Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
June 2017

Peace Airshed Zone Association
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July 31, 2017

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

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

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

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

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

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

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

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

During the month of 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 two 1-hour PM2.5 exceedances recorded on June 3. The concentrations recorded were 111 µg/m^3 at 07:00 MST, and 154 µg/m^3 at 08:00 MST, above the hourly AAAQO of 80 µg/m^3. AEP reference number: 325188
- All analyzers and 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 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 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.
- All analyzers and 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 sensors at the Valleyview station had an operational uptime greater than 90% for the month of June.

Donnelly Station:

- The measured ambient air quality was within the AAAQO for the Donnelly station.
- All analyzers and 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 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 six duplicate sites sampled in the month of June: Boone Creek and Wembley (SO_2), Bay Tree and Kinuso (O_3), Pinto Creek and Grande Prairie 1 (NO_2), and Girouxville 3 (H_2S). The passive sample analyses were performed by MAXXAM Analytics Inc.

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

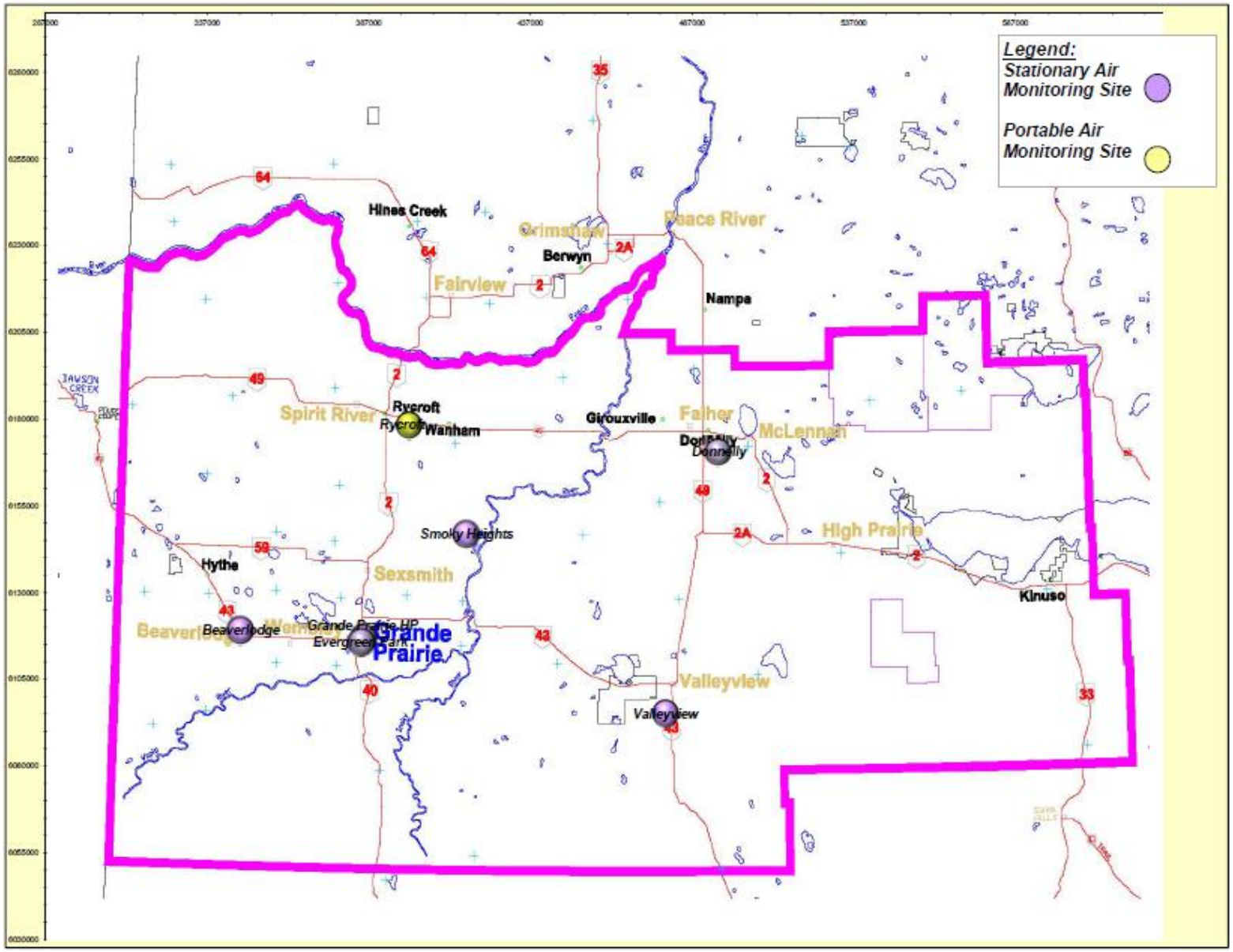
- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.2 ppb to 3.4 ppb, with a mean of 1.2 ppb.
- Monthly average concentrations for O_3 passives ranged from 24.4 ppb to 29.4 ppb, with a mean of 26.9 ppb.
- Monthly average concentrations for H_2S passives ranged from 0.1 ppb 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-2017	Peace Airshed Zone Assocation						Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
Pollutant (units)	Objectives 1-hr	Objectives 24-hr	Station	Monthly Average	Exceedence 1-hr	Exceedence 24-hr	Conc	Day	Conc	Day	Operational Time (%)	Calibration Date
SO_2 (ppb)	172	48	Henry Pirker	0.2	0	0	11.7	Jun-17 07:00	1.7	Jun-17	100.0%	Jun-01
SO_2 (ppb)	172	48	Evergreen Park	0.2	0	0	6.0	Jun-18 00:00	0.9	Jun-13	99.6%	Jun-09
SO_2 (ppb)	172	48	Smoky Heights	0.3	0	0	11.2	Jun-20 23:00	1.0	Jun-20	99.7%	Jun-13
SO_2 (ppb)	172	48	Beaverlodge	0.2	0	0	1.7	Jun-19 10:00	0.8	Jun-08	100.0%	Jun-15
SO_2 (ppb)	172	48	Valleyview	1.0	0	0	15.7	Jun-21 04:00	4.6	Jun-17	100.0%	Jun-27
SO_2 (ppb)	172	48	Donnelly	0.2	0	0	6.5	Jun-13 07:00	0.6	Jun-13	100.0%	Jun-23
SO_2 (ppb)	172	48	Rycroft-Portable	0.2	0	0	1.8	Jun-04 21:00	0.4	Jun-04	100.0%	Jun-19
NO (ppb)			Henry Pirker	0.7	-	-	19.1	Jun-06 07:00	2.2	Jun-06	100.0%	Jun-01
NO_2 (ppb)	159	106	Henry Pirker	4.4	0	0	21.5	Jun-06 01:00	7.8	Jun-06	100.0%	Jun-01
NO_X (ppb)			Henry Pirker	5.1	-	-	36.0	Jun-06 07:00	10.1	Jun-06	100.0%	Jun-01
NO (ppb)			Beaverlodge	0.3	-	-	6.5	Jun-06 08:00	0.9	Jun-19	100.0%	Jun-15
NO_2 (ppb)	159	106	Beaverlodge	2.1	0	0	10.1	Jun-07 08:00	3.6	Jun-25	100.0%	Jun-15
NO_X (ppb)			Beaverlodge	2.4	-	-	14.9	Jun-06 08:00	4.2	Jun-19	100.0%	Jun-15
NO (ppb)			Rycroft-Portable	0.3	-	-	25.5	Jun-21 15:00	1.4	Jun-21	100.0%	Jun-19
NO_2 (ppb)	159	106	Rycroft-Portable	2.5	0	0	16.5	Jun-26 04:00	4.7	Jun-07	100.0%	Jun-19
NO_X (ppb)			Rycroft-Portable	2.8	-	-	31.9	Jun-21 15:00	5.2	Jun-07	100.0%	Jun-19
O_3 (ppb)	82		Henry Pirker	28.3	0	-	60.6	Jun-08 17:00	48.2	Jun-08	100.0%	Jun-01
O_3 (ppb) - 8-hr			Henry Pirker		0				56.7	Jun-08		-
O_3 (ppb)	82		Beaverlodge	30.0	0	-	60.1	Jun-08 18:00	49.2	Jun-08	100.0%	Jun-15
O_3 (ppb) - 8-hr			Beaverlodge		0				57.9	Jun-08		-
O_3 (ppb)	82		Rycroft-Portable	28.4	0	-	58.4	Jun-07 17:00	40.6	Jun-08	100.0%	Jun-19
O_3 (ppb) - 8-hr			Rycroft-Portable		0				56.0	Jun-07		-
CO (ppm)	13		Henry Pirker	0.14	0	-	0.4	Jul-01 00:00	0.2	Jun-07	100.0%	Jun-02
CO (ppm) - 8-hr	5		Henry Pirker		0				0.2	Jun-30		-

PAZA Monthly Continuous Data Summary – continued

Jun-2017	Peace Airshed Zone Assocation						Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
THC (ppm)			Henry Pirker	2.2	-	-	2.7	Jun-05 01:00	2.3	Jun-19	94.9%	Jun-02
CH_4 (ppm)			Henry Pirker	2.2	-	-	2.7	Jun-05 01:00	2.3	Jun-19	94.9%	Jun-02
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Jun-28 09:00	0.0	Jun-28	94.9%	Jun-02
THC (ppm)			Rycroft-Portable	1.9	-	-	2.3	Jun-07 04:00	2.0	Jun-24	99.2%	Jun-16
CH_4 (ppm)			Rycroft-Portable	1.9	-	-	2.2	Jun-07 04:00	2.0	Jun-24	99.2%	Jun-16
NMHC (ppm)			Rycroft-Portable	0.0	-	-	0.0	Jun-23 11:00	0.0	Jun-23	99.2%	Jun-16
TRS (ppb)			Henry Pirker	0.2	-	-	0.7	Jun-19 07:00	0.3	Jun-01	100.0%	Jun-02
TRS (ppb)			Evergreen Park	0.3	-	-	1.4	Jun-06 08:00	0.5	Jun-06	96.3%	Jun-09
TRS (ppb)			Smoky Heights	0.2	-	-	0.7	Jun-19 04:00	0.3	Jun-01	99.7%	Jun-13
TRS (ppb)			Rycroft-Portable	0.2	-	-	0.6	Jun-16 15:00	0.3	Jun-28	100.0%	Jun-16
H_2S (ppb)	10	3	Valleyview	0.2	0	0	3.3	Jun-14 04:00	0.5	Jun-01	100.0%	Jun-27
H_2S (ppb)	10	3	Donnelly	0.2	0	0	1.6	Jun-15 03:00	0.4	Jun-10	100.0%	Jun-23
$PM_{2.5}$ (µg/m3)	80	30	Henry Pirker	5.7	2	0	153.8	Jun-03 08:00	30.3	Jun-03	100.0%	Jun-05
$PM_{2.5}$ (µg/m3)	80	30	Evergreen Park	3.3	0	0	21.1	Jun-01 01:00	5.8	Jun-08	99.2%	Mar-13
$PM_{2.5}$ (µg/m3)	80	30	Smoky Heights	5.6	0	0	73.1	Jun-05 21:00	16.3	Jun-05	99.7%	Mar-27
$PM_{2.5}$ (µg/m3)	80	30	Beaverlodge	4.4	0	0	59.1	Jun-08 09:00	13.8	Jun-08	100.0%	Jun-15
$PM_{2.5}$ (µg/m3)	80	30	Rycroft-Portable	2.8	0	0	37.3	Jun-09 02:00	7.9	Jun-07	100.0%	Jun-19
RH (%)			Henry Pirker	55.8	-	-	91.1	Jun-12 06:00	82.8	Jun-11	100.0%	-
RH (%)			Evergreen Park	60.9	-	-	99.5	Jun-15 06:00	93.8	Jun-11	100.0%	-
RH (%)			Beaverlodge	62.6	-	-	100.0	Jun-09 11:00	99.0	Jun-11	100.0%	-
RH (%)			Valleyview	50.5	-	-	99.2	Jun-29 05:00	85.5	Jun-28	100.0%	-
SR (W/m^2)			Henry Pirker	220.2	-	-	834.5	Jun-18 13:00	302.3	Jun-17	100.0%	-
Temp (°C)			Henry Pirker	15.7	-	-	28.5	Jun-30 18:00	21.8	Jun-08	100.0%	-
Temp (°C)			Evergreen Park	15.0	-	-	28.2	Jun-25 18:00	20.9	Jun-25	100.0%	-
Temp (°C)			Smoky Heights	15.1	-	-	27.9	Jun-08 14:00	21.4	Jun-08	99.7%	-
Temp (°C)			Beaverlodge	14.6	-	-	27.8	Jun-25 18:00	21.5	Jun-25	100.0%	-
Temp (°C)			Valleyview	15.5	-	-	28.0	Jun-17 16:00	22.0	Jun-08	100.0%	-
Temp (°C)			Donnelly	15.8	-	-	28.0	Jun-08 14:00	22.6	Jun-08	100.0%	-
Temp (°C)			Rycroft-Portable	15.9	-	-	28.6	Jun-08 15:00	21.8	Jun-25	100.0%	-

PAZA Monthly Continuous Data Summary – continued

Jun-2017	Peace Airshed Zone Assocation						Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
WSPD s (km/hr)			Henry Pirker	10.0	-	-	31.0	Jun-21 13:00	23.4	Jun-21	100.0%	-
WSPD s (km/hr)			Evergreen Park	12.7	-	-	47.0	Jun-21 09:00	32.0	Jun-21	99.7%	-
WSPD s (km/hr)			Smoky Heights	13.4	-	-	44.0	Jun-21 09:00	28.5	Jun-21	99.7%	-
WSPD s (km/hr)			Beaverlodge	12.2	-	-	38.0	Jun-20 19:00	21.1	Jun-21	100.0%	-
WSPD s (km/hr)			Valleyview	4.8	-	-	20.0	Jun-21 16:00	13.3	Jun-21	100.0%	-
WSPD s (km/hr)			Donnelly	12.4	-	-	37.0	Jun-09 17:00	25.9	Jun-21	99.7%	-
WSPD s (km/hr)			Rycroft-Portable	12.2	-	-	44.0	Jun-21 16:00	28.9	Jun-27	100.0%	-
WSPD v (km/hr)			Henry Pirker	4.4	-	-	30.0	Jun-21 13:00	22.2	Jun-21	100.0%	-
WSPD v (km/hr)			Evergreen Park	7.1	-	-	46.0	Jun-21 09:00	29.9	Jun-21	99.7%	-
WSPD v (km/hr)			Smoky Heights	7.2	-	-	44.0	Jun-21 09:00	27.5	Jun-21	99.7%	-
WSPD v (km/hr)			Beaverlodge	3.6	-	-	38.0	Jun-20 19:00	18.8	Jun-21	100.0%	-
WSPD v (km/hr)			Valleyview	2.6	-	-	20.0	Jun-21 16:00	12.6	Jun-21	100.0%	-
WSPD v (km/hr)			Donnelly	5.3	-	-	37.0	Jun-09 17:00	24.8	Jun-21	99.7%	-
WSPD v (km/hr)			Rycroft-Portable	4.7	-	-	44.0	Jun-21 16:00	28.5	Jun-27	100.0%	-
WDIR			Henry Pirker	WSW	-	-	-	-	-	-	100.0%	-
WDIR			Evergreen Park	WSW	-	-	-	-	-	-	99.7%	-
WDIR			Smoky Heights	WSW	-	-	-	-	-	-	99.7%	-
WDIR			Beaverlodge	W	-	-	-	-	-	-	100.0%	-
WDIR			Valleyview	WNW	-	-	-	-	-	-	100.0%	-
WDIR			Donnelly	SW	-	-	-	-	-	-	99.7%	-
WDIR			Rycroft-Portable	WSW	-	-	-	-	-	-	100.0%	-

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues:

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
NOx/NO/NO_2	TEI	42i	No operational issues observed.
O_3	TEI	49i	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC/CH_4/NMHC	TEI	55I	Analyzer maintenance on June 1-2 due to a sample pump failure resulted in an uptime of 94.9%.
TRS	TEI	45C	No operational issues observed.
$PM_{2.5}$	Sharp	5030	No operational issues observed.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Evergreen Park Station

General Station Issues

Power disruption at the station on June 8.

Parameter	Make	Model	Notes
SO_2	TEI	43i	A power disruption at the station resulted in an uptime of 99.6%
TRS	TEI	43C	A power disruption at the station and analyzer malfunctioning resulted in an uptime of 96.3%
$PM_{2.5}$	Sharp	5030	A power disruption at the station, instrument malfunctioning, and routine maintenance resulted in an uptime of 99.2%
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		A power disruption at the station resulted in an uptime of 99.7%

PAZA – Smoky Heights Station

General Station Issues

Power disruption at the station on June 30.

Parameter	Make	Model	Notes
SO_2	TEI	43C	A power disruption at the station resulted in an uptime of 99.7%.
TRS	TEI	43i	A power disruption at the station resulted in an uptime of 99.7%.
$PM_{2.5}$	Sharp	5030	A power disruption at the station resulted in an uptime of 99.7%.
ET	Met One	083D	A power disruption at the station resulted in an uptime of 99.7%.
WS / WD	Met One	010C/020C	A power disruption at the station resulted in an uptime of 99.7%.

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_2S	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

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
H_2S	Thermo	450i	No operational issues observed.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	Maintenance while the wind instrument was swapped out for calibration resulted in an uptime of 99.7%.

PAZA – Portable-Rycroft

General Station Issues

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
NOx/NO/NO_2	TEI	42i	No operational issues observed.
O_3	TEI	49i	No operational issues observed.
TRS	TEI	43i	No operational issues observed.
THC/CH_4/NMHC	TEI	55i	Analyzer malfunctioning resulted in an uptime of 99.2%.
$PM_{2.5}$	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

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 11.7 ppb on Jun 17 07:00 Maximum Daily Average: 1.7 ppb on Jun 17

Minimum Value: 0 ppb on Jun 2 10:00 Minimum Daily Average: 0.0 ppb on Jun 11
Maximum Diurnal Average: 0.7 ppb at hour 7 Minimum Diurnal Average: 0.1 ppb at hour 13
Monthly Average: 0.23 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.4$ $P_{99} = 2.6$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	A	0	0	0	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	A	0	0	0	0	0	0	0	0	0	0.0	0.1
3-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
4-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
5-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	0.3
6-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
7-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	0.5
8-Jun	0	0	0	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0.6	1.3
9-Jun	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
10-Jun	0	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
11-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
12-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	0.1	1.2
13-Jun	0	1	1	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
14-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
15-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	0.0	0.3
16-Jun	A	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	4	6	A	0.8	5.6
17-Jun	10	0	0	4	1	2	12	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1.7	11.7
18-Jun	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	1	0	0.3	2.2
19-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	0.1	0.3
20-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	0.1	0.7
21-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
22-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0.1	0.8
23-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0.1	0.7
24-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
25-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
26-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
27-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
28-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0.1	0.5
29-Jun	1	3	0	0	0	0	2	1	0	0	A	0	0	0	0	0	2	2	1	2	2	0	1	0	0.8	2.9
30-Jun	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.2
	0.5	0.2	0.1	0.3	0.1	0.2	0.7	0.6	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.1	Diurnal Average	
	10.4	2.9	1.0	4.3	1.1	2.5	11.7	8.2	2.5	2.3	1.3	0.8	0.6	0.5	0.5	0.8	1.7	2.2	0.8	1.5	2.1	3.8	5.6	1.2	Diurnal Maximum	

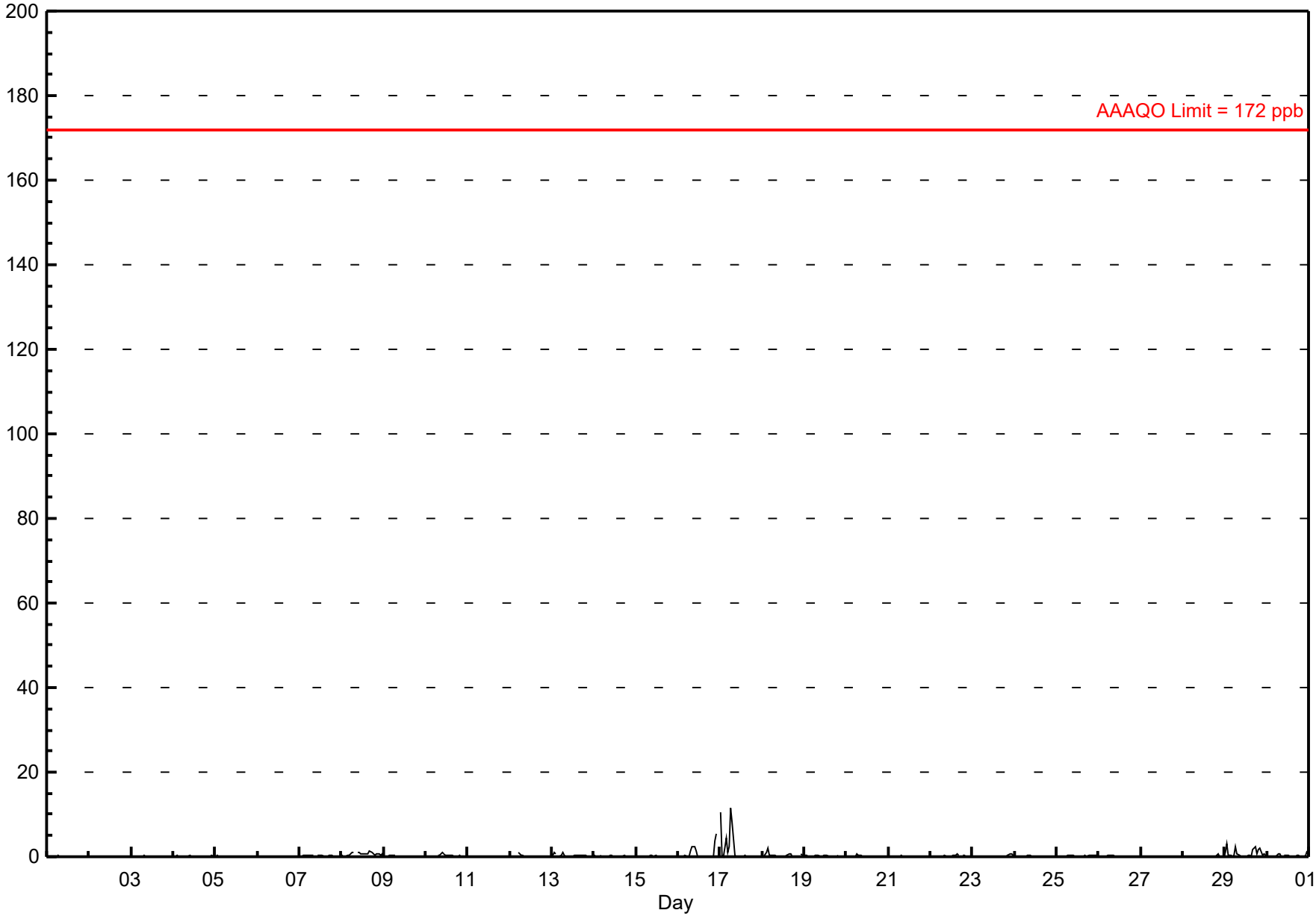
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - June 2017

Maximum Value: 24.7 ppb on Jun 17 01:00

Maximum Daily Average: 4.2 ppb on Jun 17

Minimum Value: 0 ppb on Jun 2 11:00

Minimum Daily Average: 0.0 ppb on Jun 11

Maximum Diurnal Average: 1.3 ppb at hour 7

Minimum Diurnal Average: 0.2 ppb at hour 14

Monthly Average: 0.54 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.9$ $P_{99} = 9.0$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	A	0	0	0	0	0	0	0	0	0.2	0.3
2-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
3-Jun	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	1.0
4-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0.3	1.3
5-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	0.5
6-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	0.2	0.3
7-Jun	0	0	0	1	0	0	0	1	1	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
8-Jun	0	0	0	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
9-Jun	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
10-Jun	0	0	0	0	0	0	A	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0.3	1.2
11-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	0.2
12-Jun	0	0	0	0	A	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.0
13-Jun	1	3	1	A	0	0	3	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.6	2.6
14-Jun	1	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0.3	1.3
15-Jun	0	A	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
16-Jun	A	0	0	0	1	0	0	5	5	4	3	0	0	0	0	1	0	0	2	0	0	11	11	A	2.0	10.6
17-Jun	25	0	0	9	7	16	20	14	2	0	0	0	1	0	1	1	0	0	0	0	0	0	A	0	4.2	24.7
18-Jun	0	0	4	6	0	0	0	0	0	0	0	0	0	0	2	6	2	0	0	0	0	A	1	0	1.0	5.8
19-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	0.4
20-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	0.2	1.1
21-Jun	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.9
22-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0	0	0	0.3	1.2
23-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	0	0.2	1.2
24-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.7
25-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
26-Jun	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.6
27-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
28-Jun	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0.3	1.2
29-Jun	3	6	1	0	0	1	4	2	1	0	A	0	0	1	1	0	6	5	3	4	5	1	1	0	2.1	6.4
30-Jun	0	0	0	0	0	0	2	2	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0.5	2.8
	1.1	0.5	0.4	0.7	0.4	0.9	1.3	1.1	0.6	0.4	0.3	0.2	0.2	0.2	0.3	0.5	0.5	0.4	0.3	0.4	0.4	0.6	0.6	0.3	Diurnal Average	
	24.7	6.0	3.6	9.4	6.8	15.6	20.0	13.6	5.2	4.2	3.2	1.0	0.9	0.7	1.7	5.8	6.4	5.0	3.2	4.1	4.6	10.5	10.6	2.8	Diurnal Maximum	

C - Calibration

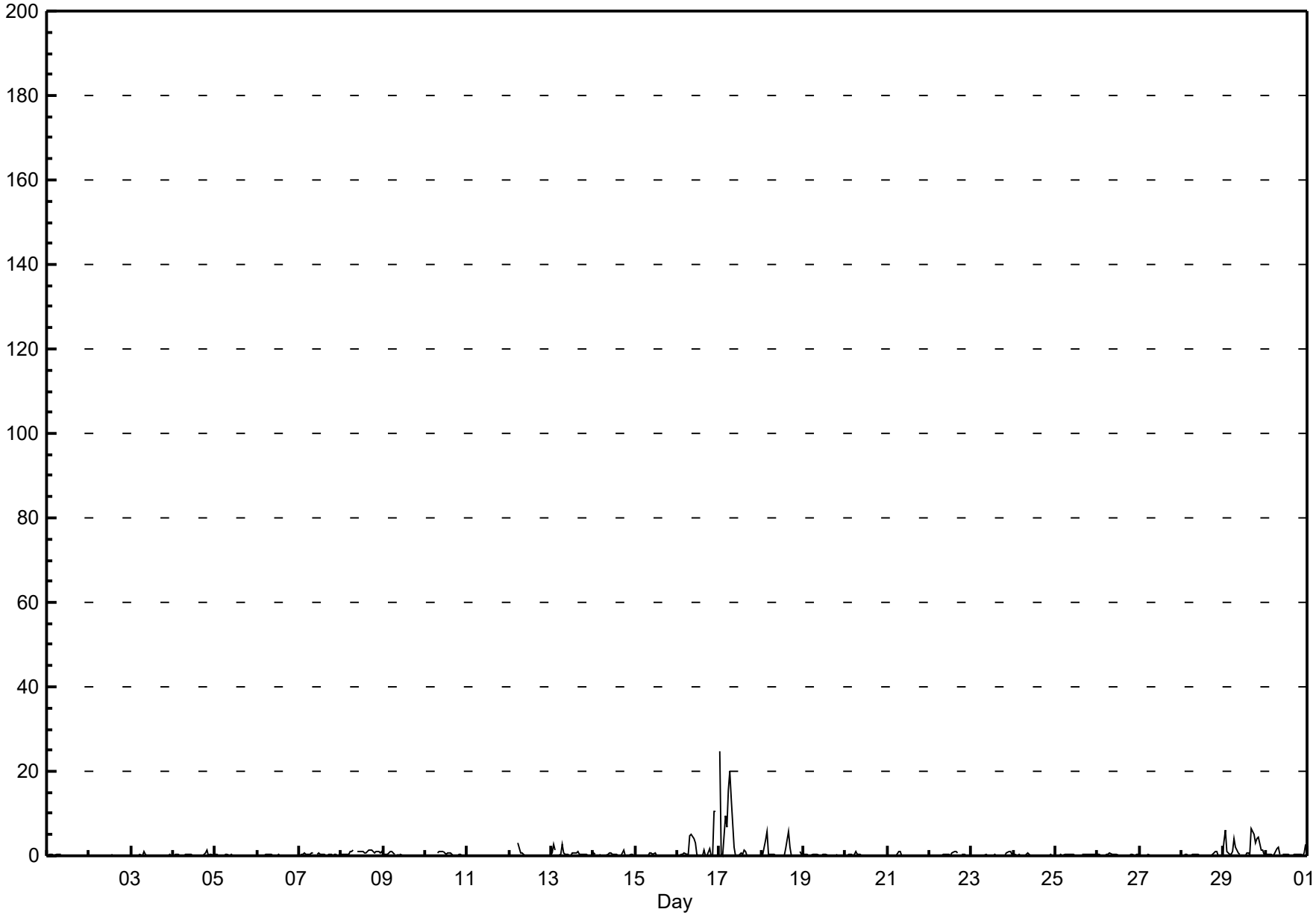
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

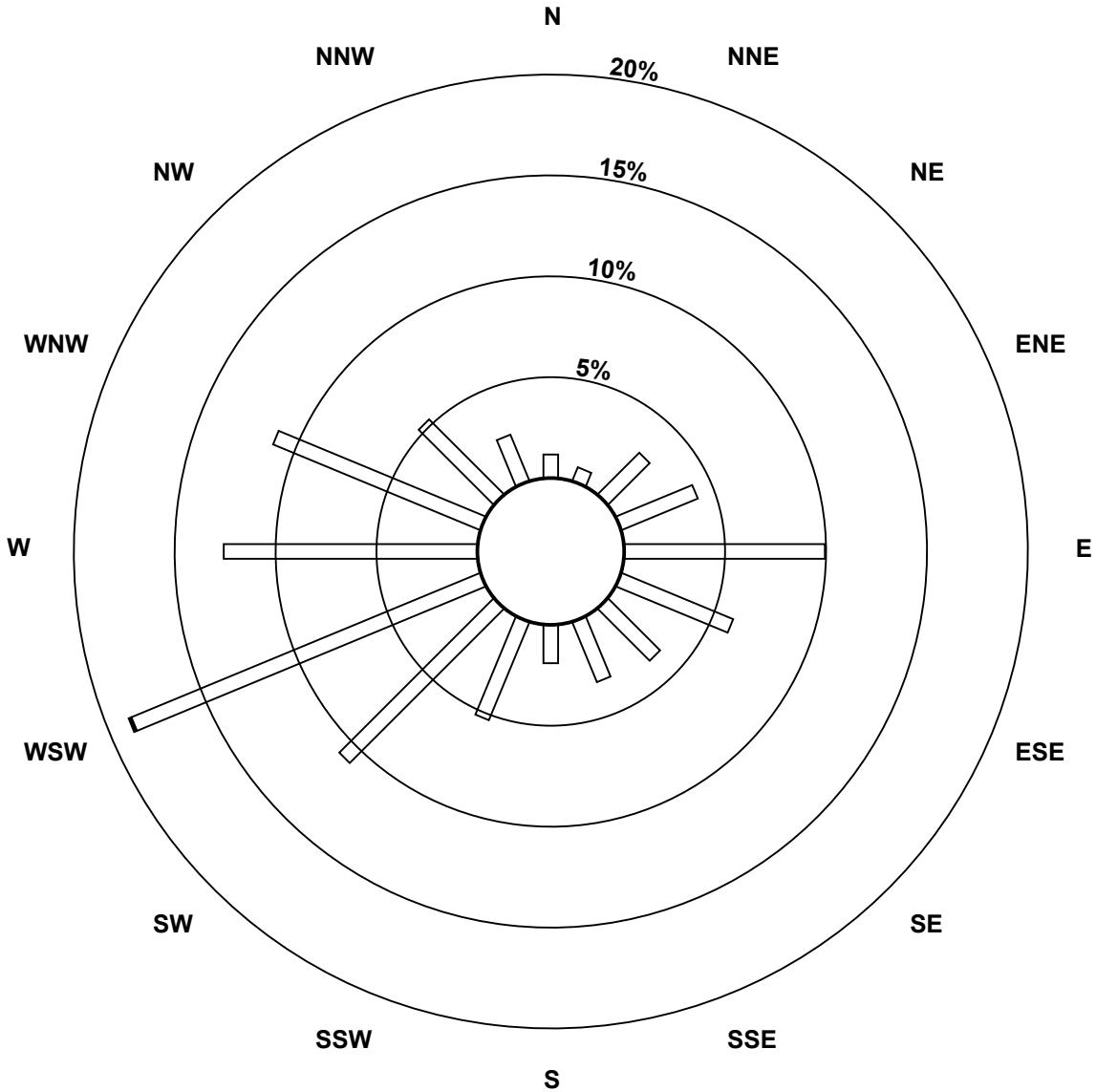
Henry Pirker - June 2017



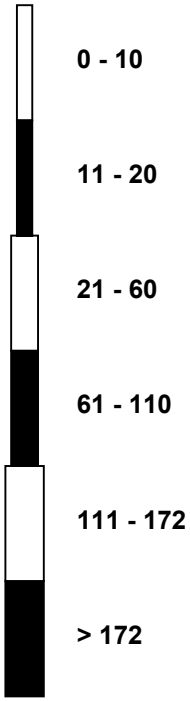
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - June 2017



Pollutant Classes (ppb)

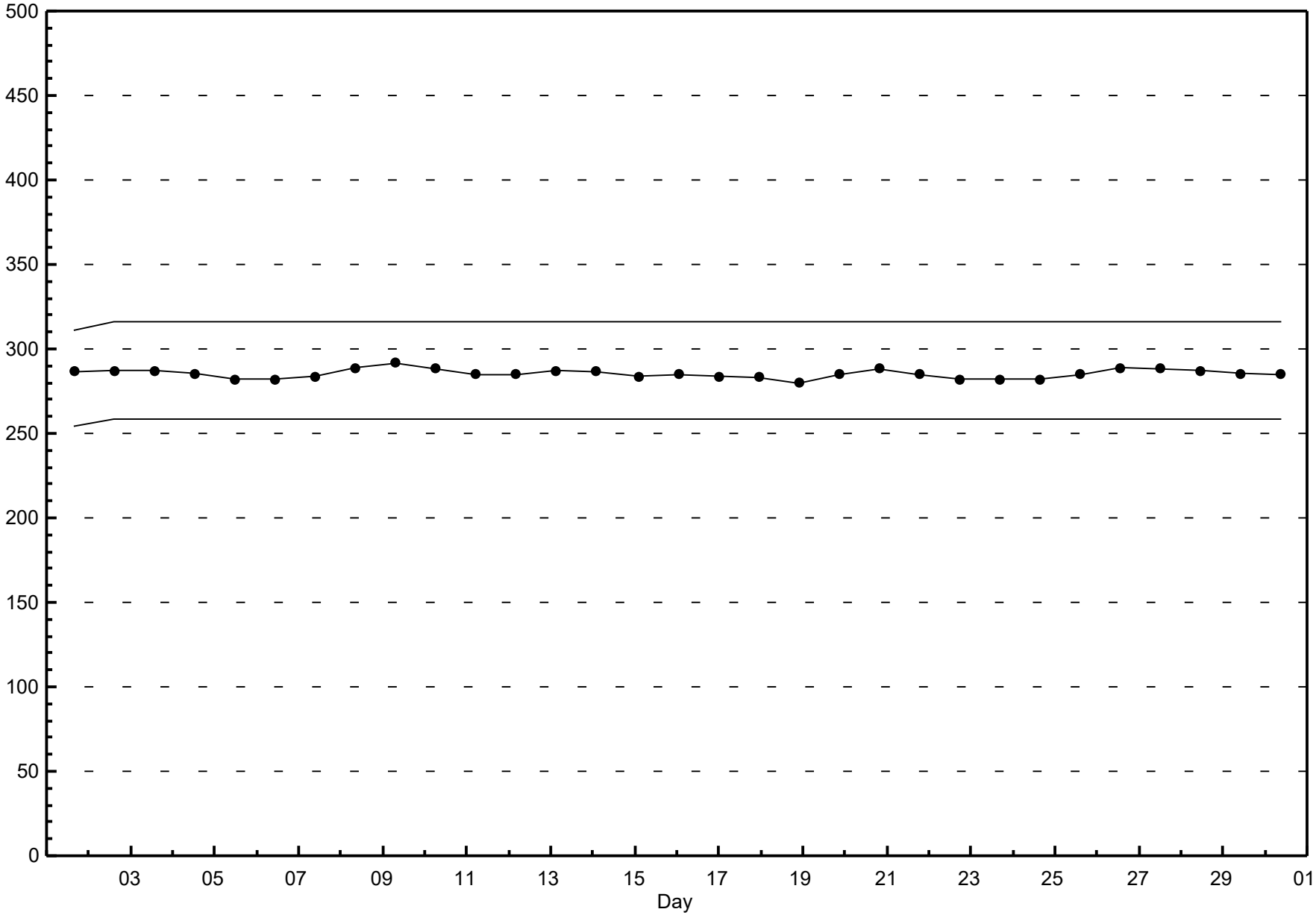


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - June 2017

Maximum Value: 0.7 ppb on Jun 19 07:00

Maximum Daily Average: 0.3 ppb on Jun 1

Minimum Value: 0 ppb on Jun 18 20:00

Minimum Daily Average: 0.0 ppb on Jun 23

Maximum Diurnal Average: 0.2 ppb at hour 6

Minimum Diurnal Average: 0.1 ppb at hour 21

Monthly Average: 0.15 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.3$ $P_{99} = 0.6$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.7
2-Jun	0	0	0	0	0	0	0	0	C	C	C	C	C	0	A	0	0	0	0	0	0	0	0	0	0.2	0.3
3-Jun	0	0	0	0	1	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.6
4-Jun	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
5-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
6-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	0.2	0.4
7-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
8-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
9-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
10-Jun	0	0	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
11-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	0.3
12-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
13-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	0.2	0.3
14-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	0.3	0.4
15-Jun	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
16-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	0.2	0.3
17-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	0.2
18-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	0.1
19-Jun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.7
20-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
21-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	0.1
22-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	0.0	0.1
23-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
24-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	0.1
25-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	0.1
26-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
27-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
28-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	0.1
29-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	0.1
30-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
	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	Diurnal Average	
	0.5	0.4	0.5	0.6	0.7	0.7	0.7	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	Diurnal Maximum	

C - Calibration

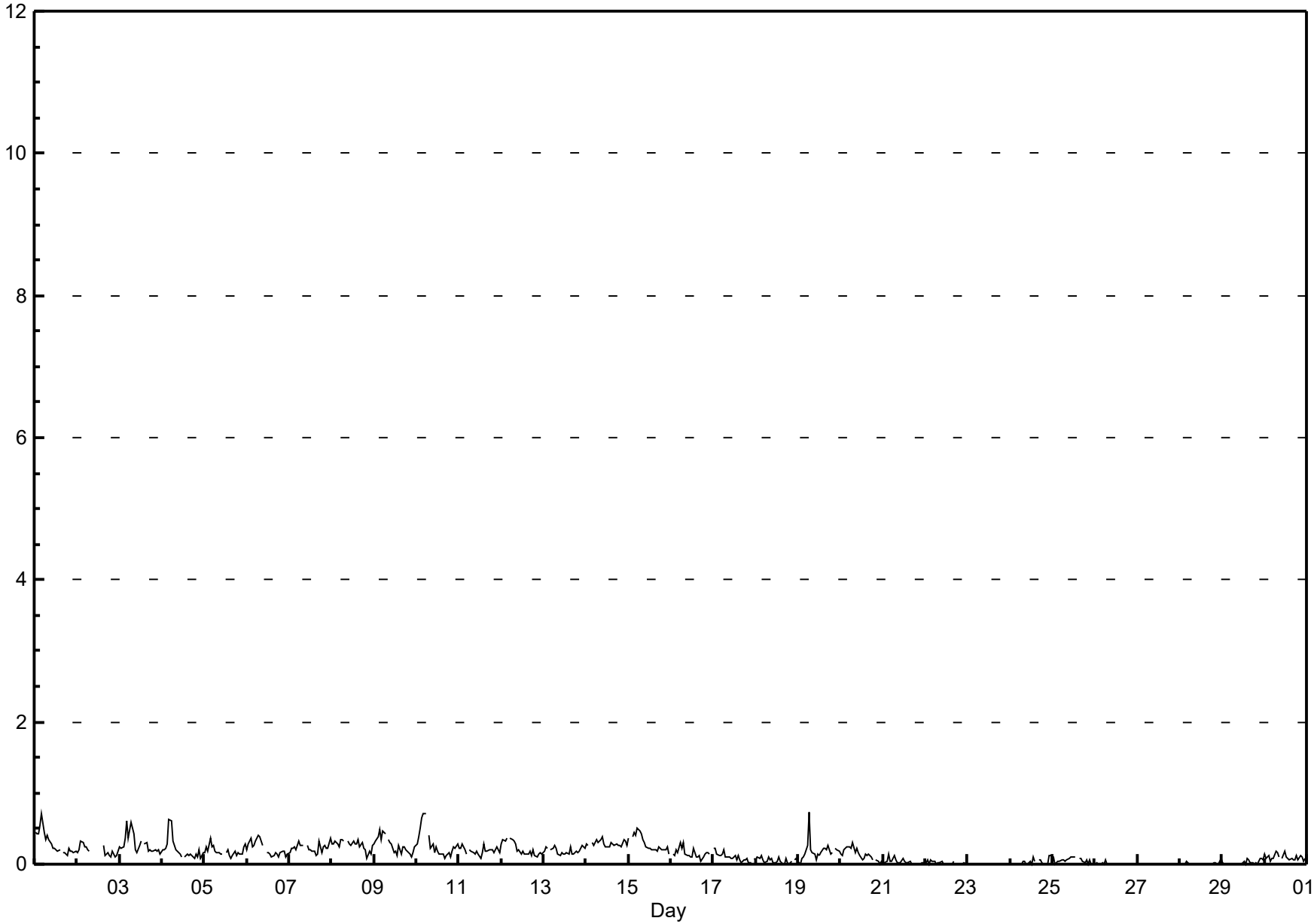
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - June 2017

Maximum Value: 1.7 ppb on Jun 19 07:00

Maximum Daily Average: 0.7 ppb on Jun 19

Minimum Value: 0 ppb on Jun 23 04:00

Maximum Diurnal Average: 0.7 ppb at hour 7

Monthly Average: 0.57 ppb

Minimum Daily Average: 0.3 ppb on Jun 27

Minimum Diurnal Average: 0.5 ppb at hour 21

Percentiles: $P_1 = 0.2$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 1.1$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	0	1	1	1	1	1	1	0.7	1.2
2-Jun	1	1	1	1	1	1	1	1	C	C	C	C	C	1	A	1	0	1	1	1	0	1	0	1	0.6	0.7
3-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	1.2
4-Jun	1	1	1	1	1	1	1	1	1	0	1	0	A	0	1	0	0	0	0	0	1	0	0	1	0.6	1.2
5-Jun	0	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	0	1	1	0.6	1.1
6-Jun	0	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	0	1	0	1	0.6	0.8
7-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0.7	1.0
8-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	0.9
9-Jun	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0.7	1.0
10-Jun	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	0.7	1.2
11-Jun	1	1	1	1	1	A	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
12-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	0	0	0	1	0.6	0.8
13-Jun	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	0.6	0.8
14-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	1.0
15-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	0.9
16-Jun	A	1	1	1	1	1	1	1	1	0	0	1	0	1	1	0	1	0	0	1	1	0	0	A	0.6	0.9
17-Jun	1	1	0	0	1	1	1	0	0	1	1	0	1	1	1	0	1	0	0	0	0	0	A	0	0.5	0.8
18-Jun	0	0	1	1	0	0	1	1	1	1	0	1	1	1	0	0	0	0	1	0	0	A	0	0	0.5	0.6
19-Jun	0	0	0	1	1	1	2	1	1	1	0	1	0	1	1	1	1	1	1	1	A	1	1	1	0.7	1.7
20-Jun	1	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	0	0	A	1	0	0	0	0.6	1.0
21-Jun	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0	1	1	A	1	0	1	1	0	0.5	0.7
22-Jun	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	0	A	1	0	0	1	1	0	0.6	0.8
23-Jun	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0.4	0.7
24-Jun	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	A	1	0	0	0	1	0	1	1	0.5	0.8
25-Jun	1	0	0	0	0	0	0	0	1	0	1	1	0	0	A	1	1	0	0	0	0	0	0	0	0.5	0.8
26-Jun	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.5
27-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	0.5
28-Jun	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	0.5
29-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	1	1	0	0.4	0.7
30-Jun	1	1	1	0	1	0	1	1	0	A	0	1	0	1	0	0	0	1	0	0	1	0	0	0	0.5	0.7
	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Diurnal Average	
	0.9	0.9	0.9	1.1	1.2	1.2	1.7	0.9	1.0	0.8	1.0	0.8	0.8	0.8	0.8	1.0	0.8	0.8	0.7	1.0	0.8	0.8	0.7	1.0	Diurnal Maximum	

C - Calibration

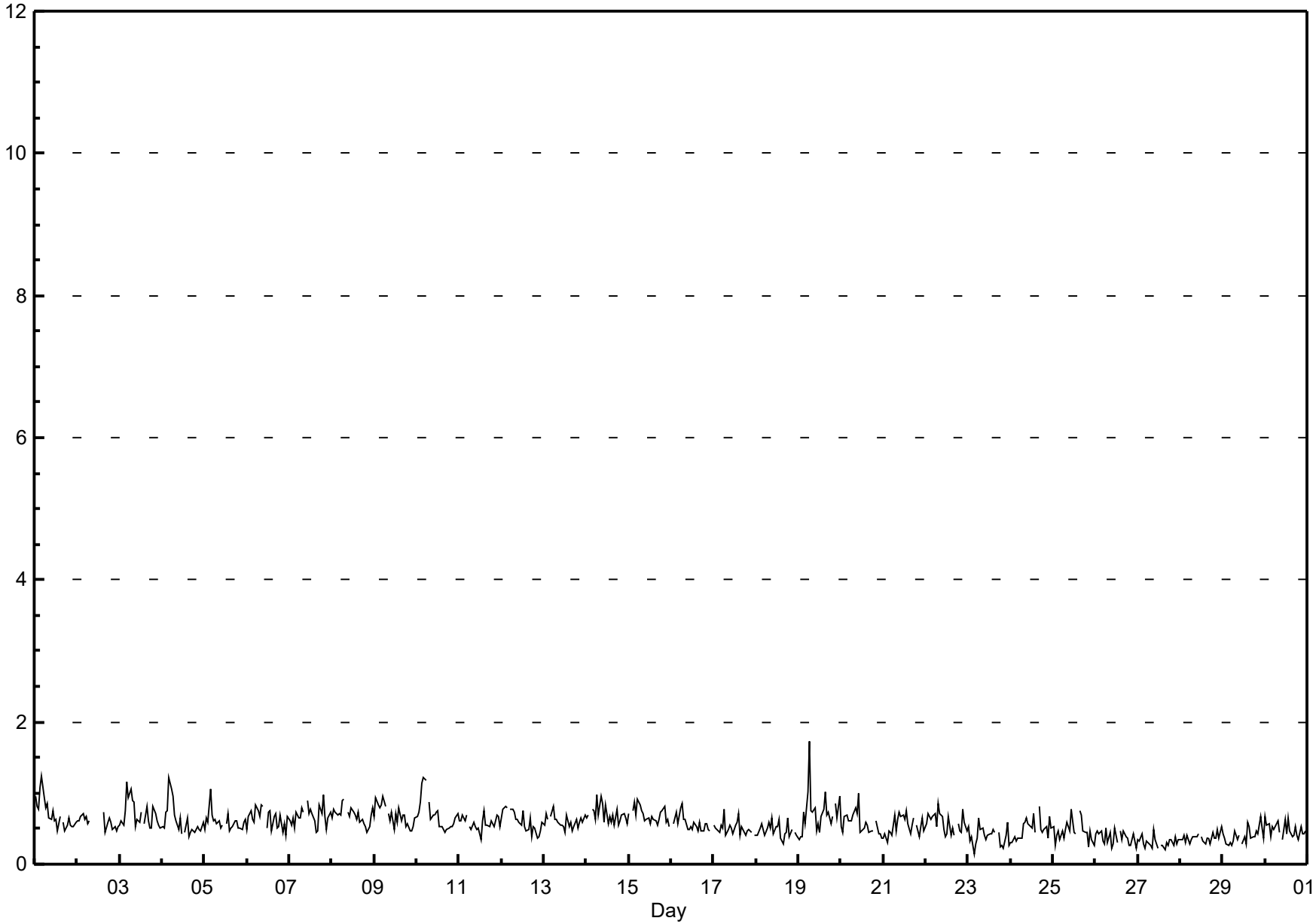
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

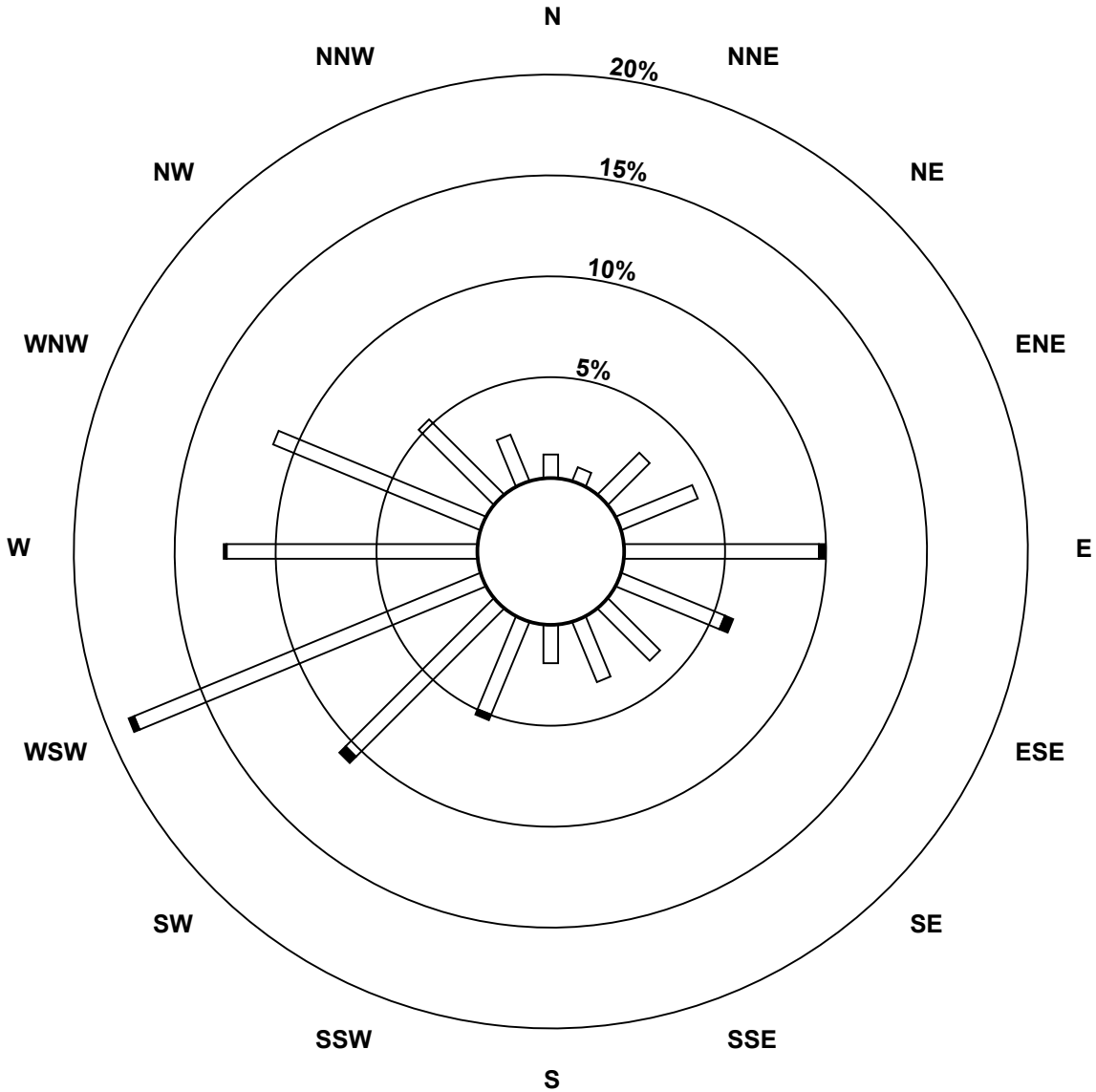
Henry Pirker - June 2017



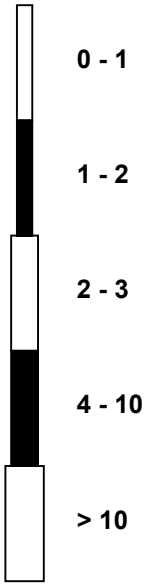
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - June 2017



Pollutant Classes (ppb)

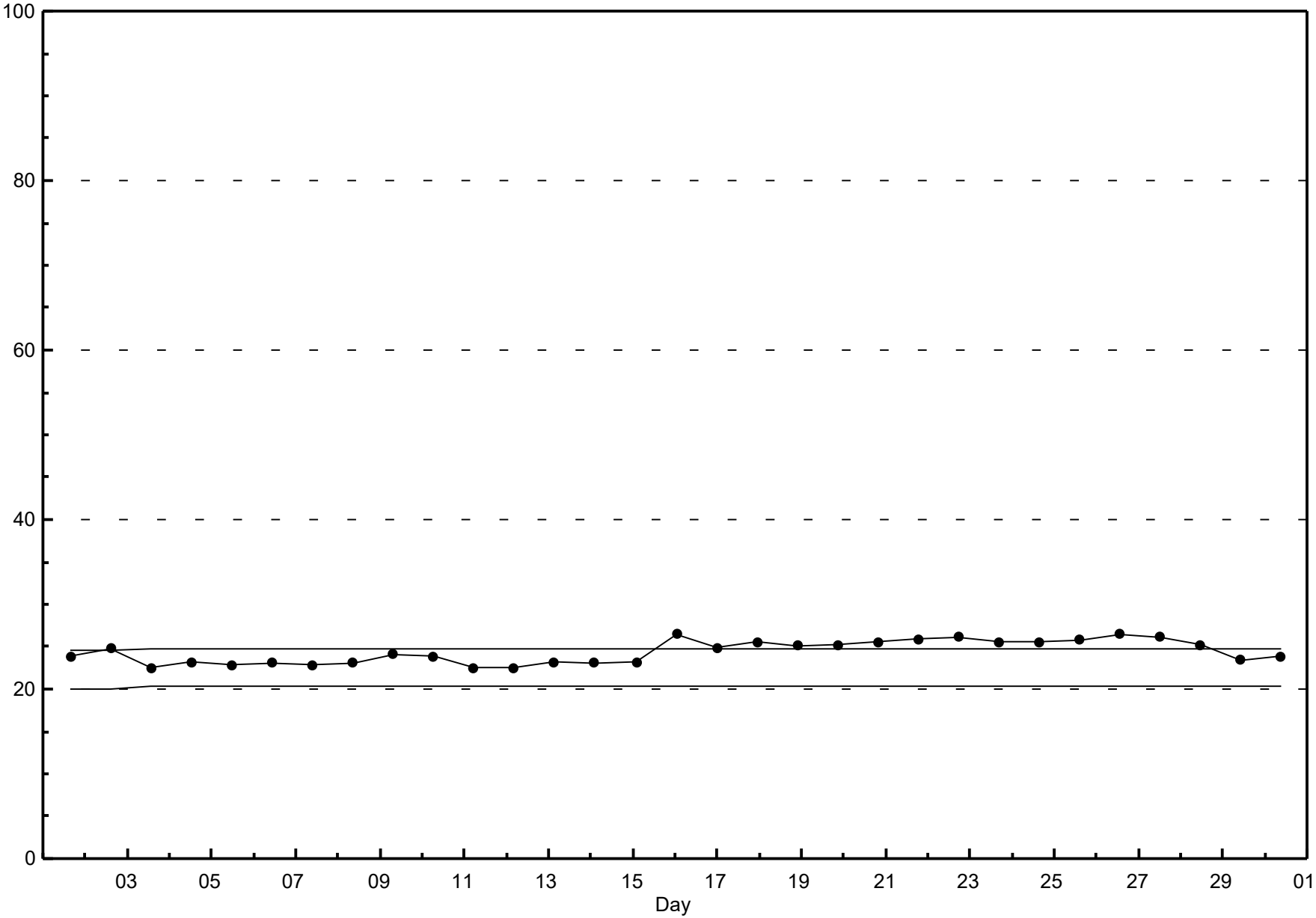


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 21.5 ppb on Jun 6 01:00

Maximum Daily Average: 7.8 ppb on Jun 6

Minimum Value: 1 ppb on Jun 18 14:00

Minimum Daily Average: 1.9 ppb on Jun 21

Maximum Diurnal Average: 8.5 ppb at hour 6

Minimum Diurnal Average: 2.3 ppb at hour 14

Monthly Average: 4.40 ppb

Percentiles: P_1 = 1.0 P_{10} = 1.6 Q_1 = 2.1 Median = 3.4 Q_3 = 5.4 P_{90} = 8.6 P_{99} = 16.5

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	9	7	9	12	10	9	10	7	4	C	C	C	C	C	C	C	3	3	4	6	4	4	4	3	--	11.7
2-Jun	2	2	3	3	4	6	7	7	4	2	1	3	2	2	A	3	2	3	2	3	4	5	4	4	3.5	7.2
3-Jun	5	5	7	8	9	13	12	13	8	4	4	5	8	A	6	3	2	2	3	3	3	4	7	6	6.2	13.2
4-Jun	8	4	5	7	13	9	7	5	3	2	2	1	A	2	2	2	2	2	2	3	4	5	7	8	4.7	13.2
5-Jun	8	5	7	6	8	11	12	7	4	2	1	A	2	1	1	1	1	1	1	2	2	9	20	19	5.8	20.4
6-Jun	22	21	15	12	10	15	17	12	9	4	A	3	2	2	2	2	2	3	3	4	6	6	5	4	7.8	21.5
7-Jun	6	5	5	5	6	9	8	5	5	A	4	3	3	2	3	2	2	2	3	3	4	4	4	4	4.3	8.6
8-Jun	4	4	5	4	4	5	6	5	A	5	4	4	3	4	4	4	4	4	4	3	4	4	5	4	4.1	5.9
9-Jun	4	4	7	5	6	7	8	A	7	6	6	4	4	3	4	4	3	3	3	2	2	2	2	3	4.3	8.0
10-Jun	3	5	7	8	10	10	A	6	3	2	2	2	2	2	2	2	2	2	2	2	4	3	2	2	3.6	10.2
11-Jun	1	2	2	2	2	A	3	3	2	3	2	2	2	2	3	3	3	3	2	2	4	6	5	4	2.7	5.5
12-Jun	5	6	7	7	A	8	7	5	3	2	2	2	2	2	2	1	1	1	1	3	2	3	3	3	3.3	7.6
13-Jun	5	4	5	A	8	14	10	8	3	2	2	2	1	1	1	1	1	1	1	2	3	4	7	6	4.0	14.5
14-Jun	9	4	A	5	5	6	6	8	12	9	6	3	2	3	3	3	3	5	5	3	3	6	7	5	5.4	12.4
15-Jun	6	A	8	9	9	9	7	5	4	3	2	2	2	1	2	2	2	2	2	2	3	4	3	4	4.0	9.2
16-Jun	A	5	4	5	6	10	12	7	3	1	2	2	2	2	2	2	2	2	2	2	3	3	2	A	3.6	11.8
17-Jun	3	3	3	3	3	5	4	2	2	1	1	1	1	1	1	1	1	1	1	2	2	4	A	4	2.1	4.5
18-Jun	4	4	4	4	5	6	5	5	2	1	1	1	1	1	1	1	1	1	1	1	2	A	5	6	2.8	6.3
19-Jun	11	16	18	16	15	12	14	6	4	3	2	4	5	3	3	2	2	2	2	2	A	4	5	6	6.8	17.6
20-Jun	4	7	6	7	7	6	9	9	5	3	3	3	4	9	5	3	3	3	2	A	3	2	2	2	4.7	9.2
21-Jun	2	2	2	2	3	3	3	2	2	2	2	2	2	1	1	2	2	2	A	2	2	2	2	2	1.9	2.7
22-Jun	2	1	2	2	3	4	3	3	3	3	3	2	1	1	1	1	2	A	2	2	4	5	5	5	2.6	5.4
23-Jun	6	6	4	6	7	10	5	4	4	3	2	2	2	1	1	2	A	3	3	3	4	6	8	8	4.3	10.5
24-Jun	12	17	15	13	12	13	13	10	9	5	3	2	2	2	2	A	3	2	2	2	4	4	4	4	6.8	16.5
25-Jun	3	3	4	5	5	6	5	4	6	4	3	2	2	2	A	3	2	3	2	3	4	4	4	5	3.7	6.1
26-Jun	5	8	11	11	12	15	15	10	10	4	5	2	2	A	3	5	8	4	3	5	4	5	6	6	6.9	15.5
27-Jun	3	2	3	4	4	5	6	4	3	2	3	3	A	4	3	3	3	3	2	3	2	2	2	1	3.2	5.9
28-Jun	2	1	2	2	2	4	4	3	3	4	3	A	4	3	2	3	2	3	3	3	4	6	6	5	3.2	6.1
29-Jun	3	3	3	2	3	5	6	4	4	3	A	3	2	2	2	3	4	4	5	5	7	7	9	9	4.3	8.9
30-Jun	9	10	9	8	9	12	9	5	3	A	3	2	2	1	1	1	2	2	3	3	5	7	10	10	5.5	12.0
	5.6	5.8	6.2	6.3	6.9	8.5	8.0	6.0	4.6	3.2	2.8	2.5	2.4	2.3	2.4	2.3	2.5	2.5	2.5	2.9	3.5	4.5	5.4	5.2	Diurnal Average	
	21.5	20.7	17.6	16.3	15.4	15.5	16.7	12.6	12.4	8.7	6.1	5.1	7.9	9.2	6.1	4.7	8.5	5.1	4.9	6.3	6.6	9.1	20.4	19.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

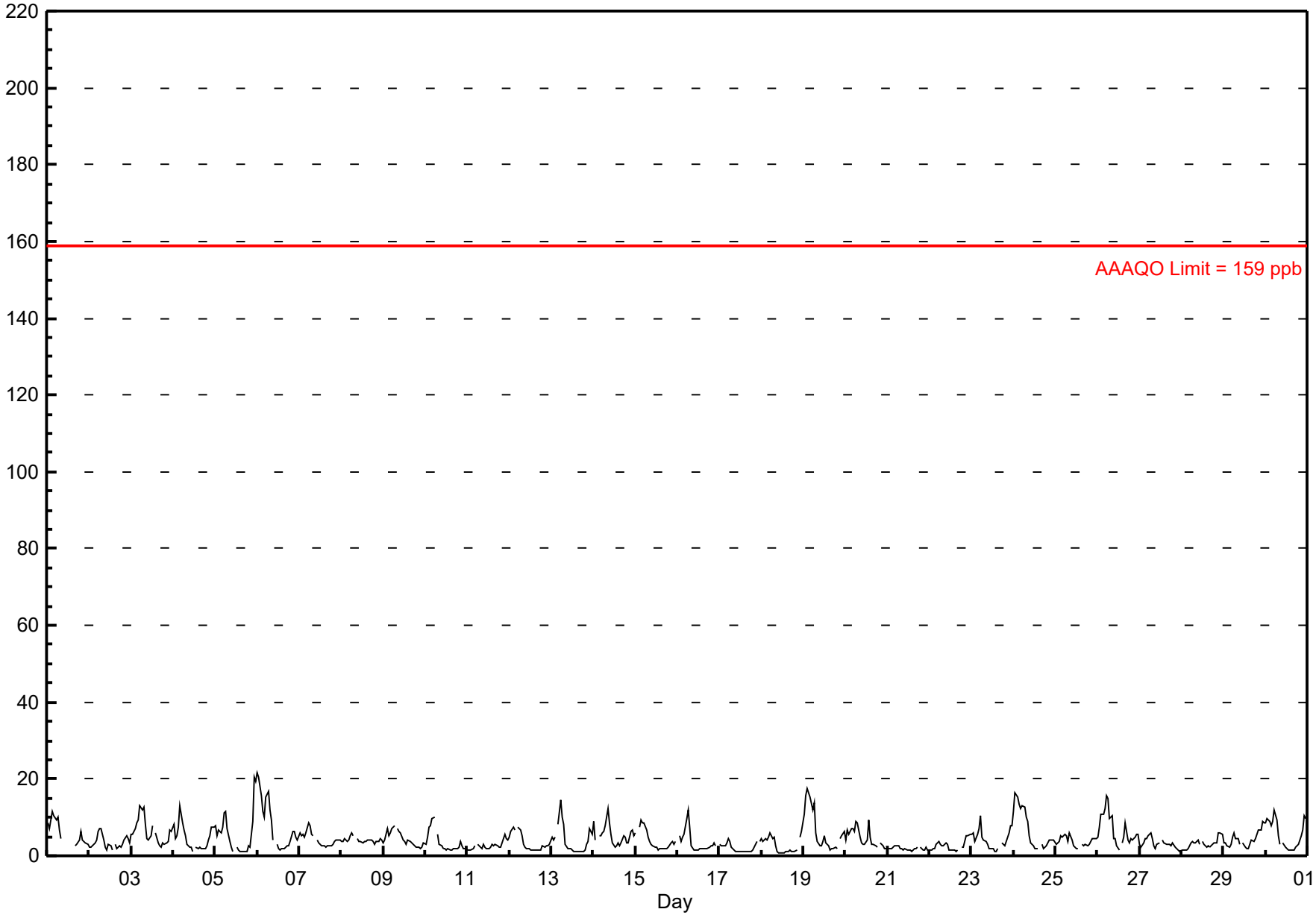
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - June 2017

Maximum Value: 64.9 ppb on Jun 14 09:00

Maximum Daily Average: 11.7 ppb on Jun 26

Minimum Value: 1 ppb on Jun 18 12:00

Minimum Daily Average: 3.0 ppb on Jun 21

Maximum Diurnal Average: 11.6 ppb at hour 6

Minimum Diurnal Average: 3.9 ppb at hour 14

Monthly Average: 6.87 ppb

Percentiles: P_1 = 1.8 P_{10} = 2.4 Q_1 = 3.5 Median = 5.4 Q_3 = 8.5 P_{90} = 13.5 P_{99} = 23.4

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	11	12	12	16	15	14	13	11	8	C	C	C	C	C	C	C	4	5	7	49	6	5	6	4	--	48.7
2-Jun	4	3	3	5	6	14	13	8	6	4	2	5	6	2	A	5	5	4	3	6	6	7	7	6	5.7	13.6
3-Jun	8	8	15	15	11	17	17	15	13	7	8	6	11	A	11	6	6	4	5	4	5	6	18	9	9.7	17.7
4-Jun	17	6	7	11	18	16	12	7	4	3	3	2	A	4	3	4	3	3	3	4	7	8	9	9	7.0	17.9
5-Jun	10	8	7	8	10	14	16	11	10	7	3	A	4	2	2	2	2	3	3	16	4	26	26	21	9.3	26.2
6-Jun	23	23	17	14	12	19	19	16	12	5	A	5	3	2	4	3	3	4	4	6	10	9	7	6	9.9	23.4
7-Jun	9	7	8	6	9	14	16	8	11	A	6	5	5	4	5	4	4	4	4	5	5	6	5	5	6.6	16.1
8-Jun	4	7	6	5	5	6	9	7	A	6	5	6	5	6	5	9	5	5	5	5	4	8	8	6	5.9	9.0
9-Jun	5	6	8	7	7	9	10	A	9	8	14	6	5	5	5	5	4	4	5	3	3	3	3	5	6.0	13.5
10-Jun	4	6	9	10	12	13	A	10	4	3	2	2	2	5	5	2	5	4	2	6	7	4	3	2	5.3	12.7
11-Jun	2	4	2	4	3	A	5	4	4	6	5	5	4	5	8	5	7	6	3	3	5	11	9	6	5.1	10.9
12-Jun	7	8	9	8	A	10	14	7	4	3	3	3	4	2	3	2	2	2	2	7	4	4	6	6	5.2	14.2
13-Jun	7	5	6	A	12	20	13	12	6	3	3	3	3	3	3	2	3	2	2	2	4	10	10	11	6.3	20.3
14-Jun	13	6	A	6	7	8	9	11	65	20	12	5	3	4	6	3	5	9	7	6	5	9	9	6	10.1	64.9
15-Jun	9	A	11	12	11	11	10	6	6	5	4	3	3	3	4	3	4	3	3	6	4	5	4	8	6.0	12.0
16-Jun	A	9	6	8	9	15	18	11	6	2	2	3	3	3	4	3	4	3	4	4	4	5	4	A	5.8	17.9
17-Jun	5	3	4	4	4	6	5	3	2	2	2	2	2	2	2	2	2	2	2	3	4	5	A	5	3.3	5.5
18-Jun	6	5	6	5	6	8	6	7	3	3	2	1	1	1	2	2	2	2	2	2	3	A	9	12	4.1	11.8
19-Jun	13	21	21	18	17	15	19	9	5	3	4	6	9	5	4	2	2	3	4	2	A	5	7	10	8.9	21.2
20-Jun	12	10	7	9	10	7	11	10	7	10	6	6	7	15	10	4	4	4	3	A	5	3	3	3	7.3	15.0
21-Jun	3	3	3	3	4	4	4	3	3	2	3	3	3	2	2	3	4	4	A	3	2	3	3	3	3.0	4.1
22-Jun	2	2	2	2	5	6	15	4	4	25	26	7	2	2	3	2	3	A	4	4	7	11	8	7	6.7	25.9
23-Jun	7	7	5	9	14	15	6	5	5	4	4	3	18	2	2	4	A	4	6	5	7	8	11	9	6.9	17.7
24-Jun	19	21	21	17	14	16	15	12	11	7	5	3	3	3	3	A	4	3	5	4	6	6	5	6	9.0	21.2
25-Jun	6	5	5	7	9	8	8	6	8	8	4	4	3	2	A	5	3	6	5	4	5	6	6	8	5.6	8.7
26-Jun	8	18	15	13	16	20	18	16	19	10	24	4	6	A	6	12	12	7	5	8	6	11	9	8	11.7	23.8
27-Jun	5	3	5	6	7	7	7	6	4	4	5	5	A	7	4	4	4	4	4	4	4	3	2	2	4.6	7.4
28-Jun	3	2	2	2	3	5	6	5	5	7	5	A	7	10	5	5	3	4	6	6	5	9	8	6	5.3	10.2
29-Jun	5	5	4	3	5	7	8	6	16	6	A	6	3	3	3	5	6	5	6	7	8	9	13	11	6.4	16.5
30-Jun	10	12	13	10	11	15	16	12	4	A	6	3	3	2	3	3	5	4	4	11	8	9	21	15	8.8	21.2
	8.2	8.1	8.3	8.4	9.3	11.6	11.6	8.6	9.1	6.5	6.2	4.1	4.7	3.9	4.3	4.0	4.1	4.0	4.0	6.7	5.3	7.4	8.2	7.5	Diurnal Average	
	23.4	23.3	21.2	17.9	17.9	20.3	19.4	16.1	64.9	25.0	25.9	6.9	17.7	15.0	10.6	11.5	11.7	9.2	6.8	48.7	10.3	26.2	25.6	21.4	Diurnal Maximum	

C - Calibration

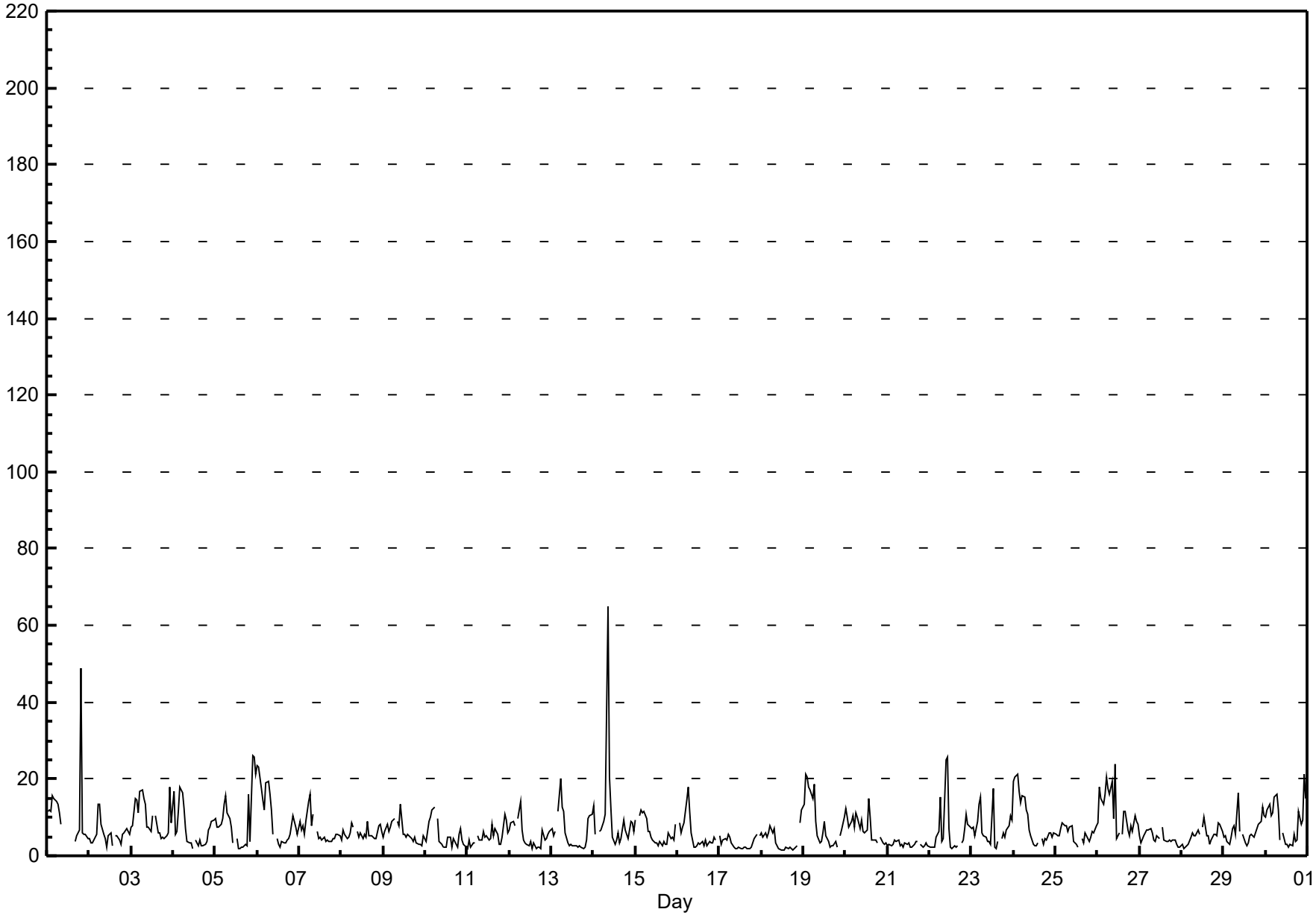
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

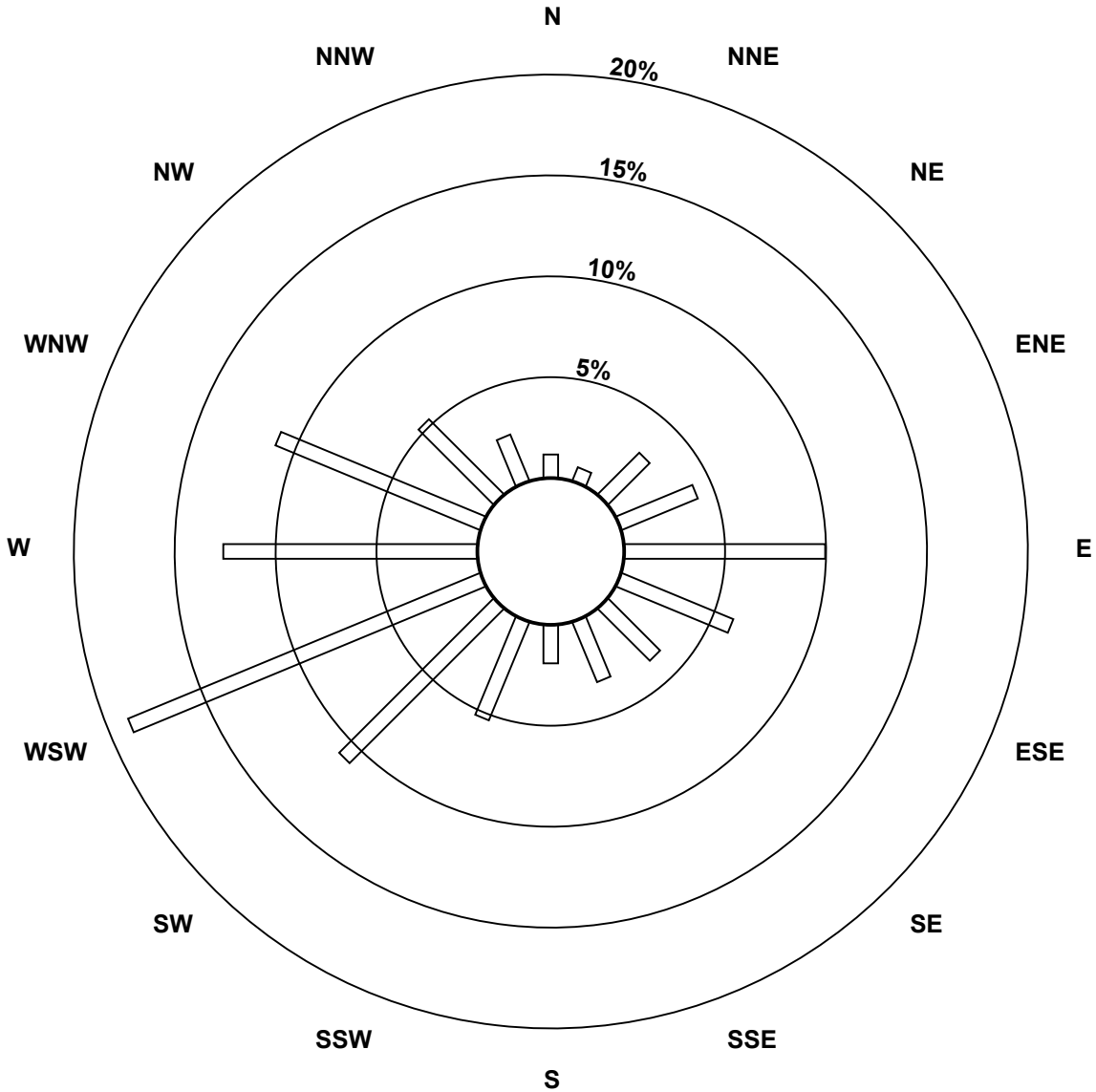
Henry Pirker - June 2017



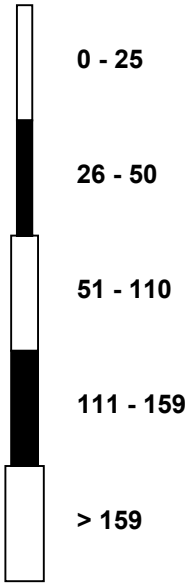
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - June 2017



Pollutant Classes (ppb)

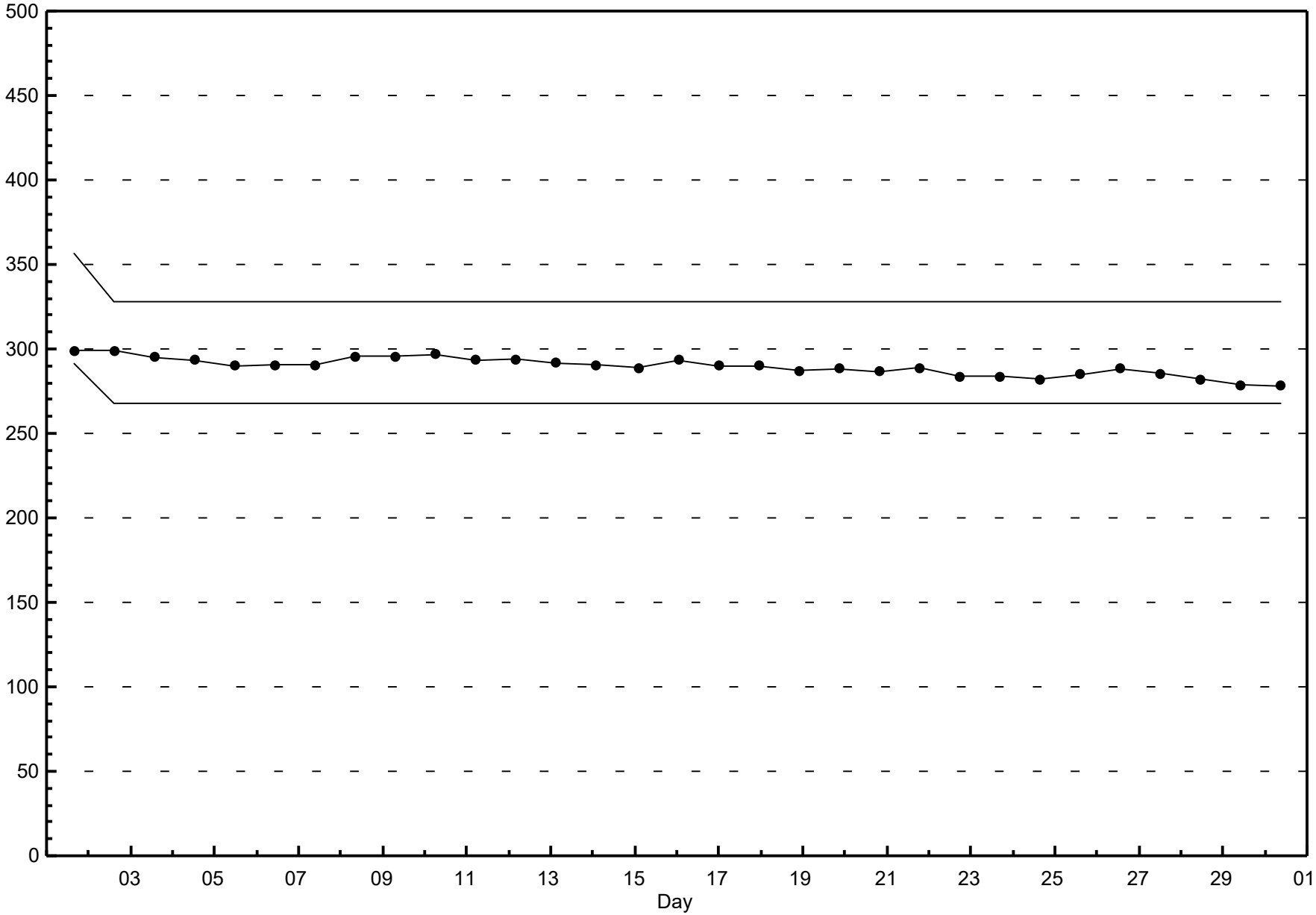


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - June 2017

Maximum Value: 19.1 ppb on Jun 6 07:00

Maximum Daily Average: 2.2 ppb on Jun 6

Minimum Value: 0 ppb on Jun 1 18:00

Minimum Daily Average: 0.1 ppb on Jun 18

Maximum Diurnal Average: 3.5 ppb at hour 7

Minimum Diurnal Average: 0.1 ppb at hour 22

Monthly Average: 0.67 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.5$ $P_{90} = 1.9$ $P_{99} = 7.4$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	0	1	4	2	1	C	C	C	C	C	C	C	0	0	0	2	0	0	0	0	--	4.1
2-Jun	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	1.1
3-Jun	0	0	0	0	0	3	4	6	4	1	1	1	3	A	1	0	0	0	0	0	0	0	0	0	1.0	5.6
4-Jun	0	0	0	0	0	1	2	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	1.5
5-Jun	0	0	0	0	0	2	4	3	2	4	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0.8	4.2
6-Jun	2	3	3	0	0	10	19	6	4	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2	19.1
7-Jun	0	0	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
8-Jun	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
9-Jun	0	0	0	0	0	0	0	A	0	0	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0.3	1.1
10-Jun	0	0	0	0	2	12	A	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	11.7
11-Jun	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	1.4
12-Jun	1	2	6	5	A	10	13	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	12.7
13-Jun	0	0	0	A	0	3	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.8
14-Jun	0	0	A	0	0	1	0	1	7	3	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0.7	6.8
15-Jun	0	A	0	0	0	2	4	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	3.7
16-Jun	A	0	0	0	0	1	3	2	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0.5	3.1
17-Jun	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.8
18-Jun	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.9
19-Jun	0	0	1	3	7	5	10	3	2	1	0	0	1	0	0	0	0	0	0	0	A	0	0	0	1.5	10.2
20-Jun	0	0	0	0	0	0	4	5	2	1	0	0	0	1	1	1	0	0	0	A	0	0	0	0	0.8	4.5
21-Jun	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.6
22-Jun	0	0	0	0	0	0	1	1	1	3	7	0	0	0	0	0	0	A	0	0	0	0	0	0	0.6	7.0
23-Jun	0	0	0	0	1	3	2	3	2	1	1	0	1	0	0	0	A	0	0	0	0	0	0	0	0.7	3.1
24-Jun	0	0	1	1	2	8	8	7	5	2	1	0	0	0	0	A	0	0	0	0	0	0	0	0	1.5	8.1
25-Jun	0	0	0	0	0	0	1	1	2	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	1.7
26-Jun	0	0	0	0	1	4	6	3	4	1	2	0	0	A	0	0	1	1	0	0	0	0	0	0	1.0	6.1
27-Jun	0	0	0	0	0	0	1	1	1	0	0	1	A	1	1	1	1	1	0	0	0	0	0	0	0.4	1.2
28-Jun	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0.3	1.1
29-Jun	0	0	0	0	0	1	4	3	7	2	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0.9	6.7
30-Jun	0	0	0	0	0	3	4	2	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.5
	0.1	0.2	0.4	0.4	0.5	2.5	3.5	2.4	1.9	0.9	0.7	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	Diurnal Average	
	1.9	3.1	5.7	5.3	6.7	11.7	19.1	7.0	6.8	3.9	7.0	1.4	3.1	1.4	0.9	0.9	1.4	0.7	0.4	2.0	0.3	0.6	1.4	0.6	Diurnal Maximum	

C - Calibration

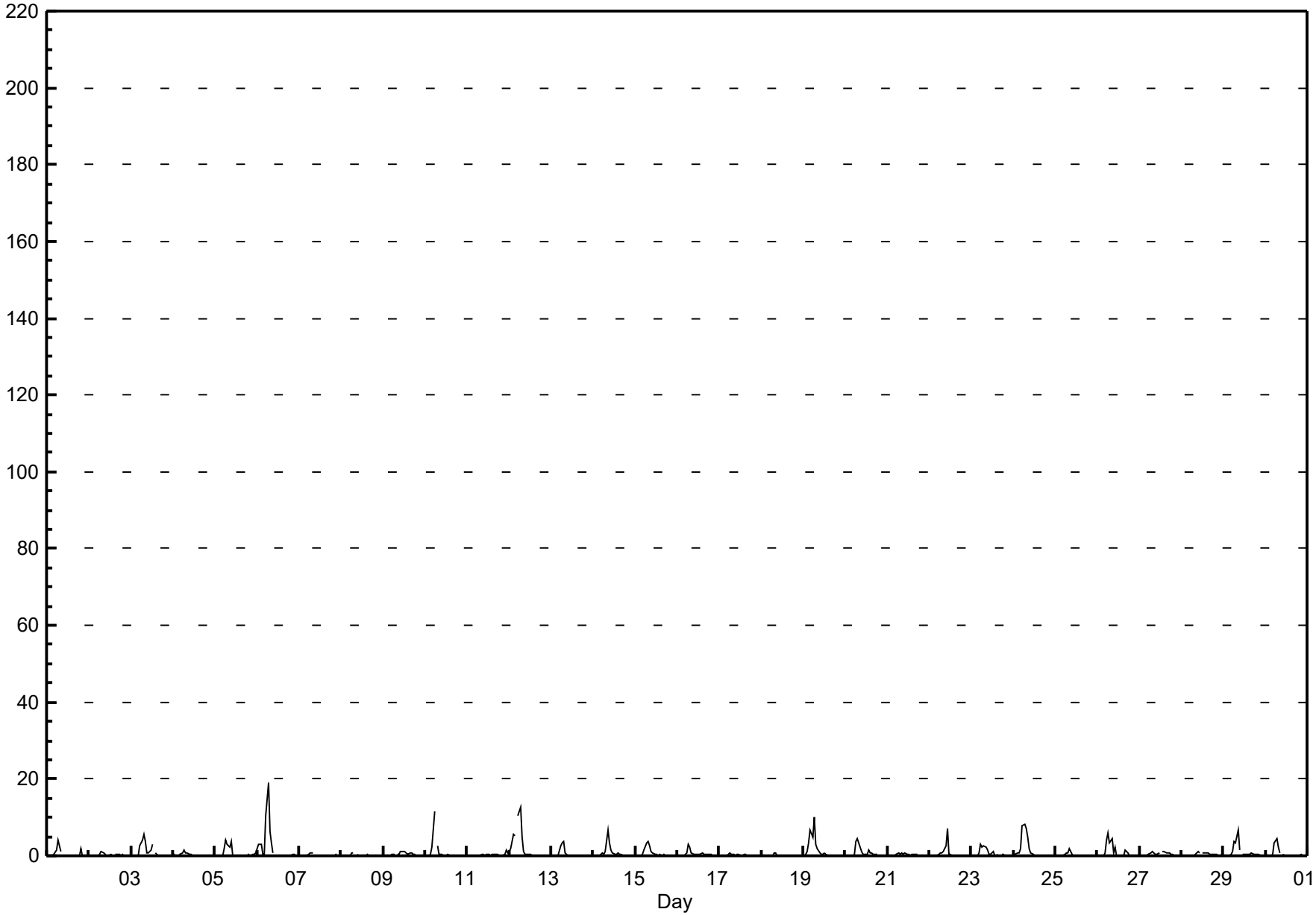
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - June 2017

Maximum Value: 132.2 ppb on Jun 22 11:00

Maximum Daily Average: 8.6 ppb on Jun 5

Minimum Value: 0 ppb on Jun 1 22:00

Minimum Daily Average: 0.7 ppb on Jun 18

Maximum Diurnal Average: 11.8 ppb at hour 9

Minimum Diurnal Average: 0.6 ppb at hour 22

Monthly Average: 2.71 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.3$ Median = 0.8 $Q_3 = 1.8$ $P_{90} = 5.6$ $P_{99} = 25.9$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	1	4	8	5	2	C	C	C	C	C	C	C	1	0	0	22	0	0	0	0	--	22.1
2-Jun	0	0	0	0	0	1	1	2	2	1	1	3	1	1	A	1	1	2	1	1	0	0	0	0	0.8	3.2
3-Jun	0	1	1	1	1	6	8	9	8	2	4	3	6	A	3	1	2	0	0	0	0	0	2	0	2.5	8.9
4-Jun	6	0	0	0	2	3	3	1	2	1	1	0	A	1	1	4	0	0	0	0	0	0	0	0	1.1	5.6
5-Jun	0	0	0	0	1	3	7	6	28	105	1	A	1	0	0	1	4	1	0	9	0	6	7	16	8.6	105.1
6-Jun	15	11	7	1	1	25	29	12	5	2	A	1	0	0	1	1	1	1	1	1	3	2	1	0	5.3	29.3
7-Jun	1	0	1	1	1	2	2	1	3	A	0	1	1	0	1	1	1	1	0	1	0	1	0	0	0.9	3.2
8-Jun	0	1	0	0	1	1	2	1	A	1	1	1	0	0	0	6	0	0	0	0	0	0	1	0	0.8	6.4
9-Jun	0	1	0	0	1	3	1	A	1	0	2	2	3	1	1	2	1	1	1	0	0	0	0	0	1.0	2.9
10-Jun	0	0	0	1	8	17	A	8	1	1	1	0	0	2	2	0	2	1	0	0	0	2	1	0	2.1	16.9
11-Jun	0	3	0	0	1	A	0	0	5	1	1	1	1	1	3	1	2	1	0	0	0	3	7	2	1.6	7.5
12-Jun	3	6	8	21	A	14	39	8	2	1	1	1	1	0	1	0	1	0	0	1	0	0	0	0	4.8	39.3
13-Jun	0	0	0	A	1	5	5	7	3	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	1.2	6.7
14-Jun	0	1	A	0	3	3	2	2	109	23	16	3	1	1	3	2	1	0	1	1	0	0	0	0	7.5	109.1
15-Jun	0	A	0	4	2	4	6	10	7	2	2	1	1	0	3	0	2	1	0	1	1	0	0	1	2.1	9.8
16-Jun	A	0	0	0	0	2	8	3	2	1	1	1	2	1	6	1	2	1	1	1	0	0	0	A	1.5	8.2
17-Jun	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	5	1	0	1	1	0	0	A	0	0.8	4.6
18-Jun	0	0	0	0	0	0	0	1	2	1	1	0	0	0	1	1	2	1	0	2	0	A	2	2	0.7	2.4
19-Jun	1	4	3	20	8	9	19	7	3	1	1	1	2	1	0	0	0	0	0	0	A	0	0	0	3.6	19.7
20-Jun	0	0	0	0	2	1	7	6	4	13	1	1	1	3	2	2	1	1	1	A	0	0	0	0	2.1	13.4
21-Jun	0	0	0	0	0	1	1	1	1	1	11	1	1	2	1	2	1	1	A	0	0	0	0	0	1.2	10.5
22-Jun	0	0	0	0	0	1	15	1	5	15	132	4	1	1	1	1	1	A	0	0	1	0	0	0	7.8	132.2
23-Jun	0	0	0	0	3	6	3	4	4	2	2	1	18	1	0	1	A	1	4	2	0	0	0	0	2.3	18.4
24-Jun	1	1	2	3	5	13	12	9	7	3	1	0	0	0	1	A	0	1	1	0	0	0	0	0	2.7	13.1
25-Jun	0	0	0	1	0	2	2	2	3	2	1	0	1	0	A	0	0	1	1	0	0	0	0	0	0.7	2.6
26-Jun	0	1	0	0	1	9	11	9	54	3	15	1	1	A	0	0	4	2	0	0	0	0	0	0	4.8	54.1
27-Jun	0	0	0	0	0	1	1	1	2	2	2	1	A	2	1	1	1	1	1	1	1	0	0	0	1.0	2.4
28-Jun	0	0	0	0	0	0	1	1	1	4	5	A	3	5	3	5	1	1	1	1	0	0	0	1	1.4	5.4
29-Jun	1	1	0	0	2	3	5	9	69	8	A	2	1	1	1	3	1	1	1	1	0	0	1	0	4.9	69.2
30-Jun	0	1	1	0	1	8	16	12	3	A	1	0	1	1	1	1	2	1	1	3	11	0	1	1	2.9	16.0
	1.0	1.1	0.9	1.9	1.6	5.1	7.5	4.8	11.8	7.4	7.6	1.3	1.8	1.0	1.4	1.5	1.3	0.8	0.7	1.7	0.7	0.6	0.9	0.9	Diurnal Average	
	14.9	11.0	7.5	20.8	8.5	24.8	39.3	11.9	109.1	105.1	132.2	4.3	18.4	5.0	5.5	6.4	4.0	2.1	3.9	22.1	10.8	6.1	7.5	15.7	Diurnal Maximum	

C - Calibration

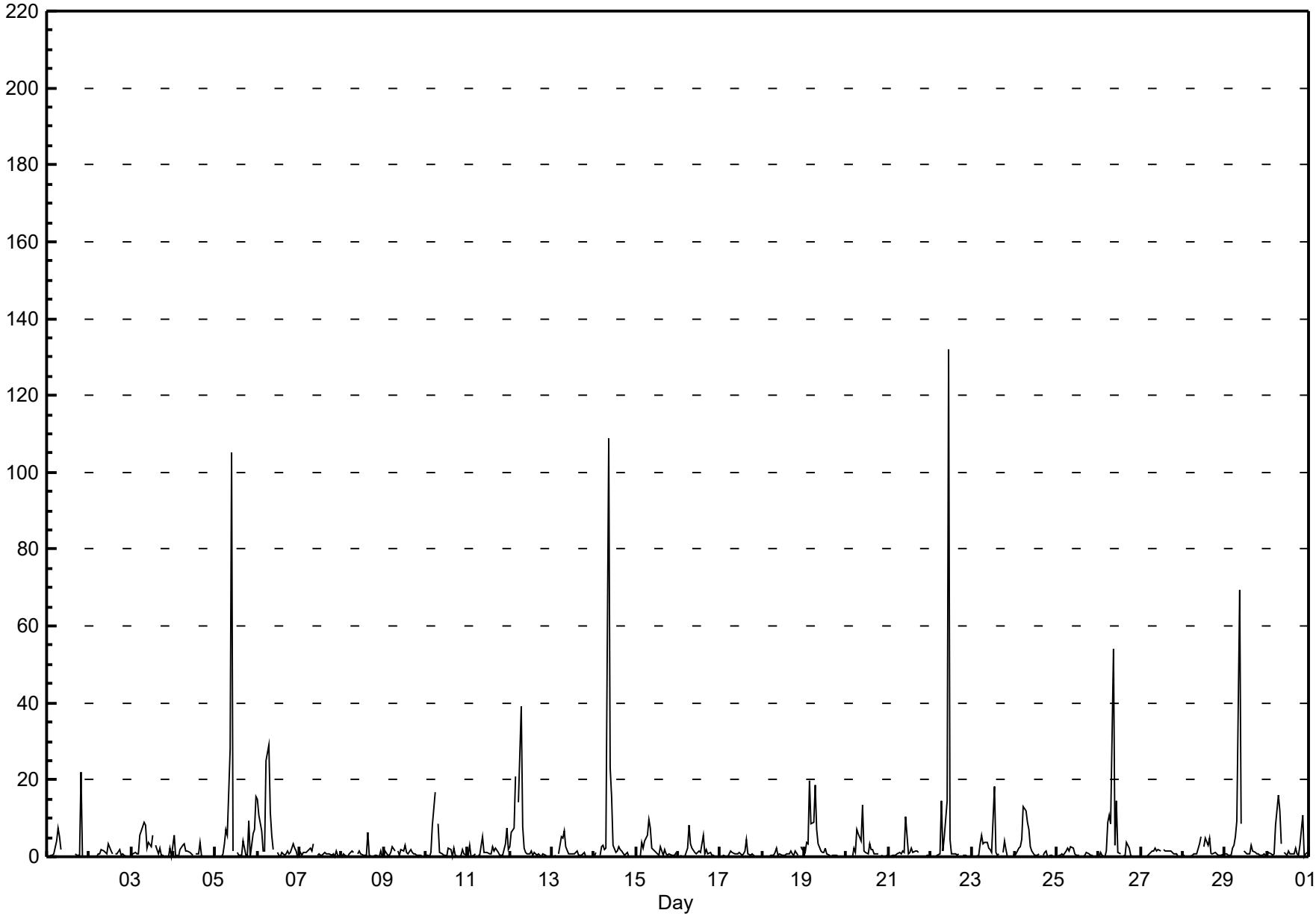
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - June 2017

Maximum Value: 36.0 ppb on Jun 6 07:00

Maximum Daily Average: 10.1 ppb on Jun 6

Minimum Value: 1 ppb on Jun 18 14:00

Minimum Daily Average: 2.1 ppb on Jun 21

Maximum Diurnal Average: 11.6 ppb at hour 7

Minimum Diurnal Average: 2.6 ppb at hour 14

Monthly Average: 5.09 ppb

Percentiles: P_1 = 1.0 P_{10} = 1.6 Q_1 = 2.4 Median = 3.7 Q_3 = 6.1 P_{90} = 10.0 P_{99} = 22.0

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	9	7	10	12	11	11	15	9	6	C	C	C	C	C	C	C	3	3	4	9	4	4	3	3	--	14.5
2-Jun	2	2	3	3	4	6	8	8	5	3	2	3	3	2	A	3	2	3	2	3	4	5	4	3	3.7	8.4
3-Jun	5	5	7	8	10	16	16	18	12	5	5	7	11	A	7	4	3	2	3	3	3	4	7	6	7.3	18.4
4-Jun	8	4	5	7	14	10	9	6	4	3	3	1	A	2	2	2	2	2	2	3	4	5	7	8	4.9	13.7
5-Jun	8	5	7	6	8	13	16	10	6	5	1	A	2	1	1	1	1	1	1	3	2	9	21	20	6.5	21.2
6-Jun	24	24	19	12	11	26	36	18	13	5	A	3	2	2	2	2	2	3	3	4	7	7	5	4	10.1	36.0
7-Jun	6	5	5	5	6	9	9	6	6	A	4	4	3	3	3	3	3	3	3	3	4	4	4	4	4.5	9.1
8-Jun	4	4	4	4	4	5	7	6	A	5	4	4	4	4	4	5	4	4	4	3	4	4	4	4	4.2	6.6
9-Jun	3	4	7	5	6	7	8	A	7	7	7	5	5	4	4	4	4	3	3	2	2	2	2	3	4.7	8.5
10-Jun	3	5	7	8	12	22	A	8	3	3	2	2	2	2	2	2	2	2	2	2	4	3	2	2	4.4	22.1
11-Jun	1	2	1	2	2	A	3	3	2	3	2	2	2	2	4	3	4	3	3	3	4	6	6	5	3.0	6.1
12-Jun	6	8	13	12	A	18	20	10	4	3	2	2	2	2	2	1	2	1	1	3	2	3	2	3	5.3	19.6
13-Jun	5	4	5	A	8	17	14	12	4	2	2	2	1	1	1	1	1	1	1	1	3	4	7	5	4.5	17.5
14-Jun	9	4	A	5	6	7	7	9	19	12	7	4	3	3	4	3	4	5	5	3	3	6	7	5	6.1	19.3
15-Jun	6	A	8	9	9	10	10	9	6	4	3	3	3	2	2	2	2	2	2	2	3	4	3	3	4.7	10.3
16-Jun	A	5	3	5	6	11	15	10	4	2	2	2	2	3	3	2	2	2	2	3	3	3	2	A	4.2	15.1
17-Jun	3	3	3	3	3	5	5	3	2	1	1	1	1	1	1	1	1	1	1	2	2	4	A	4	2.3	5.0
18-Jun	4	4	4	4	5	6	5	6	3	1	1	1	1	1	1	1	2	1	1	1	2	A	5	6	2.9	6.3
19-Jun	11	16	19	20	22	17	24	9	6	3	3	4	6	4	3	2	2	2	2	2	A	4	5	6	8.4	24.2
20-Jun	4	7	6	7	7	7	13	13	7	5	3	4	4	11	6	4	3	3	2	A	3	2	2	2	5.5	13.2
21-Jun	2	2	2	2	3	3	3	3	2	2	2	2	2	2	2	2	2	3	A	2	2	2	2	2	2.1	3.4
22-Jun	1	1	2	2	3	4	4	4	4	6	9	2	2	2	2	1	2	A	2	2	4	5	5	5	3.2	8.7
23-Jun	5	6	4	6	8	14	7	7	6	5	3	2	3	1	1	2	A	4	3	3	4	6	8	8	5.0	13.7
24-Jun	12	17	16	15	14	21	21	17	14	7	4	3	2	2	2	A	3	2	2	2	4	4	4	4	8.4	20.9
25-Jun	3	3	4	5	5	6	6	4	8	5	3	2	2	2	A	3	2	3	3	3	4	4	4	5	3.9	7.9
26-Jun	5	8	11	11	13	20	21	13	15	5	7	3	2	A	3	5	10	5	3	5	4	5	5	6	8.0	21.1
27-Jun	3	2	3	4	4	6	7	6	3	2	4	4	A	6	4	4	4	4	3	4	2	2	1	1	3.6	6.8
28-Jun	1	1	2	2	2	4	4	4	4	5	4	A	4	4	3	4	3	3	4	4	4	6	6	6	3.5	6.3
29-Jun	4	4	3	2	3	6	10	8	11	5	A	4	2	2	2	4	5	4	5	6	7	7	9	9	5.2	11.1
30-Jun	9	10	9	8	9	16	14	7	3	A	4	2	2	1	2	1	2	2	3	3	5	7	11	10	6.1	15.5
	5.7	6.0	6.6	6.7	7.5	11.1	11.6	8.5	6.6	4.2	3.5	2.9	2.9	2.6	2.7	2.6	2.8	2.7	2.6	3.0	3.5	4.5	5.4	5.2	Diurnal Average	
	23.7	24.1	19.0	19.8	22.3	25.9	36.0	18.4	19.3	12.1	8.7	6.6	11.1	10.8	6.8	4.7	10.0	5.0	5.0	8.5	6.9	9.3	21.2	20.2	Diurnal Maximum	

C - Calibration

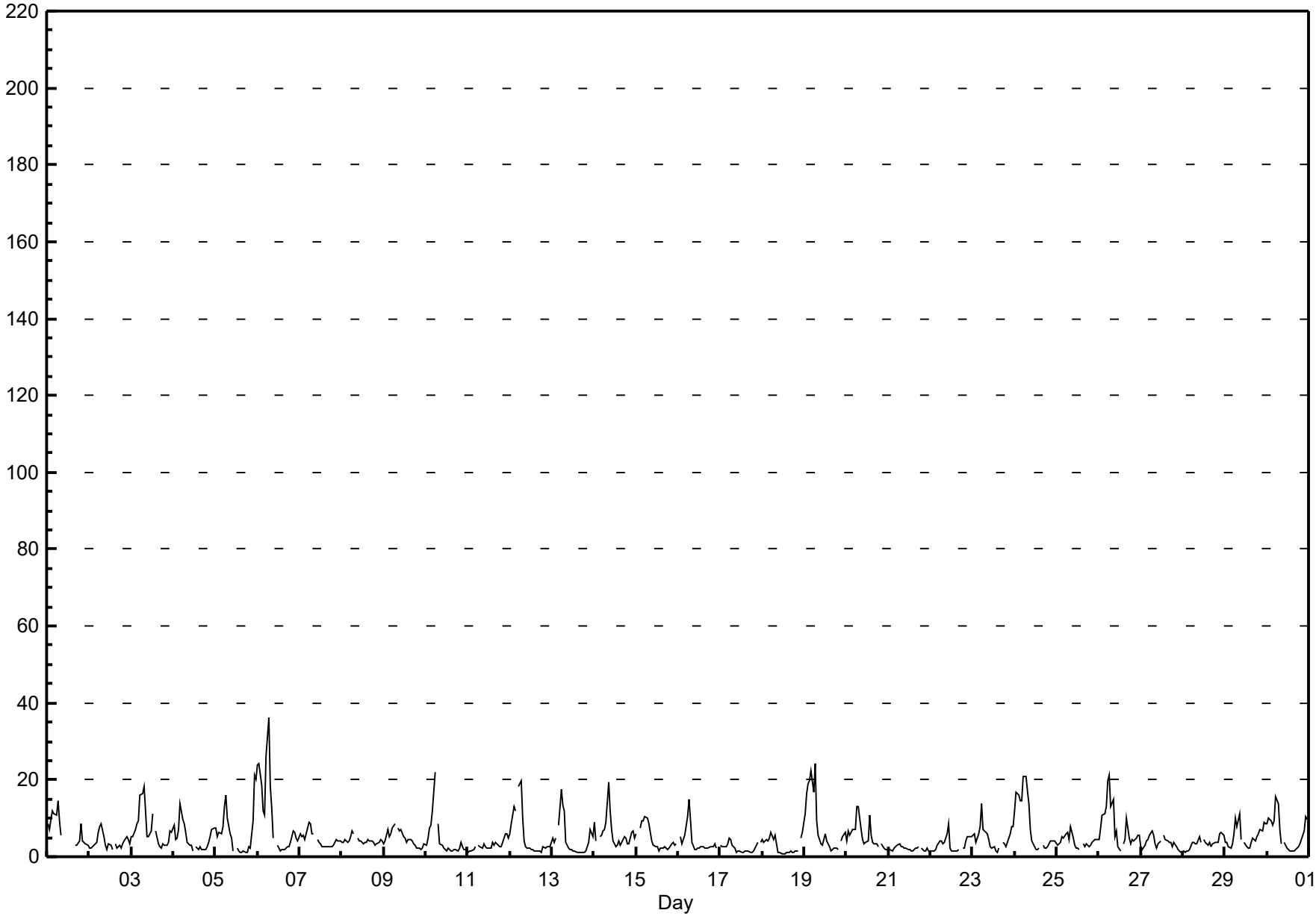
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - June 2017

Maximum Value: 174.6 ppb on Jun 14 09:00

Maximum Daily Average: 17.6 ppb on Jun 14

Minimum Value: 2 ppb on Jun 18 13:00

Minimum Daily Average: 3.9 ppb on Jun 17

Maximum Diurnal Average: 19.9 ppb at hour 9

Minimum Diurnal Average: 4.6 ppb at hour 19

Monthly Average: 9.24 ppb

Percentiles: P_1 = 2.0 P_{10} = 3.0 Q_1 = 4.2 Median = 6.1 Q_3 = 10.0 P_{90} = 18.2 P_{99} = 52.4

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	12	12	12	16	16	19	21	17	10	C	C	C	C	C	C	C	5	5	7	68	6	5	6	4	--	67.5
2-Jun	4	3	3	5	6	15	14	10	7	6	3	7	7	3	A	6	5	6	4	6	6	7	7	6	6.4	14.5
3-Jun	7	9	16	16	12	23	25	23	22	9	10	8	16	A	12	6	8	5	5	5	5	6	20	8	12.1	25.1
4-Jun	22	6	6	12	20	20	16	8	5	5	4	2	A	5	3	5	3	3	3	4	7	8	9	9	8.0	21.9
5-Jun	10	8	7	8	10	17	23	17	25	58	5	A	5	2	2	3	3	3	3	26	4	33	32	37	14.9	58.1
6-Jun	38	34	23	15	14	43	47	27	17	7	A	6	3	3	5	4	4	5	5	6	13	11	9	5	14.9	47.4
7-Jun	10	7	8	7	10	16	18	9	14	A	7	5	5	4	6	4	5	4	4	6	5	7	6	5	7.5	18.5
8-Jun	4	7	5	5	5	7	10	9	A	7	6	7	5	6	5	13	6	5	5	5	4	8	9	7	6.4	12.7
9-Jun	5	7	9	6	8	11	11	A	10	8	15	7	8	6	6	7	5	4	6	4	3	3	3	5	6.8	15.2
10-Jun	4	7	9	11	20	28	A	18	5	4	3	3	2	7	6	3	6	4	3	6	7	4	4	2	7.2	28.2
11-Jun	2	7	2	4	4	A	5	4	8	7	6	6	5	5	11	7	9	7	3	3	5	14	17	8	6.6	16.9
12-Jun	9	15	15	28	A	24	54	14	6	5	4	4	5	2	4	2	3	3	2	8	4	4	5	6	10.0	53.8
13-Jun	7	5	7	A	12	26	17	18	8	4	3	3	3	4	4	3	3	2	3	2	4	10	10	11	7.4	25.6
14-Jun	13	7	A	6	10	10	11	13	175	44	27	7	4	6	9	5	6	9	7	6	5	9	9	6	17.6	174.6
15-Jun	9	A	11	16	14	14	15	16	13	7	6	4	4	3	6	3	6	4	3	7	4	5	4	10	8.0	16.3
16-Jun	A	9	6	7	9	17	26	14	8	3	3	4	4	4	7	4	6	4	5	4	4	5	4	A	7.2	26.3
17-Jun	5	3	4	4	4	6	6	5	3	2	3	3	2	3	3	5	3	2	3	4	5	5	A	5	3.9	6.4
18-Jun	6	5	6	5	6	8	6	8	6	3	3	2	2	2	3	2	4	3	2	2	3	A	11	12	4.7	11.9
19-Jun	15	25	24	36	24	23	38	15	8	5	5	7	11	6	4	2	3	3	4	2	A	5	7	10	12.2	37.6
20-Jun	12	10	7	9	12	9	18	16	11	23	8	7	7	18	11	6	5	5	4	A	5	3	3	3	9.3	23.0
21-Jun	3	3	3	3	4	4	5	4	4	4	9	4	4	4	3	5	5	5	A	3	2	3	3	3	4.0	8.8
22-Jun	2	2	2	2	5	7	30	5	9	34	101	11	3	3	4	3	3	A	4	4	8	11	8	7	11.8	101.4
23-Jun	7	7	5	10	17	20	10	9	8	6	5	4	35	3	2	5	A	5	8	7	7	8	11	9	9.1	34.8
24-Jun	21	21	24	20	18	27	27	21	18	9	7	3	3	3	4	A	4	4	6	4	6	6	5	6	11.7	27.3
25-Jun	6	5	5	8	9	9	10	8	10	10	4	4	4	2	A	5	3	7	5	4	5	6	6	8	6.3	10.2
26-Jun	8	19	15	14	17	28	29	25	68	13	39	5	7	A	6	12	14	8	5	8	6	11	9	8	16.2	67.5
27-Jun	5	3	5	6	7	8	8	7	6	5	7	6	A	9	6	5	5	6	5	5	5	3	2	2	5.5	9.4
28-Jun	3	2	2	3	3	5	6	6	6	10	11	A	10	15	8	7	4	5	7	6	5	9	9	7	6.5	15.4
29-Jun	5	6	4	3	7	10	13	13	82	15	A	7	4	3	4	7	7	6	7	8	9	9	13	11	11.1	82.1
30-Jun	10	13	14	10	12	22	32	22	6	A	7	3	3	3	4	4	8	5	4	14	17	9	22	15	11.3	32.1
	9.1	9.2	9.0	10.2	10.9	16.4	19.1	13.2	19.9	11.6	11.5	5.2	6.4	5.0	5.5	5.1	5.2	4.7	4.6	8.2	5.8	7.9	9.1	8.2	Diurnal Average	
	37.7	33.9	24.2	36.4	24.0	43.5	53.8	26.9	174.6	58.1	101.4	11.5	34.8	18.4	11.8	12.7	13.8	9.5	8.5	67.5	16.5	32.5	32.1	37.2	Diurnal Maximum	

C - Calibration

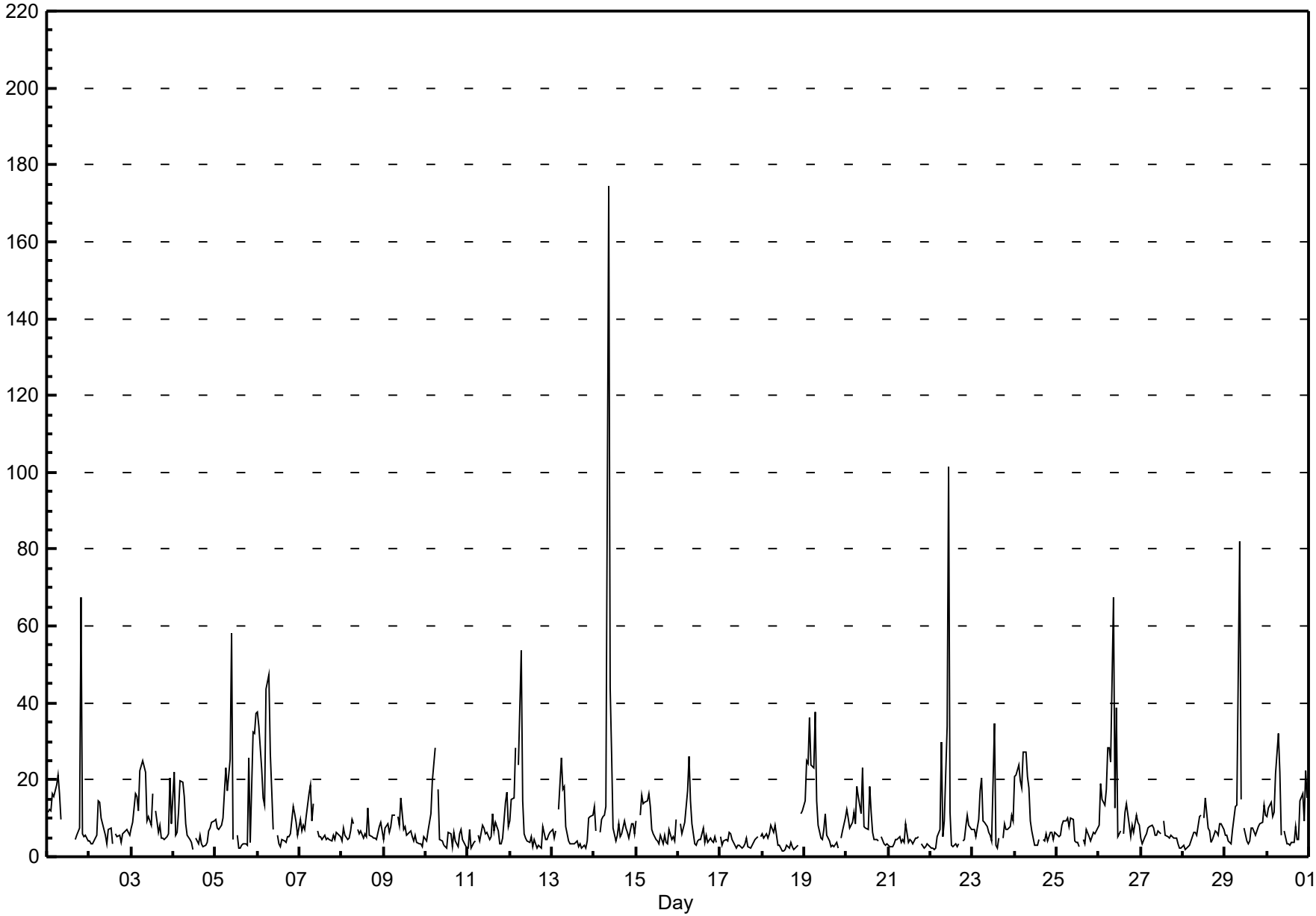
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - June 2017

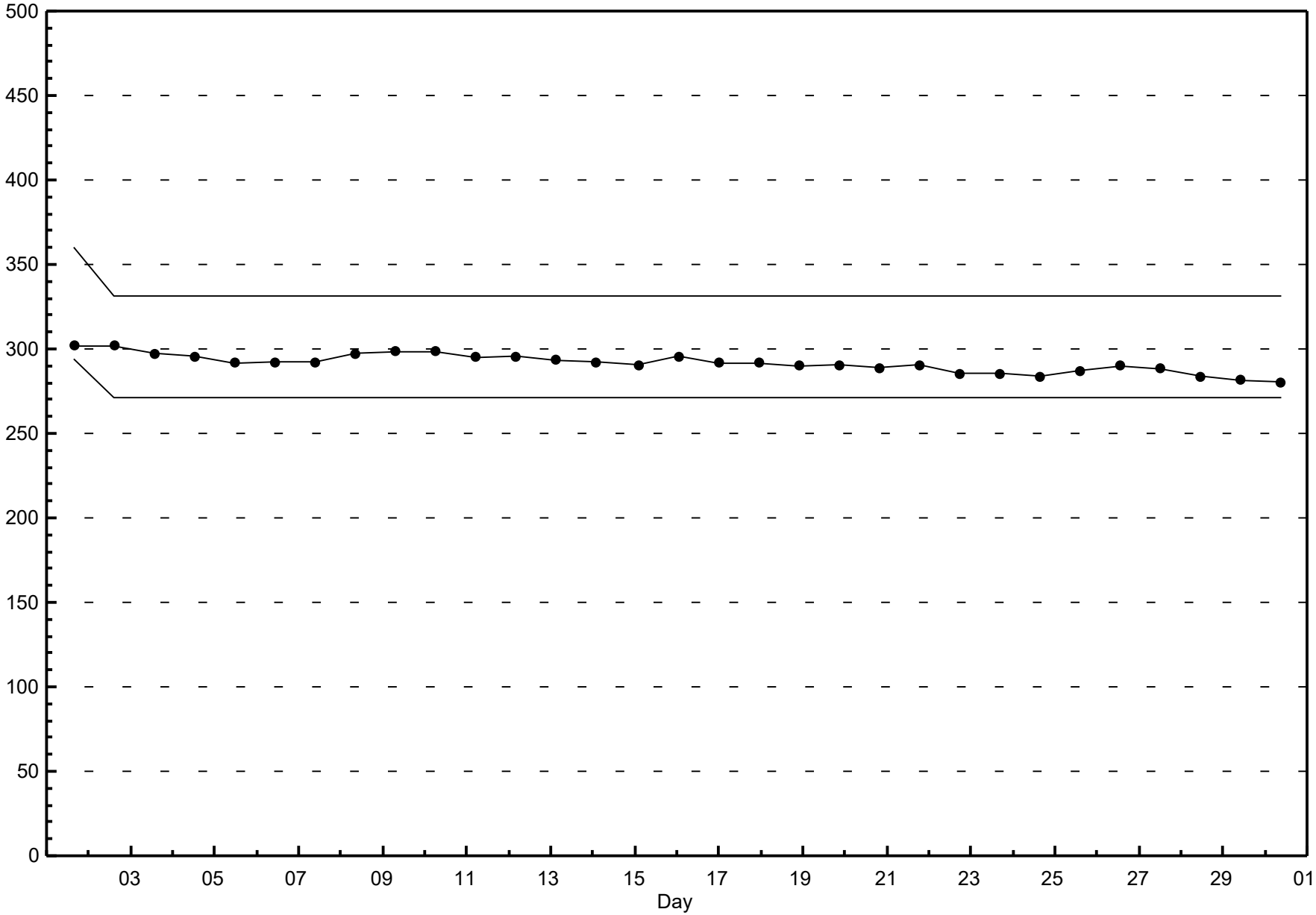


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 60.6 ppb on Jun 8 17:00 Maximum Daily Average: 48.2 ppb on Jun 8

Minimum Value: 0 ppb on Jun 12 03:00 Minimum Daily Average: 17.9 ppb on Jun 29

Maximum Diurnal Average: 37.2 ppb at hour 19 Minimum Diurnal Average: 15.8 ppb at hour 6

Monthly Average: 28.34 ppb Percentiles: P_1 = 2.3 P_{10} = 12.2 Q_1 = 21.7 Median = 28.6 Q_3 = 35.8 P_{90} = 42.3 P_{99} = 55.9

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	24	25	17	14	12	14	15	23	35	35	38	41	41	39	C	C	C	39	36	30	32	30	35	34	29.0	41.4
2-Jun	35	35	30	30	29	28	26	27	30	34	37	37	36	36	A	41	38	37	37	40	35	31	29	30	33.4	41.4
3-Jun	27	24	19	15	14	10	11	13	19	24	25	23	26	A	40	43	49	42	44	42	40	36	30	29	28.0	49.1
4-Jun	24	26	23	18	10	15	17	22	26	33	35	38	A	44	45	48	49	48	46	42	40	33	27	25	31.9	49.2
5-Jun	24	27	18	17	15	13	16	22	26	30	33	A	37	38	37	36	36	37	37	34	34	23	9	7	26.3	37.8
6-Jun	3	2	3	7	9	4	5	16	23	30	A	39	40	41	42	45	43	43	45	44	38	35	36	35	27.3	45.4
7-Jun	32	34	36	39	37	30	34	37	37	A	47	56	57	57	56	54	53	54	56	54	51	48	43	41	45.4	57.1
8-Jun	43	42	40	40	37	35	33	36	A	47	52	55	57	55	54	57	61	58	56	53	53	51	47	47	48.2	60.6
9-Jun	45	42	36	36	34	32	32	A	37	36	22	20	21	24	26	27	27	26	24	25	25	25	22	18	28.8	44.9
10-Jun	16	12	8	6	4	3	A	19	30	31	35	37	42	47	49	49	45	42	41	42	31	27	27	26	29.1	49.4
11-Jun	25	29	27	27	26	A	28	25	27	26	27	27	26	25	24	21	20	19	18	16	12	8	6	5	21.5	28.7
12-Jun	3	2	0	1	A	2	4	11	21	28	32	34	38	37	40	41	39	39	39	35	34	32	32	32	24.9	41.0
13-Jun	25	24	22	A	20	14	18	21	32	33	32	37	40	41	42	42	43	43	44	43	37	34	29	30	32.5	44.1
14-Jun	25	25	A	21	20	19	18	17	15	18	24	27	31	33	32	31	26	34	33	34	35	29	26	21	25.8	34.5
15-Jun	19	A	17	12	10	11	12	13	17	24	30	33	36	35	33	33	32	34	35	35	34	30	26	25	25.4	35.9
16-Jun	A	26	25	23	22	17	15	22	25	23	22	23	27	29	29	30	32	33	33	33	33	31	31	A	26.5	33.4
17-Jun	29	27	26	26	25	22	25	27	30	31	31	32	33	33	33	34	35	36	37	35	33	30	A	30	30.4	36.6
18-Jun	25	26	24	23	21	19	20	18	23	30	30	31	31	32	31	30	28	28	28	29	30	A	25	21	26.1	31.6
19-Jun	14	6	2	2	2	7	8	15	20	24	28	32	32	32	35	37	38	38	38	36	A	29	25	24	22.7	37.9
20-Jun	25	20	19	14	11	10	7	12	20	27	32	32	40	28	28	33	34	36	36	A	32	32	31	30	25.7	39.9
21-Jun	29	28	27	26	26	25	25	26	27	28	29	29	29	29	29	29	30	27	A	27	25	24	22	22	26.9	29.5
22-Jun	22	20	19	18	16	15	15	16	16	17	21	23	28	32	34	36	36	A	39	37	30	25	24	22	24.5	39.1
23-Jun	19	16	17	14	13	10	14	15	17	20	26	29	31	33	34	32	A	35	37	41	37	32	26	25	24.9	41.4
24-Jun	15	7	8	5	4	4	10	13	21	31	37	42	44	45	46	A	48	46	46	42	38	35	33	30	28.4	48.5
25-Jun	30	29	27	24	23	21	23	27	29	38	41	39	39	41	A	43	40	41	39	38	36	34	34	33	33.4	43.3
26-Jun	29	26	17	13	10	9	11	20	23	38	44	45	46	A	46	40	31	36	34	30	30	27	25	24	28.3	46.4
27-Jun	34	35	34	31	26	25	23	23	27	27	24	24	A	18	17	17	17	20	23	17	19	30	28	28	24.5	34.8
28-Jun	26	27	25	26	33	28	27	26	23	22	24	A	23	25	25	27	30	31	28	23	20	15	12	10	24.1	32.5
29-Jun	10	10	11	12	12	11	8	11	13	19	A	26	29	27	26	25	28	29	26	22	17	16	13	11	17.9	28.9
30-Jun	10	8	9	12	9	8	12	21	29	A	37	38	39	39	39	40	42	44	45	45	41	34	27	23	28.2	45.0
	23.6	22.8	20.2	19.1	18.2	15.8	17.7	20.5	24.7	28.8	32.0	33.9	35.7	35.5	36.0	36.4	36.8	37.0	37.2	35.3	32.8	29.9	26.9	25.4	Diurnal Average	
	44.9	42.3	39.8	39.9	37.5	34.7	34.0	37.5	36.9	46.8	51.9	55.8	56.8	57.1	56.0	57.3	60.6	58.4	56.1	54.3	53.1	51.1	46.8	47.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

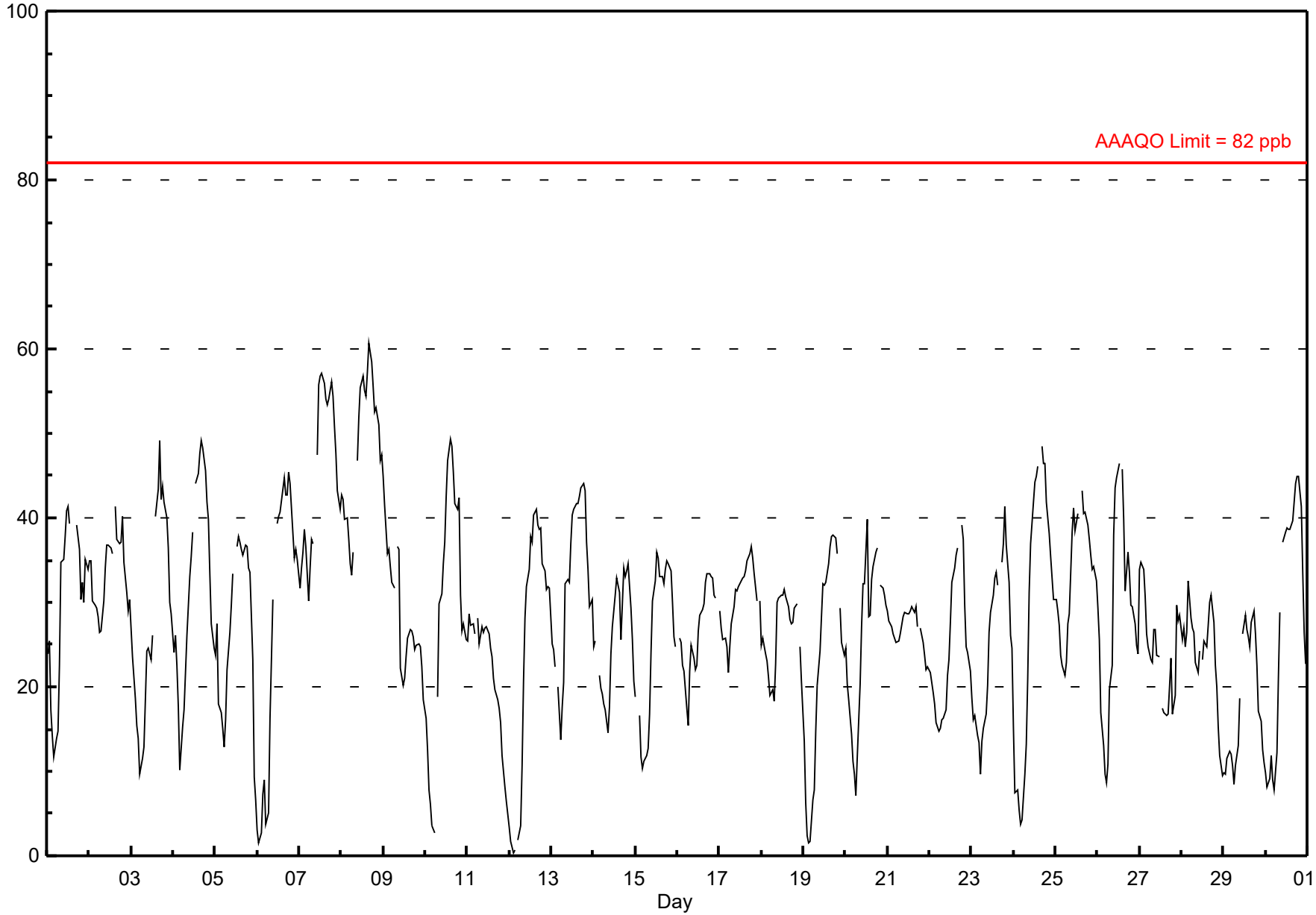
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - June 2017

Maximum Value: 62.7 ppb on Jun 8 17:00

Maximum Daily Average: 50.3 ppb on Jun 8

Minimum Value: 1 ppb on Jun 12 03:00

Minimum Daily Average: 19.9 ppb on Jun 29

Maximum Diurnal Average: 39.2 ppb at hour 19

Minimum Diurnal Average: 18.5 ppb at hour 6

Monthly Average: 30.85 ppb

Percentiles: P_1 = 4.0 P_{10} = 15.8 Q_1 = 24.4 Median = 30.7 Q_3 = 38.2 P_{90} = 44.8 P_{99} = 57.7

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	28	28	23	17	17	18	18	29	40	40	40	43	43	43	C	C	C	42	38	33	35	35	38	35	32.6	43.4
2-Jun	39	40	33	33	32	33	30	31	33	37	38	39	39	37	A	43	41	39	38	42	39	35	31	32	36.2	43.4
3-Jun	29	27	23	20	16	12	14	15	25	28	29	25	30	A	46	48	51	45	48	44	43	39	36	31	31.5	51.2
4-Jun	28	29	26	20	17	18	21	24	30	35	38	40	A	46	47	50	51	50	48	44	43	37	30	28	34.9	51.3
5-Jun	28	30	21	18	17	16	19	25	31	32	37	A	38	39	38	38	37	38	38	36	35	32	17	9	29.1	39.5
6-Jun	7	2	8	10	10	8	18	25	28	34	A	41	41	42	45	49	44	45	48	47	43	37	37	37	30.7	49.1
7-Jun	34	36	38	39	39	35	38	39	41	A	50	57	58	59	58	55	56	56	58	56	53	50	47	43	47.6	58.6
8-Jun	44	43	42	42	38	37	34	39	A	49	55	57	58	57	57	60	63	61	57	54	54	53	49	55	50.3	62.7
9-Jun	49	44	38	37	36	35	34	A	40	39	35	22	23	26	27	28	28	27	26	26	26	26	24	21	31.1	49.5
10-Jun	18	15	10	8	5	5	A	29	32	35	36	40	46	49	51	50	49	44	43	44	39	28	30	27	31.9	51.3
11-Jun	29	31	28	29	28	A	31	29	30	28	30	29	30	28	26	24	22	20	19	18	14	10	9	6	23.8	31.3
12-Jun	5	3	1	1	A	3	7	16	25	31	34	36	40	40	42	43	41	40	40	38	36	33	35	35	27.1	42.5
13-Jun	29	26	25	A	22	18	20	29	35	35	35	41	42	43	43	43	44	45	45	45	43	36	32	32	35.1	45.3
14-Jun	30	31	A	23	21	20	19	18	18	23	27	29	33	36	35	34	30	39	36	36	36	34	28	24	28.7	39.3
15-Jun	22	A	20	14	13	15	13	15	21	30	33	35	38	38	35	34	34	35	36	35	35	32	28	28	27.7	37.9
16-Jun	A	28	27	25	24	22	19	26	27	25	23	24	30	30	31	31	35	35	35	34	34	33	31	A	28.6	34.8
17-Jun	30	28	26	27	26	24	27	29	32	32	33	33	34	34	34	35	36	37	38	37	35	32	A	32	31.8	37.9
18-Jun	28	27	27	24	23	20	21	21	30	31	31	32	32	33	32	31	29	28	28	31	31	A	27	25	27.8	33.2
19-Jun	16	11	4	3	3	9	12	18	22	27	30	35	34	34	36	38	39	39	39	38	A	32	28	26	25.0	39.0
20-Jun	27	25	21	16	14	11	10	17	23	32	35	40	44	38	32	35	36	37	38	A	33	32	32	30	28.6	43.5
21-Jun	30	28	28	27	27	26	26	27	29	29	30	30	30	31	31	30	31	30	A	30	26	25	23	23	28.1	30.8
22-Jun	23	21	21	19	17	16	16	20	18	21	24	26	29	36	36	39	38	A	41	39	35	27	27	24	26.6	40.9
23-Jun	20	19	18	17	17	15	15	17	18	24	28	31	33	34	35	35	A	36	42	43	42	36	30	28	27.6	43.2
24-Jun	21	11	13	7	5	8	13	18	29	36	40	44	45	47	48	A	50	48	48	44	39	38	35	32	31.3	49.7
25-Jun	31	30	29	26	23	22	26	30	32	43	43	40	41	42	A	46	42	42	41	39	37	35	35	36	35.3	45.7
26-Jun	32	30	21	18	12	13	13	28	27	45	46	47	48	A	48	43	37	39	39	32	32	30	27	27	31.9	48.5
27-Jun	37	36	36	33	30	27	25	25	29	28	27	25	A	21	18	18	18	26	25	19	27	34	29	30	27.1	37.0
28-Jun	27	28	26	31	35	29	29	28	24	24	26	A	26	27	26	29	31	33	32	25	23	18	13	11	26.2	34.9
29-Jun	10	11	13	13	13	12	11	12	17	21	A	29	31	29	28	28	31	31	28	26	20	18	14	13	19.9	30.8
30-Jun	12	10	14	15	11	10	17	27	33	A	39	39	40	40	40	42	44	46	46	48	45	37	34	26	31.2	47.6
	26.3	25.2	22.7	21.1	20.4	18.5	20.6	24.4	28.2	32.0	34.7	36.0	37.6	37.8	38.0	38.5	38.8	39.1	39.2	37.4	35.6	32.6	29.5	27.9	Diurnal Average	
	49.5	43.7	42.0	41.9	38.6	36.9	38.3	39.4	40.7	49.0	54.6	57.1	57.8	58.6	57.7	59.7	62.7	61.0	57.6	56.0	53.7	52.8	49.1	55.2	Diurnal Maximum	

C - Calibration

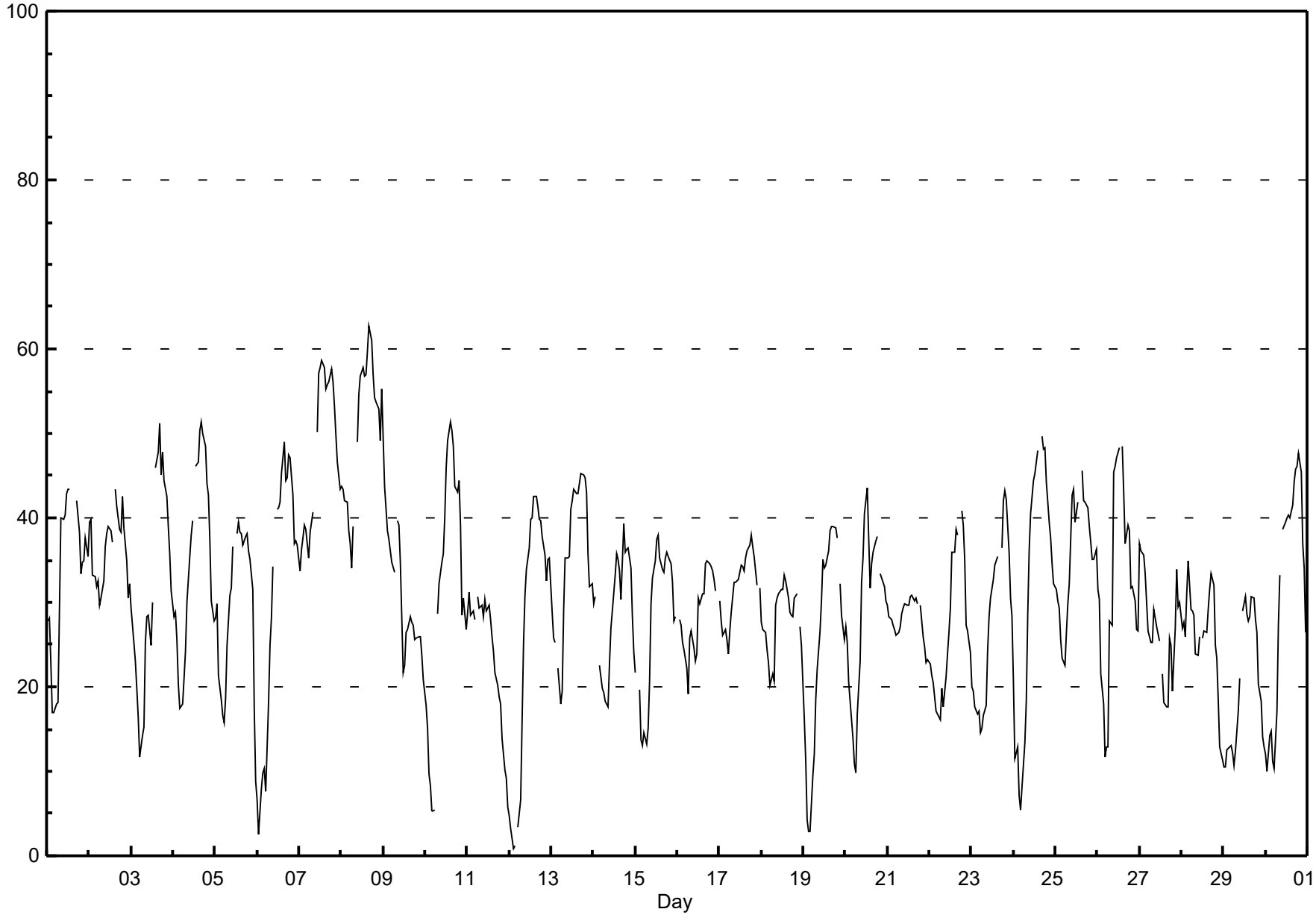
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

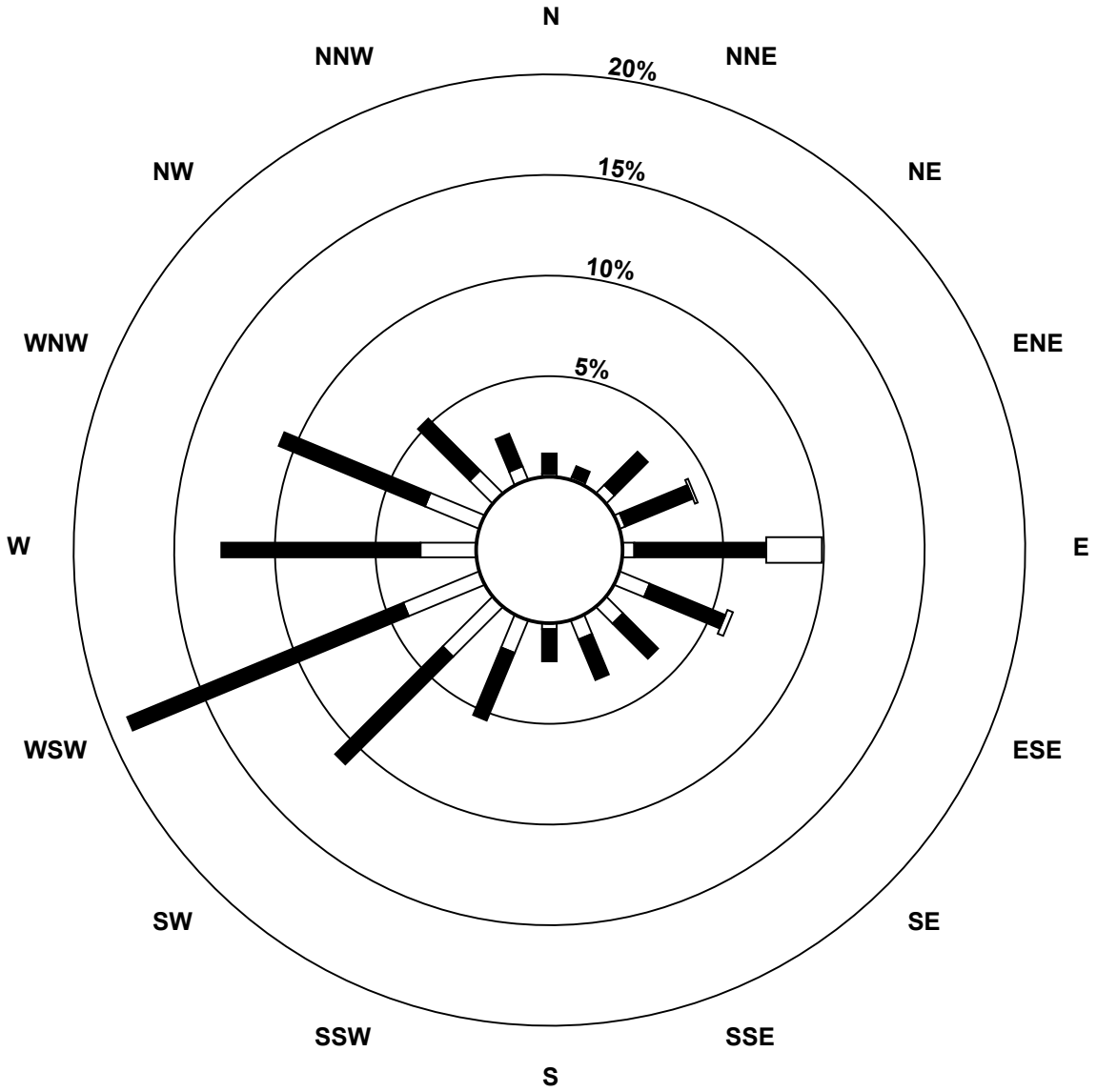
Henry Pirker - June 2017



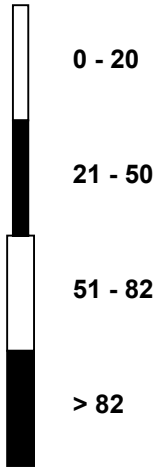
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - June 2017



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - June 2017

Maximum Value: 56.7 ppb on Jun 8 19:00

Minimum Value: 2.4 ppb on Jun 12 07:00

Percentiles: P_1 = 5.5 P_{10} = 15.5 Q_1 = 21.8 Median = 28.0 Q_3 = 34.6 P_{90} = 40.9 P_{99} = 55.1

Hours in Service:	720
Hours of Data:	714
Hours of Missing Data:	6
Hours of Calibration:	6
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	37	34	31	27	23	20	18	18	19	21	23	26	30	33	36	38	N	N	N	N	N	N	34	34	38.2
2-Jun	34	33	33	33	32	32	31	30	29	29	30	31	32	33	34	36	37	37	37	38	38	37	36	35	37.9
3-Jun	33	32	29	26	24	21	19	17	15	16	16	17	19	20	24	29	33	36	38	41	43	42	41	39	42.9
4-Jun	36	34	31	28	24	22	20	19	20	20	22	25	27	31	35	39	42	44	45	46	45	44	42	39	46.0
5-Jun	36	33	30	26	23	21	19	19	19	20	22	22	25	29	32	34	35	36	37	36	36	34	31	27	36.7
6-Jun	23	18	14	11	8	5	5	6	9	12	14	18	23	28	33	37	40	42	42	43	43	42	41	40	42.8
7-Jun	39	38	36	36	35	35	35	35	35	36	37	40	43	46	50	52	54	54	55	55	54	53	52	50	55.4
8-Jun	49	47	45	43	42	40	39	38	38	38	40	42	45	48	51	54	55	56	57	56	56	55	54	53	56.7
9-Jun	51	49	47	45	42	40	38	37	35	35	33	31	29	27	27	27	25	24	24	25	25	26	25	24	51.2
10-Jun	23	21	19	17	14	11	10	10	12	14	18	23	28	34	36	40	42	43	44	45	43	41	38	35	44.7
11-Jun	33	31	29	27	27	27	27	27	27	27	27	27	27	26	26	25	24	23	22	21	19	17	15	13	32.6
12-Jun	11	9	7	5	4	3	2	3	6	9	14	19	21	25	30	34	36	37	38	38	38	37	36	35	38.4
13-Jun	33	31	29	29	27	24	22	21	22	23	24	26	28	32	35	37	39	40	42	42	42	41	39	38	42.3
14-Jun	36	34	32	29	26	24	23	21	19	18	19	20	21	23	25	26	28	30	31	32	32	32	31	30	35.8
15-Jun	29	28	26	22	19	16	14	13	13	14	16	19	22	25	28	30	32	33	34	34	34	33	32	31	34.1
16-Jun	31	30	29	27	25	23	22	21	22	22	21	21	22	23	25	26	27	28	29	31	32	32	32	32	32.4
17-Jun	32	31	30	29	28	26	25	26	26	26	27	28	29	30	31	32	33	33	34	34	34	34	34	34	34.5
18-Jun	32	31	29	27	26	24	23	22	22	22	23	24	25	27	28	30	30	30	30	29	29	29	28	27	32.4
19-Jun	25	22	18	14	10	10	8	7	8	10	13	17	21	24	27	30	32	34	35	36	36	36	34	32	36.1
20-Jun	31	28	25	22	21	18	16	15	14	15	17	19	23	25	28	30	32	33	34	34	33	33	33	33	33.7
21-Jun	32	31	30	29	29	28	27	27	26	26	27	27	27	28	28	29	29	29	29	28	28	27	26	25	32.2
22-Jun	24	23	23	22	20	19	18	18	17	17	17	17	19	21	24	26	29	30	33	35	35	34	32	30	35.0
23-Jun	28	26	24	21	19	17	16	15	14	15	16	18	20	23	26	28	29	31	33	35	35	35	34	33	35.5
24-Jun	31	28	24	19	15	12	10	8	9	12	16	20	25	30	35	38	42	44	45	45	45	43	41	40	45.5
25-Jun	38	36	33	31	29	27	26	26	25	26	28	30	32	35	36	39	40	41	40	40	40	39	38	37	40.6
26-Jun	35	33	31	28	24	21	18	17	16	17	21	25	29	32	37	40	41	41	40	37	35	34	32	30	41.4
27-Jun	30	30	30	30	29	29	29	29	28	27	26	25	25	23	23	22	20	19	19	18	18	20	21	23	29.9
28-Jun	24	25	25	26	28	28	27	27	27	26	26	26	25	24	24	24	25	27	27	26	26	25	23	21	27.7
29-Jun	18	16	14	12	11	11	10	11	11	12	12	14	17	19	21	23	26	27	27	26	25	24	22	20	27.0
30-Jun	18	15	13	12	11	10	10	11	14	14	18	22	26	31	34	37	39	40	41	41	42	41	40	38	41.8
Diurnal Maximums	51.2	49.1	46.6	44.6	42.3	40.1	38.9	38.2	37.6	38.3	40.0	42.2	45.0	47.9	50.9	54.0	54.8	56.3	56.7	56.4	55.9	55.4	54.4	53.2	

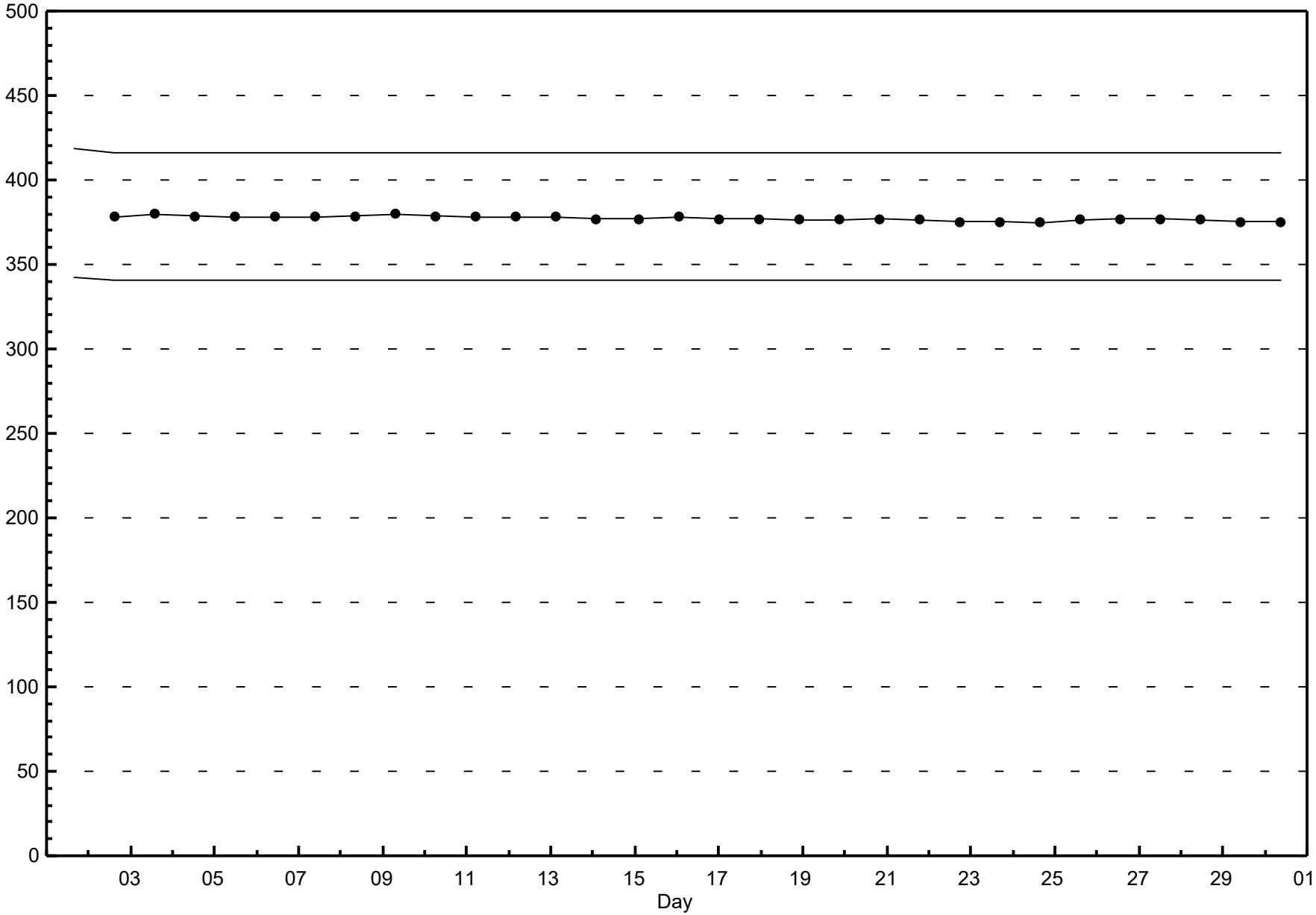
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 0.37 ppm on Jul 1 00:00 Maximum Daily Average: 0.16 ppm on Jun 7

Minimum Value: 0.1 ppm on Jun 17 17:00 Minimum Daily Average: 0.10 ppm on Jun 17

Maximum Diurnal Average: 0.16 ppm at hour 7 Minimum Diurnal Average: 0.12 ppm at hour 15

Monthly Average: 0.136 ppm Percentiles: P_1 = 0.10 P_{10} = 0.11 Q_1 = 0.12 Median = 0.13 Q_3 = 0.15 P_{90} = 0.16 P_{99} = 0.24

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	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	0.14	0.19
2-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.15
3-Jun	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	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	0.15	0.24
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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.20
5-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.2	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	0.2	0.3	0.3	0.14	0.27
6-Jun	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	A	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	0.15	0.24
7-Jun	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.20
8-Jun	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	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	0.16	0.18
9-Jun	0.2	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.17
10-Jun	0.1	0.1	0.1	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.15
11-Jun	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	0.1	0.1	0.1	0.13	0.15
12-Jun	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.19
13-Jun	0.1	0.1	0.1	A	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	0.2	0.2	0.2	0.13	0.18
14-Jun	0.2	0.1	A	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	0.1	0.1	0.2	0.2	0.1	0.15	0.25
15-Jun	0.1	A	0.1	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	0.1	0.1	0.1	0.1	0.1	0.14	0.16
16-Jun	A	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.12	0.16
17-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	A	0.1	0.10	0.12
18-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	A	0.1	0.1	0.11	0.12
19-Jun	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.15	0.21
20-Jun	0.2	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	A	0.1	0.1	0.1	0.1	0.13	0.19
21-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	A	0.1	0.1	0.1	0.1	0.1	0.11	0.11
22-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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.11	0.13
23-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	0.2	0.2	0.12	0.18
24-Jun	0.2	0.2	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	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.14	0.20
25-Jun	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	A	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.16	0.19
26-Jun	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.18
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	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	0.13
28-Jun	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	0.2	0.2	0.2	0.1	0.14	0.16
29-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.14	0.16
30-Jun	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.16	0.37
	0.14	0.13	0.13	0.13	0.13	0.15	0.16	0.15	0.14	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.15	0.15	Diurnal Average	
	0.24	0.17	0.17	0.17	0.21	0.23	0.24	0.25	0.18	0.17	0.17	0.16	0.17	0.16	0.17	0.17	0.17	0.18	0.17	0.16	0.20	0.22	0.28	0.37	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

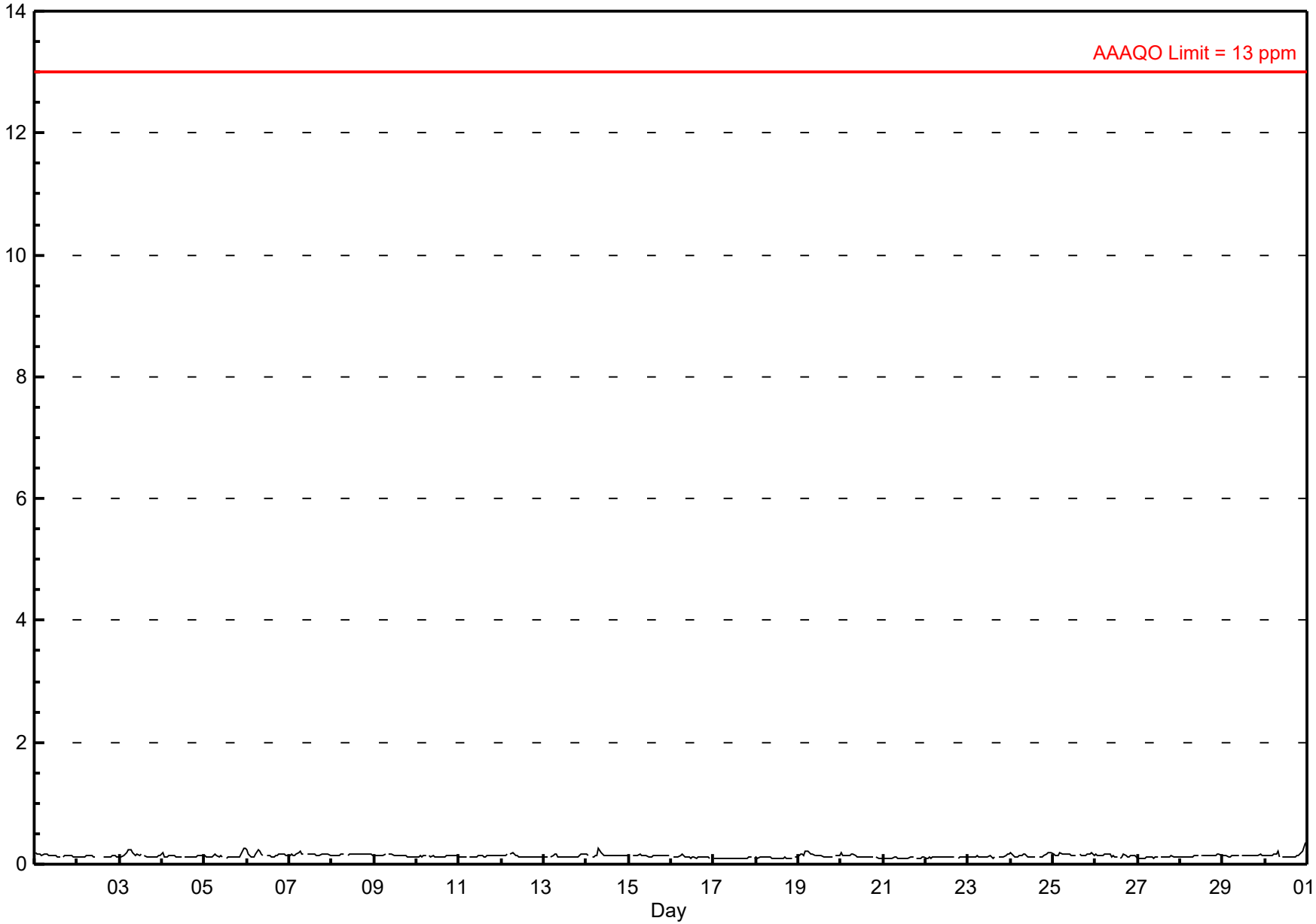
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na

Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - June 2017

Maximum Value: 1.73 ppm on Jun 14 08:00

Maximum Daily Average: 0.28 ppm on Jun 30

Minimum Value: 0.1 ppm on Jun 17 17:00

Minimum Daily Average: 0.11 ppm on Jun 17

Maximum Diurnal Average: 0.27 ppm at hour 8

Minimum Diurnal Average: 0.14 ppm at hour 15

Monthly Average: 0.171 ppm

Percentiles: $P_1 = 0.10$ $P_{10} = 0.12$ $Q_1 = 0.13$ Median = 0.15 $Q_3 = 0.18$ $P_{90} = 0.22$ $P_{99} = 0.55$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.5	0.1	0.2	A	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.19	0.54
2-Jun	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.1	0.1	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.15	0.34
3-Jun	0.1	0.2	0.2	0.2	0.2	0.3	0.5	0.2	0.2	0.2	0.6	0.3	0.5	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.22	0.57
4-Jun	0.4	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.16	0.38
5-Jun	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.7	0.1	A	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.6	0.5	0.3	0.21	0.65
6-Jun	0.4	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	A	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.42
7-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.23
8-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.22
9-Jun	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	0.29
10-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	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.15	0.21
11-Jun	0.1	0.3	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.15	0.28
12-Jun	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	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	0.16	0.23
13-Jun	0.1	0.1	0.1	A	0.1	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.16	0.28
14-Jun	0.2	0.2	A	0.1	0.1	0.2	0.2	1.7	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.24	1.73
15-Jun	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.16	0.20
16-Jun	A	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	0.1	0.1	0.1	0.1	0.1	0.1	A	0.13	0.18
17-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	A	0.1	0.11	0.13
18-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	A	0.2	0.1	0.12	0.21
19-Jun	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.20	0.39
20-Jun	0.3	0.1	0.2	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	A	0.1	0.1	0.1	0.1	0.15	0.31
21-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	A	0.1	0.1	0.1	0.1	0.1	0.12	0.13
22-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.1	0.1	0.13	0.17
23-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	0.7	0.2	0.1	0.1	A	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.18	0.70
24-Jun	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.18	0.29
25-Jun	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.20	0.29
26-Jun	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.5	0.2	0.2	A	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.19	0.45
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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.15
28-Jun	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.16	0.20
29-Jun	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	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	0.16	0.19
30-Jun	0.2	0.2	0.2	0.1	0.1	0.3	0.6	1.1	0.1	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.8	0.8	0.28	1.15
	0.18	0.16	0.15	0.15	0.16	0.18	0.21	0.27	0.17	0.17	0.18	0.15	0.20	0.15	0.14	0.14	0.15	0.15	0.14	0.16	0.16	0.19	0.20	0.19	Diurnal Average	
	0.42	0.28	0.23	0.33	0.28	0.37	0.56	1.73	0.34	0.65	0.57	0.27	0.70	0.23	0.19	0.20	0.23	0.19	0.18	0.23	0.29	0.58	0.76	0.76	Diurnal Maximum	

C - Calibration

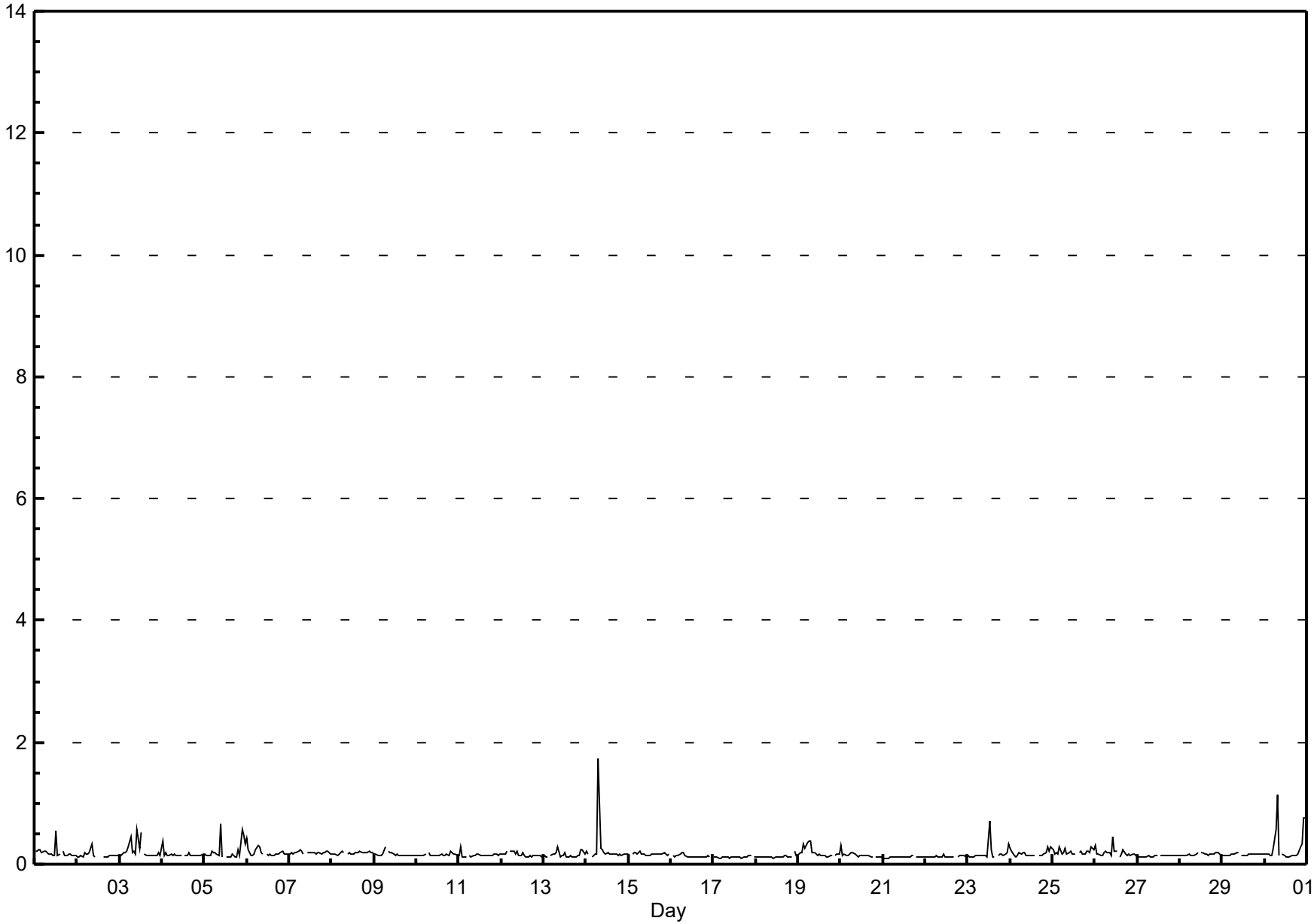
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

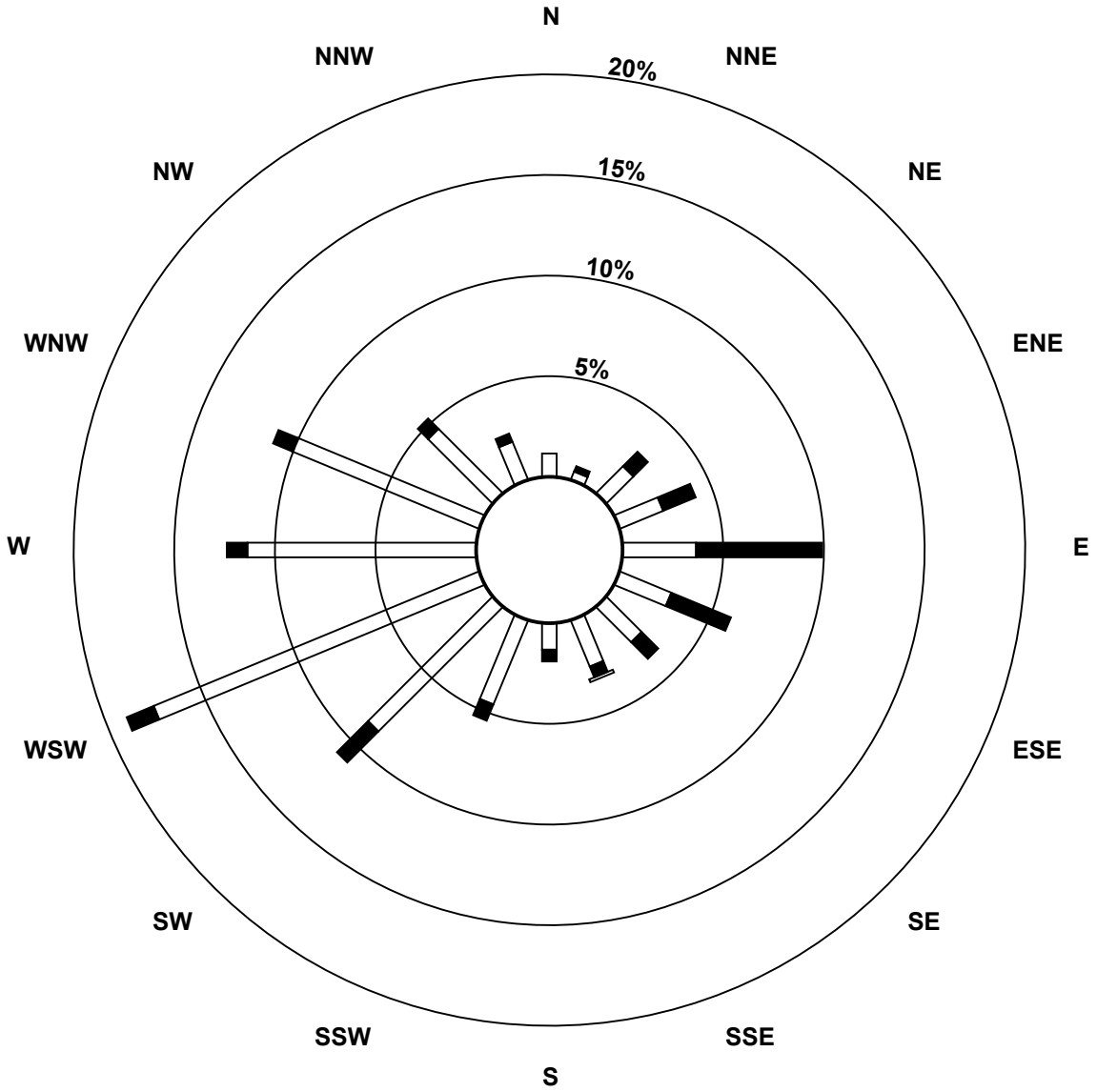
Henry Pirker - June 2017



Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - June 2017



Pollutant Classes (ppm)

- 0 - 0.1
- 0.1 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 10
- > 10

Peace Airshed Zone Association

Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - June 2017

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.20 ppm on Jul 1 00:00

Minimum Value: 0.10 ppm on Jun 17 20:00

Percentiles: P_1 = 0.10 P_{10} = 0.11 Q_1 = 0.12 Median = 0.13 Q_3 = 0.15 P_{90} = 0.16 P_{99} = 0.19

Hours in Service:	720
Hours of Data:	713
Hours of Missing Data:	7
Hours of Calibration:	7
Percent Operational Time:	100.0

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	Daily Maximum
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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
2-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	N	N	N	N	N	N	N	0.1	0.1	0.1	0.1	0.13
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	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
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	0.14
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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.17
6-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	0.1	0.1	0.1	0.1	0.1	0.2	0.19
7-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
8-Jun	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
9-Jun	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	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	0.14
12-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
13-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
14-Jun	0.1	0.1	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
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	0.1	0.1	0.15
16-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
17-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
18-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
19-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	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18
20-Jun	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	0.1	0.1	0.15
21-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
22-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
23-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
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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.16
25-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	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.17
26-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	0.16
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	0.13
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	0.15
29-Jun	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
30-Jun	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.20
Diurnal Maximums	0.18	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.18	0.19	0.19	0.18	0.18	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.20	

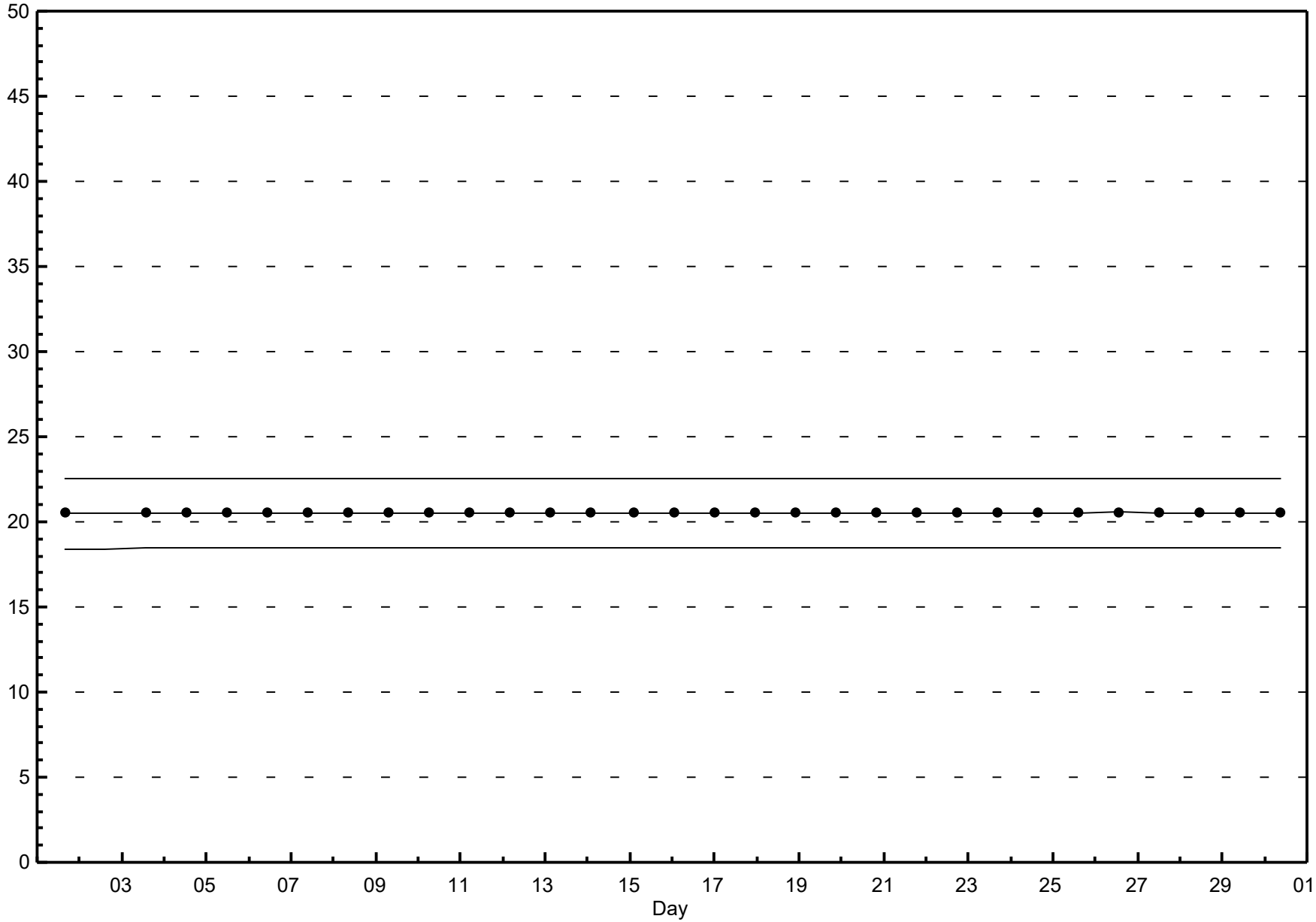
N - Not Valid
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

Peace Airshed Zone Association

Span Responses

Carbon Monoxide (CO)

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - June 2017

Maximum Value: 2.74 ppm on Jun 5 01:00

Maximum Daily Average: 2.29 ppm on Jun 19

Minimum Value: 2.0 ppm on Jun 2 18:00

Minimum Daily Average: 2.08 ppm on Jun 27

Maximum Diurnal Average: 2.31 ppm at hour 6

Minimum Diurnal Average: 2.10 ppm at hour 17

Monthly Average: 2.170 ppm

Percentiles: P_1 = 2.06 P_{10} = 2.08 Q_1 = 2.10 Median = 2.13 Q_3 = 2.19 P_{90} = 2.32 P_{99} = 2.58

Hours in Service:	720
Hours of Data:	650
Hours of Missing Data:	70
Hours of Calibration:	33
Percent Operational Time:	94.9

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	Daily Average	Daily Maximum
1-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	--
2-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	2.0	2.1	2.1	2.1	2.1	2.2	2.1	--	2.15
3-Jun	2.2	2.4	2.5	2.4	2.6	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.24	2.64
4-Jun	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.2	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.19	2.46
5-Jun	2.7	2.3	2.5	2.4	2.4	2.2	2.2	2.2	2.2	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.4	2.23	2.74
6-Jun	2.5	2.6	2.4	2.3	2.2	2.3	2.3	2.4	2.3	2.3	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.23	2.57
7-Jun	2.2	2.2	2.2	2.2	2.2	2.6	2.2	2.2	2.2	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.18	2.60
8-Jun	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.15	2.20
9-Jun	2.1	2.1	2.1	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.13	2.22
10-Jun	2.1	2.2	2.3	2.4	2.4	2.4	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.16	2.39
11-Jun	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.14	2.19
12-Jun	2.2	2.2	2.3	2.5	A	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.16	2.46
13-Jun	2.2	2.2	2.2	A	2.3	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.16	2.38
14-Jun	2.2	2.2	A	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.15	2.25
15-Jun	2.2	A	2.5	2.5	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.19	2.50
16-Jun	A	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.11	2.21
17-Jun	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.13	2.16
18-Jun	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.3	2.17	2.32
19-Jun	2.3	2.3	2.7	2.5	2.7	2.7	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	A	2.3	2.2	2.2	2.29	2.74
20-Jun	2.2	2.3	2.4	2.4	2.5	2.6	2.6	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.21	2.58
21-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.11	2.13
22-Jun	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.2	2.2	2.13	2.17
23-Jun	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.18	2.33
24-Jun	2.6	2.4	2.3	2.4	2.4	2.6	2.5	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.26	2.57
25-Jun	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.16	2.26
26-Jun	2.3	2.2	2.3	2.5	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.20	2.49
27-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.08	2.15
28-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.3	2.2	2.2	2.10	2.28
29-Jun	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.14	2.29
30-Jun	2.4	2.3	2.4	2.4	2.5	2.4	2.3	2.2	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.5	2.21	2.52
	2.23	2.22	2.27	2.27	2.29	2.31	2.24	2.20	2.17	2.14	2.13	2.12	2.11	2.11	2.10	2.10	2.10	2.10	2.10	2.12	2.12	2.15	2.17	2.21	Diurnal Average	
	2.74	2.57	2.74	2.50	2.70	2.69	2.56	2.43	2.30	2.27	2.20	2.21	2.21	2.20	2.14	2.13	2.13	2.18	2.15	2.24	2.19	2.34	2.34	2.47	Diurnal Maximum	

