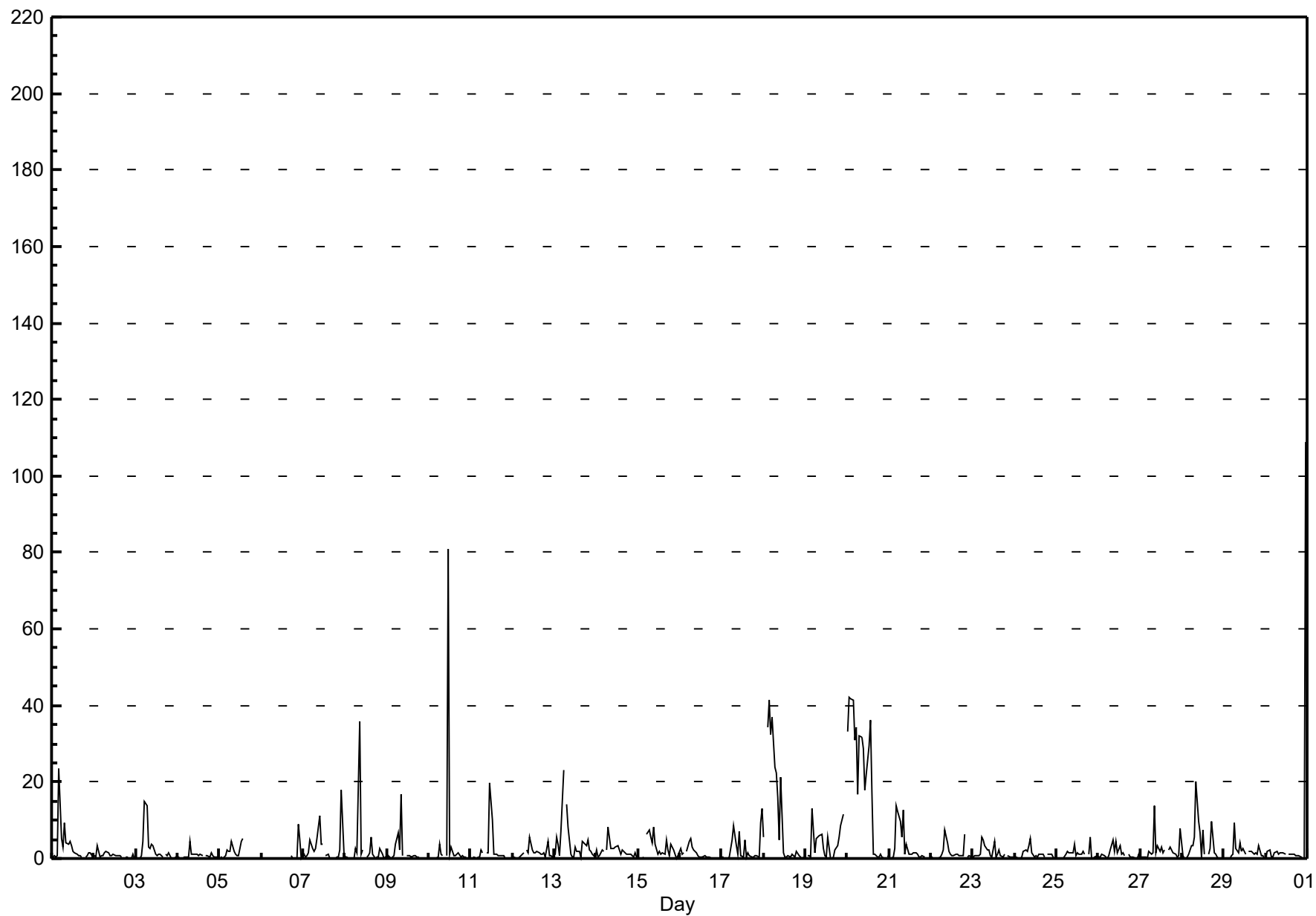
Nitrogen Oxide (NO) - ppb

Henry Pirker - June 2018

Maximum Value: 109.0 ppb on Jul 1 00:00																			Maximum Daily Average: 20.1 ppb on Jun 20							Hours in Service: 720	
Minimum Value: 0 ppb on Jun 29 02:00																			Minimum Daily Average: 0.8 ppb on Jun 2							Hours of Data: 664	
Maximum Diurnal Average: 7.7 ppb at hour 9																			Minimum Diurnal Average: 0.9 ppb at hour 19							Hours of Missing Data: 56	
Monthly Average: 3.23 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.4 Median = 1.0 Q ₃ = 2.3 P ₉₀ = 6.4 P ₉₉ = 36.5							Hours of Calibration: 36	
																										Percent Operational Time: 97.2	
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-Jun	0	1	0	1	24	5	3	9	4	4	5	3	2	1	1	1	1	0	A	0	1	1	2	0	3.0	23.5	
2-Jun	1	0	3	0	1	1	2	2	1	1	1	1	1	1	1	1	1	A	0	0	0	1	0	0	0.8	3.2	
3-Jun	0	0	0	1	4	15	14	3	3	4	3	1	1	1	1	0	A	1	1	2	0	0	0	0	2.4	15.1	
4-Jun	0	0	0	0	0	0	1	5	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	0	0.8	4.6	
5-Jun	0	0	0	1	2	2	2	4	2	1	1	1	4	5	D	D	D	D	D	D	D	D	D	D	--	5.0	
6-Jun	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	C	1	0	0	0	9	5	0	--	9.0	
7-Jun	1	1	1	2	5	3	2	3	5	11	4	4	A	1	1	0	0	0	0	0	0	2	18	1	2.8	17.9	
8-Jun	1	0	0	0	0	0	3	2	36	1	2	A	1	1	1	5	1	0	0	0	3	1	0	0	2.6	35.8	
9-Jun	0	1	0	0	1	4	7	2	17	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	1.6	16.8	
10-Jun	0	0	0	0	0	1	4	1	1	A	1	81	1	3	1	1	1	1	0	1	0	0	0	0	4.2	81.0	
11-Jun	0	0	0	0	0	0	2	2	A	1	1	20	10	1	1	1	1	1	1	1	0	0	0	0	1.9	19.9	
12-Jun	0	0	0	0	0	1	2	A	2	2	6	2	2	2	2	2	1	1	1	0	5	1	1	0	1.4	5.5	
13-Jun	1	6	4	1	7	23	A	14	8	1	0	1	3	2	2	0	4	4	3	5	2	2	1	0	4.2	23.2	
14-Jun	2	0	1	2	2	A	2	8	3	3	3	3	3	2	1	2	2	1	1	1	1	0	1	0	2.0	8.3	
15-Jun	0	0	0	1	A	6	8	5	4	8	4	1	2	1	1	1	5	2	1	4	2	1	0	1	2.5	8.2	
16-Jun	3	1	2	A	2	4	5	3	2	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1.2	5.1	
17-Jun	0	0	A	0	1	3	5	9	3	1	7	1	0	5	0	2	1	0	0	1	1	0	9	13	2.7	13.1	
18-Jun	5	A	34	41	32	37	24	22	16	5	21	2	0	0	1	0	1	1	0	2	1	0	0	0	10.7	41.3	
19-Jun	A	1	1	0	13	2	5	5	6	6	3	1	0	6	0	0	0	2	3	6	9	10	12	A	4.2	13.0	
20-Jun	33	42	42	41	31	34	17	32	32	29	18	22	30	36	17	1	1	0	1	1	0	0	A	1	20.1	42.3	
21-Jun	0	0	0	3	14	12	10	6	13	1	4	1	1	1	1	2	1	0	1	1	0	A	0	0	3.1	13.8	
22-Jun	0	0	0	0	0	0	1	2	8	4	2	1	1	1	1	1	1	1	1	6	A	0	1	0	1.4	7.6	
23-Jun	0	1	1	1	1	5	5	3	2	2	1	0	4	0	1	2	1	1	1	A	1	0	0	0	1.5	5.5	
24-Jun	0	0	0	0	0	2	2	2	3	5	2	0	1	1	1	1	1	0	A	1	1	1	0	0	1.1	5.1	
25-Jun	0	0	0	0	0	1	2	1	2	1	4	1	1	1	1	2	1	A	1	5	0	0	0	1	1.2	5.4	
26-Jun	0	0	1	1	0	0	1	2	5	2	5	2	3	1	1	1	A	1	0	0	1	0	0	1	1.3	4.9	
27-Jun	0	0	0	0	0	2	1	2	14	2	3	2	3	1	2	A	2	3	2	1	1	0	1	8	2.2	13.9	
28-Jun	1	0	0	0	1	3	3	5	20	10	7	1	7	1	A	1	3	10	1	1	0	0	0	0	3.3	20.0	
29-Jun	0	0	0	0	1	1	9	3	2	4	2	3	1	A	2	2	2	1	1	1	3	1	1	0	1.7	9.5	
30-Jun	0	2	2	0	0	2	2	1	1	2	2	1	A	1	1	1	1	1	1	1	0	0	0	109	5.7	109.0	
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration				D - DAS Failure				A - Automated Daily Zero Span																			

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Henry Pirker - June 2018



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

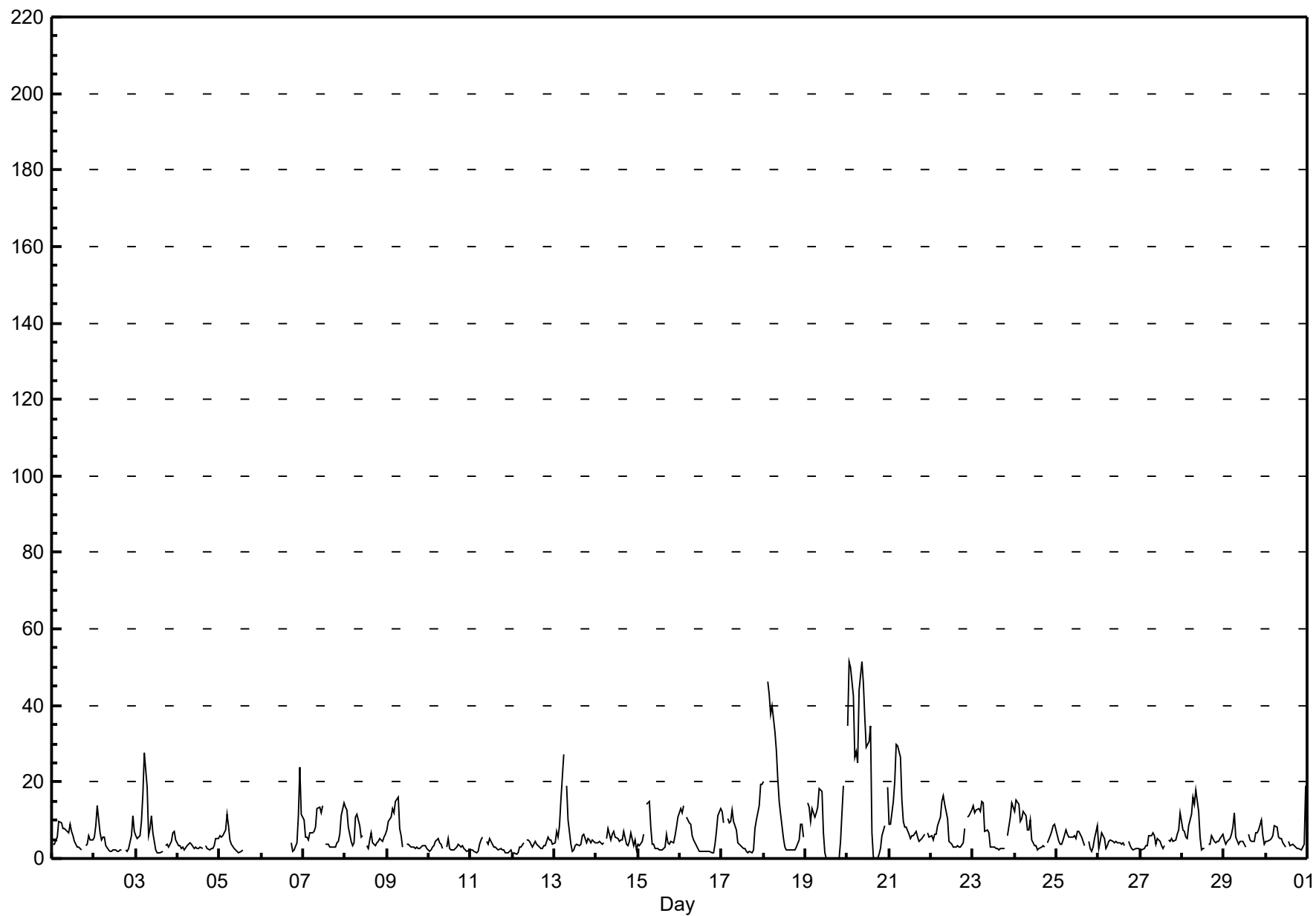
Henry Pirker - June 2018

Maximum Value: 51.6 ppb on Jun 20 09:00																				Maximum Daily Average: 25.0 ppb on Jun 20					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 19 13:00																				Minimum Daily Average: 2.8 ppb on Jun 11					Hours of Data: 664	
Maximum Diurnal Average: 12.4 ppb at hour 6																				Minimum Diurnal Average: 3.1 ppb at hour 16					Hours of Missing Data: 56	
Monthly Average: 6.86 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 2.2 Q ₁ = 3.0 Median = 4.6 Q ₃ = 7.6 P ₉₀ = 13.4 P ₉₉ = 42.5					Hours of Calibration: 36	
																									Percent Operational Time: 97.2	
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-Jun	4	4	5	5	10	9	8	8	7	7	9	7	6	5	3	3	2	2	A	3	4	6	5	5	5.5	9.9
2-Jun	5	9	14	7	5	6	6	3	2	2	2	2	2	2	2	2	2	A	2	2	3	6	11	7	4.5	13.8
3-Jun	6	5	6	10	17	28	19	6	8	11	7	2	1	2	2	2	A	3	4	3	4	7	7	5	7.1	27.6
4-Jun	3	3	3	3	2	3	4	4	4	3	3	3	3	3	3	A	3	3	2	3	3	3	5	5	3.2	5.3
5-Jun	6	5	6	8	12	9	5	4	3	2	2	2	2	2	D	D	D	D	D	D	D	D	D	D	--	11.5
6-Jun	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	C	4	2	2	4	11	24	12	--	23.9
7-Jun	10	6	5	5	7	7	7	8	13	13	12	14	A	4	4	3	3	3	3	4	4	6	11	14	7.3	14.5
8-Jun	14	13	8	5	4	4	11	12	9	6	6	A	4	3	5	7	4	3	4	5	5	5	5	6	6.3	13.6
9-Jun	7	10	11	13	12	15	16	8	6	3	A	4	4	3	3	3	3	3	3	2	3	3	3	3	6.1	16.1
10-Jun	2	2	3	3	5	5	4	4	2	A	3	5	3	2	2	2	3	4	3	3	2	2	2	2	3.1	5.2
11-Jun	2	2	2	2	2	4	5	6	A	4	4	5	4	3	3	3	2	3	2	2	2	2	2	2	2.8	5.7
12-Jun	1	1	1	2	3	3	4	A	5	5	5	3	4	5	4	3	3	3	3	3	6	5	5	4	3.4	5.7
13-Jun	4	7	5	8	15	27	A	19	10	4	2	2	3	4	3	4	6	6	4	5	5	4	5	4	6.9	27.3
14-Jun	4	4	4	4	4	A	5	8	5	6	7	6	5	5	5	5	7	4	3	5	7	3	5	2	4.9	7.9
15-Jun	4	3	4	6	A	14	15	8	4	4	3	2	2	2	2	3	6	4	4	5	4	6	8	11	5.4	14.9
16-Jun	13	12	14	A	11	9	9	6	5	3	3	2	2	2	2	2	2	2	1	2	4	7	11	13	5.9	13.7
17-Jun	12	9	A	10	9	10	13	10	8	4	4	3	3	3	2	2	2	2	2	8	10	14	19	19	7.7	19.5
18-Jun	20	A	46	43	38	40	33	28	21	15	11	5	3	2	2	2	2	2	2	3	5	9	9	6	15.1	46.3
19-Jun	A	14	13	10	13	11	12	13	18	17	7	2	0	0	0	0	0	0	0	0	4	12	19	A	7.6	19.2
20-Jun	35	51	50	42	26	28	25	44	52	46	37	29	30	35	7	0	0	0	1	3	6	9	A	19	25.0	51.6
21-Jun	9	9	15	20	30	30	26	15	10	8	8	6	5	6	6	7	6	4	5	5	6	A	7	5	10.8	29.9
22-Jun	6	5	6	6	9	11	15	16	14	10	5	4	4	3	3	3	3	3	4	8	A	11	11	13	7.5	16.3
23-Jun	14	12	13	13	12	15	14	7	8	7	3	3	3	2	3	2	2	3	3	A	6	11	15	13	8.0	14.8
24-Jun	12	15	14	10	10	12	11	7	7	10	5	3	3	2	3	3	3	3	A	4	6	7	8	9	7.4	15.2
25-Jun	6	4	4	4	5	7	6	6	5	6	6	5	7	7	6	4	3	A	4	3	2	3	5	9	5.1	8.6
26-Jun	3	4	7	5	3	3	4	5	4	4	4	4	4	4	4	3	A	5	3	3	2	3	3	3	3.8	6.6
27-Jun	2	2	3	3	4	6	6	7	6	4	5	4	3	3	4	A	5	5	5	5	5	6	8	12	4.8	12.0
28-Jun	7	7	5	5	8	12	16	14	18	12	6	2	3	3	A	4	4	6	5	4	4	4	5	6	7.0	18.0
29-Jun	5	4	5	5	6	8	12	6	4	4	4	5	3	A	6	5	5	4	7	7	7	10	6	4	5.7	12.1
30-Jun	5	4	5	5	6	9	8	6	5	5	4	3	A	4	3	4	3	3	3	3	2	3	4	19	5.0	19.2
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration																										
D - DAS Failure																										
A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - June 2018



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

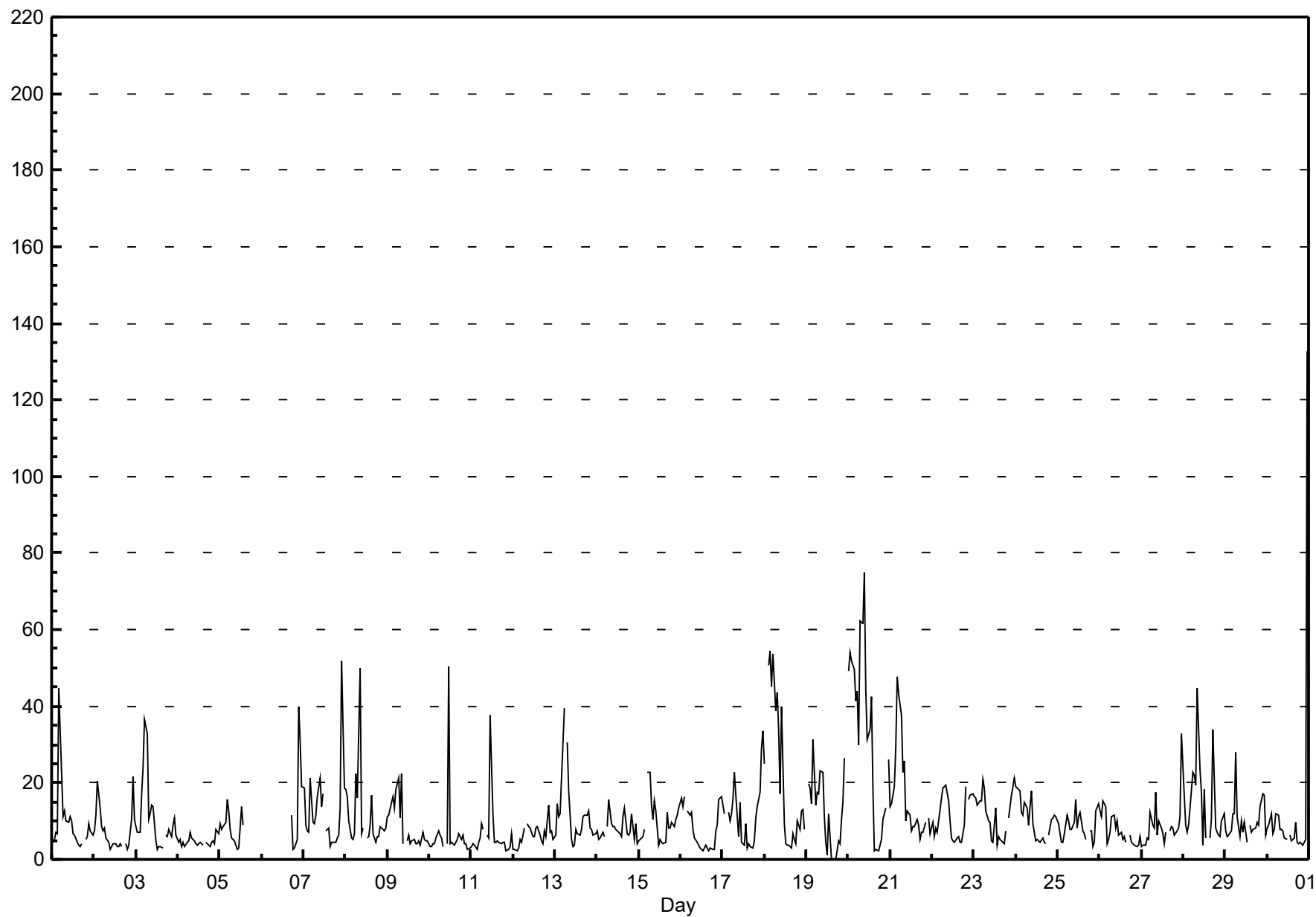
Henry Pirker - June 2018

Maximum Value: 132.8 ppb on Jul 1 00:00																				Maximum Daily Average: 32.9 ppb on Jun 20					Hours in Service: 720		
Minimum Value: 0 ppb on Jun 19 15:00																				Minimum Daily Average: 4.7 ppb on Jun 4					Hours of Data: 664		
Maximum Diurnal Average: 18.0 ppb at hour 6																				Minimum Diurnal Average: 5.5 ppb at hour 16					Hours of Missing Data: 56		
Monthly Average: 11.13 ppb																				Percentiles: P ₁ = 2.3 P ₁₀ = 3.7 Q ₁ = 4.8 Median = 7.7 Q ₃ = 12.7 P ₉₀ = 21.2 P ₉₉ = 52.6					Hours of Calibration: 36		
																				Percent Operational Time: 97.2							
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-Jun	4	5	7	7	45	22	11	13	10	10	11	10	7	6	5	4	3	4	A	5	6	9	7	6	9.5	44.9	
2-Jun	7	12	20	13	9	7	8	6	5	3	3	4	4	3	3	4	3	A	4	3	4	10	22	10	7.3	21.7	
3-Jun	8	7	7	17	24	36	33	11	12	14	14	5	3	4	3	3	A	6	6	8	6	9	11	6	11.0	36.5	
4-Jun	5	5	3	4	3	4	5	7	5	5	4	4	4	5	4	A	4	4	3	5	5	4	8	7	4.7	7.8	
5-Jun	9	8	9	10	16	13	8	6	5	4	3	3	14	9	D	D	D	D	D	D	D	D	D	D	--	15.5	
6-Jun	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	C	C		12	3	3	5	40	31	19	--	39.8
7-Jun	19	9	8	7	21	10	9	12	16	21	14	17	A	8	8	3	4	4	5	5	6	13	52	19	12.7	52.0	
8-Jun	18	16	10	6	5	7	22	16	50	7	8	A	6	6	9	17	7	5	6	6	9	8	7	8	11.2	49.9	
9-Jun	11	12	15	16	14	18	21	11	22	4	A	5	6	4	5	5	4	4	5	4	7	5	5	5	9.1	22.4	
10-Jun	3	3	4	4	5	7	6	5	3	A	4	50	4	5	4	4	5	7	5	6	4	4	3	3	6.6	50.2	
11-Jun	3	4	4	3	5	5	9	8	A	6	6	38	11	4	5	5	4	4	4	5	2	2	3	7	6.4	37.5	
12-Jun	3	3	2	3	5	4	8	A	9	9	8	6	6	8	8	6	5	4	7	6	14	7	7	5	6.4	14.2	
13-Jun	6	15	11	12	21	40	A	30	18	5	3	4	8	7	6	8	11	12	11	13	8	8	6	7	11.8	39.5	
14-Jun	7	5	6	7	6	A	8	16	9	8	8	8	7	7	6	11	14	7	6	7	12	5	9	4	8.0	15.7	
15-Jun	5	5	6	8	A	23	23	14	11	15	13	4	5	5	4	4	12	8	8	10	8	10	11	13	9.8	22.9	
16-Jun	16	14	16	A	13	11	12	8	6	5	4	3	3	2	4	3	2	3	3	3	7	9	16	16	7.7	16.5	
17-Jun	14	12	A	12	10	12	16	23	11	6	15	4	4	9	3	4	3	3	5	11	14	18	29	33	11.8	33.5	
18-Jun	25	A	51	54	45	54	39	44	34	17	40	9	4	4	4	3	7	5	4	10	8	12	13	8	21.5	54.4	
19-Jun	A	20	19	15	31	14	18	17	23	23	11	5	1	12	0	0	0	0	5	4	10	15	27	A	12.2	31.3	
20-Jun	49	54	52	49	41	44	30	62	62	75	44	31	34	43	19	2	3	2	4	5	11	13	A	26	32.9	75.1	
21-Jun	14	14	19	29	48	43	38	23	26	10	13	11	8	9	9	10	9	5	7	7	10	A	11	7	16.5	47.6	
22-Jun	10	6	8	7	10	16	19	19	19	15	10	6	5	5	5	6	5	5	9	19	A	15	17	17	11.0	19.3	
23-Jun	17	16	14	15	15	21	19	13	10	10	5	4	13	4	6	5	5	4	7	A	11	17	19	21	11.8	21.3	
24-Jun	19	19	18	12	12	15	14	9	14	18	9	5	5	5	5	5	4	4	A	6	10	11	12	11	10.5	19.0	
25-Jun	9	7	4	5	7	12	10	8	8	10	16	8	11	12	8	7	5	A	8	7	3	5	13	14	8.5	15.7	
26-Jun	13	11	15	14	4	5	7	11	11	8	10	6	7	5	6	5	A	6	4	4	4	3	4	6	7.5	15.4	
27-Jun	3	4	4	5	5	12	9	8	18	7	10	8	7	4	7	A	8	9	8	6	7	8	11	33	8.7	32.7	
28-Jun	16	9	7	9	14	23	22	19	45	23	17	4	18	6	A	6	11	34	8	7	6	6	10	12	14.5	44.7	
29-Jun	7	6	6	8	12	12	28	11	6	10	7	10	4	A	9	7	8	8	10	9	14	17	17	6	10.1	27.9	
30-Jun	8	9	12	7	8	12	12	8	8	8	6	5	A	6	5	5	10	4	4	4	4	5	5	133	12.5	132.8	
11.8 11.0 12.8 12.8 16.2 18.0 16.6 15.6 17.0 12.7 11.3 9.9 7.7 7.3 5.8 5.5 6.1 6.4 5.9 6.7 7.7 10.4 13.8 16.6																								Diurnal Average			
49.1 54.1 51.7 54.4 47.6 53.8 38.7 62.2 61.6 75.1 44.4 50.2 33.9 42.7 18.7 16.6 13.6 34.0 11.5 19.0 14.2 39.8 52.0 132.8																								Diurnal Maximum			
C - Calibration D - DAS Failure A - Automated Daily Zero Span																											

Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

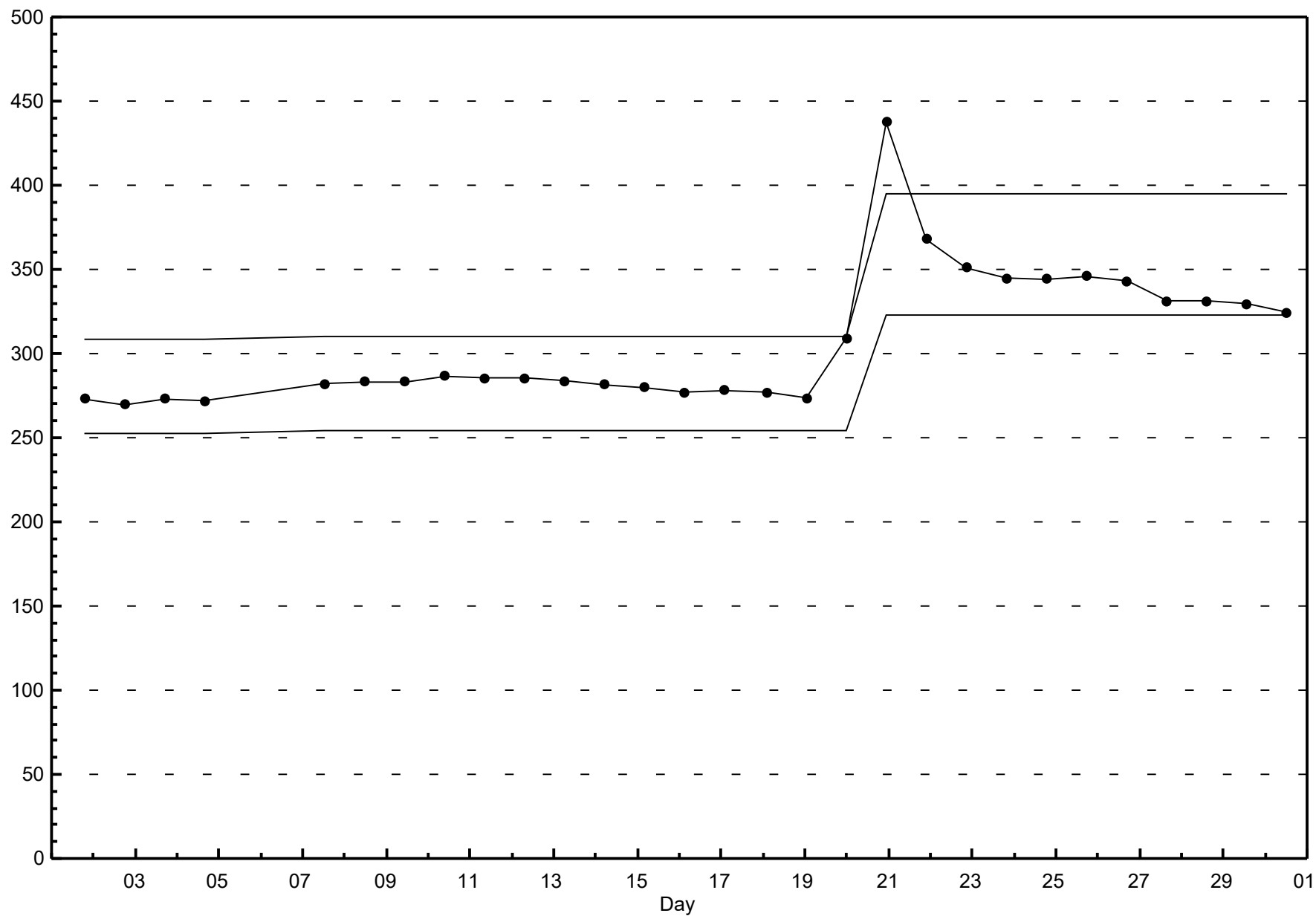
Henry Pirker - June 2018



Span Responses

Oxides of Nitrogen (NO_x)

Henry Pirker - June 2018



Hourly Averages

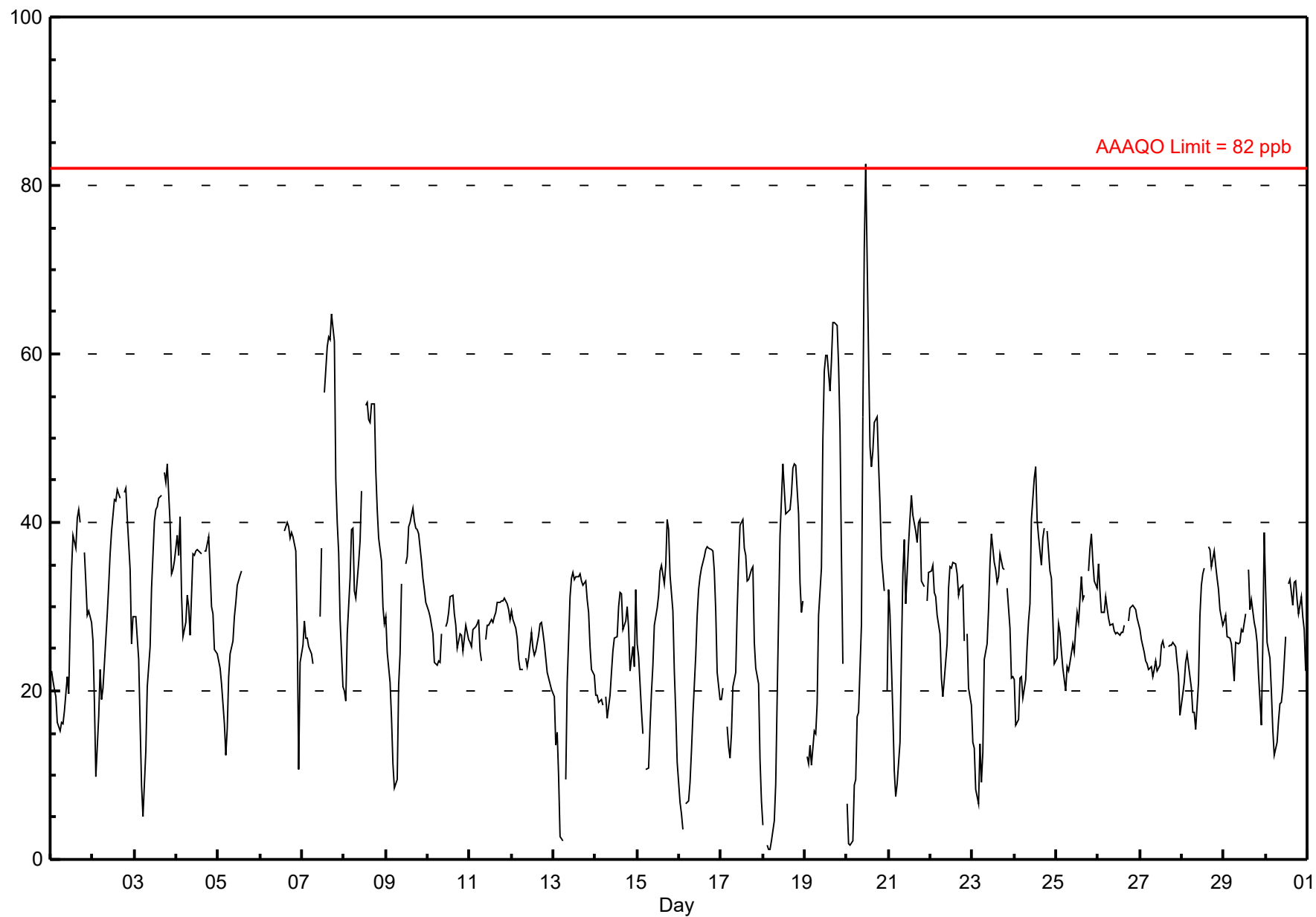
Ozone (O₃) - ppb

Henry Pirker - June 2018

Number of Exceedences (AAAQO): 1-hr: 1 24-hr: 0 Maximum Value: 82.6 ppb on Jun 20 12:00 Maximum Daily Average: 39.2 ppb on Jun 19																				Hours in Service: 720 Hours of Data: 664 Hours of Missing Data: 56 Hours of Calibration: 32 Percent Operational Time: 96.7						
Minimum Value: 1 ppb on Jun 18 05:00 Maximum Diurnal Average: 38.3 ppb at hour 18 Monthly Average: 28.85 ppb										Minimum Daily Average: 23.8 ppb on Jun 16 Minimum Diurnal Average: 17.2 ppb at hour 6 Percentiles: P ₁ = 2.2 P ₁₀ = 15.6 Q ₁ = 22.5 Median = 28.4 Q ₃ = 34.7 P ₉₀ = 40.9 P ₉₉ = 61.8																
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-Jun	22	21	20	19	16	15	16	16	18	22	20	28	34	38	37	41	42	40	A	37	33	29	30	28	27.0	41.6
2-Jun	26	19	10	17	22	19	20	23	29	33	36	39	43	43	44	43	43	A	44	44	41	34	26	29	31.5	44.0
3-Jun	29	29	24	16	9	5	13	21	23	25	32	40	41	42	43	43	A	46	45	47	40	34	34	35	31.1	46.9
4-Jun	38	36	41	31	26	28	31	30	27	36	36	37	37	37	36	A	37	37	38	34	30	29	25	24	33.1	40.6
5-Jun	24	23	21	16	12	16	22	24	26	29	31	32	34	34	D	D	D	D	D	D	D	D	D	D	--	34.2
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	39	40	39	38	39	38	37	27	11	23	--	40.0
7-Jun	25	28	26	26	25	24	23	C	C	C	29	37	A	55	61	62	62	65	62	45	40	37	29	20	39.1	64.8
8-Jun	20	19	27	33	39	39	32	31	35	38	44	A	54	54	52	52	54	54	46	42	38	35	30	28	39.0	54.3
9-Jun	29	25	21	17	11	9	10	21	24	33	A	35	36	39	40	42	40	39	39	39	35	33	32	31	29.5	41.8
10-Jun	29	29	28	27	23	23	24	23	27	A	28	28	29	31	31	29	28	25	27	27	25	26	28	26	27.0	31.4
11-Jun	26	25	27	28	28	29	25	24	A	26	28	28	28	28	29	29	30	31	31	31	31	30	30	28	28.2	31.0
12-Jun	30	29	28	26	24	23	22	A	24	23	24	27	25	24	25	27	28	28	27	26	22	22	21	20	24.9	29.6
13-Jun	19	14	15	10	3	2	A	9	21	31	33	34	33	33	34	34	33	32	33	31	29	25	23	22	24.1	34.0
14-Jun	20	19	19	19	18	A	19	17	20	22	25	26	26	30	32	32	27	28	30	27	22	25	23	32	24.3	32.0
15-Jun	26	24	18	15	A	11	11	16	20	23	28	30	31	34	35	33	35	40	39	34	30	22	17	12	25.3	40.4
16-Jun	7	5	4	A	7	7	9	13	17	24	29	32	34	35	36	37	37	37	37	37	34	29	22	19	23.8	37.2
17-Jun	19	20	A	16	13	12	15	21	22	30	35	40	40	37	36	33	33	34	35	26	23	21	12	7	25.2	40.4
18-Jun	4	A	2	1	1	2	5	9	19	29	38	47	44	41	41	42	43	47	47	47	41	33	29	31	27.9	47.0
19-Jun	A	12	11	14	11	15	15	19	29	34	50	58	60	60	56	59	64	64	63	59	51	36	23	A	39.2	63.7
20-Jun	7	2	2	2	9	9	17	17	28	53	73	83	60	49	47	49	52	52	47	42	36	32	A	20	34.2	82.6
21-Jun	32	29	17	11	8	9	14	24	34	38	30	38	41	43	41	39	38	40	40	33	32	A	31	34	30.2	43.2
22-Jun	34	35	32	31	29	27	22	19	21	26	32	35	35	35	35	34	31	32	33	26	A	27	20	18	29.1	35.2
23-Jun	14	13	8	7	14	9	13	24	26	30	35	39	35	34	33	33	36	34	34	A	32	27	21	22	25.0	38.7
24-Jun	21	16	17	22	22	19	21	25	28	30	40	45	47	40	38	35	38	39	A	39	34	33	29	23	30.6	46.7
25-Jun	24	28	27	25	23	20	23	22	23	26	25	27	29	28	34	31	31	A	34	37	39	35	33	32	28.5	38.7
26-Jun	35	32	29	29	31	30	29	28	28	27	27	27	27	27	27	28	A	28	30	30	30	30	29	28	28.9	35.1
27-Jun	27	26	25	23	23	23	23	22	23	24	22	23	25	26	25	A	25	25	25	26	25	23	22	17	23.9	27.2
28-Jun	20	21	23	24	23	20	18	17	15	21	29	33	34	35	A	37	37	35	37	35	33	32	30	28	27.7	37.1
29-Jun	28	29	27	26	26	24	21	26	26	26	27	27	29	A	34	30	31	28	27	26	22	16	25	39	26.9	38.9
30-Jun	32	26	24	20	15	12	14	17	19	19	20	26	A	33	33	30	33	33	31	29	31	29	27	22	25.0	33.3
23.8 22.6 20.4 19.7 18.3 17.2 18.7 20.6 24.1 28.7 32.3 35.7 37.4 37.6 37.8 38.0 38.3 37.7 35.4 32.7 29.1 25.4 25.0																								Diurnal Average		
38.4 36.1 40.6 33.4 39.1 39.3 31.9 30.9 35.3 52.6 72.7 82.6 59.9 60.9 62.0 63.7 64.8 63.4 58.6 51.0 36.5 34.5 38.9																								Diurnal Maximum		
C - Calibration D - DAS Failure A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Henry Pirker - June 2018



Hourly Maximums

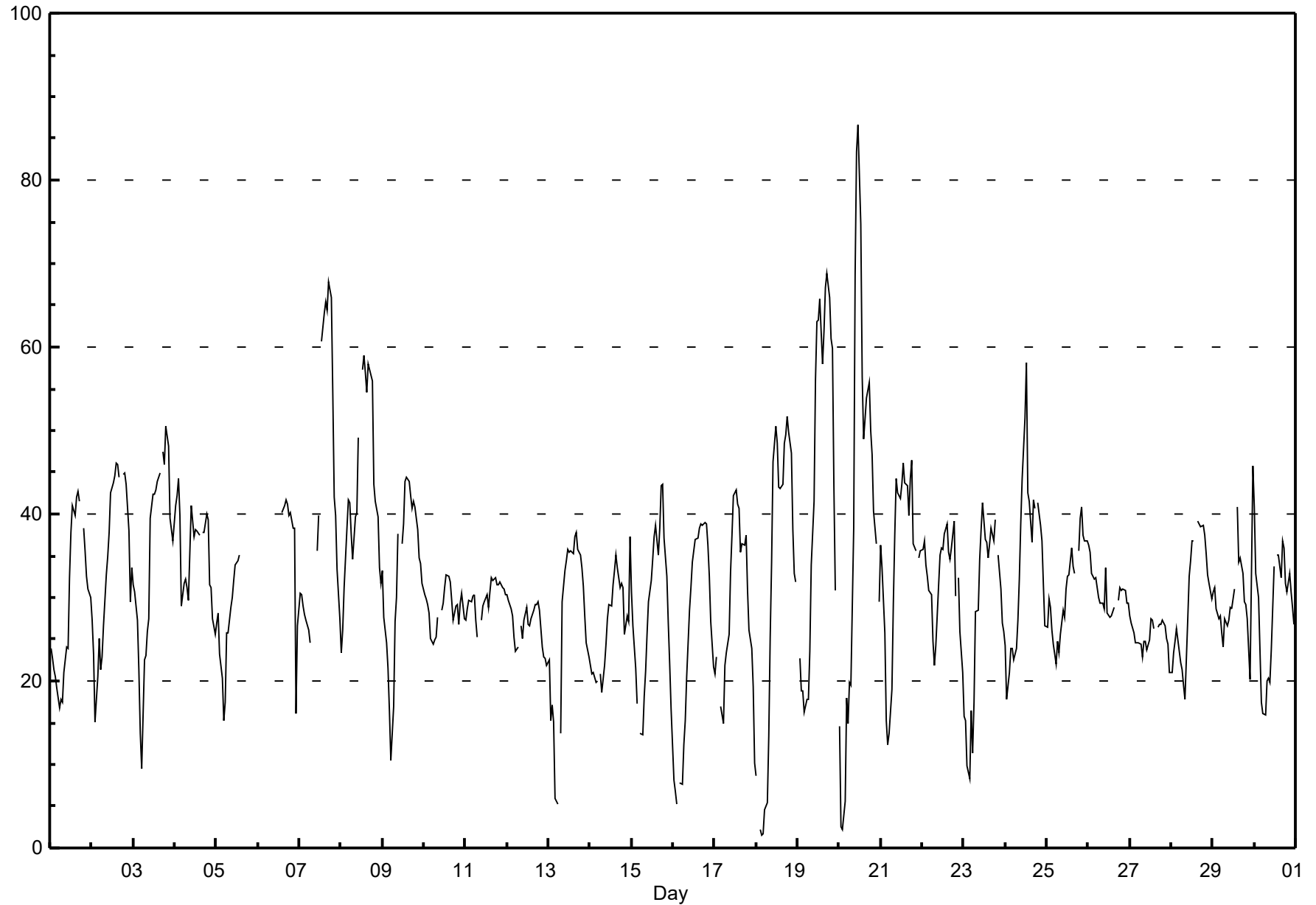
Ozone (O₃) - ppb

Henry Pirker - June 2018

Maximum Value: 86.5 ppb on Jun 20 12:00																				Maximum Daily Average: 44.4 ppb on Jun 19					Hours in Service: 720	
Minimum Value: 2 ppb on Jun 18 04:00																				Minimum Daily Average: 25.4 ppb on Jun 27					Hours of Data: 664	
Maximum Diurnal Average: 40.8 ppb at hour 18																				Minimum Diurnal Average: 19.7 ppb at hour 6					Hours of Missing Data: 56	
Monthly Average: 31.88 ppb																				Percentiles: P ₁ = 5.3 P ₁₀ = 18.8 Q ₁ = 25.1 Median = 31.0 Q ₃ = 38.0 P ₉₀ = 44.0 P ₉₉ = 66.4					Hours of Calibration: 32	
																				Percent Operational Time: 96.7						
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-Jun	24	23	21	20	19	17	18	17	21	24	24	32	38	41	40	42	43	42	A	38	36	32	31	30	29.3	42.7
2-Jun	27	23	15	21	25	21	23	27	33	35	38	43	44	45	46	46	44	A	45	45	44	38	30	34	34.3	46.1
3-Jun	32	31	27	21	14	9	23	23	26	27	39	42	42	43	44	45	A	48	46	51	48	40	38	37	34.6	50.6
4-Jun	41	42	44	40	29	32	32	31	30	41	39	37	38	38	37	A	38	38	40	39	32	31	27	26	35.8	44.3
5-Jun	27	28	23	20	15	17	26	26	29	30	32	34	34	35	D	D	D	D	D	D	D	D	D	D	--	35.1
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	40	41	42	41	40	40	38	38	16	27	--	41.8
7-Jun	31	30	29	28	27	26	25	C	C	C	36	40	A	61	64	65	64	68	66	54	42	40	33	28	42.8	67.8
8-Jun	23	26	31	38	42	41	38	35	40	40	49	A	57	59	57	55	58	57	56	44	42	40	34	32	43.1	59.1
9-Jun	33	28	25	21	16	11	17	27	30	38	A	36	39	44	44	44	42	41	42	41	38	35	34	32	32.9	44.4
10-Jun	30	30	29	28	25	24	25	25	28	A	28	29	31	33	32	32	30	27	29	29	27	29	31	27	28.7	32.7
11-Jun	27	29	30	29	30	30	27	25	A	27	29	29	30	29	31	32	32	32	32	32	32	31	31	30	29.9	32.4
12-Jun	30	30	29	28	25	24	24	A	27	25	27	29	27	27	27	28	29	29	29	28	24	23	23	22	26.7	30.3
13-Jun	22	15	17	15	6	5	A	14	30	33	34	36	35	36	35	37	38	36	35	34	31	28	25	23	27.0	37.8
14-Jun	22	21	21	20	20	A	21	19	22	24	27	29	29	32	33	35	34	31	32	31	26	28	27	37	27.0	37.4
15-Jun	31	27	21	17	A	14	14	18	21	26	29	32	35	37	39	35	38	43	44	37	32	27	22	17	28.5	43.6
16-Jun	8	7	5	A	8	8	12	15	20	28	31	34	36	37	37	38	39	39	39	39	36	32	27	22	26.0	38.9
17-Jun	21	23	A	17	16	15	22	23	26	33	37	42	43	41	41	35	36	36	37	31	26	24	19	10	28.5	43.0
18-Jun	9	A	2	2	2	5	13	25	34	46	50	48	43	43	44	48	49	52	50	47	38	33	32	31.4	51.6	
19-Jun	A	23	19	19	16	18	18	24	34	42	56	63	63	66	58	62	67	69	66	61	60	43	31	A	44.4	68.8
20-Jun	15	3	2	6	18	15	20	20	38	69	83	87	75	56	49	51	54	56	50	47	40	36	A	29	39.9	86.5
21-Jun	36	34	26	15	12	14	19	29	37	44	43	42	44	46	44	43	40	44	46	36	36	A	35	36	34.8	46.4
22-Jun	36	37	34	33	31	30	25	22	24	31	35	36	36	38	39	35	35	36	39	30	A	32	26	21	32.2	39.1
23-Jun	16	15	10	8	16	11	17	28	29	35	38	41	37	37	35	36	38	37	39	A	35	31	27	26	28.0	41.4
24-Jun	24	18	21	24	24	23	24	27	32	39	44	51	58	43	41	37	42	41	A	41	39	37	32	27	34.2	58.1
25-Jun	26	30	29	26	24	22	25	23	26	29	28	31	32	33	36	34	33	A	36	39	41	38	37	37	31.0	40.9
26-Jun	36	35	33	32	32	31	30	29	29	29	33	28	28	28	28	29	A	30	31	31	31	31	29	29	30.6	36.2
27-Jun	28	27	26	25	25	25	24	23	25	25	24	25	27	27	26	A	26	27	27	27	27	25	24	21	25.4	27.9
28-Jun	21	23	25	26	25	22	21	20	18	28	33	34	37	37	A	39	39	39	39	37	35	33	32	30	30.1	39.2
29-Jun	31	31	29	28	28	26	24	28	27	27	29	29	31	A	41	34	35	33	29	29	27	20	33	46	30.1	45.7
30-Jun	41	33	30	24	17	16	16	20	20	20	24	34	A	35	35	32	37	36	32	31	33	31	29	27	28.3	40.9
26.7 25.7 23.3 22.5 21.0 19.7 21.9 23.4 27.6 32.7 36.3 38.5 39.8 40.1 40.1 40.3 40.8 40.8 40.6 38.4 35.9 32.5 29.1 28.3																								Diurnal Average		
41.0 42.2 44.3 39.8 41.8 41.4 37.6 34.6 39.7 68.6 83.3 86.5 74.8 65.7 64.1 65.4 67.1 68.8 66.0 61.1 59.8 43.3 38.2 45.7																								Diurnal Maximum		
C - Calibration D - DAS Failure A - Automated Daily Zero Span																										

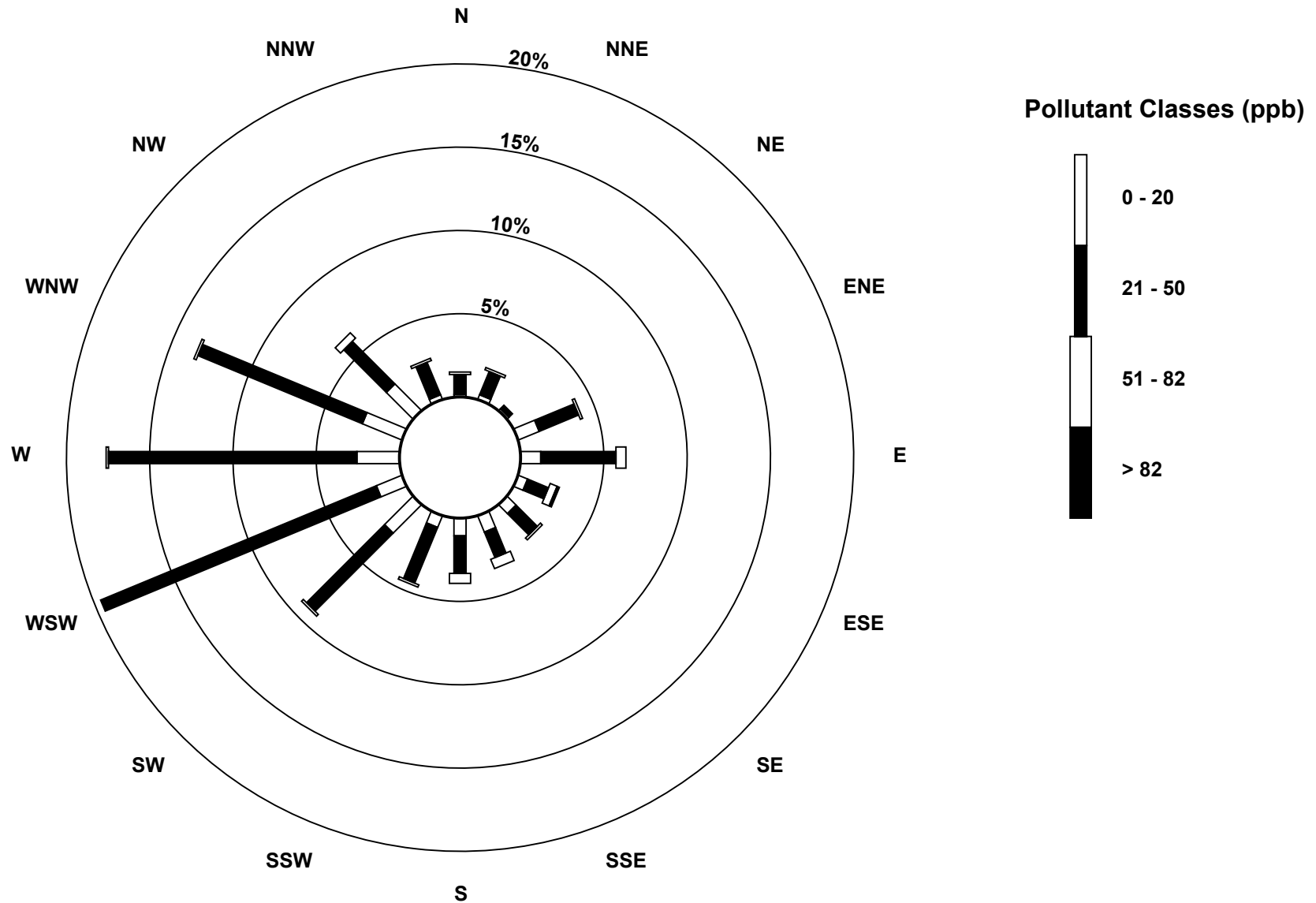
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - June 2018



Pollutant Rose

Ozone (O₃) - ppb
Henry Pirker - June 2018



Eight Hour Running Averages

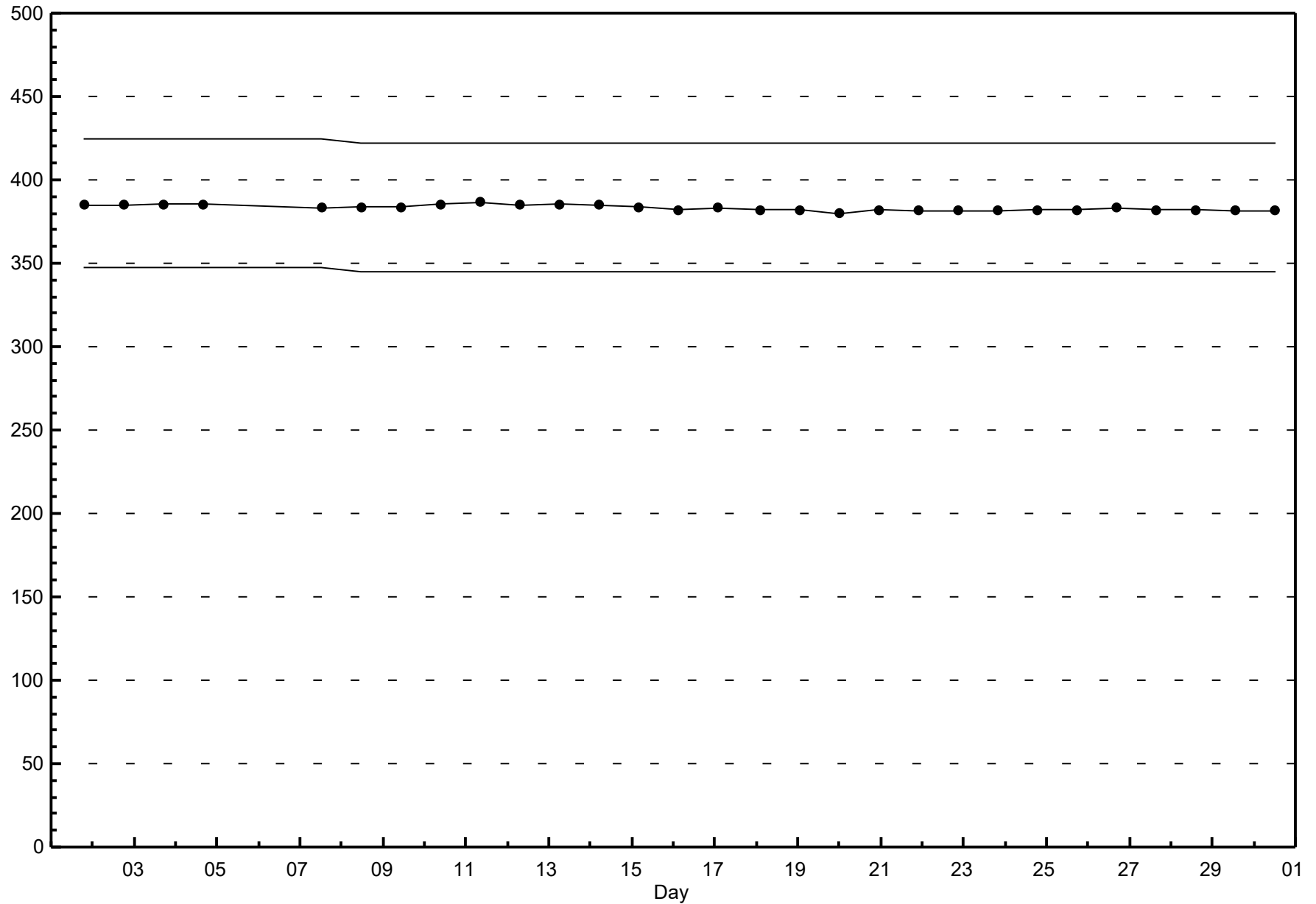
Ozone (O₃) - ppb

Henry Pirker - June 2018

Maximum Value: 60.5 ppb on Jun 19 20:00																								Hours in Service: 720	
Minimum Value: 3.1 ppb on Jun 18 07:00																								Hours of Data: 686	
Percentiles: P ₁ = 7.3 P ₁₀ = 18.1 Q ₁ = 23.5 Median = 28.0 Q ₃ = 33.9 P ₉₀ = 39.6 P ₉₉ = 57.7																								Hours of Missing Data: 34	
																								Hours of Calibration: 7	
																								Percent Operational Time: 96.3	
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-Jun	28	26	24	23	22	20	19	18	18	18	18	19	21	24	27	30	33	35	37	38	38	37	36	34	38.3
2-Jun	32	29	26	24	23	21	20	20	20	22	25	28	30	33	36	39	40	42	43	43	43	42	39	37	43.3
3-Jun	35	34	32	28	24	21	19	18	17	17	18	21	25	30	33	36	38	41	43	44	44	42	41	40	43.8
4-Jun	40	39	38	36	35	34	33	33	31	31	31	31	33	34	34	35	36	37	37	37	36	34	33	32	39.9
5-Jun	30	28	26	24	22	20	20	20	20	21	22	24	27	29	30	31	N	N	N	N	N	N	N	N	30.9
6-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	39	39	37	34	32	39.0
7-Jun	30	29	27	26	24	24	25	26	26	N	N	N	N	N	N	N	51	53	58	59	56	54	50	45	58.8
8-Jun	40	34	30	28	28	28	29	30	32	34	36	37	39	41	44	47	50	52	52	51	49	47	44	41	52.4
9-Jun	38	34	31	28	24	21	19	18	17	18	18	20	24	28	33	36	38	39	39	39	39	38	37	36	39.3
10-Jun	35	33	32	31	29	28	27	26	25	25	25	25	26	27	28	29	29	29	29	28	28	27	27	26	34.7
11-Jun	26	26	26	26	27	27	27	26	26	27	27	27	27	27	27	28	28	29	29	30	30	30	30	30	30.3
12-Jun	30	30	29	29	28	27	26	26	25	24	24	24	24	24	25	25	25	26	26	26	26	25	25	24	30.1
13-Jun	23	21	20	18	15	13	12	10	11	13	16	19	23	28	29	32	33	33	33	33	32	31	30	29	33.4
14-Jun	27	25	23	22	21	20	19	19	19	19	20	21	22	23	25	27	28	28	29	29	29	28	27	27	29.1
15-Jun	27	26	25	23	23	21	19	17	16	16	18	20	21	24	27	29	31	33	35	35	35	33	31	29	35.2
16-Jun	25	21	16	14	11	8	7	7	9	11	15	17	21	24	27	30	33	35	36	36	36	36	34	32	36.1
17-Jun	29	27	26	23	20	17	16	17	17	18	20	23	27	30	33	34	35	36	36	34	32	30	27	24	36.1
18-Jun	20	18	13	10	7	4	3	3	6	8	13	19	24	29	34	38	41	43	44	44	44	43	41	40	43.9
19-Jun	39	34	29	24	20	18	16	14	16	19	23	29	35	41	46	51	55	59	60	60	59	56	52	51	60.5
20-Jun	43	34	26	18	12	8	7	8	11	17	26	36	42	47	51	55	58	58	55	50	47	45	44	40	58.0
21-Jun	37	34	30	25	21	18	17	18	18	19	21	24	28	33	36	38	38	39	40	39	38	38	36	35	39.9
22-Jun	35	34	33	33	32	32	30	29	27	26	26	26	27	28	30	32	33	34	34	33	32	31	29	27	35.0
23-Jun	24	22	18	15	15	13	12	13	14	16	20	24	26	29	32	33	34	35	35	34	34	33	31	30	35.1
24-Jun	28	25	22	22	21	20	20	20	21	23	26	29	32	35	37	38	39	40	40	40	38	37	35	34	40.4
25-Jun	32	30	30	28	26	25	24	24	24	24	23	24	24	25	27	28	29	29	31	32	33	34	34	35	34.6
26-Jun	35	35	34	33	32	32	31	30	29	29	29	28	28	27	27	27	27	27	28	28	29	29	29	29	35.1
27-Jun	29	29	28	27	26	25	25	24	23	23	23	23	23	23	24	24	24	25	25	25	25	25	25	24	29.0
28-Jun	23	22	22	22	22	21	21	21	20	20	21	22	23	25	26	29	32	34	35	35	35	35	34	33	35.5
29-Jun	32	31	30	29	28	27	26	26	25	25	25	25	26	26	28	28	29	29	29	29	28	27	26	27	32.2
30-Jun	27	27	26	25	25	24	23	20	18	17	17	18	18	21	24	26	28	30	31	32	32	31	30	29	31.7
43.3 38.7 38.2 36.2 34.6 33.8 33.5 32.8 31.9 34.3 36.4 36.9 42.4 47.4 51.1 55.0 58.0 58.7 60.4 60.5 59.4 56.4 52.4 51.4																									Diurnal Maximums
N - Not Valid																									

Span Responses

Ozone (O₃)
Henry Pirker - June 2018



Hourly Averages

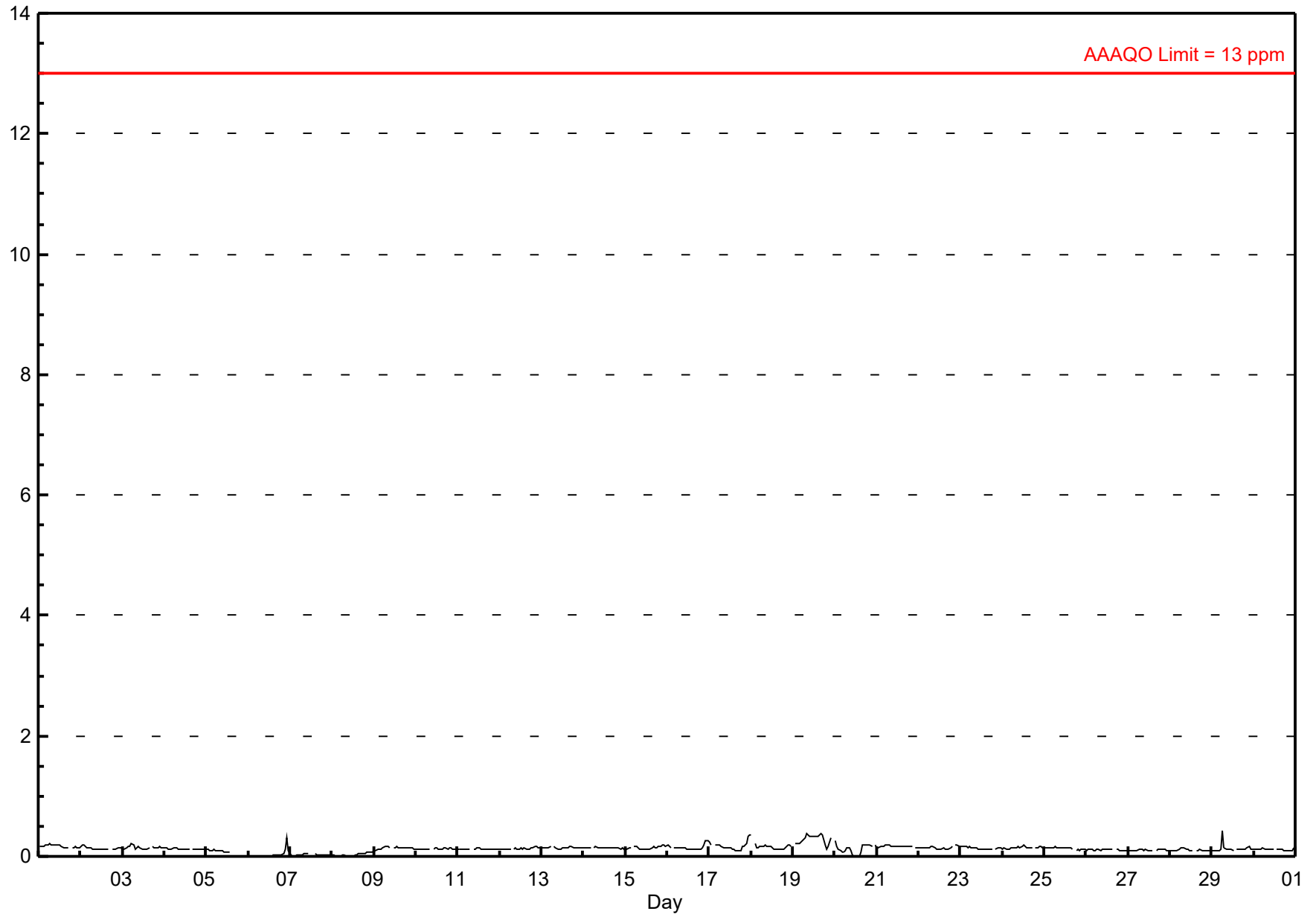
Carbon Monoxide (CO) - ppm

Henry Pirker - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.42 ppm on Jun 29 07:00 Maximum Daily Average: 0.28 ppm on Jun 19																				Hours in Service: 720 Hours of Data: 666 Hours of Missing Data: 54 Hours of Calibration: 30 Percent Operational Time: 96.7						
Minimum Value: 0.0 ppm on Jun 8 03:00 Maximum Diurnal Average: 0.16 ppm at hour 23 Monthly Average: 0.132 ppm										Minimum Daily Average: 0.03 ppm on Jun 8 Minimum Diurnal Average: 0.12 ppm at hour 19 Percentiles: P ₁ = 0.00 P ₁₀ = 0.09 Q ₁ = 0.11 Median = 0.13 Q ₃ = 0.15 P ₉₀ = 0.18 P ₉₉ = 0.35																
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-Jun	0.2	0.2	0.2	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	A	0.1	0.1	0.2	0.2	0.1	0.17	0.20
2-Jun	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.19
3-Jun	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.15	0.21
4-Jun	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.14
5-Jun	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	D	D	D	D	D	D	D	D	D	D	--	0.11
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	--	0.32
7-Jun	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03	0.05
8-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.03	0.08
9-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	A	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	0.14	0.17
10-Jun	0.1	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.13
11-Jun	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.14
12-Jun	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	0.1	0.1	0.2	0.2	0.1	0.2	0.13	0.16
13-Jun	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.14	0.17
14-Jun	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.16
15-Jun	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.14	0.18
16-Jun	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.15	0.26
17-Jun	0.2	0.2	A	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	0.2	0.2	0.3	0.4	0.17	0.36
18-Jun	0.4	A	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.16	0.37
19-Jun	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.2	0.1	0.2	0.2	0.3	A	0.28	0.37
20-Jun	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.11	0.27
21-Jun	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.16	0.19
22-Jun	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	0.1	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.15	0.19
23-Jun	0.2	0.2	0.2	0.2	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	A	0.1	0.1	0.2	0.1	0.14	0.17
24-Jun	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	0.1	A	0.1	0.1	0.2	0.2	0.2	0.15	0.18
25-Jun	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.15
26-Jun	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11	0.12
27-Jun	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11	0.12
28-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11	0.15
29-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.4	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	0.2	0.1	0.1	0.13	0.42
30-Jun	0.1	0.1	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.14
0.14 0.13 0.13 0.12 0.13 0.14 0.15 0.14 0.14 0.13 0.13 0.13 0.13 0.13 0.12 0.12 0.13 0.13 0.12 0.12 0.13 0.14 0.16 0.14																								Diurnal Average		
0.37 0.21 0.21 0.21 0.22 0.26 0.42 0.32 0.37 0.33 0.32 0.33 0.34 0.34 0.34 0.36 0.37 0.35 0.20 0.18 0.19 0.23 0.33 0.36																								Diurnal Maximum		
C - Calibration D - DAS Failure A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na																										

Hourly Averages

Carbon Monoxide (CO) - ppm
Henry Pirker - June 2018



Hourly Maximums

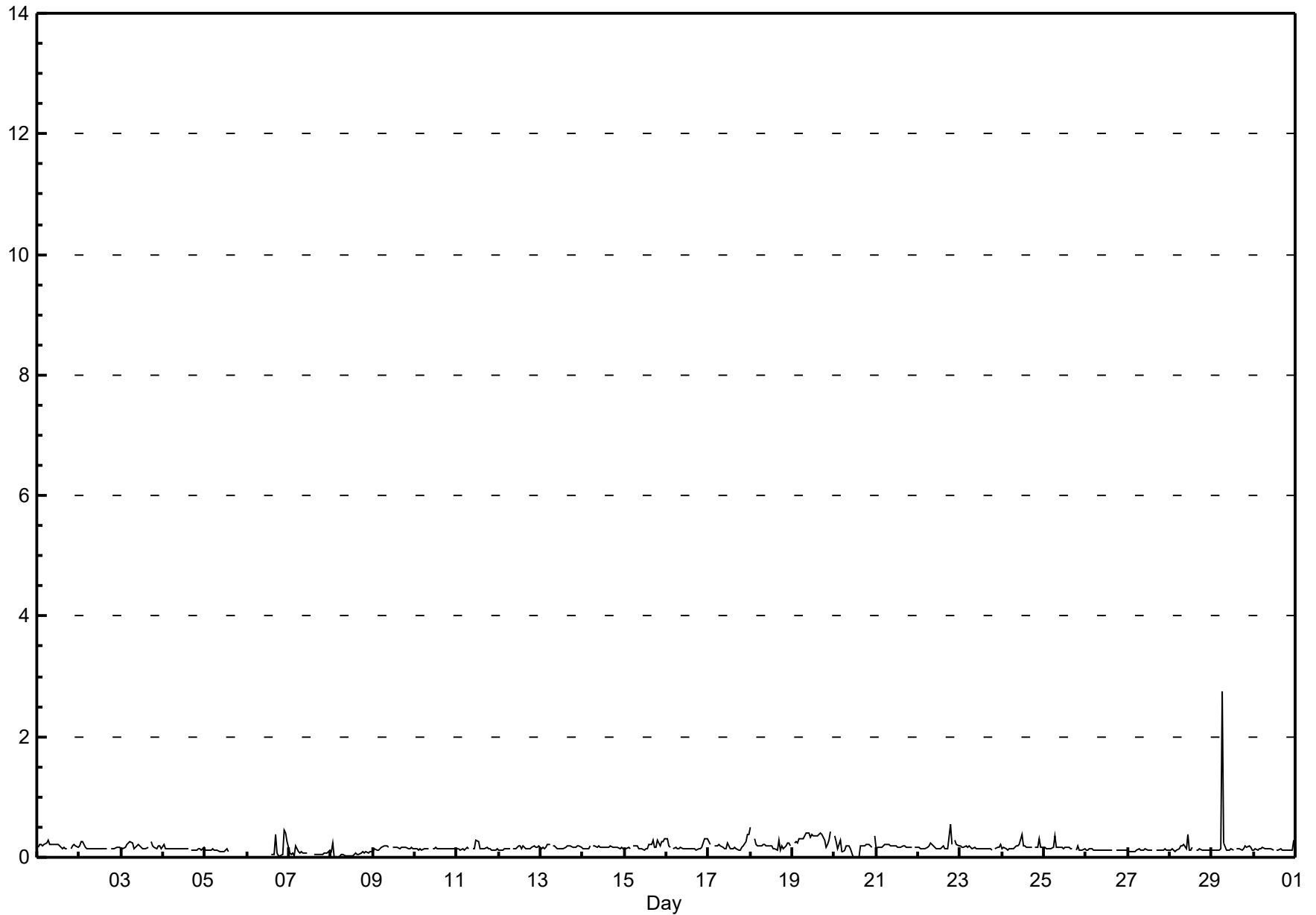
Carbon Monoxide (CO) - ppm

Henry Pirker - June 2018

Maximum Value: 2.76 ppm on Jun 29 07:00																				Maximum Daily Average: 0.32 ppm on Jun 19					Hours in Service: 720	
Minimum Value: 0.0 ppm on Jun 20 12:00																				Minimum Daily Average: 0.06 ppm on Jun 8					Hours of Data: 666	
Maximum Diurnal Average: 0.27 ppm at hour 7																				Minimum Diurnal Average: 0.14 ppm at hour 14					Hours of Missing Data: 54	
Monthly Average: 0.164 ppm																				Percentiles: P ₁ = 0.01 P ₁₀ = 0.11 Q ₁ = 0.13 Median = 0.15 Q ₃ = 0.18 P ₉₀ = 0.23 P ₉₉ = 0.39					Hours of Calibration: 30	
																									Percent Operational Time: 96.7	
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-Jun	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	A	0.2	0.2	0.2	0.2	0.2	0.20	0.28
2-Jun	0.2	0.3	0.3	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	A	0.1	0.1	0.1	0.2	0.2	0.2	0.15	0.27
3-Jun	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	A	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.18	0.26
4-Jun	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.14	0.21
5-Jun	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	D	D	D	D	D	D	D	D	D	D	--	0.15
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.4	0.4	0.3	--	0.44
7-Jun	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	C	C	C	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.07	0.18
8-Jun	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.06	0.23
9-Jun	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	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.15	0.20
10-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	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	0.14	0.16
11-Jun	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	A	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.30
12-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.15	0.19
13-Jun	0.1	0.2	0.1	0.2	0.2	0.2	A	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.21
14-Jun	0.2	0.1	0.1	0.1	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	0.1	0.2	0.1	0.16	0.20
15-Jun	0.1	0.2	0.2	0.1	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.19	0.30
16-Jun	0.3	0.2	0.2	A	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.17	0.30
17-Jun	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.20	0.39
18-Jun	0.5	A	0.3	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	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.51
19-Jun	A	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.3	0.4	A	0.32	0.43
20-Jun	0.4	0.3	0.1	0.3	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.4	0.16	0.36
21-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.18	0.22
22-Jun	0.2	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	0.2	0.1	0.1	0.1	0.6	0.2	A	0.3	0.2	0.2	0.19	0.55
23-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.2	0.2	0.15	0.21
24-Jun	0.1	0.2	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	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.2	0.18	0.39
25-Jun	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	A	0.1	0.2	0.1	0.1	0.1	0.1	0.16	0.35
26-Jun	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.14
27-Jun	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.13
28-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.4	0.1	0.1	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.38
29-Jun	0.1	0.1	0.1	0.1	0.1	0.1	2.8	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.25	2.76
30-Jun	0.1	0.1	0.1	0.1	0.1	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	0.3	0.13	0.28
0.17 0.16 0.15 0.15 0.15 0.16 0.27 0.17 0.16 0.15 0.15 0.16 0.15 0.14 0.14 0.15 0.17 0.15 0.15 0.15 0.15 0.18 0.19 0.18																									Diurnal Average	
0.51 0.25 0.32 0.28 0.30 0.32 2.76 0.35 0.39 0.39 0.38 0.39 0.36 0.35 0.36 0.37 0.39 0.39 0.55 0.29 0.22 0.44 0.43 0.39																									Diurnal Maximum	
C - Calibration D - DAS Failure A - Automated Daily Zero Span																										

Hourly Maximums

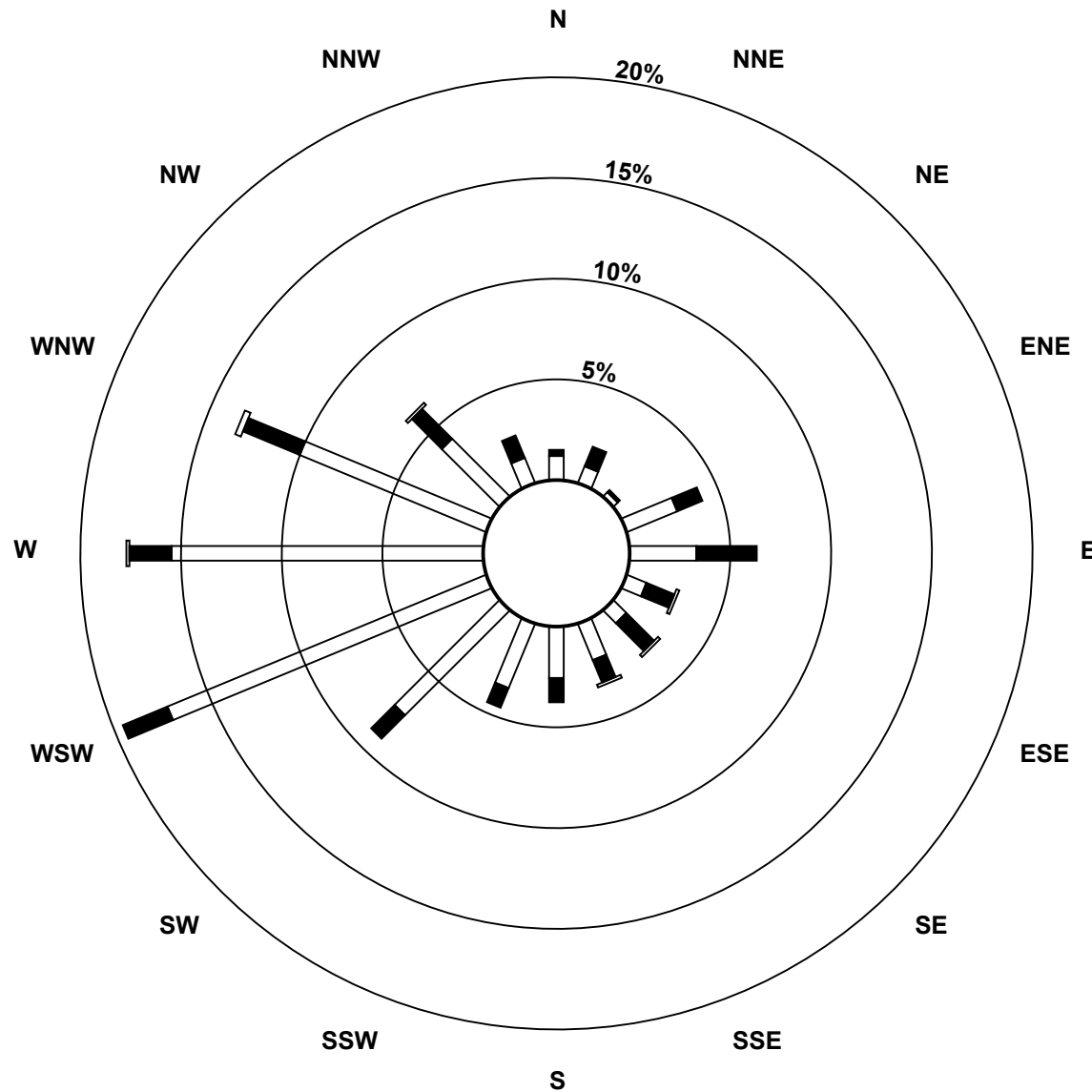
Carbon Monoxide (CO) - ppm
Henry Pirker - June 2018



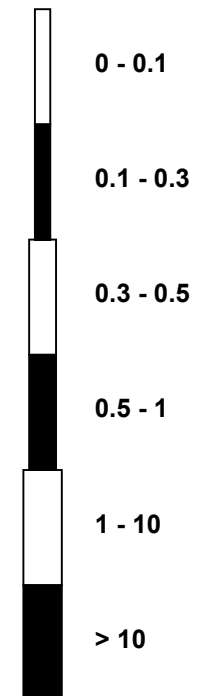
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - June 2018



Pollutant Classes (ppm)



Eight Hour Running Averages

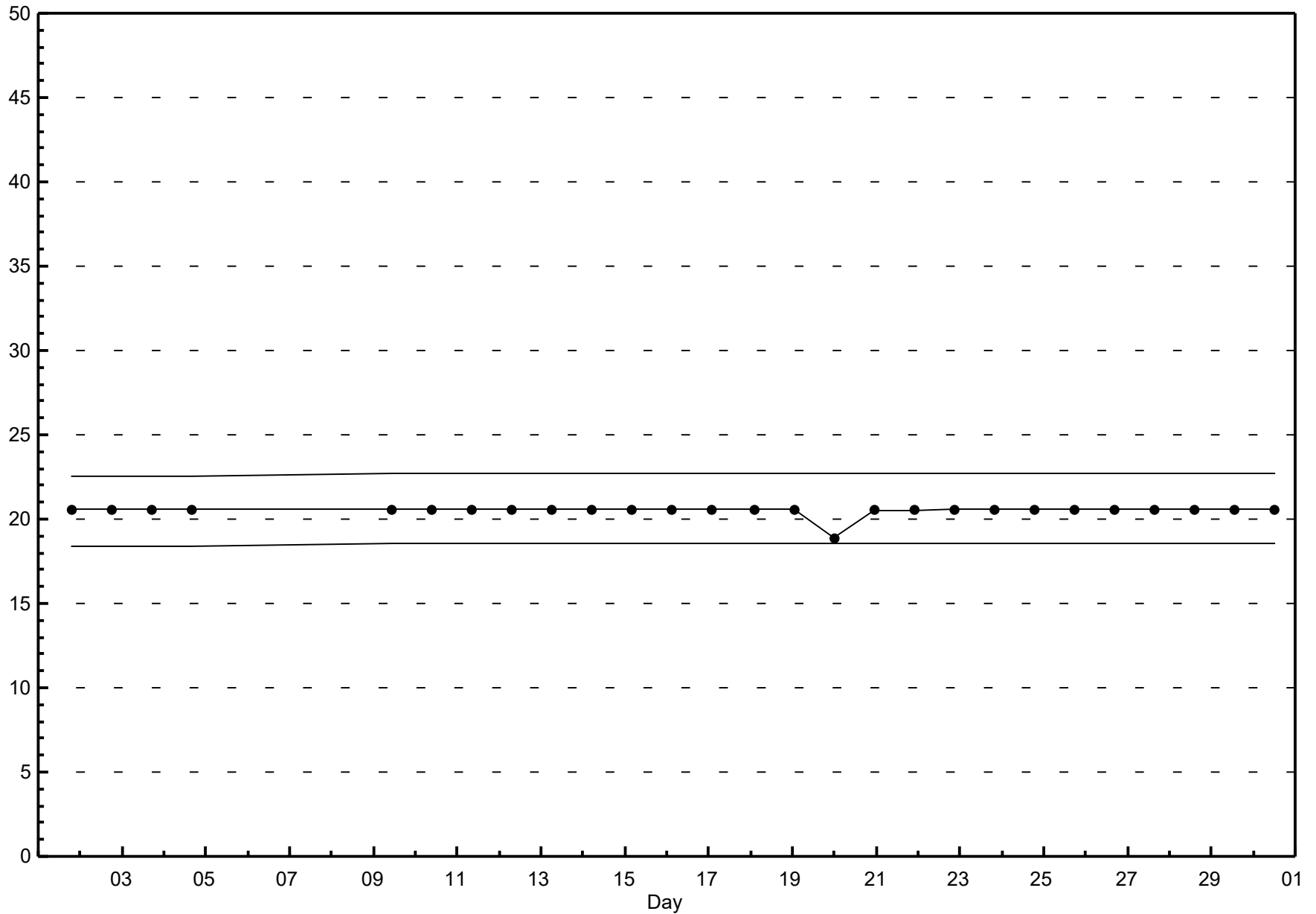
Carbon Monoxide (CO) - ppm

Henry Pirker - June 2018

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.35 ppm on Jun 19 18:00																								Hours in Service: 720		
Minimum Value: 0.00 ppm on Jun 20 14:00																								Hours of Data: 687		
Percentiles: P ₁ = 0.01 P ₁₀ = 0.10 Q ₁ = 0.12 Median = 0.13 Q ₃ = 0.15 P ₉₀ = 0.17 P ₉₉ = 0.31																								Hours of Missing Data: 33		
																								Hours of Calibration: 6		
																								Percent Operational Time: 96.3		
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-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.20	
2-Jun	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	
3-Jun	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	
4-Jun	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	
5-Jun	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	N	N	N	N	N	N	N	N	0.12	
6-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.0	0.0	0.1	0.1	0.08
7-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	0.0	0.0	0.0	0.0	0.0	0.08	
8-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.06	
9-Jun	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	
10-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	
11-Jun	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	0.13	
12-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	
13-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.15	
14-Jun	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	
15-Jun	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	0.2	0.2	0.16	
16-Jun	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	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.17	
17-Jun	0.2	0.2	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	0.2	0.2	0.21	
18-Jun	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	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.26	
19-Jun	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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.35	
20-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.23	
21-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	
22-Jun	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	0.2	0.2	0.16	
23-Jun	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	0.1	0.1	0.1	0.1	0.1	0.1	0.17	
24-Jun	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	0.2	0.2	0.2	0.2	0.16	
25-Jun	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	
26-Jun	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	0.11	
27-Jun	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	0.11	
28-Jun	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	0.12	
29-Jun	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	
30-Jun	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	0.13	
0.23 0.24 0.26 0.25 0.25 0.24 0.22 0.24 0.26 0.27 0.29 0.30 0.32 0.33 0.34 0.34 0.34 0.35 0.33 0.30 0.28 0.27 0.26 0.25																										
Diurnal Maximums																										
N - Not Valid																										
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																										

Span Responses

Carbon Monoxide (CO)
Henry Pirker - June 2018



Hourly Averages

Total Hydrocarbons (THC) - ppm

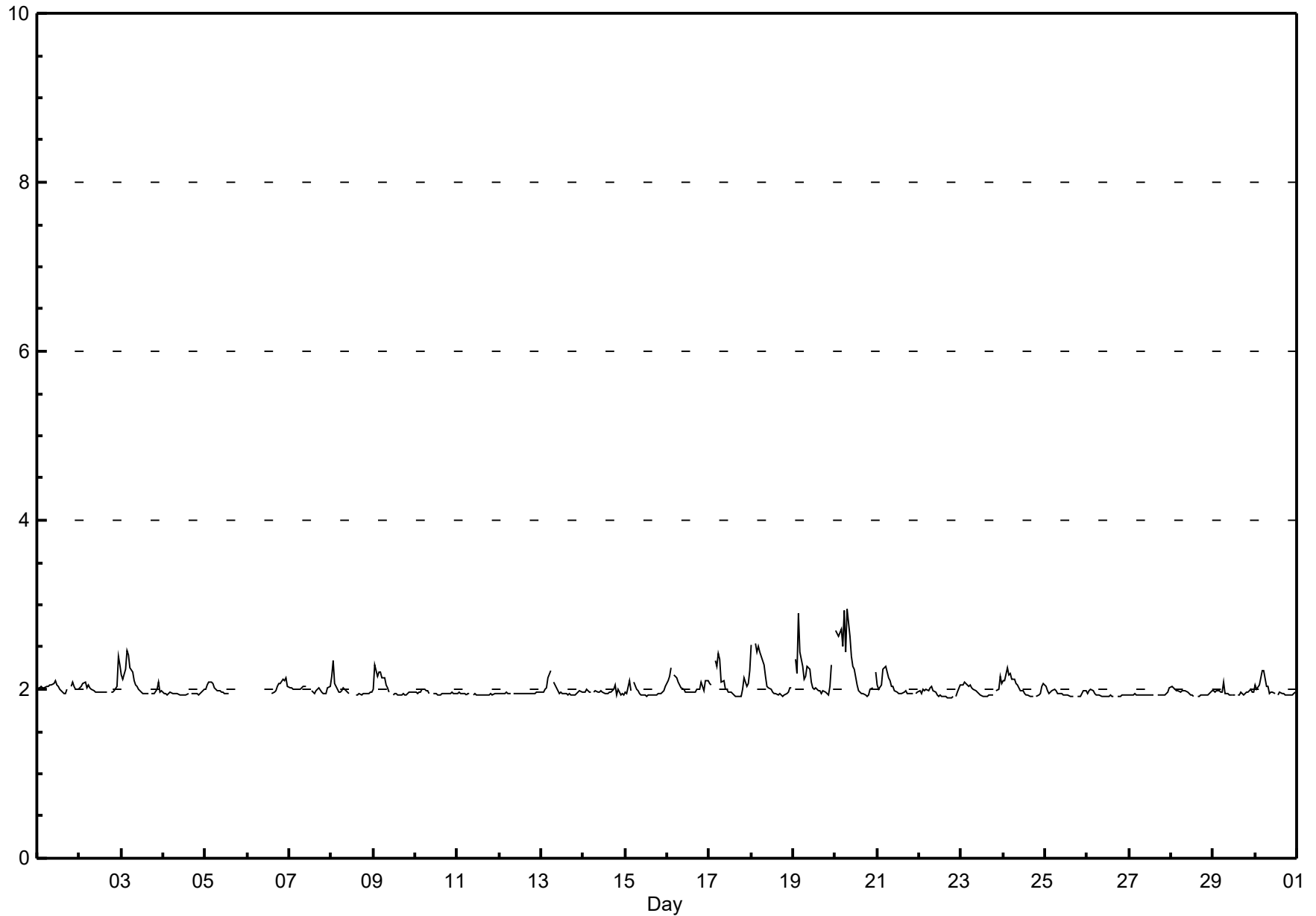
Henry Pirker - June 2018

Maximum Value: 2.95 ppm on Jun 20 08:00																				Maximum Daily Average: 2.30 ppm on Jun 20					Hours in Service: 720	
Minimum Value: 1.9 ppm on Jun 22 18:00																				Minimum Daily Average: 1.93 ppm on Jun 26					Hours of Data: 663	
Maximum Diurnal Average: 2.12 ppm at hour 4																				Minimum Diurnal Average: 1.94 ppm at hour 16					Hours of Missing Data: 57	
Monthly Average: 2.011 ppm																				Percentiles: P ₁ = 1.91 P ₁₀ = 1.93 Q ₁ = 1.94 Median = 1.97 Q ₃ = 2.02 P ₉₀ = 2.13 P ₉₉ = 2.63					Hours of Calibration: 30	
																				Percent Operational Time: 96.3						
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-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.0	2.0	2.0	2.02	2.09
2-Jun	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	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.4	2.3	2.03	2.39
3-Jun	2.2	2.1	2.2	2.5	2.4	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.07	2.45
4-Jun	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.95	1.99
5-Jun	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	D	D	D	D	D	D	D	D	D	D	--	2.08
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	--	2.13
7-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	2.0	1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.00	2.04
8-Jun	2.2	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	M	M	M	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.00	2.34
9-Jun	2.0	2.3	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.02	2.28
10-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	2.0	2.0	1.96	2.00
11-Jun	2.0	2.0	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	1.9	1.94	1.96
12-Jun	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.95	1.97
13-Jun	2.0	2.0	2.0	2.0	2.1	2.2	A	2.1	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.99	2.22
14-Jun	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	2.1	1.9	2.0	1.9	1.9	1.9	1.97	2.06
15-Jun	2.0	2.0	2.1	2.0	A	2.1	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	2.0	1.97	2.10
16-Jun	2.1	2.1	2.3	A	2.2	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	2.1	2.0	2.0	2.1	2.1	2.05	2.25
17-Jun	2.1	2.1	A	2.3	2.3	2.4	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.1	2.2	2.07	2.43
18-Jun	2.5	A	2.5	2.4	2.5	2.4	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.12	2.55
19-Jun	A	2.3	2.2	2.9	2.4	2.3	2.1	2.1	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.3	A	2.14	2.91
20-Jun	2.7	2.7	2.6	2.7	2.5	2.9	2.4	2.9	2.6	2.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	A	2.2	2.30	2.95
21-Jun	2.0	2.0	2.1	2.2	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.03	2.27
22-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.1	1.96	2.06
23-Jun	2.0	2.1	2.1	2.1	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	A	2.0	2.0	2.2	2.1	1.99	2.16
24-Jun	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.1	2.03	2.26
25-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	1.95	2.03
26-Jun	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	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.99
27-Jun	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	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.94	2.01
28-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.96	2.03
29-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.96	2.09
30-Jun	2.0	2.0	2.1	2.1	2.2	2.2	2.0	2.0	2.0	2.0	2.0	1.9	A	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.00	2.23
2.06 2.06 2.09 2.12 2.11 2.12 2.06 2.06 2.03 2.00 1.98 1.96 1.95 1.95 1.94 1.94 1.95 1.95 1.95 1.96 1.98 1.98 2.02 2.02																									Diurnal Average	
2.69 2.66 2.63 2.91 2.50 2.93 2.44 2.95 2.62 2.40 2.28 2.23 2.04 2.02 1.99 1.98 2.00 2.03 2.08 2.08 2.14 2.10 2.39 2.29																									Diurnal Maximum	
C - Calibration				D - DAS Failure				M - Maintenance				A - Automated Daily Zero Span														

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - June 2018



Hourly Maximums

Total Hydrocarbons (THC) - ppm

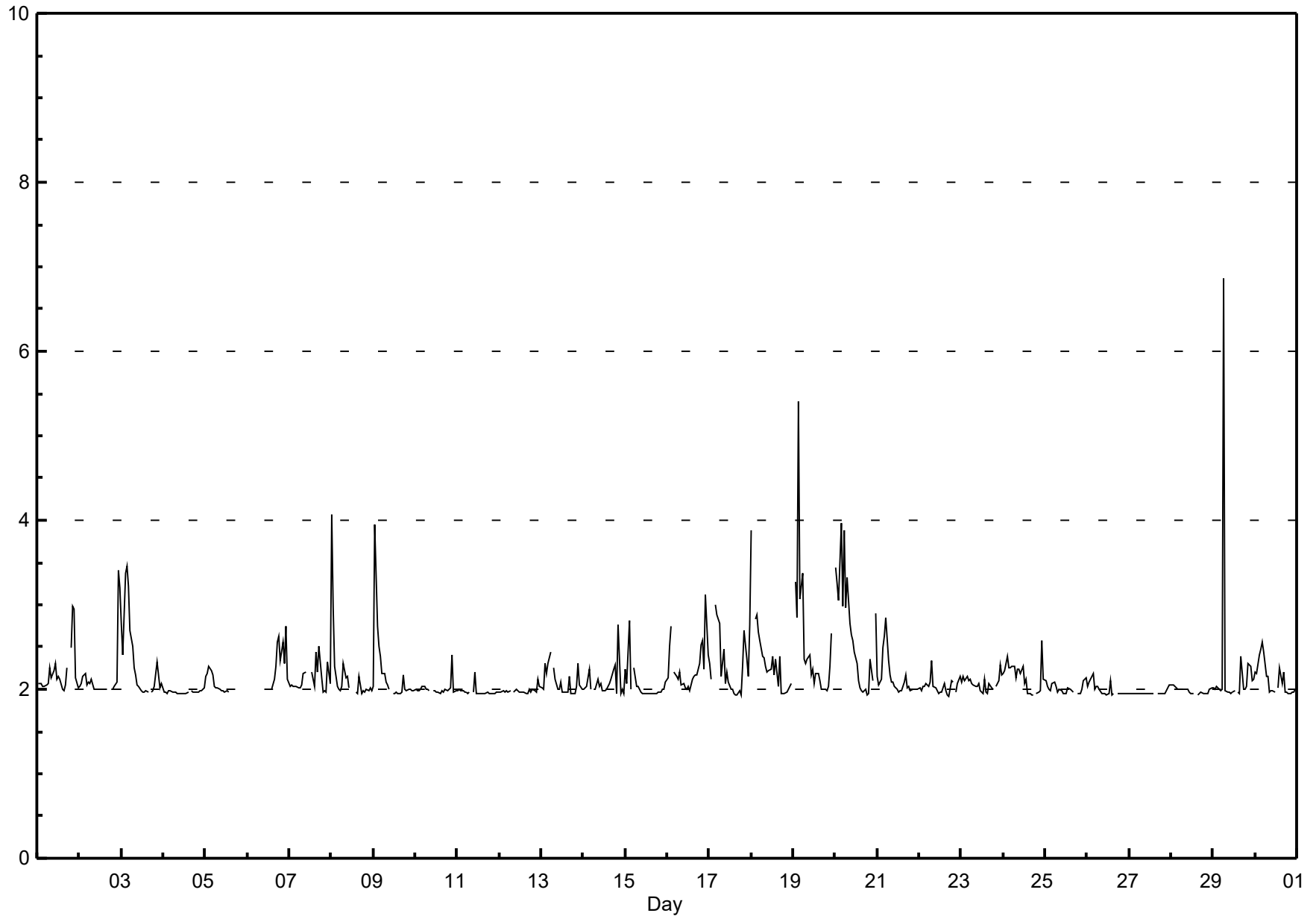
Henry Pirker - June 2018

Maximum Value: 6.87 ppm on Jun 29 07:00																				Maximum Daily Average: 2.65 ppm on Jun 20					Hours in Service: 720	
Minimum Value: 1.9 ppm on Jun 22 18:00																				Minimum Daily Average: 1.96 ppm on Jun 27					Hours of Data: 663	
Maximum Diurnal Average: 2.42 ppm at hour 4																				Minimum Diurnal Average: 2.01 ppm at hour 16					Hours of Missing Data: 57	
Monthly Average: 2.146 ppm																				Percentiles: P ₁ = 1.93 P ₁₀ = 1.95 Q ₁ = 1.97 Median = 2.02 Q ₃ = 2.17 P ₉₀ = 2.44 P ₉₉ = 3.62					Hours of Calibration: 30	
																				Percent Operational Time: 96.3						
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-Jun	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.3	2.1	2.2	2.3	2.1	2.2	2.1	2.0	2.0	2.1	2.3	A	2.5	3.0	3.0	2.1	2.0	2.20	2.98
2-Jun	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	3.4	3.2	2.15	3.41
3-Jun	2.8	2.4	3.4	3.5	3.2	2.7	2.5	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.3	2.2	2.0	2.1	2.32	3.47
4-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.02
5-Jun	2.1	2.2	2.3	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	D	D	D	D	D	D	D	D	D	D	--	2.27
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	2.0	2.1	2.3	2.6	2.6	2.3	2.6	2.3	2.7	2.1	--	2.75
7-Jun	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	C	C	C	2.2	2.0	2.4	2.2	2.5	2.1	2.0	2.0	2.0	2.3	2.1	2.12	2.50
8-Jun	4.1	3.0	2.3	2.0	2.0	2.0	2.0	2.3	2.1	2.2	2.0	M	M	M	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.19	4.07
9-Jun	2.0	3.9	2.7	2.5	2.4	2.2	2.2	2.1	2.1	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.17	3.95
10-Jun	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	2.4	2.0	2.0	2.01	2.41
11-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.21
12-Jun	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	2.1	2.0	1.98	2.12	
13-Jun	2.0	2.0	2.3	2.2	2.3	2.4	A	2.3	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.3	2.1	2.0	2.09	2.44
14-Jun	2.0	2.0	2.0	2.2	2.0	A	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.3	1.9	2.8	1.9	2.0	1.9	2.08	2.76
15-Jun	2.2	2.1	2.8	2.0	A	2.3	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.04	2.82
16-Jun	2.1	2.5	2.7	A	2.2	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.3	2.5	2.6	2.2	3.1	2.4	2.26	3.13
17-Jun	2.3	2.1	A	3.0	2.9	2.8	2.8	2.2	2.5	2.1	2.2	2.1	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.3	2.7	2.4	2.1	2.8	2.30	2.99
18-Jun	3.9	A	2.8	2.9	2.7	2.6	2.4	2.4	2.3	2.2	2.2	2.4	2.2	2.3	2.0	2.4	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.34	3.88
19-Jun	A	3.3	2.8	5.4	3.1	3.4	2.4	2.3	2.4	2.4	2.2	2.2	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.7	A	2.51	5.40
20-Jun	3.4	3.3	3.1	4.0	3.0	3.9	3.0	3.3	2.8	2.6	2.6	2.4	2.3	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.4	2.1	A	2.9	2.65	3.97
21-Jun	2.1	2.1	2.1	2.5	2.6	2.9	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.0	2.0	A	2.0	2.0	2.14	2.85
22-Jun	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.9	2.1	2.1	A	2.0	2.1	2.1	2.04	2.35
23-Jun	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.0	1.9	2.1	2.0	2.0	A	2.0	2.1	2.3	2.2	2.07	2.29
24-Jun	2.2	2.2	2.4	2.3	2.3	2.3	2.3	2.1	2.2	2.2	2.2	2.3	2.1	2.1	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.6	2.1	2.15	2.57
25-Jun	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	2.0	2.1	2.1	2.01	2.14
26-Jun	2.0	2.1	2.1	2.2	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.99	2.19
27-Jun	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	1.96	2.05
28-Jun	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.98	2.05
29-Jun	2.0	2.0	2.0	2.0	2.0	2.0	6.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.4	2.0	2.0	2.0	2.3	2.3	2.1	2.1	2.25	6.87
30-Jun	2.2	2.2	2.4	2.5	2.6	2.4	2.2	2.1	2.0	2.0	2.0	2.0	A	2.0	2.3	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.12	2.55
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration				D - DAS Failure				M - Maintenance				A - Automated Daily Zero Span														

Hourly Maximums

Total Hydrocarbons (THC) - ppm

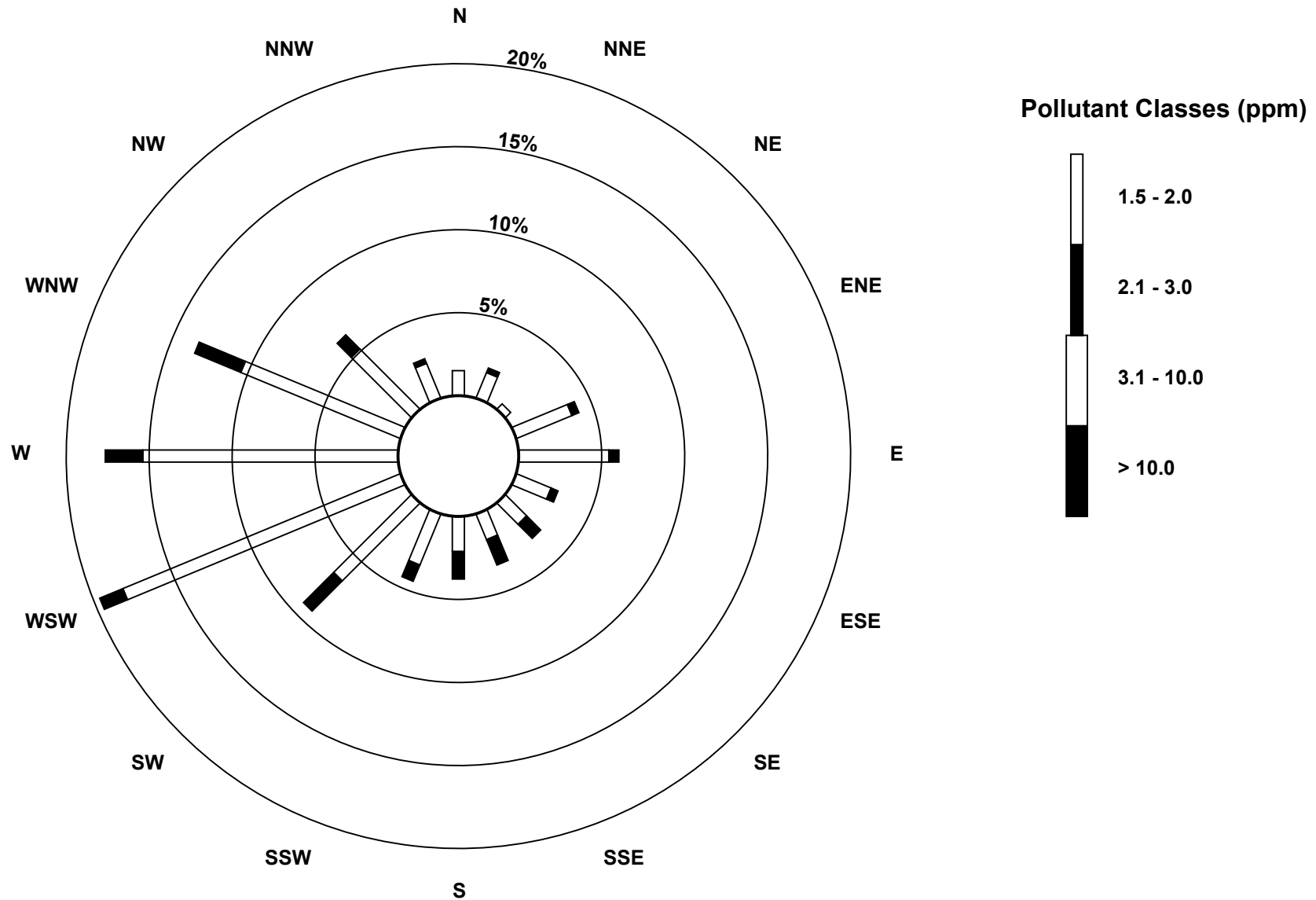
Henry Pirker - June 2018



Pollutant Rose

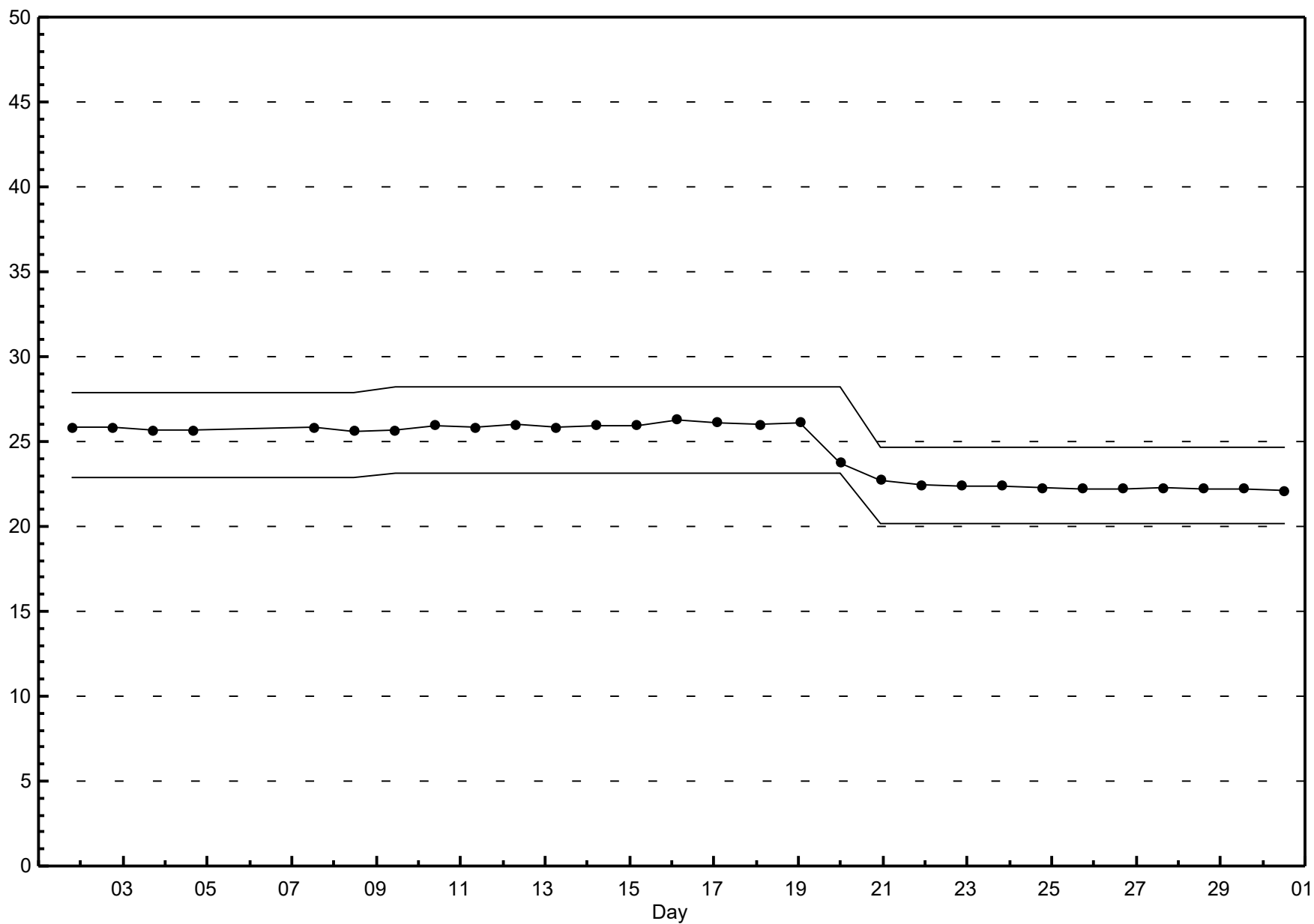
Total Hydrocarbons (THC) - ppm

Henry Pirker - June 2018



Span Responses

Total Hydrocarbons (THC)
Henry Pirker - June 2018



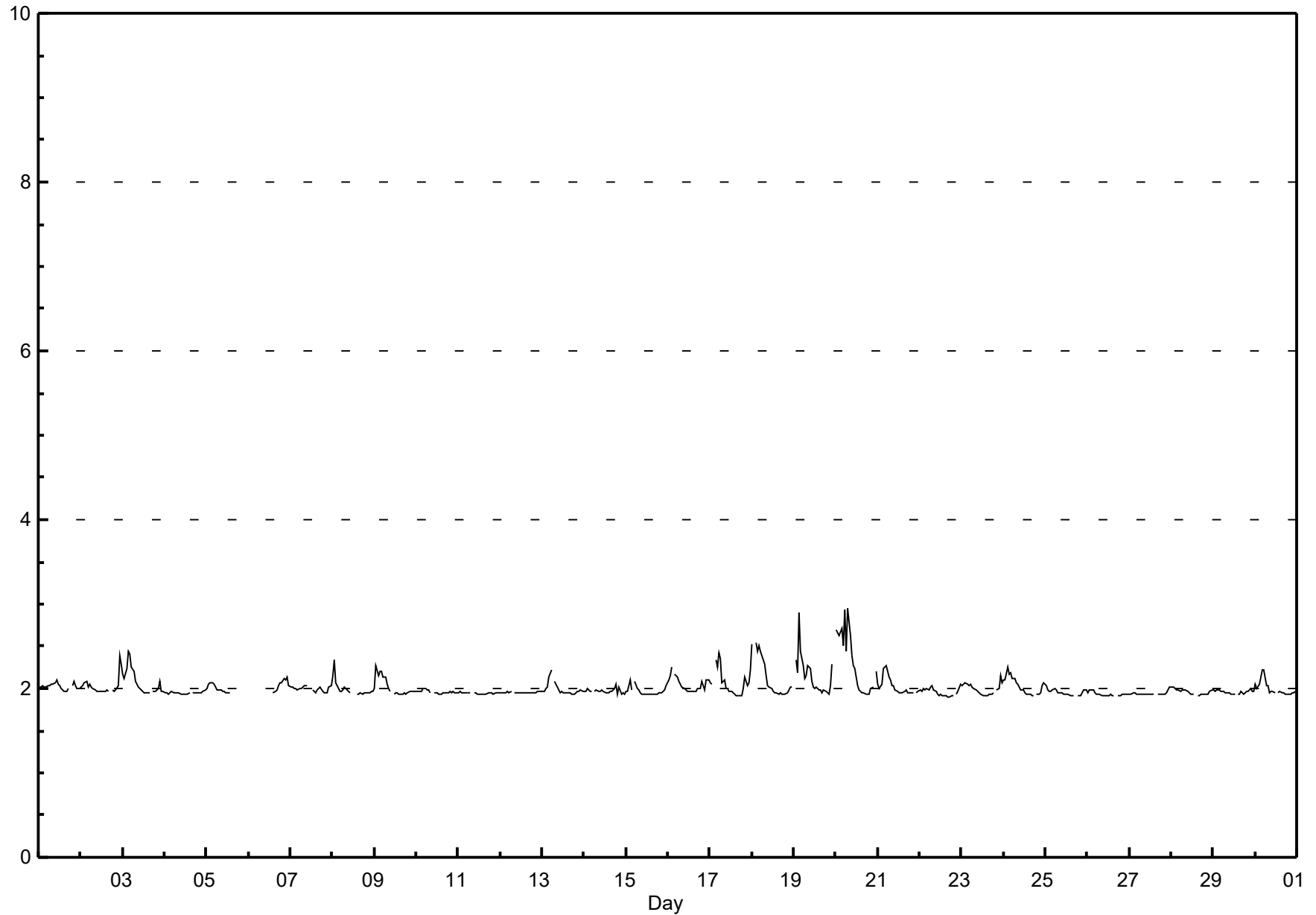
Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - June 2018

Maximum Value: 2.95 ppm on Jun 20 08:00																				Maximum Daily Average: 2.30 ppm on Jun 20					Hours in Service: 720	
Minimum Value: 1.9 ppm on Jun 22 18:00																				Minimum Daily Average: 1.94 ppm on Jun 26					Hours of Data: 663	
Maximum Diurnal Average: 2.12 ppm at hour 4																				Minimum Diurnal Average: 1.94 ppm at hour 16					Hours of Missing Data: 57	
Monthly Average: 2.011 ppm																				Percentiles: P ₁ = 1.91 P ₁₀ = 1.93 Q ₁ = 1.94 Median = 1.97 Q ₃ = 2.02 P ₉₀ = 2.13 P ₉₉ = 2.62					Hours of Calibration: 30	
																				Percent Operational Time: 96.3						
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-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.0	2.0	2.0	2.02	2.09
2-Jun	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	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.4	2.3	2.03	2.39
3-Jun	2.2	2.1	2.2	2.4	2.4	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.07	2.45
4-Jun	1.9	1.9	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	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.95	1.99
5-Jun	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	D	D	D	D	D	D	D	D	D	D	--	2.08
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	--	2.13
7-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.04
8-Jun	2.2	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	M	M	M	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.00	2.34
9-Jun	2.0	2.3	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.02	2.28
10-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	1.9	2.0	1.96	2.00
11-Jun	2.0	2.0	2.0	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	2.0	1.9	1.94	1.96
12-Jun	1.9	1.9	2.0	2.0	2.0	2.0	2.0	A	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.95	1.97
13-Jun	2.0	2.0	2.0	2.0	2.1	2.2	A	2.1	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.99	2.21
14-Jun	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	2.1	1.9	2.0	1.9	1.9	1.9	1.97	2.06
15-Jun	2.0	2.0	2.1	2.0	A	2.1	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	2.0	1.97	2.10
16-Jun	2.1	2.1	2.3	A	2.2	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	2.1	2.0	2.0	2.1	2.1	2.05	2.25
17-Jun	2.1	2.1	A	2.3	2.3	2.4	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.1	2.2	2.07	2.43
18-Jun	2.5	A	2.5	2.4	2.5	2.4	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.12	2.54
19-Jun	A	2.3	2.2	2.9	2.4	2.3	2.1	2.1	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.3	A	2.14	2.90
20-Jun	2.7	2.7	2.6	2.7	2.5	2.9	2.4	2.9	2.6	2.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	A	2.2	2.30	2.95
21-Jun	2.0	2.0	2.1	2.2	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.03	2.27
22-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.1	1.96	2.05
23-Jun	2.0	2.0	2.1	2.1	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	A	2.0	2.0	2.2	2.1	1.99	2.16
24-Jun	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.1	2.03	2.25
25-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	1.95	2.03
26-Jun	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	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.99
27-Jun	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	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.94	2.01
28-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.96	2.02
29-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.96	2.01
30-Jun	2.0	2.0	2.1	2.1	2.2	2.2	2.0	2.0	2.0	2.0	2.0	1.9	A	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.00	2.23
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																										
D - DAS Failure																										
M - Maintenance																										
A - Automated Daily Zero Span																										

Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - June 2018



Hourly Maximums

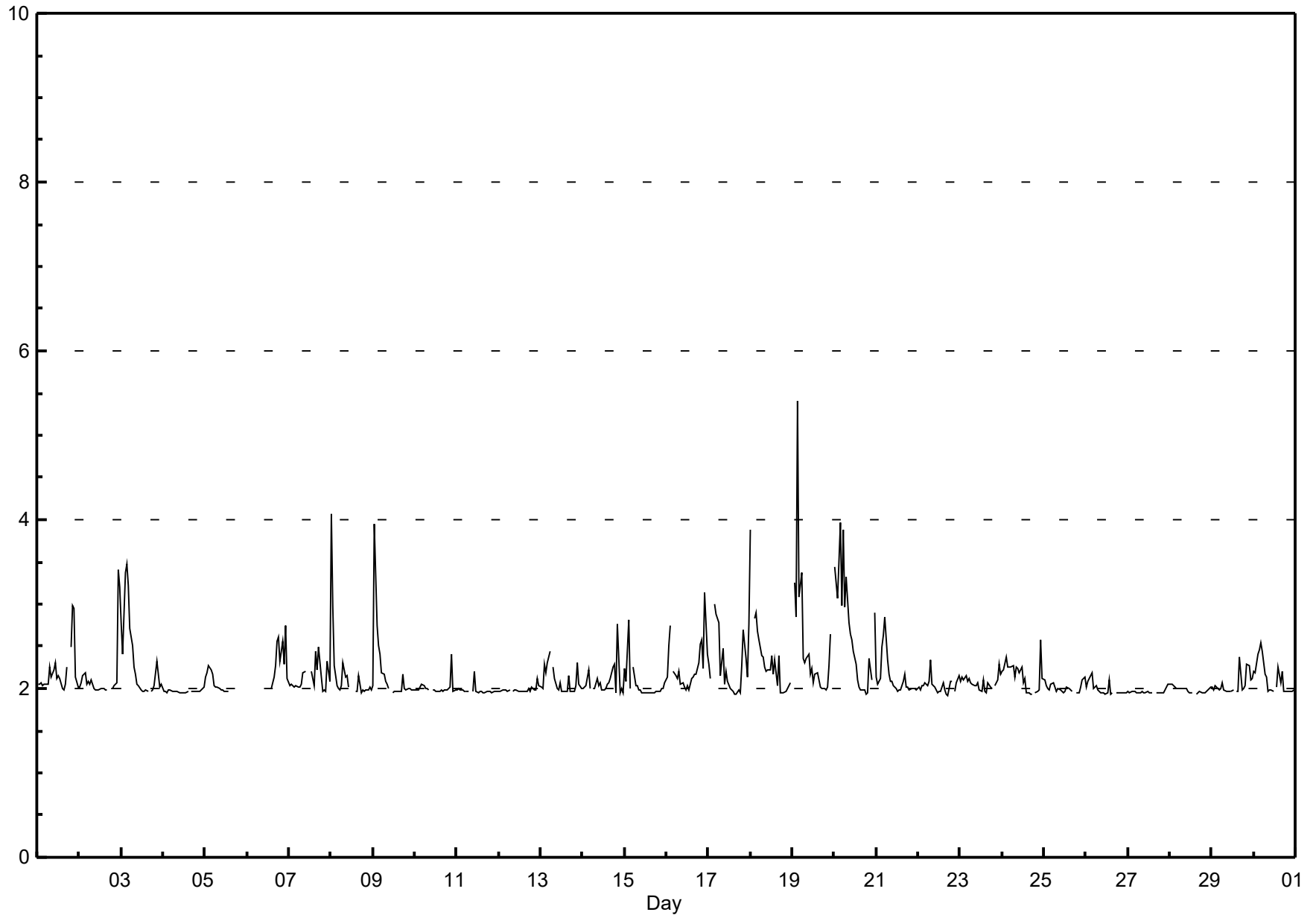
Methane (CH₄) - ppm

Henry Pirker - June 2018

Maximum Value: 5.40 ppm on Jun 19 04:00																				Maximum Daily Average: 2.65 ppm on Jun 20					Hours in Service: 720	
Minimum Value: 1.9 ppm on Jun 22 18:00																				Minimum Daily Average: 1.96 ppm on Jun 27					Hours of Data: 663	
Maximum Diurnal Average: 2.42 ppm at hour 4																				Minimum Diurnal Average: 2.01 ppm at hour 16					Hours of Missing Data: 57	
Monthly Average: 2.138 ppm																				Percentiles: P ₁ = 1.94 P ₁₀ = 1.95 Q ₁ = 1.97 Median = 2.01 Q ₃ = 2.17 P ₉₀ = 2.44 P ₉₉ = 3.45					Hours of Calibration: 30	
																									Percent Operational Time: 96.3	
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-Jun	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.3	2.1	2.2	2.3	2.1	2.2	2.1	2.0	2.0	2.1	2.3	A	2.5	3.0	3.0	2.1	2.0	2.20	2.99
2-Jun	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	3.4	3.2	2.15	3.41
3-Jun	2.8	2.4	3.4	3.5	3.2	2.7	2.5	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.3	2.2	2.0	2.1	2.32	3.47
4-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.01
5-Jun	2.1	2.2	2.3	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	D	D	D	D	D	D	D	D	D	D	--	2.27
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	2.0	2.1	2.3	2.6	2.6	2.3	2.6	2.3	2.7	2.1	--	2.75
7-Jun	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	C	C	C	2.2	2.0	2.4	2.2	2.5	2.1	2.0	2.0	2.0	2.3	2.1	2.12	2.50
8-Jun	4.1	3.0	2.3	2.0	2.0	2.0	2.0	2.3	2.1	2.2	2.0	M	M	M	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.19	4.07
9-Jun	2.0	3.9	2.7	2.5	2.4	2.2	2.2	2.1	2.0	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.17	3.95
10-Jun	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	2.4	2.0	2.0	2.01	2.41
11-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.21
12-Jun	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	2.1	2.0	2.0	1.98	2.12
13-Jun	2.0	2.0	2.3	2.2	2.3	2.4	A	2.3	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.08	2.44
14-Jun	2.0	2.0	2.0	2.2	2.0	A	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.0	2.8	1.9	2.0	1.9	2.08	2.77
15-Jun	2.2	2.1	2.8	2.0	A	2.2	2.0	2.0	2.0	2.0	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	2.1	2.04	2.82
16-Jun	2.1	2.5	2.7	A	2.2	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.3	2.5	2.6	2.2	3.1	2.4	2.26	3.13
17-Jun	2.3	2.1	A	3.0	2.9	2.8	2.8	2.2	2.5	2.1	2.2	2.1	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.3	2.7	2.4	2.1	2.8	2.30	3.00
18-Jun	3.9	A	2.8	2.9	2.7	2.6	2.4	2.4	2.3	2.2	2.2	2.2	2.4	2.2	2.3	2.0	2.4	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.34	3.88
19-Jun	A	3.3	2.8	5.4	3.1	3.4	2.4	2.3	2.4	2.4	2.2	2.2	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.6	A	2.51	5.40
20-Jun	3.4	3.3	3.1	4.0	3.0	3.9	3.0	3.3	2.8	2.6	2.6	2.4	2.3	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.4	2.1	A	2.9	2.65	3.97
21-Jun	2.1	2.1	2.1	2.5	2.6	2.8	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.0	2.0	A	2.0	2.0	2.14	2.85
22-Jun	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.9	2.1	2.1	A	2.0	2.1	2.1	2.03	2.34
23-Jun	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	1.9	2.1	2.0	2.0	A	2.0	2.1	2.3	2.2	2.07	2.29
24-Jun	2.2	2.2	2.4	2.3	2.3	2.3	2.3	2.1	2.2	2.2	2.2	2.3	2.1	2.1	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.6	2.1	2.15	2.58
25-Jun	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	2.0	2.1	2.1	2.00	2.14
26-Jun	2.0	2.1	2.1	2.2	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.99	2.19
27-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	A	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.1	1.96	2.06
28-Jun	2.1	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	A	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.98	2.05
29-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.4	2.0	2.0	2.0	2.3	2.3	2.1	2.1	2.04	2.38
30-Jun	2.2	2.2	2.4	2.5	2.5	2.4	2.2	2.1	2.0	2.0	2.0	2.0	A	2.0	2.3	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.12	2.54
2.28 2.27 2.31 2.42 2.27 2.29 2.16 2.16 2.11 2.07 2.06 2.03 2.01 2.02 2.02 2.01 2.06 2.05 2.03 2.04 2.15 2.11 2.20 2.15																								Diurnal Average		
4.07 3.95 3.38 5.40 3.22 3.88 2.97 3.32 2.78 2.64 2.58 2.44 2.39 2.20 2.34 2.44 2.39 2.57 2.61 2.52 2.99 2.96 3.41 3.20																								Diurnal Maximum		
C - Calibration				D - DAS Failure				M - Maintenance				A - Automated Daily Zero Span														

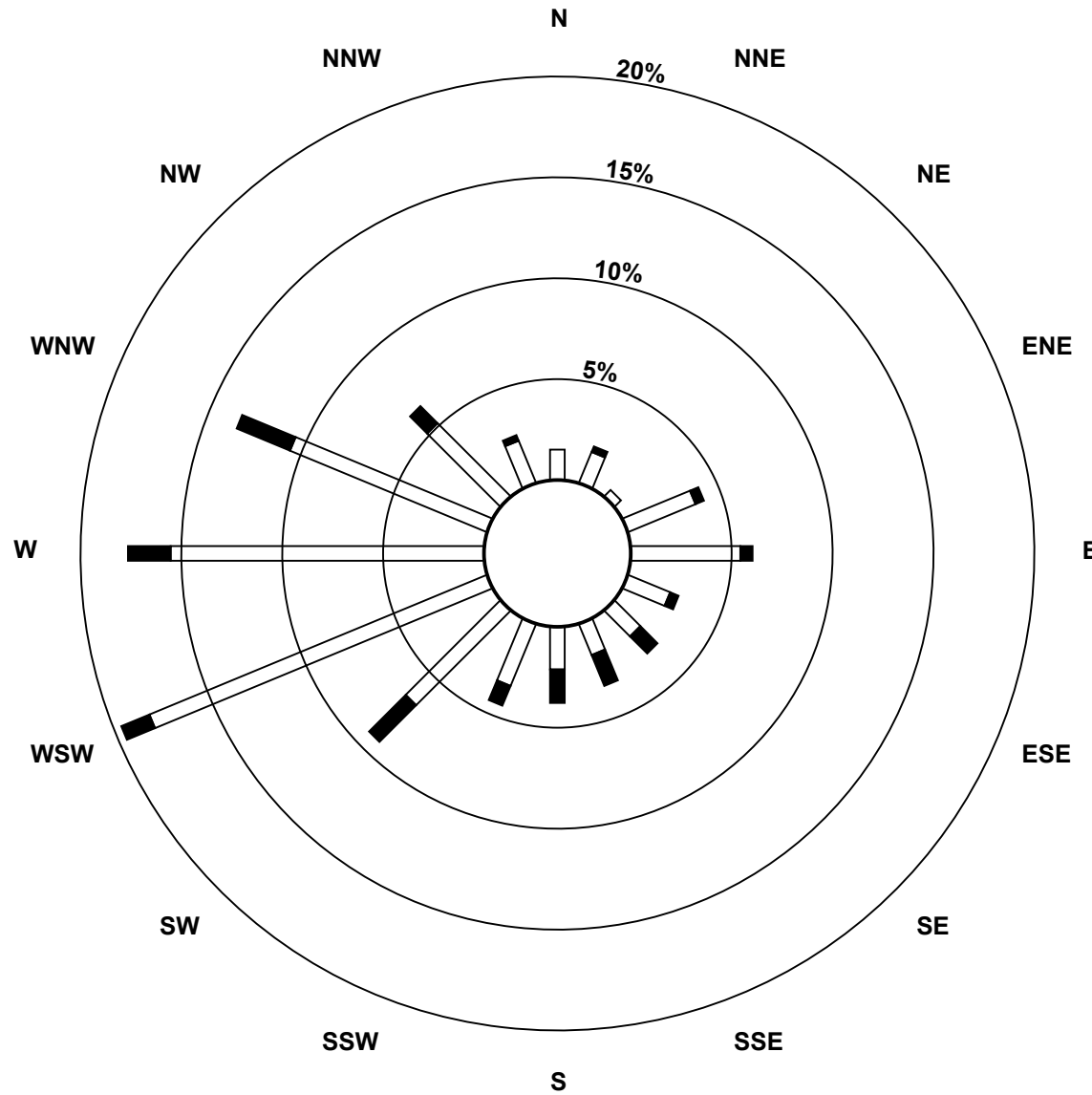
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - June 2018

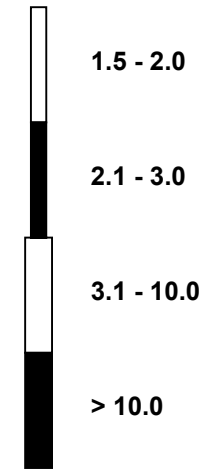


Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - June 2018

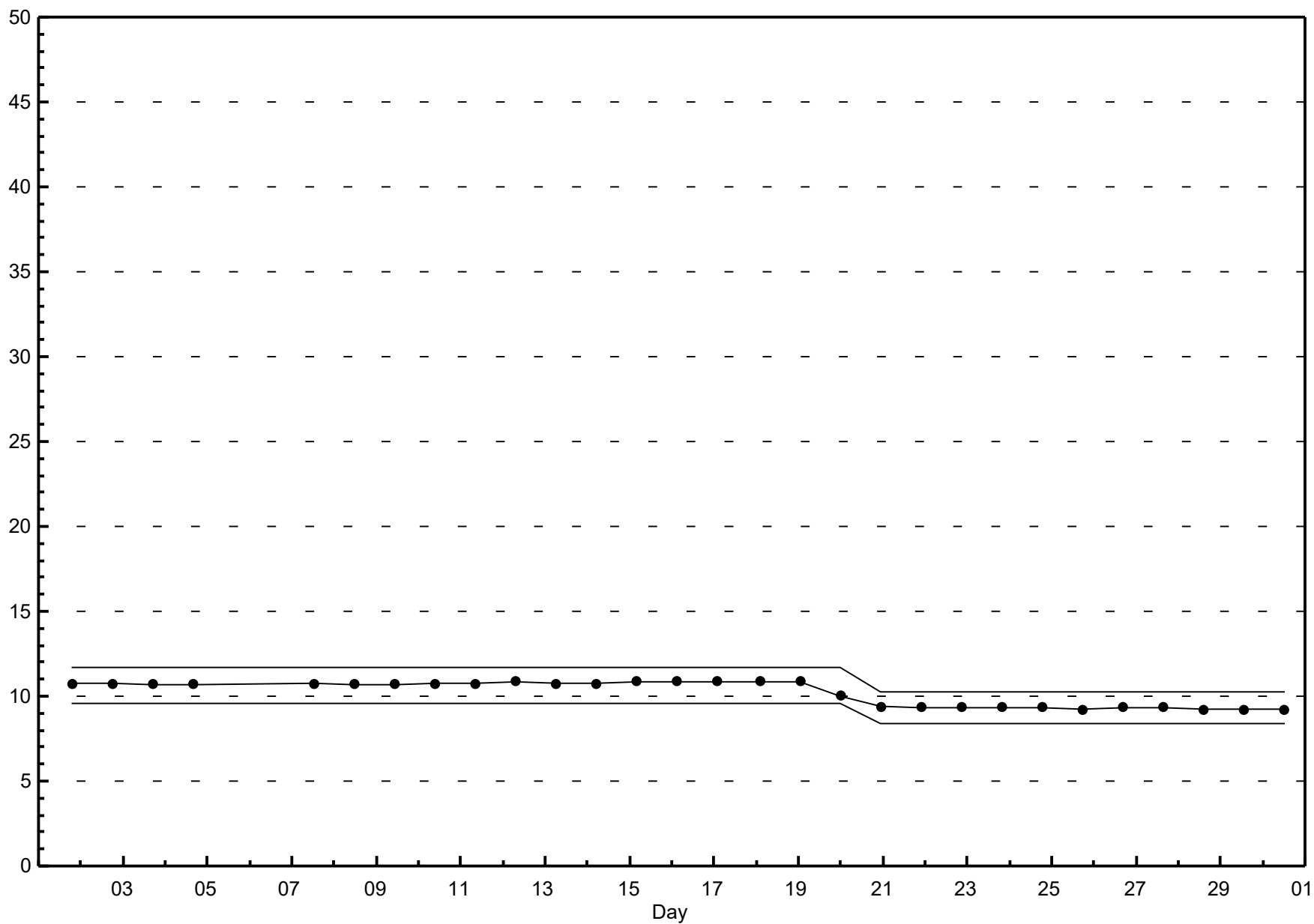


Pollutant Classes (ppm)



Span Responses

Methane (CH₄)
Henry Pirker - June 2018

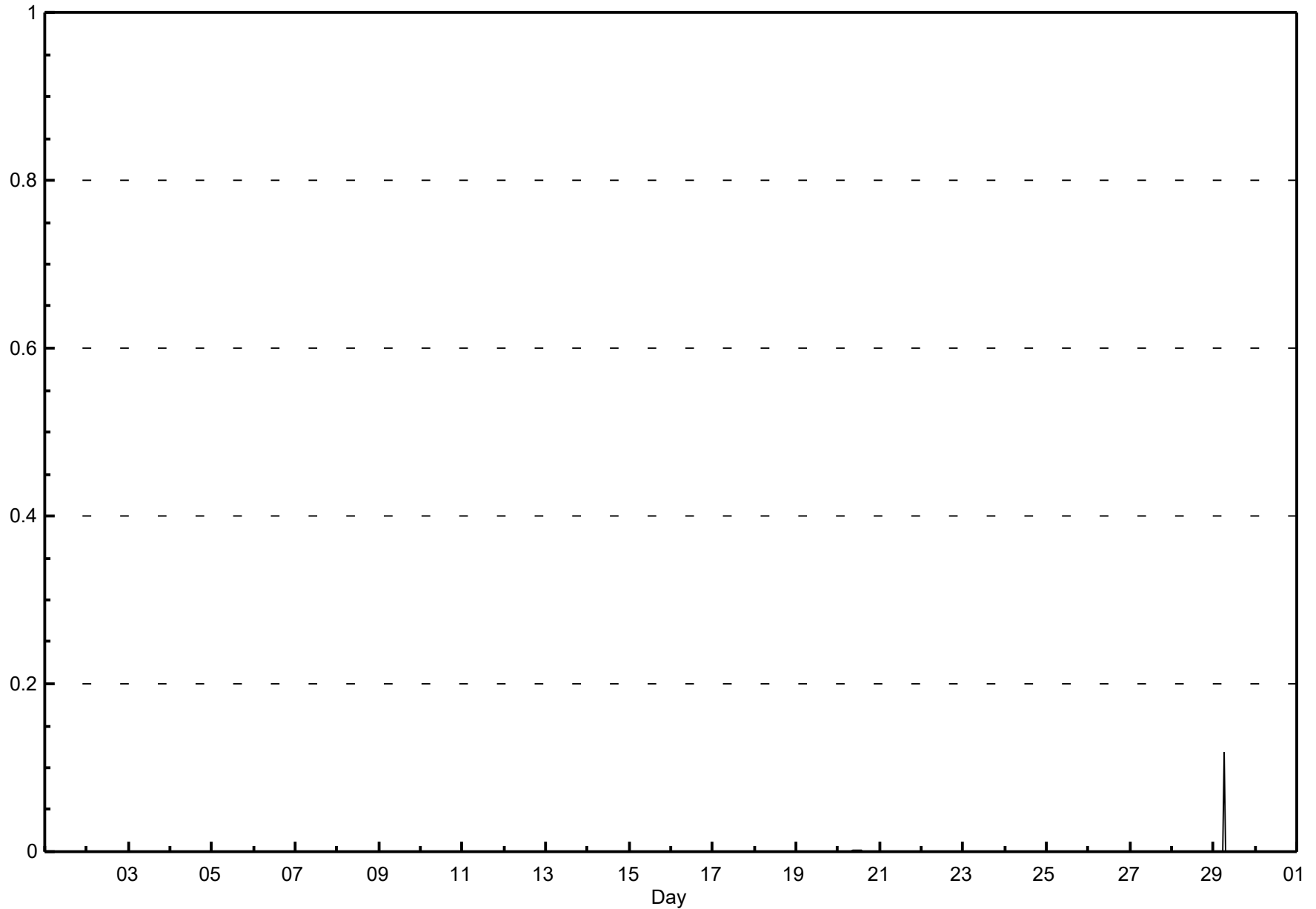


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2018

Maximum Value: 0.12 ppm on Jun 29 07:00																					Maximum Daily Average: 0.01 ppm on Jun 29				Hours in Service: 720	
Minimum Value: 0.0 ppm on Jun 1 01:00																					Minimum Daily Average: 0.00 ppm on Jun 1				Hours of Data: 663	
Maximum Diurnal Average: 0.00 ppm at hour 7																					Minimum Diurnal Average: 0.00 ppm at hour 17				Hours of Missing Data: 57	
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: 30	
																					Percent Operational Time: 96.3					
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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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
2-Jun	0.0	0.0	0.0	0.0	0.0	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
3-Jun	0.0	0.0	0.0	0.0	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
4-Jun	0.0	0.0	0.0	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
5-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	D	D	D	D	D	D	D	D	D	D	--	0.00
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.00
7-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	M	M	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-Jun	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
10-Jun	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
11-Jun	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
12-Jun	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
13-Jun	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
14-Jun	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
15-Jun	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
16-Jun	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
17-Jun	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
18-Jun	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
19-Jun	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
20-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
21-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
22-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
23-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
24-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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
25-Jun	0.0	0.0	0.0	0.0	0.0	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
26-Jun	0.0	0.0	0.0	0.0	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
27-Jun	0.0	0.0	0.0	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
28-Jun	0.0	0.0	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
29-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.01	0.12
30-Jun	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
0.00																									Diurnal Average	
0.00																									Diurnal Maximum	
C - Calibration				D - DAS Failure				M - Maintenance				A - Automated Daily Zero Span														



Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

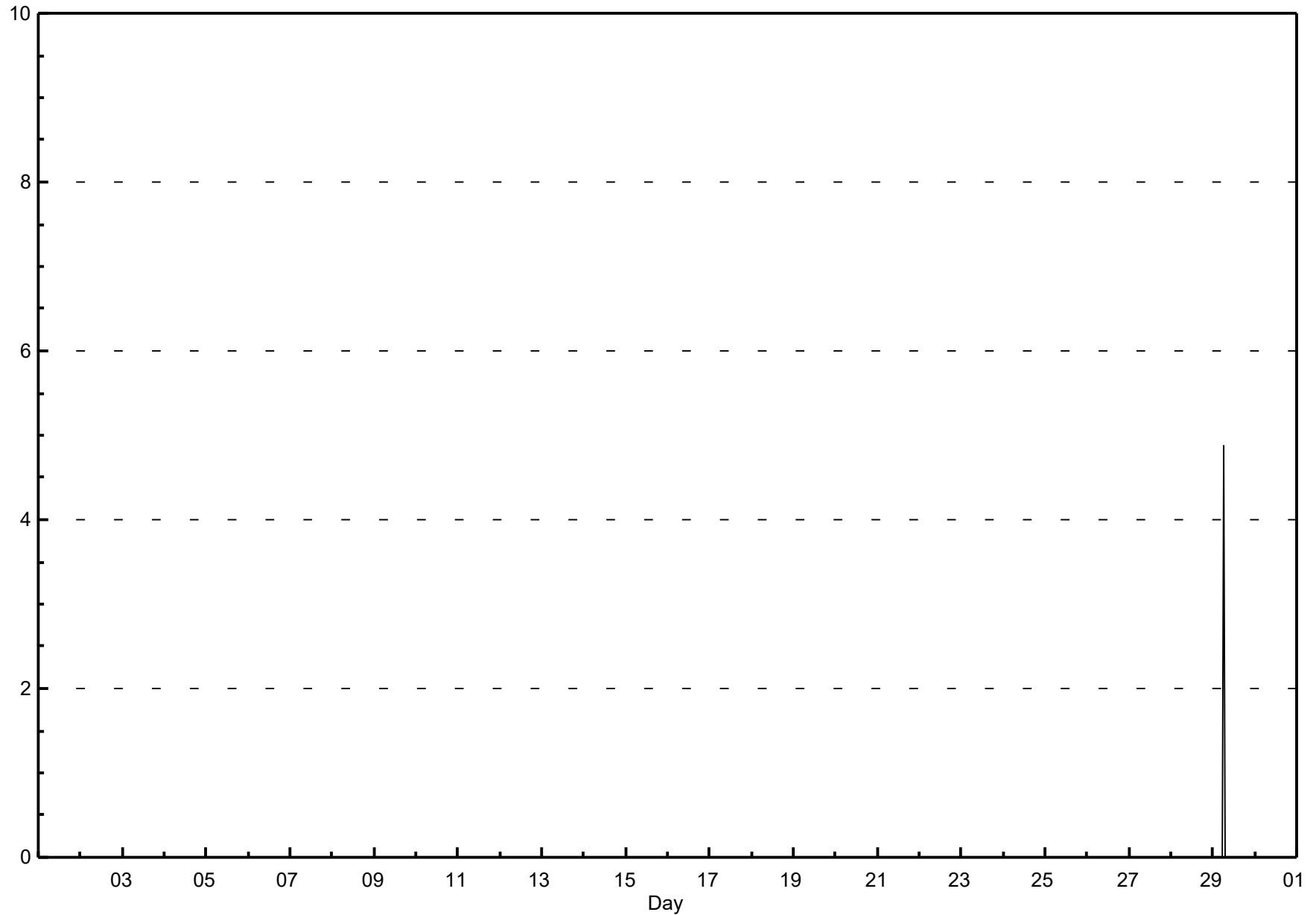
Henry Pirker - June 2018

Maximum Value: 4.89 ppm on Jun 29 07:00																					Maximum Daily Average: 0.21 ppm on Jun 29				Hours in Service: 720	
Minimum Value: 0.0 ppm on Jun 10 12:00																					Minimum Daily Average: 0.00 ppm on Jun 16				Hours of Data: 663	
Maximum Diurnal Average: 0.18 ppm at hour 7																					Minimum Diurnal Average: 0.00 ppm at hour 1				Hours of Missing Data: 57	
Monthly Average: 0.008 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: 30	
																					Percent Operational Time: 96.3					
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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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
2-Jun	0.0	0.0	0.0	0.0	0.0	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
3-Jun	0.0	0.0	0.0	0.0	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
4-Jun	0.0	0.0	0.0	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
5-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	D	D	D	D	D	D	D	D	D	D	--	0.00
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.00
7-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	M	M	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-Jun	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
10-Jun	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
11-Jun	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
12-Jun	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
13-Jun	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
14-Jun	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
15-Jun	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
16-Jun	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
17-Jun	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
18-Jun	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
19-Jun	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
20-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
21-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
22-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
23-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
24-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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
25-Jun	0.0	0.0	0.0	0.0	0.0	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
26-Jun	0.0	0.0	0.0	0.0	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
27-Jun	0.0	0.0	0.0	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
28-Jun	0.0	0.0	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
29-Jun	0.0	0.0	0.0	0.0	0.0	0.0	4.9	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	0.21	4.89
30-Jun	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
0.00																								Diurnal Average		
0.00																								Diurnal Maximum		
C - Calibration				D - DAS Failure				M - Maintenance				A - Automated Daily Zero Span														

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

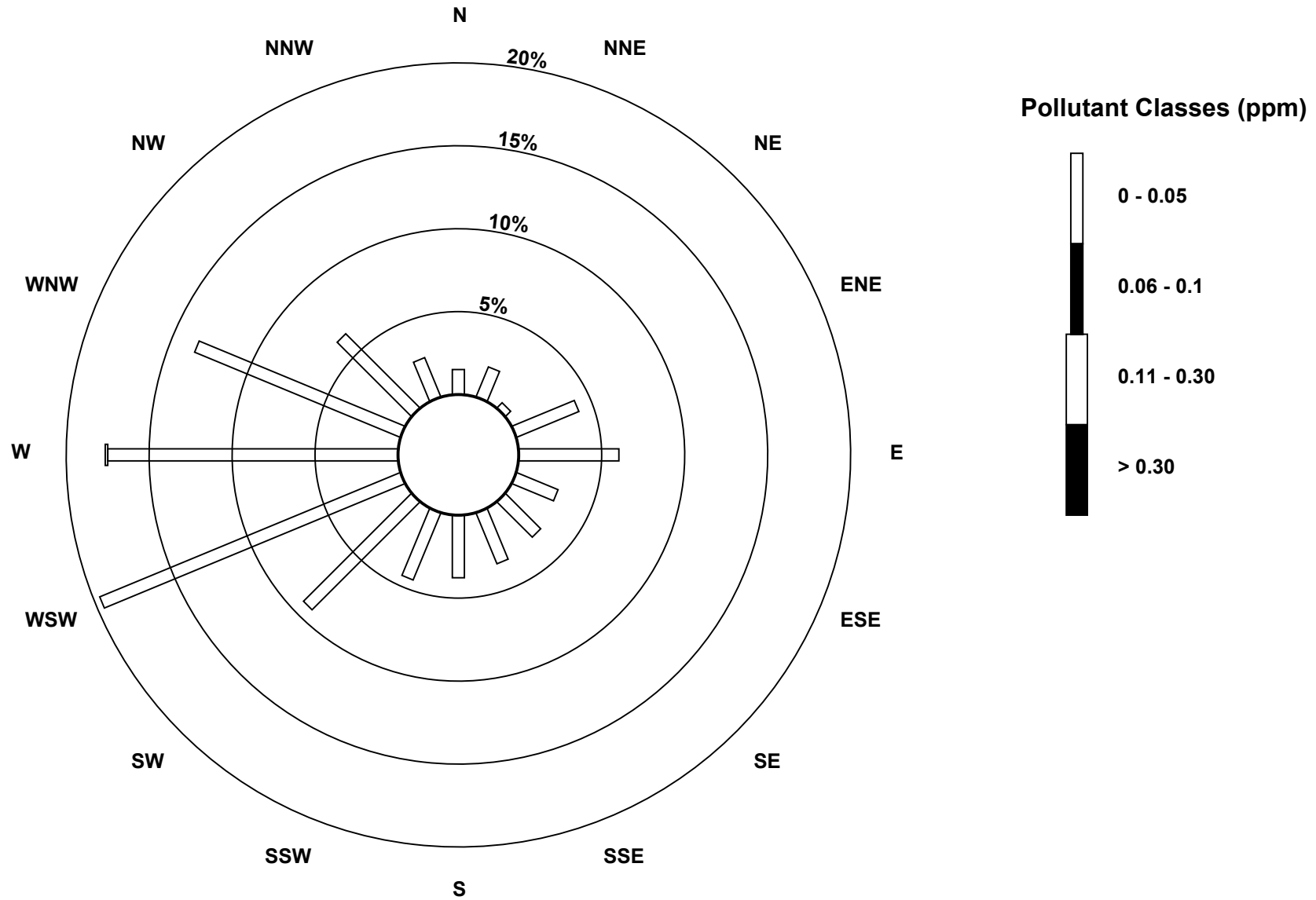
Henry Pirker - June 2018

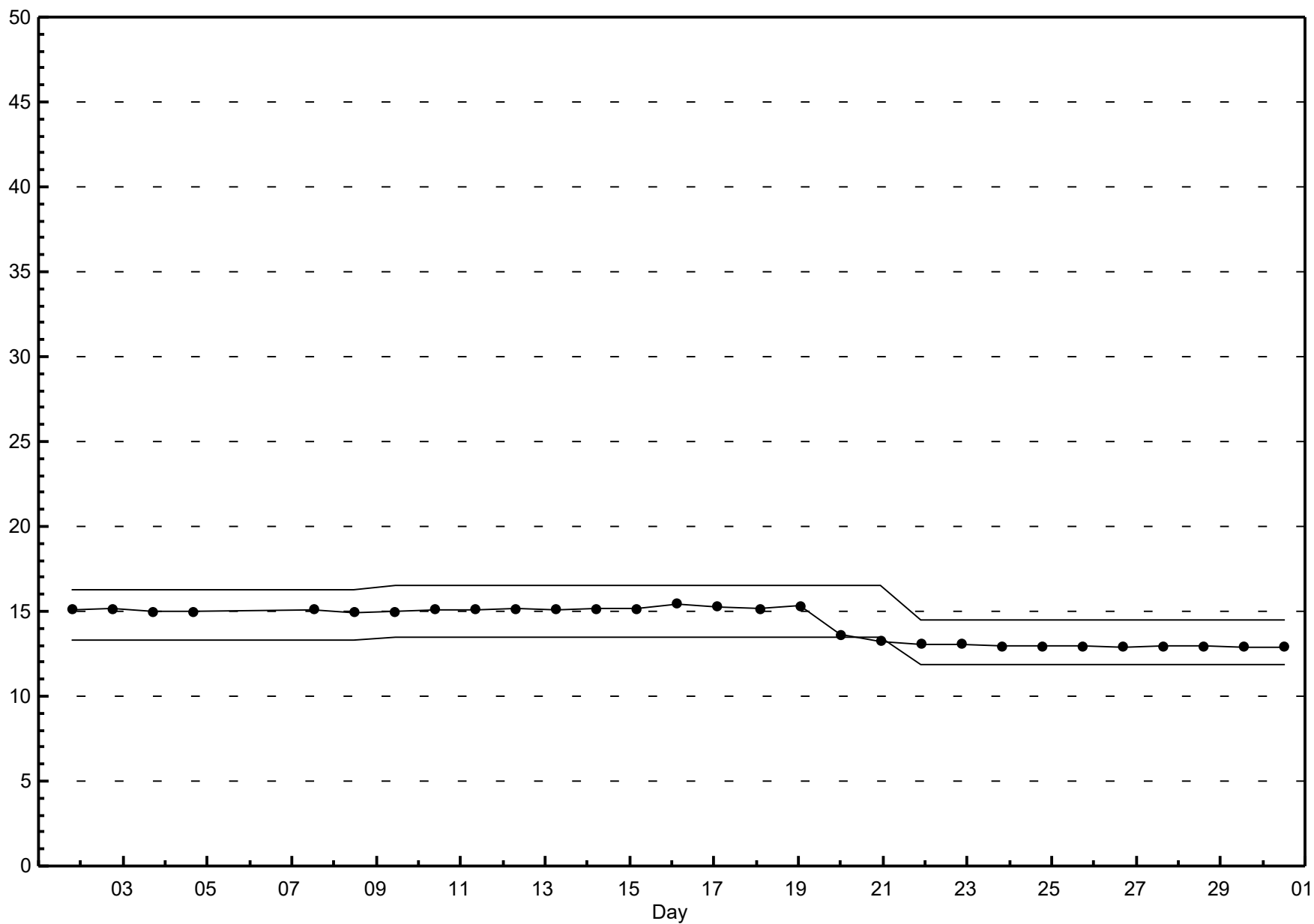


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2018



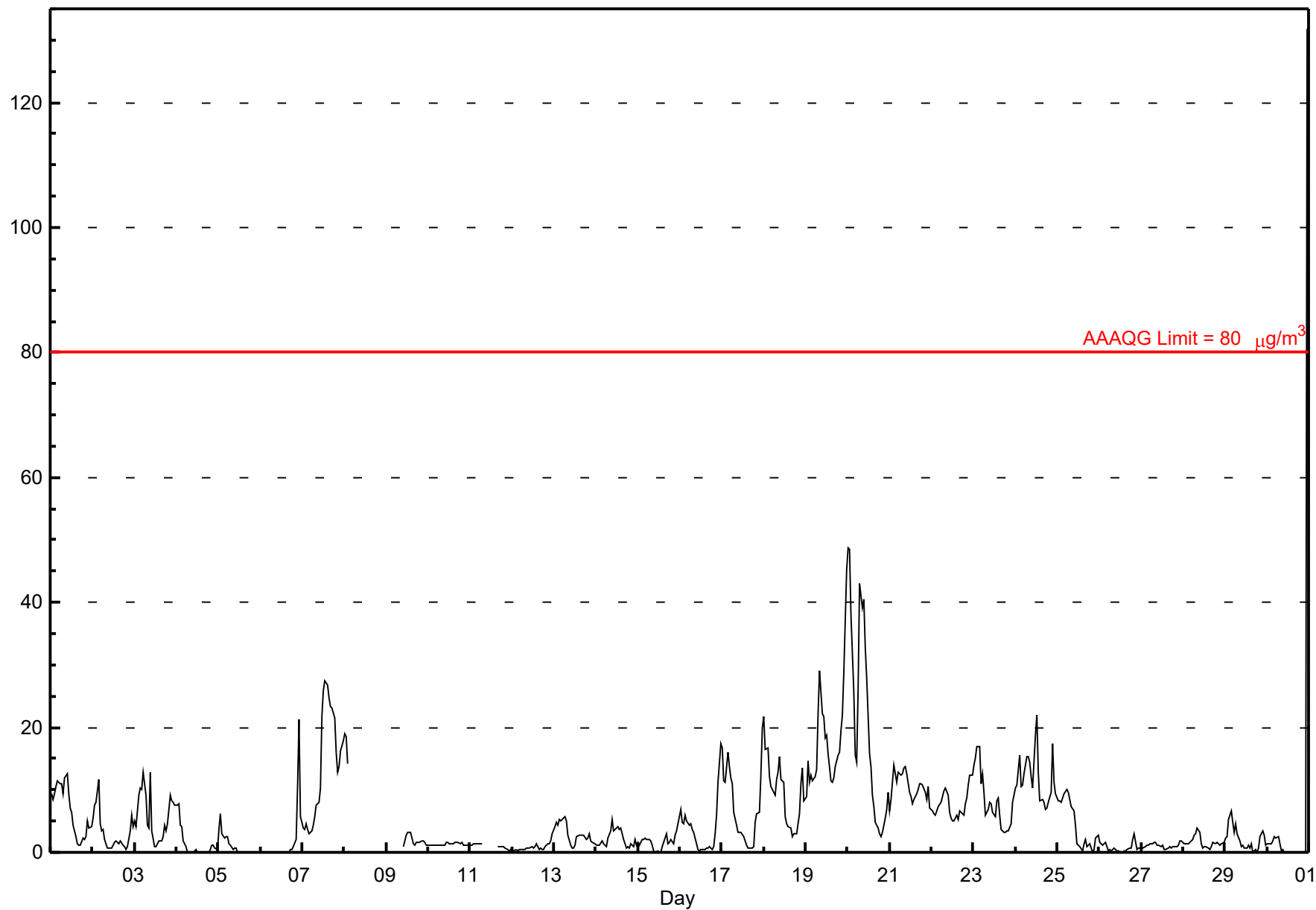


Hourly Averages

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

Henry Pirker - June 2018

Number of Exceedences: 1-hr: 1 24-hr: 0 Maximum Value: 131.8 µg/m³ on Jul 1 00:00 Maximum Daily Average: 20.2 µg/m³ on Jun 20																								Hours in Service: 720 Hours of Data: 657 Hours of Missing Data: 63 Hours of Calibration: 8 Percent Operational Time: 92.4		
Minimum Value: 0 µg/m³ on Jun 4 08:00 Maximum Diurnal Average: 11.8 µg/m³ at hour 24 Monthly Average: 5.81 µg/m³ Minimum Daily Average: 0.8 µg/m³ on Jun 26 Minimum Diurnal Average: 3.3 µg/m³ at hour 19 Percentiles: P ₁ = 0.0 P ₁₀ = 0.4 Q ₁ = 1.1 Median = 2.8 Q ₃ = 8.4 P ₉₀ = 13.7 P ₉₉ = 38.5																										
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-Jun	9	9	9	10	12	11	11	9	12	13	9	7	7	4	2	1	1	1	2	2	3	5	4	4	6.6	12.5
2-Jun	5	8	8	12	5	3	4	2	1	1	1	1	2	2	2	1	2	1	1	0	1	4	6	4	3.1	11.6
3-Jun	5	4	9	10	10	13	9	4	4	13	3	1	1	1	2	2	3	4	3	5	9	8	8	7	5.8	12.8
4-Jun	8	8	4	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1.3	7.7
5-Jun	4	6	3	2	2	2	1	1	1	1	1	0	0	0	D	D	D	D	D	D	D	D	D	D	--	6.1
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	0	0	0	0	0	1	2	10	21	6	--	21.2
7-Jun	4	4	5	4	3	3	4	6	8	8	10	22	26	27	27	25	23	23	22	16	13	14	16	18	13.7	27.4
8-Jun	19	19	14	N	N	N	N	N	N	M	M	M	M	N	N	N	N	N	N	N	N	N	N	N	--	19.1
9-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	3	3	1	1	2	2	2	2	2	1	--	3.3
10-Jun	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	2	2	1	2	1	1	1	1	1.3	1.7
11-Jun	1	1	1	1	1	1	1	1	C	C	C	C	C	C	C	C	1	1	1	1	1	0	0	0	--	1.4
12-Jun	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	2	3	0.8	3.0
13-Jun	4	5	4	5	5	6	6	5	3	1	1	1	1	3	3	3	3	3	2	2	3	2	2	1	3.0	5.7
14-Jun	1	1	1	2	1	1	1	2	3	5	3	4	4	4	4	3	2	1	1	1	1	1	2	1	2.2	5.3
15-Jun	2	1	2	2	2	2	2	2	1	0	0	0	0	0	1	2	3	1	2	2	1	3	3	5	1.7	4.7
16-Jun	7	5	5	6	5	4	5	4	3	1	1	0	0	0	1	1	1	1	1	1	3	6	11	17	3.7	17.4
17-Jun	17	12	11	16	14	12	11	6	4	3	3	3	3	2	1	1	1	1	1	5	6	6	12	20	7.1	20.0
18-Jun	22	16	17	12	11	10	9	12	13	15	12	11	6	5	4	4	3	3	3	3	6	11	13	8	9.5	21.8
19-Jun	9	15	11	12	11	12	13	22	29	22	18	19	16	11	11	12	14	15	16	19	22	29	45	17.8	45.3	
20-Jun	49	49	38	26	16	14	26	43	39	41	33	28	16	14	9	7	5	4	3	3	3	6	7	10	20.2	48.8
21-Jun	7	8	14	13	11	13	12	12	14	14	13	10	9	8	8	9	10	11	11	11	10	8	10	7	10.6	14.0
22-Jun	7	6	6	7	7	8	9	10	10	9	6	6	5	5	6	5	7	6	6	8	9	11	12	12	7.6	12.4
23-Jun	14	15	17	17	11	13	10	6	7	8	8	6	6	8	9	6	4	3	3	3	3	5	8	9	8.3	16.9
24-Jun	10	11	15	10	11	13	15	15	14	12	10	19	22	13	8	8	8	7	7	8	10	17	11	9	11.9	21.9
25-Jun	8	8	8	9	9	10	10	8	7	7	4	1	1	1	0	1	2	1	1	1	0	1	2	3	4.3	10.0
26-Jun	2	1	1	2	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	2	3	0	1	1	0.8	3.0
27-Jun	1	1	1	1	1	1	1	2	2	1	1	1	1	0	1	1	1	1	1	1	1	1	2	2	1.1	1.8
28-Jun	1	1	1	1	2	2	3	3	4	3	1	1	1	1	1	1	1	2	1	1	1	1	1	2	1.6	3.8
29-Jun	2	3	5	7	5	3	5	3	2	1	1	1	1	1	1	1	0	0	0	1	2	3	3	1	2.1	6.5
30-Jun	1	1	1	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	132	6.1	131.8
7.8 7.8 7.7 7.2 6.0 6.1 6.4 6.8 7.0 7.0 5.5 5.4 5.0 4.5 3.9 3.6 3.4 3.3 3.3 3.5 4.2 5.4 6.9 11.8																								Diurnal Average		
48.8 48.5 38.0 25.7 15.6 14.4 26.1 43.0 39.1 40.5 32.7 27.9 25.8 27.4 26.8 24.7 23.3 23.0 21.6 16.1 19.5 21.9 28.9 131.8																								Diurnal Maximum		
C - Calibration D - DAS Failure M - Maintenance N - Not Valid Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										

