Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
January 2017

Peace Airshed Zone Association
Box 21135 Grande Prairie, AB, T8V 6W7
P: 780-833-4343
www.paza.ca

February 28, 2017

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

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

Enclosed is the PAZA Ambient Monitoring Network Report for the month of January 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 January, the following events were noted:

Henry Pirker Station:

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

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 January.

Smoky Heights Station:

- The measured ambient air quality was within the AAAQO for the Smoky Heights station, with the exception of one 1-hour $PM_{2.5}$ exceedance on January 2, 2017 for the hour ending at 04:00 MST. The concentration recorded was 156 µg/m^3, greater than the AAAQO of 80 µg/m^3. Refer to the attached non-compliance report for details (AEP reference #319605).
- All analyzers and sensors at the Smoky Heights station had an operational uptime greater than 90% for the month of January.

Beaverlodge Station:

- The measured ambient air quality was within the AAAQO for the Beaverlodge station, with the exception of one 1-hour $PM_{2.5}$ exceedance on January 5, 2017 for the hour ending at 07:00 MST. The concentration recorded was 105 µg/m^3, greater than the AAAQO of 80 µg/m^3. Refer to the attached non-compliance report for details (AEP reference #319695).
- All analyzers and sensors at the Beaverlodge station had an operational uptime greater than 90% for the month of January.

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 January.

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 January

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 January.

- **Passive Monitoring - 46 Stations throughout the PAZA zone:**

There were five duplicate sites sampled in the month of January: Clairmont Lake, Gold Creek, Wapiti, East Prairie, and Girouxville 4 (H_2S). The passive sample analyses were performed by MAXXAM Analytics Inc.

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

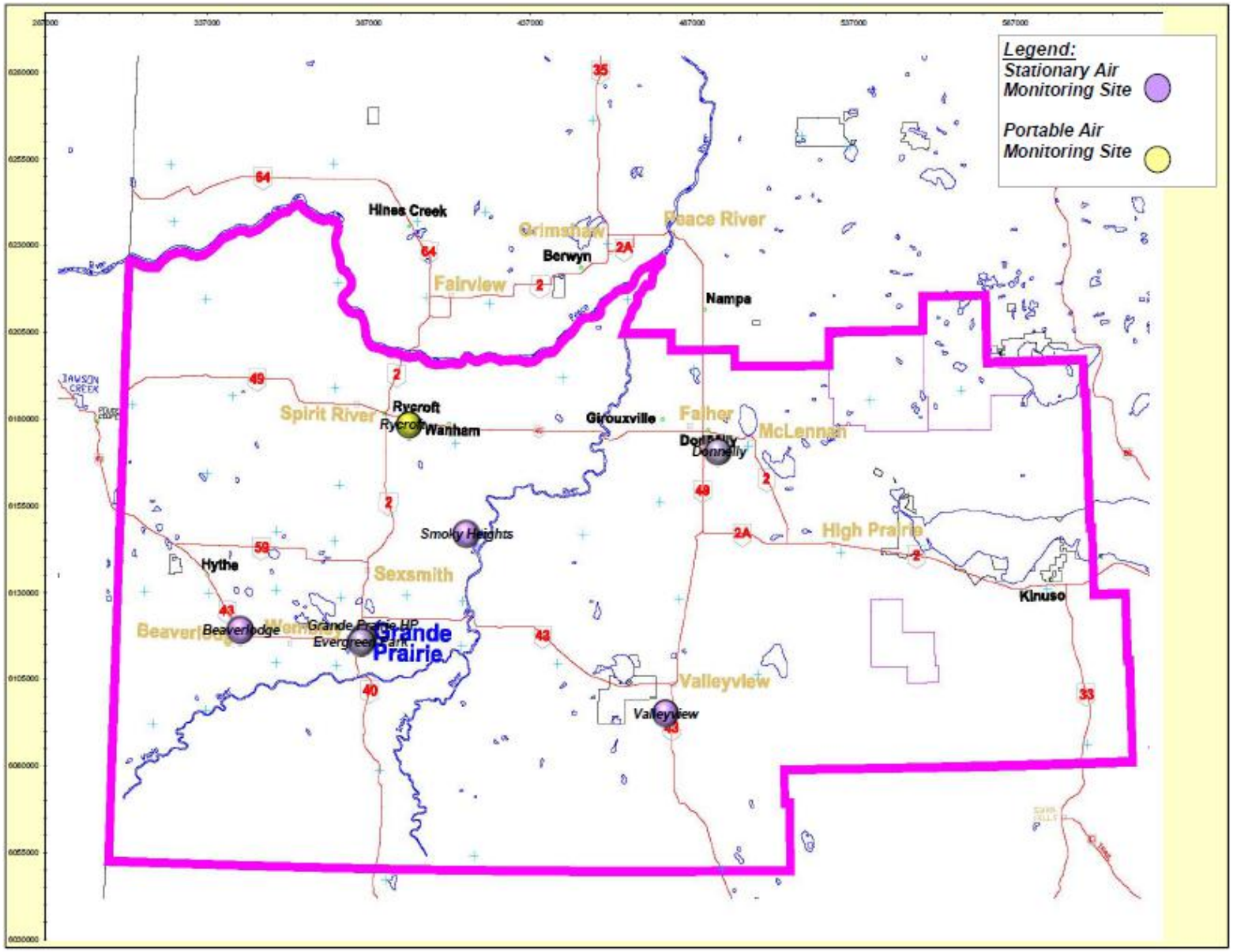
- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.6 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.5 ppb to 16.4 ppb, with a mean of 2.5 ppb.
- Monthly average concentrations for O_3 passives ranged from 22.2 ppb to 45.9 ppb, with a mean of 34.5 ppb.
- Monthly average concentrations for H_2S passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.2 ppb.

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

On Behalf of the
Peace Airshed Zone Association

Patrick Andersen, B.Sc.
Program Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Jan-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	3.8	Jan-06 19:00	0.9	Jan-06	100.0%	Jan-04
SO_2 (ppb)	172	48	Evergreen Park	0.3	0	0	4.9	Jan-16 00:00	0.7	Jan-06	100.0%	Jan-03
SO_2 (ppb)	172	48	Smoky Heights	0.3	0	0	4.8	Jan-28 00:00	0.8	Jan-11	99.7%	Jan-12
SO_2 (ppb)	172	48	Beaverlodge	0.2	0	0	6.8	Jan-19 02:00	0.9	Jan-19	100.0%	Jan-09
SO_2 (ppb)	172	48	Valleyview	0.7	0	0	23.9	Jan-26 23:00	3.7	Jan-11	100.0%	Jan-10
SO_2 (ppb)	172	48	Donnelly	0.2	0	0	0.9	Jan-03 11:00	0.6	Jan-09	100.0%	Jan-23
SO_2 (ppb)	172	48	Rycroft-Portable	0.3	0	0	1.9	Jan-26 12:00	0.6	Jan-04	100.0%	Jan-18
NO (ppb)			Henry Pirker	9.5	-	-	226.0	Jan-18 11:00	50.8	Jan-18	100.0%	Jan-04
NO_2 (ppb)	159	106	Henry Pirker	15.5	0	0	52.0	Jan-18 11:00	31.0	Jan-18	100.0%	Jan-04
NO_X (ppb)			Henry Pirker	25.3	-	-	278.7	Jan-18 11:00	82.2	Jan-18	100.0%	Jan-04
NO (ppb)			Beaverlodge	0.6	-	-	12.1	Jan-20 15:00	2.1	Jan-20	100.0%	Jan-09
NO_2 (ppb)	159	106	Beaverlodge	4.7	0	0	21.7	Jan-18 00:00	11.8	Jan-19	100.0%	Jan-09
NO_X (ppb)			Beaverlodge	5.3	-	-	29.3	Jan-20 17:00	13.8	Jan-19	100.0%	Jan-09
NO (ppb)			Rycroft-Portable	0.5	-	-	15.0	Jan-25 14:00	4.3	Jan-25	100.0%	Jan-18
NO_2 (ppb)	159	106	Rycroft-Portable	2.6	0	0	13.7	Jan-25 04:00	7.7	Jan-25	100.0%	Jan-18
NO_X (ppb)			Rycroft-Portable	3.1	-	-	25.1	Jan-25 04:00	12.2	Jan-25	100.0%	Jan-18
O_3 (ppb)	82		Henry Pirker	20.3	0	-	42.3	Jan-15 02:00	38.0	Jan-30	100.0%	Jan-04
O_3 (ppb) - 8-hr			Henry Pirker		0				41.7	Jan-15		-
O_3 (ppb)	82		Beaverlodge	31.3	0	-	45.2	Jan-16 07:00	42.9	Jan-14	100.0%	Jan-09
O_3 (ppb) - 8-hr			Beaverlodge		0				44.3	Jan-16		-
O_3 (ppb)	82		Rycroft-Portable	30.1	0	-	45.7	Jan-16 09:00	41.7	Jan-14	97.6%	Jan-18
O_3 (ppb) - 8-hr			Rycroft-Portable		0				44.4	Jan-16		-
CO (ppm)	13		Henry Pirker	0.27	0	-	2.2	Jan-18 11:00	0.6	Jan-18	100.0%	Jan-05
CO (ppm) - 8-hr	5		Henry Pirker		0				1.0	Jan-18		-

PAZA Monthly Continuous Data Summary – continued

Jan-2017	Peace Airshed Zone Assocation						Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
THC (ppm)			Henry Pirker	2.1	-	-	3.0	Jan-03 21:00	2.5	Jan-25	98.5%	Jan-07
CH_4 (ppm)			Henry Pirker	2.1	-	-	3.0	Jan-03 21:00	2.5	Jan-25	98.5%	Jan-07
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Jan-21 03:00	0.0	Jan-26	98.5%	Jan-07
THC (ppm)			Rycroft-Portable	1.9	-	-	2.1	Jan-25 04:00	2.0	Jan-25	100.0%	Jan-20
CH_4 (ppm)			Rycroft-Portable	1.9	-	-	2.1	Jan-25 04:00	2.0	Jan-25	100.0%	Jan-20
NMHC (ppm)			Rycroft-Portable	0.0	-	-	0.0	Jan-04 08:00	0.0	Jan-04	100.0%	Jan-20
TRS (ppb)			Henry Pirker	0.3	-	-	2.7	Jan-18 11:00	0.8	Jan-18	100.0%	Jan-05
TRS (ppb)			Evergreen Park	0.4	-	-	2.6	Jan-14 17:00	0.7	Jan-19	100.0%	Jan-03
TRS (ppb)			Smoky Heights	0.2	-	-	0.7	Jan-02 00:00	0.4	Jan-03	99.7%	Jan-12
TRS (ppb)			Rycroft-Portable	0.3	-	-	4.3	Jan-25 03:00	0.6	Jan-25	100.0%	Jan-20
H_2S (ppb)	10	3	Valleyview	0.2	0	0	6.2	Jan-24 17:00	1.0	Jan-24	100.0%	Jan-10
H_2S (ppb)	10	3	Donnelly	0.2	0	0	1.5	Jan-22 20:00	0.5	Jan-19	100.0%	Jan-23
$PM_{2.5}$ (µg/m3)	80	30	Henry Pirker	6.7	0	0	42.4	Jan-12 01:00	24.3	Jan-24	100.0%	Dec-20
$PM_{2.5}$ (µg/m3)	80	30	Evergreen Park	4.0	0	0	27.2	Jan-24 13:00	18.9	Jan-24	99.9%	Dec-07
$PM_{2.5}$ (µg/m3)	80	30	Smoky Heights	4.5	1	0	155.6	Jan-02 04:00	19.1	Jan-24	99.7%	Dec-15
$PM_{2.5}$ (µg/m3)	80	30	Beaverlodge	6.0	1	0	105.0	Jan-05 07:00	23.5	Jan-23	94.1%	Dec-20
$PM_{2.5}$ (µg/m3)	80	30	Rycroft-Portable	2.2	0	0	17.2	Jan-24 18:00	12.8	Jan-24	99.6%	Nov-04
RH (%)			Henry Pirker	70.2	-	-	87.8	Jan-19 21:00	83.8	Jan-19	100.0%	-
RH (%)			Evergreen Park	76.4	-	-	97.9	Jan-20 00:00	94.8	Jan-19	100.0%	-
RH (%)			Beaverlodge	78.0	-	-	100.0	Jan-04 09:00	96.4	Jan-20	100.0%	-
RH (%)			Valleyview	66.6	-	-	97.1	Jan-20 04:00	93.2	Jan-05	100.0%	-
SR (W/m^2)			Henry Pirker	25.1	-	-	257.0	Jan-24 13:00	57.5	Jan-24	100.0%	-
Temp (°C)			Henry Pirker	-7.6	-	-	9.6	Jan-18 14:00	4.2	Jan-28	100.0%	-
Temp (°C)			Evergreen Park	-7.1	-	-	13.3	Jan-18 16:00	4.3	Jan-28	100.0%	-
Temp (°C)			Smoky Heights	-7.8	-	-	7.8	Jan-28 16:00	4.3	Jan-28	99.7%	-
Temp (°C)			Beaverlodge	-6.3	-	-	8.4	Jan-18 15:00	5.6	Jan-16	100.0%	-
Temp (°C)			Valleyview	-7.1	-	-	11.7	Jan-18 16:00	6.0	Jan-28	100.0%	-
Temp (°C)			Donnelly	-7.6	-	-	9.2	Jan-28 16:00	5.5	Jan-18	100.0%	-
Temp (°C)			Rycroft-Portable	-7.1	-	-	11.2	Jan-18 14:00	5.3	Jan-28	100.0%	-

PAZA Monthly Continuous Data Summary – continued

Jan-2017	Peace Airshed Zone Assocation						Maximum Recorded Values					
							1-hr		24-hr / 8-hr			
WSPD s (km/hr)			Henry Pirker	7.7	-	-	32.0	Jan-10 05:00	17.7	Jan-30	98.8%	-
WSPD s (km/hr)			Evergreen Park	9.5	-	-	45.0	Jan-10 06:00	29.6	Jan-30	100.0%	-
WSPD s (km/hr)			Smoky Heights	12.7	-	-	40.0	Jan-28 18:00	26.3	Jan-30	100.0%	-
WSPD s (km/hr)			Beaverlodge	10.8	-	-	53.0	Jan-28 15:00	30.1	Jan-15	100.0%	-
WSPD s (km/hr)			Valleyview	4.0	-	-	39.0	Jan-21 07:00	15.0	Jan-30	100.0%	-
WSPD s (km/hr)			Donnelly	11.7	-	-	40.0	Jan-30 14:00	24.3	Jan-30	100.0%	-
WSPD s (km/hr)			Rycroft-Portable	10.4	-	-	39.0	Jan-10 04:00	28.6	Jan-30	97.6%	-
WSPD v (km/hr)			Henry Pirker	4.3	-	-	32.0	Jan-10 05:00	17.0	Jan-30	98.8%	-
WSPD v (km/hr)			Evergreen Park	5.9	-	-	44.0	Jan-10 06:00	26.7	Jan-30	100.0%	-
WSPD v (km/hr)			Smoky Heights	7.5	-	-	40.0	Jan-28 18:00	25.3	Jan-30	100.0%	-
WSPD v (km/hr)			Beaverlodge	5.8	-	-	53.0	Jan-28 15:00	29.9	Jan-15	100.0%	-
WSPD v (km/hr)			Valleyview	1.4	-	-	39.0	Jan-21 07:00	14.4	Jan-30	100.0%	-
WSPD v (km/hr)			Donnelly	6.9	-	-	40.0	Jan-30 14:00	24.0	Jan-15	100.0%	-
WSPD v (km/hr)			Rycroft-Portable	5.9	-	-	39.0	Jan-10 04:00	28.0	Jan-30	97.6%	-
WDIR			Henry Pirker	WSW	-	-	-	-	-	-	98.8%	-
WDIR			Evergreen Park	W	-	-	-	-	-	-	100.0%	-
WDIR			Smoky Heights	SW	-	-	-	-	-	-	100.0%	-
WDIR			Beaverlodge	W	-	-	-	-	-	-	100.0%	-
WDIR			Valleyview	WNW	-	-	-	-	-	-	100.0%	-
WDIR			Donnelly	SSW	-	-	-	-	-	-	100.0%	-
WDIR			Rycroft-Portable	SW	-	-	-	-	-	-	97.6%	-

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	Maintenance on January 6 resulted in an uptime of 98.5%.
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	Intermittent instrument malfunctioning resulted in an uptim of 98.8%.

PAZA – Evergreen Park Station

General Station Issues

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	Sharp	5030	One hour of routine maintenance resulted in an uptime of 99.9%.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Power disruption on January 27.

Parameter	Make	Model	Notes
SO_2	TEI	43C	A station power disruption resulted in an uptime of 99.7%
TRS	TEI	43i	A station power disruption resulted in an uptime of 99.7%
$PM_{2.5}$	Sharp	5030	A station power disruption resulted in an uptime of 99.7%
ET	Met One	083D	A station power disruption resulted in an uptime of 99.7%
WS / WD	Met One	010C/020C	A station power disruption 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	Instrument malfunctioning and analyzer maintenance resulted in an uptime of 94.1%. Analyzer analog outputs were malfunctioning intermittently throughout the month. Hourly data between Jan 1-17 was recovered directly from the analyzer, however hourly maximum data cannot be calculated for these time periods.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

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	No operational issues observed.

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	Instrument malfunctioning on January 18-19 resulted in an uptime of 97.6%
TRS	TEI	39C	No operational issues observed.
THC/CH_4/NMHC	TEI	55i	No operational issues observed.
$PM_{2.5}$	Sharp	5030	Routine maintenance resulted in an uptime of 99.6%.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	Instrument malfunctioning on January19 resulted in an uptime of 97.6%

PAZA
Henry Pirker Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.8 ppb on Jan 6 19:00 Maximum Daily Average: 0.9 ppb on Jan 6

Minimum Value: 0 ppb on Jan 5 21:00 Minimum Daily Average: 0.0 ppb on Jan 30
Maximum Diurnal Average: 0.4 ppb at hour 13 Minimum Diurnal Average: 0.2 ppb at hour 24
Monthly Average: 0.23 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.3 P_{90} = 0.5 P_{99} = 1.3

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
2-Jan	0	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
3-Jan	0	0	0	A	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0.3	0.8
4-Jan	0	0	A	0	0	0	0	0	0	C	C	C	0	0	0	0	0	1	0	1	1	1	0	0	0.4	0.8
5-Jan	0	A	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
6-Jan	A	0	0	0	0	0	0	0	1	2	2	1	1	2	1	1	1	0	4	1	0	1	1	A	0.9	3.8
7-Jan	1	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	0.6
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5
9-Jan	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	1	0	0	0	0	A	0	0	0	0.6	1.7
10-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0.3	1.3
11-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0.2	1.0
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0.2	0.5
13-Jan	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
14-Jan	1	1	0	1	1	1	1	0	1	0	0	1	1	1	1	A	0	0	0	0	0	0	0	0	0.5	1.1
15-Jan	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
16-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0.3	0.6
17-Jan	0	0	0	0	0	0	0	0	0	0	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0.1	0.7
18-Jan	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.7
19-Jan	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
20-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0.3	0.7
22-Jan	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	0.5
23-Jan	1	0	1	1	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
24-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.6
25-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.3	0.6
26-Jan	0	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
27-Jan	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
28-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
29-Jan	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
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
31-Jan	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
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.8	0.6	0.6	0.7	0.5	0.6	0.7	0.6	0.8	2.1	1.7	1.2	1.5	1.7	1.7	1.0	1.0	0.5	3.8	0.9	0.8	0.9	1.3	0.5	Diurnal Maximum	

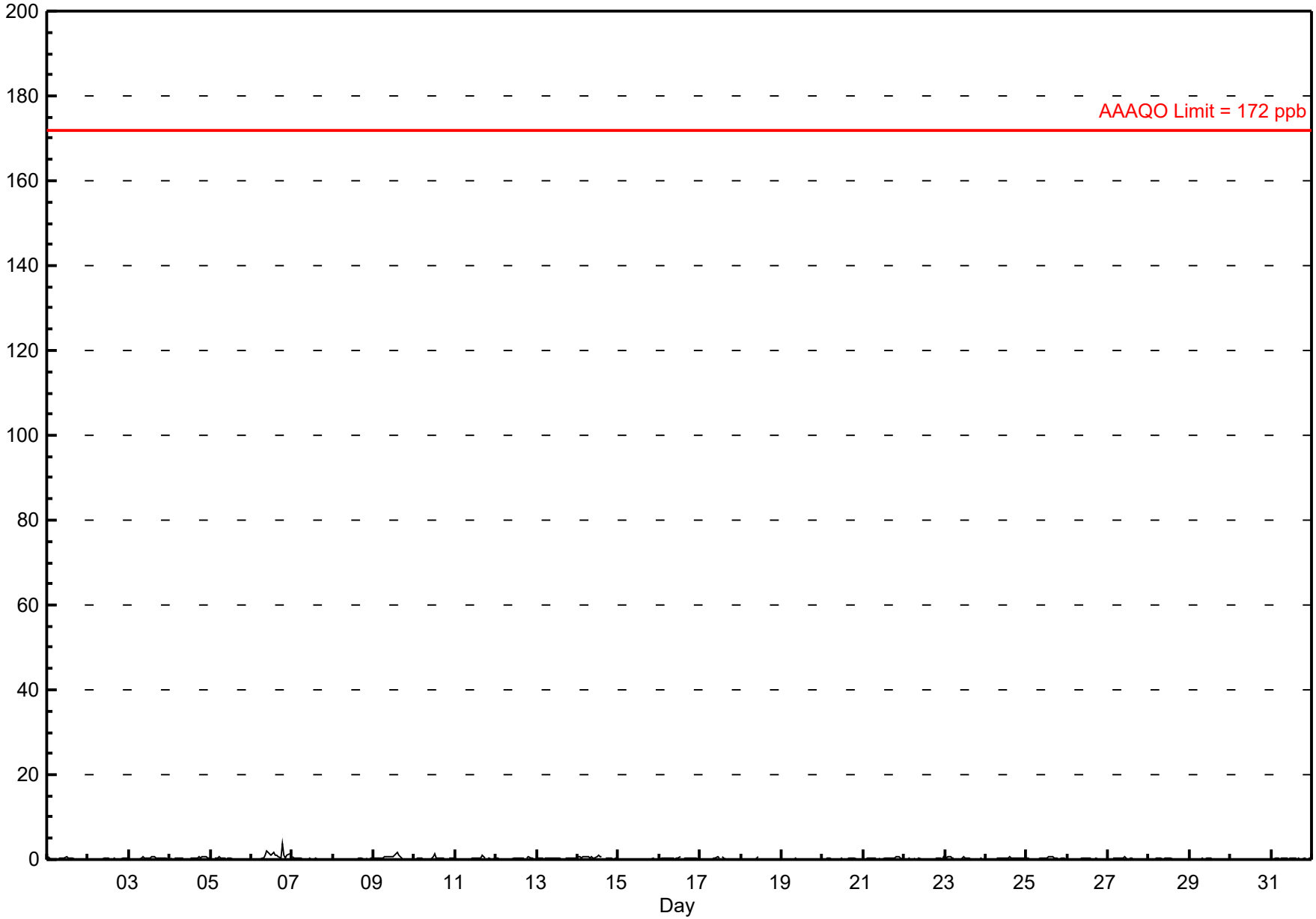
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - January 2017

Maximum Value: 9.3 ppb on Jan 4 13:00

Maximum Daily Average: 1.3 ppb on Jan 6

Minimum Value: 0 ppb on Jan 17 17:00

Minimum Daily Average: 0.1 ppb on Jan 19

Maximum Diurnal Average: 1.0 ppb at hour 13

Minimum Diurnal Average: 0.3 ppb at hour 24

Monthly Average: 0.41 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.7$ $P_{99} = 2.4$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1	1	0	0	0	A	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0.4	1.4
2-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
3-Jan	0	0	0	A	0	0	0	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.0
4-Jan	0	0	A	0	0	0	0	0	0	C	C	C	9	1	0	1	1	1	1	1	1	1	0	0	0.9	9.3
5-Jan	0	A	0	0	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
6-Jan	A	0	0	0	0	0	0	0	1	3	3	1	2	2	1	1	1	1	7	1	1	2	2	A	1.3	6.5
7-Jan	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.0
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	A	0	0	0.2	0.7
9-Jan	0	0	1	1	1	1	1	1	1	1	1	1	1	2	3	1	1	0	0	0	A	0	0	0	0.8	3.1
10-Jan	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0	0	0	0	0	A	0	0	0	0	0.6	5.9
11-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	A	0	0	0	0	0	0.5	3.5
12-Jan	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	1	1	1	0	0	0	0.4	1.0
13-Jan	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	1	0.3	0.6
14-Jan	1	1	0	1	1	1	1	1	1	0	0	1	2	1	1	A	1	1	0	0	0	0	0	0	0.7	1.6
15-Jan	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
16-Jan	0	1	1	1	0	0	0	1	1	0	0	1	1	A	0	1	1	1	1	1	1	1	1	0	0.5	0.9
17-Jan	0	0	0	0	0	0	0	0	1	1	1	0	A	1	1	0	0	0	0	0	0	0	0	0	0.2	0.9
18-Jan	0	0	0	0	0	0	0	0	0	1	1	A	1	0	0	1	0	0	0	0	0	0	0	0	0.2	1.1
19-Jan	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
20-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.3	0.6
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	1	1	2	1	0	0.5	1.6
22-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0.3	1.0
23-Jan	1	0	1	1	1	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
24-Jan	0	0	0	0	0	A	0	0	0	1	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0.4	0.7
25-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0.4	0.8
26-Jan	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0.3	0.7
27-Jan	0	0	A	1	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
28-Jan	0	A	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
29-Jan	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0.2	0.6
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0.1	0.6
31-Jan	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	A	1	1	0.4	0.7
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	1.0	0.5	0.5	0.5	0.5	0.3	0.5	0.4	0.4	0.4	0.3	0.3	Diurnal Average	
	1.2	1.0	0.9	0.9	0.9	1.0	0.9	0.8	1.4	2.7	2.5	2.3	9.3	2.3	3.1	1.5	3.5	0.7	6.5	1.2	1.1	1.6	1.5	1.0	Diurnal Maximum	

C - Calibration

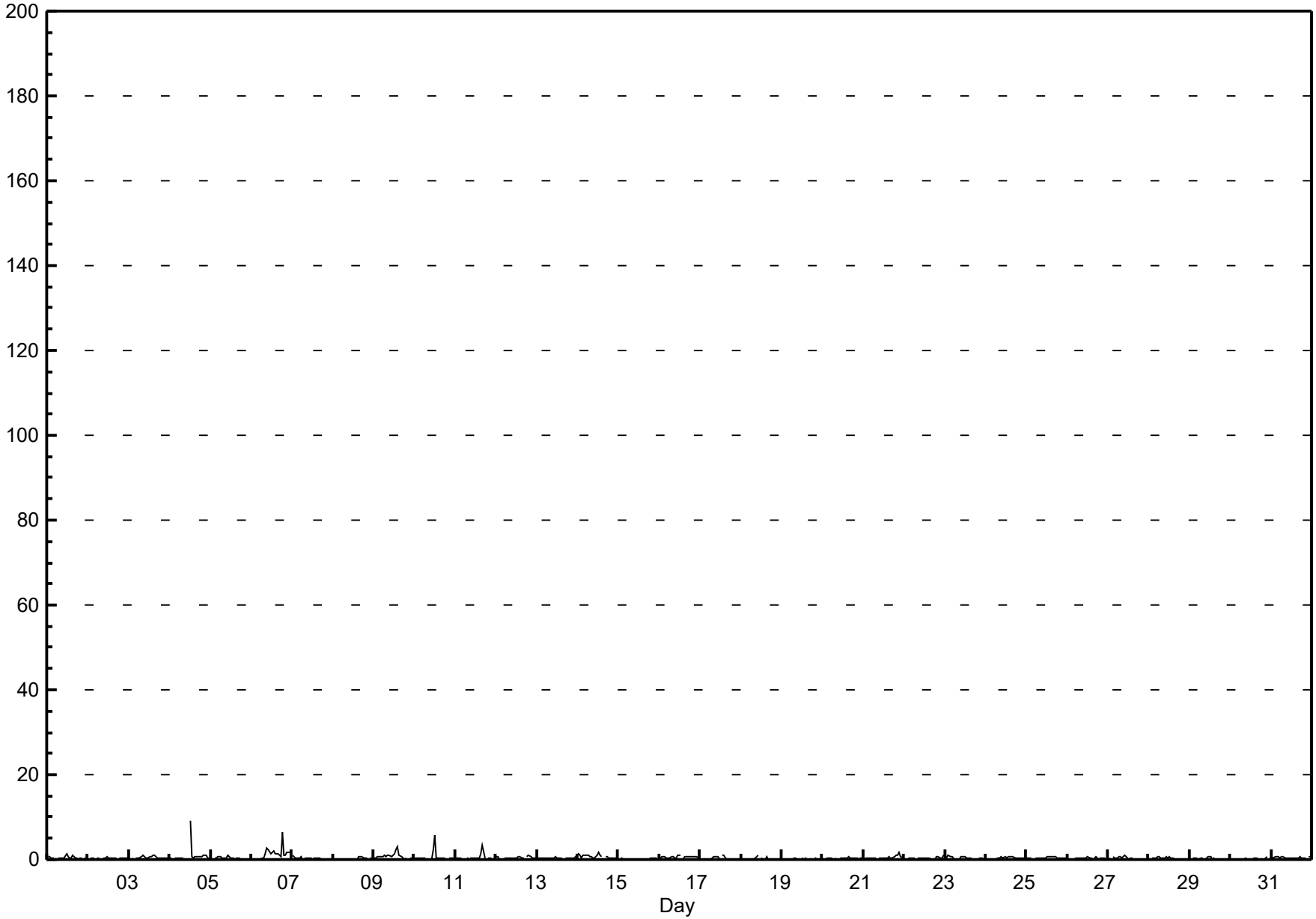
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

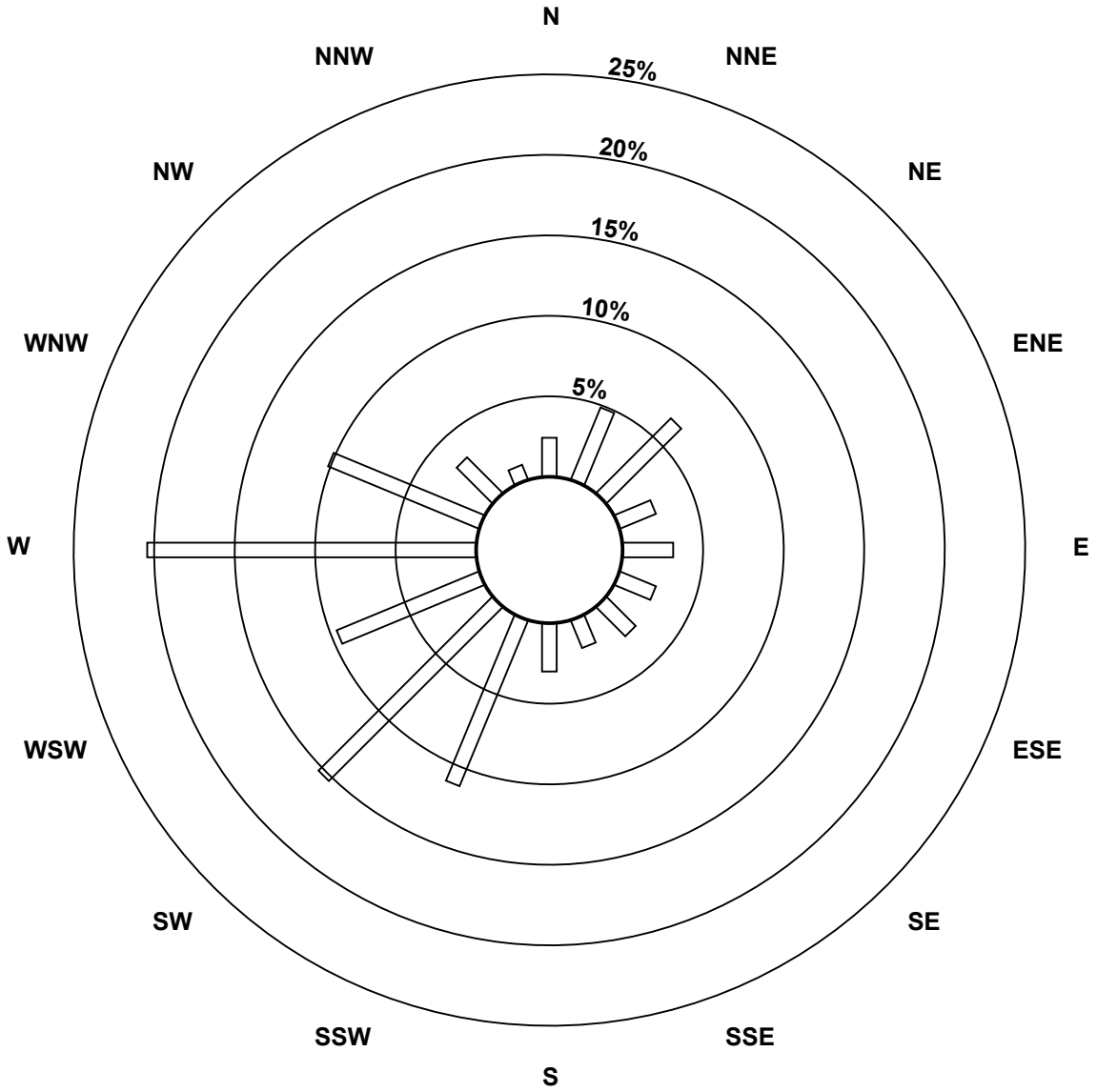
Henry Pirker - January 2017



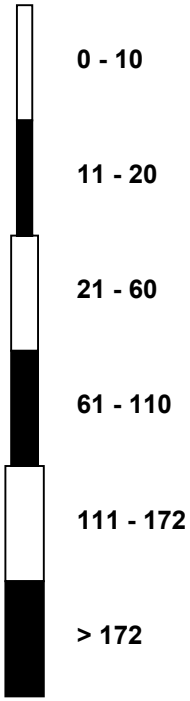
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - January 2017



Pollutant Classes (ppb)

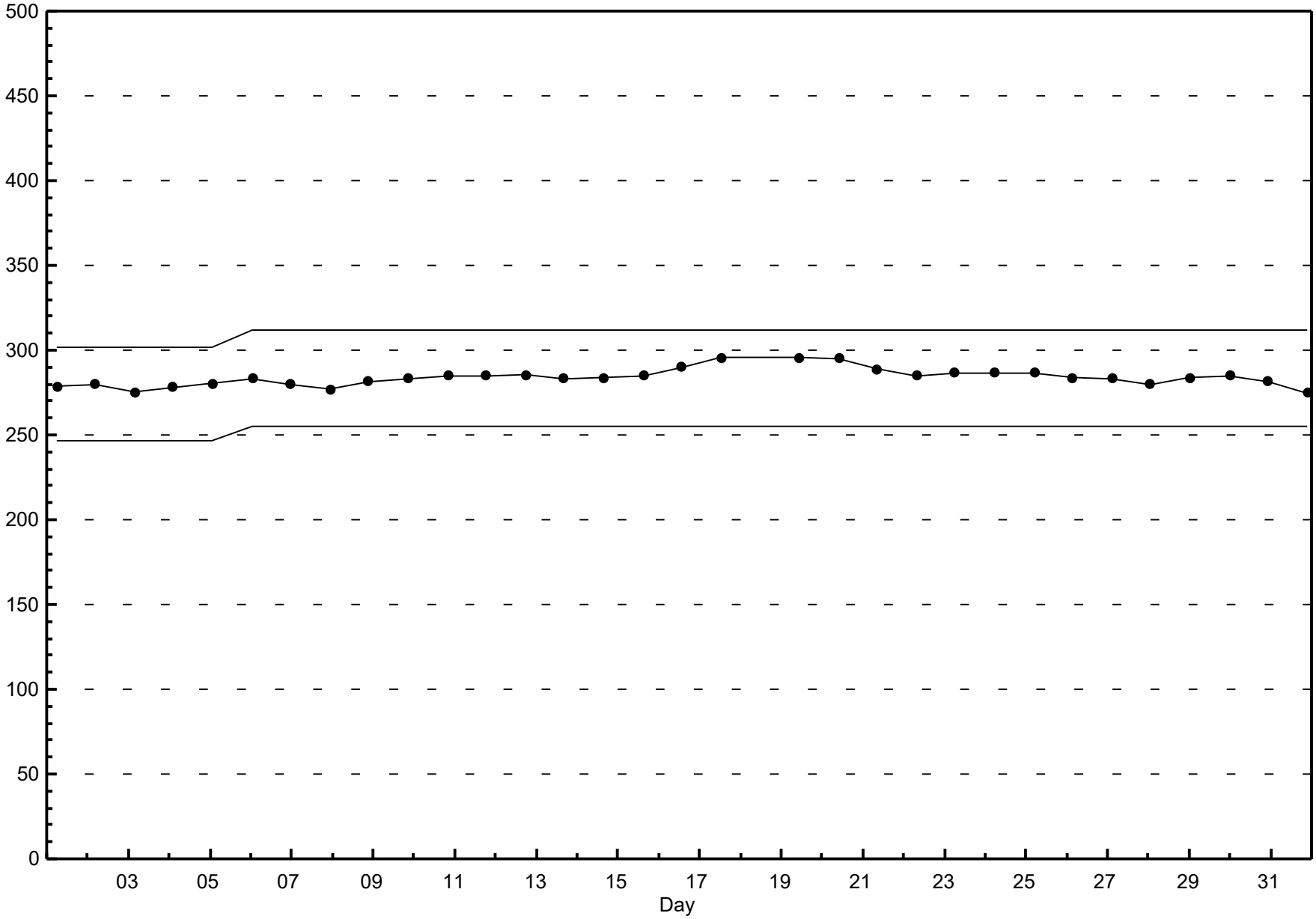


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - January 2017

Maximum Value: 2.7 ppb on Jan 18 11:00

Maximum Daily Average: 0.8 ppb on Jan 18

Minimum Value: 0 ppb on Jan 1 21:00

Minimum Daily Average: 0.1 ppb on Jan 7

Maximum Diurnal Average: 0.4 ppb at hour 11

Minimum Diurnal Average: 0.3 ppb at hour 5

Monthly Average: 0.33 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.7$ $P_{99} = 1.3$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	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
2-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
3-Jan	0	0	0	A	0	0	0	0	1	1	1	1	1	1	0	0	1	1	0	1	0	0	0	0	0.5	0.8
4-Jan	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.5
5-Jan	0	A	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
6-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
7-Jan	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
8-Jan	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
9-Jan	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	0.4
10-Jan	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	1	0	0	0	0.3	0.6
11-Jan	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	0.6
12-Jan	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	0	0.6	1.0
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0.3	0.5
15-Jan	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
16-Jan	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0.3	0.6
17-Jan	0	0	0	0	0	0	0	0	0	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0.4	1.0
18-Jan	0	0	0	1	0	1	1	1	1	2	3	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.7
19-Jan	1	1	1	1	1	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
20-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0.7	1.1
21-Jan	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
22-Jan	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
23-Jan	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	0.4
24-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	0	0	0	0.4	0.8
25-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0.5	0.9
26-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
27-Jan	0	0	A	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
28-Jan	0	A	0	0	0	0	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	1.2
29-Jan	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
30-Jan	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	0.2
31-Jan	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	0.2
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	Diurnal Average	
	0.9	0.9	0.9	1.1	1.0	0.9	0.9	0.8	1.2	1.7	2.7	0.8	0.8	1.0	0.9	0.9	0.8	1.1	1.4	1.3	1.4	1.4	1.4	0.9	Diurnal Maximum	

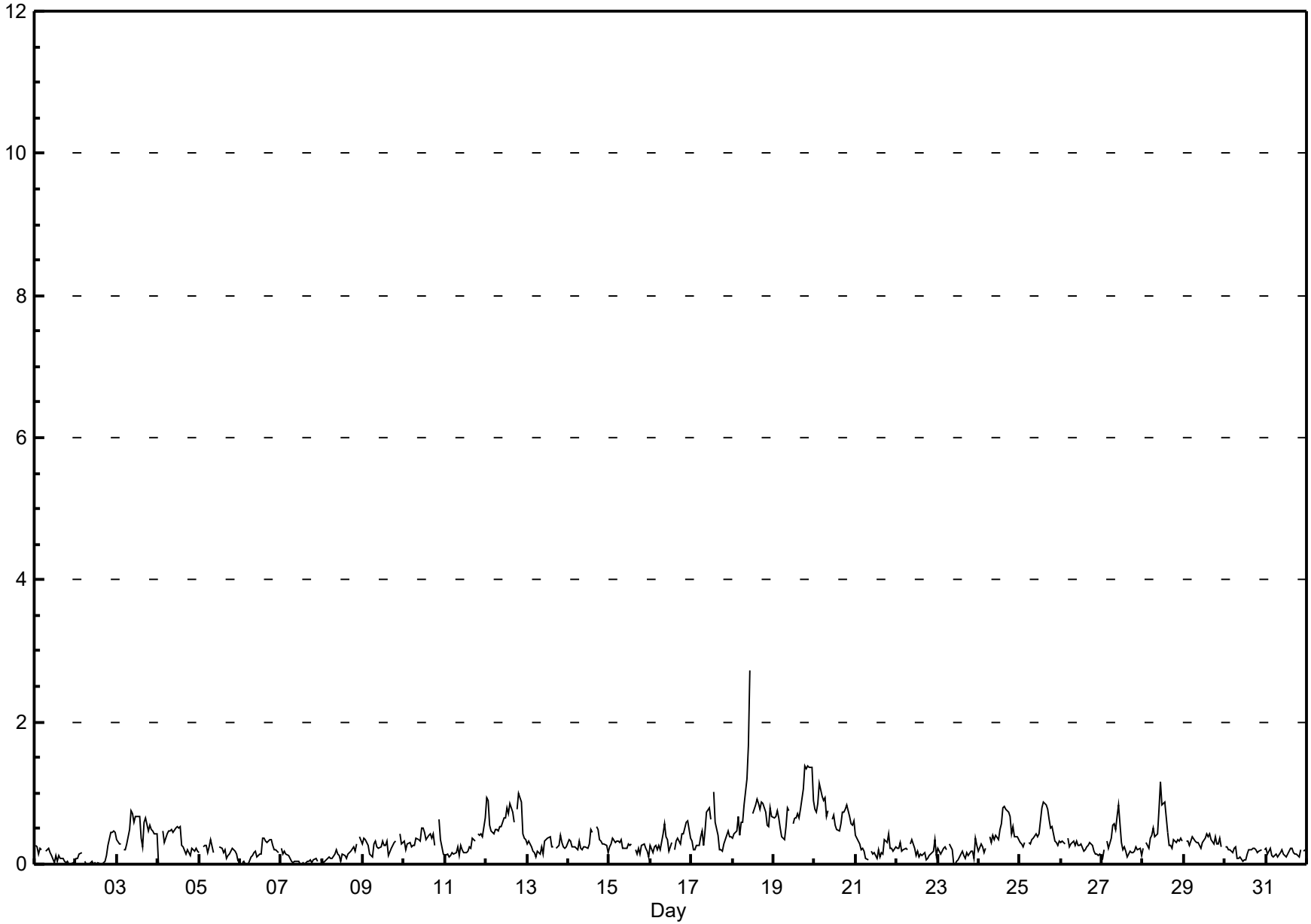
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - January 2017

Maximum Value: 8.0 ppb on Jan 18 11:00

Maximum Daily Average: 1.7 ppb on Jan 18

Minimum Value: 0 ppb on Jan 6 05:00

Minimum Daily Average: 0.6 ppb on Jan 1

Maximum Diurnal Average: 1.1 ppb at hour 11

Minimum Diurnal Average: 0.8 ppb at hour 2

Monthly Average: 0.87 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 0.7$ Median = 0.8 $Q_3 = 1.0$ $P_{90} = 1.3$ $P_{99} = 1.9$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	0	1	1	0	0	1	0	0.6	0.8
2-Jan	0	1	1	1	A	1	1	1	0	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1	0.6	1.1
3-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
4-Jan	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.8	1.1
5-Jan	1	A	1	1	1	1	1	1	1	C	C	C	1	1	1	1	0	1	1	1	1	1	1	1	0.7	0.9
6-Jan	A	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.1
7-Jan	1	1	1	1	1	1	1	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	A	1	0.6	1.0
8-Jan	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.0
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.2
11-Jan	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.1
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.2	1.5
13-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.2
14-Jan	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	1.2
15-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.1
16-Jan	1	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	1.4
17-Jan	1	1	1	1	1	1	1	1	1	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1.1	1.6
18-Jan	1	1	1	1	1	1	1	2	2	2	8	A	1	2	2	2	1	2	1	1	1	1	1	1	1.7	8.0
19-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	2	2	2	2	2	1	1.4	2.1
20-Jan	1	1	1	2	2	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	1.8
21-Jan	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
22-Jan	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	1	0	1	1	1	0.7	1.0
23-Jan	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
24-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
25-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
26-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
27-Jan	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0.8	1.6
28-Jan	1	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7
29-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.1
30-Jan	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.7
31-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9
	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.1	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	Diurnal Average	
	1.5	1.5	1.5	1.8	1.6	1.4	1.6	1.6	2.4	2.1	8.0	1.6	1.4	1.6	1.5	1.9	1.4	1.7	2.1	1.7	1.9	1.9	2.0	1.5	Diurnal Maximum	

C - Calibration

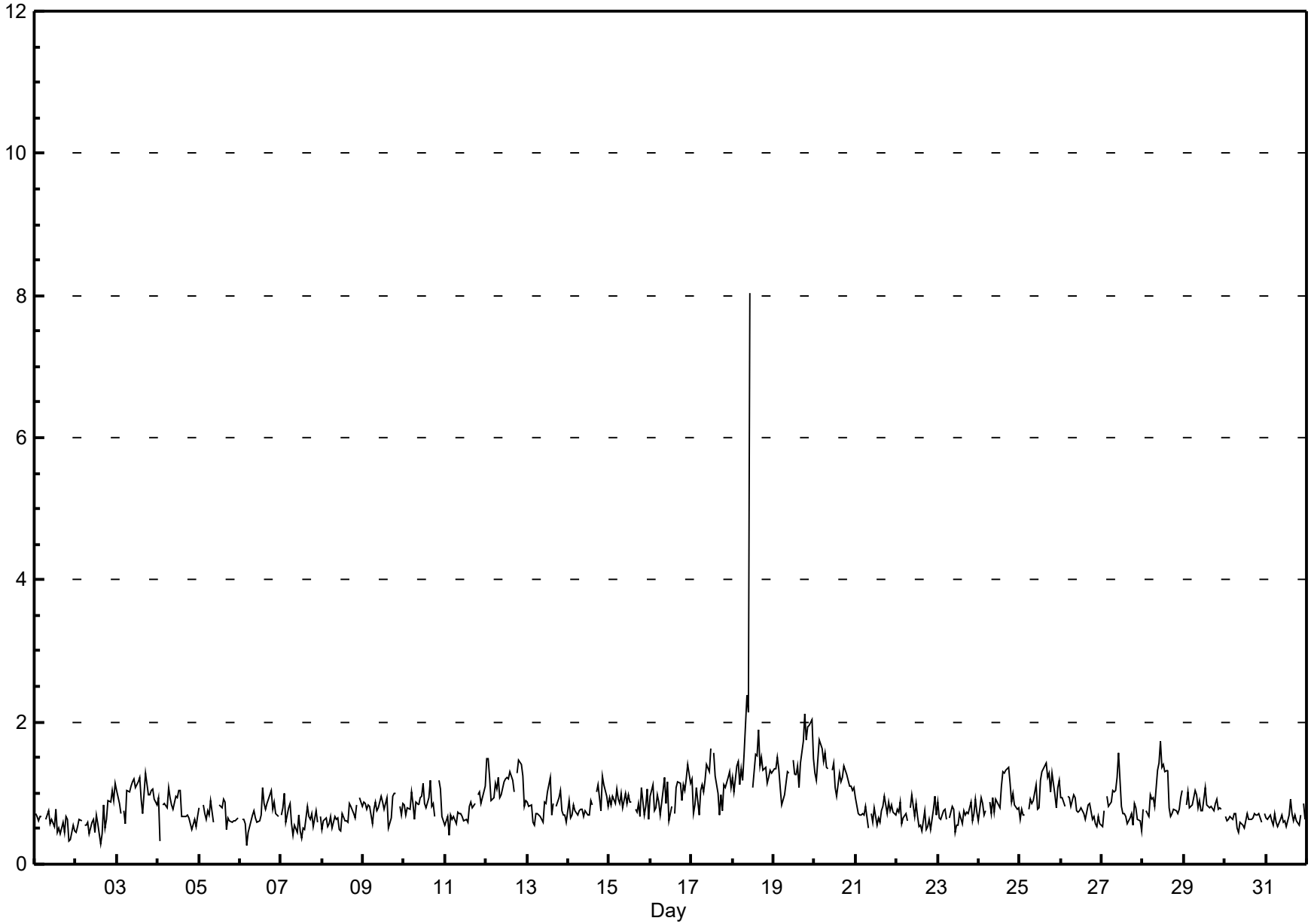
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

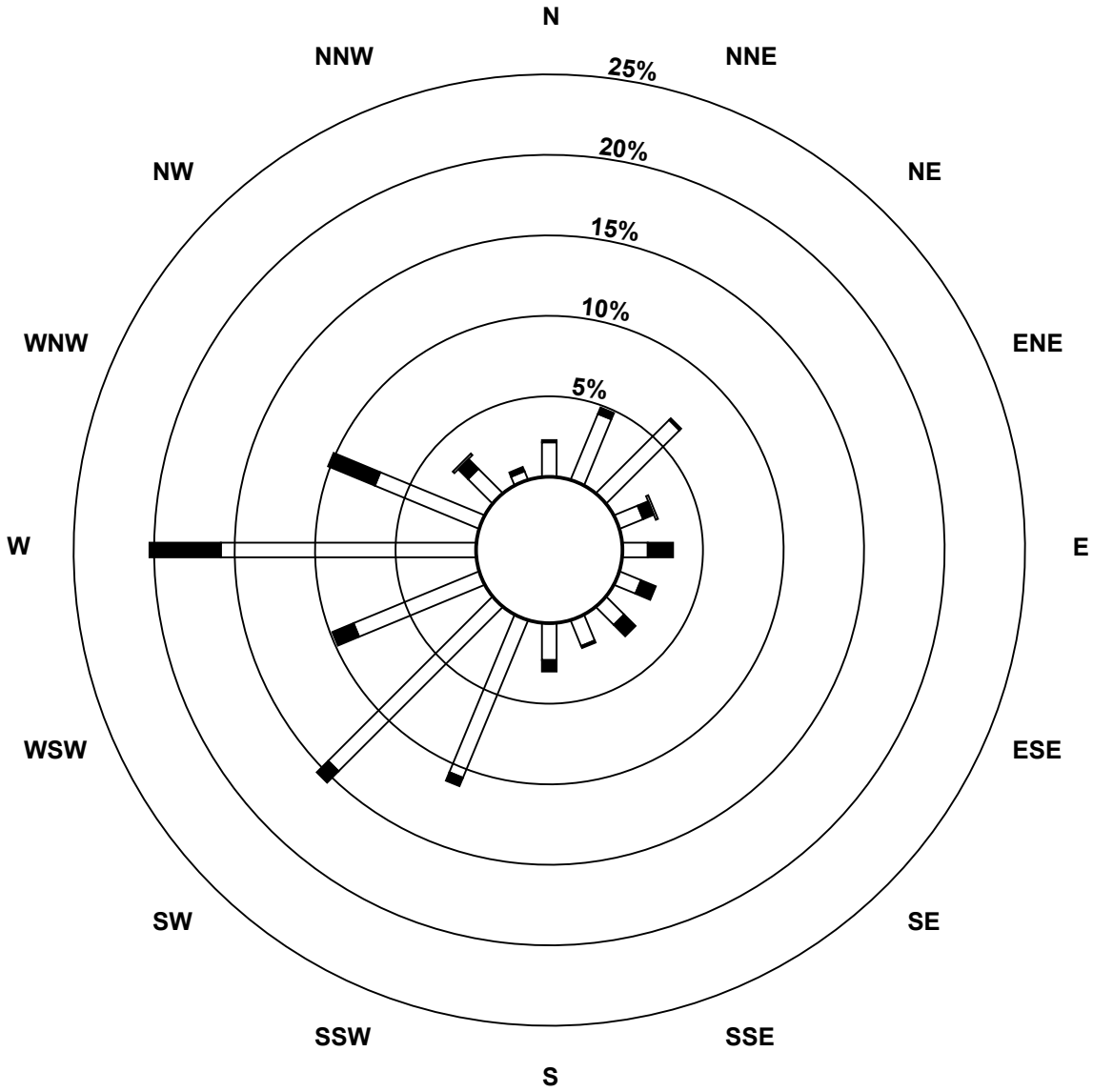
Henry Pirker - January 2017



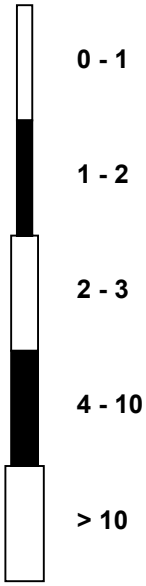
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - January 2017



Pollutant Classes (ppb)

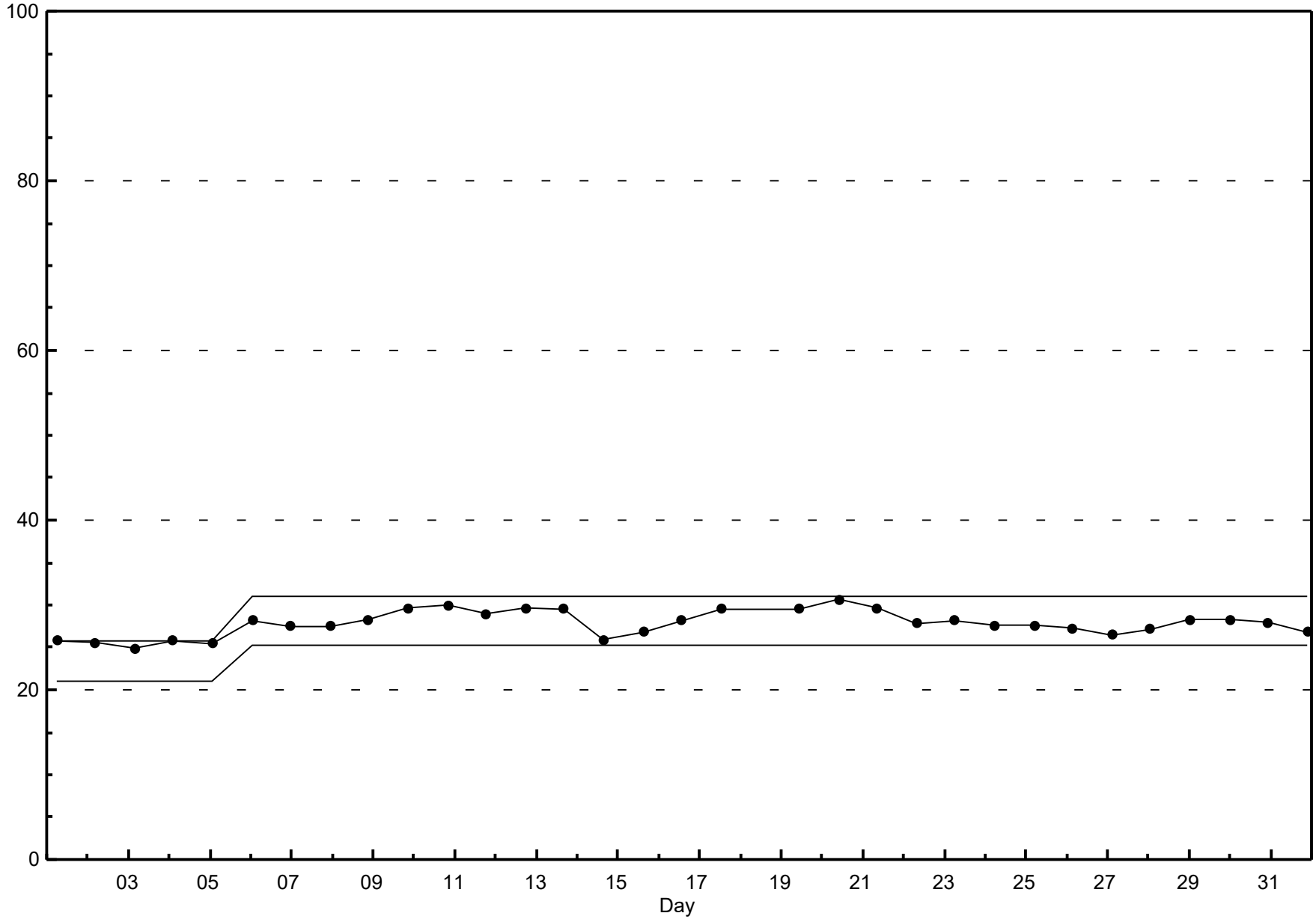


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - January 2017

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

Maximum Value: 52.0 ppb on Jan 18 11:00

Maximum Daily Average: 31.0 ppb on Jan 18

Minimum Value: 1 ppb on Jan 31 04:00

Minimum Daily Average: 2.7 ppb on Jan 30

Maximum Diurnal Average: 19.9 ppb at hour 9

Minimum Diurnal Average: 11.4 ppb at hour 4

Monthly Average: 15.45 ppb

Percentiles: $P_1 = 1.5$ $P_{10} = 3.4$ $Q_1 = 5.5$ Median = 11.8 $Q_3 = 24.4$ $P_{90} = 31.6$ $P_{99} = 47.4$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
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-Jan	4	3	2	3	3	A	4	3	3	7	4	4	2	4	4	4	7	12	15	21	13	12	15	17	7.3	21.0
2-Jan	10	15	19	24	A	10	8	9	14	13	16	13	7	6	6	9	15	22	30	37	36	36	32	31	18.2	37.1
3-Jan	30	25	26	A	20	21	21	24	26	28	22	21	22	18	15	9	25	31	31	30	30	26	11	11	22.8	31.3
4-Jan	7	9	A	10	11	12	20	29	30	C	C	C	C	C	11	7	8	9	12	7	7	18	16	14	13.1	29.7
5-Jan	9	A	18	10	15	18	18	16	31	15	18	15	7	5	4	6	6	7	6	7	6	5	3	4	10.6	31.1
6-Jan	A	4	3	3	3	3	4	6	8	10	10	8	8	10	12	13	14	8	7	7	9	10	8	A	7.6	13.9
7-Jan	3	2	3	3	4	3	4	6	6	8	9	6	5	4	5	4	5	6	7	7	5	5	A	4	4.9	9.3
8-Jan	5	4	4	5	5	7	9	7	6	7	7	7	5	7	6	6	10	15	17	15	18	A	13	21	8.9	20.7
9-Jan	19	17	14	6	5	5	6	7	9	8	13	16	7	7	8	9	12	19	22	28	A	26	13	12	12.5	27.6
10-Jan	9	8	6	2	1	1	2	4	16	23	24	17	16	12	16	24	25	41	30	A	40	29	16	9	16.1	40.7
11-Jan	10	7	9	8	6	13	15	10	17	32	24	7	4	4	4	4	4	6	A	30	30	30	32	43	15.2	43.0
12-Jan	49	48	35	26	27	32	31	34	32	30	27	28	27	27	28	26	33	A	40	46	46	21	5	6	30.5	49.3
13-Jan	12	22	14	4	3	5	8	10	34	27	29	29	24	24	11	11	A	14	29	40	23	15	16	31	18.9	39.9
14-Jan	43	35	19	14	16	20	26	10	10	13	10	16	19	24	24	A	38	23	14	12	13	3	3	3	17.9	43.0
15-Jan	3	2	2	1	1	2	3	2	2	3	3	3	3	2	A	3	4	7	9	14	29	6	8	4	5.0	28.7
16-Jan	11	14	28	24	19	32	35	39	39	20	18	18	24	A	15	33	29	42	48	43	47	45	43	26	30.0	47.6
17-Jan	12	13	13	6	14	15	26	38	43	47	47	40	A	51	32	23	13	17	13	15	29	32	28	25	25.7	50.9
18-Jan	20	25	27	31	28	30	28	30	34	42	52	A	22	26	32	29	28	32	33	32	31	33	36	33	31.0	52.0
19-Jan	28	28	25	19	21	18	20	26	36	33	A	16	23	22	25	23	20	24	25	25	25	24	23	23	23.9	35.6
20-Jan	22	24	24	26	25	26	24	24	25	A	24	26	19	17	21	29	35	34	33	33	33	31	32	33	27.0	35.3
21-Jan	27	18	12	5	4	3	3	3	A	3	4	4	4	3	3	4	5	7	7	10	9	5	4	3	6.5	27.0
22-Jan	3	3	3	3	3	4	4	A	5	5	5	5	4	4	4	5	5	5	6	6	6	7	6	4	4.6	7.1
23-Jan	4	5	4	4	5	6	A	12	18	13	9	9	10	10	9	9	11	12	14	16	18	18	22	21	11.3	21.8
24-Jan	20	20	18	15	14	A	18	19	19	17	14	13	12	14	24	25	26	28	26	24	27	25	25	24	20.4	28.4
25-Jan	24	22	21	19	A	22	23	24	24	22	17	17	21	29	33	32	31	30	30	30	12	10	8	10	22.2	32.8
26-Jan	6	8	7	A	6	7	12	22	18	29	8	9	9	8	11	8	22	23	7	5	7	4	4	5	10.7	28.8
27-Jan	6	25	A	31	39	44	46	46	45	48	49	23	12	14	8	7	8	8	6	5	7	4	5	5	21.3	48.7
28-Jan	5	A	16	19	28	41	42	25	23	30	41	30	31	29	13	5	7	8	6	6	8	11	5	4	18.8	41.5
29-Jan	A	4	4	5	7	18	16	15	11	8	10	7	8	8	8	7	6	6	7	6	6	4	4	A	8.0	18.0
30-Jan	2	2	2	2	3	4	2	1	3	3	4	6	2	1	2	2	4	4	2	3	2	3	A	2	2.7	5.6
31-Jan	2	2	1	1	1	2	3	3	6	6	5	4	2	3	5	3	4	9	8	9	8	A	6	5	4.2	9.0
	14.0	14.3	13.1	11.4	11.7	14.7	16.0	16.9	19.9	18.9	18.1	14.3	12.3	13.5	13.3	12.6	15.2	16.9	18.0	19.0	19.3	17.1	15.3	14.9	Diurnal Average	
	49.3	47.9	35.2	31.1	39.1	44.2	45.9	46.2	45.0	47.9	52.0	39.7	30.9	50.9	32.8	33.0	37.6	42.1	47.6	45.8	46.7	44.9	43.2	43.0	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

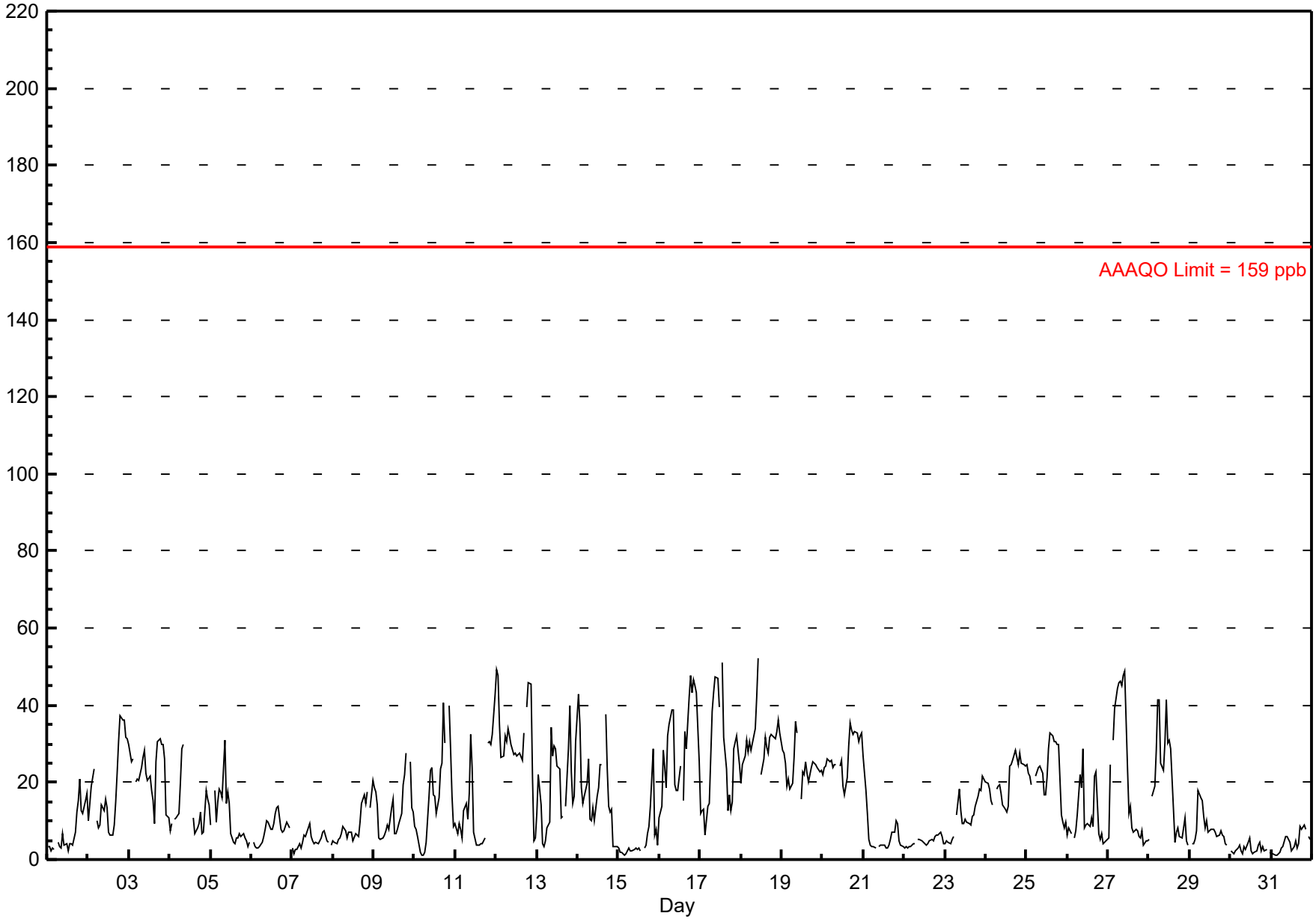
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - January 2017