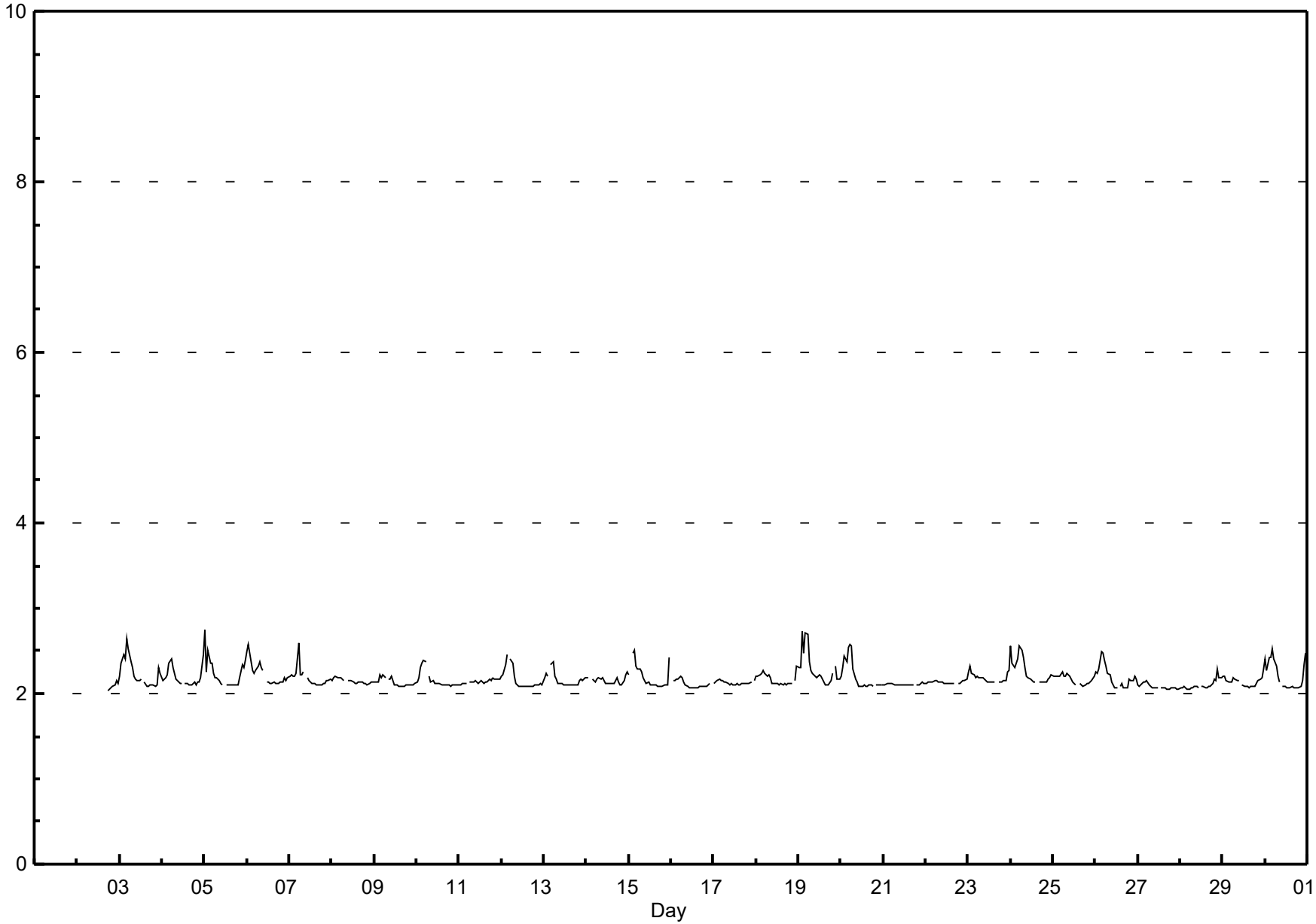
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - June 2017

Maximum Value: 4.34 ppm on Jun 30 05:00

Maximum Daily Average: 2.60 ppm on Jun 30

Minimum Value: 2.1 ppm on Jun 2 18:00

Minimum Daily Average: 2.11 ppm on Jun 27

Maximum Diurnal Average: 2.57 ppm at hour 5

Minimum Diurnal Average: 2.15 ppm at hour 17

Monthly Average: 2.289 ppm

Percentiles: P_1 = 2.08 P_{10} = 2.11 Q_1 = 2.13 Median = 2.18 Q_3 = 2.29 P_{90} = 2.59 P_{99} = 3.70

Hours in Service:	720
Hours of Data:	650
Hours of Missing Data:	70
Hours of Calibration:	33
Percent Operational Time:	94.9

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	Daily Average	Daily Maximum
1-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	--
2-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	2.1	2.1	2.1	2.1	2.2	2.2	2.1	--	2.18
3-Jun	2.5	3.2	3.1	2.9	3.0	3.1	2.4	2.3	2.3	2.2	2.2	2.3	2.2	A	2.3	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.6	3.1	2.47	3.22
4-Jun	2.2	2.3	2.5	2.3	2.4	2.7	2.5	2.4	2.2	2.2	2.2	2.2	A	2.3	2.6	2.1	2.2	2.3	2.3	2.2	2.5	2.2	2.2	3.6	2.38	3.64
5-Jun	3.5	2.4	3.3	2.5	2.9	2.3	2.2	2.2	2.2	2.1	2.1	A	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	3.4	3.1	2.7	2.6	2.46	3.48
6-Jun	3.0	2.6	2.5	2.3	2.3	2.3	2.3	2.5	2.4	2.3	A	2.1	2.4	2.1	2.2	2.5	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.31	2.96
7-Jun	2.3	2.3	2.5	2.3	2.6	3.3	2.6	2.3	2.3	A	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.28	3.34
8-Jun	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.17	2.23
9-Jun	2.4	2.3	2.2	2.3	2.2	2.2	2.2	A	2.2	2.2	2.6	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.20	2.63
10-Jun	2.4	2.4	2.5	2.6	2.6	2.5	A	2.3	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.24	2.62
11-Jun	2.1	2.1	2.1	2.2	2.2	A	2.2	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.4	2.3	2.4	2.2	2.3	2.3	2.2	2.2	2.2	2.22	2.38
12-Jun	2.3	2.5	2.6	2.7	A	2.6	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.23	2.66
13-Jun	2.2	2.3	2.3	A	3.8	3.3	2.3	2.3	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.3	2.1	2.1	2.1	2.1	3.7	2.8	2.3	2.7	2.42	3.84
14-Jun	2.3	2.4	A	2.2	2.2	2.2	2.2	2.4	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.3	3.5	2.2	2.1	2.1	2.2	2.5	2.3	2.28	3.51
15-Jun	2.3	A	2.5	2.8	2.4	2.4	2.4	2.3	2.3	2.2	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	3.9	2.32	3.86
16-Jun	A	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.16	2.31
17-Jun	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.15	2.19
18-Jun	2.2	2.2	2.3	2.3	2.5	2.3	2.2	2.3	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	3.1	2.24	3.14
19-Jun	2.9	2.4	3.5	3.4	3.8	3.4	2.5	2.3	2.3	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.5	2.6	A	3.1	2.6	2.2	2.58	3.77
20-Jun	2.2	2.9	2.9	3.3	3.3	3.1	2.8	2.7	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	A	2.1	2.1	2.1	2.1	2.41	3.30
21-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.13	2.20
22-Jun	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.2	2.2	2.2	2.2	2.16	2.22
23-Jun	2.5	2.7	2.3	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	A	2.2	2.2	2.1	2.2	2.2	2.5	2.4	2.25	2.70
24-Jun	3.8	2.4	2.3	2.4	2.5	2.8	2.7	2.5	2.4	2.2	2.2	2.2	2.2	2.3	2.2	A	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.37	3.83
25-Jun	2.2	2.2	2.2	2.3	2.3	2.4	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.6	2.21	2.56
26-Jun	3.0	2.6	2.9	2.9	2.6	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.1	A	2.3	2.8	2.2	2.1	2.1	2.5	2.7	2.4	2.4	2.2	2.42	3.03
27-Jun	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.11	2.17
28-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.4	2.7	2.4	2.2	2.18	2.69
29-Jun	2.2	2.3	2.2	2.2	2.2	2.1	2.5	2.2	2.3	2.3	A	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.6	2.22	2.59
30-Jun	2.8	2.4	3.0	3.6	4.3	2.9	2.4	2.3	2.2	A	2.1	2.1	2.1	2.1	2.1	2.5	2.2	2.2	2.1	2.1	2.3	2.5	3.8	3.7	2.60	4.34
	2.45	2.36	2.47	2.47	2.57	2.51	2.32	2.29	2.22	2.19	2.17	2.16	2.15	2.15	2.16	2.20	2.15	2.19	2.15	2.18	2.29	2.29	2.32	2.49	Diurnal Average	
	3.83	3.22	3.50	3.59	4.34	3.43	2.76	2.65	2.36	2.32	2.63	2.33	2.41	2.31	2.60	2.82	2.31	3.51	2.46	2.59	3.68	3.15	3.77	3.86	Diurnal Maximum	

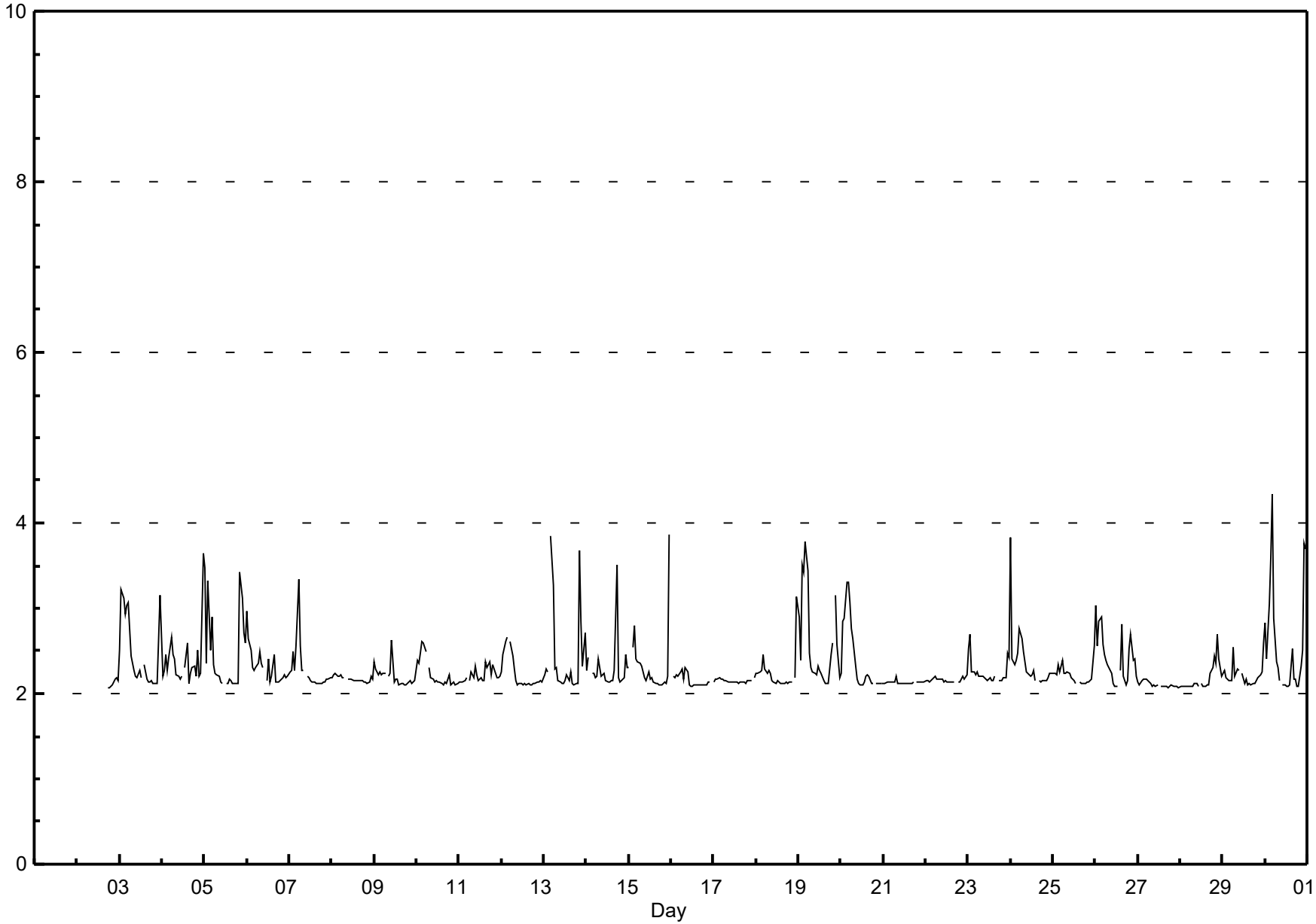
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

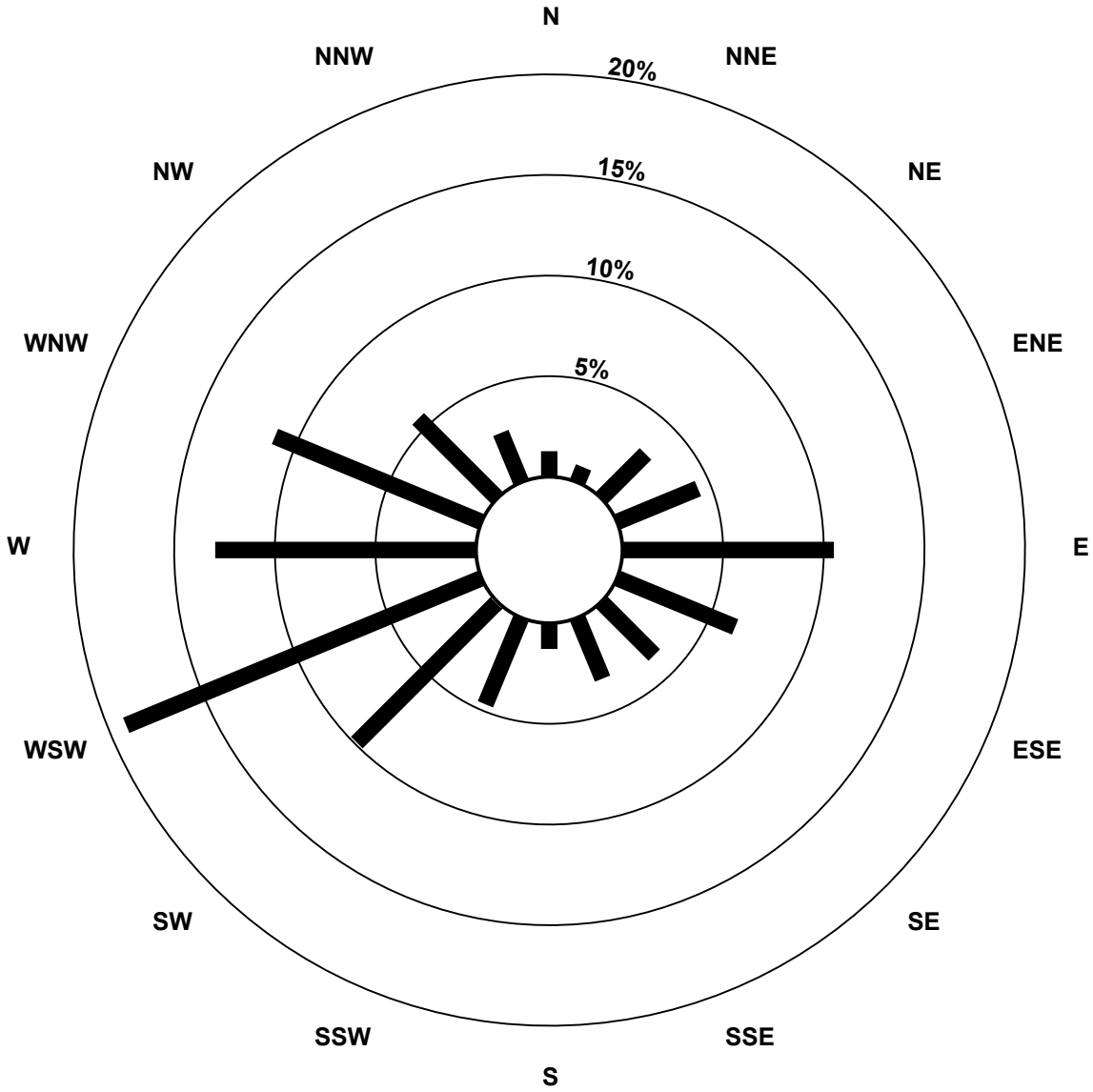
Henry Pirker - June 2017



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - June 2017



Pollutant Classes (ppm)

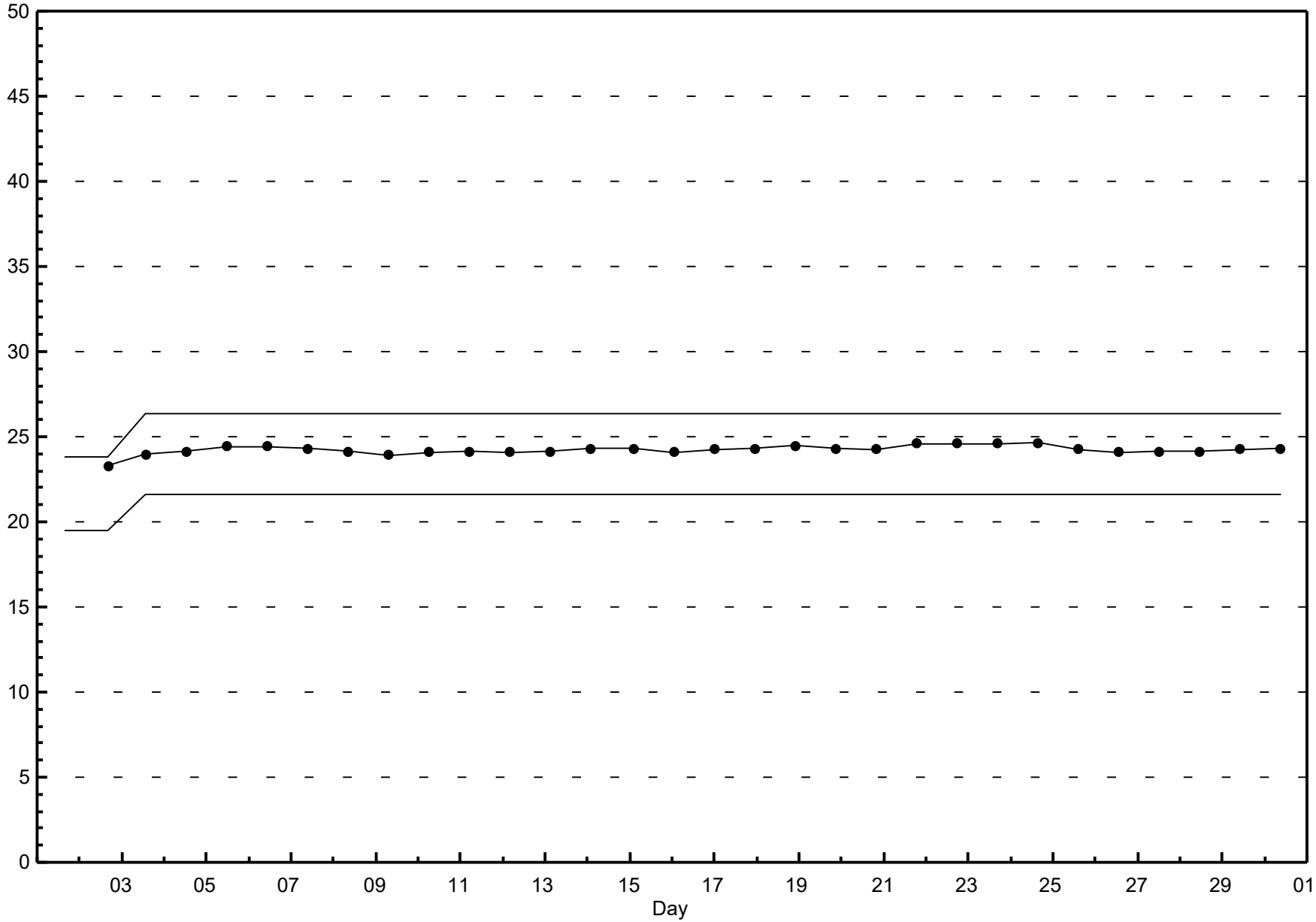
- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - June 2017

Maximum Value: 2.74 ppm on Jun 5 01:00

Maximum Daily Average: 2.28 ppm on Jun 19

Minimum Value: 2.0 ppm on Jun 2 18:00

Minimum Daily Average: 2.08 ppm on Jun 27

Maximum Diurnal Average: 2.31 ppm at hour 6

Minimum Diurnal Average: 2.10 ppm at hour 17

Monthly Average: 2.168 ppm

Percentiles: P_1 = 2.05 P_{10} = 2.08 Q_1 = 2.10 Median = 2.13 Q_3 = 2.19 P_{90} = 2.32 P_{99} = 2.57

Hours in Service:	720
Hours of Data:	650
Hours of Missing Data:	70
Hours of Calibration:	33
Percent Operational Time:	94.9

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	Daily Average	Daily Maximum
1-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	--
2-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	2.0	2.0	2.1	2.1	2.1	2.1	2.1	--	2.15
3-Jun	2.2	2.4	2.4	2.4	2.6	2.5	2.4	2.3	2.2	2.2	2.1	2.2	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.23	2.64
4-Jun	2.1	2.2	2.2	2.2	2.3	2.4	2.3	2.2	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.18	2.45
5-Jun	2.7	2.3	2.5	2.4	2.4	2.2	2.2	2.2	2.2	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.4	2.23	2.74
6-Jun	2.5	2.6	2.4	2.3	2.2	2.3	2.3	2.4	2.3	2.3	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.23	2.57
7-Jun	2.2	2.2	2.2	2.2	2.2	2.6	2.2	2.2	2.2	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.18	2.60
8-Jun	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.14	2.19
9-Jun	2.1	2.1	2.1	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.13	2.22
10-Jun	2.1	2.2	2.3	2.4	2.4	2.4	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.16	2.39
11-Jun	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.14	2.19
12-Jun	2.2	2.2	2.3	2.5	A	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.16	2.46
13-Jun	2.2	2.2	2.2	A	2.3	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.15	2.37
14-Jun	2.2	2.2	A	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.15	2.25
15-Jun	2.2	A	2.5	2.5	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.19	2.50
16-Jun	A	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.11	2.21
17-Jun	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.12	2.16
18-Jun	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.3	2.16	2.32
19-Jun	2.3	2.3	2.7	2.5	2.7	2.7	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	A	2.3	2.2	2.2	2.28	2.73
20-Jun	2.2	2.3	2.4	2.4	2.5	2.6	2.6	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.21	2.57
21-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.10	2.12
22-Jun	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.2	2.2	2.13	2.17
23-Jun	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.18	2.33
24-Jun	2.5	2.4	2.3	2.3	2.4	2.6	2.5	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.26	2.56
25-Jun	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.16	2.26
26-Jun	2.3	2.2	2.3	2.5	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.19	2.49
27-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.08	2.14
28-Jun	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.3	2.2	2.2	2.10	2.28
29-Jun	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.14	2.29
30-Jun	2.4	2.3	2.4	2.4	2.5	2.4	2.3	2.2	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.5	2.21	2.52
	2.23	2.22	2.27	2.26	2.28	2.31	2.24	2.20	2.17	2.14	2.12	2.12	2.11	2.11	2.10	2.10	2.10	2.10	2.10	2.11	2.12	2.15	2.17	2.21	Diurnal Average	
	2.74	2.57	2.73	2.50	2.70	2.69	2.56	2.43	2.30	2.27	2.20	2.21	2.21	2.20	2.14	2.13	2.13	2.18	2.14	2.23	2.19	2.33	2.34	2.47	Diurnal Maximum	

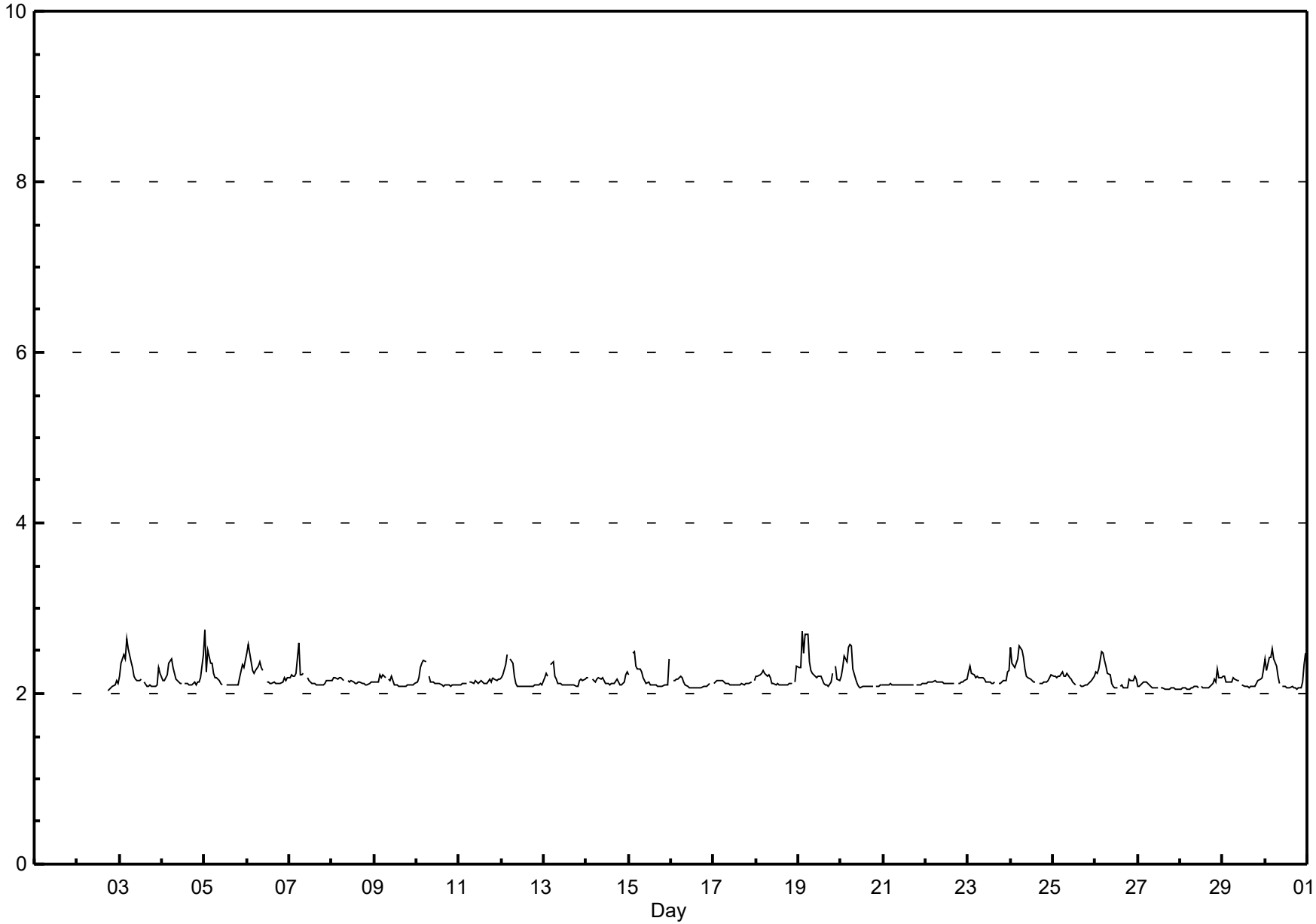
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

Henry Pirker - June 2017

Maximum Value: 4.34 ppm on Jun 30 05:00

Maximum Daily Average: 2.60 ppm on Jun 30

Minimum Value: 2.1 ppm on Jun 2 18:00

Minimum Daily Average: 2.10 ppm on Jun 27

Maximum Diurnal Average: 2.57 ppm at hour 5

Minimum Diurnal Average: 2.14 ppm at hour 17

Monthly Average: 2.287 ppm

Percentiles: P_1 = 2.07 P_{10} = 2.10 Q_1 = 2.13 Median = 2.17 Q_3 = 2.29 P_{90} = 2.59 P_{99} = 3.69

Hours in Service:	720
Hours of Data:	650
Hours of Missing Data:	70
Hours of Calibration:	33
Percent Operational Time:	94.9

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	Daily Average	Daily Maximum
1-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	--
2-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	2.1	2.1	2.1	2.1	2.2	2.2	2.1	--	2.18
3-Jun	2.5	3.2	3.1	2.9	3.0	3.1	2.4	2.3	2.3	2.2	2.2	2.3	2.2	A	2.3	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.6	3.2	2.47	3.22
4-Jun	2.2	2.3	2.5	2.3	2.4	2.7	2.4	2.4	2.2	2.2	2.2	2.2	A	2.3	2.6	2.1	2.2	2.3	2.3	2.2	2.5	2.2	2.2	3.6	2.37	3.64
5-Jun	3.5	2.4	3.3	2.5	2.9	2.3	2.2	2.2	2.2	2.1	2.1	A	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	3.4	3.1	2.7	2.6	2.46	3.48
6-Jun	3.0	2.6	2.5	2.3	2.3	2.3	2.3	2.5	2.4	2.3	A	2.1	2.4	2.1	2.2	2.5	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.31	2.96
7-Jun	2.3	2.3	2.5	2.3	2.5	3.3	2.6	2.3	2.3	A	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.28	3.34
8-Jun	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.17	2.22
9-Jun	2.4	2.3	2.2	2.3	2.2	2.2	2.2	A	2.2	2.2	2.6	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.20	2.64
10-Jun	2.4	2.3	2.5	2.6	2.6	2.5	A	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.23	2.61
11-Jun	2.1	2.1	2.1	2.2	2.2	A	2.2	2.3	2.2	2.3	2.2	2.1	2.2	2.2	2.2	2.4	2.3	2.4	2.2	2.3	2.3	2.2	2.2	2.2	2.22	2.38
12-Jun	2.3	2.5	2.6	2.7	A	2.6	2.5	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.23	2.66
13-Jun	2.2	2.3	2.2	A	3.8	3.3	2.3	2.3	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.3	2.1	2.1	2.1	2.1	3.7	2.8	2.3	2.7	2.42	3.84
14-Jun	2.3	2.4	A	2.2	2.2	2.2	2.2	2.4	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.3	3.5	2.2	2.1	2.1	2.2	2.5	2.3	2.28	3.51
15-Jun	2.3	A	2.5	2.8	2.4	2.4	2.4	2.3	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	3.9	2.32	3.87
16-Jun	A	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.15	2.30
17-Jun	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.15	2.19
18-Jun	2.2	2.2	2.2	2.3	2.4	2.3	2.2	2.3	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	3.1	2.23	3.13
19-Jun	2.9	2.4	3.5	3.4	3.8	3.4	2.5	2.3	2.3	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.5	2.6	A	3.1	2.6	2.2	2.57	3.77
20-Jun	2.2	2.9	2.9	3.3	3.3	3.1	2.8	2.6	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	A	2.1	2.1	2.1	2.1	2.40	3.29
21-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.13	2.20
22-Jun	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.2	2.2	2.2	2.2	2.16	2.22
23-Jun	2.5	2.7	2.3	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	A	2.1	2.1	2.2	2.2	2.2	2.5	2.4	2.25	2.70
24-Jun	3.8	2.4	2.3	2.4	2.5	2.8	2.6	2.5	2.4	2.2	2.2	2.2	2.2	2.3	2.2	A	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.37	3.83
25-Jun	2.2	2.2	2.2	2.3	2.2	2.4	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.6	2.21	2.56
26-Jun	3.0	2.6	2.8	2.9	2.6	2.4	2.4	2.3	2.3	2.2	2.1	2.1	2.1	A	2.3	2.8	2.2	2.1	2.1	2.5	2.7	2.4	2.4	2.2	2.42	3.02
27-Jun	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.10	2.17
28-Jun	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.4	2.7	2.4	2.2	2.18	2.68
29-Jun	2.2	2.3	2.2	2.2	2.2	2.2	2.5	2.2	2.3	2.3	A	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.6	2.21	2.60
30-Jun	2.8	2.4	3.0	3.6	4.3	2.9	2.4	2.3	2.2	A	2.1	2.1	2.1	2.1	2.1	2.5	2.2	2.2	2.1	2.1	2.3	2.5	3.8	3.7	2.60	4.34
	2.45	2.36	2.47	2.47	2.57	2.51	2.32	2.28	2.22	2.19	2.17	2.16	2.15	2.15	2.16	2.19	2.14	2.19	2.15	2.17	2.29	2.29	2.32	2.48	Diurnal Average	
	3.83	3.22	3.51	3.58	4.34	3.43	2.76	2.65	2.36	2.32	2.64	2.32	2.41	2.30	2.59	2.82	2.31	3.51	2.45	2.58	3.67	3.14	3.78	3.87	Diurnal Maximum	

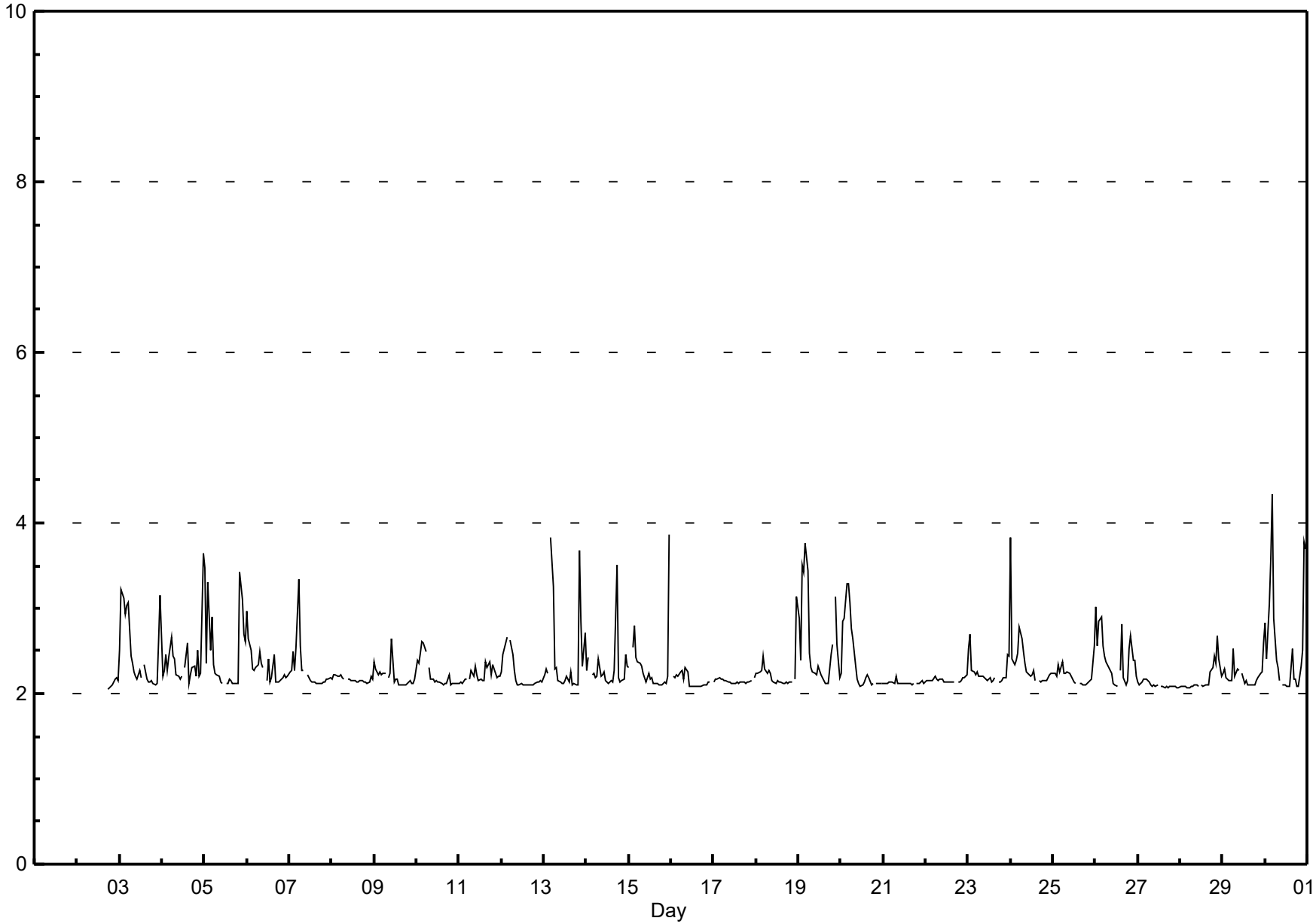
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

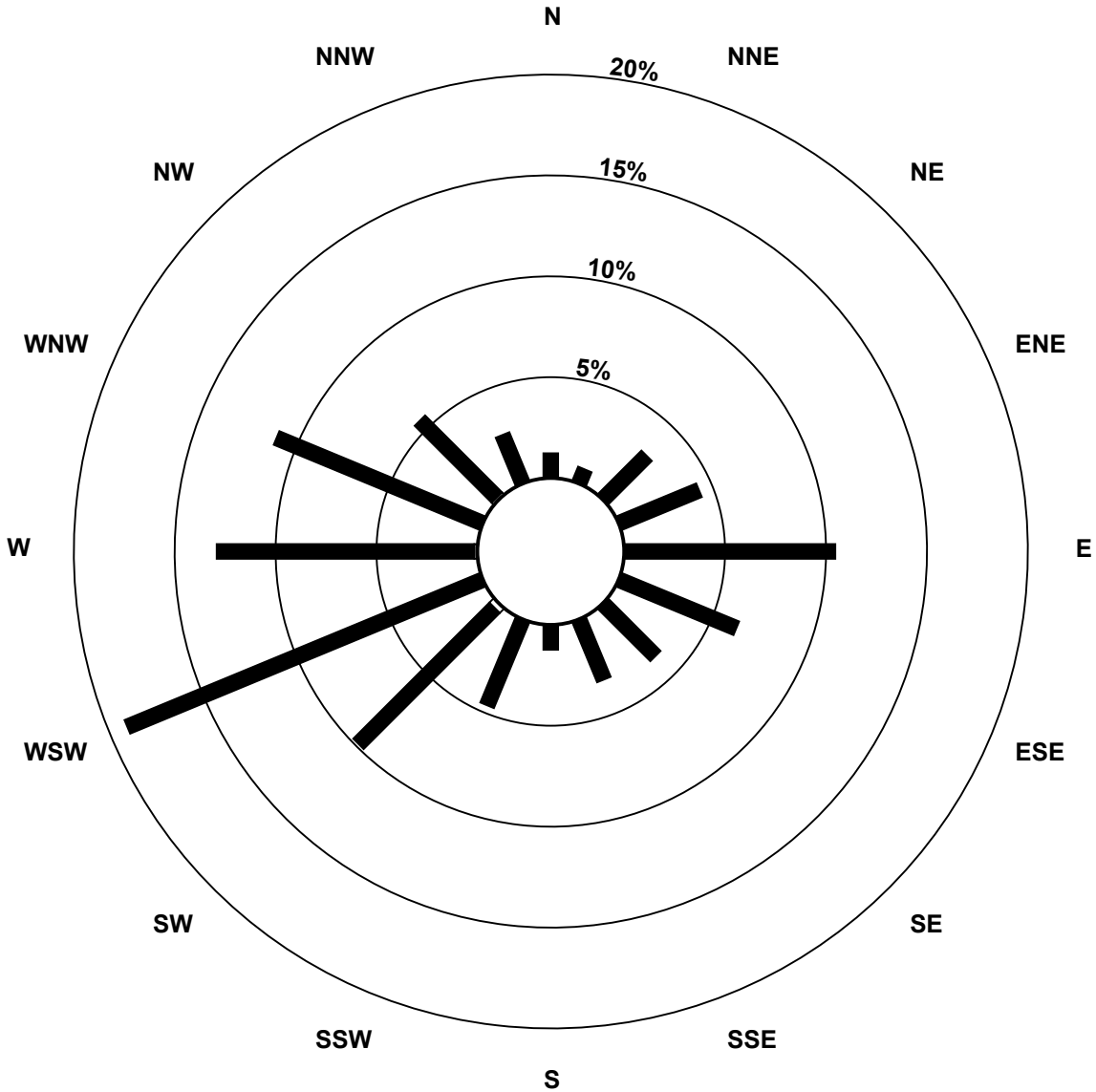
Henry Pirker - June 2017



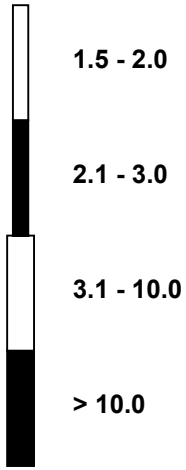
Pollutant Rose

Methane (CH_4) - ppm

Henry Pirker - June 2017



Pollutant Classes (ppm)

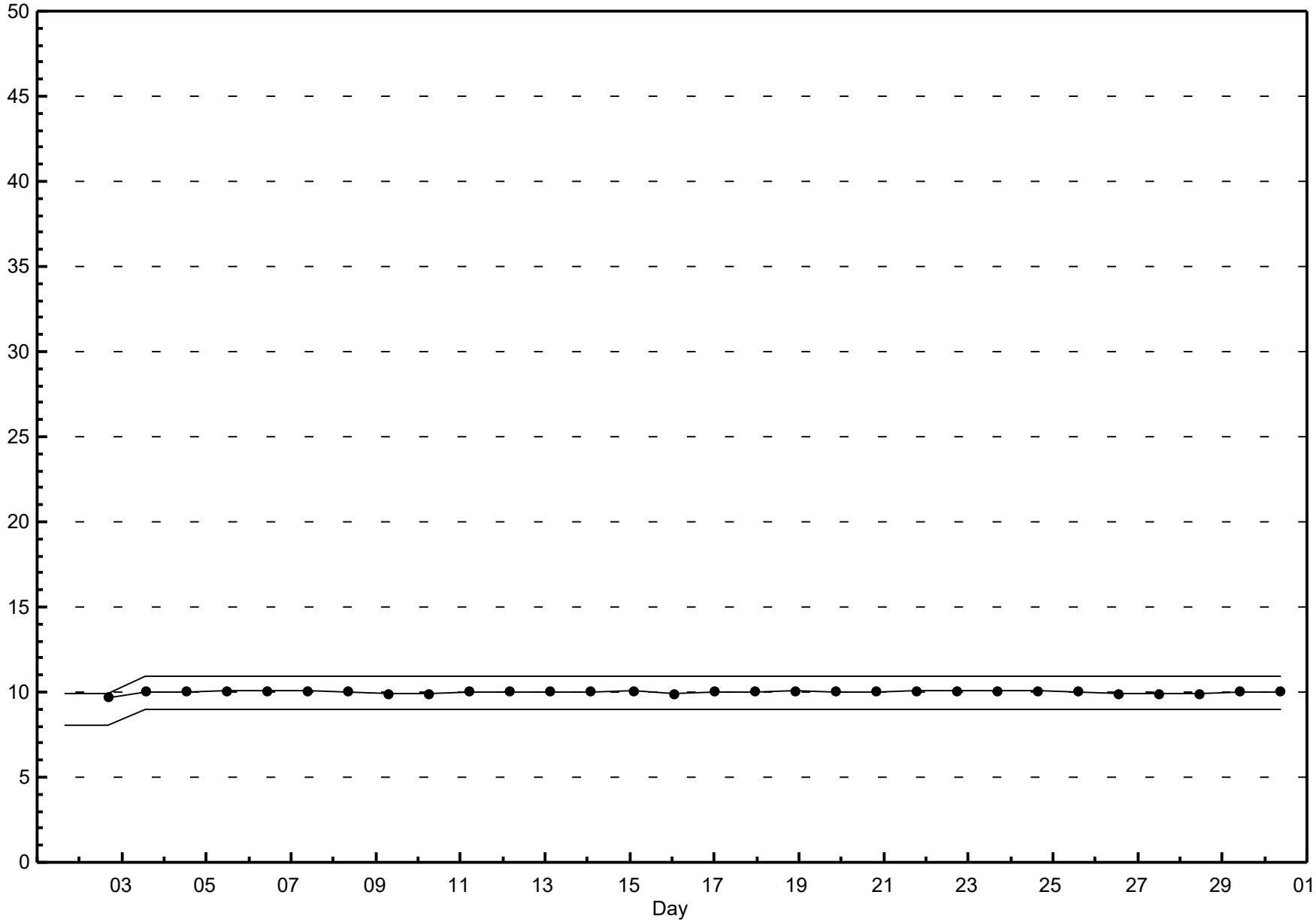


Peace Airshed Zone Association

Span Responses

Methane (CH_4)

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2017

Maximum Value: 0.00 ppm on Jun 28 09:00

Maximum Daily Average: 0.00 ppm on Jun 28

Minimum Value: 0.0 ppm on Jun 3 22:00

Minimum Daily Average: 0.00 ppm on Jun 6

Maximum Diurnal Average: 0.00 ppm at hour 20

Minimum Diurnal Average: 0.00 ppm at hour 13

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 in Service:	720
Hours of Data:	650
Hours of Missing Data:	70
Hours of Calibration:	33
Percent Operational Time:	94.9

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	Daily Average	Daily Maximum
1-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	--
2-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	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	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
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	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
5-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
6-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
7-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
8-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
9-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
10-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
11-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
12-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
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	0.0	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	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
15-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
16-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
17-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
18-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
19-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
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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	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
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	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
28-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
29-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
30-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
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

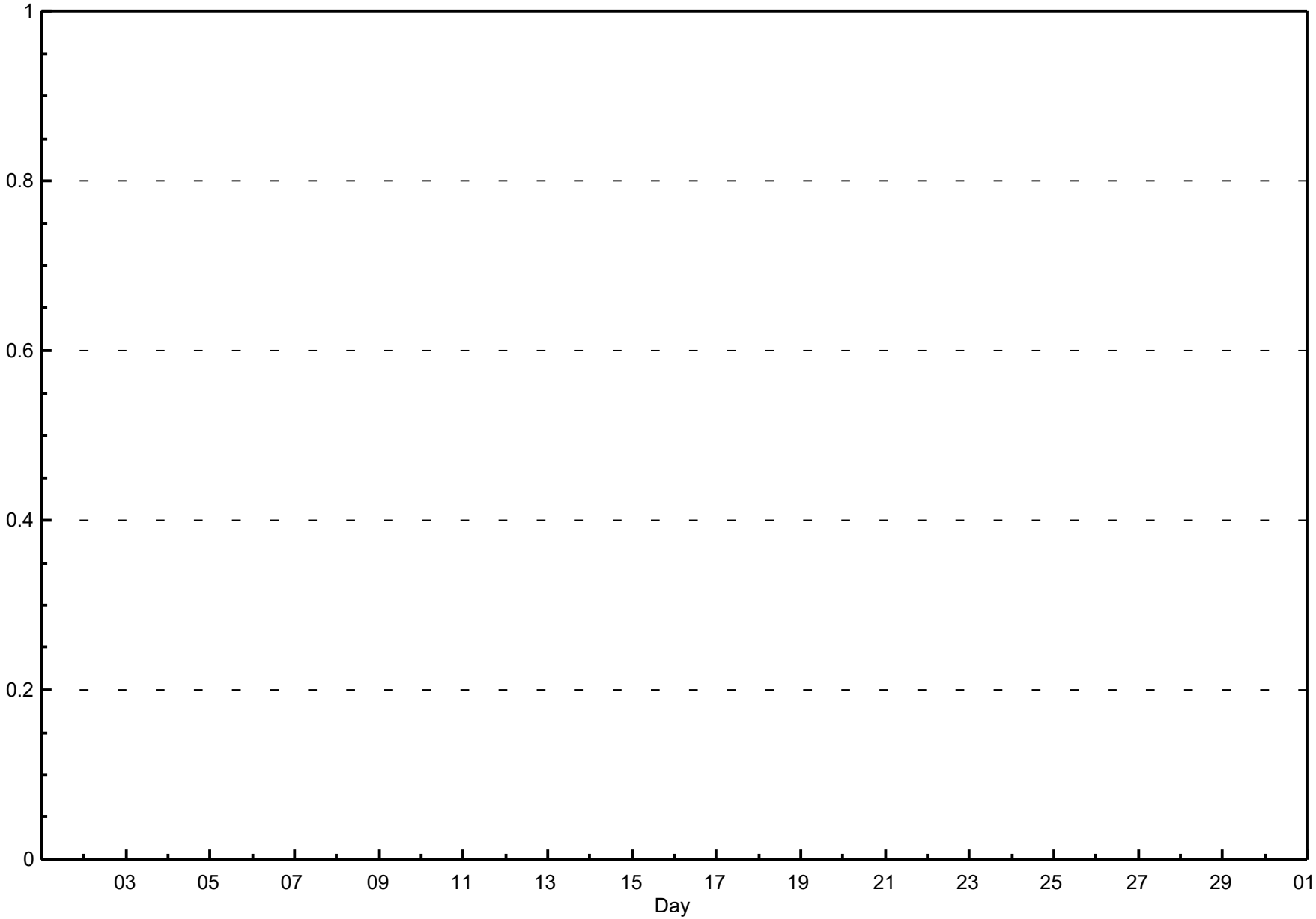
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2017

Maximum Value: 0.02 ppm on Jun 11 18:00

Maximum Daily Average: 0.00 ppm on Jun 11

Minimum Value: 0.0 ppm on Jun 7 13:00

Minimum Daily Average: 0.00 ppm on Jun 6

Maximum Diurnal Average: 0.00 ppm at hour 18

Minimum Diurnal Average: 0.00 ppm at hour 11

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 in Service:	720
Hours of Data:	650
Hours of Missing Data:	70
Hours of Calibration:	33
Percent Operational Time:	94.9

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	Daily Average	Daily Maximum
1-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	--
2-Jun	M	M	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	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	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
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	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
5-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
6-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
7-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
8-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
9-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
10-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
11-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	0.02
12-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
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	0.0	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	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
15-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
16-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
17-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
18-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
19-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
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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	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
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	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
28-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
29-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
30-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
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

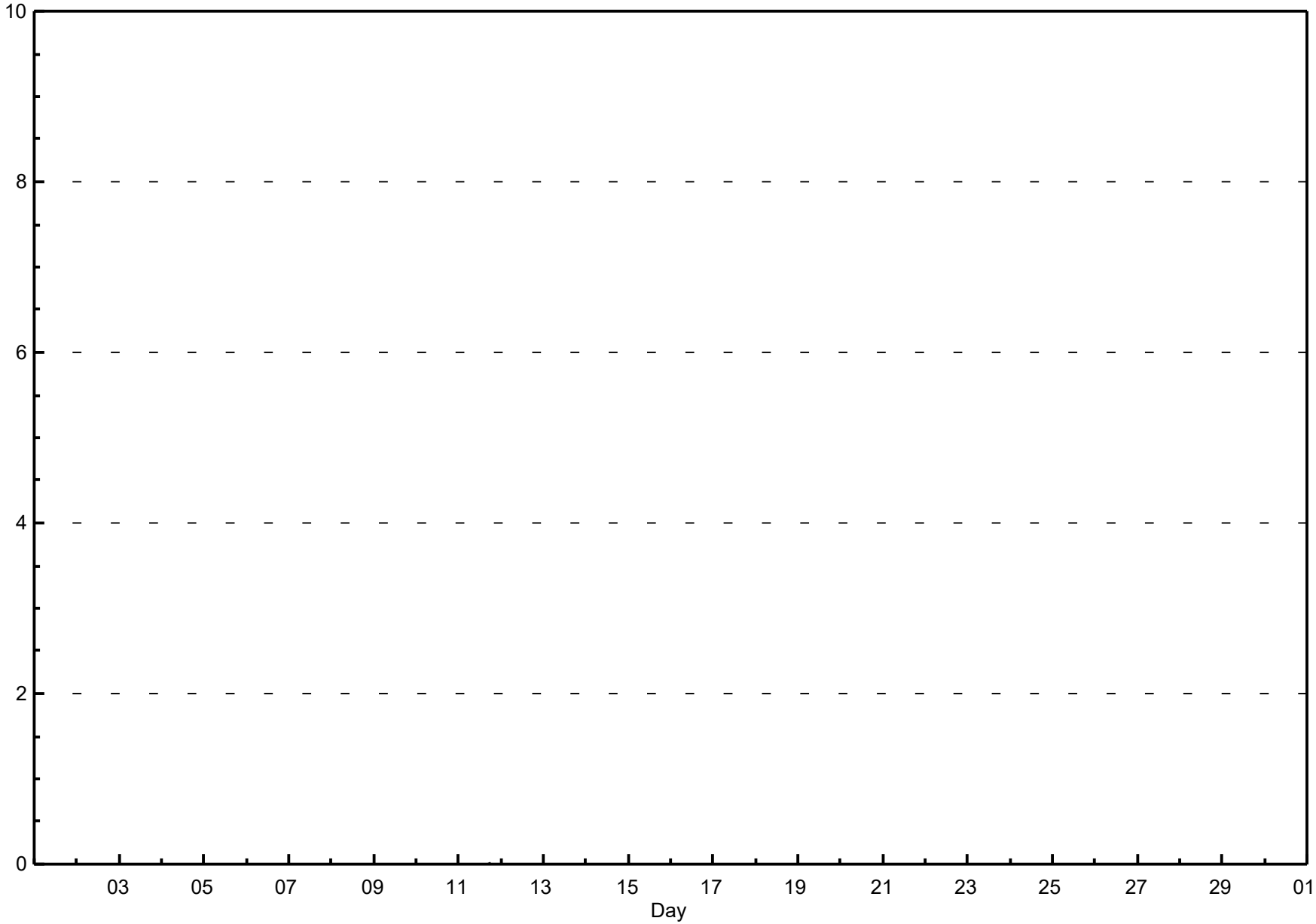
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2017



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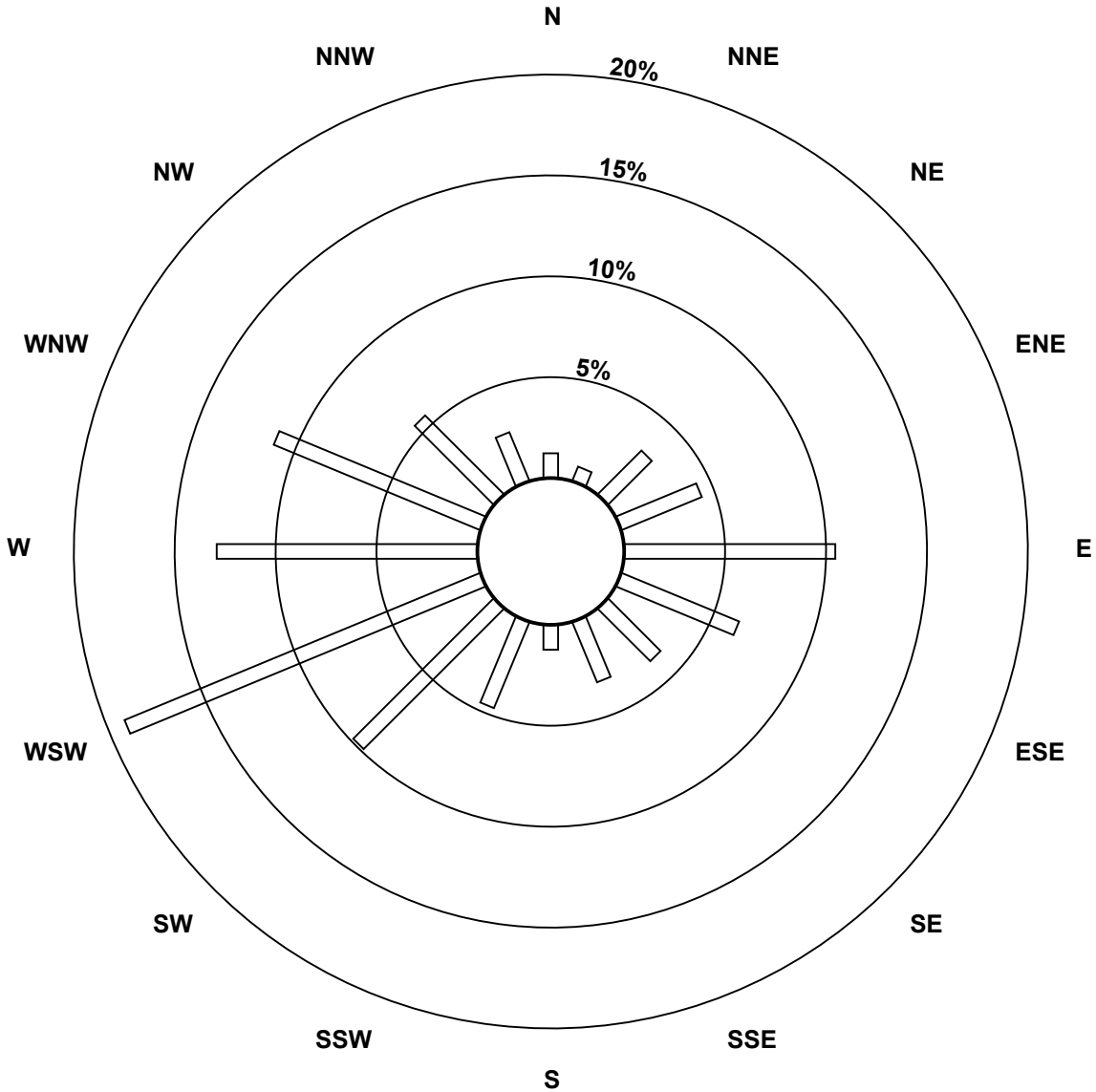
Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - June 2017



Pollutant Classes (ppm)

- 0 - 0.05
- 0.06 - 0.1
- 0.11 - 0.30
- > 0.30

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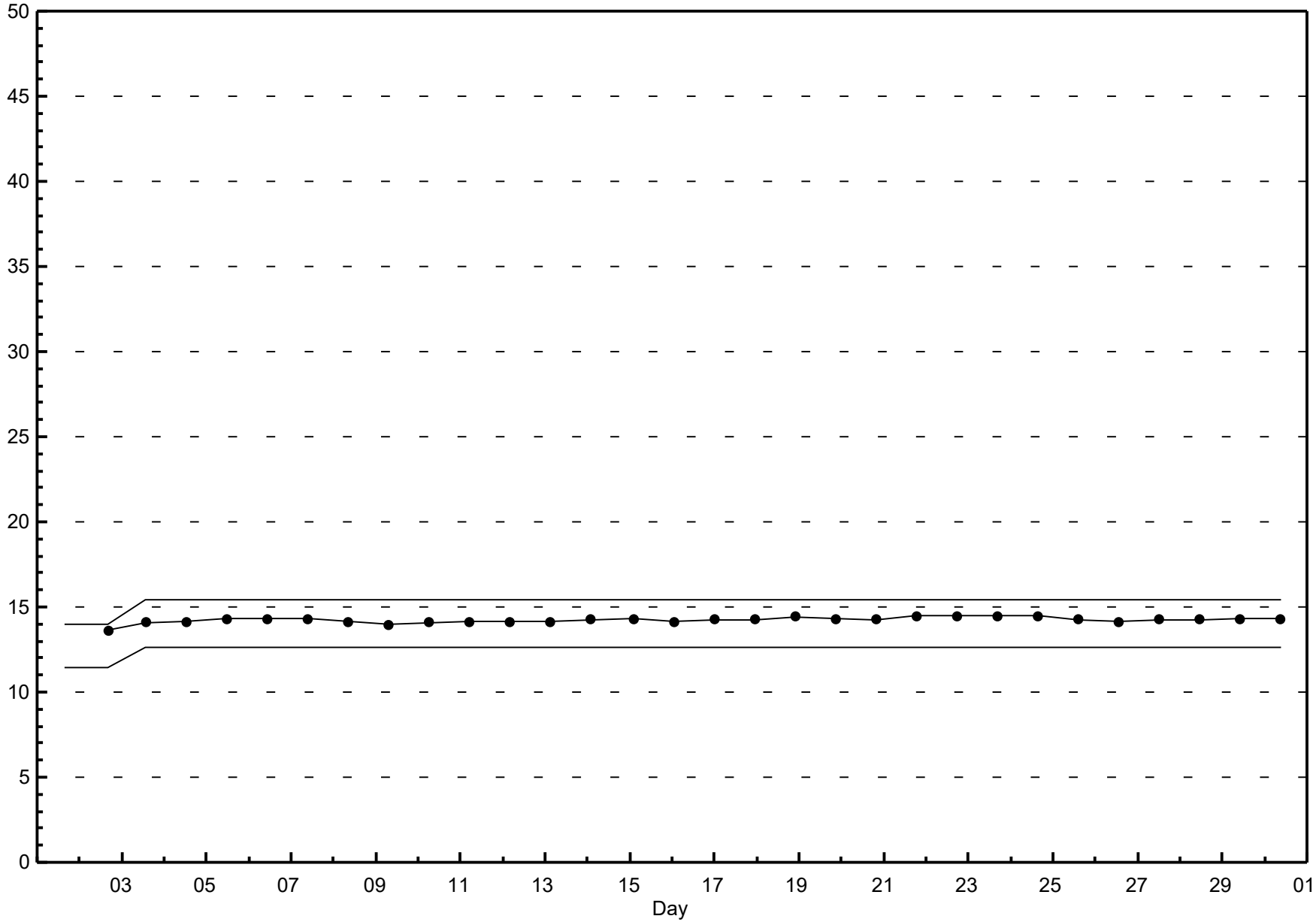
Span Responses

Non Methane Hydrocarbon (NMHC)

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - June 2017

Number of Exceedences: 1-hr: 2 24-hr: 0

Maximum Value: 153.8 $\mu g/m^3$ on Jun 3 08:00

Maximum Daily Average: 30.3 $\mu g/m^3$ on Jun 3

Minimum Value: 0 $\mu g/m^3$ on Jun 2 15:00

Maximum Diurnal Average: 11.0 $\mu g/m^3$ at hour 8

Monthly Average: 5.70 $\mu g/m^3$

Minimum Daily Average: 0.3 $\mu g/m^3$ on Jun 21

Minimum Diurnal Average: 3.2 $\mu g/m^3$ at hour 16

Percentiles: $P_1 = 0.2$ $P_{10} = 0.9$ $Q_1 = 1.9$ Median = 4.2 $Q_3 = 7.5$ $P_{90} = 10.1$ $P_{99} = 31.6$

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	4
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	10	7	8	8	7	6	7	4	2	6	2	2	3	7	1	4	7	7	9	12	4	6	2	2	5.4	11.9
2-Jun	3	4	5	7	7	6	8	10	21	3	2	2	10	7	0	3	4	4	8	4	4	7	12	9	6.2	20.8
3-Jun	15	30	30	42	50	54	111	154	35	20	23	23	22	21	24	10	8	9	5	5	4	6	16	11	30.3	153.8
4-Jun	19	9	10	16	21	16	11	11	9	4	3	3	2	3	4	5	5	5	5	5	5	9	11	9	8.4	21.2
5-Jun	18	14	13	9	5	4	3	2	2	1	0	0	0	C	C	C	C	1	1	1	1	3	7	8	4.6	18.0
6-Jun	29	21	12	7	6	10	13	14	13	9	6	5	3	3	3	4	4	4	5	6	8	10	7	7	8.7	28.9
7-Jun	8	7	6	6	7	9	10	10	9	9	8	7	7	6	5	5	5	6	7	6	8	11	9	9	7.6	11.3
8-Jun	10	10	10	10	10	10	11	11	10	8	8	8	7	8	8	10	11	11	13	10	10	10	10	9	9.7	13.0
9-Jun	11	10	10	10	10	10	10	10	33	12	10	3	3	2	2	2	3	1	1	1	1	1	1	1	6.6	32.9
10-Jun	1	2	2	2	2	5	6	4	3	3	3	3	2	1	0	1	1	2	3	3	6	7	5	3	2.9	6.6
11-Jun	3	4	3	3	3	3	3	3	3	3	4	3	3	2	2	2	2	3	2	6	7	6	2	2	3.2	7.2
12-Jun	3	4	5	6	4	4	5	4	3	2	1	1	1	1	1	1	1	1	1	2	2	2	3	3	2.5	5.6
13-Jun	23	6	5	5	5	7	7	6	3	3	3	3	3	2	1	2	2	2	2	3	5	9	10	9	5.2	22.9
14-Jun	10	6	4	4	5	6	6	9	10	8	7	6	6	6	8	7	8	5	4	4	3	3	3	3	5.9	10.3
15-Jun	3	3	4	4	5	5	5	4	3	2	2	3	3	2	2	2	2	2	2	2	3	4	5	5	3.2	5.3
16-Jun	5	4	4	4	3	4	5	3	2	1	1	1	2	2	2	1	2	1	1	1	1	2	2	2	2.4	5.4
17-Jun	6	2	2	3	3	3	10	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	3	2	2.1	9.9
18-Jun	6	6	7	6	6	8	9	10	9	2	1	1	1	1	1	2	2	1	1	1	0	1	1	3	3.5	9.5
19-Jun	10	7	11	5	15	8	12	4	3	2	2	6	6	4	3	2	1	1	1	2	5	4	6	5	5.3	15.3
20-Jun	6	8	10	8	8	9	9	6	4	2	1	1	1	3	2	1	1	1	1	1	1	0	0	0	3.6	9.8
21-Jun	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.3	0.6
22-Jun	0	1	1	1	2	2	2	2	3	3	3	2	2	1	2	2	1	1	1	1	2	4	4	4	1.9	3.8
23-Jun	5	6	5	5	5	6	5	4	4	3	2	2	1	1	1	1	1	2	3	2	4	6	8	7	3.7	8.2
24-Jun	11	10	8	7	8	10	9	7	5	4	3	3	2	2	2	2	2	2	3	3	5	8	8	7	5.5	10.8
25-Jun	6	7	6	6	7	8	8	7	8	8	6	5	5	4	5	6	6	6	5	6	7	9	14	8	6.7	14.4
26-Jun	8	8	10	11	11	13	13	12	11	5	3	1	1	2	3	4	9	5	4	6	5	4	5	4	6.6	12.8
27-Jun	3	1	1	1	1	1	1	1	1	1	1	2	1	2	2	2	2	2	2	2	3	2	2	2	1.6	2.6
28-Jun	3	4	4	3	2	2	2	2	3	3	3	5	5	6	5	5	4	5	6	7	7	10	9	9	4.8	9.8
29-Jun	10	10	10	9	8	8	9	8	9	7	6	6	4	4	4	3	3	4	4	5	7	8	8	8	6.8	9.8
30-Jun	8	9	8	8	8	9	8	6	4	2	2	2	2	2	2	2	2	3	4	4	5	9	11	13	5.5	13.1
	8.5	7.4	7.1	7.3	7.9	8.2	10.5	11.0	7.5	4.6	3.9	3.6	3.7	3.7	3.3	3.2	3.5	3.2	3.5	3.7	4.1	5.4	6.2	5.6	Diurnal Average	
	28.9	30.3	29.7	42.1	50.0	54.2	110.9	153.8	34.7	19.6	22.6	23.1	21.8	20.7	23.6	10.4	11.0	10.9	13.0	11.9	10.4	11.3	16.2	13.1	Diurnal Maximum	

C - Calibration

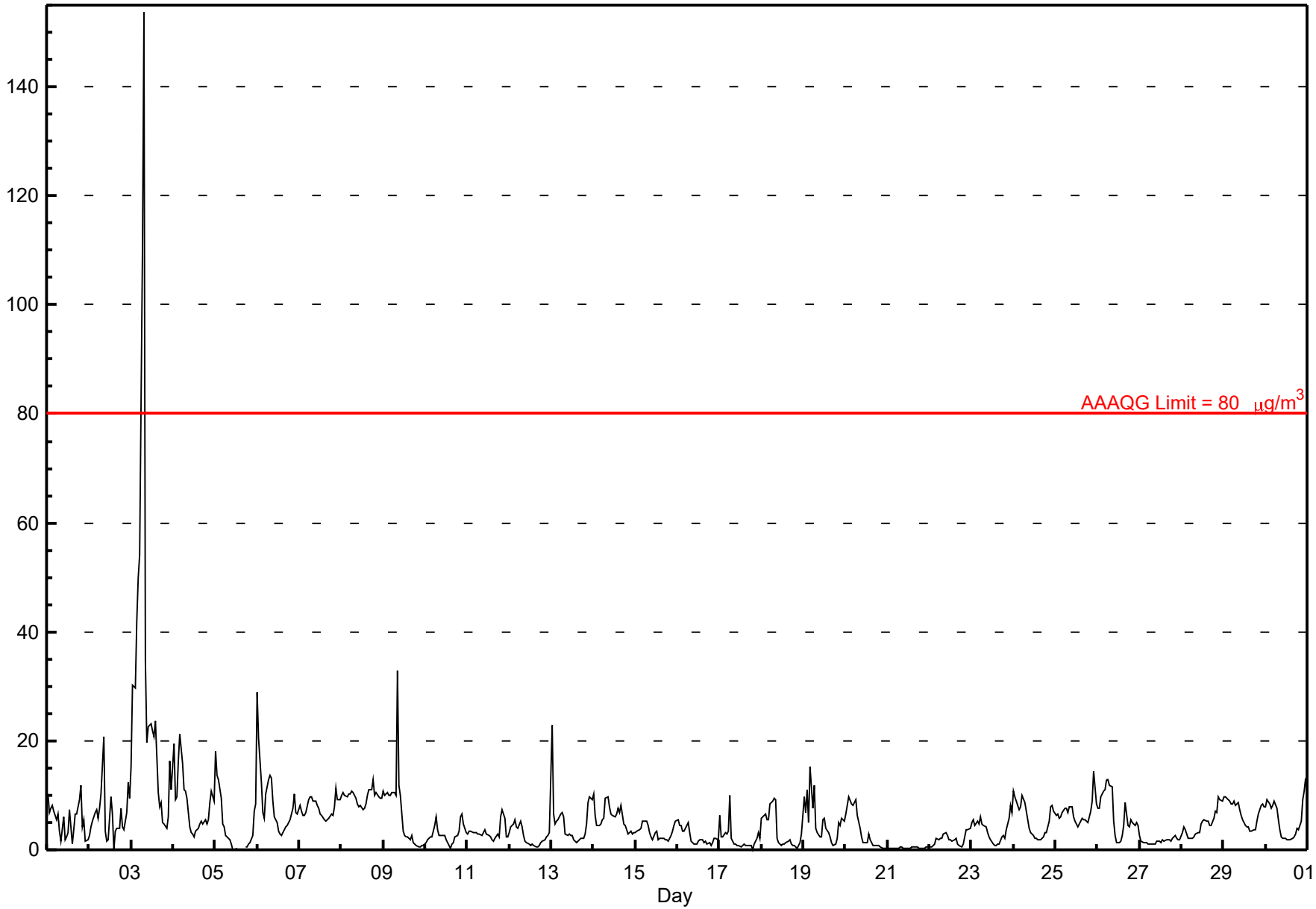
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - June 2017

Maximum Value: 326.2 $\mu g/m^3$ on Jun 4 01:00

Maximum Daily Average: 48.4 $\mu g/m^3$ on Jun 3

Minimum Value: 0 $\mu g/m^3$ on Jun 5 12:00

Minimum Daily Average: 0.8 $\mu g/m^3$ on Jun 21

Maximum Diurnal Average: 44.5 $\mu g/m^3$ at hour 1

Minimum Diurnal Average: 4.8 $\mu g/m^3$ at hour 18

Monthly Average: 10.26 $\mu g/m^3$

Percentiles: P_1 = 0.5 P_{10} = 1.6 Q_1 = 2.7 Median = 5.8 Q_3 = 10.3 P_{90} = 16.9 P_{99} = 151.5

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	4
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	12	11	11	12	9	7	9	6	2	16	4	4	5	17	3	16	12	10	21	55	6	9	10	10	11.5	55.4
2-Jun	5	6	8	17	14	9	11	16	32	10	9	24	19	16	48	33	9	8	15	8	6	11	19	12	15.3	48.1
3-Jun	25	60	40	56	53	71	167	295	49	23	30	31	28	29	46	18	16	13	9	7	7	12	60	17	48.4	294.6
4-Jun	326	11	12	24	28	22	16	14	14	9	4	5	4	6	5	7	7	8	7	7	12	14	15	12	24.6	326.2
5-Jun	153	18	15	12	6	5	4	3	3	2	1	0	1	C	C	C	C	1	2	3	2	4	10	18	13.1	152.5
6-Jun	154	23	18	8	6	15	14	23	17	11	7	8	5	4	4	5	5	7	11	8	11	13	8	8	16.4	154.0
7-Jun	53	8	7	7	8	12	14	11	9	10	11	8	8	8	6	7	6	7	11	9	37	45	11	10	13.5	53.1
8-Jun	19	11	11	10	11	11	12	12	11	10	10	9	9	10	11	14	16	13	18	12	14	11	11	12	11.9	19.3
9-Jun	19	11	11	11	10	11	12	11	255	17	17	4	3	3	3	3	13	2	1	1	2	1	1	1	17.6	254.9
10-Jun	9	2	2	3	4	5	7	6	3	3	3	3	2	2	1	2	2	3	4	6	7	8	6	4	4.1	8.6
11-Jun	18	4	4	4	4	5	3	4	4	5	5	3	4	3	2	2	3	4	3	8	9	11	3	3	4.9	17.8
12-Jun	9	5	6	6	7	5	6	6	4	2	2	2	1	1	1	1	1	1	2	2	2	4	4	9	3.6	9.2
13-Jun	69	15	6	6	8	8	8	8	4	3	3	3	3	2	2	2	3	3	3	4	6	15	13	10	8.7	69.2
14-Jun	21	9	5	5	5	6	7	63	32	11	10	8	7	7	9	9	9	8	5	4	3	5	4	3	10.7	62.9
15-Jun	7	4	4	5	6	6	6	6	4	3	3	5	4	2	2	2	2	2	2	2	3	4	6	7	4.1	7.2
16-Jun	29	6	9	4	4	5	7	7	2	2	1	2	4	6	9	2	3	2	3	1	2	3	3	2	5.0	29.0
17-Jun	199	3	3	8	8	8	21	4	2	2	2	1	2	2	2	2	1	2	2	0	2	3	4	6	12.0	199.2
18-Jun	26	11	10	7	6	18	28	27	19	3	3	2	2	2	2	3	3	2	2	2	1	1	2	6	7.8	28.2
19-Jun	43	18	18	12	33	16	21	6	4	3	3	8	7	5	4	3	2	1	2	3	8	5	7	6	9.9	43.4
20-Jun	10	11	11	10	10	9	10	8	5	3	2	2	2	5	4	3	1	1	1	2	1	1	1	1	4.7	10.7
21-Jun	6	0	0	0	0	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	5.8
22-Jun	2	1	1	2	2	2	3	3	4	6	11	2	2	2	2	2	2	1	1	2	3	5	5	5	3.0	10.5
23-Jun	6	7	5	7	6	8	5	5	4	4	3	3	4	2	1	2	2	8	4	3	7	12	17	16	6.0	17.5
24-Jun	21	12	9	8	9	12	10	8	7	5	4	3	3	2	2	2	3	6	8	4	7	13	9	9	7.4	21.4
25-Jun	21	7	6	7	8	9	8	8	9	9	7	6	6	5	6	7	7	10	6	8	10	11	22	10	8.8	22.5
26-Jun	13	8	11	12	12	14	14	14	14	12	5	2	2	3	10	10	13	7	6	8	7	5	7	7	9.0	14.2
27-Jun	12	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	2	2	2.3	12.5
28-Jun	12	5	4	3	2	3	3	3	3	3	4	8	6	6	6	6	5	5	7	10	10	11	11	9	6.1	12.4
29-Jun	26	11	10	10	9	9	10	9	18	9	7	7	5	5	5	4	4	4	4	6	10	14	12	10	9.1	25.8
30-Jun	9	10	10	9	11	11	14	15	4	3	3	2	2	2	2	2	3	3	11	5	7	13	15	25	8.0	24.9
	44.5	10.3	9.0	9.6	10.1	10.7	15.1	20.1	18.0	6.7	5.8	5.6	5.1	5.5	7.0	5.9	5.5	4.8	5.8	6.5	6.8	8.9	10.0	8.4	Diurnal Average	
	326.2	59.6	39.9	55.9	53.0	70.7	167.3	294.6	254.9	23.3	29.8	30.9	28.1	29.3	48.1	33.1	16.5	13.5	20.6	55.4	37.2	45.4	60.5	24.9	Diurnal Maximum	

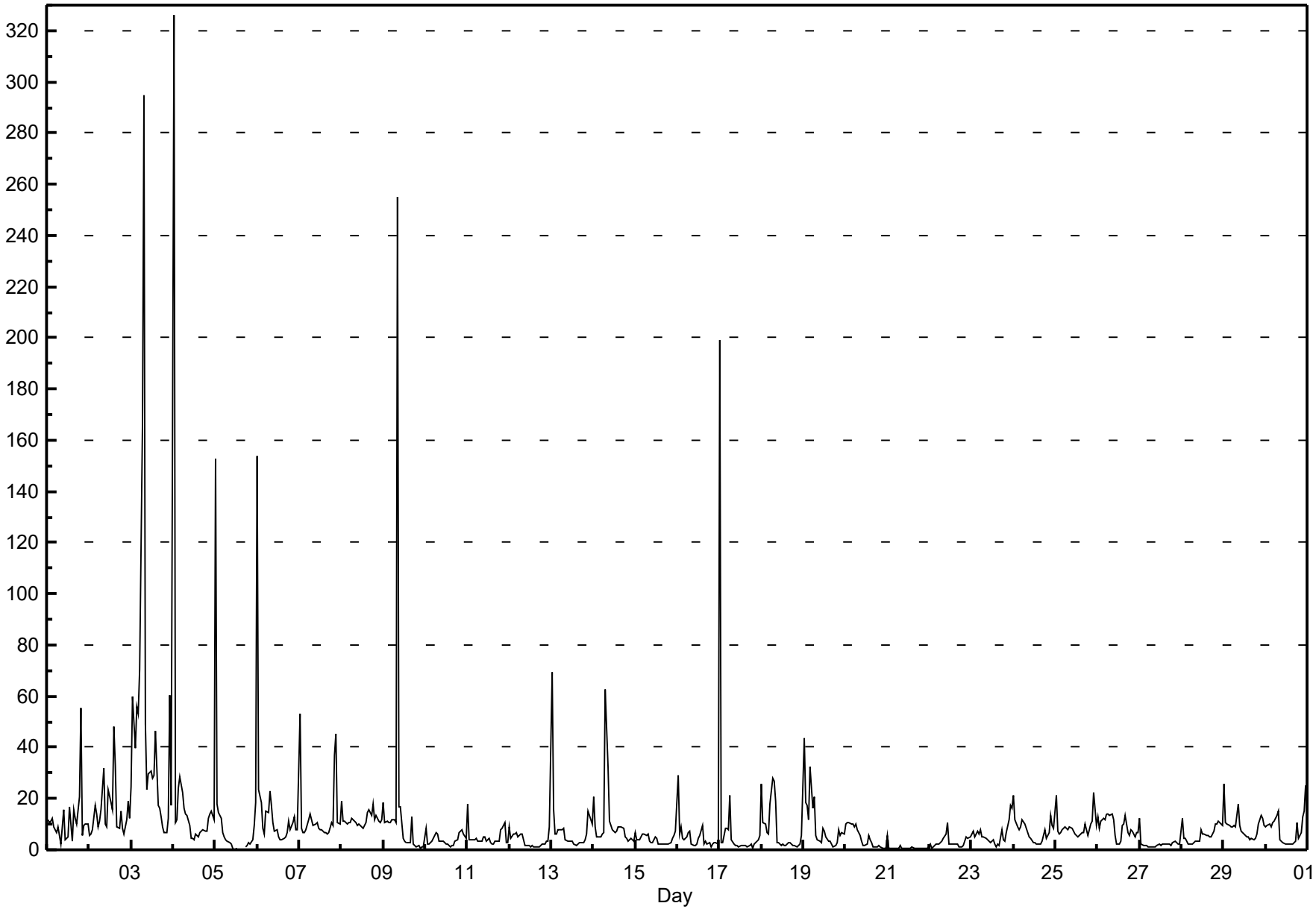
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

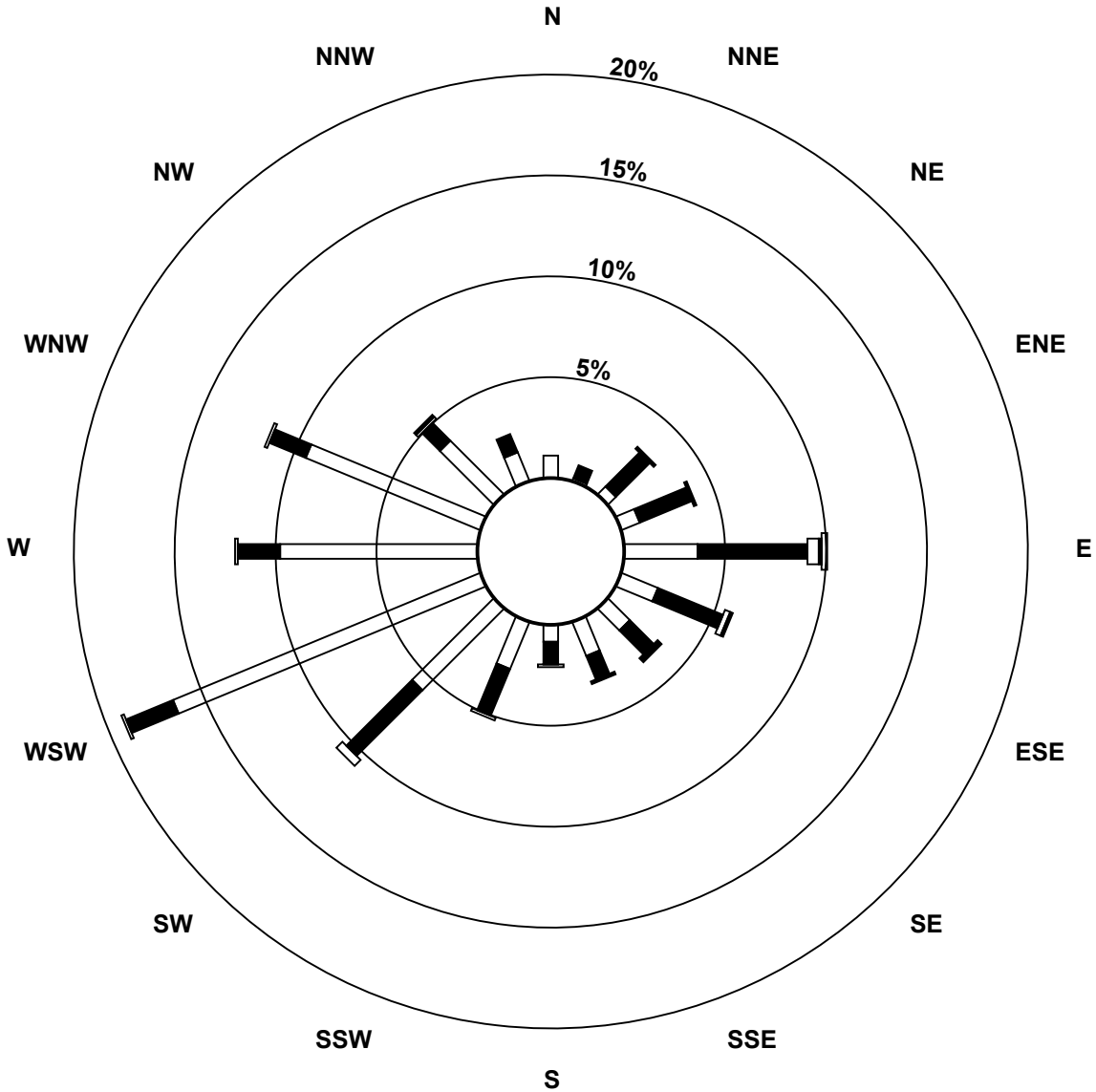
Henry Pirker - June 2017



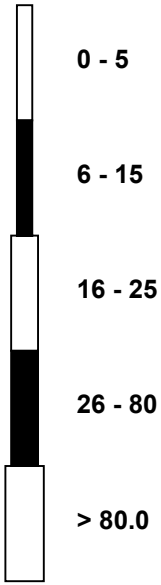
Pollutant Rose

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

Henry Pirker - June 2017



Pollutant Classes ($\mu g/m^3$)



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - June 2017

Maximum Value: 28.5 °C on Jun 30 18:00

Maximum Daily Average: 21.8 °C on Jun 8

Minimum Value: 5 °C on Jun 19 05:00

Minimum Daily Average: 8.7 °C on Jun 11

Maximum Diurnal Average: 20.3 °C at hour 16

Minimum Diurnal Average: 9.7 °C at hour 5

Monthly Average: 15.72 °C

Percentiles: P_1 = 6.0 P_{10} = 8.3 Q_1 = 11.6 Median = 15.6 Q_3 = 19.3 P_{90} = 23.2 P_{99} = 27.5

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

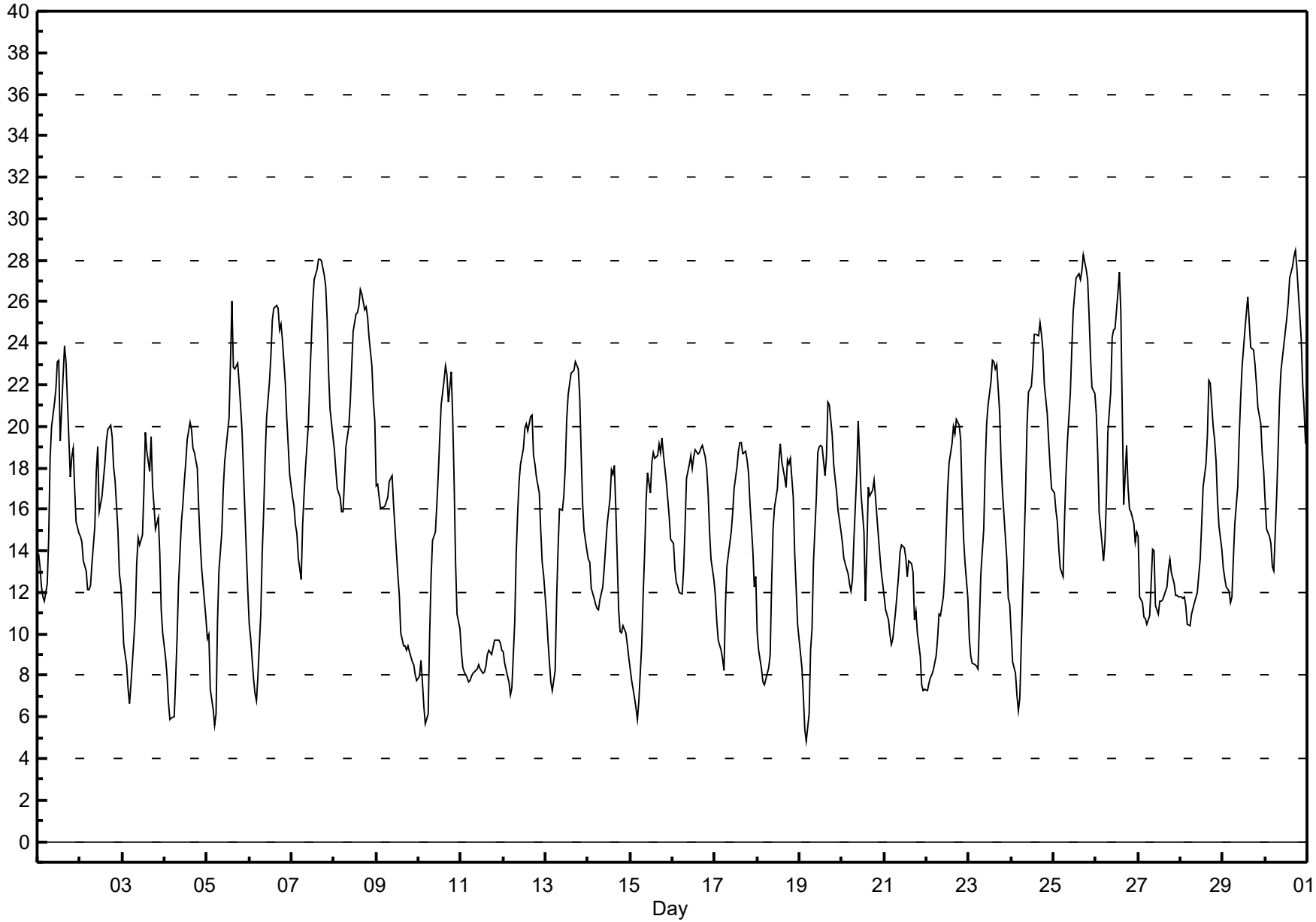
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	14	13	12	12	12	12	15	18	20	21	22	23	23	19	22	24	23	21	18	19	19	17	15	15	17.9	23.9
2-Jun	15	14	14	13	12	12	12	13	15	18	19	16	17	17	18	19	20	20	19	18	17	15	13	12	15.9	20.1
3-Jun	11	9	9	7	7	8	10	11	13	15	14	15	17	20	19	18	19	17	16	15	16	14	11	10	13.3	19.7
4-Jun	9	8	7	6	6	6	8	10	12	15	16	17	18	19	20	20	19	19	18	16	14	13	12	11	13.4	20.2
5-Jun	10	10	7	6	6	6	11	13	15	17	18	19	20	23	26	23	23	23	22	21	20	16	14	12	15.9	26.0
6-Jun	10	10	8	7	7	8	11	14	16	18	20	22	23	25	26	26	26	25	25	24	22	20	19	18	17.9	25.8
7-Jun	17	16	15	15	14	13	15	17	18	20	22	24	26	27	28	28	28	28	27	27	25	23	21	19	21.3	28.0
8-Jun	19	18	17	17	16	16	17	19	20	21	23	25	25	25	26	27	26	26	26	25	24	23	21	20	21.8	26.6
9-Jun	17	17	16	16	16	16	17	17	17	18	16	14	13	12	10	9	9	9	9	9	9	9	8	8	13.0	17.6
10-Jun	8	9	8	7	6	6	10	13	14	15	16	18	19	21	22	23	22	21	23	20	17	13	11	10	14.7	22.9
11-Jun	9	8	8	8	8	8	8	8	8	8	9	8	8	8	8	9	9	9	9	10	10	10	10	9	8.7	9.7
12-Jun	9	9	8	8	7	7	11	14	16	17	18	19	20	20	20	20	21	19	18	18	17	15	13	13	14.8	20.5
13-Jun	11	10	9	8	7	8	12	14	16	16	17	18	20	22	23	23	23	23	23	21	19	16	15	14	16.1	23.1
14-Jun	14	13	12	12	11	11	11	12	12	13	14	15	16	18	18	18	16	11	10	10	10	10	10	9	12.8	18.1
15-Jun	8	8	7	6	6	7	10	12	14	16	18	17	18	19	18	19	19	19	19	19	17	17	16	15	14.3	19.4
16-Jun	14	13	12	12	12	12	13	15	17	18	19	18	19	19	19	19	19	19	18	18	17	15	14	13	16.0	19.1
17-Jun	12	11	10	9	9	8	11	13	14	15	16	17	18	19	19	19	19	19	18	18	16	14	12	13	14.6	19.2
18-Jun	10	9	8	8	8	8	8	9	12	15	16	17	18	19	18	18	17	18	18	18	17	14	12	10	13.6	19.2
19-Jun	9	8	7	5	5	6	9	10	13	17	19	19	19	19	18	19	21	21	20	18	17	17	16	15	14.5	21.2
20-Jun	14	14	13	13	12	12	13	14	18	20	19	17	15	12	14	17	17	17	17	17	16	14	13	12	15.0	20.3
21-Jun	12	11	11	10	10	10	11	12	13	14	14	14	14	13	14	13	13	11	11	10	9	8	7	7	11.3	14.3
22-Jun	7	8	8	8	8	9	10	11	11	12	13	15	17	18	19	20	20	20	20	19	17	15	13	12	13.7	20.4
23-Jun	10	9	9	9	8	8	11	13	15	18	20	21	22	23	23	23	23	21	18	17	16	14	12	11	15.5	23.2
24-Jun	10	9	8	7	6	7	12	14	17	20	22	22	23	24	24	24	25	24	24	22	21	19	18	17	17.5	25.0
25-Jun	17	16	15	14	13	13	16	18	19	22	24	26	26	27	27	27	27	28	28	27	25	23	22	22	21.7	28.2
26-Jun	21	19	16	14	14	14	17	20	22	24	25	25	26	27	26	21	16	19	17	16	16	15	14	15	19.1	27.4
27-Jun	15	12	12	11	11	10	11	12	14	14	11	11	12	12	12	12	12	13	14	13	12	12	12	12	12.1	14.7
28-Jun	12	12	12	11	10	10	11	11	12	12	13	14	15	17	18	20	22	22	20	19	18	16	15	14	14.9	22.2
29-Jun	13	13	12	12	12	12	14	15	17	19	21	23	25	25	26	25	24	24	23	22	21	20	19	18	18.9	26.3
30-Jun	16	15	15	14	13	13	17	19	21	23	23	25	25	26	27	28	28	28	28	26	24	22	21	19	21.6	28.5
	12.4	11.7	10.8	10.2	9.7	9.9	11.9	13.8	15.5	17.1	17.9	18.4	19.3	19.9	20.3	20.3	20.2	19.8	19.2	18.4	17.3	15.6	14.3	13.5	Diurnal Average	
	20.6	18.7	17.0	16.6	16.1	16.2	17.4	19.7	21.6	24.3	24.7	25.6	26.4	27.4	27.6	28.0	28.2	28.5	27.6	27.1	25.4	23.3	21.9	21.6	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - June 2017

Maximum Value: 91.1 % on Jun 12 06:00

Maximum Daily Average: 82.8 % on Jun 11

Minimum Value: 18 % on Jun 5 15:00

Minimum Daily Average: 36.9 % on Jun 17

Maximum Diurnal Average: 73.8 % at hour 5

Minimum Diurnal Average: 41.6 % at hour 16

Monthly Average: 55.81 %

Percentiles: P_1 = 22.3 P_{10} = 31.3 Q_1 = 40.2 Median = 55.2 Q_3 = 71.9 P_{90} = 83.7 P_{99} = 89.9

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

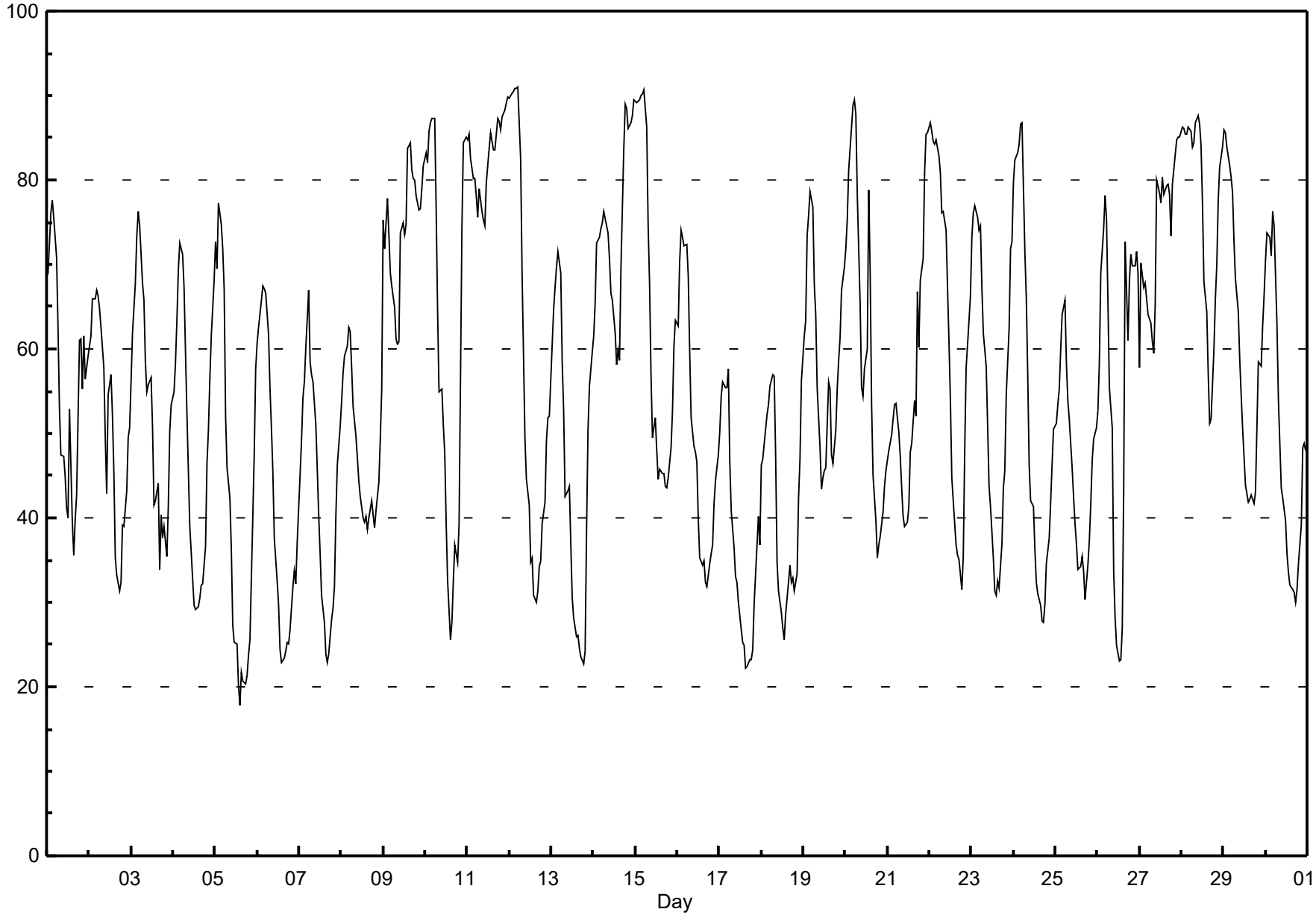
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	69	72	76	78	76	71	63	53	47	47	45	41	40	53	40	36	40	43	61	61	55	62	56	59	55.9	77.6
2-Jun	60	62	66	66	67	66	65	63	58	50	43	55	57	52	45	35	33	31	32	39	39	43	49	51	51.2	66.9
3-Jun	56	62	68	73	76	75	68	66	59	55	56	57	51	42	42	44	34	40	38	39	35	41	50	53	53.3	76.3
4-Jun	55	58	63	69	72	71	67	60	52	39	36	33	30	29	29	31	32	32	37	47	50	56	62	68	49.1	72.5
5-Jun	73	69	77	75	72	67	52	46	42	36	27	25	25	20	18	22	21	20	21	24	26	40	48	58	41.9	77.3
6-Jun	61	62	66	67	67	67	62	55	51	45	38	33	30	24	23	23	24	25	25	27	32	34	32	37	42.1	67.5
7-Jun	45	49	54	56	60	67	58	57	56	51	46	40	36	31	28	24	23	24	28	29	32	40	46	51	43.0	66.9
8-Jun	54	57	59	60	63	62	58	53	50	47	44	43	40	39	40	39	40	42	40	39	41	44	49	55	48.3	62.5
9-Jun	75	72	78	74	69	67	65	61	61	61	74	75	74	75	84	84	81	80	80	78	76	77	79	82	74.2	84.4
10-Jun	83	82	86	87	87	87	77	65	55	55	51	48	39	33	26	28	32	37	35	39	57	74	84	85	59.6	87.4
11-Jun	85	85	83	80	80	78	76	79	76	75	75	80	84	86	85	84	84	87	87	86	87	88	89	90	82.8	89.9
12-Jun	90	90	90	91	91	91	82	69	59	49	45	41	35	35	31	30	31	34	35	39	42	49	52	52	56.4	91.1
13-Jun	61	65	67	70	72	69	58	53	42	43	44	37	31	28	26	26	25	24	23	24	38	50	56	60	45.4	71.6
14-Jun	61	65	73	73	74	75	76	75	74	71	67	66	62	58	60	59	70	84	89	89	86	87	88	90	73.7	89.6
15-Jun	89	89	90	90	90	91	86	75	68	57	49	52	48	45	46	45	45	44	44	45	48	53	60	63	63.0	90.6
16-Jun	63	70	74	73	72	72	69	60	52	48	48	47	40	35	34	35	32	32	35	36	37	42	44	48	49.9	74.1
17-Jun	50	54	56	55	55	58	47	41	36	33	32	30	27	25	25	22	22	23	23	24	30	37	40	37	36.9	57.6
18-Jun	46	47	50	52	53	56	57	57	47	35	31	29	27	26	29	32	34	32	33	31	33	42	47	56	41.0	56.9
19-Jun	61	63	73	76	79	77	68	64	55	48	43	45	46	46	56	55	47	46	50	55	59	61	67	70	58.8	78.7
20-Jun	72	75	81	86	89	90	88	78	65	55	54	58	60	79	69	53	45	40	35	37	38	41	44	46	61.6	89.5
21-Jun	47	48	50	52	53	54	50	47	44	40	39	39	41	48	49	54	52	67	60	68	71	81	85	86	55.2	85.6
22-Jun	87	86	85	84	85	83	81	76	76	74	67	61	54	45	39	37	36	35	32	35	48	58	60	66	62.1	86.7
23-Jun	73	76	77	76	74	75	67	62	58	51	44	41	35	31	31	33	32	37	43	46	55	62	72	73	55.1	76.9
24-Jun	80	82	83	84	87	87	72	66	57	46	42	41	36	32	31	30	28	28	30	35	38	42	46	51	52.2	86.8
25-Jun	51	53	55	60	64	66	58	54	52	46	43	39	37	34	34	35	34	30	34	37	42	47	49	51	46.1	65.8
26-Jun	53	58	69	74	78	75	66	55	51	34	28	25	23	23	27	43	73	61	68	71	70	70	72	69	55.7	78.1
27-Jun	58	70	67	68	66	64	63	61	60	65	80	79	77	80	78	79	80	78	73	79	83	85	85	85	73.5	85.1
28-Jun	86	86	85	85	86	86	84	84	87	88	87	84	77	68	64	57	51	52	60	66	70	78	82	84	76.5	87.7
29-Jun	86	86	84	82	80	78	73	68	64	59	55	51	44	43	42	42	43	42	43	51	59	58	63	66	60.9	85.9
30-Jun	71	74	73	71	76	75	63	54	49	44	42	40	36	34	32	32	31	30	32	35	39	48	49	48	49.0	76.3
	66.7	69.0	72.0	72.9	73.8	73.2	67.2	61.9	56.7	51.6	49.1	47.7	44.7	43.3	42.1	41.6	41.8	42.7	44.2	47.0	50.5	56.4	60.2	62.9	Diurnal Average	
	89.6	90.0	90.5	90.8	90.8	91.1	87.9	84.4	86.9	87.7	86.5	84.0	83.7	85.6	84.6	84.4	83.5	87.3	88.9	88.5	87.4	88.3	89.2	89.9	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - June 2017

Maximum Value: 834.5 W/m^2 on Jun 18 13:00

Maximum Daily Average: 302.3 W/m^2 on Jun 17

Minimum Value: 0 W/m^2 on Jun 1 01:00

Maximum Diurnal Average: 573.5 W/m^2 at hour 13

Monthly Average: 220.16 W/m^2

Minimum Daily Average: 63.1 W/m^2 on Jun 11

Minimum Diurnal Average: 0.0 W/m^2 at hour 24

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.7 Median = 108.9 Q_3 = 364.6 P_{90} = 662.8 P_{99} = 784.1

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

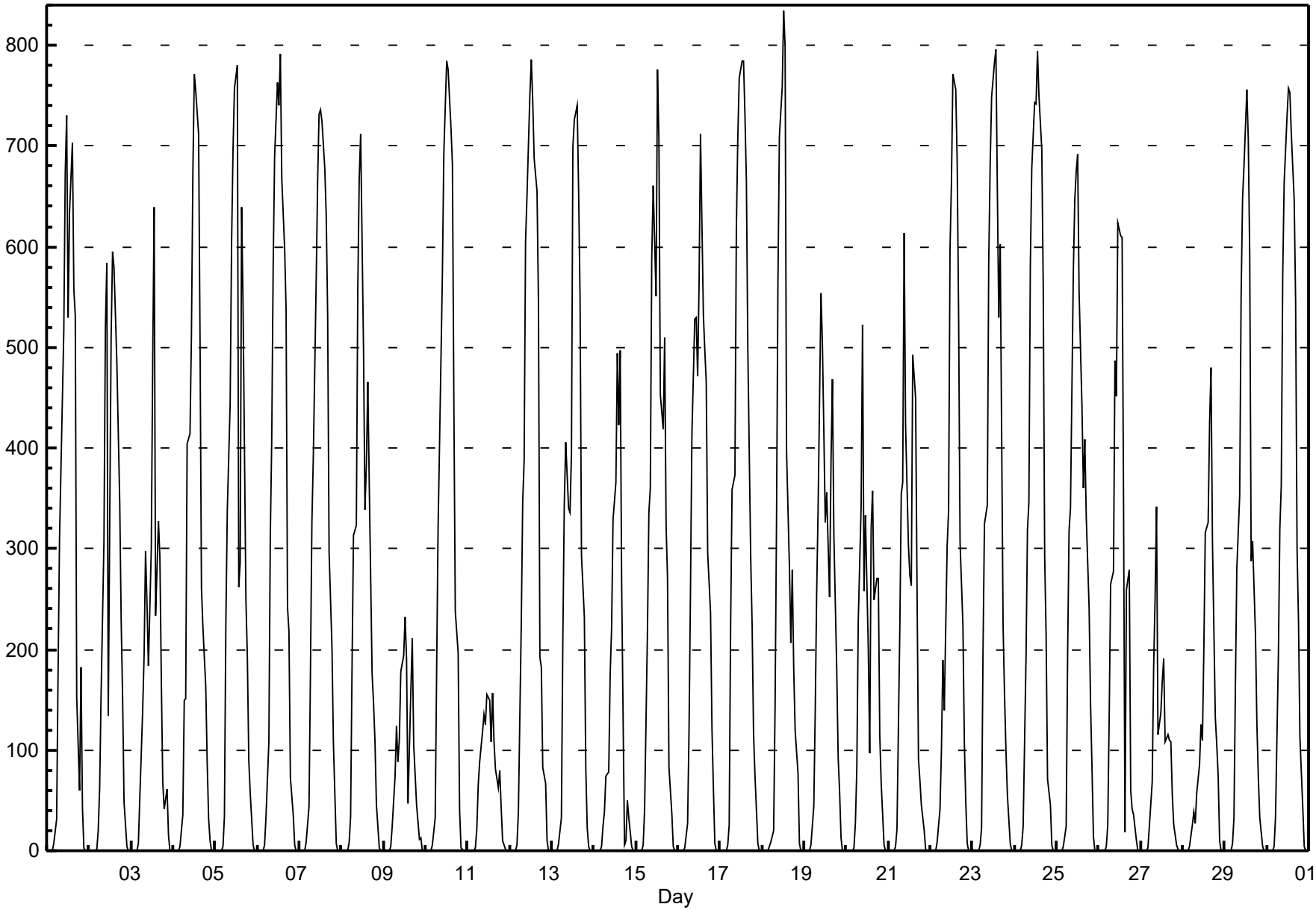
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	0	0	0	0	8	32	176	309	379	517	673	730	530	635	703	558	531	152	60	182	43	3	0	0	259.2	729.9
2-Jun	0	0	0	0	2	19	63	155	308	520	584	134	511	596	579	533	484	345	229	153	49	4	0	0	219.5	595.5
3-Jun	0	0	0	0	7	53	140	194	298	247	183	298	488	639	233	328	291	170	68	41	62	15	0	0	156.5	638.7
4-Jun	0	0	0	0	5	36	150	151	404	415	512	672	771	754	712	507	261	222	163	86	31	9	0	0	244.2	771.1
5-Jun	0	0	0	0	4	34	225	337	445	603	697	757	780	262	286	640	541	248	192	90	57	5	0	0	258.5	780.1
6-Jun	0	0	0	0	6	34	108	312	408	581	689	763	740	792	667	598	538	242	218	72	36	6	0	0	283.8	792.1
7-Jun	0	0	0	0	9	44	178	326	391	567	665	731	736	724	678	631	531	297	202	106	57	7	0	0	286.7	736.4
8-Jun	0	0	0	0	8	34	182	314	323	557	668	712	499	339	383	466	365	174	147	108	46	3	0	0	222.0	712.0
9-Jun	0	0	0	0	5	25	74	123	88	112	178	193	232	191	47	159	210	106	75	45	12	14	0	0	78.6	232.2
10-Jun	0	0	0	0	6	33	181	320	403	573	692	738	784	775	717	682	445	238	197	40	3	1	0	0	284.6	784.0
11-Jun	0	0	0	0	3	21	66	89	118	135	125	156	150	108	156	109	81	62	79	43	10	1	0	0	63.1	156.1
12-Jun	0	0	0	0	6	38	226	345	388	605	651	751	787	745	688	655	546	192	182	83	67	10	0	0	290.2	786.6
13-Jun	0	0	0	0	7	33	210	343	405	341	337	394	699	726	740	655	550	294	232	82	23	5	0	0	253.2	739.8
14-Jun	0	0	0	0	4	24	38	75	78	175	221	328	366	494	423	497	266	6	11	50	33	4	0	0	128.9	497.4
15-Jun	0	0	0	0	6	39	218	336	360	588	661	551	776	705	452	418	510	324	270	82	37	4	0	0	264.1	776.2
16-Jun	0	0	0	0	3	27	120	257	413	528	530	471	563	713	533	497	466	296	237	121	61	7	0	0	243.4	712.5
17-Jun	0	0	0	0	5	26	224	359	373	618	707	767	785	784	731	665	499	292	224	115	74	7	0	0	302.3	785.1
18-Jun	0	0	0	0	4	8	20	143	327	565	709	759	834	798	398	282	206	279	181	120	77	8	0	0	238.2	834.5
19-Jun	0	0	0	0	6	43	138	256	340	554	504	418	325	356	252	386	468	314	180	92	59	12	0	0	195.9	553.9
20-Jun	0	0	0	0	3	28	82	228	341	523	258	334	200	97	321	357	249	271	270	115	67	6	0	0	156.2	523.1
21-Jun	0	0	0	0	5	22	222	354	366	614	423	303	274	264	493	450	259	90	70	46	20	2	0	0	178.1	614.2
22-Jun	0	0	0	0	9	42	99	190	140	303	337	598	665	772	756	684	530	307	223	107	47	7	0	0	242.4	772.0
23-Jun	0	0	0	0	5	23	196	325	343	585	682	749	783	796	657	530	602	224	155	100	55	7	0	0	284.1	796.5
24-Jun	0	0	0	0	5	25	192	319	345	582	678	743	741	795	750	696	560	294	213	72	45	5	0	0	294.2	795.1
25-Jun	0	0	0	0	5	24	193	318	340	577	647	675	692	556	442	360	409	332	240	145	82	15	0	0	252.1	691.7
26-Jun	0	0	0	0	5	25	134	265	277	487	451	624	611	610	347	18	259	279	60	41	36	11	0	0	189.2	623.7
27-Jun	0	0	0	0	3	24	68	182	251	342	115	136	169	191	108	115	110	108	55	25	6	2	0	0	83.8	342.3
28-Jun	0	0	0	0	4	26	39	27	57	86	125	109	200	316	326	424	479	308	133	105	74	10	0	0	118.7	479.1
29-Jun	0	0	0	0	7	33	163	280	353	553	648	681	756	706	589	288	308	215	126	72	33	4	0	0	242.3	756.0
30-Jun	0	0	0	0	4	34	196	321	363	571	663	729	758	753	711	646	545	300	229	112	43	5	0	0	291.0	757.7
	0.0	0.0	0.0	0.1	5.3	30.3	144.0	251.8	314.1	467.5	500.5	533.5	573.5	566.5	495.9	461.1	403.3	232.7	164.0	88.5	44.8	6.6	0.1	0.0	Diurnal Average	
	0.1	0.1	0.2	0.2	8.9	52.9	225.6	358.9	444.6	617.7	709.0	766.8	834.5	798.3	756.1	696.4	601.8	345.4	270.3	181.7	82.5	15.5	0.3	0.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	3	2	1	4	3	6	6	4	5	8	7	6	7	22	8	6	13	8	10	7	4	10	10	8	5.9	22.0
Dir	127	184	300	244	224	226	226	259	208	213	236	248	220	265	295	253	295	288	218	254	192	204	210	219	240.2	265.3
2 Spd	9	8	4	3	2	4	5	4	7	13	19	13	13	24	19	23	23	21	25	17	13	8	6	7	11.1	25.3
Dir	222	204	181	184	186	215	161	175	195	219	242	216	259	269	244	231	244	234	229	235	233	210	195	197	229.9	229.4
3 Spd	4	1	2	4	4	2	4	5	8	11	10	9	8	5	15	5	13	23	17	14	14	9	5	5	3.4	22.7
Dir	209	168	127	126	114	99	83	90	56	85	99	101	94	110	234	216	227	251	233	240	234	230	234	220	200.8	251.5
4 Spd	4	6	3	3	2	3	5	3	4	3	4	3	1	2	0	6	5	3	8	9	6	5	3	3	2.6	9.2
Dir	293	297	298	276	258	122	138	185	198	234	237	232	299	148	181	265	238	198	181	203	196	244	266	146	223.6	202.5
5 Spd	3	6	2	3	2	2	5	7	8	14	19	18	13	10	10	7	8	7	7	4	0	2	2	0	5.8	18.8
Dir	182	226	228	202	196	267	203	204	211	230	247	253	245	252	259	273	275	259	282	314	287	157	313	59	245.0	246.9
6 Spd	2	2	3	4	3	1	1	4	5	6	9	11	9	7	5	8	9	8	9	6	5	5	5	5	4.0	10.9
Dir	304	309	310	319	338	303	345	127	126	102	88	100	102	96	112	127	87	85	73	56	49	46	57	67	82.1	99.5
7 Spd	5	6	5	6	4	2	5	6	5	7	10	15	12	11	12	12	13	13	15	12	11	9	10	9	8.8	14.7
Dir	60	63	58	68	82	110	103	100	121	97	94	90	85	88	83	79	83	85	81	82	76	67	74	70	82.5	90.3
8 Spd	9	7	8	9	10	10	12	14	15	16	15	15	16	14	14	16	16	16	16	18	16	12	7	10	12.7	17.7
Dir	72	67	67	71	70	73	80	87	91	85	92	91	98	104	104	95	87	84	83	83	83	90	79	111	86.8	82.8
9 Spd	4	6	5	9	7	7	7	7	6	4	12	18	22	23	19	23	23	21	16	15	14	16	13	8	7.7	23.3
Dir	90	50	23	33	36	35	35	46	74	110	231	238	239	243	246	247	245	258	240	231	227	247	250	264	248.1	246.7
10 Spd	6	4	2	3	3	4	3	3	7	10	10	10	9	7	7	9	7	7	5	8	7	16	11	11	5.7	16.0
Dir	242	231	223	212	213	224	236	279	297	300	302	295	291	301	288	302	275	273	273	322	282	347	357	343	297.3	346.9
11 Spd	11	8	6	5	4	2	3	5	6	7	5	6	7	7	7	6	5	5	6	6	5	6	8	7	3.5	10.8
Dir	355	350	343	7	36	45	74	131	141	160	125	95	94	110	131	129	143	153	146	157	138	119	115	117	108.3	355.1
12 Spd	6	4	3	2	3	3	3	10	14	15	15	19	17	18	20	19	17	19	20	14	14	9	12	9	10.2	19.9
Dir	113	121	145	189	187	211	243	249	256	254	257	270	271	295	286	287	292	287	282	277	279	269	273	255	271.4	286.0
13 Spd	6	4	4	2	2	4	4	7	14	13	7	6	7	7	8	8	9	6	6	3	7	5	6	5	4.4	14.5
Dir	236	233	285	320	275	241	227	235	255	256	261	254	250	228	261	253	261	261	312	1	134	139	118	127	246.4	254.8
14 Spd	3	5	3	6	6	6	4	1	3	5	4	5	6	6	8	8	11	10	7	7	4	5	4	4	2.7	10.9
Dir	32	50	27	67	53	45	50	150	328	332	23	47	54	38	41	42	64	252	314	331	273	257	237	243	18.3	64.0
15 Spd	5	5	3	2	4	4	4	4	4	3	1	4	5	7	9	10	12	14	15	14	10	11	6	2	3.2	14.9
Dir	273	288	299	294	308	280	300	258	247	259	230	148	131	109	83	85	84	87	86	85	77	71	94	196	85.9	85.6
16 Spd	9	9	5	3	4	5	4	6	7	10	14	18	22	23	25	24	27	25	23	21	18	12	14	13	13.9	27.1
Dir	244	279	282	228	224	225	222	228	232	253	267	271	267	253	258	255	261	252	248	254	251	239	240	242	253.4	260.8
17 Spd	13	13	12	13	13	8	13	19	19	24	21	19	18	18	17	19	20	18	20	18	15	10	9	11	15.6	24.3
Dir	238	238	238	239	249	280	245	240	253	257	253	256	256	257	247	258	262	258	266	272	271	267	267	249	254.8	257.2
18 Spd	6	7	6	6	6	7	7	5	14	21	18	20	20	20	17	17	16	18	17	17	15	9	6	2	10.6	20.5
Dir	223	210	218	220	208	231	276	245	253	270	265	268	274	276	291	306	303	306	304	312	312	323	340	258	279.8	269.5
19 Spd	1	3	1	1	0	3	5	7	8	8	7	7	6	10	11	6	4	5	5	7	5	6	6	6	1.8	10.5
Dir	118	13	210	353	59	107	109	107	97	96	109	173	224	277	277	286	271	292	157	161	148	147	126	124	151.4	276.6
20 Spd	6	4	4	2	4	4	3	5	6	8	15	20	21	12	10	14	20	22	28	24	21	20	20	21	11.6	27.9
Dir	109	134	200	230	159	152	159	199	215	241	265	259	252	223	211	232	239	241	243	254	249	249	245	247	239.3	243.4
21 Spd	17	17	20	19	18	21	22	29	29	30	27	30	30	30	30	25	27	20	22	22	22	18	14	15	22.2	30.3
Dir	251	252	246	244	240	241	242	249	255	256	260	267	271	280	277	270	279	285	283	292	289	287	277	276	265.7	271.4
22 Spd	16	14	14	13	8	9	12	12	13	13	13	10	11	13	15	14	13	10	10	8	9	7	9	5	11.0	15.8
Dir	282	287	291	287	283	284	291	292	294	286	292	304	300	289	302	292	293	290	295	298	279	267	245	238	288.1	282.1

Peace Airshed Zone Association

Hourly Averages

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

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	Daily Average	Daily Maximum
23 Spd	4	4	5	7	8	7	10	9	8	7	7	9	9	10	8	12	13	12	15	10	5	6	2	1	6.2	14.7
Dir	264	225	230	248	255	253	244	244	242	254	259	237	258	277	284	263	280	342	350	342	310	302	268	322	274.5	350.4
24 Spd	2	3	6	4	4	1	3	4	4	2	3	3	1	1	3	3	2	4	7	9	8	7	6	7	0.8	8.5
Dir	263	309	325	326	314	299	276	250	234	250	252	195	289	158	120	185	48	56	89	88	90	95	104	108	87.3	87.8
25 Spd	7	6	7	5	5	3	5	5	6	7	9	10	13	13	14	15	16	17	15	12	11	10	10	6	9.3	17.2
Dir	94	82	80	81	95	68	81	107	114	102	98	103	93	98	96	96	105	109	108	102	91	91	100	148	98.9	109.3
26 Spd	6	5	4	3	8	5	6	7	4	10	12	12	7	3	6	5	2	8	8	9	4	5	4	10	2.5	12.2
Dir	102	122	313	307	291	270	257	283	246	296	310	315	308	291	226	231	40	77	143	160	191	159	203	238	261.9	315.0
27 Spd	16	12	10	7	9	12	17	17	21	24	19	19	24	18	21	22	24	21	23	17	19	21	23	25	17.6	25.2
Dir	229	228	228	226	239	242	247	249	265	284	282	259	253	238	240	250	256	261	266	246	278	279	266	269	256.7	269.5
28 Spd	22	23	14	10	10	10	10	12	15	13	12	8	11	13	11	6	3	2	8	6	6	5	5	6	7.2	23.1
Dir	279	289	304	326	313	316	302	297	300	308	325	333	336	345	327	360	266	159	125	200	205	175	214	222	301.0	289.0
29 Spd	6	4	6	6	6	4	3	5	5	7	8	6	8	9	10	14	14	13	11	9	6	6	4	3	6.7	14.2
Dir	234	264	287	281	301	267	228	225	217	213	218	206	226	231	244	264	241	243	250	238	226	236	224	238	242.1	241.0
30 Spd	3	3	3	3	1	3	5	8	8	10	12	11	11	9	7	3	4	3	3	5	5	5	5	6	3.3	11.6
Dir	236	281	242	237	258	290	274	266	285	294	305	300	316	318	311	327	308	316	344	96	97	113	142	166	294.2	305.4
Spd	3.2	2.9	2.8	2.0	2.0	2.5	2.7	3.9	4.9	5.9	6.1	5.9	6.3	6.7	6.5	6.4	6.7	6.1	5.2	4.2	3.8	2.9	3.0	3.7	Diurnal Average	
Dir	247.0	261.8	273.4	271.1	262.9	254.6	243.7	238.5	245.9	257.7	262.1	256.7	261.8	265.0	262.4	259.8	263.4	262.8	253.3	256.7	251.4	248.5	237.8	233.1		
Spd	22.3	23.1	19.8	19.3	18.0	20.8	22.3	28.6	29.3	29.9	27.0	29.7	30.3	29.8	30.0	25.1	27.1	25.2	27.9	24.5	22.4	21.3	22.6	25.2	Diurnal Maximum	
Dir	278.5	289.0	246.2	244.3	239.9	241.2	241.6	249.3	255.1	256.3	259.9	266.8	271.4	280.5	277.1	270.1	260.8	252.4	243.4	253.6	288.9	278.7	265.9	269.5		

Maximum Speed Value: 30 km/h on Jun 21 13:00
Maximum Daily Speed Average: 22.2 km/h on Jun 21
Maximum Diurnal Speed Average: 6.7 km/h at hour 14

Minimum Speed Value: 0 km/h on Jun 4 15:00
Minimum Daily Speed Average: 0.8 km/h on Jun 4
Minimum Diurnal Speed Average: 2.0 km/h at hour 5

Monthly Average Velocity: 4.36 km/h 256.42 deg

Speed Percentiles: $P_1 = 0.8$ $P_{10} = 2.9$ $Q_1 = 4.8$ Median = 7.6 $Q_3 = 13.1$ $P_{90} = 19.2$ $P_{99} = 28.1$

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Frequency Distribution

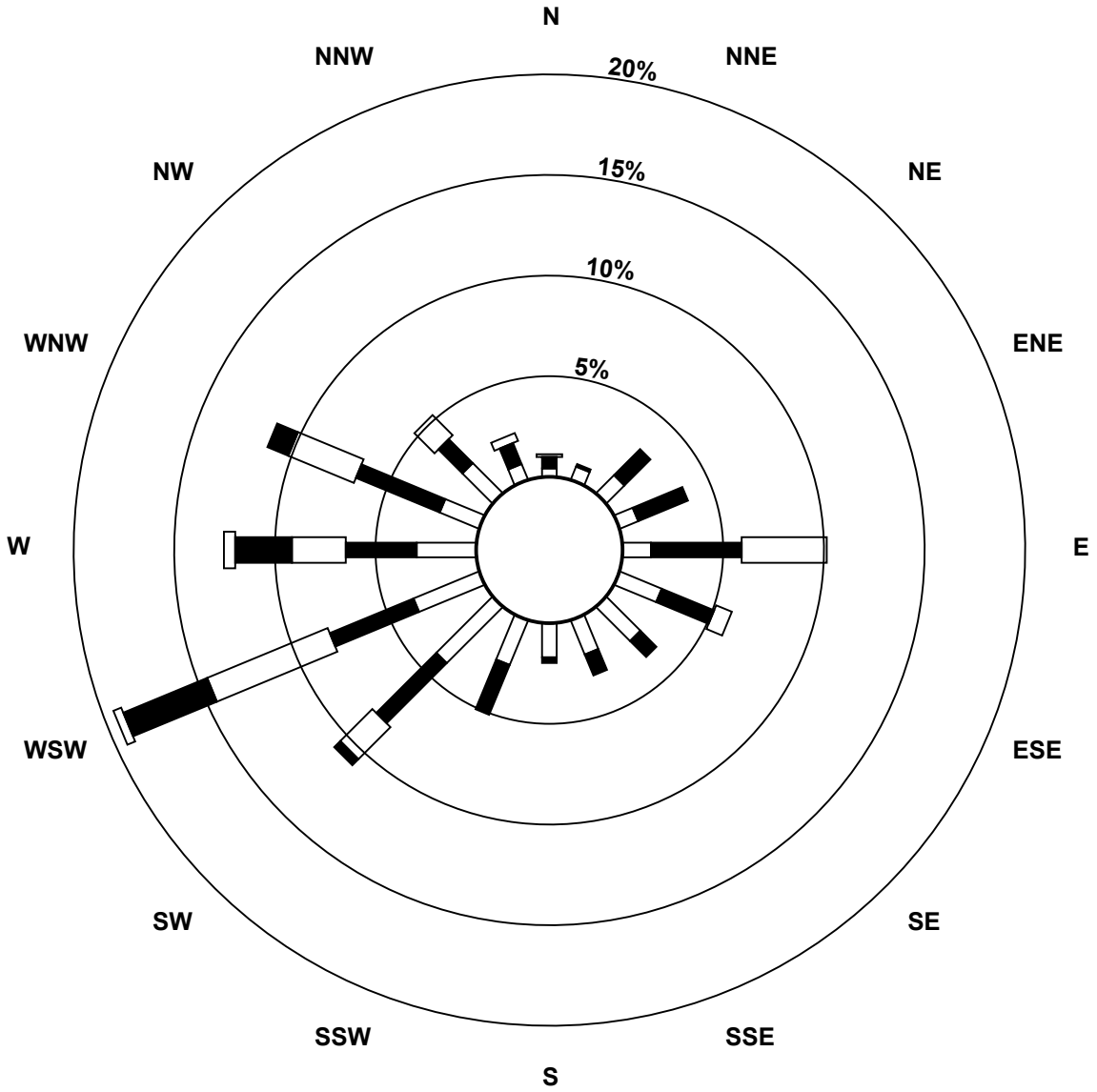
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	6	8	5	0	0	0	19
NorthEast	17	23	0	0	0	0	40
East	14	63	37	0	0	0	114
SouthEast	24	28	0	0	0	0	52
South	26	14	0	0	0	0	40
SouthWest	44	65	42	18	0	0	169
West	34	63	50	50	7	0	204
NorthWest	28	32	22	0	0	0	82
Total	193	296	156	68	7	0	720

Peace Airshed Zone Association

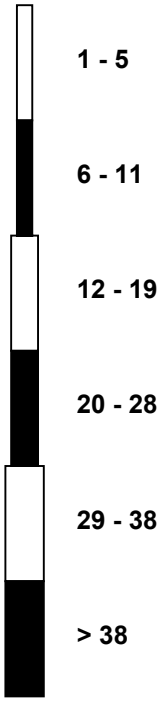
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - June 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - June 2017

Maximum Speed: 31 km/h on Jun 21 13:00

Maximum Daily Speed Average: 23.4 km/h on Jun 21

Minimum Speed: 1 km/h on Jun 6 00:00

Minimum Daily Speed Average: 5.0 km/h on Jun 4

Maximum Diurnal Speed Average: 13.8 km/h at hour 17

Minimum Diurnal Speed Average: 5.8 km/h at hour 6

Monthly Average Speed: 10.04 km/h

Percentiles: P_1 = 1.9 P_{10} = 3.7 Q_1 = 5.3 Median = 8.2 Q_3 = 13.6 P_{90} = 19.8 P_{99} = 28.4

Hours in Service: 720

Hours of Data: 720

Hours of Missing Data: 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	3	3	2	4	4	6	6	4	6	9	8	7	9	23	8	7	13	9	12	7	5	10	10	8	7.7	23.0
2-Jun	9	8	5	3	3	4	5	5	7	13	19	16	14	24	20	23	23	21	26	18	13	9	7	7	12.6	25.7
3-Jun	4	2	3	4	4	2	4	5	8	11	10	10	9	6	16	8	14	23	17	14	14	9	6	5	8.7	23.0
4-Jun	5	7	4	3	3	3	5	4	5	4	5	4	5	5	5	7	6	4	8	10	6	6	4	4	5.0	9.6
5-Jun	4	6	4	3	2	3	5	7	9	14	19	19	14	11	11	9	10	8	8	5	1	3	3	1	7.4	19.4
6-Jun	2	3	4	4	3	2	2	4	5	7	10	11	9	8	8	9	10	8	9	7	5	5	6	5	6.1	11.4
7-Jun	5	6	5	6	4	2	5	7	6	7	11	15	13	11	13	13	14	14	15	13	12	9	10	9	9.3	15.1
8-Jun	9	7	8	9	10	10	12	14	16	16	16	16	16	15	14	17	17	16	16	18	16	12	7	12	13.2	17.8
9-Jun	6	6	6	9	8	7	8	8	6	5	13	19	22	23	19	24	23	22	17	16	15	16	13	8	13.2	23.5
10-Jun	6	5	2	3	3	4	3	4	7	11	11	10	10	8	8	10	8	8	6	8	11	16	11	11	7.7	16.1
11-Jun	11	8	7	6	4	3	3	5	7	8	6	7	7	7	7	6	5	5	6	6	5	6	8	7	6.3	11.0
12-Jun	6	4	4	3	4	4	4	10	14	15	16	19	18	19	20	19	17	19	20	15	14	9	12	9	12.3	20.2
13-Jun	6	4	5	3	3	5	5	7	15	13	8	7	9	8	9	9	10	7	6	4	8	6	6	5	7.0	14.8
14-Jun	4	5	5	6	6	6	5	3	3	6	5	6	6	6	9	9	11	11	7	8	4	5	4	5	6.0	11.4
15-Jun	5	5	3	2	4	4	5	5	4	4	4	5	7	8	10	10	13	14	15	14	10	11	10	2	7.3	15.3
16-Jun	10	10	6	4	4	5	4	6	8	11	14	18	23	23	26	24	27	26	23	21	18	13	14	13	14.6	27.5
17-Jun	13	13	12	13	13	9	13	19	20	25	22	20	19	19	18	20	21	18	21	19	15	10	9	11	16.2	24.7
18-Jun	7	7	6	6	6	7	8	6	14	21	19	20	21	21	18	17	16	18	17	17	15	9	7	4	12.9	21.1
19-Jun	2	3	2	2	1	3	5	7	8	9	7	8	7	10	11	6	4	5	6	8	5	6	6	6	5.7	10.8
20-Jun	6	4	4	2	4	4	3	5	7	8	16	20	21	12	10	14	20	22	28	25	21	20	20	21	13.3	28.2
21-Jun	17	17	20	19	18	21	22	29	30	30	27	30	31	30	30	26	27	20	23	22	23	18	14	15	23.4	30.7
22-Jun	16	14	14	13	8	9	12	12	13	13	13	11	12	14	16	14	13	10	10	8	10	8	9	6	11.5	15.9
23-Jun	4	4	5	7	8	8	10	9	9	8	7	9	10	11	10	13	14	14	15	11	5	6	3	2	8.4	14.8
24-Jun	4	3	6	4	4	2	4	4	4	3	5	5	6	4	6	6	4	5	8	9	8	7	6	7	5.1	8.7
25-Jun	7	6	7	6	5	3	5	5	6	8	10	11	13	14	15	15	17	17	15	12	11	10	10	9	9.9	17.4
26-Jun	7	6	5	4	8	6	6	7	5	10	12	13	8	5	9	11	6	8	9	9	5	6	6	10	7.4	12.6
27-Jun	16	13	10	7	10	12	17	17	21	24	19	19	24	18	22	23	24	22	23	17	20	21	23	25	18.7	25.4
28-Jun	22	23	14	10	10	10	10	12	15	13	13	8	12	13	11	7	4	6	10	8	6	5	5	6	10.6	23.2
29-Jun	6	4	6	6	6	5	4	5	6	7	8	7	9	10	10	14	14	13	11	9	6	7	4	4	7.6	14.4
30-Jun	3	4	4	3	2	3	5	8	8	11	12	11	12	10	7	5	5	5	4	5	5	6	6	6	6.2	11.8
	7.5	7.0	6.1	5.9	5.8	5.8	6.8	8.2	9.7	11.4	12.1	12.7	13.1	13.2	13.1	13.2	13.8	13.3	13.7	12.0	10.3	9.5	8.6	8.2	Diurnal Average	
	22.5	23.2	20.0	19.4	18.2	20.9	22.5	28.9	29.6	30.3	27.4	30.2	30.7	30.0	30.5	25.9	27.5	25.7	28.2	24.8	22.6	21.4	22.8	25.4	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - June 2017

Maximum Value: 95.2 deg on Jun 24 14:00

Minimum Value: 6.1 deg on Jun 21 20:00

Percentiles: P_1 = 6.5 P_{10} = 8.6 Q_1 = 10.8 Median = 16.1 Q_3 = 27.4 P_{90} = 46.9 P_{99} = 83.0

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	11	24	79	27	42	18	12	31	19	33	25	39	34	18	27	34	17	26	34	15	34	18	11	12	79.1
2-Jun	18	18	27	26	55	25	11	30	16	16	16	36	29	9	23	14	15	13	10	9	10	20	12	10	55.1
3-Jun	17	66	64	29	8	39	17	15	18	14	13	16	17	34	24	81	21	9	10	8	9	16	31	19	81.1
4-Jun	16	21	37	22	39	39	28	23	28	45	52	60	84	81	94	40	46	64	19	15	22	31	28	61	94.4
5-Jun	18	24	56	49	61	49	20	15	19	19	15	12	20	26	29	41	44	30	34	25	77	29	70	70	77.0
6-Jun	55	51	33	24	22	48	72	24	27	23	19	19	23	45	71	33	27	18	17	15	13	14	11	10	71.7
7-Jun	12	8	11	9	23	21	15	22	31	28	19	14	19	20	19	17	17	13	12	11	9	11	9	8	30.6
8-Jun	7	10	10	8	8	9	9	9	10	14	13	18	14	12	11	13	12	9	8	6	7	10	16	30	30.2
9-Jun	47	19	15	11	15	15	14	19	16	32	24	10	9	8	12	8	8	7	17	11	16	10	12	18	46.6
10-Jun	36	28	35	32	24	21	25	34	23	16	21	25	23	31	34	29	32	18	41	27	52	9	12	9	52.2
11-Jun	11	15	12	21	19	24	16	20	15	18	30	21	20	19	16	19	17	15	9	12	14	11	9	9	30.5
12-Jun	11	33	42	61	61	33	30	12	10	11	14	13	18	17	9	12	11	7	9	11	7	12	9	13	61.4
13-Jun	14	17	29	44	43	30	19	24	12	12	25	40	37	35	33	38	23	29	34	47	55	17	11	10	55.3
14-Jun	58	30	52	12	14	16	48	91	38	25	40	30	27	27	27	25	19	36	14	12	20	26	21	22	90.9
15-Jun	9	22	40	76	21	26	14	34	34	55	78	53	49	31	21	17	15	13	12	10	10	9	67	72	78.0
16-Jun	25	9	12	25	14	10	15	14	21	19	17	13	12	13	14	13	10	11	13	10	11	8	9	7	25.3
17-Jun	8	7	9	9	7	27	10	8	11	11	13	16	19	15	17	16	14	12	12	10	7	8	12	11	26.8
18-Jun	10	8	9	10	14	15	31	44	18	13	14	16	16	18	18	9	8	13	8	9	8	7	12	65	64.5
19-Jun	68	16	69	68	65	28	18	13	15	17	29	28	20	13	12	22	39	36	37	10	14	12	13	13	69.2
20-Jun	13	16	26	54	13	14	15	22	23	16	12	12	13	11	12	13	12	8	9	9	9	7	7	6	53.8
21-Jun	7	8	7	7	8	7	8	9	8	10	10	10	10	8	10	15	10	8	7	6	7	7	7	8	14.9
22-Jun	7	6	6	7	11	14	9	13	11	10	12	17	17	17	20	13	17	16	17	12	11	17	10	12	19.9
23-Jun	28	17	16	11	11	17	10	13	13	19	19	23	24	29	31	28	23	28	9	24	19	15	41	83	83.3
24-Jun	62	25	9	10	18	56	32	27	21	70	52	56	92	95	81	62	71	47	31	11	9	10	13	11	95.2
25-Jun	13	9	8	17	18	16	13	17	18	25	17	20	15	15	13	11	11	10	9	12	10	9	7	49	49.0
26-Jun	49	55	54	41	8	20	24	9	31	16	10	13	41	66	53	81	73	23	20	16	46	26	37	13	80.7
27-Jun	15	10	9	10	10	8	8	10	11	8	12	9	10	9	9	10	7	10	8	8	21	7	8	6	20.9
28-Jun	8	6	9	10	10	6	9	6	9	7	11	10	15	11	13	45	39	85	38	33	18	13	16	12	84.8
29-Jun	17	28	23	16	9	26	48	16	22	21	20	27	21	25	22	13	10	13	12	11	14	13	9	19	47.9
30-Jun	24	22	23	34	70	29	14	16	13	20	12	16	15	21	33	80	58	58	67	29	14	34	26	10	79.8
	68.3	65.5	79.1	76.5	69.6	56.1	71.7	90.9	38.2	69.6	78.0	60.1	92.0	95.2	94.4	81.1	72.9	84.8	67.1	47.2	77.0	33.9	69.7	83.3	

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 6.0 ppb on Jun 18 00:00 Maximum Daily Average: 0.9 ppb on Jun 13

Minimum Value: 0 ppb on Jun 1 04:00 Minimum Daily Average: 0.0 ppb on Jun 9
Maximum Diurnal Average: 0.4 ppb at hour 9 Minimum Diurnal Average: 0.0 ppb at hour 3
Monthly Average: 0.19 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.4$ $P_{99} = 2.3$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	34
Percent Operational Time:	99.6

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	Daily Average	Daily Maximum
1-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
2-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	0.4
3-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
4-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
5-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
6-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	0.2
7-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	0.4
8-Jun	0	0	0	0	0	0	0	1	A	P	P	P	1	1	1	1	1	1	1	0	0	0	0	0	0.5	1.3
9-Jun	0	0	0	0	0	0	0	A	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0.0	0.1
10-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	0.7
11-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
12-Jun	0	0	0	0	A	0	0	2	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0.6	2.6
13-Jun	1	0	0	A	0	0	0	1	6	4	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0.9	5.6
14-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
15-Jun	0	A	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
16-Jun	A	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	1	0	0	A	0.4	1.0
17-Jun	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	0	2	A	6	0.7	6.0
18-Jun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0.1	0.8
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
20-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.8
21-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
22-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0.1	0.8
23-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	0.3
24-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
25-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
26-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
27-Jun	0	0	0	2	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	1.9
28-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
29-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
30-Jun	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.3	0.7
	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.4	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.4	Diurnal Average	
	1.3	0.8	0.3	1.9	0.4	0.5	0.7	2.3	5.6	4.0	0.7	1.3	1.0	0.7	0.7	1.0	1.3	1.2	1.2	0.8	0.6	2.4	0.8	6.0	Diurnal Maximum	

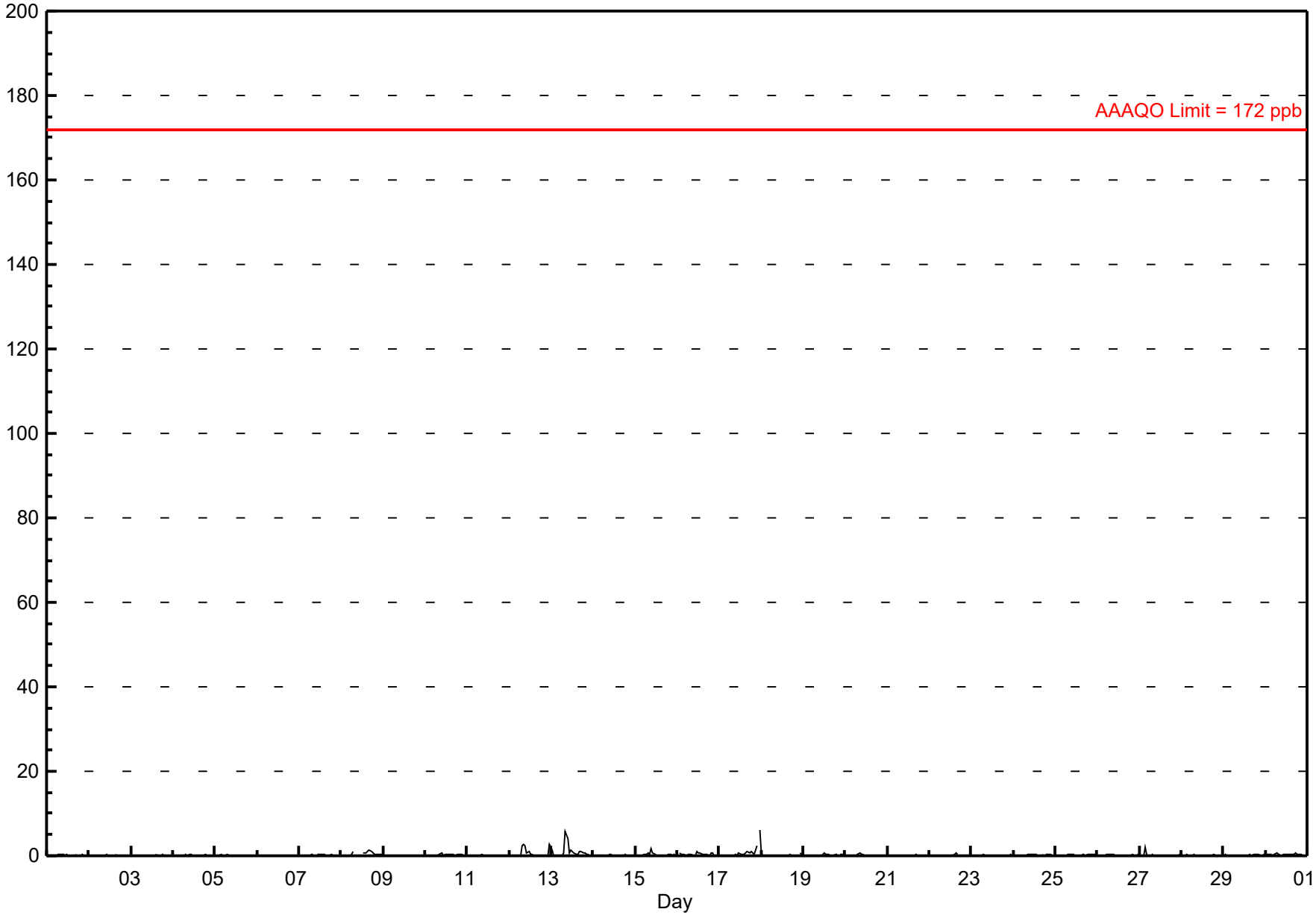
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - June 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - June 2017

Maximum Value: 14.5 ppb on Jun 18 00:00

Maximum Daily Average: 2.0 ppb on Jun 13

Minimum Value: 0 ppb on Jun 5 01:00

Minimum Daily Average: 0.5 ppb on Jun 9

Maximum Diurnal Average: 1.4 ppb at hour 24

Minimum Diurnal Average: 0.6 ppb at hour 3

Monthly Average: 0.85 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.5$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 1.2$ $P_{99} = 5.8$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	34
Percent Operational Time:	99.6

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	Daily Average	Daily Maximum
1-Jun	1	1	1	0	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.9
2-Jun	1	1	1	1	1	0	0	1	1	0	2	1	0	1	A	2	1	1	1	1	1	0	0	1	0.8	2.5
3-Jun	1	0	1	1	0	1	0	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	0	0.6	1.3
4-Jun	0	0	1	0	1	1	1	1	0	1	1	1	A	1	1	1	0	0	1	1	0	0	1	0	0.6	0.9
5-Jun	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	1	0	1	1	1	0.7	1.2
6-Jun	1	0	0	0	1	0	0	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	0	1	0.6	0.8
7-Jun	0	1	0	1	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
8-Jun	0	1	1	0	1	1	1	2	A	P	P	P	1	1	1	2	2	2	1	1	1	1	1	1	1.1	1.9
9-Jun	1	0	0	0	1	0	1	A	1	1	1	1	0	1	C	C	C	0	0	0	0	0	0	0	0.5	0.8
10-Jun	0	0	0	1	0	0	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.6
11-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.6	0.8
12-Jun	1	1	1	0	A	1	1	6	7	5	2	2	1	1	1	1	1	1	1	1	1	1	1	10	1.9	9.5
13-Jun	7	0	1	A	1	0	1	3	8	7	1	2	2	1	1	2	2	2	1	1	1	1	1	1	2.0	8.2
14-Jun	1	1	A	1	0	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0.6	0.9
15-Jun	0	A	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.3
16-Jun	A	3	1	1	1	1	1	1	1	1	1	3	2	2	1	1	1	1	1	3	4	1	1	A	1.4	3.6
17-Jun	1	0	1	1	0	0	0	1	0	2	1	2	1	1	1	3	2	2	3	3	1	6	A	14	2.0	14.5
18-Jun	2	1	0	0	1	1	1	1	1	1	0	0	1	1	1	1	2	0	1	1	1	A	2	1	0.8	1.9
19-Jun	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.5
20-Jun	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	A	1	0	1	0	0.7	1.3
21-Jun	0	1	1	1	1	0	0	1	1	1	0	1	1	1	0	1	1	1	A	1	1	1	1	1	0.6	0.8
22-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	0	1	1	1	1	0	0.7	1.5
23-Jun	0	1	0	0	1	1	1	1	1	0	1	0	1	0	1	0	A	1	1	0	1	1	1	1	0.6	1.1
24-Jun	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	0.9
25-Jun	1	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.0
26-Jun	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.4
27-Jun	1	1	1	3	2	1	1	1	1	1	1	1	A	0	0	1	1	1	1	1	1	1	1	1	0.9	3.3
28-Jun	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	1	1	1	1	1	1	0.7	1.0
29-Jun	0	1	1	0	0	0	1	1	0	0	A	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
30-Jun	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
	0.8	0.7	0.6	0.7	0.6	0.6	0.7	1.1	1.2	1.2	0.8	1.0	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.7	1.4	Diurnal Average	
	6.8	2.8	0.9	3.3	1.7	1.5	1.6	6.0	8.2	6.7	1.7	2.7	2.0	1.7	1.3	2.5	1.9	2.1	2.6	3.5	3.6	5.9	1.5	14.5	Diurnal Maximum	

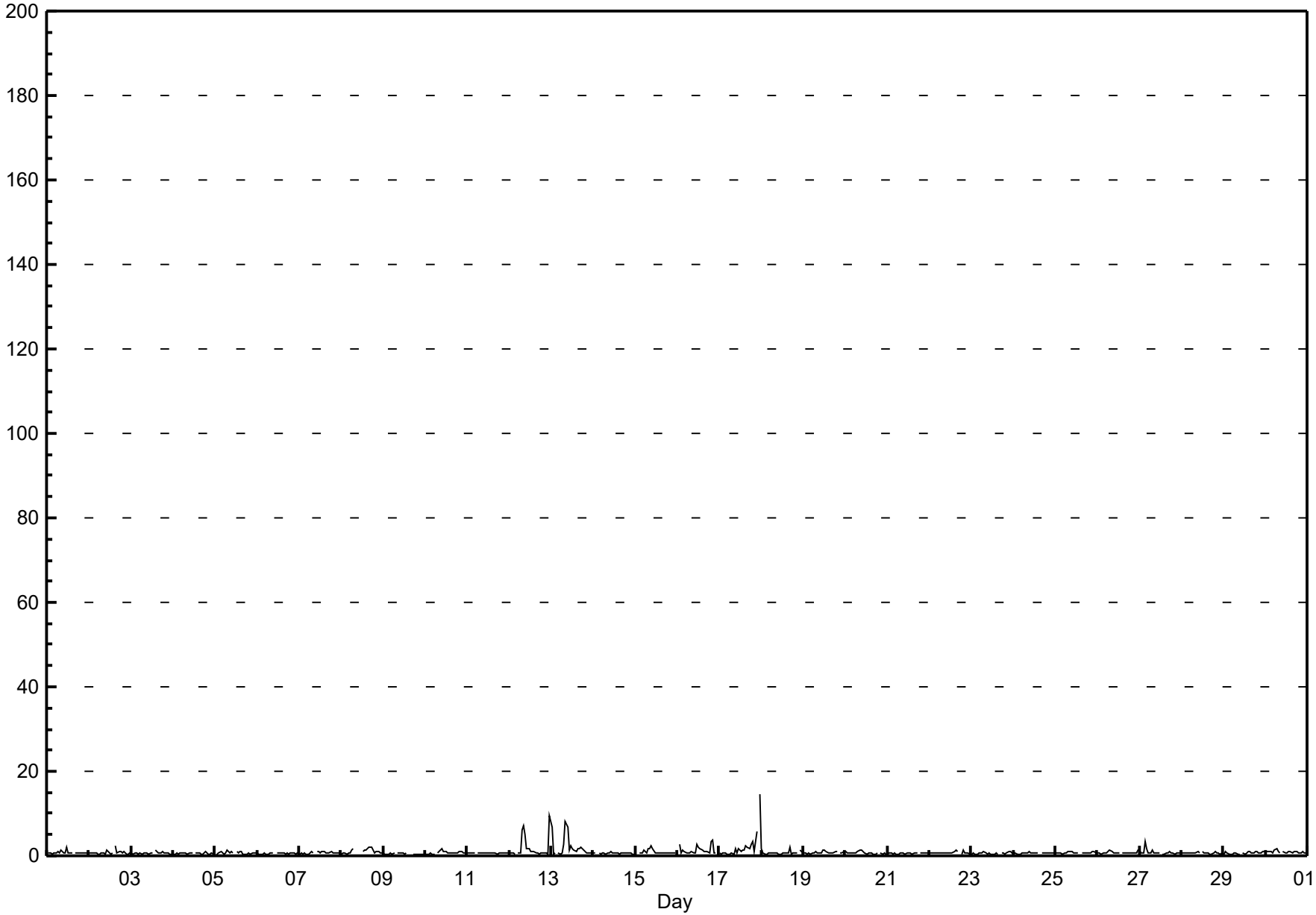
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

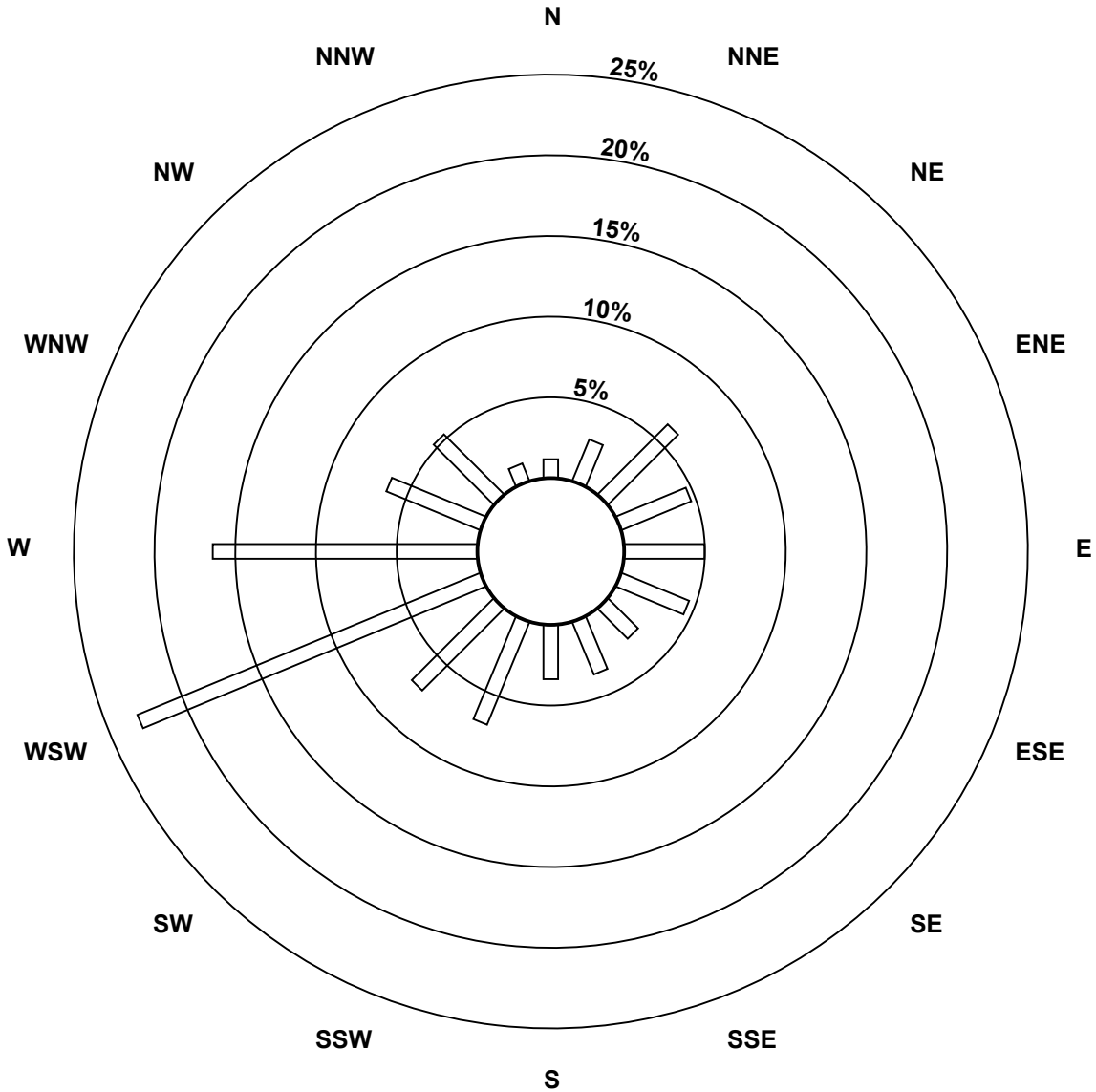
Evergreen Park - June 2017



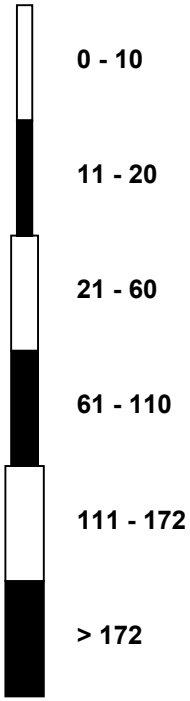
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - June 2017



Pollutant Classes (ppb)

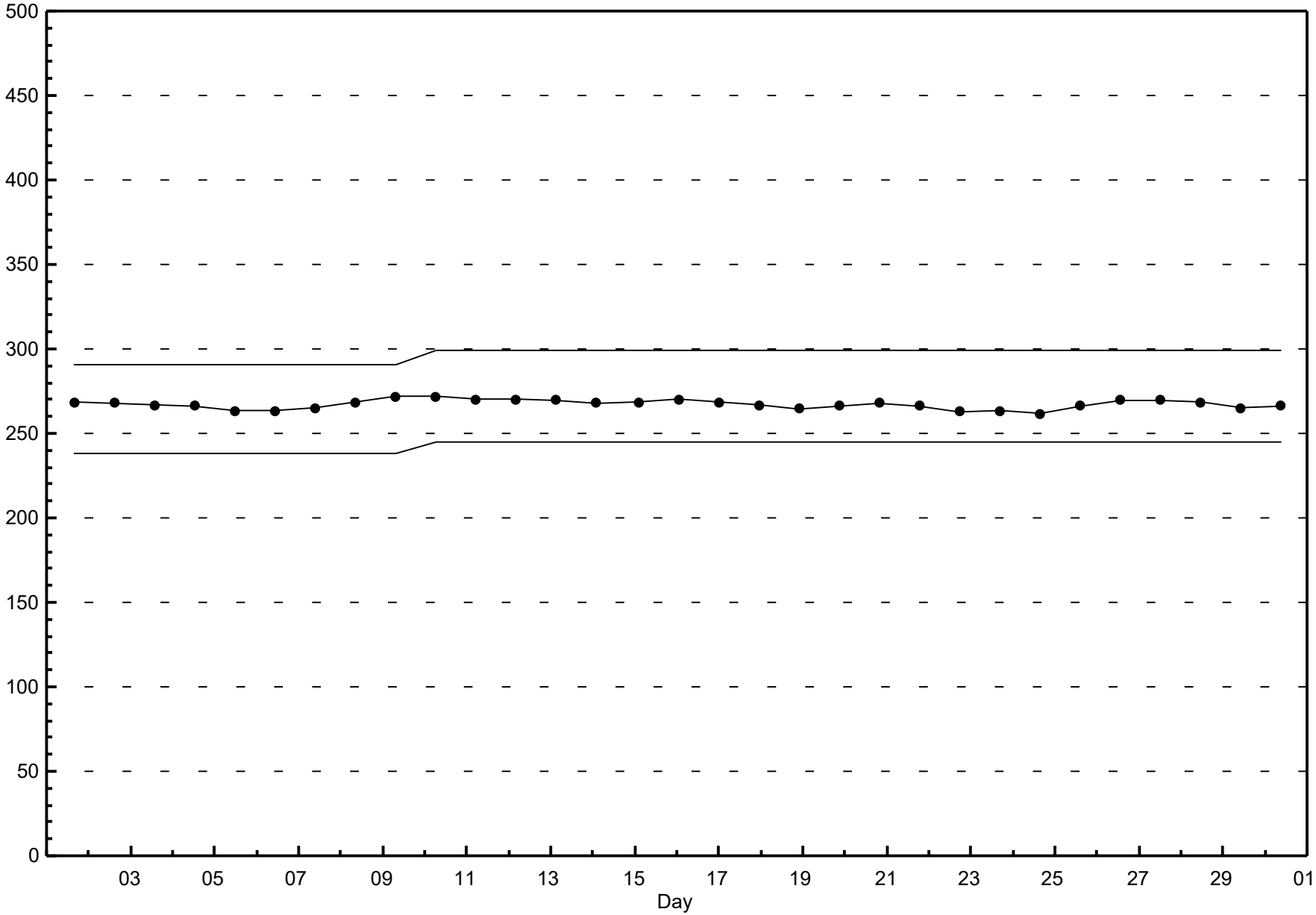


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Evergreen Park - June 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - June 2017

Maximum Value: 1.4 ppb on Jun 6 08:00

Maximum Daily Average: 0.5 ppb on Jun 6

Minimum Value: 0 ppb on Jun 28 19:00

Minimum Daily Average: 0.1 ppb on Jun 28

Maximum Diurnal Average: 0.4 ppb at hour 8

Minimum Diurnal Average: 0.2 ppb at hour 15

Monthly Average: 0.28 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 0.8$

Hours in Service:	720
Hours of Data:	660
Hours of Missing Data:	60
Hours of Calibration:	33
Percent Operational Time:	96.3

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	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.5	0.8
2-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
3-Jun	0	0	0	0	0	0	0	1	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.6
4-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	0.4	0.6
5-Jun	0	0	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
6-Jun	0	1	0	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0.5	1.4
7-Jun	0	0	0	0	0	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.1
8-Jun	0	0	0	0	1	0	1	0	A	P	P	P	N	N	N	N	N	N	N	N	N	N	N	N	--	0.5
9-Jun	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	0	0	0	0	0	0	0	0	0	--	0.3
10-Jun	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
11-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
12-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
13-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	0.3	0.4
14-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	0.3	0.5
15-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	0.3	0.5
16-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
17-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	0.3	0.4
18-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	0.3
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.2	0.5
20-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	0.5
21-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	0.3
22-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
23-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	0.2	0.4
24-Jun	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.6
25-Jun	0	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.8
26-Jun	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.6
27-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
28-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
29-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	0.3
30-Jun	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	Diurnal Average	
	0.8	0.5	0.5	0.9	0.7	0.7	0.7	1.4	1.1	0.7	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	Diurnal Maximum	

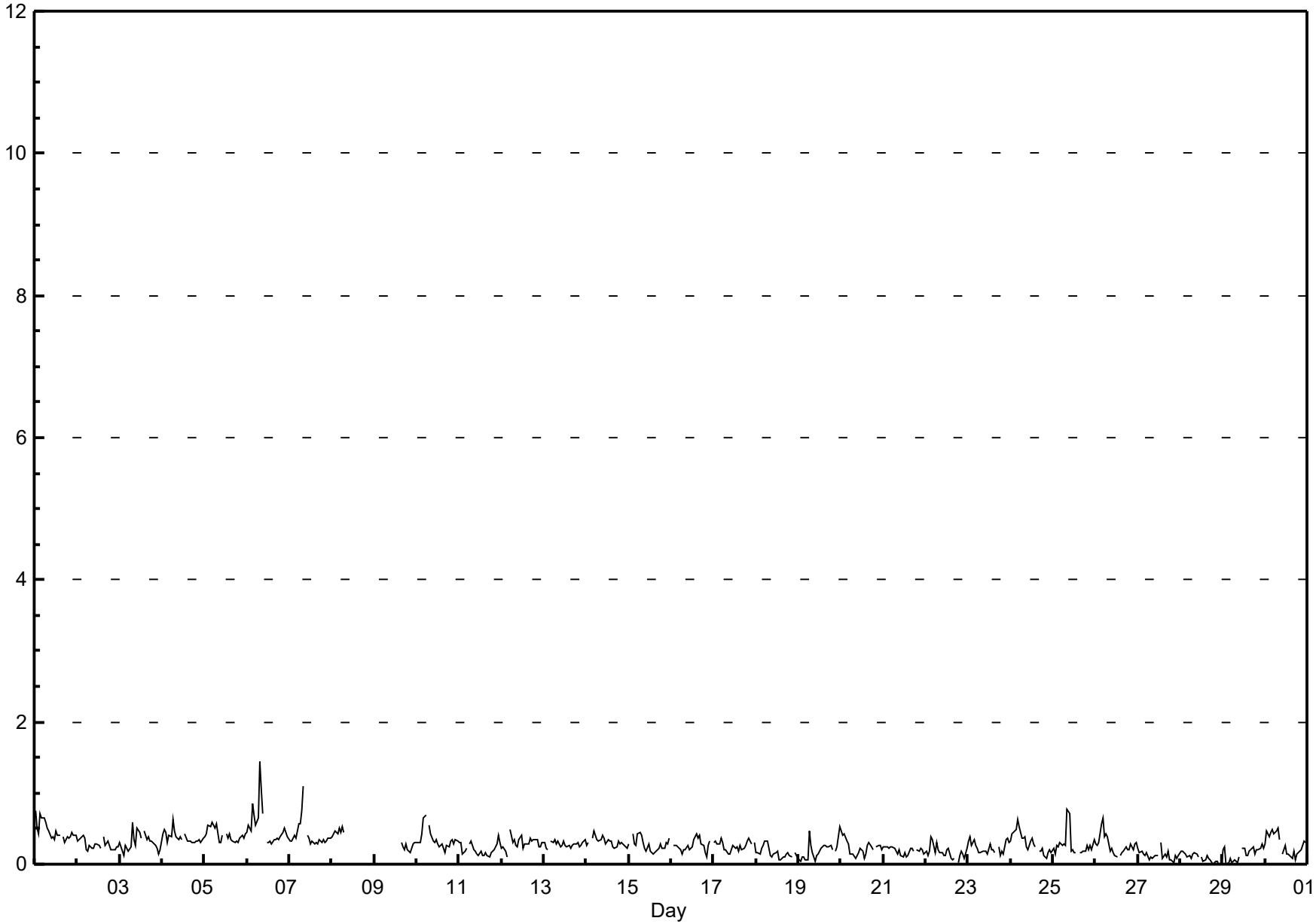
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - June 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - June 2017

Maximum Value: 2.7 ppb on Jun 6 08:00

Maximum Daily Average: 1.0 ppb on Jun 6

Minimum Value: 0 ppb on Jun 28 19:00

Maximum Diurnal Average: 0.8 ppb at hour 8

Monthly Average: 0.68 ppb

Minimum Daily Average: 0.5 ppb on Jun 28

Minimum Diurnal Average: 0.6 ppb at hour 15

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 0.9$ $P_{99} = 1.4$

Hours in Service:	720
Hours of Data:	660
Hours of Missing Data:	60
Hours of Calibration:	33
Percent Operational Time:	96.3

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	Daily Average	Daily Maximum
1-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	0.9	1.4
2-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	0.9
3-Jun	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.3
4-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	1.3
5-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	0.8	1.1
6-Jun	1	1	1	1	1	1	1	3	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.7
7-Jun	1	1	1	1	1	1	1	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.3
8-Jun	1	1	1	1	1	1	1	1	A	P	P	P	N	N	N	N	N	N	N	N	N	N	N	N	--	1.0
9-Jun	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	1	1	1	1	1	1	1	1	1	--	0.7
10-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	0.8	1.1
11-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	0.6	0.8
12-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	0.7	1.0
13-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
14-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	1.0
15-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	0.9
16-Jun	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	0.7	0.9
17-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.8
18-Jun	1	0	1	1	1	1	1	1	0	0	1	1	1	1	1	0	0	0	0	1	0	A	1	1	0.6	1.0
19-Jun	0	0	0	0	0	0	1	1	1	0	0	0	1	1	1	1	1	0	1	1	A	1	1	1	0.6	0.9
20-Jun	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0	1	1	1	1	A	1	1	1	0	0.6	1.0
21-Jun	1	1	1	1	1	1	1	1	0	1	1	0	1	0	0	1	1	1	A	1	1	1	1	1	0.6	0.7
22-Jun	0	1	1	1	1	0	1	1	1	1	0	0	1	1	0	0	0	A	0	1	1	1	1	1	0.6	0.9
23-Jun	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	A	1	0	1	1	1	1	1	0.6	0.9
24-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	1	0	0.7	0.9
25-Jun	1	0	1	1	1	1	1	1	1	2	0	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.7
26-Jun	1	1	1	1	1	1	1	1	1	1	0	1	0	A	0	1	0	1	1	1	1	1	1	1	0.7	1.0
27-Jun	1	1	1	1	0	1	1	1	0	0	1	1	A	1	1	1	1	1	0	1	0	1	1	0	0.5	0.7
28-Jun	0	1	1	1	0	1	1	1	1	1	0	A	1	0	0	0	1	1	0	0	0	0	0	0	0.5	0.6
29-Jun	1	1	0	0	0	0	0	0	0	0	A	1	1	0	0	1	1	1	0	1	1	1	1	1	0.5	1.0
30-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	1	0	1	0	1	1	1	1	0.7	0.9
	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	Diurnal Average	
	1.3	1.0	0.9	1.4	1.1	1.1	1.3	2.7	2.3	1.7	1.3	0.9	0.8	0.9	0.9	1.0	1.0	0.8	0.9	0.8	0.8	1.0	0.9	1.0	Diurnal Maximum	

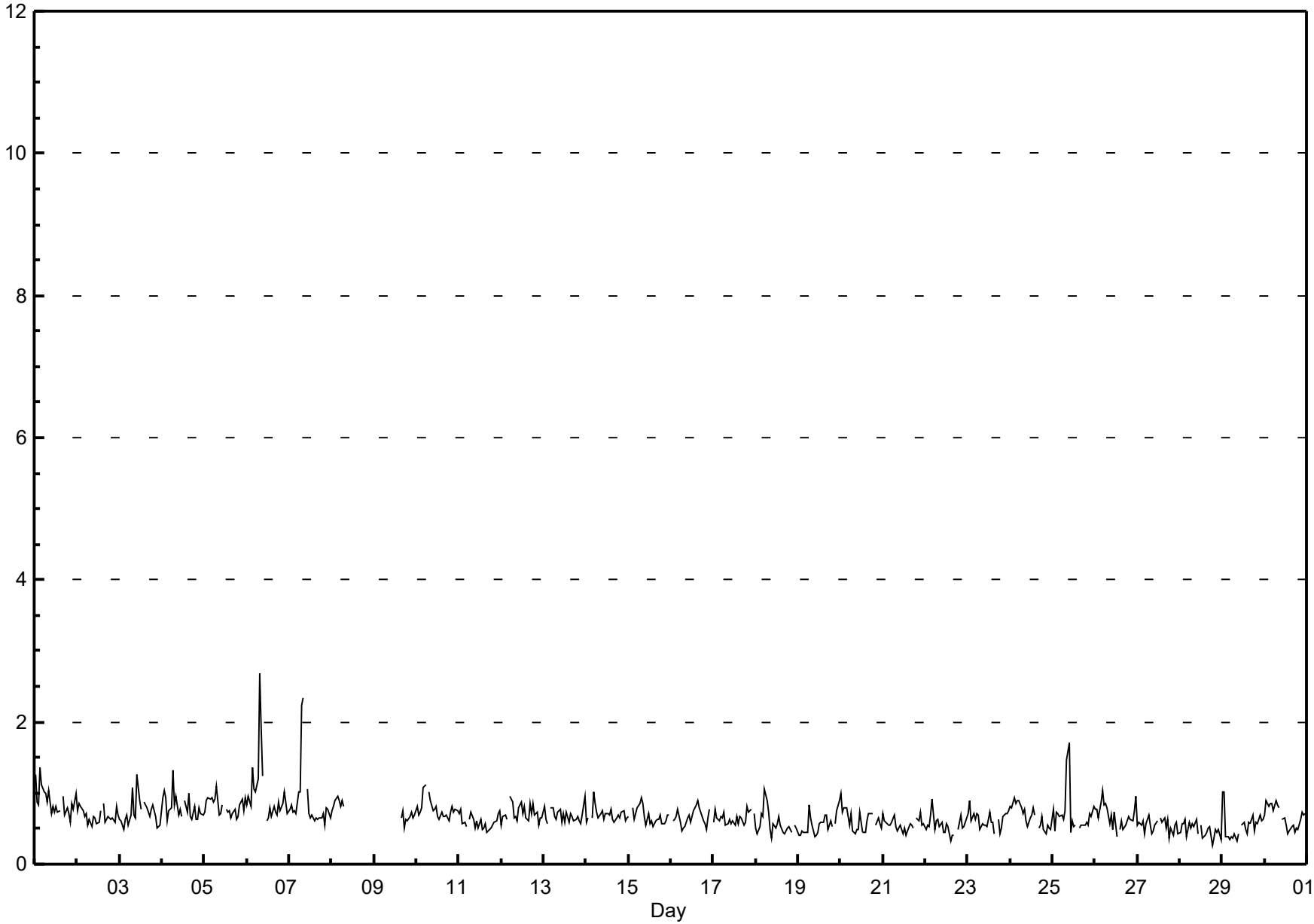
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

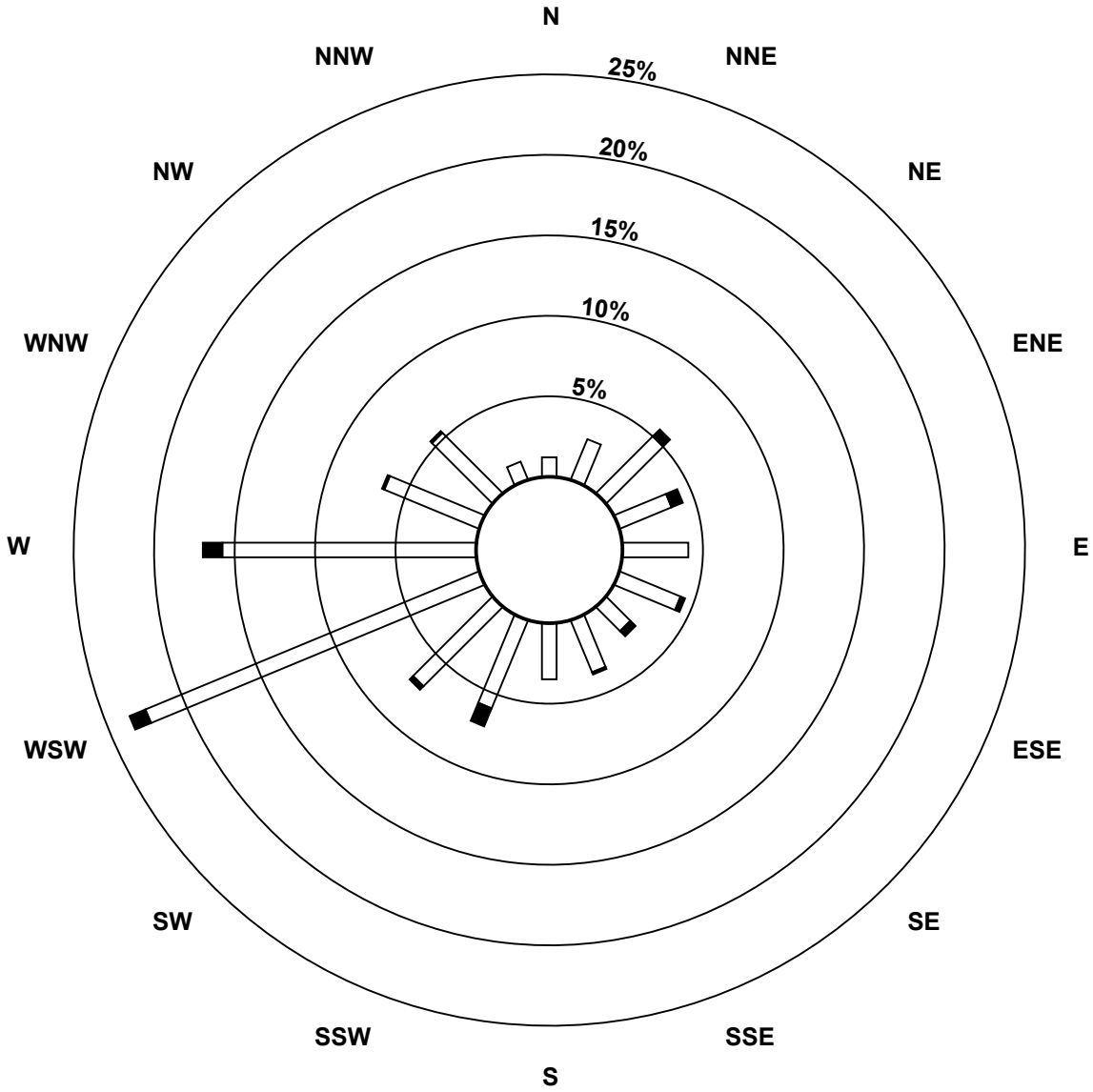
Evergreen Park - June 2017



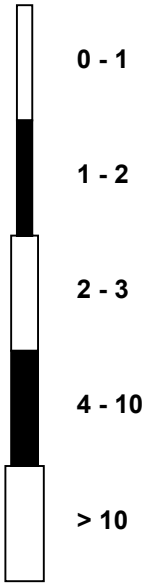
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - June 2017



Pollutant Classes (ppb)

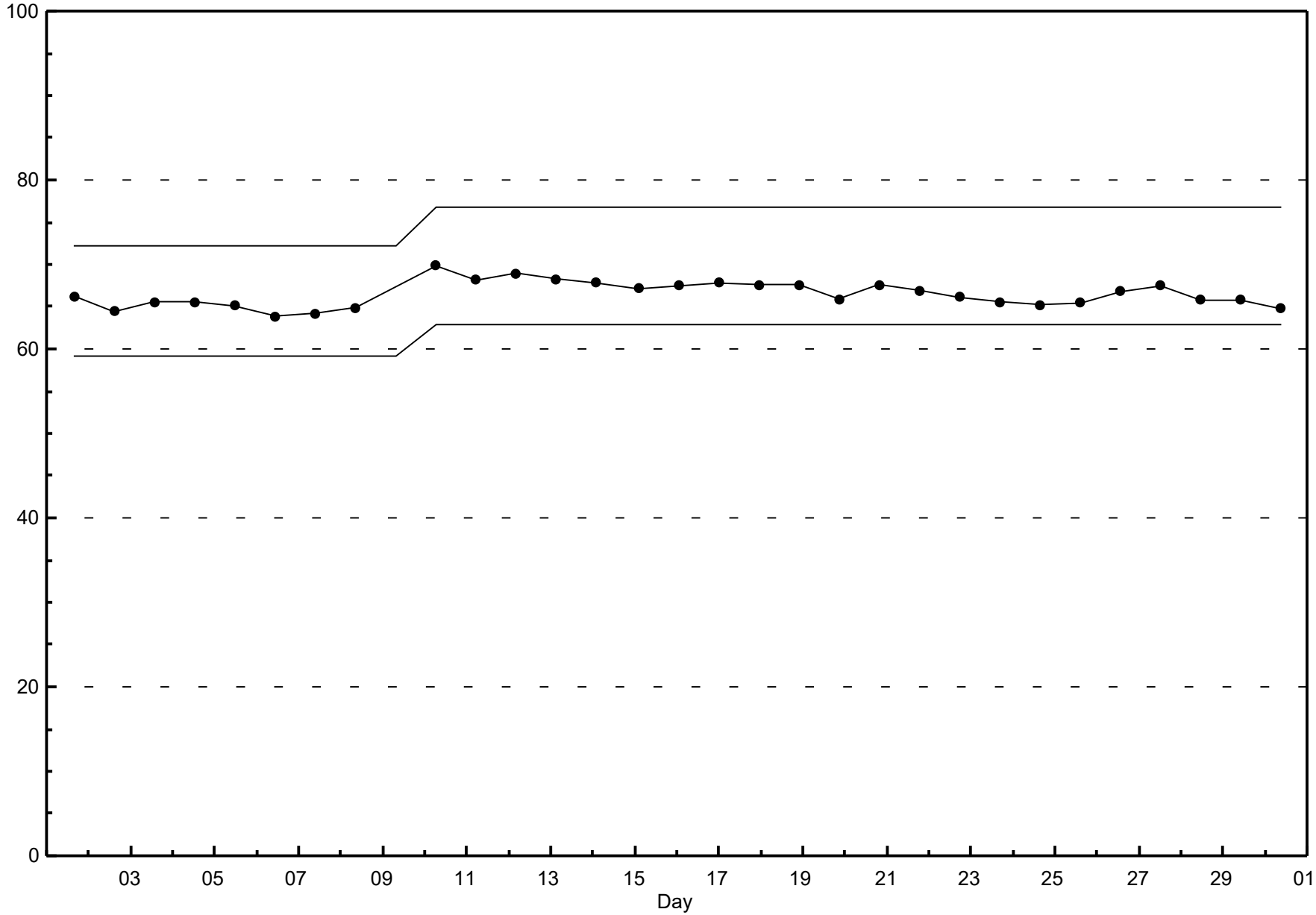


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Evergreen Park - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - June 2017