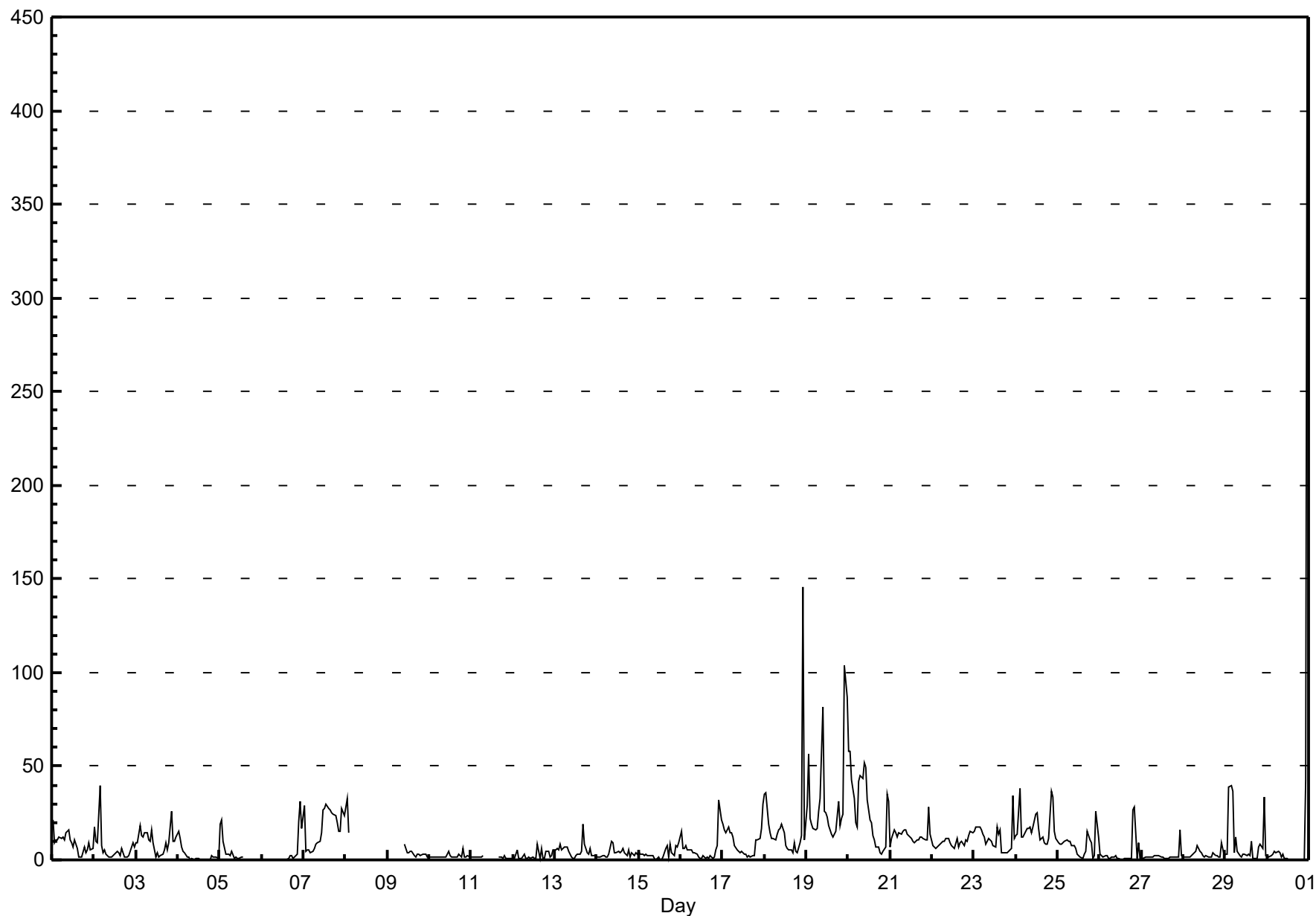


Hourly Maximums

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

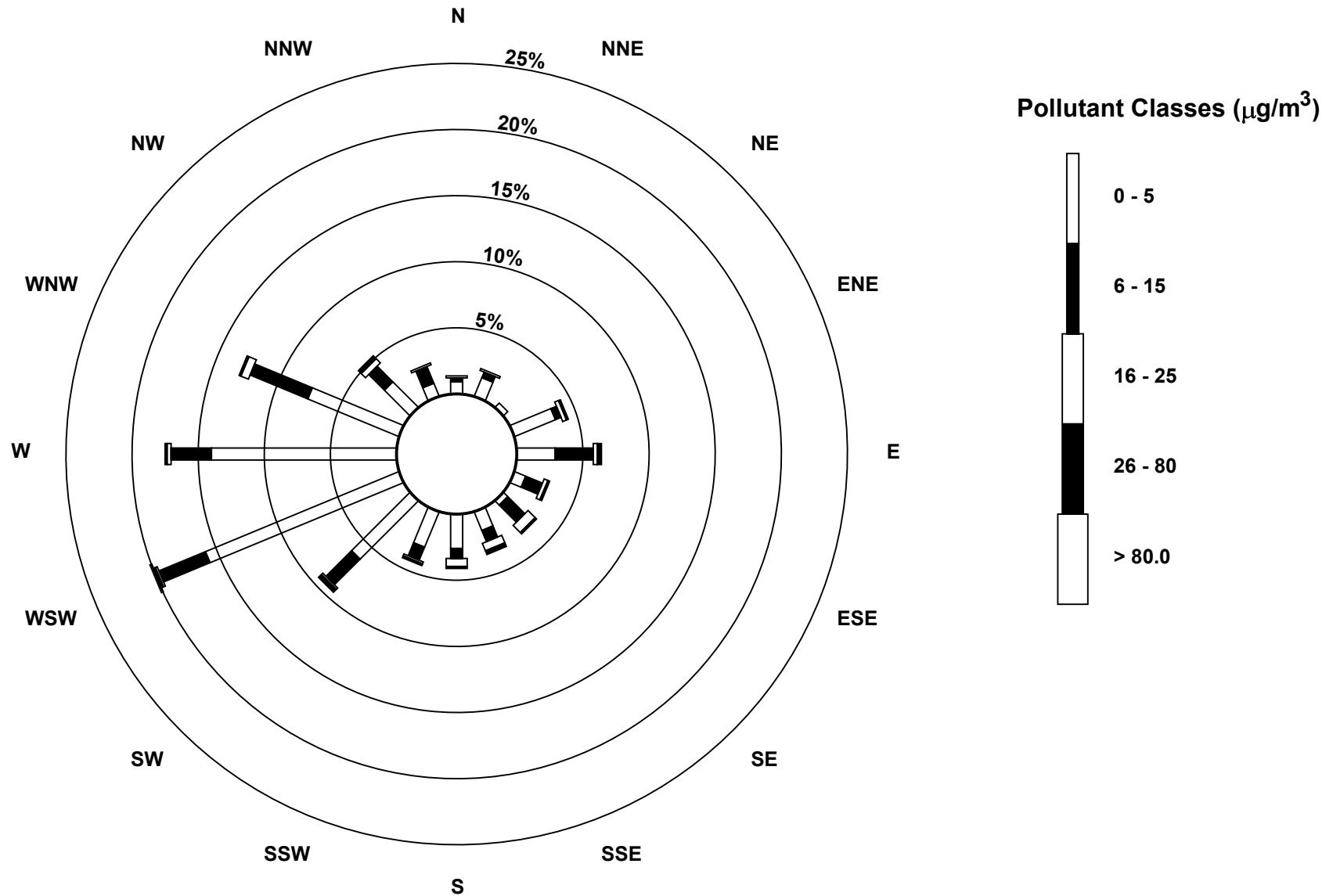
Henry Pirker - June 2018

Maximum Value: 450.0 $\mu\text{g}/\text{m}^3$ on Jul 1 00:00																				Maximum Daily Average: 31.3 $\mu\text{g}/\text{m}^3$ on Jun 19										Hours in Service: 720	
Minimum Value: 0 $\mu\text{g}/\text{m}^3$ on Jun 4 15:00																				Minimum Daily Average: 2.0 $\mu\text{g}/\text{m}^3$ on Jun 10										Hours of Data: 657	
Maximum Diurnal Average: 28.2 $\mu\text{g}/\text{m}^3$ at hour 24																				Minimum Diurnal Average: 5.4 $\mu\text{g}/\text{m}^3$ at hour 18										Hours of Missing Data: 63	
Monthly Average: 9.69 $\mu\text{g}/\text{m}^3$																				Percentiles: P ₁ = 0.0 P ₁₀ = 1.0 Q ₁ = 1.8 Median = 4.8 Q ₃ = 11.6 P ₉₀ = 21.0 P ₉₉ = 56.8										Hours of Calibration: 8	
																				Percent Operational Time: 92.4											
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-Jun	21	9	10	11	12	11	12	11	15	16	11	9	7	11	6	2	2	2	7	4	5	9	5	6	8.9	21.1					
2-Jun	17	10	9	39	8	4	6	3	2	1	2	2	4	4	4	2	6	2	2	1	2	7	9	7	6.3	39.4					
3-Jun	9	9	18	13	12	14	15	11	10	16	9	2	4	2	2	3	6	9	5	9	26	10	10	12	9.9	26.1					
4-Jun	15	12	7	5	3	2	1	0	1	0	1	1	1	0	0	0	0	0	0	2	2	2	1	1	2.4	15.3					
5-Jun	19	21	10	3	3	3	2	4	1	1	1	1	1	2	D	D	D	D	D	D	D	D	D	D	--	21.0					
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	0	0	3	2	1	1	3	20	31	17	--	31.5					
7-Jun	29	5	6	6	4	4	6	8	9	10	14	27	28	30	28	27	25	24	23	20	15	15	27	23	17.2	29.9					
8-Jun	28	33	15	N	N	N	N	N	N	M	M	M	M	N	N	N	N	N	N	N	N	N	N	N	--	32.9					
9-Jun	N	N	N	N	N	N	N	N	N	N	N	N	N	N	5	2	2	3	3	2	3	3	3	2	--	8.3					
10-Jun	1	1	1	1	1	1	1	1	1	1	3	5	2	2	2	2	2	3	2	6	2	1	3	1	2.0	6.0					
11-Jun	1	1	1	1	2	2	2	2	C	C	C	C	C	C	C	C	2	1	1	2	1	1	1	1	--	2.3					
12-Jun	1	1	5	1	1	1	3	1	1	1	1	1	1	1	9	1	6	1	1	5	4	2	2	5	2.2	8.7					
13-Jun	5	6	5	9	6	6	7	7	5	2	1	1	3	3	3	5	19	8	4	3	6	2	3	2	5.0	18.9					
14-Jun	2	1	1	2	2	1	1	3	10	9	4	4	5	4	5	6	4	3	5	1	4	2	4	3	3.6	10.0					
15-Jun	4	3	3	2	3	2	2	2	2	1	0	2	0	0	2	6	7	2	9	4	2	8	7	9	3.5	9.3					
16-Jun	15	6	6	8	6	5	5	4	4	3	1	1	1	2	1	1	1	2	1	2	6	8	32	22	6.0	32.4					
17-Jun	19	16	14	18	15	14	12	8	6	4	4	5	3	3	2	2	2	2	2	11	11	11	17	30	9.6	29.7					
18-Jun	35	36	19	14	11	11	11	14	16	17	19	14	8	6	5	5	4	9	4	4	9	13	146	11	18.5	146.0					
19-Jun	29	56	22	19	17	16	17	26	33	82	26	25	23	18	14	12	14	15	31	19	22	24	104	87	31.3	104.0					
20-Jun	58	58	43	33	20	17	42	45	44	52	50	32	22	19	13	10	7	7	4	3	5	7	35	31	27.3	57.8					
21-Jun	7	11	16	15	12	14	14	16	16	16	14	12	11	10	9	11	11	12	12	12	10	11	28	14	13.1	28.3					
22-Jun	7	7	6	7	8	9	10	10	12	12	9	8	7	6	11	7	9	10	7	10	10	13	15	15	9.4	15.4					
23-Jun	15	17	18	18	16	14	12	8	12	10	10	8	7	18	14	16	4	4	4	4	5	6	34	12	11.8	34.2					
24-Jun	13	14	38	12	12	14	17	17	18	14	18	24	26	17	10	12	9	8	8	11	37	34	15	11	17.1	38.5					
25-Jun	9	9	8	9	10	10	10	10	8	7	6	3	2	1	1	3	5	15	11	9	1	2	26	12	7.8	26.0					
26-Jun	3	2	2	2	2	1	1	1	2	2	0	0	0	0	0	1	1	1	1	26	28	1	9	1	3.7	28.1					
27-Jun	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	2	1	1	1	16	3	2.1	16.0					
28-Jun	2	2	2	2	2	3	4	5	8	5	3	2	1	2	2	1	2	4	2	2	2	2	9	2	2.9	9.2					
29-Jun	3	3	39	39	37	4	12	5	2	2	3	3	2	3	2	10	1	1	1	7	8	6	33	2	9.5	39.5					
30-Jun	2	2	2	3	4	4	5	4	2	3	1	1	0	0	0	0	0	0	0	0	0	0	43	450	21.9	450.0					
13.3 12.6 11.8 10.9 8.5 7.1 8.6 8.4 9.2 11.1 8.2 7.3 6.4 6.3 5.6 5.5 5.4 5.4 5.4 6.5 8.2 7.9 23.9 28.2																									Diurnal Average						
57.8 57.7 43.1 39.5 36.9 17.3 41.7 45.0 43.7 81.5 49.7 31.8 27.7 29.9 27.8 26.6 25.0 24.2 31.0 26.4 36.5 33.7 146.0 450.0																									Diurnal Maximum						
C - Calibration D - DAS Failure M - Maintenance N - Not Valid																															



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Henry Pirker - June 2018



Hourly Averages

External Temperature (ET) - °C

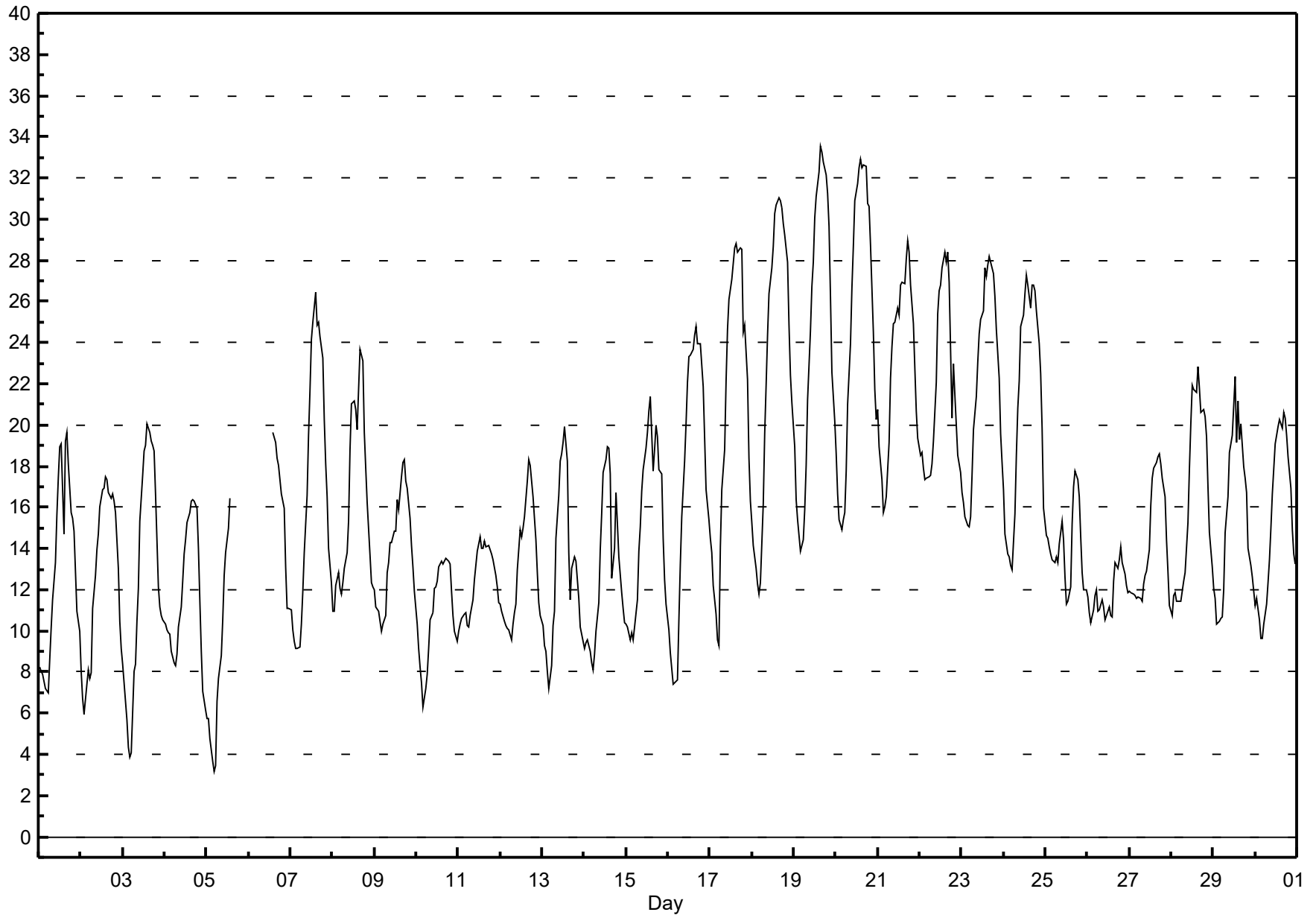
Henry Pirker - June 2018

Maximum Value: 33.5 °C on Jun 19 16:00																								Hours in Service: 720		
Maximum Daily Average: 24.9 °C on Jun 20																								Hours of Data: 696		
Minimum Value: 3 °C on Jun 5 05:00																								Hours of Missing Data: 24		
Maximum Diurnal Average: 21.3 °C at hour 17																								Hours of Calibration: 0		
Monthly Average: 16.25 °C																								Percent Operational Time: 96.7		
Minimum Daily Average: 10.8 °C on Jun 10																								Percentiles: P ₁ = 5.6 P ₁₀ = 9.5 Q ₁ = 11.5 Median = 15.0 Q ₃ = 19.6 P ₉₀ = 26.1 P ₉₉ = 32.5		
Minimum Diurnal Average: 10.5 °C at hour 5																										
Hourly Period Ending At (MST)																										
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jun	8	8	8	8	7	7	9	10	11	13	16	17	19	19	15	19	20	18	16	15	15	13	11	10	13.0	19.6
2-Jun	8	7	6	7	8	8	8	11	13	14	15	16	17	17	18	17	17	16	17	16	16	13	10	9	12.6	17.5
3-Jun	8	7	6	4	4	4	8	8	10	12	15	18	19	19	20	20	19	19	19	17	12	11	11	11	12.6	20.0
4-Jun	10	10	10	10	9	8	8	9	10	11	12	14	14	15	16	16	16	16	16	14	11	9	7	6	11.7	16.4
5-Jun	6	6	5	4	3	3	7	8	9	11	13	14	15	16	D	D	D	D	D	D	D	D	D	D	--	16.4
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	20	19	18	18	17	17	16	13	11	11	--	19.6
7-Jun	11	10	9	9	9	9	10	12	14	17	19	22	24	25	26	25	25	24	23	20	18	16	14	12	16.9	26.4
8-Jun	11	11	12	13	12	12	12	13	14	15	19	21	21	21	20	22	24	23	20	18	16	14	12	12	16.1	23.7
9-Jun	12	11	11	10	10	10	11	13	13	14	14	15	15	16	16	17	18	18	17	17	15	14	13	12	14.0	18.3
10-Jun	10	9	8	7	6	7	8	9	11	11	12	12	12	13	13	13	13	14	13	13	12	11	10	9	10.8	13.5
11-Jun	10	10	11	11	11	10	10	11	12	12	13	14	15	14	14	14	14	14	14	14	13	13	12	11	12.4	14.6
12-Jun	11	11	10	10	10	10	10	10	11	11	13	15	15	15	16	17	18	18	17	16	14	13	11	11	13.1	18.3
13-Jun	10	9	9	8	7	8	10	11	14	17	18	19	19	20	18	14	11	13	14	13	12	12	10	9	12.8	19.9
14-Jun	9	9	10	9	8	8	9	10	11	14	16	18	18	19	19	18	13	14	17	15	14	12	11	10	12.9	18.9
15-Jun	10	10	10	10	10	10	12	14	15	17	18	19	20	21	21	18	19	20	19	18	18	15	13	11	15.2	21.4
16-Jun	10	9	8	7	7	8	11	13	16	18	20	22	23	23	24	24	25	24	24	23	22	19	17	15	17.2	24.8
17-Jun	15	14	12	11	10	9	14	17	19	22	25	26	27	28	29	29	28	29	29	25	25	22	18	16	20.7	28.8
18-Jun	15	14	13	12	12	12	16	20	22	24	26	28	29	30	31	31	31	31	30	29	28	25	22	21	23.0	31.0
19-Jun	19	16	15	15	14	14	16	18	21	25	27	28	30	31	32	34	33	33	32	31	30	26	23	20	24.3	33.5
20-Jun	19	17	15	15	15	16	18	21	24	27	29	31	32	33	33	33	33	33	31	31	29	25	22	20	24.9	32.9
21-Jun	21	19	17	16	16	17	19	22	24	25	25	26	25	27	27	27	28	29	28	27	25	23	21	19	23.0	28.9
22-Jun	19	19	18	17	17	17	18	18	19	22	25	26	27	28	28	28	28	27	20	23	21	20	19	18	21.8	28.4
23-Jun	17	16	16	15	15	16	18	20	21	23	24	25	26	28	27	28	28	28	27	26	25	22	20	18	22.0	28.2
24-Jun	17	15	14	14	13	13	16	19	21	22	25	25	26	27	27	26	27	27	26	26	24	22	20	16	21.1	27.3
25-Jun	15	14	14	14	13	13	14	13	14	15	14	13	11	11	12	15	17	18	17	17	15	13	12	12	14.1	17.8
26-Jun	12	11	10	11	12	12	11	11	12	11	11	11	11	11	11	12	13	13	13	14	13	13	12	12	11.8	14.1
27-Jun	12	12	12	12	12	12	12	11	12	13	13	14	16	17	18	18	18	19	18	17	17	14	13	11	14.3	18.6
28-Jun	11	12	12	11	11	11	12	12	13	15	18	20	22	22	22	23	22	21	21	20	19	17	15	13	16.5	22.9
29-Jun	12	12	10	10	11	11	12	15	16	19	19	19	22	19	21	19	20	18	17	17	14	13	13	12	15.5	22.3
30-Jun	11	12	11	10	10	10	11	12	13	15	17	19	20	20	20	20	21	20	19	18	17	15	14	13	15.3	20.6
12.4 11.7 11.1 10.7 10.5 10.6 12.0 13.5 15.0 16.7 18.3 19.5 20.3 20.9 21.1 21.2 21.3 21.2 20.5 19.6 18.1 16.1 14.3 13.2																								Diurnal Average		
20.7 18.9 17.9 17.4 17.4 17.5 19.1 22.3 23.9 26.7 28.7 30.9 31.8 32.5 32.9 33.5 33.3 32.8 32.1 31.2 29.6 26.2 22.6 21.1																								Diurnal Maximum		
D - DAS Failure																										

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - June 2018



Hourly Averages

Relative Humidity (RH) - %

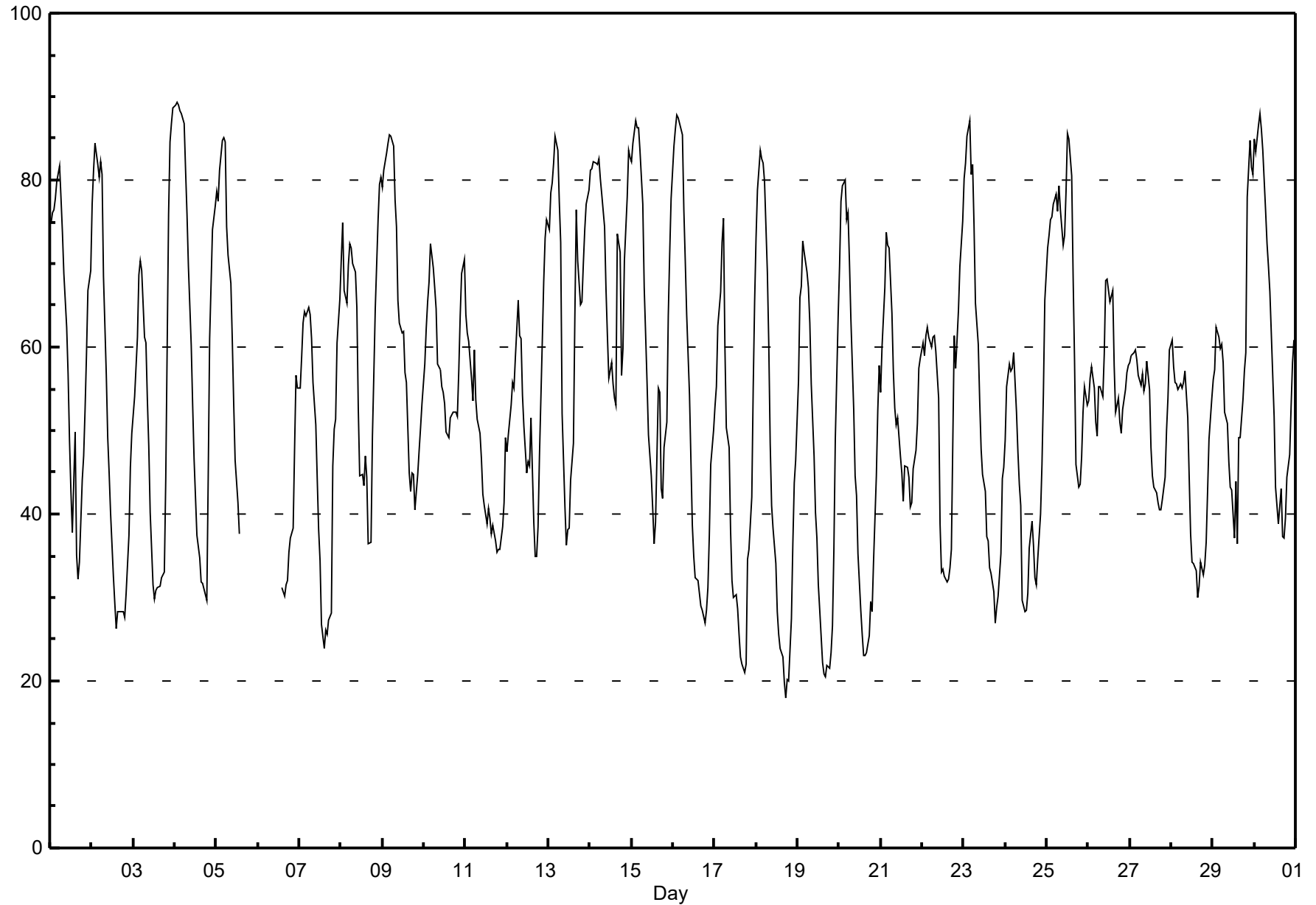
Henry Pirker - June 2018

Maximum Value: 89.4 % on Jun 4 02:00																								Maximum Daily Average: 71.1 % on Jun 14										Hours in Service: 720	
Minimum Value: 18 % on Jun 18 18:00																								Minimum Daily Average: 43.7 % on Jun 17										Hours of Data: 696	
Maximum Diurnal Average: 72.8 % at hour 4																								Minimum Diurnal Average: 37.8 % at hour 18										Hours of Missing Data: 24	
Monthly Average: 54.73 %																								Percentiles: P ₁ = 21.5 P ₁₀ = 31.3 Q ₁ = 40.9 Median = 54.7 Q ₃ = 68.4 P ₉₀ = 80.3 P ₉₉ = 87.8										Hours of Calibration: 0	
																								Percent Operational Time: 96.7											
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-Jun	75	76	76	78	80	82	78	74	69	62	57	49	43	38	50	35	32	34	44	47	52	59	67	69	59.4	81.7									
2-Jun	77	81	84	82	80	82	81	68	57	49	45	40	33	29	26	28	28	28	28	28	31	38	46	50	50.8	84.5									
3-Jun	52	54	61	69	70	69	61	60	54	48	40	32	30	31	31	31	32	33	33	44	76	85	87	89	53.0	88.6									
4-Jun	89	89	89	88	88	87	81	76	70	60	53	47	42	38	35	32	32	31	30	45	61	67	74	77	61.7	89.4									
5-Jun	79	77	81	85	85	85	74	71	68	61	53	46	41	38	D	D	D	D	D	D	D	D	D	D	--	85.1									
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	31	30	32	32	35	37	38	48	57	55	--	56.5									
7-Jun	55	59	63	64	64	65	64	61	56	51	44	38	34	27	24	26	26	27	28	46	50	51	61	66	47.9	65.8									
8-Jun	71	75	67	65	70	72	72	70	69	65	53	45	45	43	47	44	36	37	49	57	65	75	80	80	60.4	80.3									
9-Jun	79	81	83	84	85	85	84	78	74	66	63	62	62	57	56	45	43	45	45	41	45	48	50	53	63.0	85.4									
10-Jun	58	62	65	68	72	69	67	65	58	57	55	55	53	50	49	52	52	52	52	52	57	64	69	71	59.3	72.4									
11-Jun	64	62	61	56	54	60	54	51	50	47	42	41	39	41	40	38	39	37	35	36	36	38	41	49	46.2	63.9									
12-Jun	48	49	53	56	55	59	66	61	61	54	51	45	46	46	52	39	35	35	38	47	61	68	73	75	53.0	75.3									
13-Jun	74	78	80	82	85	84	77	73	52	41	36	38	38	44	49	64	76	70	65	65	70	74	77	79	65.5	85.3									
14-Jun	81	81	82	82	82	82	80	78	74	67	61	56	58	56	54	53	74	71	57	60	70	78	84	83	71.1	83.5									
15-Jun	82	84	87	86	86	84	77	67	62	56	50	45	41	37	39	55	55	43	42	48	51	64	71	78	62.0	87.1									
16-Jun	84	86	88	87	87	85	77	70	64	54	46	39	35	32	32	30	29	28	27	28	31	38	46	50	53.1	87.8									
17-Jun	53	55	63	67	73	76	60	50	48	38	32	30	30	29	26	23	22	21	22	35	36	42	55	65	43.7	75.5									
18-Jun	73	79	84	83	82	80	69	60	48	41	38	34	28	26	24	23	20	18	20	20	27	36	44	46	46.0	83.6									
19-Jun	56	66	67	73	71	69	67	63	56	47	40	37	31	28	22	21	21	22	22	23	27	36	49	64	44.9	72.8									
20-Jun	70	77	79	80	75	76	70	63	53	45	42	35	28	26	23	23	23	25	30	28	34	45	52	58	48.4	80.0									
21-Jun	55	60	67	74	72	72	64	57	53	51	52	47	45	42	46	46	44	41	41	45	48	51	57	59	53.6	73.8									
22-Jun	61	59	61	62	61	60	61	61	60	54	39	33	33	33	32	32	34	36	61	57	61	64	70	75	52.5	75.0									
23-Jun	80	82	85	87	81	82	75	65	60	54	48	45	43	37	37	34	33	31	27	29	30	35	44	46	52.8	87.2									
24-Jun	49	55	58	57	57	59	52	47	44	41	30	28	28	31	36	39	36	32	32	35	40	46	54	66	43.9	65.5									
25-Jun	72	73	75	76	77	78	76	79	76	72	73	79	86	85	81	68	58	46	43	44	47	52	55	53	67.7	85.6									
26-Jun	54	56	58	55	51	49	55	55	54	59	68	68	66	66	67	58	52	54	51	50	52	55	57	58	57.0	68.1									
27-Jun	58	59	59	60	59	57	55	57	55	56	58	55	48	45	43	43	41	40	40	42	44	50	54	60	51.5	59.7									
28-Jun	61	58	56	56	55	56	55	56	57	52	44	38	34	34	33	30	31	34	33	34	37	43	49	54	45.3	60.9									
29-Jun	56	57	62	61	60	60	58	52	51	46	43	43	37	44	36	49	49	54	57	59	78	85	81	81	56.7	84.7									
30-Jun	85	83	87	88	86	84	76	72	70	67	62	52	43	41	39	43	37	37	39	44	47	53	58	61	60.6	87.9									
67.2 69.6 71.8 72.8 72.6 72.6 68.6 64.3 59.3 53.8 48.9 44.8 42.1 40.3 39.9 39.1 38.7 37.8 38.9 42.2 48.3 54.7 60.7 64.4																								Diurnal Average											
89.0 89.4 89.0 88.2 87.9 86.8 84.0 79.3 76.4 72.2 73.3 78.7 85.6 84.9 80.6 68.4 76.4 71.3 65.1 65.5 78.0 84.7 86.8 88.6																								Diurnal Maximum											
D - DAS Failure																																			

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - June 2018



Hourly Averages

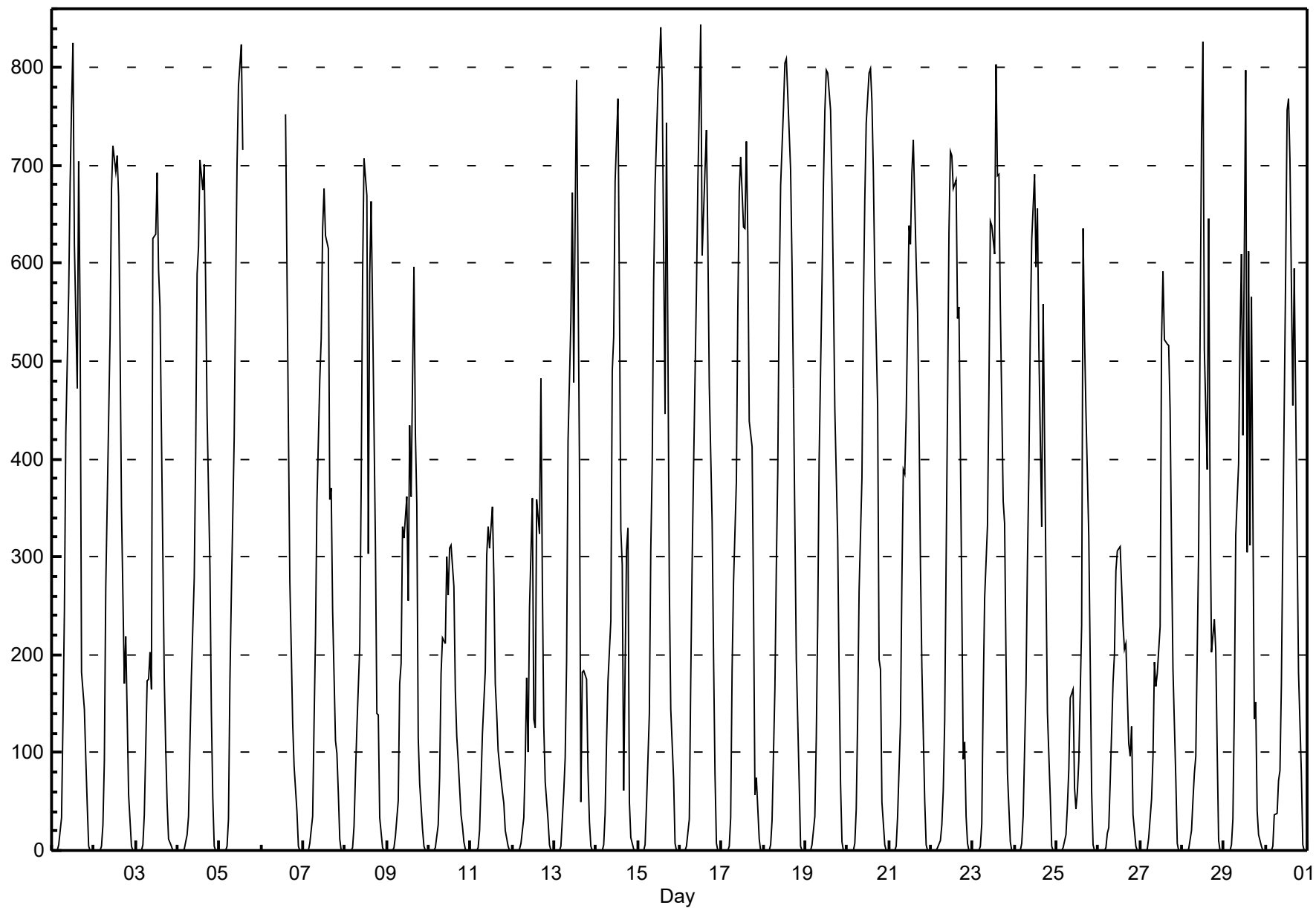
Solar Radiation (SR) - W/m²

Henry Pirker - June 2018

Maximum Value: 843.4 W/m ² on Jun 16 13:00																								Maximum Daily Average: 318.2 W/m ² on Jun 18										Hours in Service: 720	
Minimum Value: 0 W/m ² on Jun 1 01:00																								Minimum Daily Average: 107.8 W/m ² on Jun 11										Hours of Data: 696	
Maximum Diurnal Average: 619.0 W/m ² at hour 13																								Minimum Diurnal Average: 0.0 W/m ² at hour 1										Hours of Missing Data: 24	
Monthly Average: 228.76 W/m ²																								Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.4 Median = 115.9 Q ₃ = 421.5 P ₉₀ = 670.4 P ₉₉ = 803.2										Hours of Calibration: 0	
																								Percent Operational Time: 96.7											
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-Jun	0	0	0	0	5	33	133	245	427	570	681	762	825	620	472	704	547	182	144	93	47	4	0	0	270.6	825.1									
2-Jun	0	0	0	0	4	27	92	269	441	526	674	720	694	710	668	519	351	170	219	138	57	5	0	0	261.8	719.8									
3-Jun	0	0	0	0	5	37	174	175	203	165	626	630	692	593	555	302	177	105	48	12	4	0	0	0	187.6	692.3									
4-Jun	0	0	0	0	1	15	35	109	178	278	404	588	617	706	675	701	579	446	290	142	54	5	0	0	242.6	705.5									
5-Jun	0	0	0	0	5	32	173	261	421	567	701	781	823	716	D	D	D	D	D	D	D	D	D	D	--	823.0									
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	752	435	275	206	130	86	39	5	0	0	--	751.5									
7-Jun	0	0	0	0	7	35	130	220	355	481	523	636	676	629	615	359	371	245	112	99	58	11	0	0	231.8	676.2									
8-Jun	0	0	0	0	3	25	78	125	208	372	588	707	669	303	589	663	552	311	141	138	33	3	0	0	229.5	706.8									
9-Jun	0	0	0	0	3	14	51	171	190	331	320	361	255	435	362	596	427	354	115	69	22	4	0	0	170.0	596.5									
10-Jun	0	0	0	0	3	26	75	181	218	212	300	261	309	311	270	164	117	92	37	24	9	1	0	0	108.7	311.3									
11-Jun	0	0	0	0	2	21	70	119	184	302	331	310	351	280	170	140	102	73	59	48	20	4	0	0	107.8	350.9									
12-Jun	0	0	0	0	2	7	34	91	177	101	247	360	135	125	358	324	483	274	127	70	31	6	0	0	123.0	483.1									
13-Jun	0	0	0	0	5	60	95	194	418	543	671	477	651	787	397	50	182	183	174	80	29	5	0	0	208.4	787.4									
14-Jun	0	0	0	0	6	38	111	173	234	490	524	684	769	570	328	292	62	307	330	50	13	2	0	0	207.7	768.7									
15-Jun	0	0	0	0	5	46	140	307	396	579	679	777	801	841	784	446	743	517	269	145	73	7	0	0	314.8	840.6									
16-Jun	0	0	0	0	5	32	174	296	393	572	684	762	843	608	695	737	619	475	335	198	79	7	0	0	313.1	843.4									
17-Jun	0	0	0	0	5	33	185	274	377	553	674	709	638	635	724	629	439	413	257	57	75	12	0	0	278.7	723.9									
18-Jun	0	0	0	0	6	31	166	291	388	566	679	757	804	809	773	695	598	473	330	195	70	5	0	0	318.2	808.6									
19-Jun	0	0	0	0	5	35	115	233	400	580	681	755	797	795	757	680	573	450	318	183	69	9	0	0	309.8	797.3									
20-Jun	0	0	0	0	7	42	136	265	380	556	665	743	794	799	766	693	588	454	196	185	50	5	0	0	305.2	798.7									
21-Jun	0	0	0	0	4	35	129	276	390	384	443	638	619	693	725	603	549	443	293	188	51	7	0	0	269.6	725.4									
22-Jun	0	0	0	0	2	10	26	61	133	456	633	714	709	676	685	544	556	412	93	111	34	7	0	0	244.2	714.1									
23-Jun	0	0	0	0	4	28	160	258	333	469	644	638	610	803	689	691	555	357	334	192	79	9	0	0	285.5	803.2									
24-Jun	0	0	0	0	7	36	169	294	388	532	624	690	597	656	514	330	558	422	277	141	54	5	0	0	262.3	690.4									
25-Jun	0	0	0	0	3	17	46	82	156	164	64	42	59	92	230	635	526	450	321	193	60	5	0	0	131.1	635.0									
26-Jun	0	0	0	0	4	17	23	70	171	201	285	307	311	271	230	206	211	109	96	127	37	5	0	0	111.7	310.9									
27-Jun	0	0	0	0	2	13	52	96	192	168	181	229	522	592	522	518	516	449	308	186	73	7	0	0	192.8	592.5									
28-Jun	0	0	0	0	1	20	52	79	95	310	523	726	826	511	389	645	361	202	237	204	102	10	0	0	220.6	826.1									
29-Jun	0	0	0	0	6	32	143	322	395	524	610	423	797	305	612	312	566	134	152	41	15	5	0	0	224.8	797.0									
30-Jun	0	0	0	0	5	37	38	71	82	170	318	591	757	768	706	454	595	460	323	183	79	6	0	0	235.1	768.1									
0.0 0.0 0.0 0.1 4.2 28.7 103.7 193.5 287.0 404.3 516.4 578.5 619.0 573.8 552.1 485.1 440.5 316.1 209.1 123.3 48.9 5.7 0.1 0.0																								Diurnal Average											
0.1 0.2 0.1 0.2 7.3 60.0 185.4 322.4 440.7 580.2 701.1 780.7 843.4 840.6 784.2 736.7 743.1 516.8 335.1 203.8 102.2 12.3 0.3 0.1																								Diurnal Maximum											
D - DAS Failure																																			

Hourly Averages

Solar Radiation (SR) - W/m²
Henry Pirker - June 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	5	4	5	6	5	4	4	6	5	4	2	1	2	7	14	1	1	3	11	6	0	4	4	3	1.6	13.6
Dir	109	85	82	87	93	100	110	127	149	145	206	196	167	244	299	4	162	210	179	176	294	65	31	18	131.9	298.7
2 Spd	2	2	3	8	8	7	7	11	16	18	19	19	22	27	24	22	26	19	18	17	9	5	3	3	12.6	27.0
Dir	22	310	316	229	254	236	230	230	238	238	241	246	258	261	245	260	262	253	254	254	253	255	213	223	250.1	261.4
3 Spd	3	2	1	1	1	0	3	5	1	2	5	7	9	9	9	9	9	7	6	0	2	0	5	6	2.5	9.3
Dir	230	246	288	273	277	343	175	188	176	61	100	96	91	86	95	94	81	77	76	142	303	287	340	347	86.9	94.1
4 Spd	4	5	2	6	13	21	22	20	21	29	28	27	28	24	25	24	22	19	19	13	10	6	4	4	15.2	29.3
Dir	358	355	331	229	221	240	245	251	255	264	262	251	259	254	254	251	245	245	253	282	314	313	303	296	257.2	264.0
5 Spd	4	5	3	2	3	3	9	11	11	11	9	11	10	5	D	D	D	D	D	D	D	D	D	D	--	11.0
Dir	261	230	238	290	324	304	295	291	297	299	290	303	315	336	D	D	D	D	D	D	D	D	D	D	--	290.8
6 Spd	D	D	D	D	D	D	D	D	D	D	D	D	D	D	9	8	6	4	6	3	3	0	2	3	--	9.4
Dir	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	235	228	212	183	163	152	86	86	90	--	234.6
7 Spd	4	6	3	5	6	6	5	4	3	2	1	2	1	2	3	3	4	4	2	14	13	5	3	4	0.7	13.8
Dir	95	101	83	71	79	86	94	102	133	125	197	178	242	215	261	198	167	120	337	303	312	331	318	315	41.0	303.2
8 Spd	2	5	6	15	13	8	4	3	4	4	1	2	2	5	8	9	4	12	9	13	13	10	6	5	4.1	15.0
Dir	306	263	275	301	296	314	265	201	214	220	243	275	86	89	307	10	99	120	306	309	305	318	307	318	303.2	301.4
9 Spd	5	1	3	2	2	3	6	7	12	12	14	13	10	10	17	12	7	6	7	13	12	10	10	13	8.3	16.8
Dir	276	293	298	247	216	275	296	293	290	289	294	296	292	289	280	272	250	238	272	282	278	267	261	262	278.8	279.5
10 Spd	11	11	9	6	3	9	9	11	17	17	16	17	18	20	21	19	16	14	14	12	11	11	19	13	13.2	20.7
Dir	264	258	252	251	262	265	271	264	286	286	275	270	276	284	283	270	269	267	278	263	246	263	261	248	269.5	282.9
11 Spd	13	15	12	20	25	22	19	20	23	25	32	32	33	32	32	34	36	30	30	29	30	25	19	21	25.0	36.0
Dir	250	272	293	261	268	264	248	256	253	254	264	268	266	256	275	272	279	272	258	258	255	255	272	280	264.6	279.5
12 Spd	23	22	19	16	12	15	21	22	24	20	19	23	14	11	9	18	22	20	11	1	3	6	5	4	13.3	24.1
Dir	263	258	259	257	261	284	273	267	267	261	266	279	279	285	306	272	269	270	282	313	63	88	107	82	270.0	266.8
13 Spd	3	2	1	1	1	1	2	4	7	10	10	6	9	7	7	5	2	4	2	2	4	4	3	4	1.3	10.1
Dir	77	46	100	321	278	285	218	224	245	254	297	291	321	25	30	295	16	96	78	55	70	70	73	74	336.3	254.3
14 Spd	3	3	4	4	3	4	3	2	2	2	1	3	4	2	1	10	10	6	5	5	5	11	2	8	0.5	11.1
Dir	66	74	11	58	59	74	74	107	155	134	204	348	30	52	226	196	199	157	180	310	332	333	14	324	29.2	333.2
15 Spd	2	2	1	2	3	3	5	6	7	9	10	9	10	10	9	13	8	6	6	6	7	4	3	4	4.8	13.5
Dir	182	215	191	260	266	245	244	271	287	301	300	293	289	295	324	335	8	13	352	16	346	324	313	308	309.7	335.3
16 Spd	3	2	1	2	3	4	6	5	5	6	6	5	3	4	3	4	4	5	3	4	6	6	4	4	2.7	6.3
Dir	313	310	275	226	238	229	240	229	228	234	247	257	249	280	229	203	227	181	164	156	142	131	134	130	214.3	141.8
17 Spd	4	5	4	4	2	3	2	3	3	4	4	4	5	6	6	6	8	5	4	2	1	1	1	0	1.5	7.5
Dir	129	116	135	158	151	161	177	204	212	247	277	289	274	270	305	296	295	288	298	303	142	123	65	107	253.0	295.1
18 Spd	0	1	0	1	1	2	2	2	2	2	2	4	5	2	1	3	3	3	4	4	4	4	3	5	1.3	5.1
Dir	289	261	255	285	285	302	302	288	220	197	146	111	136	156	103	60	74	69	80	68	84	90	98	103	98.1	135.5
19 Spd	2	1	1	1	0	2	3	1	1	2	2	3	1	6	3	1	3	7	5	3	2	2	1	0	0.3	6.6
Dir	104	329	25	127	17	98	127	148	144	236	171	155	179	171	188	146	322	300	321	29	56	83	96	87	143.8	299.8
20 Spd	0	1	2	0	0	1	2	1	1	1	2	1	3	4	5	8	7	5	6	6	2	6	2	4	1.6	8.3
Dir	318	306	298	75	58	173	159	192	233	168	177	121	131	90	80	92	102	94	98	77	116	238	277	254	111.4	91.7
21 Spd	5	5	6	4	3	2	5	6	8	8	9	14	15	13	12	9	7	6	8	11	10	13	13	12	7.8	15.2
Dir	249	307	324	298	267	266	268	274	290	290	228	245	252	250	228	222	225	240	234	246	254	245	247	242	252.1	251.6
22 Spd	10	11	5	3	4	4	5	4	7	8	17	18	16	13	13	15	15	19	6	6	2	5	4	5	8.0	19.4
Dir	240	240	232	252	251	274	263	254	245	270	284	281	273	283	289	278	292	305	347	332	15	318	312	280	280.0	304.7

Hourly Averages

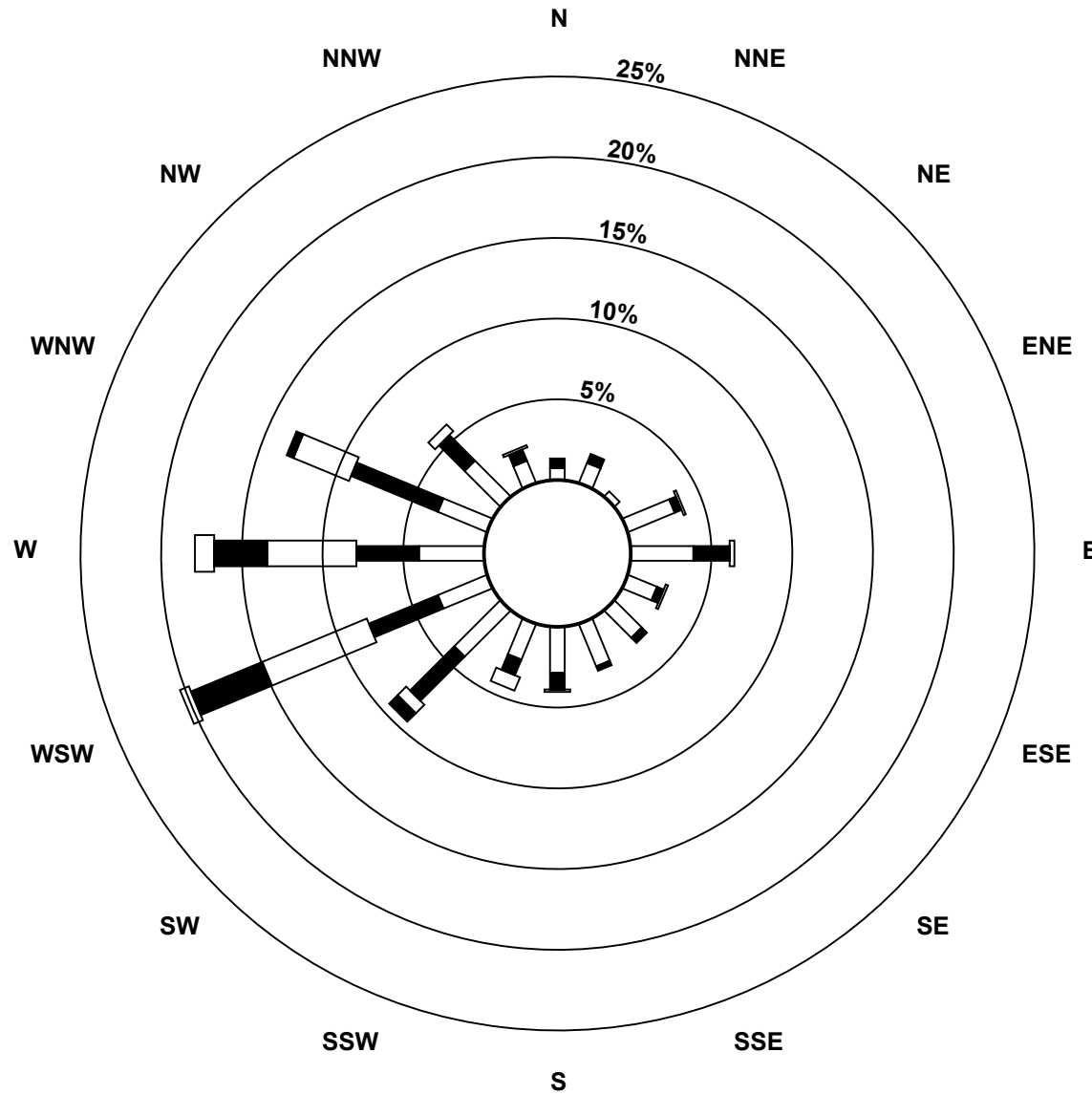
Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
23 Spd	6	5	6	2	5	7	6	6	3	4	6	8	9	9	12	10	4	11	13	14	10	6	4	6	6.7	14.2			
Dir	295	288	297	301	264	251	273	285	256	238	232	280	297	297	298	300	260	285	273	273	273	254	260	248	277.3	273.2			
24 Spd	5	2	4	4	4	3	3	4	3	5	3	4	4	7	10	11	12	14	14	8	5	6	3	7	2.0	14.1			
Dir	259	283	227	232	234	277	232	232	193	171	164	137	124	102	96	82	78	79	82	79	333	351	343	226	103.4	82.1			
25 Spd	13	15	13	9	6	7	13	13	13	11	16	17	12	9	10	11	14	19	23	19	15	11	11	13	10.8	23.1			
Dir	237	288	297	299	302	273	280	298	291	270	247	239	239	214	217	213	209	229	230	219	216	196	187	189	241.9	229.8			
26 Spd	15	11	11	11	12	12	19	19	21	21	21	22	22	27	26	26	27	25	26	27	23	19	19	19	18.8	27.2			
Dir	196	188	183	189	197	207	197	204	219	224	234	235	245	252	248	242	247	247	246	247	246	248	246	245	232.4	247.0			
27 Spd	17	15	17	13	13	15	20	19	20	20	16	17	23	21	19	20	20	18	18	16	14	10	9	5	16.0	22.5			
Dir	246	245	245	256	259	264	259	256	260	276	277	279	278	279	276	283	270	273	258	250	249	240	244	229	263.1	277.6			
28 Spd	7	7	7	5	7	7	7	5	3	6	8	10	7	7	10	10	11	11	13	16	14	14	9	7	8.0	15.9			
Dir	231	232	231	275	262	271	249	243	234	260	280	315	300	300	297	289	293	278	265	253	249	248	239	236	264.9	252.9			
29 Spd	6	6	5	8	9	9	6	12	12	13	17	12	12	13	15	14	11	12	5	1	1	2	7	7	8.5	17.0			
Dir	226	231	260	249	251	248	262	248	280	265	259	267	271	262	258	272	275	298	230	3	352	176	278	230	261.1	258.5			
30 Spd	4	2	1	4	3	2	6	8	9	8	8	12	21	21	21	15	18	21	20	20	18	14	11	12	10.9	21.2			
Dir	166	248	201	176	177	188	195	198	220	230	226	239	249	244	246	237	243	256	249	247	256	248	243	240	239.7	246.5			
Spd	4.1	3.8	3.4	3.7	4.1	4.7	5.8	6.5	7.7	8.4	9.1	9.1	9.0	8.2	8.9	8.2	7.6	6.9	6.9	6.8	5.8	4.5	4.1	4.4	Diurnal Average				
Dir	243.6	256.9	263.5	256.1	255.2	256.6	249.0	248.9	255.0	258.6	260.5	264.7	267.6	265.1	268.5	264.5	260.0	259.9	254.7	262.5	265.2	262.6	259.2	254.8	Diurnal Maximum				
Spd	23.3	21.6	19.2	19.8	24.6	22.2	22.2	22.1	24.1	29.3	32.2	32.1	32.8	31.6	31.7	33.8	36.0	30.4	29.8	28.9	29.6	25.0	19.1	21.4	Diurnal Maximum				
Dir	263.4	257.7	258.9	261.4	268.4	264.1	244.6	267.5	266.8	264.0	264.0	267.7	265.7	255.7	274.7	271.9	279.5	272.2	258.3	258.3	255.4	254.7	272.0	280.1					
Maximum Speed Value: 36 km/h on Jun 11 17:00																				Minimum Speed Value: 0 km/h on Jun 3 20:00					Hours in Service: 720				
Maximum Daily Speed Average: 25.0 km/h on Jun 11																				Minimum Daily Speed Average: 0.3 km/h on Jun 19					Hours of Data: 696				
Maximum Diurnal Speed Average: 9.1 km/h at hour 12																				Minimum Diurnal Speed Average: 3.4 km/h at hour 3					Hours of Missing Data: 24				
Monthly Average Velocity: 6.28 km/h 259.75 deg																				Speed Percentiles: P ₁ = 0.3 P ₁₀ = 1.7 Q ₁ = 3.4 Median = 6.3 Q ₃ = 12.9 P ₉₀ = 19.7 P ₉₉ = 30.5					Percent Operational Time: 96.7				
All monthly, daily, and diurnal averages have been calculated using vector methods																													
D - DAS Failure																													
Frequency Distribution																													
Speed Range (km/h)																													
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total																
North	16		9		0		0		0		0		25																
NorthEast	17		2		0		0		0		0		19																
East	47		26		3		0		0		0		76																
SouthEast	30		7		1		0		0		0		38																
South	36		14		5		0		0		0		55																
SouthWest	43		46		26		25		0		0		140																
West	50		54		77		48		12		0		241																
NorthWest	36		48		17		1		0		0		102																
Total	275		206		129		74		12		0		696																

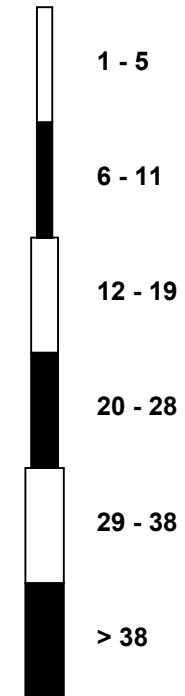
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - June 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - June 2018

Maximum Speed: 36 km/h on Jun 11 17:00																				Maximum Daily Speed Average: 25.6 km/h on Jun 11										Hours in Service: 720	
Minimum Speed: 0 km/h on Jun 18 00:00																				Minimum Daily Speed Average: 2.7 km/h on Jun 19										Hours of Data: 696	
Maximum Diurnal Speed Average: 13.1 km/h at hour 15																				Minimum Diurnal Speed Average: 5.7 km/h at hour 3										Hours of Missing Data: 24	
Monthly Average Speed: 9.33 km/h																				Percentiles: P ₁ = 0.5 P ₁₀ = 2.4 Q ₁ = 4.0 Median = 6.8 Q ₃ = 13.2 P ₉₀ = 20.0 P ₉₉ = 30.9										Percent Operational Time: 96.7	
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-Jun	5	4	5	6	5	4	4	6	6	5	4	3	4	10	14	4	4	4	12	7	3	4	5	3	5.4	14.3					
2-Jun	2	2	3	8	8	7	7	11	16	19	20	20	23	27	25	23	27	19	18	17	9	5	3	3	13.3	27.5					
3-Jun	3	2	2	1	1	1	3	5	2	2	6	8	9	10	10	10	9	7	6	6	3	0	5	6	4.9	9.9					
4-Jun	4	5	3	6	13	21	22	20	21	30	28	27	28	25	25	25	22	20	19	17	10	7	4	4	16.8	29.5					
5-Jun	4	5	3	3	3	3	9	11	11	11	9	12	10	7	D	D	D	D	D	D	D	D	D	D							
	D	D	D	D	D	D	D	D	D	D	D	D	D	D	10	9	7	5	6	3	3	1	2	3	--	10.1					
7-Jun	4	6	3	5	6	6	6	4	3	2	2	3	2	4	4	4	5	4	4	14	13	5	3	4	4.8	14.0					
8-Jun	2	5	7	15	14	9	5	3	4	4	3	4	4	6	12	10	7	12	13	13	13	11	6	5	7.8	15.2					
9-Jun	5	1	3	2	2	3	6	8	12	12	14	14	10	10	18	13	7	7	8	13	12	10	10	13	8.9	17.7					
10-Jun	11	11	9	6	4	9	9	11	17	17	17	18	18	20	21	19	16	14	14	12	11	12	19	13	13.7	21.0					
11-Jun	13	16	13	20	25	23	20	20	24	25	32	32	33	32	32	34	36	31	30	29	30	25	19	22	25.6	36.4					
12-Jun	23	22	19	16	12	15	21	22	24	20	19	23	14	11	10	19	22	20	13	4	3	6	5	5	15.5	24.2					
13-Jun	4	2	2	1	1	1	3	5	7	11	10	7	11	7	8	9	6	4	2	2	4	5	3	4	5.0	10.9					
14-Jun	3	3	4	5	4	4	3	3	3	2	3	4	5	4	4	11	11	6	5	6	5	11	6	10	5.1	11.3					
15-Jun	3	3	2	3	3	3	5	7	7	9	10	10	11	12	10	15	9	6	7	6	7	4	3	4	6.6	14.8					
16-Jun	3	2	2	2	3	4	6	5	5	6	6	5	4	5	5	5	4	6	4	5	7	6	4	4	4.5	6.5					
17-Jun	4	5	4	4	2	3	2	3	4	5	5	5	5	6	7	7	8	5	4	2	1	1	0	0	3.9	7.7					
18-Jun	0	1	0	1	1	2	2	2	2	2	3	5	6	4	4	4	5	4	4	4	5	4	3	5	3.0	6.0					
19-Jun	2	1	1	1	1	2	3	1	1	2	3	4	3	6	5	3	4	7	6	3	2	2	1	1	2.7	6.9					
20-Jun	1	1	2	1	0	1	2	1	1	2	2	2	4	5	5	9	8	6	7	6	4	6	2	4	3.5	8.9					
21-Jun	6	5	7	4	3	2	5	6	8	8	9	14	16	14	12	9	7	7	9	11	10	13	13	12	8.8	15.5					
22-Jun	11	11	5	4	4	4	5	4	7	9	17	18	17	13	14	16	16	20	9	6	3	5	4	5	9.4	19.6					
23-Jun	6	5	6	2	5	7	6	6	4	4	6	9	10	10	13	11	5	11	13	14	10	6	4	7	7.5	14.3					
24-Jun	5	3	4	4	4	4	4	4	3	5	3	5	5	8	10	11	12	14	14	8	5	6	5	7	6.4	14.3					
25-Jun	13	15	14	9	6	8	13	13	13	12	16	17	12	9	10	11	14	20	23	19	15	11	12	13	13.4	23.2					
26-Jun	15	11	11	11	12	12	19	19	22	22	21	22	23	27	26	27	27	26	26	27	23	19	19	20	20.3	27.4					
27-Jun	17	15	17	13	14	15	20	19	20	20	16	17	23	21	19	21	21	19	18	17	14	10	9	5	16.7	23.1					
28-Jun	7	7	7	6	7	7	7	5	4	7	8	11	8	7	10	10	12	11	14	16	15	14	9	7	9.0	16.1					
29-Jun	6	6	5	8	10	9	7	12	12	13	17	13	13	14	16	15	11	13	5	3	4	4	7	9	9.8	17.5					
30-Jun	4	5	3	4	3	3	6	8	9	8	8	12	21	21	22	15	19	21	21	20	18	14	11	12	12.0	21.7					
6.5 6.2 5.7 6.0 6.1 6.6 7.9 8.5 9.4 10.1 11.0 11.9 12.2 12.2 13.1 13.0 12.5 12.0 11.5 10.7 9.1 7.8 6.8 7.2																								Diurnal Average							
23.4 21.7 19.4 19.9 24.9 22.5 22.3 22.2 24.2 29.5 32.4 32.3 33.2 31.8 32.0 34.1 36.4 30.8 29.9 29.0 29.7 25.2 19.4 21.6																								Diurnal Maximum							
D - DAS Failure																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - June 2018

Maximum Value: 93.1 deg on Jun 20 05:00																			Hours in Service: 720						
Minimum Value: 4.5 deg on Jun 23 21:00																			Hours of Data: 696						
																			Hours of Missing Data: 24						
Percentiles: P ₁ = 5.3 P ₁₀ = 7.4 Q ₁ = 10.1 Median = 15.8 Q ₃ = 29.7 P ₉₀ = 56.6 P ₉₉ = 86.4																			Hours of Calibration: 0						
																			Percent Operational Time: 96.7						
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-Jun	11	13	6	7	9	10	17	20	21	37	67	86	85	61	23	86	93	56	21	22	83	17	32	19	92.9
2-Jun	33	45	22	19	12	13	10	11	10	12	11	14	12	10	13	13	14	14	13	8	8	11	12	17	44.9
3-Jun	16	45	46	59	75	86	36	23	54	28	27	24	20	19	24	21	12	14	11	92	67	84	9	15	92.0
4-Jun	18	18	46	36	9	6	5	7	9	7	10	10	9	12	12	13	11	10	8	39	10	10	11	12	46.2
5-Jun	21	15	24	63	19	15	12	10	12	13	17	22	21	54	D	D	D	D	D	D	D	D	D	D	63.1
6-Jun	D	D	D	D	D	D	D	D	D	D	D	D	D	D	23	26	32	28	12	9	10	63	8	6	63.2
7-Jun	10	11	15	9	7	10	11	16	33	56	44	55	65	69	54	56	32	27	80	10	8	13	23	13	79.7
8-Jun	39	16	21	9	10	14	36	23	14	19	63	66	62	45	64	17	58	14	69	13	15	19	22	19	68.9
9-Jun	18	92	35	37	32	32	12	14	13	9	10	9	11	13	18	20	19	30	19	10	8	7	12	6	92.1
10-Jun	7	7	8	28	49	12	11	9	8	7	8	10	9	12	9	9	10	12	11	12	19	35	11	11	48.5
11-Jun	9	9	39	9	9	10	9	7	6	6	6	6	9	7	8	7	8	9	6	5	6	8	8	7	39.4
12-Jun	6	6	7	5	10	7	6	5	6	6	10	8	12	11	13	15	13	11	33	87	47	16	19	48	86.5
13-Jun	42	18	39	42	51	29	23	17	16	17	21	38	35	23	20	68	86	24	47	30	22	13	12	13	86.4
14-Jun	17	26	29	17	27	16	53	55	65	67	81	65	40	73	81	18	26	17	21	34	59	11	71	37	81.2
15-Jun	82	60	67	55	17	14	12	22	19	21	17	21	25	26	24	32	22	29	33	17	14	8	6	9	81.8
16-Jun	16	25	40	22	14	13	12	13	18	18	27	26	57	38	57	45	36	29	65	17	13	7	14	13	64.7
17-Jun	8	7	18	13	7	10	20	16	21	24	30	62	32	27	37	28	15	29	46	33	41	22	50	64	63.5
18-Jun	31	19	86	34	17	12	15	33	28	43	52	36	50	79	90	60	58	53	39	25	10	8	7	6	89.5
19-Jun	48	47	54	48	78	19	14	51	63	37	61	35	88	29	49	82	69	20	33	36	17	10	10	13	88.0
20-Jun	58	48	20	76	93	26	15	59	21	52	44	78	56	37	34	24	30	59	20	12	57	13	15	31	93.1
21-Jun	19	17	11	23	26	32	17	14	14	12	11	13	12	15	12	13	17	23	21	13	9	7	9	6	31.6
22-Jun	9	8	14	22	22	27	20	17	11	15	11	10	12	16	25	9	13	7	79	32	35	22	19	11	79.5
23-Jun	13	8	10	30	17	12	12	15	31	33	25	24	19	24	13	18	50	16	15	7	5	11	11	15	50.1
24-Jun	14	29	9	12	19	43	25	16	29	20	60	50	45	28	20	10	10	9	9	17	24	21	51	11	60.1
25-Jun	13	13	11	9	47	26	11	9	9	22	8	9	9	18	11	15	14	11	7	8	9	10	11	7	46.5
26-Jun	6	13	11	10	9	9	14	9	9	10	8	7	9	6	6	7	7	6	6	6	5	5	6	5	13.9
27-Jun	5	6	5	12	12	7	8	6	7	8	7	6	12	11	13	10	12	11	12	9	8	7	10	8	12.6
28-Jun	6	10	10	25	12	12	13	11	18	15	22	20	39	26	18	15	16	13	16	8	7	7	9	10	39.1
29-Jun	19	16	17	6	5	6	19	13	16	16	13	18	21	22	21	51	33	20	18	76	68	85	27	40	84.8
30-Jun	21	73	78	10	40	74	10	16	9	10	13	19	10	13	13	18	11	11	8	8	9	9	9	9	78.4
81.8 92.1 86.3 76.3 93.1 86.2 52.6 59.3 65.0 66.8 81.2 85.8 88.0 78.8 89.5 86.1 92.9 59.3 79.7 92.0 83.5 84.8 71.4 63.5																									
D - DAS Failure																									

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

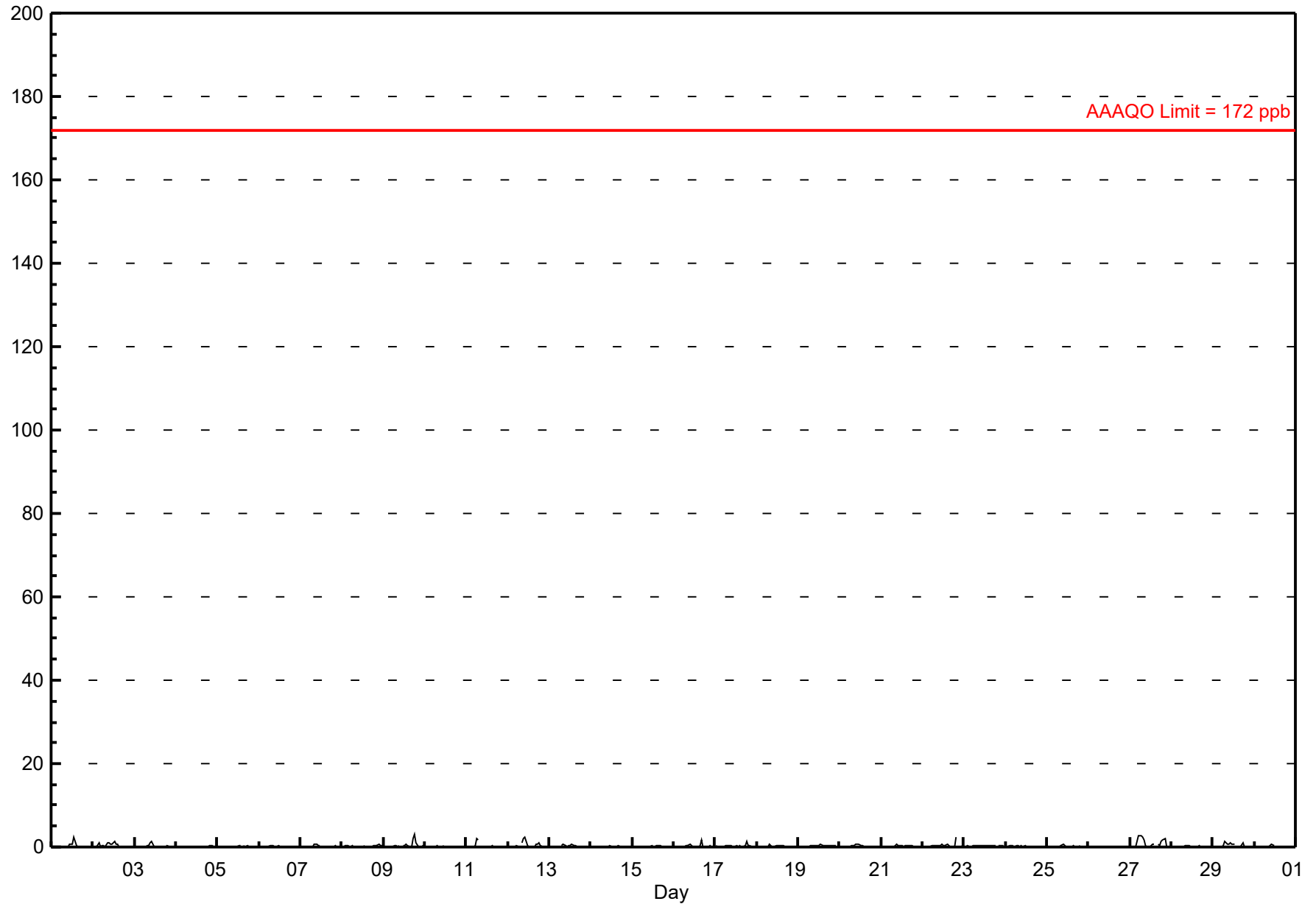
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - June 2018

Number of Exceedences (AAAQO): Maximum Value: 3.1 ppb on Jun 9 19:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 0.8 ppb on Jun 27		Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0					
Minimum Value: 0 ppb on Jun 1 02:00 Maximum Diurnal Average: 0.4 ppb at hour 11 Monthly Average: 0.21 ppb																			Minimum Daily Average: 0.0 ppb on Jun 26 Minimum Diurnal Average: 0.1 ppb at hour 3 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 = 2.1							
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-Jun	0	0	0	0	0	0	0	0	0	0	1	1	1	2	1	0	0	0	A	0	0	0	0	0	0.2	2.2
2-Jun	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0.4	1.2
3-Jun	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	1.2
4-Jun	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
5-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
6-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-Jun	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
8-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.5
9-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	2	3	1	0	0	0	0	0.4	3.1
10-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
11-Jun	0	0	0	0	0	0	2	2	A	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.3	2.0
12-Jun	0	0	0	0	0	0	0	A	1	2	2	0	0	0	0	0	1	1	1	0	0	0	0	0	0.4	2.3
13-Jun	0	0	0	0	0	0	A	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.1	0.6
14-Jun	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
15-Jun	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
16-Jun	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0.2	1.6
17-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	1.4
18-Jun	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
19-Jun	A	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.5
20-Jun	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	A	0	0.2	0.8
21-Jun	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.5
22-Jun	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	A	0	0	0	0.3	2.2
23-Jun	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
24-Jun	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
25-Jun	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.7
26-Jun	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
27-Jun	0	0	0	0	1	3	3	2	2	0	0	0	0	1	1	A	1	0	2	2	2	0	0	0	0.8	2.9
28-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.4
29-Jun	0	0	0	0	0	0	0	1	1	1	1	1	1	1	A	0	0	1	0	0	0	0	0	0	0.3	1.5
30-Jun	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
0.1 0.1 0.1 0.1 0.1 0.2 0.3 0.3 0.4 0.4 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.3 0.3 0.2 0.1 0.1 0.1																									Diurnal Average	
0.2 0.3 0.2 0.9 1.2 2.6 2.9 2.4 1.7 2.1 2.3 0.8 1.2 2.2 0.6 0.5 1.6 2.0 3.1 2.2 1.9 0.5 0.2 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 - June 2018



Hourly Maximums

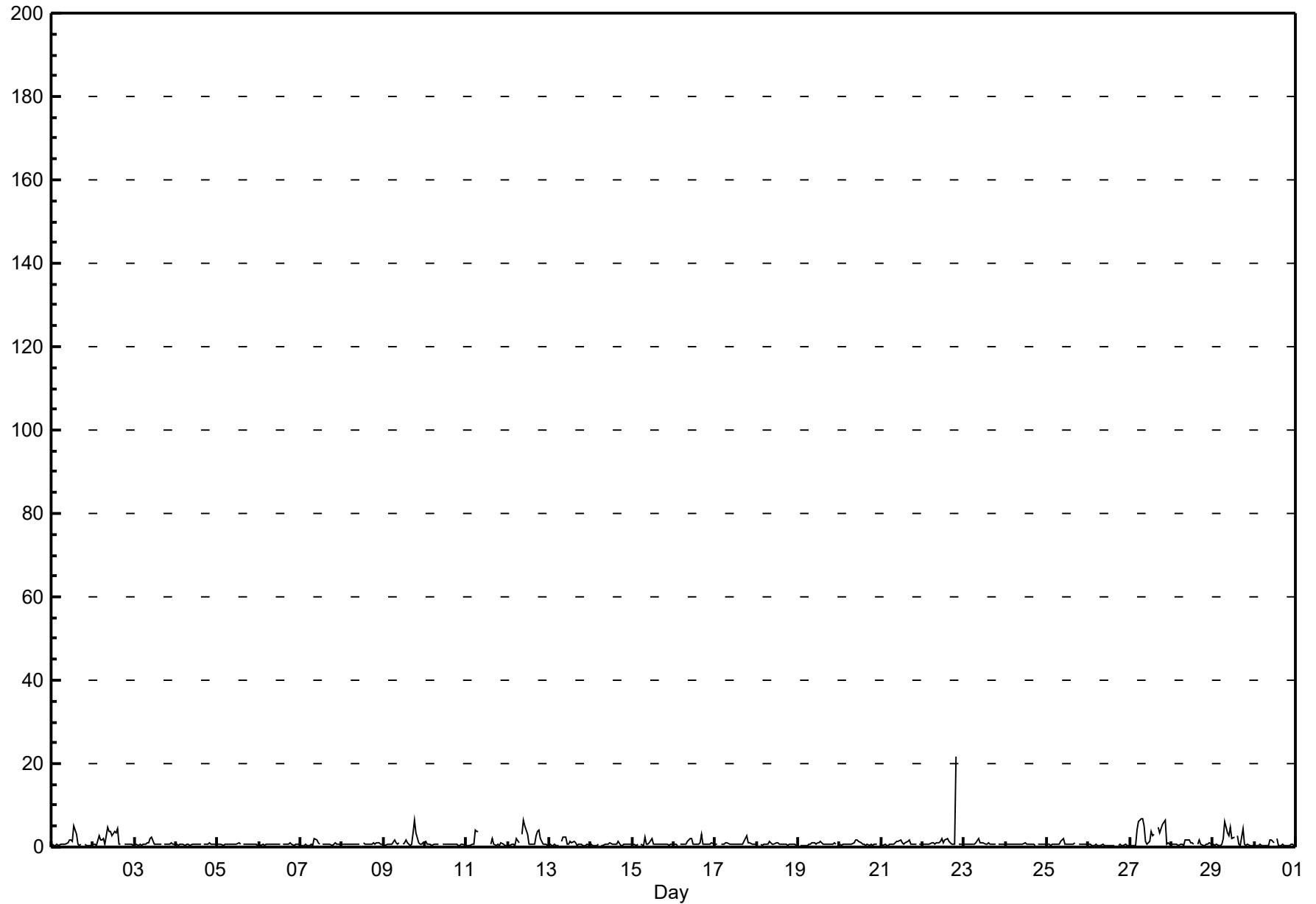
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - June 2018

Maximum Value: 21.7 ppb on Jun 22 20:00																			Maximum Daily Average: 3.0 ppb on Jun 27						Hours in Service: 720		
Minimum Value: 0 ppb on Jun 30 18:00																			Minimum Daily Average: 0.5 ppb on Jun 26						Hours of Data: 685		
Maximum Diurnal Average: 1.7 ppb at hour 20																			Minimum Diurnal Average: 0.5 ppb at hour 2						Hours of Missing Data: 35		
Monthly Average: 0.99 ppb																			Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 1.8 P ₉₉ = 6.2						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-Jun	1	1	0	1	0	1	1	1	1	1	2	2	1	5	3	1	1	1	A	1	0	0	0	0	1.0	5.0	
2-Jun	1	1	0	3	2	2	2	1	5	4	4	3	4	1	1	1	1	A	1	1	1	1	1	0	1.8	4.9	
3-Jun	1	1	0	1	0	1	1	1	1	2	3	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	2.5	
4-Jun	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.6	1.2	
5-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0.6	0.9		
6-Jun	1	0	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	0.6	0.9	
7-Jun	0	1	0	1	0	0	1	0	2	2	1	1	A	1	1	1	1	1	1	0	1	1	1	1	0.7	2.0	
8-Jun	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
9-Jun	1	0	1	1	1	1	2	1	1	1	A	1	1	2	1	1	1	1	3	7	3	1	1	1	1.3	6.6	
10-Jun	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0.6	1.2
11-Jun	0	0	0	1	1	4	4	4	A	1	C	C	C	C	1	2	1	0	1	0	1	1	0	0	1.2	4.1	
12-Jun	0	0	1	1	1	2	1	A	3	6	5	3	1	1	1	1	3	4	4	2	1	1	1	0	1.8	6.4	
13-Jun	1	0	0	1	0	0	A	1	2	2	1	1	1	1	1	1	0	1	1	0	0	0	1	0	0.8	2.4	
14-Jun	1	0	0	0	1	A	0	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0.6	1.3	
15-Jun	1	1	0	1	A	1	0	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.3	
16-Jun	1	1	0	A	1	1	1	1	1	2	2	1	1	1	1	1	3	1	1	1	1	1	1	1	0.9	2.9	
17-Jun	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1	1	1	1	1	0.9	2.8	
18-Jun	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0.7	1.5	
19-Jun	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.4	
20-Jun	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	0	1	0	1	0	1	1	A	1	0.8	1.7	
21-Jun	1	0	1	0	0	1	1	1	1	1	1	2	1	1	1	1	2	1	1	1	1	A	1	1	0.9	1.8	
22-Jun	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	1	1	1	1	22	A	1	1	1	1.9	21.7	
23-Jun	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	2.0	
24-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	0.6	0.9	
25-Jun	1	1	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	2.0	
26-Jun	1	1	0	0	1	0	0	0	1	0	1	0	0	0	0	0	A	0	1	0	0	1	0	0	0.5	0.8	
27-Jun	0	0	0	0	4	6	7	7	5	1	1	1	4	3	3	A	5	3	5	6	6	1	1	1	3.0	6.9	
28-Jun	1	1	1	1	0	1	1	0	2	2	2	1	1	1	A	1	2	1	0	0	1	1	1	1	0.8	1.8	
29-Jun	1	0	1	0	0	1	2	6	3	3	5	2	2	A	3	1	0	4	1	0	1	0	0	0	1.6	6.2	
30-Jun	0	0	0	1	0	0	0	0	0	2	2	1	A	2	0	0	1	0	0	0	0	1	1	0	0.6	1.9	
0.6 0.5 0.5 0.6 0.7 1.0 1.1 1.3 1.4 1.5 1.4 1.2 1.1 1.2 1.1 0.8 1.0 1.1 1.1 1.7 0.8 0.6 0.7 0.6																									Diurnal Average		
1.2 0.8 0.8 2.8 3.9 6.2 6.7 6.9 4.9 6.4 5.0 3.0 3.9 5.0 4.3 2.1 4.9 4.3 6.6 21.7 6.3 1.2 1.0 1.0																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

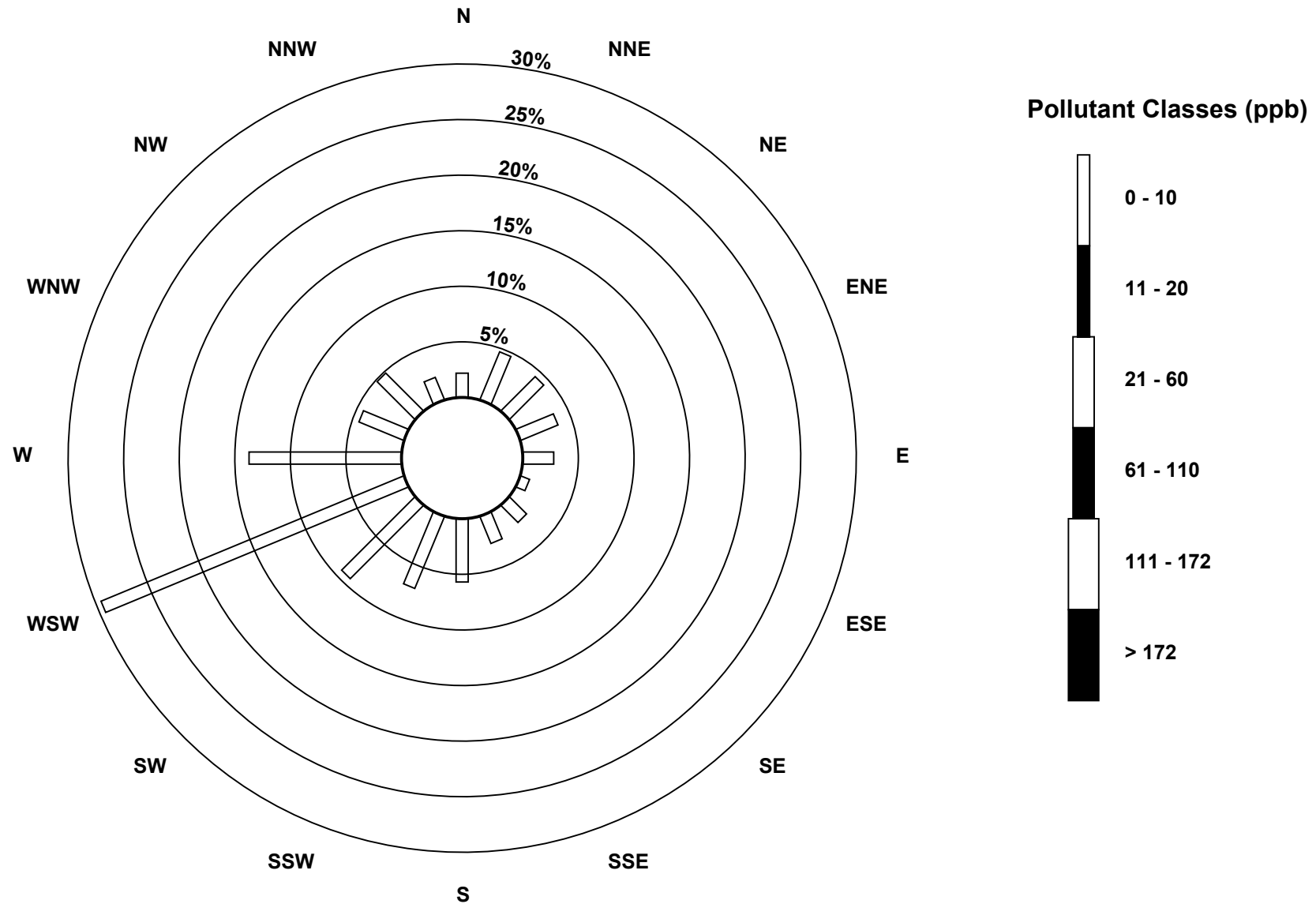
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - June 2018



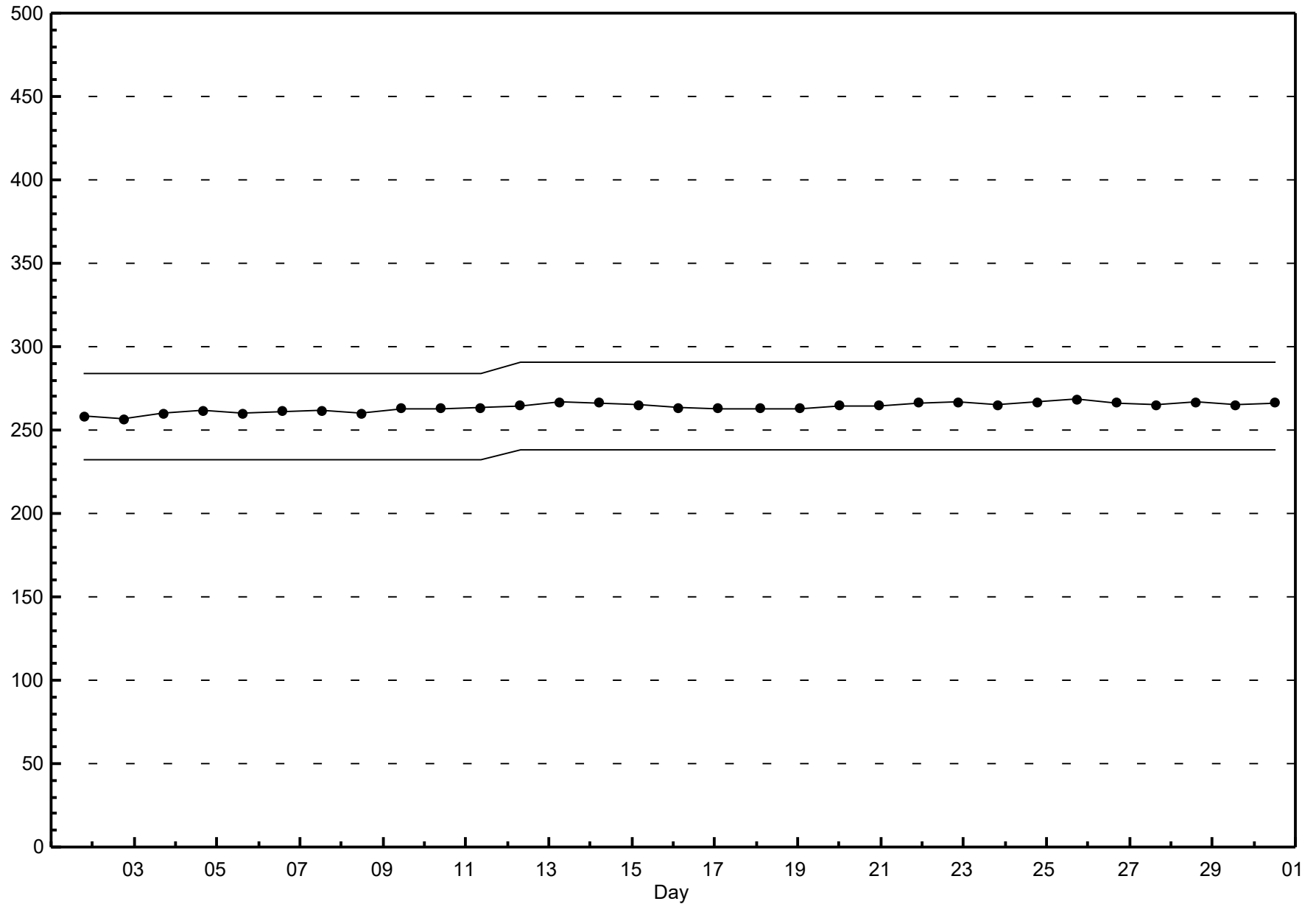
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - June 2018



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - June 2018



Hourly Averages

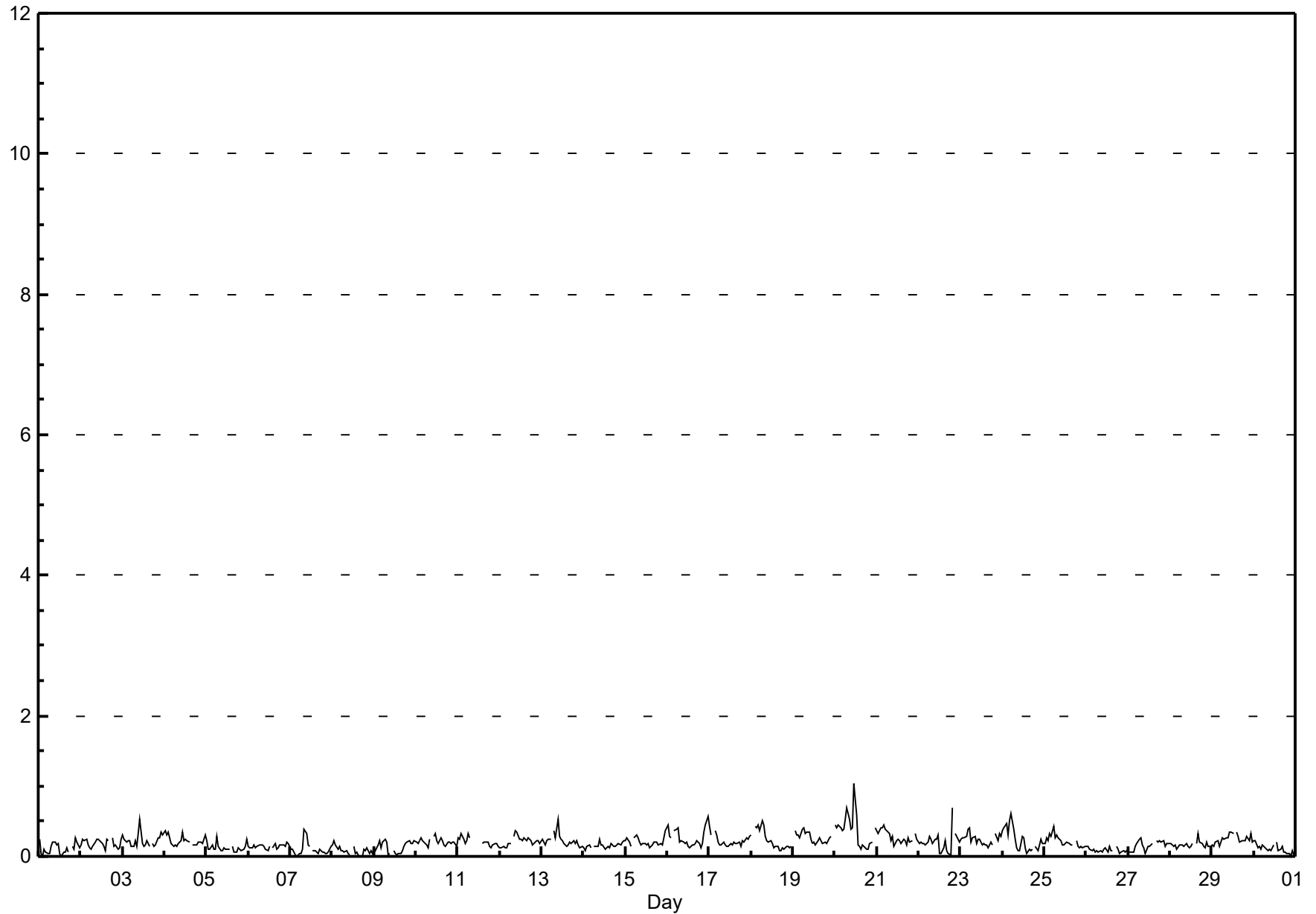
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - June 2018

Maximum Value: 1.0 ppb on Jun 20 12:00																			Maximum Daily Average: 0.4 ppb on Jun 20										Hours in Service: 720	
Minimum Value: 0 ppb on Jun 1 03:00																			Minimum Daily Average: 0.1 ppb on Jun 8										Hours of Data: 684	
Maximum Diurnal Average: 0.2 ppb at hour 7																			Minimum Diurnal Average: 0.1 ppb at hour 14										Hours of Missing Data: 36	
Monthly Average: 0.19 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 = 0.5										Hours of Calibration: 36	
																													Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Jun	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				
2-Jun	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				
3-Jun	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.5				
4-Jun	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	0.4				
5-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3				
6-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
7-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4				
8-Jun	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				
9-Jun	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				
10-Jun	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				
11-Jun	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.3				
12-Jun	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	0.4				
13-Jun	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5				
14-Jun	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	0.2				
15-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4				
16-Jun	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	0.6				
17-Jun	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				
18-Jun	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				
19-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4				
20-Jun	0	0	0	0	0	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0.4	1.0				
21-Jun	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				
22-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0.2	0.7				
23-Jun	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				
24-Jun	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.6				
25-Jun	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	0.4				
26-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.1				
27-Jun	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				
28-Jun	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	0.3				
29-Jun	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				
30-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2				
																									Diurnal Average					
																									Diurnal Maximum					
C - Calibration																									A - Automated Daily Zero Span					

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - June 2018



Hourly Maximums

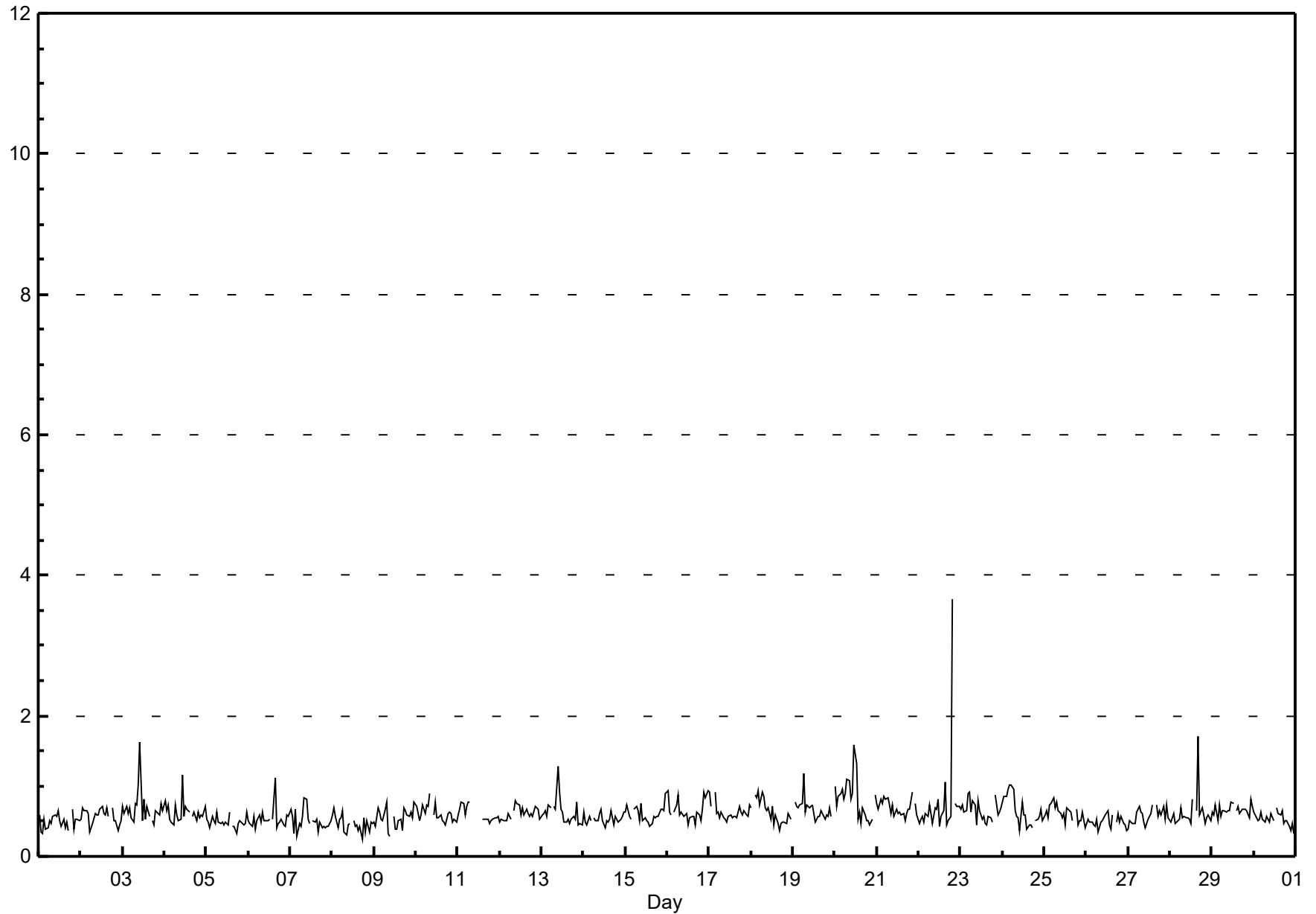
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - June 2018

Maximum Value: 3.7 ppb on Jun 22 20:00																			Maximum Daily Average: 0.8 ppb on Jun 20											Hours in Service: 720	
Minimum Value: 0 ppb on Jun 8 18:00																			Minimum Daily Average: 0.5 ppb on Jun 8											Hours of Data: 684	
Maximum Diurnal Average: 0.7 ppb at hour 7																			Minimum Diurnal Average: 0.5 ppb at hour 18											Hours of Missing Data: 36	
Monthly Average: 0.60 ppb																			Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 1.2											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-Jun	1	0	0	1	0	0	1	0	1	1	1	1	1	0	1	0	0	0	A	1	0	1	0	0	0.5	0.7					
2-Jun	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	0.6	0.7					
3-Jun	1	1	1	1	1	1	0	1	1	1	2	1	1	1	1	1	A	1	0	1	1	1	1	1	0.7	1.6					
4-Jun	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.6	1.2					
5-Jun	1	0	0	1	1	0	1	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	1	0.5	0.6					
6-Jun	1	0	0	1	0	1	1	0	1	1	1	0	1	A	1	1	0	0	0	1	0	0	1	1	0.5	1.1					
7-Jun	1	1	0	1	0	0	0	1	1	1	1	0	A	1	0	1	0	0	0	0	0	0	0	0	0.5	0.8					
8-Jun	1	1	1	0	1	1	1	0	0	0	0	A	1	0	0	0	0	0	1	0	1	0	0	0	0.5	0.7					
9-Jun	0	0	1	1	1	1	1	1	0	0	0	A	1	0	0	1	0	1	1	1	1	1	1	1	0.5	0.8					
10-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	1	1	1	0	1	0	0.6	0.9					
11-Jun	1	1	1	1	1	1	1	1	C	C	C	C	C	C	1	1	1	1	0	1	1	1	1	1	0.6	0.8					
12-Jun	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8					
13-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	0	0	0.6	1.3					
14-Jun	1	0	0	1	1	A	1	1	1	1	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0.5	0.7					
15-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	0.6	0.9					
16-Jun	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	0.7	0.9					
17-Jun	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9					
18-Jun	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	1	1	1	0.6	0.9					
19-Jun	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	0.7	1.2					
20-Jun	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0	1	1	1	1	0	1	A	1	0.8	1.6					
21-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9					
22-Jun	0	1	1	0	1	1	1	1	0	1	1	1	0	1	1	1	0	1	1	4	A	1	1	1	0.8	3.7					
23-Jun	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1	0	A	1	1	1	1	0.7	0.9					
24-Jun	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	A	1	1	1	1	1	0.7	1.0					
25-Jun	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	A	1	0	1	1	1	0	0.6	0.8					
26-Jun	0	1	0	0	0	0	1	0	0	1	1	1	1	0	0	1	A	0	1	0	1	0	0	0	0.5	0.6					
27-Jun	0	1	0	0	0	1	1	1	1	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	0.6	0.7					
28-Jun	0	1	1	0	0	1	1	1	1	1	1	1	0	1	A	1	2	1	1	1	0	1	1	0	0.6	1.7					
29-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.8					
30-Jun	1	1	0	1	1	1	0	1	1	0	1	1	A	1	1	1	1	0	1	1	0	0	0	0	0.5	0.7					
0.6 0.6 0.6 0.6 0.6 0.6 0.7 0.6 0.6 0.6 0.7 0.6 0.6 0.6 0.6 0.6 0.6 0.5 0.6 0.7 0.6 0.5 0.6 0.6																									Diurnal Average						
1.0 0.9 0.9 1.0 1.0 1.0 1.2 1.1 1.1 1.3 1.6 1.6 1.3 0.8 0.7 1.1 1.7 0.7 0.7 3.7 0.9 0.9 0.8 0.9																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

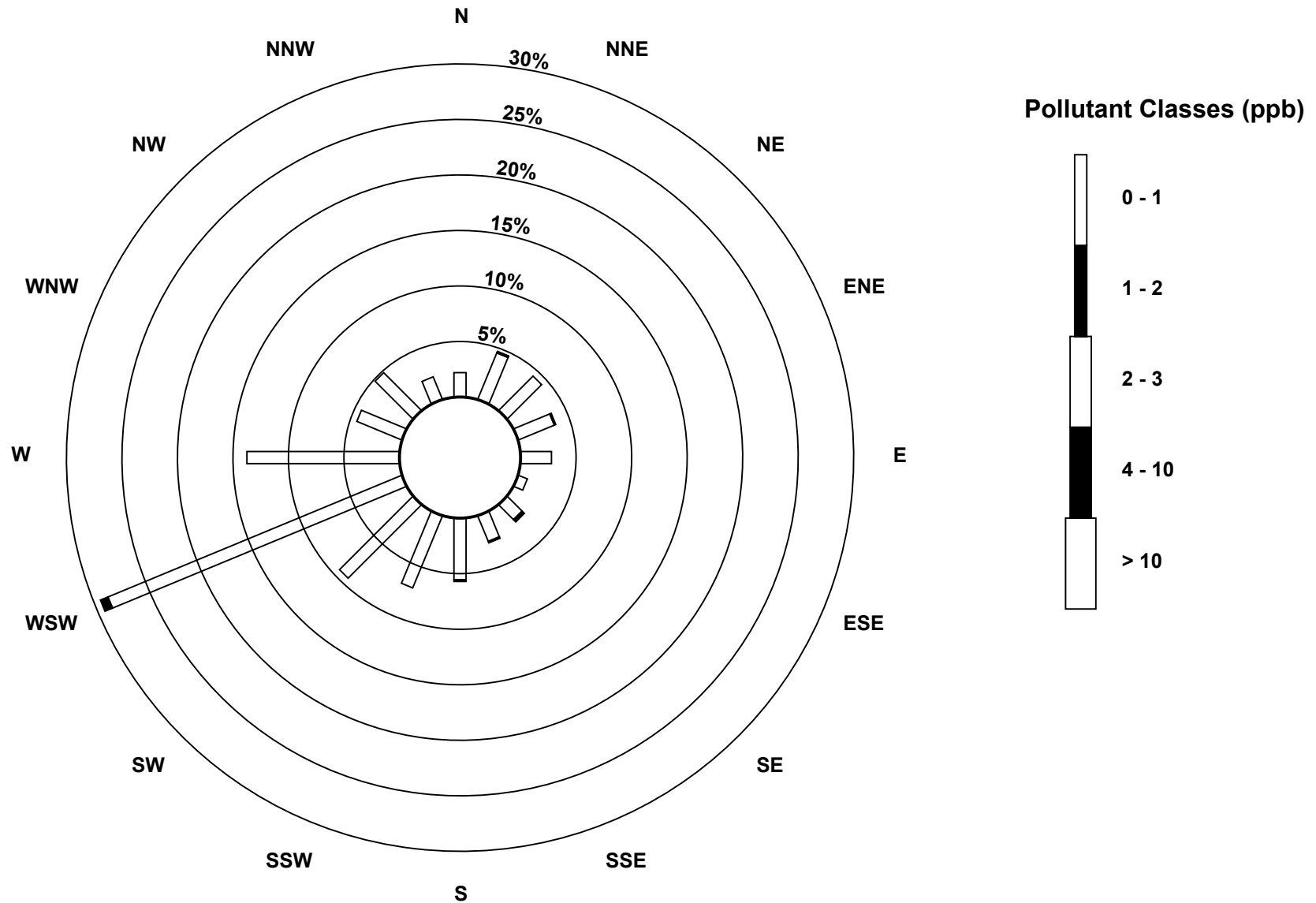
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - June 2018



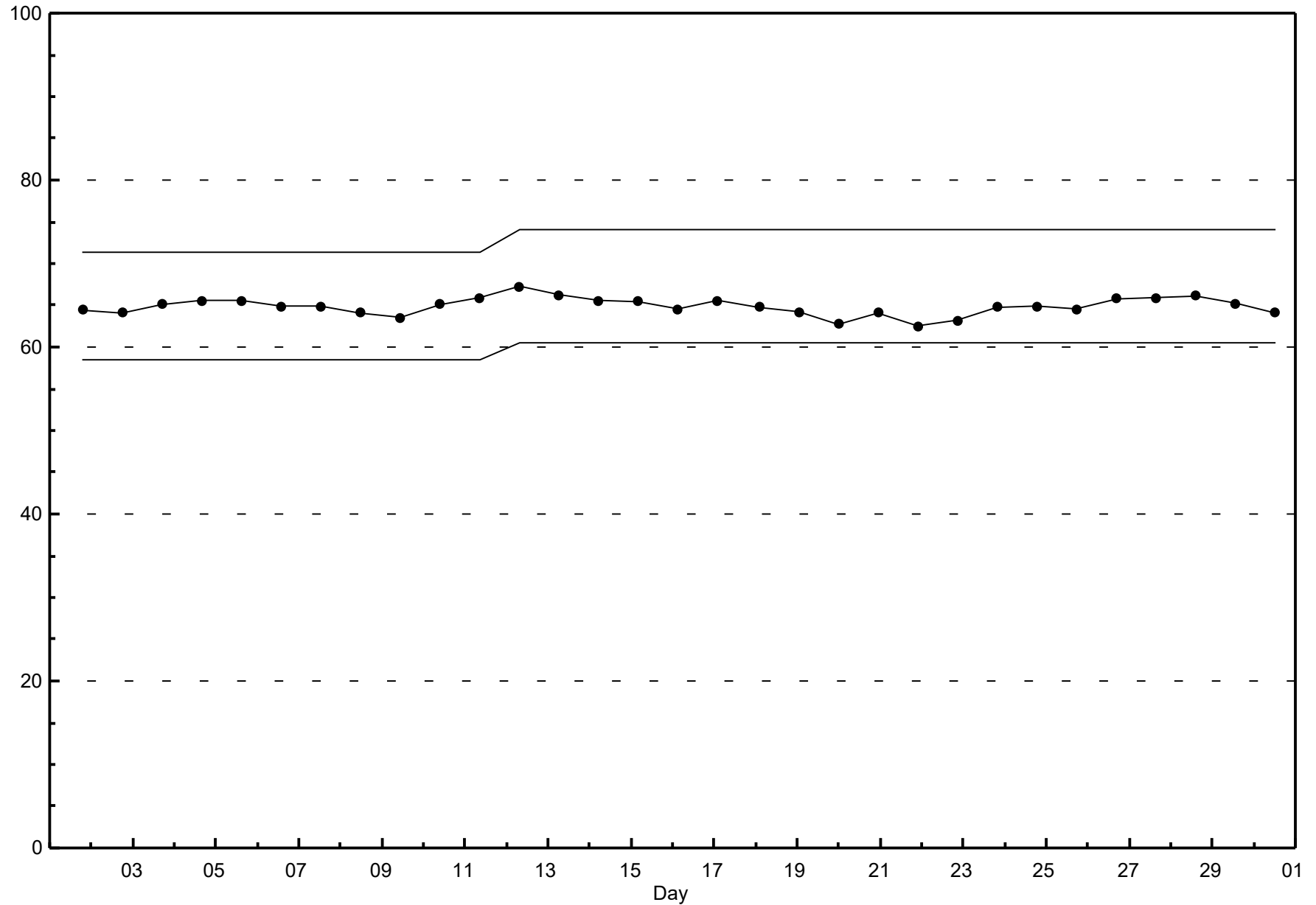
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - June 2018



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - June 2018

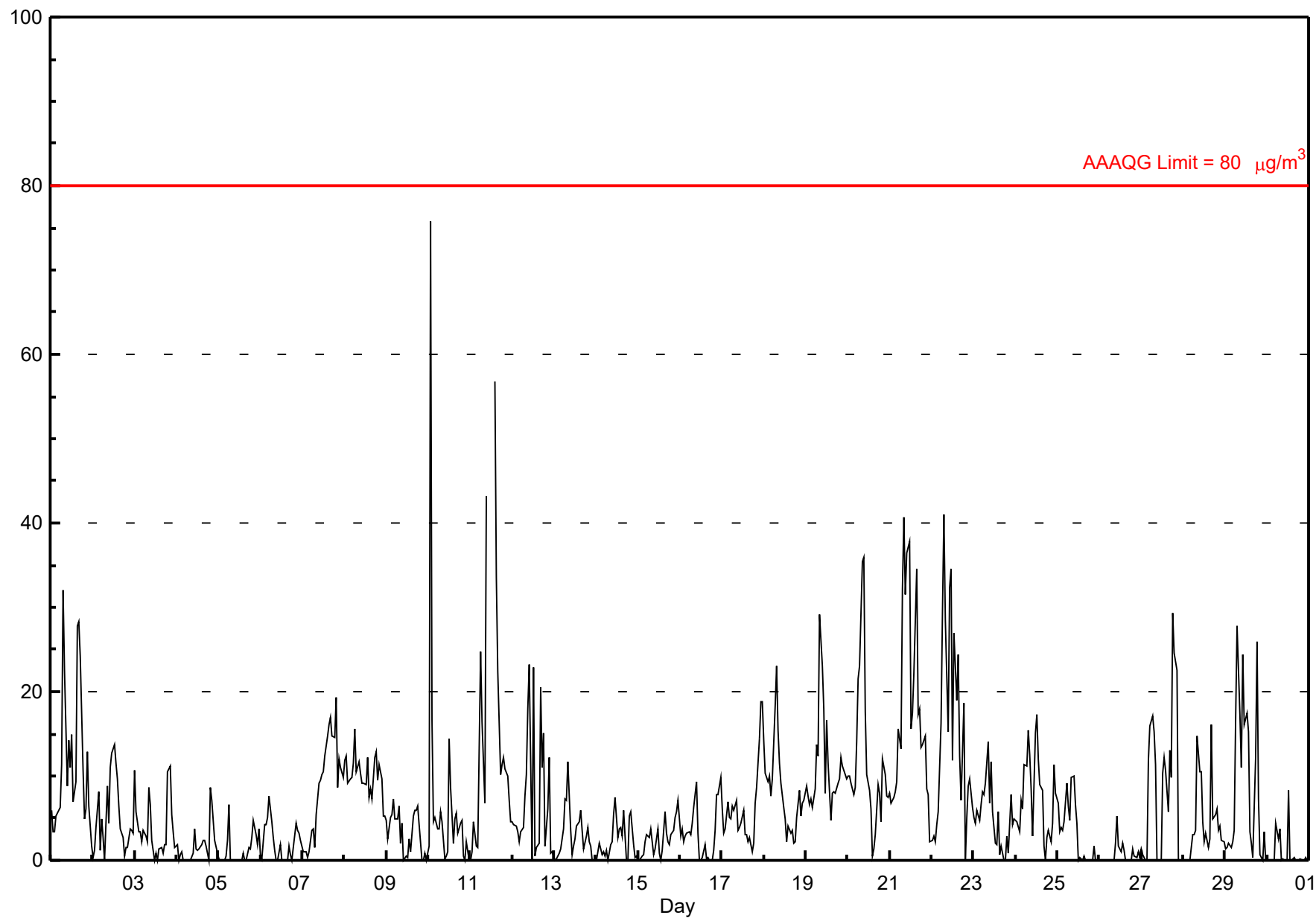


Hourly Averages

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

Evergreen Park - June 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 75.7 µg/m³ on Jun 10 02:00 Maximum Daily Average: 18.0 µg/m³ on Jun 21																								Hours in Service: 720 Hours of Data: 716 Hours of Missing Data: 4 Hours of Calibration: 4 Percent Operational Time: 100.0		
Minimum Value: 0 µg/m³ on Jun 2 08:00 Maximum Diurnal Average: 11.3 µg/m³ at hour 9 Monthly Average: 6.58 µg/m³ Minimum Daily Average: 0.7 µg/m³ on Jun 26 Minimum Diurnal Average: 3.8 µg/m³ at hour 4 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 1.2 Median = 4.2 Q ₃ = 9.2 P ₉₀ = 15.4 P ₉₉ = 35.9																										
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-Jun	6	3	3	5	6	6	11	32	23	9	14	11	15	7	9	28	28	24	11	5	6	13	6	2	11.8	32.1
2-Jun	0	1	4	8	1	5	3	0	9	4	11	13	14	12	10	6	4	3	1	2	1	4	4	3	5.0	13.7
3-Jun	11	6	3	3	2	4	3	2	9	7	2	0	1	0	1	1	1	2	2	11	11	5	3	2	3.8	11.3
4-Jun	2	0	1	1	0	0	0	0	0	1	4	1	1	1	2	2	2	2	0	9	7	5	2	1	1.8	8.7
5-Jun	0	0	0	0	1	2	7	0	0	0	0	0	0	0	1	0	0	2	1	3	5	3	2	4	1.2	6.5
6-Jun	1	0	4	4	5	8	5	3	1	0	0	2	0	0	0	0	2	1	0	1	4	3	3	2	2.1	7.6
7-Jun	1	1	1	0	1	4	4	1	5	9	10	10	10	12	15	16	17	15	15	19	9	12	11	10	8.7	19.3
8-Jun	12	12	9	10	10	11	16	10	12	10	9	9	9	12	7	9	7	12	13	9	11	10	5	5	10.1	15.5
9-Jun	5	3	5	5	7	5	5	7	2	4	0	1	0	3	1	5	6	6	6	4	0	0	1	0	3.4	7.2
10-Jun	2	76	17	5	5	4	4	6	5	0	1	1	14	9	2	5	6	3	4	5	0	0	2	0	7.2	75.7
11-Jun	0	1	5	2	2	13	25	16	7	43	C	C	C	C	57	34	22	10	11	12	11	10	7	5	14.6	56.7
12-Jun	5	4	4	3	2	3	4	8	10	18	23	0	23	0	2	2	21	11	15	2	6	12	1	1	7.5	23.2
13-Jun	0	0	1	1	1	4	7	7	12	4	1	2	3	4	5	6	3	1	3	4	2	2	0	0	3.0	11.7
14-Jun	0	1	2	1	1	1	1	0	2	2	5	7	3	4	4	3	6	0	0	5	6	2	0	1	2.3	7.5
15-Jun	0	0	1	1	2	3	3	4	2	1	1	4	1	0	1	6	3	2	2	3	4	5	6	7	2.5	7.1
16-Jun	3	4	2	3	3	3	3	4	6	9	3	0	0	0	2	0	0	0	0	1	3	8	8	10	3.2	9.8
17-Jun	6	3	4	7	5	5	6	6	7	4	4	4	6	3	3	2	3	1	2	7	9	14	19	19	6.2	18.9
18-Jun	14	10	9	10	8	10	18	23	15	11	9	6	5	2	4	3	4	2	2	5	8	5	7	7	8.3	23.0
19-Jun	9	8	7	7	6	8	14	12	29	23	18	8	17	12	5	8	8	8	9	10	12	11	11	10	11.2	29.1
20-Jun	10	10	9	8	9	14	22	23	36	36	18	10	8	6	1	1	3	9	8	5	12	10	8	8	11.8	35.9
21-Jun	8	7	8	8	9	16	13	32	41	32	36	38	16	17	22	35	17	18	13	14	15	8	8	2	18.0	40.6
22-Jun	2	3	2	4	6	16	29	41	28	15	32	35	12	27	19	24	12	7	19	0	5	9	10	6	15.2	40.9
23-Jun	5	4	6	5	7	8	8	9	14	7	12	6	2	2	6	1	2	0	0	3	1	8	4	5	5.1	14.1
24-Jun	5	5	3	7	6	11	11	15	13	8	3	15	17	12	9	8	2	0	3	4	2	4	11	8	7.6	17.3
25-Jun	7	3	4	4	5	9	6	5	10	10	7	4	0	0	0	1	0	0	0	0	0	2	0	0	3.2	10.0
26-Jun	0	0	0	0	0	0	0	0	0	2	5	2	1	2	1	0	0	0	0	1	1	0	1	0	0.7	5.3
27-Jun	1	1	0	0	12	16	17	15	11	0	0	0	10	12	11	6	13	10	29	25	23	0	0	0	8.8	29.3
28-Jun	0	0	0	0	0	3	3	4	15	11	11	5	2	3	2	2	16	5	5	6	4	4	2	2	4.4	16.1
29-Jun	1	2	2	2	2	3	17	28	17	11	24	16	17	15	3	2	0	12	26	7	1	0	3	0	8.9	27.8
30-Jun	0	0	0	0	0	4	3	4	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0.8	8.2
3.8 5.6 3.8 3.8 4.1 6.7 8.9 10.6 11.3 9.7 9.1 7.2 7.4 6.2 6.8 7.2 7.0 5.5 6.7 6.0 6.0 5.7 4.9 4.0																								Diurnal Average		
14.2 75.7 16.7 10.0 11.9 16.3 29.5 40.9 40.6 43.2 36.4 37.8 22.9 26.9 56.7 34.5 28.4 24.3 29.3 24.7 22.6 14.5 18.7 18.9																								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

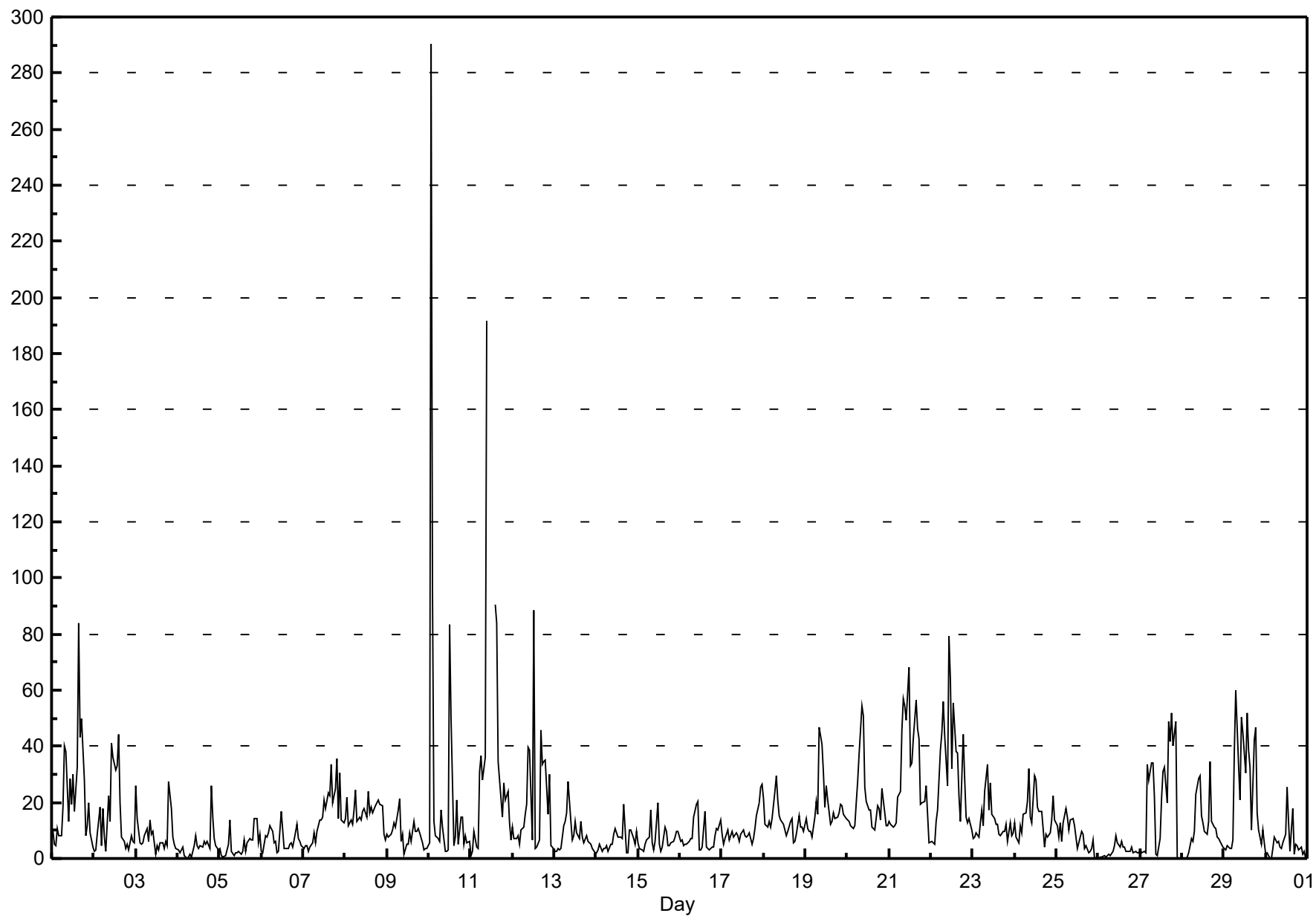
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - June 2018

Maximum Value: 290.5 μg/m ³ on Jun 10 02:00																								Maximum Daily Average: 34.0 μg/m ³ on Jun 11								Hours in Service: 720	
Minimum Value: 0 μg/m ³ on Jun 4 06:00																								Minimum Daily Average: 2.7 μg/m ³ on Jun 26								Hours of Data: 716	
Maximum Diurnal Average: 21.8 μg/m ³ at hour 10																								Minimum Diurnal Average: 7.1 μg/m ³ at hour 4								Hours of Missing Data: 4	
Monthly Average: 14.49 μg/m ³																								Percentiles: P ₁ = 0.0 P ₁₀ = 2.7 Q ₁ = 4.9 Median = 9.6 Q ₃ = 17.3 P ₉₀ = 33.0 P ₉₉ = 82.9								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-Jun	10	5	5	11	8	8	18	40	38	13	29	19	30	17	33	84	43	50	28	8	12	20	9	4	22.6	83.9							
2-Jun	3	3	9	18	5	18	7	2	23	13	41	36	31	33	44	20	8	6	3	5	3	8	6	5	14.6	44.0							
3-Jun	26	14	5	5	6	8	11	6	14	9	10	1	5	3	5	6	3	6	5	28	18	8	5	3	8.7	27.6							
4-Jun	3	2	3	4	1	0	1	2	1	4	8	5	3	4	4	6	5	6	4	26	15	7	4	3	5.1	25.9							
5-Jun	4	1	1	1	3	5	14	3	1	2	2	3	2	3	6	2	6	7	7	7	14	14	5	9	5.0	14.5							
6-Jun	3	2	8	8	9	11	10	6	6	2	3	17	10	4	4	4	5	6	4	7	12	7	6	5	6.5	16.7							
7-Jun	3	4	5	3	4	6	9	6	10	14	14	15	21	18	23	22	34	20	25	36	14	30	14	13	15.0	35.6							
8-Jun	14	22	12	14	12	17	24	13	15	14	17	18	15	24	16	18	16	19	20	21	19	19	9	7	16.5	24.4							
9-Jun	9	7	9	10	13	11	17	21	6	9	2	5	5	9	6	13	10	10	11	9	5	3	3	3	8.6	21.4							
10-Jun	6	291	94	13	8	7	6	17	11	3	3	3	84	50	4	8	21	5	15	15	5	8	5	6	28.7	290.5							
11-Jun	1	3	10	4	3	31	37	28	36	192	C	C	C	C	91	84	34	21	15	27	21	24	13	7	34.0	191.6							
12-Jun	11	7	7	8	5	10	11	16	19	40	39	6	89	4	4	7	46	34	34	35	16	30	5	4	20.3	88.5							
13-Jun	3	3	4	3	3	12	13	16	28	13	7	8	13	9	7	13	8	5	8	6	5	5	4	2	8.2	27.6							
14-Jun	2	3	5	2	3	3	5	3	5	5	9	11	8	8	8	7	19	2	2	10	10	7	5	10	6.3	19.1							
15-Jun	6	3	3	2	5	6	7	17	5	3	6	20	5	2	4	11	10	5	5	5	6	7	10	10	6.9	19.6							
16-Jun	6	7	5	5	5	6	7	7	15	19	21	3	3	4	17	4	3	3	4	4	8	11	10	13	7.9	20.6							
17-Jun	9	5	7	10	7	8	10	7	9	8	6	9	10	8	8	8	9	5	7	11	15	20	26	26	10.3	26.4							
18-Jun	21	12	11	13	11	14	24	30	21	15	14	12	10	8	10	13	14	6	6	9	15	11	11	10	13.5	29.6							
19-Jun	14	10	10	10	8	15	20	16	47	41	31	18	26	21	12	13	16	14	15	16	19	19	16	14	18.3	46.7							
20-Jun	14	13	11	11	12	20	27	37	55	51	26	20	17	17	11	11	10	19	18	14	25	16	12	12	19.9	54.6							
21-Jun	13	12	11	12	13	22	24	46	57	55	49	68	33	34	43	57	46	43	20	20	20	26	16	6	31.0	67.9							
22-Jun	6	6	5	13	17	39	45	56	44	26	79	64	32	55	38	38	22	13	44	29	15	13	14	10	30.1	79.2							
23-Jun	7	8	9	8	13	17	12	24	33	17	27	16	14	12	12	9	8	10	10	12	6	13	8	9	13.1	33.5							
24-Jun	13	8	6	12	9	16	16	20	32	15	13	29	28	18	17	17	11	4	9	7	9	13	22	14	14.9	31.8							
25-Jun	12	8	13	6	13	18	15	10	13	14	12	8	4	6	10	9	3	5	2	3	4	7	0	0	8.0	17.8							
26-Jun	0	0	1	1	0	1	1	1	3	4	8	5	4	6	4	4	3	2	3	4	2	3	2	2	2.7	8.4							
27-Jun	3	2	3	2	34	28	34	34	22	1	1	7	22	31	33	20	49	42	52	40	49	0	0	0	21.1	52.1							
28-Jun	0	0	0	1	2	7	6	10	23	29	29	15	13	10	8	13	35	13	11	11	8	7	6	4	10.8	34.7							
29-Jun	3	3	5	4	4	6	38	60	33	21	50	45	30	52	38	32	10	42	47	16	10	5	10	5	23.8	60.2							
30-Jun	1	2	0	0	4	8	5	6	4	4	5	8	25	13	3	18	1	5	5	3	4	1	2	0	5.4	25.3							
7.5 15.6 9.1 7.1 7.9 12.6 15.9 18.7 20.9 21.8 19.3 17.0 20.4 16.7 17.4 19.0 17.0 14.2 14.6 14.8 12.9 12.1 8.6 7.2																								Diurnal Average									
25.9 290.5 94.1 18.4 33.7 38.6 45.0 60.2 57.1 191.6 79.2 67.9 88.5 55.5 90.7 84.0 48.6 49.6 52.1 40.1 48.6 30.3 25.7 26.4																								Diurnal Maximum									
C - Calibration																																	

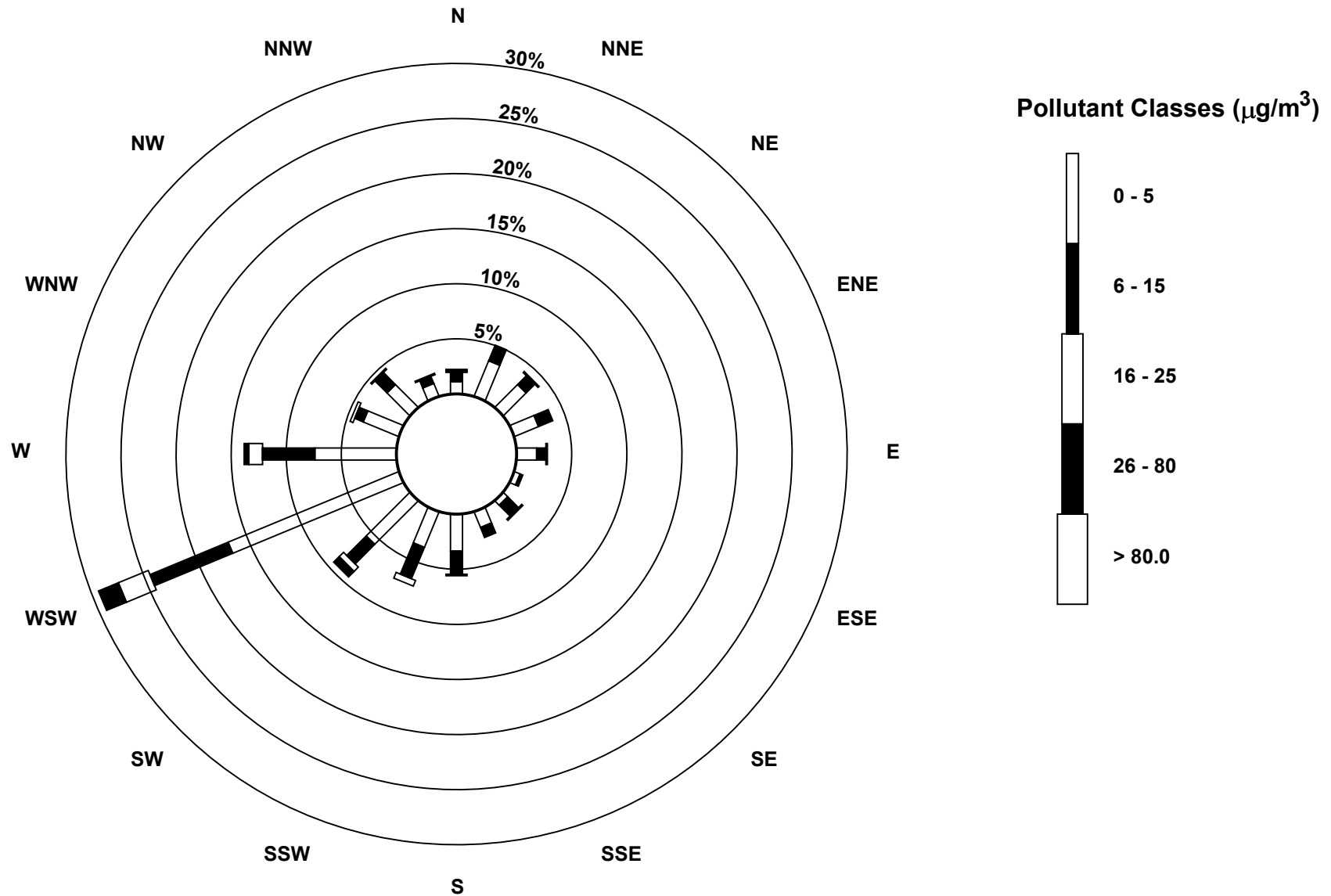
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - June 2018



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - June 2018



Hourly Averages

External Temperature (ET) - °C

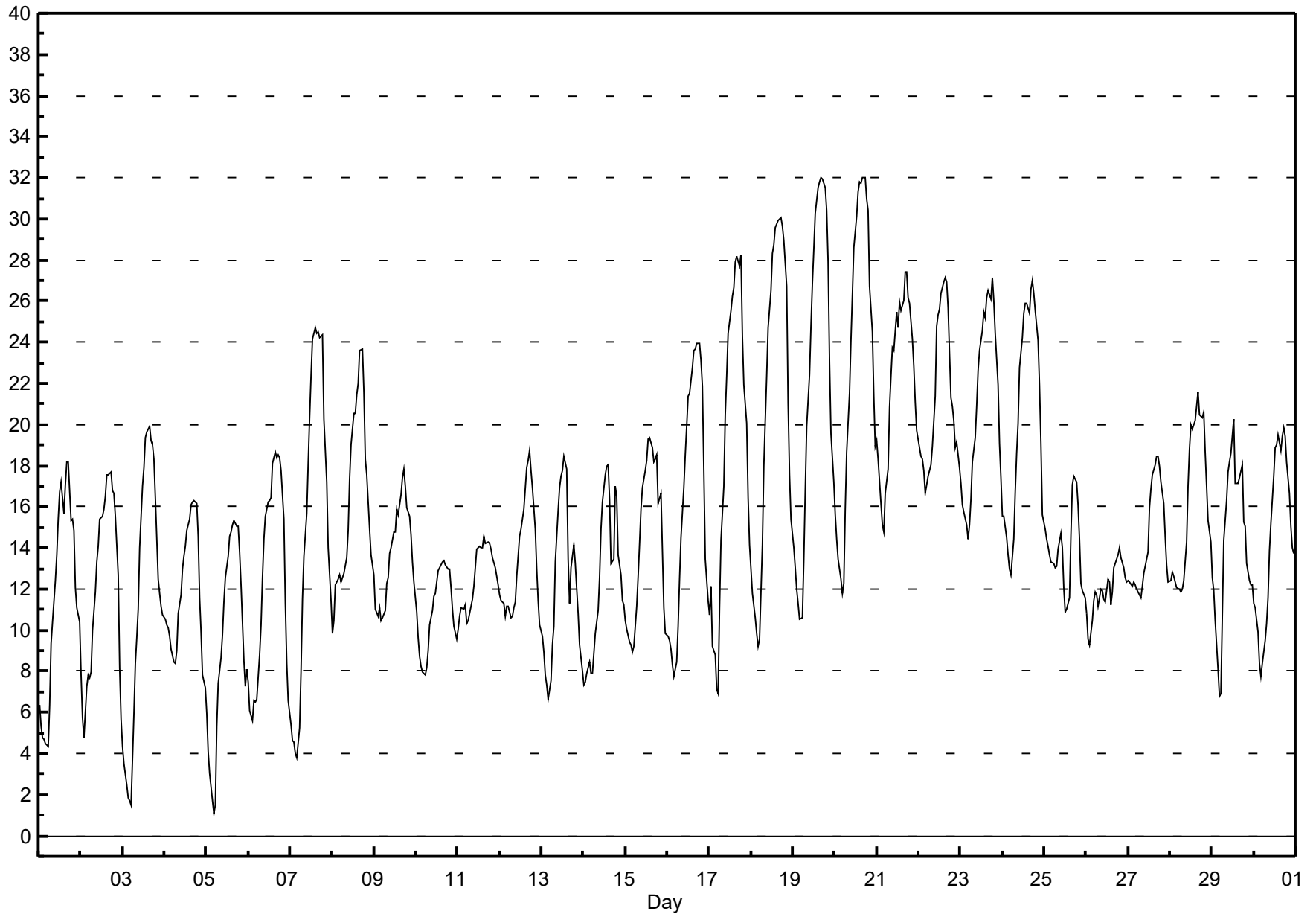
Evergreen Park - June 2018

Maximum Value: 32.0 °C on Jun 20 17:00																				Maximum Daily Average: 23.2 °C on Jun 20					Hours in Service: 720	
Minimum Value: 1 °C on Jun 5 05:00																				Minimum Daily Average: 9.4 °C on Jun 5					Hours of Data: 720	
Maximum Diurnal Average: 20.7 °C at hour 18																				Minimum Diurnal Average: 9.3 °C at hour 5					Hours of Missing Data: 0	
Monthly Average: 15.40 °C																				Percentiles: P ₁ = 3.1 P ₁₀ = 8.4 Q ₁ = 11.3 Median = 14.4 Q ₃ = 18.6 P ₉₀ = 24.7 P ₉₉ = 31.5					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-Jun	6	5	5	5	4	4	6	9	10	12	14	15	17	17	16	17	18	18	15	15	15	12	11	10	11.7	18.2
2-Jun	8	6	5	7	8	8	8	10	12	13	14	15	16	16	16	18	18	18	17	17	16	13	8	6	12.1	17.7
3-Jun	4	3	2	2	2	1	6	8	10	11	14	17	18	19	20	20	19	19	18	16	12	12	11	11	11.6	19.9
4-Jun	11	10	10	10	9	8	8	9	11	12	13	14	14	15	15	16	16	16	16	15	12	10	8	7	11.9	16.3
5-Jun	6	4	3	2	1	2	5	7	9	10	11	13	14	15	15	15	15	15	15	14	12	9	7	8	9.4	15.3
6-Jun	7	6	6	7	7	7	9	10	13	14	16	16	16	16	18	19	18	19	18	18	15	11	8	7	12.5	18.7
7-Jun	5	5	5	4	4	5	8	12	14	16	18	20	22	24	25	24	24	24	24	20	19	17	14	11	15.2	24.7
8-Jun	10	10	12	12	13	12	13	13	14	15	17	19	21	21	21	22	24	24	22	18	18	15	14	13	16.3	23.7
9-Jun	13	11	11	11	10	11	11	12	13	14	14	15	15	16	16	17	17	18	17	16	16	15	13	12	13.8	17.8
10-Jun	11	10	9	8	8	8	8	9	10	11	12	12	12	13	13	13	13	13	13	13	12	11	10	10	10.9	13.4
11-Jun	10	11	11	11	11	10	11	11	12	12	13	14	14	14	14	15	14	14	14	14	14	13	13	12	12.6	14.5
12-Jun	12	11	11	11	11	11	11	11	11	11	13	15	15	15	16	18	18	19	18	17	15	13	11	10	13.5	18.8
13-Jun	10	9	8	7	7	8	9	10	13	16	17	17	18	18	18	13	11	13	14	13	12	11	9	8	12.1	18.5
14-Jun	7	7	8	8	8	8	9	10	11	13	15	16	18	18	18	16	13	13	17	17	14	13	11	11	12.5	18.1
15-Jun	10	10	9	9	9	9	11	13	14	16	17	18	18	19	19	19	18	18	19	16	17	14	11	10	14.4	19.4
16-Jun	10	10	9	8	8	8	10	12	15	17	19	20	21	22	23	24	24	24	24	23	22	18	13	11	16.4	24.0
17-Jun	11	12	9	9	7	7	11	14	17	20	22	24	26	26	27	28	28	28	28	24	22	20	16	14	18.8	28.2
18-Jun	13	12	11	10	9	10	14	18	20	22	25	27	28	29	30	30	30	30	30	29	27	21	18	15	21.1	30.1
19-Jun	14	13	12	11	11	11	13	17	20	22	25	27	29	30	32	32	32	32	31	30	28	23	20	17	22.1	32.0
20-Jun	16	14	13	13	12	12	16	19	22	24	26	29	30	31	32	32	32	32	31	30	27	25	21	19	23.2	32.0
21-Jun	19	18	16	15	15	17	18	21	22	24	24	26	25	26	26	26	27	27	26	26	24	23	21	20	22.1	27.4
22-Jun	19	18	18	18	17	18	18	18	19	21	25	25	26	26	27	27	27	26	21	21	20	19	19	18	21.3	27.2
23-Jun	17	16	16	15	14	15	16	18	19	21	23	24	25	26	25	26	27	26	27	26	24	22	19	17	21.0	27.2
24-Jun	16	16	14	14	13	13	14	17	19	20	23	24	25	26	26	25	27	27	26	26	24	22	19	16	20.4	27.0
25-Jun	15	14	14	14	13	13	13	13	14	15	14	12	11	11	12	15	17	17	17	16	14	12	12	12	13.8	17.5
26-Jun	11	10	9	10	11	12	12	11	12	12	12	11	12	12	11	12	13	13	14	14	13	13	13	12	11.9	14.0
27-Jun	12	12	12	12	12	12	12	12	12	13	13	14	16	17	18	18	18	18	18	17	16	15	13	12	14.4	18.5
28-Jun	12	13	13	12	12	12	12	12	12	14	17	19	20	20	20	21	22	20	20	21	19	17	15	14	16.3	21.6
29-Jun	13	12	10	8	7	7	11	14	16	18	18	19	20	17	17	17	17	18	15	15	13	12	12	12	14.2	20.3
30-Jun	11	11	10	8	8	8	10	10	12	14	15	18	19	19	20	19	19	20	19	18	17	15	14	14	14.5	19.9
11.3 10.7 10.1 9.7 9.3 9.6 11.1 12.7 14.2 15.8 17.2 18.4 19.3 19.8 20.1 20.4 20.6 20.7 20.2 19.2 17.6 15.5 13.6 12.4																								Diurnal Average		
19.2 18.5 18.3 17.7 16.7 17.5 17.8 20.8 22.4 24.1 26.3 28.6 30.1 31.3 31.8 31.8 32.0 32.0 31.5 30.4 27.9 24.5 21.3 19.7																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Evergreen Park - June 2018



Hourly Averages

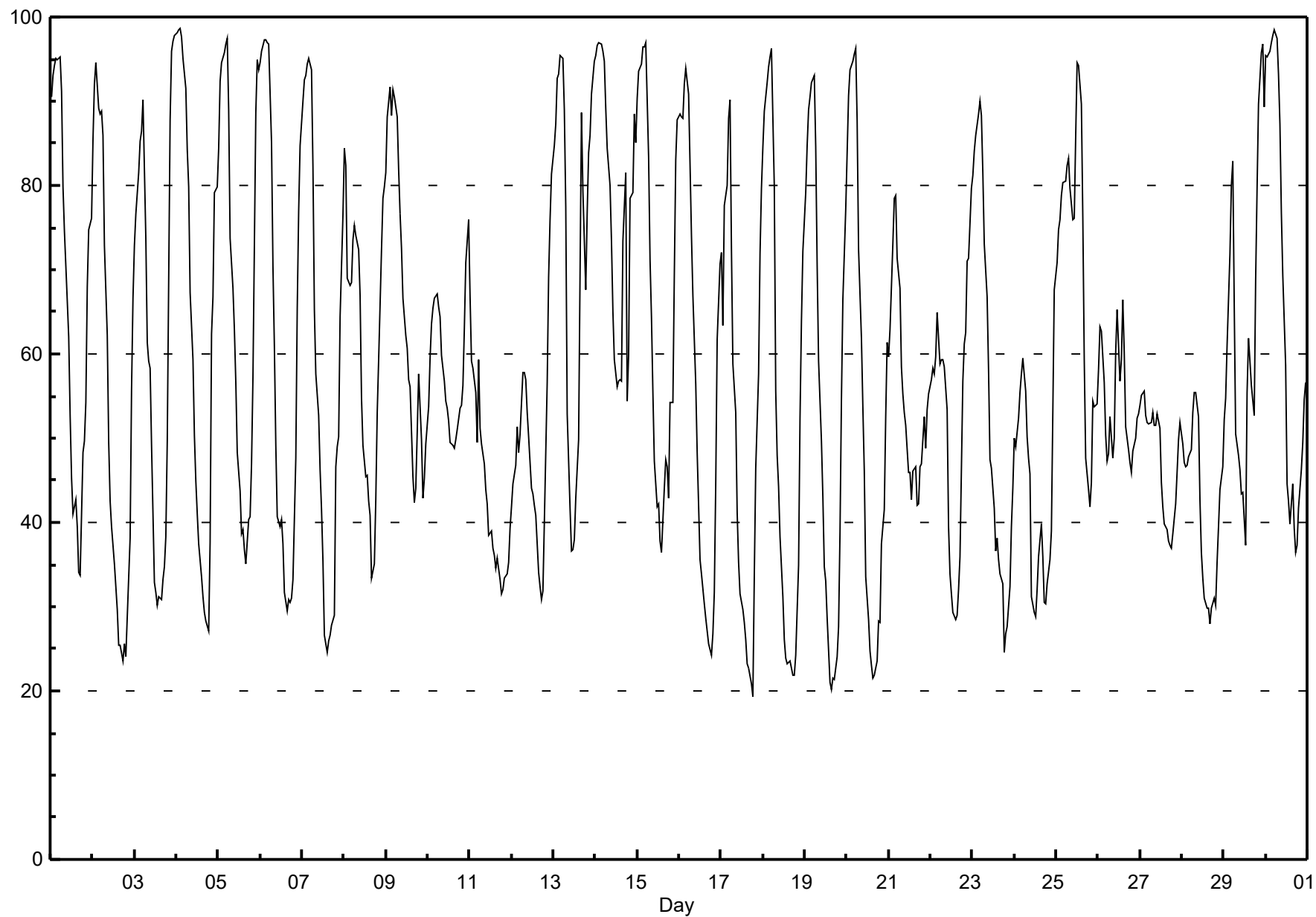
Relative Humidity (RH) - %

Evergreen Park - June 2018

Maximum Value: 98.6 % on Jun 4 03:00																								Hours in Service: 720		
Maximum Daily Average: 77.3 % on Jun 14																								Hours of Data: 720		
Minimum Value: 19 % on Jun 17 19:00																								Hours of Missing Data: 0		
Maximum Diurnal Average: 81.2 % at hour 6																								Hours of Calibration: 0		
Monthly Average: 58.14 %																								Percent Operational Time: 100.0		
Minimum Daily Average: 41.2 % on Jun 28																										
Minimum Diurnal Average: 37.6 % at hour 18																										
Percentiles: P ₁ = 21.8 P ₁₀ = 30.9 Q ₁ = 40.9 Median = 54.2 Q ₃ = 76.7 P ₉₀ = 92.0 P ₉₉ = 97.4																										
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-Jun	90	93	94	95	95	95	91	80	75	66	62	53	45	41	43	39	34	34	48	50	54	68	75	76	66.5	95.2
2-Jun	85	92	95	89	88	89	86	73	62	50	43	39	35	32	30	25	25	24	26	24	29	38	56	67	54.2	94.5
3-Jun	73	77	82	85	86	90	74	61	59	58	49	33	32	30	31	31	33	35	38	50	88	96	97	98	61.9	97.8
4-Jun	98	99	99	98	95	91	84	80	67	59	50	45	41	37	34	31	29	28	27	38	62	67	79	80	63.3	98.6
5-Jun	84	92	95	96	97	97	89	74	68	63	57	48	44	39	39	37	35	40	41	47	57	89	95	94	67.3	97.4
6-Jun	95	96	97	97	97	97	85	70	61	49	41	40	40	37	32	30	31	30	31	33	48	65	77	85	61.0	97.4
7-Jun	90	93	93	94	95	94	82	65	58	53	46	42	35	27	25	26	27	28	29	47	49	50	64	76	57.8	95.1
8-Jun	84	82	69	68	69	74	75	74	72	67	55	49	45	46	43	41	33	35	43	53	59	72	78	80	61.1	84.3
9-Jun	81	88	92	88	91	90	88	82	77	73	67	62	61	57	56	45	42	44	51	58	50	43	45	49	65.8	91.7
10-Jun	54	60	64	65	67	67	66	64	60	57	54	54	52	49	49	49	50	51	54	54	56	63	71	76	58.5	75.9
11-Jun	67	59	58	55	49	59	51	49	47	44	42	38	39	37	36	35	36	33	31	32	33	34	35	39	43.4	66.8
12-Jun	42	45	47	51	48	51	58	58	57	53	50	44	43	42	41	34	32	31	32	40	57	69	76	81	49.3	81.4
13-Jun	85	87	93	93	96	95	89	78	53	42	37	37	38	43	50	70	89	79	68	77	84	86	91	95	73.0	95.5
14-Jun	95	97	97	97	96	95	89	84	80	73	65	59	56	57	57	57	73	82	54	60	78	79	88	85	77.3	97.0
15-Jun	90	93	94	96	96	97	83	71	64	55	47	42	42	38	36	44	47	47	43	54	54	69	83	88	65.7	96.9
16-Jun	88	88	88	92	94	91	83	74	67	56	48	42	36	34	30	29	27	26	24	27	32	45	62	71	56.4	94.0
17-Jun	72	63	78	80	88	90	72	59	53	41	35	31	30	28	26	23	23	21	19	34	46	58	72	80	50.9	90.1
18-Jun	85	89	92	94	95	96	80	56	48	44	38	31	26	24	23	24	23	22	22	24	35	52	64	72	52.5	96.2
19-Jun	79	85	89	90	92	93	85	71	59	50	43	35	33	29	21	20	21	21	24	28	39	54	66	77	54.4	93.1
20-Jun	84	91	94	95	96	96	88	72	62	54	46	34	28	25	23	21	22	24	28	28	37	42	52	61	54.3	96.3
21-Jun	60	63	73	78	79	71	68	58	55	53	51	46	46	43	46	47	42	42	47	47	53	49	53	55	55.2	78.8
22-Jun	57	58	58	60	65	59	59	59	58	53	40	34	32	29	29	29	32	36	57	61	63	71	71	80	52.0	79.6
23-Jun	81	84	86	89	90	88	81	73	67	58	47	46	42	37	38	36	34	33	25	27	28	32	39	44	54.4	90.1
24-Jun	50	49	52	55	58	60	56	50	48	46	31	29	29	32	36	40	36	30	30	33	36	39	53	68	43.5	67.7
25-Jun	71	75	76	79	80	81	82	83	80	76	76	86	95	94	90	76	59	48	44	42	45	54	54	54	70.8	94.6
26-Jun	58	63	63	57	50	47	48	53	48	50	60	65	57	59	66	60	51	49	47	46	49	50	52	53	54.2	66.4
27-Jun	54	55	56	53	52	52	52	53	51	51	53	51	45	42	40	39	38	37	37	39	42	46	50	52	47.5	55.5
28-Jun	49	47	47	47	48	49	53	55	55	53	43	36	33	31	30	30	28	30	31	30	35	39	44	47	41.2	55.4
29-Jun	52	55	61	72	80	83	66	51	48	46	43	44	37	55	62	59	56	53	69	80	90	96	97	89	64.3	96.9
30-Jun	95	95	96	97	98	98	97	93	87	77	69	59	44	43	40	44	39	37	37	42	46	50	55	57	66.5	98.4
75.0 77.1 79.2 80.2 81.0 81.2 75.4 67.5 61.5 55.7 49.7 45.1 42.1 40.6 40.0 39.0 38.3 37.6 38.5 43.4 51.1 58.9 66.5 70.9																										Diurnal Average
98.2 98.5 98.6 97.7 97.7 98.4 97.4 93.3 87.2 76.7 76.0 85.8 94.6 94.2 89.6 76.1 88.7 81.5 68.8 79.7 89.6 96.0 97.0 97.8																										Diurnal Maximum

Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - June 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	2	2	2	3	2	0	1	6	7	8	8	4	7	18	13	9	2	11	14	7	3	5	3	2	2.5	17.5
Dir	91	48	50	53	47	31	64	136	200	203	249	222	260	216	265	8	39	228	194	170	162	79	24	2	215.0	216.5
2 Spd	1	1	3	14	10	11	13	23	23	28	33	29	23	28	31	37	30	32	29	25	14	5	1	1	18.4	36.8
Dir	3	284	194	223	241	233	233	230	237	234	237	248	252	234	233	235	243	239	239	250	242	236	172	192	238.0	235.2
3 Spd	3	3	0	4	4	3	6	4	2	3	5	9	13	11	11	13	9	7	5	4	1	1	3	7	3.4	12.7
Dir	191	188	149	197	183	192	186	194	105	58	63	77	88	87	79	78	65	48	47	163	133	344	8	15	88.2	88.2
4 Spd	5	7	4	21	27	34	34	34	33	37	42	44	40	39	41	33	31	29	29	18	12	10	5	6	24.1	44.0
Dir	303	7	266	226	226	238	239	240	246	249	247	245	250	246	243	253	254	248	248	264	328	319	301	280	249.0	245.2
5 Spd	4	4	1	0	4	2	6	14	16	13	11	11	14	10	7	5	4	8	5	7	5	1	1	1	3.5	15.8
Dir	262	190	178	98	198	232	290	318	313	306	312	314	334	329	22	44	81	81	57	57	149	32	31	307	331.2	312.6
6 Spd	1	1	3	1	1	1	2	7	7	13	19	13	18	14	17	15	10	4	5	4	1	0	0	1	5.7	19.5
Dir	120	190	168	176	301	189	185	256	242	246	246	242	264	281	232	257	239	183	167	183	147	359	81	29	242.4	245.5
7 Spd	1	1	3	2	2	2	2	4	3	3	5	7	6	3	7	6	4	4	0	19	21	10	2	1	1.5	21.1
Dir	47	35	33	39	57	76	41	112	143	175	187	204	202	175	190	285	352	60	225	313	320	343	0	304	312.4	320.1
8 Spd	2	9	13	13	18	8	6	6	6	6	3	3	6	4	4	12	9	13	8	21	16	18	9	5	4.7	20.5
Dir	198	246	260	289	311	314	242	204	194	193	217	6	342	60	337	17	136	114	319	315	305	317	306	327	300.8	314.7
9 Spd	5	1	4	6	4	6	7	12	15	12	18	18	14	13	21	18	13	11	8	9	9	14	15	17	9.9	21.3
Dir	255	161	292	244	240	275	263	250	252	291	301	304	311	300	281	262	243	244	197	199	275	264	252	261	268.4	281.0
10 Spd	18	15	11	12	15	17	17	14	16	19	21	22	20	23	26	26	21	24	13	14	14	14	25	16	17.7	26.0
Dir	259	252	259	250	240	241	253	274	272	287	275	268	274	280	270	262	253	246	252	249	256	260	254	235	260.3	269.9
11 Spd	20	19	15	26	33	30	30	28	37	44	41	41	44	50	46	46	44	46	47	41	41	40	32	26	35.9	50.0
Dir	241	264	294	252	257	256	244	255	247	246	246	257	248	249	252	250	259	255	249	252	245	249	260	267	252.4	249.0
12 Spd	29	31	30	23	25	24	20	28	27	25	25	22	18	14	15	24	28	27	22	7	4	3	3	2	18.5	30.6
Dir	253	249	249	250	247	271	273	262	258	253	252	269	287	289	276	267	260	263	258	296	17	68	123	83	261.3	248.5
13 Spd	2	2	1	0	2	1	5	10	13	18	14	13	9	12	12	2	6	5	4	3	3	3	1	3	2.2	17.8
Dir	101	33	14	310	180	214	225	234	240	244	282	300	325	4	34	130	18	41	31	37	58	59	43	54	309.5	243.8
14 Spd	1	1	3	2	3	4	4	4	6	2	3	5	7	6	1	22	13	6	7	5	1	9	4	11	1.3	21.9
Dir	31	161	13	62	31	67	42	59	182	237	257	279	346	339	318	211	222	163	192	229	358	342	55	330	262.6	211.2
15 Spd	1	7	0	1	2	1	8	13	12	15	15	14	14	13	14	19	18	11	10	8	6	2	1	4	5.9	19.2
Dir	258	199	41	218	238	273	285	266	280	258	267	277	304	287	305	327	1	25	26	29	24	355	252	271	304.0	326.7
16 Spd	4	6	5	7	5	8	12	12	11	11	13	8	8	7	9	6	6	5	4	8	4	2	1	3	5.8	13.1
Dir	256	257	243	222	241	242	245	242	238	252	247	256	244	273	273	237	195	219	172	146	130	132	179	157	235.7	247.0
17 Spd	5	5	2	3	1	0	3	6	5	8	8	8	10	11	7	8	7	9	4	1	1	0	0	1	3.2	10.8
Dir	153	153	183	202	185	223	189	183	175	231	232	240	231	263	271	281	311	315	302	352	203	221	212	208	240.5	263.1
18 Spd	0	1	0	0	1	1	4	8	8	6	5	7	7	6	4	8	11	8	8	5	2	0	0	0	0.8	10.9
Dir	19	194	78	300	200	206	240	247	242	212	167	146	121	135	161	23	25	33	25	72	72	32	197	39	103.2	24.9
19 Spd	1	1	0	0	1	1	0	3	2	8	5	6	8	5	6	0	3	6	7	6	2	0	0	0	0.3	7.9
Dir	25	34	56	154	36	178	195	195	232	274	260	181	214	190	159	164	83	30	22	34	54	138	83	24	195.9	214.1
20 Spd	0	1	0	0	0	1	2	4	3	2	6	4	6	5	9	13	9	6	9	6	4	9	2	6	1.0	12.8
Dir	18	35	29	8	185	198	180	254	245	230	204	136	143	131	40	35	91	79	50	95	235	254	263	219	108.9	35.1
21 Spd	5	3	2	6	3	8	6	12	12	14	17	17	16	18	18	16	12	13	15	19	13	22	18	12	12.0	21.8
Dir	254	260	273	213	309	255	280	251	253	255	237	248	261	257	235	229	233	256	227	241	251	245	247	247	246.7	245.3
22 Spd	12	13	11	5	4	9	7	9	8	12	20	24	21	20	21	21	19	21	18	6	4	3	6	7	10.6	24.1
Dir	242	241	237	239	212	241	265	236	270	268	254	252	282	262	268	260	286	314	341	32	18	303	261	277	269.3	252.1

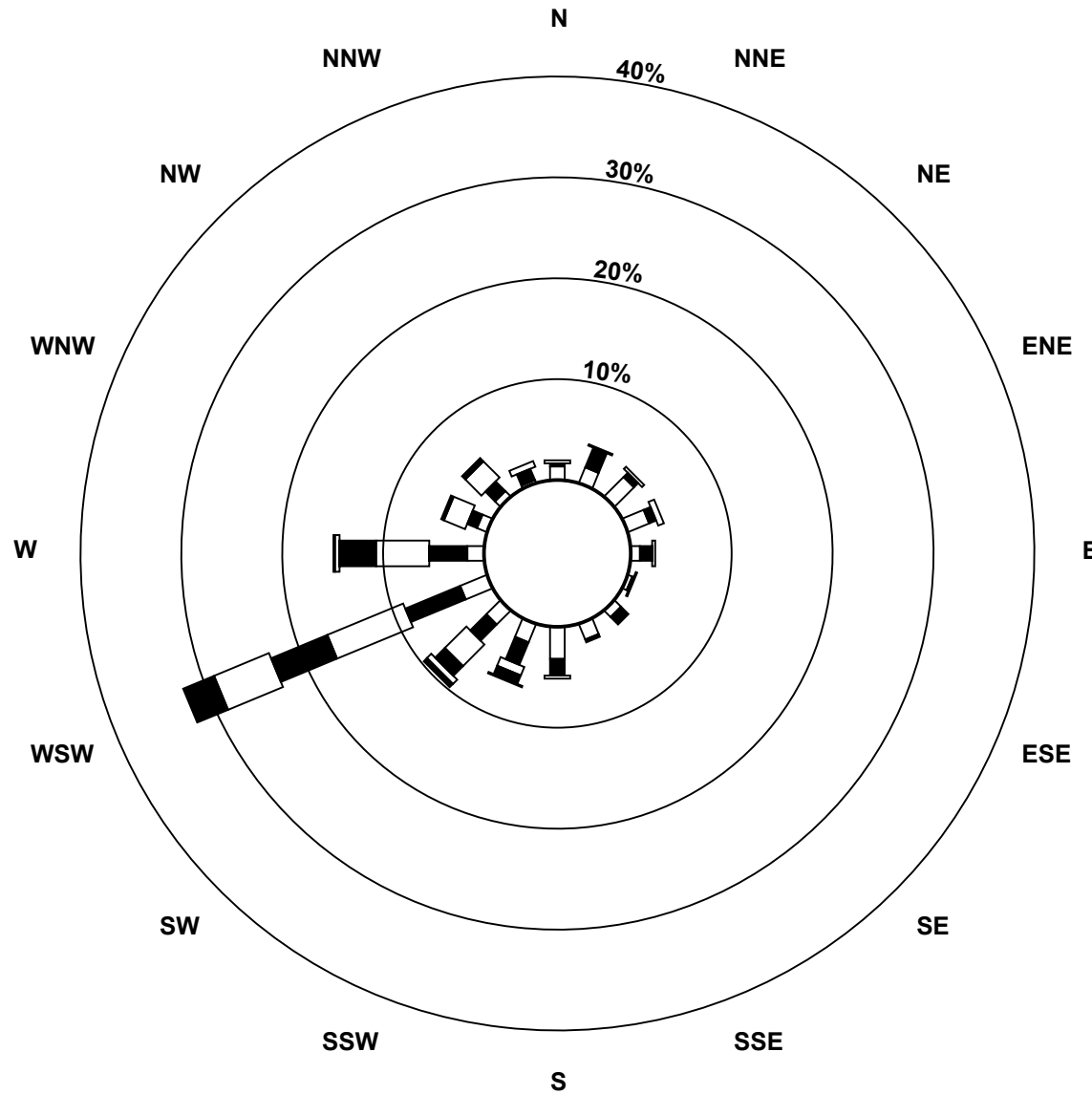
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - June 2018

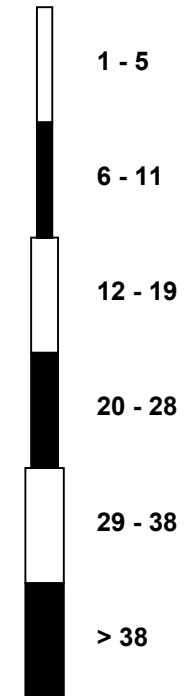
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	6	4	7	6	6	9	10	12	10	10	12	10	13	13	16	12	8	7	19	18	12	7	5	6	9.4	18.8	
Dir	270	232	259	216	237	261	263	259	259	245	249	255	270	275	270	295	303	301	261	277	271	243	262	247	264.2	261.3	
24 Spd	4	7	7	7	6	6	5	7	9	8	6	7	6	9	10	10	12	16	16	14	5	6	4	16	1.9	15.8	
Dir	251	237	232	244	242	248	265	246	216	179	193	130	93	94	94	67	71	75	83	75	27	347	237	229	138.2	75.3	
25 Spd	24	15	16	11	8	14	17	15	15	19	24	25	18	17	17	23	33	33	43	30	15	24	22	22	18.8	42.6	
Dir	242	286	281	272	271	254	269	307	262	252	246	230	235	212	218	214	225	231	237	229	220	209	205	201	236.7	229.2	
26 Spd	23	13	13	19	25	26	28	37	42	40	36	28	33	33	30	43	45	37	41	48	42	38	34	34	31.4	48.4	
Dir	202	187	190	201	208	211	214	211	222	231	238	233	238	255	257	245	245	247	243	243	243	243	245	244	233.6	243.1	
27 Spd	28	25	22	24	26	26	28	29	30	27	21	21	26	29	29	27	26	25	31	26	19	16	10	12	23.8	30.7	
Dir	245	247	247	247	253	253	252	253	254	272	283	277	265	261	262	264	264	262	246	248	241	237	229	225	255.1	246.1	
28 Spd	15	18	19	18	15	13	6	9	10	11	16	14	13	13	15	15	16	15	17	24	18	19	19	14	14.4	24.2	
Dir	232	237	239	236	240	249	293	262	264	269	257	277	275	266	279	305	265	274	256	254	247	244	238	243	255.8	253.5	
29 Spd	14	12	4	3	0	1	9	18	19	21	28	20	23	20	9	12	6	14	11	1	2	6	3	8	10.0	27.6	
Dir	211	223	226	245	40	304	247	242	254	255	248	250	249	241	240	310	242	304	222	353	316	182	258	239	248.0	247.9	
30 Spd	6	4	1	2	1	3	6	10	13	14	13	17	30	33	30	28	29	28	31	30	25	25	22	25	16.7	32.7	
Dir	170	201	92	183	193	174	184	190	213	229	228	229	243	242	237	238	247	255	257	247	247	243	241	242	238.4	242.1	
Spd	6.8	6.1	5.4	7.0	7.0	7.9	8.8	11.2	12.5	13.8	14.9	12.8	12.6	12.4	12.1	11.8	10.3	9.5	10.1	9.5	7.8	7.4	6.9	7.0	Diurnal Average		
Dir	237.9	241.5	250.2	238.5	243.5	246.4	247.5	245.2	245.5	249.6	250.7	253.4	260.0	256.0	255.8	261.0	256.2	257.8	249.4	252.6	257.1	257.6	248.4	249.0	Diurnal Maximum		
Spd	28.8	30.6	29.9	26.1	32.7	34.2	34.4	36.6	41.6	44.5	41.7	44.0	43.9	50.0	45.5	46.3	45.1	46.1	46.6	48.4	41.8	40.2	34.3	34.0	Diurnal Maximum		
Dir	252.6	248.5	249.5	252.0	257.0	237.8	238.7	211.2	222.0	245.9	247.0	245.2	248.3	249.0	251.8	249.6	244.5	254.6	249.1	243.1	243.5	249.4	245.3	244.2			
Maximum Speed Value: 50 km/h on Jun 11 14:00																		Minimum Speed Value: 0 km/h on Jun 19 23:00						Hours in Service: 720			
Maximum Daily Speed Average: 35.9 km/h on Jun 11																		Minimum Daily Speed Average: 0.3 km/h on Jun 19						Hours of Data: 720			
Maximum Diurnal Speed Average: 14.9 km/h at hour 11																		Minimum Diurnal Speed Average: 5.4 km/h at hour 3						Hours of Missing Data: 0			
Monthly Average Velocity: 9.60 km/h 251.21 deg																		Speed Percentiles: P ₁ = 0.2 P ₁₀ = 1.3 Q ₁ = 4.2 Median = 9.2 Q ₃ = 18.1 P ₉₀ = 28.6 P ₉₉ = 44.5						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	19		12		4		0		0		0		35														
NorthEast	48		20		3		0		0		0		71														
East	16		10		7		0		0		0		33														
SouthEast	15		10		1		0		0		0		26														
South	52		24		3		3		0		0		82														
SouthWest	27		54		50		30		30		16		207														
West	19		41		69		49		21		11		210														
NorthWest	12		16		23		5		0		0		56														
Total	208		187		160		87		51		27		720														

Wind Rose

Wind Speed (WS) (km/h)
Evergreen Park - June 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - June 2018

Maximum Speed: 51 km/h on Jun 11 14:00		Maximum Daily Speed Average: 37.0 km/h on Jun 11		Hours in Service: 720																						
Minimum Speed: 0 km/h on Jun 20 01:00		Minimum Daily Speed Average: 4.6 km/h on Jun 19		Hours of Data: 720																						
Maximum Diurnal Speed Average: 19.4 km/h at hour 16		Minimum Diurnal Speed Average: 7.6 km/h at hour 3		Hours of Missing Data: 0																						
Monthly Average Speed: 13.65 km/h		Percentiles: P ₁ = 0.6 P ₁₀ = 2.2 Q ₁ = 5.6 Median = 10.7 Q ₃ = 18.9 P ₉₀ = 29.1 P ₉₉ = 45.4		Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jun	2	2	2	3	2	0	1	6	8	10	10	7	10	20	18	11	7	15	17	7	5	5	5	3	7.4	19.9
2-Jun	1	2	3	15	11	11	13	23	24	29	34	30	24	29	33	38	31	33	30	25	14	6	1	3	19.3	37.8
3-Jun	3	3	4	5	5	3	6	4	4	4	7	11	15	14	12	14	10	8	5	7	3	1	4	7	6.6	14.7
4-Jun	6	8	5	21	27	35	35	34	33	38	43	45	42	40	42	34	32	30	30	22	13	11	5	6	26.5	44.7
5-Jun	4	5	2	2	4	2	7	15	17	15	13	14	16	12	9	8	7	9	6	8	8	4	2	5	8.0	16.9
6-Jun	2	1	4	2	4	5	3	8	8	14	20	15	19	17	18	17	11	6	6	4	1	0	1	1	7.9	20.2
7-Jun	1	1	3	2	3	2	2	5	4	5	6	8	9	7	8	7	7	5	3	20	21	11	3	1	6.0	21.5
8-Jun	2	10	13	14	18	10	8	7	6	7	4	8	10	7	10	13	13	14	16	21	17	19	10	6	11.0	21.2
9-Jun	6	3	5	6	4	7	8	12	15	14	19	19	14	14	23	19	13	12	9	9	10	15	15	18	12.1	23.2
10-Jun	19	16	12	13	15	17	17	15	17	19	22	23	21	25	27	26	22	24	14	15	15	16	26	16	18.9	27.0
11-Jun	20	20	19	27	34	31	31	29	38	45	42	41	44	51	46	47	46	47	47	41	41	41	33	28	37.0	50.7
12-Jun	29	31	30	23	26	25	20	28	27	26	25	23	19	16	16	25	29	29	23	11	6	5	4	3	20.8	30.9
13-Jun	5	5	3	1	3	2	5	11	13	19	18	15	12	15	14	12	10	6	4	3	3	3	2	3	7.7	18.7
14-Jun	1	1	4	2	3	5	4	5	7	5	7	8	10	8	6	23	15	7	8	7	2	10	6	14	7.0	22.6
15-Jun	5	8	2	2	3	2	9	14	13	17	17	17	16	16	16	21	20	13	11	8	6	2	1	4	10.1	20.6
16-Jun	4	6	5	7	6	9	12	12	11	12	14	10	10	11	11	10	10	9	7	8	5	2	2	3	8.2	14.5
17-Jun	5	5	2	3	1	2	3	6	5	9	9	9	11	13	10	10	10	10	5	2	1	1	0	1	5.7	12.7
18-Jun	1	1	1	1	1	1	4	8	9	7	7	9	10	10	8	10	12	10	9	7	3	0	1	1	5.4	11.8
19-Jun	1	2	1	2	1	1	1	4	3	9	8	7	9	10	10	8	8	7	7	6	3	1	1	0	4.6	9.9
20-Jun	0	1	1	1	1	1	2	5	4	4	7	7	9	8	11	14	12	9	9	6	7	10	3	6	5.9	13.9
21-Jun	5	5	3	6	4	8	7	13	12	15	17	18	18	19	19	17	14	14	15	19	13	22	18	12	13.1	22.1
22-Jun	13	13	11	7	4	9	7	10	9	14	22	25	23	22	22	22	20	22	21	6	5	6	6	8	13.6	25.3
23-Jun	6	4	8	6	7	9	10	13	11	11	14	13	15	15	19	15	11	8	20	18	13	7	5	6	11.0	20.0
24-Jun	5	7	8	7	6	7	6	8	10	8	7	10	9	10	12	11	13	17	16	14	8	7	10	16	9.7	17.0
25-Jun	24	17	17	12	10	14	18	16	16	20	24	25	19	18	18	18	24	33	34	43	31	16	25	23	21.3	43.2
26-Jun	23	14	14	20	25	26	28	37	42	41	37	28	34	34	31	44	46	38	41	49	42	39	35	34	33.3	48.7
27-Jun	29	26	22	24	26	26	29	30	31	29	22	21	28	30	31	29	27	26	31	27	20	16	10	12	25.0	31.3
28-Jun	15	18	19	18	15	14	7	10	11	11	17	16	16	15	16	17	18	15	18	25	18	19	19	14	15.9	24.9
29-Jun	14	12	5	3	1	1	9	19	20	22	28	21	24	22	12	15	11	16	12	4	6	6	6	10	12.5	28.2
30-Jun	7	6	3	3	1	3	6	10	13	14	13	17	31	33	30	28	29	28	32	30	26	26	22	25	18.2	33.3
8.6		8.4	7.6	8.6	9.0	9.6	10.6	13.9	14.8	16.3	17.8	17.5	18.2	18.6	18.6	19.4	17.9	17.3	16.9	15.8	12.2	10.8	9.3	9.6	Diurnal Average	
29.3		30.9	30.3	26.7	33.6	34.7	34.7	37.1	42.2	44.9	42.8	44.7	44.5	50.7	46.0	46.8	45.5	47.1	47.1	48.7	42.1	40.7	34.6	34.3	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																										