Maximum Value: 60.2 ppb on Jan 18 11:00

Maximum Daily Average: 41.0 ppb on Jan 16

Minimum Value: 2 ppb on Jan 31 04:00

Minimum Daily Average: 5.0 ppb on Jan 30

Maximum Diurnal Average: 27.6 ppb at hour 10

Minimum Diurnal Average: 15.5 ppb at hour 4

Monthly Average: 20.94 ppb

Percentiles: $P_1 = 2.6$ $P_{10} = 5.2$ $Q_1 = 8.9$ Median = 18.3 $Q_3 = 30.8$ $P_{90} = 40.3$ $P_{99} = 57.1$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
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-Jan	6	6	4	4	5	A	9	5	11	13	18	39	3	22	5	6	15	15	22	26	21	16	22	25	13.7	39.2
2-Jan	13	21	27	29	A	13	11	13	17	15	19	20	12	9	9	16	23	27	37	42	39	38	35	34	22.5	42.0
3-Jan	33	30	31	A	26	29	29	32	29	40	26	26	24	23	26	17	32	35	37	35	34	36	15	15	28.7	40.5
4-Jan	10	11	A	12	17	15	30	35	35	C	C	C	C	C	24	9	12	14	20	9	10	24	24	24	18.6	35.0
5-Jan	13	A	22	15	24	25	29	29	37	31	27	26	14	8	7	9	8	9	9	12	10	11	5	6	16.8	36.6
6-Jan	A	6	6	4	5	5	6	10	10	12	14	10	10	14	14	26	21	12	13	11	12	13	11	A	11.1	26.3
7-Jan	5	3	4	4	6	5	7	12	9	11	14	9	9	6	10	8	8	9	10	15	8	10	A	7	8.1	14.9
8-Jan	9	8	7	8	8	11	16	15	9	9	11	12	6	11	14	8	14	28	21	21	21	A	17	27	13.5	28.1
9-Jan	25	23	21	12	10	10	9	12	13	19	21	23	15	9	11	12	17	26	31	40	A	33	19	15	18.6	40.1
10-Jan	14	11	10	5	2	3	4	14	22	35	35	27	26	25	24	30	37	46	38	A	44	46	23	11	23.2	46.0
11-Jan	14	14	18	16	9	23	24	19	27	45	35	22	5	5	5	8	7	12	A	37	37	37	44	47	22.1	47.0
12-Jan	56	56	40	34	37	39	37	58	43	38	33	32	33	31	31	29	39	A	42	58	50	47	8	15	38.5	58.0
13-Jan	25	35	32	6	6	7	13	22	47	34	33	37	31	33	15	16	A	26	46	49	36	22	20	42	27.6	49.5
14-Jan	46	44	28	19	21	28	33	20	12	26	31	25	27	39	32	A	47	49	20	22	48	6	6	5	27.5	49.0
15-Jan	5	4	3	2	3	4	4	3	3	3	5	4	4	4	A	5	7	9	14	31	40	14	12	5	8.2	40.3
16-Jan	19	22	42	41	26	43	39	51	52	37	28	23	35	A	28	49	57	54	54	51	50	56	50	36	41.0	56.9
17-Jan	17	17	24	11	25	22	39	42	56	57	56	44	A	57	50	31	20	22	17	21	36	35	33	27	33.0	57.4
18-Jan	30	28	29	33	30	33	31	35	44	50	60	A	29	37	39	44	31	37	36	34	34	36	38	38	36.4	60.2
19-Jan	31	30	28	25	26	23	26	35	41	34	A	21	29	25	29	29	22	27	27	29	27	26	25	26	27.9	40.5
20-Jan	26	27	26	29	29	29	26	33	33	A	32	28	24	25	40	46	39	39	37	36	35	33	35	34	32.3	45.6
21-Jan	34	22	17	6	4	4	4	4	A	5	6	5	5	4	5	6	7	9	9	13	11	9	5	5	8.7	34.1
22-Jan	5	5	6	5	6	5	7	A	11	8	7	7	6	6	6	9	8	7	8	12	9	10	9	7	7.3	11.6
23-Jan	6	17	16	5	7	9	A	17	20	60	12	13	13	12	12	12	14	14	16	20	19	23	23	22	16.7	59.8
24-Jan	21	21	20	18	16	A	20	22	20	20	16	16	14	19	31	29	30	31	30	29	29	27	26	27	23.1	30.9
25-Jan	26	24	23	21	A	23	24	26	26	29	19	18	26	32	36	36	35	34	32	37	24	13	12	14	25.7	36.9
26-Jan	11	14	13	A	11	14	16	40	25	43	20	15	14	15	15	12	40	35	9	8	10	5	6	8	17.2	43.4
27-Jan	15	35	A	49	47	47	50	51	50	52	59	43	16	21	15	10	12	10	9	9	15	6	9	7	27.7	58.7
28-Jan	9	A	32	23	47	46	46	41	29	42	47	35	45	35	28	6	10	13	9	9	18	14	10	5	25.8	46.6
29-Jan	A	5	5	6	12	28	24	21	16	15	17	10	10	13	13	10	9	8	12	12	13	6	8	A	12.5	28.0
30-Jan	5	3	3	3	4	7	5	3	7	7	8	8	4	3	4	6	8	7	5	5	3	5	A	3	5.0	8.5
31-Jan	2	3	2	2	2	3	5	6	11	9	9	44	3	5	7	5	8	14	11	15	9	A	10	8	8.5	44.2
	18.3	18.8	18.5	15.5	16.3	19.1	20.7	24.2	25.5	27.6	24.7	22.2	17.0	18.9	19.5	17.9	21.1	22.7	22.6	24.9	25.1	22.6	19.4	18.8	Diurnal Average	
	55.6	56.0	41.7	49.3	47.3	47.4	50.2	58.0	55.9	59.8	60.2	44.4	44.6	57.2	50.3	49.1	56.9	53.9	54.0	58.0	50.5	55.6	50.0	47.0	Diurnal Maximum	

C - Calibration

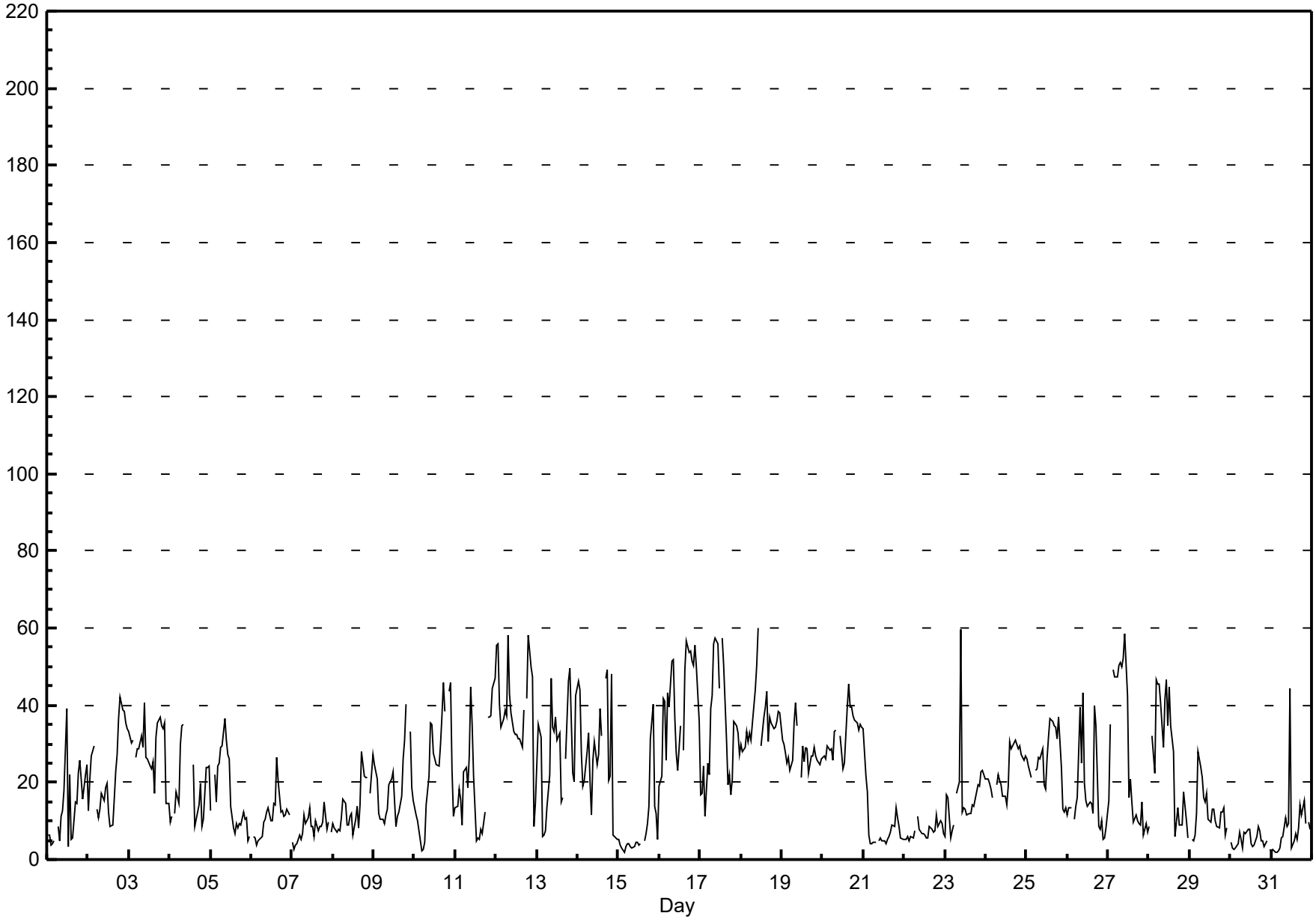
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - January 2017

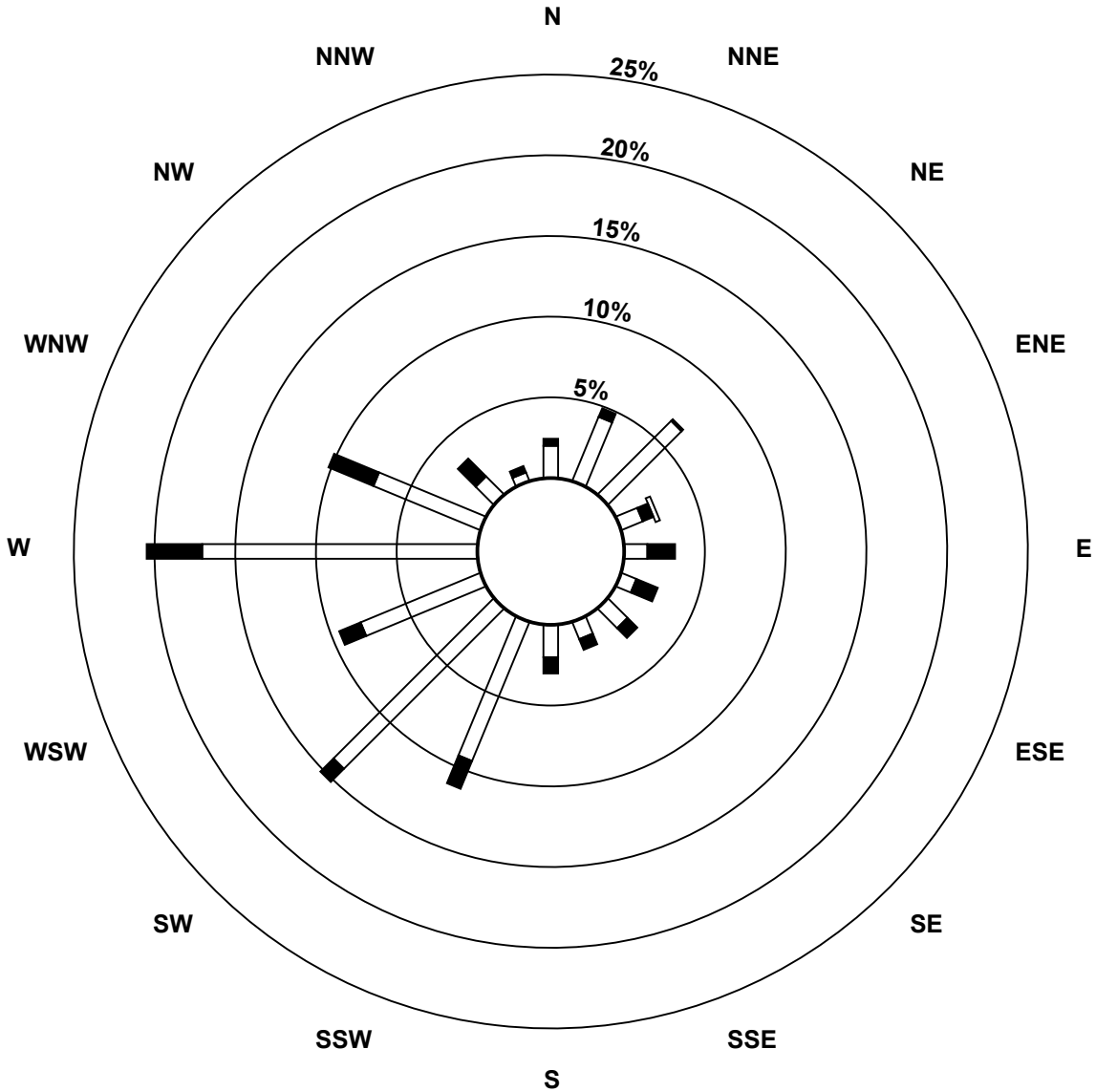


Peace Airshed Zone Association

Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - January 2017



Pollutant Classes (ppb)

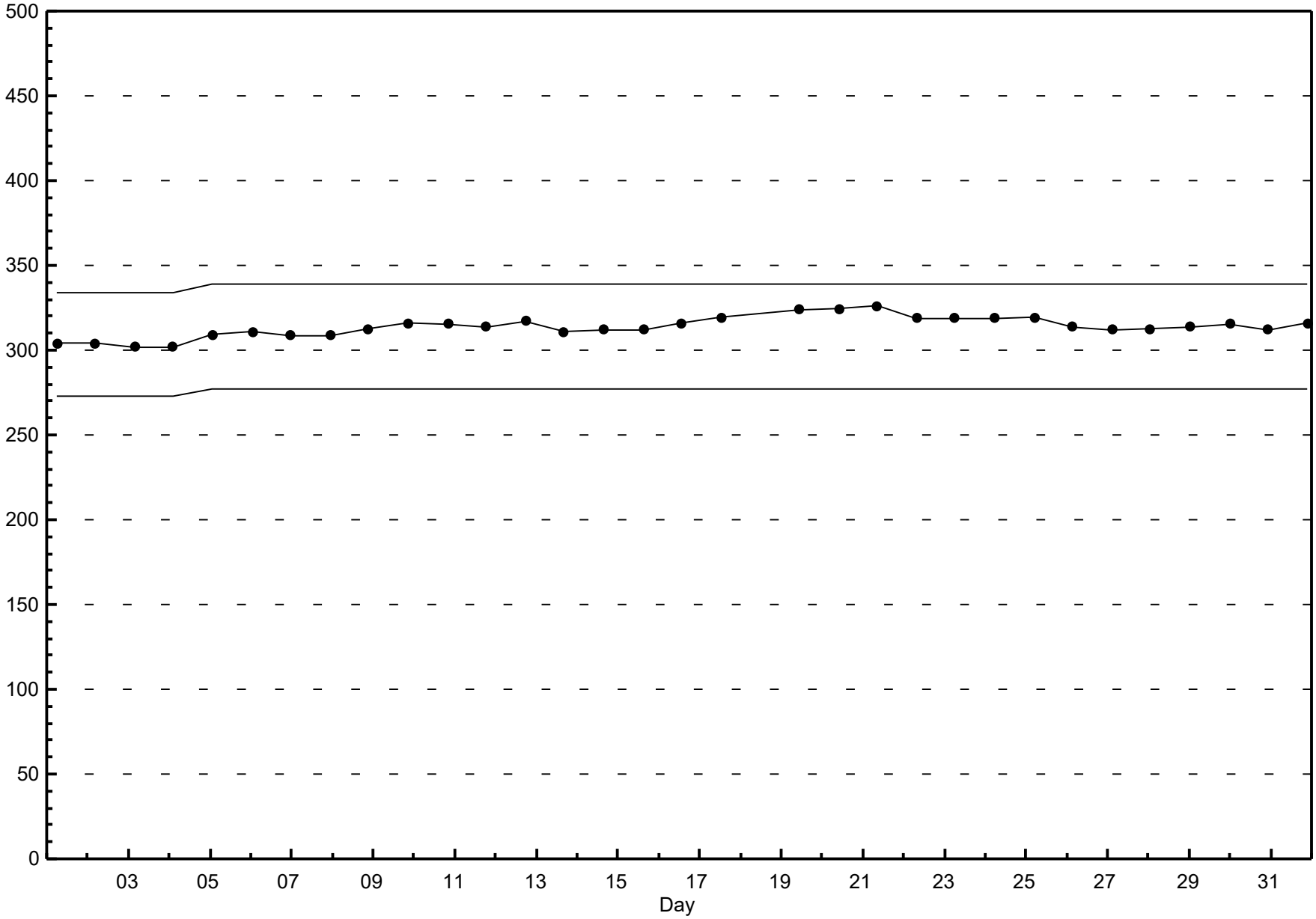
- 0 - 25
- 26 - 50
- 51 - 110
- 111 - 159
- > 159

Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - January 2017

Maximum Value: 226.0 ppb on Jan 18 11:00

Maximum Daily Average: 50.8 ppb on Jan 18

Minimum Value: 0 ppb on Jan 5 01:00

Minimum Daily Average: 0.3 ppb on Jan 15

Maximum Diurnal Average: 21.6 ppb at hour 11

Minimum Diurnal Average: 4.0 ppb at hour 3

Monthly Average: 9.51 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.3$ Median = 1.3 $Q_3 = 8.7$ $P_{90} = 34.6$ $P_{99} = 72.2$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
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-Jan	0	0	0	0	0	A	0	0	0	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0.4	1.9
2-Jan	0	0	0	1	A	1	1	1	1	1	3	4	2	2	2	2	1	1	5	15	37	49	36	40	8.9	48.9
3-Jan	15	6	4	A	1	2	2	5	5	12	9	13	16	11	7	2	7	10	7	5	3	3	0	0	6.4	15.9
4-Jan	0	0	A	0	0	0	1	4	4	C	C	C	C	C	3	1	0	0	0	0	0	0	0	0	0.8	4.3
5-Jan	0	A	0	0	0	1	1	2	4	1	4	4	2	1	1	1	1	2	1	2	2	1	1	1	1.5	4.4
6-Jan	A	1	1	1	1	1	1	2	2	2	3	3	5	6	6	5	4	1	1	1	1	1	0	A	2.1	5.6
7-Jan	0	0	0	0	0	0	1	0	0	0	2	2	2	2	2	2	1	1	2	1	1	1	A	1	1.0	2.5
8-Jan	0	1	1	1	1	1	2	1	1	1	2	3	2	4	4	2	1	1	1	1	1	A	1	2	1.5	3.8
9-Jan	1	1	1	0	0	0	0	1	1	1	4	8	3	4	3	3	2	2	2	5	A	3	1	1	1.9	7.6
10-Jan	0	0	0	0	0	0	0	1	2	5	14	11	12	8	7	9	5	14	6	A	21	14	1	0	5.7	21.4
11-Jan	0	0	0	0	0	0	1	1	1	9	10	3	1	1	1	1	1	0	A	3	3	3	3	14	2.4	14.3
12-Jan	67	77	11	2	3	9	5	10	12	14	23	35	40	39	35	22	21	A	39	75	54	8	0	0	26.2	76.8
13-Jan	0	2	1	0	0	0	0	0	4	2	9	15	11	11	3	2	A	0	2	9	1	0	0	3	3.3	14.6
14-Jan	8	3	0	0	0	0	0	0	0	0	2	3	5	11	9	A	19	13	0	0	1	0	0	0	3.3	18.6
15-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	1	0	0	0	0	2	0	0	0	0.3	2.1
16-Jan	0	0	1	0	0	2	3	10	18	2	2	3	7	A	3	10	18	9	25	21	41	49	50	2	12.0	49.7
17-Jan	0	0	0	0	1	1	4	15	50	85	98	55	A	106	40	11	2	1	1	1	12	30	18	2	23.2	105.6
18-Jan	3	4	18	31	19	37	43	75	104	171	226	A	22	43	57	53	33	43	54	17	4	16	60	36	50.8	226.0
19-Jan	7	10	11	3	6	2	3	18	55	34	A	6	17	14	25	18	9	21	28	36	51	42	35	28	20.9	55.2
20-Jan	28	46	43	71	68	63	50	35	50	A	52	75	41	26	31	50	47	67	56	63	42	17	22	13	45.7	74.6
21-Jan	5	1	1	0	0	0	0	0	A	0	1	1	1	1	1	1	1	0	0	1	0	1	1	1	0.8	4.7
22-Jan	1	1	1	1	1	1	1	A	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1	0	1.3	2.4
23-Jan	1	1	1	0	0	0	A	1	1	8	2	4	6	5	5	3	2	1	0	1	2	3	12	7	2.9	11.7
24-Jan	5	15	14	4	2	A	8	14	24	18	23	31	25	28	51	49	42	55	40	20	27	13	15	12	23.3	54.5
25-Jan	17	14	6	3	A	4	8	19	33	27	19	26	37	56	66	56	51	34	27	14	0	0	0	0	22.6	66.4
26-Jan	0	0	0	A	0	0	0	1	0	5	2	3	4	4	4	2	3	2	0	0	0	0	0	0	1.4	5.4
27-Jan	0	0	A	7	12	27	44	43	26	60	76	8	2	3	2	1	1	0	0	0	0	0	0	0	13.6	76.2
28-Jan	0	A	0	0	5	18	19	1	1	4	34	14	28	21	7	1	1	0	0	0	0	0	0	0	6.7	33.7
29-Jan	A	0	0	0	0	0	0	0	0	0	2	1	2	1	1	1	1	0	0	0	0	0	0	A	0.5	1.8
30-Jan	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	1	0	0	0	0	0	A	0	0.4	2.0
31-Jan	0	0	0	0	0	0	0	0	0	1	2	2	1	1	2	1	1	0	0	0	0	A	0	0	0.5	1.7
	5.5	6.4	4.0	4.3	4.2	5.9	6.7	8.6	13.3	16.2	21.6	11.6	10.3	14.2	12.7	10.4	9.2	9.4	10.0	9.8	10.3	8.8	8.9	5.7	Diurnal Average	
	66.6	76.8	42.7	71.1	67.6	62.7	49.7	74.7	103.8	171.4	226.0	74.6	40.5	105.6	66.4	56.1	50.7	67.0	55.5	75.2	53.9	49.3	60.2	40.2	Diurnal Maximum	

C - Calibration

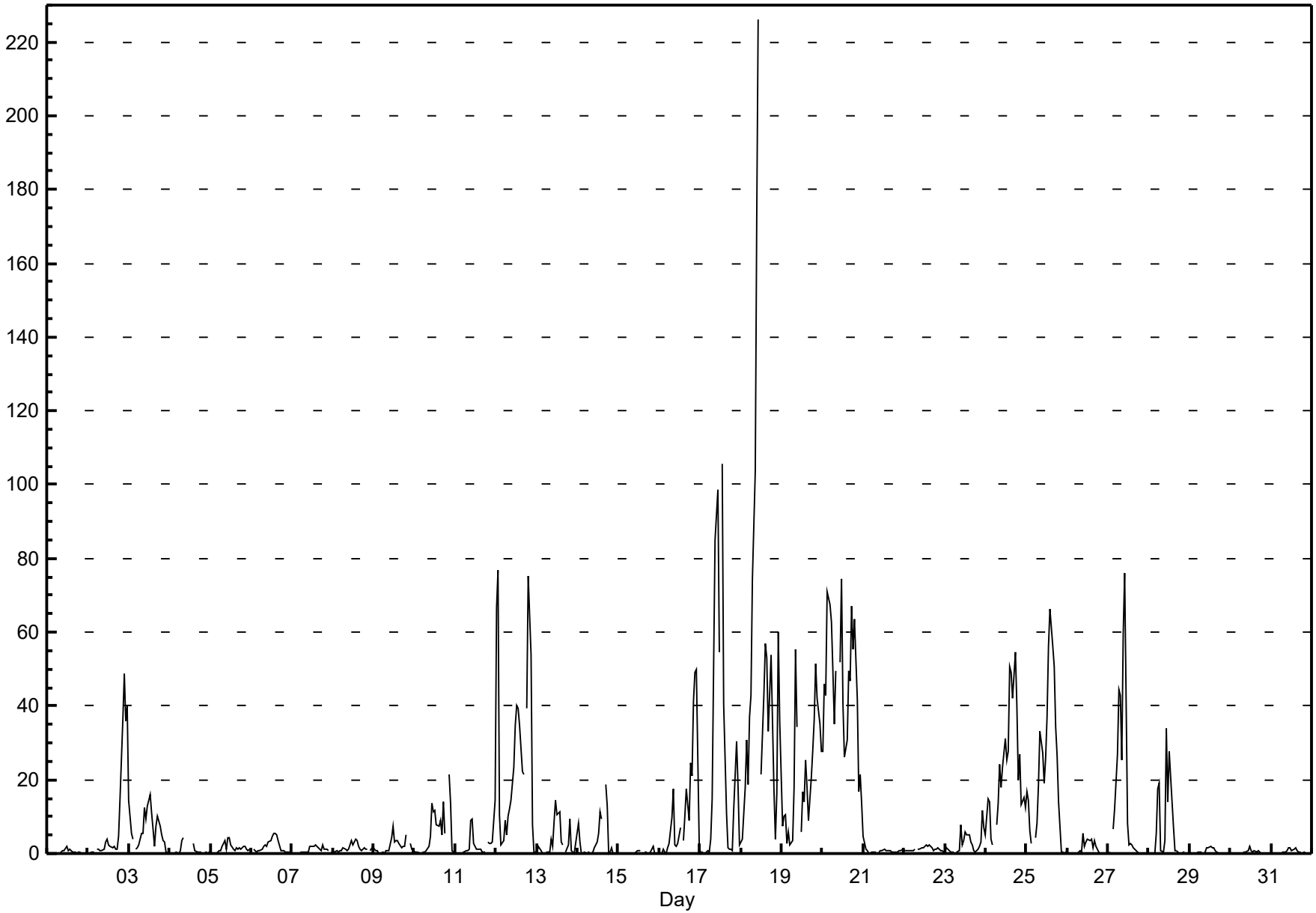
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - January 2017

Maximum Value: 284.1 ppb on Jan 18 11:00

Maximum Daily Average: 82.9 ppb on Jan 18

Minimum Value: 0 ppb on Jan 28 00:00

Minimum Daily Average: 1.2 ppb on Jan 15

Maximum Diurnal Average: 32.9 ppb at hour 11

Minimum Diurnal Average: 8.3 ppb at hour 3

Monthly Average: 18.08 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 1.1$ Median = 4.3 $Q_3 = 22.8$ $P_{90} = 56.2$ $P_{99} = 146.1$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
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-Jan	1	1	0	0	1	A	0	0	5	10	4	36	1	7	1	1	1	0	0	1	1	0	1	1	3.3	36.4
2-Jan	0	0	1	2	A	2	3	2	2	2	5	7	5	5	3	4	3	3	25	41	56	64	48	59	14.8	64.2
3-Jan	33	15	14	A	4	5	6	23	9	36	19	20	20	19	17	4	12	20	15	14	6	8	1	0	13.9	36.1
4-Jan	0	0	A	0	9	0	3	8	30	C	C	C	C	C	8	1	1	1	1	0	0	1	1	11	4.2	30.0
5-Jan	0	A	1	0	3	4	4	26	20	4	12	12	7	3	2	5	3	6	5	5	5	5	1	2	5.8	25.5
6-Jan	A	3	3	1	1	2	3	6	7	3	5	5	6	9	8	14	19	6	6	2	5	1	1	A	5.3	18.7
7-Jan	1	1	1	0	0	1	2	4	1	1	3	3	5	4	6	5	5	3	26	3	3	4	A	1	3.6	25.7
8-Jan	3	2	2	2	1	2	7	5	2	2	5	8	4	16	20	4	3	3	8	2	2	A	1	5	4.7	20.0
9-Jan	2	2	2	0	0	1	0	9	5	12	9	20	8	5	6	5	3	5	7	37	A	11	2	2	6.5	36.6
10-Jan	1	1	1	1	0	1	1	5	6	19	27	23	24	35	12	15	13	28	18	A	34	51	2	0	13.9	51.1
11-Jan	1	0	0	0	0	1	3	2	4	25	23	10	2	2	2	5	1	2	A	7	6	7	27	31	7.1	31.0
12-Jan	110	117	27	7	14	21	13	37	43	29	36	41	54	88	48	35	35	A	61	179	79	43	1	2	48.7	178.8
13-Jan	0	7	4	1	1	0	1	1	15	4	13	27	17	19	5	4	A	4	20	30	4	1	0	38	9.4	38.1
14-Jan	23	8	0	0	3	1	1	0	0	1	18	7	13	29	17	A	49	67	0	1	23	0	0	0	11.5	67.3
15-Jan	0	0	0	0	0	0	0	0	0	0	1	2	1	1	A	1	1	0	0	3	14	0	0	0	1.2	13.7
16-Jan	0	0	5	2	0	6	11	37	49	16	6	7	14	A	11	43	81	53	105	94	73	101	78	15	35.0	104.7
17-Jan	0	3	2	0	4	2	18	35	93	119	138	78	A	156	114	28	4	3	3	3	53	46	36	8	41.1	156.5
18-Jan	49	13	29	36	32	56	62	100	187	213	284	A	40	95	93	180	50	73	71	39	16	38	79	73	82.9	284.1
19-Jan	16	25	21	8	20	6	12	66	83	46	A	10	29	19	42	33	11	37	40	52	62	53	43	43	33.8	83.4
20-Jan	53	58	64	91	92	75	61	67	103	A	73	93	64	50	95	102	66	96	84	78	72	27	38	22	70.6	102.8
21-Jan	13	3	2	1	0	0	1	1	A	1	2	2	2	2	4	2	2	1	1	2	1	2	2	4	2.2	12.5
22-Jan	3	2	3	3	2	1	3	A	5	2	3	4	4	4	5	7	7	3	3	11	4	9	2	1	4.0	11.4
23-Jan	2	12	19	2	2	1	A	4	5	175	4	7	7	7	6	6	3	2	1	3	4	22	22	11	14.2	175.0
24-Jan	9	26	29	8	4	A	11	24	30	29	33	80	33	38	70	72	53	71	64	30	32	23	22	22	35.4	79.6
25-Jan	23	23	12	5	A	8	11	26	44	52	24	32	49	66	78	72	68	69	39	47	1	1	0	1	32.6	77.8
26-Jan	0	0	0	A	0	0	1	6	1	19	25	6	7	12	6	3	12	5	0	0	1	0	0	0	4.6	25.2
27-Jan	1	2	A	100	51	46	58	69	44	91	109	26	4	5	5	2	1	0	0	0	1	1	0	0	26.9	109.0
28-Jan	0	A	1	0	29	39	37	3	1	20	52	26	51	30	21	2	1	1	0	1	3	1	0	0	14.0	51.6
29-Jan	A	0	0	0	0	1	1	0	1	1	15	3	3	3	3	1	1	1	0	0	0	0	0	A	1.6	14.5
30-Jan	0	0	0	0	0	0	0	0	11	4	2	3	2	2	1	1	3	1	0	0	0	0	A	0	1.5	10.7
31-Jan	0	0	0	0	0	0	1	1	5	2	4	15	1	2	3	2	1	1	1	2	0	A	1	0	1.8	15.0
	12.0	11.3	8.3	9.4	9.5	9.9	11.2	18.9	27.0	32.3	32.9	21.1	16.4	25.3	23.7	22.0	17.1	18.9	20.2	23.0	18.7	17.9	14.1	12.2	Diurnal Average	
	110.2	116.6	64.0	100.0	92.3	75.4	61.6	99.8	187.0	212.6	284.1	93.1	63.8	156.5	113.6	180.0	80.7	95.7	104.7	178.8	79.2	101.1	78.9	73.1	Diurnal Maximum	

C - Calibration

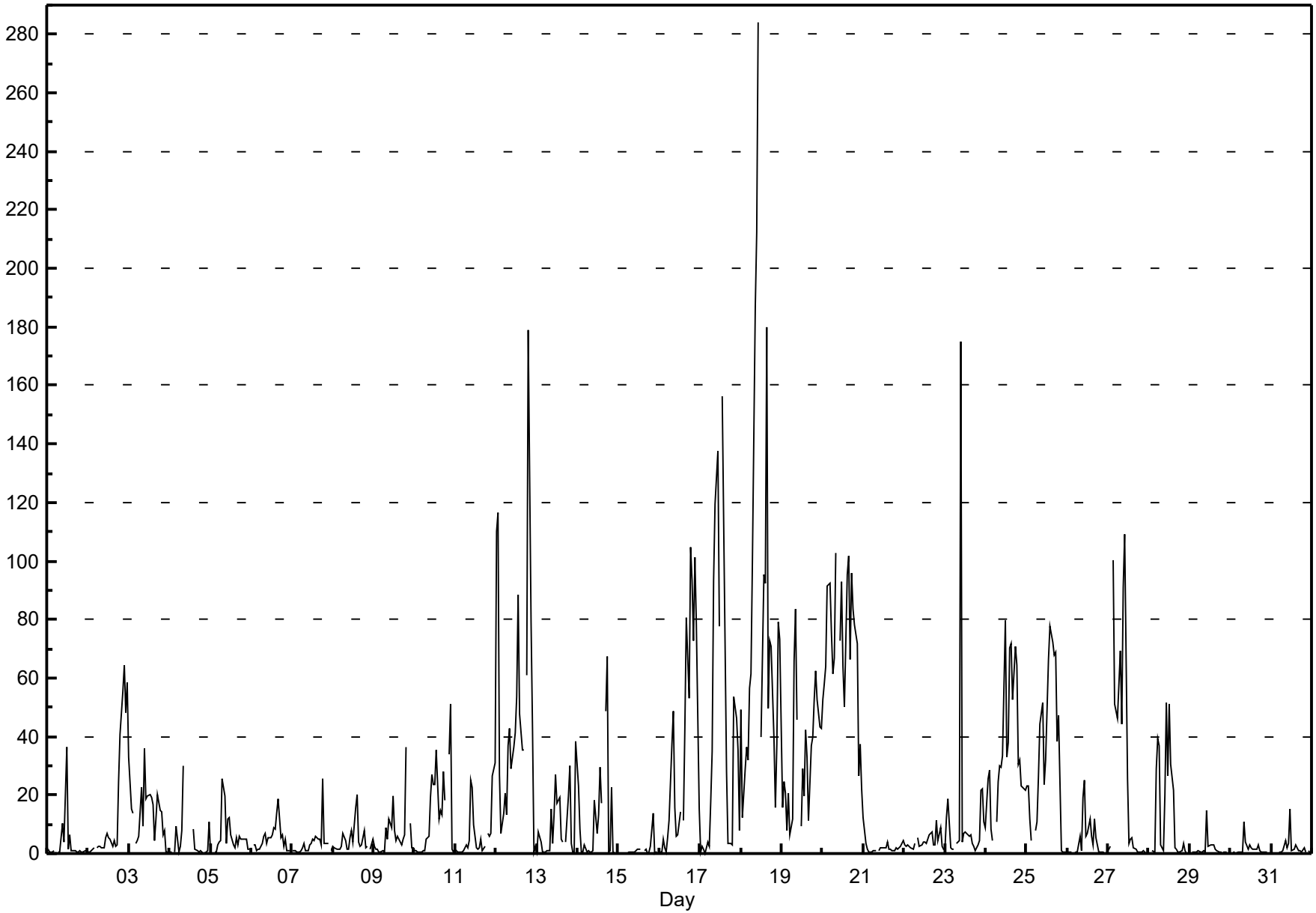
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - January 2017

Maximum Value: 278.7 ppb on Jan 18 11:00

Maximum Daily Average: 82.2 ppb on Jan 18

Minimum Value: 1 ppb on Jan 31 04:00

Minimum Daily Average: 3.4 ppb on Jan 30

Maximum Diurnal Average: 40.0 ppb at hour 11

Minimum Diurnal Average: 16.0 ppb at hour 4

Monthly Average: 25.29 ppb

Percentiles: P_1 = 1.8 P_{10} = 3.9 Q_1 = 6.5 Median = 13.7 Q_3 = 35.1 P_{90} = 64.7 P_{99} = 121.2

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
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-Jan	4	4	3	4	3	A	5	4	4	8	5	6	3	6	5	5	8	13	16	22	13	13	16	18	8.1	22.0
2-Jan	11	15	20	25	A	12	10	10	15	14	19	18	10	8	8	11	16	24	35	52	73	86	68	72	27.5	85.5
3-Jan	45	31	30	A	22	23	23	29	32	41	32	34	38	29	22	12	33	41	39	35	34	30	12	11	29.5	44.8
4-Jan	8	10	A	11	12	12	21	33	34	C	C	C	C	C	14	8	9	10	13	7	7	19	16	15	14.3	34.3
5-Jan	9	A	18	10	16	19	19	18	35	16	22	19	9	6	5	7	7	9	7	9	8	7	5	6	12.5	35.1
6-Jan	A	6	4	4	4	5	6	8	11	12	13	12	13	16	18	19	18	9	8	8	10	11	9	A	10.1	18.8
7-Jan	4	2	3	3	5	4	5	7	7	9	12	8	7	6	7	6	6	7	10	9	6	6	A	5	6.3	11.7
8-Jan	6	5	5	6	6	8	11	9	7	8	10	11	7	11	10	8	11	16	19	16	19	A	14	23	10.8	23.2
9-Jan	20	19	15	6	6	6	7	8	10	9	18	24	10	11	12	12	14	22	25	33	A	29	15	14	14.9	33.1
10-Jan	9	9	7	2	2	2	3	5	19	28	38	28	29	20	24	33	31	55	36	A	62	43	17	9	22.2	61.9
11-Jan	10	7	10	8	6	14	16	12	19	42	34	10	6	5	5	5	5	7	A	34	34	33	36	58	18.1	57.8
12-Jan	117	125	46	29	30	41	36	44	45	45	51	63	67	67	63	48	54	A	79	121	100	29	5	6	57.1	125.4
13-Jan	12	24	15	4	4	5	9	10	39	29	38	44	35	35	14	14	A	15	32	50	24	15	17	34	22.5	49.8
14-Jan	52	39	19	15	17	20	27	11	11	14	12	20	25	36	34	A	57	37	14	13	15	4	4	4	21.6	56.7
15-Jan	4	2	2	1	2	3	3	3	3	3	4	4	4	3	A	4	4	7	9	15	31	7	8	4	5.7	31.3
16-Jan	11	14	30	25	19	34	38	49	57	22	20	21	32	A	19	43	47	51	73	65	89	95	94	28	42.5	94.9
17-Jan	12	14	14	7	15	16	31	53	94	133	146	95	A	157	72	35	15	18	14	16	41	63	47	27	49.4	157.2
18-Jan	23	29	45	62	47	68	72	105	138	214	279	A	44	70	89	83	61	75	87	49	36	50	97	69	82.2	278.7
19-Jan	36	38	36	22	27	21	23	45	91	67	A	21	40	36	51	41	29	45	54	62	76	66	58	51	45.0	91.2
20-Jan	50	70	67	97	93	89	74	60	75	A	76	101	60	43	52	79	82	101	88	97	75	47	54	46	73.0	100.9
21-Jan	32	19	13	5	4	4	4	3	A	4	5	5	5	4	4	5	6	7	8	11	10	6	5	4	7.4	31.9
22-Jan	4	4	4	4	4	5	6	A	6	7	7	6	6	6	6	7	7	6	7	8	8	8	7	5	6.0	8.1
23-Jan	5	6	6	5	6	6	A	12	19	21	12	13	16	15	15	12	13	13	14	18	21	21	34	28	14.4	33.7
24-Jan	26	35	32	19	17	A	26	33	44	36	38	44	38	42	75	74	68	83	67	45	55	38	40	37	44.0	83.3
25-Jan	41	37	28	22	A	26	31	43	58	50	36	43	59	85	100	89	82	65	57	44	12	10	8	10	45.0	99.6
26-Jan	7	8	7	A	6	7	12	23	19	34	10	12	13	12	15	10	25	25	7	5	7	4	4	5	12.2	34.4
27-Jan	6	25	A	38	51	72	91	89	71	108	125	32	14	17	11	9	9	8	6	6	8	4	5	5	35.1	125.3
28-Jan	6	A	17	19	34	59	61	26	24	34	76	45	59	49	20	6	8	9	6	6	8	11	5	4	25.7	75.5
29-Jan	A	4	4	5	8	19	17	16	12	9	12	9	10	9	10	8	6	7	8	7	6	4	4	A	8.7	18.6
30-Jan	3	2	2	2	3	4	2	2	4	3	6	8	3	2	3	3	5	5	3	4	3	3	A	2	3.4	7.9
31-Jan	2	2	2	1	2	2	3	4	7	7	7	6	3	5	7	4	5	9	8	10	8	A	7	6	5.1	9.7
	19.8	20.9	17.4	16.0	16.2	20.8	23.0	25.8	33.6	35.5	40.0	26.3	22.9	28.0	26.3	23.3	24.7	26.6	28.3	29.2	30.0	26.2	24.5	20.9	Diurnal Average	
	116.5	125.4	67.2	97.5	93.1	89.0	90.7	105.1	138.2	214.4	278.7	100.6	67.3	157.2	99.6	88.5	82.4	100.9	88.5	121.4	100.0	94.9	96.8	71.9	Diurnal Maximum	

C - Calibration

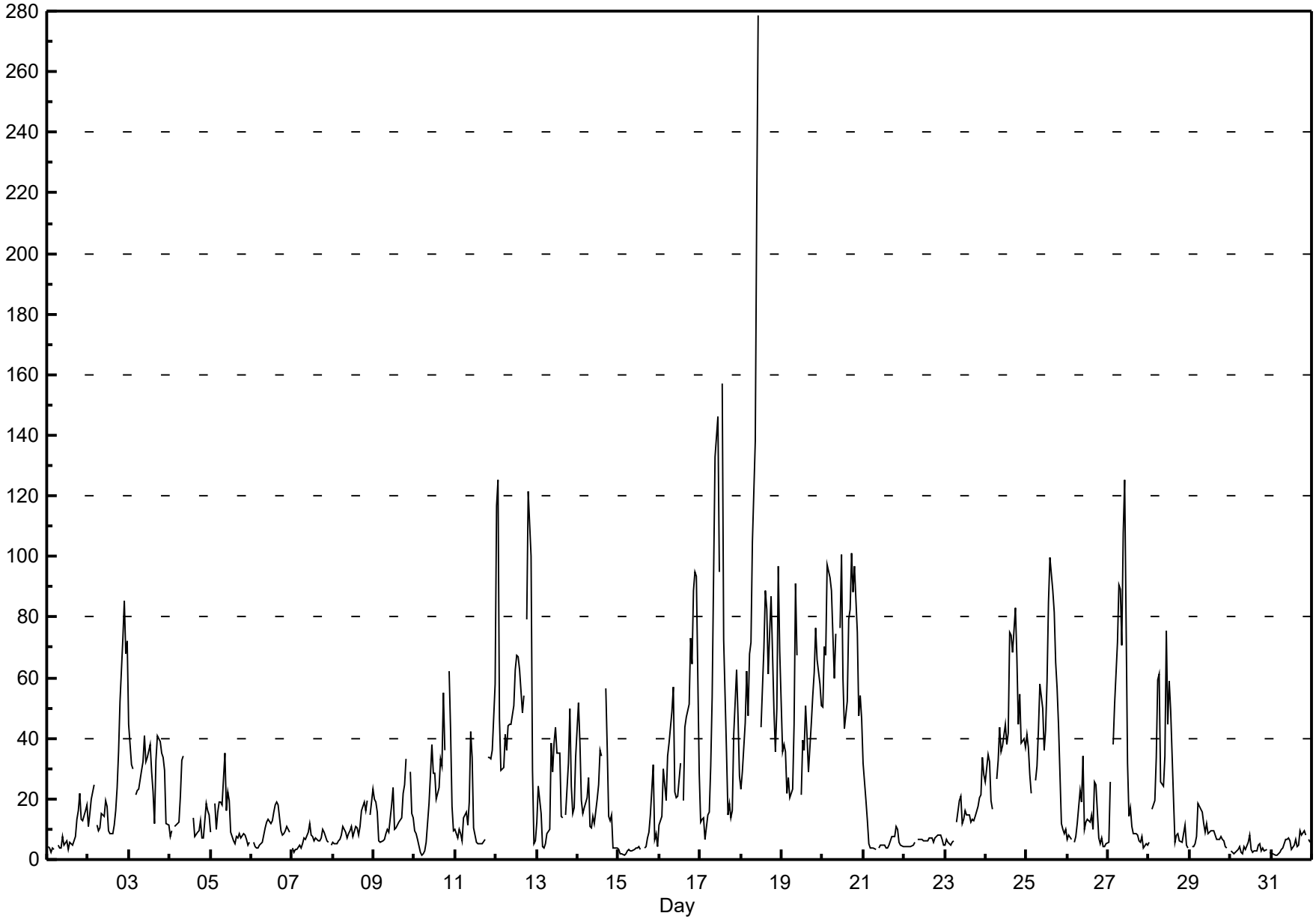
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - January 2017

Maximum Value: 343.6 ppb on Jan 18 11:00

Maximum Daily Average: 118.2 ppb on Jan 18

Minimum Value: 2 ppb on Jan 31 04:00

Minimum Daily Average: 6.4 ppb on Jan 30

Maximum Diurnal Average: 58.5 ppb at hour 10

Minimum Diurnal Average: 24.9 ppb at hour 4

Monthly Average: 38.61 ppb

Percentiles: P_1 = 3.0 P_{10} = 6.3 Q_1 = 10.9 Median = 22.8 Q_3 = 51.5 P_{90} = 91.9 P_{99} = 185.8

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
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-Jan	8	7	4	5	6	A	9	5	16	23	22	74	5	28	7	7	16	16	23	27	22	16	24	26	17.2	74.4
2-Jan	13	22	28	32	A	15	12	14	19	18	24	27	18	14	12	20	24	29	57	82	92	103	82	92	37.0	102.6
3-Jan	65	46	45	A	30	34	35	55	38	77	45	45	45	43	43	22	43	56	52	49	40	44	16	15	42.6	77.0
4-Jan	10	12	A	12	27	15	33	43	66	C	C	C	C	C	33	10	13	15	21	9	11	25	25	27	22.6	65.5
5-Jan	13	A	23	16	27	29	31	46	54	35	40	39	19	12	9	14	11	15	14	18	16	15	6	8	22.1	53.7
6-Jan	A	10	8	5	7	7	9	16	15	16	19	16	16	24	23	41	35	17	19	14	17	15	13	A	16.4	40.5
7-Jan	5	4	5	5	7	6	9	16	10	12	17	12	14	10	16	13	11	11	34	18	11	14	A	8	11.6	33.9
8-Jan	12	10	9	10	9	12	22	20	11	11	17	20	10	20	34	12	15	32	26	24	24	A	19	33	17.9	34.3
9-Jan	28	25	23	13	11	11	10	17	16	31	30	37	24	14	17	18	19	32	38	68	A	39	20	17	24.3	68.5
10-Jan	15	13	11	6	3	4	6	20	28	55	57	51	50	61	37	45	47	74	57	A	78	98	25	12	37.0	97.7
11-Jan	14	14	19	17	10	24	26	21	29	70	58	32	7	7	8	12	8	14	A	44	43	44	72	78	29.2	77.9
12-Jan	166	171	68	42	49	60	49	81	86	66	66	74	85	100	79	62	74	A	100	234	125	91	9	17	85.1	234.0
13-Jan	25	42	35	6	7	8	14	23	63	36	47	63	49	52	20	20	A	28	67	78	40	23	21	81	36.9	80.6
14-Jan	67	50	28	19	23	29	34	21	12	27	49	32	41	69	49	A	96	117	21	23	71	7	6	6	39.1	117.1
15-Jan	6	4	3	2	4	5	5	4	3	4	6	6	5	6	A	6	8	10	14	34	51	14	13	6	9.6	51.1
16-Jan	20	22	45	43	26	49	51	89	101	52	34	28	49	A	37	92	135	107	158	144	120	157	127	51	75.4	157.6
17-Jan	18	19	27	12	28	25	57	78	145	178	194	122	A	214	164	58	23	25	19	23	89	80	68	34	73.9	214.5
18-Jan	79	40	58	68	62	89	91	133	232	263	344	A	70	130	127	224	79	106	106	71	49	71	116	110	118.2	343.6
19-Jan	47	53	47	33	46	30	38	102	122	80	A	30	59	44	72	61	34	64	67	79	89	78	67	68	61.3	122.3
20-Jan	79	84	90	121	121	105	87	99	134	A	105	120	87	74	135	147	104	130	118	113	107	60	70	55	102.0	147.1
21-Jan	47	25	19	7	4	4	5	5	A	6	7	6	6	6	9	7	9	10	10	15	11	9	8	7	10.5	46.8
22-Jan	8	7	9	8	8	7	11	A	17	10	9	10	10	9	10	15	14	9	10	17	12	16	12	8	10.6	17.2
23-Jan	7	29	33	6	9	10	A	20	25	196	16	20	20	19	18	19	17	16	16	22	23	45	45	32	28.9	196.1
24-Jan	29	45	48	27	21	A	31	44	50	48	49	91	47	57	101	101	80	102	94	59	62	51	48	49	58.0	102.0
25-Jan	48	47	35	26	A	31	34	50	70	80	43	50	76	99	114	107	102	103	70	81	25	14	13	14	57.9	113.6
26-Jan	12	14	14	A	11	14	16	45	26	63	42	21	21	27	21	14	52	39	9	8	11	5	6	9	21.7	63.0
27-Jan	16	37	A	148	96	94	107	119	92	143	164	69	20	26	20	12	13	11	10	9	15	7	10	7	54.1	164.2
28-Jan	9	A	33	23	75	84	79	44	30	62	94	61	96	64	50	8	11	14	9	10	19	14	10	6	39.4	96.2
29-Jan	A	5	5	7	12	29	25	22	17	16	31	13	13	16	16	12	10	9	13	13	14	7	9	A	14.1	31.5
30-Jan	5	3	3	3	4	8	6	3	14	9	10	11	6	5	5	8	11	9	5	5	4	5	A	3	6.4	13.7
31-Jan	3	3	2	2	3	4	6	7	16	11	13	60	4	7	10	7	9	15	12	18	10	A	10	8	10.5	59.8
	30.1	29.8	26.7	24.9	25.8	28.9	31.6	42.0	51.9	58.5	57.1	42.8	33.5	43.3	43.2	39.8	37.5	41.2	42.3	47.0	43.4	40.2	33.4	30.5	Diurnal Average	
	166.4	170.8	90.1	147.6	121.0	104.5	106.8	133.3	231.7	263.1	343.6	122.0	96.2	214.5	164.4	224.4	135.1	130.0	157.6	234.0	125.5	156.6	126.8	110.1	Diurnal Maximum	

C - Calibration

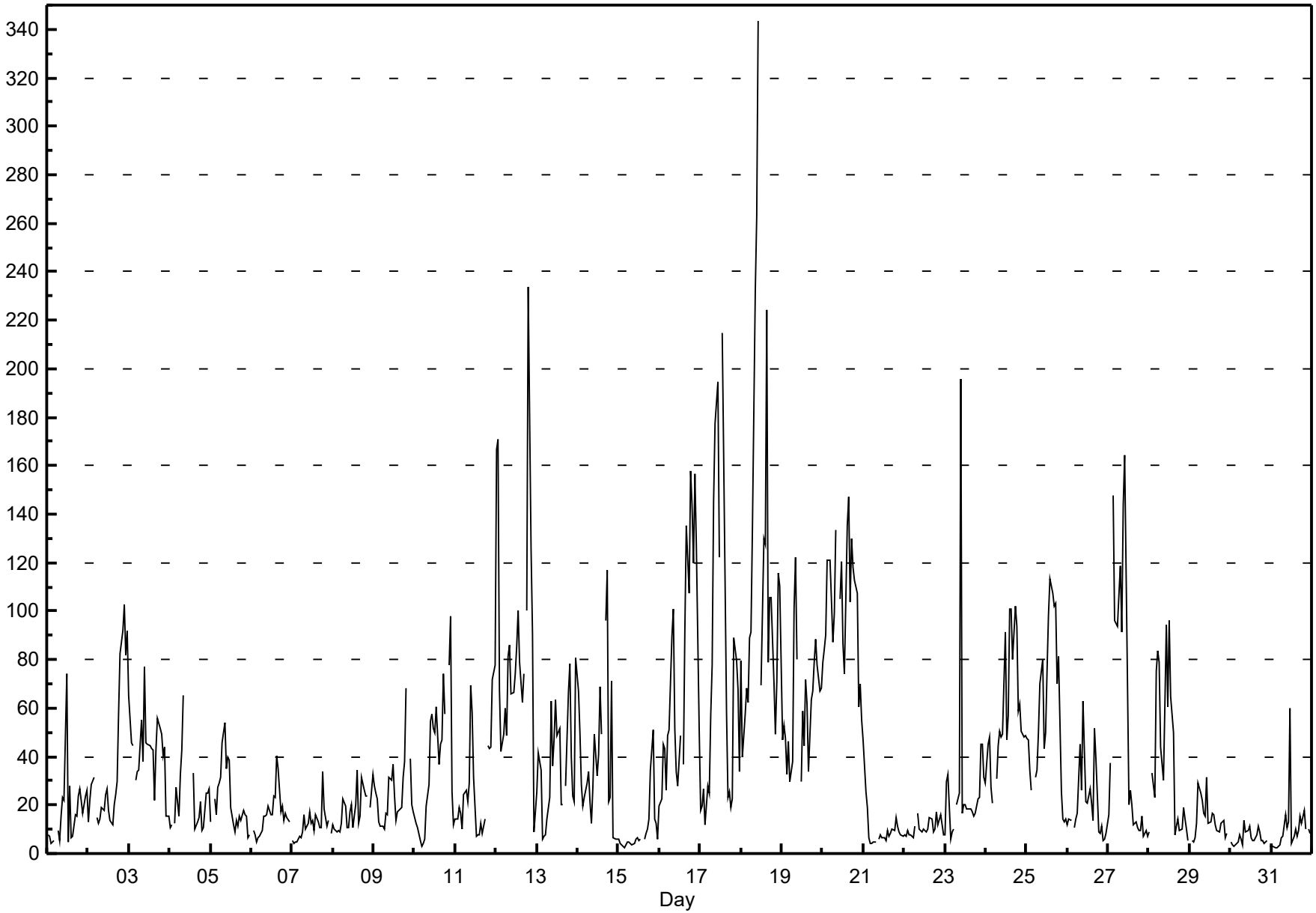
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - January 2017

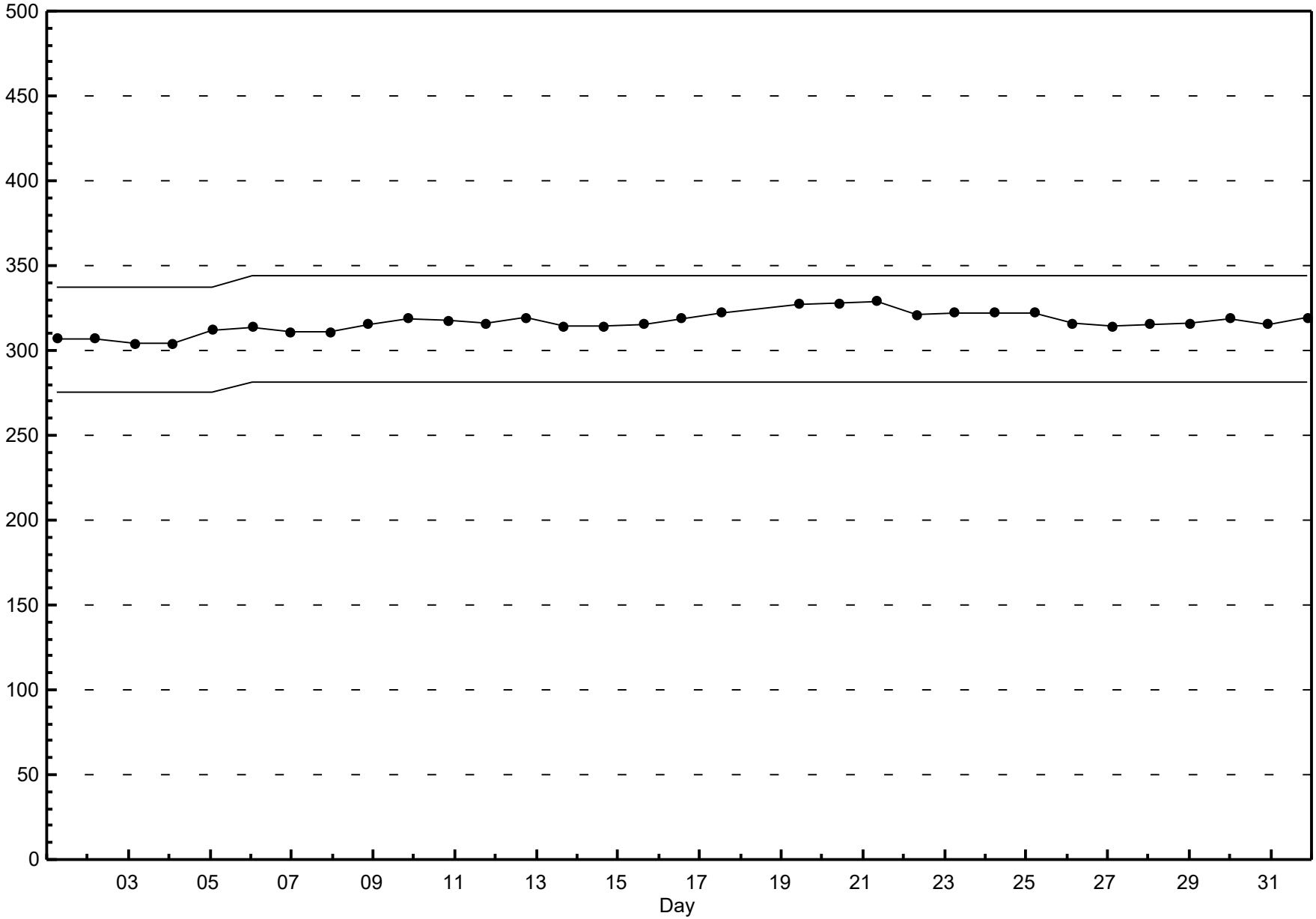


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - January 2017

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

Maximum Value: 42.3 ppb on Jan 15 02:00

Maximum Daily Average: 38.0 ppb on Jan 30

Minimum Value: 0 ppb on Jan 18 03:00

Minimum Daily Average: 1.7 ppb on Jan 20

Maximum Diurnal Average: 24.2 ppb at hour 16

Minimum Diurnal Average: 16.1 ppb at hour 9

Monthly Average: 20.31 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.5 Q_1 = 7.8 Median = 22.2 Q_3 = 31.5 P_{90} = 37.3 P_{99} = 41.6

Hours in Service:	744
Hours of Data:	707
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-Jan	32	33	34	32	33	A	30	32	33	28	32	33	34	33	33	33	30	24	21	15	23	24	19	18	28.6	34.4
2-Jan	24	20	14	9	A	21	25	24	19	23	21	25	31	31	31	27	22	14	6	1	0	1	0	0	17.0	31.3
3-Jan	1	3	2	A	8	9	6	4	2	4	9	11	11	14	17	24	10	4	4	5	4	10	22	21	8.9	23.6
4-Jan	25	23	A	23	24	23	16	8	7	15	15	23	C	C	C	C	32	31	27	32	32	22	22	23	22.2	32.1
5-Jan	27	A	17	25	19	17	16	19	6	21	18	20	30	32	32	30	28	26	25	25	24	23	26	25	23.1	32.1
6-Jan	A	25	25	25	25	25	25	24	22	18	19	23	22	20	19	18	17	22	23	23	21	19	20	A	21.7	25.4
7-Jan	27	29	28	28	27	30	30	27	27	24	23	27	29	29	29	31	30	29	28	28	30	31	A	32	28.4	31.6
8-Jan	30	31	31	29	29	27	26	27	27	26	26	26	27	26	27	27	24	19	15	17	15	A	17	10	24.4	30.6
9-Jan	13	15	17	27	27	27	26	25	24	25	21	20	28	28	28	27	26	20	17	12	A	13	25	26	22.6	28.5
10-Jan	29	30	32	36	37	38	36	34	23	16	16	23	25	29	25	19	17	4	9	A	1	12	23	30	23.7	38.0
11-Jan	31	34	31	33	34	29	28	31	24	12	20	35	38	39	39	39	39	37	A	13	12	11	8	2	27.0	39.2
12-Jan	2	1	2	7	7	3	4	3	4	6	9	12	12	13	13	12	6	A	1	1	1	22	38	37	9.4	38.4
13-Jan	32	22	30	39	39	38	35	34	11	18	17	18	23	22	33	33	A	30	15	5	22	29	27	13	25.4	39.3
14-Jan	2	7	23	28	25	20	18	35	36	33	38	30	28	22	21	A	6	23	32	33	33	42	42	41	26.8	41.7
15-Jan	41	42	42	42	42	40	39	39	40	39	39	40	40	41	A	40	39	35	33	27	13	36	35	39	37.5	42.3
16-Jan	32	27	13	18	20	8	5	6	8	27	30	31	25	A	33	16	21	7	3	4	0	0	1	15	15.3	32.9
17-Jan	26	23	22	30	22	19	10	0	0	1	1	3	A	3	9	11	21	18	24	20	5	0	1	2	11.8	29.7
18-Jan	6	1	0	0	0	0	0	0	0	1	2	A	13	10	7	5	2	0	0	0	1	0	0	0	2.2	13.2
19-Jan	1	0	0	3	3	5	5	1	0	0	A	13	9	7	4	5	3	0	0	0	0	0	0	0	2.6	13.3
20-Jan	0	0	0	0	0	0	0	0	0	A	2	3	7	10	9	5	2	0	0	0	0	0	0	0	1.7	9.8
21-Jan	3	9	12	18	20	20	20	21	A	21	22	22	23	25	25	25	24	22	22	20	20	23	24	24	20.2	25.2
22-Jan	24	24	24	24	24	24	24	A	23	22	22	22	22	22	22	21	20	20	18	18	18	16	17	19	21.3	24.2
23-Jan	19	18	18	19	18	17	A	12	6	12	14	13	13	14	14	15	12	10	7	4	2	2	0	0	11.3	18.8
24-Jan	0	0	0	2	3	A	0	0	0	2	5	6	8	9	7	5	3	1	0	0	0	0	0	0	2.3	8.6
25-Jan	0	0	1	3	A	2	1	0	0	2	6	8	9	7	6	5	3	0	1	7	31	33	35	34	8.5	35.4
26-Jan	37	35	35	A	36	35	30	20	24	15	34	34	34	34	33	36	23	22	38	39	37	39	38	37	32.3	39.0
27-Jan	35	18	A	12	4	1	0	0	0	1	3	22	35	33	38	39	38	38	40	39	37	41	39	39	23.9	40.6
28-Jan	38	A	27	24	14	0	2	18	20	13	5	14	15	18	33	42	39	37	39	38	35	32	38	39	25.2	41.9
29-Jan	A	38	38	36	34	21	25	24	27	32	30	32	32	34	33	35	36	38	35	35	37	37	36	A	33.0	38.3
30-Jan	37	37	38	37	35	34	36	38	36	39	39	37	40	41	41	40	38	37	40	39	39	38	A	38	38.0	41.3
31-Jan	38	38	37	36	36	36	35	35	32	31	32	34	36	36	35	37	36	31	31	30	30	A	32	32	34.2	38.1
	21.1	20.1	20.4	22.3	22.2	19.6	18.4	18.1	16.1	17.6	19.1	22.0	24.2	23.5	24.0	24.2	21.5	20.0	18.5	17.7	17.4	19.2	20.2	20.6	Diurnal Average	
	41.3	42.3	41.9	42.2	41.6	40.4	39.4	39.4	39.5	39.3	38.7	39.7	40.4	41.3	40.9	41.9	38.7	38.3	39.8	39.0	39.1	41.7	41.6	41.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

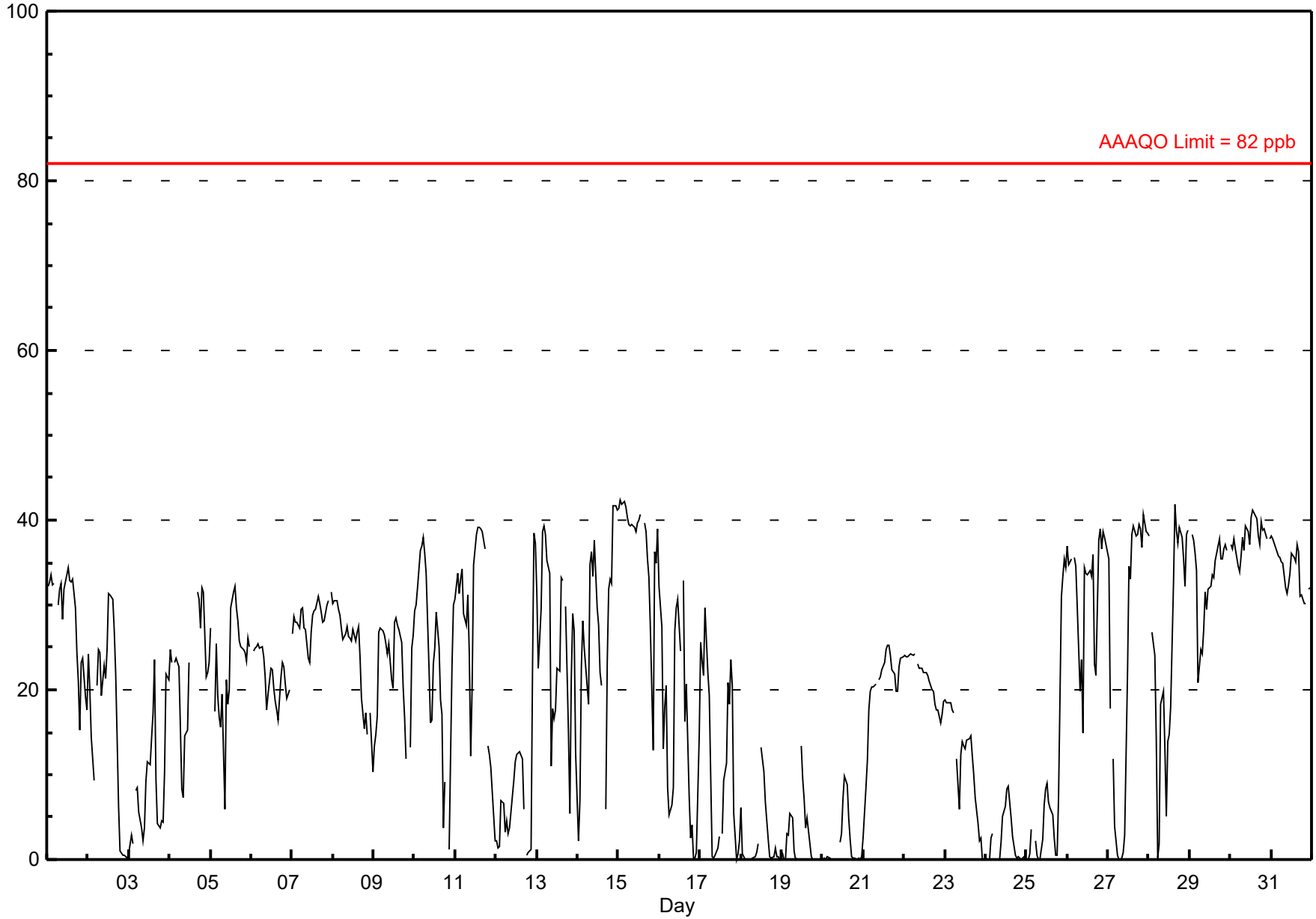
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - January 2017