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 21.1 $\mu g/m^3$ on Jun 1 01:00

Maximum Daily Average: 5.8 $\mu g/m^3$ on Jun 8

Minimum Value: 0 $\mu g/m^3$ on Jun 1 15:00

Maximum Diurnal Average: 6.3 $\mu g/m^3$ at hour 8

Monthly Average: 3.28 $\mu g/m^3$

Minimum Daily Average: 0.9 $\mu g/m^3$ on Jun 11

Minimum Diurnal Average: 2.0 $\mu g/m^3$ at hour 13

Percentiles: P_1 = 0.0 P_{10} = 0.4 Q_1 = 1.3 Median = 2.8 Q_3 = 4.5 P_{90} = 6.8 P_{99} = 13.2

Hours in Service:	720
Hours of Data:	714
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

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	Daily Average	Daily Maximum
1-Jun	21	8	10	10	4	3	11	7	9	3	1	4	0	4	0	0	2	2	5	4	6	3	0	0	4.9	21.1
2-Jun	0	2	2	2	2	4	4	8	14	4	9	8	3	4	4	7	0	5	5	1	3	2	5	3	4.1	13.6
3-Jun	3	1	1	8	4	7	5	4	0	1	3	2	1	3	10	3	6	1	11	0	0	0	3	3	3.4	11.2
4-Jun	2	2	4	4	3	3	4	3	1	1	0	0	1	1	2	2	2	3	4	2	4	5	6	6	2.7	5.6
5-Jun	5	3	3	1	1	1	6	12	3	8	2	2	5	2	7	7	3	3	3	4	6	11	14	9	5.1	14.3
6-Jun	9	7	6	5	4	4	6	9	7	6	0	0	1	1	1	3	3	3	3	4	5	6	5	4	4.3	8.8
7-Jun	5	4	3	4	5	6	7	9	11	8	6	5	5	3	2	2	3	3	4	3	3	6	6	5	4.9	10.7
8-Jun	5	5	5	5	5	5	5	4	4	P	P	P	N	6	6	6	7	7	5	6	7	7	5	10	5.8	10.1
9-Jun	7	3	3	4	3	5	5	6	8	8	4	0	0	0	M	M	3	1	3	2	0	0	0	0	3.0	7.9
10-Jun	1	1	1	1	2	2	4	3	3	1	1	2	1	0	1	2	3	4	4	5	8	7	3	2	2.5	7.6
11-Jun	1	0	1	0	1	1	1	1	0	1	2	1	1	1	1	1	1	0	1	2	2	2	0	1	0.9	2.3
12-Jun	1	0	0	1	1	1	4	16	11	1	2	9	1	0	0	1	1	1	2	2	2	3	2	3	2.7	16.2
13-Jun	3	2	2	2	3	4	5	5	5	4	3	5	1	2	2	3	4	4	4	4	5	5	4	5	3.5	5.2
14-Jun	5	4	3	2	2	2	3	4	2	4	3	2	2	3	4	6	5	7	1	2	1	1	1	1	2.9	6.9
15-Jun	1	1	1	0	1	2	5	5	5	8	7	0	1	0	0	0	0	0	0	0	1	2	3	4	2.0	8.4
16-Jun	3	2	2	2	2	3	4	2	6	0	3	2	1	8	8	7	6	9	6	2	3	3	2	2	3.6	9.2
17-Jun	2	2	2	1	2	3	4	3	4	5	2	2	2	2	3	2	3	4	2	2	3	6	4	4	2.9	5.7
18-Jun	4	4	3	2	2	4	3	2	2	3	2	2	2	2	2	3	3	2	1	2	1	2	3	3	2.4	4.4
19-Jun	3	2	2	1	1	1	3	3	3	3	3	5	7	5	5	2	1	0	1	2	3	3	3	3	2.6	7.5
20-Jun	2	3	6	4	4	3	4	3	2	2	8	0	0	0	0	0	0	0	1	3	0	1	0	1	2.0	7.6
21-Jun	0	0	0	1	0	0	1	7	7	4	9	6	7	4	4	7	3	3	3	2	1	1	1	1	3.0	8.7
22-Jun	1	1	1	2	2	2	3	4	2	2	1	1	2	1	1	3	1	1	1	1	3	3	2	1	1.6	3.7
23-Jun	1	1	1	1	1	3	5	19	3	1	2	1	0	2	2	11	5	4	3	1	2	3	4	3	3.3	19.2
24-Jun	4	3	3	3	4	3	7	4	4	4	2	3	1	1	0	2	1	1	2	5	3	3	2	2	2.8	6.7
25-Jun	2	2	3	2	3	4	3	4	7	10	6	4	2	2	4	4	2	4	4	4	4	4	4	6	4.0	9.9
26-Jun	4	6	8	8	7	6	8	16	11	9	0	0	1	1	4	13	4	0	1	1	3	2	0	1	4.7	15.6
27-Jun	0	0	0	1	0	0	3	17	0	0	1	0	1	0	0	0	1	1	0	0	2	0	0	0	1.1	16.6
28-Jun	0	1	2	1	1	1	1	1	2	3	3	4	5	5	5	5	4	6	7	6	4	6	4	4	3.4	7.5
29-Jun	5	4	4	3	3	4	7	4	5	5	5	4	4	4	8	8	6	5	6	6	5	6	5	5	5.0	8.0
30-Jun	5	4	4	3	3	4	6	4	5	2	2	1	2	1	2	3	2	2	4	5	5	8	7	3	3.5	7.6
	3.4	2.7	2.8	2.8	2.5	3.1	4.5	6.3	4.9	3.8	3.2	2.7	2.0	2.2	3.0	3.9	2.8	2.8	3.2	2.8	3.1	3.7	3.3	3.2	Diurnal Average	
	21.1	8.1	9.5	10.4	7.5	7.1	10.7	19.2	13.6	9.9	9.5	8.9	7.5	7.6	9.7	13.2	7.5	9.2	11.2	6.4	7.6	11.5	14.3	10.1	Diurnal Maximum	

P - Power Failure M - Maintenance N - Not Valid

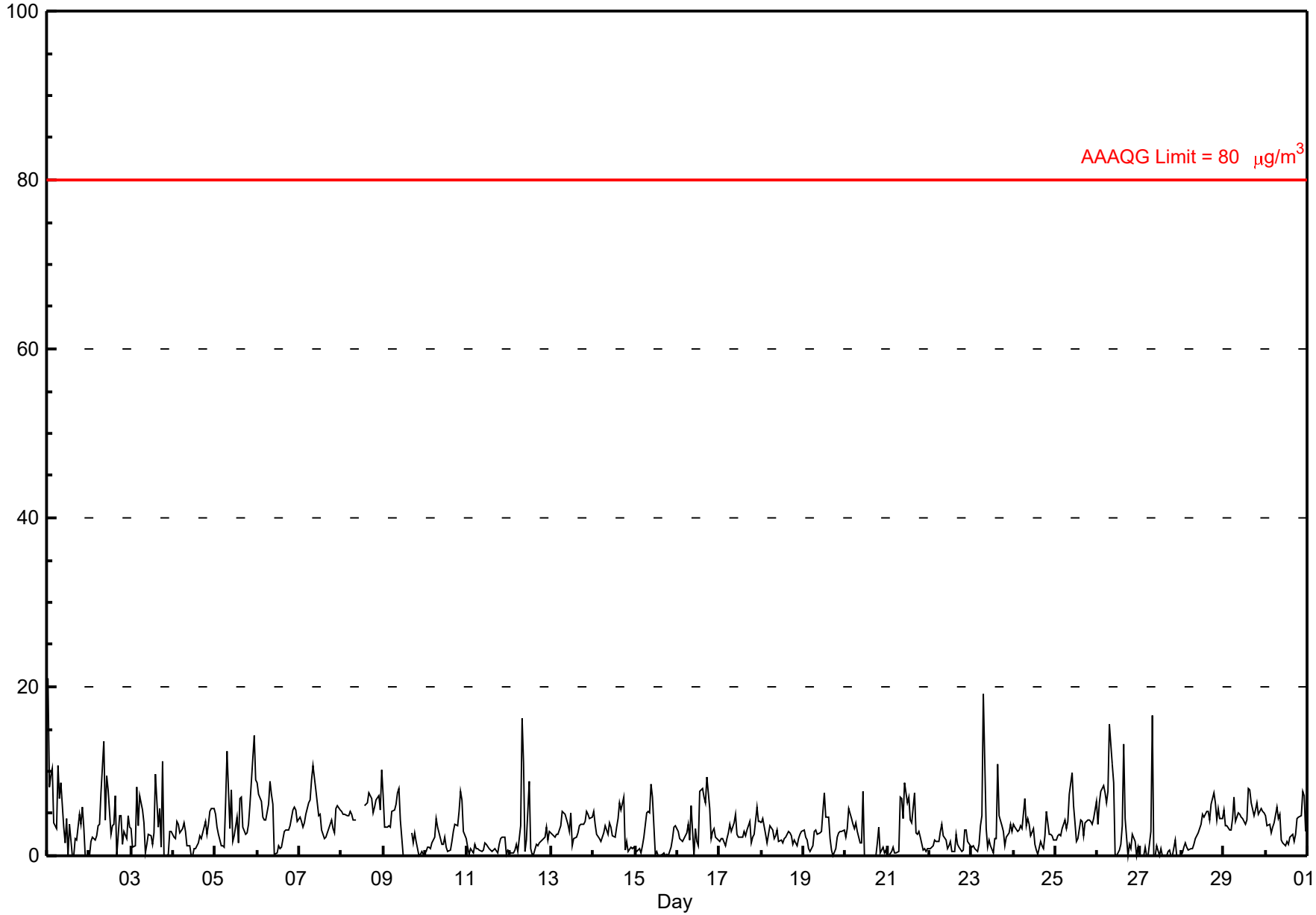
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - June 2017



Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - June 2017

Maximum Value: 47.4 $\mu g/m^3$ on Jun 3 19:00

Maximum Daily Average: 12.1 $\mu g/m^3$ on Jun 5

Minimum Value: 0 $\mu g/m^3$ on Jun 1 23:00

Minimum Daily Average: 3.5 $\mu g/m^3$ on Jun 11

Maximum Diurnal Average: 12.6 $\mu g/m^3$ at hour 8

Minimum Diurnal Average: 5.0 $\mu g/m^3$ at hour 3

Monthly Average: 6.90 $\mu g/m^3$

Percentiles: P_1 = 0.5 P_{10} = 2.4 Q_1 = 3.5 Median = 5.4 Q_3 = 8.1 P_{90} = 12.7 P_{99} = 29.8

Hours in Service:	720
Hours of Data:	714
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

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	Daily Average	Daily Maximum
1-Jun	36	10	14	18	6	11	21	17	20	5	3	21	4	18	1	1	7	3	12	8	13	7	0	1	10.7	35.7
2-Jun	1	4	4	4	5	6	7	17	26	9	17	27	5	8	15	25	2	20	23	4	7	4	11	6	10.9	26.8
3-Jun	7	4	4	12	7	11	11	6	3	3	5	5	4	5	22	31	11	11	47	2	1	1	5	5	9.3	47.4
4-Jun	4	5	9	6	5	6	7	5	4	3	3	1	3	2	4	5	4	4	9	6	7	7	11	8	5.3	10.8
5-Jun	7	5	4	3	3	3	18	27	9	17	12	26	15	13	13	17	14	4	5	7	10	25	24	10	12.1	27.4
6-Jun	10	9	8	7	7	6	9	10	10	11	2	3	4	3	3	6	6	6	6	7	8	10	7	6	6.9	10.6
7-Jun	6	5	5	6	7	8	9	13	15	11	8	7	8	6	5	5	6	7	7	5	4	7	8	7	7.3	14.9
8-Jun	6	6	6	6	7	7	6	6	7	P	P	P	N	8	9	10	12	9	8	7	8	8	9	19	8.3	18.6
9-Jun	13	6	5	5	7	7	8	11	11	13	21	1	0	1	M	M	5	6	8	5	2	3	2	2	6.4	20.6
10-Jun	3	3	3	3	5	4	12	10	5	5	3	5	3	2	2	3	4	5	5	10	14	10	5	5	5.3	13.5
11-Jun	3	3	3	3	4	3	3	3	3	4	5	3	4	3	3	4	3	4	3	5	4	4	3	3	3.5	5.4
12-Jun	3	2	3	4	4	4	7	29	42	2	4	28	9	2	2	3	3	4	3	3	4	5	3	5	7.4	41.8
13-Jun	4	4	4	4	5	7	12	10	6	6	5	14	9	4	5	4	7	6	5	6	8	7	6	6	6.5	14.0
14-Jun	8	7	5	4	4	4	5	7	5	9	6	5	4	6	7	11	10	15	3	4	2	3	3	4	5.8	15.2
15-Jun	3	4	3	4	3	5	9	13	27	25	19	3	3	1	2	1	2	1	1	1	2	3	8	6	6.3	27.2
16-Jun	5	6	4	3	3	5	8	4	13	4	16	16	7	18	14	11	9	18	12	4	4	5	5	4	8.1	18.1
17-Jun	3	3	4	4	4	6	8	6	6	10	5	4	4	4	5	5	8	7	3	5	4	12	6	6	5.5	12.1
18-Jun	7	9	4	3	5	6	5	4	4	5	3	4	3	4	4	4	4	5	3	3	2	5	6	5	4.5	8.9
19-Jun	8	7	4	2	3	4	6	4	6	5	5	8	9	8	7	5	3	2	2	5	4	5	5	5	5.0	9.2
20-Jun	3	5	7	7	7	6	7	5	5	16	28	0	3	2	1	8	2	2	7	8	1	2	2	2	5.8	28.3
21-Jun	1	1	2	3	3	2	4	20	11	6	16	15	12	8	6	14	5	5	5	4	3	3	2	2	6.4	19.8
22-Jun	2	2	3	4	3	3	5	9	4	4	4	3	3	4	4	4	5	3	3	3	5	5	3	2	3.8	9.3
23-Jun	2	3	3	2	3	8	9	32	19	3	3	3	3	4	9	17	8	9	4	2	4	5	5	4	6.9	31.8
24-Jun	6	6	5	6	6	5	10	6	7	6	4	10	4	3	2	4	4	3	7	7	4	4	5	3	5.4	10.3
25-Jun	4	4	5	4	6	6	5	6	13	13	13	6	4	4	7	8	4	6	7	6	6	5	6	22	7.1	22.0
26-Jun	7	11	13	13	10	11	11	38	19	13	8	1	4	5	7	25	18	5	6	6	8	5	3	5	10.4	37.9
27-Jun	1	1	0	3	2	1	14	39	1	1	2	3	2	2	2	1	2	2	0	1	7	2	1	1	3.9	39.1
28-Jun	2	3	3	3	3	3	2	3	4	5	6	6	7	8	9	10	7	9	13	9	6	7	6	6	5.8	12.7
29-Jun	7	5	6	6	5	6	11	7	7	9	8	8	8	8	13	12	11	9	10	9	7	8	10	11	8.4	13.5
30-Jun	7	5	6	4	5	7	10	13	8	5	5	5	6	6	8	7	6	10	11	10	10	17	17	10	8.3	17.4
	6.0	5.0	5.0	5.2	5.0	5.8	8.6	12.6	10.7	7.9	8.3	8.3	5.3	5.7	6.6	9.0	6.4	6.7	7.9	5.4	5.7	6.5	6.3	6.0	Diurnal Average	
	35.7	10.8	14.4	17.8	9.8	11.3	20.5	39.1	41.8	25.5	28.3	28.1	14.7	18.3	22.3	30.6	17.6	19.9	47.4	9.8	13.5	24.7	24.4	22.0	Diurnal Maximum	

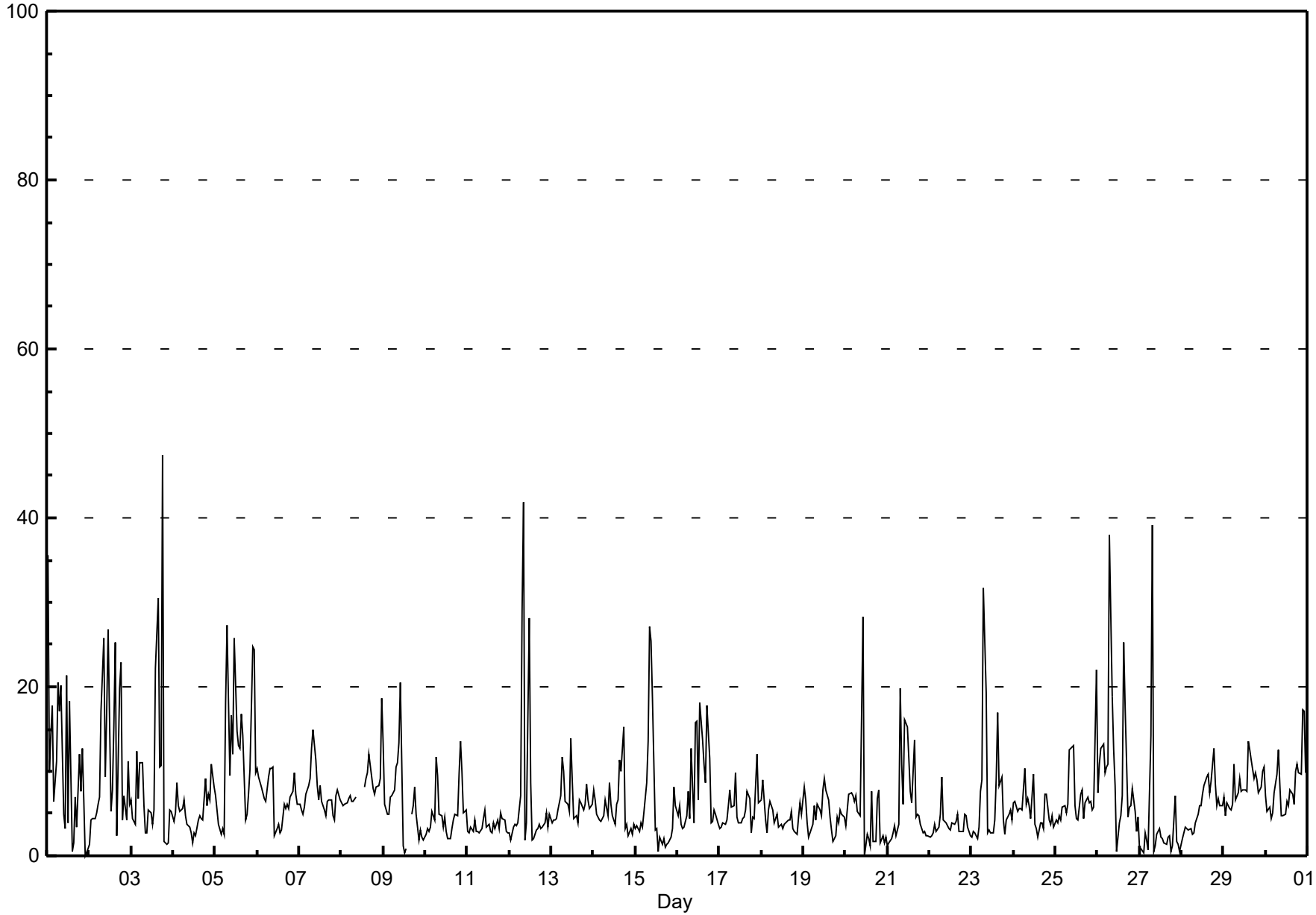
P - Power Failure M - Maintenance N - Not Valid

Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - June 2017

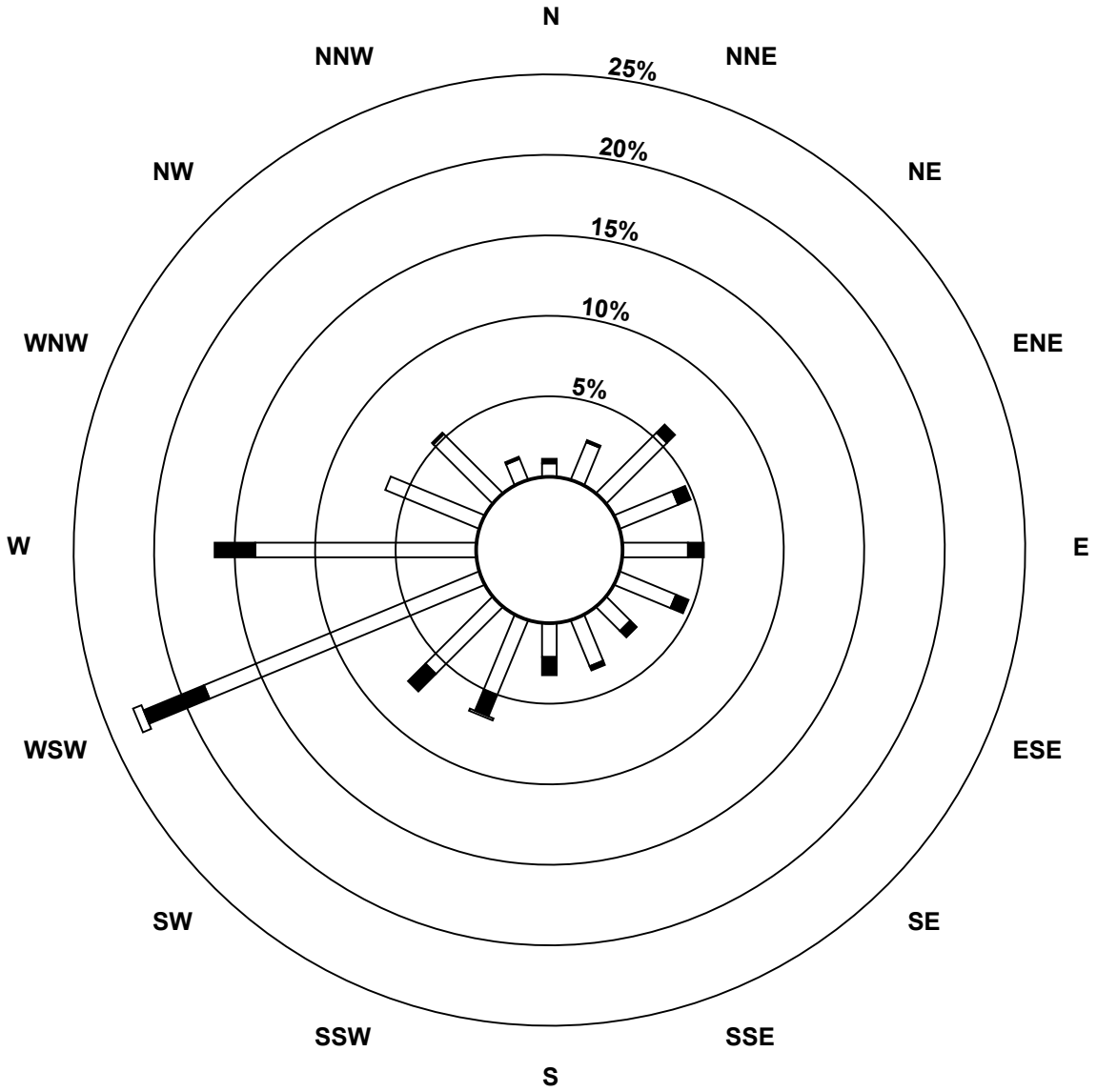


Peace Airshed Zone Association

Pollutant Rose

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

Evergreen Park - June 2017



Pollutant Classes ($\mu g/m^3$)

- 0 - 5
- 6 - 15
- 16 - 25
- 26 - 80
- > 80.0

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Evergreen Park - June 2017

Maximum Value: 28.2 °C on Jun 25 18:00

Maximum Daily Average: 20.9 °C on Jun 25

Minimum Value: 2 °C on Jun 19 05:00

Minimum Daily Average: 8.7 °C on Jun 11

Maximum Diurnal Average: 19.9 °C at hour 17

Minimum Diurnal Average: 8.7 °C at hour 5

Monthly Average: 15.04 °C

Percentiles: P_1 = 4.0 P_{10} = 8.0 Q_1 = 11.0 Median = 14.8 Q_3 = 18.8 P_{90} = 22.5 P_{99} = 27.7

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

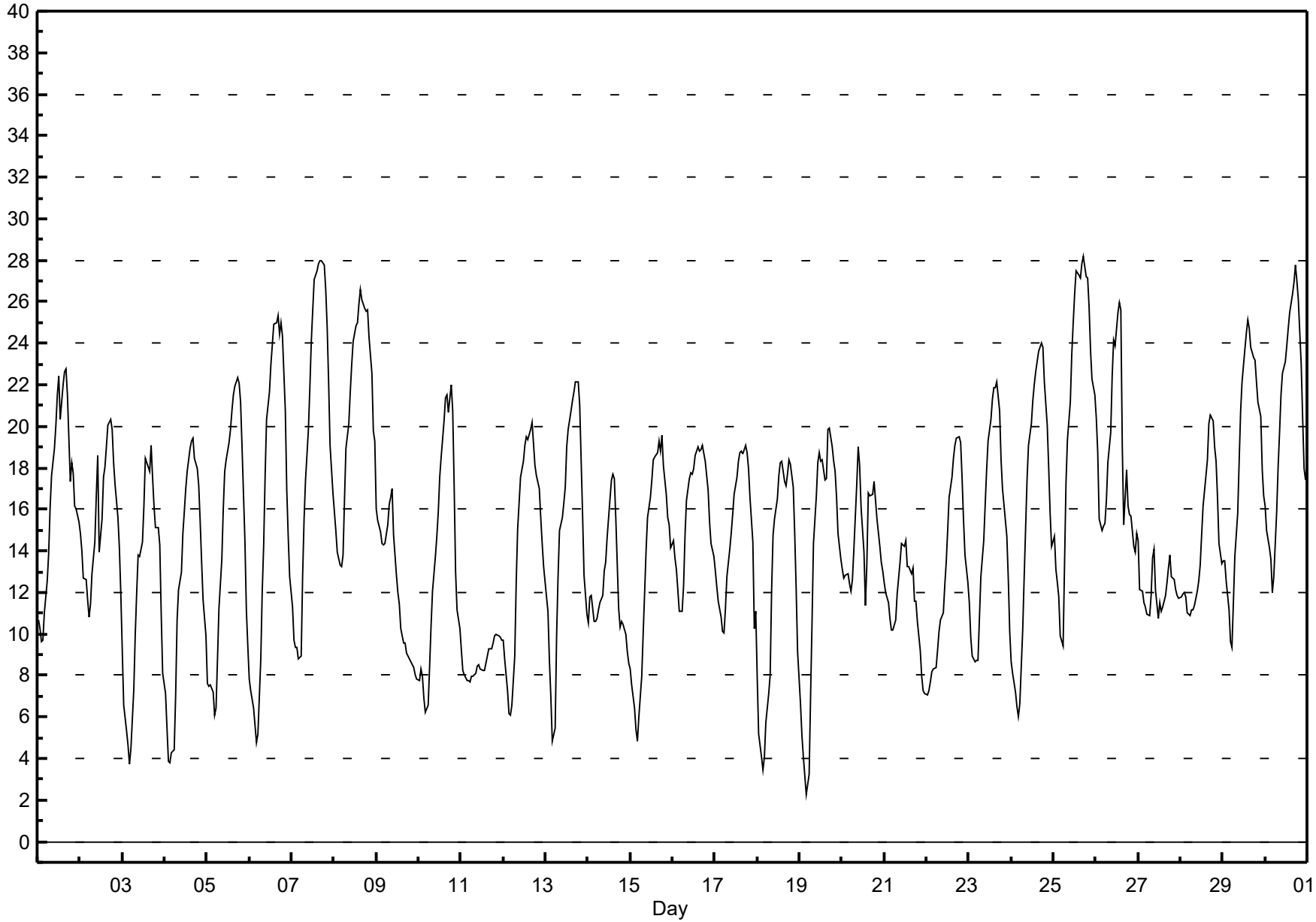
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	11	10	10	10	11	13	14	16	18	19	20	21	22	20	22	23	23	22	17	18	18	16	16	15	16.8	22.7
2-Jun	15	14	13	13	12	11	11	13	14	17	19	14	16	18	18	19	20	20	20	18	17	16	14	12	15.5	20.3
3-Jun	9	7	5	5	4	5	7	10	12	14	14	14	16	18	18	18	19	18	16	15	15	14	11	8	12.2	19.1
4-Jun	7	5	4	4	4	4	7	11	12	13	15	16	17	18	19	19	19	18	18	17	15	13	12	10	12.5	19.4
5-Jun	8	7	8	7	6	6	9	11	14	16	18	18	19	20	21	21	22	22	22	21	19	15	11	9	14.6	22.3
6-Jun	8	7	6	6	5	5	9	12	14	18	20	22	23	24	25	25	25	24	25	24	21	17	15	13	16.4	25.3
7-Jun	11	10	9	9	9	9	13	16	17	20	22	24	26	27	27	28	28	28	28	27	25	22	19	17	19.6	28.0
8-Jun	16	15	14	13	13	14	16	19	20	22	23	24	25	25	26	27	26	26	26	26	24	23	20	19	20.9	26.6
9-Jun	16	15	15	14	14	14	15	16	17	17	15	13	12	11	10	10	10	9	9	9	9	8	8	8	12.3	17.0
10-Jun	8	8	8	7	6	7	8	10	12	14	15	16	18	19	20	21	22	21	22	21	17	13	11	10	13.9	22.0
11-Jun	9	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	10	10	10	10	10	10	8.7	10.0
12-Jun	10	9	7	6	6	7	9	13	15	16	18	18	19	19	19	20	20	19	18	18	17	16	14	13	14.4	20.2
13-Jun	12	11	9	7	5	5	10	13	15	16	16	17	19	20	21	21	22	22	22	21	18	16	13	11	15.1	22.1
14-Jun	11	12	12	11	11	11	11	11	12	13	13	15	17	17	18	17	16	11	10	11	10	10	9	9	12.4	17.7
15-Jun	8	8	6	5	5	6	8	10	12	14	16	17	17	18	19	19	19	19	20	18	17	16	15	14	13.6	19.5
16-Jun	14	14	13	12	11	11	12	15	16	17	18	18	18	19	19	19	19	19	18	18	17	15	14	14	15.9	19.1
17-Jun	13	12	12	11	10	10	11	13	14	15	16	17	18	18	19	19	19	19	19	18	17	14	10	11	14.7	19.1
18-Jun	8	5	4	3	4	6	7	8	12	15	16	16	18	18	18	17	17	18	18	18	17	15	12	9	12.5	18.4
19-Jun	7	5	4	3	2	3	7	11	14	17	18	19	18	18	17	18	20	20	19	18	18	17	15	14	13.4	19.9
20-Jun	13	13	13	13	12	12	13	14	17	19	18	16	14	11	13	17	17	17	17	16	16	14	13	13	14.7	19.0
21-Jun	12	12	11	11	10	10	11	12	13	13	14	14	15	13	13	13	13	12	12	11	9	8	7	7	11.5	14.5
22-Jun	7	7	8	8	8	8	9	10	11	11	12	13	15	17	18	18	19	19	19	19	17	15	14	12	13.2	19.5
23-Jun	11	10	9	9	9	9	11	13	14	16	18	19	20	21	22	22	22	21	18	17	16	15	13	10	15.2	22.2
24-Jun	9	8	7	6	6	7	10	13	15	17	19	20	21	22	23	24	24	24	24	22	20	18	16	14	16.2	24.0
25-Jun	15	13	12	12	10	9	13	17	19	21	23	25	26	27	27	27	28	28	27	27	26	24	22	22	20.9	28.2
26-Jun	20	19	16	15	15	15	16	18	20	22	24	24	25	26	26	19	15	18	16	16	16	14	14	15	18.5	26.0
27-Jun	15	12	12	11	11	11	11	12	14	14	12	11	11	11	11	12	12	13	14	13	13	12	12	12	12.2	14.5
28-Jun	12	12	12	12	11	11	11	11	11	12	13	13	15	16	18	18	20	21	20	19	18	17	14	13	14.6	20.5
29-Jun	13	14	13	11	10	9	12	14	16	18	21	22	24	24	25	25	24	23	23	22	21	20	18	17	18.3	25.2
30-Jun	16	15	14	14	12	13	16	18	20	22	23	23	24	25	25	26	27	28	27	26	23	20	18	17	20.5	27.8
	11.5	10.6	9.8	9.2	8.7	9.0	10.9	12.9	14.6	16.2	17.2	17.6	18.5	19.0	19.5	19.7	19.9	19.6	19.2	18.5	17.2	15.4	13.7	12.6	Diurnal Average	
	20.4	18.7	15.5	15.0	15.2	15.3	16.5	19.0	20.1	22.4	24.1	25.0	26.4	27.5	27.5	27.9	28.0	28.2	27.8	27.2	25.7	23.7	22.3	21.5	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - June 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - June 2017

Maximum Value: 99.5 % on Jun 15 06:00

Maximum Daily Average: 93.8 % on Jun 11

Minimum Value: 20 % on Jun 5 18:00

Minimum Daily Average: 34.1 % on Jun 17

Maximum Diurnal Average: 85.4 % at hour 5

Minimum Diurnal Average: 42.7 % at hour 17

Monthly Average: 60.91 %

Percentiles: P_1 = 21.5 P_{10} = 30.3 Q_1 = 40.2 Median = 60.4 Q_3 = 83.3 P_{90} = 93.4 P_{99} = 98.6

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

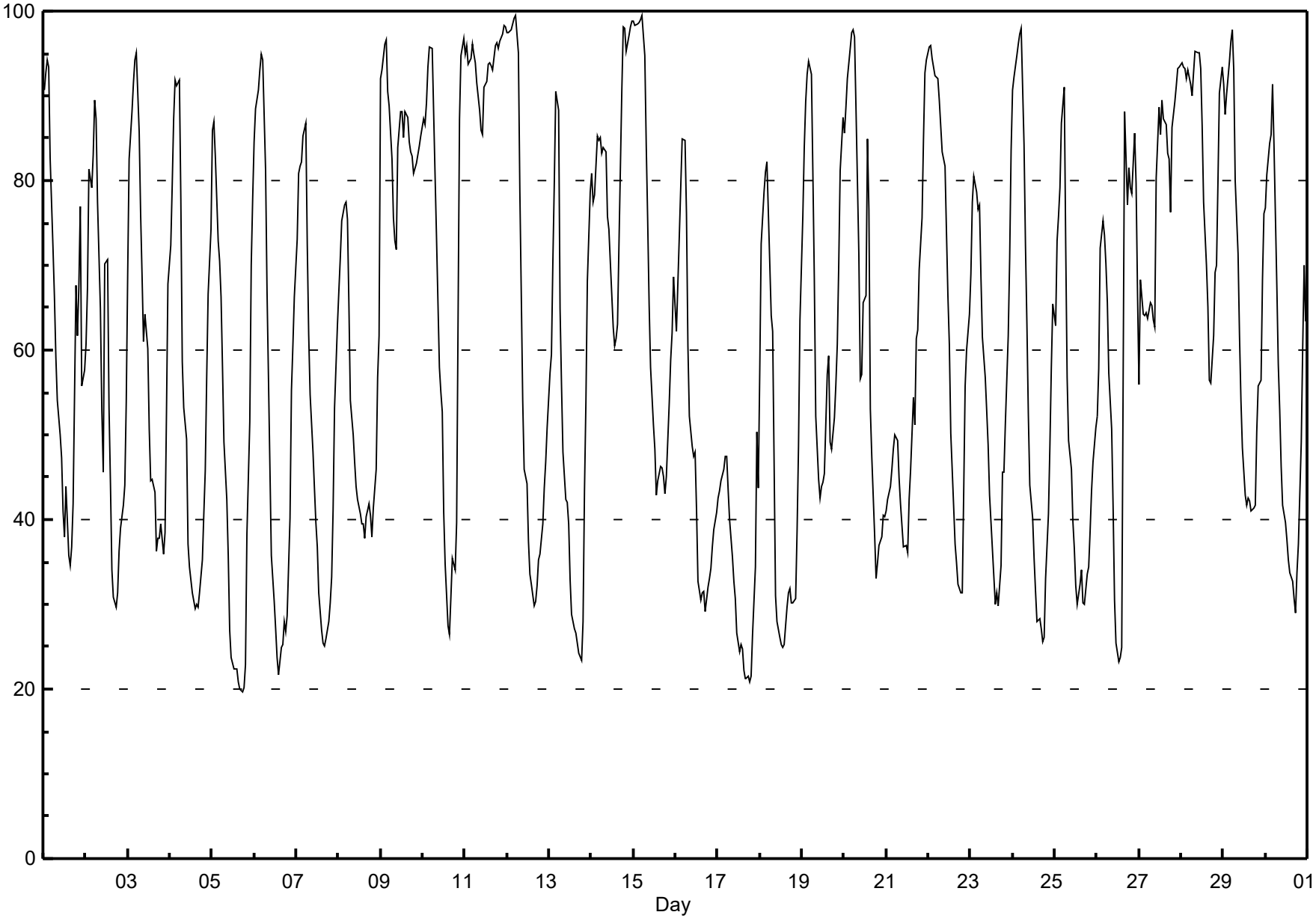
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jun	91	93	94	93	83	72	66	59	54	50	47	41	38	44	36	35	37	42	68	62	68	77	56	58	60.9	94.2
2-Jun	61	67	81	79	83	89	87	77	65	53	46	70	71	53	44	34	31	30	31	36	39	42	44	54	57.0	89.5
3-Jun	69	83	88	92	94	95	86	76	69	61	64	60	51	45	45	43	36	38	38	40	36	38	53	68	61.1	95.1
4-Jun	72	79	87	92	91	92	78	59	53	50	37	34	33	31	29	30	30	31	35	41	46	57	67	74	55.4	91.8
5-Jun	86	87	83	73	71	66	58	49	42	36	27	24	22	22	22	21	20	20	20	23	38	52	70	78	46.2	86.9
6-Jun	85	88	91	93	95	94	81	67	57	46	36	30	27	24	22	25	25	28	27	29	40	55	60	66	53.8	94.9
7-Jun	73	81	82	82	85	87	73	62	55	48	44	40	37	31	27	25	25	26	28	30	33	41	53	63	51.3	86.8
8-Jun	67	71	75	77	77	75	65	54	50	47	44	42	41	40	39	38	40	42	41	38	41	46	57	62	52.9	77.5
9-Jun	92	93	96	97	91	89	83	76	73	72	84	88	88	85	88	87	85	83	83	81	82	83	84	85	85.3	96.7
10-Jun	87	87	89	93	96	96	88	81	73	58	55	53	41	35	27	27	31	35	34	40	64	87	95	97	65.3	96.7
11-Jun	95	96	94	94	96	95	94	92	88	86	85	91	92	94	94	94	93	96	96	96	96	97	98	98	93.8	98.2
12-Jun	97	98	98	98	99	99	95	79	67	54	46	44	37	34	32	30	30	32	35	36	40	44	47	51	59.3	99.5
13-Jun	57	59	70	80	91	88	65	56	48	42	42	40	33	29	27	27	25	24	23	28	43	54	68	79	50.0	90.6
14-Jun	81	78	78	85	85	85	83	84	83	76	74	70	63	61	61	63	72	91	98	98	95	97	98	99	81.6	98.8
15-Jun	99	98	99	99	99	100	95	84	75	65	58	51	48	43	45	46	46	45	43	45	54	59	62	69	67.8	99.5
16-Jun	62	68	73	79	85	85	76	61	52	49	47	48	41	33	30	31	32	29	32	33	34	37	39	41	49.9	85.0
17-Jun	42	43	45	46	47	47	44	40	36	33	31	27	24	25	25	22	21	22	21	21	26	34	50	44	34.1	50.3
18-Jun	57	73	79	81	82	76	64	62	47	31	28	26	25	25	25	30	31	32	30	30	31	39	49	64	46.5	82.3
19-Jun	76	84	89	93	94	93	81	68	52	45	43	44	44	45	57	59	49	48	52	56	61	70	81	88	65.5	94.0
20-Jun	86	89	92	96	98	98	97	89	71	57	57	66	66	85	77	53	48	38	33	35	37	38	41	40	66.0	97.8
21-Jun	41	42	44	46	48	50	49	45	42	39	37	37	36	42	46	54	51	61	62	70	76	85	93	94	53.8	94.2
22-Jun	96	96	94	93	92	92	90	86	83	82	74	66	61	50	42	37	35	32	31	31	43	56	60	64	66.1	95.9
23-Jun	69	77	81	79	77	77	69	61	57	53	49	43	36	33	30	31	30	35	46	46	51	62	71	84	56.0	83.5
24-Jun	91	92	95	96	97	98	84	72	63	52	44	40	35	32	28	28	27	26	26	33	41	49	58	65	57.2	98.0
25-Jun	63	73	76	79	87	91	73	57	49	46	40	37	32	30	32	34	30	30	34	34	39	43	47	51	50.2	91.0
26-Jun	52	58	72	75	73	70	66	57	51	42	30	25	23	24	25	57	88	77	81	79	79	86	80	67	59.9	88.1
27-Jun	56	68	64	64	64	64	66	65	64	63	80	89	85	89	87	87	83	83	76	86	89	91	93	93	77.1	93.5
28-Jun	94	93	93	92	93	91	90	93	95	95	95	93	86	77	70	65	56	56	62	69	70	80	90	93	83.1	95.2
29-Jun	91	88	90	94	96	98	93	80	71	62	54	48	43	42	43	42	41	41	42	50	56	56	68	76	65.3	97.9
30-Jun	77	81	84	85	91	84	67	58	53	46	42	40	38	35	34	33	31	29	34	37	49	60	70	63	55.1	91.3
	75.5	79.4	82.6	84.2	85.4	84.6	76.8	68.3	61.3	54.6	51.3	50.3	46.7	44.6	43.0	42.9	42.7	43.4	45.4	47.7	53.2	60.5	66.7	70.9	Diurnal Average	
	98.8	98.3	98.6	98.7	99.1	99.5	97.0	92.7	95.2	95.2	95.1	93.1	91.8	93.7	93.9	93.6	93.0	95.9	98.2	98.0	96.4	97.4	98.2	98.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	3	1	0	4	5	8	8	9	9	12	11	12	13	29	12	12	9	9	17	9	5	10	17	12	8.2	29.3
Dir	202	218	334	243	246	272	258	260	240	237	263	259	261	306	308	307	306	326	247	277	183	208	243	238	265.5	306.0
2 Spd	9	9	1	4	3	0	1	3	10	17	21	19	11	25	27	31	27	27	33	24	15	14	11	6	13.0	32.8
Dir	221	187	265	143	148	272	153	182	222	242	239	262	294	294	271	264	262	256	243	257	249	236	225	225	251.8	243.5
3 Spd	2	1	1	2	1	1	2	3	5	11	6	9	8	9	19	10	13	23	18	12	14	8	5	2	3.5	23.4
Dir	189	56	63	175	34	188	39	64	69	122	128	140	129	119	254	257	247	276	260	272	251	264	205	322	238.7	276.1
4 Spd	2	2	3	3	1	2	5	7	7	4	7	8	6	11	6	7	11	8	15	21	9	3	3	1	4.6	20.6
Dir	274	328	181	209	82	182	209	246	279	254	301	336	335	313	279	228	287	252	232	233	228	248	161	169	257.9	232.6
5 Spd	2	3	5	8	8	7	9	14	17	20	20	23	20	13	14	13	12	10	6	6	0	1	1	0	9.4	22.6
Dir	212	243	276	261	297	304	266	249	257	260	275	281	269	268	267	253	261	262	284	287	349	197	229	5	267.3	281.1
6 Spd	0	1	1	0	0	0	0	3	4	4	8	11	7	7	8	9	7	9	10	7	3	3	4	4	3.3	11.2
Dir	220	195	175	162	202	52	59	201	193	78	74	119	123	145	122	105	64	44	46	49	33	40	54	55	87.5	118.7
7 Spd	1	2	4	4	2	0	1	6	5	8	11	16	15	12	14	14	13	13	12	10	10	8	4	5	7.3	16.4
Dir	32	53	56	61	199	227	55	133	110	121	109	83	93	75	87	75	68	59	76	66	63	59	49	49	78.9	82.7
8 Spd	5	3	5	5	5	4	7	13	16	P	P	18	17	16	14	18	17	16	15	17	14	8	3	6	10.4	18.4
Dir	51	53	48	52	51	57	72	86	91	P	P	99	103	108	97	100	77	76	78	79	82	96	59	139	86.2	98.5
9 Spd	2	6	5	5	7	5	7	5	2	5	23	24	29	30	29	38	37	38	26	27	26	21	18	14	14.3	38.0
Dir	97	42	33	41	43	38	37	56	100	223	242	242	243	240	247	246	248	252	235	232	240	251	247	263	246.2	252.1
10 Spd	11	8	8	8	7	8	8	10	13	13	14	14	12	8	12	12	13	9	6	12	19	14	12	8	8.7	19.0
Dir	254	260	261	248	247	252	258	244	244	291	293	275	297	287	278	279	265	280	270	263	267	18	23	18	277.3	266.7
11 Spd	14	10	6	3	1	3	3	6	6	6	4	6	8	8	5	5	4	4	4	3	3	3	4	3	3.1	13.9
Dir	12	13	3	27	72	119	157	159	162	160	113	91	102	108	122	128	145	151	135	146	136	104	114	119	103.9	12.3
12 Spd	5	2	0	3	3	5	1	13	18	22	25	22	21	20	24	21	21	22	17	15	13	9	12	12	12.0	25.3
Dir	131	152	194	200	223	177	193	247	254	253	254	258	281	282	302	282	302	295	287	279	274	274	284	251	272.0	254.3
13 Spd	10	7	5	0	1	3	6	9	15	21	13	11	7	13	10	14	9	8	8	4	9	5	1	1	6.4	20.9
Dir	238	236	277	233	205	215	269	251	261	260	266	254	257	242	255	272	267	237	313	112	148	148	82	22	252.3	260.2
14 Spd	3	3	2	3	5	4	2	3	2	5	6	4	5	8	10	13	12	15	10	7	4	6	1	4	2.4	14.6
Dir	29	41	70	39	45	34	52	283	30	304	31	69	52	41	60	35	76	249	318	334	279	205	202	234	19.4	249.3
15 Spd	4	4	4	2	3	5	6	10	4	4	1	7	4	9	9	10	11	14	15	12	5	8	1	4	2.3	15.3
Dir	273	285	216	195	204	260	263	234	266	265	151	161	103	115	96	73	84	82	77	82	52	55	142	214	103.6	76.9
16 Spd	14	9	6	3	2	5	6	7	10	17	16	17	23	34	34	32	34	35	37	32	25	21	25	25	19.0	37.5
Dir	237	271	247	203	194	207	222	224	246	254	251	275	265	264	260	259	249	252	243	246	244	236	237	238	249.4	243.5
17 Spd	22	18	18	22	20	22	25	28	29	29	30	29	27	23	27	26	24	22	22	20	14	9	5	8	21.2	30.4
Dir	238	244	242	239	242	240	240	237	242	255	254	259	263	254	254	256	263	252	269	269	261	233	218	234	250.2	253.9
18 Spd	4	1	2	2	3	4	9	8	20	30	31	27	26	25	25	20	20	19	22	25	22	12	1	1	12.5	30.6
Dir	193	157	190	173	169	257	273	258	247	254	258	256	259	256	293	307	308	300	317	320	326	341	194	199	280.2	258.3
19 Spd	0	2	4	1	1	2	3	3	8	9	9	9	13	15	14	9	5	0	5	4	3	4	2	2	1.4	14.6
Dir	167	49	192	33	88	36	84	91	99	111	136	205	235	279	285	295	263	59	162	161	138	153	120	64	202.0	279.1
20 Spd	3	0	3	1	5	1	3	3	6	18	22	25	32	16	15	22	25	32	41	38	33	30	34	34	17.7	41.1
Dir	96	269	215	249	164	155	187	202	198	240	247	260	249	219	211	232	236	240	241	242	241	241	241	242	238.4	241.4
21 Spd	30	30	37	33	31	33	35	44	46	46	43	35	38	29	35	30	32	21	18	20	24	20	17	18	29.9	46.1
Dir	245	243	241	240	237	236	238	242	244	243	248	251	256	279	276	264	269	284	263	284	286	281	271	269	254.6	243.9
22 Spd	16	14	12	12	12	10	10	11	12	15	14	17	11	15	19	19	18	14	15	10	12	8	11	9	12.5	19.4
Dir	274	268	272	273	252	259	269	270	284	287	293	312	278	289	298	307	302	285	272	289	267	251	243	243	279.9	306.5

Peace Airshed Zone Association

Hourly Averages

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

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	Daily Average	Daily Maximum
23 Spd	9	5	6	5	8	5	11	15	17	15	15	16	15	16	12	24	20	12	15	11	3	5	5	1	8.9	24.5
Dir	258	273	258	263	248	261	258	250	249	258	246	252	255	232	286	242	259	325	10	13	300	263	216	12	262.8	241.7
24 Spd	3	2	1	1	5	3	8	9	7	5	6	6	5	10	8	3	2	3	5	7	5	4	1	2	1.8	9.6
Dir	224	285	305	240	202	206	269	267	240	246	272	257	265	320	312	245	163	175	100	110	75	76	84	99	255.3	320.1
25 Spd	3	3	3	2	0	2	3	3	7	10	13	13	15	16	18	16	19	19	15	14	12	11	10	2	9.2	19.4
Dir	91	46	47	52	1	15	36	95	125	118	109	108	98	110	99	96	106	109	102	101	100	100	110	173	102.1	105.7
26 Spd	4	3	3	3	8	11	9	10	11	10	13	17	6	7	5	17	3	8	6	11	5	4	12	15	4.8	17.3
Dir	125	130	314	269	264	255	264	253	256	243	285	318	322	328	270	207	26	83	155	181	217	150	208	245	248.1	207.4
27 Spd	31	20	15	12	19	23	23	24	25	26	20	25	32	29	31	32	35	28	26	26	18	22	30	32	24.5	35.2
Dir	225	228	230	223	236	238	237	239	244	267	276	251	249	237	236	238	248	250	255	238	272	270	251	251	245.5	248.4
28 Spd	26	24	19	18	16	15	13	12	15	21	19	14	13	14	13	8	0	9	14	14	12	8	4	6	9.6	25.7
Dir	265	287	302	325	321	312	308	286	299	316	318	322	325	357	339	3	284	200	210	207	210	204	202	203	294.5	264.6
29 Spd	9	10	5	2	3	2	5	6	7	11	13	11	15	16	14	18	22	18	12	13	10	7	1	3	9.1	22.4
Dir	231	238	250	266	188	185	188	189	198	211	235	214	225	249	244	257	243	244	242	235	234	233	192	193	232.9	243.0
30 Spd	5	4	3	1	1	6	7	8	12	11	13	15	12	9	6	5	7	3	7	5	2	4	2	1	4.1	14.6
Dir	228	225	247	280	333	299	270	274	256	258	316	315	306	314	344	349	316	324	41	41	111	194	79	172	297.9	315.4
Spd	5.8	4.3	4.1	3.3	3.7	4.5	5.5	7.5	8.6	11.0	10.8	9.3	9.5	9.1	9.7	9.8	9.5	9.1	8.1	7.3	6.5	4.6	5.5	5.8	Diurnal Average	
Dir	242.8	256.0	257.6	252.2	246.4	251.9	252.2	242.1	243.8	251.6	259.7	260.4	259.2	267.5	269.8	260.9	264.1	262.9	256.4	254.7	252.9	246.6	238.1	243.2		
Spd	31.0	30.5	37.1	33.4	31.3	33.2	35.2	43.7	46.1	45.9	43.0	35.5	38.3	34.4	35.3	37.9	37.5	38.0	41.1	38.1	32.8	30.3	33.8	34.2	Diurnal Maximum	
Dir	224.9	243.2	240.5	239.8	237.5	235.8	237.8	242.3	243.9	242.6	248.1	250.9	255.9	264.2	275.9	245.9	247.5	252.1	241.4	242.3	241.4	241.2	240.9	241.9		

Maximum Speed Value: 46 km/h on Jun 21 09:00
Maximum Daily Speed Average: 29.9 km/h on Jun 21
Maximum Diurnal Speed Average: 11.0 km/h at hour 10

Minimum Speed Value: 0 km/h on Jun 7 06:00
Minimum Daily Speed Average: 1.4 km/h on Jun 6
Minimum Diurnal Speed Average: 3.3 km/h at hour 4

Monthly Average Velocity: 7.13 km/h 255.30 deg

Speed Percentiles: $P_1 = 0.3$ $P_{10} = 2.1$ $Q_1 = 4.3$ Median = 9.4 $Q_3 = 16.6$ $P_{90} = 25.5$ $P_{99} = 38.0$

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

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Percent Operational Time:	99.7

P - Power Failure

Frequency Distribution

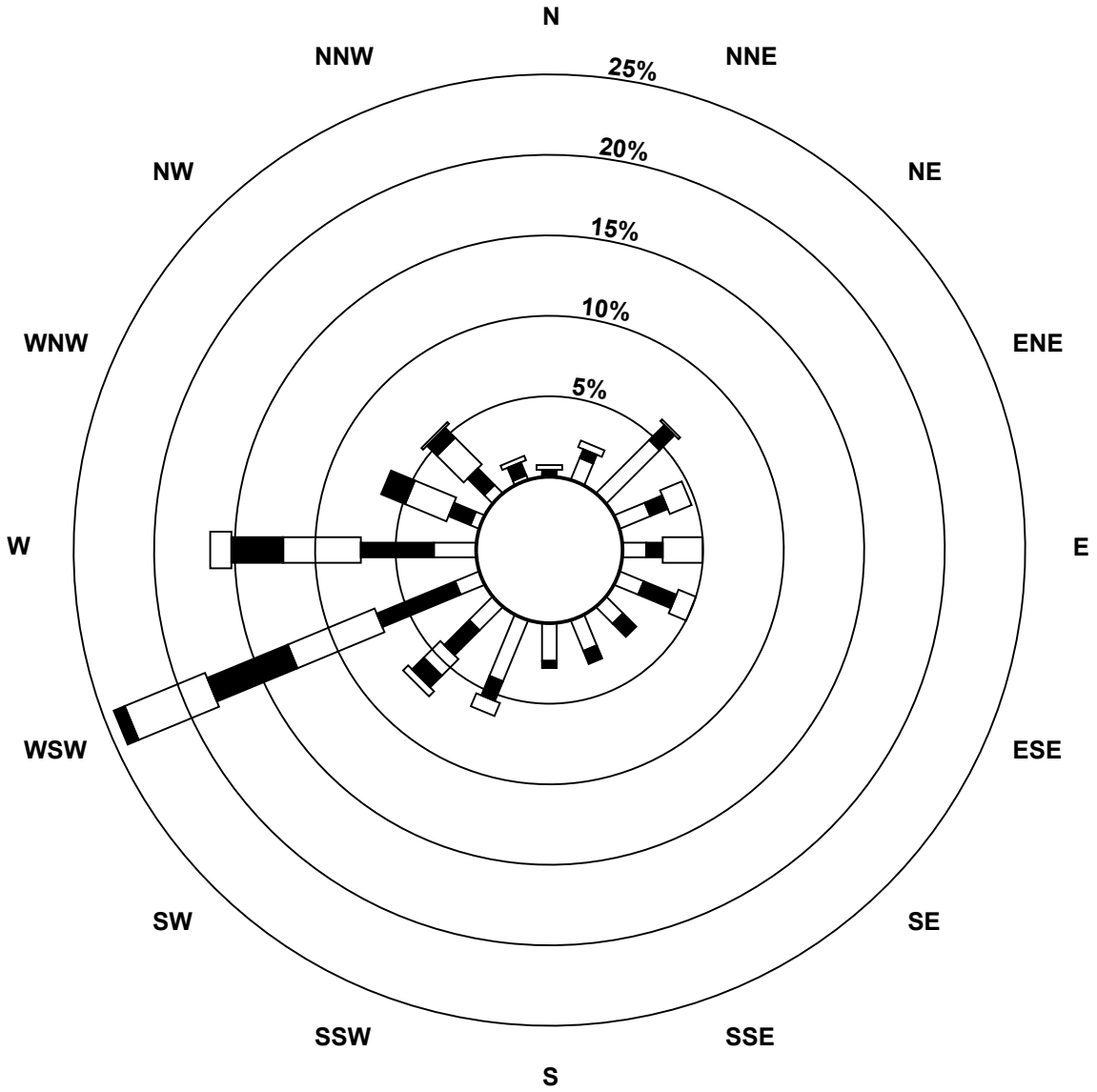
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	7	5	7	0	0	0	19
NorthEast	44	21	3	0	0	0	68
East	22	20	33	2	0	0	77
SouthEast	25	20	1	0	0	0	46
South	49	10	1	0	0	0	60
SouthWest	29	38	38	28	25	5	163
West	24	57	70	43	23	3	220
NorthWest	8	21	20	15	1	0	65
Total	208	192	173	88	49	8	718

Peace Airshed Zone Association

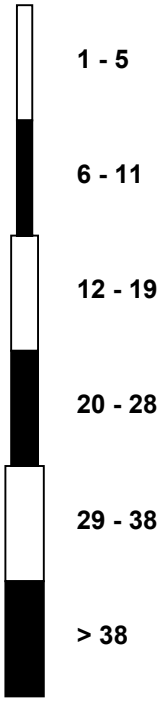
Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - June 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - June 2017

Maximum Speed: 47 km/h on Jun 21 09:00

Maximum Daily Speed Average: 32.0 km/h on Jun 21

Minimum Speed: 0 km/h on Jun 7 06:00

Minimum Daily Speed Average: 5.5 km/h on Jun 11

Maximum Diurnal Speed Average: 18.7 km/h at hour 16

Minimum Diurnal Speed Average: 6.2 km/h at hour 4

Monthly Average Speed: 12.69 km/h

Percentiles: $P_1 = 0.8$ $P_{10} = 2.8$ $Q_1 = 5.2$ Median = 10.4 $Q_3 = 17.5$ $P_{90} = 26.8$ $P_{99} = 37.8$

Hours in Service: 720

Hours of Data: 718

Hours of Missing Data: 2

Percent Operational Time: 99.7

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	Daily Average	Daily Maximum
1-Jun	3	1	1	4	5	8	8	10	10	13	13	13	16	31	14	14	10	10	18	10	6	10	17	12	10.8	31.5
2-Jun	9	10	3	4	3	2	2	4	11	17	22	22	13	27	29	32	29	29	34	25	15	14	12	7	15.6	33.6
3-Jun	4	2	2	3	1	1	2	4	6	11	7	10	9	10	20	12	14	24	19	13	14	9	5	4	8.7	24.3
4-Jun	4	4	4	3	2	3	6	7	8	6	8	10	11	13	9	11	13	10	15	21	9	5	4	2	7.9	21.3
5-Jun	2	4	6	8	8	7	10	14	17	21	23	25	23	17	18	16	14	12	7	7	1	1	2	1	11.0	25.1
6-Jun	1	1	1	1	0	0	1	3	5	6	11	13	10	10	10	11	9	10	11	7	3	3	4	4	5.6	12.7
7-Jun	1	2	4	4	2	0	2	6	7	9	12	18	16	13	15	15	15	15	14	11	11	8	4	5	8.7	17.8
8-Jun	5	3	5	5	5	4	7	14	17	P	P	19	18	17	14	19	18	16	16	18	15	8	4	8	11.6	19.4
9-Jun	7	7	5	5	7	6	7	5	4	6	24	24	30	30	30	38	38	39	27	27	27	21	19	14	18.6	38.5
10-Jun	12	9	8	8	7	8	9	11	14	15	15	17	15	12	14	15	14	10	7	13	21	15	12	8	12.0	20.9
11-Jun	14	10	6	4	1	3	3	6	6	7	5	7	8	8	6	6	4	4	4	4	3	3	4	4	5.5	14.2
12-Jun	5	3	1	3	4	5	2	13	18	23	26	23	23	22	26	24	22	23	17	15	13	10	13	13	14.4	26.1
13-Jun	10	7	5	2	2	3	7	10	16	22	14	13	10	14	13	16	13	10	10	7	9	6	1	1	9.2	21.5
14-Jun	4	4	3	3	6	4	4	5	3	7	7	7	9	10	11	14	15	16	10	7	4	6	2	4	6.8	15.9
15-Jun	5	4	5	2	3	6	6	11	6	6	5	9	9	10	10	12	13	14	16	12	5	8	8	5	7.9	16.1
16-Jun	15	10	6	3	2	5	6	8	11	18	17	19	24	36	36	33	35	36	38	33	25	21	25	25	20.2	37.9
17-Jun	23	18	19	22	21	22	25	28	29	30	31	30	29	25	28	27	26	22	23	21	15	9	5	8	22.3	31.3
18-Jun	4	2	2	2	3	5	11	9	21	31	32	28	27	27	28	21	20	22	23	26	22	13	6	2	16.2	32.4
19-Jun	1	3	4	1	1	2	3	4	9	11	11	11	14	16	15	10	7	5	5	4	3	4	3	2	6.2	15.9
20-Jun	3	1	3	2	5	2	3	4	7	18	23	26	33	17	15	23	25	33	42	38	33	31	34	34	18.9	41.5
21-Jun	30	31	37	34	32	33	36	44	47	46	44	36	39	31	37	31	33	22	19	22	25	21	18	19	32.0	46.7
22-Jun	17	14	12	12	12	10	10	12	13	16	15	18	14	17	19	21	20	15	16	11	12	9	11	9	14.0	20.9
23-Jun	10	5	6	5	8	5	11	16	17	16	15	17	16	17	14	25	21	16	16	12	4	5	7	2	12.0	25.1
24-Jun	3	3	2	1	5	3	8	10	8	6	7	9	8	12	11	8	7	7	7	7	6	4	1	2	6.1	11.6
25-Jun	4	3	3	2	1	2	3	4	8	11	14	15	16	18	19	17	20	20	16	15	12	11	10	10	10.5	20.1
26-Jun	8	4	7	4	8	11	10	11	11	10	14	18	8	9	8	22	13	9	8	12	7	5	12	16	10.2	21.7
27-Jun	31	21	15	12	19	23	23	24	25	27	21	26	33	29	31	32	35	29	27	27	20	22	30	32	25.7	35.4
28-Jun	26	25	20	19	16	15	14	12	16	21	20	15	14	16	15	9	6	10	15	14	12	8	4	6	14.5	26.4
29-Jun	9	10	6	2	3	2	5	6	8	12	14	12	16	17	15	18	23	18	12	13	10	7	1	3	10.1	22.8
30-Jun	5	4	3	2	2	6	8	9	13	12	15	16	14	12	9	8	9	6	8	5	3	4	4	4	7.5	16.0
	9.2	7.5	6.9	6.2	6.4	7.0	8.4	10.8	12.9	15.6	16.7	17.5	17.5	18.0	18.0	18.7	18.1	17.1	16.6	15.3	12.2	10.2	9.4	8.9	Diurnal Average	
	31.4	30.8	37.4	33.6	31.5	33.5	35.5	44.2	46.7	46.5	44.0	36.2	39.5	35.6	37.2	38.4	37.9	38.5	41.5	38.4	33.1	30.5	34.1	34.4	Diurnal Maximum	

P - Power Failure

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - June 2017

Maximum Value: 98.2 deg on Jun 6 01:00

Minimum Value: 5.5 deg on Jun 27 06:00

Percentiles: P_1 = 6.9 P_{10} = 10.7 Q_1 = 16.1 Median = 23.6 Q_3 = 38.7 P_{90} = 64.7 P_{99} = 94.5

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	29	94	75	31	58	21	18	27	21	19	33	32	43	23	49	39	48	28	26	22	38	19	7	8	93.7
2-Jun	17	28	70	51	26	94	53	32	25	18	19	32	39	21	25	17	20	17	12	13	11	11	12	49	93.9
3-Jun	90	85	80	85	58	81	16	33	35	19	31	23	28	30	26	38	26	15	15	20	19	26	24	64	90.0
4-Jun	63	95	74	22	95	73	33	26	29	56	39	48	68	44	68	66	39	39	14	15	16	57	61	87	94.7
5-Jun	51	35	18	18	20	17	25	15	13	17	28	26	29	41	39	40	36	36	53	27	87	61	82	97	97.0
6-Jun	98	68	95	92	85	88	65	56	46	65	41	40	62	55	61	37	49	32	33	31	12	11	11	11	98.2
7-Jun	40	23	13	28	40	69	53	32	43	41	30	24	26	33	25	28	30	30	27	26	19	21	13	13	69.2
8-Jun	14	16	15	14	19	29	30	20	22	P	P	22	24	17	21	23	23	21	20	17	16	16	17	47	46.9
9-Jun	68	28	25	21	19	19	22	36	54	23	12	11	8	10	11	10	9	9	13	14	12	12	11	16	67.8
10-Jun	15	20	17	17	15	16	24	17	21	29	27	33	35	62	33	39	22	27	51	27	27	25	18	21	61.7
11-Jun	12	22	22	26	30	14	24	24	29	29	44	33	24	20	34	25	33	38	28	28	42	28	26	26	43.6
12-Jun	26	46	86	46	50	18	79	18	17	14	12	17	25	25	21	26	23	18	16	16	16	17	16	19	86.1
13-Jun	9	14	22	90	82	68	30	22	22	15	24	36	55	33	65	30	55	47	56	75	25	26	37	66	89.5
14-Jun	65	37	56	53	25	35	84	61	50	38	38	61	68	38	31	27	39	24	20	38	34	11	57	25	83.8
15-Jun	24	39	20	63	18	28	26	20	60	70	96	53	70	42	41	33	30	20	20	19	22	19	77	83	96.2
16-Jun	10	21	19	29	13	13	24	18	31	21	19	27	18	15	19	14	16	13	9	9	10	9	7	6	31.4
17-Jun	6	8	8	7	8	7	8	8	9	17	14	19	20	20	18	18	22	17	16	18	14	18	25	16	24.6
18-Jun	40	79	25	28	29	50	39	18	12	12	20	18	20	19	25	19	16	28	14	12	12	24	91	88	90.8
19-Jun	94	70	14	73	69	13	43	45	31	31	37	33	22	23	22	35	61	90	33	25	20	23	32	41	94.1
20-Jun	36	85	30	64	18	53	53	83	44	17	12	14	10	13	13	16	12	10	8	7	8	8	8	7	85.0
21-Jun	8	8	7	6	7	8	8	9	9	9	12	11	14	21	19	16	17	20	15	19	14	15	15	16	20.7
22-Jun	16	14	14	13	14	16	17	20	19	19	26	23	41	31	18	26	28	27	22	21	16	16	9	11	41.1
23-Jun	27	30	21	17	13	17	14	13	15	19	21	20	25	23	34	14	22	45	17	16	61	25	40	60	61.1
24-Jun	61	49	64	64	36	45	18	26	30	47	47	58	77	38	61	78	89	82	47	27	15	12	42	38	89.1
25-Jun	20	24	31	25	64	23	23	48	30	29	28	30	24	30	18	19	16	17	17	15	20	16	14	75	75.5
26-Jun	61	71	82	43	19	13	19	15	18	22	26	21	63	43	59	43	76	27	44	23	68	49	10	27	82.3
27-Jun	10	10	8	10	9	5	7	7	8	17	19	13	13	9	7	8	7	11	11	9	26	13	10	9	25.5
28-Jun	13	14	17	17	11	11	13	12	16	10	8	15	18	23	26	31	97	34	16	10	10	9	15	13	97.4
29-Jun	14	9	39	31	11	13	16	21	26	21	20	28	23	23	23	19	11	11	11	9	11	11	50	39	49.7
30-Jun	18	18	27	72	73	28	26	28	18	22	36	29	35	63	75	65	46	77	27	26	33	52	70	92	92.1
	98.2	94.6	95.5	91.6	94.7	93.9	83.8	82.7	59.9	70.1	96.2	61.0	77.5	62.7	74.5	77.7	97.4	90.1	55.5	75.1	87.0	61.4	90.8	97.0	

P - Power Failure

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 11.2 ppb on Jun 20 23:00 Maximum Daily Average: 1.0 ppb on Jun 20

Minimum Value: 0 ppb on Jun 1 03:00 Minimum Daily Average: 0.0 ppb on Jun 2
Maximum Diurnal Average: 0.5 ppb at hour 2 Minimum Diurnal Average: 0.1 ppb at hour 22
Monthly Average: 0.26 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.5$ $P_{99} = 3.6$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	35
Percent Operational Time:	99.7

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	0	0	0	0	1	0	5	1	0	0	0	A	0	0	0	0	0	0	0	0	0.3	4.5
2-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
3-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
4-Jun	0	0	0	0	0	0	1	1	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
5-Jun	0	0	0	0	0	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
6-Jun	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
7-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.7
8-Jun	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0.3	0.8
9-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	0.1
10-Jun	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
11-Jun	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.3
12-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
13-Jun	0	0	0	A	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.4
14-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	0.1
15-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	0.4
16-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	0.5
17-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.1	0.6
18-Jun	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.7
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	4	0	0	A	0	0	0	0.4	3.8
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	11	11	1.0	11.2
21-Jun	0	11	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.8	11.2
22-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.6
23-Jun	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	1.5
24-Jun	1	0	0	0	0	0	1	1	1	0	0	2	4	2	1	A	0	0	0	0	0	0	0	0	0.7	3.6
25-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
26-Jun	0	0	0	0	0	0	0	0	0	1	0	1	0	A	0	1	0	0	0	0	0	0	0	0	0.3	0.8
27-Jun	0	0	1	4	3	2	2	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0.7	3.7
28-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
29-Jun	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	1	0	1	0	0	0.2	1.2
30-Jun	0	0	0	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	P	P	0.2	0.8
	0.1	0.5	0.2	0.3	0.3	0.3	0.4	0.4	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.5	0.5	Diurnal Average	
	0.6	11.2	2.0	3.7	2.6	1.6	2.2	1.4	0.7	0.7	4.5	2.0	3.6	2.2	1.8	0.8	1.1	3.8	0.7	1.2	0.7	0.6	11.2	11.0	Diurnal Maximum	

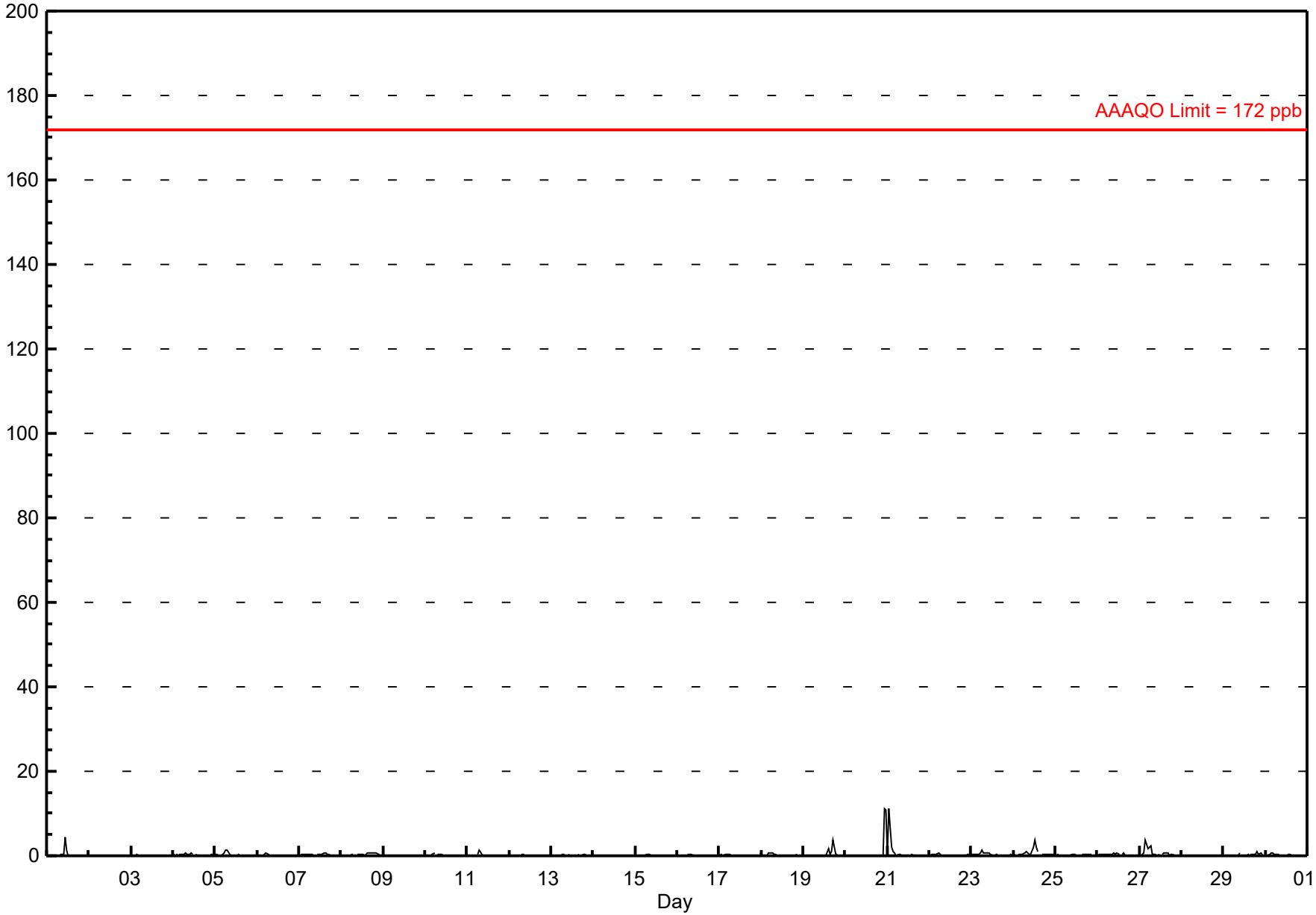
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - June 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - June 2017

Maximum Value: 49.4 ppb on Jun 21 02:00

Maximum Daily Average: 3.9 ppb on Jun 20

Minimum Value: 0 ppb on Jun 16 13:00

Minimum Daily Average: 0.4 ppb on Jun 2

Maximum Diurnal Average: 2.2 ppb at hour 2

Minimum Diurnal Average: 0.5 ppb at hour 22

Monthly Average: 0.92 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.7$ $P_{90} = 1.1$ $P_{99} = 9.4$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	35
Percent Operational Time:	99.7

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	0	0	0	0	0	0	1	1	1	1	15	4	0	0	0	A	0	0	0	0	0	0	0	0	1.2	14.7
2-Jun	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.7
3-Jun	0	0	0	1	1	0	0	1	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.6
4-Jun	1	1	1	0	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	1	1	0.7	1.1
5-Jun	1	1	0	1	1	1	2	2	1	0	1	A	1	1	1	0	0	0	0	0	0	0	1	0	0.7	2.4
6-Jun	1	0	0	1	1	1	1	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0
7-Jun	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0.7	1.2
8-Jun	0	1	0	0	0	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0.8	1.4
9-Jun	0	0	1	0	0	0	1	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6
10-Jun	0	0	0	0	1	1	A	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0.6	1.5
11-Jun	0	0	0	0	0	A	2	2	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.6	2.1
12-Jun	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.9
13-Jun	0	0	0	A	0	0	1	1	0	1	1	C	C	C	C	2	0	1	1	0	1	0	1	1	0.6	1.6
14-Jun	0	0	A	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.7
15-Jun	0	A	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9
16-Jun	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0.4	0.9
17-Jun	0	1	0	1	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	A	1	0.6	1.3
18-Jun	1	0	0	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	1	1	A	0	0	0.6	1.4
19-Jun	0	0	0	0	0	0	0	1	0	1	1	0	0	0	12	4	8	8	1	2	A	0	0	0	1.8	12.4
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	43	39	3.9	42.6
21-Jun	1	49	8	3	2	1	1	1	1	0	0	0	1	1	1	0	0	1	A	1	0	0	0	0	3.2	49.4
22-Jun	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	1	0.6	1.3
23-Jun	1	1	1	1	1	2	3	1	1	1	1	1	1	0	1	0	A	0	0	0	0	0	1	1	0.8	2.7
24-Jun	2	1	1	1	1	1	1	1	1	1	1	7	6	3	2	A	1	1	1	1	1	1	1	1	1.5	6.7
25-Jun	0	1	0	1	0	0	1	1	1	1	1	1	0	0	A	1	1	1	1	1	1	0	0	0	0.6	0.8
26-Jun	1	1	1	0	1	1	1	1	1	2	1	1	1	A	1	2	1	1	0	0	0	0	0	0	0.7	1.9
27-Jun	0	1	3	12	10	4	6	1	1	1	1	1	A	2	2	1	2	1	1	1	0	0	0	0	2.3	12.4
28-Jun	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
29-Jun	0	0	0	0	0	0	0	0	0	1	A	0	0	1	1	0	1	1	1	5	3	1	0	0	0.8	5.2
30-Jun	0	1	1	1	1	1	1	1	0	A	0	0	0	1	1	1	0	1	0	0	0	0	P	P	0.6	1.5
	0.5	2.2	0.8	1.0	1.0	0.8	1.0	0.9	0.7	0.7	1.1	0.9	0.7	0.6	1.0	0.7	0.8	0.8	0.5	0.7	0.5	0.5	1.9	1.8	Diurnal Average	
	2.5	49.4	8.3	12.4	10.1	3.6	5.9	2.4	1.4	1.5	14.7	6.7	5.8	2.9	12.4	3.7	7.6	8.0	1.4	5.2	2.6	1.4	42.6	39.1	Diurnal Maximum	

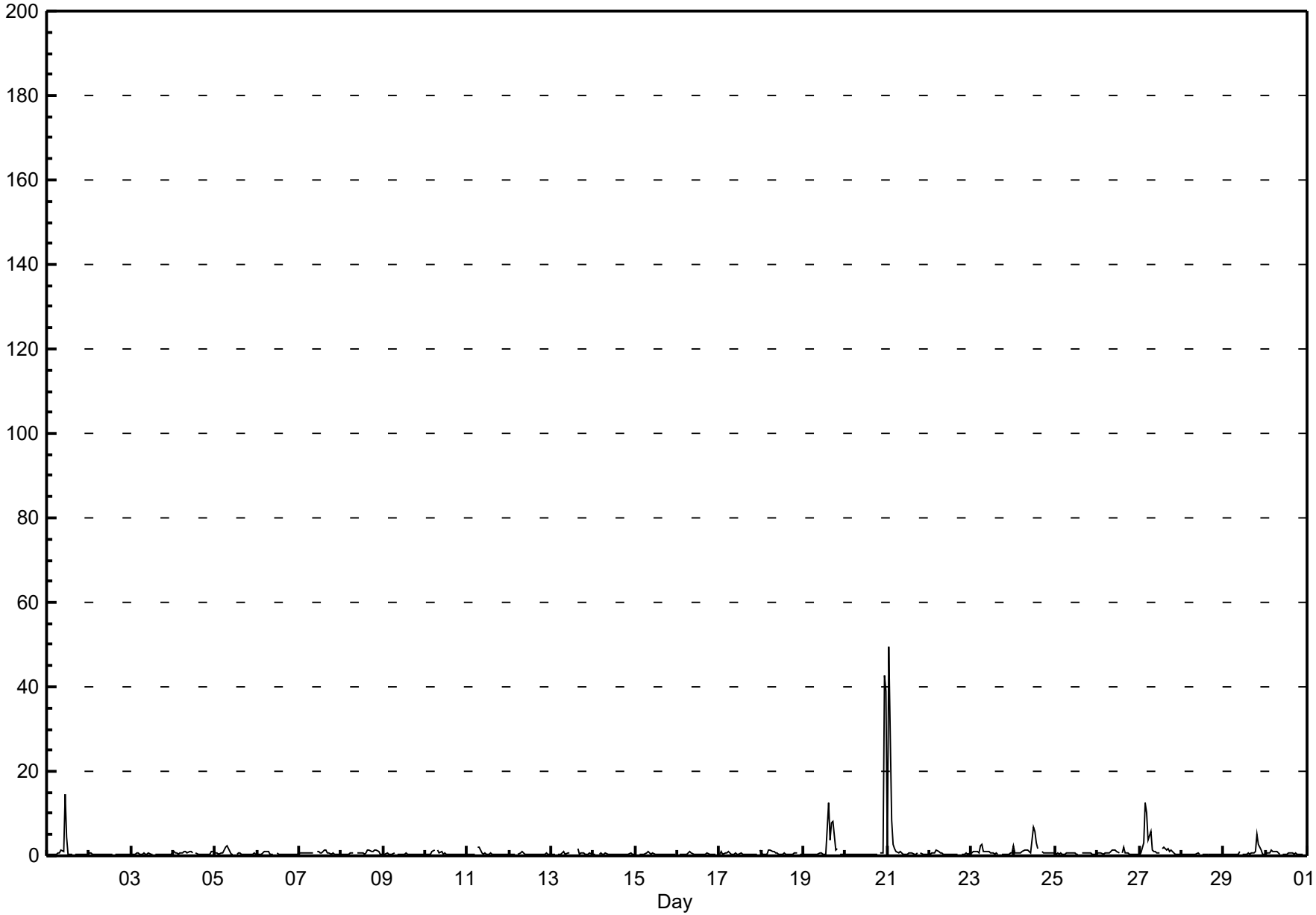
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

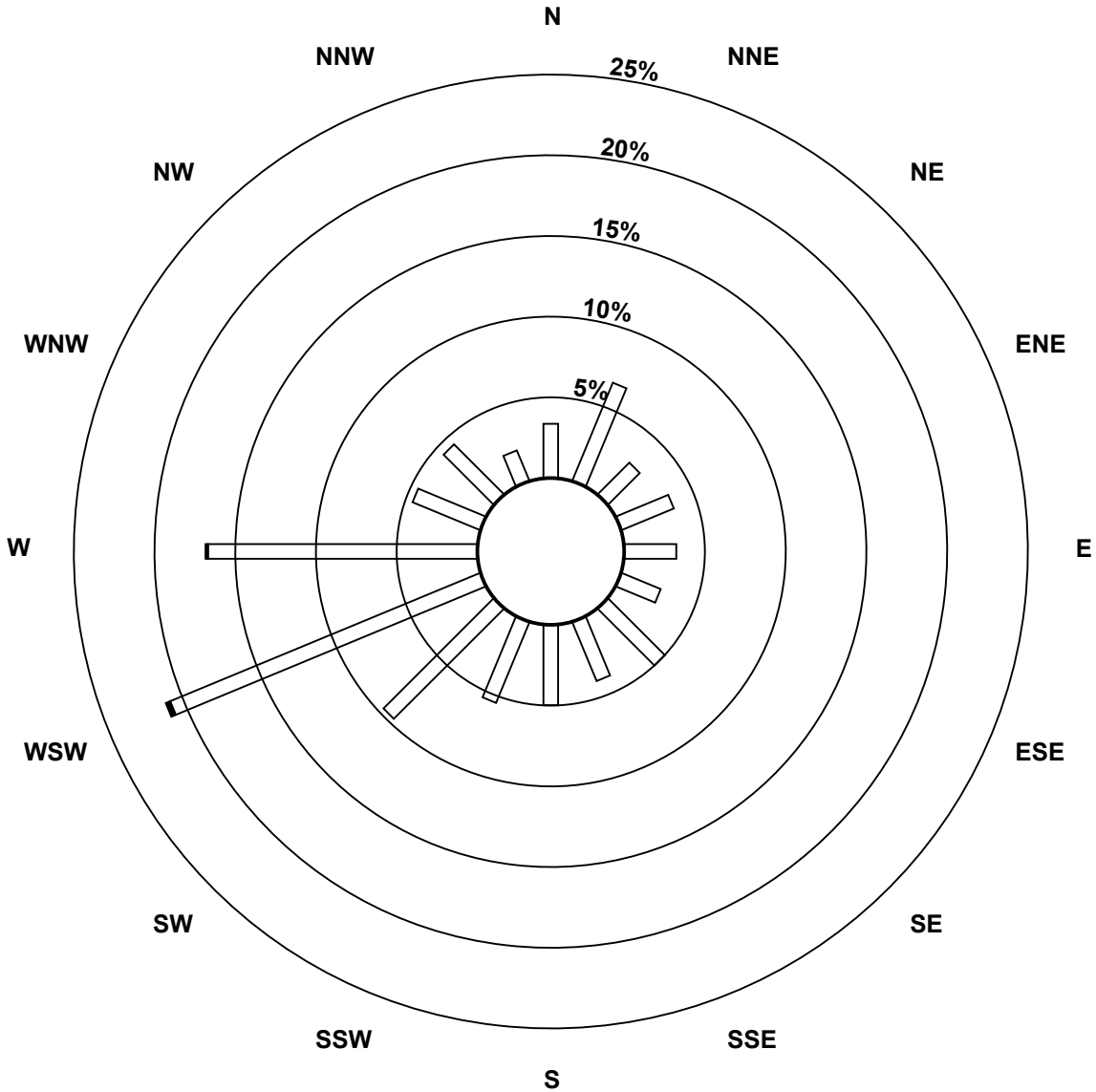
Smoky Heights - June 2017



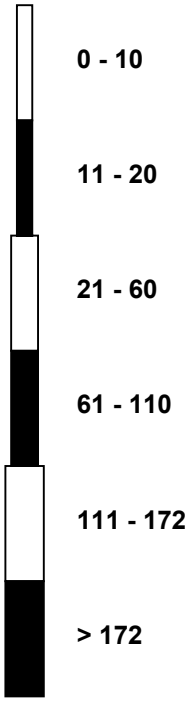
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - June 2017



Pollutant Classes (ppb)

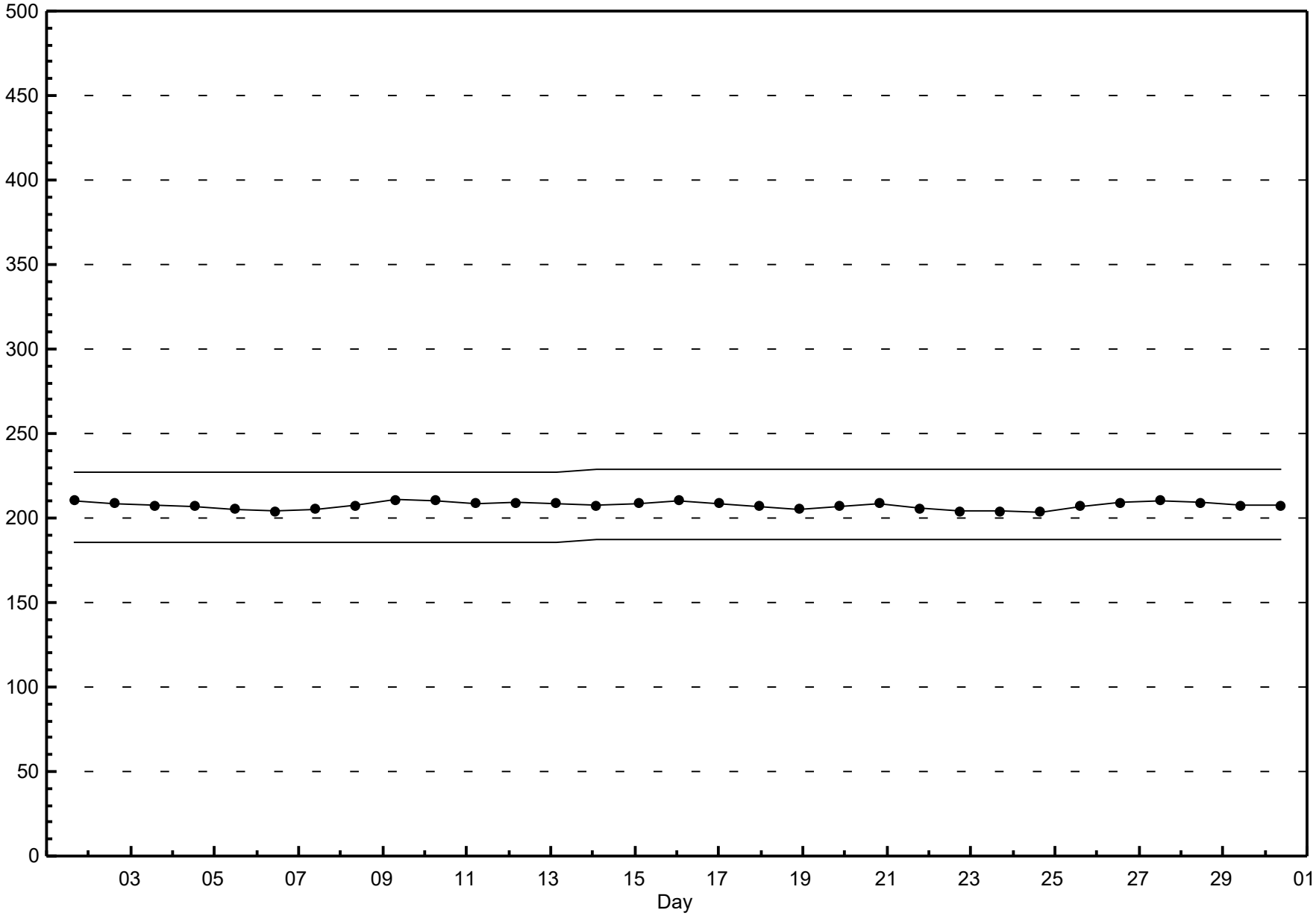


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Smoky Heights - June 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - June 2017

Maximum Value: 0.7 ppb on Jun 19 04:00

Maximum Daily Average: 0.3 ppb on Jun 1

Minimum Value: 0 ppb on Jun 20 13:00

Minimum Daily Average: 0.1 ppb on Jun 20

Maximum Diurnal Average: 0.2 ppb at hour 5

Minimum Diurnal Average: 0.1 ppb at hour 13

Monthly Average: 0.18 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 in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	37
Percent Operational Time:	99.7

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.6
2-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
3-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
4-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
5-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	0.5
6-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
7-Jun	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-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	0.5
9-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	0.3
10-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	0.5
11-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
12-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
13-Jun	0	0	0	A	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	0.4
14-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	0.3
15-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
16-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	0.2
17-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	0.2	0.3
18-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	0.4
19-Jun	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.7
20-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
21-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
22-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
23-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	0.2	0.2
24-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
25-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	0.2
26-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	0.3	0.4
27-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
28-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
29-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	0.3
30-Jun	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	P	P	0.1	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	0.1	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.5	0.4	0.4	0.7	0.5	0.5	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.3	0.6	0.4	0.5	Diurnal Maximum	

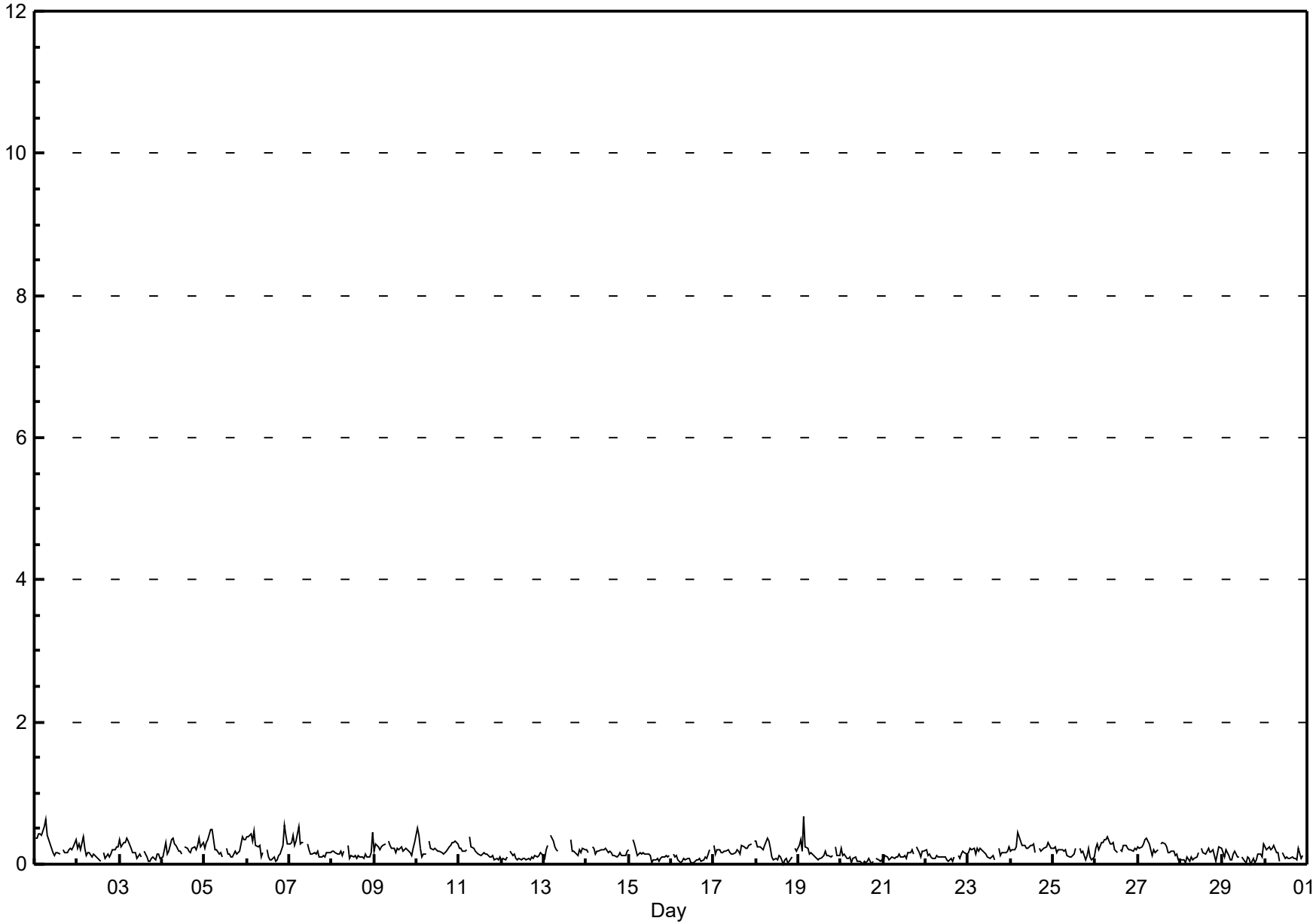
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - June 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - June 2017

Maximum Value: 2.3 ppb on Jun 9 00:00

Maximum Daily Average: 0.8 ppb on Jun 6

Minimum Value: 0 ppb on Jun 20 13:00

Minimum Daily Average: 0.5 ppb on Jun 20

Maximum Diurnal Average: 0.8 ppb at hour 6

Minimum Diurnal Average: 0.6 ppb at hour 13

Monthly Average: 0.65 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 1.4$

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	37
Percent Operational Time:	99.7

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	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	1.3
2-Jun	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	1	0	1	0	1	1	1	1	1	0.6	1.2
3-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	1	0	1	1	0	0.6	0.9
4-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	0.9
5-Jun	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.1
6-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	0	1	1	0	1	2	1	1	0.8	1.6
7-Jun	1	1	1	1	1	2	1	1	1	A	1	1	1	1	1	1	1	0	0	0	0	1	1	1	0.7	2.2
8-Jun	1	1	1	1	1	1	1	1	A	1	0	0	1	1	1	1	1	0	0	1	1	0	1	2	0.6	2.3
9-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	0.8
10-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
11-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	1	1	1	0.6	0.9
12-Jun	1	0	1	0	A	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	0.5	0.8
13-Jun	1	1	1	A	1	1	1	1	1	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	--	1.5
14-Jun	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0.6	0.9
15-Jun	1	A	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	0	0	1	0	1	1	1	0.6	1.0
16-Jun	A	1	1	0	0	1	1	1	1	0	0	1	0	0	1	1	1	1	1	1	1	1	1	A	0.6	0.7
17-Jun	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.8
18-Jun	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	0	1	1	1	A	1	1	0.6	0.8
19-Jun	1	1	1	2	1	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	A	1	1	1	0.7	1.9
20-Jun	1	1	1	0	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	A	1	0	0	1	0.5	0.7
21-Jun	0	1	1	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	A	1	0	0	1	1	0.5	0.7
22-Jun	1	1	0	1	0	1	1	1	1	1	1	1	0	0	1	0	0	A	1	1	0	1	1	1	0.6	0.7
23-Jun	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	A	1	1	1	1	1	1	1	0.7	0.9
24-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	0.7	0.9
25-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0.6	0.8
26-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
27-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
28-Jun	1	0	1	0	1	0	1	1	1	1	0	A	1	1	1	1	1	1	1	1	0	1	1	1	0.6	0.8
29-Jun	1	1	1	1	1	1	1	1	1	1	A	1	0	0	1	0	0	1	1	1	0	1	1	1	0.6	1.0
30-Jun	1	1	1	1	1	1	0	1	0	A	1	0	1	1	1	1	0	1	1	1	1	1	P	P	0.6	1.0
	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	Diurnal Average	
	0.9	1.0	1.2	1.9	1.4	2.2	1.2	0.9	0.8	1.0	0.9	0.7	0.7	0.9	0.8	1.5	0.8	0.9	0.8	1.0	1.4	1.6	1.1	2.3	Diurnal Maximum	

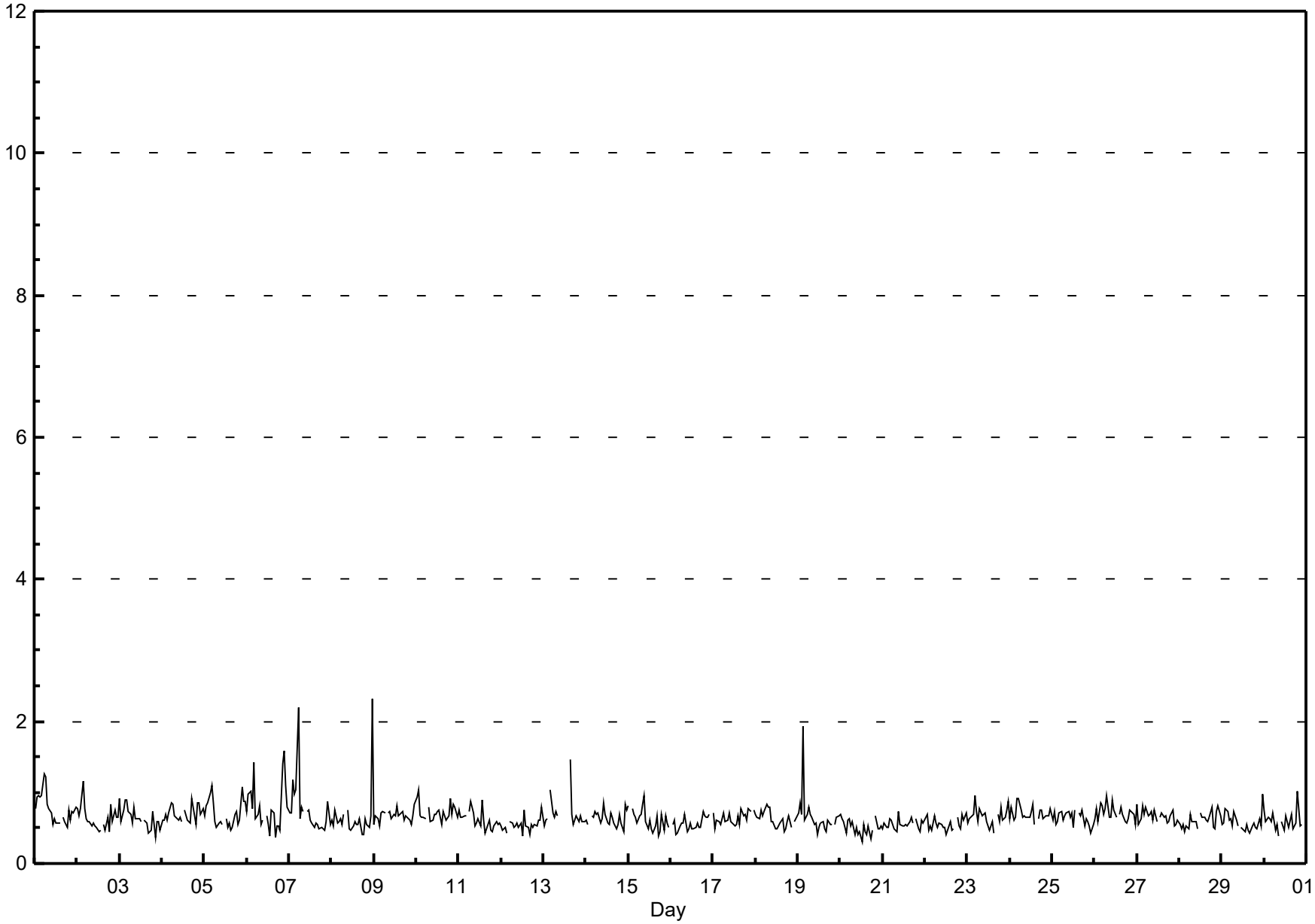
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - June 2017

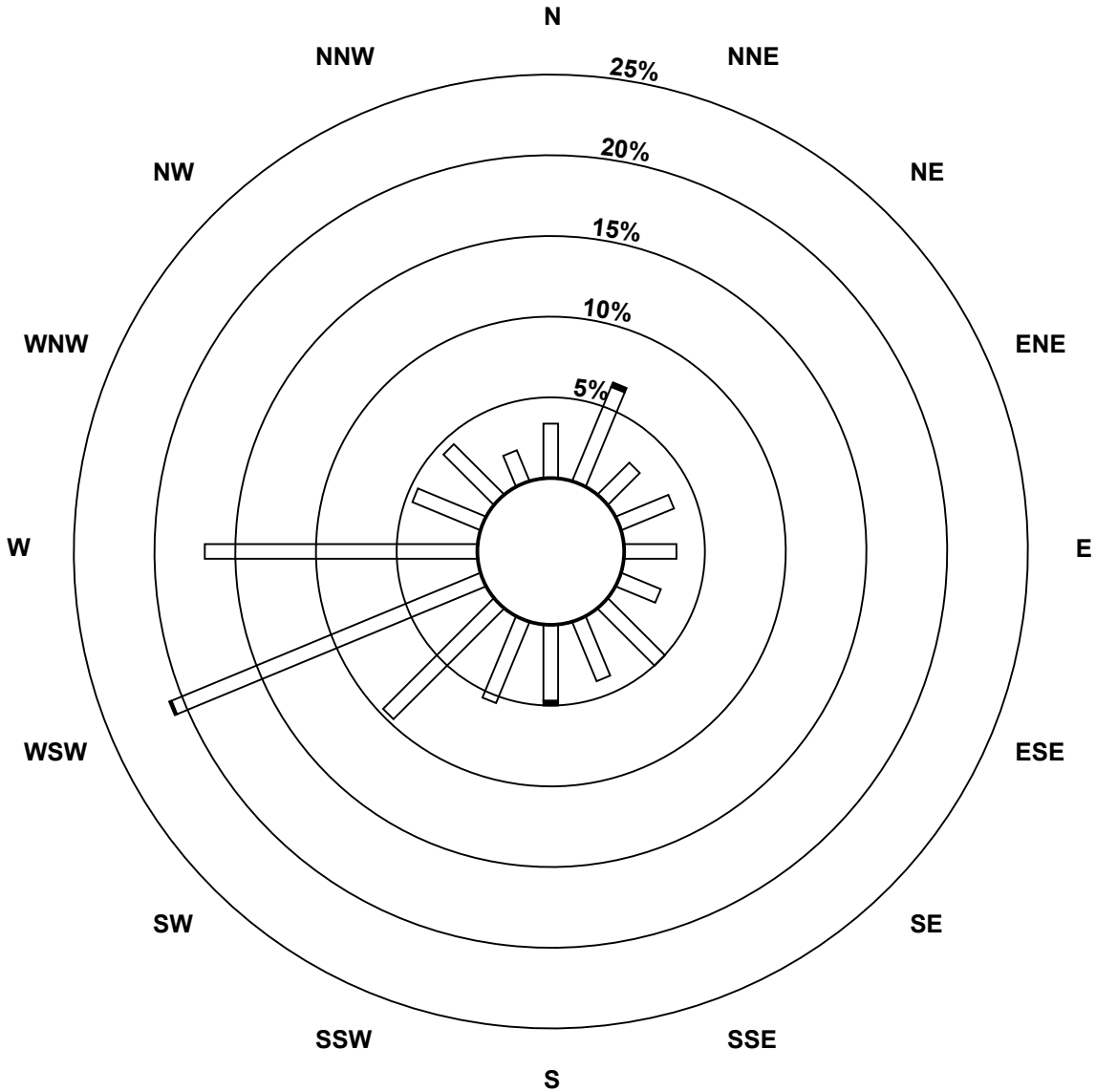


Peace Airshed Zone Association

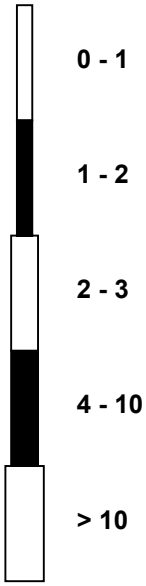
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - June 2017



Pollutant Classes (ppb)

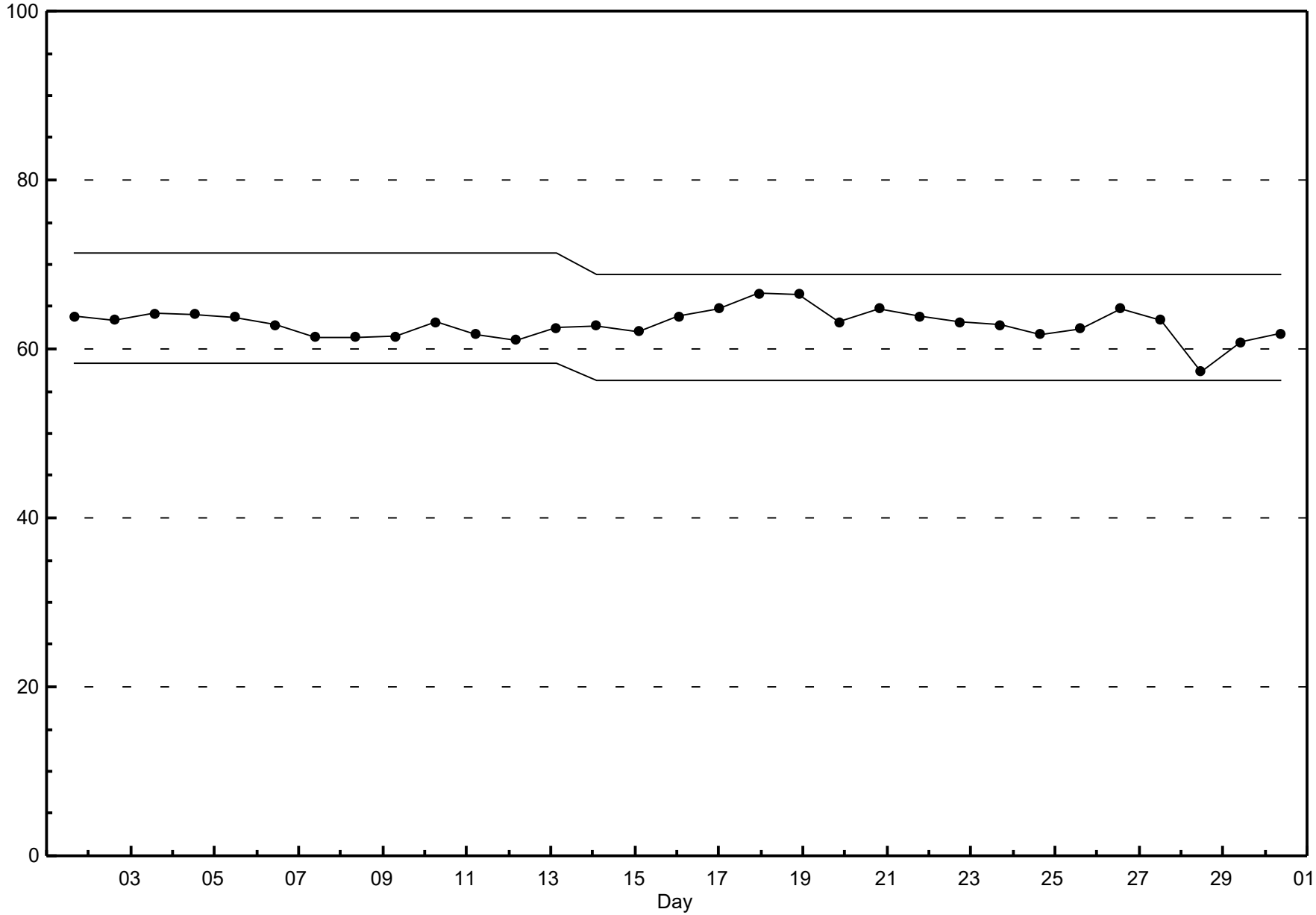


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Smoky Heights - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - June 2017

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 73.1 $\mu g/m^3$ on Jun 5 21:00

Maximum Daily Average: 16.3 $\mu g/m^3$ on Jun 5

Minimum Value: 1 $\mu g/m^3$ on Jun 16 10:00

Maximum Diurnal Average: 9.1 $\mu g/m^3$ at hour 23

Monthly Average: 5.63 $\mu g/m^3$

Minimum Daily Average: 2.6 $\mu g/m^3$ on Jun 27

Minimum Diurnal Average: 4.0 $\mu g/m^3$ at hour 12

Percentiles: P_1 = 1.1 P_{10} = 1.9 Q_1 = 2.7 Median = 4.3 Q_3 = 7.1 P_{90} = 9.8 P_{99} = 26.0

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

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	Daily Average	Daily Maximum
1-Jun	14	16	6	7	8	7	12	11	9	6	10	4	5	3	9	9	6	10	21	19	16	26	9	7	10.4	26.4
2-Jun	9	4	5	6	6	6	6	6	5	3	2	4	3	4	3	7	3	5	6	4	4	3	5	9	4.9	9.0
3-Jun	6	4	3	3	3	3	3	3	2	4	3	5	6	6	4	9	8	7	8	22	4	4	17	7	6.1	22.3
4-Jun	4	2	1	1	7	4	2	5	5	7	7	6	6	7	8	12	10	10	11	7	10	33	6	8	7.5	33.0
5-Jun	7	6	5	5	5	3	3	4	4	5	9	4	5	8	15	17	10	18	18	28	73	55	65	20	16.3	73.1
6-Jun	8	5	5	6	5	6	10	6	4	5	4	4	4	5	13	9	5	5	5	7	18	33	25	27	9.3	33.0
7-Jun	10	18	14	8	9	11	12	8	12	8	8	6	6	7	6	9	7	8	8	7	12	7	7	7	9.0	17.7
8-Jun	8	8	8	9	9	10	12	9	13	15	8	9	8	8	8	10	10	9	14	11	9	9	13	11	10.0	15.0
9-Jun	10	10	11	11	11	10	10	12	10	10	10	11	10	5	5	6	5	5	4	3	2	2	2	2	7.4	12.3
10-Jun	2	2	2	3	2	2	2	2	2	2	2	2	3	2	3	4	4	7	7	8	7	5	3	3	3.2	7.5
11-Jun	4	4	4	4	4	4	4	3	3	2	2	2	3	3	2	2	2	1	2	1	2	2	3	3	2.7	4.3
12-Jun	2	3	3	1	1	1	4	8	3	2	2	3	3	3	3	3	3	3	4	5	4	3	4	4	3.1	7.7
13-Jun	22	17	6	5	5	5	4	3	2	1	1	2	3	2	2	4	2	3	8	5	5	5	6	5	5.2	22.0
14-Jun	3	3	3	4	4	4	4	4	5	4	6	8	11	11	9	7	7	6	7	2	2	3	3	3	5.2	11.5
15-Jun	3	2	3	3	3	2	1	2	6	8	6	3	2	2	2	2	2	1	1	2	3	3	4	4	3.0	7.9
16-Jun	4	5	6	6	5	2	2	2	1	1	1	1	2	2	2	2	4	7	8	5	4	5	5	5	3.7	8.4
17-Jun	6	5	4	4	3	3	3	2	2	3	2	6	3	2	2	2	2	2	1	2	2	4	16	4	3.6	15.6
18-Jun	4	5	4	4	4	5	5	4	3	3	2	3	4	4	2	2	3	4	2	2	3	3	3	4	3.4	4.9
19-Jun	6	3	2	7	2	3	1	1	1	1	1	1	1	5	7	12	9	5	4	4	5	7	5	6	4.0	11.8
20-Jun	9	14	8	8	8	6	7	8	5	2	1	1	1	2	2	2	2	4	4	5	4	3	3	3	4.6	14.1
21-Jun	3	3	3	2	2	2	2	2	2	2	2	2	2	3	3	2	3	3	10	4	3	2	2	2	2.7	9.6
22-Jun	3	5	5	4	4	4	3	3	3	5	5	5	4	4	4	3	2	2	2	2	3	3	4	4	3.5	5.3
23-Jun	4	6	5	4	4	4	3	2	2	1	1	2	3	4	3	2	4	4	3	3	3	3	3	3	3.2	5.5
24-Jun	5	6	5	4	4	4	3	2	2	2	2	3	3	4	4	3	4	4	5	5	6	15	20	23	5.8	23.0
25-Jun	11	9	8	7	7	11	13	6	6	7	7	6	5	5	4	5	8	7	7	7	7	7	7	7	7.2	12.8
26-Jun	8	8	8	8	9	9	8	7	5	4	2	3	2	2	4	3	5	12	3	3	3	4	4	5	5.5	12.2
27-Jun	6	5	3	3	3	3	3	2	2	2	1	2	2	2	2	2	2	2	3	3	3	2	2	2	2.6	5.6
28-Jun	2	3	2	2	2	2	3	3	4	4	5	4	4	4	6	8	8	7	8	8	8	9	10	9	5.2	9.9
29-Jun	7	7	9	9	7	8	7	3	3	4	6	6	5	5	5	5	4	5	5	5	5	6	6	7	5.8	9.3
30-Jun	7	8	8	8	7	6	5	3	3	3	3	4	3	3	4	3	3	6	6	4	5	4	P	P	4.8	8.2
	6.5	6.5	5.3	5.2	5.1	5.0	5.3	4.6	4.3	4.2	4.1	4.0	4.1	4.2	4.9	5.6	4.9	5.8	6.4	6.4	7.7	9.0	9.1	7.0	Diurnal Average	
	22.0	17.7	14.0	10.6	10.9	11.2	12.8	12.3	13.0	15.0	10.1	11.1	10.8	11.5	14.8	16.9	9.8	18.4	21.3	27.6	73.1	54.7	65.2	26.6	Diurnal Maximum	

P - Power Failure

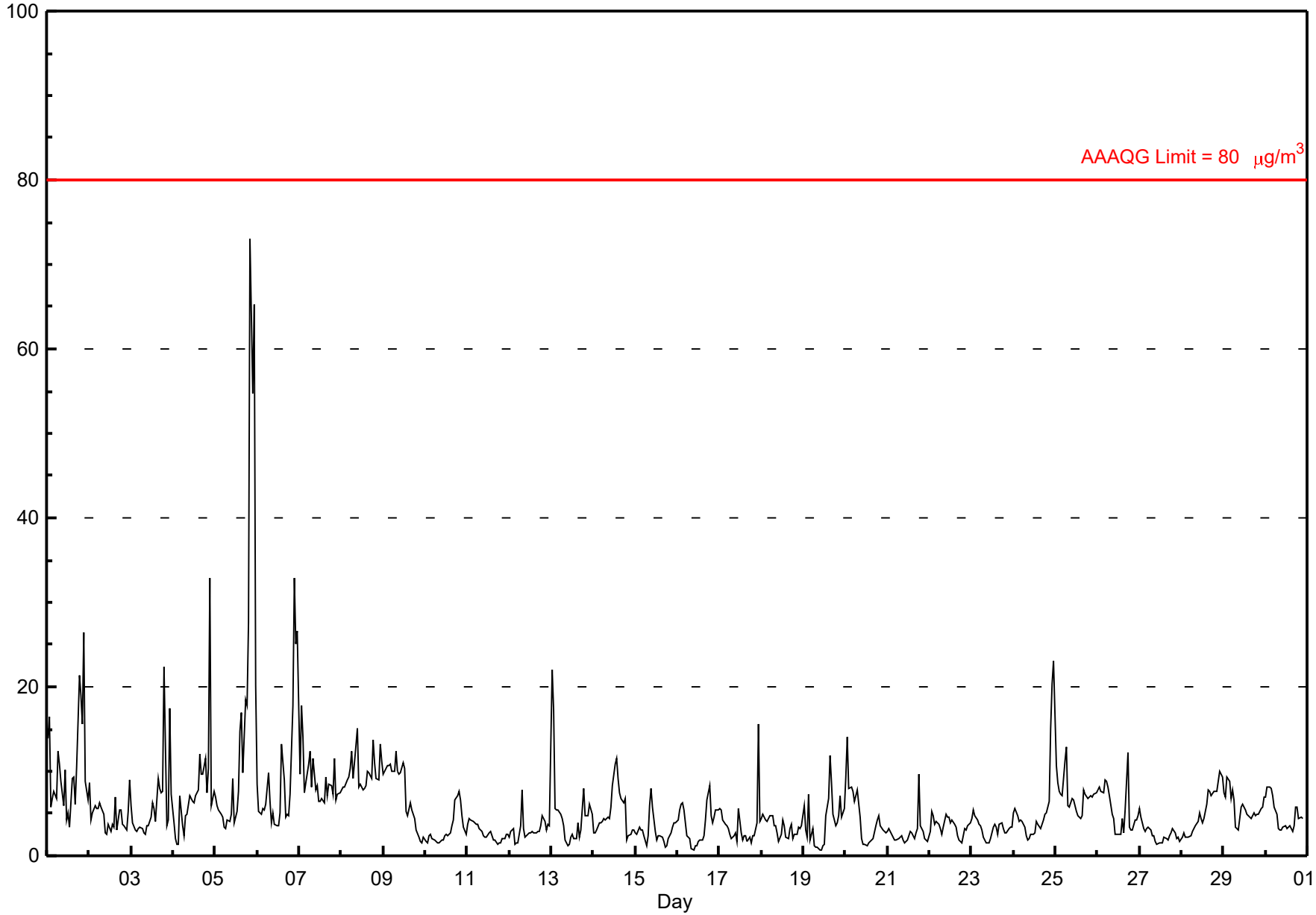
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - June 2017



Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - June 2017

Maximum Value: 449.0 $\mu g/m^3$ on Jun 5 23:00

Maximum Daily Average: 91.8 $\mu g/m^3$ on Jun 5

Minimum Value: 1 $\mu g/m^3$ on Jun 19 10:00

Minimum Daily Average: 3.1 $\mu g/m^3$ on Jun 11

Maximum Diurnal Average: 35.0 $\mu g/m^3$ at hour 22

Minimum Diurnal Average: 6.9 $\mu g/m^3$ at hour 3

Monthly Average: 19.08 $\mu g/m^3$

Percentiles: P_1 = 1.3 P_{10} = 2.7 Q_1 = 3.9 Median = 7.0 Q_3 = 12.9 P_{90} = 38.8 P_{99} = 230.5

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

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	Daily Average	Daily Maximum
1-Jun	307	234	7	7	25	9	36	56	36	25	165	19	44	5	77	66	23	124	210	281	111	188	10	41	87.8	307.3
2-Jun	83	5	7	7	6	6	7	7	6	3	3	25	5	8	11	49	9	23	31	6	22	9	25	63	17.8	82.8
3-Jun	10	5	3	3	4	10	13	8	3	27	18	15	26	12	5	71	29	38	32	316	12	29	112	14	34.0	315.9
4-Jun	20	4	2	2	44	16	9	24	8	10	11	21	10	32	31	182	97	69	30	13	65	142	9	21	36.2	182.0
5-Jun	8	7	6	5	14	9	7	30	37	50	38	16	34	42	155	130	71	126	172	112	263	311	449	113	91.8	449.0
6-Jun	10	7	14	12	32	35	20	18	8	8	5	4	4	23	162	94	12	21	7	10	38	146	51	244	41.0	243.5
7-Jun	34	43	30	11	15	15	17	15	29	12	10	9	33	10	10	69	9	39	21	8	162	7	8	9	26.0	161.9
8-Jun	9	9	9	10	10	12	47	13	55	115	10	20	9	11	13	23	52	11	140	72	15	13	23	17	29.9	140.0
9-Jun	11	10	11	11	12	11	11	72	24	10	11	14	14	8	6	7	7	5	5	4	2	2	2	3	11.4	72.0
10-Jun	3	2	3	3	2	2	2	2	2	2	3	3	5	5	6	6	9	41	26	17	9	6	4	3	6.9	40.5
11-Jun	5	5	5	5	4	4	4	4	3	3	2	3	3	3	3	2	2	2	2	2	2	2	3	3	3.1	5.1
12-Jun	3	3	3	3	2	2	5	10	5	3	3	3	3	4	7	5	6	6	11	10	11	3	6	4	5.1	11.4
13-Jun	151	154	6	6	6	6	5	4	3	1	2	9	9	2	3	22	4	6	120	16	16	7	16	7	24.3	154.4
14-Jun	3	3	4	4	4	5	5	5	5	5	7	13	13	12	10	9	12	7	8	2	3	3	4	3	6.2	12.9
15-Jun	4	5	7	4	4	4	1	3	8	9	7	4	2	3	3	2	4	1	2	3	3	4	4	4	4.0	8.8
16-Jun	5	6	7	7	6	3	3	3	1	3	8	3	6	8	3	4	23	28	49	12	4	7	6	6	8.7	48.8
17-Jun	7	6	5	4	4	5	3	2	9	48	15	86	36	7	23	12	7	17	4	13	5	16	89	12	18.2	88.9
18-Jun	5	8	5	4	7	9	6	5	18	10	11	18	31	43	6	5	35	24	4	16	5	11	5	9	12.5	43.5
19-Jun	20	11	2	45	2	10	2	1	1	1	1	2	4	39	25	58	40	14	4	4	6	16	5	7	13.5	58.1
20-Jun	28	73	12	20	8	7	9	10	6	3	2	5	2	4	2	2	3	5	5	12	10	4	5	3	10.0	73.3
21-Jun	9	4	3	3	2	2	4	3	4	6	3	3	3	7	7	7	7	13	35	5	4	3	2	2	5.9	34.9
22-Jun	4	6	6	4	4	4	5	3	5	6	7	8	6	6	6	10	5	3	4	11	15	8	7	4	6.2	15.1
23-Jun	6	6	5	5	4	4	4	3	2	2	2	10	13	16	11	3	9	8	6	4	3	4	4	4	5.7	16.1
24-Jun	6	6	5	5	5	5	4	3	2	2	3	4	4	5	5	4	7	5	6	6	16	41	81	97	13.6	96.9
25-Jun	20	9	8	8	9	16	16	9	7	7	7	6	6	5	5	5	26	8	7	8	8	7	8	9	9.3	26.1
26-Jun	13	11	8	8	12	11	9	9	9	6	4	13	7	5	17	11	15	142	7	3	4	24	5	19	15.5	141.9
27-Jun	16	6	4	4	4	4	4	3	3	3	2	2	2	2	2	2	2	3	3	4	5	3	3	2	3.6	16.4
28-Jun	3	3	2	2	2	3	4	4	4	5	6	5	5	5	8	9	8	8	8	8	8	10	11	11	5.9	11.2
29-Jun	10	10	10	10	9	9	9	4	3	5	6	7	6	6	7	6	9	10	6	8	8	18	7	17	8.3	18.3
30-Jun	8	9	9	8	8	6	7	5	5	5	8	10	7	10	9	3	6	39	15	8	8	5	P	P	9.0	38.8
	27.3	22.4	6.9	7.7	9.1	8.0	9.2	11.2	10.4	13.2	12.7	12.0	11.8	11.6	21.2	29.3	18.2	28.2	32.7	33.1	28.2	35.0	33.3	25.8	Diurnal Average	
	307.3	234.0	29.8	45.4	44.4	34.6	46.9	72.0	55.2	114.6	165.4	86.2	43.9	43.5	162.4	182.0	96.9	141.9	210.1	315.9	262.6	311.2	449.0	243.5	Diurnal Maximum	

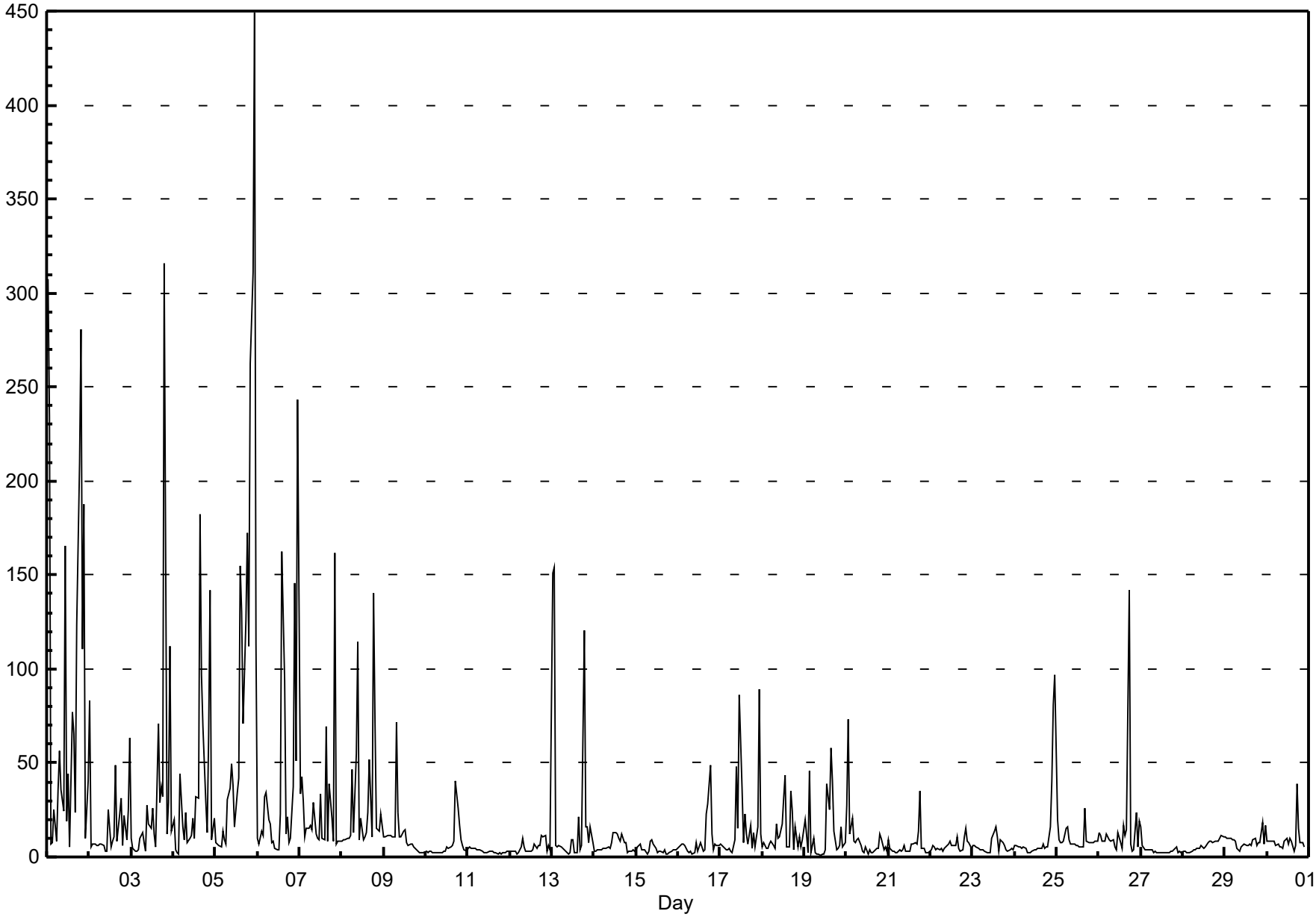
P - Power Failure

Peace Airshed Zone Association

Hourly Maximums

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

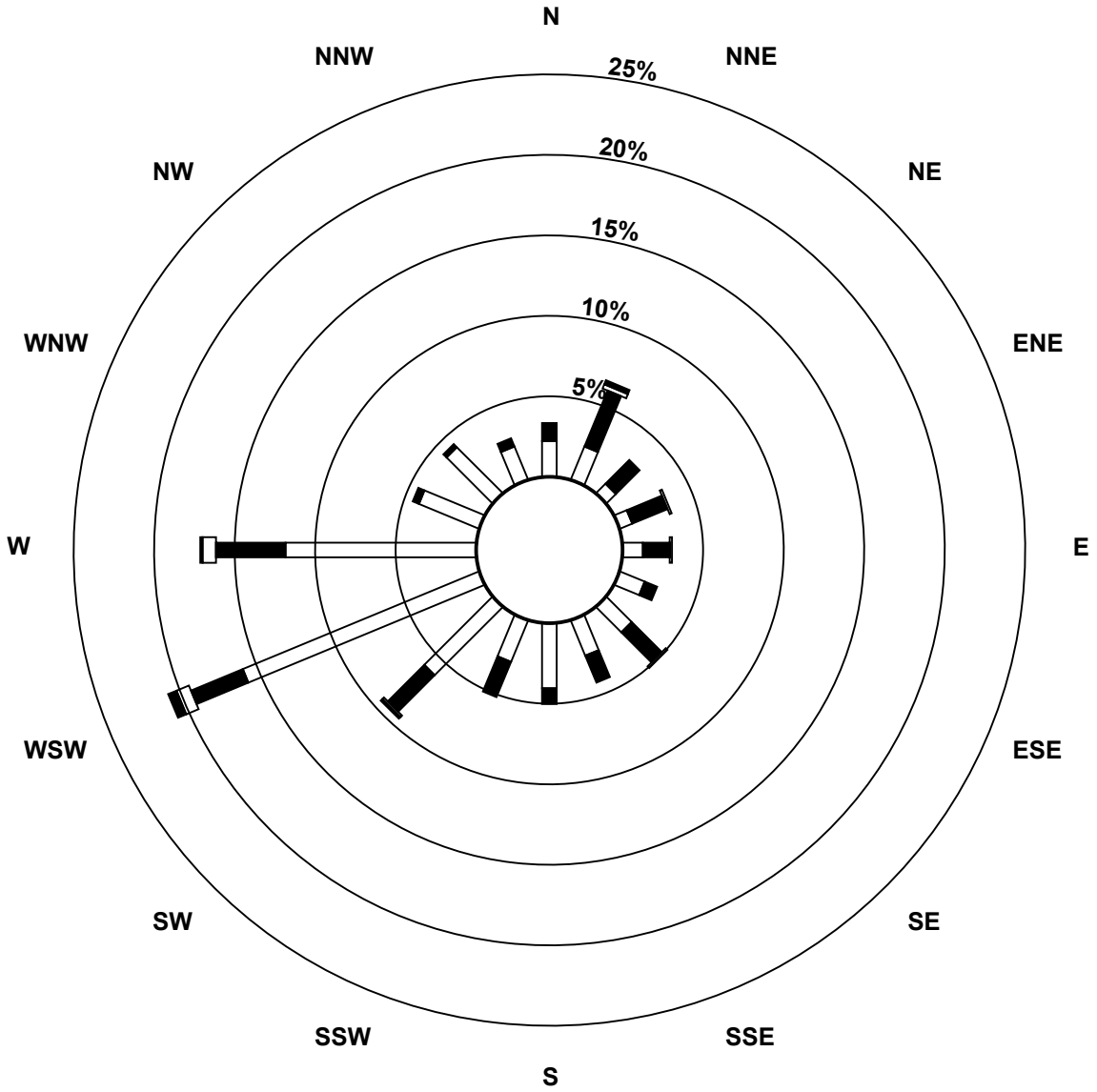
Smoky Heights - June 2017



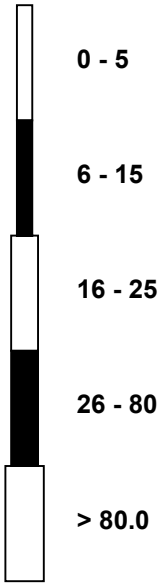
Pollutant Rose

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

Smoky Heights - June 2017



Pollutant Classes ($\mu g/m^3$)



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Smoky Heights - June 2017

Maximum Value: 27.9 °C on Jun 8 14:00

Maximum Daily Average: 21.4 °C on Jun 8

Minimum Value: 3 °C on Jun 19 04:00

Minimum Daily Average: 8.8 °C on Jun 11

Maximum Diurnal Average: 19.8 °C at hour 16

Minimum Diurnal Average: 8.9 °C at hour 5

Monthly Average: 15.08 °C

Percentiles: P_1 = 4.8 P_{10} = 8.0 Q_1 = 10.9 Median = 14.8 Q_3 = 18.9 P_{90} = 22.4 P_{99} = 27.3

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

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	Daily Average	Daily Maximum
1-Jun	11	12	10	11	9	10	11	14	17	20	21	22	23	23	22	22	22	22	22	19	17	16	14	14	16.8	22.6
2-Jun	14	13	13	12	11	11	12	13	14	16	18	19	19	18	19	19	19	20	19	19	17	12	11	10	15.3	19.6
3-Jun	7	7	6	6	5	7	9	12	14	17	19	18	17	19	19	18	19	20	17	16	14	12	10	10	13.2	19.8
4-Jun	10	8	6	4	5	6	9	10	13	15	16	17	18	19	19	19	19	19	18	18	16	13	11	10	13.2	19.4
5-Jun	8	8	6	6	5	6	10	13	16	17	18	19	19	20	20	21	21	21	21	20	18	14	12	10	14.5	21.3
6-Jun	8	8	8	8	7	8	11	14	17	19	21	22	24	24	25	25	25	26	26	24	20	17	16	17	17.5	25.6
7-Jun	16	14	14	13	12	13	15	17	20	21	23	25	26	27	27	28	28	27	27	26	24	22	20	19	21.2	27.8
8-Jun	19	17	16	14	13	14	16	18	20	22	24	26	28	28	27	26	26	26	25	24	24	22	20	20	21.4	27.9
9-Jun	18	17	17	16	16	16	16	17	18	19	20	21	21	16	12	13	14	14	13	12	10	9	8	7	15.1	21.2
10-Jun	6	6	8	9	9	9	10	11	13	15	16	17	18	19	21	21	21	21	21	20	15	11	10	9	14.0	21.5
11-Jun	8	8	8	7	7	7	7	8	9	9	9	9	9	9	10	10	11	11	10	10	10	9	9	9	8.8	10.5
12-Jun	8	8	8	6	7	7	8	10	15	17	18	18	19	19	19	20	20	19	18	17	15	14	13	11	13.9	20.1
13-Jun	8	7	7	7	6	7	10	13	15	16	16	17	17	19	20	21	21	21	21	21	20	15	13	13	14.7	21.2
14-Jun	12	12	11	11	11	11	11	12	13	14	14	14	13	14	14	14	14	14	13	11	11	10	9	8	12.2	14.5
15-Jun	7	6	7	6	4	5	6	7	9	10	13	16	17	18	18	18	19	19	19	18	18	16	15	15	12.7	19.0
16-Jun	15	13	12	11	11	11	12	13	15	17	18	18	19	18	19	19	19	19	18	18	17	14	11	8	15.3	19.3
17-Jun	9	10	10	8	7	9	11	12	14	15	16	17	18	18	19	19	19	18	18	17	16	12	10	9	13.7	18.8
18-Jun	7	7	5	3	3	5	7	9	13	14	15	16	17	17	17	16	17	17	17	18	17	14	9	7	12.0	17.7
19-Jun	5	5	5	3	5	5	9	11	14	17	19	20	21	20	19	18	18	19	19	19	17	15	14	14	13.8	20.6
20-Jun	13	12	13	12	12	12	13	14	16	18	20	19	17	15	12	14	17	17	17	17	15	14	13	12	14.7	19.5
21-Jun	9	8	9	7	8	8	10	12	13	14	15	14	14	14	14	13	12	12	11	10	9	8	8	8	10.9	15.1
22-Jun	9	9	9	9	8	8	9	11	12	13	14	15	16	16	17	19	18	19	19	19	17	14	11	10	13.4	19.1
23-Jun	9	8	8	7	6	7	10	12	15	17	19	21	19	20	21	21	20	16	15	18	14	11	11	10	13.9	21.3
24-Jun	10	8	7	6	6	6	10	12	14	17	19	21	20	21	22	23	23	23	23	22	20	16	14	15	15.8	23.5
25-Jun	15	15	15	14	13	13	15	17	19	21	23	25	26	27	27	27	27	27	27	26	24	23	22	22	21.3	27.4
26-Jun	20	20	19	16	15	13	16	19	21	23	25	25	25	25	27	23	16	16	17	15	15	14	13	13	18.7	26.5
27-Jun	12	13	12	11	11	10	10	12	14	15	14	14	14	12	12	12	13	13	13	12	12	12	12	12	12.4	15.3
28-Jun	12	12	11	11	11	11	11	11	12	12	13	14	16	17	18	20	21	20	19	19	18	15	14	11	14.6	20.5
29-Jun	11	10	10	10	9	10	12	14	16	18	20	22	23	24	24	25	25	24	23	22	21	19	17	16	17.7	25.0
30-Jun	15	15	14	14	13	13	15	18	20	21	22	23	24	24	25	26	26	26	26	25	22	20	P	P	20.3	26.1
	11.1	10.6	10.0	9.4	8.9	9.3	11.0	12.9	14.9	16.6	17.9	18.7	19.2	19.3	19.5	19.8	19.6	19.5	19.0	18.3	16.7	14.5	12.8	12.1	Diurnal Average	
	20.5	19.6	18.6	16.4	16.3	16.2	16.3	18.8	20.8	22.6	25.0	25.8	27.6	27.9	27.5	27.6	27.8	27.3	26.8	26.0	24.3	22.7	22.1	21.7	Diurnal Maximum	

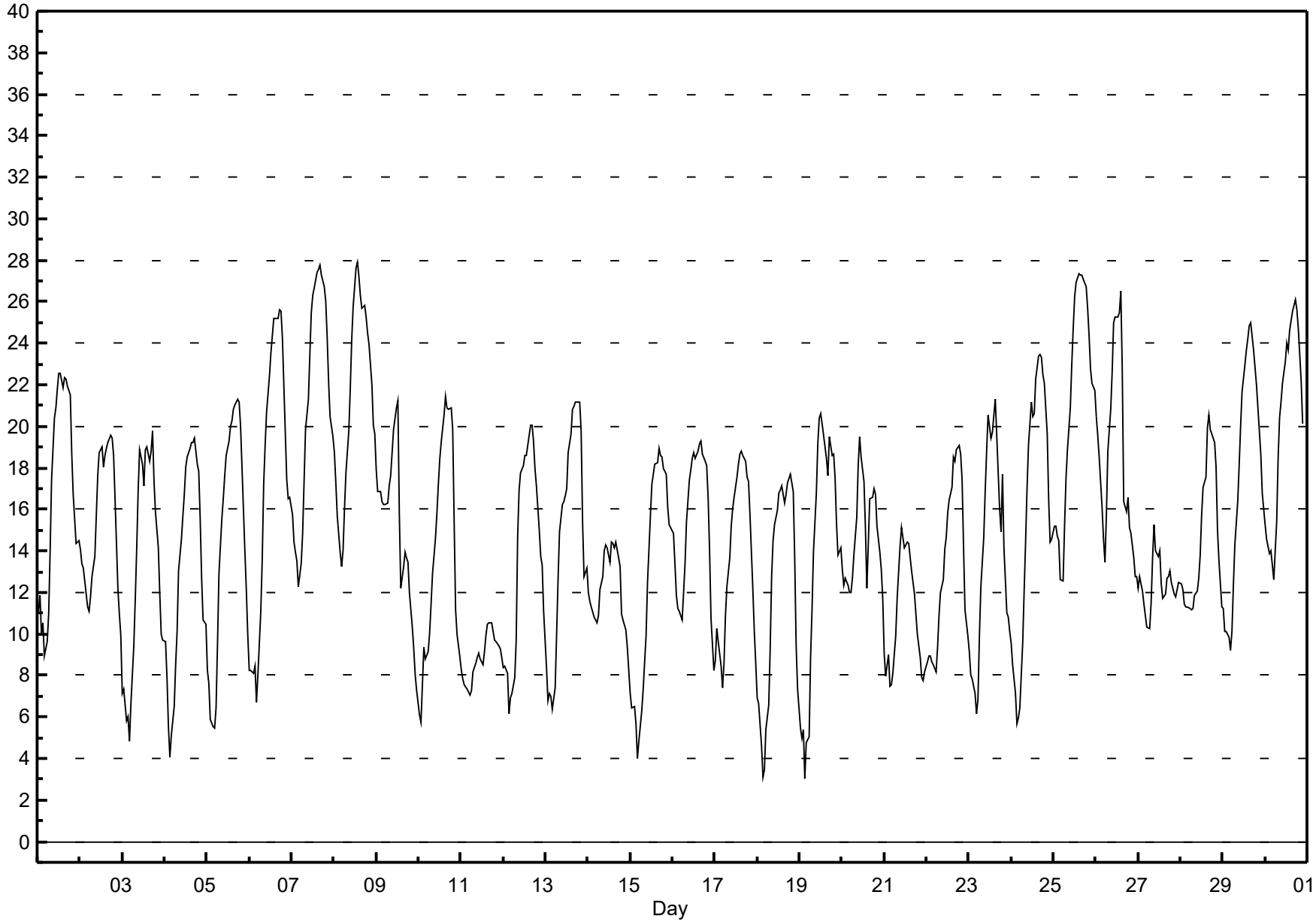
P - Power Failure

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	5	4	5	4	7	7	4	5	5	7	19	14	13	16	28	15	8	9	8	15	12	11	13	19	9.4	27.9
Dir	254	276	223	236	230	188	186	191	234	239	256	246	239	227	270	256	301	324	262	258	238	214	237	253	247.9	270.3
2 Spd	17	12	9	5	4	4	6	8	11	20	28	27	27	36	38	35	36	32	33	30	19	13	9	9	18.0	37.8
Dir	260	190	182	159	212	208	219	214	216	246	262	274	263	257	275	267	264	261	264	260	249	238	264	249	255.3	274.9
3 Spd	11	12	14	7	6	4	6	5	3	9	16	17	13	8	6	22	27	20	29	16	12	10	11	12	8.6	29.4
Dir	253	268	262	234	176	239	209	202	140	88	126	168	189	164	159	259	262	264	267	257	245	248	259	267	238.3	267.2
4 Spd	13	10	7	4	4	4	6	7	8	6	7	5	4	5	4	5	8	3	4	5	11	10	8	5	4.7	12.7
Dir	286	290	277	185	243	266	244	181	179	231	234	250	162	127	197	137	238	203	201	187	235	257	237	277	233.1	285.7
5 Spd	4	9	9	13	16	14	15	17	22	23	21	20	18	16	22	17	13	10	9	8	4	4	7	7	13.0	23.4
Dir	227	274	253	262	264	260	246	244	254	249	256	255	258	269	266	264	251	253	235	246	255	250	266	274	256.4	248.8
6 Spd	2	1	2	2	4	3	3	4	7	8	7	8	6	4	7	9	5	3	7	6	5	5	6	5	2.8	9.4
Dir	283	301	65	330	22	27	38	50	29	25	51	62	110	176	160	168	139	85	38	13	16	18	27	24	53.8	168.1
7 Spd	3	4	5	4	6	7	7	6	6	9	9	10	13	14	12	11	12	13	15	15	12	11	9	9	8.6	14.8
Dir	36	65	46	26	4	24	21	26	34	36	59	73	85	83	62	72	62	76	68	67	65	64	74	76	60.9	67.4
8 Spd	11	9	8	8	9	9	11	11	12	13	14	16	15	18	26	24	20	19	19	15	13	9	9	7	10.9	26.4
Dir	56	47	24	17	15	19	26	33	29	44	69	85	63	99	130	124	107	110	113	96	90	79	33	47	77.7	129.7
9 Spd	11	7	10	8	10	11	9	10	9	4	10	10	11	23	29	23	21	21	15	15	18	18	7	3	4.0	29.3
Dir	95	348	357	10	14	21	17	23	47	75	37	31	79	242	248	252	242	237	219	176	234	257	202	249	263.6	248.2
10 Spd	2	3	8	11	10	10	8	7	5	2	6	6	6	9	4	7	8	10	8	3	19	16	12	13	5.9	19.4
Dir	49	81	2	354	349	348	347	7	12	340	269	260	270	274	278	319	288	275	284	5	14	13	15	8	340.3	14.4
11 Spd	13	10	7	8	7	5	3	2	4	4	5	5	5	5	5	6	5	8	10	7	6	7	7	4	1.4	13.5
Dir	344	353	354	354	356	347	325	165	157	122	123	106	190	174	173	180	164	177	197	175	171	167	154	166	162.0	343.7
12 Spd	4	6	7	8	5	9	10	8	24	34	32	33	33	33	27	25	23	24	17	10	13	13	18	12	16.7	34.0
Dir	189	208	244	239	175	187	202	199	247	253	254	251	264	263	261	260	266	269	264	241	255	263	266	264	253.0	253.4
13 Spd	10	13	15	16	15	8	10	14	19	21	16	11	9	9	12	8	15	15	12	9	7	10	5	8	10.5	20.9
Dir	248	248	262	259	256	197	200	227	250	258	252	267	262	222	269	239	226	237	270	274	232	190	222	21	246.8	258.1
14 Spd	9	9	8	9	10	7	9	6	6	9	10	8	6	10	12	9	6	8	1	17	5	2	1	6	5.9	17.0
Dir	3	0	4	21	26	22	24	20	13	27	31	17	348	13	3	359	22	61	135	275	292	29	215	248	6.0	275.0
15 Spd	3	7	7	7	8	7	9	7	6	6	5	5	6	7	8	9	11	14	12	12	10	9	10	9	3.8	13.9
Dir	242	248	257	240	207	194	215	233	223	127	100	108	105	130	108	100	89	92	88	80	57	61	63	104	116.5	91.7
16 Spd	13	8	4	6	7	9	8	9	13	20	27	28	33	35	35	36	37	32	35	29	21	16	13	12	19.4	36.7
Dir	168	217	228	219	225	236	225	225	237	240	245	252	247	255	253	255	259	265	261	262	249	251	245	244	248.8	259.1
17 Spd	17	25	27	23	20	19	23	27	28	32	32	30	25	25	24	28	26	25	25	23	16	10	11	12	22.7	32.1
Dir	256	256	257	254	256	259	258	255	264	261	265	267	253	243	241	234	232	237	247	263	263	258	272	263	254.1	264.8
18 Spd	10	13	11	8	7	7	3	8	19	29	29	28	27	24	17	17	20	24	18	19	18	8	4	3	13.0	29.5
Dir	252	251	221	219	210	213	188	217	246	264	257	270	270	279	297	312	307	304	302	303	310	338	17	5	276.4	257.3
19 Spd	2	6	4	3	3	2	3	5	6	9	10	10	10	10	15	17	10	5	8	8	5	6	7	4	3.7	16.9
Dir	327	261	290	251	238	153	177	128	132	128	139	135	139	205	276	266	273	159	161	164	135	153	168	163	187.4	266.4
20 Spd	1	4	3	9	8	8	5	6	7	13	19	30	29	32	12	16	25	29	31	41	29	29	28	18	17.3	41.5
Dir	207	227	239	229	240	202	207	206	216	243	244	260	249	242	205	213	231	230	237	262	252	245	248	266	241.7	262.4
21 Spd	8	13	17	19	21	21	27	36	44	42	40	35	35	43	42	37	35	33	29	26	21	20	18	17	27.5	44.1
Dir	273	250	251	244	243	240	245	251	259	262	268	268	262	269	275	281	278	279	279	286	285	273	264	274	266.0	258.8
22 Spd	20	22	19	14	8	7	11	14	9	12	10	11	15	14	19	15	17	15	14	13	11	9	10	10	12.8	21.9
Dir	289	304	304	316	339	317	305	294	307	293	293	292	292	298	304	300	307	305	312	302	287	284	259	258	298.8	304.5

Peace Airshed Zone Association

Hourly Averages

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

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	Daily Average	Daily Maximum
23 Spd	12	14	14	9	6	5	8	11	8	10	12	16	12	3	5	8	17	3	5	14	5	8	5	10	6.9	16.9
Dir	260	264	264	247	228	239	221	221	221	210	217	234	278	257	341	307	339	244	188	314	320	201	262	291	258.0	338.5
24 Spd	8	9	7	9	5	4	4	5	6	7	9	6	3	6	8	4	6	6	5	5	3	3	2	2	2.9	9.4
Dir	284	275	276	254	246	189	143	172	156	146	159	239	43	123	174	181	173	185	144	123	97	76	85	127	184.8	253.9
25 Spd	3	3	3	2	4	6	5	6	9	10	13	12	17	20	20	20	21	23	23	20	17	16	21	20	12.0	23.0
Dir	152	156	133	83	45	20	25	134	123	129	128	130	134	122	127	122	120	125	131	128	129	118	132	161	126.3	124.8
26 Spd	12	17	11	9	3	3	3	7	6	8	10	11	7	2	3	10	22	5	5	7	6	8	7	8	4.5	22.4
Dir	127	131	156	235	270	225	225	275	223	217	289	278	305	336	48	157	227	2	171	203	219	210	221	234	214.4	226.5
27 Spd	8	21	18	18	16	18	20	23	28	31	35	37	36	32	33	31	29	28	27	27	27	36	33	27	26.0	36.8
Dir	224	236	251	254	252	253	250	255	260	272	269	254	255	255	250	250	252	254	255	253	278	267	276	287	258.6	254.1
28 Spd	27	28	18	16	15	16	19	22	20	15	13	11	12	13	10	5	8	8	9	9	8	6	3	6	9.1	28.1
Dir	299	314	333	327	329	321	308	305	319	334	341	337	354	353	13	349	323	133	162	169	172	183	240	216	319.4	313.8
29 Spd	7	9	7	9	9	8	7	11	15	16	15	15	17	18	16	16	20	21	16	12	12	7	7	7	11.4	21.2
Dir	193	222	204	206	197	192	187	206	221	219	226	212	222	227	235	239	257	244	269	258	256	240	240	257	230.0	244.4
30 Spd	9	11	10	11	13	14	12	11	8	7	11	13	8	8	8	4	4	5	7	5	5	9	P	P	5.8	13.5
Dir	263	258	252	266	269	263	264	273	315	298	278	299	312	279	312	306	352	51	39	48	60	95	P	P	287.8	263.1
Spd	4.8	6.4	6.1	5.8	4.7	4.2	4.8	6.1	7.4	8.6	9.4	9.9	9.1	10.2	9.9	9.8	10.5	8.2	8.1	7.6	6.0	5.1	5.2	5.2	Diurnal Average	
Dir	266.7	266.1	269.1	265.5	267.4	258.4	255.1	247.9	254.1	255.8	256.3	258.0	254.6	249.3	257.7	252.3	258.3	251.5	248.6	256.8	259.1	246.8	252.6	264.4		
Spd	27.2	28.1	27.3	23.4	20.9	21.2	26.5	35.8	44.1	42.4	40.3	36.8	35.7	42.6	41.8	36.6	36.7	32.6	34.9	41.5	29.2	35.8	33.1	26.8	Diurnal Maximum	
Dir	298.7	313.8	257.0	254.3	243.1	239.7	245.5	250.6	258.8	261.5	268.4	254.1	255.3	268.5	274.7	281.2	259.1	278.8	261.2	262.4	251.6	267.3	275.9	286.9		

Maximum Speed Value: 44 km/h on Jun 21 09:00
Maximum Daily Speed Average: 27.5 km/h on Jun 21
Maximum Diurnal Speed Average: 10.5 km/h at hour 17

Minimum Speed Value: 1 km/h on Jun 14 19:00
Minimum Daily Speed Average: 1.4 km/h on Jun 6
Minimum Diurnal Speed Average: 4.2 km/h at hour 6

Monthly Average Velocity: 7.18 km/h 256.55 deg

Speed Percentiles: P_1 = 1.6 P_{10} = 4.2 Q_1 = 6.6 Median = 9.9 Q_3 = 17.0 P_{90} = 27.1 P_{99} = 36.0

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

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Percent Operational Time:	99.7

P - Power Failure

Frequency Distribution

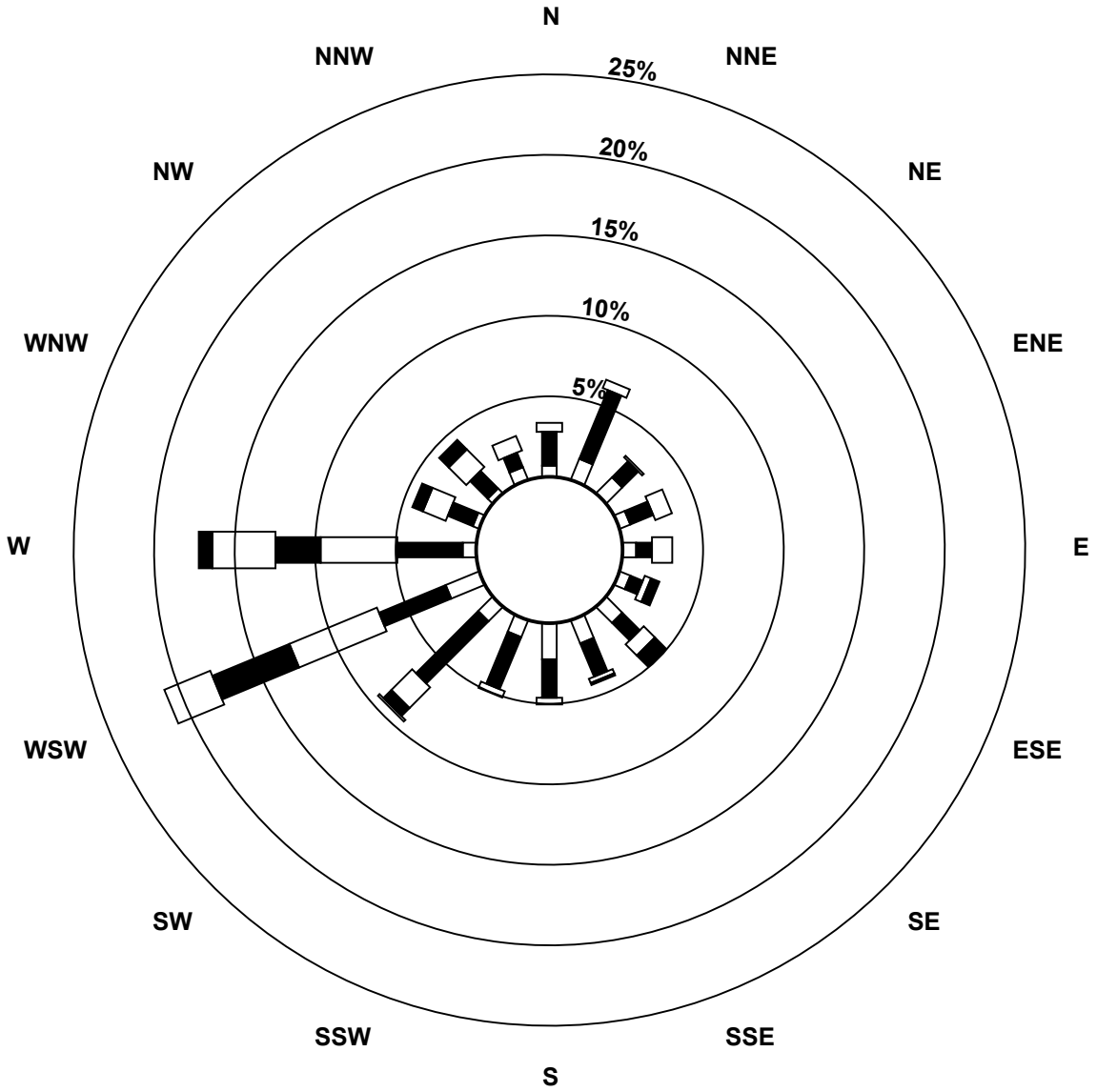
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	10	42	9	1	0	0	62
NorthEast	15	33	9	0	0	0	57
East	7	16	14	2	0	0	39
SouthEast	13	22	10	10	0	0	55
South	19	48	5	1	0	0	73
SouthWest	22	66	34	22	5	0	149
West	12	54	63	46	49	6	230
NorthWest	7	14	23	8	1	0	53
Total	105	295	167	90	55	6	718

Peace Airshed Zone Association

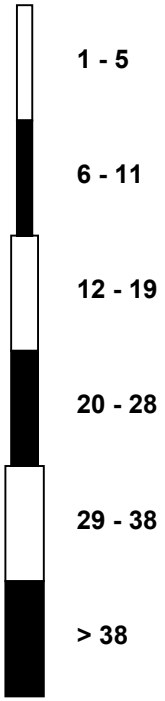
Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - June 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - June 2017

Maximum Speed: 44 km/h on Jun 21 09:00

Maximum Daily Speed Average: 28.5 km/h on Jun 21

Minimum Speed: 2 km/h on Jun 20 01:00

Minimum Daily Speed Average: 5.6 km/h on Jun 6

Maximum Diurnal Speed Average: 18.0 km/h at hour 17

Minimum Diurnal Speed Average: 8.7 km/h at hour 6

Monthly Average Speed: 13.39 km/h

Percentiles: $P_1 = 2.5$ $P_{10} = 5.0$ $Q_1 = 7.2$ Median = 10.5 $Q_3 = 17.3$ $P_{90} = 27.5$ $P_{99} = 36.2$

Hours in Service: 720

Hours of Data: 718

Hours of Missing Data: 2

Percent Operational Time: 99.7

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	6	4	5	5	7	8	4	6	6	8	20	15	14	17	28	16	12	9	8	15	12	12	13	19	11.2	28.3
2-Jun	17	13	9	6	4	4	6	8	11	21	29	28	28	36	38	36	36	32	33	30	19	13	10	9	19.8	38.1
3-Jun	11	12	14	10	7	4	6	5	4	10	17	17	13	9	7	23	27	21	30	16	12	11	12	12	12.9	29.6
4-Jun	13	10	7	5	5	5	6	7	9	8	8	7	7	7	7	8	10	5	4	5	12	11	9	6	7.5	12.8
5-Jun	5	10	9	13	16	15	15	17	22	24	21	21	19	17	23	18	14	11	10	8	4	4	7	7	13.7	23.7
6-Jun	3	2	2	3	4	3	4	4	7	8	8	9	8	6	9	11	7	5	7	6	5	5	6	5	5.6	11.0
7-Jun	4	4	5	5	6	7	7	6	6	9	9	11	14	14	13	12	12	14	15	15	12	11	9	10	9.6	15.2
8-Jun	11	10	8	8	9	9	11	11	12	13	15	16	16	20	27	25	20	20	19	16	14	11	9	7	14.0	26.7
9-Jun	12	7	10	8	10	11	9	11	10	5	10	11	12	23	31	24	21	21	15	16	19	18	8	4	13.6	30.5
10-Jun	3	5	8	11	10	10	8	7	5	5	7	8	8	10	7	8	8	10	9	5	20	16	12	14	9.0	20.0
11-Jun	14	10	7	8	7	5	3	3	5	4	5	6	5	5	5	7	6	8	10	7	6	7	7	4	6.5	13.6
12-Jun	5	6	7	8	11	11	10	8	24	34	32	33	34	33	28	26	24	24	17	10	14	13	18	12	18.4	34.2
13-Jun	10	14	15	16	15	8	10	14	19	21	16	11	9	10	13	12	16	15	12	9	8	10	8	9	12.5	21.2
14-Jun	9	9	8	9	10	7	9	6	6	9	10	8	7	11	12	9	6	8	6	17	6	3	2	6	8.1	17.2
15-Jun	4	7	7	8	8	7	9	8	7	7	6	6	7	8	10	10	12	14	12	12	10	9	10	10	8.7	14.1
16-Jun	13	8	5	6	7	9	8	10	13	21	27	29	34	35	35	37	37	33	35	29	21	16	13	12	20.5	37.1
17-Jun	17	25	27	23	20	19	23	27	29	32	32	30	26	26	26	28	27	25	25	23	16	11	11	12	23.4	32.4
18-Jun	10	13	11	8	7	7	5	9	20	30	30	28	28	25	19	17	21	25	18	19	18	10	4	4	16.1	30.1
19-Jun	3	7	5	5	3	2	3	5	6	9	11	11	11	11	17	17	11	6	9	8	5	6	7	5	7.6	17.1
20-Jun	2	4	3	9	8	8	5	6	8	14	19	31	29	32	13	18	25	29	31	42	29	29	29	19	18.4	41.8
21-Jun	9	14	17	19	21	21	27	36	44	43	41	36	35	43	42	37	35	33	29	26	21	20	18	17	28.5	44.3
22-Jun	20	22	19	14	8	7	11	14	10	12	11	12	15	15	19	15	17	16	14	13	11	9	10	10	13.6	22.0
23-Jun	12	14	14	10	6	6	8	11	8	10	13	16	17	6	6	9	18	13	8	14	8	9	6	10	10.5	17.8
24-Jun	8	9	8	10	6	5	5	5	6	8	9	9	6	7	9	6	7	8	6	5	3	3	2	2	6.3	9.5
25-Jun	4	3	3	3	4	6	5	7	9	10	14	12	17	20	20	21	21	23	23	20	17	16	21	22	13.5	23.2
26-Jun	17	17	12	10	7	4	5	7	8	8	13	12	8	3	7	14	25	9	5	7	7	8	8	9	9.5	24.6
27-Jun	9	21	19	18	16	18	20	23	28	32	37	37	36	32	33	31	30	28	27	27	28	36	33	27	26.8	37.0
28-Jun	27	28	18	17	15	16	19	23	20	15	13	12	12	13	10	7	9	9	9	9	8	7	4	6	13.6	28.3
29-Jun	7	9	8	9	9	8	7	11	15	16	15	15	17	18	16	17	20	21	16	12	12	7	7	7	12.6	21.4
30-Jun	9	11	11	11	13	14	12	11	9	7	11	13	9	9	9	6	8	6	7	6	5	9	P	P		

P - Power Failure

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - June 2017

Maximum Value: 92.1 deg on Jun 14 23:00

Minimum Value: 2.3 deg on Jun 17 01:00

Percentiles: P_1 = 2.8 P_{10} = 5.5 Q_1 = 8.3 Median = 13.3 Q_3 = 23.7 P_{90} = 41.7 P_{99} = 77.2

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	11	30	29	35	21	24	45	27	28	38	11	26	26	25	9	20	45	21	22	8	13	23	12	8	45.3
2-Jun	8	24	8	24	17	27	11	6	10	8	14	11	14	11	7	11	9	10	7	8	4	6	21	15	27.2
3-Jun	7	9	5	46	21	14	8	15	50	13	19	15	10	23	38	16	9	13	6	12	10	10	10	11	49.9
4-Jun	8	7	16	41	26	26	10	22	13	42	35	52	70	70	61	57	40	66	20	11	27	12	32	41	70.1
5-Jun	32	17	7	4	3	5	4	6	8	9	14	13	18	23	14	20	29	31	17	19	13	16	11	21	32.2
6-Jun	52	65	27	86	17	14	14	21	12	14	35	27	56	65	41	33	60	67	21	10	8	7	6	14	86.4
7-Jun	48	17	17	27	13	8	7	10	19	12	19	27	20	19	22	24	16	16	15	9	7	8	14	14	48.2
8-Jun	15	20	15	6	6	6	6	9	9	13	18	14	16	30	9	10	8	9	10	10	7	31	9	19	30.9
9-Jun	36	23	7	9	9	8	6	7	27	33	9	13	26	9	16	15	4	8	9	24	14	6	25	40	40.0
10-Jun	41	44	18	6	8	10	11	18	28	79	37	45	61	40	66	36	23	18	24	56	13	10	12	19	79.4
11-Jun	7	11	9	10	9	13	23	59	26	39	24	35	20	23	26	19	21	15	11	12	8	7	7	66	65.7
12-Jun	18	7	22	13	64	33	9	16	10	5	9	10	11	9	9	10	13	10	9	13	5	4	5	8	64.1
13-Jun	13	6	3	3	5	17	12	9	11	9	11	13	25	30	20	51	25	20	17	18	32	5	63	16	62.8
14-Jun	7	8	10	9	7	10	13	19	18	19	18	10	24	15	14	18	16	15	72	8	76	45	92	19	92.1
15-Jun	46	13	8	12	14	13	14	21	38	24	29	41	33	40	35	21	25	10	8	10	14	8	8	30	45.5
16-Jun	7	25	26	10	12	4	10	10	12	12	9	15	11	11	10	10	9	7	7	9	5	5	3	4	26.4
17-Jun	2	3	4	3	3	4	3	6	9	9	9	11	16	14	21	11	12	13	8	10	4	5	5	6	20.6
18-Jun	4	5	10	5	12	12	78	23	17	10	12	11	15	14	24	14	12	10	16	10	6	30	9	55	77.7
19-Jun	50	27	25	62	17	46	24	17	15	18	19	25	22	23	22	10	23	47	10	12	18	11	4	23	62.4
20-Jun	85	15	29	7	7	7	12	12	21	20	15	14	6	5	26	20	8	7	6	7	6	4	5	13	85.4
21-Jun	18	11	5	3	4	3	4	5	6	6	9	8	7	8	10	12	8	7	7	8	8	4	5	7	18.4
22-Jun	5	5	4	11	9	12	8	7	21	16	20	24	13	18	15	23	19	16	13	17	5	8	10	9	24.5
23-Jun	4	3	3	43	21	12	12	11	14	18	19	15	49	65	43	46	19	80	79	8	75	21	21	20	79.9
24-Jun	27	12	16	10	42	30	24	15	16	15	23	60	57	37	31	68	54	35	23	14	33	17	33	31	67.6
25-Jun	50	50	32	55	23	6	12	43	13	15	24	19	13	10	14	11	8	8	6	6	7	8	6	28	55.0
26-Jun	48	9	31	26	72	44	57	12	34	17	44	30	26	77	64	43	28	64	29	14	38	16	20	44	77.0
27-Jun	33	7	4	3	6	3	3	4	7	11	16	6	6	6	5	4	5	5	5	8	14	5	5	8	33.0
28-Jun	8	6	8	8	8	9	8	5	9	11	10	9	11	10	15	39	27	47	8	8	6	15	26	15	47.0
29-Jun	12	20	16	6	10	8	8	12	9	10	10	14	12	16	15	16	10	6	15	10	9	9	5	5	20.2
30-Jun	5	7	9	5	6	4	4	13	19	31	23	19	41	41	39	58	57	57	17	13	10	20	P	P	57.6
	85.4	65.1	32.1	86.4	72.0	46.2	77.7	59.0	49.9	79.4	44.2	60.0	69.6	77.0	65.6	67.6	60.0	79.9	78.5	55.5	76.3	45.3	92.1	65.7	

P - Power Failure

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.7 ppb on Jun 19 10:00

Maximum Daily Average: 0.8 ppb on Jun 8

Minimum Value: 0 ppb on Jun 20 17:00

Minimum Daily Average: 0.0 ppb on Jun 21

Maximum Diurnal Average: 0.3 ppb at hour 10

Minimum Diurnal Average: 0.1 ppb at hour 20

Monthly Average: 0.18 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.4$ $P_{99} = 1.0$

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-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
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	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
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	0.1
5-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
6-Jun	1	1	1	1	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
7-Jun	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
8-Jun	0	1	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.8	1.2
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	0.3
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	0	0	0	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	0.4
14-Jun	0	0	0	0	A	0	0	0	0	0	0	0	1	1	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	C	C	C	0	0	0	0	0	0	0	0	0.1	0.3
16-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
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	0.1	0.2
18-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
19-Jun	0	0	0	1	A	1	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7
20-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
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	0.0	0.1
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	0.1	0.2
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	0.1	0.2
24-Jun	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
25-Jun	1	1	1	1	A	1	1	1	1	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0.6	1.0
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	0.2	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	0.2
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	0.2
29-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0.3	0.9
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	0.2	0.4
	0.2	0.2	0.2	0.2	--	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	Diurnal Average	
	0.7	1.0	1.0	0.8	--	0.8	0.9	1.0	1.1	1.7	1.3	0.9	0.9	0.9	0.9	0.8	1.0	1.2	1.0	0.7	0.4	0.6	0.5	0.6	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

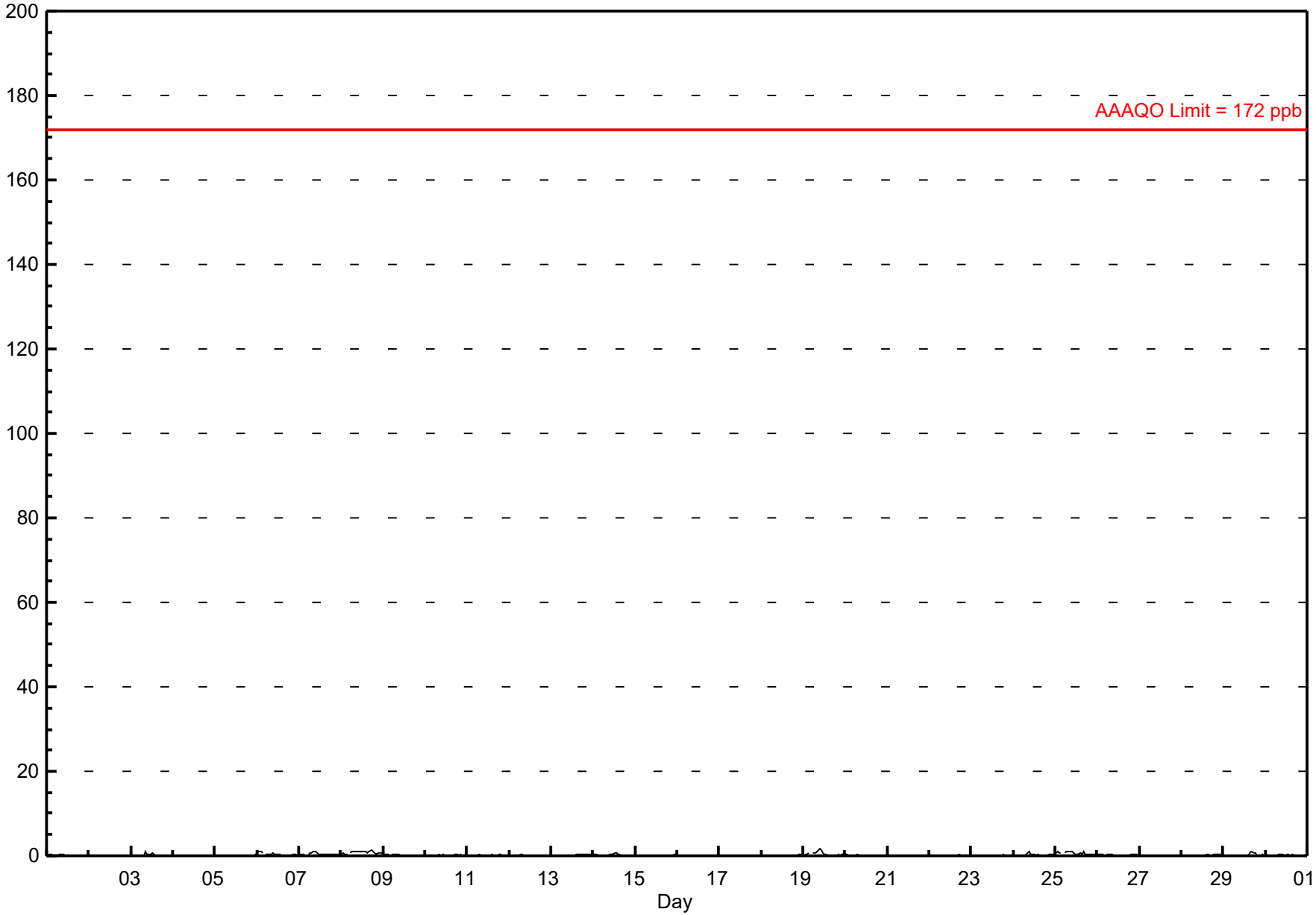
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - June 2017

Maximum Value: 3.1 ppb on Jun 25 17:00

Maximum Daily Average: 1.0 ppb on Jun 8

Minimum Value: 0 ppb on Jun 21 00:00

Minimum Daily Average: 0.1 ppb on Jun 21

Maximum Diurnal Average: 0.5 ppb at hour 9

Minimum Diurnal Average: 0.2 ppb at hour 20

Monthly Average: 0.33 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.8$ $P_{99} = 1.8$

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.5
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	2	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.9
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	0.2	0.2
5-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	0.2	1.2
6-Jun	1	2	2	1	A	0	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.5
7-Jun	0	0	0	0	A	0	1	1	1	2	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0.7	1.7
8-Jun	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	2	2	1.0	2.1
9-Jun	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
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	0.4
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	0.2	0.5
12-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
13-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0.3	0.9
14-Jun	1	1	0	0	A	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.1
15-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	1	0	0.2	0.8
16-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
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	0.1	0.2
18-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
19-Jun	0	1	1	1	A	1	1	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.5
20-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
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	0.1	0.2
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	0.2	0.4
23-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.6
24-Jun	0	0	0	0	A	0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0.5	2.5
25-Jun	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	3	2	0	0	1	0	1	1	1.0	3.1
26-Jun	0	0	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.3	0.6
27-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	0.7
28-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.5
29-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0.4	1.1
30-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	0.3	0.6
	0.3	0.3	0.3	0.3	--	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	Diurnal Average	
	1.5	1.6	1.6	1.2	--	1.2	1.3	1.4	2.5	2.5	1.7	2.5	1.2	1.1	1.4	1.0	3.1	1.5	1.4	0.9	0.6	0.9	1.7	2.1	Diurnal Maximum	

C - Calibration

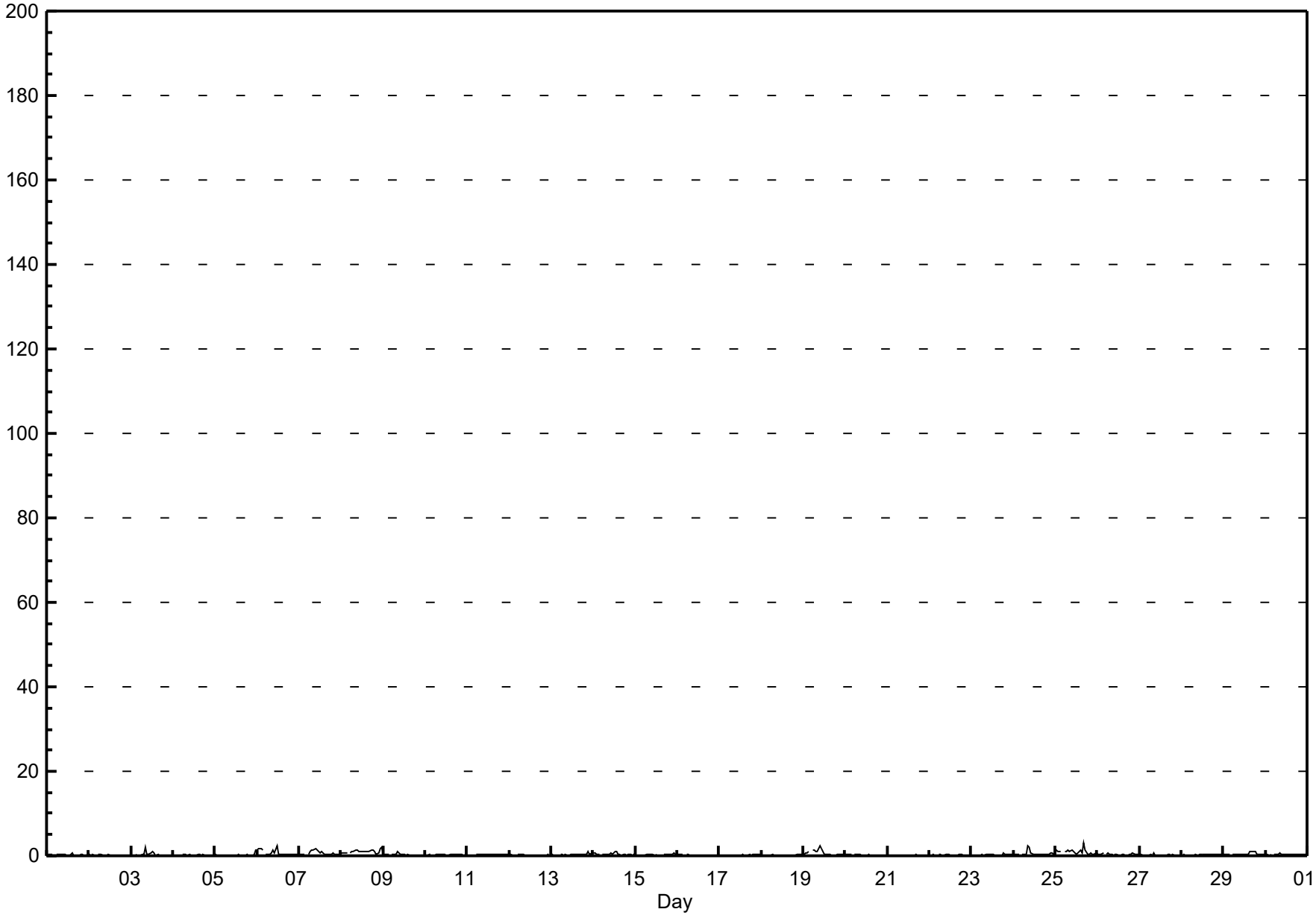
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