Hourly Standard Deviations

Wind Direction (WD) - deg
Evergreen Park - June 2018

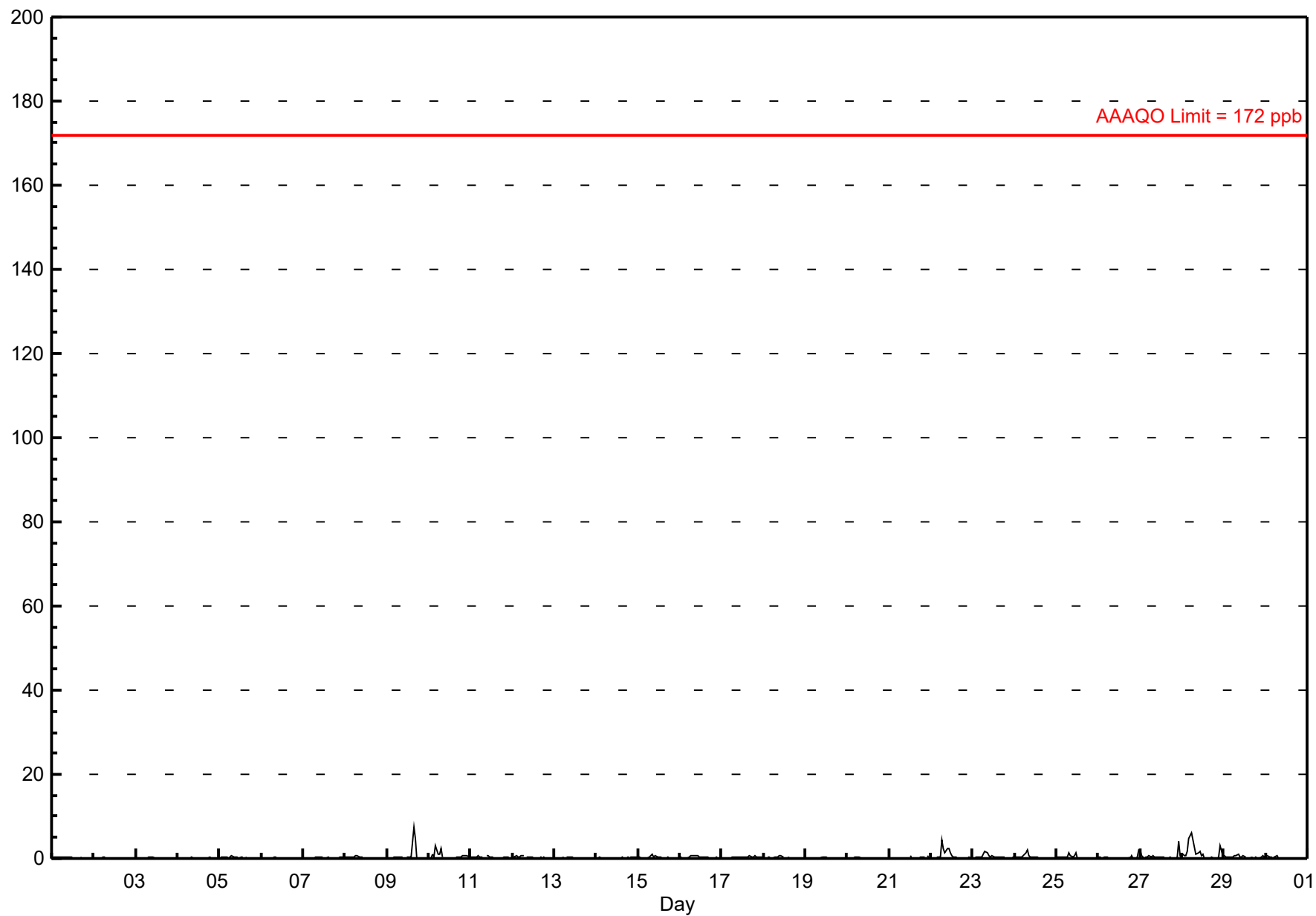
Maximum Value: 98.6 deg on Jun 15 01:00																			Hours in Service: 720						
Minimum Value: 6.6 deg on Jun 25 23:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 7.3 P ₁₀ = 9.6 Q ₁ = 14.6 Median = 26.1 Q ₃ = 48.8 P ₉₀ = 69.8 P ₉₉ = 92.6																			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-Jun	60	25	20	13	33	31	54	35	40	39	57	69	54	47	58	43	78	67	31	22	56	26	47	44	78.0
2-Jun	78	77	37	13	13	13	9	9	10	11	11	18	16	14	16	13	15	11	12	12	11	32	58	93	92.6
3-Jun	49	30	90	64	66	30	19	42	56	51	53	38	31	42	31	34	29	33	28	64	85	63	36	20	90.2
4-Jun	25	36	54	14	8	9	8	8	10	10	13	11	14	11	10	15	14	12	13	36	18	18	16	19	53.5
5-Jun	36	39	79	78	45	61	29	21	23	31	42	43	30	56	50	58	59	35	42	31	55	69	80	91	90.7
6-Jun	90	77	32	93	79	85	70	28	40	22	15	36	25	33	20	30	29	57	28	26	81	66	74	67	92.6
7-Jun	85	86	9	39	31	42	42	39	59	70	44	38	53	78	46	68	60	50	88	15	12	22	31	64	88.4
8-Jun	44	27	15	28	15	61	48	22	30	34	63	83	66	66	79	26	51	23	87	15	28	23	31	27	86.6
9-Jun	23	74	48	18	45	28	30	28	15	24	19	21	20	24	24	23	23	26	31	26	28	17	14	17	73.6
10-Jun	16	14	18	15	9	10	17	19	18	17	17	15	18	20	16	13	14	10	21	22	29	57	14	15	57.0
11-Jun	9	16	49	15	14	13	8	13	8	8	8	12	9	9	9	9	13	12	8	9	7	9	12	18	48.5
12-Jun	10	8	9	10	10	15	14	10	11	11	12	18	18	27	18	17	17	18	14	62	58	66	46	34	66.1
13-Jun	90	57	87	72	49	61	36	14	15	18	40	38	49	44	40	76	47	30	47	25	34	21	26	19	90.4
14-Jun	39	95	36	37	26	37	42	46	51	83	76	64	65	50	86	14	30	33	27	51	78	28	54	44	95.4
15-Jun	99	24	81	70	72	87	22	19	29	25	29	38	38	36	38	25	25	28	26	13	20	32	56	47	98.6
16-Jun	17	17	27	10	18	13	13	14	18	27	25	41	47	66	58	67	63	62	68	18	21	21	57	25	68.2
17-Jun	13	17	67	50	85	84	16	12	30	28	42	39	27	33	55	45	53	35	60	39	65	82	87	86	87.4
18-Jun	55	95	93	96	67	50	27	21	25	43	54	48	50	63	80	46	28	37	50	40	26	40	89	74	96.1
19-Jun	41	50	86	89	34	68	75	27	77	29	59	54	45	73	70	98	79	42	32	24	19	91	78	73	98.2
20-Jun	41	64	61	66	78	52	39	50	52	83	43	65	62	63	41	26	43	54	27	36	76	17	54	38	82.5
21-Jun	26	53	51	17	43	26	32	18	20	24	12	19	23	23	18	22	33	23	15	9	14	10	12	11	52.7
22-Jun	13	11	13	67	51	14	22	18	26	30	19	18	28	26	24	18	28	17	45	20	34	64	31	20	67.3
23-Jun	20	56	20	31	12	21	15	18	26	25	26	49	31	31	35	39	58	53	21	18	18	14	18	14	58.2
24-Jun	31	14	11	14	13	20	37	18	33	27	48	51	65	35	40	28	28	26	20	22	60	35	91	12	91.5
25-Jun	12	24	21	20	34	17	20	19	23	18	13	10	9	13	14	16	15	9	9	9	9	8	7	8	34.5
26-Jun	7	14	10	9	8	7	7	10	10	12	10	11	11	13	12	9	8	9	8	7	7	8	7	7	14.2
27-Jun	8	7	8	8	9	10	11	11	12	18	17	16	18	16	19	20	19	18	11	10	10	7	9	8	19.7
28-Jun	7	7	7	8	9	23	22	21	18	24	24	34	43	29	24	25	26	19	17	13	10	8	7	10	43.1
29-Jun	10	9	28	24	93	58	23	11	19	22	12	16	18	24	58	58	81	43	40	61	77	28	69	43	92.9
30-Jun	34	55	79	75	77	68	16	8	14	9	12	16	11	11	10	14	12	15	15	9	10	8	8	7	78.9
	98.6	95.4	92.6	96.1	92.9	86.9	74.8	50.4	76.8	82.9	75.6	82.7	66.1	78.3	86.1	98.2	80.9	66.7	88.4	63.7	85.4	90.9	91.5	92.6	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7.4 ppb on Jun 9 16:00 Maximum Daily Average: 1.4 ppb on Jun 28																			Hours in Service: 720 Hours of Data: 663 Hours of Missing Data: 57 Hours of Calibration: 34 Percent Operational Time: 96.8								
Minimum Value: 0 ppb on Jun 2 22:00 Maximum Diurnal Average: 0.7 ppb at hour 8 Monthly Average: 0.31 ppb																			Minimum Daily Average: 0.1 ppb on Jun 13 Minimum Diurnal Average: 0.1 ppb at hour 18 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 3.6								
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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4	
2-Jun	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	0.3	
3-Jun	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	
4-Jun	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	
5-Jun	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.7	
6-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
7-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
8-Jun	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
9-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	7	5	0	0	0	0	0	0	0	0.7	7.4	
10-Jun	0	0	1	0	3	1	1	3	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0.6	3.2
11-Jun	0	0	0	0	1	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7	
12-Jun	0	0	1	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
13-Jun	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	
14-Jun	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	
15-Jun	0	0	0	0	A	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9	
16-Jun	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7	
17-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0.3	0.7	
18-Jun	0	A	0	0	0	0	0	0	0	1	1	0	C	C	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
19-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	0	0	A	--	0.4	
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	N	N	P	P	P	P	--	0.2	
21-Jun	P	P	P	P	P	P	P	P	P	R	R	M	1	0	0	0	0	0	0	0	0	A	1	0	--	0.8	

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - June 2018



Hourly Maximums

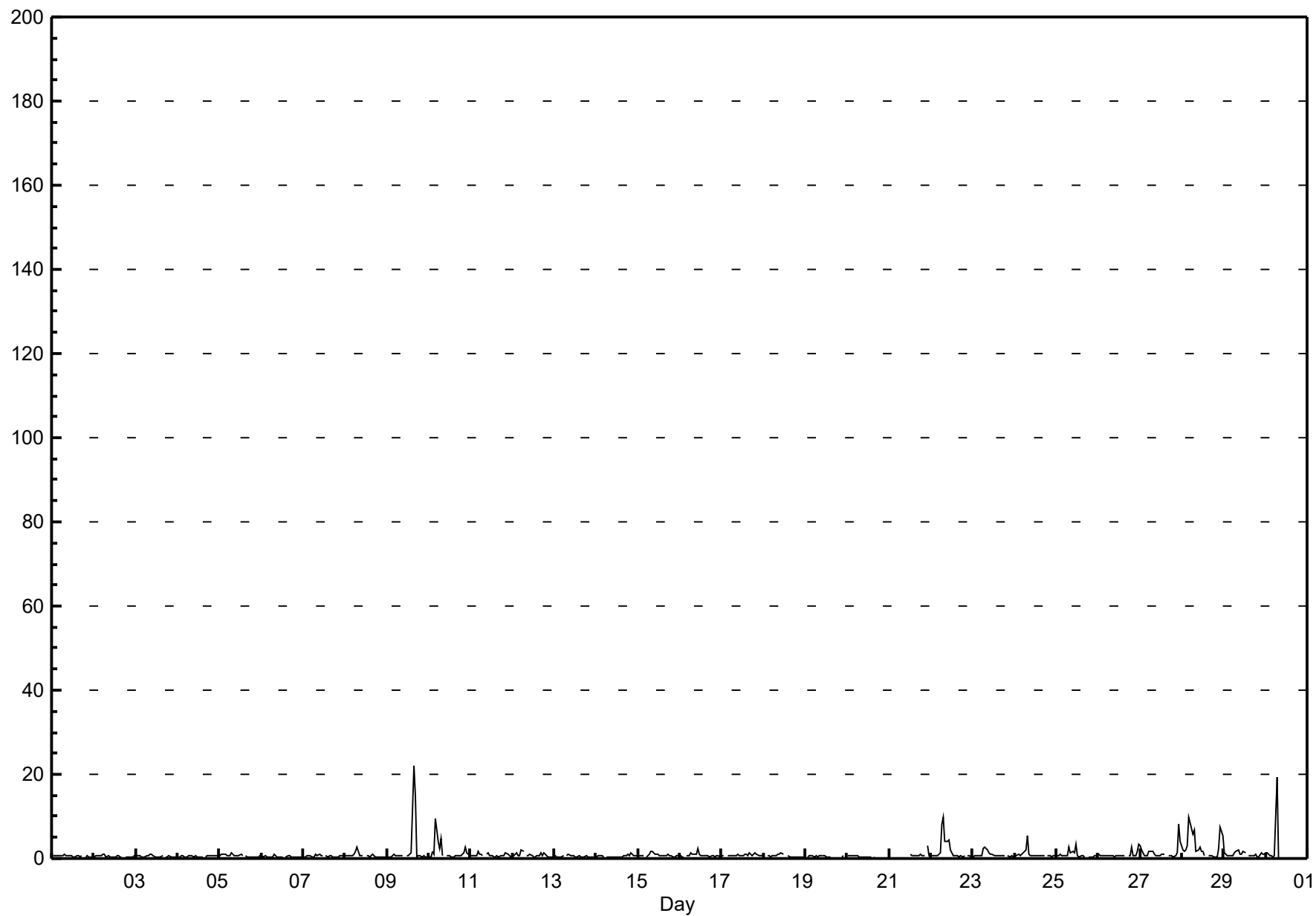
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - June 2018

Maximum Value: 22.0 ppb on Jun 9 16:00																			Maximum Daily Average: 2.9 ppb on Jun 28										Hours in Service: 720	
Minimum Value: 0 ppb on Jun 30 08:00																			Minimum Daily Average: 0.5 ppb on Jun 13										Hours of Data: 663	
Maximum Diurnal Average: 2.1 ppb at hour 7																			Minimum Diurnal Average: 0.5 ppb at hour 15										Hours of Missing Data: 57	
Monthly Average: 0.95 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 1.4 P ₉₉ = 8.1										Hours of Calibration: 34	
																													Percent Operational Time: 96.8	
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-Jun	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	A	0	1	0	0	0	0.6	0.9				
2-Jun	0	1	1	1	1	1	1	0	1	0	0	0	1	1	0	0	0	A	0	0	0	0	0	1	0.5	0.9				
3-Jun	1	1	1	0	1	0	1	1	1	1	1	0	0	0	0	1	A	0	0	1	0	0	0	0	0.5	0.9				
4-Jun	0	0	1	1	0	0	1	1	1	1	1	0	0	0	0	A	0	1	1	1	1	1	1	1	0.5	0.6				
5-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	1	0.7	1.3				
6-Jun	1	0	1	0	0	0	0	1	1	0	0	0	0	A	0	1	1	0	1	0	1	0	0	0	0.5	0.9				
7-Jun	0	0	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	0	0	0	0	1	1	1	0.6	0.9				
8-Jun	1	1	1	1	1	1	2	3	1	1	1	A	1	1	0	1	1	0	0	0	0	0	0	0	0.8	2.6				
9-Jun	0	0	0	1	1	1	1	1	1	1	A	1	1	1	1	22	15	0	1	1	0	1	0	0	2.2	22.0				
10-Jun	0	0	2	1	10	4	2	5	1	A	1	1	1	0	0	1	1	1	1	1	1	3	1	1	1.6	9.5				
11-Jun	1	1	1	1	2	1	1	1	A	1	1	1	1	0	0	1	0	1	1	1	1	1	1	0	0.8	1.6				
12-Jun	1	1	1	1	1	2	2	A	1	1	1	1	0	0	1	1	1	1	1	1	0	0	0	0	0.8	2.1				
13-Jun	1	0	0	0	1	1	A	1	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	1	0.5	1.1				
14-Jun	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0.6	1.4				
15-Jun	1	1	1	1	A	0	1	2	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0.8	1.6				
16-Jun	1	0	0	A	1	1	1	1	1	1	2	1	1	1	1	1	1	0	1	1	0	1	1	0	0.8	2.3				
17-Jun	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2				
18-Jun	1	A	1	1	0	1	1	1	1	1	1	1	C	C	1	0	0	0	0	0	0	0	0	0	0.6	1.4				
19-Jun	A	0	1	1	1	0	1	0	1	1	1	1	0	0	0	P	P	P	P	P	P	0	1	A	--	0.7				
20-Jun	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	N	N	N	P	P	P	P	--	0.6				
21-Jun	P	P	P	P	P	P	P	P	P	R	R	M	1	1	1	1	1	1	1	1	1	A	3	1	--	3.1				
22-Jun	1	1	1	1	1	1	8	10	4	4	4	2	1	1	1	1	0	1	0	1	A	1	1	0	1.9	9.8				
23-Jun	0	1	1	1	1	1	3	3	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0.9	2.6				
24-Jun	1	1	1	1	1	1	2	5	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1.0	5.5				
25-Jun	1	1	1	1	1	1	1	3	1	2	1	3	1	0	1	1	0	A	0	0	1	0	1	1	0.9	3.3				
26-Jun	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	3	1	1	2	3	0.9	3.5				
27-Jun	3	2	1	1	1	2	2	2	1	1	1	1	1	1	1	A	1	1	1	0	1	1	8	4	1.5	8.0				
28-Jun	2	2	2	3	10	7	6	7	2	2	3	2	2	1	A	1	1	1	0	0	0	2	7	5	2.9	9.7				
29-Jun	1	1	1	1	1	1	1	2	2	1	1	2	1	A	1	1	1	1	1	0	0	1	1	1	1.0	1.9				
30-Jun	1	2	1	1	0	1	19	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1.1	19.5				
0.8		0.7	0.8	0.7	1.3	1.1	2.1	1.8	1.0	0.9	1.0	0.8	0.7	0.6	0.5	1.3	1.1	0.5	0.6	0.7	0.6	0.7	1.2	0.9	Diurnal Average					
3.0		2.2	1.9	2.9	9.7	7.1	19.5	9.8	3.9	3.9	4.3	3.3	1.8	1.0	1.4	22.0	15.1	0.9	1.3	2.9	1.4	2.7	8.0	5.4	Diurnal Maximum					
C - Calibration		R - Recovery				P - Power Failure				M - Maintenance				N - Not Valid																
A - Automated Daily Zero Span																														

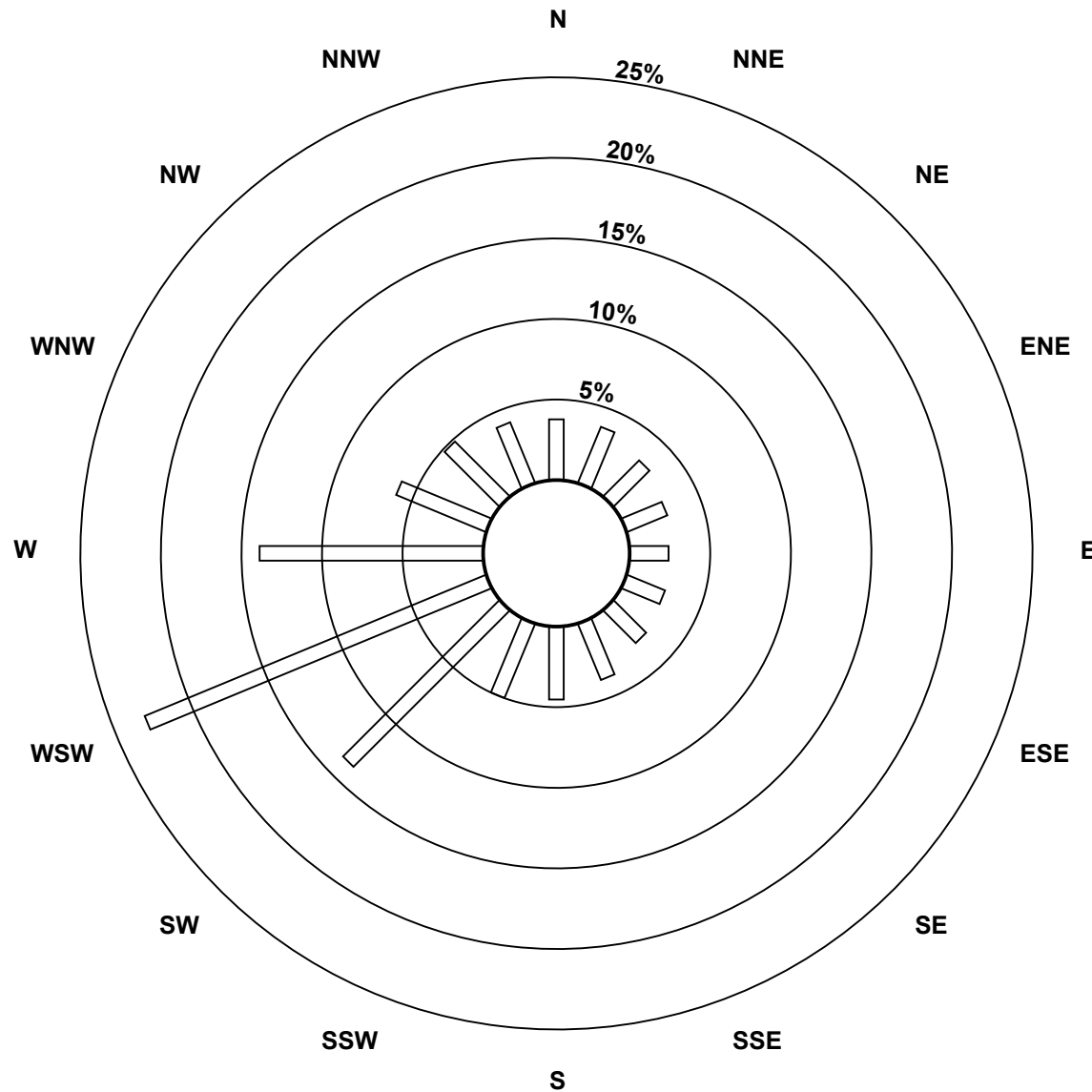
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - June 2018

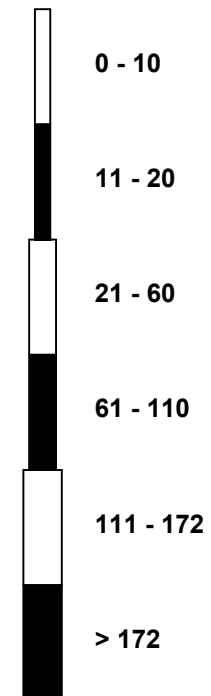


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - June 2018

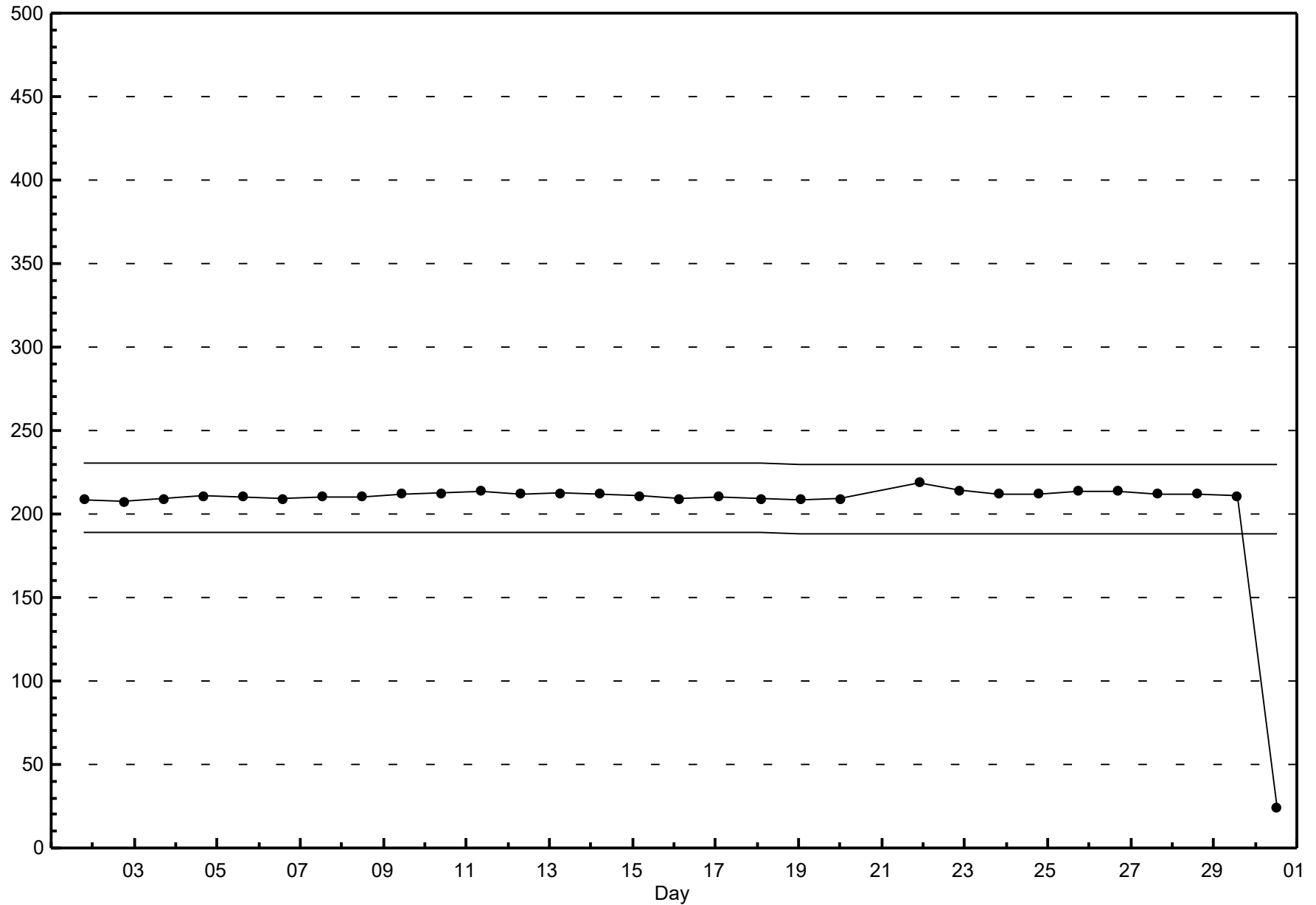


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - June 2018



Hourly Averages

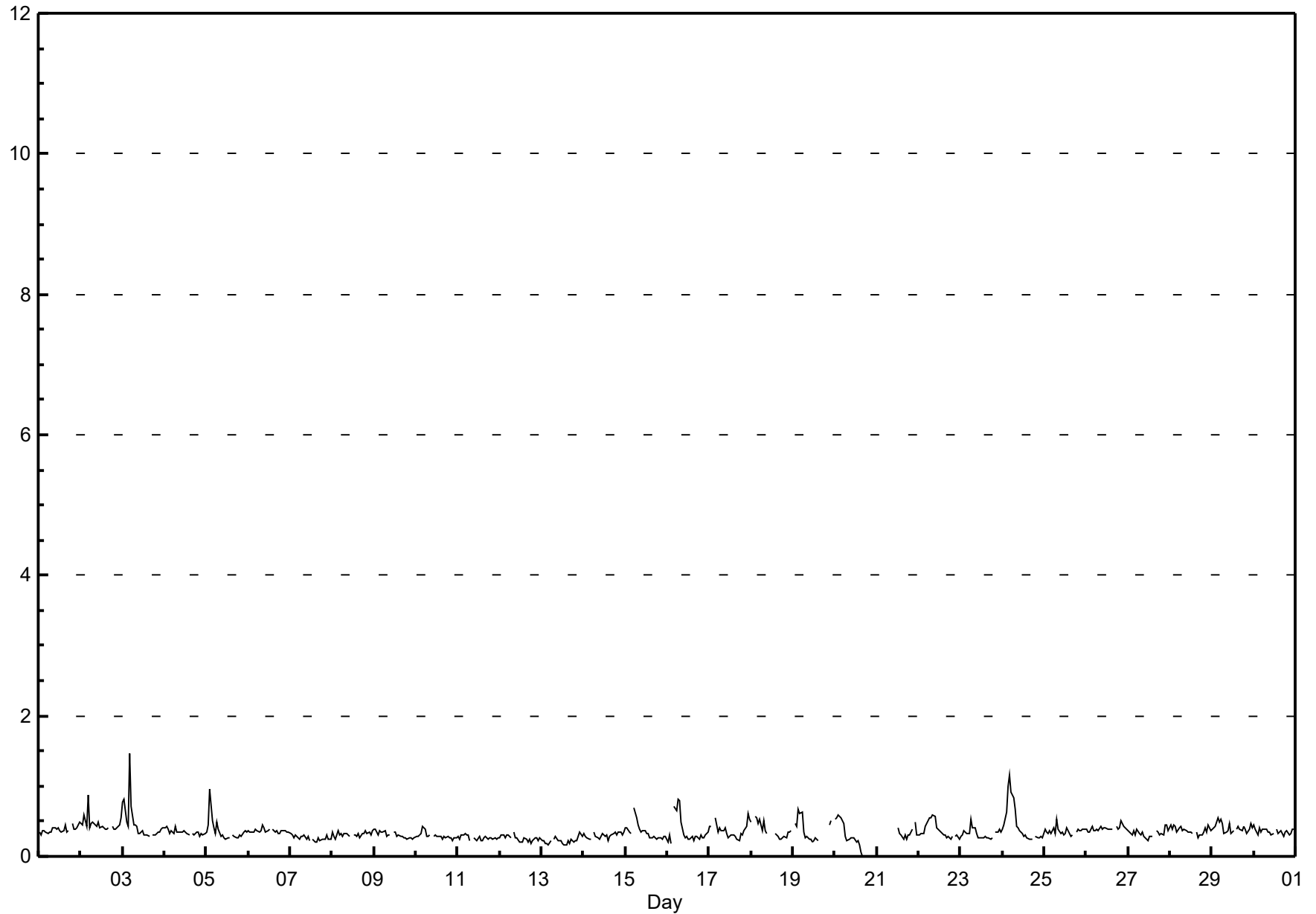
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - June 2018

Maximum Value: 1.5 ppb on Jun 3 05:00																			Maximum Daily Average: 0.5 ppb on Jun 3						Hours in Service: 720	
Minimum Value: 0 ppb on Jun 20 17:00																			Minimum Daily Average: 0.2 ppb on Jun 13						Hours of Data: 661	
Maximum Diurnal Average: 0.5 ppb at hour 5																			Minimum Diurnal Average: 0.3 ppb at hour 17						Hours of Missing Data: 59	
Monthly Average: 0.35 ppb																			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 = 0.8						Hours of Calibration: 36	
																			Percent Operational Time: 96.8							
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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5
2-Jun	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0.5	0.9
3-Jun	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.5	1.5
4-Jun	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	0.4
5-Jun	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.9
6-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.4
7-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
8-Jun	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
9-Jun	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	0.4
10-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
11-Jun	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	0.3
12-Jun	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	0.3
13-Jun	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
14-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
15-Jun	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
16-Jun	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
17-Jun	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.6
18-Jun	0	A	1	1	0	1	0	1	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.4	0.6
19-Jun	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	0	1	A	--	0.7
20-Jun	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	N	N	N	P	P	P	P	--	0.6
21-Jun	P	P	P	P	P	P	P	P	P	R	R	M	0	0	0	0	0	0	0	0	0	A	0	0	--	0.5
22-Jun	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.6
23-Jun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5
24-Jun	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.5	1.2
25-Jun	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.5
26-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0.4	0.5
27-Jun	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
28-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
29-Jun	0	0	0	1	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.6
30-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																										
A - Automated Daily Zero Span																										
R - Recovery																										
P - Power Failure																										
M - Maintenance																										
N - Not Valid																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - June 2018



Hourly Maximums

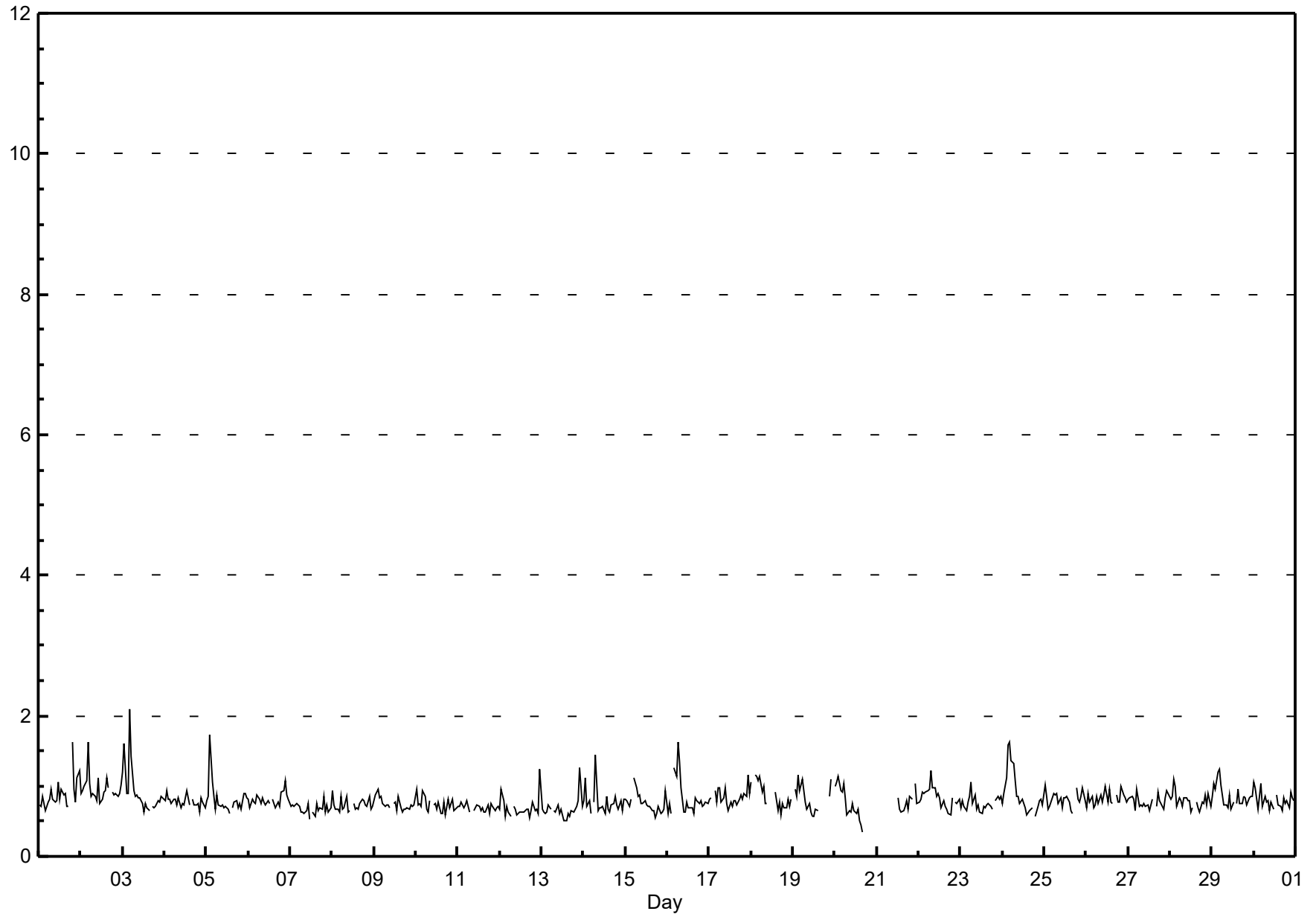
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - June 2018

Maximum Value: 2.1 ppb on Jun 3 05:00																			Maximum Daily Average: 1.0 ppb on Jun 2						Hours in Service: 720	
Minimum Value: 0 ppb on Jun 20 17:00																			Minimum Daily Average: 0.7 ppb on Jun 13						Hours of Data: 661	
Maximum Diurnal Average: 0.9 ppb at hour 5																			Minimum Diurnal Average: 0.7 ppb at hour 17						Hours of Missing Data: 59	
Monthly Average: 0.80 ppb																			Percentiles: P ₁ = 0.6 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.8 Q ₃ = 0.9 P ₉₀ = 1.0 P ₉₉ = 1.6						Hours of Calibration: 36	
																			Percent Operational Time: 96.8							
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-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	0.9	1.6
2-Jun	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.0	1.6
3-Jun	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	2.1
4-Jun	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	0.9
5-Jun	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.7
6-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.1
7-Jun	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	0.8
8-Jun	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
9-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
10-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
11-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
12-Jun	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	1.3
13-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
14-Jun	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	1.4
15-Jun	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	1.1
16-Jun	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6
17-Jun	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	1.2
18-Jun	1	A	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	1	1	1	1	0.9	1.2
19-Jun	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	P	P	P	P	P	P	1	1	A	--	1.2
20-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	N	N	N	P	P	P	P	--	1.1
21-Jun	P	P	P	P	P	P	P	P	P	R	R	M	1	1	1	1	1	1	1	1	1	A	1	1	--	1.0
22-Jun	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	1.2
23-Jun	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	1.0
24-Jun	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.9	1.6
25-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.0
26-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.0
27-Jun	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	1.0
28-Jun	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	1.1
29-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	1.2
30-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration R - Recovery P - Power Failure M - Maintenance N - Not Valid																										
A - Automated Daily Zero Span																										

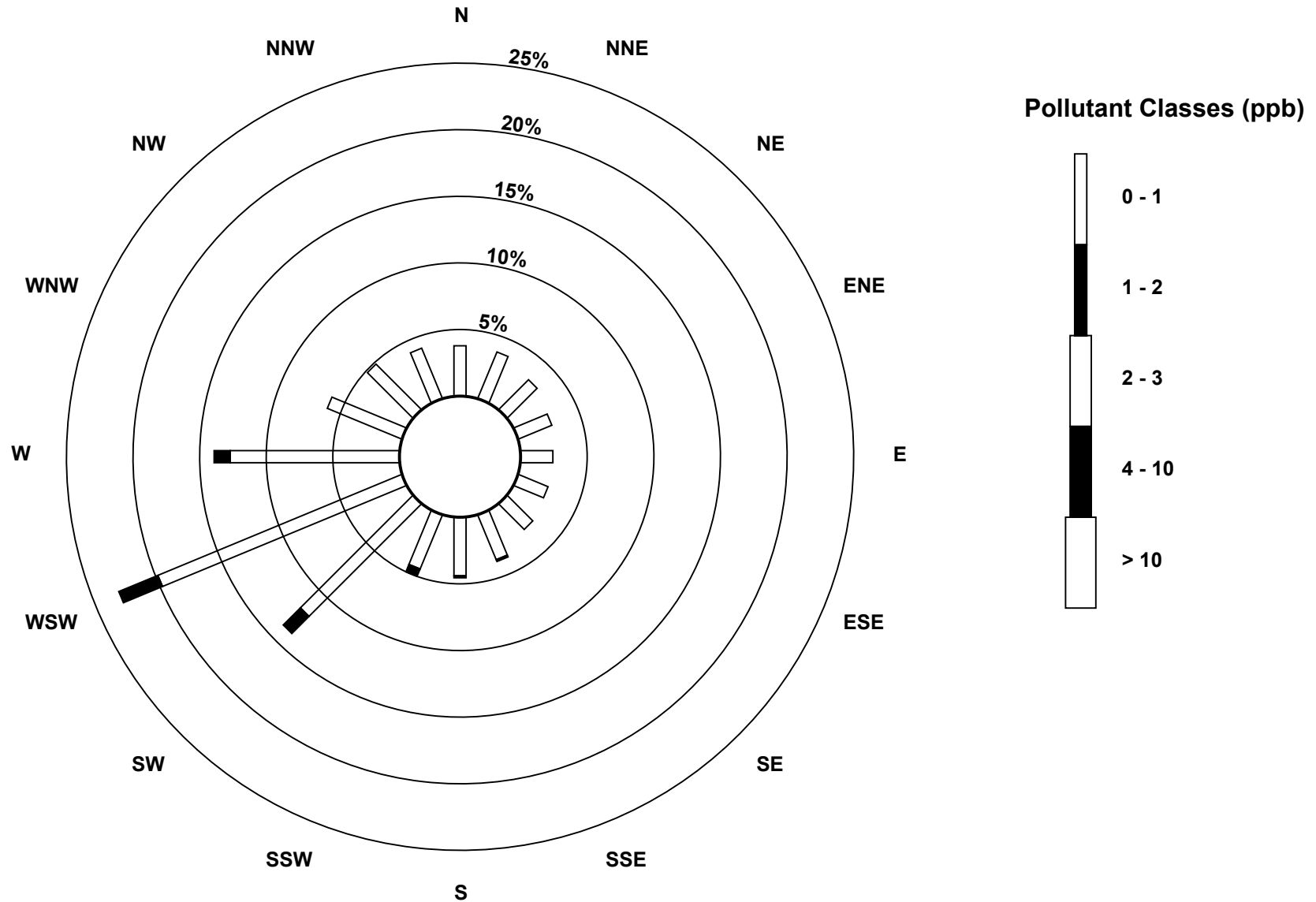
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - June 2018



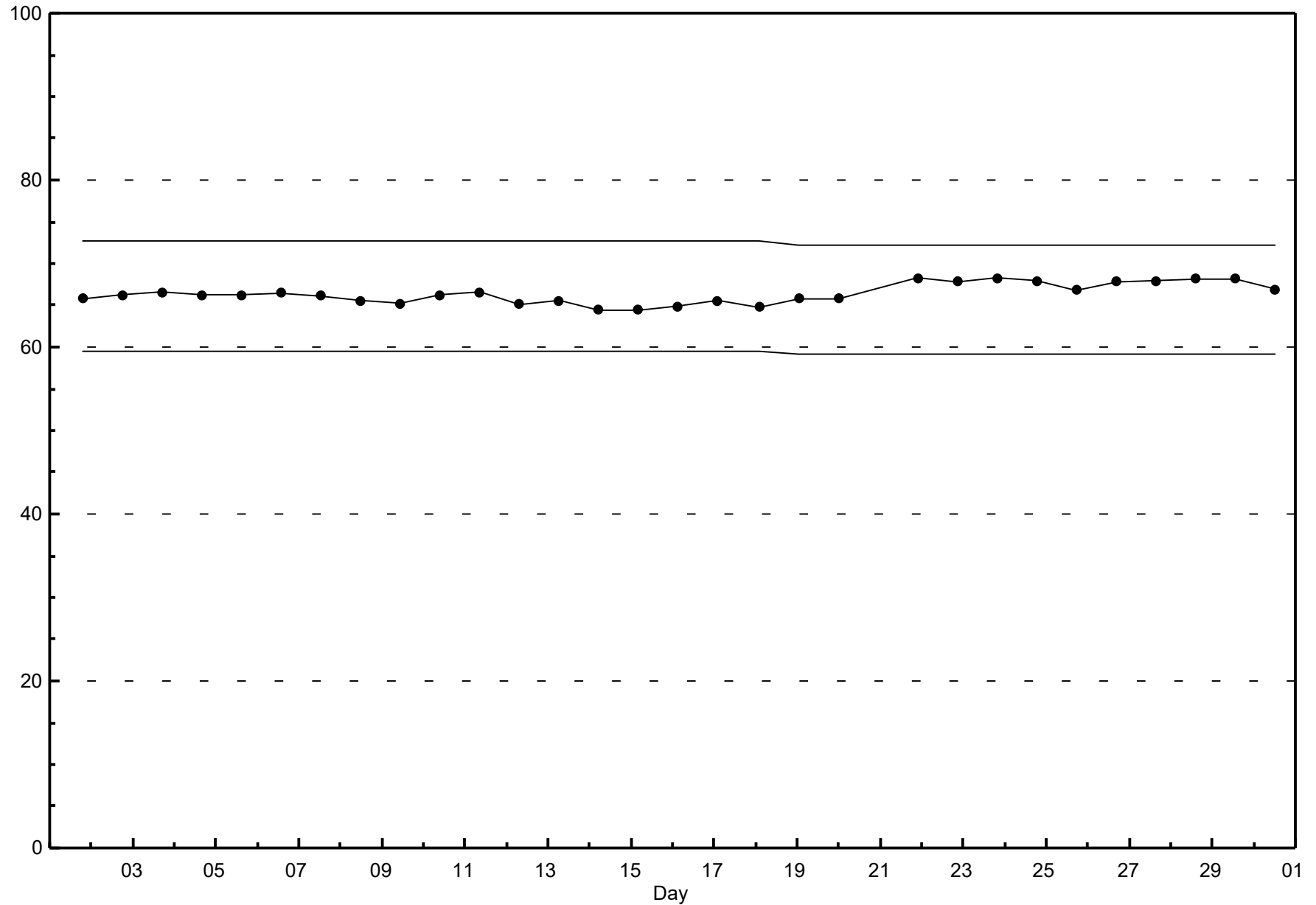
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - June 2018



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - June 2018

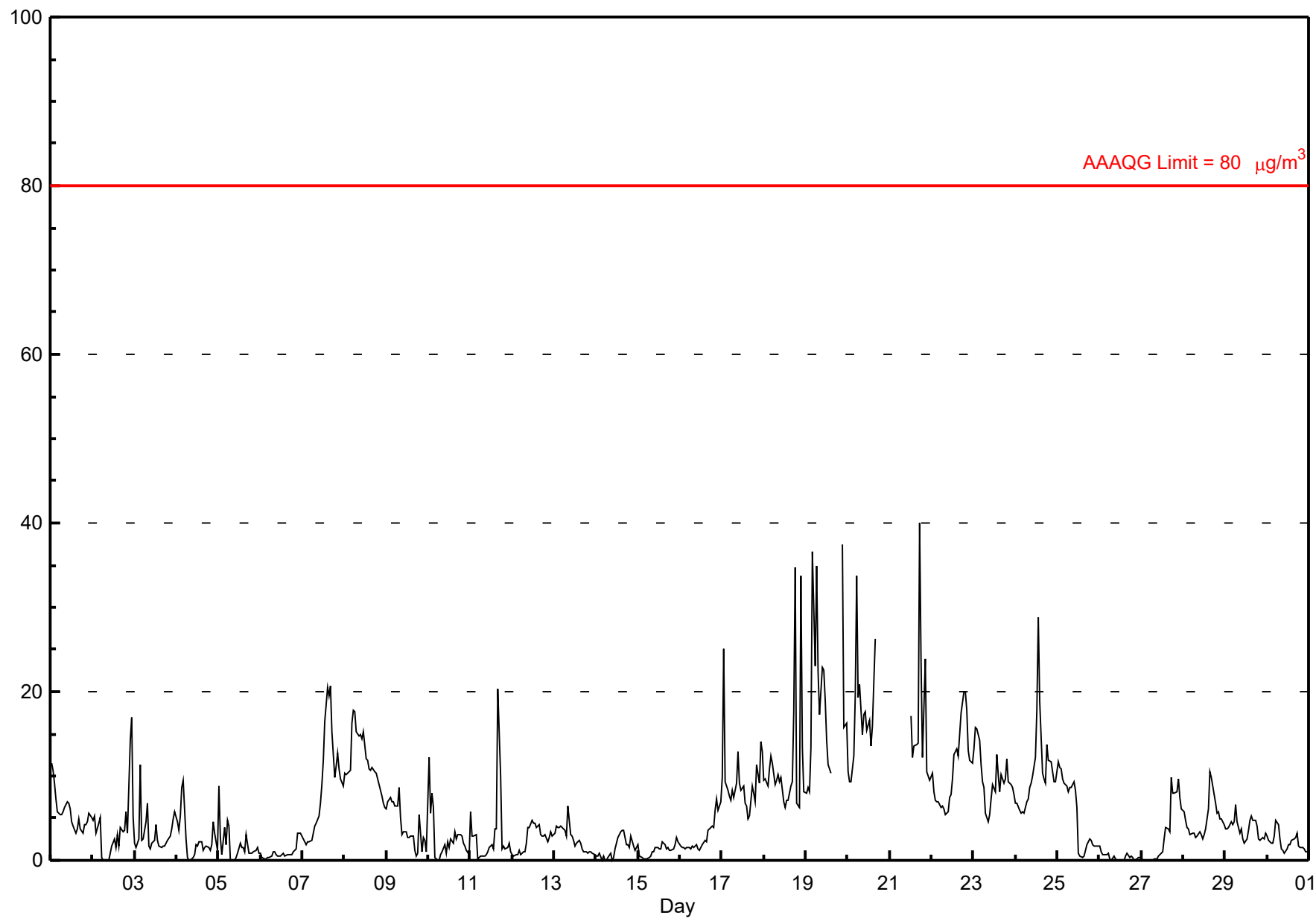


Hourly Averages

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

Smoky Heights - June 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 40.0 µg/m³ on Jun 21 18:00 Minimum Value: 0 µg/m³ on Jun 2 07:00 Maximum Diurnal Average: 7.4 µg/m³ at hour 22 Monthly Average: 5.71 µg/m³																								Hours in Service: 720 Hours of Data: 695 Hours of Missing Data: 25 Hours of Calibration: 0 Percent Operational Time: 96.5		
Maximum Daily Average: 19.0 µg/m³ on Jun 19 Minimum Daily Average: 0.4 µg/m³ on Jun 26 Minimum Diurnal Average: 4.6 µg/m³ at hour 9 Percentiles: P ₁ = 0.0 P ₁₀ = 0.5 Q ₁ = 1.5 Median = 3.5 Q ₃ = 8.7 P ₉₀ = 13.0 P ₉₉ = 29.2																										
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-Jun	12	11	9	7	6	5	5	6	6	7	7	6	5	4	3	4	5	4	3	4	4	5	6	5	5.8	11.6
2-Jun	5	5	3	4	5	0	0	0	0	0	1	2	3	2	3	2	4	3	4	6	3	14	17	5	3.8	16.9
3-Jun	2	2	3	11	2	3	5	7	2	1	2	2	4	2	2	2	2	2	2	2	3	4	5	6	3.2	11.4
4-Jun	5	3	5	9	10	2	0	0	0	0	1	2	2	2	2	1	1	2	2	1	2	5	3	1	2.6	9.6
5-Jun	9	3	1	4	2	5	4	0	0	0	0	1	2	2	1	1	3	1	1	1	1	1	2	1	1.9	8.9
6-Jun	1	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	3	3	3	1.0	3.3
7-Jun	3	2	2	2	2	2	3	4	4	5	7	9	12	17	20	20	21	15	10	11	13	11	10	9	8.9	20.7
8-Jun	10	10	10	11	16	18	18	15	15	15	14	15	12	12	11	11	11	10	10	10	9	8	7	6	11.8	17.8
9-Jun	6	7	7	7	7	6	7	9	5	3	3	3	3	3	3	3	1	1	1	5	1	3	2	1	4.0	8.6
10-Jun	12	6	8	6	0	0	0	1	1	2	1	2	2	2	2	3	3	3	3	3	2	2	1	1	2.7	12.1
11-Jun	6	3	3	3	0	0	0	0	1	1	1	2	2	1	4	4	20	10	1	2	1	1	2	1	2.9	20.3
12-Jun	1	0	1	1	1	1	1	1	2	4	4	5	4	4	4	4	3	3	3	3	2	3	3	3	2.5	4.7
13-Jun	3	4	4	4	4	4	4	3	6	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	2.5	6.5
14-Jun	0	0	1	0	0	0	0	0	1	0	0	1	3	3	3	4	3	2	2	1	3	2	1	2	1.4	3.5
15-Jun	2	1	0	0	0	0	0	1	1	1	1	1	1	1	2	2	1	2	1	1	1	2	3	2	1.2	2.8
16-Jun	2	2	2	1	1	1	1	2	2	2	1	1	1	2	2	2	4	4	4	4	6	7	6	7	2.8	7.2
17-Jun	10	25	9	8	8	7	8	7	9	13	9	8	9	7	7	5	5	9	8	7	11	9	14	13	9.4	25.1
18-Jun	9	10	9	11	12	12	9	9	10	9	10	7	6	7	7	9	9	18	35	7	6	34	13	8	11.5	34.8
19-Jun	8	9	8	13	37	23	35	22	17	23	22	19	14	11	10	P	P	P	P	P	P	37	16	16	19.0	37.5
20-Jun	10	9	9	12	19	34	19	21	15	17	18	15	17	14	16	21	26	N	N	N	P	P	P	P	--	33.8
21-Jun	P	P	P	P	P	P	P	P	P	P	P	M	17	12	14	14	14	40	24	12	24	11	10	10	--	40.0
22-Jun	10	8	7	7	7	6	6	6	5	6	8	8	10	13	13	12	15	17	20	20	18	13	12	12	10.8	20.1
23-Jun	13	16	16	14	11	9	9	6	5	5	7	9	8	13	10	8	10	9	10	12	9	9	9	8	9.8	15.7
24-Jun	7	7	6	6	6	6	7	7	9	9	10	12	18	29	19	10	10	9	14	12	12	10	9	9	10.5	28.9
25-Jun	12	11	11	10	9	9	8	9	9	9	8	6	1	0	0	1	1	2	3	2	2	2	2	2	5.3	11.7
26-Jun	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.4	1.6
27-Jun	0	0	0	0	0	0	0	0	0	0	0	1	1	3	4	4	3	10	8	8	8	10	8	6	3.1	9.8
28-Jun	6	5	4	4	3	3	3	3	3	3	3	3	3	4	6	11	10	9	7	6	6	5	5	4	4.8	10.6
29-Jun	4	4	4	5	4	5	7	5	3	4	2	2	3	4	5	5	5	5	4	3	2	3	3	3	3.8	6.5
30-Jun	3	2	2	2	3	5	4	3	1	1	1	1	2	2	2	2	3	3	2	2	2	1	1	1	2.1	4.8
5.9 5.7 5.0 5.6 6.1 5.8 5.7 5.1 4.6 5.0 5.1 5.1 5.5 5.9 6.0 5.7 6.8 6.9 6.5 5.2 5.5 7.4 6.0 5.0																								Diurnal Average		
13.2 25.1 15.6 14.2 36.6 33.8 35.0 22.3 17.3 22.9 22.5 19.0 17.8 28.9 20.5 21.2 26.3 40.0 34.8 20.0 23.9 37.5 16.9 16.3																								Diurnal Maximum		
P - Power Failure 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

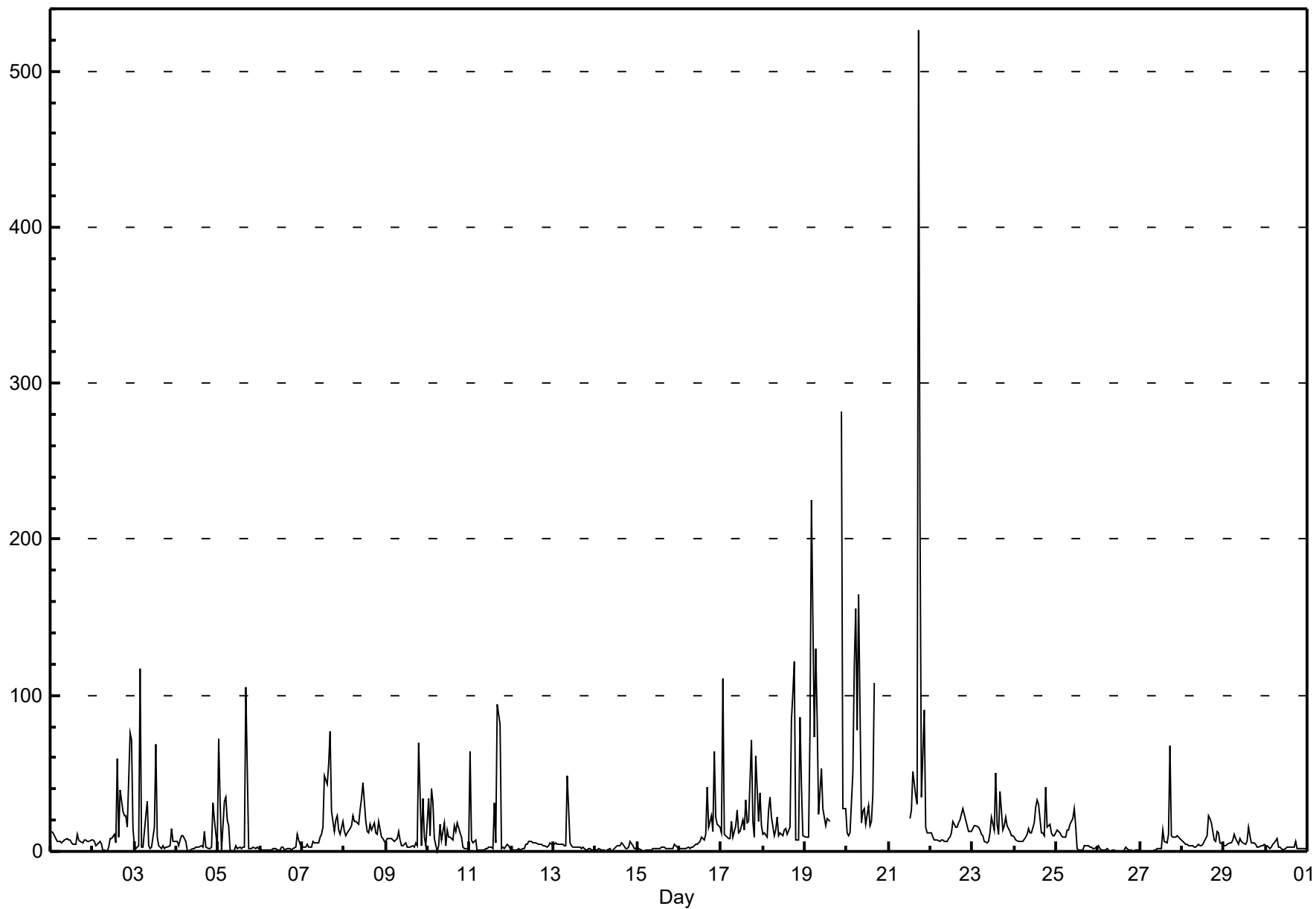
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - June 2018

Maximum Value: 526.5 μg/m ³ on Jun 21 18:00																					Maximum Daily Average: 63.3 μg/m ³ on Jun 19					Hours in Service: 720	
Minimum Value: 0 μg/m ³ on Jun 2 07:00																					Minimum Daily Average: 0.9 μg/m ³ on Jun 26					Hours of Data: 695	
Maximum Diurnal Average: 37.9 μg/m ³ at hour 18																					Minimum Diurnal Average: 6.9 μg/m ³ at hour 3					Hours of Missing Data: 25	
Monthly Average: 14.36 μg/m ³																					Percentiles: P ₁ = 0.0 P ₁₀ = 1.0 Q ₁ = 2.4 Median = 6.3 Q ₃ = 13.9 P ₉₀ = 29.1 P ₉₉ = 122.1					Hours of Calibration: 0	
																					Percent Operational Time: 96.5						
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-Jun	12	11	10	9	6	6	6	6	7	8	7	8	5	5	5	11	7	7	5	7	7	6	6	7	7.3	12.5	
2-Jun	8	7	4	5	6	4	0	0	0	3	8	8	11	5	60	9	39	25	23	22	16	76	72	14	17.8	76.2	
3-Jun	3	2	4	117	3	3	23	32	3	2	3	15	69	9	4	2	3	2	2	3	3	15	6	7	13.9	116.7	
4-Jun	6	4	7	10	10	6	1	0	0	2	2	3	2	3	4	2	13	3	2	2	2	31	20	3	5.9	31.0	
5-Jun	72	32	1	32	35	20	17	1	0	1	4	1	3	2	3	3	106	2	2	2	3	2	3	1	14.5	105.5	
6-Jun	1	1	0	0	0	1	1	2	2	1	1	1	3	2	1	2	2	1	1	2	2	11	8	5	2.1	11.4	
7-Jun	3	3	2	4	3	3	7	6	5	6	10	11	16	49	43	56	77	25	13	20	22	14	11	19	17.8	76.9	
8-Jun	13	10	11	15	17	23	19	20	17	26	34	44	19	13	11	18	13	18	12	11	19	9	8	7	16.9	43.9	
9-Jun	7	8	8	8	8	7	9	12	8	4	4	6	3	3	3	4	2	6	4	70	4	34	9	3	9.7	69.6	
10-Jun	33	10	40	31	8	0	4	18	7	18	3	14	9	10	7	17	13	18	11	10	2	2	2	2	12.0	39.8	
11-Jun	64	7	6	7	0	0	1	1	1	1	1	2	3	2	32	5	95	82	2	3	2	5	4	2	13.6	94.5	
12-Jun	1	1	1	1	2	1	2	2	4	5	7	6	5	5	5	5	4	5	4	4	3	3	5	5	3.6	6.6	
13-Jun	4	5	5	5	5	4	4	3	48	6	3	3	2	3	3	3	2	3	1	1	1	1	1	1	4.9	48.1	
14-Jun	1	1	1	0	1	0	0	1	1	0	1	2	4	4	4	5	5	2	2	2	6	4	1	2	2.1	6.1	
15-Jun	3	2	0	0	0	0	1	1	1	2	2	2	2	2	3	2	2	2	2	1	2	5	3	3	1.8	4.6	
16-Jun	2	2	2	2	2	3	2	3	3	4	5	6	6	10	7	11	41	15	23	13	64	22	18	16	11.7	64.2	
17-Jun	12	110	11	9	8	8	19	9	16	27	12	13	20	14	33	19	19	71	19	9	61	19	38	17	24.7	110.4	
18-Jun	11	12	10	27	35	22	10	14	22	10	11	11	14	15	11	15	84	101	122	7	8	86	42	10	29.6	121.6	
19-Jun	9	9	9	78	225	73	130	85	24	53	27	22	16	21	19	P	P	P	P	P	P	282	28	28	63.3	281.9	
20-Jun	12	10	12	50	119	156	78	165	19	26	27	18	30	17	19	37	108	N	N	N	P	P	P	P	--	164.9	
21-Jun	P	P	P	P	P	P	P	P	P	P	P	M	21	27	51	36	30	527	216	35	91	16	11	12	--	526.5	
22-Jun	12	10	8	7	7	7	7	7	6	6	9	9	11	19	15	15	18	20	28	24	20	16	13	13	12.8	27.6	
23-Jun	15	17	16	15	13	11	10	7	6	7	12	22	14	50	18	11	39	14	17	22	16	13	10	10	16.0	50.3	
24-Jun	9	7	7	6	6	7	9	11	15	12	12	18	28	33	31	12	11	10	41	16	17	12	10	10	14.6	40.8	
25-Jun	14	13	11	10	9	9	14	14	17	21	27	17	2	1	1	1	3	4	4	3	2	2	2	2	8.5	27.1	
26-Jun	3	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	2	1	1	1	0	0	1	0	0.9	3.4	
27-Jun	0	0	0	0	0	0	0	0	0	0	2	1	1	13	6	6	11	68	10	9	9	10	9	8	6.9	67.9	
28-Jun	6	6	4	4	4	4	4	3	3	4	3	4	4	7	10	22	21	18	8	6	13	12	6	5	7.6	22.5	
29-Jun	4	4	4	5	5	7	11	8	4	8	6	5	5	6	15	10	5	5	5	3	3	4	4	4	5.9	15.1	
30-Jun	3	3	2	3	4	6	8	3	3	2	1	2	2	3	3	3	3	7	2	2	2	2	1	1	3.0	8.3	
12.0 10.6 6.9 15.9 18.8 13.5 13.6 14.9 8.4 9.2 8.4 9.4 11.0 11.7 14.2 11.9 26.9 37.9 20.7 11.0 14.4 24.7 12.2 7.5																									Diurnal Average		
72.3 110.4 39.8 116.7 225.2 155.8 129.9 164.9 48.1 53.0 33.7 43.9 68.6 50.3 59.6 55.7 108.2 526.5 215.9 69.6 90.9 281.9 71.8 27.8																									Diurnal Maximum		
P - Power Failure M - Maintenance N - Not Valid																											

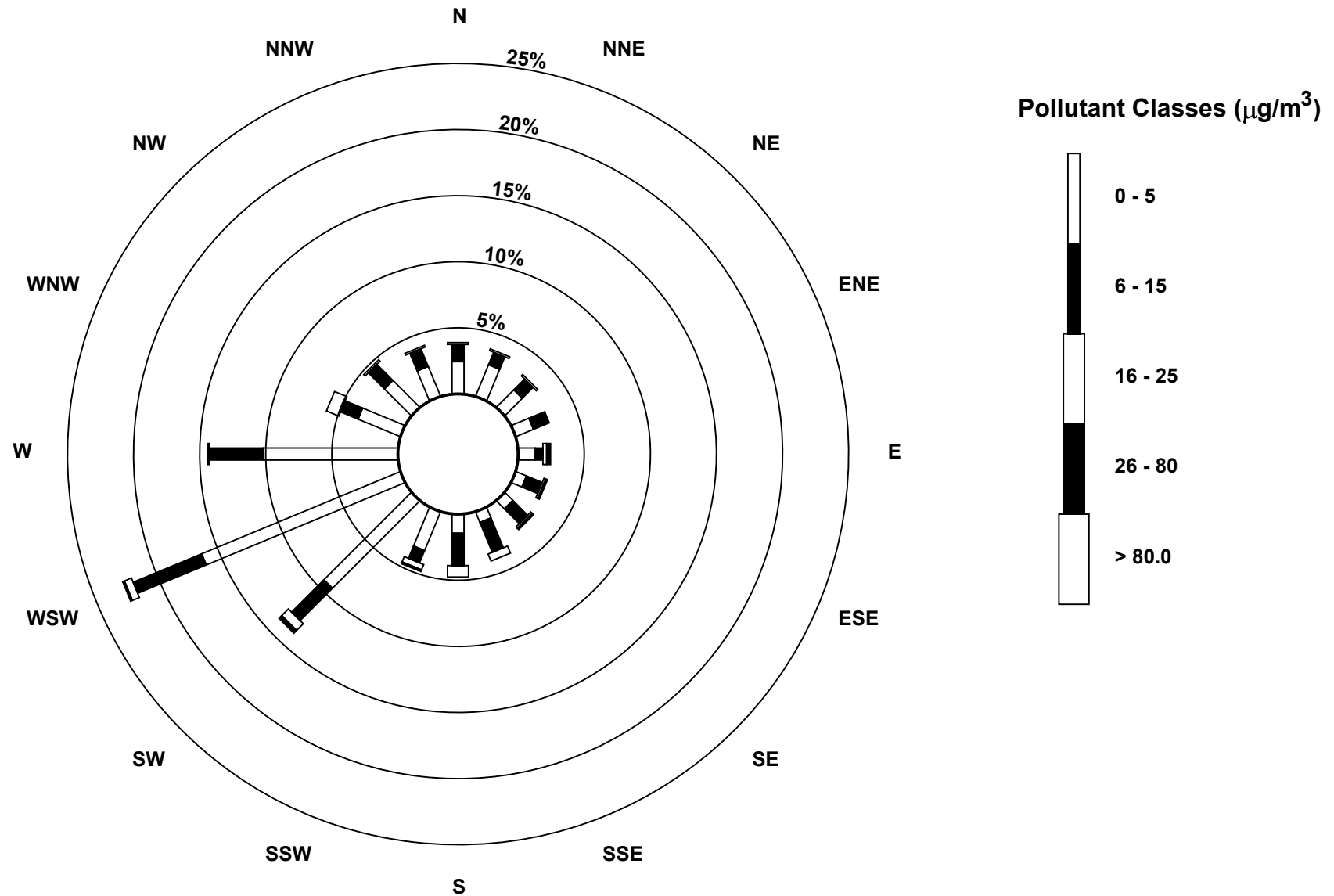
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - June 2018



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - June 2018



Hourly Averages

External Temperature (ET) - °C

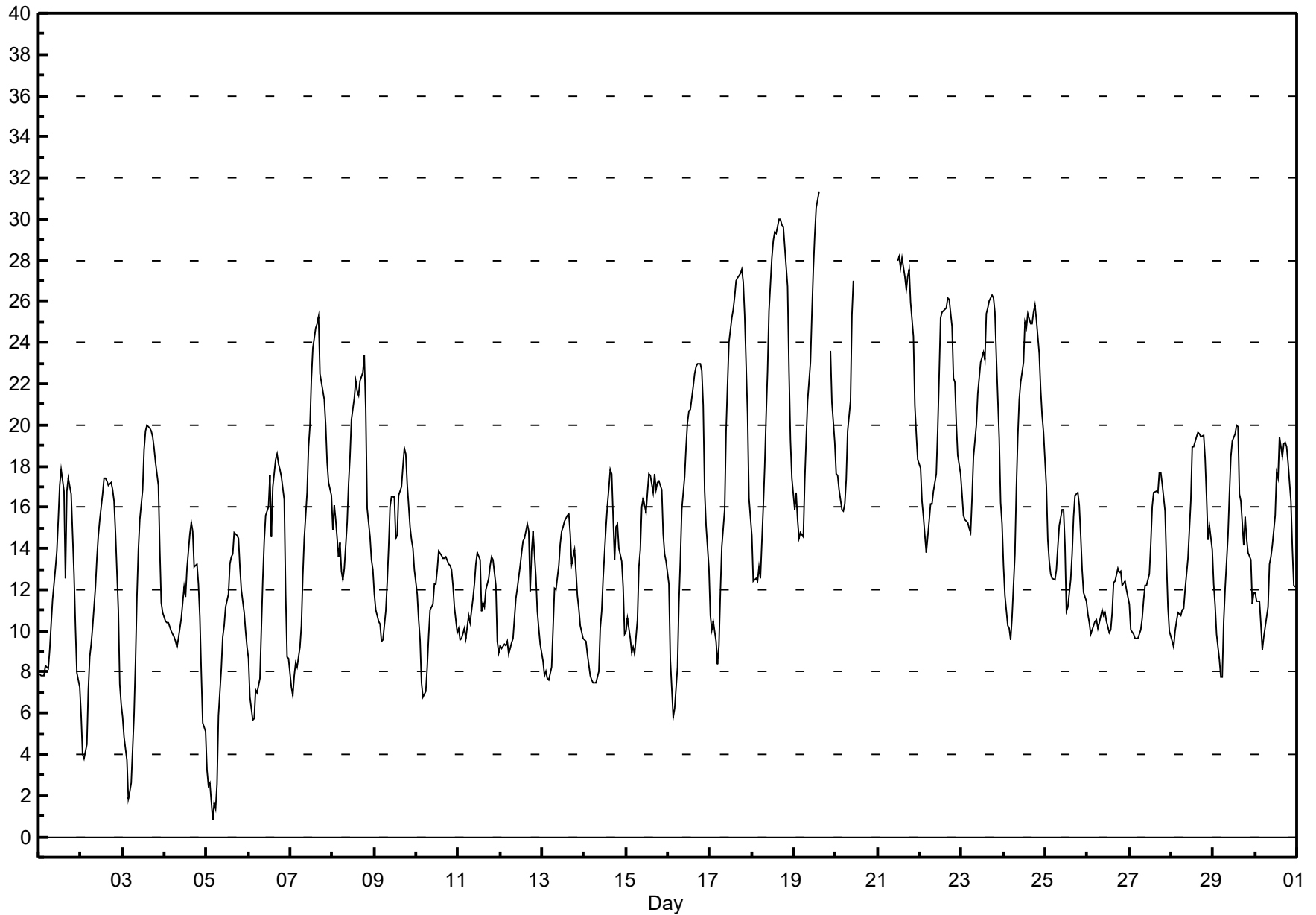
Smoky Heights - June 2018

Maximum Value: 31.3 °C on Jun 19 15:00																								Maximum Daily Average: 22.1 °C on Jun 18								Hours in Service: 720	
Minimum Value: 1 °C on Jun 5 04:00																								Minimum Daily Average: 8.8 °C on Jun 5								Hours of Data: 690	
Maximum Diurnal Average: 19.5 °C at hour 15																								Minimum Diurnal Average: 9.5 °C at hour 4								Hours of Missing Data: 30	
Monthly Average: 14.82 °C																								Percentiles: P ₁ = 2.6 P ₁₀ = 8.6 Q ₁ = 10.6 Median = 14.0 Q ₃ = 17.7 P ₉₀ = 23.0 P ₉₉ = 29.3								Hours of Calibration: 0	
																								Percent Operational Time: 95.8									
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-Jun	8	8	8	8	8	8	9	10	11	13	14	15	17	18	17	13	17	17	17	15	13	10	8	7	12.0	17.9							
2-Jun	6	4	4	4	7	9	9	10	12	14	15	15	17	17	17	17	17	17	17	16	15	11	7	6	11.9	17.4							
3-Jun	6	5	4	2	2	3	6	9	12	14	15	17	19	20	20	20	20	19	19	18	17	14	11	11	12.5	20.0							
4-Jun	10	10	10	10	10	10	9	9	10	11	11	12	12	13	15	15	15	13	13	12	11	8	6	5	10.9	15.2							
5-Jun	3	2	3	1	2	1	3	6	8	10	10	11	12	13	14	14	15	15	15	13	12	11	10	9	8.8	14.8							
6-Jun	9	7	6	6	7	7	8	10	12	14	16	16	18	15	17	18	19	18	18	17	16	12	9	9	12.6	18.6							
7-Jun	7	7	8	8	8	9	10	13	14	17	19	20	22	24	25	25	25	22	22	21	20	18	17	17	16.6	25.3							
8-Jun	15	16	15	14	14	13	12	13	15	17	18	20	21	22	22	21	22	23	23	21	16	15	13	13	17.3	23.4							
9-Jun	12	11	10	10	9	10	11	12	14	16	16	17	14	15	17	17	18	19	19	17	15	14	14	13	14.2	18.9							
10-Jun	12	11	10	8	7	7	8	10	11	11	12	12	13	14	14	14	14	14	13	13	13	12	11	10	11.3	13.9							
11-Jun	10	10	10	10	10	10	11	10	12	12	13	14	13	11	11	11	12	13	13	14	13	12	10	9	11.4	13.8							
12-Jun	9	9	9	9	9	9	9	10	11	12	12	13	14	14	14	15	15	12	14	15	13	11	10	9	11.6	15.2							
13-Jun	9	8	8	8	8	8	10	12	12	13	14	15	15	15	16	16	15	13	14	13	12	11	10	10	11.8	15.7							
14-Jun	10	10	9	8	8	7	7	8	8	10	11	13	15	16	17	18	18	13	15	15	14	13	12	10	11.8	17.9							
15-Jun	10	11	10	9	9	9	11	13	14	16	16	16	17	18	18	17	18	17	17	17	17	15	14	13	14.1	17.7							
16-Jun	12	9	7	6	6	8	11	13	16	17	19	20	21	21	22	22	23	23	23	23	21	17	15	13	16.2	23.0							
17-Jun	11	10	10	10	8	9	12	14	16	20	22	24	25	26	26	27	27	27	28	27	25	21	16	16	19.0	27.5							
18-Jun	15	12	13	12	13	13	16	18	20	23	26	28	29	29	29	30	30	30	30	29	27	23	19	17	22.1	30.0							
19-Jun	16	17	15	15	15	15	17	19	21	23	25	28	29	31	31	P	P	P	P	P	P	24	21	19	21.1	31.3							
20-Jun	18	18	17	16	16	16	17	20	21	25	27	N	N	N	N	N	N	N	N	N	P	P	P	P	--	27.0							
21-Jun	P	P	P	P	P	P	P	P	P	P	P	28	28	28	28	27	27	27	28	26	24	21	20	18	--	28.2							
22-Jun	18	16	16	15	14	15	16	16	17	18	20	22	25	25	26	26	26	26	25	22	22	20	19	18	20.1	26.2							
23-Jun	17	16	15	15	15	15	16	18	20	21	22	23	24	23	25	26	26	26	26	26	23	19	16	15	20.4	26.3							
24-Jun	13	12	10	10	10	11	14	17	19	21	22	23	25	25	25	25	25	25	26	25	23	22	20	20	19.5	25.8							
25-Jun	17	14	13	13	13	12	13	14	15	16	16	14	11	11	12	14	16	17	17	16	15	13	12	11	13.9	17.0							
26-Jun	11	10	10	10	10	11	10	10	11	11	11	11	10	10	11	12	12	13	13	13	12	12	12	12	11.2	13.0							
27-Jun	11	10	10	10	10	10	10	11	12	12	12	13	14	16	17	17	17	18	18	17	16	13	11	10	13.0	17.7							
28-Jun	9	9	10	10	11	11	11	11	12	14	15	16	19	19	19	20	20	19	19	18	16	14	15	14	14.7	19.6							
29-Jun	12	11	10	9	8	8	10	12	15	17	18	19	20	20	20	17	16	14	16	14	14	13	11	12	14.0	20.0							
30-Jun	12	11	11	10	9	10	11	11	13	14	14	16	18	17	19	18	19	19	19	18	16	14	12	12	14.4	19.4							
11.3 10.5 10.0 9.5 9.5 9.7 11.0 12.4 14.0 15.5 16.7 17.6 18.5 18.8 19.5 19.0 19.3 19.0 19.1 18.3 16.8 15.0 13.2 12.3																								Diurnal Average									
17.9 17.6 16.8 15.9 15.8 16.2 17.3 19.7 21.2 25.3 27.0 28.1 29.2 30.6 31.3 30.0 30.0 29.7 29.7 28.6 26.7 23.6 21.1 19.6																								Diurnal Maximum									
P - Power Failure N - Not Valid																																	

Hourly Averages

External Temperature (ET) - °C

Smoky Heights - June 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1 Spd	9	11	8	7	6	6	8	11	13	8	8	7	5	6	9	16	2	4	7	9	4	12	4	5	3.5	16.0	
Dir	125	129	119	105	78	84	107	134	144	160	137	135	99	132	229	255	87	38	37	65	318	353	34	332	113.9	255.1	
2 Spd	2	4	8	8	19	20	12	17	28	31	33	34	34	37	36	36	35	34	35	28	16	11	8	10	21.8	37.0	
Dir	360	271	253	218	229	257	227	228	244	241	237	241	240	248	247	240	247	258	259	260	257	258	251	263	246.5	248.4	
3 Spd	11	11	10	8	10	6	7	8	8	6	5	7	7	9	12	14	12	10	9	12	14	9	3	8	4.0	14.2	
Dir	271	268	273	235	195	191	182	174	161	162	124	91	69	91	106	118	101	74	67	88	96	135	202	30	126.6	96.5	
4 Spd	10	10	6	8	6	19	27	35	37	43	41	36	34	28	38	32	18	12	10	15	10	6	11	10	16.1	43.1	
Dir	16	35	40	52	117	205	232	235	244	252	257	253	258	269	258	265	279	340	333	318	301	270	252	255	260.6	252.0	
5 Spd	7	8	9	8	9	6	6	8	16	14	13	11	7	10	8	8	7	7	5	7	8	7	2	3	3.3	16.4	
Dir	233	243	270	239	274	238	229	250	267	291	304	302	359	1	7	3	34	46	15	66	76	96	113	135	303.2	267.4	
6 Spd	1	2	2	4	3	1	5	6	9	20	22	21	20	22	18	20	20	17	9	6	3	1	1	2	9.0	22.2	
Dir	236	42	154	260	224	209	188	197	221	238	232	237	231	271	235	229	216	237	238	199	154	234	178	265	231.6	231.7	
7 Spd	2	3	4	6	7	7	4	6	8	9	7	6	7	9	4	7	6	18	13	6	10	11	13	12	1.4	17.7	
Dir	355	4	11	12	14	24	46	146	137	158	157	152	172	185	205	208	171	107	88	50	332	325	324	331	76.3	107.2	
8 Spd	7	11	11	9	17	4	5	4	3	10	11	6	7	8	9	7	10	7	6	12	20	19	15	5	4.1	19.6	
Dir	354	332	313	272	301	283	16	6	224	164	186	169	135	132	124	263	4	22	16	356	323	320	328	329	323.5	323.1	
9 Spd	5	4	3	8	5	10	10	7	8	8	9	10	10	8	8	15	21	20	17	11	10	15	17	23	9.0	23.2	
Dir	97	118	311	16	270	262	275	285	321	332	299	325	306	333	302	280	263	262	268	272	256	266	267	257	280.7	257.2	
10 Spd	23	19	17	12	13	16	15	13	21	19	19	19	17	24	26	24	27	23	22	21	18	11	11	22	18.2	26.6	
Dir	262	252	251	251	238	253	251	264	288	280	293	284	286	280	276	274	285	285	281	278	299	268	264	254	272.6	284.9	
11 Spd	15	24	19	31	18	20	31	31	30	32	34	43	41	39	49	34	31	36	37	43	33	31	20	25	30.3	48.6	
Dir	261	257	258	261	257	262	258	255	264	263	267	278	284	286	275	284	285	286	286	273	273	289	290	250	272.5	274.5	
12 Spd	31	27	23	26	31	26	28	29	28	26	26	34	32	30	28	19	14	10	8	8	6	4	4	2	18.5	33.7	
Dir	262	266	264	257	262	258	265	267	272	275	265	282	282	284	293	305	326	321	344	1	21	38	46	114	278.0	282.1	
13 Spd	2	4	4	8	8	8	8	7	8	8	8	9	11	10	10	11	9	3	9	8	5	6	3	2	3.7	11.2	
Dir	264	246	216	251	236	244	251	288	30	37	25	23	14	9	21	27	29	347	22	25	58	58	71	13	5.6	14.4	
14 Spd	2	5	8	7	6	7	6	5	8	6	4	2	1	5	6	3	5	18	12	11	11	13	6	8	1.8	17.5	
Dir	346	346	341	11	24	32	31	69	7	48	114	223	343	11	8	341	191	207	244	267	236	280	191	215	294.9	207.1	
15 Spd	5	11	13	7	6	5	5	7	9	7	10	5	9	9	10	11	15	13	13	13	11	8	7	9	6.5	14.9	
Dir	215	267	257	244	189	201	214	242	244	271	243	315	356	326	342	345	322	331	327	320	312	310	316	318	296.9	322.5	
16 Spd	9	4	5	6	6	5	9	9	9	12	13	13	13	10	7	9	13	13	11	10	9	8	11	7	8.2	13.3	
Dir	312	265	218	223	242	217	221	212	198	203	219	223	223	225	259	241	237	217	221	207	173	170	169	202	218.0	222.5	
17 Spd	8	5	4	7	9	9	9	9	8	9	9	6	9	11	10	11	9	11	8	5	2	3	2	5	5.1	10.9	
Dir	214	231	231	220	218	198	184	171	165	175	172	175	189	215	225	227	231	296	330	351	354	346	267	262	215.7	227.3	
18 Spd	5	2	2	4	5	5	6	4	4	6	5	5	5	2	4	2	6	6	4	7	8	4	2	2	1.9	7.9	
Dir	268	240	247	219	255	229	164	165	152	133	121	126	154	154	204	7	76	82	93	81	77	107	313	345	140.1	77.0	
19 Spd	3	3	3	5	5	7	4	8	11	11	8	10	10	10	7	P	P	P	P	P	P	P	2	3	4	5.1	11.5
Dir	312	217	254	239	233	243	199	185	181	175	147	151	153	175	193	P	P	P	P	P	P	P	228	244	219	190.4	180.6
20 Spd	2	4	6	7	6	7	7	7	6	4	7	6	3	7	5	8	15	12	10	P	P	P	P	P	2.6	14.6	
Dir	257	247	238	232	251	246	220	195	168	172	146	151	127	111	88	55	88	75	74	P	P	P	P	P	144.7	88.4	
21 Spd	P	P	P	P	P	P	P	P	P	4	5	5	14	22	25	29	23	13	9	3	3	9	19	27	--	29.3	
Dir	P	P	P	P	P	P	P	P	P	351	68	170	220	237	235	240	243	278	300	269	233	223	244	244	--	239.9	
22 Spd	11	9	8	8	11	16	17	10	10	9	11	9	5	5	13	17	19	16	17	15	6	7	11	7	7.5	18.8	
Dir	236	167	165	208	237	253	250	239	229	227	235	278	5	78	277	290	288	299	319	330	357	344	321	321	273.3	288.3	

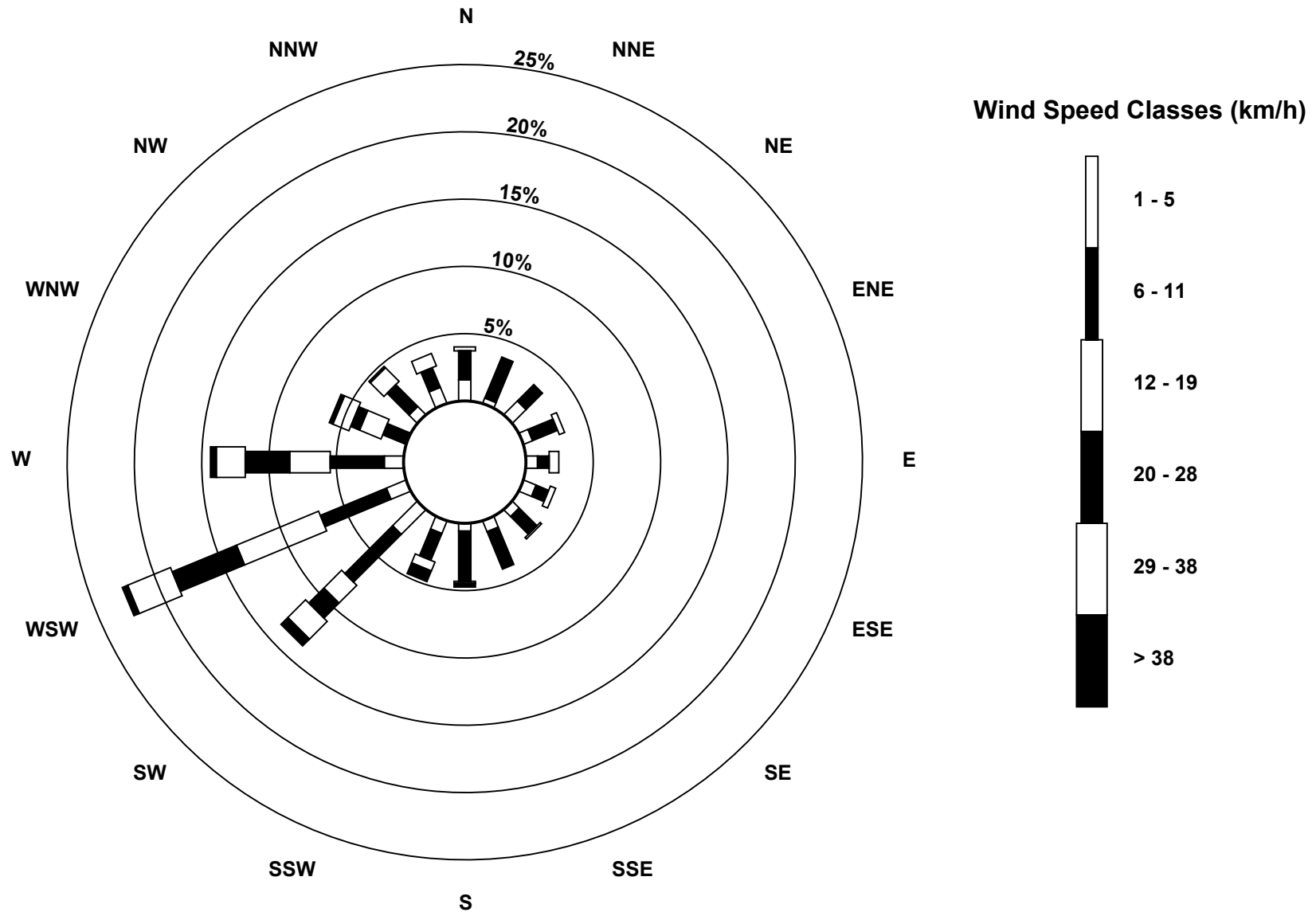
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	9	11	14	12	10	8	12	9	9	7	8	10	10	8	11	19	17	16	17	15	9	9	11	12	10.9	19.1	
Dir	311	295	290	284	282	264	245	245	224	247	254	260	255	292	295	265	270	267	271	270	259	261	255	263	268.4	264.5	
24 Spd	9	10	11	12	10	11	12	9	8	9	11	10	8	7	8	9	10	12	12	10	10	9	7	7	1.7	12.3	
Dir	223	217	267	259	263	257	249	208	191	180	154	156	155	125	104	76	59	73	67	51	41	29	8	72	151.8	258.5	
25 Spd	9	12	4	3	3	2	7	7	7	10	20	34	33	25	29	28	30	35	41	37	33	28	25	24	18.5	41.0	
Dir	169	204	103	84	42	44	229	250	256	268	230	235	234	230	221	223	216	223	229	234	218	209	196	195	221.7	229.5	
26 Spd	24	24	22	22	20	17	32	38	42	39	40	40	37	35	36	43	37	35	32	31	26	29	28	30	29.9	42.6	
Dir	193	195	192	186	181	189	219	216	225	230	230	232	231	235	232	239	243	241	239	243	244	242	245	248	227.3	238.8	
27 Spd	28	21	22	19	20	20	23	26	31	35	31	30	32	29	26	26	28	26	28	26	20	17	15	16	24.5	34.7	
Dir	248	254	252	257	253	251	250	251	261	265	271	260	261	283	272	264	260	270	259	256	250	249	255	256	259.6	265.0	
28 Spd	18	19	18	17	18	17	17	18	15	17	16	11	7	7	4	10	14	10	9	4	1	8	15	19	11.4	19.4	
Dir	253	256	256	249	249	250	252	258	242	237	242	242	242	261	342	276	288	306	20	37	142	220	254	248	255.5	248.0	
29 Spd	19	17	18	20	18	10	15	21	26	25	19	20	20	19	13	3	8	17	5	7	5	4	5	14	12.0	26.4	
Dir	256	251	250	252	251	217	217	229	242	246	246	239	259	261	338	306	354	326	37	158	211	247	243	219	250.3	242.0	
30 Spd	17	16	10	13	10	9	9	13	19	23	21	19	17	10	26	27	29	25	29	26	26	24	13	14	17.7	29.2	
Dir	251	255	226	215	204	210	218	196	219	233	243	261	245	277	238	265	247	246	256	249	252	253	262	243	243.8	256.3	
Spd	7.3	7.5	7.2	7.6	8.0	8.2	9.9	10.6	11.4	11.5	11.5	11.5	10.6	9.9	11.1	12.5	10.2	9.1	8.3	7.8	6.2	6.5	6.8	8.5	Diurnal Average		
Dir	251.8	249.7	253.4	246.9	245.4	241.5	236.8	232.0	238.7	242.5	241.6	248.4	250.9	261.1	258.7	261.0	262.7	270.5	277.8	274.2	267.6	266.0	260.8	252.2	Diurnal Maximum		
Spd	31.2	26.9	22.6	30.9	30.7	26.3	32.2	38.3	41.7	43.1	40.7	42.6	41.4	39.0	48.6	42.6	37.3	35.7	41.0	42.6	33.1	30.6	27.7	30.5	Diurnal Maximum		
Dir	262.2	266.4	263.6	261.3	262.5	258.3	218.6	215.9	225.2	252.0	257.1	277.8	284.2	285.7	274.5	238.8	242.6	286.1	229.5	272.6	218.4	288.7	244.6	248.0			
Maximum Speed Value: 49 km/h on Jun 11 15:00																				Minimum Speed Value: 1 km/h on Jun 14 13:00				Hours in Service: 720			
Maximum Daily Speed Average: 30.3 km/h on Jun 26																				Minimum Daily Speed Average: 1.4 km/h on Jun 18				Hours of Data: 700			
Maximum Diurnal Speed Average: 12.5 km/h at hour 16																				Minimum Diurnal Speed Average: 6.2 km/h at hour 21				Hours of Missing Data: 20			
Monthly Average Velocity: 8.97 km/h 252.87 deg																				Speed Percentiles: P ₁ = 1.7 P ₁₀ = 4.1 Q ₁ = 6.7 Median = 10.0 Q ₃ = 18.7 P ₉₀ = 29.1 P ₉₉ = 41.0				Percent Operational Time: 97.2			
All monthly, daily, and diurnal averages have been calculated using vector methods																											
P - Power Failure																											
Frequency Distribution																											
Speed Range (km/h)																											
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	20	32	5	0	0	0	57																				
NorthEast	10	29	2	0	0	0	41																				
East	10	21	9	0	0	0	40																				
SouthEast	13	28	2	0	0	0	43																				
South	6	45	5	7	0	0	63																				
SouthWest	26	64	29	26	30	7	182																				
West	10	45	63	53	37	7	215																				
NorthWest	5	31	20	3	0	0	59																				
Total	100	295	135	89	67	14	700																				

Wind Rose

Wind Speed (WS) (km/h)
Smoky Heights - June 2018



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - June 2018

Maximum Speed: 49 km/h on Jun 11 15:00																				Maximum Daily Speed Average: 31.7 km/h on Jun 26					Hours in Service: 720	
Minimum Speed: 2 km/h on Jun 6 23:00																				Minimum Daily Speed Average: 5.1 km/h on Jun 18					Hours of Data: 700	
Maximum Diurnal Speed Average: 18.4 km/h at hour 16																				Minimum Diurnal Speed Average: 10.5 km/h at hour 3					Hours of Missing Data: 20	
Monthly Average Speed: 14.11 km/h																				Percentiles: P ₁ = 2.5 P ₁₀ = 5.3 Q ₁ = 7.5 Median = 10.7 Q ₃ = 18.9 P ₉₀ = 29.4 P ₉₉ = 41.2					Percent Operational Time: 97.2	
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-Jun	9	11	8	7	6	7	8	11	13	9	9	7	7	8	12	19	4	6	7	9	8	13	5	5	8.6	18.5
2-Jun	3	5	8	9	19	20	12	17	29	31	33	35	35	38	36	36	35	35	35	28	16	11	8	10	22.7	37.6
3-Jun	11	11	10	9	10	6	7	9	8	7	6	8	8	11	13	15	13	10	9	12	15	12	6	8	9.7	14.9
4-Jun	10	11	7	9	8	19	28	35	37	43	41	36	35	28	38	32	21	12	11	16	11	6	11	10	21.4	43.3
5-Jun	8	8	9	8	9	6	6	8	17	14	13	12	9	11	9	9	8	8	5	7	8	7	3	3	8.6	16.6
6-Jun	4	3	3	4	4	7	5	7	10	20	23	22	21	24	18	21	21	17	10	6	4	2	2	3	10.8	24.4
7-Jun	3	3	4	6	7	7	5	6	8	9	7	6	7	10	7	9	8	18	14	7	11	11	13	12	8.3	18.5
8-Jun	8	11	12	11	20	7	6	6	4	11	12	8	8	9	11	13	11	8	7	12	20	19	16	8	10.7	20.0
9-Jun	5	6	6	8	7	10	11	8	8	9	11	11	10	9	9	16	21	20	17	11	10	15	17	23	11.7	23.3
10-Jun	23	19	17	12	13	16	15	14	21	20	20	19	17	24	27	25	27	23	22	21	18	12	12	22	19.1	26.8
11-Jun	19	24	19	31	18	20	31	31	31	32	35	43	42	39	49	34	31	36	37	43	33	31	21	25	31.4	48.9
12-Jun	31	27	23	26	31	26	28	29	28	26	27	34	32	30	28	19	15	11	8	8	7	4	5	4	21.1	34.0
13-Jun	3	6	5	8	10	8	8	8	8	8	9	10	12	11	10	11	9	8	9	9	5	6	4	3	7.8	11.9
14-Jun	4	5	9	7	6	7	6	7	8	6	5	4	4	7	7	5	7	18	13	12	11	13	10	9	7.9	17.9
15-Jun	5	11	13	8	6	6	5	8	10	8	10	9	10	10	11	11	15	13	13	13	11	8	7	9	9.6	15.3
16-Jun	9	4	5	6	6	5	9	9	10	13	14	13	14	11	9	11	13	14	12	10	9	8	11	8	9.7	14.2
17-Jun	8	5	4	7	9	9	9	9	8	9	9	7	10	12	11	11	11	11	9	6	3	3	3	5	7.9	11.9
18-Jun	5	3	3	4	5	6	6	4	5	7	5	6	7	6	7	6	7	6	5	7	8	4	2	2	5.1	8.1
19-Jun	4	4	4	5	5	7	4	8	12	11	8	10	10	10	9	P	P	P	P	P	P	2	4	4	6.7	11.7
20-Jun	3	4	7	7	7	7	7	7	6	4	7	6	5	7	7	9	15	12	10	P	P	P	P	P	--	29.5
22-Jun	P	P	P	P	P	P	P	P	P	5	8	7	17	23	25	30	23	14	9	5	6	11	19	27	11.9	19.3
23-Jun	17	9	9	8	11	16	17	10	11	9	11	10	6	7	16	18	19	16	18	15	7	8	11	7	11.9	20.2
24-Jun	9	12	14	13	10	8	12	10	9	8	8	11	11	9	11	20	18	17	17	15	9	10	11	13	10.0	12.4
25-Jun	10	10	11	12	10	11	12	10	9	9	11	11	8	9	9	9	10	12	12	10	10	9	7	8	20.7	41.2
26-Jun	11	12	5	5	4	3	7	8	7	10	20	34	33	25	29	28	30	36	41	37	33	29	25	24	31.7	42.7
27-Jun	24	24	22	22	20	17	33	38	42	39	40	40	37	36	36	43	38	35	33	31	26	29	28	31	24.9	34.8
28-Jun	28	21	22	19	20	20	23	26	31	35	31	30	32	30	27	26	29	26	29	26	20	18	15	16	13.6	19.4
29-Jun	18	19	18	17	18	17	17	18	15	17	17	11	8	12	7	11	14	11	9	4	3	9	15	19	15.4	26.5
30-Jun	19	17	18	20	18	10	15	21	27	25	20	21	20	22	13	9	10	17	8	8	6	7	5	14	18.9	29.4
30-Jun	17	16	10	13	10	9	10	13	19	23	21	19	17	13	26	27	29	26	29	26	26	24	13	14	18.9	29.4
11.3 11.1 10.5 11.0 11.3 11.0 12.4 13.6 15.5 16.0 16.4 16.6 16.4 16.6 17.6 18.4 17.6 17.1 15.8 14.7 12.6 11.8 10.6 11.9																								Diurnal Average		
31.3 27.0 22.7 31.1 30.7 26.4 32.8 38.5 41.9 43.3 40.9 42.8 41.9 39.4 48.9 42.7 37.6 35.9 41.2 42.9 33.4 31.5 27.7 30.5																								Diurnal Maximum		
P - Power Failure																										
All monthly, daily, and diurnal averages have been calculated using scalar methods																										

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - June 2018

Maximum Value: 94.2 deg on Jun 14 13:00																			Hours in Service: 720						
Minimum Value: 2.3 deg on Jun 28 01:00																			Hours of Data: 700						
																			Hours of Missing Data: 20						
Percentiles: P ₁ = 2.9 P ₁₀ = 5.2 Q ₁ = 7.7 Median = 13.3 Q ₃ = 25.5 P ₉₀ = 43.7 P ₉₉ = 83.8																			Hours of Calibration: 0						
																			Percent Operational Time: 97.2						
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-Jun	7	3	7	10	12	14	11	7	12	28	23	29	60	44	61	48	64	48	18	12	84	27	43	20	83.8
2-Jun	47	27	14	23	7	7	7	11	7	7	9	10	10	10	11	12	10	12	9	7	5	7	14	7	46.7
3-Jun	6	5	5	33	10	10	9	11	13	29	32	32	32	38	27	21	19	16	12	19	14	44	76	10	75.7
4-Jun	18	16	39	17	45	12	12	4	6	6	6	7	9	12	10	11	35	17	14	11	14	24	9	9	44.5
5-Jun	17	8	5	10	11	12	16	21	10	19	16	33	42	28	27	30	38	38	27	8	7	22	45	27	44.7
6-Jun	94	33	49	23	43	84	23	24	27	10	13	15	16	28	18	15	11	13	16	26	16	64	87	35	93.9
7-Jun	23	22	19	10	11	8	37	24	15	15	20	31	32	24	80	39	37	21	10	26	15	9	7	7	80.1
8-Jun	29	6	23	35	39	58	23	51	51	14	21	40	44	30	37	68	23	21	23	19	11	10	10	79	78.7
9-Jun	32	46	60	13	37	7	23	30	21	25	31	19	18	27	37	13	11	11	15	6	5	8	6	4	60.4
10-Jun	5	6	8	10	6	8	6	18	8	8	9	12	10	11	7	6	6	6	5	9	13	33	38	7	37.6
11-Jun	58	12	7	6	5	6	9	4	8	5	8	6	9	9	7	6	5	5	8	6	8	14	13	6	58.3
12-Jun	4	5	5	4	3	5	7	9	6	6	10	7	8	6	7	8	16	25	16	16	11	24	33	90	90.0
13-Jun	46	48	44	13	28	12	17	23	17	17	26	27	20	22	20	17	22	83	14	16	10	10	57	52	83.1
14-Jun	83	25	11	24	14	12	14	37	15	27	54	76	94	49	31	66	44	11	27	11	13	20	50	16	94.2
15-Jun	43	13	4	39	15	20	21	14	14	45	20	57	19	26	24	16	12	13	12	10	7	11	10	7	57.2
16-Jun	8	23	27	19	15	16	8	12	12	12	17	20	21	35	48	40	19	19	18	10	9	4	3	29	47.6
17-Jun	13	11	14	14	13	14	9	7	17	17	24	28	25	26	22	19	30	20	19	17	19	41	88	10	87.8
18-Jun	6	18	41	17	7	18	9	21	15	16	35	35	45	77	59	74	48	34	32	16	11	40	43	31	76.7
19-Jun	58	25	15	12	9	6	27	11	10	18	17	13	16	23	43	P	P	P	P	P	P	39	13	17	58.0
20-Jun	22	15	13	11	10	8	7	12	15	27	19	27	69	31	70	37	18	12	13	P	P	P	P	P	69.7
21-Jun	P	P	P	P	P	P	P	P	P	42	63	55	41	10	8	8	7	17	13	51	86	53	8	7	86.4
22-Jun	57	7	24	14	10	4	3	6	5	5	9	29	42	52	34	12	12	16	14	11	17	15	9	9	57.4
23-Jun	8	7	6	10	10	20	5	15	12	37	26	21	28	19	20	21	15	21	13	7	6	9	7	14	37.0
24-Jun	15	11	13	7	7	6	4	28	16	19	17	21	27	33	25	13	9	10	9	10	8	10	18	31	33.1
25-Jun	37	14	46	54	24	48	18	26	25	17	7	5	6	8	7	7	8	9	5	4	7	8	4	5	54.2
26-Jun	4	4	3	5	6	6	11	5	6	5	6	5	5	4	5	5	7	7	5	5	4	4	3	3	11.3
27-Jun	3	5	4	4	5	3	4	5	5	5	8	6	7	10	8	10	9	10	8	5	7	4	4	3	10.5
28-Jun	2	3	3	3	3	2	6	5	5	5	8	14	33	71	67	34	13	34	15	14	73	26	9	3	73.4
29-Jun	5	4	4	4	4	14	4	8	6	8	15	15	11	31	13	73	38	14	49	25	23	50	30	15	72.6
30-Jun	5	9	10	8	6	10	13	9	6	8	13	8	13	51	15	11	9	8	7	8	5	5	7	8	50.8
93.9 48.5 60.4 54.2 44.5 84.0 36.9 51.0 50.7 45.4 63.4 75.7 94.2 76.7 80.1 74.5 63.8 83.1 49.3 51.2 86.4 63.6 87.8 90.0																									
P - Power Failure																									

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

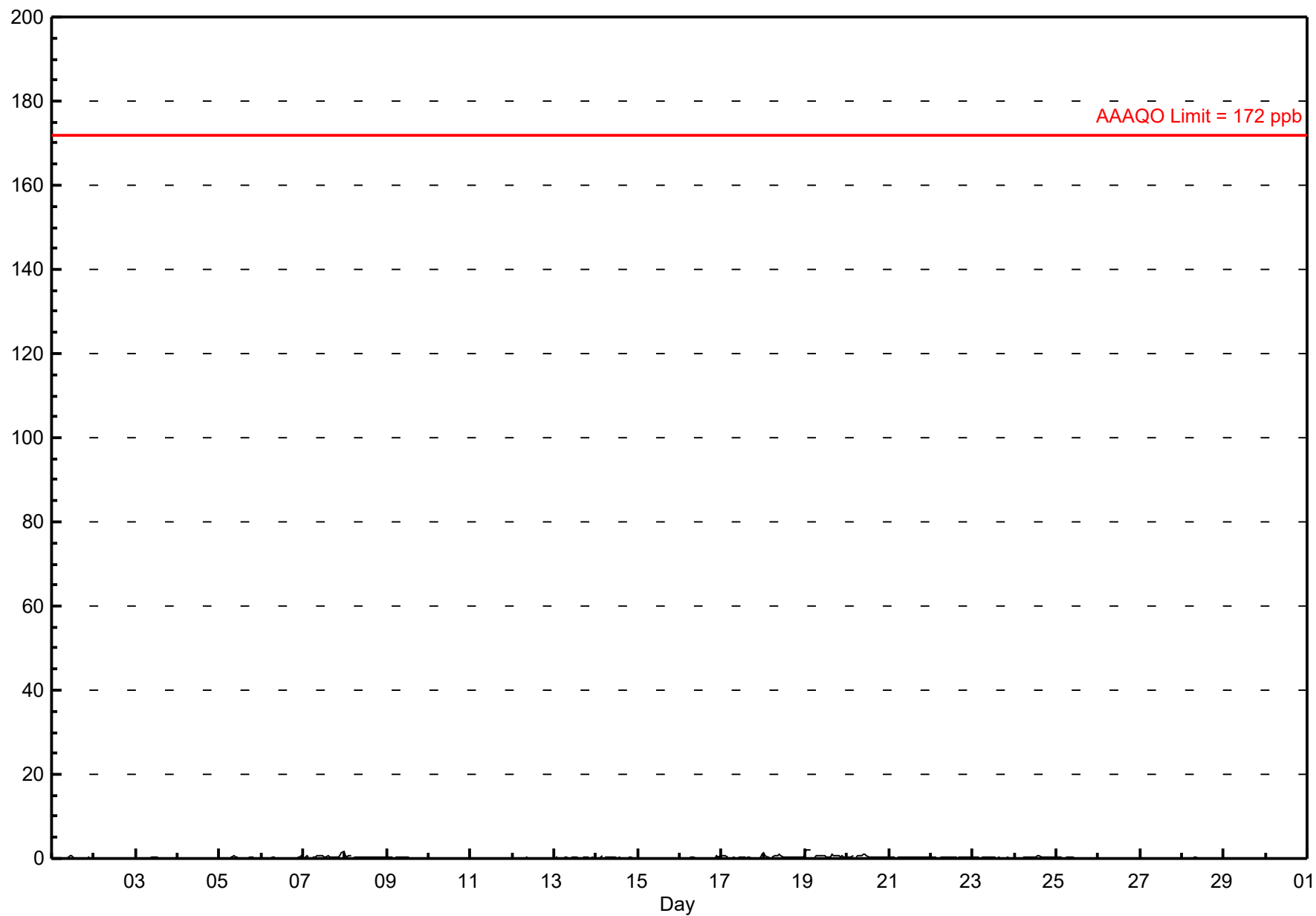
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.2 ppb on Jun 19 01:00 Maximum Daily Average: 0.8 ppb on Jun 19																				Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Jun 2 12:00 Maximum Diurnal Average: 0.3 ppb at hour 1 Monthly Average: 0.20 ppb										Minimum Daily Average: 0.0 ppb on Jun 26 Minimum Diurnal Average: 0.1 ppb at hour 21 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 1.1																	
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-Jun	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
2-Jun	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	
3-Jun	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	0.5	
4-Jun	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-Jun	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	0.5	
6-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.7	
7-Jun	0	0	1	0	A	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	1	2	2	0.5	1.7	
8-Jun	1	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8	
9-Jun	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	
10-Jun	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	
11-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
12-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.1	0.2	
13-Jun	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	
14-Jun	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
15-Jun	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	
16-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.2	0.7	
17-Jun	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.9	
18-Jun	1	1	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4	
19-Jun	2	2	2	2	A	0	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	0	1	0	0	0.8	2.2
20-Jun	0	0	0	1	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0	
21-Jun	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	
22-Jun	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	0.3	
23-Jun	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	
24-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.7	
25-Jun	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	
26-Jun	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	
27-Jun	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	
28-Jun	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	
29-Jun	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	
30-Jun	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	
0.3 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 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2																									Diurnal Average		
2.2 2.0 2.0 2.1 -- 0.5 0.7 0.8 0.8 1.0 0.9 0.7 0.5 0.7 0.6 0.9 0.8 0.6 0.7 0.6 0.4 0.7 1.5 1.7																									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 Averages

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - June 2018



Hourly Maximums

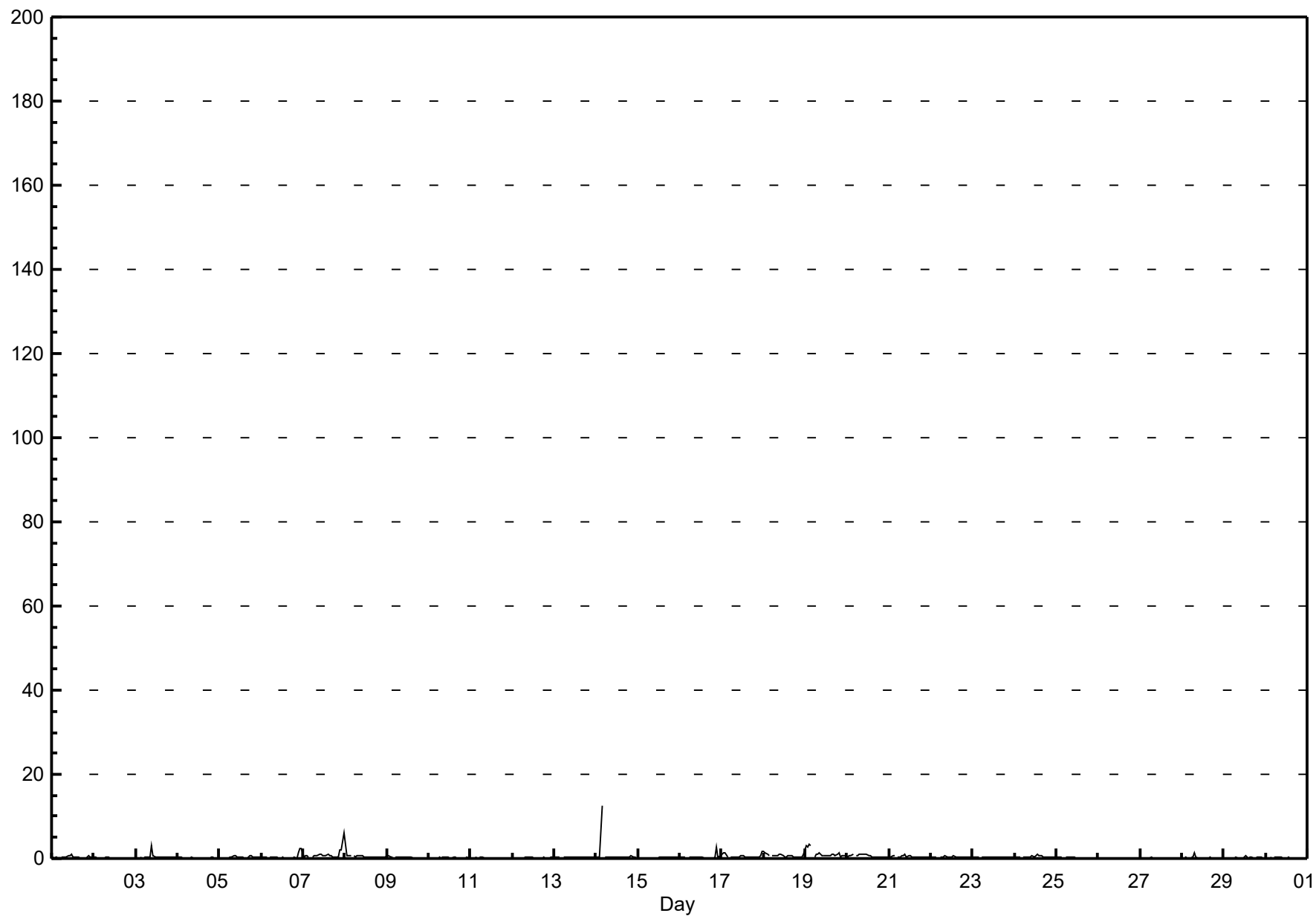
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - June 2018

Maximum Value: 12.6 ppb on Jun 14 04:00																				Maximum Daily Average: 1.2 ppb on Jun 19					Hours in Service: 720				
Minimum Value: 0 ppb on Jun 2 21:00																				Minimum Daily Average: 0.1 ppb on Jun 26					Hours of Data: 687				
Maximum Diurnal Average: 0.8 ppb at hour 4																				Minimum Diurnal Average: 0.2 ppb at hour 21					Hours of Missing Data: 33				
Monthly Average: 0.37 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.6 P ₉₉ = 2.9					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-Jun	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.8			
2-Jun	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			
3-Jun	0	0	0	0	A	0	0	0	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.0			
4-Jun	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			
5-Jun	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	0.8			
6-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0.4	2.5			
7-Jun	0	1	1	0	A	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	2	2	6	1.0	6.2			
8-Jun	3	1	1	1	A	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.4			
9-Jun	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	0.6			
10-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3			
11-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2			
12-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.2	0.3			
13-Jun	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			
14-Jun	0	0	0	13	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.8	12.6			
15-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4			
16-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0.4	2.8			
17-Jun	1	2	1	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	2	0.5	1.7			
18-Jun	2	1	1	1	A	1	1	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	1	0.7	1.7			
19-Jun	3	3	3	3	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1.2	3.3			
20-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.6	1.2			
21-Jun	0	0	1	1	A	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9			
22-Jun	0	0	0	0	A	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6			
23-Jun	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			
24-Jun	0	0	0	0	A	0	0	0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0.4	1.2			
25-Jun	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			
26-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1			
27-Jun	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	0.5			
28-Jun	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3			
29-Jun	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5			
30-Jun	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			
0.5 0.4 0.4 0.8					--	0.3	0.3	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.4	0.6	Diurnal Average				
3.4 2.6 3.3 12.6					--	0.6	0.9	1.3	1.4	3.0	1.1	0.9	0.6	1.2	0.8	1.1	1.1	0.8	0.9	1.2	0.6	2.8	2.5	6.2	Diurnal Maximum				
C - Calibration					A - Automated Daily Zero Span																								

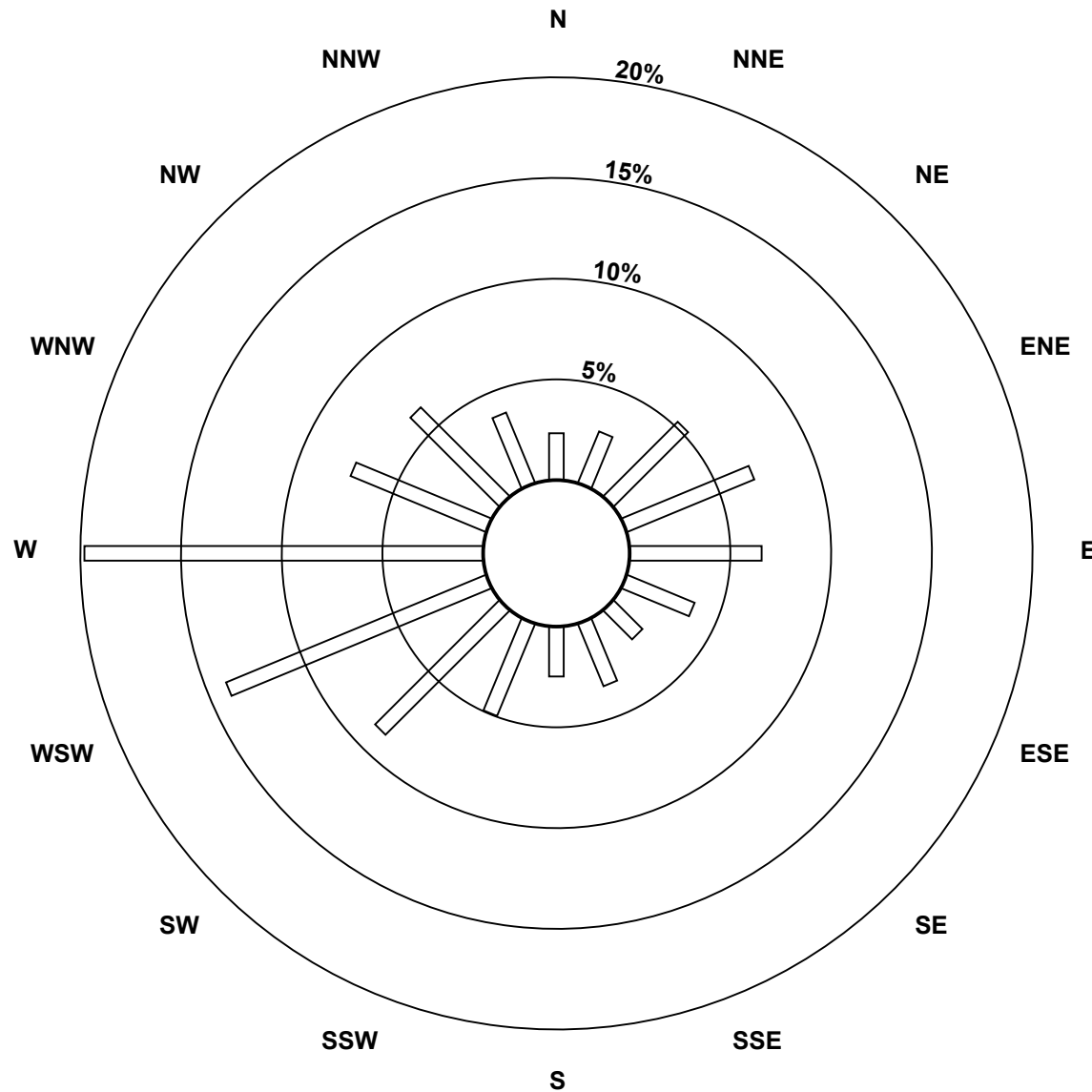
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - June 2018

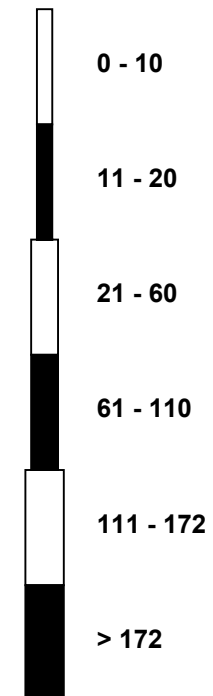


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - June 2018

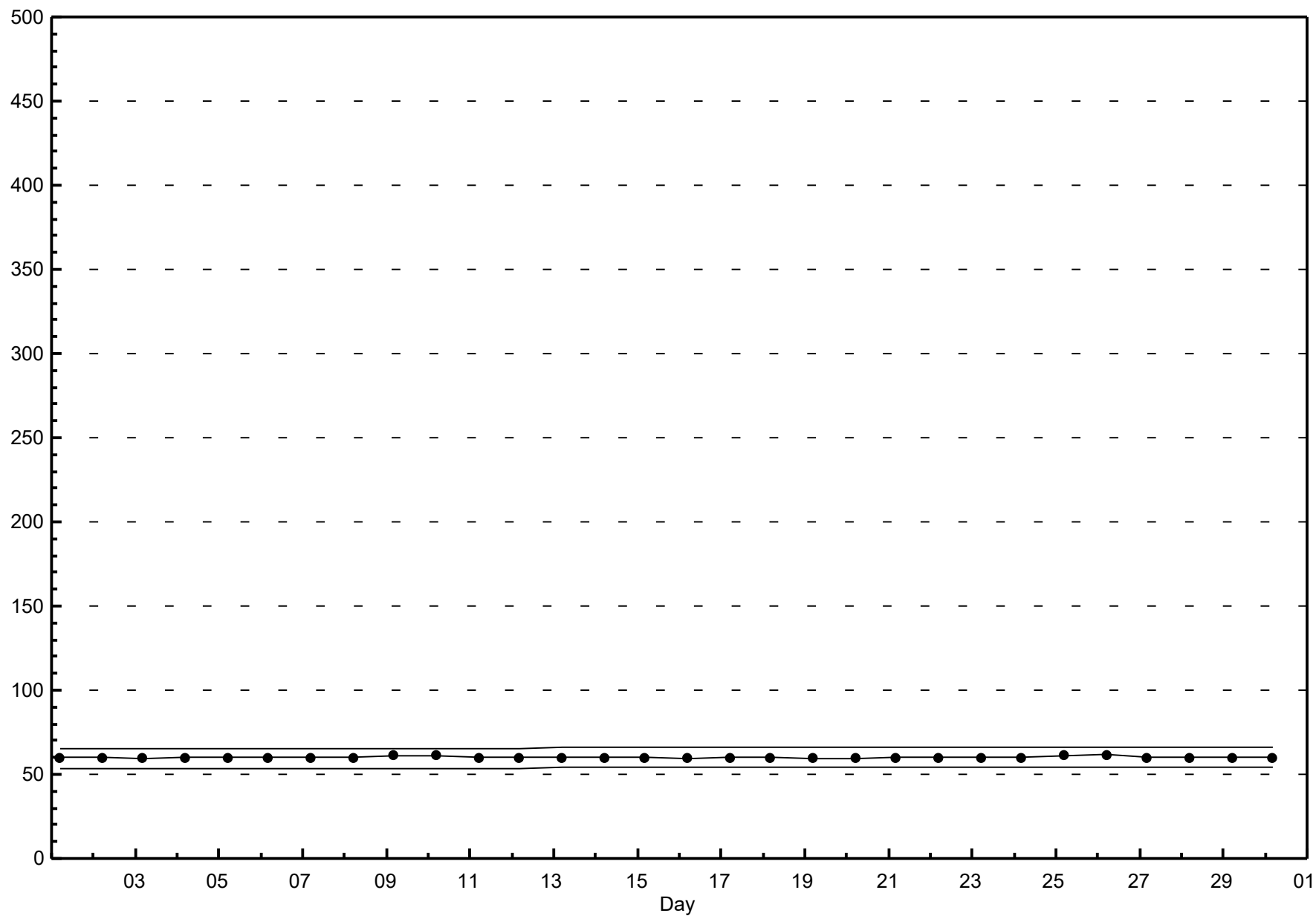


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - June 2018



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

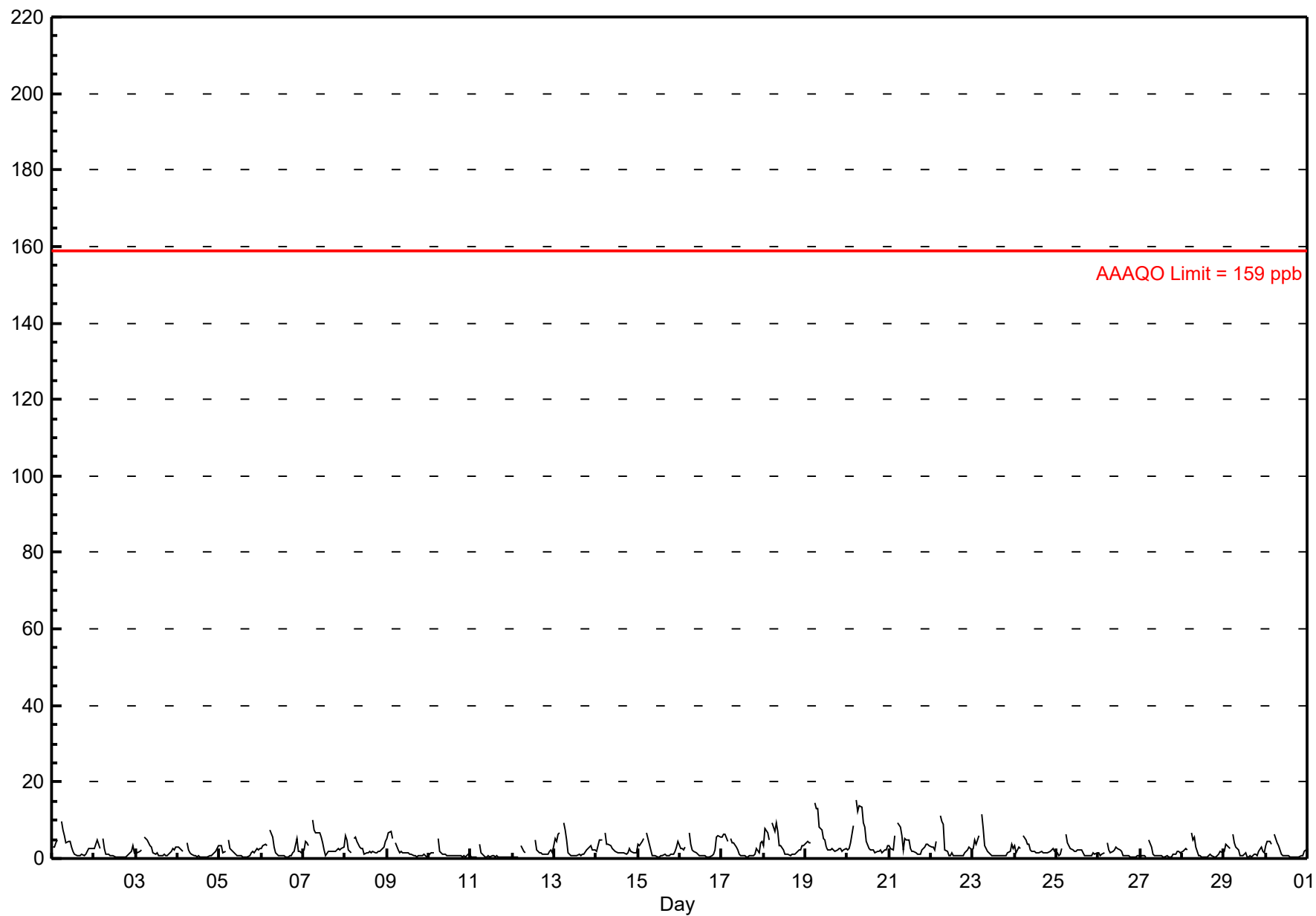
Beaverlodge - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 15.2 ppb on Jun 20 06:00 Maximum Daily Average: 5.2 ppb on Jun 20																				Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Jun 11 23:00 Maximum Diurnal Average: 7.2 ppb at hour 6 Monthly Average: 2.41 ppb										Minimum Daily Average: 0.7 ppb on Jun 11 Minimum Diurnal Average: 0.9 ppb at hour 18 Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.8 Median = 1.7 Q ₃ = 3.1 P ₉₀ = 5.2 P ₉₉ = 11.6																
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-Jun	3	3	4	5	A	10	7	6	4	5	5	3	2	1	1	1	1	1	1	1	2	2	3	2	3.1	9.8
2-Jun	3	4	5	3	A	5	2	1	1	1	1	1	0	0	0	0	0	0	0	1	1	2	3	2	1.6	5.3
3-Jun	2	2	2	2	A	6	5	4	3	3	2	1	2	1	1	1	1	1	1	1	2	3	2	3	2.2	5.8
4-Jun	3	3	2	2	A	4	2	1	1	1	1	0	1	1	0	0	0	0	1	1	1	1	2	3	1.4	4.2
5-Jun	3	3	2	2	A	5	3	2	2	1	1	1	1	1	0	1	1	1	1	2	2	3	2	3	1.7	4.9
6-Jun	3	3	4	3	A	7	5	3	2	1	1	1	1	1	0	0	1	1	2	2	5	2	2	2	2.2	7.4
7-Jun	2	4	4	3	A	10	7	7	7	7	5	4	2	1	2	2	2	2	2	2	3	2	3	3	3.7	10.0
8-Jun	6	5	2	1	A	5	6	5	3	3	3	1	2	2	2	2	2	2	2	2	2	3	5	5	2.8	5.9
9-Jun	5	7	7	5	A	4	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	0	0	2.1	7.1
10-Jun	1	2	1	2	A	5	2	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1.1	5.1
11-Jun	1	1	0	0	A	4	2	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.7	3.6
12-Jun	0	0	0	0	A	3	2	2	C	C	C	C	C	5	2	2	1	1	1	1	1	2	2	2	1.6	4.7
13-Jun	5	4	6	7	A	9	7	5	2	1	1	1	1	1	1	1	1	1	2	3	3	3	2	2	3.0	9.3
14-Jun	2	4	5	5	A	7	4	4	3	3	2	2	1	1	1	2	2	1	1	3	2	2	2	2	2.6	6.7
15-Jun	4	3	5	5	A	7	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	5	2.1	6.8
16-Jun	2	3	2	3	A	7	4	2	2	1	1	1	1	1	1	1	1	1	1	1	2	6	6	6	2.3	6.7
17-Jun	5	6	6	4	A	5	4	4	3	2	1	1	1	1	0	1	1	1	1	1	3	2	4	4	2.7	6.4
18-Jun	3	8	7	5	A	9	7	10	7	3	3	2	1	1	1	1	1	1	1	2	2	2	3	3	3.7	9.5
19-Jun	4	4	4	4	A	14	13	13	8	7	5	5	3	2	2	3	2	2	2	3	3	2	2	3	4.8	14.4
20-Jun	2	3	4	9	A	15	12	14	13	9	8	4	3	2	2	2	2	2	2	2	1	2	2	4	5.2	15.2
21-Jun	4	3	2	6	A	9	8	6	2	5	5	5	3	2	2	1	1	1	1	2	3	4	4	3	3.5	9.5
22-Jun	3	3	2	5	A	11	10	9	2	2	1	1	2	1	1	1	1	1	1	1	2	2	3	2	2.8	11.1
23-Jun	3	5	4	6	A	11	8	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	4	3	2.6	11.5
24-Jun	3	2	3	3	A	6	5	4	4	2	2	2	1	1	2	2	1	2	1	2	2	2	3	2	2.4	6.0
25-Jun	1	1	1	3	A	6	4	3	3	2	2	2	2	2	2	1	1	1	1	1	1	2	1	2	1.9	6.3
26-Jun	2	1	1	2	A	4	2	2	2	2	3	3	2	2	1	1	1	1	0	0	0	1	1	1	1.4	4.2
27-Jun	0	1	1	0	A	5	3	1	1	1	1	1	1	1	0	1	1	0	1	1	1	2	2	1	1.1	5.0
28-Jun	2	2	3	2	A	7	5	6	3	1	1	1	0	0	0	1	1	1	1	0	1	1	2	2	1.8	6.8
29-Jun	2	4	3	3	A	6	4	3	2	1	1	1	1	1	1	1	0	1	1	1	2	3	2	1	1.9	6.2
30-Jun	3	4	4	4	A	6	4	3	2	1	1	1	1	1	1	0	0	0	0	0	1	1	2	2	1.9	6.3
																									Diurnal Average	
																									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 - June 2018



Hourly Maximums

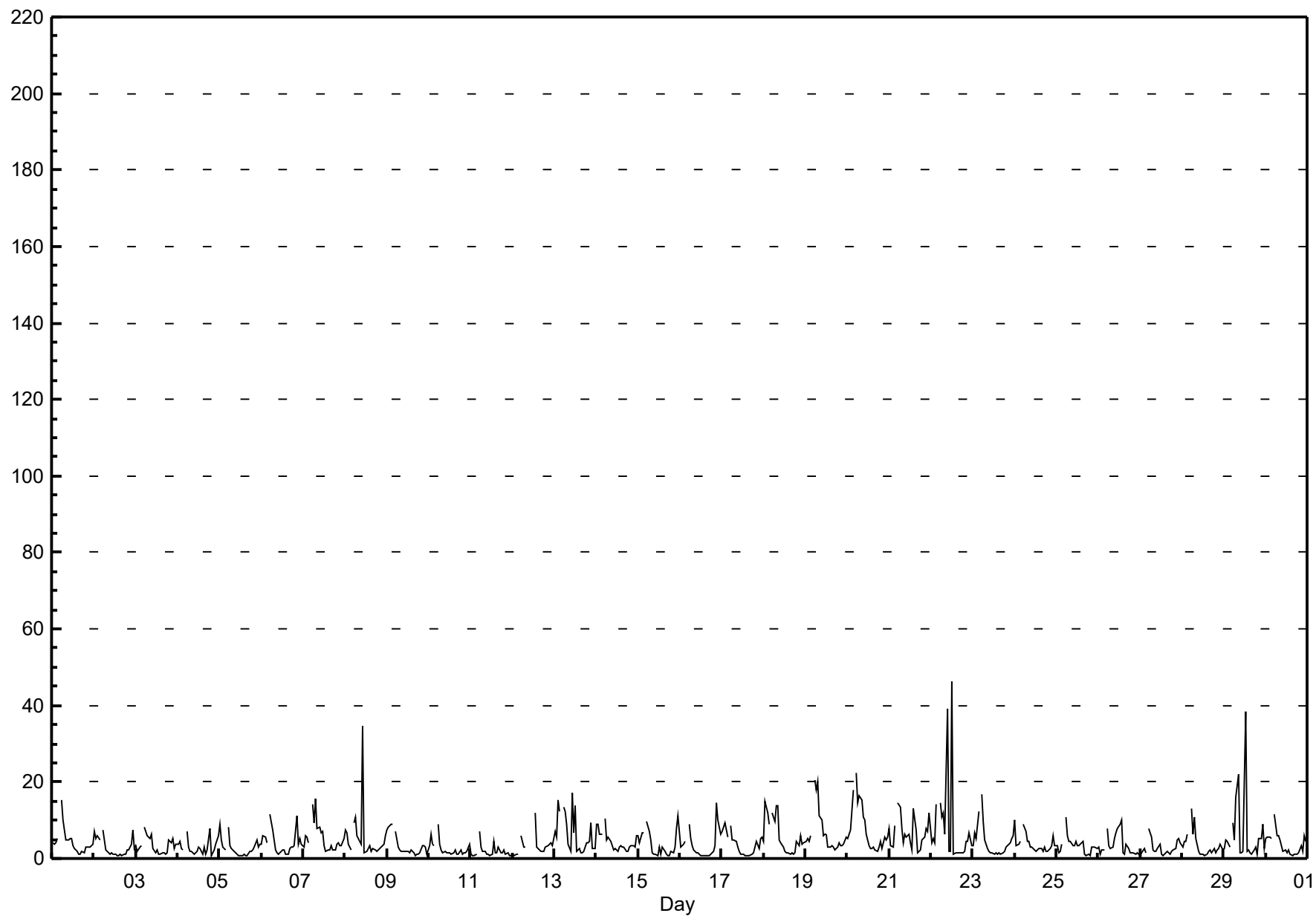
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - June 2018

Maximum Value: 46.3 ppb on Jun 22 13:00																								Hours in Service: 720		
Maximum Daily Average: 8.3 ppb on Jun 22																								Hours of Data: 685		
Minimum Value: 1 ppb on Jun 17 15:00																								Hours of Missing Data: 35		
Maximum Diurnal Average: 11.1 ppb at hour 6																								Hours of Calibration: 35		
Monthly Average: 4.35 ppb																								Percent Operational Time: 100.0		
Minimum Daily Average: 1.8 ppb on Jun 11																								Daily Average		
Minimum Diurnal Average: 1.7 ppb at hour 18																										
Percentiles: P ₁ = 0.7 P ₁₀ = 1.2 Q ₁ = 1.7 Median = 3.1 Q ₃ = 5.3 P ₉₀ = 9.0 P ₉₉ = 20.3																								Daily Maximum		
Day	Hourly Period Ending At (MST)																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	4	4	4	5	A	15	10	7	5	5	5	3	2	2	1	1	1	2	2	3	3	3	3	4	4.3	15.4
2-Jun	7	5	6	5	A	7	5	2	2	1	1	1	1	1	1	1	1	1	1	2	2	4	7	3	3.0	7.4
3-Jun	3	2	3	3	A	8	6	6	5	6	2	2	2	1	1	1	2	1	2	5	4	5	3	4	3.4	8.2
4-Jun	4	4	3	2	A	7	3	2	2	1	2	2	3	3	1	3	1	2	8	1	2	2	4	6	2.9	7.9
5-Jun	9	5	3	2	A	8	3	3	2	2	1	1	1	1	1	1	1	2	2	2	3	5	3	4	2.8	8.8
6-Jun	4	6	5	4	A	11	8	5	2	1	1	2	2	2	1	1	3	3	3	3	11	4	5	4	4.0	11.4
7-Jun	3	6	5	4	A	14	9	16	8	8	7	7	3	2	2	2	3	2	2	4	4	3	3	5	5.4	15.5
8-Jun	8	7	4	2	A	9	11	6	4	4	35	1	2	3	3	2	3	2	2	2	3	3	4	6	5.4	34.6
9-Jun	7	8	9	9	A	7	3	2	2	2	2	2	2	2	2	1	1	1	1	2	3	3	3	1	3.3	9.1
10-Jun	3	6	4	3	A	9	4	2	1	2	2	1	1	1	1	2	1	1	2	1	1	2	2	4	2.5	9.0
11-Jun	1	1	1	1	A	7	3	2	2	1	1	1	1	5	1	1	3	2	1	2	1	1	1	1	1.8	7.0
12-Jun	1	1	1	1	A	6	3	3	C	C	C	C	C	12	3	2	2	2	2	3	3	4	4	3	3.1	11.9
13-Jun	7	6	15	12	A	13	12	9	4	2	17	7	14	2	3	2	1	2	4	4	4	9	3	3	6.7	17.2
14-Jun	9	9	6	6	A	10	5	6	4	3	2	2	2	3	3	3	3	2	2	3	3	3	3	6	4.4	10.4
15-Jun	6	4	7	7	A	10	7	5	1	1	1	1	3	1	3	2	1	1	1	2	2	3	8	11	3.8	11.3
16-Jun	3	3	4	5	A	9	5	3	2	2	2	1	1	1	1	1	1	1	1	2	4	15	10	6	3.5	14.6
17-Jun	7	8	9	5	A	8	5	5	4	3	2	1	1	1	1	1	1	1	2	3	4	2	5	6	3.8	9.2
18-Jun	4	15	12	9	A	12	10	14	14	5	4	3	2	1	1	1	1	1	1	4	4	6	4	4	5.8	15.0
19-Jun	5	5	5	6	A	21	18	20	11	10	6	6	6	3	3	3	3	2	3	4	3	3	4	5	6.8	20.7
20-Jun	5	6	7	18	A	22	14	16	15	11	10	6	3	3	3	3	2	2	3	4	3	6	5	6	7.6	22.4
21-Jun	8	3	3	9	A	15	14	8	4	7	6	6	4	2	13	7	2	2	2	5	6	8	7	12	6.6	14.7
22-Jun	4	5	4	14	A	15	11	12	6	39	2	2	46	1	1	2	2	2	2	2	4	4	7	3	8.3	46.3
23-Jun	3	7	5	12	A	17	10	5	3	2	1	1	1	2	1	2	1	1	2	3	3	4	5	6	4.2	16.9
24-Jun	10	3	4	4	A	9	7	5	5	3	3	2	2	2	3	3	2	3	2	2	3	3	6	3	3.8	10.2
25-Jun	3	2	2	4	A	11	6	4	4	3	3	4	4	3	4	4	1	1	1	1	3	3	3	2	3.4	11.0
26-Jun	3	1	2	2	A	8	3	3	3	5	7	8	9	10	1	1	4	3	2	1	1	1	2	1	3.6	10.0
27-Jun	1	2	2	1	A	8	6	2	2	2	3	4	1	1	1	2	1	1	2	2	2	5	5	4	2.6	7.8
28-Jun	3	5	5	6	A	13	6	11	5	2	1	1	1	1	1	2	2	2	3	1	2	3	4	2	3.6	13.0
29-Jun	2	5	5	3	A	9	5	16	22	2	1	2	38	2	2	1	1	2	3	1	5	5	9	3	6.4	38.4
30-Jun	5	6	6	5	A	12	6	6	5	4	2	2	1	2	1	1	1	1	1	2	4	2	6	4	3.7	11.6
4.8 5.0 5.0 5.7 -- 11.1 7.2 6.8 5.2 4.7 4.6 3.0 5.6 2.5 2.3 2.0 1.7 1.7 2.2 2.6 3.4 4.2 4.5 4.4																									Diurnal Average	
10.2 15.0 15.2 17.8 -- 22.4 17.9 20.2 22.1 39.2 34.6 8.0 46.3 11.9 13.2 7.4 3.7 2.9 7.9 4.8 11.3 14.6 10.1 12.1																										Diurnal Maximum
C - Calibration A - Automated Daily Zero Span																										

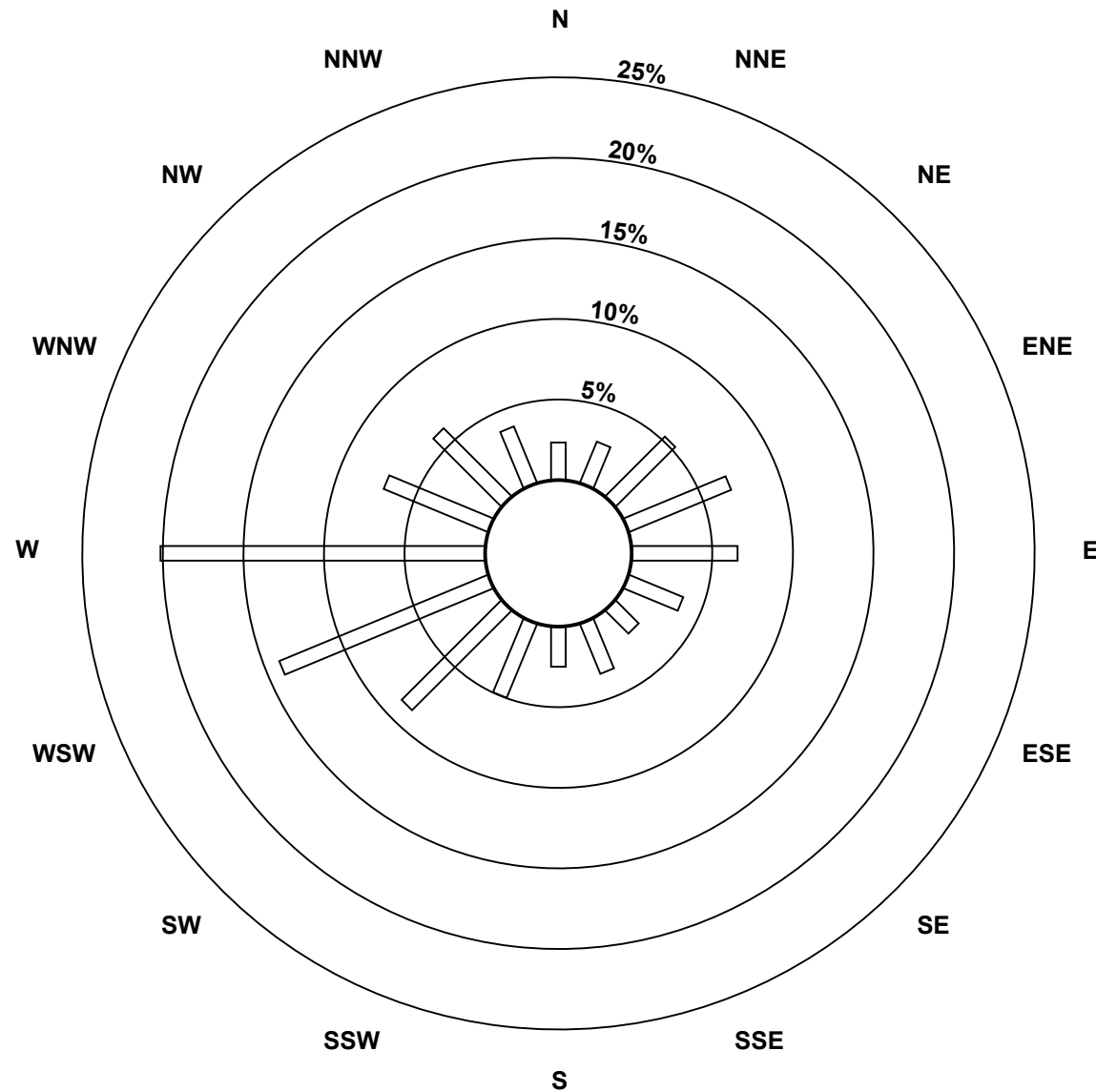
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - June 2018

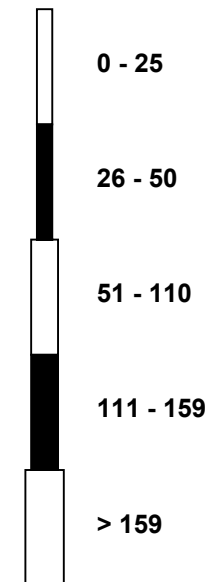


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - June 2018

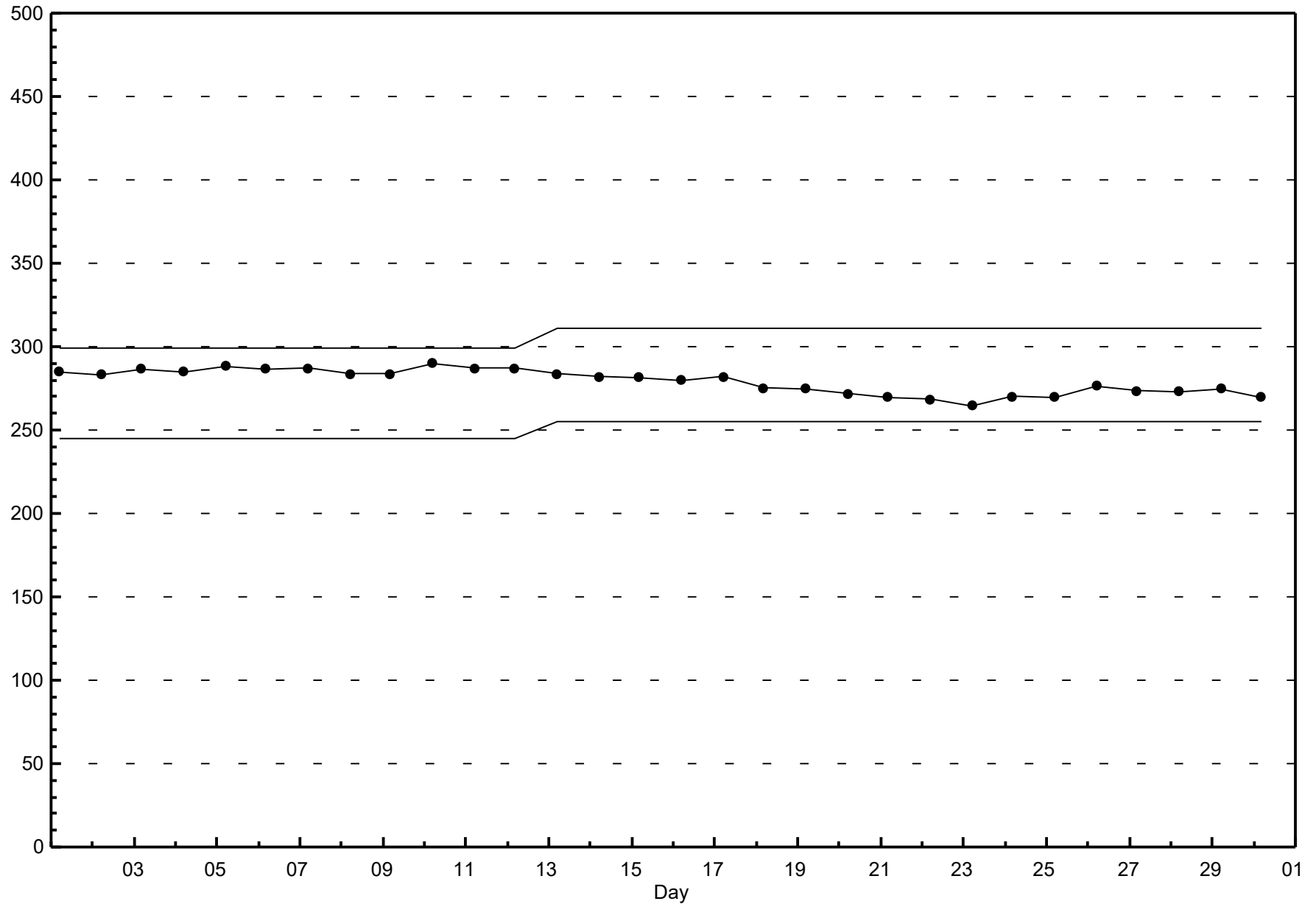


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - June 2018



Hourly Averages

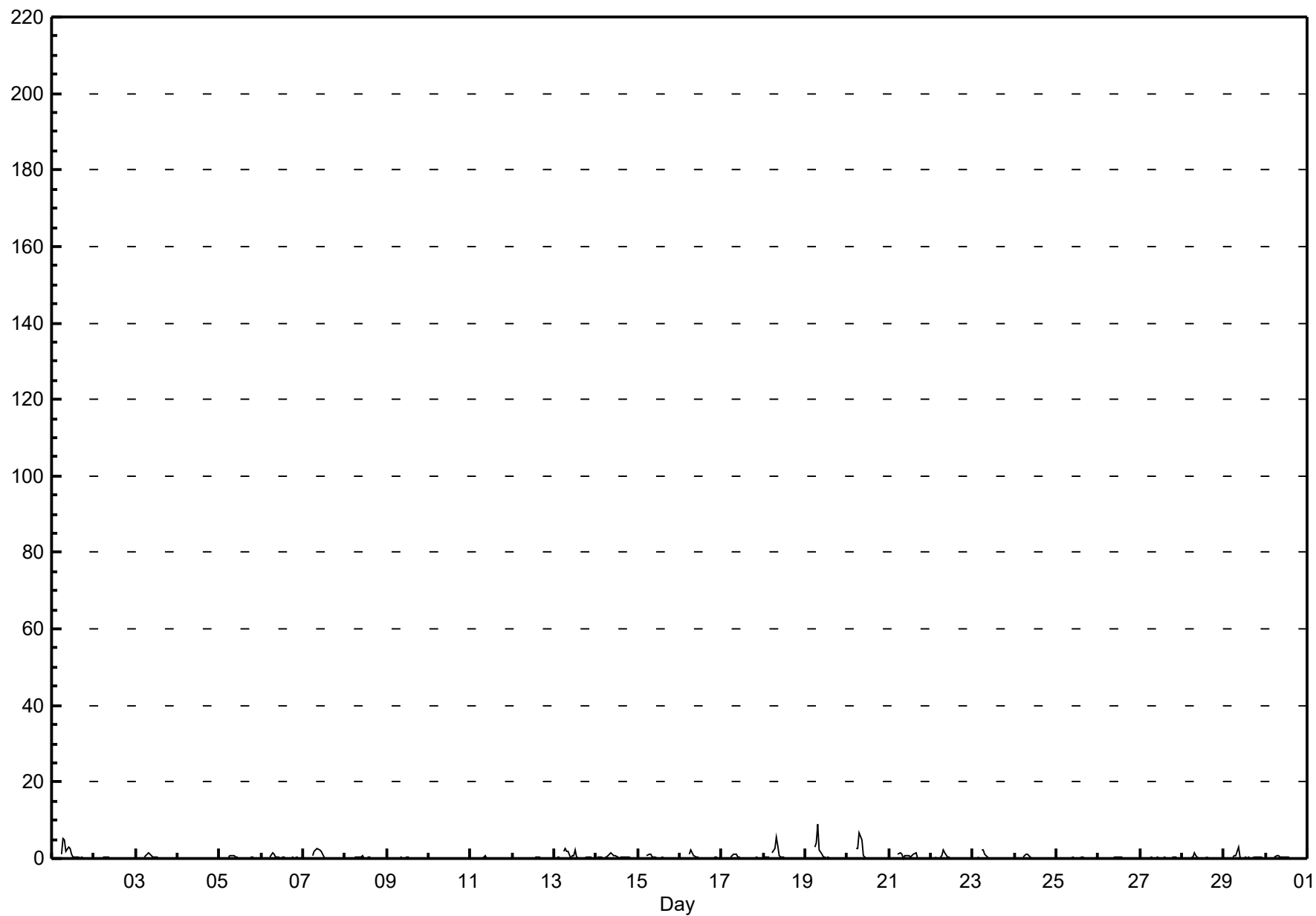
Nitrogen Oxide (NO) - ppb

Beaverlodge - June 2018

Maximum Value: 8.9 ppb on Jun 19 08:00																				Maximum Daily Average: 1.0 ppb on Jun 1										Hours in Service: 720	
Minimum Value: 0 ppb on Jun 2 23:00																				Minimum Daily Average: 0.1 ppb on Jun 10										Hours of Data: 685	
Maximum Diurnal Average: 1.6 ppb at hour 8																				Minimum Diurnal Average: 0.0 ppb at hour 1										Hours of Missing Data: 35	
Monthly Average: 0.34 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.8 P ₉₉ = 3.5										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-Jun	0	0	0	0	A	1	5	5	2	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1.0	5.3					
2-Jun	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	0.5					
3-Jun	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3					
4-Jun	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-Jun	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7					
6-Jun	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4					
7-Jun	0	0	0	0	A	1	2	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.6					
8-Jun	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8					
9-Jun	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					
10-Jun	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					
11-Jun	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8					
12-Jun	0	0	0	0	A	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5					
13-Jun	0	0	0	0	A	2	3	2	2	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0.7	2.8					
14-Jun	0	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.4					
15-Jun	0	0	0	0	A	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	1.2					
16-Jun	0	0	0	0	A	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.3					
17-Jun	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2					
18-Jun	0	0	0	1	A	1	3	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.5					
19-Jun	0	0	0	0	A	3	4	9	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	8.9					
20-Jun	0	0	0	0	A	3	3	7	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	6.7					
21-Jun	0	0	0	0	A	1	2	1	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0.5	1.5					
22-Jun	0	0	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.1					
23-Jun	0	0	0	0	A	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.2					
24-Jun	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1					
25-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4					
26-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4					
27-Jun	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					
28-Jun	0	0	0	0	A	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5					
29-Jun	0	0	0	0	A	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.1					
30-Jun	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6					
0.0 0.1 0.1 0.1 -- 0.7 1.2 1.6 1.1 0.5 0.5 0.3 0.3 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																									Diurnal Average						
0.1 0.4 0.4 0.5 -- 2.8 5.3 8.9 4.7 2.8 2.7 1.2 2.4 0.9 1.1 1.4 0.5 0.3 0.3 0.3 0.4 0.3 0.3 0.2 0.2																									Diurnal Maximum						
C - Calibration					A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - June 2018



Hourly Maximums

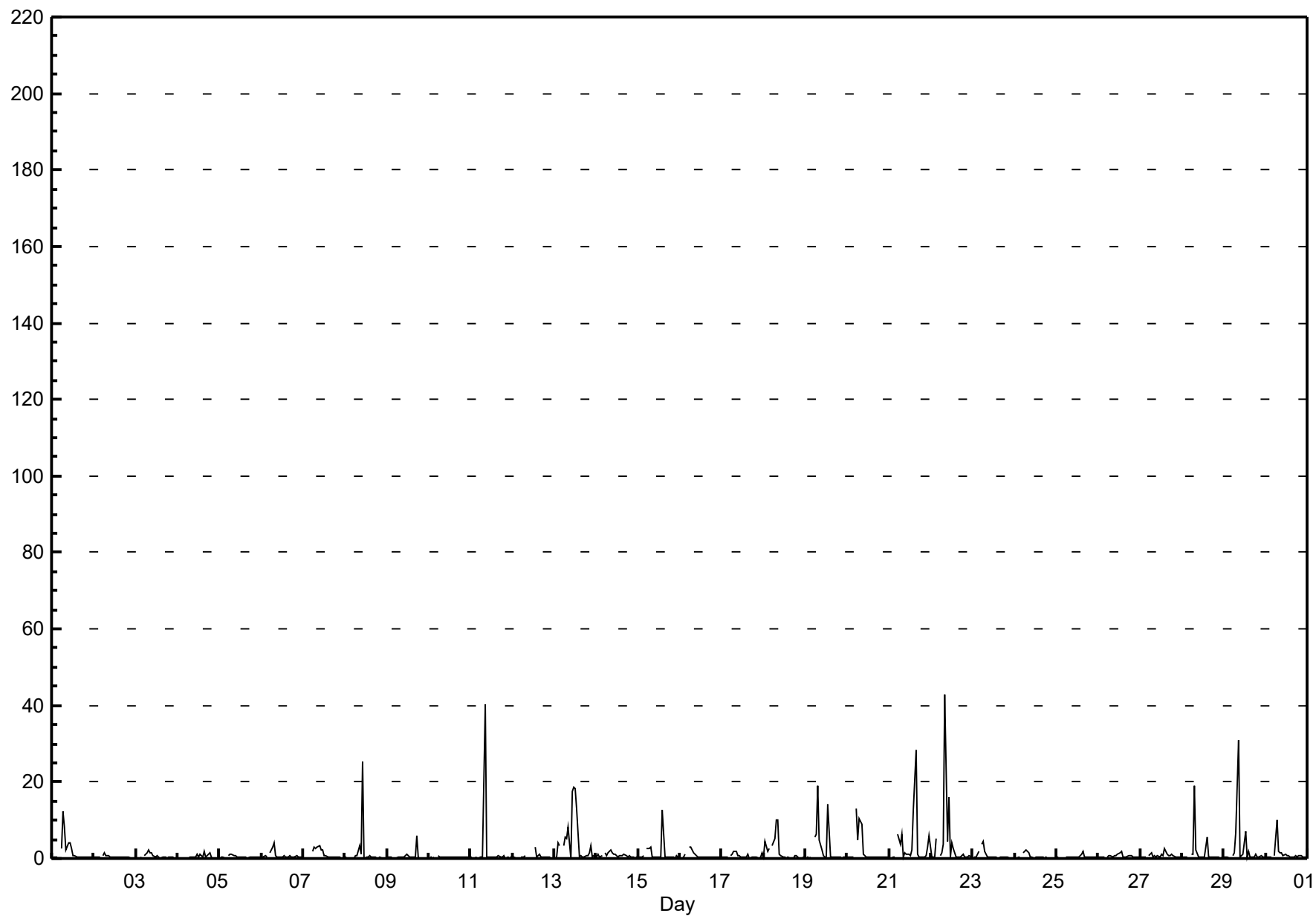
Nitrogen Oxide (NO) - ppb

Beaverlodge - June 2018

Maximum Value: 42.8 ppb on Jun 22 09:00																				Maximum Daily Average: 4.7 ppb on Jun 13					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 24 00:00																				Minimum Daily Average: 0.3 ppb on Jun 10					Hours of Data: 685	
Maximum Diurnal Average: 6.0 ppb at hour 9																				Minimum Diurnal Average: 0.2 ppb at hour 1					Hours of Missing Data: 35	
Monthly Average: 1.34 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.7 P ₉₀ = 2.6 P ₉₉ = 18.8					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-Jun	0	0	0	0	A	2	12	8	2	4	4	3	1	1	1	0	0	0	0	0	0	0	0	0	1.8	12.4
2-Jun	0	0	1	0	A	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
3-Jun	0	0	0	0	A	1	1	2	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.5	2.3
4-Jun	0	0	0	0	A	0	0	0	1	0	1	1	1	1	0	2	0	1	1	0	0	0	0	0	0.5	1.9
5-Jun	0	0	0	0	A	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	1.1
6-Jun	0	1	1	0	A	1	3	4	1	0	0	0	1	1	0	0	1	1	1	0	1	0	0	0	0.8	4.0
7-Jun	0	0	0	0	A	2	3	3	3	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	1.0	3.3
8-Jun	0	0	0	0	A	0	1	1	3	1	26	0	0	0	1	0	0	0	0	0	0	0	0	0	1.5	25.5
9-Jun	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	6	0	0	0	0	0	0	0.6	6.0
10-Jun	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
11-Jun	0	0	0	0	A	0	0	0	40	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2.1	40.4
12-Jun	0	0	0	0	A	0	0	1	C	C	C	C	C	3	1	1	0	0	0	1	0	0	0	0	0.5	3.1
13-Jun	0	0	4	3	A	3	6	5	8	0	18	19	18	13	0	1	0	0	1	1	1	3	0	1	4.7	18.8
14-Jun	0	1	0	1	A	1	1	1	2	2	1	1	0	1	1	1	1	1	0	1	0	0	0	0	0.8	2.1
15-Jun	0	0	0	1	A	3	3	3	1	1	0	0	0	0	13	0	0	0	1	0	0	0	1	1	1.3	12.8
16-Jun	0	0	0	1	A	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	3.2
17-Jun	0	0	0	0	A	1	1	2	2	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0.6	1.9
18-Jun	0	4	2	3	A	3	5	10	10	1	1	0	0	0	0	0	0	0	1	1	0	0	0	1	1.9	10.2
19-Jun	0	0	0	0	A	6	6	19	5	2	1	1	0	14	0	0	0	0	0	0	0	0	0	0	2.5	19.1
20-Jun	0	0	0	0	A	13	5	11	9	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1.9	12.9
21-Jun	0	0	0	0	A	6	4	6	0	1	1	1	1	2	13	28	1	0	0	0	0	1	3	6	3.4	28.4
22-Jun	0	0	0	5	A	1	2	4	43	5	16	0	4	3	0	0	0	0	1	0	0	0	1	0	3.8	42.8
23-Jun	0	0	0	2	A	4	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	4.3
24-Jun	0	0	0	0	A	2	2	2	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.5	2.3
25-Jun	0	0	0	0	A	0	0	0	0	1	1	1	0	1	1	2	0	0	0	0	1	0	0	0	0.5	1.8
26-Jun	0	0	0	0	A	0	1	1	1	1	1	1	1	2	0	0	1	1	1	1	0	0	0	0	0.6	1.8
27-Jun	0	0	0	0	A	1	1	0	1	0	1	1	1	1	3	1	1	1	1	1	0	1	0	0	0.7	2.5
28-Jun	0	0	0	1	A	1	1	19	2	0	0	0	0	0	6	0	0	0	1	0	0	0	0	0	1.5	19.0
29-Jun	0	0	0	0	A	1	1	7	31	0	1	1	7	1	2	0	0	0	1	0	0	1	1	0	2.5	31.1
30-Jun	0	0	0	0	A	1	10	2	1	2	1	1	1	1	0	0	0	1	1	1	1	0	0	1	1.1	9.9
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - June 2018