Maximum Value: 43.8 ppb on Jan 28 16:00

Maximum Daily Average: 39.6 ppb on Jan 15

Minimum Value: 0 ppb on Jan 24 02:00

Minimum Daily Average: 2.7 ppb on Jan 20

Maximum Diurnal Average: 27.2 ppb at hour 15

Minimum Diurnal Average: 19.9 ppb at hour 9

Monthly Average: 23.63 ppb

Percentiles: P_1 = 0.1 P_{10} = 1.8 Q_1 = 13.2 Median = 26.0 Q_3 = 34.4 P_{90} = 39.8 P_{99} = 42.7

Hours in Service:	744
Hours of Data:	707
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-Jan	34	34	34	34	34	A	31	33	34	33	34	35	35	34	33	34	33	27	25	18	28	29	24	23	31.1	35.3
2-Jan	26	26	19	14	A	23	27	27	23	26	25	31	34	34	34	30	26	19	13	2	1	1	3	0	20.2	33.8
3-Jan	4	7	4	A	15	12	10	6	5	9	12	14	12	25	25	26	23	10	8	8	9	22	23	26	13.7	26.1
4-Jan	27	26	A	25	26	25	21	15	14	25	23	32	C	C	C	C	34	33	33	33	34	31	25	29	26.9	34.3
5-Jan	30	A	23	28	28	22	22	25	9	29	29	26	34	34	34	32	30	27	27	27	26	24	27	26	26.9	34.0
6-Jan	A	25	26	26	26	26	26	25	23	20	22	24	24	22	20	20	22	24	26	26	23	22	23	A	23.7	26.3
7-Jan	29	29	28	29	29	31	31	29	29	26	25	30	31	31	31	32	32	31	31	30	32	32	A	33	30.2	33.2
8-Jan	32	32	32	31	30	30	29	30	29	28	28	27	28	27	28	29	28	28	20	20	19	A	19	18	27.1	32.1
9-Jan	18	20	21	30	30	29	28	27	27	27	26	26	30	30	29	28	28	24	22	20	A	22	29	28	26.0	30.2
10-Jan	33	33	34	38	38	39	38	35	29	23	26	29	29	32	30	23	24	9	16	A	5	24	27	31	28.1	38.7
11-Jan	34	37	36	37	37	34	35	34	34	23	27	38	39	40	40	41	41	40	A	20	23	22	19	5	31.9	40.7
12-Jan	5	3	4	13	14	10	11	5	9	11	14	14	15	15	15	14	10	A	2	2	4	40	40	40	13.6	40.4
13-Jan	37	35	38	40	40	40	39	38	23	22	20	27	28	32	36	35	A	37	23	19	28	33	30	27	31.5	40.2
14-Jan	6	17	28	31	29	27	29	40	40	40	43	34	32	30	26	A	12	37	37	38	42	43	42	42	32.4	43.4
15-Jan	43	43	43	43	42	42	40	40	40	40	40	40	41	42	A	41	40	38	35	32	27	40	39	41	39.6	42.9
16-Jan	39	35	26	29	26	19	16	20	25	36	36	36	38	A	42	28	38	18	12	14	2	2	5	24	24.5	41.6
17-Jan	27	26	27	32	29	27	23	3	2	1	2	4	A	4	13	22	24	22	27	27	18	1	4	7	16.1	32.2
18-Jan	11	2	1	1	0	0	0	1	1	2	3	A	18	21	18	6	4	1	0	2	4	2	1	0	4.3	20.7
19-Jan	3	1	2	7	8	9	9	4	1	1	A	18	15	9	8	8	6	1	0	0	0	0	0	0	4.8	17.7
20-Jan	1	0	0	1	0	0	0	0	0	A	3	5	10	12	10	6	5	2	0	1	1	2	1	1	2.7	11.6
21-Jan	7	10	16	20	20	21	21	21	A	22	22	23	25	26	26	26	26	24	23	22	21	24	25	25	21.7	26.1
22-Jan	25	25	25	25	25	25	25	A	24	24	24	23	23	23	23	22	21	21	20	20	20	19	20	20	22.7	25.4
23-Jan	20	20	20	19	19	19	A	15	9	16	16	15	14	16	15	16	14	12	9	8	3	4	0	1	13.0	19.7
24-Jan	1	0	1	5	5	A	1	1	0	3	6	8	9	9	8	6	4	2	1	1	1	0	1	1	3.2	9.4
25-Jan	1	0	2	5	A	5	1	0	0	5	8	9	11	8	7	6	5	1	2	22	35	37	38	36	10.7	38.1
26-Jan	40	39	39	A	38	39	35	28	31	30	41	37	37	37	37	38	35	36	40	40	39	39	39	38	37.0	40.7
27-Jan	38	26	A	25	12	5	0	0	1	1	11	33	40	36	41	42	40	42	41	41	40	42	41	41	27.8	42.4
28-Jan	41	A	39	31	28	2	11	26	27	21	9	17	23	23	43	44	42	42	41	41	38	38	41	40	30.7	43.8
29-Jan	A	40	38	38	38	30	30	28	31	34	33	35	34	37	37	38	39	40	38	39	40	38	37	A	36.0	40.4
30-Jan	38	37	38	38	35	36	38	39	38	40	40	39	42	42	42	42	40	40	41	40	40	39	A	39	39.5	42.4
31-Jan	39	39	38	37	37	37	36	36	35	33	35	36	37	36	38	38	38	33	34	34	33	A	34	33	35.9	39.3
	23.7	23.1	23.6	25.3	25.5	22.8	22.1	21.1	19.9	21.7	22.8	25.5	27.1	26.5	27.2	26.7	25.4	24.0	21.6	21.6	21.2	23.3	22.7	23.4	Diurnal Average	
	42.8	42.9	42.6	42.7	42.4	41.6	40.0	40.5	40.1	40.4	42.7	40.4	42.0	42.2	42.9	43.8	41.7	41.5	41.4	41.0	41.6	43.4	42.4	42.4	Diurnal Maximum	

C - Calibration

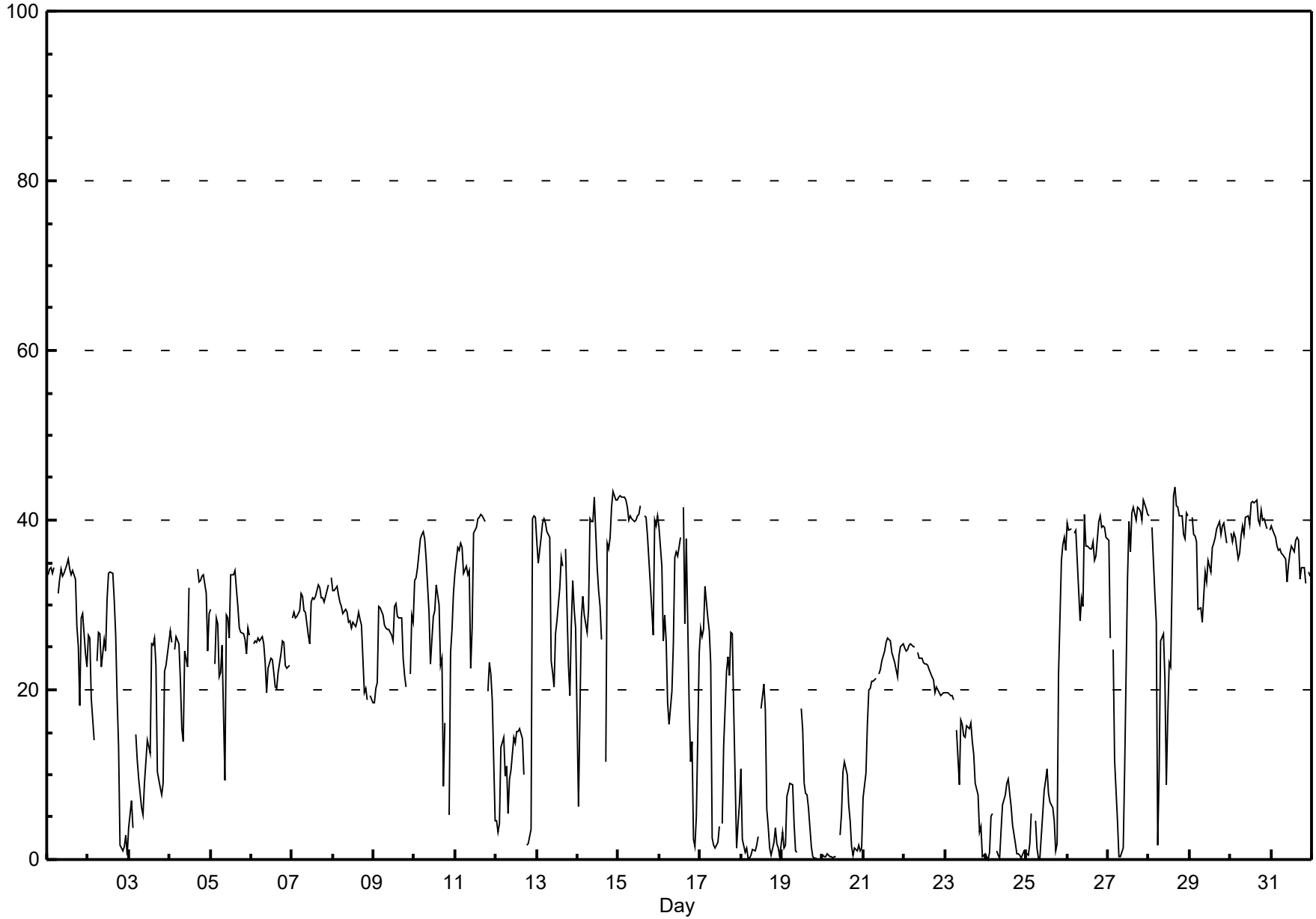
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

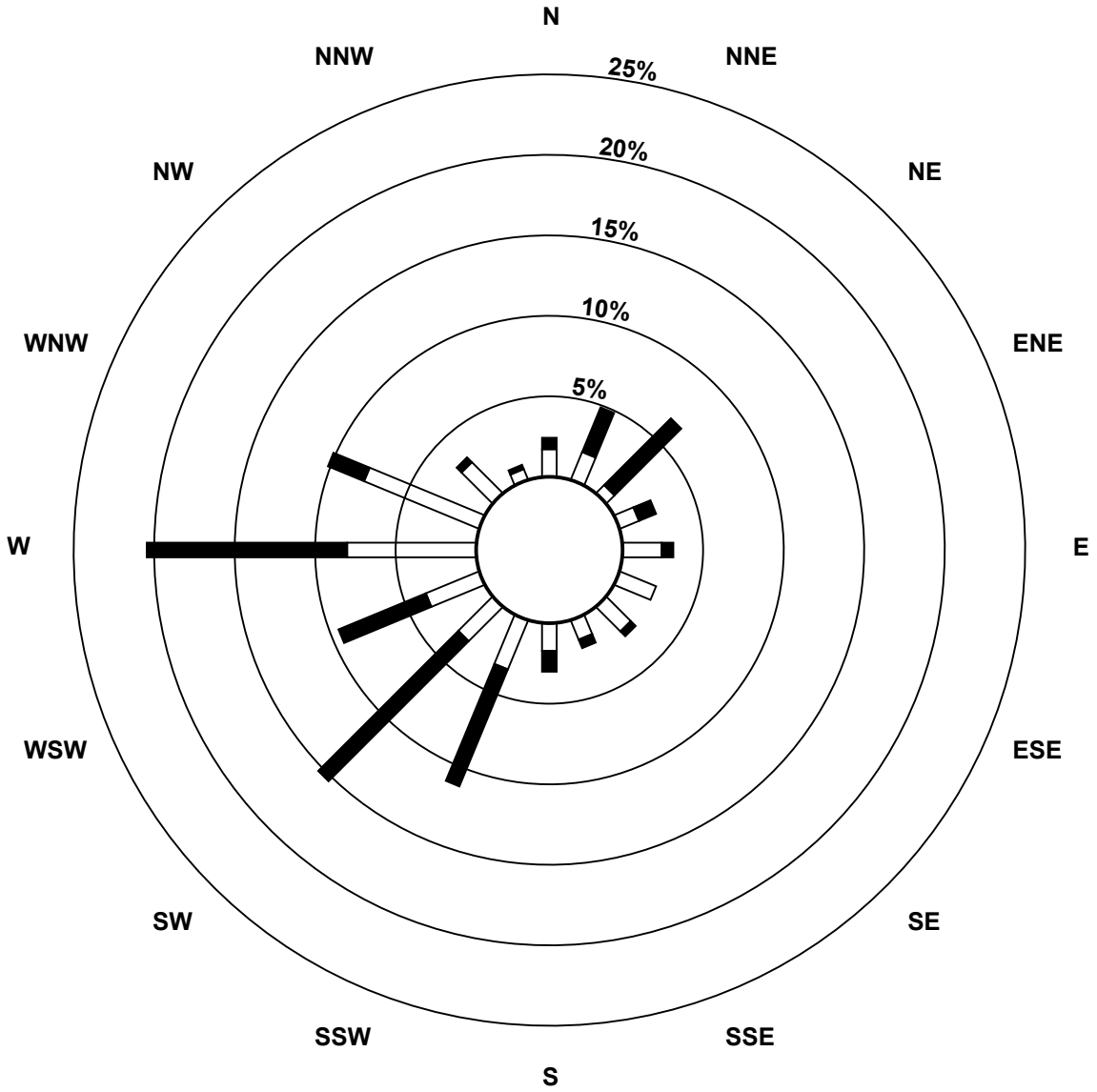
Henry Pirker - January 2017



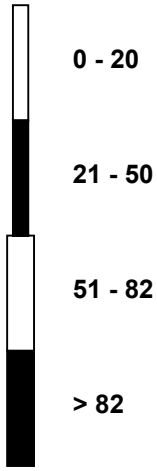
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - January 2017



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - January 2017

Maximum Value: 41.7 ppb on Jan 15 05:00

Minimum Value: 0.0 ppb on Jan 20 01:00

Percentiles: P_1 = 0.0 P_{10} = 2.5 Q_1 = 10.2 Median = 22.2 Q_3 = 29.5 P_{90} = 35.5 P_{99} = 40.3

Hours in Service:	744
Hours of Data:	737
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-Jan	33	33	32	32	32	32	32	32	32	32	31	32	32	32	32	32	32	32	30	28	27	25	24	22	32.9
2-Jan	21	21	20	19	18	18	19	20	19	19	20	23	24	25	26	26	26	25	23	20	17	13	9	6	26.4
3-Jan	3	2	1	1	2	3	4	4	5	5	6	7	7	8	9	12	13	13	12	11	10	10	10	10	12.6
4-Jan	12	14	16	18	21	23	22	20	18	16	16	16	15	14	N	N	N	N	N	N	N	29	28	28	29.1
5-Jan	27	26	25	24	22	22	21	20	17	18	18	17	18	20	22	24	26	27	28	28	28	27	26	25	28.3
6-Jan	25	25	25	25	25	25	25	25	24	24	23	23	22	22	21	20	19	20	20	20	20	20	20	21	25.2
7-Jan	22	23	24	24	25	27	28	28	28	28	27	27	27	27	27	27	28	29	29	29	29	30	30	30	29.7
8-Jan	30	30	30	30	30	30	29	29	28	28	27	27	27	26	26	27	26	25	24	23	21	21	19	17	30.4
9-Jan	15	15	15	16	18	19	20	22	24	25	25	25	25	25	25	25	25	25	24	23	23	20	20	20	25.5
10-Jan	20	22	24	28	29	32	33	34	33	31	30	28	26	25	24	22	21	20	19	18	15	12	12	14	34.1
11-Jan	16	20	23	24	29	31	31	31	31	28	26	27	27	28	30	31	33	36	38	35	31	27	23	17	38.0
12-Jan	12	7	6	6	5	4	4	4	4	4	5	6	7	8	9	10	10	11	10	8	7	8	12	15	15.2
13-Jan	19	19	23	28	32	34	34	34	31	30	29	26	24	22	22	22	23	25	25	23	23	24	23	20	34.5
14-Jan	18	15	16	19	19	18	17	20	24	27	29	29	30	30	30	30	25	24	23	23	24	27	30	31	31.4
15-Jan	36	38	39	41	42	42	41	41	41	40	40	40	40	40	40	40	40	39	38	36	33	32	32	32	41.7
16-Jan	31	30	28	27	28	24	20	16	13	13	15	17	18	19	23	24	26	23	19	15	12	11	7	6	31.4
17-Jan	7	9	11	15	17	20	21	19	16	13	10	7	5	3	3	4	7	10	13	15	14	14	13	11	20.8
18-Jan	10	7	4	2	1	1	1	1	0	0	0	0	2	4	5	5	6	6	5	5	3	2	1	1	9.6
19-Jan	0	0	0	1	1	2	2	2	2	2	2	4	5	5	5	6	6	6	5	4	2	1	1	0	6.0
20-Jan	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4	5	5	5	5	4	3	2	1	0	5.4
21-Jan	0	1	3	5	8	10	13	15	17	19	20	21	21	22	23	23	23	24	24	23	23	23	22	22	23.7
22-Jan	22	23	23	23	24	24	24	24	24	24	23	23	23	23	22	22	22	21	21	20	20	19	18	18	24.1
23-Jan	18	18	18	18	18	18	18	17	15	15	14	13	13	12	12	13	13	13	12	11	10	8	7	5	18.3
24-Jan	3	2	1	1	1	1	1	1	1	1	2	2	3	4	5	5	6	5	5	4	3	2	1	1	5.6
25-Jan	0	0	0	1	1	1	1	1	1	1	2	3	4	4	5	5	6	6	5	5	7	11	14	18	18.1
26-Jan	22	27	31	34	35	35	34	32	31	28	28	28	28	28	28	30	30	31	32	32	33	33	34	34	35.3
27-Jan	36	35	35	31	26	21	15	10	5	2	3	4	8	12	16	21	26	31	35	38	38	39	39	39	38.8
28-Jan	39	39	37	35	32	26	21	18	15	15	12	11	11	13	17	20	22	25	30	33	35	37	38	37	38.8
29-Jan	37	37	37	37	36	35	33	31	30	30	29	28	28	29	30	32	33	34	34	35	35	36	36	36	37.2
30-Jan	37	36	37	37	37	36	36	36	36	37	37	37	37	38	39	39	39	39	39	40	39	39	39	38	39.6
31-Jan	38	38	38	38	37	37	37	36	36	35	34	34	34	34	34	34	35	35	35	34	33	33	33	32	38.5
	38.7	38.8	39.5	40.6	41.7	41.6	41.3	41.1	40.8	40.5	40.1	39.8	39.6	39.6	39.6	39.7	39.5	39.2	39.4	39.6	39.4	39.0	38.8	38.7	
	Diurnal Maximums																								

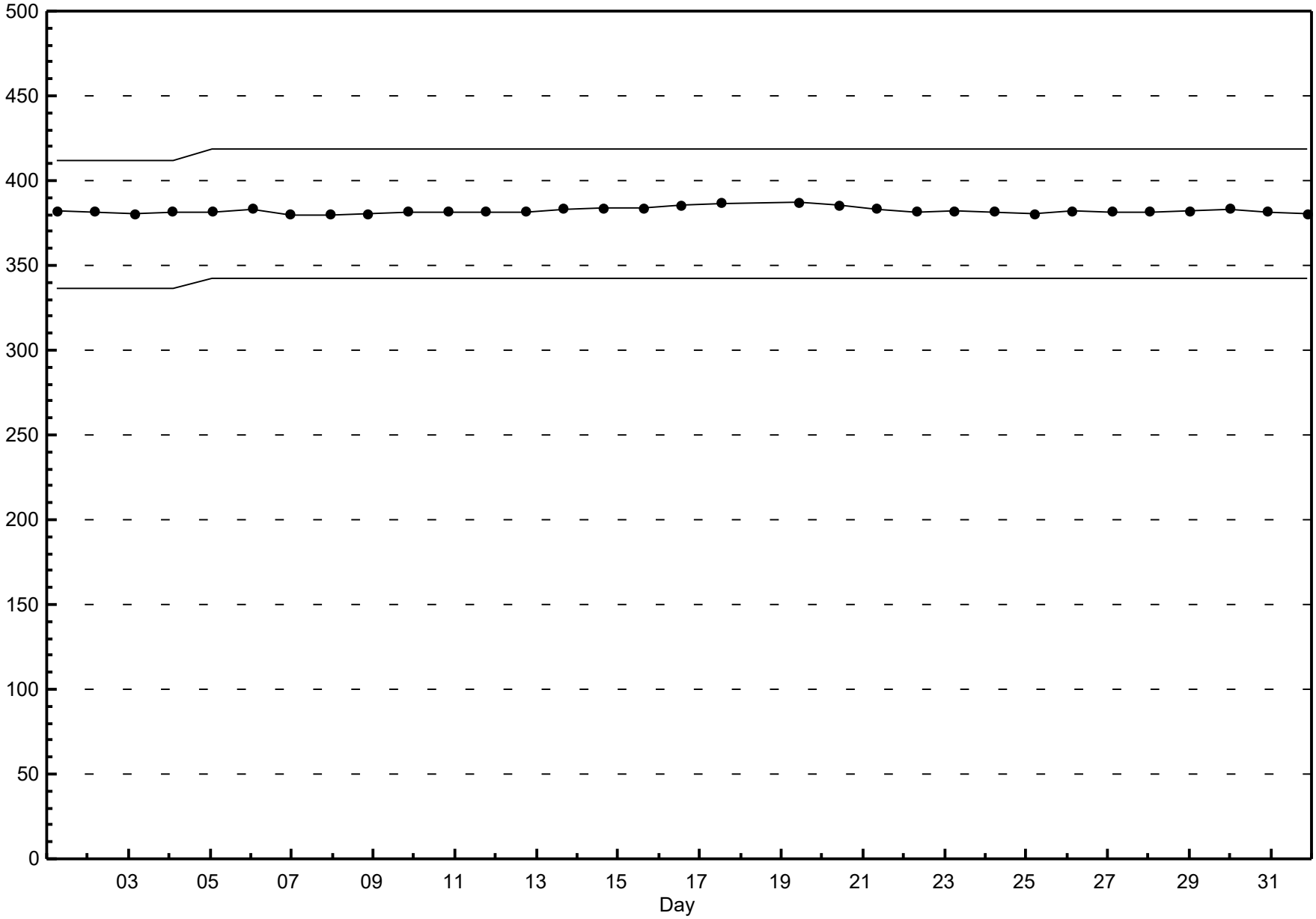
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.17 ppm on Jan 18 11:00
Maximum Daily Average: 0.59 ppm on Jan 18

Minimum Value: 0.1 ppm on Jan 5 16:00
Maximum Diurnal Average: 0.37 ppm at hour 11
Monthly Average: 0.266 ppm

Minimum Daily Average: 0.16 ppm on Jan 30
Minimum Diurnal Average: 0.21 ppm at hour 5
Percentiles: P_1 = 0.14 P_{10} = 0.16 Q_1 = 0.17 Median = 0.21 Q_3 = 0.30 P_{90} = 0.44 P_{99} = 0.90

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	0.2	0.2	0.1	0.1	0.1	A	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.17	0.25
2-Jan	0.2	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.4	0.4	0.3	0.27	0.54
3-Jan	0.3	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.25	0.35
4-Jan	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.22	0.36
5-Jan	0.2	A	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.4	C	C	C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.22	0.42
6-Jan	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	A	0.20	0.25
7-Jan	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.16	0.19
8-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.19	0.22
9-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.3	A	0.2	0.2	0.2	0.20	0.40
10-Jan	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2	A	0.4	0.3	0.2	0.2	0.21	0.38
11-Jan	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	0.2	0.1	0.2	0.2	0.2	A	0.3	0.3	0.3	0.3	0.7	0.21	0.73
12-Jan	0.9	0.7	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.5	0.4	0.4	0.3	0.3	A	0.4	0.6	0.7	0.2	0.1	0.2	0.37	0.91
13-Jan	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.2	A	0.2	0.3	0.5	0.2	0.2	0.2	0.3	0.25	0.55
14-Jan	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.6	A	0.7	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.29	0.71
15-Jan	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.18	0.43
16-Jan	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.5	0.5	0.2	0.2	0.2	0.3	A	0.2	0.4	0.4	0.5	0.7	0.7	0.7	0.7	0.7	0.3	0.39	0.75
17-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.8	1.2	0.9	A	1.5	0.7	0.7	0.3	0.3	0.2	0.5	0.6	0.4	0.3	0.2	0.48	1.46
18-Jan	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.6	0.9	1.5	2.2	A	0.5	0.6	0.6	0.6	0.4	0.5	0.5	0.4	0.3	0.4	0.9	0.4	0.59	2.17
19-Jan	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.7	0.6	A	0.3	0.4	0.3	0.4	0.4	0.3	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.39	0.75
20-Jan	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.3	0.4	A	0.4	0.4	0.4	0.3	0.4	0.5	0.6	0.7	0.5	0.5	0.4	0.4	0.4	0.4	0.43	0.70
21-Jan	0.3	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.33
22-Jan	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	0.2	0.18	0.20
23-Jan	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	0.3	0.2	0.21	0.27
24-Jan	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.30	0.44
25-Jan	0.3	0.3	0.2	0.2	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.32	0.53
26-Jan	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.31
27-Jan	0.2	0.2	A	0.2	0.3	0.4	0.7	0.6	0.6	0.7	0.7	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.31	0.68
28-Jan	0.2	A	0.2	0.3	0.4	0.5	0.6	0.3	0.3	0.4	0.9	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.32	0.94
29-Jan	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.20	0.28
30-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.16	0.17
31-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.17	0.19
	0.24	0.22	0.21	0.21	0.21	0.23	0.24	0.26	0.31	0.31	0.37	0.27	0.26	0.30	0.28	0.26	0.27	0.29	0.28	0.30	0.30	0.26	0.26	0.24	Diurnal Average	
	0.91	0.70	0.39	0.53	0.46	0.52	0.68	0.65	0.91	1.45	2.17	0.93	0.51	1.46	0.71	0.69	0.71	0.70	0.69	0.67	0.73	0.75	0.91	0.73	Diurnal Maximum	

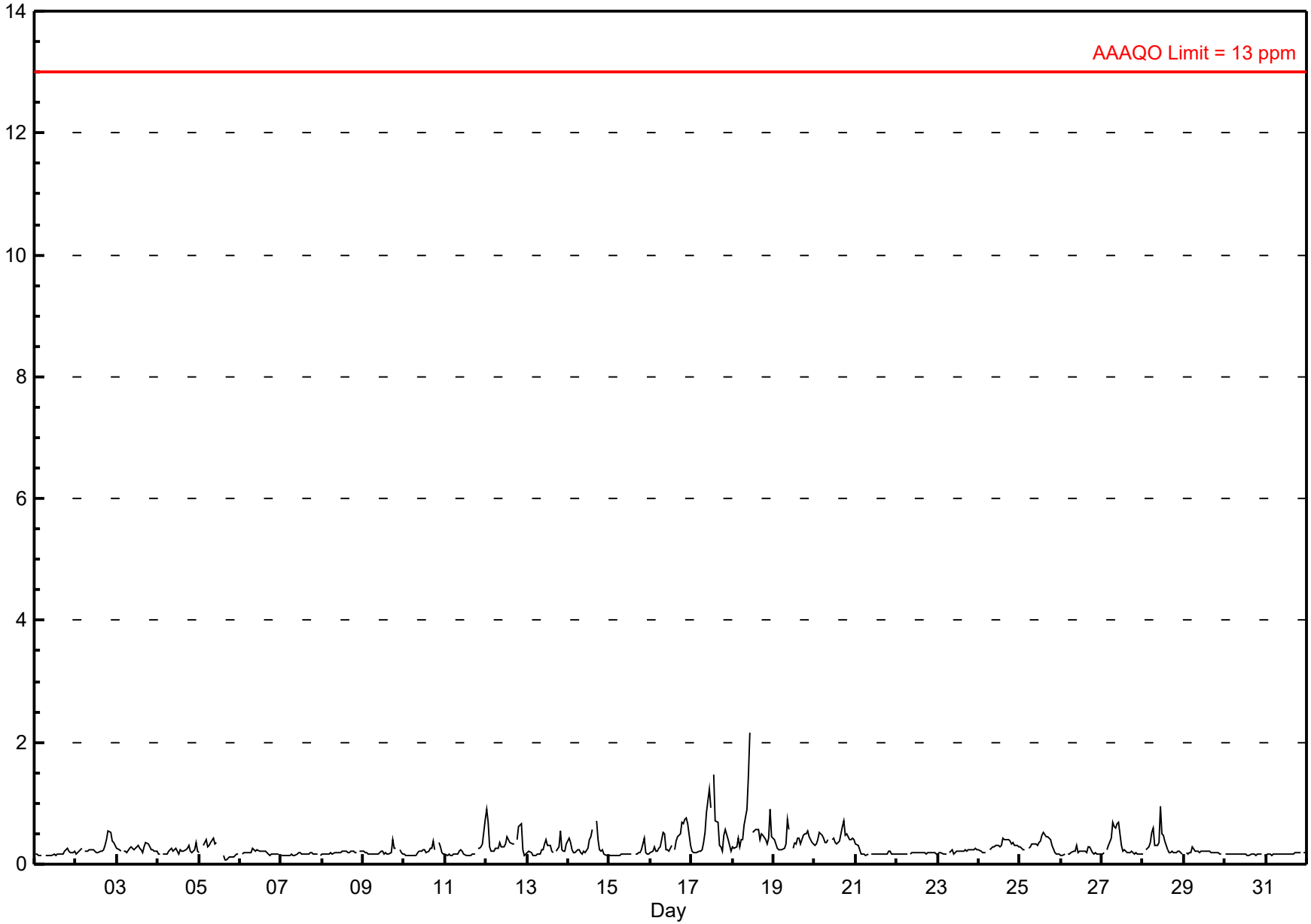
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na

Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - January 2017

Maximum Value: 2.77 ppm on Jan 18 11:00

Maximum Daily Average: 1.04 ppm on Jan 18

Minimum Value: 0.1 ppm on Jan 5 17:00

Minimum Daily Average: 0.18 ppm on Jan 30

Maximum Diurnal Average: 0.48 ppm at hour 9

Minimum Diurnal Average: 0.25 ppm at hour 4

Monthly Average: 0.369 ppm

Percentiles: $P_1 = 0.15$ $P_{10} = 0.17$ $Q_1 = 0.20$ Median = 0.26 $Q_3 = 0.41$ $P_{90} = 0.69$ $P_{99} = 1.63$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	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	0.3	0.3	0.3	0.2	0.2	0.3	0.20	0.30
2-Jan	0.2	0.2	0.2	0.4	A	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.2	0.2	0.4	0.3	0.3	0.4	0.7	0.6	0.7	0.5	0.8	0.4	0.38	0.79
3-Jan	0.3	0.3	0.3	A	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.30	0.41
4-Jan	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.2	0.7	0.3	0.2	0.3	0.3	0.4	0.2	0.2	0.3	0.4	0.3	0.28	0.66
5-Jan	0.2	A	0.4	0.4	0.5	0.3	0.4	0.5	0.8	0.4	0.4	C	C	C	0.7	0.2	0.1	0.1	0.4	0.2	0.1	0.2	0.2	0.2	0.33	0.78
6-Jan	A	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.2	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.26	0.45
7-Jan	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.4	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	A	0.2	0.23	0.42
8-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.4	0.2	0.2	0.3	0.2	0.2	0.2	A	0.3	0.2	0.26	0.43
9-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.7	0.4	0.4	A	0.3	0.3	0.2	0.26	0.69
10-Jan	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.3	0.4	0.4	0.3	0.2	0.3	0.3	0.4	0.6	0.3	A	0.5	0.5	0.3	0.2	0.29	0.60
11-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.4	0.4	0.4	0.6	1.7	0.31	1.71
12-Jan	1.6	0.9	0.3	0.3	0.3	0.3	0.4	0.3	1.0	0.7	0.5	0.5	0.9	0.5	0.5	0.4	0.5	A	0.6	0.8	0.9	0.6	0.2	0.2	0.56	1.58
13-Jan	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.5	0.5	0.4	0.4	0.2	0.2	A	0.3	0.4	0.9	0.3	0.3	0.3	0.6	0.34	0.93
14-Jan	0.7	0.5	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.8	0.7	1.1	A	0.9	1.0	0.3	0.3	0.7	0.2	0.2	0.2	0.45	1.14
15-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.4	0.7	0.3	0.2	0.2	0.22	0.72
16-Jan	0.2	0.2	0.3	0.3	0.3	0.3	0.3	1.4	0.9	0.3	0.3	0.3	0.4	A	0.3	0.7	1.0	0.9	1.2	1.3	0.9	1.1	0.9	0.4	0.62	1.40
17-Jan	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.6	0.7	1.1	1.4	1.2	A	2.2	1.6	1.4	0.6	0.4	0.3	0.9	0.8	0.8	0.4	0.3	0.72	2.21
18-Jan	2.3	0.4	0.4	0.6	0.4	0.5	0.5	1.0	1.5	1.9	2.8	A	0.6	0.9	0.8	2.1	0.5	0.7	0.6	1.3	0.6	0.6	1.9	1.0	1.04	2.77
19-Jan	1.2	0.6	0.3	0.3	0.4	0.3	0.3	0.5	1.6	0.8	A	0.4	0.4	0.4	0.9	0.6	0.4	0.6	0.7	0.6	0.7	0.5	0.4	0.3	0.57	1.61
20-Jan	0.3	0.4	0.5	0.6	0.6	0.5	0.4	0.5	0.8	A	0.5	0.5	0.4	0.4	0.7	0.8	0.9	1.0	0.8	0.6	0.6	0.8	0.7	0.6	0.61	1.04
21-Jan	0.4	0.3	0.3	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	0.2	0.3	0.3	0.2	0.2	0.2	0.22	0.44
22-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.6	0.2	0.3	0.3	0.3	0.2	0.26	0.60
23-Jan	0.2	0.5	0.6	0.2	0.3	0.2	A	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.27	0.64
24-Jan	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.3	0.35	0.51
25-Jan	0.3	0.3	0.3	0.2	A	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.4	0.2	0.2	0.2	0.2	0.37	0.62
26-Jan	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.45
27-Jan	0.2	0.2	A	0.3	0.4	0.7	0.8	0.9	1.0	1.5	0.9	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.43	1.46
28-Jan	0.2	A	0.4	0.3	0.5	0.7	0.8	0.4	0.4	0.8	1.5	0.6	0.7	0.4	0.4	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.44	1.46
29-Jan	A	0.2	0.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.24	0.50
30-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.18	0.22
31-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	A	0.2	0.2	0.19	0.25
	0.39	0.28	0.26	0.25	0.26	0.29	0.29	0.37	0.48	0.44	0.48	0.34	0.34	0.40	0.43	0.40	0.38	0.41	0.40	0.43	0.41	0.36	0.38	0.34	Diurnal Average	
	2.27	0.92	0.64	0.61	0.59	0.74	0.79	1.40	1.61	1.91	2.77	1.24	0.85	2.21	1.61	2.10	1.04	1.04	1.18	1.27	0.91	1.08	1.86	1.71	Diurnal Maximum	

C - Calibration

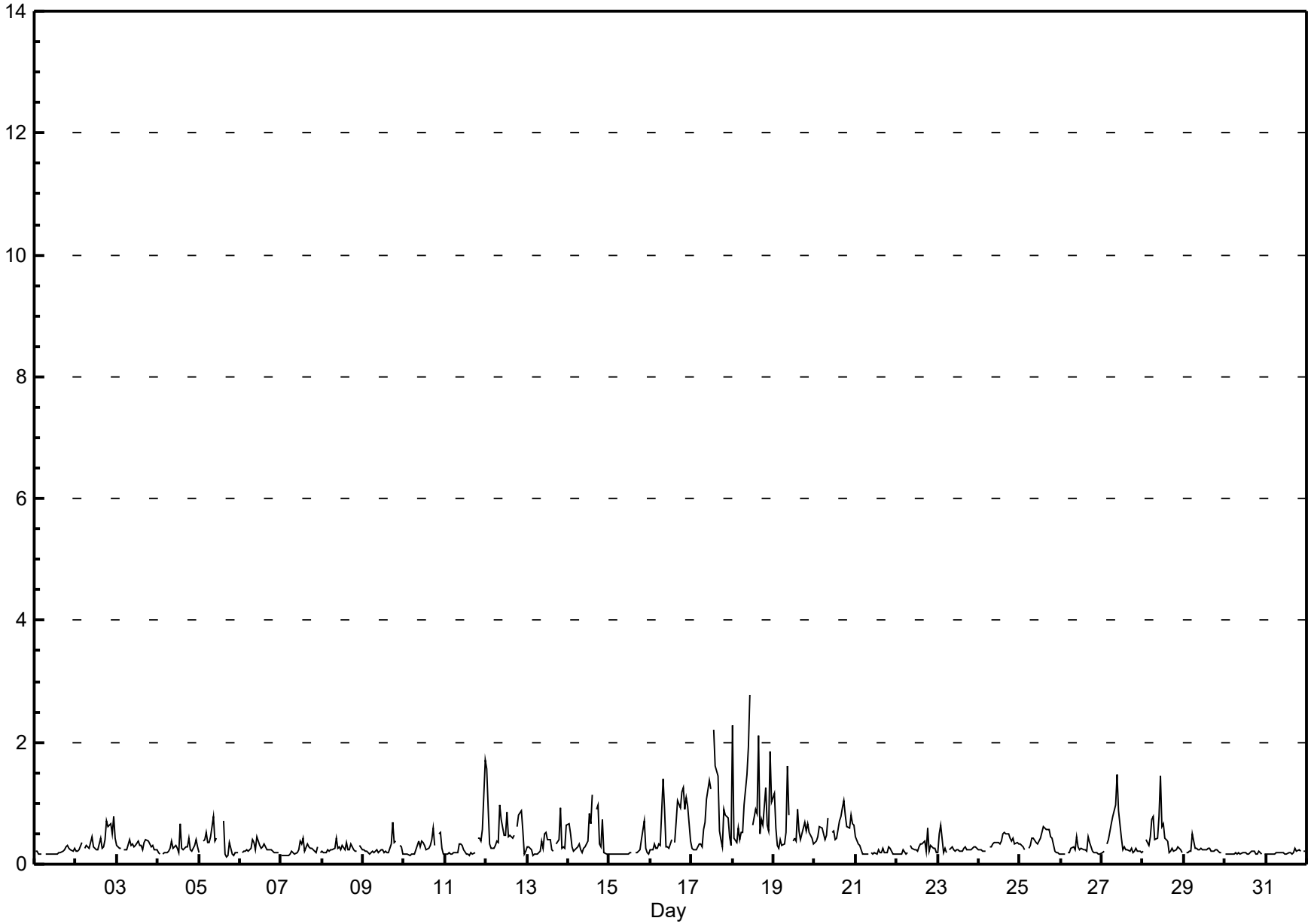
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

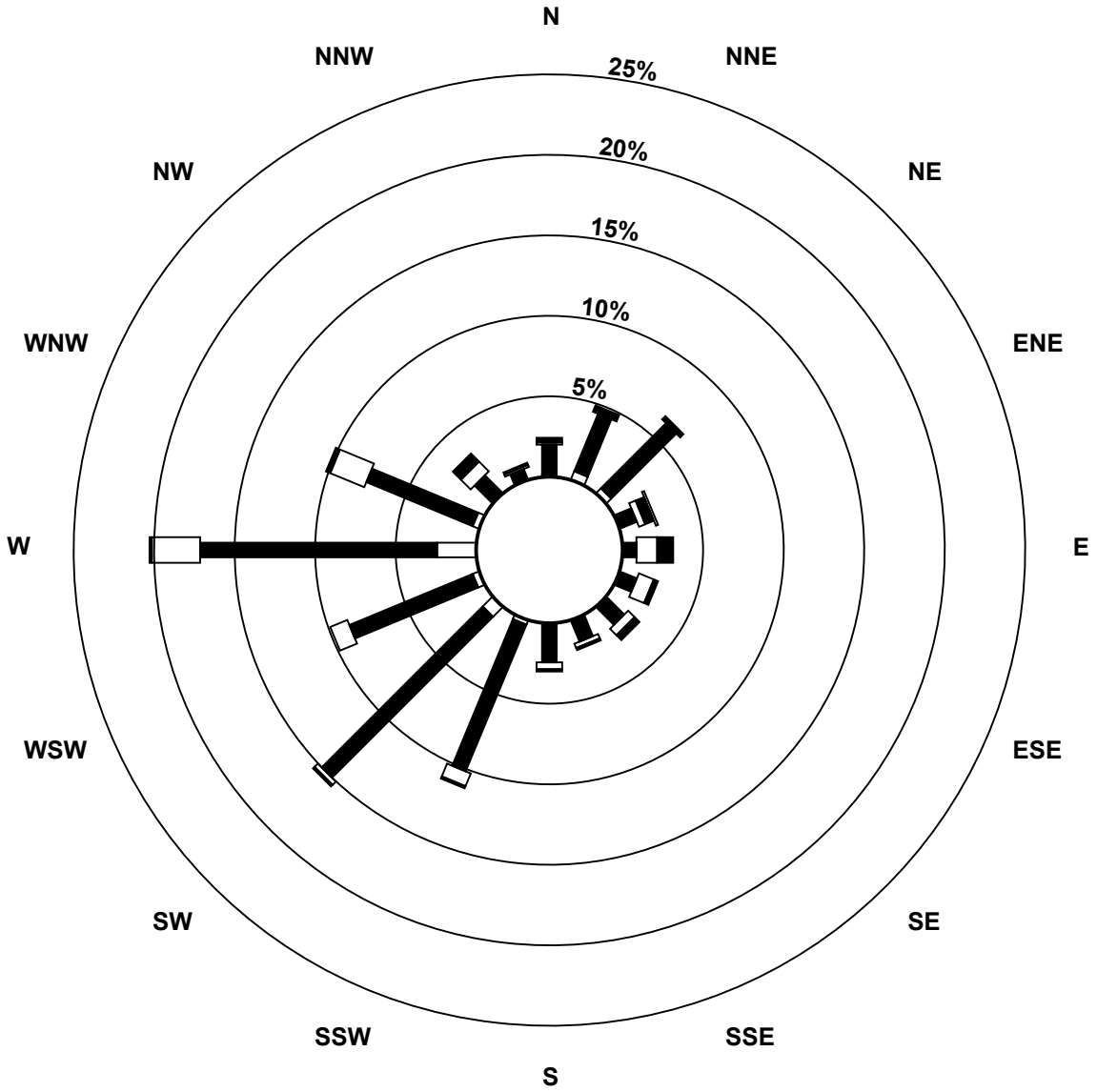
Henry Pirker - January 2017



Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - January 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 - January 2017

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.98 ppm on Jan 18 15:00

Minimum Value: 0.10 ppm on Jan 5 20:00

Percentiles: P_1 = 0.14 P_{10} = 0.16 Q_1 = 0.18 Median = 0.22 Q_3 = 0.32 P_{90} = 0.43 P_{99} = 0.89

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	6
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-Jan	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
2-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.38
3-Jan	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.39
4-Jan	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.25
5-Jan	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	N	N	N	N	N	N	0.1	0.1	0.1	0.1	0.1	0.35
6-Jan	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
7-Jan	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
8-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
9-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
10-Jan	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	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.29
11-Jan	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.31
12-Jan	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.50
13-Jan	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.35
14-Jan	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.43
15-Jan	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
16-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.60
17-Jan	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.5	0.6	0.6	0.8	0.9	0.9	0.9	0.8	0.7	0.6	0.6	0.5	0.4	0.3	0.91
18-Jan	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.8	0.9	0.9	1.0	1.0	1.0	0.9	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.98
19-Jan	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.48
20-Jan	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.50
21-Jan	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.46
22-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
23-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
24-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.38
25-Jan	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.43
26-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
27-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.54
28-Jan	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.50
29-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
30-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
31-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
Diurnal Maximums	0.57	0.53	0.47	0.46	0.46	0.46	0.44	0.40	0.45	0.60	0.84	0.90	0.93	0.95	0.98	0.97	0.89	0.80	0.66	0.59	0.59	0.55	0.60	0.60	

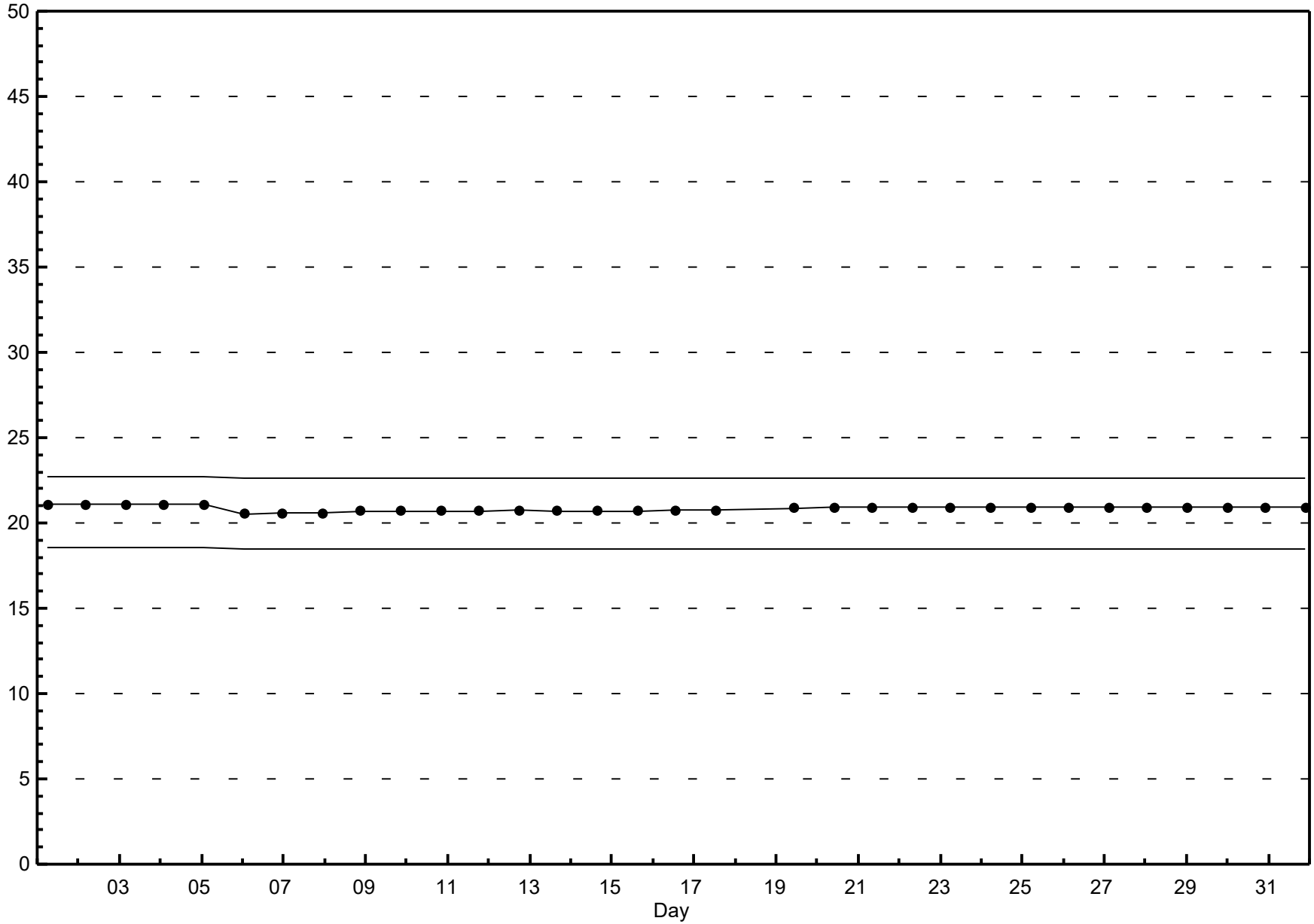
N - Not Valid
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

Peace Airshed Zone Association

Span Responses

Carbon Monoxide (CO)

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - January 2017

Maximum Value: 2.96 ppm on Jan 3 21:00

Maximum Daily Average: 2.50 ppm on Jan 25

Minimum Value: 1.9 ppm on Jan 14 22:00

Minimum Daily Average: 1.94 ppm on Jan 15

Maximum Diurnal Average: 2.15 ppm at hour 7

Minimum Diurnal Average: 2.07 ppm at hour 22

Monthly Average: 2.104 ppm

Percentiles: P_1 = 1.92 P_{10} = 1.94 Q_1 = 1.98 Median = 2.04 Q_3 = 2.16 P_{90} = 2.40 P_{99} = 2.69

Hours in Service:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	38
Percent Operational Time:	98.5

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-Jan	2.1	2.1	2.1	2.1	2.1	A	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.07	2.17
2-Jan	2.2	2.1	2.2	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.3	2.3	2.12	2.28
3-Jan	2.3	2.3	2.4	A	2.4	2.3	2.3	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.1	3.0	2.2	2.1	2.1	2.26	2.96
4-Jan	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	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.07	2.10
5-Jan	2.1	A	2.1	2.3	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.1	2.0	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.32
6-Jan	A	2.0	2.0	2.0	2.0	2.0	2.0	M	M	M	M	M	M	M	M	M	M	M	2.1	2.1	2.1	2.1	2.1	A	--	2.12
7-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.03	2.09
8-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	A	2.1	2.1	2.05	2.15
9-Jan	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.05	2.12
10-Jan	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.2	2.1	2.0	2.0	2.01	2.18
11-Jan	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	2.1	2.2	1.98	2.15
12-Jan	2.4	2.4	2.2	2.3	2.3	2.3	2.3	2.2	2.3	2.4	2.3	2.3	2.3	2.4	2.3	2.3	2.3	A	2.3	2.4	2.3	2.0	1.9	1.9	2.27	2.42
13-Jan	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.1	2.0	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.08
14-Jan	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.1	2.1	A	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.03	2.20
15-Jan	1.9	1.9	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	2.1	1.9	2.0	2.1	1.9	1.9	1.9	1.94	2.13
16-Jan	1.9	2.0	2.3	2.1	2.6	2.6	2.4	2.3	2.2	2.3	2.1	2.0	1.9	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.6	2.2	2.17	2.62
17-Jan	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.2	2.4	2.2	A	2.4	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.05	2.40
18-Jan	2.1	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.3	2.4	2.7	A	2.1	2.2	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.23	2.68
19-Jan	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.4	2.4	2.3	A	2.1	2.1	2.2	2.2	2.3	2.4	2.4	2.3	2.3	2.4	2.4	2.3	2.3	2.30	2.44
20-Jan	2.4	2.4	2.6	2.6	2.6	2.5	2.5	2.5	2.5	A	2.4	2.4	2.4	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.43	2.62
21-Jan	2.4	2.4	2.3	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.38
22-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.02
23-Jan	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.05	2.13
24-Jan	2.1	2.1	2.1	2.1	2.2	A	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.5	2.5	2.5	2.5	2.40	2.56
25-Jan	2.5	2.5	2.5	2.5	A	2.4	2.6	2.7	2.7	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.7	2.3	2.0	1.9	2.0	1.9	2.50	2.76
26-Jan	1.9	1.9	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.96	2.01
27-Jan	2.0	2.0	A	2.1	2.1	2.5	2.6	2.4	2.8	2.5	2.3	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	2.11	2.82
28-Jan	2.0	A	2.0	2.0	2.2	2.5	2.6	2.1	2.0	2.1	2.3	2.1	2.1	2.2	2.1	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.07	2.63
29-Jan	A	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.95	2.10
30-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.95	1.97
31-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	2.04
	2.09	2.10	2.11	2.10	2.10	2.13	2.15	2.12	2.15	2.13	2.14	2.10	2.08	2.11	2.10	2.08	2.09	2.08	2.10	2.09	2.11	2.07	2.09	2.08	Diurnal Average	
	2.48	2.53	2.55	2.62	2.57	2.58	2.64	2.65	2.82	2.73	2.76	2.70	2.67	2.69	2.69	2.67	2.68	2.64	2.66	2.56	2.96	2.48	2.62	2.49	Diurnal Maximum	

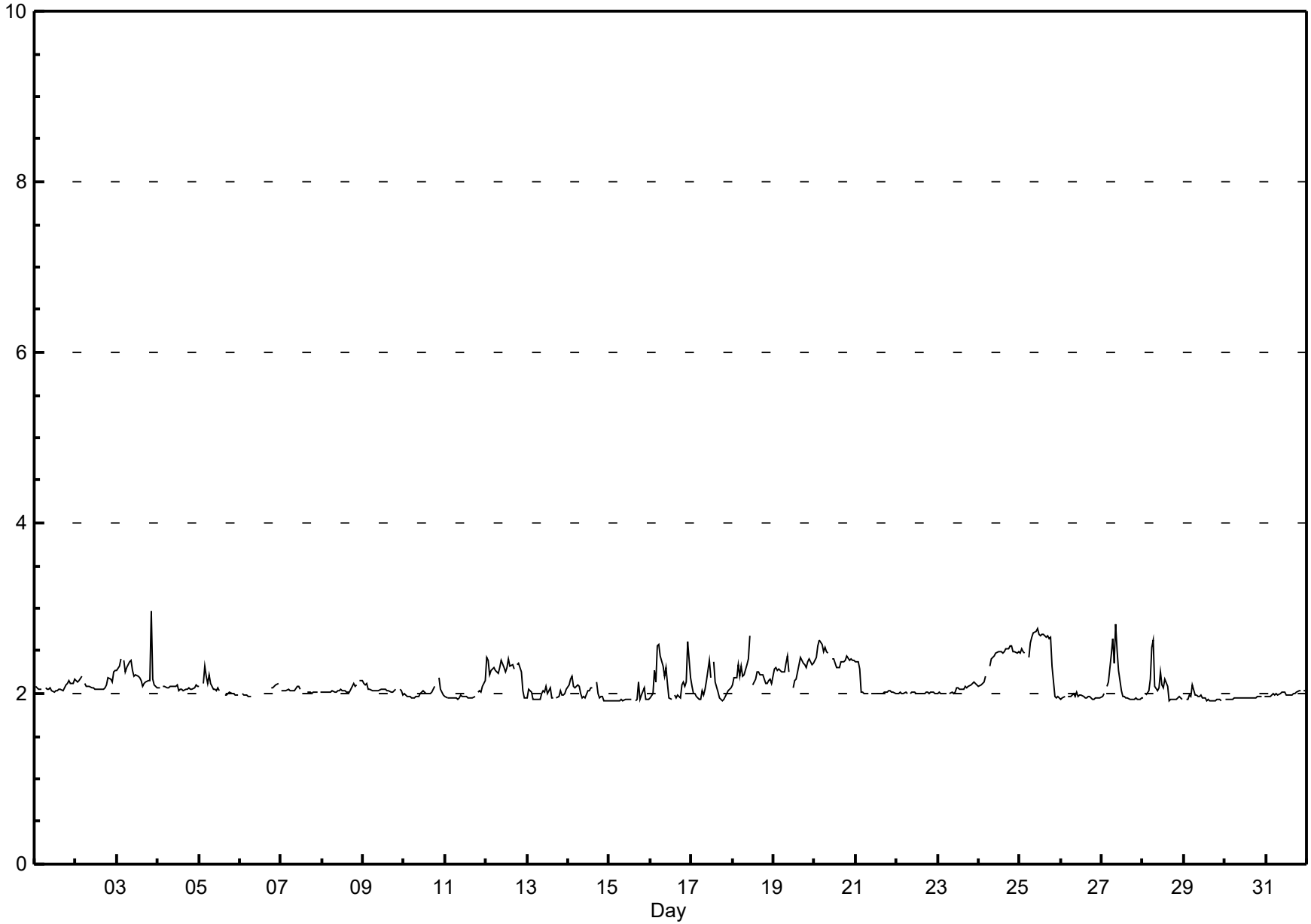
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - January 2017

Maximum Value: 4.17 ppm on Jan 3 21:00

Maximum Daily Average: 2.62 ppm on Jan 20

Minimum Value: 1.9 ppm on Jan 14 22:00

Minimum Daily Average: 1.96 ppm on Jan 30

Maximum Diurnal Average: 2.27 ppm at hour 7

Minimum Diurnal Average: 2.15 ppm at hour 13

Monthly Average: 2.199 ppm

Percentiles: P_1 = 1.93 P_{10} = 1.97 Q_1 = 2.02 Median = 2.10 Q_3 = 2.32 P_{90} = 2.55 P_{99} = 3.15

Hours in Service:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	38
Percent Operational Time:	98.5

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-Jan	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	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.11	2.24
2-Jan	2.2	2.2	2.3	2.3	A	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.4	2.18	2.41
3-Jan	2.3	2.4	2.5	A	2.7	2.3	2.4	2.4	2.4	2.4	2.2	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	4.2	2.7	2.1	2.1	2.39	4.17
4-Jan	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.11	2.18
5-Jan	2.2	A	2.2	2.7	2.3	2.2	2.3	2.4	2.1	2.1	2.1	2.1	2.1	C	C	2.0	2.1	2.1	2.3	2.1	2.1	2.0	2.0	2.0	2.15	2.67
6-Jan	A	2.3	2.1	2.0	2.0	2.0	2.0	M	M	M	M	M	M	M	M	M	M	M	2.1	2.1	2.1	2.1	2.2	A	--	2.25
7-Jan	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	2.2	2.1	2.0	2.0	2.0	2.2	2.0	A	2.0	2.07	2.19
8-Jan	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.2	2.2	2.1	2.1	A	2.2	2.2	2.09	2.20
9-Jan	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	2.0	2.0	2.1	2.1	A	2.1	2.1	2.0	2.08	2.16
10-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.4	2.2	2.0	2.0	2.05	2.37
11-Jan	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.3	2.2	2.2	2.4	2.03	2.35
12-Jan	2.8	2.6	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.5	2.5	2.3	2.4	2.5	2.4	2.5	2.3	A	2.6	2.5	2.4	2.2	2.0	2.0	2.39	2.81
13-Jan	2.0	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.2	2.1	2.4	2.3	3.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.1	2.4	2.13	3.03
14-Jan	2.5	2.5	2.6	2.3	2.6	2.3	2.4	2.3	2.0	2.1	2.0	2.3	2.1	2.2	2.3	A	2.2	2.2	2.0	2.1	2.3	1.9	1.9	1.9	2.22	2.62
15-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	4.0	2.0	2.1	2.3	2.0	2.0	2.0	2.06	4.04
16-Jan	2.0	2.1	2.6	2.5	2.7	2.9	3.0	2.7	2.4	2.5	2.4	2.1	2.0	A	2.1	2.3	2.2	2.3	2.3	2.4	2.3	2.3	3.1	2.5	2.42	3.08
17-Jan	2.2	2.1	2.2	2.2	2.0	2.0	2.7	2.0	2.4	2.3	2.7	2.3	A	2.6	2.6	2.2	2.2	2.0	2.0	1.9	2.0	2.1	2.2	2.3	2.23	2.68
18-Jan	2.2	2.8	2.3	2.6	2.3	2.6	2.3	2.3	2.4	2.5	3.2	A	2.3	2.4	2.5	2.3	2.3	2.3	2.4	2.2	2.8	2.6	2.3	2.2	2.44	3.16
19-Jan	2.4	2.4	2.4	2.4	2.3	2.5	2.4	2.5	2.6	2.5	A	2.2	2.3	2.2	2.4	2.9	2.8	3.1	2.6	2.5	2.5	3.1	2.4	2.4	2.52	3.10
20-Jan	2.5	2.6	3.6	3.7	2.6	2.6	2.6	2.8	2.5	A	2.6	2.6	2.4	2.3	2.7	2.4	2.5	2.5	2.5	2.5	2.6	2.4	2.4	2.4	2.62	3.70
21-Jan	2.4	2.4	2.4	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.08	2.42
22-Jan	2.1	2.0	2.1	2.0	2.0	2.2	2.1	A	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.4	2.1	2.0	2.2	2.0	2.0	2.1	2.10	2.38
23-Jan	2.1	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.09	2.21
24-Jan	2.1	2.1	2.1	2.2	2.2	A	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.5	2.6	2.5	2.5	2.44	2.60
25-Jan	2.5	2.6	2.6	2.5	A	2.6	2.7	2.7	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.0	2.0	2.0	2.0	2.55	2.80
26-Jan	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.0	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.30
27-Jan	2.0	2.1	A	2.3	2.2	2.7	2.9	2.5	3.2	2.8	2.6	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.23	3.19
28-Jan	2.0	A	2.1	2.2	2.4	2.9	3.2	2.2	2.2	2.2	2.4	2.2	2.1	2.3	2.2	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.20	3.23
29-Jan	A	2.0	2.0	2.1	2.1	2.6	2.0	2.1	2.1	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	A	2.02	2.60
30-Jan	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.96	1.99
31-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.1	2.1	2.02	2.06
	2.16	2.20	2.23	2.23	2.19	2.24	2.27	2.21	2.23	2.23	2.25	2.17	2.15	2.20	2.18	2.15	2.16	2.23	2.17	2.17	2.26	2.18	2.15	2.15	Diurnal Average	
	2.81	2.82	3.56	3.70	2.75	2.91	3.23	2.82	3.19	2.82	3.16	2.74	2.70	3.03	2.71	2.85	2.78	4.04	2.70	2.68	4.17	3.09	3.08	2.54	Diurnal Maximum	

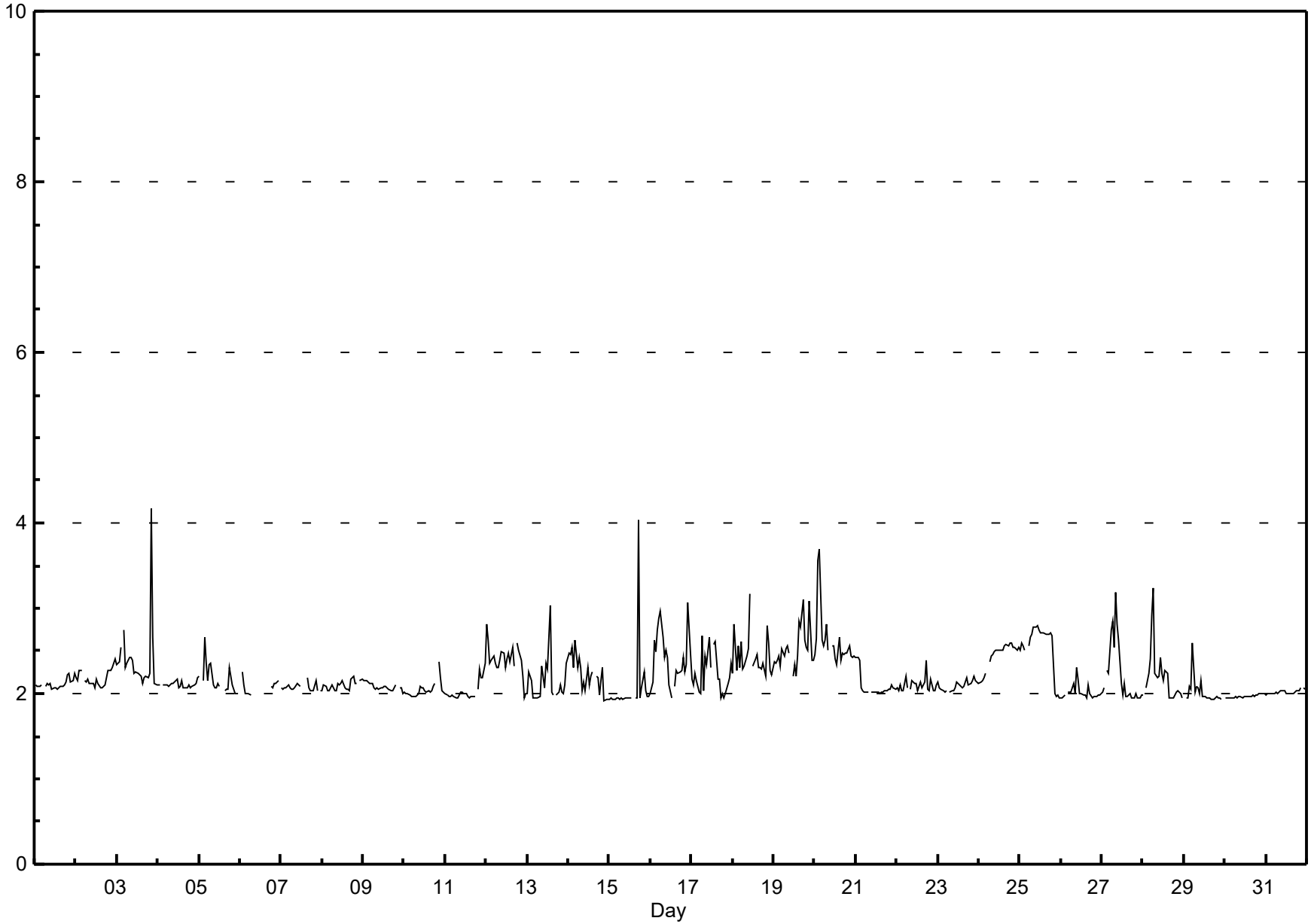
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - January 2017