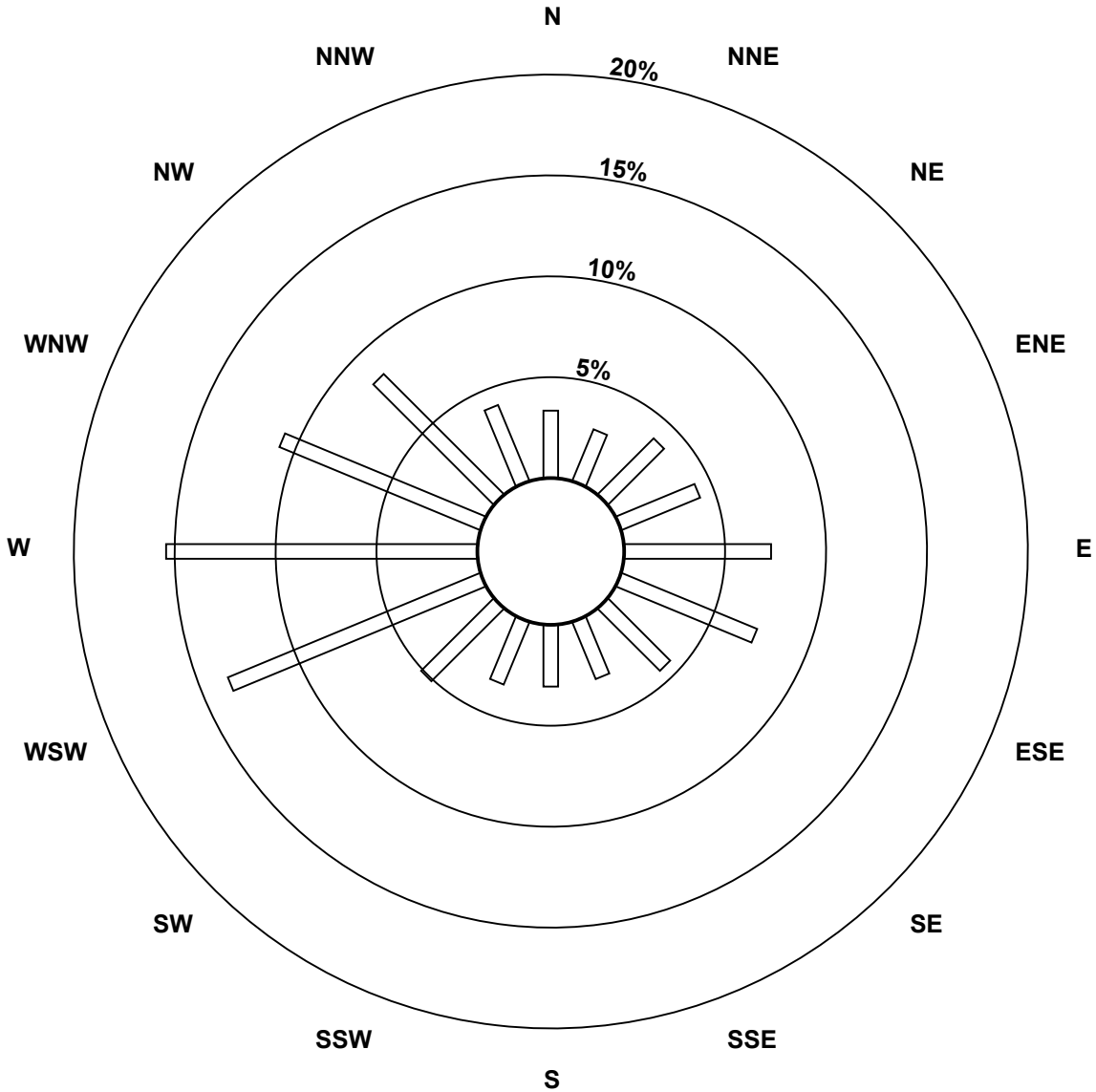
Beaverlodge - June 2017



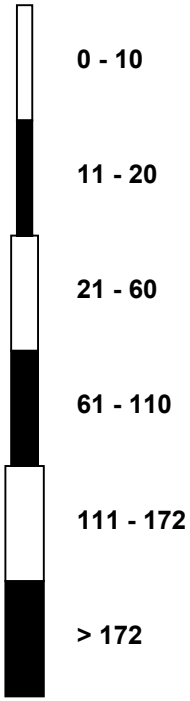
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - June 2017



Pollutant Classes (ppb)

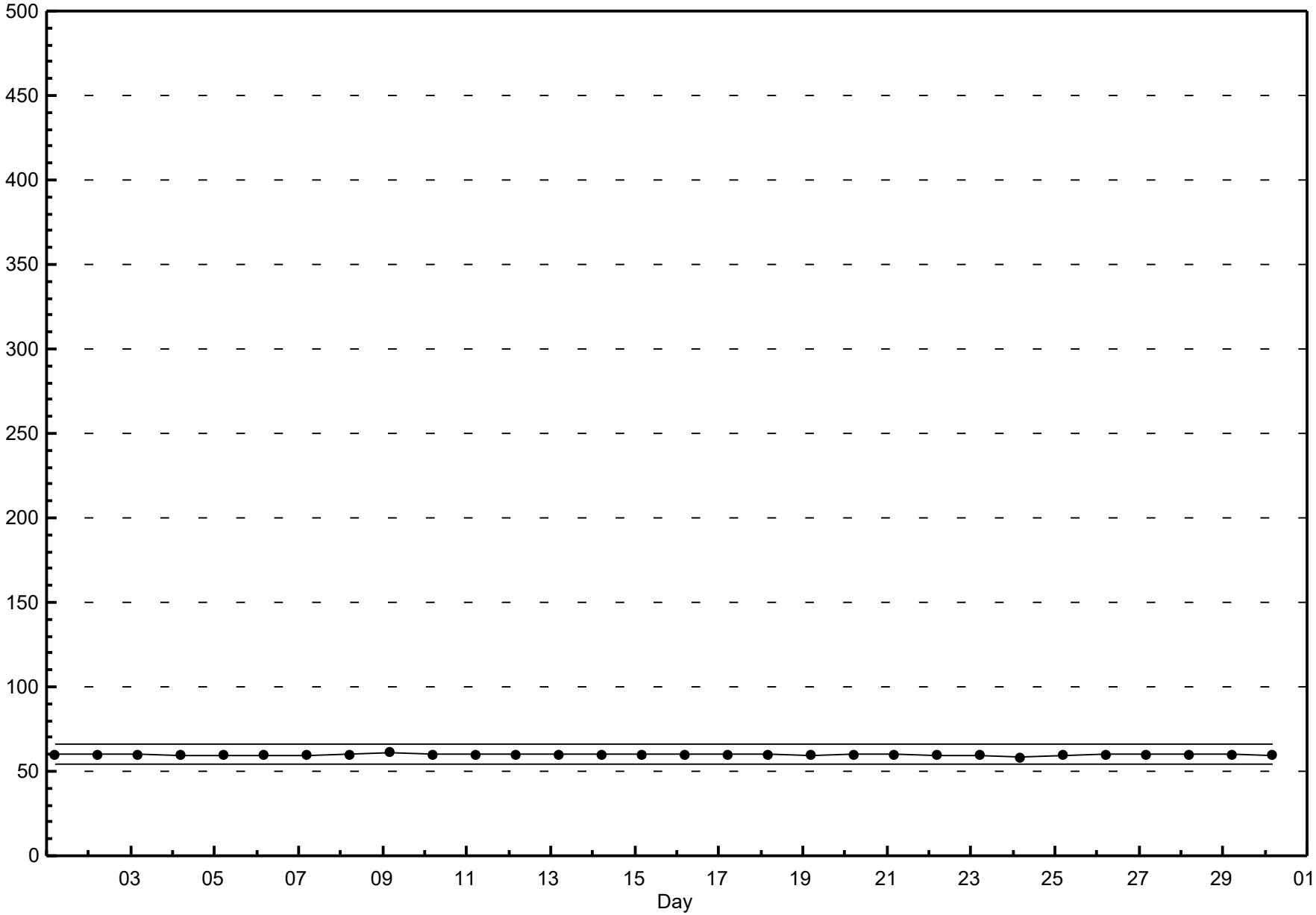


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 10.1 ppb on Jun 7 08:00 Maximum Daily Average: 3.6 ppb on Jun 25

Minimum Value: 0 ppb on Jun 1 16:00 Minimum Daily Average: 0.8 ppb on Jun 21
Maximum Diurnal Average: 5.8 ppb at hour 6 Minimum Diurnal Average: 0.9 ppb at hour 17
Monthly Average: 2.06 ppb Percentiles: $P_1 = 0.2$ $P_{10} = 0.5$ $Q_1 = 0.8$ Median = 1.5 $Q_3 = 2.7$ $P_{90} = 4.7$ $P_{99} = 8.1$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	3	2	4	3	A	6	4	2	2	1	0	1	1	1	1	0	1	1	1	2	2	2	1	2	1.8	6.3
2-Jun	2	1	2	2	A	7	6	2	1	1	5	1	1	1	0	0	0	1	1	1	2	2	2	2	1.8	7.3
3-Jun	1	1	3	2	A	6	5	5	4	6	7	5	4	3	2	2	1	1	1	0	1	2	2	1	2.8	7.1
4-Jun	1	1	1	1	A	4	8	5	1	2	2	1	1	1	1	1	1	1	1	2	2	2	3	4	2.0	7.7
5-Jun	2	1	2	1	A	4	3	2	1	1	0	0	0	0	0	0	0	0	0	0	2	2	1	2	1.2	4.5
6-Jun	4	3	3	3	A	10	7	8	5	4	5	3	2	2	1	1	1	1	1	2	2	1	2	1	3.0	9.6
7-Jun	1	2	2	4	A	8	7	10	7	7	6	3	2	2	1	1	1	1	1	1	1	1	2	2	3.3	10.1
8-Jun	2	3	2	2	A	5	4	4	4	4	3	2	2	2	2	2	2	2	3	2	2	3	4	3	2.8	5.2
9-Jun	3	2	2	3	A	7	5	4	5	5	2	1	1	1	1	2	1	1	1	1	1	1	1	2	2.4	6.8
10-Jun	2	2	2	2	A	4	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	4.3
11-Jun	1	1	1	1	A	3	2	2	1	1	1	2	2	3	2	2	2	2	2	2	3	5	4	5	2.1	4.9
12-Jun	6	5	4	3	A	6	3	2	1	1	1	1	0	0	0	1	1	1	1	0	1	1	1	1	1.7	5.9
13-Jun	1	1	1	1	A	5	3	3	2	1	1	0	0	0	0	0	0	0	0	0	1	2	3	3	1.3	4.6
14-Jun	3	4	3	5	A	8	6	4	3	3	2	2	2	2	2	2	2	2	1	1	2	2	3	2	2.8	7.6
15-Jun	2	4	2	3	A	5	3	1	2	C	C	C	C	C	2	2	2	1	1	1	2	2	2	1	2.1	5.1
16-Jun	1	1	1	4	A	5	4	2	1	1	1	1	0	0	0	0	0	0	0	0	1	2	1	1	1.3	5.2
17-Jun	1	1	2	1	A	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.9	3.5
18-Jun	3	2	2	2	A	4	3	2	1	0	0	0	0	0	0	0	1	0	0	1	1	1	2	3	1.3	4.4
19-Jun	3	3	4	2	A	6	7	6	7	6	6	4	2	1	1	1	1	0	1	1	2	4	3	5	3.3	6.9
20-Jun	6	6	4	6	A	8	6	4	3	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	2.4	8.4
21-Jun	0	0	0	0	A	3	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	3.2
22-Jun	1	1	1	1	A	5	2	2	2	1	1	1	1	0	1	1	1	1	1	1	1	3	2	1	1.2	4.7
23-Jun	1	1	3	2	A	5	3	2	2	1	1	0	0	0	1	1	1	1	1	1	2	3	5	4	1.7	4.9
24-Jun	3	2	4	5	A	8	6	5	4	2	2	1	1	1	1	1	1	1	1	1	2	3	5	4	2.7	7.8
25-Jun	6	5	4	4	A	7	8	7	6	6	4	2	2	2	1	2	2	1	2	2	2	3	3	4	3.6	8.1
26-Jun	2	6	3	4	A	9	7	4	3	1	2	1	0	1	1	1	1	1	3	3	5	5	3	2	2.9	8.9
27-Jun	2	2	2	1	A	3	2	1	4	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	4.2
28-Jun	1	1	2	2	A	4	3	3	3	2	2	1	1	1	1	1	1	1	1	2	2	3	1	4	1.8	4.2
29-Jun	3	3	4	5	A	8	4	2	1	1	1	1	1	1	1	1	1	2	3	2	3	3	4	2	2.5	7.7
30-Jun	1	1	1	1	A	5	3	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1.4	4.8
	2.3	2.3	2.3	2.6	--	5.8	4.3	3.3	2.7	2.3	2.1	1.4	1.1	1.0	1.0	0.9	0.9	0.9	1.1	1.2	1.7	2.1	2.2	2.2	Diurnal Average	
	6.2	6.1	4.4	6.5	--	9.6	8.1	10.1	6.9	7.2	7.1	4.6	4.0	2.9	2.5	2.0	2.2	2.5	3.3	2.6	5.2	4.9	5.3	4.9	Diurnal Maximum	

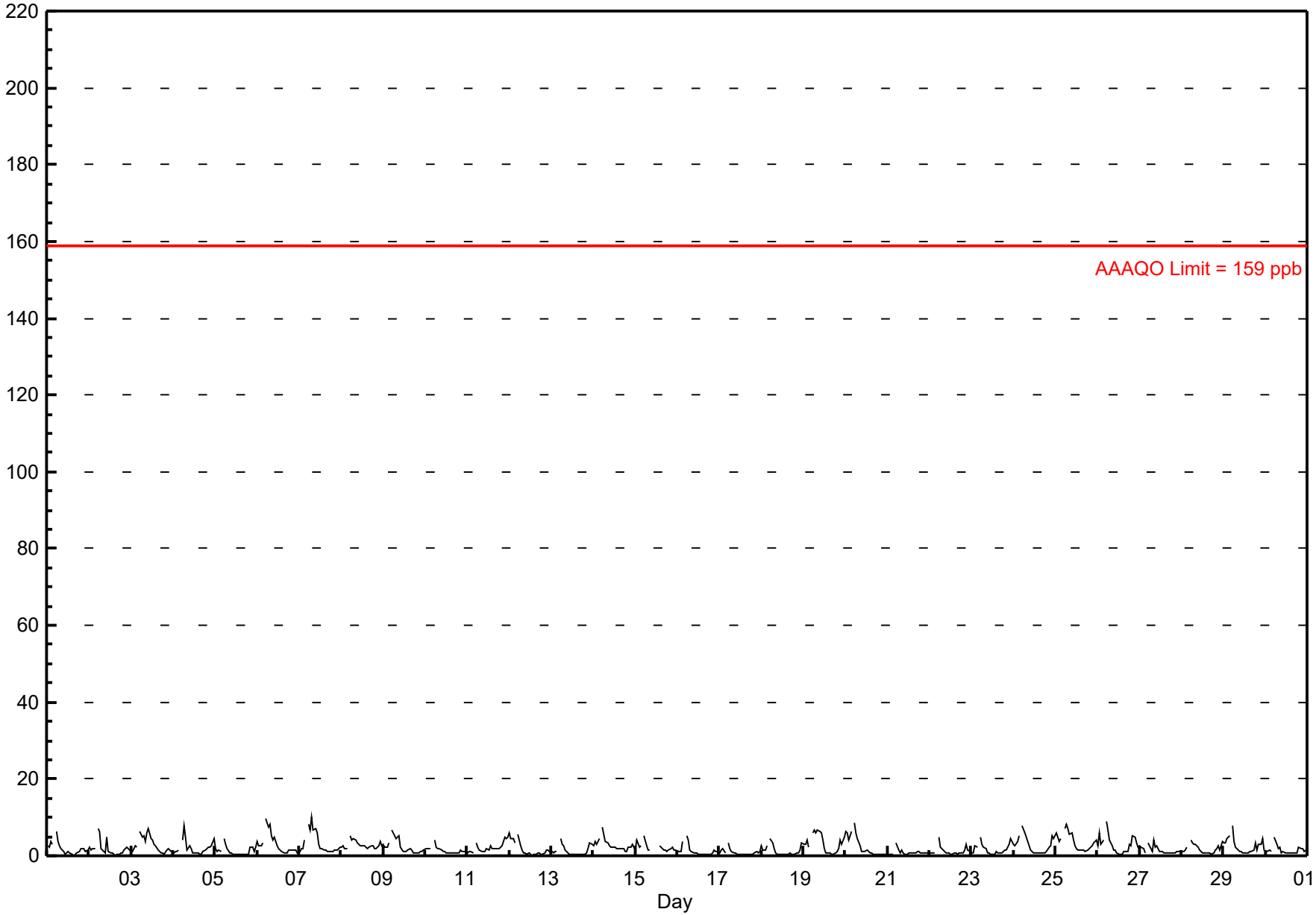
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - June 2017

Maximum Value: 131.3 ppb on Jun 27 09:00

Maximum Daily Average: 8.2 ppb on Jun 27

Minimum Value: 0 ppb on Jun 5 16:00

Minimum Daily Average: 2.0 ppb on Jun 17

Maximum Diurnal Average: 9.1 ppb at hour 6

Minimum Diurnal Average: 1.5 ppb at hour 17

Monthly Average: 3.90 ppb

Percentiles: $P_1 = 0.6$ $P_{10} = 0.9$ $Q_1 = 1.4$ Median = 2.5 $Q_3 = 4.7$ $P_{90} = 7.8$ $P_{99} = 15.5$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	3	3	7	4	A	9	6	4	3	2	1	2	2	1	1	2	1	2	3	6	6	3	2	3	3.2	9.3
2-Jun	5	2	3	2	A	13	13	5	1	1	54	2	1	1	1	1	1	1	2	3	6	6	4	4	5.8	53.9
3-Jun	3	2	4	4	A	9	9	9	5	8	9	6	5	10	24	14	2	2	4	1	5	4	4	2	6.3	24.3
4-Jun	1	2	2	4	A	7	16	12	2	3	3	1	1	1	1	1	1	2	2	4	4	3	3	8	3.7	16.0
5-Jun	3	2	2	2	A	7	5	3	2	11	1	1	1	50	2	0	1	1	1	1	6	4	3	6	5.0	50.4
6-Jun	6	3	5	4	A	14	10	11	8	5	6	5	2	4	3	1	1	1	2	2	3	2	2	1	4.4	14.0
7-Jun	2	2	2	8	A	12	10	16	8	9	9	5	2	2	2	3	1	1	1	2	2	2	2	3	4.6	15.5
8-Jun	3	3	2	2	A	8	4	5	5	4	4	3	3	3	3	2	3	3	3	3	3	3	8	4	3.6	7.7
9-Jun	5	3	3	4	A	9	7	5	8	9	3	2	2	2	2	4	3	2	1	2	2	2	2	3	3.7	9.3
10-Jun	4	2	2	2	A	7	3	2	2	2	2	1	1	1	1	1	2	1	2	2	3	2	1	1	2.0	7.4
11-Jun	1	1	1	1	A	7	3	2	2	2	2	4	2	5	2	3	3	3	2	3	4	6	6	7	3.2	6.9
12-Jun	7	5	5	4	A	9	4	3	1	1	1	1	1	1	1	1	1	2	1	2	2	3	2	2	2.7	8.8
13-Jun	1	1	2	1	A	8	4	3	2	2	1	2	1	1	1	1	1	0	1	2	2	6	5	3	2.2	7.9
14-Jun	3	4	4	7	A	16	9	5	4	3	3	3	2	2	3	2	2	3	2	2	4	3	5	3	4.1	15.6
15-Jun	3	13	3	4	A	7	4	2	5	C	C	C	C	C	3	3	2	2	2	2	3	5	3	2	3.7	13.4
16-Jun	1	2	1	6	A	8	7	3	2	1	1	2	1	1	1	1	1	1	1	2	3	4	2	1	2.3	8.1
17-Jun	2	2	3	1	A	7	3	3	2	1	1	1	1	2	1	1	1	1	1	1	5	2	2	2	2.0	6.8
18-Jun	4	2	2	3	A	7	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3	7	2.1	6.9
19-Jun	4	13	9	3	A	7	11	7	9	7	24	5	4	2	1	1	1	1	2	2	3	6	4	6	5.7	23.7
20-Jun	7	8	5	11	A	12	8	8	8	1	2	3	3	2	2	2	1	2	1	1	2	1	1	1	3.9	11.6
21-Jun	1	1	1	1	A	6	2	2	7	6	1	1	1	2	1	2	2	2	2	1	1	1	1	1	2.0	7.2
22-Jun	1	2	1	1	A	8	3	3	2	1	6	10	1	1	1	2	1	1	5	2	3	6	6	1	3.0	10.1
23-Jun	1	2	4	3	A	9	4	5	10	3	1	1	1	2	3	2	1	1	1	2	2	5	9	8	3.4	10.2
24-Jun	4	3	6	7	A	13	9	8	4	4	2	1	1	1	1	1	1	1	2	3	3	3	10	7	4.1	12.9
25-Jun	8	6	5	5	A	10	15	16	6	7	5	3	3	3	2	2	2	2	2	3	4	4	7	6	5.5	15.7
26-Jun	5	11	6	6	A	14	17	6	5	3	3	2	1	1	2	7	2	3	6	4	10	9	4	4	5.6	17.3
27-Jun	4	5	4	1	A	6	3	2	131	6	5	2	2	2	1	1	1	1	1	2	1	2	2	1	8.2	131.3
28-Jun	1	1	2	3	A	7	5	4	5	3	3	1	1	1	2	1	1	1	1	3	3	4	3	8	2.8	7.9
29-Jun	4	4	6	6	A	11	6	3	2	1	1	1	1	2	2	2	2	3	6	5	5	9	10	2	4.0	10.9
30-Jun	2	3	2	3	A	9	4	10	8	2	7	1	11	1	1	1	1	2	3	5	4	3	2	3	3.8	10.6
	3.4	3.8	3.5	3.8	--	9.1	7.0	5.6	8.7	3.9	5.6	2.5	2.1	3.6	2.4	2.2	1.5	1.7	2.1	2.4	3.5	3.8	3.9	3.7	Diurnal Average	
	8.1	13.4	9.0	11.1	--	15.6	17.3	15.7	131.3	11.4	53.9	10.1	10.6	50.4	24.3	14.5	3.4	3.4	5.9	5.8	9.9	8.8	9.7	8.2	Diurnal Maximum	

C - Calibration

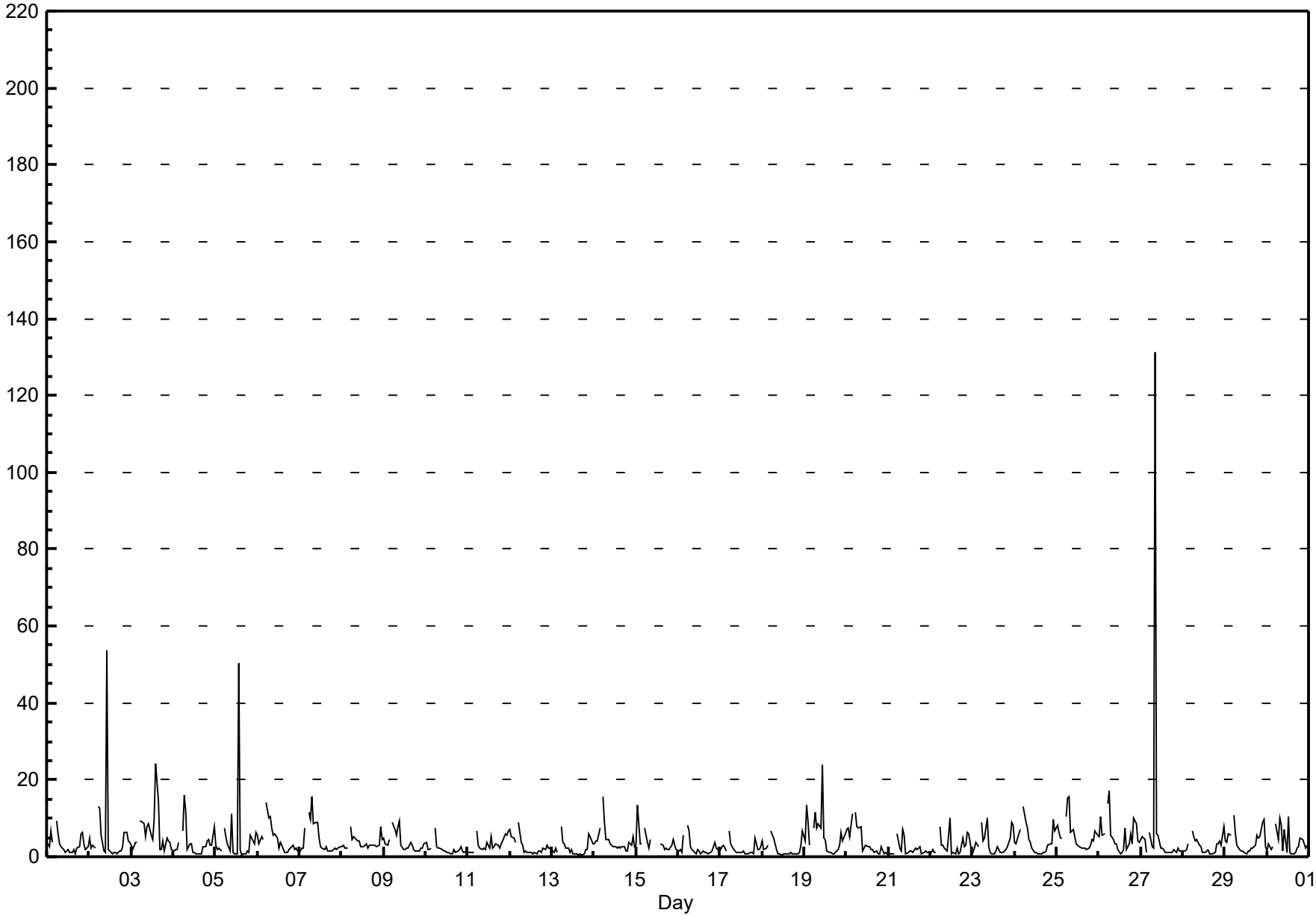
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

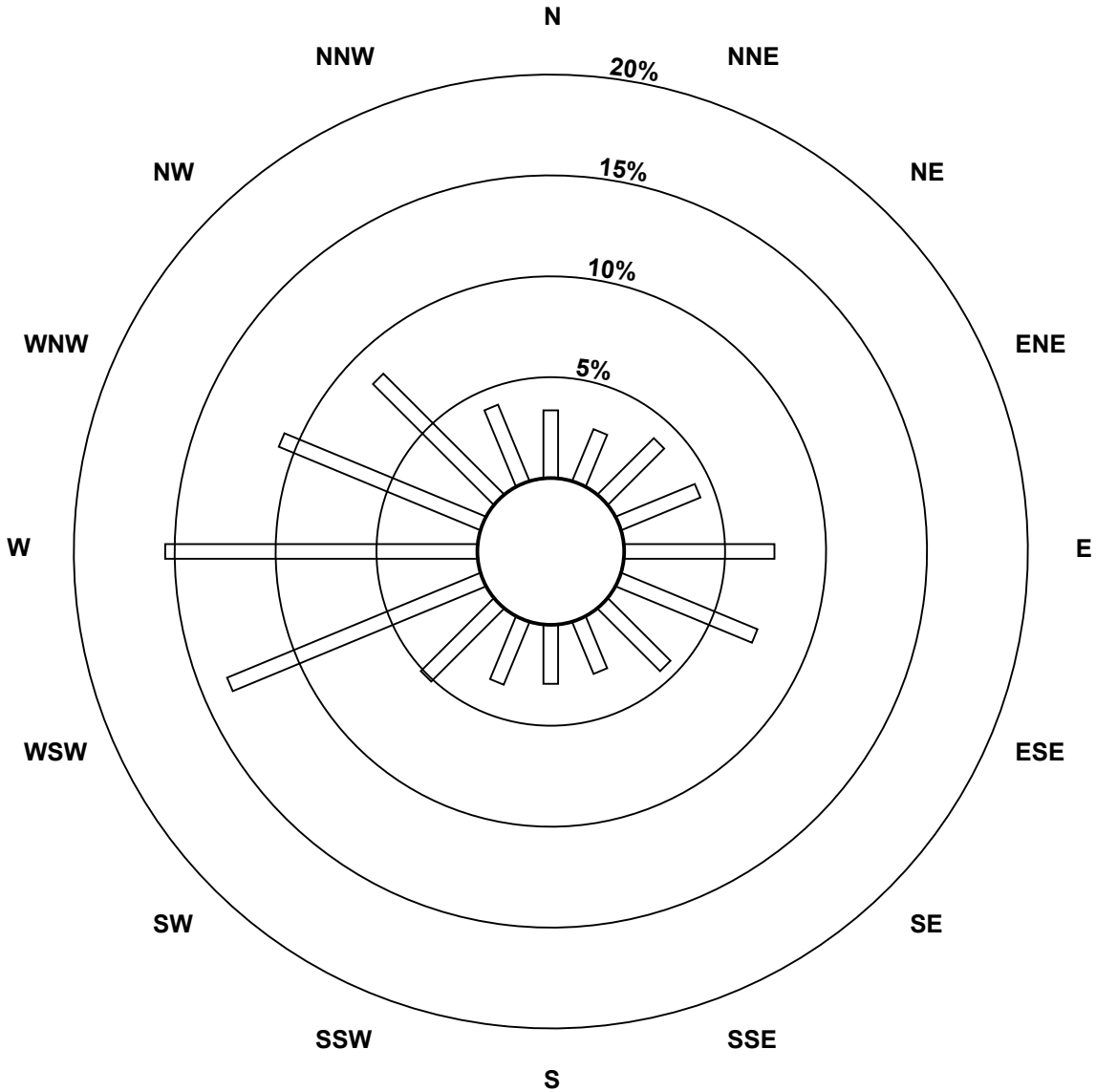
Beaverlodge - June 2017



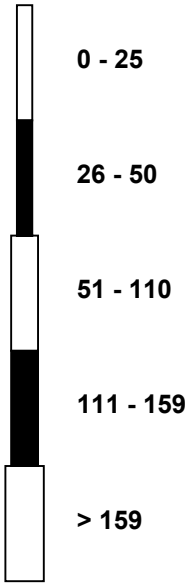
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - June 2017



Pollutant Classes (ppb)

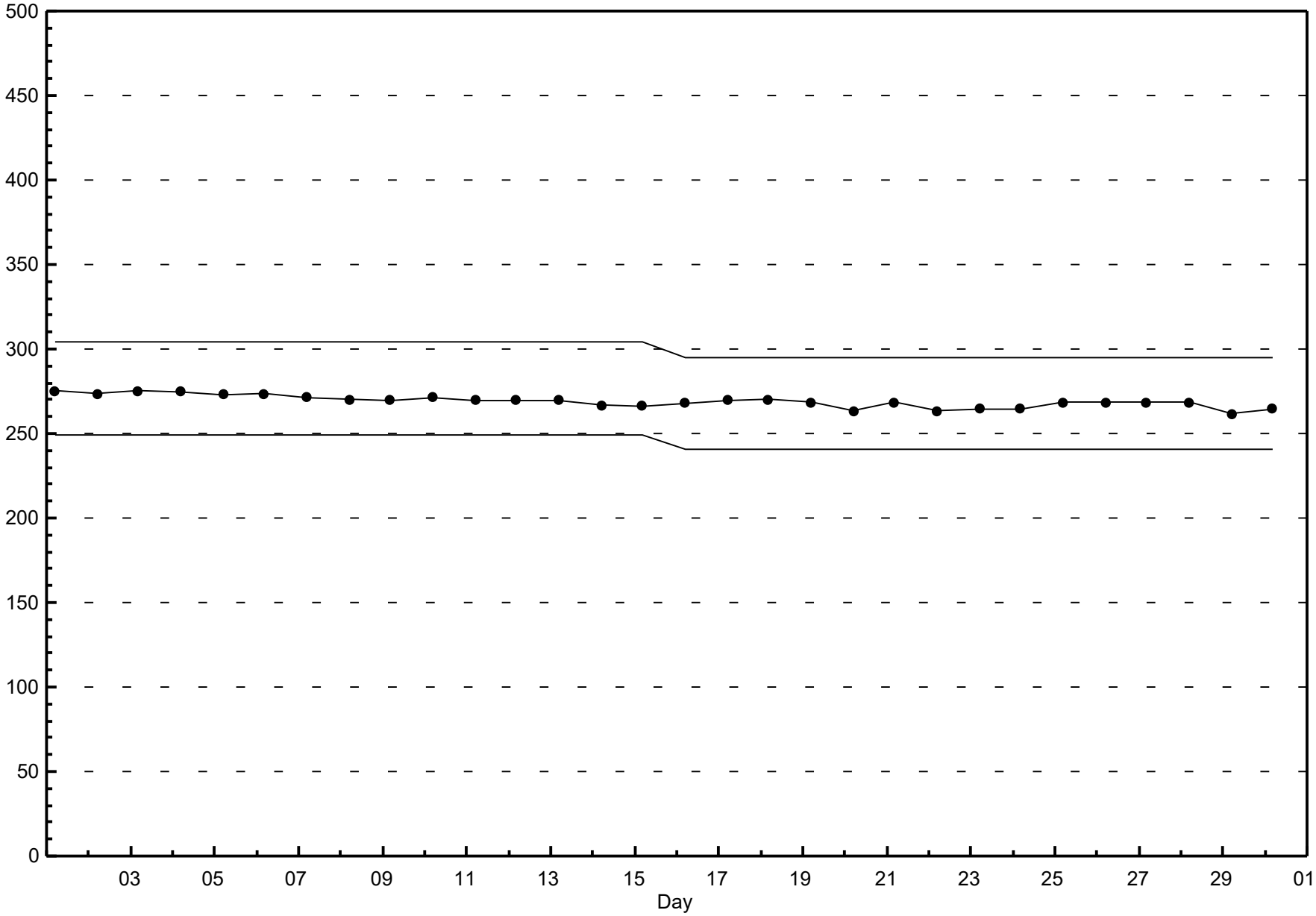


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - June 2017

Maximum Value: 6.5 ppb on Jun 6 08:00

Maximum Daily Average: 0.9 ppb on Jun 19

Minimum Value: 0 ppb on Jun 7 00:00

Minimum Daily Average: 0.1 ppb on Jun 18

Maximum Diurnal Average: 1.4 ppb at hour 8

Minimum Diurnal Average: 0.0 ppb at hour 23

Monthly Average: 0.33 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.3$ $P_{90} = 0.8$ $P_{99} = 3.9$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	A	1	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	1.1
2-Jun	0	0	0	0	A	0	1	1	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0.3	1.6
3-Jun	0	0	0	0	A	0	2	2	1	2	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0.7	2.5
4-Jun	0	0	0	0	A	0	5	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.5
5-Jun	0	0	0	0	A	0	1	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0.4	5.3
6-Jun	0	0	0	0	A	2	4	7	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.9	6.5
7-Jun	0	0	0	0	A	1	1	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.9
8-Jun	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
9-Jun	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
10-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	0.8
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	0.2	0.4
12-Jun	0	0	0	0	A	2	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	2.2
13-Jun	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
14-Jun	0	0	0	0	A	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
15-Jun	0	0	0	0	A	1	1	1	1	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.3	1.2
16-Jun	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
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	0.1	0.3
18-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
19-Jun	0	0	0	0	A	1	4	4	4	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0.9	4.4
20-Jun	0	0	0	0	A	1	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.6
21-Jun	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
22-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	0.5
23-Jun	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
24-Jun	0	0	0	0	A	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.5
25-Jun	0	0	0	0	A	0	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.6
26-Jun	0	0	0	0	A	1	2	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.4	2.0
27-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	1.1
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	2	2	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	1.8
30-Jun	0	0	0	0	A	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.6
	0.1	0.0	0.0	0.1	--	0.6	1.3	1.4	0.9	0.6	0.6	0.3	0.2	0.4	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	Diurnal Average	
	0.4	0.2	0.3	0.4	--	2.2	4.5	6.5	4.4	2.9	2.6	1.8	1.6	5.3	0.7	1.1	0.3	0.3	0.7	0.3	0.4	0.4	0.1	0.2	Diurnal Maximum	

C - Calibration

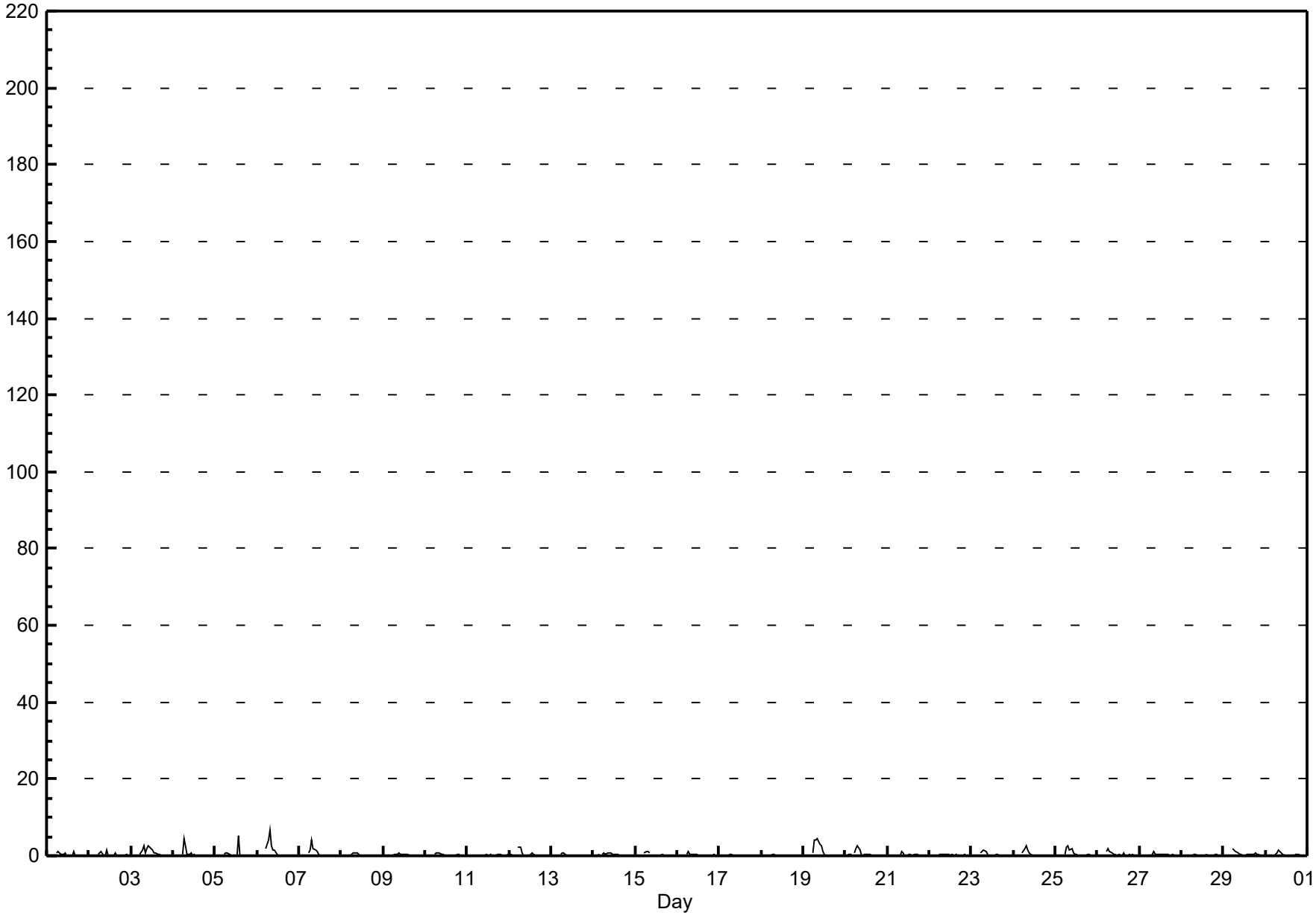
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - June 2017

Maximum Value: 168.6 ppb on Jun 5 14:00

Maximum Daily Average: 7.9 ppb on Jun 5

Minimum Value: 0 ppb on Jun 30 23:00

Minimum Daily Average: 0.3 ppb on Jun 18

Maximum Diurnal Average: 7.6 ppb at hour 14

Minimum Diurnal Average: 0.2 ppb at hour 23

Monthly Average: 1.54 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.7$ $P_{90} = 2.4$ $P_{99} = 22.7$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	A	3	2	1	0	0	20	0	0	0	0	18	0	0	0	1	0	0	0	0	2.2	20.2
2-Jun	0	0	0	0	A	1	1	23	0	0	22	0	0	0	1	23	0	0	0	1	1	15	0	0	3.9	22.8
3-Jun	0	0	0	0	A	1	11	8	1	3	3	2	2	2	9	4	0	0	1	0	0	0	0	0	2.2	10.7
4-Jun	0	0	0	0	A	1	13	8	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	12.9
5-Jun	0	0	0	0	A	1	2	1	1	1	1	0	0	169	3	0	0	0	0	0	0	0	0	0	7.9	168.6
6-Jun	0	0	0	0	A	4	9	9	5	2	2	1	0	1	1	0	0	0	0	0	0	0	0	0	1.6	9.2
7-Jun	0	0	0	0	A	1	4	8	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1.0	8.4
8-Jun	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
9-Jun	0	0	0	0	A	0	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	1.0
10-Jun	0	0	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	1.1
11-Jun	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0.3	0.7
12-Jun	1	0	0	0	A	8	3	2	0	1	0	0	8	26	4	0	0	0	0	0	0	0	0	0	2.5	26.5
13-Jun	0	0	0	0	A	2	1	1	1	1	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0.5	2.9
14-Jun	0	0	0	1	A	4	1	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.7	4.2
15-Jun	0	1	0	0	A	3	2	12	1	C	C	C	C	C	0	1	0	1	0	0	0	0	0	0	1.3	12.0
16-Jun	0	0	0	0	A	1	2	1	1	0	1	0	1	0	1	1	0	0	0	0	1	4	0	0	0.7	4.4
17-Jun	0	0	0	0	A	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0.4	1.6
18-Jun	0	0	0	0	A	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
19-Jun	0	1	0	0	A	2	23	5	25	4	7	1	1	0	0	0	0	0	0	0	0	0	0	0	3.1	24.6
20-Jun	0	1	1	2	A	2	3	5	6	0	1	1	1	1	1	1	0	1	0	0	1	0	0	0	1.2	6.4
21-Jun	0	0	0	0	A	0	0	1	7	8	0	0	1	1	0	1	1	0	0	0	0	0	0	0	1.0	7.8
22-Jun	0	0	0	0	A	0	0	3	1	1	1	1	1	9	1	1	0	0	1	1	0	0	0	0	1.0	9.5
23-Jun	0	0	0	0	A	1	2	7	6	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1.0	7.2
24-Jun	0	0	0	0	A	2	5	12	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	11.8
25-Jun	0	0	0	0	A	1	11	11	2	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1.5	11.5
26-Jun	0	1	0	0	A	3	9	2	6	1	2	0	4	0	0	20	0	0	1	0	1	0	0	0	2.3	19.7
27-Jun	0	0	0	0	A	0	0	7	20	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	1.7	20.5
28-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	1	0	0	1	0.4	2.5
29-Jun	0	0	0	0	A	4	4	2	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0	0	0.9	4.3
30-Jun	0	0	0	0	A	0	2	28	6	17	8	0	0	0	0	0	0	1	1	1	0	0	0	0	2.8	27.5
	0.2	0.3	0.2	0.3	--	1.6	3.9	5.5	3.4	1.9	2.8	0.6	0.9	7.6	1.0	2.5	0.3	0.3	0.4	0.4	0.4	0.8	0.2	0.2	Diurnal Average	
	1.1	1.0	0.8	2.0	--	7.7	23.0	27.5	24.6	16.6	22.1	2.3	8.1	168.6	9.4	22.7	0.7	0.6	1.4	1.0	1.6	14.7	0.3	1.0	Diurnal Maximum	

C - Calibration

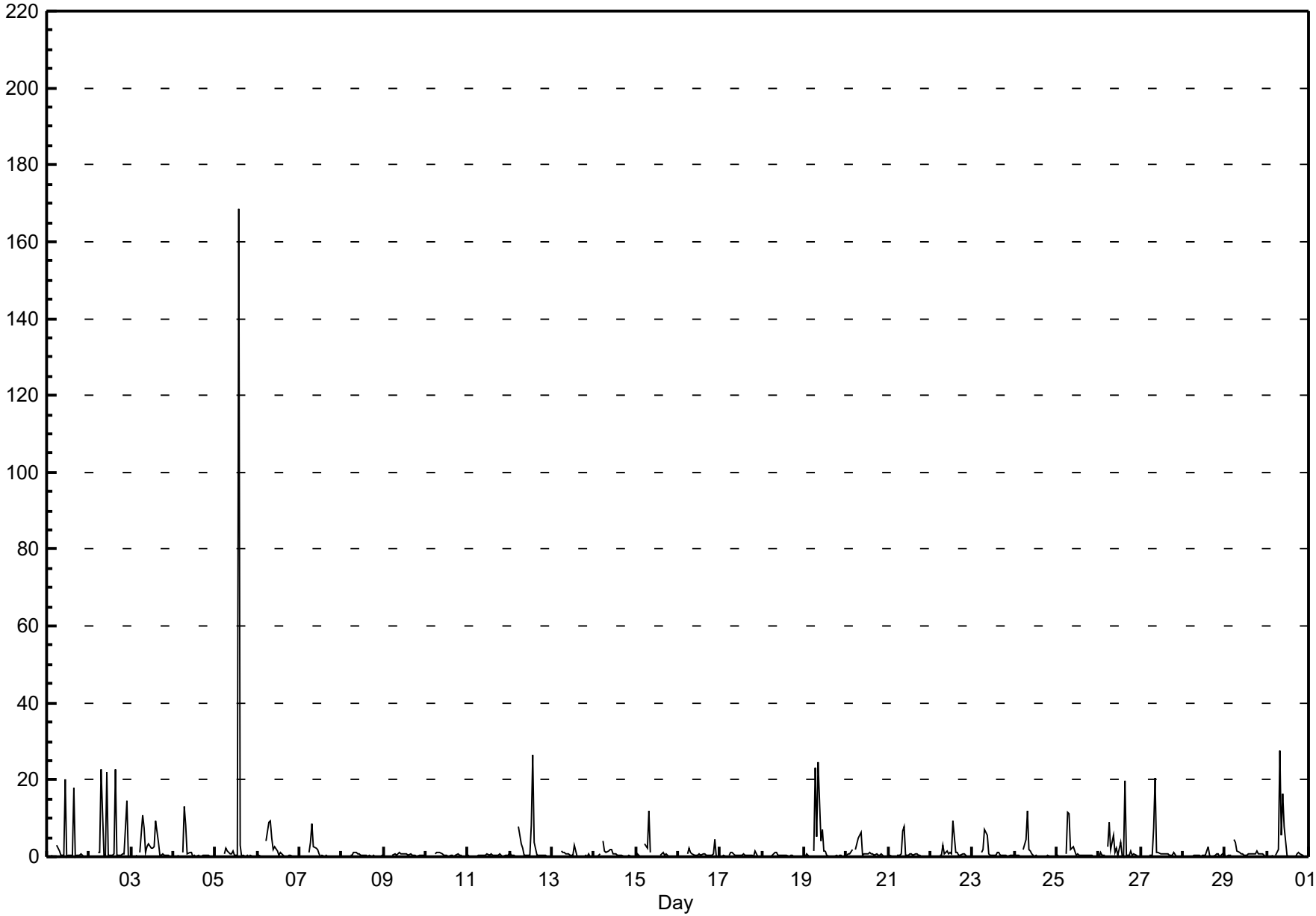
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - June 2017

Maximum Value: 14.9 ppb on Jun 6 08:00

Maximum Daily Average: 4.2 ppb on Jun 19

Minimum Value: 0 ppb on Jun 21 04:00

Minimum Daily Average: 1.0 ppb on Jun 17

Maximum Diurnal Average: 6.3 ppb at hour 6

Minimum Diurnal Average: 1.0 ppb at hour 17

Monthly Average: 2.40 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.6$ $Q_1 = 0.9$ Median = 1.7 $Q_3 = 3.0$ $P_{90} = 5.3$ $P_{99} = 10.9$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	3	2	4	3	A	7	5	3	2	1	1	1	1	1	1	1	1	1	1	2	2	2	1	2	2.0	7.0
2-Jun	2	2	2	2	A	8	7	3	1	1	6	1	1	1	1	1	1	1	1	1	2	3	2	2	2.1	7.6
3-Jun	1	1	3	2	A	7	7	8	5	8	10	6	6	4	3	2	1	1	1	1	1	2	2	1	3.5	9.7
4-Jun	1	1	1	2	A	4	12	7	2	3	3	1	1	1	1	1	1	1	1	2	2	2	3	4	2.5	12.2
5-Jun	2	1	2	1	A	5	4	3	1	1	1	0	0	2	0	0	0	0	0	1	3	2	1	2	1.5	4.9
6-Jun	4	3	3	3	A	12	12	15	8	6	6	3	2	2	1	1	1	1	1	2	2	2	2	1	3.9	14.9
7-Jun	1	2	2	4	A	9	8	14	9	9	7	3	2	2	2	1	1	1	1	1	1	1	2	2	3.8	14.1
8-Jun	2	3	2	2	A	5	4	5	5	4	3	3	3	3	3	2	2	3	3	2	2	3	4	3	3.0	5.3
9-Jun	3	2	2	3	A	7	5	5	5	6	3	2	2	2	2	2	2	1	1	1	1	1	1	2	2.6	6.9
10-Jun	2	2	2	2	A	5	3	3	3	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.6	4.6
11-Jun	1	1	1	1	A	3	2	2	1	1	1	2	2	3	2	2	2	2	2	3	3	5	4	5	2.3	5.1
12-Jun	6	5	4	4	A	8	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2.1	7.8
13-Jun	1	1	1	1	A	5	4	4	2	1	1	1	1	1	0	0	0	0	0	1	1	2	4	3	1.4	4.9
14-Jun	3	4	3	5	A	8	6	4	4	3	3	3	3	2	2	2	2	2	1	1	3	2	3	2	3.1	8.2
15-Jun	2	4	2	3	A	6	4	3	2	C	C	C	C	C	3	2	2	2	1	1	2	2	2	1	2.4	5.9
16-Jun	1	1	1	4	A	5	5	2	2	1	1	1	1	1	1	1	1	0	0	1	1	2	1	1	1.5	5.4
17-Jun	1	1	2	1	A	4	2	2	1	1	1	1	1	1	0	0	0	0	1	0	1	1	1	1	1.0	3.6
18-Jun	3	2	2	3	A	4	4	2	1	1	0	0	0	0	1	1	1	1	1	1	1	1	2	3	1.4	4.5
19-Jun	3	3	4	2	A	7	11	10	11	9	8	5	2	1	1	1	1	1	1	1	2	4	3	5	4.2	11.3
20-Jun	6	6	5	7	A	9	8	7	4	1	1	1	2	1	1	1	1	1	0	0	0	0	0	0	2.8	9.3
21-Jun	0	0	0	0	A	3	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	3.4
22-Jun	1	1	1	1	A	5	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	3	2	1	1.4	4.9
23-Jun	1	1	3	2	A	5	4	4	3	1	1	1	1	1	1	1	1	1	1	2	2	3	5	4	2.1	5.4
24-Jun	3	2	4	5	A	9	8	7	5	3	2	1	1	1	1	1	1	1	1	1	2	3	5	5	3.1	8.6
25-Jun	6	5	4	4	A	8	10	10	7	8	5	3	2	2	2	2	2	1	2	2	2	3	3	4	4.2	10.3
26-Jun	2	6	3	4	A	10	9	5	4	2	2	1	1	1	1	2	1	1	3	3	5	5	3	2	3.3	10.1
27-Jun	3	2	2	1	A	4	2	1	5	3	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1.7	5.3
28-Jun	1	1	2	2	A	4	3	3	3	3	2	1	1	1	1	1	1	1	1	2	2	3	1	4	1.9	4.3
29-Jun	3	3	4	5	A	10	5	3	2	2	2	1	1	1	1	1	2	2	4	2	3	3	5	2	2.9	9.6
30-Jun	1	1	1	1	A	5	4	3	3	1	1	1	1	1	1	1	1	1	1	2	2	2	1	2	1.7	5.0
	2.3	2.3	2.4	2.7	--	6.3	5.6	4.8	3.6	2.9	2.7	1.6	1.4	1.3	1.1	1.1	1.0	1.0	1.2	1.3	1.8	2.2	2.2	2.3	Diurnal Average	
	6.3	6.2	4.6	6.8	--	11.6	12.2	14.9	11.3	9.3	9.7	6.4	5.6	3.6	3.2	2.3	2.3	2.6	4.1	2.7	5.5	5.1	5.4	5.1	Diurnal Maximum	

C - Calibration

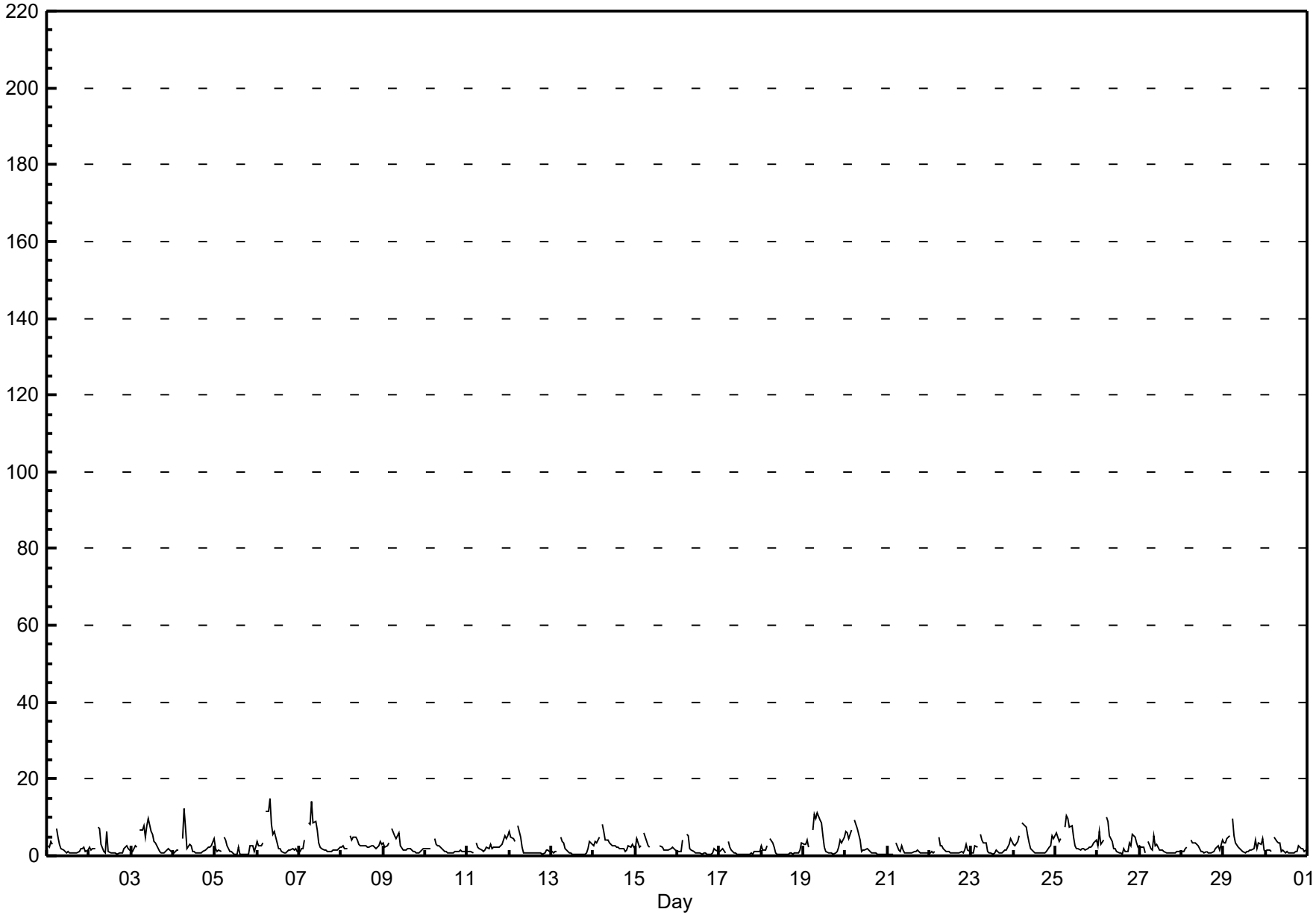
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - June 2017

Maximum Value: 131.9 ppb on Jun 27 09:00

Maximum Daily Average: 8.7 ppb on Jun 27

Minimum Value: 1 ppb on Jun 5 16:00

Minimum Daily Average: 2.3 ppb on Jun 10

Maximum Diurnal Average: 10.6 ppb at hour 9

Minimum Diurnal Average: 1.8 ppb at hour 17

Monthly Average: 4.66 ppb

Percentiles: P_1 = 0.8 P_{10} = 1.2 Q_1 = 1.8 Median = 2.9 Q_3 = 5.4 P_{90} = 9.4 P_{99} = 26.7

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	3	3	7	4	A	11	8	5	3	2	1	2	2	2	1	3	1	3	3	6	7	4	2	3	3.7	10.6
2-Jun	5	2	3	2	A	14	13	7	2	2	63	2	1	1	1	1	1	2	2	3	7	6	4	4	6.5	62.7
3-Jun	3	2	4	4	A	10	20	16	6	10	12	8	7	12	32	18	2	2	5	2	5	4	4	2	8.3	32.4
4-Jun	1	2	2	4	A	7	27	20	3	4	5	1	1	1	1	1	1	3	3	5	5	3	3	8	4.8	26.7
5-Jun	3	2	2	2	A	8	7	5	2	11	1	1	1	51	2	1	1	1	2	1	6	4	3	6	5.4	51.1
6-Jun	6	4	5	5	A	17	18	20	12	7	9	6	2	5	4	1	1	1	2	3	3	2	2	1	6.0	19.7
7-Jun	2	2	2	8	A	12	14	24	11	11	11	6	3	3	2	3	1	2	1	2	2	2	2	3	5.5	23.7
8-Jun	3	3	2	2	A	8	5	6	6	5	5	3	3	3	4	2	3	3	3	3	3	3	8	5	3.9	7.8
9-Jun	5	3	3	4	A	9	8	6	8	10	4	3	3	3	3	4	3	2	1	2	2	2	2	4	4.2	10.3
10-Jun	4	2	2	2	A	8	4	3	3	3	2	2	1	1	1	1	2	1	2	2	3	2	1	1	2.3	7.7
11-Jun	1	1	1	1	A	7	3	2	2	2	2	4	2	6	3	3	4	3	3	4	4	6	6	7	3.5	7.1
12-Jun	8	5	5	4	A	13	7	5	2	2	2	2	1	1	1	1	2	2	1	3	2	3	2	2	3.3	13.5
13-Jun	1	1	2	1	A	8	5	5	3	3	1	2	1	1	1	1	1	1	1	2	2	7	5	3	2.6	8.1
14-Jun	4	4	4	8	A	20	10	5	6	5	4	3	3	3	3	2	3	3	2	2	4	3	5	3	4.7	19.7
15-Jun	3	14	3	4	A	10	5	4	5	C	C	C	C	C	3	3	2	3	2	2	3	5	3	2	4.3	14.1
16-Jun	1	2	1	6	A	8	9	4	3	1	1	2	2	1	2	2	2	1	1	2	3	4	2	1	2.8	9.0
17-Jun	2	3	3	2	A	7	5	4	2	2	1	2	2	2	1	1	1	2	2	1	6	2	2	2	2.4	7.1
18-Jun	4	2	2	3	A	7	5	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	3	7	2.4	6.9
19-Jun	4	14	9	3	A	9	27	12	27	11	31	6	6	2	1	1	1	1	2	2	3	6	4	6	8.2	30.9
20-Jun	7	8	6	13	A	12	11	12	10	2	3	4	3	3	3	2	1	2	1	1	3	1	1	1	4.8	13.1
21-Jun	1	1	1	1	A	6	3	3	12	11	1	1	2	2	2	3	3	3	3	1	1	1	1	1	2.8	12.0
22-Jun	1	2	1	1	A	8	3	6	3	2	6	11	1	2	1	3	1	2	5	3	4	6	6	1	3.5	11.2
23-Jun	1	2	4	3	A	10	6	7	12	3	1	1	1	2	4	3	2	1	2	2	2	5	9	8	4.0	11.7
24-Jun	4	4	6	7	A	14	13	12	6	5	3	1	1	1	1	1	1	1	2	3	3	3	10	7	4.8	14.4
25-Jun	8	6	5	5	A	11	27	27	8	10	7	4	4	3	2	2	2	2	3	3	5	4	7	6	7.0	26.9
26-Jun	5	11	6	6	A	17	26	7	6	4	4	2	3	1	2	8	2	4	7	4	10	9	4	4	6.6	26.3
27-Jun	4	5	4	1	A	6	3	3	132	7	7	3	3	3	2	2	2	2	2	3	1	2	2	1	8.7	131.9
28-Jun	2	1	2	3	A	7	6	4	5	3	3	2	2	1	2	1	1	1	1	4	4	4	3	9	3.1	9.0
29-Jun	4	4	6	6	A	12	9	4	3	2	2	1	1	2	2	3	3	4	7	6	6	9	10	3	4.7	11.5
30-Jun	2	3	2	3	A	9	6	14	11	2	15	1	11	1	1	1	1	3	4	6	5	4	2	3	4.7	14.7
	3.5	4.0	3.6	3.9	--	10.1	10.4	8.6	10.6	5.0	7.1	3.0	2.6	4.2	3.0	2.7	1.8	2.0	2.5	2.8	3.9	4.0	4.0	3.8	Diurnal Average	
	8.4	14.1	9.2	13.1	--	19.7	26.7	26.9	131.9	11.5	62.7	11.2	10.7	51.1	32.4	18.3	3.8	3.9	7.3	6.3	10.4	9.4	9.8	9.0	Diurnal Maximum	

C - Calibration

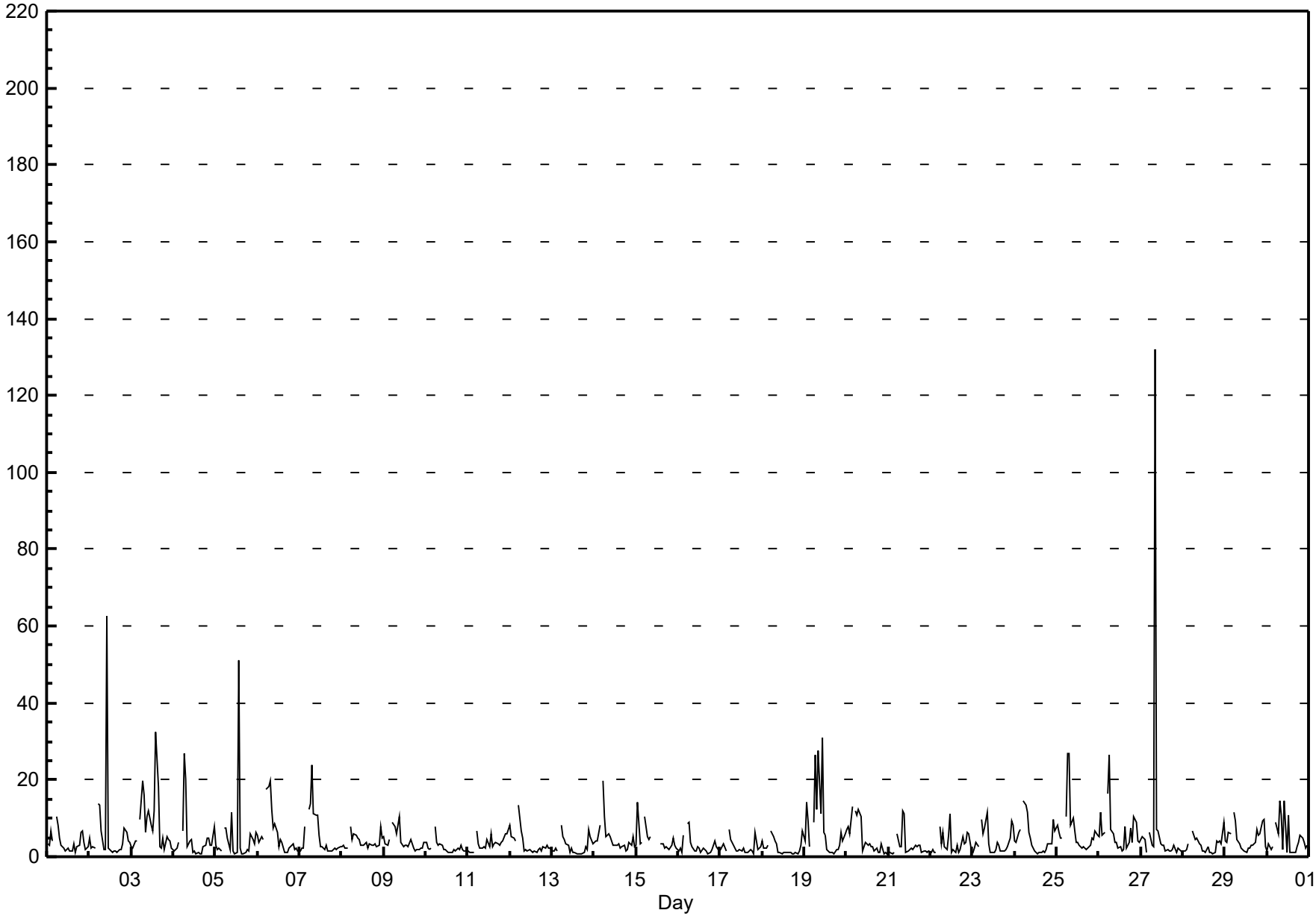
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - June 2017

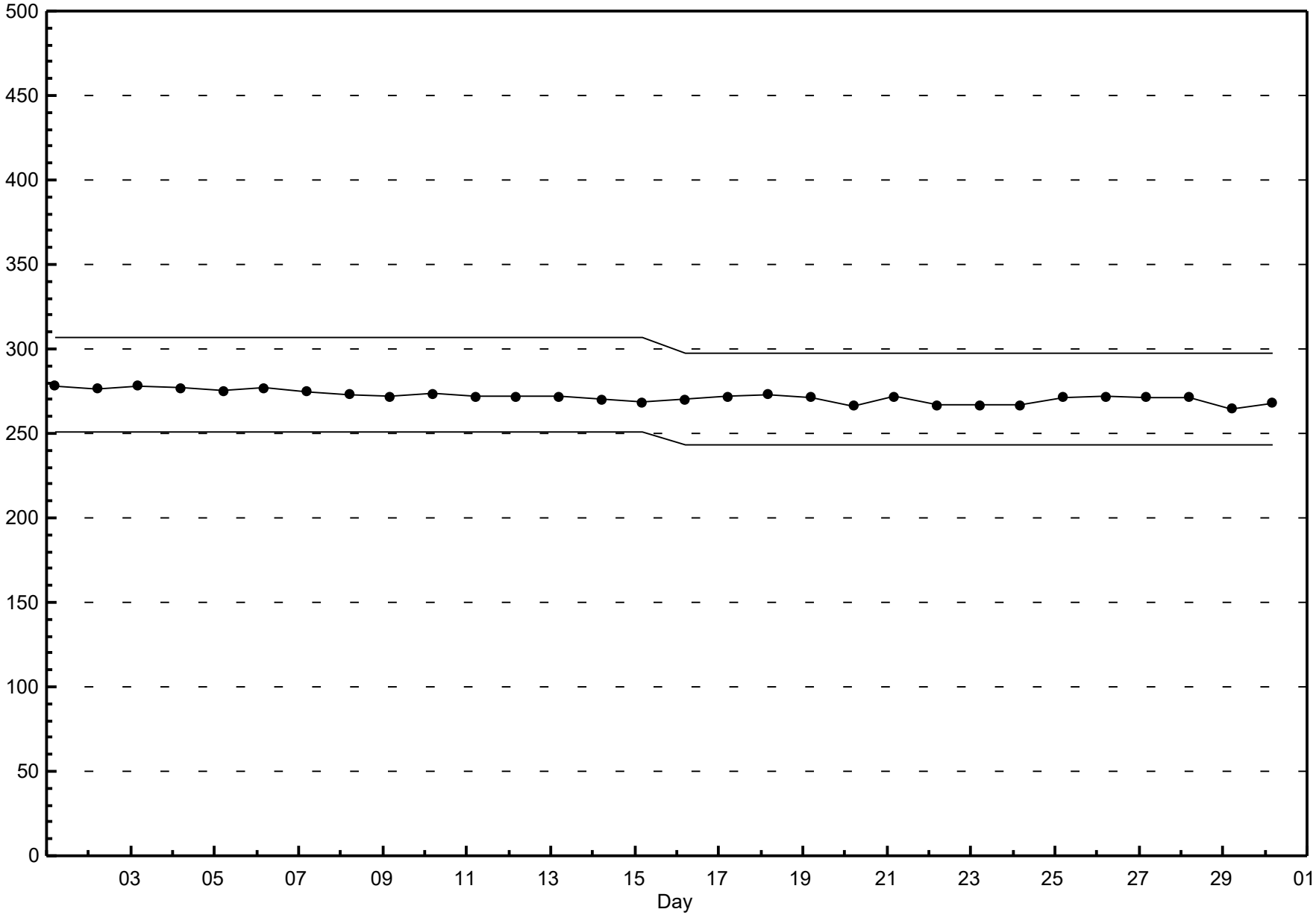


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 60.1 ppb on Jun 8 18:00 Maximum Daily Average: 49.2 ppb on Jun 8

Minimum Value: 4 ppb on Jun 12 06:00 Minimum Daily Average: 16.6 ppb on Jun 29
Maximum Diurnal Average: 37.2 ppb at hour 17 Minimum Diurnal Average: 18.5 ppb at hour 7
Monthly Average: 29.99 ppb Percentiles: P_1 = 5.9 P_{10} = 16.9 Q_1 = 23.3 Median = 29.5 Q_3 = 36.8 P_{90} = 43.3 P_{99} = 57.6

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	29	32	27	25	A	17	17	29	33	38	39	40	41	42	40	38	37	38	37	34	30	32	37	35	33.3	41.6
2-Jun	31	32	29	27	A	23	22	29	34	38	40	40	39	39	46	43	41	39	45	41	36	31	33	33	35.2	45.5
3-Jun	31	29	23	24	A	21	17	16	26	25	25	26	30	38	48	49	45	45	44	43	38	36	36	36	32.6	48.9
4-Jun	37	35	33	30	A	23	13	18	28	25	32	42	42	46	46	47	48	44	42	39	37	37	40	32	35.5	47.6
5-Jun	33	31	30	28	A	19	20	25	32	34	38	39	39	37	37	37	37	38	38	38	36	36	37	35	33.6	38.7
6-Jun	31	26	27	26	A	9	8	10	18	30	36	44	49	50	48	46	46	48	49	42	41	42	42	43	35.3	49.8
7-Jun	42	43	42	33	A	20	22	24	30	42	51	58	56	57	56	57	56	54	54	53	52	52	48	45	45.5	57.9
8-Jun	46	45	46	45	A	40	37	37	39	45	51	56	58	58	58	59	59	60	55	53	50	48	43	44	49.2	60.1
9-Jun	43	41	42	42	A	36	37	37	36	24	17	21	19	23	27	27	27	30	29	28	26	21	19	16	29.0	42.9
10-Jun	15	13	13	13	A	12	13	15	21	32	36	39	42	43	42	40	41	41	30	17	22	26	26	25	26.9	43.0
11-Jun	25	26	27	30	A	33	31	32	30	33	33	32	29	27	27	26	23	22	20	18	15	10	9	6	24.5	33.4
12-Jun	4	4	4	4	A	4	5	17	29	34	38	40	37	40	43	41	42	41	40	37	36	34	33	33	27.8	43.0
13-Jun	31	28	26	26	A	20	20	23	27	35	39	42	41	44	47	47	48	46	47	46	45	37	30	33	36.0	47.6
14-Jun	33	26	25	17	A	15	13	18	17	21	24	26	31	36	36	36	38	35	33	31	28	27	25	23	26.7	37.8
15-Jun	25	20	19	19	A	12	11	14	19	24	32	C	C	C	C	38	33	31	31	32	30	31	31	28	25.2	37.9
16-Jun	27	26	26	18	A	20	16	18	18	21	23	27	27	28	30	32	33	33	34	34	32	27	26	26	26.1	33.9
17-Jun	26	24	23	26	A	25	24	25	29	30	32	32	30	30	31	32	34	35	35	35	34	31	30	29	29.7	35.2
18-Jun	25	26	23	20	A	20	15	19	28	30	30	31	31	31	31	29	27	27	27	29	28	27	25	21	26.2	30.9
19-Jun	18	22	17	24	A	19	14	12	21	21	22	25	27	29	35	34	34	33	32	31	28	23	23	20	24.5	34.6
20-Jun	20	17	14	10	A	10	8	12	22	33	31	33	32	30	32	34	36	36	35	34	34	34	32	31	26.5	36.3
21-Jun	30	30	29	28	A	25	25	27	28	29	29	29	29	30	28	28	29	29	29	27	24	23	23	22	27.4	30.5
22-Jun	21	20	19	18	A	16	16	15	18	23	26	27	30	32	34	35	38	39	37	30	28	27	27	25	26.1	39.1
23-Jun	22	21	15	14	A	12	12	14	17	23	25	27	28	29	28	30	34	35	33	37	35	30	25	26	24.9	37.5
24-Jun	23	28	26	23	A	18	19	22	26	33	38	38	37	38	40	42	44	45	44	39	32	29	26	26	32.0	45.1
25-Jun	24	26	28	26	A	27	22	24	31	36	42	45	44	42	40	43	41	39	37	35	33	31	30	27	33.6	45.2
26-Jun	30	23	27	21	A	16	16	27	34	41	41	43	43	43	42	37	35	36	33	30	27	26	30	34	32.0	43.4
27-Jun	32	28	28	28	A	29	28	29	27	22	20	20	17	15	16	16	18	23	19	17	21	22	26	26	22.9	31.8
28-Jun	26	27	25	24	A	26	24	23	23	24	24	23	23	23	23	25	28	29	27	21	17	16	18	11	23.1	29.3
29-Jun	9	9	7	7	A	6	9	11	14	17	20	22	23	24	25	25	26	23	19	20	15	16	15	19	16.6	26.1
30-Jun	22	27	26	24	A	24	21	27	29	31	32	33	34	35	35	36	38	37	39	34	32	34	35	31	31.1	38.6
	27.1	26.2	24.9	23.2	--	19.8	18.5	21.5	26.1	29.8	32.2	34.4	34.8	35.9	36.9	36.9	37.2	37.2	35.8	33.5	31.4	29.9	29.3	28.0	Diurnal Average	
	46.0	44.9	46.2	44.8	--	40.0	37.3	37.0	39.0	45.0	51.4	57.9	58.4	57.7	58.2	59.0	59.2	60.1	55.3	53.3	51.6	51.8	47.8	45.2	Diurnal Maximum	

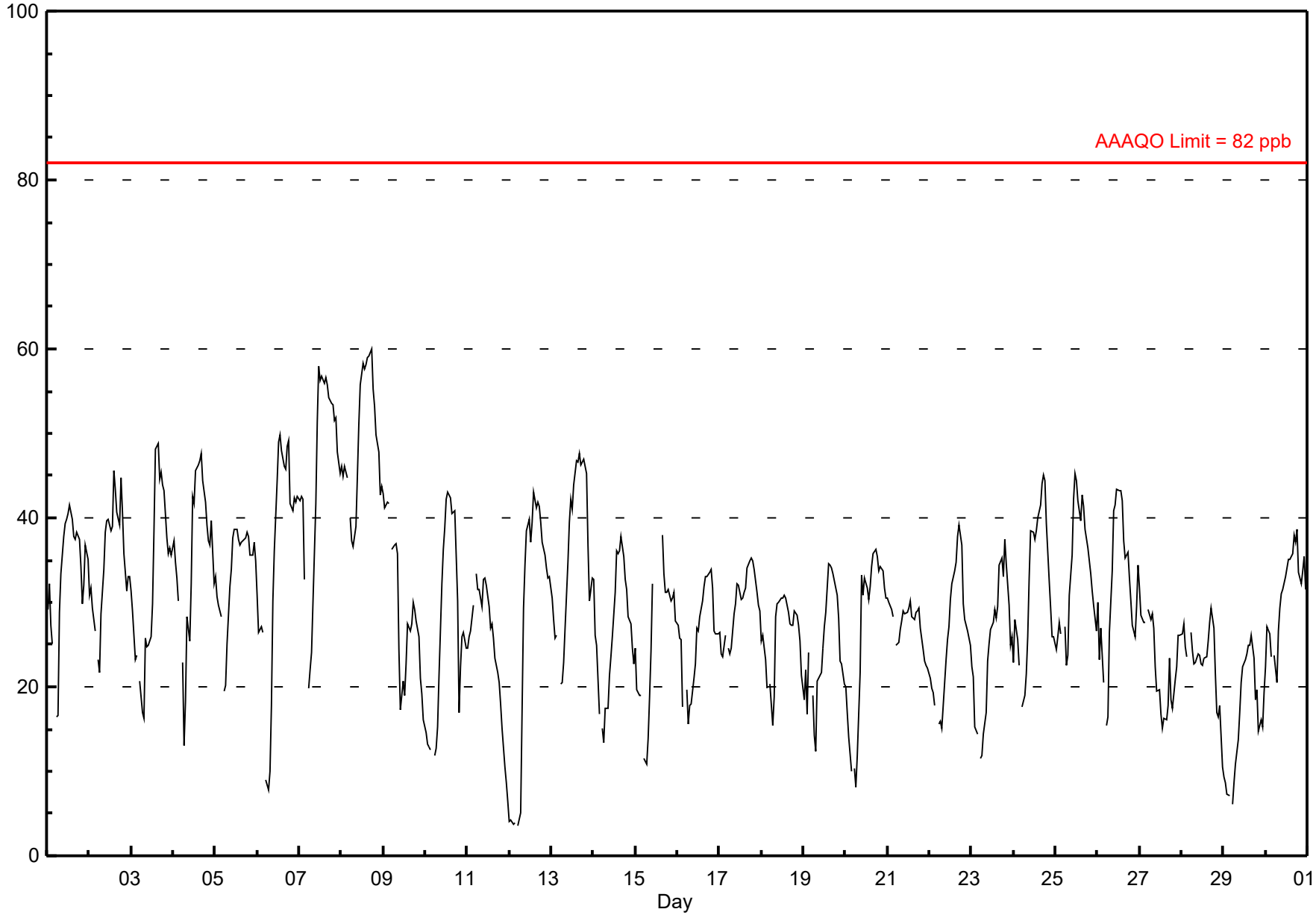
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - June 2017

Maximum Value: 62.6 ppb on Jun 8 18:00

Maximum Daily Average: 51.7 ppb on Jun 8

Minimum Value: 4 ppb on Jun 12 06:00

Minimum Daily Average: 18.7 ppb on Jun 29

Maximum Diurnal Average: 39.6 ppb at hour 17

Minimum Diurnal Average: 22.4 ppb at hour 7

Monthly Average: 32.86 ppb

Percentiles: P_1 = 8.0 P_{10} = 20.4 Q_1 = 26.5 Median = 31.9 Q_3 = 39.8 P_{90} = 46.2 P_{99} = 59.7

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	34	35	34	29	A	23	22	32	36	40	41	43	46	44	43	40	39	43	41	39	34	37	39	38	37.0	46.2
2-Jun	33	34	32	31	A	30	27	34	37	40	42	42	41	46	47	45	43	41	50	47	40	35	34	35	38.6	49.9
3-Jun	35	36	28	25	A	25	22	23	31	27	27	27	37	44	54	54	49	48	47	45	42	38	38	38	36.6	54.3
4-Jun	39	37	34	35	A	28	22	26	30	29	42	45	45	47	48	49	49	48	45	43	41	43	41	40	39.5	49.4
5-Jun	34	32	33	33	A	21	24	33	34	37	39	42	41	39	38	38	38	41	40	40	38	37	39	37	36.0	41.7
6-Jun	33	34	34	33	A	29	16	16	25	36	41	48	51	51	51	48	48	52	53	46	42	44	43	44	40.0	52.9
7-Jun	44	44	44	39	A	23	32	35	40	46	57	60	59	59	59	59	58	57	56	55	53	53	51	48	49.1	60.2
8-Jun	47	46	48	46	A	43	39	38	43	49	55	58	60	60	60	61	61	63	59	56	52	50	47	49	51.7	62.6
9-Jun	47	44	43	45	A	38	38	39	40	33	21	22	21	27	30	29	30	31	31	29	28	24	20	18	31.8	47.2
10-Jun	16	14	14	14	A	13	14	19	25	37	39	44	44	46	45	42	43	43	42	19	26	29	28	26	29.6	46.3
11-Jun	27	28	28	33	A	40	34	37	34	35	36	37	32	30	30	28	25	23	22	20	17	13	10	8	27.3	40.2
12-Jun	5	5	4	5	A	4	8	28	33	37	41	44	41	43	45	44	43	44	42	40	38	35	35	35	30.4	45.3
13-Jun	35	31	29	28	A	24	23	25	30	38	43	44	44	50	49	51	49	48	49	48	47	45	33	35	39.2	50.8
14-Jun	36	31	28	25	A	20	22	22	20	23	25	28	36	41	38	40	41	40	34	33	33	29	30	28	30.5	40.8
15-Jun	30	28	30	23	A	16	12	18	21	28	35	C	C	C	C	41	37	33	32	33	31	33	34	34	28.9	40.7
16-Jun	29	28	27	26	A	22	20	19	20	22	25	30	28	31	32	35	36	35	35	36	35	30	27	27	28.4	35.9
17-Jun	28	28	25	29	A	25	25	29	30	32	33	33	31	31	32	33	36	37	36	36	36	33	31	31	31.5	36.7
18-Jun	30	28	28	22	A	27	18	27	30	31	31	32	31	32	32	30	28	28	28	30	30	29	28	24	28.4	31.9
19-Jun	21	27	23	27	A	24	20	15	24	24	25	27	31	33	40	36	35	35	34	32	31	27	26	22	27.7	39.6
20-Jun	21	20	20	13	A	15	10	18	30	35	34	39	36	32	35	37	38	38	37	35	35	35	33	31	29.5	39.2
21-Jun	31	31	30	29	A	26	26	28	29	30	30	30	31	31	30	30	30	31	31	29	26	24	24	23	28.7	31.3
22-Jun	22	21	20	19	A	16	17	16	21	25	27	29	32	34	37	37	40	41	40	31	30	29	28	26	27.8	40.6
23-Jun	24	22	18	15	A	14	15	17	21	25	26	29	30	31	31	34	37	37	37	40	37	33	30	31	27.6	39.7
24-Jun	30	32	32	26	A	24	21	25	32	39	40	40	39	40	41	44	45	47	47	43	37	31	28	28	35.3	46.8
25-Jun	28	29	29	28	A	28	27	28	34	39	46	47	47	47	42	45	44	41	38	36	35	34	33	29	36.3	47.4
26-Jun	31	27	30	23	A	23	22	29	41	44	45	46	45	45	44	42	41	38	36	33	31	30	31	37	35.4	45.8
27-Jun	34	30	30	29	A	31	29	30	29	25	23	24	18	16	17	17	24	25	21	19	26	25	28	27	25.2	34.4
28-Jun	28	29	27	26	A	27	27	24	25	26	25	24	24	25	25	27	29	31	30	27	19	17	19	12	24.9	31.0
29-Jun	11	10	8	9	A	7	11	12	16	19	22	24	27	26	27	27	31	28	21	22	17	18	19	20	18.7	30.6
30-Jun	25	29	28	25	A	26	29	30	31	32	34	34	36	36	36	38	40	40	42	38	36	35	36	35	33.6	41.7
	29.7	29.0	28.0	26.4	--	23.8	22.4	25.7	29.8	32.8	35.0	37.0	37.4	38.6	39.2	39.4	39.6	39.5	38.5	36.0	34.1	32.5	31.4	30.6	Diurnal Average	
	47.3	46.3	47.7	46.0	--	42.8	38.9	39.4	42.5	48.7	56.6	60.2	60.2	60.1	59.8	60.5	61.1	62.6	58.6	55.6	53.2	53.3	51.1	49.1	Diurnal Maximum	

C - Calibration

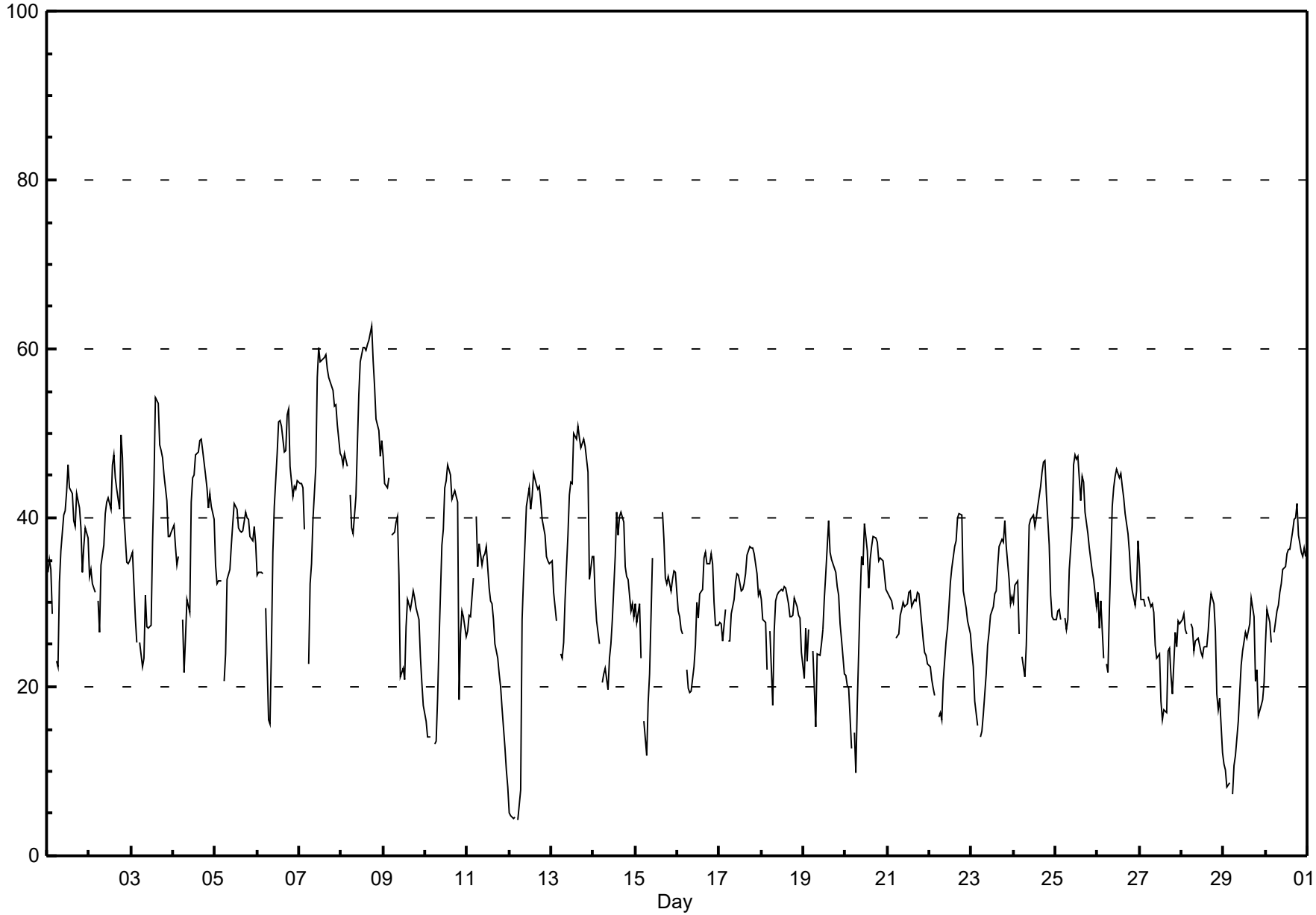
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

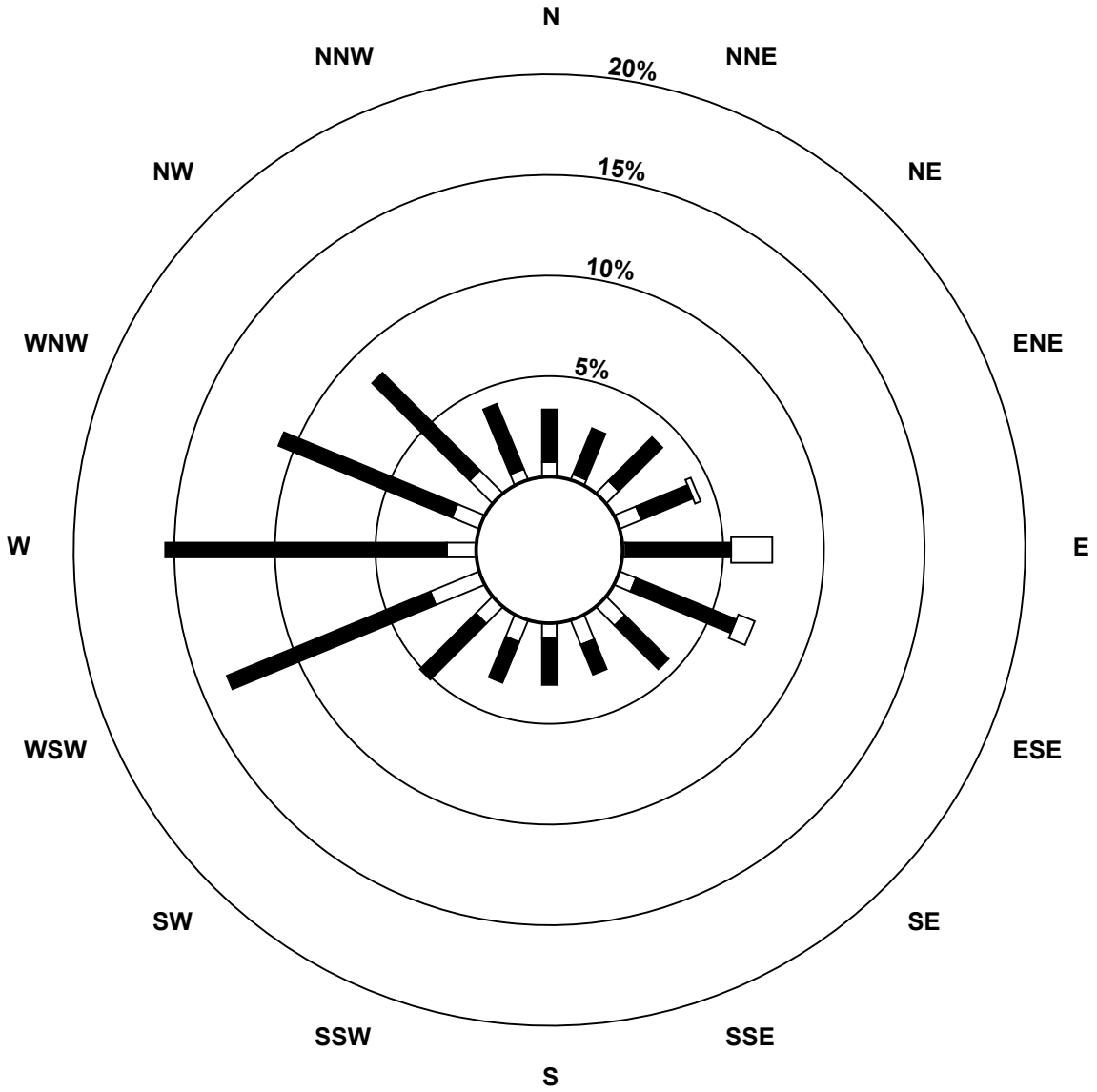
Beaverlodge - June 2017



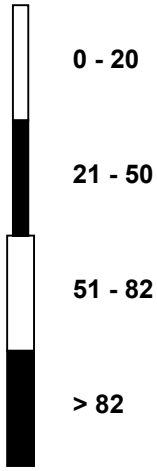
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - June 2017



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - June 2017

Maximum Value: 57.9 ppb on Jun 8 19:00

Minimum Value: 4.4 ppb on Jun 12 07:00

Percentiles: P_1 = 8.8 P_{10} = 18.8 Q_1 = 23.9 Median = 29.0 Q_3 = 35.0 P_{90} = 41.4 P_{99} = 55.4

Hours in Service:	720
Hours of Data:	713
Hours of Missing Data:	7
Hours of Calibration:	7
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	38	36	34	32	31	28	25	25	26	27	28	30	32	35	38	39	39	39	39	38	37	36	35	35	39.3
2-Jun	34	34	32	32	32	31	28	27	28	29	30	32	33	35	38	40	41	41	41	41	41	40	39	37	41.5
3-Jun	36	35	32	30	29	28	25	23	22	22	22	22	23	25	29	33	36	38	41	43	44	43	42	40	43.8
4-Jun	39	38	37	35	35	33	30	27	26	24	24	26	28	31	35	39	41	43	45	44	44	43	42	40	44.6
5-Jun	38	36	35	33	33	30	28	27	26	27	28	30	31	33	35	37	37	38	38	38	37	37	37	37	38.0
6-Jun	36	35	33	32	31	27	23	20	18	18	20	22	26	31	36	40	44	46	48	47	46	45	45	44	47.6
7-Jun	44	43	42	41	41	38	35	32	30	30	32	35	38	43	47	51	54	56	56	55	55	54	53	52	55.9
8-Jun	50	49	48	47	47	45	43	42	41	41	42	44	45	48	50	53	56	57	58	58	57	55	53	52	57.9
9-Jun	49	47	45	44	43	41	41	40	39	36	33	30	28	27	26	24	23	24	25	26	27	27	26	25	49.5
10-Jun	23	21	19	17	16	14	13	13	14	17	20	24	26	30	34	37	39	41	40	37	35	32	30	28	40.6
11-Jun	26	25	24	26	26	27	28	29	30	31	32	32	32	31	30	30	29	27	26	24	22	20	18	16	31.9
12-Jun	13	11	9	7	6	5	4	6	10	14	19	24	26	30	35	38	39	40	40	40	40	39	38	37	40.4
13-Jun	36	34	32	31	30	28	26	25	24	25	27	30	31	34	37	40	43	44	45	46	46	45	43	42	46.2
14-Jun	40	37	34	31	29	26	23	21	19	18	18	19	21	23	26	28	31	33	34	35	34	33	32	30	39.6
15-Jun	28	26	25	23	22	20	18	17	16	17	19	19	19	N	N	N	N	N	N	N	33	32	32	31	32.5
16-Jun	30	29	29	27	27	25	23	21	20	19	19	20	21	22	24	26	28	29	30	31	32	32	31	31	32.0
17-Jun	30	29	27	26	26	25	25	25	25	26	27	28	28	29	30	31	31	32	32	33	33	33	33	33	33.4
18-Jun	32	31	29	27	26	25	23	21	22	22	23	25	25	27	29	30	30	30	29	29	29	28	28	27	31.8
19-Jun	26	25	24	23	22	21	19	18	18	18	19	19	20	21	24	27	28	30	31	32	32	31	30	28	32.0
20-Jun	26	24	22	19	18	16	14	13	13	16	18	21	23	25	28	31	33	33	34	34	34	34	34	34	34.4
21-Jun	33	32	32	31	31	29	28	28	27	27	27	27	28	28	29	29	29	29	29	29	28	27	27	26	33.3
22-Jun	25	24	22	21	21	20	19	18	17	18	19	20	21	23	26	28	31	33	34	34	34	33	33	31	34.3
23-Jun	29	27	24	22	22	19	17	16	15	15	17	19	20	22	24	26	28	30	30	32	33	33	32	32	32.8
24-Jun	30	30	29	27	26	24	23	22	23	24	25	28	29	32	34	37	39	40	41	41	41	40	38	36	41.3
25-Jun	33	31	29	27	27	26	26	25	26	28	30	32	34	36	38	40	42	42	41	40	39	37	36	34	42.0
26-Jun	33	31	30	28	27	25	23	23	23	26	28	31	33	36	39	41	41	40	39	38	36	33	32	31	40.9
27-Jun	31	30	29	29	29	30	30	29	28	27	26	25	24	22	21	19	18	18	18	18	18	19	20	22	31.0
28-Jun	23	23	24	25	25	26	26	25	25	24	24	24	24	23	23	23	24	25	25	25	24	23	23	21	25.8
29-Jun	19	16	14	12	11	10	8	8	9	10	12	14	15	18	20	21	23	24	23	23	22	21	20	19	23.6
30-Jun	19	19	20	21	21	23	23	24	25	26	27	28	29	30	32	33	34	35	36	36	36	35	36	35	35.9
	50.5	49.3	48.3	47.3	46.7	45.0	43.5	42.2	41.2	41.2	41.9	43.5	45.4	47.6	50.2	53.0	55.5	57.4	57.9	57.6	56.6	55.3	53.4	51.7	
	Diurnal Maximums																								

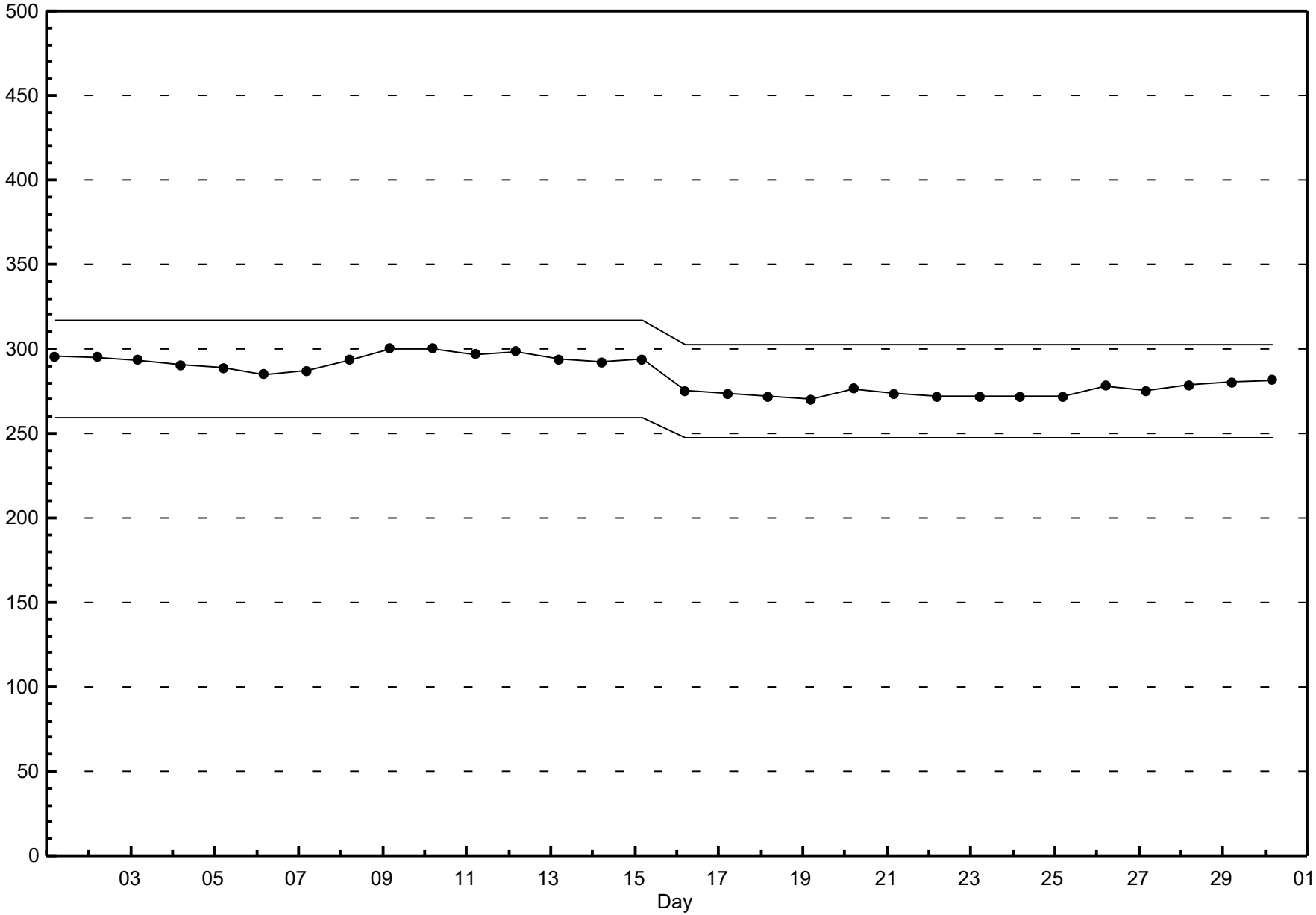
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - June 2017

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 59.1 $\mu g/m^3$ on Jun 8 09:00

Maximum Daily Average: 13.8 $\mu g/m^3$ on Jun 8

Minimum Value: 1 $\mu g/m^3$ on Jun 21 21:00

Maximum Diurnal Average: 6.2 $\mu g/m^3$ at hour 9

Monthly Average: 4.40 $\mu g/m^3$

Minimum Daily Average: 1.6 $\mu g/m^3$ on Jun 21

Minimum Diurnal Average: 3.6 $\mu g/m^3$ at hour 14

Percentiles: P_1 = 1.1 P_{10} = 1.7 Q_1 = 2.4 Median = 3.3 Q_3 = 5.5 P_{90} = 8.4 P_{99} = 13.8

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	2
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	6	5	5	5	5	5	4	4	3	3	3	2	2	2	2	2	2	3	3	2	2	2	2	3.3	5.8
2-Jun	2	2	2	2	2	2	2	2	2	2	3	2	2	2	4	3	4	2	2	2	2	4	4	2	2.3	4.4
3-Jun	4	3	2	2	2	2	2	2	2	4	11	7	5	3	7	2	8	3	2	2	2	2	2	3	3.5	11.0
4-Jun	4	3	3	3	2	2	5	4	6	4	6	4	3	3	3	3	2	2	2	3	3	2	2	3	3.2	6.2
5-Jun	3	2	1	2	1	2	4	7	2	2	2	1	1	1	1	2	2	2	2	2	3	3	3	3	2.2	6.7
6-Jun	5	11	12	5	5	8	7	8	7	5	14	6	9	5	4	4	4	5	6	7	8	6	6	5	6.7	13.7
7-Jun	6	8	9	8	10	10	14	14	16	14	11	9	7	7	7	7	7	7	7	8	7	7	8	8	9.0	15.8
8-Jun	9	9	8	8	10	9	10	10	59	16	9	27	17	10	10	15	10	11	13	14	13	12	12	12	13.8	59.1
9-Jun	8	9	10	9	9	10	10	9	9	11	5	3	2	2	2	2	2	2	1	1	1	1	1	1	5.0	10.5
10-Jun	2	3	4	4	4	4	4	4	4	3	3	3	3	3	3	3	8	6	5	4	7	6	4	3	4.2	7.6
11-Jun	5	2	2	3	3	3	3	3	4	4	4	4	4	6	5	3	2	3	3	4	4	5	5	6	3.7	5.9
12-Jun	4	3	3	2	2	2	4	3	3	3	3	3	3	3	3	3	5	4	5	4	4	5	5	5	3.5	5.1
13-Jun	5	6	5	5	5	4	4	3	2	2	2	2	2	3	3	3	3	3	3	3	3	5	7	7	3.9	6.8
14-Jun	8	10	8	8	6	5	4	4	5	6	7	7	7	6	6	7	4	4	4	4	3	4	4	4	5.6	9.8
15-Jun	5	3	4	2	3	4	4	5	6	7	5	5	4	C	C	6	5	6	5	5	5	5	5	5	4.7	6.7
16-Jun	3	2	2	3	3	3	2	1	1	1	1	2	2	2	2	2	5	2	2	3	3	3	3	3	2.4	5.4
17-Jun	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	3	2	3	3	3	3	3	4	2.6	3.7
18-Jun	3	3	3	3	3	3	3	2	3	2	2	2	2	2	2	3	3	2	1	1	1	1	1	2	2.2	3.3
19-Jun	2	2	2	1	2	3	3	3	7	9	8	6	5	4	3	2	2	2	3	3	4	5	5	6	3.8	9.3
20-Jun	8	8	7	6	4	4	4	4	2	1	1	1	2	3	1	2	2	3	2	2	2	2	2	2	3.2	8.5
21-Jun	1	1	1	1	1	1	1	1	3	3	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1.6	3.1
22-Jun	1	1	1	1	2	2	2	2	2	3	3	2	2	2	2	3	3	2	2	2	2	3	3	2	2.1	2.8
23-Jun	2	2	3	3	3	3	2	2	3	3	3	4	3	3	3	3	3	3	4	3	4	4	6	5	3.2	5.5
24-Jun	6	6	4	5	5	5	4	4	3	3	3	3	3	2	2	3	4	2	4	5	5	7	8	9	4.4	8.5
25-Jun	9	7	8	9	9	8	8	8	7	7	7	8	5	5	5	6	7	6	7	7	9	10	9	9	7.4	9.9
26-Jun	7	8	8	11	10	11	10	7	5	3	3	2	2	2	3	3	3	2	3	4	4	4	4	4	5.1	10.6
27-Jun	4	4	3	3	2	2	2	2	3	2	3	2	2	2	3	3	3	2	2	3	3	3	3	3	2.7	3.7
28-Jun	4	4	3	2	3	3	3	3	3	3	5	8	9	8	9	8	7	7	8	8	9	10	10	9	6.1	9.6
29-Jun	10	10	9	9	8	8	7	6	7	8	7	6	5	4	4	4	6	5	6	5	5	5	6	6	6.4	9.7
30-Jun	5	4	5	5	5	5	4	4	4	3	3	3	3	3	3	3	4	4	4	4	6	6	6	6	4.3	6.4
	4.7	4.8	4.7	4.4	4.4	4.4	4.7	4.5	6.2	4.6	4.7	4.6	4.0	3.6	3.7	3.8	4.1	3.6	3.9	4.0	4.2	4.6	4.6	4.6	Diurnal Average	
	9.6	11.0	11.8	10.6	10.1	10.6	14.4	13.8	59.1	16.1	13.7	26.8	16.7	10.1	9.6	15.4	9.6	10.8	12.6	14.0	12.6	11.8	11.9	11.6	Diurnal Maximum	

C - Calibration

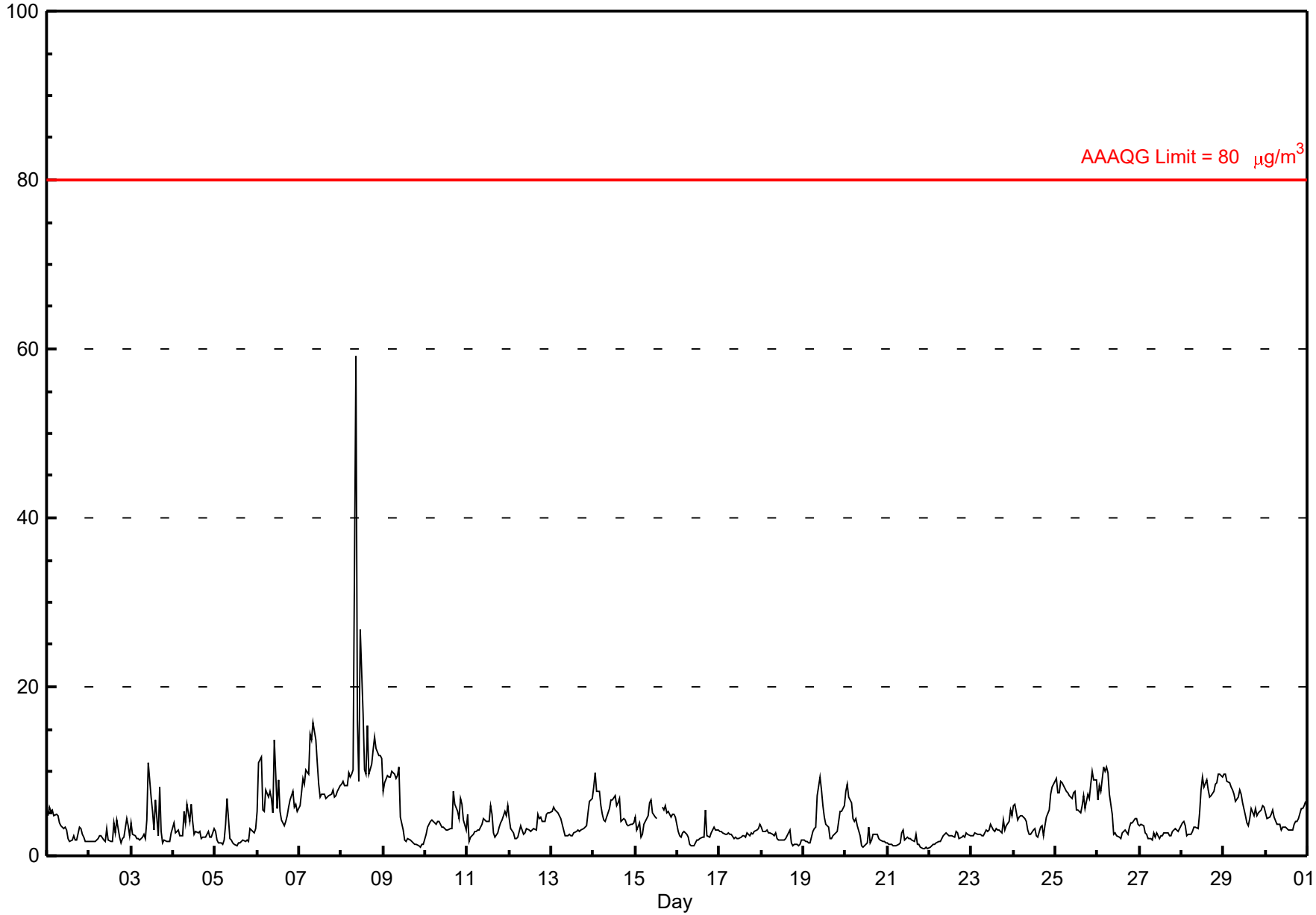
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - June 2017

Maximum Value: 275.1 $\mu g/m^3$ on Jun 8 09:00

Maximum Daily Average: 40.4 $\mu g/m^3$ on Jun 8

Minimum Value: 1 $\mu g/m^3$ on Jun 21 21:00

Maximum Diurnal Average: 29.9 $\mu g/m^3$ at hour 17

Monthly Average: 8.95 $\mu g/m^3$

Minimum Daily Average: 3.7 $\mu g/m^3$ on Jun 27

Minimum Diurnal Average: 5.4 $\mu g/m^3$ at hour 18

Percentiles: P_1 = 1.4 P_{10} = 2.4 Q_1 = 3.2 Median = 4.9 Q_3 = 8.3 P_{90} = 14.6 P_{99} = 111.3

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	6	9	6	6	5	5	6	10	7	5	10	6	3	2	12	6	2	2	18	7	4	3	3	2	6.0	17.8
2-Jun	2	2	2	2	2	3	3	3	3	2	30	4	3	5	34	18	128	7	4	14	6	10	8	6	12.6	128.3
3-Jun	21	5	5	2	2	2	5	5	4	9	13	9	7	5	62	7	44	22	3	6	2	2	2	17	11.0	61.9
4-Jun	28	3	3	11	3	3	12	7	37	13	30	20	5	6	3	3	5	6	3	3	4	3	2	9	9.3	37.4
5-Jun	6	3	2	6	2	5	16	20	13	6	3	2	4	4	2	4	6	2	4	3	6	3	3	4	5.3	20.0
6-Jun	10	57	43	21	11	13	16	20	14	7	54	7	59	8	6	4	5	6	6	10	10	6	7	6	16.9	59.5
7-Jun	8	8	35	10	31	12	50	23	27	18	19	19	10	15	20	9	10	12	9	10	9	8	8	9	16.2	49.7
8-Jun	9	9	9	9	21	21	36	14	275	118	10	150	61	23	12	49	12	12	16	17	15	14	13	44	40.4	275.1
9-Jun	9	10	10	10	10	13	10	10	10	14	7	5	3	2	8	3	2	2	2	2	2	1	2	2	6.2	14.4
10-Jun	3	4	4	5	5	4	4	6	5	4	4	4	4	4	4	4	161	7	7	5	9	7	5	4	11.2	160.7
11-Jun	160	2	3	3	3	4	3	3	4	5	5	5	5	8	7	4	3	3	4	4	5	6	6	7	10.9	160.4
12-Jun	7	5	3	2	2	4	4	4	6	3	4	3	3	4	7	4	73	5	5	5	5	6	6	6	7.3	72.9
13-Jun	6	6	6	6	5	5	4	4	3	3	3	3	3	3	3	3	4	3	4	4	5	7	7	7	4.5	7.3
14-Jun	10	10	10	9	7	6	5	4	6	7	9	8	8	8	7	8	18	6	5	4	4	4	4	5	7.2	18.1
15-Jun	5	7	8	4	3	5	5	5	8	8	6	5	5	C	C	7	7	7	6	6	5	5	9	5	6.0	9.2
16-Jun	4	3	2	3	3	3	3	2	2	2	2	3	3	2	4	3	151	4	2	3	4	5	4	4	9.2	151.3
17-Jun	3	3	3	3	3	3	3	3	3	3	3	3	3	3	5	3	16	3	3	3	4	4	4	5	3.8	15.9
18-Jun	4	3	3	3	3	3	3	3	27	3	3	2	2	2	3	7	54	2	2	2	2	1	2	3	6.0	53.6
19-Jun	2	2	2	2	2	10	6	5	15	15	12	9	7	4	7	3	3	3	4	3	5	6	6	7	5.8	15.4
20-Jun	9	9	8	8	5	5	5	4	22	1	1	1	3	10	2	3	6	3	3	2	3	2	2	2	5.0	21.8
21-Jun	2	2	1	1	1	2	2	4	26	12	3	5	4	8	6	2	43	2	2	1	1	1	1	1	5.6	43.0
22-Jun	1	1	1	2	2	2	2	3	3	3	3	3	3	3	2	7	30	2	3	3	3	4	3	3	3.8	30.1
23-Jun	3	3	3	3	3	3	3	3	5	4	4	5	3	4	4	4	14	3	6	3	4	5	7	6	4.3	13.7
24-Jun	8	8	5	5	7	6	5	5	4	3	3	4	5	3	3	9	11	3	4	7	7	9	11	18	6.4	18.1
25-Jun	107	8	8	10	10	9	10	10	8	7	9	9	6	6	6	9	39	6	21	8	13	19	9	14	14.9	106.5
26-Jun	8	10	9	15	17	14	17	10	8	15	5	4	3	5	10	5	19	3	5	4	5	5	5	4	8.5	18.8
27-Jun	4	4	4	3	3	2	3	2	10	3	3	3	3	3	3	3	4	5	3	3	4	4	3	4	3.7	10.5
28-Jun	7	5	4	3	3	3	3	4	4	4	7	9	10	9	15	11	16	8	9	10	9	10	10	10	7.6	15.7
29-Jun	10	10	10	9	9	8	8	7	11	8	8	7	6	4	4	6	10	5	6	5	6	6	7	6	7.3	11.0
30-Jun	6	5	5	5	6	7	4	9	6	4	4	4	5	5	3	3	4	6	7	5	7	6	7	7	5.4	9.3
	15.5	7.2	7.3	6.0	6.3	6.1	8.5	7.0	19.2	10.4	9.2	10.7	8.2	5.8	9.2	7.1	29.9	5.4	5.8	5.4	5.5	5.8	5.5	7.5	Diurnal Average	
	160.4	57.0	43.1	20.5	31.3	21.2	49.7	23.0	275.1	118.2	53.6	149.9	60.7	22.7	61.9	49.4	160.7	22.2	21.0	16.8	15.4	19.3	12.7	43.5	Diurnal Maximum	

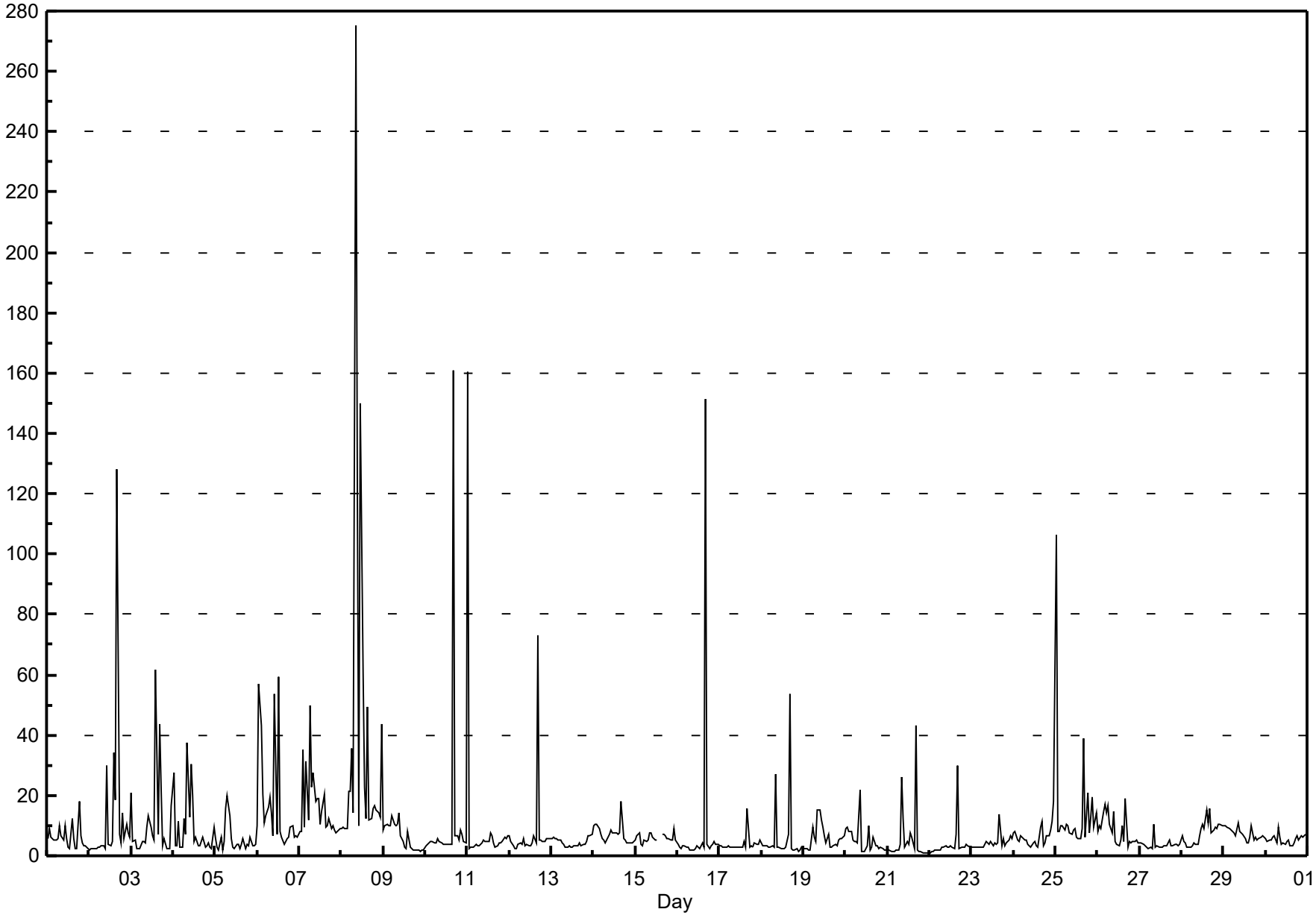
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - June 2017

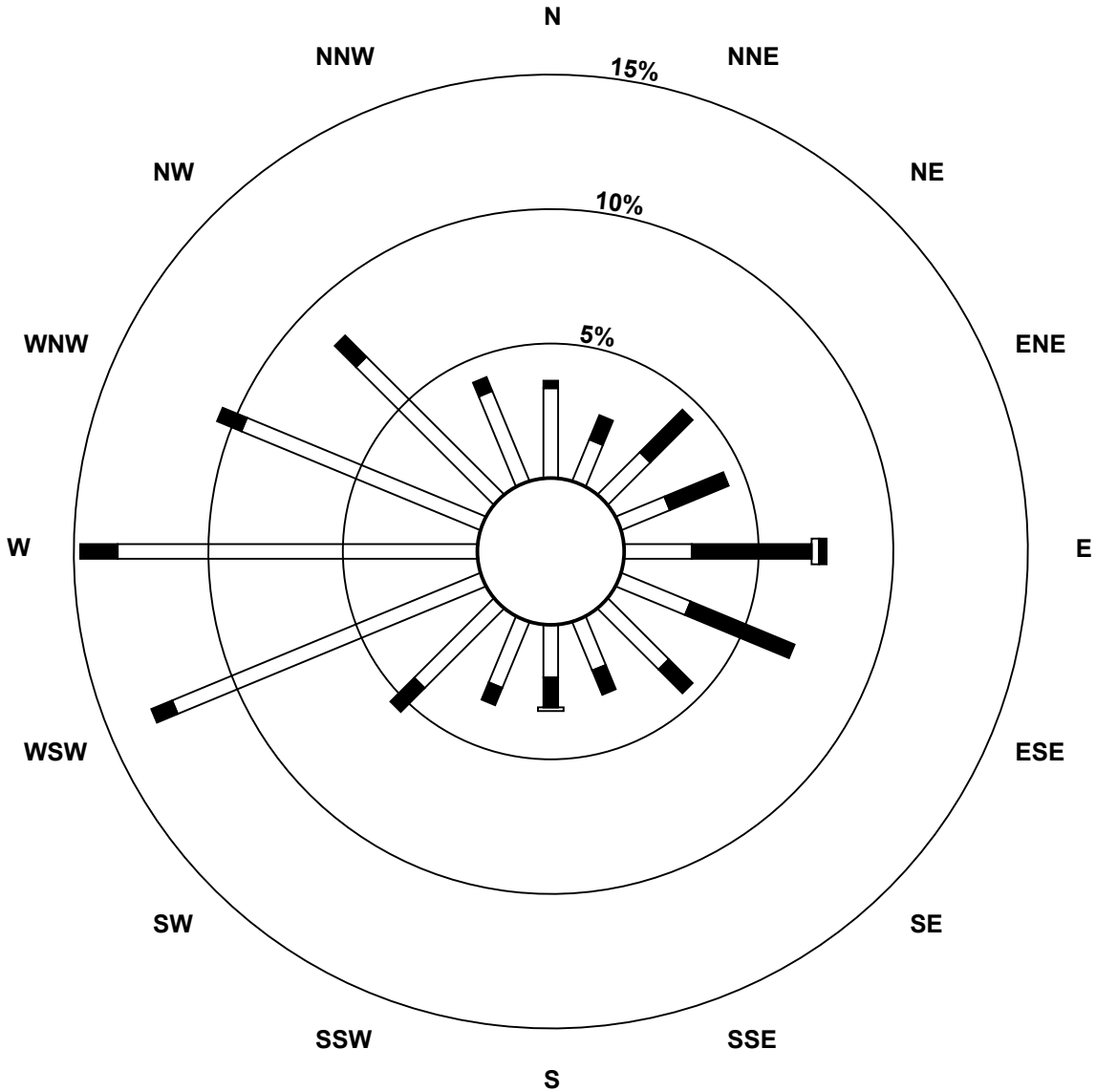


Peace Airshed Zone Association

Pollutant Rose

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

Beaverlodge - June 2017



Pollutant Classes ($\mu g/m^3$)

- 0 - 5
- 6 - 15
- 16 - 25
- 26 - 80
- > 80.0

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Beaverlodge - June 2017

Maximum Value: 27.8 °C on Jun 25 18:00

Maximum Daily Average: 21.5 °C on Jun 25

Minimum Value: 4 °C on Jun 15 05:00

Minimum Daily Average: 8.2 °C on Jun 11

Maximum Diurnal Average: 18.7 °C at hour 18

Minimum Diurnal Average: 9.6 °C at hour 5

Monthly Average: 14.64 °C

Percentiles: P_1 = 6.0 P_{10} = 8.0 Q_1 = 10.7 Median = 14.7 Q_3 = 17.6 P_{90} = 21.3 P_{99} = 26.6

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

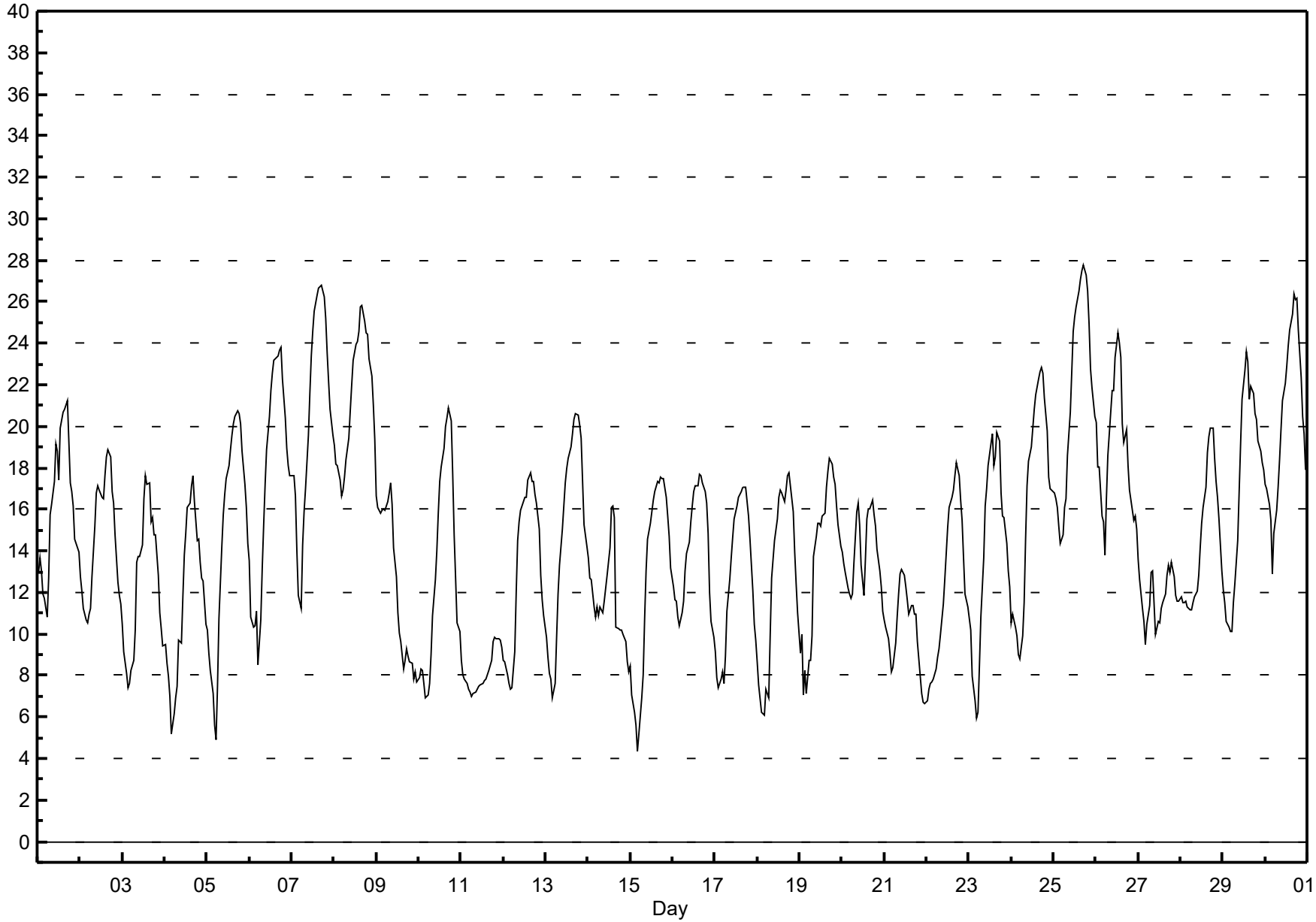
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	13	14	13	12	12	11	13	16	16	17	19	19	17	20	21	21	21	21	17	17	16	15	14	14	16.2	21.2
2-Jun	13	12	11	11	11	11	11	13	15	17	17	17	17	17	18	18	19	19	17	16	15	12	12	11	14.5	18.9
3-Jun	10	9	8	7	8	8	9	10	13	14	14	14	17	18	17	17	15	16	15	15	13	11	10	9	12.4	17.6
4-Jun	9	9	8	7	5	6	7	7	10	10	12	14	15	16	16	17	18	16	14	15	13	13	13	10	11.7	17.6
5-Jun	10	9	8	7	6	5	7	11	14	16	17	17	18	19	20	20	20	21	21	20	19	17	16	14	14.7	20.8
6-Jun	13	11	10	10	11	8	11	13	15	17	19	20	22	23	23	23	23	24	24	22	20	19	18	18	17.5	23.8
7-Jun	18	18	17	14	12	11	14	16	17	20	22	23	25	26	26	27	27	27	26	25	24	22	21	20	20.6	26.8
8-Jun	19	18	18	17	17	17	18	18	19	21	22	23	24	24	25	26	26	25	25	24	23	22	21	19	21.3	25.9
9-Jun	17	16	16	16	16	16	16	17	17	16	14	13	11	10	10	8	9	9	9	9	9	8	8	8	12.4	17.3
10-Jun	8	8	8	8	7	7	8	9	11	13	14	16	17	18	19	20	20	21	20	18	15	13	11	10	13.2	20.9
11-Jun	9	8	8	8	7	7	7	7	7	7	7	8	8	8	8	8	8	9	10	10	10	10	10	9	8.2	9.9
12-Jun	9	9	8	8	7	7	9	12	15	15	16	16	17	17	17	18	17	17	17	16	15	13	12	11	13.2	17.8
13-Jun	10	9	8	8	7	8	10	12	13	15	16	17	18	18	19	20	20	21	21	20	19	17	15	14	14.8	20.6
14-Jun	14	13	13	11	11	11	11	11	11	12	12	13	14	16	16	16	10	10	10	10	10	10	9	8	11.7	16.2
15-Jun	8	7	6	6	4	5	7	8	11	13	15	15	16	16	17	17	17	18	17	17	17	16	15	13	12.6	17.6
16-Jun	12	12	12	11	10	11	12	13	14	14	15	16	17	17	17	18	18	17	17	16	15	12	11	10	14.0	17.7
17-Jun	9	8	7	8	8	8	9	11	13	14	15	16	16	17	17	17	17	17	16	16	15	12	10	10	12.7	17.0
18-Jun	9	8	6	6	6	7	7	10	13	14	14	16	17	17	17	16	17	18	18	17	16	14	12	11	12.7	17.8
19-Jun	9	10	7	8	7	9	9	10	14	15	15	15	15	16	16	17	18	18	18	18	17	16	15	14	13.6	18.5
20-Jun	14	13	13	12	12	12	12	13	16	16	15	13	12	14	16	16	16	16	16	15	14	13	12	11	13.9	16.4
21-Jun	11	10	10	9	8	8	10	11	12	13	13	13	12	12	11	11	11	11	11	10	8	7	7	7	10.2	13.1
22-Jun	7	7	8	8	8	8	9	9	10	11	13	14	15	16	17	17	18	18	18	16	15	14	12	11	12.4	18.2
23-Jun	11	10	8	7	6	6	8	11	14	16	17	18	19	20	18	19	20	19	17	16	16	14	13	12	13.9	19.7
24-Jun	11	11	10	10	9	9	10	12	15	17	18	19	20	21	22	22	23	23	23	21	20	18	17	17	16.5	22.8
25-Jun	17	17	16	15	14	15	16	16	19	21	23	25	25	26	26	27	27	28	27	27	25	23	22	20	21.5	27.8
26-Jun	20	18	18	16	15	14	17	19	21	22	22	23	24	24	23	20	19	20	18	17	16	15	16	15	18.9	24.5
27-Jun	14	13	11	11	9	10	11	13	13	12	10	11	11	11	11	12	13	13	13	13	13	12	12	12	11.8	13.6
28-Jun	12	12	12	12	11	11	11	12	12	12	13	14	15	16	17	19	19	20	20	18	17	17	16	13	14.6	19.9
29-Jun	12	11	11	10	10	10	11	12	15	17	19	21	23	24	23	21	22	22	21	20	19	19	18	18	17.1	23.6
30-Jun	17	17	16	15	13	15	16	17	18	20	21	22	23	24	25	25	26	26	26	25	22	20	20	18	20.4	26.4
	12.1	11.5	10.8	10.2	9.6	9.8	10.8	12.3	14.0	15.2	16.0	16.7	17.3	17.9	18.2	18.5	18.5	18.7	18.0	17.3	16.2	14.8	13.9	13.0	Diurnal Average	
	20.2	18.2	18.1	17.4	16.7	16.9	17.6	18.6	20.7	21.7	22.6	24.6	25.3	25.8	26.5	27.1	27.5	27.8	27.3	26.5	24.9	22.8	21.9	20.5	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - June 2017

Maximum Value: 100.0 % on Jun 9 11:00

Maximum Daily Average: 99.0 % on Jun 11

Minimum Value: 22 % on Jun 5 18:00

Minimum Daily Average: 38.8 % on Jun 5

Maximum Diurnal Average: 82.3 % at hour 6

Minimum Diurnal Average: 45.9 % at hour 18

Monthly Average: 62.60 %

Percentiles: P_1 = 24.6 P_{10} = 33.2 Q_1 = 42.5 Median = 58.8 Q_3 = 82.1 P_{90} = 100.0 P_{99} = 100.0

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

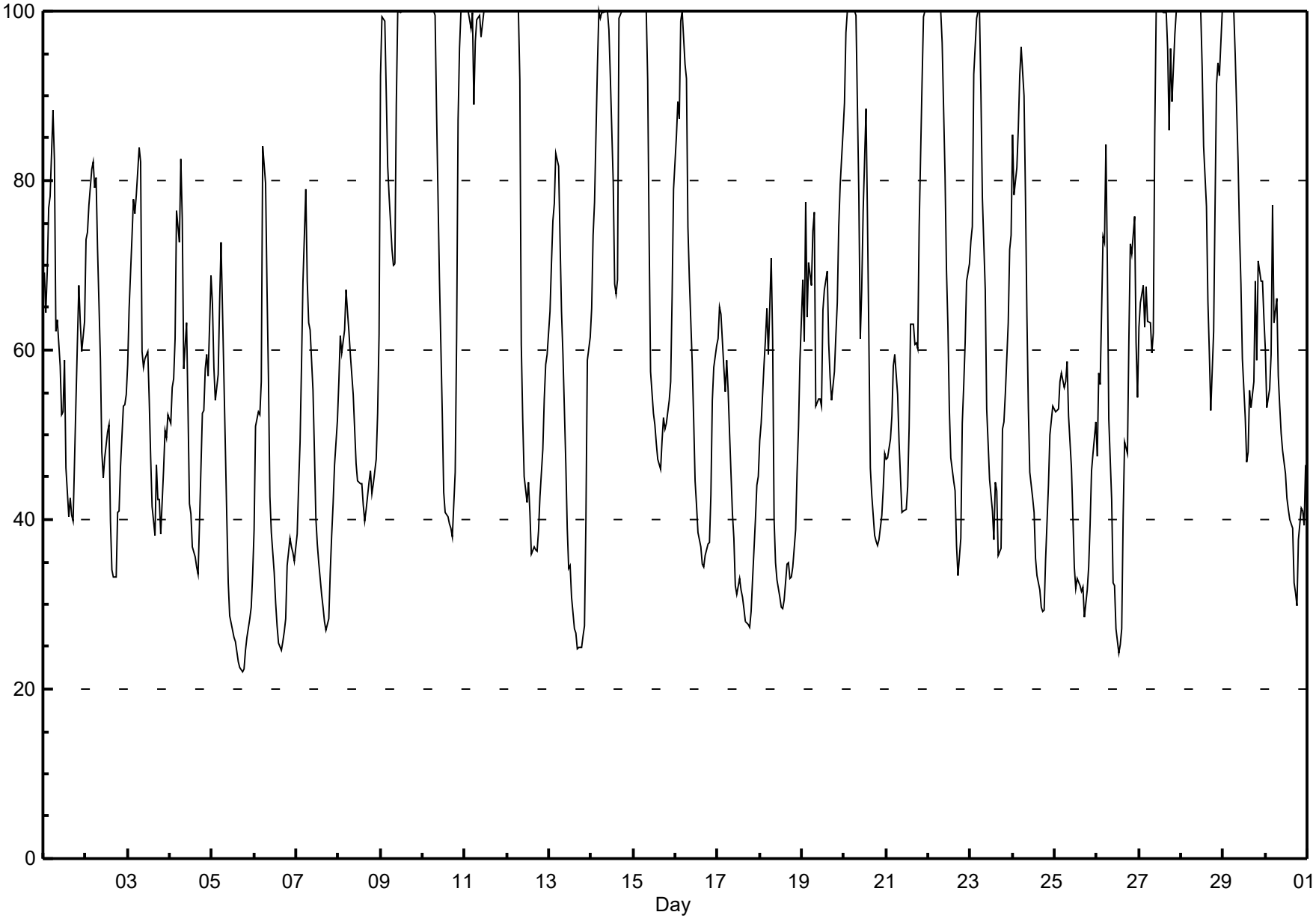
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	69	64	69	77	78	88	82	62	64	58	52	53	59	46	40	43	41	40	54	61	68	63	60	63	60.6	88.3
2-Jun	73	74	77	81	82	79	80	72	59	48	45	47	50	51	40	34	33	33	41	41	46	53	54	55	56.2	82.1
3-Jun	58	65	73	78	76	78	84	82	60	58	59	60	54	47	41	38	46	42	42	38	46	50	50	52	57.5	83.9
4-Jun	51	56	57	61	76	73	83	75	58	63	53	42	41	37	36	34	34	40	52	53	58	59	57	69	54.9	82.6
5-Jun	65	58	54	57	66	73	65	57	40	32	29	28	26	26	24	23	23	22	22	25	26	28	30	34	38.8	72.7
6-Jun	39	51	53	52	56	84	80	67	57	43	39	34	30	27	25	25	26	27	28	35	38	37	36	35	42.6	84.1
7-Jun	38	44	49	58	68	79	68	63	62	55	48	40	37	35	31	30	28	27	28	34	38	42	46	52	45.9	79.0
8-Jun	56	62	60	62	67	65	62	60	55	51	47	45	44	44	42	40	41	44	46	43	44	47	53	62	51.7	67.1
9-Jun	92	99	99	90	82	78	72	70	70	89	100	100	100	100	100	100	100	100	100	100	100	100	100	100	93.4	100.0
10-Jun	100	100	100	100	100	100	100	100	88	69	61	53	43	41	40	39	39	38	46	62	87	96	100	100	75.0	100.0
11-Jun	100	100	100	98	100	89	96	99	99	97	98	100	100	100	100	100	100	100	100	100	100	100	100	100	99.0	100.0
12-Jun	100	100	100	100	100	100	100	92	61	52	45	42	44	41	36	37	36	36	39	43	48	54	58	59	63.5	100.0
13-Jun	65	70	75	77	83	82	73	65	60	47	39	34	35	31	27	27	25	25	25	26	27	40	59	62	49.0	83.2
14-Jun	65	73	77	93	100	99	100	100	100	100	98	92	80	68	67	68	99	100	100	100	100	100	100	100	90.8	100.0
15-Jun	100	100	100	100	100	100	100	100	92	73	57	52	51	49	47	46	49	52	51	51	54	56	66	79	72.0	100.0
16-Jun	85	89	87	99	100	94	92	75	68	58	52	45	42	38	37	35	34	36	37	37	43	54	58	61	60.7	100.0
17-Jun	61	65	64	58	55	59	55	50	41	38	32	31	33	32	31	30	28	28	27	29	33	40	44	45	42.0	65.1
18-Jun	49	51	58	61	65	60	71	61	40	35	33	31	30	30	31	35	35	33	33	34	39	46	51	59	44.6	70.9
19-Jun	68	61	77	64	70	68	74	76	53	54	54	53	65	67	69	61	57	54	57	62	66	75	80	86	65.5	85.8
20-Jun	89	97	100	100	100	100	100	99	78	61	67	76	88	76	61	46	43	38	37	37	38	40	44	48	69.4	100.0
21-Jun	47	47	49	52	58	59	55	49	45	41	41	41	44	51	63	63	61	61	60	75	92	99	100	100	60.6	100.0
22-Jun	100	100	100	100	100	100	100	100	96	81	70	63	53	47	45	43	37	33	38	51	56	61	68	70	71.3	100.0
23-Jun	73	75	93	99	100	100	90	78	67	53	49	45	41	38	44	43	36	37	51	51	55	63	72	74	63.6	100.0
24-Jun	85	78	81	86	92	96	90	78	64	53	46	43	41	35	33	32	30	29	29	35	44	50	52	53	56.5	95.7
25-Jun	53	53	53	56	57	56	56	59	52	46	40	34	32	33	32	32	32	28	32	34	40	46	48	52	44.0	58.6
26-Jun	47	57	56	73	73	84	70	52	42	33	32	27	24	25	27	40	49	48	61	72	71	76	61	54	52.4	84.3
27-Jun	63	66	68	63	68	63	63	60	62	86	100	100	100	100	100	100	95	86	96	89	97	100	100	100	84.3	100.0
28-Jun	100	100	100	100	100	100	100	100	100	100	100	100	93	84	77	66	60	53	62	77	91	94	92	100	89.6	100.0
29-Jun	100	100	100	100	100	100	100	95	82	74	68	59	52	47	48	55	53	56	68	59	71	68	68	64	74.5	100.0
30-Jun	60	53	55	60	77	63	66	57	53	50	48	45	42	41	40	39	32	31	30	38	41	41	39	46	47.9	77.1
	71.8	73.7	76.2	78.6	81.7	82.3	80.9	75.1	65.7	59.9	56.7	53.8	52.5	49.5	47.8	46.8	46.7	45.9	49.8	53.1	58.5	62.7	64.8	67.8	Diurnal Average	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	4	1	5	4	1	1	2	3	7	10	6	10	11	6	15	10	11	6	12	5	10	10	9	6	4.2	15.1
Dir	127	16	265	48	219	70	70	224	262	282	277	317	258	213	261	315	303	291	157	142	223	238	252	211	256	261
2 Spd	5	6	5	3	1	2	2	7	15	23	21	18	21	18	29	29	23	32	16	9	7	5	5	6	10.7	31.9
Dir	232	242	232	213	222	176	212	226	247	269	283	286	294	283	261	274	265	254	263	227	189	137	110	98	261	254
3 Spd	3	1	3	5	5	3	4	5	9	13	12	6	5	9	18	13	11	10	7	5	5	4	10	4	2.0	18.0
Dir	334	43	130	64	60	51	37	53	126	125	122	152	109	251	244	210	312	247	219	226	177	133	260	280	195	244
4 Spd	9	9	9	2	3	0	2	3	4	4	1	2	4	4	5	6	8	16	14	7	8	3	2	2	2.8	15.9
Dir	307	329	342	0	291	303	284	193	182	190	115	125	123	111	221	227	213	206	241	255	243	3	281	293	246	206
5 Spd	6	9	6	2	2	4	3	7	19	21	22	19	16	16	14	11	12	10	11	11	10	6	5	6	8.6	21.7
Dir	314	309	299	320	128	67	145	227	258	275	276	270	271	268	258	268	262	275	266	271	300	330	2	31	277	276
6 Spd	4	2	2	3	4	2	3	2	6	13	16	13	10	8	8	8	9	9	13	11	9	10	10	11	6.0	15.5
Dir	347	48	36	21	37	300	301	128	149	114	113	111	125	138	108	101	83	67	83	91	48	45	42	64	87	113
7 Spd	10	11	8	4	1	3	2	3	4	7	15	23	24	22	20	22	23	23	22	18	17	21	21	18	13.1	24.2
Dir	54	72	70	220	218	35	317	207	177	123	104	103	103	105	95	90	85	90	94	82	78	75	84	87	91	103
8 Spd	19	15	16	14	5	11	8	15	20	20	23	24	23	21	22	20	20	22	25	29	26	26	20	20	18.8	28.8
Dir	90	88	81	70	45	46	63	78	97	88	93	93	100	112	111	97	93	88	87	87	89	99	112	116	92	87
9 Spd	21	11	15	16	21	18	18	12	7	8	16	22	20	19	19	15	16	19	20	16	15	14	9	8	4.2	21.8
Dir	119	59	65	50	45	51	58	63	113	203	240	249	237	241	245	255	257	273	286	255	248	237	251	265	257	249
10 Spd	6	13	18	16	15	11	14	13	11	12	10	10	10	10	8	7	9	10	14	17	14	18	15	14	10.4	18.4
Dir	327	315	324	316	317	318	312	322	313	303	318	310	325	309	287	291	275	306	263	253	316	16	27	20	317	324
11 Spd	15	11	9	6	6	4	7	10	13	11	9	12	11	11	9	3	6	9	9	9	8	10	11	10	5.6	14.8
Dir	10	18	34	26	9	54	115	158	170	173	137	103	98	114	154	80	11	148	134	147	137	122	123	124	112	10
12 Spd	4	4	9	13	11	3	3	9	19	20	24	26	23	24	24	23	23	26	25	20	14	8	12	9	13.5	25.9
Dir	162	186	8	356	1	29	61	258	265	263	273	279	291	289	291	296	292	286	280	270	268	281	276	263	285	279
13 Spd	1	1	2	2	3	2	1	3	6	15	14	16	12	14	16	10	11	10	10	7	5	5	6	5	4.7	16.4
Dir	274	234	179	94	85	115	128	153	232	269	276	268	250	264	266	284	265	268	286	320	349	60	90	76	271	268
14 Spd	8	6	8	4	6	1	6	7	10	7	7	9	6	10	15	8	28	12	9	6	5	5	4	2	4.3	27.8
Dir	41	18	60	268	305	331	298	358	359	24	6	34	35	53	57	75	247	305	350	339	307	344	271	25	355	247
15 Spd	3	2	3	2	2	1	2	5	3	2	4	8	11	14	17	19	20	23	26	23	19	12	6	10	7.5	26.0
Dir	23	246	25	223	54	353	200	218	217	190	150	156	122	111	104	100	96	96	98	98	97	97	136	297	106	98
16 Spd	10	9	5	3	2	2	7	10	13	19	27	33	32	31	32	33	36	31	27	15	9	5	15	13	16.3	35.6
Dir	317	315	326	167	129	214	228	247	247	256	257	256	259	264	261	259	255	261	268	255	208	189	251	257	258	255
17 Spd	10	3	6	13	18	16	18	18	20	23	25	24	27	27	29	26	22	25	24	22	16	14	10	5	18.2	28.9
Dir	250	204	212	249	247	244	247	238	252	254	264	260	241	240	246	250	255	251	257	258	263	249	260	250	250	246
18 Spd	5	4	2	4	2	5	5	8	14	20	24	22	25	23	20	16	17	18	16	16	12	12	5	4	9.2	25.3
Dir	218	228	113	143	202	229	52	246	272	278	269	273	262	277	301	327	321	313	326	350	1	9	357	255	295	262
19 Spd	5	6	3	5	3	2	4	3	9	8	5	8	12	9	7	3	5	7	10	11	11	9	8	5	2.6	11.7
Dir	49	34	50	60	82	60	253	258	132	171	167	226	279	274	262	235	204	187	190	167	142	118	121	91	172	279
20 Spd	4	5	1	4	2	3	2	4	14	21	18	24	14	23	25	31	34	38	38	32	18	13	14	11	15.3	37.8
Dir	124	220	327	178	175	196	102	179	239	270	259	246	238	230	235	242	247	244	258	262	247	244	240	231	244	258
21 Spd	11	14	12	12	12	13	15	18	27	37	33	29	23	23	10	14	25	23	22	24	21	17	17	18	17.5	37.3
Dir	243	242	240	231	222	226	232	249	257	267	264	268	276	283	325	327	285	293	300	311	302	298	292	295	274	267
22 Spd	16	14	13	10	7	9	11	10	12	12	16	12	17	14	13	14	10	13	10	15	9	6	7	8	11.0	16.5
Dir	299	297	305	308	295	294	303	308	310	312	314	316	320	328	335	335	305	296	307	265	271	285	279	296	305	320

Peace Airshed Zone Association

Hourly Averages

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

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	Daily Average	Daily Maximum
23 Spd	10	7	3	2	4	3	2	3	5	10	11	11	10	9	16	19	19	13	20	17	9	7	5	6	6.2	19.5
Dir	291	286	159	142	52	70	165	194	256	302	290	283	274	282	277	276	284	303	26	8	354	332	261	270	301	26
24 Spd	4	5	6	7	3	3	4	5	3	3	3	5	5	4	4	2	3	8	12	13	8	9	11	12	1.9	12.5
Dir	28	34	357	345	1	310	285	287	330	321	260	244	266	249	320	33	133	87	82	96	93	97	112	120	66	96
25 Spd	13	10	9	8	8	7	3	3	8	13	18	23	25	26	27	32	31	30	29	23	20	20	14	11	16.6	31.8
Dir	105	109	94	82	79	85	155	186	132	129	114	112	122	124	116	114	117	130	127	121	105	100	111	110	116	114
26 Spd	7	5	8	7	9	3	2	5	9	11	11	12	15	11	5	7	16	10	18	11	4	2	8	12	2.4	18.4
Dir	97	195	308	321	329	277	74	282	282	279	294	283	267	297	292	201	85	109	149	146	184	66	326	323	279	149
27 Spd	7	9	10	11	8	18	17	13	6	8	5	6	5	8	11	12	16	26	20	22	22	18	26	25	12.7	26.0
Dir	266	224	266	267	258	267	265	273	312	353	340	267	230	207	254	257	275	283	267	263	296	298	284	287	275	283
28 Spd	25	24	16	12	12	10	9	12	13	13	7	5	6	4	4	12	15	12	8	9	9	7	6	4	9.2	25.5
Dir	303	306	328	333	343	340	317	305	320	327	268	258	276	263	309	340	342	1	285	261	258	280	286	64	313	303
29 Spd	2	2	3	2	3	3	4	7	8	9	10	10	11	13	17	16	11	11	12	10	8	7	3	4	6.5	17.0
Dir	127	172	162	154	170	146	163	170	208	211	222	228	258	260	265	240	253	249	245	260	251	253	262	291	237	265
30 Spd	8	7	6	6	3	5	5	7	7	9	9	7	7	4	6	5	4	11	9	8	10	10	8	4	4.7	10.6
Dir	306	306	280	286	60	298	10	334	288	292	323	325	343	41	109	52	236	256	279	259	257	276	286	29	300	256
Spd	1.9	2.4	2.6	2.1	2.0	1.4	1.7	3.2	5.4	7.0	6.7	6.8	6.2	6.2	6.8	5.2	6.8	6.9	4.6	3.6	2.3	1.0	1.7	1.1	Diurnal Average	
Dir	339	316	348	335	346	316	287	254	251	264	265	261	258	254	257	268	269	264	259	256	266	13	276	314		
Spd	25.5	23.5	18.4	16.1	20.7	18.1	18.1	18.5	27.5	37.3	33.0	32.5	31.9	31.4	31.9	32.9	35.6	37.7	37.8	31.9	26.5	25.6	25.9	25.1	Diurnal Maximum	
Dir	303	306	324	316	45	267	247	249	257	267	264	256	259	264	261	259	255	244	258	262	89	99	284	287		

Maximum Speed Value: 38 km/h on Jun 20 19:00
Maximum Daily Speed Average: 18.8 km/h on Jun 21
Maximum Diurnal Speed Average: 7.0 km/h at hour 10

Minimum Speed Value: 0 km/h on Jun 4 06:00
Minimum Daily Speed Average: 1.9 km/h on Jun 4
Minimum Diurnal Speed Average: 1.0 km/h at hour 22

Monthly Average Velocity: 3.56 km/h 270.6 deg

Speed Percentiles: P_1 = 1.1 P_{10} = 2.9 Q_1 = 5.3 Median = 9.9 Q_3 = 15.9 P_{90} = 23.1 P_{99} = 32.9

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Frequency Distribution

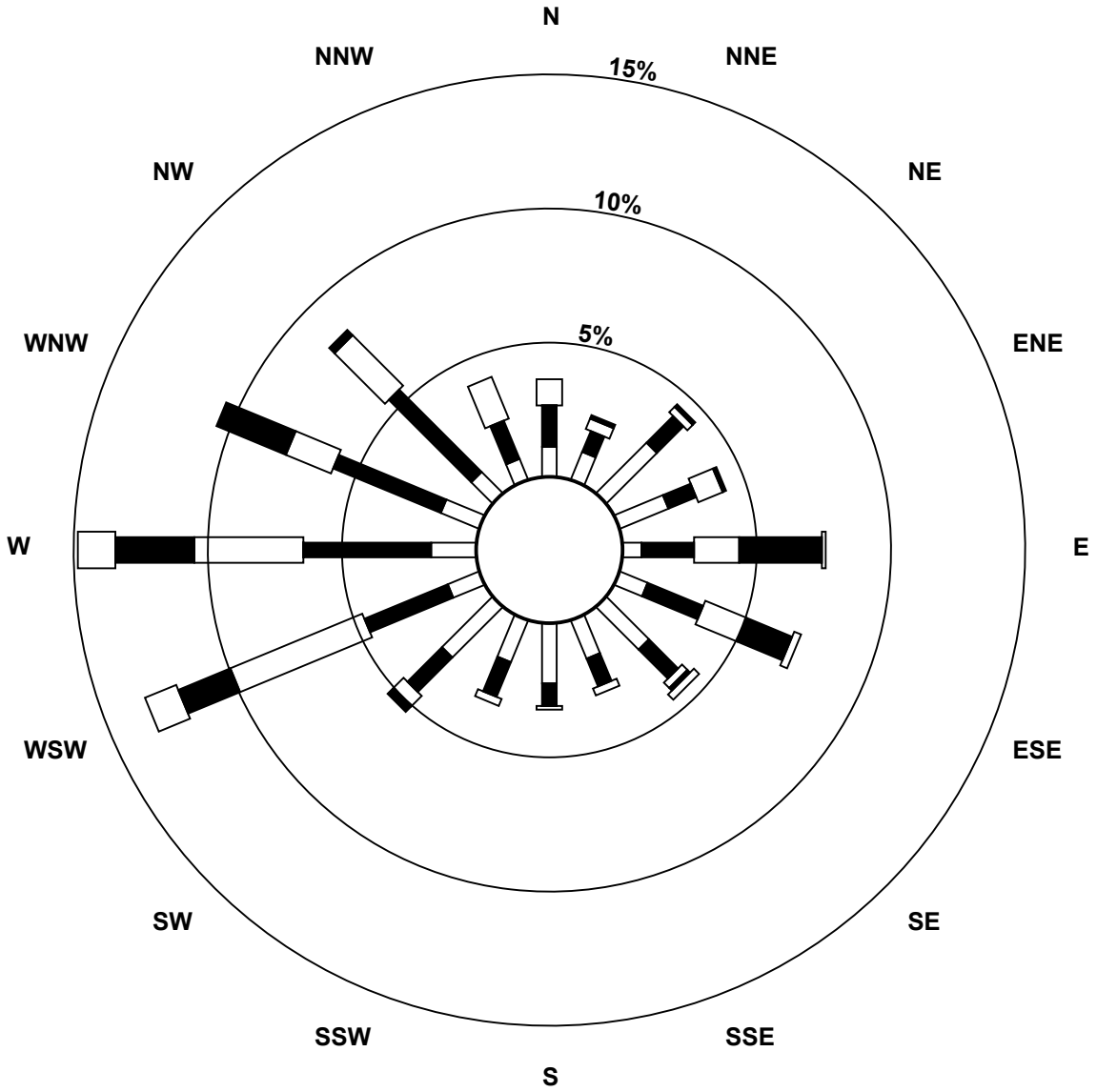
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	11	19	13	0	0	0	43
NorthEast	33	19	10	2	0	0	64
East	10	27	21	32	1	0	91
SouthEast	23	27	11	6	4	0	71
South	28	9	2	0	0	0	39
SouthWest	23	33	27	8	4	0	95
West	23	66	55	46	15	0	205
NorthWest	15	49	38	10	0	0	112
Total	166	249	177	104	24	0	720

Peace Airshed Zone Association

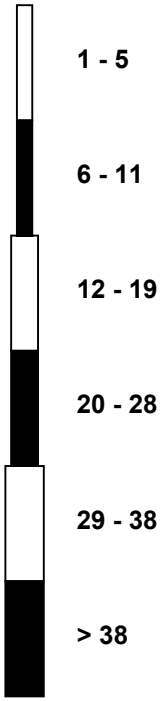
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - June 2017



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - June 2017

Maximum Speed: 38 km/h on Jun 20 19:00

Maximum Daily Speed Average: 20.1 km/h on Jun 21

Minimum Speed: 2 km/h on Jun 16 05:00

Minimum Daily Speed Average: 6.7 km/h on Jun 4

Maximum Diurnal Speed Average: 17.6 km/h at hour 18

Minimum Diurnal Speed Average: 6.5 km/h at hour 6

Monthly Average Speed: 12.18 km/h

Percentiles: P_1 = 2.4 P_{10} = 4.1 Q_1 = 6.4 Median = 10.5 Q_3 = 16.4 P_{90} = 23.6 P_{99} = 33.2

Hours in Service: 720

Hours of Data: 720

Hours of Missing Data: 0

Percent Operational Time: 100.0

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	Daily Average	Daily Maximum
1-Jun	6	2	7	4	3	4	4	4	7	10	7	11	12	9	16	11	11	7	15	7	11	10	9	7	8.2	15.6
2-Jun	5	6	5	4	4	2	3	8	15	24	22	19	22	22	30	29	24	32	16	9	7	6	5	6	13.6	32.2
3-Jun	6	5	4	5	5	3	5	6	11	13	13	7	6	14	20	14	11	12	7	6	5	5	11	5	8.3	19.8
4-Jun	9	9	9	6	4	2	3	4	4	5	3	4	6	7	7	7	10	17	15	7	8	5	3	4	6.7	16.7
5-Jun	6	9	6	4	3	4	3	7	19	22	22	20	17	17	16	12	13	11	11	11	10	6	6	6	10.9	22.4
6-Jun	5	3	3	4	7	4	5	4	7	13	16	14	11	10	10	9	10	10	13	11	9	10	11	11	8.6	16.1
7-Jun	11	11	8	5	2	3	5	4	5	8	15	24	24	22	21	23	24	23	22	19	17	21	21	18	14.8	24.4
8-Jun	20	16	16	14	7	11	9	16	20	20	24	25	24	21	22	21	21	22	25	29	27	26	20	21	19.8	28.8
9-Jun	22	11	15	16	21	18	18	12	8	10	16	22	20	19	20	16	17	19	20	16	15	14	9	8	15.9	22.1
10-Jun	6	13	18	16	15	11	15	14	11	12	11	11	11	10	10	9	10	10	16	17	16	19	15	14	13.0	19.3
11-Jun	15	12	9	6	6	4	8	10	13	11	10	12	11	11	10	9	7	9	9	9	8	10	11	10	9.5	14.9
12-Jun	5	5	11	13	17	8	5	9	19	20	24	26	23	25	25	24	24	26	25	20	14	8	12	9	16.6	26.1
13-Jun	5	4	3	3	3	3	2	4	6	15	15	17	14	15	17	10	12	11	11	8	5	5	7	6	8.3	17.1
14-Jun	8	8	9	7	7	5	8	8	11	8	8	10	7	11	15	13	28	13	9	7	5	5	5	3	9.0	28.2
15-Jun	3	3	4	2	3	4	4	5	4	4	5	9	11	14	17	19	20	23	26	24	19	15	14	11	11.0	26.2
16-Jun	10	9	5	3	2	3	7	10	13	20	28	33	32	32	32	33	36	31	27	16	10	7	15	13	17.8	36.0
17-Jun	10	4	6	13	18	16	18	18	20	24	26	25	28	28	29	26	23	25	24	22	16	14	10	5	18.8	29.2
18-Jun	6	4	4	4	5	6	5	10	15	20	25	23	26	24	21	17	17	19	16	16	12	12	7	5	13.3	25.8
19-Jun	5	6	3	5	3	3	4	4	10	9	7	9	12	9	7	4	6	8	10	11	11	9	8	5	7.1	11.9
20-Jun	4	6	4	5	3	4	4	5	14	21	18	24	14	23	25	31	34	38	38	32	18	14	14	11	16.9	38.2
21-Jun	11	14	12	12	12	13	15	19	28	38	33	29	24	26	13	16	25	23	22	24	21	17	17	18	20.1	37.6
22-Jun	16	14	13	10	7	9	11	10	12	12	16	13	17	15	14	15	11	14	11	15	9	7	7	8	11.9	16.9
23-Jun	10	8	3	2	4	3	2	3	6	11	12	11	11	11	17	19	20	13	20	17	9	7	5	7	9.7	20.2
24-Jun	5	5	7	8	4	4	4	5	4	5	5	7	7	6	5	6	7	10	12	13	8	9	11	13	7.0	12.6
25-Jun	13	10	9	9	8	7	4	4	8	13	18	24	26	26	28	32	31	31	29	23	20	20	15	12	17.4	32.2
26-Jun	8	6	9	7	9	4	3	5	9	11	11	13	16	13	9	15	17	11	19	12	5	3	8	13	9.8	18.8
27-Jun	9	9	10	12	8	18	17	14	7	8	6	7	6	8	12	13	16	26	20	22	23	19	26	25	14.2	26.2
28-Jun	26	24	16	12	12	10	9	12	13	13	8	6	8	6	8	13	16	13	10	9	9	7	6	4	11.2	25.6
29-Jun	2	3	3	3	3	4	5	12	9	9	10	10	12	14	18	17	11	12	12	10	8	7	3	4	8.4	18.1
30-Jun	8	7	6	6	4	6	9	8	8	10	10	8	8	7	7	7	8	11	9	8	11	10	8	6	7.9	11.1
	9.2	8.1	7.9	7.4	7.1	6.5	7.1	8.4	11.3	13.9	14.8	15.7	15.5	15.8	16.6	16.3	17.3	17.6	17.4	15.0	12.2	10.9	10.7	9.6	Diurnal Average	
	25.6	23.6	18.4	16.3	20.9	18.1	18.1	18.7	27.8	37.6	33.3	32.8	32.4	31.8	32.2	33.2	36.0	37.9	38.2	32.1	26.5	25.8	26.0	25.2	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - June 2017

Maximum Value: 91.0 deg on Jun 2 05:00

Minimum Value: 2.6 deg on Jun 25 22:00

Percentiles: P_1 = 3.6 P_{10} = 6.2 Q_1 = 9.1 Median = 16.3 Q_3 = 32.7 P_{90} = 56.4 P_{99} = 82.5

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	48	66	67	32	79	81	82	61	14	16	32	33	30	50	15	32	23	41	39	44	20	6	8	21	82.2
2-Jun	25	18	41	75	91	31	61	29	9	15	10	18	22	36	10	10	15	7	17	13	14	27	21	27	91.0
3-Jun	57	77	50	18	13	24	54	54	38	12	9	25	29	71	25	30	20	30	30	55	25	38	26	53	77.0
4-Jun	13	10	8	81	55	87	71	32	30	23	82	84	57	62	57	52	38	23	22	36	12	59	49	63	87.2
5-Jun	8	10	27	63	48	17	36	25	6	11	14	20	19	20	23	22	24	18	12	5	8	9	21	7	63.5
6-Jun	31	52	58	51	62	60	74	61	19	13	15	21	27	42	41	29	25	14	15	9	10	7	6	6	74.4
7-Jun	12	7	10	37	72	20	69	52	43	31	13	9	8	12	14	11	10	8	6	7	5	5	4	5	71.9
8-Jun	5	5	5	7	52	11	18	13	8	17	10	13	12	9	6	16	13	8	5	4	4	5	7	19	51.9
9-Jun	23	10	13	8	8	7	4	6	23	37	9	9	12	10	10	21	10	7	8	13	14	10	11	17	36.9
10-Jun	24	6	4	3	3	6	6	7	10	16	18	29	34	24	39	45	26	19	31	10	34	21	6	7	45.4
11-Jun	7	14	10	16	9	30	19	13	10	11	18	10	7	16	11	70	46	12	10	7	10	6	7	5	70.1
12-Jun	43	32	54	5	64	79	78	25	8	9	9	7	11	8	8	9	8	7	5	11	7	9	4	11	78.9
13-Jun	83	89	69	43	31	52	56	27	28	14	15	17	33	22	16	26	21	27	19	23	16	19	16	18	89.1
14-Jun	16	43	46	67	30	77	32	19	24	16	28	20	46	31	12	58	12	14	16	19	15	10	28	59	76.6
15-Jun	47	35	67	30	70	84	61	20	56	72	55	30	17	12	12	9	10	6	6	5	5	41	62	32	83.7
16-Jun	8	7	11	26	28	30	11	13	10	8	7	8	10	10	8	8	8	8	8	17	15	37	3	5	36.9
17-Jun	8	60	11	17	8	5	3	10	9	13	10	15	10	11	9	15	13	10	5	6	6	4	6	34	60.3
18-Jun	30	20	63	28	71	68	19	71	25	15	10	13	11	18	15	14	10	14	13	13	7	6	61	40	70.7
19-Jun	51	55	59	25	50	83	46	41	16	33	47	27	9	17	26	67	33	39	15	11	9	6	21	12	83.0
20-Jun	13	22	76	45	46	49	48	37	13	14	8	6	14	5	11	6	5	5	8	7	8	8	9	8	75.8
21-Jun	12	7	8	12	9	6	9	10	9	7	9	11	15	25	46	24	11	5	11	9	6	5	4	5	45.9
22-Jun	4	5	9	5	8	7	7	10	12	17	10	20	12	21	23	22	27	21	24	6	9	23	11	7	26.6
23-Jun	5	35	23	34	15	14	37	24	35	17	20	20	36	37	19	10	15	19	18	9	18	24	45	38	44.6
24-Jun	40	24	25	28	50	59	19	19	58	56	69	51	51	67	63	80	78	42	12	7	8	5	15	10	80.4
25-Jun	5	13	6	10	4	9	34	41	11	10	10	11	8	7	8	8	9	7	5	5	6	3	25	31	40.5
26-Jun	27	46	23	15	10	41	60	33	16	15	11	18	26	36	64	82	15	30	11	14	36	68	35	22	82.3
27-Jun	40	12	10	13	22	4	5	22	37	29	42	31	33	24	13	11	16	7	5	6	11	18	5	7	42.1
28-Jun	6	5	9	6	9	10	9	6	12	7	33	34	38	64	70	15	15	15	35	7	7	6	21	31	70.3
29-Jun	23	37	28	41	35	30	29	34	33	15	19	14	21	16	21	11	8	10	11	7	5	3	25	14	40.9
30-Jun	14	12	11	9	59	31	60	29	18	15	24	33	31	55	37	53	76	17	14	10	8	10	8	48	76.1
	82.7	89.1	75.8	80.7	91.0	87.2	82.2	70.6	58.2	72.2	82.0	84.2	56.7	71.3	70.3	82.3	77.9	42.2	39.0	54.8	36.5	67.5	62.5	62.6	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 15.7 ppb on Jun 21 04:00 Maximum Daily Average: 4.6 ppb on Jun 17

Minimum Value: 0 ppb on Jun 1 02:00 Minimum Daily Average: 0.1 ppb on Jun 19
Maximum Diurnal Average: 1.6 ppb at hour 11 Minimum Diurnal Average: 0.4 ppb at hour 14
Monthly Average: 0.97 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.7 P_{90} = 3.0 P_{99} = 11.9

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	0	0	0	0	0	1	3	0	0	0	1	A	0	0	0	0	3	2	0	0	0.5	3.0
2-Jun	2	2	0	0	0	0	0	0	0	1	6	2	1	1	A	1	1	0	0	1	7	0	0	0	1.2	6.7
3-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
4-Jun	0	0	0	0	0	0	0	0	0	7	3	1	A	0	0	0	0	0	0	1	0	0	0	0	0.6	7.3
5-Jun	1	0	0	0	0	6	6	4	0	0	1	A	0	0	1	2	1	2	0	0	0	0	0	0	1.0	6.0
6-Jun	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
7-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	0.4
8-Jun	0	0	0	0	0	0	0	1	A	1	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0.5	1.0
9-Jun	0	0	0	0	0	0	0	A	0	0	0	0	3	0	3	5	7	5	6	4	2	1	1	2	1.7	6.7
10-Jun	7	3	5	2	1	4	A	4	5	2	2	1	0	0	2	1	1	3	2	3	0	0	0	0	2.1	6.6
11-Jun	0	0	0	0	0	A	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7
12-Jun	0	0	0	0	A	0	0	0	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
13-Jun	0	0	0	A	0	0	0	4	0	0	0	0	1	0	1	1	0	2	0	0	0	0	0	0	0.5	4.3
14-Jun	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0.2	1.7
15-Jun	3	A	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.5
16-Jun	A	1	0	0	0	0	0	0	0	0	2	1	2	3	0	3	1	0	0	0	3	4	3	A	1.1	4.3
17-Jun	8	5	12	11	13	9	15	9	6	2	1	1	3	2	1	1	2	1	3	0	0	0	A	0	4.6	15.4
18-Jun	0	0	0	0	0	0	0	0	0	1	2	4	0	0	1	0	0	0	0	0	0	A	0	0	0.4	4.4
19-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0.1	0.7
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	A	5	10	0	12	1.5	12.0
21-Jun	11	12	13	16	0	1	0	4	7	7	4	1	5	1	1	2	1	1	A	6	1	0	0	1	4.1	15.7
22-Jun	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0.1	1.2
23-Jun	0	3	7	3	1	3	10	6	3	3	1	2	1	0	0	0	A	0	0	0	0	0	0	0	1.9	9.7
24-Jun	0	0	0	0	0	0	0	0	1	3	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	2.6
25-Jun	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	1	0	0	0	0	1	1	0.3	0.9
26-Jun	0	0	0	0	0	0	0	0	0	0	0	2	1	A	0	0	0	0	0	0	0	0	0	0	0.3	1.7
27-Jun	0	0	0	1	0	4	2	9	9	10	13	1	C	C	C	C	C	C	6	1	0	1	3	5	3.6	12.7
28-Jun	4	2	0	0	0	0	0	0	0	3	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.3
29-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	1	5	2	0	0	0	1	0	0.5	4.7
30-Jun	0	0	0	0	0	1	4	4	2	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.3
	1.4	1.0	1.5	1.2	0.6	1.1	1.4	1.6	1.4	1.6	1.6	0.7	0.8	0.4	0.7	0.7	0.6	0.8	0.8	0.6	0.9	0.8	0.4	0.8	Diurnal Average	
	11.5	11.6	12.6	15.7	13.1	9.3	15.4	8.9	8.7	10.0	12.7	4.4	4.9	3.0	4.7	4.7	6.7	4.8	5.9	5.7	6.7	9.7	3.1	12.0	Diurnal Maximum	

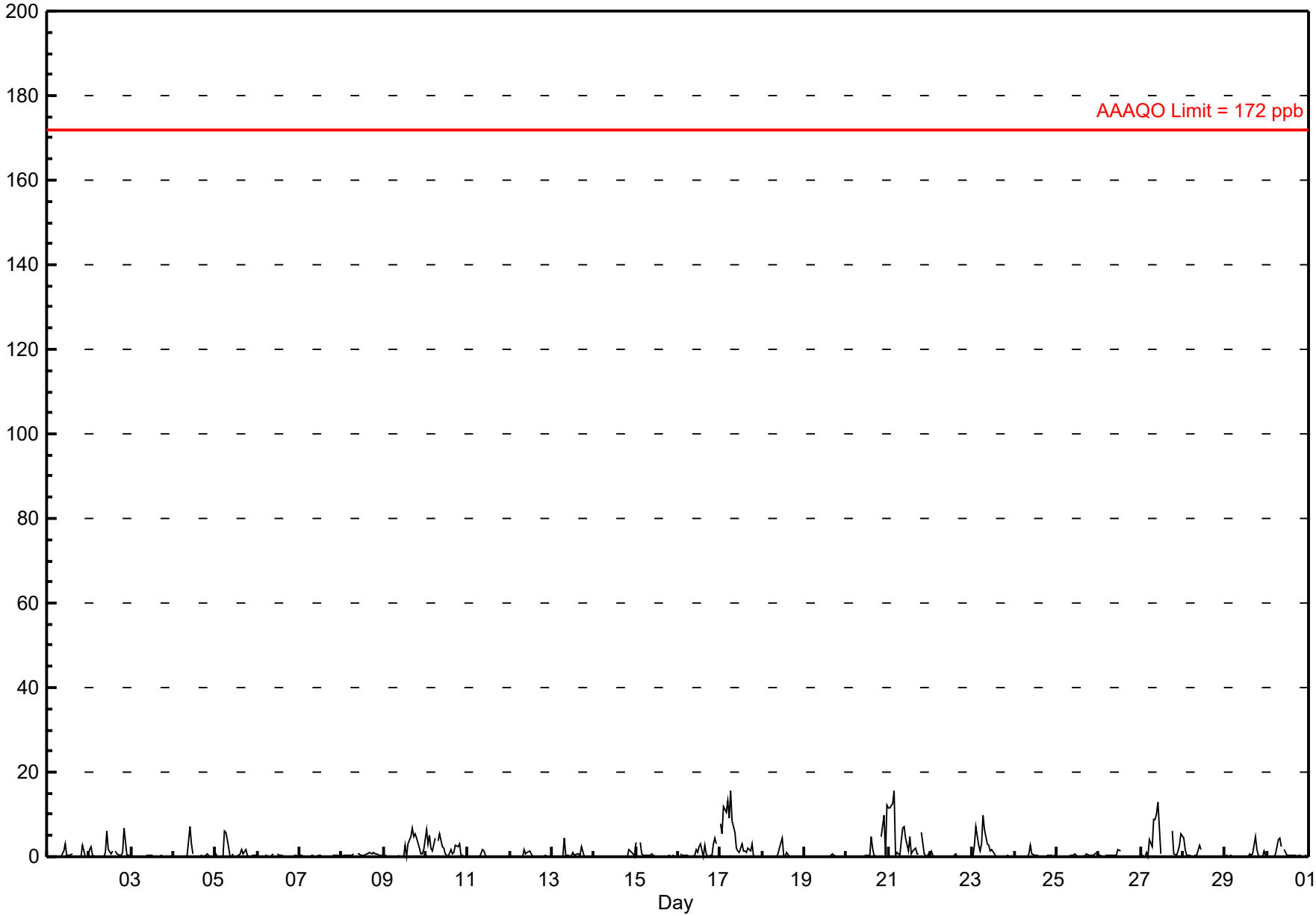
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - June 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - June 2017

Maximum Value: 128.6 ppb on Jun 27 10:00

Maximum Daily Average: 17.7 ppb on Jun 27

Minimum Value: 0 ppb on Jun 20 05:00

Minimum Daily Average: 0.7 ppb on Jun 7

Maximum Diurnal Average: 9.8 ppb at hour 10

Minimum Diurnal Average: 1.8 ppb at hour 5

Monthly Average: 4.01 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 4.0$ $P_{90} = 11.1$ $P_{99} = 29.0$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	1	0	0	0	0	0	0	1	7	14	3	5	4	3	A	1	1	1	1	15	10	1	1	3.0	14.7
2-Jun	11	10	2	1	1	1	1	0	1	11	21	5	5	7	A	4	6	1	1	6	15	1	1	1	4.8	20.9
3-Jun	1	1	1	0	1	1	1	1	1	1	1	1	1	A	1	0	1	5	1	1	1	1	1	1	0.8	4.6
4-Jun	1	0	0	1	0	0	1	0	1	23	7	2	A	1	1	1	1	1	2	2	1	1	1	1	2.0	23.4
5-Jun	4	1	1	1	1	14	10	9	1	1	4	A	2	4	3	25	6	11	3	1	1	1	1	1	4.4	24.7
6-Jun	1	1	1	0	0	1	1	1	1	1	A	1	1	2	1	0	1	0	1	1	1	1	1	1	0.8	1.7
7-Jun	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
8-Jun	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1.0	1.7
9-Jun	1	1	1	1	1	1	1	A	1	1	1	1	12	1	14	12	12	11	10	10	15	3	3	10	5.2	14.8
10-Jun	16	13	15	12	4	11	A	26	16	9	8	7	4	1	14	4	6	14	7	13	1	1	1	1	8.9	26.3
11-Jun	1	1	1	1	1	A	1	1	10	5	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1.2	10.1
12-Jun	0	1	1	1	A	1	1	1	10	4	7	6	11	1	3	1	1	1	1	1	1	1	1	1	2.2	10.6
13-Jun	1	1	0	A	1	1	1	97	9	2	1	4	4	2	14	5	2	18	1	1	1	1	1	1	7.2	97.0
14-Jun	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	9	9	4	1	1.4	8.9
15-Jun	7	A	10	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.6	9.6
16-Jun	A	1	1	1	1	1	1	1	1	4	6	5	16	10	2	11	3	1	2	1	7	7	11	A	4.1	15.7
17-Jun	15	13	16	19	28	25	22	15	22	11	4	6	23	14	9	6	12	10	19	0	1	0	A	0	12.7	27.6
18-Jun	0	0	0	0	0	0	0	0	0	5	10	20	4	2	16	0	1	1	0	0	0	A	0	0	2.9	20.3
19-Jun	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	5	2	3	1	1	A	1	0	1	0.9	5.1
20-Jun	1	0	0	0	0	1	0	0	0	0	1	3	3	1	8	9	1	1	1	A	16	21	1	36	4.6	36.2
21-Jun	20	26	31	85	2	4	1	13	14	28	45	11	12	5	5	13	4	4	A	25	4	2	1	3	15.5	84.5
22-Jun	4	2	1	1	1	1	1	1	1	1	0	1	1	1	11	1	0	A	0	0	1	1	1	1	1.2	10.7
23-Jun	1	8	10	6	5	10	17	20	9	8	9	13	8	1	1	1	A	1	1	1	1	1	1	1	5.7	19.9
24-Jun	1	1	1	1	1	1	1	1	2	8	8	1	3	2	1	A	2	1	1	1	1	1	1	1	1.6	8.3
25-Jun	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	2	1	1	1	1	1	2	0.9	1.7
26-Jun	1	1	1	1	1	1	1	1	1	1	1	9	3	A	1	1	1	0	1	1	1	1	0	0	1.2	9.4
27-Jun	0	4	1	6	1	12	12	25	18	129	67	2	C	C	C	C	C	C	17	2	1	5	9	11	17.7	128.6
28-Jun	6	6	1	1	1	1	1	1	1	9	5	A	1	1	0	0	1	0	0	0	1	0	0	1	1.6	8.8
29-Jun	0	10	1	10	0	1	0	0	0	0	A	0	0	0	5	3	2	21	10	1	1	1	4	1	3.2	21.1
30-Jun	0	0	0	0	0	3	10	19	8	A	20	2	2	10	1	1	1	0	1	10	1	1	10	1	4.4	20.1
	3.3	3.6	3.4	5.2	1.8	3.2	3.0	8.2	4.5	9.8	8.9	3.9	4.4	2.7	4.3	4.0	2.5	3.9	2.9	2.8	3.3	2.5	1.9	2.6	Diurnal Average	
	20.2	26.4	30.9	84.5	27.6	25.3	22.4	97.0	22.3	128.6	67.2	20.3	23.0	13.6	15.8	24.7	12.4	21.1	19.4	25.0	16.0	21.4	11.3	36.2	Diurnal Maximum	