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

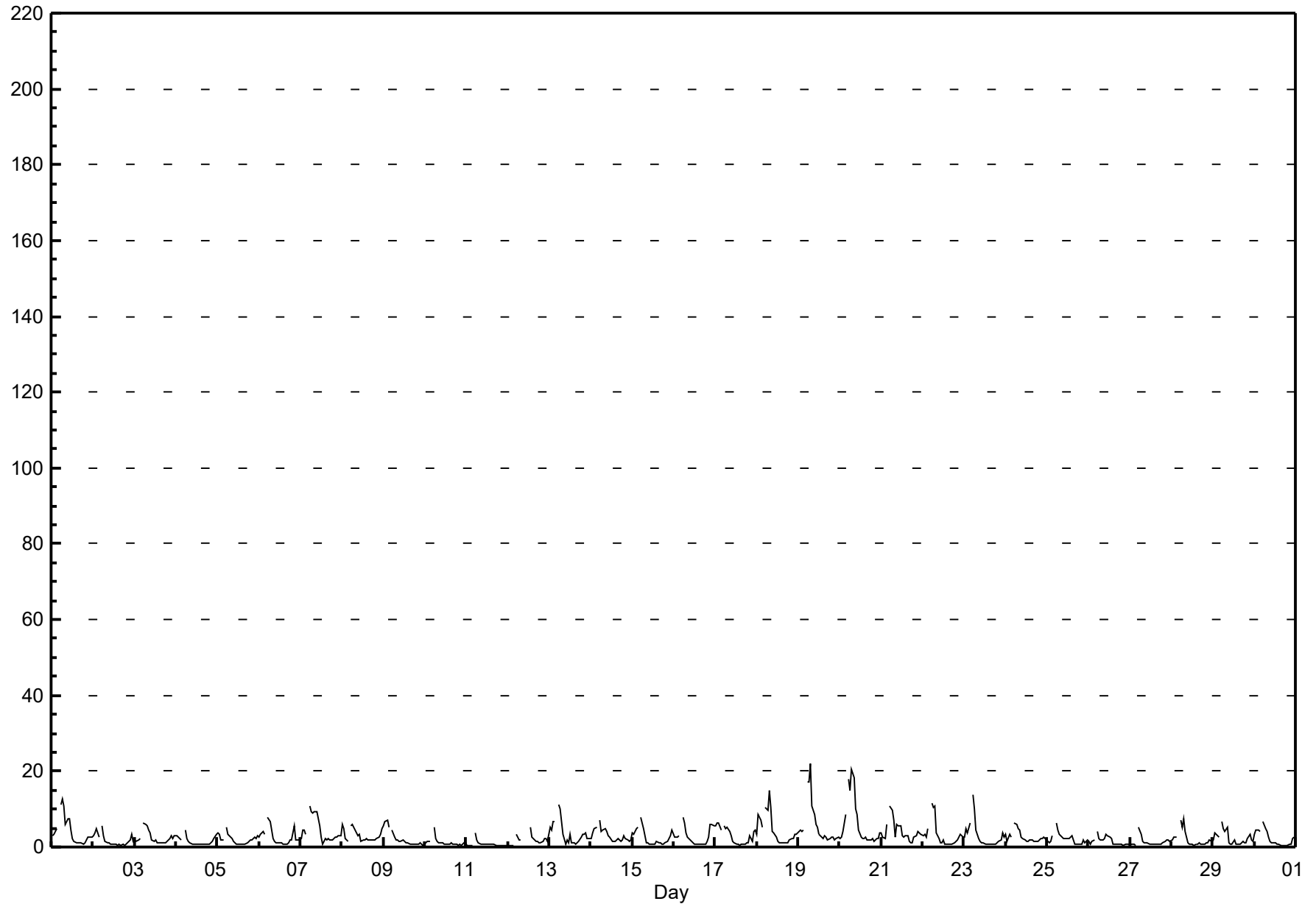
Beaverlodge - June 2018

Maximum Value: 21.9 ppb on Jun 19 08:00																				Maximum Daily Average: 6.1 ppb on Jun 20					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 11 23:00																				Minimum Daily Average: 0.7 ppb on Jun 11					Hours of Data: 685	
Maximum Diurnal Average: 7.9 ppb at hour 6																				Minimum Diurnal Average: 1.0 ppb at hour 18					Hours of Missing Data: 35	
Monthly Average: 2.77 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.7 Q ₁ = 1.0 Median = 1.9 Q ₃ = 3.4 P ₉₀ = 5.8 P ₉₉ = 14.9					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-Jun	3	3	4	5	A	11	13	11	6	7	7	4	2	2	1	1	1	1	1	1	2	3	3	3	4.1	12.8
2-Jun	3	4	5	3	A	6	3	2	1	1	1	1	1	1	1	1	0	1	1	1	1	2	3	2	1.8	5.6
3-Jun	2	1	2	2	A	6	6	6	5	4	2	1	2	1	1	1	1	1	1	1	2	3	2	3	2.5	6.2
4-Jun	3	3	2	2	A	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1.5	4.4
5-Jun	4	3	2	2	A	5	3	3	2	1	1	1	1	1	1	1	1	1	2	2	2	3	2	3	2.0	5.3
6-Jun	3	3	4	4	A	8	7	4	2	1	1	1	1	1	1	1	1	1	2	2	6	2	2	2	2.5	7.9
7-Jun	2	4	4	3	A	11	9	9	9	9	7	5	3	1	2	2	2	2	2	2	3	2	3	3	4.4	10.8
8-Jun	6	5	2	1	A	6	6	5	4	3	3	1	2	2	2	2	2	2	2	2	2	3	3	5	3.1	6.0
9-Jun	5	7	7	5	A	4	3	2	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	0	2.2	7.1
10-Jun	1	2	1	2	A	5	2	2	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1.2	5.2
11-Jun	0	0	0	0	A	4	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.7	3.7
12-Jun	0	0	0	0	A	3	2	2	C	C	C	C	C	5	3	2	1	1	1	1	2	2	2	2	1.7	5.3
13-Jun	5	4	7	7	A	11	10	7	3	1	2	1	3	1	1	1	1	1	3	3	3	4	2	2	3.7	11.2
14-Jun	2	4	5	5	A	7	4	5	5	4	3	3	2	2	2	2	2	1	2	3	2	2	2	2	3.0	7.2
15-Jun	4	3	5	5	A	8	5	3	1	1	1	1	1	1	1	1	1	1	1	1	2	3	5	2.4	7.7	
16-Jun	3	3	2	3	A	8	6	4	3	2	1	1	1	1	1	1	1	1	1	1	3	6	6	6	2.7	7.9
17-Jun	6	6	6	5	A	6	5	5	4	3	1	1	1	1	1	1	1	1	1	1	3	2	4	5	2.9	6.5
18-Jun	3	8	7	5	A	11	10	15	10	4	4	3	1	1	1	1	1	1	1	2	2	2	3	3	4.4	15.0
19-Jun	4	5	4	4	A	17	17	22	11	9	6	5	3	3	2	3	3	2	2	3	3	2	2	3	5.8	21.9
20-Jun	2	3	4	9	A	18	15	21	18	10	9	5	3	2	2	3	2	2	2	2	1	2	2	4	6.1	20.6
21-Jun	4	3	2	6	A	11	10	7	2	6	5	6	3	3	3	3	1	1	1	2	3	4	4	3	4.1	10.8
22-Jun	3	3	2	5	A	12	10	11	4	2	1	1	2	1	1	1	1	1	1	2	2	2	3	2	3.2	11.6
23-Jun	3	5	4	6	A	14	10	4	2	2	1	1	1	1	1	1	1	1	1	1	1	2	4	3	2.9	13.7
24-Jun	3	2	3	3	A	6	6	5	5	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2.7	6.5
25-Jun	2	1	1	3	A	6	4	3	3	2	2	2	2	2	3	2	1	1	1	1	1	2	1	2	2.1	6.5
26-Jun	2	1	1	2	A	4	2	2	2	2	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1.6	4.3
27-Jun	0	1	1	0	A	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.3	5.2
28-Jun	2	2	3	2	A	7	5	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2.0	7.3
29-Jun	2	4	3	3	A	7	5	4	5	1	1	1	2	1	1	1	1	1	1	1	2	3	2	1	2.3	6.5
30-Jun	3	5	4	4	A	7	5	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2.2	6.6
2.8 3.3 3.4 3.6 -- 7.9 6.4 5.9 4.1 3.0 2.5 1.9 1.6 1.3 1.3 1.2 1.1 1.0 1.2 1.4 1.9 2.1 2.4 2.5																									Diurnal Average	
6.0 8.4 7.1 8.7 -- 17.7 17.2 21.9 18.1 10.2 8.7 5.6 3.3 5.3 3.0 2.9 2.6 1.9 2.8 3.2 5.5 5.8 6.1 5.8																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - June 2018



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

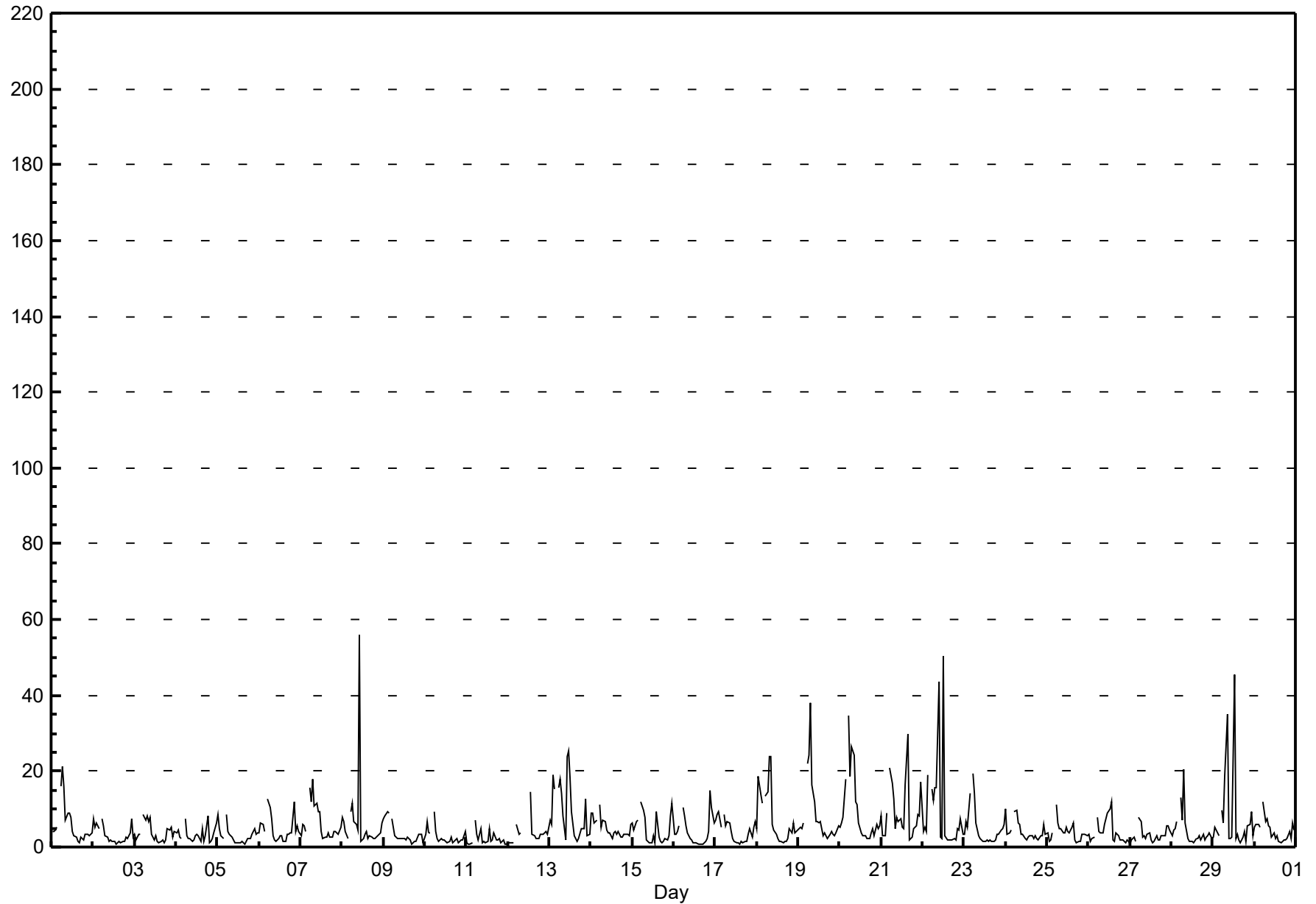
Beaverlodge - June 2018

Maximum Value: 56.0 ppb on Jun 8 11:00																				Maximum Daily Average: 9.8 ppb on Jun 22										Hours in Service: 720	
Minimum Value: 1 ppb on Jun 11 02:00																				Minimum Daily Average: 2.1 ppb on Jun 11										Hours of Data: 685	
Maximum Diurnal Average: 12.3 ppb at hour 6																				Minimum Diurnal Average: 2.0 ppb at hour 17										Hours of Missing Data: 35	
Monthly Average: 5.26 ppb																				Percentiles: P ₁ = 0.9 P ₁₀ = 1.4 Q ₁ = 2.1 Median = 3.5 Q ₃ = 6.2 P ₉₀ = 10.7 P ₉₉ = 30.7										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-Jun	4	4	4	5	A	16	21	16	7	9	9	8	4	3	3	1	1	2	2	3	3	3	3	4	6.0	21.4					
2-Jun	7	5	6	5	A	8	6	3	2	2	2	1	1	1	2	1	1	1	1	3	2	4	7	3	3.3	7.6					
3-Jun	4	2	3	3	A	9	7	8	7	8	3	2	3	1	1	2	2	1	2	5	4	5	3	4	3.9	8.8					
4-Jun	4	5	3	2	A	7	3	2	2	1	2	3	3	3	2	5	2	3	8	1	2	2	4	6	3.3	8.2					
5-Jun	9	5	3	2	A	9	4	3	3	2	1	1	1	1	1	1	1	2	2	2	3	5	3	4	3.0	8.7					
6-Jun	4	6	6	4	A	13	10	7	3	2	2	2	3	3	2	1	3	3	4	4	12	4	6	4	4.7	12.7					
7-Jun	3	6	6	4	A	16	12	18	11	12	9	9	4	2	3	2	4	3	3	4	4	4	4	5	6.3	18.0					
8-Jun	8	7	4	2	A	9	11	7	6	5	56	2	2	3	4	2	3	3	2	2	3	3	4	6	6.7	56.0					
9-Jun	7	8	9	9	A	7	3	3	2	2	2	2	2	2	3	2	1	1	2	2	3	3	3	1	3.5	9.2					
10-Jun	3	7	4	4	A	9	4	2	1	2	2	2	1	1	1	2	1	1	2	1	1	2	2	4	2.7	9.2					
11-Jun	1	1	1	1	A	7	3	2	5	1	2	1	2	5	2	2	4	2	2	2	1	2	1	1	2.1	7.0					
12-Jun	1	1	1	1	A	6	3	4	C	C	C	C	C	14	3	3	2	2	2	3	3	4	4	3	3.5	14.5					
13-Jun	7	6	19	15	A	16	18	14	8	2	24	25	18	9	3	2	2	2	5	5	5	13	3	3	9.8	25.5					
14-Jun	9	9	6	7	A	11	5	7	7	5	4	4	2	4	4	3	4	3	2	3	3	3	3	6	5.0	11.2					
15-Jun	6	4	7	7	A	12	10	8	2	2	1	1	3	1	9	2	2	1	1	2	2	3	8	11	4.7	11.9					
16-Jun	3	3	4	6	A	10	8	5	4	2	2	1	1	1	1	1	1	1	1	2	4	15	10	6	4.1	15.0					
17-Jun	7	9	9	5	A	9	6	7	6	4	2	1	1	1	1	2	1	1	2	3	5	3	5	7	4.2	9.2					
18-Jun	5	19	14	12	A	13	15	24	24	6	4	3	2	2	2	1	2	2	2	5	4	6	4	4	7.5	24.0					
19-Jun	5	5	5	6	A	22	24	38	16	12	7	7	6	7	3	4	3	2	3	4	4	3	4	6	8.5	38.1					
20-Jun	5	6	8	18	A	35	19	27	24	12	11	6	4	3	3	3	2	2	4	5	3	6	5	6	9.4	34.8					
21-Jun	8	3	3	9	A	21	17	13	5	8	7	7	5	5	16	30	2	2	3	5	6	9	8	17	9.0	29.9					
22-Jun	4	5	4	19	A	15	12	16	16	44	3	2	50	3	2	2	2	2	2	2	5	5	8	3	9.8	50.3					
23-Jun	3	7	5	14	A	19	14	6	3	2	2	2	2	2	1	2	1	2	2	3	3	4	5	6	4.8	19.4					
24-Jun	10	3	4	4	A	9	10	6	6	4	3	2	2	2	3	3	2	3	2	2	3	3	6	3	4.2	10.2					
25-Jun	4	2	2	4	A	11	6	5	5	4	4	5	4	4	5	6	2	1	1	1	3	3	3	3	3.8	11.1					
26-Jun	3	1	2	2	A	8	4	4	4	6	7	9	10	12	2	2	4	3	2	2	2	1	2	1	4.1	11.9					
27-Jun	1	2	3	2	A	8	7	3	3	2	3	4	2	1	2	3	2	2	3	3	3	6	5	4	3.1	7.8					
28-Jun	3	5	5	7	A	13	7	21	6	2	1	1	2	1	2	2	3	2	3	2	3	3	4	2	4.3	20.6					
29-Jun	3	5	5	3	A	10	6	19	35	2	2	3	46	2	3	2	1	3	4	2	6	6	9	3	7.7	45.6					
30-Jun	5	6	6	5	A	12	7	8	6	5	3	4	2	3	1	1	2	2	2	2	4	2	6	5	4.3	11.9					
																								Diurnal Average							
																								Diurnal Maximum							
C - Calibration																								A - Automated Daily Zero Span							

Hourly Maximums

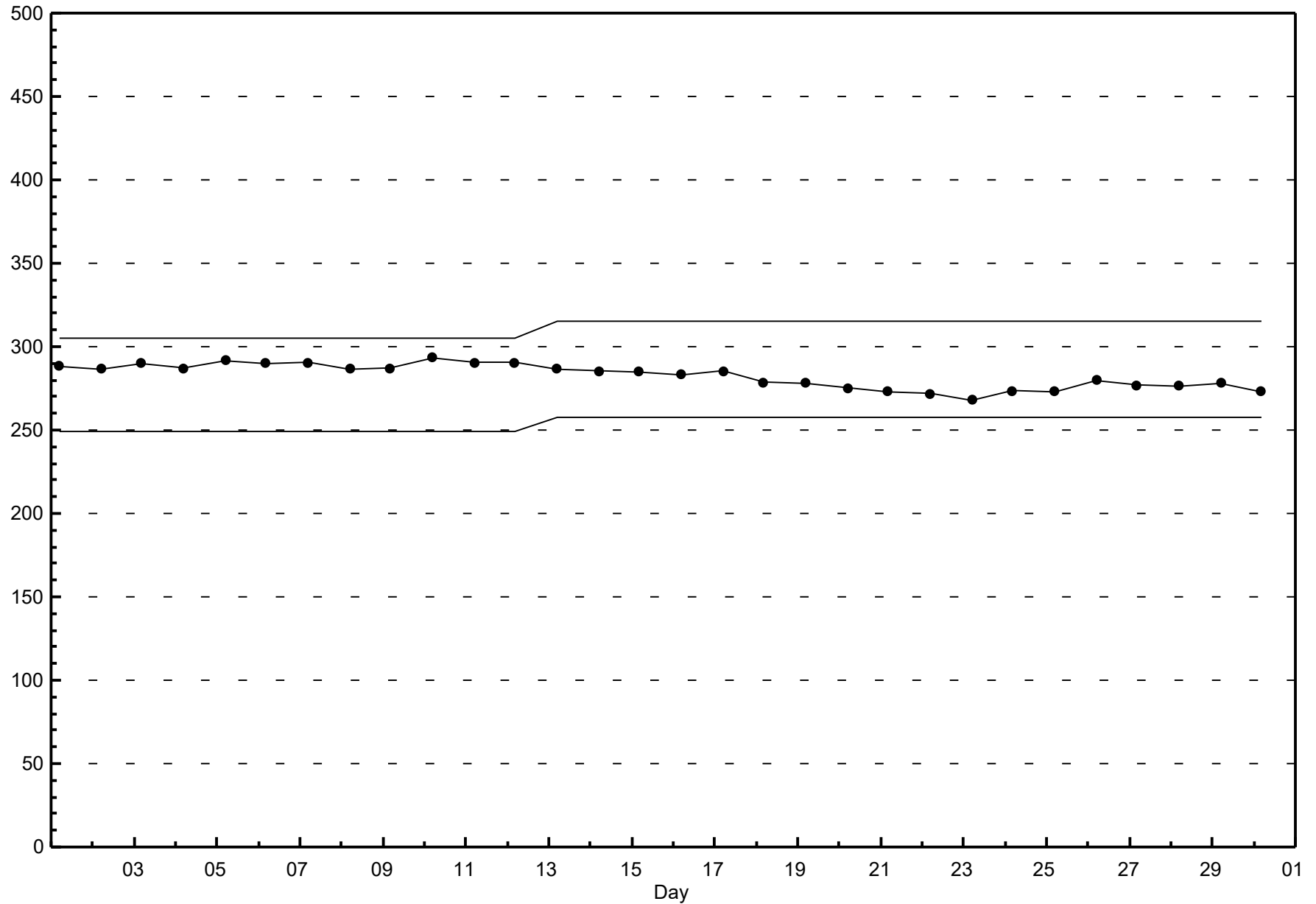
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - June 2018



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - June 2018



Hourly Averages

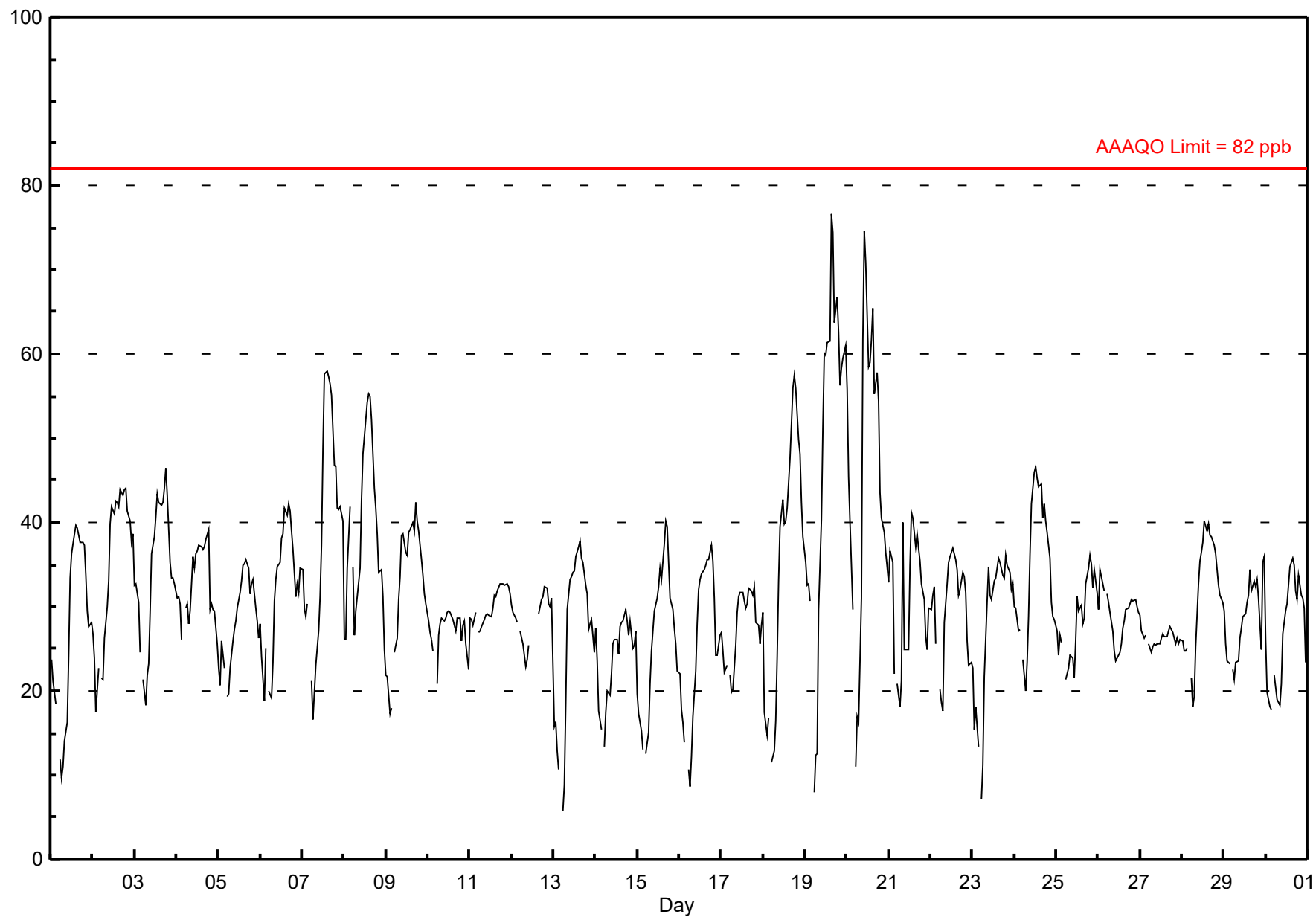
Ozone (O₃) - ppb

Beaverlodge - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 76.6 ppb on Jun 19 16:00 Maximum Daily Average: 48.1 ppb on Jun 19																								Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0		
Minimum Value: 6 ppb on Jun 13 06:00 Maximum Diurnal Average: 39.3 ppb at hour 16 Monthly Average: 31.37 ppb												Minimum Daily Average: 24.0 ppb on Jun 14 Minimum Diurnal Average: 19.4 ppb at hour 7 Percentiles: P ₁ = 10.7 P ₁₀ = 19.8 Q ₁ = 25.6 Median = 30.4 Q ₃ = 35.8 P ₉₀ = 42.3 P ₉₉ = 62.8														
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-Jun	24	21	20	18	A	12	10	11	14	16	24	33	36	37	40	39	38	38	38	37	34	29	28	28	27.2	39.6
2-Jun	27	24	17	23	A	22	21	26	30	33	40	42	41	43	42	42	44	43	44	44	41	40	38	39	35.0	44.0
3-Jun	33	33	31	25	A	21	18	22	23	29	36	38	41	43	42	42	42	44	46	43	35	33	33	33	34.3	46.5
4-Jun	31	31	30	26	A	30	30	28	29	36	35	36	37	37	37	37	37	38	39	30	30	30	30	26	32.6	39.1
5-Jun	23	21	26	23	A	19	20	23	26	27	28	30	32	33	35	35	36	35	32	33	33	30	28	26	28.4	35.7
6-Jun	28	24	19	25	A	20	19	23	31	33	35	35	38	39	42	41	42	41	39	37	31	33	32	35	32.2	42.1
7-Jun	34	30	29	30	A	21	17	20	23	27	31	37	49	58	58	57	56	55	47	47	42	42	42	40	38.7	58.0
8-Jun	26	26	35	42	A	35	27	30	33	35	43	48	52	54	55	55	52	44	42	39	34	34	31	25	39.0	55.3
9-Jun	22	22	17	18	A	25	26	31	34	38	39	36	36	39	39	40	39	42	40	39	36	34	32	30	32.7	42.4
10-Jun	28	27	26	25	A	21	27	28	29	28	29	29	29	29	28	28	27	29	29	26	28	28	26	23	27.2	29.5
11-Jun	29	28	28	29	A	27	27	28	28	29	29	29	29	30	31	31	32	33	33	33	32	33	32	32	30.1	32.8
12-Jun	30	29	29	28	A	27	26	24	23	24	25	C	C	C	C	29	30	31	31	32	32	30	30	31	28.6	32.4
13-Jun	16	16	13	11	A	6	9	19	30	33	34	34	34	36	37	38	36	35	33	32	27	28	28	25	26.4	37.8
14-Jun	27	23	18	15	A	13	17	20	20	22	26	26	26	24	28	28	28	30	28	27	28	25	25	27	24.0	29.6
15-Jun	20	17	15	13	A	13	15	21	25	27	29	31	32	35	33	37	40	40	35	31	30	27	26	22	26.7	40.1
16-Jun	22	18	16	14	A	11	9	12	17	22	28	32	33	34	34	35	36	36	37	35	31	24	24	27	25.5	37.3
17-Jun	27	25	22	23	A	22	20	20	25	29	31	32	32	31	30	30	32	32	31	32	28	28	26	28	27.7	32.4
18-Jun	29	17	15	17	A	11	13	16	24	33	40	43	40	40	42	48	52	56	57	56	50	48	42	38	36.0	57.5
19-Jun	35	33	33	31	A	8	12	12	30	40	51	60	60	61	62	77	74	64	67	63	56	58	59	61	48.1	76.6
20-Jun	56	45	40	30	A	11	17	16	31	62	75	71	58	59	62	65	55	58	54	44	40	39	36	35	46.1	74.6
21-Jun	33	37	35	22	A	21	18	21	40	25	25	25	35	41	41	37	39	37	35	33	31	26	25	30	30.9	41.3
22-Jun	30	31	32	26	A	20	19	18	28	33	35	36	36	37	36	34	31	32	34	34	32	26	23	23	29.8	37.0
23-Jun	23	15	18	13	A	7	11	22	31	35	31	31	33	33	35	36	35	34	33	36	35	34	32	33	28.1	36.2
24-Jun	30	30	27	27	A	24	20	23	29	36	42	46	47	45	44	45	40	42	40	39	36	30	29	29	34.8	46.5
25-Jun	27	24	27	26	A	21	22	23	24	24	21	26	31	30	30	28	29	33	35	36	35	32	34	32	28.2	36.0
26-Jun	30	34	34	32	A	31	31	29	27	25	24	24	25	26	27	28	30	30	30	31	31	31	30	29	29.0	34.4
27-Jun	29	27	26	27	A	26	25	25	26	25	26	26	26	27	26	26	27	28	27	27	26	26	26	26	26.3	28.9
28-Jun	26	25	25	25	A	22	18	19	25	33	35	36	38	40	39	40	38	38	37	36	34	33	31	31	31.5	40.3
29-Jun	30	26	24	23	A	23	21	23	23	26	27	29	29	30	31	34	32	33	32	33	31	25	35	36	28.6	36.0
30-Jun	26	20	18	18	A	22	19	19	18	21	27	29	30	33	35	36	35	32	31	34	31	31	30	23	26.8	35.7
28.3 26.0 24.8 23.4 -- 19.7 19.4 21.8 26.5 30.3 33.4 35.6 36.7 38.1 38.7 39.3 38.9 38.7 37.9 36.5 34.0 32.3 31.5 30.7																								Diurnal Average		
55.7 45.4 40.1 41.9 -- 34.8 30.5 30.9 40.1 61.7 74.6 70.8 59.8 61.3 61.8 76.6 74.4 63.8 66.7 62.6 56.3 58.3 59.5 61.0																								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 - June 2018



Hourly Maximums

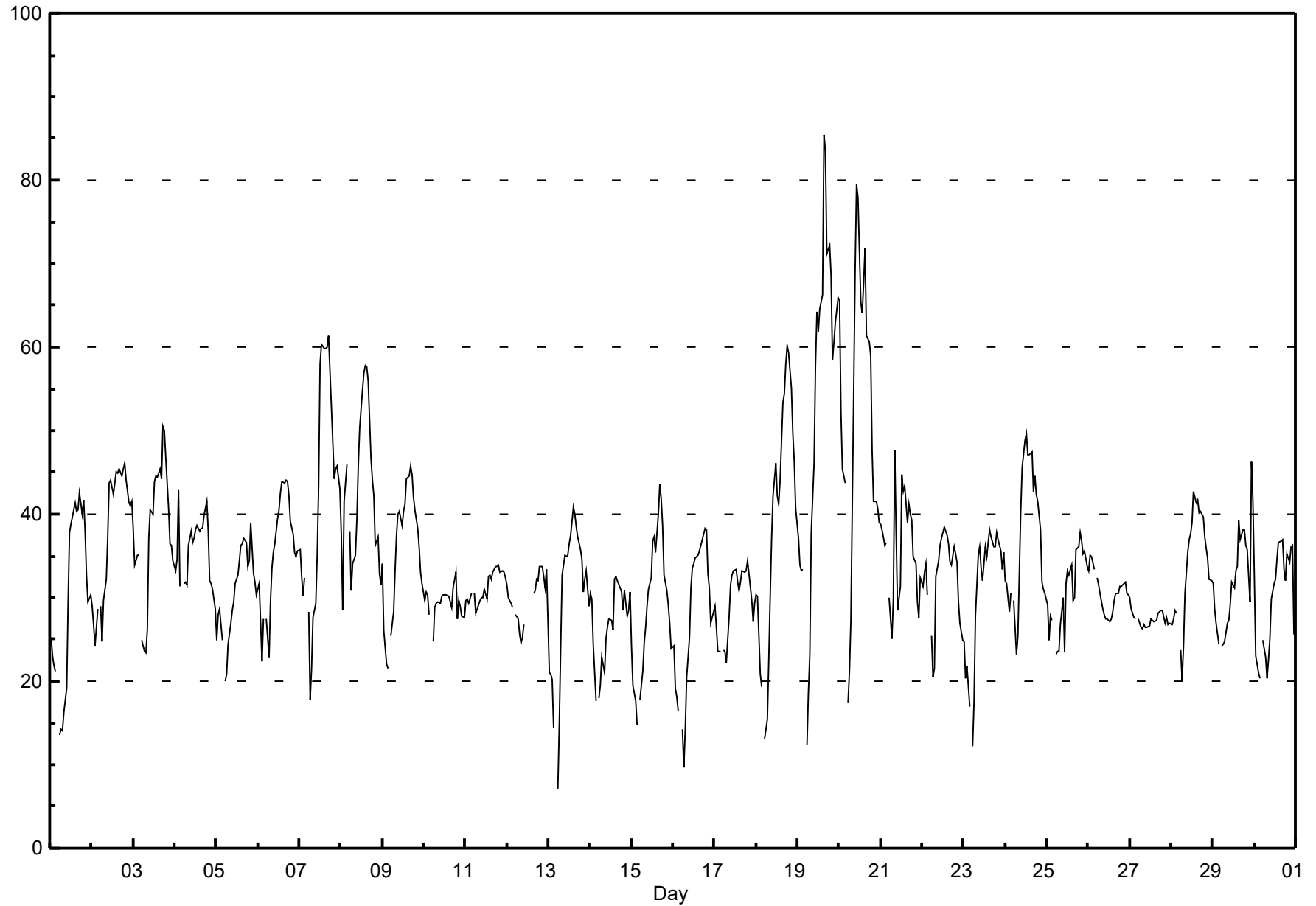
Ozone (O₃) - ppb

Beaverlodge - June 2018

Maximum Value: 85.4 ppb on Jun 19 16:00																								Hours in Service: 720		
Maximum Daily Average: 53.0 ppb on Jun 19																								Hours of Data: 686		
Minimum Value: 7 ppb on Jun 13 06:00																								Hours of Missing Data: 34		
Maximum Diurnal Average: 42.0 ppb at hour 16																								Hours of Calibration: 34		
Monthly Average: 34.35 ppb																								Percent Operational Time: 100.0		
Minimum Daily Average: 27.0 ppb on Jun 14																										
Minimum Diurnal Average: 22.6 ppb at hour 7																										
Percentiles: P ₁ = 14.3 P ₁₀ = 23.5 Q ₁ = 28.2 Median = 32.7 Q ₃ = 38.4 P ₉₀ = 45.5 P ₉₉ = 69.4																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jun	25	23	22	21	A	14	14	14	16	19	30	38	39	40	41	40	40	43	40	42	38	33	29	30	30.1	42.6
2-Jun	29	27	24	29	A	29	25	30	32	37	44	44	42	44	45	45	45	45	45	46	44	41	41	42	38.1	46.0
3-Jun	38	34	35	35	A	25	24	23	26	37	40	40	44	45	44	45	44	50	50	47	41	37	36	34	38.1	50.5
4-Jun	33	35	43	31	A	32	32	32	36	38	37	37	38	39	38	38	38	40	42	38	32	32	31	29	35.6	42.8
5-Jun	25	28	29	25	A	20	21	24	27	29	30	32	33	34	36	36	37	37	34	34	39	33	32	30	30.6	39.0
6-Jun	31	32	22	28	A	27	23	30	33	35	36	40	41	43	44	44	44	44	42	39	38	35	35	36	35.7	44.1
7-Jun	36	33	30	32	A	28	18	22	28	29	35	43	58	60	60	60	61	53	49	44	45	46	43	42.3	61.4	
8-Jun	38	28	42	46	A	38	31	34	35	39	46	50	55	57	58	56	47	44	42	36	37	33	32	42.6	57.9	
9-Jun	34	26	22	22	A	25	28	33	37	40	40	39	40	41	44	45	46	45	42	41	38	36	33	32	36.1	45.8
10-Jun	30	31	30	28	A	25	29	29	29	29	30	30	30	30	30	30	29	31	33	28	30	29	28	28	29.4	33.1
11-Jun	30	30	29	30	A	30	28	29	30	30	30	31	30	33	33	32	33	34	34	34	33	33	33	32	31.3	33.8
12-Jun	32	30	29	29	A	28	27	26	25	25	27	C	C	C	C	31	31	32	32	34	34	33	31	33	29.9	33.7
13-Jun	21	21	20	14	A	7	15	24	33	35	35	35	36	37	41	40	39	37	36	35	31	32	33	29	29.8	40.9
14-Jun	30	30	24	18	A	18	19	23	21	25	26	27	27	26	32	33	32	31	31	28	31	28	28	31	27.0	32.6
15-Jun	24	20	18	15	A	18	21	25	26	29	31	32	37	37	35	40	44	42	39	33	31	29	27	24	29.4	43.6
16-Jun	24	19	18	16	A	14	10	14	21	25	31	33	34	35	35	36	36	37	38	38	33	31	27	28	27.6	38.4
17-Jun	29	26	24	24	A	24	24	22	28	32	33	33	33	32	31	32	33	33	33	34	33	30	27	29	29.5	34.5
18-Jun	30	30	21	19	A	13	15	22	30	37	42	46	42	41	44	53	54	58	60	59	55	50	46	41	39.6	60.1
19-Jun	37	34	33	33	A	12	19	23	38	46	58	64	62	65	66	85	84	71	72	69	58	61	63	66	53.0	85.4
20-Jun	66	52	45	44	A	18	21	27	55	69	80	78	65	64	68	72	61	61	59	48	41	42	41	39	52.8	79.6
21-Jun	39	38	36	37	A	30	25	30	48	37	28	31	45	43	43	39	41	40	39	35	34	29	28	32	36.0	47.5
22-Jun	31	33	34	30	A	25	21	21	33	34	36	37	38	38	38	36	34	34	36	35	34	29	27	25	32.3	38.4
23-Jun	25	20	22	17	A	12	17	28	35	36	34	32	36	35	37	38	37	36	36	38	37	36	33	35	31.0	38.2
24-Jun	32	32	28	31	A	30	23	25	33	40	46	49	50	47	47	48	43	45	42	41	38	32	31	30	37.5	49.7
25-Jun	29	25	28	27	A	23	24	24	27	30	24	32	33	33	34	30	30	36	36	38	37	35	36	34	30.5	37.7
26-Jun	33	35	35	33	A	32	32	31	29	28	27	27	27	27	28	30	31	30	31	31	32	32	31	30	30.6	35.1
27-Jun	30	29	28	27	A	27	26	26	27	26	27	27	28	27	27	27	28	28	29	28	27	28	27	27	27.4	29.9
28-Jun	27	27	28	28	A	24	20	24	30	35	37	38	39	43	41	42	40	40	40	37	36	35	32	32	33.8	42.7
29-Jun	32	29	27	24	A	24	24	25	27	27	29	32	31	33	34	39	37	38	38	36	36	30	46	42	32.2	46.3
30-Jun	33	23	21	20	A	25	23	20	23	25	30	32	32	35	37	37	37	33	32	35	34	36	36	26	29.8	36.9
31.7 29.3 28.3 27.2 -- 23.3 22.6 25.3 30.6 33.6 35.9 38.3 39.5 40.1 41.1 42.0 41.5 41.3 40.6 39.1 36.8 34.9 34.3 33.4																								Diurnal Average		
65.6 52.1 45.4 46.0 -- 37.9 31.9 34.1 54.9 69.1 79.6 77.9 65.4 64.5 67.6 85.4 83.6 71.1 72.1 68.6 58.5 60.5 62.9 65.9																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

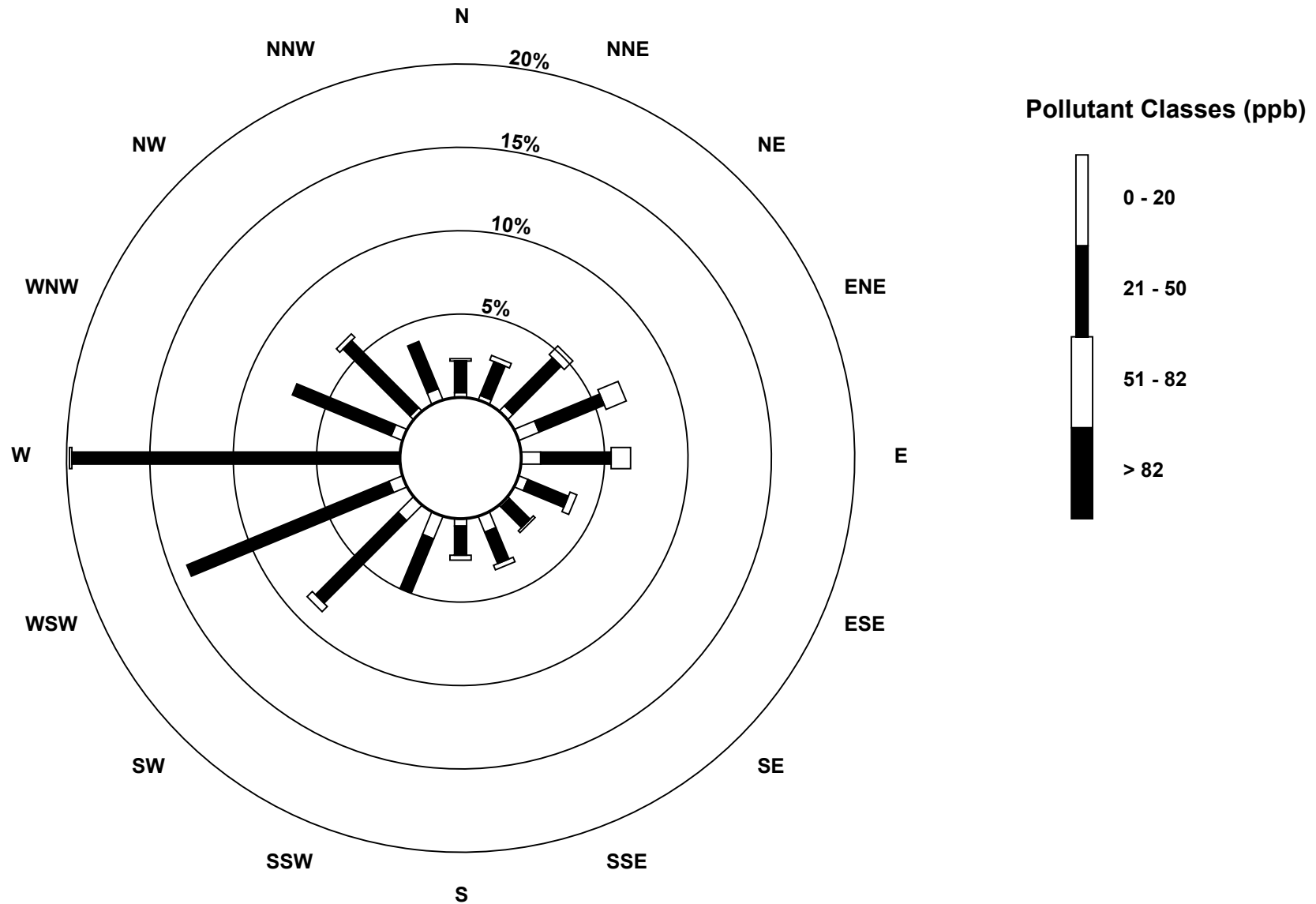
Ozone (O₃) - ppb
Beaverlodge - June 2018





Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - June 2018



Eight Hour Running Averages

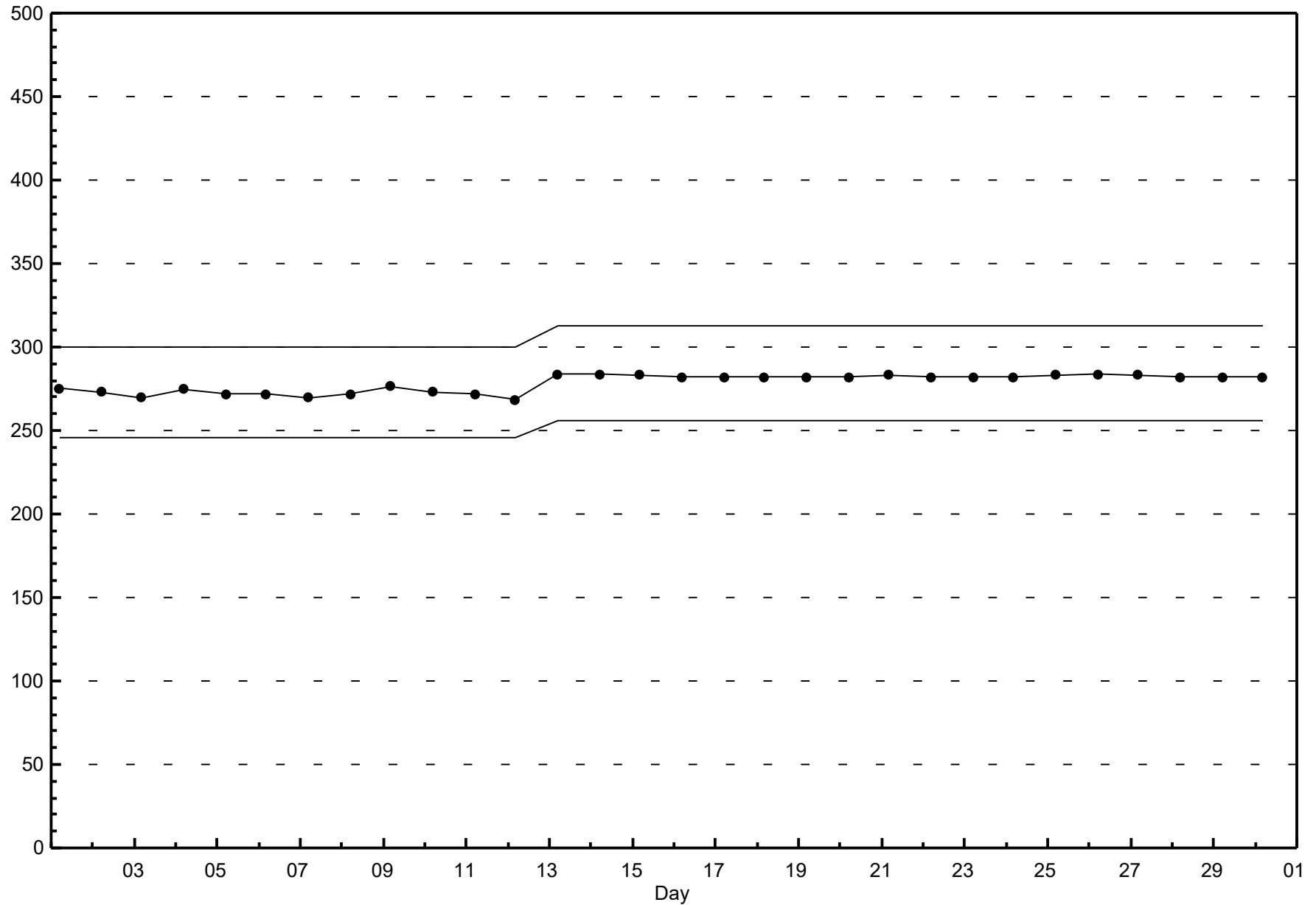
Ozone (O₃) - ppb

Beaverlodge - June 2018

Maximum Value: 65.8 ppb on Jun 19 20:00																								Hours in Service: 720	
Minimum Value: 12.7 ppb on Jun 13 08:00																								Hours of Data: 713	
																								Hours of Missing Data: 7	
Percentiles: P ₁ = 15.1 P ₁₀ = 22.7 Q ₁ = 25.8 Median = 30.0 Q ₃ = 34.6 P ₉₀ = 41.7 P ₉₉ = 62.9																								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-Jun	27	25	23	22	22	20	18	17	15	14	15	17	20	23	27	30	33	36	37	38	38	37	35	34	37.9
2-Jun	32	31	28	26	25	24	23	23	23	25	28	31	32	34	37	39	41	42	43	43	43	43	42	42	42.9
3-Jun	40	39	37	35	34	31	28	26	25	24	25	27	29	31	34	37	39	41	42	43	42	41	40	39	43.1
4-Jun	37	36	34	32	31	31	30	30	29	30	31	32	33	34	34	35	36	37	37	36	36	35	34	32	37.4
5-Jun	31	28	27	26	25	24	22	22	22	23	24	25	26	27	29	31	32	33	33	34	34	33	33	32	33.8
6-Jun	31	29	28	27	26	24	23	23	23	24	27	28	29	32	34	37	38	39	40	40	39	38	37	36	39.8
7-Jun	35	34	33	32	32	30	28	26	24	24	24	25	28	33	38	43	47	50	52	53	52	50	48	46	53.3
8-Jun	42	39	37	37	36	35	33	31	32	34	35	36	38	40	44	47	49	50	50	49	47	44	41	38	50.5
9-Jun	34	31	28	25	24	23	22	23	25	27	30	33	33	35	36	38	38	39	39	39	39	39	38	36	39.3
10-Jun	35	33	31	30	29	27	26	26	26	26	27	27	27	29	29	29	29	29	29	28	28	28	27	27	35.1
11-Jun	27	27	27	27	27	27	27	28	28	28	28	28	28	29	29	30	30	30	31	31	32	32	32	32	32.4
12-Jun	32	32	31	31	30	30	29	28	27	26	25	25	25	N	N	N	N	N	N	N	31	31	31	31	32.2
13-Jun	29	27	25	22	21	17	14	13	15	17	20	23	25	29	32	34	35	35	35	35	34	33	32	30	35.5
14-Jun	29	28	26	24	24	21	20	19	18	18	19	21	21	23	24	25	26	27	27	27	28	28	27	27	29.4
15-Jun	26	25	23	21	20	19	17	16	17	18	20	23	24	27	29	31	33	35	35	35	35	34	33	31	35.5
16-Jun	29	26	24	22	21	18	16	15	14	14	16	19	20	23	27	29	32	33	35	35	35	34	32	31	35.0
17-Jun	30	29	27	25	25	24	24	23	22	23	24	26	26	27	29	30	31	31	31	31	31	30	30	30	31.3
18-Jun	29	27	25	23	23	20	19	17	16	18	22	26	27	31	35	39	42	45	47	49	50	51	51	50	51.1
19-Jun	48	45	42	39	37	31	27	23	23	24	26	31	34	41	47	55	61	64	66	66	65	65	65	63	65.8
20-Jun	60	58	55	51	50	43	37	31	27	30	34	40	43	49	54	60	63	63	60	57	55	52	49	45	63.4
21-Jun	42	40	37	35	34	31	29	27	28	26	25	25	26	29	32	34	33	35	36	37	37	35	33	32	42.4
22-Jun	31	30	30	29	29	28	27	25	25	25	25	27	28	30	32	34	35	35	35	34	34	32	31	29	34.8
23-Jun	28	26	24	22	20	18	16	16	17	20	21	24	25	28	31	33	34	33	34	34	35	35	34	34	34.7
24-Jun	33	33	32	31	30	29	27	26	26	27	29	31	33	36	39	42	43	44	44	43	41	40	38	36	43.9
25-Jun	34	32	30	28	27	26	25	24	24	24	23	23	24	25	26	27	27	28	30	31	32	32	33	33	34.0
26-Jun	33	34	33	33	33	32	32	32	31	30	28	27	27	26	26	26	26	27	27	28	29	30	30	30	33.5
27-Jun	30	30	29	29	28	28	27	26	26	26	26	25	25	26	26	26	26	26	27	27	27	27	27	27	30.1
28-Jun	26	26	26	26	26	25	24	23	23	24	25	27	28	31	33	36	37	38	38	38	38	37	36	35	38.4
29-Jun	34	32	30	29	28	27	25	24	23	23	24	25	25	26	28	29	30	31	31	32	32	32	32	32	33.8
30-Jun	32	30	28	26	25	25	23	20	19	19	20	22	23	25	26	29	31	32	33	33	33	33	32	31	33.2
60.5 58.2 54.9 50.7 49.9 43.2 37.1 31.5 32.4 33.6 34.7 40.3 42.6 48.6 54.2 60.3 63.4 63.6 65.5 65.8 65.4 65.0 64.8 62.8																									Diurnal Maximums
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - June 2018

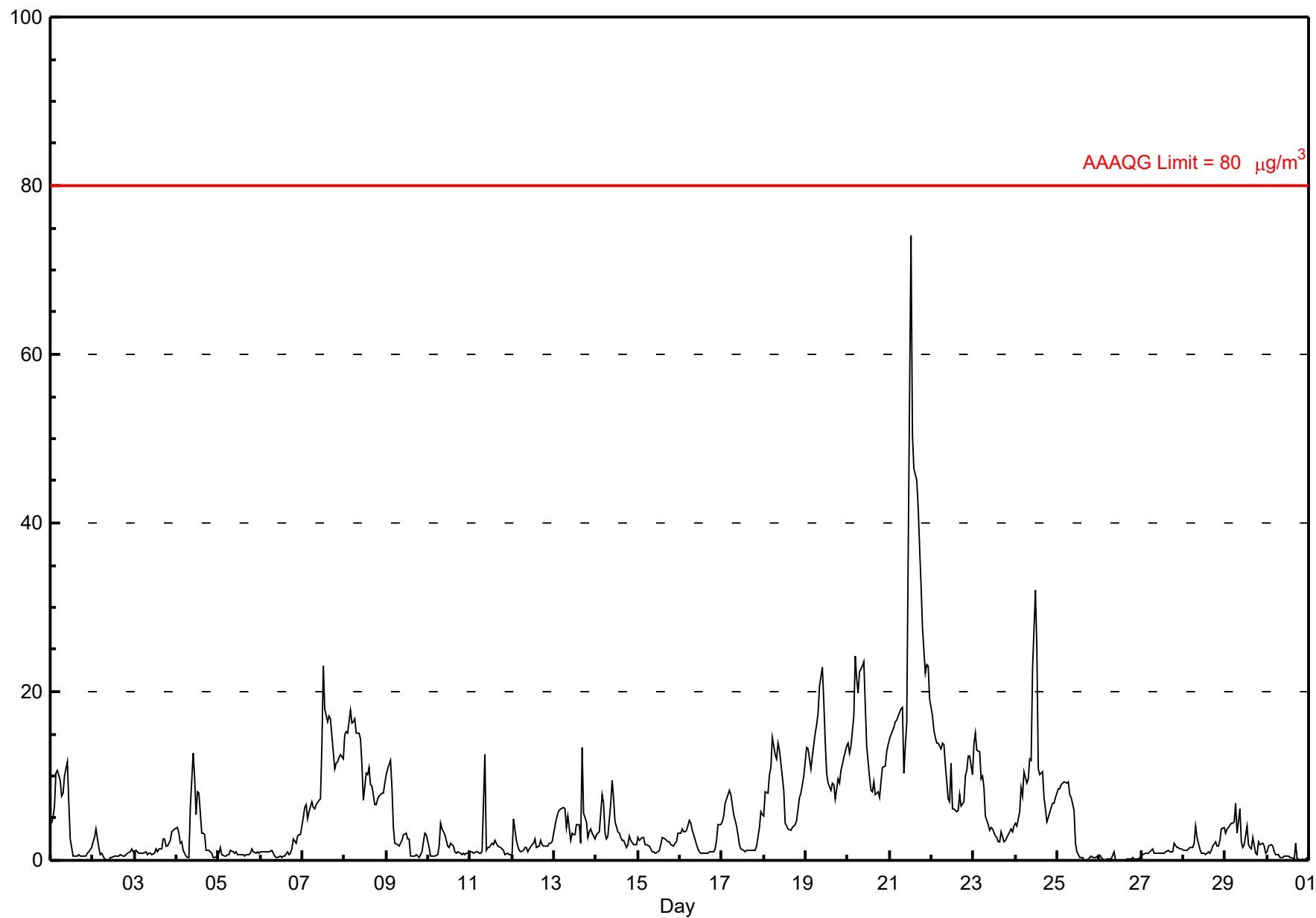


Hourly Averages

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

Beaverlodge - June 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 74.1 µg/m³ on Jun 21 13:00 Maximum Daily Average: 27.9 µg/m³ on Jun 21																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 0 µg/m³ on Jun 2 09:00 Maximum Diurnal Average: 6.8 µg/m³ at hour 13 Monthly Average: 5.30 µg/m³												Minimum Daily Average: 0.2 µg/m³ on Jun 26 Minimum Diurnal Average: 3.7 µg/m³ at hour 19 Percentiles: P ₁ = 0.0 P ₁₀ = 0.5 Q ₁ = 1.0 Median = 2.4 Q ₃ = 7.7 P ₉₀ = 13.6 P ₉₉ = 32.6														
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-Jun	4	5	6	10	11	10	8	8	10	12	7	3	1	1	0	0	1	1	0	0	1	1	1	1	4.3	11.7
2-Jun	2	3	4	2	1	1	1	0	0	0	0	0	0	1	0	1	1	0	1	1	1	1	1	1	0.9	3.8
3-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	2	2	3	4	4	1.6	3.7
4-Jun	4	3	2	2	1	1	0	0	6	13	10	5	8	8	3	3	3	1	1	1	1	0	0	0	3.3	12.7
5-Jun	1	2	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6
6-Jun	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	3	2	3	3	3	1.2	3.1
7-Jun	5	6	7	5	6	7	6	6	7	7	7	14	23	18	16	17	17	15	11	12	12	12	13	12	10.8	23.0
8-Jun	15	15	15	18	16	16	17	15	15	14	11	7	10	10	11	9	9	7	7	7	8	8	8	9	11.6	17.8
9-Jun	10	11	12	9	4	2	2	2	2	2	3	3	2	3	1	0	1	1	1	0	1	2	3	3	3.3	11.9
10-Jun	1	1	0	0	1	1	2	4	4	3	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1.4	4.4
11-Jun	1	1	1	1	1	1	1	1	12	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1.7	12.5
12-Jun	1	5	2	2	1	1	1	2	2	1	1	2	2	3	2	2	2	2	2	2	2	2	2	2	1.8	4.9
13-Jun	4	5	6	6	6	6	6	4	5	2	3	3	3	4	4	2	13	6	5	3	3	4	3	3	4.6	13.4
14-Jun	3	3	3	8	7	3	3	3	7	10	7	5	3	3	3	2	2	2	2	3	2	2	2	2	3.7	9.6
15-Jun	3	2	3	3	2	2	2	1	1	1	1	1	1	2	3	3	2	2	2	2	2	2	2	3	2.0	3.3
16-Jun	3	4	3	3	4	5	4	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	4	4	2.4	4.8
17-Jun	5	5	7	8	8	8	7	5	4	3	2	1	1	1	1	1	1	1	1	1	2	4	6	6	3.7	8.4
18-Jun	5	8	8	10	11	15	13	12	14	13	11	8	4	4	4	4	4	4	5	7	8	9	10	10	8.1	14.5
19-Jun	13	13	12	11	12	15	16	17	21	23	19	14	10	9	8	9	9	7	10	9	11	11	12	14	12.8	22.8
20-Jun	14	13	13	17	24	22	20	22	23	24	18	14	10	8	8	9	8	8	7	9	11	11	13	14	14.2	24.2
21-Jun	14	15	16	16	17	17	18	18	10	14	16	55	74	50	46	45	42	37	33	28	22	23	23	19	27.9	74.1
22-Jun	17	15	15	14	14	13	14	14	11	7	7	12	6	6	6	6	8	6	7	10	11	12	12	10	10.6	17.1
23-Jun	14	15	13	13	10	10	9	5	4	4	4	4	3	3	2	2	3	2	2	3	3	4	3	4	5.8	15.0
24-Jun	4	4	6	9	8	11	9	10	12	12	23	32	25	11	10	11	7	6	5	5	6	7	7	7	10.2	32.0
25-Jun	8	8	9	9	9	9	9	8	7	6	2	1	1	0	0	0	0	0	0	0	0	0	0	1	3.8	9.4
26-Jun	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
27-Jun	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1.0	2.0
28-Jun	1	1	1	1	1	2	2	4	3	1	1	1	1	1	1	1	1	2	2	2	2	2	4	4	1.7	4.1
29-Jun	3	4	4	4	4	5	7	3	6	2	2	2	4	2	1	1	3	1	1	2	2	2	2	1	2.8	6.8
30-Jun	1	2	2	2	1	1	1	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0.6	2.0
5.4 5.8 5.8 6.2 6.1 6.2 6.0 5.8 6.5 6.0 5.5 6.5 6.8 5.2 4.7 4.6 4.9 4.0 3.7 3.8 4.0 4.4 4.7 4.7																								Diurnal Average		
17.1 15.4 15.8 17.8 24.2 21.5 19.8 22.3 23.1 23.5 22.6 55.5 74.1 50.4 46.4 45.1 41.8 37.2 32.7 27.6 22.1 23.3 23.1 19.1																								Diurnal Maximum		
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										



Hourly Maximums

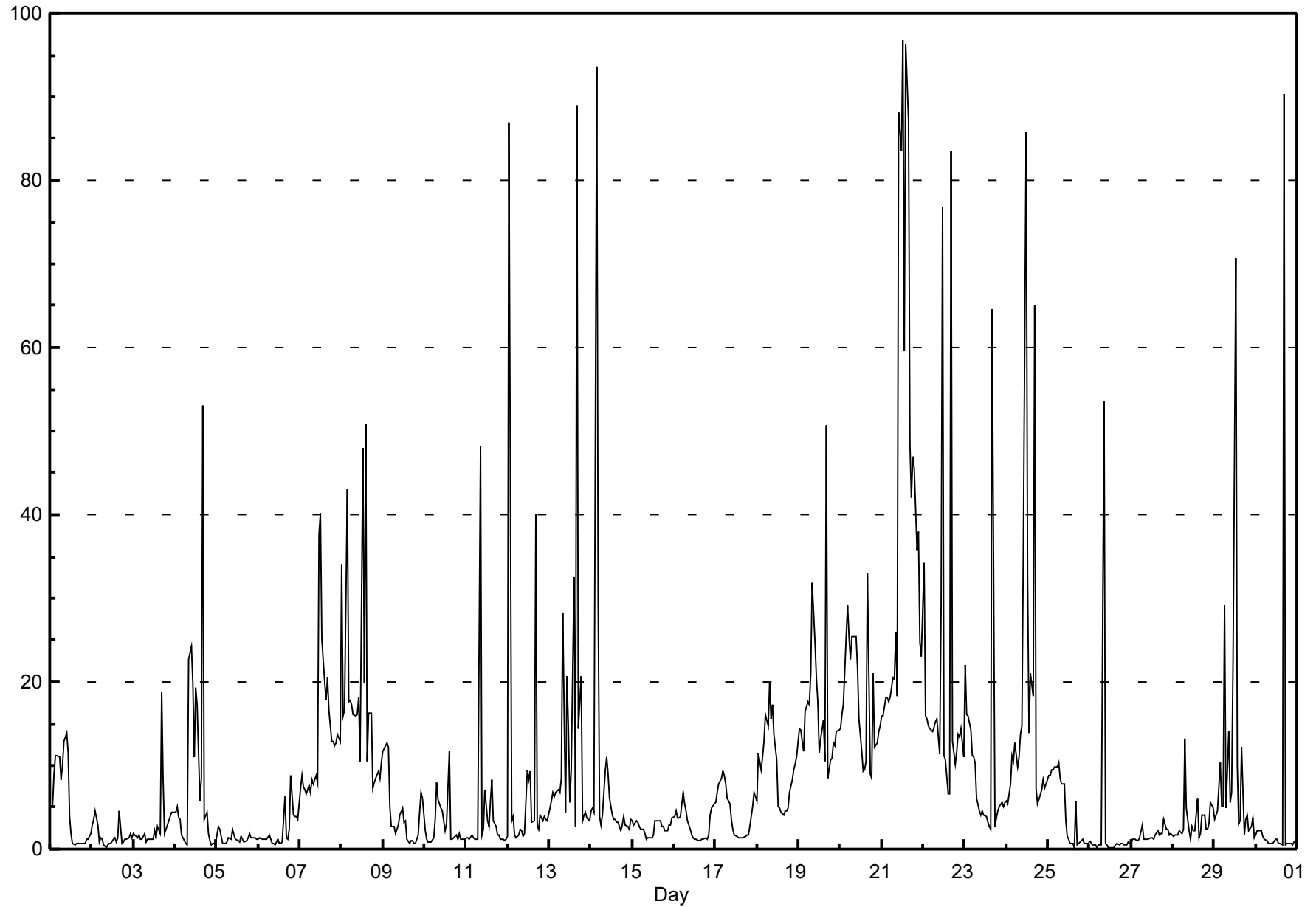
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - June 2018

Maximum Value: 96.7 μg/m ³ on Jun 21 13:00																								Maximum Daily Average: 41.9 μg/m ³ on Jun 21										Hours in Service: 720	
Minimum Value: 0 μg/m ³ on Jun 25 16:00																								Minimum Daily Average: 1.4 μg/m ³ on Jun 5										Hours of Data: 720	
Maximum Diurnal Average: 24.1 μg/m ³ at hour 17																								Minimum Diurnal Average: 5.3 μg/m ³ at hour 21										Hours of Missing Data: 0	
Monthly Average: 8.94 μg/m ³																								Percentiles: P ₁ = 0.4 P ₁₀ = 0.9 Q ₁ = 1.4 Median = 3.9 Q ₃ = 11.0 P ₉₀ = 19.8 P ₉₉ = 86.7										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-Jun	5	5	9	11	11	11	8	10	13	14	11	4	2	1	0	1	1	1	1	1	1	1	1	2	5.2	13.9									
2-Jun	3	4	5	3	1	1	1	0	0	0	1	1	1	1	1	1	5	1	1	1	1	1	2	1	1.6	4.6									
3-Jun	2	2	1	2	1	1	2	1	1	1	1	1	2	1	3	2	19	8	2	2	3	4	4	4	3.0	18.8									
4-Jun	4	5	4	4	2	1	1	0	23	24	20	11	19	17	6	9	53	4	4	2	1	0	1	1	9.0	53.1									
5-Jun	2	3	2	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1.4	2.7									
6-Jun	1	1	1	1	1	1	2	1	1	1	0	1	1	1	1	6	1	1	2	9	4	4	4	4	2.1	8.8									
7-Jun	7	9	8	7	7	8	7	8	8	9	8	38	40	25	20	18	21	17	13	13	12	13	14	13	14.2	40.1									
8-Jun	34	16	17	43	18	18	17	16	16	16	18	10	48	20	51	11	16	16	7	8	9	9	9	10	18.9	50.9									
9-Jun	12	12	13	12	5	3	3	2	2	3	4	5	3	3	1	1	1	1	1	1	2	4	7	6	4.4	12.7									
10-Jun	2	1	1	1	1	1	4	8	6	5	5	3	2	3	12	1	1	1	2	1	2	1	1	1	2.8	11.7									
11-Jun	1	1	1	2	1	1	1	1	48	2	2	7	3	3	6	8	3	3	2	2	1	1	1	1	4.3	48.2									
12-Jun	1	87	3	4	2	1	2	2	2	1	2	10	8	9	3	3	40	3	2	4	3	4	4	3	8.6	86.9									
13-Jun	5	6	7	6	7	7	7	9	28	4	21	14	6	9	33	3	89	14	21	3	4	4	4	3	13.1	88.9									
14-Jun	5	5	4	94	30	4	3	4	9	11	9	6	4	4	4	3	3	2	3	4	3	3	2	4	9.2	93.5									
15-Jun	3	3	3	3	3	2	2	2	1	1	1	1	2	3	3	3	3	3	3	2	2	3	3	4	2.6	3.7									
16-Jun	4	5	4	4	4	7	5	5	3	2	2	1	1	1	1	1	1	1	1	1	2	4	5	5	2.9	6.8									
17-Jun	6	7	8	9	9	9	8	6	5	4	2	2	1	1	1	1	1	1	2	2	3	5	7	6	4.4	9.3									
18-Jun	6	11	10	11	13	16	15	20	16	17	14	11	5	5	4	4	5	5	5	7	8	9	10	11	9.9	20.1									
19-Jun	14	14	13	12	16	18	17	21	32	25	21	18	12	13	15	10	51	9	11	11	13	12	14	14	16.9	50.7									
20-Jun	14	16	17	25	29	25	23	25	25	25	22	16	12	9	10	10	33	9	9	21	12	13	14	15	17.9	33.0									
21-Jun	16	16	18	18	18	18	21	20	26	18	88	84	97	60	96	87	48	42	47	46	36	38	25	23	41.9	96.7									
22-Jun	34	16	16	15	14	14	15	15	16	11	29	77	11	11	7	7	84	13	10	12	14	13	14	11	19.9	83.5									
23-Jun	22	16	16	14	11	11	10	6	5	4	5	4	4	3	3	2	65	3	4	5	5	6	5	6	9.7	64.6									
24-Jun	6	5	8	11	10	13	10	11	14	15	36	86	33	14	21	18	65	7	5	6	7	8	7	8	17.7	85.7									
25-Jun	9	9	10	10	10	10	10	9	8	8	3	1	1	1	1	0	6	0	1	1	1	1	1	1	4.6	10.3									
26-Jun	1	1	0	0	0	0	0	0	54	1	0	0	0	0	0	0	1	0	1	1	0	0	1	1	2.7	53.6									
27-Jun	1	1	1	1	1	1	3	1	1	1	1	1	1	1	2	2	2	2	2	4	2	2	2	2	1.6	3.6									
28-Jun	1	2	2	2	2	2	2	13	5	2	1	3	2	2	6	1	2	4	4	2	2	3	6	5	3.2	13.2									
29-Jun	4	4	5	10	5	5	29	5	14	6	7	22	71	10	3	3	12	2	4	4	2	3	4	1	9.8	70.7									
30-Jun	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	0	90	0	1	1	1	0	1	1	4.7	90.3									
Diurnal Average																																			
Diurnal Maximum																																			

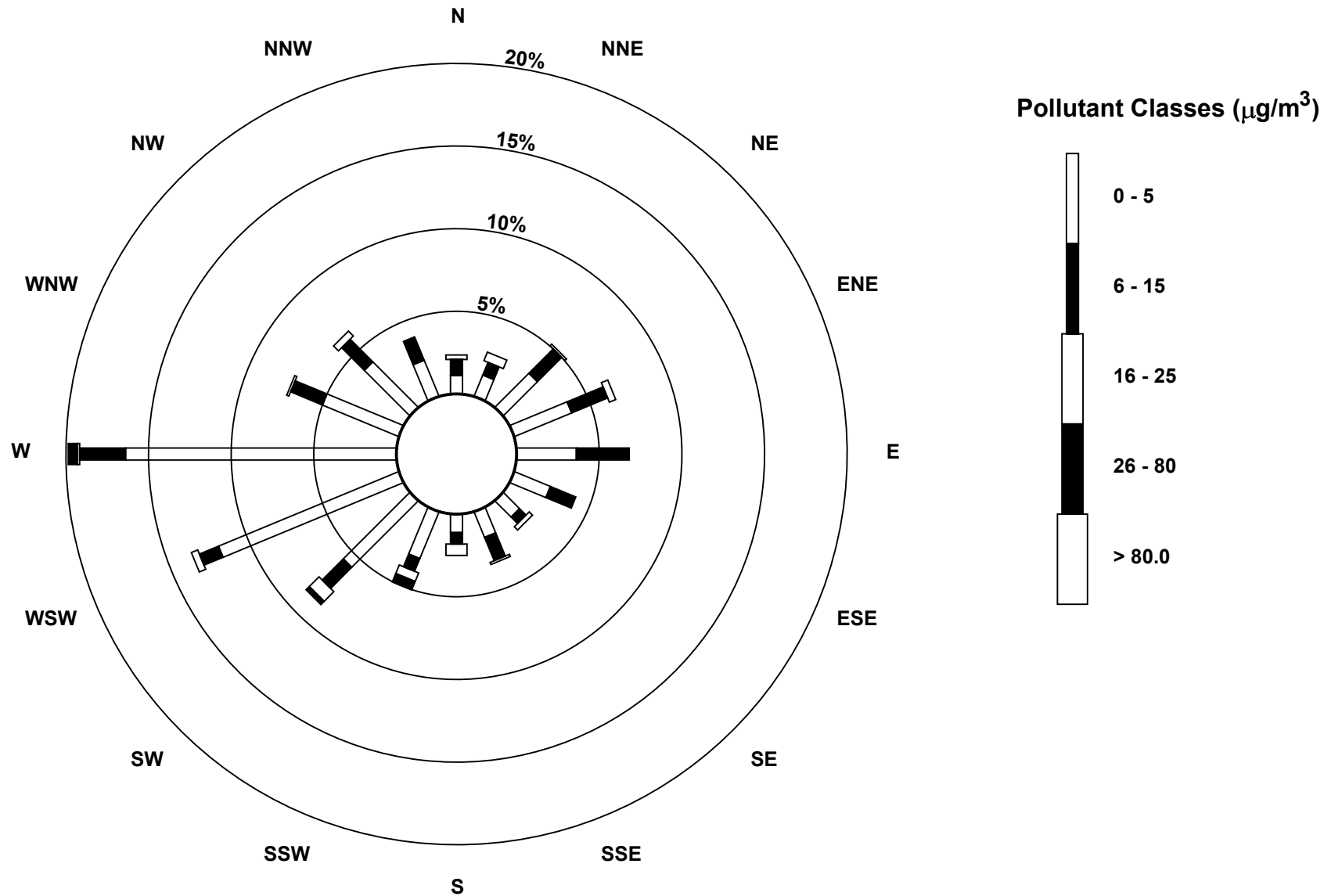
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - June 2018



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - June 2018



Hourly Averages

External Temperature (ET) - °C

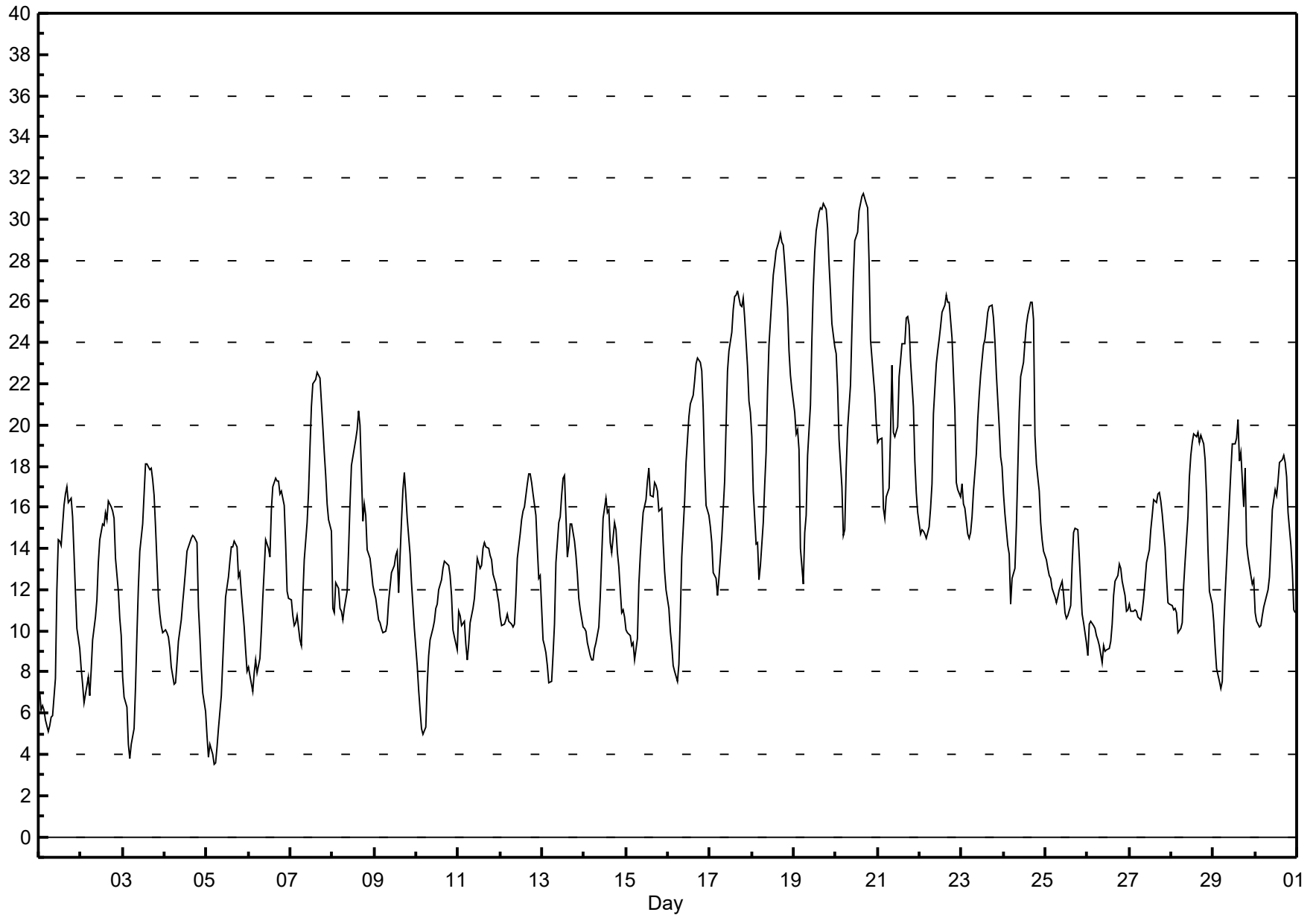
Beaverlodge - June 2018

Maximum Value: 31.2 °C on Jun 20 17:00																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Maximum Daily Average: 24.2 °C on Jun 20																										
Minimum Value: 4 °C on Jun 5 05:00																										
Minimum Daily Average: 9.1 °C on Jun 5 Maximum Diurnal Average: 19.7 °C at hour 17 Monthly Average: 14.93 °C Percentiles: P ₁ = 4.5 P ₁₀ = 8.7 Q ₁ = 10.8 Median = 14.0 Q ₃ = 17.9 P ₉₀ = 23.8 P ₉₉ = 30.5																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jun	7	6	6	6	6	5	5	6	6	8	12	14	14	14	16	17	17	16	16	16	14	12	10	9	10.8	17.0
2-Jun	8	7	6	7	8	7	8	10	11	12	13	14	15	15	16	15	16	16	16	15	14	12	11	10	11.8	16.3
3-Jun	8	7	6	4	4	4	5	7	10	12	14	15	17	18	18	18	17	17	15	12	11	10	10	11.6	18.1	
4-Jun	10	10	10	9	8	7	7	8	10	11	11	12	13	14	14	14	15	15	14	11	10	8	7	6	10.6	14.7
5-Jun	5	4	4	4	4	4	4	5	7	9	10	12	13	13	14	14	14	14	13	13	12	10	9	8	9.1	14.4
6-Jun	8	8	7	8	9	8	9	10	12	13	14	14	14	16	17	17	17	17	17	17	16	14	12	12	12.7	17.4
7-Jun	12	11	10	10	11	10	9	12	13	15	17	19	21	22	22	23	22	22	20	19	18	16	15	15	16.0	22.6
8-Jun	11	11	12	12	11	11	11	11	12	14	16	18	19	19	20	21	20	15	16	16	14	13	13	12	14.5	20.7
9-Jun	12	12	11	10	10	10	10	10	11	12	13	13	14	14	12	15	17	18	17	15	14	12	11	10	12.6	17.7
10-Jun	8	7	6	5	5	5	7	9	10	10	10	11	11	12	12	13	13	13	13	13	12	10	10	9	9.9	13.4
11-Jun	11	11	10	10	9	9	9	10	11	12	13	14	13	13	14	14	14	14	14	13	13	12	12	11	11.9	14.3
12-Jun	11	10	10	11	11	10	10	10	10	12	14	15	15	16	16	17	18	18	17	17	16	14	13	13	13.4	17.7
13-Jun	10	9	9	8	7	8	9	10	13	15	16	17	17	18	14	14	15	15	14	14	13	12	11	10	12.4	17.5
14-Jun	10	10	9	9	9	9	9	9	10	12	14	15	16	16	16	14	14	15	15	14	13	11	11	11	12.1	16.4
15-Jun	10	10	10	9	9	9	10	12	14	15	16	16	17	18	17	17	17	17	17	16	16	14	13	12	13.7	17.9
16-Jun	11	10	9	8	8	8	8	11	14	16	18	19	20	21	21	22	23	23	23	23	21	18	16	16	16.2	23.2
17-Jun	15	14	13	13	12	13	13	15	17	20	23	24	25	26	26	26	27	26	26	26	25	23	21	21	20.3	26.5
18-Jun	19	17	14	14	12	13	15	17	19	22	24	26	27	28	28	29	29	29	29	28	26	24	22	22	22.2	29.3
19-Jun	21	20	20	19	14	12	15	16	19	21	24	27	28	29	30	31	31	31	30	30	28	26	25	24	23.7	30.8
20-Jun	23	22	19	17	15	15	18	20	22	25	27	29	29	30	31	31	31	31	31	28	24	22	22	20	24.2	31.2
21-Jun	19	19	19	16	15	16	17	20	23	20	19	20	22	23	24	24	25	25	25	23	21	18	17	16	20.3	25.3
22-Jun	15	15	15	15	14	15	16	17	21	23	24	24	25	25	26	26	26	26	24	22	21	17	17	16	20.2	26.3
23-Jun	17	16	16	15	15	15	16	17	19	20	21	22	24	24	25	25	26	26	25	24	22	20	18	18	20.3	25.9
24-Jun	17	16	14	14	11	13	13	15	18	21	22	23	24	25	25	26	26	25	20	18	17	15	14	14	18.6	26.0
25-Jun	13	13	13	13	12	12	11	12	12	12	12	11	11	11	11	13	15	15	15	14	12	11	10	9	12.2	15.0
26-Jun	9	10	10	10	10	10	10	9	8	9	9	9	9	9	10	12	12	13	13	13	12	12	11	11	10.5	13.3
27-Jun	11	11	11	11	11	11	11	11	12	12	13	14	15	16	16	16	17	17	16	16	14	13	11	11	13.2	16.7
28-Jun	11	11	11	11	10	10	10	12	13	16	18	19	19	20	19	20	19	20	19	18	17	14	12	11	15.0	19.6
29-Jun	10	9	8	8	7	8	10	12	15	16	18	19	19	19	20	18	19	16	18	14	14	13	12	12	13.9	20.2
30-Jun	11	10	10	10	11	11	12	12	13	14	16	17	17	17	18	18	19	18	17	16	14	13	11	11	14.0	18.5
12.1 11.5 11.1 10.6 9.9 9.8 10.6 11.8 13.4 14.9 16.3 17.4 18.1 18.7 19.0 19.4 19.7 19.4 18.9 17.8 16.4 14.7 13.6 13.0																								Diurnal Average		
23.5 21.8 19.8 18.8 15.5 16.5 17.9 19.8 22.9 24.6 27.2 28.9 29.4 30.4 30.8 31.1 31.2 30.8 30.6 29.6 27.8 26.4 24.9 23.8																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Beaverlodge - June 2018



Hourly Averages

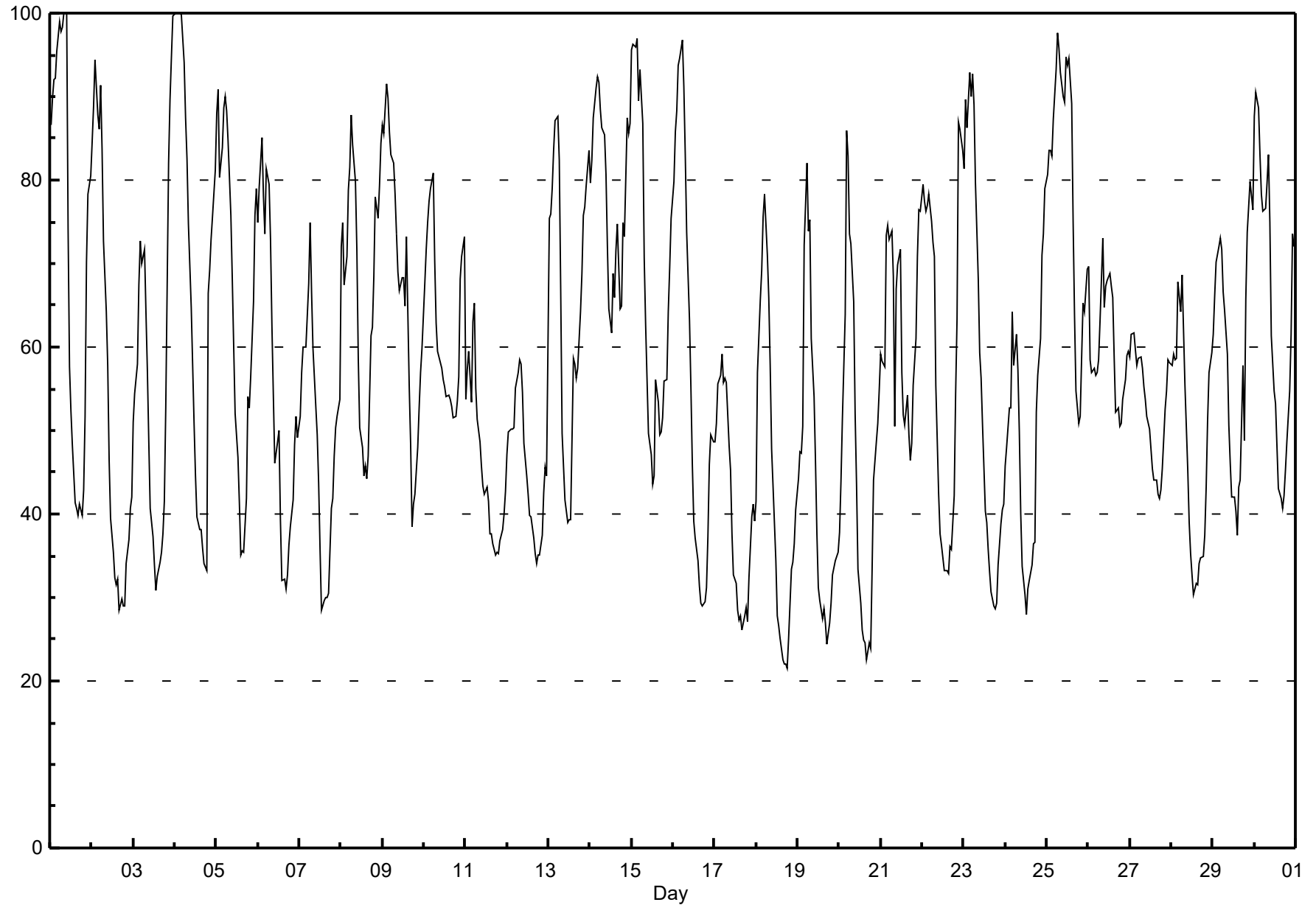
Relative Humidity (RH) - %

Beaverlodge - June 2018

Maximum Value: 100.0 % on Jun 1 09:00		Maximum Daily Average: 79.3 % on Jun 25		Hours in Service: 720																						
Minimum Value: 21 % on Jun 18 19:00		Minimum Daily Average: 40.8 % on Jun 17		Hours of Data: 720																						
Maximum Diurnal Average: 78.2 % at hour 6		Minimum Diurnal Average: 39.8 % at hour 17		Hours of Missing Data: 0																						
Monthly Average: 58.10 %		Percentiles: P ₁ = 24.6 P ₁₀ = 33.2 Q ₁ = 41.8 Median = 56.3 Q ₃ = 73.5 P ₉₀ = 86.7 P ₉₉ = 99.6		Hours of Calibration: 0																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jun	87	90	92	92	95	99	98	98	100	100	74	58	52	48	41	41	40	41	40	43	52	70	78	80	71.2	100.0
2-Jun	85	89	94	88	86	91	84	73	64	58	46	40	35	32	31	32	28	30	29	29	34	37	41	42	54.1	94.5
3-Jun	51	54	58	68	73	70	72	64	57	49	41	37	34	31	33	34	36	38	42	53	82	90	95	100	56.6	99.7
4-Jun	100	100	100	100	100	94	87	83	75	65	58	51	45	40	38	38	36	34	33	66	69	73	76	81	68.4	100.0
5-Jun	88	91	80	84	89	90	88	85	76	68	60	52	47	41	35	36	35	42	54	53	56	65	76	79	65.4	90.9
6-Jun	75	79	85	78	74	81	79	73	63	54	46	49	50	39	32	32	31	33	36	38	42	48	52	49	54.9	85.0
7-Jun	52	57	60	60	60	68	75	67	60	53	49	44	36	29	30	30	31	41	42	47	50	52	54	54	48.9	75.0
8-Jun	72	75	67	71	79	82	88	84	80	72	59	50	48	45	46	44	47	61	62	69	78	75	79	84	67.4	87.8
9-Jun	87	86	92	90	86	83	82	78	74	69	67	68	68	65	73	55	48	38	41	42	48	53	57	60	67.1	91.6
10-Jun	68	72	75	77	79	81	70	63	59	58	58	56	55	54	54	54	53	52	52	54	56	68	71	73	63.0	80.8
11-Jun	54	57	60	53	63	65	55	51	49	46	43	42	43	41	38	38	36	35	35	35	37	38	40	43	45.8	65.2
12-Jun	47	50	50	50	50	55	57	58	58	55	48	45	42	40	40	37	35	34	35	35	37	43	46	45	45.5	58.5
13-Jun	75	76	79	84	87	88	82	67	50	42	40	39	39	39	59	58	56	58	64	69	76	77	79	84	65.3	87.6
14-Jun	80	82	87	91	92	92	89	86	85	81	72	65	62	69	66	71	75	65	65	75	73	87	86	87	78.4	92.4
15-Jun	96	96	96	97	89	93	87	71	63	56	50	47	43	45	56	53	49	50	52	56	56	64	70	76	67.1	97.0
16-Jun	80	86	88	94	95	97	91	83	74	63	55	46	39	37	34	31	29	29	30	31	37	46	50	49	58.1	96.8
17-Jun	49	51	56	57	59	56	56	56	48	45	38	33	32	28	27	28	26	28	29	27	32	40	41	39	40.8	59.1
18-Jun	42	57	66	69	76	78	71	66	58	48	43	34	28	27	25	22	22	22	21	25	33	34	36	40	43.5	78.3
19-Jun	44	47	47	51	72	82	74	75	61	54	46	38	31	30	27	29	27	24	27	29	33	34	34	35	43.9	82.0
20-Jun	38	44	51	64	86	83	73	72	65	52	44	33	29	26	25	25	22	25	24	33	44	49	51	55	46.4	85.9
21-Jun	59	58	58	73	75	73	74	68	51	67	70	72	57	52	51	54	49	47	49	55	61	71	76	76	62.3	76.4
22-Jun	79	78	76	77	78	75	73	71	55	42	38	36	35	33	33	33	36	36	42	54	63	87	86	84	58.4	87.0
23-Jun	81	90	86	93	90	93	89	80	68	59	56	51	40	39	36	33	31	29	29	29	34	39	40	41	56.5	92.9
24-Jun	46	48	53	53	64	58	62	57	50	40	34	30	28	31	32	34	36	37	52	57	61	71	74	79	49.4	79.0
25-Jun	81	84	84	83	87	93	98	96	93	90	89	95	94	95	89	75	64	55	51	52	59	65	64	69	79.3	97.7
26-Jun	70	59	57	57	57	57	58	63	73	65	67	68	69	67	66	59	52	53	51	51	54	56	59	59	60.3	73.1
27-Jun	59	62	62	60	58	59	59	58	55	54	52	50	48	45	44	44	42	42	43	45	53	55	59	58	52.6	61.7
28-Jun	58	59	59	59	68	64	69	62	55	45	39	35	33	30	32	32	34	35	35	37	43	51	57	59	47.9	68.6
29-Jun	62	66	70	72	73	72	67	64	59	51	46	42	42	40	38	43	44	58	49	66	74	80	78	76	59.6	79.8
30-Jun	88	91	89	83	78	76	77	80	83	75	61	55	53	48	43	42	41	42	45	49	55	61	74	72	65.0	90.5
68.3		71.1	72.6	74.2	77.2	78.2	76.1	71.7	65.3	59.1	53.0	48.7	45.3	42.9	42.5	41.2	39.8	40.0	41.9	46.7	52.7	59.2	62.5	64.3	Diurnal Average	
100.0		100.0	100.0	100.0	99.8	98.9	97.8	98.3	100.0	99.9	89.3	94.7	93.8	94.5	89.2	75.0	74.8	64.6	65.0	74.9	82.1	89.6	94.7	99.7	Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - June 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	31	32	32	32	23	27	35	31	29	16	10	13	20	13	20	13	19	23	24	28	12	26	29	28	3.1	34.5
Dir	74	91	77	87	110	249	302	237	204	243	174	132	251	230	164	179	205	233	260	255	15	42	52	49	168	302
2 Spd	20	13	22	28	29	31	37	31	31	32	37	33	35	37	36	35	35	31	31	31	26	27	28	28	28.7	37.3
Dir	184	259	248	272	277	225	244	248	243	238	245	249	255	259	254	265	262	245	255	268	279	284	273	272	255	259
3 Spd	9	32	21	22	15	33	17	19	23	25	23	23	23	23	21	23	23	24	30	24	27	28	29	29	19.2	32.8
Dir	293	69	60	152	124	94	156	196	122	87	99	79	77	100	111	86	63	69	59	87	103	55	51	52	86	94
4 Spd	27	19	20	27	30	37	34	31	31	35	36	42	42	38	35	36	32	34	33	24	26	26	29	27	21.1	42.1
Dir	43	117	157	278	285	276	273	272	271	263	263	262	259	260	253	247	256	257	259	38	25	1	336	305	275	259
5 Spd	31	13	21	37	37	33	32	31	29	27	22	21	14	12	10	19	6	23	26	26	24	28	23	30	7.0	37.0
Dir	246	180	286	315	334	333	330	321	326	320	328	353	56	316	202	163	86	69	66	81	114	120	151	97	354	334
6 Spd	30	3	36	25	22	25	26	28	27	26	25	24	25	27	29	24	21	23	24	18	15	27	27	29	6.9	36.0
Dir	65	116	80	86	193	92	189	211	233	235	236	245	203	258	256	266	250	241	254	245	128	51	67	66	208	80
7 Spd	29	30	33	36	30	22	23	13	19	15	10	7	10	5	10	19	25	20	22	23	22	25	26	22	8.1	36.2
Dir	79	105	86	85	106	178	223	157	160	140	205	146	159	178	65	25	312	324	327	330	31	44	46	43	76	85
8 Spd	26	29	28	27	23	21	27	27	25	16	16	13	18	21	24	24	10	23	26	19	23	21	27	20	8.4	28.9
Dir	289	302	316	309	5	26	267	242	197	170	311	31	92	104	100	97	102	354	19	360	0	354	46	325	351	302
9 Spd	25	21	17	29	29	30	34	28	26	25	24	22	24	23	21	22	20	24	28	30	25	26	28	29	23.1	34.0
Dir	313	356	290	305	311	312	310	315	317	319	328	321	315	303	273	261	276	270	283	282	275	273	258	255	297	310
10 Spd	29	18	11	13	13	32	34	29	29	28	28	27	27	27	26	26	27	32	29	27	29	33	28	29	24.3	34.3
Dir	257	278	197	243	142	257	280	291	289	292	292	290	287	288	281	276	267	277	276	265	276	271	249	250	273	280
11 Spd	32	30	35	37	33	36	31	33	38	39	43	40	44	42	43	42	43	45	43	44	40	39	34	32	38.0	44.8
Dir	278	287	268	268	288	263	274	270	269	270	270	268	264	266	268	270	267	268	267	264	262	264	270	276	269	268
12 Spd	30	31	30	30	34	35	28	28	28	27	26	25	27	31	31	33	33	32	31	27	26	26	25	24	27.6	35.4
Dir	280	272	278	273	274	273	310	298	305	295	304	289	269	268	269	265	266	259	258	252	257	253	271	325	277	273
13 Spd	28	5	6	6	13	35	22	27	26	24	23	18	20	12	10	26	24	25	29	27	26	28	28	28	9.9	35.2
Dir	58	47	100	294	308	69	121	229	257	279	304	340	44	18	236	56	50	54	111	100	65	53	82	71	57	69
14 Spd	15	15	30	28	29	32	34	28	27	25	20	21	4	15	6	15	26	25	23	31	27	23	24	9	11.7	34.5
Dir	353	71	54	63	89	94	94	146	164	198	230	248	308	69	7	165	153	142	81	70	51	53	33	335	94	94
15 Spd	29	29	30	13	26	14	7	22	27	26	24	22	21	20	25	23	21	23	23	30	28	26	28	28	12.5	30.2
Dir	216	192	222	172	271	158	308	253	270	289	291	313	298	332	17	346	7	26	17	346	358	353	337	323	312	346
16 Spd	29	28	24	12	17	27	30	33	22	21	15	17	10	10	7	10	6	11	14	17	23	27	23	24	6.4	33.2
Dir	318	327	338	350	15	193	181	202	211	192	240	232	253	228	235	239	233	179	155	156	135	111	103	101	195	202
17 Spd	24	26	26	24	25	25	21	22	20	23	19	16	15	13	14	12	13	15	15	15	16	18	25	28	6.6	28.5
Dir	103	130	123	122	79	88	151	193	221	245	274	302	308	292	284	333	35	51	51	62	79	73	71	67	92	67
18 Spd	24	10	23	20	20	14	20	16	18	12	16	16	18	12	12	9	12	14	14	15	16	19	21	21	10.1	24.5
Dir	60	226	61	94	105	73	86	228	268	246	167	153	135	115	109	53	72	63	78	66	71	59	70	76	90	60
19 Spd	25	29	26	23	10	12	15	22	17	17	14	11	9	9	13	10	14	12	15	15	15	17	5	15	6.7	28.7
Dir	85	98	68	44	168	23	25	192	202	179	236	270	221	229	57	45	49	38	65	80	71	46	355	15	75	98
20 Spd	21	21	3	7	23	22	4	8	18	14	7	11	13	11	18	24	23	19	16	12	19	17	17	19	5.0	24.1
Dir	39	39	52	226	172	58	359	215	186	179	141	165	168	113	84	87	89	77	93	216	274	269	28	225	114	87
21 Spd	9	24	23	15	23	19	18	9	15	19	19	20	19	19	17	16	17	18	24	23	20	22	24	25	10.9	24.6
Dir	352	304	322	294	45	64	248	23	328	207	210	207	204	223	206	219	267	276	265	273	244	220	215	223	250	223
22 Spd	26	26	26	23	22	25	15	18	28	26	29	26	27	24	25	28	23	22	20	19	19	29	25	24	14.8	29.1
Dir	248	233	229	221	88	59	118	107	260	274	267	278	265	278	280	277	290	301	325	346	325	298	275	317	279	298

Hourly Averages

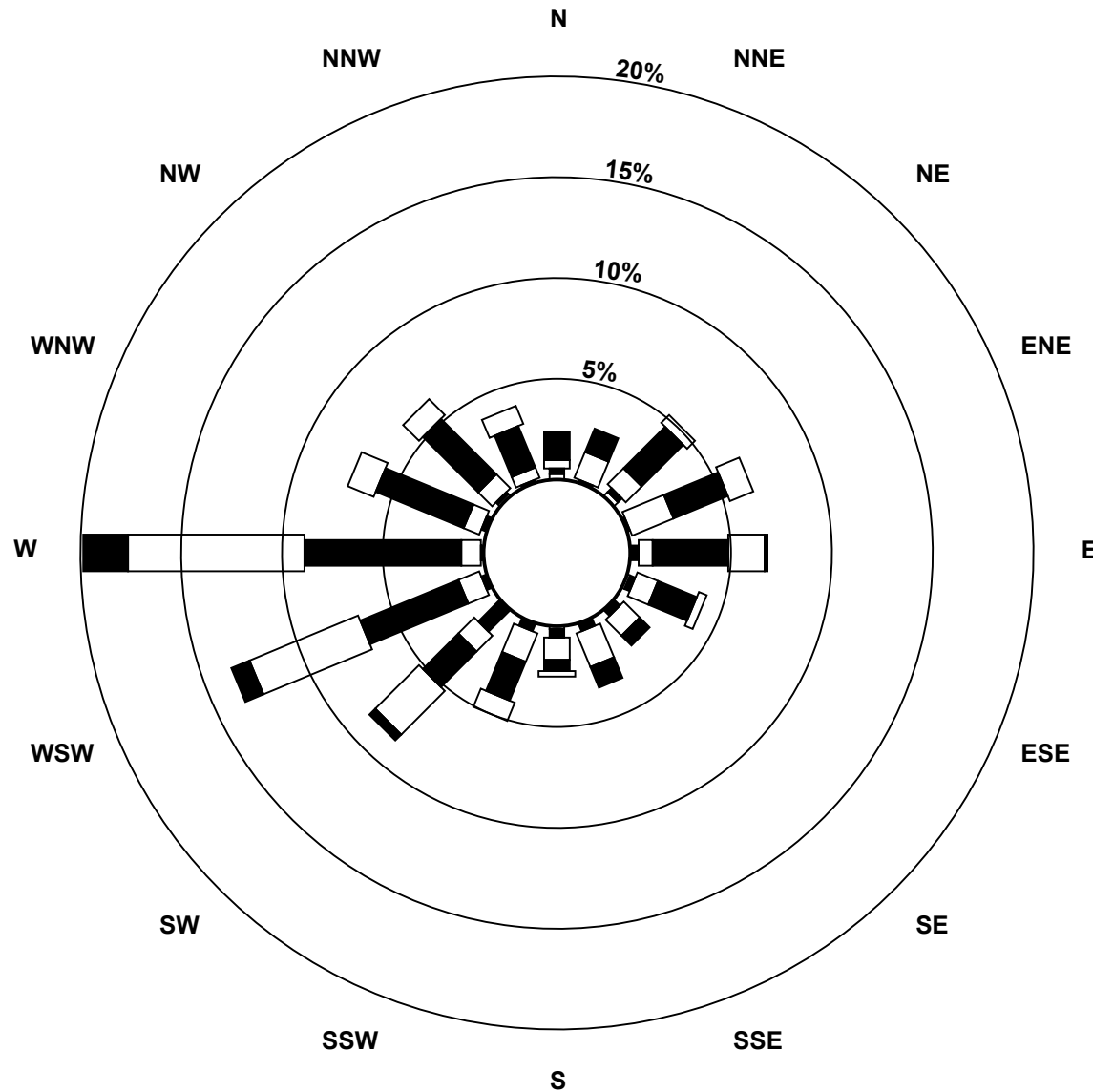
Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
23 Spd	24	24	21	25	20	12	9	22	21	20	22	24	22	17	18	17	23	27	28	25	21	22	25	26	18.7	28.0					
Dir	341	302	329	290	254	56	218	235	265	276	293	296	287	316	308	302	278	272	266	263	275	278	295	270	285	266					
24 Spd	31	29	26	19	28	8	23	19	19	11	14	15	15	19	21	22	28	23	24	25	22	26	27	27	2.1	31.1					
Dir	293	261	257	249	202	223	156	176	159	180	208	198	127	127	99	81	87	94	332	34	344	336	319	309	236	293					
25 Spd	27	28	30	31	22	26	28	28	28	27	28	29	29	32	34	29	36	37	35	29	29	30	30	30	23.4	37.4					
Dir	294	319	328	339	326	291	300	304	285	262	253	244	231	228	223	233	237	235	238	236	238	221	220	214	258	238					
26 Spd	30	32	35	37	37	40	41	41	36	46	47	47	45	44	40	35	42	35	38	42	35	32	31	31	36.9	47.1					
Dir	209	219	221	221	224	227	228	227	226	242	247	250	252	251	247	247	257	255	261	261	259	260	257	262	243	247					
27 Spd	30	32	36	30	30	30	31	31	32	30	30	30	28	32	34	32	29	29	29	26	26	28	29	29	29.8	35.6					
Dir	265	260	264	265	265	262	263	268	270	281	280	270	279	269	273	265	273	266	264	257	246	248	250	247	265	264					
28 Spd	29	29	30	28	24	17	28	19	24	23	22	22	20	21	21	25	28	24	26	27	25	26	28	29	18.7	30.1					
Dir	248	232	207	219	135	194	62	202	239	273	277	281	274	259	300	284	286	262	255	248	247	245	248	223	247	207					
29 Spd	30	29	24	33	39	32	17	27	24	25	27	24	30	27	31	22	24	27	24	17	18	10	20	10	5.9	38.6					
Dir	208	183	119	89	85	74	135	210	246	265	265	263	260	260	261	302	296	313	269	22	116	97	349	144	244	85					
30 Spd	25	27	19	15	32	36	29	28	28	27	28	29	30	33	34	30	33	33	33	31	27	26	27	29	25.4	35.5					
Dir	196	204	113	151	222	217	212	233	243	243	249	250	243	245	251	254	251	251	255	268	257	267	235	231	238	217					
Spd	6.1	5.3	2.3	4.8	2.5	2.5	8.8	17.0	17.8	17.4	17.7	15.4	13.5	13.4	11.7	10.1	10.9	10.5	11.1	8.5	5.4	6.8	6.1	6.3	Diurnal Average						
Dir	286	249	278	275	249	244	248	239	247	254	263	266	257	260	257	266	272	275	279	287	298	315	311	295	Diurnal Maximum						
Spd	32.0	32.4	36.0	37.2	38.6	40.3	40.7	41.2	37.7	46.4	47.1	46.5	44.8	43.8	43.0	42.1	42.6	44.8	43.2	44.5	39.7	38.7	34.2	32.1	Diurnal Maximum						
Dir	278	91	80	268	85	227	228	227	269	242	247	250	252	251	268	270	267	268	267	264	262	264	270	276							
Maximum Speed Value: 47 km/h on Jun 26 11:00																								Minimum Speed Value: 3 km/h on Jun 20 03:00				Hours in Service: 720			
Maximum Daily Speed Average: 38.0 km/h on Jun 26																								Minimum Daily Speed Average: 2.1 km/h on Jun 20				Hours of Data: 720			
Maximum Diurnal Speed Average: 17.8 km/h at hour 9																								Minimum Diurnal Speed Average: 2.3 km/h at hour 3				Hours of Missing Data: 0			
Monthly Average Velocity: 9.16 km/h 265.5 deg																								Speed Percentiles: P ₁ = 5.6 P ₁₀ = 13.4 Q ₁ = 19.8 Median = 25.2 Q ₃ = 29.1 P ₉₀ = 33.7 P ₉₉ = 43.7				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	3	8	19	3	0	34																							
NorthEast		1	5	18	38	11	0	73																							
East		0	4	16	42	23	1	86																							
SouthEast		1	4	18	18	2	0	43																							
South		0	7	20	17	4	0	48																							
SouthWest		0	13	16	36	46	6	117																							
West		0	1	13	92	104	21	231																							
NorthWest		1	4	12	49	22	0	88																							
Total		4	41	121	311	215	28	720																							

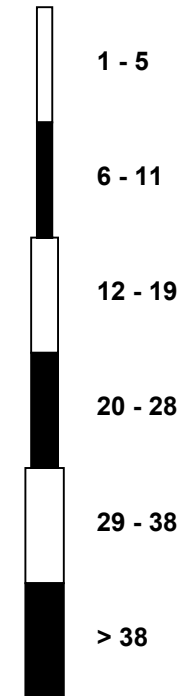
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - June 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - June 2018

Maximum Speed: 47 km/h on Jun 26 11:00																				Maximum Daily Speed Average: 38.5 km/h on Jun 11										Hours in Service: 720	
Minimum Speed: 13 km/h on Jun 18 16:00																				Minimum Daily Speed Average: 19.7 km/h on Jun 19										Hours of Data: 720	
Maximum Diurnal Speed Average: 31.8 km/h at hour 6																				Minimum Diurnal Speed Average: 25.3 km/h at hour 14										Hours of Missing Data: 0	
Monthly Average Speed: 27.67 km/h																				Percentiles: P ₁ = 14.2 P ₁₀ = 19.9 Q ₁ = 24.4 Median = 27.9 Q ₃ = 30.9 P ₉₀ = 34.7 P ₉₉ = 43.8										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-Jun	32	33	32	33	33	33	36	35	30	29	26	24	24	26	23	21	21	23	25	30	29	27	29	30	28.6	36.4					
2-Jun	31	32	32	31	31	32	37	31	31	33	37	33	35	38	36	35	35	31	32	31	26	28	30	31	32.5	37.8					
3-Jun	32	33	33	34	35	39	34	31	29	27	26	24	24	24	23	23	23	27	31	27	28	28	29	29	28.7	38.8					
4-Jun	29	29	29	29	31	37	34	31	31	35	36	42	43	38	36	36	33	34	33	27	28	30	31	32	33.0	42.5					
5-Jun	33	34	34	37	38	33	32	31	30	29	27	26	24	24	27	30	24	24	26	26	28	29	30	31	29.5	37.7					
6-Jun	31	31	37	33	30	30	30	29	27	26	26	26	27	28	30	26	23	24	24	24	24	27	29	30	28.0	36.6					
7-Jun	29	30	33	36	30	30	29	27	26	24	22	21	19	18	18	24	26	21	22	23	24	25	26	27	25.5	36.4					
8-Jun	28	29	28	28	32	34	28	28	27	25	23	21	21	22	25	25	24	30	31	25	26	27	27	27	26.7	33.6					
9-Jun	28	28	29	29	29	30	34	28	27	26	25	25	24	25	26	23	22	25	28	30	26	27	28	29	27.1	34.1					
10-Jun	29	31	32	33	33	37	34	30	29	28	28	27	27	27	26	26	28	32	29	27	30	33	29	29	29.8	37.1					
11-Jun	32	31	35	37	35	36	31	33	38	39	43	41	44	42	43	42	43	45	43	45	40	39	34	32	38.5	45.0					
12-Jun	30	31	30	30	34	36	30	29	28	28	26	26	28	32	31	33	34	33	31	27	26	26	28	29	29.7	35.5					
13-Jun	29	30	30	31	31	36	34	29	27	25	24	23	22	22	29	27	24	25	31	30	27	28	29	29	28.1	35.5					
14-Jun	30	30	30	30	30	33	36	29	28	27	25	23	22	24	25	26	26	25	30	32	27	29	29	29	28.2	35.9					
15-Jun	30	30	30	30	31	33	37	30	27	26	25	24	23	22	26	25	24	24	25	31	30	27	28	29	27.8	37.0					
16-Jun	30	31	31	32	32	32	33	36	28	24	22	21	20	15	14	15	15	15	16	17	24	27	24	25	24.0	35.5					
17-Jun	25	26	27	27	28	27	25	23	22	25	23	17	16	16	16	14	15	15	16	15	16	19	25	29	21.1	28.7					
18-Jun	25	24	26	26	28	27	25	23	21	19	17	17	20	16	14	13	15	15	15	15	17	20	21	22	20.1	27.6					
19-Jun	25	30	26	23	25	27	26	24	22	19	17	15	13	14	18	15	14	14	16	16	15	18	20	21	19.7	29.8					
20-Jun	21	22	27	31	27	26	23	22	19	18	15	14	14	14	19	25	23	19	17	17	19	20	22	23	20.7	30.8					
21-Jun	23	24	23	24	30	31	24	22	19	20	21	21	20	19	18	17	18	19	24	24	21	23	25	26	22.3	31.4					
22-Jun	26	26	27	26	26	25	25	28	29	26	29	27	27	25	26	29	24	23	22	20	22	30	29	25	25.9	29.8					
23-Jun	24	25	25	26	26	26	25	24	22	21	23	25	23	19	19	19	23	28	28	26	21	22	25	26	23.7	28.2					
24-Jun	32	32	28	29	30	29	27	25	23	21	20	18	17	21	23	23	28	26	25	25	25	26	27	27	25.3	32.3					
25-Jun	27	28	31	34	29	28	29	28	28	28	28	29	29	29	32	34	30	36	38	35	30	29	30	30	30.4	37.6					
26-Jun	31	32	35	37	37	40	41	41	37	47	47	47	45	44	40	35	42	35	39	43	35	32	31	31	38.4	47.2					
27-Jun	30	32	36	30	30	30	31	32	32	31	31	31	29	32	35	33	30	29	29	26	26	28	29	29	30.5	35.7					
28-Jun	29	29	33	36	30	29	29	27	26	25	24	23	21	22	21	26	28	25	26	27	25	26	28	30	26.9	35.9					
29-Jun	31	31	33	35	39	33	30	28	26	25	27	24	30	28	31	25	29	32	25	27	27	27	28	29	29.2	39.2					
30-Jun	29	29	30	30	33	36	29	28	28	28	28	29	30	33	34	31	33	33	34	32	27	28	29	30	30.4	35.7					
28.7 29.4 30.3 30.9 31.0 31.8 30.6 28.7 27.3 26.8 26.4 25.5 25.4 25.3 26.2 25.8 25.9 26.2 27.0 26.6 25.5 26.8 27.6 28.1																									Diurnal Average						
33.0 33.7 36.6 37.4 39.2 40.4 40.7 41.4 37.8 46.6 47.2 46.7 44.9 43.9 43.2 42.3 42.8 45.0 43.4 44.6 39.8 38.8 34.3 32.3																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - June 2018

Maximum Value: 93.7 deg on Jun 20 03:00																		Hours in Service: 720							
Minimum Value: 0.7 deg on Jun 4 00:00																		Hours of Data: 720							
																		Hours of Missing Data: 0							
Percentiles: P ₁ = 2.4 P ₁₀ = 5.1 Q ₁ = 7.8 Median = 14.8 Q ₃ = 33.8 P ₉₀ = 58.5 P ₉₉ = 86.7																		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-Jun	12	5	7	6	50	34	20	31	19	63	74	62	36	63	29	58	29	11	18	22	70	21	1	23	73.9
2-Jun	53	78	48	25	22	15	7	7	6	6	8	10	9	10	11	7	10	7	9	10	4	13	23	23	78.3
3-Jun	84	9	58	54	66	34	61	59	38	20	24	15	14	16	19	13	8	25	7	24	14	11	2	1	83.6
4-Jun	18	49	46	20	7	4	5	5	9	6	6	7	8	9	9	9	12	8	10	29	22	30	24	33	49.2
5-Jun	18	71	58	8	11	9	9	13	19	23	37	35	62	72	78	55	86	16	13	13	29	15	39	10	86.2
6-Jun	10	90	11	47	47	37	33	15	12	11	12	23	21	16	13	23	21	13	6	43	54	3	23	7	89.9
7-Jun	13	11	5	7	7	42	38	66	45	59	75	80	65	78	67	38	14	16	9	8	23	2	3	34	79.8
8-Jun	23	7	6	8	44	55	13	18	19	57	54	59	30	18	15	10	73	41	34	41	28	40	7	45	72.8
9-Jun	29	43	60	7	6	4	5	7	8	15	17	30	14	24	39	24	29	13	10	8	7	7	7	5	60.5
10-Jun	9	65	76	82	69	41	4	6	5	8	7	10	10	8	7	8	9	7	8	4	13	4	8	10	81.8
11-Jun	4	14	6	5	20	9	7	5	5	4	5	6	5	6	5	6	6	5	5	4	4	4	5	5	20.1
12-Jun	8	4	8	6	4	5	20	6	8	8	11	12	11	11	7	9	9	9	7	4	4	6	28	33	32.5
13-Jun	15	91	89	88	72	8	54	21	16	16	16	42	23	66	83	15	7	11	23	28	11	2	15	16	91.0
14-Jun	62	69	1	21	16	14	17	15	15	24	36	26	87	64	79	65	12	8	40	14	12	46	37	78	86.8
15-Jun	15	15	6	67	36	77	82	53	12	11	16	21	25	28	19	24	29	17	20	14	17	11	10	16	81.9
16-Jun	14	27	42	75	66	35	26	21	39	30	49	39	69	56	66	53	77	47	27	12	10	9	17	8	76.6
17-Jun	14	5	9	26	25	22	34	23	24	25	35	24	22	35	32	36	29	14	24	15	10	12	8	7	36.2
18-Jun	6	77	33	42	44	71	39	45	31	58	18	25	31	48	33	52	40	18	21	7	9	8	8	11	76.7
19-Jun	7	16	11	3	71	70	58	21	41	32	36	44	48	54	57	57	17	26	18	10	6	8	78	49	78.4
20-Jun	4	12	94	89	37	35	93	81	20	40	67	41	27	42	19	12	12	16	20	48	13	33	49	35	93.7
21-Jun	73	6	10	55	42	69	49	76	41	20	23	15	16	9	14	21	23	12	8	11	13	10	13	17	76.2
22-Jun	7	12	7	29	33	9	55	52	19	9	6	12	8	16	15	11	16	14	20	16	32	13	35	16	54.9
23-Jun	15	13	32	11	40	75	84	20	18	19	22	18	17	28	19	26	14	11	8	6	8	5	6	8	84.0
24-Jun	13	28	25	49	22	83	35	44	37	62	48	39	35	28	26	13	9	33	18	8	28	5	6	12	82.5
25-Jun	14	6	11	23	42	22	11	9	6	9	7	5	4	8	5	6	7	5	6	7	11	5	3	7	41.8
26-Jun	10	2	4	3	4	4	3	5	6	6	4	5	5	4	4	5	6	5	7	5	6	4	4	4	10.1
27-Jun	4	5	5	4	4	4	5	5	6	7	10	11	9	10	10	10	12	9	9	6	4	2	3	4	11.7
28-Jun	5	10	23	45	38	62	11	48	21	17	19	20	23	20	16	15	10	7	7	4	3	3	11	12	61.9
29-Jun	7	22	42	18	10	11	57	10	25	10	12	14	8	12	11	26	33	32	13	57	47	76	51	73	75.6
30-Jun	35	23	53	67	11	6	7	9	6	7	7	7	8	9	10	11	7	8	13	5	9	21	23	10	66.5
83.6 91.0 93.7 89.0 72.2 82.5 92.9 80.6 45.5 63.1 74.7 79.8 86.8 78.2 82.5 65.1 86.2 46.8 40.4 56.8 70.0 75.6 78.4 78.1																									

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

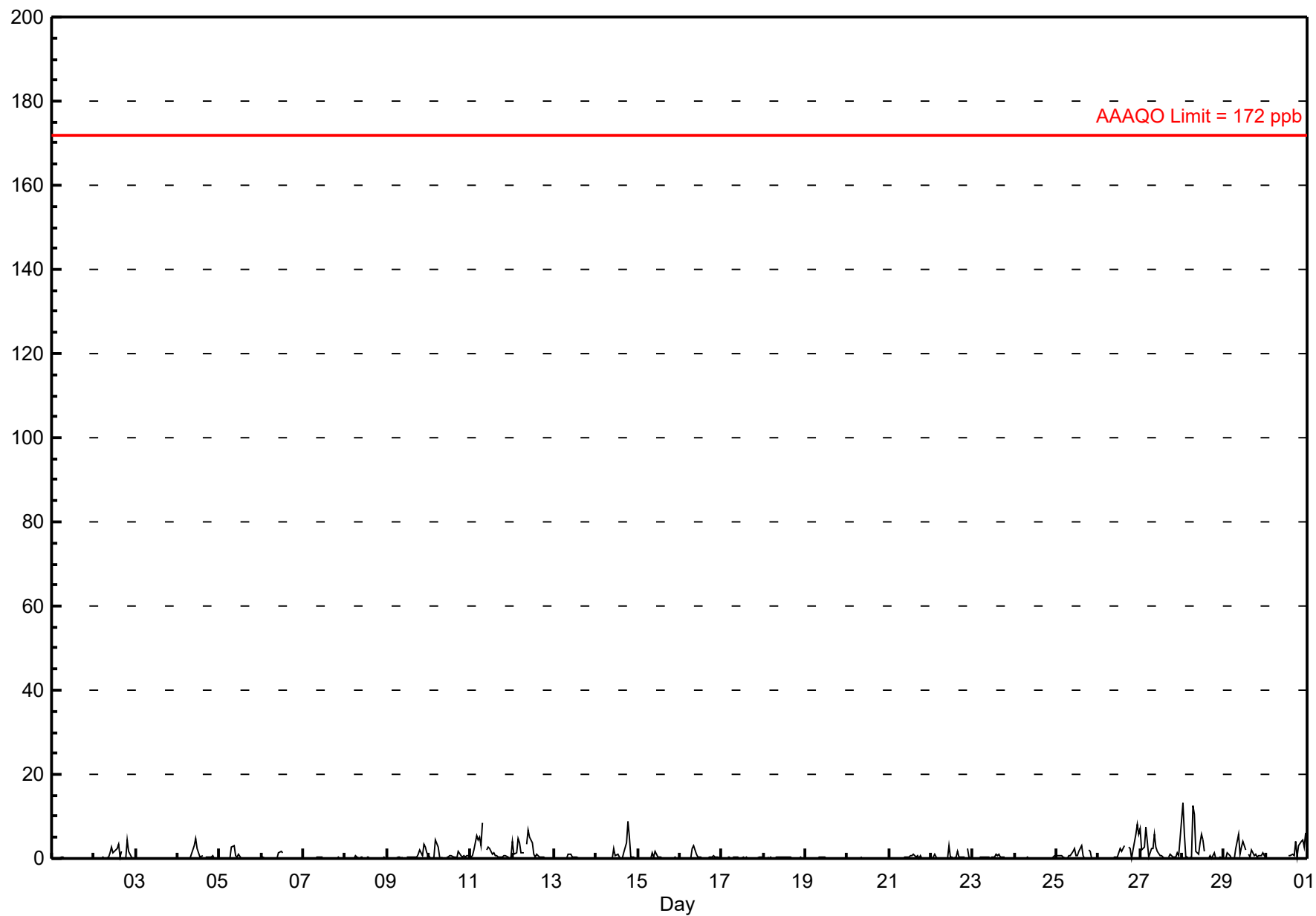
Sulphur Dioxide (SO₂) - ppb

Valleyview - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 13.1 ppb on Jun 28 01:00 Maximum Daily Average: 2.8 ppb on Jun 28																								Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0		
Minimum Value: 0 ppb on Jun 1 02:00 Maximum Diurnal Average: 1.4 ppb at hour 11 Monthly Average: 0.71 ppb																								Minimum Daily Average: 0.0 ppb on Jun 3 Minimum Diurnal Average: 0.4 ppb at hour 3 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 2.2 P ₉₉ = 7.1		
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-Jun	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	0.3
2-Jun	0	0	0	0	0	0	0	0	0	1	3	1	2	2	4	0	2	A	0	4	2	0	0	0	1.0	4.3
3-Jun	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
4-Jun	0	0	0	0	0	0	0	0	1	3	5	2	1	0	1	A	0	0	0	0	1	0	0	0	0.7	4.8
5-Jun	0	0	0	0	0	0	0	3	3	1	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0.4	3.2
6-Jun	0	0	0	0	0	0	0	0	0	0	1	2	1	A	0	0	0	0	0	0	0	0	0	0	0.2	1.8
7-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
8-Jun	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
9-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	2	1	3	3	0.6	3.5
10-Jun	0	0	0	0	4	3	0	0	0	A	0	0	1	1	0	0	0	2	1	0	1	0	1	1	0.7	4.3
11-Jun	0	1	2	5	4	5	3	9	A	2	3	2	1	1	1	1	0	0	0	1	1	0	0	0	1.9	8.6
12-Jun	4	1	2	5	4	1	1	A	3	7	5	4	1	0	1	0	0	0	0	0	0	0	0	0	1.8	6.7
13-Jun	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
14-Jun	0	0	0	0	0	A	0	0	0	0	2	1	1	0	0	0	1	4	9	5	0	0	0	0	1.1	8.9
15-Jun	0	0	0	0	A	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
16-Jun	0	0	0	A	0	0	0	2	3	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	3.0
17-Jun	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
18-Jun	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
19-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
20-Jun	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	1	0	0	A	0	0	0.2	0.8
22-Jun	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	2	0	0	0	0	A	2	0	0	0.5	3.0
23-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	A	0	0	0	0	0.3	1.0
24-Jun	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	0.7
25-Jun	1	1	1	1	0	0	0	1	1	2	2	1	1	2	3	1	0	A	2	2	0	0	0	0	0.8	2.9
26-Jun	0	0	0	0	0	0	0	0	0	0	0	0	3	2	3	3	A	3	3	0	2	6	8	6	1.6	8.0
27-Jun	7	2	3	7	4	0	2	2	6	3	2	1	1	0	0	A	0	1	1	0	0	1	1	5	2.1	7.3
28-Jun	13	6	0	0	0	0	13	10	2	1	4	6	4	2	A	0	1	0	1	0	0	0	0	0	2.8	13.1
29-Jun	0	0	1	1	0	0	0	2	6	1	3	4	2	A	1	0	2	1	1	0	1	1	1	1	1.3	5.8
30-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	4	0	3	4	4	3	6	1.3	6.0
0.9 0.4 0.4 0.7 0.6 0.4 0.8 1.1 1.0 0.9 1.4 1.0 0.8 0.5 0.6 0.4 0.4 0.6 0.8 0.7 0.5 0.8 0.6 0.8																								Diurnal Average		
13.1 5.6 2.6 7.3 4.3 5.1 12.5 10.4 5.8 6.7 5.2 5.9 4.5 2.2 3.5 3.1 2.1 4.0 8.9 5.1 4.2 5.9 8.0 6.0																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Valleyview - June 2018



Hourly Maximums

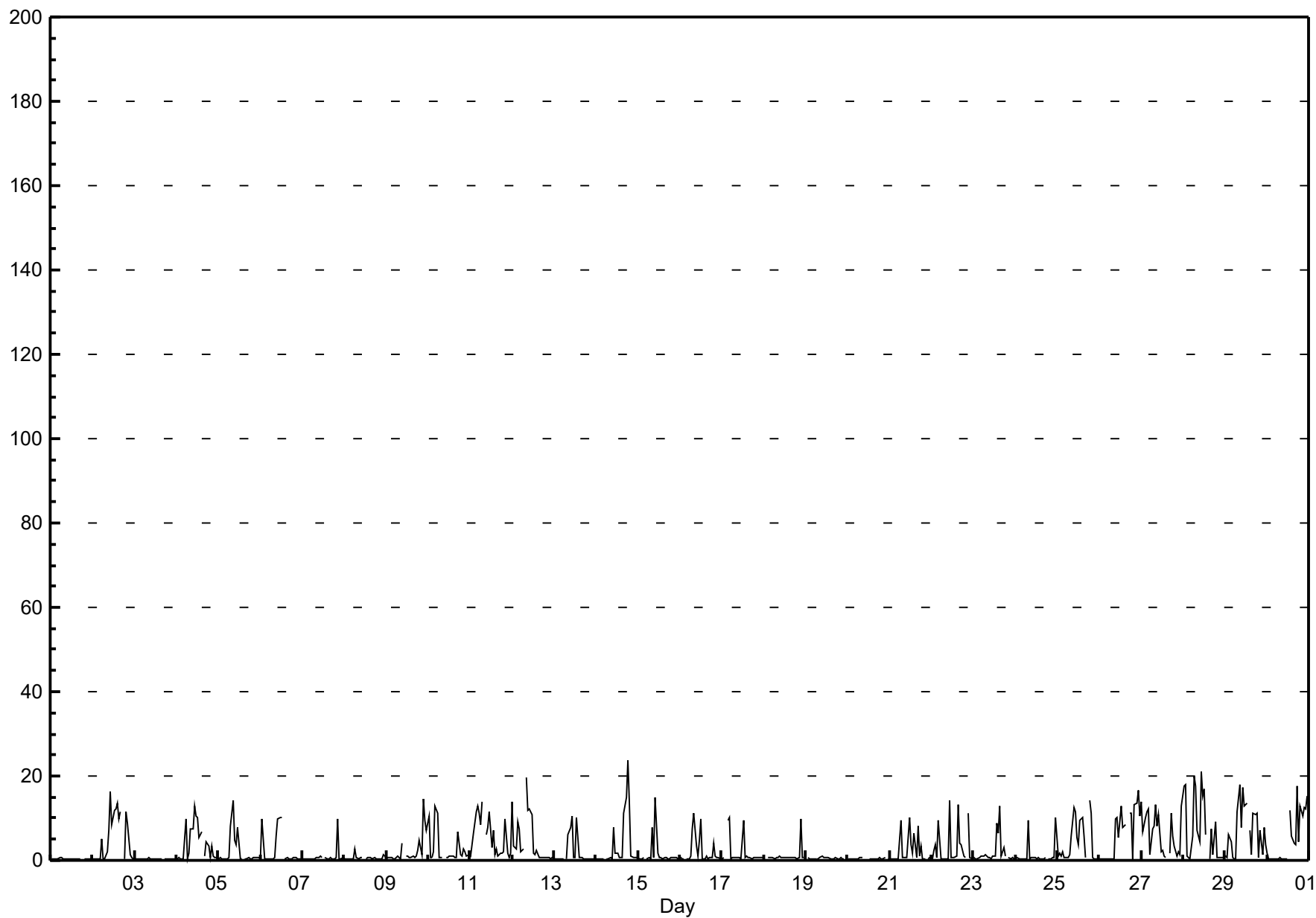
Sulphur Dioxide (SO₂) - ppb

Valleyview - June 2018

Maximum Value: 23.6 ppb on Jun 14 19:00																				Maximum Daily Average: 7.5 ppb on Jun 28					Hours in Service: 720				
Minimum Value: 0 ppb on Jun 1 02:00																				Minimum Daily Average: 0.4 ppb on Jun 1					Hours of Data: 686				
Maximum Diurnal Average: 6.7 ppb at hour 11																				Minimum Diurnal Average: 1.4 ppb at hour 3					Hours of Missing Data: 34				
Monthly Average: 3.00 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 3.5 P ₉₀ = 10.7 P ₉₉ = 17.7					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-Jun	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.8			
2-Jun	0	0	0	0	0	5	0	0	2	7	16	8	12	12	13	10	11	A	0	12	9	1	1	0	5.4	16.3			
3-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.6			
4-Jun	0	1	0	0	0	10	0	2	7	7	13	11	10	5	7	A	1	4	3	1	3	1	1	1	3.9	12.8			
5-Jun	0	1	0	0	0	0	1	8	14	5	4	8	0	0	A	0	0	0	1	0	0	1	1	1	2.0	14.2			
6-Jun	0	10	0	0	0	0	0	0	1	6	10	10	10	A	0	1	0	0	0	1	1	0	0	0	2.3	10.1			
7-Jun	0	0	0	0	0	1	1	0	1	1	1	1	A	1	0	0	1	0	0	1	10	0	0	1	0.9	9.8			
8-Jun	0	0	0	0	0	0	3	1	0	1	1	A	0	1	1	1	0	1	0	0	0	0	1	1	0.6	2.6			
9-Jun	0	1	1	1	0	0	1	1	0	4	A	1	1	1	1	1	1	1	3	5	1	15	9	7	2.4	14.6			
10-Jun	11	1	1	2	13	11	1	1	1	A	1	1	1	1	1	1	1	7	1	1	3	2	1	1	2.7	12.8			
11-Jun	1	4	6	12	13	11	8	14	A	6	8	11	3	7	1	3	1	2	2	2	10	2	1	2	5.6	13.8			
12-Jun	14	4	3	9	8	2	3	A	20	12	12	11	2	2	2	1	1	1	1	1	1	1	1	1	4.7	19.5			
13-Jun	0	0	0	0	0	0	A	1	6	8	10	1	1	10	1	1	1	0	0	0	0	0	0	0	1.9	10.4			
14-Jun	0	0	0	0	0	A	0	0	1	0	8	2	2	1	1	1	11	15	24	14	1	1	1	1	3.6	23.6			
15-Jun	1	0	0	1	A	0	1	0	8	1	15	2	1	1	0	1	1	0	0	1	1	1	1	0	1.5	15.1			
16-Jun	1	0	0	A	0	0	1	7	11	3	1	5	10	0	0	1	0	1	1	4	1	1	1	0	2.2	11.3			
17-Jun	0	1	A	10	10	0	1	1	1	1	1	0	9	1	1	1	1	0	1	1	1	1	1	1	1.8	10.0			
18-Jun	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1.0	9.8			
19-Jun	A	1	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	1	0	0	1	0	0	A	0.5	0.8			
20-Jun	0	0	0	0	0	0	0	1	1	C	C	C	0	0	0	0	0	0	1	0	0	1	A	0	0.5	0.8			
21-Jun	0	0	0	0	0	0	10	1	1	1	1	10	4	2	6	1	8	1	3	0	0	A	0	1	2.2	10.2			
22-Jun	0	2	4	1	10	0	0	0	0	0	14	1	1	1	1	13	4	4	1	1	A	11	1	0	3.1	14.1			
23-Jun	1	0	0	1	1	1	1	1	1	1	0	1	1	9	6	13	1	3	1	A	1	0	1	0	2.0	13.0			
24-Jun	1	1	0	0	0	0	0	10	0	1	1	1	0	1	0	0	0	1	A	0	0	1	1	10	1.3	10.1			
25-Jun	1	2	1	2	1	1	1	1	6	12	12	5	4	10	10	6	1	A	14	11	1	0	0	0	4.4	14.4			
26-Jun	0	0	0	0	0	0	0	0	0	10	10	5	13	8	8	8	A	11	11	0	13	14	17	11	6.2	16.6			
27-Jun	14	7	10	11	12	1	7	8	13	8	11	2	2	1	1	A	2	11	6	3	1	2	1	13	6.5	14.1			
28-Jun	17	18	1	1	0	6	20	18	7	4	21	15	17	6	A	0	8	1	9	1	1	1	1	1	7.5	21.0			
29-Jun	1	1	6	5	1	0	0	12	18	8	17	13	14	A	7	2	11	11	11	1	7	1	8	4	6.9	17.9			
30-Jun	2	0	0	0	0	0	0	1	0	0	0	0	A	12	6	4	4	18	4	13	11	13	12	15	5.1	17.7			
2.4 1.9 1.4 2.1 2.6 2.0 2.2 3.1 4.2 3.9 6.7 4.5 4.3 3.3 2.8 2.5 2.5 3.4 3.6 2.6 2.7 2.8 2.1 2.5																									Diurnal Average				
17.5 17.9 10.2 11.5 12.9 11.2 19.8 17.8 19.5 12.5 21.0 15.2 17.1 12.3 13.5 13.2 11.4 17.7 23.6 13.8 13.3 14.6 16.6 15.1																									Diurnal Maximum				
C - Calibration A - Automated Daily Zero Span																													

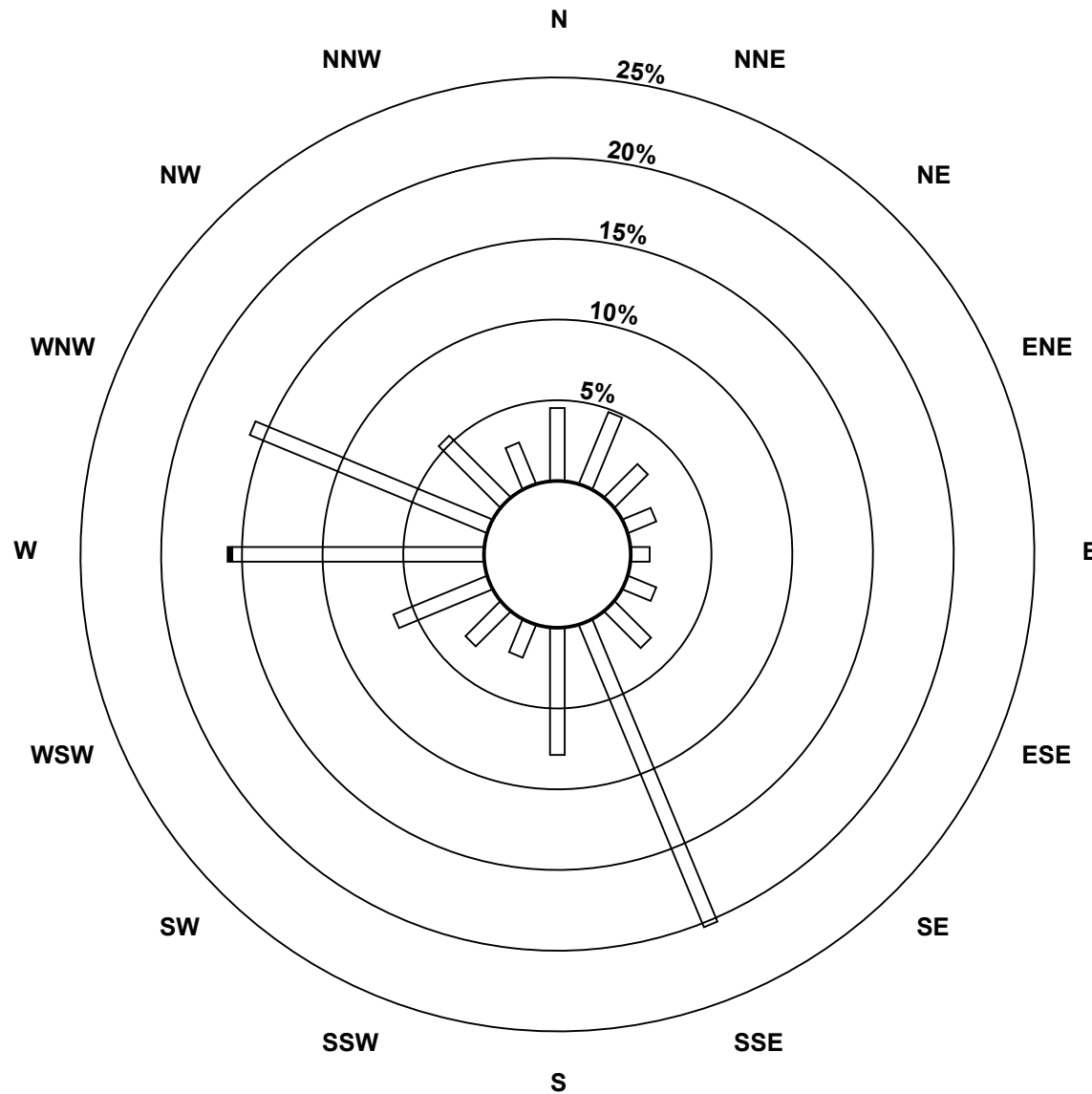
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - June 2018

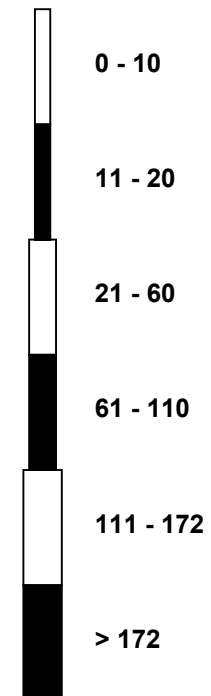


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - June 2018

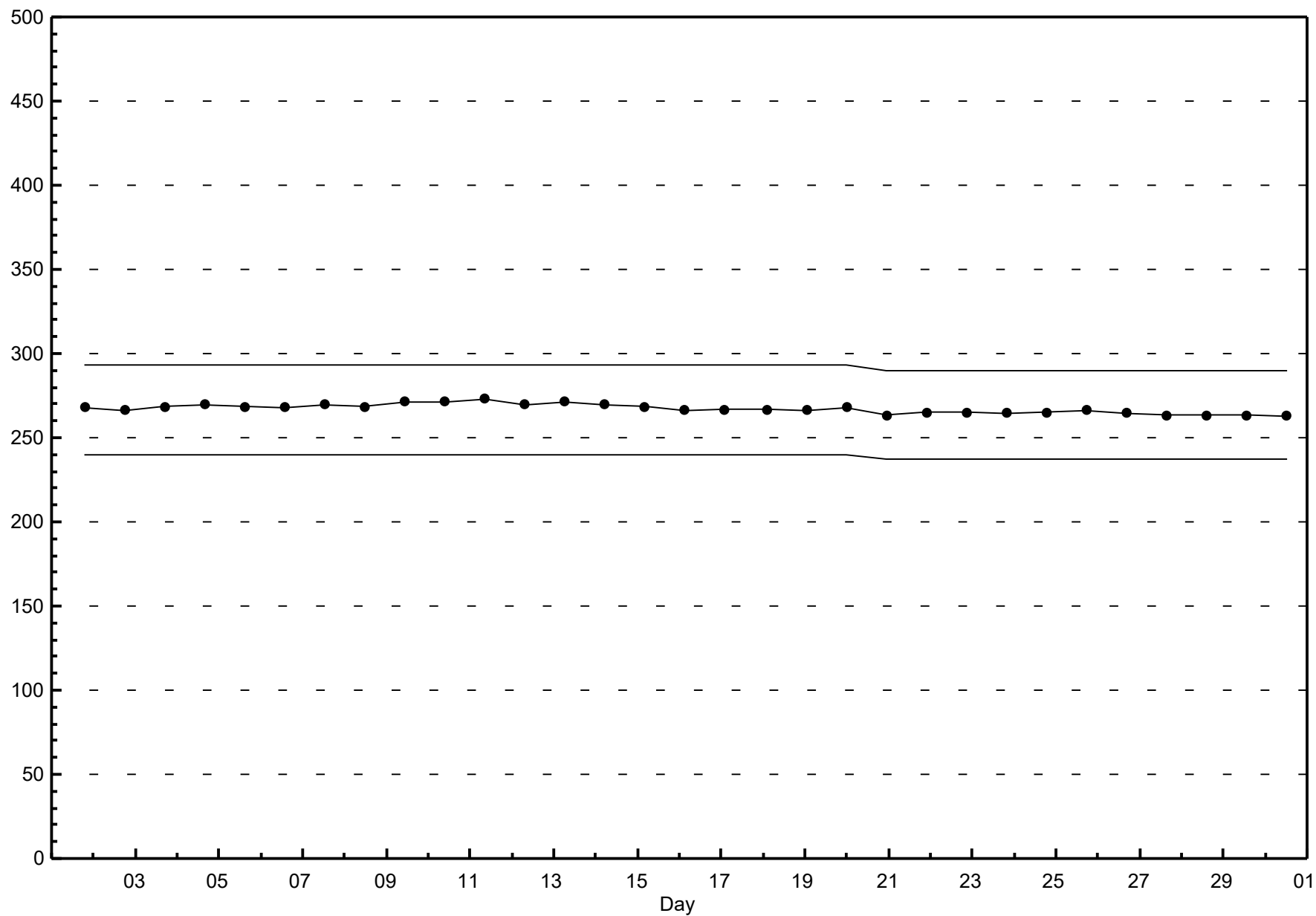


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - June 2018



Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

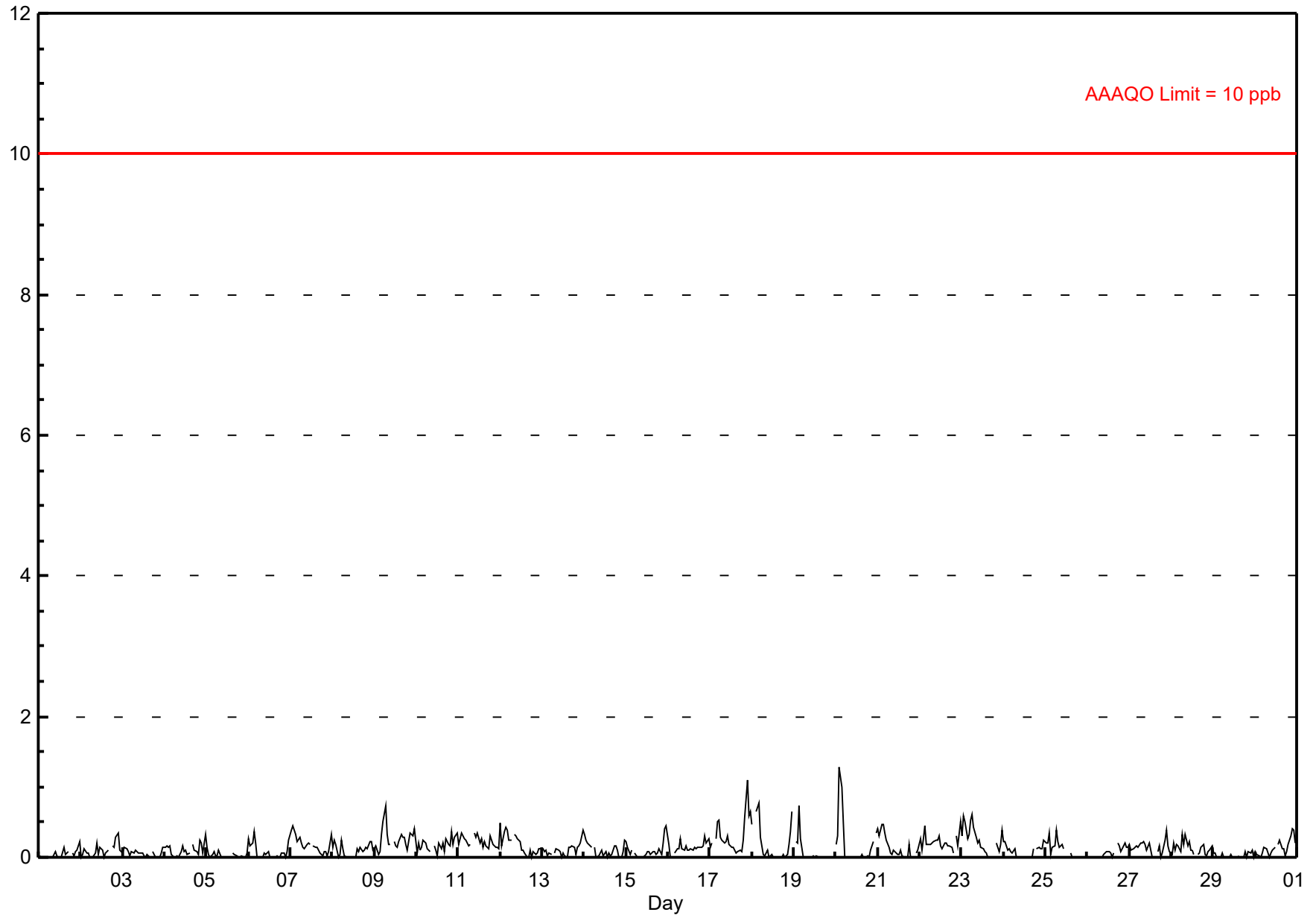
Valleyview - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 720											
Maximum Value: 1.3 ppb on Jun 20 03:00																			Maximum Daily Average: 0.3 ppb on Jun 17						Hours of Data: 686					
Minimum Value: 0 ppb on Jun 1 02:00																			Minimum Daily Average: 0.0 ppb on Jun 29						Hours of Missing Data: 34					
Maximum Diurnal Average: 0.3 ppb at hour 24																			Minimum Diurnal Average: 0.1 ppb at hour 13						Hours of Calibration: 34					
Monthly Average: 0.13 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.7						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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.2				
2-Jun	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	0.4				
3-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.1				
4-Jun	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				
5-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1				
6-Jun	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				
7-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4				
8-Jun	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				
9-Jun	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7				
10-Jun	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	0.4				
11-Jun	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4				
12-Jun	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	0.5				
13-Jun	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				
14-Jun	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				
15-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4				
16-Jun	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				
17-Jun	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	1.1				
18-Jun	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.8				
19-Jun	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.7				
20-Jun	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	1.3				
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5				
22-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0.2	0.5					
23-Jun	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.6				
24-Jun	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	0.2				
25-Jun	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	A	0	0	0	0	0	0	0.1	0.4				
26-Jun	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				
27-Jun	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				
28-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3				
29-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.1				
30-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4				
																								Diurnal Average	Diurnal Maximum					
																								0.2	0.3					
																								0.5	0.7					
C - Calibration A - Automated Daily Zero Span																														
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																														

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 - June 2018



Hourly Maximums

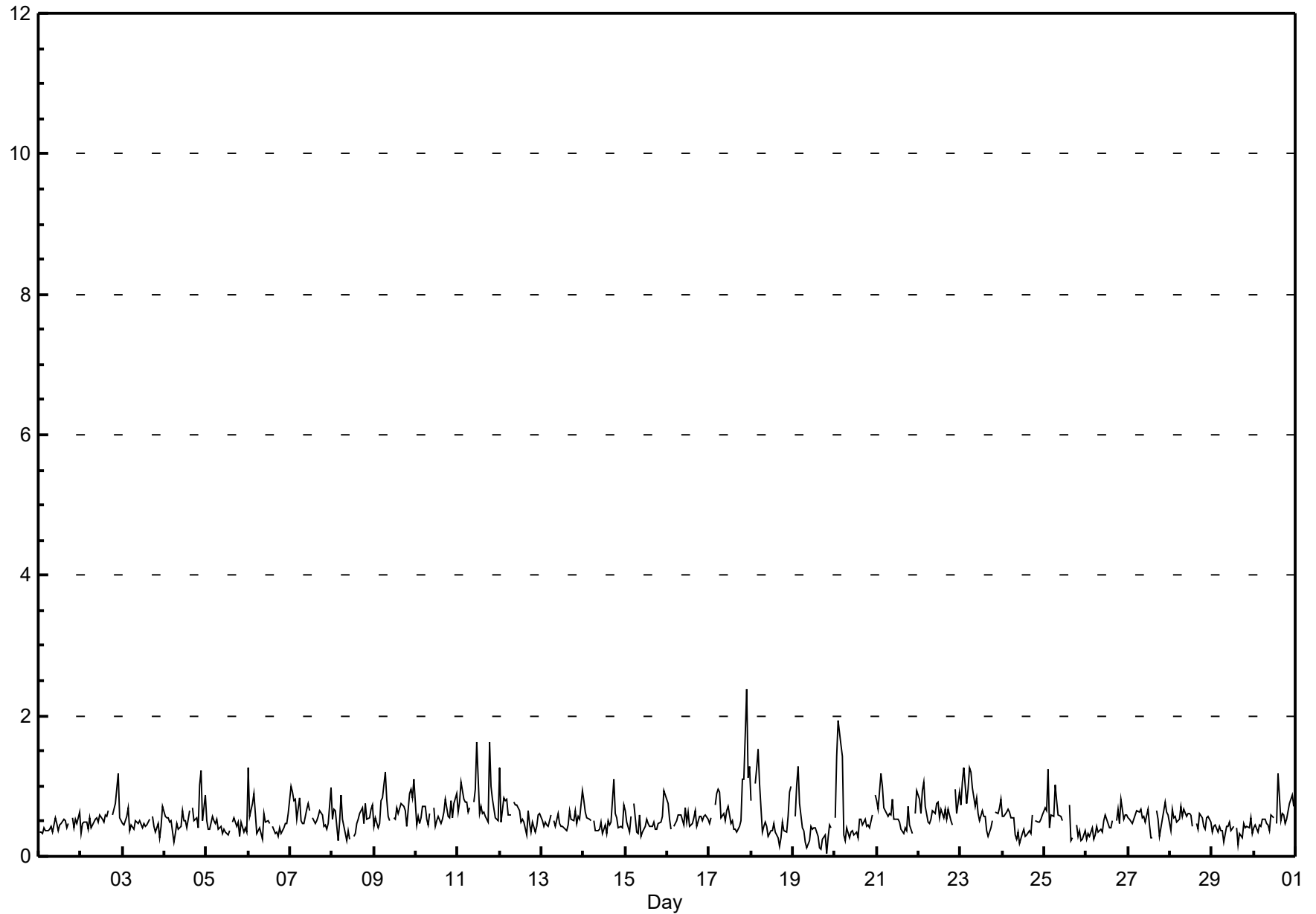
Hydrogen Sulphide (H₂S) - ppb

Valleyview - June 2018

Maximum Value: 2.4 ppb on Jun 17 22:00																				Maximum Daily Average: 0.8 ppb on Jun 11										Hours in Service: 720									
Minimum Value: 0 ppb on Jun 19 20:00																				Minimum Daily Average: 0.4 ppb on Jun 29										Hours of Data: 686									
Maximum Diurnal Average: 0.7 ppb at hour 24																				Minimum Diurnal Average: 0.4 ppb at hour 16										Hours of Missing Data: 34									
Monthly Average: 0.56 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.8 P ₉₉ = 1.4										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-Jun	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	A	1	1	0	1	0	0.4	0.6													
2-Jun	0	0	0	0	0	1	0	0	1	1	0	1	1	0	1	1	1	A	1	1	1	1	1	0	0.6	1.2													
3-Jun	0	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	A	1	0	0	0	0	0	1	0.5	0.7													
4-Jun	1	1	1	0	1	0	0	0	0	0	1	1	1	0	1	A	1	1	1	0	1	1	1	1	0.6	1.2													
5-Jun	1	0	0	1	0	0	1	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0.4	0.6													
6-Jun	1	1	1	1	1	0	0	0	0	1	0	1	0	A	0	0	0	0	0	0	0	0	0	1	0.5	1.3													
7-Jun	1	1	1	1	1	1	1	0	0	1	1	1	A	1	0	1	1	1	1	1	0	0	0	1	0.6	1.0													
8-Jun	1	1	1	0	0	1	1	0	0	0	0	A	0	0	0	1	1	1	0	1	1	1	1	1	0.5	0.9													
9-Jun	0	1	0	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	0.7	1.2													
10-Jun	0	1	0	1	1	1	1	0	1	A	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.9													
11-Jun	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	0	2	1	1	1	1	1	0.8	1.6													
12-Jun	1	0	1	1	1	1	1	A	1	1	1	1	0	1	0	0	1	0	0	0	0	0	1	1	0.6	1.3													
13-Jun	1	0	0	0	0	1	A	1	0	1	0	0	0	0	0	0	1	1	1	1	0	1	1	1	0.5	0.9													
14-Jun	1	1	1	1	1	A	1	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0.5	1.1													
15-Jun	1	0	0	1	A	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0.5	0.9													
16-Jun	1	1	0	A	0	1	1	1	1	0	1	0	1	0	0	1	1	0	1	1	1	1	1	1	0.5	0.7													
17-Jun	0	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	1	2	1	1	0.8	2.4													
18-Jun	1	A	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.6	1.5													
19-Jun	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	1.3													
20-Jun	1	1	2	2	1	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1	A	1	0.6	1.9													
21-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	A	1	1	0.6	1.2													
22-Jun	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	0.7	1.1													
23-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	A	1	1	1	1	1	0.7	1.3													
24-Jun	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0	1	1	0.5	0.7													
25-Jun	1	1	1	0	1	1	1	1	1	1	0	C	C	C	1	0	0	A	0	0	0	0	0	0	0.5	1.2													
26-Jun	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	1	1	0	1	1	1	1	0.4	0.8													
27-Jun	1	1	0	1	1	1	1	1	1	1	0	1	0	0	0	A	1	1	0	0	1	1	1	1	0.5	0.8													
28-Jun	0	1	1	1	0	1	1	1	1	1	1	1	1	0	A	0	0	1	1	0	0	1	1	0	0.5	0.7													
29-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0.4	0.5													
30-Jun	0	0	0	0	0	1	1	0	0	0	1	1	A	0	1	0	1	1	0	1	1	1	1	1	0.6	1.2													
0.6 0.6 0.7 0.7 0.6 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.6 0.7 0.6 0.7																									Diurnal Average														
1.3 1.4 1.9 1.6 1.5 1.3 1.2 1.0 0.8 0.8 1.0 1.6 0.6 0.7 1.2 0.7 0.7 1.1 1.6 1.1 1.1 2.4 1.1 1.3																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

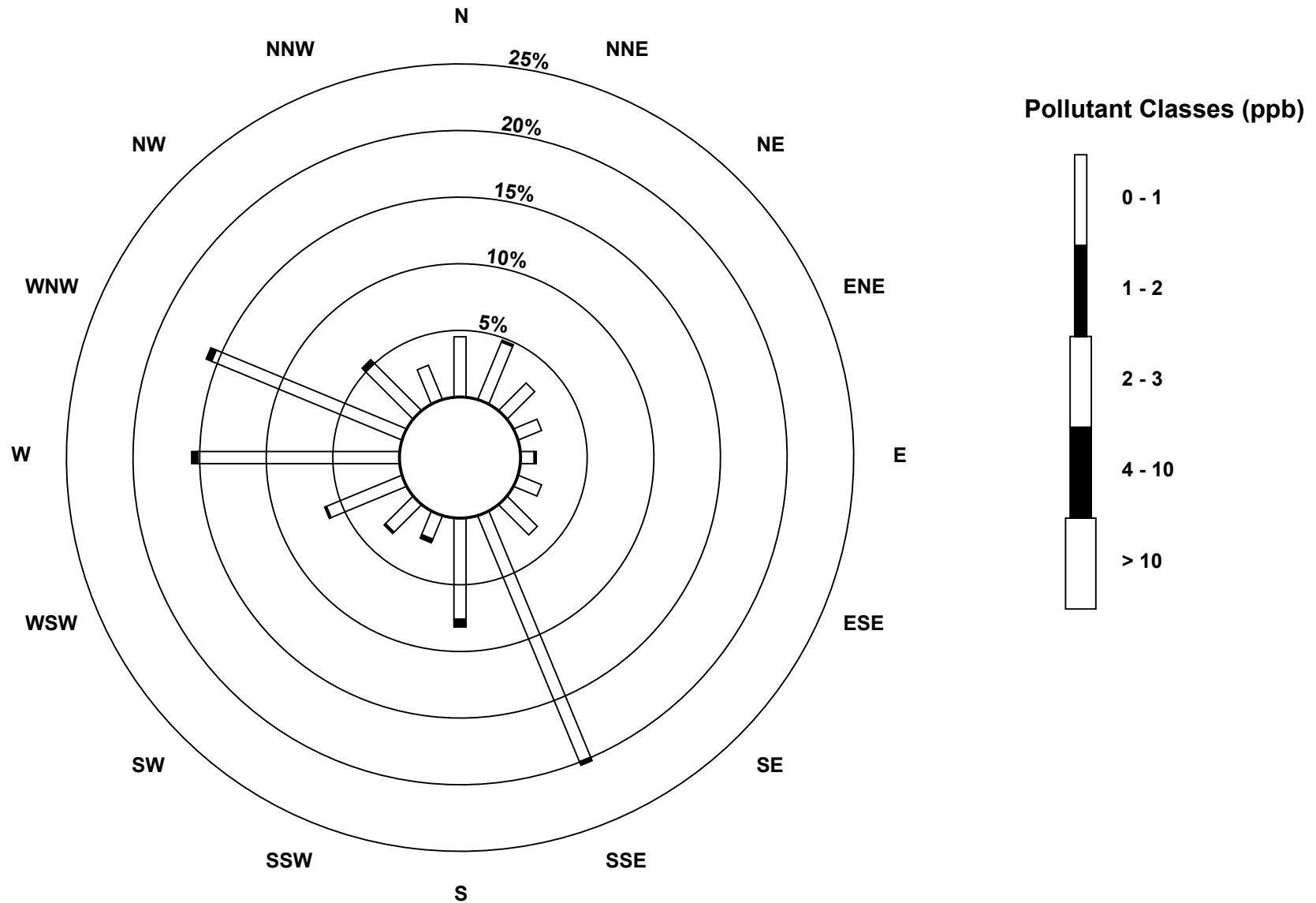
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - June 2018



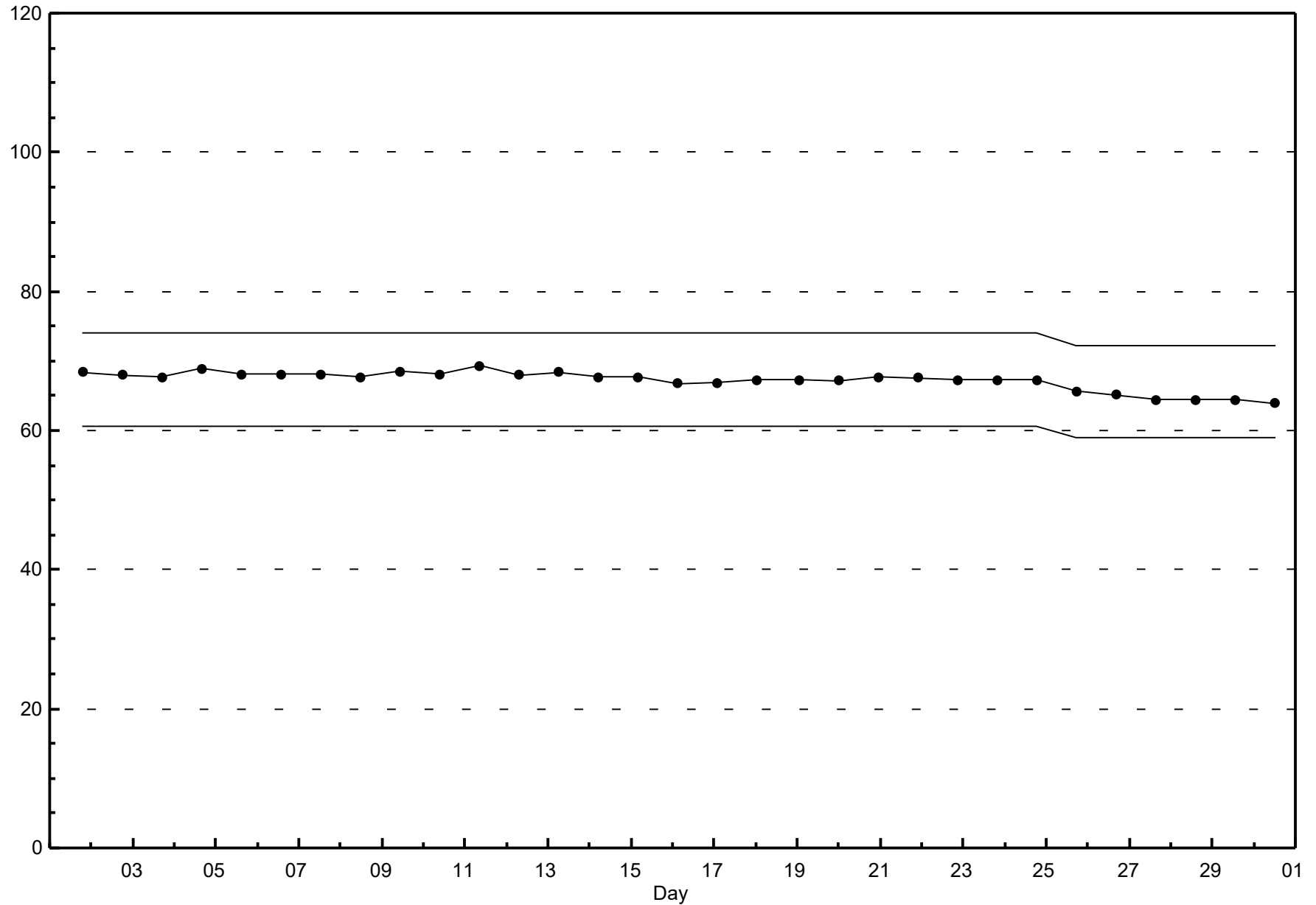
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - June 2018



Span Responses

Hydrogen Sulphide (H_2S)
Valleyview - June 2018



Hourly Averages

External Temperature (ET) - °C

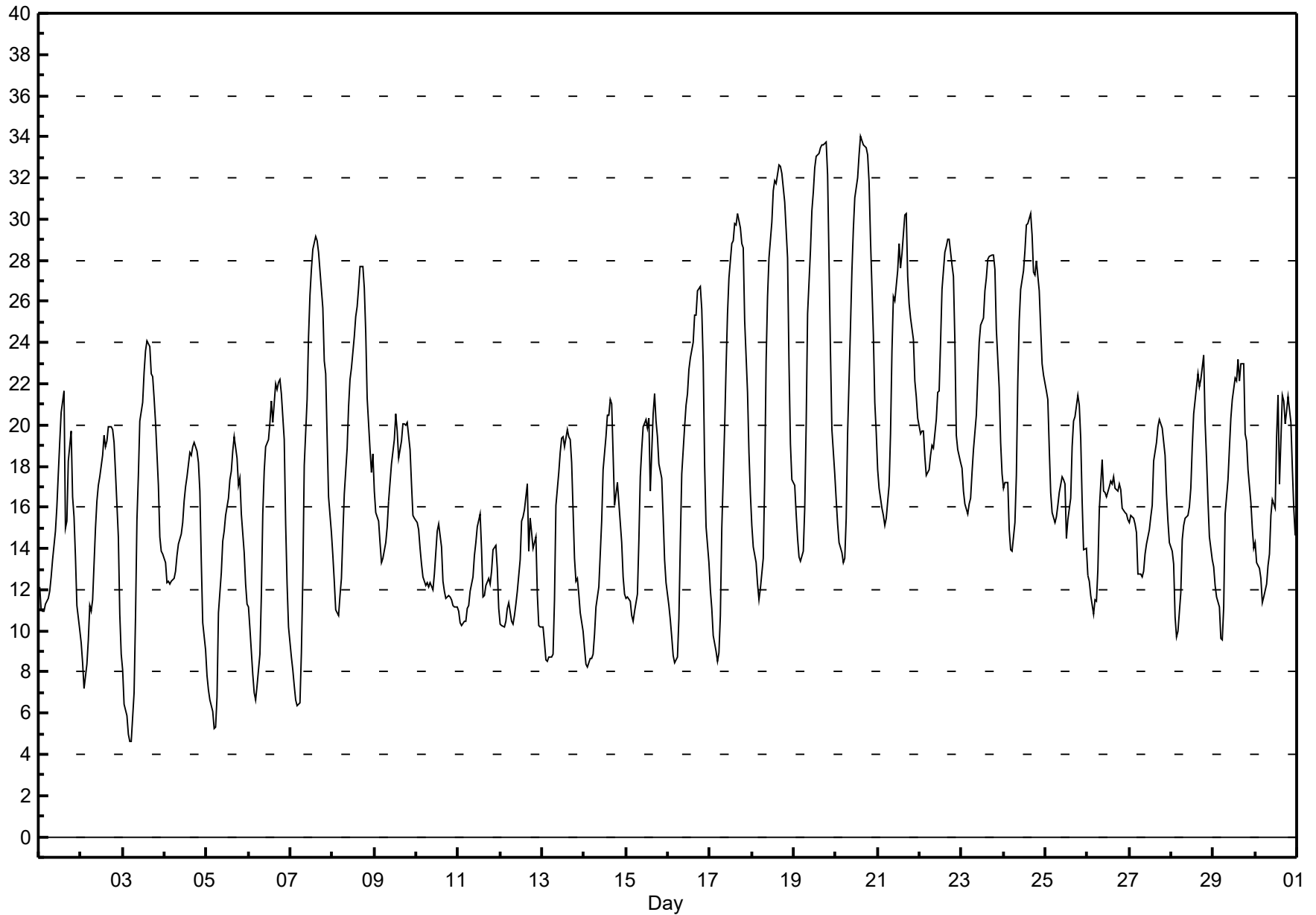
Valleyview - June 2018

Maximum Value: 34.0 °C on Jun 20 15:00																								Maximum Daily Average: 24.7 °C on Jun 19										Hours in Service: 720	
Minimum Value: 5 °C on Jun 3 06:00																								Minimum Daily Average: 12.4 °C on Jun 11										Hours of Data: 720	
Maximum Diurnal Average: 23.0 °C at hour 17																								Minimum Diurnal Average: 11.1 °C at hour 5										Hours of Missing Data: 0	
Monthly Average: 17.52 °C																								Percentiles: P ₁ = 6.4 P ₁₀ = 10.4 Q ₁ = 12.6 Median = 16.7 Q ₃ = 21.1 P ₉₀ = 27.5 P ₉₉ = 33.4										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-Jun	12	11	11	11	11	12	12	13	13	15	16	18	19	21	22	15	15	18	20	17	16	14	11	10	14.6	21.6									
2-Jun	9	8	7	8	10	11	11	12	15	16	17	17	19	19	19	19	20	20	19	18	15	11	9	14.6	19.9										
3-Jun	8	6	6	5	5	5	7	11	15	18	20	21	23	24	24	24	23	22	21	20	17	15	14	14	15.3	24.1									
4-Jun	13	12	12	12	12	13	13	14	14	15	15	16	17	18	19	19	19	19	19	18	17	13	10	9	14.9	19.2									
5-Jun	8	7	7	6	5	5	7	11	13	14	15	16	16	17	18	19	19	18	17	17	16	14	12	11	12.9	19.4									
6-Jun	11	10	8	7	7	7	9	12	16	18	19	19	20	21	20	22	22	22	22	22	19	15	12	10	15.4	22.2									
7-Jun	9	8	7	7	6	6	9	13	18	21	24	26	28	29	29	29	28	27	26	23	22	19	17	15	18.6	29.2									
8-Jun	14	12	11	11	12	13	15	17	19	21	22	23	24	25	26	27	28	28	27	25	21	19	18	19	19.7	27.7									
9-Jun	17	16	15	14	13	14	14	15	16	17	18	19	21	20	18	19	20	20	20	20	19	17	16	15	17.3	20.5									
10-Jun	15	15	14	13	13	12	12	12	12	12	13	14	15	15	14	12	12	12	12	12	11	11	11	11	12.8	15.3									
11-Jun	11	10	10	10	10	11	11	12	13	14	14	15	16	14	12	12	12	13	12	13	14	14	13	11	12.4	15.7									
12-Jun	10	10	10	10	11	11	10	10	11	11	12	13	15	16	16	17	14	15	15	14	15	12	10	10	12.5	17.1									
13-Jun	10	9	9	9	9	9	9	12	16	18	19	19	19	19	20	19	19	18	14	12	13	12	11	10	13.9	19.8									
14-Jun	9	8	8	9	9	9	10	11	12	14	15	18	19	20	20	21	21	16	17	17	16	14	13	12	14.1	21.2									
15-Jun	12	12	11	11	10	11	12	14	18	19	20	20	20	20	17	21	22	20	19	18	17	16	13	12	16.0	21.5									
16-Jun	11	11	10	9	8	9	11	14	18	20	21	22	23	23	24	25	25	27	27	26	23	18	15	13	18.0	26.7									
17-Jun	12	11	10	9	9	9	11	15	20	23	25	27	29	29	30	30	30	30	29	29	25	22	19	17	20.7	30.3									
18-Jun	15	14	13	12	12	12	14	17	23	26	28	30	31	32	32	33	33	32	32	31	28	23	19	17	23.3	32.6									
19-Jun	17	16	14	14	13	14	16	20	25	28	30	31	32	33	33	33	34	34	34	32	28	24	20	18	24.7	33.7									
20-Jun	16	15	14	14	13	14	15	20	25	27	30	31	32	33	34	34	34	33	33	32	29	24	21	20	24.7	34.0									
21-Jun	18	17	16	16	15	15	17	20	24	26	26	27	29	28	28	30	30	27	26	25	24	22	21	20	22.8	30.3									
22-Jun	20	20	20	18	18	18	19	19	19	20	22	22	24	27	28	29	29	29	28	27	24	19	19	18	22.3	29.1									
23-Jun	18	17	16	16	16	16	18	19	20	22	24	25	25	27	27	28	28	28	28	28	25	22	19	18	22.1	28.3									
24-Jun	17	17	17	15	14	14	15	18	22	25	27	28	28	30	30	30	29	27	27	28	27	25	23	22	23.1	30.2									
25-Jun	22	21	19	17	16	15	16	16	17	17	17	17	14	15	16	19	20	20	21	21	19	16	14	14	17.6	21.7									
26-Jun	13	12	12	11	11	11	13	16	18	17	17	17	17	17	17	17	17	17	17	17	16	16	16	15	15.3	18.3									
27-Jun	15	16	15	15	15	13	13	13	13	14	14	15	16	16	18	19	20	20	20	20	19	17	15	14	16.0	20.2									
28-Jun	14	13	11	10	10	12	14	15	15	16	16	17	19	21	22	23	22	22	23	20	18	16	15	13	16.5	23.4									
29-Jun	13	12	12	11	10	10	11	16	17	19	20	21	22	22	23	22	23	23	20	19	18	16	15	14	17.1	23.2									
30-Jun	14	13	13	13	11	12	12	13	14	16	16	16	19	21	17	21	21	20	21	21	20	18	16	15	16.4	21.5									
13.5 12.7 12.0 11.4 11.1 11.4 12.5 14.5 17.0 18.6 19.8 20.7 21.7 22.4 22.5 22.9 23.0 22.6 22.2 21.4 19.8 17.2 15.3 14.2																								Diurnal Average											
21.7 21.3 19.7 18.5 17.6 17.8 18.5 20.0 25.4 28.5 30.4 31.3 32.5 33.2 34.0 33.8 33.6 33.6 33.7 32.1 29.0 24.7 23.0 22.5																								Diurnal Maximum											