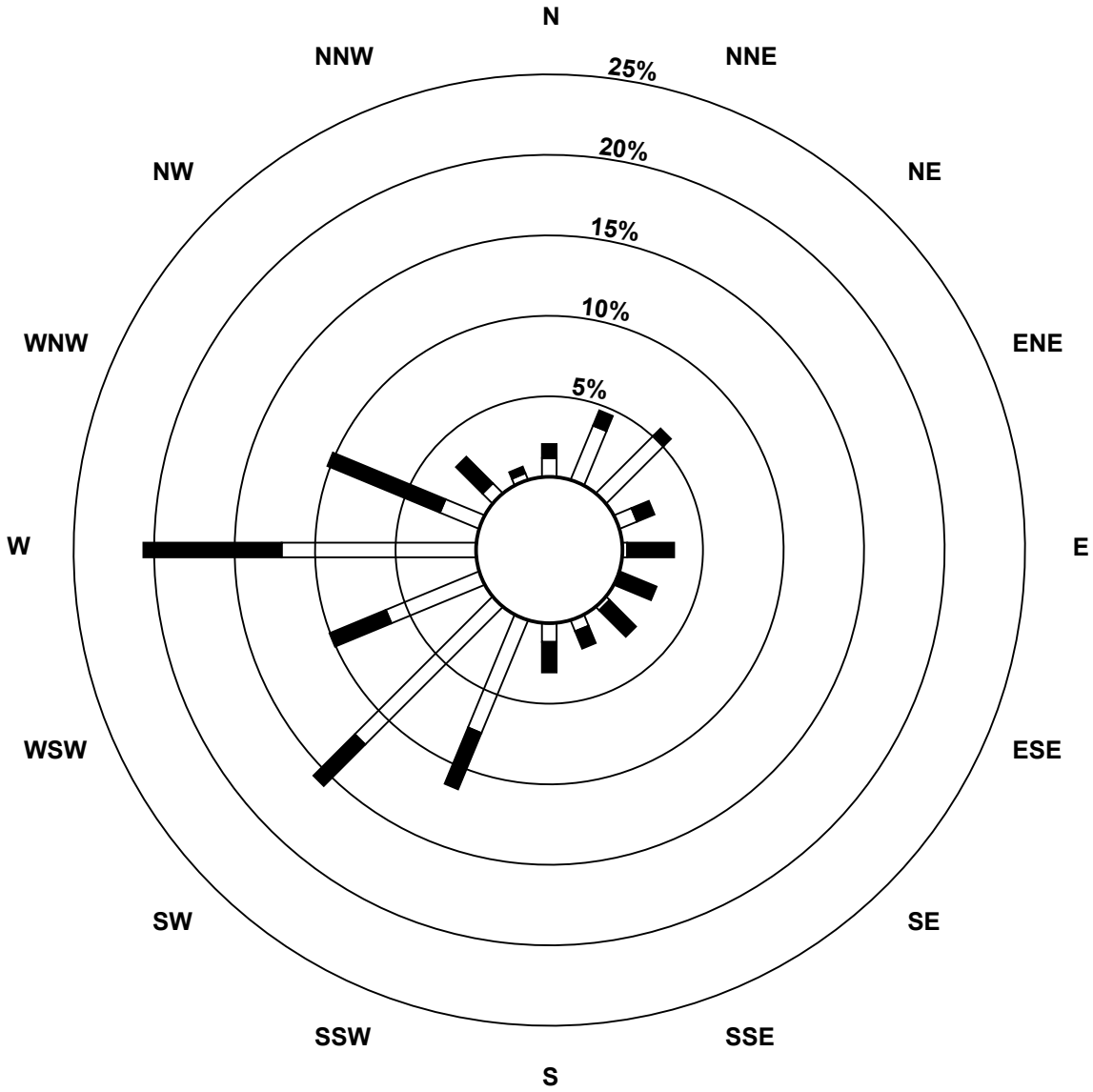


Peace Airshed Zone Association

Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - January 2017



Pollutant Classes (ppm)

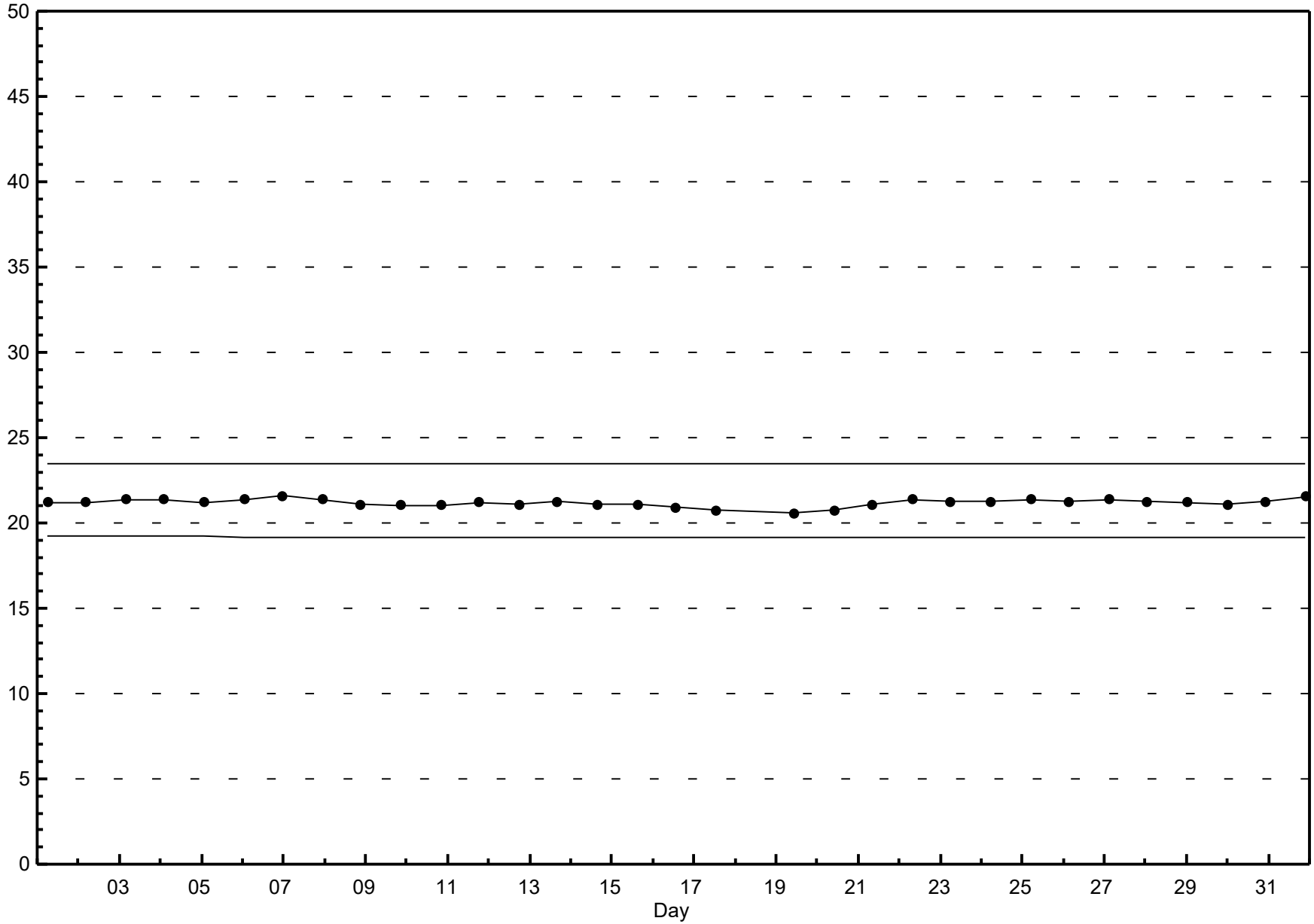
- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - January 2017

Maximum Value: 2.96 ppm on Jan 3 21:00

Maximum Daily Average: 2.49 ppm on Jan 25

Minimum Value: 1.9 ppm on Jan 14 22:00

Minimum Daily Average: 1.94 ppm on Jan 15

Maximum Diurnal Average: 2.15 ppm at hour 7

Minimum Diurnal Average: 2.07 ppm at hour 22

Monthly Average: 2.103 ppm

Percentiles: P_1 = 1.92 P_{10} = 1.94 Q_1 = 1.98 Median = 2.04 Q_3 = 2.16 P_{90} = 2.39 P_{99} = 2.68

Hours in Service:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	38
Percent Operational Time:	98.5

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-Jan	2.1	2.1	2.1	2.1	2.0	A	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.07	2.16
2-Jan	2.2	2.1	2.2	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.2	2.2	2.1	2.3	2.3	2.11	2.28
3-Jan	2.3	2.3	2.4	A	2.4	2.3	2.3	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.1	3.0	2.2	2.1	2.1	2.25	2.96
4-Jan	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	2.1	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.07	2.10
5-Jan	2.1	A	2.1	2.3	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.1	2.0	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.32
6-Jan	A	2.0	2.0	2.0	2.0	2.0	2.0	M	M	M	M	M	M	M	M	M	M	M	2.1	2.1	2.1	2.1	2.1	A	--	2.12
7-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.03	2.09
8-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	A	2.1	2.1	2.04	2.15
9-Jan	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.05	2.12
10-Jan	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.2	2.1	2.0	2.0	2.01	2.18
11-Jan	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	1.98	2.15
12-Jan	2.4	2.4	2.2	2.3	2.3	2.3	2.3	2.2	2.3	2.4	2.3	2.3	2.3	2.4	2.3	2.3	2.3	A	2.3	2.4	2.3	2.0	1.9	1.9	2.27	2.42
13-Jan	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.08
14-Jan	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.1	2.1	A	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.03	2.20
15-Jan	1.9	1.9	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	2.1	1.9	2.0	2.1	1.9	1.9	1.9	1.94	2.13
16-Jan	1.9	2.0	2.3	2.1	2.6	2.6	2.4	2.3	2.2	2.3	2.1	2.0	1.9	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.6	2.2	2.17	2.61
17-Jan	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.2	2.4	2.2	A	2.4	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.05	2.39
18-Jan	2.1	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.3	2.4	2.7	A	2.1	2.2	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.23	2.68
19-Jan	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.4	2.4	2.3	A	2.1	2.1	2.2	2.2	2.3	2.4	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.30	2.44
20-Jan	2.4	2.4	2.6	2.6	2.6	2.5	2.5	2.5	2.5	A	2.4	2.4	2.4	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.43	2.62
21-Jan	2.4	2.4	2.3	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.38
22-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.01
23-Jan	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.05	2.13
24-Jan	2.1	2.1	2.1	2.1	2.2	A	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.5	2.5	2.5	2.5	2.40	2.56
25-Jan	2.5	2.5	2.5	2.5	A	2.4	2.6	2.7	2.7	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.7	2.3	2.0	1.9	2.0	1.9	2.49	2.76
26-Jan	1.9	1.9	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.96	2.01
27-Jan	2.0	2.0	A	2.1	2.1	2.5	2.6	2.3	2.8	2.5	2.3	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.11	2.82
28-Jan	2.0	A	2.0	2.0	2.2	2.5	2.6	2.1	2.0	2.1	2.3	2.1	2.1	2.2	2.1	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.07	2.63
29-Jan	A	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.95	2.10
30-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.95	1.97
31-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	2.04
	2.09	2.10	2.11	2.10	2.10	2.13	2.15	2.12	2.15	2.13	2.14	2.09	2.08	2.11	2.10	2.08	2.09	2.08	2.10	2.09	2.11	2.07	2.09	2.08	Diurnal Average	
	2.48	2.53	2.55	2.62	2.57	2.58	2.64	2.65	2.82	2.73	2.76	2.70	2.67	2.69	2.68	2.66	2.68	2.64	2.65	2.56	2.96	2.48	2.61	2.49	Diurnal Maximum	

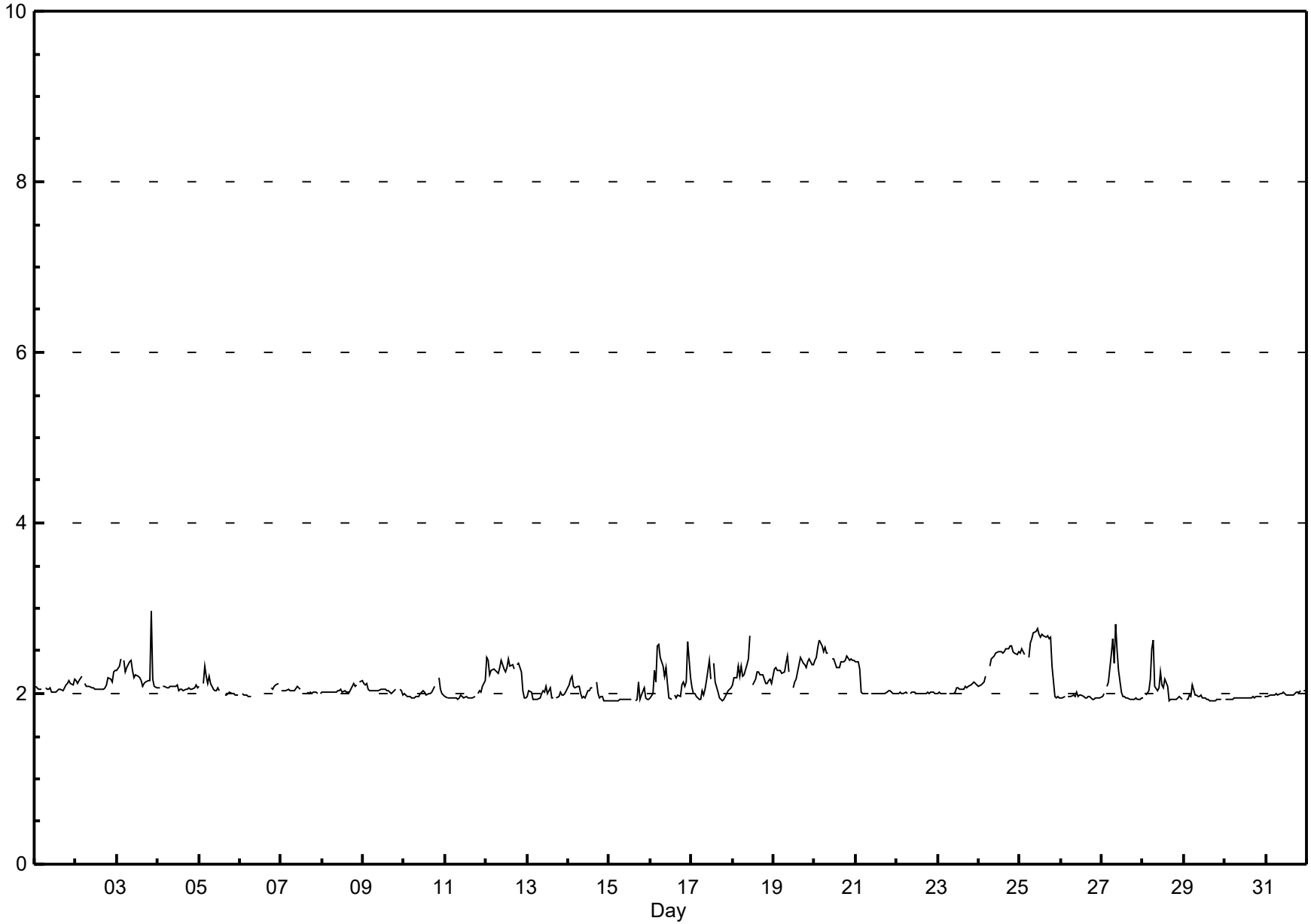
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

Henry Pirker - January 2017

Maximum Value: 4.18 ppm on Jan 3 21:00

Maximum Daily Average: 2.61 ppm on Jan 20

Minimum Value: 1.9 ppm on Jan 14 22:00

Minimum Daily Average: 1.96 ppm on Jan 30

Maximum Diurnal Average: 2.26 ppm at hour 7

Minimum Diurnal Average: 2.14 ppm at hour 13

Monthly Average: 2.197 ppm

Percentiles: P_1 = 1.93 P_{10} = 1.96 Q_1 = 2.02 Median = 2.10 Q_3 = 2.32 P_{90} = 2.55 P_{99} = 3.16

Hours in Service:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	38
Percent Operational Time:	98.5

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-Jan	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.11	2.24
2-Jan	2.2	2.2	2.3	2.3	A	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.4	2.18	2.40
3-Jan	2.3	2.4	2.5	A	2.7	2.3	2.4	2.4	2.4	2.4	2.2	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	4.2	2.6	2.1	2.1	2.39	4.18
4-Jan	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.10	2.18
5-Jan	2.2	A	2.2	2.7	2.3	2.2	2.3	2.4	2.1	2.1	2.1	2.1	2.1	C	C	2.0	2.1	2.1	2.3	2.1	2.0	2.0	2.0	2.0	2.15	2.67
6-Jan	A	2.2	2.1	2.0	2.0	2.0	2.0	M	M	M	M	M	M	M	M	M	M	M	2.1	2.1	2.1	2.1	2.2	A	--	2.25
7-Jan	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	C	C	C	2.2	2.1	2.0	2.0	2.0	2.2	2.0	A	2.0	2.07	2.19
8-Jan	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.2	2.2	2.1	2.1	A	2.2	2.2	2.09	2.21
9-Jan	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	A	2.1	2.1	2.0	2.08	2.16
10-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.4	2.2	2.0	2.0	2.04	2.37
11-Jan	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.3	2.2	2.2	2.4	2.03	2.35
12-Jan	2.8	2.6	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.5	2.5	2.3	2.4	2.5	2.4	2.5	2.3	A	2.6	2.5	2.4	2.2	2.0	2.0	2.39	2.80
13-Jan	2.0	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.2	2.1	2.4	2.3	3.0	2.0	2.0	A	2.0	2.0	2.1	2.0	2.0	2.1	2.4	2.13	3.03
14-Jan	2.5	2.5	2.5	2.3	2.6	2.3	2.4	2.3	2.0	2.1	2.0	2.3	2.1	2.2	2.2	A	2.2	2.2	2.0	2.1	2.3	1.9	1.9	1.9	2.22	2.61
15-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	4.0	2.0	2.1	2.2	2.0	2.0	2.0	2.06	4.04
16-Jan	2.0	2.1	2.6	2.5	2.7	2.9	3.0	2.7	2.4	2.5	2.4	2.1	2.0	A	2.1	2.3	2.2	2.3	2.3	2.4	2.3	2.3	3.1	2.5	2.41	3.08
17-Jan	2.2	2.1	2.2	2.2	2.0	2.0	2.7	2.0	2.4	2.3	2.7	2.3	A	2.6	2.6	2.2	2.2	2.0	2.0	1.9	2.0	2.1	2.2	2.3	2.22	2.68
18-Jan	2.2	2.8	2.3	2.6	2.3	2.6	2.3	2.3	2.4	2.5	3.2	A	2.3	2.4	2.5	2.3	2.3	2.3	2.4	2.2	2.8	2.6	2.3	2.2	2.43	3.16
19-Jan	2.4	2.4	2.4	2.4	2.3	2.5	2.4	2.5	2.5	2.5	A	2.2	2.3	2.2	2.4	2.9	2.8	3.1	2.6	2.5	2.5	3.1	2.4	2.4	2.52	3.10
20-Jan	2.4	2.6	3.6	3.7	2.6	2.5	2.6	2.8	2.5	A	2.6	2.5	2.4	2.3	2.7	2.4	2.5	2.4	2.5	2.5	2.6	2.4	2.4	2.4	2.61	3.70
21-Jan	2.4	2.4	2.4	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.08	2.42
22-Jan	2.1	2.0	2.1	2.0	2.0	2.2	2.1	A	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.4	2.0	2.0	2.2	2.0	2.0	2.1	2.10	2.38
23-Jan	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.09	2.21
24-Jan	2.1	2.1	2.1	2.2	2.2	A	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.44	2.60
25-Jan	2.5	2.6	2.6	2.5	A	2.6	2.7	2.7	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.0	2.0	2.0	2.0	2.55	2.79
26-Jan	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.0	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.30
27-Jan	2.0	2.1	A	2.3	2.2	2.7	2.9	2.5	3.2	2.8	2.6	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.23	3.18
28-Jan	2.0	A	2.1	2.2	2.4	2.9	3.2	2.2	2.2	2.2	2.4	2.2	2.1	2.3	2.2	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.20	3.22
29-Jan	A	2.0	2.0	2.1	2.1	2.6	2.0	2.1	2.1	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	A	2.02	2.60
30-Jan	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.96	1.99
31-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.1	2.1	2.02	2.06
	2.16	2.20	2.23	2.23	2.19	2.24	2.26	2.21	2.23	2.23	2.25	2.17	2.14	2.20	2.18	2.15	2.16	2.23	2.17	2.17	2.26	2.18	2.15	2.15	Diurnal Average	
	2.80	2.82	3.55	3.70	2.74	2.92	3.22	2.82	3.18	2.81	3.16	2.74	2.70	3.03	2.71	2.85	2.78	4.04	2.70	2.68	4.18	3.09	3.08	2.53	Diurnal Maximum	

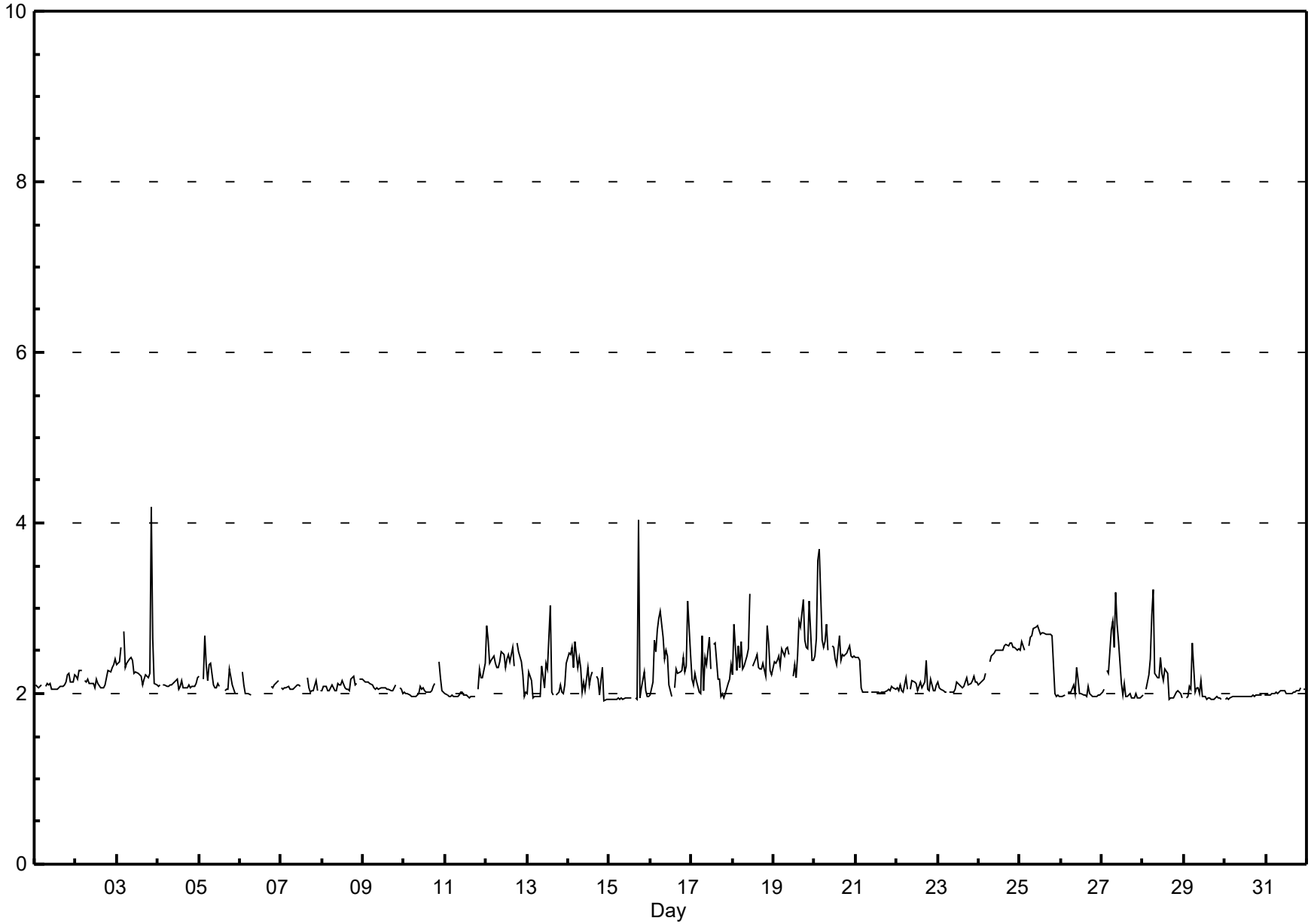
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

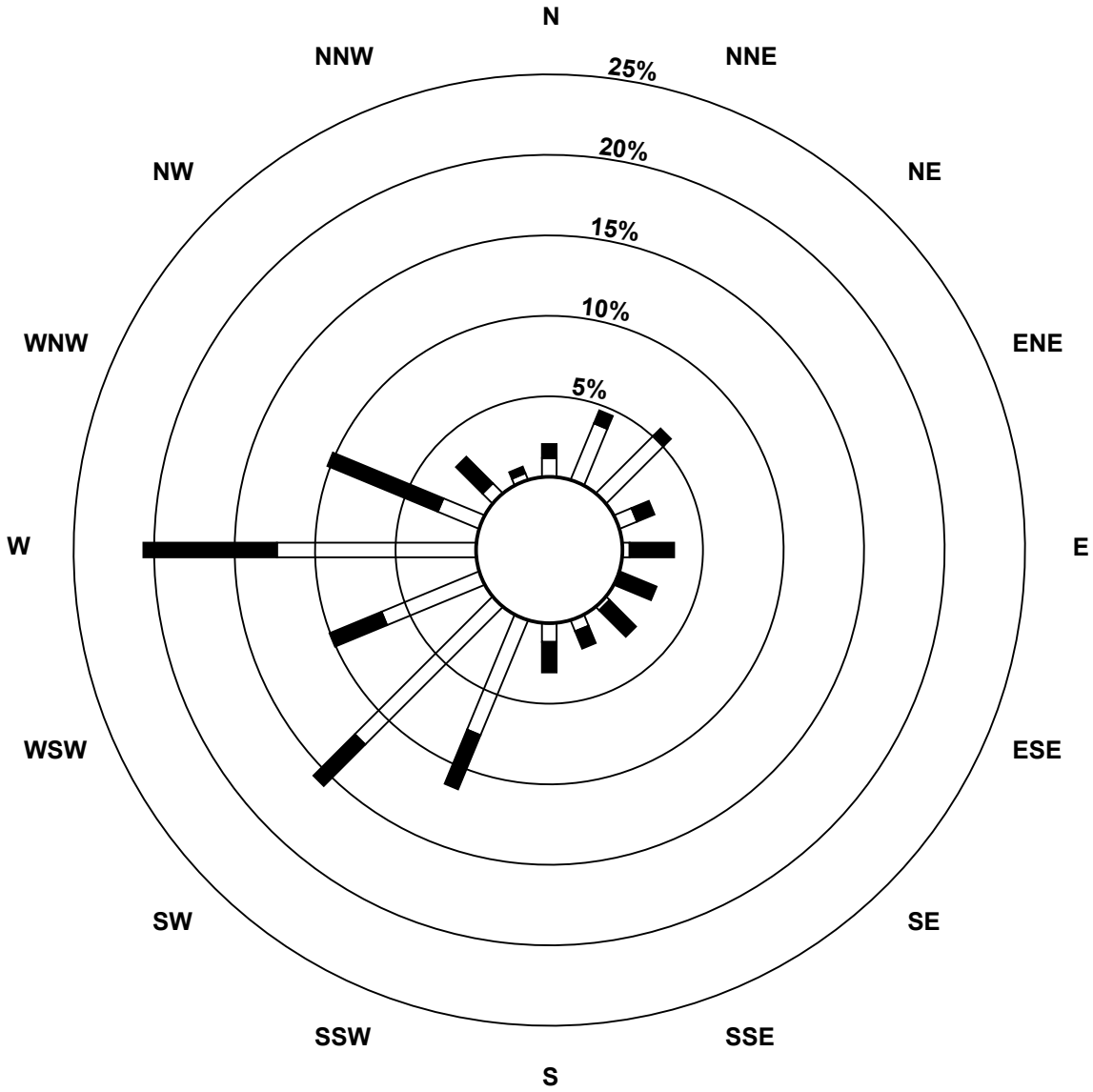
Henry Pirker - January 2017



Pollutant Rose

Methane (CH_4) - ppm

Henry Pirker - January 2017



Pollutant Classes (ppm)

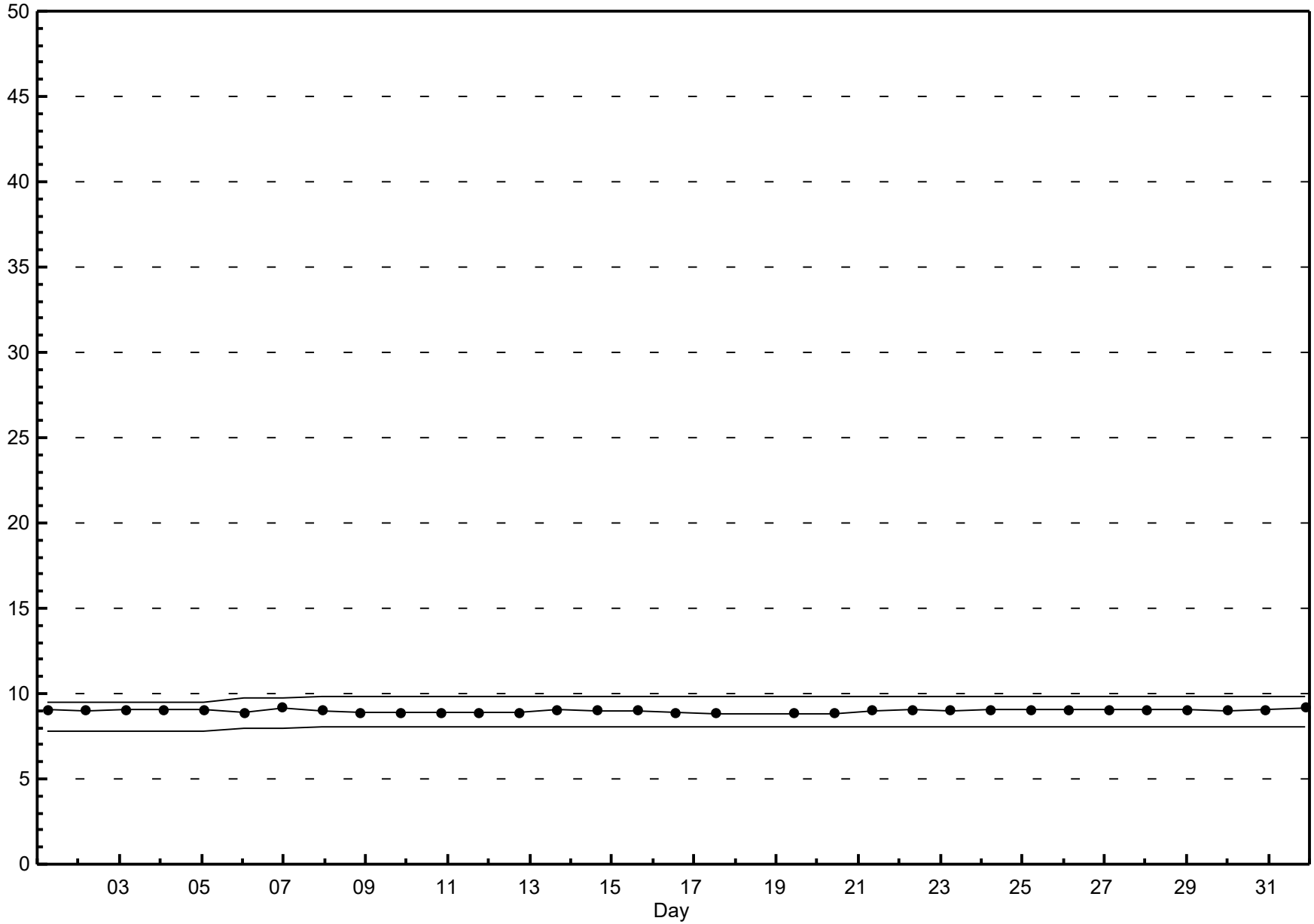
- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Peace Airshed Zone Association

Span Responses

Methane (CH_4)

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - January 2017

Maximum Value: 0.00 ppm on Jan 21 03:00

Maximum Daily Average: 0.00 ppm on Jan 26

Minimum Value: 0.0 ppm on Jan 1 01:00

Minimum Daily Average: 0.00 ppm on Jan 1

Maximum Diurnal Average: 0.00 ppm at hour 23

Minimum Diurnal Average: 0.00 ppm at hour 21

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:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	38
Percent Operational Time:	98.5

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-Jan	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
2-Jan	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
3-Jan	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
4-Jan	0.0	0.0	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
5-Jan	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-Jan	A	0.0	0.0	0.0	0.0	0.0	0.0	M	M	M	M	M	M	M	M	M	M	M	0.0	0.0	0.0	0.0	0.0	A	--	0.00
7-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
8-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
10-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
11-Jan	0.0	0.0	0.0	0.0	0.0	0.0	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
12-Jan	0.0	0.0	0.0	0.0	0.0	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
13-Jan	0.0	0.0	0.0	0.0	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
14-Jan	0.0	0.0	0.0	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
15-Jan	0.0	0.0	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
16-Jan	0.0	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
17-Jan	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
18-Jan	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
19-Jan	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
20-Jan	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
21-Jan	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
22-Jan	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
23-Jan	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
24-Jan	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
25-Jan	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
26-Jan	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
27-Jan	0.0	0.0	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
28-Jan	0.0	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
29-Jan	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
30-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
31-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
	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	

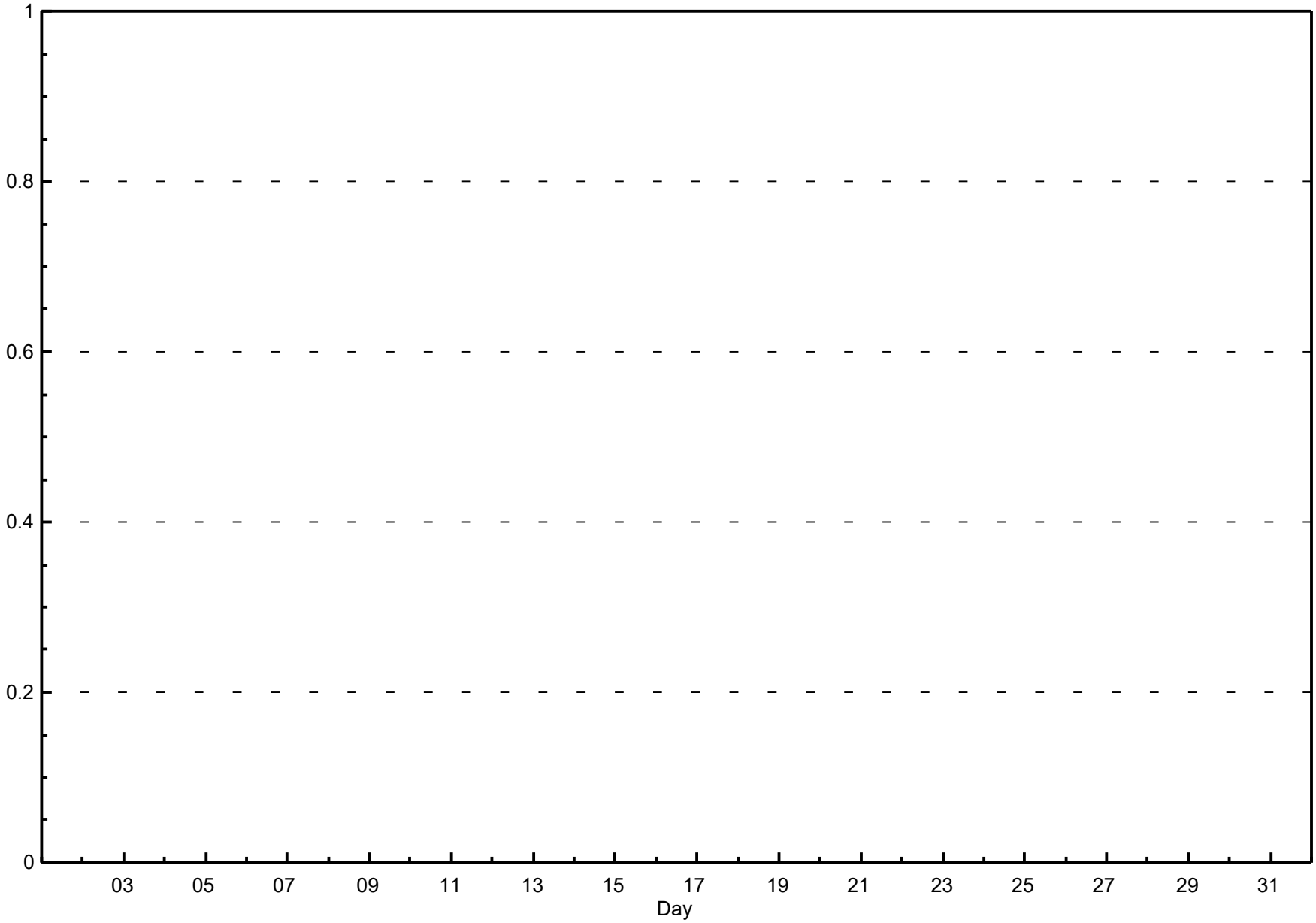
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - January 2017

Maximum Value: 0.00 ppm on Jan 17 21:00

Maximum Daily Average: 0.00 ppm on Jan 23

Minimum Value: 0.0 ppm on Jan 1 19:00

Minimum Daily Average: 0.00 ppm on Jan 16

Maximum Diurnal Average: 0.00 ppm at hour 15

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:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	38
Percent Operational Time:	98.5

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-Jan	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
2-Jan	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
3-Jan	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
4-Jan	0.0	0.0	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
5-Jan	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-Jan	A	0.0	0.0	0.0	0.0	0.0	0.0	M	M	M	M	M	M	M	M	M	M	M	0.0	0.0	0.0	0.0	0.0	A	--	0.00
7-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
8-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
10-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
11-Jan	0.0	0.0	0.0	0.0	0.0	0.0	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
12-Jan	0.0	0.0	0.0	0.0	0.0	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
13-Jan	0.0	0.0	0.0	0.0	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
14-Jan	0.0	0.0	0.0	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
15-Jan	0.0	0.0	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
16-Jan	0.0	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
17-Jan	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
18-Jan	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
19-Jan	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
20-Jan	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
21-Jan	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
22-Jan	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
23-Jan	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
24-Jan	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
25-Jan	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
26-Jan	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
27-Jan	0.0	0.0	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
28-Jan	0.0	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
29-Jan	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
30-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
31-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
	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	

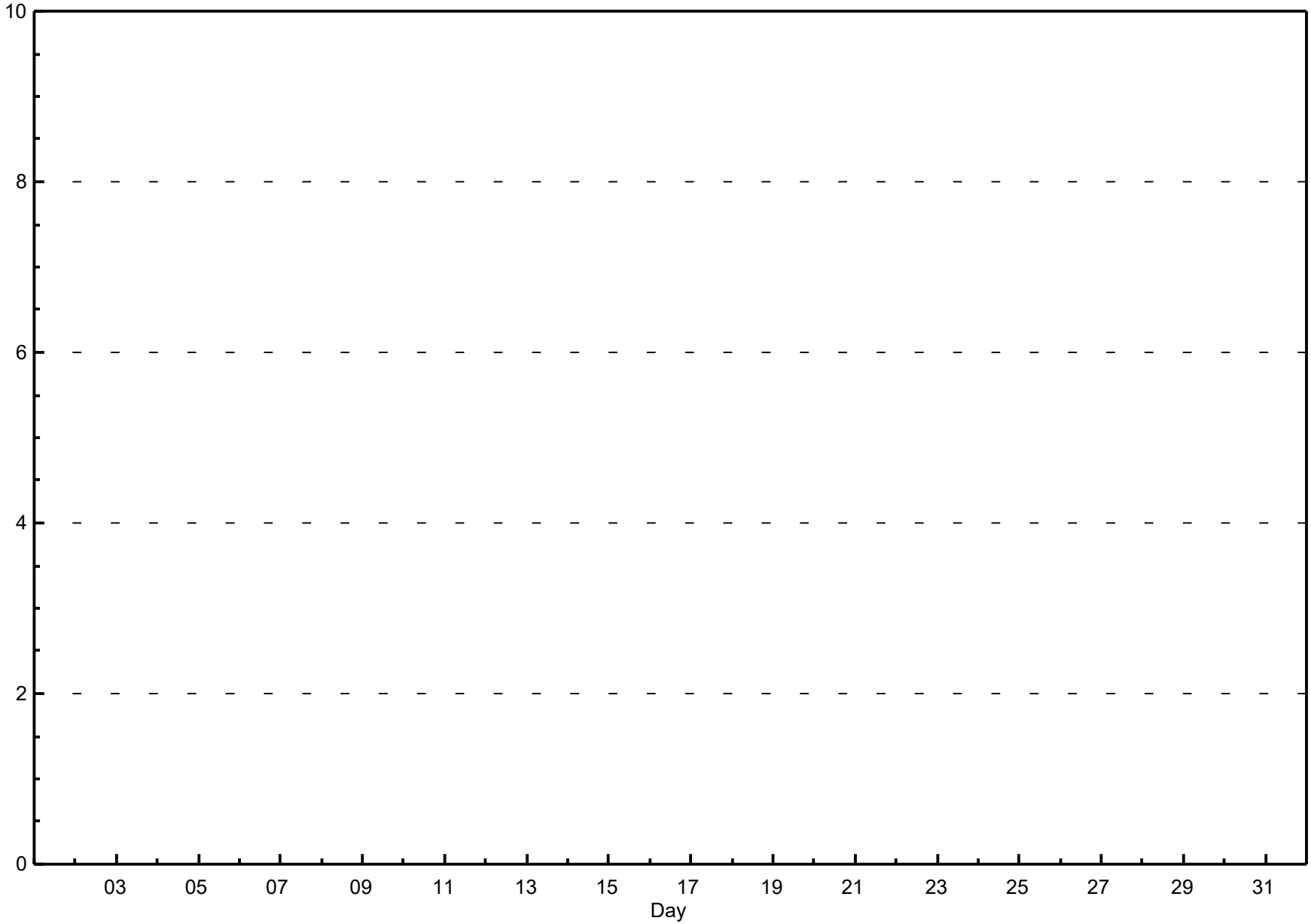
C - Calibration M - Maintenance A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - January 2017

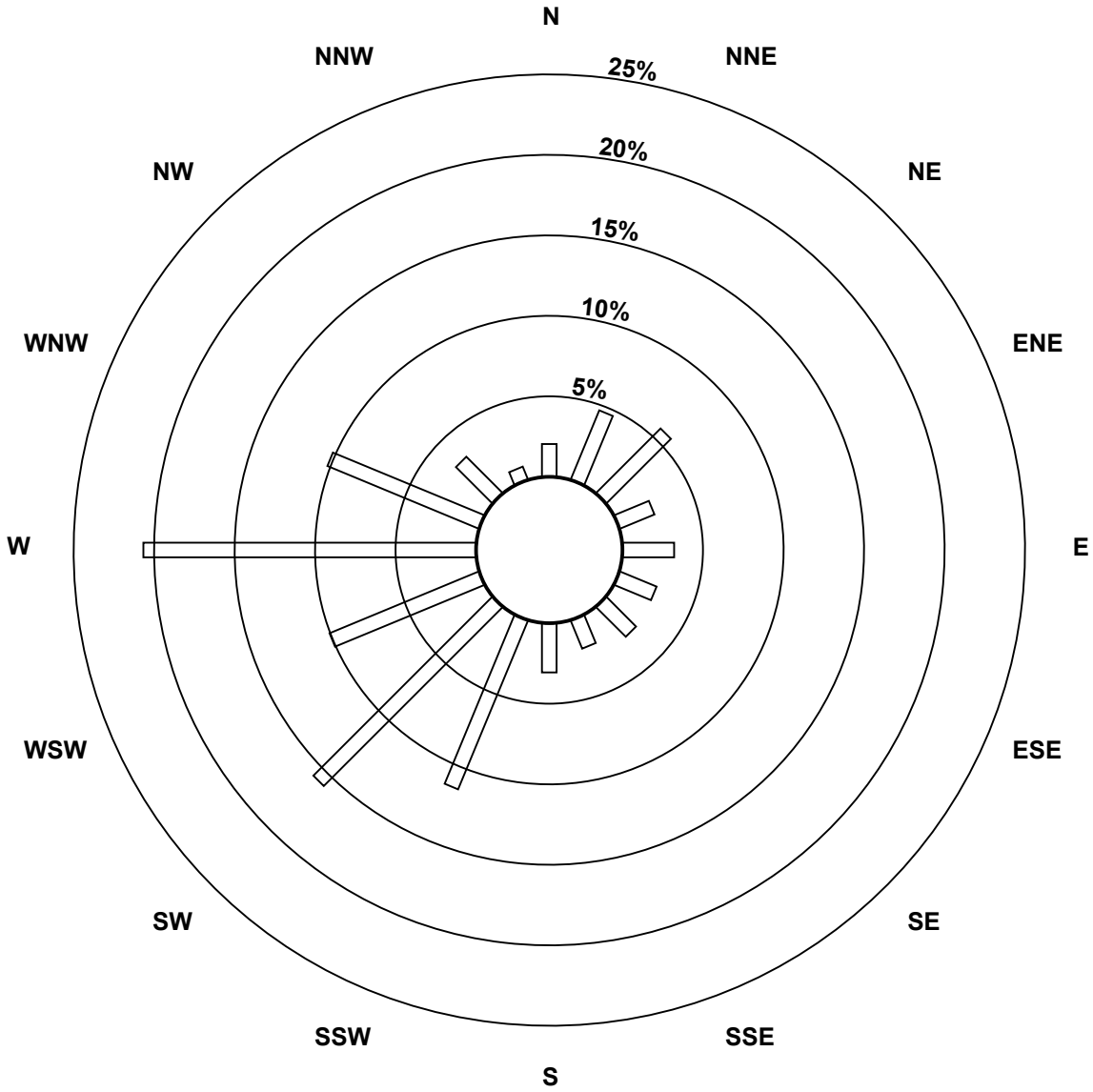


Peace Airshed Zone Association

Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - January 2017



Pollutant Classes (ppm)

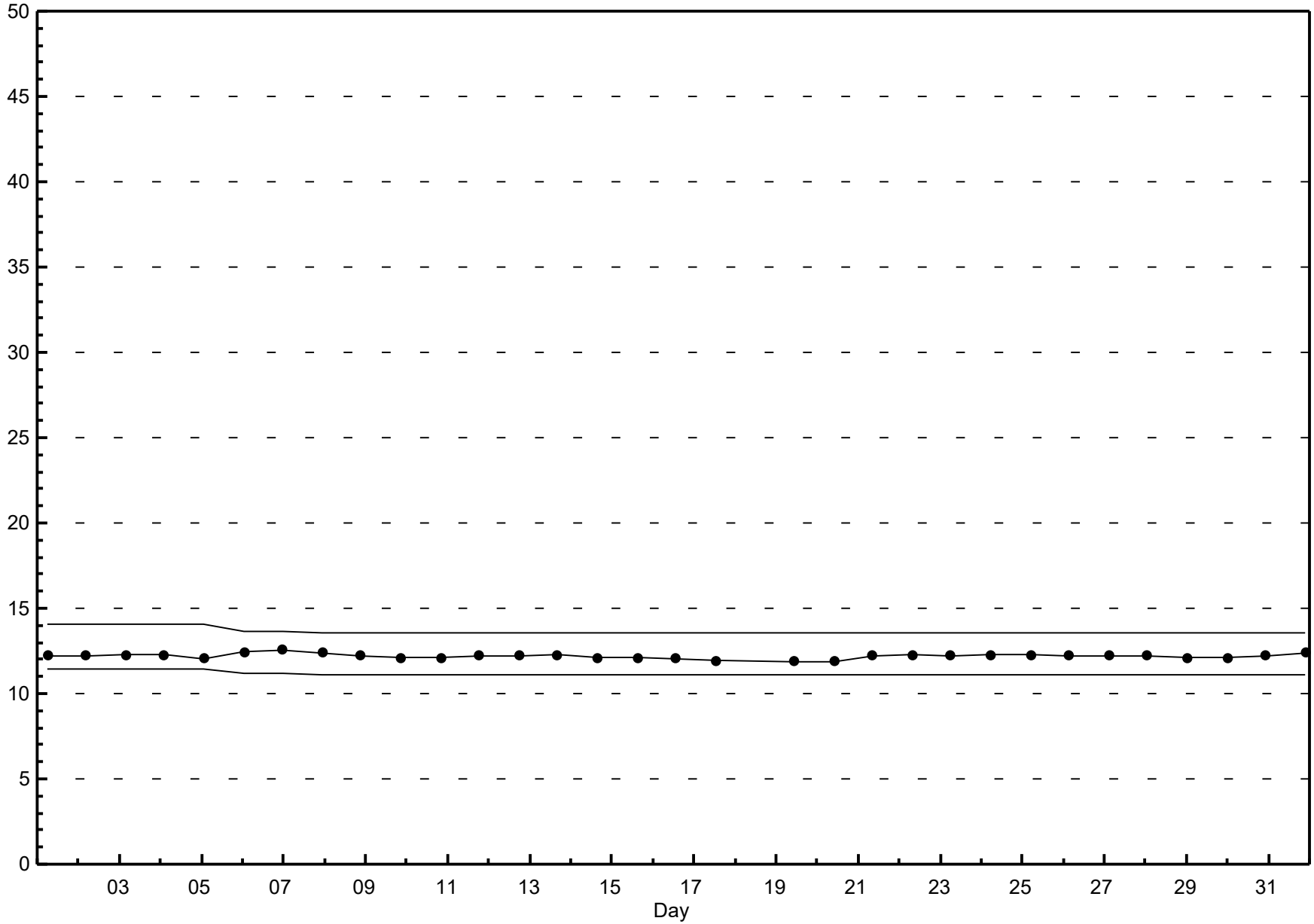
- 0 - 0.05
- 0.06 - 0.1
- 0.11 - 0.30
- > 0.30

Peace Airshed Zone Association

Span Responses

Non Methane Hydrocarbon (NMHC)

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - January 2017

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

Maximum Value: 42.4 $\mu g/m^3$ on Jan 12 01:00

Maximum Daily Average: 24.3 $\mu g/m^3$ on Jan 24

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

Maximum Diurnal Average: 9.1 $\mu g/m^3$ at hour 19

Monthly Average: 6.74 $\mu g/m^3$

Minimum Daily Average: 0.9 $\mu g/m^3$ on Jan 15

Minimum Diurnal Average: 5.3 $\mu g/m^3$ at hour 6

Percentiles: $P_1 = 0.6$ $P_{10} = 1.0$ $Q_1 = 1.9$ Median = 4.1 $Q_3 = 9.1$ $P_{90} = 17.7$ $P_{99} = 27.1$

Hours in Service:	744
Hours of Data:	744
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-Jan	4	2	2	1	1	1	1	1	1	1	1	2	1	1	5	2	2	3	5	4	3	3	4	2	2.2	4.9
2-Jan	2	1	2	4	5	5	4	4	6	3	3	4	2	3	3	3	3	6	11	13	9	13	11	9	5.3	13.3
3-Jan	17	9	5	7	5	3	4	6	6	4	2	3	4	3	3	3	4	5	7	5	5	4	5	5	5.2	17.2
4-Jan	2	2	2	2	2	2	2	3	3	3	4	3	2	4	6	8	14	20	24	15	6	8	32	10	7.5	31.8
5-Jan	5	9	12	27	28	5	6	3	4	3	2	2	1	1	1	2	2	2	2	2	2	3	3	3	5.4	27.6
6-Jan	3	4	5	6	6	6	5	6	8	9	8	7	7	8	7	8	7	5	5	6	6	4	4	4	5.9	9.3
7-Jan	2	2	2	2	2	1	2	3	4	2	9	4	5	5	5	5	5	6	6	5	5	4	4	3	3.9	8.7
8-Jan	4	5	4	4	4	4	4	4	4	4	6	7	8	8	8	9	11	8	8	8	8	8	9	9	6.5	10.6
9-Jan	9	7	7	5	4	4	4	4	4	4	4	4	4	2	3	2	8	25	12	12	12	6	2	1	6.3	24.6
10-Jan	1	1	1	1	1	1	1	1	2	4	2	4	2	2	3	3	3	4	10	9	7	6	1	1	2.9	9.6
11-Jan	1	1	1	1	1	1	1	1	1	2	2	1	4	2	1	2	4	4	4	6	8	14	15	24	4.3	24.0
12-Jan	42	36	12	8	7	8	7	15	23	19	18	17	19	21	17	14	14	19	20	19	14	4	2	5	15.8	42.4
13-Jan	2	3	1	1	1	1	1	1	3	3	5	3	2	2	1	1	1	2	2	3	1	1	1	4	1.9	5.3
14-Jan	4	5	3	2	4	4	2	1	1	1	1	3	3	4	6	9	25	4	2	2	1	1	0	0	3.7	24.7
15-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	1	1	1	0.9	4.4
16-Jan	1	7	6	4	4	5	5	8	9	3	3	4	3	2	2	3	4	4	18	20	9	11	14	5	6.4	19.7
17-Jan	3	2	2	2	2	2	2	3	5	8	10	9	14	20	13	10	3	3	2	4	6	8	6	4	6.1	20.3
18-Jan	6	7	12	11	9	10	11	13	12	18	28	15	11	13	14	16	16	18	15	10	15	13	14	9	13.2	27.6
19-Jan	13	7	3	3	3	3	3	4	5	5	5	6	7	10	12	14	12	11	13	14	11	8	11	10	8.0	14.1
20-Jan	8	10	13	16	22	15	16	12	11	13	10	14	14	12	13	18	16	20	20	21	17	17	18	18	15.1	21.9
21-Jan	15	13	9	7	6	5	5	5	5	4	4	4	3	3	3	4	3	4	4	4	5	4	4	4	5.3	14.9
22-Jan	6	6	5	5	4	4	3	3	4	5	9	9	7	7	6	6	6	6	6	6	8	10	9	10	6.3	10.3
23-Jan	9	9	10	10	10	11	13	14	17	15	15	18	19	14	13	17	19	22	22	20	18	17	21	19	15.5	22.3
24-Jan	17	17	20	15	23	23	26	27	32	23	22	24	21	20	20	22	24	28	33	34	29	25	29	27	24.3	33.7
25-Jan	23	21	19	23	17	21	25	29	25	22	21	20	18	18	18	16	22	20	22	12	2	1	1	1	17.3	28.8
26-Jan	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1.0	2.0
27-Jan	1	3	3	5	6	6	6	8	6	7	8	3	3	2	2	2	1	2	1	2	2	1	1	1	3.4	8.2
28-Jan	1	2	4	2	3	4	4	4	5	5	7	6	9	10	5	2	2	2	2	2	2	2	1	1	3.5	9.9
29-Jan	2	3	3	3	3	9	2	2	2	2	2	1	1	1	2	2	1	1	1	1	1	1	1	1	2.1	8.7
30-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3	1	1	1	1.1	2.8
31-Jan	1	2	2	2	2	2	3	2	2	2	2	2	2	2	2	3	3	3	3	3	5	2	3	4	2.5	4.7
	6.7	6.3	5.6	5.8	6.0	5.3	5.5	6.1	6.9	6.4	7.0	6.6	6.4	6.5	6.4	6.7	7.7	8.3	9.1	8.5	7.2	6.6	7.5	6.4	Diurnal Average	
	42.4	36.0	20.5	26.6	27.6	22.6	26.1	28.8	31.9	23.5	27.6	24.0	21.3	20.8	20.4	21.6	24.7	27.8	33.0	33.7	29.4	25.3	31.8	27.1	Diurnal Maximum	

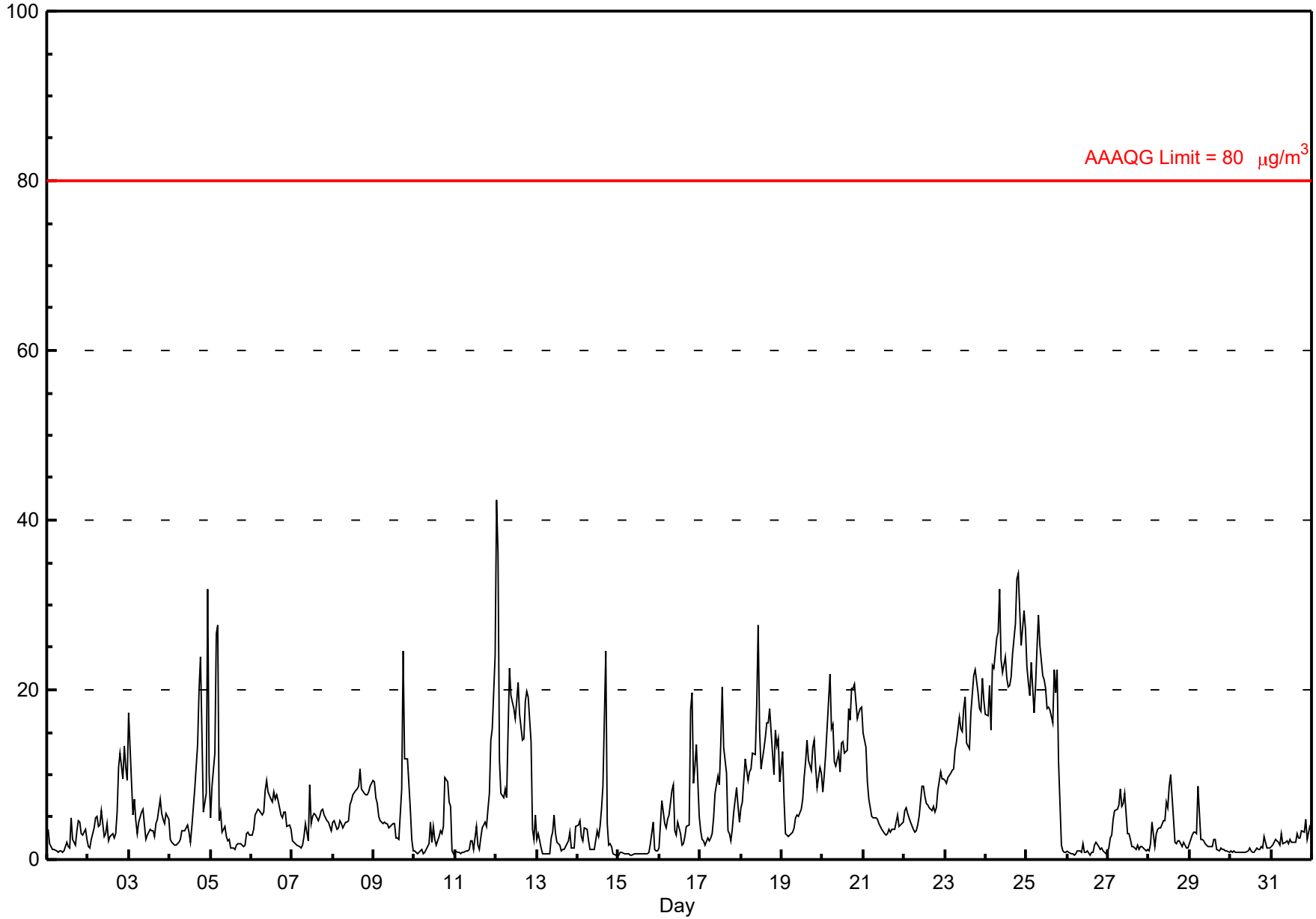
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - January 2017

Maximum Value: 123.0 $\mu g/m^3$ on Jan 14 17:00

Maximum Daily Average: 29.2 $\mu g/m^3$ on Jan 24

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

Minimum Daily Average: 1.7 $\mu g/m^3$ on Jan 15

Maximum Diurnal Average: 17.0 $\mu g/m^3$ at hour 1

Minimum Diurnal Average: 6.8 $\mu g/m^3$ at hour 7

Monthly Average: 10.49 $\mu g/m^3$

Percentiles: P_1 = 0.8 P_{10} = 1.4 Q_1 = 3.0 Median = 6.0 Q_3 = 13.1 P_{90} = 25.1 P_{99} = 56.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

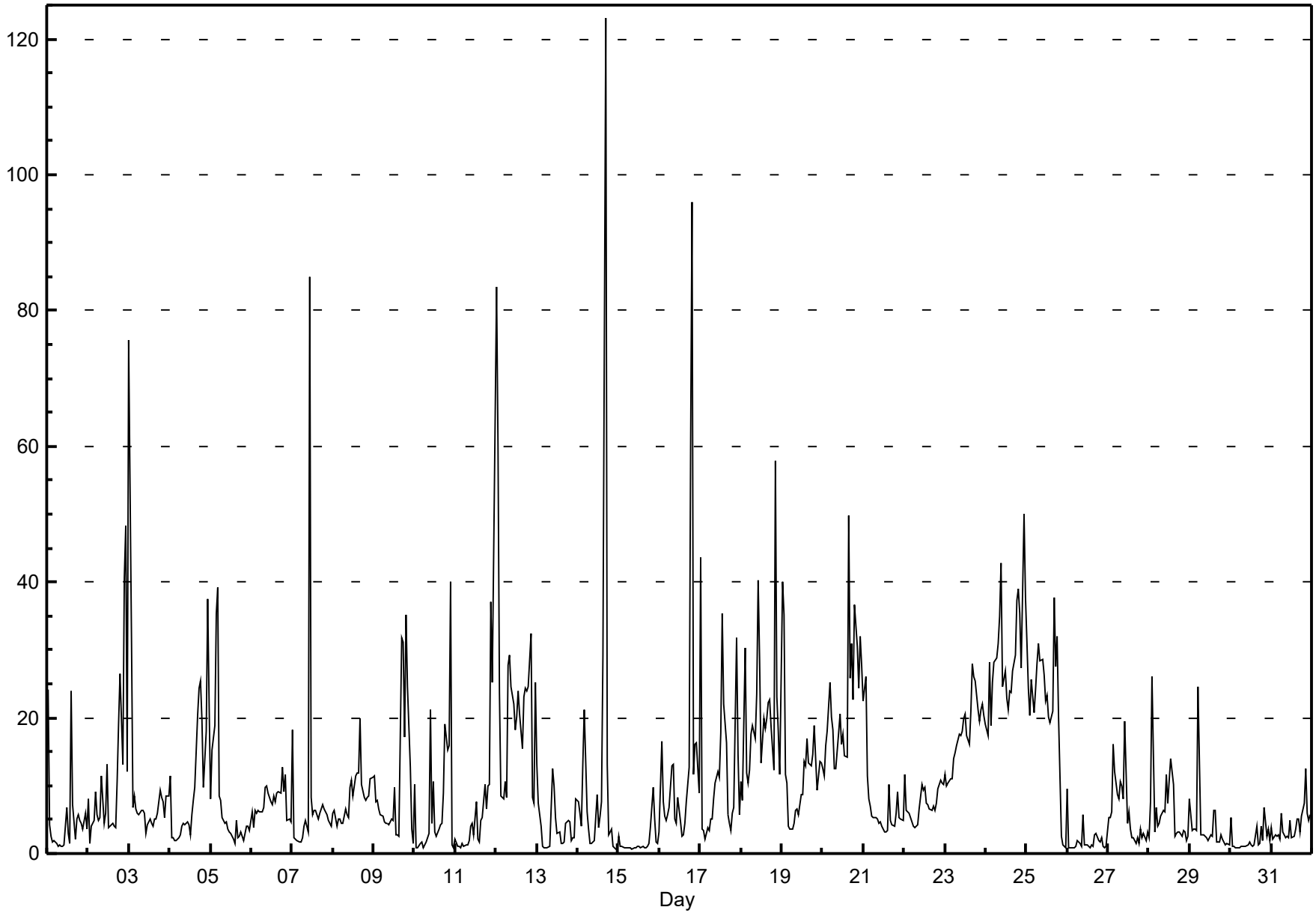
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	24	4	2	2	2	1	1	1	1	1	1	7	3	2	24	7	2	5	6	5	5	4	6	4	5.0	24.1
2-Jan	8	1	4	5	9	6	5	5	11	5	6	13	4	4	5	4	4	11	19	27	13	41	48	12	11.2	48.4
3-Jan	76	32	7	9	7	6	6	6	6	6	3	4	5	5	4	5	5	6	9	8	8	5	8	8	10.2	75.6
4-Jan	11	2	2	2	2	2	3	4	5	4	5	4	3	6	8	10	20	24	25	20	10	18	38	22	10.4	37.6
5-Jan	8	15	19	35	39	8	8	5	5	5	4	3	3	2	2	5	2	3	3	2	3	4	4	3	7.9	39.2
6-Jan	6	4	6	6	6	6	6	7	10	10	9	8	7	8	8	9	9	9	13	9	12	5	5	5	7.6	12.8
7-Jan	18	2	2	2	2	2	2	4	5	3	85	8	6	6	6	5	6	7	7	7	6	5	4	4	8.5	84.9
8-Jan	6	6	4	5	5	5	4	7	6	5	10	11	9	11	12	12	20	10	8	8	8	8	11	11	8.4	20.0
9-Jan	11	8	8	7	6	6	5	4	5	4	5	5	10	3	3	3	32	31	17	35	25	13	4	1	10.3	35.2
10-Jan	10	1	1	2	2	1	1	2	3	21	5	11	3	2	4	4	4	9	19	15	16	40	1	1	7.4	40.0
11-Jan	2	1	1	1	1	1	1	1	2	4	4	3	8	2	2	5	5	10	6	10	10	37	25	64	8.6	63.7
12-Jan	84	60	24	9	8	11	8	28	29	25	22	18	20	24	20	15	23	24	24	25	32	8	7	25	23.9	83.5
13-Jan	13	7	4	1	1	1	1	1	7	13	10	5	3	3	1	2	2	4	5	5	2	2	2	8	4.3	13.2
14-Jan	8	6	4	13	21	6	4	1	1	2	2	9	4	5	8	29	123	13	3	3	4	1	1	1	11.3	123.0
15-Jan	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	10	5	2	1	1.7	9.8
16-Jan	3	16	8	6	5	6	7	13	13	5	5	8	5	3	3	5	8	13	60	96	12	16	16	9	14.1	95.9
17-Jan	44	4	3	2	4	3	5	5	8	10	12	11	18	35	22	16	6	5	3	6	7	32	15	6	11.8	43.7
18-Jan	11	8	30	12	10	12	18	19	17	23	40	29	13	20	18	20	22	23	19	12	58	23	18	12	20.3	57.8
19-Jan	40	35	12	10	4	4	4	5	6	7	6	9	9	14	13	17	13	13	15	19	14	9	14	13	12.6	40.0
20-Jan	13	12	16	18	25	20	18	12	12	18	21	16	18	14	14	50	26	31	23	37	30	24	32	28	22.0	49.9
21-Jan	22	26	11	8	7	6	5	5	5	5	5	4	3	3	3	10	5	4	4	6	9	5	5	5	7.2	26.1
22-Jan	12	6	6	6	5	4	4	4	4	7	10	9	10	7	7	6	6	7	6	7	10	11	10	10	7.3	11.7
23-Jan	12	10	10	11	11	14	15	16	18	17	18	20	21	17	16	21	28	26	26	21	19	21	22	20	17.9	27.9
24-Jan	19	17	28	19	25	28	29	31	35	43	25	27	23	21	24	24	27	29	37	39	35	27	50	38	29.2	50.1
25-Jan	31	24	20	26	21	24	28	31	28	29	26	22	23	20	19	21	38	28	32	20	3	1	1	1	21.6	37.7
26-Jan	10	1	1	1	1	1	2	2	1	6	1	1	1	1	1	1	3	3	2	2	2	1	1	1	1.9	9.5
27-Jan	5	5	6	16	12	9	8	11	10	8	20	5	6	4	2	2	2	2	2	4	2	3	2	3	6.2	19.5
28-Jan	2	8	26	3	7	4	5	5	6	6	12	7	11	14	10	2	3	3	3	3	3	3	2	2	6.3	26.0
29-Jan	8	3	4	4	3	25	3	3	3	3	2	2	3	3	6	6	2	2	3	2	2	1	1	1	3.9	24.7
30-Jan	5	1	1	1	1	1	1	1	1	1	1	2	1	1	1	4	1	1	4	2	7	3	4	2	2.0	6.7
31-Jan	4	2	3	3	3	2	6	3	2	2	2	5	2	2	4	5	5	3	6	7	12	6	5	6	4.2	12.5
	17.0	10.7	8.9	7.8	8.3	7.2	6.8	7.9	8.6	9.6	12.1	9.3	8.2	8.5	8.8	10.5	14.6	11.6	13.2	15.0	12.5	12.4	11.8	10.6	Diurnal Average	
	83.5	59.9	30.4	35.4	39.2	28.2	28.8	30.9	35.0	42.8	84.9	28.7	23.3	35.4	24.0	49.9	123.0	31.1	59.6	95.9	57.8	40.7	50.1	63.7	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - January 2017