C - Calibration

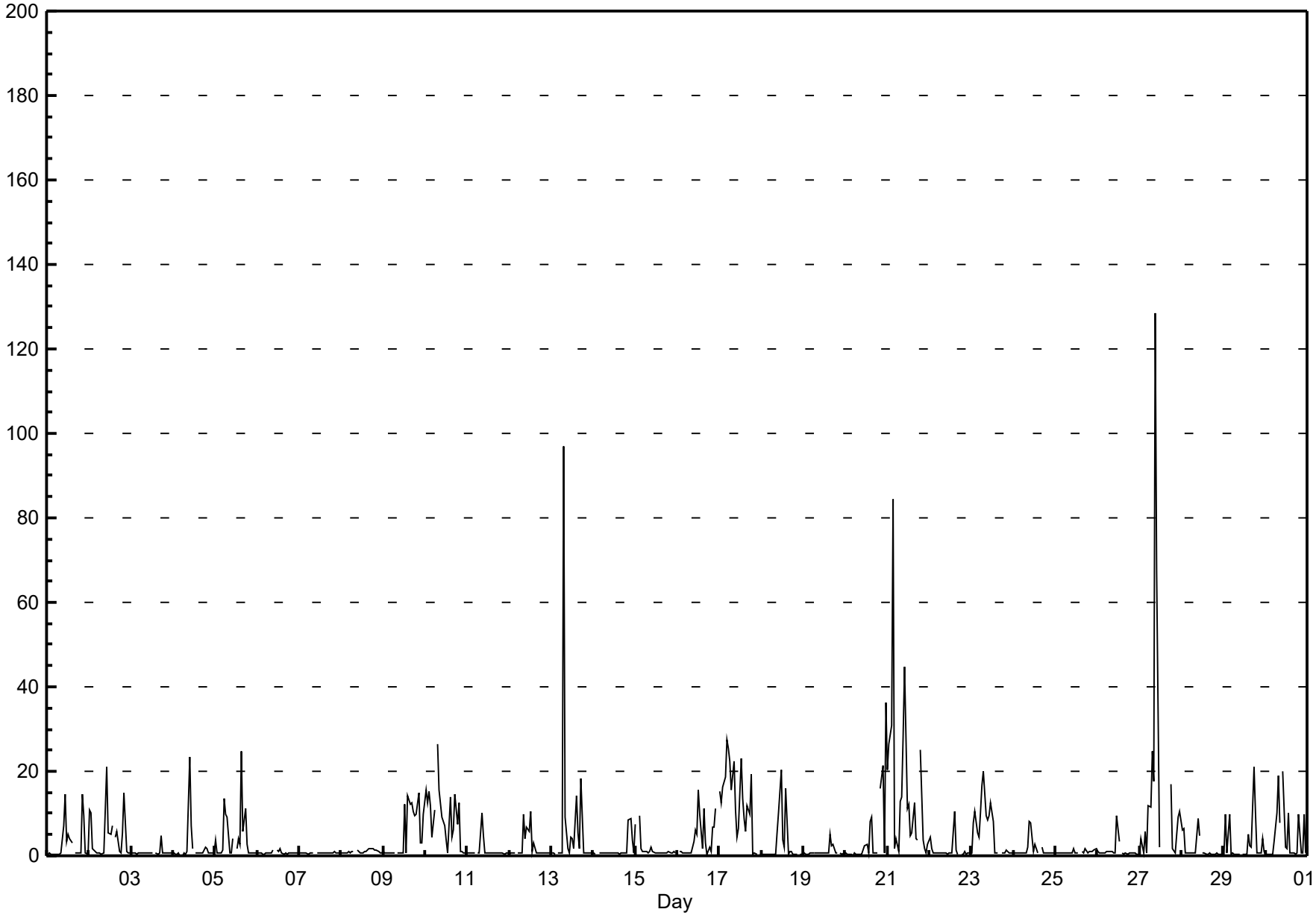
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

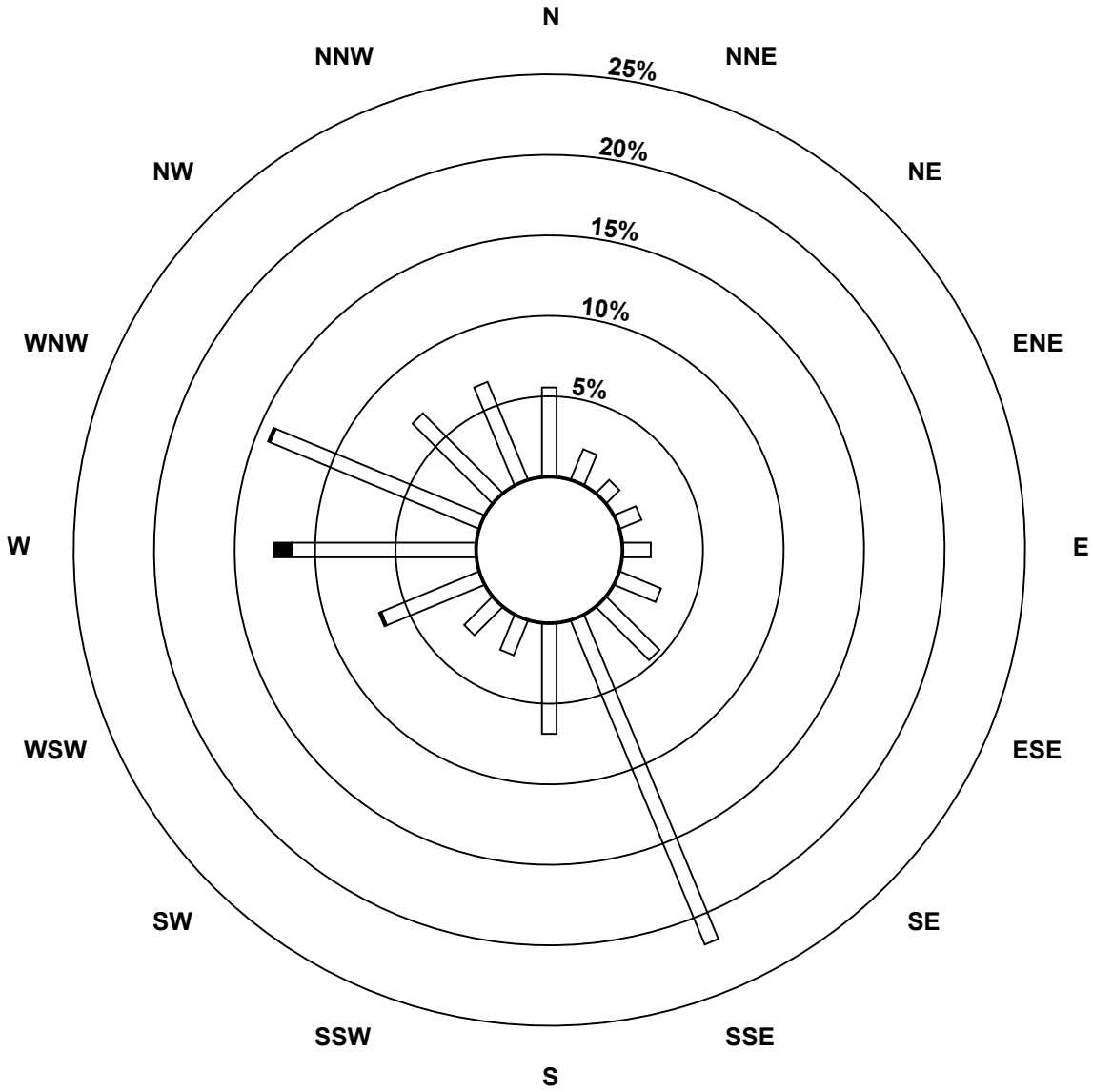
Valleyview - June 2017



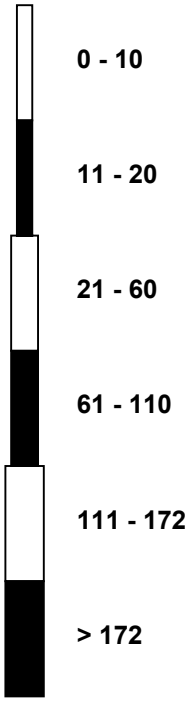
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - June 2017



Pollutant Classes (ppb)

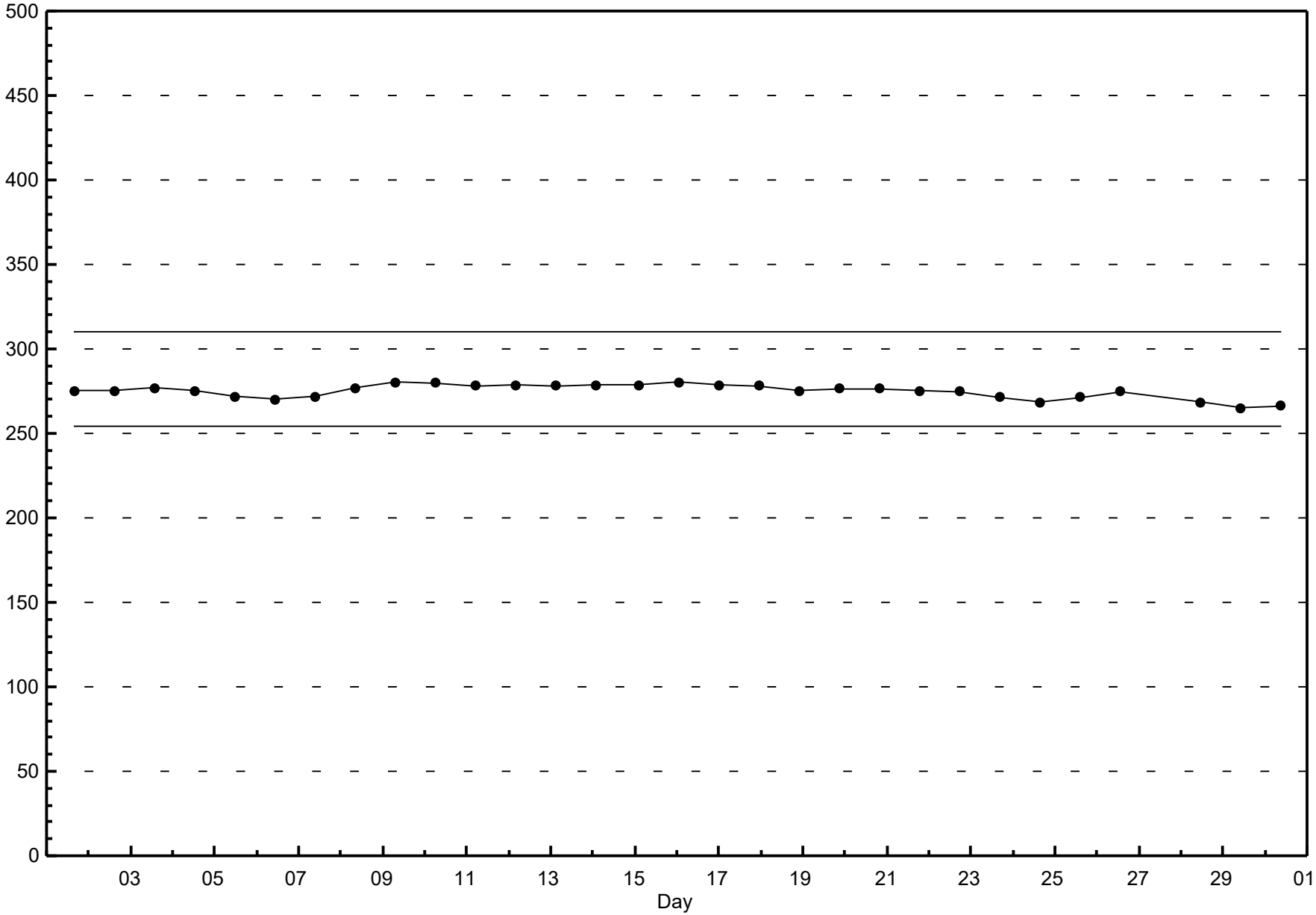


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Valleyview - June 2017



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 3.3 ppb on Jun 14 04:00

Maximum Daily Average: 0.5 ppb on Jun 1

Minimum Value: 0 ppb on Jun 11 13:00

Minimum Daily Average: 0.0 ppb on Jun 20

Maximum Diurnal Average: 0.4 ppb at hour 4

Minimum Diurnal Average: 0.1 ppb at hour 14

Monthly Average: 0.22 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 1.1$

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	39
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0.5	1.3
2-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0.3	0.5
3-Jun	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.6
4-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
5-Jun	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	0.5
6-Jun	0	0	0	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	1.0
7-Jun	1	1	1	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.4	1.5
8-Jun	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
9-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	0.3
10-Jun	0	0	1	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
11-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
12-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
13-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	0.4
14-Jun	0	0	A	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.3
15-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	0.4
16-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	0.2	0.3
17-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	0.2	0.5
18-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	0.3
19-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	0.1	0.3
20-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	0.0	0.3
21-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
22-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
23-Jun	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	0.8
24-Jun	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	0.5
25-Jun	1	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.6
26-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	0.3	0.3
27-Jun	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	C	C	C	0	0	1	0	0	1	--	0.5
28-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	0.5
29-Jun	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.6
30-Jun	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
	0.4	0.3	0.3	0.4	0.4	0.3	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	0.2	0.3	0.4	Diurnal Average	
	1.3	0.8	1.3	3.3	1.7	1.1	0.7	0.4	0.5	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.7	0.5	0.6	1.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

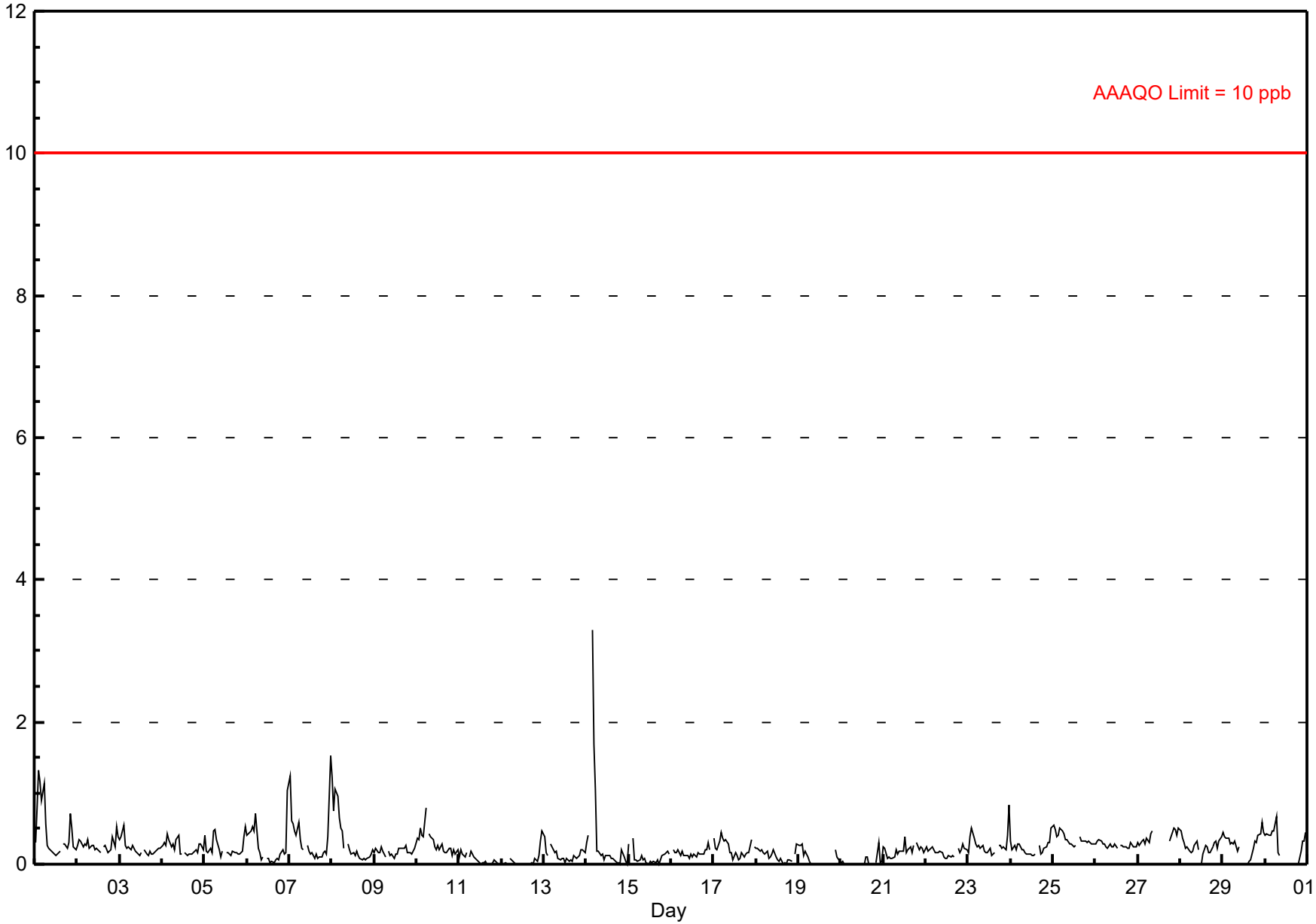
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - June 2017



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - June 2017

Maximum Value: 10.1 ppb on Jun 14 06:00

Maximum Daily Average: 1.3 ppb on Jun 14

Minimum Value: 0 ppb on Jun 30 17:00

Minimum Daily Average: 0.5 ppb on Jun 20

Maximum Diurnal Average: 1.3 ppb at hour 6

Minimum Diurnal Average: 0.6 ppb at hour 12

Monthly Average: 0.77 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 1.0$ $P_{99} = 2.7$

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	39
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	2	2	3	3	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1.2	2.9
2-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	0.8	2.3
3-Jun	1	2	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	2.2
4-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	0.7	1.0
5-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	0.8	1.3
6-Jun	1	1	1	2	1	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	0.8	2.0
7-Jun	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	6	1.1	6.0
8-Jun	3	2	2	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.7
9-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	0.9
10-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	0.8	1.4
11-Jun	1	1	1	0	1	A	1	1	1	0	1	0	0	0	1	1	0	0	0	1	0	1	0	1	0.5	0.7
12-Jun	0	0	0	0	A	1	0	0	0	1	1	0	0	0	0	1	0	1	0	1	1	1	1	1	0.5	1.2
13-Jun	1	1	1	A	1	1	1	1	1	1	1	0	0	1	0	1	1	1	0	1	0	1	1	1	0.6	1.1
14-Jun	1	1	A	4	3	10	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	0	0	1.3	10.1
15-Jun	1	A	1	1	0	0	1	1	1	1	1	1	0	1	0	1	0	0	1	1	1	1	1	1	0.6	1.0
16-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	0.7	0.8
17-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1
18-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	A	1	1	0.6	0.8
19-Jun	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	1	1	A	1	1	0	0.6	0.9
20-Jun	0	1	0	1	0	1	1	0	0	0	0	1	0	0	1	1	0	0	0	A	0	1	1	0	0.5	1.0
21-Jun	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.4
22-Jun	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.9
23-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	0.8	1.9
24-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	0.7	1.1
25-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.2
26-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
27-Jun	1	1	1	1	1	1	1	1	1	C	C	C	C	C	C	C	C	C	1	1	1	1	1	1	--	1.1
28-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	0.8	0.9
29-Jun	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	1	1	1	1	1	1	1	2	1	0.8	1.6
30-Jun	1	1	1	1	1	1	1	1	1	A	0	0	0	1	0	0	0	0	0	1	1	1	1	1	0.7	1.5
	1.0	0.9	0.9	1.0	1.0	1.3	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	1.0	Diurnal Average	
	2.7	2.3	2.9	4.3	3.4	10.1	1.5	1.0	1.0	1.1	0.9	0.9	1.1	0.9	0.9	1.0	0.8	1.0	0.9	1.2	2.1	1.5	2.3	6.0	Diurnal Maximum	

C - Calibration

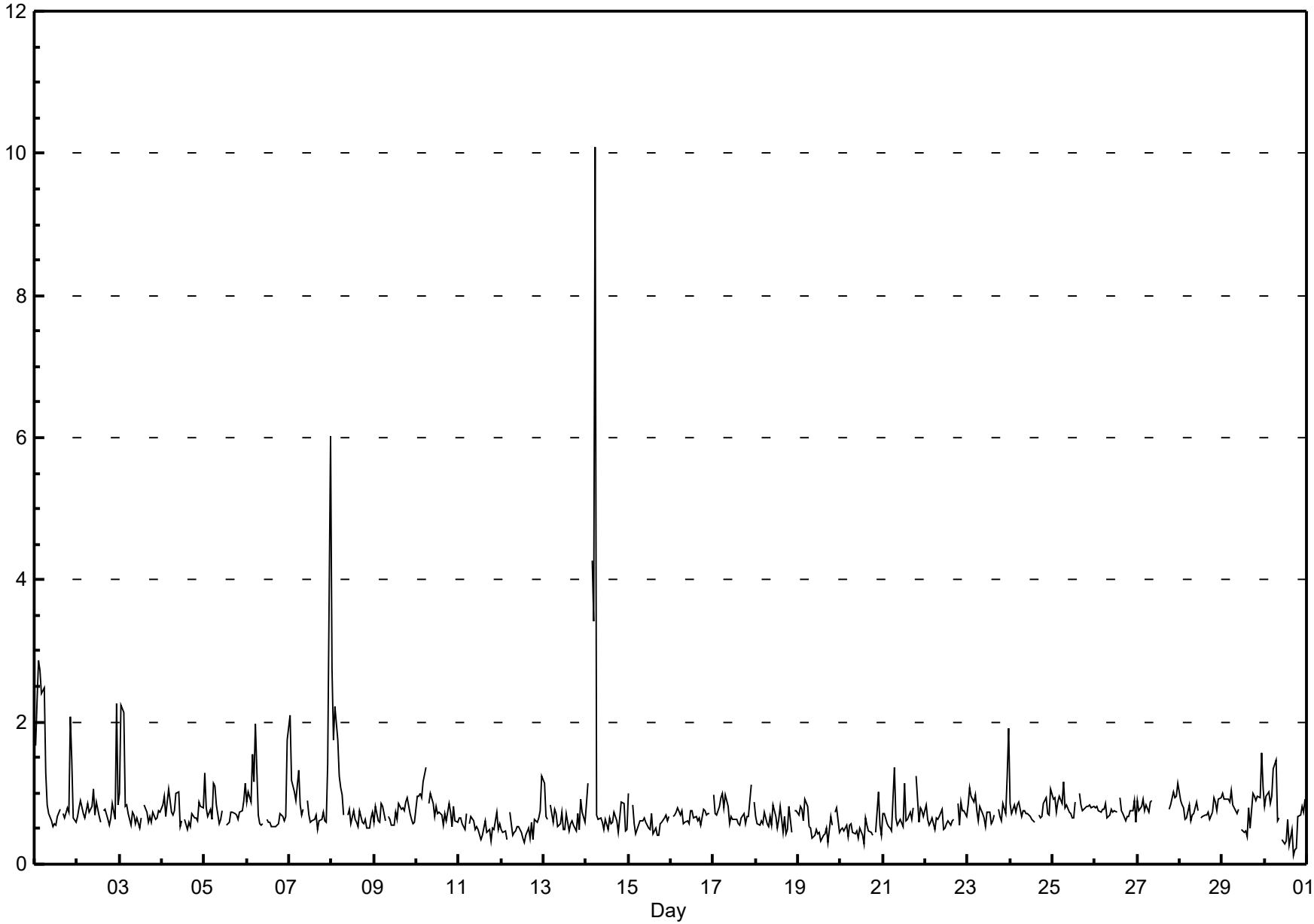
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

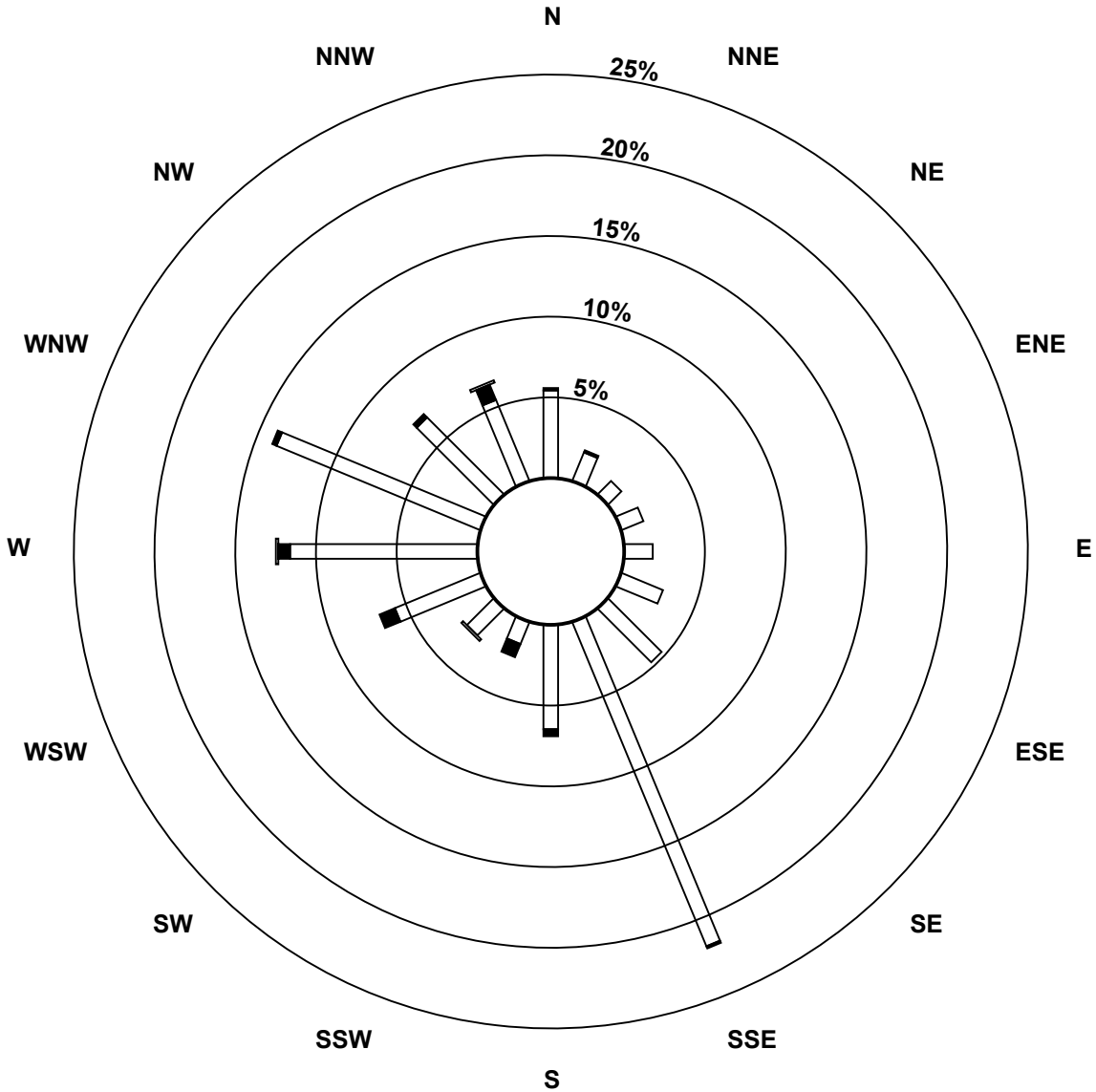
Valleyview - June 2017



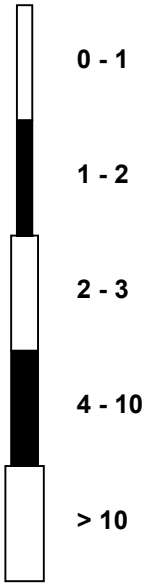
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - June 2017



Pollutant Classes (ppb)

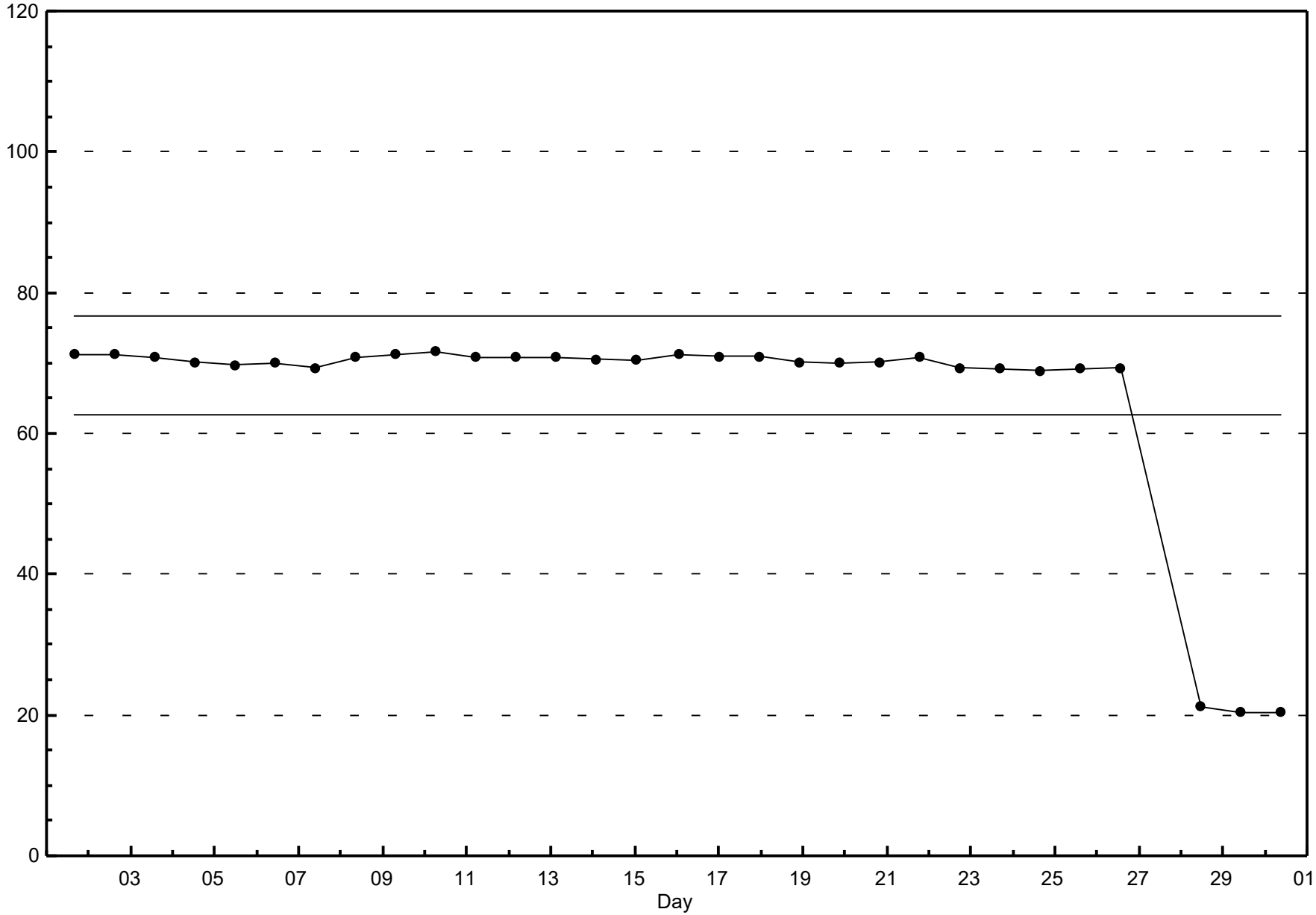


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - June 2017



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Valleyview - June 2017

Maximum Value: 28.0 °C on Jun 7 16:00

Maximum Daily Average: 22.0 °C on Jun 8

Minimum Value: 4 °C on Jun 19 04:00

Minimum Daily Average: 9.6 °C on Jun 11

Maximum Diurnal Average: 19.8 °C at hour 17

Minimum Diurnal Average: 9.9 °C at hour 5

Monthly Average: 15.51 °C

Percentiles: P_1 = 5.2 P_{10} = 9.1 Q_1 = 11.6 Median = 15.1 Q_3 = 19.2 P_{90} = 22.9 P_{99} = 27.0

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

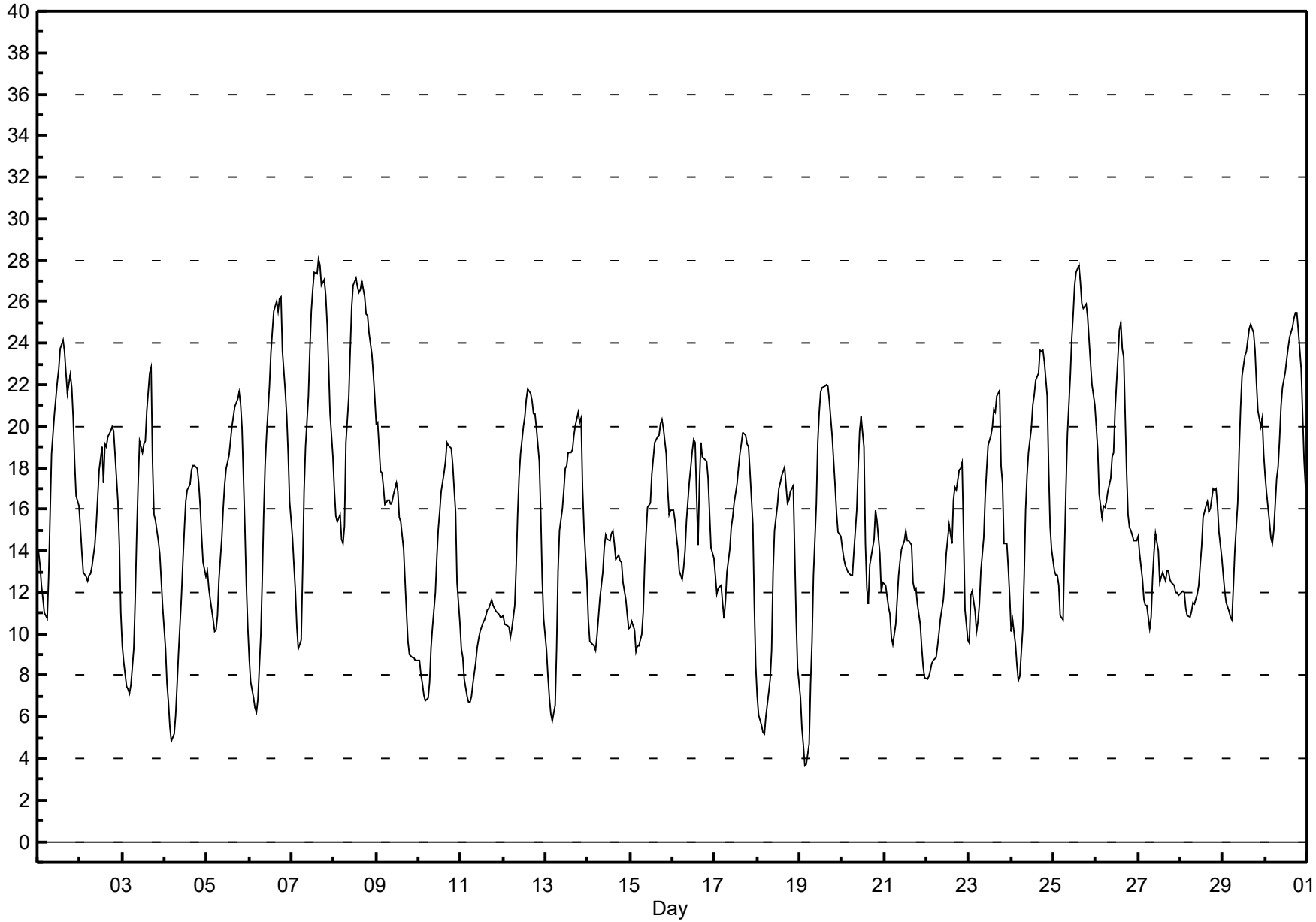
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	14	13	12	12	11	11	13	16	19	21	21	22	23	24	24	24	23	22	22	22	20	18	17	16	18.3	24.2
2-Jun	15	14	13	13	13	13	13	13	14	15	17	18	19	17	19	19	19	20	20	20	19	16	14	11	16.0	20.0
3-Jun	9	9	7	7	7	8	9	12	15	17	19	19	19	19	21	23	23	18	16	15	14	14	13	11	14.4	22.9
4-Jun	9	8	7	6	5	5	6	8	9	12	13	15	16	17	17	18	18	18	18	17	16	15	13	13	12.5	18.1
5-Jun	13	12	12	11	10	10	11	13	15	16	17	18	19	19	20	20	21	21	22	21	20	15	12	10	15.8	21.6
6-Jun	9	8	7	6	6	7	10	13	16	18	20	22	24	25	26	26	26	26	26	24	22	21	19	16	17.5	26.3
7-Jun	15	13	12	10	9	10	13	17	19	21	24	26	27	27	27	28	28	27	27	26	25	23	21	19	20.5	28.0
8-Jun	17	16	15	16	15	14	15	19	21	24	26	27	27	27	26	27	27	26	25	25	24	23	23	21	22.0	27.2
9-Jun	20	20	18	18	17	16	16	16	16	16	17	17	17	16	15	14	13	11	10	9	9	9	9	9	14.5	20.2
10-Jun	9	8	8	7	7	7	8	9	10	12	14	15	16	17	18	18	19	19	19	18	17	16	13	11	13.1	19.2
11-Jun	9	9	8	7	7	7	7	8	9	9	10	10	11	11	11	11	11	12	11	11	11	11	11	11	9.6	11.6
12-Jun	11	10	10	10	10	10	11	13	16	18	19	20	20	21	22	22	21	21	21	20	18	16	13	11	16.0	21.8
13-Jun	9	8	7	6	6	7	9	13	15	16	17	18	18	19	19	19	20	20	21	20	20	17	15	13	14.6	20.7
14-Jun	11	10	10	9	9	10	11	12	13	14	15	15	15	15	15	14	14	14	13	13	12	12	11	10	12.3	15.0
15-Jun	10	11	10	9	9	9	10	11	13	15	16	16	18	18	19	19	20	20	20	20	19	17	16	16	15.1	20.4
16-Jun	16	15	15	14	13	13	13	14	15	17	18	19	19	19	14	17	19	18	18	18	17	16	14	14	16.2	19.3
17-Jun	13	12	12	12	12	11	12	13	14	15	16	16	17	18	19	19	20	20	19	19	18	15	11	8	15.0	19.7
18-Jun	7	6	6	5	5	6	7	8	9	13	15	16	17	17	18	18	17	16	16	17	17	14	11	8	12.1	18.1
19-Jun	7	5	5	4	4	5	8	10	13	16	19	21	22	22	22	22	22	21	19	18	17	16	15	15	14.4	22.0
20-Jun	14	14	13	13	13	13	13	14	16	18	20	20	19	14	12	11	13	14	15	16	15	14	12	12	14.6	20.5
21-Jun	12	12	11	11	10	9	10	12	13	14	14	15	15	15	15	14	12	12	12	11	10	9	8	8	11.9	15.0
22-Jun	8	8	8	9	9	9	9	10	11	12	13	14	15	15	14	16	17	17	18	18	18	15	11	10	12.6	18.3
23-Jun	10	12	12	11	10	11	11	13	15	17	18	19	20	20	21	21	21	22	18	17	14	14	13	12	15.5	21.7
24-Jun	10	11	9	9	8	8	10	13	16	18	19	20	21	22	22	23	24	24	24	23	21	18	15	14	16.7	23.7
25-Jun	13	13	13	12	11	11	14	17	20	22	24	25	27	27	28	27	26	26	26	25	24	23	22	21	20.7	27.8
26-Jun	20	19	17	16	16	16	16	17	17	19	19	21	23	25	25	24	23	18	16	15	15	15	14	14	18.3	25.0
27-Jun	15	14	13	12	11	11	10	11	13	14	15	14	12	13	13	13	13	13	13	12	12	12	12	12	12.6	14.8
28-Jun	12	12	12	11	11	11	11	11	11	12	12	13	14	16	16	16	16	16	17	17	17	16	15	14	13.8	17.0
29-Jun	13	12	11	11	11	11	12	14	16	19	21	22	23	24	24	25	25	24	24	22	21	20	20	19	18.5	24.9
30-Jun	18	17	15	15	14	15	17	18	19	21	22	23	23	24	24	25	25	25	25	25	23	21	18	17	20.4	25.5
	12.2	11.7	11.0	10.4	9.9	10.1	11.3	12.9	14.6	16.3	17.6	18.5	19.2	19.4	19.5	19.8	19.8	19.4	19.1	18.6	17.6	16.0	14.4	13.2	Diurnal Average	
	20.1	20.2	17.9	17.7	17.1	16.2	17.5	19.3	21.4	23.7	25.7	26.8	27.2	27.4	27.8	28.0	27.8	26.8	27.1	26.3	24.9	23.5	22.5	21.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - June 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - June 2017

Maximum Value: 99.2 % on Jun 29 05:00

Maximum Daily Average: 85.5 % on Jun 28

Minimum Value: 5 % on Jun 6 16:00

Minimum Daily Average: 17.6 % on Jun 17

Maximum Diurnal Average: 80.1 % at hour 5

Minimum Diurnal Average: 28.4 % at hour 16

Monthly Average: 50.45 %

Percentiles: P_1 = 5.7 P_{10} = 13.7 Q_1 = 21.0 Median = 48.5 Q_3 = 80.2 P_{90} = 89.4 P_{99} = 96.4

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

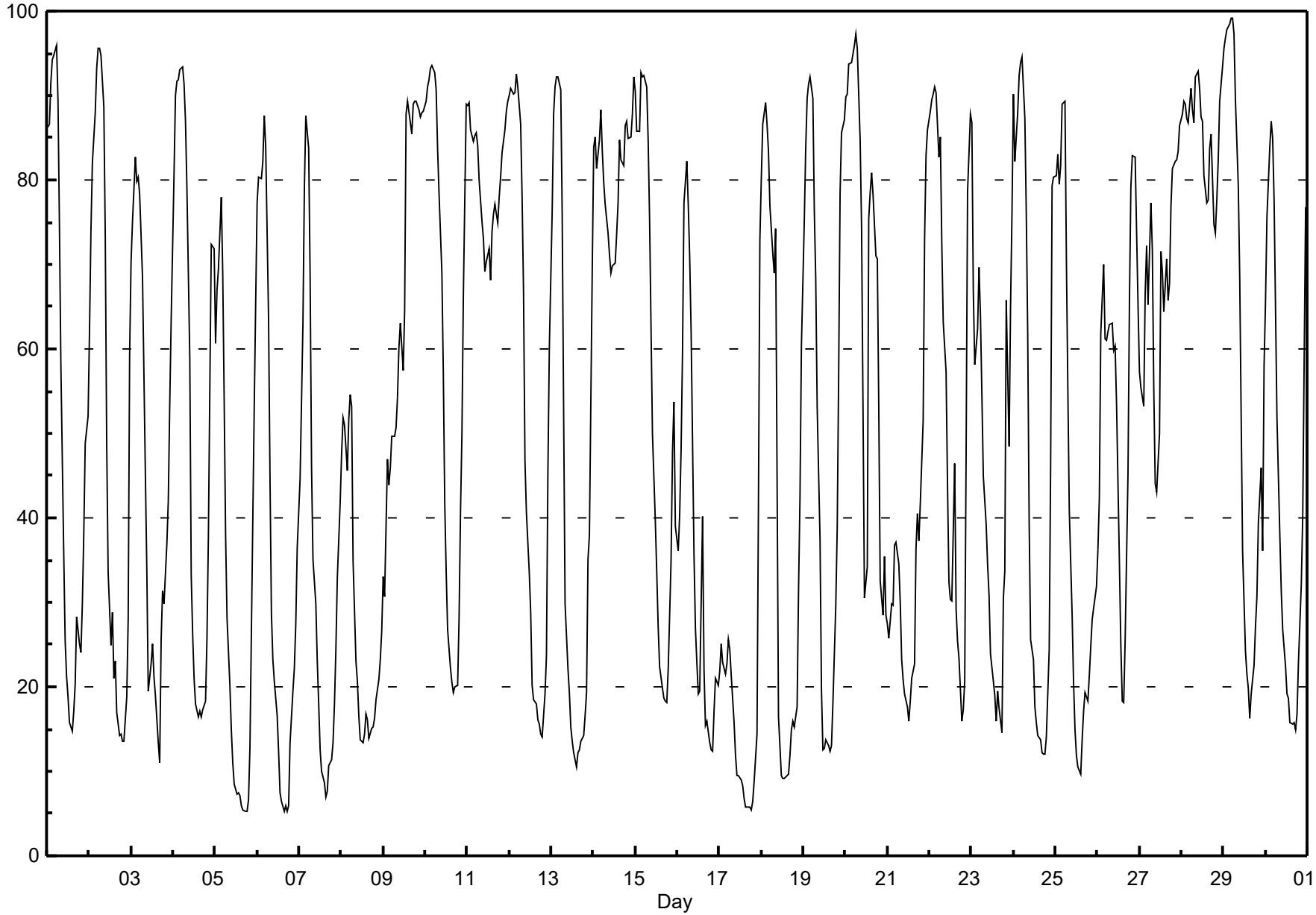
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	86	87	92	94	95	96	89	75	58	36	25	21	19	16	15	17	20	28	25	24	30	38	49	52	49.4	95.9
2-Jun	62	74	82	88	93	96	96	95	89	73	49	34	25	29	21	23	17	14	14	13	14	19	28	59	50.3	95.6
3-Jun	70	75	83	80	80	78	68	57	45	34	19	23	25	21	19	13	11	26	31	30	37	42	53	63	45.2	82.8
4-Jun	81	90	92	92	93	93	91	87	79	59	33	26	21	18	16	17	16	17	18	26	38	55	72	72	54.4	93.4
5-Jun	61	67	70	78	69	54	38	28	20	15	11	9	7	7	7	6	5	5	5	7	13	40	53	65	30.9	77.9
6-Jun	77	80	80	82	88	84	64	45	29	23	21	17	12	8	6	5	6	5	6	13	20	22	27	36	35.7	87.6
7-Jun	45	54	63	79	88	84	69	46	35	30	23	18	13	10	9	7	8	11	11	13	18	24	33	42	34.6	87.6
8-Jun	48	52	51	46	52	55	53	35	23	21	17	14	13	14	17	16	14	15	15	16	18	21	23	27	28.1	54.6
9-Jun	33	31	47	44	46	50	50	51	54	60	63	57	65	88	89	87	85	89	89	89	88	88	88	88	67.4	89.4
10-Jun	89	91	92	93	94	93	91	84	78	69	57	42	34	27	22	20	19	20	20	28	41	50	66	89	58.7	93.6
11-Jun	89	89	86	85	85	86	84	80	75	73	69	70	72	68	74	76	77	75	78	80	83	86	88	89	79.9	89.3
12-Jun	90	91	90	90	93	91	87	78	67	47	41	34	29	20	18	18	16	16	14	14	19	24	45	60	49.6	92.6
13-Jun	76	88	91	92	92	91	76	53	30	22	19	15	14	12	11	12	12	14	14	17	19	35	38	70	42.2	92.2
14-Jun	84	85	81	85	88	83	80	77	74	71	69	70	70	74	77	85	82	82	86	87	85	85	88	92	80.9	92.2
15-Jun	90	86	86	93	92	92	91	85	75	63	50	40	33	27	22	20	19	18	18	22	35	48	54	39	54.1	92.7
16-Jun	36	40	48	60	77	82	77	71	62	36	27	23	19	19	40	22	15	16	13	13	12	17	21	20	36.2	82.2
17-Jun	22	25	23	21	23	26	24	21	16	12	9	9	9	8	7	6	6	6	5	6	9	14	42	73	17.6	72.9
18-Jun	80	87	89	87	83	77	71	69	74	45	16	9	9	9	9	10	12	15	16	15	18	32	42	60	43.1	89.1
19-Jun	75	84	90	91	92	90	76	68	53	37	20	13	13	14	13	12	13	18	30	39	57	78	86	87	52.0	92.1
20-Jun	90	90	94	94	95	96	97	96	85	74	53	31	34	75	79	81	78	71	71	53	33	28	36	28	69.2	97.2
21-Jun	28	26	30	30	37	37	35	30	23	21	19	18	16	18	21	23	36	41	37	42	52	73	83	86	35.8	85.9
22-Jun	88	89	90	91	90	83	85	73	63	57	44	32	30	30	46	29	25	23	16	17	21	48	79	88	55.8	91.0
23-Jun	87	67	58	62	70	64	55	45	39	34	31	24	21	19	16	19	17	15	30	34	66	48	65	76	44.2	86.7
24-Jun	90	82	88	92	94	95	87	76	62	39	26	23	18	16	14	14	12	12	12	14	24	46	79	80	49.8	94.6
25-Jun	80	83	80	82	89	89	70	55	41	28	20	15	12	10	10	14	17	19	18	21	25	28	29	32	40.4	89.4
26-Jun	36	42	62	70	61	61	62	63	63	60	60	53	35	25	18	18	25	45	65	79	83	83	74	65	54.6	82.9
27-Jun	57	55	53	67	72	65	77	72	55	44	43	50	71	69	64	71	66	68	77	81	82	82	83	86	67.2	86.4
28-Jun	88	89	89	87	87	91	88	87	92	93	91	87	87	80	77	78	84	85	75	74	78	82	89	93	85.5	93.3
29-Jun	96	97	98	99	99	99	97	89	79	69	52	36	24	22	20	16	19	23	27	31	39	46	36	58	57.1	99.2
30-Jun	66	76	84	87	85	78	52	45	38	31	27	22	19	19	16	16	16	15	17	23	32	40	59	77	43.2	86.9
	70.0	72.4	75.3	78.0	80.1	78.6	72.7	64.5	55.9	45.9	36.8	31.2	29.0	29.1	29.2	28.4	28.4	30.2	31.9	34.1	39.6	47.5	57.0	65.2	Diurnal Average	
	95.6	96.8	97.7	98.5	99.2	99.1	97.3	95.5	92.3	92.9	90.9	87.5	86.9	87.9	89.2	86.8	85.5	89.0	89.3	89.4	88.3	87.5	89.3	93.3	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	0	1	0	0	0	0	1	2	1	3	7	7	5	5	4	7	3	4	3	4	6	4	1	2	2.3	7.4
Dir	166	336	197	189	316	189	208	159	170	275	273	313	319	300	296	342	308	335	320	295	276	279	163	188	296	273
2 Spd	7	5	1	2	2	0	0	1	1	2	3	8	11	13	16	13	15	14	11	10	8	4	1	1	5.6	16.3
Dir	251	268	248	157	155	165	169	161	160	252	270	287	295	286	295	286	291	302	306	293	268	250	237	167	284	295
3 Spd	1	1	1	2	2	1	1	1	1	2	6	3	3	3	3	2	2	13	12	7	4	0	1	0	0.7	12.6
Dir	165	155	166	158	158	138	119	178	91	152	157	162	160	162	159	149	146	300	301	319	344	271	203	156	234	300
4 Spd	0	1	0	0	0	1	1	1	1	0	2	2	0	0	2	2	1	1	1	0	0	1	0	1	0.2	2.3
Dir	176	166	184	160	186	165	169	176	272	159	12	5	306	20	67	80	71	102	289	7	31	238	159	193	80	67
5 Spd	2	1	1	0	2	4	5	5	12	13	11	12	12	10	9	8	7	6	3	3	0	0	0	0	4.9	12.5
Dir	245	166	198	186	239	278	278	279	291	298	299	289	302	302	292	289	284	290	318	2	57	159	180	193	292	298
6 Spd	0	0	0	0	0	0	1	2	1	1	1	1	1	1	0	3	3	1	0	1	1	2	1	1	0.7	3.4
Dir	162	184	218	327	167	269	199	122	143	168	222	163	254	341	259	143	152	163	133	113	144	147	169	289	161	152
7 Spd	0	0	0	0	0	0	0	0	0	1	1	2	3	3	3	3	3	3	3	4	4	1	1	2	1.3	4.2
Dir	246	193	341	181	183	201	146	140	114	110	133	157	124	100	117	110	91	111	131	138	142	110	55	343	120	142
8 Spd	1	2	1	1	2	0	1	1	6	2	4	9	9	8	7	6	10	7	7	6	4	3	2	2	3.5	9.9
Dir	306	338	1	349	328	335	348	105	136	115	136	143	145	150	153	143	141	143	136	142	141	129	56	76	137	141
9 Spd	2	2	3	2	2	4	4	5	5	1	1	1	3	1	6	10	10	8	9	11	9	6	6	4	3.5	11.3
Dir	77	40	14	16	3	355	6	13	4	9	1	276	254	164	279	281	273	262	272	281	290	296	293	289	299	281
10 Spd	3	2	1	1	1	1	1	4	4	3	6	7	6	6	8	6	5	6	5	2	0	3	16	14	3.7	16.2
Dir	266	289	255	283	276	259	260	283	269	284	291	303	286	300	282	303	293	277	280	245	165	0	3	7	306	3
11 Spd	12	11	12	11	8	5	4	2	0	1	2	1	1	1	1	0	1	1	2	1	1	1	2	2	2.0	12.5
Dir	1	345	356	356	2	6	7	346	187	150	153	171	166	186	164	166	159	160	155	158	152	150	154	157	4	356
12 Spd	3	3	3	3	3	3	1	2	1	5	3	6	5	8	9	10	11	10	9	8	5	2	0	0	2.9	10.9
Dir	157	160	163	162	160	158	162	155	274	308	323	280	286	306	310	335	333	345	326	318	308	300	167	218	311	333
13 Spd	1	1	1	1	1	1	1	1	6	8	7	8	7	6	5	3	3	1	1	1	0	1	0	0	2.1	8.5
Dir	149	168	165	162	162	158	162	261	294	287	309	290	284	311	312	300	280	253	178	176	228	238	233	133	286	290
14 Spd	0	1	1	0	0	2	2	3	4	5	6	6	4	3	2	2	1	1	3	2	3	2	2	0	1.8	6.1
Dir	26	2	307	219	275	15	5	351	7	346	352	10	7	2	22	61	97	47	44	259	283	304	247	183	355	352
15 Spd	4	4	1	1	1	1	1	2	1	1	2	0	1	1	0	3	2	3	2	2	4	3	1	3	0.8	4.1
Dir	264	260	265	226	250	224	166	152	151	152	163	308	73	87	82	88	95	100	108	103	103	106	127	157	140	260
16 Spd	5	2	1	0	0	1	1	1	1	2	6	6	9	12	2	5	12	11	12	15	12	8	8	8	5.0	14.8
Dir	158	170	186	239	182	158	163	157	159	253	272	282	281	267	231	264	289	298	288	289	279	271	265	272	274	289
17 Spd	7	8	10	10	9	11	9	10	15	17	16	12	9	8	8	10	8	8	7	7	3	1	1	1	8.3	16.6
Dir	267	259	267	270	279	264	276	281	276	285	282	282	271	272	285	282	292	281	289	300	304	260	172	163	278	285
18 Spd	1	1	1	2	2	3	2	1	2	2	12	16	14	12	9	8	14	12	10	7	2	1	0	1	4.3	15.8
Dir	164	164	164	160	160	157	154	220	152	261	288	277	307	307	307	320	330	340	337	327	304	345	321	335	308	277
19 Spd	0	0	0	1	0	0	1	1	1	1	2	3	4	4	2	1	3	7	7	4	1	0	0	0	0.3	7.3
Dir	356	163	34	162	177	2	147	146	141	143	159	154	147	155	158	260	329	303	314	346	308	157	158	322	245	314
20 Spd	1	0	0	1	1	1	2	2	2	2	1	3	10	13	15	2	3	3	2	3	10	8	7	10	2.9	15.0
Dir	183	192	164	156	163	157	154	155	161	169	212	276	304	317	275	276	156	176	162	216	257	270	253	266	260	275
21 Spd	12	11	6	8	4	7	10	11	17	19	19	16	19	18	19	20	15	13	15	12	13	7	9	11	12.6	19.8
Dir	278	272	254	259	245	255	250	260	268	277	286	287	274	291	293	285	296	290	285	278	296	290	292	287	280	285
22 Spd	11	11	10	8	5	6	5	9	10	10	11	12	12	11	7	10	10	8	10	7	1	0	0	0	7.2	12.0
Dir	286	287	295	305	310	333	298	317	325	319	330	348	341	303	296	319	307	325	329	329	288	189	167	173	315	341

Peace Airshed Zone Association

Hourly Averages

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

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	Daily Average	Daily Maximum
23 Spd	1	3	4	2	1	2	4	8	5	3	4	7	6	6	6	2	2	1	9	1	3	0	1	0	2.4	8.9
Dir	190	266	273	254	188	249	268	274	279	270	281	283	309	319	296	20	103	105	16	349	230	68	284	178	291	16
24 Spd	1	1	1	0	0	1	1	1	1	3	4	4	3	3	2	3	1	1	1	1	1	0	0	0	0.6	4.5
Dir	160	233	185	164	158	154	156	147	188	250	308	325	283	308	315	360	4	47	99	101	108	115	181	238	303	308
25 Spd	0	0	0	0	0	0	0	0	2	3	5	6	5	5	5	6	7	6	6	6	5	4	5	5	3.4	6.9
Dir	254	182	15	293	204	359	240	141	149	156	155	150	154	159	159	148	138	141	144	151	150	153	158	161	151	138
26 Spd	3	1	0	1	3	2	2	2	1	1	0	1	1	2	3	4	6	18	8	0	1	3	3	3	0.4	18.0
Dir	165	191	183	159	165	197	161	159	156	152	41	188	124	72	2	353	346	319	351	121	137	160	161	192	324	319
27 Spd	1	4	6	5	2	6	8	10	16	15	16	13	14	16	18	17	16	15	14	12	13	12	15	15	11.3	18.4
Dir	163	220	238	254	223	270	255	258	268	276	281	290	277	266	270	252	257	262	262	254	250	269	261	266	264	270
28 Spd	13	10	12	11	11	12	12	8	3	2	3	6	6	11	11	6	7	5	6	2	2	1	1	0	5.7	13.0
Dir	274	287	315	337	335	341	349	329	299	256	302	1	356	348	341	14	349	358	6	14	286	253	231	170	332	274
29 Spd	1	0	0	1	0	0	1	1	2	2	2	2	2	3	5	4	4	5	6	5	3	2	4	1	1.8	5.9
Dir	156	159	157	156	157	171	149	164	162	161	157	176	192	230	251	247	281	274	253	252	241	236	284	162	235	253
30 Spd	0	0	0	0	1	2	3	7	9	9	8	10	12	10	10	10	8	8	6	3	1	0	0	0	4.1	11.7
Dir	165	211	174	185	152	230	267	288	282	281	280	304	294	322	329	333	348	337	348	48	75	19	289	177	310	294
Spd	1.7	1.9	1.5	1.1	0.8	1.2	1.4	1.9	2.7	3.4	3.9	4.1	4.4	4.6	4.7	3.7	3.5	4.3	3.8	2.9	2.5	1.5	1.4	1.4	Diurnal Average	
Dir	268	275	287	285	286	287	278	278	276	281	286	291	290	295	291	298	299	302	307	289	269	265	273	272		
Spd	13.0	11.0	12.5	10.6	11.5	12.0	11.9	11.5	17.1	18.8	18.7	16.0	19.3	18.3	19.2	19.8	16.0	18.0	14.7	14.8	13.3	12.2	16.2	14.9	Diurnal Maximum	
Dir	274	272	356	337	335	341	349	260	268	277	286	287	274	291	293	285	257	319	285	289	296	269	3	266		

Maximum Speed Value: 20 km/h on Jun 21 16:00
Maximum Daily Speed Average: 12.6 km/h on Jun 21
Maximum Diurnal Speed Average: 4.7 km/h at hour 15

Minimum Speed Value: 0 km/h on Jun 7 02:00
Minimum Daily Speed Average: 0.2 km/h on Jun 4
Minimum Diurnal Speed Average: 0.8 km/h at hour 5

Monthly Average Velocity: 2.64 km/h 287.9 deg

Speed Percentiles: $P_1 = 0.1$ $P_{10} = 0.4$ $Q_1 = 0.9$ Median = 2.7 $Q_3 = 7.0$ $P_{90} = 11.5$ $P_{99} = 18.2$

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

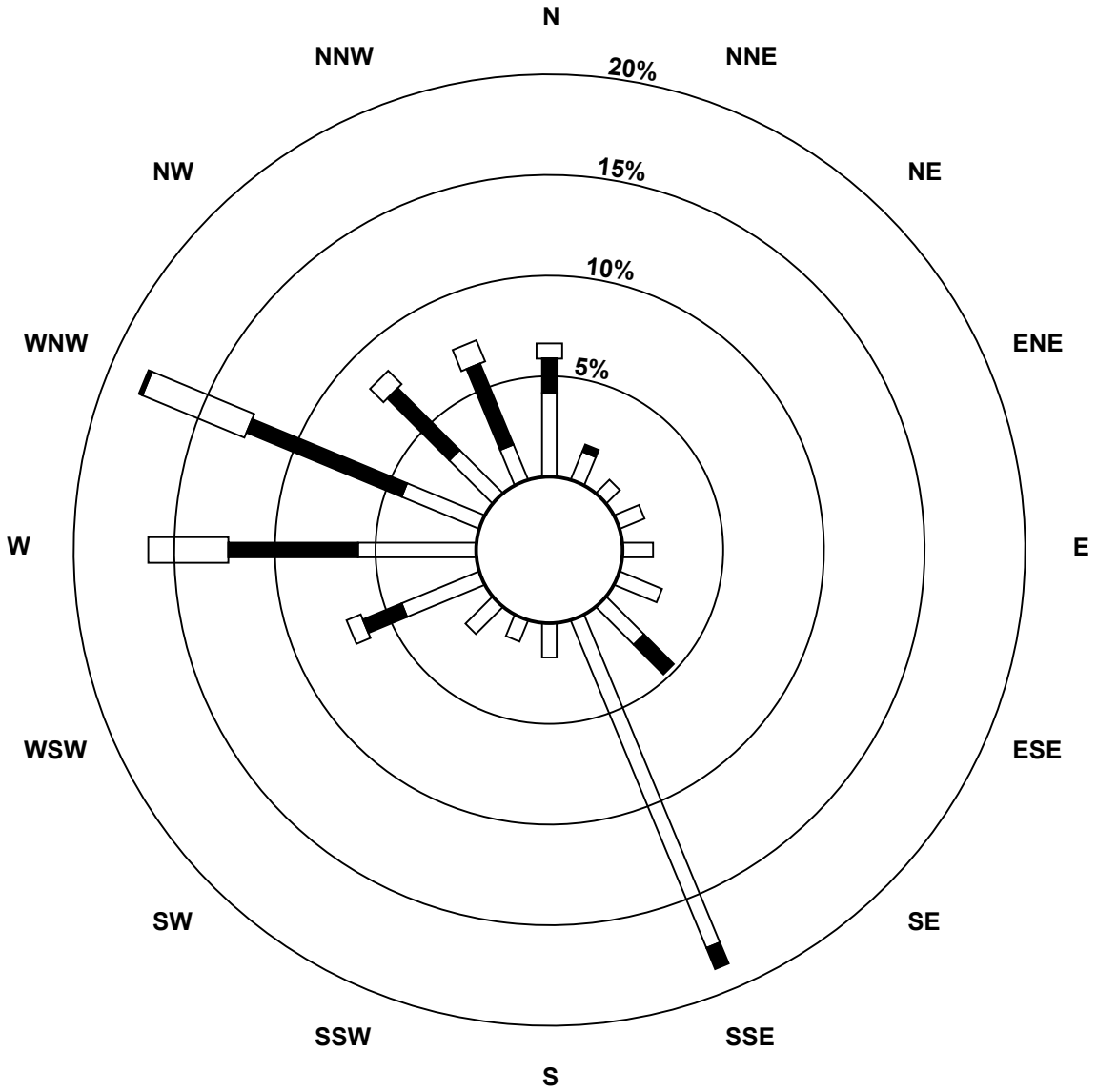
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	47	21	10	0	0	0	78
NorthEast	14	0	0	0	0	0	14
East	32	0	0	0	0	0	32
SouthEast	86	18	0	0	0	0	104
South	148	3	0	0	0	0	151
SouthWest	38	1	0	0	0	0	39
West	69	73	46	2	0	0	190
NorthWest	38	54	19	1	0	0	112
Total	472	170	75	3	0	0	720

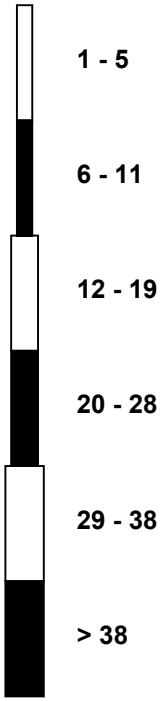
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - June 2017



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - June 2017

Maximum Speed: 20 km/h on Jun 21 16:00

Maximum Daily Speed Average: 13.3 km/h on Jun 21

Minimum Speed: 0 km/h on Jun 19 06:00

Minimum Daily Speed Average: 1.2 km/h on Jun 4

Maximum Diurnal Speed Average: 7.6 km/h at hour 15

Minimum Diurnal Speed Average: 2.3 km/h at hour 5

Monthly Average Speed: 4.84 km/h

Percentiles: $P_1 = 0.2$ $P_{10} = 0.5$ $Q_1 = 1.3$ Median = 3.1 $Q_3 = 7.5$ $P_{90} = 11.8$ $P_{99} = 18.7$

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	1	1	0	1	0	1	2	2	5	8	8	6	6	5	7	4	4	4	5	6	4	1	3	3.6	8.0
2-Jun	7	6	3	2	2	1	0	1	1	2	3	8	12	14	17	14	15	15	11	11	9	4	1	1	6.6	16.8
3-Jun	1	1	1	2	2	2	1	1	1	2	6	3	3	3	3	3	3	13	12	8	4	1	1	1	3.2	13.1
4-Jun	1	1	0	0	1	1	1	1	1	1	3	3	2	2	3	3	2	2	1	1	0	1	0	1	1.2	2.9
5-Jun	2	1	1	0	2	4	5	6	12	13	11	13	13	11	10	9	8	7	4	3	1	1	0	0	5.7	13.2
6-Jun	0	0	0	1	0	0	1	2	2	2	2	2	2	3	3	4	4	2	1	1	1	2	1	1	1.5	3.9
7-Jun	0	0	0	0	0	0	0	0	1	2	2	3	4	4	4	3	3	3	4	4	4	2	1	2	2.1	4.3
8-Jun	1	2	1	1	2	1	1	2	6	3	4	9	10	8	7	6	10	7	7	6	4	4	2	3	4.5	10.1
9-Jun	3	3	3	2	2	4	4	5	5	1	1	1	3	2	7	11	11	9	9	12	9	6	6	4	5.2	11.8
10-Jun	3	2	1	1	2	1	2	4	4	4	6	7	7	7	9	7	6	6	5	2	0	4	16	14	5.1	16.4
11-Jun	13	11	13	11	8	5	4	2	1	1	2	1	1	1	1	1	1	1	2	1	1	1	2	2	3.6	12.7
12-Jun	3	3	3	3	3	3	2	2	2	6	4	7	6	9	9	11	11	11	9	8	5	3	0	1	5.1	11.3
13-Jun	1	1	1	1	1	1	1	2	7	9	8	9	8	7	6	4	3	2	1	1	0	1	1	0	3.1	9.2
14-Jun	0	2	1	0	1	2	2	3	4	6	7	6	4	3	2	3	1	1	3	3	4	3	2	0	2.7	6.5
15-Jun	4	4	1	1	1	1	1	2	2	3	2	2	2	2	3	4	2	3	3	2	4	3	2	3	2.4	4.3
16-Jun	5	2	1	1	0	1	1	1	1	3	7	7	9	12	8	7	13	11	12	15	12	8	8	8	6.4	15.2
17-Jun	7	8	10	11	9	11	9	11	15	17	16	12	10	9	9	11	9	9	8	7	4	1	1	1	8.9	17.0
18-Jun	1	1	1	2	2	3	2	2	2	4	13	16	15	13	10	9	14	12	11	8	2	1	1	2	6.1	16.5
19-Jun	1	0	1	1	0	0	1	1	1	2	2	4	4	4	2	2	3	7	8	4	1	0	0	1	2.2	7.6
20-Jun	1	1	0	1	1	1	2	2	2	2	2	4	10	14	15	4	3	3	3	4	11	9	8	10	4.7	15.2
21-Jun	12	11	6	8	4	7	10	12	18	19	19	16	20	19	20	20	15	13	15	12	14	8	9	11	13.3	20.5
22-Jun	12	11	10	8	6	6	5	10	10	11	12	12	13	12	8	10	10	9	10	7	1	0	0	0	8.0	12.6
23-Jun	1	3	4	3	2	3	4	8	6	4	5	8	7	7	7	6	3	1	9	3	4	1	1	1	4.2	9.3
24-Jun	1	1	1	0	1	1	1	1	2	4	5	5	4	5	4	3	3	3	2	1	1	0	0	0	2.0	5.3
25-Jun	0	0	0	0	1	0	0	1	2	3	5	6	5	6	5	6	7	7	7	6	5	4	5	5	3.6	7.0
26-Jun	3	2	1	1	3	4	2	2	2	1	3	1	2	3	4	5	6	19	9	2	2	3	3	4	3.6	18.6
27-Jun	2	6	7	5	3	6	8	10	16	16	16	14	15	16	19	17	16	15	14	12	13	13	15	15	12.1	18.7
28-Jun	13	10	13	11	12	12	12	8	3	2	3	6	6	11	12	6	7	5	6	2	2	1	1	0	6.8	13.2
29-Jun	1	0	0	1	0	0	1	1	2	2	2	3	3	4	6	5	5	5	6	5	3	3	4	1	2.7	6.1
30-Jun	0	0	0	1	1	2	4	8	9	9	8	11	12	10	11	11	9	9	6	3	1	1	0	0	5.3	12.3
	3.3	3.2	2.9	2.7	2.3	2.8	3.0	3.7	4.7	5.2	6.3	6.9	7.3	7.6	7.6	7.0	6.9	7.1	6.7	5.2	4.3	3.1	3.2	3.1	Diurnal Average	
	13.2	11.2	12.7	10.7	11.6	12.2	12.0	11.8	17.5	19.3	19.4	16.5	19.8	18.7	19.8	20.5	16.4	18.6	15.1	15.2	13.7	13.2	16.4	15.1	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - June 2017

Maximum Value: 96.3 deg on Jun 4 13:00

Minimum Value: 4.4 deg on Jun 3 04:00

Percentiles: P_1 = 8.2 P_{10} = 11.4 Q_1 = 15.8 Median = 27.8 Q_3 = 48.6 P_{90} = 69.3 P_{99} = 92.3

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	88	84	90	64	78	75	57	20	43	69	21	28	44	46	62	19	70	39	63	17	10	50	21	30	90.1
2-Jun	27	33	68	9	13	31	40	23	28	54	35	24	17	21	14	14	16	15	14	17	12	18	42	52	68.3
3-Jun	13	60	43	4	7	56	57	50	67	32	13	16	16	16	23	39	37	22	16	17	15	68	33	52	67.9
4-Jun	67	38	42	78	52	27	36	35	78	80	41	57	96	95	56	56	54	57	42	72	61	31	47	34	96.3
5-Jun	36	21	31	32	27	25	23	25	12	16	22	22	19	23	25	37	34	51	43	21	66	53	56	69	69.0
6-Jun	85	58	81	64	57	48	44	26	45	68	67	66	81	91	90	61	18	34	69	30	17	8	53	50	90.9
7-Jun	67	93	80	71	71	83	68	77	83	73	65	45	57	50	36	41	43	24	19	11	11	46	27	26	92.7
8-Jun	53	42	54	46	39	61	44	64	15	37	30	12	11	14	11	12	10	14	9	11	14	22	45	44	63.9
9-Jun	37	45	26	19	22	9	21	14	14	57	72	60	36	24	44	16	35	14	16	19	23	18	18	30	71.9
10-Jun	30	20	58	32	25	33	39	28	28	41	30	27	29	29	23	30	41	23	13	35	25	79	10	12	79.2
11-Jun	10	10	12	10	10	13	16	35	94	32	29	57	69	39	36	61	24	30	17	14	16	24	10	9	94.1
12-Jun	8	9	8	9	9	7	32	22	74	55	56	43	34	26	20	21	14	18	15	11	11	56	33	67	73.9
13-Jun	59	22	10	9	16	17	16	73	19	16	24	26	18	32	33	38	43	52	42	30	69	40	93	66	93.2
14-Jun	85	74	73	86	89	37	17	26	24	23	20	24	27	43	23	45	30	57	30	54	26	58	48	65	88.8
15-Jun	21	18	43	32	48	41	39	26	39	88	62	92	81	74	93	50	38	32	36	22	23	22	24	16	93.2
16-Jun	12	22	52	56	44	16	23	15	17	56	38	36	21	18	78	49	13	14	12	12	10	10	12	10	77.6
17-Jun	10	9	9	9	9	8	16	15	11	12	12	22	29	33	29	25	29	20	18	16	15	48	18	9	48.2
18-Jun	11	21	18	19	8	5	52	70	53	65	18	16	22	21	25	27	13	12	15	19	25	80	57	79	80.0
19-Jun	76	72	92	47	70	80	52	37	50	73	37	27	35	24	24	59	57	18	16	17	66	38	34	96	96.3
20-Jun	47	49	46	12	29	23	10	13	21	37	63	49	33	18	11	76	15	31	17	34	16	14	12	9	76.1
21-Jun	10	13	15	11	18	9	12	16	13	13	15	14	13	13	14	14	15	13	13	13	13	13	14	12	18.4
22-Jun	12	10	13	11	25	11	19	17	16	16	19	19	18	24	30	20	18	17	16	13	31	40	19	41	41.5
23-Jun	30	24	21	39	39	74	19	16	31	36	39	26	33	36	29	76	48	85	22	79	44	88	63	81	87.8
24-Jun	22	42	32	52	53	30	32	31	47	34	34	42	67	67	65	51	84	72	54	32	25	44	51	56	83.6
25-Jun	86	51	64	69	48	74	86	76	34	19	16	13	14	16	15	13	9	10	11	12	9	12	10	11	86.2
26-Jun	11	64	69	35	11	44	17	10	18	18	78	62	57	47	73	27	23	14	24	85	57	49	15	43	84.9
27-Jun	53	41	33	40	63	17	15	10	11	13	13	12	13	11	13	12	13	11	9	10	15	24	8	11	63.4
28-Jun	9	13	24	9	9	11	9	9	22	32	31	20	22	14	15	21	16	17	12	71	23	48	44	24	71.1
29-Jun	23	22	18	8	15	67	18	13	24	30	26	40	41	46	46	43	32	25	18	30	40	30	29	56	67.2
30-Jun	16	40	39	29	31	46	41	16	14	16	19	22	20	22	20	21	16	16	28	41	65	51	49	70	69.5
	87.8	92.7	91.8	86.3	88.8	82.9	86.2	76.6	94.1	87.5	77.9	92.1	96.3	95.3	93.2	76.1	83.6	84.8	69.3	84.9	69.4	87.8	93.2	96.3	

PAZA
Donnelly Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Donnelly - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 6.5 ppb on Jun 13 07:00

Maximum Daily Average: 0.6 ppb on Jun 13

Minimum Value: 0 ppb on Jun 9 19:00

Minimum Daily Average: 0.0 ppb on Jun 15

Maximum Diurnal Average: 0.4 ppb at hour 7

Minimum Diurnal Average: 0.1 ppb at hour 15

Monthly Average: 0.17 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.3$ $P_{99} = 0.8$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-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
2-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
3-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	0.3
4-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
5-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
6-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	0.2	0.5
7-Jun	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
8-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
9-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
10-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	0.1
11-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
12-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
13-Jun	0	0	0	A	0	0	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	6.5
14-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
15-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	0.0	0.1
16-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
17-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	0.2
18-Jun	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.7
19-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	0.2
20-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	0.0	0.1
21-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
22-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	0.0	0.2
23-Jun	0	0	0	0	1	1	1	1	1	1	C	C	C	C	C	1	A	0	0	1	1	0	0	0	0.6	1.3
24-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
25-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	1	0	1	1	1	1	0	0	0.4	0.8
26-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
27-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
28-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	0.1
29-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	0.2	0.4
30-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
	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	Diurnal Average	
	0.4	0.4	0.4	0.4	0.5	0.6	6.5	3.7	0.8	0.8	0.6	0.4	0.5	0.6	0.3	0.5	0.6	0.5	0.8	1.3	1.0	0.6	0.4	0.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

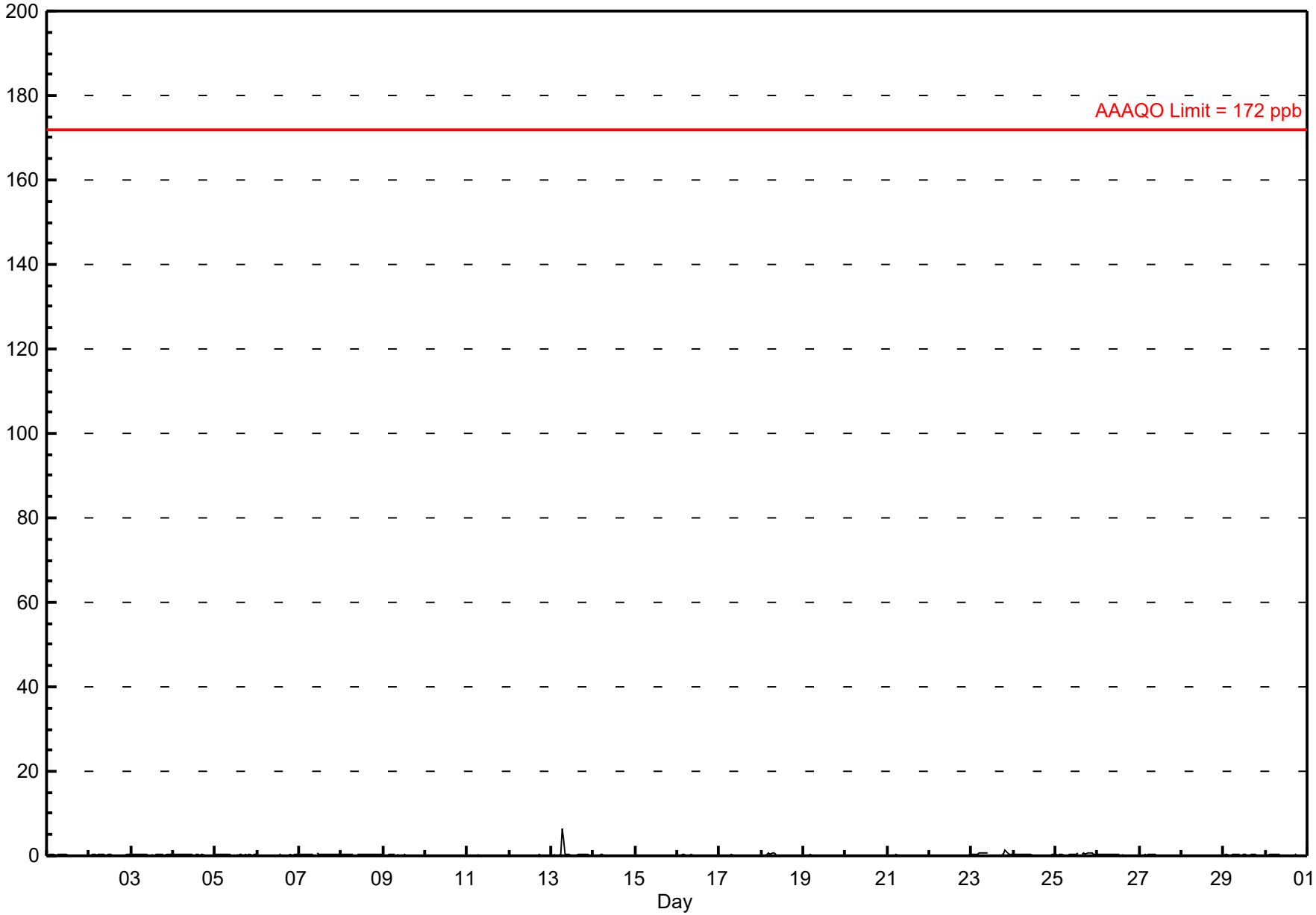
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Donnelly - June 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Donnelly - June 2017

Maximum Value: 19.1 ppb on Jun 13 08:00

Maximum Daily Average: 2.1 ppb on Jun 13

Minimum Value: 0 ppb on Jun 12 03:00

Minimum Daily Average: 0.3 ppb on Jun 10

Maximum Diurnal Average: 1.2 ppb at hour 8

Minimum Diurnal Average: 0.4 ppb at hour 15

Monthly Average: 0.54 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.5$ $P_{90} = 0.7$ $P_{99} = 0.9$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	1	0	0	1	0	1	0	1	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0.4	0.6
2-Jun	0	0	1	1	1	0	1	0	1	0	1	0	0	0	A	0	0	0	0	0	0	0	1	1	0.5	0.7
3-Jun	0	0	1	1	1	1	1	0	0	0	0	1	0	A	0	0	0	1	1	0	0	0	0	0	0.5	0.7
4-Jun	0	1	1	0	1	1	1	1	1	1	1	1	A	0	0	1	0	1	0	0	0	0	0	0	0.5	0.7
5-Jun	1	0	1	1	1	1	1	1	0	0	0	A	0	0	1	1	0	0	0	0	1	1	0	1	0.5	0.7
6-Jun	0	0	0	0	0	0	0	0	0	0	A	1	0	0	1	0	0	0	0	1	1	7	0	1	0.7	7.3
7-Jun	1	1	1	1	0	0	0	0	0	A	1	1	1	1	1	0	0	1	1	0	0	0	1	1	0.6	1.3
8-Jun	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0.6	0.8
9-Jun	0	1	0	0	0	1	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
10-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	0.3	0.4
11-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	0.5
12-Jun	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.3	0.5
13-Jun	0	0	0	A	5	1	16	19	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	2.1	19.1
14-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	0.4	0.5
15-Jun	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
16-Jun	A	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0.4	0.6
17-Jun	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.7
18-Jun	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.5	1.4
19-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.6
20-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
21-Jun	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0.4	0.8
22-Jun	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	0.5
23-Jun	0	1	1	1	1	1	1	1	1	1	C	C	C	C	C	1	A	1	1	7	7	1	1	1	1.5	7.1
24-Jun	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	1	0.6	0.8
25-Jun	0	0	0	0	1	1	0	0	1	1	1	1	1	1	A	1	1	1	2	1	1	1	1	0	0.7	1.8
26-Jun	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0.5	0.8
27-Jun	0	0	0	0	0	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
28-Jun	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	0.5
29-Jun	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0.6	0.8
30-Jun	1	0	1	1	1	1	1	1	1	A	1	0	0	0	1	1	1	1	1	1	0	0	1	0	0.5	0.7
	0.4	0.4	0.5	0.5	0.7	0.5	1.1	1.2	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.7	0.6	0.6	0.4	0.4	Diurnal Average	
	0.7	0.7	0.8	0.9	4.6	1.0	16.0	19.1	1.2	1.2	1.3	0.8	0.8	1.0	0.6	0.8	1.2	0.8	1.8	7.1	6.8	7.3	0.8	0.7	Diurnal Maximum	

C - Calibration

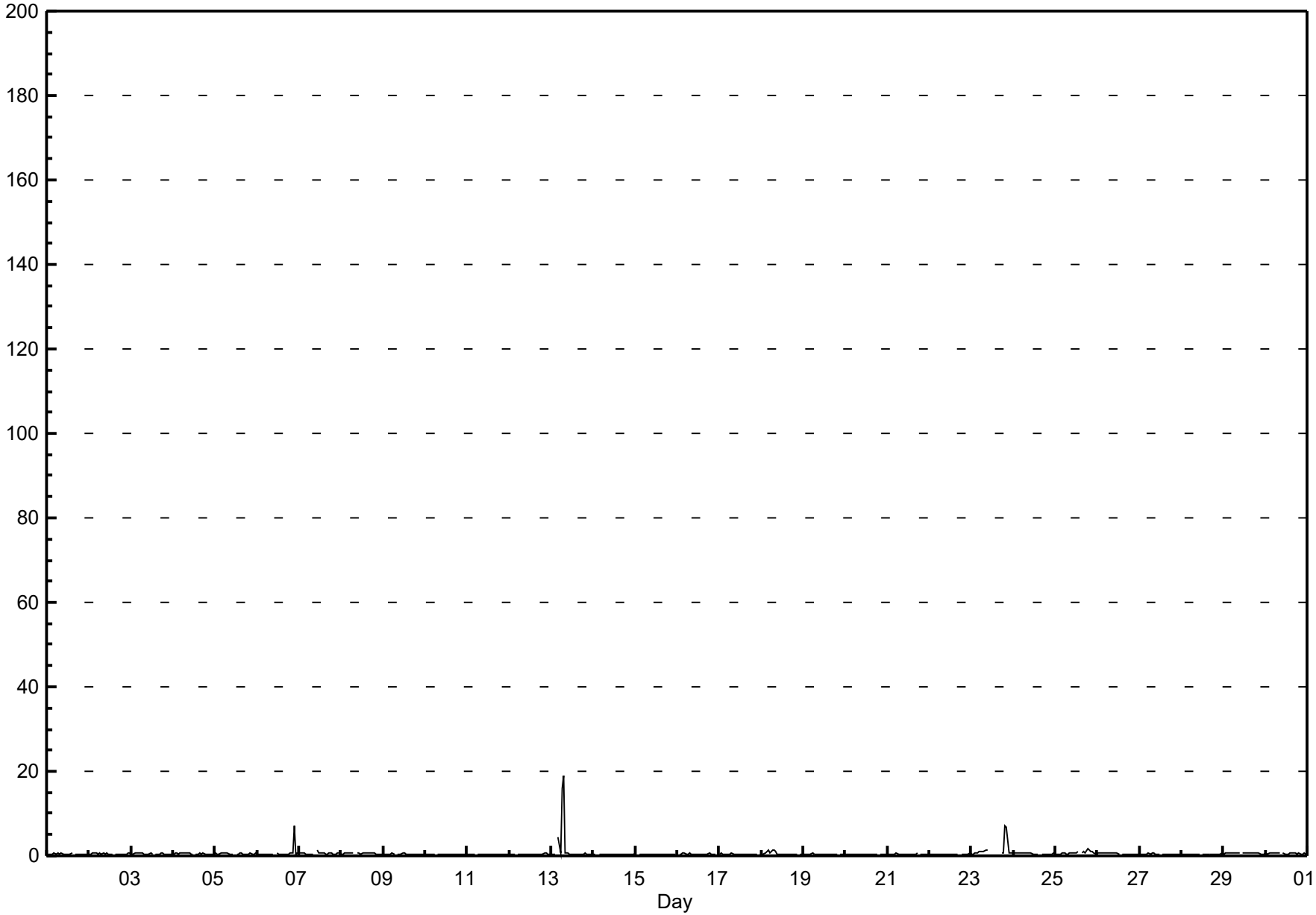
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

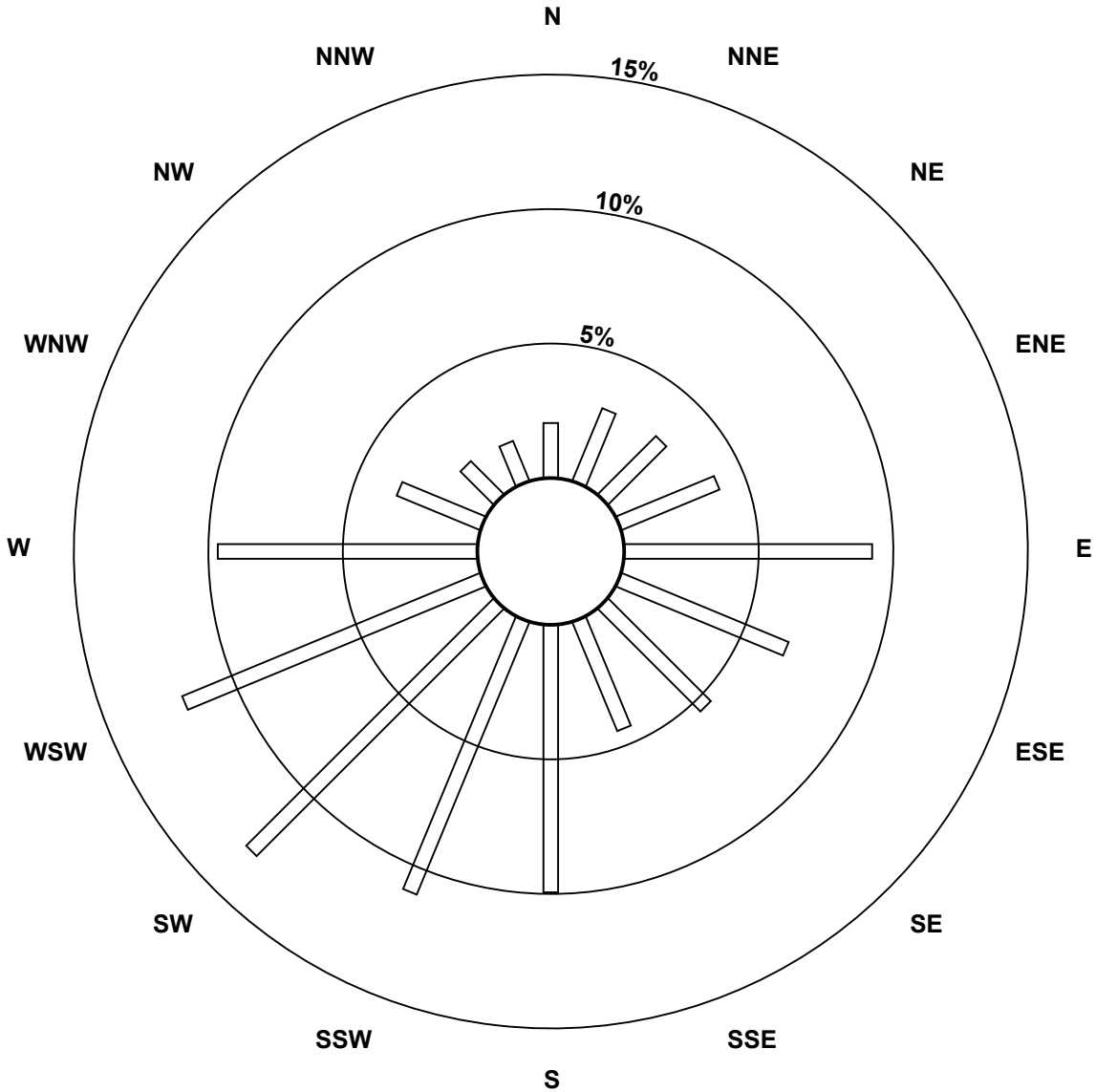
Donnelly - June 2017



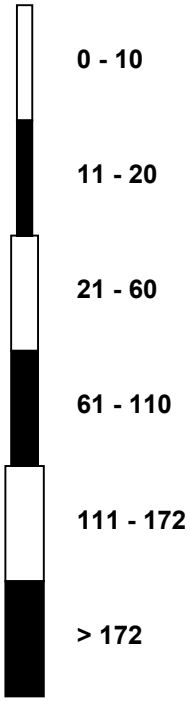
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Donnelly - June 2017



Pollutant Classes (ppb)

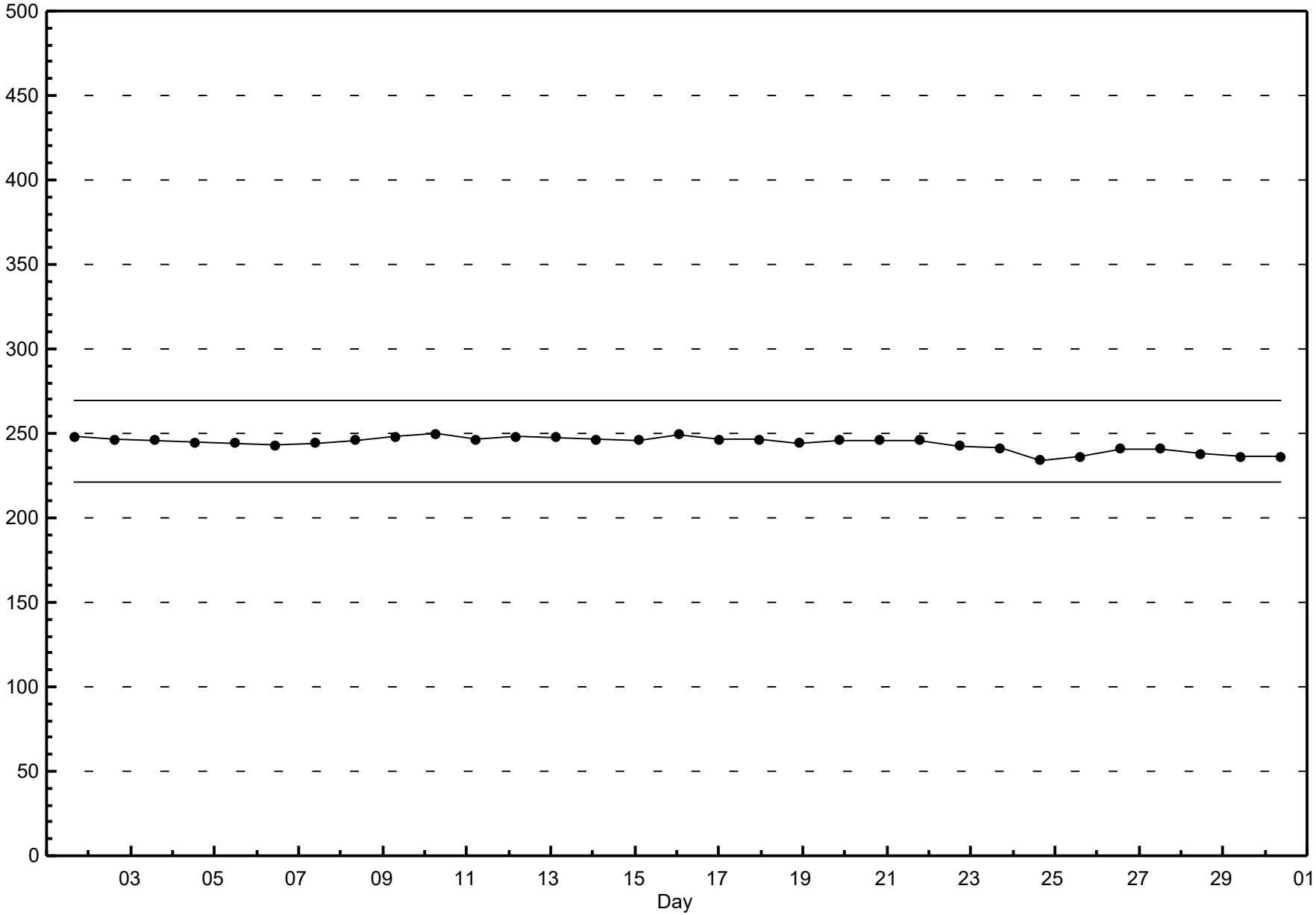


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Donnelly - June 2017



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Donnelly - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.6 ppb on Jun 15 03:00

Maximum Daily Average: 0.4 ppb on Jun 10

Minimum Value: 0 ppb on Jun 1 01:00

Minimum Daily Average: 0.0 ppb on Jun 16

Maximum Diurnal Average: 0.2 ppb at hour 6

Minimum Diurnal Average: 0.1 ppb at hour 16

Monthly Average: 0.16 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.3$ $P_{99} = 0.9$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-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
2-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
3-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
4-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	0.2
5-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	0.3
6-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	0.3
7-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
8-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	0.5
9-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	0.4
10-Jun	1	1	1	1	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
11-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	0.5
12-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	0.1	0.7
13-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	0.4
14-Jun	0	0	A	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
15-Jun	0	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.6
16-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	0.0	0.3
17-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	0.3
18-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	0.4
19-Jun	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0.3	0.7
20-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0.3	0.7
21-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	0.3	0.4
22-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	0.3	0.4
23-Jun	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	A	0	0	0	0	0	0	0	--	0.3
24-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
25-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
26-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0.2	1.1
27-Jun	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6
28-Jun	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0.1	1.1
29-Jun	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
30-Jun	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Diurnal Average	
	0.5	1.2	1.6	0.9	0.7	0.7	1.0	0.7	0.4	0.5	0.5	0.9	1.1	0.6	0.4	0.3	0.3	0.4	0.5	1.1	0.7	0.4	0.7	0.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

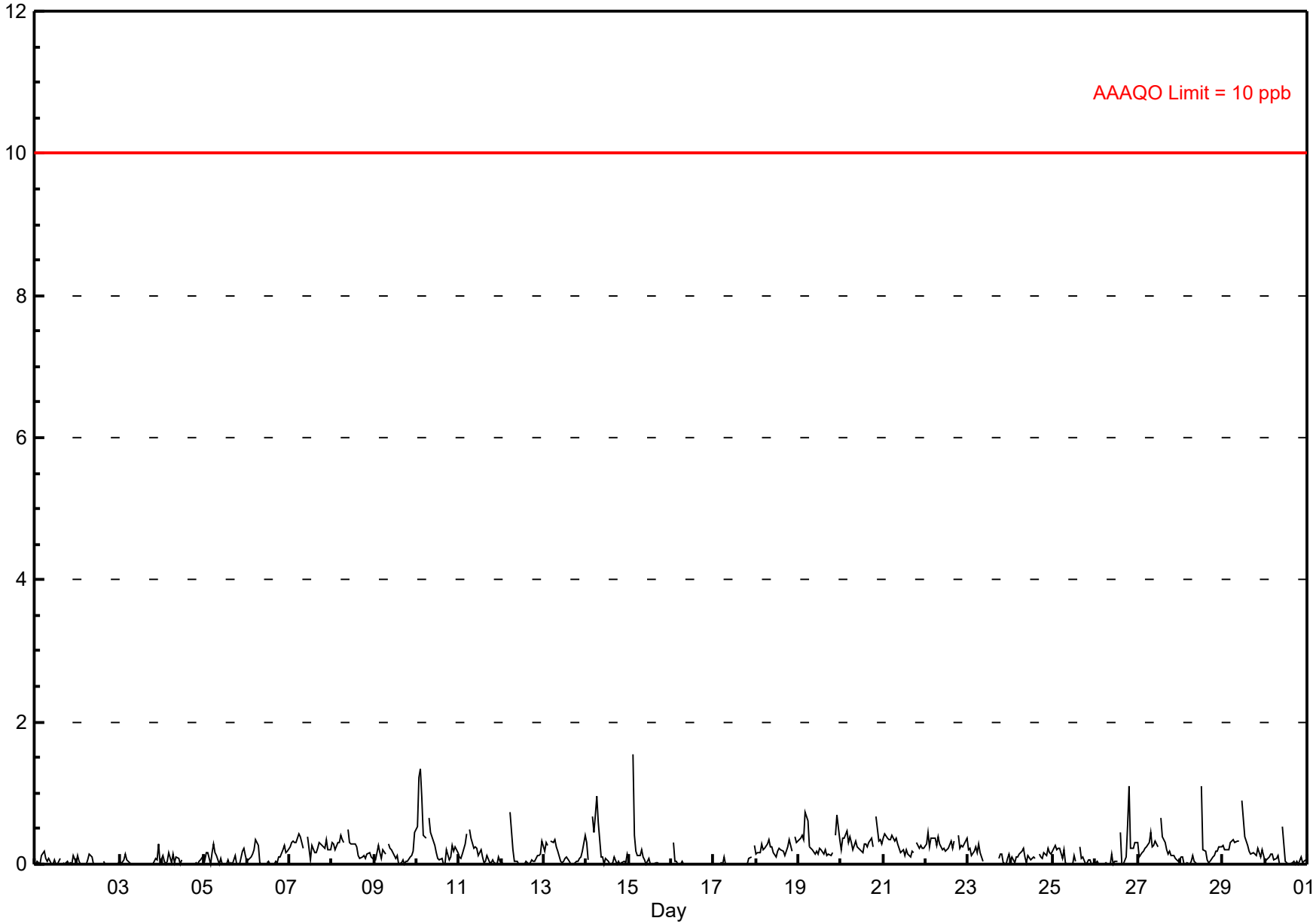
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Donnelly - June 2017



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Donnelly - June 2017

Maximum Value: 5.2 ppb on Jun 26 20:00

Maximum Daily Average: 1.1 ppb on Jun 10

Minimum Value: 0 ppb on Jun 16 21:00

Minimum Daily Average: 0.6 ppb on Jun 2

Maximum Diurnal Average: 1.0 ppb at hour 6

Minimum Diurnal Average: 0.7 ppb at hour 17

Monthly Average: 0.84 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 0.7$ Median = 0.8 $Q_3 = 0.9$ $P_{90} = 1.1$ $P_{99} = 2.3$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	0.7	0.9
2-Jun	1	1	0	1	0	1	1	1	1	1	1	0	0	0	A	1	1	0	0	0	0	0	1	1	0.6	0.9
3-Jun	1	1	1	1	1	1	1	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.0
4-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	1	1	1	1	1	1	1	1	0.7	1.1
5-Jun	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
6-Jun	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	0.8	1.3
7-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	0.9	1.5
8-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	0.9	1.2
9-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	0.9	1.3
10-Jun	1	2	2	2	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.1
11-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
12-Jun	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.0
13-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.8	1.3
14-Jun	1	1	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8
15-Jun	1	A	4	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	0	1	0	1	1	0.9	4.5
16-Jun	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	0	0	1	A	0.6	1.4
17-Jun	1	1	1	1	1	1	1	0	0	1	1	0	1	0	0	1	0	1	1	1	1	1	A	1	0.6	1.2
18-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	0.9	1.2
19-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	4	1	1.0	3.7
20-Jun	1	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	2.4
21-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.9	1.2
22-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	1.0	1.3
23-Jun	1	1	1	1	1	1	1	1	1	C	C	C	C	C	C	1	A	1	1	1	1	1	1	1	--	1.2
24-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
25-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.0
26-Jun	0	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	3	5	1	1	1	1	1.1	5.2
27-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	0.9	1.5
28-Jun	1	1	1	1	1	1	1	1	1	1	0	A	5	1	1	1	1	1	1	1	1	1	1	1	0.9	4.6
29-Jun	1	1	1	1	1	1	1	1	1	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.7
30-Jun	1	1	1	1	1	1	1	1	1	A	2	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	1.8
	0.8	0.9	1.0	0.9	0.9	1.0	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.7	0.9	0.9	0.8	0.8	0.9	0.8	Diurnal Average	
	1.4	2.1	4.5	2.1	1.4	2.0	1.8	1.6	1.2	1.1	1.8	2.7	4.6	1.5	1.8	1.1	1.0	1.0	3.4	5.2	2.4	1.1	3.7	1.3	Diurnal Maximum	

C - Calibration

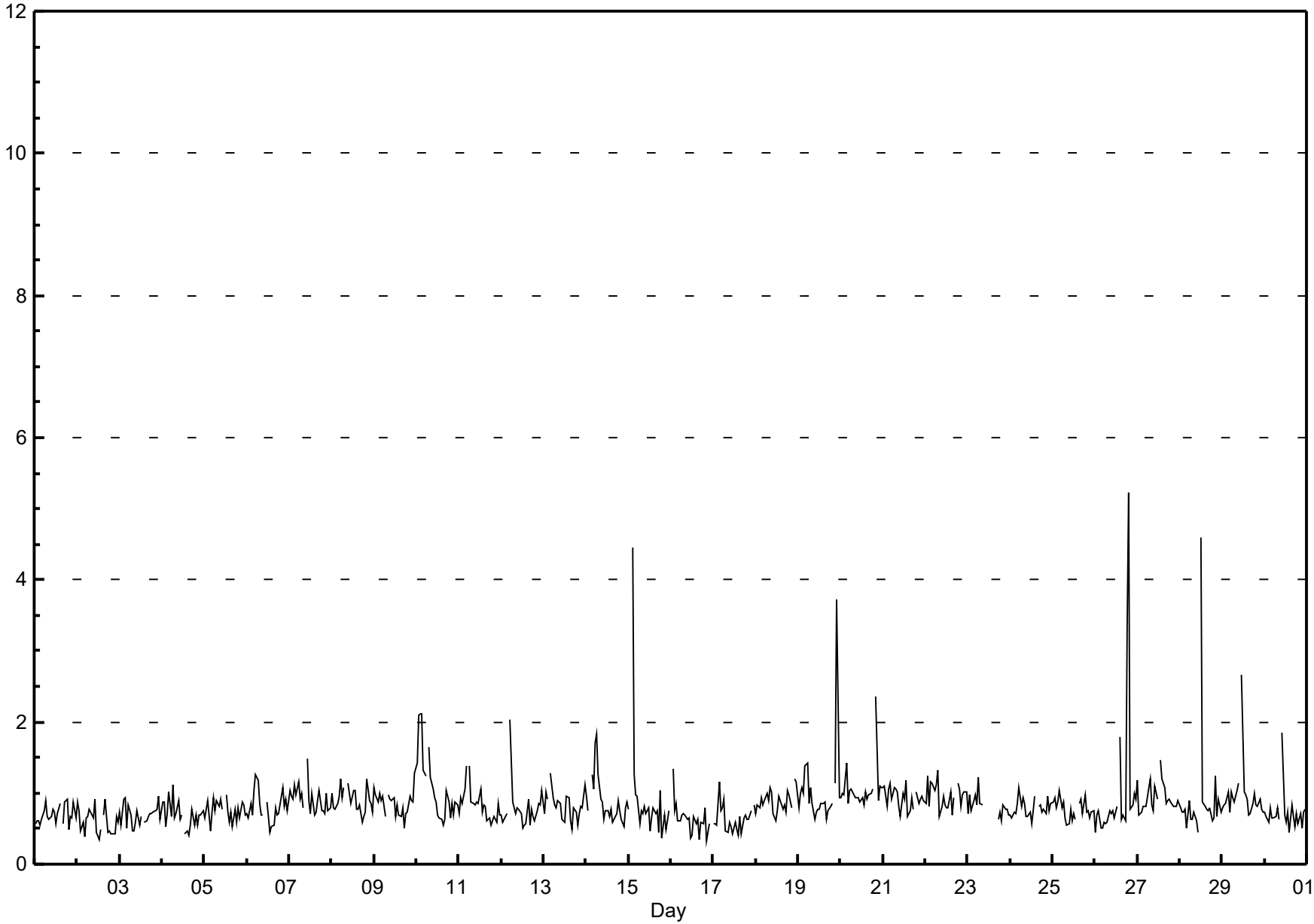
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

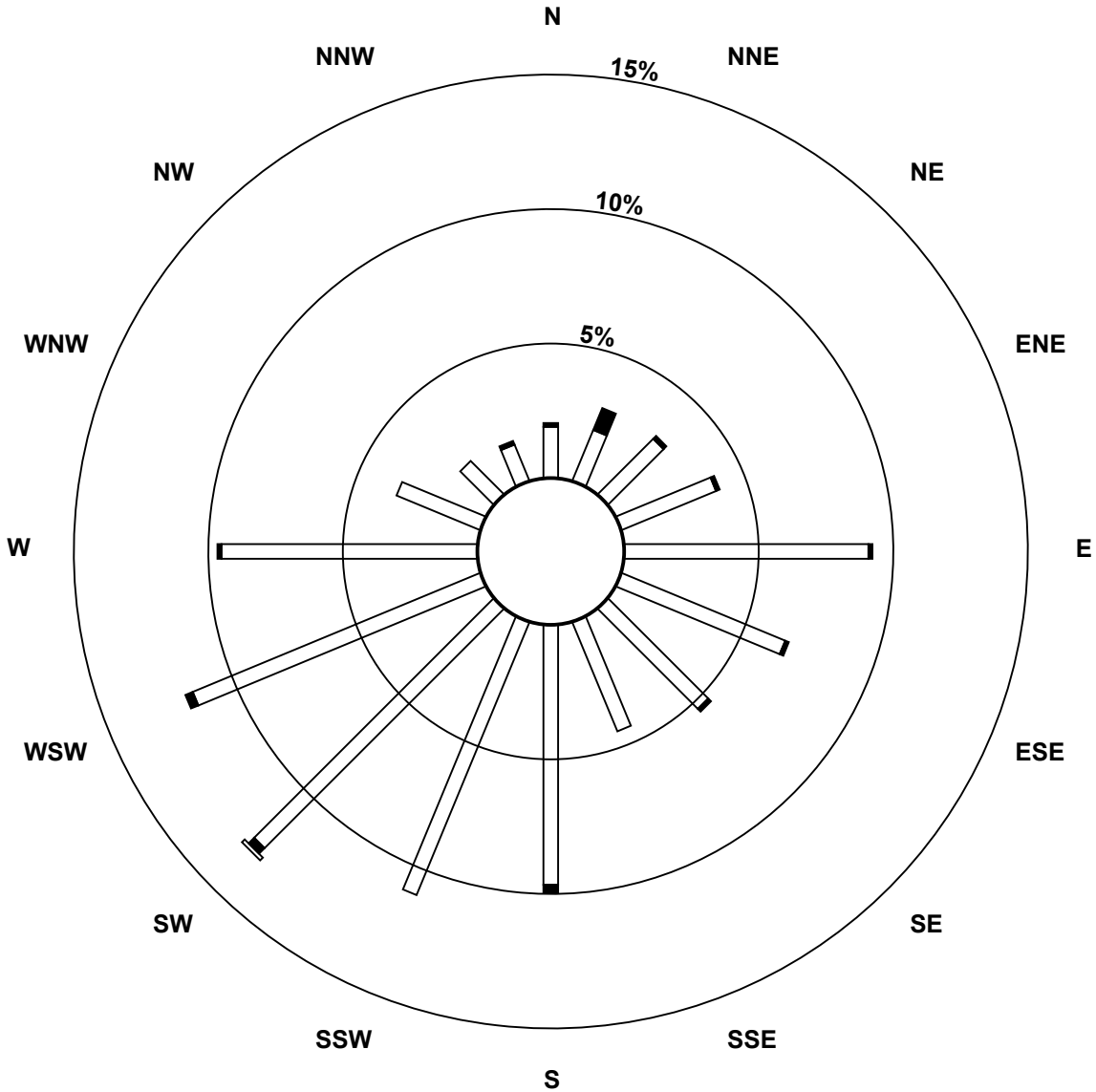
Donnelly - June 2017



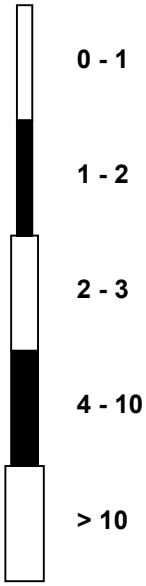
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Donnelly - June 2017



Pollutant Classes (ppb)

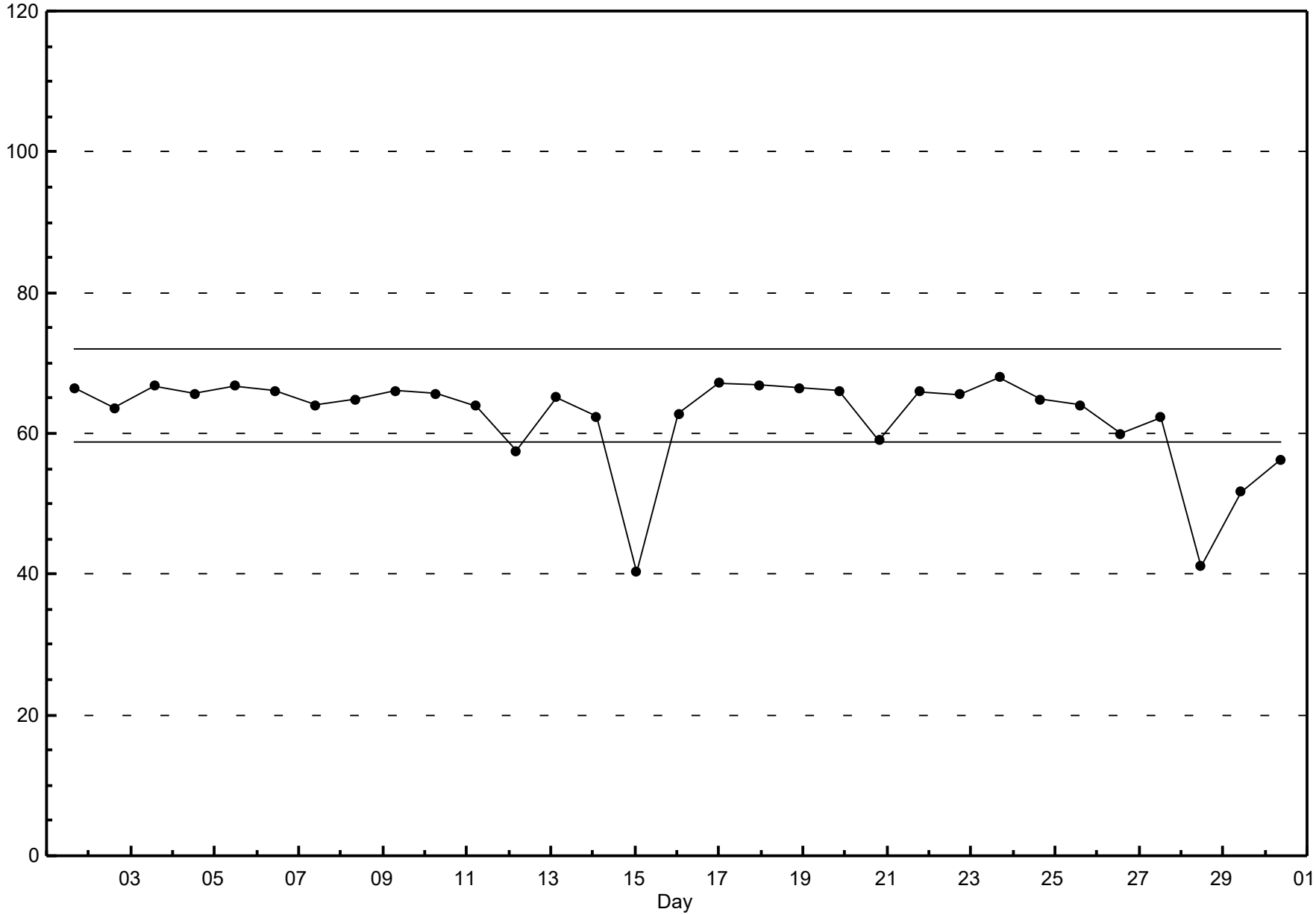


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Donnelly - June 2017



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Donnelly - June 2017

Maximum Value: 28.0 °C on Jun 8 14:00

Maximum Daily Average: 22.6 °C on Jun 8

Minimum Value: 4 °C on Jun 19 04:00

Minimum Daily Average: 9.4 °C on Jun 11

Maximum Diurnal Average: 20.2 °C at hour 15

Minimum Diurnal Average: 10.5 °C at hour 5

Monthly Average: 15.81 °C

Percentiles: P_1 = 5.5 P_{10} = 9.5 Q_1 = 11.9 Median = 15.3 Q_3 = 19.5 P_{90} = 22.9 P_{99} = 27.6

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

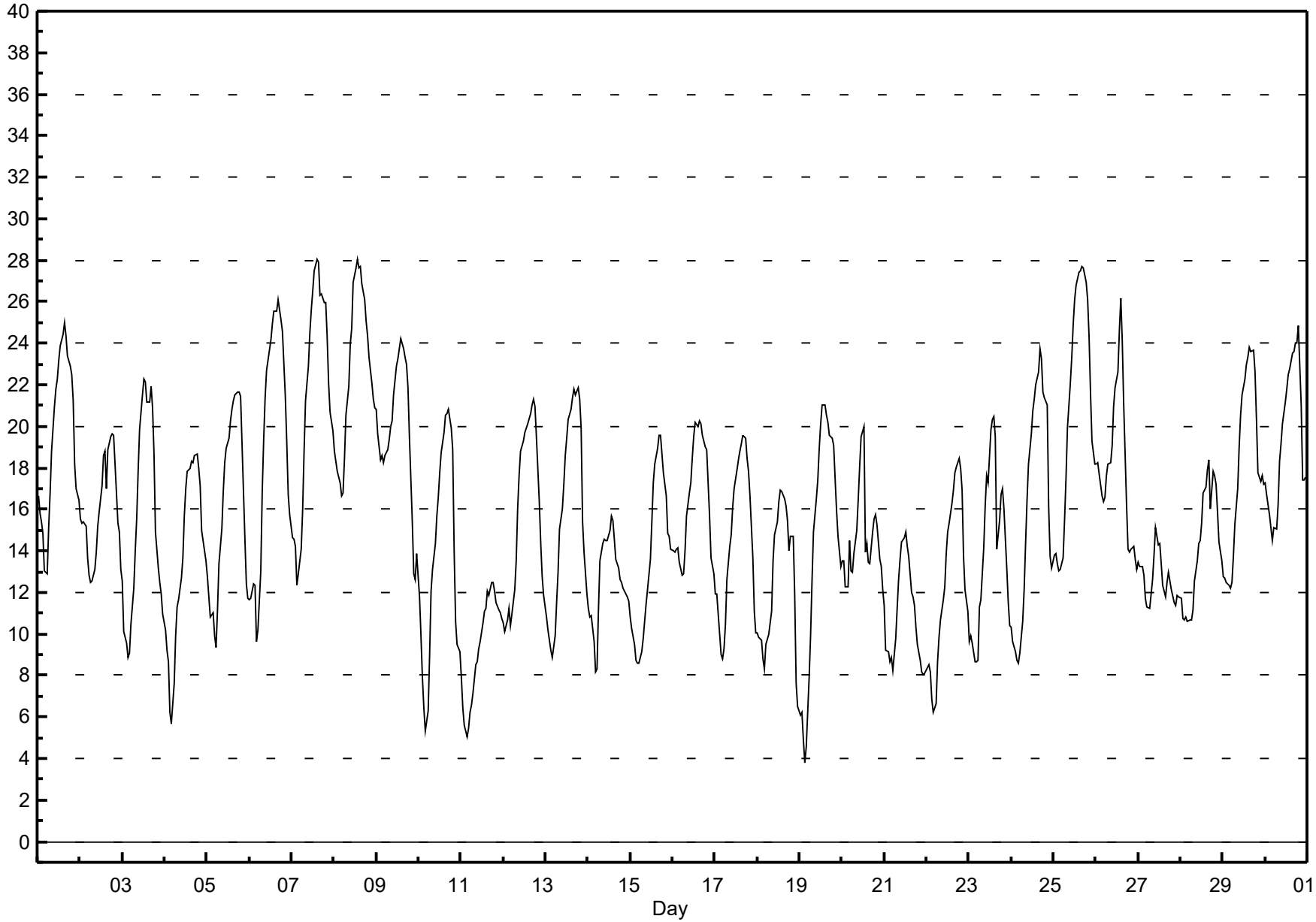
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	17	16	15	15	13	13	15	17	19	21	22	22	23	24	24	25	24	23	23	22	21	18	17	16	19.5	25.0
2-Jun	16	15	15	15	14	13	12	13	13	14	15	16	17	19	19	17	19	20	20	20	18	15	15	13	15.9	19.7
3-Jun	13	10	10	9	9	10	12	14	16	18	20	22	22	22	21	21	22	21	19	15	13	12	12	11	15.6	22.3
4-Jun	10	9	9	6	6	8	10	11	12	13	14	16	17	18	18	18	18	19	19	18	17	15	14	13	13.6	18.7
5-Jun	13	12	11	11	10	9	11	13	15	17	18	19	19	20	21	21	21	22	22	21	19	15	12	12	16.0	21.7
6-Jun	12	12	12	12	10	10	13	17	19	21	23	24	24	25	26	26	26	26	25	25	21	19	17	16	19.1	26.1
7-Jun	15	15	14	12	13	14	16	19	21	23	25	26	27	28	28	28	26	26	26	26	24	22	21	20	21.4	28.0
8-Jun	19	18	18	17	17	17	18	21	22	24	25	27	28	28	28	28	27	26	25	24	23	22	21	21	22.6	28.0
9-Jun	21	20	18	19	18	19	19	19	20	20	22	23	23	24	24	24	23	23	22	20	15	13	13	14	19.8	24.2
10-Jun	12	10	8	6	5	6	9	12	13	14	16	17	18	19	20	21	21	21	20	19	14	11	10	9	13.7	20.8
11-Jun	8	6	6	5	5	6	7	7	9	9	9	10	11	11	11	12	12	12	12	12	12	11	11	11	9.4	12.5
12-Jun	11	10	11	11	10	11	12	14	16	18	19	19	20	20	20	21	21	21	21	20	16	14	13	12	15.8	21.3
13-Jun	11	10	10	9	9	10	12	13	15	16	17	19	19	20	21	21	22	21	22	21	20	15	14	12	15.8	21.9
14-Jun	11	11	11	10	8	8	11	14	14	15	14	15	15	16	15	15	14	13	13	12	12	12	12	12	12.6	15.7
15-Jun	11	10	10	9	9	9	9	10	11	11	12	14	15	17	18	19	20	20	19	18	17	15	15	14	13.7	19.6
16-Jun	14	14	14	14	13	13	13	14	16	17	17	18	20	20	20	20	20	20	19	19	17	16	14	13	16.4	20.3
17-Jun	12	12	11	9	9	9	10	13	14	15	16	17	18	18	19	19	20	19	18	18	17	14	11	10	14.5	19.6
18-Jun	10	10	10	9	8	10	10	11	11	14	15	15	16	17	17	17	16	15	14	15	15	12	8	6	12.5	16.9
19-Jun	6	6	5	4	5	8	10	13	15	16	17	19	20	21	21	21	20	20	19	19	17	16	15	13	14.4	21.0
20-Jun	14	13	12	12	15	13	13	14	15	16	18	19	20	14	14	13	13	15	16	16	15	14	13	12	14.6	20.0
21-Jun	11	9	9	9	9	8	10	11	13	14	14	15	15	14	14	12	12	11	10	10	9	8	8	8	10.9	14.9
22-Jun	8	9	8	7	6	7	9	10	11	12	12	14	15	15	16	17	18	18	18	18	17	14	12	11	12.6	18.4
23-Jun	10	10	10	9	9	9	11	12	14	16	18	17	20	20	20	20	14	15	17	17	16	13	11	10	14.1	20.5
24-Jun	10	10	9	9	9	9	11	12	14	16	18	20	21	21	22	23	24	23	22	21	21	16	14	13	16.1	23.7
25-Jun	14	14	13	13	13	14	15	17	20	22	23	25	26	27	27	27	28	28	27	26	24	22	19	18	21.0	27.7
26-Jun	18	18	18	17	16	17	18	18	18	19	21	22	23	25	26	24	21	16	14	14	14	14	14	13	18.2	26.2
27-Jun	13	13	13	13	12	11	11	12	13	14	15	14	14	13	12	12	12	13	13	12	12	11	12	12	12.6	15.1
28-Jun	12	11	11	11	11	11	11	11	13	14	14	14	15	17	17	18	18	16	18	18	17	16	14	13	14.2	18.4
29-Jun	13	13	13	12	12	12	14	15	17	19	21	21	22	23	23	24	24	24	23	20	18	17	18	17	18.1	23.8
30-Jun	17	17	16	15	15	15	15	16	18	19	20	21	22	23	23	24	24	24	24	25	21	17	17	18	19.4	24.8
	12.6	12.1	11.6	11.0	10.5	10.9	12.2	13.7	15.2	16.5	17.7	18.6	19.5	20.0	20.2	20.2	20.0	19.7	19.3	18.7	17.1	15.0	13.9	13.1	Diurnal Average	
	20.8	19.6	18.4	18.6	18.3	18.6	18.9	20.5	21.9	24.0	24.7	26.9	27.7	28.0	28.0	27.9	27.7	27.6	26.9	26.1	24.3	22.1	21.3	20.9	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Donnelly - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	13	13	13	12	7	4	5	8	8	7	14	14	10	11	13	18	19	20	15	13	13	6	6	12	9.5	19.8
Dir	165	168	167	167	187	159	180	234	256	256	230	235	256	249	231	228	245	263	259	261	252	253	211	222	228	263
2 Spd	10	14	19	16	17	13	11	9	7	10	14	21	18	21	24	26	25	25	28	30	18	13	21	18	16.0	30.2
Dir	198	191	202	216	211	200	204	196	173	175	214	247	264	263	262	229	235	263	252	249	254	220	216	211	230	249
3 Spd	17	10	8	9	10	10	11	12	10	7	9	13	17	23	21	15	13	24	21	18	5	3	4	10	10.0	24.3
Dir	213	193	177	188	178	173	168	170	168	138	142	137	148	174	187	173	213	267	245	231	272	211	189	185	191	267
4 Spd	10	6	3	3	3	4	4	7	8	7	4	3	1	3	6	6	5	7	8	8	6	8	10	10	5.3	9.7
Dir	184	225	217	156	191	175	204	186	182	164	144	175	33	168	138	131	151	139	148	145	139	166	165	175	166	165
5 Spd	11	8	9	11	10	10	13	17	17	20	20	17	18	17	18	17	14	15	12	10	7	2	4	5	11.0	19.8
Dir	194	190	209	229	216	217	240	264	266	255	252	257	261	252	243	251	248	258	259	237	202	134	108	121	242	255
6 Spd	5	7	7	7	2	3	4	2	3	6	7	8	10	8	11	12	11	12	8	2	5	4	4	5	4.5	12.1
Dir	150	133	149	171	156	44	60	94	65	78	112	112	146	158	170	192	191	209	228	102	84	90	93	107	148	209
7 Spd	4	5	5	1	4	6	6	6	5	7	7	8	8	9	9	11	10	10	11	10	9	9	10	9	7.4	11.1
Dir	90	92	93	35	62	93	93	93	100	85	98	95	101	118	107	94	94	90	96	98	93	93	93	90	95	96
8 Spd	9	9	9	11	10	8	9	12	13	13	14	16	16	17	16	17	17	15	13	12	10	9	9	9	12.1	17.1
Dir	86	85	87	91	90	84	88	88	92	93	91	96	94	94	95	97	98	97	95	94	91	90	87	81	92	97
9 Spd	10	7	7	11	9	13	12	14	23	27	26	29	31	26	24	31	37	33	29	11	10	9	1	15	16.9	36.6
Dir	91	73	68	62	66	58	53	50	44	38	44	47	40	49	58	43	37	34	35	70	170	179	117	26	48	37
10 Spd	10	8	6	4	1	3	5	5	0	5	8	8	10	11	10	9	10	5	10	9	24	19	15	15	5.8	23.9
Dir	30	24	28	358	343	12	13	59	317	250	270	283	282	259	273	286	280	252	232	307	347	0	357	346	323	347
11 Spd	17	15	5	6	6	7	6	2	2	5	5	9	6	5	5	3	5	6	5	5	7	5	7	7	2.0	16.7
Dir	346	353	343	270	293	352	27	329	203	211	227	211	215	243	214	206	233	201	211	192	197	168	139	133	246	346
12 Spd	9	11	14	16	20	20	18	16	16	22	27	33	28	26	28	23	20	18	20	16	12	14	11	10	14.4	32.7
Dir	127	126	131	140	164	169	172	185	202	236	231	242	247	250	236	230	242	262	259	249	204	202	195	179	216	242
13 Spd	12	11	12	13	12	12	13	14	15	13	9	11	11	7	9	7	8	10	6	6	5	1	10	10	7.4	15.1
Dir	185	179	174	175	180	185	196	216	234	237	243	234	231	203	208	185	188	222	233	220	212	33	30	40	205	234
14 Spd	7	5	4	6	2	9	4	8	9	9	13	15	11	8	7	7	7	7	5	3	4	4	2	2	6.1	15.0
Dir	59	71	40	347	28	32	31	53	54	48	34	33	35	51	61	59	58	56	61	65	58	60	126	205	47	33
15 Spd	10	12	11	7	11	13	13	12	11	8	8	5	2	0	3	2	5	6	6	6	6	7	9	8	3.1	13.3
Dir	205	225	221	217	224	234	237	238	257	259	222	236	287	80	99	22	68	73	79	82	84	86	92	94	208	237
16 Spd	10	8	13	13	12	8	6	8	14	18	17	18	23	28	29	29	29	27	28	26	15	14	14	16	14.5	29.3
Dir	95	100	123	155	179	195	175	195	217	234	245	236	229	237	233	229	236	237	256	255	250	235	218	211	226	236
17 Spd	16	18	16	12	11	8	11	19	21	19	17	20	20	22	23	24	24	24	24	22	15	12	12	13	17.1	24.1
Dir	204	214	222	236	225	211	229	252	248	244	234	218	220	226	226	230	235	232	221	225	239	227	204	179	227	221
18 Spd	13	14	16	17	16	15	11	16	9	15	14	19	22	25	24	22	20	17	18	9	4	3	3	4	8.2	25.2
Dir	171	167	166	168	172	179	220	215	190	201	269	260	248	256	264	265	270	286	10	28	336	6	103	120	232	256
19 Spd	5	5	3	3	2	4	12	11	11	10	9	8	8	5	6	5	4	5	1	5	3	1	2	3	4.6	12.3
Dir	126	143	105	150	140	181	172	164	140	138	145	139	121	101	90	89	86	259	213	116	129	49	93	106	136	172
20 Spd	2	4	3	4	10	9	9	10	12	13	12	10	9	24	22	24	14	16	21	24	22	21	22	26	12.2	26.4
Dir	108	126	111	143	169	185	178	172	174	206	236	268	284	248	212	215	184	193	191	198	221	225	219	254	211	254
21 Spd	31	19	11	11	19	18	21	27	32	34	34	34	35	35	31	31	33	31	27	23	20	22	20	17	24.8	34.6
Dir	252	253	244	215	215	210	224	231	246	252	259	262	259	262	271	265	262	264	260	261	260	258	262	267	253	259
22 Spd	16	10	8	8	9	8	12	15	15	13	13	14	12	14	15	17	18	16	14	13	11	7	6	8	11.0	17.8
Dir	275	293	317	291	282	287	284	291	300	311	305	298	293	266	269	269	269	267	269	251	245	247	200	190	277	269

Peace Airshed Zone Association

Hourly Averages

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

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	Daily Average	Daily Maximum
23 Spd	8	7	6	9	8	10	9	7	10	9	7	M	M	4	4	9	4	11	10	12	13	7	8	11	6.9	13.4
Dir	189	190	189	193	191	197	216	223	244	247	241	M	M	264	262	284	57	276	256	208	248	258	208	225	229	248
24 Spd	8	9	9	8	8	7	8	6	6	5	7	9	6	6	5	5	3	4	2	2	3	2	1	2	3.2	8.7
Dir	218	214	209	207	214	212	231	271	284	284	269	304	293	324	333	345	308	261	256	32	77	106	120	102	254	214
25 Spd	3	3	6	7	7	8	7	9	9	10	12	11	12	11	11	10	10	11	17	18	9	9	9	10	9.4	18.3
Dir	118	112	108	108	108	110	107	108	108	110	118	114	117	111	112	110	103	128	140	133	114	109	107	107	115	133
26 Spd	10	3	8	8	13	5	4	7	11	10	3	4	7	3	5	3	11	20	3	4	5	8	9	3	3.7	19.8
Dir	110	161	107	111	125	146	125	158	188	232	200	215	139	116	100	243	279	264	240	110	206	197	219	184	178	264
27 Spd	7	15	21	32	25	20	23	23	21	28	30	30	31	29	30	25	25	26	22	28	31	34	30	27	24.3	33.8
Dir	154	196	234	252	266	262	262	267	268	259	265	265	266	251	254	239	241	237	234	259	246	259	271	278	254	259
28 Spd	16	15	14	14	15	10	6	4	11	13	13	14	13	14	15	13	10	5	2	4	7	6	10	10	7.0	15.8
Dir	314	359	355	353	355	348	320	331	16	7	3	5	18	11	13	13	5	31	141	184	199	192	191	188	358	314
29 Spd	8	8	9	8	9	10	9	11	11	12	14	16	16	15	15	15	14	15	14	9	7	5	10	10	10.2	16.4
Dir	190	192	190	194	190	194	208	212	210	208	215	229	219	218	225	230	245	238	223	202	65	206	200	188	212	229
30 Spd	9	10	12	10	10	11	9	12	16	19	18	19	22	14	11	13	13	10	6	3	3	2	4	7	7.2	21.7
Dir	175	183	198	205	212	241	262	278	282	271	280	281	284	304	313	271	278	295	350	71	90	118	121	125	265	284
Spd	4.4	4.2	4.6	5.0	5.6	4.7	5.0	5.5	5.2	6.0	6.3	6.8	6.5	7.5	7.4	7.4	7.0	8.4	6.6	6.2	4.7	4.1	4.3	3.8	Diurnal Average	
Dir	186	181	180	193	195	195	210	220	230	239	244	250	249	244	236	235	244	252	241	226	230	220	200	197		
Spd	30.9	18.9	21.0	31.8	24.9	19.7	23.1	27.5	31.7	33.7	34.2	34.2	34.6	34.6	31.3	30.9	36.6	33.0	29.4	30.2	31.1	33.8	30.5	26.7	Diurnal Maximum	
Dir	252	253	234	252	266	169	262	231	246	252	259	262	259	262	271	43	37	34	35	249	246	259	271	278		

Maximum Speed Value: 37 km/h on Jun 9 17:00
Maximum Daily Speed Average: 24.8 km/h on Jun 21
Maximum Diurnal Speed Average: 8.4 km/h at hour 18

Minimum Speed Value: 0 km/h on Jun 10 09:00
Minimum Daily Speed Average: 2.0 km/h on Jun 24
Minimum Diurnal Speed Average: 3.8 km/h at hour 24

Monthly Average Velocity: 5.27 km/h 225.1 deg

Speed Percentiles: P_1 = 1.0 P_{10} = 3.8 Q_1 = 6.7 Median = 10.3 Q_3 = 15.5 P_{90} = 23.1 P_{99} = 33.5

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

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Percent Operational Time:	99.7

M - Maintenance

Frequency Distribution

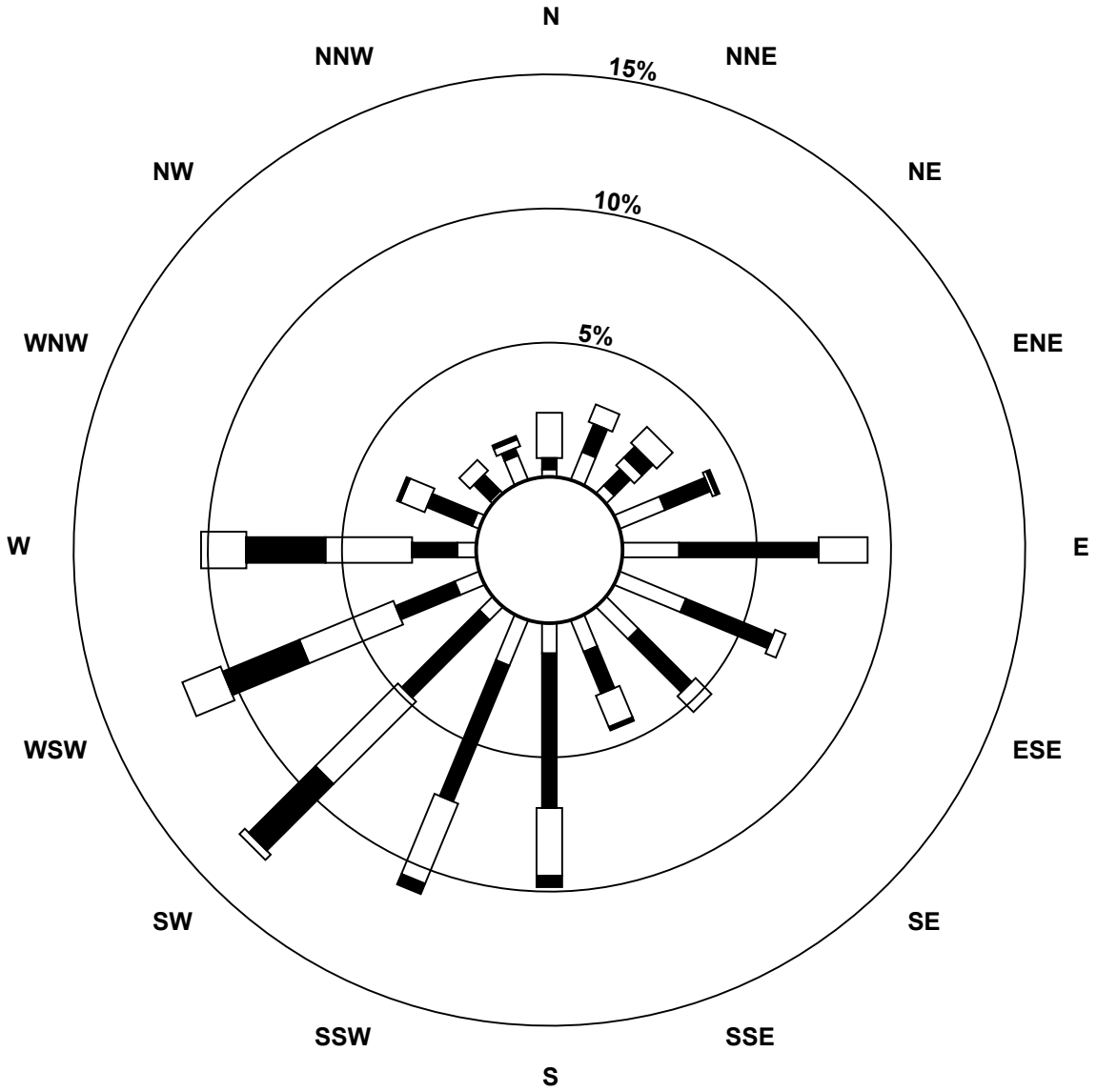
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	8	5	17	2	0	0	32
NorthEast	17	23	6	5	6	0	57
East	25	69	14	0	0	0	108
SouthEast	20	31	13	0	0	0	64
South	12	68	40	6	0	0	126
SouthWest	15	55	60	37	7	0	174
West	6	31	42	35	20	0	134
NorthWest	6	10	7	0	0	0	23
Total	109	292	199	85	33	0	718

Peace Airshed Zone Association

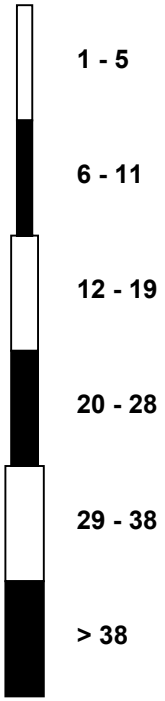
Wind Rose

Wind Speed (WS) (km/h)

Donnelly - June 2017



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Donnelly - June 2017

Maximum Speed: 37 km/h on Jun 9 17:00

Maximum Daily Speed Average: 25.9 km/h on Jun 21

Minimum Speed: 1 km/h on Jun 24 23:00

Minimum Daily Speed Average: 5.9 km/h on Jun 24

Maximum Diurnal Speed Average: 15.9 km/h at hour 16

Minimum Diurnal Speed Average: 9.4 km/h at hour 22

Monthly Average Speed: 12.43 km/h

Percentiles: $P_1 = 2.2$ $P_{10} = 4.5$ $Q_1 = 7.1$ Median = 10.6 $Q_3 = 15.8$ $P_{90} = 23.5$ $P_{99} = 33.8$

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Percent Operational Time:	99.7

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	Daily Average	Daily Maximum
1-Jun	13	13	13	12	7	4	6	9	9	8	15	14	11	12	15	19	21	20	15	13	13	6	7	12	12.0	20.8
2-Jun	12	14	19	16	17	13	11	9	7	10	15	21	18	21	24	26	26	25	28	30	18	13	21	19	18.1	30.4
3-Jun	17	10	8	9	10	10	11	12	11	7	9	13	18	23	21	15	13	25	23	20	7	4	5	10	13.0	25.0
4-Jun	10	7	5	3	4	4	4	7	8	7	5	4	5	5	7	6	6	7	9	8	6	8	10	10	6.4	9.7
5-Jun	12	8	9	11	10	10	13	17	17	20	20	17	19	18	19	18	15	16	13	10	8	4	4	5	13.1	20.1
6-Jun	5	8	7	7	2	3	4	3	4	6	8	9	11	10	12	13	12	13	8	4	5	4	4	5	6.9	12.9
7-Jun	4	5	5	2	4	6	6	6	5	7	8	8	8	10	10	11	10	10	11	11	9	9	11	9	7.8	11.2
8-Jun	9	9	9	11	10	9	9	13	13	13	15	16	16	17	16	17	17	15	13	12	10	10	9	9	12.3	17.3
9-Jun	10	8	8	11	9	13	12	14	23	27	26	30	32	27	24	31	37	33	30	16	11	9	6	16	19.2	36.8
10-Jun	10	8	6	5	1	4	5	5	4	7	10	9	11	12	13	11	11	7	11	11	24	19	15	15	9.8	24.5
11-Jun	17	15	6	6	6	7	6	3	2	5	6	10	7	5	6	4	6	7	6	6	7	6	7	7	6.8	16.7
12-Jun	9	11	14	16	20	20	18	16	17	22	28	33	29	27	28	24	21	19	20	17	13	14	11	10	19.0	33.2
13-Jun	12	11	12	13	12	12	14	15	16	14	10	12	12	9	11	8	9	10	6	6	5	4	10	10	10.5	15.7
14-Jun	7	6	5	6	2	9	5	8	9	9	14	15	11	8	7	8	7	7	5	3	4	4	4	3	6.9	15.3
15-Jun	11	12	11	7	11	13	13	12	11	9	9	6	3	3	5	5	6	6	6	6	7	8	9	8	8.3	13.4
16-Jun	10	8	13	13	12	8	6	8	14	18	18	19	23	28	30	29	30	28	28	26	15	15	14	16	17.9	29.9
17-Jun	17	18	16	12	11	8	12	19	21	20	18	20	21	23	24	25	24	24	24	22	15	12	12	13	18.0	24.6
18-Jun	14	14	16	17	16	15	11	16	9	16	14	20	23	26	24	23	21	23	19	9	4	3	4	4	15.0	25.6
19-Jun	5	6	4	3	3	5	12	11	11	10	10	9	8	6	7	5	4	7	3	5	3	1	3	3	6.1	12.3
20-Jun	2	4	3	4	10	10	9	10	12	14	12	11	10	25	22	25	14	16	21	24	23	21	23	27	14.7	26.5
21-Jun	31	19	11	11	19	18	21	28	32	34	35	35	35	35	32	31	34	32	27	24	20	22	20	17	25.9	34.9
22-Jun	16	10	8	8	9	8	12	15	15	14	13	16	13	15	16	17	18	17	15	14	12	7	6	8	12.6	18.4
23-Jun	8	7	6	9	8	10	9	7	11	10	8	M	M	6	6	15	7	12	11	12	14	8	8	11	9.1	15.0
24-Jun	8	9	9	8	8	7	8	6	7	6	7	9	7	8	6	6	5	4	2	2	3	2	1	3	5.9	9.4
25-Jun	3	3	6	7	7	8	8	9	9	10	12	11	12	11	11	10	10	11	17	18	9	9	9	10	9.6	18.5
26-Jun	10	6	8	8	13	7	4	7	11	10	4	6	7	3	5	6	11	20	7	5	7	13	9	4	8.0	20.4
27-Jun	7	15	21	32	25	20	23	23	21	28	30	30	31	30	31	25	25	26	22	29	31	34	31	27	25.7	34.0
28-Jun	18	16	14	14	15	11	6	5	11	13	14	15	14	15	15	13	10	5	2	5	7	6	10	10	11.0	18.0
29-Jun	9	8	9	8	9	10	10	11	12	12	14	17	16	15	16	15	14	15	14	13	9	7	10	10	11.8	16.9
30-Jun	9	10	12	10	10	11	9	13	16	19	18	19	22	15	12	14	14	10	7	4	3	2	4	7	11.2	22.2
	10.8	9.9	9.8	10.0	10.1	9.8	9.9	11.3	12.2	13.6	14.0	15.7	15.7	15.6	15.7	15.9	15.3	15.7	14.1	12.8	10.7	9.4	9.9	10.6	Diurnal Average	
	31.0	19.1	21.4	32.0	25.2	19.7	23.2	27.6	32.0	34.3	34.6	34.5	34.9	34.9	31.5	31.4	36.8	33.2	29.7	30.4	31.2	34.0	30.6	26.8	Diurnal Maximum	

M - Maintenance

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Donnelly - June 2017

Maximum Value: 97.2 deg on Jun 10 09:00

Minimum Value: 2.2 deg on Jun 1 04:00

Percentiles: P_1 = 2.9 P_{10} = 5.1 Q_1 = 7.7 Median = 12.1 Q_3 = 20.8 P_{90} = 39.2 P_{99} = 75.6

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	3	3	3	2	19	10	47	27	17	36	20	21	36	31	29	16	23	10	11	9	6	16	26	8	47.0
2-Jun	26	3	7	4	8	6	6	11	9	8	18	10	10	14	10	9	18	11	9	7	7	13	4	5	26.0
3-Jun	7	6	5	6	8	5	6	7	13	19	17	18	15	13	8	13	18	14	25	26	77	60	27	7	77.5
4-Jun	11	22	52	16	26	13	21	12	12	22	27	44	92	76	32	22	43	19	20	12	16	11	3	6	91.5
5-Jun	4	7	15	7	6	6	12	9	10	11	10	20	19	22	21	17	24	19	19	18	18	62	22	6	62.4
6-Jun	12	9	13	7	51	43	28	27	26	23	26	23	23	30	25	24	29	20	17	66	11	13	11	10	65.8
7-Jun	13	8	37	64	32	17	13	17	26	16	15	15	21	21	21	16	12	10	10	10	11	9	8	10	63.6
8-Jun	8	10	8	8	10	8	11	8	10	9	9	9	10	9	10	10	8	10	9	9	10	10	10	9	10.5
9-Jun	10	12	8	8	9	6	7	6	4	4	6	7	8	11	6	11	5	6	8	52	17	13	82	5	81.6
10-Jun	10	13	16	30	18	21	19	19	97	50	43	42	26	33	37	42	29	50	15	38	15	8	7	7	97.2
11-Jun	5	6	45	15	11	23	23	45	75	30	50	14	28	31	32	64	34	30	27	32	7	22	10	8	75.5
12-Jun	5	6	4	7	5	3	5	5	14	12	12	11	9	11	13	13	18	14	13	14	9	6	6	12	17.8
13-Jun	5	5	4	4	3	3	9	8	16	14	22	24	23	53	51	42	47	24	39	14	24	84	13	7	83.8
14-Jun	8	11	49	14	26	9	30	13	14	18	11	12	19	16	15	14	12	13	17	15	11	16	54	45	54.1
15-Jun	12	7	6	8	7	8	5	13	16	24	19	49	74	96	64	71	43	21	14	13	13	11	8	8	95.7
16-Jun	6	9	8	14	6	10	8	11	10	13	15	18	12	12	14	11	12	10	8	11	11	5	10	9	18.4
17-Jun	4	4	5	6	9	13	12	9	10	12	18	15	13	16	14	17	14	12	7	8	4	8	5	7	17.5
18-Jun	5	3	5	3	2	18	20	13	23	19	20	17	16	11	13	13	8	45	10	14	28	40	19	21	45.2
19-Jun	16	27	39	37	25	45	4	9	14	16	18	24	23	30	19	21	21	73	70	12	24	48	60	13	73.0
20-Jun	10	22	57	27	11	17	12	7	7	20	17	22	27	15	12	10	10	10	6	4	13	4	6	6	57.0
21-Jun	5	9	7	12	5	5	5	5	8	11	9	8	8	9	7	11	10	6	6	4	4	4	4	8	11.5
22-Jun	6	7	11	13	5	6	8	9	13	17	15	25	25	13	19	18	16	19	17	16	16	9	15	9	25.4
23-Jun	4	6	6	8	5	3	21	11	20	15	29	M	M	72	75	52	60	31	22	7	20	18	7	17	75.2
24-Jun	16	6	5	5	9	9	18	21	21	24	28	26	54	43	49	43	61	31	49	26	19	33	52	38	61.4
25-Jun	19	10	7	6	8	8	7	9	7	9	8	9	11	10	10	12	11	11	10	9	9	7	7	6	19.1
26-Jun	7	67	12	10	7	39	14	13	10	24	51	49	18	51	31	68	23	14	82	21	55	54	19	78	82.2
27-Jun	16	9	12	6	9	4	3	4	7	5	7	6	9	7	7	4	5	4	7	13	5	5	4	5	16.5
28-Jun	29	6	7	7	7	11	14	33	9	8	8	8	11	13	11	15	21	31	43	25	18	32	3	5	43.0
29-Jun	5	7	5	5	5	3	13	7	8	10	12	13	12	16	18	12	7	9	8	59	38	60	10	10	60.3
30-Jun	6	6	6	5	6	6	11	7	8	9	10	11	13	20	23	29	18	20	17	23	15	19	5	5	29.1
	29.1	67.4	57.0	63.6	50.6	44.8	47.0	45.4	97.2	50.2	51.0	49.1	91.5	95.7	75.2	70.6	61.4	73.0	82.2	65.8	77.5	83.8	81.6	78.0	

M - Maintenance

PAZA
Portable – Rycroft Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.8 ppb on Jun 4 21:00 Maximum Daily Average: 0.4 ppb on Jun 4

Minimum Value: 0 ppb on Jun 2 04:00 Minimum Daily Average: 0.0 ppb on Jun 28
Maximum Diurnal Average: 0.4 ppb at hour 8 Minimum Diurnal Average: 0.1 ppb at hour 16
Monthly Average: 0.18 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.4$ $P_{99} = 1.0$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0.2	0.6
2-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	0.4
3-Jun	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.8
4-Jun	0	0	0	0	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	2	0	0	0	0.4	1.8
5-Jun	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
6-Jun	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
7-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
8-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	0.3
9-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
10-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	0.3
11-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
12-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	0.1	0.9
13-Jun	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
14-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	0.3
15-Jun	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
16-Jun	A	0	0	0	0	2	0	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	A	0.4	1.5
17-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	0.2	0.4
18-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	0.4
19-Jun	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	1	1	1	A	1	1	0	0.3	0.8
20-Jun	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	1.0
21-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	1.0
22-Jun	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	1.1
23-Jun	0	0	1	0	0	0	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	1.0
24-Jun	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	1	1	1	1	0	0.3	1.2
25-Jun	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.7
26-Jun	0	0	0	0	1	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.5
27-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	0.5
28-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	0.1
29-Jun	0	1	1	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	1.0
30-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	0.5
	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	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	0.1	Diurnal Average	
	1.1	0.8	0.8	0.5	0.8	1.5	1.0	1.0	0.6	0.6	0.7	0.4	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.8	1.8	1.0	1.2	0.6	Diurnal Maximum	

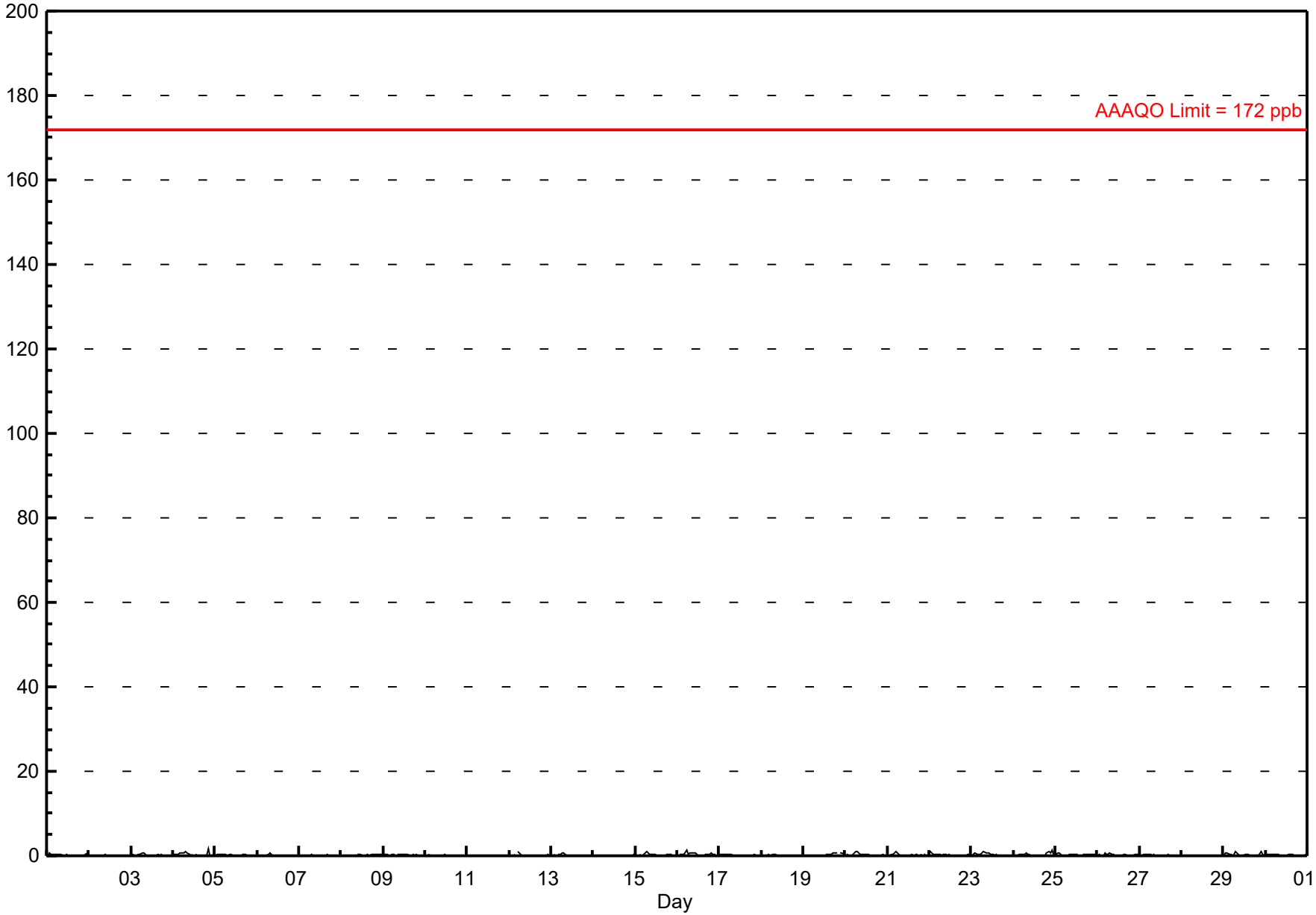
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - June 2017

Maximum Value: 6.0 ppb on Jun 27 17:00

Maximum Daily Average: 1.2 ppb on Jun 16

Minimum Value: 0 ppb on Jun 3 21:00

Minimum Daily Average: 0.6 ppb on Jun 28

Maximum Diurnal Average: 1.1 ppb at hour 8

Minimum Diurnal Average: 0.7 ppb at hour 18

Monthly Average: 0.86 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 1.0$ $P_{90} = 1.3$ $P_{99} = 2.4$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	1	0.9	1.6
2-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	0	1	1	1	1	1	1	0.7	1.3
3-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	0	1	1	1	0.8	1.6
4-Jun	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1	1	1	1	5	1	1	1	1.1	4.6
5-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	0.8	1.2
6-Jun	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.6
7-Jun	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
8-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	1.0
9-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
10-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	1.2
11-Jun	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.6	0.8
12-Jun	1	1	1	1	A	2	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	2	1	0.8	1.8
13-Jun	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.5
14-Jun	1	1	A	1	1	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	1.2
15-Jun	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.1
16-Jun	A	1	1	1	1	3	1	1	1	2	2	1	1	1	1	1	1	1	1	2	2	1	1	A	1.2	3.4
17-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.5
18-Jun	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.5
19-Jun	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	2	1	1	2	1	A	2	1	1	1.0	1.7
20-Jun	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.7
21-Jun	1	1	1	1	2	2	1	1	1	1	0	1	1	1	1	1	2	1	A	1	1	1	1	1	1.0	2.1
22-Jun	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.0	3.5
23-Jun	1	1	1	1	1	1	2	2	1	1	1	1	1	1	2	0	A	0	0	1	0	1	1	1	1.0	2.0
24-Jun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	2	1	3	1	1.0	3.1
25-Jun	1	2	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.6
26-Jun	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	0	0	1	1	1	2	1.0	2.4
27-Jun	1	1	1	1	1	1	1	1	2	1	1	1	A	0	1	1	6	1	1	1	0	0	1	0	1.1	6.0
28-Jun	0	0	0	0	1	0	1	1	1	1	1	A	1	1	0	0	1	1	1	1	1	1	1	1	0.6	0.9
29-Jun	1	2	2	1	1	1	1	2	1	0	A	1	1	1	1	1	2	1	1	1	1	2	2	1	1.1	2.2
30-Jun	1	1	1	1	1	1	1	1	1	A	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1.0	2.0
	0.9	0.8	0.8	0.8	0.9	1.0	1.0	1.1	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.0	0.7	0.7	0.8	0.9	0.8	1.0	0.8	Diurnal Average	
	3.5	1.7	1.9	1.6	1.6	3.4	2.1	2.4	2.4	1.8	1.7	1.5	1.6	1.7	2.0	1.6	6.0	1.6	1.5	1.9	4.6	2.2	3.1	2.4	Diurnal Maximum	

C - Calibration

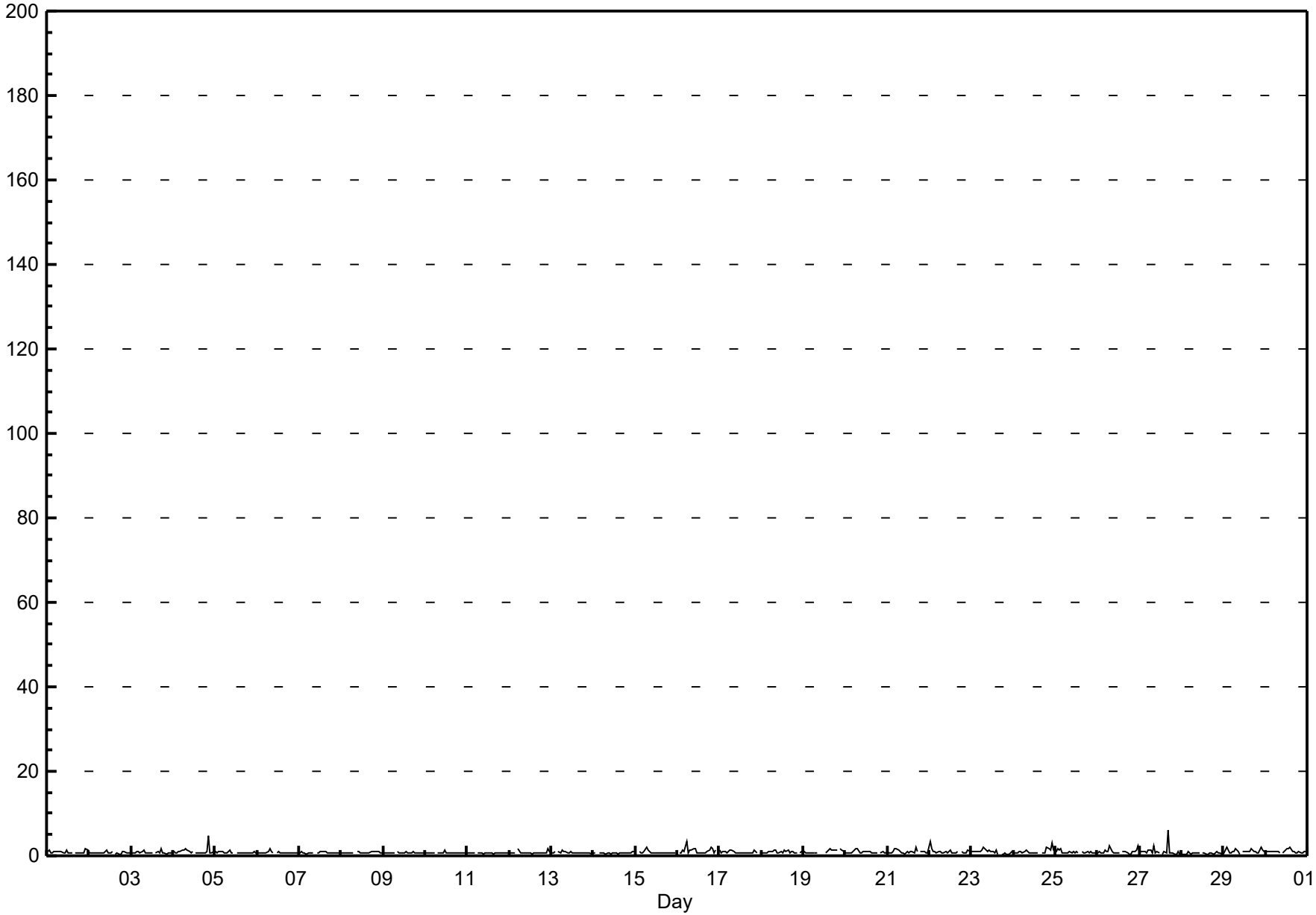
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

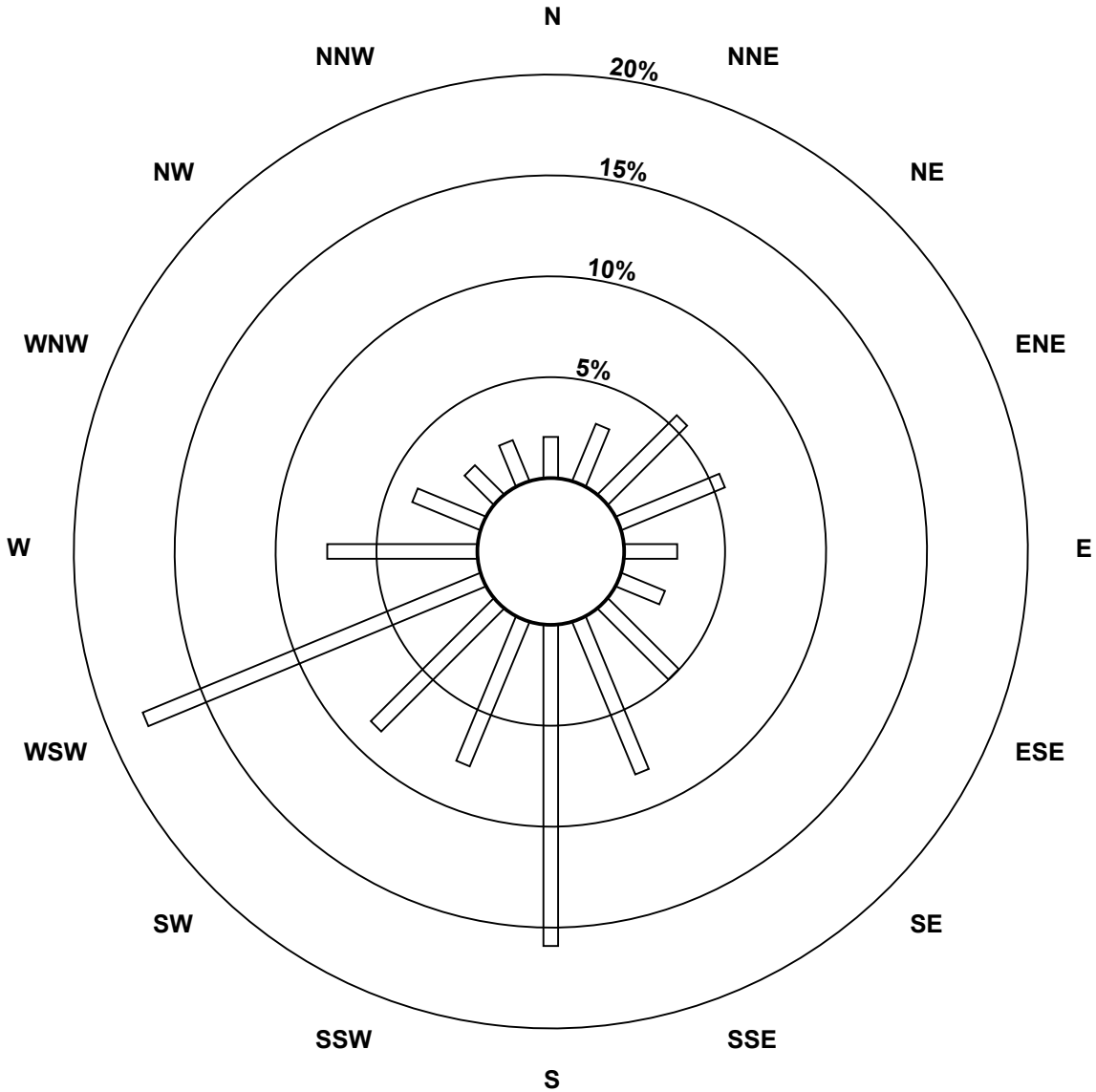
Portable Rycroft - June 2017



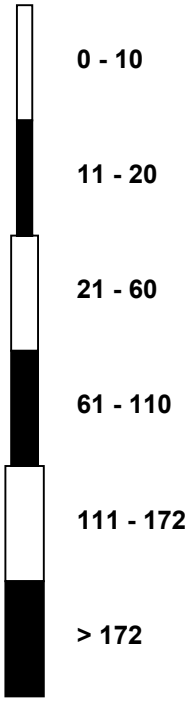
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - June 2017



Pollutant Classes (ppb)

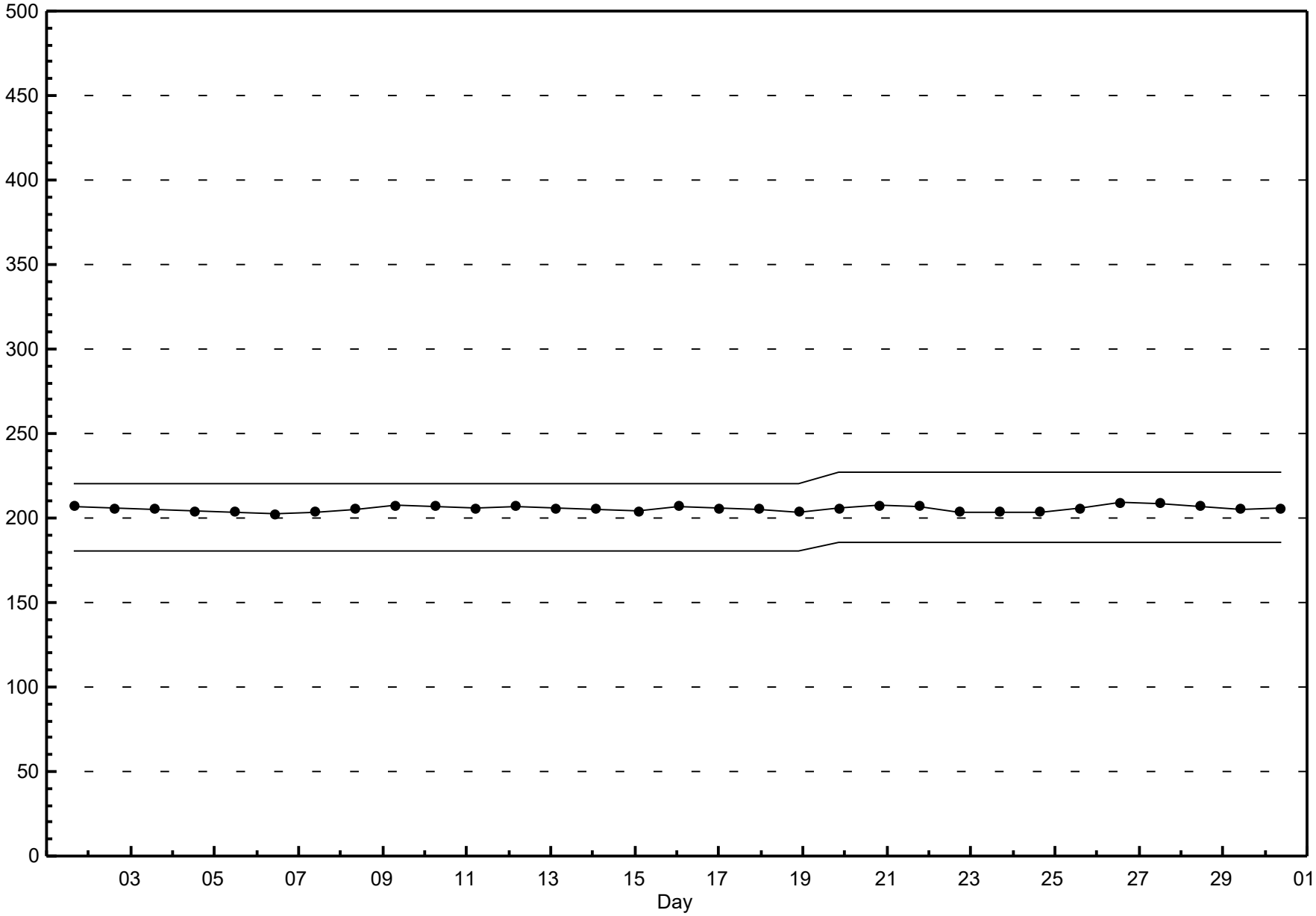


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - June 2017

Maximum Value: 0.6 ppb on Jun 16 15:00

Maximum Daily Average: 0.3 ppb on Jun 28

Minimum Value: 0 ppb on Jun 18 13:00

Minimum Daily Average: 0.1 ppb on Jun 18

Maximum Diurnal Average: 0.3 ppb at hour 6

Minimum Diurnal Average: 0.1 ppb at hour 19

Monthly Average: 0.18 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 in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-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
2-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	0.5
3-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	0.3
4-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
5-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	0.3
6-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	0.3
7-Jun	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-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
9-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	0.3
10-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
11-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	0.5
12-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
13-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	0.2	0.3
14-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	0.3
15-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
16-Jun	A	0	0	0	0	0	0	0	0	0	C	C	C	C	1	0	0	0	0	0	0	0	0	A	0.2	0.6
17-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	0.2	0.3
18-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	0.2
19-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	0.1	0.2
20-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	0.3
21-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	0.3
22-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
23-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
24-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
25-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	0.5
26-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
27-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
28-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	0.5
29-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	0.2	0.3
30-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
	0.2	0.2	0.2	0.2	0.2	0.3	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	0.2	0.2	0.2	Diurnal Average	
	0.3	0.4	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.6	0.2	0.3	0.2	0.3	0.2	0.5	0.4	0.4	0.5	Diurnal Maximum	

C - Calibration

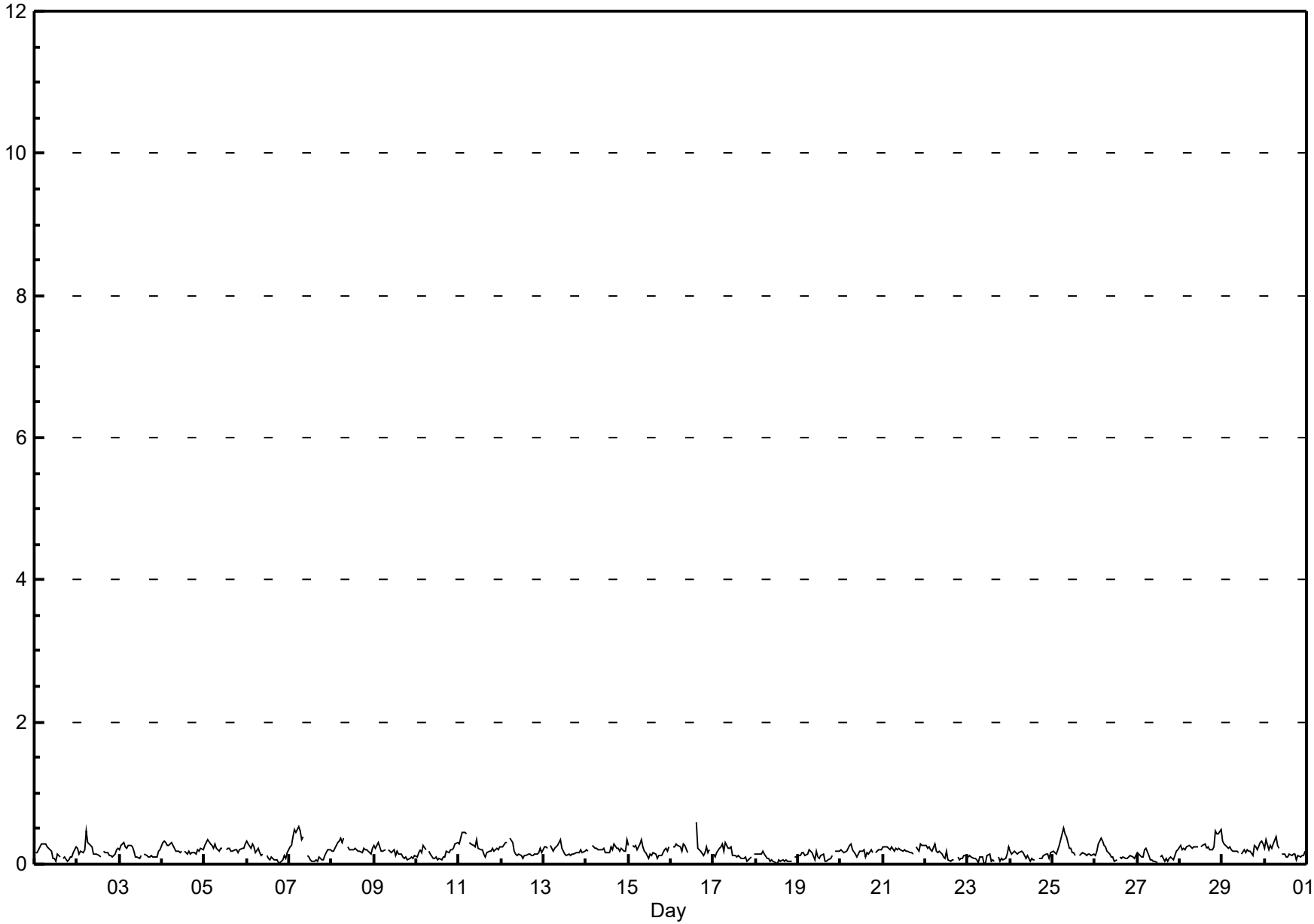
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - June 2017

Maximum Value: 2.6 ppb on Jun 30 07:00

Maximum Daily Average: 0.7 ppb on Jun 11

Minimum Value: 0 ppb on Jun 23 16:00

Minimum Daily Average: 0.5 ppb on Jun 23

Maximum Diurnal Average: 0.7 ppb at hour 7

Minimum Diurnal Average: 0.5 ppb at hour 19

Monthly Average: 0.58 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.6$ $P_{90} = 0.7$ $P_{99} = 1.1$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	1	1	1	1	1	1	1	1	1	0	0	0	1	0	A	0	0	0	0	1	0	0	1	0.5	0.9
2-Jun	1	1	1	1	1	1	1	1	1	0	1	0	0	1	A	1	0	0	0	1	0	1	1	1	0.6	1.1
3-Jun	1	1	1	1	1	1	1	1	1	1	0	1	1	A	0	0	0	0	1	0	1	0	1	1	0.5	0.7
4-Jun	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	0	0	1	1	1	0.6	1.0
5-Jun	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0.6	0.9
6-Jun	1	1	1	1	1	1	1	1	0	1	A	0	1	0	1	1	1	0	0	0	0	0	0	1	0.5	0.7
7-Jun	1	1	1	1	1	1	1	1	1	A	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0.6	1.1
8-Jun	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.6	0.8
9-Jun	1	1	1	1	1	0	1	A	1	1	1	1	1	1	0	0	0	1	0	0	0	1	0	0	0.5	0.8
10-Jun	0	0	1	1	1	1	A	1	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0.6	0.7
11-Jun	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.0
12-Jun	1	1	1	1	A	1	1	1	0	0	1	1	0	0	0	1	1	1	1	0	0	1	1	0	0.6	0.8
13-Jun	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	0	1	0	1	1	1	1	1	1	0.6	1.0
14-Jun	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
15-Jun	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	1	1	1	0.6	0.9
16-Jun	A	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	0	1	1	1	1	A	0.6	1.0
17-Jun	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0	1	1	0	0	0	A	1	0.6	0.7
18-Jun	1	1	1	1	1	0	0	1	0	0	0	0	0	0	1	1	1	0	1	0	1	A	0	1	0.5	0.7
19-Jun	0	0	1	1	1	1	1	1	0	0	2	1	0	0	1	0	0	0	0	0	A	1	1	1	0.6	2.3
20-Jun	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	0	A	1	1	1	1	0.6	1.1
21-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	0.6	1.1
22-Jun	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	A	0	1	0	0	0	1	0.6	0.9
23-Jun	0	1	0	0	0	0	1	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0	0	1	0.5	0.9
24-Jun	1	1	1	1	1	1	1	1	1	0	2	0	1	0	1	A	0	0	1	0	0	1	1	0	0.6	1.5
25-Jun	1	0	0	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	0	1	0	1	0	1	0.6	1.0
26-Jun	0	1	1	1	1	1	1	1	1	1	0	0	1	A	1	1	1	0	0	0	1	1	0	1	0.5	0.9
27-Jun	1	1	0	0	1	1	0	0	1	1	1	0	A	0	1	0	0	0	0	1	0	0	1	1	0.5	0.8
28-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
29-Jun	1	1	1	1	1	1	0	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
30-Jun	1	1	1	1	1	1	3	1	1	A	1	0	0	0	1	0	1	1	0	1	0	1	1	1	0.7	2.6
	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	Diurnal Average	
	0.8	1.0	0.8	0.9	1.0	1.1	2.6	1.0	0.8	1.0	2.3	0.7	0.8	0.9	1.0	0.7	0.8	0.8	0.7	1.1	1.2	1.0	1.1	1.0	Diurnal Maximum	