Hourly Averages

External Temperature (ET) - °C

Valleyview - June 2018



Hourly Averages

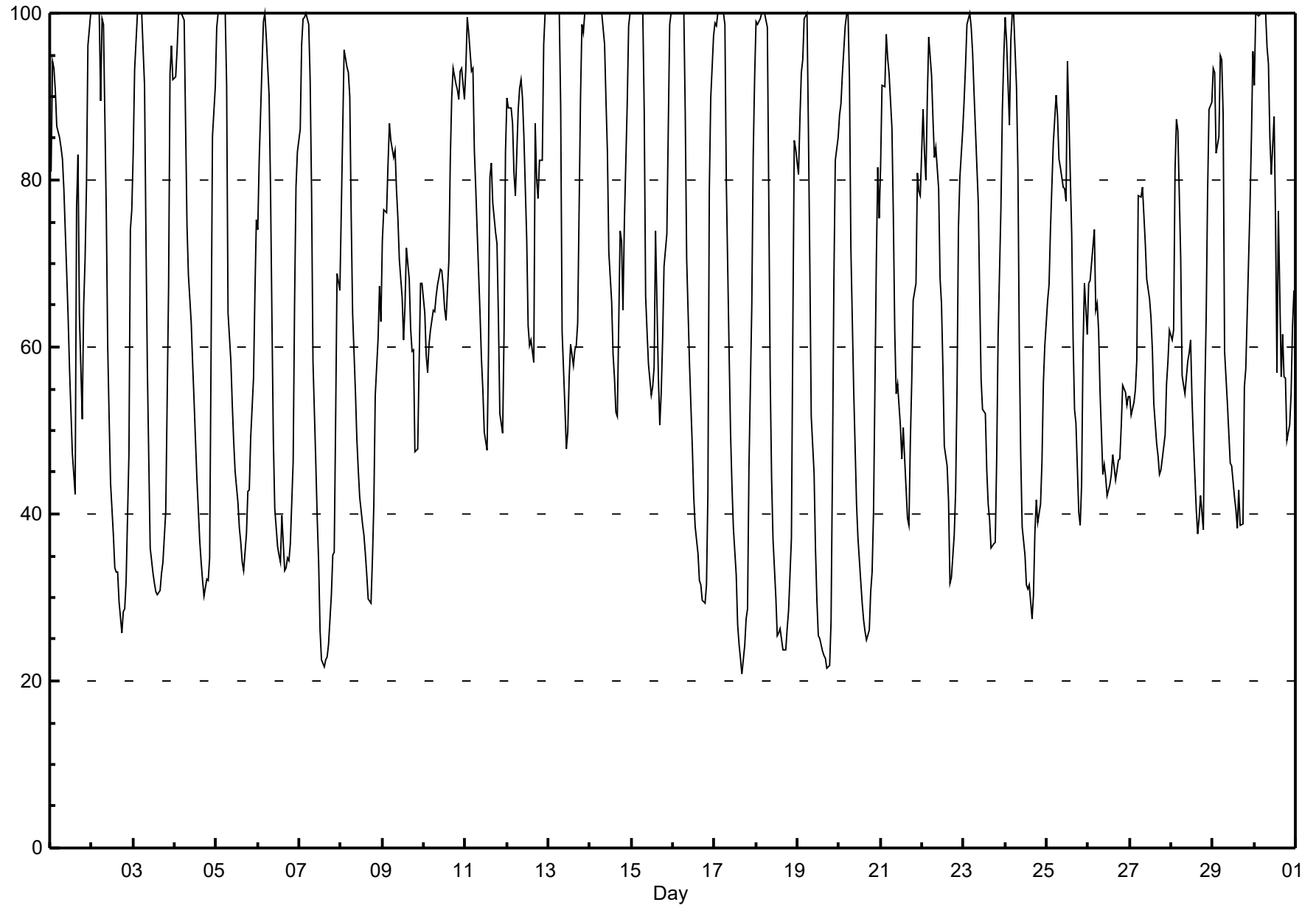
Relative Humidity (RH) - %

Valleyview - June 2018

Maximum Value: 100.0 % on Jun 2 00:00		Maximum Daily Average: 83.3 % on Jun 14		Hours in Service: 720																						
Minimum Value: 21 % on Jun 17 17:00		Minimum Daily Average: 53.7 % on Jun 26		Hours of Data: 720																						
Maximum Diurnal Average: 92.7 % at hour 5		Minimum Diurnal Average: 44.0 % at hour 17		Hours of Missing Data: 0																						
Monthly Average: 66.54 %		Percentiles: P ₁ = 22.8 P ₁₀ = 33.1 Q ₁ = 46.5 Median = 65.6 Q ₃ = 88.6 P ₉₀ = 99.8 P ₉₉ = 100.0		Hours of Calibration: 0																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Jun	81	94	93	91	86	85	84	83	79	69	64	57	52	47	42	77	83	64	51	65	71	79	96	100	74.8	100.0
2-Jun	100	100	100	100	100	89	99	99	76	60	52	44	38	34	33	33	29	26	28	29	32	47	74	76	62.4	100.0
3-Jun	83	93	100	100	100	100	91	73	58	47	36	33	32	31	30	31	33	34	37	40	67	93	96	92	63.8	100.0
4-Jun	92	96	100	100	100	99	87	75	69	63	58	54	49	44	37	34	32	30	32	32	35	59	85	91	64.7	100.0
5-Jun	98	100	100	100	100	100	91	64	58	53	49	45	41	38	37	34	33	38	43	43	49	56	67	75	63.1	100.0
6-Jun	74	82	94	99	100	97	90	79	64	49	41	36	35	34	40	33	34	35	34	36	46	65	79	83	60.8	100.0
7-Jun	86	96	99	99	100	99	92	79	58	46	39	34	26	23	22	23	23	24	30	35	35	51	69	67	56.5	100.0
8-Jun	76	86	96	94	93	90	76	64	55	49	45	42	39	37	35	33	30	29	35	41	54	61	67	63	57.9	95.6
9-Jun	73	76	76	82	87	85	83	84	79	75	71	66	61	65	72	68	62	59	60	47	48	58	68	68	69.6	86.8
10-Jun	64	59	57	60	62	64	64	66	68	69	69	67	65	63	70	82	90	93	92	91	90	93	93	90	74.3	93.4
11-Jun	93	100	98	93	93	84	79	74	64	59	55	50	48	59	80	82	77	74	72	64	52	50	62	83	72.7	99.6
12-Jun	90	89	89	87	81	78	88	91	92	90	85	73	62	60	61	58	87	80	78	82	82	96	100	100	82.5	100.0
13-Jun	100	100	100	100	100	100	100	89	62	53	48	50	56	60	58	60	60	63	90	99	98	100	100	100	81.0	100.0
14-Jun	100	100	100	100	100	100	100	100	96	89	83	71	65	59	56	52	52	74	73	64	75	89	98	100	83.3	100.0
15-Jun	100	100	100	100	100	100	100	88	66	62	58	54	55	58	74	57	51	54	61	70	74	86	99	100	77.7	100.0
16-Jun	100	100	100	100	100	100	100	88	71	58	53	48	42	38	35	32	32	30	29	32	42	79	90	97	66.5	100.0
17-Jun	99	98	100	100	100	100	99	80	59	50	43	38	33	27	24	23	21	24	28	29	46	65	83	92	60.8	100.0
18-Jun	99	99	99	100	100	100	98	78	56	44	37	30	25	26	26	24	24	24	26	29	37	62	85	84	58.8	100.0
19-Jun	81	87	93	94	99	100	86	70	52	45	36	30	26	25	24	23	23	22	22	27	46	68	82	85	56.0	100.0
20-Jun	88	89	93	98	100	100	92	72	55	48	41	37	32	29	27	26	25	26	31	33	40	71	82	75	58.7	100.0
21-Jun	82	91	91	97	95	93	86	76	62	54	56	51	47	50	47	40	39	49	56	66	68	81	79	78	67.9	97.5
22-Jun	89	83	80	90	97	92	87	83	84	79	68	65	58	48	46	42	32	32	37	43	55	74	80	86	68.0	97.1
23-Jun	89	94	99	100	98	95	91	86	77	66	56	53	52	45	41	39	36	37	37	47	61	77	88	95	69.1	100.0
24-Jun	100	97	87	97	100	100	91	81	60	47	38	35	32	31	32	27	30	38	42	39	41	46	56	60	58.6	100.0
25-Jun	66	67	74	79	84	90	88	83	82	79	79	77	94	88	74	61	53	51	40	39	44	60	68	61	70.0	94.2
26-Jun	68	68	70	74	64	65	62	55	45	46	44	42	43	45	47	46	44	46	47	51	55	55	53	54	53.7	74.1
27-Jun	54	52	53	55	58	78	78	79	76	72	68	66	64	60	53	48	47	45	45	47	50	56	58	62	59.3	79.2
28-Jun	61	62	81	87	86	71	57	55	54	58	59	61	54	49	41	38	39	42	38	54	64	79	88	89	61.1	89.4
29-Jun	93	93	83	85	95	94	88	60	53	50	46	46	42	40	38	43	39	39	55	57	64	77	85	95	65.1	95.4
30-Jun	91	100	100	100	100	100	100	96	94	85	81	88	75	57	76	56	62	57	56	49	51	54	62	67	77.3	100.0
85.7		88.4	90.1	92.1	92.7	91.6	87.6	78.3	67.4	60.5	55.3	51.4	48.1	45.7	46.0	44.1	44.0	44.6	46.8	49.2	55.7	69.6	79.8	82.4	Diurnal Average	
100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.3	89.9	85.3	87.7	94.2	87.6	80.4	82.4	89.8	93.4	91.5	98.6	97.7	100.0	100.0	100.0	Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %
Valleyview - June 2018



Hourly Averages

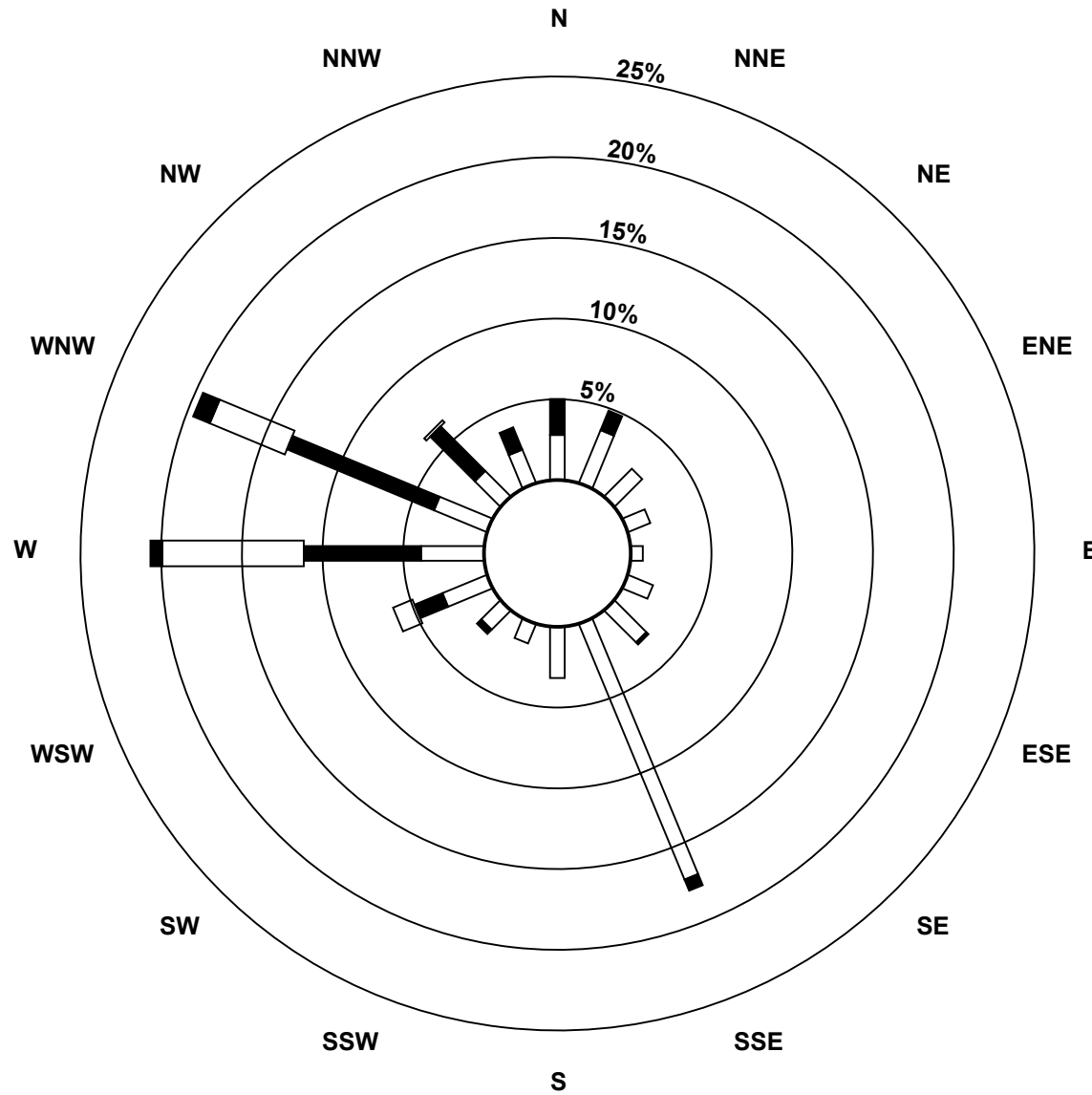
Wind Speed (km/h)
Wind Direction (deg)
Valleyview - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	4	1	1	1	2	3	4	3	4	7	5	5	5	4	3	4	4	2	1	2	1	2	1	1	2.6	6.6
Dir	154	134	93	109	154	149	142	149	157	160	156	156	139	137	123	201	135	153	147	158	203	245	163	130	153	160
2 Spd	1	0	0	2	0	6	1	1	5	10	10	12	12	13	15	14	14	16	13	14	8	1	0	1	6.7	16.2
Dir	158	149	293	158	162	265	171	155	279	284	279	279	272	283	266	291	282	276	292	274	275	246	238	190	277	276
3 Spd	1	0	1	1	0	0	2	1	1	1	2	3	3	3	4	3	3	2	3	4	2	1	4	7	1.3	6.6
Dir	167	153	164	166	169	176	160	149	136	115	128	129	121	140	151	161	137	115	62	77	160	36	13	18	112	18
4 Spd	4	3	1	1	2	2	8	12	13	15	18	13	15	15	15	16	14	12	10	11	6	3	1	1	7.9	17.6
Dir	354	342	151	154	157	212	244	252	257	270	270	276	286	289	285	289	298	293	292	289	281	357	299	258	280	270
5 Spd	0	1	1	1	1	1	1	6	9	10	11	10	11	10	9	7	6	4	5	3	2	1	0	1	3.3	11.2
Dir	161	164	164	160	161	161	194	272	282	288	297	295	321	316	337	341	354	26	15	39	47	88	6	318	317	321
6 Spd	1	1	1	1	0	0	1	1	1	6	8	8	5	5	10	5	7	5	2	1	0	0	0	0	1.8	10.4
Dir	279	21	298	157	163	239	177	164	172	247	267	283	275	304	351	331	348	26	72	73	17	16	169	319	310	351
7 Spd	1	0	0	0	0	0	0	1	2	3	3	3	5	4	4	3	4	3	0	7	2	1	0	2	1.1	7.3
Dir	325	182	151	205	172	221	289	156	163	167	161	162	162	157	164	172	166	160	310	316	138	359	289	351	170	316
8 Spd	1	0	1	1	1	1	4	7	3	0	1	1	1	2	3	3	3	3	3	2	1	3	2	5	1.1	6.6
Dir	345	158	170	171	159	223	278	352	10	140	67	349	296	106	73	65	49	52	45	32	355	348	288	321	10	352
9 Spd	5	4	3	2	2	2	3	3	4	7	5	5	6	11	8	5	7	11	9	9	5	3	3	8	5.0	10.8
Dir	315	349	28	32	331	262	279	303	313	301	293	294	306	297	309	317	314	322	336	316	296	260	264	283	308	322
10 Spd	8	10	11	7	6	8	7	7	6	8	9	10	13	17	14	10	10	6	5	10	13	5	11	12	9.1	16.6
Dir	298	298	293	282	278	282	291	300	314	293	303	308	291	289	283	290	326	291	298	287	276	305	278	277	292	289
11 Spd	13	6	13	11	9	16	14	18	16	18	18	21	22	23	23	19	12	19	25	21	22	22	22	20	17.4	24.5
Dir	291	271	268	276	279	263	261	268	272	275	273	278	284	277	290	277	284	282	279	278	287	291	304	286	280	279
12 Spd	15	13	16	14	12	15	16	14	16	15	14	14	15	14	9	12	5	2	7	1	1	0	0	1	9.2	16.3
Dir	275	286	275	269	270	278	276	280	273	269	273	275	282	285	285	319	358	15	356	12	119	49	127	158	282	275
13 Spd	0	1	0	0	1	1	2	2	5	8	9	9	9	9	10	11	10	8	4	2	3	0	0	0	2.9	10.7
Dir	194	190	293	61	147	168	161	162	288	298	307	353	355	10	12	9	13	5	233	16	18	13	233	224	350	9
14 Spd	0	0	0	1	1	1	0	1	0	1	1	1	0	4	8	7	7	7	2	2	1	0	0	0	1.1	7.7
Dir	29	113	169	137	30	142	55	119	147	185	214	229	75	337	325	331	313	257	292	255	158	184	211	181	301	325
15 Spd	2	1	1	1	1	1	1	1	7	7	7	8	7	7	10	10	9	9	8	4	2	1	0	1	2.9	10.4
Dir	156	163	182	171	162	159	179	163	284	296	295	306	348	17	11	17	19	12	4	351	319	303	251	159	347	11
16 Spd	1	0	0	0	1	1	1	3	5	4	5	6	6	6	5	3	3	1	1	2	0	0	0	0	1.5	6.2
Dir	165	166	162	164	161	155	173	270	247	307	300	312	327	322	334	345	359	26	40	281	122	164	176	189	309	312
17 Spd	1	0	0	0	0	0	0	2	2	3	3	3	3	2	3	3	3	2	3	1	0	0	0	0	0.1	3.4
Dir	165	178	138	256	182	275	195	160	159	159	156	162	159	252	349	322	346	355	15	58	96	23	319	187	146	15
18 Spd	0	0	0	0	0	1	1	1	1	1	1	2	1	2	4	2	2	4	4	2	1	0	0	1	0.7	4.2
Dir	175	192	199	160	169	159	165	169	169	145	101	48	108	97	19	24	26	357	13	21	9	129	54	156	39	13
19 Spd	1	0	0	0	0	0	0	0	1	1	2	3	4	3	4	3	3	2	1	1	1	0	0	0	1.3	3.8
Dir	155	232	268	193	169	180	254	174	164	160	162	161	159	163	159	161	152	154	164	148	157	174	172	224	161	159
20 Spd	0	0	0	0	0	0	0	1	2	1	1	0	3	2	2	4	5	4	3	3	1	1	1	0	1.0	4.6
Dir	215	85	299	191	170	170	172	172	161	170	191	244	45	75	37	46	48	48	45	45	95	157	160	235	65	48
21 Spd	0	0	0	0	1	1	1	2	1	2	2	3	6	7	6	8	9	6	2	1	1	1	2	4	1.8	8.6
Dir	258	279	51	206	239	158	157	158	159	160	166	254	260	284	307	326	290	288	255	163	258	157	171	260	271	290
22 Spd	1	4	5	3	2	2	1	1	1	1	3	4	3	2	1	5	9	8	6	4	8	10	1	3	2.8	9.8
Dir	238	253	261	286	154	146	159	186	161	183	275	287	287	33	204	260	299	295	311	333	294	267	4	303	282	267

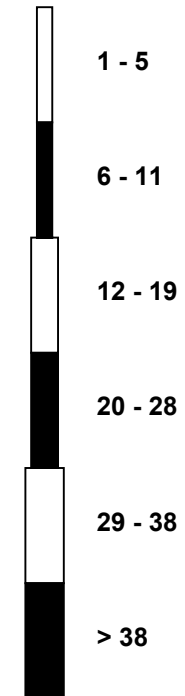
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - June 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - June 2018

Maximum Speed: 25 km/h on Jun 11 19:00																				Maximum Daily Speed Average: 18.0 km/h on Jun 11										Hours in Service: 720																				
Minimum Speed: 0 km/h on Jun 18 05:00																				Minimum Daily Speed Average: 1.4 km/h on Jun 19										Hours of Data: 720																				
Maximum Diurnal Speed Average: 8.9 km/h at hour 15																				Minimum Diurnal Speed Average: 2.4 km/h at hour 5										Hours of Missing Data: 0																				
Monthly Average Speed: 5.36 km/h																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.6 Q ₁ = 1.3 Median = 3.6 Q ₃ = 8.1 P ₉₀ = 13.3 P ₉₉ = 21.4										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-Jun	4	1	1	1	2	3	4	3	4	7	6	5	5	5	4	5	4	3	1	2	2	2	1	1	3.1	6.8																								
2-Jun	1	1	1	2	3	7	1	1	6	10	11	12	13	14	16	17	15	17	13	14	8	2	0	1	7.8	17.5																								
3-Jun	1	0	1	1	0	0	2	1	1	1	2	4	4	4	5	4	3	3	4	5	3	1	4	7	2.5	6.7																								
4-Jun	4	3	1	1	2	2	9	12	13	16	18	13	16	16	16	17	15	13	11	11	6	3	1	1	9.2	18.0																								
5-Jun	1	1	1	1	1	1	2	7	9	10	12	11	12	10	10	8	7	5	5	3	3	1	1	2	5.1	11.7																								
6-Jun	1	1	1	1	0	1	1	1	1	7	9	9	6	8	11	6	8	6	2	1	0	1	0	1	3.6	11.3																								
7-Jun	1	1	0	1	0	0	0	1	2	3	3	3	5	4	4	4	4	3	1	10	2	2	1	3	2.5	10.2																								
8-Jun	2	1	1	1	1	2	4	7	3	2	3	3	3	3	4	4	4	4	3	2	1	3	3	5	2.9	7.0																								
9-Jun	5	5	3	2	2	3	3	3	5	7	6	5	7	11	8	6	8	11	10	9	5	3	3	9	5.9	11.3																								
10-Jun	8	10	11	7	7	8	8	7	7	8	9	10	13	17	15	10	11	6	5	10	14	7	11	13	9.6	16.9																								
11-Jun	13	6	14	12	10	16	15	18	17	18	18	21	23	24	23	19	13	19	25	21	23	23	22	20	18.0	24.9																								
12-Jun	15	13	16	15	12	15	16	14	16	16	14	14	15	15	9	13	6	3	7	2	1	1	0	1	10.3	16.5																								
13-Jun	1	1	1	1	1	1	2	2	5	8	9	10	9	10	10	11	10	8	6	2	3	1	0	0	4.8	11.1																								
14-Jun	0	1	1	1	2	2	1	1	1	2	3	3	3	5	8	8	9	7	3	3	1	0	1	0	2.7	9.2																								
15-Jun	2	1	1	1	1	1	1	1	8	7	7	9	10	8	11	10	9	10	8	4	2	1	0	1	4.7	10.8																								
16-Jun	1	1	0	1	1	1	1	4	5	4	6	7	6	7	6	4	5	2	1	2	0	1	0	0	2.8	7.4																								
17-Jun	1	0	0	0	0	1	1	2	2	3	3	3	3	3	4	4	4	3	4	1	0	0	0	0	1.8	4.3																								
18-Jun	0	0	0	0	0	1	1	1	1	1	1	2	2	3	4	3	3	4	4	2	1	0	0	1	1.6	4.4																								
19-Jun	1	0	0	0	0	0	0	0	1	1	2	3	4	4	4	4	3	2	1	1	1	0	0	0	1.4	3.9																								
20-Jun	0	0	0	0	0	0	0	1	2	1	2	2	3	3	3	5	5	5	3	3	2	1	1	0	1.8	5.1																								
21-Jun	0	0	1	0	1	1	1	2	1	2	2	4	6	7	7	8	9	7	3	1	1	1	2	5	3.1	9.3																								
22-Jun	2	4	5	4	2	2	1	2	1	1	4	5	4	3	2	6	10	9	6	4	9	10	2	3	4.2	10.3																								
23-Jun	2	2	1	1	1	4	4	7	7	7	6	6	8	10	10	8	10	7	6	2	1	1	1	0	4.6	10.0																								
24-Jun	1	2	1	0	1	1	2	2	2	2	2	2	3	2	2	3	3	3	2	5	6	5	4	5	2.6	6.1																								
25-Jun	4	5	4	1	0	0	2	6	6	7	8	13	13	13	14	12	13	10	13	12	7	1	2	4	7.2	13.9																								
26-Jun	4	4	4	4	6	6	6	5	5	8	9	14	18	17	16	17	17	17	11	8	5	8	12	12	9.7	17.9																								
27-Jun	12	18	15	11	10	10	9	13	13	15	17	18	16	14	17	18	17	15	13	11	9	7	8	7	13.0	18.2																								
28-Jun	7	4	1	1	1	4	7	9	10	4	4	5	6	5	8	9	7	3	5	4	2	1	1	1	4.5	10.0																								
29-Jun	2	2	3	2	1	1	2	7	7	9	13	10	9	10	7	9	12	14	10	8	3	1	8	3	6.3	14.4																								
30-Jun	5	1	1	1	1	2	2	2	2	3	4	2	2	5	7	2	1	6	7	6	6	7	5	5	3.6	7.5																								
																									3.4	3.0	3.0	2.5	2.4	3.2	3.5	4.8	5.5	6.4	7.1	7.6	8.2	8.7	8.9	8.5	8.2	7.5	6.5	5.7	4.2	3.1	3.2	3.7	Diurnal Average	
																									14.8	17.8	16.5	14.6	12.3	16.0	15.8	18.3	16.5	17.9	18.4	20.9	23.0	23.6	23.3	19.4	16.8	18.8	24.9	21.5	22.6	22.7	22.0	19.9	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																		

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - June 2018

Maximum Value: 98.8 deg on Jun 8 13:00																		Hours in Service: 720							
Minimum Value: 5.2 deg on Jun 26 01:00																		Hours of Data: 720							
																		Hours of Missing Data: 0							
Percentiles: P ₁ = 7.8 P ₁₀ = 11.4 Q ₁ = 17.1 Median = 30.3 Q ₃ = 48.7 P ₉₀ = 69.7 P ₉₉ = 90.6																		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-Jun	10	23	37	73	17	14	11	15	15	12	16	16	18	32	55	48	22	32	39	15	61	35	59	61	72.8
2-Jun	21	79	83	10	69	50	45	32	61	19	19	15	23	23	18	34	19	15	15	12	41	79	31	82.8	
3-Jun	35	60	46	64	49	70	12	59	63	51	62	46	38	42	41	31	18	30	34	39	53	71	33	13	70.6
4-Jun	11	42	33	25	18	36	36	16	18	15	12	19	14	17	18	19	18	18	16	14	15	44	92	56	92.4
5-Jun	73	26	23	44	15	26	35	26	21	15	22	23	18	25	39	58	55	49	17	38	38	28	53	87	87.0
6-Jun	78	77	88	44	83	97	60	19	58	40	29	21	39	75	30	47	28	39	52	44	66	56	77	77	97.2
7-Jun	50	53	76	63	56	98	92	38	27	25	16	20	14	22	23	28	17	16	86	70	60	76	81	52	98.4
8-Jun	65	80	19	25	35	49	37	22	58	81	82	84	99	74	42	62	49	45	33	44	53	26	59	28	98.8
9-Jun	20	39	31	48	61	36	30	34	21	22	24	33	31	17	22	29	31	16	21	15	23	36	24	10	60.9
10-Jun	14	15	12	16	21	18	17	18	16	13	18	19	13	11	9	14	17	32	21	21	10	42	13	11	41.8
11-Jun	17	24	18	28	32	9	10	9	10	9	10	10	14	10	12	10	11	10	10	8	13	12	9	11	32.2
12-Jun	10	12	9	8	9	10	9	11	10	9	9	11	10	10	16	19	44	60	17	60	28	75	53	46	74.7
13-Jun	71	71	83	84	20	27	14	32	41	23	23	24	20	20	15	15	20	17	70	66	18	77	66	85	85.1
14-Jun	78	86	61	61	44	37	84	57	77	50	69	65	91	42	42	23	40	34	63	61	20	34	45	38	90.6
15-Jun	8	34	57	43	32	22	43	31	23	23	26	26	42	32	15	15	20	12	13	16	16	42	59	19	58.7
16-Jun	29	46	40	31	17	7	41	29	17	47	44	36	39	41	34	61	57	86	66	39	51	35	62	48	86.0
17-Jun	20	66	87	61	71	77	50	19	18	23	29	32	23	69	53	57	65	41	21	42	63	94	88	70	93.8
18-Jun	64	77	46	40	73	38	62	44	36	76	78	78	73	53	46	63	59	45	19	21	23	80	89	80	88.6
19-Jun	31	41	69	56	37	41	61	66	41	35	24	19	26	30	22	23	32	27	24	24	10	39	40	51	68.8
20-Jun	94	91	79	68	48	70	54	17	17	38	56	90	47	47	64	50	28	36	38	31	45	15	37	77	94.1
21-Jun	80	67	86	43	39	15	26	11	36	37	36	45	37	17	34	24	24	14	53	43	56	20	22	42	86.4
22-Jun	45	63	20	56	14	32	42	50	25	36	43	22	33	68	53	44	24	19	17	28	17	27	77	32	77.4
23-Jun	53	26	38	28	40	20	47	16	24	30	45	41	26	25	24	25	24	26	51	38	15	7	66	48	66.0
24-Jun	15	11	59	38	39	8	10	12	11	25	30	39	68	58	51	38	30	27	35	11	10	9	12	10	68.1
25-Jun	11	50	44	32	71	86	64	15	21	20	20	11	21	13	13	18	11	18	15	12	34	31	42	40	86.3
26-Jun	5	8	8	9	7	9	9	19	33	37	33	14	12	17	16	13	13	13	19	18	17	16	12	12	36.9
27-Jun	12	12	11	12	32	20	11	11	14	9	12	11	13	13	13	13	15	15	15	13	11	11	10	12	32.0
28-Jun	11	40	42	30	19	21	16	12	17	56	19	25	30	36	28	24	32	41	61	33	28	86	51	61	85.5
29-Jun	40	35	30	31	17	9	15	24	23	19	18	22	29	22	28	31	23	26	25	20	32	41	23	63	62.8
30-Jun	48	43	45	57	84	6	9	6	12	37	46	16	45	51	66	88	59	43	15	16	14	11	17	15	87.9
	94.1	90.6	88.4	83.7	83.7	98.4	92.0	66.1	77.3	80.6	81.7	89.7	98.8	74.6	65.8	87.9	65.3	86.0	85.6	69.8	66.4	93.8	92.4	87.0	

PAZA

Donnelly Station

Monthly Summary Tables, Graphs and Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

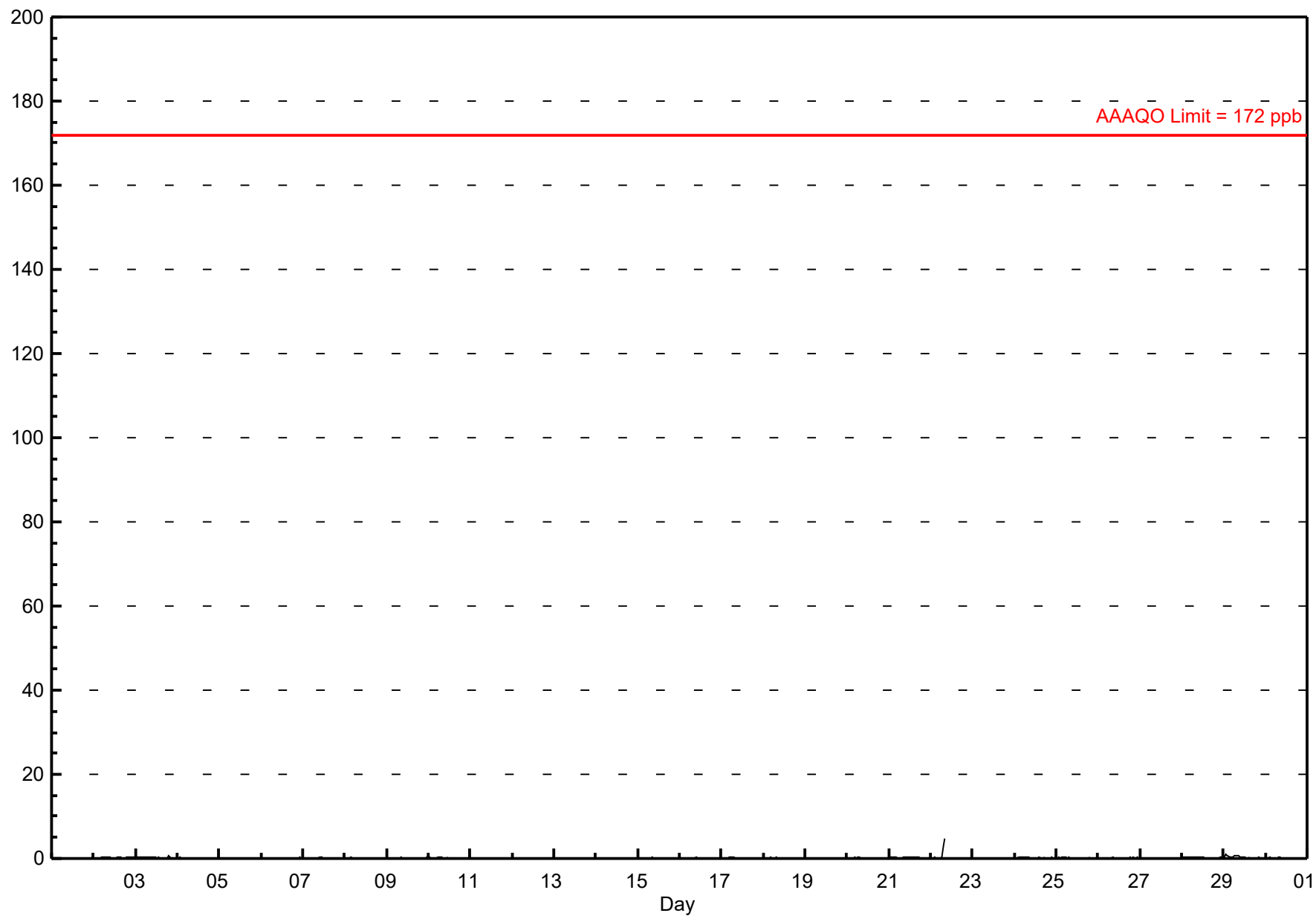
Donnelly - June 2018

Number of Exceedences (AAAQO):										1-hr: 0		24-hr: 0												Hours in Service:		720							
Maximum Value: 4.6 ppb on Jun 22 09:00										Maximum Daily Average: 0.3 ppb on Jun 29																				Hours of Data:		680	
Minimum Value: 0 ppb on Jun 1 01:00										Minimum Daily Average: 0.0 ppb on Jun 11																				Hours of Missing Data:		40	
Maximum Diurnal Average: 0.3 ppb at hour 9										Minimum Diurnal Average: 0.0 ppb at hour 21																				Hours of Calibration:		34	
Monthly Average: 0.10 ppb										Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.3 P ₉₉ = 0.5																				Percent Operational Time:		99.2	
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-Jun	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	0.3							
2-Jun	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	0.4							
3-Jun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0.3	0.5							
4-Jun	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	0.2							
5-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1							
6-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2							
7-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3							
8-Jun	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	0.3							
9-Jun	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	0.4							
10-Jun	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							
11-Jun	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							
12-Jun	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							
13-Jun	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							
14-Jun	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							
15-Jun	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							
16-Jun	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							
17-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3							
18-Jun	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							
19-Jun	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	0.1							
20-Jun	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							
21-Jun	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	0.5							
22-Jun	0	0	0	0	0	0	0	3	5	C	C	C	C	0	0	0	0	0	0	P	P	P	P	P	--	4.6							
23-Jun	P	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							
24-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4							
25-Jun	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	0.3							
26-Jun	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							
27-Jun	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	0.2							
28-Jun	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							
29-Jun	0	1	1	0	0	0	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	1.0							
30-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2							
																									Diurnal Average								
																									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 - June 2018



Hourly Maximums

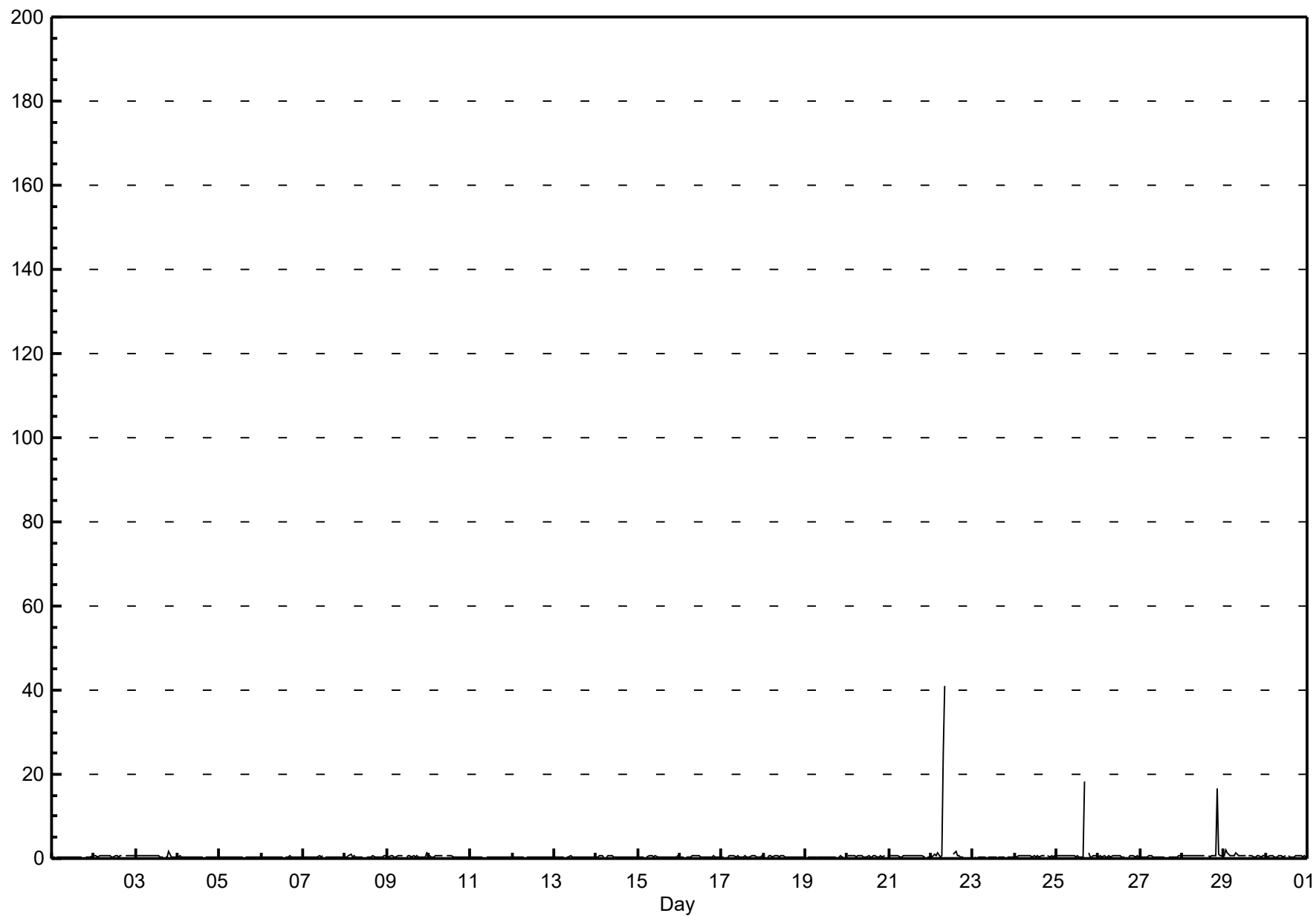
Sulphur Dioxide (SO₂) - ppb

Donnelly - June 2018

Maximum Value: 40.9 ppb on Jun 22 09:00																				Maximum Daily Average: 1.4 ppb on Jun 25					Hours in Service: 720				
Minimum Value: 0 ppb on Jun 23 03:00																				Minimum Daily Average: 0.3 ppb on Jun 23					Hours of Data: 680				
Maximum Diurnal Average: 1.9 ppb at hour 9																				Minimum Diurnal Average: 0.4 ppb at hour 18					Hours of Missing Data: 40				
Monthly Average: 0.63 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 = 1.4					Hours of Calibration: 34				
																				Percent Operational Time: 99.2									
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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0.4	0.8			
2-Jun	1	1	0	1	1	1	1	1	1	1	0	0	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.7			
3-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	2	0	0	0	0	0.6	1.7			
4-Jun	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.5			
5-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.5			
6-Jun	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	1	0	0	0	1	0	1	1	0.5	0.6			
7-Jun	0	0	1	0	0	0	0	0	0	1	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7			
8-Jun	0	0	1	1	0	1	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	1	1	0.4	0.9			
9-Jun	0	0	1	1	0	0	1	1	1	1	A	0	1	1	0	1	0	1	0	0	0	0	0	1	0.5	1.4			
10-Jun	1	0	0	0	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	0.8			
11-Jun	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			
12-Jun	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	0.5			
13-Jun	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5			
14-Jun	0	0	1	1	1	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6			
15-Jun	0	0	0	0	A	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.6			
16-Jun	0	0	0	A	0	0	0	1	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	1	0.5	0.7			
17-Jun	0	1	A	0	1	1	1	1	0	1	0	0	0	1	0	0	0	1	1	1	0	0	0	1	0.5	0.6			
18-Jun	1	A	0	1	1	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8			
19-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0.3	0.5			
20-Jun	1	1	1	1	1	0	1	1	1	0	1	0	1	0	1	1	1	0	0	1	0	1	A	1	0.5	0.6			
21-Jun	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0.6	0.8			
22-Jun	0	1	1	1	1	0	1	25	41	C	C	C	C	1	2	1	1	0	0	P	P	P	P	P	--	40.9			
23-Jun	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.4			
24-Jun	0	0	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	A	1	0	1	1	1	0.6	0.8			
25-Jun	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	18	A	1	0	0	1	1	1	1.4	18.4			
26-Jun	0	1	0	1	0	1	1	0	1	1	1	1	1	0	0	0	A	0	1	1	1	0	1	0	0.5	0.8			
27-Jun	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0.4	0.6			
28-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	17	1	1	1	1.3	16.7			
29-Jun	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	1	0	1	1	0.8	1.9			
30-Jun	1	0	1	1	1	0	0	1	1	1	0	1	A	1	0	0	0	1	1	1	1	0	1	0	0.6	0.8			
0.5 0.5 0.5 0.5 0.5 0.5 0.5 1.4 1.9 0.5 0.5 0.5 0.4 0.5 0.5 0.4 1.1 0.4 0.5 0.5 1.0 0.5 0.5 0.5																									Diurnal Average				
0.8 1.9 1.3 0.9 1.3 0.8 0.8 25.0 40.9 0.8 0.8 0.8 0.8 1.1 1.6 0.8 18.4 0.7 1.2 1.7 16.7 1.0 0.8 1.4																									Diurnal Maximum				
C - Calibration P - Power Failure A - Automated Daily Zero Span																													

Hourly Maximums

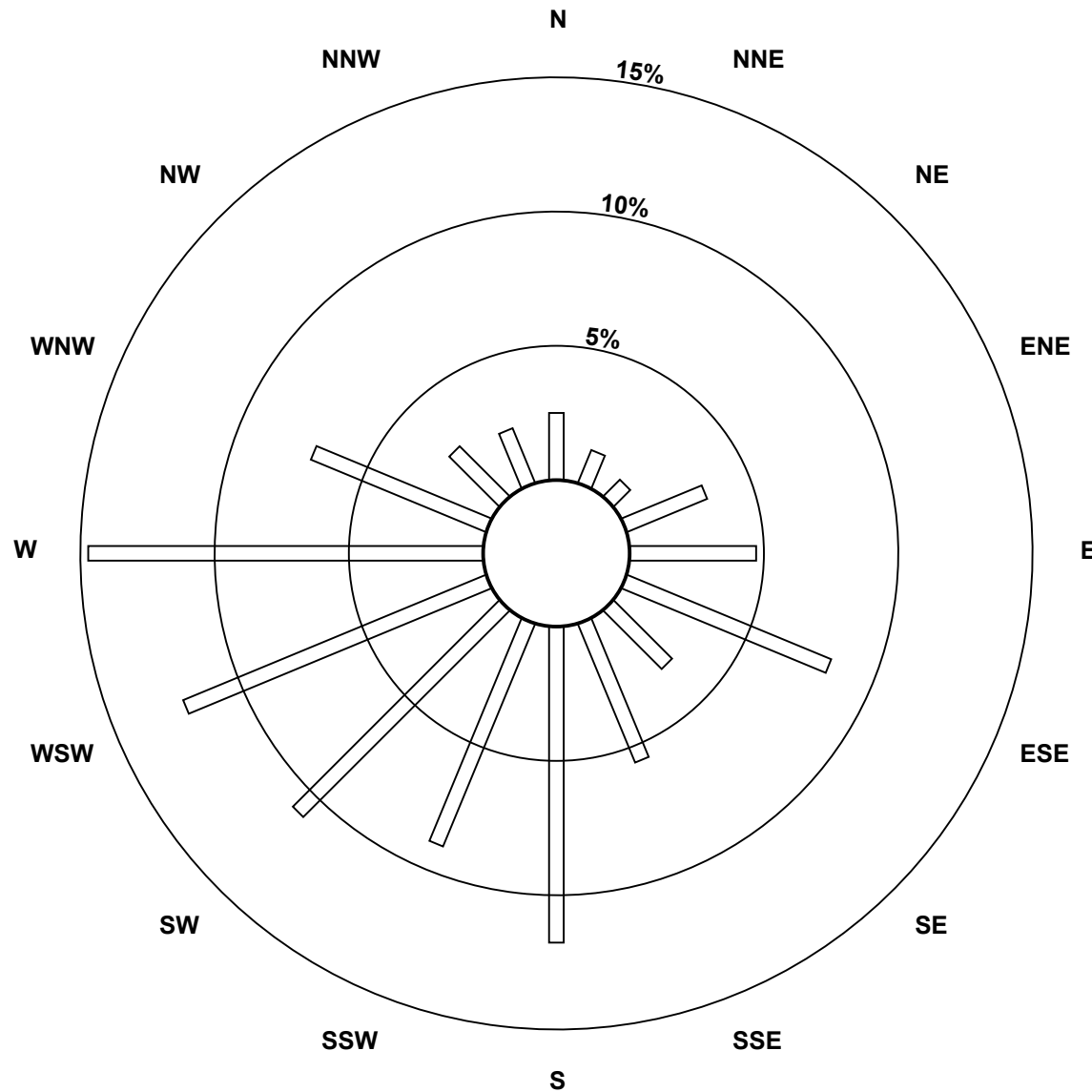
Sulphur Dioxide (SO₂) - ppb
Donnelly - June 2018



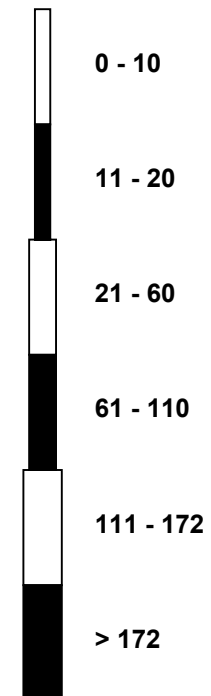
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Donnelly - June 2018



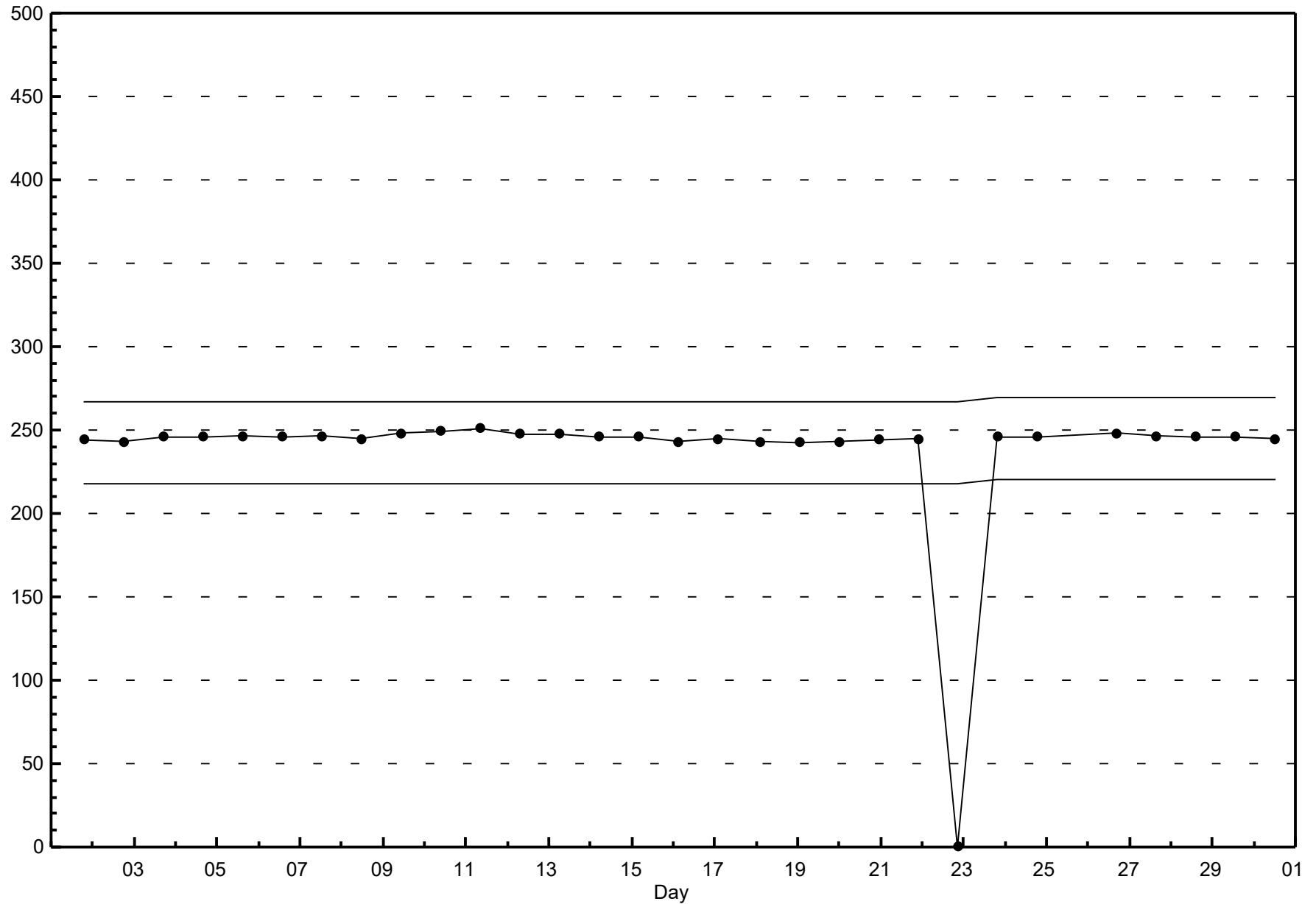
Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)

Donnelly - June 2018



Hourly Averages

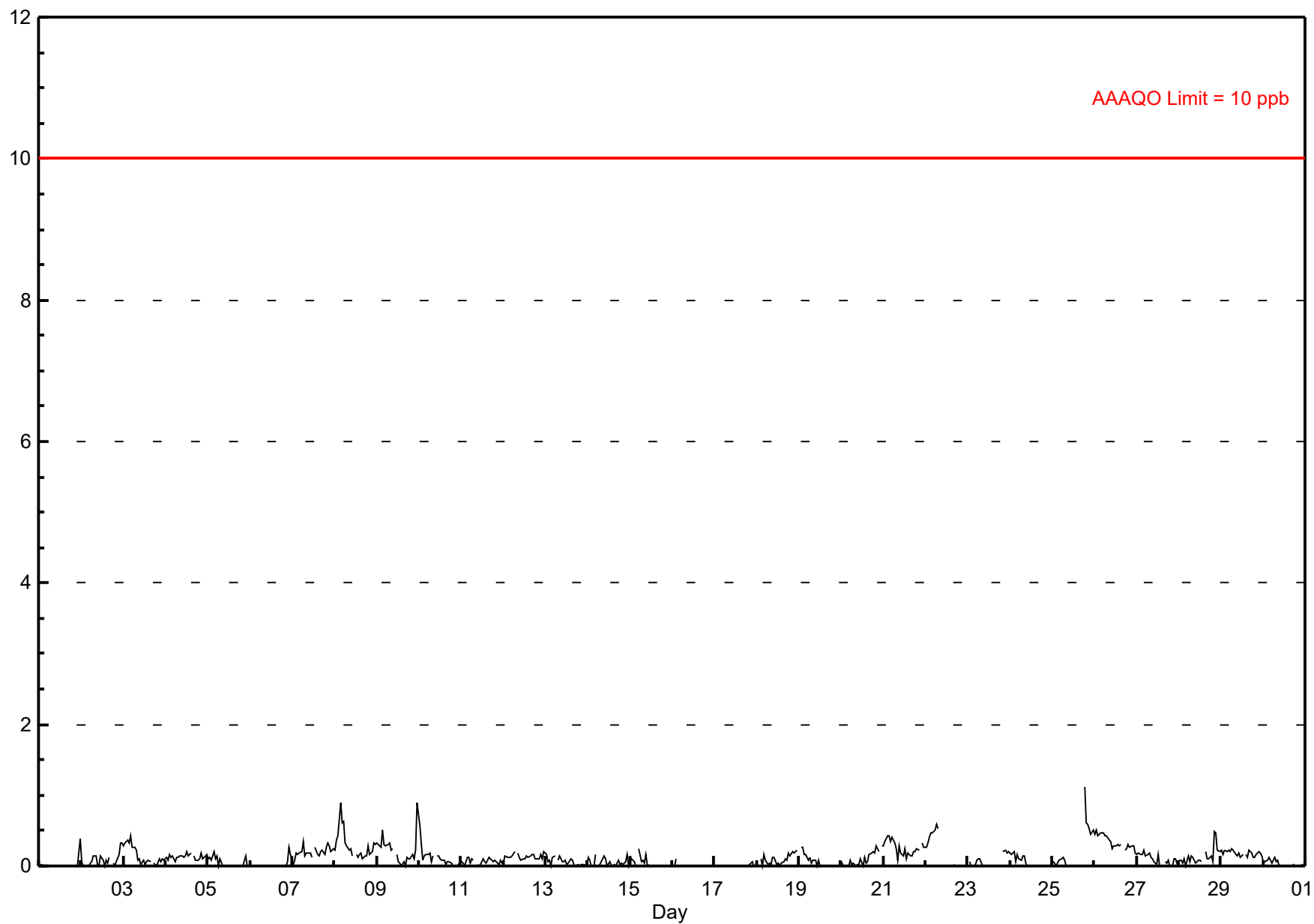
Hydrogen Sulphide (H₂S) - ppb

Donnelly - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.1 ppb on Jun 25 19:00 Maximum Daily Average: 0.3 ppb on Jun 26																								Hours in Service: 720 Hours of Data: 674 Hours of Missing Data: 46 Hours of Calibration: 38 Percent Operational Time: 98.9		
Minimum Value: 0 ppb on Jun 1 01:00 Maximum Diurnal Average: 0.2 ppb at hour 24 Monthly Average: 0.11 ppb																								Minimum Daily Average: 0.0 ppb on Jun 17 Minimum Diurnal Average: 0.1 ppb at hour 14 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.6		
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-Jun	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	0.4
2-Jun	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	0.3
3-Jun	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
4-Jun	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
5-Jun	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	0.2
6-Jun	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	0.3
7-Jun	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
8-Jun	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
9-Jun	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.9
10-Jun	1	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	0.6
11-Jun	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	0.1
12-Jun	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
13-Jun	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
14-Jun	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
15-Jun	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	0.3
16-Jun	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
17-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
18-Jun	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
19-Jun	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
20-Jun	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
21-Jun	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
22-Jun	0	0	0	0	0	1	1	1	C	C	C	C	C	C	C	C	0	0	0	P	P	P	P	P	--	0.6
23-Jun	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
24-Jun	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
25-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C	M	M	1	1	1	1	0	1	0.2	1.1
26-Jun	0	1	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
27-Jun	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
28-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.5
29-Jun	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	0.2
30-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
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 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2																								Diurnal Average		
0.6 0.5 0.4 0.9 0.6 0.6 0.6 0.5 0.4 0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.2 0.2 1.1 0.6 0.6 0.5 0.5 0.9																								Diurnal Maximum		
C - Calibration P - Power Failure M - Maintenance 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
Donnelly - June 2018



Hourly Maximums

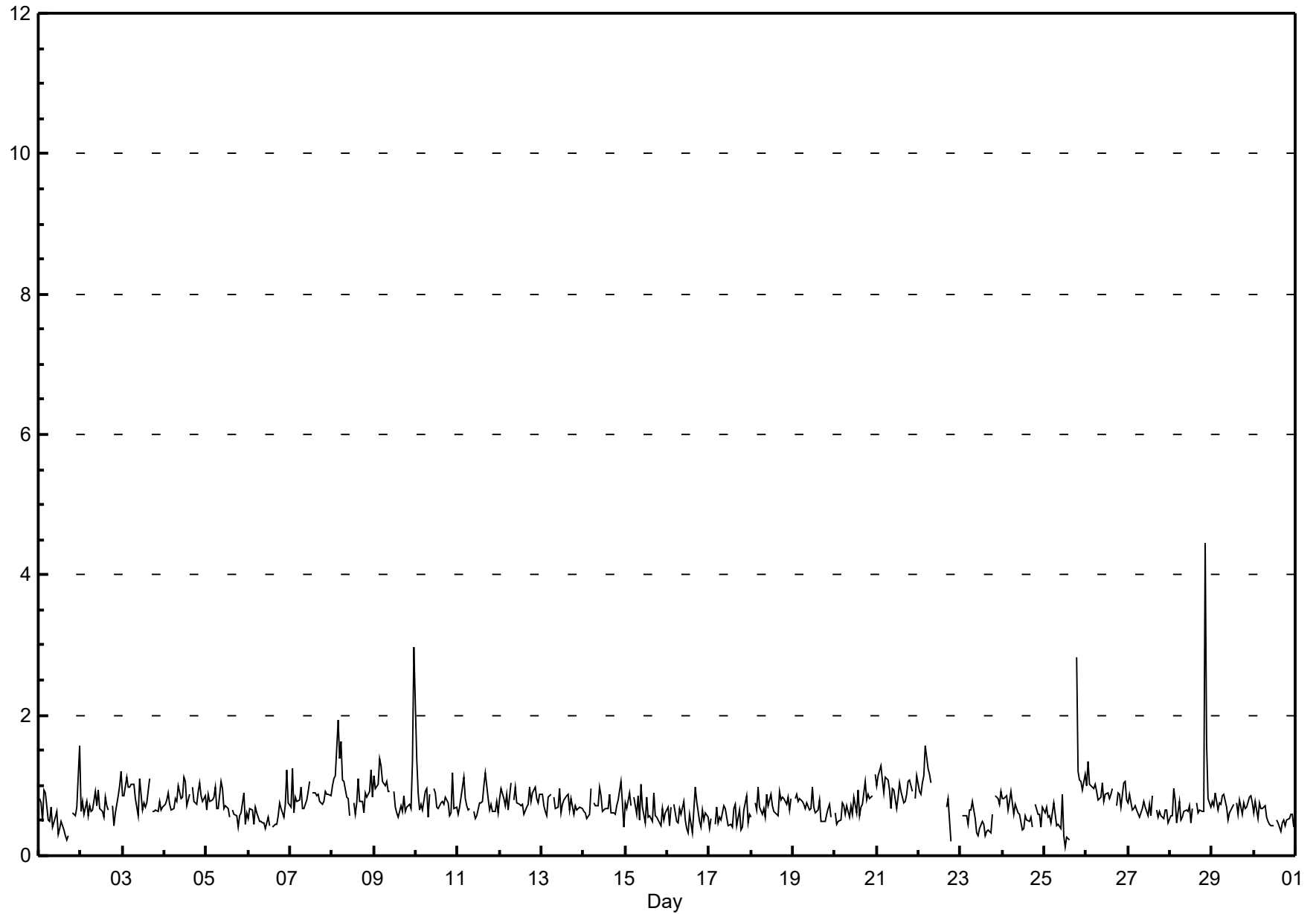
Hydrogen Sulphide (H₂S) - ppb

Donnelly - June 2018

Maximum Value: 4.4 ppb on Jun 28 21:00																				Maximum Daily Average: 1.0 ppb on Jun 9										Hours in Service: 720	
Minimum Value: 0 ppb on Jun 25 13:00																				Minimum Daily Average: 0.5 ppb on Jun 30										Hours of Data: 674	
Maximum Diurnal Average: 0.9 ppb at hour 24																				Minimum Diurnal Average: 0.6 ppb at hour 13										Hours of Missing Data: 46	
Monthly Average: 0.74 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.0 P ₉₉ = 1.6										Hours of Calibration: 38	
																				Percent Operational Time: 98.9											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Jun	1	1	0	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0	A	1	1	1	1	2	0.6	1.6					
2-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	0.7	1.2					
3-Jun	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					
4-Jun	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	1.1					
5-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	0	1	0.7	1.1					
6-Jun	1	1	1	0	1	1	0	0	0	0	0	1	0	A	0	0	0	1	1	1	1	1	1	1	0.6	1.2					
7-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2					
8-Jun	1	1	1	2	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9					
9-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	3	1.0	3.0					
10-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4					
11-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2					
12-Jun	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	1.0					
13-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0					
14-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.1						
15-Jun	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1	1	0.7	1.0					
16-Jun	1	0	1	A	1	0	0	1	1	1	1	0	0	1	0	1	1	1	0	0	1	1	1	1	0.6	1.0					
17-Jun	0	1	A	0	1	0	1	1	1	1	1	0	0	0	1	1	0	1	0	0	1	1	0	1	0.5	0.9					
18-Jun	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	1.0					
19-Jun	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	A	0.7	1.0					
20-Jun	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1					
21-Jun	1	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	1.3					
22-Jun	1	1	1	1	2	1	1	1	C	C	C	C	C	C	C	C	1	1	0	P	P	P	P	P	--	1.6					
23-Jun	P	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	A	1	1	1	1	0.5	0.9					
24-Jun	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	0	A	1	1	1	0	1	0.6	0.9					
25-Jun	1	1	1	1	0	1	1	0	0	0	1	0	0	0	0	C	M	M	3	1	1	1	1	1	0.7	2.8					
26-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	1.3					
27-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0.7	0.9						
28-Jun	1	1	1	1	0	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	4	2	1	1	0.9	4.4					
29-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.9					
30-Jun	1	1	1	1	1	1	1	1	0	0	0	0	A	1	0	0	0	1	0	1	1	1	0	0.5	0.8						
																								Diurnal Average							
																								Diurnal Maximum							
C - Calibration				P - Power Failure				M - Maintenance				A - Automated Daily Zero Span																			

Hourly Maximums

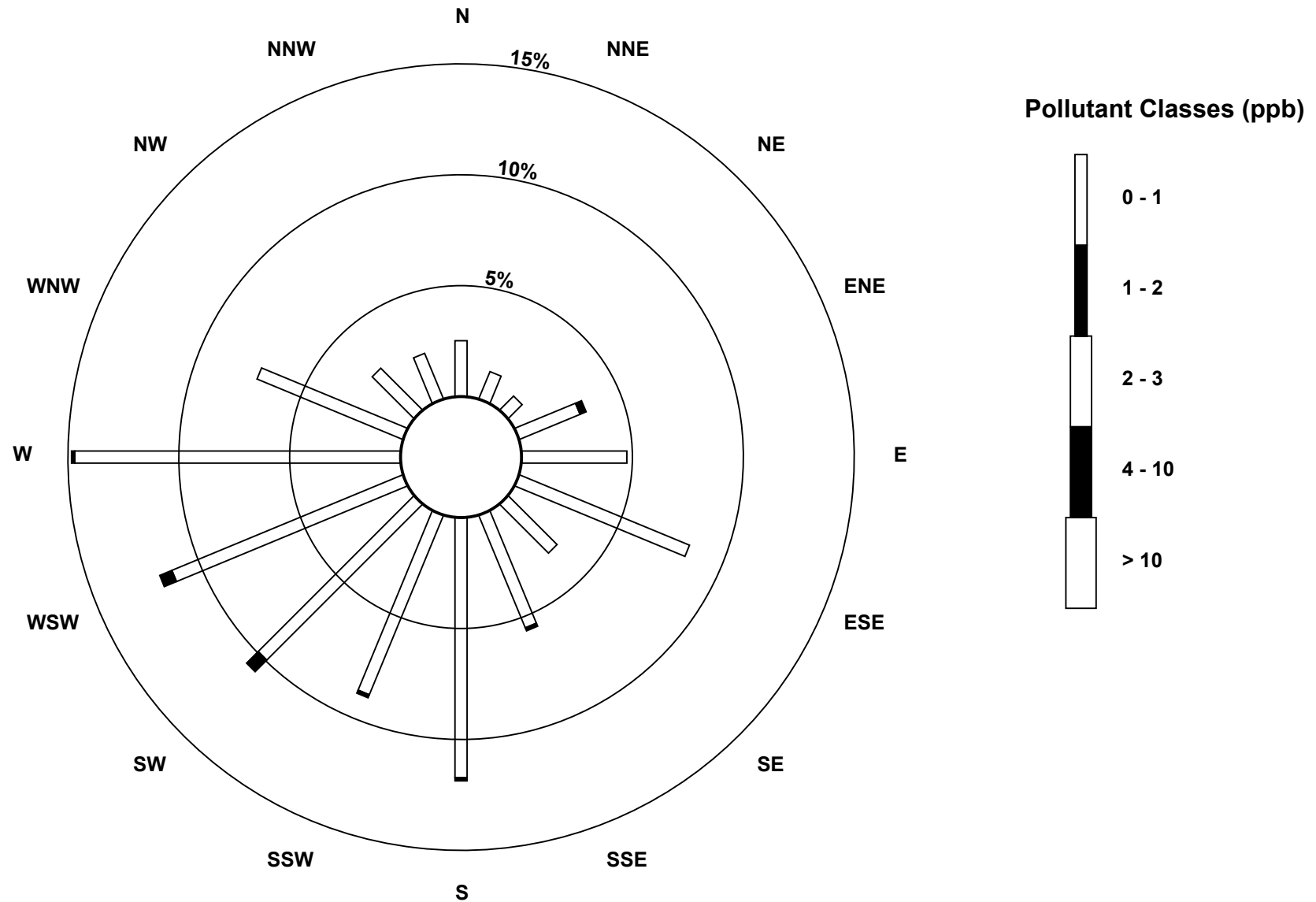
Hydrogen Sulphide (H₂S) - ppb
Donnelly - June 2018



Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb

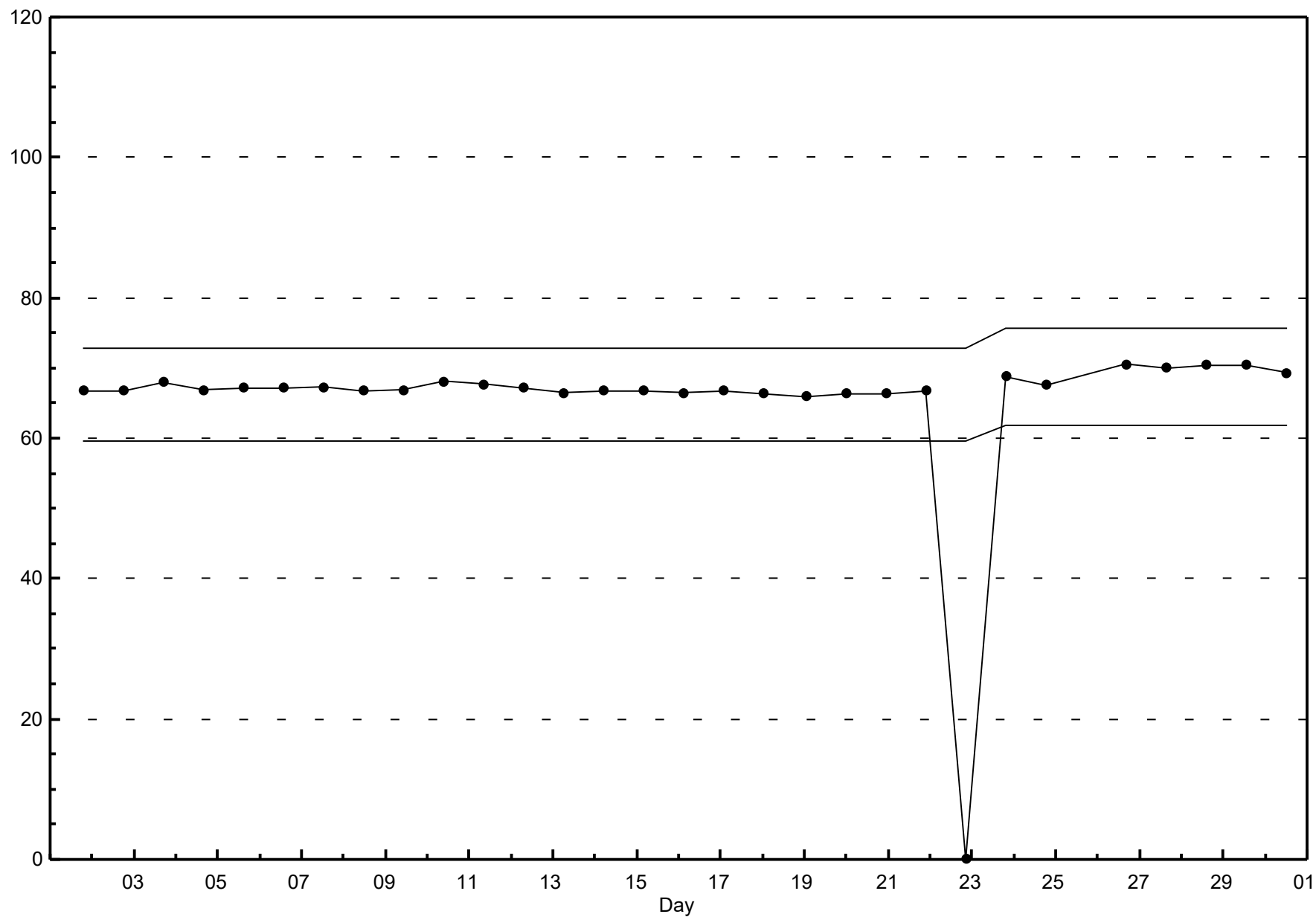
Donnelly - June 2018



Span Responses

Hydrogen Sulphide (H_2S)

Donnelly - June 2018



Hourly Averages

External Temperature (ET) - °C

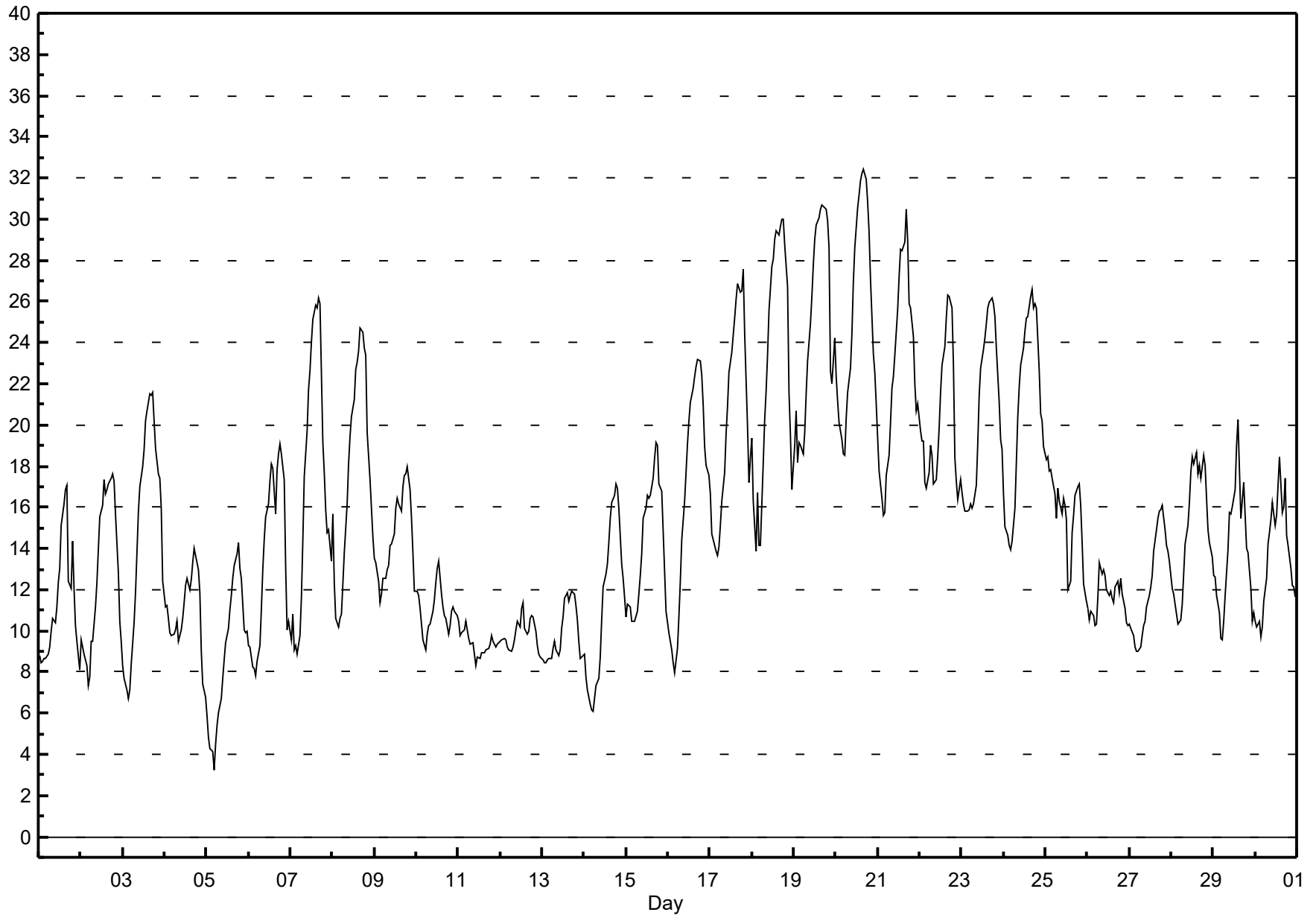
Donnelly - June 2018

Maximum Value: 32.4 °C on Jun 20 17:00																				Maximum Daily Average: 25.4 °C on Jun 20					Hours in Service: 720	
Minimum Value: 3 °C on Jun 5 05:00																				Minimum Daily Average: 8.9 °C on Jun 5					Hours of Data: 720	
Maximum Diurnal Average: 19.7 °C at hour 18																				Minimum Diurnal Average: 11.1 °C at hour 5					Hours of Missing Data: 0	
Monthly Average: 15.47 °C																				Percentiles: P ₁ = 6.0 P ₁₀ = 9.1 Q ₁ = 10.5 Median = 14.4 Q ₃ = 18.8 P ₉₀ = 24.6 P ₉₉ = 30.6					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-Jun	9	8	9	9	9	9	9	10	11	10	11	12	13	15	16	17	17	12	12	14	12	10	9	8	11.4	17.0
2-Jun	10	9	9	8	7	8	9	10	11	12	14	16	16	17	17	17	17	18	17	16	13	10	9	12.8	17.6	
3-Jun	8	8	7	7	7	8	10	12	14	16	17	18	19	20	21	22	21	22	20	19	18	17	16	12	14.9	21.6
4-Jun	11	11	11	10	10	10	10	10	9	10	11	11	12	13	12	13	13	14	13	13	12	9	7	7	10.9	14.0
5-Jun	6	5	4	4	3	5	5	6	7	8	9	9	10	11	12	13	13	14	14	13	13	10	10	10	8.9	14.3
6-Jun	9	9	8	8	8	9	9	11	13	14	16	16	17	18	18	16	18	19	19	19	17	13	10	11	13.5	19.1
7-Jun	10	11	9	9	9	10	12	14	17	20	22	23	24	25	26	26	26	26	19	18	16	15	15	13	17.2	26.2
8-Jun	16	12	11	10	11	11	12	14	16	18	19	20	21	23	23	24	25	25	24	23	20	17	16	15	17.7	24.7
9-Jun	14	13	12	11	12	13	13	13	13	14	14	15	16	16	16	16	17	18	18	18	17	15	14	12	14.5	18.0
10-Jun	12	12	11	10	10	9	10	10	10	11	11	12	13	13	12	11	11	11	10	10	11	11	11	11	11.0	13.4
11-Jun	10	10	10	10	10	10	10	9	9	9	8	9	9	9	9	9	9	9	9	10	10	9	9	9	9.4	10.5
12-Jun	10	10	10	10	9	9	9	9	10	10	10	10	11	11	10	10	10	11	11	11	10	9	9	9	9.8	11.4
13-Jun	9	8	8	9	9	9	9	10	9	9	9	10	11	12	12	11	12	12	12	11	11	9	9	9	9.9	11.9
14-Jun	9	8	7	6	6	6	7	7	8	9	11	12	13	13	14	15	16	17	17	17	16	13	13	12	11.3	17.1
15-Jun	11	11	11	10	10	10	11	12	13	14	15	16	17	16	17	17	18	19	19	17	17	15	13	11	14.2	19.1
16-Jun	10	9	9	8	8	9	11	12	14	16	18	19	20	21	22	22	23	23	23	22	21	19	18	18	16.5	23.2
17-Jun	17	15	14	14	14	14	15	16	18	20	21	23	24	24	25	26	27	26	27	28	24	20	17	18	20.3	27.5
18-Jun	19	16	14	17	14	14	18	20	22	23	26	28	28	29	29	29	30	30	30	29	27	22	20	17	22.9	30.0
19-Jun	19	21	18	19	19	19	20	22	23	25	26	28	29	30	30	30	31	31	31	30	29	23	22	24	24.8	30.7
20-Jun	22	21	20	19	19	19	20	22	23	24	27	29	31	31	32	32	32	32	31	29	27	23	23	21	25.4	32.4
21-Jun	19	18	16	16	16	18	19	20	22	22	23	26	27	29	28	29	30	29	26	26	24	22	21	21	22.8	30.5
22-Jun	20	19	19	17	17	18	19	19	17	17	18	20	22	23	24	25	26	26	26	23	18	17	16	17	20.2	26.3
23-Jun	17	16	16	16	16	16	16	16	17	19	21	23	24	24	25	26	26	26	26	25	24	21	19	19	20.6	26.2
24-Jun	17	15	15	14	14	14	16	18	20	22	23	24	25	25	25	26	27	26	26	26	23	21	20	19	20.8	26.6
25-Jun	18	18	18	18	17	17	15	17	16	16	16	16	15	12	12	15	16	17	17	17	16	14	12	11	15.8	18.4
26-Jun	11	11	11	11	10	10	12	13	13	13	13	12	12	12	12	11	12	12	12	13	12	11	10	10	11.6	13.3
27-Jun	10	10	10	9	9	9	9	10	10	10	11	12	12	13	14	15	15	16	16	16	15	14	14	13	12.2	16.1
28-Jun	12	12	11	11	10	11	11	13	14	15	16	18	18	18	19	18	18	17	19	18	16	15	14	14	14.9	18.7
29-Jun	13	13	12	11	10	10	10	12	14	16	16	16	17	19	20	18	15	17	16	14	14	12	10	11	13.9	20.3
30-Jun	10	10	10	10	10	11	13	14	15	15	16	15	16	17	18	16	16	17	15	14	13	12	12	12	13.7	18.5
12.9 12.3 11.7 11.4 11.1 11.4 12.3 13.4 14.3 15.3 16.3 17.2 18.0 18.7 19.0 19.1 19.6 19.7 19.1 18.7 17.2 15.1 14.0 13.4																									Diurnal Average	
22.4 21.2 20.1 19.3 19.0 18.6 20.3 21.6 23.1 24.9 26.9 28.6 30.5 31.1 31.9 32.2 32.4 31.9 30.8 29.9 28.6 23.4 22.6 24.2																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Donnelly - June 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Donnelly - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	6	8	7	8	7	7	7	9	10	10	12	14	13	13	12	10	10	8	5	4	3	1	1	3	7.1	14.0
Dir	103	102	102	103	103	107	104	106	112	106	114	115	109	108	113	109	119	241	58	82	112	169	356	153	110	115
2 Spd	7	8	9	15	13	12	16	8	14	21	23	23	21	27	27	22	25	31	30	23	21	12	10	12	15.6	31.3
Dir	153	176	171	178	184	218	254	233	226	235	256	248	250	234	264	286	266	257	245	264	263	244	206	187	241	257
3 Spd	13	11	9	8	10	8	9	6	4	5	5	5	6	3	6	7	8	8	7	7	5	7	9	6	4.1	13.0
Dir	189	193	196	192	189	190	199	236	231	193	179	188	169	106	70	84	70	81	87	94	77	70	96	116	151	189
4 Spd	6	20	14	10	13	12	12	16	21	23	25	30	39	34	36	31	27	23	23	18	15	12	10	13	11.3	39.4
Dir	71	61	74	90	101	104	123	184	197	212	237	243	255	274	265	274	282	284	285	284	282	262	241	246	254	255
5 Spd	13	11	11	10	10	14	17	18	23	26	21	19	16	14	11	10	8	6	4	3	2	3	4	5	8.3	25.9
Dir	247	241	223	242	213	232	245	244	261	269	281	284	291	305	312	327	346	352	21	72	83	88	106	106	269	269
6 Spd	5	10	4	8	11	5	7	9	10	17	20	22	20	19	21	17	14	13	12	11	6	7	7	9	7.5	22.2
Dir	95	119	106	120	122	168	144	186	193	234	240	247	240	244	246	277	244	253	258	251	241	138	131	131	223	247
7 Spd	5	6	3	7	8	8	8	11	8	9	9	10	9	12	15	10	6	2	15	10	6	4	5	3	4.4	15.0
Dir	122	112	101	104	98	101	102	106	115	126	132	152	168	184	191	210	199	180	276	24	63	91	94	279	136	276
8 Spd	2	2	4	4	6	8	11	13	14	14	12	12	7	1	5	4	5	4	5	3	3	4	7	9	2.7	14.3
Dir	57	141	74	75	219	273	279	285	322	348	334	19	1	70	65	111	114	106	109	82	83	88	310	311	346	348
9 Spd	8	5	3	3	1	3	7	8	8	11	15	16	12	20	19	13	15	15	13	14	10	7	1	4	8.5	20.4
Dir	300	307	9	57	133	187	225	232	268	275	264	269	273	266	281	302	291	297	296	296	316	313	321	235	282	266
10 Spd	6	10	14	11	13	11	16	19	15	15	14	14	14	18	17	22	21	25	13	12	12	14	13	15	14.0	25.0
Dir	249	269	263	267	252	255	269	278	283	276	286	292	293	286	283	267	256	268	306	286	269	295	324	306	278	268
11 Spd	22	25	23	29	32	30	31	32	30	43	42	38	36	41	47	47	44	47	45	43	36	31	29	27	35.3	47.2
Dir	280	264	263	256	262	269	269	266	269	264	271	273	276	269	267	267	268	263	261	264	272	265	271	267	267	263
12 Spd	32	32	31	26	24	30	34	36	38	32	28	21	21	21	18	15	14	13	12	9	12	14	13	13	21.4	38.1
Dir	267	271	269	281	277	264	262	263	263	273	281	299	294	309	312	309	292	300	298	285	259	256	253	236	276	263
13 Spd	15	16	17	14	8	4	4	8	10	9	6	8	11	10	12	12	11	10	9	8	4	2	2	2	3.7	16.8
Dir	231	220	213	205	207	347	358	350	351	353	2	349	341	331	340	7	359	1	3	20	36	87	121	12	328	213
14 Spd	4	8	9	8	3	3	2	5	4	2	2	2	2	5	4	1	4	6	10	10	7	9	9	8	1.1	10.2
Dir	28	29	32	40	79	85	90	36	41	69	79	239	269	262	289	293	257	269	277	246	227	201	214	200	272	277
15 Spd	10	7	7	5	6	7	8	9	8	7	7	11	13	12	8	10	12	11	11	10	5	4	5	2	4.3	12.7
Dir	194	201	189	221	223	191	204	232	273	274	301	329	334	325	320	333	356	351	334	23	314	303	291	255	298	334
16 Spd	4	7	8	8	7	8	8	8	9	8	9	12	12	9	10	6	8	7	9	9	8	10	12	13	7.0	12.7
Dir	201	206	205	201	201	211	240	241	224	221	228	254	269	285	274	246	249	247	220	209	180	163	162	156	221	156
17 Spd	14	14	15	15	14	14	10	10	9	10	12	10	12	12	10	9	6	7	6	2	5	7	7	7	9.5	15.3
Dir	169	177	170	165	164	163	157	155	161	169	178	176	181	182	181	178	193	240	152	151	133	127	144	169	170	
18 Spd	9	5	3	7	3	4	1	5	5	4	3	3	3	2	1	1	3	3	2	6	4	6	6	3	2.4	9.1
Dir	167	153	147	166	157	91	131	208	200	202	192	120	53	33	282	333	330	298	289	186	182	160	136	109	165	167
19 Spd	8	11	5	14	17	16	6	2	6	8	15	16	12	12	10	9	9	9	8	6	4	7	10	14	9.3	16.7
Dir	148	170	173	174	170	173	157	68	168	176	181	177	186	181	188	184	178	183	175	169	148	137	131	158	170	170
20 Spd	15	17	15	14	7	4	13	12	13	8	6	5	3	2	2	2	4	8	9	7	3	5	6	5	6.7	16.7
Dir	177	176	176	175	166	125	170	176	186	188	190	207	110	189	85	72	133	127	127	123	101	114	107	107	160	176
21 Spd	5	5	4	3	3	6	8	6	3	3	3	2	3	4	3	2	5	7	12	8	5	8	10	13	4.4	13.3
Dir	118	78	94	97	109	116	118	114	156	193	185	71	164	143	74	202	115	171	206	165	157	161	173	171	149	171
22 Spd	18	19	17	11	12	8	14	14	10	10	13	12	13	16	15	16	16	18	13	12	11	1	9	8	9.7	19.2
Dir	186	216	223	205	215	209	218	220	198	202	202	196	196	216	236	241	264	263	253	351	28	322	279	306	227	216

Hourly Averages

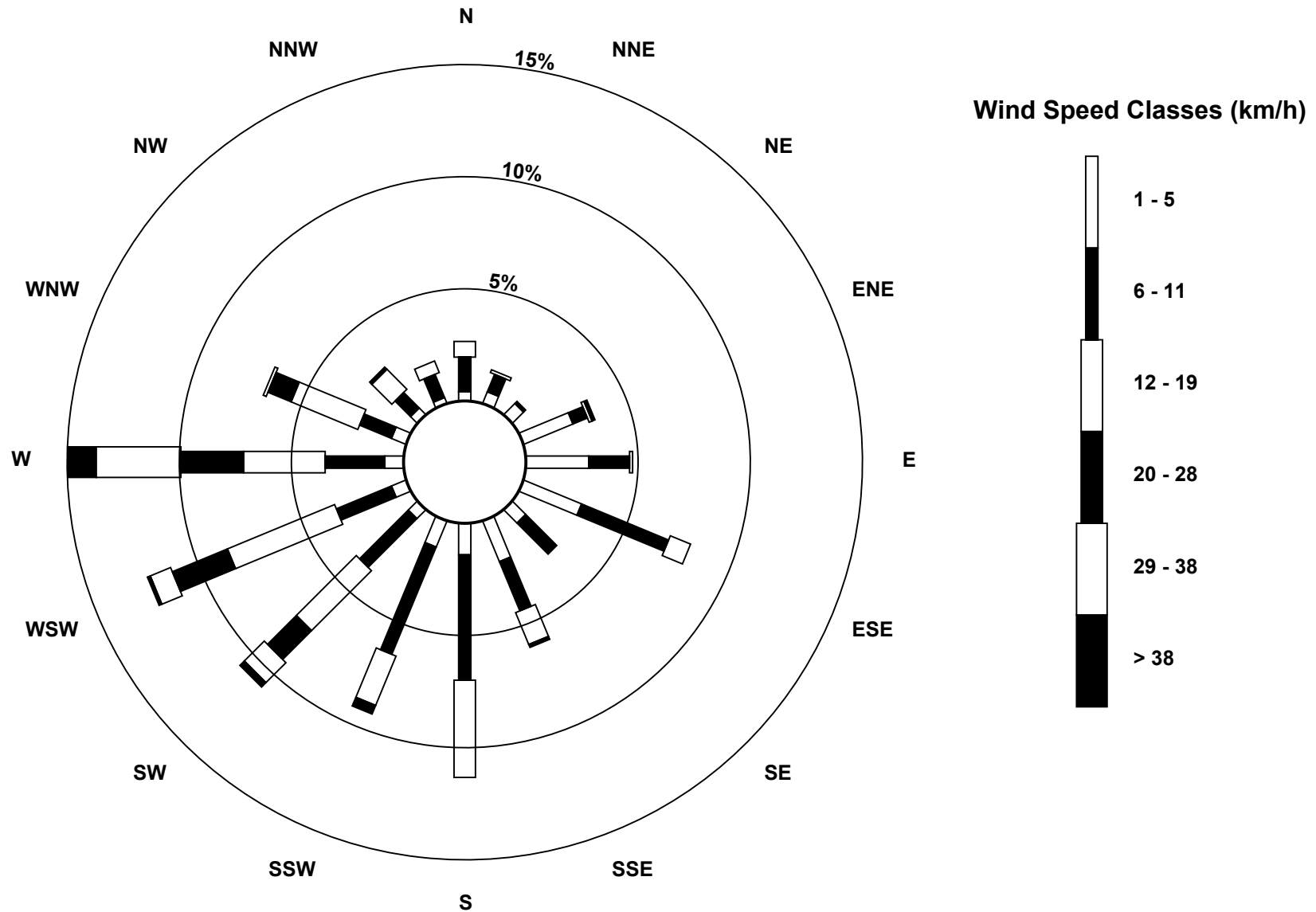
Wind Speed (km/h)
Wind Direction (deg)
Donnelly - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	7	5	7	4	6	8	10	7	9	6	14	13	12	12	13	17	16	16	13	12	6	7	10	9	8.8	16.9
Dir	286	273	282	270	243	259	263	277	273	272	264	282	274	258	273	268	265	256	247	255	229	180	177	174	258	268
24 Spd	12	10	12	11	11	12	12	12	13	15	15	15	12	14	11	7	4	3	5	5	6	7	10	9	6.8	15.1
Dir	195	209	186	187	193	193	194	209	233	256	245	230	220	209	192	169	135	66	84	89	92	97	101	101	195	230
25 Spd	10	9	8	7	6	2	5	4	12	13	14	21	31	34	30	34	32	29	23	24	11	19	12	10	13.5	34.3
Dir	101	102	104	107	109	165	261	258	253	249	241	233	229	231	236	240	239	237	241	247	245	216	197	179	229	240
26 Spd	10	14	17	18	16	19	21	22	24	30	30	31	37	40	40	35	30	28	24	24	23	22	22	16	22.1	40.1
Dir	153	155	168	161	151	161	168	210	221	220	231	230	228	234	232	232	231	237	223	219	227	227	224	233	216	234
27 Spd	18	26	25	23	22	25	26	25	29	31	33	35	32	32	28	30	27	24	22	19	14	12	14	17	23.9	35.1
Dir	239	255	251	254	252	256	257	260	262	262	261	261	265	275	282	281	281	282	277	269	260	243	227	224	262	261
28 Spd	11	11	8	11	11	10	7	12	15	16	16	18	21	19	16	12	13	9	6	4	3	8	9	10	8.7	21.0
Dir	217	221	242	233	217	220	222	242	245	249	254	255	248	251	255	352	356	328	267	235	157	175	179	177	243	248
29 Spd	13	13	12	12	11	11	13	14	16	17	14	11	9	8	10	18	15	9	14	10	8	9	9	10	9.0	18.1
Dir	184	210	215	220	204	204	211	221	240	265	290	301	304	280	284	278	318	298	262	220	218	198	200	183	243	278
30 Spd	11	10	10	8	4	10	15	15	19	22	24	22	20	16	16	12	14	10	7	3	5	1	13	10	11.1	24.4
Dir	190	190	196	187	171	183	192	210	225	234	234	229	225	234	251	234	196	209	299	41	246	159	218	234	219	234
Spd	6.1	6.1	6.1	6.3	6.4	6.4	7.5	8.5	9.8	11.1	11.7	11.0	11.3	12.0	11.6	10.2	8.9	9.7	8.8	5.9	4.6	4.4	4.7	5.2	Diurnal Average	
Dir	204	209	211	202	202	211	223	234	241	246	250	252	252	253	259	266	265	263	262	260	250	217	206	205	Diurnal Maximum	
Spd	31.7	32.1	31.1	29.4	32.4	29.8	34.1	36.0	38.1	43.3	41.8	38.1	39.4	40.7	46.9	46.7	44.4	47.2	44.9	43.1	35.9	31.4	28.6	27.2	Diurnal Maximum	
Dir	267	271	269	256	262	269	262	263	263	264	271	273	255	269	267	267	268	263	261	264	272	265	271	267		
Maximum Speed Value: 47 km/h on Jun 11 18:00																								Hours in Service: 720		
Maximum Daily Speed Average: 35.3 km/h on Jun 11																								Hours of Data: 720		
Maximum Diurnal Speed Average: 12.0 km/h at hour 14																								Hours of Missing Data: 0		
Minimum Speed Value: 1 km/h on Jun 18 16:00																								Percent Operational Time: 100.0		
Minimum Daily Speed Average: 1.1 km/h on Jun 18																										
Minimum Diurnal Speed Average: 4.4 km/h at hour 22																										
Monthly Average Velocity: 7.51 km/h 240.5 deg																										
Speed Percentiles: P ₁ = 1.3 P ₁₀ = 3.6 Q ₁ = 6.6 Median = 10.4 Q ₃ = 15.2 P ₉₀ = 25.1 P ₉₉ = 41.6																										
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	6		14		8		0		0		0		28													
NorthEast	10		9		0		1		0		0		20													
East	39		42		6		0		0		0		87													
SouthEast	17		37		8		0		0		0		62													
South	18		73		48		3		0		0		142													
SouthWest	7		49		55		24		15		2		152													
West	9		30		59		40		29		12		179													
NorthWest	8		18		21		3		0		0		50													
Total	114		272		205		71		44		14		720													

Wind Rose

Wind Speed (WS) (km/h)

Donnelly - June 2018



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Donnelly - June 2018

Maximum Speed: 47 km/h on Jun 11 18:00																				Maximum Daily Speed Average: 35.6 km/h on Jun 11										Hours in Service: 720	
Minimum Speed: 1 km/h on Jun 9 23:00																				Minimum Daily Speed Average: 4.6 km/h on Jun 18										Hours of Data: 720	
Maximum Diurnal Speed Average: 16.8 km/h at hour 14																				Minimum Diurnal Speed Average: 9.1 km/h at hour 21										Hours of Missing Data: 0	
Monthly Average Speed: 12.98 km/h																				Percentiles: P ₁ = 2.4 P ₁₀ = 4.5 Q ₁ = 7.1 Median = 10.7 Q ₃ = 15.8 P ₉₀ = 25.3 P ₉₉ = 41.7										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-Jun	6	8	7	8	7	7	7	9	10	10	12	14	13	14	13	10	11	18	5	4	3	5	3	5	8.7	17.8					
2-Jun	8	8	9	15	13	13	16	9	15	21	24	24	21	28	32	23	26	32	30	24	21	12	11	12	18.6	31.9					
3-Jun	13	11	9	8	10	8	9	6	5	6	6	6	7	5	8	8	9	9	8	7	6	8	9	7	7.8	13.0					
4-Jun	6	20	14	10	13	12	12	17	21	23	26	30	40	34	37	31	28	24	23	18	15	13	10	14	20.5	40.0					
5-Jun	13	11	11	10	10	14	17	18	24	26	22	19	16	15	13	11	10	8	5	4	2	3	4	5	12.1	26.2					
6-Jun	5	10	4	8	11	7	7	10	12	17	21	23	21	20	21	19	15	13	13	12	7	7	7	9	12.4	22.9					
7-Jun	5	6	4	7	8	9	9	11	8	9	9	10	10	14	16	11	7	6	23	11	6	5	5	8	8.9	22.8					
8-Jun	8	2	4	4	10	8	11	13	14	15	13	12	8	5	6	6	6	4	5	3	3	4	10	10	7.7	14.5					
9-Jun	8	5	4	3	3	5	8	8	8	11	15	16	12	21	20	14	16	15	14	14	10	7	1	4	10.1	20.5					
10-Jun	6	11	14	12	13	11	16	20	15	15	14	14	14	19	17	22	21	25	16	13	12	14	15	16	15.2	25.2					
11-Jun	23	26	24	30	32	30	31	32	30	43	42	38	36	41	47	47	45	47	45	43	36	32	29	27	35.6	47.3					
12-Jun	32	32	31	26	24	30	34	36	38	32	28	22	21	21	18	15	15	13	12	9	12	14	13	13	22.6	38.1					
13-Jun	15	16	17	14	8	4	4	8	10	9	6	9	11	11	12	12	11	11	10	8	5	2	2	2	9.1	16.9					
14-Jun	4	8	9	8	3	3	2	5	5	3	3	4	5	6	5	3	5	7	10	10	8	9	10	8	5.9	10.5					
15-Jun	10	7	7	5	6	7	8	9	9	8	8	11	13	12	9	10	12	11	11	12	6	5	5	2	8.5	13.1					
16-Jun	4	7	8	8	7	8	8	8	9	8	10	13	13	11	11	7	10	8	9	9	8	10	12	13	9.1	13.3					
17-Jun	14	14	15	15	14	14	11	11	10	10	12	11	12	12	10	10	7	7	7	3	5	7	7	8	10.2	15.4					
18-Jun	9	5	3	8	5	5	2	5	6	4	3	4	4	4	4	4	5	4	6	4	6	6	6	3	4.6	9.1					
19-Jun	8	11	5	14	17	16	8	2	6	8	15	16	12	12	11	9	9	9	8	6	4	7	10	15	10.0	16.7					
20-Jun	15	17	15	14	8	5	13	12	13	8	6	5	4	4	3	3	5	8	9	7	3	5	6	5	8.1	16.7					
21-Jun	5	5	4	3	3	7	8	6	4	4	5	3	4	4	5	4	5	7	12	9	5	8	10	13	6.0	13.3					
22-Jun	18	19	17	11	13	8	14	14	10	10	14	12	13	17	16	16	16	19	15	14	11	3	10	8	13.3	19.4					
23-Jun	7	6	7	4	6	8	10	7	9	7	14	14	13	13	14	17	16	17	13	12	7	7	10	9	10.3	17.3					
24-Jun	12	11	12	11	11	12	12	12	13	15	15	16	13	14	12	8	5	4	5	5	6	7	10	9	10.4	15.5					
25-Jun	10	10	8	7	6	4	5	5	12	13	14	21	32	34	30	35	33	29	23	24	11	19	12	10	16.8	34.6					
26-Jun	10	15	17	18	17	19	21	24	24	30	30	31	37	40	40	35	30	28	24	24	23	22	22	17	25.0	40.3					
27-Jun	18	26	25	23	22	25	26	25	29	31	33	35	32	32	28	31	27	24	22	19	14	12	14	17	24.7	35.2					
28-Jun	12	11	8	11	11	10	7	12	15	16	16	18	21	19	17	14	14	9	6	5	3	8	9	10	11.8	21.3					
29-Jun	13	13	12	12	11	11	13	14	16	17	15	11	9	9	11	19	16	11	14	11	8	9	9	10	12.2	19.1					
30-Jun	11	10	10	8	5	10	15	15	19	22	25	22	20	16	16	14	15	11	10	4	8	4	13	10	13.0	24.6					
11.0 12.0 11.2 11.2 10.9 10.9 12.1 12.8 13.9 15.1 15.9 16.2 16.4 16.8 16.7 15.6 14.9 14.7 13.7 11.7 9.1 9.1 9.8 10.0																									Diurnal Average						
31.8 32.3 31.1 29.6 32.4 29.9 34.1 36.1 38.1 43.4 41.9 38.1 40.0 40.7 47.0 46.8 44.5 47.3 45.0 43.2 36.0 31.5 28.8 27.3																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Donnelly - June 2018

Maximum Value: 95.2 deg on Jun 14 16:00																		Hours in Service: 720							
Minimum Value: 1.9 deg on Jun 20 02:00																		Hours of Data: 720							
																		Hours of Missing Data: 0							
Percentiles: P ₁ = 2.4 P ₁₀ = 4.5 Q ₁ = 7.1 Median = 11.7 Q ₃ = 20.4 P ₉₀ = 40.9 P ₉₉ = 81.9																		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-Jun	9	7	7	9	11	9	9	10	10	7	9	9	9	11	16	16	13	93	45	20	24	81	71	47	93.4
2-Jun	16	5	11	3	6	15	8	28	14	11	12	12	15	11	30	15	10	11	8	16	5	5	17	4	30.1
3-Jun	2	4	7	5	12	8	7	21	47	31	63	52	37	72	57	30	22	16	15	14	14	14	13	23	72.4
4-Jun	15	6	7	11	7	8	12	16	5	13	9	8	10	6	11	12	7	9	6	10	7	8	7	5	16.3
5-Jun	4	7	10	14	8	5	10	7	9	8	12	14	17	22	30	27	37	46	52	21	24	22	14	16	51.9
6-Jun	17	14	40	11	5	46	25	54	30	16	16	15	18	17	15	32	21	17	16	14	26	7	4	2	54.5
7-Jun	7	8	20	8	10	8	7	7	12	18	16	17	27	29	21	28	36	71	69	19	20	15	14	81	80.5
8-Jun	84	74	33	33	73	14	7	7	17	10	19	17	39	93	35	50	35	31	17	22	16	9	67	34	92.9
9-Jun	14	38	35	27	79	48	55	17	15	13	8	9	13	7	11	15	13	11	12	10	10	9	41	28	79.2
10-Jun	33	6	7	7	7	4	7	7	9	10	10	10	11	7	7	6	8	8	42	21	16	22	34	23	42.3
11-Jun	17	13	11	6	3	3	2	3	7	3	3	3	3	3	3	3	4	2	3	3	3	5	7	3	17.4
12-Jun	2	6	3	8	7	5	4	6	4	5	6	12	7	8	7	8	7	7	9	9	8	13	10	6	13.3
13-Jun	10	10	5	5	19	32	20	13	9	11	27	23	15	24	19	14	14	20	21	14	35	35	40	35	40.0
14-Jun	16	9	7	13	23	19	31	18	35	43	52	74	78	34	55	95	44	37	14	16	13	13	24	24	95.2
15-Jun	8	16	7	15	19	6	9	14	13	23	23	17	15	18	21	17	14	18	12	44	32	14	10	65	64.9
16-Jun	17	8	5	6	9	11	8	9	15	17	21	20	23	28	22	36	37	30	19	12	6	5	4	4	37.1
17-Jun	5	3	3	5	4	6	10	13	14	14	13	15	14	12	13	15	46	26	21	50	7	9	2	14	49.8
18-Jun	5	16	43	31	75	32	74	10	12	26	65	46	49	60	86	93	64	55	59	13	22	4	13	12	93.3
19-Jun	16	5	26	3	2	2	61	53	22	18	11	11	19	16	19	22	18	14	10	10	5	17	6	14	60.7
20-Jun	3	2	2	2	52	34	10	5	6	13	19	29	54	76	61	55	40	13	7	6	8	5	7	9	76.2
21-Jun	14	13	18	11	11	9	8	14	44	30	75	60	63	43	68	64	27	33	11	20	16	13	7	4	75.0
22-Jun	7	9	9	11	12	17	8	6	16	12	9	9	11	18	15	14	15	7	38	35	23	82	10	7	82.2
23-Jun	11	13	10	16	9	7	5	9	9	35	16	17	21	28	23	12	13	16	13	13	14	4	3	4	35.2
24-Jun	9	6	4	3	9	3	6	11	12	13	14	14	26	16	20	33	39	24	14	11	13	11	8	8	38.8
25-Jun	5	6	7	7	8	59	15	52	7	8	11	7	6	8	6	8	8	7	6	5	6	8	8	8	59.4
26-Jun	7	14	7	5	7	8	7	22	11	7	8	5	6	6	5	5	5	6	5	5	5	3	6	4	22.2
27-Jun	5	4	4	3	4	3	3	4	4	4	4	5	5	4	6	8	7	6	5	7	7	3	8	3	7.7
28-Jun	5	9	5	5	6	9	9	7	6	13	11	14	10	7	11	34	11	17	22	15	20	5	4	3	33.8
29-Jun	6	12	6	8	3	4	4	6	12	10	11	12	16	37	25	19	15	26	21	22	7	6	9	4	36.8
30-Jun	7	4	4	8	59	9	5	9	5	6	7	7	13	16	18	31	19	20	58	46	66	90	11	15	89.9
83.7 74.3 43.1 33.2 79.2 59.4 74.1 54.5 47.2 43.2 75.0 74.3 78.1 92.9 86.1 95.2 63.6 93.4 68.7 49.8 66.0 89.9 70.6 80.5																									

PAZA

Portable – Rycroft Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

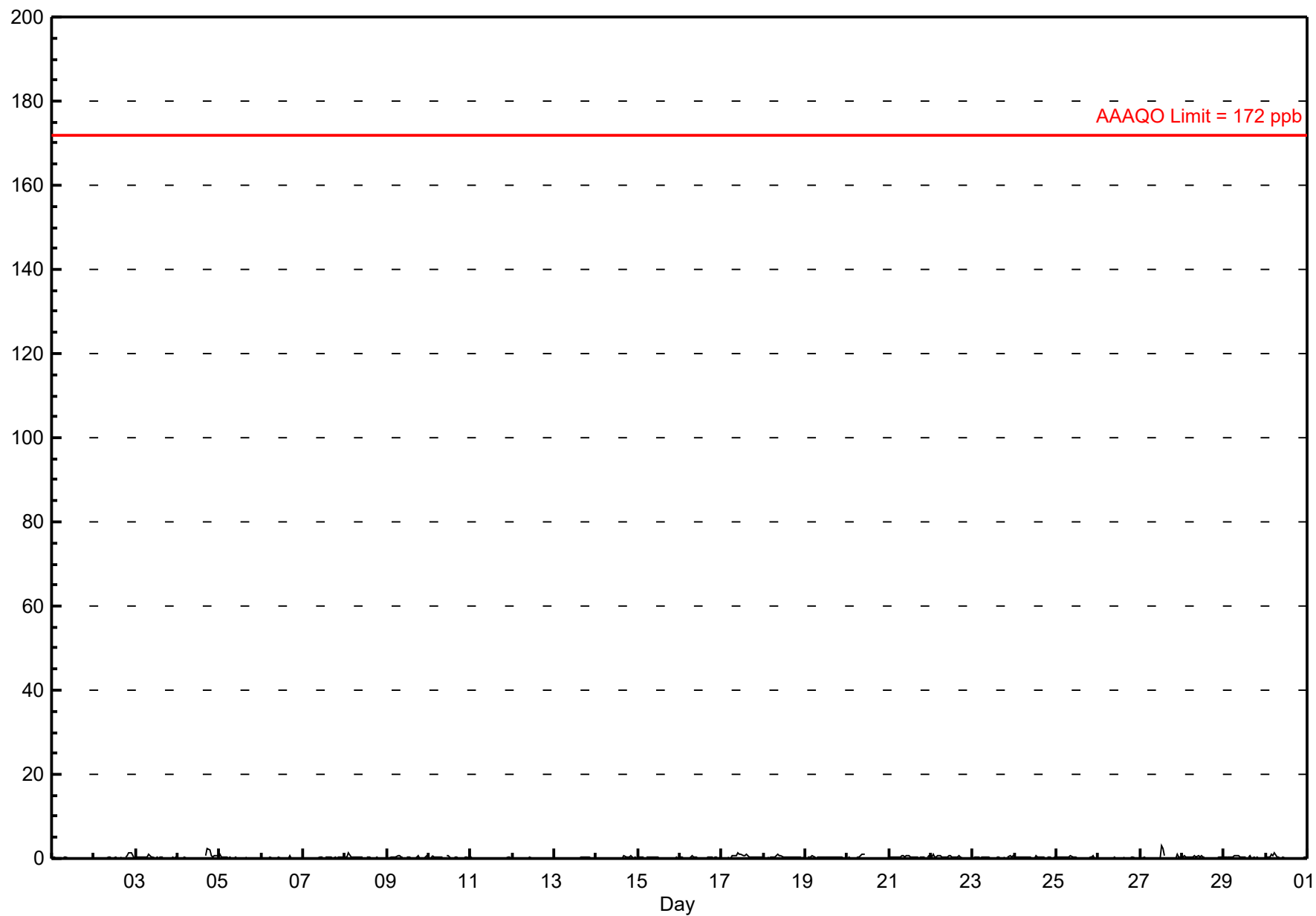
Sulphur Dioxide (SO₂) - ppb

Portable Rycroft - June 2018

Number of Exceedences (AAAQO):		1-hr: 0 24-hr: 0		Hours in Service: 720																						
Maximum Value: 3.0 ppb on Jun 27 13:00		Maximum Daily Average: 0.5 ppb on Jun 17		Hours of Data: 675																						
Minimum Value: 0 ppb on Jun 2 03:00		Minimum Daily Average: 0.0 ppb on Jun 12		Hours of Missing Data: 45																						
Maximum Diurnal Average: 0.3 ppb at hour 10		Minimum Diurnal Average: 0.2 ppb at hour 15		Hours of Calibration: 35																						
Monthly Average: 0.25 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 1.3		Percent Operational Time: 98.6																						
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-Jun	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
2-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0	0.3	1.4
3-Jun	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.9
4-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	2	2	1	0	1	1	1	0.4	2.3
5-Jun	1	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	1.2
6-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0.1	0.6
7-Jun	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
8-Jun	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
9-Jun	0	0	0	0	0	0	1	1	0	0	A	1	0	0	0	0	0	0	0	1	0	0	0	1	0.3	0.7
10-Jun	0	0	1	1	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
11-Jun	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
12-Jun	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
13-Jun	0	0	0	0	0	0	A	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.3
14-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0.1	0.6
15-Jun	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
16-Jun	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
17-Jun	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	1.4
18-Jun	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
19-Jun	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
20-Jun	0	0	0	0	0	0	0	0	1	1	1	N	N	N	N	N	N	N	N	N	N	0	A	0	--	1.0
21-Jun	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	A	0	1	0.4	0.8
22-Jun	0	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	A	0	0	0	0.4	0.9
23-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	1	0.2	0.6
24-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0.3	0.7
25-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0.2	0.6
26-Jun	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
27-Jun	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	A	0	0	0	0	0	1	0	0	0.4	3.0
28-Jun	0	1	0	0	0	0	0	1	0	1	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.8
29-Jun	0	0	0	0	0	0	1	1	1	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0.3	0.8
30-Jun	0	0	0	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
0.2		0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	Diurnal Average	
1.2		0.9	1.2	0.9	0.8	1.3	0.7	0.9	1.0	1.4	0.9	1.0	3.0	2.2	0.9	0.6	0.7	2.3	2.2	0.7	1.2	1.4	0.8	0.8	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 - June 2018



Hourly Maximums

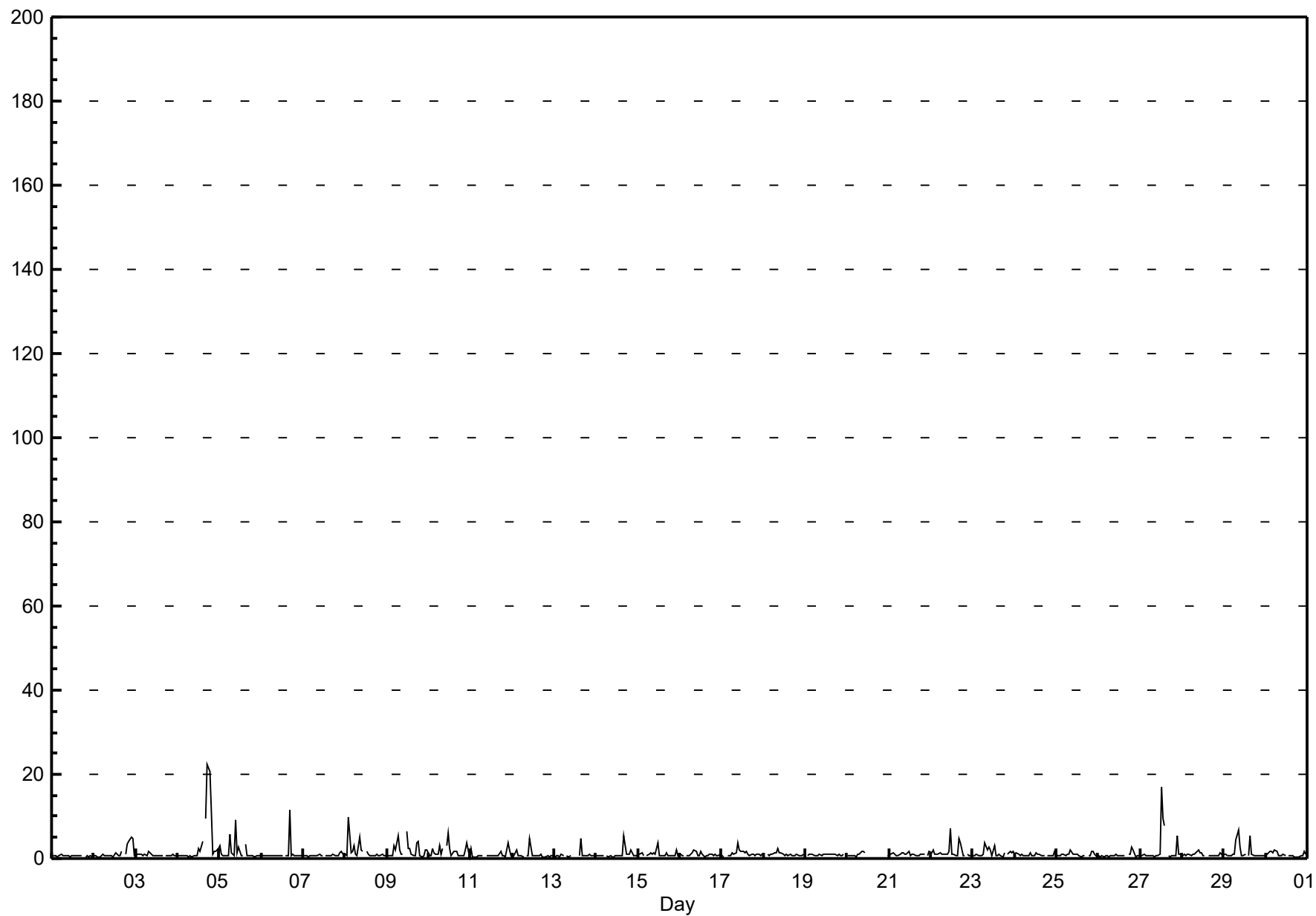
Sulphur Dioxide (SO₂) - ppb

Portable Rycroft - June 2018

Maximum Value: 22.5 ppb on Jun 4 18:00																			Maximum Daily Average: 3.7 ppb on Jun 4							Hours in Service: 720	
Minimum Value: 0 ppb on Jun 30 17:00																			Minimum Daily Average: 0.6 ppb on Jun 1							Hours of Data: 675	
Maximum Diurnal Average: 1.9 ppb at hour 17																			Minimum Diurnal Average: 0.8 ppb at hour 4							Hours of Missing Data: 45	
Monthly Average: 1.24 ppb																			Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.8 Q ₃ = 1.0 P ₉₀ = 2.0 P ₉₉ = 9.4							Hours of Calibration: 35	
																										Percent Operational Time: 98.6	
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-Jun	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	0	1	0	1	1	0.6	0.9	
2-Jun	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	2	A	1	3	4	5	5	1	1.4	5.0	
3-Jun	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.6	
4-Jun	1	1	1	1	1	1	0	1	0	1	1	1	2	2	4	A	9	22	21	11	1	2	2	2	3.7	22.5	
5-Jun	3	1	1	1	1	1	6	1	1	9	1	3	1	1	A	3	1	1	1	1	0	1	1	1	1.6	9.3	
6-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	11	1	1	1	1	1	1	1	1.2	11.5	
7-Jun	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	0.8	1.8	
8-Jun	1	1	10	1	2	3	1	1	5	2	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1.7	9.7	
9-Jun	1	1	1	1	3	2	5	2	1	1	A	6	2	2	1	1	1	4	4	1	0	1	2	2	1.9	6.3	
10-Jun	1	1	2	1	1	1	3	1	2	A	3	6	2	2	1	2	2	2	1	1	1	2	4	1	1.7	6.0	
11-Jun	2	0	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1	0	4	2	1	0.9	3.9	
12-Jun	0	1	2	1	1	1	0	A	1	1	5	1	1	1	1	1	1	0	0	0	1	0	1	1	0.8	4.7	
13-Jun	0	1	1	0	1	1	A	1	0	1	C	C	C	C	1	5	1	1	1	1	1	1	1	1	0.9	4.8	
14-Jun	1	1	1	1	1	A	1	0	1	1	0	1	1	1	1	1	5	1	1	1	2	1	1	1	0.9	5.4	
15-Jun	1	1	1	1	A	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	2	1	1.1	3.8	
16-Jun	1	1	1	A	1	1	1	1	2	2	1	1	2	1	0	1	1	1	1	1	1	1	1	1	0.9	2.0	
17-Jun	1	0	A	1	1	1	1	1	1	4	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1.2	3.6	
18-Jun	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.2	
19-Jun	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.1	
20-Jun	1	1	1	1	1	0	1	1	2	2	1	N	N	N	N	N	N	N	N	N	N	1	A	1	--	1.7	
21-Jun	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	2	1.0	1.6	
22-Jun	1	2	1	1	1	1	1	1	1	1	2	7	1	1	1	1	5	4	1	1	A	1	1	1	1.6	7.1	
23-Jun	1	1	1	1	1	1	1	4	2	3	2	1	3	1	1	1	1	1	1	A	1	2	1	2	1.3	3.7	
24-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	0.9	1.5	
25-Jun	1	1	1	1	1	1	1	1	2	1	1	1	1	1	0	1	1	A	1	1	2	2	1	0	0.9	2.0	
26-Jun	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	3	2	0	1	1	0.8	2.6	
27-Jun	1	1	1	1	1	1	1	1	0	1	1	1	17	9	8	A	1	0	1	1	1	5	1	1	2.3	16.8	
28-Jun	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	2.1	
29-Jun	1	1	1	1	1	1	1	4	7	3	1	1	1	A	1	5	1	1	1	1	1	1	1	1	1.5	6.8	
30-Jun	1	1	2	2	1	2	2	1	1	1	1	1	A	1	1	1	0	0	0	0	1	1	2	1	0.9	1.9	
0.9		0.8	1.2	0.8	0.9	0.9	1.2	1.2	1.4	1.5	1.2	1.6	1.8	1.2	1.2	1.2	1.9	1.8	1.6	1.2	1.0	1.3	1.2	0.9	Diurnal Average		
3.0		2.2	9.7	1.9	2.9	3.2	5.6	4.3	6.8	9.3	4.7	7.1	16.8	9.4	7.9	5.3	11.5	22.5	20.7	11.2	4.2	5.4	4.8	2.3	Diurnal Maximum		
C - Calibration		N - Not Valid					A - Automated Daily Zero Span																				

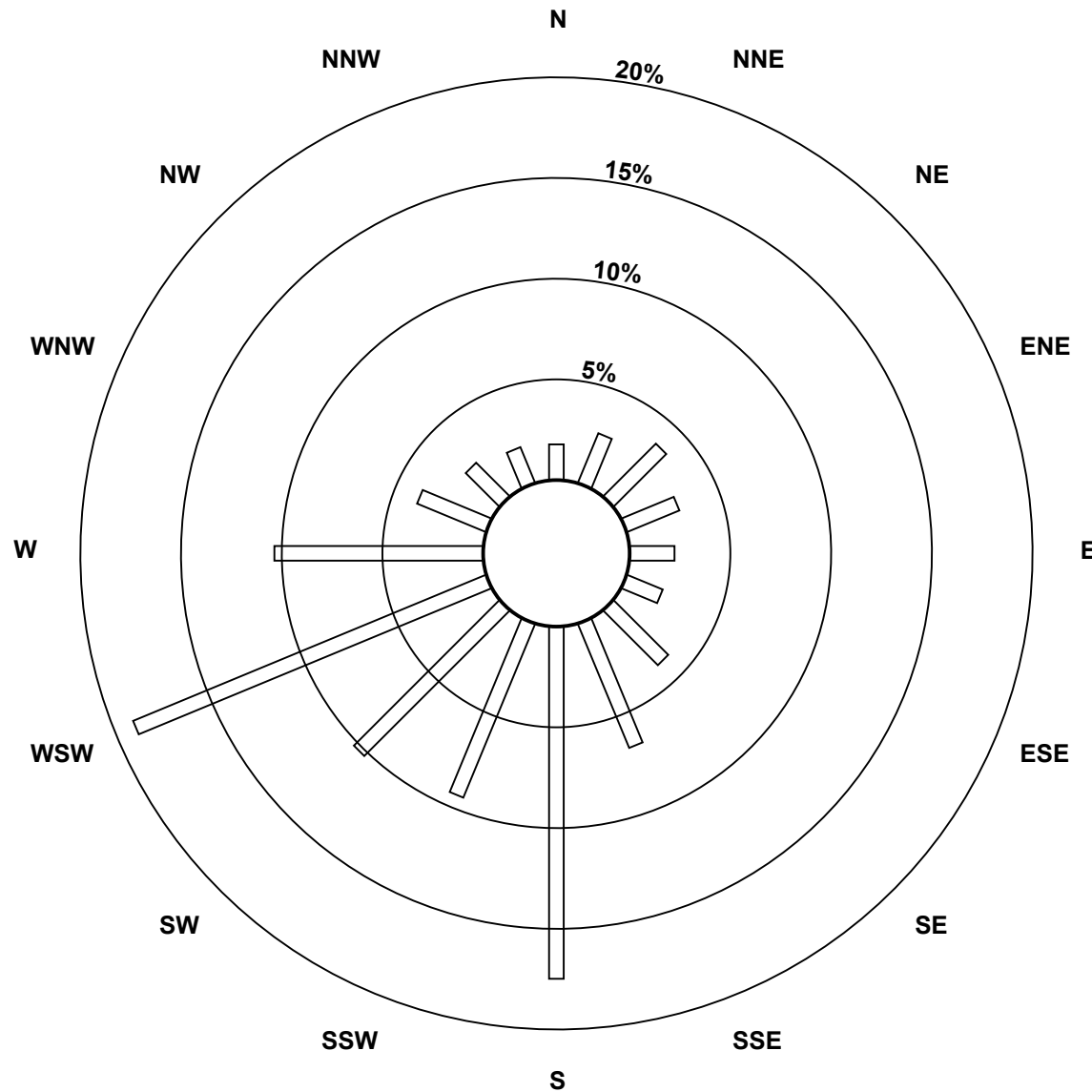
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Portable Rycroft - June 2018

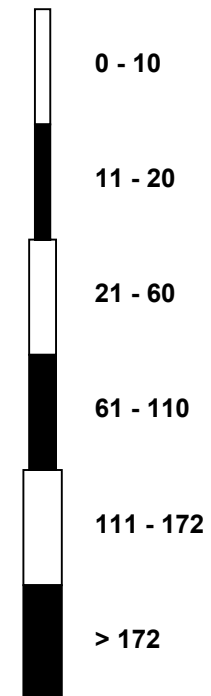


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Portable Rycroft - June 2018

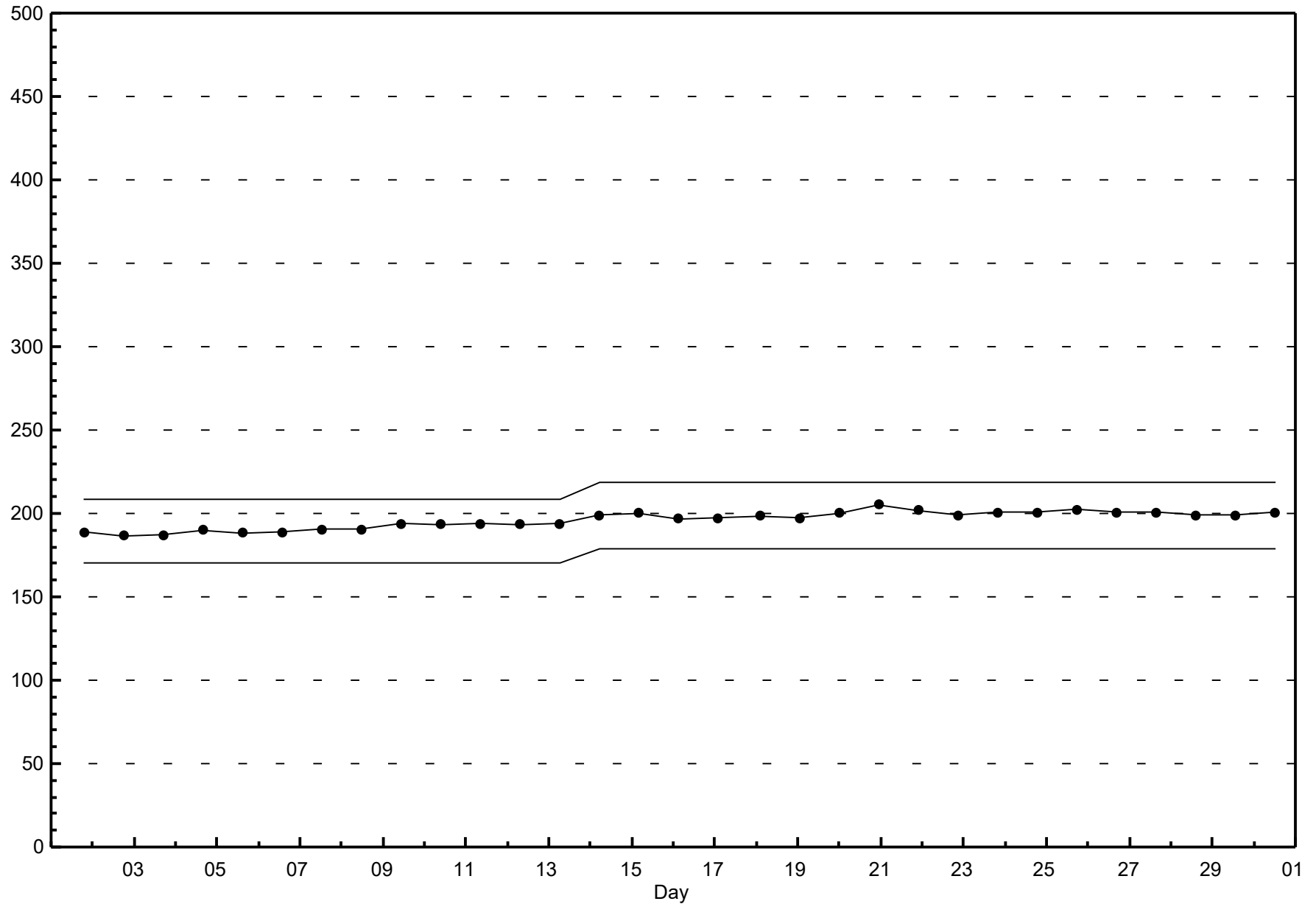


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Portable Rycroft - June 2018



Hourly Averages

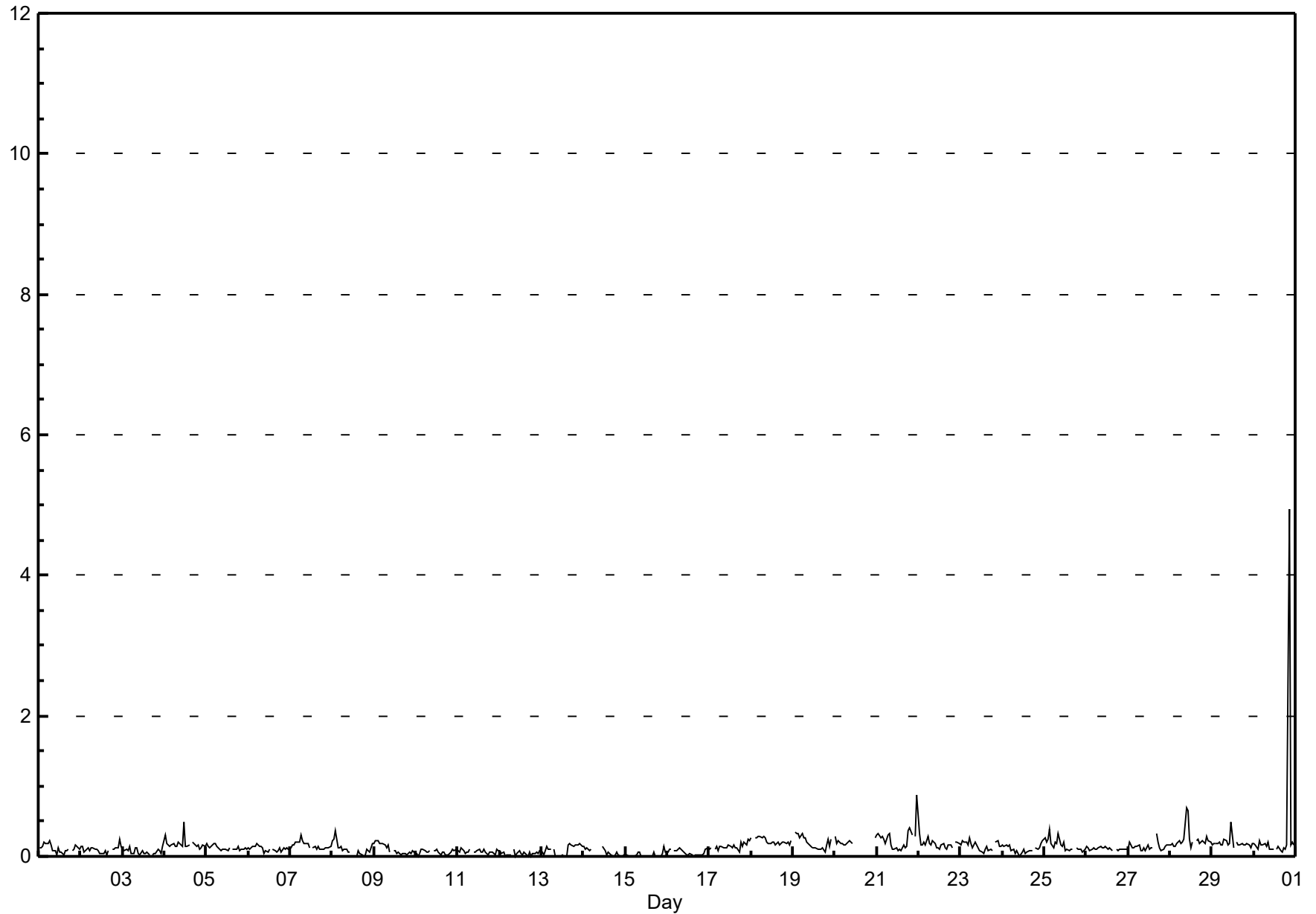
Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - June 2018

Maximum Value: 4.9 ppb on Jun 30 21:00																			Maximum Daily Average: 0.4 ppb on Jun 30						Hours in Service: 720			
Minimum Value: 0 ppb on Jun 8 13:00																			Minimum Daily Average: 0.0 ppb on Jun 15						Hours of Data: 675			
Maximum Diurnal Average: 0.3 ppb at hour 21																			Minimum Diurnal Average: 0.1 ppb at hour 13						Hours of Missing Data: 45			
Monthly Average: 0.13 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: 98.6			
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-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0.1	0.2		
2-Jun	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	0.2		
3-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.1		
4-Jun	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		
5-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2		
6-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2		
7-Jun	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		
8-Jun	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	0.4		
9-Jun	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		
10-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1		
11-Jun	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	0.1		
12-Jun	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		
13-Jun	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		
14-Jun	0	0	0	0	0	A	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1		
15-Jun	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		
16-Jun	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		
17-Jun	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		
18-Jun	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3		
19-Jun	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		
20-Jun	0	0	0	0	0	0	0	0	0	0	0	N	N	N	N	N	N	N	N	N	N	0	A	0	--	0.3		
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0.2	0.9		
22-Jun	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		
23-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3		
24-Jun	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		
25-Jun	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	0.4		
26-Jun	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		
27-Jun	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		
28-Jun	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.7		
29-Jun	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		
30-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	5	0	0	0	0.4	4.9		
																									Diurnal Average			
																									Diurnal Maximum			
C - Calibration																									N - Not Valid		A - Automated Daily Zero Span	

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Portable Rycroft - June 2018



Hourly Maximums

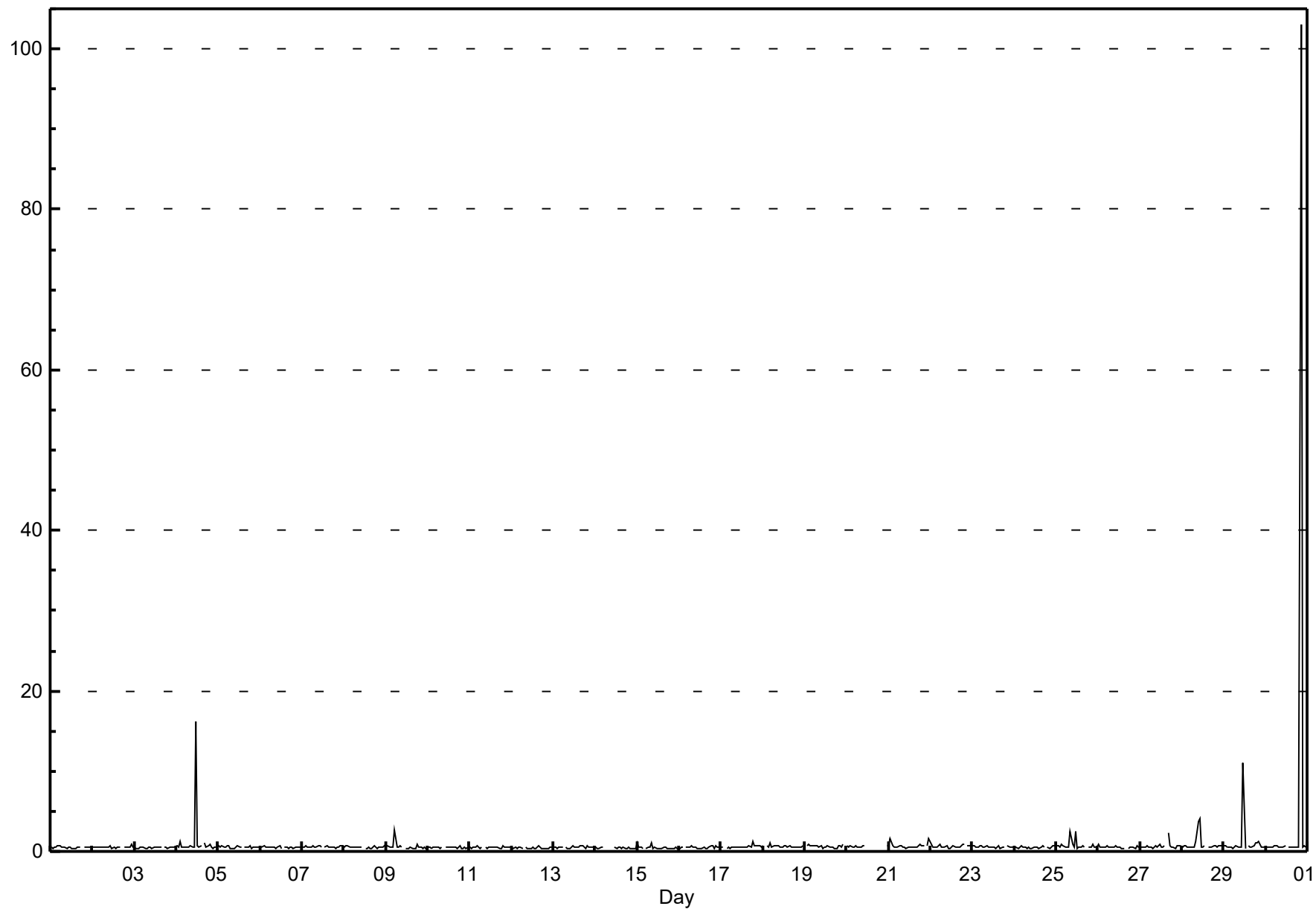
Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - June 2018

Maximum Value: 103.1 ppb on Jun 30 21:00																				Maximum Daily Average: 5.0 ppb on Jun 30										Hours in Service: 720	
Minimum Value: 0 ppb on Jun 14 19:00																				Minimum Daily Average: 0.4 ppb on Jun 14										Hours of Data: 675	
Maximum Diurnal Average: 4.2 ppb at hour 21																				Minimum Diurnal Average: 0.5 ppb at hour 13										Hours of Missing Data: 45	
Monthly Average: 0.77 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 2.5										Hours of Calibration: 35	
																						Percent Operational Time: 98.6									
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-Jun	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0	1	0	A	0	1	1	1	0	0.5	0.8					
2-Jun	1	1	0	0	0	1	0	1	1	1	1	0	1	0	0	1	0	A	0	1	1	1	1	0	0.5	0.8					
3-Jun	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	A	1	1	0	0	1	1	0	0.5	0.6					
4-Jun	1	1	1	1	1	0	0	1	1	1	0	16	1	0	1	A	1	1	1	1	1	0	1	0	1.3	16.1					
5-Jun	1	0	1	0	1	1	1	0	0	0	0	1	1	1	A	1	0	0	1	0	0	1	0	0	0.5	0.7					
6-Jun	1	1	1	0	1	1	0	0	1	0	1	1	0	A	0	0	0	0	0	0	0	1	1	1	0.5	0.7					
7-Jun	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	0	1	1	0.6	0.8					
8-Jun	1	1	1	1	1	0	1	0	0	1	0	A	0	0	0	0	0	1	0	0	0	1	0	1	0.5	0.8					
9-Jun	1	1	1	1	1	3	1	1	1	1	0	A	0	0	0	1	0	0	1	0	0	0	1	0	0.6	2.8					
10-Jun	1	0	0	1	1	1	1	0	0	A	0	0	1	1	0	1	1	0	1	0	0	0	0	1	0.5	0.8					
11-Jun	1	0	1	0	1	1	0	0	A	0	0	0	0	0	1	1	1	0	0	1	0	1	0	0	0.5	0.7					
12-Jun	0	0	1	0	0	0	0	A	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.5	0.7					
13-Jun	1	1	0	1	0	1	A	1	0	0	1	1	0	0	1	1	1	1	0	1	0	1	1	1	0.5	0.8					
14-Jun	1	0	0	1	1	A	1	C	C	C	C	0	0	1	0	0	1	0	0	1	0	0	0	0	0.4	0.6					
15-Jun	1	1	0	0	A	0	1	1	1	0	1	0	0	0	0	1	1	0	0	0	0	0	1	0	0.5	1.1					
16-Jun	0	1	0	A	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0.5	0.8					
17-Jun	1	0	A	0	1	0	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	1.2					
18-Jun	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0	1	1	1	1	0.6	1.0					
19-Jun	A	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	0	0	1	1	1	1	A	0.6	0.9					
20-Jun	1	1	1	1	1	1	1	1	1	1	1	N	N	N	N	N	N	N	N	N	N	0	A	1	--	0.8					
21-Jun	1	2	1	1	1	0	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	A	1	2	0.7	1.6					
22-Jun	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	A	1	1	1	0.6	0.9					
23-Jun	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0	1	1	A	1	1	0	1	0.6	0.7					
24-Jun	1	1	0	0	1	0	1	0	1	0	0	1	1	0	0	1	1	1	A	1	0	1	1	1	0.5	0.8					
25-Jun	1	1	1	1	1	1	1	1	3	1	1	2	0	1	1	1	0	A	0	1	0	1	0	1	0.8	2.5					
26-Jun	1	0	0	0	1	1	0	1	1	1	1	0	1	0	0	0	A	0	1	1	1	0	1	1	0.5	0.8					
27-Jun	0	1	1	1	1	1	1	0	0	1	1	1	0	1	1	A	2	1	1	0	0	1	1	1	0.7	2.4					
28-Jun	1	1	1	1	0	1	1	1	1	4	4	1	0	1	A	1	1	1	1	1	1	1	1	1	0.9	4.2					
29-Jun	1	1	1	1	1	0	1	1	1	1	1	11	0	A	1	1	1	1	1	1	1	1	0	1	1.1	11.1					
30-Jun	0	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	103	1	1	1	5.0	103.1					
0.6		0.6	0.6	0.5	0.6	0.7	0.6	0.5	0.7	0.6	0.6	1.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.6	4.2	0.5	0.6	0.6	Diurnal Average					
1.1		1.6	1.2	0.8	1.0	2.8	0.8	0.7	2.5	3.8	4.2	16.1	0.7	0.8	0.7	0.7	2.4	0.8	1.2	1.0	103.1	0.8	0.9	1.6	Diurnal Maximum						
C - Calibration		N - Not Valid						A - Automated Daily Zero Span																							

Hourly Maximums

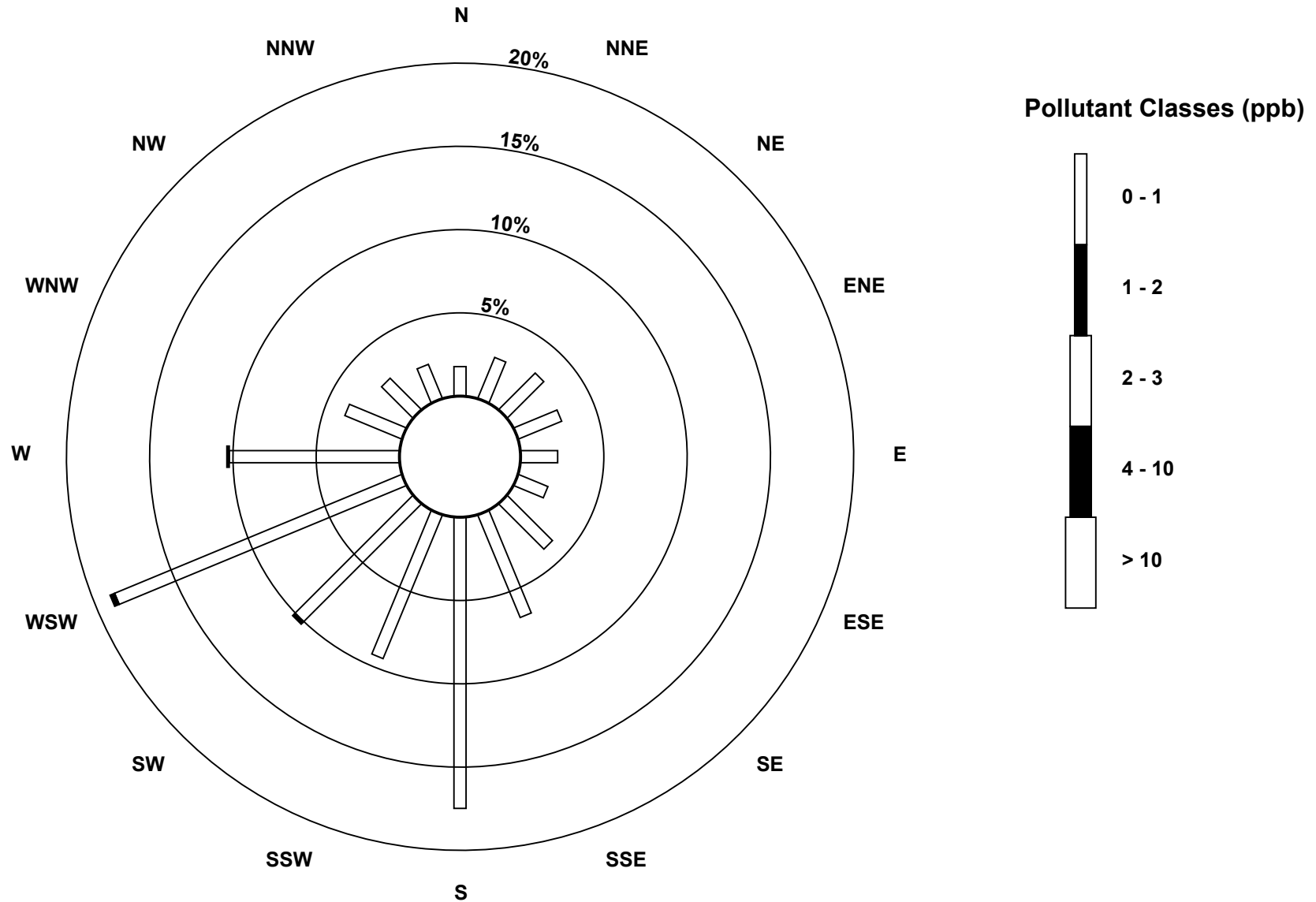
Total Reduced Sulphur (TRS) - ppb
Portable Rycroft - June 2018



Pollutant Rose

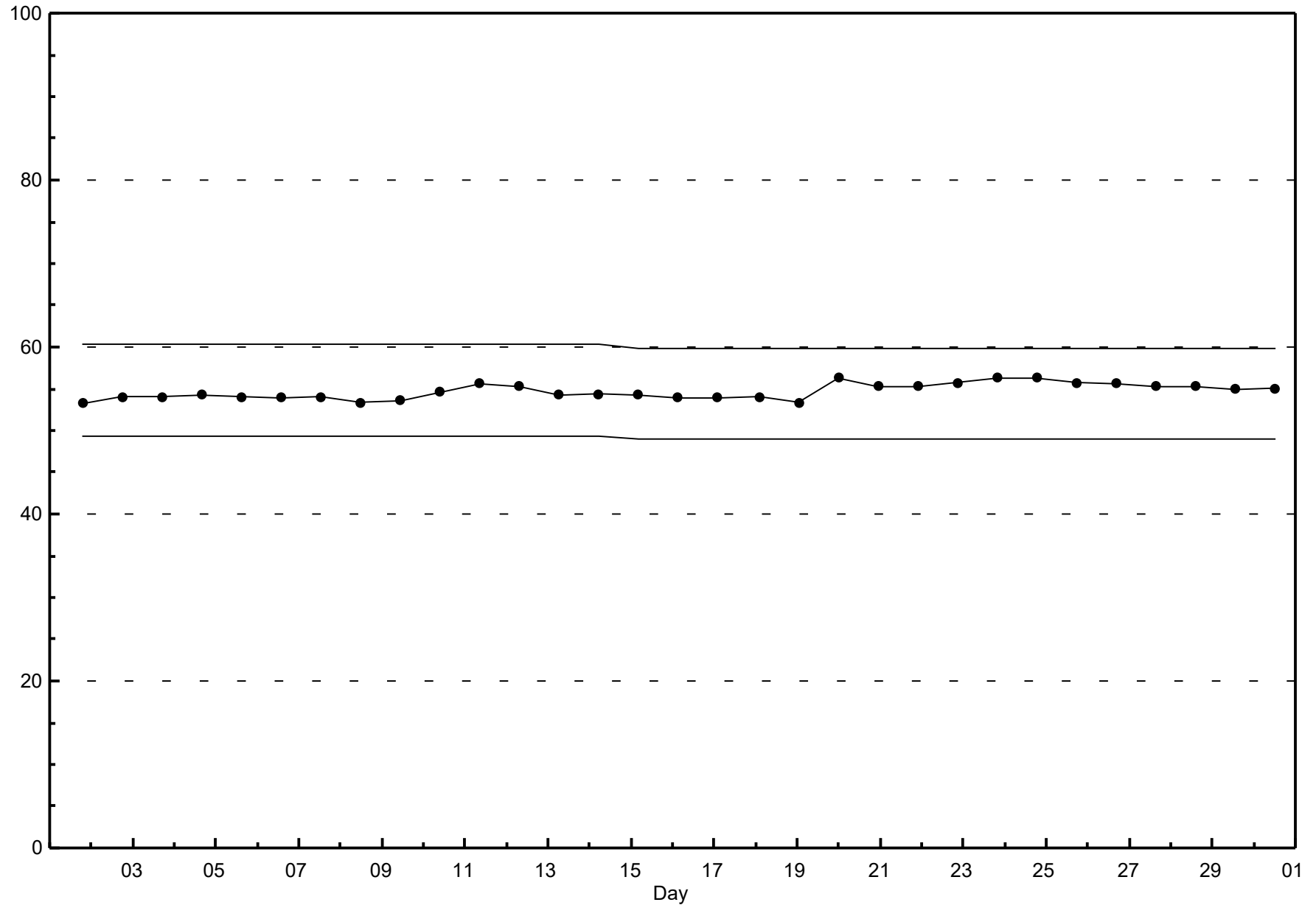
Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - June 2018



Span Responses

Total Reduced Sulphur (TRS)
Portable Rycroft - June 2018



Hourly Averages

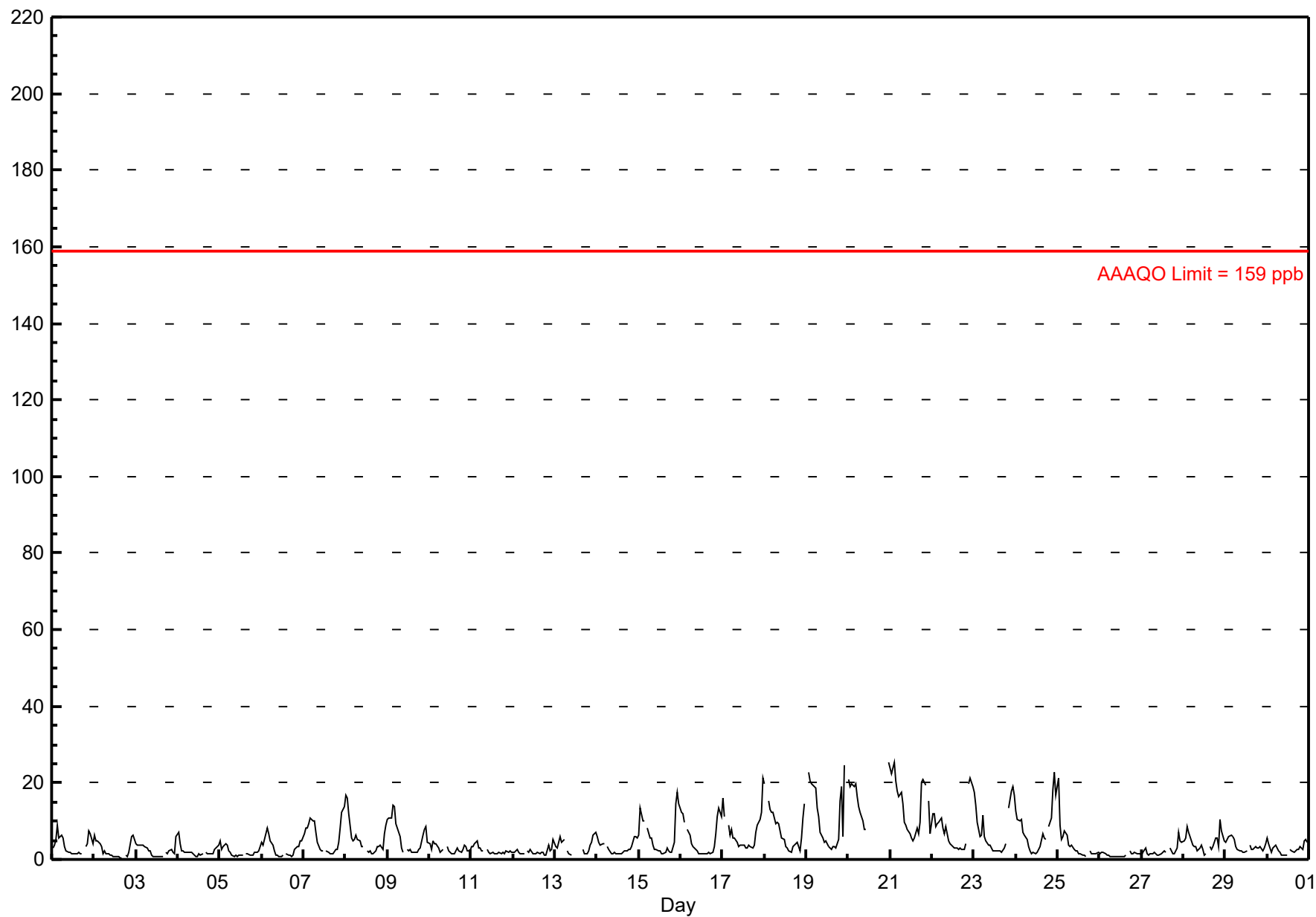
Nitrogen Dioxide (NO₂) - ppb

Portable Rycroft - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 25.4 ppb on Jun 21 00:00 Maximum Daily Average: 13.7 ppb on Jun 21																				Hours in Service: 720 Hours of Data: 673 Hours of Missing Data: 47 Hours of Calibration: 37 Percent Operational Time: 98.6						
Minimum Value: 0 ppb on Jun 2 17:00 Maximum Diurnal Average: 9.1 ppb at hour 1 Monthly Average: 4.97 ppb										Minimum Daily Average: 1.2 ppb on Jun 26 Minimum Diurnal Average: 1.9 ppb at hour 14 Percentiles: P ₁ = 0.7 P ₁₀ = 1.3 Q ₁ = 1.8 Median = 3.1 Q ₃ = 6.0 P ₉₀ = 11.9 P ₉₉ = 21.7																
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-Jun	3	4	5	9	5	6	6	3	2	2	2	2	1	2	2	1	1	A	3	4	7	7	4	3.7	9.1	
2-Jun	6	5	5	4	3	1	2	2	1	1	1	1	1	1	1	0	A	1	1	2	6	6	5	2.5	6.4	
3-Jun	4	4	4	4	4	3	3	2	2	1	1	1	1	1	1	A	2	2	2	3	2	2	6	2.4	5.8	
4-Jun	7	4	2	2	2	2	2	2	2	1	1	1	1	1	A	2	1	2	1	2	3	3	4	2.1	6.9	
5-Jun	5	3	3	4	4	2	2	1	1	1	1	1	1	1	A	2	1	1	1	1	2	2	2	3	1.9	4.7
6-Jun	5	4	7	8	7	5	4	2	1	1	1	1	1	A	1	1	1	1	1	3	3	3	5	5	3.1	8.3
7-Jun	7	8	8	9	11	10	10	7	4	3	2	2	A	2	2	1	1	2	3	3	4	8	12	14	5.8	13.9
8-Jun	17	16	12	6	5	5	6	5	5	4	3	A	2	2	2	2	2	2	3	3	4	3	7	9	5.4	16.9
9-Jun	11	11	11	14	14	9	7	6	3	2	A	3	2	2	2	2	2	2	3	3	6	8	9	4	5.8	14.3
10-Jun	4	3	5	4	4	3	2	2	3	A	3	2	2	1	2	2	3	2	2	3	4	3	2	2	2.7	4.7
11-Jun	3	3	4	5	3	3	2	2	A	3	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2.3	4.8
12-Jun	2	2	3	2	2	1	1	A	2	2	3	2	1	1	2	2	2	2	1	1	4	2	3	5	2.0	5.1
13-Jun	3	3	4	6	5	5	A	2	1	1	C	C	C	C	C	C	2	1	2	2	4	4	6	7	--	7.2
14-Jun	6	4	4	4	4	A	4	3	2	2	2	2	1	1	2	2	2	2	3	3	3	6	6	6	3.2	6.1
15-Jun	6	13	10	10	A	8	6	6	4	3	2	2	2	2	2	2	3	2	2	2	4	14	18	14	6.0	17.6
16-Jun	12	12	10	A	8	6	4	3	3	2	2	1	1	1	1	1	2	1	2	3	7	11	14	11	5.2	13.5
17-Jun	16	11	A	9	7	8	6	6	4	4	4	4	4	3	3	4	3	3	4	7	9	11	12	21	6.9	21.2
18-Jun	20	A	15	13	12	12	9	10	9	7	5	5	3	3	2	2	3	4	4	4	2	6	11	14	7.8	19.9
19-Jun	A	23	21	20	19	19	13	11	7	6	5	5	4	3	3	3	3	3	5	15	19	6	25	A	10.8	24.7
20-Jun	21	19	20	19	20	17	14	12	10	8	8	N	N	N	N	N	N	N	N	N	N	7	A	25	--	25.4
21-Jun	24	23	25	20	18	17	18	15	10	9	8	7	6	5	6	8	7	10	20	21	20	A	15	7	13.7	25.2
22-Jun	12	12	8	9	10	11	8	7	8	5	4	4	3	3	3	3	3	3	4	A	20	21	19		7.9	21.3
23-Jun	17	14	10	6	6	12	6	5	4	4	3	2	2	2	2	2	2	3	4	A	13	18	19	17	7.6	19.2
24-Jun	13	10	10	10	7	6	5	3	2	2	2	2	2	3	4	7	6	5	A	9	11	18	23	17	7.7	22.8
25-Jun	21	9	5	6	8	6	4	3	4	3	2	2	2	1	1	1	1	A	2	2	2	1	1	2	3.9	21.3
26-Jun	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	2	1	2	1	1.2	2.1
27-Jun	1	2	3	1	1	1	2	2	1	1	1	1	2	2	2	A	3	2	1	2	3	7	5	4	2.2	7.0
28-Jun	5	5	9	7	6	4	3	4	2	3	4	3	1	2	A	3	3	3	5	6	3	10	7	5	4.5	10.5
29-Jun	5	5	6	6	6	5	3	3	2	2	2	2	2	A	4	3	2	3	3	3	3	2	3	4	3.5	6.2
30-Jun	6	4	2	3	3	4	2	2	1	1	1	1	A	3	2	2	2	3	2	3	3	5	5	4	2.8	5.5
9.1 8.2 8.0 7.7 7.0 6.6 5.3 4.5 3.6 2.8 2.7 2.2 2.0 1.9 2.0 2.3 2.4 2.5 3.1 4.0 5.2 6.8 8.7 8.4																								Diurnal Average		
23.9 22.6 25.2 20.4 19.7 18.7 17.5 14.7 10.1 9.0 7.8 6.9 5.6 5.0 5.6 8.0 6.8 9.9 20.0 20.7 19.5 19.6 24.7 25.4																								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 - June 2018



Hourly Maximums

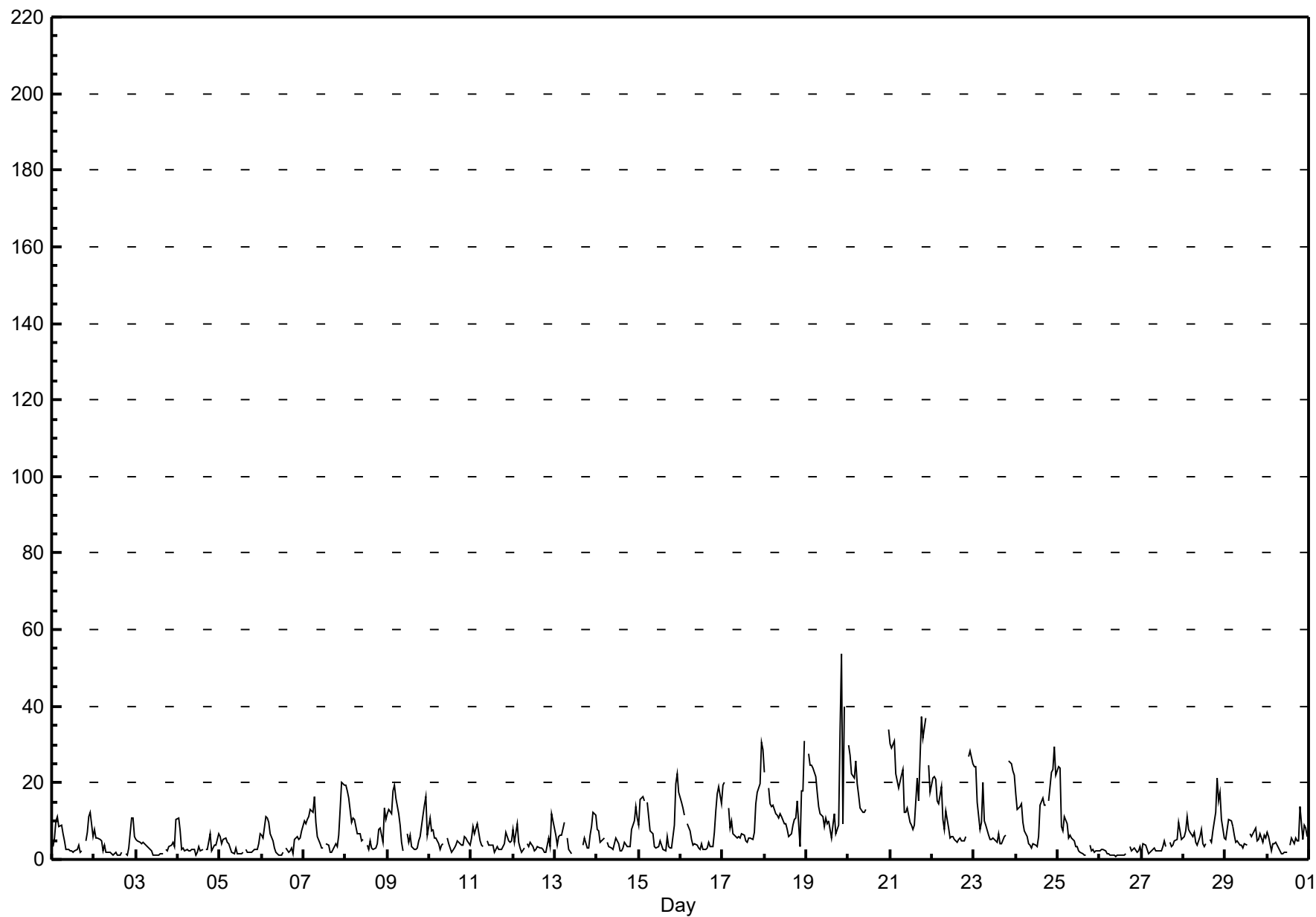
Nitrogen Dioxide (NO₂) - ppb

Portable Rycroft - June 2018

Maximum Value: 53.5 ppb on Jun 19 21:00																				Maximum Daily Average: 20.9 ppb on Jun 21					Hours in Service: 720	
Minimum Value: 1 ppb on Jun 26 10:00																				Minimum Daily Average: 1.8 ppb on Jun 26					Hours of Data: 673	
Maximum Diurnal Average: 14.1 ppb at hour 23																				Minimum Diurnal Average: 3.8 ppb at hour 14					Hours of Missing Data: 47	
Monthly Average: 7.82 ppb																				Percentiles: P ₁ = 1.0 P ₁₀ = 2.0 Q ₁ = 3.1 Median = 5.4 Q ₃ = 10.1 P ₉₀ = 17.9 P ₉₉ = 31.3					Hours of Calibration: 37	
																									Percent Operational Time: 98.6	
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-Jun	3	6	10	11	9	9	7	5	3	3	2	2	2	2	2	4	2	2	A	5	7	11	12	6	5.4	12.4
2-Jun	8	6	6	5	5	2	4	2	2	2	1	1	2	1	1	1	2	A	2	1	3	11	11	6	3.6	10.9
3-Jun	5	5	5	4	4	4	3	3	3	2	1	1	1	1	1	2	A	3	2	3	4	4	3	11	3.3	10.6
4-Jun	11	7	3	3	2	3	2	2	2	2	1	2	3	2	3	A	3	2	7	2	3	4	4	7	3.5	10.7
5-Jun	6	4	5	6	4	4	3	2	2	3	1	2	2	2	A	3	2	2	2	2	3	3	4	7	3.1	6.8
6-Jun	6	5	11	11	10	7	5	3	2	2	1	1	2	A	3	2	2	3	2	5	6	5	5	7	4.6	11.3
7-Jun	10	9	10	11	13	12	16	10	6	4	3	3	A	4	4	2	2	2	4	3	6	13	20	20	8.2	20.3
8-Jun	19	18	16	10	11	10	8	7	7	5	5	A	4	3	5	3	3	3	4	8	8	5	13	10	8.0	19.4
9-Jun	12	13	12	18	20	16	12	9	4	2	A	7	4	6	3	2	2	3	5	6	12	14	16	6	9.0	19.5
10-Jun	11	7	8	6	6	4	3	4	4	A	6	4	3	2	3	4	5	5	4	4	6	5	5	4	4.8	10.9
11-Jun	6	8	7	10	7	5	4	3	A	5	4	4	4	2	3	4	2	3	3	4	7	5	5	5	4.7	9.5
12-Jun	8	4	9	4	3	2	3	A	4	3	4	3	2	2	4	3	3	3	2	2	6	3	12	10	4.4	11.9
13-Jun	6	4	6	6	6	10	A	5	2	1	C	C	C	C	C	C	4	6	3	3	6	9	12	11	--	12.3
14-Jun	8	8	4	5	6	A	5	3	3	3	4	6	4	2	2	3	4	4	3	3	8	10	14	11	5.3	13.8
15-Jun	9	16	16	15	A	15	7	7	7	3	3	3	5	4	3	2	6	3	3	3	9	20	23	17	8.7	22.5
16-Jun	15	13	11	A	9	7	5	4	4	4	3	3	4	3	3	3	4	3	4	7	13	17	19	14	7.5	19.1
17-Jun	19	20	A	13	8	10	7	6	6	6	6	7	6	5	4	6	5	5	7	15	17	20	31	29	11.2	30.6
18-Jun	23	A	19	14	14	14	12	11	11	12	11	9	9	8	6	7	9	10	11	15	3	18	18	31	12.9	30.9
19-Jun	A	27	25	24	24	22	18	14	12	11	9	11	9	10	6	9	12	7	9	34	54	9	40	A	17.9	53.5
20-Jun	30	27	22	21	26	20	17	13	12	12	13	N	N	N	N	N	N	N	N	N	N	11	A	34	--	33.8
21-Jun	30	29	31	22	21	19	22	24	12	12	13	10	9	8	9	21	15	26	37	32	37	A	25	18	20.9	37.3
22-Jun	21	22	21	15	15	19	10	8	13	8	6	6	6	5	5	5	5	5	5	6	A	27	28	25	12.4	28.2
23-Jun	24	24	15	8	10	20	10	9	6	5	5	6	5	4	7	4	4	6	6	A	26	25	23	22	12.0	25.8
24-Jun	17	13	14	15	10	7	6	4	4	3	4	4	3	6	14	16	14	14	A	15	23	24	29	22	12.2	29.4
25-Jun	24	24	9	8	11	9	5	6	5	5	3	3	2	2	1	1	1	A	4	2	3	2	2	2	5.9	24.3
26-Jun	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	3	2	3	3	2	2	3	1.8	3.4
27-Jun	2	4	4	3	1	2	3	3	2	2	2	2	3	5	3	A	5	3	4	5	5	10	7	5	3.7	9.6
28-Jun	6	8	11	8	7	6	7	5	4	6	8	4	3	4	A	5	5	8	12	21	15	18	10	6	8.1	21.2
29-Jun	5	8	10	10	9	6	4	5	4	4	3	4	4	A	7	6	7	8	5	5	7	4	6	5	5.9	10.3
30-Jun	7	6	2	4	4	5	3	2	1	2	2	2	A	4	5	4	6	5	5	14	5	9	8	6	4.8	14.0
12.2 12.0 11.2 10.1 9.4 9.3 7.3 6.2 5.1 4.6 4.5 4.0 4.0 3.8 4.1 4.7 5.0 5.4 5.8 8.1 10.8 10.9 14.1 12.4																									Diurnal Average	
30.4 28.9 31.1 24.5 25.7 21.5 22.2 23.6 12.6 12.4 13.3 10.7 9.5 10.0 14.0 21.2 15.2 26.5 37.3 33.7 53.5 26.7 39.7 33.8																									Diurnal Maximum	
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