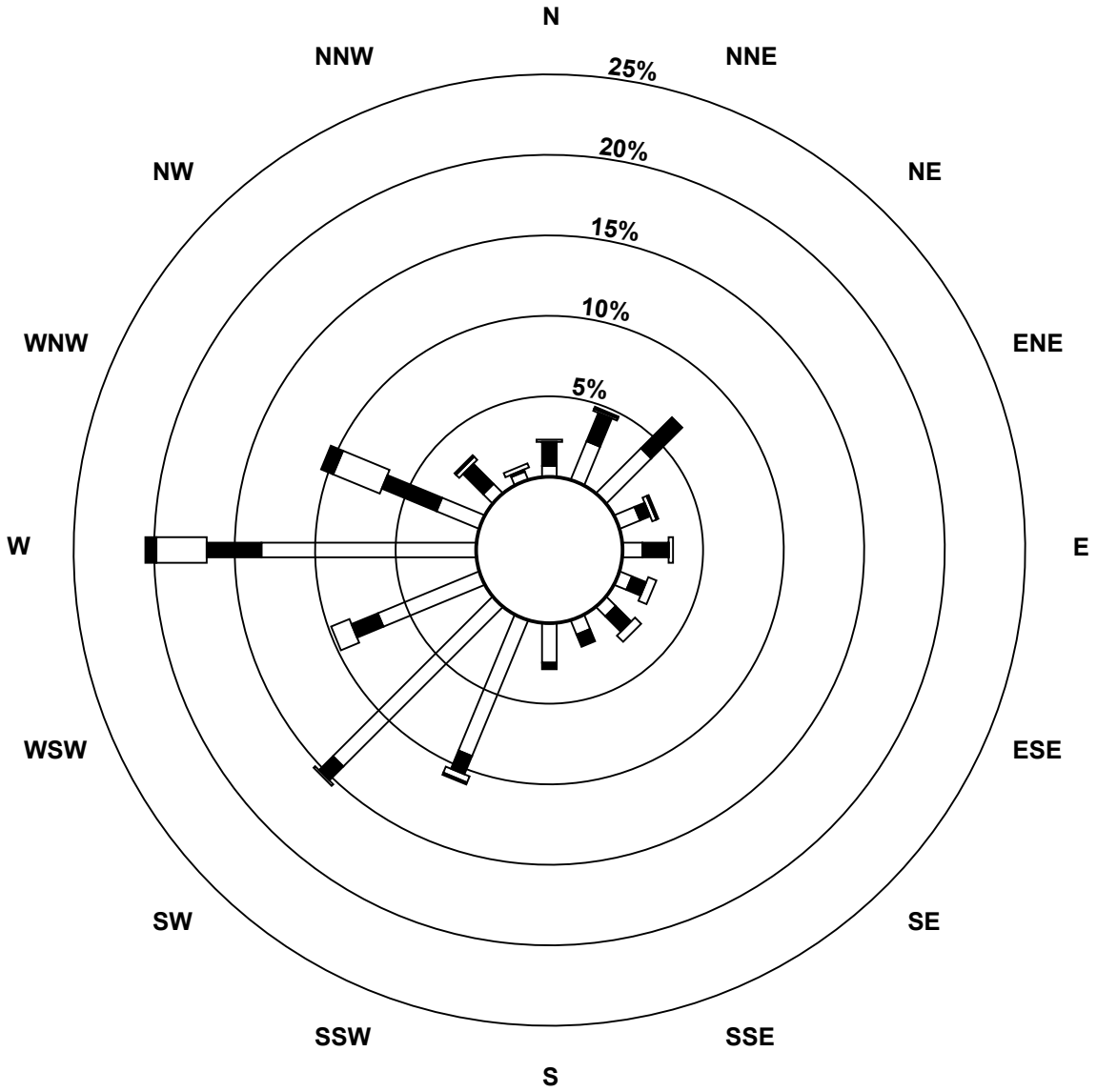


Peace Airshed Zone Association

Pollutant Rose

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

Henry Pirker - January 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

Henry Pirker - January 2017

Maximum Value: 9.6 °C on Jan 18 14:00

Maximum Daily Average: 4.2 °C on Jan 28

Minimum Value: -27 °C on Jan 12 09:00

Minimum Daily Average: -21.0 °C on Jan 12

Maximum Diurnal Average: -4.4 °C at hour 15

Minimum Diurnal Average: -9.3 °C at hour 8

Monthly Average: -7.55 °C

Percentiles: P_1 = -25.5 P_{10} = -18.9 Q_1 = -13.5 Median = -8.3 Q_3 = -0.3 P_{90} = 3.2 P_{99} = 8.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

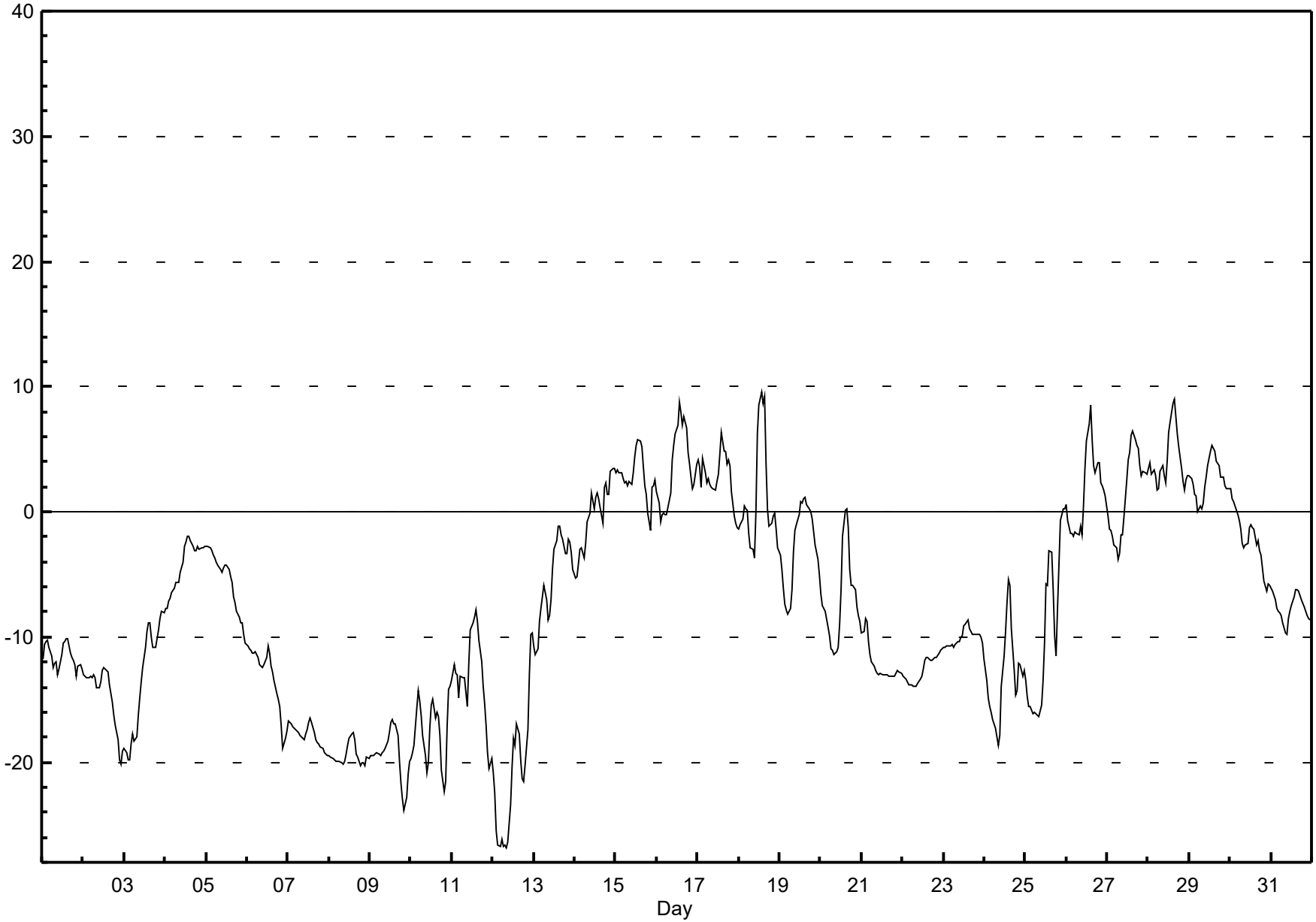
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	-12	-11	-10	-10	-11	-11	-12	-12	-12	-13	-13	-11	-10	-10	-10	-10	-11	-12	-12	-12	-13	-12	-12	-13	-11.5	-10.1
2-Jan	-13	-13	-13	-13	-13	-13	-13	-13	-14	-14	-14	-13	-12	-13	-13	-14	-15	-15	-16	-17	-18	-20	-20	-19	-14.6	-12.5
3-Jan	-19	-19	-20	-20	-19	-18	-18	-18	-16	-15	-14	-12	-11	-10	-9	-9	-10	-11	-11	-10	-9	-9	-8	-8	-13.4	-7.9
4-Jan	-8	-8	-7	-7	-6	-6	-6	-6	-6	-5	-4	-3	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-3	-3	-4.3	-1.9
5-Jan	-3	-3	-3	-3	-3	-4	-4	-4	-5	-5	-4	-4	-4	-5	-5	-6	-7	-7	-8	-8	-9	-9	-10	-11	-5.6	-2.8
6-Jan	-11	-11	-11	-11	-11	-11	-12	-12	-12	-12	-12	-12	-11	-11	-12	-13	-13	-14	-15	-16	-17	-19	-18	-18	-13.2	-10.7
7-Jan	-17	-17	-17	-17	-17	-17	-18	-18	-18	-18	-18	-17	-17	-16	-17	-18	-18	-18	-19	-19	-19	-19	-19	-19	-17.8	-16.4
8-Jan	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-19	-19	-18	-18	-18	-18	-19	-20	-20	-20	-20	-20	-20	-20	-19.4	-17.6
9-Jan	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-18	-18	-17	-17	-17	-17	-18	-20	-22	-23	-24	-23	-21	-20	-19.4	-16.6
10-Jan	-20	-19	-19	-16	-14	-15	-16	-18	-19	-21	-20	-17	-15	-15	-17	-16	-16	-18	-21	-22	-22	-17	-14	-14	-17.6	-14.0
11-Jan	-14	-12	-13	-13	-15	-13	-13	-13	-14	-16	-12	-9	-9	-8	-8	-9	-10	-12	-14	-15	-17	-19	-20	-20	-13.3	-7.9
12-Jan	-21	-22	-25	-27	-27	-26	-27	-27	-27	-26	-23	-20	-18	-19	-17	-18	-20	-21	-22	-20	-17	-13	-10	-10	-21.0	-9.7
13-Jan	-11	-11	-11	-9	-8	-7	-6	-7	-9	-8	-7	-5	-3	-2	-1	-1	-2	-2	-3	-3	-2	-2	-3	-5	-5.4	-1.1
14-Jan	-5	-5	-4	-3	-3	-4	-3	-1	0	0	2	0	1	1	1	0	-1	2	2	1	1	3	4	3	-0.3	3.5
15-Jan	3	3	3	3	3	2	2	2	2	2	3	4	5	6	6	5	4	2	1	0	-1	2	2	3	2.8	5.7
16-Jan	2	1	-1	0	0	0	0	1	2	4	5	6	7	9	8	7	8	7	5	4	3	2	2	4	3.5	8.7
17-Jan	4	4	2	4	3	2	3	2	2	2	2	2	3	5	6	5	5	4	4	4	2	0	-1	-1	2.8	6.4
18-Jan	-1	-1	-1	0	0	0	-2	-3	-3	-4	0	6	9	10	9	9	4	0	-1	-1	0	0	-1	-3	1.1	9.6
19-Jan	-3	-5	-6	-7	-8	-8	-8	-6	-3	-1	-1	0	1	1	1	1	1	0	0	-1	-2	-3	-4	-5	-2.8	1.1
20-Jan	-7	-7	-8	-8	-9	-10	-11	-11	-11	-11	-11	-9	-6	-2	0	0	-1	-5	-6	-6	-6	-8	-8	-9	-7.1	0.3
21-Jan	-10	-10	-8	-9	-10	-11	-12	-12	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-12.1	-8.5
22-Jan	-13	-13	-13	-14	-14	-14	-14	-14	-14	-14	-13	-13	-13	-12	-12	-12	-12	-12	-12	-12	-12	-11	-11	-11	-12.6	-11.0
23-Jan	-11	-11	-11	-11	-11	-11	-11	-11	-10	-10	-10	-10	-9	-9	-9	-9	-10	-10	-10	-10	-10	-10	-10	-10	-10.1	-8.6
24-Jan	-12	-13	-15	-16	-16	-17	-17	-18	-19	-18	-14	-11	-10	-7	-5	-6	-9	-13	-15	-14	-12	-12	-13	-13	-13.1	-5.4
25-Jan	-13	-15	-16	-16	-16	-16	-16	-16	-16	-15	-14	-10	-6	-6	-3	-3	-6	-10	-11	-8	-1	0	0	0	-9.7	0.2
26-Jan	1	-1	-2	-2	-2	-2	-2	-2	-1	-2	0	4	6	7	9	6	4	3	4	4	2	2	2	1	1.6	8.5
27-Jan	0	-1	-1	-2	-3	-3	-4	-3	-2	-2	0	2	4	5	6	7	6	5	5	4	3	3	3	3	1.4	6.5
28-Jan	3	4	3	3	3	2	2	3	4	3	2	4	6	7	9	9	8	6	5	3	2	2	3	3	4.2	9.0
29-Jan	3	3	2	1	1	0	0	0	1	2	3	4	5	5	5	5	4	4	3	3	3	2	2	2	2.6	5.3
30-Jan	2	1	1	0	0	-1	-1	-3	-3	-3	-3	-1	-1	-1	-1	-3	-2	-3	-3	-4	-6	-6	-6	-6	-2.2	1.9
31-Jan	-6	-6	-7	-8	-8	-8	-8	-9	-10	-10	-9	-8	-8	-7	-6	-6	-6	-7	-7	-8	-8	-8	-8	-9	-7.7	-6.0
	-8.1	-8.3	-8.7	-8.6	-8.8	-9.0	-9.2	-9.3	-9.2	-9.1	-8.0	-6.6	-5.4	-4.8	-4.4	-4.8	-5.9	-6.8	-7.5	-7.8	-7.9	-7.8	-7.6	-7.7	Diurnal Average	
	4.1	3.9	3.1	4.3	3.1	2.3	2.7	3.3	3.7	4.2	5.3	6.3	8.5	9.6	8.7	9.2	7.6	6.6	5.2	3.9	2.9	3.3	3.5	3.8	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - January 2017

Maximum Value: 87.8 % on Jan 19 21:00

Maximum Daily Average: 83.8 % on Jan 19

Minimum Value: 41 % on Jan 30 14:00

Minimum Daily Average: 57.8 % on Jan 15

Maximum Diurnal Average: 73.0 % at hour 9

Minimum Diurnal Average: 62.6 % at hour 15

Monthly Average: 70.19 %

Percentiles: P_1 = 46.0 P_{10} = 58.3 Q_1 = 64.6 Median = 71.1 Q_3 = 77.0 P_{90} = 80.7 P_{99} = 86.6

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

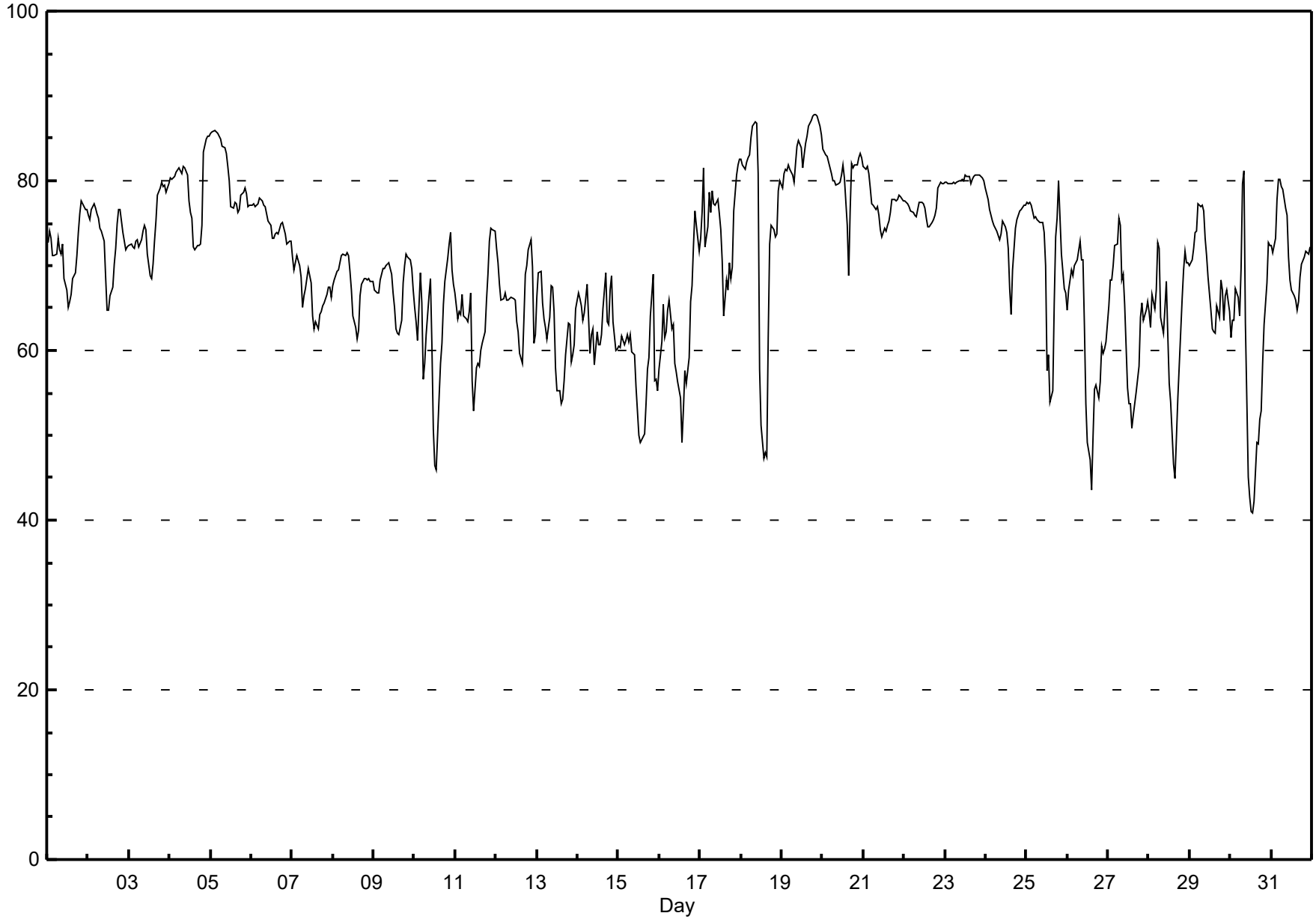
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	73	74	73	71	71	71	73	72	71	73	68	67	65	66	67	69	69	71	74	76	78	77	77	77	71.8	77.7
2-Jan	76	75	77	77	77	76	76	74	74	73	69	65	65	66	68	70	72	75	77	77	74	73	72	72	72.8	77.3
3-Jan	72	73	72	72	73	73	72	73	74	75	74	71	69	69	70	73	75	78	79	80	79	80	79	80	74.4	79.8
4-Jan	80	80	80	81	81	82	81	81	82	81	81	78	76	76	72	72	72	72	73	75	83	85	85	85	78.9	85.3
5-Jan	86	86	86	86	86	85	85	84	84	83	82	80	77	77	77	77	76	77	78	79	79	78	77	77	80.9	85.9
6-Jan	77	77	77	77	77	78	78	77	77	76	75	75	73	73	74	74	74	75	75	74	74	73	73	73	75.3	78.0
7-Jan	71	70	70	71	70	69	65	66	67	70	69	68	64	63	63	62	64	65	65	66	67	67	67	66	66.9	71.2
8-Jan	68	68	69	70	70	71	71	71	72	71	69	67	64	63	61	62	66	68	69	69	68	68	68	68	68.0	71.6
9-Jan	67	67	67	67	68	70	70	70	70	70	69	67	65	62	62	62	64	68	70	71	71	71	70	67	67.7	71.3
10-Jan	65	63	61	69	66	57	58	62	66	68	61	51	47	46	54	59	61	66	68	71	73	74	69	68	62.6	73.9
11-Jan	67	64	65	64	67	64	64	63	65	67	56	53	58	59	58	60	61	62	66	69	73	74	74	74	64.4	74.4
12-Jan	72	70	68	66	66	67	66	66	66	66	66	66	63	62	60	58	63	69	70	72	73	70	61	62	66.2	73.0
13-Jan	66	69	69	66	64	63	61	64	68	67	65	58	55	55	54	54	56	59	63	63	59	59	61	65	61.8	69.4
14-Jan	67	66	65	64	64	68	64	60	62	63	58	62	61	61	62	65	69	63	63	67	69	63	60	60	63.5	69.1
15-Jan	60	60	62	61	61	62	61	62	60	59	56	53	50	49	50	50	54	58	59	64	69	56	57	55	57.8	69.0
16-Jan	58	61	65	62	62	65	66	63	63	58	57	56	54	49	53	58	56	59	66	68	72	77	75	72	62.3	76.5
17-Jan	73	76	82	72	75	79	76	79	77	77	78	76	74	71	64	68	67	70	68	70	76	81	82	83	74.7	82.6
18-Jan	83	82	81	82	83	83	85	86	87	87	81	58	51	47	48	47	62	73	75	74	73	74	79	80	73.4	87.0
19-Jan	79	81	81	81	82	81	81	80	82	84	85	84	82	83	84	85	86	87	88	88	88	88	86	85	83.8	87.8
20-Jan	84	83	83	83	81	81	80	80	80	80	80	81	82	80	75	69	76	82	81	82	82	83	83	83	80.5	83.7
21-Jan	82	81	82	81	79	77	77	77	77	76	74	73	74	74	75	75	76	78	78	78	78	78	78	78	77.3	81.7
22-Jan	78	77	77	77	76	76	76	76	77	78	77	77	77	76	75	75	75	75	76	77	79	80	80	80	76.9	79.9
23-Jan	80	80	80	80	80	80	80	80	80	80	80	80	81	80	81	80	80	80	81	81	81	81	80	80	80.1	80.7
24-Jan	79	78	77	76	75	75	74	74	73	74	75	75	74	72	67	64	70	74	75	76	76	77	77	77	74.3	79.1
25-Jan	77	77	77	77	76	76	75	75	75	75	74	70	58	59	54	55	66	73	76	80	71	69	67	67	70.9	80.0
26-Jan	65	67	69	69	70	70	71	73	71	71	63	54	49	47	44	50	55	56	54	56	61	60	60	61	61.0	72.8
27-Jan	65	68	68	70	72	72	76	75	68	69	65	56	54	54	51	52	55	57	58	64	66	64	65	66	63.7	75.7
28-Jan	65	63	67	65	67	73	72	64	62	65	68	62	56	54	47	45	50	54	58	66	70	72	70	70	62.7	72.8
29-Jan	70	71	72	74	74	77	77	77	76	73	71	69	65	62	62	62	65	64	68	67	64	66	67	65	69.1	77.4
30-Jan	62	64	63	67	66	64	70	80	81	63	45	43	41	41	42	49	49	52	53	59	63	68	73	72	59.5	81.2
31-Jan	72	71	73	78	80	80	79	79	77	76	71	68	67	66	66	65	66	69	70	71	72	72	71	72	72.2	80.2
	72.2	72.4	72.9	72.7	72.9	73.0	72.9	72.9	73.0	72.5	69.8	66.5	64.2	63.3	62.6	63.4	66.2	68.7	70.1	71.8	72.9	72.8	72.3	72.2	Diurnal Average	
	85.6	85.8	85.9	85.7	85.6	85.2	85.1	86.5	87.0	86.8	84.7	84.0	81.9	83.1	84.4	85.3	86.5	87.1	87.6	87.7	87.8	87.6	86.4	85.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - January 2017

Maximum Value: 257.0 W/m^2 on Jan 24 13:00

Maximum Daily Average: 57.5 W/m^2 on Jan 24

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

Minimum Daily Average: 4.1 W/m^2 on Jan 5

Maximum Diurnal Average: 126.1 W/m^2 at hour 13

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

Monthly Average: 25.14 W/m^2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 20.9 P_{90} = 97.3 P_{99} = 233.6

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

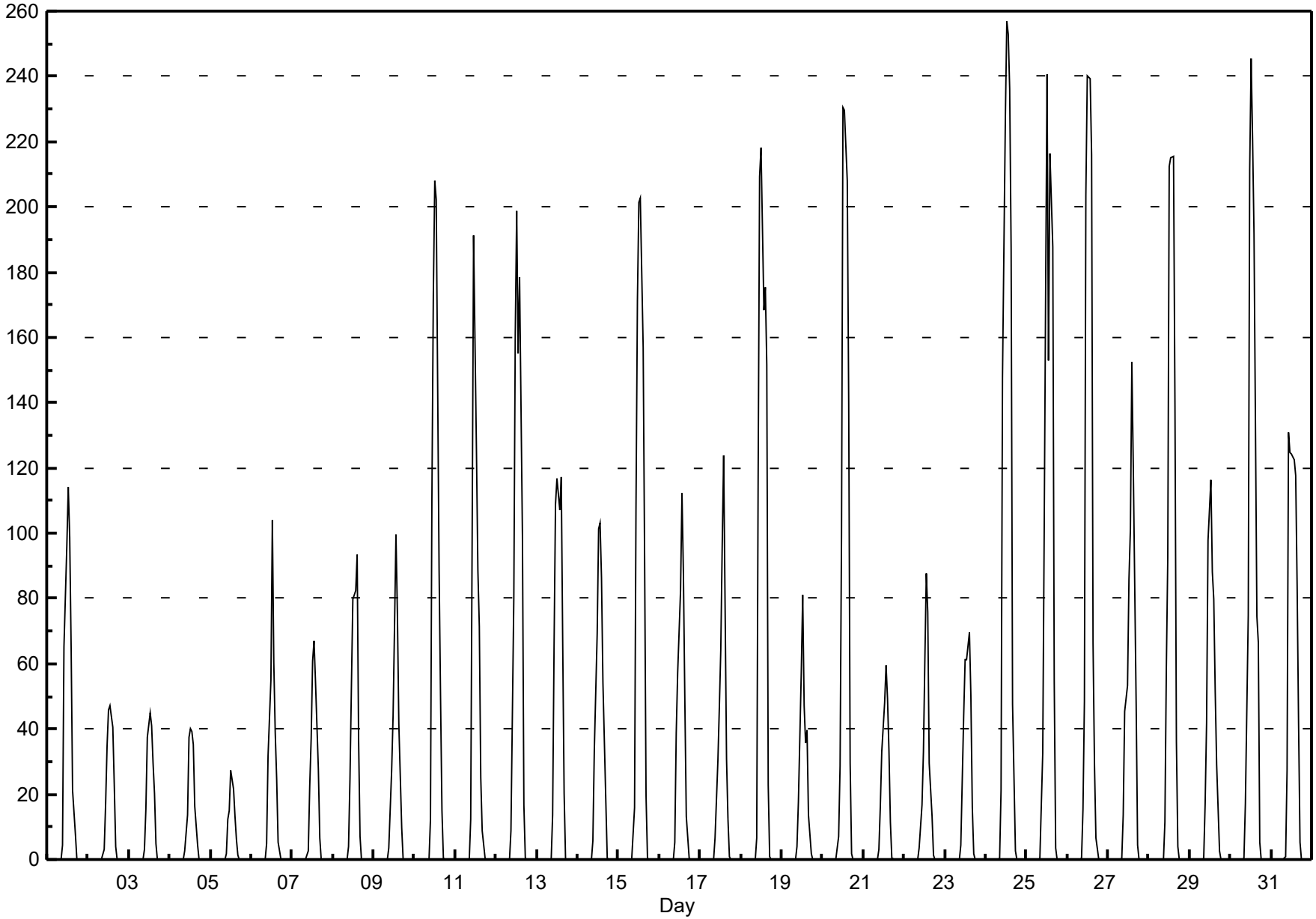
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	0	0	0	0	0	0	0	0	0	4	65	96	114	99	65	21	8	0	0	0	0	0	0	0	19.6	114.2
2-Jan	0	0	0	0	0	0	0	0	0	3	17	35	46	47	41	23	4	0	0	0	0	0	0	0	9.0	47.3
3-Jan	0	0	0	0	0	0	0	0	0	3	15	37	45	41	29	20	5	0	0	0	0	0	0	0	8.2	45.1
4-Jan	0	0	0	0	0	0	0	0	0	2	14	37	40	39	35	16	5	0	0	0	0	0	0	0	7.9	40.2
5-Jan	0	0	0	0	0	0	0	0	0	2	13	15	27	22	13	6	1	0	0	0	0	0	0	0	4.1	27.3
6-Jan	0	0	0	0	0	0	0	0	0	5	32	55	104	60	39	25	5	0	0	0	0	0	0	0	13.5	104.1
7-Jan	0	0	0	0	0	0	0	0	0	3	22	37	61	67	55	28	7	0	0	0	0	0	0	0	11.6	66.9
8-Jan	0	0	0	0	0	0	0	0	0	4	25	53	80	82	94	37	7	0	0	0	0	0	0	0	15.9	93.6
9-Jan	0	0	0	0	0	0	0	0	0	4	27	44	71	100	75	42	10	0	0	0	0	0	0	0	15.5	99.5
10-Jan	0	0	0	0	0	0	0	0	0	12	110	173	208	202	89	50	15	0	0	0	0	0	0	0	35.8	207.9
11-Jan	0	0	0	0	0	0	0	0	0	12	98	191	125	88	71	25	9	1	0	0	0	0	0	0	25.9	191.2
12-Jan	0	0	0	0	0	0	0	0	0	9	80	161	199	155	179	99	17	0	0	0	0	0	0	0	37.4	198.8
13-Jan	0	0	0	0	0	0	0	0	0	13	65	109	117	107	117	67	20	0	0	0	0	0	0	0	25.7	117.4
14-Jan	0	0	0	0	0	0	0	0	0	6	33	69	101	103	86	54	18	0	0	0	0	0	0	0	19.7	103.0
15-Jan	0	0	0	0	0	0	0	0	0	16	107	172	201	203	157	92	20	0	0	0	0	0	0	0	40.3	202.6
16-Jan	0	0	0	0	0	0	0	0	0	5	39	57	82	112	87	48	13	0	0	0	0	0	0	0	18.6	112.4
17-Jan	0	0	0	0	0	0	0	0	0	7	30	47	64	97	124	31	12	1	0	0	0	0	0	0	17.2	123.7
18-Jan	0	0	0	0	0	0	0	0	0	7	118	209	218	168	176	152	23	1	0	0	0	0	0	0	44.7	218.0
19-Jan	0	0	0	0	0	0	0	0	0	4	18	57	81	47	36	40	14	2	0	0	0	0	0	0	12.4	81.0
20-Jan	0	0	0	0	0	0	0	0	0	7	29	100	230	229	208	140	29	2	0	0	0	0	0	0	40.6	230.3
21-Jan	0	0	0	0	0	0	0	0	0	3	16	33	48	60	49	33	12	1	0	0	0	0	0	0	10.6	59.6
22-Jan	0	0	0	0	0	0	0	0	0	4	17	33	62	88	76	29	13	1	0	0	0	0	0	0	13.4	87.8
23-Jan	0	0	0	0	0	0	0	0	0	4	24	44	61	61	70	50	16	2	0	0	0	0	0	0	13.9	69.5
24-Jan	0	0	0	0	0	0	0	0	0	21	148	228	257	253	236	187	48	2	0	0	0	0	0	0	57.5	257.0
25-Jan	0	0	0	0	0	0	0	0	1	33	99	172	241	153	217	188	54	3	0	0	0	0	0	0	48.4	240.5
26-Jan	0	0	0	0	0	0	0	0	1	15	48	204	240	239	216	66	29	7	0	0	0	0	0	0	44.4	240.2
27-Jan	0	0	0	0	0	0	0	0	0	14	45	54	86	101	152	120	48	5	0	0	0	0	0	0	26.0	152.4
28-Jan	0	0	0	0	0	0	0	0	0	12	59	92	212	215	216	139	36	4	0	0	0	0	0	0	41.0	215.6
29-Jan	0	0	0	0	0	0	0	0	1	17	42	98	116	88	80	52	29	2	0	0	0	0	0	0	21.9	116.4
30-Jan	0	0	0	0	0	0	0	0	0	17	75	211	246	221	192	75	66	5	0	0	0	0	0	0	46.2	245.5
31-Jan	0	0	0	0	0	0	0	0	1	27	131	125	124	123	118	84	42	5	0	0	0	0	0	0	32.5	130.8
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.5	53.6	98.3	126.1	118.4	109.5	65.8	20.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	32.8	147.8	227.5	257.0	252.9	236.4	187.7	66.4	6.8	0.1	0.1	0.0	0.1	0.1	0.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - January 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - January 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	9	11	11	14	16	14	7	11	15	10	9	12	11	9	9	12	8	5	3	3	3	4	3	3	8.3	15.5
Dir	261	256	261	280	277	273	255	277	279	276	263	268	270	251	266	265	259	207	194	183	206	228	248	190	262.8	277.2
2 Spd	4	3	2	2	5	6	7	5	3	5	4	1	4	4	5	5	4	4	3	1	1	N	N	N	2.6	6.9
Dir	193	215	30	72	54	46	41	35	5	3	350	23	41	51	64	84	97	79	78	10	260	N	N	N	49.5	41.0
3 Spd	N	3	1	3	4	4	4	2	3	4	4	4	3	4	5	8	4	6	4	4	3	4	5	4	3.1	7.7
Dir	N	287	341	126	162	206	261	135	284	216	185	188	189	221	241	248	206	207	205	198	232	192	198	198	211.2	248.1
4 Spd	8	6	6	6	6	5	5	6	5	6	5	7	10	6	9	10	10	11	10	9	6	4	4	4	6.5	11.5
Dir	214	214	213	211	213	217	228	215	222	240	230	240	250	225	249	251	251	253	251	259	256	208	208	231	235.3	253.4
5 Spd	3	2	3	5	2	4	5	7	5	3	2	3	5	5	5	5	7	8	8	7	8	11	12	11	4.1	12.1
Dir	251	284	314	302	316	321	304	317	317	355	340	280	41	73	50	23	9	19	26	23	37	49	48	48	14.4	48.0
6 Spd	9	8	11	13	14	14	15	13	11	12	9	9	7	6	7	7	8	9	10	9	9	8	9	9	5.7	14.6
Dir	42	35	41	45	47	46	46	49	42	45	41	41	36	17	356	358	297	277	279	282	265	261	273	274	13.1	46.2
7 Spd	17	17	15	15	14	12	10	7	7	5	5	6	6	5	5	6	7	6	6	5	6	7	5	5	4.6	16.9
Dir	266	264	264	267	276	293	307	291	272	268	288	301	343	0	22	27	44	50	51	44	40	53	51	43	307.8	266.0
8 Spd	5	4	5	6	5	5	5	7	7	5	5	4	5	5	7	6	4	5	7	7	6	6	7	5	1.0	7.3
Dir	71	53	41	64	69	52	46	71	62	43	22	17	35	340	317	296	303	224	201	207	220	251	235	208	18.1	317.5
9 Spd	6	5	8	9	10	9	7	8	9	8	7	8	11	12	11	10	10	11	9	2	6	5	13	13	7.9	13.4
Dir	219	224	221	258	258	275	264	265	262	251	239	247	262	269	269	260	252	249	258	186	280	204	209	211	248.3	211.2
10 Spd	11	11	13	24	32	25	20	14	6	2	6	4	6	7	6	4	6	8	5	3	N	8	7	11	8.7	31.9
Dir	220	220	230	257	268	286	291	283	314	341	266	249	200	219	242	217	222	248	168	293	N	213	221	206	252.4	268.5
11 Spd	7	11	9	11	9	11	12	15	9	8	7	17	24	23	23	22	20	13	10	7	4	5	1	0	11.1	24.3
Dir	245	232	232	241	255	229	236	230	266	251	256	262	261	259	264	266	267	273	280	293	289	271	101	67	256.6	261.2
12 Spd	1	N	N	N	2	3	3	4	1	3	3	1	4	4	4	5	5	N	1	4	5	10	11	8	3.7	11.4
Dir	18	N	N	N	19	306	312	263	220	277	269	346	253	276	276	274	270	N	287	336	312	266	270	269	280.2	269.9
13 Spd	5	3	2	12	16	17	16	11	6	5	3	3	5	3	8	9	12	6	4	4	7	8	5	2	6.5	16.6
Dir	248	284	239	213	204	212	226	236	171	164	128	162	203	224	207	200	207	263	250	200	193	204	189	154	209.9	211.9
14 Spd	3	3	5	6	5	4	6	9	8	10	12	5	5	4	3	3	1	10	8	2	8	17	21	18	5.8	20.5
Dir	194	110	181	176	181	150	217	214	225	196	213	140	85	85	97	61	210	219	224	231	206	220	225	229	204.3	224.6
15 Spd	21	24	23	26	20	20	19	20	25	20	15	22	22	23	21	21	18	11	9	3	2	9	12	12	17.0	26.3
Dir	224	218	216	218	225	210	210	209	217	218	206	209	220	231	228	225	235	233	214	146	124	207	206	208	217.5	217.5
16 Spd	8	2	3	4	3	3	6	5	9	6	10	8	6	11	6	3	7	2	1	3	0	1	6	8	3.5	11.1
Dir	209	155	102	137	117	115	128	112	126	127	146	162	231	235	235	210	176	207	9	31	315	142	151	180	164.5	235.0
17 Spd	9	5	6	8	4	5	6	4	5	2	2	1	1	1	4	6	6	3	7	6	2	1	3	3	1.0	8.7
Dir	182	215	198	184	287	242	189	195	187	21	79	48	138	60	96	54	60	30	47	74	322	256	292	255	159.9	182.2
18 Spd	1	1	1	2	2	1	2	0	1	1	2	4	4	2	1	1	4	3	3	4	1	1	2	3	0.6	4.5
Dir	323	151	246	61	271	318	287	358	137	315	62	95	95	85	125	286	286	290	266	297	233	89	323	266	305.3	94.8
19 Spd	2	2	2	4	4	4	3	3	2	3	7	5	3	4	0	3	5	3	3	1	3	1	2	3	1.2	6.7
Dir	321	292	293	276	286	288	282	118	98	303	284	279	179	261	126	126	123	102	99	143	283	284	269	274	267.4	283.9
20 Spd	2	1	2	2	2	3	5	2	2	3	2	3	4	2	1	0	2	3	3	3	5	3	4	4	2.0	5.1
Dir	274	21	122	112	290	298	270	280	275	301	255	274	284	256	158	79	84	265	279	286	273	301	289	305	281.2	272.7
21 Spd	8	5	7	13	18	18	15	15	14	15	14	14	13	13	12	9	8	7	7	6	5	5	5	7	9.6	18.3
Dir	285	298	286	272	276	277	282	277	278	281	280	272	274	275	272	279	284	286	278	288	308	25	24	33	282.8	275.6
22 Spd	6	6	5	6	7	4	5	4	5	4	5	7	5	6	6	5	5	5	4	4	2	2	4	4	4.7	7.2
Dir	37	33	21	28	48	29	28	16	17	23	23	39	35	37	38	22	30	15	24	1	12	355	359	355	25.7	48.2

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - January 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	2	2	3	3	5	3	2	4	2	4	3	3	2	4	4	5	4	4	2	1	3	2	0.4	5.5
Dir	10	39	18	359	320	293	277	279	266	258	260	138	208	198	202	130	122	136	127	111	104	194	288	287	191.9	136.3
24 Spd	2	1	4	4	3	4	3	3	2	2	3	3	3	2	1	5	5	4	4	4	3	3	3	2	3.0	5.2
Dir	297	271	286	292	292	292	278	272	264	284	281	277	250	254	250	266	277	272	274	282	286	286	298	295	278.9	265.9
25 Spd	3	3	4	4	3	3	3	3	2	4	5	3	2	3	2	3	4	5	4	8	12	14	14	15	4.8	15.1
Dir	288	295	289	297	274	292	296	291	278	274	280	280	264	269	247	258	280	279	284	248	222	234	227	233	256.7	232.9
26 Spd	18	14	13	10	5	4	3	6	5	1	10	9	7	6	6	12	8	9	19	20	14	16	16	12	9.9	20.1
Dir	234	239	227	236	254	263	275	216	235	237	224	221	213	215	203	220	219	198	216	217	213	219	218	229	223.3	216.8
27 Spd	5	5	3	1	2	2	3	4	3	3	4	8	9	6	16	14	16	19	18	9	1	4	7	4	6.0	19.2
Dir	269	211	225	192	301	84	96	123	121	229	171	208	230	207	215	223	224	220	222	250	250	277	246	234	221.6	220.0
28 Spd	8	5	3	3	0	1	3	6	5	4	2	3	4	3	13	19	14	16	11	5	3	3	11	14	4.5	18.7
Dir	198	248	199	188	280	83	87	90	91	106	72	101	293	281	241	226	231	213	216	267	255	275	217	216	218.3	226.2
29 Spd	13	13	11	5	3	1	6	5	2	5	3	5	4	6	12	14	13	10	6	8	13	14	16	16	8.3	16.0
Dir	218	206	201	223	247	161	210	214	215	187	214	220	220	214	222	209	198	204	246	229	217	209	216	224	213.9	215.7
30 Spd	18	16	19	18	17	14	15	20	13	19	21	19	22	23	25	20	16	17	17	13	15	14	16	15	16.7	24.9
Dir	226	219	216	221	226	228	255	265	253	258	234	231	245	255	259	259	247	245	270	270	270	270	270	265	247.8	259.0
31 Spd	17	15	15	13	13	12	12	11	11	9	9	10	16	14	12	14	12	8	8	6	7	7	8	6	10.9	16.5
Dir	276	286	278	286	277	273	273	275	273	269	262	262	267	259	260	264	263	252	267	277	273	286	280	277	271.4	275.5
Spd	5.3	4.5	4.4	4.9	4.9	4.3	4.1	3.7	3.1	3.2	3.5	3.8	4.6	4.8	5.3	5.4	5.1	5.0	4.1	3.0	3.4	4.1	5.1	4.9	Diurnal Average	
Dir	239.9	241.0	237.4	244.5	260.2	262.5	262.6	253.9	253.9	256.2	244.3	240.2	250.6	252.4	250.3	248.3	244.0	240.2	245.3	257.6	249.6	238.4	236.2	233.8		
Spd	20.8	24.4	22.8	26.3	31.9	24.8	19.8	20.0	25.0	19.6	21.3	21.6	24.3	23.2	24.9	21.9	20.2	19.2	18.7	20.1	14.6	16.8	20.5	18.2	Diurnal Maximum	
Dir	224.5	218.4	216.5	217.5	268.5	285.6	290.7	209.0	217.1	217.9	234.0	209.5	261.2	258.9	259.0	265.9	267.0	220.0	216.1	216.8	270.1	219.8	224.6	229.4		

Maximum Speed Value: 32 km/h on Jan 10 05:00
Maximum Daily Speed Average: 17.0 km/h on Jan 30
Maximum Diurnal Speed Average: 5.4 km/h at hour 16

Minimum Speed Value: 0 km/h on Jan 16 21:00
Minimum Daily Speed Average: 0.4 km/h on Jan 18
Minimum Diurnal Speed Average: 3.0 km/h at hour 20

Monthly Average Velocity: 4.30 km/h 247.22 deg

Speed Percentiles: $P_1 = 0.6$ $P_{10} = 2.1$ $Q_1 = 3.4$ Median = 5.5 $Q_3 = 10.1$ $P_{90} = 15.1$ $P_{99} = 24.2$

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

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Percent Operational Time:	98.8

N - Not Valid

Frequency Distribution

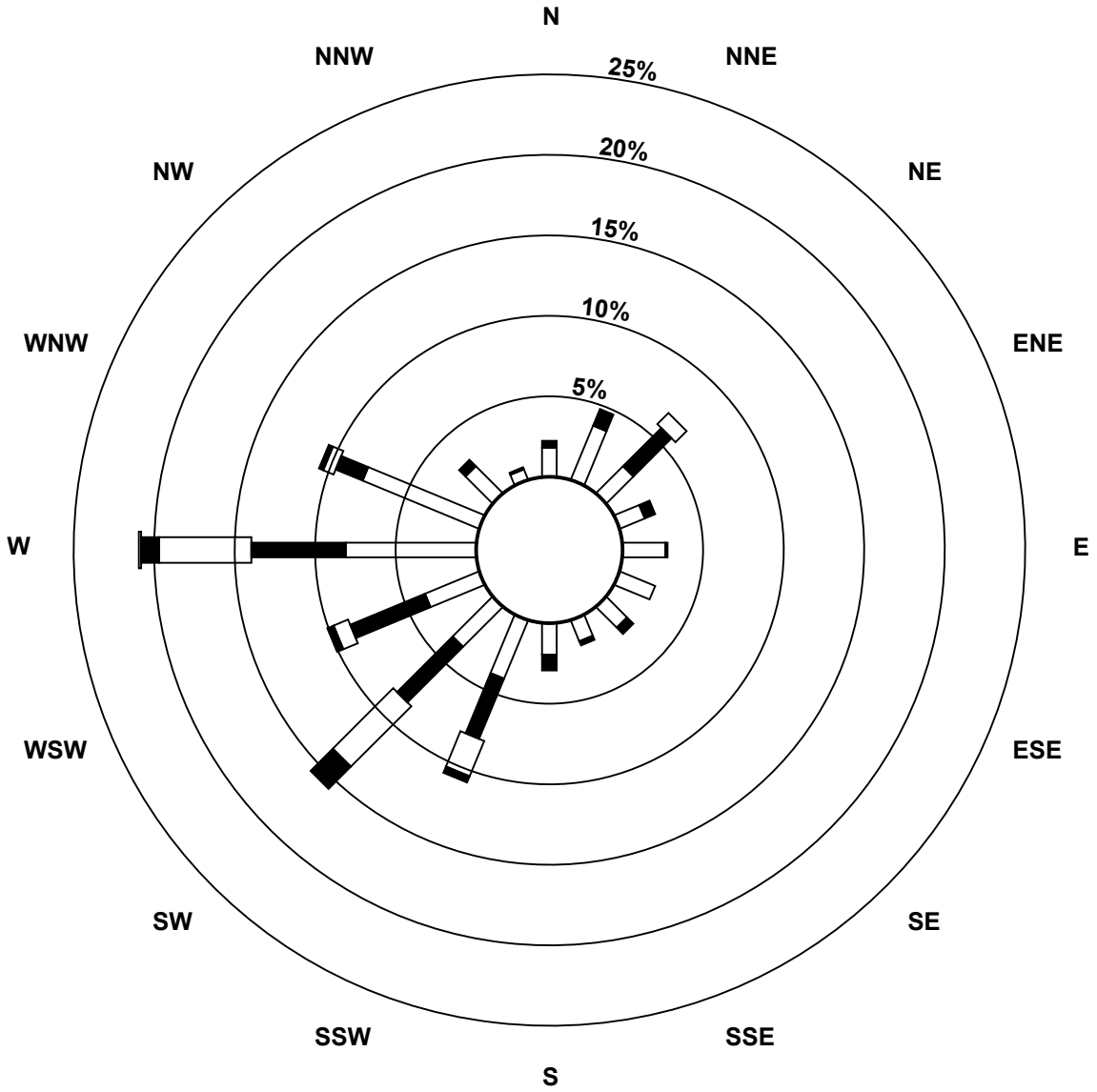
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	30	9	0	0	0	0	39
NorthEast	30	37	10	0	0	0	77
East	31	9	0	0	0	0	40
SouthEast	28	7	0	0	0	0	35
South	30	20	2	0	0	0	52
SouthWest	41	68	62	20	0	0	191
West	106	79	56	12	1	0	254
NorthWest	37	9	1	0	0	0	47
Total	333	238	131	32	1	0	735

Peace Airshed Zone Association

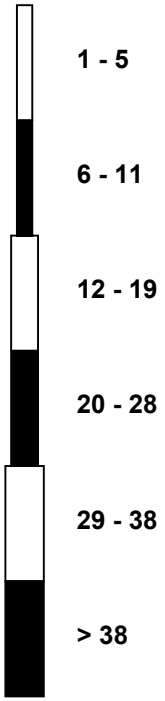
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - January 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - January 2017

Maximum Speed: 32 km/h on Jan 10 05:00

Maximum Daily Speed Average: 17.7 km/h on Jan 30

Minimum Speed: 1 km/h on Jan 3 03:00

Minimum Daily Speed Average: 3.0 km/h on Jan 18

Maximum Diurnal Speed Average: 8.9 km/h at hour 16

Minimum Diurnal Speed Average: 6.0 km/h at hour 21

Monthly Average Speed: 7.72 km/h

Percentiles: P_1 = 1.7 P_{10} = 2.8 Q_1 = 3.9 Median = 6.1 Q_3 = 10.4 P_{90} = 15.3 P_{99} = 24.5

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Percent Operational Time:	98.8

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-Jan	9	11	11	14	16	14	7	11	15	10	9	12	11	9	9	12	8	5	3	3	4	4	4	3	9.0	15.6
2-Jan	4	3	2	2	6	6	7	5	3	5	4	2	4	5	5	6	4	4	3	1	2	N	N	N	4.0	7.0
3-Jan	N	4	1	4	4	4	6	7	3	4	4	4	3	4	5	8	4	6	4	4	3	4	5	5	4.4	7.8
4-Jan	8	6	6	6	6	5	5	6	5	6	5	7	10	6	9	10	10	12	10	9	6	4	4	4	6.9	11.5
5-Jan	3	2	3	5	2	4	5	7	5	4	2	3	5	5	5	6	8	8	8	7	8	11	12	11	5.8	12.3
6-Jan	9	9	11	13	14	14	15	13	11	12	9	9	8	6	7	7	9	9	10	10	9	8	9	9	10.0	14.8
7-Jan	17	17	15	15	14	13	10	7	7	8	5	6	6	5	6	6	7	6	7	6	6	7	5	5	8.6	17.0
8-Jan	6	5	5	6	5	5	5	7	7	5	5	4	5	5	7	6	7	5	7	7	7	6	7	6	5.8	7.4
9-Jan	6	6	8	9	10	9	7	8	9	8	7	8	11	12	11	10	10	11	9	12	8	12	13	14	9.5	13.5
10-Jan	11	12	13	25	32	25	20	14	7	6	6	5	6	8	6	4	6	8	15	5	N	8	7	11	11.2	32.3
11-Jan	8	12	9	11	9	11	12	16	10	8	8	17	24	23	23	22	20	13	10	7	5	6	5	3	12.2	24.3
12-Jan	2	N	N	N	6	4	4	9	9	7	7	8	4	6	4	5	6	N	3	6	5	10	11	8	6.4	11.5
13-Jan	5	3	4	12	16	17	17	11	7	6	4	4	5	4	8	9	12	7	4	4	7	8	5	4	7.6	16.8
14-Jan	4	4	6	7	5	5	6	9	8	11	13	6	5	4	4	4	2	10	8	4	9	17	21	18	7.9	20.7
15-Jan	21	25	23	26	20	20	19	20	25	20	15	22	22	23	21	21	18	11	9	5	4	10	12	13	17.7	26.5
16-Jan	9	3	4	4	3	3	6	6	9	6	10	8	6	11	6	4	8	5	2	3	2	3	7	8	5.6	11.3
17-Jan	9	6	6	9	5	6	7	5	6	3	3	2	2	1	4	6	7	3	7	6	2	3	3	3	4.9	8.7
18-Jan	2	2	2	4	4	3	3	3	2	2	2	4	5	3	4	2	4	3	4	4	2	2	3	4	3.0	4.5
19-Jan	3	3	3	4	4	4	4	4	4	3	7	6	4	4	3	3	5	3	3	2	3	2	3	3	3.6	6.9
20-Jan	3	2	2	2	3	3	5	3	3	3	3	4	4	3	3	2	3	4	4	3	5	3	5	4	3.3	5.2
21-Jan	8	6	7	14	18	18	15	15	14	15	14	14	13	13	12	9	9	7	7	6	5	5	5	7	10.6	18.4
22-Jan	7	6	6	6	7	4	5	5	5	4	5	7	6	6	6	5	5	5	4	4	3	3	4	4	5.0	7.3
23-Jan	4	4	2	2	3	3	5	3	2	4	3	4	3	3	2	4	4	6	4	4	2	2	3	2	3.3	5.6
24-Jan	2	4	4	4	3	4	3	3	2	2	3	3	3	2	2	6	6	7	8	5	3	4	4	3	3.7	7.7
25-Jan	4	5	4	4	3	3	3	3	2	4	5	3	2	3	2	3	4	5	4	9	12	14	14	15	5.6	15.3
26-Jan	18	14	13	10	6	5	3	6	5	3	10	10	7	6	6	13	9	9	19	20	14	16	16	13	10.5	20.2
27-Jan	7	5	4	3	2	2	3	4	4	3	4	9	10	7	16	15	16	19	18	9	3	5	7	5	7.5	19.3
28-Jan	9	6	3	4	2	2	4	6	6	4	3	4	5	4	13	19	15	16	12	6	3	3	11	14	7.1	19.0
29-Jan	13	13	11	5	4	3	7	5	3	5	3	5	5	7	13	14	13	10	7	8	14	14	16	16	8.9	16.1
30-Jan	18	16	19	18	17	15	15	20	13	19	21	19	22	23	25	20	16	17	18	13	15	14	16	15	17.7	25.0
31-Jan	17	15	15	13	13	12	12	11	11	9	9	10	16	14	13	14	12	8	8	6	7	7	8	6	11.1	16.7
	8.2	7.5	7.5	8.7	8.5	8.0	8.0	8.2	7.2	6.8	6.8	7.4	7.8	7.6	8.4	8.9	8.7	8.1	7.7	6.4	6.0	7.2	8.1	7.8	Diurnal Average	
	21.0	24.6	23.0	26.5	32.3	25.0	19.9	20.2	25.1	19.7	21.4	21.7	24.3	23.3	25.0	22.0	20.3	19.3	18.9	20.2	14.7	17.0	20.7	18.4	Diurnal Maximum	

N - Not Valid

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 - January 2017

Maximum Value: 97.7 deg on Jan 16 21:00

Minimum Value: 3.8 deg on Jan 4 18:00

Percentiles: P_1 = 4.8 P_{10} = 6.5 Q_1 = 8.9 Median = 15.2 Q_3 = 30.0 P_{90} = 56.7 P_{99} = 85.4

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	12	6	10	5	5	5	13	11	5	6	12	6	10	6	11	7	9	20	18	19	27	22	37	21	37.5
2-Jan	18	32	45	35	19	10	9	15	30	23	25	68	15	24	21	14	36	19	34	47	67	N	N	N	67.6
3-Jan	N	26	68	44	18	31	35	69	36	21	14	17	18	27	20	10	19	9	24	17	28	19	12	17	68.6
4-Jan	9	9	10	8	8	8	11	8	19	9	10	13	5	19	7	5	4	4	5	6	12	19	11	14	19.3
5-Jan	10	28	8	8	19	10	12	6	10	24	37	24	28	14	14	13	14	12	11	12	12	7	8	8	37.1
6-Jan	10	10	10	8	8	7	8	6	9	7	9	9	12	17	13	13	24	11	10	7	9	9	7	8	24.0
7-Jan	5	6	7	6	5	15	8	9	10	32	19	12	27	20	21	15	13	12	10	12	13	12	15	12	32.2
8-Jan	14	23	15	13	13	19	16	11	19	14	14	23	20	19	8	14	43	26	14	11	13	12	9	17	43.3
9-Jan	20	21	17	10	10	11	16	9	9	6	12	9	9	7	7	9	4	5	15	60	40	57	7	8	60.0
10-Jan	13	16	12	11	9	7	6	8	29	60	20	17	18	15	15	20	16	12	69	31	N	13	11	12	68.8
11-Jan	12	10	12	12	7	7	6	7	28	11	25	11	5	5	6	6	4	6	5	9	38	29	81	89	89.1
12-Jan	68	N	N	N	65	54	40	62	76	35	46	58	22	36	28	30	35	N	83	62	18	20	7	7	82.6
13-Jan	12	32	68	8	6	8	9	13	26	32	21	39	12	34	12	10	8	36	14	29	9	9	13	50	68.1
14-Jan	46	33	19	14	36	60	23	17	20	14	24	22	25	25	32	44	77	10	19	91	58	8	8	10	90.6
15-Jan	7	6	7	7	12	8	8	8	6	6	7	6	7	6	8	9	8	11	13	48	67	12	9	11	66.9
16-Jan	14	33	23	23	14	29	12	14	11	19	14	12	24	10	31	70	56	79	58	49	98	81	19	6	97.7
17-Jan	7	37	24	13	46	36	28	41	42	55	42	82	83	38	43	15	17	31	17	12	57	85	43	43	84.9
18-Jan	86	72	62	62	72	66	43	87	83	71	27	18	9	56	80	73	24	30	39	17	73	88	52	47	88.0
19-Jan	64	81	55	58	32	38	45	54	70	50	18	38	27	18	85	35	9	20	22	58	26	77	34	26	85.3
20-Jan	56	58	42	78	44	31	22	79	80	37	60	56	31	42	69	96	58	58	25	41	16	24	20	15	95.8
21-Jan	12	17	17	6	5	6	6	9	6	8	7	6	8	7	9	11	10	12	9	11	17	19	15	12	18.9
22-Jan	13	11	18	22	11	24	14	17	17	15	17	12	15	17	17	20	17	21	23	28	25	35	22	22	35.2
23-Jan	24	18	34	43	19	30	10	19	34	12	71	21	21	21	40	18	18	11	11	17	42	66	12	13	70.8
24-Jan	8	42	9	8	14	10	18	14	18	20	16	17	19	23	25	29	27	45	46	50	52	60	37	51	59.6
25-Jan	32	35	5	8	18	8	7	7	14	14	8	19	15	13	12	9	14	12	14	20	8	10	8	8	34.5
26-Jan	6	10	14	13	31	33	30	20	18	77	18	13	14	12	27	10	16	13	8	4	8	6	6	25	77.5
27-Jan	37	27	35	85	58	55	28	10	31	44	16	10	16	25	8	11	7	6	9	20	79	30	12	40	84.9
28-Jan	35	38	34	20	90	53	17	9	11	26	43	63	74	46	16	10	10	7	22	18	63	43	10	6	89.9
29-Jan	8	7	7	29	34	83	22	15	59	25	44	21	40	15	15	10	9	14	18	16	11	8	7	7	82.7
30-Jan	8	6	6	8	7	7	13	9	9	13	6	7	8	6	6	10	5	9	8	5	6	5	5	7	13.4
31-Jan	8	7	6	8	5	6	6	6	5	8	9	11	6	7	9	5	7	6	11	12	9	8	9	5	11.8
	86.5	81.2	68.1	84.9	89.9	82.7	45.0	86.6	82.6	77.5	70.8	82.1	82.6	56.4	85.3	95.8	77.4	78.7	82.6	90.6	97.7	88.0	80.7	89.1	

N - Not Valid

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.9 ppb on Jan 16 00:00 Maximum Daily Average: 0.8 ppb on Jan 6

Minimum Value: 0 ppb on Jan 2 22:00 Minimum Daily Average: 0.1 ppb on Jan 5
Maximum Diurnal Average: 0.4 ppb at hour 13 Minimum Diurnal Average: 0.2 ppb at hour 2
Monthly Average: 0.25 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.5$ $P_{99} = 2.0$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	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
2-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Jan	0	0	0	A	0	0	0	0	0	0	0	0	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.4
4-Jan	0	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
5-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
6-Jan	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	3	2	1	1	1	A	0.8	2.5
7-Jan	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.6
8-Jan	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
9-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	1	1	0	0	0	A	0	0	0	0.5	2.0
10-Jan	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	0	0	0	A	0	0	0	0	0.4	2.9
11-Jan	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	0.5
12-Jan	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	A	1	0	1	0	0	0	0.4	1.3
13-Jan	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	A	4	1	1	1	1	0	0	0.6	3.7
14-Jan	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0.3	0.5
15-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	5	0.4	4.9
16-Jan	3	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	3.2
17-Jan	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
18-Jan	0	0	0	0	0	0	0	0	0	1	0	A	1	0	0	0	0	0	1	0	0	0	0	0	0.3	0.6
19-Jan	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
20-Jan	0	0	0	0	0	0	0	1	1	A	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0.4	1.0
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.9
22-Jan	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
23-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
24-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0.3	0.7
25-Jan	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
26-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Jan	0	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
28-Jan	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
29-Jan	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
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
31-Jan	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
Diurnal Average	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.4	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3		
Diurnal Maximum	3.2	0.4	0.4	1.2	0.6	0.6	0.5	0.5	0.5	0.7	1.3	1.4	2.9	1.1	2.0	2.1	0.8	3.7	2.5	1.8	0.9	0.9	1.3	4.9		

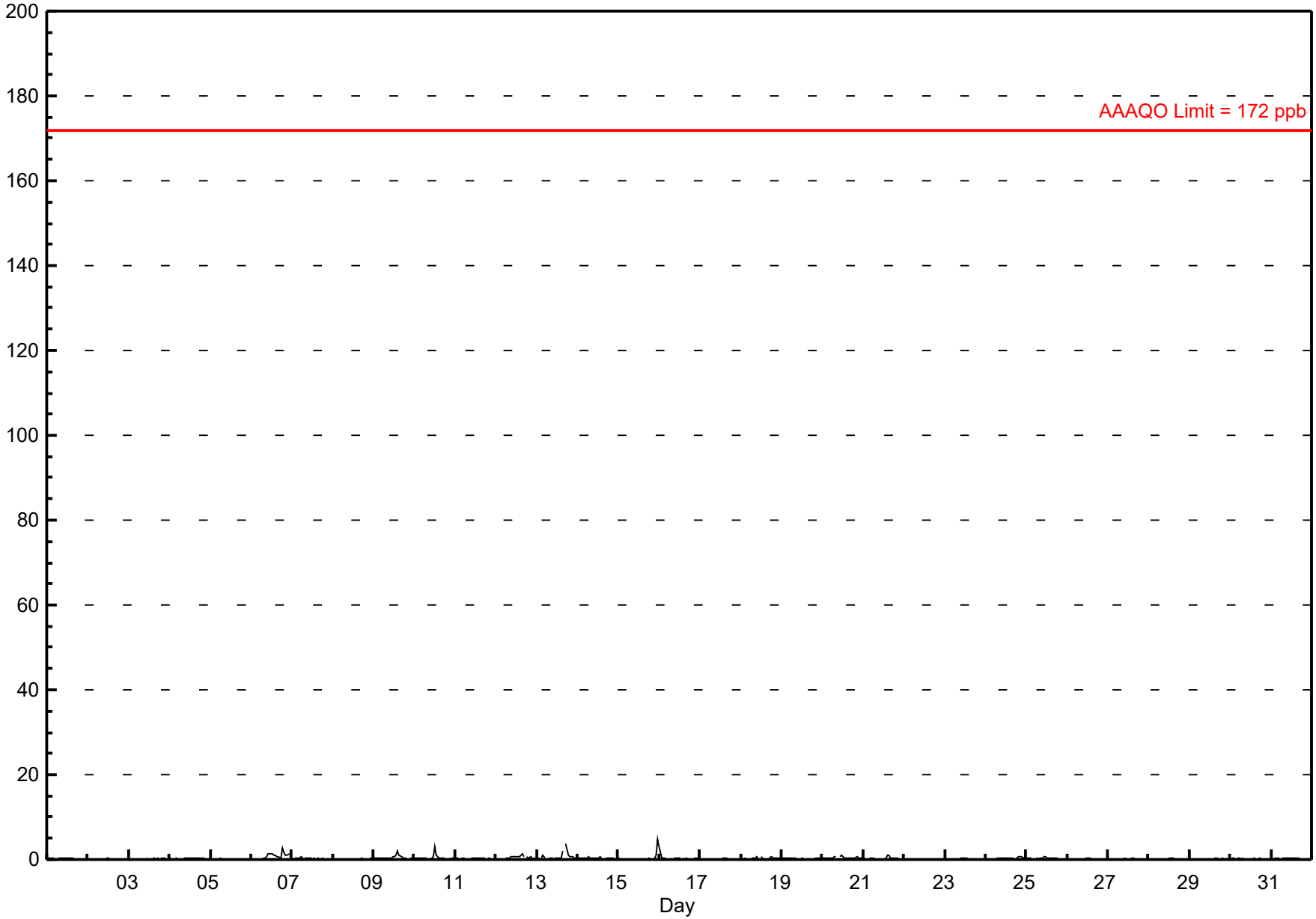
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - January 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - January 2017

Maximum Value: 14.4 ppb on Jan 10 13:00

Maximum Daily Average: 1.5 ppb on Jan 10

Minimum Value: 0 ppb on Jan 6 03:00

Minimum Daily Average: 0.6 ppb on Jan 5

Maximum Diurnal Average: 1.4 ppb at hour 13

Minimum Diurnal Average: 0.7 ppb at hour 3

Monthly Average: 0.86 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.9$ $P_{90} = 1.1$ $P_{99} = 3.4$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	0.9
2-Jan	1	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	1	0.6	0.9
3-Jan	1	1	1	A	1	0	0	1	1	0	1	1	C	C	1	1	1	1	1	1	1	1	1	1	0.6	1.2
4-Jan	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	0.9
5-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	1	0.6	0.8
6-Jan	A	1	0	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	4	3	2	2	2	A	1.5	3.6
7-Jan	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	1.2
8-Jan	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	1.0
9-Jan	1	1	1	1	1	1	1	2	1	1	1	1	1	2	3	2	1	1	1	1	A	1	1	1	1.2	2.9
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	14	4	1	1	1	1	1	A	1	1	1	1	1.5	14.4
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.1
12-Jan	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	A	1	1	1	1	1	1	1.0	2.4
13-Jan	1	1	1	3	2	1	1	1	1	1	1	1	1	1	2	3	A	6	2	1	1	1	1	1	1.5	5.9
14-Jan	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	2.0
15-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	0	1	1	1	1	1	7	12	1.4	11.5
16-Jan	6	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1.0	5.7
17-Jan	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
18-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	1	1	1	1	1	1	1	1	0.8	1.3
19-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
20-Jan	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
21-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5
22-Jan	1	1	1	1	1	1	0	A	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0.6	0.7
23-Jan	0	1	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
24-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
25-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
26-Jan	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	1.2
27-Jan	0	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
28-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.2
29-Jan	A	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.1
30-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	0.7	1.4
31-Jan	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	0.9
	0.9	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.7	0.8	0.9	0.9	1.4	1.0	0.9	0.9	0.8	0.9	0.9	0.8	0.8	0.8	1.0	1.1	Diurnal Average	
	5.7	1.2	1.2	2.8	1.7	1.2	2.0	2.4	1.1	1.7	1.9	1.8	14.4	4.0	2.9	3.5	1.7	5.9	3.6	3.2	2.2	2.3	6.7	11.5	Diurnal Maximum	