C - Calibration

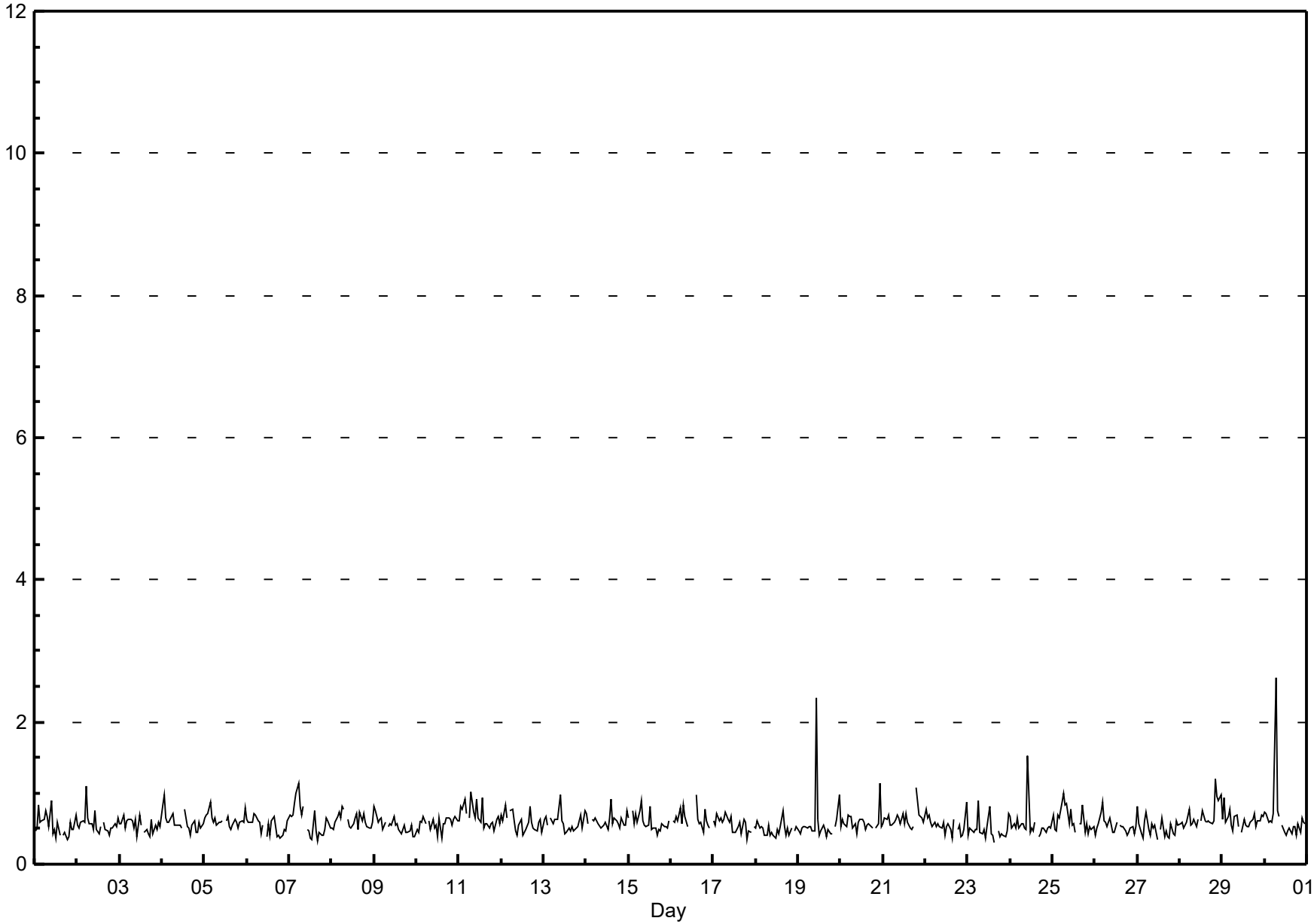
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - June 2017

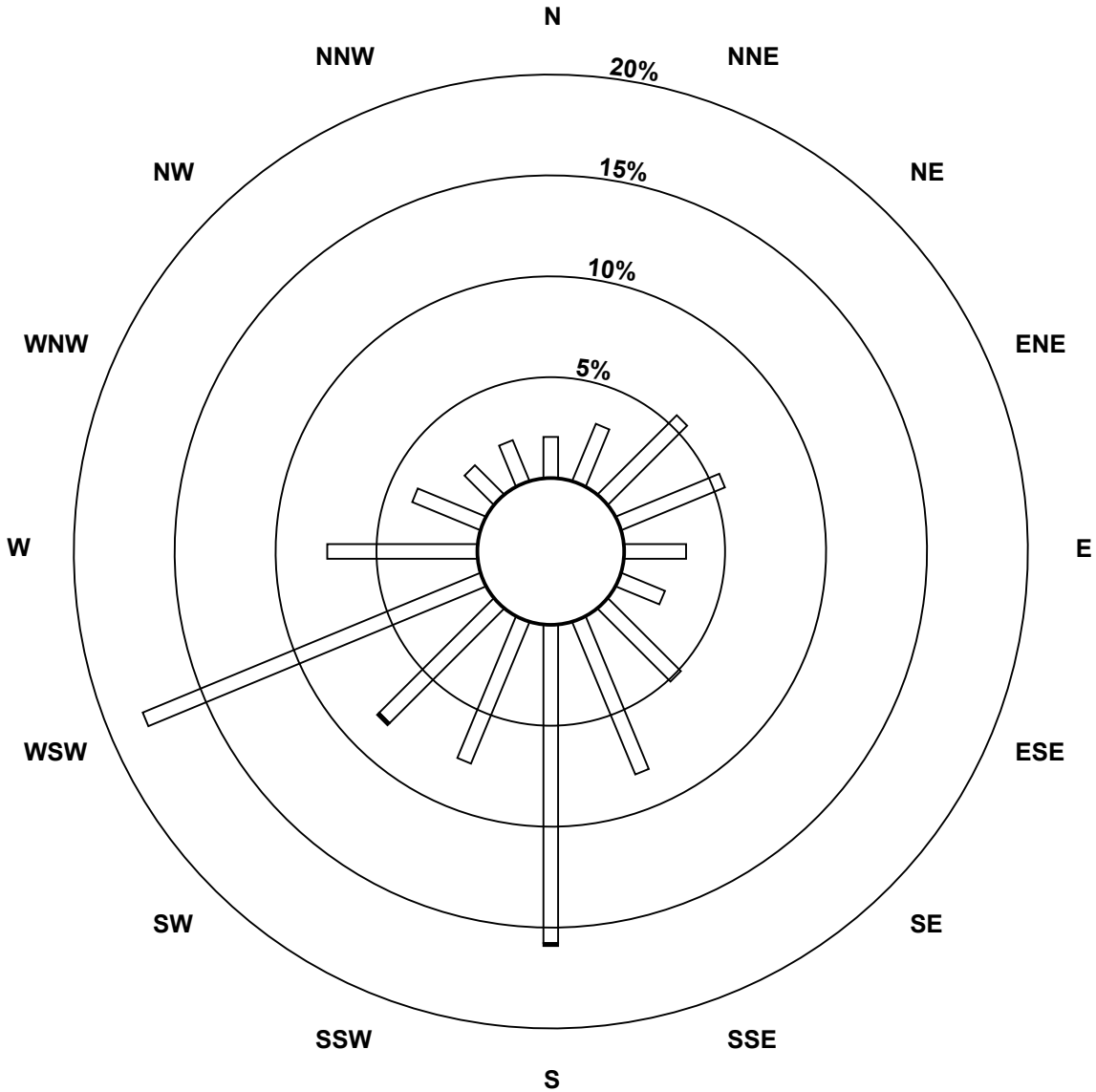


Peace Airshed Zone Association

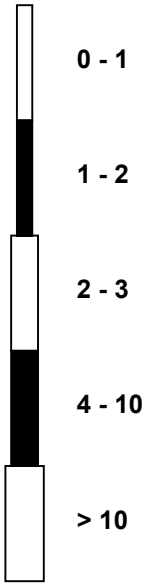
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - June 2017



Pollutant Classes (ppb)

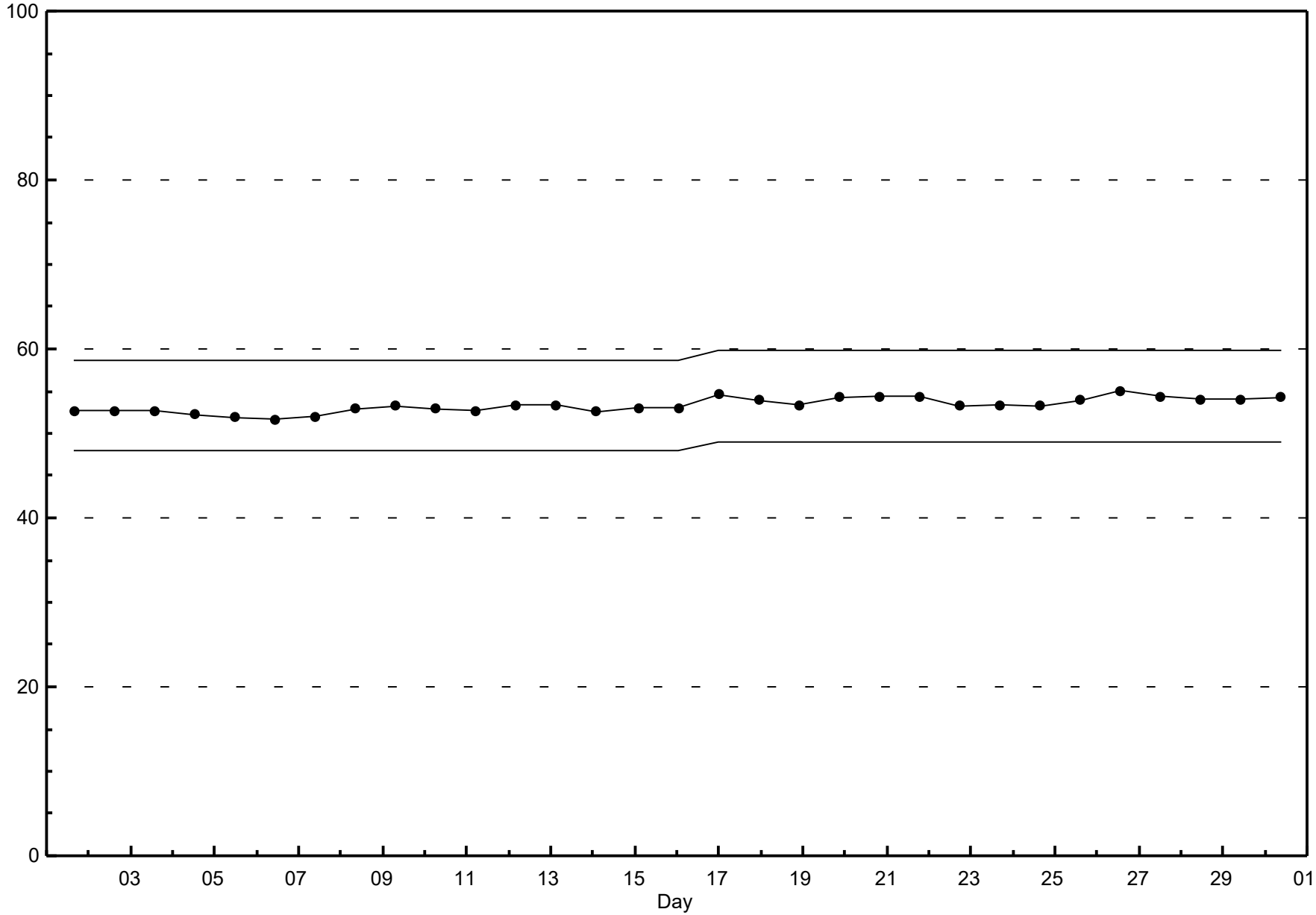


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 16.5 ppb on Jun 26 04:00 Maximum Daily Average: 4.7 ppb on Jun 7

Minimum Value: 0 ppb on Jun 20 19:00 Minimum Daily Average: 1.4 ppb on Jun 17
Maximum Diurnal Average: 4.2 ppb at hour 4 Minimum Diurnal Average: 1.3 ppb at hour 16
Monthly Average: 2.54 ppb Percentiles: $P_1 = 0.5$ $P_{10} = 0.9$ $Q_1 = 1.2$ Median = 1.9 $Q_3 = 3.2$ $P_{90} = 5.0$ $P_{99} = 10.6$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	2	3	3	2	3	2	2	2	3	3	1	1	1	1	2	A	2	1	1	2	2	2	2	2	2.1	3.4
2-Jun	2	2	2	1	2	2	2	2	1	1	1	1	2	1	A	2	1	1	1	1	1	2	2	2	1.5	2.1
3-Jun	2	2	2	2	2	2	2	1	1	1	1	1	1	A	2	1	1	1	1	1	2	3	4	5	1.8	5.0
4-Jun	4	2	2	2	2	4	2	1	1	1	1	1	A	3	2	1	1	2	1	1	2	3	3	2	1.8	3.7
5-Jun	2	2	2	2	2	1	2	5	3	2	4	A	4	3	2	1	2	1	1	1	3	5	8	5	2.7	8.3
6-Jun	4	3	2	2	2	2	2	2	2	2	A	2	2	1	1	1	1	1	1	1	4	9	11	12	3.1	11.8
7-Jun	11	9	11	9	7	5	4	8	9	A	4	2	2	2	2	2	2	2	2	2	2	3	5	5	4.7	10.6
8-Jun	5	5	6	6	7	8	5	4	A	4	3	3	2	2	2	2	2	2	2	3	3	3	3	4	3.7	8.0
9-Jun	6	3	9	7	6	5	4	A	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3.2	8.8
10-Jun	4	3	5	4	4	4	A	3	2	1	1	3	1	1	1	1	1	1	1	2	2	2	2	2	2.3	4.6
11-Jun	2	3	5	5	4	A	4	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2.0	4.7
12-Jun	2	2	2	3	A	4	2	2	1	1	1	2	1	1	1	1	1	1	2	3	1	1	3	2	1.8	3.9
13-Jun	3	2	2	A	3	2	2	2	3	3	2	1	1	1	1	1	1	1	1	1	5	3	3	3	2.0	4.6
14-Jun	6	5	A	9	8	6	4	2	2	2	1	2	2	2	3	2	2	3	3	3	2	2	3	4	3.3	8.6
15-Jun	3	A	4	3	2	3	5	4	3	3	2	2	1	1	1	1	1	1	1	2	2	4	4	3	2.5	5.4
16-Jun	A	4	4	4	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1.8	4.9
17-Jun	3	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	3	1.4	3.3
18-Jun	3	3	2	3	3	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	6	4	2.0	5.8
19-Jun	4	4	4	3	3	3	2	4	4	C	C	C	C	C	4	2	1	1	1	1	A	3	3	4	2.7	4.1
20-Jun	6	6	5	4	5	4	4	3	2	1	1	1	1	0	1	1	0	0	0	A	1	1	1	1	2.1	5.7
21-Jun	1	2	2	2	1	1	1	0	0	1	1	1	1	1	6	1	1	1	A	3	3	2	2	2	1.6	6.4
22-Jun	2	3	4	4	4	4	2	1	1	1	1	1	1	1	1	1	1	A	2	2	2	6	7	8	2.6	7.6
23-Jun	5	4	3	3	3	2	2	2	2	2	2	1	1	1	1	2	A	3	2	2	2	4	6	9	2.8	9.1
24-Jun	6	7	5	4	4	5	5	5	3	2	2	1	1	1	1	A	2	1	1	1	2	3	3	4	2.9	6.7
25-Jun	4	4	3	8	12	14	11	8	5	2	2	2	1	1	A	2	1	1	1	1	1	2	2	2	3.9	13.6
26-Jun	2	4	5	16	10	6	5	4	4	2	2	2	1	A	1	1	1	1	2	3	3	4	4	3	3.8	16.5
27-Jun	3	2	2	4	4	4	2	2	2	1	1	1	A	2	2	2	2	2	2	2	1	1	1	1	2.1	4.4
28-Jun	1	1	1	2	1	2	2	2	2	2	1	A	2	1	1	1	1	1	1	2	2	3	6	5	1.9	5.7
29-Jun	3	2	2	3	3	2	2	2	1	1	A	2	1	1	1	1	2	1	3	2	2	7	7	9	2.7	8.7
30-Jun	5	7	6	7	6	6	4	3	2	A	2	1	1	1	1	1	1	1	2	2	2	6	3	4	3.3	7.4
	3.6	3.5	3.7	4.2	4.1	3.9	3.2	2.9	2.4	1.7	1.6	1.5	1.4	1.3	1.6	1.3	1.3	1.3	1.4	1.7	2.1	3.1	3.7	4.0	Diurnal Average	
	10.6	9.1	10.6	16.5	12.3	13.6	11.1	8.5	9.2	3.8	4.1	2.9	3.8	3.0	6.4	2.1	2.5	2.6	2.6	3.4	4.6	8.6	10.7	11.8	Diurnal Maximum	

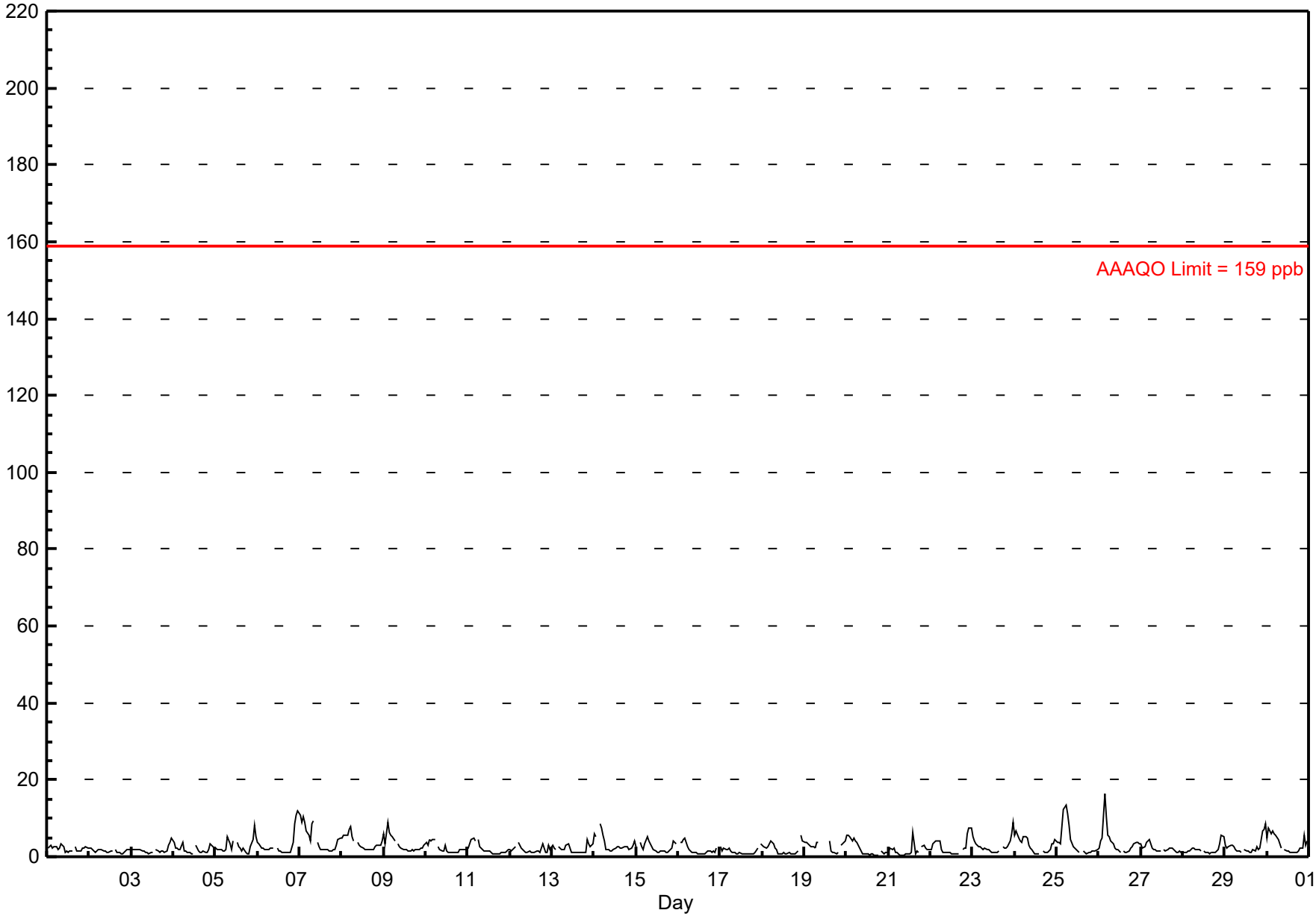
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - June 2017

Maximum Value: 59.4 ppb on Jun 21 15:00

Maximum Daily Average: 6.1 ppb on Jun 26

Minimum Value: 1 ppb on Jun 21 09:00

Minimum Daily Average: 2.0 ppb on Jun 17

Maximum Diurnal Average: 6.6 ppb at hour 22

Minimum Diurnal Average: 2.2 ppb at hour 18

Monthly Average: 3.90 ppb

Percentiles: $P_1 = 0.9$ $P_{10} = 1.3$ $Q_1 = 1.9$ Median = 2.7 $Q_3 = 4.7$ $P_{90} = 7.6$ $P_{99} = 17.0$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	3	4	3	3	3	3	2	3	4	4	2	2	2	2	5	A	3	2	2	4	4	3	3	2	2.9	5.4
2-Jun	2	2	2	2	2	3	2	2	2	2	2	2	2	2	A	3	1	1	1	1	1	2	2	3	2.0	3.1
3-Jun	2	2	2	2	2	2	2	2	1	1	1	1	1	A	3	2	2	2	3	2	6	7	7	10	2.9	9.8
4-Jun	6	4	2	2	2	8	2	2	2	1	1	1	A	10	4	1	2	8	2	1	3	23	16	3	4.6	23.0
5-Jun	3	2	2	2	2	2	5	16	12	5	9	A	8	6	4	4	9	2	1	2	7	10	10	7	5.6	15.7
6-Jun	5	4	3	3	2	2	3	2	3	3	A	3	2	2	1	1	1	1	1	2	8	25	23	23	5.4	25.3
7-Jun	16	10	12	10	8	7	6	9	10	A	5	3	2	2	3	2	2	2	2	2	3	7	6	7	6.0	15.8
8-Jun	5	6	6	6	10	12	6	5	A	5	3	3	2	2	2	2	2	2	3	3	3	3	3	5	4.4	11.9
9-Jun	8	6	12	8	8	7	5	A	4	3	2	2	2	2	2	2	2	2	2	3	3	3	3	4	4.2	12.3
10-Jun	6	4	7	6	5	5	A	5	2	2	2	5	3	2	1	1	1	1	1	2	3	3	2	2	3.1	7.0
11-Jun	2	4	5	5	5	A	5	3	2	2	2	2	4	2	1	1	1	1	1	1	1	1	2	2	2.5	5.4
12-Jun	2	2	2	3	A	5	3	2	2	2	1	3	2	2	2	2	2	3	5	7	2	1	5	2	2.7	6.7
13-Jun	3	3	2	A	3	2	2	2	7	6	7	2	1	1	1	1	1	2	3	2	12	10	3	6	3.7	12.0
14-Jun	10	7	A	12	9	7	6	3	3	2	2	2	3	4	4	3	3	3	4	4	3	3	4	5	4.6	12.0
15-Jun	4	A	5	4	2	5	6	5	4	3	2	2	2	2	2	2	3	1	2	2	3	5	4	4	3.1	6.0
16-Jun	A	6	5	10	10	3	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	4	A	2.9	9.6
17-Jun	4	2	3	2	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	7	A	4	2.0	7.2
18-Jun	3	3	3	3	4	5	5	3	3	1	2	1	2	1	1	3	1	1	1	1	4	A	9	5	2.9	8.5
19-Jun	5	4	4	3	3	3	3	5	5	C	C	C	C	C	17	7	2	1	1	1	A	17	10	6	5.4	17.2
20-Jun	6	6	7	5	6	5	4	4	3	1	1	1	1	2	1	1	1	1	1	A	2	1	2	2	2.8	6.6
21-Jun	3	3	3	3	2	2	1	1	1	2	2	2	2	3	59	2	3	3	A	5	4	4	2	3	4.9	59.4
22-Jun	3	4	5	5	4	5	3	2	2	3	2	4	2	1	1	1	1	A	3	5	4	10	11	9	4.0	10.7
23-Jun	8	5	4	3	3	3	3	3	2	2	2	2	6	9	1	3	A	4	3	3	3	6	10	11	4.3	10.8
24-Jun	9	9	7	5	5	6	6	6	5	3	3	2	1	1	2	A	2	1	1	1	3	7	4	6	4.0	9.3
25-Jun	5	5	4	15	18	18	12	10	7	3	2	3	2	1	A	3	1	1	1	2	2	2	2	2	5.3	18.4
26-Jun	3	10	15	23	13	8	7	5	5	4	3	4	2	A	3	6	2	2	3	4	5	5	5	5	6.1	23.3
27-Jun	5	4	3	4	5	6	3	3	2	3	3	4	A	3	3	4	5	5	4	4	2	2	2	1	3.5	6.2
28-Jun	1	1	1	4	2	3	4	3	3	3	2	A	3	2	1	1	2	1	1	3	3	5	7	7	2.8	7.4
29-Jun	4	3	3	3	3	3	2	2	2	1	A	7	2	2	1	2	5	5	5	4	5	8	8	10	4.0	10.3
30-Jun	8	11	8	10	8	7	6	4	3	A	3	2	2	2	2	2	2	1	4	4	5	8	4	5	4.7	10.7
	5.0	4.8	4.9	5.8	5.3	5.1	4.1	4.0	3.5	2.6	2.5	2.5	2.3	2.5	4.8	2.3	2.2	2.2	2.3	2.6	3.7	6.6	6.0	5.5	Diurnal Average	
	15.8	10.7	15.2	23.3	18.4	18.0	12.1	15.7	11.6	6.4	8.5	7.0	8.1	9.5	59.4	7.5	9.3	8.2	5.4	6.7	12.0	25.3	22.6	22.7	Diurnal Maximum	

C - Calibration

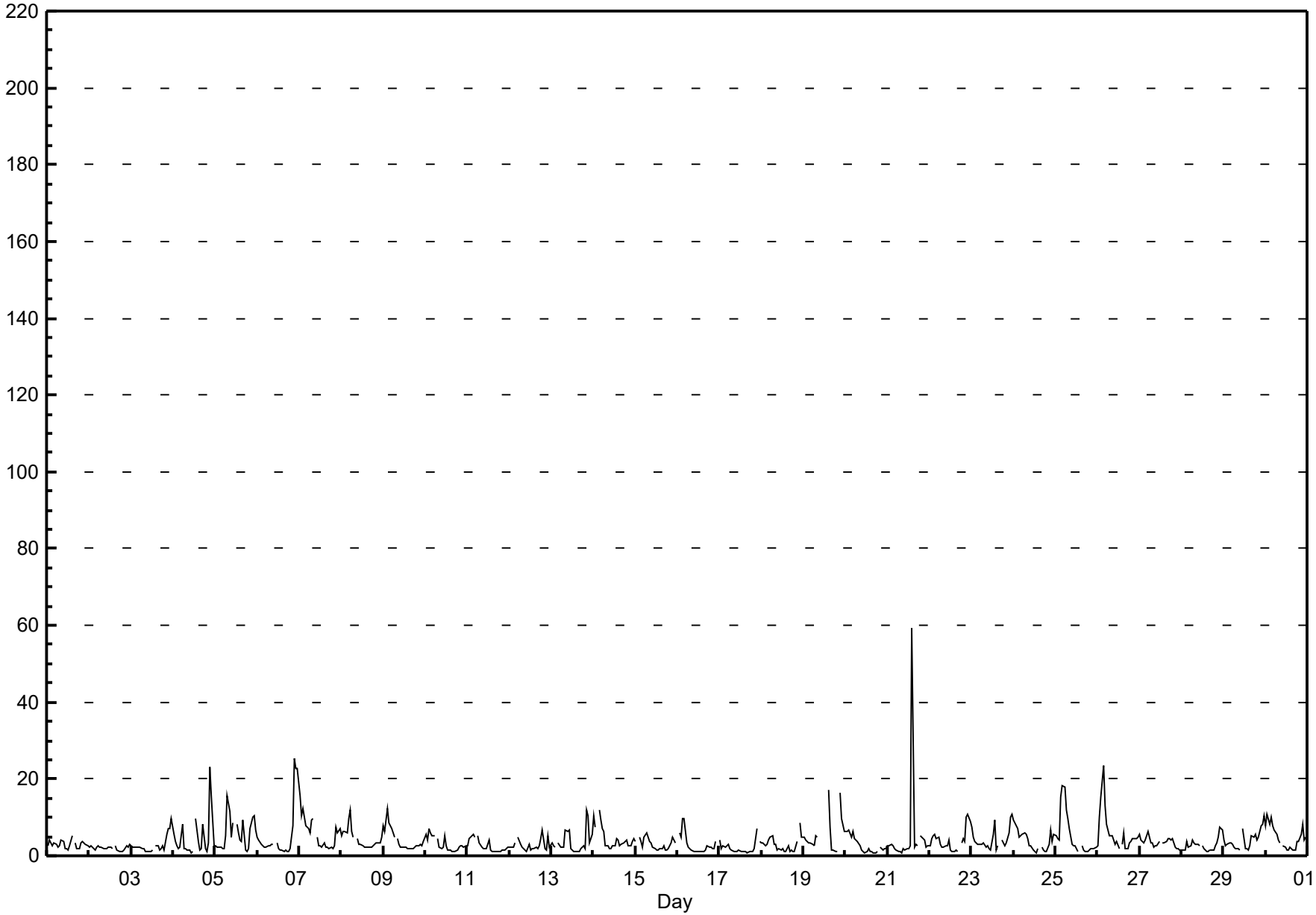
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

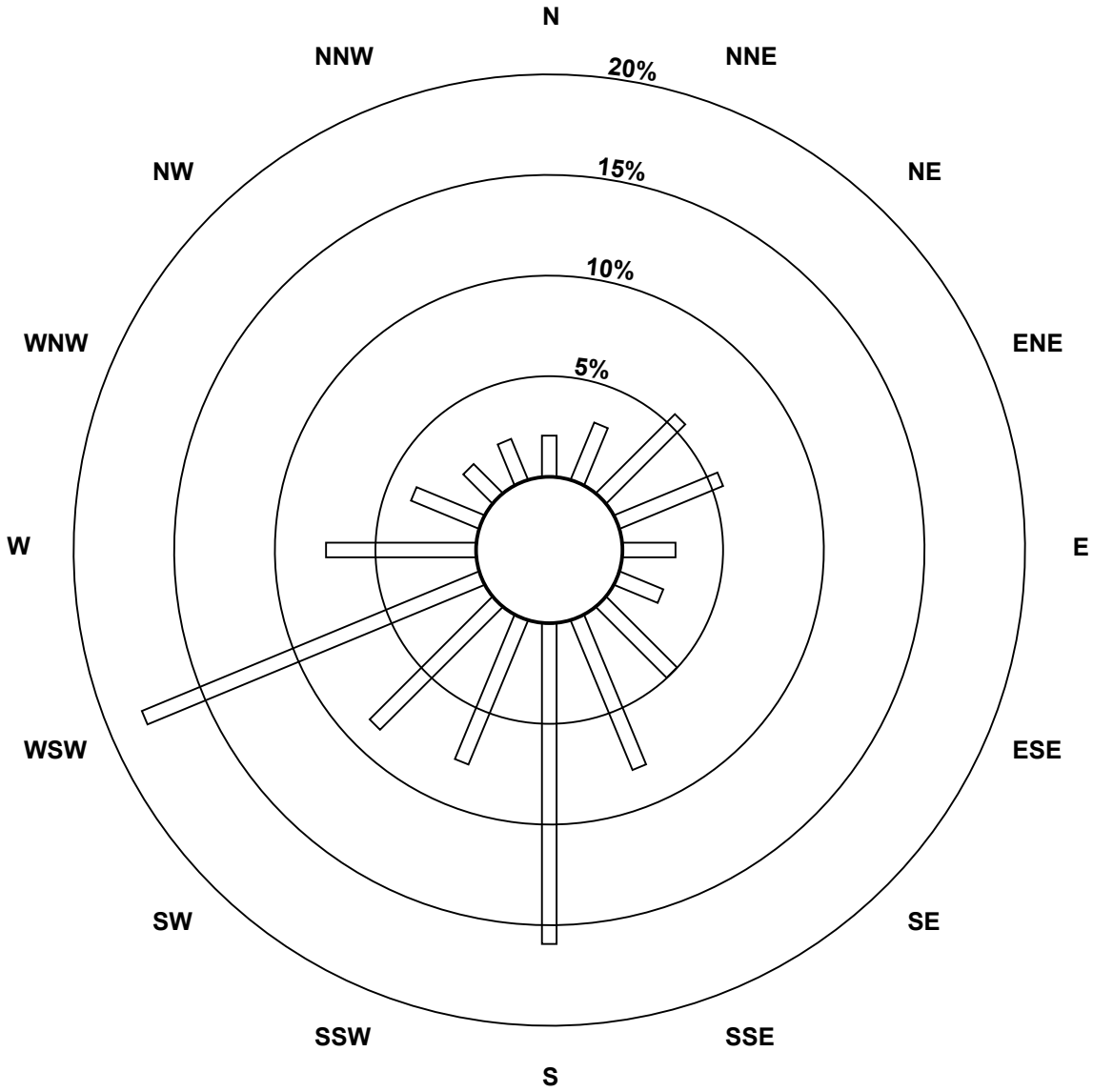
Portable Rycroft - June 2017



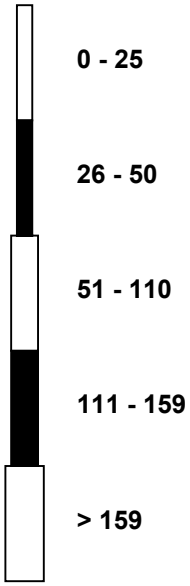
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - June 2017



Pollutant Classes (ppb)

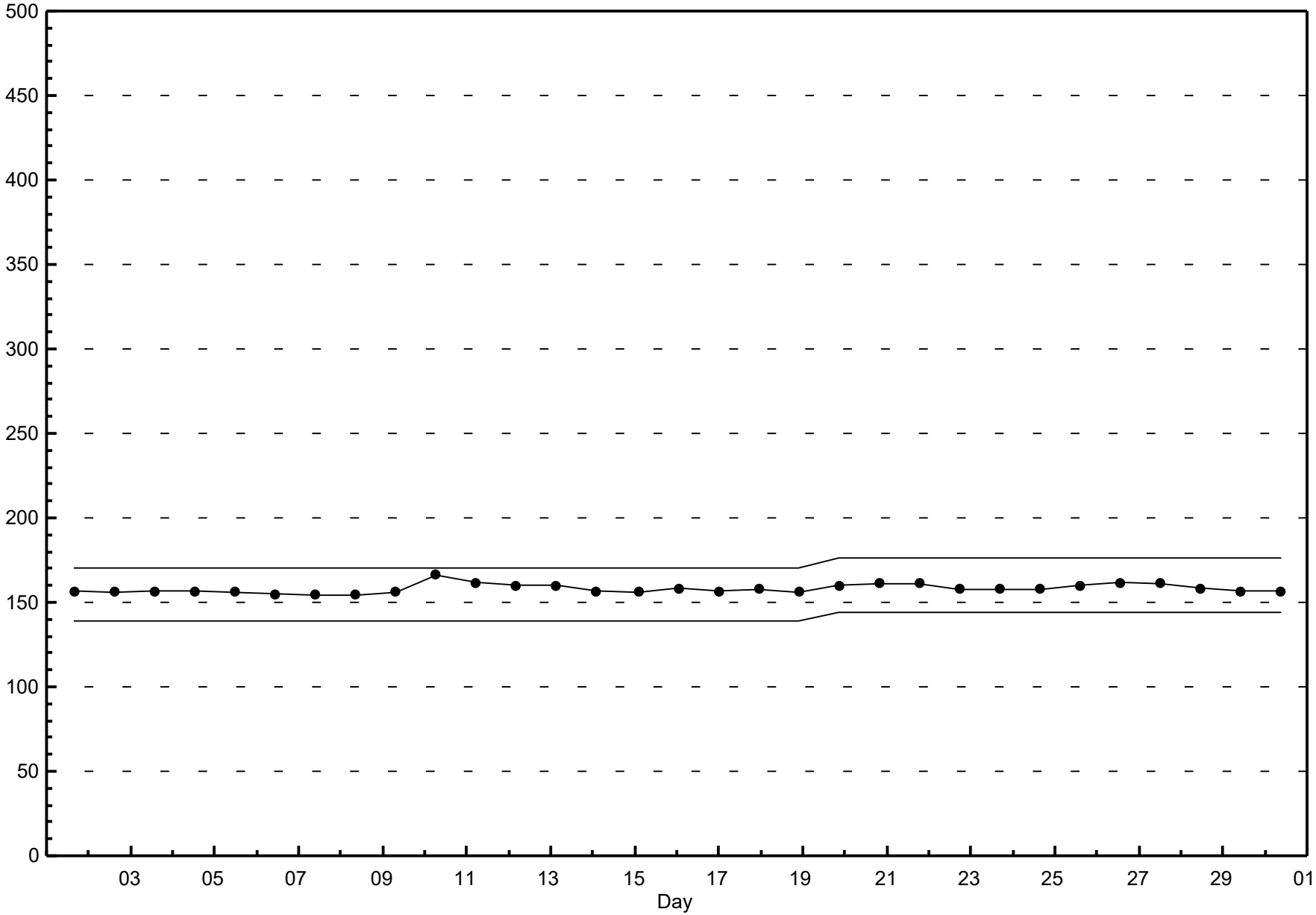


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Rycroft - June 2017

Maximum Value: 25.5 ppb on Jun 21 15:00

Maximum Daily Average: 1.4 ppb on Jun 21

Minimum Value: 0 ppb on Jun 13 00:00

Minimum Daily Average: 0.1 ppb on Jun 9

Maximum Diurnal Average: 1.1 ppb at hour 15

Minimum Diurnal Average: 0.1 ppb at hour 1

Monthly Average: 0.32 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.3$ $P_{90} = 0.6$ $P_{99} = 2.5$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6
2-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
3-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
4-Jun	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0.2	1.3
5-Jun	0	0	0	0	0	0	1	3	1	1	1	A	1	1	0	0	1	0	0	0	1	0	0	0	0.5	2.7
6-Jun	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
7-Jun	0	0	1	0	1	2	2	2	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.3
8-Jun	0	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
9-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
10-Jun	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
11-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
12-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	0.2	1.0
13-Jun	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
14-Jun	0	0	A	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.3	0.7
15-Jun	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
16-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
17-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	0.4
18-Jun	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.5
19-Jun	0	0	0	0	0	0	1	2	1	C	C	C	C	C	0	0	0	0	0	0	A	0	0	0	0.4	1.9
20-Jun	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.9
21-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0	0	1	A	0	1	0	0	0	1.4	25.5
22-Jun	0	0	0	0	0	2	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0.5	1.6
23-Jun	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	1.1
24-Jun	0	0	0	0	0	2	3	3	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.5	3.0
25-Jun	0	0	0	0	1	4	6	5	2	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.8	5.8
26-Jun	0	0	0	1	0	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	1.3
27-Jun	0	0	0	0	0	1	1	1	1	1	1	1	A	0	1	1	1	1	1	0	0	0	0	0	0.5	1.1
28-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	0.3
29-Jun	0	0	0	0	0	1	1	1	1	0	A	1	0	0	0	0	1	0	1	0	0	0	0	1	0.4	0.8
30-Jun	0	0	0	0	0	1	2	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5
	0.1	0.1	0.1	0.2	0.3	0.7	0.9	0.9	0.6	0.3	0.3	0.2	0.2	0.2	1.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	Diurnal Average	
	0.3	0.5	0.8	0.7	1.4	3.5	5.8	4.7	1.8	1.0	1.4	0.6	0.6	0.5	25.5	0.8	1.1	0.8	0.7	0.5	0.8	1.3	0.4	0.6	Diurnal Maximum	

C - Calibration

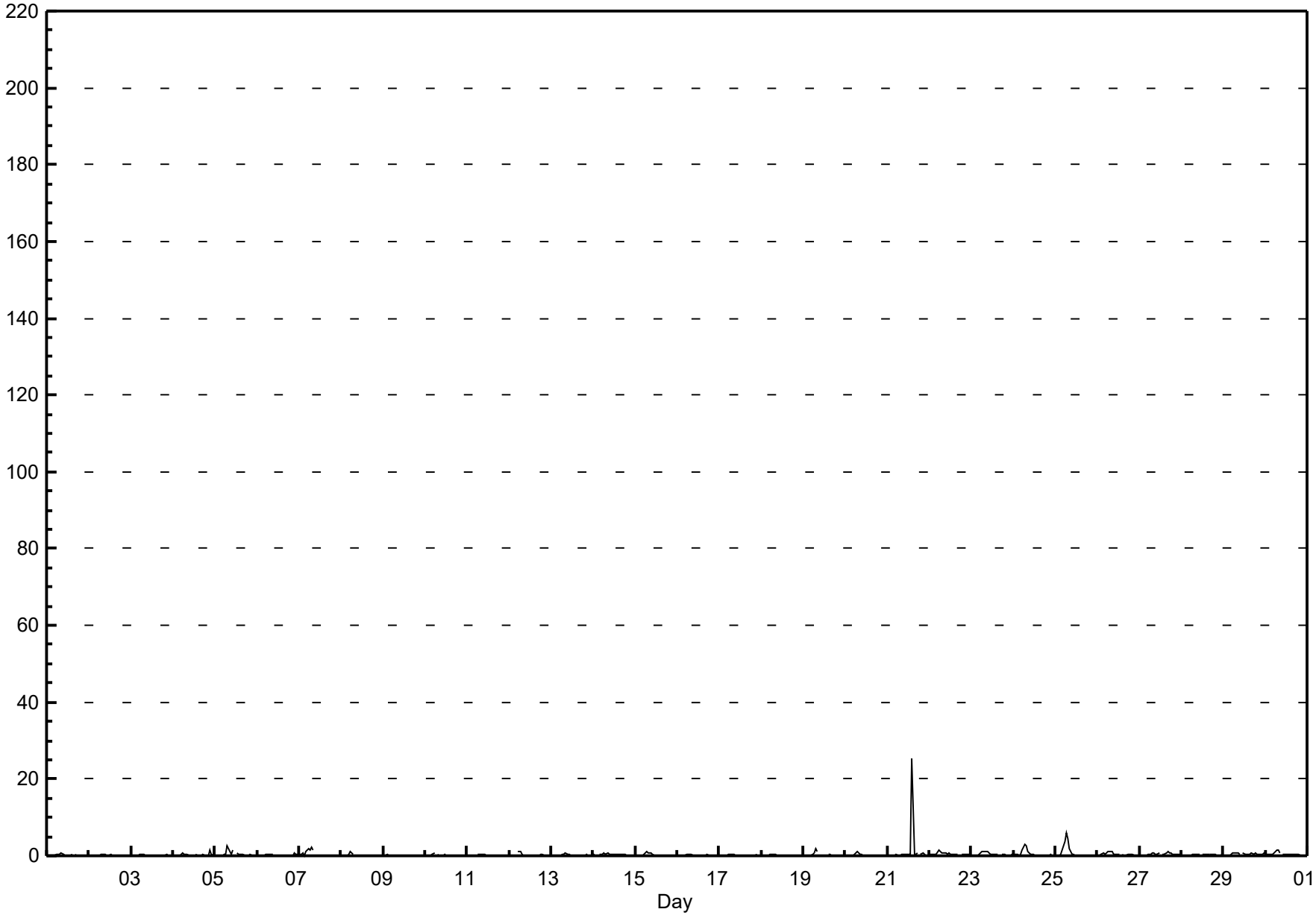
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Rycroft - June 2017

Maximum Value: 141.6 ppb on Jun 21 15:00

Maximum Daily Average: 7.2 ppb on Jun 21

Minimum Value: 0 ppb on Jun 13 15:00

Minimum Daily Average: 0.3 ppb on Jun 2

Maximum Diurnal Average: 5.6 ppb at hour 15

Minimum Diurnal Average: 0.3 ppb at hour 2

Monthly Average: 1.18 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.8$ $P_{90} = 1.9$ $P_{99} = 10.2$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	0	0	0	0	0	0	1	1	1	1	0	0	0	0	2	A	0	0	0	0	0	0	0	0	0.4	1.8
2-Jun	0	0	0	0	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0.3	0.6
3-Jun	0	0	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	5	0	0	0	0.5	4.5
4-Jun	0	0	0	0	0	1	1	1	0	0	0	0	A	6	1	0	1	2	0	0	1	38	7	0	2.7	38.5
5-Jun	0	0	0	0	0	0	4	18	9	4	8	A	6	4	2	3	12	0	0	0	17	0	0	0	3.9	17.7
6-Jun	0	0	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	5	1	2	0.7	5.2
7-Jun	1	1	4	0	3	3	2	3	2	A	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1.1	4.2
8-Jun	0	0	0	0	1	2	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7
9-Jun	0	0	1	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
10-Jun	0	0	1	0	0	1	A	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
11-Jun	0	0	0	0	0	A	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
12-Jun	0	0	0	0	A	1	1	1	0	0	0	1	0	0	0	0	0	1	1	2	0	0	0	0	0.5	2.2
13-Jun	0	0	0	A	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	1	0	0	6	0.8	6.0
14-Jun	1	0	A	2	1	1	1	1	25	1	1	0	1	1	1	1	1	1	0	1	0	0	0	0	1.8	25.3
15-Jun	0	A	0	0	0	1	2	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0.4	1.7
16-Jun	A	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	1	1	1	0	0	0	A	0.5	2.0
17-Jun	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10	A	0	0.7	10.3
18-Jun	0	0	0	0	0	0	1	1	1	0	1	0	1	0	0	1	0	0	0	0	1	A	0	0	0.4	1.1
19-Jun	0	0	0	0	0	1	1	3	3	C	C	C	C	C	0	17	0	0	0	0	A	2	2	0	1.8	17.4
20-Jun	0	0	0	0	0	1	1	1	1	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0.4	1.1
21-Jun	0	0	0	0	0	1	1	1	1	1	1	1	1	2	142	1	2	5	A	2	2	1	0	0	7.2	141.6
22-Jun	1	1	1	1	1	2	2	1	2	3	2	3	1	1	1	1	1	A	1	1	1	1	1	0	1.1	3.0
23-Jun	0	0	0	0	1	1	2	2	2	1	1	1	7	7	1	1	A	1	1	0	0	0	0	1	1.3	7.4
24-Jun	0	1	1	0	1	3	4	3	2	1	1	1	0	0	1	A	0	0	0	0	0	11	0	0	1.4	11.2
25-Jun	0	0	0	1	7	6	7	6	4	1	0	2	0	0	A	0	0	0	0	0	0	0	0	0	1.6	6.7
26-Jun	0	0	3	3	1	2	2	2	2	1	1	1	0	A	1	2	0	1	1	0	2	0	0	1	1.1	2.8
27-Jun	0	0	0	0	0	1	1	2	2	1	1	2	A	1	2	2	3	2	3	1	1	1	1	0	1.2	2.8
28-Jun	0	0	0	0	0	0	0	0	0	1	1	A	1	0	1	1	1	0	0	1	0	1	0	0	0.5	0.8
29-Jun	0	0	0	0	1	1	1	1	1	1	A	8	0	1	1	1	2	2	2	1	1	1	1	1	1.3	8.4
30-Jun	1	1	1	1	1	1	2	2	1	A	1	1	0	1	1	1	0	0	1	1	0	0	0	0	0.7	2.4
	0.3	0.3	0.5	0.5	0.8	1.2	1.4	1.9	2.2	0.9	0.9	1.0	0.9	1.1	5.6	1.2	0.9	0.7	0.5	0.6	1.2	2.7	0.6	0.6	Diurnal Average	
	1.2	1.1	4.2	2.7	6.7	6.0	6.7	17.7	25.3	4.4	7.7	8.4	7.4	7.4	141.6	17.4	11.8	4.6	2.8	2.2	16.5	38.5	7.4	6.0	Diurnal Maximum	

C - Calibration

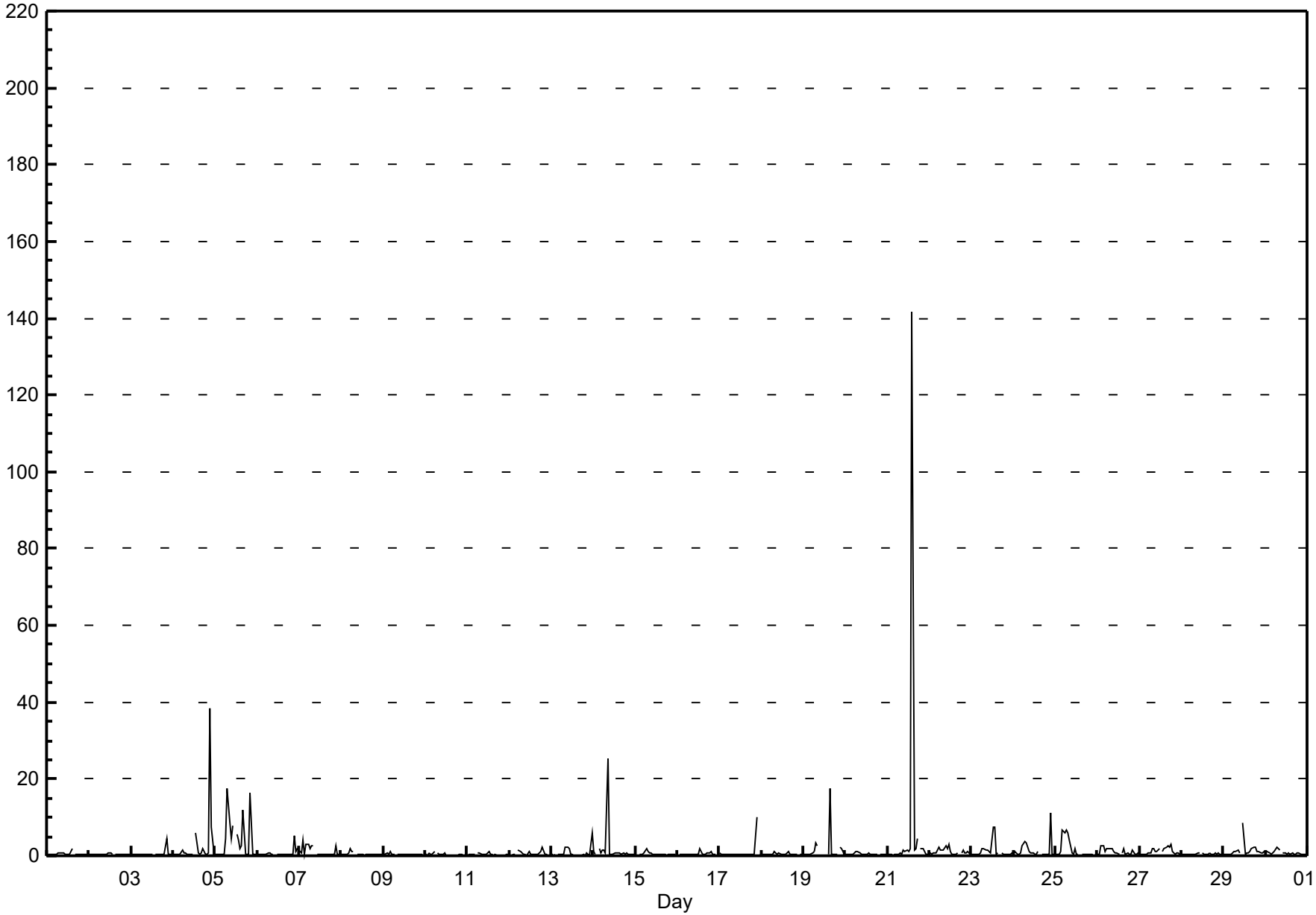
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - June 2017

Maximum Value: 31.9 ppb on Jun 21 15:00

Maximum Daily Average: 5.2 ppb on Jun 7

Minimum Value: 0 ppb on Jun 20 19:00

Minimum Daily Average: 1.4 ppb on Jun 17

Maximum Diurnal Average: 4.6 ppb at hour 6

Minimum Diurnal Average: 1.4 ppb at hour 16

Monthly Average: 2.83 ppb

Percentiles: $P_1 = 0.6$ $P_{10} = 1.0$ $Q_1 = 1.4$ Median = 2.1 $Q_3 = 3.4$ $P_{90} = 5.4$ $P_{99} = 12.2$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	2	3	3	2	3	3	2	2	4	3	1	1	1	1	2	A	3	2	1	2	2	2	3	2	2.3	4.0
2-Jun	2	2	2	1	2	2	2	2	2	2	1	1	2	2	A	2	1	1	1	1	1	2	2	2	1.6	2.2
3-Jun	2	2	2	2	2	2	2	2	1	1	1	1	1	A	2	1	1	1	1	1	2	3	4	5	1.9	5.2
4-Jun	4	3	2	2	2	4	2	2	1	1	1	1	A	3	2	1	1	2	1	1	2	5	3	2	2.0	4.6
5-Jun	2	2	2	2	2	2	2	8	4	2	5	A	4	3	2	2	3	1	1	1	3	5	8	5	3.2	8.5
6-Jun	4	4	3	2	2	2	2	3	3	3	A	2	2	1	1	1	1	1	1	1	4	9	11	12	3.3	12.3
7-Jun	11	9	11	9	8	7	6	11	11	A	4	3	2	2	2	2	2	2	2	2	2	3	5	5	5.2	11.5
8-Jun	5	6	6	6	7	9	6	5	A	4	3	3	2	2	2	2	2	2	2	3	3	3	3	4	3.8	9.2
9-Jun	6	4	9	7	6	5	4	A	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3.2	9.1
10-Jun	4	3	5	4	4	5	A	3	2	1	2	3	1	1	1	1	1	1	1	2	2	2	2	2	2.3	5.1
11-Jun	2	3	5	5	4	A	5	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2.1	4.8
12-Jun	2	2	2	3	A	5	3	2	1	1	1	2	1	1	1	1	1	1	2	4	1	1	3	2	1.9	4.8
13-Jun	3	2	2	A	3	2	2	2	4	4	3	1	1	1	1	1	1	1	1	1	5	3	3	4	2.1	4.8
14-Jun	6	5	A	9	8	6	5	2	2	2	2	2	2	3	3	3	3	3	3	3	2	2	3	4	3.6	9.0
15-Jun	3	A	4	3	2	4	6	5	4	3	2	2	1	1	2	1	1	1	1	2	2	4	4	3	2.7	6.5
16-Jun	A	4	4	4	5	3	2	2	1	1	1	1	1	1	1	1	1	2	2	1	1	1	2	A	1.9	5.1
17-Jun	3	1	2	2	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	A	3	1.4	3.3
18-Jun	3	3	2	3	3	4	4	3	2	1	1	1	1	1	1	1	1	1	1	1	2	A	6	4	2.1	5.9
19-Jun	4	4	4	3	3	3	3	6	5	C	C	C	C	C	4	2	1	1	1	1	A	3	3	4	3.1	5.6
20-Jun	6	6	5	4	5	4	4	4	2	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	2.3	5.8
21-Jun	1	2	2	2	1	1	1	1	1	1	1	1	1	1	32	1	2	2	A	3	4	3	2	2	2.9	31.9
22-Jun	2	4	4	4	4	6	3	2	2	2	2	2	1	1	1	1	1	A	2	3	2	6	8	8	3.0	7.8
23-Jun	5	4	3	3	3	3	3	3	3	3	2	1	1	1	1	2	A	3	2	2	3	4	6	9	3.2	9.4
24-Jun	6	7	5	4	4	7	8	8	4	3	2	1	1	1	1	A	2	1	1	1	2	4	3	4	3.4	8.3
25-Jun	4	4	3	8	14	17	17	13	6	3	2	2	1	1	A	2	1	1	1	1	2	2	2	2	4.8	17.4
26-Jun	2	4	5	17	11	7	7	5	4	3	2	2	1	A	2	1	1	2	2	3	3	4	4	3	4.2	17.5
27-Jun	4	2	3	4	4	5	3	2	3	2	2	2	A	2	2	3	3	3	3	2	1	1	2	1	2.6	4.9
28-Jun	1	1	1	2	2	2	2	2	2	2	2	A	2	1	1	1	1	1	1	2	2	3	6	5	2.1	5.9
29-Jun	3	3	3	3	3	3	3	2	2	1	A	2	2	2	1	2	2	2	3	2	3	7	8	9	3.1	9.3
30-Jun	5	8	6	7	6	7	6	5	3	A	2	2	2	1	1	1	1	1	2	2	3	6	3	4	3.7	7.9
	3.7	3.6	3.8	4.4	4.3	4.6	4.0	3.8	3.0	2.0	1.9	1.6	1.5	1.5	2.6	1.4	1.5	1.4	1.5	1.8	2.2	3.3	3.8	4.1	Diurnal Average	
	11.1	9.4	11.5	17.5	13.9	17.4	17.1	12.9	10.8	3.9	5.5	3.1	4.5	3.4	31.9	2.6	3.4	2.9	3.2	3.8	4.8	9.3	11.0	12.3	Diurnal Maximum	

C - Calibration

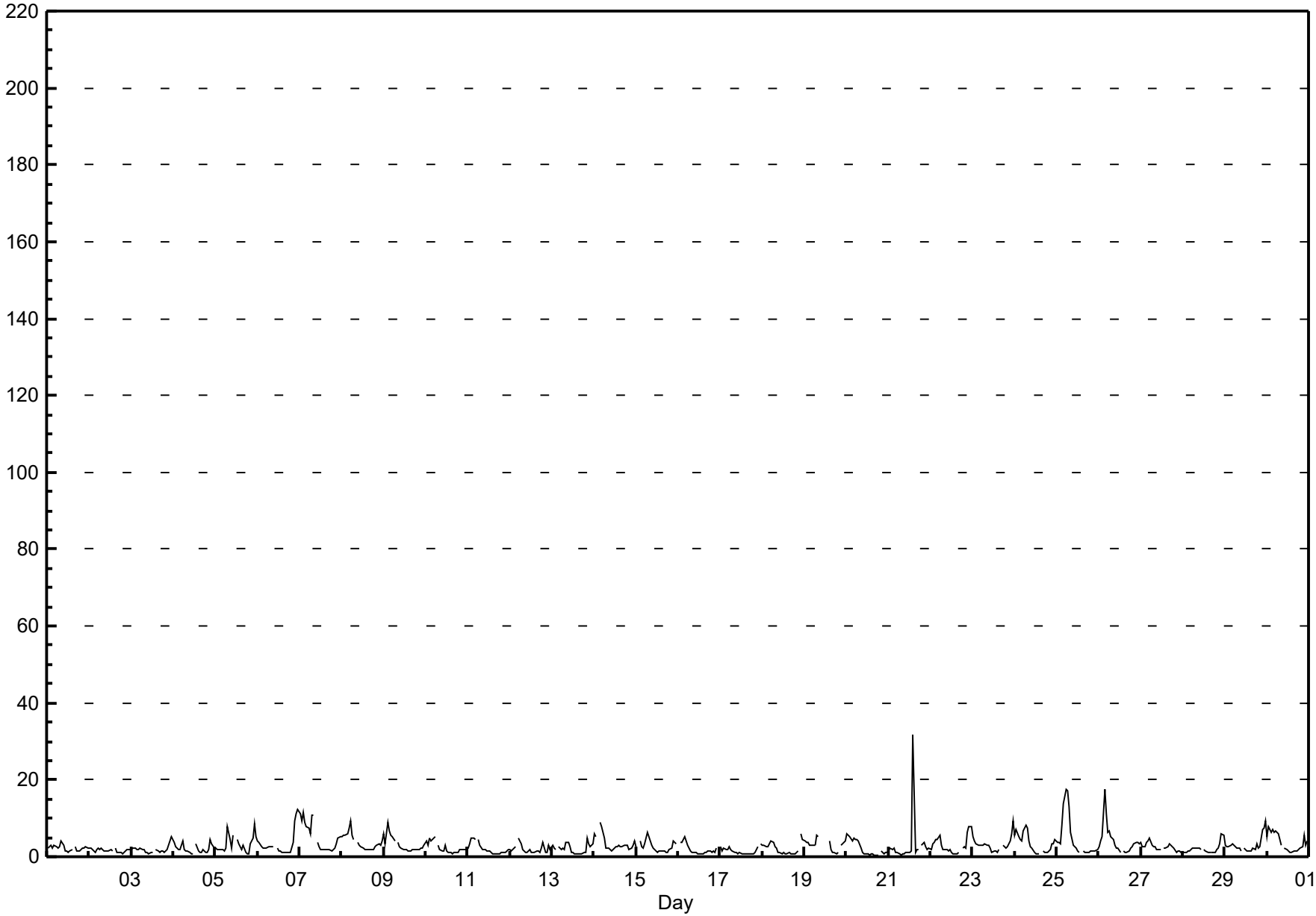
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - June 2017

Maximum Value: 191.3 ppb on Jun 21 15:00

Maximum Daily Average: 11.4 ppb on Jun 21

Minimum Value: 1 ppb on Jun 20 18:00

Minimum Daily Average: 2.2 ppb on Jun 2

Maximum Diurnal Average: 9.9 ppb at hour 15

Minimum Diurnal Average: 2.6 ppb at hour 19

Monthly Average: 4.86 ppb

Percentiles: $P_1 = 0.9$ $P_{10} = 1.5$ $Q_1 = 2.0$ Median = 3.1 $Q_3 = 5.4$ $P_{90} = 9.4$ $P_{99} = 24.1$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	3	4	3	3	3	3	3	3	5	4	2	2	2	3	7	A	4	2	2	4	4	3	3	3	3.2	7.2
2-Jun	3	3	2	2	2	3	2	2	2	2	2	3	3	2	A	3	1	2	1	1	2	3	2	3	2.2	3.1
3-Jun	3	2	2	2	2	2	2	2	2	1	1	1	1	A	3	3	2	2	3	2	10	7	7	10	3.2	10.0
4-Jun	6	4	3	2	2	9	2	2	2	2	1	1	A	16	4	2	2	10	2	1	4	54	23	3	6.8	54.0
5-Jun	3	2	2	2	2	2	9	32	20	9	15	A	13	10	6	6	19	2	1	2	21	11	11	7	9.0	32.4
6-Jun	5	4	3	3	2	3	3	3	3	3	A	3	2	2	1	1	2	1	1	2	8	31	24	24	5.9	30.5
7-Jun	17	11	16	10	10	9	7	12	12	A	5	3	3	2	4	2	2	2	3	2	3	10	6	7	6.8	17.3
8-Jun	5	6	7	6	10	14	7	6	A	5	3	3	2	2	3	2	2	2	3	3	3	4	3	5	4.6	13.7
9-Jun	8	7	13	9	9	7	5	A	5	3	3	2	2	2	2	2	2	2	2	3	3	3	3	4	4.3	13.2
10-Jun	6	4	8	6	5	6	A	5	3	2	2	6	3	1	1	1	1	1	1	2	3	3	2	2	3.3	7.5
11-Jun	2	4	5	6	5	A	6	4	2	2	2	2	5	2	1	1	1	1	1	1	1	1	2	2	2.6	5.7
12-Jun	2	2	2	3	A	5	4	3	2	2	1	4	2	2	2	3	2	3	5	9	2	1	5	2	3.0	9.0
13-Jun	3	3	2	A	4	2	3	2	9	9	8	2	1	1	1	1	1	2	3	2	13	11	3	11	4.2	13.1
14-Jun	11	8	A	14	9	8	8	3	17	2	2	3	3	5	5	3	3	4	4	5	3	3	4	5	5.7	17.2
15-Jun	4	A	5	4	2	6	7	6	4	4	3	2	2	2	2	2	3	1	2	2	4	5	4	4	3.4	7.4
16-Jun	A	6	5	10	10	4	2	2	2	1	1	1	1	2	1	1	2	3	3	3	2	2	4	A	3.2	9.7
17-Jun	5	2	3	2	3	3	2	2	1	2	1	2	1	1	1	1	1	1	1	1	2	17	A	4	2.6	17.4
18-Jun	3	3	3	3	4	5	5	4	4	2	3	2	2	2	2	4	1	2	1	1	4	A	9	5	3.2	8.8
19-Jun	5	4	4	3	3	3	4	8	7	C	C	C	C	C	18	21	2	2	1	1	A	18	11	6	6.8	20.8
20-Jun	6	7	7	5	6	5	5	5	3	2	1	1	1	3	1	1	1	1	2	A	2	1	2	2	3.0	6.6
21-Jun	3	3	3	3	2	2	1	2	1	3	3	3	3	4	191	3	5	4	A	7	6	5	3	3	11.4	191.3
22-Jun	3	5	6	6	5	7	4	3	3	5	4	7	2	2	2	2	2	A	4	6	4	11	12	9	4.9	11.6
23-Jun	8	5	4	3	3	3	4	5	4	4	3	2	13	14	2	3	A	5	4	3	4	6	10	11	5.4	14.3
24-Jun	10	10	7	5	6	8	9	9	7	4	4	2	1	1	3	A	3	2	1	1	3	18	4	6	5.3	18.0
25-Jun	6	5	4	17	25	24	19	16	11	3	3	4	2	1	A	3	1	1	1	2	2	2	2	2	6.8	25.4
26-Jun	3	10	18	25	14	10	9	7	7	5	3	4	2	A	4	8	2	2	4	4	6	5	5	5	7.0	25.0
27-Jun	6	4	3	4	5	7	4	5	4	4	4	5	A	4	5	6	7	6	7	6	3	2	2	2	4.5	7.3
28-Jun	2	2	1	4	2	3	5	4	3	3	3	A	3	2	2	2	2	2	2	3	4	5	8	7	3.1	7.5
29-Jun	4	3	3	3	4	4	3	3	3	2	A	16	2	2	2	4	7	7	8	5	6	8	9	11	5.1	15.7
30-Jun	8	12	9	10	8	7	8	5	5	A	3	3	2	2	3	2	2	2	4	4	6	8	4	5	5.3	11.6
	5.2	4.9	5.3	6.1	5.9	6.1	5.3	5.6	5.2	3.3	3.2	3.3	3.0	3.4	9.9	3.2	3.0	2.6	2.6	3.1	4.7	8.9	6.4	5.8	Diurnal Average	
	17.3	11.6	18.1	25.0	25.4	24.3	18.8	32.4	19.8	9.4	15.4	15.7	13.3	15.9	191.3	20.8	19.2	10.3	7.7	9.0	21.0	54.0	24.2	24.3	Diurnal Maximum	

C - Calibration

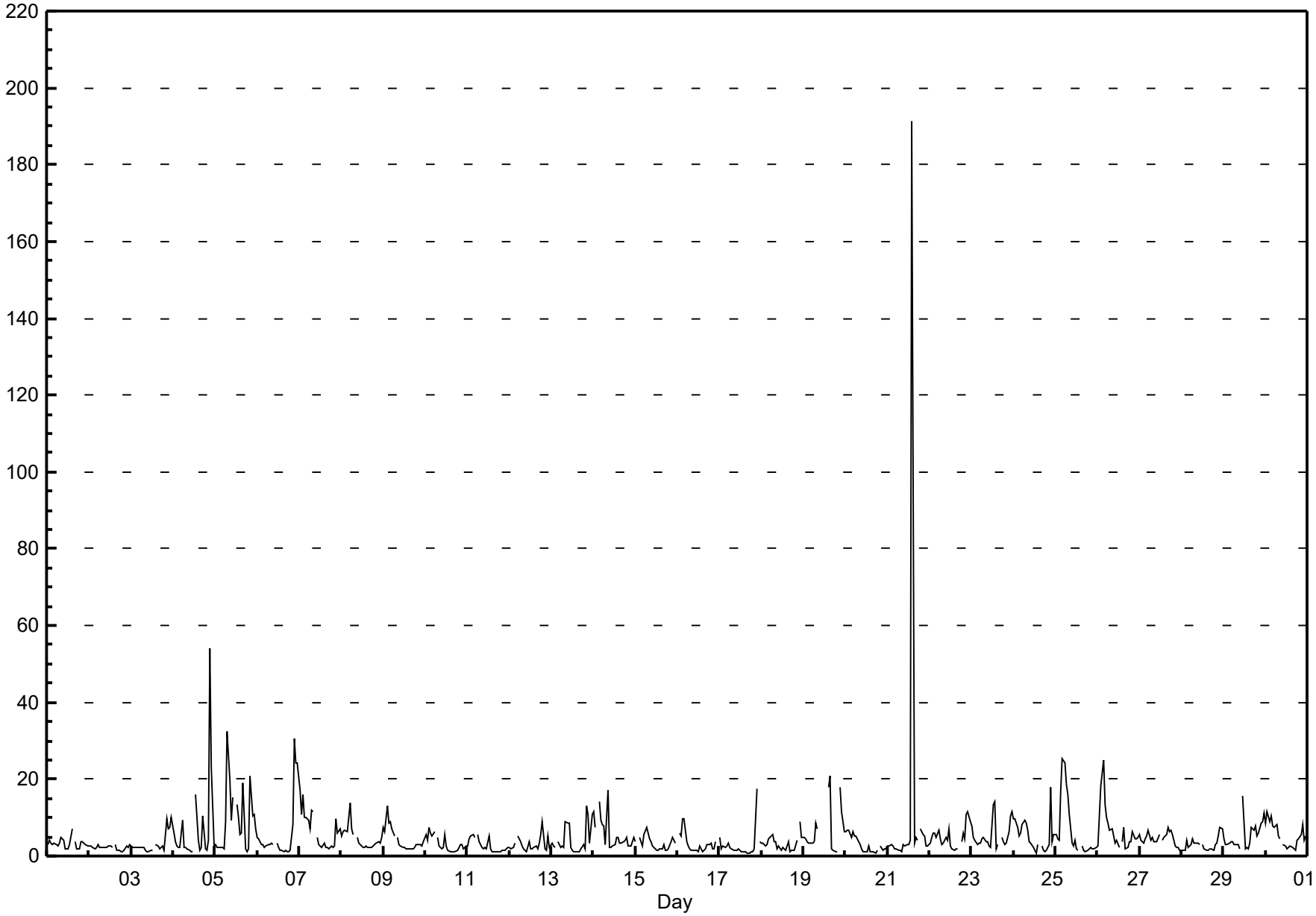
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - June 2017

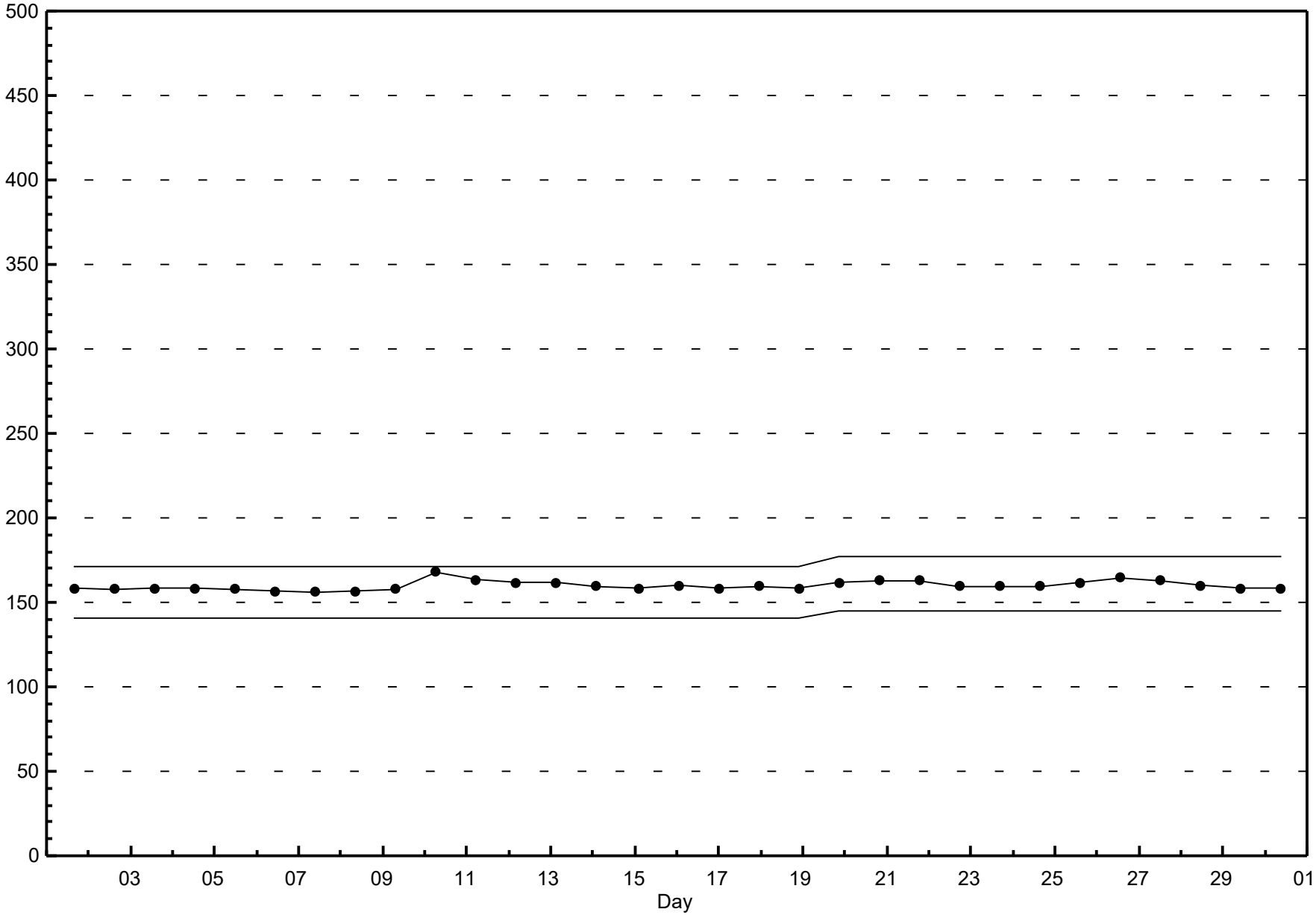


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Rycroft - June 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 58.4 ppb on Jun 7 17:00 Maximum Daily Average: 40.6 ppb on Jun 8

Minimum Value: 6 ppb on Jun 12 06:00 Minimum Daily Average: 19.0 ppb on Jun 14

Maximum Diurnal Average: 36.1 ppb at hour 18 Minimum Diurnal Average: 17.3 ppb at hour 6

Monthly Average: 28.40 ppb Percentiles: P_1 = 7.8 P_{10} = 15.3 Q_1 = 21.1 Median = 28.0 Q_3 = 35.2 P_{90} = 42.6 P_{99} = 54.0

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	28	25	23	21	17	17	20	21	24	33	42	42	42	41	39	A	39	39	39	36	30	27	25	23	30.2	42.3
2-Jun	24	26	27	30	27	23	25	25	28	31	31	31	30	33	A	37	35	38	35	34	36	30	27	25	29.9	38.2
3-Jun	24	23	22	23	22	22	22	24	30	35	36	35	37	A	40	44	44	45	43	43	39	30	23	21	31.5	44.5
4-Jun	21	23	21	21	20	18	23	30	35	34	36	35	A	42	43	41	42	44	45	43	38	33	27	29	32.4	44.7
5-Jun	26	25	23	23	23	24	24	27	32	33	31	A	35	34	34	36	35	36	35	34	27	24	17	17	28.4	36.0
6-Jun	15	14	16	15	17	15	15	17	26	30	A	37	40	40	39	39	39	41	42	40	35	28	25	18	27.9	41.8
7-Jun	16	14	8	8	6	6	11	18	25	A	53	58	56	54	54	58	58	56	53	56	54	48	38	33	36.5	58.4
8-Jun	31	30	27	25	21	15	27	33	A	45	50	51	52	51	51	50	51	53	51	48	46	46	44	38	40.6	53.2
9-Jun	32	39	25	30	31	33	37	A	41	43	43	45	47	43	40	35	28	28	29	31	32	34	37	34	35.6	46.9
10-Jun	28	22	20	21	19	18	A	31	33	34	36	44	46	44	43	42	41	39	37	29	27	24	23	21	31.4	46.2
11-Jun	24	20	17	17	18	A	19	20	24	25	28	29	29	28	27	29	25	24	22	20	19	16	15	13	22.2	29.5
12-Jun	12	11	8	7	A	6	10	17	23	27	30	31	32	32	32	32	34	36	36	33	34	32	25	26	24.6	36.5
13-Jun	21	23	23	A	23	22	22	26	29	32	33	35	35	36	39	39	43	43	44	44	33	27	26	23	31.3	44.2
14-Jun	17	15	A	13	12	13	18	22	21	21	21	21	18	18	16	15	16	15	16	23	35	30	21	19	19.0	34.6
15-Jun	17	A	15	21	23	21	16	21	24	27	30	33	33	34	35	36	35	36	33	37	38	33	28	26	28.5	38.0
16-Jun	A	23	22	17	16	16	18	19	21	22	18	19	21	23	21	23	26	29	29	29	27	29	24	A	22.4	29.1
17-Jun	25	28	25	25	23	20	23	26	29	30	30	31	31	30	31	31	30	29	30	30	30	24	A	22	27.5	31.0
18-Jun	22	21	22	20	21	17	19	22	28	29	29	29	29	29	30	29	29	28	29	29	26	A	19	17	24.9	29.7
19-Jun	17	15	12	13	15	14	15	14	18	25	23	25	25	C	C	C	38	38	37	35	A	29	26	25	22.9	38.2
20-Jun	21	19	18	20	16	17	17	19	26	33	34	32	35	40	34	34	36	40	38	A	31	31	34	34	28.7	40.4
21-Jun	30	24	22	20	23	23	26	27	28	29	29	28	28	28	26	29	27	25	A	21	20	19	18	16	24.6	30.3
22-Jun	16	13	11	10	9	8	13	16	18	20	24	26	26	30	33	33	32	A	32	31	25	18	16	12	20.5	32.8
23-Jun	13	15	15	15	14	14	15	20	23	25	29	34	37	38	36	34	A	34	33	32	31	24	18	13	24.5	37.7
24-Jun	16	10	11	13	14	11	13	22	30	33	37	38	40	41	43	A	45	45	41	39	37	36	36	30	29.6	45.0
25-Jun	30	29	30	20	13	11	13	19	30	40	45	46	44	42	A	40	41	41	42	42	43	43	43	42	34.2	45.5
26-Jun	38	30	22	8	14	19	22	30	37	45	48	49	49	A	45	43	40	38	36	33	30	30	31	32	33.5	49.3
27-Jun	31	32	33	31	27	23	28	30	30	34	32	32	A	27	24	23	23	23	25	36	41	37	28	26	29.4	40.9
28-Jun	24	26	27	27	29	24	25	25	24	22	23	A	26	27	28	30	31	31	31	30	27	22	15	12	25.4	31.2
29-Jun	14	13	14	12	11	11	13	16	18	23	A	30	31	30	28	28	27	27	25	24	21	14	11	8	19.6	30.7
30-Jun	17	10	17	17	19	20	21	23	29	A	39	41	44	43	44	45	46	47	47	45	41	36	40	35	33.4	47.3
	22.4	21.3	19.9	18.7	18.7	17.3	19.7	22.8	27.0	30.8	33.6	35.2	35.5	35.5	35.3	35.5	35.8	36.1	35.7	34.7	32.9	29.3	26.2	23.8	Diurnal Average	
	37.5	39.3	33.4	31.1	30.9	33.2	36.8	32.6	41.0	45.3	53.4	57.8	55.7	54.4	54.1	58.1	58.4	55.6	53.4	55.7	54.1	47.8	43.6	41.9	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

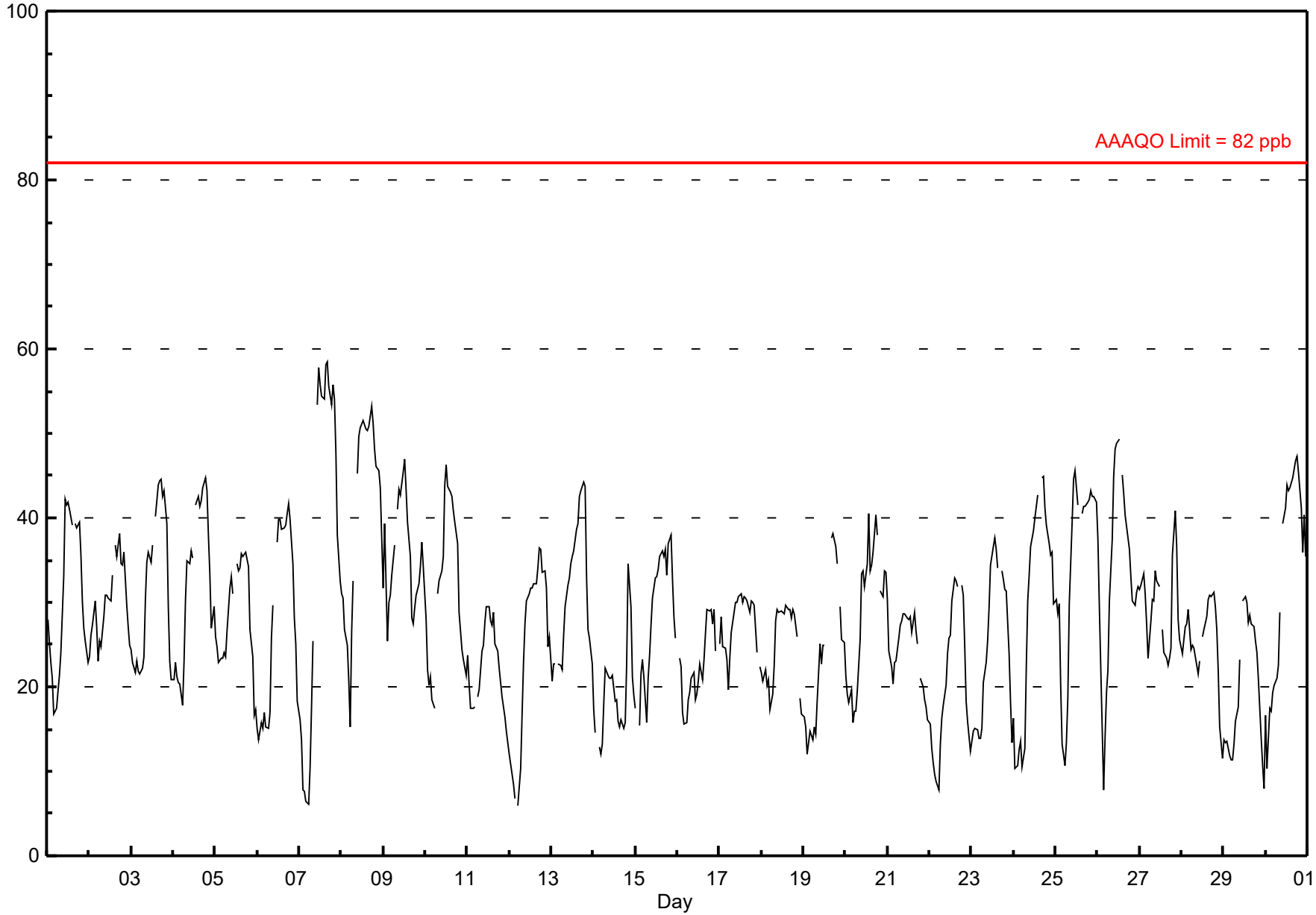
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Portable Rycroft - June 2017

Maximum Value: 61.1 ppb on Jun 7 17:00

Maximum Daily Average: 42.8 ppb on Jun 8

Minimum Value: 8 ppb on Jun 7 06:00

Minimum Daily Average: 21.8 ppb on Jun 29

Maximum Diurnal Average: 38.0 ppb at hour 18

Minimum Diurnal Average: 20.0 ppb at hour 6

Monthly Average: 30.92 ppb

Percentiles: P_1 = 10.2 P_{10} = 18.1 Q_1 = 23.7 Median = 30.5 Q_3 = 37.5 P_{90} = 44.6 P_{99} = 56.1

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	30	30	26	24	19	20	22	24	26	40	44	42	43	43	45	A	41	41	41	39	33	30	30	25	33.0	44.7
2-Jun	27	29	30	32	30	26	27	26	32	33	32	33	31	36	A	39	37	41	36	36	37	34	31	27	32.2	40.7
3-Jun	26	24	24	24	23	23	25	26	35	36	37	36	39	A	42	49	49	48	46	46	42	38	26	25	34.3	48.9
4-Jun	26	26	25	23	23	22	25	34	36	36	37	37	A	46	44	43	43	46	46	46	40	37	33	32	34.9	46.3
5-Jun	29	26	25	26	25	26	28	33	34	34	35	A	36	35	36	37	37	38	36	36	33	27	20	20	31.0	37.7
6-Jun	17	17	17	17	18	17	17	22	29	33	A	39	41	41	40	40	40	42	43	41	39	38	33	23	30.5	43.3
7-Jun	24	18	16	10	9	8	18	20	34	A	56	60	57	56	56	60	61	58	54	57	56	52	42	38	39.9	61.1
8-Jun	32	32	30	27	25	23	31	36	A	48	52	52	53	52	51	52	52	54	53	50	47	47	45	42	42.8	54.2
9-Jun	34	43	32	32	34	36	41	A	43	45	44	48	48	46	42	38	30	29	30	32	34	37	39	37	38.0	48.3
10-Jun	32	27	24	24	21	23	A	33	33	34	40	47	49	45	44	44	43	41	40	33	30	28	24	24	34.0	48.5
11-Jun	26	24	19	19	19	A	22	23	26	27	31	32	32	29	29	30	28	26	24	22	21	18	16	14	24.2	31.8
12-Jun	13	12	10	8	A	8	14	20	26	29	31	32	33	33	34	34	36	38	38	35	36	33	31	28	26.6	38.2
13-Jun	23	24	24	A	25	24	25	29	31	34	35	36	37	38	41	41	45	45	46	46	45	29	28	27	33.6	45.6
14-Jun	23	19	A	16	16	17	23	24	23	22	22	23	20	20	19	18	18	18	19	37	39	32	27	21	22.4	38.5
15-Jun	20	A	19	25	26	24	19	26	27	30	33	34	35	36	37	38	37	38	34	39	39	37	30	29	30.8	39.0
16-Jun	A	28	24	23	18	18	21	21	22	23	23	21	22	26	23	27	30	31	30	30	30	31	28	A	24.9	31.0
17-Jun	28	30	27	25	25	23	26	28	30	31	31	32	32	31	32	32	33	30	32	31	31	28	A	25	29.1	32.6
18-Jun	23	23	24	22	23	20	21	26	31	30	30	30	30	29	31	31	31	30	31	31	28	A	20	19	26.5	30.8
19-Jun	21	18	14	15	16	15	17	18	26	28	25	27	27	C	C	C	40	40	38	37	A	34	29	28	25.5	39.9
20-Jun	23	22	22	22	18	19	18	23	30	36	36	34	39	45	36	38	38	43	41	A	34	32	35	35	31.2	45.1
21-Jun	36	27	25	22	24	24	28	28	29	31	30	30	30	30	30	30	29	27	A	23	22	20	18	18	26.5	35.5
22-Jun	17	15	12	11	9	10	15	21	20	23	26	28	28	34	35	35	34	A	34	34	30	22	21	14	23.0	34.9
23-Jun	17	16	16	16	15	15	16	23	24	28	33	37	39	40	40	36	A	40	37	36	34	32	25	16	27.5	40.0
24-Jun	20	18	14	14	15	12	15	27	33	35	39	40	41	43	44	A	46	47	44	41	39	38	37	35	32.1	46.9
25-Jun	33	32	32	33	21	13	15	22	38	43	46	47	46	43	A	42	42	42	42	43	44	43	43	43	37.0	47.0
26-Jun	40	36	31	13	21	24	27	33	42	49	49	52	52	A	48	45	43	39	40	35	32	34	34	34	37.2	52.1
27-Jun	34	34	35	35	29	26	31	32	32	36	34	34	A	30	26	25	25	25	27	41	43	41	32	27	32.0	43.5
28-Jun	25	28	28	30	33	27	26	26	26	23	25	A	29	29	31	33	33	33	33	33	31	28	19	13	27.8	33.2
29-Jun	15	15	15	12	12	12	15	17	20	26	A	32	33	33	29	30	29	29	28	27	23	20	13	12	21.8	32.8
30-Jun	21	19	25	24	21	22	23	25	34	A	42	43	45	45	46	46	48	48	50	47	46	41	43	37	36.7	50.2
	25.3	24.4	22.9	21.5	21.2	20.0	22.4	25.7	30.0	32.9	35.6	37.0	37.3	37.5	37.4	37.3	37.8	38.0	37.8	37.4	35.8	33.1	29.4	26.4	Diurnal Average	
	40.5	42.5	35.5	35.0	33.8	36.3	40.6	35.7	43.1	49.3	55.9	59.6	57.1	56.3	55.6	60.0	61.1	58.1	54.1	56.6	56.1	52.1	45.1	43.0	Diurnal Maximum	

C - Calibration

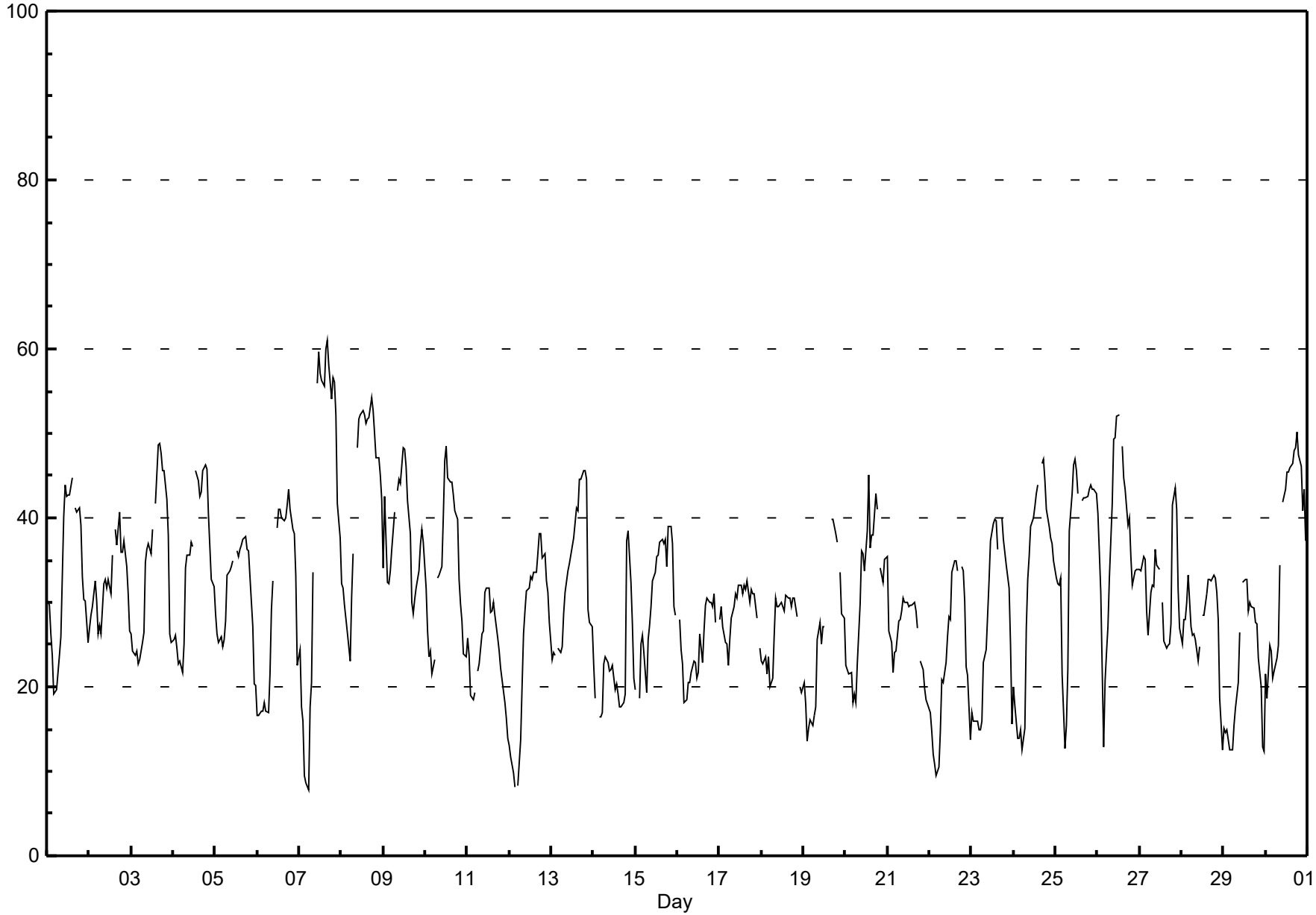
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

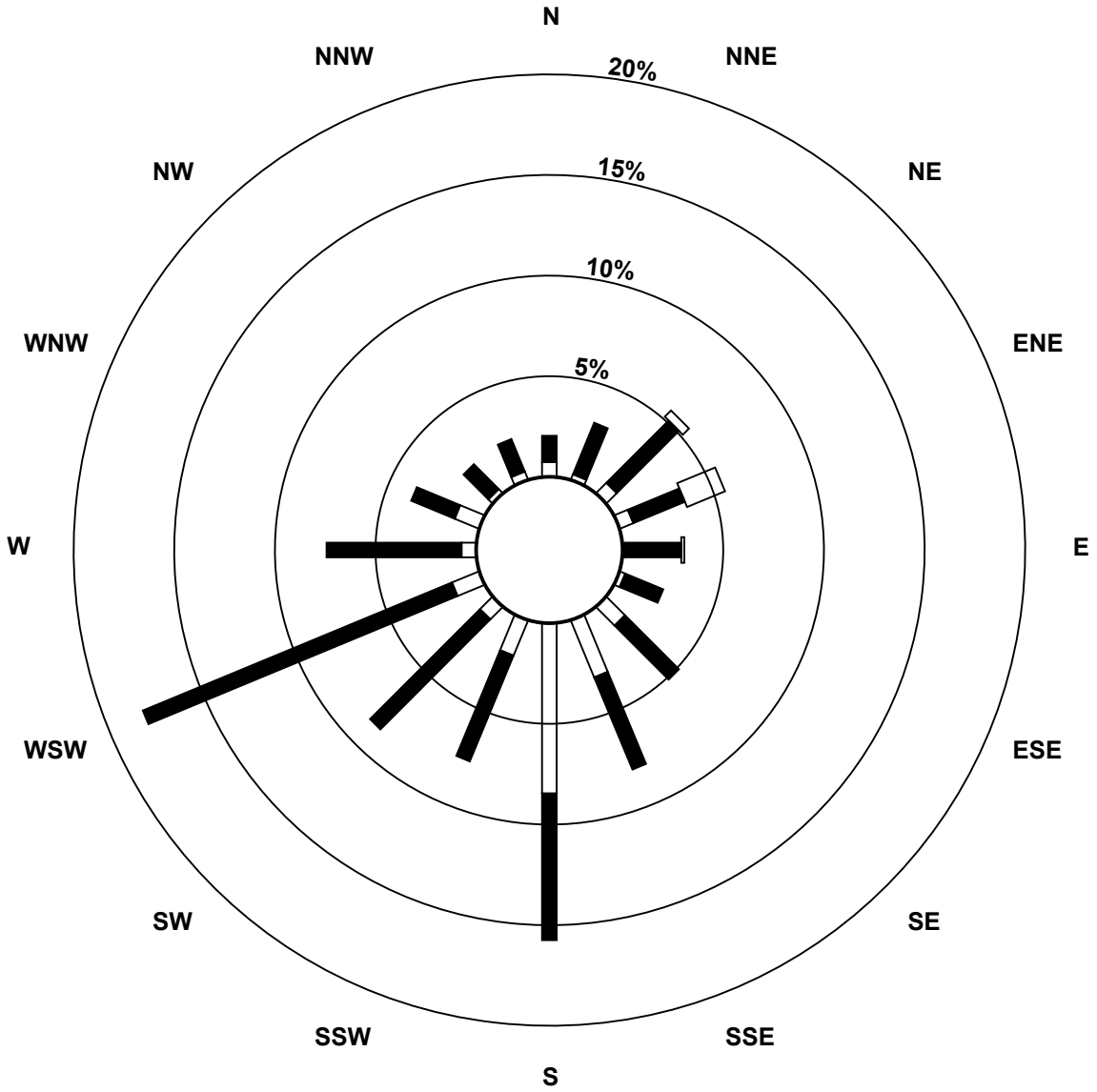
Portable Rycroft - June 2017



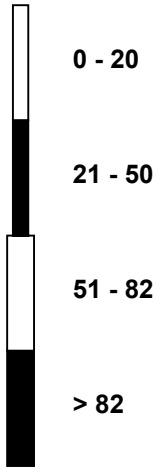
Pollutant Rose

Ozone (O_3) - ppb

Portable Rycroft - June 2017



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Portable Rycroft - June 2017

Maximum Value: 56.0 ppb on Jun 7 17:00

Minimum Value: 9.7 ppb on Jun 12 07:00

Percentiles: P_1 = 11.8 P_{10} = 17.2 Q_1 = 22.4 Median = 27.6 Q_3 = 33.8 P_{90} = 40.6 P_{99} = 51.4

Hours in Service:	720
Hours of Data:	713
Hours of Missing Data:	7
Hours of Calibration:	7
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	33	32	30	28	25	23	22	22	21	22	24	27	30	33	36	38	40	41	40	39	38	36	34	32	40.6
2-Jun	30	29	27	27	26	26	26	26	27	27	28	28	28	29	30	32	33	34	34	35	35	35	34	33	35.5
3-Jun	31	29	28	26	24	23	23	23	23	25	27	28	30	31	34	37	39	40	41	42	43	41	39	36	42.6
4-Jun	33	30	28	25	22	21	21	22	24	25	27	29	30	34	36	38	39	40	42	43	42	41	39	38	42.7
5-Jun	36	33	31	28	26	25	25	24	25	26	27	28	29	31	32	33	34	34	35	35	34	33	30	28	35.6
6-Jun	26	23	20	18	17	16	16	15	17	19	19	22	26	29	33	36	38	39	39	40	39	38	36	33	39.8
7-Jun	31	27	23	19	15	13	11	11	12	12	18	25	32	39	45	51	56	56	56	56	55	55	53	49	56.0
8-Jun	46	43	40	36	32	27	26	26	25	27	31	34	39	44	47	50	50	51	51	51	50	49	49	47	51.2
9-Jun	45	43	40	37	36	34	33	32	34	34	37	39	41	43	43	42	41	39	37	35	33	32	32	32	44.6
10-Jun	32	31	30	29	27	25	23	23	23	25	27	30	34	38	39	40	41	42	42	40	38	35	33	30	42.1
11-Jun	28	26	23	22	21	20	20	19	19	20	22	23	25	25	26	27	28	27	27	26	24	23	21	19	28.1
12-Jun	18	16	14	13	12	10	10	10	12	14	17	21	22	25	28	30	31	32	33	34	34	34	33	32	33.8
13-Jun	30	29	27	26	24	23	23	23	24	25	27	28	29	31	33	35	36	38	39	40	40	39	37	35	40.4
14-Jun	32	28	26	22	19	17	16	16	16	17	18	19	20	20	20	19	18	18	17	17	19	21	21	22	32.1
15-Jun	22	23	23	23	21	20	19	19	20	21	23	24	26	27	30	32	33	34	35	35	36	36	35	33	35.7
16-Jun	33	31	30	27	24	21	20	19	19	19	18	19	19	20	20	21	22	23	24	25	26	27	27	28	33.0
17-Jun	28	27	27	26	26	24	24	24	25	25	26	27	27	29	30	30	30	30	30	30	30	29	29	28	30.4
18-Jun	27	26	24	23	22	21	21	21	21	22	23	24	25	27	28	29	29	29	29	29	29	29	27	25	29.1
19-Jun	23	22	19	17	15	15	15	14	15	16	17	19	20	21	22	N	N	N	N	N	N	N	34	32	33.7
20-Jun	30	27	25	23	22	20	19	18	19	21	23	24	27	30	32	33	35	36	36	37	36	35	35	35	36.8
21-Jun	34	32	29	28	27	26	25	25	24	25	26	27	27	28	28	28	28	28	27	26	25	24	23	21	34.0
22-Jun	19	17	17	15	14	12	12	12	12	13	15	17	19	22	24	26	28	29	30	31	31	29	27	24	30.9
23-Jun	21	20	18	16	15	14	14	15	16	18	19	22	25	28	30	32	33	35	35	35	34	32	29	26	35.1
24-Jun	25	22	19	17	15	13	13	14	15	18	21	25	28	32	36	37	40	41	42	42	42	41	40	39	42.0
25-Jun	37	35	33	31	28	25	22	21	21	22	24	27	31	35	38	41	42	43	42	42	42	42	42	42	42.6
26-Jun	42	40	38	33	30	27	24	23	23	25	28	33	38	40	43	45	46	45	43	41	38	37	35	34	45.6
27-Jun	33	32	32	31	31	30	30	30	29	30	30	30	30	30	30	29	28	26	25	26	28	29	29	30	32.7
28-Jun	30	30	30	29	28	26	26	26	26	25	25	24	24	24	25	26	27	28	29	29	29	29	27	25	30.4
29-Jun	23	20	18	16	14	13	12	13	14	15	15	18	20	23	25	27	28	29	28	28	26	24	22	20	28.8
30-Jun	18	16	15	14	14	15	16	18	20	21	24	27	31	34	38	41	43	44	45	45	45	44	43	42	45.1
Diurnal Maximums	46.0	42.9	39.7	37.4	35.5	34.0	33.1	32.5	33.8	34.4	36.9	39.1	41.4	43.9	47.3	51.3	56.0	55.9	55.9	55.7	55.5	54.7	52.7	49.5	

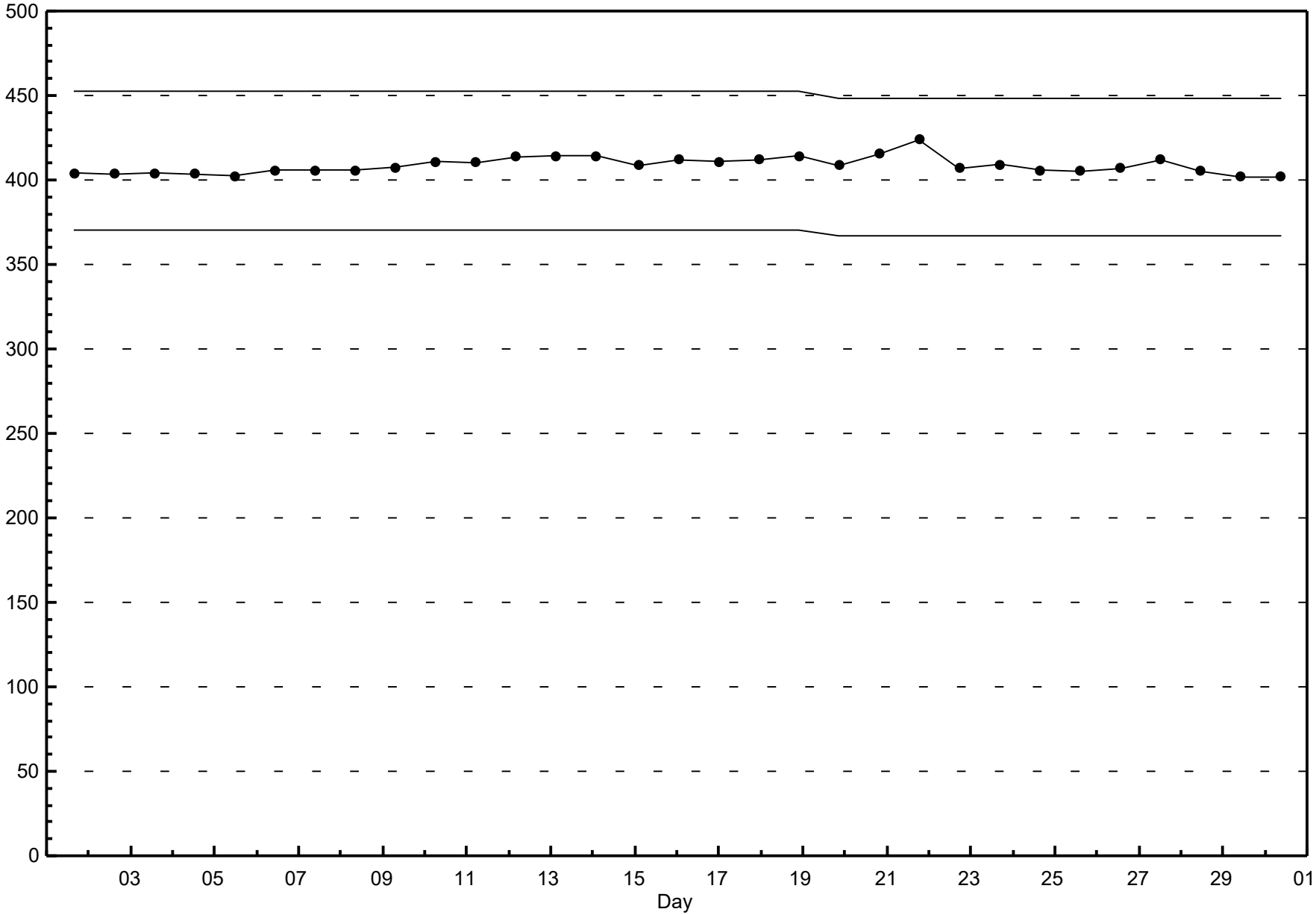
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Rycroft - June 2017

Maximum Value: 2.25 ppm on Jun 7 04:00

Maximum Daily Average: 1.98 ppm on Jun 24

Minimum Value: 1.8 ppm on Jun 16 12:00

Minimum Daily Average: 1.88 ppm on Jun 10

Maximum Diurnal Average: 1.97 ppm at hour 6

Minimum Diurnal Average: 1.91 ppm at hour 19

Monthly Average: 1.931 ppm

Percentiles: P_1 = 1.86 P_{10} = 1.88 Q_1 = 1.89 Median = 1.93 Q_3 = 1.96 P_{90} = 1.99 P_{99} = 2.05

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	35
Percent Operational Time:	99.2

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	Daily Average	Daily Maximum
1-Jun	1.9	1.9	1.9	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	1.9	1.91	1.99
2-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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.93
3-Jun	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.93	1.96
4-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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.01
5-Jun	1.9	1.9	2.0	2.0	2.0	N	N	N	N	N	N	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	--	1.99
6-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.97
7-Jun	1.9	1.9	2.2	2.2	2.1	2.1	2.1	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.25
8-Jun	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.97
9-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.93
10-Jun	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.91
11-Jun	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.90
12-Jun	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.96
13-Jun	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.93
14-Jun	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.94
15-Jun	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.95
16-Jun	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.89	1.94
17-Jun	1.9	1.9	1.9	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	1.9	1.9	1.9	2.0	A	2.0	1.95	2.01
18-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	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	1.97	2.03
19-Jun	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	1.9	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.96	2.02
20-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	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.94	2.01
21-Jun	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	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.96	2.00
22-Jun	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	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	1.96	2.02
23-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	1.9	2.0	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.98	2.04
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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.03
25-Jun	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	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.06
26-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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.01
27-Jun	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.93	1.98
28-Jun	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	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	1.94	1.97
29-Jun	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	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.97	2.02
30-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.9	1.94	1.98
	1.94	1.95	1.97	1.97	1.97	1.97	1.96	1.95	1.94	1.92	1.92	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.92	1.93	1.94	Diurnal Average	
	2.04	2.02	2.18	2.25	2.11	2.11	2.06	2.03	2.01	2.01	2.00	1.99	1.98	2.00	1.98	1.95	1.96	1.97	1.97	1.98	1.98	1.99	2.00	2.00	Diurnal Maximum	

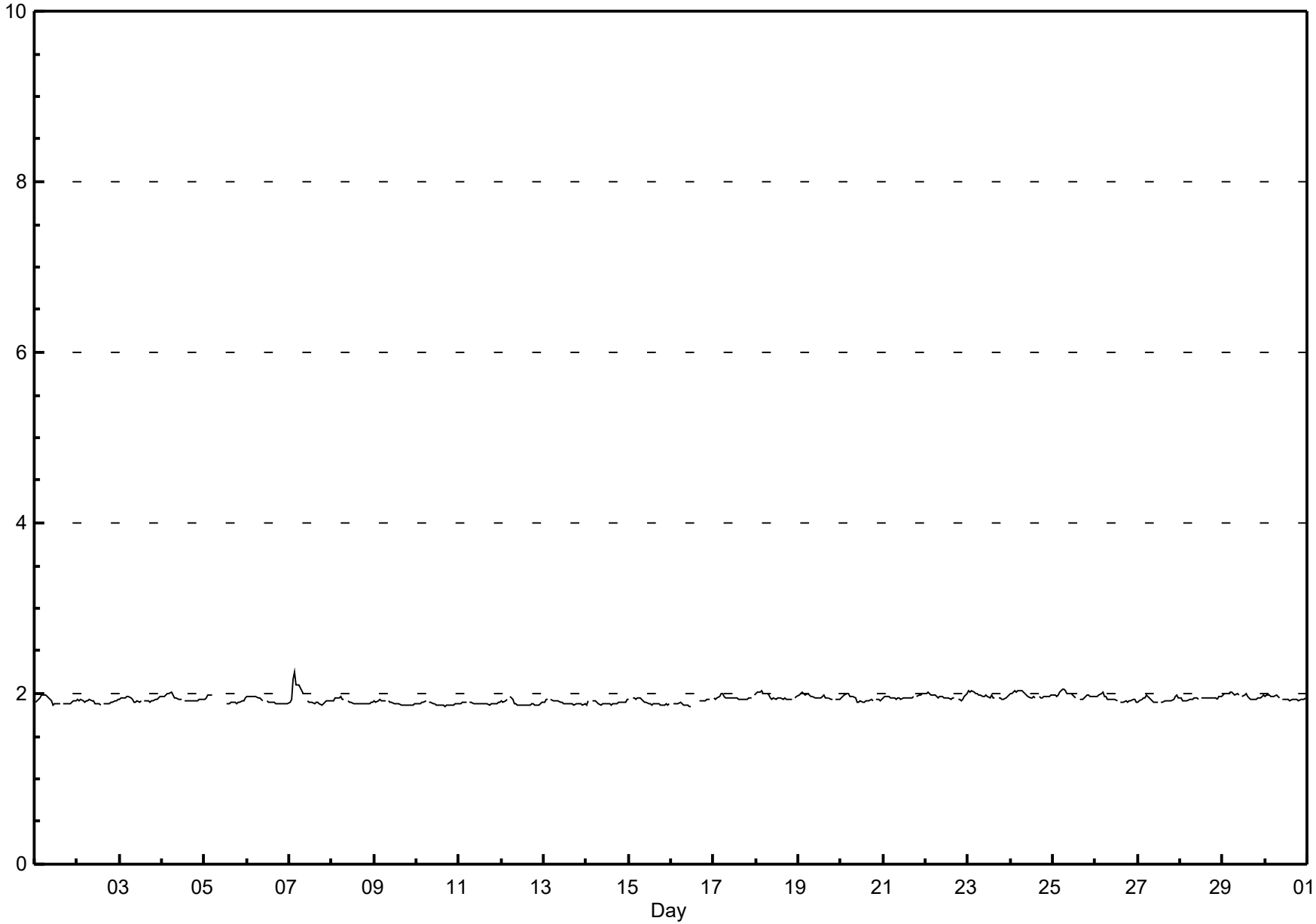
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Portable Rycroft - June 2017

Maximum Value: 2.42 ppm on Jun 23 11:00

Maximum Daily Average: 2.02 ppm on Jun 23

Minimum Value: 1.9 ppm on Jun 16 12:00

Minimum Daily Average: 1.90 ppm on Jun 10

Maximum Diurnal Average: 2.00 ppm at hour 6

Minimum Diurnal Average: 1.93 ppm at hour 16

Monthly Average: 1.960 ppm

Percentiles: P_1 = 1.88 P_{10} = 1.89 Q_1 = 1.92 Median = 1.95 Q_3 = 1.99 P_{90} = 2.02 P_{99} = 2.11

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	35
Percent Operational Time:	99.2

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	Daily Average	Daily Maximum
1-Jun	1.9	1.9	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.01
2-Jun	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	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.92	1.95
3-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	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.95	1.99
4-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.97	2.04
5-Jun	2.0	2.0	2.0	2.0	2.0	N	N	N	N	N	N	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	--	2.01
6-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.94	2.02
7-Jun	1.9	2.0	2.3	2.3	2.1	2.1	2.1	2.1	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.00	2.32
8-Jun	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.01
9-Jun	1.9	1.9	1.9	2.0	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	1.9	1.9	1.9	1.91	1.97
10-Jun	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.94
11-Jun	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.92	1.96
12-Jun	2.0	1.9	2.0	1.9	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.09
13-Jun	2.0	1.9	2.0	A	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.04
14-Jun	1.9	2.0	A	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.92	1.99
15-Jun	2.0	A	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	1.9	1.9	1.9	1.9	1.9	1.93	1.97
16-Jun	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	1.9	2.0	1.9	1.9	1.9	2.0	2.0	A	1.92	1.98
17-Jun	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	1.98	2.04
18-Jun	2.0	2.0	2.1	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	2.0	2.0	2.0	A	2.0	2.0	2.00	2.07
19-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	2.0	2.0	2.0	A	2.0	1.9	2.0	1.99	2.06
20-Jun	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.1	1.9	2.0	1.9	1.9	1.9	2.0	1.9	2.0	A	2.0	2.0	1.9	2.0	1.98	2.13
21-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	2.0	1.99	2.04
22-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	1.9	2.0	2.0	2.0	1.99	2.04
23-Jun	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	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	2.02	2.42
24-Jun	2.0	2.0	2.1	2.0	2.1	2.0	2.1	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	2.01	2.09
25-Jun	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.12
26-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.96	2.05
27-Jun	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	2.0	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.96	2.05
28-Jun	2.0	2.0	2.0	1.9	1.9	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	2.0	2.0	2.0	2.0	1.97	2.02
29-Jun	2.0	2.0	2.0	2.0	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	2.0	2.0	2.00	2.06
30-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	2.0	1.9	2.0	1.9	2.0	2.0	1.9	2.0	1.9	2.0	1.9	2.0	2.0	1.97	2.04
	1.98	1.98	2.00	2.00	2.00	2.00	1.99	1.97	1.97	1.95	1.96	1.94	1.94	1.94	1.94	1.93	1.93	1.94	1.93	1.94	1.94	1.95	1.96	1.96	Diurnal Average	
	2.06	2.04	2.32	2.30	2.15	2.13	2.09	2.06	2.04	2.05	2.42	2.02	2.02	2.04	2.04	2.02	2.00	2.09	2.01	2.00	2.04	2.01	2.02	2.04	Diurnal Maximum	

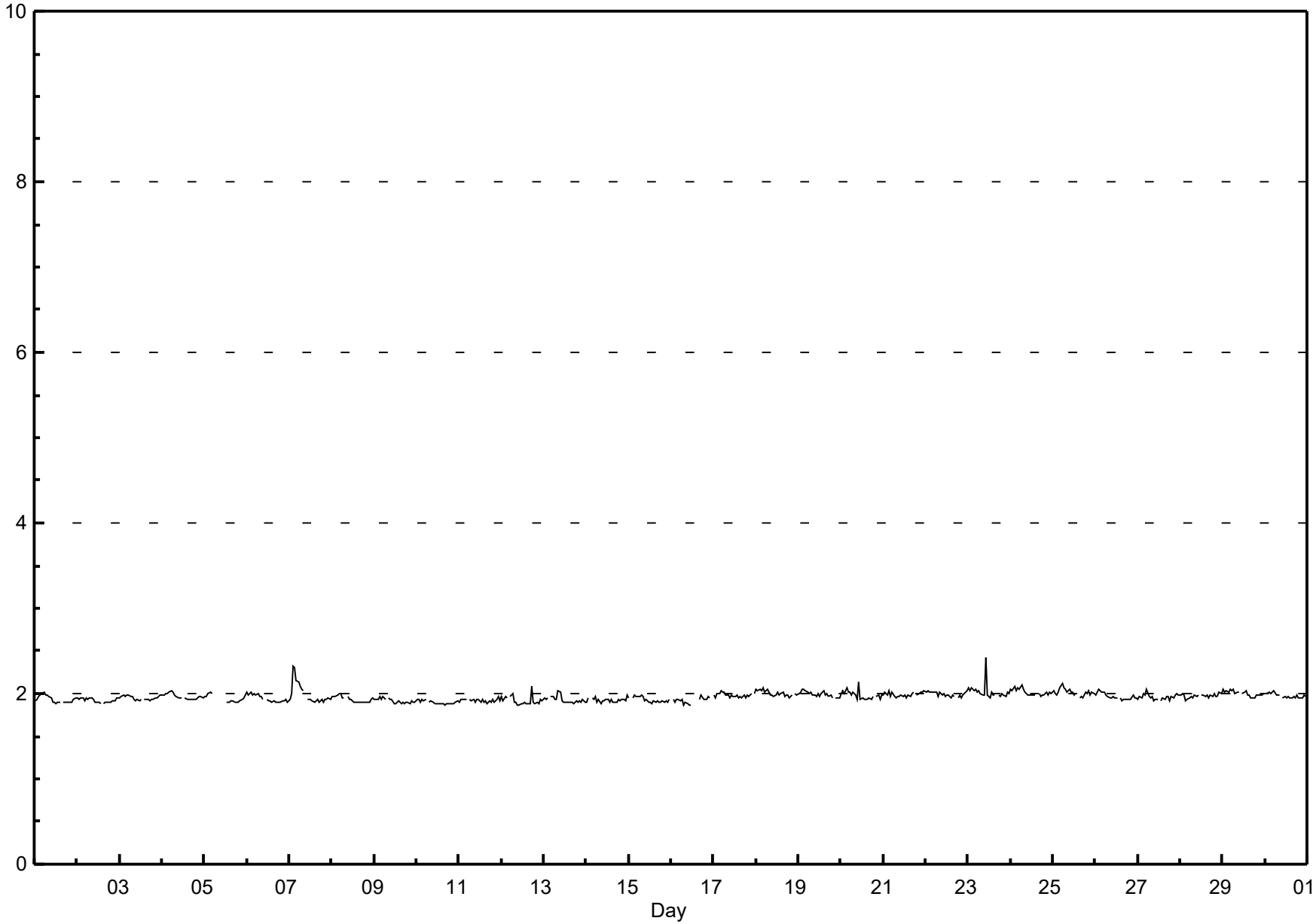
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

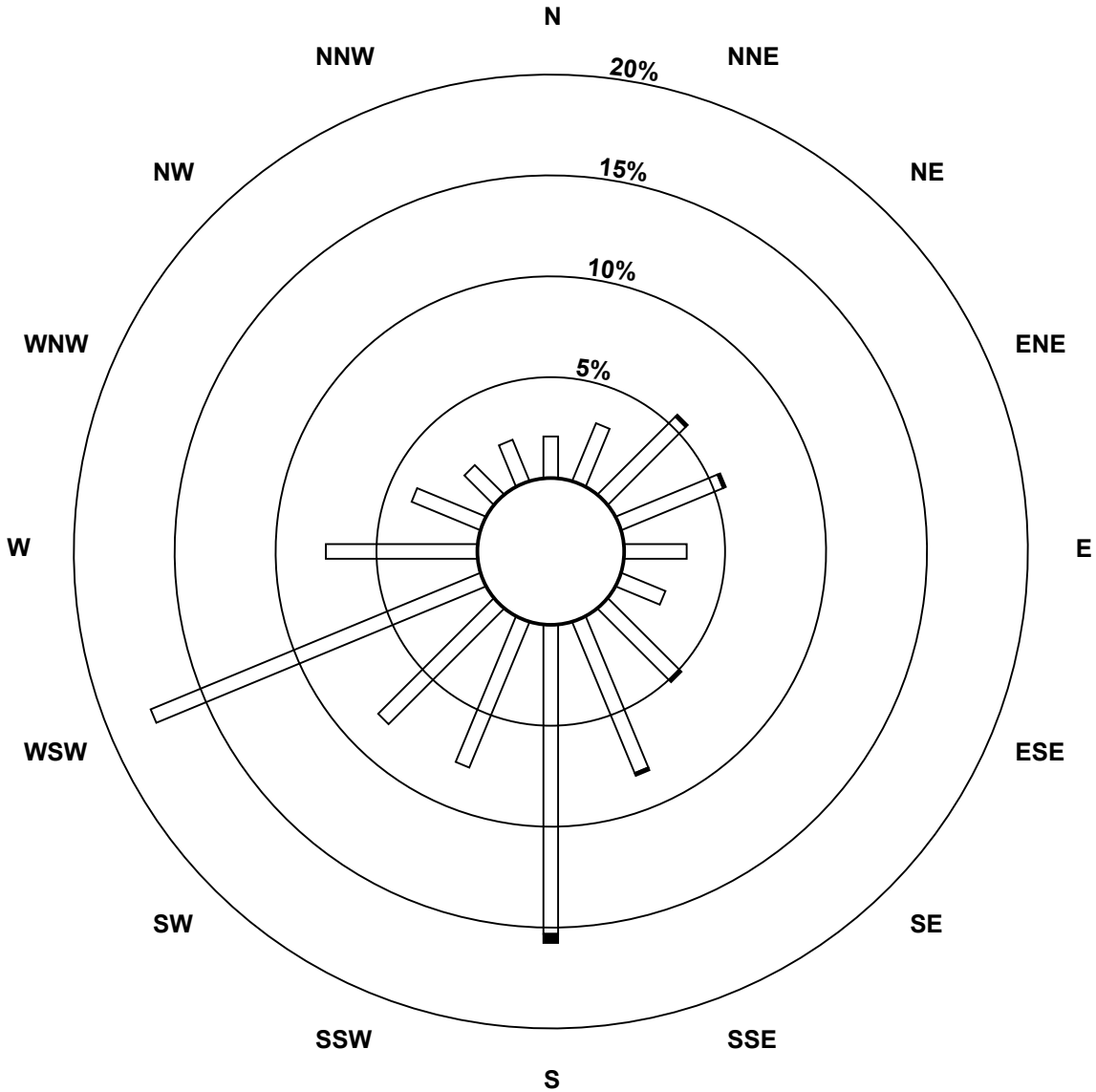
Portable Rycroft - June 2017



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Portable Rycroft - June 2017



Pollutant Classes (ppm)

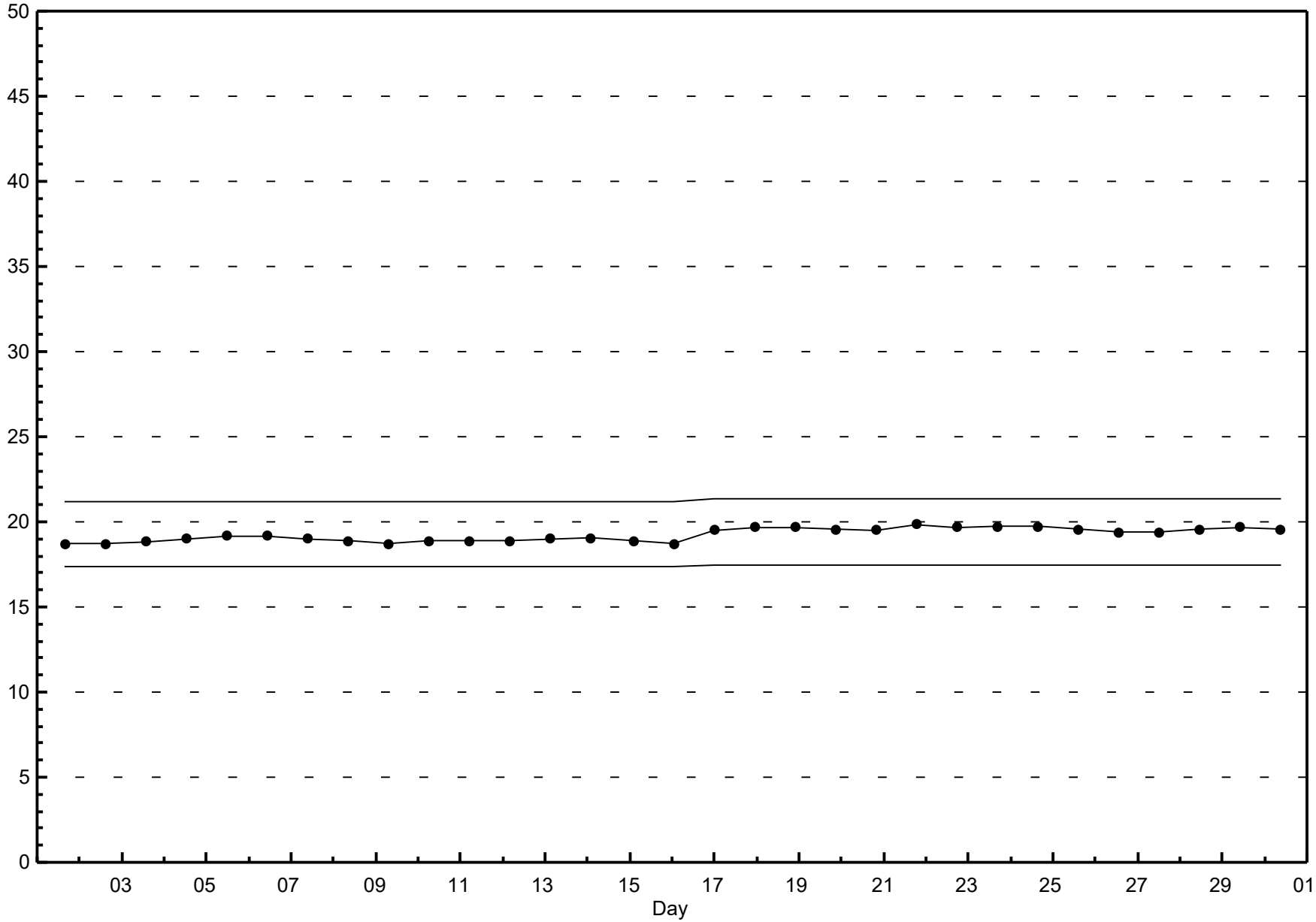
- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Portable Rycroft - June 2017

Maximum Value: 2.24 ppm on Jun 7 04:00

Maximum Daily Average: 1.98 ppm on Jun 24

Minimum Value: 1.8 ppm on Jun 16 12:00

Minimum Daily Average: 1.87 ppm on Jun 10

Maximum Diurnal Average: 1.97 ppm at hour 6

Minimum Diurnal Average: 1.90 ppm at hour 19

Monthly Average: 1.925 ppm

Percentiles: P_1 = 1.85 P_{10} = 1.87 Q_1 = 1.89 Median = 1.92 Q_3 = 1.95 P_{90} = 1.98 P_{99} = 2.05

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	35
Percent Operational Time:	99.2

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	Daily Average	Daily Maximum
1-Jun	1.9	1.9	1.9	1.9	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	1.9	1.91	1.98
2-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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.93
3-Jun	1.9	1.9	1.9	1.9	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	1.9	1.9	2.0	1.92	1.95
4-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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.01
5-Jun	1.9	1.9	2.0	2.0	2.0	N	N	N	N	N	N	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	--	1.98
6-Jun	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	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.96
7-Jun	1.9	1.9	2.2	2.2	2.1	2.1	2.1	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.24
8-Jun	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.96
9-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.93
10-Jun	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.90
11-Jun	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.90
12-Jun	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.95
13-Jun	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.92
14-Jun	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.93
15-Jun	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.94
16-Jun	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.89	1.93
17-Jun	1.9	1.9	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	1.9	1.9	2.0	A	2.0	1.94	2.00
18-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	1.9	1.9	1.9	1.9	A	1.9	2.0	1.96	2.03
19-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	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.96	2.01
20-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	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.93	2.00
21-Jun	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	1.9	2.0	A	2.0	2.0	2.0	2.0	2.0	1.95	2.00
22-Jun	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	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	1.96	2.01
23-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	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.97	2.03
24-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	A	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.98	2.03
25-Jun	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.05
26-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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.00
27-Jun	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.92	1.98
28-Jun	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.93	1.97
29-Jun	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	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.97	2.01
30-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.9	1.94	1.98
	1.94	1.94	1.96	1.97	1.96	1.97	1.95	1.94	1.93	1.92	1.91	1.91	1.91	1.91	1.90	1.90	1.90	1.90	1.90	1.90	1.91	1.91	1.92	1.93	Diurnal Average	
	2.03	2.01	2.17	2.24	2.10	2.10	2.06	2.03	2.00	2.00	1.99	1.98	1.98	1.99	1.97	1.94	1.95	1.97	1.96	1.98	1.98	1.99	1.99	2.00	Diurnal Maximum	

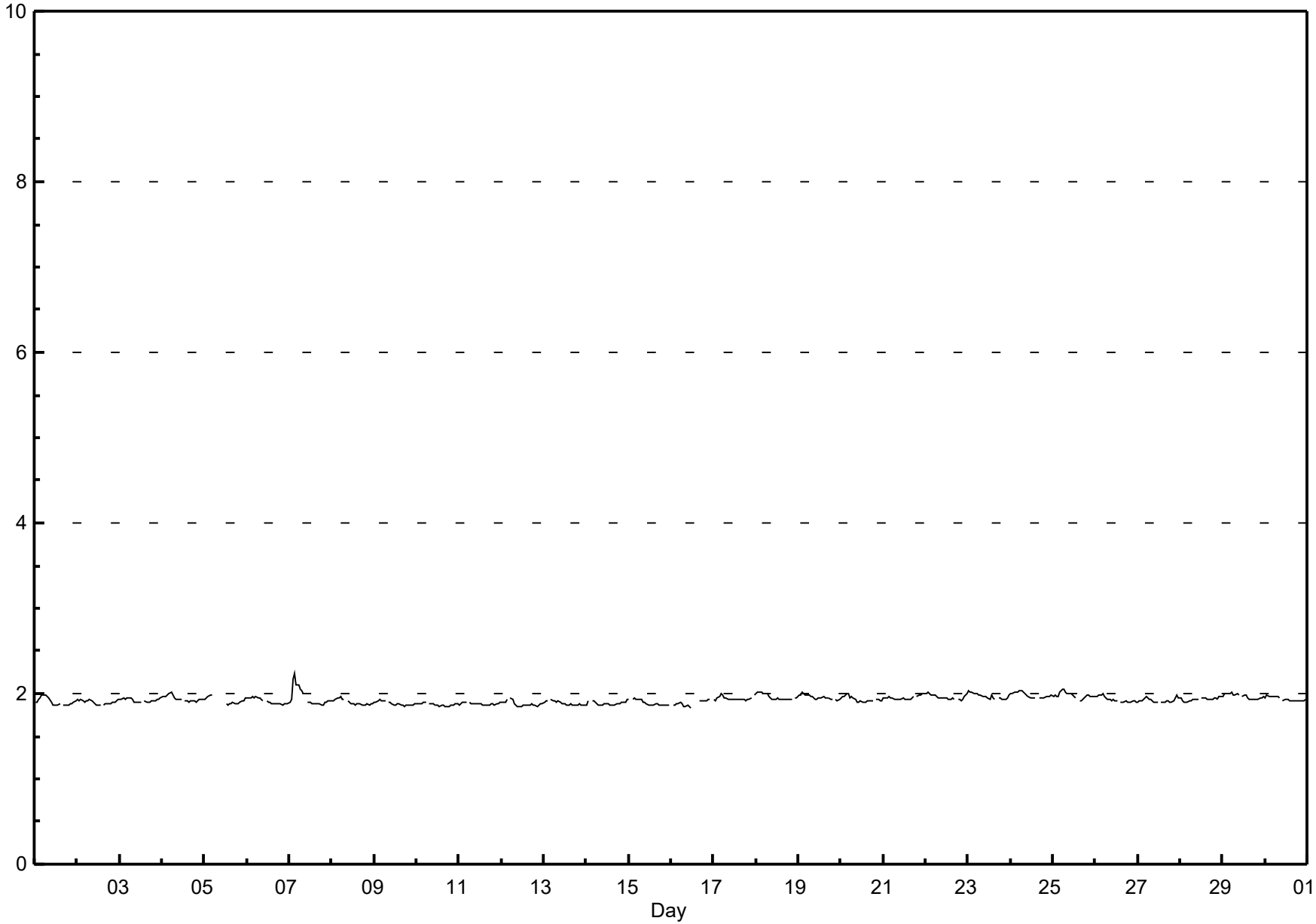
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

Portable Rycroft - June 2017

Maximum Value: 2.31 ppm on Jun 7 03:00

Maximum Daily Average: 2.01 ppm on Jun 25

Minimum Value: 1.8 ppm on Jun 16 12:00

Minimum Daily Average: 1.89 ppm on Jun 10

Maximum Diurnal Average: 2.00 ppm at hour 6

Minimum Diurnal Average: 1.92 ppm at hour 16

Monthly Average: 1.953 ppm

Percentiles: P_1 = 1.87 P_{10} = 1.89 Q_1 = 1.91 Median = 1.95 Q_3 = 1.99 P_{90} = 2.02 P_{99} = 2.08

Hours in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	35
Percent Operational Time:	99.2

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	Daily Average	Daily Maximum
1-Jun	1.9	1.9	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.00
2-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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.95
3-Jun	1.9	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	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.94	1.98
4-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.96	2.03
5-Jun	2.0	2.0	2.0	2.0	2.0	N	N	N	N	N	N	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	--	2.00
6-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	1.94	2.01
7-Jun	1.9	2.0	2.3	2.3	2.1	2.1	2.1	2.1	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.99	2.31
8-Jun	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.01
9-Jun	1.9	1.9	1.9	2.0	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	1.9	1.9	1.9	1.91	1.97
10-Jun	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.94
11-Jun	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.95
12-Jun	2.0	1.9	2.0	1.9	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.09
13-Jun	2.0	1.9	1.9	A	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.03
14-Jun	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.92	1.98
15-Jun	1.9	A	1.9	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	1.9	1.9	1.9	1.9	1.9	1.92	1.97
16-Jun	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	C	C	C	C	1.9	2.0	1.9	1.9	1.9	2.0	1.9	A	1.91	1.97
17-Jun	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	1.9	2.0	2.0	2.0	A	2.0	1.97	2.02
18-Jun	2.0	2.0	2.1	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	2.0	1.9	2.0	A	2.0	2.0	2.00	2.06
19-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	2.0	2.0	1.9	A	1.9	1.9	1.9	1.99	2.06
20-Jun	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.0	1.9	2.0	1.97	2.06
21-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.98	2.02
22-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	1.9	2.0	1.9	2.0	2.0	2.0	1.99	2.03
23-Jun	2.1	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	2.0	2.00	2.06
24-Jun	2.0	2.0	2.1	2.0	2.1	2.0	2.1	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	2.01	2.08
25-Jun	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.11
26-Jun	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.96	2.04
27-Jun	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	1.95	2.03
28-Jun	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.97	2.02
29-Jun	2.0	2.0	2.0	2.0	2.1	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	2.0	2.0	2.0	2.0	2.0	2.00	2.05
30-Jun	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	2.0	1.9	2.0	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.0	1.97	2.03
	1.97	1.97	1.99	2.00	2.00	2.00	1.98	1.97	1.96	1.94	1.94	1.93	1.93	1.93	1.93	1.92	1.93	1.93	1.93	1.93	1.93	1.94	1.95	1.96	Diurnal Average	
	2.05	2.03	2.31	2.29	2.15	2.13	2.08	2.06	2.03	2.04	2.01	2.02	2.01	2.02	2.03	2.01	2.00	2.09	2.01	2.00	2.02	2.01	2.02	2.03	Diurnal Maximum	

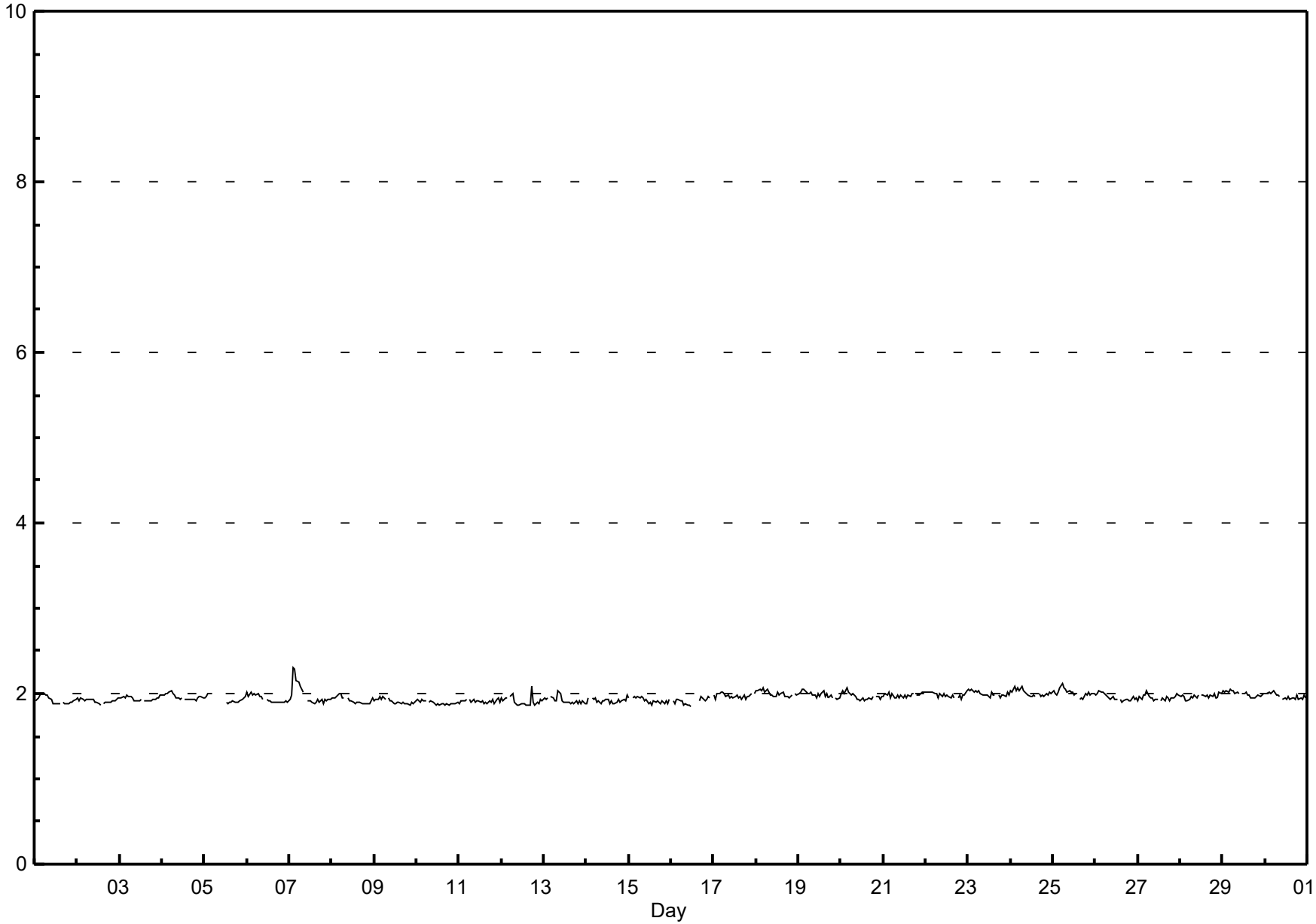
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

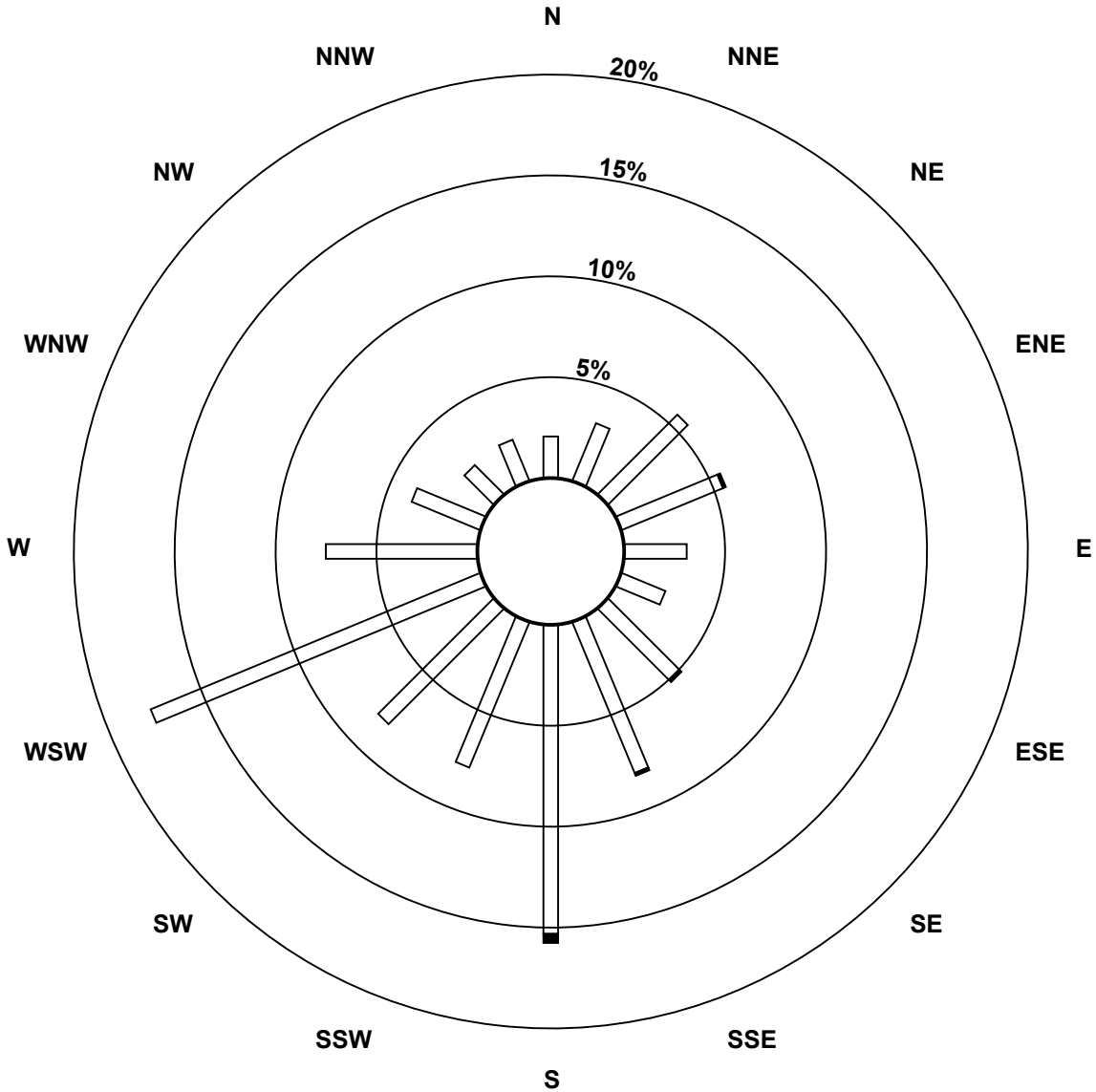
Portable Rycroft - June 2017



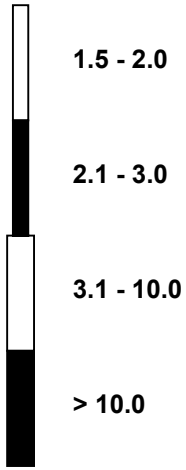
Pollutant Rose

Methane (CH_4) - ppm

Portable Rycroft - June 2017



Pollutant Classes (ppm)



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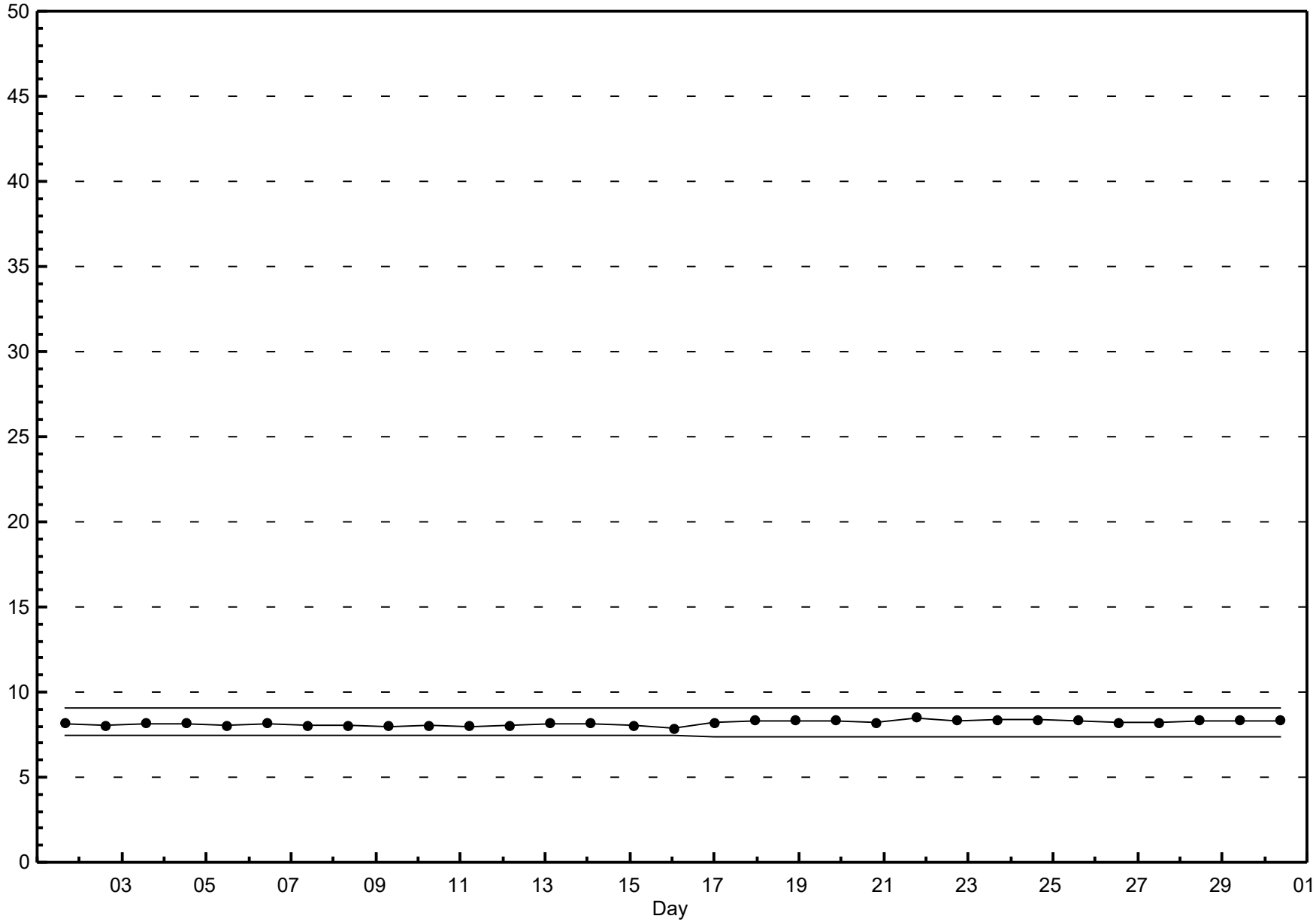
Span Responses

Methane (CH_4)

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - June 2017

Maximum Value: 0.01 ppm on Jun 23 11:00

Maximum Daily Average: 0.00 ppm on Jun 23

Minimum Value: 0.0 ppm on Jun 1 01:00

Minimum Daily Average: 0.00 ppm on Jun 1

Maximum Diurnal Average: 0.00 ppm at hour 11

Minimum Diurnal Average: 0.00 ppm at hour 13

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 in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	35
Percent Operational Time:	99.2

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	Daily Average	Daily Maximum
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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	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
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	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
5-Jun	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	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
6-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
7-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
8-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
9-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
10-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
11-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
12-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
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	0.0	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	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
15-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
16-Jun	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
17-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
18-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
19-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
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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.01
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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	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
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	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
28-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
29-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
30-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
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

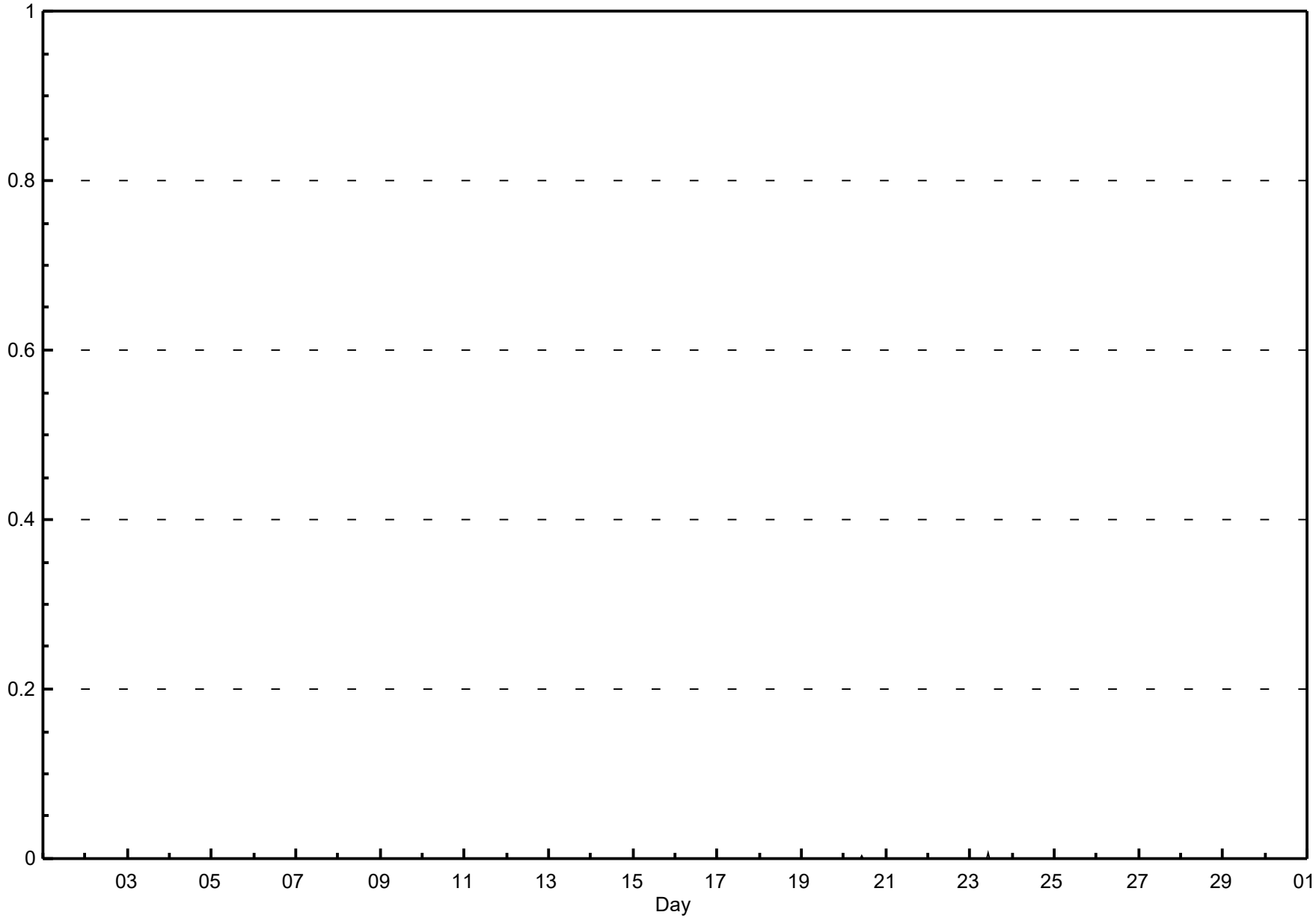
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - June 2017

Maximum Value: 0.45 ppm on Jun 23 11:00

Maximum Daily Average: 0.02 ppm on Jun 23

Minimum Value: 0.0 ppm on Jun 1 01:00

Minimum Daily Average: 0.00 ppm on Jun 1

Maximum Diurnal Average: 0.02 ppm at hour 11

Minimum Diurnal Average: 0.00 ppm at hour 14

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 in Service:	720
Hours of Data:	679
Hours of Missing Data:	41
Hours of Calibration:	35
Percent Operational Time:	99.2

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	Daily Average	Daily Maximum
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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	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
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	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
5-Jun	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	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
6-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
7-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
8-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
9-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
10-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
11-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
12-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
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	0.0	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	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
15-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
16-Jun	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
17-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
18-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
19-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
20-Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.01	0.22
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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	0.4	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	0.02	0.45
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	A	0.0	0.0	0.0	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	A	0.0	0.0	0.0	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	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
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	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
28-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
29-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
30-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
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Diurnal Maximum	

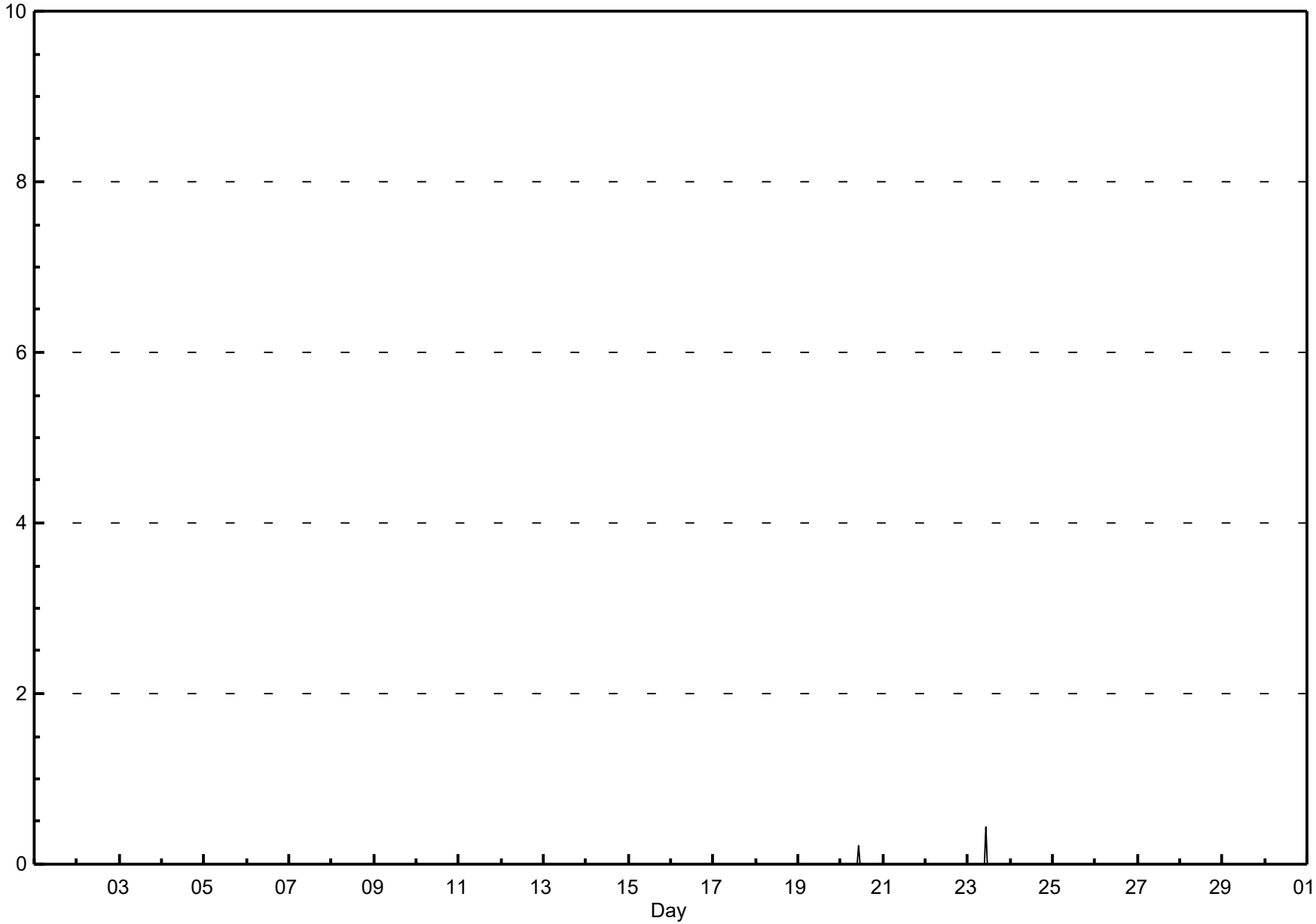
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - June 2017

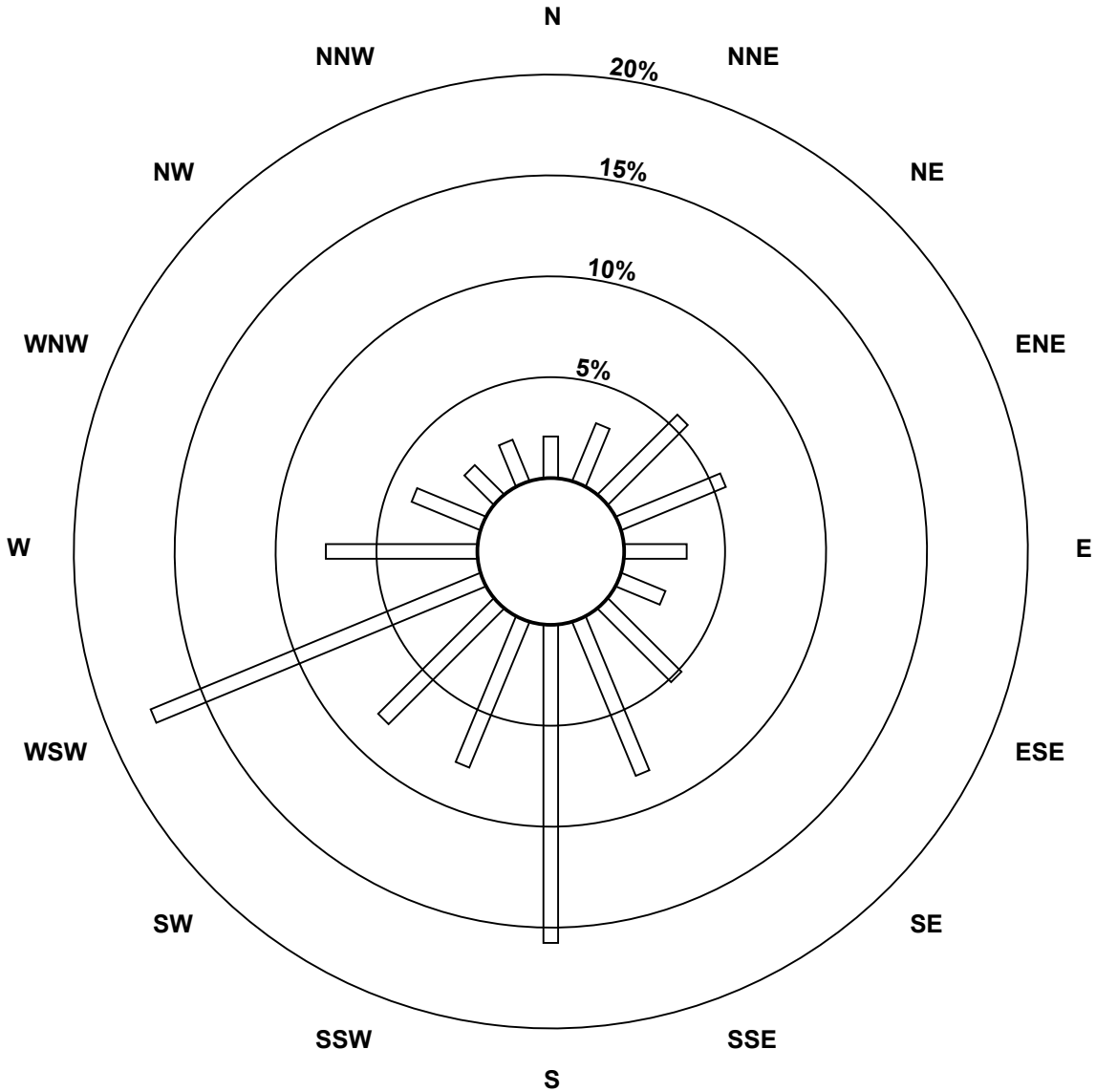


Peace Airshed Zone Association

Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - June 2017



Pollutant Classes (ppm)

- 0 - 0.05
- 0.06 - 0.1
- 0.11 - 0.30
- > 0.30

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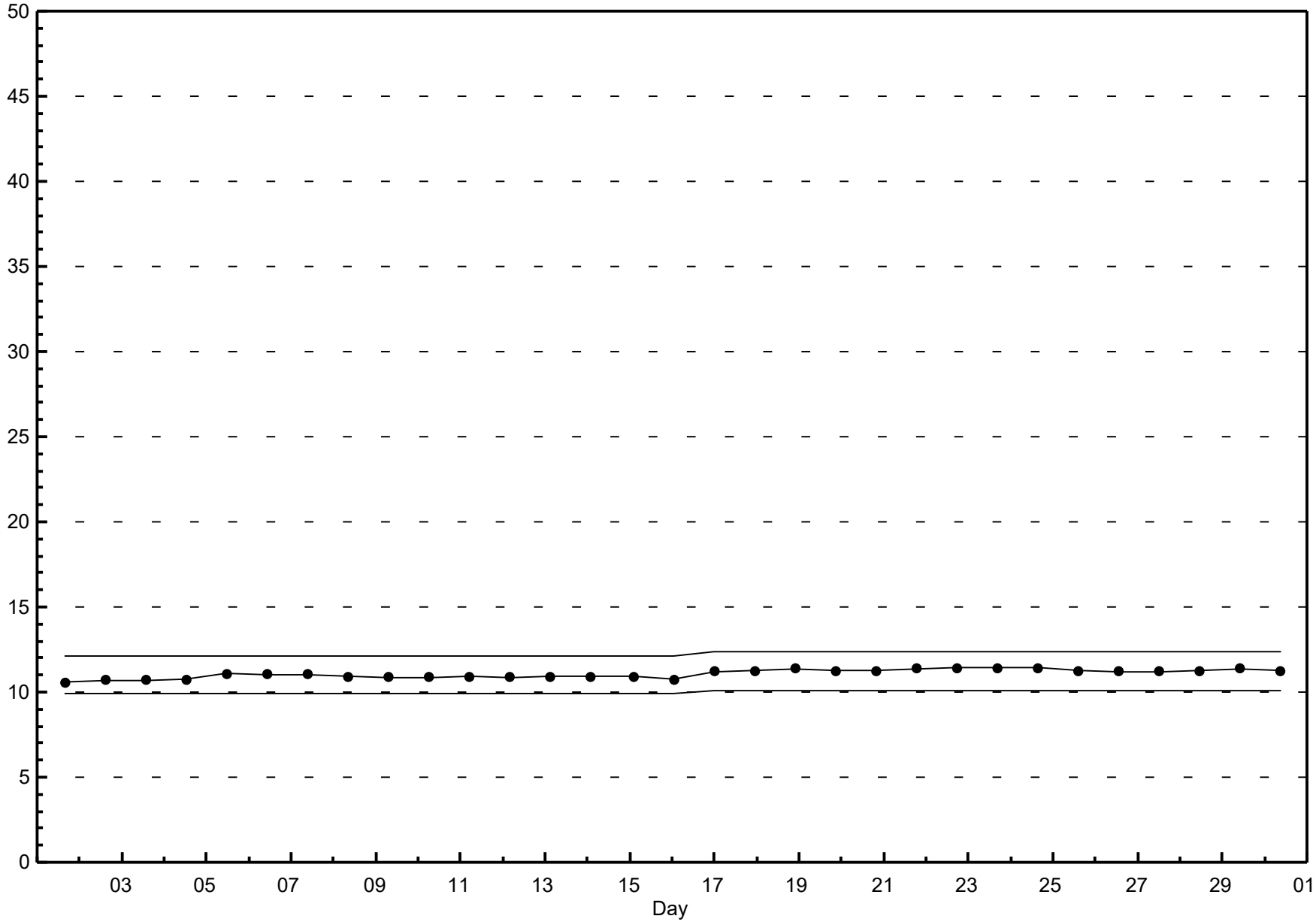
Span Responses

Non Methane Hydrocarbon (NMHC)

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

Portable Rycroft - June 2017

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 37.3 $\mu g/m^3$ on Jun 9 02:00

Maximum Daily Average: 7.9 $\mu g/m^3$ on Jun 7

Minimum Value: 0 $\mu g/m^3$ on Jun 1 17:00

Maximum Diurnal Average: 3.5 $\mu g/m^3$ at hour 2

Monthly Average: 2.80 $\mu g/m^3$

Minimum Daily Average: 0.9 $\mu g/m^3$ on Jun 11

Minimum Diurnal Average: 1.8 $\mu g/m^3$ at hour 18

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.8 Median = 1.9 Q_3 = 3.5 P_{90} = 6.2 P_{99} = 15.9

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	4
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	3	3	3	3	3	4	3	5	5	2	1	2	3	2	4	1	0	0	2	2	2	1	1	1	2.3	5.3
2-Jun	1	1	1	1	0	0	0	0	0	1	1	1	3	2	0	3	4	0	3	2	0	2	0	0	1.2	3.8
3-Jun	0	0	1	1	0	1	1	1	0	0	0	1	1	0	2	6	1	2	1	1	1	3	1	3	1.2	5.9
4-Jun	1	1	1	1	1	1	2	2	1	0	0	1	1	0	0	1	2	0	1	2	4	3	2	1	1.2	4.4
5-Jun	2	1	2	2	2	2	4	1	4	4	2	1	1	0	0	3	2	2	3	2	15	14	10	12	3.8	15.2
6-Jun	8	4	3	2	1	2	2	5	2	3	1	7	2	1	2	1	1	2	3	4	6	12	33	21	5.3	32.5
7-Jun	9	17	18	12	8	7	8	9	10	7	5	4	3	5	3	5	4	4	7	10	6	10	13	7	7.9	17.7
8-Jun	5	7	6	5	5	6	6	8	5	5	22	9	8	8	9	7	7	8	7	8	7	10	7	7	7.6	22.0
9-Jun	9	37	9	5	4	5	6	7	8	8	7	6	10	8	6	8	6	4	3	2	2	1	3	1	7.0	37.3
10-Jun	1	0	0	0	3	6	1	0	1	1	7	21	20	17	1	1	2	2	6	8	6	1	0	0	4.5	20.6
11-Jun	0	1	0	0	2	1	1	0	1	3	2	3	3	2	1	0	0	0	0	0	0	0	0	0	0.9	3.1
12-Jun	0	0	0	1	3	4	4	1	0	1	0	2	2	1	1	2	0	0	2	3	2	2	2	1	1.4	4.2
13-Jun	1	1	2	3	2	3	2	1	0	1	1	1	0	0	0	2	1	1	3	3	4	9	0	0	1.7	8.7
14-Jun	0	0	1	1	2	1	2	2	3	3	3	4	2	5	3	3	2	2	3	0	0	1	0	0	1.8	4.8
15-Jun	1	0	2	3	1	1	2	3	3	5	2	2	0	1	1	1	1	0	3	2	2	3	2	3	1.8	4.6
16-Jun	4	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	4	2	2	1	2	1	1	1	0.9	4.0
17-Jun	1	1	2	1	2	2	2	0	0	0	1	0	0	2	1	1	2	1	1	1	1	2	1	1	1.1	2.3
18-Jun	1	1	2	1	2	3	2	2	1	1	2	2	4	3	2	3	1	2	1	3	3	2	2	0	1.9	3.8
19-Jun	1	0	0	3	1	1	4	2	0	0	3	0	C	C	C	C	4	3	2	1	2	2	1	1	1.5	4.3
20-Jun	2	2	3	3	4	3	3	2	1	0	1	0	0	2	1	0	0	1	2	3	2	2	3	1	1.7	3.5
21-Jun	0	1	0	0	1	0	0	3	4	6	5	4	9	5	7	11	4	1	3	4	0	1	1	1	3.0	11.5
22-Jun	2	2	2	3	2	3	2	2	2	2	1	2	2	1	1	1	1	1	0	1	1	2	2	1	1.5	2.9
23-Jun	2	1	2	1	2	3	2	2	1	1	1	1	3	1	4	3	3	4	3	0	0	2	2	2	1.9	4.2
24-Jun	2	2	2	2	2	3	3	2	2	2	2	1	2	2	7	2	2	2	2	5	4	5	4	5	2.8	6.7
25-Jun	5	5	5	4	3	4	4	3	4	5	5	7	3	2	1	3	1	2	3	4	5	3	4	5	3.7	6.6
26-Jun	3	3	5	6	5	6	4	4	2	2	3	1	1	1	1	5	16	0	1	2	0	0	2	4	3.3	15.9
27-Jun	1	1	1	1	0	2	1	3	7	8	2	0	0	0	0	1	1	0	0	0	0	3	1	2	1.5	8.3
28-Jun	1	1	1	1	1	1	1	2	3	2	4	5	5	5	5	4	6	5	5	5	5	6	5	4	3.4	6.2
29-Jun	4	5	5	6	6	6	6	6	6	5	4	5	6	6	3	2	5	4	4	5	5	3	2	3	4.6	6.3
30-Jun	1	4	1	3	2	3	4	2	0	0	1	0	0	0	1	2	0	1	2	1	2	1	2	3	1.5	3.6
	2.5	3.5	2.7	2.4	2.4	2.8	2.7	2.7	2.6	2.6	3.0	3.0	3.2	2.8	2.4	2.8	2.7	1.8	2.6	2.8	3.0	3.5	3.5	3.1	Diurnal Average	
	9.4	37.3	17.7	11.5	7.6	7.5	8.3	9.2	9.6	8.4	22.0	20.6	20.5	16.8	9.0	11.5	15.9	8.4	6.7	9.6	15.2	14.0	32.5	20.7	Diurnal Maximum	

C - Calibration

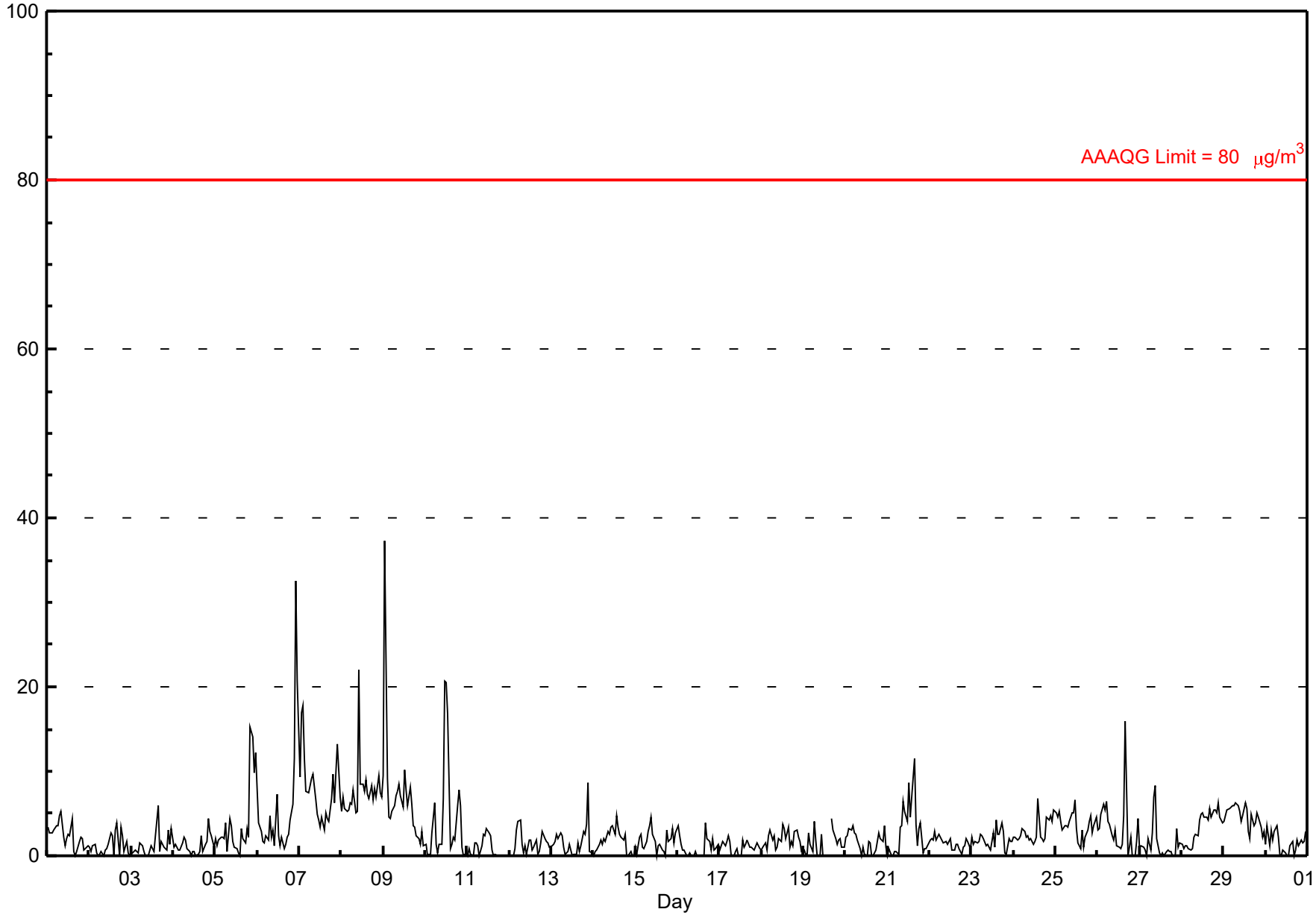
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Maximums

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

Portable Rycroft - June 2017

Maximum Value: 116.1 $\mu g/m^3$ on Jun 6 23:00

Maximum Daily Average: 16.9 $\mu g/m^3$ on Jun 6

Minimum Value: 0 $\mu g/m^3$ on Jun 11 01:00

Maximum Diurnal Average: 8.8 $\mu g/m^3$ at hour 23

Monthly Average: 6.51 $\mu g/m^3$

Minimum Daily Average: 2.9 $\mu g/m^3$ on Jun 22

Minimum Diurnal Average: 4.2 $\mu g/m^3$ at hour 5

Percentiles: $P_1 = 0.7$ $P_{10} = 2.1$ $Q_1 = 3.0$ Median = 4.3 $Q_3 = 6.8$ $P_{90} = 11.1$ $P_{99} = 54.7$

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	4
Percent Operational Time:	100.0

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	Daily Average	Daily Maximum
1-Jun	5	4	4	4	5	5	6	7	10	6	4	5	6	10	10	5	2	3	4	4	4	3	2	2	5.0	9.9
2-Jun	2	2	2	3	2	1	1	2	2	3	3	4	5	8	3	24	24	2	14	6	2	7	2	2	5.2	24.3
3-Jun	2	2	2	2	2	4	3	4	3	2	1	3	3	4	4	14	2	4	7	4	2	12	3	6	3.9	14.1
4-Jun	3	3	3	2	3	3	4	4	3	2	1	3	3	2	3	4	11	2	4	4	6	4	5	3	3.5	10.8
5-Jun	3	2	3	3	3	4	8	4	10	8	3	3	3	3	3	10	3	4	10	4	64	20	13	19	8.8	63.7
6-Jun	17	6	4	3	3	4	4	17	8	12	4	30	5	5	5	3	4	5	6	8	11	45	116	82	16.9	116.1
7-Jun	15	30	26	15	9	9	12	12	12	9	8	6	6	11	6	8	7	11	22	17	10	25	21	13	13.3	30.2
8-Jun	7	18	7	6	9	9	10	15	8	10	79	18	12	11	19	14	10	13	13	10	9	15	12	12	14.3	78.9
9-Jun	17	106	16	7	7	8	7	9	9	13	8	7	17	10	8	13	9	5	5	4	4	3	6	3	12.6	105.5
10-Jun	2	2	2	3	9	16	4	2	5	4	28	58	35	66	3	5	4	5	11	17	18	4	5	3	12.9	66.1
11-Jun	0	3	3	3	5	4	4	5	6	5	5	6	5	6	4	2	3	2	2	1	1	0	0	0	3.1	5.9
12-Jun	1	1	0	2	6	7	6	4	4	6	4	6	5	5	5	5	6	4	5	6	4	3	5	2	4.3	7.0
13-Jun	2	3	4	6	3	5	5	3	3	3	5	5	4	3	5	4	3	5	7	5	6	29	3	4	5.2	29.1
14-Jun	2	3	4	3	5	5	5	4	5	4	4	7	4	8	5	6	6	4	4	4	2	2	0	1	4.0	7.6
15-Jun	3	2	5	4	2	3	5	6	6	8	9	5	6	6	6	4	4	5	5	4	4	4	3	6	4.7	9.0
16-Jun	5	5	3	2	2	1	2	3	3	3	4	2	4	3	5	4	11	5	6	3	4	3	3	3	3.8	11.0
17-Jun	3	5	4	3	3	5	8	3	2	2	4	3	5	5	5	5	6	3	5	4	4	4	2	2	4.0	8.4
18-Jun	2	2	3	2	6	7	4	10	3	3	10	6	8	8	6	7	3	4	4	6	11	5	3	1	5.2	11.4
19-Jun	2	1	7	11	4	2	7	6	6	3	7	3	C	C	C	C	5	5	3	4	3	4	2	2	4.4	11.1
20-Jun	3	4	5	4	4	4	4	3	2	3	2	2	1	6	5	1	2	3	5	4	4	8	8	6	3.9	7.6
21-Jun	2	2	1	1	2	2	1	8	7	15	16	9	22	9	23	21	15	3	7	14	1	2	2	3	7.8	23.5
22-Jun	3	3	3	4	3	4	3	4	3	3	3	3	4	2	3	3	2	2	1	2	2	4	3	2	2.9	4.2
23-Jun	4	2	3	3	3	4	4	4	2	2	2	2	6	5	6	5	6	9	6	3	4	3	3	4	3.9	8.7
24-Jun	4	4	4	3	3	6	5	4	4	3	4	3	3	4	32	4	4	3	4	12	6	11	6	6	5.9	32.2
25-Jun	7	7	7	6	5	5	4	5	6	7	8	15	5	3	4	5	3	4	6	5	7	4	6	6	5.8	15.1
26-Jun	6	6	8	9	7	12	6	7	6	7	5	4	4	4	7	16	55	3	6	6	3	2	11	10	8.6	54.8
27-Jun	4	3	2	3	1	9	3	5	14	15	10	5	3	2	1	2	2	2	3	0	4	7	4	5	4.5	14.8
28-Jun	3	2	3	2	2	3	2	4	4	4	6	7	6	7	9	8	9	7	10	9	7	8	6	5	5.5	10.0
29-Jun	6	5	6	7	7	7	7	9	9	9	8	8	12	11	6	8	9	7	7	7	8	6	3	4	7.3	12.0
30-Jun	4	7	4	5	3	4	5	4	2	3	4	4	2	2	6	4	2	3	6	6	3	3	3	4	4.0	7.0
	4.6	8.2	4.9	4.4	4.2	5.3	5.0	5.8	5.5	5.9	8.7	8.0	7.0	7.8	7.1	7.4	7.8	4.6	6.6	6.1	7.1	8.3	8.8	7.3	Diurnal Average	
	16.8	105.5	25.6	14.6	9.3	15.5	12.3	16.7	14.5	14.9	78.9	58.3	34.7	66.1	32.2	24.3	54.8	13.2	21.9	16.8	63.7	44.9	116.1	82.2	Diurnal Maximum	