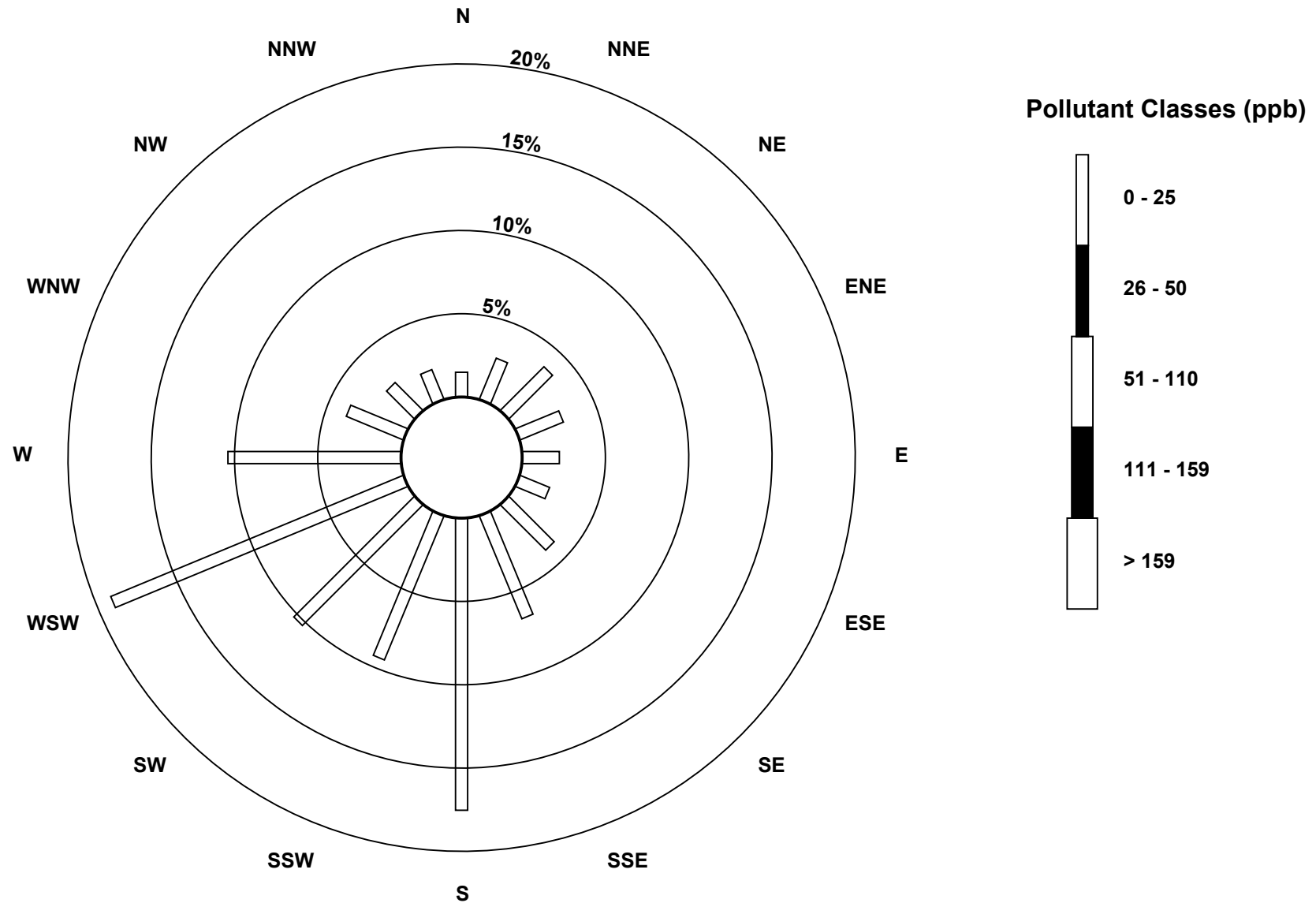
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Portable Rycroft - June 2018



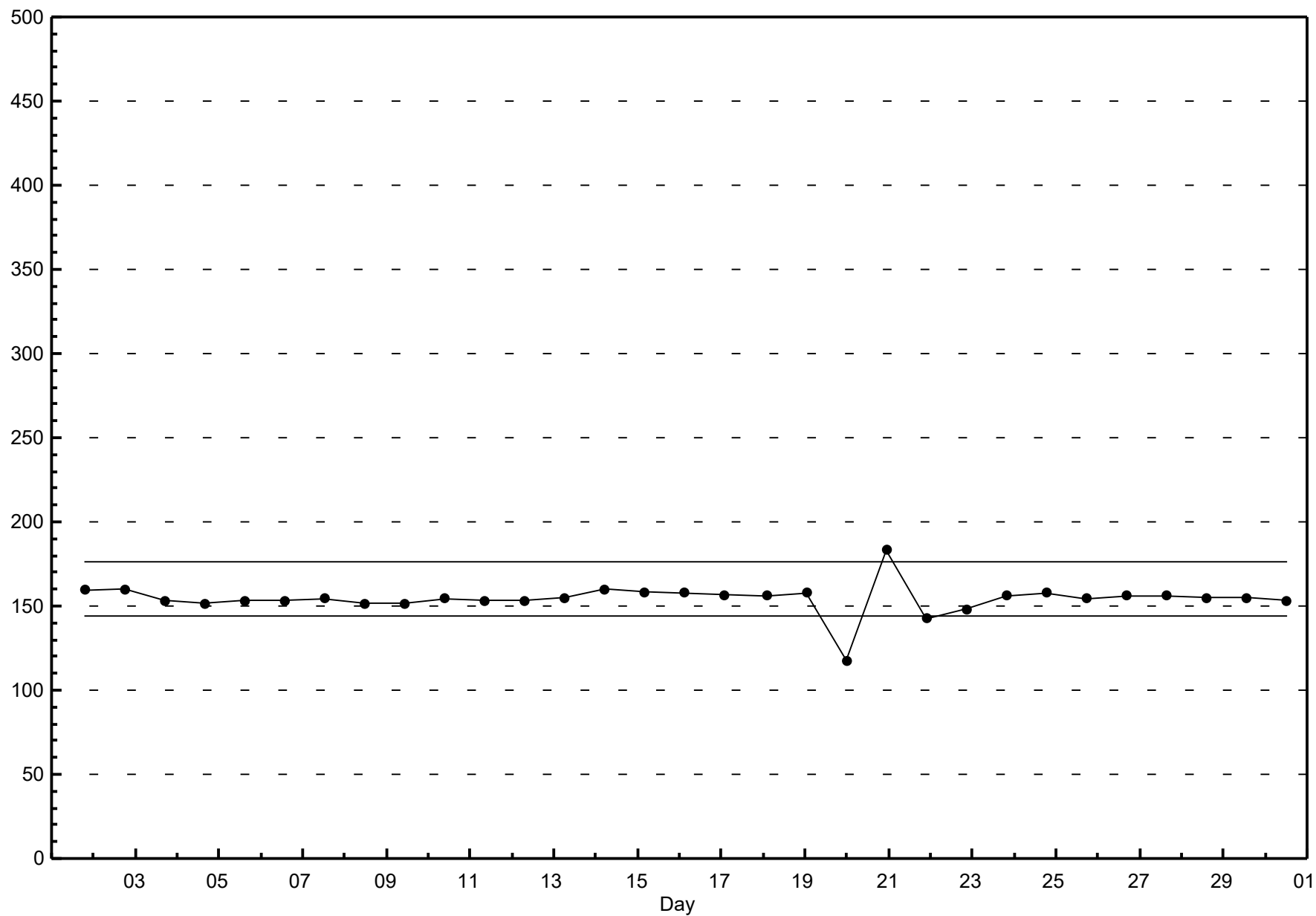
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Portable Rycroft - June 2018



Span Responses

Nitrogen Dioxide (NO₂)
Portable Rycroft - June 2018



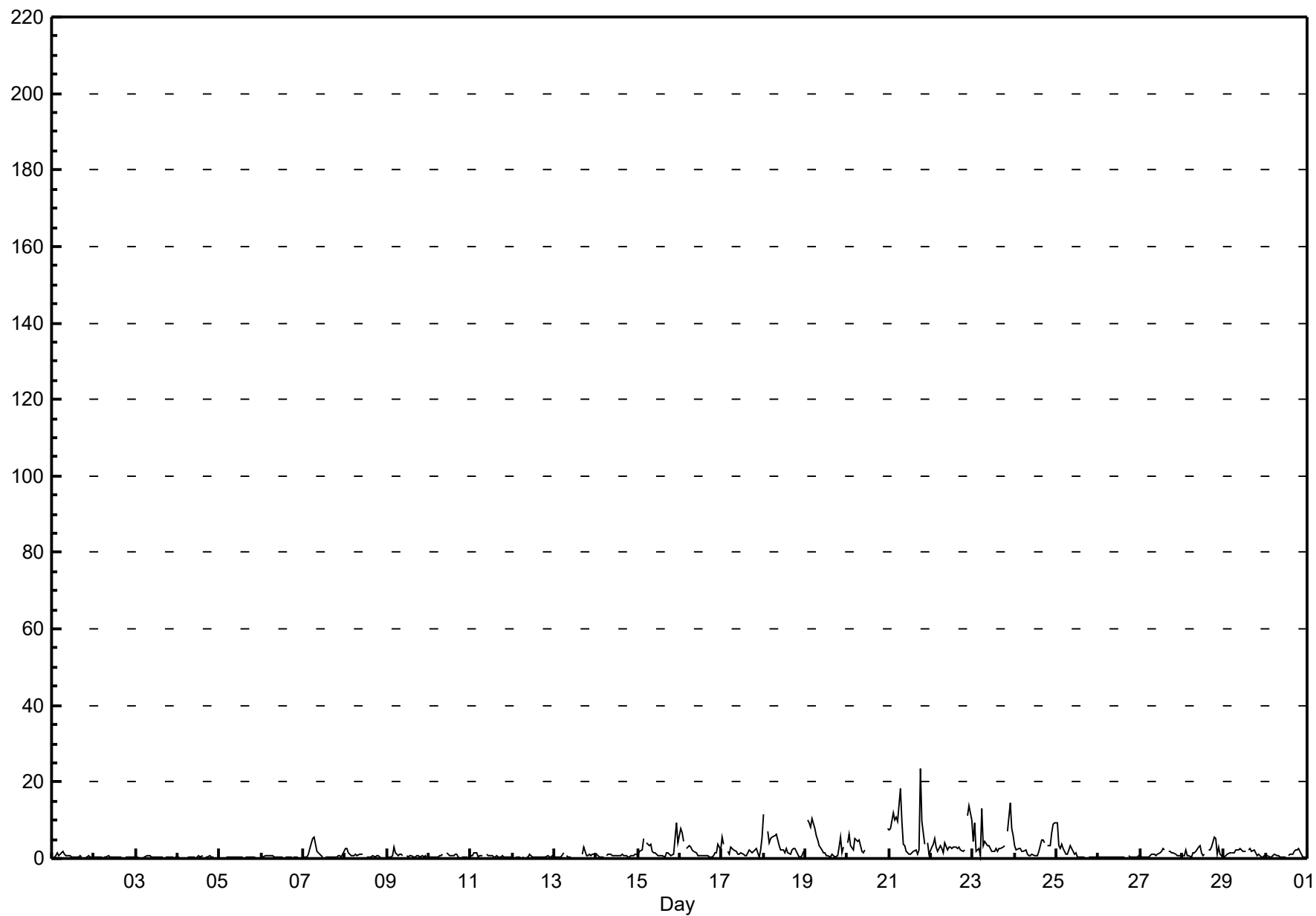
Hourly Averages

Nitrogen Oxide (NO) - ppb Portable Rycroft - June 2018

Maximum Value: 23.6 ppb on Jun 21 19:00																				Maximum Daily Average: 6.4 ppb on Jun 21					Hours in Service: 720	
Minimum Value: 0 ppb on Jun 6 23:00																				Minimum Daily Average: 0.3 ppb on Jun 5					Hours of Data: 673	
Maximum Diurnal Average: 2.6 ppb at hour 6																				Minimum Diurnal Average: 0.9 ppb at hour 14					Hours of Missing Data: 47	
Monthly Average: 1.68 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.8 Q ₃ = 2.0 P ₉₀ = 3.9 P ₉₉ = 11.2					Hours of Calibration: 37	
																									Percent Operational Time: 98.6	
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-Jun	0	0	1	1	1	2	2	1	1	1	1	1	0	0	0	0	1	1	A	0	0	1	0	0	0.7	1.7
2-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.6
3-Jun	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.8
4-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	A	0	1	1	0	0	0	0	0	0.3	0.7
5-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
6-Jun	0	0	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.9
7-Jun	0	0	0	1	3	5	6	4	2	1	1	1	A	0	0	0	0	0	1	1	1	1	0	2	1.3	5.7
8-Jun	3	3	2	1	1	1	1	1	1	1	1	A	0	0	0	0	1	1	1	1	0	0	0	0	0.8	2.8
9-Jun	0	0	0	1	3	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	0	1	0	0.7	2.9
10-Jun	0	0	0	0	0	0	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	1.3
11-Jun	1	1	1	1	0	1	1	1	A	1	1	1	1	0	0	1	1	0	1	0	0	0	0	0	0.7	1.5
12-Jun	0	0	1	0	0	0	0	A	1	0	1	1	0	0	1	0	0	0	0	0	1	0	0	1	0.4	1.1
13-Jun	0	0	0	0	1	1	A	1	0	0	C	C	C	C	C	C	1	3	1	1	1	1	1	1	--	3.0
14-Jun	1	1	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0.7	1.1
15-Jun	1	2	2	5	A	4	3	4	2	2	1	1	1	1	1	1	2	1	1	1	1	5	9	4	2.3	9.1
16-Jun	8	7	4	A	3	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	4	2	2.2	7.7
17-Jun	5	4	A	2	1	3	2	2	2	1	1	1	1	1	1	2	2	2	2	2	3	0	2	6	2.1	5.5
18-Jun	11	A	7	4	5	5	6	6	5	3	2	2	2	3	1	1	2	2	3	2	0	0	1	2	3.4	11.4
19-Jun	A	10	9	8	11	8	6	5	3	2	1	2	1	1	0	1	1	0	1	3	6	1	3	A	3.7	10.6
20-Jun	4	6	3	2	5	5	4	5	2	1	2	N	N	N	N	N	N	N	N	N	N	0	A	8	--	7.8
21-Jun	7	8	12	10	11	10	18	10	4	3	2	1	1	1	2	2	1	2	24	10	4	A	4	1	6.4	23.6
22-Jun	3	4	5	3	2	3	3	2	4	2	3	3	3	3	3	3	3	2	2	2	A	11	14	10	3.9	13.7
23-Jun	5	9	2	3	1	13	3	4	3	3	3	2	2	2	2	3	3	3	4	A	7	15	8	6	4.5	14.5
24-Jun	3	2	3	3	2	2	2	1	1	1	1	1	1	1	2	5	5	4	A	3	3	7	9	9	3.0	9.3
25-Jun	9	3	3	4	3	1	1	2	3	2	1	1	0	0	0	0	0	A	0	0	0	0	0	0	1.7	9.3
26-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0	1	1	0	0	1	0.5	0.7
27-Jun	1	0	0	0	0	1	1	1	1	1	1	2	2	2	2	A	2	2	1	1	1	1	1	1	1.1	2.4
28-Jun	1	1	2	1	1	0	1	1	2	3	3	2	1	1	A	2	2	3	5	5	1	3	1	0	1.9	5.5
29-Jun	0	1	1	2	1	2	1	2	2	3	2	2	2	A	2	2	2	2	2	1	1	0	0	1	1.5	2.5
30-Jun	1	1	0	0	1	1	1	1	1	0	0	1	A	1	1	1	2	2	2	3	1	0	0	0	0.9	2.5
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																										
N - Not Valid																										
A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Portable Rycroft - June 2018



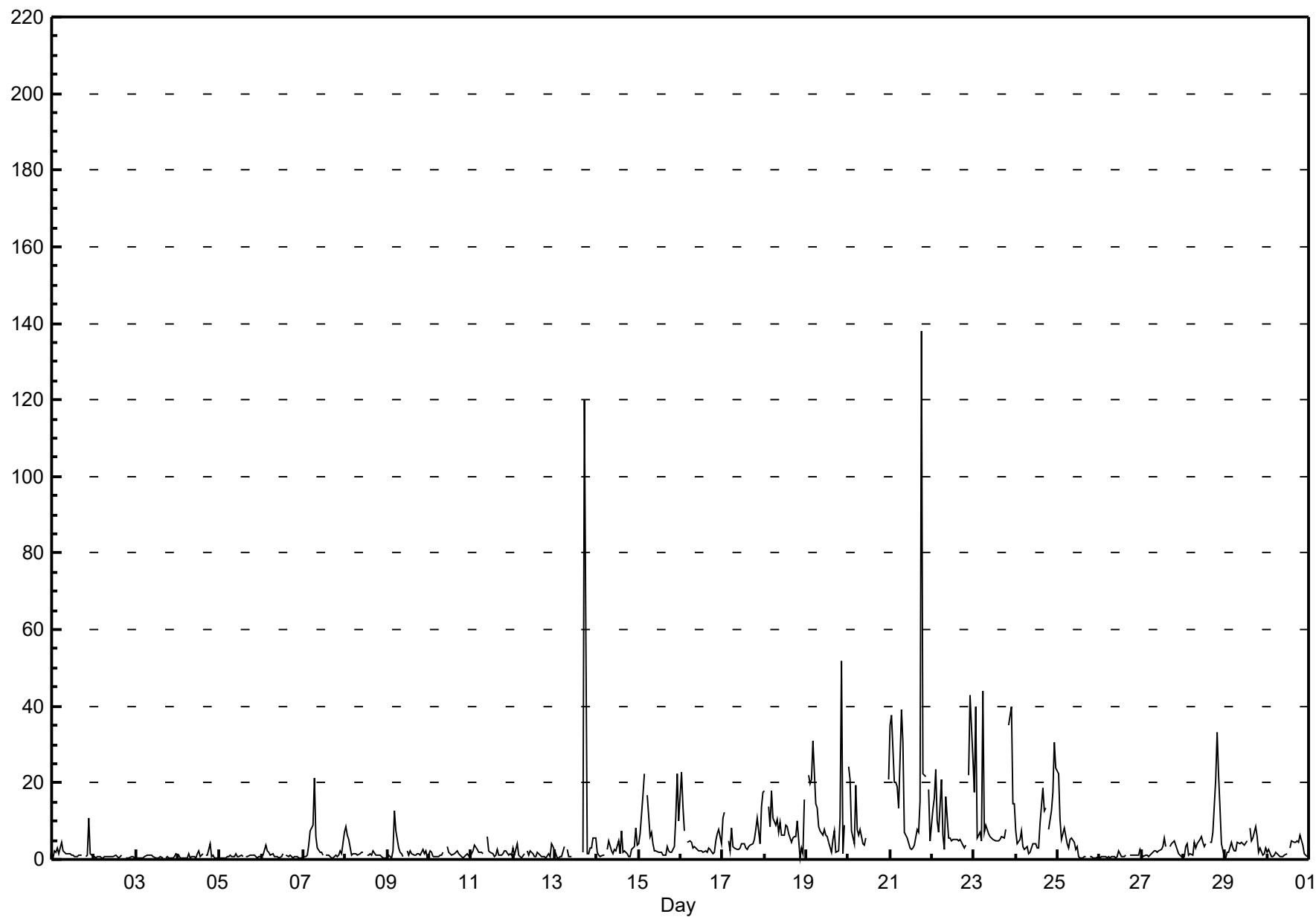
Hourly Maximums

Nitrogen Oxide (NO) - ppb Portable Rycroft - June 2018

Maximum Value: 137.9 ppb on Jun 21 19:00																				Maximum Daily Average: 20.9 ppb on Jun 21					Hours in Service: 720		
Minimum Value: 0 ppb on Jun 6 23:00																				Minimum Daily Average: 0.6 ppb on Jun 2					Hours of Data: 673		
Maximum Diurnal Average: 8.1 ppb at hour 19																				Minimum Diurnal Average: 2.4 ppb at hour 14					Hours of Missing Data: 47		
Monthly Average: 4.94 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 2.0 Q ₃ = 5.0 P ₉₀ = 11.0 P ₉₉ = 39.4					Hours of Calibration: 37		
																									Percent Operational Time: 98.6		
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-Jun	0	2	2	3	1	4	2	2	1	1	1	1	1	1	1	1	1	1	A	1	1	11	2	1	1.9	11.0	
2-Jun	1	0	1	1	0	0	1	1	1	1	1	1	1	1	0	1	1	A	0	0	0	1	1	1	0.6	1.1	
3-Jun	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.3	
4-Jun	1	0	0	0	0	0	2	0	1	1	0	2	2	1	1	A	1	1	4	1	1	0	0	0	0.9	4.2	
5-Jun	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0.7	1.4	
6-Jun	1	1	4	2	2	1	1	1	1	1	0	1	1	A	1	1	1	1	0	1	1	0	0	0	1.0	3.6	
7-Jun	1	1	1	4	8	9	21	6	3	2	2	1	A	1	1	1	1	0	1	1	1	2	1	7	3.3	21.2	
8-Jun	8	6	5	1	1	2	2	1	2	2	2	A	1	1	2	1	2	1	1	1	1	0	0	0	2.0	8.5	
9-Jun	0	1	0	2	13	7	3	2	1	1	A	2	1	2	1	1	1	1	2	1	3	2	2	0	2.2	12.8	
10-Jun	2	2	1	1	1	1	1	1	2	A	3	2	2	1	1	2	2	2	1	1	1	1	1	0	1.3	3.5	
11-Jun	2	2	4	2	2	2	2	1	A	6	2	2	1	1	1	2	1	1	2	2	2	1	1	1	1.9	5.9	
12-Jun	3	1	4	1	1	1	1	A	2	1	2	1	1	1	2	1	1	1	1	1	1	1	4	3	1.6	4.3	
13-Jun	1	0	0	1	1	3	A	3	1	1	C	C	C	C	C	C	2	120	1	1	3	3	6	6	--	119.9	
14-Jun	2	1	1	1	1	A	3	5	2	1	3	2	5	2	7	2	2	1	1	1	3	3	8	4	2.6	8.3	
15-Jun	4	7	17	22	A	17	6	7	4	2	2	2	2	2	1	1	3	2	2	2	3	11	22	10	6.6	22.3	
16-Jun	23	14	8	A	5	5	4	3	3	3	2	2	2	2	2	2	3	2	1	2	5	7	8	4	4.9	22.7	
17-Jun	11	12	A	5	2	8	3	3	3	2	3	4	4	3	3	3	4	4	5	8	11	4	14	18	5.9	17.6	
18-Jun	18	A	14	8	18	11	9	10	7	10	6	6	9	9	7	4	6	6	6	10	0	3	2	16	8.4	17.9	
19-Jun	A	22	20	21	31	14	14	9	7	7	8	6	6	5	2	5	7	2	2	11	52	2	9	A	11.9	51.8	
20-Jun	24	21	8	4	19	8	6	8	4	4	6	N	N	N	N	N	N	N	N	N	N	0	A	21	--	24.4	
21-Jun	35	38	20	20	19	13	39	31	7	6	6	3	3	3	4	8	7	15	138	22	22	A	18	5	20.9	137.9	
22-Jun	13	16	24	10	7	21	6	3	16	6	5	5	5	5	5	5	5	4	3	4	A	22	43	27	11.3	43.0	
23-Jun	18	40	6	7	5	44	7	9	7	6	6	5	5	5	5	5	6	6	8	A	35	40	15	15	13.1	44.0	
24-Jun	8	4	5	8	3	3	3	1	2	3	4	4	3	3	9	19	13	13	A	8	13	18	30	24	8.7	30.4	
25-Jun	22	11	5	7	8	4	3	5	6	4	3	4	1	0	0	1	1	A	1	1	1	1	1	1	3.8	22.3	
26-Jun	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1	1	1	3	0.9	2.7	
27-Jun	1	1	1	1	1	1	2	2	2	2	2	3	3	6	4	A	3	4	5	5	3	1	1	1	2.4	5.6	
28-Jun	1	3	4	1	1	1	4	3	4	5	6	5	3	4	A	5	4	7	21	33	22	14	4	1	6.9	33.0	
29-Jun	1	2	2	4	3	2	2	5	4	4	4	4	5	A	8	5	6	9	6	2	3	1	1	3	3.7	8.6	
30-Jun	2	3	1	1	1	2	1	1	1	1	1	1	A	3	5	4	5	5	5	6	4	1	1	1	2.4	6.3	
7.1		7.3	5.4	4.8	5.4	6.4	5.3	4.3	3.4	2.9	3.0	2.6	2.7	2.4	2.9	3.2	3.3	7.9	8.1	4.5	6.9	5.3	6.9	6.0	Diurnal Average		
35.1		39.7	23.6	22.2	31.0	44.0	39.2	30.5	16.3	9.5	8.0	6.4	9.0	8.5	9.5	18.7	12.6	119.9	137.9	33.0	51.8	39.9	43.0	26.5	Diurnal Maximum		
C - Calibration				N - Not Valid				A - Automated Daily Zero Span																			

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Portable Rycroft - June 2018



Hourly Averages

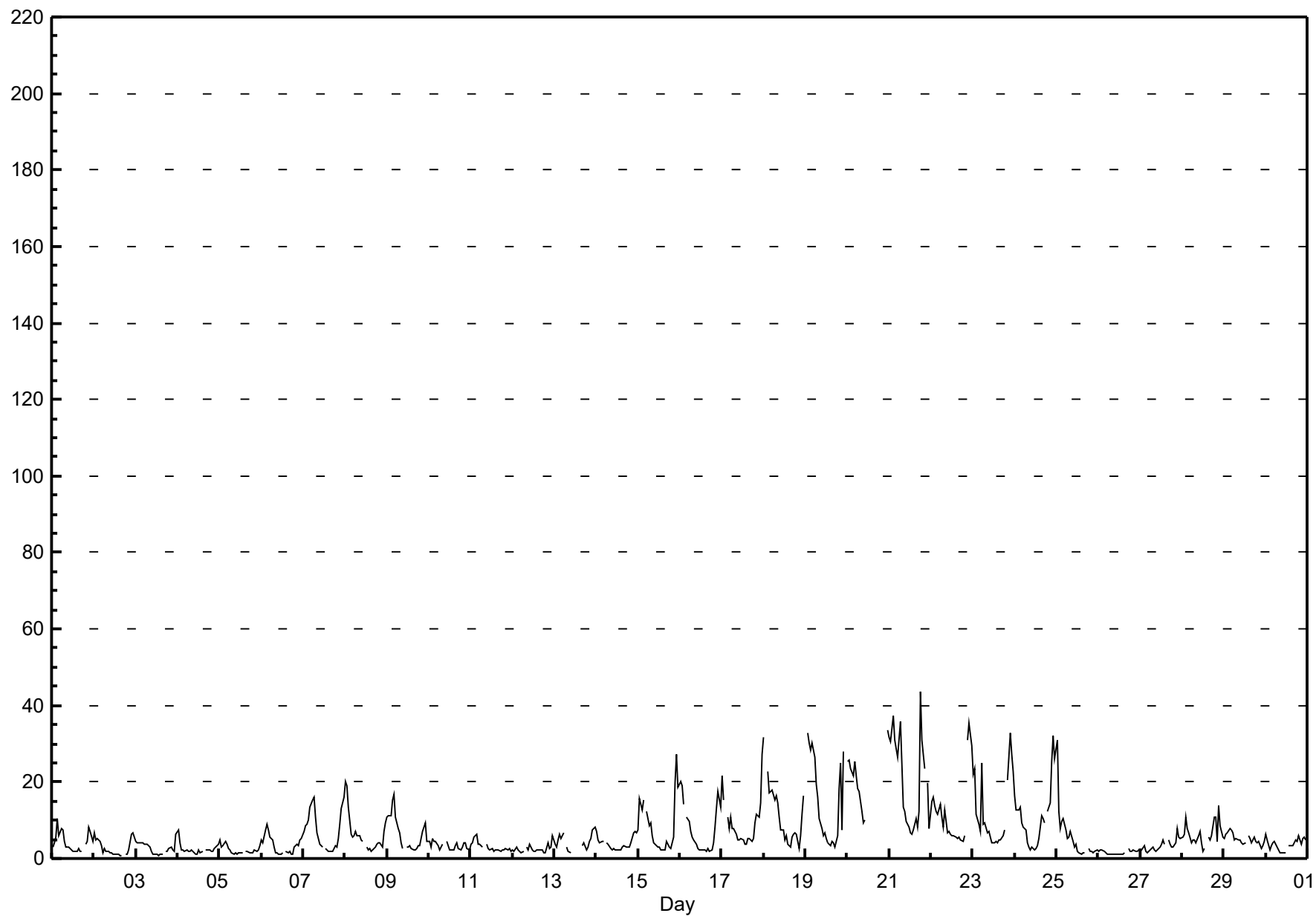
Oxides of Nitrogen (NO_x) - ppb

Portable Rycroft - June 2018

Maximum Value: 43.8 ppb on Jun 21 19:00																				Maximum Daily Average: 20.3 ppb on Jun 21					Hours in Service: 720	
Minimum Value: 1 ppb on Jun 2 17:00																				Minimum Daily Average: 1.6 ppb on Jun 26					Hours of Data: 673	
Maximum Diurnal Average: 11.5 ppb at hour 1																				Minimum Diurnal Average: 2.8 ppb at hour 14					Hours of Missing Data: 47	
Monthly Average: 6.70 ppb																				Percentiles: P ₁ = 1.0 P ₁₀ = 1.7 Q ₁ = 2.3 Median = 4.2 Q ₃ = 7.5 P ₉₀ = 15.5 P ₉₉ = 32.2					Hours of Calibration: 37	
																									Percent Operational Time: 98.6	
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-Jun	3	4	6	11	6	8	7	4	3	3	3	2	2	2	2	3	2	2	A	4	4	8	7	5	4.4	10.6
2-Jun	7	5	5	4	3	1	2	2	2	2	1	1	1	1	1	1	1	A	1	1	2	6	7	6	2.8	6.7
3-Jun	4	4	4	4	4	4	4	3	3	2	1	1	1	1	1	1	A	2	2	3	3	2	2	6	2.7	6.2
4-Jun	7	4	2	2	2	2	2	2	2	1	1	1	2	1	2	A	2	2	2	2	2	3	3	4	2.4	7.4
5-Jun	5	3	3	4	4	2	2	1	1	1	1	1	1	1	A	2	2	2	2	1	2	2	2	3	2.2	4.9
6-Jun	5	4	7	9	7	6	5	3	2	1	1	1	1	A	2	2	2	1	1	3	4	3	5	5	3.5	9.0
7-Jun	7	9	9	10	14	15	16	11	7	4	3	3	A	3	2	2	2	2	3	3	5	9	13	16	7.2	15.9
8-Jun	20	19	14	6	6	6	7	6	6	5	4	A	3	2	3	2	2	3	4	4	4	3	7	9	6.3	20.0
9-Jun	11	11	11	15	17	11	8	7	4	2	A	3	3	3	3	2	2	3	3	4	7	8	9	5	6.6	16.9
10-Jun	4	3	5	5	5	3	2	3	4	A	5	3	2	2	2	3	4	3	2	3	4	4	2	2	3.3	5.0
11-Jun	4	4	6	6	4	4	3	3	A	4	3	2	2	2	2	2	2	2	2	2	3	2	2	2	3.0	6.2
12-Jun	2	2	3	2	2	2	2	A	3	2	4	2	2	2	2	2	2	2	2	1	4	2	3	6	2.5	5.9
13-Jun	4	3	5	6	5	7	A	3	2	1	C	C	C	C	C	C	3	4	2	3	5	5	8	8	--	8.4
14-Jun	7	5	4	4	5	A	4	4	3	2	3	2	2	2	2	3	3	3	3	3	4	7	7	7	3.9	7.2
15-Jun	7	16	13	15	A	12	9	9	6	4	4	3	3	2	2	2	4	4	3	3	6	20	27	19	8.4	27.1
16-Jun	20	19	14	A	11	10	7	5	5	4	3	2	2	2	2	2	3	2	2	4	8	13	17	13	7.4	20.3
17-Jun	22	15	A	11	8	11	8	8	6	5	5	5	5	4	4	5	5	5	5	9	12	11	14	27	9.1	27.0
18-Jun	32	A	23	17	18	18	15	16	15	11	8	8	5	6	4	3	5	6	7	6	3	6	11	17	11.2	31.6
19-Jun	A	33	30	28	30	27	20	16	11	8	6	7	5	4	3	4	4	3	6	18	25	7	28	A	14.7	32.8
20-Jun	25	26	24	22	25	22	18	18	12	9	10	N	N	N	N	N	N	N	N	N	N	7	A	34	--	33.5
21-Jun	32	31	37	31	29	26	36	25	14	12	10	8	7	6	7	10	8	12	44	31	23	A	20	8	20.3	43.8
22-Jun	15	16	14	12	12	14	11	8	13	7	7	6	6	6	6	5	6	5	4	6	A	31	35	29	11.9	35.3
23-Jun	22	24	12	9	7	25	9	9	7	7	6	4	4	5	4	5	5	6	8	A	21	33	27	23	12.2	32.8
24-Jun	16	13	13	13	9	8	8	4	3	2	3	2	3	3	5	11	10	10	A	12	14	25	32	26	10.8	32.0
25-Jun	31	12	8	10	10	7	5	6	7	4	3	4	2	2	1	1	1	A	3	2	2	2	2	2	5.5	30.9
26-Jun	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	3	2	2	2	2	2	2	1.6	2.6
27-Jun	2	2	3	2	1	2	3	3	2	2	3	4	5	4	5	A	5	4	3	3	4	8	6	5	3.4	7.9
28-Jun	6	6	11	8	7	4	5	5	4	6	7	4	2	3	A	6	5	6	11	11	5	14	9	5	6.5	13.7
29-Jun	5	6	7	8	7	7	5	5	5	5	4	4	4	A	6	5	4	5	4	4	4	3	3	5	5.0	7.8
30-Jun	6	5	2	3	4	5	3	2	2	2	2	2	A	3	4	3	4	5	5	6	4	5	6	5	3.7	6.4
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																										
N - Not Valid																										
A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Portable Rycroft - June 2018



Hourly Maximums

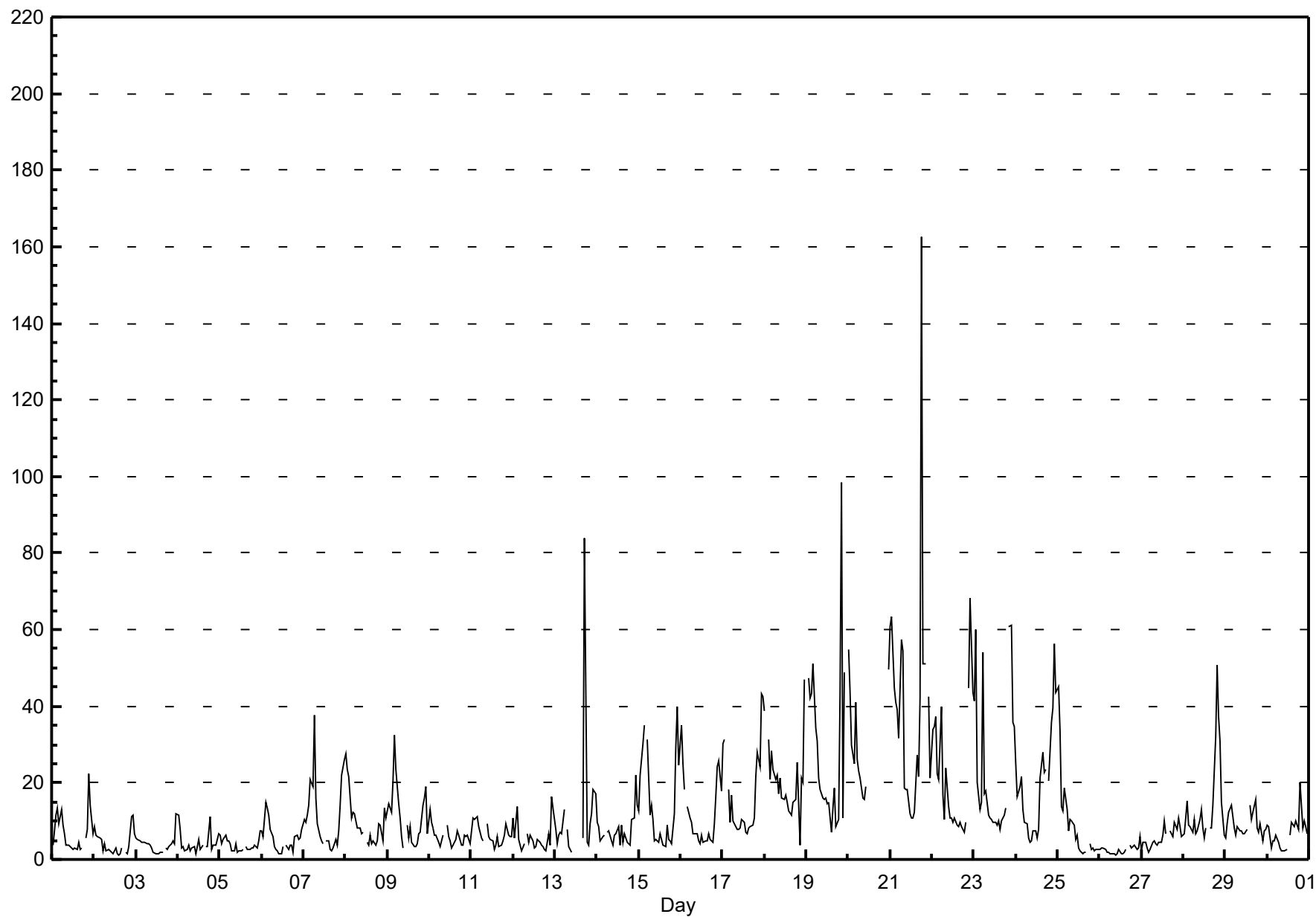
Oxides of Nitrogen (NO_x) - ppb

Portable Rycroft - June 2018

Maximum Value: 162.5 ppb on Jun 21 19:00																				Maximum Daily Average: 39.7 ppb on Jun 21					Hours in Service: 720	
Minimum Value: 1 ppb on Jun 2 15:00																				Minimum Daily Average: 2.5 ppb on Jun 26					Hours of Data: 673	
Maximum Diurnal Average: 20.4 ppb at hour 23																				Minimum Diurnal Average: 5.9 ppb at hour 14					Hours of Missing Data: 47	
Monthly Average: 12.16 ppb																				Percentiles: P ₁ = 1.4 P ₁₀ = 2.6 Q ₁ = 4.2 Median = 7.5 Q ₃ = 14.0 P ₉₀ = 28.3 P ₉₉ = 60.9					Hours of Calibration: 37	
																									Percent Operational Time: 98.6	
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-Jun	4	8	12	13	9	13	9	7	4	4	3	3	3	3	3	4	3	3	A	5	8	22	14	7	7.1	22.4
2-Jun	9	6	6	6	5	2	4	2	3	2	2	2	3	1	1	2	3	A	2	2	3	11	11	7	4.1	11.4
3-Jun	6	5	5	4	4	4	4	4	4	3	2	1	2	1	2	2	A	3	3	3	4	5	4	12	3.8	12.0
4-Jun	12	8	3	3	2	3	4	2	3	3	1	3	5	3	4	A	3	3	11	3	4	4	4	7	4.2	11.6
5-Jun	6	4	5	6	5	5	4	2	2	4	2	2	2	3	A	3	3	3	3	3	4	3	5	7	3.8	7.5
6-Jun	7	6	15	13	12	8	6	3	3	2	2	2	3	A	4	3	4	4	2	6	6	5	5	8	5.6	15.0
7-Jun	10	10	12	14	21	19	38	16	9	6	5	4	A	5	5	3	2	3	5	4	7	14	22	26	11.3	37.7
8-Jun	27	24	22	11	12	12	10	8	8	7	7	A	4	4	6	4	5	4	5	9	9	5	13	11	9.9	27.4
9-Jun	13	14	12	20	33	23	15	11	6	3	A	9	5	8	5	3	3	4	7	7	14	16	19	7	11.2	32.6
10-Jun	13	10	8	6	6	5	4	5	6	A	9	6	5	3	4	5	7	6	4	4	6	6	6	4	6.0	13.2
11-Jun	7	11	10	11	9	7	6	5	A	9	6	5	5	3	4	6	3	4	5	6	9	6	6	6	6.5	11.2
12-Jun	11	6	14	5	4	2	4	A	7	4	6	5	3	3	5	4	4	3	3	2	7	4	16	13	5.9	16.3
13-Jun	8	4	6	7	7	13	A	8	3	2	C	C	C	C	C	C	5	84	4	4	9	12	18	17	--	84.0
14-Jun	10	9	5	6	6	A	7	8	5	4	6	7	9	4	9	4	7	5	4	4	11	11	22	14	7.6	22.1
15-Jun	13	22	30	35	A	31	12	14	11	5	5	5	7	5	4	3	9	5	5	4	12	29	40	25	14.4	40.0
16-Jun	35	25	18	A	14	11	10	7	7	7	5	4	6	4	5	5	7	5	4	9	17	24	26	18	11.8	34.9
17-Jun	30	31	A	18	10	17	10	9	8	8	8	10	10	7	7	8	8	9	11	22	28	24	43	43	16.5	43.2
18-Jun	39	A	31	21	28	24	21	22	17	21	16	16	17	15	13	11	15	15	16	25	4	21	20	47	20.6	46.9
19-Jun	A	47	42	43	51	34	31	21	18	16	16	16	15	15	7	13	19	8	11	44	98	11	49	A	28.4	98.3
20-Jun	55	44	30	25	41	26	23	21	16	16	19	N	N	N	N	N	N	N	N	N	N	12	A	50	--	54.7
21-Jun	61	63	45	41	39	32	57	54	19	18	18	12	11	11	12	27	22	42	162	51	51	A	42	21	39.7	162.5
22-Jun	34	35	37	22	21	40	17	10	24	14	11	11	10	11	9	9	10	9	7	10	A	45	68	44	21.9	68.3
23-Jun	42	60	20	13	15	54	17	18	12	11	11	10	10	9	10	8	10	12	13	A	61	61	36	35	23.7	61.2
24-Jun	25	16	19	22	13	10	9	6	5	5	8	7	6	8	21	28	23	23	A	20	36	40	56	44	19.5	56.1
25-Jun	45	33	14	13	19	13	7	10	10	9	5	6	3	2	2	2	2	A	4	3	3	2	3	3	9.3	45.0
26-Jun	2	3	3	3	2	2	2	1	1	1	1	3	2	1	2	3	A	4	3	3	4	3	3	6	2.5	6.0
27-Jun	2	5	4	3	2	3	4	5	4	4	4	4	6	10	7	A	8	7	6	10	8	11	9	6	5.7	10.9
28-Jun	7	11	15	9	8	7	11	7	8	10	13	8	6	8	A	8	8	14	32	51	37	31	15	6	14.4	50.5
29-Jun	6	9	12	14	11	8	6	9	7	7	7	7	8	A	14	10	12	16	8	7	9	5	7	8	9.1	15.5
30-Jun	9	9	3	5	5	6	4	3	2	2	2	3	A	6	10	9	10	9	8	20	8	10	8	7	6.9	20.2
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration																										
N - Not Valid																										
A - Automated Daily Zero Span																										

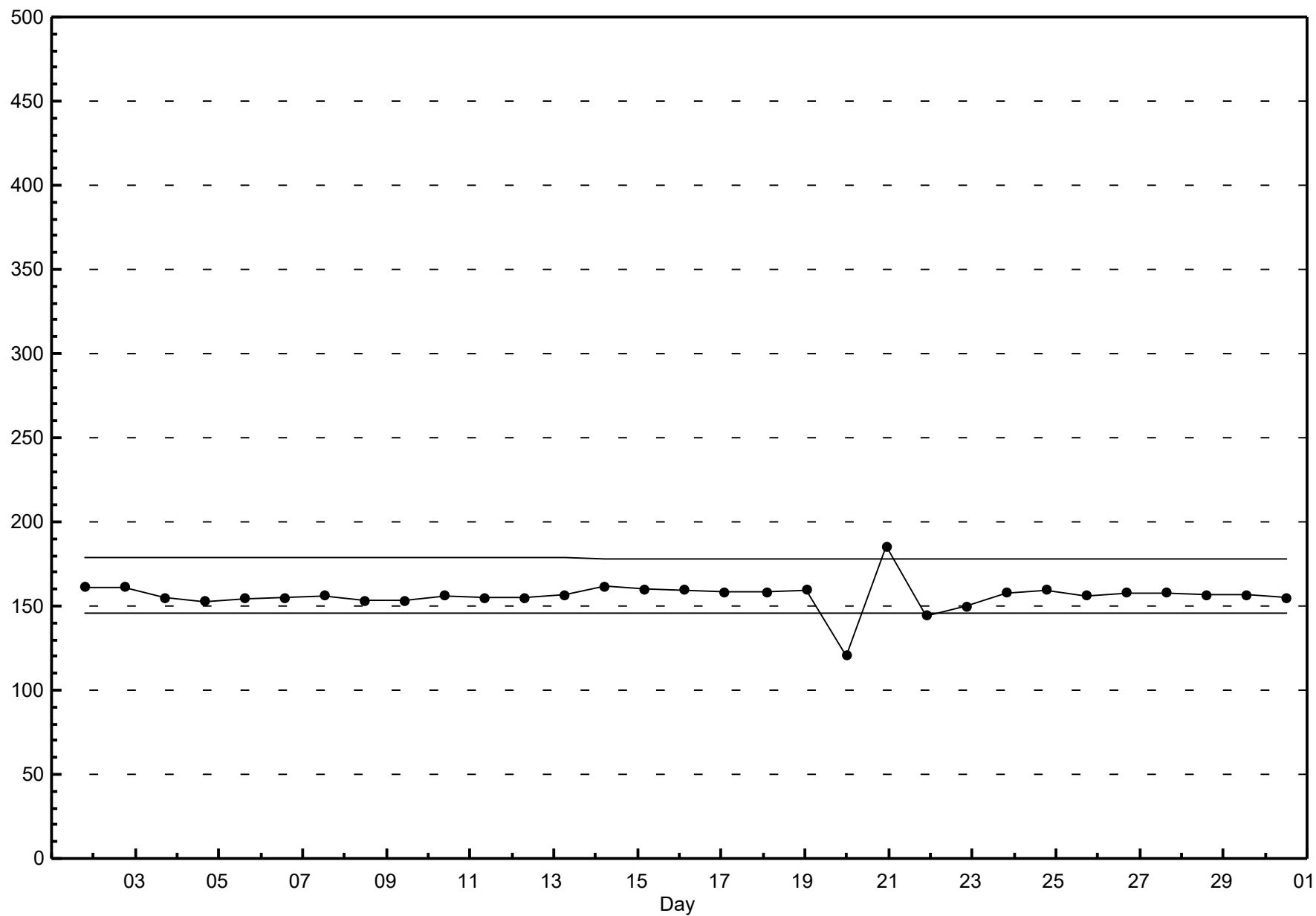
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Portable Rycroft - June 2018



Span Responses

Oxides of Nitrogen (NO_x)
Portable Rycroft - June 2018



Hourly Averages

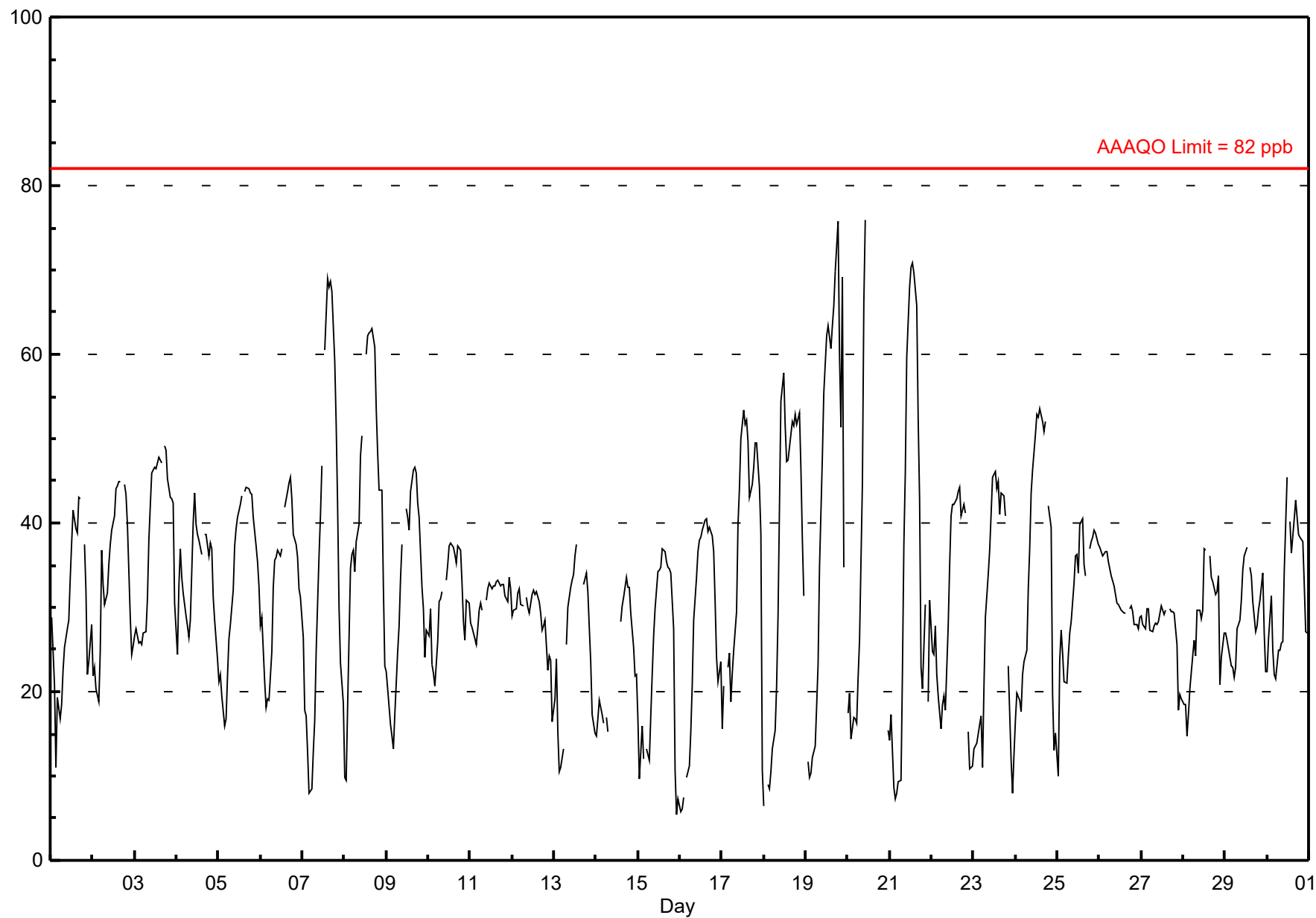
Ozone (O₃) - ppb

Portable Rycroft - June 2018

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 76.0 ppb on Jun 20 11:00 Maximum Daily Average: 44.2 ppb on Jun 19																				Hours in Service: 720 Hours of Data: 670 Hours of Missing Data: 50 Hours of Calibration: 40 Percent Operational Time: 98.6						
Minimum Value: 5 ppb on Jun 15 23:00 Maximum Diurnal Average: 44.0 ppb at hour 16 Monthly Average: 31.95 ppb										Minimum Daily Average: 23.6 ppb on Jun 15 Minimum Diurnal Average: 20.1 ppb at hour 4 Percentiles: P ₁ = 7.7 P ₁₀ = 16.1 Q ₁ = 23.5 Median = 30.9 Q ₃ = 39.1 P ₉₀ = 47.2 P ₉₉ = 69.0																
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-Jun	29	25	21	11	19	17	18	23	25	27	29	33	38	41	39	39	43	43	A	37	32	22	24	28	28.9	43.1
2-Jun	22	23	20	19	25	37	33	30	32	35	38	39	41	44	44	45	45	A	44	43	40	29	24	25	33.8	44.9
3-Jun	27	27	26	26	26	27	27	31	38	42	46	47	46	47	48	47	A	49	49	45	43	43	42	30	38.2	49.2
4-Jun	24	33	37	34	32	29	28	26	28	40	44	40	39	38	36	A	39	39	36	38	37	31	28	24	33.9	43.5
5-Jun	21	22	19	16	17	22	26	28	32	37	39	41	42	43	A	44	44	44	44	43	41	37	35	33	33.5	44.2
6-Jun	28	29	21	18	19	19	25	32	36	36	37	36	37	A	42	44	45	45	43	39	37	36	32	31	33.4	45.5
7-Jun	26	18	17	13	8	9	13	17	25	36	41	47	A	61	69	68	69	67	59	52	42	30	23	19	36.0	69.0
8-Jun	10	9	18	35	36	37	34	38	40	48	50	A	60	62	63	63	63	61	54	48	44	44	33	23	42.3	63.1
9-Jun	22	20	16	15	13	17	25	28	33	37	A	42	41	39	44	46	47	46	42	41	32	30	24	27	31.7	46.7
10-Jun	27	30	23	22	21	26	31	31	32	A	33	35	37	38	37	36	35	37	37	33	28	26	31	31	31.2	37.7
11-Jun	28	28	27	26	27	30	31	30	A	31	32	33	32	33	33	33	33	33	33	33	31	31	34	32	30.9	33.6
12-Jun	29	30	30	32	32	30	30	A	31	30	29	32	32	31	32	31	29	27	28	28	23	24	24	16	28.7	32.3
13-Jun	19	24	15	10	11	13	A	26	30	32	33	34	36	38	C	C	C	33	34	32	28	24	17	15	25.2	37.5
14-Jun	15	17	19	17	16	A	17	15	C	C	C	C	C	C	28	30	31	34	32	32	29	25	22	22	--	33.6
15-Jun	17	10	16	12	A	13	12	17	22	27	30	34	34	35	37	37	35	35	35	34	27	11	5	7	23.6	36.9
16-Jun	6	6	7	A	10	11	15	21	29	34	37	38	38	39	40	40	39	40	38	37	31	24	21	24	27.1	40.4
17-Jun	16	21	A	23	25	19	22	25	30	40	44	50	53	52	50	43	45	47	49	50	44	39	11	36.8	53.3	
18-Jun	6	A	9	8	10	13	15	21	29	42	54	58	51	47	48	51	52	52	53	52	53	46	38	31	36.5	57.8
19-Jun	A	12	10	10	12	14	18	23	35	48	55	59	62	63	61	63	66	70	76	60	51	69	35	A	44.2	75.8
20-Jun	17	20	14	17	17	16	22	26	45	66	76	N	N	N	N	N	N	N	N	N	N	44	A	15	--	76.0
21-Jun	14	17	9	7	8	9	10	22	38	46	60	68	70	71	70	66	52	43	23	20	30	A	19	31	34.9	70.8
22-Jun	25	24	28	22	19	16	18	20	18	28	35	41	42	42	43	44	44	41	42	41	A	15	11	11	29.1	44.3
23-Jun	13	14	14	16	17	11	20	29	34	37	41	45	46	44	45	41	44	43	41	A	23	12	8	13	28.3	46.1
24-Jun	17	20	19	18	22	24	25	32	37	44	46	51	53	53	54	52	51	52	A	42	39	20	13	15	34.6	53.6
25-Jun	10	24	27	25	21	21	24	27	28	33	36	36	34	40	41	35	34	A	37	38	38	39	39	37	31.5	40.6
26-Jun	37	37	36	37	37	35	34	34	33	31	30	30	30	29	29	29	A	30	30	29	28	28	27	29	31.8	37.2
27-Jun	29	28	27	30	30	27	27	28	28	28	28	30	30	29	30	A	30	30	30	29	26	18	20	19	27.4	30.1
28-Jun	18	18	15	17	20	24	26	24	30	30	29	30	37	37	A	36	34	33	31	32	34	21	24	27	27.3	37.0
29-Jun	27	26	25	23	23	22	23	27	28	31	34	36	37	A	35	34	31	27	28	30	31	34	27	22	28.7	37.2
30-Jun	22	26	31	25	22	22	25	25	26	26	34	45	A	40	36	41	43	41	39	38	38	33	27	27	31.8	45.4
20.8 21.9 20.6 20.1 20.5 21.0 23.3 26.0 31.1 36.5 40.0 41.1 42.3 43.7 43.6 44.0 43.1 42.1 40.1 38.4 35.2 30.7 25.7 23.3																								Diurnal Average		
37.2 36.5 37.0 36.6 36.5 36.8 34.5 37.9 44.8 66.1 76.0 68.0 70.3 70.8 69.7 68.0 68.6 69.8 75.8 59.9 53.1 69.1 42.3 37.4																								Diurnal Maximum		
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 - June 2018



Hourly Maximums

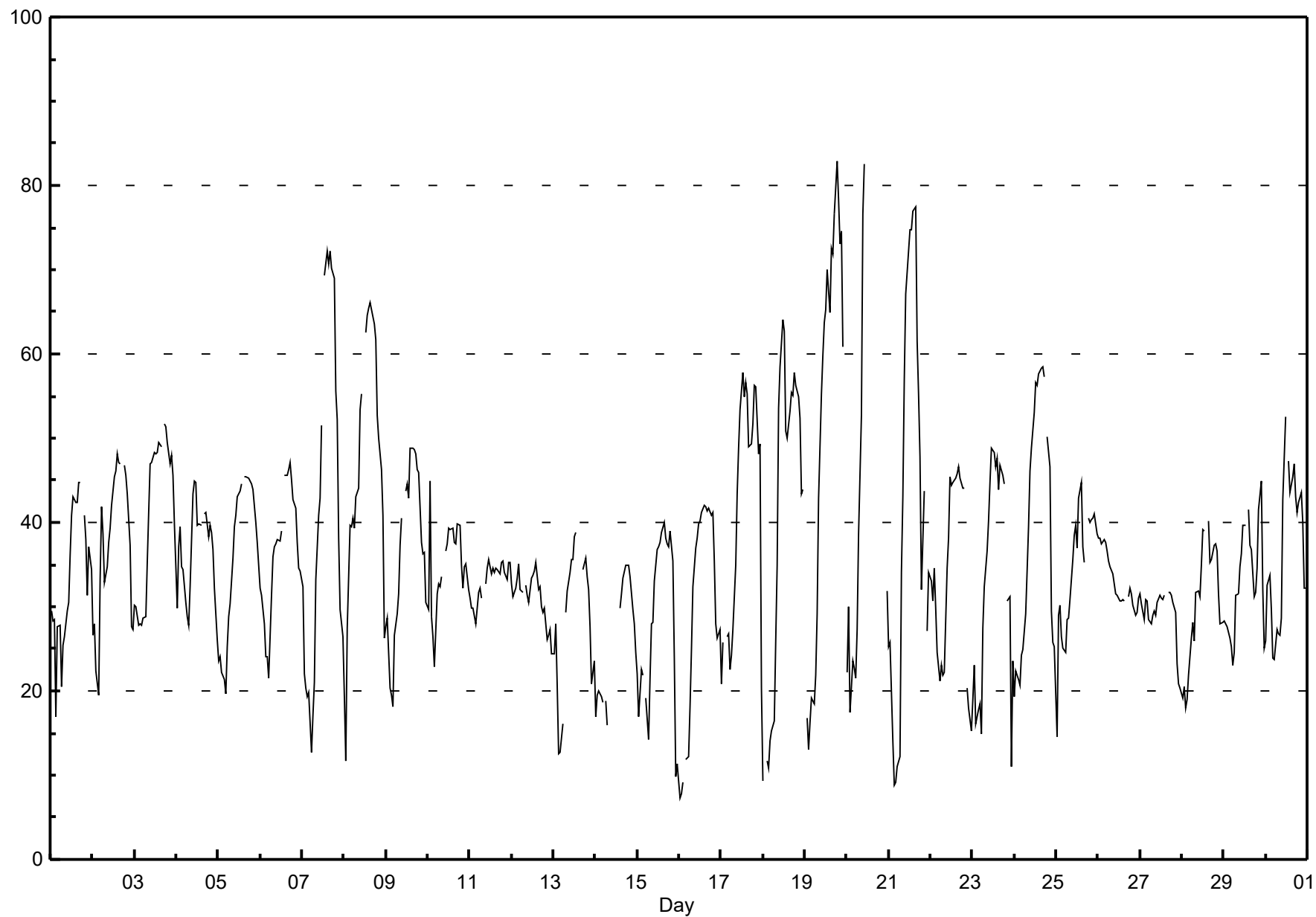
Ozone (O₃) - ppb

Portable Rycroft - June 2018

Maximum Value: 82.8 ppb on Jun 19 19:00																				Maximum Daily Average: 52.1 ppb on Jun 19					Hours in Service: 720	
Minimum Value: 7 ppb on Jun 16 01:00																				Minimum Daily Average: 28.2 ppb on Jun 15					Hours of Data: 670	
Maximum Diurnal Average: 47.3 ppb at hour 16																				Minimum Diurnal Average: 23.8 ppb at hour 4					Hours of Missing Data: 50	
Monthly Average: 35.90 ppb																				Percentiles: P ₁ = 10.5 P ₁₀ = 20.5 Q ₁ = 27.9 Median = 34.5 Q ₃ = 43.0 P ₉₀ = 52.5 P ₉₉ = 75.4					Hours of Calibration: 40	
																				Percent Operational Time: 98.6						
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-Jun	30	28	29	17	28	28	21	25	26	30	30	36	41	43	42	42	45	45	A	41	38	31	37	34	33.3	44.8
2-Jun	27	28	22	19	33	42	39	33	35	38	39	42	45	46	48	47	47	A	47	46	43	37	28	27	37.3	48.2
3-Jun	30	30	28	28	28	29	29	35	41	47	47	48	48	48	50	49	A	52	51	49	47	48	46	40	41.2	51.7
4-Jun	30	37	39	35	34	31	29	28	32	43	45	45	40	40	40	A	41	41	38	40	39	37	32	26	36.6	45.0
5-Jun	24	24	22	21	20	25	29	30	36	40	41	43	44	45	A	45	45	45	45	45	44	40	38	35	35.9	45.4
6-Jun	32	31	28	24	24	22	31	36	37	37	38	38	39	A	46	46	46	47	45	43	42	38	35	34	36.4	47.1
7-Jun	32	22	20	19	20	13	17	21	33	41	43	52	A	69	72	71	72	70	69	56	52	38	30	26	41.7	72.2
8-Jun	19	12	27	40	39	41	39	43	44	53	55	A	63	65	65	66	65	63	62	53	50	46	41	26	46.9	66.1
9-Jun	28	29	20	19	18	27	29	32	37	40	A	44	45	43	49	49	49	48	46	46	38	36	36	31	36.4	48.8
10-Jun	30	45	29	26	23	32	33	32	34	A	37	37	39	39	39	38	38	40	40	35	32	35	35	32	34.7	44.9
11-Jun	31	30	30	28	30	32	32	31	A	33	35	36	34	35	34	35	34	34	35	35	34	33	35	35	33.0	35.6
12-Jun	33	31	32	33	35	32	32	A	33	31	31	33	34	34	35	32	32	30	29	30	26	27	27	24	31.2	35.3
13-Jun	24	28	21	12	13	16	A	29	32	34	36	36	38	39	C	C	C	34	36	33	32	28	21	24	28.3	38.8
14-Jun	17	20	20	19	19	A	19	16	C	C	C	C	C	C	30	31	33	35	35	35	34	30	28	25	--	35.0
15-Jun	22	17	22	22	A	19	14	21	28	28	33	37	37	38	39	40	38	37	37	39	35	24	10	11	28.2	40.1
16-Jun	7	8	9	A	12	12	18	25	32	37	38	40	40	41	42	42	41	42	41	41	35	28	26	27	29.8	42.1
17-Jun	21	26	A	26	27	23	24	27	35	43	49	53	58	55	57	55	49	49	52	56	56	48	49	20	41.7	57.8
18-Jun	9	A	12	11	14	15	16	26	35	53	58	64	63	51	50	53	55	55	58	56	55	52	43	44	41.3	64.0
19-Jun	A	17	13	16	19	18	22	29	43	55	60	64	65	70	65	73	72	77	83	78	73	75	61	A	52.1	82.8
20-Jun	22	30	18	24	23	21	27	39	53	77	83	N	N	N	N	N	N	N	N	N	N	50	A	32	--	82.5
21-Jun	25	26	14	9	9	11	12	34	43	57	67	72	75	75	77	77	62	55	48	32	44	A	27	34	42.8	77.4
22-Jun	33	31	35	30	25	21	23	22	22	35	38	45	44	45	45	46	47	45	44	44	A	20	18	15	33.6	46.6
23-Jun	19	23	16	18	19	15	27	32	37	40	45	49	48	47	48	44	47	46	45	A	31	31	11	24	33.0	48.9
24-Jun	19	22	21	21	24	25	29	34	40	46	49	53	57	56	58	58	58	57	A	50	47	30	26	25	39.4	58.5
25-Jun	15	29	30	27	25	25	28	29	31	36	39	40	37	43	45	37	35	A	40	40	40	40	41	39	34.3	44.7
26-Jun	38	38	37	38	38	37	35	35	34	33	31	31	31	31	31	31	A	31	32	32	30	29	29	31	33.2	38.1
27-Jun	32	30	29	31	31	28	28	29	29	29	31	31	31	31	31	A	32	32	31	31	29	23	21	20	29.1	31.8
28-Jun	19	20	18	19	22	26	28	26	32	32	31	35	39	39	A	40	35	36	37	38	37	31	28	28	30.3	40.2
29-Jun	28	28	28	26	25	23	25	31	31	35	36	40	40	A	42	37	37	31	32	35	42	45	32	25	32.7	44.8
30-Jun	26	33	34	30	24	24	27	27	27	29	43	53	A	47	44	45	47	43	41	42	44	40	32	32	36.2	52.5
24.9 26.6 24.2 23.8 24.1 24.5 26.3 29.6 34.7 40.4 43.1 44.3 45.1 46.7 47.0 47.3 46.3 45.2 44.4 42.8 41.0 36.9 31.8 28.6																									Diurnal Average	
38.1 44.9 39.4 39.6 39.5 41.8 39.3 43.0 52.7 76.6 82.5 72.3 74.8 74.8 76.9 77.4 72.2 76.7 82.8 78.4 73.1 74.5 60.9 43.8																									Diurnal Maximum	
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

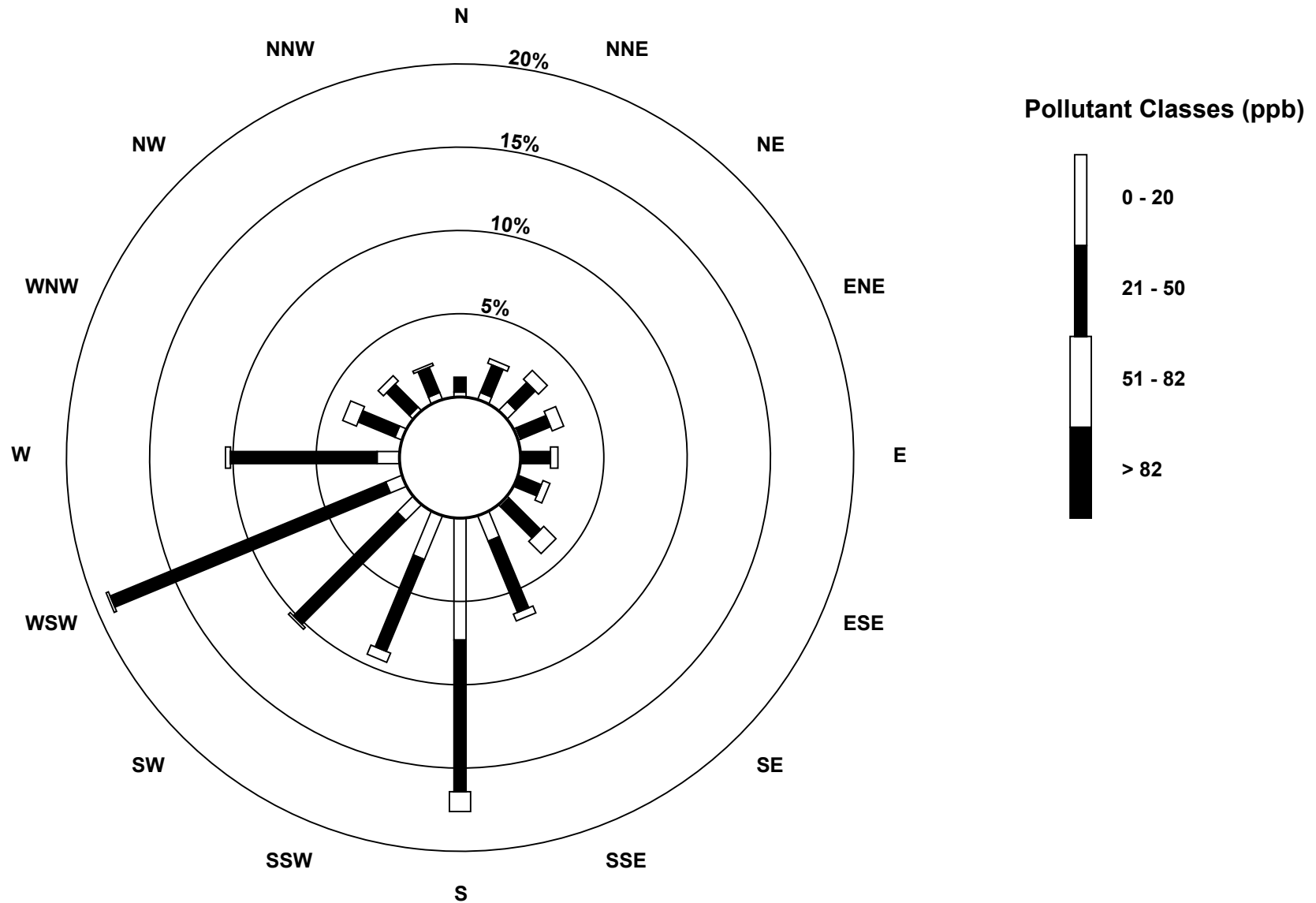
Hourly Maximums

Ozone (O₃) - ppb
Portable Rycroft - June 2018



Pollutant Rose

Ozone (O₃) - ppb
Portable Rycroft - June 2018



Eight Hour Running Averages

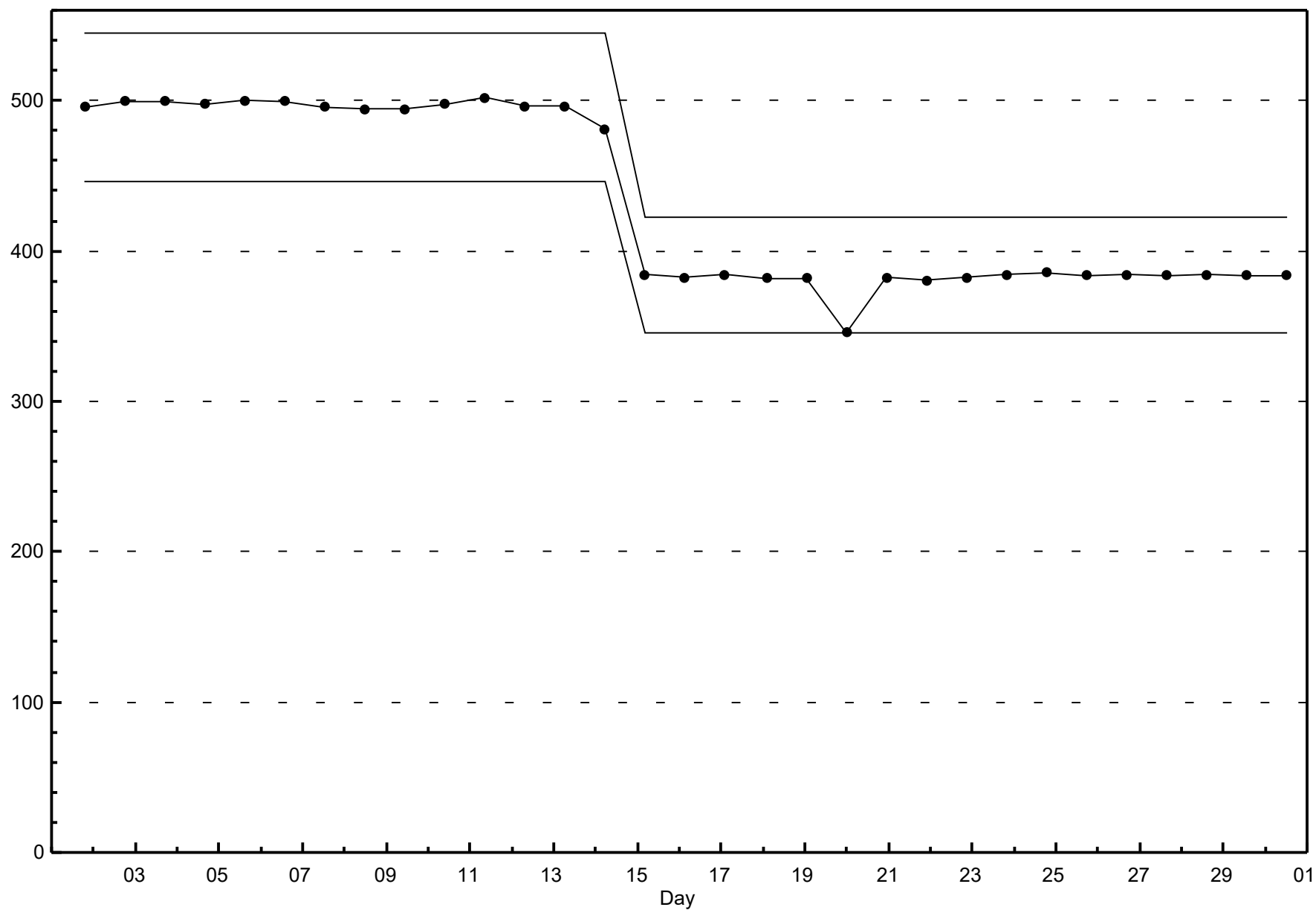
Ozone (O₃) - ppb

Portable Rycroft - June 2018

Maximum Value: 65.1 ppb on Jun 19 20:00																								Hours in Service: 720	
Minimum Value: 7.5 ppb on Jun 16 05:00																								Hours of Data: 690	
																								Hours of Missing Data: 30	
Percentiles: P ₁ = 11.4 P ₁₀ = 19.5 Q ₁ = 25.0 Median = 30.8 Q ₃ = 37.7 P ₉₀ = 45.8 P ₉₉ = 62.5																								Hours of Calibration: 16	
																								Percent Operational Time: 98.1	
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-Jun	30	28	26	24	22	21	21	20	20	20	21	24	26	29	32	34	36	38	40	40	39	37	34	33	40.1
2-Jun	30	27	26	24	23	25	26	26	27	29	31	34	36	36	38	40	41	42	43	44	44	42	39	36	43.9
3-Jun	33	33	30	28	26	26	26	27	28	30	33	35	38	41	43	45	46	47	48	47	47	46	45	43	47.6
4-Jun	41	39	37	36	34	33	31	30	31	32	33	33	34	35	36	38	39	39	38	38	37	37	35	34	40.8
5-Jun	32	30	28	25	22	21	21	21	23	25	27	30	33	36	38	40	42	43	43	43	43	42	42	40	43.5
6-Jun	38	36	33	30	28	25	24	24	25	26	28	30	32	34	37	38	39	41	42	42	42	41	40	39	42.1
7-Jun	36	33	30	26	23	19	17	15	15	17	20	24	27	34	42	49	56	60	63	63	61	57	51	45	63.5
8-Jun	38	31	25	23	23	23	25	27	31	36	40	40	44	47	52	55	58	60	61	59	57	55	51	46	60.7
9-Jun	41	36	31	27	23	20	19	20	21	23	24	28	32	35	38	40	42	43	43	43	42	41	39	36	43.5
10-Jun	34	32	29	27	25	25	26	26	27	27	28	30	32	34	35	36	36	36	37	36	35	34	33	32	36.6
11-Jun	31	30	29	28	28	28	28	28	28	29	29	30	31	32	32	32	32	33	33	33	33	32	32	32	32.7
12-Jun	32	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	30	30	30	29	28	27	25	31.9
13-Jun	24	23	22	19	18	17	16	17	18	20	22	26	29	33	33	34	N	N	N	N	N	N	28	26	33.9
14-Jun	25	23	21	19	17	17	17	17	17	N	N	N	N	N	N	N	N	N	N	31	31	30	30	29	31.3
15-Jun	27	24	22	19	18	16	14	14	15	17	19	22	24	26	30	32	34	35	35	35	34	31	27	24	35.2
16-Jun	20	16	13	10	8	8	9	11	14	18	22	24	28	31	34	37	38	39	39	39	38	36	34	32	39.2
17-Jun	29	26	25	23	22	21	21	21	23	26	28	32	35	39	43	46	48	49	49	49	48	47	46	41	48.9
18-Jun	36	35	30	24	18	14	11	12	15	19	24	30	35	40	44	48	50	52	51	51	51	50	47	47	51.6
19-Jun	46	41	35	29	23	18	15	14	17	21	27	33	39	46	51	56	60	62	65	65	64	64	61	61	65.1
20-Jun	54	47	38	32	27	19	18	19	22	28	36	38	42	N	N	N	N	N	N	N	N	N	N	N	54.0
21-Jun	N	N	N	18	16	11	11	12	15	19	25	33	40	48	56	61	63	62	58	52	47	43	36	31	62.8
22-Jun	27	25	25	26	24	23	23	22	21	21	22	24	27	30	34	37	40	42	42	42	42	39	34	29	42.5
23-Jun	25	21	17	13	14	13	15	17	19	22	26	29	33	37	40	42	43	44	44	43	40	36	30	26	43.7
24-Jun	22	19	16	16	16	17	20	22	25	27	31	35	39	42	46	49	50	51	52	51	49	44	38	33	52.1
25-Jun	27	23	24	22	19	19	21	22	25	26	27	28	30	32	34	35	36	37	37	37	37	37	37	37	37.5
26-Jun	38	38	38	38	37	37	36	36	35	35	34	33	32	32	31	30	30	30	30	30	29	29	29	29	38.0
27-Jun	29	29	28	28	29	28	28	28	28	28	28	28	28	29	29	29	29	29	30	30	29	27	26	25	29.6
28-Jun	24	22	20	19	18	19	20	20	22	23	25	27	29	30	31	33	33	34	34	34	34	32	31	29	34.2
29-Jun	29	28	27	26	25	25	24	25	25	25	26	28	30	31	33	34	34	33	32	32	31	31	30	29	34.0
30-Jun	28	28	28	27	26	25	24	25	25	25	26	28	29	32	33	35	38	40	41	40	39	38	37	36	40.7
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Portable Rycroft - June 2018



Hourly Averages

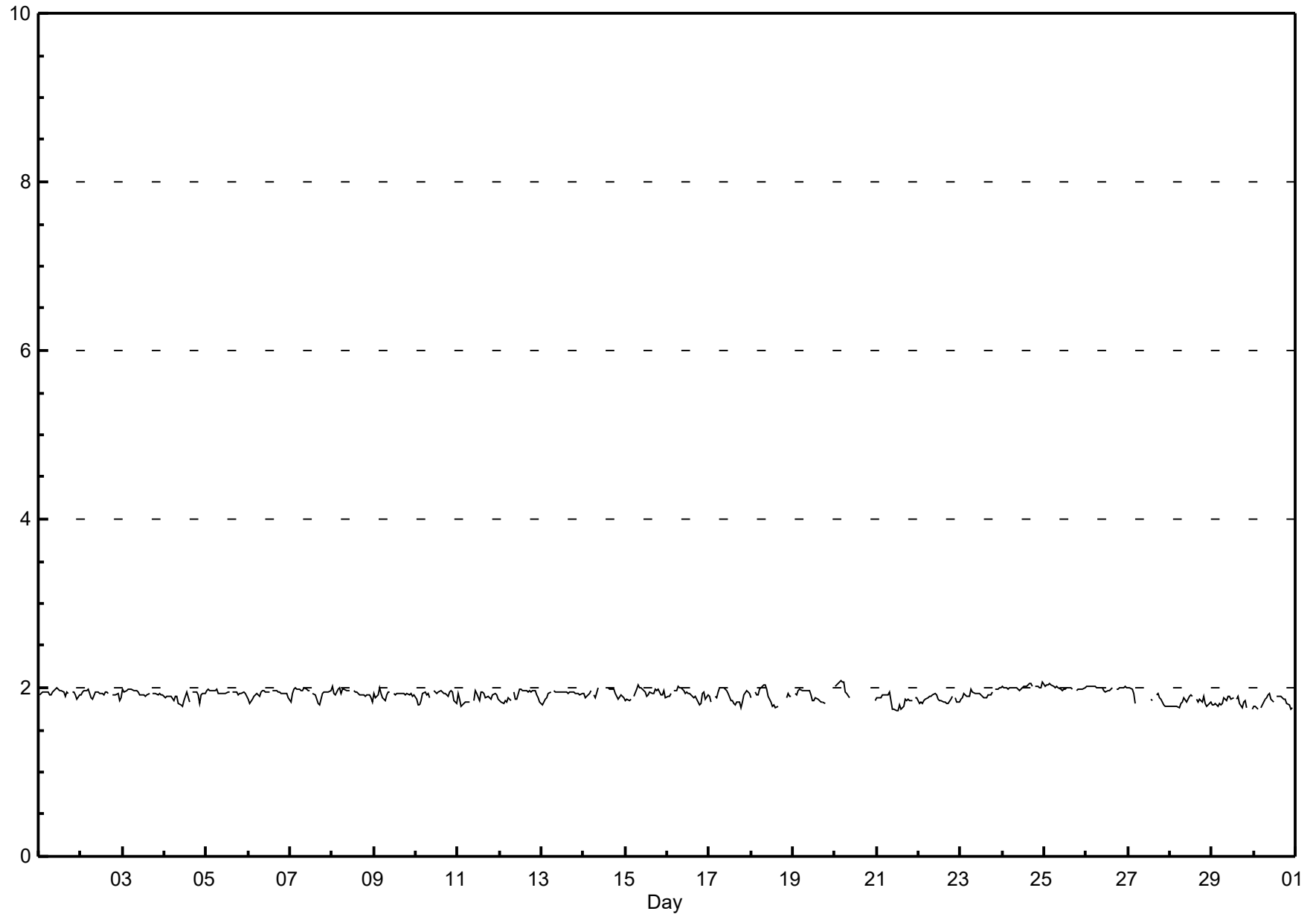
Total Hydrocarbons (THC) - ppm

Portable Rycroft - June 2018

Maximum Value: 2.08 ppm on Jun 20 04:00																				Maximum Daily Average: 2.01 ppm on Jun 24					Hours in Service: 720	
Minimum Value: 1.7 ppm on Jun 21 13:00																				Minimum Daily Average: 1.83 ppm on Jun 29					Hours of Data: 653	
Maximum Diurnal Average: 1.95 ppm at hour 9																				Minimum Diurnal Average: 1.90 ppm at hour 24					Hours of Missing Data: 67	
Monthly Average: 1.916 ppm																				Percentiles: P ₁ = 1.75 P ₁₀ = 1.82 Q ₁ = 1.87 Median = 1.93 Q ₃ = 1.96 P ₉₀ = 2.00 P ₉₉ = 2.05					Hours of Calibration: 37	
																				Percent Operational Time: 95.8						
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-Jun	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.94	2.01
2-Jun	1.9	2.0	2.0	2.0	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	A	1.9	1.9	1.9	1.9	1.8	1.9	1.93	1.98
3-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.98
4-Jun	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.8	A	1.9	2.0	1.9	1.9	1.8	1.9	1.9	1.9	1.89	1.95
5-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	1.98
6-Jun	1.9	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.93	1.97
7-Jun	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.8	1.8	1.9	2.0	2.0	2.0	1.9	2.0	1.94	2.00
8-Jun	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.94	2.02
9-Jun	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	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	1.92	1.99
10-Jun	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.8	1.8	1.91	1.97
11-Jun	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	2.0	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	1.88	1.96
12-Jun	1.9	1.8	1.8	1.8	1.8	1.9	1.8	A	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.91	1.98
13-Jun	1.8	1.8	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.92	1.96
14-Jun	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	2.0	C	C	C	C	C	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.99
15-Jun	1.9	1.9	1.9	1.9	N	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.94	2.03
16-Jun	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.92	2.02
17-Jun	1.9	1.8	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.9	1.9	1.90	2.00
18-Jun	1.9	A	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	N	N	N	N	1.9	1.9	1.9	1.9	1.91	2.03
19-Jun	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8	N	N	N	1.9	A	1.90	1.98
20-Jun	2.0	2.0	2.1	2.1	2.1	2.1	1.9	1.9	1.9	N	N	N	N	N	N	N	N	N	N	N	N	1.8	A	1.8	--	2.08
21-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.7	1.7	1.7	1.7	1.8	1.7	1.8	1.9	1.9	1.9	1.9	1.8	A	1.9	1.9	1.84	1.95
22-Jun	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	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.9	1.8	1.8	1.86	1.93
23-Jun	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	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	1.93	1.99
24-Jun	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.01	2.07
25-Jun	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	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.05
26-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.02
27-Jun	2.0	2.0	2.0	1.9	1.8	N	N	N	N	N	N	C	C	1.9	1.8	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	--	2.01
28-Jun	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	A	1.9	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.83	1.92
29-Jun	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	N	N	1.7	1.83	1.89
30-Jun	1.8	1.8	1.7	N	1.8	1.8	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	1.8	1.8	1.8	1.8	N	1.84	1.93
1.91 1.90 1.91 1.92 1.92 1.93 1.93 1.94 1.95 1.93 1.93 1.92 1.91 1.92 1.91 1.91 1.91 1.91 1.90 1.92 1.91 1.92 1.90 1.90																									Diurnal Average	
2.02 2.04 2.06 2.08 2.06 2.07 2.02 2.03 2.03 2.00 2.01 2.00 2.02 2.02 2.01 2.04 2.05 2.02 1.99 2.02 2.02 1.99 2.01 2.07																									Diurnal Maximum	
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

Hourly Averages

Total Hydrocarbons (THC) - ppm
Portable Rycroft - June 2018



Hourly Maximums

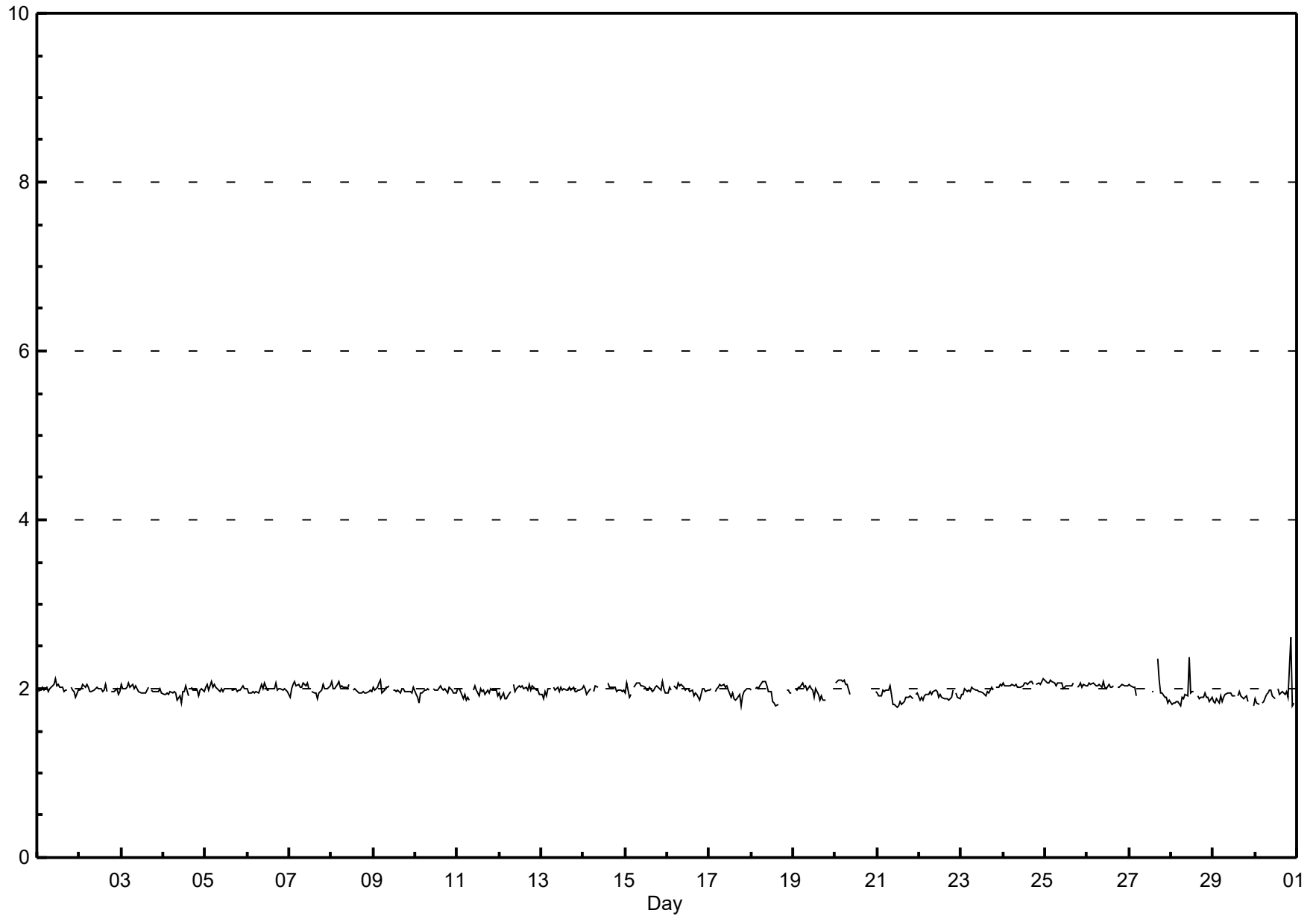
Total Hydrocarbons (THC) - ppm

Portable Rycroft - June 2018

Maximum Value: 2.61 ppm on Jun 30 21:00																				Maximum Daily Average: 2.05 ppm on Jun 24					Hours in Service: 720		
Minimum Value: 1.8 ppm on Jun 21 12:00																				Minimum Daily Average: 1.90 ppm on Jun 29					Hours of Data: 653		
Maximum Diurnal Average: 2.01 ppm at hour 8																				Minimum Diurnal Average: 1.95 ppm at hour 19					Hours of Missing Data: 67		
Monthly Average: 1.980 ppm																				Percentiles: P ₁ = 1.81 P ₁₀ = 1.89 Q ₁ = 1.95 Median = 1.98 Q ₃ = 2.02 P ₉₀ = 2.05 P ₉₉ = 2.11					Hours of Calibration: 37		
																				Percent Operational Time: 95.8							
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-Jun	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	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	1.9	2.0	2.00	2.12
2-Jun	2.0	2.0	2.0	2.0	2.0	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	1.9	2.0	1.99	2.05	
3-Jun	2.1	2.0	2.0	2.0	2.1	2.0	2.1	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	1.9	1.99	2.08	
4-Jun	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.8	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.95	2.03	
5-Jun	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.08	
6-Jun	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.06	
7-Jun	1.9	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.1	2.0	A	2.0	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.0	2.00	2.08	
8-Jun	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.00	2.09	
9-Jun	2.0	2.0	2.0	2.1	2.1	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	1.9	2.0	2.00	2.11	
10-Jun	1.9	1.9	1.8	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	1.97	2.03	
11-Jun	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.96	2.03	
12-Jun	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.98	2.05	
13-Jun	1.9	1.9	2.0	1.9	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	1.98	2.02	
14-Jun	2.0	2.0	1.9	2.0	2.0	A	2.0	2.0	2.0	C	C	C	C	C	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.07	
15-Jun	1.9	2.1	1.9	1.9	N	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	2.1	2.0	1.9	2.01	2.08	
16-Jun	1.9	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.98	2.07	
17-Jun	2.0	2.0	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.8	1.9	2.0	2.0	2.0	2.0	1.97	2.05	
18-Jun	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.8	1.8	1.8	1.8	N	N	N	N	2.0	2.0	2.0	1.9	1.97	2.09	
19-Jun	A	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	N	N	N	2.0	A	1.97	2.06	
20-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	N	N	N	N	N	N	N	N	N	N	N	N	1.9	A	2.0	--	2.10	
21-Jun	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.90	2.04	
22-Jun	1.9	1.9	1.9	1.9	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	2.0	A	2.0	1.9	1.9	1.92	1.98	
23-Jun	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	1.9	1.9	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	1.98	2.05	
24-Jun	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.0	2.1	2.1	2.05	2.12	
25-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.1	2.0	2.1	2.0	2.05	2.10	
26-Jun	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.08	
27-Jun	2.0	2.0	2.0	2.0	1.9	N	N	N	N	N	N	C	C	2.0	2.0	A	2.4	2.1	1.9	2.0	1.9	1.9	1.8	1.9	--	2.35	
28-Jun	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.4	1.9	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.37	
29-Jun	1.9	1.8	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	N	N	1.8	1.90	1.97	
30-Jun	1.9	1.8	1.8	N	1.8	1.8	1.9	2.0	2.0	2.0	1.9	1.9	A	2.0	1.9	2.0	2.0	1.9	2.0	1.9	2.6	1.8	1.8	N	1.94	2.61	
1.97 1.97 1.97 1.99 1.99 1.98 2.00 2.01 2.00 2.00 2.00 1.97 1.97 1.98 1.96 1.96 1.98 1.97 1.95 1.98 2.00 1.98 1.97 1.97																									Diurnal Average		
2.09 2.08 2.10 2.10 2.11 2.10 2.09 2.09 2.08 2.08 2.37 2.04 2.07 2.06 2.07 2.09 2.35 2.11 2.03 2.06 2.61 2.08 2.08 2.12																									Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																											

Hourly Maximums

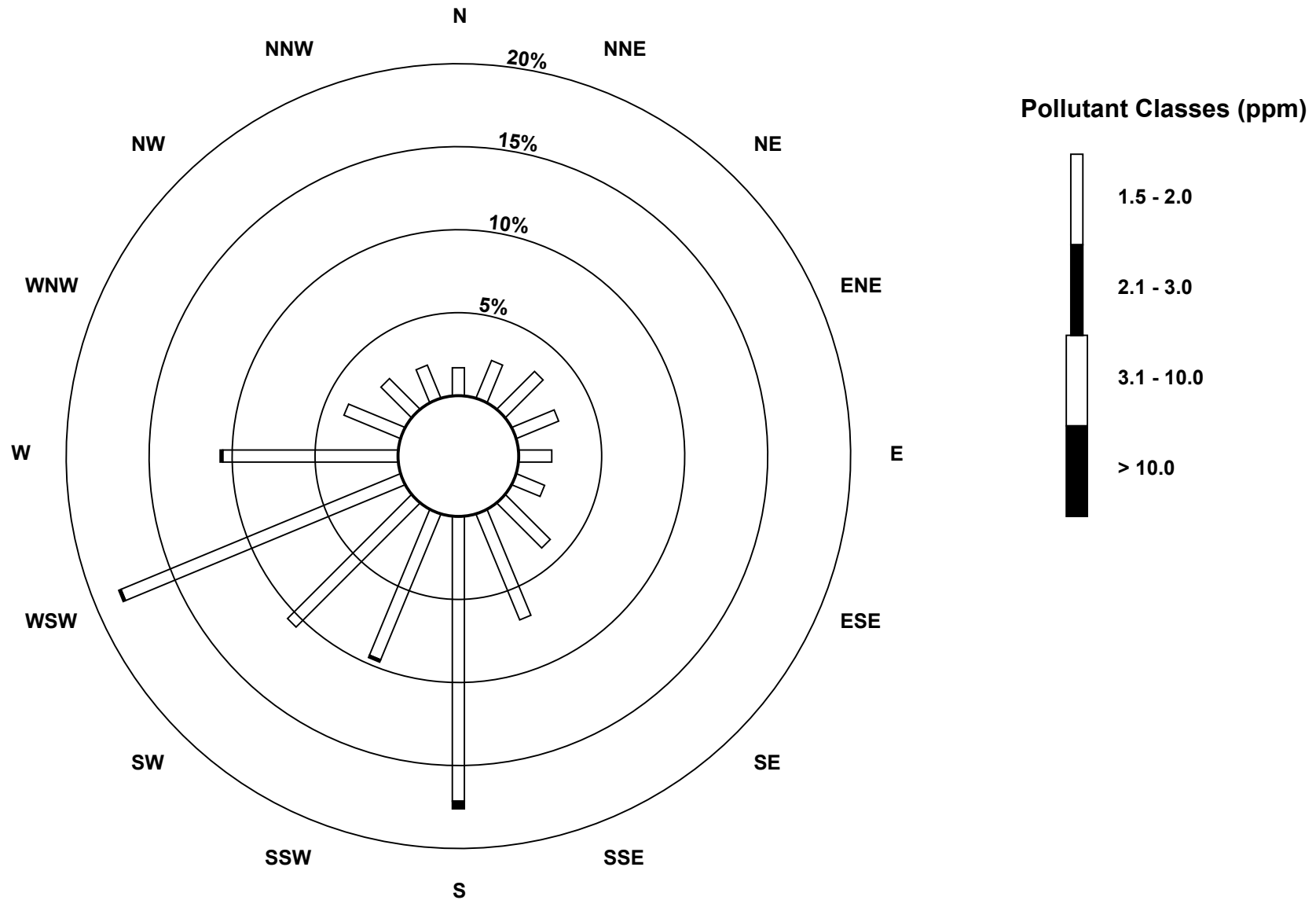
Total Hydrocarbons (THC) - ppm
Portable Rycroft - June 2018



Pollutant Rose

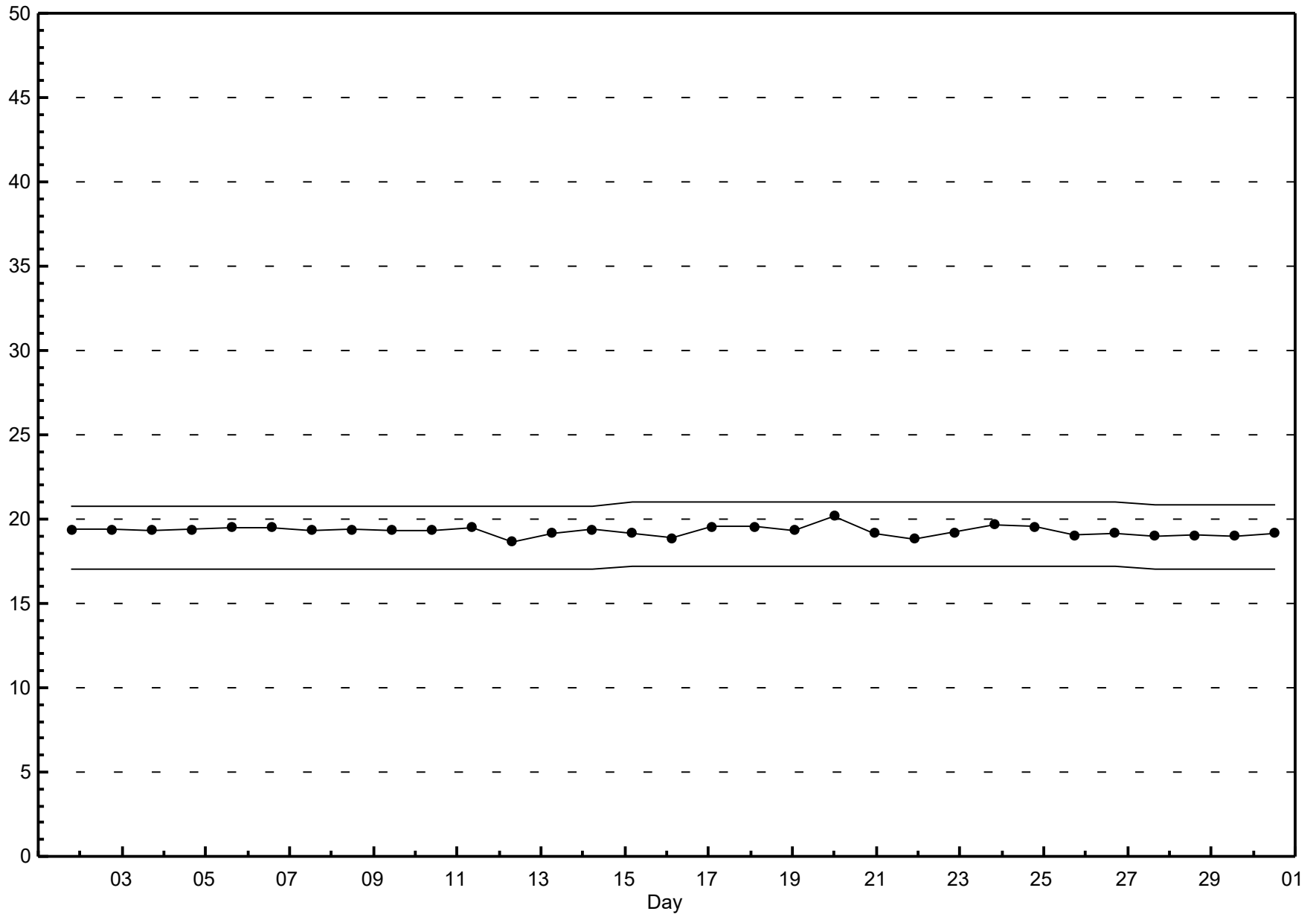
Total Hydrocarbons (THC) - ppm

Portable Rycroft - June 2018



Span Responses

Total Hydrocarbons (THC)
Portable Rycroft - June 2018



Hourly Averages

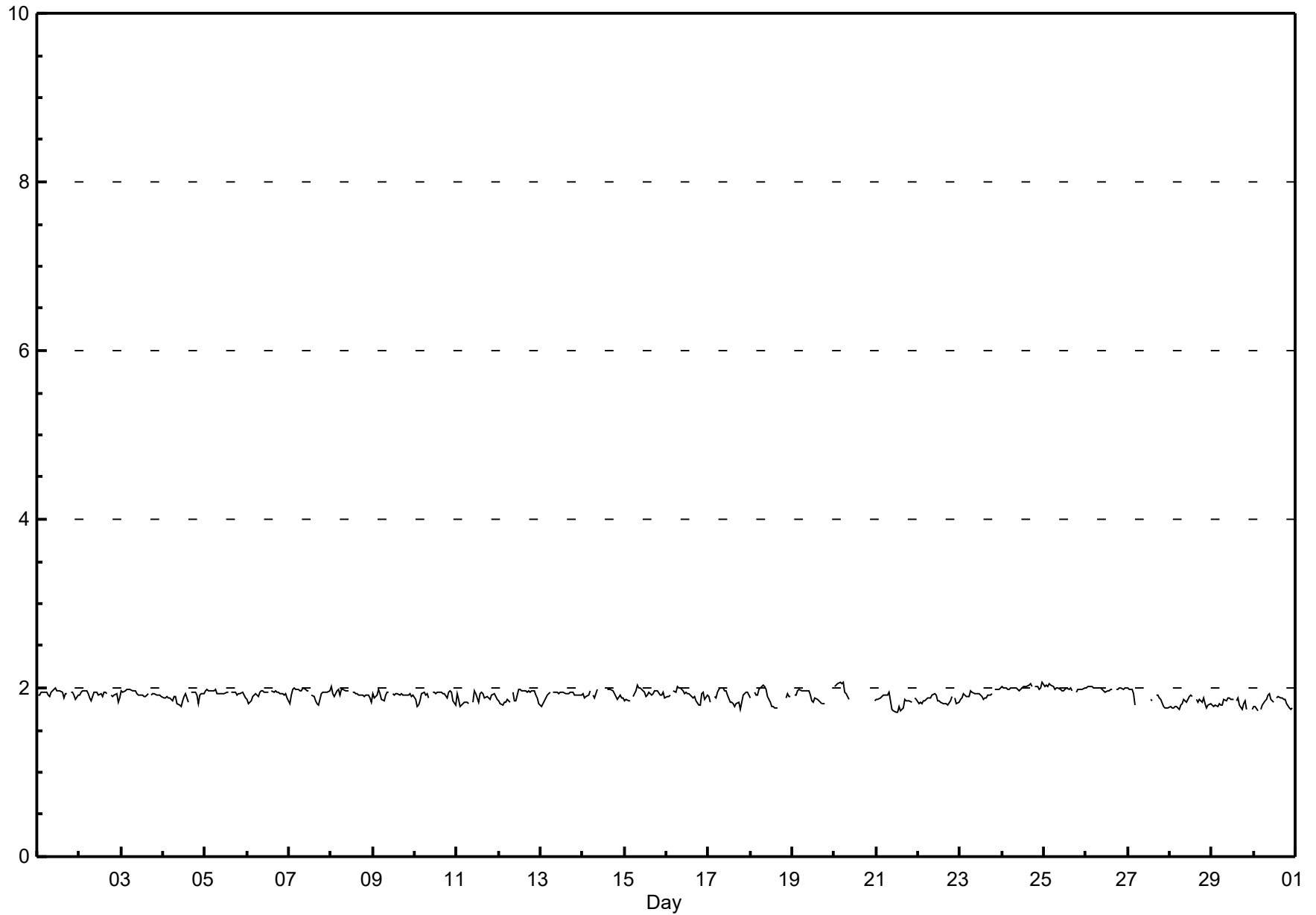
Methane (CH₄) - ppm

Portable Rycroft - June 2018

Maximum Value: 2.07 ppm on Jun 20 04:00																				Maximum Daily Average: 2.01 ppm on Jun 24					Hours in Service: 720		
Minimum Value: 1.7 ppm on Jun 21 13:00																				Minimum Daily Average: 1.82 ppm on Jun 29					Hours of Data: 653		
Maximum Diurnal Average: 1.94 ppm at hour 9																				Minimum Diurnal Average: 1.89 ppm at hour 24					Hours of Missing Data: 67		
Monthly Average: 1.910 ppm																				Percentiles: P ₁ = 1.74 P ₁₀ = 1.81 Q ₁ = 1.87 Median = 1.92 Q ₃ = 1.96 P ₉₀ = 1.99 P ₉₉ = 2.04					Hours of Calibration: 37		
																				Percent Operational Time: 95.8							
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-Jun	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	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.94	2.00	
2-Jun	1.9	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	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.8	1.9	1.92	1.97	
3-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.98	
4-Jun	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.8	A	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.88	1.95	
5-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.98	
6-Jun	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.9	A	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.92	1.97	
7-Jun	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.8	1.8	1.9	1.9	2.0	2.0	1.9	2.0	1.93	1.99	
8-Jun	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	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	1.8	1.94	2.01	
9-Jun	1.9	1.9	1.9	2.0	1.9	1.9	1.8	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	1.92	1.99	
10-Jun	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.8	1.8	1.90	1.96
11-Jun	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	2.0	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	1.88	1.96	
12-Jun	1.8	1.8	1.8	1.8	1.8	1.9	1.8	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.8	1.90	1.98	
13-Jun	1.8	1.8	1.8	1.9	1.9	1.9	A	2.0	1.9	2.0	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.92	1.95	
14-Jun	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	2.0	C	C	C	C	C	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.99	
15-Jun	1.8	1.9	1.8	1.9	N	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.93	2.03	
16-Jun	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.92	2.02	
17-Jun	1.9	1.8	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.9	1.9	1.89	2.00	
18-Jun	1.9	A	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	N	N	N	N	1.9	1.9	1.9	1.9	1.90	2.03	
19-Jun	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	N	N	N	1.9	A	1.90	1.97	
20-Jun	2.0	2.0	2.1	2.1	2.1	2.1	1.9	1.9	1.9	N	N	N	N	N	N	N	N	N	N	N	N	1.8	A	1.8	--	2.07	
21-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.7	1.7	1.7	1.7	1.8	1.7	1.8	1.9	1.8	1.9	1.8	1.8	A	1.9	1.9	1.84	1.94	
22-Jun	1.8	1.8	1.8	1.8	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	1.9	1.9	A	1.9	1.8	1.8	1.85	1.93	
23-Jun	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	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	1.92	1.99	
24-Jun	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.01	2.07	
25-Jun	2.0	2.0	2.0	2.0	2.0	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	1.99	2.05	
26-Jun	2.0	2.0	2.0	2.0	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	
27-Jun	2.0	2.0	2.0	1.9	1.8	N	N	N	N	N	N	C	C	1.9	1.8	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	--	2.00	
28-Jun	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	A	1.9	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.82	1.91	
29-Jun	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.7	N	N	1.7	1.82	1.89
30-Jun	1.8	1.8	1.7	N	1.7	1.8	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	1.8	1.8	1.7	1.8	N	1.83	1.92	
1.90 1.89 1.90 1.92 1.92 1.92 1.93 1.94 1.94 1.93 1.92 1.91 1.91 1.91 1.90 1.91 1.91 1.91 1.90 1.90 1.91 1.90 1.91 1.89																								Diurnal Average			
2.02 2.03 2.05 2.07 2.06 2.07 2.02 2.03 2.02 2.00 2.00 1.99 2.02 2.01 2.01 2.04 2.04 2.02 1.98 2.02 2.02 1.99 2.01 2.07																								Diurnal Maximum			
C - Calibration N - Not Valid A - Automated Daily Zero Span																											

Hourly Averages

Methane (CH₄) - ppm
Portable Rycroft - June 2018



Hourly Maximums

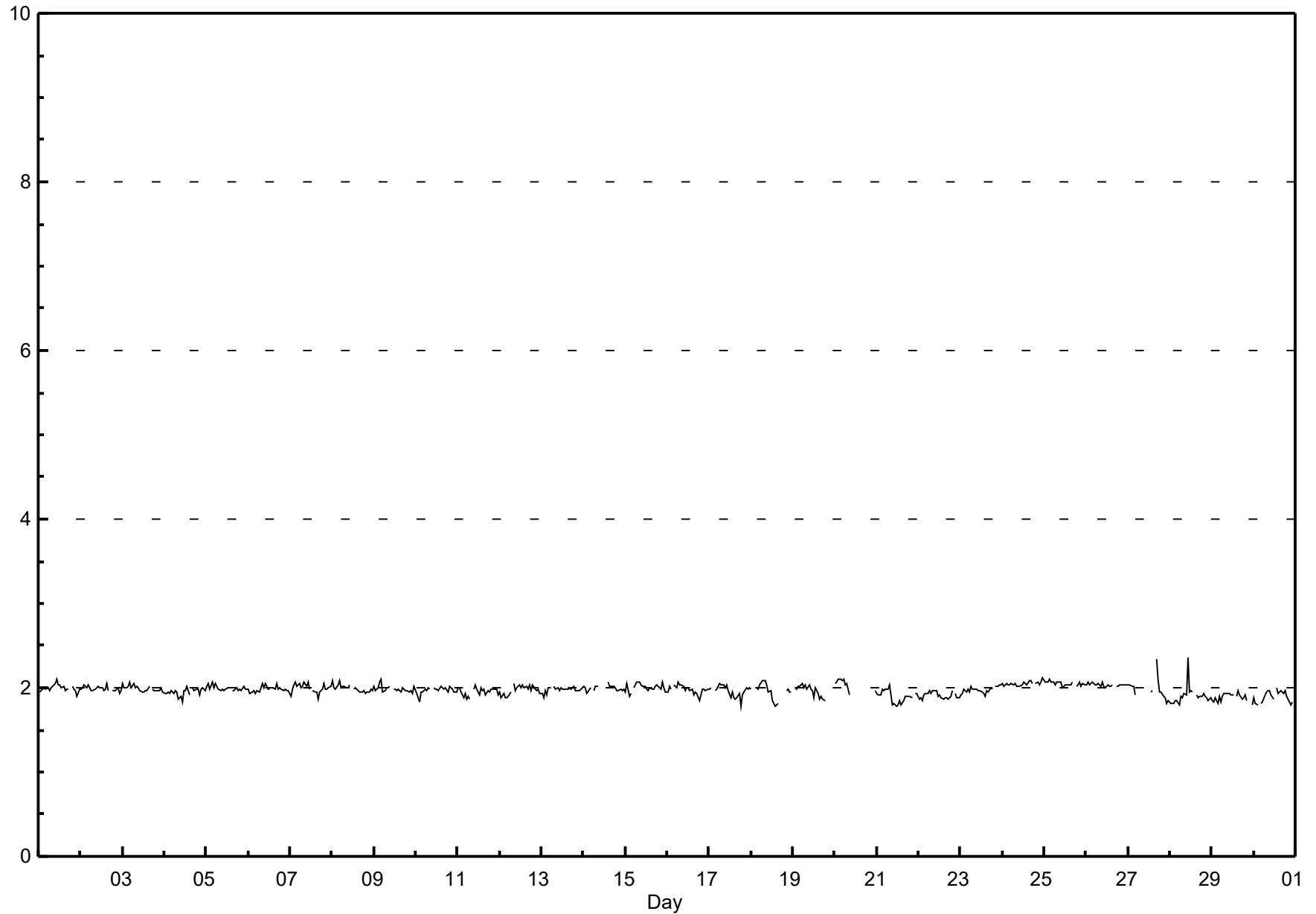
Methane (CH₄) - ppm

Portable Rycroft - June 2018

Maximum Value: 2.36 ppm on Jun 28 11:00																				Maximum Daily Average: 2.05 ppm on Jun 24					Hours in Service: 720	
Minimum Value: 1.8 ppm on Jun 21 12:00																				Minimum Daily Average: 1.89 ppm on Jun 29					Hours of Data: 653	
Maximum Diurnal Average: 2.00 ppm at hour 8																				Minimum Diurnal Average: 1.95 ppm at hour 19					Hours of Missing Data: 67	
Monthly Average: 1.974 ppm																				Percentiles: P ₁ = 1.80 P ₁₀ = 1.88 Q ₁ = 1.94 Median = 1.98 Q ₃ = 2.01 P ₉₀ = 2.05 P ₉₉ = 2.10					Hours of Calibration: 37	
																				Percent Operational Time: 95.8						
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-Jun	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	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	2.0	1.99	2.11
2-Jun	2.0	2.0	2.0	2.0	2.0	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	1.9	2.0	1.99	2.05
3-Jun	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.99	2.07
4-Jun	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.8	2.0	2.0	2.0	1.9	A	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.95	2.02
5-Jun	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.07
6-Jun	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.06
7-Jun	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	A	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.06
8-Jun	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.99	2.09
9-Jun	2.0	2.0	2.0	2.1	2.1	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	2.0	1.9	2.0	1.99	2.11
10-Jun	1.9	1.9	1.8	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.97	2.02
11-Jun	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.95	2.03
12-Jun	1.9	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.97	2.05
13-Jun	1.9	1.9	2.0	1.9	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	1.98	2.02
14-Jun	2.0	2.0	1.9	2.0	2.0	A	2.0	2.0	2.0	C	C	C	C	C	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.06
15-Jun	1.9	2.1	1.9	1.9	N	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	2.1	2.0	1.9	2.00	2.07
16-Jun	1.9	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.98	2.07
17-Jun	2.0	2.0	A	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	1.9	1.8	1.9	2.0	2.0	2.0	2.0	1.96	2.05
18-Jun	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.8	1.8	1.8	1.8	N	N	N	N	2.0	2.0	2.0	1.9	1.96	2.09
19-Jun	A	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	N	N	N	2.0	A	1.96	2.05
20-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	N	N	N	N	N	N	N	N	N	N	N	N	1.9	A	2.0	--	2.10
21-Jun	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.90	2.04
22-Jun	1.9	1.9	1.9	1.9	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	2.0	A	1.9	1.9	1.9	1.91	1.97
23-Jun	1.9	1.9	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	1.9	2.0	2.0	A	2.0	2.0	2.0	2.0	1.97	2.04
24-Jun	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.0	A	2.1	2.1	2.0	2.1	2.1	2.05	2.11
25-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	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	2.05	2.10
26-Jun	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.08
27-Jun	2.0	2.0	2.0	2.0	1.9	N	N	N	N	N	N	C	C	2.0	2.0	A	2.3	2.1	1.9	1.9	1.9	1.9	1.8	1.9	--	2.34
28-Jun	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.4	1.9	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.90	2.36
29-Jun	1.8	1.8	1.9	1.8	1.9	1.8	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	1.8	N	N	1.8	1.89	1.97
30-Jun	1.9	1.8	1.8	N	1.8	1.8	1.9	1.9	2.0	2.0	1.9	1.9	A	2.0	1.9	2.0	1.9	1.9	2.0	1.9	1.8	1.8	1.8	N	1.90	1.99
1.97 1.96 1.96 1.98 1.99 1.98 1.99 2.00 2.00 1.99 2.00 1.97 1.96 1.97 1.96 1.96 1.96 1.98 1.97 1.95 1.97 1.96 1.97 1.96 1.96																								Diurnal Average		
2.09 2.07 2.10 2.10 2.11 2.10 2.08 2.08 2.09 2.08 2.36 2.04 2.06 2.06 2.06 2.08 2.34 2.10 2.03 2.05 2.07 2.07 2.07 2.11																								Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

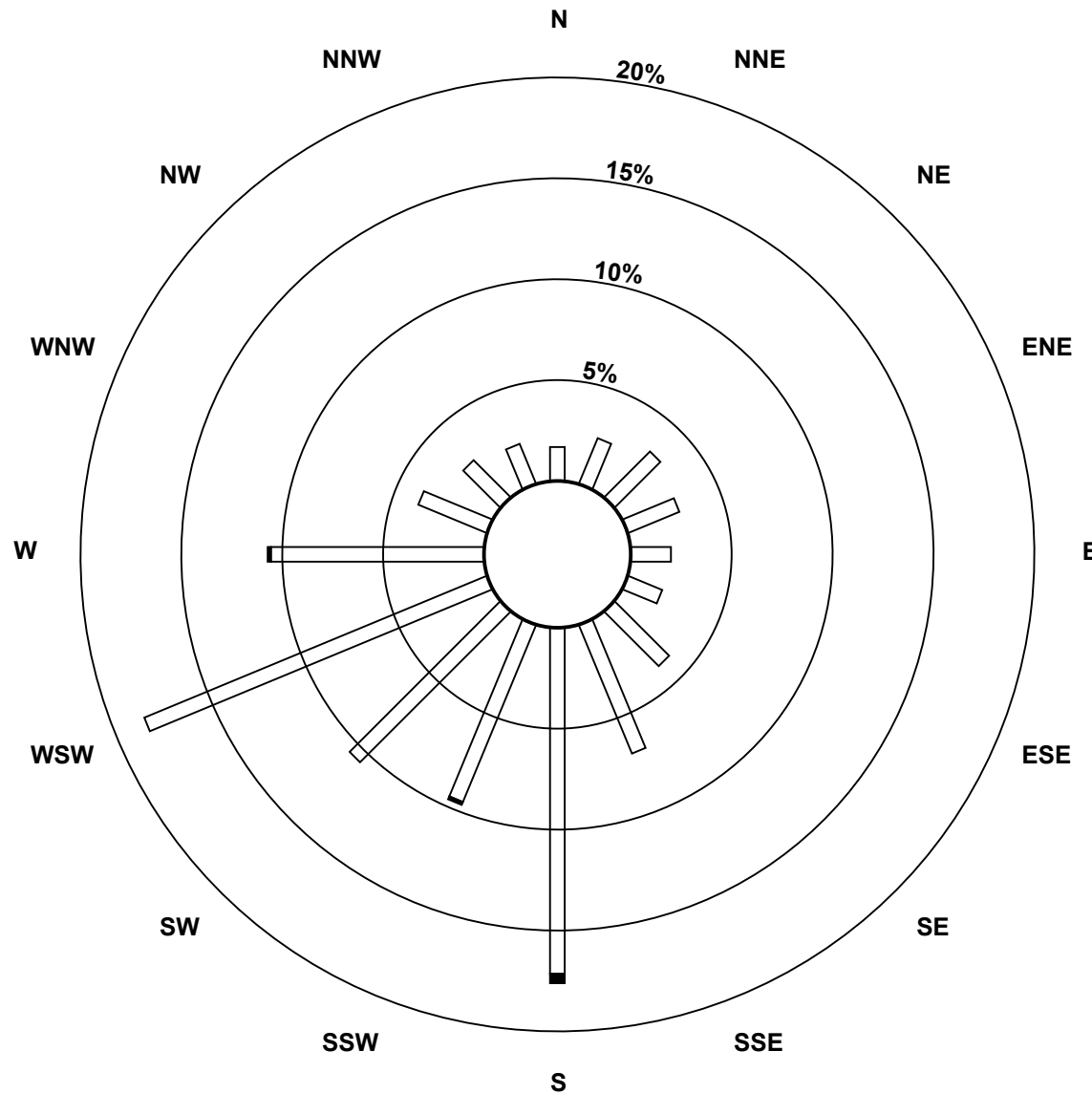
Hourly Maximums

Methane (CH₄) - ppm
Portable Rycroft - June 2018

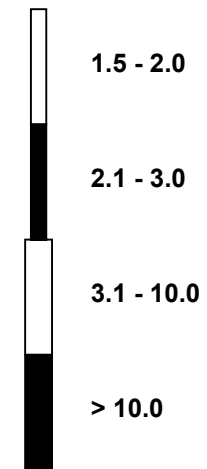


Pollutant Rose

Methane (CH₄) - ppm
Portable Rycroft - June 2018

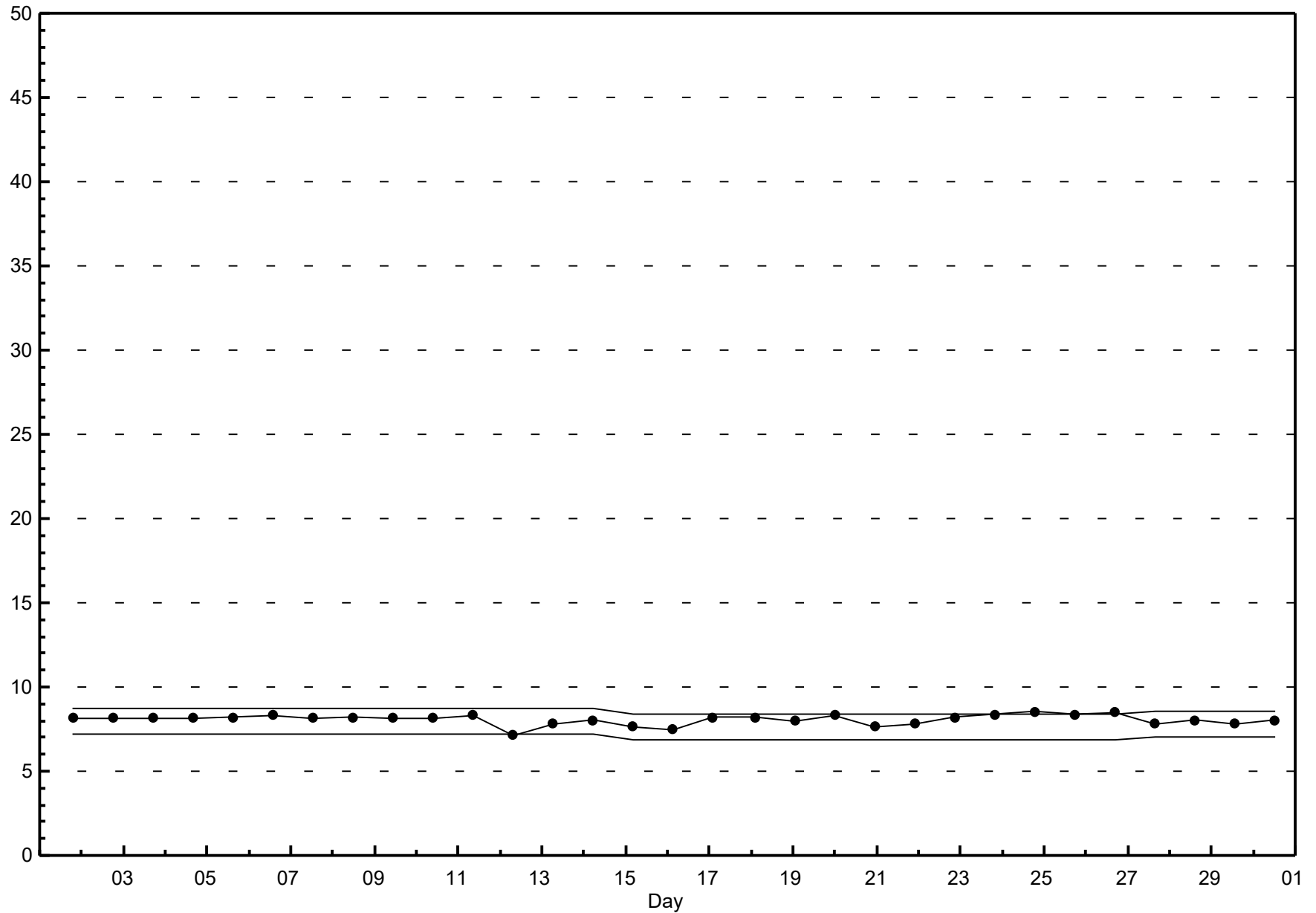


Pollutant Classes (ppm)



Span Responses

Methane (CH₄)
Portable Rycroft - June 2018



Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

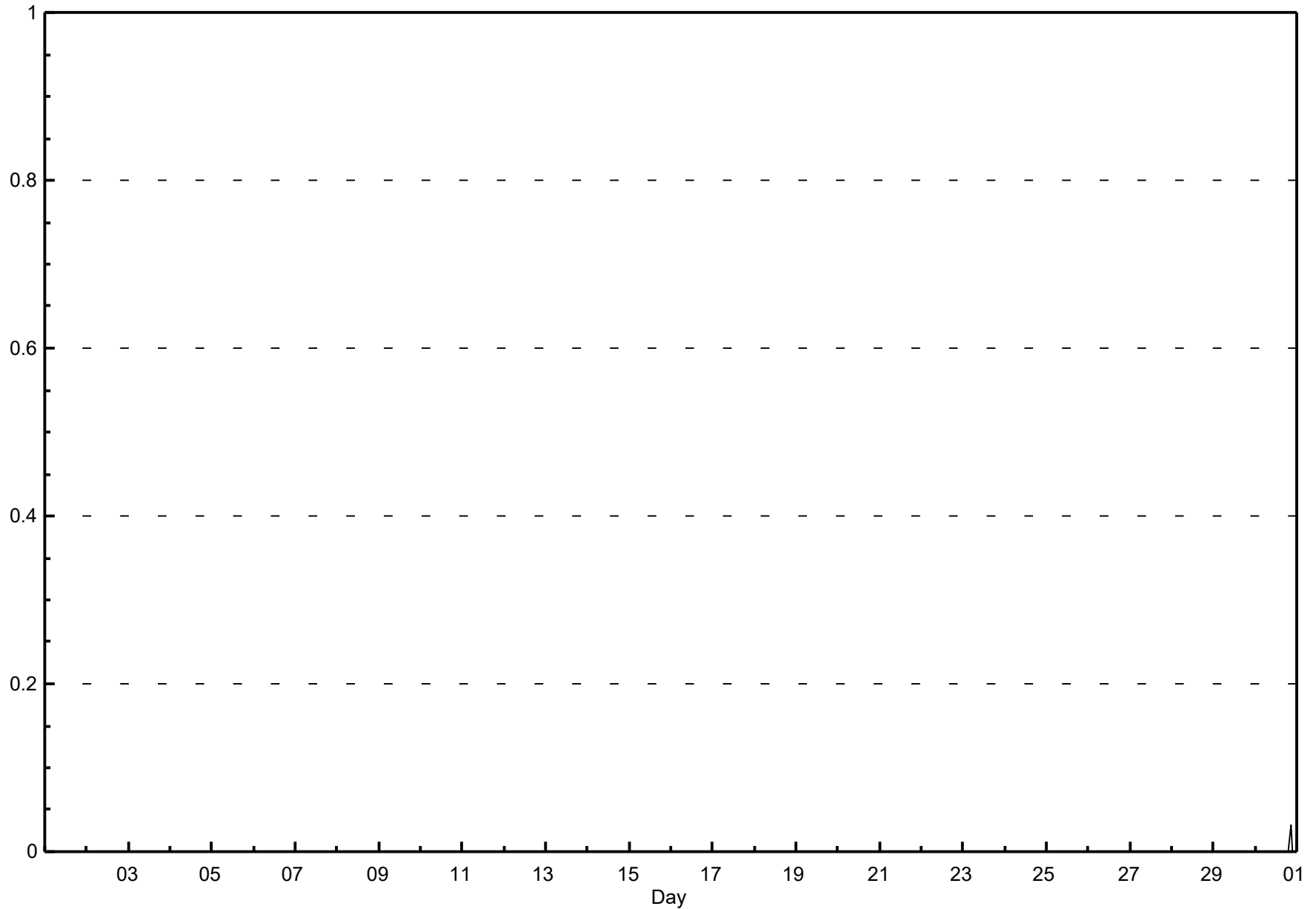
Portable Rycroft - June 2018

Maximum Value: 0.03 ppm on Jun 30 21:00																				Maximum Daily Average: 0.00 ppm on Jun 30					Hours in Service: 720	
Minimum Value: 0.0 ppm on Jun 1 01:00																				Minimum Daily Average: 0.00 ppm on Jun 1					Hours of Data: 653	
Maximum Diurnal Average: 0.00 ppm at hour 21																				Minimum Diurnal Average: 0.00 ppm at hour 3					Hours of Missing Data: 67	
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: 37	
																				Percent Operational Time: 95.8						
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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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
2-Jun	0.0	0.0	0.0	0.0	0.0	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
3-Jun	0.0	0.0	0.0	0.0	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
4-Jun	0.0	0.0	0.0	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
5-Jun	0.0	0.0	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
6-Jun	0.0	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
7-Jun	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
8-Jun	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
9-Jun	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
10-Jun	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
11-Jun	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
12-Jun	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
13-Jun	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
14-Jun	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Jun	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Jun	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
17-Jun	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
18-Jun	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	N	N	N	N	0.0	0.0	0.0	0.0	0.00	0.00
19-Jun	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	N	N	N	0.0	A	0.00	0.00
20-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	N	N	N	N	N	N	0.0	A	0.0	--	0.00
21-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
22-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
23-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
24-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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
25-Jun	0.0	0.0	0.0	0.0	0.0	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
26-Jun	0.0	0.0	0.0	0.0	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
27-Jun	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	C	C	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.00
28-Jun	0.0	0.0	0.0	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
29-Jun	0.0	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	N	N	0.0	0.00	0.00
30-Jun	0.0	0.0	0.0	N	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	N	0.03	0.03
0.00 0.00																								Diurnal Average		
0.00 0.03 0.00 0.00 0.00																								Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - June 2018



Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

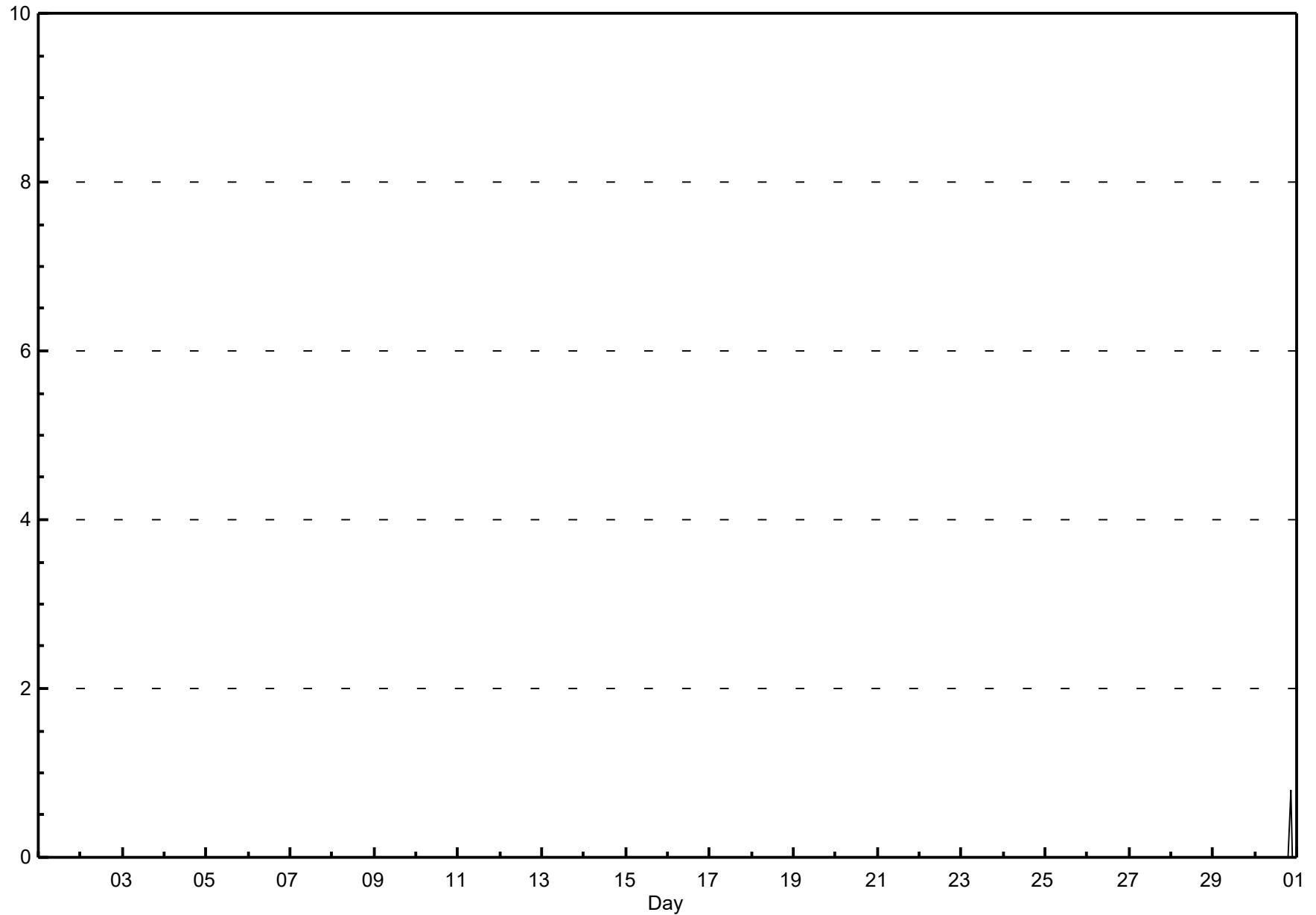
Portable Rycroft - June 2018

Maximum Value: 0.79 ppm on Jun 30 21:00																				Maximum Daily Average: 0.04 ppm on Jun 30					Hours in Service: 720	
Minimum Value: 0.0 ppm on Jun 1 01:00																				Minimum Daily Average: 0.00 ppm on Jun 5					Hours of Data: 653	
Maximum Diurnal Average: 0.03 ppm at hour 21																				Minimum Diurnal Average: 0.00 ppm at hour 15					Hours of Missing Data: 67	
Monthly Average: 0.001 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: 37	
																				Percent Operational Time: 95.8						
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-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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
2-Jun	0.0	0.0	0.0	0.0	0.0	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
3-Jun	0.0	0.0	0.0	0.0	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
4-Jun	0.0	0.0	0.0	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
5-Jun	0.0	0.0	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
6-Jun	0.0	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
7-Jun	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
8-Jun	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
9-Jun	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
10-Jun	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
11-Jun	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
12-Jun	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
13-Jun	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
14-Jun	0.0	0.0	0.0	0.0		A	0.0	0.0	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Jun	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Jun	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
17-Jun	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
18-Jun	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	N	N	N	N	0.0	0.0	0.0	0.0	0.00	0.00
19-Jun	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	N	N	N	0.0	A	0.00	0.00
20-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	N	N	N	N	N	N	0.0	A	0.0	--	0.00
21-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
22-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
23-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
24-Jun	0.0	0.0	0.0	0.0	0.0	0.0	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
25-Jun	0.0	0.0	0.0	0.0	0.0	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
26-Jun	0.0	0.0	0.0	0.0	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
27-Jun	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	C	C	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.00
28-Jun	0.0	0.0	0.0	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
29-Jun	0.0	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	N	N	0.0	0.00	0.00
30-Jun	0.0	0.0	0.0	N	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	0.8	0.0	0.0	N	0.04	0.79
0.00 0.03 0.00 0.00 0.00																									Diurnal Average	
0.00 0.79 0.00 0.00 0.00																									Diurnal Maximum	
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

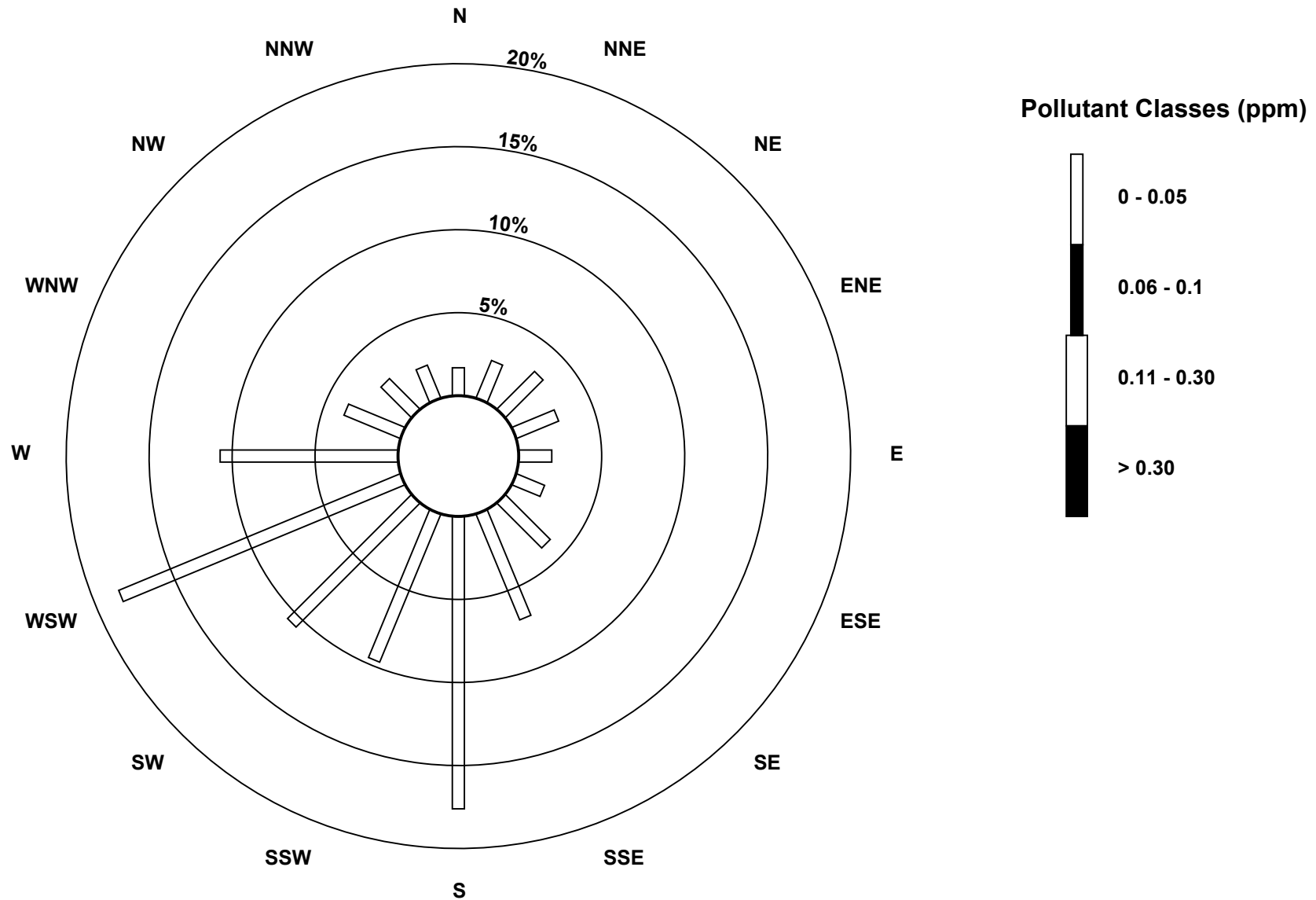
Portable Rycroft - June 2018



Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

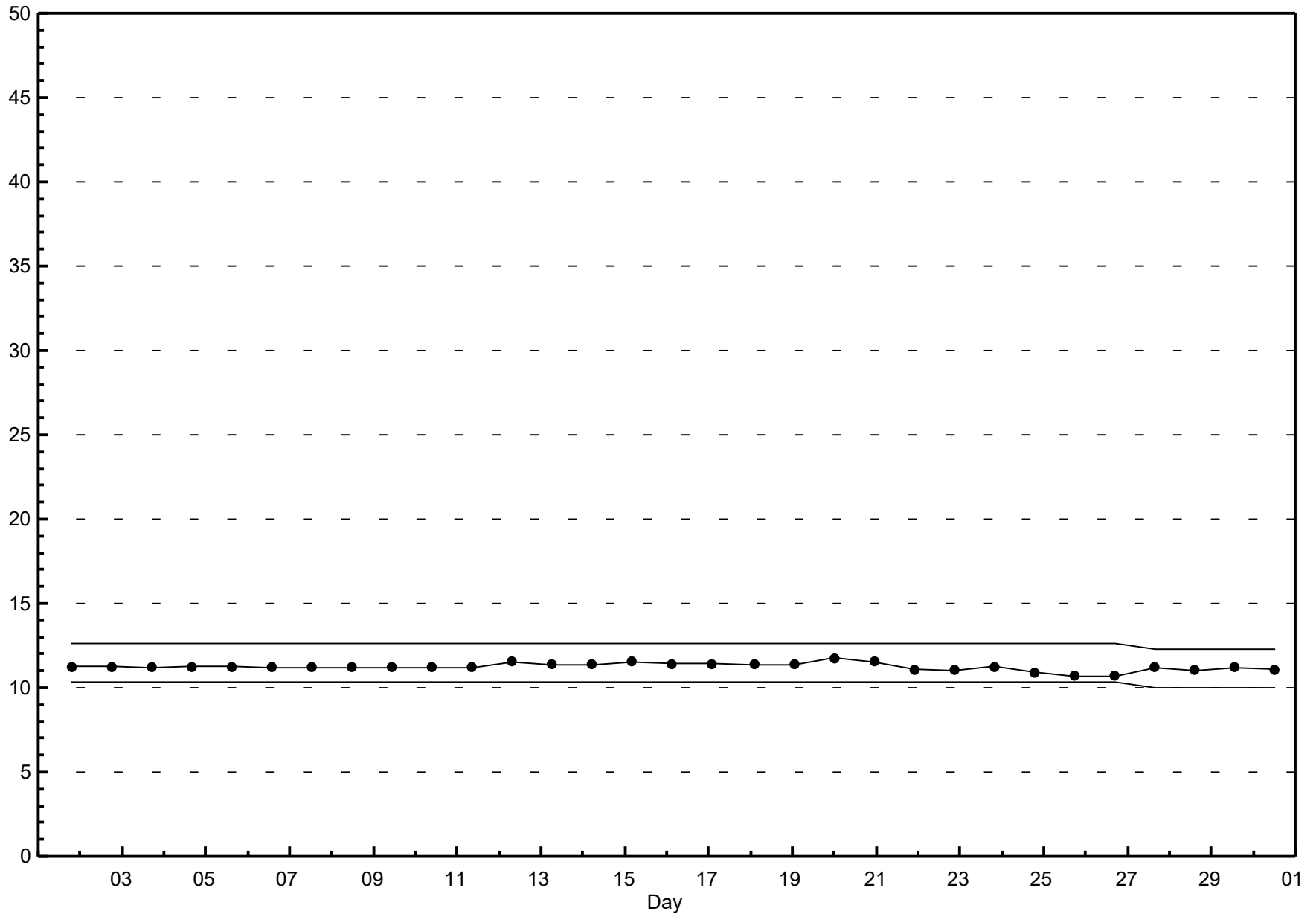
Portable Rycroft - June 2018



Span Responses

Non Methane Hydrocarbon (NMHC)

Portable Rycroft - June 2018



Hourly Averages

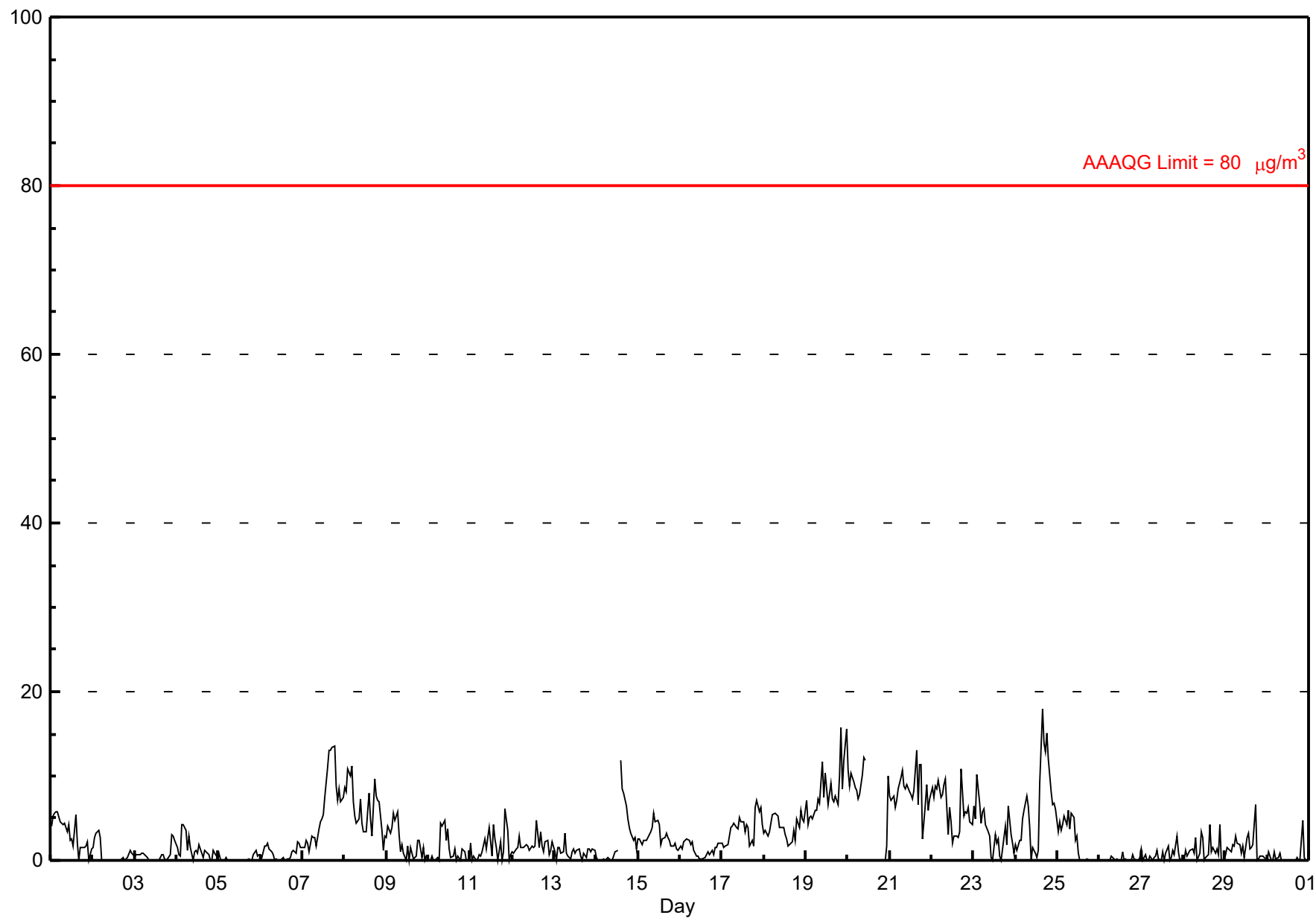
PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - June 2018

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 17.9 µg/m³ on Jun 24 16:00 Minimum Value: 0 µg/m³ on Jun 1 17:00 Maximum Diurnal Average: 3.5 µg/m³ at hour 18 Monthly Average: 2.85 µg/m³																								Hours in Service: 720 Hours of Data: 709 Hours of Missing Data: 11 Hours of Calibration: 1 Percent Operational Time: 98.6		
Maximum Daily Average: 8.2 µg/m³ on Jun 21 Minimum Daily Average: 0.1 µg/m³ on Jun 26 Minimum Diurnal Average: 2.0 µg/m³ at hour 13 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.4 Median = 1.6 Q ₃ = 4.3 P ₉₀ = 7.5 P ₉₉ = 13.1																										
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-Jun	4	5	6	6	6	5	4	4	4	3	4	2	2	2	5	2	0	1	2	2	2	2	0	1	3.1	5.8
2-Jun	1	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.7	3.5
3-Jun	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	3	3	2	0.7	3.0
4-Jun	1	1	0	4	4	4	1	3	1	0	1	1	1	2	1	0	1	1	1	0	0	1	1	0	1.3	4.3
5-Jun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.2	1.1
6-Jun	1	0	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	1	0.8	2.1
7-Jun	2	1	2	2	1	3	3	3	2	4	5	5	5	7	11	13	13	13	14	9	7	8	7	7	6.1	13.6
8-Jun	9	8	11	10	11	7	5	4	5	7	4	3	3	6	8	5	3	10	8	7	7	4	1	3	6.2	11.1
9-Jun	3	4	3	4	6	5	6	3	1	2	1	0	2	0	1	0	0	1	2	2	0	2	0	1	2.0	5.8
10-Jun	0	0	1	0	0	0	0	4	4	5	2	4	1	0	0	1	0	1	0	1	1	1	0	0	1.2	4.8
11-Jun	2	0	0	0	0	1	1	1	3	1	3	4	0	4	3	2	0	2	0	1	6	4	0	1	1.6	6.2
12-Jun	1	1	1	2	3	1	1	2	2	2	1	2	2	2	5	2	3	2	1	2	2	1	1	2	1.8	4.7
13-Jun	1	0	2	2	1	1	3	1	1	0	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1.0	3.1
14-Jun	0	0	0	0	0	0	0	0	0	0	1	1	1	C	12	9	8	6	5	4	3	2	3	1	2.5	11.9
15-Jun	3	3	2	2	2	2	3	3	4	6	5	5	4	2	2	3	3	3	2	2	2	2	1	1	2.8	5.6
16-Jun	2	1	2	2	3	2	2	2	1	1	1	0	0	0	0	1	1	1	1	1	1	1	2	2	1.3	2.5
17-Jun	2	2	2	2	3	4	4	4	4	4	5	5	5	3	4	4	2	2	2	6	7	6	6	4	3.8	7.1
18-Jun	3	4	3	3	4	5	6	5	5	4	4	4	3	3	2	2	4	2	5	4	6	5	5	5	3.9	5.9
19-Jun	7	4	5	5	5	6	6	7	7	12	7	10	8	7	9	7	7	8	7	10	16	8	12	16	8.2	15.8
20-Jun	11	9	10	9	9	8	7	8	10	12	12	N	N	N	N	N	N	N	N	N	N	0	2	10	--	12.2
21-Jun	8	7	8	6	7	9	10	11	9	8	9	8	8	7	8	13	7	11	11	3	7	9	6	7	8.2	13.1
22-Jun	9	8	9	9	10	7	8	9	10	3	6	5	2	3	3	3	3	11	5	6	6	6	5	4	6.1	10.9
23-Jun	6	5	10	7	4	6	6	4	3	3	0	0	3	2	3	0	0	3	4	2	7	3	2	1	3.5	10.2
24-Jun	2	1	2	2	5	6	8	6	4	0	1	1	0	1	9	18	14	13	15	12	8	7	7	6	6.2	17.9
25-Jun	3	5	4	4	5	4	6	4	6	5	2	3	1	0	0	0	0	0	0	0	0	0	0	0	2.2	5.9
26-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0.1	1.0
27-Jun	1	0	1	0	0	1	0	0	1	1	0	0	1	0	1	2	0	0	1	1	3	1	0	0	0.6	2.9
28-Jun	0	1	0	1	1	1	1	3	0	1	3	3	0	0	1	4	1	1	1	1	1	4	0	0	1.3	4.3
29-Jun	1	1	1	1	2	2	3	2	2	1	2	0	3	3	1	1	2	7	0	0	1	0	0	0	1.5	6.5
30-Jun	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0.4	4.7
2.8 2.5 3.0 3.0 3.3 3.1 3.2 3.2 2.9 2.8 2.7 2.3 2.0 2.0 3.2 3.2 2.5 3.5 2.9 2.8 3.4 2.9 2.3 2.7																								Diurnal Average		
10.7 8.8 10.9 10.0 11.1 8.5 9.8 10.7 10.2 12.2 11.9 10.3 8.4 7.4 11.9 17.9 13.9 13.4 15.2 12.0 15.8 8.9 11.9 15.6																								Diurnal Maximum		
C - Calibration 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

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - June 2018



Hourly Maximums

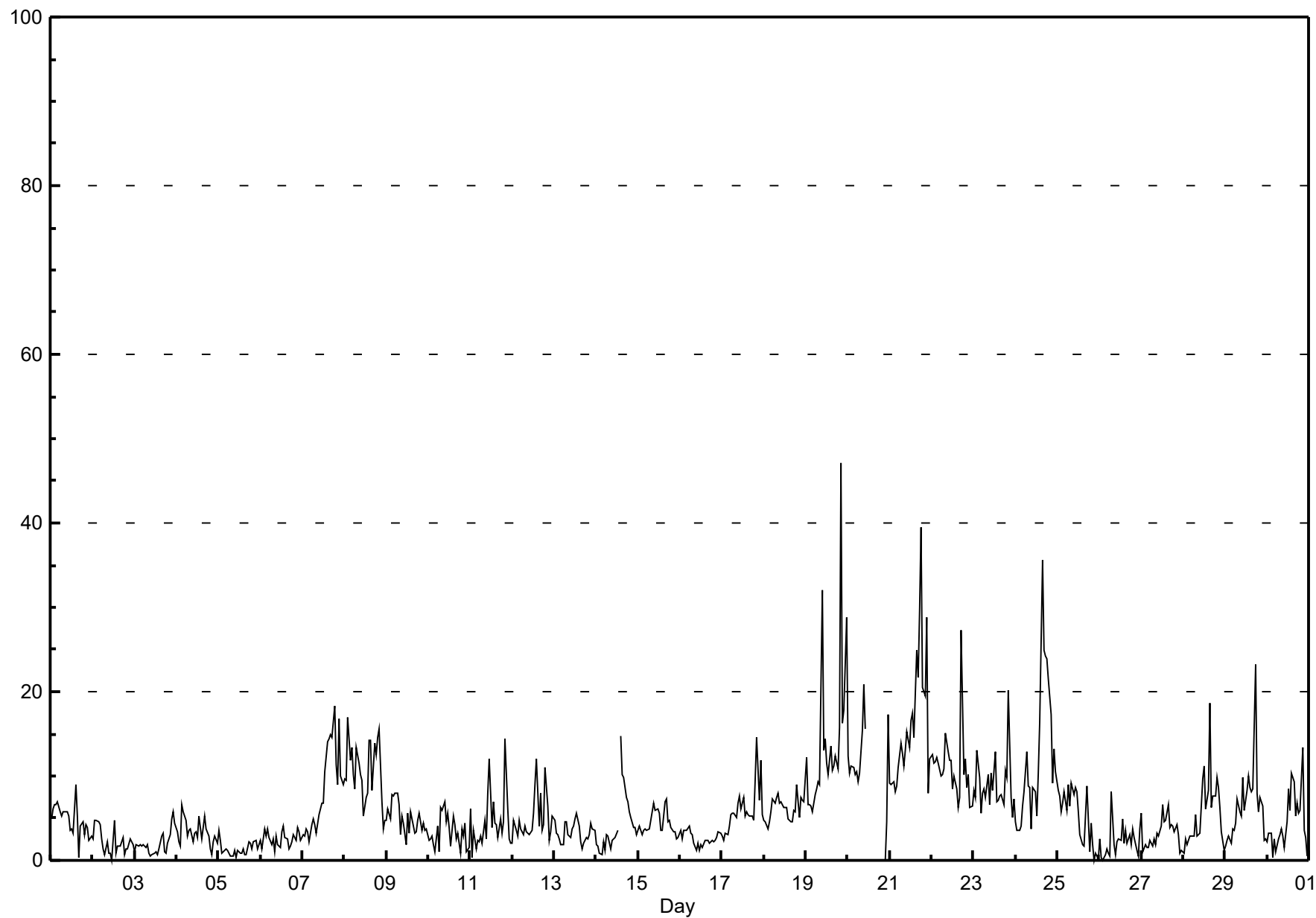
PM2.5 (PM_{2.5}) - µg/m³

Portable Rycroft - June 2018

Maximum Value: 47.1 μg/m³ on Jun 19 21:00																								Maximum Daily Average: 16.2 μg/m³ on Jun 21										Hours in Service: 720	
Minimum Value: 0 μg/m³ on Jun 2 12:00																								Minimum Daily Average: 1.4 μg/m³ on Jun 5										Hours of Data: 709	
Maximum Diurnal Average: 8.6 μg/m³ at hour 21																								Minimum Diurnal Average: 4.3 μg/m³ at hour 2										Hours of Missing Data: 11	
Monthly Average: 5.96 μg/m³																								Percentiles: P ₁ = 0.4 P ₁₀ = 1.4 Q ₁ = 2.6 Median = 4.5 Q ₃ = 7.9 P ₉₀ = 12.1 P ₉₉ = 27.1										Hours of Calibration: 1	
																								Percent Operational Time: 98.6											
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-Jun	5	6	7	7	7	6	5	6	6	6	5	4	4	3	9	5	0	4	5	3	4	4	2	3	4.8	9.0									
2-Jun	3	5	5	5	4	3	1	1	2	1	1	0	5	1	2	2	2	3	1	1	1	3	2	2	2.2	4.8									
3-Jun	1	2	2	2	2	2	1	2	1	0	1	1	1	1	1	3	3	1	1	2	3	5	6	4	2.0	5.8									
4-Jun	3	2	2	7	6	5	3	4	4	2	3	3	3	5	3	4	5	4	3	1	1	2	3	2	3.3	6.6									
5-Jun	4	2	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	2	2	1	2	2	1	2	1.4	3.6									
6-Jun	2	1	4	3	4	3	2	3	1	3	2	2	3	4	3	3	1	2	2	3	2	4	3	2	2.6	4.1									
7-Jun	3	3	4	3	2	4	5	4	3	6	6	7	7	10	14	14	15	15	18	11	9	17	10	9	8.3	18.3									
8-Jun	10	9	17	12	13	10	9	13	12	10	9	5	7	8	14	14	8	14	13	15	16	7	4	5	10.6	16.9									
9-Jun	5	6	5	8	8	8	8	7	3	5	4	2	6	3	6	4	3	3	5	6	4	4	4	4	5.0	8.0									
10-Jun	2	3	3	2	1	4	1	6	6	7	5	6	4	2	5	4	3	3	1	4	3	4	1	1	3.4	7.0									
11-Jun	6	0	4	1	2	2	3	2	5	3	8	12	4	7	4	4	3	5	3	5	14	6	3	2	4.5	14.4									
12-Jun	2	5	4	3	5	4	3	4	3	3	3	4	6	9	12	4	8	4	4	11	6	2	3	5	4.9	12.1									
13-Jun	5	3	3	3	2	2	5	5	3	3	4	4	5	6	4	2	1	2	3	3	3	4	4	4	3.4	5.6									
14-Jun	2	2	1	1	2	1	3	3	1	2	3	3	4	C	15	10	10	7	7	6	5	4	4	3	4.3	14.7									
15-Jun	4	4	3	4	4	4	4	5	6	7	6	6	6	4	4	7	7	5	5	4	3	3	3	3	4.5	7.3									
16-Jun	4	3	4	4	4	4	3	3	2	1	2	1	2	2	2	2	2	2	2	2	2	3	3	3	2.6	4.1									
17-Jun	3	2	3	3	4	5	6	6	5	7	8	6	7	5	6	5	5	5	5	9	15	7	12	5	6.1	14.5									
18-Jun	5	5	4	5	6	7	7	7	8	7	7	6	6	6	5	5	5	6	6	9	5	8	7	7	6.1	9.0									
19-Jun	12	7	7	6	6	8	9	9	9	32	13	14	11	10	14	11	11	12	11	16	47	16	18	29	14.1	47.1									
20-Jun	12	10	11	11	10	10	9	10	15	21	16	N	N	N	N	N	N	N	N	N	N	0	5	17	--	20.8									
21-Jun	9	9	9	8	9	11	14	13	11	13	15	13	17	17	15	25	22	30	39	21	19	29	8	12	16.2	39.5									
22-Jun	12	12	12	12	12	10	10	11	15	13	12	12	9	10	8	6	8	27	10	12	9	10	6	7	11.0	27.3									
23-Jun	8	8	13	10	6	8	8	8	10	7	10	8	13	7	7	8	8	7	11	10	20	7	5	7	8.9	20.2									
24-Jun	5	3	4	4	6	8	13	9	9	4	9	8	5	10	16	36	25	24	24	22	17	9	13	10	12.2	35.5									
25-Jun	8	8	6	7	8	6	9	6	9	8	9	8	6	3	2	2	5	9	1	4	2	0	1	0	5.3	9.2									
26-Jun	3	0	0	1	1	1	0	8	2	1	2	3	2	5	2	4	2	3	2	4	3	1	1	4	2.2	8.2									
27-Jun	6	1	2	2	2	2	2	3	2	3	3	4	7	5	5	7	4	4	4	3	4	3	1	1	3.2	6.6									
28-Jun	1	3	2	2	3	3	3	5	3	3	6	10	11	6	8	19	6	8	8	10	9	6	3	1	5.8	18.7									
29-Jun	2	2	3	2	4	3	4	7	6	5	10	6	8	10	9	8	8	23	8	6	8	7	2	3	6.4	23.2									
30-Jun	2	3	3	0	3	1	3	3	4	3	1	5	8	6	10	9	5	7	6	6	13	4	3	1	4.5	13.4									
4.9 4.3 4.8 4.5 4.8 4.9 5.1 5.8 5.5 6.2 6.1 5.6 6.1 5.9 7.1 7.8 6.5 8.3 7.2 7.2 8.6 6.1 4.7 5.3																								Diurnal Average											
12.5 11.6 16.9 12.2 13.4 11.0 13.9 13.4 15.4 32.1 15.6 14.4 16.7 17.4 16.4 35.5 24.8 29.6 39.5 21.6 47.1 28.9 17.8 28.8																								Diurnal Maximum											
C - Calibration N - Not Valid																																			