C - Calibration

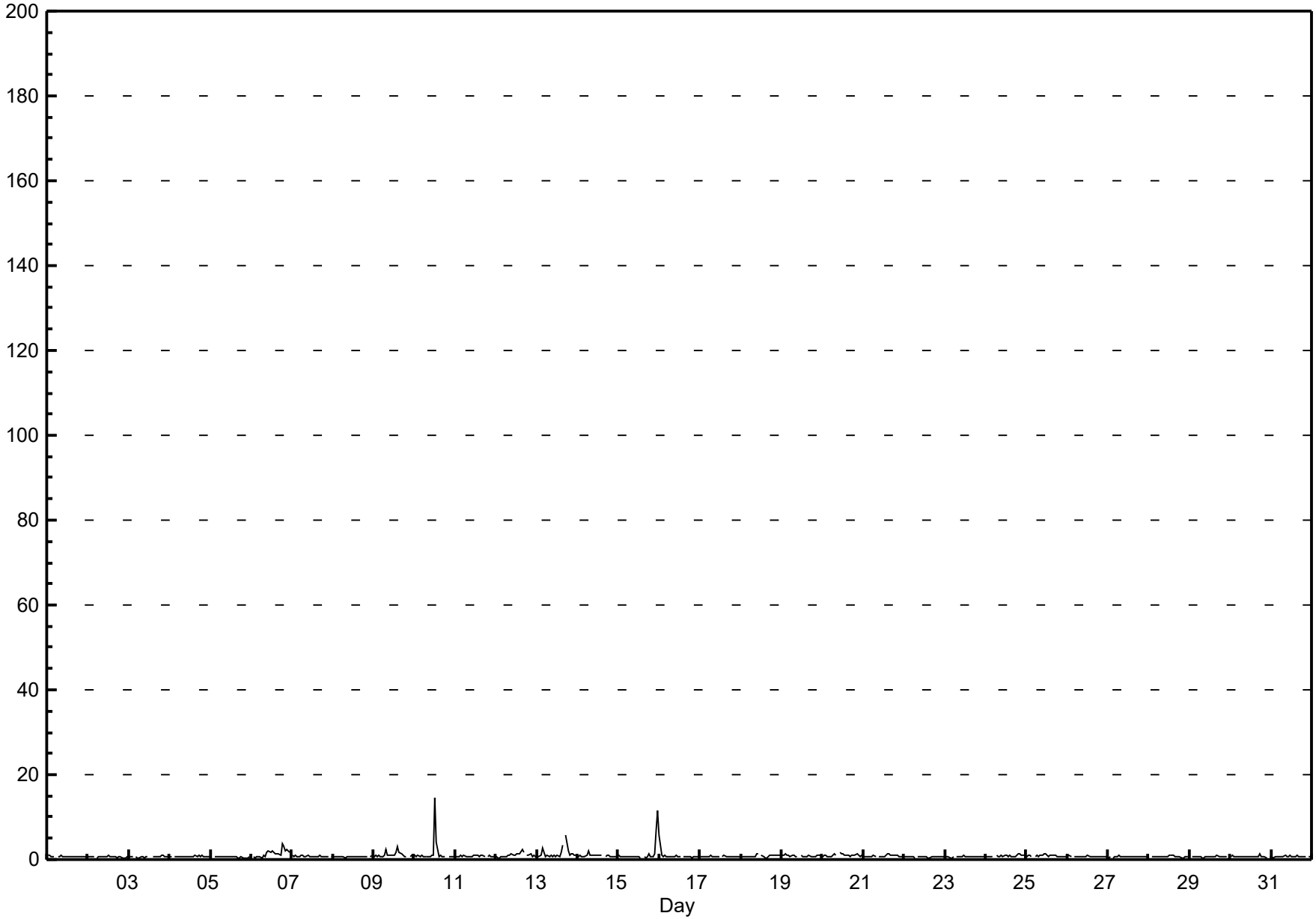
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

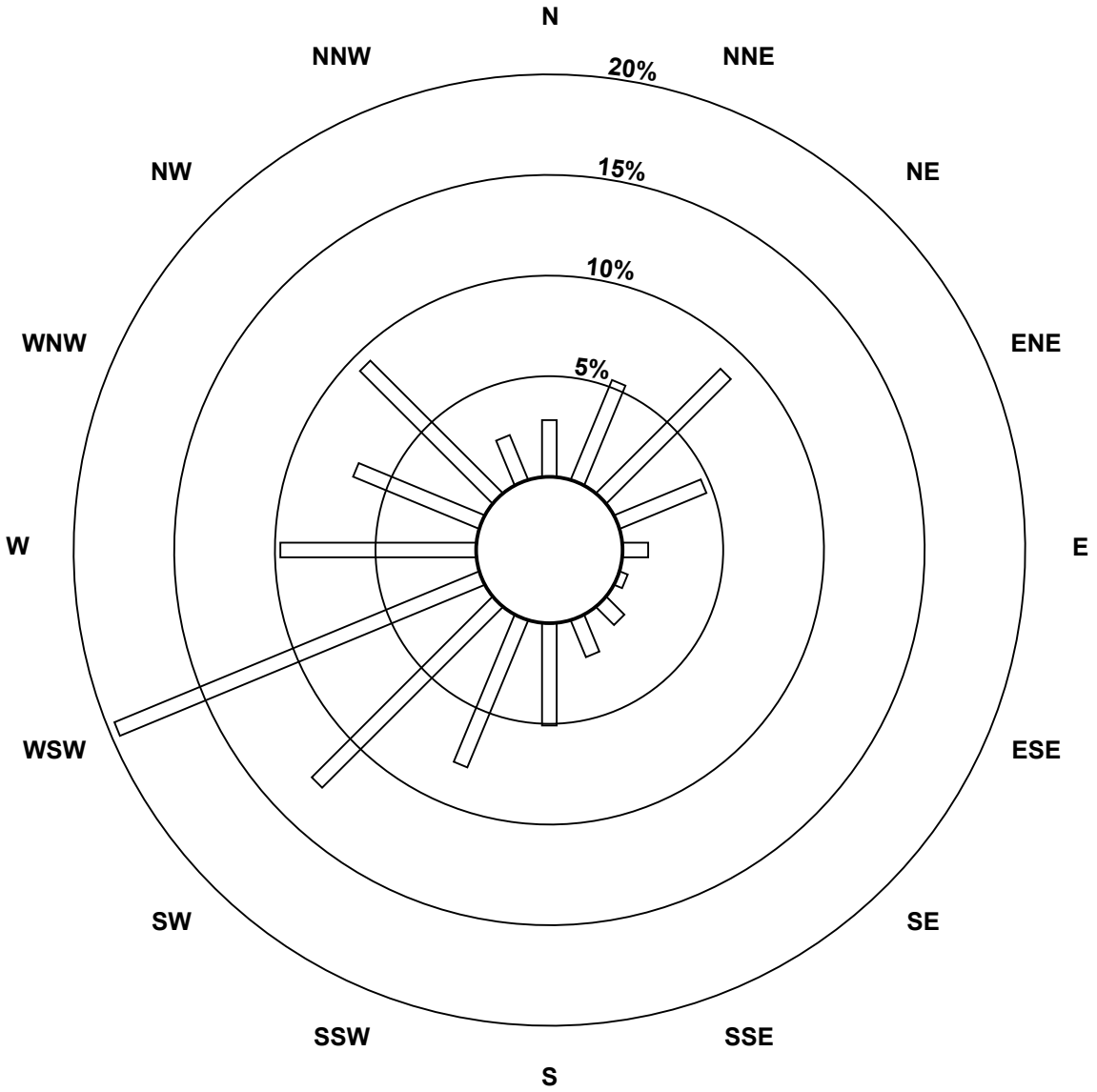
Evergreen Park - January 2017



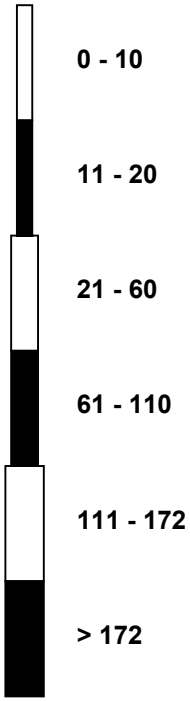
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - January 2017



Pollutant Classes (ppb)

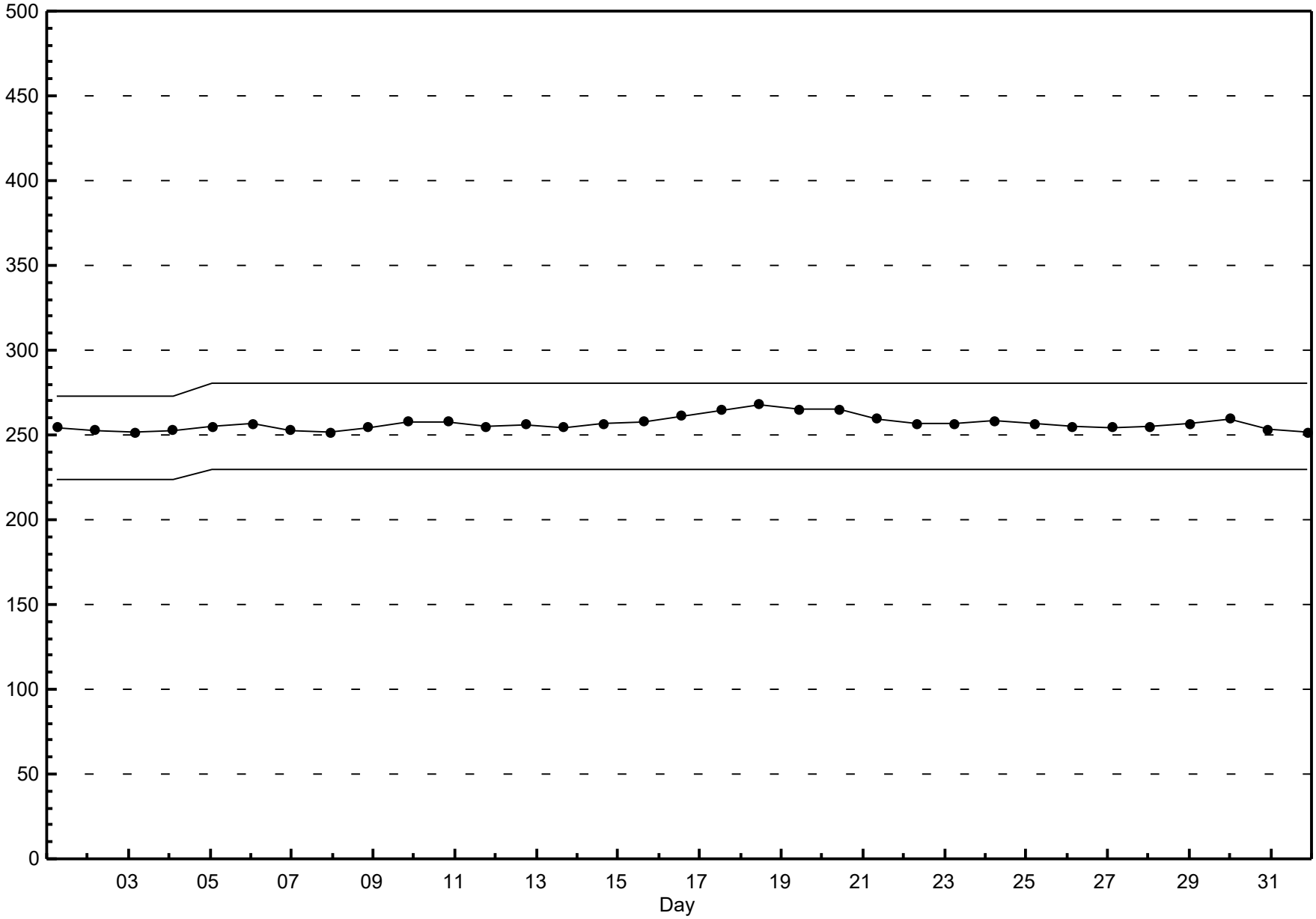


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Evergreen Park - January 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - January 2017

Maximum Value: 2.6 ppb on Jan 14 17:00

Maximum Daily Average: 0.7 ppb on Jan 19

Minimum Value: 0 ppb on Jan 11 09:00

Minimum Daily Average: 0.2 ppb on Jan 11

Maximum Diurnal Average: 0.4 ppb at hour 17

Minimum Diurnal Average: 0.3 ppb at hour 5

Monthly Average: 0.39 ppb

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

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
2-Jan	1	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	0.7
3-Jan	0	1	1	A	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
4-Jan	0	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
5-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
6-Jan	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	0.5
7-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.4
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
9-Jan	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	0.4
10-Jan	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
11-Jan	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
12-Jan	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	0	0.6	1.0
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	3	2	2	1	0	0	0	0	0.5	2.6
15-Jan	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
16-Jan	0	1	0	0	0	0	0	1	1	1	0	0	0	A	0	0	1	1	0	1	0	0	1	0	0.5	0.6
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0.3	1.0
18-Jan	1	0	1	0	1	0	1	1	1	1	1	A	1	0	0	0	0	0	1	1	1	1	1	1	0.6	1.0
19-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
20-Jan	1	1	1	0	0	0	1	1	1	A	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0.7	1.2
21-Jan	1	1	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
22-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
23-Jan	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
24-Jan	0	0	0	0	1	A	1	1	1	0	1	1	1	0	0	0	0	0	1	1	1	1	1	1	0.6	1.0
25-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.7	1.3
26-Jan	0	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
27-Jan	0	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	0.3
28-Jan	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.4	1.3
29-Jan	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
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.4
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	0.9	0.9	1.0	1.1	1.0	0.9	0.9	0.8	0.9	0.9	1.3	1.1	1.3	0.8	1.0	1.0	2.6	2.1	1.6	1.0	0.9	0.8	0.9	0.9	Diurnal Maximum	

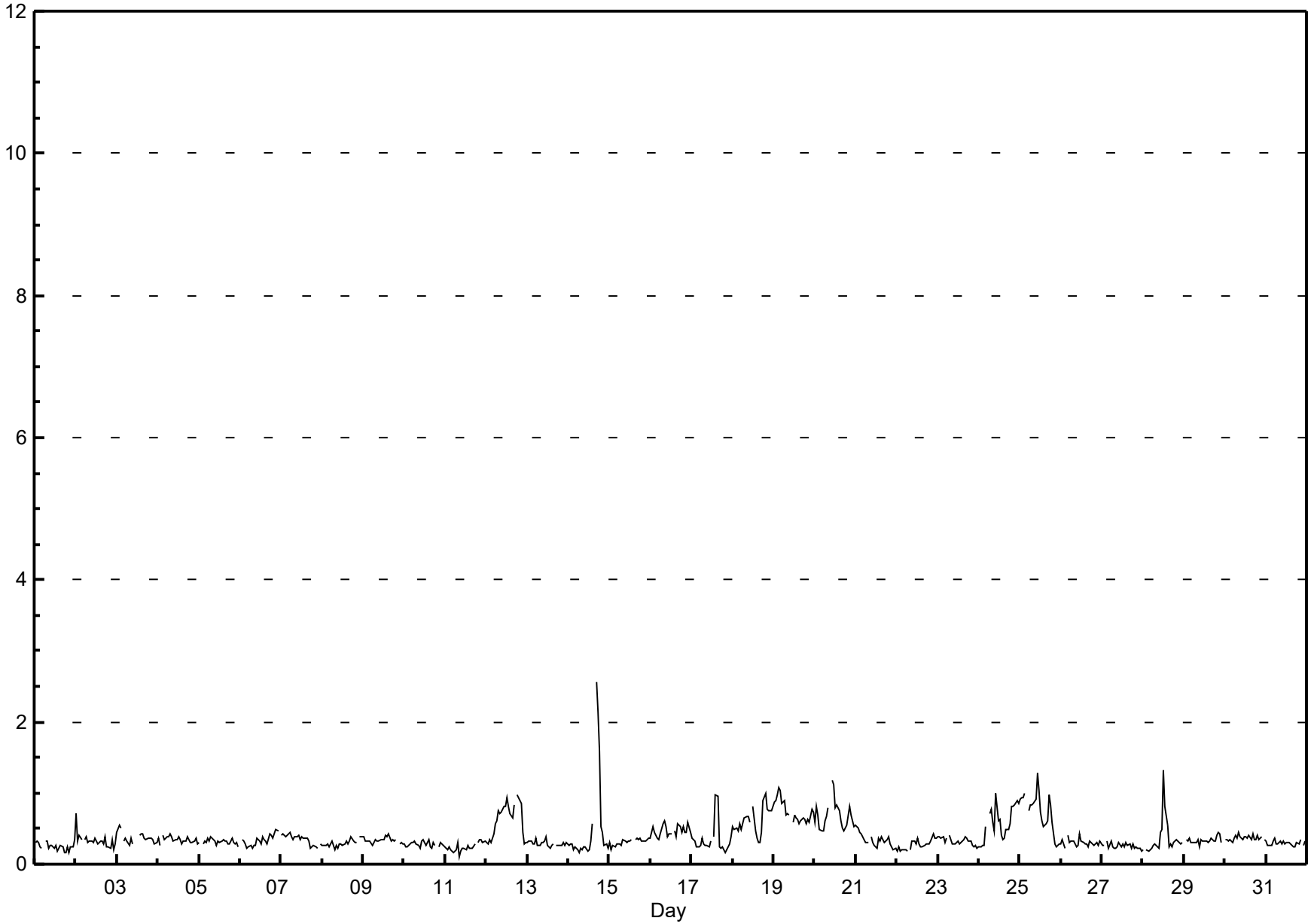
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - January 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - January 2017

Maximum Value: 3.9 ppb on Jan 14 17:00

Maximum Daily Average: 1.2 ppb on Jan 25

Minimum Value: 0 ppb on Jan 1 14:00

Maximum Diurnal Average: 0.9 ppb at hour 15

Monthly Average: 0.78 ppb

Minimum Daily Average: 0.6 ppb on Jan 11

Minimum Diurnal Average: 0.7 ppb at hour 5

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 1.1$ $P_{99} = 2.1$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1	1	1	1	1	A	1	1	1	1	1	0	1	0	1	1	1	0	0	0	1	1	1	2	0.6	1.6
2-Jan	2	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	2.2
3-Jan	1	1	1	A	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
4-Jan	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	0.9
5-Jan	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	0.8
6-Jan	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	1.0
7-Jan	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	1.0
8-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.8
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.1
10-Jan	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	0.8
11-Jan	1	1	1	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	0.6	0.8
12-Jan	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	1.4
13-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	0.6	0.8
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	4	3	2	1	1	1	1	1	1.0	3.9
15-Jan	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	0.8
16-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.1
17-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	3	3	1	1	1	1	1	1	1	1	0.8	2.6
18-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1.0	1.5
19-Jan	1	1	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
20-Jan	1	1	1	1	1	1	1	1	1	A	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1.2	2.2
21-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
22-Jan	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
23-Jan	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	0.8
24-Jan	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.0
25-Jan	1	1	1	1	A	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1
26-Jan	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	0.8
27-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
28-Jan	1	A	1	1	1	1	1	1	1	1	1	1	3	2	1	1	1	1	1	1	1	1	1	1	0.8	3.4
29-Jan	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
30-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.0
31-Jan	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	0.8
	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	Diurnal Average	
	2.2	1.3	1.5	1.5	1.4	1.2	1.2	1.2	1.3	1.3	2.1	1.9	3.4	1.9	2.6	2.6	3.9	2.7	2.4	1.4	1.3	1.2	1.3	1.6	Diurnal Maximum	

C - Calibration

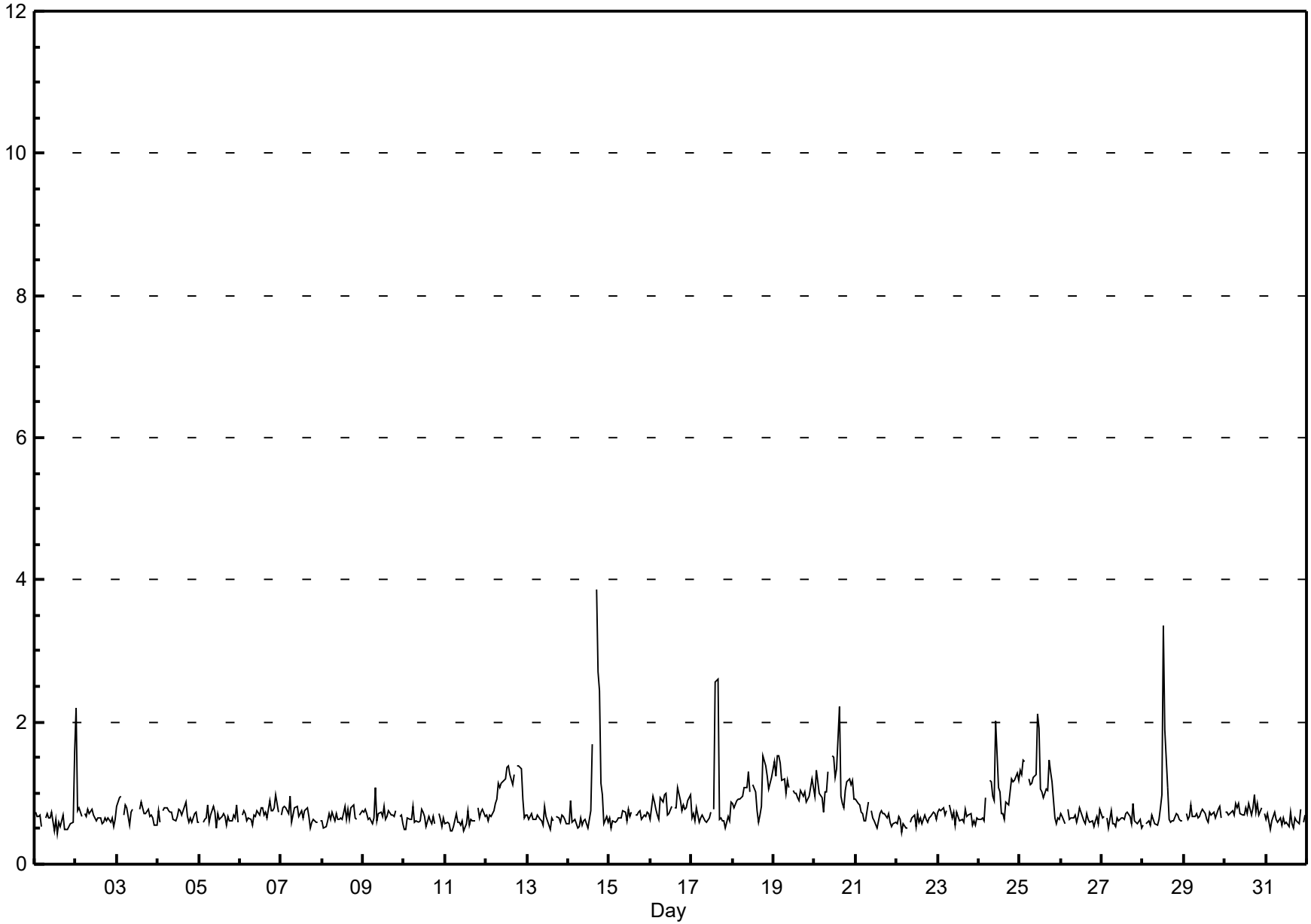
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

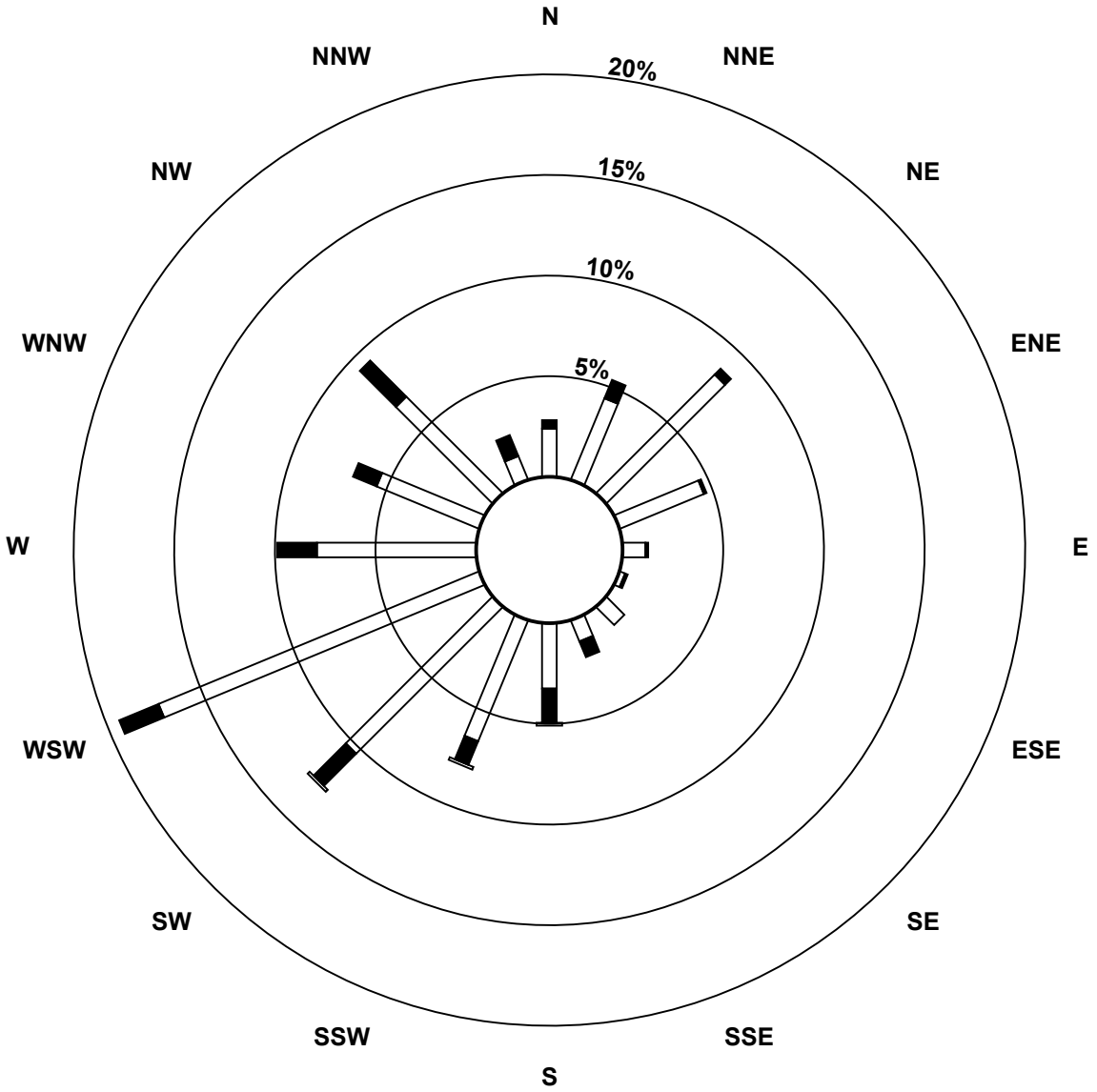
Evergreen Park - January 2017



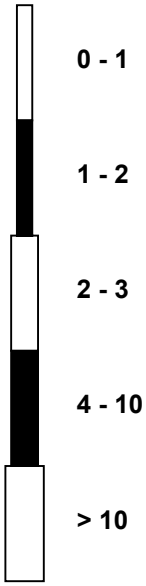
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - January 2017



Pollutant Classes (ppb)

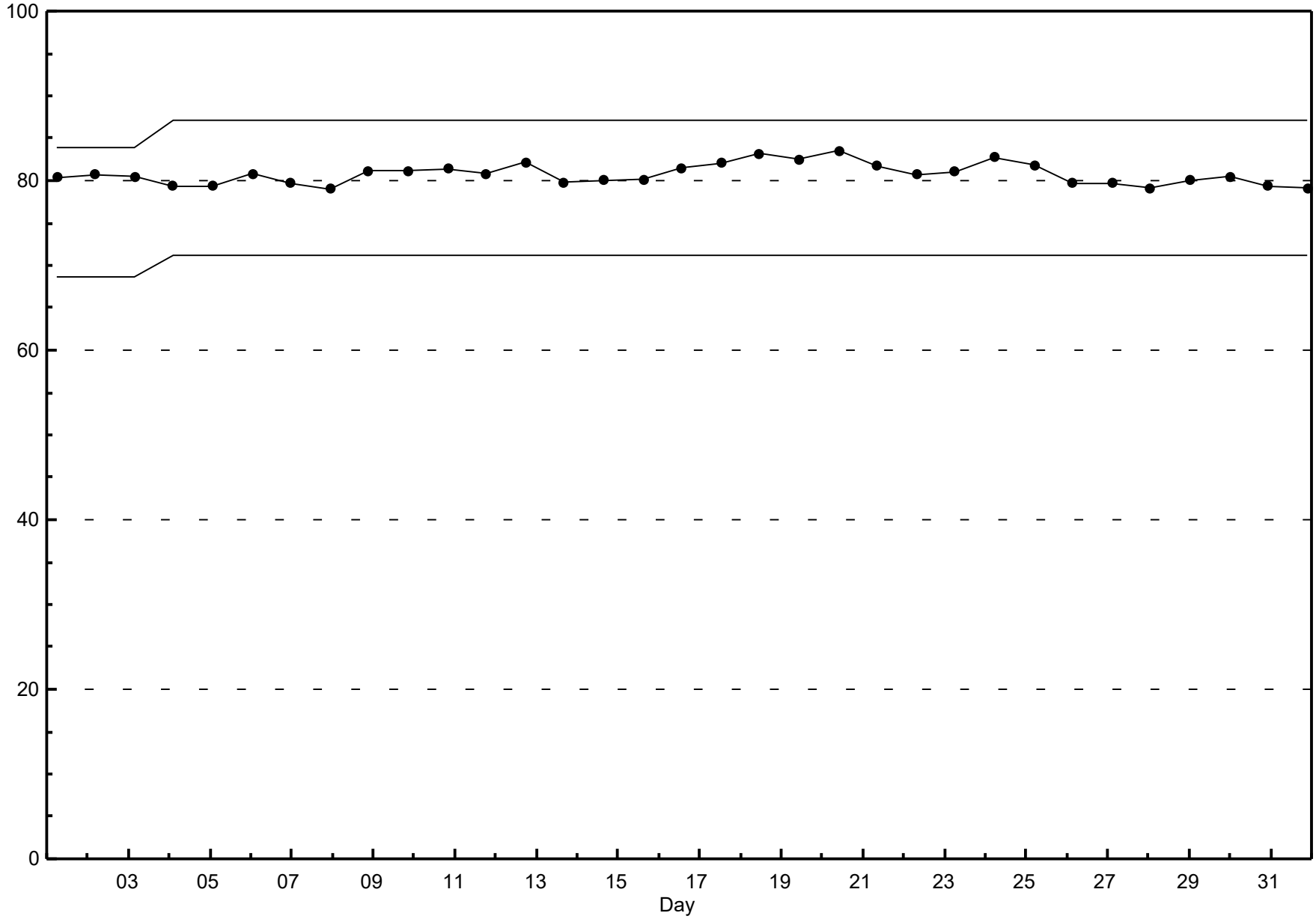


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Evergreen Park - January 2017



Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - January 2017

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

Maximum Value: 27.2 $\mu g/m^3$ on Jan 24 13:00

Maximum Daily Average: 18.9 $\mu g/m^3$ on Jan 24

Minimum Value: 0 $\mu g/m^3$ on Jan 1 05:00

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

Monthly Average: 3.97 $\mu g/m^3$

Minimum Daily Average: 0.0 $\mu g/m^3$ on Jan 29

Minimum Diurnal Average: 2.7 $\mu g/m^3$ at hour 4

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 2.0 $Q_3 = 5.2$ $P_{90} = 11.5$ $P_{99} = 24.5$

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

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-Jan	1	1	1	0	0	0	0	0	0	0	0	0	2	0	0	1	1	2	1	0	0	1	0	1	0.7	2.0
2-Jan	1	1	1	1	3	4	4	4	3	3	2	2	1	2	1	0	1	2	0	1	4	4	4	5	2.3	4.6
3-Jan	3	5	4	4	4	3	1	1	1	1	4	2	2	M	11	10	4	5	4	5	6	5	5	4	4.2	11.3
4-Jan	1	1	1	0	0	0	0	0	1	3	3	2	2	1	2	5	8	7	6	5	5	7	17	6	3.6	17.3
5-Jan	3	3	1	3	12	12	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1.7	12.0
6-Jan	1	1	2	3	4	4	3	3	3	6	9	7	6	8	7	6	7	6	5	4	4	4	5	5	4.7	8.9
7-Jan	2	2	2	1	1	1	1	1	2	3	2	2	2	3	3	3	3	3	4	3	3	3	3	3	2.4	3.6
8-Jan	2	3	3	2	2	1	2	1	1	2	3	5	6	9	9	9	9	8	4	4	3	4	5	5	4.2	9.4
9-Jan	5	6	4	3	4	3	3	4	6	4	5	6	10	1	1	4	3	13	7	4	5	3	0	0	4.4	12.9
10-Jan	0	0	0	2	3	2	3	2	2	0	4	1	0	2	1	1	0	2	1	1	0	0	0	0	1.2	4.2
11-Jan	0	0	0	0	1	0	0	0	2	1	2	2	6	4	3	3	4	4	3	3	3	4	2	2	2.1	5.5
12-Jan	2	2	4	7	16	12	10	10	10	11	15	19	20	17	14	12	17	17	17	17	14	2	0	0	11.0	20.4
13-Jan	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0.3	4.0
14-Jan	1	0	1	0	0	0	0	1	1	0	0	0	0	1	5	6	8	7	6	0	1	0	0	0	1.6	7.6
15-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	2	0	0	0.2	2.0
16-Jan	0	2	0	0	1	1	1	3	4	1	0	0	0	1	1	0	0	0	0	3	5	7	8	4	1.7	8.0
17-Jan	0	0	0	0	0	0	1	0	0	1	1	2	4	5	4	4	0	2	0	0	0	3	3	4	1.5	5.3
18-Jan	4	4	5	5	5	4	4	5	4	7	6	10	11	0	0	0	1	5	15	12	10	7	9	9	5.9	14.8
19-Jan	8	7	7	6	4	4	5	7	6	3	5	7	5	6	8	7	6	5	5	6	7	7	5	4	5.9	7.8
20-Jan	4	6	6	4	4	6	6	5	7	10	11	17	15	9	12	11	11	10	13	13	17	12	12	13	9.7	17.4
21-Jan	12	11	8	3	4	3	4	4	3	3	2	2	2	2	3	3	4	4	4	4	4	2	2	3	4.1	12.3
22-Jan	3	3	2	2	1	1	0	1	0	3	3	5	4	4	3	4	4	5	6	6	4	5	8	9	3.6	8.5
23-Jan	7	7	7	7	7	8	10	13	16	17	18	18	10	8	12	18	13	19	19	16	10	10	10	10	12.1	19.1
24-Jan	9	9	10	13	15	17	16	14	11	10	17	21	27	27	25	27	26	22	22	23	24	25	22	20	18.9	27.2
25-Jan	18	17	18	15	13	13	13	12	14	18	27	19	14	9	9	17	14	13	11	7	0	0	0	2	12.2	26.7
26-Jan	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	0	0	0.2	1.6
27-Jan	0	0	0	0	0	0	0	0	0	1	2	0	1	1	0	0	1	0	0	0	0	0	0	0	0.3	1.5
28-Jan	0	0	0	0	0	0	0	0	0	0	2	2	3	11	4	0	1	2	1	0	0	0	6	0	1.4	10.9
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
30-Jan	0	0	1	0	0	0	0	1	0	0	0	1	0	1	0	1	1	1	0	1	0	1	1	0	0.4	1.2
31-Jan	0	0	1	1	1	0	0	0	0	1	1	0	0	0	0	1	0	2	2	2	2	3	1	1	0.8	2.7
	2.9	3.0	2.9	2.7	3.3	3.2	2.9	3.0	3.3	3.5	4.7	5.1	5.0	4.4	4.5	5.0	4.8	5.4	5.1	4.5	4.3	4.0	4.2	3.6	Diurnal Average	
	17.9	17.5	17.6	15.0	16.1	16.7	15.6	14.3	16.1	18.2	26.7	21.1	27.2	26.5	25.1	27.1	25.9	22.2	22.1	23.4	24.5	24.8	22.3	20.3	Diurnal Maximum	

M - Maintenance

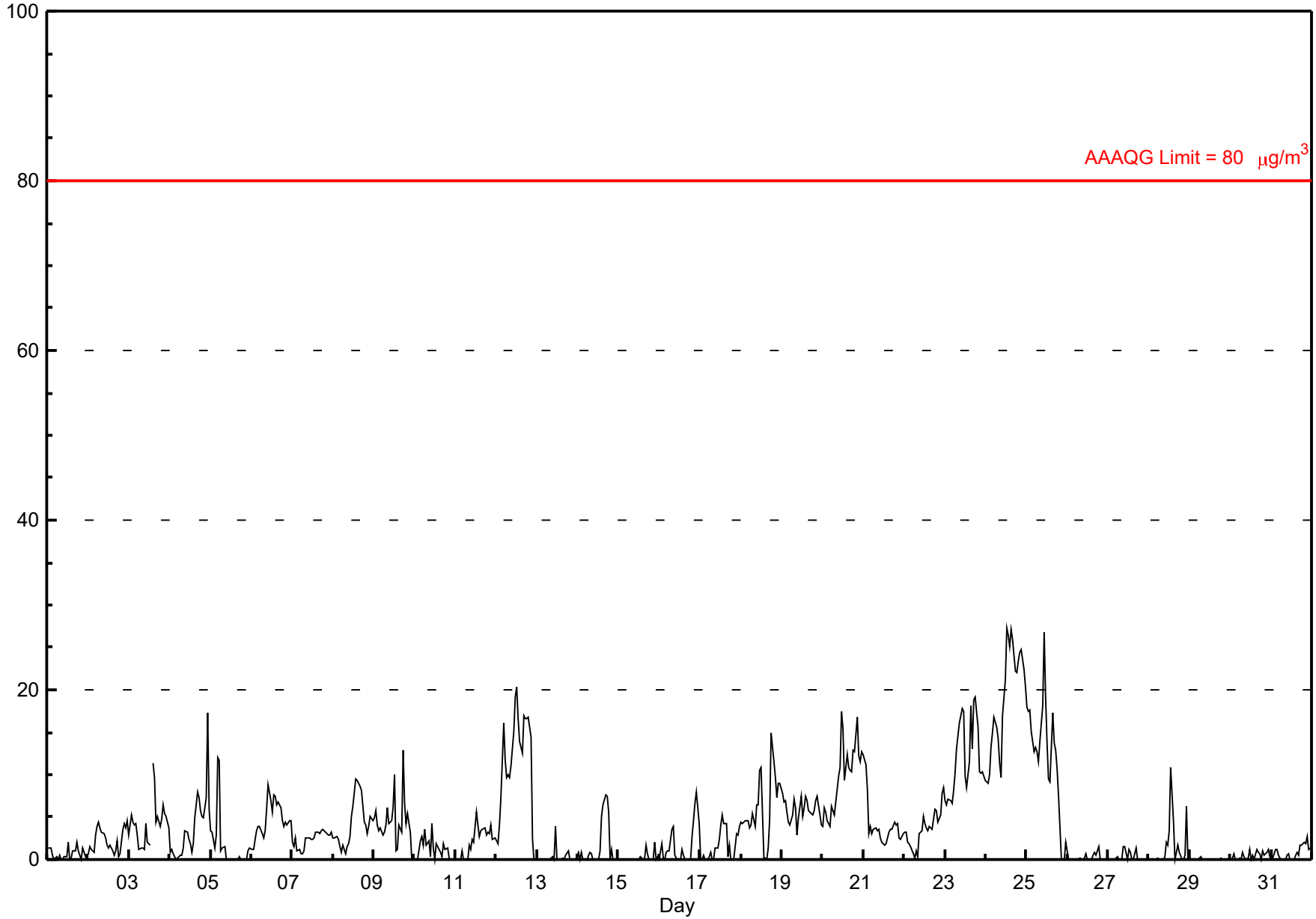
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - January 2017



Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - January 2017

Maximum Value: 31.9 $\mu g/m^3$ on Jan 23 16:00

Maximum Daily Average: 22.5 $\mu g/m^3$ on Jan 24

Minimum Value: 0 $\mu g/m^3$ on Jan 25 22:00

Maximum Diurnal Average: 8.6 $\mu g/m^3$ at hour 18

Monthly Average: 7.03 $\mu g/m^3$

Minimum Daily Average: 1.5 $\mu g/m^3$ on Jan 29

Minimum Diurnal Average: 5.4 $\mu g/m^3$ at hour 7

Percentiles: $P_1 = 0.1$ $P_{10} = 1.5$ $Q_1 = 2.9$ Median = 5.3 $Q_3 = 8.9$ $P_{90} = 15.7$ $P_{99} = 27.3$

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

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-Jan	4	4	4	3	2	3	2	4	3	4	4	3	6	4	3	5	5	7	4	3	3	5	4	4	4.0	6.9
2-Jan	4	5	5	5	5	7	8	7	7	7	6	5	5	4	4	3	6	6	3	3	11	15	6	7	6.0	14.7
3-Jan	6	9	7	9	10	6	4	4	6	6	10	5	5	M	15	16	8	8	7	9	10	8	8	8	7.9	15.7
4-Jan	3	4	3	3	2	3	4	3	4	6	5	5	5	4	4	8	12	12	9	7	7	19	23	12	7.0	23.2
5-Jan	5	5	5	8	18	18	4	3	3	2	2	1	0	1	1	1	2	2	2	2	3	2	3	4	4.1	17.9
6-Jan	4	4	5	6	7	6	5	5	6	12	12	11	9	11	11	9	10	10	8	7	7	8	9	8	8.0	12.3
7-Jan	6	4	6	4	6	4	4	5	6	6	7	6	5	7	7	7	7	6	8	9	7	7	6	7	6.1	8.6
8-Jan	6	8	6	7	7	4	5	5	4	5	6	8	12	13	13	12	12	12	7	7	6	7	9	8	7.8	13.2
9-Jan	9	10	7	7	7	6	7	8	11	7	8	14	18	5	4	9	7	20	15	7	8	7	3	1	8.6	20.1
10-Jan	1	1	3	5	6	4	6	5	5	3	8	5	3	5	3	3	4	4	5	3	2	2	1	1	3.7	8.1
11-Jan	1	1	1	4	3	1	2	2	4	4	5	4	10	7	5	6	6	5	5	7	6	6	5	5	4.4	9.6
12-Jan	6	6	9	15	22	14	12	12	12	13	18	23	27	23	17	16	21	19	20	23	24	7	1	0	14.9	26.9
13-Jan	1	1	1	2	2	2	1	2	2	3	3	8	2	1	1	2	1	3	5	4	2	3	4	5	2.7	7.6
14-Jan	5	3	3	3	3	3	6	4	5	2	2	2	3	3	7	9	11	10	8	3	5	2	2	3	4.5	10.9
15-Jan	1	1	1	3	2	3	2	2	2	2	1	2	2	2	1	4	4	4	4	2	2	6	1	4	2.5	6.2
16-Jan	2	8	2	2	7	4	3	9	9	4	3	2	2	3	7	1	2	2	2	5	8	9	10	9	4.8	9.6
17-Jan	2	4	5	1	1	6	4	1	2	6	3	7	9	10	8	12	2	5	2	2	2	9	8	7	5.0	11.5
18-Jan	8	7	7	8	8	8	6	8	6	11	10	14	13	4	3	0	4	13	18	18	12	10	12	13	9.1	18.0
19-Jan	10	8	11	9	8	7	7	9	9	6	9	10	8	8	10	9	7	7	8	8	9	10	10	6	8.4	10.6
20-Jan	7	9	8	7	7	9	8	8	10	13	14	26	23	16	16	13	14	13	15	16	20	16	14	15	13.2	26.4
21-Jan	15	15	12	7	7	6	6	6	6	6	5	5	5	5	5	6	6	6	7	7	7	6	5	7	7.0	15.2
22-Jan	6	6	5	5	5	3	4	4	3	6	6	8	8	6	6	7	6	7	10	9	8	8	11	12	6.7	12.5
23-Jan	11	9	10	10	9	11	13	17	19	20	21	20	16	12	16	32	20	25	25	22	13	13	13	13	16.2	31.9
24-Jan	12	12	13	16	19	20	18	18	15	13	25	27	30	30	30	32	28	26	25	26	27	28	25	25	22.5	31.5
25-Jan	20	20	21	20	17	18	16	15	17	25	30	26	18	13	16	22	17	17	15	11	5	0	1	6	16.1	30.5
26-Jan	4	2	2	0	0	1	1	3	2	4	4	3	1	0	1	2	4	3	4	3	1	2	2	3	2.2	4.5
27-Jan	1	2	1	2	2	4	1	2	4	4	4	3	9	4	3	4	4	1	1	1	1	1	1	1	2.5	8.8
28-Jan	1	1	1	1	2	3	1	0	2	2	5	6	6	18	12	4	4	7	4	0	1	4	13	3	4.2	17.9
29-Jan	2	1	1	2	4	2	5	2	2	2	1	1	0	0	0	0	0	1	2	1	1	2	2	2	1.5	4.9
30-Jan	1	1	3	3	2	2	1	3	4	2	2	3	3	3	2	5	4	3	3	3	3	3	4	4	2.8	5.2
31-Jan	4	4	5	4	3	3	3	3	3	4	4	1	1	2	3	4	3	4	4	5	5	6	4	4	3.6	6.4
	5.5	5.6	5.6	5.9	6.6	6.2	5.4	5.7	6.3	6.8	7.9	8.6	8.5	7.4	7.6	8.5	7.7	8.6	8.3	7.6	7.3	7.5	7.0	6.6	Diurnal Average	
	20.1	20.3	20.8	19.8	22.1	20.1	18.3	17.9	18.6	24.9	30.5	26.6	30.1	29.8	29.6	31.9	28.4	25.9	25.4	26.4	26.9	28.2	25.2	24.7	Diurnal Maximum	

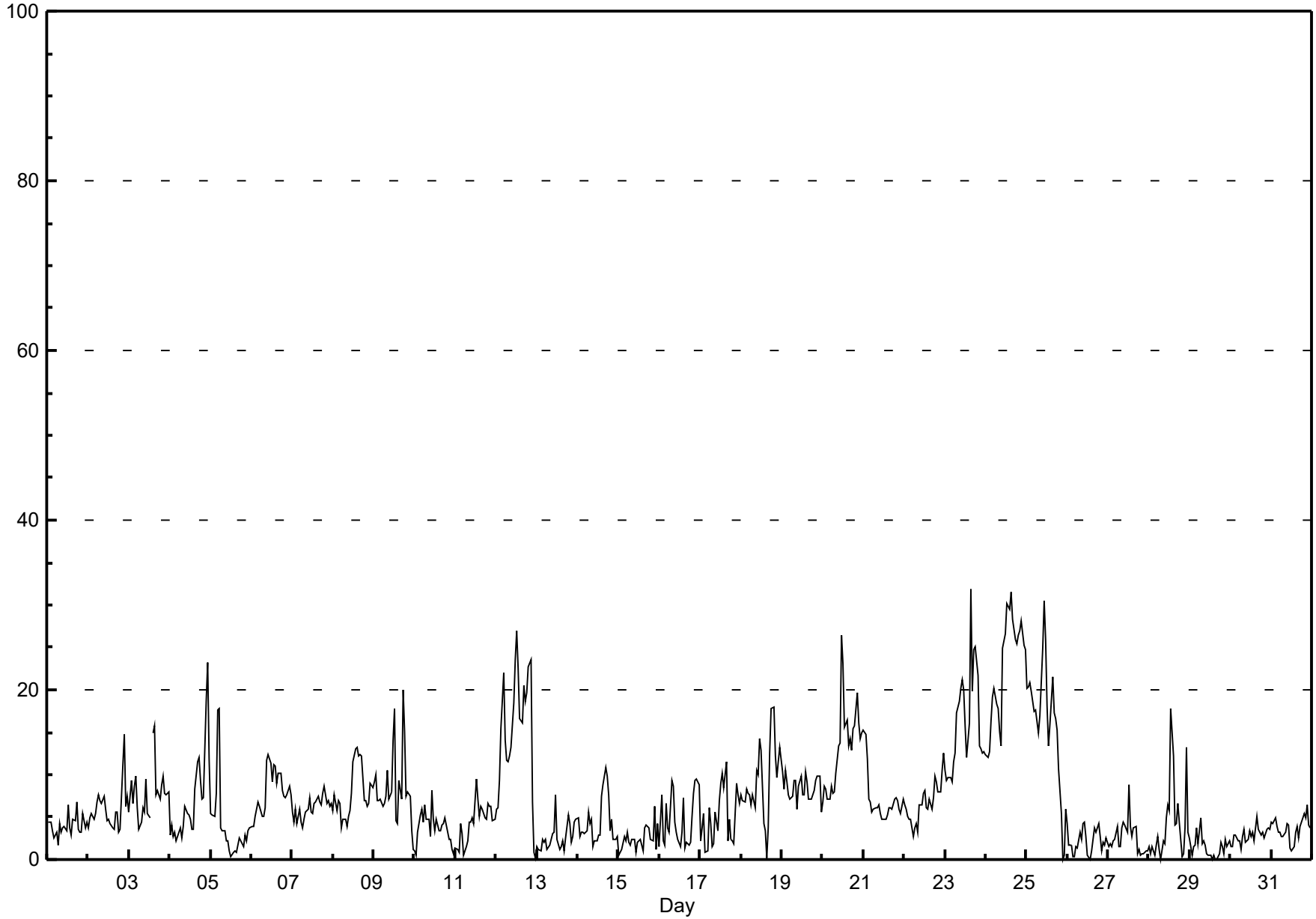
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

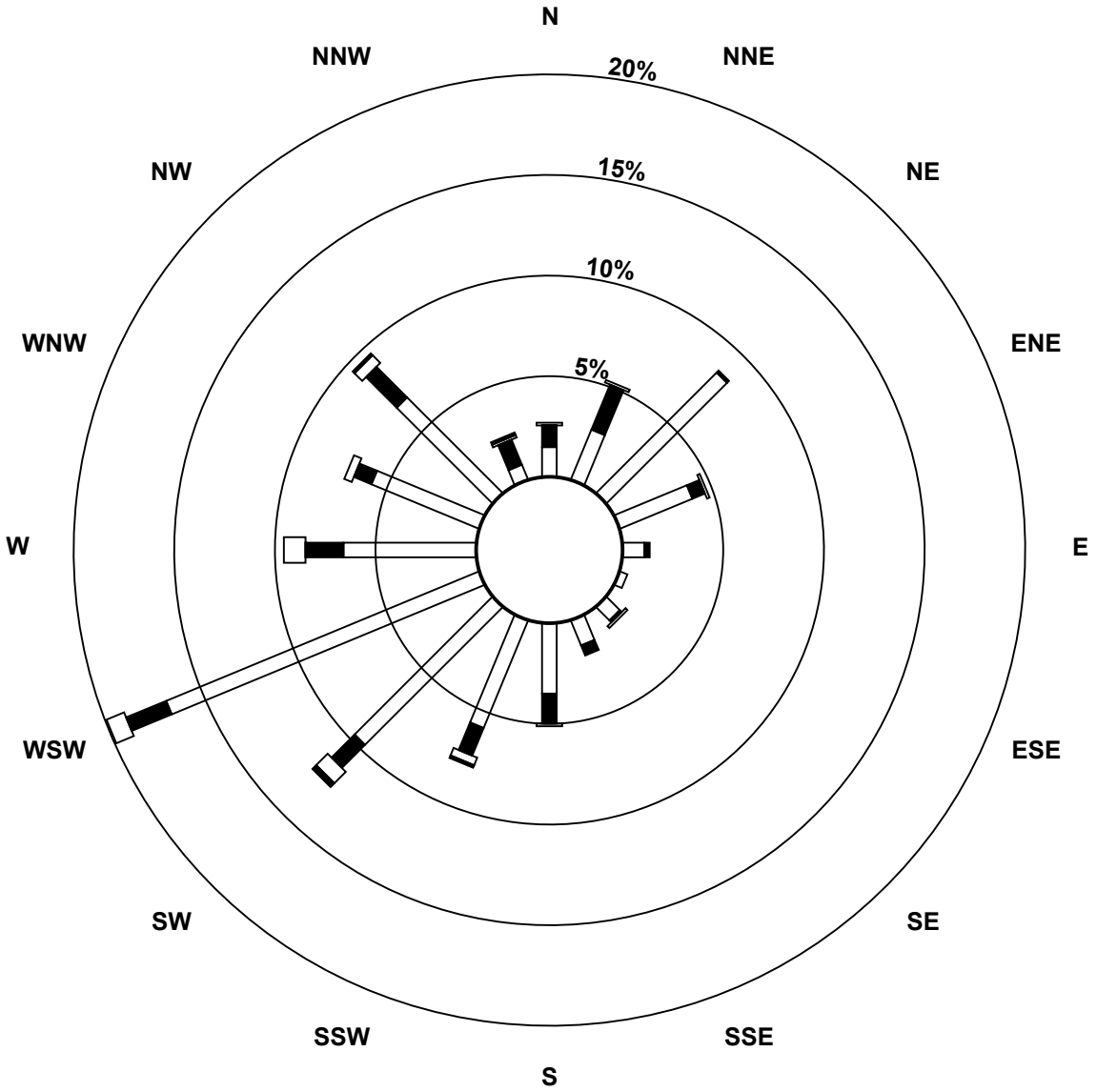
Evergreen Park - January 2017



Pollutant Rose

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

Evergreen Park - January 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 - January 2017

Maximum Value: 13.3 °C on Jan 18 16:00

Maximum Daily Average: 4.3 °C on Jan 28

Minimum Value: -27 °C on Jan 12 10:00

Minimum Daily Average: -20.1 °C on Jan 12

Maximum Diurnal Average: -3.9 °C at hour 15

Minimum Diurnal Average: -9.1 °C at hour 10

Monthly Average: -7.14 °C

Percentiles: P_1 = -24.8 P_{10} = -18.3 Q_1 = -13.0 Median = -7.2 Q_3 = -0.7 P_{90} = 3.3 P_{99} = 9.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

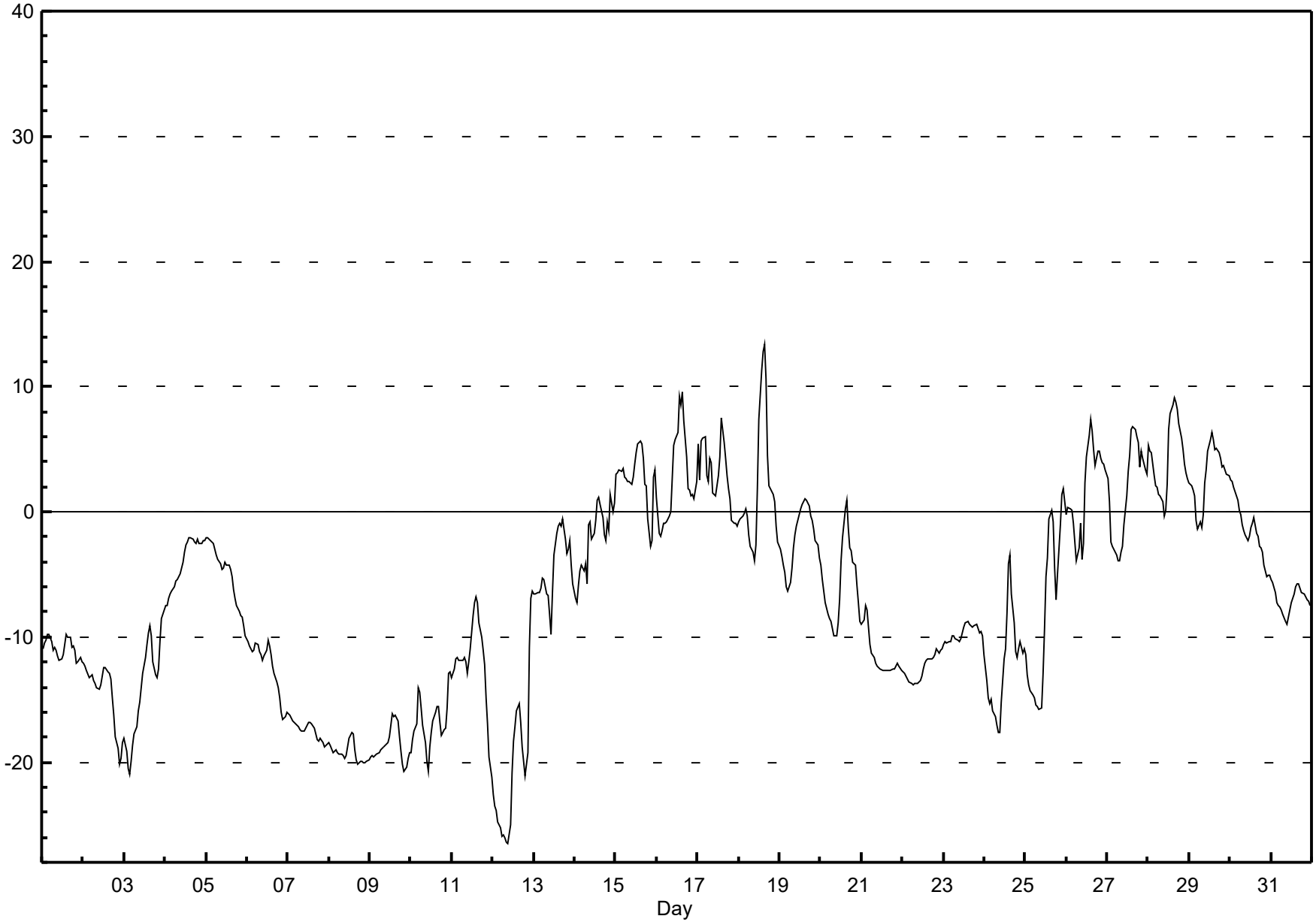
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	-11	-11	-10	-10	-10	-10	-11	-11	-11	-12	-12	-12	-11	-11	-10	-10	-10	-11	-11	-11	-12	-12	-12	-12	-10.9	-9.8
2-Jan	-12	-12	-13	-13	-13	-13	-13	-14	-14	-14	-14	-13	-12	-12	-13	-13	-13	-15	-16	-18	-19	-20	-20	-18	-14.5	-12.1
3-Jan	-18	-19	-21	-21	-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-10	-12	-13	-13	-13	-10	-9	-8	-14.1	-7.9
4-Jan	-7	-7	-7	-7	-6	-6	-6	-5	-5	-5	-4	-3	-3	-2	-2	-2	-2	-2	-2	-2	-3	-3	-2	-2	-4.0	-2.1
5-Jan	-2	-2	-2	-2	-3	-3	-3	-4	-4	-5	-4	-4	-4	-4	-5	-5	-6	-7	-7	-8	-8	-8	-9	-10	-5.1	-2.1
6-Jan	-10	-11	-11	-11	-11	-10	-11	-11	-11	-12	-12	-11	-10	-11	-11	-12	-13	-14	-14	-15	-16	-17	-16	-16	-12.4	-10.2
7-Jan	-16	-16	-16	-17	-17	-17	-17	-17	-17	-18	-17	-17	-17	-17	-17	-17	-18	-18	-18	-18	-18	-19	-19	-19	-17.4	-16.2
8-Jan	-18	-19	-19	-19	-19	-19	-19	-19	-19	-20	-19	-19	-18	-18	-18	-19	-20	-20	-20	-20	-20	-20	-20	-20	-19.3	-17.6
9-Jan	-20	-19	-20	-19	-19	-19	-19	-19	-19	-19	-18	-18	-17	-16	-16	-16	-17	-18	-19	-20	-21	-20	-20	-19	-18.7	-16.1
10-Jan	-19	-18	-17	-17	-14	-14	-16	-17	-18	-20	-21	-19	-18	-17	-16	-16	-16	-17	-18	-17	-17	-16	-13	-13	-16.8	-12.7
11-Jan	-13	-13	-12	-12	-12	-12	-12	-12	-12	-13	-12	-11	-8	-7	-7	-7	-9	-10	-11	-12	-15	-17	-20	-21	-12.0	-6.8
12-Jan	-23	-24	-24	-25	-25	-26	-26	-26	-26	-27	-25	-21	-18	-17	-16	-15	-17	-19	-20	-21	-19	-11	-7	-6	-20.1	-6.4
13-Jan	-7	-7	-6	-6	-6	-5	-5	-7	-7	-8	-10	-6	-4	-2	-1	-1	-1	-1	-2	-3	-3	-2	-4	-6	-4.6	-0.6
14-Jan	-7	-7	-6	-5	-4	-5	-4	-6	-1	-1	-2	-2	-1	1	1	1	0	-2	-2	-1	-1	1	0	1	-2.2	1.4
15-Jan	3	3	3	3	3	3	3	2	2	2	3	4	5	5	6	5	4	2	2	-1	-3	-2	3	3	2.7	5.7
16-Jan	1	-2	-2	-1	-1	-1	-1	0	0	3	5	6	6	9	9	10	7	4	2	2	1	1	1	2	2.6	9.5
17-Jan	5	3	6	6	6	3	2	4	4	1	1	2	3	4	8	6	4	3	2	1	-1	-1	-1	-1	2.9	7.5
18-Jan	-1	-1	0	0	0	0	-2	-3	-3	-4	-3	2	7	11	13	13	11	4	2	2	1	1	-1	-2	2.0	13.3
19-Jan	-3	-4	-4	-5	-6	-6	-6	-4	-3	-2	-1	0	0	1	1	1	1	0	0	-1	-1	-2	-3	-4	-2.1	1.0
20-Jan	-4	-5	-6	-7	-8	-8	-9	-9	-10	-10	-9	-7	-4	-2	0	1	-1	-3	-3	-4	-4	-6	-7	-9	-5.7	0.9
21-Jan	-9	-9	-7	-8	-9	-11	-11	-12	-12	-12	-12	-13	-13	-13	-13	-13	-13	-13	-13	-13	-12	-12	-12	-13	-11.5	-7.5
22-Jan	-13	-13	-13	-13	-14	-14	-14	-14	-14	-14	-14	-13	-13	-12	-12	-12	-12	-12	-12	-11	-11	-11	-11	-11	-12.5	-10.9
23-Jan	-11	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-9	-9	-9	-9	-9	-9	-9	-9	-9	-10	-10	-10	-9.7	-8.8
24-Jan	-11	-13	-15	-15	-15	-16	-16	-17	-18	-18	-15	-12	-11	-8	-4	-3	-7	-9	-11	-12	-11	-10	-11	-11	-12.1	-3.5
25-Jan	-11	-13	-14	-14	-15	-15	-15	-16	-16	-16	-13	-9	-5	-4	-1	0	-1	-4	-7	-5	-1	1	2	1	-7.9	1.8
26-Jan	0	0	0	0	-1	-2	-4	-3	-1	-4	-3	2	4	6	7	6	5	4	5	5	4	4	4	3	1.8	7.4
27-Jan	3	1	-2	-3	-3	-3	-4	-4	-3	-3	-1	1	3	5	7	7	7	6	6	4	5	4	3	3	1.5	6.9
28-Jan	5	5	5	3	2	2	1	1	1	0	0	2	7	8	9	9	9	8	7	6	5	4	3	3	4.3	9.1
29-Jan	2	2	2	1	-1	-1	-1	-1	0	2	3	5	6	6	6	5	5	5	4	4	4	3	3	3	2.8	6.3
30-Jan	3	2	2	2	1	0	0	-1	-1	-2	-2	-2	-1	-1	0	-2	-2	-3	-3	-3	-4	-5	-5	-5	-1.4	2.6
31-Jan	-5	-6	-6	-7	-7	-8	-8	-8	-9	-9	-8	-8	-7	-7	-6	-6	-6	-6	-6	-7	-7	-7	-7	-7	-7.0	-5.4
	-7.4	-7.9	-8.0	-8.2	-8.3	-8.6	-8.9	-9.0	-8.9	-9.1	-8.5	-7.0	-5.6	-4.6	-3.9	-4.0	-4.8	-6.0	-6.8	-7.2	-7.4	-7.2	-7.1	-7.2	Diurnal Average	
	5.4	4.9	5.7	5.8	6.0	2.9	2.6	4.3	3.9	2.7	5.3	5.8	7.4	11.3	12.8	13.3	10.6	8.2	7.1	5.9	5.0	4.3	3.8	3.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - January 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - January 2017

Maximum Value: 97.9 % on Jan 20 00:00

Maximum Daily Average: 94.8 % on Jan 19

Minimum Value: 29 % on Jan 18 16:00

Minimum Daily Average: 54.9 % on Jan 30

Maximum Diurnal Average: 80.6 % at hour 6

Minimum Diurnal Average: 66.0 % at hour 15

Monthly Average: 76.39 %

Percentiles: P_1 = 42.3 P_{10} = 58.9 Q_1 = 69.1 Median = 78.1 Q_3 = 86.0 P_{90} = 91.0 P_{99} = 97.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