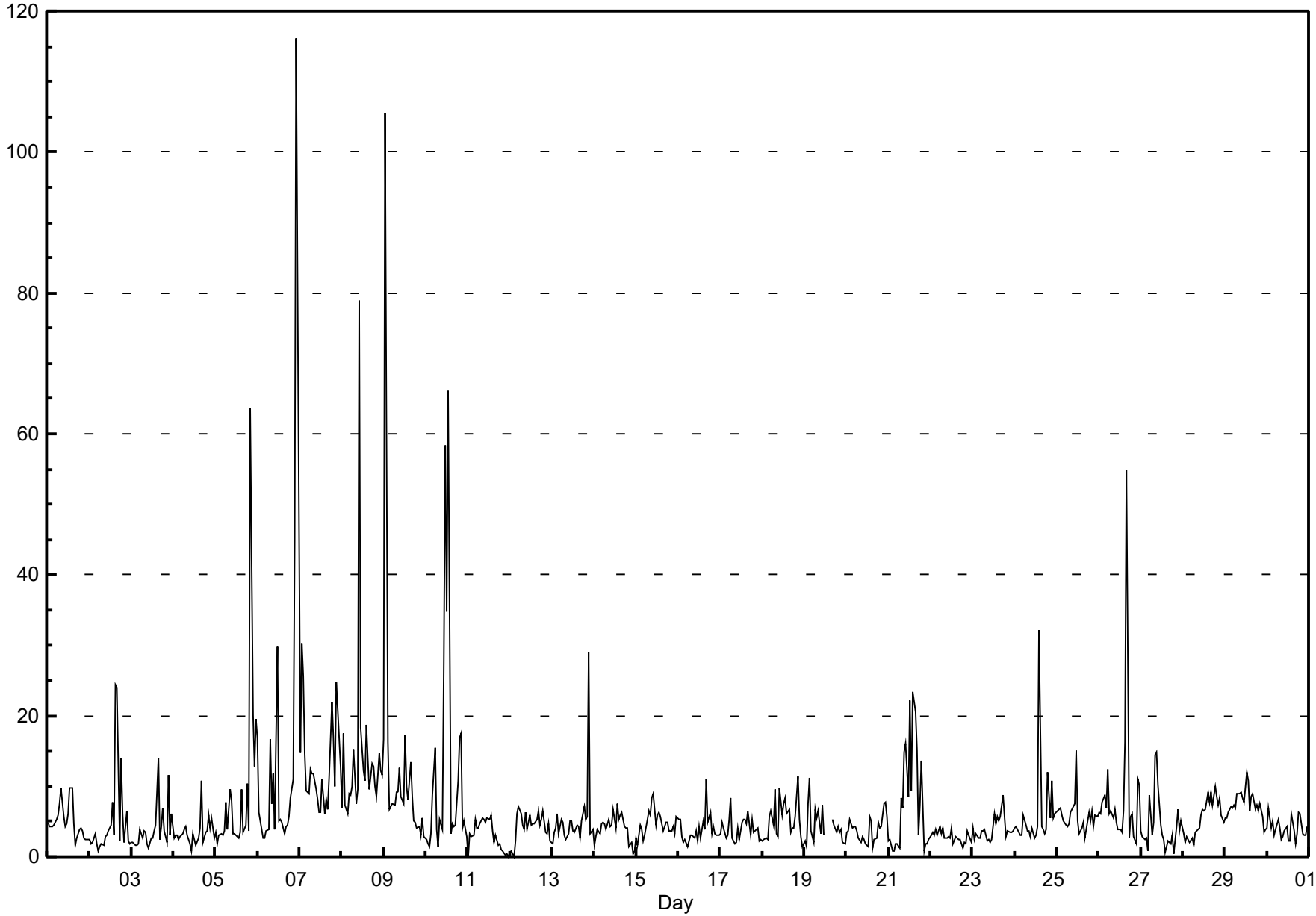
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

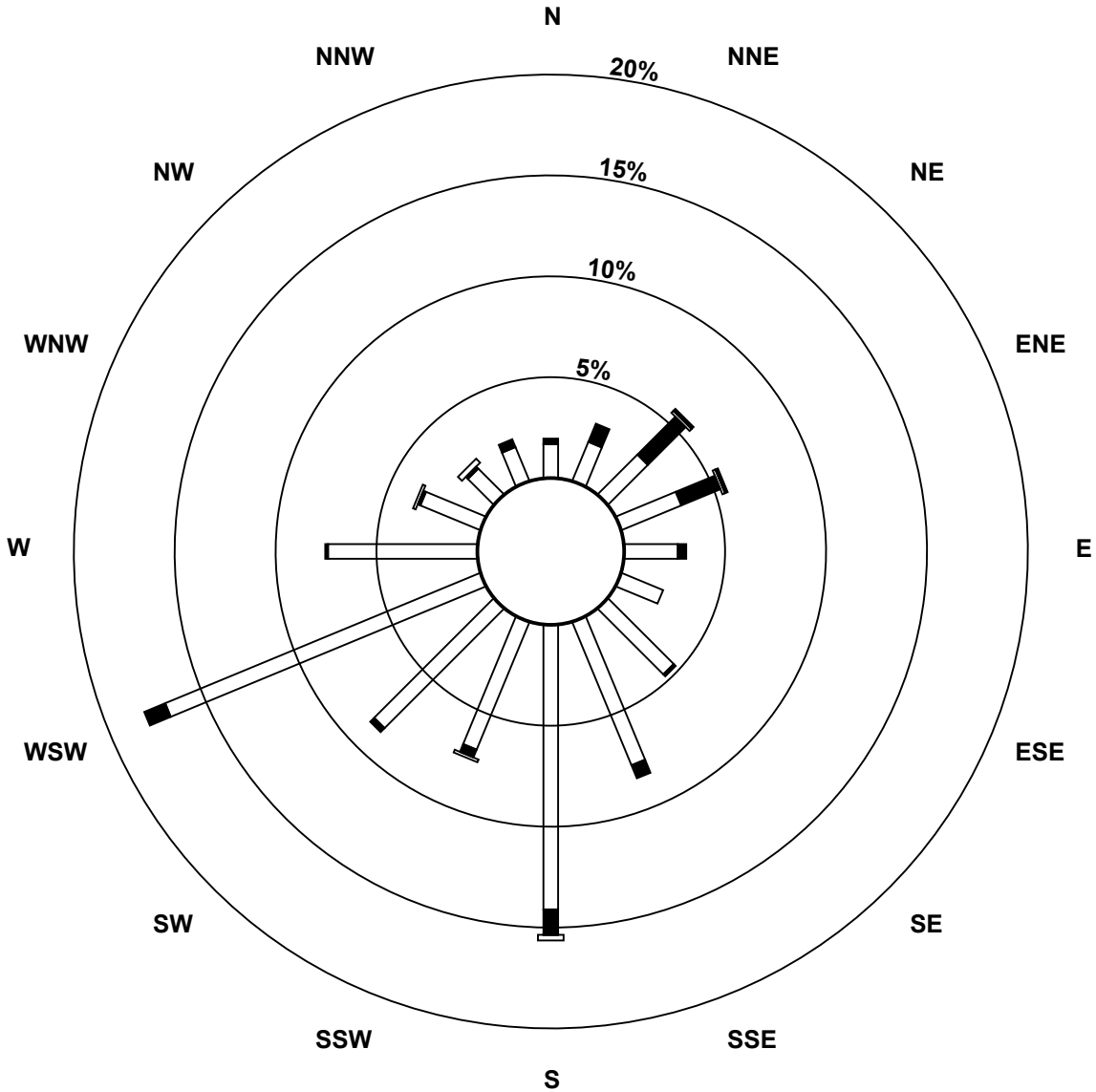
Portable Rycroft - June 2017



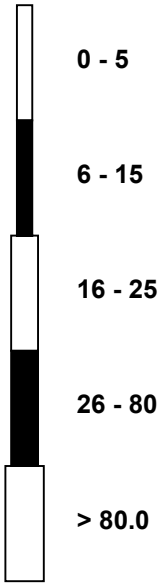
Pollutant Rose

PM2.5 ($PM_{2.5}$) - $\mu g/m^3$

Portable Rycroft - June 2017



Pollutant Classes ($\mu g/m^3$)



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Portable Rycroft - June 2017

Maximum Value: 28.6 °C on Jun 8 15:00

Maximum Daily Average: 21.8 °C on Jun 25

Minimum Value: 4 °C on Jun 4 05:00

Minimum Daily Average: 9.1 °C on Jun 11

Maximum Diurnal Average: 20.7 °C at hour 16

Minimum Diurnal Average: 9.3 °C at hour 5

Monthly Average: 15.88 °C

Percentiles: P_1 = 5.7 P_{10} = 8.4 Q_1 = 11.4 Median = 16.0 Q_3 = 19.9 P_{90} = 23.6 P_{99} = 28.2

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

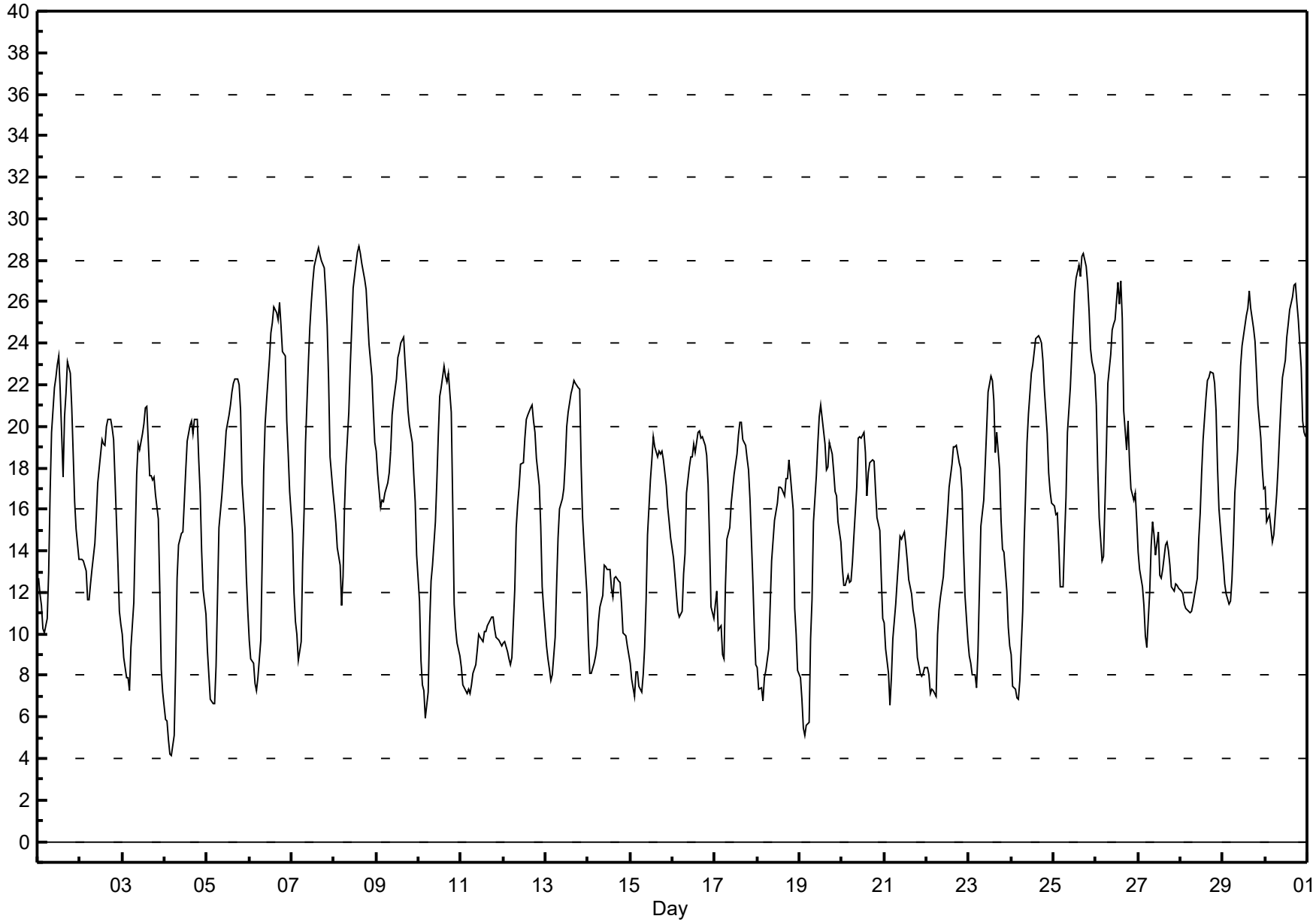
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jun	13	12	11	10	10	11	13	17	20	22	22	23	23	22	18	21	22	23	23	21	19	16	15	14	17.5	23.4
2-Jun	14	14	14	13	12	12	12	13	14	16	17	18	19	19	19	20	20	20	20	19	17	13	11	10	15.7	20.4
3-Jun	10	9	8	8	7	9	12	15	18	19	19	20	20	21	21	18	18	17	18	17	16	12	8	7	14.4	20.9
4-Jun	6	6	5	4	4	5	8	13	14	15	15	16	18	19	20	20	20	20	20	18	17	14	12	11	13.4	20.3
5-Jun	9	8	7	7	7	8	12	15	17	18	19	20	21	21	22	22	22	22	22	21	17	15	13	11	15.6	22.3
6-Jun	10	9	9	8	7	8	10	14	18	20	21	23	25	25	26	25	25	26	25	24	23	20	19	17	18.1	26.0
7-Jun	15	12	11	10	9	10	13	16	19	23	25	26	27	28	28	29	28	28	28	26	25	22	19	17	20.5	28.6
8-Jun	16	15	14	13	11	13	16	18	21	23	25	27	28	28	29	28	28	27	27	25	24	22	21	19	21.6	28.6
9-Jun	19	18	16	16	16	17	17	18	19	21	21	22	23	24	24	24	23	22	21	20	19	18	16	14	19.5	24.3
10-Jun	12	9	8	7	6	7	10	13	13	15	17	20	21	22	23	22	22	23	21	16	11	10	10	9	14.5	22.9
11-Jun	8	8	7	7	7	7	8	8	8	9	10	10	10	10	10	10	11	11	11	10	10	10	10	9	9.1	10.8
12-Jun	10	10	9	9	8	9	12	15	16	17	18	18	19	20	21	21	21	20	20	18	17	15	12	11	15.3	21.0
13-Jun	9	9	8	8	8	10	12	15	16	17	17	18	20	21	22	22	22	22	22	22	18	16	14	12	15.8	22.2
14-Jun	10	8	8	9	9	9	11	11	12	13	13	13	13	12	12	13	13	13	12	11	10	10	9	9	11.0	13.3
15-Jun	9	8	7	8	8	7	7	8	9	12	15	17	18	19	19	18	19	19	19	18	17	16	15	15	13.7	19.5
16-Jun	14	13	12	11	11	11	13	14	17	18	19	19	19	19	20	20	19	20	19	19	17	14	11	11	15.7	19.8
17-Jun	11	12	10	10	9	9	12	15	15	16	17	18	19	20	20	20	19	19	18	18	17	13	10	9	14.8	20.2
18-Jun	8	7	7	7	8	8	9	11	14	14	15	16	17	17	17	17	17	18	18	18	16	11	10	8	12.9	18.4
19-Jun	8	7	5	5	6	6	10	12	15	18	19	20	21	20	19	18	18	19	19	18	17	17	15	14	14.4	21.1
20-Jun	13	12	12	13	12	13	13	15	17	19	20	19	20	19	17	18	18	18	18	17	16	15	13	11	15.8	19.7
21-Jun	11	9	8	7	8	10	11	13	14	15	15	15	14	14	13	12	11	11	10	9	8	8	8	8	10.8	14.9
22-Jun	8	8	7	7	7	7	10	11	12	13	14	15	16	17	18	19	19	19	18	18	17	14	12	10	13.2	19.1
23-Jun	9	9	8	8	7	9	12	15	16	18	20	22	22	22	21	19	20	18	15	14	14	12	10	9	14.6	22.4
24-Jun	9	7	7	7	7	8	11	14	17	19	21	23	23	24	24	24	24	24	23	22	20	18	17	16	17.0	24.4
25-Jun	16	16	16	14	12	12	15	17	20	22	23	25	26	27	28	27	28	28	28	27	26	24	23	22	21.8	28.3
26-Jun	21	18	16	14	14	16	19	22	23	25	25	25	27	26	27	25	21	19	20	18	17	16	17	15	20.3	27.0
27-Jun	14	13	12	11	10	9	12	14	15	15	14	15	13	13	13	14	14	14	13	12	12	12	12	12	13.0	15.4
28-Jun	12	12	11	11	11	11	11	11	12	13	15	16	18	19	21	22	22	23	23	22	21	18	16	14	16.1	22.6
29-Jun	13	12	12	11	12	13	14	17	19	21	23	24	25	25	26	27	26	25	24	23	21	19	18	17	19.4	26.5
30-Jun	17	15	16	15	14	15	17	18	20	21	22	23	24	25	26	26	27	27	26	25	23	20	20	19	20.9	26.8
	11.8	10.8	10.1	9.6	9.3	10.0	12.1	14.2	16.0	17.5	18.5	19.5	20.3	20.6	20.7	20.7	20.6	20.5	20.0	18.9	17.4	15.4	13.9	12.8	Diurnal Average	
	21.0	18.0	16.1	16.4	16.4	16.8	18.9	22.1	23.4	24.6	24.9	26.6	27.9	28.4	28.6	28.6	28.2	28.3	27.7	26.9	25.6	23.7	23.1	22.5	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable Rycroft - June 2017



Peace Airshed Zone Association

Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	8	7	8	8	7	4	6	3	4	5	17	16	10	8	11	12	10	8	11	5	7	7	7	9	6.1	17.0
Dir	155	154	173	166	185	168	167	160	306	265	249	254	243	244	291	248	243	249	247	233	184	185	181	175	221.1	248.8
2 Spd	9	4	6	8	4	6	8	8	6	8	21	27	29	26	23	24	17	20	30	16	9	4	5	9	12.1	30.1
Dir	178	191	180	163	159	169	167	172	195	226	246	252	249	246	233	248	227	230	237	228	206	198	188	180	225.9	236.9
3 Spd	10	9	10	9	6	7	7	6	5	7	6	6	10	8	8	17	8	20	12	7	7	4	2	4	6.3	19.6
Dir	182	179	173	163	156	151	158	155	94	91	112	120	145	167	182	220	180	243	238	198	192	197	209	195	180.0	242.6
4 Spd	4	8	8	8	8	7	7	5	6	6	9	7	8	5	3	7	4	3	4	7	7	15	5	5	5.8	14.9
Dir	204	176	176	181	178	175	171	206	229	150	168	177	218	210	210	197	162	211	170	228	226	250	188	169	194.5	249.8
5 Spd	7	7	8	7	7	6	5	17	25	22	20	14	15	16	14	15	12	7	6	4	3	3	4	8	8.9	24.7
Dir	168	172	174	164	173	169	184	238	248	250	246	243	244	241	244	251	263	257	209	216	253	256	187	173	230.4	247.6
6 Spd	9	8	8	10	10	8	6	4	2	9	14	9	8	7	6	6	5	6	4	3	1	4	3	6	4.1	13.9
Dir	178	177	173	173	166	176	165	174	50	33	51	80	82	89	123	133	119	128	127	89	83	47	55	59	120.7	50.6
7 Spd	3	1	4	3	3	4	2	4	5	11	17	19	10	13	12	16	19	13	14	17	16	13	11	13	9.0	19.2
Dir	57	195	183	168	182	179	141	55	64	59	58	65	86	68	63	40	38	58	57	68	62	56	50	46	61.3	37.6
8 Spd	10	11	9	7	1	3	11	16	20	23	23	24	25	24	25	33	30	14	19	19	20	20	16	16	17.4	32.6
Dir	56	56	60	62	51	30	53	54	51	54	56	55	62	59	61	56	58	78	67	53	54	51	53	50	56.8	56.2
9 Spd	9	9	9	13	12	13	11	16	17	24	26	32	35	34	36	38	38	36	33	28	24	21	20	15	22.2	38.0
Dir	69	61	11	19	31	27	43	32	39	38	44	35	29	30	28	20	7	9	11	13	12	12	7	9	23.5	6.8
10 Spd	6	8	9	6	7	6	7	6	7	8	9	8	9	8	9	14	13	12	16	30	26	17	19	14	10.6	29.8
Dir	345	302	333	319	302	284	305	316	266	275	273	294	325	304	307	315	302	288	315	341	340	336	334	324	317.1	341.1
11 Spd	12	9	7	4	4	1	1	3	3	1	3	2	2	2	5	4	5	5	4	6	5	4	3	5	0.8	12.0
Dir	305	303	286	299	296	280	185	136	159	150	13	57	80	126	147	151	149	141	133	155	134	126	123	128	164.5	305.0
12 Spd	6	7	7	7	10	7	12	10	10	11	14	23	14	10	12	11	12	10	19	20	9	11	6	9	9.4	23.1
Dir	131	136	144	165	167	176	180	199	216	216	228	244	235	217	239	234	238	230	248	245	227	231	185	177	216.3	244.1
13 Spd	7	8	7	6	5	5	5	6	12	17	12	6	6	7	6	7	2	6	5	7	5	20	18	14	2.3	19.5
Dir	184	163	162	161	168	169	170	181	249	252	247	231	176	164	197	212	185	218	235	299	320	20	38	34	209.7	20.1
14 Spd	9	3	6	6	2	3	7	13	9	13	13	12	14	5	14	10	7	7	6	5	11	5	2	3	5.8	14.2
Dir	20	284	330	349	310	296	11	28	18	15	22	18	4	352	342	349	307	298	339	271	272	273	193	193	348.0	341.9
15 Spd	6	5	5	6	6	5	2	1	2	3	2	3	5	6	8	10	6	12	17	17	14	12	15	11	4.5	17.0
Dir	173	190	195	228	231	226	211	224	161	62	358	3	43	39	71	62	98	64	62	62	55	57	54	57	68.3	62.2
16 Spd	1	15	9	2	3	7	9	6	7	8	10	12	12	16	14	21	29	27	23	26	16	8	5	9	11.4	29.5
Dir	198	253	249	211	165	170	176	191	200	205	215	207	216	227	226	232	244	244	242	238	237	223	192	184	226.4	243.7
17 Spd	6	10	9	16	13	4	6	10	20	22	19	19	13	16	14	13	14	15	12	9	6	5	10	7	11.1	22.4
Dir	198	233	243	241	235	172	210	230	236	250	250	240	233	233	229	210	202	190	194	199	217	191	174	182	223.2	250.3
18 Spd	9	11	14	11	5	4	4	7	19	26	26	26	27	28	30	28	27	24	26	23	15	6	3	5	13.7	30.3
Dir	185	170	167	175	238	187	153	249	259	246	246	248	256	255	264	264	263	270	273	276	300	43	111	153	251.3	263.7
19 Spd	5	6	8	6	8	6	3	7	5	6	5	6	5	10	8	7	4	5	4	6	3	2	2	4	4.3	10.4
Dir	169	175	175	162	171	159	143	48	78	97	88	98	125	160	193	180	169	155	208	164	162	128	108	145	150.2	160.1
20 Spd	4	3	4	11	8	7	8	9	8	17	10	8	11	13	13	12	12	16	27	21	11	15	34	38	11.4	38.4
Dir	143	155	176	170	172	173	177	179	192	243	228	216	206	218	183	196	222	229	234	228	220	228	265	261	222.6	261.0
21 Spd	14	5	4	5	6	6	15	28	34	36	38	37	39	37	41	44	35	33	35	30	27	28	28	26	25.8	43.7
Dir	240	203	205	188	203	205	223	232	237	243	247	248	245	249	250	246	250	248	253	257	250	255	256	258	245.6	246.0
22 Spd	24	19	14	12	8	9	17	15	17	18	20	19	21	19	15	16	19	26	23	18	10	4	7	7	15.2	25.8
Dir	257	258	262	270	275	261	258	264	253	257	260	255	264	262	273	277	252	263	265	253	264	210	184	184	258.5	263.3

Peace Airshed Zone Association

Hourly Averages

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

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	Daily Average	Daily Maximum
23 Spd	7	7	7	8	7	6	6	15	16	14	13	11	10	10	16	23	6	7	26	26	8	5	3	4	7.5	26.4
Dir	177	182	174	171	160	177	178	258	254	249	255	256	253	263	289	330	76	184	243	263	282	186	218	196	245.3	262.8
24 Spd	4	7	7	8	9	6	4	6	6	3	6	6	5	2	2	3	5	4	4	2	2	3	4	4	3.1	8.8
Dir	155	183	175	175	178	186	187	252	268	272	261	268	221	133	169	153	98	121	134	125	125	137	141	144	181.6	178.2
25 Spd	3	3	3	5	5	7	6	7	7	6	7	9	9	8	8	8	10	12	11	8	8	8	12	15	6.9	15.1
Dir	94	125	70	54	48	66	41	60	68	93	109	89	105	101	97	105	88	90	97	120	123	115	129	137	97.5	137.1
26 Spd	10	1	7	6	6	6	6	13	16	18	22	14	14	16	13	8	22	4	7	5	6	7	13	28	8.2	28.5
Dir	141	266	252	234	191	211	205	258	275	262	261	257	255	258	253	214	183	128	68	116	156	181	236	257	236.6	257.3
27 Spd	21	18	14	10	6	4	15	29	39	43	34	34	33	30	30	33	33	33	34	38	41	43	35	40	28.5	43.3
Dir	253	243	238	240	225	208	236	245	254	255	248	242	241	239	239	243	245	242	245	251	243	249	257	265	246.8	248.5
28 Spd	32	20	15	15	15	17	21	24	19	16	14	19	17	11	14	17	15	13	7	3	2	4	4	6	11.6	31.9
Dir	274	294	299	291	285	265	267	275	284	280	303	326	333	334	329	333	336	339	299	4	146	148	161	163	296.9	273.8
29 Spd	8	9	8	9	9	10	10	10	10	9	8	9	9	8	8	20	22	18	24	19	9	4	6	5	8.9	24.0
Dir	168	171	171	170	167	166	168	178	178	177	184	186	195	202	216	247	242	239	252	249	239	187	180	190	208.4	251.7
30 Spd	7	5	9	6	3	7	13	19	14	10	11	13	9	12	11	11	10	4	10	9	6	2	6	9	5.6	19.0
Dir	228	194	233	207	211	223	249	271	276	271	278	259	254	257	256	263	278	305	24	42	61	104	140	146	256.4	270.5
Spd	3.9	4.2	4.0	4.0	3.8	3.6	4.0	5.0	6.8	6.9	6.9	6.4	5.9	6.1	6.0	6.7	5.8	6.4	7.4	6.0	3.4	1.9	1.8	3.3	Diurnal Average	
Dir	210.6	209.8	207.5	196.7	197.6	191.9	203.1	241.0	251.6	254.8	255.0	255.3	249.9	245.5	255.6	261.6	251.6	249.0	255.6	260.5	260.9	255.4	239.2	223.8		
Spd	31.9	20.0	14.8	16.3	15.3	17.2	21.0	28.9	39.4	42.5	37.8	37.3	38.9	36.8	40.8	43.7	38.0	36.4	34.7	38.5	41.0	43.3	35.2	40.4	Diurnal Maximum	
Dir	273.8	294.4	298.7	240.7	284.6	264.7	266.7	244.6	254.0	254.5	247.1	248.2	245.1	248.9	250.4	246.0	6.8	8.5	253.0	251.0	243.0	248.5	257.5	264.7		

Maximum Speed Value: 44 km/h on Jun 21 16:00
Maximum Daily Speed Average: 28.5 km/h on Jun 27
Maximum Diurnal Speed Average: 7.4 km/h at hour 19

Minimum Speed Value: 1 km/h on Jun 11 10:00
Minimum Daily Speed Average: 0.8 km/h on Jun 11
Minimum Diurnal Speed Average: 1.8 km/h at hour 23

Monthly Average Velocity: 4.65 km/h 241.48 deg

Speed Percentiles: P_1 = 1.5 P_{10} = 3.8 Q_1 = 5.8 Median = 8.7 Q_3 = 15.2 P_{90} = 25.7 P_{99} = 38.7

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

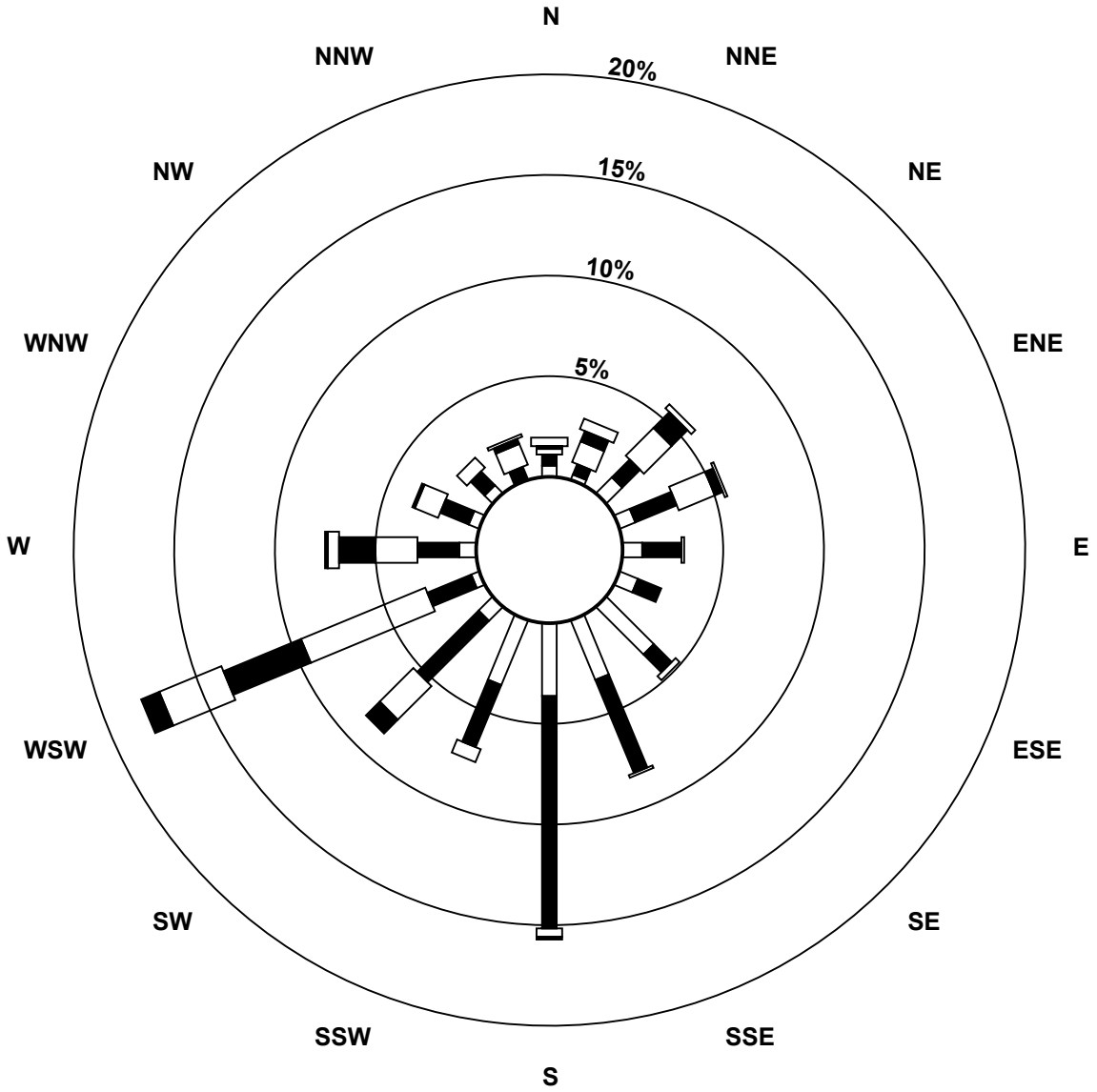
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	4	9	8	6	5	0	32
NorthEast	12	19	30	14	6	0	81
East	8	27	4	0	0	0	39
SouthEast	33	28	2	0	0	0	63
South	40	132	9	1	0	0	182
SouthWest	15	54	40	21	14	3	147
West	8	27	45	32	16	7	135
NorthWest	6	17	15	3	0	0	41
Total	126	313	153	77	41	10	720

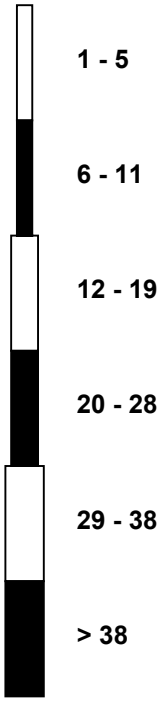
Wind Rose

Wind Speed (WS) (km/h)

Portable Rycroft - June 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Rycroft - June 2017

Maximum Speed: 44 km/h on Jun 21 16:00

Maximum Daily Speed Average: 28.9 km/h on Jun 27

Minimum Speed: 2 km/h on Jun 11 07:00

Minimum Daily Speed Average: 4.4 km/h on Jun 11

Maximum Diurnal Speed Average: 17.0 km/h at hour 16

Minimum Diurnal Speed Average: 6.6 km/h at hour 6

Monthly Average Speed: 12.22 km/h

Percentiles: P_1 = 2.0 P_{10} = 4.2 Q_1 = 6.3 Median = 9.1 Q_3 = 15.8 P_{90} = 25.9 P_{99} = 38.8

Hours in Service: 720

Hours of Data: 720

Hours of Missing Data: 0

Percent Operational Time: 100.0

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	Daily Average	Daily Maximum
1-Jun	8	7	8	8	7	4	6	4	4	7	18	17	11	10	16	12	10	9	11	5	7	7	7	9	8.8	17.5
2-Jun	9	5	6	8	4	6	8	8	6	8	22	28	29	27	24	25	17	21	30	16	9	4	5	9	13.9	30.2
3-Jun	10	9	10	9	6	7	7	6	6	8	7	7	11	9	9	19	8	20	12	7	7	4	2	5	8.5	20.0
4-Jun	4	9	8	8	8	7	7	6	6	7	9	7	9	7	6	8	6	5	5	8	7	15	5	6	7.2	14.9
5-Jun	7	7	8	8	7	6	5	18	25	22	20	15	16	17	15	16	14	8	6	4	4	3	5	8	11.0	24.9
6-Jun	9	8	8	10	10	8	6	5	3	10	14	9	9	8	7	7	7	7	5	3	2	4	4	6	7.0	14.2
7-Jun	4	2	4	3	4	4	2	4	5	13	18	20	11	14	13	17	20	13	14	17	16	13	11	13	10.7	20.4
8-Jun	10	11	10	7	2	5	11	16	20	23	24	24	25	25	25	33	30	15	19	19	20	20	16	16	17.8	32.9
9-Jun	9	9	10	13	12	14	11	16	17	24	26	32	36	34	36	38	38	37	33	28	24	21	20	15	23.0	38.4
10-Jun	9	9	10	6	7	6	7	7	8	8	10	9	11	12	10	14	14	13	17	30	26	17	19	15	12.3	30.2
11-Jun	12	9	7	4	4	2	2	3	3	3	3	3	2	3	5	5	5	5	4	6	5	4	3	5	4.4	12.1
12-Jun	6	7	7	7	10	7	12	10	11	12	15	23	14	11	13	12	13	10	19	20	9	11	7	9	11.4	23.3
13-Jun	7	8	7	6	5	5	5	7	12	17	12	7	7	8	7	9	6	8	6	7	6	21	18	14	9.0	20.6
14-Jun	9	4	6	6	3	4	8	13	10	13	13	12	14	6	14	10	7	7	7	14	12	5	2	3	8.4	14.3
15-Jun	6	5	5	6	6	5	3	2	3	3	3	4	7	8	9	11	7	12	17	17	14	12	15	11	8.0	17.2
16-Jun	4	15	9	2	3	7	9	6	7	9	10	12	13	16	15	21	30	27	23	26	16	8	6	9	12.6	29.8
17-Jun	6	10	9	16	13	5	7	11	20	23	19	19	15	17	15	14	16	16	12	9	6	5	10	7	12.4	22.7
18-Jun	9	11	14	12	6	4	5	8	19	26	26	27	28	28	31	29	27	24	27	24	18	6	4	5	17.5	30.9
19-Jun	6	6	8	6	8	6	4	7	6	7	6	7	6	11	9	7	4	6	4	6	3	2	2	4	5.8	10.8
20-Jun	4	3	4	11	8	7	8	9	8	18	10	9	11	13	13	12	12	17	28	21	11	15	34	39	13.5	38.6
21-Jun	14	5	5	5	7	7	15	28	34	36	38	38	39	37	41	44	35	34	35	30	27	28	28	26	26.5	43.9
22-Jun	24	19	14	12	8	9	17	15	17	19	20	20	21	20	16	17	20	26	23	18	10	5	7	7	16.1	26.3
23-Jun	8	7	7	8	7	6	6	15	16	15	14	12	11	11	17	23	8	8	26	27	11	5	4	4	11.4	26.6
24-Jun	4	7	7	8	9	6	4	7	6	4	7	7	7	6	7	5	7	5	5	2	2	4	4	4	5.6	8.8
25-Jun	3	4	3	5	5	7	7	7	7	6	8	10	10	9	9	9	11	13	11	9	9	8	12	15	8.1	15.2
26-Jun	10	3	7	8	6	7	6	13	16	19	22	15	14	16	13	10	22	5	7	6	7	7	13	29	11.8	28.6
27-Jun	21	18	14	10	6	4	15	29	40	43	34	35	33	31	30	33	33	33	34	39	41	43	36	41	28.9	43.3
28-Jun	32	20	15	15	16	17	21	24	19	16	14	19	17	12	14	18	16	14	7	4	2	4	5	6	14.5	32.0
29-Jun	8	9	8	9	9	10	10	10	10	9	8	10	9	8	9	21	23	18	24	20	9	4	6	5	11.0	24.0
30-Jun	7	5	9	6	3	7	14	19	14	11	11	14	10	13	12	12	11	7	10	9	6	2	6	9	9.4	19.0
	9.3	8.4	8.2	8.2	6.9	6.6	8.2	11.0	12.7	14.6	15.4	15.7	15.2	14.9	15.3	17.0	15.8	14.7	16.1	15.0	11.6	10.3	10.5	11.7	Diurnal Average	
	32.0	20.2	15.0	16.4	15.6	17.3	21.1	29.1	39.5	42.8	38.0	37.6	39.2	37.2	40.9	43.9	38.2	36.6	34.8	38.6	41.0	43.3	36.1	40.6	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Portable Rycroft - June 2017

Maximum Value: 91.2 deg on Jun 26 02:00

Minimum Value: 2.1 deg on Jun 22 01:00

Percentiles: P_1 = 2.9 P_{10} = 4.9 Q_1 = 7.8 Median = 13.0 Q_3 = 23.1 P_{90} = 38.0 P_{99} = 76.0

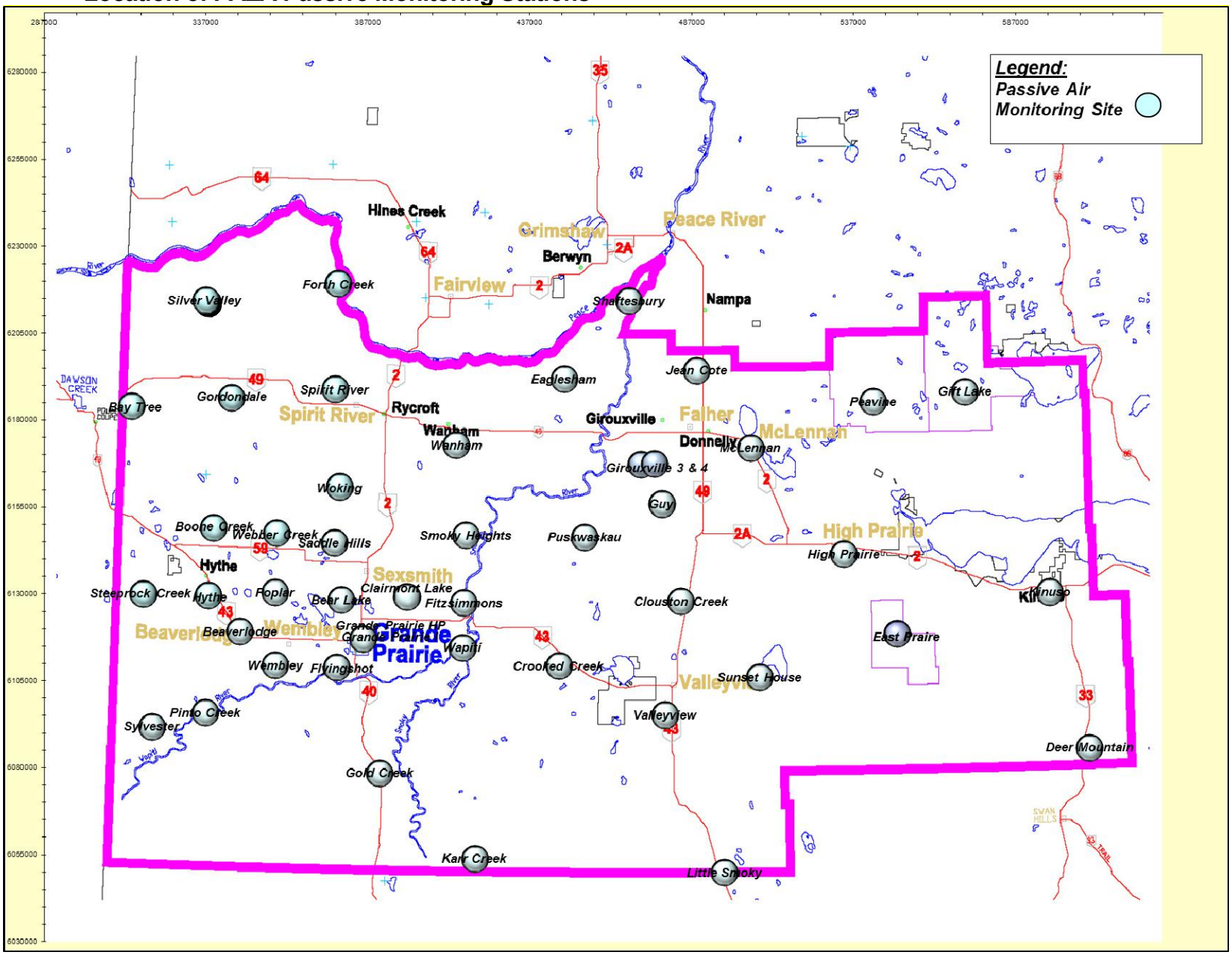
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jun	8	10	12	15	12	29	10	42	54	59	16	15	30	71	43	18	14	26	15	8	18	6	6	3	71.0
2-Jun	7	9	7	14	11	11	5	8	13	16	9	8	9	20	11	15	13	9	5	12	10	17	12	5	20.3
3-Jun	6	5	7	9	10	8	8	16	27	23	25	22	21	22	22	29	19	15	9	20	10	13	14	9	28.9
4-Jun	16	7	13	6	5	10	10	24	21	26	14	27	30	45	82	34	76	62	45	19	17	6	16	17	81.5
5-Jun	7	5	7	16	9	12	28	30	8	10	12	21	24	19	27	30	37	49	20	24	37	14	33	6	49.0
6-Jun	6	6	4	5	14	6	12	22	68	30	13	28	32	31	42	41	40	41	33	24	45	27	25	20	68.3
7-Jun	50	39	18	22	25	30	59	26	26	31	23	25	21	23	21	16	10	21	19	7	6	6	5	4	59.3
8-Jun	4	9	9	4	48	62	7	6	8	8	10	10	11	11	9	7	8	11	10	6	6	4	4	4	62.0
9-Jun	9	22	9	7	8	5	10	9	7	6	8	6	5	8	6	11	6	6	6	6	6	5	4	5	22.5
10-Jun	57	18	11	25	8	9	9	23	20	29	33	31	42	55	39	17	22	23	18	9	6	7	5	17	56.6
11-Jun	6	13	13	25	10	34	41	18	31	72	53	39	36	52	21	21	20	15	17	16	11	20	27	21	72.1
12-Jun	19	14	9	9	8	14	5	11	10	11	14	9	21	25	20	23	26	18	11	6	7	6	10	5	26.2
13-Jun	9	6	10	9	9	11	18	26	21	8	15	30	36	42	38	38	84	44	37	20	23	22	6	7	84.4
14-Jun	12	41	8	11	76	51	22	8	12	11	11	11	9	69	8	14	20	20	19	90	11	44	18	17	90.5
15-Jun	8	9	17	14	19	20	31	71	59	58	75	43	52	51	33	26	24	10	9	7	6	5	6	6	74.8
16-Jun	76	20	16	22	25	6	11	12	14	16	16	17	18	11	16	11	10	8	8	6	4	10	16	6	76.2
17-Jun	12	12	17	4	7	21	31	20	8	12	16	13	23	17	21	20	24	8	9	8	12	12	4	10	30.9
18-Jun	4	6	3	5	21	26	49	49	9	10	12	12	11	10	12	11	10	14	14	13	44	20	32	13	49.5
19-Jun	20	14	4	11	5	8	33	13	29	26	31	38	32	16	14	22	28	40	21	9	19	22	18	14	40.3
20-Jun	12	18	35	5	4	5	6	8	16	12	16	14	17	10	10	10	13	8	6	6	8	11	4	6	34.9
21-Jun	11	19	17	15	9	9	9	5	5	7	6	6	7	9	5	5	7	8	4	4	3	4	3	4	18.9
22-Jun	2	2	4	7	13	4	5	7	10	8	11	10	13	17	19	21	12	13	9	6	7	26	6	3	25.7
23-Jun	6	5	4	5	3	7	13	15	12	9	23	23	35	31	21	9	41	34	17	7	58	22	27	15	57.6
24-Jun	15	9	8	7	7	6	12	27	26	55	36	50	57	76	80	55	37	57	35	30	45	32	15	28	80.0
25-Jun	24	23	19	24	19	7	12	12	29	23	25	22	26	25	26	24	17	17	18	21	19	21	12	7	29.4
26-Jun	15	91	35	40	20	26	24	14	10	16	10	20	24	13	23	36	11	41	23	26	21	18	20	4	91.2
27-Jun	7	7	7	10	10	20	13	5	5	7	8	4	4	6	5	4	4	4	3	4	3	3	15	6	19.9
28-Jun	4	8	7	6	11	4	5	6	4	3	11	8	12	17	15	15	21	14	21	46	23	12	24	7	46.3
29-Jun	4	2	5	3	4	5	5	7	10	13	18	16	25	23	24	12	6	5	5	8	19	21	5	9	24.9
30-Jun	11	9	16	19	10	9	13	5	13	18	20	25	31	25	29	39	26	65	8	18	15	43	9	8	64.9
	76.2	91.2	35.2	40.3	76.1	62.0	59.3	70.6	68.3	72.1	74.8	50.1	56.7	75.7	81.5	54.5	84.4	64.9	45.0	90.5	57.6	44.0	32.7	28.4	

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for June 2017

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
2a	Bay Tree		**24.4**			
2b	Bay Tree		**24.4**			
5a	Boone Creek	**0.1**				
5b	Boone Creek	**#N/A**				
24a	Wembley	**0.2**				
24b	Wembley	**BDL**				
25a	Pinto Creek			**0.4**		
25b	Pinto Creek			**0.3**		
27a	Grande Prairie I			**2.0**		
27b	Grande Prairie I			**1.7**		
47a	Kinuso		**29.2**			
47b	Kinuso		**29.5**			
63a	Girouxville 3				**0.2**	
63b	Girouxville 3				**0.2**	
2	Bay Tree	**0.1**	**24.4**	**1.0**		13-16-078-13 W6M
4	Gordondale	**0.3**		**0.8**		04-34-078-10 W6M
5	Boone Creek	**0.1**		**0.5**		16-36-074-11 W6M
9	Spirit River	**0.1**		**3.4**		08-12-079-07 W6M
14	Sylvester	**BDL**		**0.3**		08-06-069-12 W6M
16	Beaverlodge	**0.1**		**0.6**		15-36-071-10 W6M
18	Saddle Hills	**0.2**		**0.5**		04-25-074-07 W6M
19	Wanham	**0.1**		**0.9**		16-22-077-03 W6M
21	Eaglesham	**0.1**		**1.3**		16-21-079-25 W5M
24	Wembley	**0.1**		**1.3**		12-31-070-08 W6M
25	Pinto Creek	**BDL**		**0.4**		04-24-069-11 W6M
27	Grande Prairie I	**0.3**		**1.8**		08-15-071-06 W6M
28	Clairmont Lake	**0.3**		**1.2**		09-06-073-04 W6M
29	Smoky Heights	**0.2**		**MISSING**		04-06-075-02 W6M
32	Gold Creek	**0.2**		**1.2**		06-33-067-05 W6M
35	Jean Cote	**0.1**		**3.3**		12-35-079-21 W5M
36	Guy	**BDL**		**2.9**	**0.1**	03-04-076-22 W5M
37	Crooked Creek	**0.1**		**0.7**		16-01-071-26 W5M
39	Clouston Creek	**0.2**		**1.4**		12-01-073-22 W5M
40	McLennan	**0.1**		**2.1**		03-29-077-19 W5M
43	High Prairie	**BDL**		**1.1**		16-13-074-17 W5M
44	Peavine	**BDL**		**0.5**		03-05-079-15 W5M
46	Little Smoky	**BDL**		**1.6**		12-01-065-21 W5M
47	Kinuso	**BDL**	**29.4**	**0.6**		12-10-073-10 W5M
50	East Prairie	**BDL**		**0.2**		13-02-072-15 W5M
63	Girouxville 3				**0.2**	14-02-077-23 W5M
64	Girouxville 4				**0.2**	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample

Passive Summary for June 2017

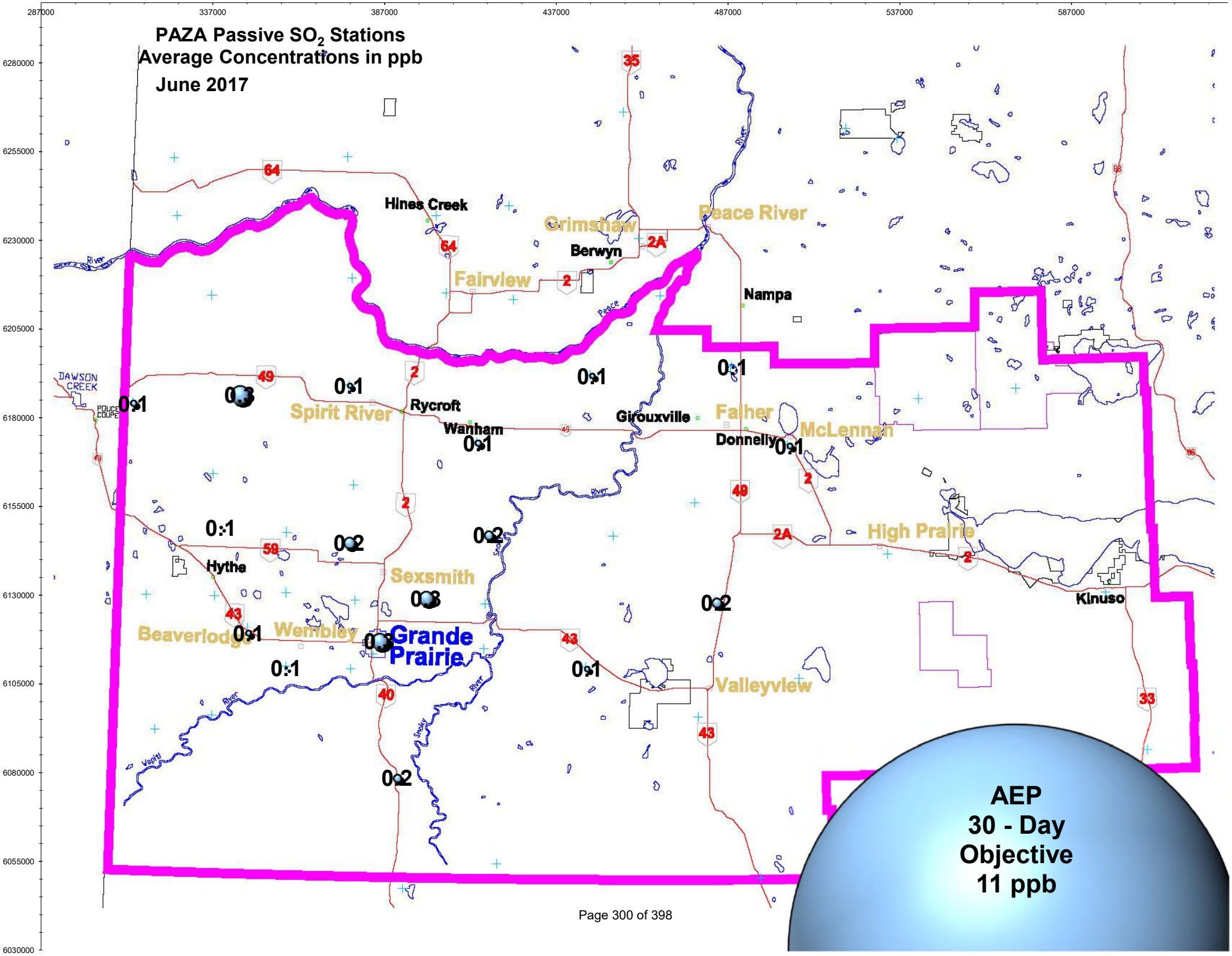
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for June 2017 (PAZA Zone)			
Mean	**0.2**	**26.9**	**1.2**	**0.2**
Standard Deviation	**0.1**	**3.5**	**0.9**	**0.1**
Minimum	**0.1**	**24.4**	**0.2**	**0.1**
Minimum At	**Jean Cote (#35)**	**Bay Tree (#2a)**	**East Prairie (#50)**	**Guy (#36)**
Maximum	**0.3**	**29.4**	**3.4**	**0.2**
Maximum At	**Gordondale (#4)**	**Kinuso (#47)**	**Spirit River (#9)**	**Girouxville 4 (#64)**

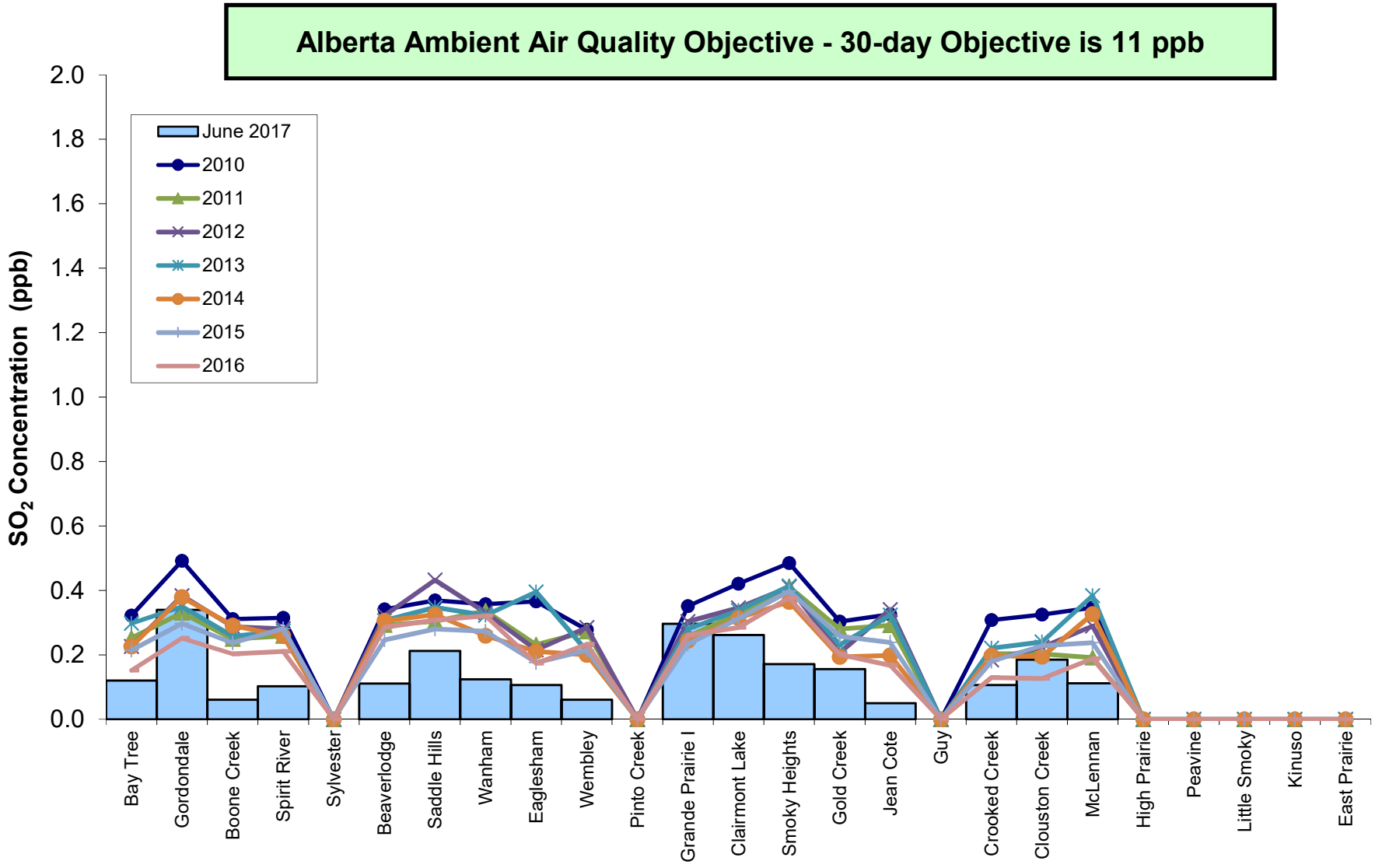
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

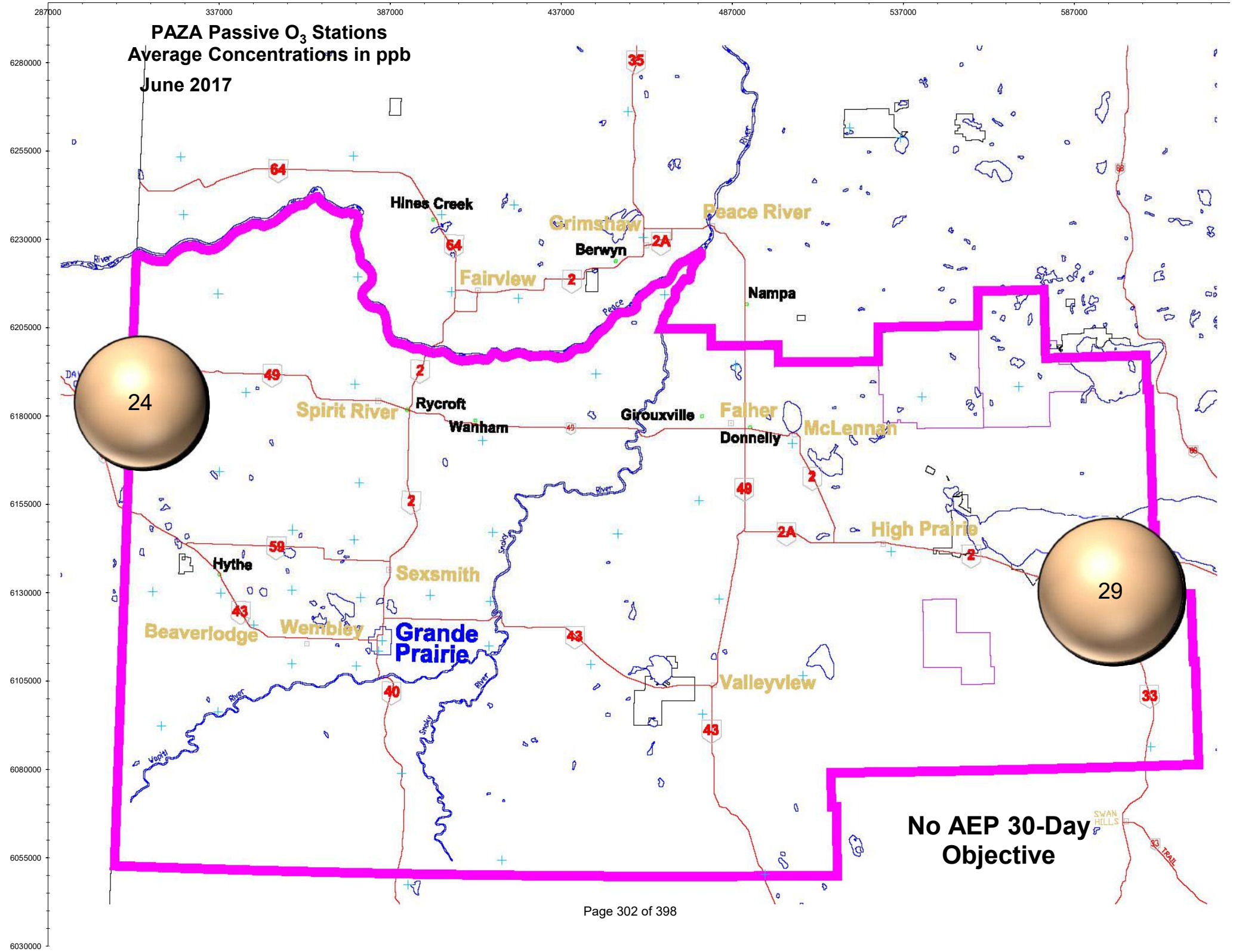
	SO_2	NO_2
PAZA Beaverlodge station	**0.2**	**2.1**
PAZA Beaverlodge passive	**0.1**	**0.6**

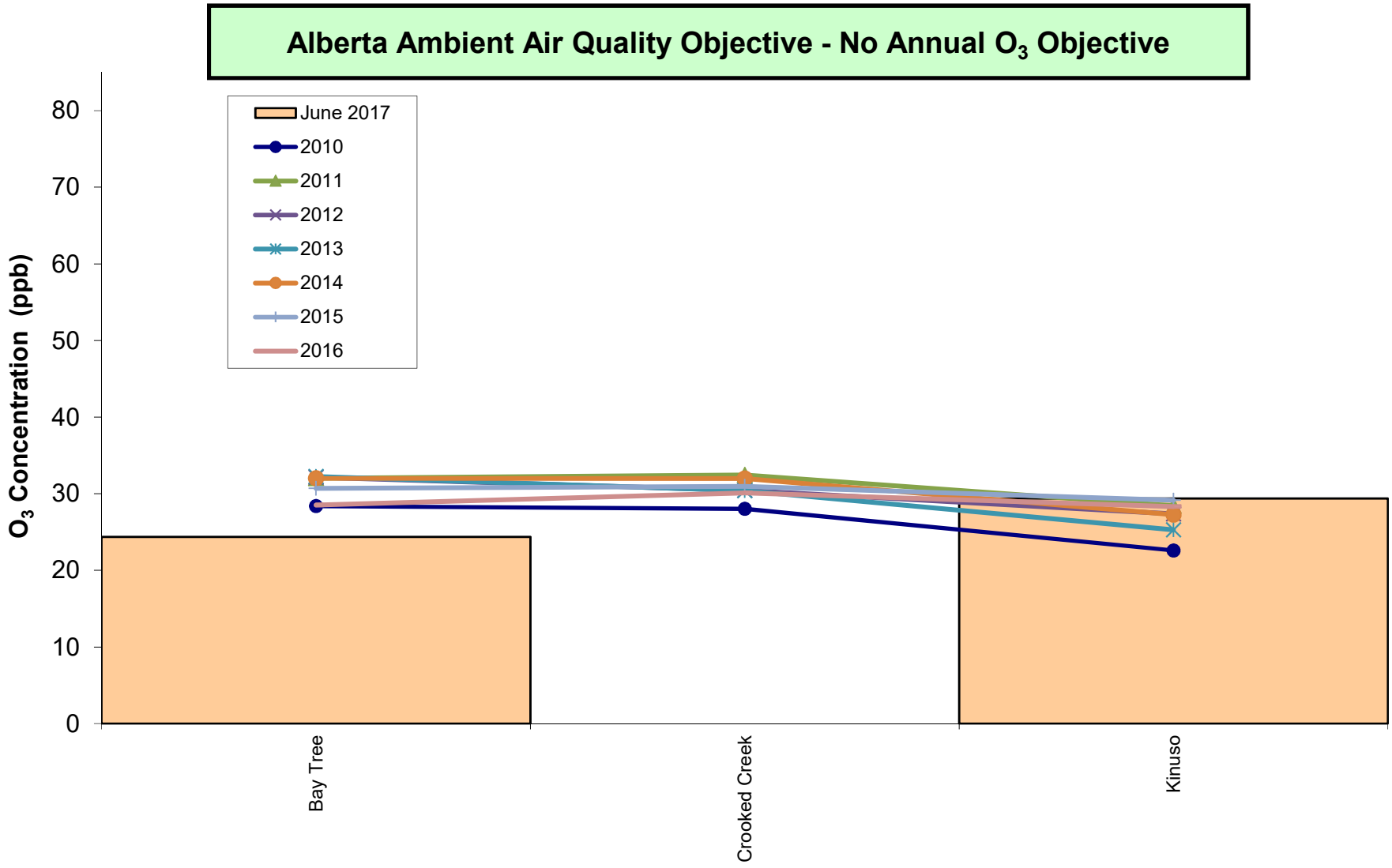
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

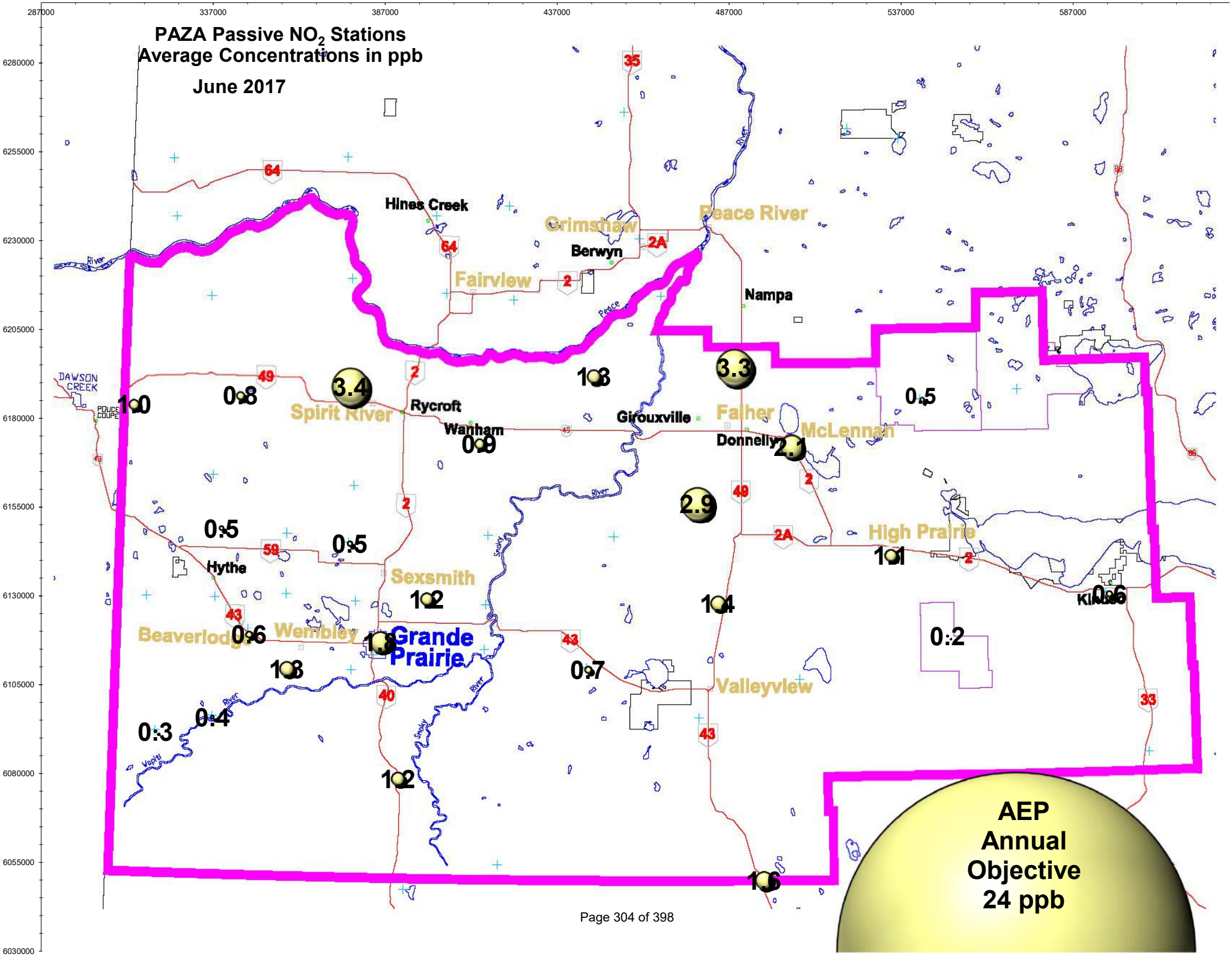
	SO_2	NO_2
PAZA Henry Pirker station	**0.2**	**4.4**
PAZA Grande Prairie passive	**0.3**	**1.8**

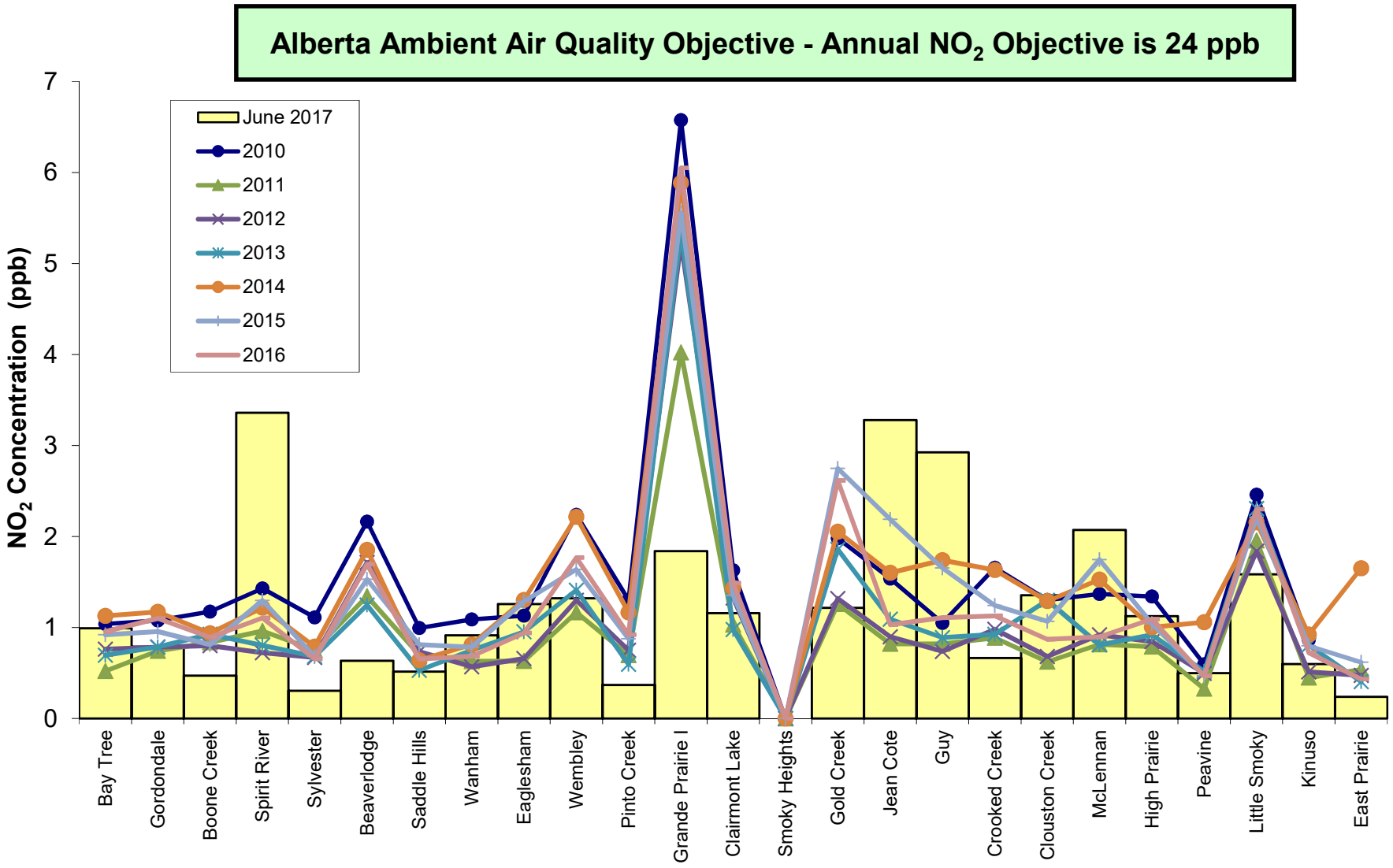

PAZA Passive SO_2 Stations
Average Concentrations in ppb
June 2017
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
DAWSON CREEK
POUCE COUPE
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Kinuso
Beaverlodge
Wembley
Grande Prairie
Valleyview
0.1
0.3
0.2
AEP
30 - Day
Objective
11 ppb

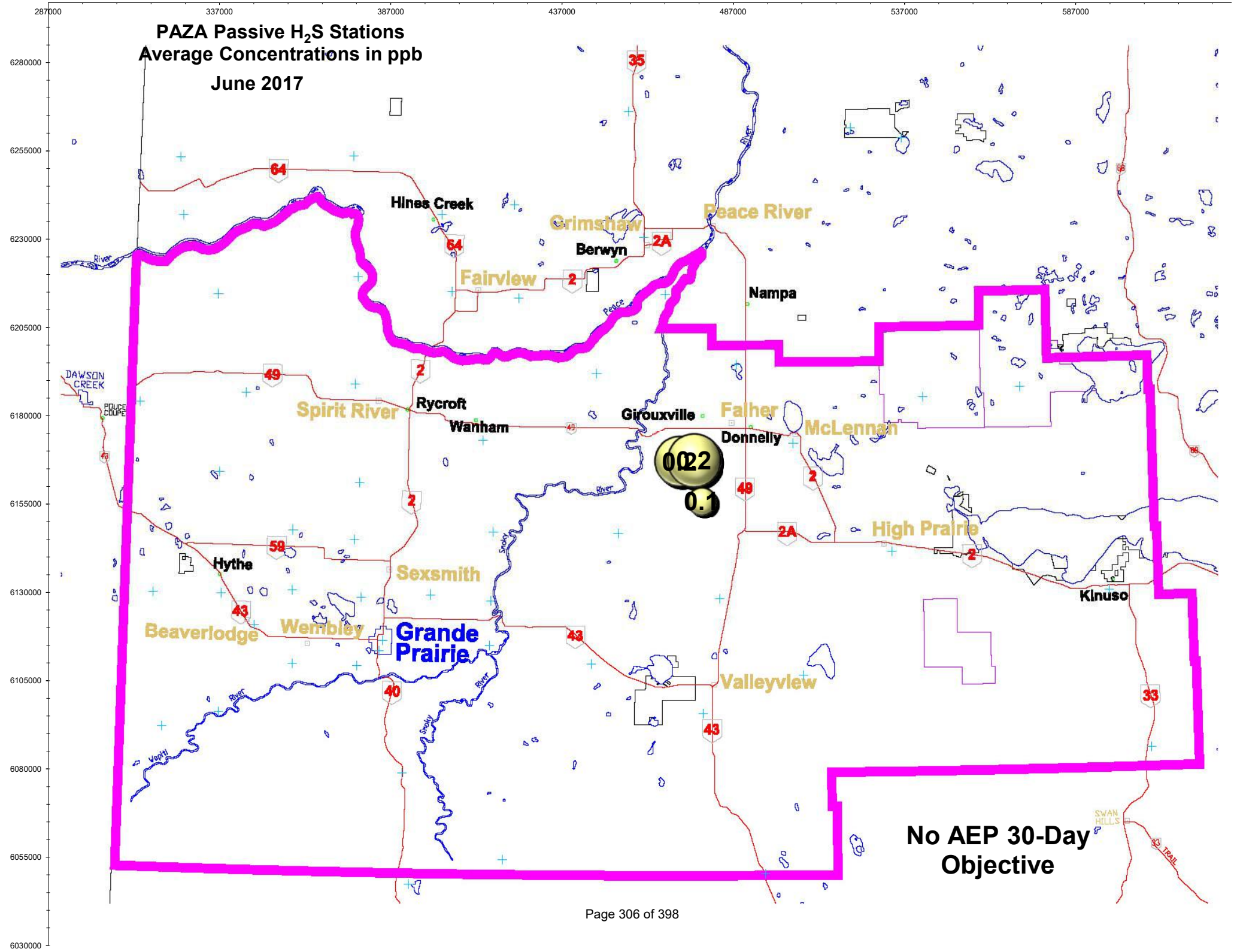

Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb
SO_2 Concentration (ppb)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
June 2017
2010
2011
2012
2013
2014
2015
2016
Bay Tree
Gordondale
Boone Creek
Spirit River
Sylvester
Beaverlodge
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Clairmont Lake
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
High Prairie
Peavine
Little Smoky
Kinuso
East Prairie

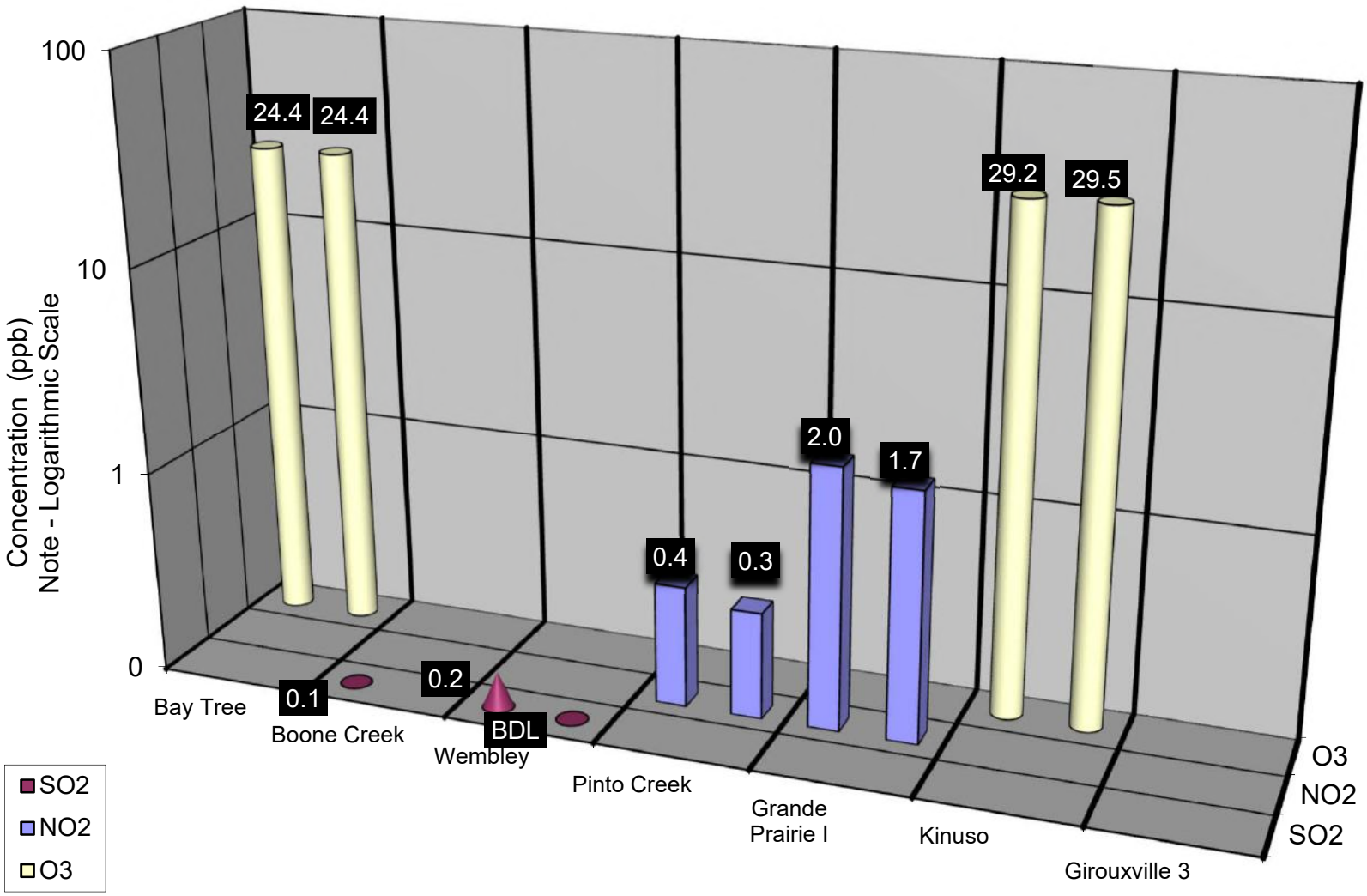

PAZA Passive O_3 Stations
Average Concentrations in ppb
June 2017
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Wembley
Grande Prairie
Valleyview
24
29
No AEP 30-Day Objective


Alberta Ambient Air Quality Objective - No Annual O_3 Objective
O_3 Concentration (ppb)
80
70
60
50
40
30
20
10
0
June 2017
2010
2011
2012
2013
2014
2015
2016
Bay Tree
Crooked Creek
Kinuso


PAZA Passive NO_2 Stations
Average Concentrations in ppb
June 2017
Hines Creek
Grimshaw
Berwyn
Peace River
Fairview
Nampa
DAWSON CREEK
POUCE COUPE
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Wembley
Grande Prairie
Valleyview
Kinuso
1.0
0.8
3.4
1.8
3.3
0.5
0.9
2.1
2.9
0.5
0.5
1.1
1.2
1.4
0.6
1.8
0.6
0.2
1.3
0.7
0.3
0.4
1.2
1.6
AEP
Annual
Objective
24 ppb


Alberta Ambient Air Quality Objective - Annual NO2 Objective is 24 ppb
NO2 Concentration (ppb)
0
1
2
3
4
5
6
7
June 2017
2010
2011
2012
2013
2014
2015
2016
Bay Tree
Gordondale
Boone Creek
Spirit River
Sylvester
Beaverlodge
Saddle Hills
Wanham
Eaglesham
Wembley
Pinto Creek
Grande Prairie I
Clairmont Lake
Smoky Heights
Gold Creek
Jean Cote
Guy
Crooked Creek
Clouston Creek
McLennan
High Prairie
Peavine
Little Smoky
Kinuso
East Prairie


PAZA Passive H_2S Stations
Average Concentrations in ppb
June 2017
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
DAWSON CREEK
POUCE COUPE
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
0.22
0.1
High Prairie
Hythe
Sexsmith
Kinuso
Beaverlodge
Wembley
Grande Prairie
Valleyview
No AEP 30-Day Objective



Duplicate Summary Chart

June 2017 Calibration Reports

PAZA - Henry Pirker Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3, CO, THC, TRS, and $PM_{2.5}$

PAZA – Evergreen Park Station with the following calibrations:
SO_2 and TRS

PAZA – Smoky Heights Station with the following calibrations:
SO_2 and TRS

PAZA – Beaverlodge Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3, and $PM_{2.5}$

PAZA – Valleyview Station with the following calibrations:
SO_2 and H_2S

PAZA – Donnelly Station with the following calibrations:
SO_2 and H_2S

PAZA – Rycroft Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3, THC, TRS, and $PM_{2.5}$

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 1, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	11:35	End Time (MST)	14:00:00 AM
Barometric Pressure	914.000 mbar	Station Temperature	23.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Conc	50 ppm	Cal Gas Cert Date	October 5, 2018
		Cal Gas Cylinder #	LL103793
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.996973	Calculated slope	0.991928
Calculated intercept	4.191676	Calculated intercept	-0.366792
Analyzer make	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.42		1.41	
Coefficient	0.903		0.903	
Pressure	664.0	mm Hg	664.3	mm Hg
Flow	0.438	lpm	0.438	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)
5145	0.00	0.0	0.1	N/A
5145	41.28	398.0	401.2	0.9920
5145	19.93	192.9	195.9	0.9848
5145	9.70	94.1	94.8	0.9922
5145	0.00	0.0	0.1	As Found Zero
5145	40.01	385.8	401.2	As Found Span
			Average Correction Factor	0.9897

Calculated value of As Found Response: 404.0 ppb Percent Change of As Found: -4.7%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	280.8	ppb	288.1	ppb

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

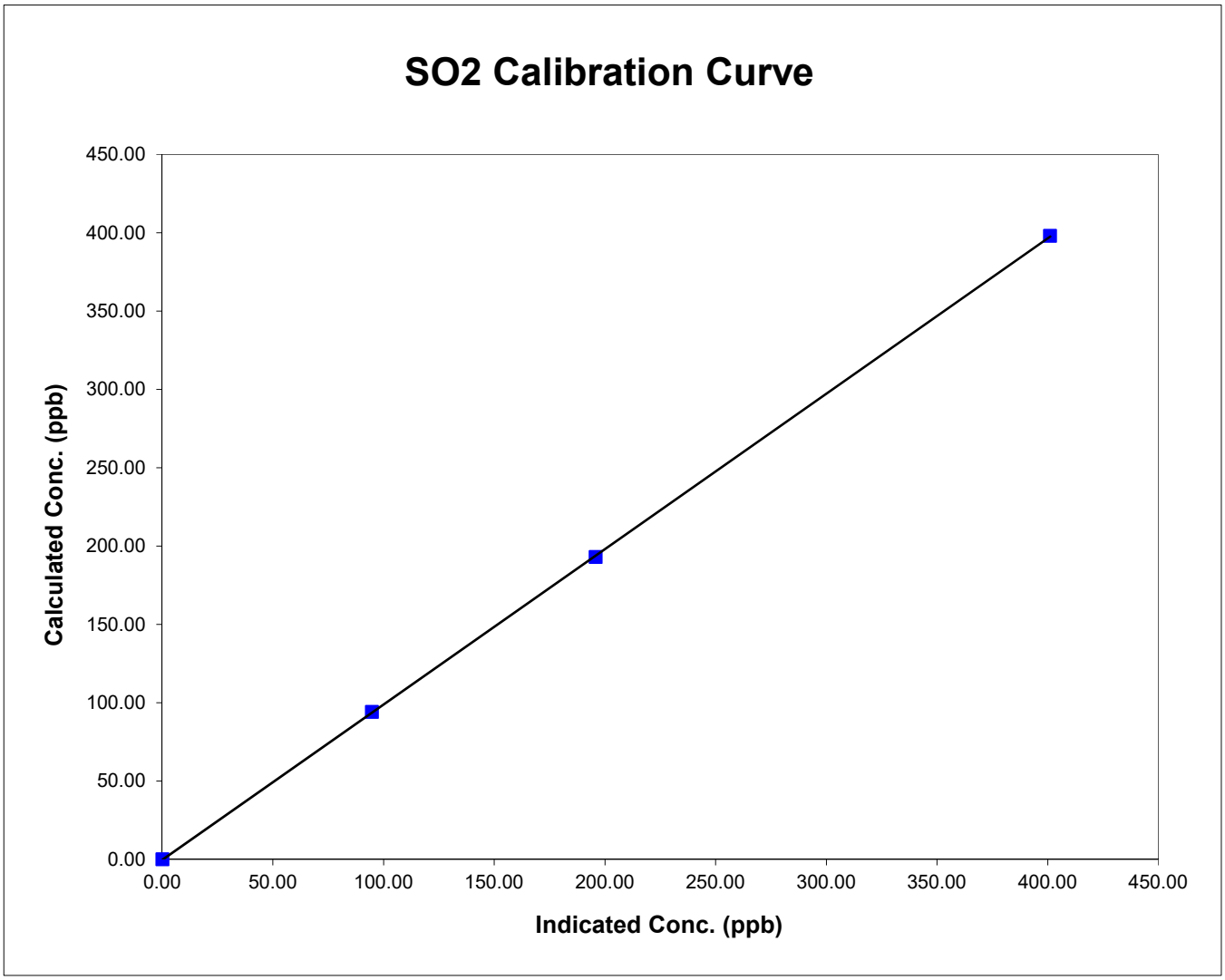
WSP AIR QUALITY MONITORING

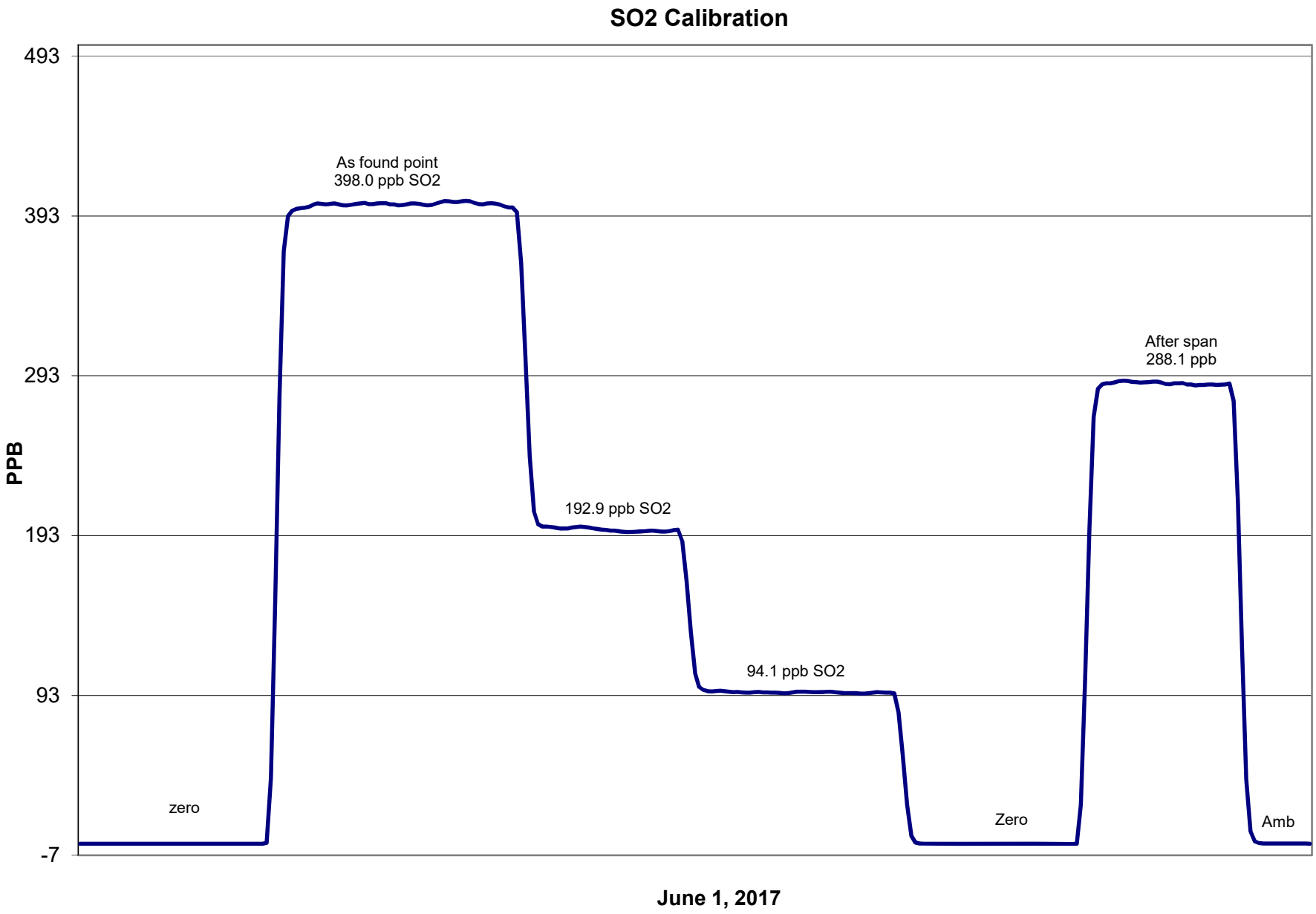
Station Information

Calibration Date	June 1, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:35	End Time (MST)	14:00:00 AM
Analyzer make/model	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
398.0	401.2	0.9920	Correlation Coefficient	0.999984
192.9	195.9	0.9848		
94.1	94.8	0.9922	Slope	0.991928
			Intercept	-0.366792




SO2 Calibration
493
393
293
193
93
-7
PPB
As found point
398.0 ppb SO2
192.9 ppb SO2
94.1 ppb SO2
After span
288.1 ppb
zero
Zero
Amb
June 1, 2017

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 1, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker

Reason: Routine Installation Removal Other:

Start Time (MST)	9:50		End Time (MST)	15:50:00 PM	
Barometric Pressure	0.914	mbar	Station Temperature	22.0	Deg C
Calibrator	Environics		Serial Number	906535067(AMU 197	
NO Cal Gas Conc	48.6	ppm	Cal Gas Expiry Date	October 5, 2018	
NOx Cal Gas Conc	48.9	ppm	Cal Gas Serial #	LL103793	

DACS Information

DACS make: CR3000 DACS serial No.: 5408

Parameter		NO2	NOx	NO
Before	Data Slope	1.005948	1.001463	0.995361
	Data Offset	-0.609957	3.775082	3.555221
After	Data Slope	1.006524	1.001936	0.996309
	Data Offset	-0.428468	-0.454925	-0.360454
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	7.3	mV	7.7	mV
NOx bkgnd	8.0	mV	7.9	mV
NO coefficient	1.006		1.020	
NOx coefficient	1.000		1.000	
NO2 conv temp	326.8	Deg C	322.2	Deg C
Cooler Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-844.4	mV	-844.4	mV
R Cell Press	180.4	in Hg	186.5	in Hg
Sample Flow	0.552	LPM	0.595	LPM

Notes: Zero & span adjustments made
Cleaned flow capillaries

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: June 1, 2017 Station Location: Henry Pirker

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	5145	0.00	0.0	0.0	0.0	0.0	0.1	0.0	N/A	N/A
1	5145	41.28	389.2	386.8	2.4	388.2	388.2	0.2	1.0026	0.9965
2	5145	19.93	188.7	187.5	1.2	190.4	189.7	0.3	0.9909	0.9883
3	5145	9.70	92.0	91.5	0.6	91.8	91.7	0.3	1.0021	0.9976
AFZ	5145	0.00	0.0	0.0	0.0	0.0	0.2	0.0	0.0000	0.0000
AFS	5145	42.28	398.6	396.1	0.8	366.8	367.5	-0.1	1.0867	1.0780
							Average Correction Factor		0.9985	0.9942

As Found Concentrations: NO_X= 371.1 NO= 369.1 As Found Percent Change NO_X= -6.9% NO= -6.8%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.2	0.2	0.0	0.0	0.1	0.0	N/A	N/A	N/A	N/A
NO point	388.0	388.0	0.0	388.3	388.0	0.1	0.9992	1.0000	N/A	N/A
300	388.0	50.4	337.6	386.5	50.4	335.7	1.0040	1.0000	1.0056	99.4%
200	388.0	159.1	228.9	387.5	159.1	227.6	1.0013	1.0000	1.0054	99.5%
100	388.0	278.1	109.9	389.4	278.1	110.3	0.9963	1.0000	0.9964	100.4%
					Average Correction Factor		1.0005	1.0000	1.0025	99.8%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	0.1	ppb	0.0	0.0	0.1	ppb
Auto span	327.1	324.6	2.1	ppb	303.3	301.2	2.1	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

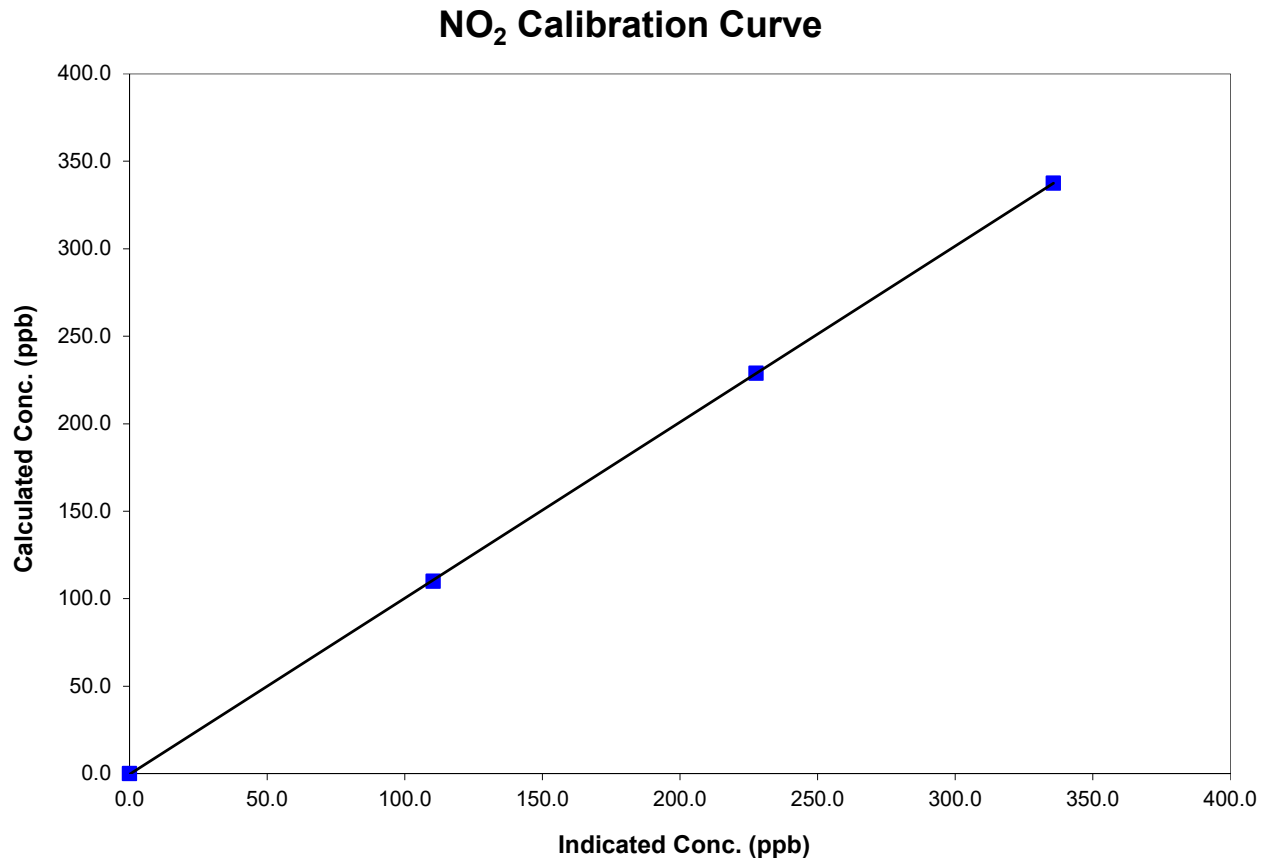
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 1, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:50	End Time (MST)	15:50:00 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		
337.6	335.7	1.0056	Correlation Coefficient	0.999989
228.9	227.6	1.0054		
109.9	110.3	0.9964	Slope	1.006524
			Intercept	-0.428468



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

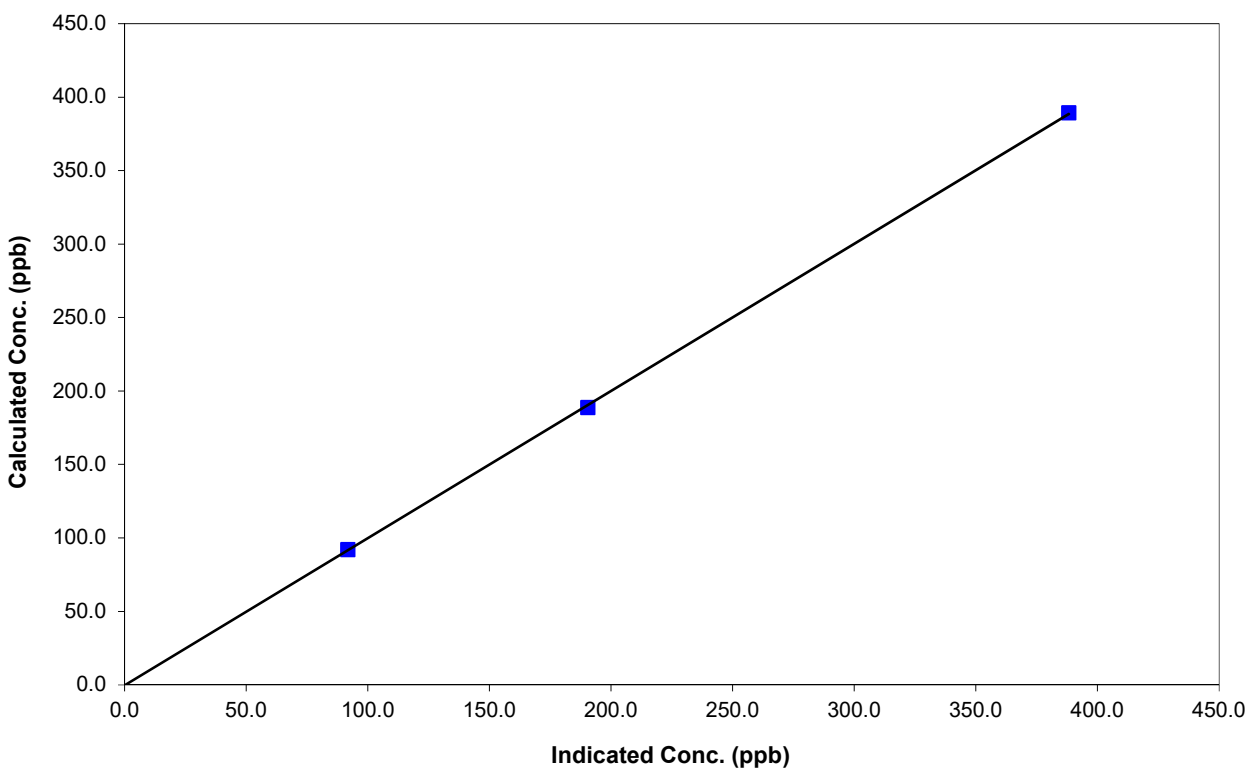
Station Information

Calibration Date	June 1, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:50	End Time (MST)	15:50:00 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		
389.2	388.2	1.0026	Correlation Coefficient	0.999956
188.7	190.4	0.9909		
92.0	91.8	1.0021	Slope	1.001936
			Intercept	-0.454925

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

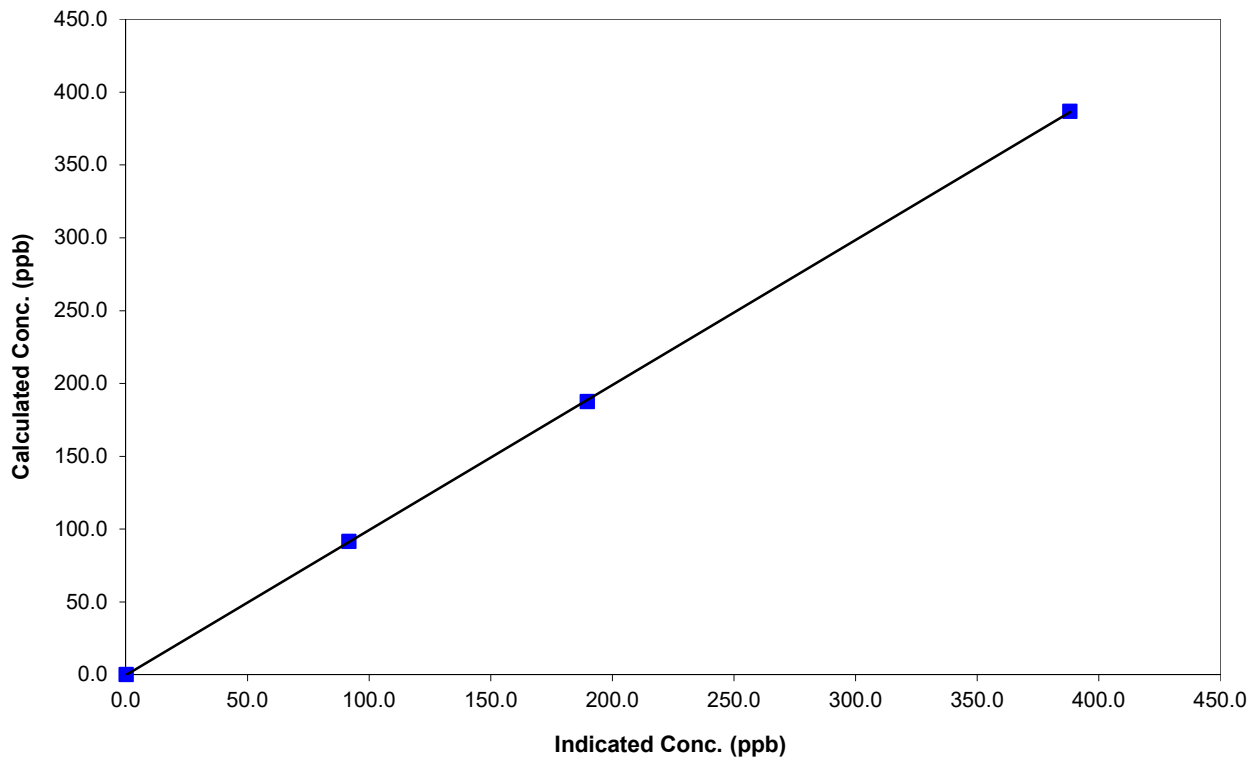
Station Information

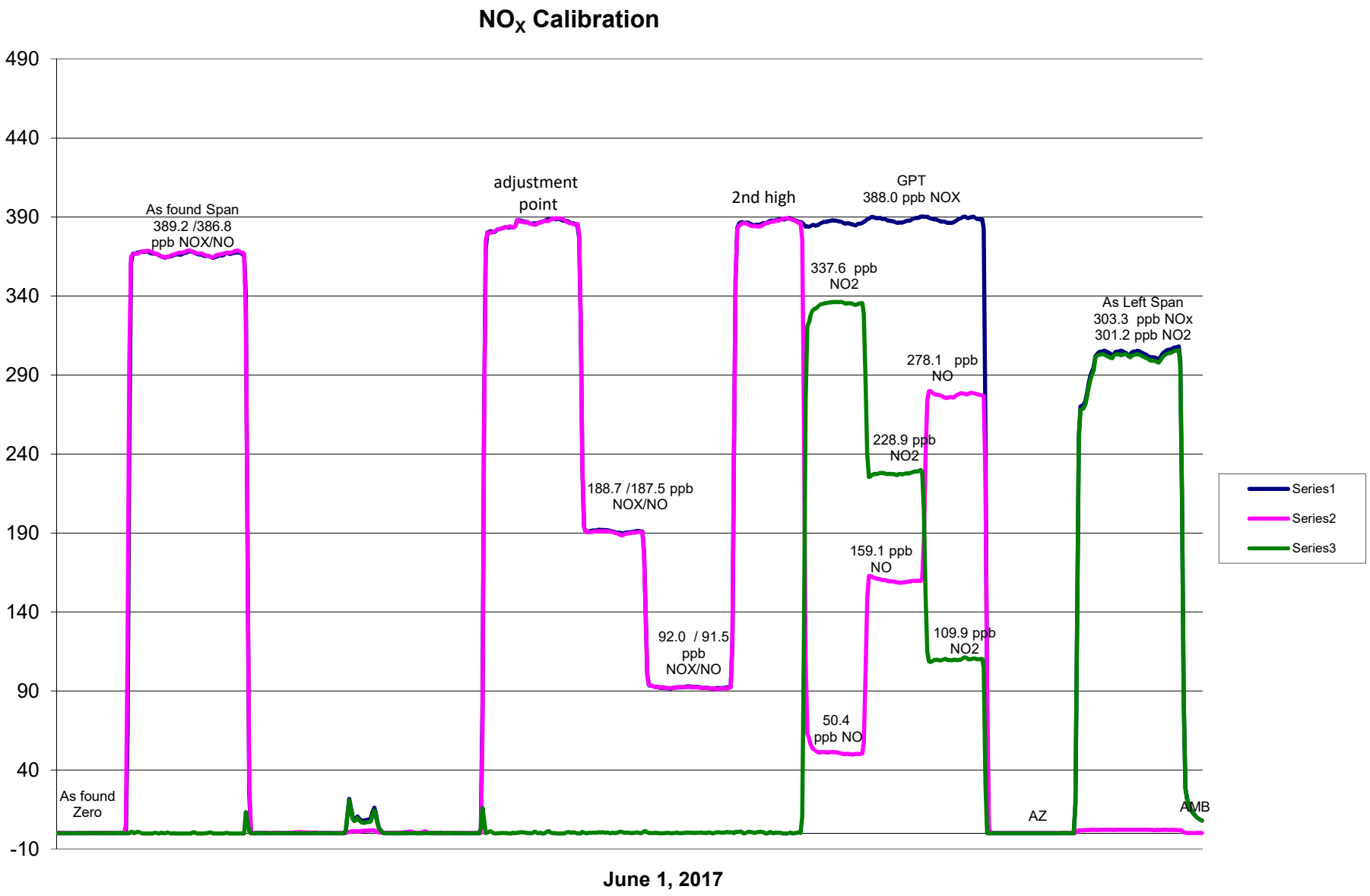
Calibration Date	June 1, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:50	End Time (MST)	15:50:00 PM
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
386.8	388.2	0.9965	Correlation Coefficient	0.999978
187.5	189.7	0.9883		
91.5	91.7	0.9976	Slope	0.996309
			Intercept	-0.360454

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
389.2 /386.8
ppb NOX/NO
adjustment
point
2nd high
GPT
388.0 ppb NOX
337.6 ppb
NO2
As Left Span
303.3 ppb NOx
301.2 ppb NO2
278.1 ppb
NO
228.9 ppb
NO2
188.7 /187.5 ppb
NOX/NO
159.1 ppb
NO
92.0 / 91.5
ppb
NOX/NO
109.9 ppb
NO2
50.4
ppb NO
As found
Zero
AZ
AMB
Series1
Series2
Series3
June 1, 2017

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 1, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	14:12:00 PM	End Time (MST)	16:30:00 PM
Barometric Pressure	721.000 mm	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.989010	Calculated slope	1.002738
Calculated intercept	2.838425	Calculated intercept	1.144140
Analyzer make	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	0.30	ppb	0.20	ppb
slope	1.030		1.030	
Lamp temp	53.6	mV	53.7	mV
Lamp Intensity A/B	69677/75678	mV	69123/75876	mV
Pressure	686.5	mm Hg	684.1	mm Hg
Flow A	0.726	ccm	0.726	ccm
Flow B	0.729	ccm	0.729	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)
5145	0.0	0.0	-0.4	N/A
5145	0.3	337.6	337.2	1.0011
5145	0.2	228.9	224.5	1.0197
5145	0.1	109.9	108.7	1.0111
5145	0.0	0.0	-0.4	As found zero
5145	0.3	337.6	337.2	As found span
			Average Correction Factor	1.0106

Calculated value of As Found Response: 336.8 ppm Percent Change of As Found: -0.2%

	before calibration		after calibration	
Auto zero	0.0	ppb	-0.5	ppb
Auto span	380.5	ppb	379.3	ppb

Notes: No adjustment made.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

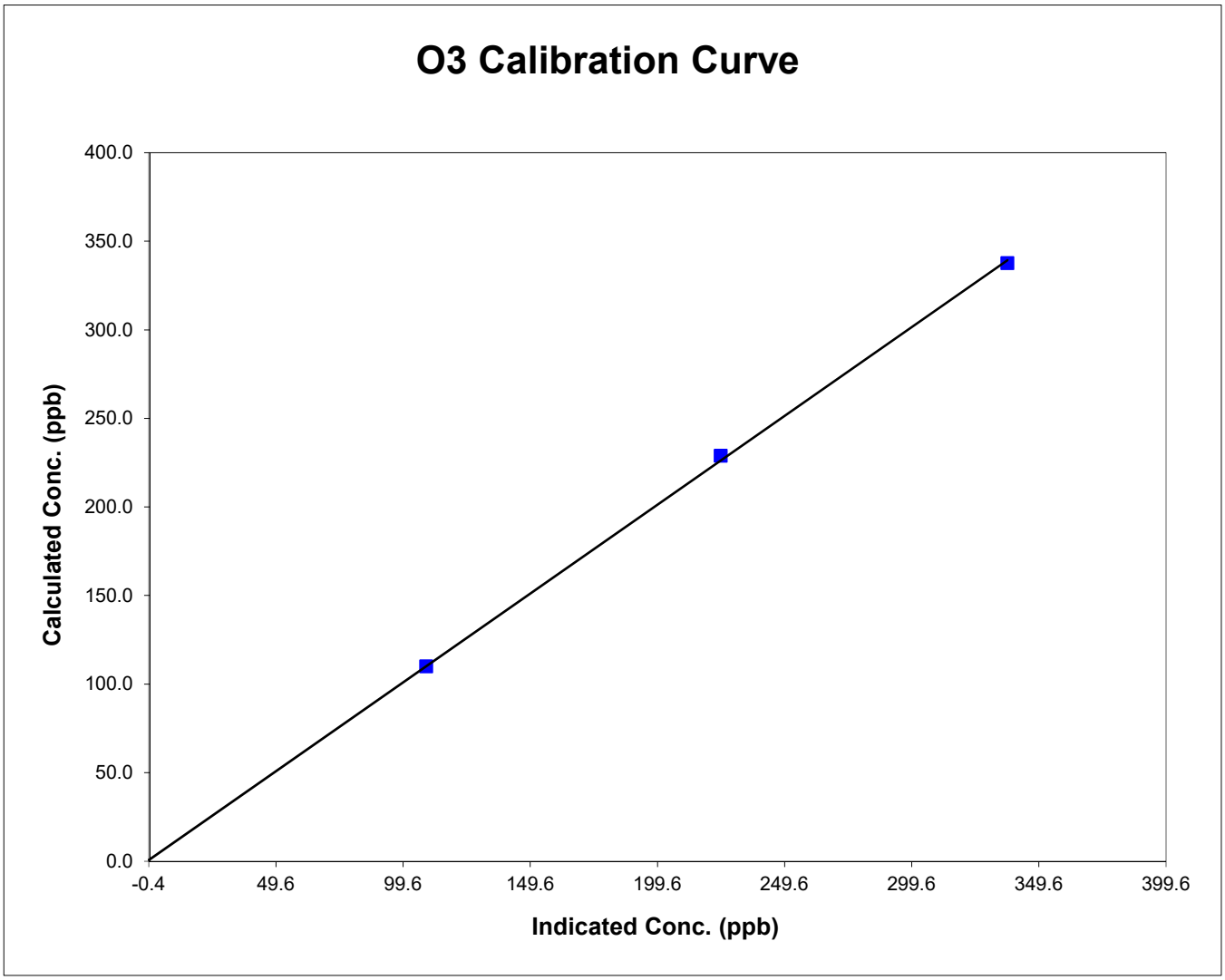
WSP AIR QUALITY MONITORING

Station Information

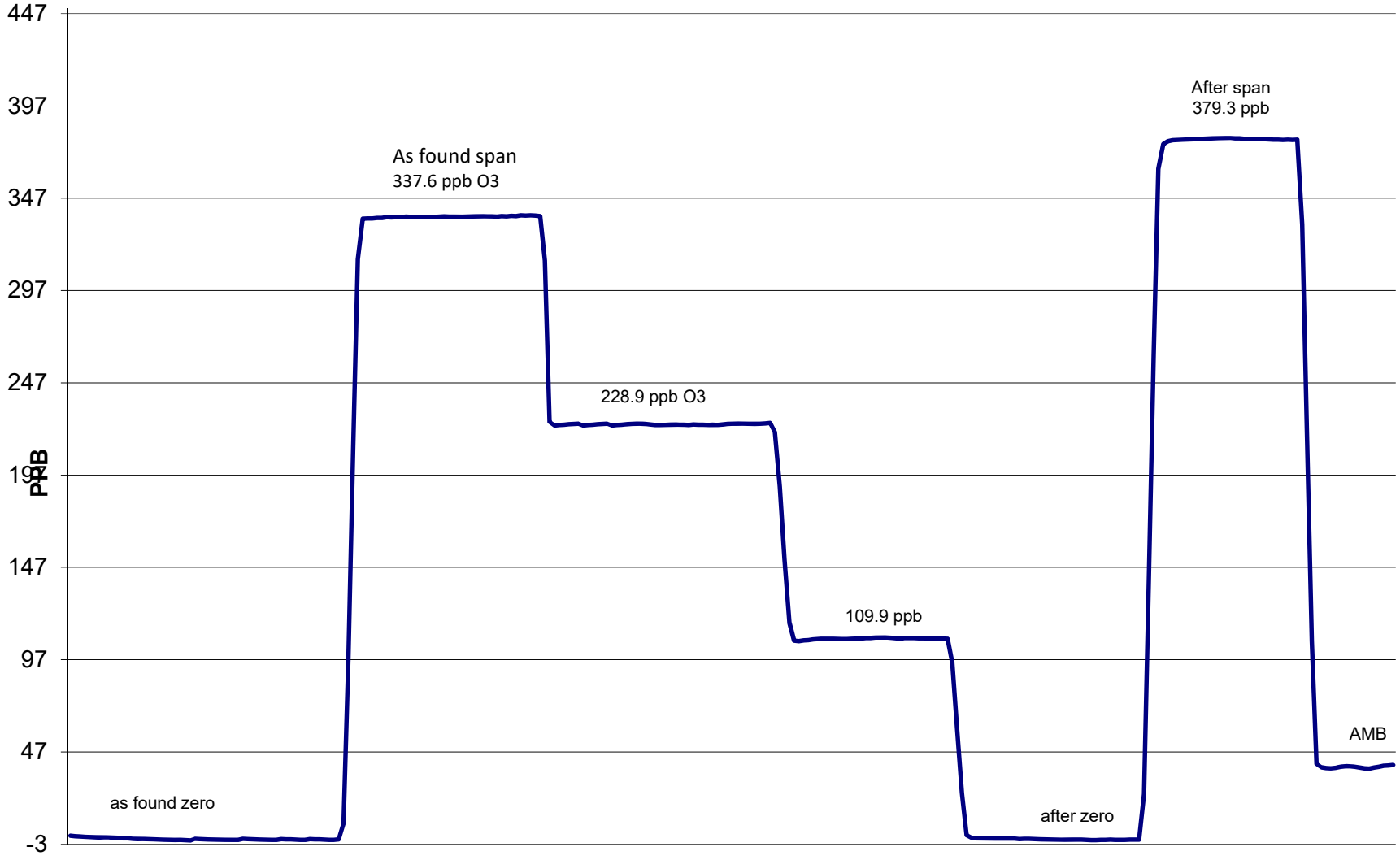
Calibration Date	June 1, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:12:00 PM	End Time (MST)	16:30:00 PM
Analyzer make/model	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA		
337.6	337.2	1.0011	Correlation Coefficient	0.999836
228.9	224.5	1.0197		
109.9	108.7	1.0111	Slope	1.002738
			Intercept	1.144140



O3 Calibration



June 1, 2017

Calibration Report

Parameter **CO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 2, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:05	End Time (MST)	14:40:00 PM
Barometric Pressure	0.915 mBar	Station Temperature	22.0 Deg C
Calibrator	Environics 6100	Serial Number	6586
Cal Gas Conc	2906 ppm	Cal Gas Expiry Date	7/7/2023
		Cal Gas Cylinder #	LL109096
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.002648	Calculated slope	1.011984
Calculated intercept	-0.104016	Calculated intercept	-0.237768
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	8.335		8.335	
CO span setting	1.061		1.061	
Sample pressure	692	mm Hg	697.1	mm Hg
Sample Flow	0.441	LPM	0.440	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)
5156	0.00	0.00	0.04	N/A
5156	72.60	40.35	40.02	1.0084
5156	36.30	20.32	20.37	0.9973
5156	18.30	10.28	10.62	0.9679
5156	0.00	0.00	0.04	As Found Zero
5156	72.60	40.35	40.02	As Found Span
			Average Correction Factor	0.9912

Calculated value of As Found Response: 39.981 ppm Percent Change of As Found: 0.9%

	before calibration		after calibration	
Auto zero	-0.08	ppm	0.04	ppm
Auto span	20.36	ppm	20.50	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CO**

Air Monitoring Network **PAZA**

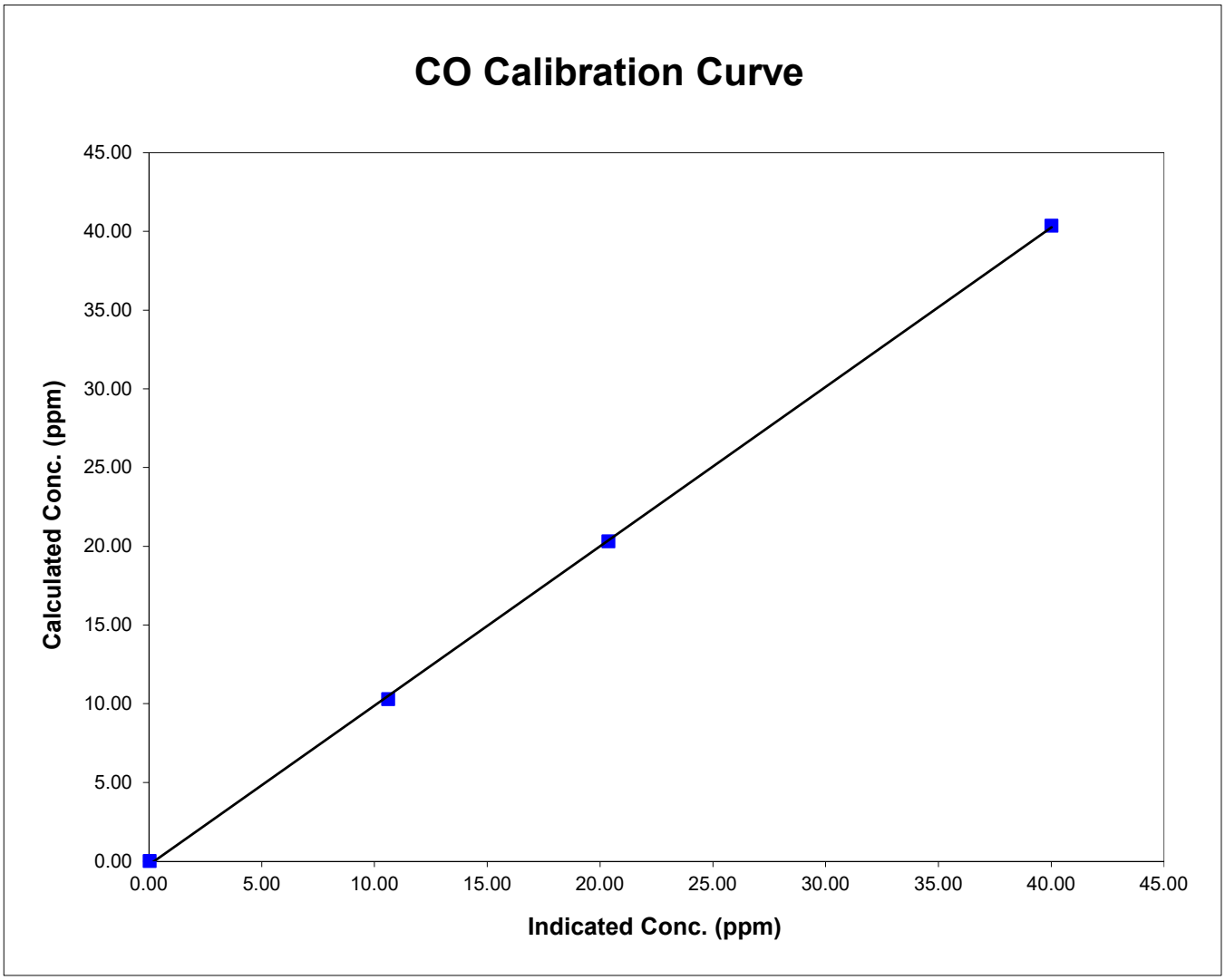
WSP AIR QUALITY MONITORING

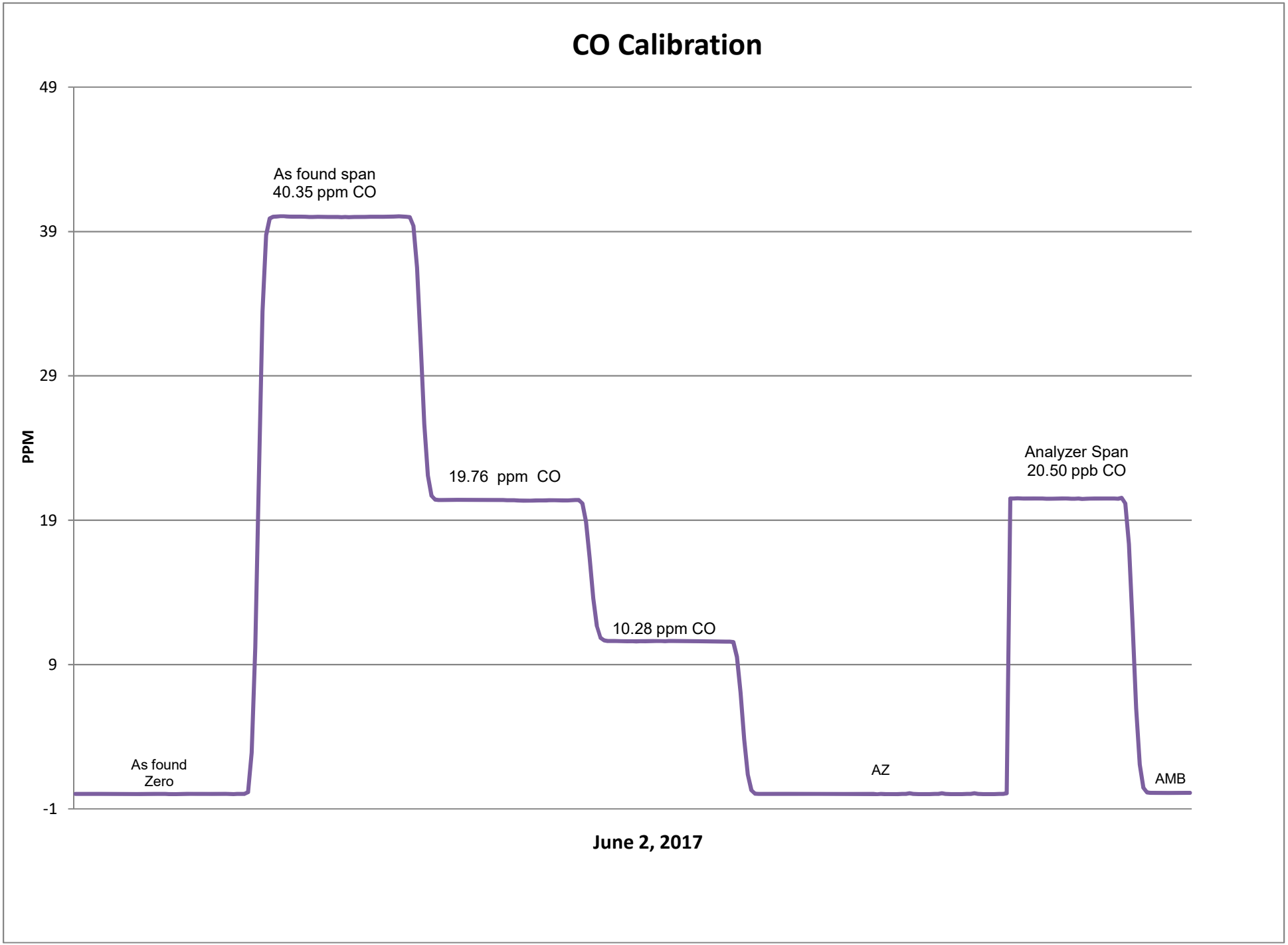
Station Information

Calibration Date	June 2, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:05	End Time (MST)	14:40:00 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	0.037	N/A		
40.350	40.016	1.0084	Correlation Coefficient	0.999881
20.316	20.372	0.9973		
10.278	10.619	0.9679	Slope	1.011984
			Intercept	-0.237768




CO Calibration
49
39
29
19
9
-1
PPM
As found span
40.35 ppm CO
19.76 ppm CO
10.28 ppm CO
Analyzer Span
20.50 ppb CO
As found
Zero
AZ
AMB
June 2, 2017

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 2, 2017	Previous Calibration	May 26, 2017
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:Main

Start Time (MST)	13:55:00 PM	End Time (MST)	16:35:00 PM
Barometric Pressure	0.915 mBar	Station Temperature	22.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	7/5/2015
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make	TEI 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)
2003	0.00	0.00	0.02	N/A
2003	70.60	13.14	13.25	0.9922
2003	42.40	8.00	7.95	1.0061
2003	16.20	3.10	3.09	1.0035
2003	0.00	0.00	0.02	As Found Zero
2003	70.60	13.14	12.28	As Found Span
			Average Correction Factor	1.0006

Calculated value of As Found Response: 12.245 ppm Percent Change of As Found: 6.8%

	Before		After
Calculated slope	0.997297	Calculated slope	0.994447
Calculated intercept	0.018020	Calculated intercept	0.017764

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	9.16	ppm	9.69	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)
2003	0.00	0.00	0.02	N/A
1996	70.60	19.45	19.53	0.9959
2003	42.40	11.80	11.85	0.9960
2003	16.20	4.57	4.43	1.0300
2003	0.00	0.00	0.02	As Found Zero
2003	70.60	19.38	17.83	As Found Span
			Average Correction Factor	1.0073

Calculated value of As Found Response: 17.885 ppm Percent Change of As Found: 7.7%

	Before		After
Calculated slope	0.996469	Calculated slope	0.993604
Calculated intercept	0.137775	Calculated intercept	0.053601

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.78	ppm	13.65	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)
2003	0.00	0.00	0.03	N/A
2003	70.60	32.52	32.75	0.9931
2003	42.40	19.80	19.78	1.0010
2003	16.20	7.66	7.50	1.0212
2003	0.00	0.00	0.03	As Found Zero
2003	70.60	32.52	30.10	As Found Span
			Average Correction Factor	1.0051

Calculated value of As Found Response: 30.156 ppm Percent Change of As Found: 7.3%

	Before		After
Calculated slope	0.997649	Calculated slope	0.992519
Calculated intercept	0.159158	Calculated intercept	0.092477

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	21.94	ppm	23.32	ppm

Notes: Sample pump replaced
Span adjustment made

Calibration Performed By: Dmytro Dolotii/Grover Christiansen

Calibration Summary

Parameter **CH4**

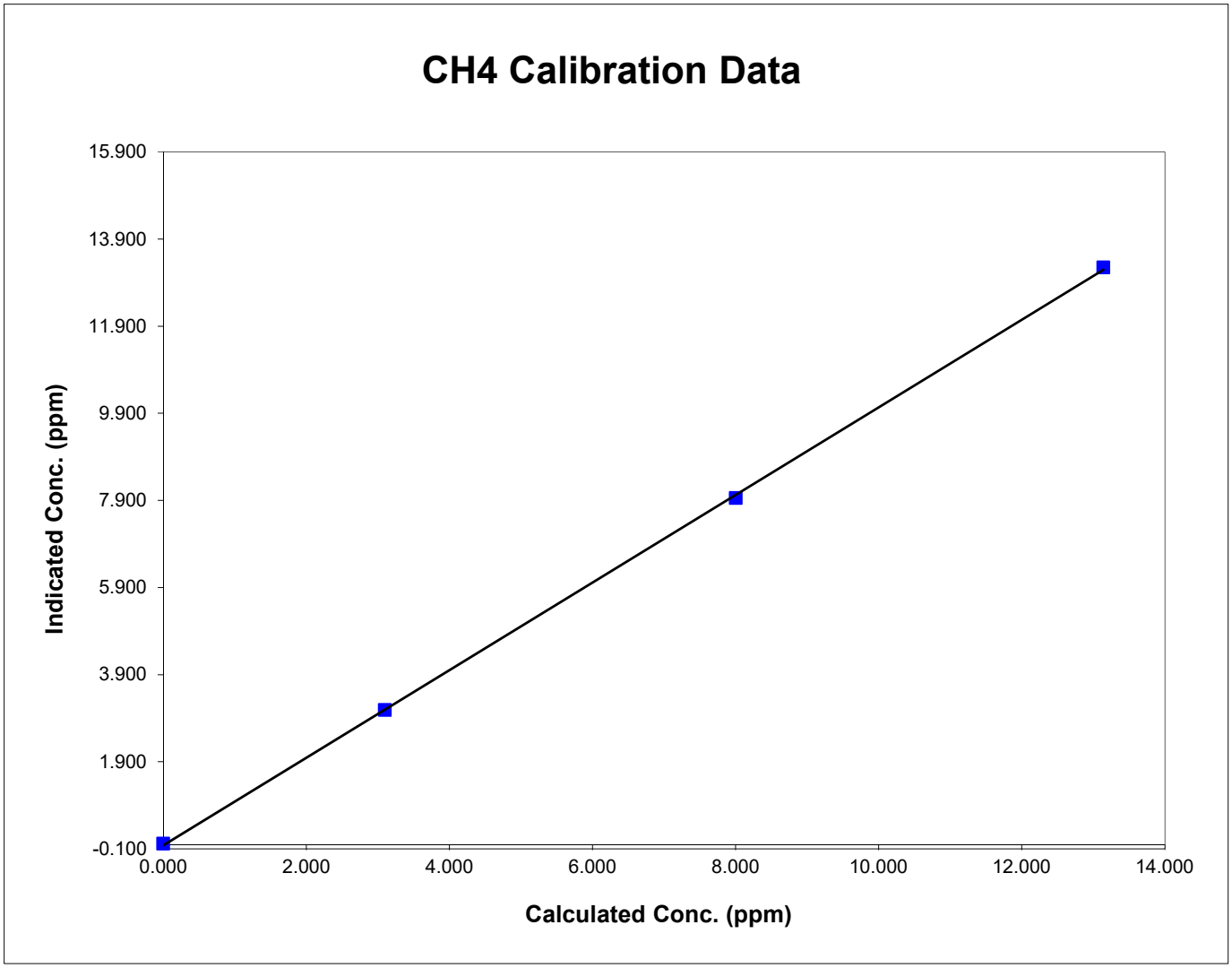
Air Monitoring Network **PAZA**

Station Information

Calibration Date	June 2, 2017	Previous Calibration	May 26, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:55:00 PM	End Time (MST)	16:35:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A		
13.142	13.245	0.9922	Correlation Coefficient	0.999907
8.002	7.953	1.0061		
3.097	3.086	1.0035	Slope	0.994447
			Intercept	0.017764



Calibration Summary

Parameter **NMHC**

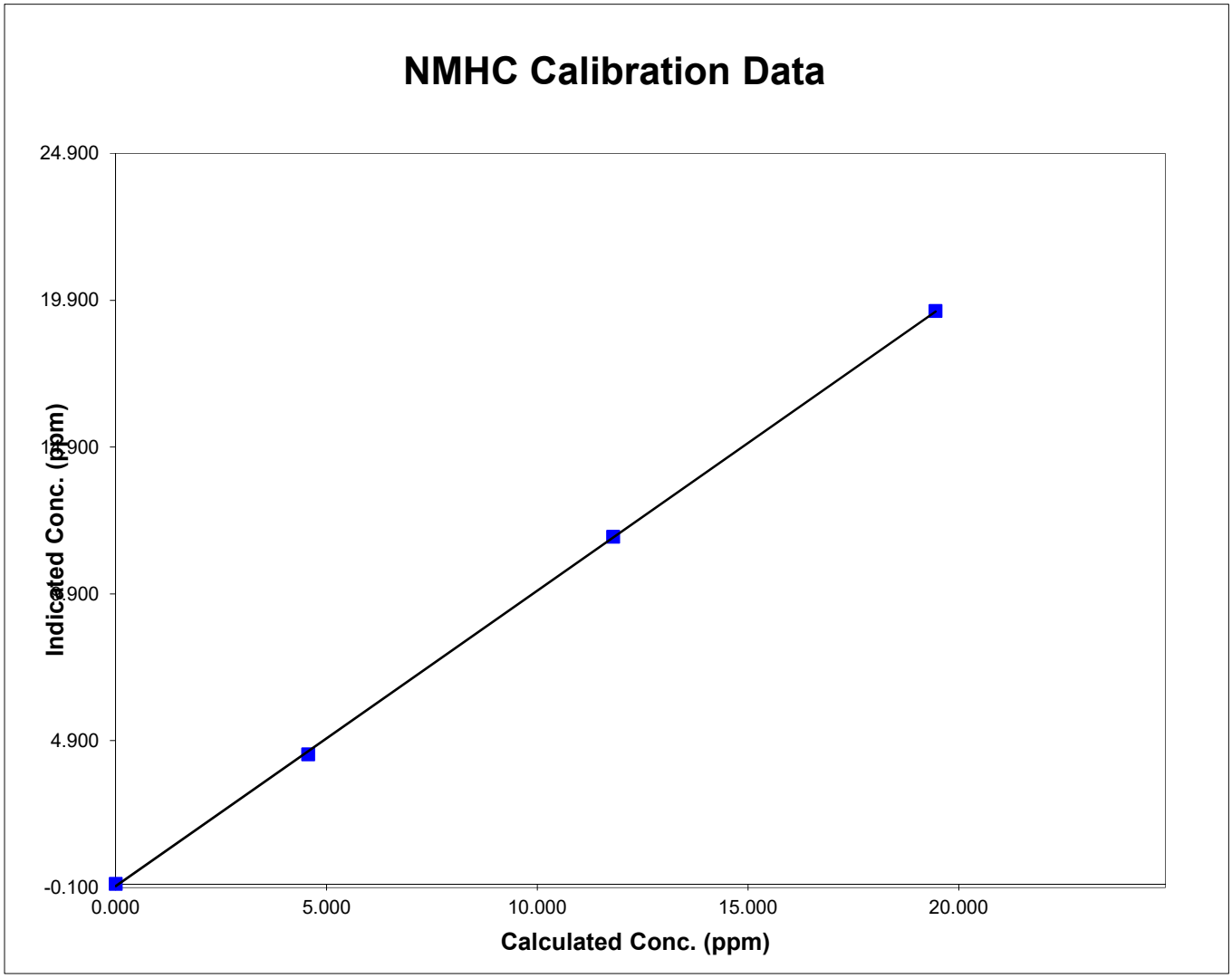
Air Monitoring Network **PAZA**

Station Information

Calibration Date	June 2, 2017	Previous Calibration	May 26, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:55:00 PM	End Time (MST)	16:35:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.020	N/A		
19.447	19.527	0.9959	Correlation Coefficient	0.999919
11.800	11.848	0.9960		
4.567	4.434	1.0300	Slope	0.993604
			Intercept	0.053601



Calibration Summary

Parameter **THC**

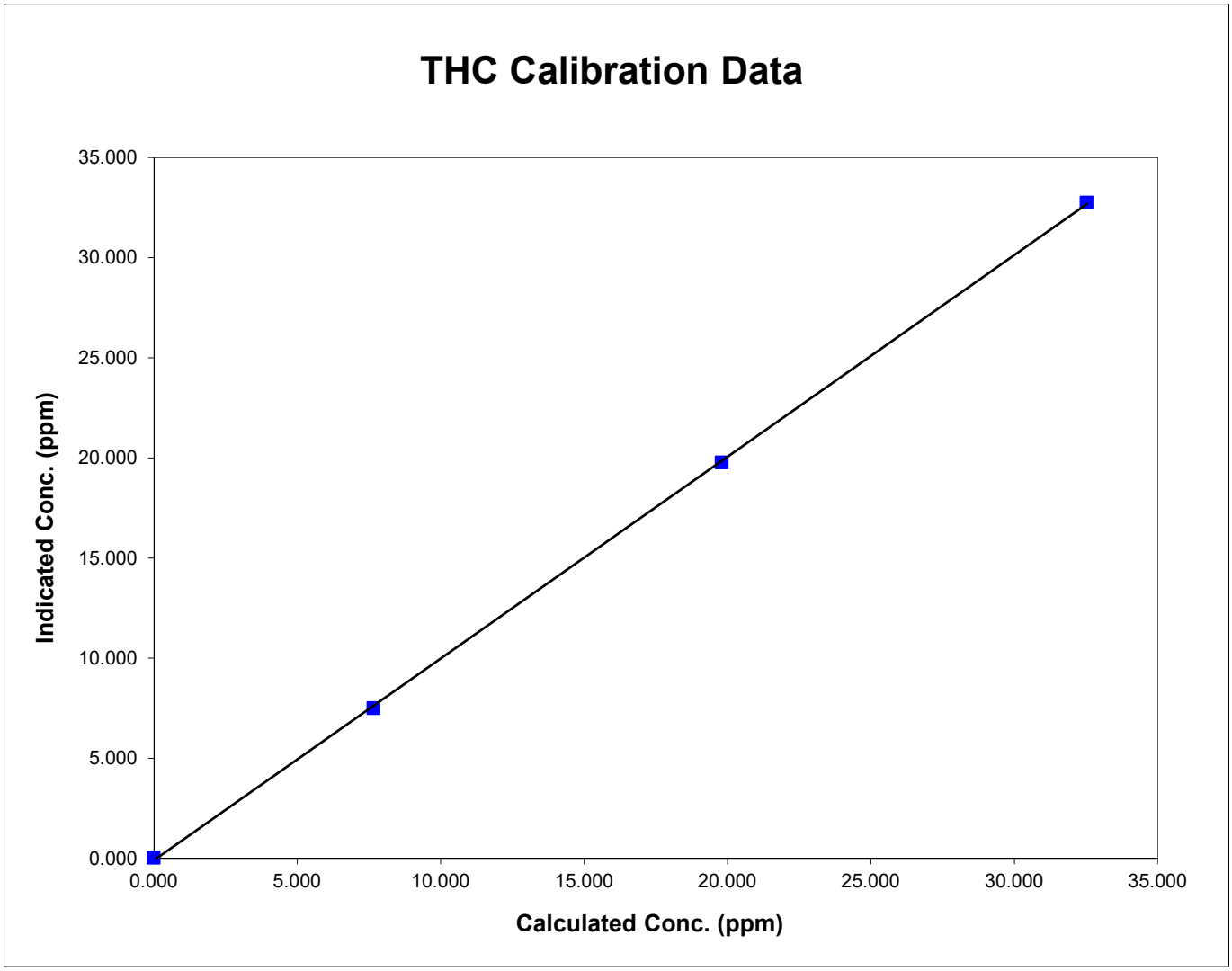
Air Monitoring Network **PAZA**

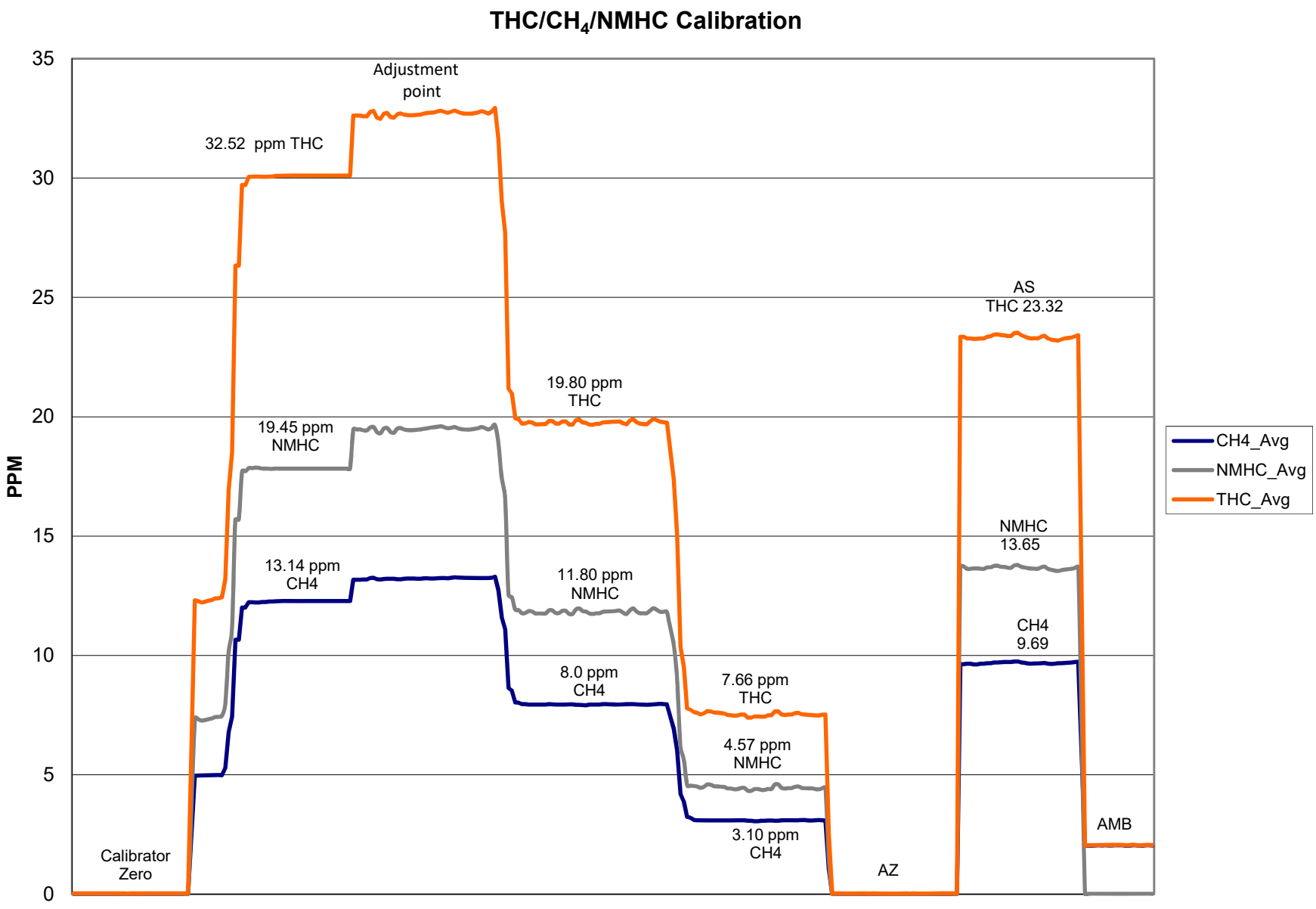
Station Information

Calibration Date	June 2, 2017	Previous Calibration	May 26, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:55:00 PM	End Time (MST)	16:35:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.033	N/A		
32.523	32.750	0.9931	Correlation Coefficient	0.999931
19.802	19.781	1.0010		
7.664	7.505	1.0212	Slope	0.992519
			Intercept	0.092477




THC/CH4/NMHC Calibration
PPM
35
30
25
20
15
10
5
0
Adjustment point
32.52 ppm THC
19.45 ppm NMHC
13.14 ppm CH4
19.80 ppm THC
11.80 ppm NMHC
8.0 ppm CH4
7.66 ppm THC
4.57 ppm NMHC
3.10 ppm CH4
AS THC 23.32
NMHC 13.65
CH4 9.69
Calibrator Zero
AZ
AMB
CH4_Avg
NMHC_Avg
THC_Avg

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 2, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:25	End Time (MST)	13:15:00 PM
Barometric Pressure	0.915 mBar	Station Temperature	22.1 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas Conc	10.2 ppb	Cal Gas Expiry Date	02/23/2019
		Cal Gas Cylinder #	EY0000380
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.982858	Calculated slope	0.988946
Calculated intercept	0.756586	Calculated intercept	1.569893
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.151		1.151	
Background	14.5		14.6	
Pressure	661.8	mm Hg	656.7	mm Hg
Flow	0.439	ccm	0.435	ccm
Lamp Voltage	897	V	896	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)
5156	0.00	0.00	-0.51	N/A
5156	41.20	80.86	80.88	0.9998
5156	20.30	40.00	37.49	1.0670
7250	9.80	13.77	11.93	1.1544
5000	0.00	0.00	-0.51	As Found Zero
5000	40.00	80.95	80.88	As Found Span
			Average Correction Factor	1.0737

Calculated value of As Found Response: 80.8 ppb Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.07	ppb	-0.43	ppb
Auto span	25.59	ppb	26.20	ppb

Notes: No adjustments made
Analyzer needs parts from the ministry

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

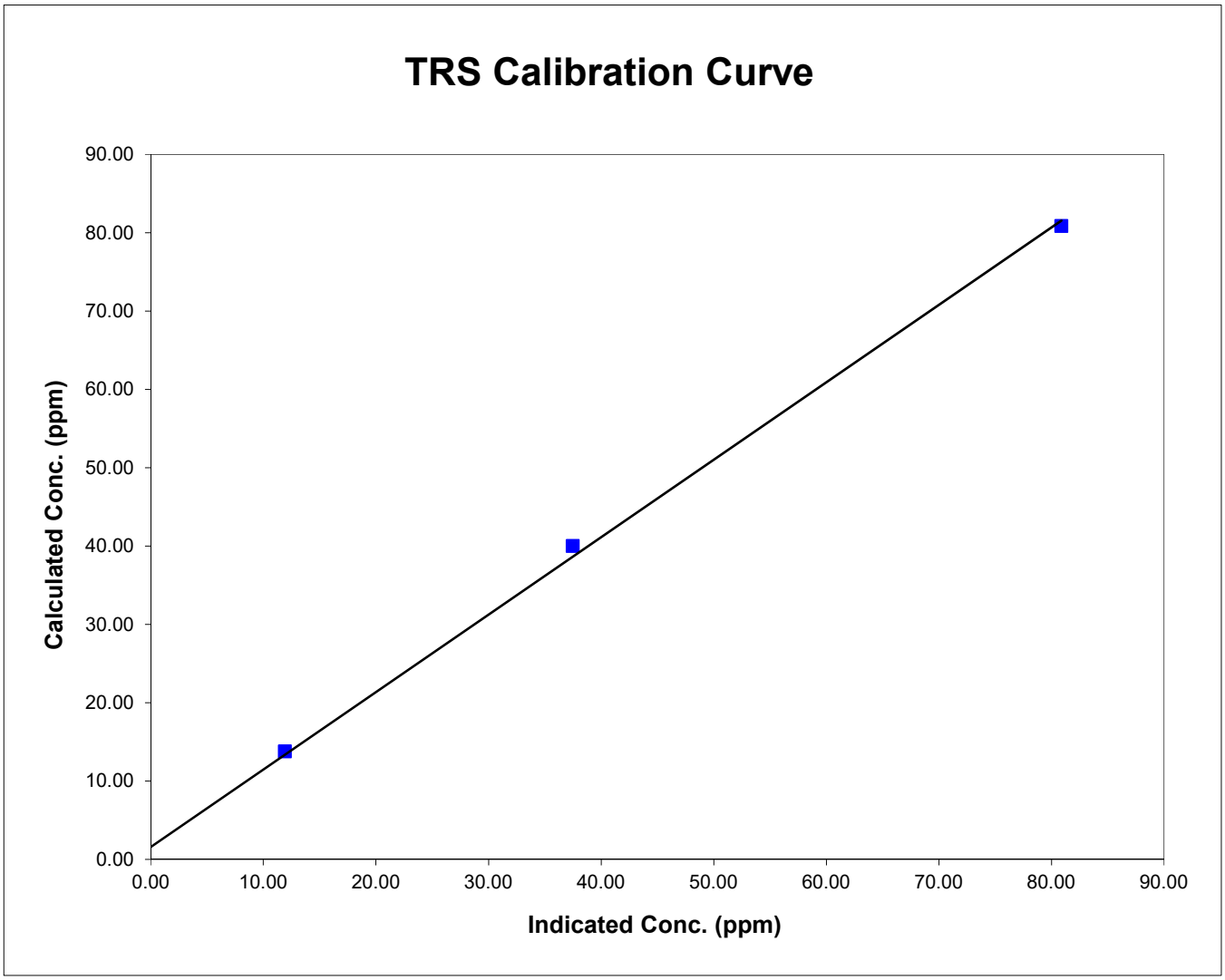
WSP AIR QUALITY MONITORING

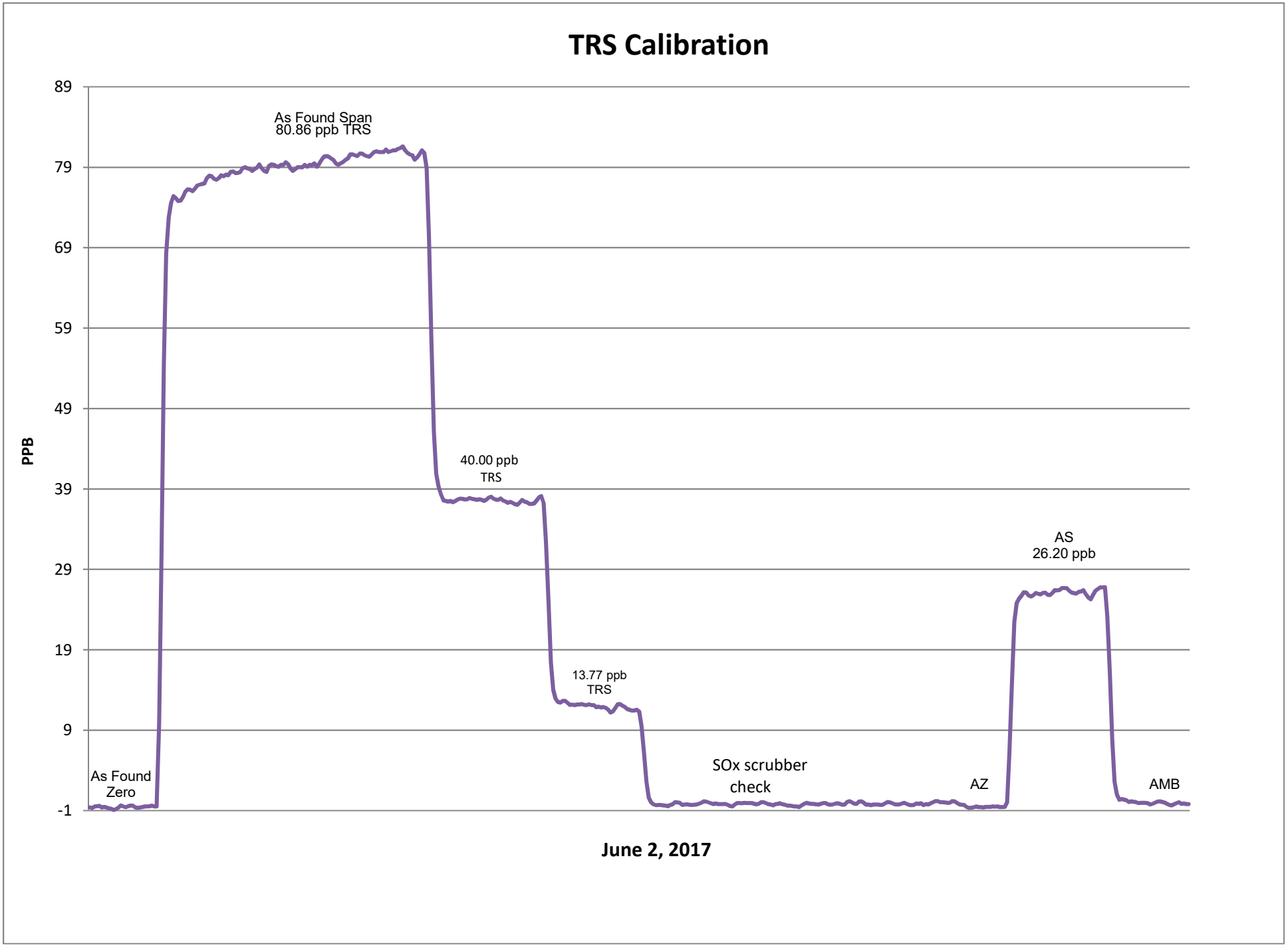
Station Information

Calibration Date	June 2, 2017	Previous Calibration	May 17, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:25	End Time (MST)	13:15:00 PM
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.511	N/A		
80.859	80.878	0.9998	Correlation Coefficient	0.999047
40.002	37.490	1.0670		
13.769	11.928	1.1544	Slope	0.988946
			Intercept	1.569893




TRS Calibration
PPB
89
79
69
59
49
39
29
19
9
-1
As Found Span
80.86 ppb TRS
40.00 ppb
TRS
13.77 ppb
TRS
AS
26.20 ppb
As Found
Zero
SOx scrubber
check
AZ
AMB
June 2, 2017

SHARP 5030 PM2.5 Calibration

WSP
AIR QUALITY MONITORING

STATION:	Henry Pirker	OPERATOR:	Dmytro Dolotii
LOCATION:	Muskoseepi Park	Last calibration date:	May 17 2017
START TIME (MST):	12:50	Calibration date:	June 5 2017
END TIME (MST):			

MONITOR INFO / PARAMETER VALUES:

Make/Model	SHARP 5030	Audit Device Model	Delta cal
Configuration	PM 2.5	Audit Device S/N	N402807
Serial Number	N-759	Certification Date	01-Oct-15

AUDIT / CALIBRATION RESULTS:

		Ambient Temp. (^{0} C)	Ambient Pres. (mbar)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
	Audit values (I)	22.0	928	16.67	16.67	14:55
As Found Data	MEASURED (AF)	21.2	927	17.14	17.22	15:02
	AF Difference (AF-I)	-0.8	-1	-0.47	0.55	0:07
Adjusted Data	MEASURED (M)	21.2	927	17.13	17.22	14:55
	Adj Difference (M-I)	-0.8	-1	0.46	0.55	0:00
	LIMITS	*± 4.0 ^{0} C*	*13.33 mbar*	*0.8 L/min*	*± 1.0 L/min*	*±2 min*

	As found	Adjusted
Nephelometer zero	0.04	0.04
Foil calibration	6907	6941

Sample Head Inspect/Cleaning: Cleaned sample head

Status of sampling tape: 50% full

Nozzle Inspection / cleanliness: Detector system was cleaned from the spyder and web, sample tape looks good.

COMMENTS:

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 9 2017	Previous Calibration	May 29 2017
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	14:15:00 PM	End Time (MST)	16:30:00 PM
Barometric Pressure	0.917 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	50 ppm	Cal Gas Expiry Date	8/2/2019
Correction factor	0.031171	Cal Gas Cylinder #	LL105132
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.993766	Calculated slope	0.987975
Calculated intercept	2.869526	Calculated intercept	-0.126441
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.9		11.9	
coefficient	1.252		1.252	
Lamp Voltage	828	volts	828	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	659.8	mm Hg	661	mm Hg
Sample Flow	0.438	ccm	0.438	ccm
Lamp Intensity	90	%	89	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5145	0.0	0.00	0.7	N/A
5145	41.28	398.0	402.0	0.9900
5145	19.90	192.6	198.5	0.9708
5145	10.05	97.5	95.8	1.0172
5145	0.0	0.0	0.7	As Found Zero
5145	41.28	398.0	402.0	As Found Span
			Average Correction Factor	0.9927

Calculated value of As Found Response: 401.673 ppm Percent Change of As Found: -0.9%

	before calibration		after calibration	
Auto zero	1.0	ppm	0.8	ppm
Auto span	265.4	ppm	271.7	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

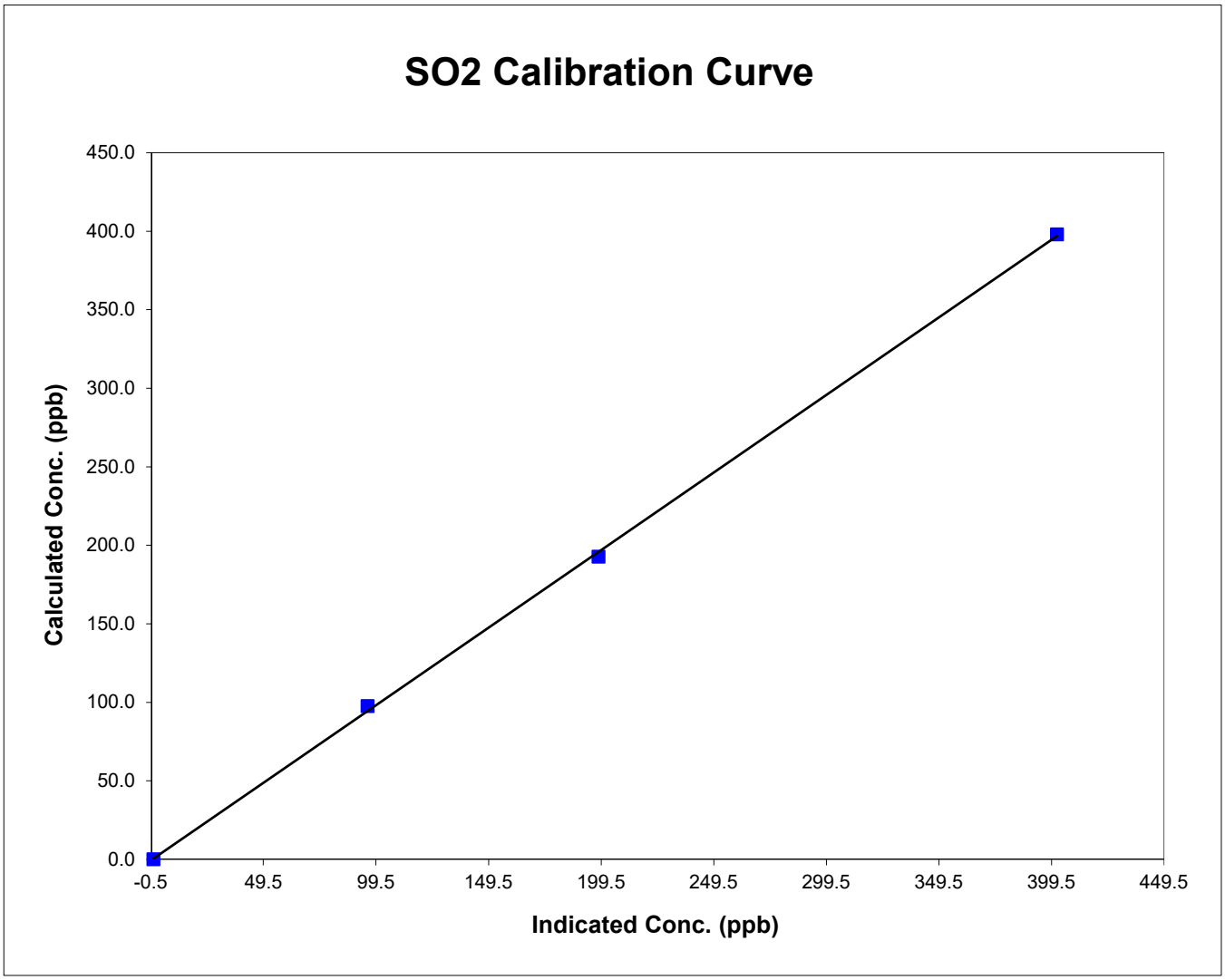
WSP AIR QUALITY MONITORING

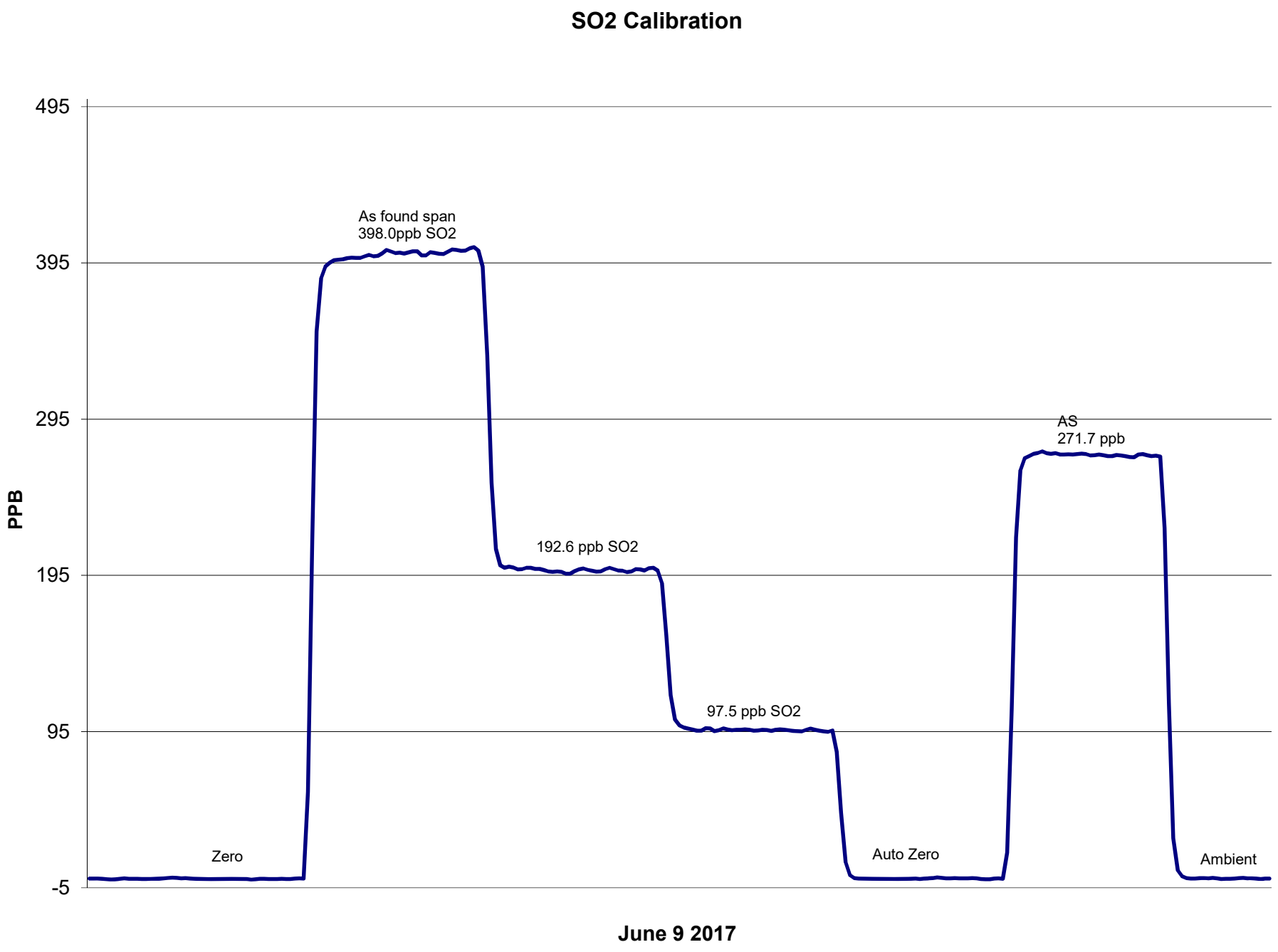
Station Information

Calibration Date	June 9 2017	Previous Calibration	May 29 2017
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	14:15:00 PM	End Time (MST)	16:30:00 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	0.7	N/A		
398.0	402.0	0.9900	Correlation Coefficient	0.999762
192.6	198.5	0.9708		
97.5	95.8	1.0172	Slope	0.987975
			Intercept	-0.126441




SO2 Calibration
495
395
295
195
95
-5
PPB
As found span
398.0ppb SO2
192.6 ppb SO2
97.5 ppb SO2
AS
271.7 ppb
Zero
Auto Zero
Ambient
June 9 2017

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 9 2017	Previous Calibration	May 29 2017
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:55	End Time (MST)	15:10:00 PM
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	02/23/2019
Correction factor	0.031205	Cal Gas Cylinder #	EY0000380
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.004259	Calculated slope	0.997298
Calculated intercept	0.605794	Calculated intercept	-0.036834
Analyzer make	TEI Model 43C	Analyzer serial #	3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	17.5	ppb	17.5	ppb
coefficient	1.006		1.006	
Lamp Voltage	979	volts	979	volts
Chamber Temp	44.3	Deg C	44.6	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	630	mm Hg	628.5	mm Hg
Sample Flow	0.611	ccm	0.610	ccm
Lamp Intensity	37,087	mv	36,720	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)
5156	0.00	0.00	0.0	N/A
5156	41.20	80.86	81.1	0.9970
5156	20.30	40.00	40.2	0.9961
7250	9.80	13.77	13.9	0.9906
5156	9.98		-0.1	Sox Test
5156	0.00	0.00	0.0	As Found Zero
5156	41.20	80.86	81.1	As Found Span
			Average Correction Factor	0.9946

Calculated value of As Found Response: 82.07 ppm Percent Change of As Found: -1.5%

	before calibration		after calibration	
Auto zero	-0.2	ppm	0.0	ppm
Auto span	65.5	ppm	68.9	ppm

Notes: Oxidizer Thermocouple was replaced
No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

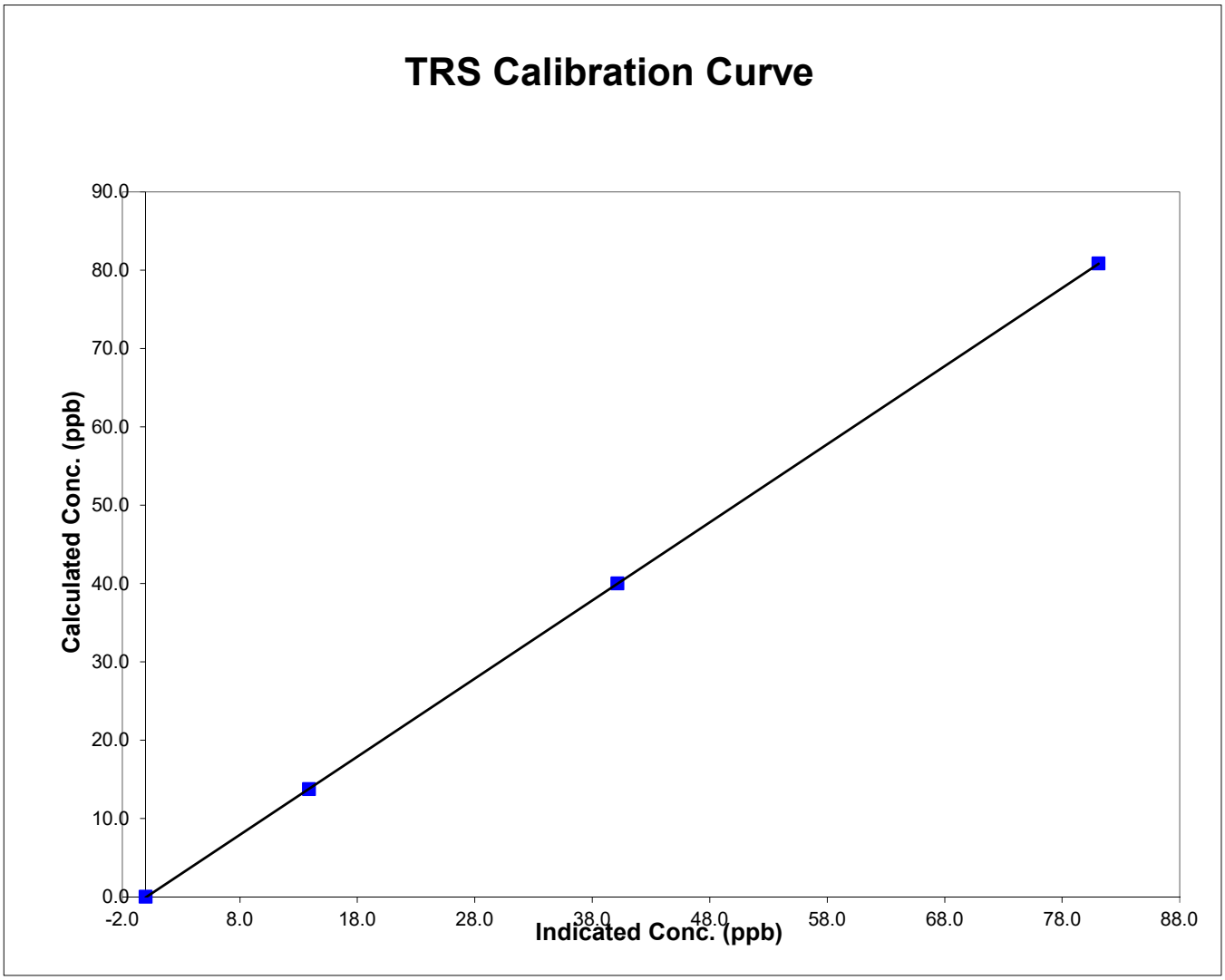
Air Monitoring Network **PAZA**

Station Information

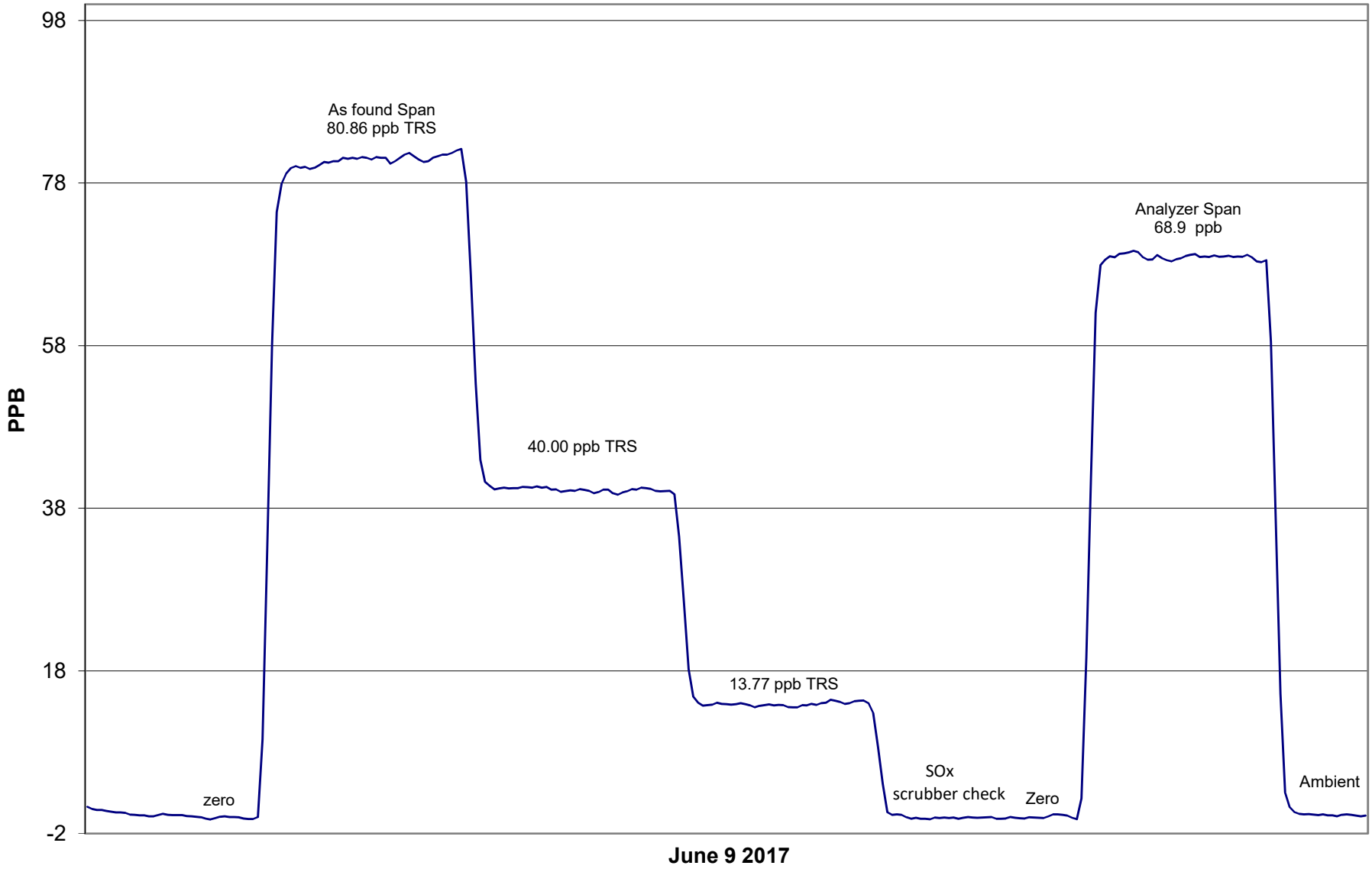
Calibration Date	June 9 2017	Previous Calibration	May 29 2017
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	12:55	End Time (MST)	15:10:00 PM
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
80.9	81.1	0.9970	Correlation Coefficient	0.999998
40.0	40.2	0.9961		
13.8	13.9	0.9906	Slope	0.997298
			Intercept	-0.036834



TRS Calibration



Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 13, 2017	Previous Calibration	May 18, 2017
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:45	End Time (MST)	15:00:00 AM
Barometric Pressure	0.925 ATM	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	50 ppm	Cal Gas Cert Date	2/8/2019
Correction factor	0.031230	Cal Gas Cylinder #	LL105132
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.993308	Calculated slope	1.016290
Calculated intercept	1.509586	Calculated intercept	0.332470
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	13.6		13.6	
coefficient	0.925		0.926	
Lamp Voltage	942	volts	942	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	666	mm Hg	669.3	mm Hg
Sample Flow	0.446	lpm	0.449	lpm
Lamp Intensity	87	%	88	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5152	0.0	0.00	0.2	N/A
5152	41.22	396.86	390.3	1.0168
5152	20.20	195.27	192.0	1.0173
5152	9.80	94.93	92.3	1.0290
5152	0.0	0.00	0.2	As Found Zero
5152	41.22	396.86	390.3	As Found Span
			Average Correction Factor	1.0210

Calculated value of As Found Response: 388.968 ppm Percent Change of As Found: 2.0%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.3	ppb
Auto span	205.2	ppb	207.6	ppb

Notes: No adjustments made.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

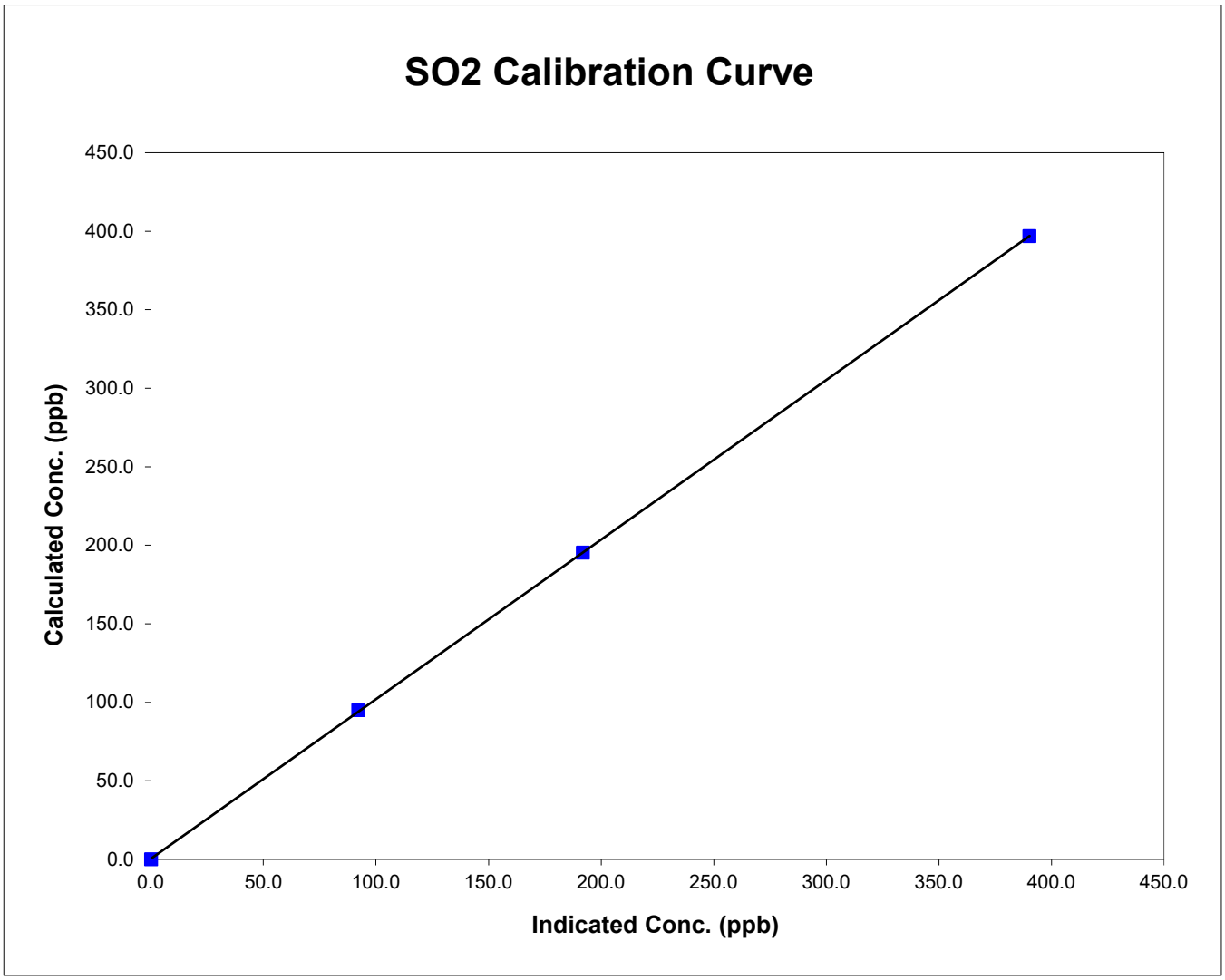
Air Monitoring Network **PAZA**

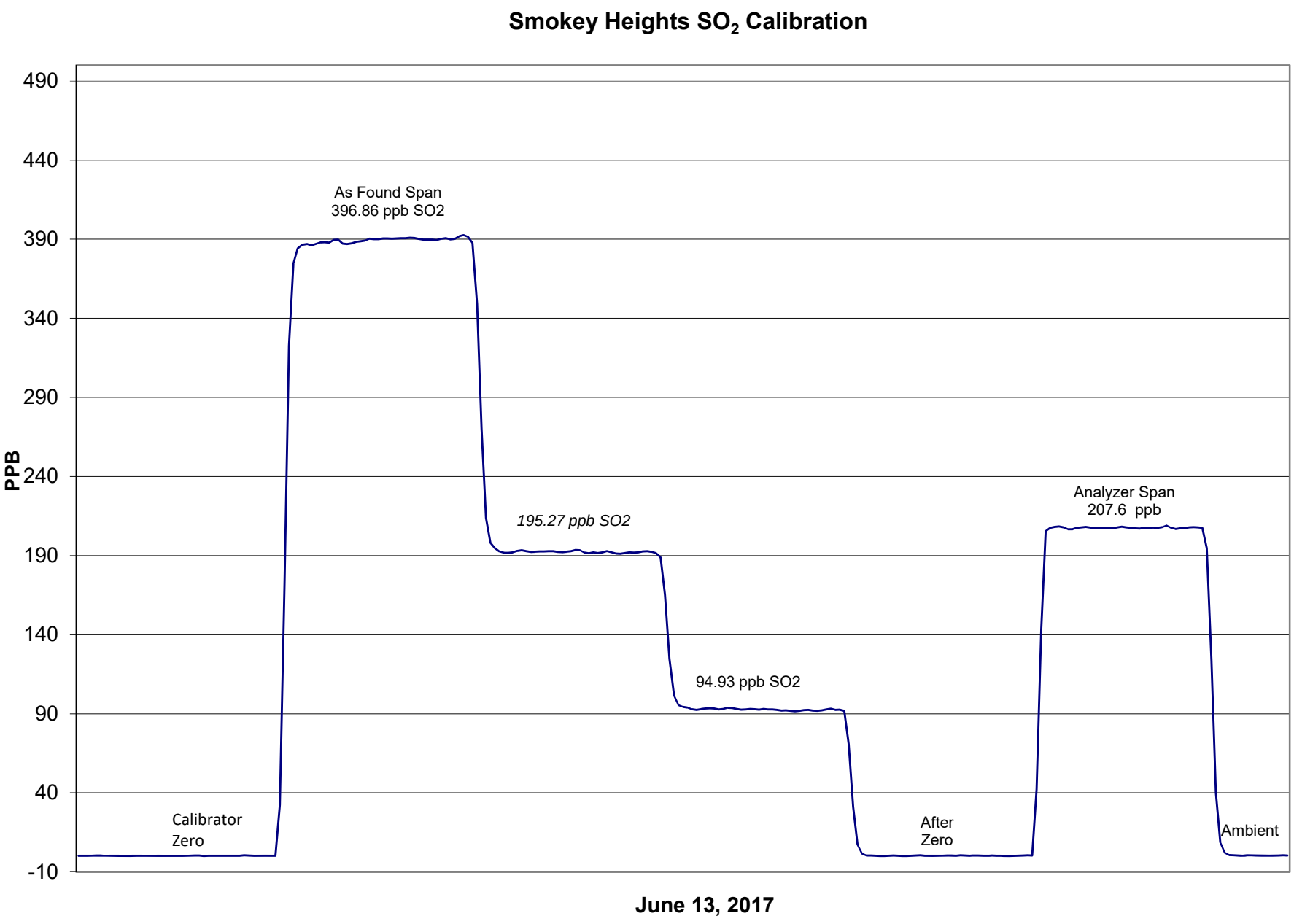
Station Information

Calibration Date	June 13, 2017	Previous Calibration	May 18, 2017
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	12:45	End Time (MST)	15:00:00 AM
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	0.2	N/A		
396.9	390.3	1.0168	Correlation Coefficient	0.999988
195.3	192.0	1.0173		
94.9	92.3	1.0290	Slope	1.016290
			Intercept	0.332470




Smokey Heights SO_2 Calibration
490
440
390
340
290
240
190
140
90
40
-10
PPB
As Found Span
396.86 ppb SO2
195.27 ppb SO2
94.93 ppb SO2
Analyzer Span
207.6 ppb
Calibrator
Zero
After
Zero
Ambient
June 13, 2017

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 13, 2017	Previous Calibration	May 18, 2017
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	9:35	End Time (MST)	14:20:00 PM
Barometric Pressure	0.925 ATM	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	7/8/2016
Correction factor	0.031230	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.983774	Calculated slope	0.975445
Calculated intercept	0.629419	Calculated intercept	0.498337

Analyzer make	TEI Model 43I APSAA	Analyzer serial #	1153630151

	before		after	
Concentration range	100	ppb	100	ppb
Background	15.2	ppb	15.6	ppb
coefficient	1.000		1.028	
Lamp Voltage	805	volts	809	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	671.6	mm Hg	671.3	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 (ppm) (Ic)	Correction factor (Cc/Ic)
5152	0.0	0.00	-0.2	N/A
5152	41.22	80.96	82.6	0.9801
5152	20.20	39.84	40.2	0.9920
7253	9.80	13.76	13.4	1.0284
5152	9.80		-0.1	Sox test
5152	0.0	0.00	-0.2	As Found Zero
5152	41.22	80.96	76.8	As Found Span
			Average Correction Factor	1.0002

Calculated value of As Found Response: 76.45 ppm Percent Change of As Found: 5.6%

	before calibration		after calibration	
Auto zero	0.1	ppm	-0.1	ppm
Auto span	70.3	ppm	69.5	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii.