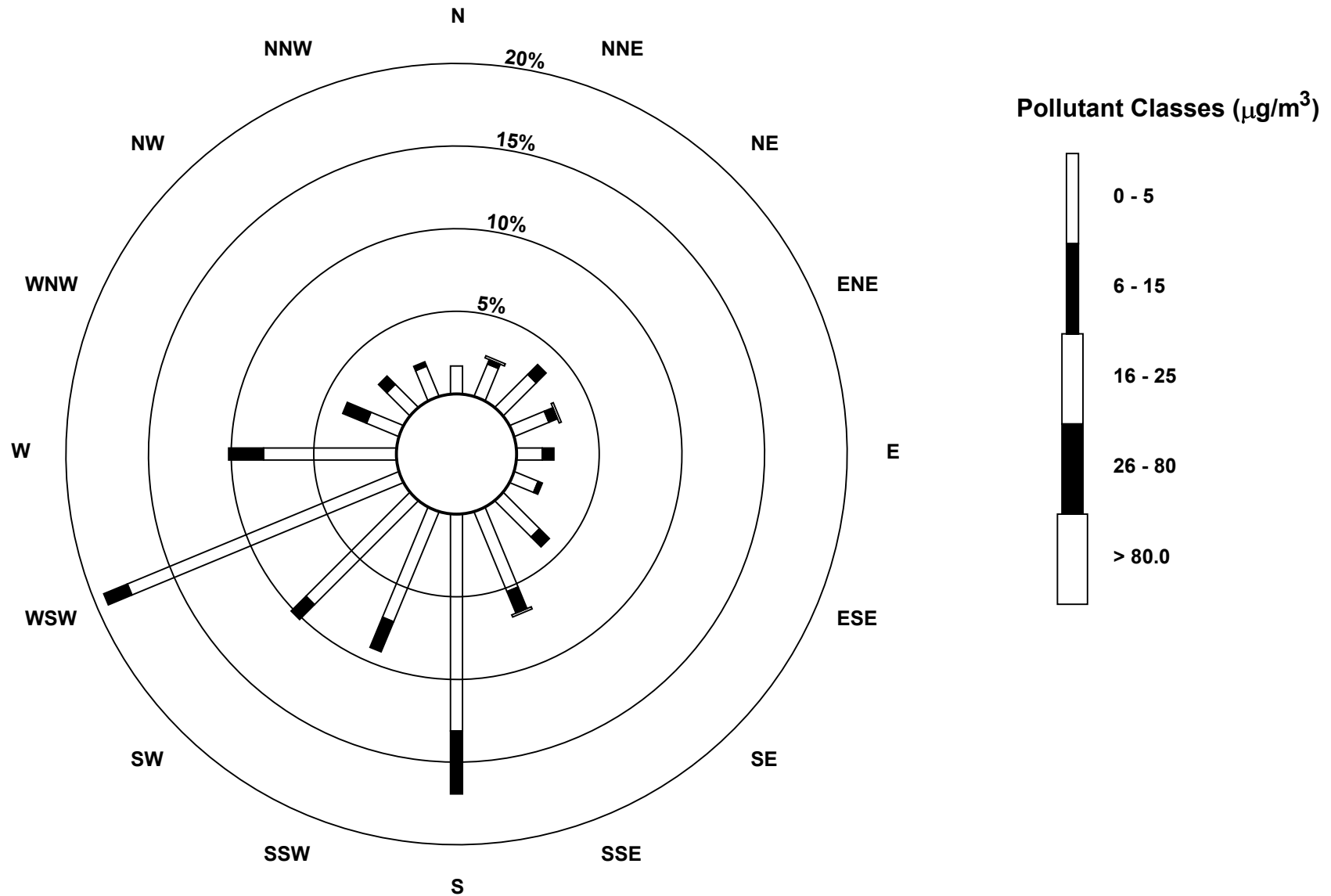
Hourly Maximums

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - June 2018



Pollutant Rose

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Rycroft - June 2018



Hourly Averages

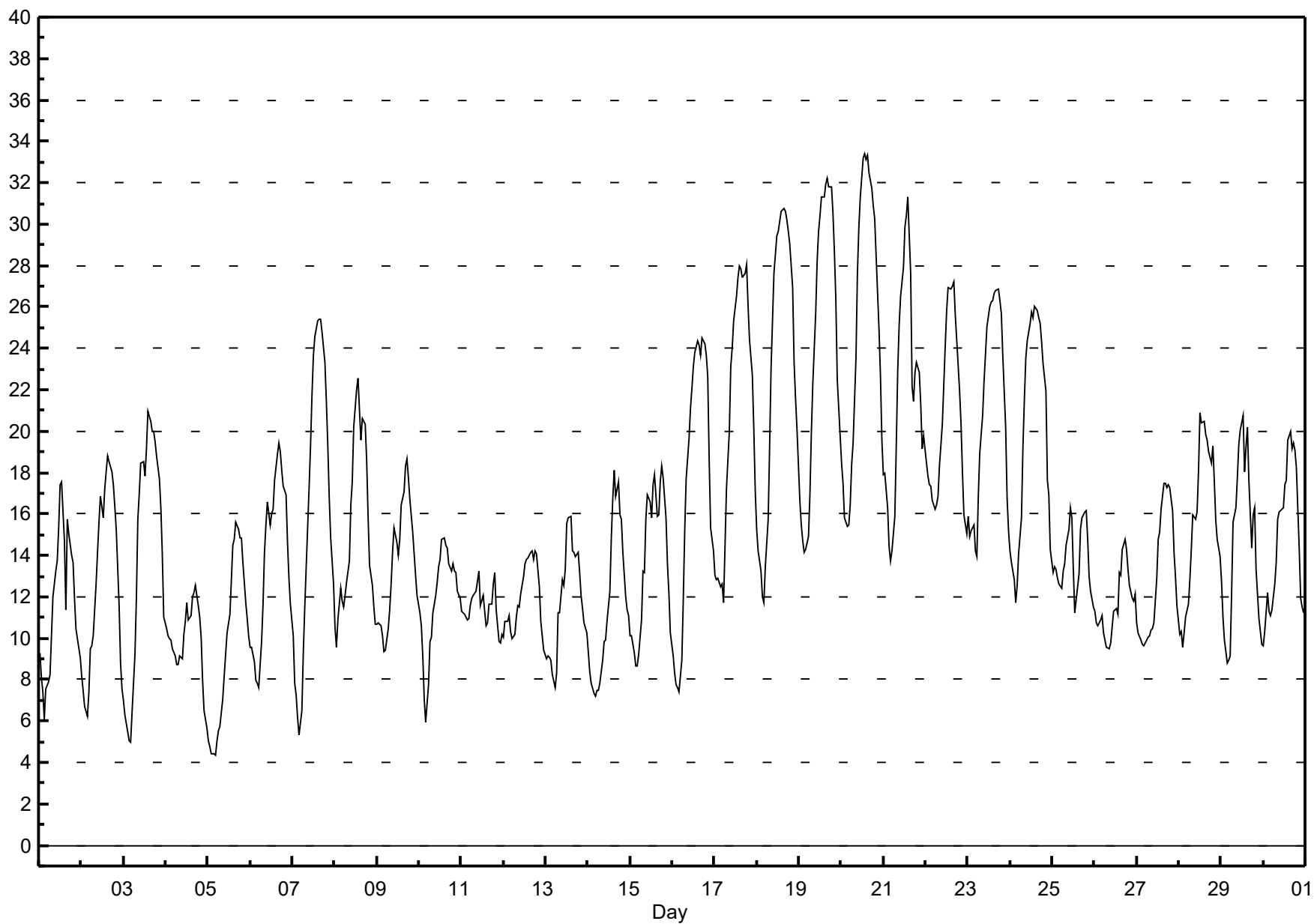
External Temperature (ET) - °C

Portable Rycroft - June 2018

Maximum Value: 33.4 °C on Jun 20 14:00																					Maximum Daily Average: 25.1 °C on Jun 20					Hours in Service: 720	
Minimum Value: 4 °C on Jun 5 05:00																					Minimum Daily Average: 9.8 °C on Jun 5					Hours of Data: 720	
Maximum Diurnal Average: 20.3 °C at hour 15																					Minimum Diurnal Average: 10.1 °C at hour 5					Hours of Missing Data: 0	
Monthly Average: 15.60 °C																					Percentiles: P ₁ = 5.1 P ₁₀ = 9.1 Q ₁ = 11.1 Median = 14.2 Q ₃ = 18.8 P ₉₀ = 25.4 P ₉₉ = 31.8					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-Jun	9	8	7	6	8	8	8	10	12	13	14	15	17	18	15	11	16	15	14	14	12	10	10	9	11.7	17.6	
2-Jun	8	8	7	6	7	10	10	10	13	14	16	17	16	17	18	19	19	18	17	16	15	12	9	8	12.8	18.8	
3-Jun	7	6	5	5	5	6	9	12	16	17	18	19	18	19	21	21	20	20	20	19	18	16	14	11	14.3	21.0	
4-Jun	10	10	10	10	9	9	9	9	9	9	10	11	12	11	11	12	12	13	12	11	10	8	7	6	10.0	12.6	
5-Jun	5	5	4	4	4	5	6	6	7	8	9	10	11	13	14	15	16	15	15	15	14	12	11	10	9.8	15.6	
6-Jun	10	10	9	8	8	8	10	12	14	15	17	15	16	16	18	19	19	19	18	17	17	15	13	12	13.9	19.4	
7-Jun	10	8	7	6	5	7	9	12	13	17	19	22	24	25	25	25	25	25	23	21	19	17	15	13	16.4	25.4	
8-Jun	11	10	11	12	12	12	12	13	14	16	18	20	22	23	21	20	21	20	19	16	14	13	12	11	15.3	22.6	
9-Jun	11	11	11	10	9	9	10	11	13	14	15	15	14	15	16	17	18	19	18	17	15	14	13	12	13.7	18.6	
10-Jun	11	11	9	7	6	8	10	10	11	12	13	13	14	15	15	14	14	14	13	14	13	13	12	12	11.9	14.9	
11-Jun	11	11	11	11	11	12	12	12	12	13	13	12	12	11	11	11	12	12	13	13	11	10	10	10	11.5	13.3	
12-Jun	10	11	11	11	10	10	10	11	12	12	12	13	14	14	14	14	14	14	14	14	13	11	10	9	12.0	14.2	
13-Jun	9	9	9	9	8	8	8	11	11	13	13	13	16	16	16	14	14	14	14	13	12	11	11	10	11.8	15.9	
14-Jun	9	8	8	7	7	8	7	8	9	10	10	11	12	15	17	18	17	18	16	16	14	12	11	11	11.6	18.1	
15-Jun	10	10	9	9	9	9	11	13	13	16	17	17	16	17	18	16	16	18	18	18	16	14	12	10	13.8	18.3	
16-Jun	9	8	8	8	7	9	12	15	18	20	21	22	23	24	24	24	24	25	24	24	23	19	15	14	17.5	24.5	
17-Jun	13	13	13	13	13	12	14	17	20	23	24	25	26	27	28	28	27	28	28	26	24	23	20	17	21.0	28.0	
18-Jun	15	14	13	12	12	13	16	19	23	25	28	29	30	30	31	31	31	30	30	29	27	23	22	20	23.0	30.7	
19-Jun	17	15	15	14	14	15	17	20	22	26	28	30	30	31	31	32	32	32	32	31	29	26	23	20	24.2	32.2	
20-Jun	18	17	16	15	15	16	18	19	24	28	30	31	33	33	33	33	33	32	31	30	28	25	23	20	25.1	33.4	
21-Jun	18	18	16	14	14	14	16	19	23	25	27	28	30	30	31	28	22	21	23	23	23	21	19	20	21.8	31.3	
22-Jun	18	18	17	17	17	16	16	17	18	20	22	24	26	27	27	27	27	26	23	22	20	18	16	15	20.7	27.2	
23-Jun	16	15	15	15	14	14	17	19	21	22	24	25	26	26	26	27	27	27	26	26	24	20	17	15	21.0	26.8	
24-Jun	14	14	13	12	13	14	16	19	22	24	24	25	26	25	26	26	25	25	24	23	22	18	17	14	20.0	26.0	
25-Jun	13	13	13	13	13	12	13	14	14	15	16	16	13	11	12	13	15	16	16	16	15	13	12	11	13.8	16.3	
26-Jun	11	11	11	11	11	10	10	10	9	10	11	11	11	11	13	13	14	15	14	13	13	12	12	12	11.6	14.8	
27-Jun	11	10	10	10	10	10	10	10	10	10	11	13	15	15	16	17	17	17	17	17	16	14	13	12	13.0	17.5	
28-Jun	10	10	10	10	11	12	13	14	16	16	16	18	21	20	20	20	20	19	18	19	18	16	15	14	15.7	20.9	
29-Jun	13	11	10	9	9	9	12	16	16	18	19	20	21	18	19	20	18	14	16	16	13	11	10	10	14.5	20.7	
30-Jun	10	10	12	11	11	11	13	14	16	16	16	16	17	18	20	20	19	19	19	18	14	12	12	11	14.8	20.0	
																									Diurnal Average		
																									Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C
Portable Rycroft - June 2018



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - June 2018

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	7	4	6	6	5	2	6	5	6	6	5	3	3	5	9	14	10	12	9	9	3	3	7	7	2.9	13.5
Dir	137	69	59	42	52	16	65	91	127	106	109	100	48	44	197	271	4	58	57	3	13	208	148	136	72.0	270.9
2 Spd	5	8	8	10	7	9	6	8	8	10	10	12	18	17	13	17	21	25	17	17	10	4	6	6	10.5	25.4
Dir	164	180	167	174	195	198	204	192	204	213	207	201	239	229	205	229	230	236	225	232	226	214	185	178	213.7	236.2
3 Spd	7	8	9	9	9	7	4	3	3	5	3	6	5	4	8	9	12	11	15	15	14	12	5	1	4.4	15.5
Dir	176	169	173	170	170	168	182	151	317	49	48	110	120	82	50	76	65	62	51	40	37	55	121	185	89.3	40.5
4 Spd	4	11	17	20	23	18	16	8	17	31	35	41	41	36	32	35	36	28	31	25	14	5	6	3	14.4	41.1
Dir	333	319	360	28	34	37	25	31	237	237	235	239	247	246	251	257	260	260	261	255	237	215	226	207	260.7	247.4
5 Spd	4	7	6	3	4	12	21	23	25	21	19	15	12	5	8	4	6	5	5	3	5	2	6	2	6.3	24.7
Dir	217	229	220	200	209	239	255	264	261	262	272	272	272	279	320	321	9	22	62	87	61	98	134	130	263.1	261.5
6 Spd	5	5	4	3	4	4	7	9	10	10	11	12	12	13	10	8	15	13	7	6	3	2	3	6	6.0	15.4
Dir	161	159	221	183	168	159	167	180	198	205	208	232	256	250	237	247	250	234	190	171	143	120	125	137	209.5	250.1
7 Spd	4	5	6	1	3	3	3	4	4	5	4	3	3	2	8	9	8	7	20	18	17	9	4	4	2.6	20.1
Dir	167	187	179	231	344	267	1	33	61	73	80	104	85	144	176	185	193	186	270	287	276	266	192	193	232.8	270.4
8 Spd	6	5	11	29	17	11	4	3	3	7	10	6	3	2	5	7	13	14	23	16	19	14	3	4	5.9	29.4
Dir	183	195	249	265	262	262	291	266	241	254	249	260	310	83	72	136	65	45	286	302	279	282	247	188	270.7	264.9
9 Spd	3	4	3	4	9	6	10	16	24	25	24	24	20	14	19	21	16	15	10	10	5	3	5	5	11.4	24.8
Dir	199	191	194	292	255	235	250	260	256	266	274	270	265	261	253	261	258	265	265	323	318	180	216	218	260.8	266.0
10 Spd	7	10	5	4	5	7	25	30	27	27	29	27	29	29	31	32	31	25	15	14	13	17	19	15	19.0	32.2
Dir	236	233	185	186	190	220	253	260	256	257	256	256	261	255	253	253	253	243	232	233	235	246	239	231	248.3	253.4
11 Spd	12	25	29	26	27	32	35	38	42	44	48	47	44	50	44	44	40	42	36	33	31	21	26	21	34.5	49.6
Dir	259	245	249	249	243	247	247	250	247	250	256	256	255	269	268	262	251	258	247	247	264	270	247	242	253.7	268.8
12 Spd	18	22	26	30	35	31	34	37	37	29	32	38	32	24	29	24	14	10	12	12	5	4	3	1	20.4	37.8
Dir	237	242	247	245	243	241	241	248	252	243	248	259	271	266	259	271	284	300	331	316	345	69	108	160	255.7	259.4
13 Spd	4	6	8	5	5	5	2	8	9	5	6	8	9	11	14	14	10	8	4	9	5	3	5	4	3.7	13.8
Dir	178	174	180	181	183	196	6	17	343	343	333	320	322	329	359	6	354	22	353	18	17	62	35	350	354.1	6.0
14 Spd	6	7	5	4	1	7	6	7	5	5	4	6	7	7	5	7	6	4	5	6	13	1	5	7	1.7	12.5
Dir	334	310	314	341	284	332	21	40	52	48	51	41	33	359	302	336	252	225	217	193	239	244	161	166	329.1	238.8
15 Spd	4	2	3	0	2	4	2	6	8	6	10	9	10	10	6	18	25	26	22	13	5	6	5	4	6.7	25.5
Dir	210	252	165	34	134	159	146	281	287	290	292	285	305	10	269	235	258	263	273	328	320	267	237	230	272.5	262.6
16 Spd	6	6	8	8	7	7	6	5	8	10	9	13	7	10	8	9	5	5	6	6	4	5	6	6	5.6	12.7
Dir	183	183	179	178	174	177	169	193	252	250	245	258	255	244	242	233	214	218	187	170	142	140	152	153	207.3	258.4
17 Spd	5	6	7	7	8	7	7	8	6	5	3	3	2	5	7	15	17	9	8	9	6	3	5	6	3.3	17.3
Dir	162	159	162	160	160	160	160	168	173	249	218	116	138	204	235	269	261	263	284	29	68	96	141	183	198.4	261.4
18 Spd	6	9	7	7	7	6	5	2	2	2	4	6	6	6	5	3	5	4	6	2	1	2	4	3	3.0	8.8
Dir	173	167	166	181	180	184	187	185	279	94	54	32	128	93	151	175	56	98	72	112	129	140	144	163	142.3	167.3
19 Spd	5	5	5	4	5	6	5	2	3	3	3	4	5	6	8	4	4	3	6	5	2	2	6	6	3.0	8.2
Dir	175	184	185	189	159	174	152	150	84	96	111	113	140	157	150	151	213	205	285	322	33	92	163	168	161.9	150.2
20 Spd	6	5	8	7	4	5	7	6	3	3	1	4	4	5	4	7	6	6	6	2	2	3	2	4	1.9	7.7
Dir	173	180	178	177	186	194	180	168	186	283	337	241	348	342	353	21	58	93	129	133	130	130	142	227	163.4	178.3
21 Spd	5	6	8	9	9	8	3	5	6	6	5	8	9	10	10	1	12	5	2	5	6	4	3	11	4.3	11.9
Dir	199	185	176	176	177	181	195	267	310	311	314	274	282	255	282	39	177	204	215	259	232	216	170	229	228.1	176.9
22 Spd	5	6	6	6	4	5	7	4	3	5	15	22	19	20	24	23	22	30	24	18	11	8	8	7	10.0	30.1
Dir	176	160	135	160	211	174	178	191	201	226	252	264	269	251	249	249	252	277	303	297	289	261	283	279	257.5	276.9

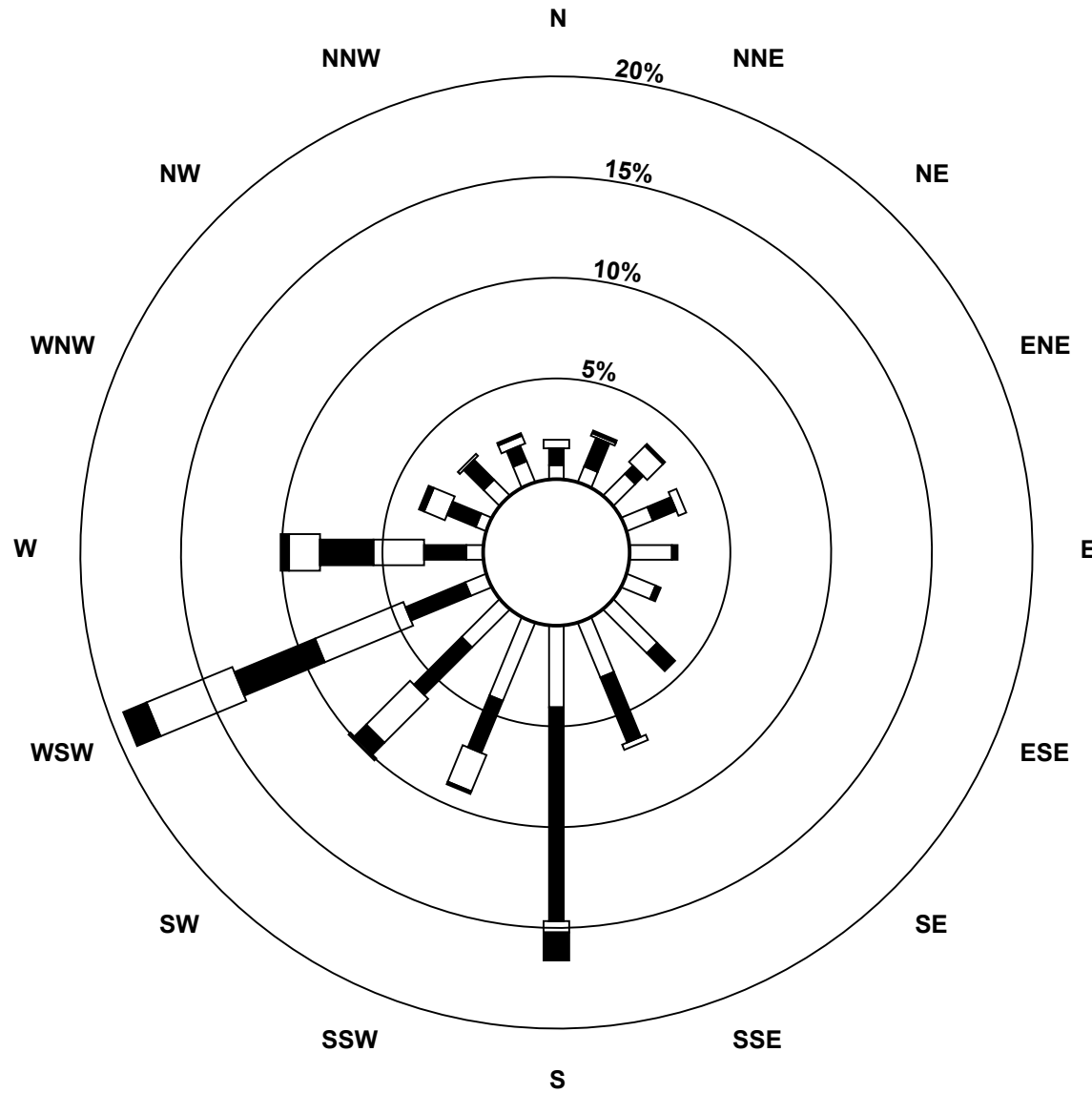
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - June 2018

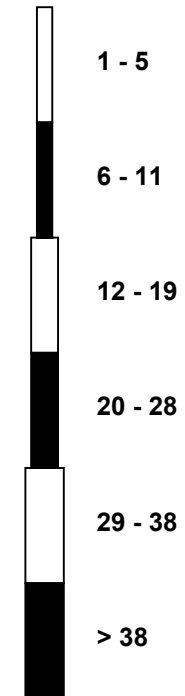
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	7	6	9	12	7	3	6	12	15	17	13	10	10	15	12	20	22	21	18	13	5	3	6	6	10.7	21.9	
Dir	240	219	232	241	233	206	228	248	249	262	252	243	256	256	247	247	247	264	269	244	259	202	192	187	246.6	246.8	
24 Spd	8	8	8	7	11	10	11	8	8	9	9	7	7	5	2	5	11	13	13	7	11	7	8	10	3.1	13.1	
Dir	178	180	172	177	173	178	175	188	192	220	231	189	176	169	145	67	61	50	45	15	306	268	268	266	186.1	44.5	
25 Spd	10	14	16	17	6	4	9	19	21	18	14	18	12	12	13	14	14	14	18	15	12	20	22	19	13.0	22.3	
Dir	257	243	252	254	238	221	229	248	251	238	230	234	206	196	197	197	197	201	197	196	198	188	173	174	216.0	172.8	
26 Spd	20	17	18	19	24	25	25	26	27	27	22	20	16	16	12	11	12	14	15	12	10	12	11	22	16.9	27.2	
Dir	177	172	168	168	177	175	176	179	182	184	188	193	198	195	202	215	215	220	222	221	220	225	223	234	192.3	183.8	
27 Spd	24	17	18	21	22	21	29	35	35	33	32	38	37	33	33	32	30	23	24	21	12	5	8	8	24.0	38.3	
Dir	236	228	231	232	235	238	243	245	244	241	244	251	254	255	257	258	262	246	240	239	234	195	185	190	243.6	250.6	
28 Spd	8	6	6	5	5	6	12	4	16	22	20	5	5	8	17	17	15	9	3	2	2	5	8	8	5.6	22.2	
Dir	191	191	186	192	189	222	238	214	241	248	250	212	214	229	255	284	346	31	68	90	118	147	174	188	234.3	248.1	
29 Spd	7	9	7	8	5	7	6	10	15	16	16	14	12	7	3	22	22	3	4	8	14	5	4	7	5.3	21.9	
Dir	190	174	175	166	156	170	173	242	274	273	279	282	294	203	138	269	332	151	145	172	243	134	169	173	239.4	332.2	
30 Spd	7	7	13	7	8	6	9	10	9	8	9	15	22	9	6	11	18	24	22	18	11	4	4	5	9.0	23.8	
Dir	174	169	171	178	175	175	179	185	200	204	211	227	246	196	246	247	249	265	253	257	263	227	180	183	223.6	264.9	
Spd	5.6	6.3	6.3	6.0	5.9	6.3	7.0	8.2	10.6	11.1	11.3	11.8	10.9	9.5	10.0	11.5	9.7	8.2	8.0	6.2	5.3	3.2	4.9	5.6	Diurnal Average		
Dir	203.2	206.6	207.0	215.6	209.4	212.3	222.7	236.5	243.0	244.5	247.7	249.1	255.2	250.2	249.4	255.4	260.1	256.9	259.1	265.5	259.7	224.4	197.3	203.9	Diurnal Maximum		
Spd	23.8	24.9	29.1	29.7	34.7	32.4	35.5	38.5	41.6	44.4	47.6	46.8	43.6	49.6	44.0	44.1	40.3	42.0	35.9	32.6	30.7	20.6	26.3	21.6	Diurnal Maximum		
Dir	235.8	244.8	248.6	245.2	243.0	246.9	246.5	250.0	247.3	249.8	255.6	255.8	254.9	268.8	267.9	262.1	250.9	258.1	246.7	246.8	263.7	270.0	247.3	234.3			
Maximum Speed Value: 50 km/h on Jun 11 14:00																									Hours in Service: 720		
Maximum Daily Speed Average: 34.5 km/h on Jun 11																									Hours of Data: 720		
Maximum Diurnal Speed Average: 11.8 km/h at hour 12																									Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Jun 15 04:00																											
Minimum Daily Speed Average: 1.7 km/h on Jun 19																											
Minimum Diurnal Speed Average: 3.2 km/h at hour 22																											
Monthly Average Velocity: 7.41 km/h 239.35 deg																									Percent Operational Time: 100.0		
Speed Percentiles: P ₁ = 1.3 P ₁₀ = 3.3 Q ₁ = 5.0 Median = 7.9 Q ₃ = 15.4 P ₉₀ = 25.0 P ₉₉ = 41.9																											
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	13	15	4	0	0	0	32																				
NorthEast	15	19	13	2	0	0	49																				
East	25	7	0	0	0	0	32																				
SouthEast	28	22	0	0	0	0	50																				
South	46	121	16	13	0	0	196																				
SouthWest	33	47	42	20	17	3	162																				
West	10	40	37	40	26	11	164																				
NorthWest	6	21	6	2	0	0	35																				
Total	176	292	118	77	43	14	720																				

Wind Rose

Wind Speed (WS) (km/h)
Portable Rycroft - June 2018



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Rycroft - June 2018

Maximum Speed: 50 km/h on Jun 11 14:00																				Maximum Daily Speed Average: 35.2 km/h on Jun 11										Hours in Service: 720	
Minimum Speed: 1 km/h on Jun 18 21:00																				Minimum Daily Speed Average: 5.1 km/h on Jun 19										Hours of Data: 720	
Maximum Diurnal Speed Average: 16.6 km/h at hour 17																				Minimum Diurnal Speed Average: 7.0 km/h at hour 22										Hours of Missing Data: 0	
Monthly Average Speed: 11.98 km/h																				Percentiles: P ₁ = 2.1 P ₁₀ = 4.1 Q ₁ = 5.6 Median = 8.2 Q ₃ = 15.8 P ₉₀ = 25.5 P ₉₉ = 42.0										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-Jun	7	4	6	6	5	4	6	5	6	7	5	4	5	9	14	16	11	12	9	9	5	4	8	7	7.4	16.4					
2-Jun	5	8	8	10	7	9	6	8	8	10	11	13	18	17	13	17	21	26	17	17	10	4	6	7	11.5	25.7					
3-Jun	7	8	9	9	9	8	4	3	4	6	7	8	6	6	10	11	12	11	15	16	14	13	6	2	8.5	15.7					
4-Jun	5	11	18	20	23	18	16	9	17	31	35	41	41	37	32	35	36	28	31	25	14	6	6	3	22.4	41.3					
5-Jun	4	8	7	3	4	12	21	23	25	22	20	16	13	8	10	7	8	6	6	4	5	2	6	3	10.1	24.8					
6-Jun	5	5	5	3	4	4	8	9	10	10	11	12	13	15	11	11	16	13	8	6	3	2	3	6	8.1	16.1					
7-Jun	4	5	6	2	3	3	3	5	5	5	5	4	6	5	9	10	9	7	21	18	17	9	4	4	7.0	21.2					
8-Jun	6	5	11	29	17	11	5	6	5	8	10	7	6	6	6	10	14	16	23	18	20	14	4	4	10.9	29.5					
9-Jun	3	4	3	5	9	7	10	16	24	25	24	25	20	15	19	21	17	16	11	11	6	3	6	5	12.7	25.1					
10-Jun	7	10	6	5	5	7	25	30	28	27	29	27	29	29	31	32	31	26	15	14	13	18	19	15	19.8	32.3					
11-Jun	14	25	29	26	27	32	36	39	42	45	48	47	44	50	44	44	40	42	36	33	32	21	27	22	35.2	49.7					
12-Jun	18	22	26	30	35	31	34	38	37	29	32	38	32	26	30	24	14	10	13	12	5	5	4	3	22.8	37.9					
13-Jun	5	6	8	6	5	5	3	9	9	6	7	8	10	12	15	14	11	9	6	9	6	3	5	5	7.5	14.6					
14-Jun	6	7	6	4	2	7	6	8	5	5	4	6	7	8	6	8	7	5	6	6	13	5	6	7	6.2	12.9					
15-Jun	4	2	3	2	3	4	2	7	9	7	11	9	11	11	7	18	25	26	23	15	6	7	5	4	9.3	25.7					
16-Jun	6	6	8	8	7	7	6	5	9	11	10	14	9	11	9	10	6	7	7	6	5	5	6	6	7.6	13.5					
17-Jun	5	6	7	7	8	7	7	8	6	6	4	4	5	7	8	15	18	10	9	9	6	3	5	6	7.3	17.7					
18-Jun	6	9	7	7	7	6	5	2	2	3	5	7	7	7	6	5	7	5	6	3	1	2	4	4	5.2	8.8					
19-Jun	5	5	5	4	5	6	5	2	3	4	4	5	6	8	9	6	6	5	7	6	2	2	6	6	5.1	8.8					
20-Jun	6	6	8	7	5	5	7	7	4	4	3	5	5	8	7	8	8	7	6	3	2	3	2	4	5.4	8.2					
21-Jun	6	7	8	9	9	8	4	5	6	7	6	9	9	11	13	9	12	5	2	6	6	4	4	11	7.3	12.8					
22-Jun	5	6	6	6	4	5	7	4	3	5	15	22	20	21	24	23	23	32	24	18	11	8	8	8	12.9	31.8					
23-Jun	7	6	10	12	7	4	6	13	16	17	13	10	11	16	13	21	22	22	19	14	5	3	6	6	11.5	22.3					
24-Jun	8	8	8	7	11	10	11	8	8	10	10	8	8	5	3	5	12	13	14	13	12	7	9	10	9.0	14.3					
25-Jun	10	15	17	17	6	5	9	19	21	19	15	18	12	12	13	14	15	14	18	15	13	20	22	19	14.8	22.5					
26-Jun	20	17	18	19	24	25	26	26	27	27	22	20	16	16	12	11	12	14	15	12	10	12	11	22	18.1	27.3					
27-Jun	24	17	18	21	22	21	29	35	35	33	32	38	37	33	33	32	30	24	24	21	12	5	8	8	24.8	38.4					
28-Jun	8	6	6	5	5	6	12	4	16	22	20	6	6	9	18	20	16	10	4	2	3	5	8	8	9.3	22.3					
29-Jun	7	10	7	8	5	7	6	11	15	17	16	15	14	10	5	23	23	4	4	8	15	6	5	7	10.3	22.8					
30-Jun	7	7	13	7	8	6	9	10	10	9	9	15	23	10	8	13	19	24	22	19	12	6	5	5	11.5	23.9					
7.6 8.7 9.8 10.2 9.7 9.7 11.1 12.4 13.8 14.5 14.7 15.4 15.1 14.5 14.6 16.5 16.6 14.9 14.0 12.2 9.5 7.0 7.4 7.5																									Diurnal Average						
23.9 25.0 29.1 29.8 34.8 32.4 35.5 38.5 41.7 44.5 48.1 47.2 44.1 49.7 44.2 44.2 40.4 42.1 36.0 32.8 32.1 21.2 26.6 21.8																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

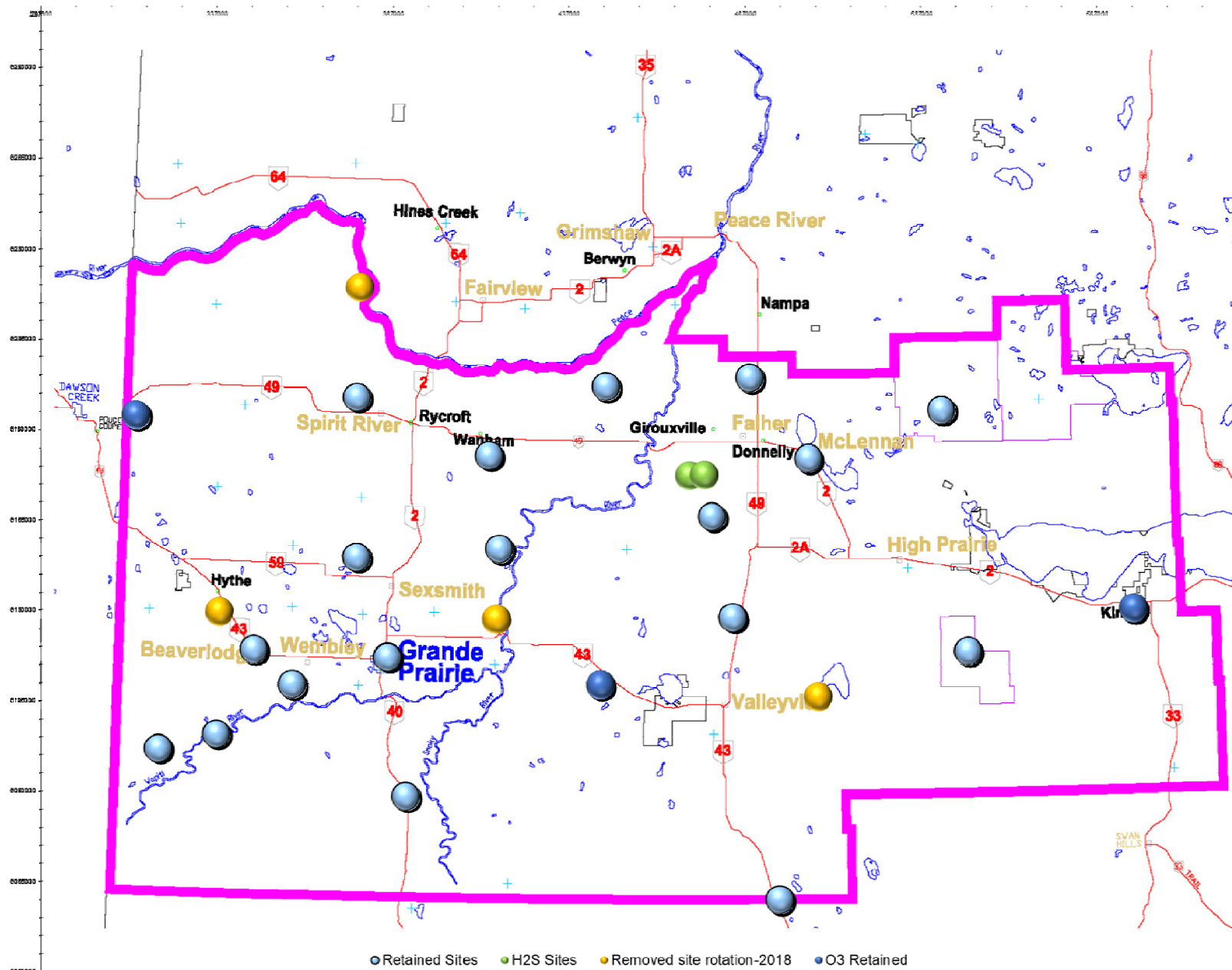
Wind Direction (WD) - deg
Portable Rycroft - June 2018

Maximum Value: 89.9 deg on Jun 21 16:00																			Hours in Service: 720						
Minimum Value: 2.9 deg on Jun 18 02:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
																			Hours of Calibration: 0						
																			Percent Operational Time: 100.0						
Percentiles: P ₁ = 3.1 P ₁₀ = 5.2 Q ₁ = 7.7 Median = 14.7 Q ₃ = 27.9 P ₉₀ = 45.3 P ₉₉ = 78.8																									
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-Jun	10	35	15	8	52	52	12	27	18	29	29	62	73	60	64	36	26	12	22	15	72	39	31	10	72.6
2-Jun	10	8	11	8	10	17	19	8	11	10	11	17	13	12	13	15	10	10	10	8	10	10	10	4	19.4
3-Jun	11	8	6	4	4	45	26	37	50	47	77	50	40	54	45	43	20	19	10	10	12	32	32	70	76.9
4-Jun	31	10	8	17	6	5	5	10	22	4	4	5	5	8	5	5	6	8	8	7	9	20	13	16	31.4
5-Jun	13	13	17	19	19	14	4	6	6	13	12	19	24	59	41	70	64	66	47	36	28	41	19	39	69.7
6-Jun	15	21	38	34	27	15	13	9	11	12	16	12	29	32	30	48	20	16	9	11	12	11	8	7	48.3
7-Jun	15	5	6	55	43	25	43	27	23	32	35	67	74	73	24	26	31	22	33	13	8	15	25	18	73.6
8-Jun	10	14	11	4	8	20	44	74	56	27	23	58	78	86	44	44	19	32	14	23	18	16	46	13	86.3
9-Jun	16	19	15	43	12	26	20	9	5	10	8	8	12	12	13	10	17	16	16	25	33	32	20	21	42.7
10-Jun	10	7	13	13	12	21	9	5	5	7	8	8	7	9	8	5	4	9	4	5	6	18	5	6	20.6
11-Jun	56	6	3	3	4	3	4	3	3	4	8	7	8	3	6	4	3	3	5	7	19	14	8	8	55.6
12-Jun	6	5	7	5	5	9	4	4	3	6	5	5	15	19	9	7	7	11	11	7	23	27	29	83	83.1
13-Jun	36	22	7	16	7	25	36	17	17	37	27	27	25	28	24	17	16	23	57	15	17	21	14	48	57.4
14-Jun	11	22	21	19	81	14	27	13	22	34	29	25	23	40	48	34	31	49	34	17	20	83	31	7	83.2
15-Jun	31	44	51	83	68	15	48	66	17	32	28	22	27	19	42	10	7	8	11	26	26	12	30	12	83.0
16-Jun	8	5	3	4	7	6	9	26	17	17	23	25	39	31	33	22	62	48	28	21	11	6	6	7	62.3
17-Jun	8	6	8	8	9	9	12	7	15	42	64	45	79	40	36	25	13	37	45	17	8	21	15	7	79.1
18-Jun	9	3	7	19	17	10	24	44	59	54	47	41	36	38	44	70	58	42	25	24	28	15	9	22	69.5
19-Jun	7	7	7	22	16	4	8	34	34	36	47	50	41	44	25	58	67	63	42	25	35	18	17	7	66.6
20-Jun	9	20	9	5	27	8	8	10	32	42	80	42	49	52	75	48	47	26	20	19	32	16	44	21	80.3
21-Jun	31	26	4	8	5	5	30	24	17	18	27	23	27	33	43	90	15	25	48	32	9	18	46	20	89.9
22-Jun	31	20	16	20	24	18	8	15	40	28	14	11	14	12	11	14	13	20	8	7	18	9	11	25	40.4
23-Jun	9	23	10	5	7	22	20	8	12	12	19	23	35	18	28	8	10	12	9	13	25	17	6	14	34.5
24-Jun	7	4	32	7	4	3	4	8	14	16	25	22	27	26	42	24	16	11	28	58	30	50	36	9	57.7
25-Jun	14	9	13	4	31	20	13	10	7	8	13	8	11	9	6	7	7	7	7	6	9	6	6	5	31.5
26-Jun	5	7	5	6	6	5	5	4	4	4	5	6	6	8	7	10	7	10	7	8	9	6	7	7	9.9
27-Jun	4	6	6	3	3	4	5	3	4	4	7	5	7	6	7	7	6	9	6	5	7	12	5	5	12.4
28-Jun	4	10	7	7	8	14	8	19	11	6	10	26	40	28	12	32	16	18	30	32	21	9	10	6	39.7
29-Jun	5	6	5	8	10	7	8	32	10	11	16	21	30	45	76	18	19	53	27	7	34	48	25	9	75.8
30-Jun	11	15	4	7	9	6	5	8	9	8	12	10	14	29	61	36	20	7	12	12	37	51	17	19	61.4
55.6 44.2 51.0 83.0 81.2 51.8 47.5 74.4 59.3 54.0 80.3 67.5 79.1 86.3 75.8 89.9 66.6 65.6 57.4 57.7 72.3 83.2 46.5 83.1																									

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for June 2018

Station	Station	SO2	O3	NO2	H2S	Site
Number	Name	ppb	ppb	ppb	ppb	Legal
Duplicates						
3a	Fourth Creek	0.2				
3b	Fourth Creek	0.2				
9a	Spirit River			3.8		
9b	Spirit River			4.5		
19a	Wanham			1.1		
19b	Wanham			1.1		
21a	Eaglesham	0.3				
21b	Eaglesham	0.3				
37a	Crooked Creek		31.0			
37b	Crooked Creek		32.8			
63a	Girouxville 3				0.2	
63b	Girouxville 3				0.2	

2	Bay Tree	0.2	35.5	0.5		13-16-078-13 W6
3	Fourth Creek	0.2		0.2		04-13-082-07 W6
9	Spirit River	0.3		4.1		08-12-079-07 W6
12	Hythe	0.3		1.2		14-36-072-11 W6
14	Sylvester	0.1		0.4		08-06-069-12 W6
16	Beaverlodge	0.2		1.0		15-36-071-10 W6
18	Saddle Hills	0.6		1.4		04-25-074-07 W6
19	Wanham	0.4		1.1		16-22-077-03 W6
21	Eaglesham	0.3		3.8		16-21-079-25 W5
24	Wembley	0.2		2.1		12-31-070-08 W6
25	Pinto Creek	0.1		0.7		04-24-069-11 W6
27	Grande Prairie I	0.3		2.6		08-15-071-06 W6
29	Smoky Heights	0.4		1.7		04-06-075-02 W6
30	Fitzsimmons	0.3		1.2		15-36-072-03 W6
32	Gold Creek	0.3		1.1		06-33-067-05 W6
35	Jean Cote	0.1		1.8		12-35-079-21 W5
36	Guy	0.2		4.9	0.1	3-04-076-22 W5
37	Crooked Creek	0.2	31.9	1.8		16-01-071-26 W5
39	Clouston Creek	0.2		1.9		12-01-073-22 W5
40	McLennan	0.2		2.5		03-29-077-19 W5
42	Sunset House	0.1		0.6		05-32-070-19 W5
44	Peavine	0.2		0.3		03-05-079-15 W5
46	Little Smoky	0.2		0.9		12-01-065-21 W5
47	Kinuso	0.1	30.8	0.5		12-10-073-10 W5
49	Grande Prairie HF	0.2		1.9		17-26-071-06 W6
50	East Prairie	0.2		0.4		13-02-072-15 W5
63	Girouxville 3				0.2	1-02-077-23 W5
64	Girouxville 4				0.2	1-08-077-22 W5

*BDL = Below Detection Level

*N/S - No sample

Passive Summary for June 2018

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

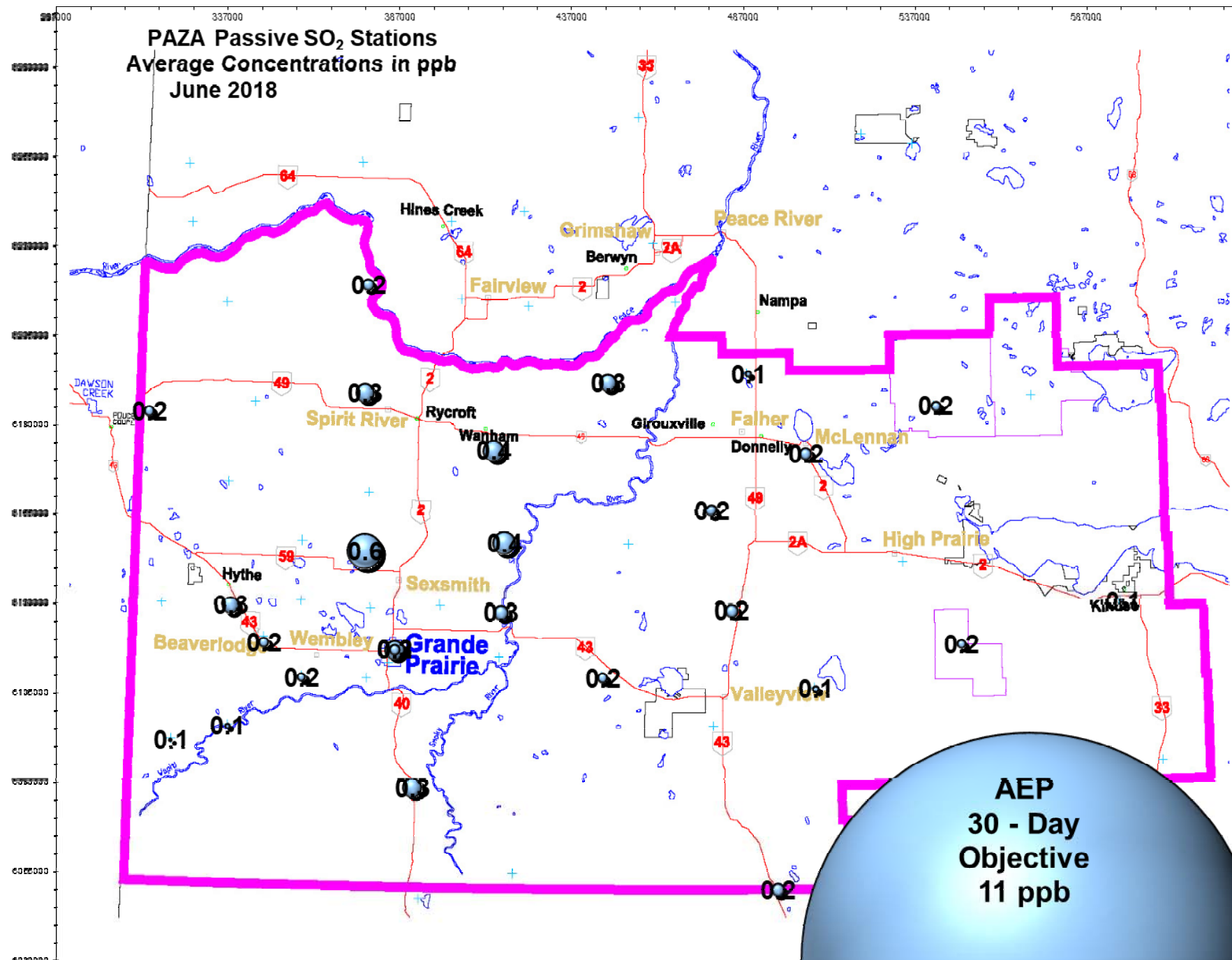
Passive Summary for June 2018 (PAZA Zone)				
Mean	0.2	32.7	1.6	0.2
Standard Deviation	0.1	2.5	1.2	0.1
Minimum	0.1	30.8	0.2	0.1
Minimum At	Sylvester	Kinuso (#47)	Fourth Creek	Guy (#36)
Maximum	0.6	35.5	4.9	0.2
Maximum At	Saddle Hills	Bay Tree (#2)	Guy (#36)	Girouxville 4

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

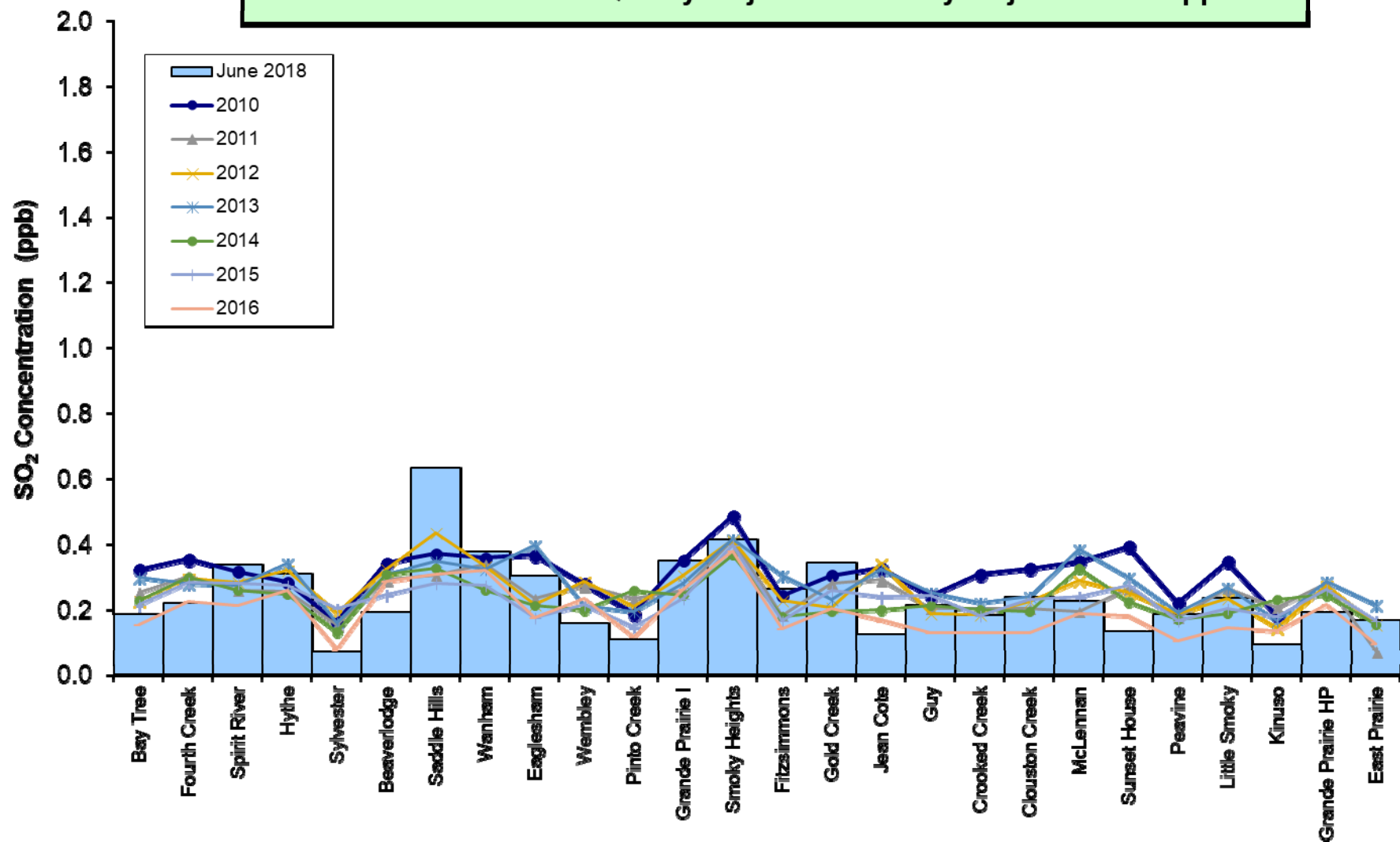
	SO ₂	NO ₂
PAZA Beaverlodge station	0.2	2.4
PAZA Beaverlodge passive	0.2	1.0

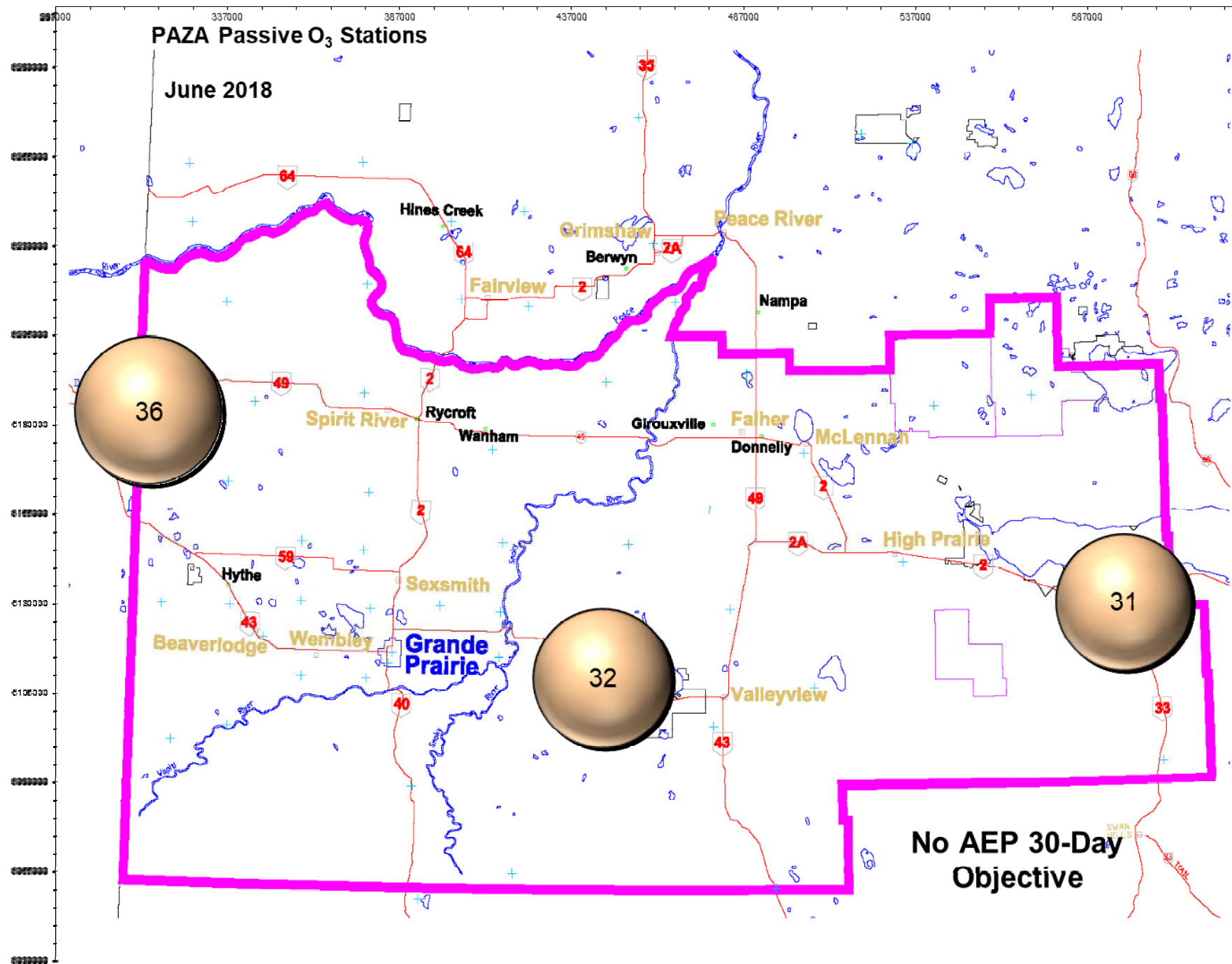
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

	SO ₂	NO ₂
PAZA Henry Pirker station	0.1	5.8
PAZA Grande Prairie passive	0.3	2.6

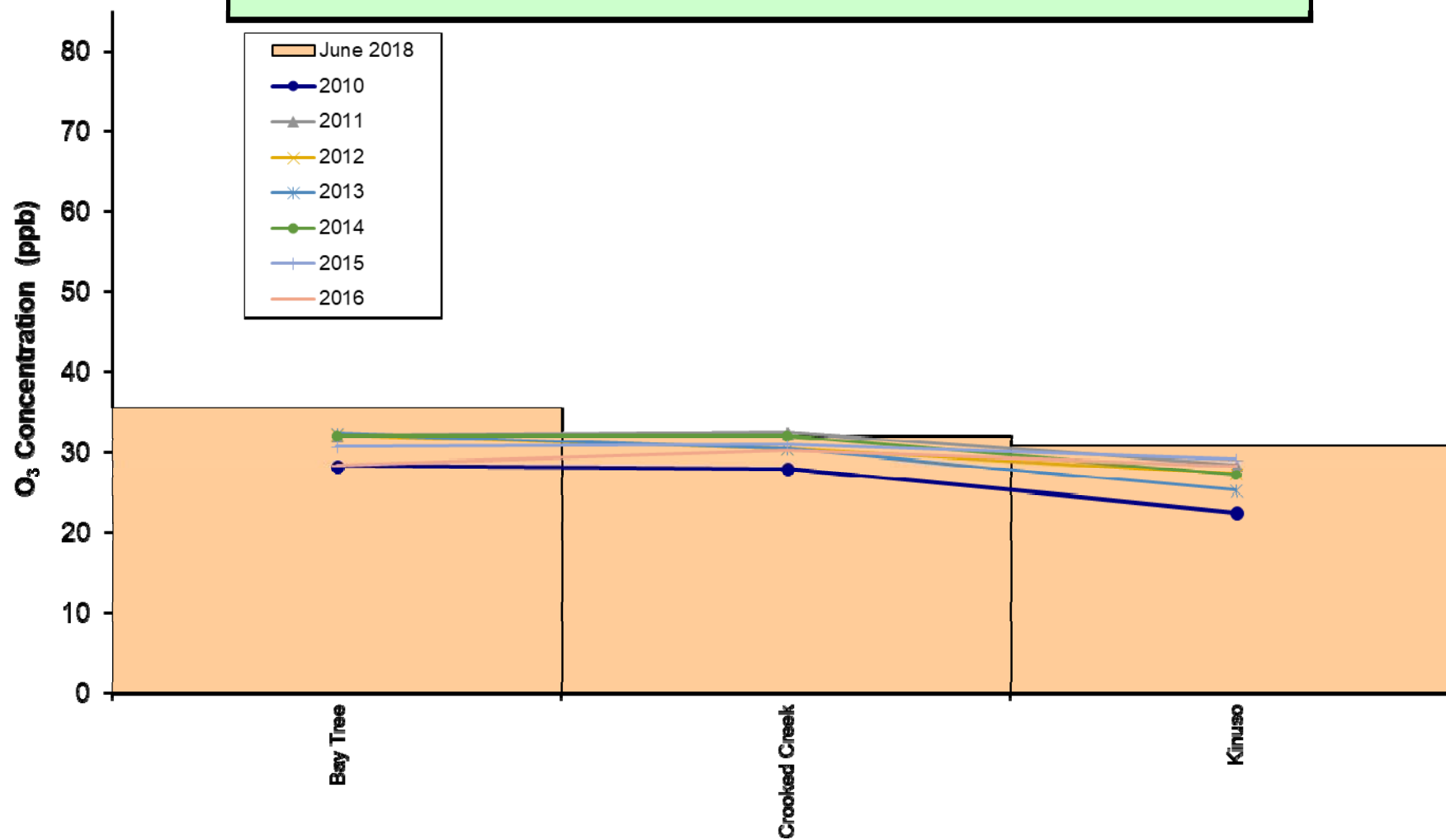


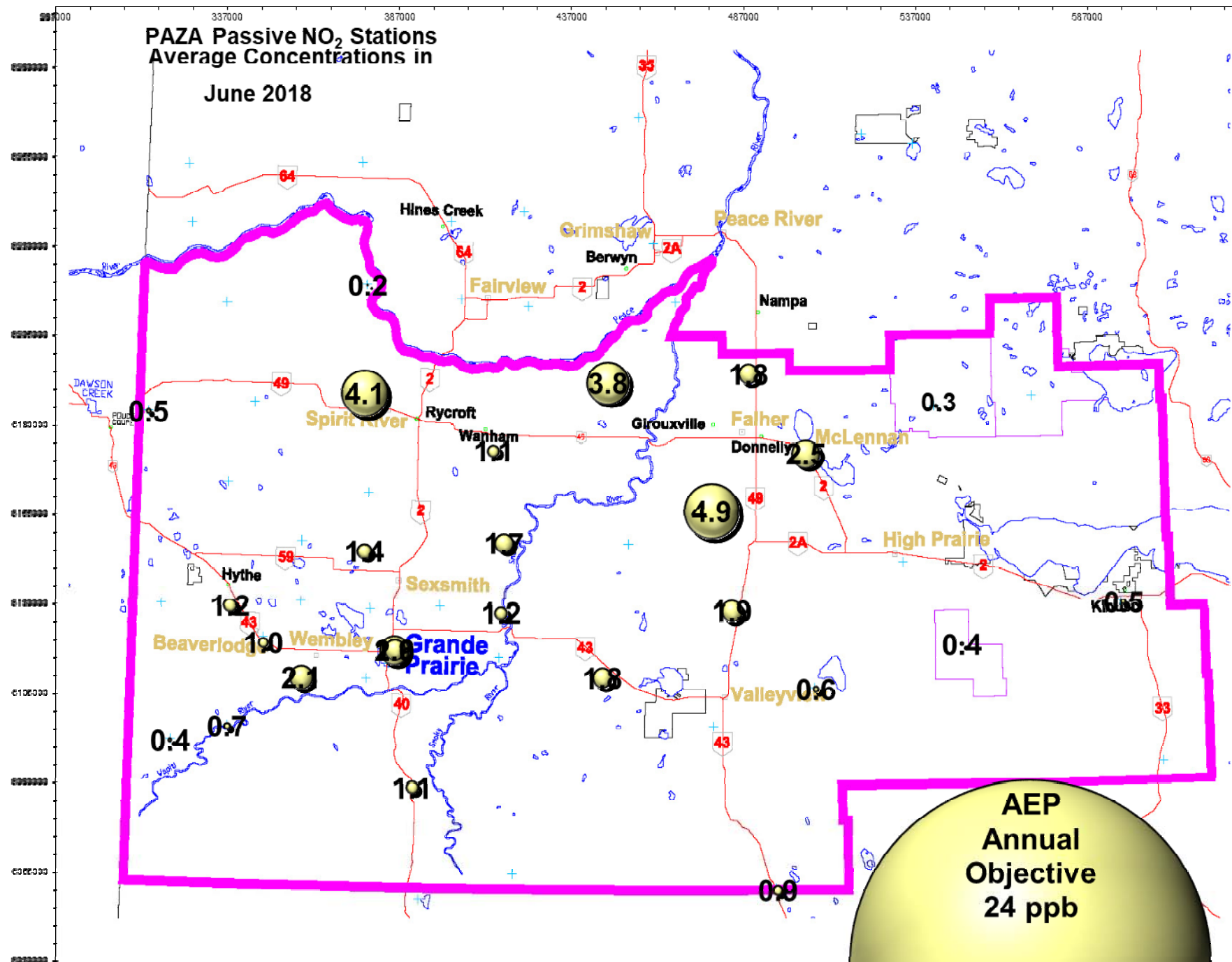
Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb



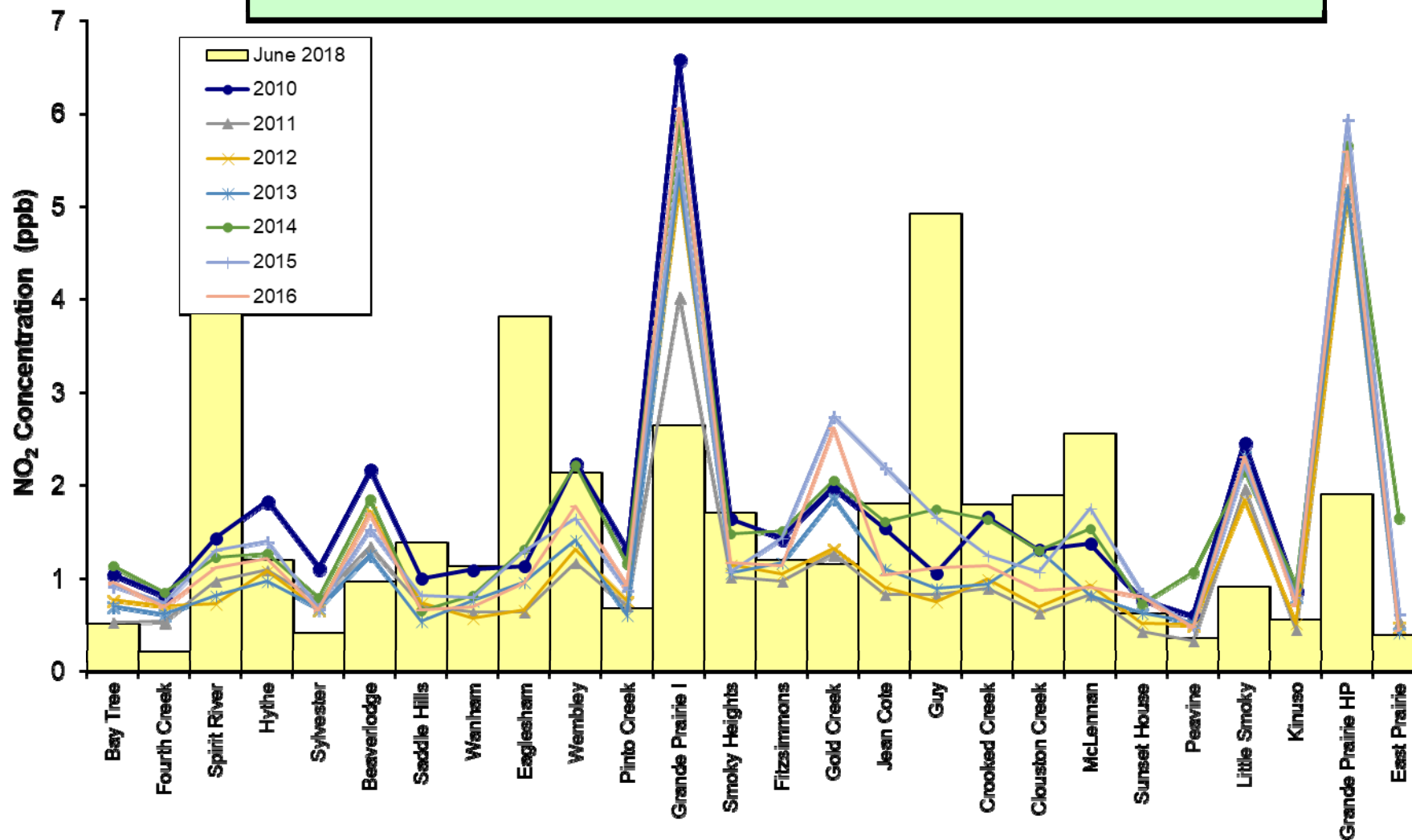


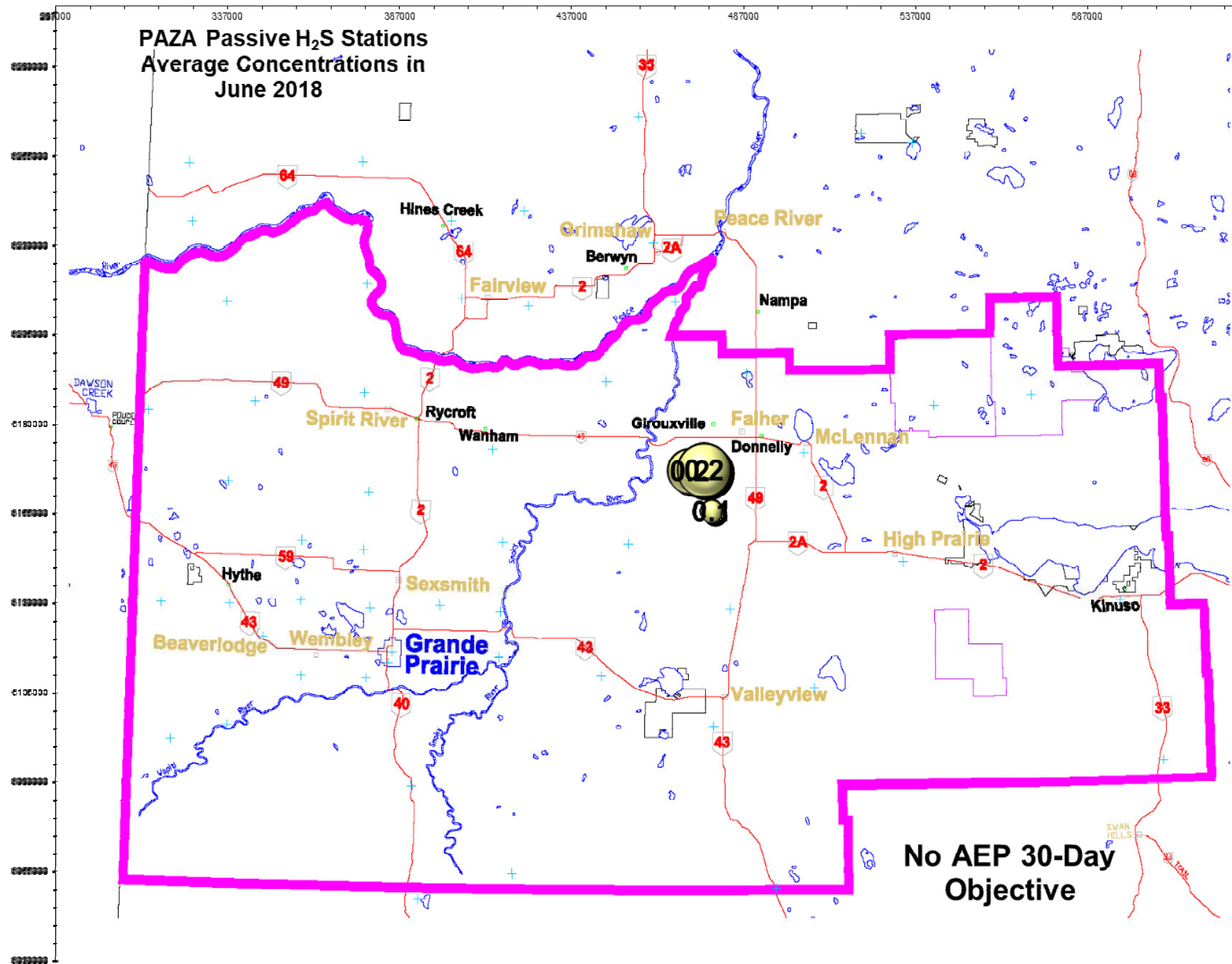
Alberta Ambient Air Quality Objective - No Annual O₃ Objective





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





June 2018 Calibration Reports

Calibration Report



Parameter SO₂
Air Monitoring Network PAZA

Station Information

Calibration Date	June 11, 2018	Previous Calibration	May 18, 2018
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	11:20	End Time (MST)	14:10:00 PM
Barometric Pressure	0.936 ATM	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentratio	49.6 ppm	Cal Gas Expiry Date	04/05/2019
Correction factor	0.031602	Cal Gas Cylinder #	LL107945
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.997748	Calculated slope	0.992926
Calculated intercept	0.025257	Calculated intercept	-0.825965

Analyzer make	Teco 43i	Analyzer serial #	701120008
---------------	----------	-------------------	-----------

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12.4		12.7	
coefficient	1.213		1.950	
Lamp Voltage	834	volts	841	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	661.3	mm Hg	661.9	mm Hg
Sample Flow	0.436	ccm	0.436	ccm
Lamp Intensity	89	%	92	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.0	0.00	0.5	N/A
4997	39.97	393.6	397.1	0.9913
4997	19.99	197.6	200.0	0.9883
4997	9.98	98.9	100.8	0.9804
4997	0.0	0.0	0.5	As Found Zero
4997	39.98	393.7	388.3	As Found Span
Average Correction Factor				0.9866

Calculated value of As Found Response: 386.968 ppm Percent Change of As Found: 1.7%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.3	ppm
Auto span	258.8	ppm	266.8	ppm

Notes: Zero & span, PMT adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



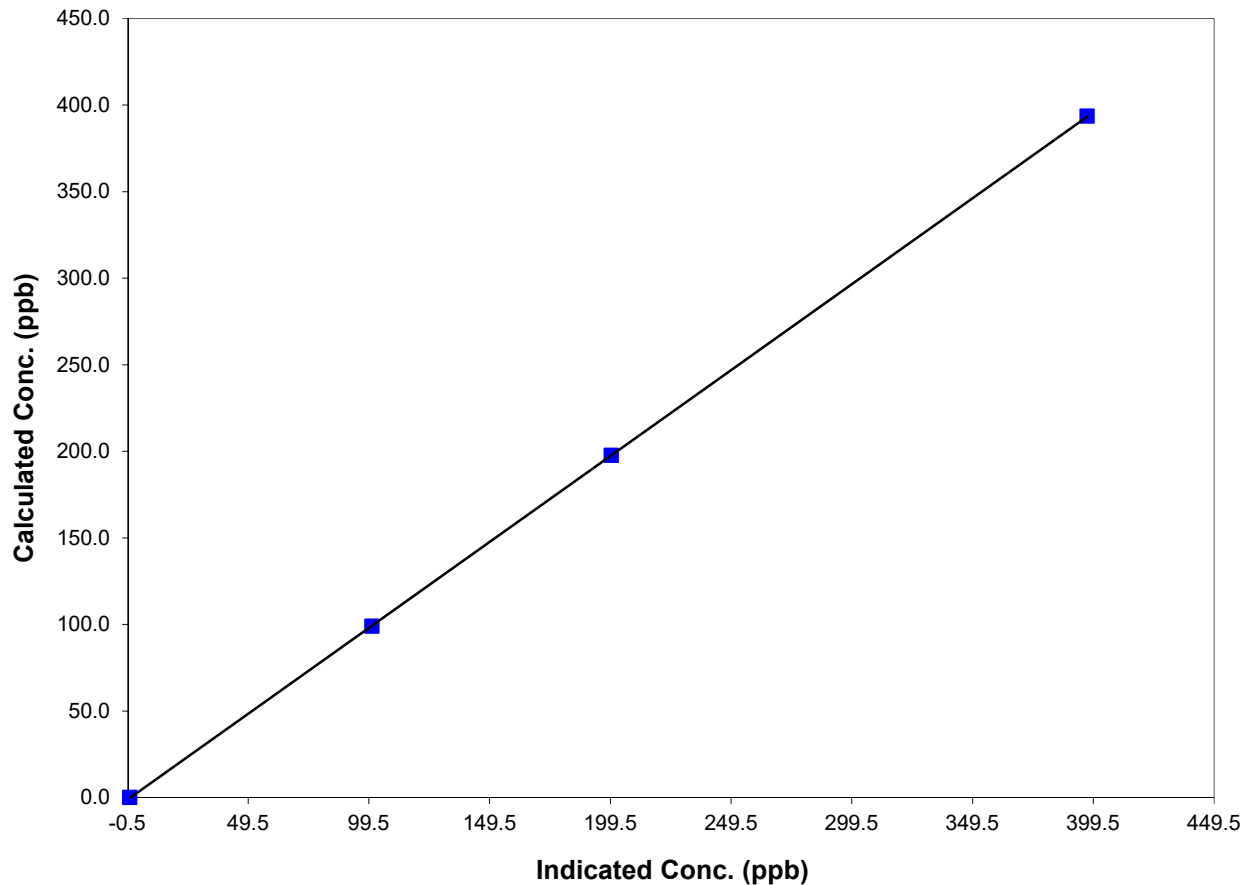
Station Information

Calibration Date	June 11, 2018	Previous Calibration	May 18, 2018
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:20	End Time (MST)	14:10:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

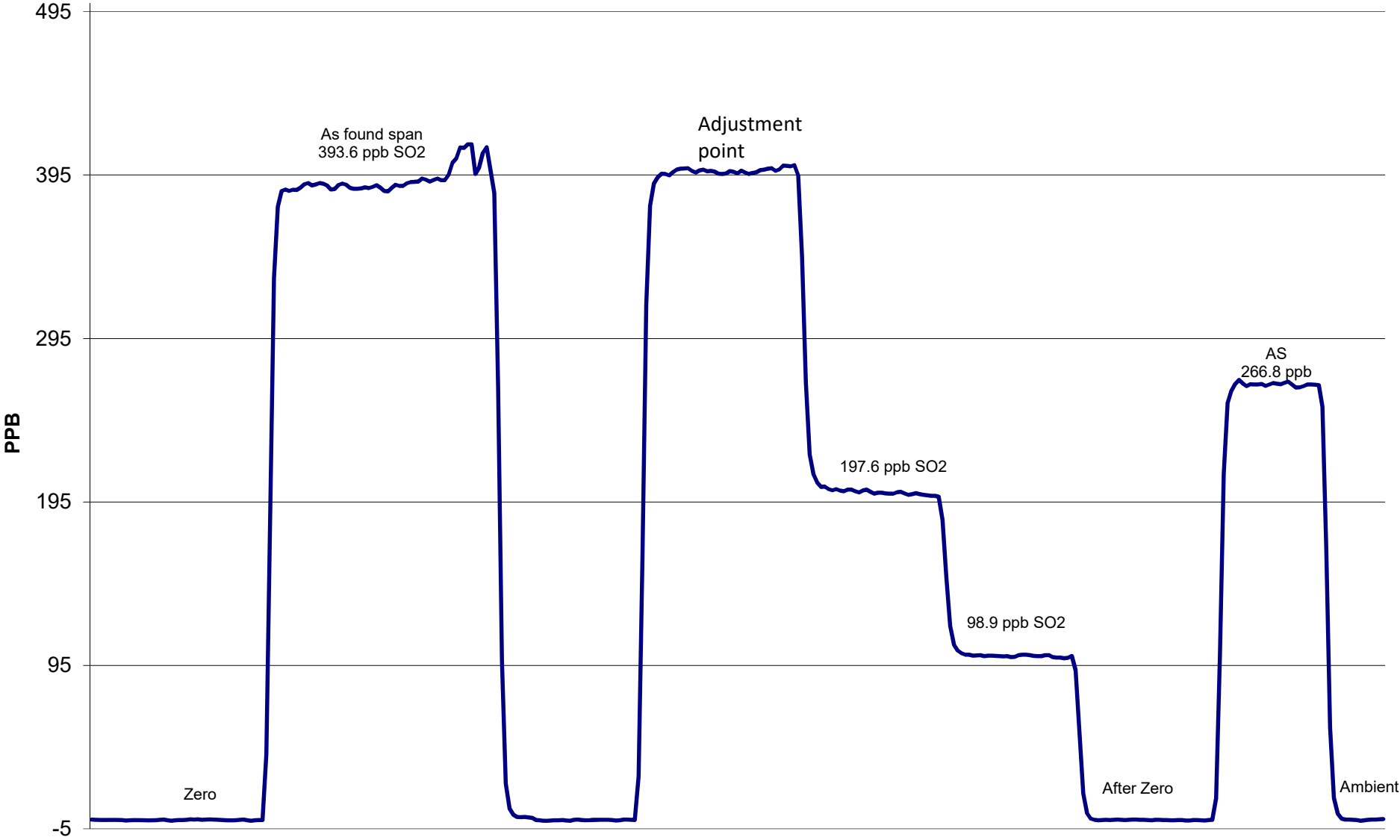
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999996
393.6	397.1	0.9913		
197.6	200.0	0.9883		
98.9	100.8	0.9804	Slope	0.992926
			Intercept	-0.825965

SO2 Calibration Curve



SO2 Calibration



June 11, 2018

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	June 11, 2018	Previous Calibration	May 18, 2018
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:10	End Time (MST)	12:10
Barometric Pressure	0.936 ATM	Station Temperature	22.0 Deg C
Calibrator	Evironics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppm	Cal Gas Expiry Date	23/02/2019
Correction factor	0.031602	Cal Gas Cylinder #	EY0000380
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.020848	Calculated slope	0.998860
Calculated intercept	-0.863625	Calculated intercept	-0.427804
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	17.3	ppb	17.7	ppb
coefficient	0.946		0.970	
Lamp Voltage	1003	volts	1002	volts
Chamber Temp	45	Deg C	44.4	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	631.7	mm Hg	632.1	mm Hg
Sample Flow	0.596	ccm	0.599	ccm
Lamp Intensity	36,766	mv	36,968	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)
4996	0.00	0.00	0.7	N/A
4996	39.97	77.62	78.3	0.9913
4996	19.96	38.92	39.1	0.9958
6999	9.97	13.91	14.3	0.9746
4996	10.00	0.00	0.7	Sox Test
4996	0.00	0.00	0.7	As Found Zero
4996	39.97	77.62	75.2	As Found Span
Average Correction Factor				0.9872

Calculated value of As Found Response: 75.27 ppm Percent Change of As Found: **3.0%**

	before calibration		after calibration	
Auto zero	0.6	ppm	0.8	ppm
Auto span	64.7	ppm	68.5	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary



Parameter TRS
Air Monitoring Network PAZA

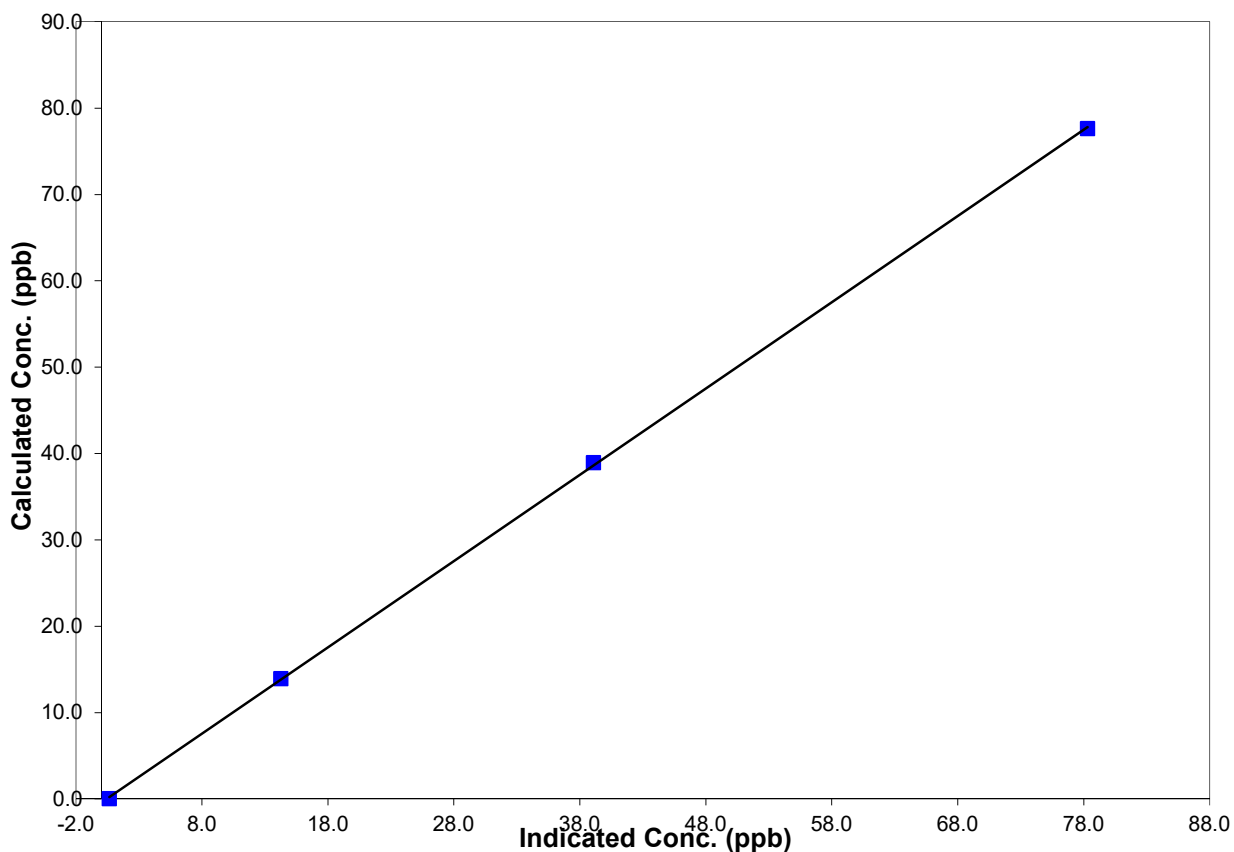
Station Information

Calibration Date	June 11, 2018	Previous Calibration	May 18, 2018
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:10	End Time (MST)	12:10
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

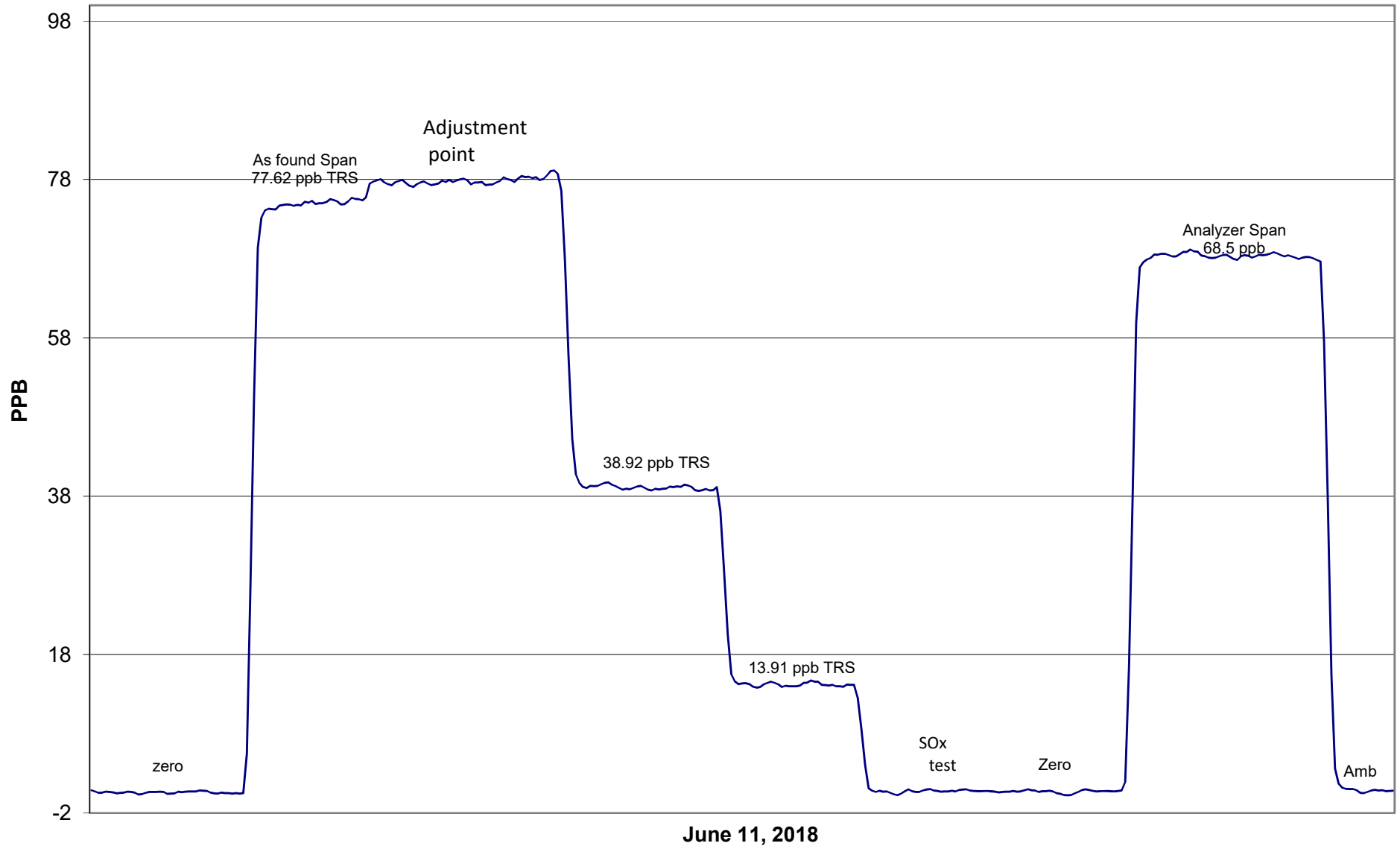
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A	Correlation Coefficient	0.999948
77.6	78.3	0.9913		
38.9	39.1	0.9958		
13.9	14.3	0.9746	Slope	0.998860
			Intercept	-0.427804

TRS Calibration Curve



TRS Calibration



Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	June 6, 2018	Previous Calibration	May 10, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	

Start Time (MST)	13:35:00 PM	End Time (MST)	16:05:00 PM
Barometric Pressure	923.0 mbar	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	6586
Cal Gas Conc	49.6 ppm	Cal Gas Cert Date	10/24/2020
		Cal Gas Cylinder #	LL107945
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.993903	Calculated slope	0.993028
Calculated intercept	0.710147	Calculated intercept	2.157216

Analyzer make TEI 43I-TLE Analyzer serial # 1507864682 (AMU 2006)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.42		1.38	
Coefficient	0.910		0.884	
Pressure	667.9	mm Hg	667.0	mm Hg
Flow	0.442	lpm	0.440	lpm
Lamp intensity	82	Hz	82	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.2	N/A
4995	39.99	393.9	396.0	0.9948
4995	19.97	197.5	194.6	1.0151
4995	9.98	98.9	95.8	1.0327
4995	0.00	0.0	0.2	As Found Zero
4995	39.97	393.7	404.8	As Found Span
Average Correction Factor				1.0142

Calculated value of As Found Response: 402.9 ppb Percent Change of As Found: -2.3%

	before calibration		after calibration	
Auto zero	0.1	ppb	-0.7	ppb
Auto span	282.2	ppb	278.5	ppb

Notes: Span adjustment made.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



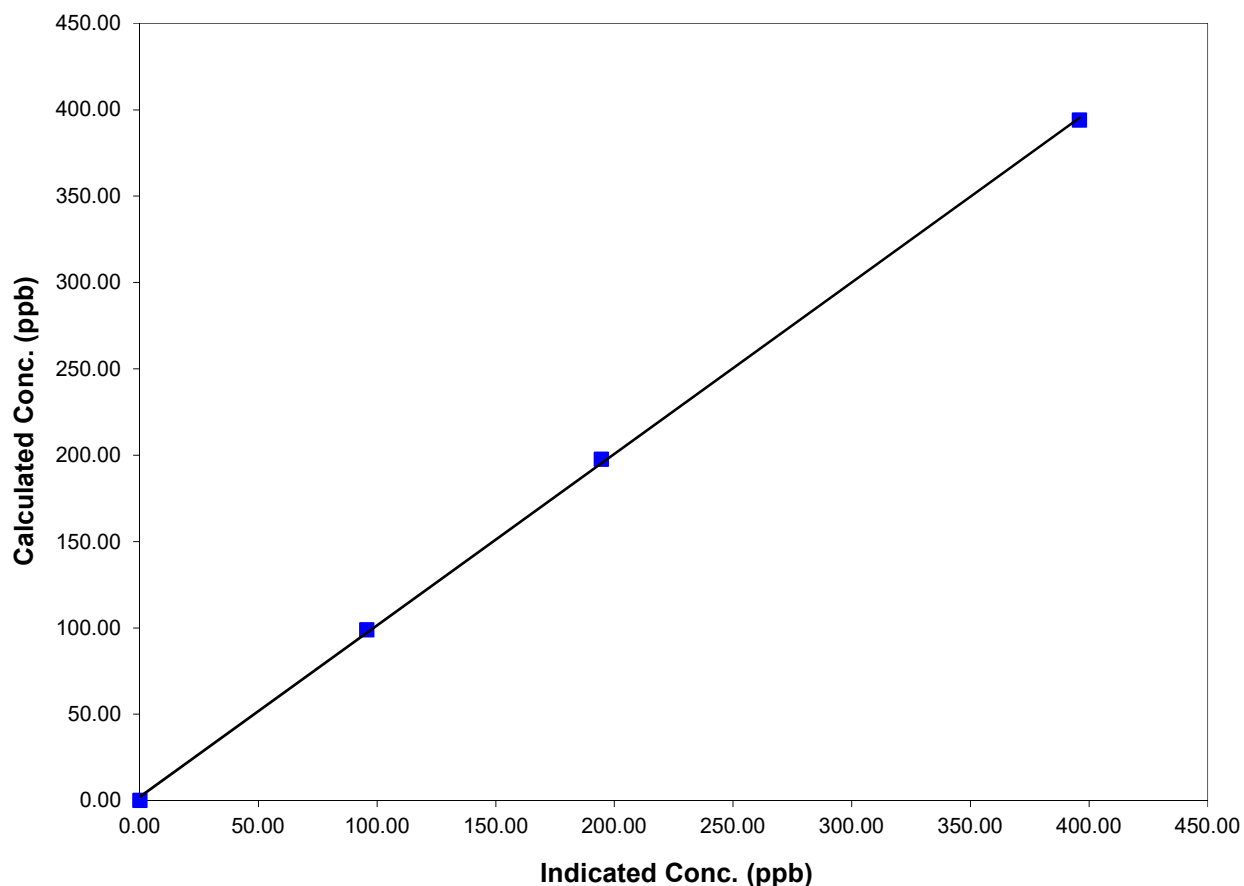
Station Information

Calibration Date	June 6, 2018	Previous Calibration	May 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:35:00 PM	End Time (MST)	16:05:00 PM
Analyzer make/model	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

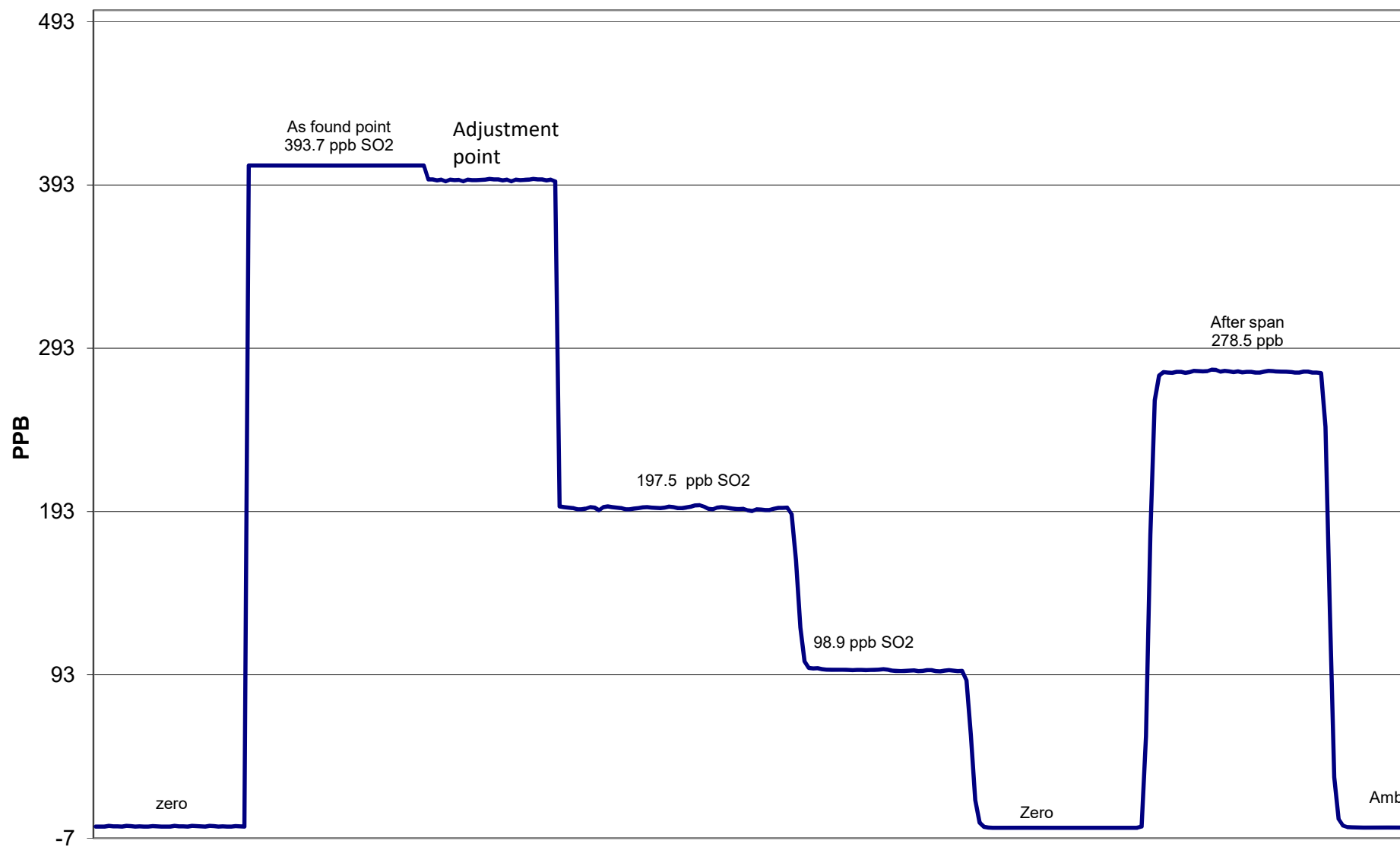
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999825
393.9	396.0	0.9948		
197.5	194.6	1.0151		
98.9	95.8	1.0327	Slope	0.993028
			Intercept	2.157216

SO2 Calibration Curve



SO2 Calibration



June 6, 2018

Calibration Report

Parameter H2S
Air Monitoring Network

PAZA



Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 11, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	8:40	End Time (MST)	11:15
Barometric Pressure	0.921 mBar	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppb	Cal Gas Expiry Date	02/28/2020
		Cal Gas Cylinder #	LL119574
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.003760	Calculated slope	1.007405
Calculated intercept	-0.187465	Calculated intercept	-0.204613
Analyzer make	TEI 450i	Analyzer serial #	1170050143(AMU 2198)

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.862		0.862	
Background	12.7		12.8	
Pressure	555.6	mm Hg	545.8	mm Hg
Flow	0.972	ccm	0.972	ccm
Lamp Voltage	773	V	786	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)
4997	0.00	0.00	0.52	N/A
4997	39.98	77.63	77.45	1.0023
4998	19.97	38.92	38.52	1.0106
6997	9.98	13.93	13.84	1.0062
4997	0.00	0.00	0.52	As Found Zero
4997	41.20	79.98	77.45	As Found Span
Average Correction Factor				1.0063

Calculated value of As Found Response: 77.0 ppb Percent Change of As Found: 3.7%

	before calibration		after calibration	
Auto zero	0.29	ppb	0.55	ppb
Auto span	27.89	ppb	28.62	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



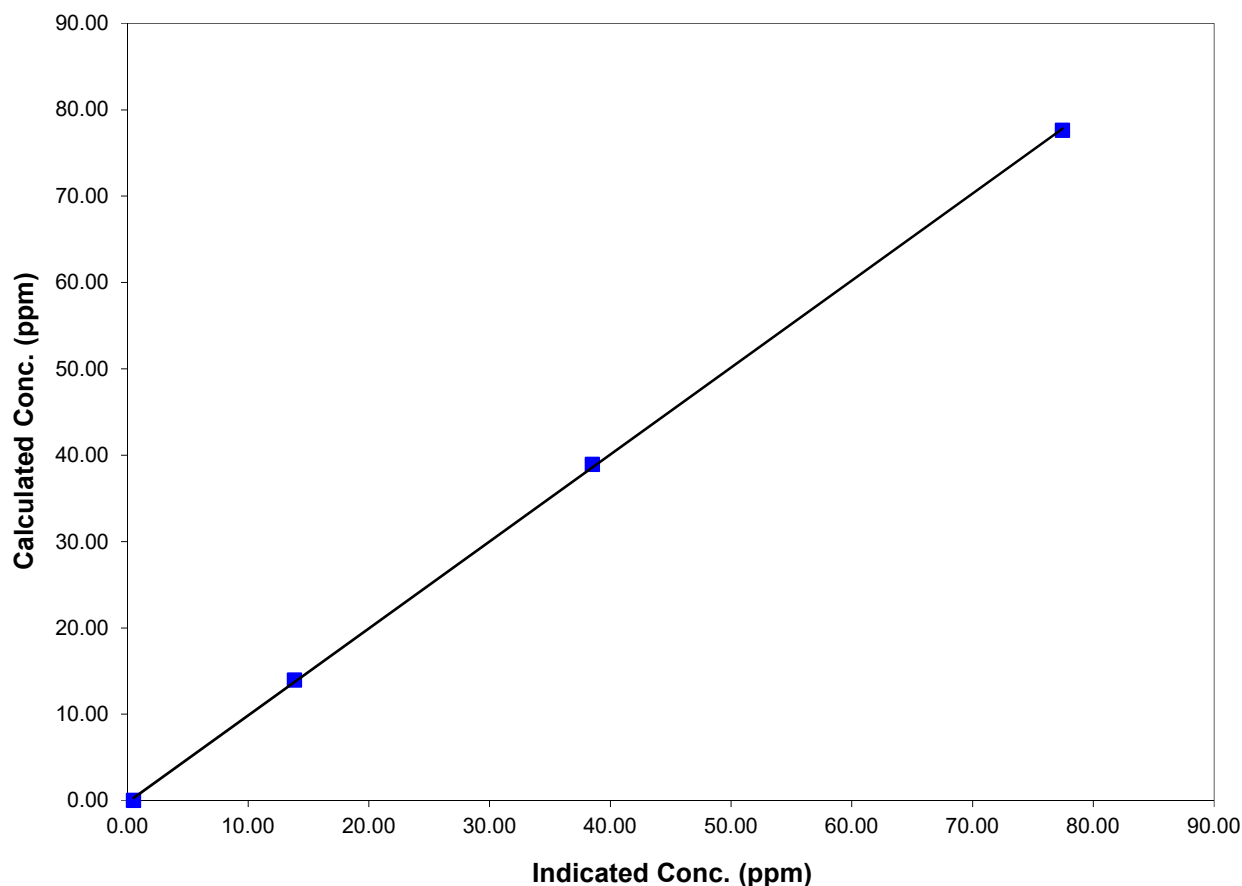
Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 11, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:40	End Time (MST)	11:15
Analyzer make/model	TEI 450i	Analyzer serial #	1170050143(AMU 2198)

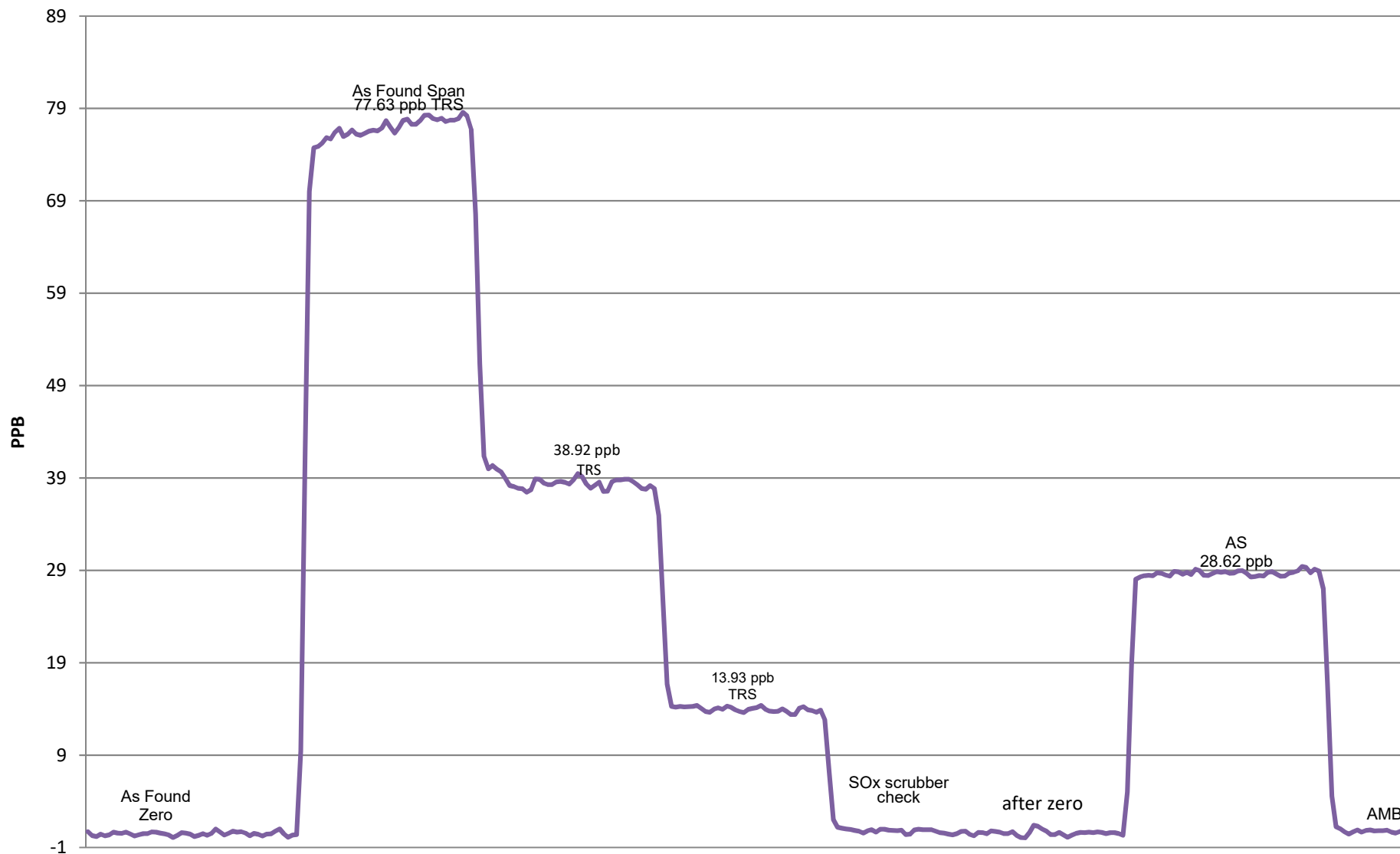
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.521	N/A	Correlation Coefficient	0.999919
77.627	77.451	1.0023		
38.921	38.515	1.0106		
13.930	13.844	1.0062	Slope	1.007405
			Intercept	-0.204613

TRS Calibration Curve



TRS Calibration



June 7, 2018

Parameter

Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	June 6, 2018		Previous Calibration	May 10, 2018	
Station Number	1		Station Location	Henry Pirker	
Reason:	☒ Routine	☐ Installation	☐ Removal	Other:	
Start Time (MST)	13:35:00 PM		End Time (MST)	17:15:00 PM	
Barometric Pressure	0.923	mbar	Station Temperature	20.0	Deg C
Calibrator	EnviroNics 6103		Serial Number	6586	
NO Cal Gas Conc	51.9	ppm	Cal Gas Expiry Date	10/24/2020	
NOx Cal Gas Conc	52.0	ppm	Cal Gas Serial #	LL107945	

DACS Information

DACS Information				
DACS make		CR3000	DACS serial No.	5408
Parameter		NO2	NOx	NO
Before	Data Slope	1.009210	1.002563	0.997955
	Data Offset	1.053577	0.156472	0.693090
After	Data Slope	1.004316	1.004383	0.993944
	Data Offset	1.019704	1.345357	1.561691
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087
Test Point	before		after
Concentration range	0 - 500	ppb	0 - 500 ppb
NO offset	8.2	mV	8.6 mV
NOx bkgnd	8.3	mV	8.7 mV
NO coefficient	1.083		1.135
NOx coefficient	1.000		1.000
NO2 conv temp	322.1	Deg C	327.3 Deg C
Cooler Temp	2.7	Deg C	2.7 Deg C
PMT Volt	-843.6	mV	-843.6 mV
R Cell Press	214.8	in Hg	208.7 in Hg
Sample Flow	0.535	LPM	0.553 LPM

Notes: Span adjustment made

Calibration Report

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



Station Information

Calibration Date: June 6, 2018 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	4996	0.00	0.0	0.0	0.0	0.0	0.1	0.0	N/A	N/A
1	4996	39.97	412.7	411.9	0.8	410.2	413.8	-0.2	1.0061	0.9954
2	4996	19.98	207.1	206.7	0.4	204.3	205.2	0.0	1.0140	1.0074
3	4996	10.01	104.0	103.8	0.2	100.9	101.4	0.0	1.0308	1.0237
AFZ	4996	0.00	0.0	0.0	0.0	0.0	0.1	0.0	0.0000	0.0000
AFS	4996	39.97	412.7	411.9	0.8	392.2	395.1	-0.2	1.0524	1.0425
Average Correction Factor									1.0170	1.0088

As Found Concentrations: NO_x= 393.4 NO= 394.9 As Found Percent Change NO_x= -4.7% NO= -4.1%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Calculated 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	411.7	411.7	0.0	408.8	411.7	-0.2	1.0069	1.0000	N/A	N/A
300	411.7	117.7	294.0	410.6	117.7	292.8	1.0026	1.0000	1.0042	99.6%
200	411.7	214.7	196.9	409.4	214.7	193.9	1.0055	1.0000	1.0154	98.5%
100	411.7	317.1	94.6	410.1	317.1	92.2	1.0037	1.0000	1.0260	97.5%
Average Correction Factor							1.0039	1.0000	1.0152	98.5%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.2	0.3	0.1	ppb	0.0	0.0	0.1	ppb
Auto span	281.4	279.4	1.8	ppb	280.1	278.0	1.9	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



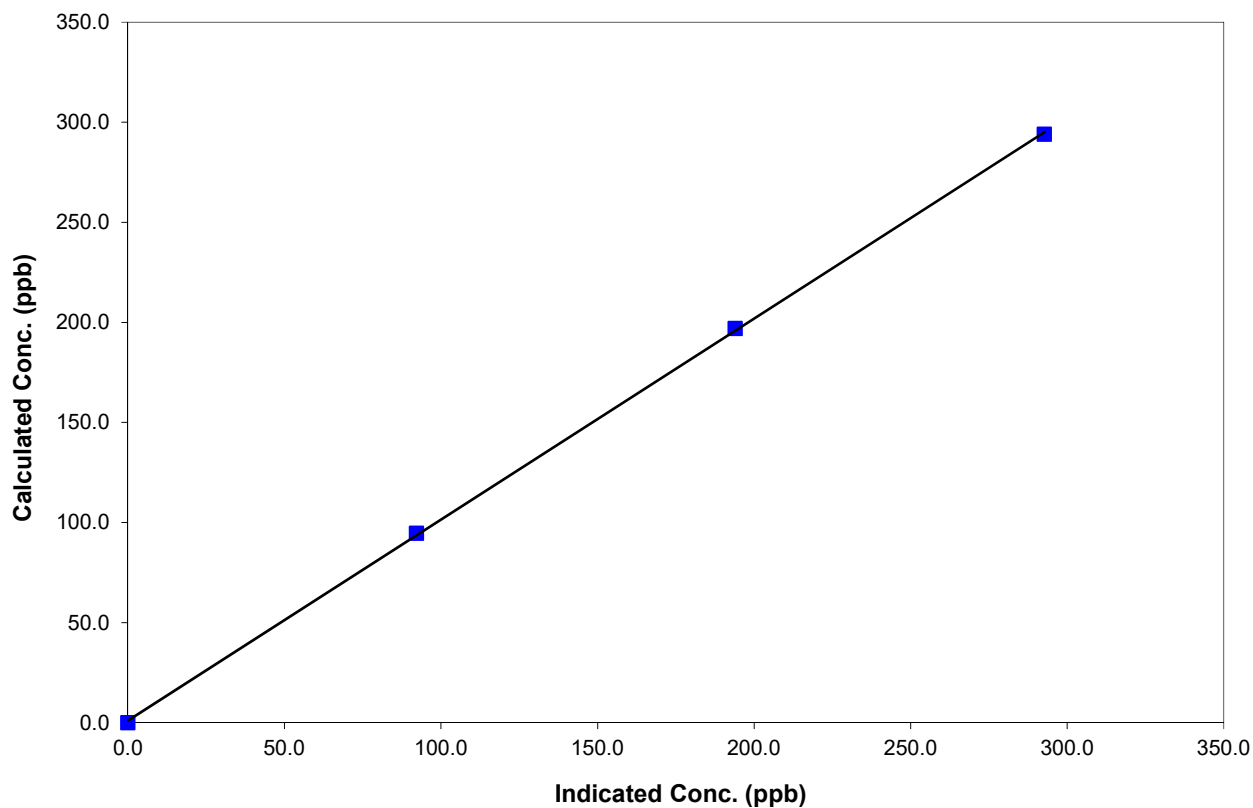
Station Information

Calibration Date	June 6, 2018	Previous Calibration	May 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:35:00 PM	End Time (MST)	17:15:00 PM
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	0.999908
294.0	292.8	1.0042		
196.9	193.9	1.0154		
94.6	92.2	1.0260	Slope	1.004316
			Intercept	1.019704

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



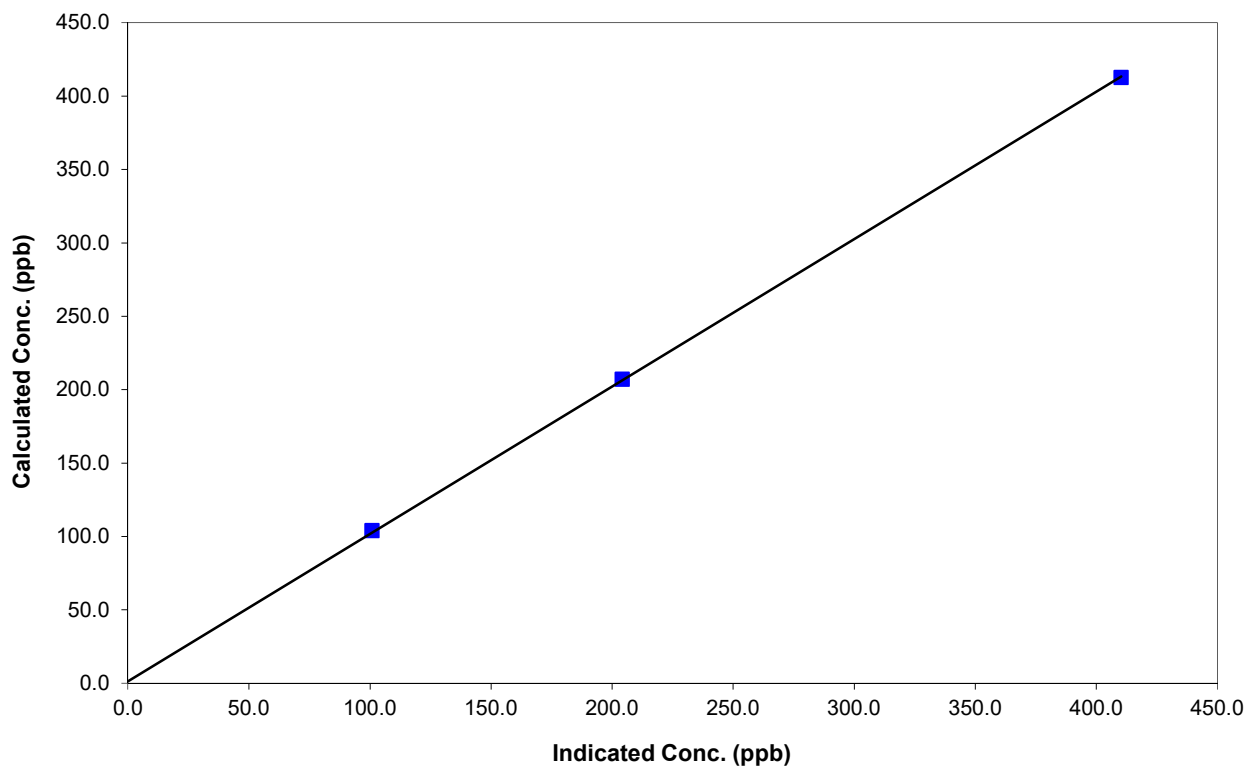
Station Information

Calibration Date	June 6, 2018	Previous Calibration	May 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:35:00 PM	End Time (MST)	17:15:00 PM
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	0.999955
412.7	410.2	1.0061		
207.1	204.3	1.0140		
104.0	100.9	1.0308	Slope	1.004383
			Intercept	1.345357

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



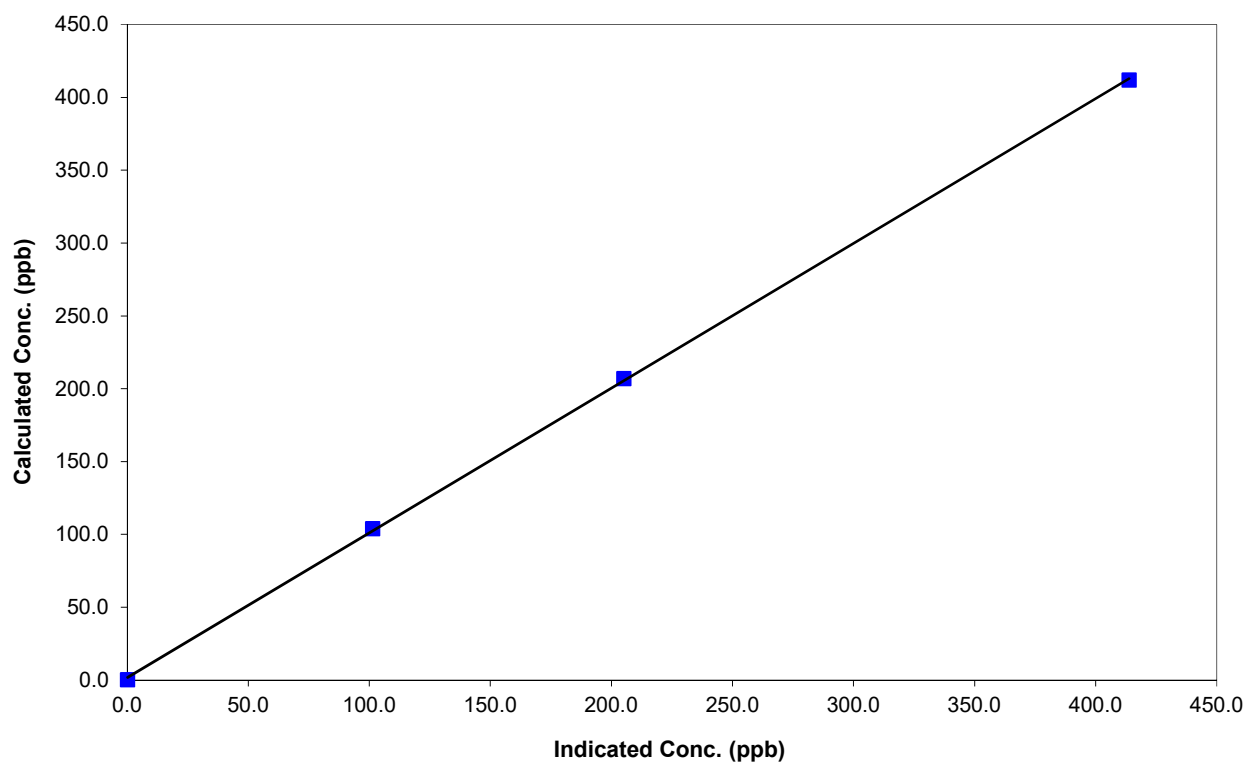
Station Information

Calibration Date	June 6, 2018	Previous Calibration	May 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:35:00 PM	End Time (MST)	17:15:00 PM
Analyzer make	42i	Analyzer serial #	906535087

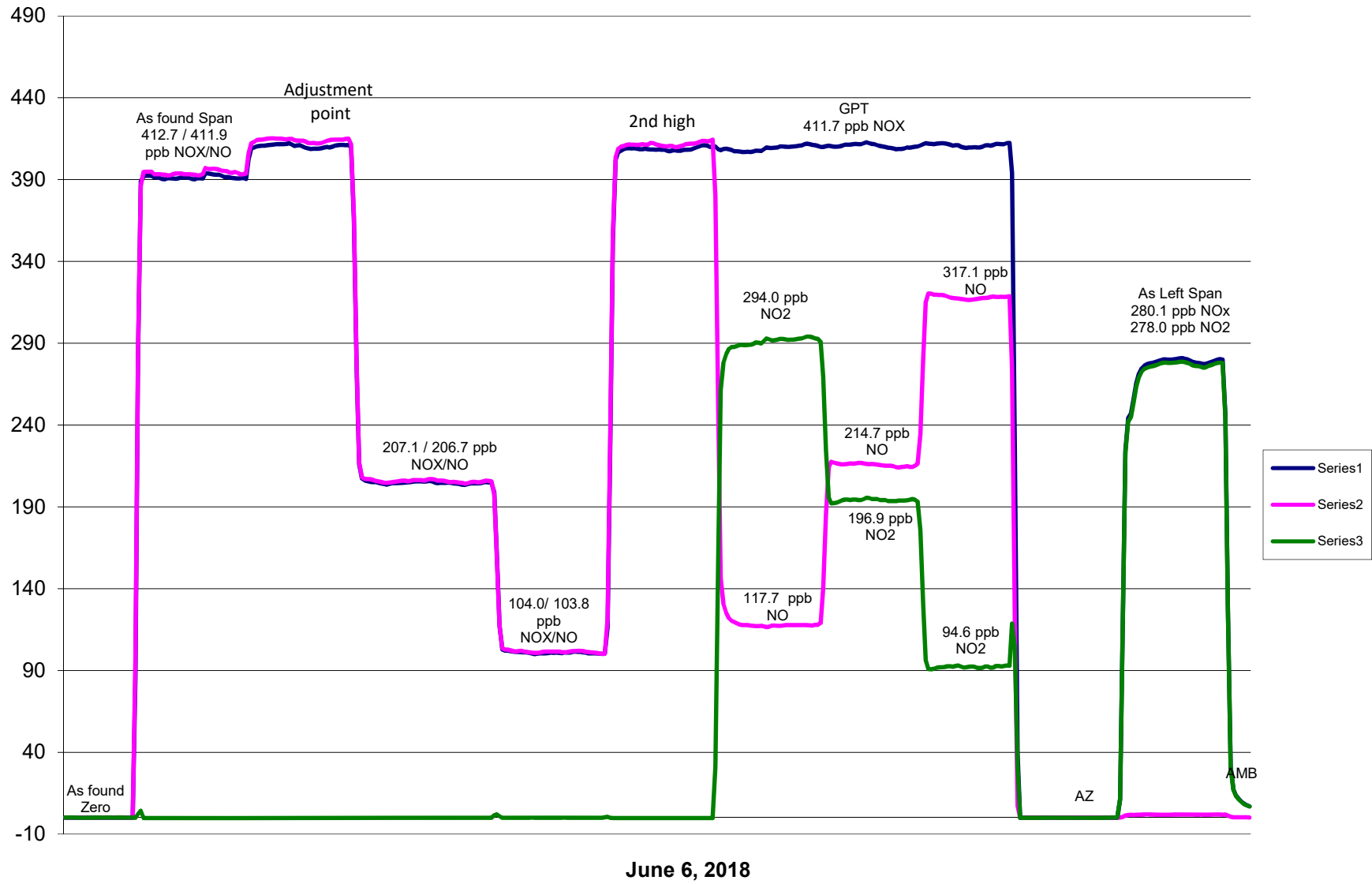
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999920
411.9	413.8	0.9954		
206.7	205.2	1.0074		
103.8	101.4	1.0237	Slope	0.993944
			Intercept	1.561691

NO Calibration Curve



NO_x Calibration



Calibration Report

Parameter 03

Air Monitoring Network PAZA



Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 10, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	7:35	End Time (MST)	9:50
Barometric Pressure	920.0 mbar	Station Temperature	20.0 Deg C
Calibrator	Envionics	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	0.998757	Calculated slope	0.994704
Calculated intercept	-0.712235	Calculated intercept	0.369803

Analyzer make	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)
---------------	----------	-------------------	-----------------------

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.60	ppb	-0.60	ppb
slope	1.024		1.024	
Lamp temp	53.6	mV	53.6	mV
Lamp Intensity A/B	64482/70040	mV	64843/70150	mV
Pressure	689.8	mm Hg	687.4	mm Hg
Flow A	0.729	ccm	0.728	ccm
Flow B	0.730	ccm	0.730	ccm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.0	-0.3	N/A
4998	0.3	294.0	295.7	0.9944
4998	0.2	196.9	196.7	1.0008
4998	0.1	94.6	95.0	0.9954
4996	0.0	0.0	-0.3	As found zero
4996	0.3	294.0	295.7	As found span
Average Correction Factor				0.9969

Calculated value of As Found Response: 294.9 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.6	ppb	0.0	ppb
Auto span	391.9	ppb	384.6	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03
Air Monitoring Network PAZA



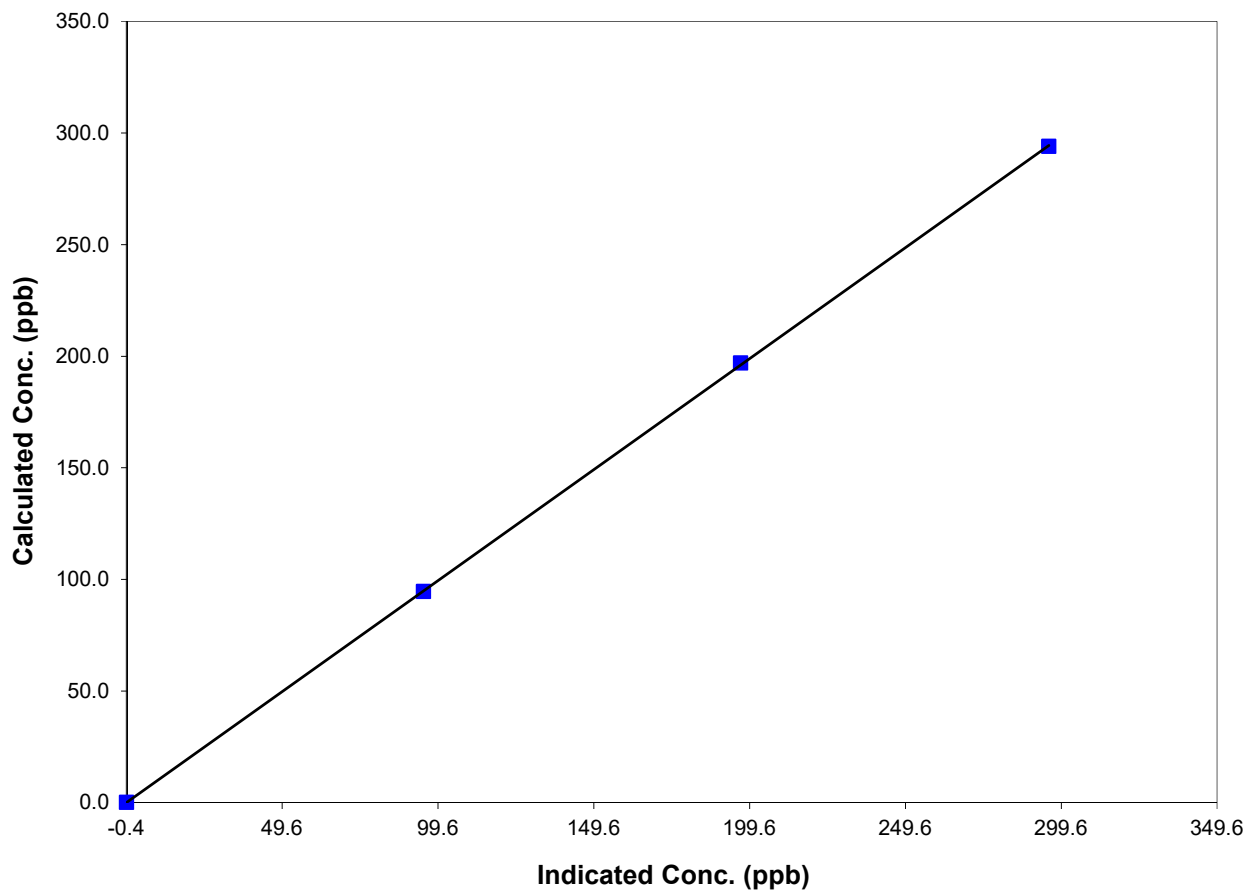
Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 10, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:35	End Time (MST)	9:50
Analyzer make/model	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

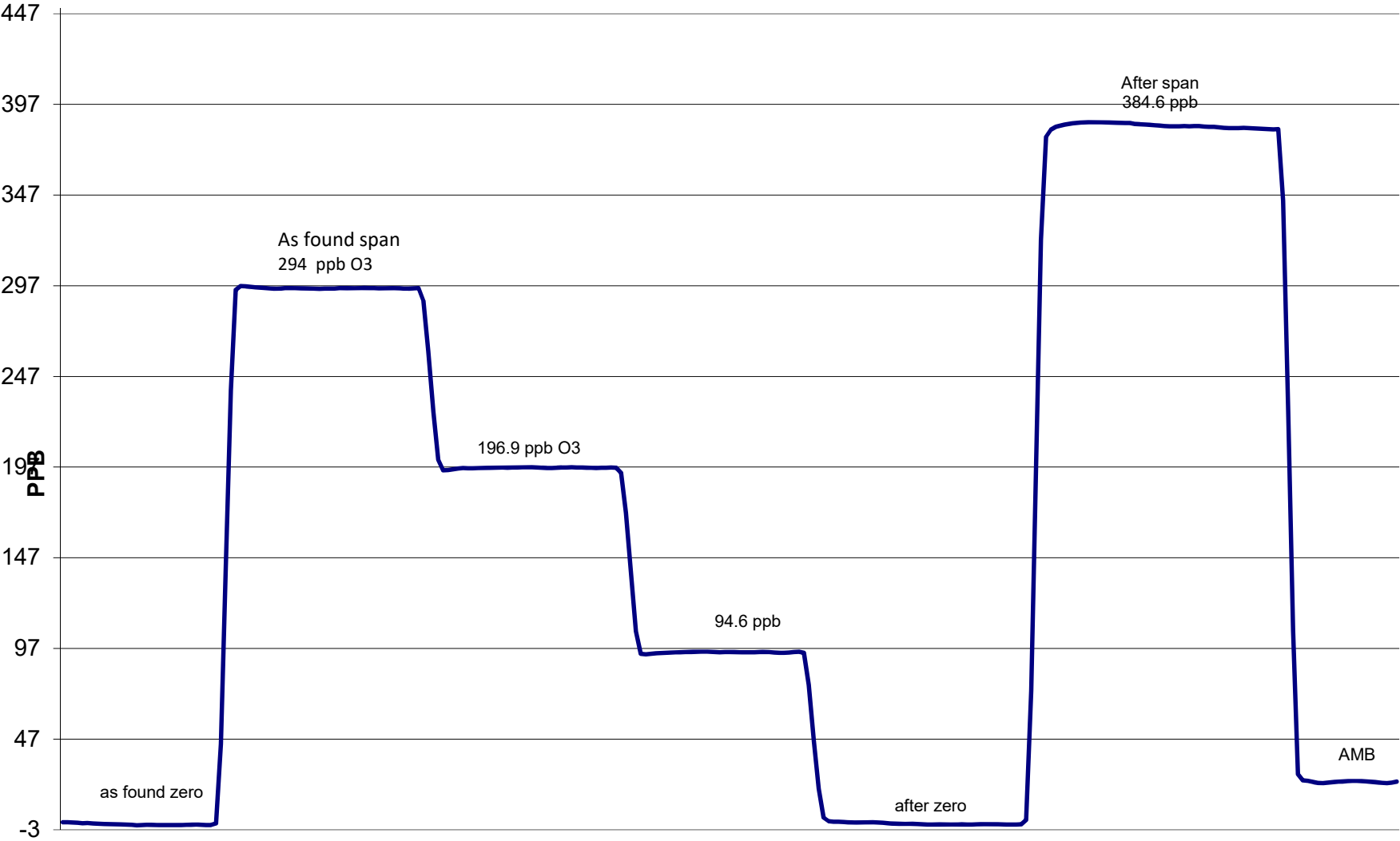
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	NA	Correlation Coefficient	0.999979
294.0	295.7	0.9944		
196.9	196.7	1.0008		
94.6	95.0	0.9954	Slope	0.994704
			Intercept	0.369803

O3 Calibration Curve



O3 Calibration



June 7, 2018

Calibration Report

Parameter CO
Air Monitoring Network PAZA



Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 11, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
Start Time (MST)	11:40	End Time (MST)	13:40:00 PM
Barometric Pressure	0.921 mBar	Station Temperature	23.0 Deg C
Calibrator	Envionics 6100	Serial Number	6586
Cal Gas Conc	2906 ppm	Cal Gas Expiry Date	07/07/2023
DACS make	CR3000	Cal Gas Cylinder #	LL109096
DACS voltage range	0 - 5 volt	DACS serial No.	5408
	Before	DACS channel #	9
Calculated slope	1.004406		After
Calculated intercept	-0.227508	Calculated slope	1.001456
		Calculated intercept	-0.215324
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	10.804		10.927	
CO span setting	1.085		1.085	
Sample pressure	699.5	mm Hg	688.7	mm Hg
Sample Flow	0.453	LPM	0.446	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)
4997	0.00	0.00	0.00	N/A
4998	69.96	40.12	40.12	0.9999
4998	34.98	20.20	20.60	0.9803
4998	17.99	10.42	10.77	0.9675
4998	0.00	0.00	0.00	As Found Zero
4998	69.96	40.12	40.12	As Found Span
Average Correction Factor				0.9826

Calculated value of As Found Response: 40.070 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	-0.04	ppm	0.00	ppm
Auto span	20.48	ppm	20.63	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CO
Air Monitoring Network PAZA



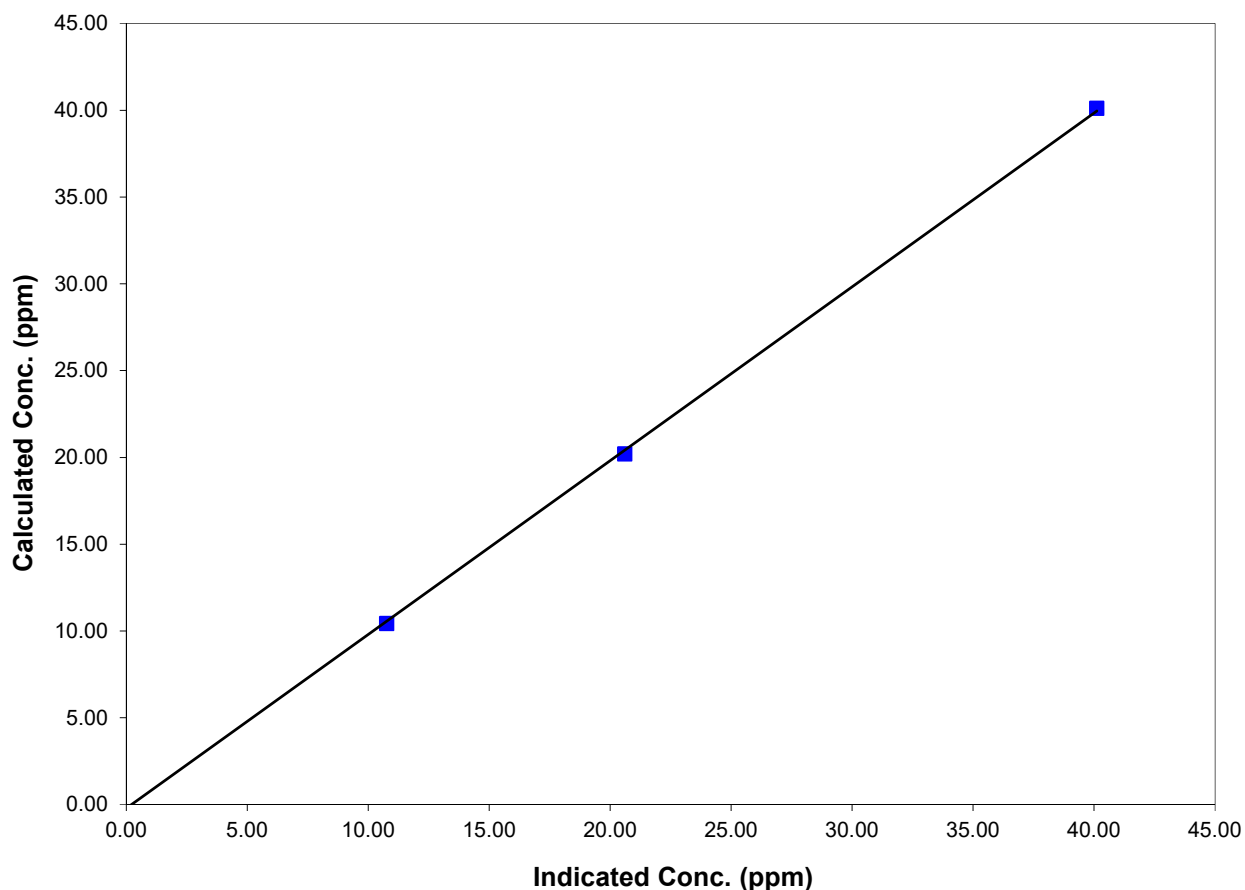
Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 11, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:40	End Time (MST)	13:40:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

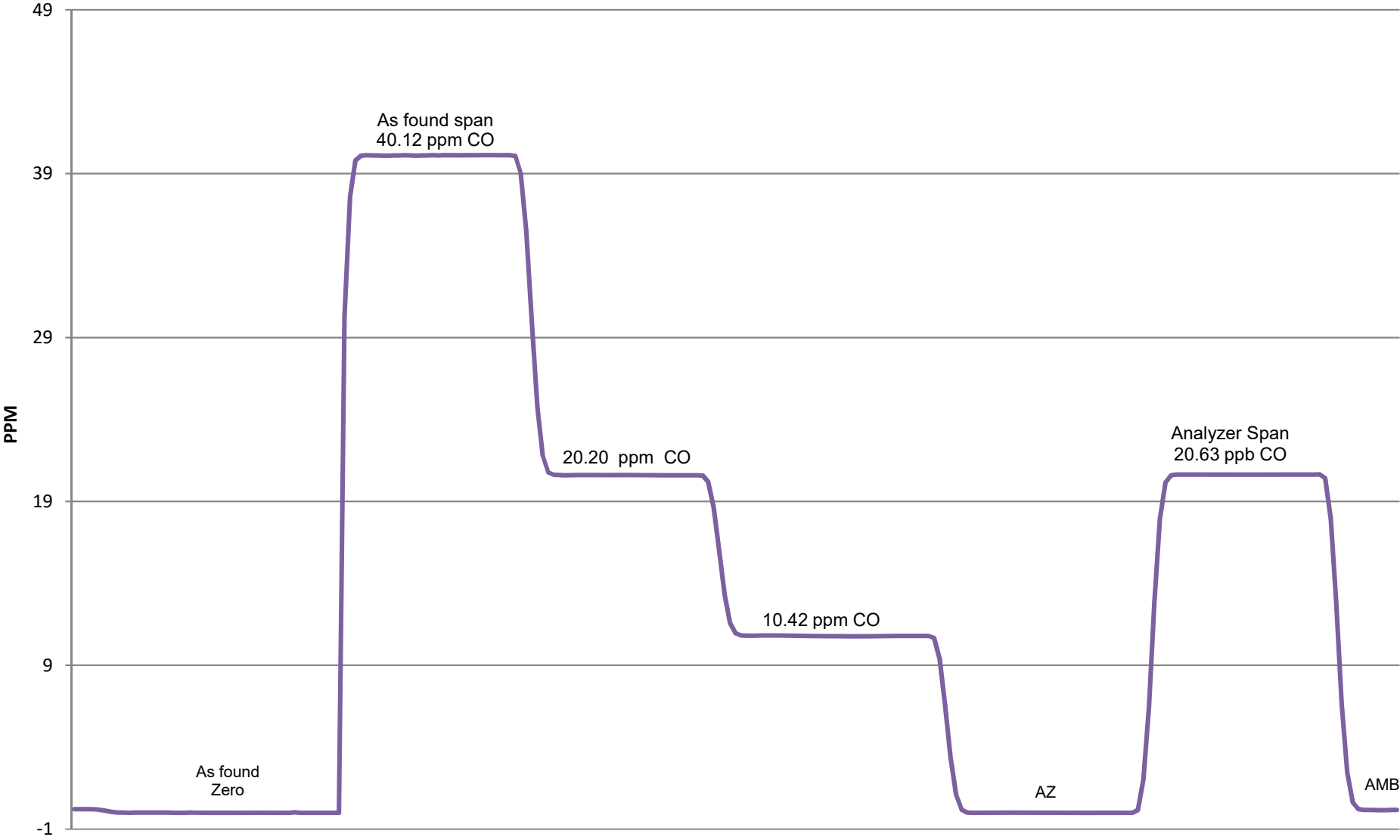
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.002	N/A	Correlation Coefficient	0.999838
40.116	40.119	0.9999		
20.197	20.603	0.9803		
10.422	10.772	0.9675	Slope	1.001456
			Intercept	-0.215324

CO Calibration Curve



CO Calibration



June 7, 2018

Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 31, 2018
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other: Mair

Start Time (MST)	10:10	End Time (MST)	12:20
Barometric Pressure	0.921 mBar	Station Temperature	23.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas CH4 Conc	995.6 ppm CH4	Cal Gas Expiry Date	05/07/2015
Cal Gas C3H8 Conc	370.5 1018.875 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make TEI 55I Analyzer serial # 1134650658

	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)
3500	0.00	0.00	0.02	N/A
3500	54.98	15.40	15.48	0.9946
3500	34.97	9.85	9.93	0.9920
3500	14.98	4.24	4.27	0.9927
3500	0.00	0.00	0.02	As Found Zero
3500	64.99	18.15	15.48	As Found Span
Average Correction Factor				0.9931

Calculated value of As Found Response: 15.419 ppm Percent Change of As Found: 15.0%

	Before		After
Calculated slope	0.997640	Calculated slope	0.995295
Calculated intercept	-0.007396	Calculated intercept	-0.018585

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	10.70	ppm	10.81	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)
3500	0.00	0.00	0.02	N/A
3500	54.98	15.76	15.75	1.0003
3500	34.97	10.08	10.19	0.9896
3500	14.98	4.34	4.36	0.9966
3500	0.00	0.00	0.02	As Found Zero
3500	64.99	18.57	15.75	As Found Span
Average Correction Factor				0.9955

Calculated value of As Found Response: 15.688 ppm Percent Change of As Found: 15.5%

	Before		After
Calculated slope	0.996197	Calculated slope	0.999734
Calculated intercept	0.015541	Calculated intercept	-0.031974

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	14.97	ppm	15.17	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)
3500	0.00	0.00	0.03	N/A
3500	54.98	31.16	31.21	0.9982
3500	34.97	19.93	20.10	0.9915
3500	14.98	8.59	8.61	0.9976
3500	0.00	0.00	0.03	As Found Zero
3500	64.99	36.72	31.21	As Found Span
Average Correction Factor				0.9958

Calculated value of As Found Response: 31.109 ppm Percent Change of As Found: 15.3%

	Before		After
Calculated slope	0.997285	Calculated slope	0.997916
Calculated intercept	0.015901	Calculated intercept	-0.038897

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	25.67	ppm	25.96	ppm

Notes: No adjustment made
 New cal gas was used
 Few test points was done to figure the ideal flows for gas and zero air.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



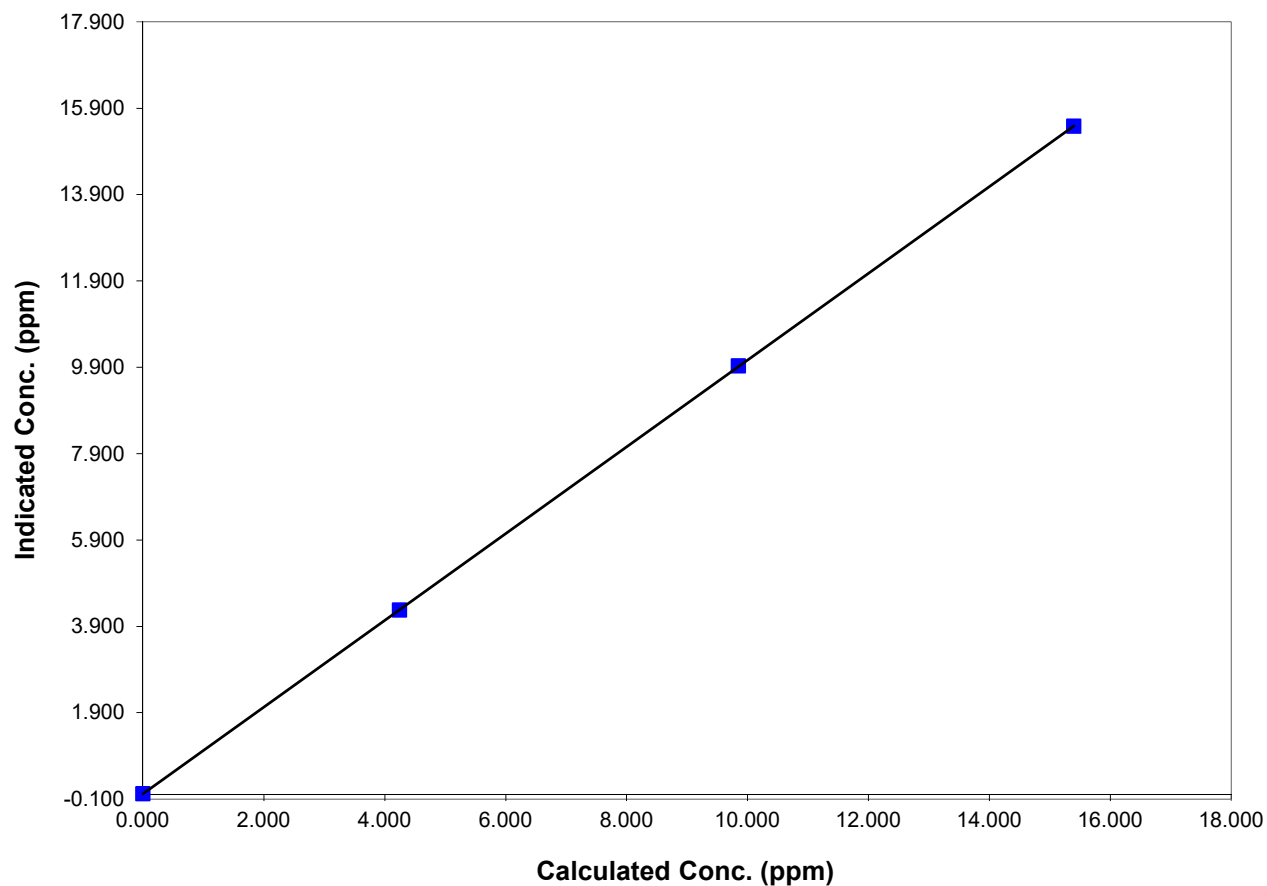
Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 31, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:10	End Time (MST)	12:20
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A	Correlation Coefficient	0.999998
15.398	15.482	0.9946		
9.849	9.929	0.9920	Slope	0.995295
4.243	4.274	0.9927		
			Intercept	-0.018585

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



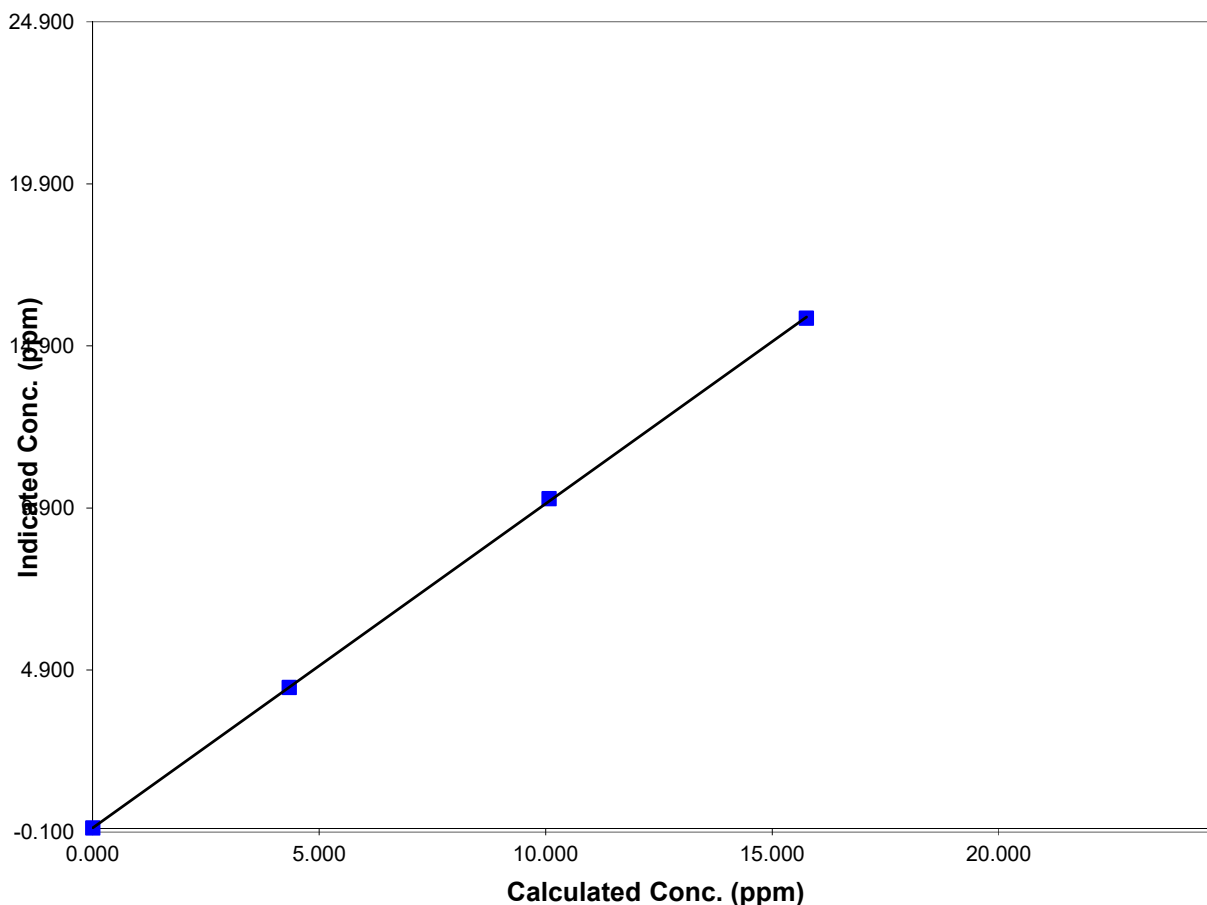
Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 31, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:10	End Time (MST)	12:20
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	0.020	N/A	Correlation Coefficient	0.999948
15.758	15.753	1.0003		
10.079	10.186	0.9896		
4.342	4.357	0.9966	Slope	0.999734
			Intercept	-0.031974

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



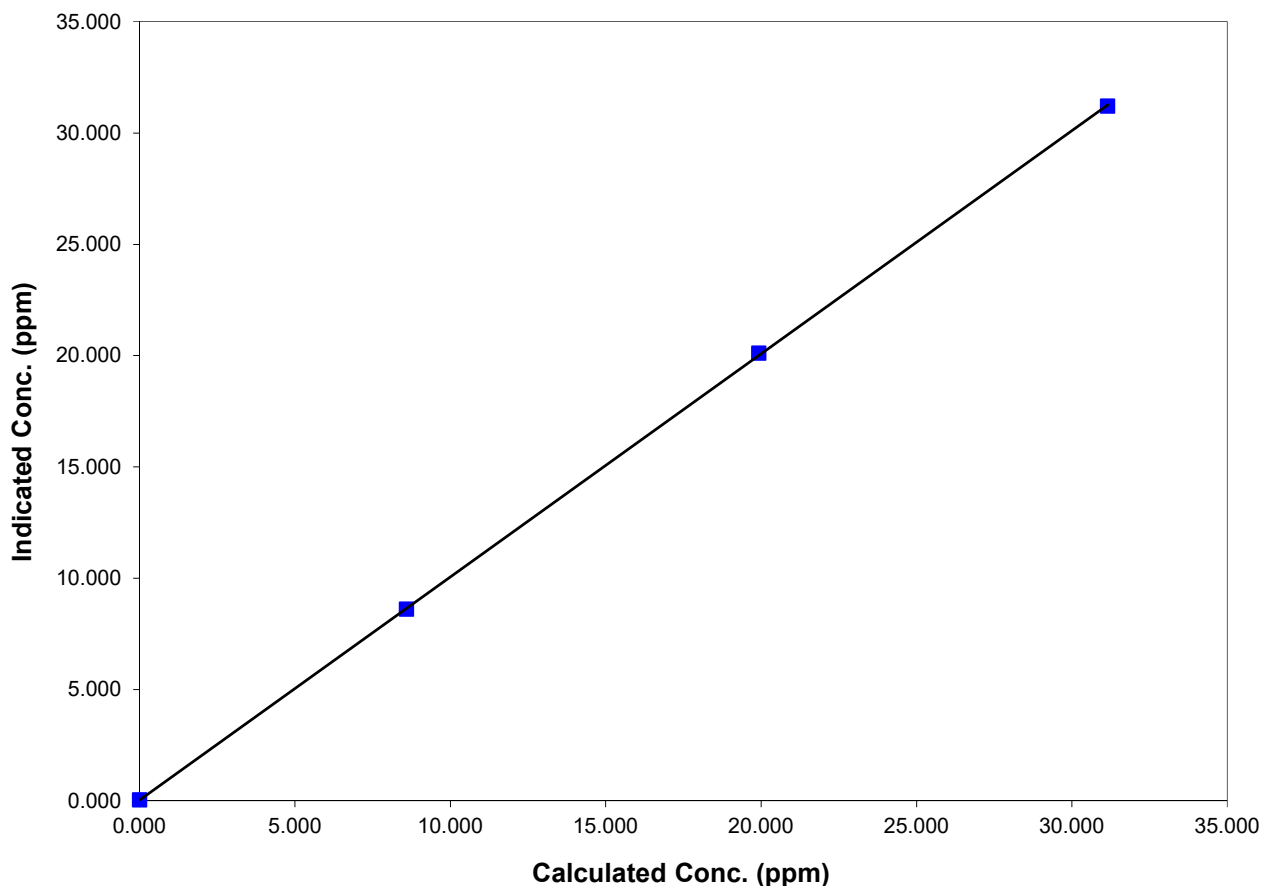
Station Information

Calibration Date	June 7, 2018	Previous Calibration	May 31, 2018
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:10	End Time (MST)	12:20
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

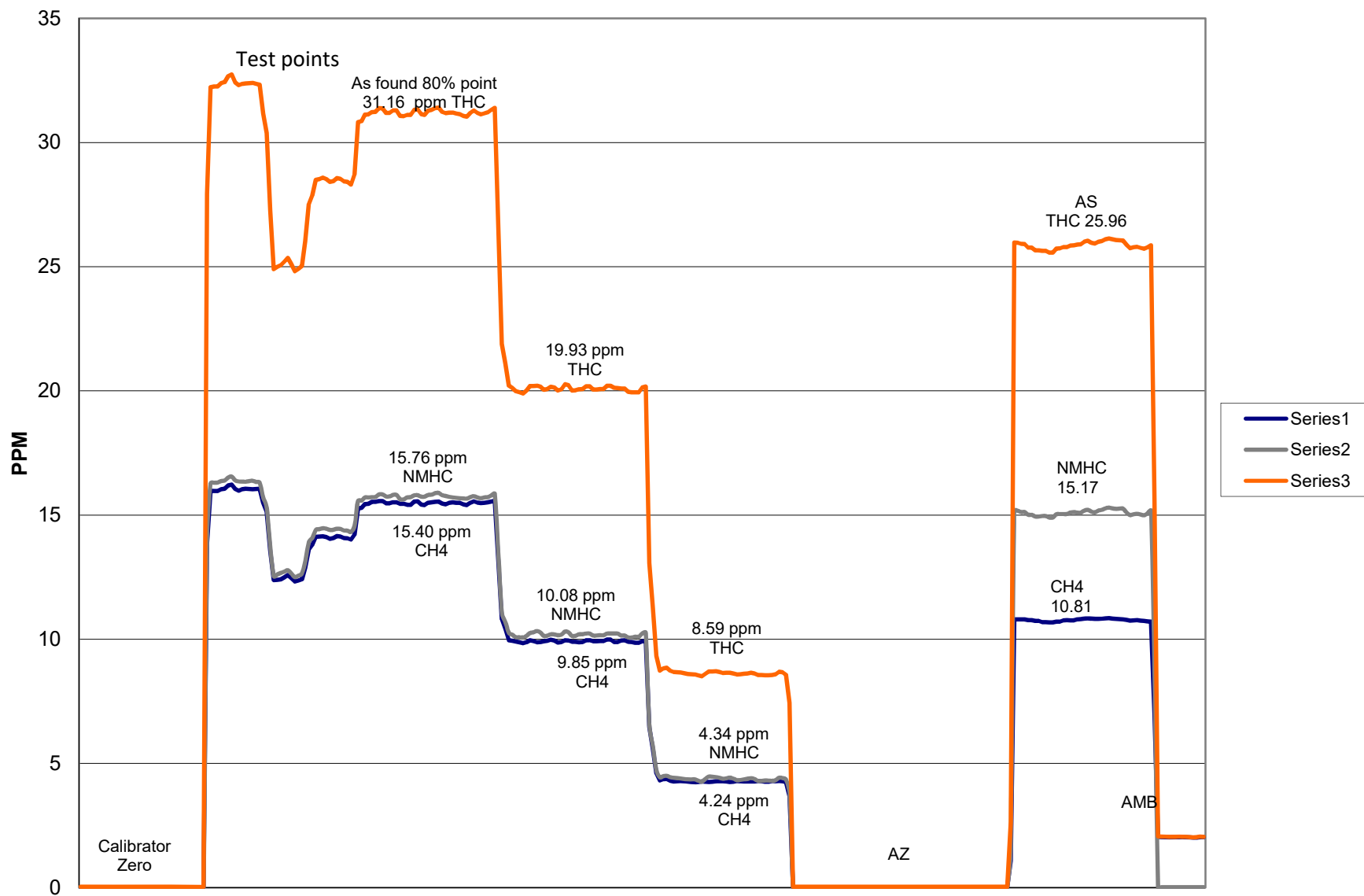
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.033	N/A	Correlation Coefficient	0.999978
31.155	31.211	0.9982		
19.928	20.100	0.9915	Slope	0.997916
8.585	8.606	0.9976		
			Intercept	-0.038897

THC Calibration Data



THC/CH₄/NMHC Calibration



SHARP 5030 PM2.5 Calibration



STATION: Henry Pirker
 LOCATION: Muskoseepi Park
 START TIME (MST): 9:10
 END TIME (MST): _____

OPERATOR: Dmytro Dolotii
 Last calibration date: April 6 20178
 Calibration date: June 8 20178

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)	15.0	911	16.67	16.67	16:18
	MEASURED (AF)	14.0	912	15.98	16.89	16:18
	AF Difference (AF-I)	-1.0	1	0.69	0.22	0:00
<i>Adjusted Data</i>	MEASURED (M)	14.0	912	16.67	16.89	16:20
	Adj Difference (M-I)	-1.0	1	0.00	0.22	0:02
	<i>LIMITS</i>	$\pm 4.0^{\circ} \text{C}$	13.33 mbar	0.8 L/min	$\pm 1.0 \text{ L/min}$	$\pm 2 \text{ min}$

	As found	Adjusted
Nephelometer zero	0.8	-0.2
Foil calibration	7069	7113

Sample Head Inspect/Cleaning: Cleaned sample head
 Status of sampling tape: 99% full
 Nozzle Inspection / cleanliness: _____

COMMENTS: Barometric pressure, temperature, flow, time & zero adjustments made.