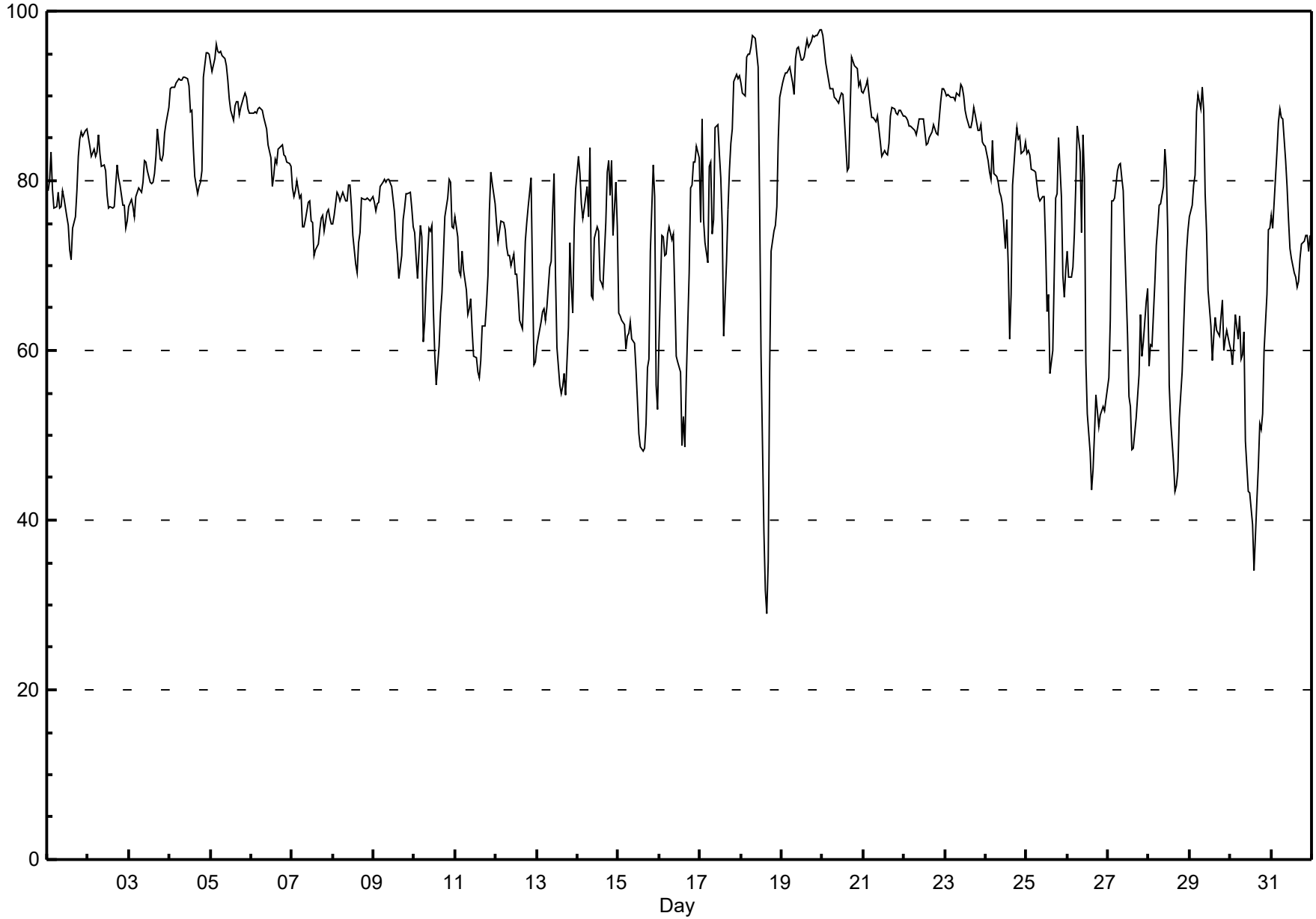
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	79	80	83	79	77	77	79	77	77	79	78	76	75	72	71	74	76	79	83	85	86	85	86	86	79.0	86.2
2-Jan	85	84	83	84	83	83	85	83	82	82	81	78	77	77	77	77	79	82	80	79	77	77	74	75	80.3	85.5
3-Jan	77	78	77	76	78	79	79	79	80	82	82	81	80	80	80	81	83	86	83	82	83	86	87	89	81.1	88.7
4-Jan	91	91	91	91	91	92	92	92	92	92	92	91	88	88	84	81	78	79	80	81	92	95	95	95	89.0	95.1
5-Jan	94	93	94	96	95	95	95	95	94	94	92	90	88	87	89	89	89	88	89	90	90	90	89	88	91.4	96.1
6-Jan	88	88	88	88	88	89	88	87	87	86	84	83	79	81	83	82	84	84	84	83	83	82	82	82	84.7	88.7
7-Jan	79	78	79	80	78	78	75	75	75	77	78	75	75	71	72	73	74	76	76	74	76	77	76	75	75.9	80.0
8-Jan	75	76	79	78	78	78	79	78	78	80	80	77	74	70	69	73	74	78	78	78	78	78	78	78	76.6	79.6
9-Jan	78	76	77	77	79	80	80	80	80	80	79	78	76	73	71	68	71	75	77	78	79	79	77	75	76.9	80.2
10-Jan	74	71	68	75	73	61	63	68	74	74	75	65	59	56	61	64	67	71	76	78	80	80	75	74	70.1	80.2
11-Jan	76	73	69	69	72	70	67	64	65	66	62	59	59	58	57	59	63	63	65	69	76	81	80	77	67.5	81.1
12-Jan	75	73	74	75	75	74	72	71	71	70	71	69	69	67	64	62	67	73	75	77	80	69	58	59	70.5	80.3
13-Jan	60	62	63	65	65	64	65	70	70	76	81	69	60	56	55	56	57	55	63	73	68	64	74	79	65.4	80.8
14-Jan	83	81	77	76	77	79	76	84	66	66	73	75	74	68	68	67	75	81	82	78	82	74	80	75	75.8	83.9
15-Jan	64	64	64	63	60	62	62	63	61	61	58	54	50	49	48	48	51	58	59	72	82	78	56	53	60.0	81.8
16-Jan	61	73	73	71	71	74	75	73	74	67	59	59	57	49	52	49	57	69	79	80	82	82	84	83	68.9	84.0
17-Jan	75	87	75	73	70	82	82	74	75	86	87	83	80	75	62	71	77	81	84	86	92	92	92	92	80.6	92.5
18-Jan	92	90	90	95	95	95	96	97	97	95	93	78	60	39	32	29	35	58	72	74	75	77	85	90	76.5	97.1
19-Jan	92	92	93	93	93	93	92	90	94	96	96	94	94	95	96	97	96	96	97	97	97	97	98	98	94.8	97.9
20-Jan	97	96	94	93	91	91	91	90	90	89	90	90	90	87	81	82	88	95	94	93	93	91	92	90	90.8	97.1
21-Jan	90	91	92	90	89	87	87	87	88	86	85	83	84	83	83	84	88	89	89	88	88	88	88	88	87.3	91.8
22-Jan	88	87	87	86	86	86	86	85	86	87	87	87	86	84	84	85	86	87	86	86	85	89	91	91	86.7	90.8
23-Jan	90	90	90	90	90	90	90	90	90	91	91	90	88	87	86	86	87	89	88	86	86	87	85	84	88.4	91.4
24-Jan	84	82	81	80	85	81	81	80	79	78	77	72	75	70	61	67	79	84	86	85	85	83	84	85	79.4	86.3
25-Jan	83	84	83	81	81	81	79	78	78	78	78	72	65	67	57	60	69	78	78	85	78	69	66	69	74.9	85.1
26-Jan	72	69	69	70	74	79	87	83	74	85	80	59	52	48	44	46	50	55	51	52	53	53	53	54	63.0	86.5
27-Jan	57	64	78	78	78	81	82	82	80	79	73	62	55	53	48	49	52	55	57	64	59	61	66	67	65.8	82.1
28-Jan	58	61	61	68	72	75	77	77	79	84	81	74	56	52	47	43	44	46	52	57	62	67	72	74	64.2	83.8
29-Jan	76	77	79	81	88	90	88	91	88	79	74	67	63	59	62	64	62	62	64	66	60	61	62	61	71.8	91.0
30-Jan	60	58	61	64	61	64	59	59	62	49	43	43	41	39	34	42	46	51	51	53	60	67	74	74	54.9	74.4
31-Jan	76	74	80	84	87	88	87	87	82	79	75	72	71	69	69	67	68	71	73	73	74	74	72	74	76.1	88.5
	78.3	78.9	79.1	79.6	80.1	80.6	80.5	80.4	79.7	79.8	78.6	74.3	71.0	68.0	66.0	67.0	70.1	73.9	75.8	77.5	78.8	78.5	78.3	78.5	Diurnal Average	
	97.1	95.6	94.4	96.1	95.3	95.0	95.8	97.1	96.7	95.5	95.8	94.2	94.2	94.6	95.6	96.6	95.7	96.5	97.1	97.0	97.1	97.2	97.7	97.9	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - January 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - January 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	10	10	15	16	22	10	18	13	9	10	12	11	10	9	12	7	8	7	5	4	4	6	4	8.9	22.3
Dir	265	262	270	310	306	313	296	317	296	281	271	254	248	266	287	247	244	221	253	261	223	257	263	244	277.7	313.5
2 Spd	5	3	1	0	1	5	6	4	4	2	3	1	3	5	4	4	2	2	1	1	0	1	0	0	1.6	5.9
Dir	238	306	20	139	50	47	52	48	43	25	31	6	57	54	52	110	132	126	55	14	3	221	32	187	51.7	51.9
3 Spd	3	2	1	3	1	4	7	2	4	10	9	8	8	8	9	8	3	3	1	3	1	5	5	9	4.6	10.1
Dir	203	204	187	198	200	210	222	234	210	230	244	243	252	259	250	240	224	213	185	190	242	213	206	235	230.4	229.8
4 Spd	12	7	5	7	8	10	7	11	10	9	10	11	13	14	13	10	10	9	10	9	5	4	3	1	8.4	13.6
Dir	243	243	234	234	241	238	254	251	236	240	246	243	264	256	257	267	274	265	276	293	241	225	239	238	252.2	255.7
5 Spd	0	0	3	4	2	2	4	5	5	2	1	2	5	4	4	6	8	7	7	7	7	8	9	7	4.0	9.0
Dir	235	320	300	318	352	356	15	13	23	23	339	5	45	49	37	48	44	54	48	52	56	73	70	72	41.4	69.6
6 Spd	6	9	11	8	8	9	9	9	8	9	8	9	6	7	8	10	7	14	11	11	7	7	8	8	5.0	13.8
Dir	57	57	61	56	59	62	68	75	69	69	71	77	66	23	25	19	352	320	309	308	281	282	289	291	26.3	319.5
7 Spd	16	13	15	14	14	15	9	10	8	6	5	7	8	8	9	9	5	5	5	2	4	5	2	2	5.4	16.0
Dir	301	291	297	297	301	320	2	336	322	300	336	19	25	40	48	42	52	47	50	71	74	57	91	89	341.9	301.4
8 Spd	1	2	3	3	2	2	3	2	2	3	6	6	5	9	8	5	1	7	6	9	9	6	9	10	1.3	9.8
Dir	53	52	46	84	92	52	62	90	63	43	44	43	10	343	17	27	262	234	237	244	266	266	232	251	321.9	250.7
9 Spd	8	8	10	11	10	8	6	6	7	8	11	13	11	14	13	10	12	11	11	10	10	9	19	20	10.3	20.4
Dir	254	241	251	257	263	264	264	269	256	266	246	264	270	308	297	277	260	257	261	265	252	249	248	246	261.5	246.2
10 Spd	17	23	27	30	35	44	41	25	8	6	6	7	10	13	11	11	10	5	12	14	11	10	19	19	13.5	44.1
Dir	244	241	249	266	298	322	326	325	9	20	234	238	239	255	257	248	251	250	246	252	247	249	240	237	274.5	321.9
11 Spd	12	16	15	10	14	18	22	29	21	18	21	21	21	30	27	26	21	17	13	5	4	4	1	1	15.0	29.9
Dir	259	271	285	278	276	263	259	258	284	273	262	256	275	302	303	305	309	309	312	307	322	261	160	215	281.8	301.7
12 Spd	1	1	1	2	0	0	0	0	1	0	1	1	3	5	7	5	4	3	1	3	6	15	23	26	3.5	25.7
Dir	49	51	20	28	268	164	223	273	190	337	326	232	246	250	321	296	308	297	278	30	313	261	250	238	265.9	238.0
13 Spd	26	26	32	31	28	33	27	16	15	5	2	3	11	25	24	21	21	18	2	2	7	8	2	0	15.7	33.0
Dir	234	236	231	224	226	232	224	210	214	201	68	177	237	234	223	223	223	228	254	181	229	221	202	220	226.0	232.5
14 Spd	0	4	5	4	5	3	1	1	20	9	4	3	3	1	2	3	4	2	4	6	6	17	4	12	4.4	19.7
Dir	73	183	200	205	202	194	165	170	228	224	184	93	82	120	172	190	190	204	225	217	219	234	207	243	213.0	228.3
15 Spd	22	23	31	34	33	25	30	31	27	27	29	35	36	29	28	30	15	6	11	2	1	2	19	15	22.4	35.9
Dir	251	245	237	238	235	236	240	234	233	231	235	238	240	241	242	247	251	253	241	198	139	249	234	224	238.3	239.6
16 Spd	5	2	3	5	2	0	2	8	5	11	11	9	15	6	4	14	5	1	1	3	0	1	1	14	4.6	14.9
Dir	222	160	167	177	179	69	75	182	174	181	185	183	200	238	219	213	202	118	35	37	158	222	192	208	193.8	200.4
17 Spd	15	6	16	17	9	3	9	16	7	2	1	1	1	1	3	3	5	5	6	1	2	2	2	1	3.1	17.3
Dir	214	223	224	218	236	210	208	217	206	51	43	17	31	58	166	75	47	40	53	61	25	195	7	225	212.7	218.4
18 Spd	1	1	1	3	0	1	0	2	1	2	2	1	1	9	10	12	9	1	2	3	2	1	2	1	1.3	11.9
Dir	191	192	282	26	21	10	280	350	174	30	25	339	53	173	179	192	193	272	298	325	232	184	344	225	197.3	192.3
19 Spd	1	1	1	0	1	1	1	1	0	2	4	3	4	5	3	3	3	2	1	1	1	1	1	2	1.0	5.3
Dir	340	338	214	240	280	323	273	189	306	352	295	220	223	297	210	180	161	148	56	167	212	315	228	209	236.9	296.5
20 Spd	1	1	1	0	1	1	1	0	1	1	0	2	2	1	1	2	2	0	1	2	3	1	2	1	0.5	2.7
Dir	244	199	171	203	130	349	269	199	291	326	26	231	243	298	98	15	29	13	356	4	228	280	326	310	294.5	228.5
21 Spd	2	3	5	15	21	18	17	15	19	16	13	15	16	14	14	11	9	6	4	5	3	6	7	8	9.6	21.4
Dir	275	332	315	306	317	308	311	302	304	308	295	295	292	296	293	293	323	308	278	307	347	43	47	58	309.3	317.4
22 Spd	7	7	9	7	8	6	7	3	5	5	7	8	7	7	7	6	5	4	1	1	0	0	2	2	4.9	8.5
Dir	53	54	45	62	52	42	39	49	47	50	42	48	47	50	53	55	46	31	19	13	237	307	3	32	46.8	45.1

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - January 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	3	1	1	1	0	0	1	1	2	5	3	3	3	2	3	3	3	3	1	0	0	0	0	1	1.0	4.9
Dir	27	73	343	16	5	198	186	151	202	246	225	204	228	202	189	198	179	172	141	64	91	18	125	205	198.3	245.7
24 Spd	1	0	0	1	1	1	1	1	0	0	1	1	3	2	1	1	2	1	1	1	1	1	0	0	0.7	3.4
Dir	206	184	212	278	258	254	266	233	235	202	268	240	216	227	260	326	344	11	245	292	285	311	277	312	263.5	215.8
25 Spd	0	0	1	1	1	1	1	0	0	1	1	2	1	1	1	1	2	4	3	8	13	21	24	22	4.4	24.4
Dir	305	327	277	307	299	252	239	348	309	228	214	225	297	317	240	261	319	270	242	252	242	245	244	242	248.0	243.6
26 Spd	22	21	16	16	6	2	1	9	5	2	2	7	18	22	19	21	10	9	25	31	32	29	28	20	15.3	32.1
Dir	240	246	245	247	271	260	337	227	246	98	234	256	235	226	229	244	239	223	241	244	241	241	242	245	240.6	240.6
27 Spd	9	4	1	1	0	2	1	1	1	3	7	6	6	3	19	22	13	23	14	2	12	7	4	9	5.9	23.0
Dir	253	260	73	127	161	42	166	65	72	193	192	200	221	326	240	242	273	246	241	312	268	272	293	206	244.6	246.1
28 Spd	22	18	5	4	1	3	2	3	1	2	2	1	3	5	13	22	19	28	27	19	15	12	15	16	9.3	27.8
Dir	213	204	188	171	51	186	156	133	54	36	174	349	330	318	241	254	244	222	227	221	230	239	238	241	228.8	221.8
29 Spd	10	15	10	8	2	1	10	3	11	11	12	19	12	13	15	20	25	21	20	10	24	28	33	31	14.3	33.1
Dir	244	229	220	200	26	181	207	1	203	201	213	221	228	233	252	239	228	224	240	264	244	239	238	243	232.5	238.0
30 Spd	33	34	37	35	34	34	37	34	19	29	33	34	30	31	35	30	24	23	20	27	24	19	21	20	26.7	37.0
Dir	243	243	248	249	248	247	252	254	278	262	253	252	259	258	294	294	258	255	294	315	314	310	296	299	265.7	252.5
31 Spd	25	25	24	26	20	17	17	15	14	15	13	13	23	18	16	17	12	10	11	8	7	8	11	7	14.9	26.0
Dir	314	316	320	321	319	315	316	309	305	314	305	297	312	302	286	301	289	273	307	289	272	273	285	265	305.4	320.5
Spd	7.3	6.8	6.7	6.8	6.3	5.9	5.3	5.3	4.5	4.0	4.7	5.5	6.3	6.9	7.0	7.5	5.8	5.6	5.5	4.6	5.3	6.0	7.0	7.6	Diurnal Average	
Dir	250.0	250.0	253.8	258.4	273.1	281.2	273.6	266.9	262.6	260.9	252.2	250.2	259.8	268.9	266.5	261.3	258.6	252.2	261.6	270.8	258.1	252.2	250.0	243.2		
Spd	32.9	34.4	36.9	34.7	34.8	44.1	40.8	34.0	27.4	28.7	33.1	35.4	35.9	30.9	35.1	29.7	25.3	27.8	27.2	31.0	32.1	29.3	33.1	31.3	Diurnal Maximum	
Dir	243.4	242.8	247.8	248.5	298.2	321.9	326.2	253.9	232.9	262.0	253.0	237.5	239.6	257.6	294.2	293.9	227.7	221.8	227.2	243.6	240.6	240.7	238.0	242.6		

Maximum Speed Value: 44 km/h on Jan 10 06:00
Maximum Daily Speed Average: 26.7 km/h on Jan 30
Maximum Diurnal Speed Average: 7.6 km/h at hour 24

Minimum Speed Value: 0 km/h on Jan 22 21:00
Minimum Daily Speed Average: 0.5 km/h on Jan 24
Minimum Diurnal Speed Average: 4.0 km/h at hour 10

Monthly Average Velocity: 5.92 km/h 259.38 deg

Speed Percentiles: $P_1 = 0.2$ $P_{10} = 0.9$ $Q_1 = 1.9$ Median = 6.3 $Q_3 = 12.9$ $P_{90} = 22.7$ $P_{99} = 34.8$

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Frequency Distribution

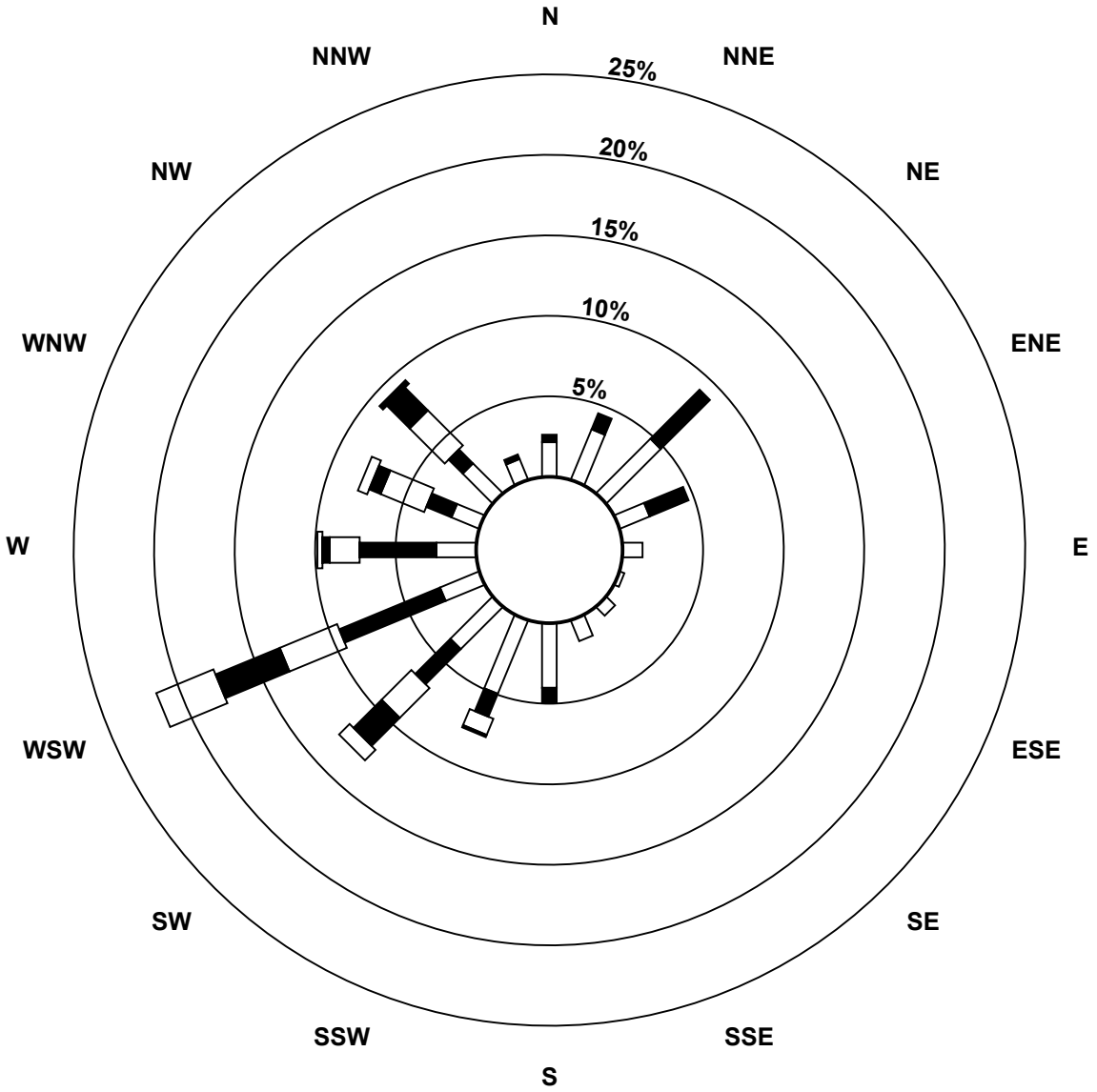
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	38	10	0	0	0	0	48
NorthEast	56	46	0	0	0	0	102
East	21	9	0	0	0	0	30
SouthEast	14	0	0	0	0	0	14
South	59	14	3	0	0	0	76
SouthWest	68	49	38	38	23	0	216
West	34	59	26	13	12	0	144
NorthWest	41	14	35	18	4	2	114
Total	331	201	102	69	39	2	744

Peace Airshed Zone Association

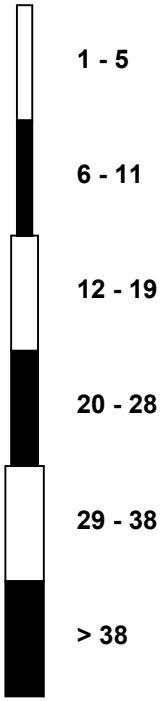
Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - January 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - January 2017

Maximum Speed: 45 km/h on Jan 10 06:00

Maximum Daily Speed Average: 29.6 km/h on Jan 30

Minimum Speed: 0 km/h on Jan 24 10:00

Minimum Daily Speed Average: 1.2 km/h on Jan 24

Maximum Diurnal Speed Average: 12.0 km/h at hour 16

Minimum Diurnal Speed Average: 7.4 km/h at hour 20

Monthly Average Speed: 9.52 km/h

Percentiles: $P_1 = 0.3$ $P_{10} = 1.4$ $Q_1 = 2.8$ Median = 6.8 $Q_3 = 13.3$ $P_{90} = 23.3$ $P_{99} = 36.1$

Hours in Service: 744

Hours of Data: 744

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-Jan	9	10	10	15	17	23	10	18	13	10	10	13	11	10	10	12	8	8	7	6	4	4	6	4	10.4	22.6
2-Jan	5	3	2	2	1	5	6	4	4	2	3	3	5	6	4	5	2	2	2	1	0	1	0	0	2.9	6.1
3-Jan	3	2	1	3	2	4	7	3	5	10	9	8	9	9	9	8	3	3	2	3	1	5	5	9	5.1	10.4
4-Jan	12	7	6	8	9	10	7	11	10	9	10	11	14	14	13	10	11	9	10	9	5	5	3	1	8.9	13.9
5-Jan	0	0	3	4	2	3	5	5	5	3	1	2	5	4	4	7	9	8	7	7	8	8	9	7	4.9	9.3
6-Jan	7	9	11	9	8	9	10	10	8	9	9	9	7	7	8	10	8	14	11	11	7	7	8	9	9.0	14.1
7-Jan	17	13	15	15	14	15	9	11	8	6	6	7	8	9	9	10	5	6	5	2	4	5	2	2	8.5	16.5
8-Jan	2	2	4	3	2	2	4	2	2	4	7	7	7	9	8	5	3	7	7	9	9	7	9	10	5.4	9.9
9-Jan	9	9	10	11	10	8	7	6	8	8	11	14	11	15	14	11	12	11	11	10	10	9	20	21	11.0	20.5
10-Jan	17	23	28	31	37	45	41	25	9	6	6	7	10	13	11	11	10	6	12	14	11	10	19	19	17.5	44.5
11-Jan	13	17	16	11	14	18	22	29	24	18	22	22	22	31	27	27	22	17	14	6	4	5	2	2	16.9	30.6
12-Jan	1	1	1	2	1	1	1	0	1	1	1	2	4	5	7	6	4	4	2	4	6	16	23	26	5.0	25.9
13-Jan	26	26	32	31	28	33	27	17	16	6	3	3	11	25	24	21	21	18	3	4	7	8	4	2	16.5	33.1
14-Jan	2	5	5	4	6	7	3	5	20	10	7	5	5	4	2	4	6	4	5	6	7	17	4	13	6.4	20.0
15-Jan	22	24	31	34	33	25	30	31	28	28	29	36	36	29	28	30	15	7	11	4	3	4	19	15	23.1	36.1
16-Jan	6	4	4	5	3	3	3	9	6	11	11	10	15	8	5	14	6	6	3	3	2	1	2	14	6.5	15.0
17-Jan	15	6	16	17	12	5	10	16	8	5	2	1	2	1	3	4	5	5	6	2	2	3	3	2	6.4	17.5
18-Jan	2	2	3	4	3	2	3	4	2	3	2	2	2	9	11	12	9	3	3	4	2	1	2	4	3.8	12.2
19-Jan	1	1	2	2	3	3	3	4	4	4	6	5	6	6	6	4	4	2	1	2	1	2	1	3	3.2	6.5
20-Jan	2	2	2	1	2	2	4	2	2	3	3	2	3	2	2	2	3	2	1	2	3	2	2	2	2.2	3.6
21-Jan	2	4	6	15	22	18	17	15	19	16	14	16	17	14	14	12	10	7	5	5	4	7	8	8	11.5	21.9
22-Jan	7	7	9	7	8	6	7	4	5	6	8	9	8	7	8	6	5	5	1	1	0	1	2	2	5.3	9.0
23-Jan	3	2	1	2	1	0	1	1	2	5	4	4	3	2	4	4	4	3	2	1	1	0	0	1	2.0	5.0
24-Jan	1	0	0	1	1	1	1	2	0	0	1	2	3	2	1	2	2	1	1	2	2	1	1	1	1.2	3.4
25-Jan	1	0	1	1	1	1	1	0	1	1	1	2	1	2	1	1	2	5	3	8	13	21	25	22	4.8	24.6
26-Jan	22	21	17	16	7	7	5	9	8	3	6	8	18	22	20	21	10	10	25	31	32	29	28	20	16.5	32.2
27-Jan	9	5	2	2	1	3	3	2	2	5	7	6	6	3	19	22	15	24	16	5	12	8	5	10	8.0	23.8
28-Jan	22	18	5	4	2	3	3	3	2	2	3	3	4	6	13	23	19	28	27	19	16	12	15	16	11.2	28.0
29-Jan	10	16	11	9	3	2	10	4	11	11	13	20	12	13	15	20	25	21	20	11	24	28	33	32	15.6	33.3
30-Jan	33	35	37	35	34	34	37	35	20	29	33	34	31	31	36	32	25	23	21	27	25	20	21	20	29.6	37.4
31-Jan	25	25	24	26	20	17	17	15	14	15	13	14	24	19	17	18	13	10	12	9	7	8	12	8	16.0	26.3
	9.9	9.7	10.1	10.6	9.9	10.2	10.1	9.7	8.6	8.0	8.4	9.2	10.3	10.9	11.5	12.0	9.6	9.0	8.3	7.4	7.6	8.3	9.5	9.8	Diurnal Average	
	33.1	34.7	37.1	35.0	36.5	44.5	41.1	34.7	27.6	29.3	33.3	35.6	36.1	31.3	36.1	31.6	25.5	28.0	27.4	31.2	32.2	29.4	33.3	31.6	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

Evergreen Park - January 2017

Maximum Value: 99.0 deg on Jan 18 07:00

Minimum Value: 4.7 deg on Jan 13 03:00

Percentiles: P_1 = 5.4 P_{10} = 8.1 Q_1 = 13.2 Median = 22.1 Q_3 = 51.3 P_{90} = 76.5 P_{99} = 93.1

Hours in Service:	744
Hours of Data:	744
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-Jan	19	20	16	21	17	12	17	12	15	16	15	11	11	24	24	8	19	11	14	22	41	29	22	23	41.2
2-Jan	24	30	62	93	62	15	15	12	9	21	28	73	48	35	55	39	42	47	61	59	79	93	74	62	93.5
3-Jan	29	60	68	40	94	19	11	26	48	15	10	12	17	20	19	18	26	15	82	38	48	11	17	8	93.9
4-Jan	9	9	14	13	10	10	13	10	8	13	8	9	14	11	12	15	14	13	17	15	25	14	11	14	25.1
5-Jan	23	55	26	19	20	19	13	14	15	31	38	35	23	26	19	17	16	25	18	20	18	17	18	24	54.6
6-Jan	20	15	15	15	17	15	18	18	19	20	18	20	26	24	20	16	30	11	13	13	19	19	17	21	30.1
7-Jan	15	15	15	13	16	12	23	20	12	19	35	16	23	23	25	22	25	17	20	29	28	26	35	31	34.9
8-Jan	33	32	23	25	30	24	26	29	26	20	19	37	47	20	19	11	68	10	13	10	17	27	10	10	67.9
9-Jan	11	17	14	10	15	16	22	25	16	20	12	16	16	22	21	17	12	11	17	15	8	12	6	7	24.9
10-Jan	11	7	11	13	20	8	8	9	21	15	40	12	8	11	15	10	14	13	7	7	9	17	5	5	39.9
11-Jan	27	26	21	26	18	9	8	8	26	13	11	11	21	13	15	13	13	14	16	26	22	40	77	90	89.6
12-Jan	80	77	68	48	87	89	88	75	81	76	69	66	36	28	32	35	25	35	56	35	39	30	8	7	89.1
13-Jan	5	6	5	5	6	5	9	10	9	22	59	28	41	8	9	12	9	6	64	69	17	46	68	80	80.4
14-Jan	82	41	19	36	67	76	84	85	10	37	81	52	66	85	85	30	94	71	88	15	49	12	51	46	93.9
15-Jan	9	11	6	5	8	14	7	7	7	7	7	6	6	7	7	7	10	64	15	71	85	85	7	9	84.7
16-Jan	58	77	53	20	88	78	67	17	29	14	21	17	8	72	81	14	40	87	89	65	93	72	69	10	92.9
17-Jan	7	28	6	8	54	80	34	7	42	70	72	73	74	70	63	43	13	14	28	70	40	91	84	58	90.6
18-Jan	88	77	77	53	93	59	99	76	69	67	48	57	60	17	22	12	14	58	74	44	48	69	70	85	99.0
19-Jan	88	93	91	98	79	87	61	84	92	70	76	61	58	28	75	27	17	88	79	80	51	88	63	30	97.8
20-Jan	58	85	67	96	67	68	65	93	75	92	89	43	64	72	88	58	42	81	47	49	33	62	69	63	95.5
21-Jan	51	61	37	12	13	16	15	17	14	17	17	17	17	18	17	19	14	29	28	22	36	26	24	19	60.8
22-Jan	21	22	20	23	18	26	19	35	22	25	18	16	30	24	25	22	27	18	25	47	92	46	37	32	92.3
23-Jan	34	37	70	41	67	93	61	45	33	12	28	38	26	40	24	31	28	28	42	44	87	93	64	41	92.6
24-Jan	22	57	42	55	34	61	39	24	91	61	77	38	7	23	23	34	12	35	66	67	85	54	74	64	91.0
25-Jan	64	74	29	32	23	47	63	70	61	70	48	38	65	20	32	34	36	34	17	8	7	7	6	6	73.8
26-Jan	6	6	8	14	29	71	81	41	74	50	84	32	15	7	11	8	15	17	8	5	6	6	6	6	83.8
27-Jan	19	50	57	83	85	66	81	54	50	57	39	61	40	31	15	11	28	17	55	87	17	30	51	18	86.8
28-Jan	6	6	15	39	91	45	50	39	81	62	73	78	36	45	18	10	9	6	7	7	8	25	7	6	91.4
29-Jan	13	6	17	58	65	88	33	46	14	11	14	30	21	11	18	12	7	7	10	27	8	6	6	7	88.5
30-Jan	6	6	6	7	6	7	9	15	19	11	8	8	11	10	14	20	10	9	18	11	10	14	13	15	20.1
31-Jan	14	9	13	9	10	10	13	14	13	10	14	20	13	19	22	20	19	15	23	20	25	16	14	25	25.1
	88.3	93.2	91.1	97.8	93.9	92.6	99.0	93.3	92.3	92.1	88.9	77.8	74.2	84.6	88.2	58.4	93.9	87.6	88.8	86.8	92.9	93.2	83.5	89.6	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.8 ppb on Jan 28 00:00 Maximum Daily Average: 0.8 ppb on Jan 11

Minimum Value: 0 ppb on Jan 21 05:00 Minimum Daily Average: 0.0 ppb on Jan 23
Maximum Diurnal Average: 0.6 ppb at hour 24 Minimum Diurnal Average: 0.1 ppb at hour 18
Monthly Average: 0.30 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.3$ $P_{90} = 0.8$ $P_{99} = 2.5$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
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-Jan	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0.2	0.6
2-Jan	0	0	0	0	A	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.2
3-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0.3	3.8
4-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	1	0.4	0.9
5-Jan	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
6-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	1	A	0.5	3.5
7-Jan	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	1.0
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0.1	0.6
9-Jan	1	1	1	1	1	2	1	2	1	1	1	1	0	0	0	0	0	0	0	1	A	0	0	0	0.7	1.7
10-Jan	1	0	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	A	0	1	1	1	0.5	1.5
11-Jan	1	1	3	2	2	2	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0.8	2.6
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	1	A	1	1	2	0	0	0	0.4	1.7
13-Jan	1	2	1	2	1	1	1	1	1	1	1	0	2	0	0	0	A	0	0	0	0	0	0	0	0.7	2.2
14-Jan	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	1	1	2	1	2	0.5	2.4
15-Jan	0	2	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	2.0
16-Jan	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
17-Jan	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
18-Jan	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	0.2
19-Jan	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0.1	0.6
20-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.0	0.5
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.1	0.7
22-Jan	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
23-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0.3	1.8
25-Jan	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	2.2
26-Jan	1	0	4	A	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	3.8
27-Jan	0	1	A	0	0	0	0	0	0	0	0	P	P	0	0	0	0	0	0	0	0	0	3	5	0.5	4.8
28-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	1	0.4	3.6
29-Jan	A	1	1	1	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	2	A	0.4	1.8
30-Jan	1	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.6
31-Jan	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.7
	0.3	0.4	0.6	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.3	0.4	0.4	0.4	0.6	Diurnal Average	
	1.4	2.0	3.8	2.0	1.6	1.7	1.1	1.6	2.2	1.3	1.5	0.6	2.2	0.7	3.8	0.7	1.2	0.6	0.6	1.3	3.5	3.6	2.8	4.8	Diurnal Maximum	

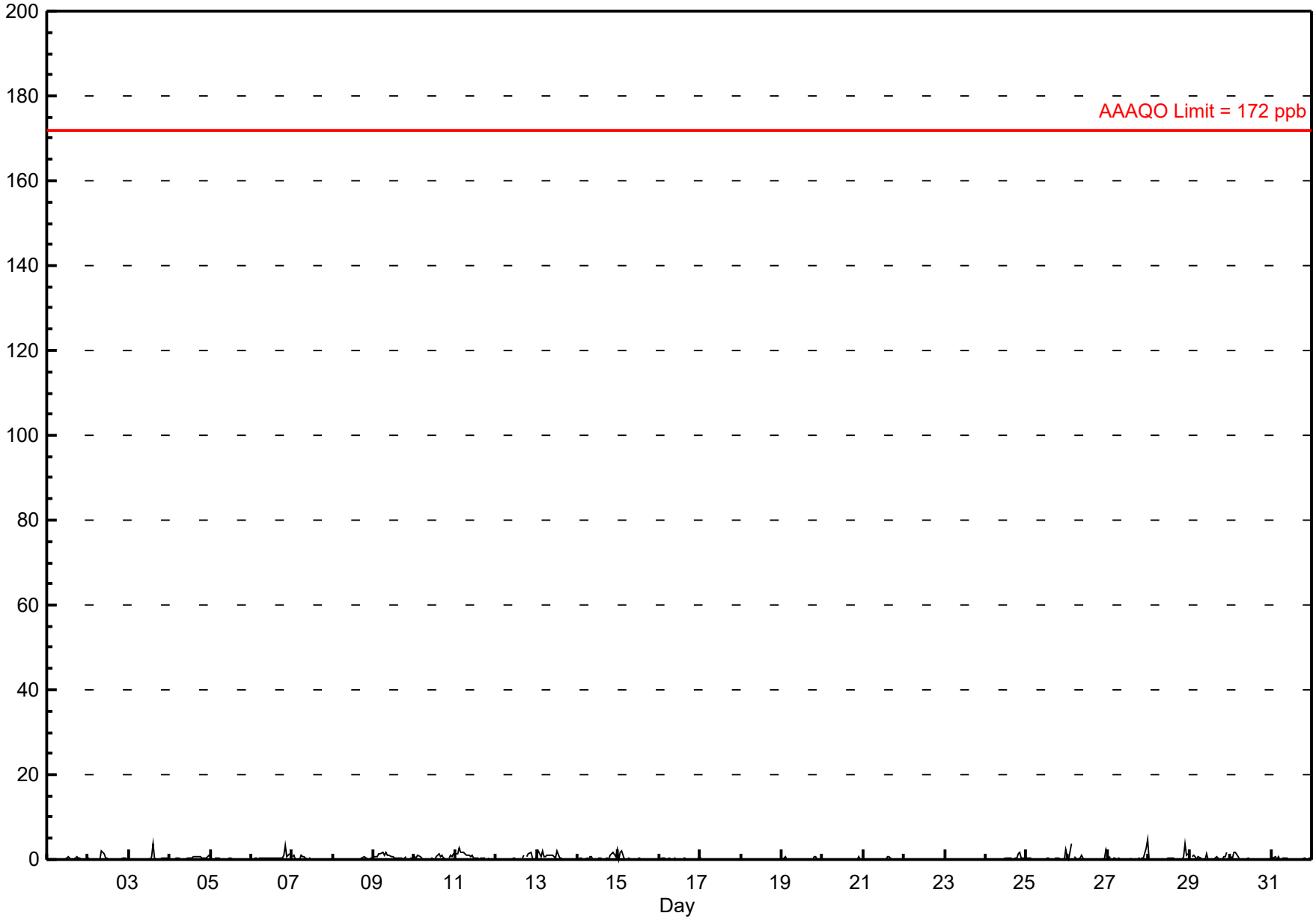
C - Calibration P - Power Failure A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - January 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - January 2017

Maximum Value: 16.9 ppb on Jan 28 00:00

Maximum Daily Average: 2.1 ppb on Jan 27

Minimum Value: 0 ppb on Jan 20 05:00

Minimum Daily Average: 0.3 ppb on Jan 23

Maximum Diurnal Average: 1.8 ppb at hour 24

Minimum Diurnal Average: 0.6 ppb at hour 12

Monthly Average: 0.97 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.9$ $P_{90} = 2.2$ $P_{99} = 7.4$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
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-Jan	1	0	1	1	1	A	1	0	1	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	0.6	1.1
2-Jan	1	0	0	0	A	0	0	0	5	3	2	0	0	0	1	0	1	1	1	0	1	1	1	1	0.9	5.5
3-Jan	1	1	1	A	1	0	1	1	0	1	0	0	1	3	13	1	1	1	1	1	1	1	1	1	1.3	12.9
4-Jan	1	0	A	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0.8	1.7
5-Jan	1	A	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	0	1	0	0	0	1	0	0.6	1.2
6-Jan	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3	5	1	3	A	1.2	5.3
7-Jan	3	3	1	0	0	3	2	3	2	0	2	1	0	0	0	0	0	0	0	0	0	0	A	0	1.1	3.4
8-Jan	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1	A	1	1	0.6	1.2
9-Jan	1	1	1	3	2	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.3	3.5
10-Jan	1	1	2	1	1	1	0	0	0	1	1	1	1	2	7	1	3	1	1	A	1	3	2	3	1.4	6.6
11-Jan	3	4	4	3	3	2	2	2	1	1	2	1	1	1	1	1	1	1	A	1	0	0	0	0	1.4	3.6
12-Jan	0	0	0	0	0	0	0	1	1	0	1	1	C	C	C	1	3	A	1	2	3	1	1	0	0.9	2.7
13-Jan	3	4	2	9	2	1	2	2	1	2	2	1	4	1	1	1	A	0	0	0	0	1	0	0	1.8	8.9
14-Jan	1	1	1	1	0	1	1	1	2	1	1	1	1	1	1	A	1	1	1	5	4	7	3	6	1.7	7.4
15-Jan	1	6	6	0	0	0	2	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	1.0	6.4
16-Jan	0	1	1	1	0	0	1	0	0	1	0	0	0	A	1	1	1	0	0	0	1	0	0	1	0.5	1.1
17-Jan	1	0	0	0	1	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
18-Jan	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.6
19-Jan	0	1	1	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	2	2	1	0	0	0.5	1.9
20-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	1	2	0	0	0.4	1.7
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0.4	1.6
22-Jan	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	1	0	1	0	0	0	1	0	0	0.4	0.6
23-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
24-Jan	0	0	0	1	0	A	0	1	0	0	0	1	1	1	1	1	1	1	1	3	4	1	1	0	0.8	4.3
25-Jan	1	1	1	1	A	0	0	0	0	1	1	0	1	1	0	1	1	1	1	1	1	0	1	6	0.8	5.6
26-Jan	2	0	7	A	2	1	1	1	4	2	1	0	0	0	0	1	0	0	0	0	1	0	2	5	1.5	7.4
27-Jan	1	2	A	1	2	1	3	0	0	0	0	P	P	1	0	0	0	0	1	0	1	1	11	17	2.1	16.9
28-Jan	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	2	0	0	4	9	3	2	1.3	9.3
29-Jan	A	2	3	2	0	3	1	1	0	0	5	0	1	0	0	1	3	1	1	2	5	6	5	A	2.0	6.2
30-Jan	2	3	4	3	3	0	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	A	0	1.0	3.6
31-Jan	0	2	2	1	3	0	1	1	2	1	1	0	0	0	0	1	0	0	0	0	1	A	1	1	0.8	2.7
	0.9	1.3	1.5	1.1	0.9	0.8	0.8	0.8	1.0	0.7	0.9	0.6	0.7	0.8	1.2	0.6	0.8	0.7	0.6	1.0	1.3	1.4	1.4	1.8	Diurnal Average	
	3.3	6.4	7.4	8.9	2.8	3.3	2.7	3.5	5.5	3.0	5.4	1.4	3.7	3.1	12.9	1.4	3.3	2.2	1.3	4.7	5.3	9.3	11.4	16.9	Diurnal Maximum	

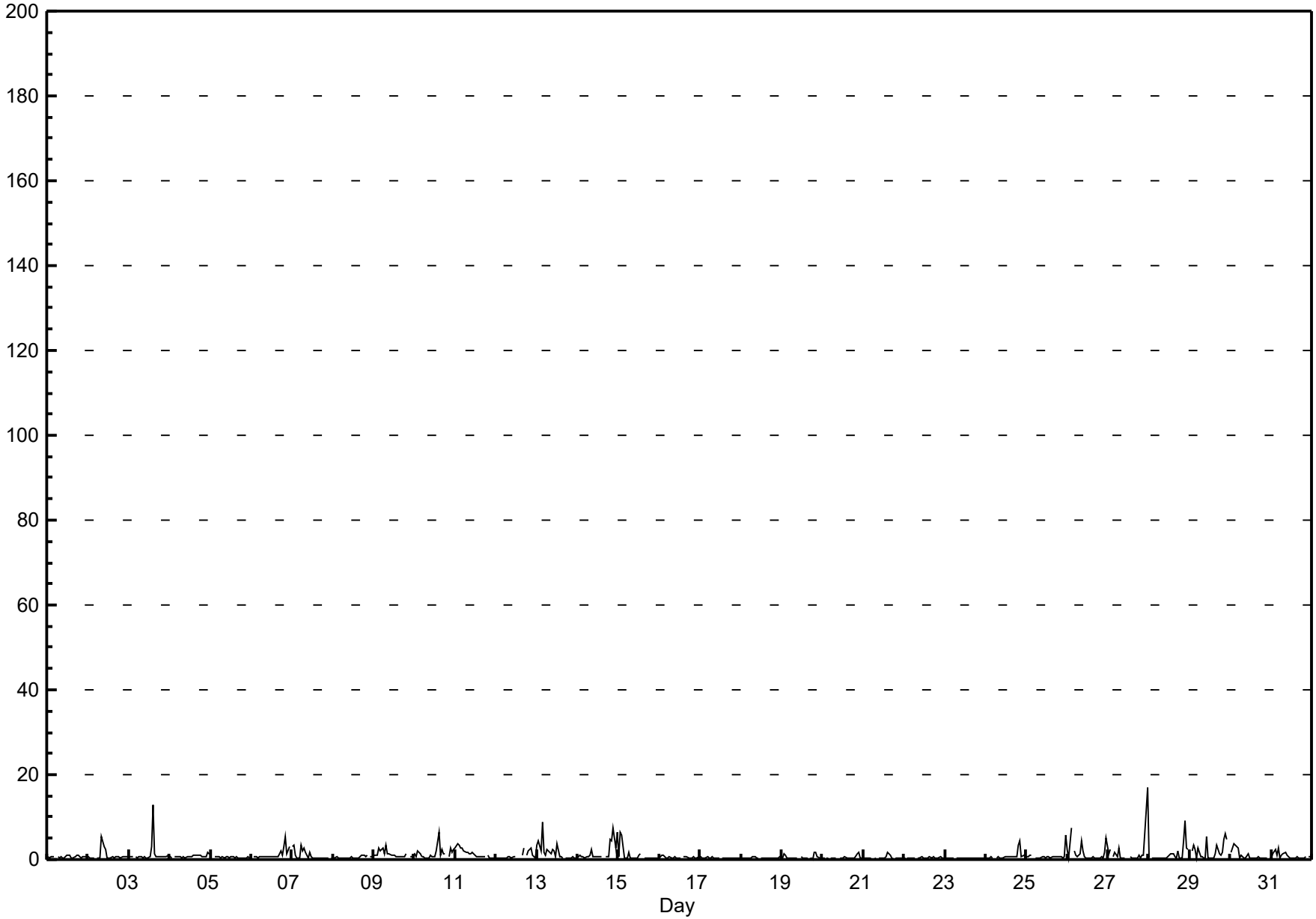
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - January 2017

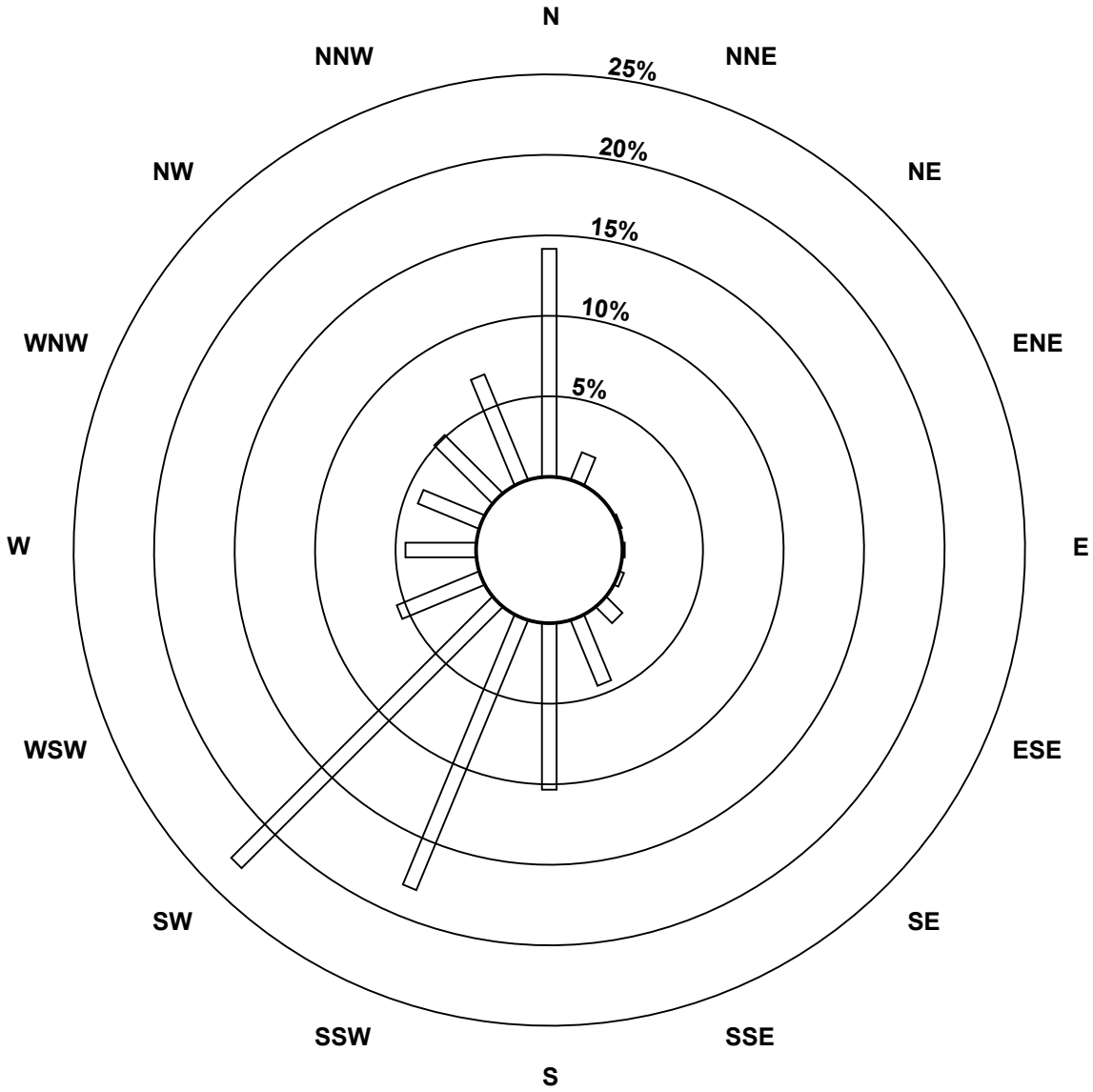


Peace Airshed Zone Association

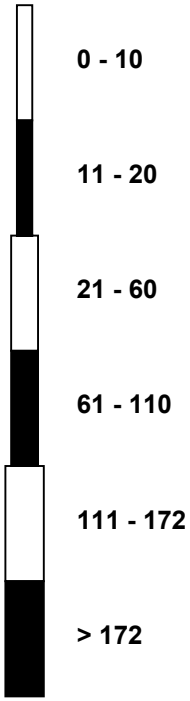
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - January 2017



Pollutant Classes (ppb)

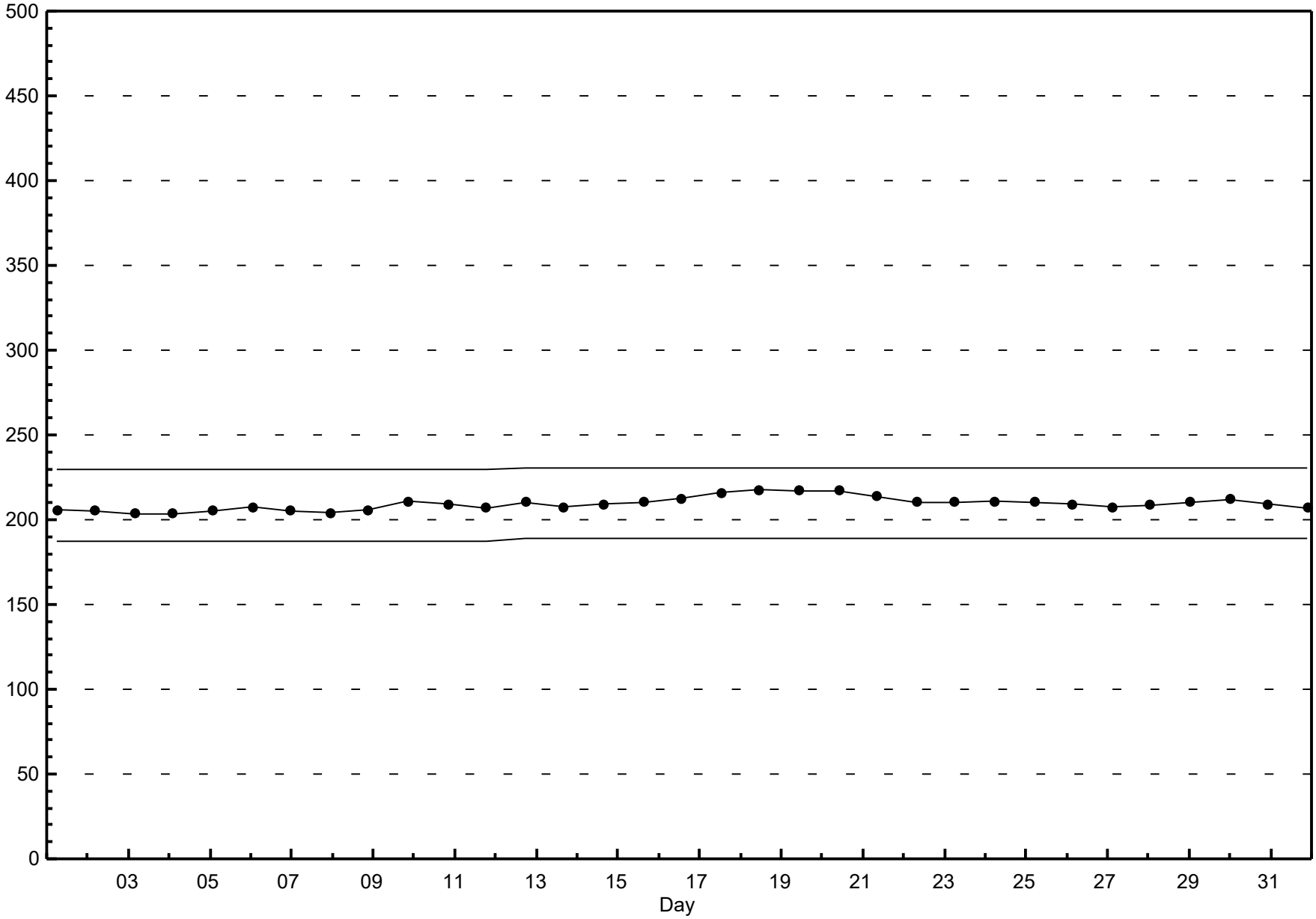


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Smoky Heights - January 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - January 2017

Maximum Value: 0.7 ppb on Jan 2 00:00

Maximum Daily Average: 0.4 ppb on Jan 3

Minimum Value: 0 ppb on Jan 29 19:00

Minimum Daily Average: 0.1 ppb on Jan 29

Maximum Diurnal Average: 0.3 ppb at hour 1

Minimum Diurnal Average: 0.2 ppb at hour 9

Monthly Average: 0.23 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 0.5$

Hours in Service:	744
Hours of Data:	705
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-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.7
2-Jan	1	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	0.6
3-Jan	1	0	0	A	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	0.6
4-Jan	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
5-Jan	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
6-Jan	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
7-Jan	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
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
9-Jan	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	0.4
10-Jan	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	0.3
11-Jan	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	0.3
12-Jan	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	A	0	0	0	0	0	0	0.3	0.4
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3
14-Jan	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
15-Jan	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
16-Jan	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
17-Jan	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
18-Jan	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
19-Jan	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
20-Jan	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	0.5
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.5
22-Jan	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
23-Jan	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	0.2
24-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
25-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.5
26-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
27-Jan	0	0	A	0	0	0	0	0	0	0	0	P	P	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Jan	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
30-Jan	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	0.2
31-Jan	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	0.2
	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.6	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.5	0.4	0.5	0.4	0.7	Diurnal Maximum	

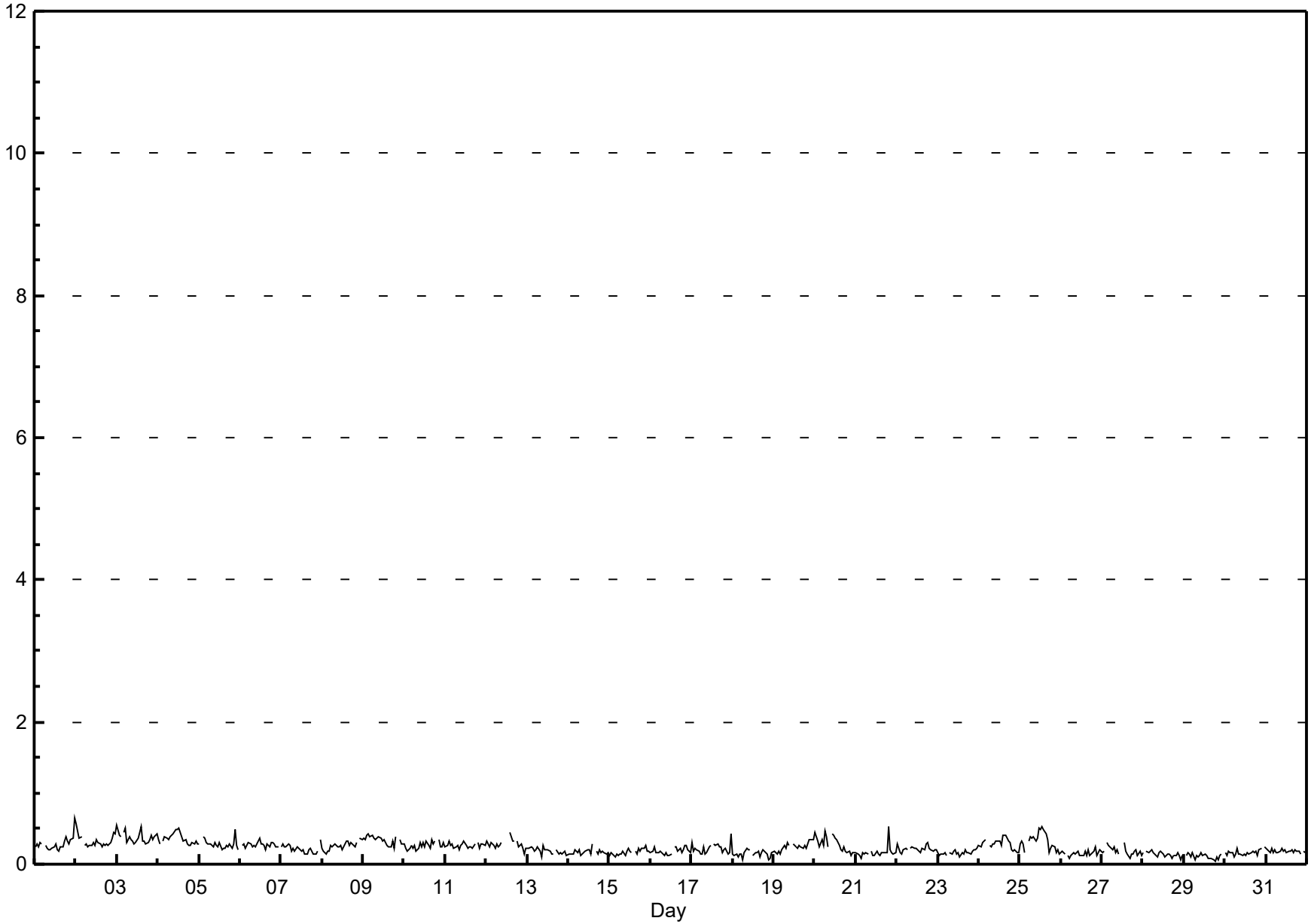
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - January 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - January 2017

Maximum Value: 2.6 ppb on Jan 21 20:00

Maximum Daily Average: 0.8 ppb on Jan 4

Minimum Value: 0 ppb on Jan 18 22:00

Maximum Diurnal Average: 0.8 ppb at hour 24

Monthly Average: 0.68 ppb

Minimum Daily Average: 0.5 ppb on Jan 29

Minimum Diurnal Average: 0.6 ppb at hour 9

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 1.5$

Hours in Service:	744
Hours of Data:	705
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-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
2-Jan	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
3-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
4-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5
5-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
6-Jan	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
7-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	A	2	0.7	2.1
8-Jan	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.2
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.0
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.0
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	0.8
12-Jan	1	1	1	1	1	1	1	1	1	1	C	C	C	C	1	1	1	A	1	1	1	1	0	1	0.7	0.9
13-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	0.6	0.7
14-Jan	1	1	1	0	1	0	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	0.6	1.6
15-Jan	0	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	0.8
16-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.6	0.8
17-Jan	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	0.7	2.3
18-Jan	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	1	0.6	0.8
19-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
20-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.1
21-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	3	1	1	1	0	0.7	2.6
22-Jan	2	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	2.0
23-Jan	1	0	0	1	1	1	A	0	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0.6	0.9
24-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
25-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
26-Jan	1	1	0	A	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
27-Jan	1	1	A	1	1	1	1	1	0	1	1	P	P	1	1	1	1	1	1	1	1	1	1	0	0.6	0.7
28-Jan	1	A	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	0.6	0.7
29-Jan	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	A	0.5	0.7
30-Jan	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	0.6	0.8
31-Jan	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	0.8
	0.7	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	Diurnal Average	
	2.0	0.9	0.9	0.8	1.0	1.0	0.9	1.1	0.8	0.9	1.0	1.0	1.0	1.0	1.6	1.5	0.9	1.6	0.8	2.6	1.0	1.1	1.1	2.3	Diurnal Maximum	

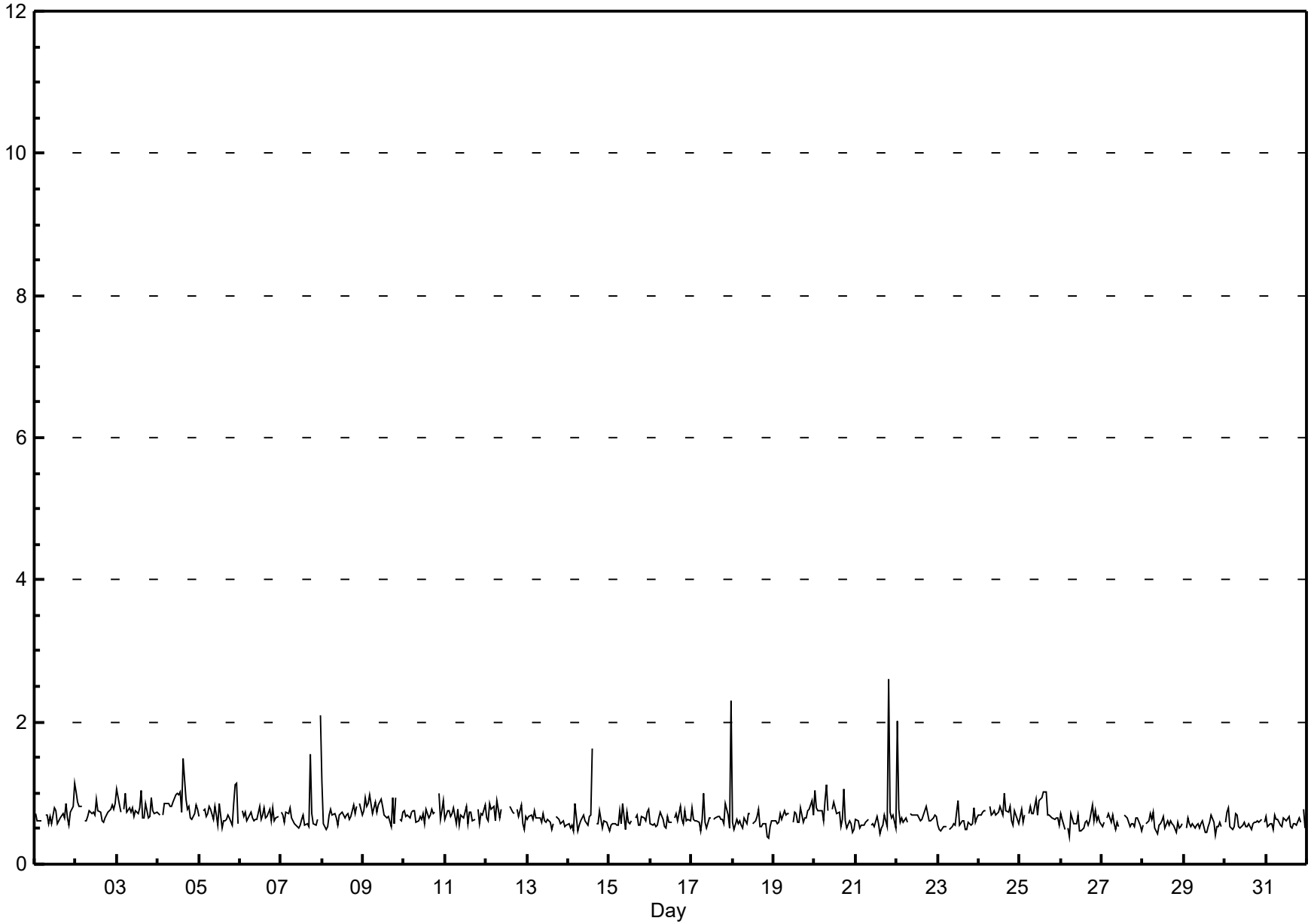
C - Calibration P - Power Failure A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - January 2017