Calibration Summary

Parameter **TRS**

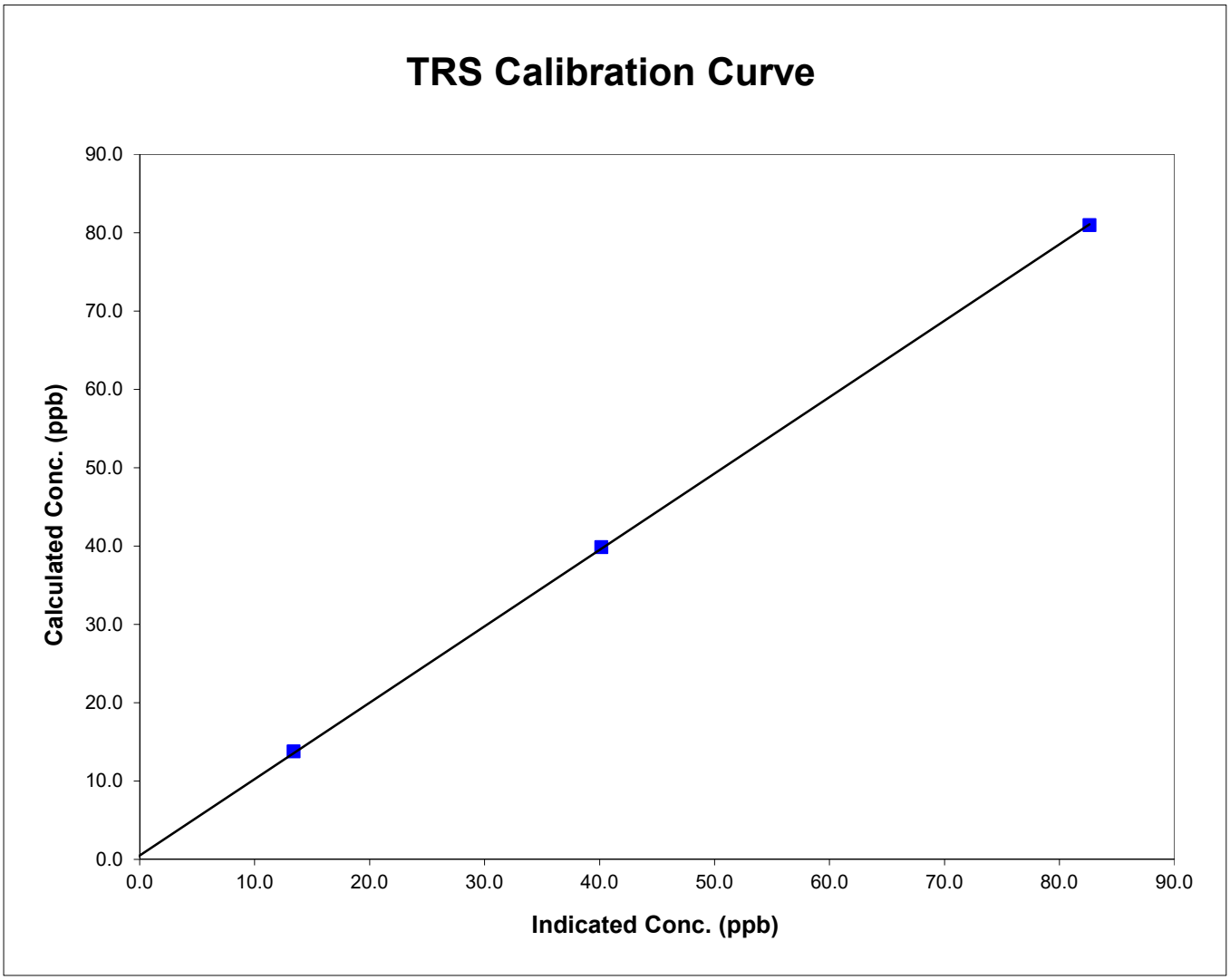
Air Monitoring Network **PAZA**

Station Information

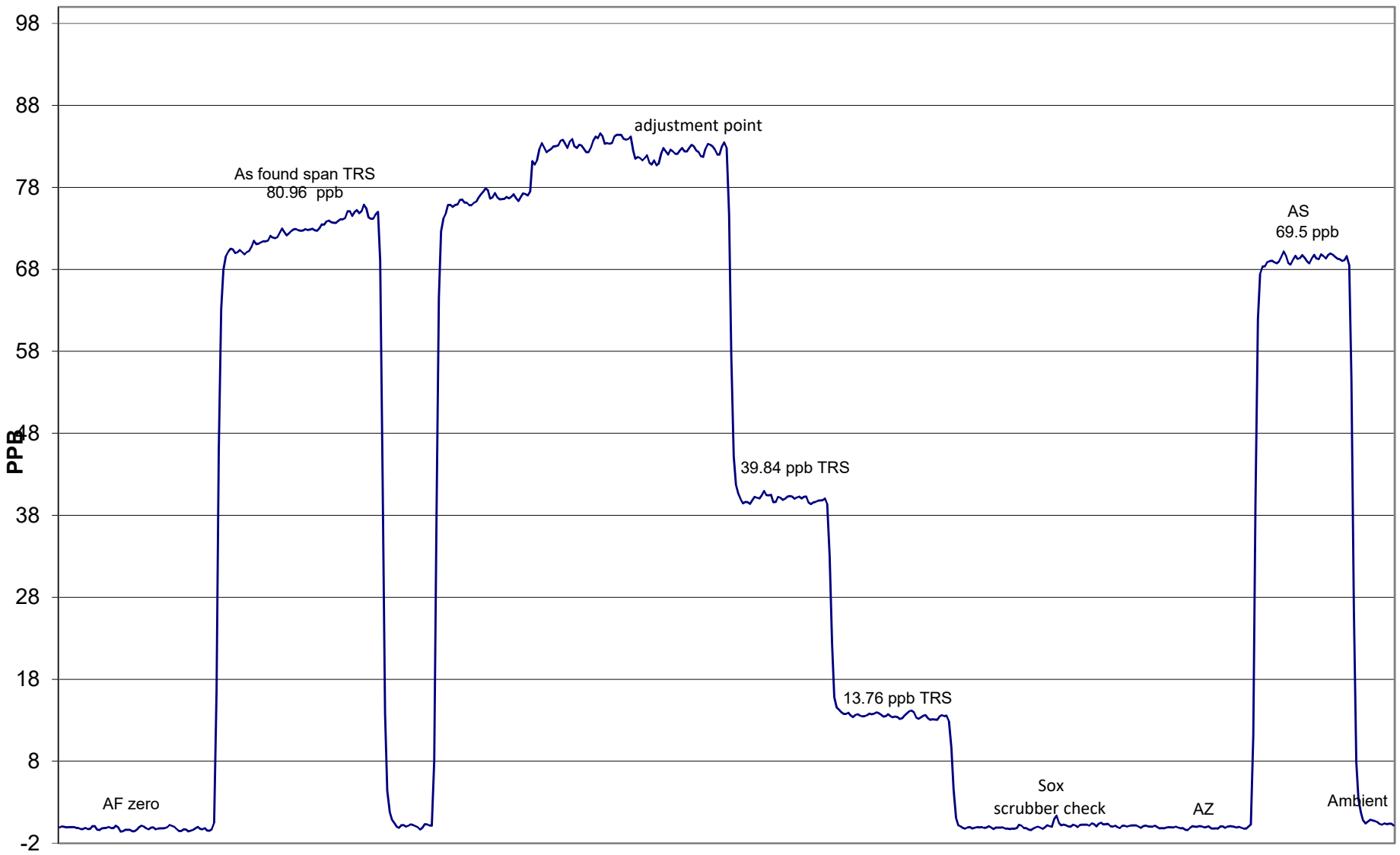
Calibration Date	June 13, 2017	Previous Calibration	May 18, 2017
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:35	End Time (MST)	14:20:00 PM
Analyzer make/model	TEI Model 43I APSAA	Analyzer serial #	1153630151

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
81.0	82.6	0.9801	Correlation Coefficient	0.999959
39.8	40.2	0.9920		
13.8	13.4	1.0284	Slope	0.975445
			Intercept	0.498337



Smokey Heights TRS Calibration



June 13, 2017

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 15, 2017	Previous Calibration	May 24, 2017
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	13:35:00 PM	End Time (MST)	15:45:00 PM
Barometric Pressure	0.909 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Concentration	10.5 ppm	Cal Gas Expiry Date	1/12/2019
Gas Cert Reference	FF16108		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.002487	Calculated slope	1.012401
Calculated intercept	0.101150	Calculated intercept	-0.374692
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.56		2.56	
Coefficient	0.969		0.969	
PMT	-767.5	V	-767.5	V
UV Lamp Voltage	1114	V	1114	V
Chamber Temp	45	Deg C	45	Deg C
Pressure	669.1	mm Hg	662.8	mm Hg
Sample Flow	0.457	LPM	0.457	LPM
Lamp Intensity	96	%	96	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5143	0.00	0.0	0.3	N/A
5143	41.31	83.7	82.9	1.0092
5143	20.20	41.1	41.2	0.9979
5143	9.90	20.2	20.3	0.9942
5143	0.00	0.0	0.3	As found zero
5143	39.84	80.7	82.9	As found span
			Average Correction Factor	1.0004

Calculated value of As Found Response: 82.948 ppm Percent Change of As Found: -2.8%

	before calibration		after calibration	
Auto zero	0.4	ppb	-0.1	ppb
Auto span	60.2	ppb	60.5	ppb

Notes: No adjustment made

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

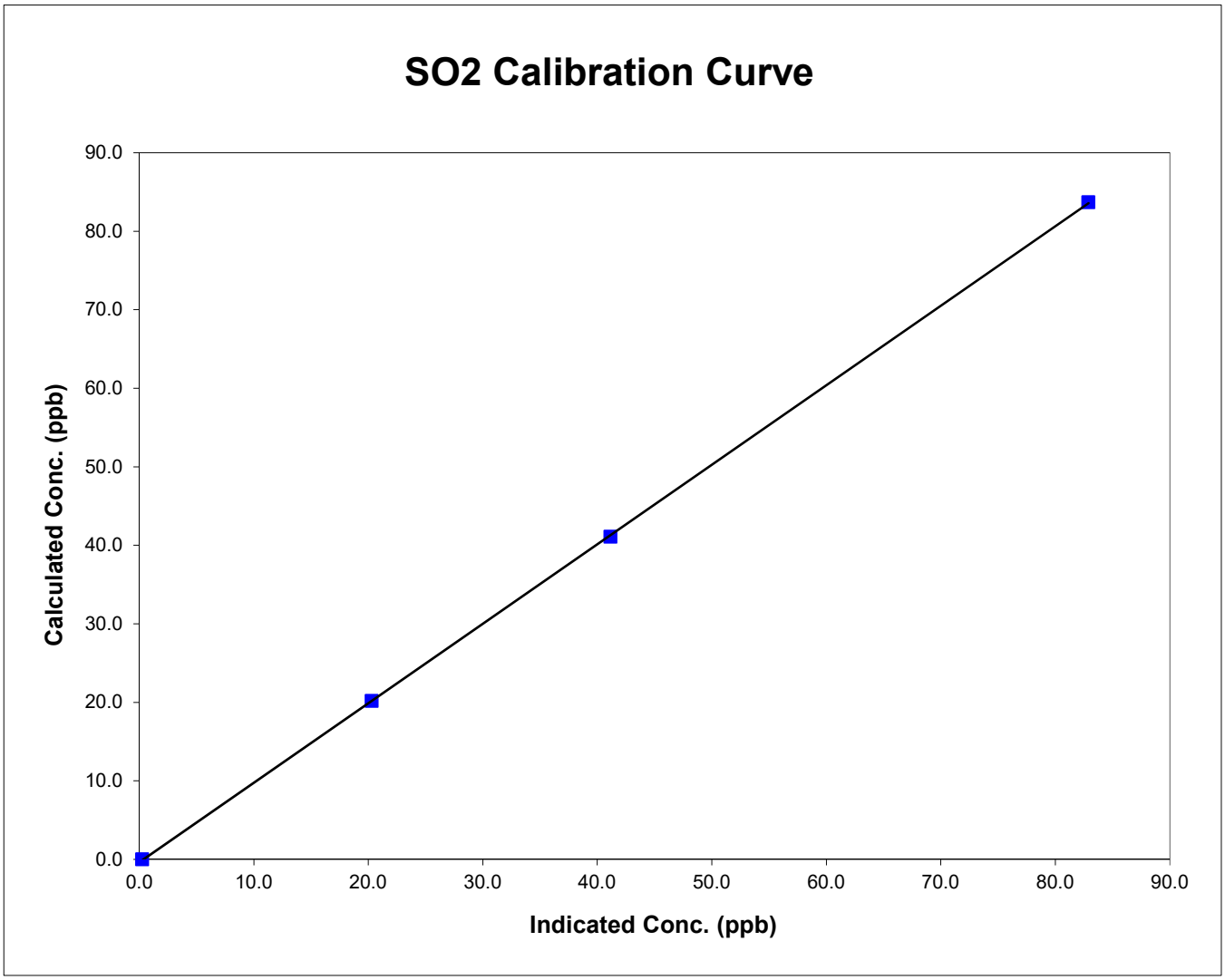
WSP AIR QUALITY MONITORING

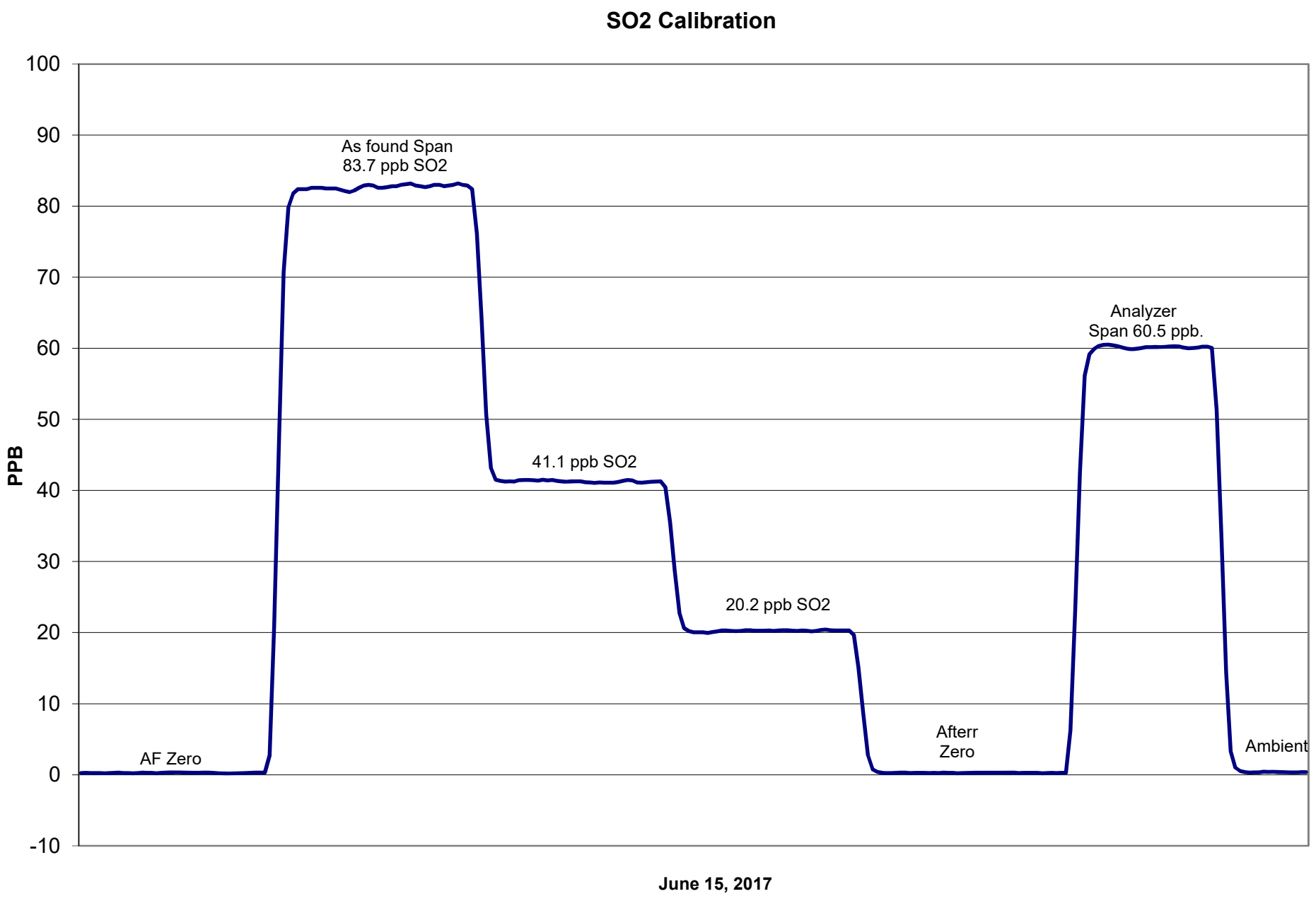
Station Information

Calibration Date	June 15, 2017	Previous Calibration	May 24, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:35:00 PM	End Time (MST)	15:45:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
83.7	82.9	1.0092	Correlation Coefficient	0.999981
41.1	41.2	0.9979		
20.2	20.3	0.9942	Slope	1.012401
			Intercept	-0.374692




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As found Span
83.7 ppb SO2
41.1 ppb SO2
20.2 ppb SO2
Analyzer
Span 60.5 ppb.
AF Zero
Afterr
Zero
Ambient
June 15, 2017

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 15, 2017	Previous Calibration	May 24, 2017
Station Number	4	Station Location	Beaverlodge

Reason: Routine Installation Removal Other:

Start Time (MST)	9:20		End Time (MST)	13:10:00 PM	
Barometric Pressure	0.909	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	3474	
NO Cal Gas Conc	48.6	ppm	Cal Gas Expiry Date	August 2, 2019	
NOx Cal Gas Conc	48.9	ppm	Cal Gas Serial #	LL105132	

DACS Information

DACS make	CR3000	DACS serial No.	5237

Parameter		NO2	NOx	NO
Before	Data Slope	0.999877	0.993792	0.985978
	Data Offset	-0.135845	2.600771	3.053500
After	Data Slope	0.996492	0.993341	0.988461
	Data Offset	-0.479102	0.180161	0.686225
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	2.8	mV	2.8	mV
NOx bkgnd	3.0	mV	3.0	mV
NO coefficient	1.016		1.016	
NOx coefficient	0.999		0.999	
NO2 conv temp	326.8	Deg C	326.8	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-743.3	mV	-743.0	mV
R Cell Press	195.6	in Hg	194.1	in Hg
Sample Flow	0.739	LPM	0.735	LPM

Notes: No adjustments made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: June 15, 2017 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	5143	0.00	0.0	0.0	0.0	0.2	-0.2	0.3	N/A	N/A
1	5143	41.31	389.6	387.3	2.4	391.9	391.1	0.0	0.9942	0.9901
2	5143	20.20	191.3	190.1	1.2	193.3	192.0	0.5	0.9897	0.9903
3	5143	9.90	93.9	93.4	0.6	93.3	93.0	0.2	1.0075	1.0044
AFZ	5143	0.00	0.0	0.0	0.0	0.2	-0.2	0.3	0.0000	0.0000
AFS	5143	39.92	376.6	374.3	0.8	391.9	391.1	0.0	0.9610	0.9571
							Average Correction Factor		0.9971	0.9950

As Found Concentrations: NO_X= 391.8 NO= 388.9 As Found Percent Change NO_X= 4.0% NO= 3.9%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.2	-0.2	0.0	0.2	-0.2	0.3	N/A	N/A	N/A	N/A
NO point	390.7	390.7	0.0	391.4	390.7	-0.1	0.9983	1.0000	N/A	N/A
300	390.7	47.6	343.2	393.2	47.6	344.7	0.9936	1.0000	0.9954	100.5%
200	390.7	158.3	232.4	392.8	158.3	233.7	0.9946	1.0000	0.9943	100.6%
100	390.7	278.9	111.8	392.6	278.9	113.0	0.9952	1.0000	0.9896	101.0%
					Average Correction Factor		0.9945	1.0000	0.9931	100.7%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	0.0	-0.2	ppb	0.0	0.0	-0.2	ppb
Auto span	289.4	286.7	1.8	ppb	286.9	284.0	2.0	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

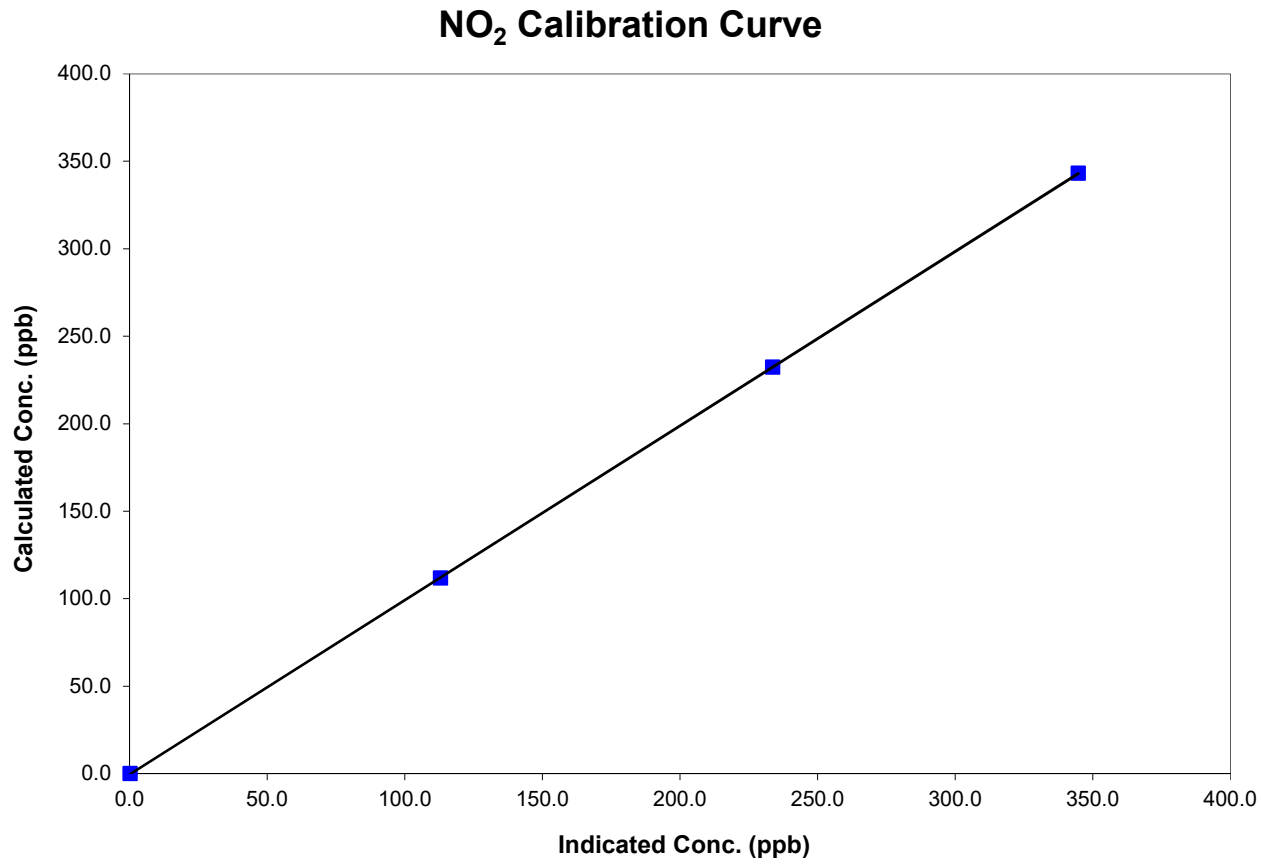
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 15, 2017	Previous Calibration	May 24, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:20	End Time (MST)	13:10:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
343.2	344.7	0.9954	Correlation Coefficient	0.999998
232.4	233.7	0.9943		
111.8	113.0	0.9896	Slope	0.996492
			Intercept	-0.479102



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

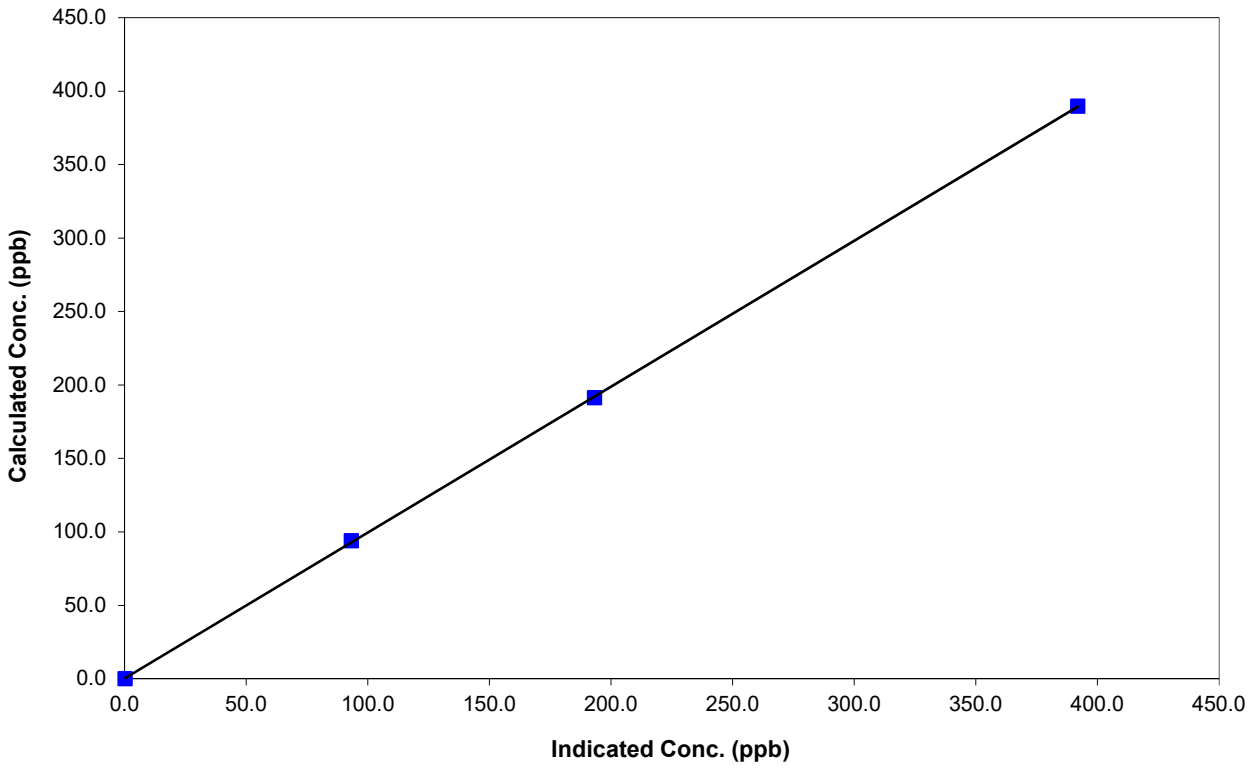
Station Information

Calibration Date	June 15, 2017	Previous Calibration	May 24, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:20	End Time (MST)	13:10:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
389.6	391.9	0.9942	Correlation Coefficient	0.999973
191.3	193.3	0.9897		
93.9	93.3	1.0075	Slope	0.993341
			Intercept	0.180161

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

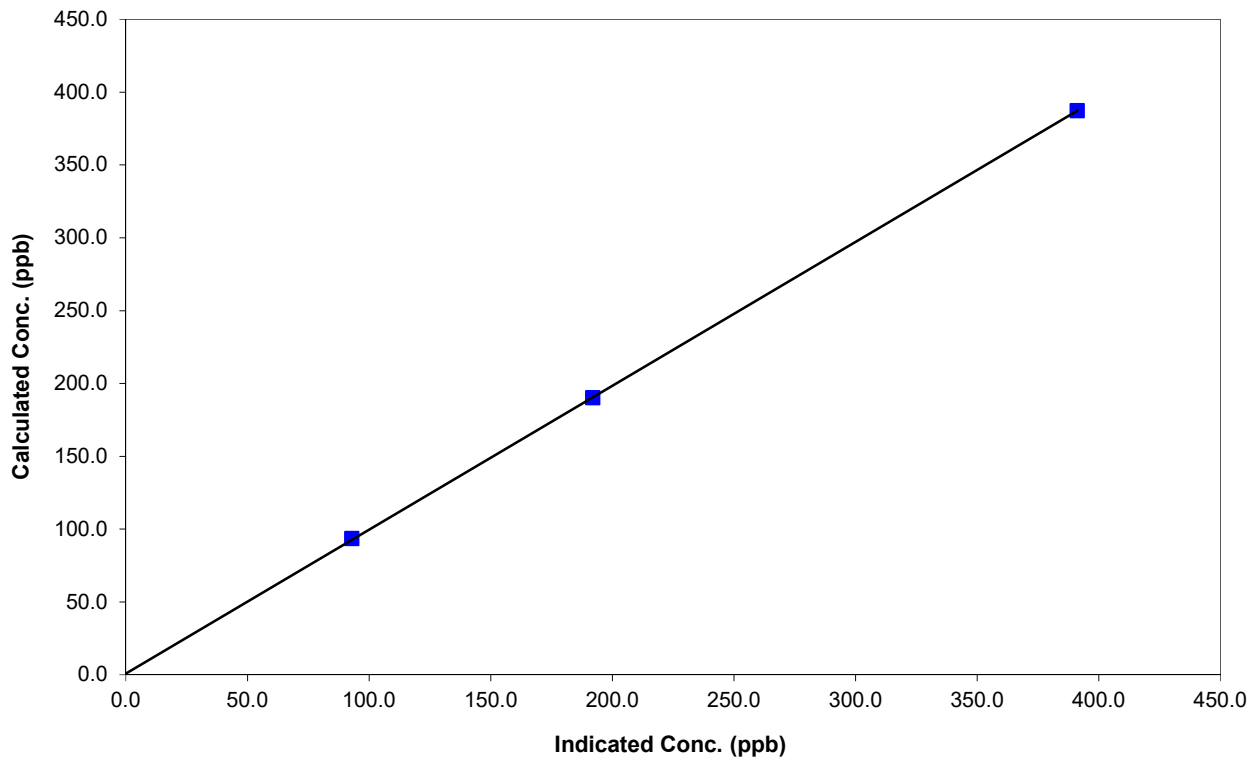
Station Information

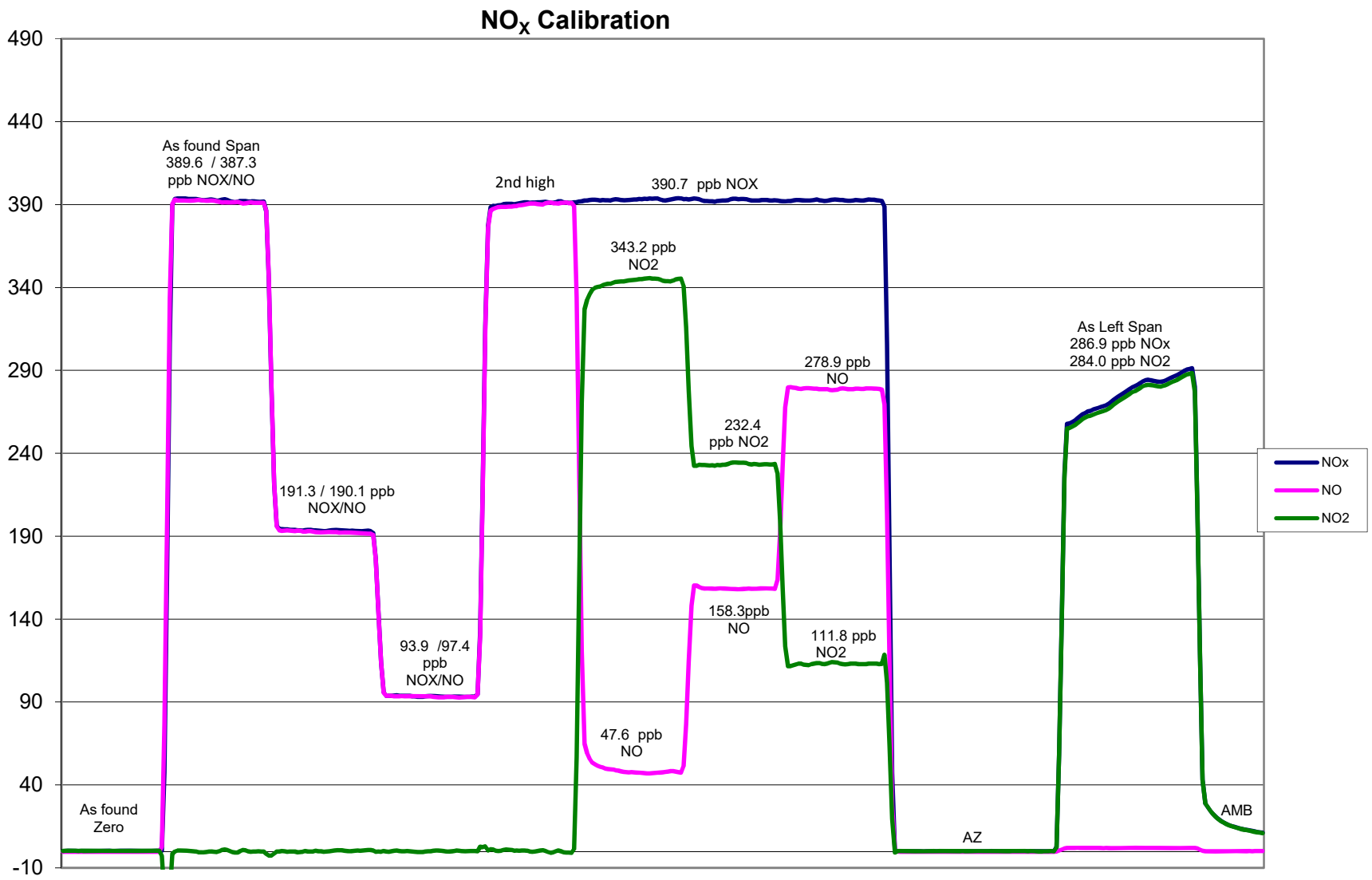
Calibration Date	June 15, 2017	Previous Calibration	May 24, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	9:20	End Time (MST)	13:10:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
387.3	391.1	0.9901	Correlation Coefficient	0.999989
190.1	192.0	0.9903		
93.4	93.0	1.0044	Slope	0.988461
			Intercept	0.686225

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
389.6 / 387.3
ppb NOX/NO
2nd high
390.7 ppb NOX
343.2 ppb
NO2
As Left Span
286.9 ppb NOx
284.0 ppb NO2
278.9 ppb
NO
232.4
ppb NO2
191.3 / 190.1 ppb
NOX/NO
158.3ppb
NO
111.8 ppb
NO2
93.9 /97.4
ppb
NOX/NO
47.6 ppb
NO
As found
Zero
AZ
AMB
NOx
NO
NO2
June 15, 2017

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 15, 2017	Previous Calibration	May 24, 2017
Station Number	4	Station Location	Beaverlodge
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	12:12	End Time (MST)	14:30
Barometric Pressure	0.909 atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
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	0.994480	Calculated slope	0.997362
Calculated intercept	0.147455	Calculated intercept	0.648471

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

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.30	ppb
slope	1.137		1.076	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	60301/68355	mV	60313/68355	mV
Pressure	676.6	mm Hg	674.2	mm Hg
Flow A	0.799	LPM	0.796	LPM
Flow B	0.737	LPM	0.735	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5143	0.00	0.0	0.4	N/A
5143	0.30	343.2	345.3	0.9939
5143	0.20	232.4	229.6	1.0120
5143	0.10	111.8	111.3	1.0049
5143	0.00	0.0	0.4	As found zero
5143	0.30	343.2	368.1	As found span
			Average Correction Factor	1.0036

Calculated value of As Found Response: 365.8 ppm Percent Change of As Found: 6.6%

	before calibration		after calibration	
Auto zero	0.7	ppb	0.5	ppb
Auto span	286.1	ppb	272.9	ppb

Notes: Span adjustment made. Possible maintenance will be necessary

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

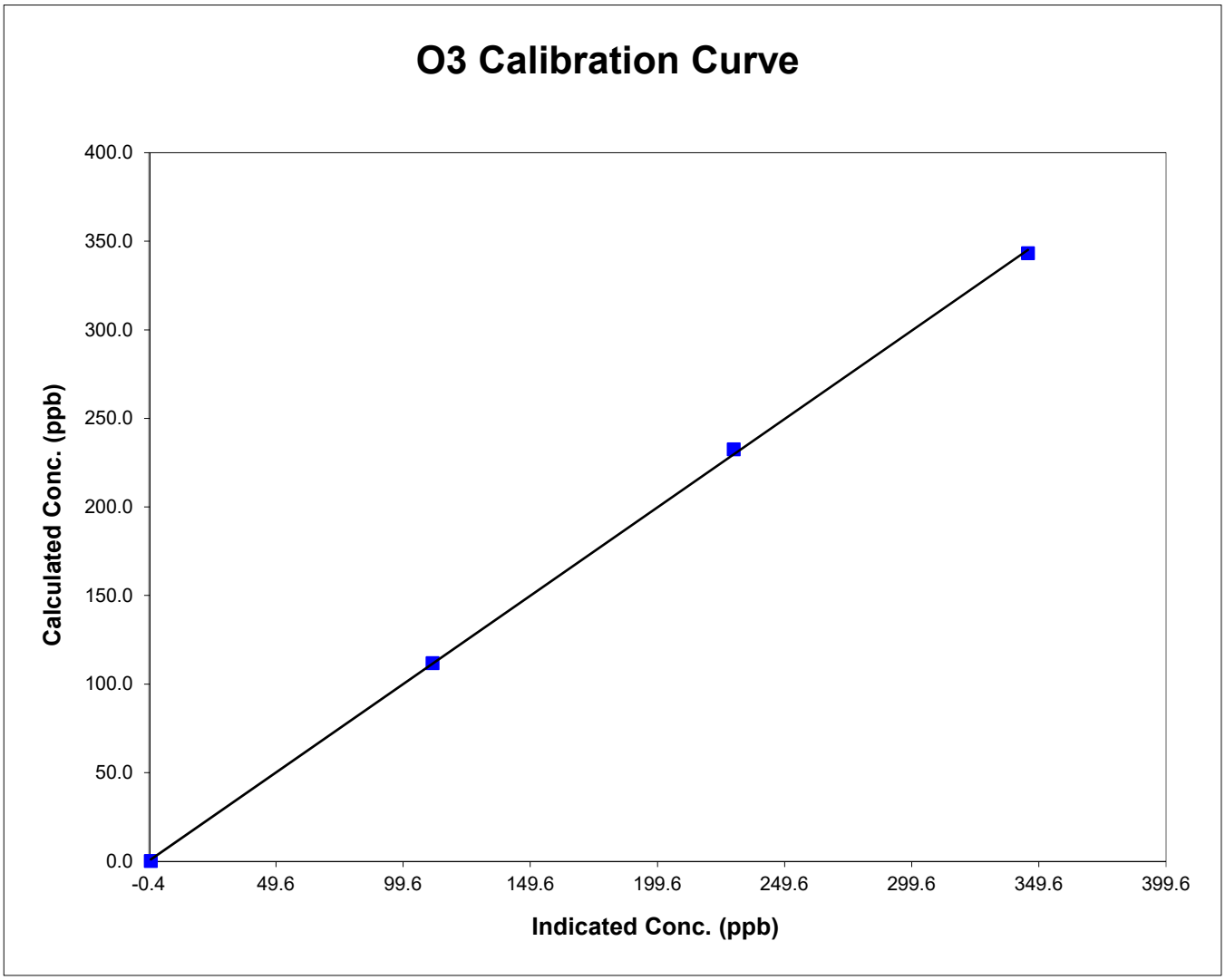
WSP AIR QUALITY MONITORING

Station Information

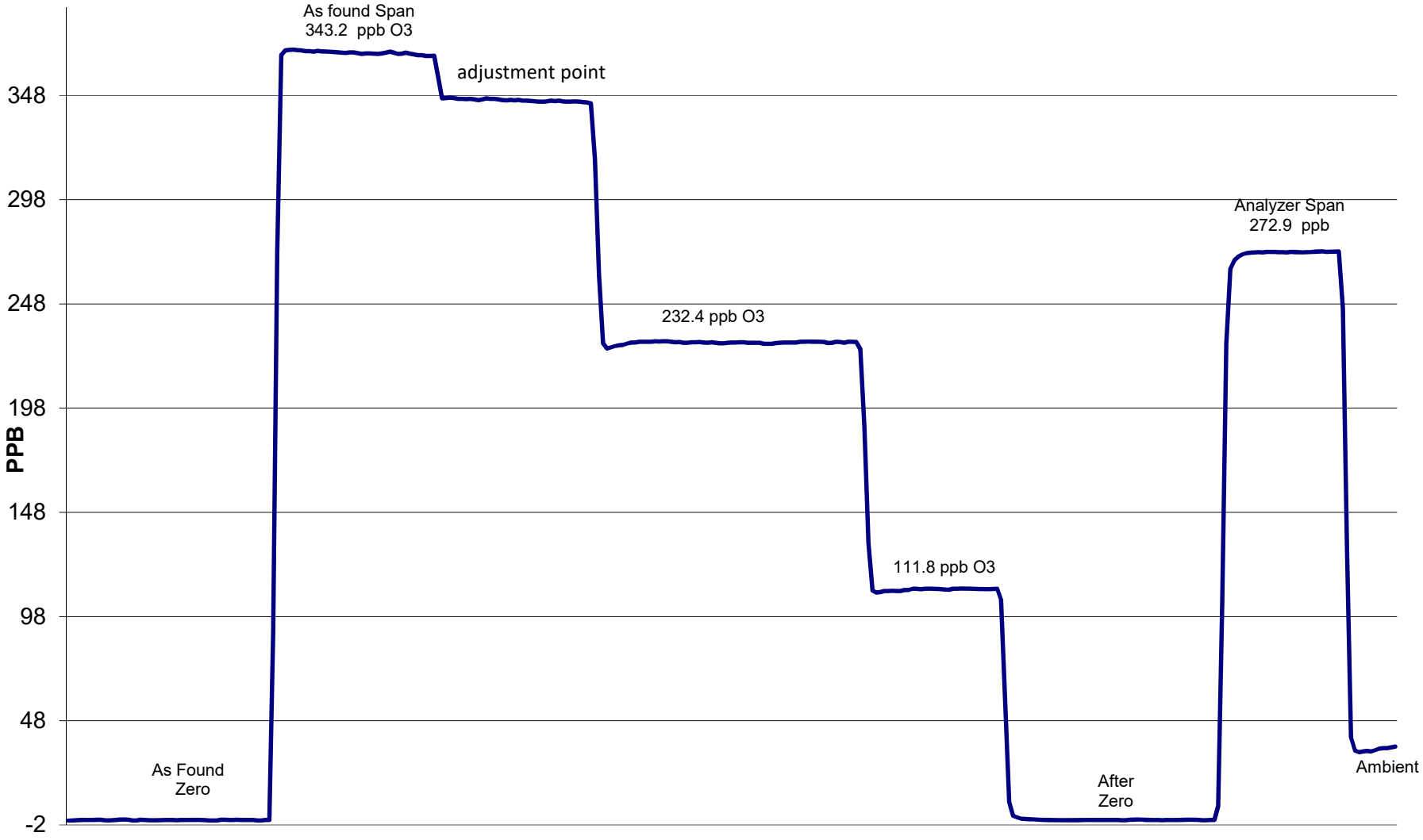
Calibration Date	June 15, 2017	Previous Calibration	May 24, 2017
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:12	End Time (MST)	14:30
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA		
343.2	345.3	0.9939	Correlation Coefficient	0.999820
232.4	229.6	1.0120		
111.8	111.3	1.0049	Slope	0.997362
			Intercept	0.648471



O3 Calibration



June 15, 2017

SHARP 5030 PM2.5 Calibration

WSP
AIR QUALITY MONITORING

Station:	Beaverlodge	Operator:	Grover Christiansen
Locatilon:	Agricultural centre	Date:	June 15 2017
Start Time (MST):	13:00:00 PM	End Time (MST):	14:30:00 PM

MONITOR INFO / PARAMETER VALUES:

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

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (˚C)	Ambient Pres. (mbar)	RH (%)	Leak Check (l/min)	Flow Rate (lpm)	Foil Calibration (ug)	Nephelometer (ug)	Time settings (hh:mm)
Audit values (I)	16.5	912	37.2	16.67	16.67	7181	0.0	14:47
MEASURED (AF)	17.1	909	35.1	16.45	16.20	7030	1.9	14:49
AF Difference (AF-I)	0.6	-3	-2.1	-0.22	-0.47	-151	1.9	0:02
MEASURED (M)	17.1	909	35.1	16.45	16.20	7030	0.0	14:49
Adj Difference (M-I)	0.6	-3	-2.1	-0.22	-0.47	0	0.0	0:02
LIMITS	*± 4.0 ^{0}C*	*13.33 mbar(hPa)*	*± 2.0%*	*0.8 L/min*	*± 1.0 L/min*	*(+/_5%)*	*(<+/-2 ug/m3)*	*±2 min*

Sample Head Inspect/Cleaning: Heads cleaned

Status of sampling tape: 40%

Nozzle Inspection / cleanliness: Clean

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

COMMENTS:

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 27 2017	Previous Calibration	May 7 2017
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	13:50:00 PM	End Time (MST)	15:10:00 PM
Barometric Pressure	0.925 mbar	Station Temperature	21.5 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	50 ppm	Cal Gas Exp Date	February 18, 2019
Gas Cylinder Num.	LL105132		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.992129	Calculated slope	1.006626
Calculated intercept	2.329120	Calculated intercept	0.189273
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	17.1		17.1	
Coefficient	1.01		1.01	
UV Lamp Voltage	734	LPM	734	LPM
Chamber Temp	43	V	43	V
Perm Gas Temp	45	C	45	C
Pressure	669.3	in Hg	669.5	in Hg
Sample Flow	0.485	LPM	0.485	LPM
Lamp Intensity	47617	Hz	47223	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5150	0.00	0.0	-0.1	N/A
5150	41.22	397.0	394.2	1.0071
5150	20.30	196.3	194.9	1.0073
5150	9.81	95.1	94.0	1.0108
5150	0.00	0.0	-0.1	As found zero
5150	41.22	397.0	394.2	As found span
			Average Correction Factor	1.0084

Calculated value of As Found Response: 393.5 ppm Percent Change of As Found: 0.9%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.0	ppm
Auto span	288.8	ppm	N/A	ppm

Notes: Removal calibration performed
No adjustment made

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

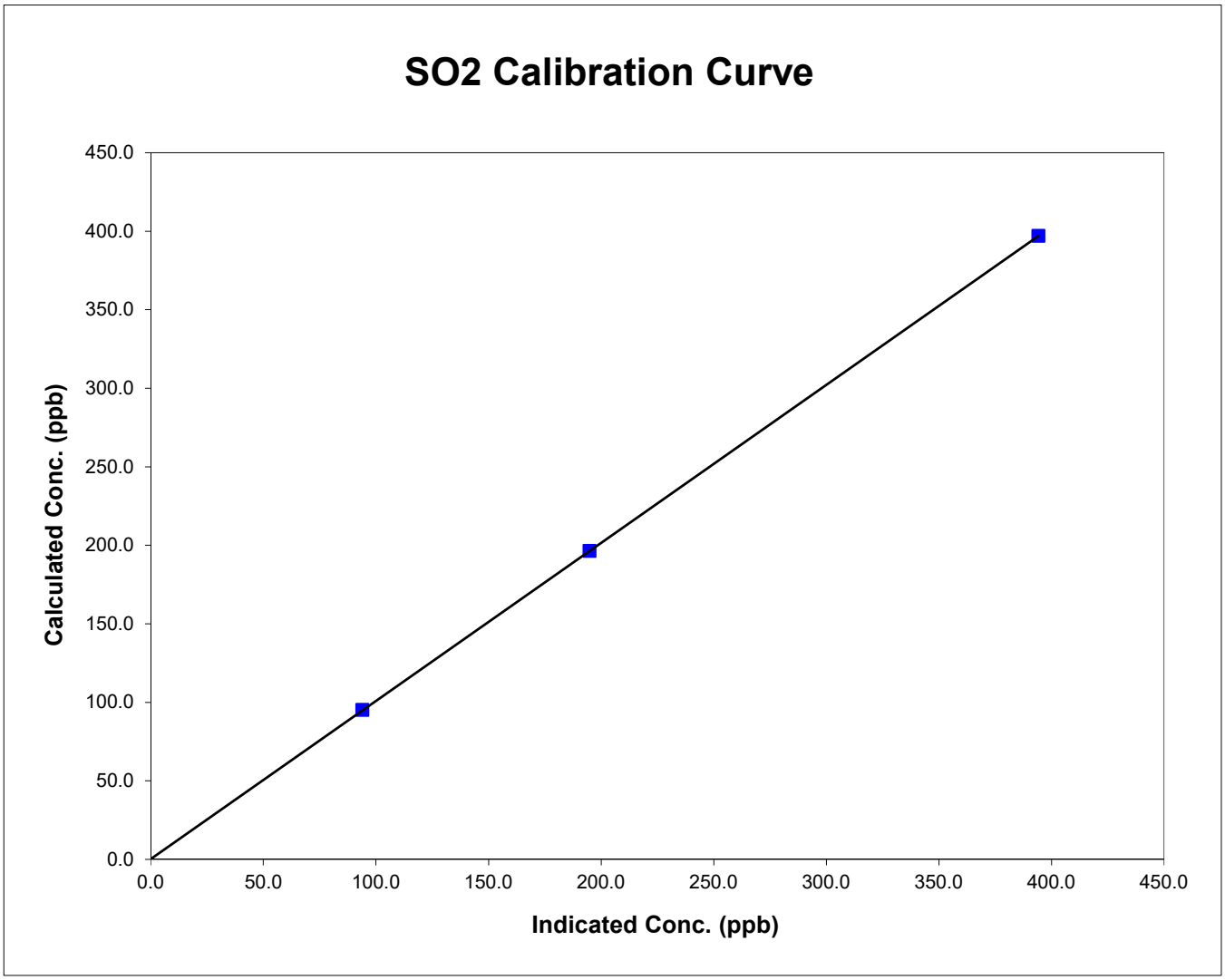
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 27 2017	Previous Calibration	May 7 2017
Station Number	6	Station Location	Valleyview
Start Time (MST)	13:50:00 PM	End Time (MST)	15:10:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

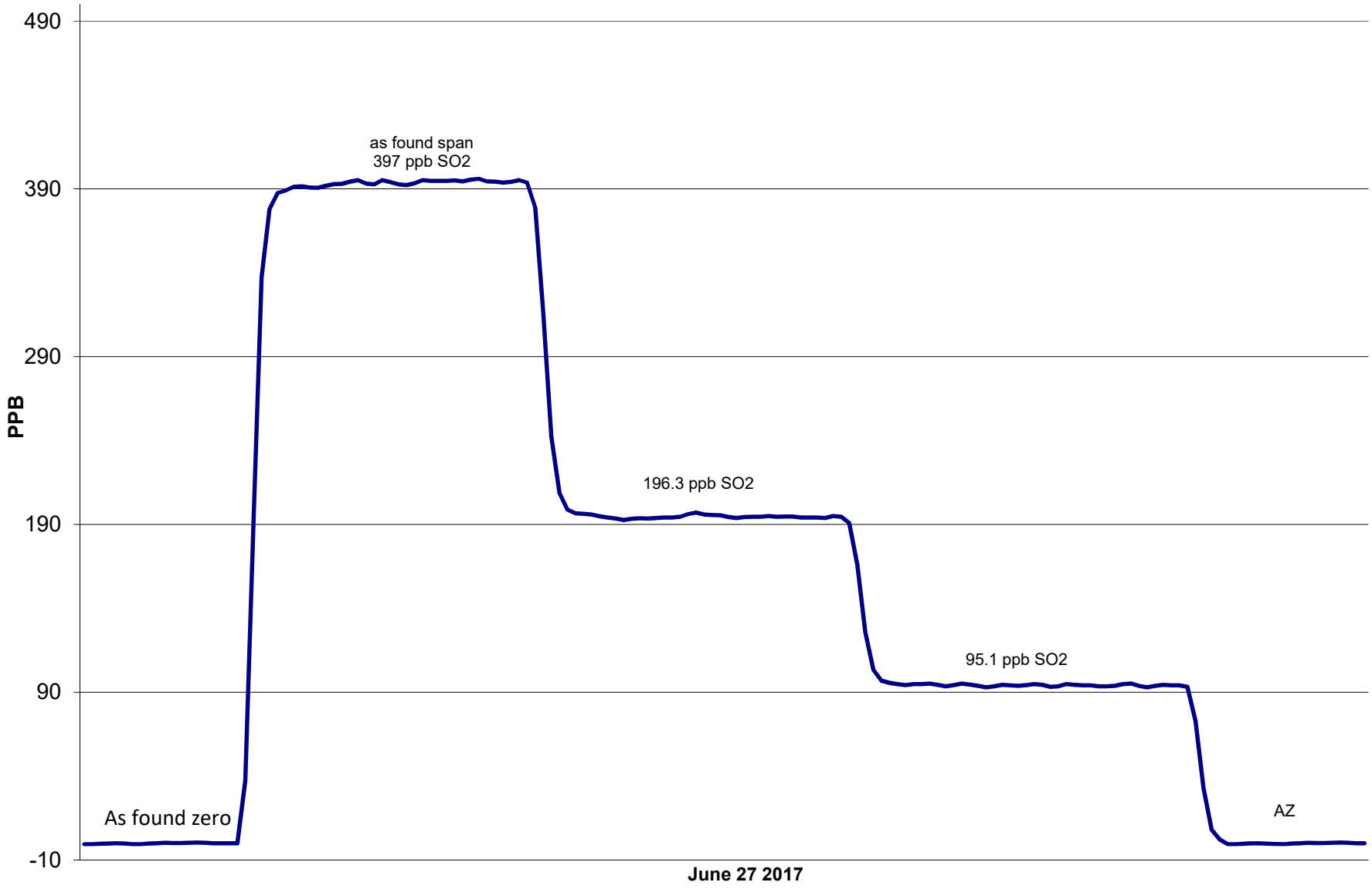
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
397.0	394.2	1.0071	Correlation Coefficient	0.999999
196.3	194.9	1.0073		
95.1	94.0	1.0108	Slope	1.006626
			Intercept	0.189273



AZ

SO2 Calibration



Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 27 2017	Previous Calibration	May 7 2017
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	15:35:00 PM	End Time (MST)	17:50:00 PM
Barometric Pressure	0.925 atm	Station Temperature	21.5 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	50 ppm	Cal Gas Exp Date	February 18, 2019
Gas Cylinder Num.	LL105132		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope		Calculated slope	0.996703
Calculated intercept		Calculated intercept	-0.329687
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background			7.1	
Coefficient			0.833	
UV Lamp Voltage		LPM	791	LPM
Chamber Temp		V	44.9	V
Perm Gas Temp		C	45	C
Pressure		in Hg	674.5	in Hg
Sample Flow		LPM	0.455	LPM
Lamp Intensity		Hz	92	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5150	0.00	0.0	0.1	N/A
5150	41.22	397.0	398.7	0.9958
5150	20.30	196.3	197.1	0.9963
5150	9.80	95.0	96.1	0.9886
5150	0.00	0.0	0.1	As found zero
5150	41.22	397.0	414.0	As found span
			Average Correction Factor	0.9936

Calculated value of As Found Response: NA

Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero		ppm	0.3	ppm
Auto span		ppm	281.1	ppm

Notes: Original H2S analyzer transferred into SO2 & replaced the front screen & calibarted
Span adjustment made

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

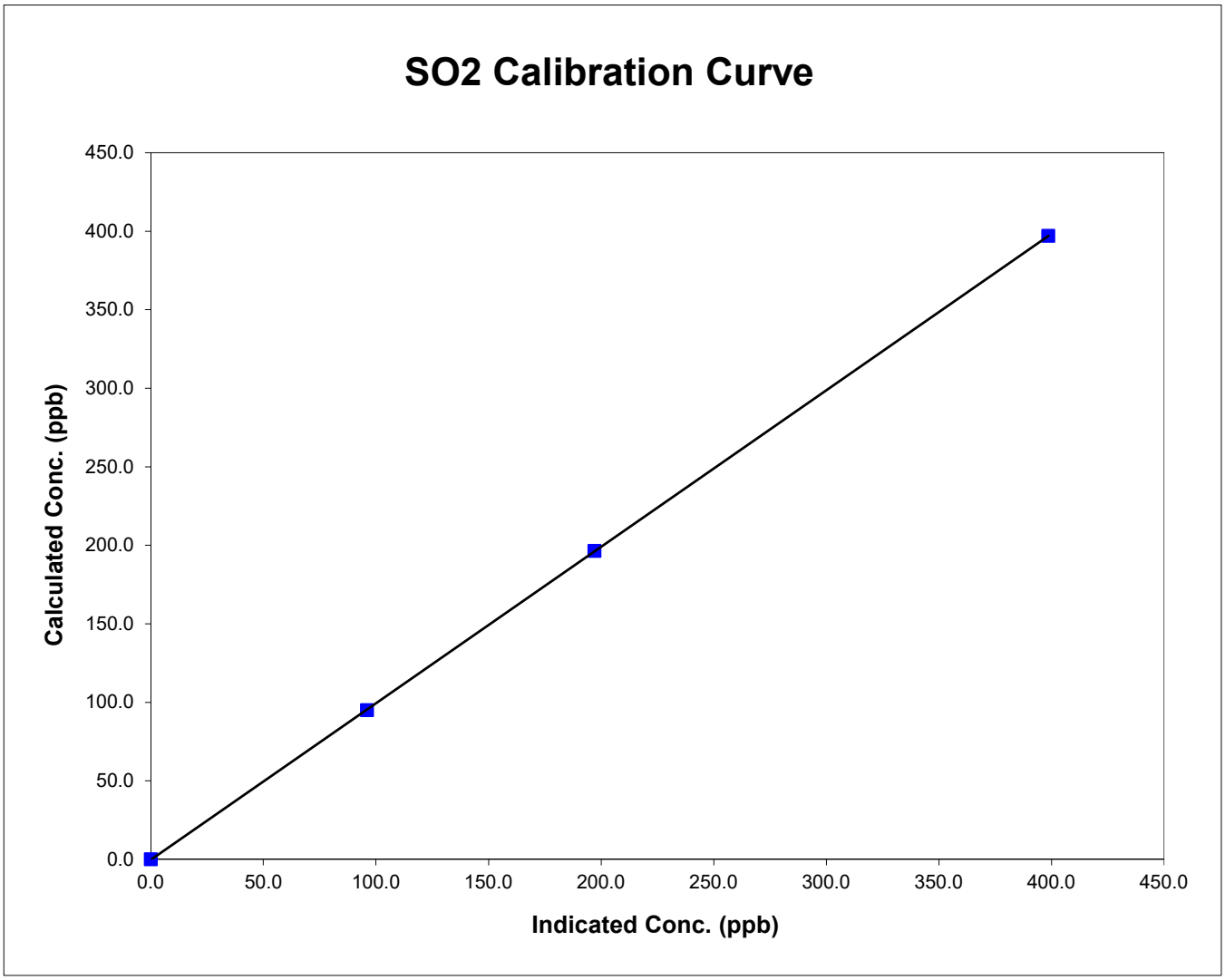
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 27 2017	Previous Calibration	May 7 2017
Station Number	6	Station Location	Valleyview
Start Time (MST)	15:35:00 PM	End Time (MST)	17:50:00 PM
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

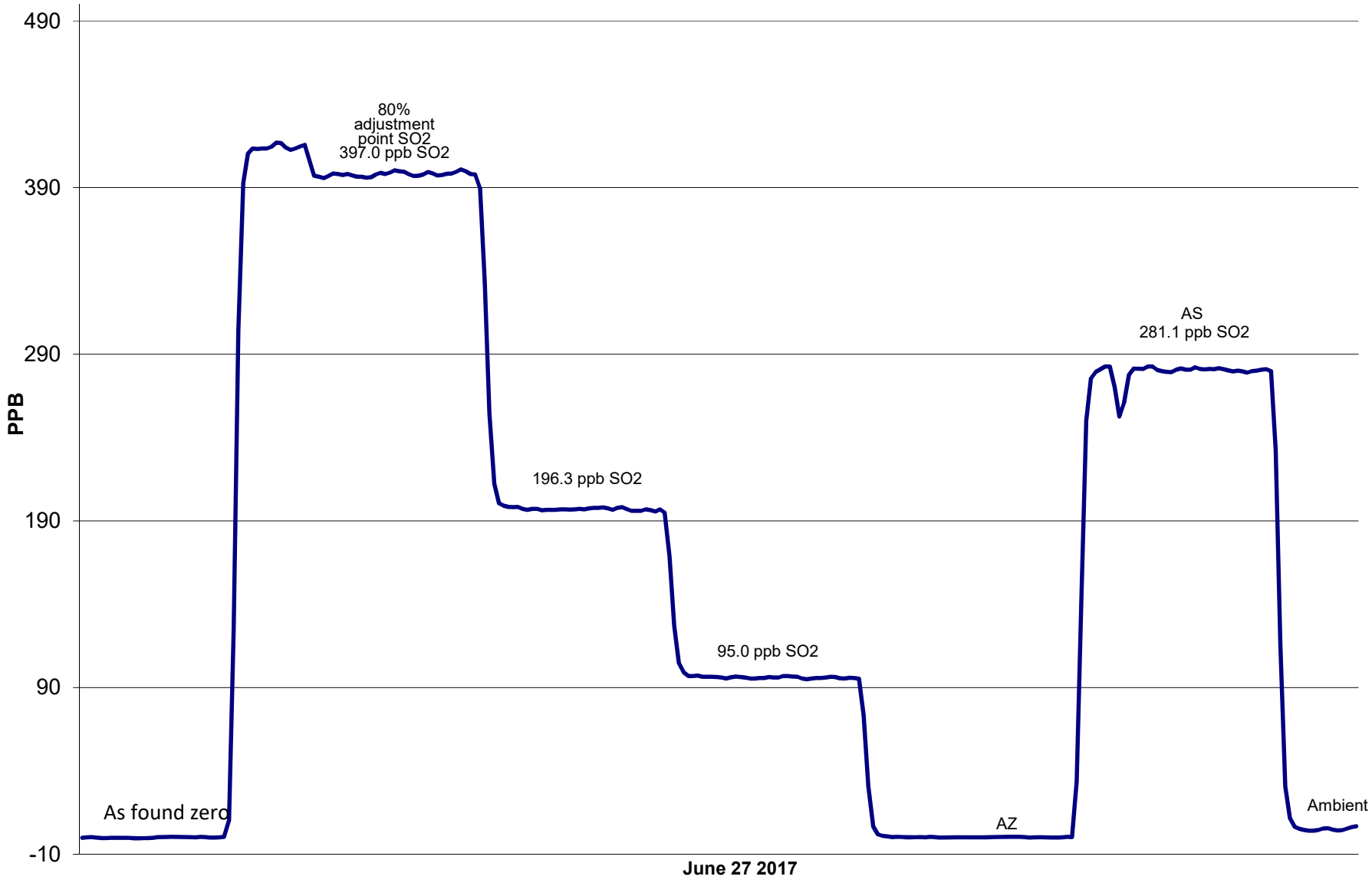
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
397.0	398.7	0.9958	Correlation Coefficient	0.999996
196.3	197.1	0.9963		
95.0	96.1	0.9886	Slope	0.996703
			Intercept	-0.329687



AZ

SO2 Calibration



Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 27 2017	Previous Calibration	May 7 2017
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:30	End Time (MST)	11:20
Barometric Pressure	0.925 atm	Station Temperature	21.5 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentratior	10.2 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.986249	Calculated slope	0.965875
Calculated intercept	0.259931	Calculated intercept	0.587192
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	9.6	ppb	9.6	ppb
Coefficient	0.861		0.861	
Lamp Voltage	793	V	793	V
Chamber Temp	44.9	c	44.9	c
Perm Oven Temp	45	c	45	c
Pressure	506.20	mm Hg	506.20	mm Hg
Sample Flow	0.352	ccm	0.351	lpm
Lamp Intensity	91	%	91	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5150	0.00	0.0	-0.4	N/A
5150	41.22	81.0	83.3	0.9721
5150	20.30	40.0	40.8	0.9818
6996	9.81	14.3	14.0	1.0236
5150	9.81		NA	Sox Test
5150	0.00	0.0	-0.4	As found zero
5150	41.22	81.0	83.3	As found span
			Average Correction Factor	0.9925

Calculated value of As Found Response: 82.81 ppm Percent Change of As Found: -2.2%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.0	ppm
Auto span	71.7	ppm	NA	ppm

Notes: Perfomed removal calibration , replaced the front screen, transferred the instrument from H2S into straight SO2 to replace the old SO2 unit.
No adjustment made

Calibration Performed By: Grover Christiansen,Dmytro Dolotii

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PAZA**

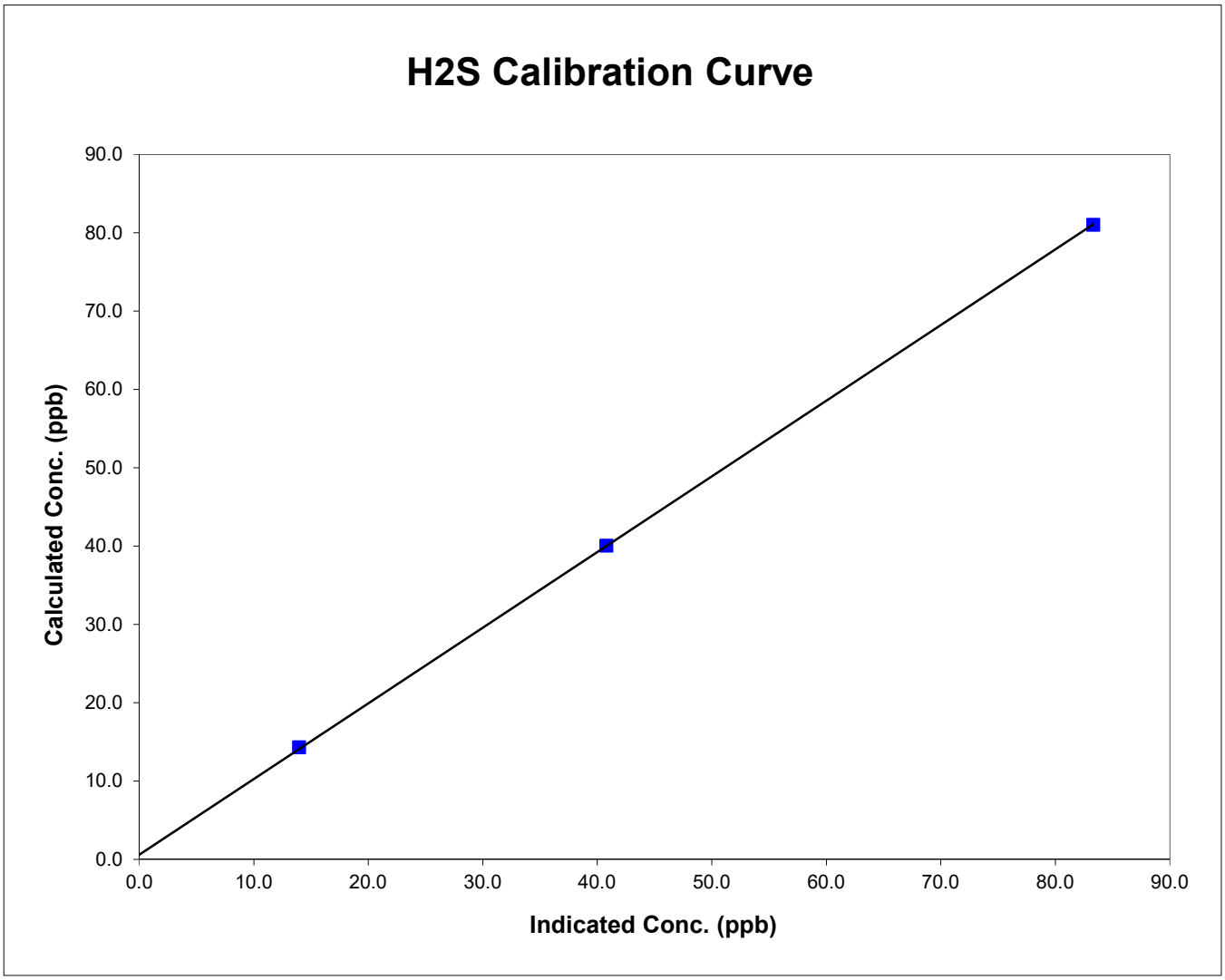
WSP AIR QUALITY MONITORING

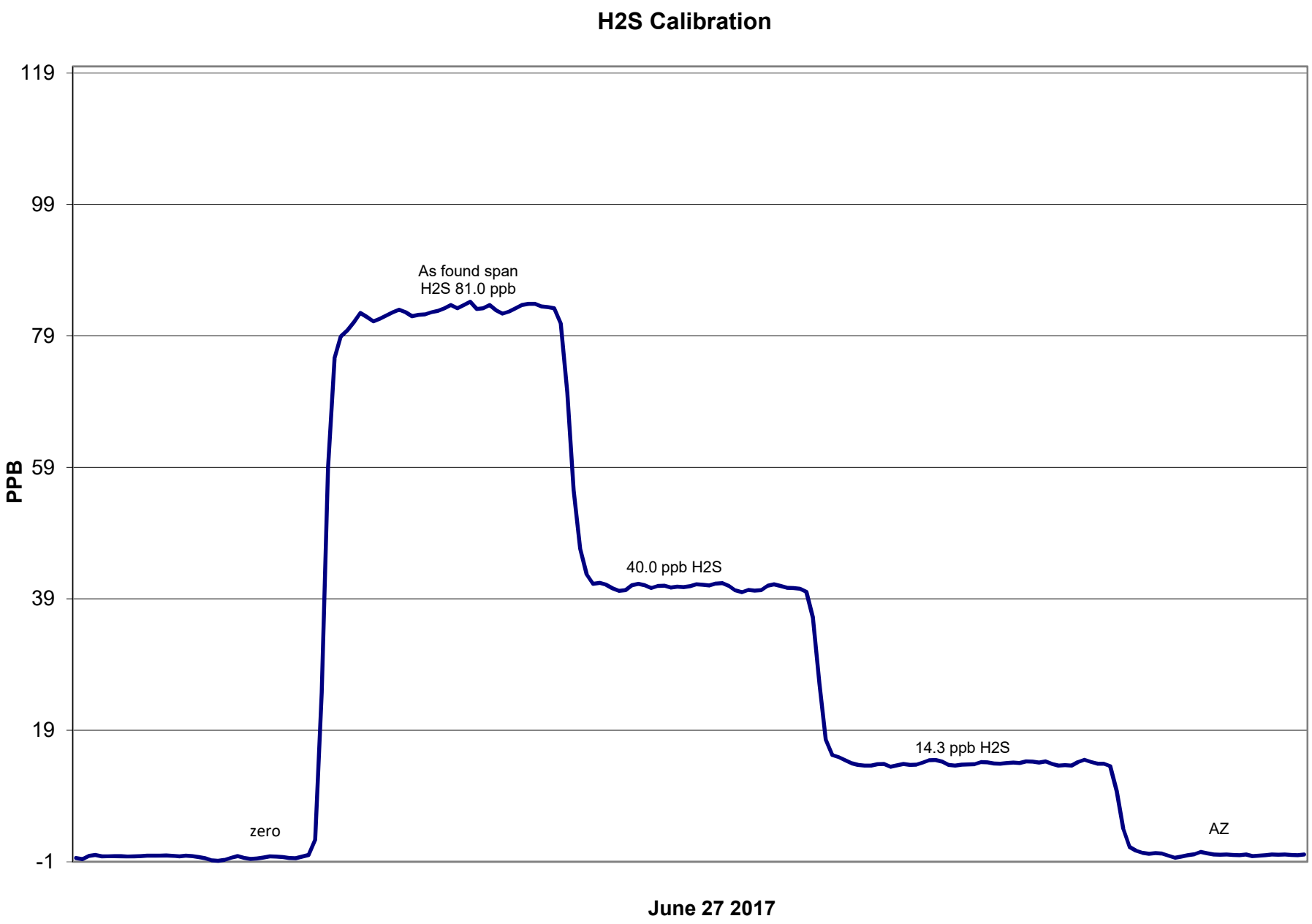
Station Information

Calibration Date	June 27 2017	Previous Calibration	May 7 2017
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:30	End Time (MST)	11:20
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	-0.4	N/A		
81.0	83.3	0.9721	Correlation Coefficient	0.999973
40.0	40.8	0.9818		
14.3	14.0	1.0236	Slope	0.965875
			Intercept	0.587192




H2S Calibration
119
99
79
59
39
19
-1
PPB
As found span
H2S 81.0 ppb
40.0 ppb H2S
14.3 ppb H2S
zero
AZ
June 27 2017

Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 27 2017	Previous Calibration	N/A
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:25	End Time (MST)	15:00:00 PM
Barometric Pressure	0.925 atm	Station Temperature	21.5 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	10.2 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope		Calculated slope	0.987176
Calculated intercept		Calculated intercept	0.423792
Analyzer make	TEI Model 450i-APHAA	Analyzer serial #	1170050144

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground		ppb	17.9	ppb
Coefficient			0.998	
Lamp Voltage		V	766	V
Chamber Temp		c	45.1	c
Convertor		c	325	c
Pressure		mm Hg	563.10	mm Hg
Sample Flow		ccm	0.948	lpm
Lamp Intensity		%	90	%

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)
5150	0.00	0.0	0.0	N/A
5150	41.22	81.0	81.8	0.9904
5150	20.30	40.0	39.9	1.0030
7251	9.81	13.8	13.1	1.0485
5150	0.00	0.0	0.0	As found zero
5150	41.22	81.0	81.8	As found span
			Average Correction Factor	1.0140

Calculated value of As Found Response: NA ppm Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero		ppm	-0.3	ppm
Auto span		ppm	23.4	ppm

Notes: New analyzer installed & calibrated
Performed analog autputs calibration
Low after span-different perm tube will be ordered for the unit due to the flow difference compared to the old one.

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PAZA**

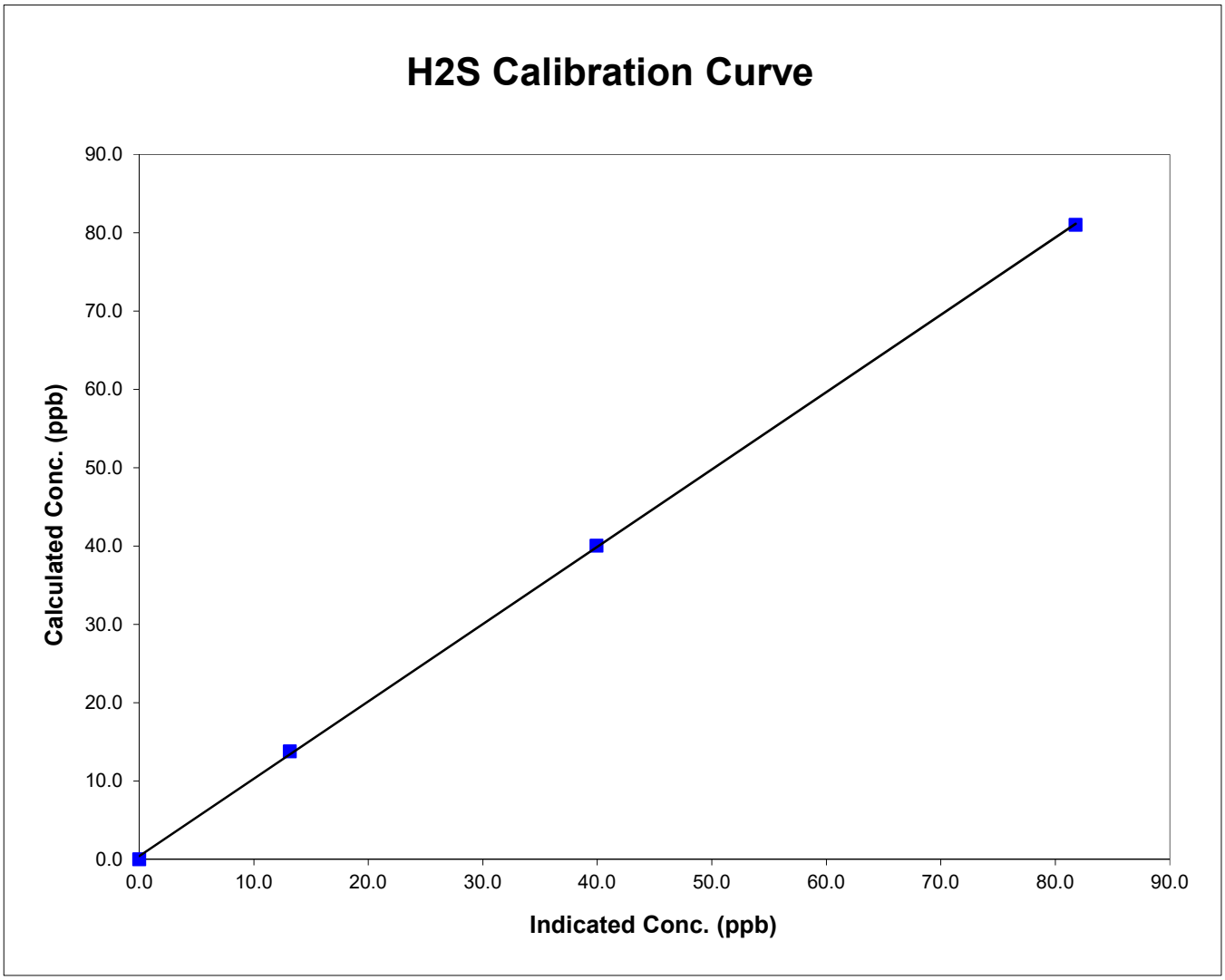
WSP AIR QUALITY MONITORING

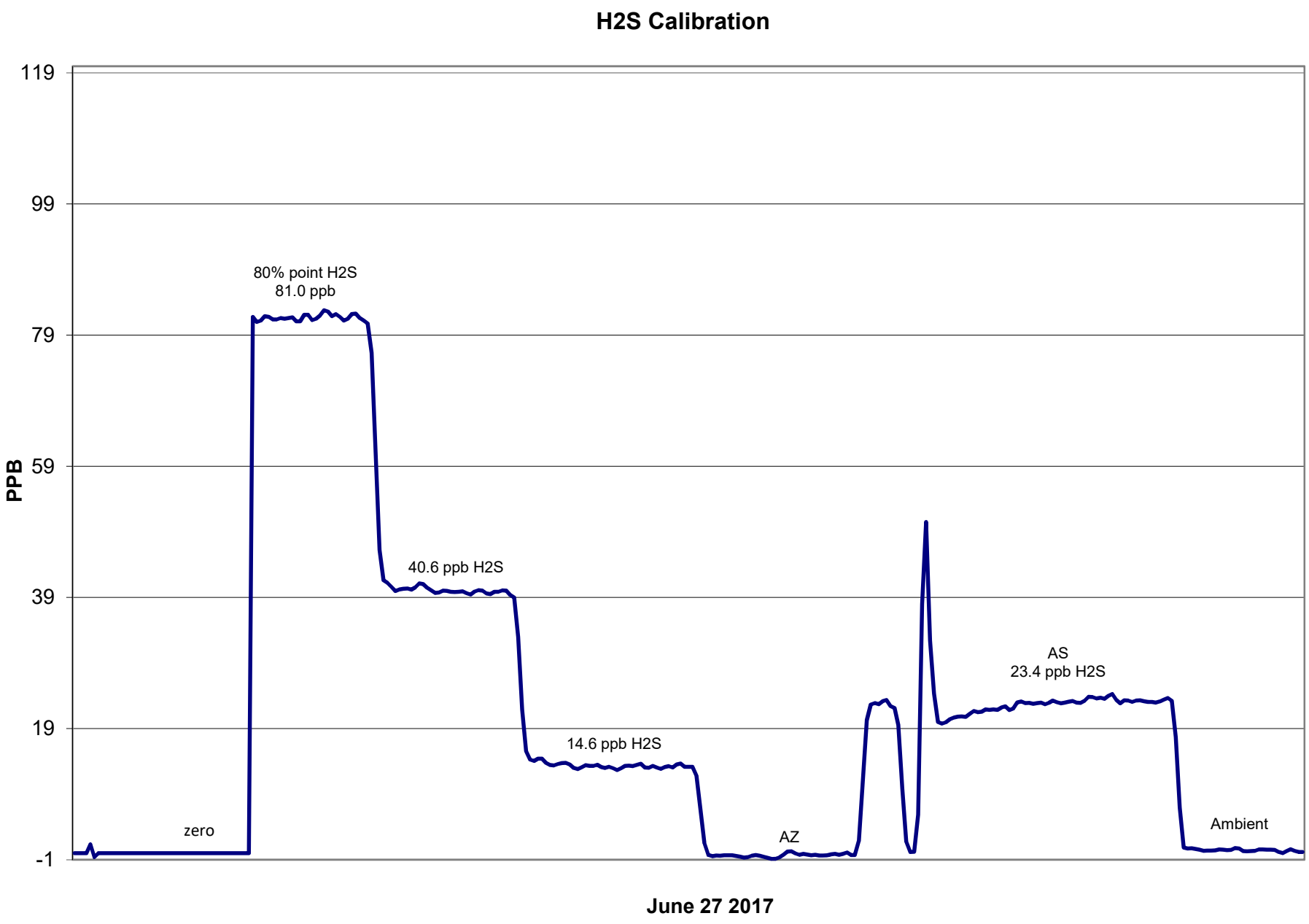
Station Information

Calibration Date	June 27 2017	Previous Calibration	N/A
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:25	End Time (MST)	15:00:00 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	0.0	N/A		
81.0	81.8	0.9904	Correlation Coefficient	0.999895
40.0	39.9	1.0030		
13.8	13.1	1.0485	Slope	0.987176
			Intercept	0.423792




H2S Calibration
119
99
79
59
39
19
-1
PPB
80% point H2S
81.0 ppb
40.6 ppb H2S
14.6 ppb H2S
zero
AZ
AS
23.4 ppb H2S
Ambient
June 27 2017

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 23, 2017	Previous Calibration	May 19, 2017
Station Number	1	Station Location	Donnely
Reason: Routine	Install	Removal	Other:

Start Time (MST)	12:20	End Time (MST)	15:05:00 PM
Barometric Pressure	0.923 mm	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	50 ppm	Cal Gas Expiry Date	2/8/2019
Correction factor	0.031163	Cal Gas Cylinder #	LL105132
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.991984	Calculated slope	1.001615
Calculated intercept	2.075128	Calculated intercept	-0.218821

Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.9		6.7	
coefficient	1.052		1.052	
Lamp Voltage	836	volts	839	volts
Chamber Temp	45.01	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	682.9	mm Hg	685.9	mm Hg
Sample Flow	0.441	ccm	0.442	ccm
Lamp Intensity	97	%	97	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5149	0.0	0.00	0.5	N/A
5149	41.23	397.2	396.9	1.0008
5149	20.30	196.4	196.2	1.0008
5149	9.82	95.2	95.0	1.0024
5149	0.0	0.0	0.5	As Found Zero
5149	41.23	397.2	405.5	As Found Span
			Average Correction Factor	1.0013

Calculated value of As Found Response: 403.826 ppm Percent Change of As Found: -1.7%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.3	ppm
Auto span	245.1	ppm	235.1	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

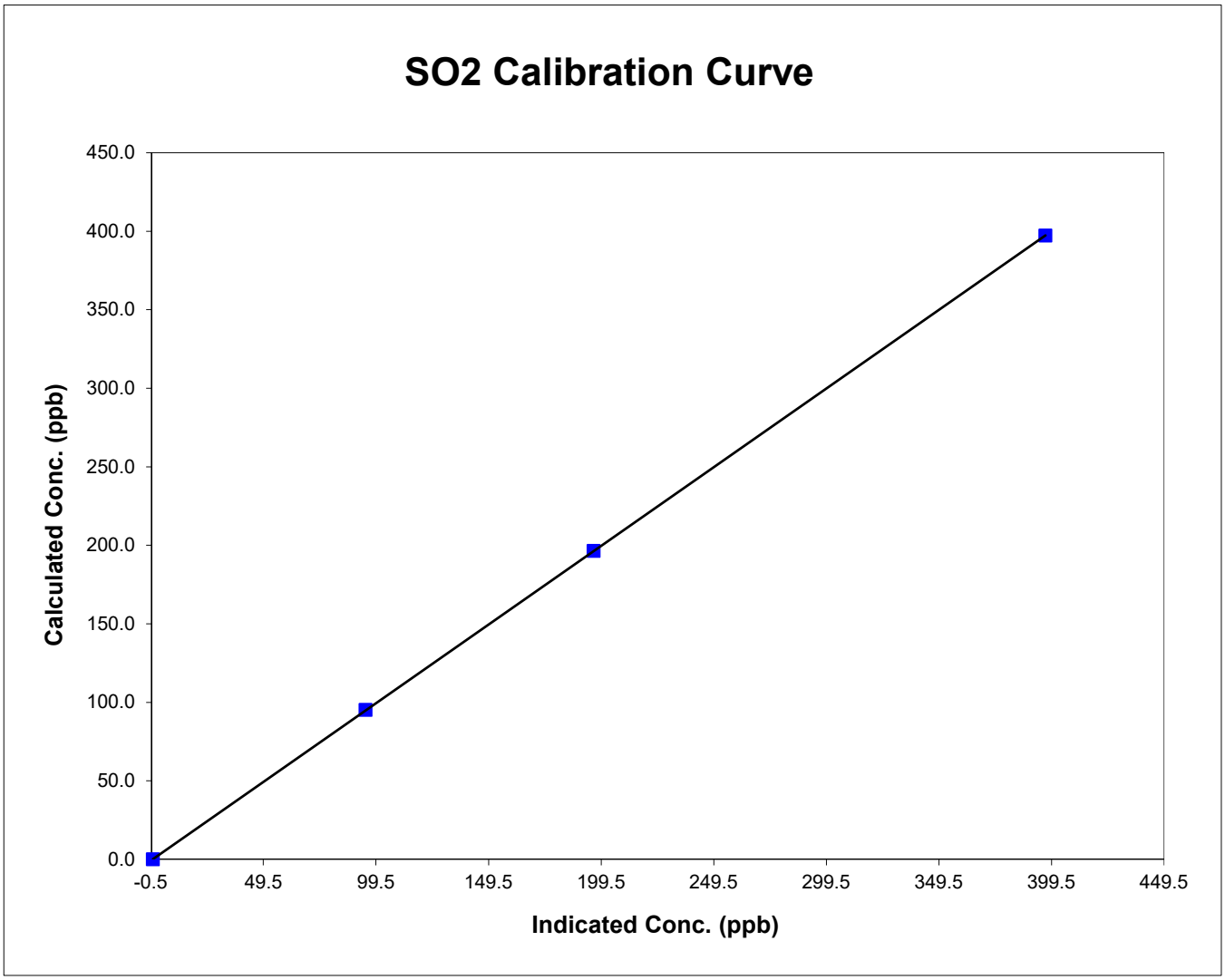
WSP AIR QUALITY MONITORING

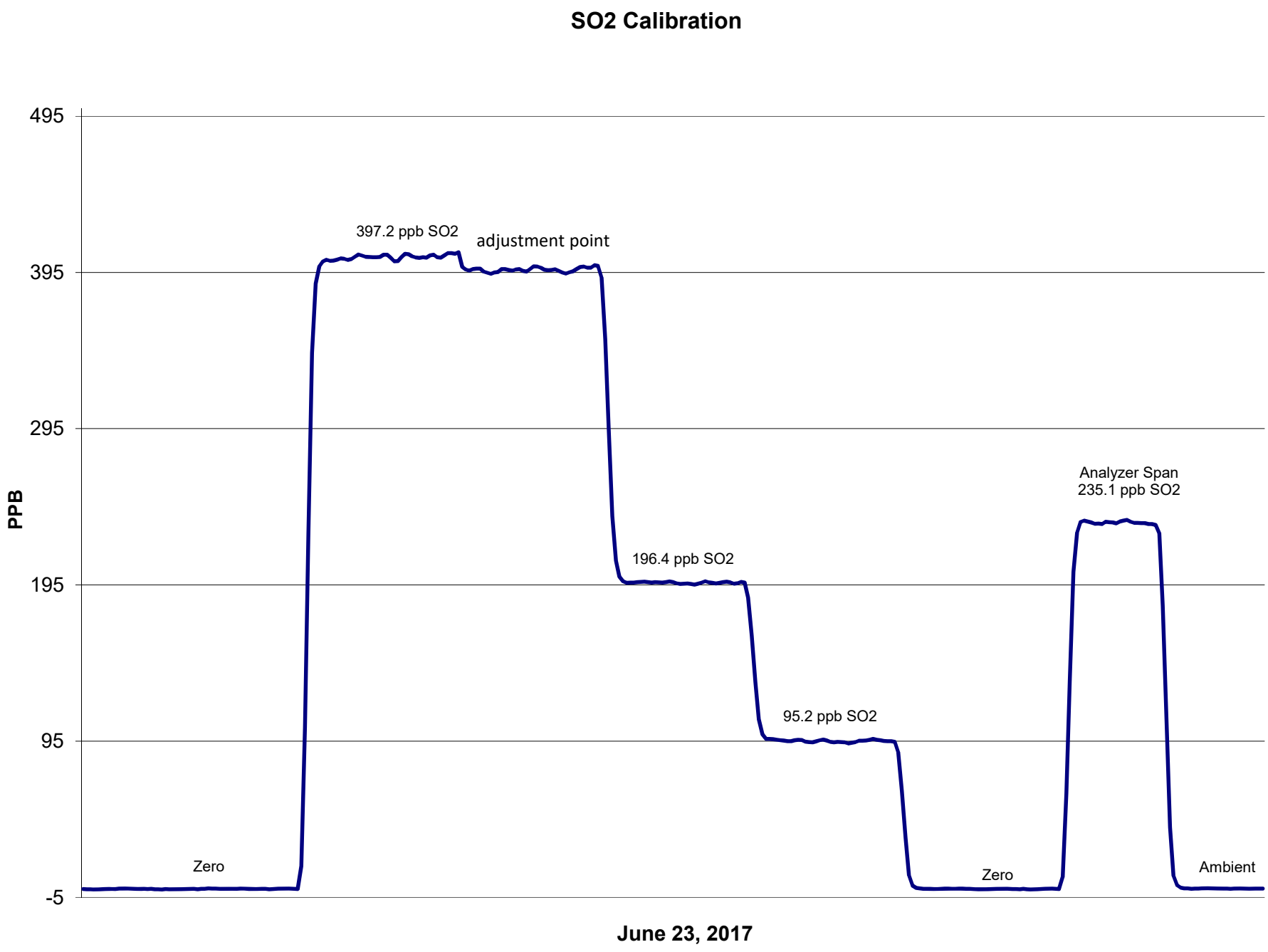
Station Information

Calibration Date	June 23, 2017	Previous Calibration	May 19, 2017
Station Number	1	Station Location	Donnely
Start Time (MST)	12:20	End Time (MST)	15:05:00 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	0.5	N/A		
397.2	396.9	1.0008	Correlation Coefficient	0.999998
196.4	196.2	1.0008		
95.2	95.0	1.0024	Slope	1.001615
			Intercept	-0.218821




SO2 Calibration
495
395
295
195
95
-5
PPB
397.2 ppb SO2
adjustment point
196.4 ppb SO2
95.2 ppb SO2
Analyzer Span
235.1 ppb SO2
Zero
Zero
Ambient
June 23, 2017

Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 23, 2017	Previous Calibration	May 19, 2017
Station Number	1	Station Location	Donnely
Reason: Routine	Install	Removal	Other:

Start Time (MST)	9:45	End Time (MST)	13:50:00 PM
Barometric Pressure	0.923 mm	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	3/23/2019
Correction factor	0.031163	Cal Gas Cylinder #	EY0000380
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.994493	Calculated slope	0.986699
Calculated intercept	0.885156	Calculated intercept	0.158056

Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	17.4	ppb	17.2	ppb
coefficient	1.074		1.074	
Lamp Voltage	803	volts	805	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	489	mm Hg	488.7	mm Hg
Sample Flow	0.728	lpm	0.727	lpm
Lamp Intensity	90	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5149	0.00	0.00	0.1	N/A
5149	41.23	81.03	82.1	0.9865
5149	20.30	40.06	40.1	0.9981
7250	9.82	13.80	13.7	1.0097
5149	0.00	0.00	-0.8	As Found Zero
5149	39.95	78.53	80.4	As Found Span
			Average Correction Factor	0.9981

Calculated value of As Found Response: 81.60 ppm Percent Change of As Found: -3.9%

	before calibration		after calibration	
Auto zero	-0.5	ppm	-0.4	ppm
Auto span	66.0	ppm	66.5	ppm

Notes: Zero adjustent made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **H2S**

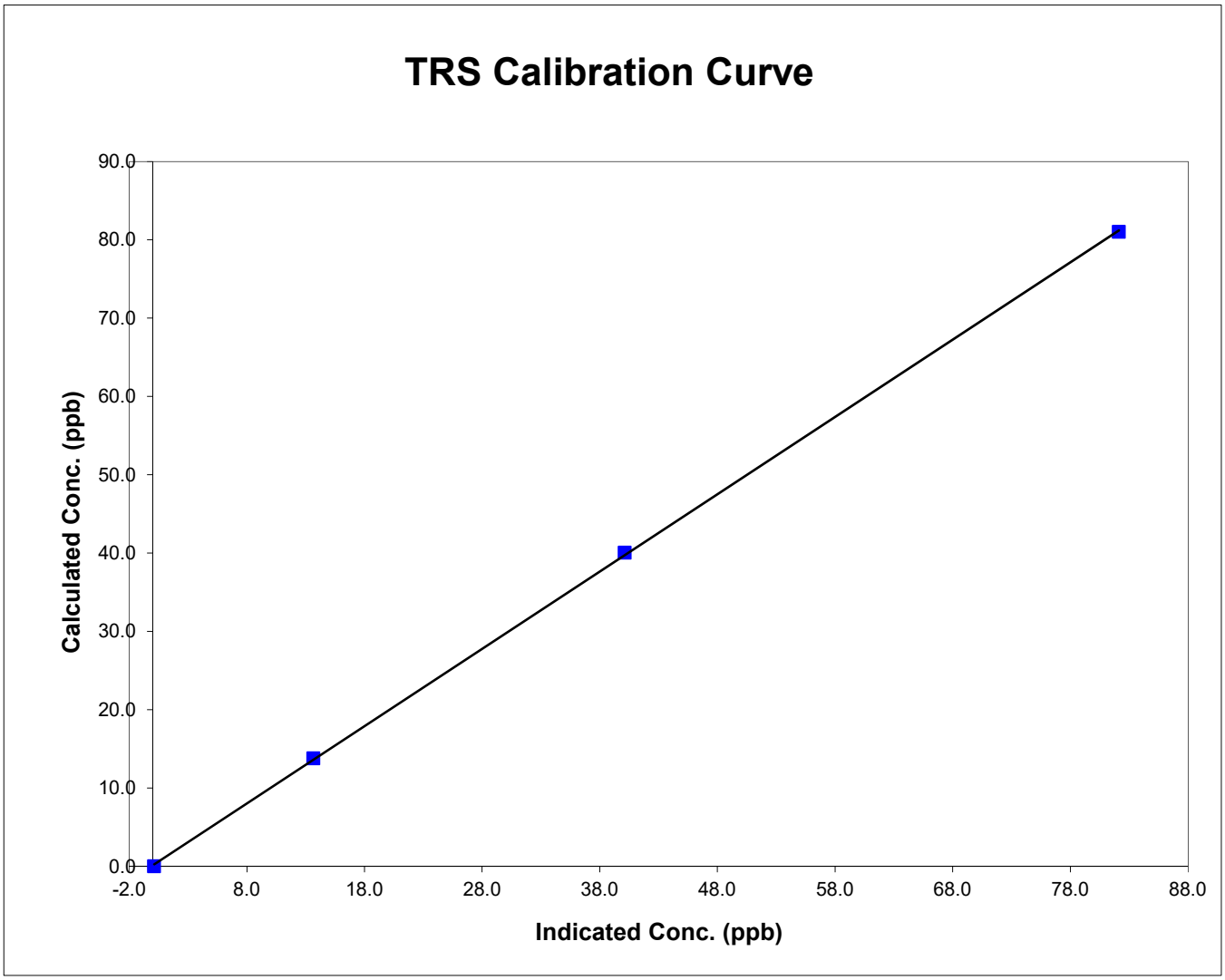
Air Monitoring Network **PAZA**

Station Information

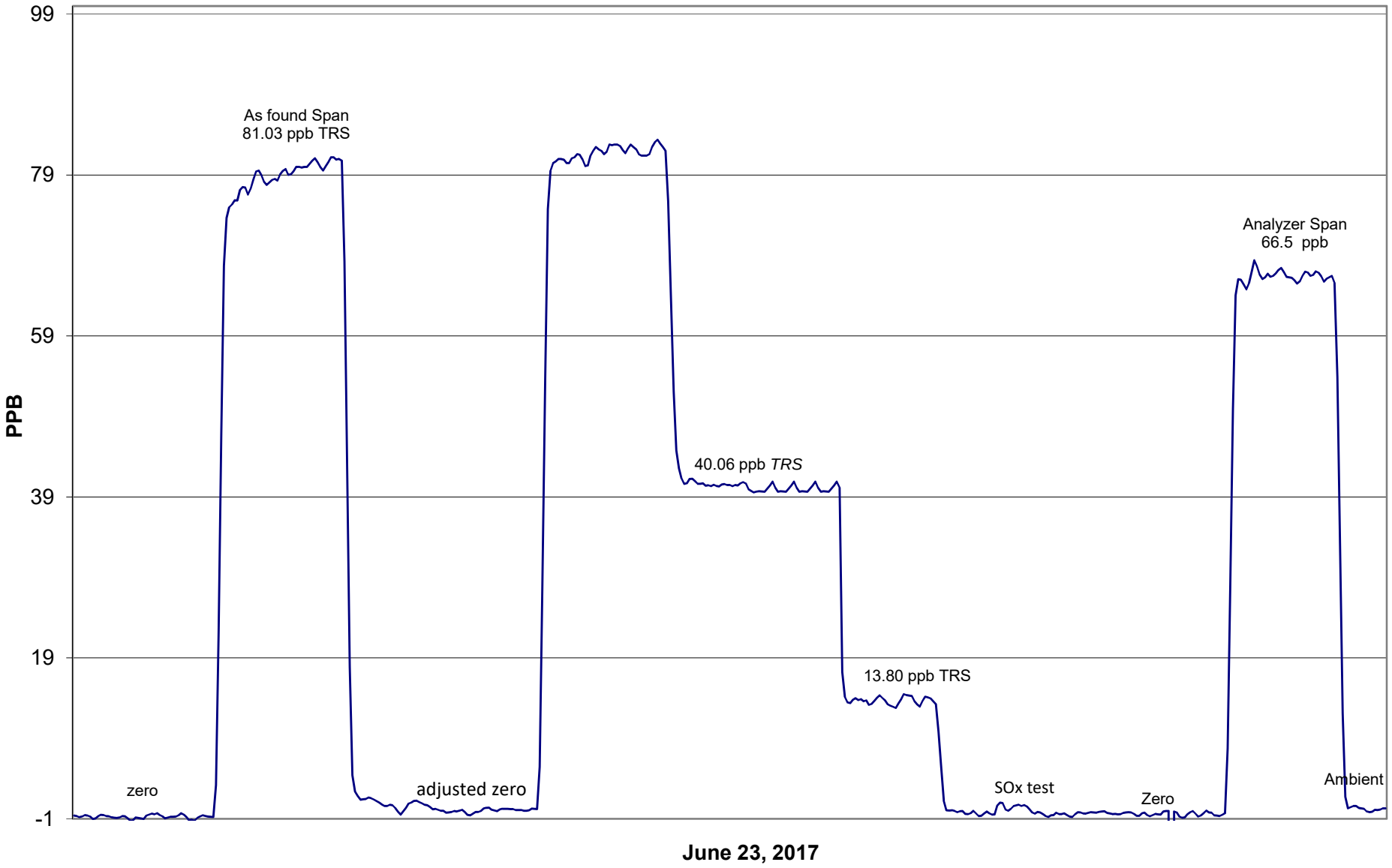
Calibration Date	June 23, 2017	Previous Calibration	May 19, 2017
Station Number	1	Station Location	Donnely
Start Time (MST)	9:45	End Time (MST)	13:50:00 PM
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
81.0	82.1	0.9865	Correlation Coefficient	0.999941
40.1	40.1	0.9981		
13.8	13.7	1.0097	Slope	0.986699
			Intercept	0.158056



H2S Calibration



Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 19, 2017	Previous Calibration	May 9, 2017
Station Number	10	Station Location	Rycroft
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:50	End Time (MST)	12:35
Barometric Pressure	0.931 Atm	Station Temperature	22.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas Concentratior	50 ppm	Cal Gas Expiry Date	8/2/2019
Gas Cert Reference	LL105132		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.997772	Calculated slope	1.004932
Calculated intercept	2.549186	Calculated intercept	-0.191065
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	23.7		23.9	
Coefficient	1.046		1.055	
UV Lamp Voltage	891	V	890	V
Chamber Temp	44.7	C	44.7	C
Perm Gas Temp	45	C	45	C
Pressure	677.9	mm Hg	674.6	mm Hg
Sample Flow	0.469	LPM	0.468	LPM
Lamp Intesity	30359	Hz	30390	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5141	0.00	0.0	0.5	N/A
5141	41.25	398.0	396.5	1.0038
5141	20.20	195.7	194.4	1.0064
5141	9.70	94.2	93.8	1.0036
5141	0.00	0.0	0.5	As found zero
5141	41.25	398.0	391.2	As found span
			Average Correction Factor	1.0046

Calculated value of As Found Response: 392.426 ppm Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	199.7	ppm	205.2	ppm

Notes: Span adjustment made

Calibration Summary

Parameter **SO2**

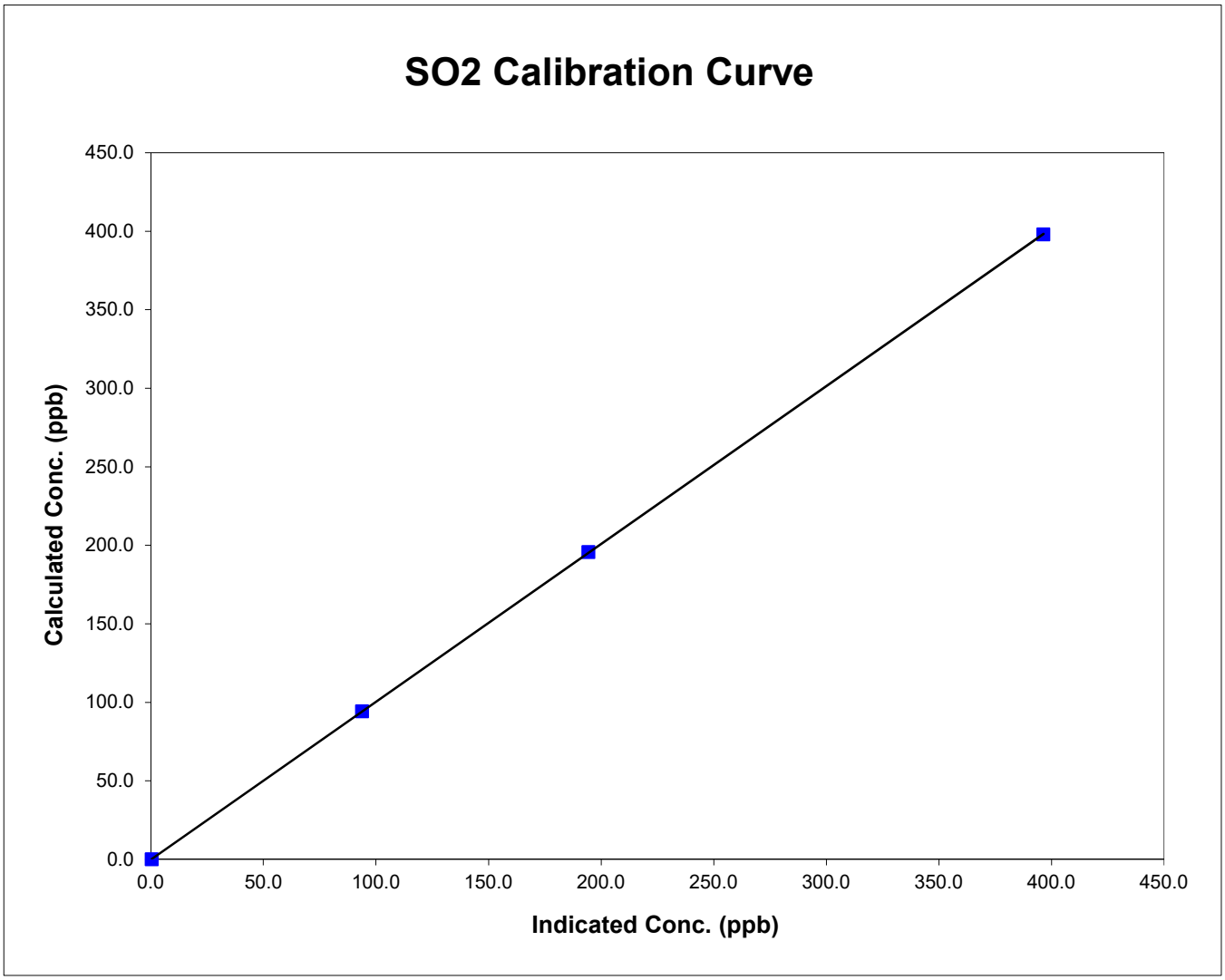
Air Monitoring Network **PAZA**

Station Information

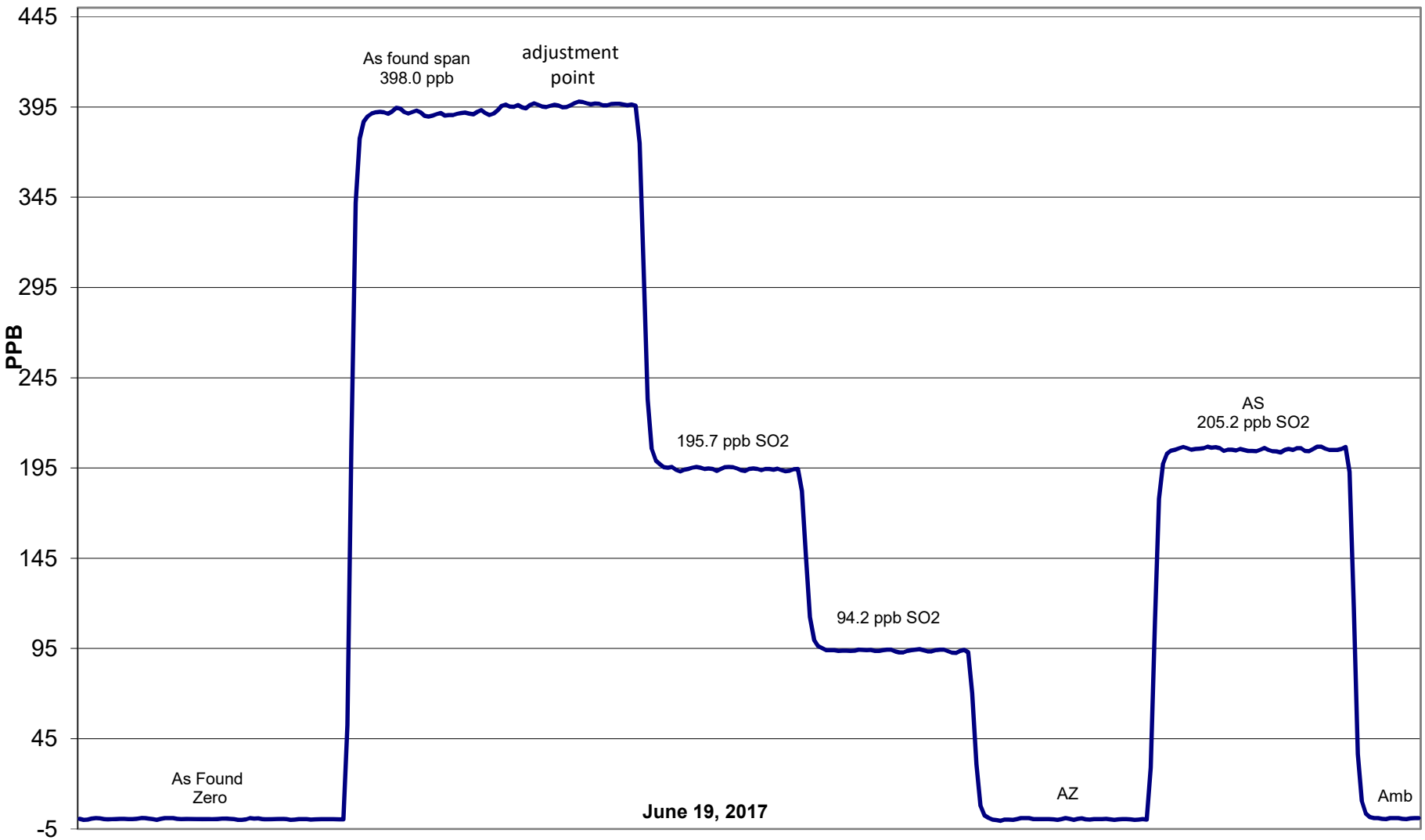
Calibration Date	June 19, 2017	Previous Calibration	May 9, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	9:50	End Time (MST)	12:35
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
398.0	396.5	1.0038	Correlation Coefficient	0.999996
195.7	194.4	1.0064		
94.2	93.8	1.0036	Slope	1.004932
			Intercept	-0.191065



SO2 Calibration



Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 19, 2017	Previous Calibration	May 9, 2017
Station Number	10	Station Location	Rycroft

Reason: Routine Installation Removal Other:

Start Time (MST)	10:05		End Time (MST)	14:05:00 PM	
Barometric Pressure	0.931	Atm	Station Temperature	22.0	Deg C
Calibrator	Environics		Serial Number	6586	
NO Cal Gas Conc	48.6	ppm	Cal Gas Expiry Date	August 2, 2019	
NOx Cal Gas Conc	48.9	ppm	Cal Gas Serial #	LL105132	

DACS Information

DACS make	CR3000	DACS serial No.	5407

Parameter		NO2	NOx	NO
Before	Data Slope	0.992105	0.999607	0.998162
	Data Offset	2.105293	1.635174	1.589196
After	Data Slope	0.996394	1.003505	1.003338
	Data Offset	-1.125563	-0.167426	-0.411592
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	5.8	mV	5.9	mV
NOx bkgnd	5.9	mV	6.1	mV
NO coefficient	0.956		0.980	
NOx coefficient	1.001		1.001	
NO2 conv temp	323.9	Deg C	323.8	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-835.1	mV	-835.1	mV
R Cell Press	174.1	in Hg	174.4	in Hg
Sample Flow	0.829	LPM	0.827	LPM

Notes: Span adjustment made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: June 19, 2017 Station Location: Rycroft

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	5141	0.00	0.0	0.0	0.0	-0.1	-0.1	-0.2	N/A	N/A
1	5141	41.25	389.2	386.8	2.4	387.9	385.7	0.3	1.0034	1.0029
2	5141	20.20	191.4	190.2	1.2	191.0	190.2	-0.2	1.0020	1.0000
3	5141	9.70	92.1	91.5	0.6	92.2	92.2	0.0	0.9985	0.9931
AFZ	5141	0.00	0.0	0.0	0.0	-0.1	-0.1	-0.2	0.0000	0.0000
AFS	5141	41.25	389.2	386.8	0.8	379.4	376.9	0.6	1.0259	1.0263
							Average Correction Factor		1.0013	0.9987

As Found Concentrations: NO_X= 381.0 NO= 377.9 As Found Percent Change NO_X= -2.1% NO= -2.3%

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	-0.1	-0.1	-0.2	N/A	N/A	N/A	N/A
NO point	385.1	385.1	0.0	387.5	385.1	0.3	0.9937	1.0000	N/A	N/A
300	385.1	47.5	337.6	388.6	47.5	339.4	0.9909	1.0000	0.9946	100.5%
200	385.1	156.8	228.3	388.9	156.8	230.0	0.9902	1.0000	0.9925	100.8%
100	385.1	275.9	109.2	390.9	275.9	112.8	0.9853	1.0000	0.9680	103.3%
					Average Correction Factor		0.9888	1.0000	0.9851	101.5%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.0	0.1	ppb	-0.1	-0.2	0.0	ppb
Auto span	146.3	144.7	0.9	ppb	162.1	160.2	1.0	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

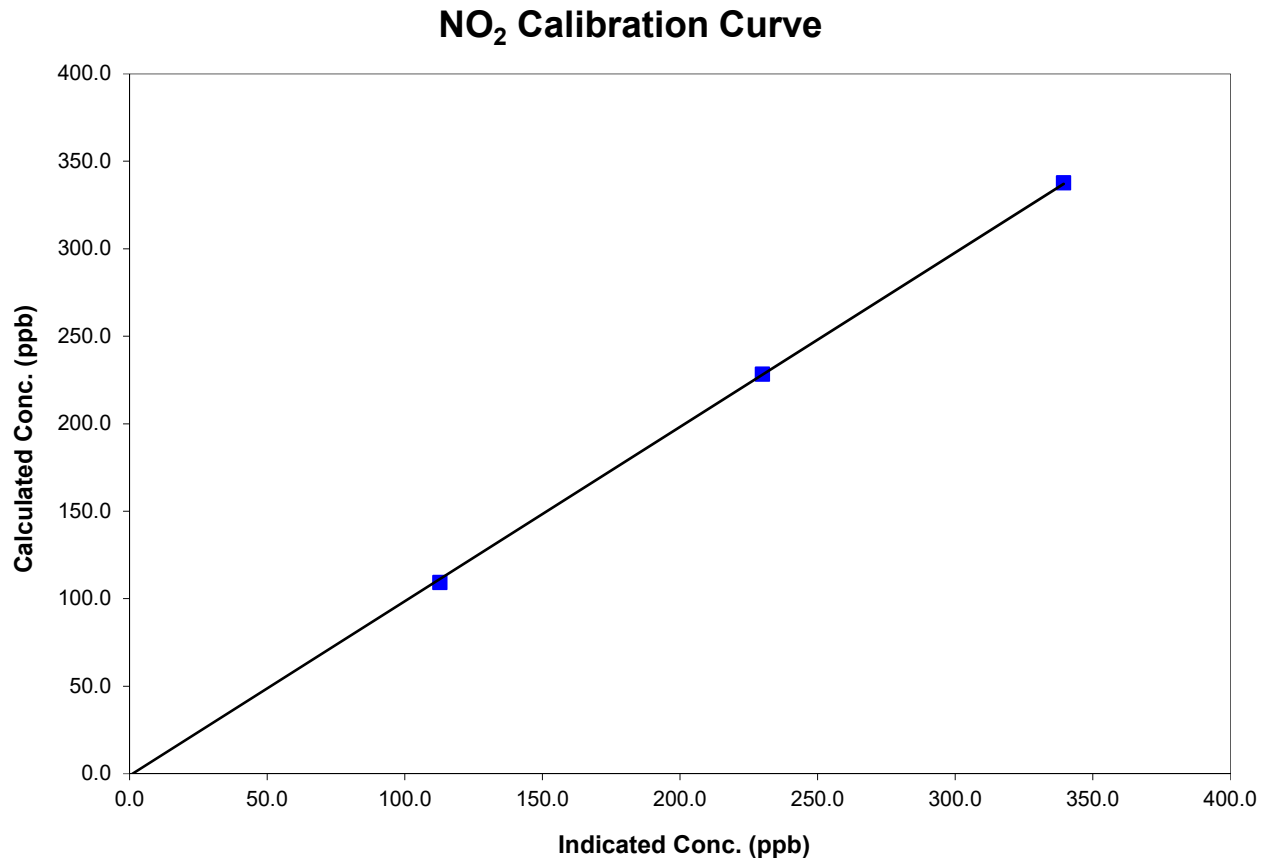
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 19, 2017	Previous Calibration	May 9, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:05	End Time (MST)	14:05:00 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	-0.2	N/A		
337.6	339.4	0.9946	Correlation Coefficient	0.999900
228.3	230.0	0.9925		
109.2	112.8	0.9680	Slope	0.996394
			Intercept	-1.125563



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

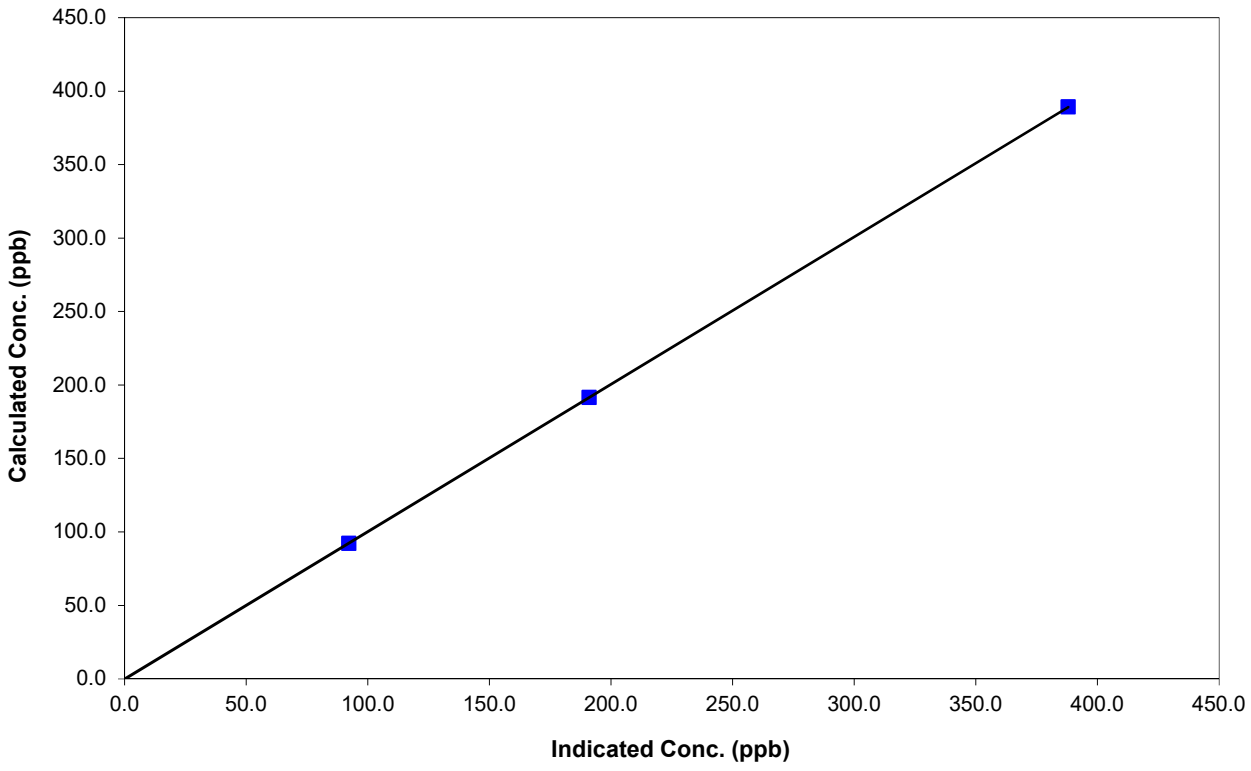
Station Information

Calibration Date	June 19, 2017	Previous Calibration	May 9, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:05	End Time (MST)	14:05:00 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		
389.2	387.9	1.0034	Correlation Coefficient	0.999998
191.4	191.0	1.0020		
92.1	92.2	0.9985	Slope	1.003505
			Intercept	-0.167426

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

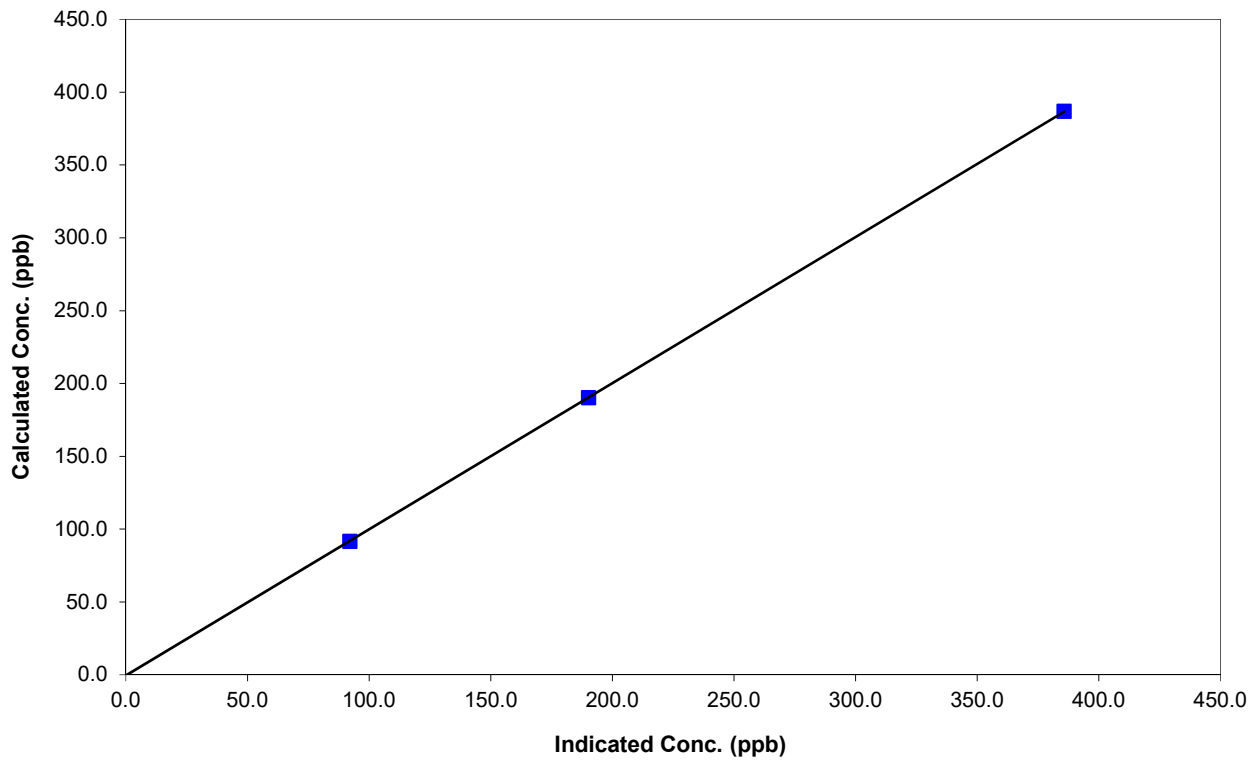
Station Information

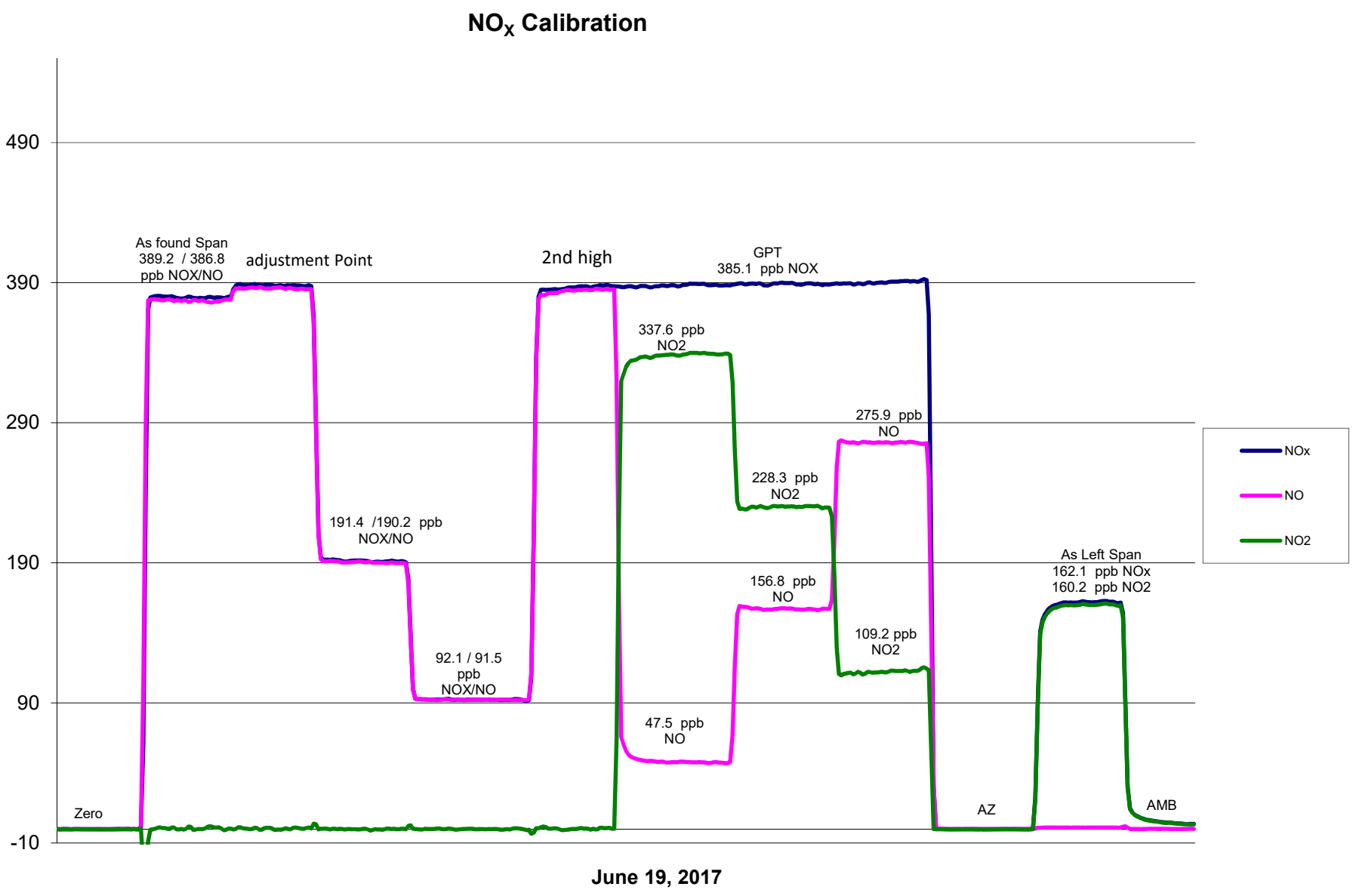
Calibration Date	June 19, 2017	Previous Calibration	May 9, 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	10:05	End Time (MST)	14:05:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
386.8	385.7	1.0029	Correlation Coefficient	0.999992
190.2	190.2	1.0000		
91.5	92.2	0.9931	Slope	1.003338
			Intercept	-0.411592

NO Calibration Curve




NOx Calibration
490
390
290
190
90
-10
As found Span
389.2 / 386.8
ppb NOX/NO
adjustment Point
2nd high
GPT
385.1 ppb NOX
337.6 ppb
NO2
275.9 ppb
NO
228.3 ppb
NO2
191.4 /190.2 ppb
NOX/NO
156.8 ppb
NO
As Left Span
162.1 ppb NOx
160.2 ppb NO2
109.2 ppb
NO2
92.1 / 91.5
ppb
NOX/NO
47.5 ppb
NO
Zero
AZ
AMB
NOx
NO
NO2
June 19, 2017

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 19 2017	Previous Calibration	May 9 2017
Station Number	10	Station Location	Rycroft
Reason: Routine	Install	Removal	Other:
Start Time (MST)	13:25:00 PM	End Time (MST)	15:50:00 PM
Barometric Pressure	0.931 atm	Station Temperature	22.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	0.999159	Calculated slope	1.001636
Calculated intercept	0.915841	Calculated intercept	0.251997
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	-0.5	ppb	-0.5	ppb
Span	0.998		0.998	
Cell A intensity	68590	Hz	68714	Hz
Cell B intensity	69466	Hz	69587	Hz
Pressure	672.80	in Hg	673.40	in Hg
CellA Flow	0.708	ccm	0.708	ccm
Cell B Flow	0.699	cmm	0.699	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)
5141	0.00	0.0	0.4	N/A
5141	0.30	337.6	338.5	0.9975
5141	0.20	228.3	225.0	1.0147
5141	0.10	109.2	109.1	1.0008
5141	0.00	0.0	0.4	As found zero
5141	0.30	337.6	338.5	As found span
			Average Correction Factor	1.0043

Calculated value of As Found Response: 338.7 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.4	ppb
Auto span	410.4	ppb	407.1	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

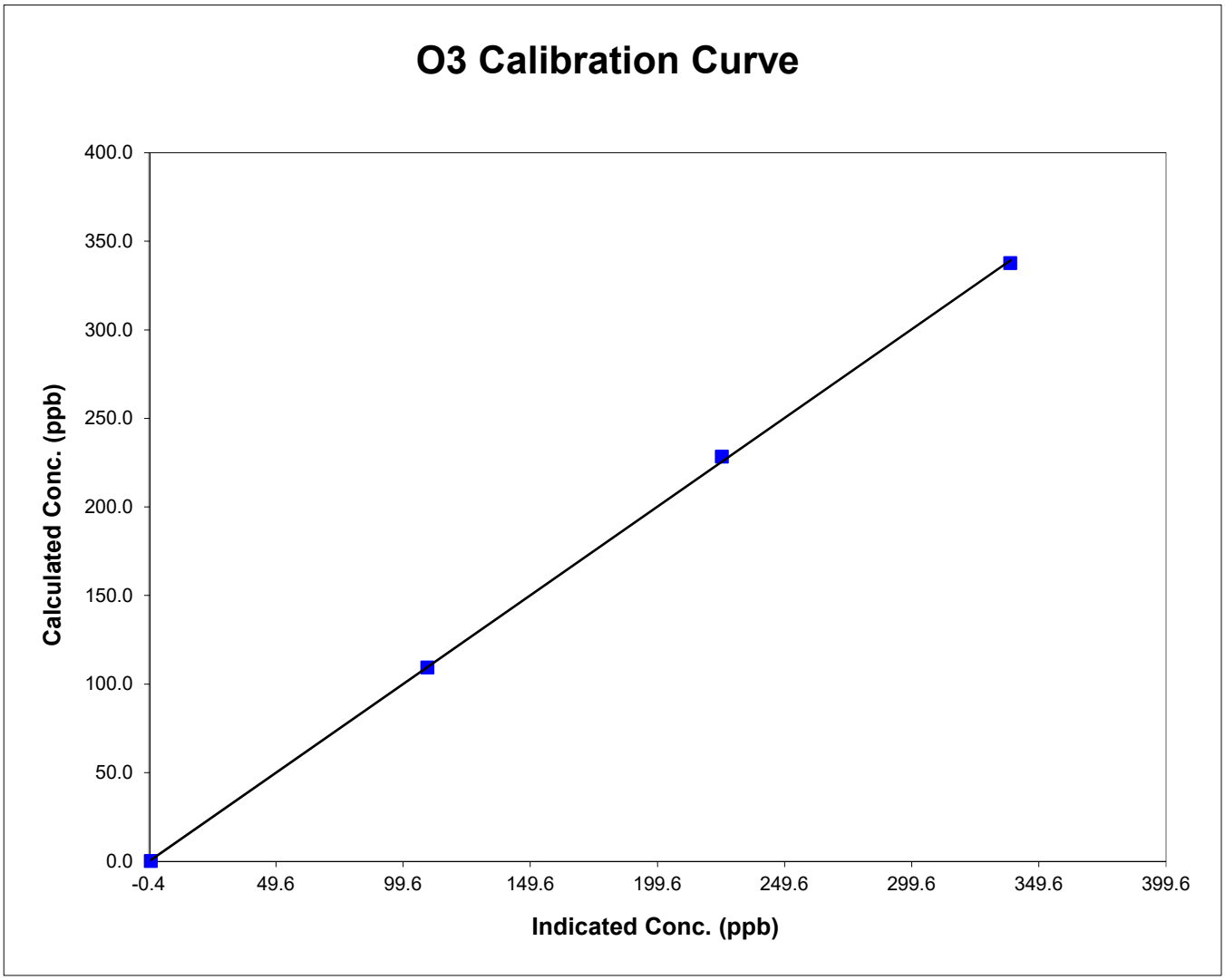
WSP AIR QUALITY MONITORING

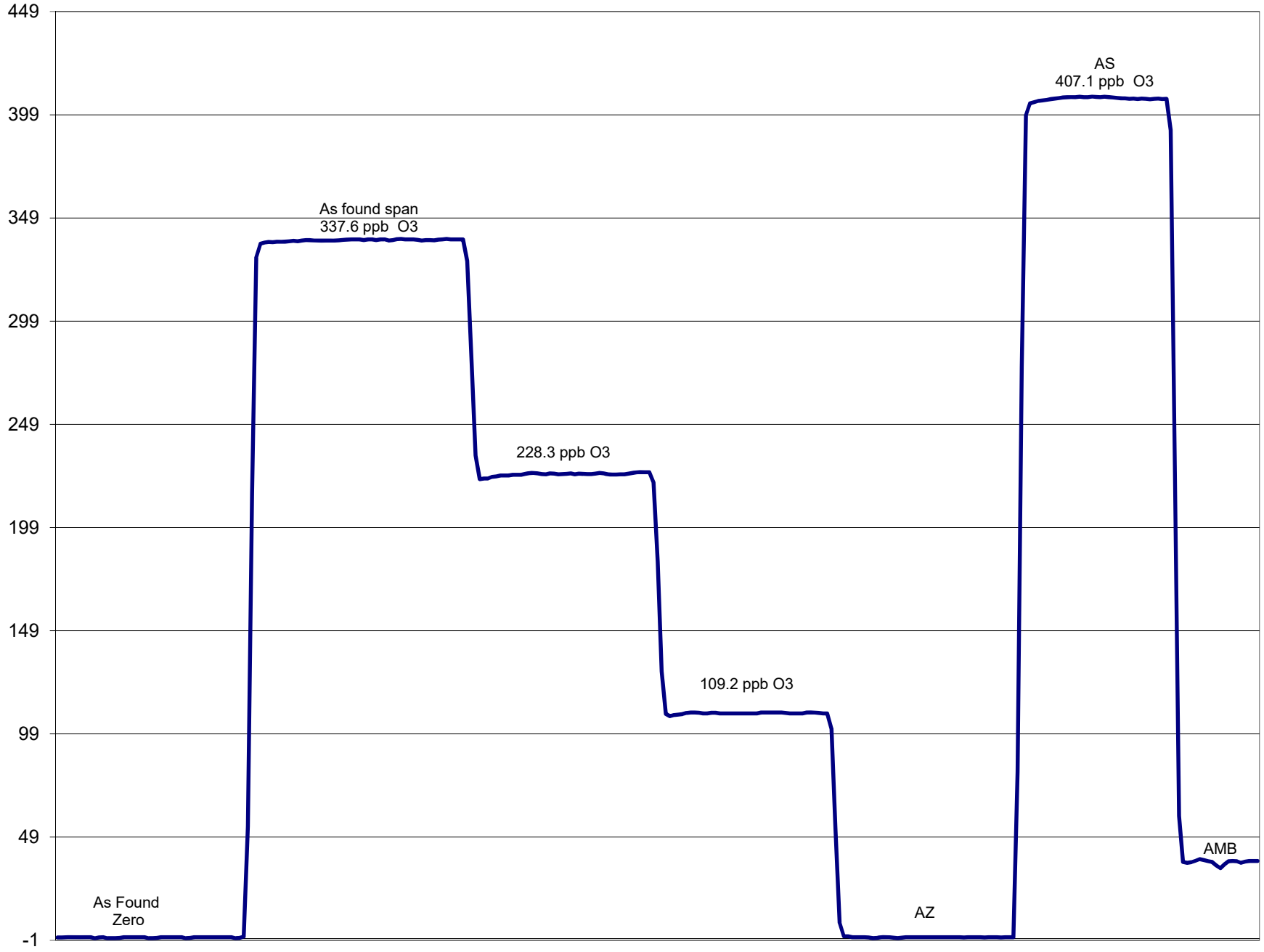
Station Information

Calibration Date	June 19 2017	Previous Calibration	May 9 2017
Station Number	10	Station Location	Rycroft
Start Time (MST)	13:25:00 PM	End Time (MST)	15:50:00 PM
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA		
337.6	338.5	0.9975	Correlation Coefficient	0.999836
228.3	225.0	1.0147		
109.2	109.1	1.0008	Slope	1.001636
			Intercept	0.251997




449
399
349
299
249
199
149
99
49
-1
As Found
Zero
As found span
337.6 ppb O3
228.3 ppb O3
109.2 ppb O3
AZ
AS
407.1 ppb O3
AMB

June 19 2017

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 16, 2017	Previous Calibration	May 19, 2017
Station Number	1	Station Location	Rycroft
Reason: Routine	Install	Removal	Other:

Start Time (MST)	13:11:00 PM	End Time (MST)	16:15:00 PM
Barometric Pressure	0.920 atm	Station Temperature	22.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas CH4 Conc	404 ppm CH4	Cal Gas Expiry Date	3/28/2014
Cal Gas C3H8 Conc	201 552.75 ppm CH4	Cal Gas Cylinder #	LL34988
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 12,13,14

Analyzer make	TEI 55I-A3PHAA	Analyzer serial #	1151980005

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

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2002	0.00	0.00	0.01	N/A
2002	66.12	12.92	12.87	1.0038
2002	42.10	8.32	8.10	1.0275
2002	16.30	3.26	3.10	1.0518
2002	0.00	0.00	0.02	As Found Zero
2002	66.12	12.92	12.48	As Found Span
			Average Correction Factor	1.0277

Calculated value of As Found Response: 12.465 ppm Percent Change of As Found: 3.5%

	Before		After
Calculated slope	0.996438	Calculated slope	1.003811
Calculated intercept	0.050087	Calculated intercept	0.083509

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.01	ppm	0.00	ppm
Auto span	8.20	ppm	8.22	ppm

NMHC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2002	0.00	0.00	0.00	N/A
1997	66.12	17.71	17.66	1.0032
2002	42.10	11.38	11.18	1.0184
2002	16.30	4.46	4.20	1.0624
2002	0.00	0.00	0.00	As Found Zero
2002	66.12	17.67	17.05	As Found Span
			Average Correction Factor	1.0280

Calculated value of As Found Response: 17.087 ppm Percent Change of As Found: 3.3%

	Before		After
Calculated slope	0.995250	Calculated slope	1.000337
Calculated intercept	0.113431	Calculated intercept	0.128240

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	10.97	ppm	11.19	ppm

THC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2002	0.00	0.00	0.01	N/A
2002	66.12	30.59	30.57	1.0006
2002	42.10	19.71	19.28	1.0223
2002	16.30	7.73	7.33	1.0543
2002	0.00	0.00	0.02	As Found Zero
2002	66.12	30.59	29.57	As Found Span
			Average Correction Factor	1.0257

Calculated value of As Found Response: 29.558 ppm Percent Change of As Found: 3.4%

	Before		After
Calculated slope	0.994808	Calculated slope	0.999526
Calculated intercept	0.159413	Calculated intercept	0.217078

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.01	ppm	0.00	ppm
Auto span	19.16	ppm	19.40	ppm

Notes: Replaced hydrogen cylinder
Slight span adjusment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CH4**

Air Monitoring Network **PAZA**

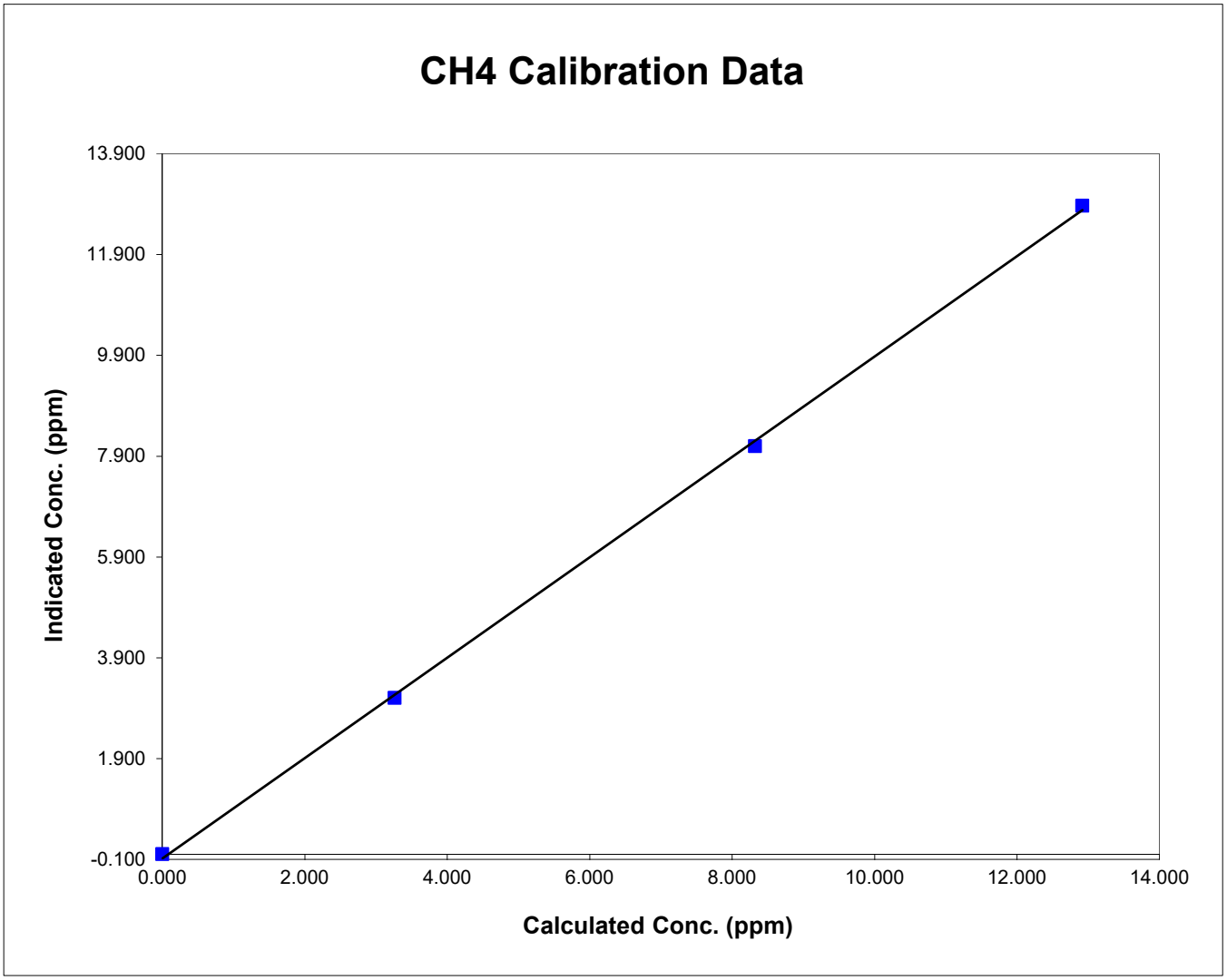
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 16, 2017	Previous Calibration	May 19, 2017
Station Number	1	Station Location	Rycroft
Start Time (MST)	13:11:00 PM	End Time (MST)	16:15:00 PM
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.006	N/A		
12.916	12.868	1.0038	Correlation Coefficient	0.999677
8.321	8.098	1.0275		
3.263	3.102	1.0518	Slope	1.003811
			Intercept	0.083509



Calibration Summary

Parameter **NMHC**

Air Monitoring Network **PAZA**

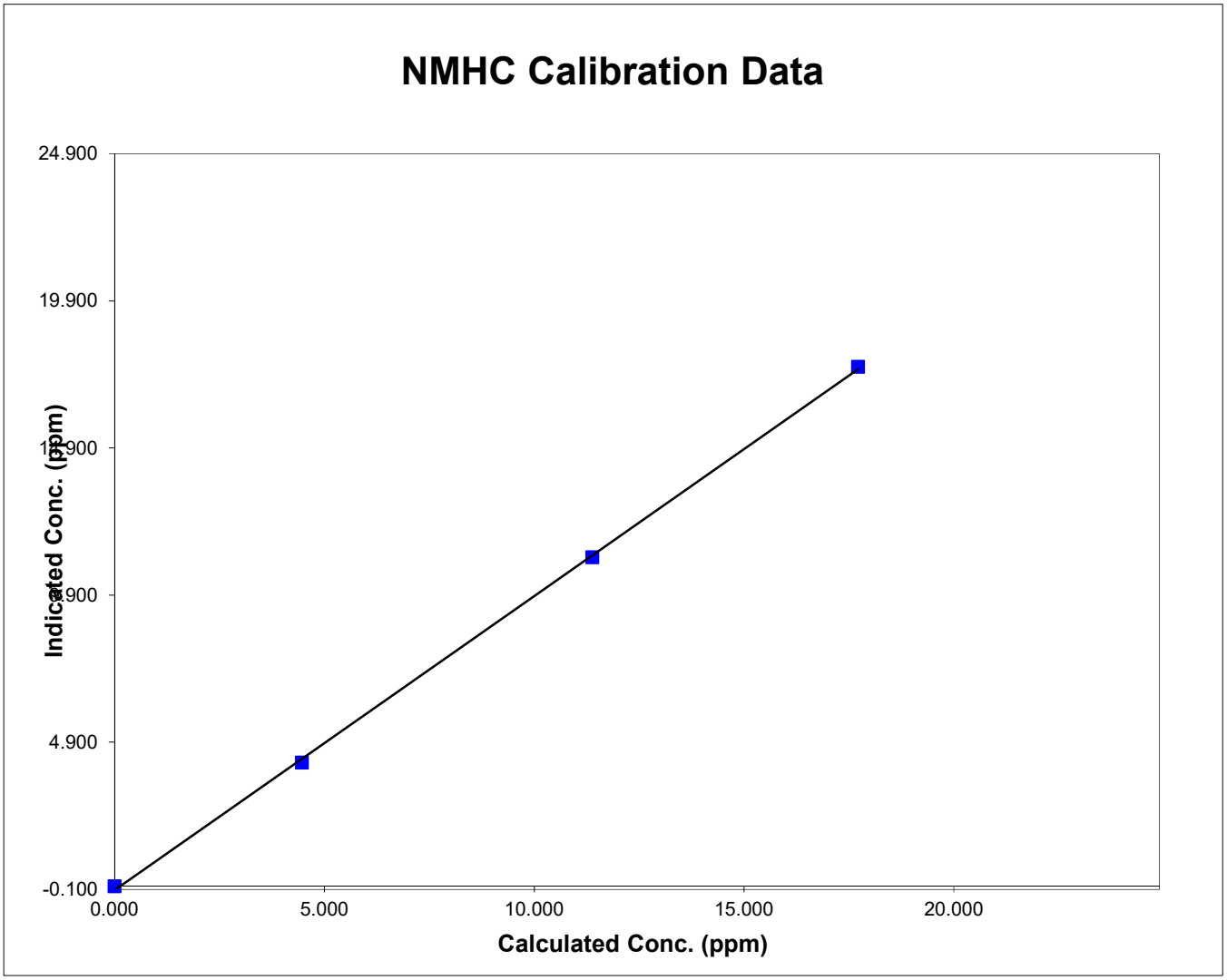
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 16, 2017	Previous Calibration	May 19, 2017
Station Number	1	Station Location	Rycroft
Start Time (MST)	13:11:00 PM	End Time (MST)	16:15:00 PM
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.000	N/A		
17.715	17.659	1.0032	Correlation Coefficient	0.999749
11.384	11.178	1.0184		
4.464	4.202	1.0624	Slope	1.000337
			Intercept	0.128240



Calibration Summary

Parameter **THC**

Air Monitoring Network **PAZA**

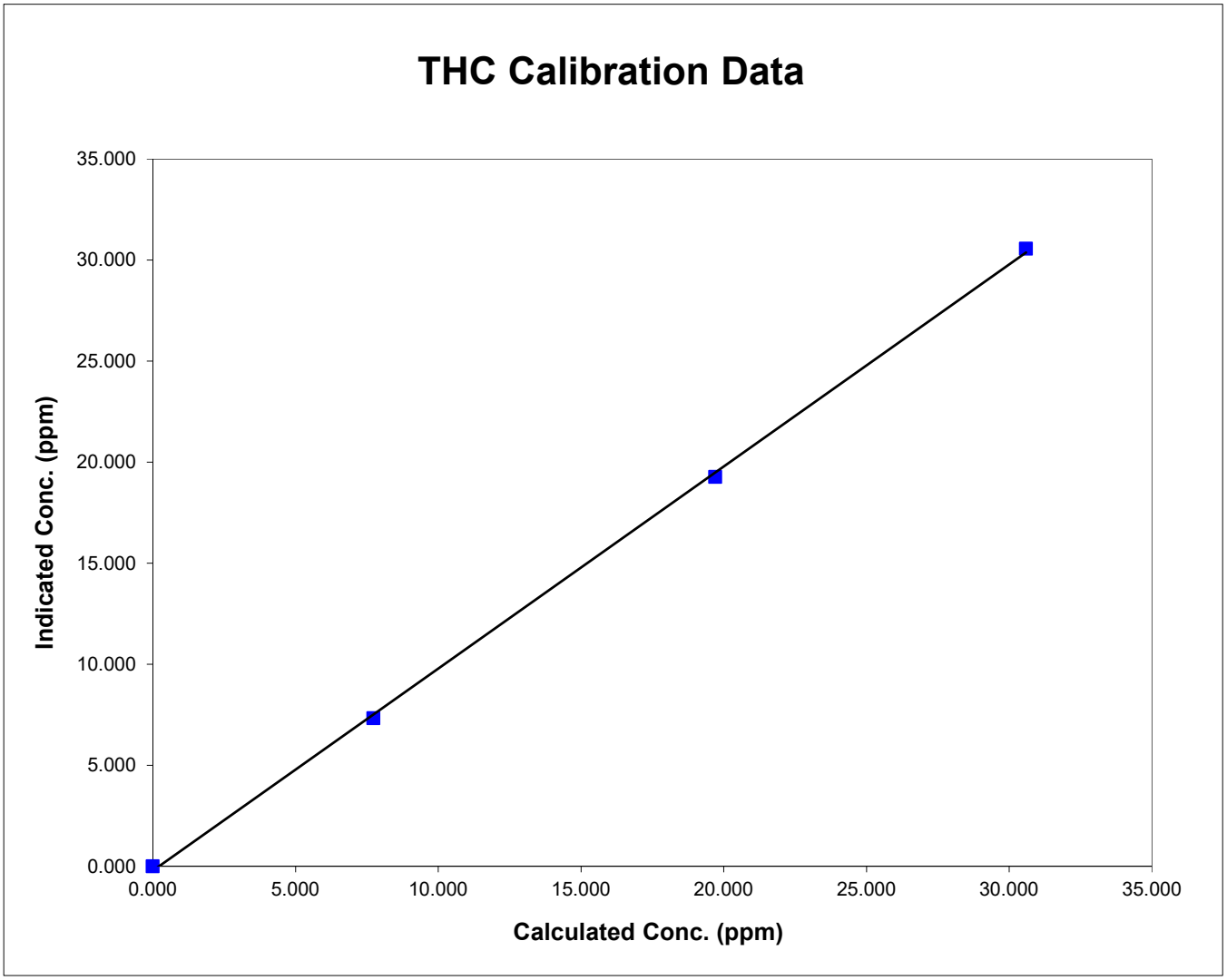
WSP AIR QUALITY MONITORING

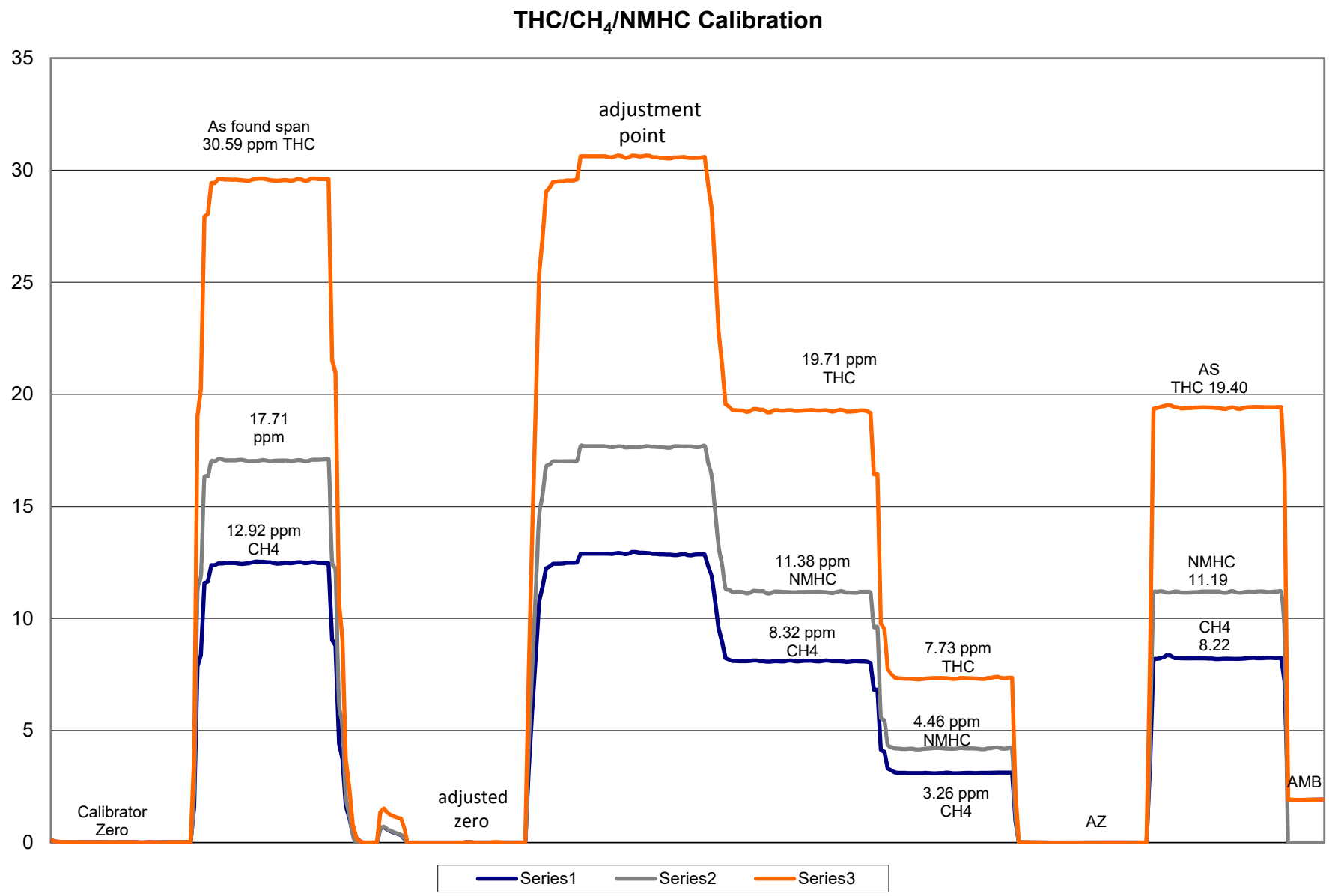
Station Information

Calibration Date	June 16, 2017	Previous Calibration	May 19, 2017
Station Number	1	Station Location	Rycroft
Start Time (MST)	13:11:00 PM	End Time (MST)	16:15:00 PM
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.005	N/A		
30.588	30.570	1.0006	Correlation Coefficient	0.999693
19.705	19.276	1.0223		
7.727	7.329	1.0543	Slope	0.999526
			Intercept	0.217078




THC/CH4/NMHC Calibration
35
30
25
20
15
10
5
0
As found span
30.59 ppm THC
adjustment
point
17.71
ppm
12.92 ppm
CH4
19.71 ppm
THC
11.38 ppm
NMHC
8.32 ppm
CH4
7.73 ppm
THC
4.46 ppm
NMHC
3.26 ppm
CH4
AS
THC 19.40
NMHC
11.19
CH4
8.22
AMB
Calibrator
Zero
adjusted
zero
AZ
Series1
Series2
Series3

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	June 16, 2017	Previous Calibration	May 11, 2017
Station Name	PAZA Rover	Station Location	Rycroft
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	10:35 AM	End Time (MST)	14:05:00 PM
Barometric Pressure	0.920 Atm	Station Temperature	22.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentratior	10.2 ppm	Cal Gas Expiry Date	02/23/2019
Gas Cert Reference	EY0000380		
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	0.982761	Calculated slope	0.997525
Calculated intercept	-0.118094	Calculated intercept	-0.045873
Analyzer make	TEI 43I	Analyzer serial #	1153630152

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	10.8	ppb	11.1	ppb
Coefficient	1.056		1.081	
Lamp Voltage	779	V	778	V
Chamber Temp	45	C	45.3	C
Perm gas Temp	45	C	45	C
Pressure	671.8	mmHg	666.5	mmHg
Sample Flow	0.389	lpm	0.388	lpm
Lamp Intensity	86	Hz	86	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5149	0.0	0.0	0.4	N/A
5149	41.22	81.0	81.5	0.9937
5149	20.50	40.4	40.1	1.0094
7224	9.83	13.9	13.9	0.9981
			0.6	Sox Test
5149	0.00	0.0	0.4	As found zero
5149	41.22	81.0	79.4	As found span
			Average Correction Factor	1.0004

Calculated value of As Found Response: 77.51 ppm Percent Change of As Found: 4.3%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.4	ppm
Auto span	54.1	ppm	55.6	ppm

Notes: Slight span adjustment made

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

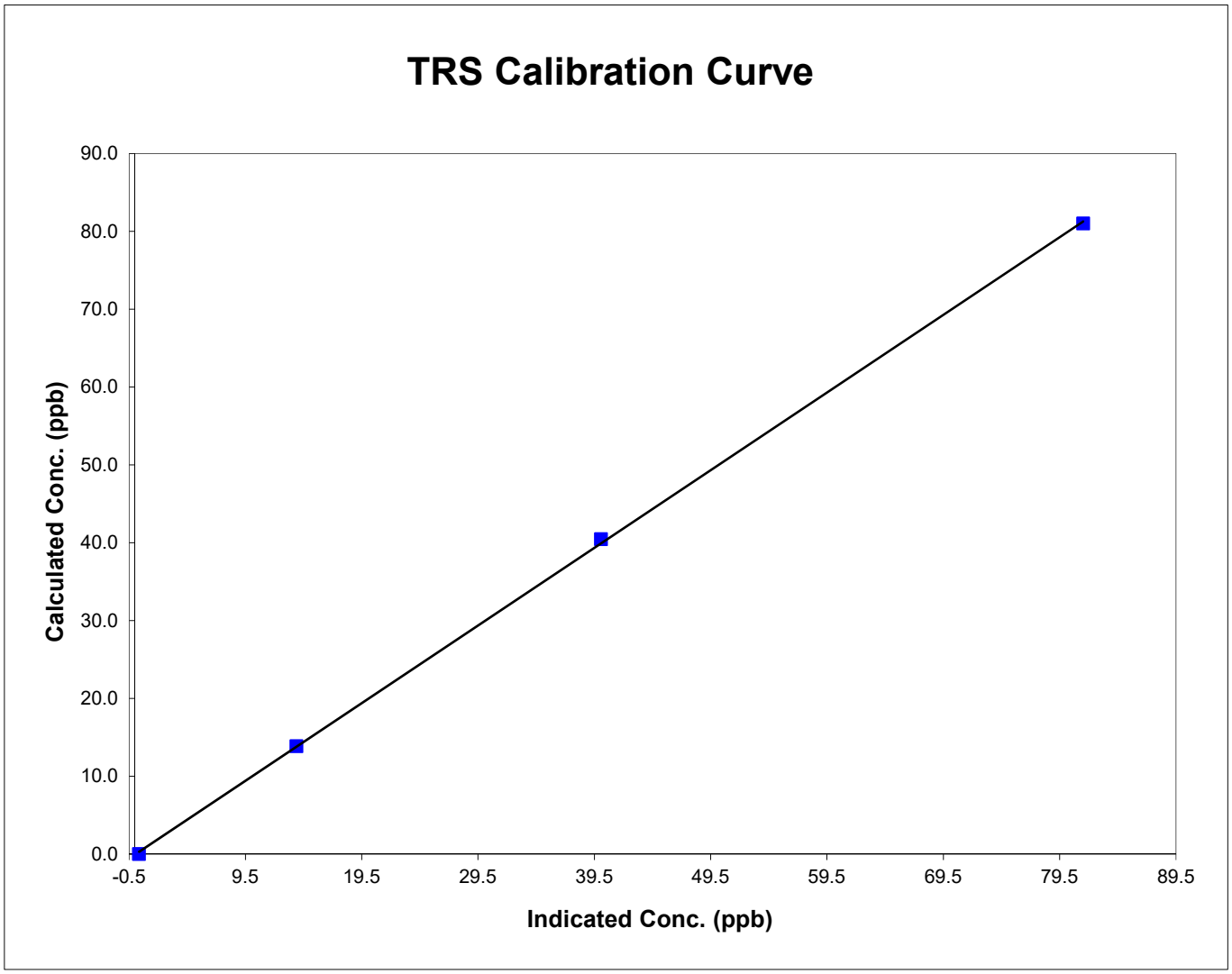
WSP AIR QUALITY MONITORING

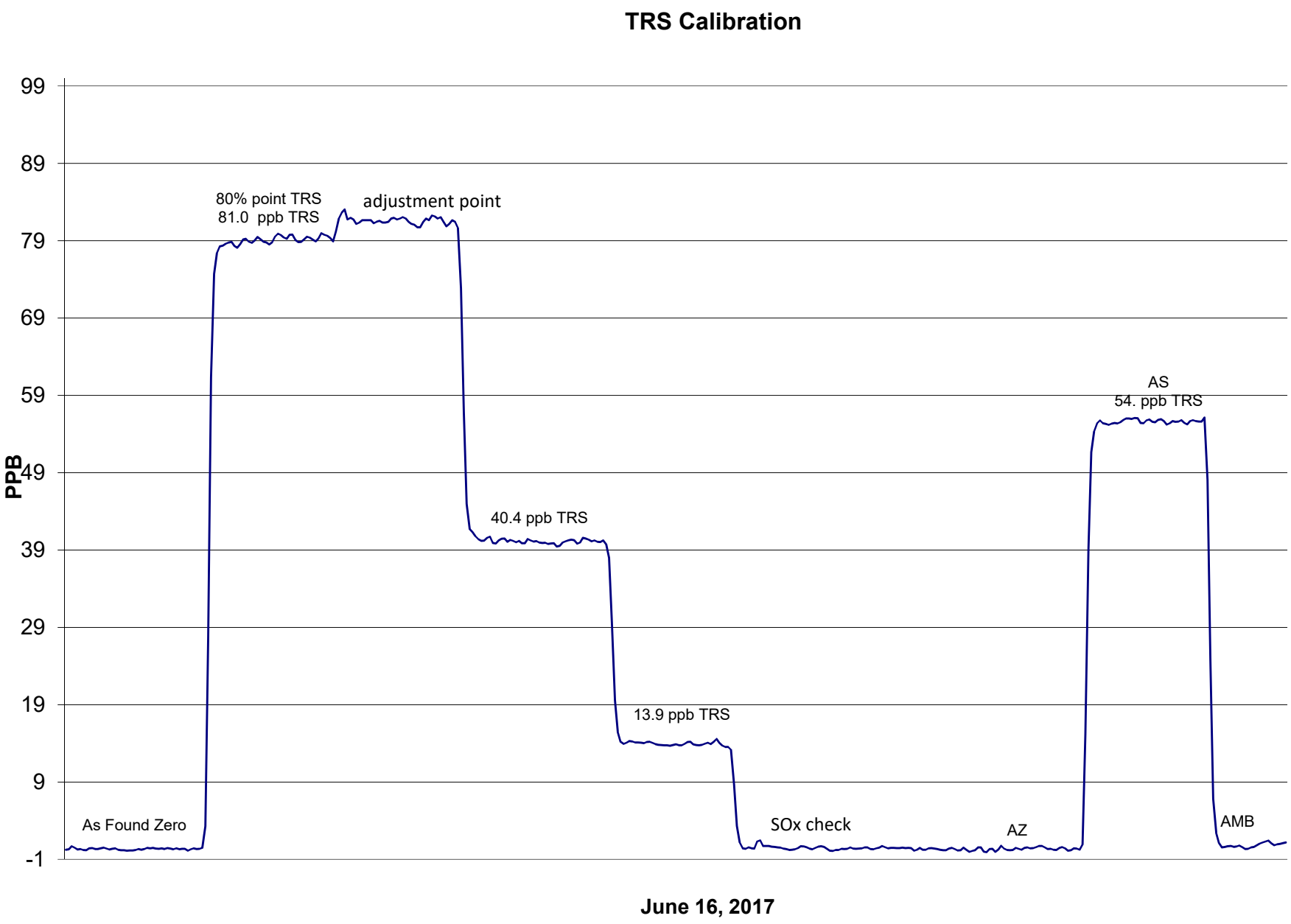
Station Information

Calibration Date	June 16, 2017	Previous Calibration	May 11, 2017
Station Number	PAZA Rover	Station Location	Rycroft
Start Time (MST)	10:35	End Time (MST)	14:05:00 PM
Analyzer make/model	TEI 43I	Analyzer serial #	1153630152

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
81.0	81.5	0.9937	Correlation Coefficient	0.999884
40.4	40.1	1.0094		
13.9	13.9	0.9981	Slope	0.997525
			Intercept	-0.045873




TRS Calibration
PPB
99
89
79
69
59
49
39
29
19
9
-1
80% point TRS
81.0 ppb TRS
adjustment point
40.4 ppb TRS
13.9 ppb TRS
AS
54. ppb TRS
As Found Zero
SOx check
AZ
AMB
June 16, 2017

AB TEOM PM2.5 Calibration

WSP
AIR QUALITY MONITORING

STATION: **Rover-Rycroft**

LOCATION: PAZA - Grande Prairie

OPERATOR: Dmytro Dolotii,Grover Christi

DATE: 19-Jun-17

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	140AB245710304
Site Number	10
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	0.990
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	11-Mar-17

PUMP CAPACITY CHECK *	PASS

* capacity test or pump on timed test utilized to verify pump integrity

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.140	0.420
PUMP OFF	0.090	0.170
NET	0.050	0.250
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	12122	13.67	3.000
	INDICATED (I)	21.2	0.930		13.55	3.090
As Found Data	MEASURED (AF)	20.5	0.930		13.55	3.090
Adjusted Data	MEASURED (M)	20.5	0.920	12177	13.55	3.090
	DIFFERENCE (M-I)	-0.7	-0.010	0.5%	-0.12	0.09
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

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

COMMENTS: Pass

Full audit was performed.

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