Calibration Report



Parameter SO2

Air Monitoring Network PAZA

Station Information

Calibration Date	June 12, 2018	Previous Calibration	May 9, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
Start Time (MST)	13:50:00 PM	End Time (MST)	16:00:00 PM
Barometric Pressure	0.921 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentratio	10.5 ppm	Cal Gas Expiry Date	12/01/2019
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	0.991396	Calculated slope	1.000163
Calculated intercept	0.097947	Calculated intercept	-0.532170
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.89		2.89	
Coefficient	0.975		0.975	
PMT	-768.1	V	-768.2	V
UV Lamp Voltage	1123	V	1123	V
Chamber Temp	45	Deg C	45	Deg C
Pressure	657.7	mm Hg	659.5	mm Hg
Sample Flow	0.501	LPM	0.505	LPM
Lamp Intensity	94	%	94	%

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)
4995	0.00	0.0	0.0	N/A
4995	39.94	83.3	83.5	0.9977
4995	19.97	41.8	42.8	0.9780
4995	9.97	20.9	21.9	0.9558
4995	0.00	0.0	0.0	As found zero
4995	39.94	83.3	83.5	As found span
Average Correction Factor				0.9772

Calculated value of As Found Response: 82.857 ppm Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	0.1	ppb	-0.5	ppb
Auto span	58.7	ppb	59.4	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



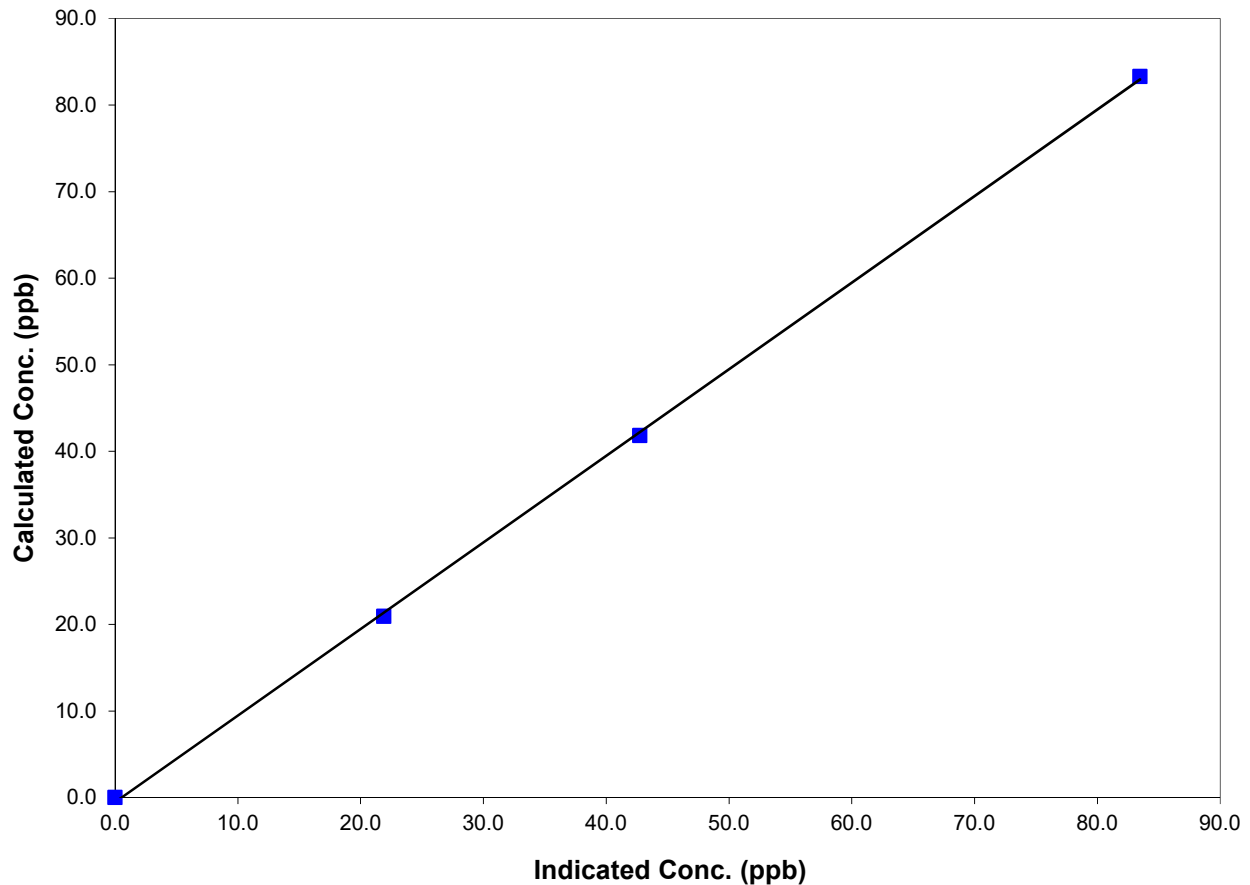
Station Information

Calibration Date	June 12, 2018	Previous Calibration	May 9, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:50:00 PM	End Time (MST)	16:00:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

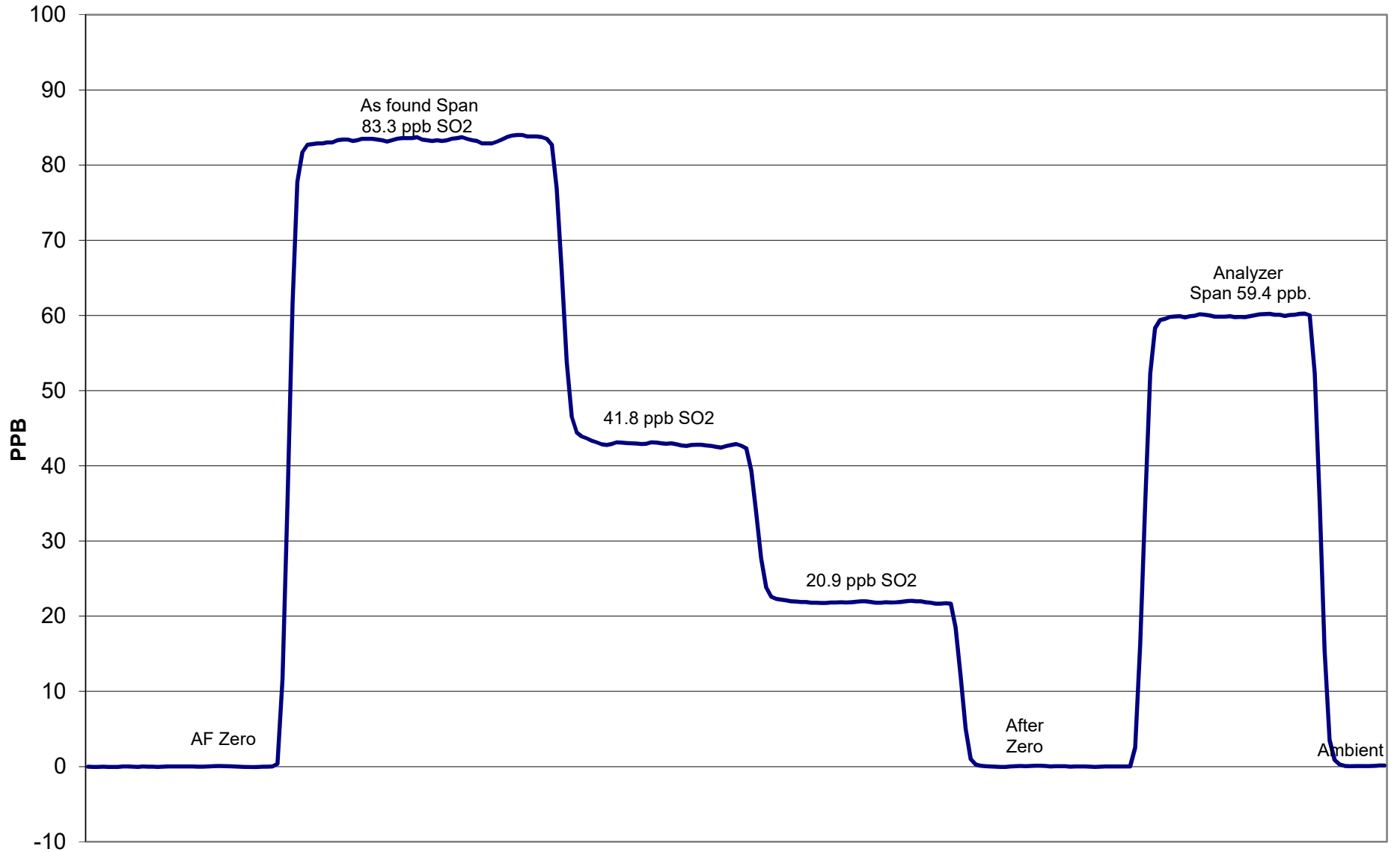
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999802
83.3	83.5	0.9977		
41.8	42.8	0.9780		
20.9	21.9	0.9558	Slope	1.000163
			Intercept	-0.532170

SO2 Calibration Curve



SO2 Calibration



June 12, 2018

Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	June 12, 2018	Previous Calibration	May 8, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Installation	Removal
Start Time (MST)	8:10	End Time (MST)	12:45
Barometric Pressure	0.921 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
NO Cal Gas Conc	51.9 ppm	Cal Gas Expiry Date	10/24/2020
NOx Cal Gas Conc	52 ppm	Cal Gas Serial #	LL107945

DACS Information

DACS make	CR3000	DACS serial No.	5237																																		
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>NO2</th> <th>NOx</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>Before</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Data Slope</td> <td>1.001770</td> <td>0.993309</td> <td>0.993246</td> </tr> <tr> <td>Data Offset</td> <td>0.318077</td> <td>0.200429</td> <td>-0.257644</td> </tr> <tr> <td>After</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Data Slope</td> <td>1.002208</td> <td>1.000186</td> <td>0.998556</td> </tr> <tr> <td>Data Offset</td> <td>0.188947</td> <td>0.777092</td> <td>1.091096</td> </tr> <tr> <td>Channel #</td> <td>8</td> <td>6</td> <td>7</td> </tr> <tr> <td>Voltage Range</td> <td>0 - 5 VDC</td> <td>0 - 5 VDC</td> <td>0 - 5 VDC</td> </tr> </tbody> </table>	Parameter	NO2	NOx	NO	Before				Data Slope	1.001770	0.993309	0.993246	Data Offset	0.318077	0.200429	-0.257644	After				Data Slope	1.002208	1.000186	0.998556	Data Offset	0.188947	0.777092	1.091096	Channel #	8	6	7	Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC
Parameter	NO2	NOx	NO																																		
Before																																					
Data Slope	1.001770	0.993309	0.993246																																		
Data Offset	0.318077	0.200429	-0.257644																																		
After																																					
Data Slope	1.002208	1.000186	0.998556																																		
Data Offset	0.188947	0.777092	1.091096																																		
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
Test Point	before	after	
Concentration range	0-500 ppb	0-500 ppb	
NO offset	2.4 mV	2.3 mV	
NOx bkgnd	3.6 mV	2.7 mV	
NO coefficient	1.050	1.037	
NOx coefficient	0.999	0.999	
NO2 conv temp	322.6 Deg C	325.0 Deg C	
PMT Temp	-3.0 Deg C	-3.0 Deg C	
PMT Volt	-729.3 mV	-728.5 mV	
R Cell Press	184.9 in Hg	185.5 in Hg	
Sample Flow	0.782 LPM	0.780 LPM	

Notes: Zero & span adjustment made

Calibration Report

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



Station Information

Calibration Date: June 12, 2018 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.0	-0.1	-0.1	N/A	N/A
1	4995	39.94	412.5	411.7	0.8	411.9	411.7	-0.6	1.0014	1.0000
2	4995	19.97	207.1	206.7	0.4	206.2	205.3	-0.1	1.0044	1.0065
3	4995	9.97	103.6	103.4	0.2	101.8	101.5	0.1	1.0175	1.0188
AFZ	4995	0.00	0.0	0.0	0.0	-0.6	-0.1	-0.6	0.0000	0.0000
AFS	4995	39.94	412.5	411.7	0.8	416.2	416.3	-0.9	0.9911	0.9890
								Average Correction Factor	1.0077	1.0084

As Found Concentrations: NO_x= 414.2 NO= 413.3 As Found Percent Change NO_x= 0.4% NO= 0.4%

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	-0.1	-0.1	0.0	0.0	-0.1	-0.1	N/A	N/A	N/A	N/A
NO point	411.0	411.0	0.0	411.3	411.0	-0.5	0.9993	1.0000	N/A	N/A
300	411.0	116.0	295.0	411.2	116.0	294.5	0.9995	1.0000	1.0018	99.8%
200	411.0	214.1	197.0	410.9	214.1	195.9	1.0003	1.0000	1.0056	99.4%
100	411.0	316.1	94.9	411.1	316.1	94.6	0.9998	1.0000	1.0037	99.6%
Average Correction Factor							0.9999	1.0000	1.0037	99.6%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.1	-0.1	ppb	0.1	-0.1	0.0	ppb
Auto span	325.2	317.0	7.4	ppb	301.2	298.0	2.5	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



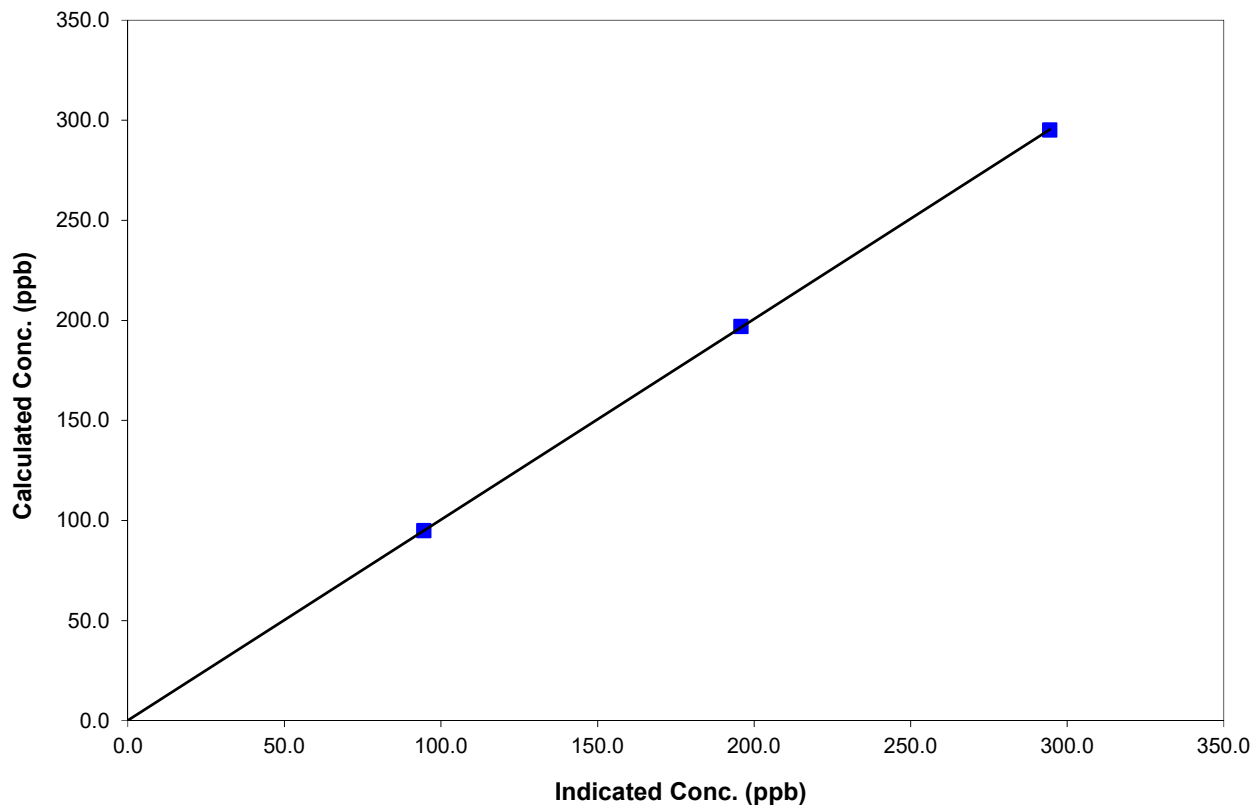
Station Information

Calibration Date	June 12, 2018	Previous Calibration	May 8, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:10	End Time (MST)	12:45
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	0.999993
295.0	294.5	1.0018		
197.0	195.9	1.0056		
94.9	94.6	1.0037	Slope	1.002208
			Intercept	0.188947

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



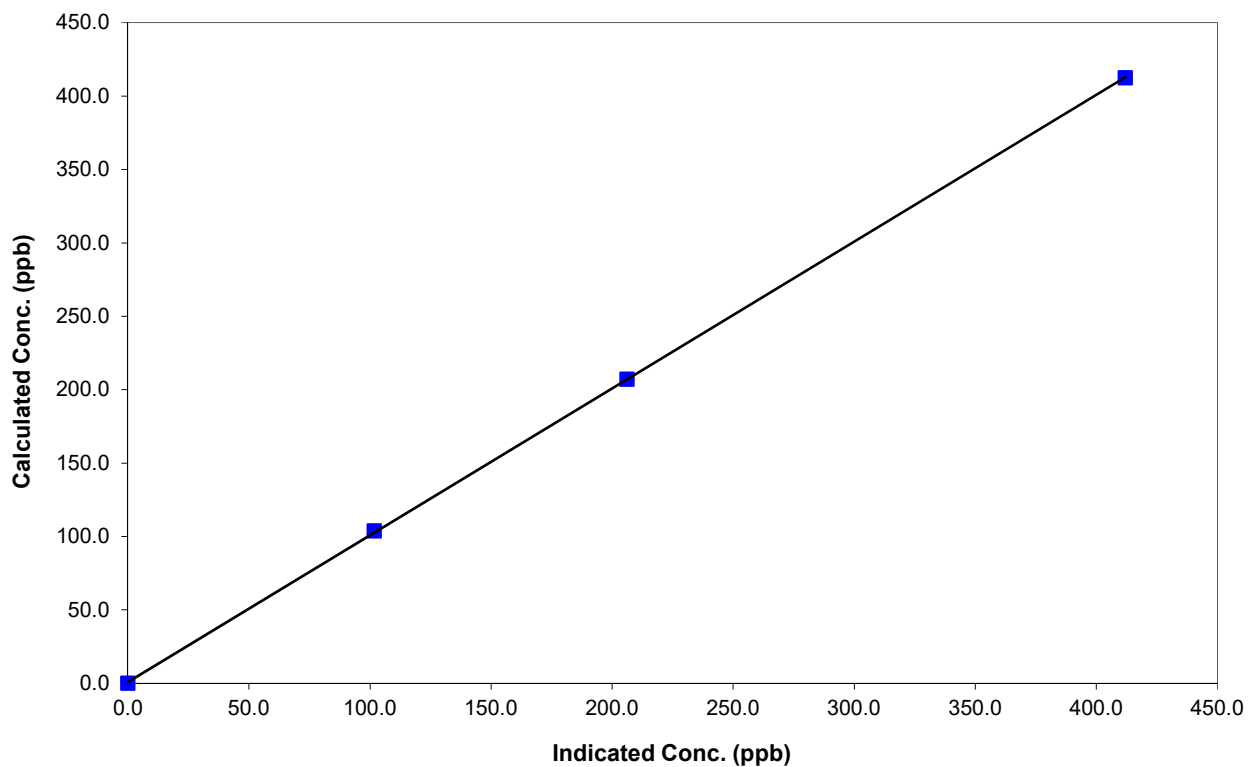
Station Information

Calibration Date	June 12, 2018	Previous Calibration	May 8, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:10	End Time (MST)	12:45
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	0.999982
412.5	411.9	1.0014		
207.1	206.2	1.0044		
103.6	101.8	1.0175	Slope	1.000186
			Intercept	0.777092

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



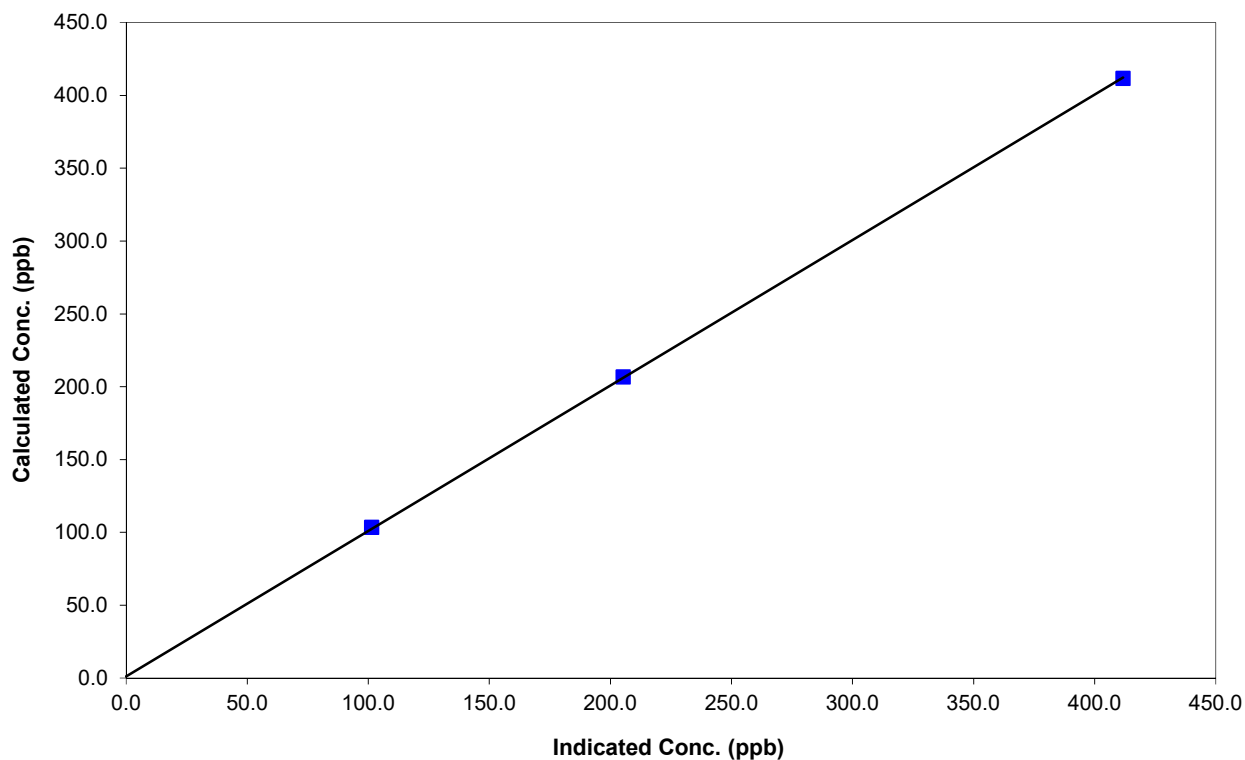
Station Information

Calibration Date	June 12, 2018	Previous Calibration	May 8, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:10	End Time (MST)	12:45
Analyzer make	TEI 42i	Analyzer serial #	906535068

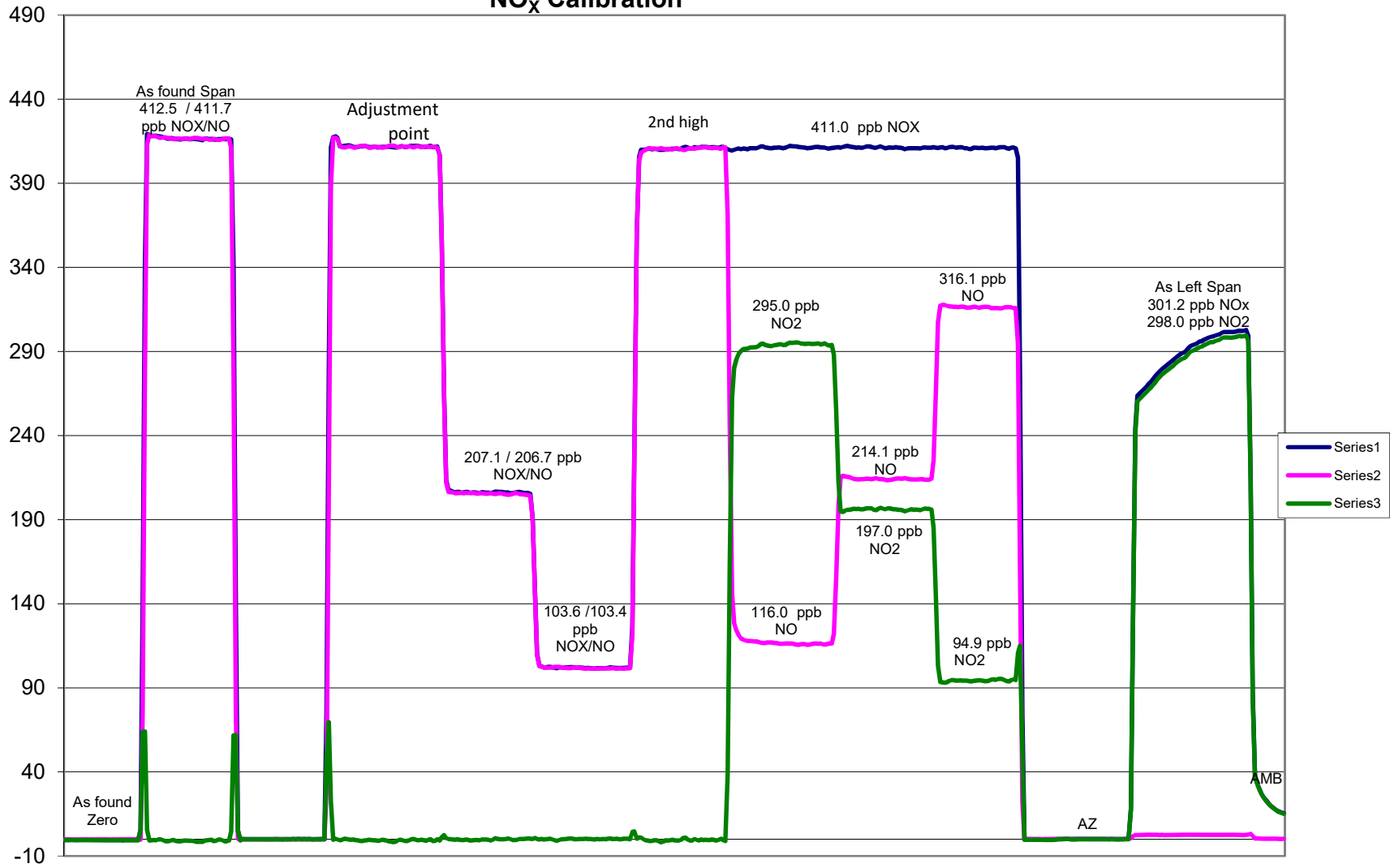
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
411.7	411.7	1.0000	Correlation Coefficient	0.999973
206.7	205.3	1.0065		
103.4	101.5	1.0188		
			Slope	0.998556
			Intercept	1.091096

NO Calibration Curve



NO_x Calibration



June 12, 2018

Calibration Report

Parameter 03

Air Monitoring Network PAZA



Station Information

Calibration Date	June 12, 2018	Previous Calibration	May 8, 2018
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	11:45	End Time (MST)	14:45:00 PM
Barometric Pressure	0.921 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 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	1.011752	Calculated slope	1.001334
Calculated intercept	-0.236513	Calculated intercept	-0.191343

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

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.50	ppb
slope	1.092		1.021	
Lamp temp	53.8	mV	53.9	mV
Lamp Intensity A/B	54115/63043	mV	65583/76488	mV
Pressure	677.2	mm Hg	676	mm Hg
Flow A	0.773	LPM	0.771	LPM
Flow B	0.733	LPM	0.730	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5032	0.00	0.0	0.3	N/A
5032	0.30	295.0	295.0	1.0000
5032	0.20	197.0	196.7	1.0017
5032	0.10	94.9	94.9	0.9999
5032				
5032	0.00	0.0	0.4	As found zero
5032	0.30	295.0	290.8	As found span
Average Correction Factor				1.0005

Calculated value of As Found Response: 293.6 ppm Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.5	ppb
Auto span	271.8	ppb	286.7	ppb

Notes: Scrubber canister replaced
Adjusted lamp intensities from 42% to 60%
Zero & span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



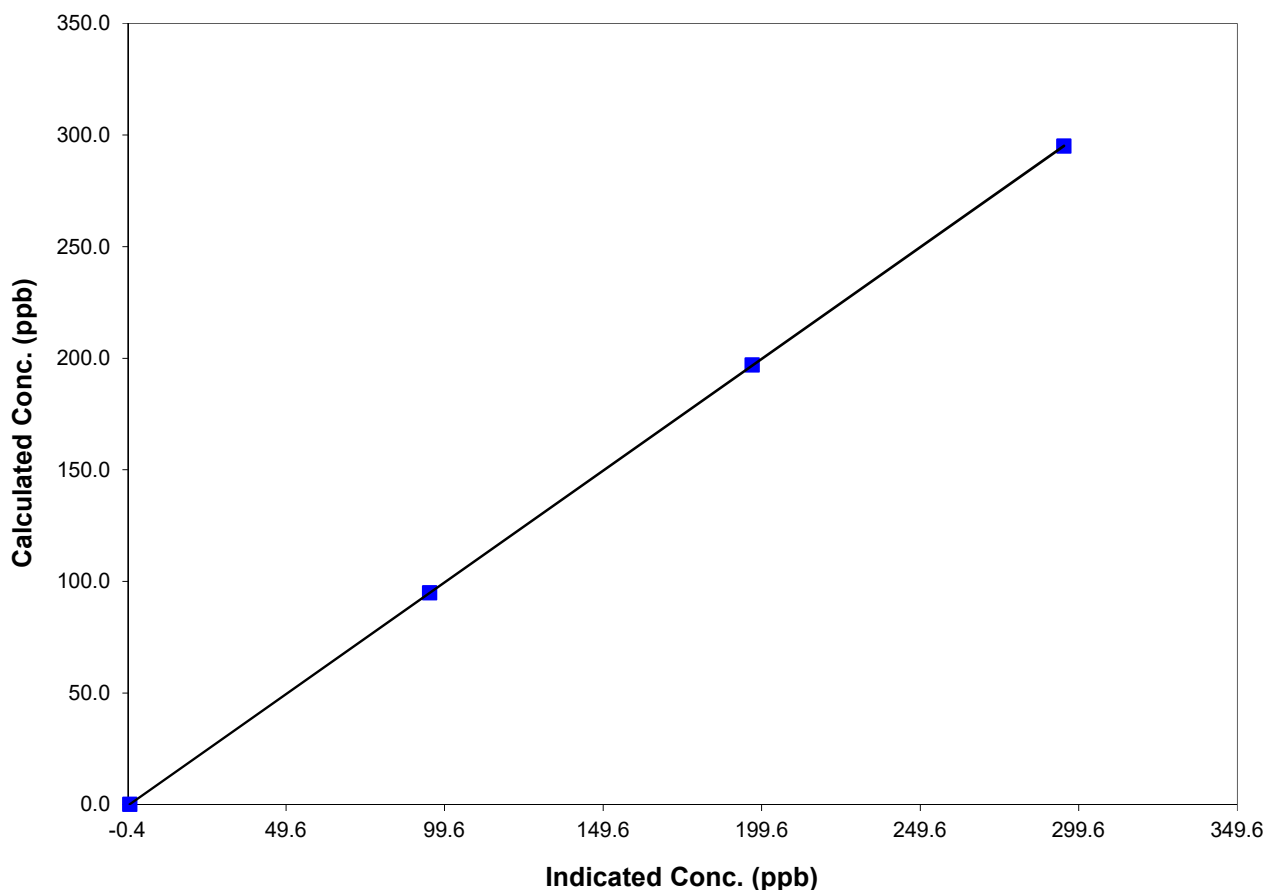
Station Information

Calibration Date	June 12, 2018	Previous Calibration	May 8, 2018
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:45	End Time (MST)	14:45:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

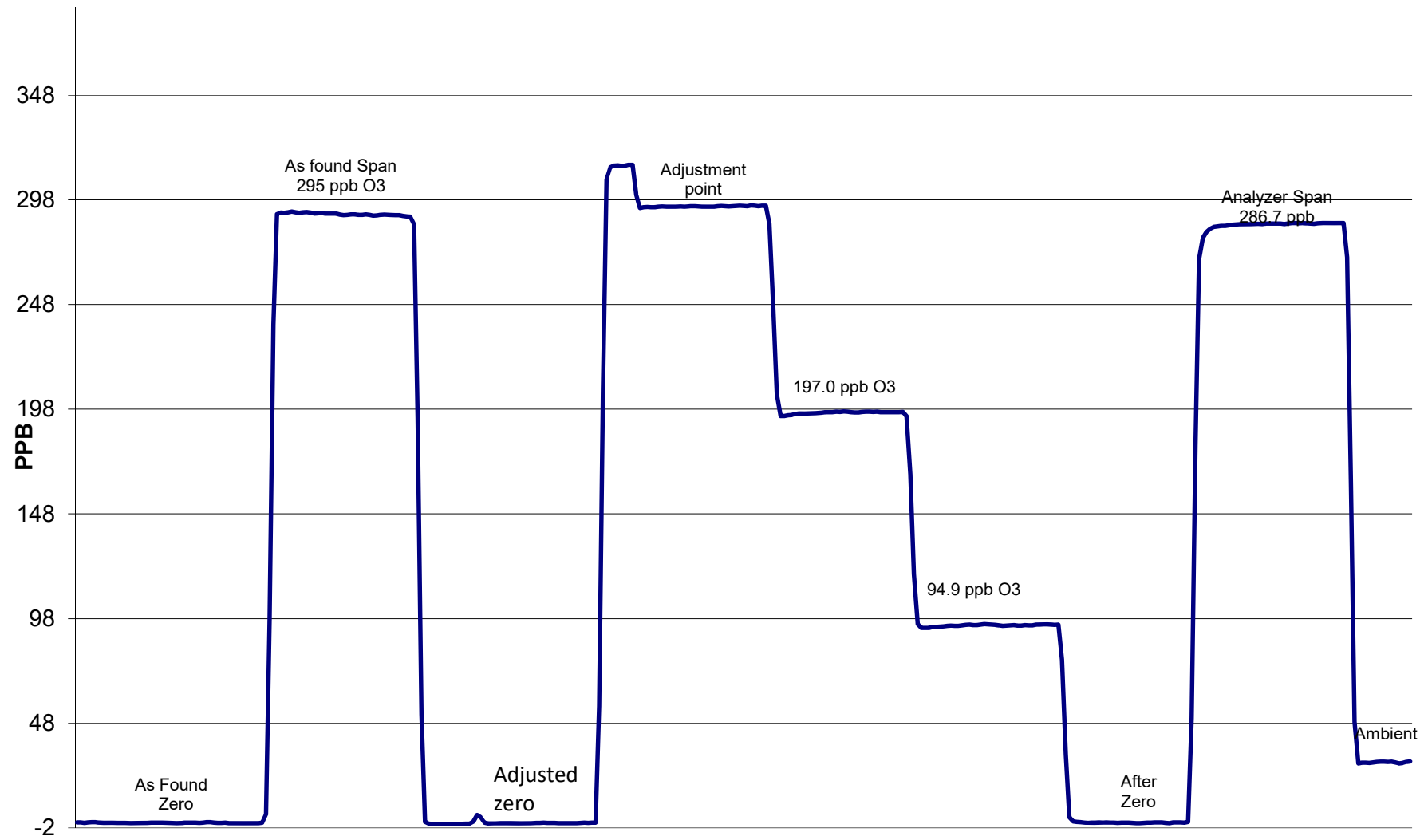
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	NA	Correlation Coefficient	0.999998
295.0	295.0	1.0000		
197.0	196.7	1.0017		
94.9	94.9	0.9999	Slope	1.001334
			Intercept	-0.191343

O3 Calibration Curve



O3 Calibration



June 12, 2018

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	June 18, 2018	Previous Calibration	May 22, 2018
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	10:20	End Time (MST)	13:20:00 PM
Barometric Pressure	0.923 ATM	Station Temperature	19.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppm	Cal Gas Expiry Date	02/28/2020
Correction factor	0.031483	Cal Gas Cylinder #	LL119574
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.995805	Calculated slope	0.984769
Calculated intercept	-0.058553	Calculated intercept	-0.041504

Analyzer make TEI Model 43I APSAA Analyzer serial # 1153630151

	before		after	
Concentration range	100	ppb	100	ppb
Background	14.4	ppb	14.6	ppb
coefficient	1.056		1.079	
Lamp Voltage	807	volts	808	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	676.2	mm Hg	675.9	mm Hg
Sample Flow	0.421	lpm	0.420	lpm
Lamp Intensity	93	mv	93	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.00	0.2	N/A
4996	39.96	77.60	78.9	0.9839
4996	19.97	38.94	39.6	0.9833
6998	9.99	13.94	14.0	0.9958
4996	9.99		0.3	Sox test
4996	0.0	0.00	0.2	As Found Zero
4996	39.96	77.60	75.6	As Found Span
Average Correction Factor				0.9877

Calculated value of As Found Response: 75.07 ppb Percent Change of As Found: 3.3%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.3	ppb
Auto span	66.8	ppb	66.4	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



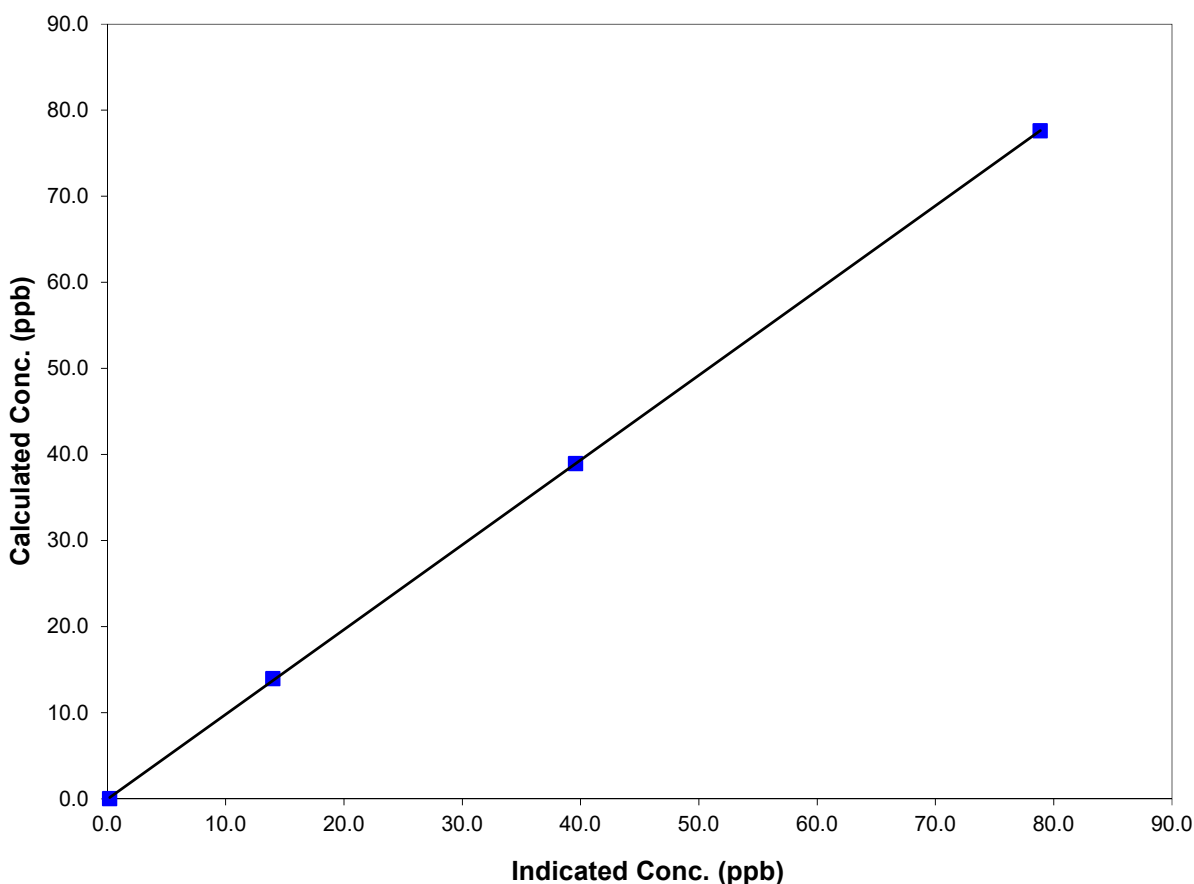
Station Information

Calibration Date	June 18, 2018	Previous Calibration	May 22, 2018
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:20	End Time (MST)	13:20:00 PM
Analyzer make/model	TEI Model 43I APSAA	Analyzer serial #	1153630151

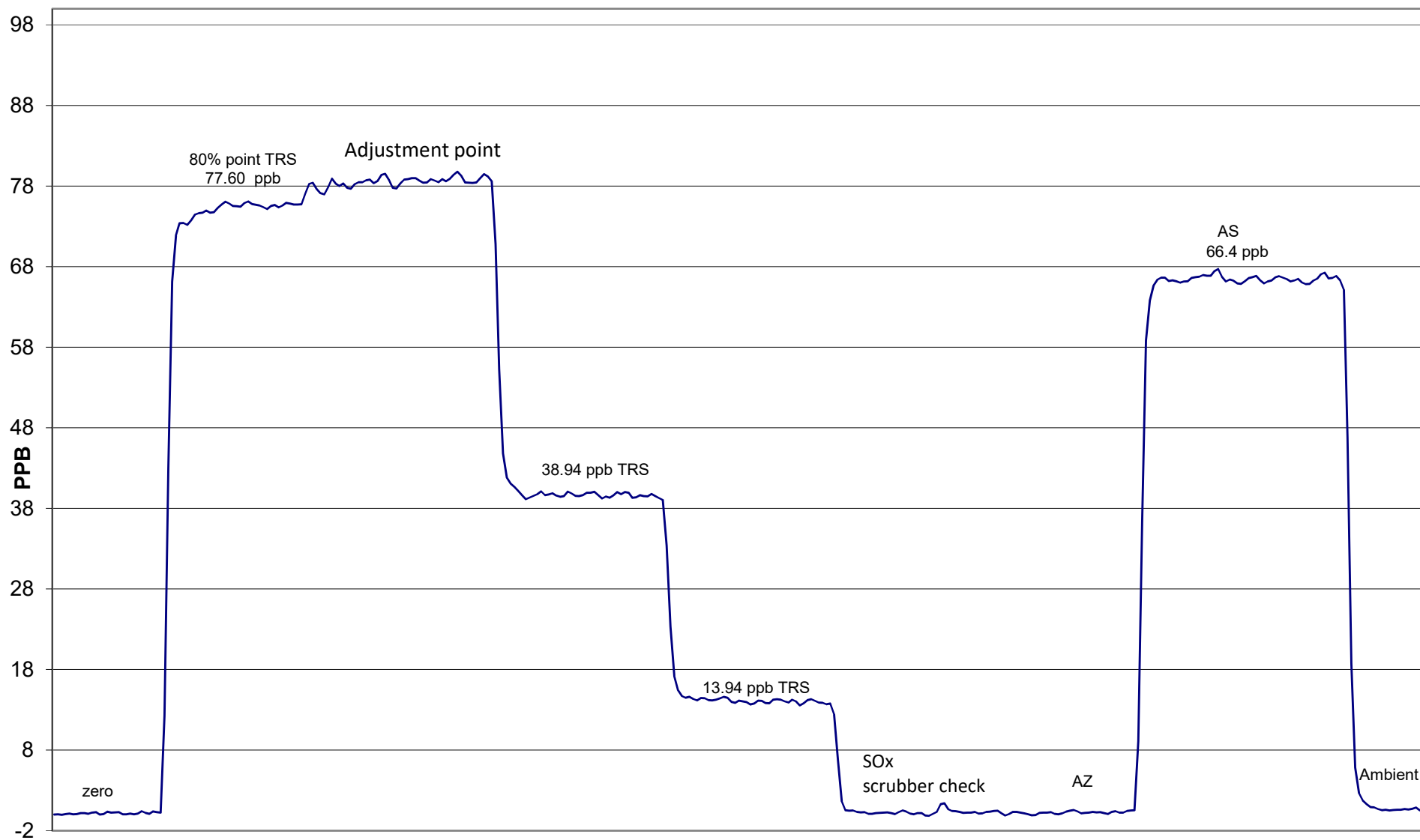
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999982
77.6	78.9	0.9839		
38.9	39.6	0.9833		
13.9	14.0	0.9958	Slope	0.984769
			Intercept	-0.041504

TRS Calibration Curve



Smokey Heights TRS Calibration



June 18, 2018

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	June 18, 2018	Previous Calibration	May 22, 2018
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	12:05	End Time (MST)	14:05:00 PM
Barometric Pressure	0.924 ATM	Station Temperature	19.0 Deg C
Calibrator	Envionics 6103	Serial Number	6586
Cal Gas Concentration	49.6 ppm	Cal Gas Cert Date	10/24/2020
Correction factor	0.031517	Cal Gas Cylinder #	LL107945
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.000318	Calculated slope	0.998772
Calculated intercept	0.755401	Calculated intercept	0.888316
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	14.3		14.1	
coefficient	0.951		0.951	
Lamp Voltage	940	volts	938	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	674.1	mm Hg	674.7	mm Hg
Sample Flow	0.450	lpm	0.455	lpm
Lamp Intensity	88	%	88	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.00	0.3	N/A
4996	39.96	393.57	393.6	0.9998
4996	19.97	197.47	196.5	1.0048
4996	9.99	98.98	96.9	1.0219
4996	0.0	0.00	0.3	As Found Zero
4996	39.96	393.57	393.6	As Found Span
Average Correction Factor				1.0088

Calculated value of As Found Response: 394.248 ppb Percent Change of As Found: -0.2%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	208.9	ppb	207.9	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



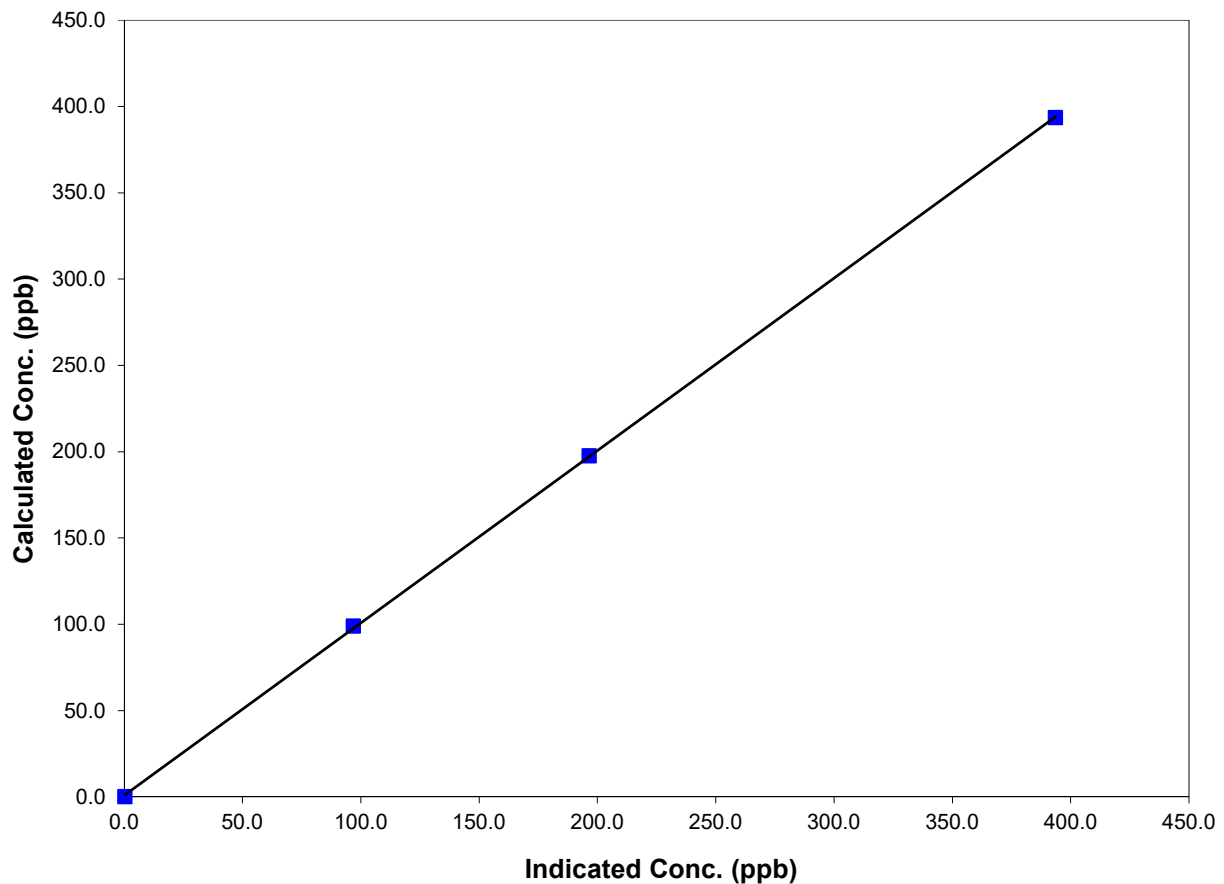
Station Information

Calibration Date	June 18, 2018	Previous Calibration	May 22, 2018
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	12:05	End Time (MST)	14:05:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

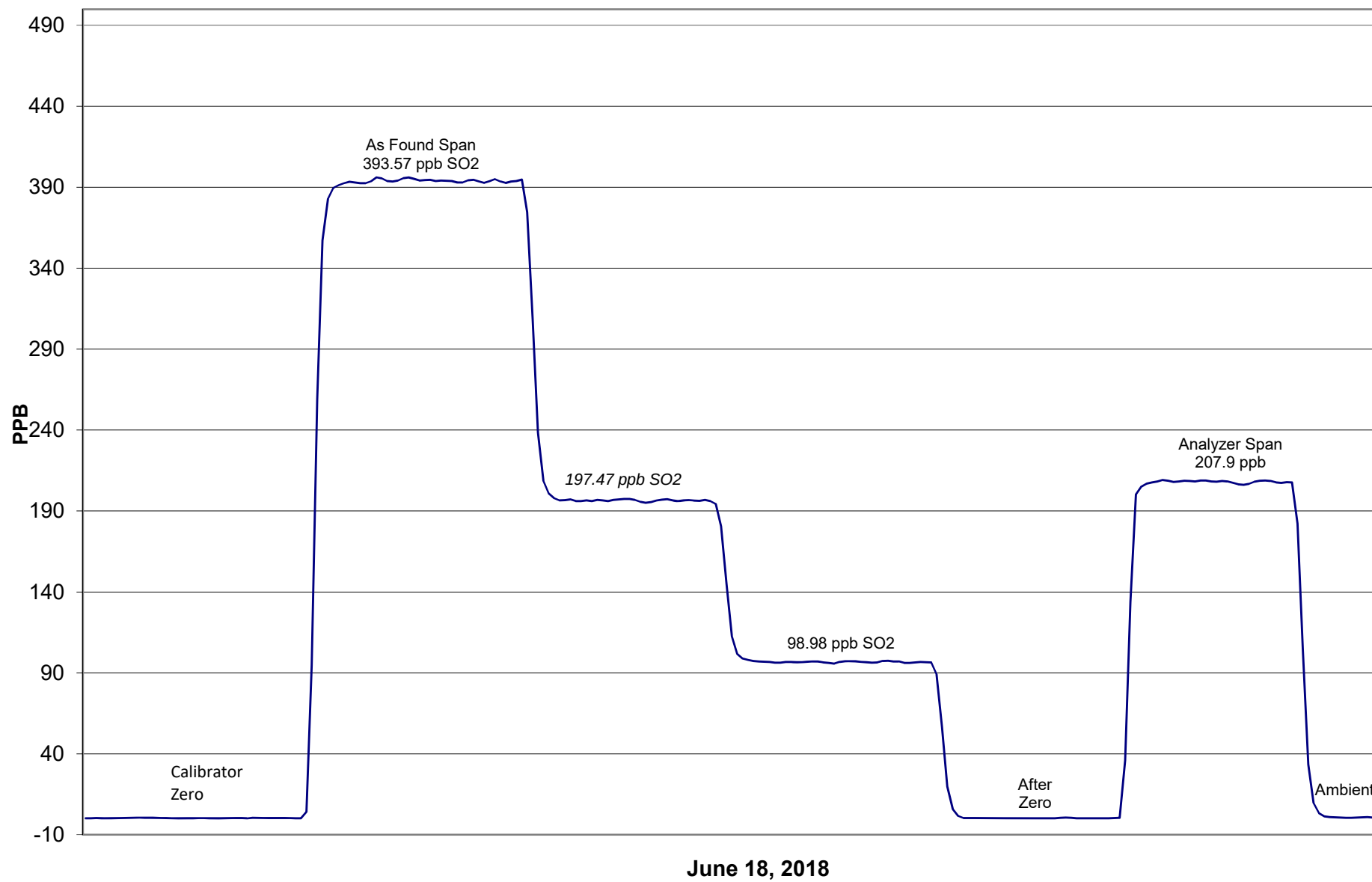
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999959
393.6	393.6	0.9998		
197.5	196.5	1.0048		
99.0	96.9	1.0219	Slope	0.998772
			Intercept	0.888316

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



Calibration Report

Parameter SO2
Air Monitoring Network

PAZA



Station Information

Calibration Date	June 20, 2018	Previous Calibration	May 28, 2018
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	8:57	End Time (MST)	11:58
Barometric Pressure	0.929 atm	Station Temperature	22.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentratio	49.4 ppm	Cal Gas Exp Date	February 21, 2020
Gas Cylinder Num.	EY0000751		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.000902	Calculated slope	0.997966
Calculated intercept	0.462263	Calculated intercept	1.440049
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	7.1		7	
Coefficient	0.837		0.82	
UV Lamp Voltage	790	LPM	790	LPM
Chamber Temp	45	V	45	V
Perm Gas Temp	45	C	45	C
Pressure	674.2	in Hg	676.1	in Hg
Sample Flow	0.454	LPM	0.456	LPM
Lamp Intensity	91	Hz	91	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.5	N/A
4995	39.94	391.9	392.3	0.9990
4995	19.97	196.7	194.4	1.0117
4995	9.97	98.4	95.4	1.0311
4995	0.00	0.0	0.5	As found zero
4995	39.94	391.9	397.9	As found span
Average Correction Factor				1.0140

Calculated value of As Found Response: 398.2 ppb Percent Change of As Found: -1.6%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.4	ppb
Auto span	268.4	ppb	263.5	ppb

Notes: Slight span adjustment made

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



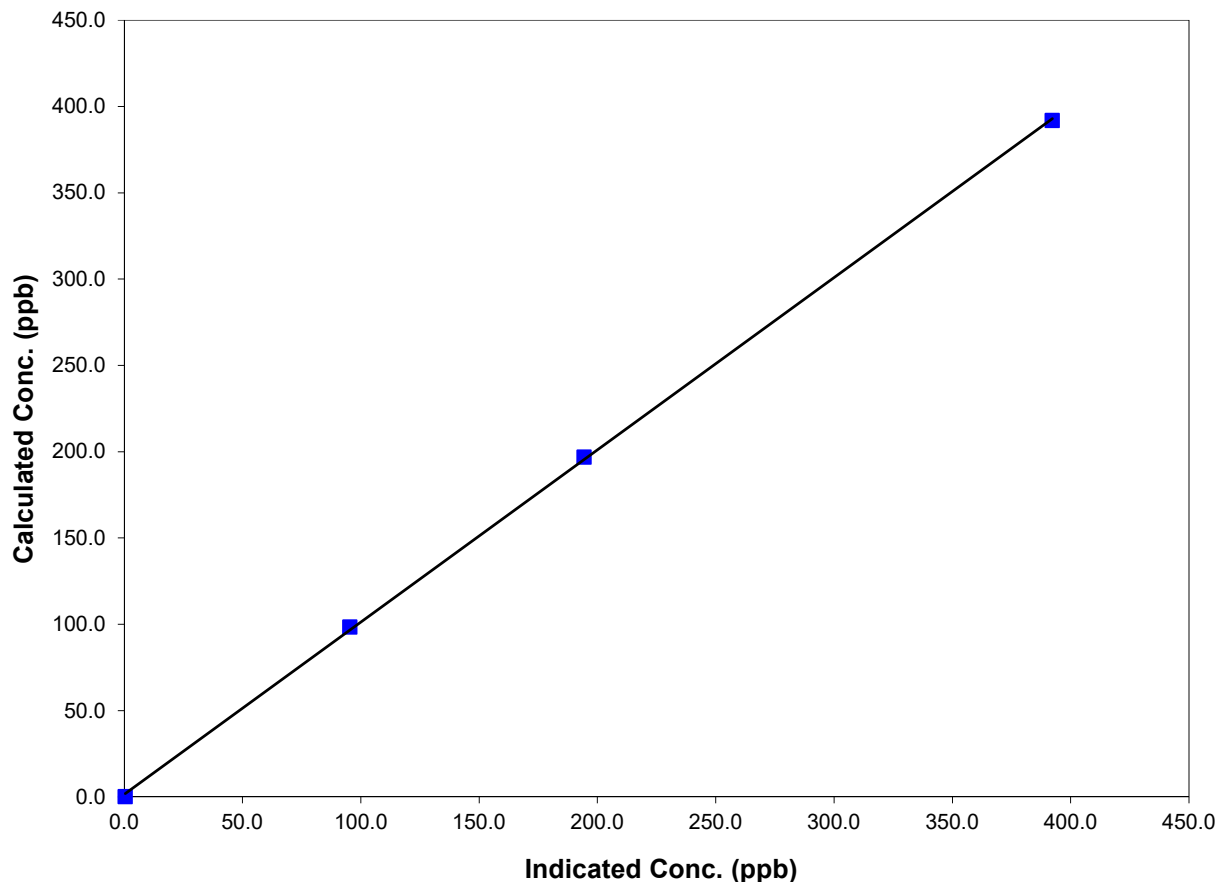
Station Information

Calibration Date	June 20, 2018	Previous Calibration	May 28, 2018
Station Number	6	Station Location	Valleyview
Start Time (MST)	8:57	End Time (MST)	11:58
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

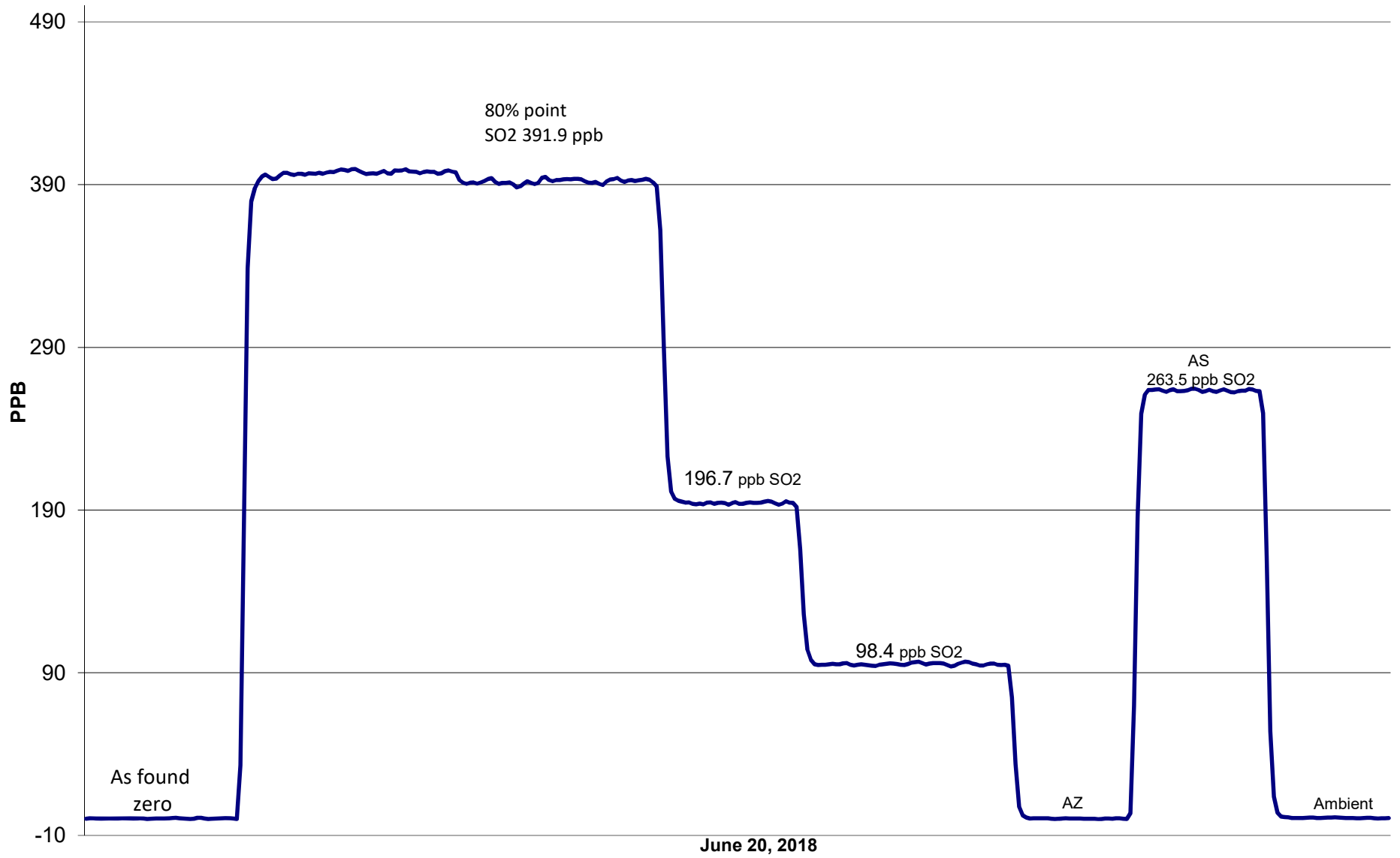
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999889
391.9	392.3	0.9990		
196.7	194.4	1.0117		
98.4	95.4	1.0311	Slope	0.997966
			Intercept	1.440049

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	June 25, 2018	Previous Calibration	May 28, 2018
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	11:10	End Time (MST)	14:00:00 PM
Barometric Pressure	0.929 atm	Station Temperature	22.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	9.78 ppm	Cal Gas Expiry Date	19/03/2021
Gas Cert Reference	EY0000943		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.032691	Calculated slope	0.991556
Calculated intercept	0.259110	Calculated intercept	0.222251

Analyzer make	TEI Model 450i-APHAA	Analyzer serial #	1170050144
---------------	----------------------	-------------------	------------

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	13.6	ppb	12.8	ppb
Coefficient	1.044		0.995	
Lamp Voltage	759	V	756	V
Chamber Temp	45.2	c	45.1	c
Convertor	326.0	c	325.4	c
Pressure	557.10	mm Hg	562.20	mm Hg
Sample Flow	0.918	ccm	0.925	lpm
Lamp Intensity	89	%	89	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	-0.3	N/A
4995	39.94	77.6	78.0	0.9953
4995	19.97	38.9	39.2	0.9941
6995	9.97	13.9	13.8	1.0061
4995	0.00	0.0	-0.3	As found zero
4995	39.94	77.6	81.2	As found span
Average Correction Factor				0.9985

Calculated value of As Found Response: 84.45 ppb Percent Change of As Found: -8.8%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.0	ppb
Auto span	64.9	ppb	65.7	ppb

Notes: Sligh span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



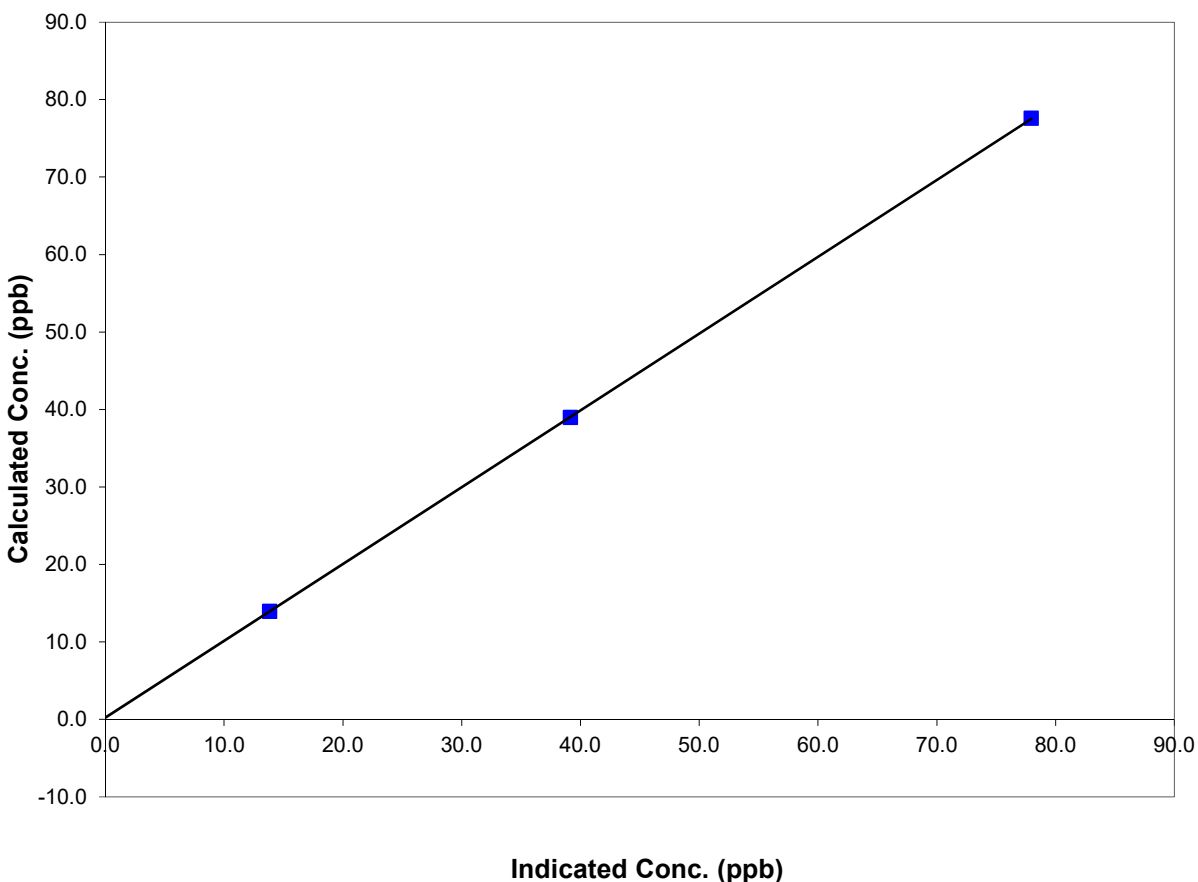
Station Information

Calibration Date	June 25, 2018	Previous Calibration	May 28, 2018
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:10	End Time (MST)	14:00:00 PM
Analyzer make/model	TEI Model 450i-APHAA	Analyzer serial #	1170050144

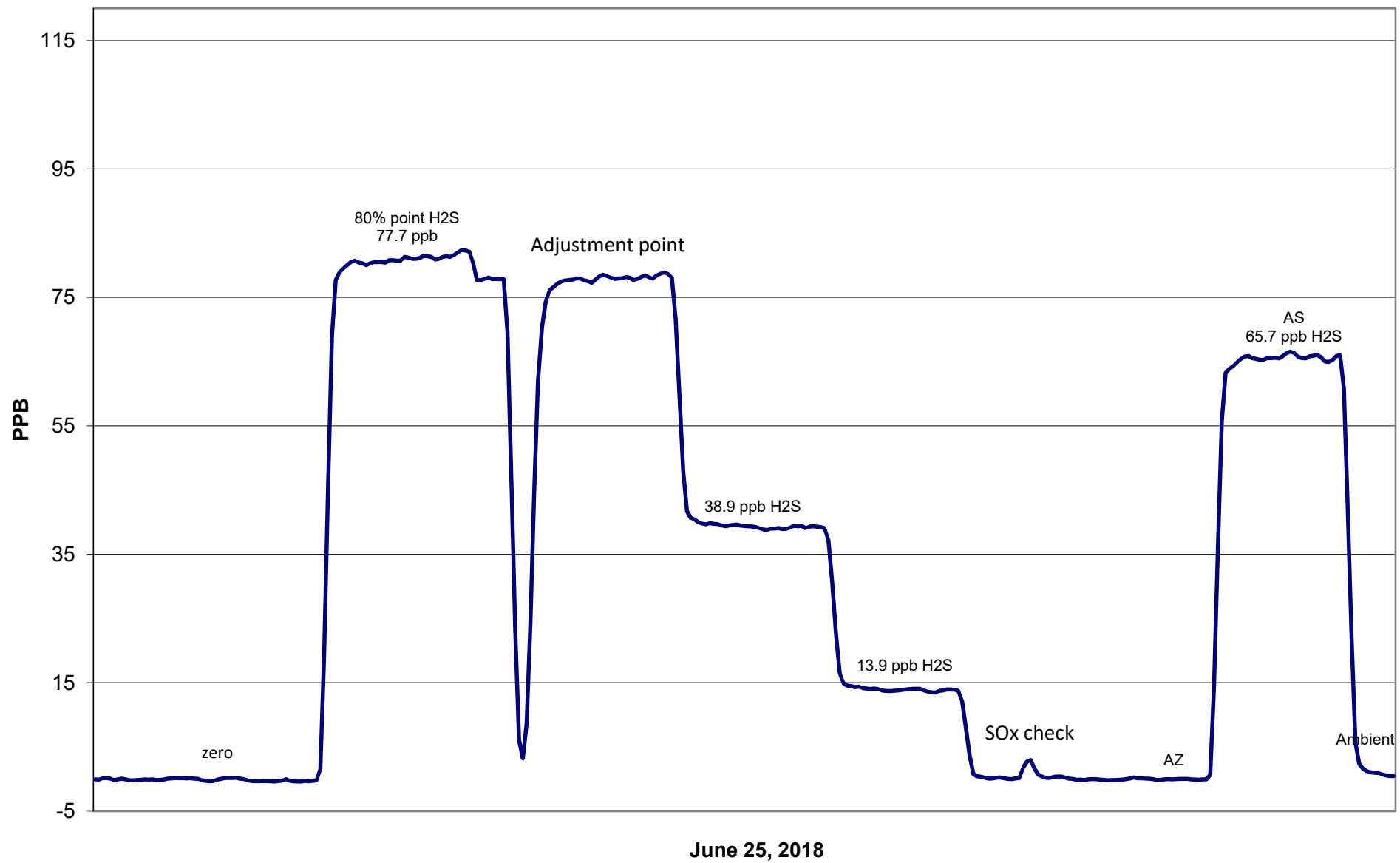
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A	Correlation Coefficient	0.999992
77.6	78.0	0.9953		
38.9	39.2	0.9941		
13.9	13.8	1.0061	Slope	0.991556
			Intercept	0.222251

H2S Calibration Curve



H2S Calibration



Calibration Report

Parameter SO₂

Air Monitoring Network PAZA



Station Information

Calibration Date	June 22, 2018	Previous Calibration	May 17, 2018
Station Number	1	Station Location	Donnelly
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	10:45	End Time (MST)	13:05:00 PM
Barometric Pressure	0.934 atm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	49.6 ppm	Cal Gas Expiry Date	October 24, 2020
Correction factor	0.031641	Cal Gas Cylinder #	LL107945
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.988696	Calculated slope	0.996818
Calculated intercept	-0.600902	Calculated intercept	0.488549
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	7.3		7.3	
coefficient	1.029		1.029	
Lamp Voltage	838	volts	838	volts
Chamber Temp	45.2	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	673.1	mm Hg	673.4	mm Hg
Sample Flow	0.424	ccm	0.424	ccm
Lamp Intensity	98	%	98	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	-0.1	N/A
4995	39.89	393.0	393.6	0.9984
4995	19.78	195.6	196.6	0.9954
4995	9.90	98.1	96.9	1.0126
4995	0.0	0.0	-0.1	As Found Zero
4995	39.99	393.9	393.6	As Found Span
Average Correction Factor				1.0021

Calculated value of As Found Response: 388.642 ppb Percent Change of As Found: 1.3%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.0	ppb
Auto span	242.1	ppb	245.7	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

Calibration Summary

Parameter SO2
Air Monitoring Network PAZA



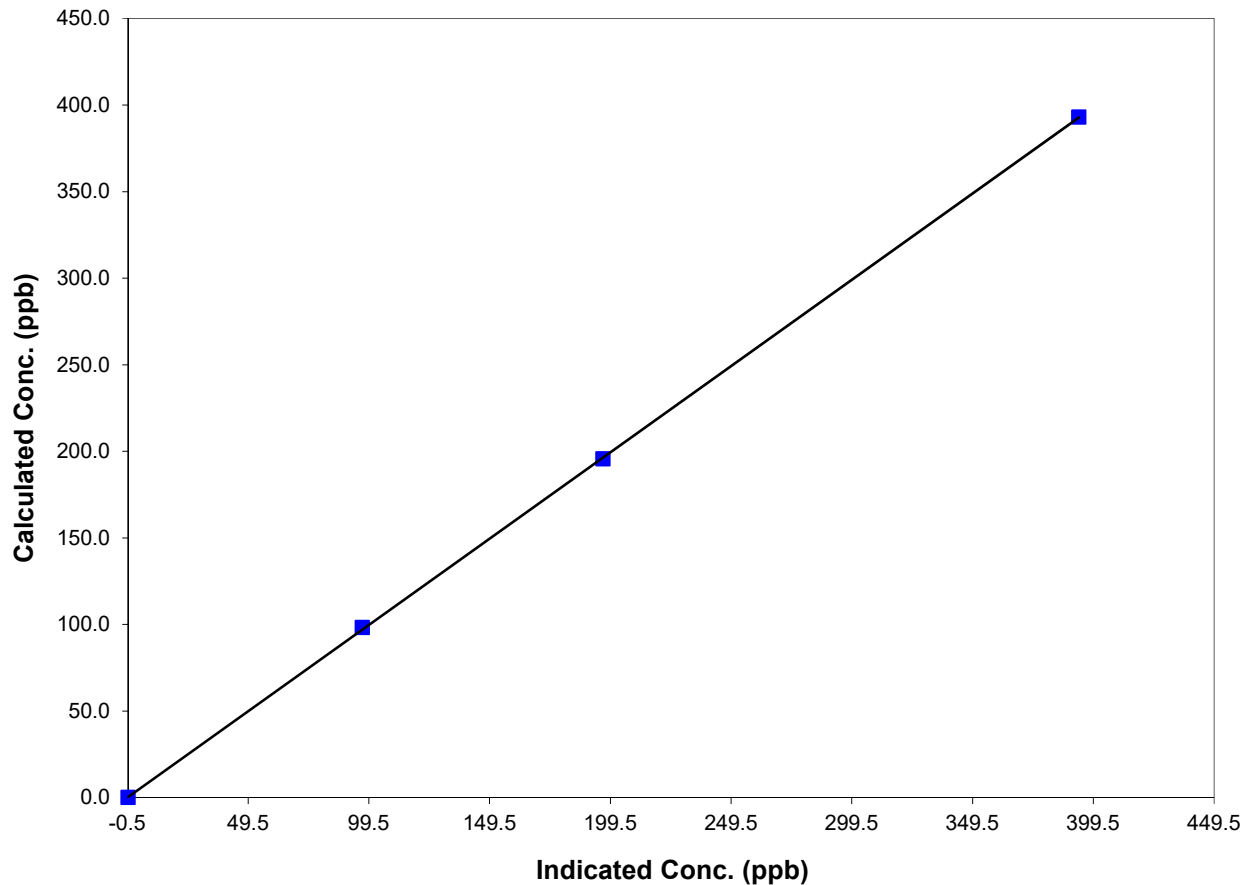
Station Information

Calibration Date	June 22, 2018	Previous Calibration	May 17, 2018
Station Number	1	Station Location	Donnely
Start Time (MST)	10:45	End Time (MST)	13:05:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

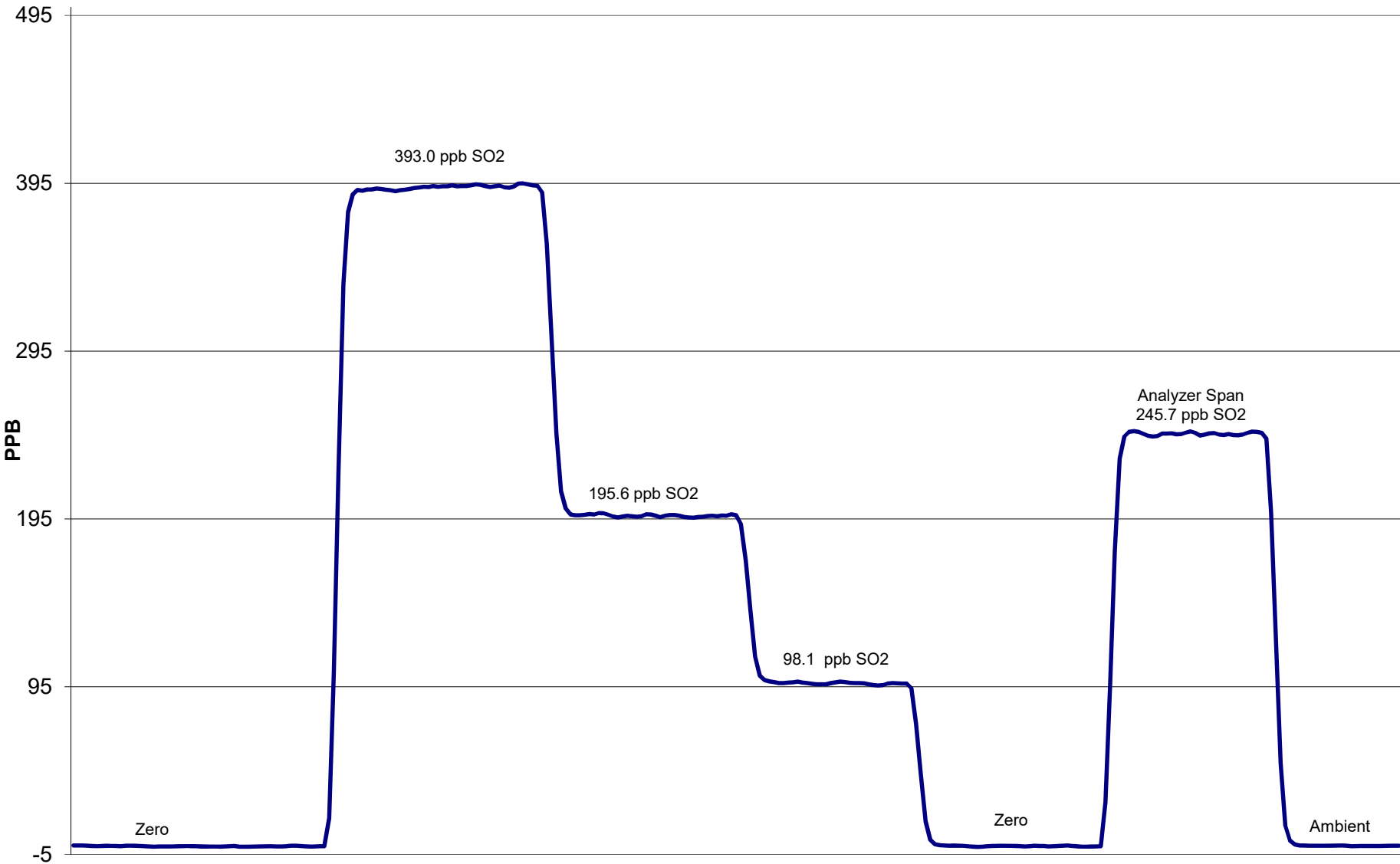
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999978
393.0	393.6	0.9984		
195.6	196.6	0.9954		
98.1	96.9	1.0126	Slope	0.996818
			Intercept	0.488549

SO2 Calibration Curve



SO2 Calibration



June 22, 2018

Calibration Report

Parameter H2S
Air Monitoring Network PAZA



Station Information

Calibration Date	22/06/2018	Previous Calibration	17/05/2018
Station Number	1	Station Location	Donnelly
Reason:	☐ Routine	☐ Install	☐ Removal
		☐ Other:	Maintanance
Start Time (MST)	7:51	End Time (MST)	10:09
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppm	Cal Gas Expiry Date	March 19, 2021
Correction factor	0.031477	Cal Gas Cylinder #	LL119574
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.009893	Calculated slope	1.017538
Calculated intercept	-0.565633	Calculated intercept	-0.572403
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	16.8	ppb	16.7	ppb
coefficient	1.044		1.044	
Lamp Voltage	807	volts	806	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	492.6	mm Hg	494.7	mm Hg
Sample Flow	0.702	lpm	0.704	lpm
Lamp Intensity	91	mv	91	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.00	-0.2	N/A
4996	39.95	77.58	76.5	1.0145
4996	19.50	38.02	38.4	0.9914
6970	9.70	13.59	14.6	0.9334
4996	0.00	0.00	-0.2	As Found Zero
4996	39.95	77.58	76.5	As Found Span
Average Correction Factor				0.9798

Calculated value of As Found Response: 76.83 ppb Percent Change of As Found: 1.0%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.1	ppb
Auto span	66.4	ppb	N/A	ppb

Notes: Pull out cal before maintainance is done.
Sox scrubber check performed
No adjustment made

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

Calibration Summary

Parameter H2S
Air Monitoring Network PAZA



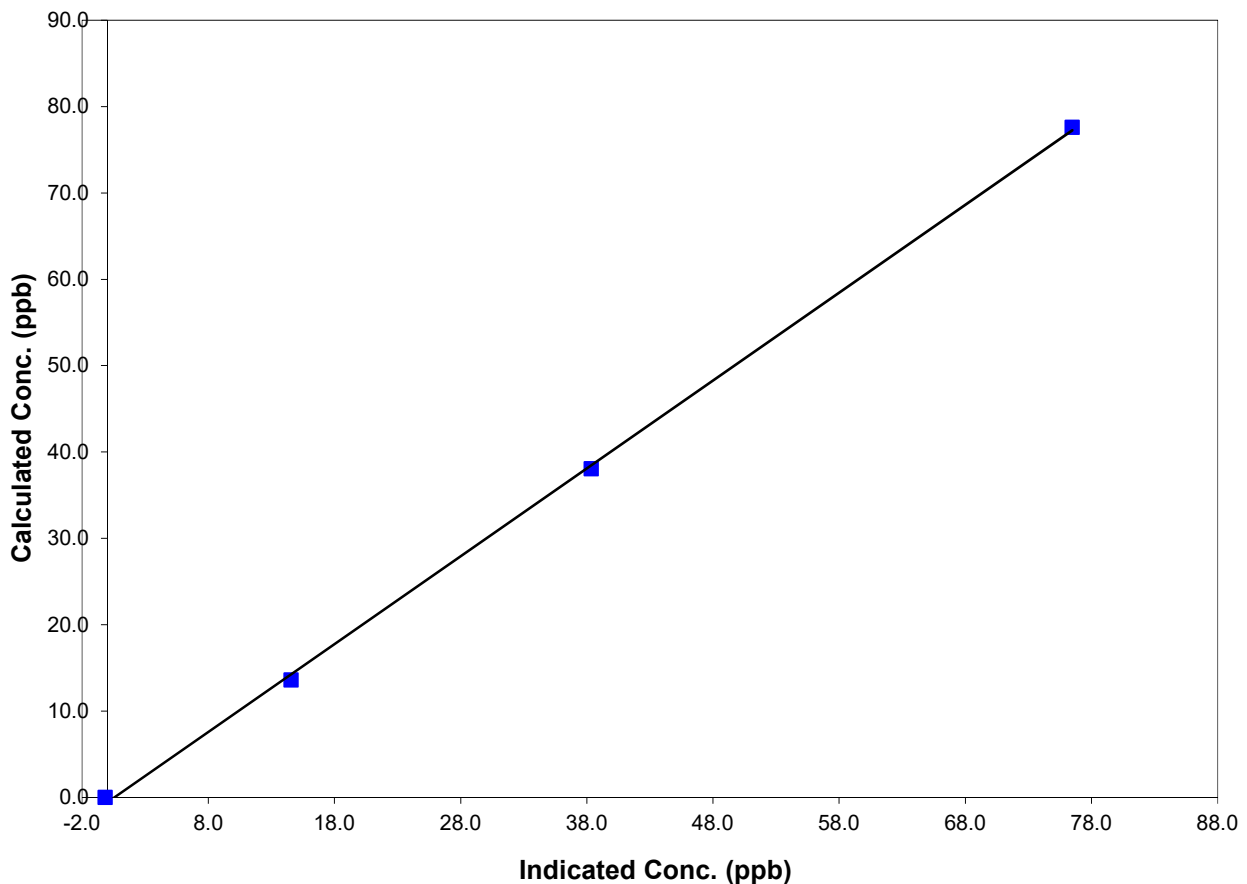
Station Information

Calibration Date	22/06/2018	Previous Calibration	17/05/2018
Station Number	1	Station Location	Donnely
Start Time (MST)	7:51	End Time (MST)	10:09
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

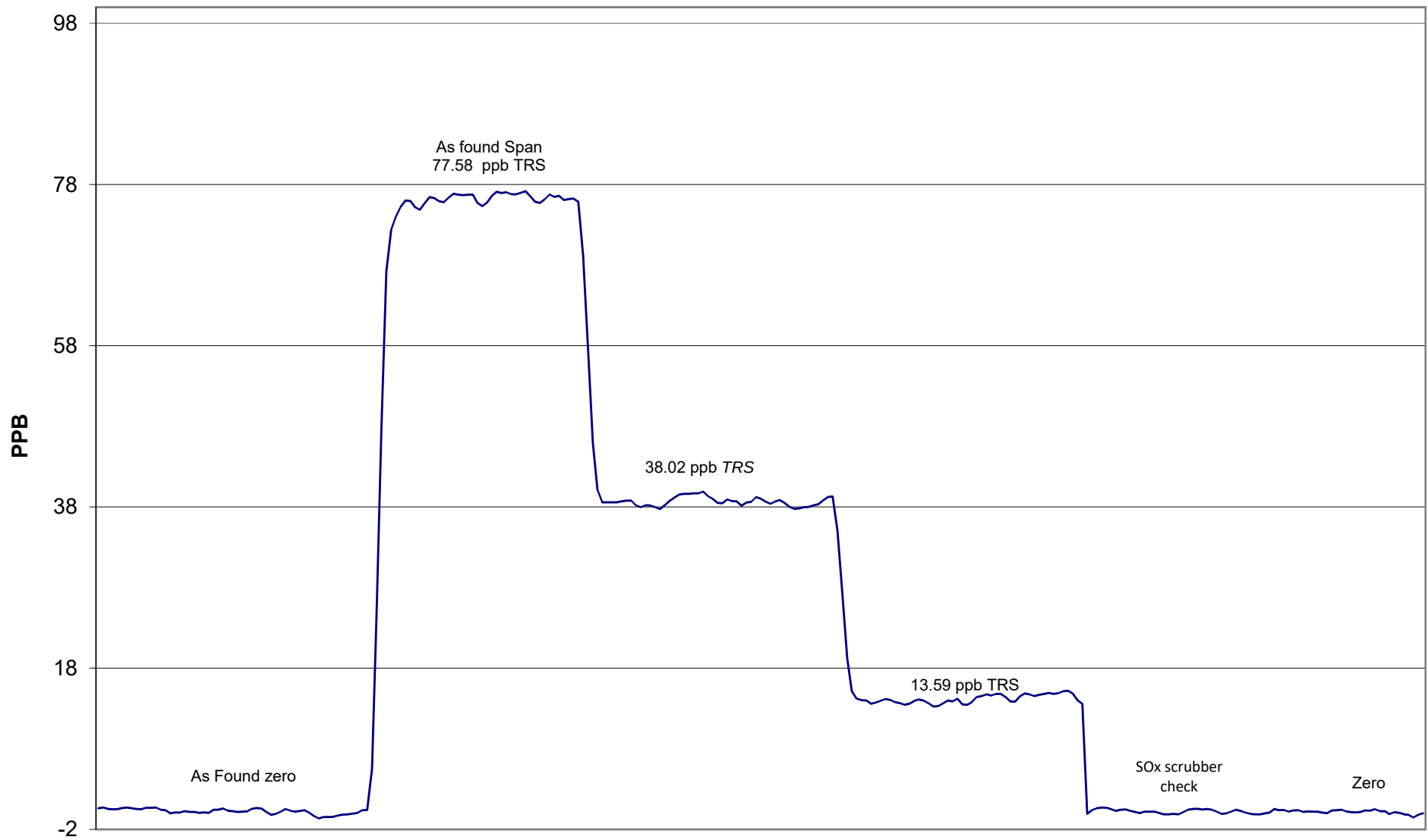
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999634
77.6	76.5	1.0145		
38.0	38.4	0.9914		
13.6	14.6	0.9334	Slope	1.017538
			Intercept	-0.572403

TRS Calibration Curve



H2S Calibration



22/06/2018

Calibration Report

Parameter H2S
Air Monitoring Network PAZA



Station Information

Calibration Date	22/06/2018	Previous Calibration	22/06/2018
Station Number	1	Station Location	Donnelly
Reason:	☐ Routine ☒ Install ☐ Removal ☐ Other:		
Start Time (MST)	12:20	End Time (MST)	15:40
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics 6103	Serial Number	6586
Cal Gas Conc	9.78 ppm	Cal Gas Expiry Date	March 19, 2021
Correction factor	0.031477	Cal Gas Cylinder #	LL119574
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.009893	Calculated slope	0.977834
Calculated intercept	-0.565633	Calculated intercept	0.270110
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	16.7	ppb	14.6	ppb
coefficient	1.044		1.031	
Lamp Voltage	806	volts	796	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	494.7	mm Hg	481.1	mm Hg
Sample Flow	0.704	lpm	0.683	lpm
Lamp Intensity	91	mv	91	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.00	-0.5	N/A
4996	39.95	77.58	78.7	0.9857
4996	19.50	38.02	39.4	0.9655
6997	9.98	13.93	13.8	1.0115
4996	0.00	0.00	-0.7	As Found Zero
4996	39.95	77.58	79.5	As Found Span
Average Correction Factor				0.9875

Calculated value of As Found Response: 80.47 ppb Percent Change of As Found: -3.7%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.2	ppb
Auto span	66.4	ppb	72.9	ppb

Notes: Mirror assembly replaced
After maintenance cal done
Slight zero/span adjust. Adjusted convertor temp as well
Calibration Performed By: Dmytro Dolotii/Grover Christiansen

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



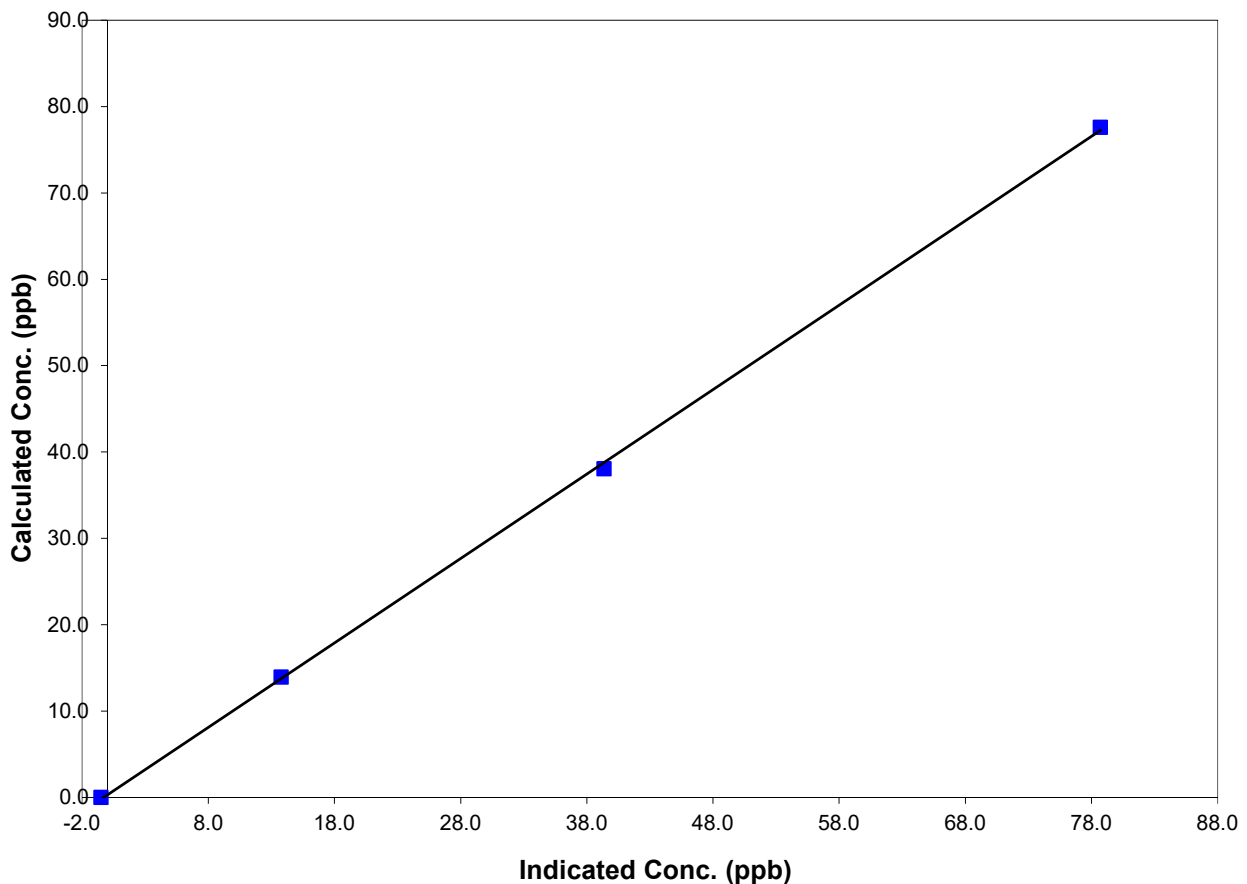
Station Information

Calibration Date	22/06/2018	Previous Calibration	22/06/2018
Station Number	1	Station Location	Donnely
Start Time (MST)	12:20	End Time (MST)	15:40
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

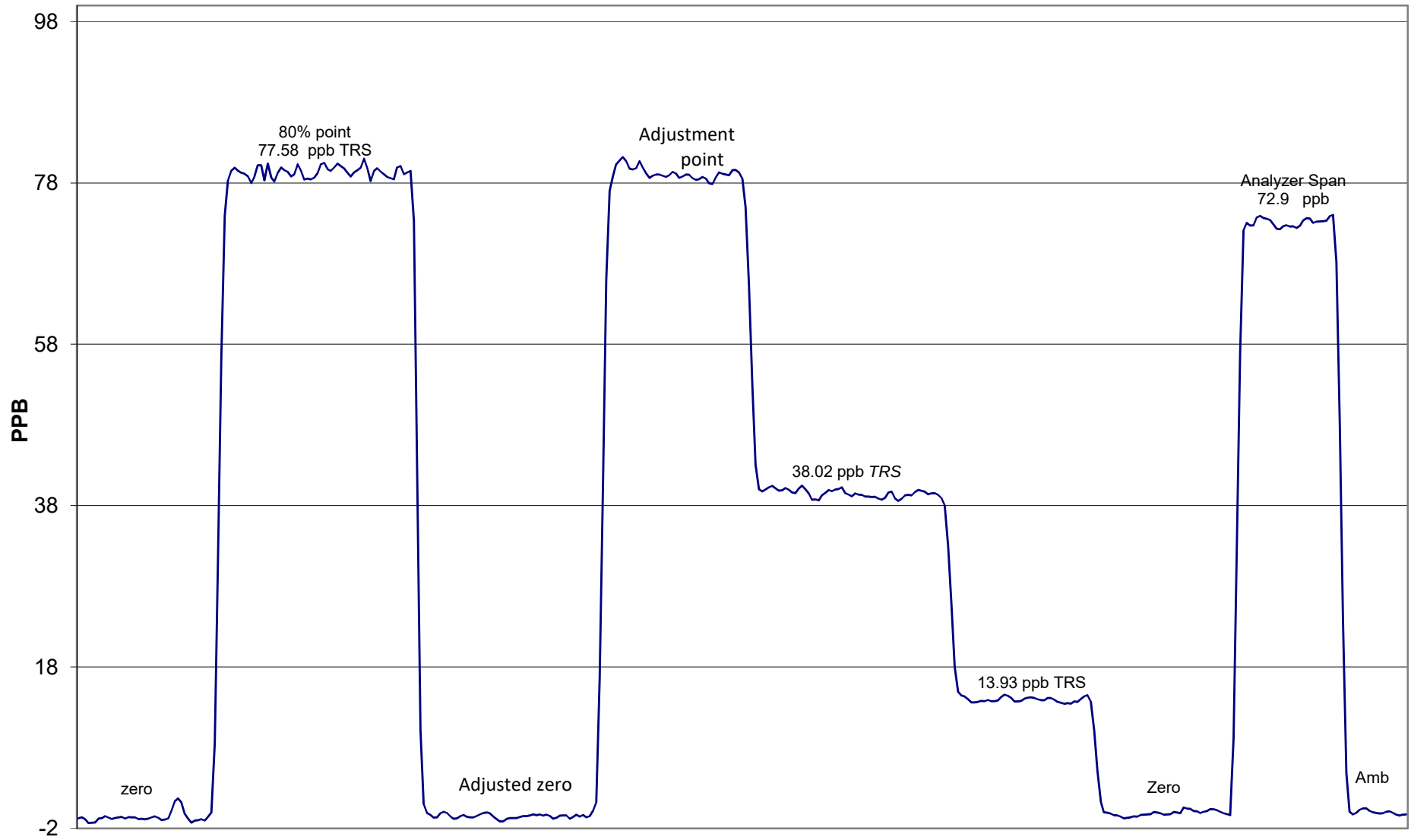
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.5	N/A	Correlation Coefficient	0.999775
77.6	78.7	0.9857		
38.0	39.4	0.9655		
13.9	13.8	1.0115	Slope	0.977834
			Intercept	0.270110

TRS Calibration Curve



H2S Calibration



22/06/2018

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	June 13, 2018	Previous Calibration	May 24, 2018
Station Number	10	Station Location	Rycroft
Reason:	Routine	Install	Removal
Start Time (MST)	10:06	End Time (MST)	13:50:00 PM
Barometric Pressure	0.919 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentratio	49.6 ppm	Cal Gas Expiry Date	10/10/2020
Gas Cert Reference	LL104185		
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	0.997608	Calculated slope	0.992595
Calculated intercept	1.282091	Calculated intercept	0.392209
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	17.1		17.2	
Coefficient	1.026		0.993	
UV Lamp Voltage	749	V	764	V
Chamber Temp	45	C	45	C
Perm Gas Temp	45	C	45	C
Pressure	662.2	mm Hg	666.5	mm Hg
Sample Flow	0.439	LPM	0.440	LPM
Lamp Intesity	89	Hz	95	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)
4996	0.00	0.0	-0.3	N/A
4996	39.96	393.6	396.2	0.9934
4996	19.99	197.7	198.7	0.9950
4996	9.98	98.9	99.1	0.9974
4996	0.00	0.0	0.0	As found zero
4996	39.96	393.6	385.9	As found span
Average Correction Factor				0.9953

Calculated value of As Found Response: 386.283 ppb Percent Change of As Found: 1.9%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	197.2	ppb	200.5	ppb

Notes: Zero, span, PMT & flash supply adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



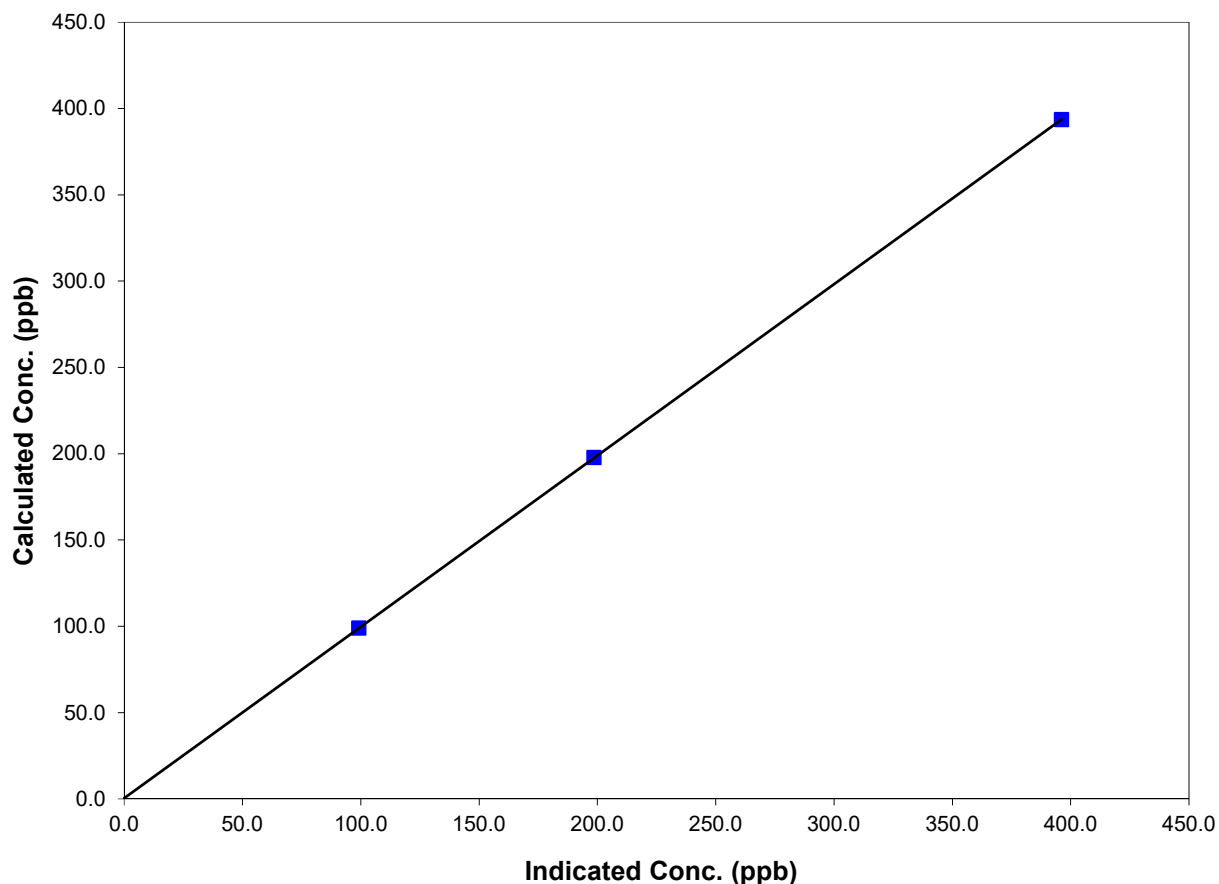
Station Information

Calibration Date	June 13, 2018	Previous Calibration	May 24, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:06	End Time (MST)	13:50:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

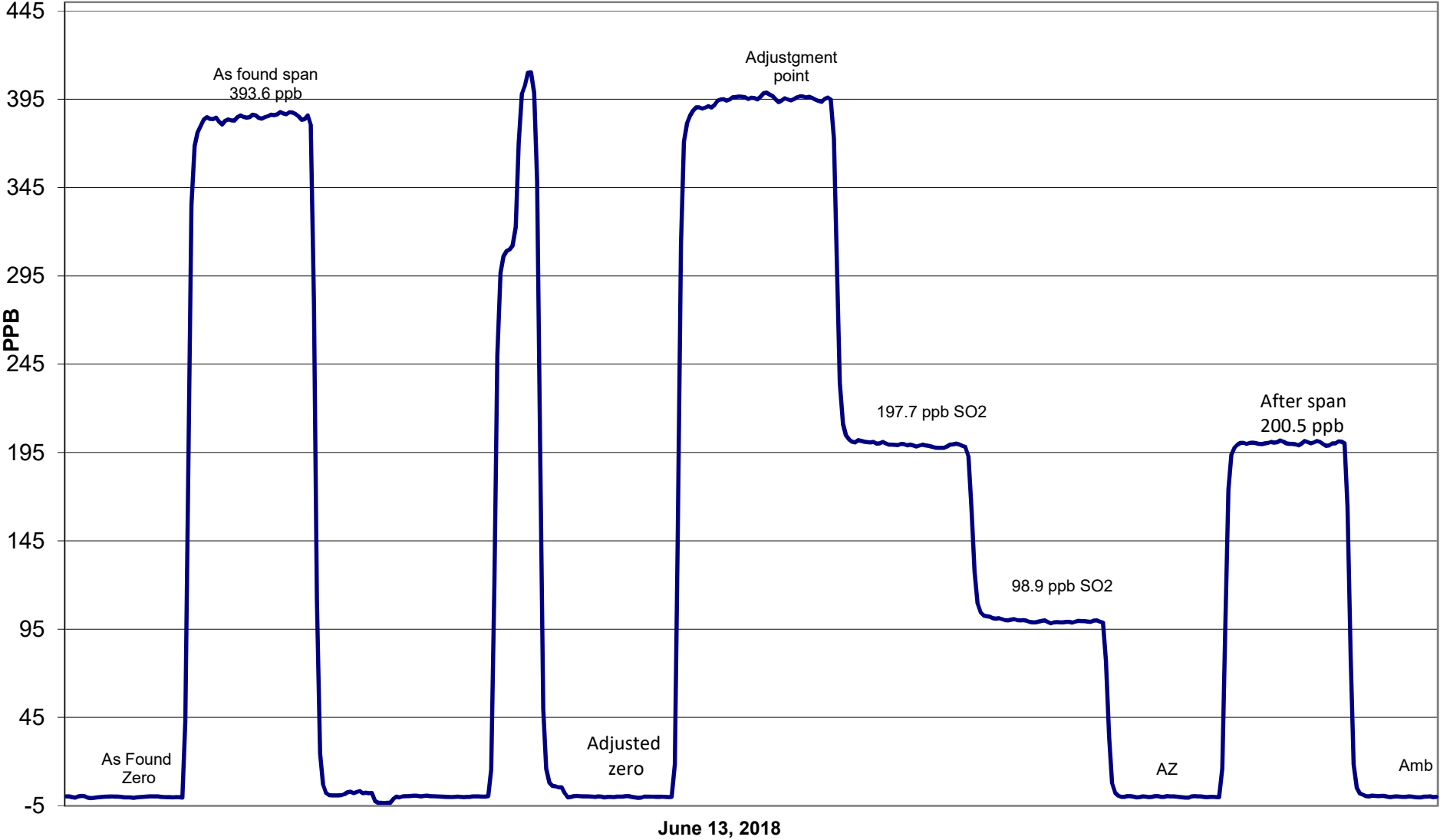
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A	Correlation Coefficient	1.000000
393.6	396.2	0.9934		
197.7	198.7	0.9950		
98.9	99.1	0.9974	Slope	0.992595
			Intercept	0.392209

SO2 Calibration Curve



SO2 Calibration



Calibration Report



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

Station Information

Calibration Date	June 14, 2018	Previous Calibration	May 28, 2018
Station Name	PAZA Rover	Station Location	Rycroft
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	7:40 AM	End Time (MST)	10:30
Barometric Pressure	0.919 mbar	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas Concentration	9.78 ppm	Cal Gas Expiry Date	02/02/2020
Gas Cert Reference	LL119574		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.001896	Calculated slope	1.010287
Calculated intercept	0.527672	Calculated intercept	0.210554
Analyzer make	TEI 43C	Analyzer serial #	

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	11.3	ppb	11.3	ppb
Coefficient	1.130		1.130	
Lamp Voltage	775	V	775	V
Chamber Temp	45	C	45	C
Perm gas Temp	45	C	45	C
Pressure	670.2	mmHg	670.2	mmHg
Sample Flow	0.384	lpm	0.384	lpm
Lamp Intensity	86	Hz	85	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)
4996	0.0	0.0	0.2	N/A
4996	39.96	77.6	76.7	1.0119
4998	19.98	38.9	38.3	1.0159
6996	9.97	13.9	13.1	1.0647
			0.3	Sox Test
4996	0.00	0.0	0.2	As found zero
4996	39.96	77.6	76.7	As found span
Average Correction Factor				1.0308

Calculated value of As Found Response: 77.16 ppb Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.3	ppb
Auto span	54.5	ppb	54.8	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



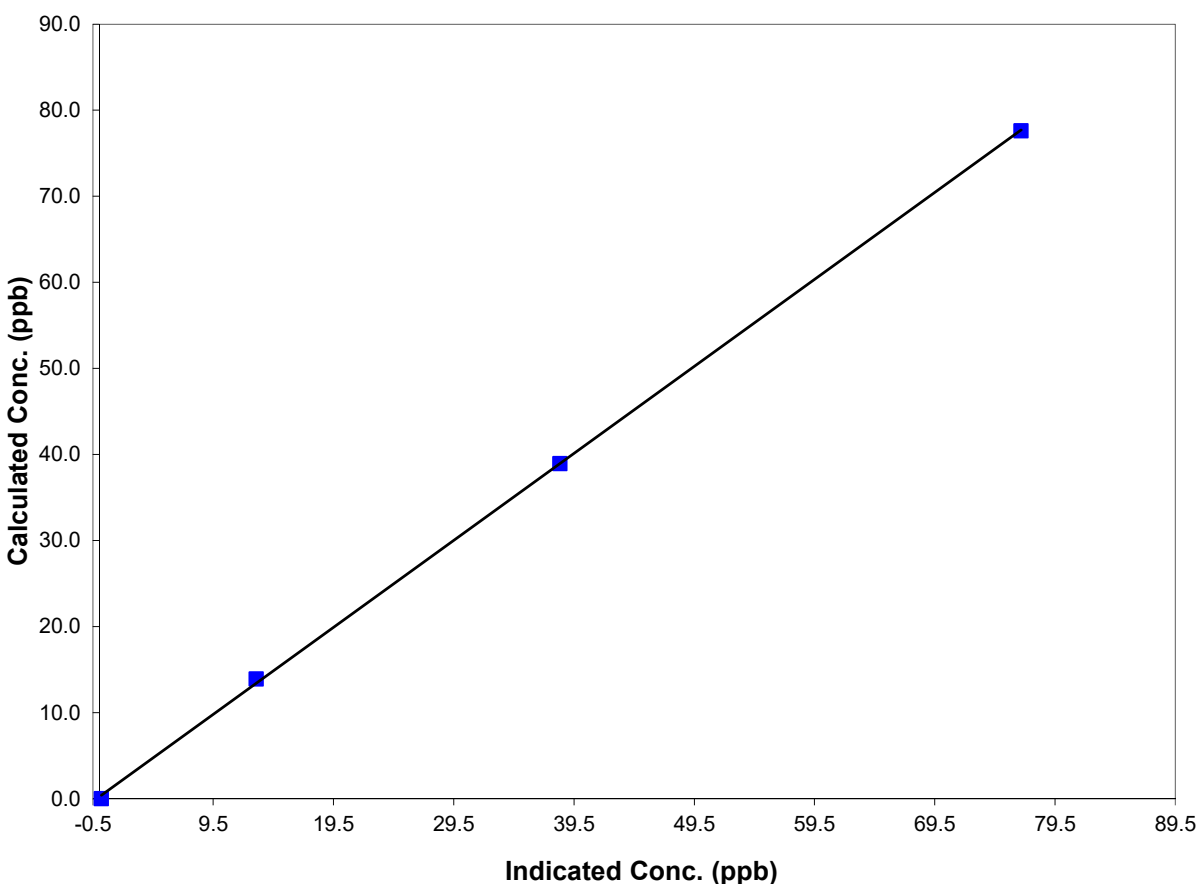
Station Information

Calibration Date	June 14, 2018	Previous Calibration	May 28, 2018
Station Number	PAZA Rover	Station Location	Rycroft
Start Time (MST)	7:40	End Time (MST)	10:30
Analyzer make/model	TEI 43C	Analyzer serial #	0

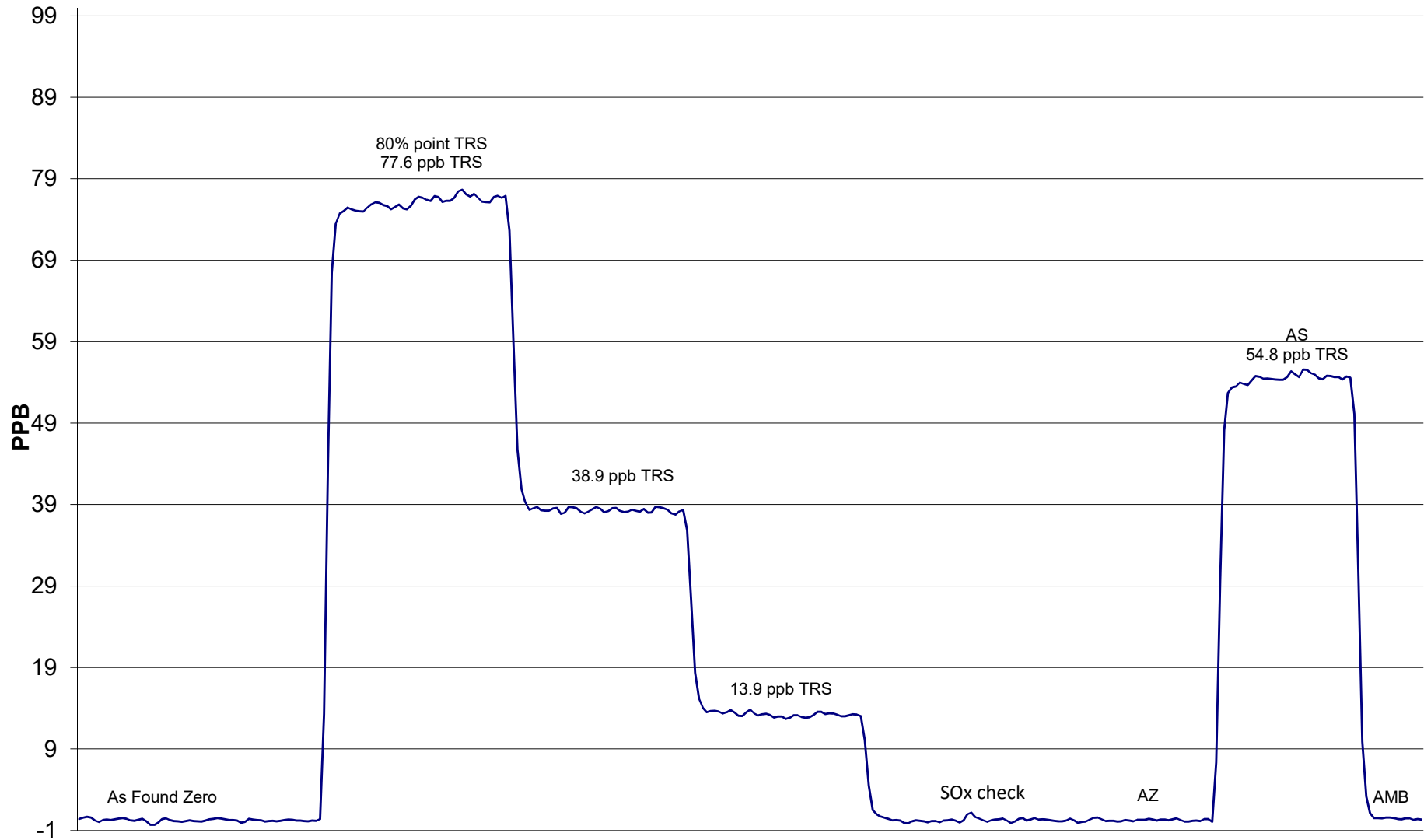
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999876
77.6	76.7	1.0119		
38.9	38.3	1.0159		
13.9	13.1	1.0647	Slope	1.010287
			Intercept	0.210554

TRS Calibration Curve



TRS Calibration



June 14, 2018

Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
PAZA



Station Information

Calibration Date	June 13, 2018	Previous Calibration	May 25, 2018
Station Number	10	Station Location	Rycroft
Reason:	Routine Installation Removal Other: Maintenance		
Start Time (MST)	10:00	End Time (MST)	15:55:00 PM
Barometric Pressure	0.919 Atm	Station Temperature	20.0 Deg C
Calibrator	Enviroicsn 6103	Serial Number	6586
NO Cal Gas Conc	51.9 ppm	Cal Gas Expiry Date	10/24/2020
NOx Cal Gas Conc	52 ppm	Cal Gas Serial #	LL107945

DACS Information

DACS make CR3000 DACS serial No. 5407

Parameter		NO2	NOx	NO
Before	Data Slope	0.995916	0.992102	0.997906
	Data Offset	-0.649695	0.237356	0.424286
After	Data Slope	0.992859	0.992829	0.997555
	Data Offset	-0.786272	1.349933	1.322384
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	ppb
NO offset	7.0	mV	7.0	mV
NOx bkgnd	7.3	mV	7.1	mV
NO coefficient	1.053		1.091	
NOx coefficient	1.001		1.001	
NO2 conv temp	326.1	Deg C	326.2	Deg C
PMT Temp	-2.8	Deg C	-2.8	Deg C
PMT Volt	-840.3	mV	-840.4	mV
R Cell Press	185.6	in Hg	185.3	in Hg
Sample Flow	0.870	LPM	0.876	LPM

Notes: Zero & span adjustments made

Calibration Report

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



Station Information

Calibration Date: June 13, 2018 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	4996	0.00	0.0	0.0	0.0	0.1	0.1	0.1	N/A	N/A
1	4996	39.96	412.6	411.8	0.8	415.1	412.4	0.9	0.9941	0.9985
2	4996	19.99	207.2	206.8	0.4	206.4	204.6	0.9	1.0042	1.0108
3	4996	9.98	103.7	103.5	0.2	101.8	101.4	0.6	1.0188	1.0204
AFZ	4996	0.00	0.0	0.0	0.0	-0.3	-0.2	0.1	0.0000	0.0000
AFS	4996	39.96	412.6	411.8	0.8	400.6	398.0	1.1	1.0299	1.0347
								Average Correction Factor	1.0057	1.0099

As Found Concentrations: NO_x= 398.0 NO= 397.8 As Found Percent Change NO_x= -3.5% NO= -3.4%

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	-0.2	-0.2	0.0	0.1	0.1	0.1	N/A	N/A	N/A	N/A
NO point	413.2	413.2	0.0	416.7	413.2	1.5	0.9915	1.0000	N/A	N/A
300	413.2	116.2	297.0	417.3	116.2	299.5	0.9900	1.0000	0.9917	100.8%
200	413.2	213.9	199.3	417.8	213.9	201.7	0.9889	1.0000	0.9877	101.2%
100	413.2	317.4	95.8	417.4	317.4	98.1	0.9899	1.0000	0.9763	102.4%
							Average Correction Factor	0.9896	1.0000	0.9852

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.2	0.2	0.2	ppb	0.1	0.1	0.2	ppb
Auto span	160.3	158.5	1.2	ppb	160.1	158.3	1.2	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



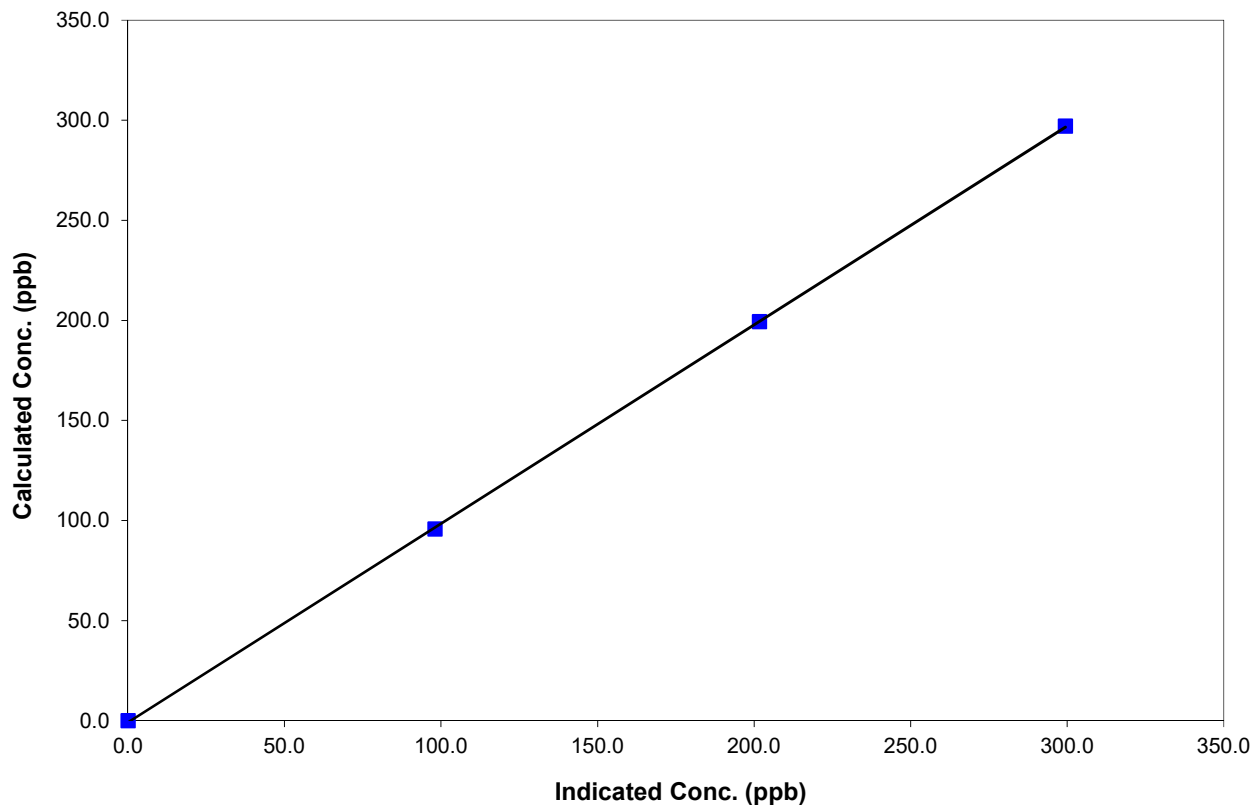
Station Information

Calibration Date	June 13, 2018	Previous Calibration	May 25, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:00	End Time (MST)	15:55:00 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	0.999972
297.0	299.5	0.9917		
199.3	201.7	0.9877		
95.8	98.1	0.9763	Slope	0.992859
			Intercept	-0.786272

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



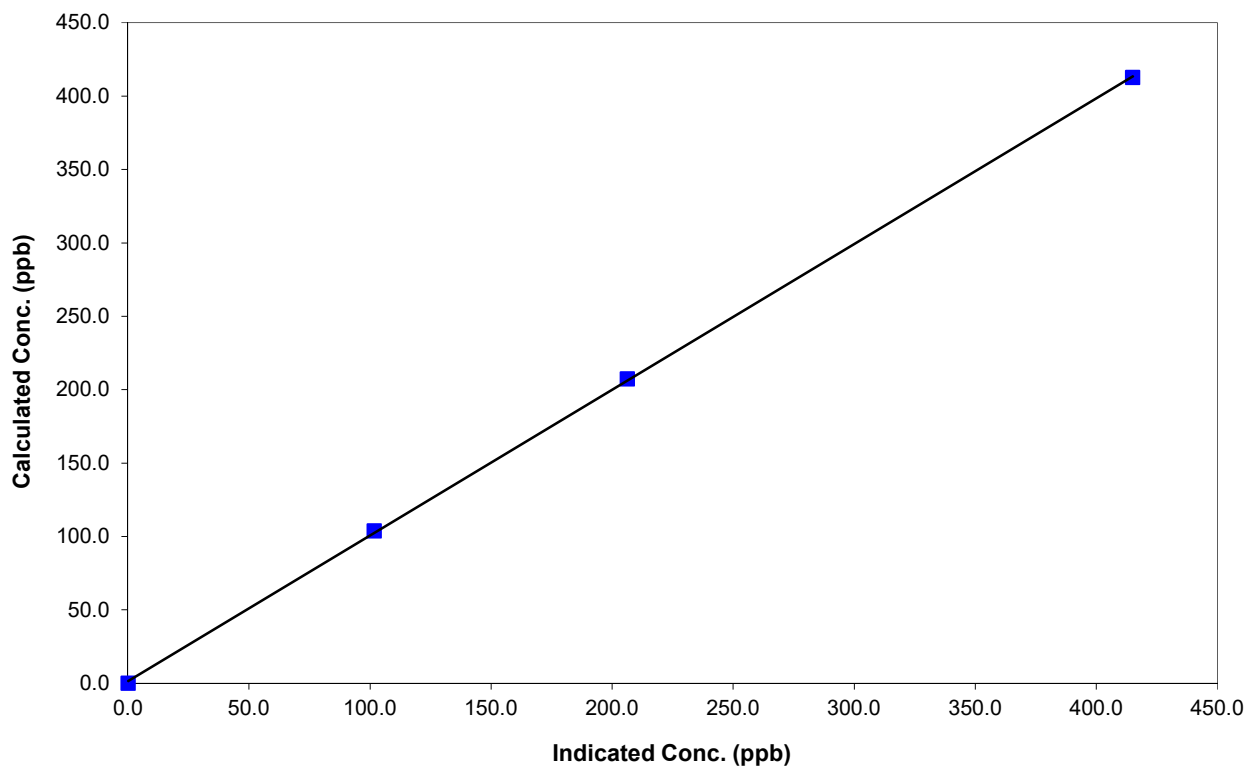
Station Information

Calibration Date	June 13, 2018	Previous Calibration	May 25, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:00	End Time (MST)	15:55:00 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	0.999941
412.6	415.1	0.9941		
207.2	206.4	1.0042		
103.7	101.8	1.0188	Slope	0.992829
			Intercept	1.349933

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



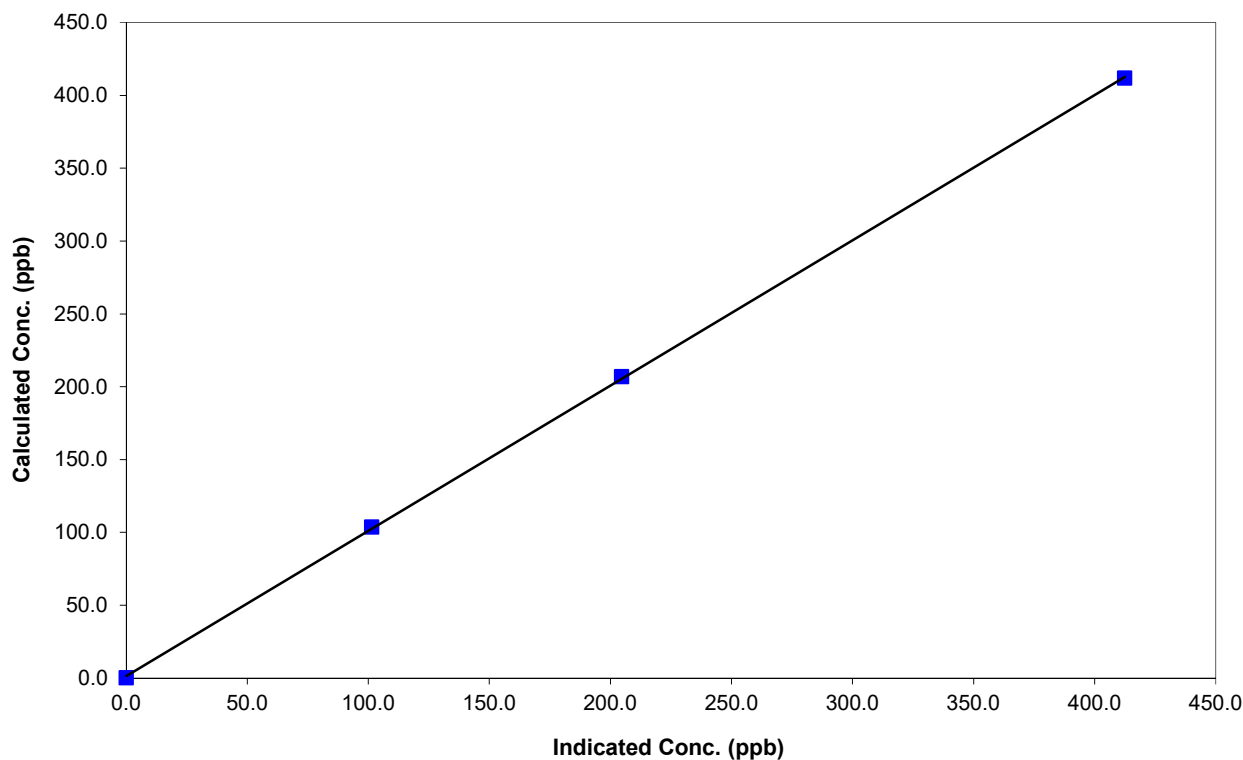
Station Information

Calibration Date	June 13, 2018	Previous Calibration	May 25, 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:00	End Time (MST)	15:55:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

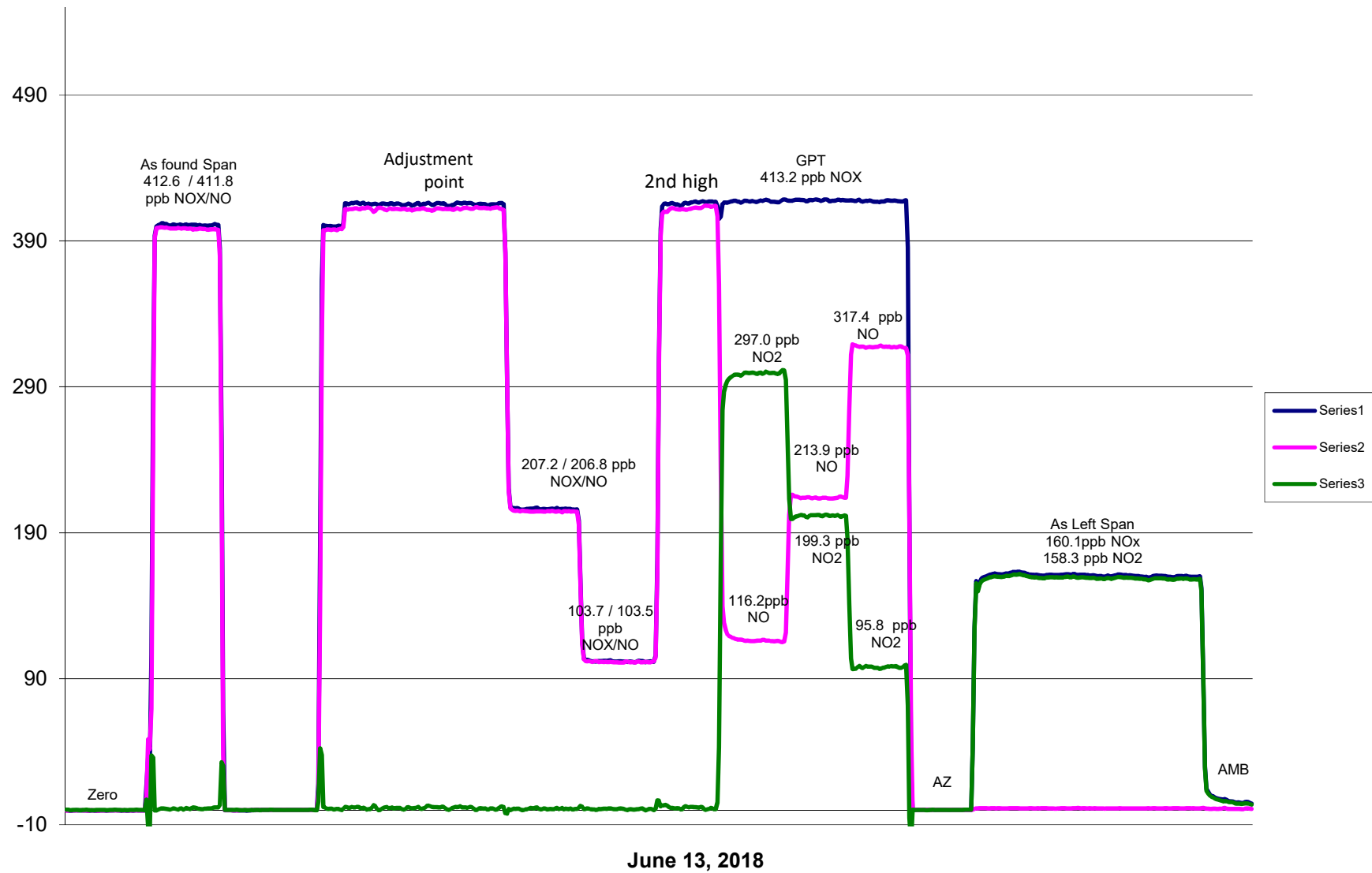
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999937
411.8	412.4	0.9985		
206.8	204.6	1.0108		
103.5	101.4	1.0204	Slope	0.997555
			Intercept	1.322384

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03
Air Monitoring Network PAZA

Station Information

Calibration Date	June 14 2018	Previous Calibration	May 24 2018
Station Number	10	Station Location	Rycroft
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	10:45	End Time (MST)	14:20:00 PM
Barometric Pressure	0.919 atm	Station Temperature	20.0 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	1.044843	Calculated slope	0.979868
Calculated intercept	0.383134	Calculated intercept	-0.456610
Analyzer make	TEI Model 49C	Analyzer serial #	49I-115363156

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	-0.4	ppb	-0.4	ppb
Span	1.022		1.046	
Cell A intensity	96299	Hz	96012	Hz
Cell B intensity	84012	Hz	83387	Hz
Pressure	695.00	in Hg	696.80	in Hg
Cell A Flow	0.686	ccm	0.686	ccm
Cell B Flow	0.682	cmm	0.686	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)
4996	0.00	0.0	0.5	N/A
4996	0.30	297.0	304.0	0.9771
4996	0.20	199.3	203.1	0.9815
4996	0.10	95.8	98.6	0.9711
4996	0.00	0.0	-1.8	As found zero
4996	0.30	297.0	297.7	As found span
Average Correction Factor				0.9766

Calculated value of As Found Response: 313.4 ppm Percent Change of As Found: 5.5%

	before calibration		after calibration	
Auto zero	0.5	ppb	-0.2	ppb
Auto span	487.7	ppb	380.0	ppb

Notes: Zero/span valve was replaced.
Zero and span were adjusted
Daily span value was adjusted down
Internal zero seem to be not matching calibrator zero, with the difference of around 2ppb.
Will ordered sample/reference valves to put in.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter 03
Air Monitoring Network PAZA



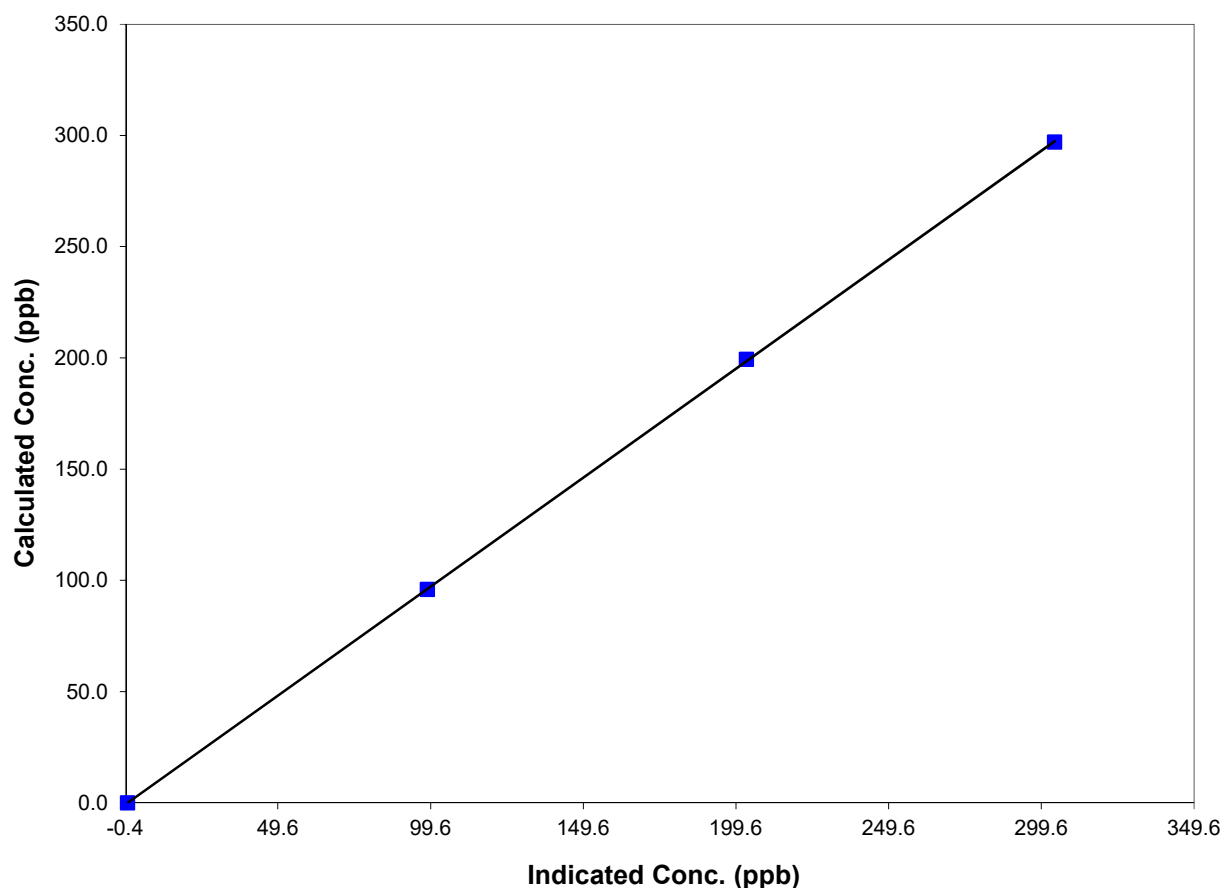
Station Information

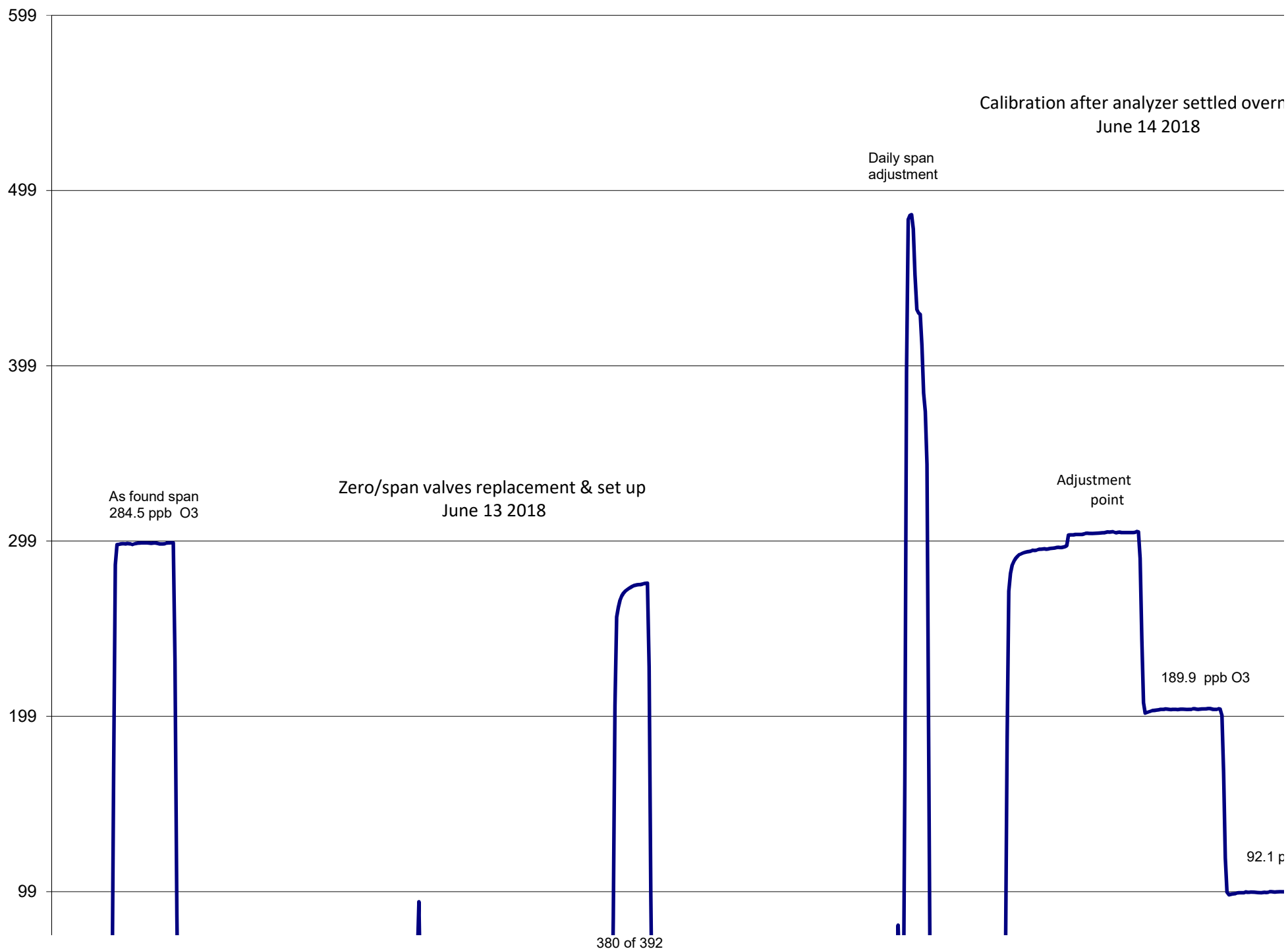
Calibration Date	June 14 2018	Previous Calibration	May 24 2018
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:45	End Time (MST)	14:20:00 PM
Analyzer make/model	TEI Model 49C	Analyzer serial #	49I-115363156

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	NA	Correlation Coefficient	0.999981
297.0	304.0	0.9771		
199.3	203.1	0.9815		
95.8	98.6	0.9711	Slope	0.979868
			Intercept	-0.456610

O3 Calibration Curve





Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	June 14, 2018	Previous Calibration	May 28, 2018
Station Number	1	Station Location	Rycroft
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	9:45	End Time (MST)	12:35
Barometric Pressure	0.930 atm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas CH4 Conc	404 ppm CH4	Cal Gas Expiry Date	28/03/2014
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)
2000	0.00	0.00	0.03	N/A
2000	64.96	12.71	13.07	0.9721
2000	40.97	8.11	8.34	0.9728
2000	15.96	3.20	3.28	0.9749
2000	0.00	0.00	0.03	As Found Zero
2000	64.93	12.70	13.07	As Found Span
Average Correction Factor				0.9733

Calculated value of As Found Response: 13.034 ppm Percent Change of As Found: -2.6%

	Before		After
Calculated slope	1.000870	Calculated slope	0.973985
Calculated intercept	-0.017539	Calculated intercept	-0.016143

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.03	ppm
Auto span	8.29	ppm	8.34	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)
2000	0.00	0.00	0.00	N/A
2002	64.96	17.37	17.74	0.9790
2000	40.97	11.10	11.28	0.9834
2000	15.96	4.38	4.34	1.0094
2000	0.00	0.00	0.00	As Found Zero
2000	64.93	17.38	17.74	As Found Span
Average Correction Factor				0.9906

Calculated value of As Found Response: 17.347 ppm Percent Change of As Found: 0.2%

	Before		After
Calculated slope	0.972751	Calculated slope	0.976952
Calculated intercept	0.086692	Calculated intercept	0.062187

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	11.13	ppm	11.14	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)
2000	0.00	0.00	0.03	N/A
2000	64.96	30.10	30.86	0.9752
2000	40.97	19.21	19.61	0.9793
2000	15.96	7.57	7.64	0.9911
2000	0.00	0.00	0.03	As Found Zero
2000	64.93	30.08	30.86	As Found Span
Average Correction Factor				0.9819

Calculated value of As Found Response: 30.403 ppm Percent Change of As Found: -1.1%

	Before		After
Calculated slope	0.984115	Calculated slope	0.975255
Calculated intercept	0.061892	Calculated intercept	0.041952

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.03	ppm
Auto span	19.42	ppm	19.48	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4
Air Monitoring Network PAZA



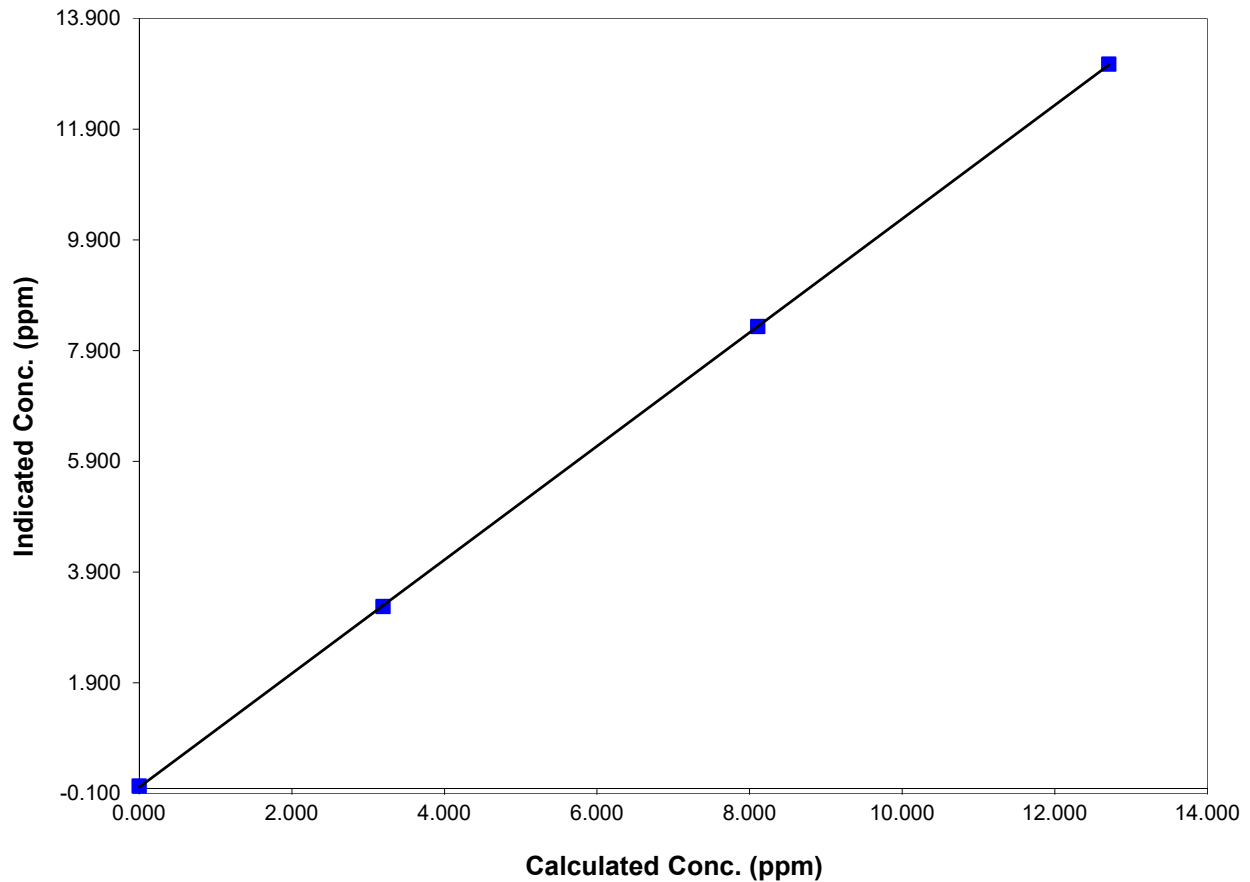
Station Information

Calibration Date	June 14, 2018	Previous Calibration	May 28, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	9:45	End Time (MST)	12:35
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	0.034	N/A	Correlation Coefficient	0.999992
12.709	13.074	0.9721		
8.110	8.336	0.9728		
3.198	3.281	0.9749	Slope	0.973985
			Intercept	-0.016143

CH4 Calibration Data



Calibration Summary

Parameter NMHC
Air Monitoring Network PAZA



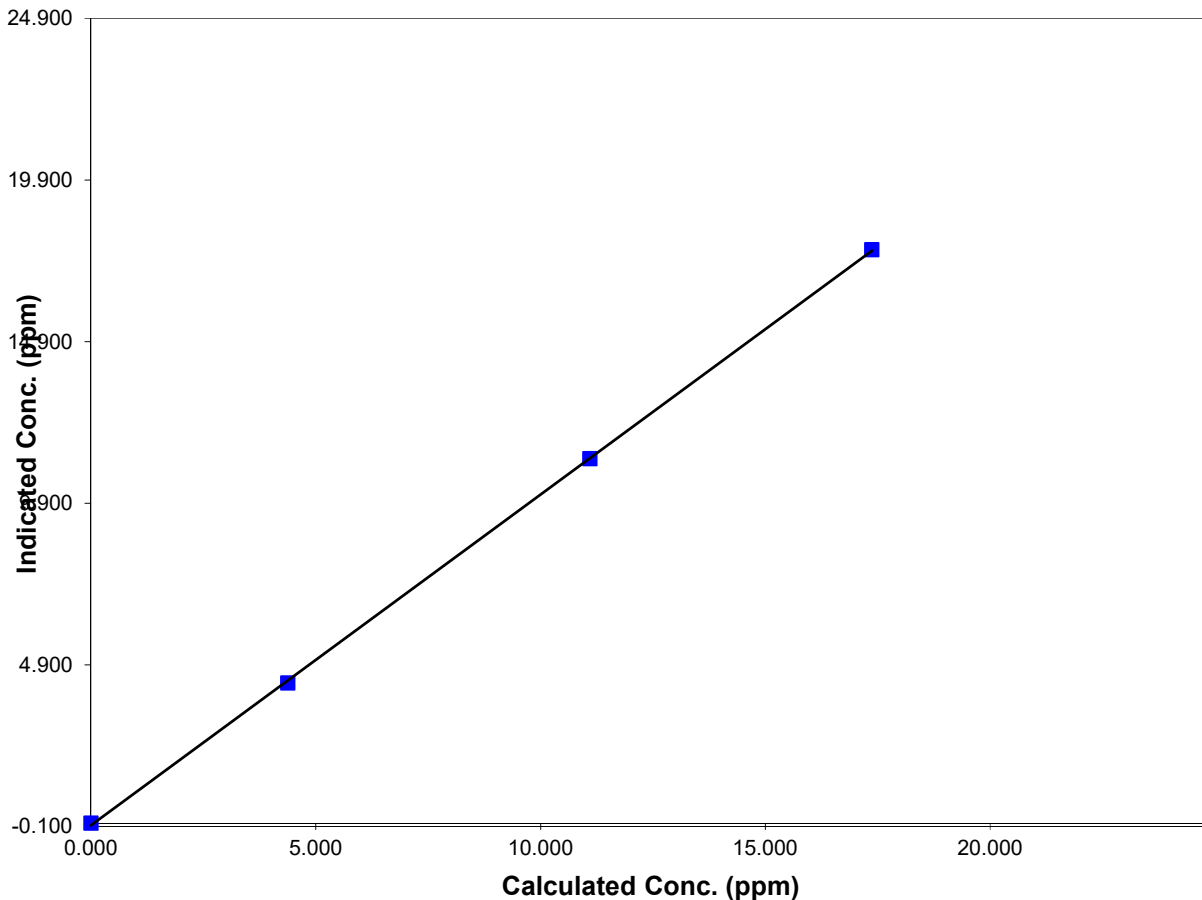
Station Information

Calibration Date	June 14, 2018	Previous Calibration	May 28, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	9:45	End Time (MST)	12:35
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	0.001	N/A	Correlation Coefficient	0.999937
17.372	17.744	0.9790		
11.096	11.283	0.9834		
4.376	4.335	1.0094	Slope	0.976952
			Intercept	0.062187

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



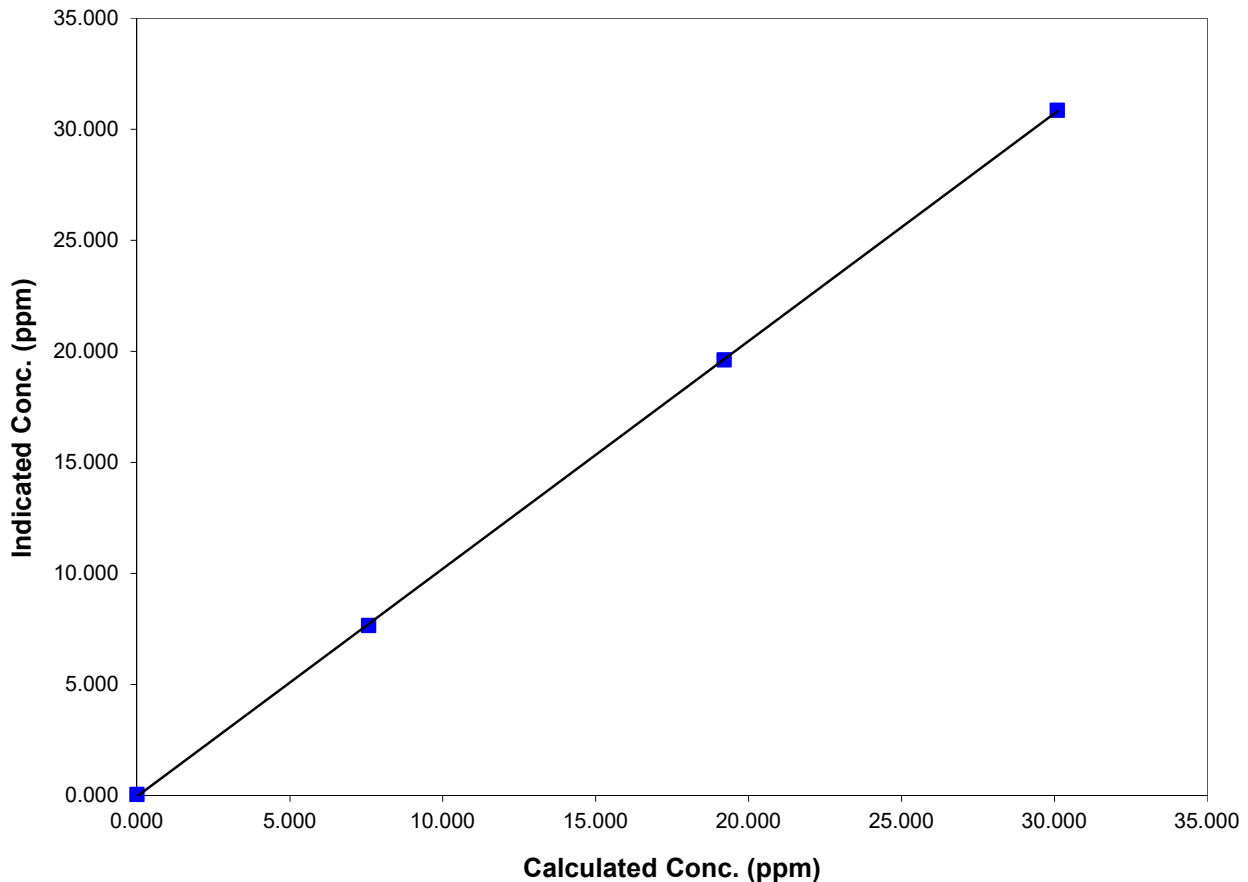
Station Information

Calibration Date	June 14, 2018	Previous Calibration	May 28, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	9:45	End Time (MST)	12:35
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

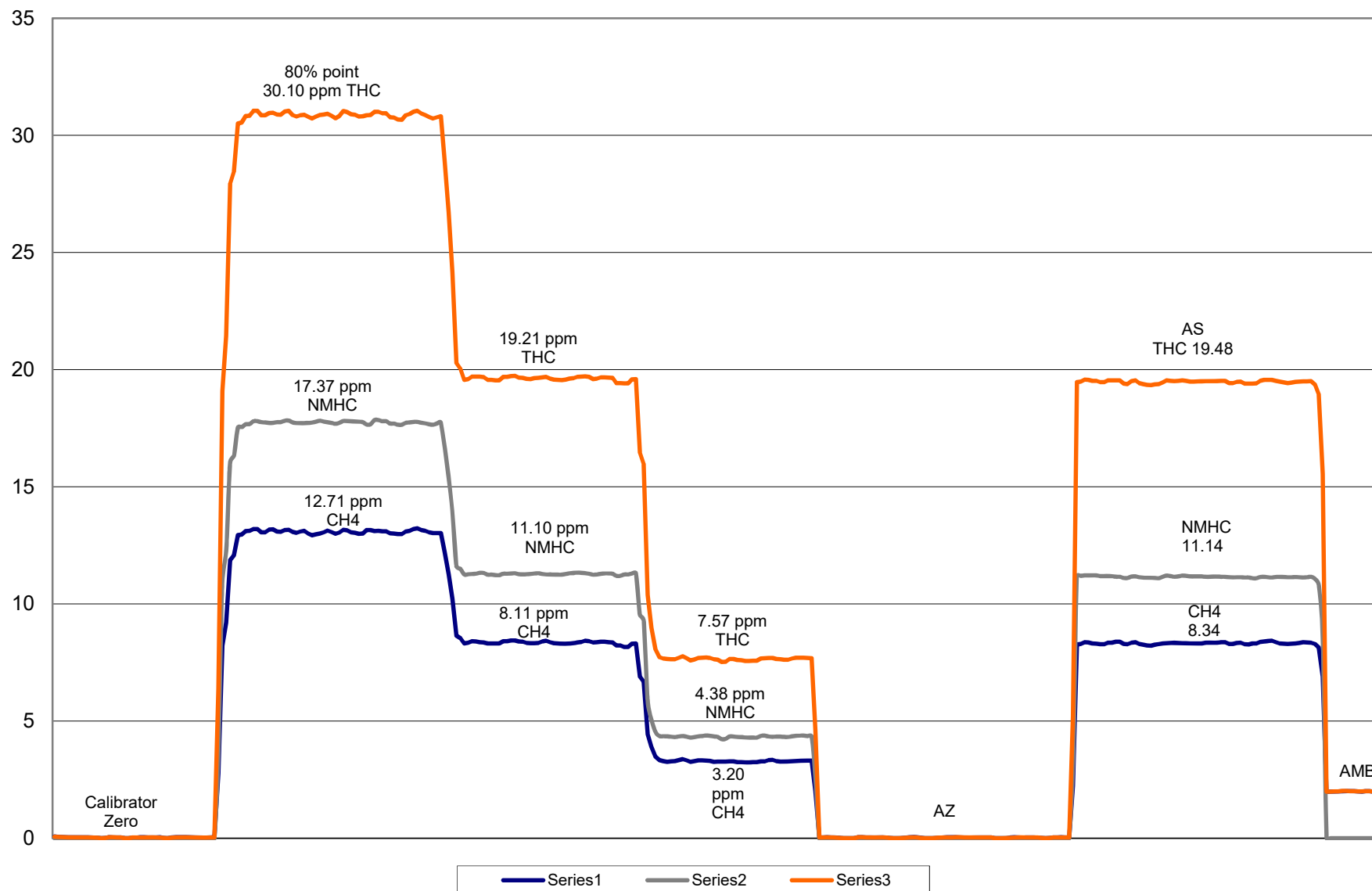
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.032	N/A	Correlation Coefficient	0.999972
30.098	30.863	0.9752		
19.206	19.612	0.9793		
7.574	7.642	0.9911	Slope	0.975255
			Intercept	0.041952

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

Station Information

Calibration Date	June 27, 2018	Previous Calibration	June 14, 2018
Station Number	1	Station Location	Rycroft
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	10:50	End Time (MST)	13:25:00 PM
Barometric Pressure	0.930 atm	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6103	Serial Number	6586
Cal Gas CH4 Conc	404 ppm CH4	Cal Gas Expiry Date	28/03/2014
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)
2000	0.00	0.00	0.02	N/A
2000	64.96	12.71	12.79	0.9936
2000	40.97	8.11	8.10	1.0018
2000	15.96	3.20	3.20	0.9988
2000	0.00	0.00	0.02	As Found Zero
2000	64.93	12.70	12.79	As Found Span
Average Correction Factor				0.9981

Calculated value of As Found Response: 12.760 ppm Percent Change of As Found: -0.4%

	Before		After
Calculated slope	1.000870	Calculated slope	0.996152
Calculated intercept	-0.017539	Calculated intercept	-0.000612

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.01	ppm
Auto span	8.29	ppm	7.95	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)
2000	0.00	0.00	0.00	N/A
2002	64.96	17.37	17.62	0.9857
2000	40.97	11.10	11.20	0.9908
2000	15.96	4.38	4.28	1.0231
2000	0.00	0.00	0.00	As Found Zero
2000	64.93	17.38	17.62	As Found Span
Average Correction Factor				0.9999

Calculated value of As Found Response: 17.229 ppm Percent Change of As Found: 0.9%

	Before		After
Calculated slope	0.972751	Calculated slope	0.983125
Calculated intercept	0.086692	Calculated intercept	0.075353

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	11.13	ppm	11.18	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)
2000	0.00	0.00	0.02	N/A
2000	64.96	30.10	30.46	0.9882
2000	40.97	19.21	19.29	0.9955
2000	15.96	7.57	7.51	1.0091
2000	0.00	0.00	0.02	As Found Zero
2000	64.93	30.08	30.46	As Found Span
Average Correction Factor				0.9976

Calculated value of As Found Response: 30.012 ppm Percent Change of As Found: 0.2%

	Before		After
Calculated slope	0.984115	Calculated slope	0.988129
Calculated intercept	0.061892	Calculated intercept	0.069251

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.01	ppm
Auto span	19.42	ppm	19.13	ppm

Notes: Replaced nitrogen cylinder
No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



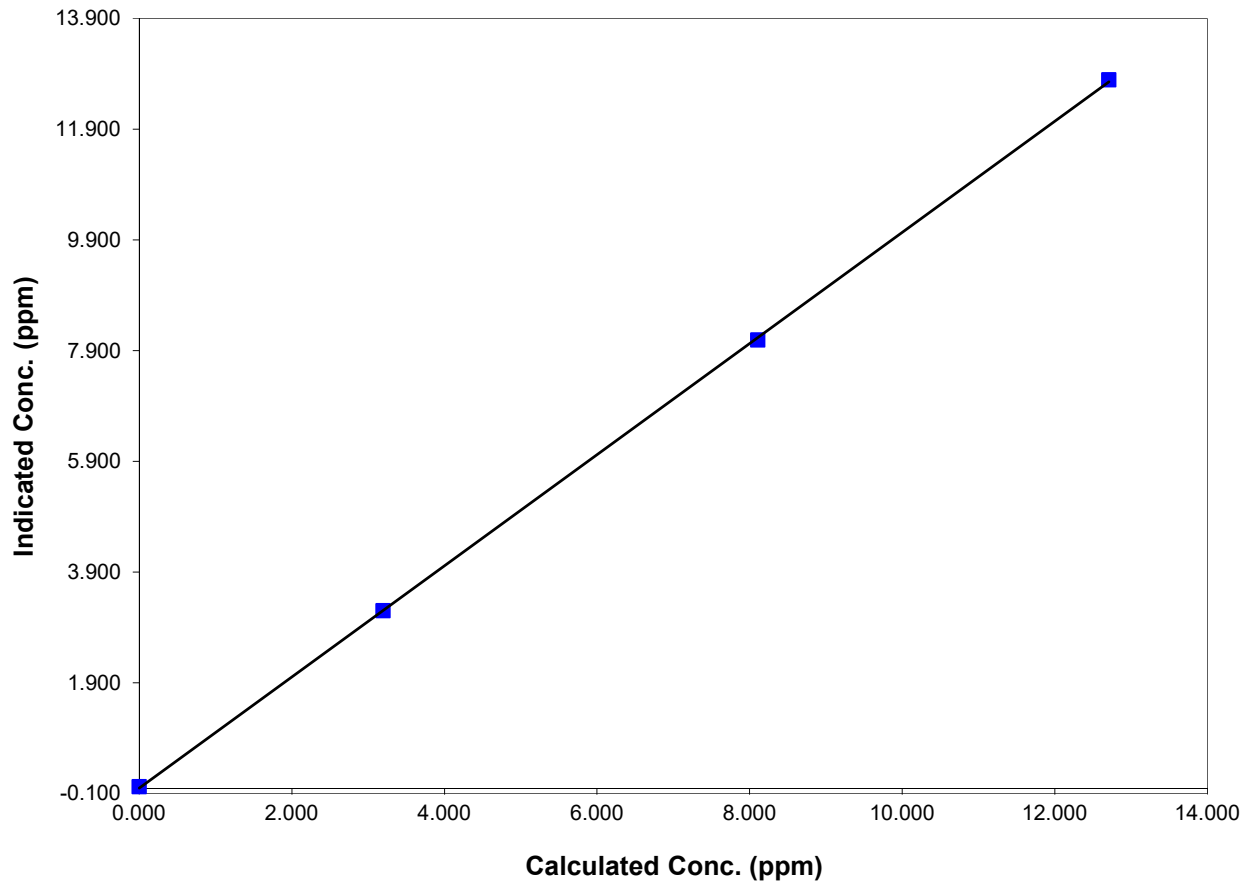
Station Information

Calibration Date	June 27, 2018	Previous Calibration	June 14, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	10:50	End Time (MST)	13:25:00 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	0.025	N/A	Correlation Coefficient	0.999959
12.709	12.791	0.9936		
8.110	8.095	1.0018		
3.198	3.202	0.9988	Slope	0.996152
			Intercept	-0.000612

CH4 Calibration Data



Calibration Summary

Parameter NMHC
Air Monitoring Network PAZA



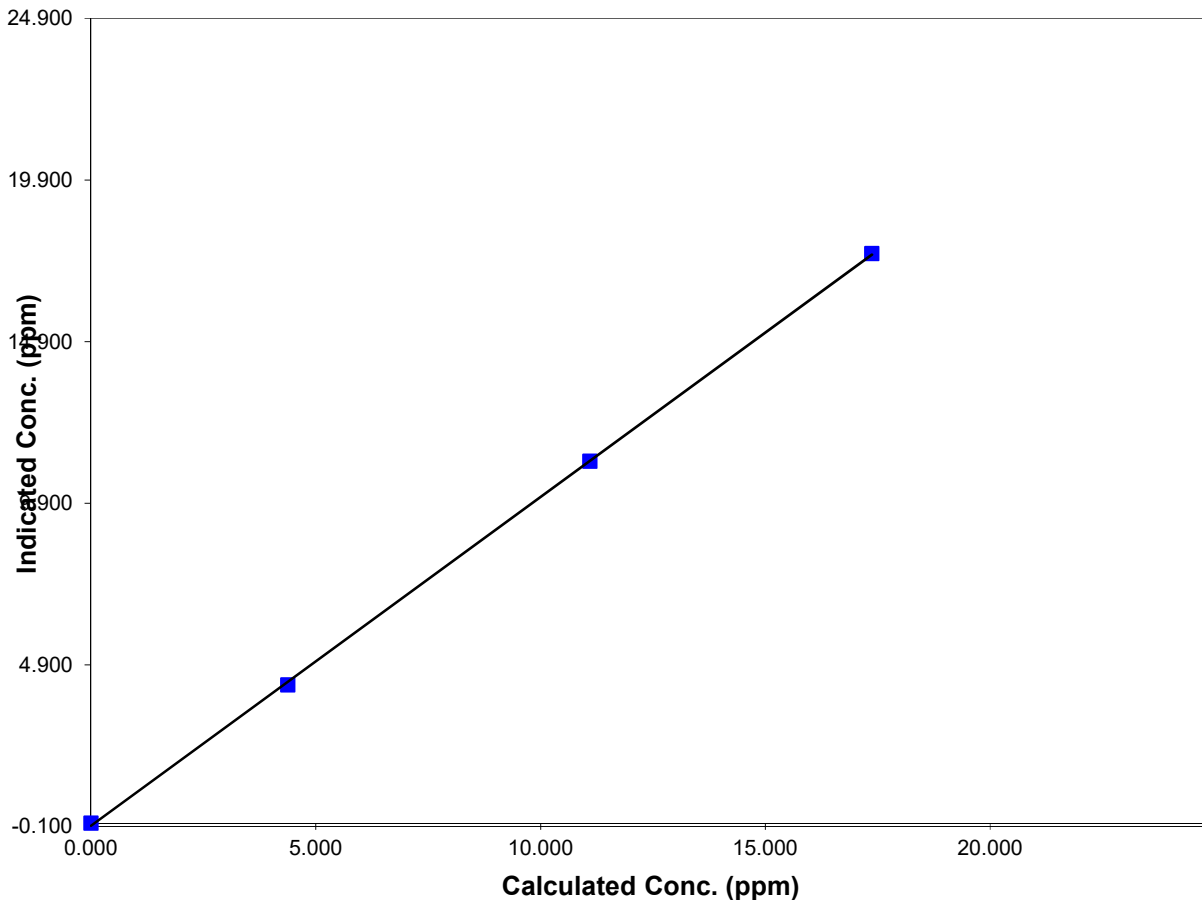
Station Information

Calibration Date	June 27, 2018	Previous Calibration	June 14, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	10:50	End Time (MST)	13:25:00 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	0.001	N/A	Correlation Coefficient	0.999908
17.372	17.624	0.9857		
11.096	11.199	0.9908		
4.376	4.277	1.0231	Slope	0.983125
			Intercept	0.075353

NMHC Calibration Data



Calibration Summary

Parameter THC
Air Monitoring Network PAZA



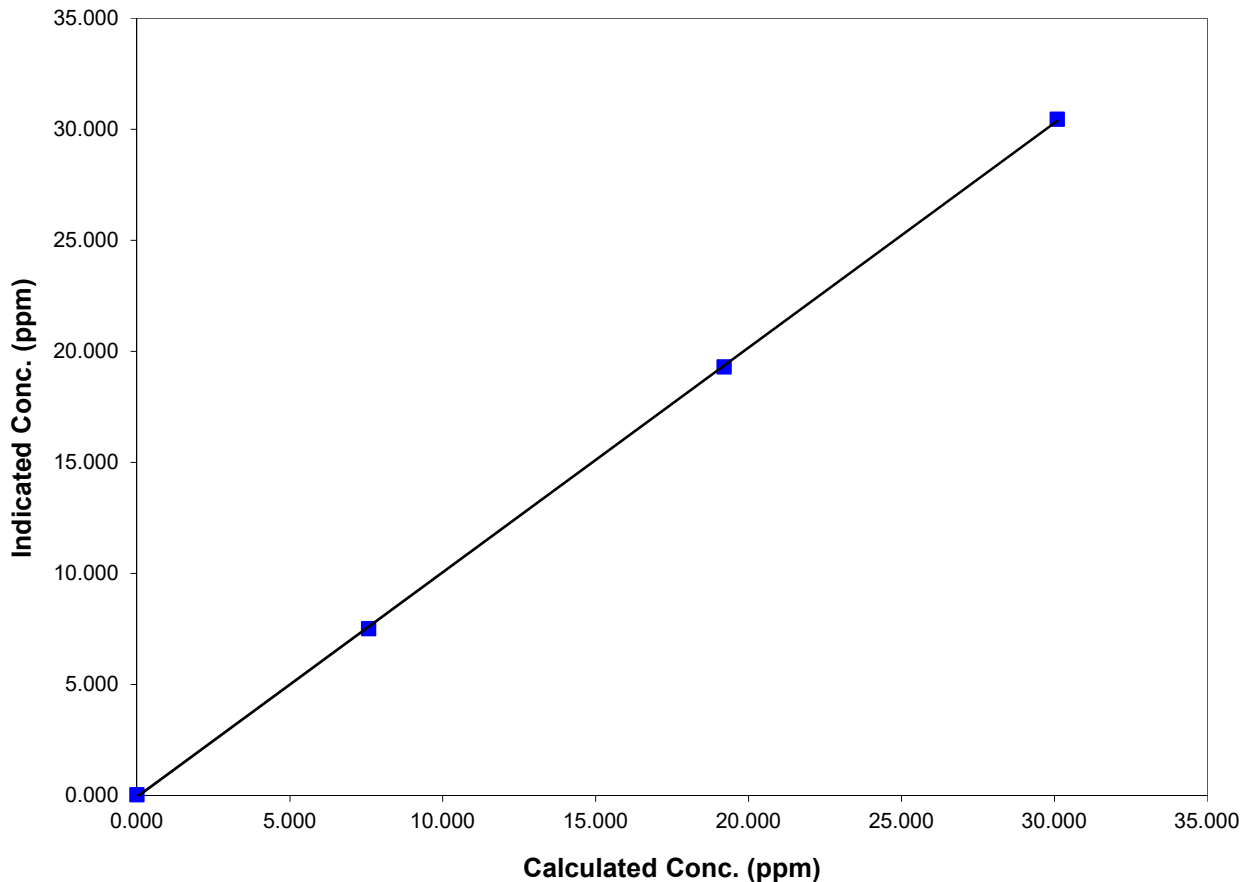
Station Information

Calibration Date	June 27, 2018	Previous Calibration	June 14, 2018
Station Number	1	Station Location	Rycroft
Start Time (MST)	10:50	End Time (MST)	13:25:00 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	0.024	N/A	Correlation Coefficient	0.999949
30.098	30.458	0.9882		
19.206	19.292	0.9955		
7.574	7.506	1.0091	Slope	0.988129
			Intercept	0.069251

THC Calibration Data



THC/CH₄/NMHC Calibration