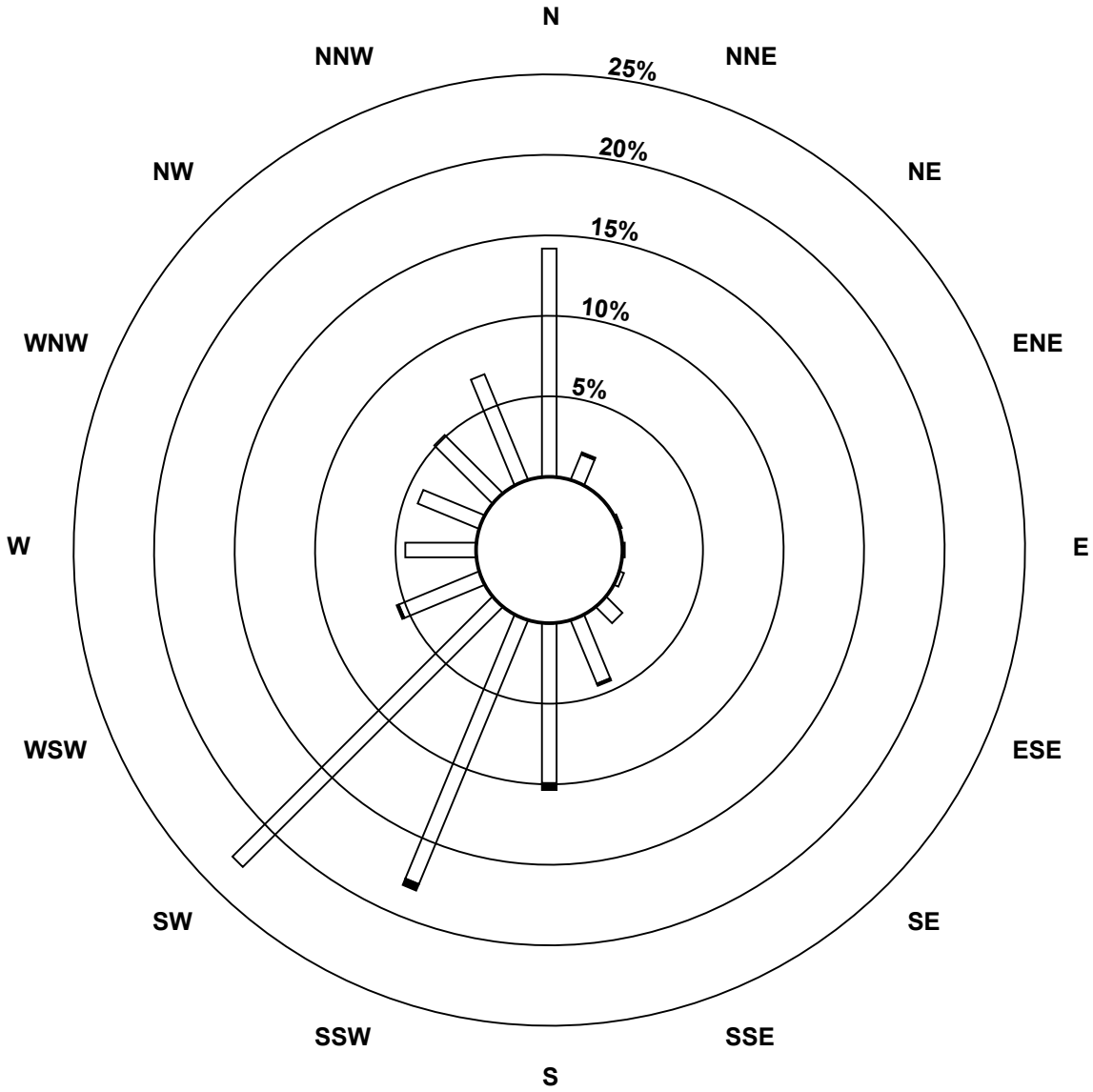


Peace Airshed Zone Association

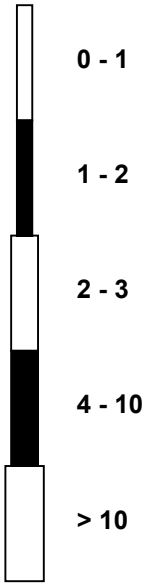
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - January 2017



Pollutant Classes (ppb)

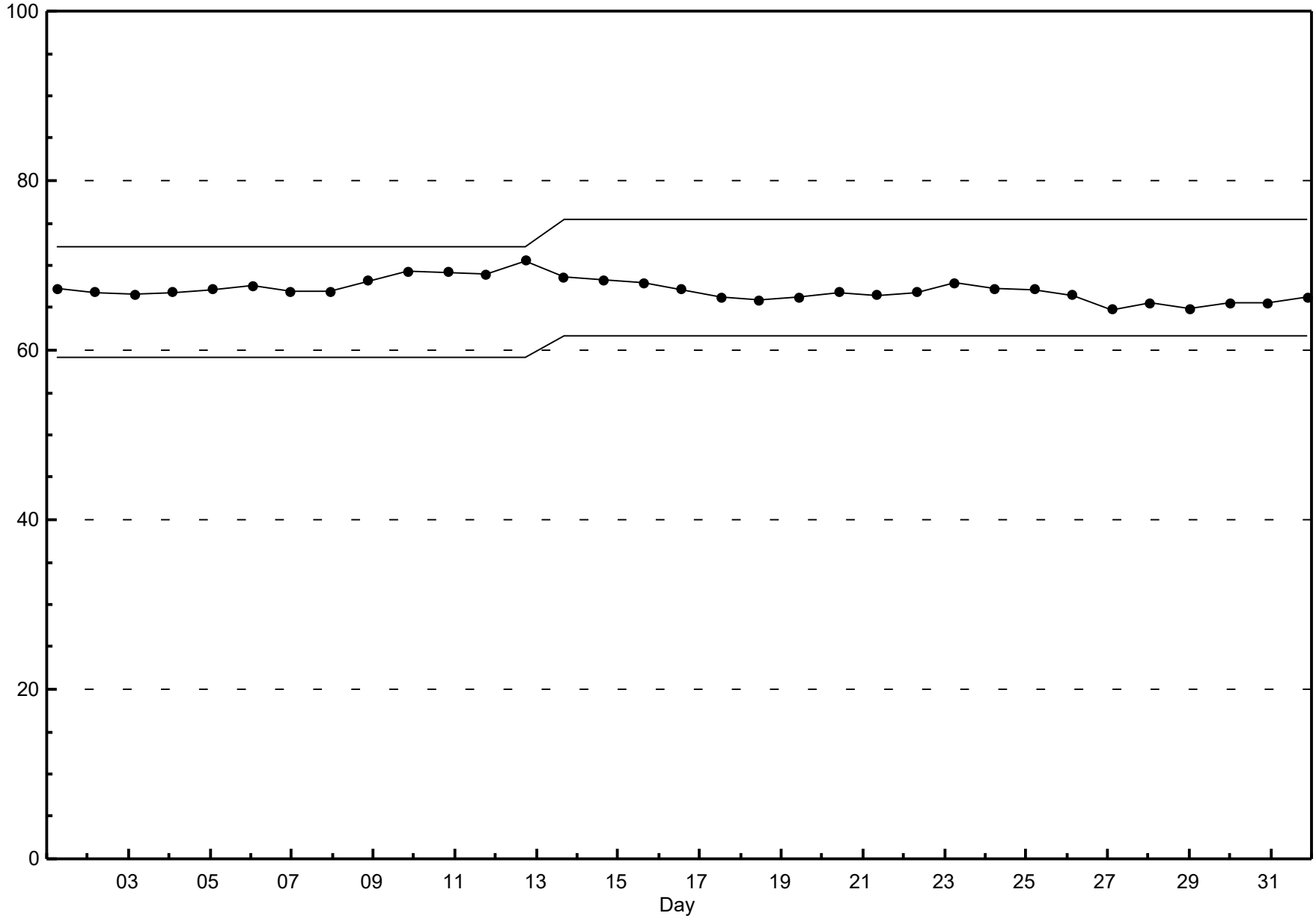


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Smoky Heights - January 2017



Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - January 2017

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

Maximum Value: 155.6 $\mu g/m^3$ on Jan 2 04:00

Maximum Daily Average: 19.1 $\mu g/m^3$ on Jan 24

Minimum Value: 0 $\mu g/m^3$ on Jan 1 01:00

Maximum Diurnal Average: 10.2 $\mu g/m^3$ at hour 4

Monthly Average: 4.52 $\mu g/m^3$

Minimum Daily Average: 0.0 $\mu g/m^3$ on Jan 13

Minimum Diurnal Average: 3.4 $\mu g/m^3$ at hour 2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 2.0 Q_3 = 5.9 P_{90} = 12.1 P_{99} = 33.0

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 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-Jan	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	2	2	1	2	5	3	3	1.0	5.2
2-Jan	4	5	7	156	4	18	20	3	1	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	9.8	155.6
3-Jan	2	2	3	4	4	6	5	5	5	5	6	6	5	6	7	6	6	6	6	6	7	6	8	11	5.6	11.0
4-Jan	8	7	6	6	6	6	5	5	4	4	5	5	5	4	3	3	2	1	1	1	2	2	2	2	4.0	8.0
5-Jan	4	3	20	58	13	2	1	0	2	6	1	5	0	0	3	1	0	1	0	0	0	0	0	1	5.0	58.2
6-Jan	2	2	3	4	6	7	8	7	5	6	6	5	5	5	4	7	4	3	3	4	4	5	13	3	5.0	12.6
7-Jan	3	3	11	2	4	1	2	2	3	4	5	7	7	8	6	5	6	6	5	5	4	4	4	3	4.6	11.4
8-Jan	3	11	6	10	5	10	3	2	9	9	2	2	3	10	3	4	4	3	4	2	3	3	4	4	4.9	10.5
9-Jan	5	4	5	6	6	5	4	4	4	4	4	5	3	1	1	1	1	2	2	3	9	13	19	7	5.0	18.7
10-Jan	3	1	0	0	0	0	5	7	5	2	2	1	1	1	1	2	3	8	10	10	6	8	3	2	3.4	10.5
11-Jan	0	0	1	3	4	4	3	4	1	1	0	0	0	0	0	0	0	0	0	8	5	40	1	2	3.3	40.4
12-Jan	3	8	6	4	2	2	3	3	3	4	5	5	8	10	12	14	10	5	3	1	0	0	0	0	4.6	13.8
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	1	0	0	0	0	0	0	0.4	8.0
15-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
16-Jan	0	0	0	0	0	0	0	0	1	0	0	0	5	6	4	2	1	1	2	2	2	3	2	2	1.5	5.7
17-Jan	4	2	1	1	7	1	0	0	0	3	3	8	1	1	1	5	5	3	0	0	0	44	19	14	5.2	43.9
18-Jan	1	1	2	2	1	1	1	0	1	2	1	0	0	0	0	0	0	5	2	1	4	1	1	1	1.1	5.5
19-Jan	3	1	1	1	1	2	5	8	9	17	12	19	7	11	7	8	9	7	9	12	13	13	14	11	8.3	19.3
20-Jan	9	9	6	7	7	9	9	15	16	12	10	7	6	5	4	3	13	42	18	4	27	9	13	7	11.1	41.8
21-Jan	16	4	7	3	7	8	7	8	6	8	9	3	2	2	1	2	1	2	3	3	3	4	3	4	4.8	16.0
22-Jan	4	3	3	3	3	3	4	6	8	7	7	7	7	6	6	4	4	5	6	6	4	5	11	9	5.4	11.0
23-Jan	6	11	8	11	12	14	15	13	10	10	11	15	15	15	14	16	15	12	12	14	16	15	16	18	13.1	18.3
24-Jan	20	22	24	24	25	26	20	16	12	13	14	19	19	21	35	37	33	26	17	10	7	6	7	6	19.1	36.9
25-Jan	7	7	14	12	10	12	14	16	18	17	18	21	23	24	19	16	12	5	8	12	5	1	0	0	12.2	24.1
26-Jan	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
27-Jan	0	0	0	0	0	0	0	0	0	0	0	P	P	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
28-Jan	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0.3	1.1
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.0	0.8
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	1	1	0	0	0	0	0.3	2.4
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	4	0	1	1	1	0	0	0.4	3.9
	3.5	3.4	4.4	10.2	4.2	4.5	4.3	4.1	3.9	4.4	3.9	4.7	4.3	4.5	4.4	4.5	4.6	5.1	3.8	3.5	4.0	6.1	4.7	3.7	Diurnal Average	
	20.3	22.3	24.2	155.6	25.3	26.0	20.2	16.3	17.6	17.3	17.5	20.8	23.4	24.1	34.8	36.9	32.8	41.8	17.5	13.7	26.9	43.9	19.0	18.3	Diurnal Maximum	

P - Power Failure

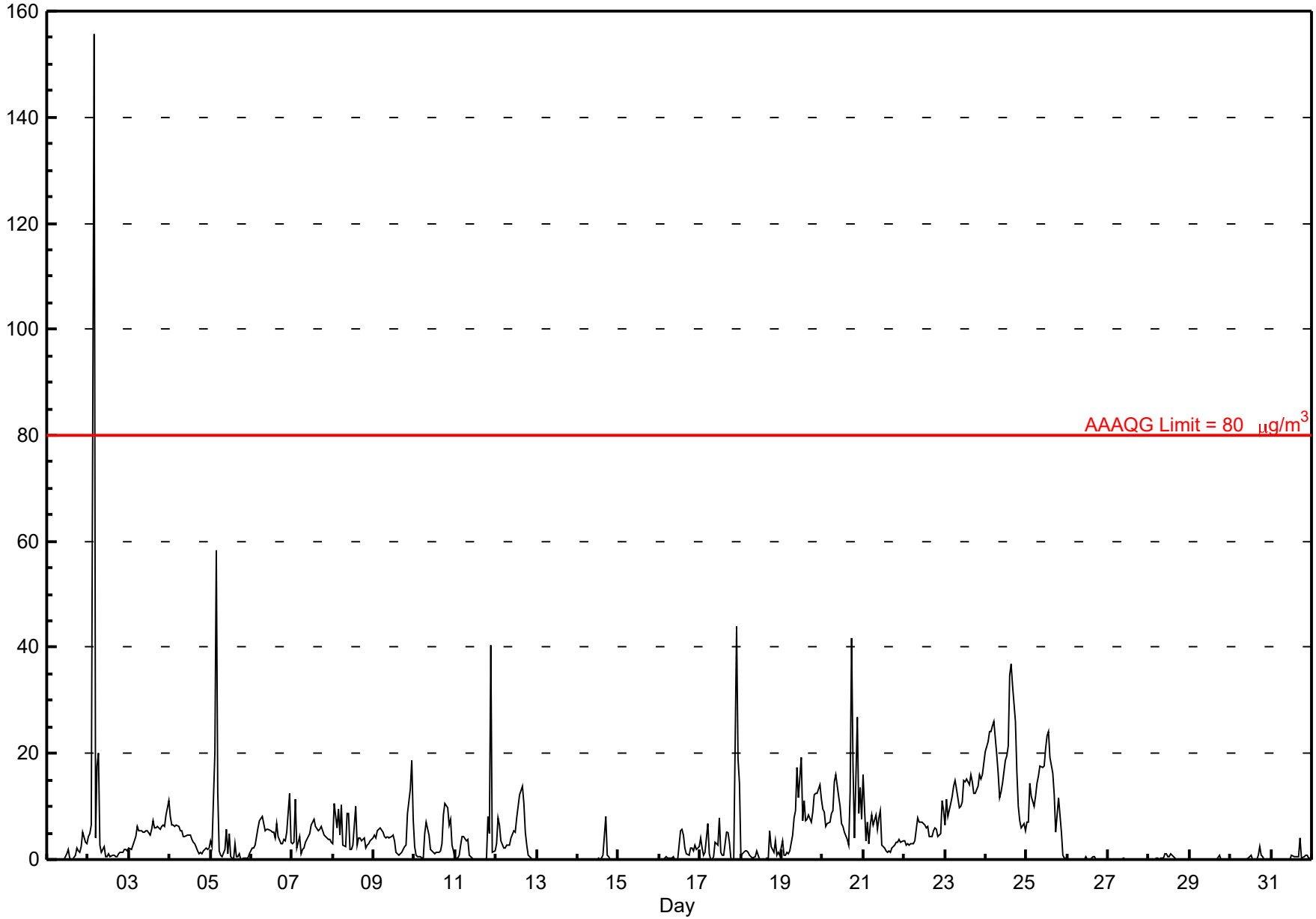
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - January 2017



Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - January 2017

Maximum Value: 990.0 $\mu g/m^3$ on Jan 2 04:00

Maximum Daily Average: 59.4 $\mu g/m^3$ on Jan 2

Minimum Value: 0 $\mu g/m^3$ on Jan 1 02:00

Minimum Daily Average: 0.0 $\mu g/m^3$ on Jan 15

Maximum Diurnal Average: 49.3 $\mu g/m^3$ at hour 4

Minimum Diurnal Average: 5.8 $\mu g/m^3$ at hour 15

Monthly Average: 12.61 $\mu g/m^3$

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.2 Median = 3.6 Q_3 = 10.2 P_{90} = 22.4 P_{99} = 204.2

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	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-Jan	0	0	0	0	0	0	0	0	0	0	0	8	7	0	0	0	3	3	2	3	4	11	5	3	2.1	11.2
2-Jan	8	15	50	990	27	138	134	22	6	9	2	1	5	1	1	1	1	1	3	2	2	2	2	2	59.4	990.0
3-Jan	3	3	3	6	5	8	8	6	8	6	6	6	5	7	8	8	6	6	7	7	7	7	10	12	6.6	11.7
4-Jan	12	7	8	7	8	7	6	6	5	5	6	5	5	4	4	3	2	1	2	1	5	11	4	4	5.3	11.7
5-Jan	8	3	156	350	58	6	2	2	20	26	14	23	2	0	18	1	1	7	0	0	0	0	0	11	29.6	349.8
6-Jan	11	2	3	6	6	10	9	8	6	6	6	6	7	8	5	12	14	3	3	5	4	20	65	10	9.8	64.7
7-Jan	15	5	61	12	42	1	2	3	4	5	5	9	14	14	8	6	7	7	6	5	5	4	6	3	10.3	61.5
8-Jan	3	71	30	41	25	22	6	3	28	42	5	4	7	63	3	8	8	19	12	2	3	3	4	5	17.4	71.3
9-Jan	5	4	7	7	6	6	5	4	5	4	5	7	11	1	1	1	6	3	3	3	12	14	28	11	6.6	27.8
10-Jan	6	1	1	1	1	1	52	42	21	10	2	2	2	2	2	2	5	12	12	16	8	14	5	2	9.2	52.0
11-Jan	2	0	2	4	5	5	5	6	2	1	1	0	0	0	0	0	4	0	4	52	24	439	4	35	24.8	438.9
12-Jan	34	41	11	10	3	3	5	6	4	6	7	7	9	11	15	15	14	9	3	2	1	0	0	0	9.0	41.0
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	207	3	1	0	0	0	0	0	9.1	207.1
15-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
16-Jan	0	0	0	1	1	1	0	1	1	1	0	0	37	28	10	6	3	1	9	5	5	7	4	4	5.2	37.3
17-Jan	5	4	2	15	50	6	0	1	5	60	59	24	2	1	1	31	105	7	2	1	0	189	297	118	41.1	297.3
18-Jan	1	2	3	2	2	1	1	2	3	22	2	0	0	0	0	4	0	31	11	7	20	2	4	2	5.1	31.2
19-Jan	22	2	1	2	1	2	6	10	10	74	28	91	9	34	8	11	15	8	12	14	14	14	17	15	17.5	90.8
20-Jan	12	11	8	8	11	11	13	17	19	15	14	8	7	7	5	3	103	379	210	22	103	32	47	19	45.1	379.1
21-Jan	37	4	22	3	9	9	9	11	8	21	21	6	3	2	2	2	3	7	3	3	4	4	4	4	8.4	37.1
22-Jan	4	3	3	3	3	3	4	7	9	8	8	7	7	7	8	6	6	8	10	7	5	18	55	17	9.0	55.2
23-Jan	22	49	19	21	15	16	20	17	12	11	12	19	18	16	15	18	16	16	13	17	17	16	17	19	17.9	49.3
24-Jan	21	24	25	25	31	28	24	19	14	13	17	20	20	30	36	39	34	33	25	14	8	7	10	6	21.8	39.0
25-Jan	8	9	24	17	12	19	16	18	19	19	20	23	25	28	23	19	13	9	11	13	13	1	0	0	14.9	27.6
26-Jan	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0.2	0.9
27-Jan	0	0	0	0	0	0	0	1	0	0	1	P	P	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
28-Jan	0	0	0	0	1	1	0	1	0	4	4	1	1	2	1	0	0	0	0	0	0	0	0	0	0.7	4.1
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0.3	5.1
30-Jan	0	0	0	0	0	0	0	0	1	0	1	1	5	0	0	0	3	7	3	1	0	0	0	0	1.1	6.6
31-Jan	0	0	0	0	0	1	0	1	3	0	0	0	6	3	1	1	4	17	0	3	2	1	1	1	2.0	17.3
	7.8	8.5	14.2	49.3	10.4	9.9	10.6	6.8	6.8	11.9	7.9	9.3	7.1	8.7	5.8	6.5	18.8	19.5	11.9	6.7	8.6	26.4	19.0	9.8	Diurnal Average	
	37.1	71.3	155.8	990.0	58.1	138.0	133.6	42.2	27.6	73.5	58.9	90.8	37.3	62.8	36.4	39.0	207.1	379.1	210.3	52.2	102.6	438.9	297.3	117.7	Diurnal Maximum	

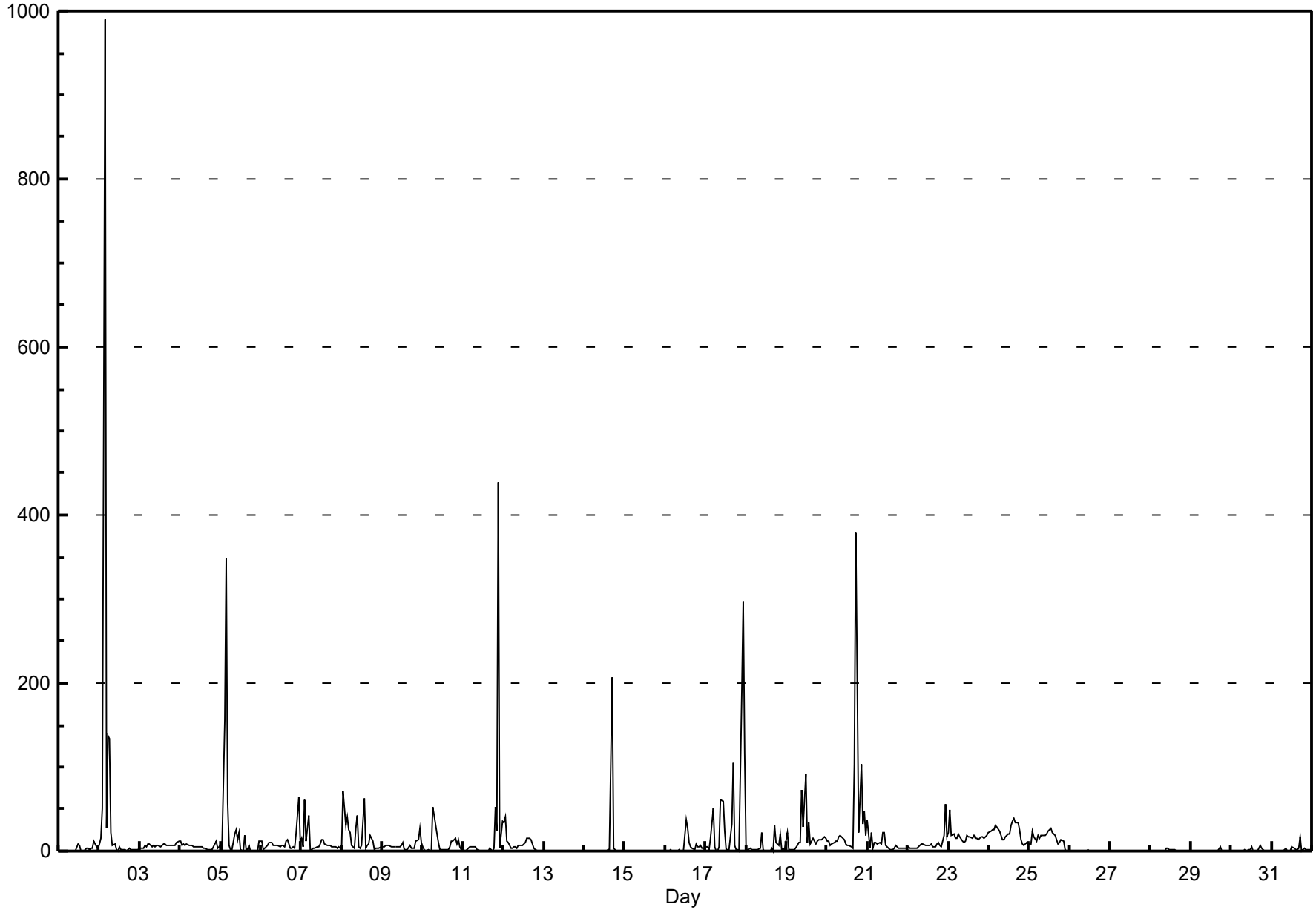
P - Power Failure

Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - January 2017

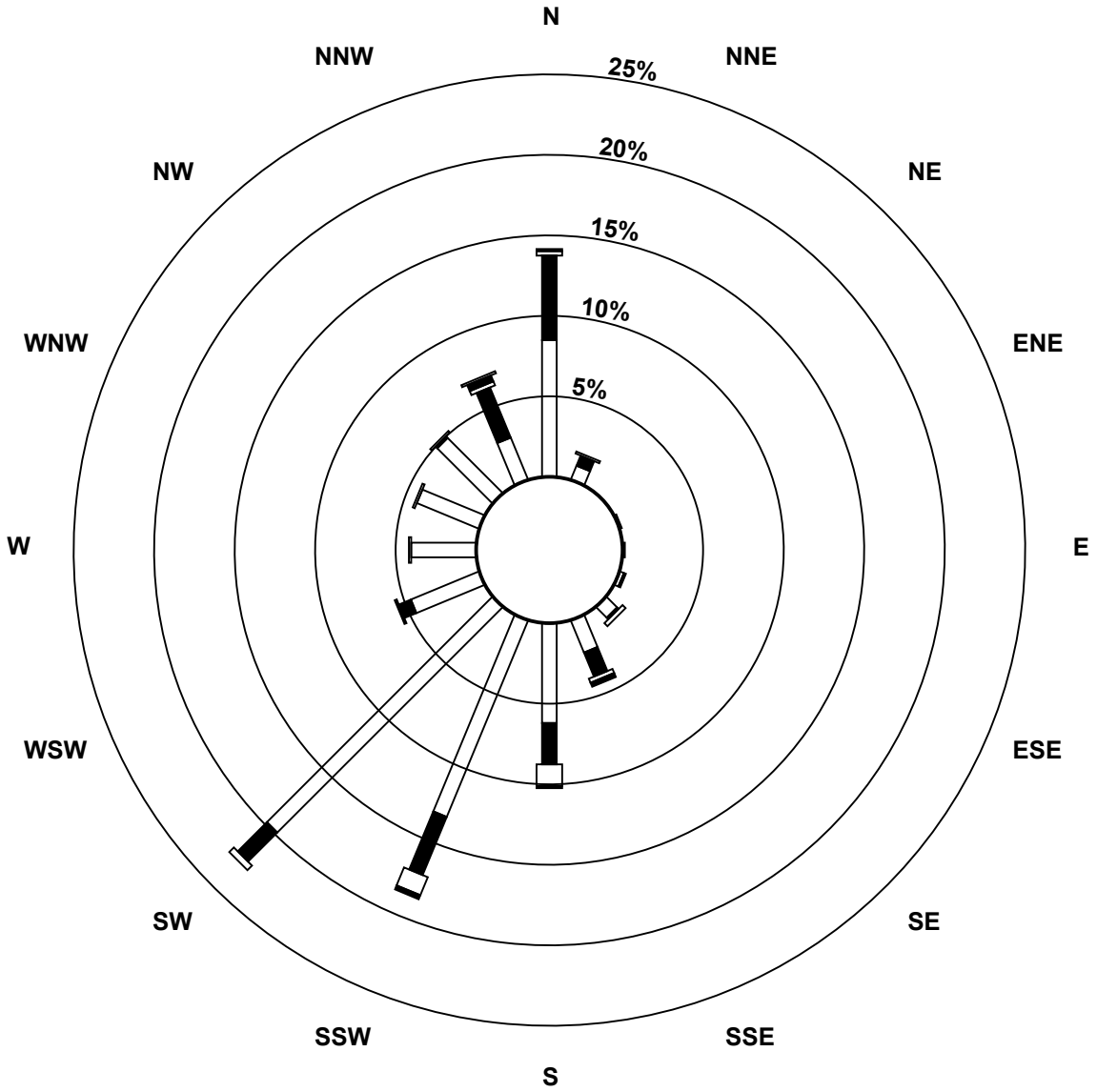


Peace Airshed Zone Association

Pollutant Rose

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

Smoky Heights - January 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

Smoky Heights - January 2017

Maximum Value: 7.8 °C on Jan 28 16:00

Maximum Daily Average: 4.3 °C on Jan 28

Minimum Value: -26 °C on Jan 9 22:00

Minimum Daily Average: -20.3 °C on Jan 8

Maximum Diurnal Average: -5.9 °C at hour 15

Minimum Diurnal Average: -9.1 °C at hour 9

Monthly Average: -7.78 °C

Percentiles: P_1 = -23.0 P_{10} = -19.5 Q_1 = -14.5 Median = -8.0 Q_3 = -0.3 P_{90} = 3.0 P_{99} = 6.5

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST) 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-Jan	-9	-9	-9	-9	-9	-10	-10	-10	-11	-11	-11	-11	-12	-10	-9	-10	-11	-12	-12	-13	-15	-14	-13	-14	-11.0	-8.7
2-Jan	-15	-15	-15	-14	-15	-15	-15	-16	-17	-17	-17	-17	-16	-15	-15	-16	-18	-18	-18	-19	-18	-18	-19	-17	-16.4	-14.1
3-Jan	-19	-20	-21	-21	-19	-20	-20	-20	-19	-19	-18	-17	-16	-14	-12	-14	-16	-17	-18	-17	-16	-14	-12	-11	-17.1	-11.2
4-Jan	-13	-12	-12	-10	-8	-8	-8	-8	-8	-8	-7	-6	-5	-4	-4	-4	-4	-3	-3	-3	-4	-3	-4	-3	-6.3	-2.6
5-Jan	-4	-4	-4	-4	-4	-5	-5	-5	-5	-5	-5	-5	-5	-6	-6	-7	-7	-8	-9	-9	-9	-10	-11	-12	-6.5	-3.7
6-Jan	-13	-14	-14	-14	-14	-15	-15	-15	-15	-15	-14	-14	-14	-13	-12	-14	-14	-14	-15	-16	-17	-17	-17	-17	-14.7	-12.3
7-Jan	-17	-17	-17	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-19	-19	-19	-19	-20	-20	-20	-20	-18.3	-16.7
8-Jan	-20	-21	-21	-22	-22	-21	-21	-21	-21	-21	-21	-20	-20	-19	-19	-19	-20	-20	-20	-20	-20	-20	-20	-20	-20.3	-18.8
9-Jan	-20	-21	-20	-20	-19	-19	-20	-19	-19	-19	-19	-18	-17	-16	-16	-17	-19	-22	-23	-24	-26	-26	-22	-21	-20.0	-16.1
10-Jan	-20	-20	-18	-16	-14	-16	-18	-19	-20	-23	-23	-22	-21	-21	-20	-20	-20	-22	-22	-21	-22	-17	-14	-13	-19.3	-13.4
11-Jan	-13	-13	-13	-14	-14	-15	-16	-15	-15	-12	-10	-8	-7	-7	-8	-8	-9	-11	-12	-15	-17	-18	-20	-21	-13.0	-6.8
12-Jan	-23	-24	-22	-21	-23	-22	-22	-21	-23	-24	-23	-21	-20	-18	-16	-16	-17	-16	-13	-10	-10	-8	-7	-8	-17.9	-7.4
13-Jan	-10	-11	-10	-9	-10	-10	-10	-9	-8	-8	-7	-5	-5	-5	-5	-4	-3	-2	-3	-3	-2	-2	-1	-1	-6.0	-1.3
14-Jan	-1	-1	-1	0	0	-1	0	1	1	1	1	0	0	0	0	-1	-1	-2	-1	2	3	3	3	3	0.4	3.1
15-Jan	3	3	3	2	2	2	2	1	1	1	1	1	2	3	3	4	4	3	2	1	0	2	2	2	2.1	3.5
16-Jan	2	2	0	-1	0	0	0	0	1	4	6	6	5	4	4	4	3	3	2	3	2	3	2	3	2.4	6.2
17-Jan	3	3	2	2	1	-1	2	2	2	2	1	2	2	3	4	4	4	4	4	4	3	3	2	1	2.3	4.2
18-Jan	2	1	2	2	2	3	1	-1	-1	-2	-1	3	5	8	7	7	7	3	1	1	0	-1	1	0	2.0	7.5
19-Jan	-1	0	-3	-4	-3	-3	-3	-4	-4	-2	-2	-1	-1	0	0	0	0	0	0	-1	-1	-1	-2	-3	-1.7	-0.2
20-Jan	-4	-5	-6	-6	-7	-7	-7	-7	-8	-9	-8	-5	-4	-3	-2	-1	-1	-3	-4	-3	-3	-4	-4	-5	-4.8	-1.0
21-Jan	-6	-7	-8	-9	-9	-10	-10	-10	-11	-11	-11	-11	-12	-12	-12	-12	-12	-12	-13	-13	-13	-13	-13	-14	-11.1	-6.5
22-Jan	-14	-14	-14	-14	-15	-15	-15	-15	-15	-14	-14	-14	-13	-12	-12	-12	-12	-12	-12	-12	-12	-11	-11	-11	-13.2	-11.3
23-Jan	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-10	-9	-9	-8	-9	-9	-9	-9	-9	-9	-10	-10	-10	-10.1	-8.4
24-Jan	-10	-12	-12	-13	-14	-15	-16	-16	-17	-17	-16	-14	-11	-10	-9	-8	-9	-11	-12	-12	-12	-9	-9	-11	-12.2	-7.8
25-Jan	-12	-12	-14	-13	-14	-13	-12	-13	-13	-13	-12	-9	-7	-7	-6	-5	-5	-6	-7	-8	-5	-1	-1	-1	-8.8	-0.6
26-Jan	-1	0	-1	-1	-1	1	0	-2	-2	-2	-3	-2	1	2	2	2	1	3	3	3	2	1	0	0	0.2	2.9
27-Jan	-1	-2	-3	-3	-2	-2	-2	-2	-1	0	0	P	P	4	5	5	5	4	4	4	4	4	4	3	1.3	5.0
28-Jan	3	4	4	4	4	4	4	3	3	3	3	3	6	6	8	8	7	6	5	3	3	3	3	3	4.3	7.8
29-Jan	4	4	3	2	2	1	2	2	2	2	3	3	3	3	4	3	4	4	3	3	3	2	2	1	2.7	4.0
30-Jan	1	0	1	0	0	0	-1	-2	-2	-3	-3	-3	-3	-3	-3	-2	-2	-3	-4	-5	-5	-5	-5	-6	-2.4	0.8
31-Jan	-6	-7	-7	-8	-8	-8	-8	-9	-9	-9	-9	-8	-7	-7	-7	-6	-6	-7	-7	-7	-7	-7	-7	-7	-7.5	-6.0
	-7.9	-8.2	-8.4	-8.5	-8.5	-8.6	-8.8	-9.0	-9.1	-9.0	-8.6	-8.0	-7.3	-6.3	-5.9	-6.0	-6.5	-7.1	-7.5	-7.6	-7.8	-7.4	-7.2	-7.5	Diurnal Average	
	3.9	3.8	3.5	3.6	4.1	4.3	3.7	3.1	3.2	4.1	6.0	6.2	5.5	7.5	7.7	7.8	7.2	6.0	4.6	4.4	4.3	3.8	3.8	3.5	Diurnal Maximum	

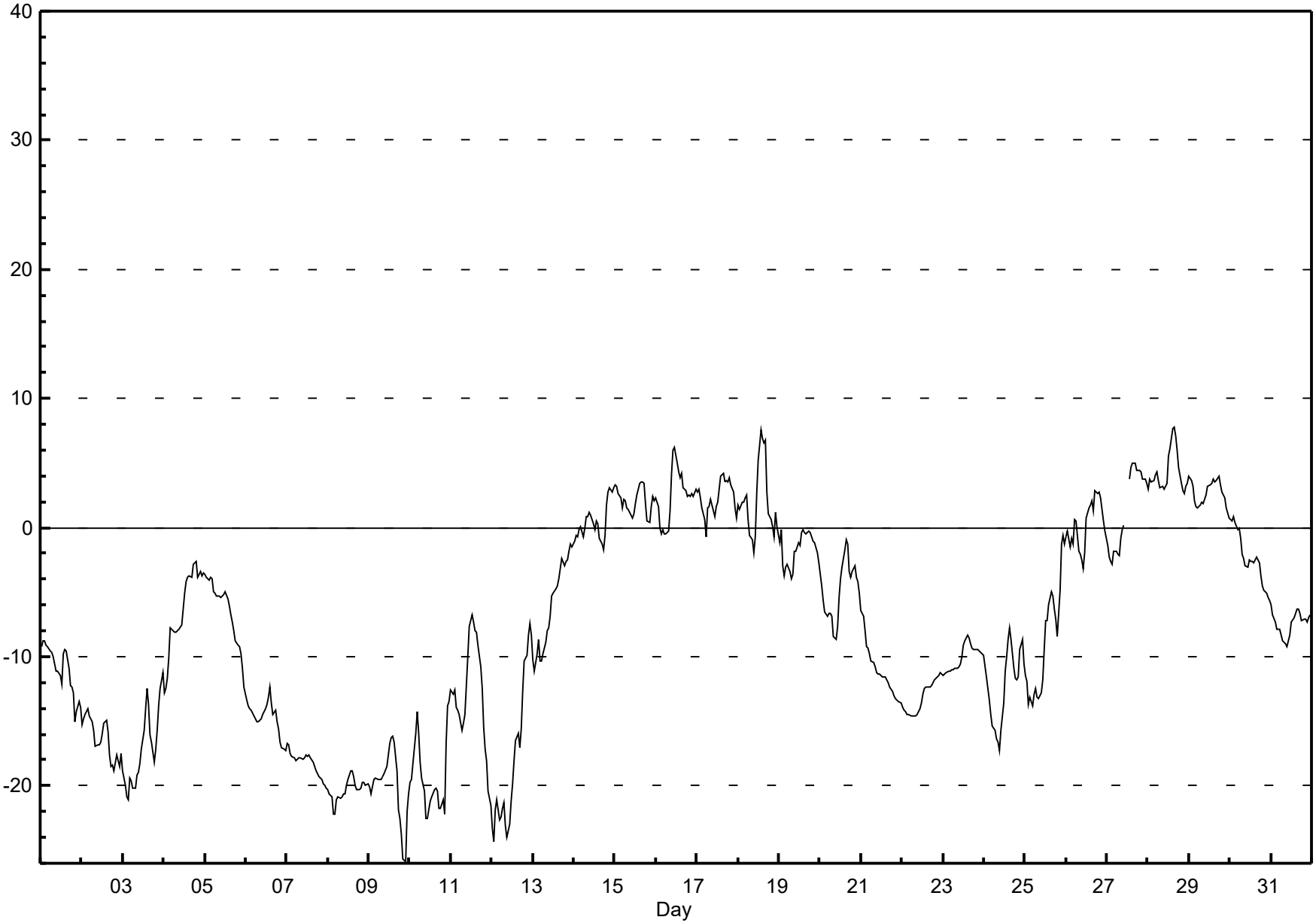
P - Power Failure

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - January 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - January 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	18	22	22	23	24	25	22	24	21	20	16	10	14	14	12	10	7	8	10	7	2	4	4	3	12.9	25.2
Dir	290	290	285	287	290	292	290	288	289	288	282	260	210	285	283	261	242	229	234	220	198	193	214	252	276.7	292.3
2 Spd	3	3	4	4	8	9	8	9	7	7	7	8	6	6	3	2	3	5	7	7	6	6	7	6	2.4	9.2
Dir	199	300	17	340	350	350	345	349	334	344	360	3	358	357	71	225	220	231	237	231	193	212	209	188	318.3	349.1
3 Spd	9	9	8	8	8	8	8	8	7	8	6	6	6	6	7	5	6	7	7	6	6	6	8	8	6.8	9.1
Dir	183	203	204	212	190	197	193	167	145	162	161	160	170	182	207	148	168	186	171	198	167	177	177	186	181.0	203.2
4 Spd	8	6	4	5	6	4	3	4	6	4	4	4	4	5	4	4	9	12	11	8	4	7	5	6	3.5	11.8
Dir	171	151	157	195	210	189	170	146	146	158	166	161	184	187	222	221	275	282	301	305	178	241	217	240	213.9	281.8
5 Spd	2	1	3	5	6	6	6	5	5	7	7	3	4	11	11	10	12	11	11	12	12	10	10	11	7.2	12.5
Dir	240	112	342	339	341	338	340	335	330	341	360	347	9	4	352	349	356	358	356	3	26	23	8	359	356.3	355.6
6 Spd	16	19	17	17	17	13	17	16	15	16	18	14	13	11	11	9	10	12	14	12	11	6	7	6	12.6	19.4
Dir	360	360	358	360	359	353	357	3	3	1	2	7	359	356	350	340	330	325	319	321	313	325	329	315	350.0	359.6
7 Spd	9	9	9	4	2	9	9	9	9	7	8	9	12	10	10	8	7	5	6	9	11	10	5	5	7.3	11.9
Dir	318	319	342	326	320	306	311	306	321	318	318	334	350	349	2	15	13	20	15	10	2	3	1	13	342.2	349.6
8 Spd	5	5	4	4	3	3	5	5	5	7	9	10	9	7	9	7	7	3	4	6	9	6	6	7	3.3	10.3
Dir	8	356	1	342	328	345	359	0	345	350	358	358	350	351	339	343	349	355	196	205	212	212	201	188	337.4	358.4
9 Spd	11	6	4	7	3	7	7	6	7	6	3	4	2	10	8	8	10	10	15	17	14	12	19	23	7.6	22.8
Dir	181	190	199	223	223	190	218	226	211	248	144	166	306	304	308	291	250	241	250	244	233	225	225	218	232.2	218.3
10 Spd	28	27	31	24	32	24	18	12	8	5	8	10	10	11	12	15	16	15	13	16	10	15	17	19	12.4	31.6
Dir	211	208	222	254	299	313	338	348	346	291	263	199	227	214	223	223	235	236	241	250	226	232	226	217	244.9	298.6
11 Spd	27	26	27	22	16	9	11	15	14	10	16	27	31	29	27	23	20	19	13	7	6	6	2	3	14.3	31.3
Dir	225	216	221	230	222	219	230	229	201	207	224	263	276	276	271	276	275	274	284	354	339	339	304	305	251.2	275.9
12 Spd	1	4	5	6	9	10	11	11	8	13	11	11	10	11	11	11	13	21	24	29	26	27	25	19	12.8	28.9
Dir	355	201	174	176	193	216	199	197	179	175	224	210	199	196	204	208	222	226	229	224	235	238	240	236	217.3	223.9
13 Spd	15	16	21	23	23	23	25	26	24	24	24	23	19	15	13	15	20	22	20	20	22	27	28	26	21.1	27.8
Dir	217	216	225	226	216	221	218	215	219	220	224	229	219	206	201	189	196	206	205	204	207	209	205	198	212.8	205.3
14 Spd	23	19	14	17	14	16	21	31	25	27	22	14	11	7	1	4	4	11	17	22	25	28	28	29	16.9	30.9
Dir	200	203	206	204	199	180	193	206	220	200	183	185	139	181	142	207	204	165	179	198	219	220	228	232	202.5	206.4
15 Spd	33	34	30	29	26	31	35	26	27	26	23	22	21	22	20	20	33	36	22	17	18	22	22	23	25.3	36.1
Dir	224	220	215	216	222	219	215	218	215	216	212	222	213	213	216	223	226	219	212	218	200	193	191	184	214.4	218.7
16 Spd	20	18	14	11	12	8	1	9	15	24	30	25	1	4	3	4	3	1	4	4	3	5	9	12	8.8	29.7
Dir	195	177	156	166	167	170	178	156	164	161	172	182	213	313	355	346	126	180	205	246	197	207	184	197	177.0	171.7
17 Spd	15	14	14	12	2	5	18	10	12	4	2	4	5	4	4	3	1	5	6	6	4	6	3	4	3.8	18.0
Dir	206	217	206	194	222	172	173	156	189	212	199	247	181	162	221	185	303	355	358	352	335	350	323	1	203.1	173.2
18 Spd	1	2	4	6	4	6	4	3	5	3	4	6	4	2	5	1	1	1	3	2	3	4	5	2	2.8	6.2
Dir	230	223	222	208	235	244	224	245	221	204	220	185	210	178	142	108	245	233	320	214	273	197	223	208	216.3	244.4
19 Spd	2	7	0	5	7	9	9	7	1	2	9	6	2	3	5	5	4	8	10	11	7	6	7	8	1.6	11.3
Dir	174	300	174	352	338	353	352	344	327	280	354	19	153	357	3	21	163	190	215	234	186	174	214	224	287.9	233.7
20 Spd	8	7	7	7	9	7	4	7	9	6	5	7	6	7	5	7	8	6	1	2	4	6	7	11	3.8	11.2
Dir	195	196	221	207	215	211	195	192	175	183	199	215	190	170	175	187	255	246	297	284	335	356	350	353	212.2	352.9
21 Spd	18	20	19	20	12	12	10	9	9	9	7	9	11	11	11	11	9	7	9	8	7	6	6	6	10.1	19.9
Dir	350	360	347	1	355	352	351	337	333	339	338	318	306	313	315	319	323	333	10	16	8	3	8	8	344.4	0.5
22 Spd	7	6	7	8	8	8	7	9	10	9	9	11	13	14	12	13	13	12	12	12	12	9	9	9	9.8	13.6
Dir	14	9	8	5	3	358	353	360	359	1	359	359	359	359	357	356	356	356	358	359	0	357	349	339	358.3	359.4

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - January 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	9	9	9	8	7	6	6	5	5	4	2	1	1	2	2	2	4	4	7	8	9	7	8	1.2	9.5
Dir	343	345	346	345	342	346	341	351	5	9	11	18	82	162	121	177	176	136	150	173	178	192	188	205	337.4	345.4
24 Spd	9	9	10	8	9	8	10	13	10	8	8	11	7	5	6	7	6	6	9	10	10	8	6	5	7.8	12.6
Dir	202	199	198	205	224	211	188	176	198	218	180	190	210	200	169	156	166	206	220	238	241	222	187	176	200.4	175.9
25 Spd	6	6	6	8	9	10	9	10	10	10	11	8	7	7	7	8	6	10	8	11	15	24	22	21	9.6	23.7
Dir	192	199	212	192	207	210	210	197	194	187	186	175	161	151	142	144	159	208	206	204	218	229	229	215	200.3	228.9
26 Spd	18	19	26	27	23	23	23	15	12	13	10	11	17	17	15	16	17	24	23	30	30	29	25	23	19.8	29.9
Dir	219	221	230	224	231	237	229	227	206	226	189	174	210	215	216	212	212	210	209	228	225	219	228	235	220.7	225.4
27 Spd	21	19	18	17	14	16	17	13	14	18	10	P	P	26	26	28	28	22	22	24	29	25	25	23	20.4	29.3
Dir	239	234	227	229	214	218	220	205	194	203	214	P	P	204	208	215	219	226	234	231	221	221	225	222	219.9	221.4
28 Spd	22	22	22	17	19	21	14	10	12	6	2	4	6	7	17	31	38	40	28	27	27	26	31	30	19.3	39.9
Dir	209	208	208	195	186	191	194	185	194	254	242	209	254	214	219	235	231	217	220	215	225	226	224	229	216.4	217.0
29 Spd	31	30	30	23	21	19	25	23	20	22	22	23	18	19	24	21	18	7	11	17	21	22	18	18	20.7	31.3
Dir	221	218	212	210	210	210	208	214	218	220	225	215	215	220	222	231	236	251	224	208	222	219	220	216	218.2	220.9
30 Spd	23	22	26	27	25	26	21	24	16	31	24	23	24	31	26	26	26	32	37	31	30	27	24	24	24.4	36.6
Dir	223	233	225	226	249	271	240	231	245	259	251	274	266	263	249	240	262	278	270	273	279	284	291	292	258.6	269.9
31 Spd	17	13	11	15	8	12	10	8	7	7	12	12	12	10	10	7	7	10	10	13	9	10	16	20	10.2	20.1
Dir	303	314	315	312	316	321	322	328	327	298	290	265	271	289	276	267	250	270	259	265	269	258	284	280	289.3	280.1
Spd	9.3	8.6	8.7	8.2	7.3	7.0	6.9	6.4	6.1	6.5	5.7	5.8	5.4	5.8	5.9	6.6	7.9	8.6	8.3	9.0	8.7	9.5	9.7	9.5	Diurnal Average	
Dir	227.2	230.0	230.2	235.3	243.6	247.5	236.8	231.7	225.4	231.6	231.2	233.8	242.3	247.3	243.9	239.4	241.2	238.9	240.1	239.0	234.0	230.8	231.8	230.9		
Spd	33.3	33.8	30.6	28.9	31.6	30.8	34.9	30.9	27.2	30.6	29.7	27.5	31.3	30.5	26.7	31.5	38.0	39.9	36.6	31.1	30.3	28.9	30.6	30.2	Diurnal Maximum	
Dir	224.3	219.6	221.5	215.6	298.6	219.0	215.1	206.4	214.7	258.9	171.7	263.2	275.9	263.1	271.0	235.0	231.3	217.0	269.9	273.3	278.7	218.8	223.9	228.8		

Maximum Speed Value: 40 km/h on Jan 28 18:00
Maximum Daily Speed Average: 25.3 km/h on Jan 30
Maximum Diurnal Speed Average: 9.7 km/h at hour 23

Minimum Speed Value: 0 km/h on Jan 19 03:00
Minimum Daily Speed Average: 1.2 km/h on Jan 18
Minimum Diurnal Speed Average: 5.4 km/h at hour 13

Monthly Average Velocity: 7.52 km/h 235.60 deg

Speed Percentiles: P_1 = 0.9 P_{10} = 3.8 Q_1 = 6.2 Median = 9.8 Q_3 = 18.0 P_{90} = 25.1 P_{99} = 32.8

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

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Percent Operational Time:	99.7

P - Power Failure

Frequency Distribution

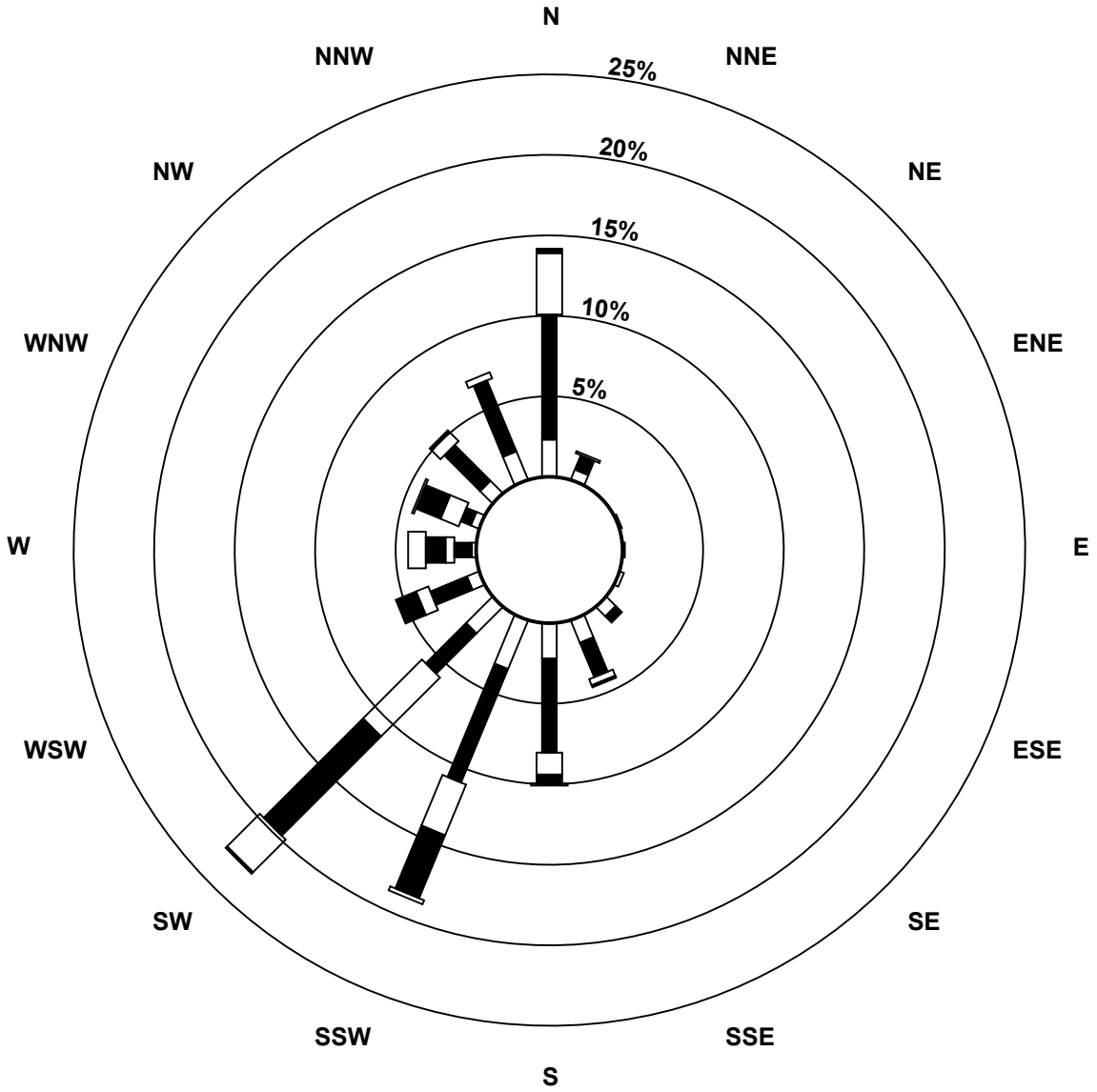
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	25	89	36	3	0	0	153
NorthEast	0	1	1	0	0	0	2
East	4	0	0	0	0	0	4
SouthEast	10	11	1	0	0	0	22
South	34	75	28	15	1	0	153
SouthWest	34	62	63	91	24	2	276
West	5	19	13	26	8	0	71
NorthWest	16	33	10	1	1	0	61
Total	128	290	152	136	34	2	742

Peace Airshed Zone Association

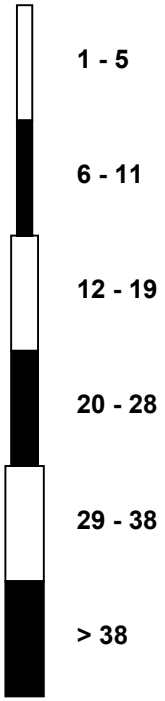
Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - January 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - January 2017

Peace Airshed Zone Association

Maximum Speed: 40 km/h on Jan 28 18:00

Maximum Daily Speed Average: 26.3 km/h on Jan 30

Minimum Speed: 1 km/h on Jan 5 02:00

Minimum Daily Speed Average: 3.9 km/h on Jan 18

Maximum Diurnal Speed Average: 14.3 km/h at hour 1

Minimum Diurnal Speed Average: 10.8 km/h at hour 13

Monthly Average Speed: 12.68 km/h

Percentiles: P_1 = 1.8 P_{10} = 4.3 Q_1 = 6.5 Median = 10.0 Q_3 = 18.4 P_{90} = 25.4 P_{99} = 33.0

Hours in Service: 744

Hours of Data: 742

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-Jan	18	22	22	23	24	25	23	24	21	20	16	12	14	15	12	10	7	8	10	8	4	5	4	4	14.7	25.3
2-Jan	3	3	4	4	8	9	9	9	7	7	7	8	6	6	3	2	4	5	7	7	7	6	7	6	6.0	9.3
3-Jan	9	9	8	8	8	8	9	8	7	8	6	6	6	6	7	5	6	7	7	6	7	7	8	8	7.3	9.3
4-Jan	8	6	5	6	6	4	4	4	6	4	5	4	4	5	4	4	9	12	11	8	5	8	5	7	5.9	11.8
5-Jan	3	1	3	5	6	6	6	5	5	7	7	4	5	11	11	10	13	11	11	12	12	10	10	12	7.7	12.7
6-Jan	16	20	17	17	18	13	17	16	15	16	18	14	13	11	11	9	10	12	14	13	11	6	7	6	13.3	19.8
7-Jan	9	9	9	4	3	9	9	10	9	7	8	10	12	10	10	8	8	5	6	9	11	10	5	5	8.2	12.1
8-Jan	5	5	4	4	3	3	6	5	5	7	9	10	9	7	9	8	7	4	4	6	9	6	6	7	6.2	10.3
9-Jan	11	6	4	8	4	7	7	6	7	7	3	4	4	10	8	9	10	10	15	17	14	12	19	23	9.4	22.9
10-Jan	28	27	31	29	32	24	18	12	8	5	9	10	11	11	12	15	16	15	13	16	11	15	17	19	16.9	31.8
11-Jan	27	26	27	22	16	10	12	15	14	11	16	28	31	29	27	24	20	19	14	7	6	6	3	3	17.3	31.4
12-Jan	2	5	5	6	9	10	11	11	9	13	11	12	10	11	11	11	13	21	24	29	26	27	25	19	13.9	28.9
13-Jan	15	16	21	23	23	23	25	26	24	24	25	23	19	15	13	15	20	22	20	20	22	27	28	26	21.4	27.9
14-Jan	23	19	15	17	15	17	21	31	25	27	22	14	13	8	3	6	5	12	17	22	25	28	28	30	18.4	31.0
15-Jan	33	34	30	29	26	31	35	26	27	26	23	22	21	22	20	21	33	36	22	17	18	22	22	23	25.8	36.1
16-Jan	21	18	14	12	12	9	3	9	15	24	30	25	8	5	3	4	5	2	6	5	4	5	9	12	10.8	29.8
17-Jan	15	14	14	13	4	5	18	10	12	9	5	4	5	4	5	4	2	5	6	6	5	6	4	4	7.4	18.5
18-Jan	2	3	4	7	6	7	4	4	6	4	4	6	5	2	5	2	2	2	3	3	4	5	5	3	3.9	6.6
19-Jan	4	7	3	6	7	9	10	8	2	6	9	8	4	3	5	5	5	8	10	11	7	7	8	9	6.8	11.4
20-Jan	8	8	7	8	9	7	5	7	9	6	5	7	7	8	5	7	8	6	3	3	4	6	7	11	6.8	11.3
21-Jan	18	20	19	20	13	12	10	9	9	9	7	9	11	11	11	11	9	8	9	8	7	6	6	6	10.8	20.0
22-Jan	7	6	7	8	8	8	7	9	10	9	9	11	13	14	12	13	13	12	12	12	12	9	9	9	9.9	13.7
23-Jan	9	10	9	9	8	7	6	6	5	5	4	2	2	2	2	3	2	4	5	7	8	9	7	8	5.7	9.5
24-Jan	9	9	10	8	9	8	10	13	10	8	9	11	7	6	6	7	7	6	9	10	11	9	7	6	8.5	12.6
25-Jan	6	6	6	8	9	10	9	10	10	10	12	8	7	7	8	8	6	10	8	11	15	24	22	21	10.6	23.8
26-Jan	18	19	26	27	23	23	23	15	12	13	10	11	17	17	15	16	17	24	23	30	30	29	25	23	20.3	30.0
27-Jan	21	19	18	17	14	16	17	14	15	18	10	P	P	26	26	28	28	22	22	24	29	25	26	23	20.9	29.4
28-Jan	22	22	22	17	19	21	14	10	12	7	4	5	7	7	17	32	38	40	28	27	27	27	31	30	20.3	40.1
29-Jan	31	30	30	23	21	19	25	23	20	22	22	23	18	19	24	21	19	9	12	17	21	22	18	18	21.1	31.4
30-Jan	23	22	26	27	25	26	21	25	17	32	25	24	24	31	26	26	27	32	37	31	30	27	25	24	26.3	36.8
31-Jan	17	14	11	15	8	12	10	8	7	8	12	13	12	10	10	7	8	10	10	13	9	10	16	20	11.2	20.1
	14.3	14.0	13.9	13.8	12.8	12.9	13.0	12.6	11.7	12.2	11.7	11.6	10.8	11.3	11.1	11.3	12.1	12.9	12.8	13.4	13.2	13.6	13.5	13.6	Diurnal Average	
	33.5	33.9	30.8	28.9	31.8	30.9	35.0	31.0	27.3	31.8	29.8	28.0	31.4	30.7	26.9	31.5	38.2	40.1	36.8	31.3	30.4	29.0	30.6	30.2	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

Smoky Heights - January 2017

Maximum Value: 94.4 deg on Jan 19 03:00

Minimum Value: 2.0 deg on Jan 13 05:00

Percentiles: P_1 = 2.3 P_{10} = 3.7 Q_1 = 5.6 Median = 8.3 Q_3 = 14.8 P_{90} = 31.2 P_{99} = 78.1

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	5	5	5	6	5	5	6	5	4	3	3	32	17	26	11	10	10	9	3	40	73	32	20	47	72.7
2-Jan	35	23	22	13	6	7	6	8	8	8	9	5	10	10	40	67	31	24	12	13	25	14	20	16	67.1
3-Jan	14	6	10	9	10	8	13	11	8	6	7	8	11	15	26	19	16	7	20	16	28	16	10	7	27.6
4-Jan	10	12	12	26	14	27	20	30	8	11	25	18	17	12	19	13	9	4	6	7	37	22	17	12	36.7
5-Jan	52	44	23	7	7	9	8	8	7	11	8	19	19	7	5	8	10	11	6	5	15	5	5	7	52.4
6-Jan	4	13	4	5	4	6	4	5	5	16	3	8	7	7	5	7	5	7	6	8	7	14	10	13	16.2
7-Jan	8	11	12	28	39	12	8	10	6	10	7	11	10	8	11	7	7	12	10	10	5	6	9	11	38.5
8-Jan	9	12	10	16	14	9	10	12	10	7	6	7	5	10	7	8	6	25	60	9	5	13	10	12	60.1
9-Jan	3	10	10	32	45	12	10	14	6	20	52	43	76	7	9	22	20	10	7	4	6	7	4	3	76.3
10-Jan	4	3	6	31	7	9	7	8	9	22	27	13	7	14	11	9	3	5	9	3	15	5	5	14	31.5
11-Jan	4	4	4	4	3	68	8	11	10	18	9	13	5	7	7	8	7	4	17	15	10	9	78	33	77.8
12-Jan	77	27	11	6	15	11	8	6	13	11	8	11	7	6	5	9	12	9	3	3	2	4	5	5	77.4
13-Jan	5	4	6	6	2	2	2	3	2	2	4	4	4	4	8	6	4	5	3	3	5	3	4	3	8.2
14-Jan	3	8	12	8	14	12	6	4	6	8	10	22	39	19	72	48	61	36	10	9	6	5	7	7	71.7
15-Jan	6	5	5	3	6	3	3	5	2	4	2	6	5	3	6	3	5	3	6	3	8	3	9	9	8.9
16-Jan	5	10	9	12	20	19	72	11	6	5	5	8	82	14	71	29	75	78	45	24	24	16	13	9	82.0
17-Jan	4	8	9	33	78	25	12	20	19	74	90	19	21	23	18	38	59	9	12	15	39	13	40	15	89.6
18-Jan	78	37	16	28	45	21	35	19	19	40	18	10	18	37	19	50	70	71	46	42	61	46	25	44	77.6
19-Jan	76	47	94	43	8	8	24	19	55	82	13	47	71	33	18	29	48	13	8	7	14	15	23	27	94.4
20-Jan	23	29	13	21	11	15	42	19	21	20	18	6	19	8	20	17	11	19	87	64	15	12	13	8	87.2
21-Jan	8	5	6	6	17	8	11	8	10	10	10	15	10	8	8	8	9	19	8	7	7	7	9	9	18.6
22-Jan	8	10	8	8	9	7	10	6	7	7	6	5	6	6	6	5	6	6	6	5	5	11	7	7	11.4
23-Jan	6	6	7	7	7	7	9	8	9	10	17	40	61	31	28	29	26	29	16	7	8	8	7	5	61.1
24-Jan	5	3	8	11	7	7	11	4	9	6	11	8	7	12	9	11	16	8	15	10	5	9	13	13	16.0
25-Jan	7	6	6	6	10	6	7	6	3	7	6	6	12	5	4	3	7	9	5	3	14	4	4	6	13.9
26-Jan	4	4	4	5	3	3	3	9	7	6	11	14	4	6	3	5	4	7	8	7	5	3	3	3	14.1
27-Jan	4	3	6	7	7	5	9	21	15	5	14	P	P	3	5	3	4	9	5	7	5	6	5	5	21.0
28-Jan	2	4	3	6	3	4	7	10	10	29	60	44	16	22	12	4	5	5	4	3	4	4	3	4	60.1
29-Jan	4	4	5	4	4	6	3	6	4	4	4	3	5	5	4	8	25	42	13	3	6	4	4	3	41.9
30-Jan	8	3	4	3	14	6	12	6	20	16	17	15	8	6	7	4	19	6	6	5	5	5	6	6	20.4
31-Jan	8	8	6	8	14	12	7	9	10	12	7	10	10	14	13	16	11	8	8	8	14	17	8	4	17.1
	77.6	46.7	94.4	42.9	78.2	68.0	72.3	29.5	54.6	82.3	89.6	47.5	82.0	37.4	71.7	67.1	75.2	78.1	87.2	63.8	72.7	46.2	77.8	46.7	

P - Power Failure

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - January 2017

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

Maximum Value: 6.8 ppb on Jan 19 02:00

Maximum Daily Average: 0.9 ppb on Jan 19

Minimum Value: 0 ppb on Jan 30 08:00

Minimum Daily Average: 0.1 ppb on Jan 30

Maximum Diurnal Average: 0.4 ppb at hour 2

Minimum Diurnal Average: 0.2 ppb at hour 8

Monthly Average: 0.24 ppb

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

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Jan	0	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
4-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.6
5-Jan	0	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
6-Jan	0	0	0	0	A	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0.3	0.9
7-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	3	2	0	0	0	0	0	0	0	0.4	3.0
8-Jan	0	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
9-Jan	0	1	0	0	A	0	0	0	0	0	0	1	0	C	C	C	0	0	0	0	0	0	0	0	0.3	0.5
10-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
11-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
12-Jan	0	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-Jan	0	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
14-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
15-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
16-Jan	0	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
17-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
18-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	1.3
19-Jan	5	7	2	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	6.8
20-Jan	0	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-Jan	0	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-Jan	0	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-Jan	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
24-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0.3	0.7
25-Jan	0	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
26-Jan	0	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
27-Jan	0	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-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
29-Jan	0	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
30-Jan	0	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
31-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
	0.3	0.4	0.2	0.2	--	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	5.5	6.8	1.7	0.9	--	0.8	0.5	0.4	0.4	0.5	0.6	0.7	0.6	0.7	0.8	3.0	1.7	1.3	0.7	0.5	0.4	0.4	0.4	0.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

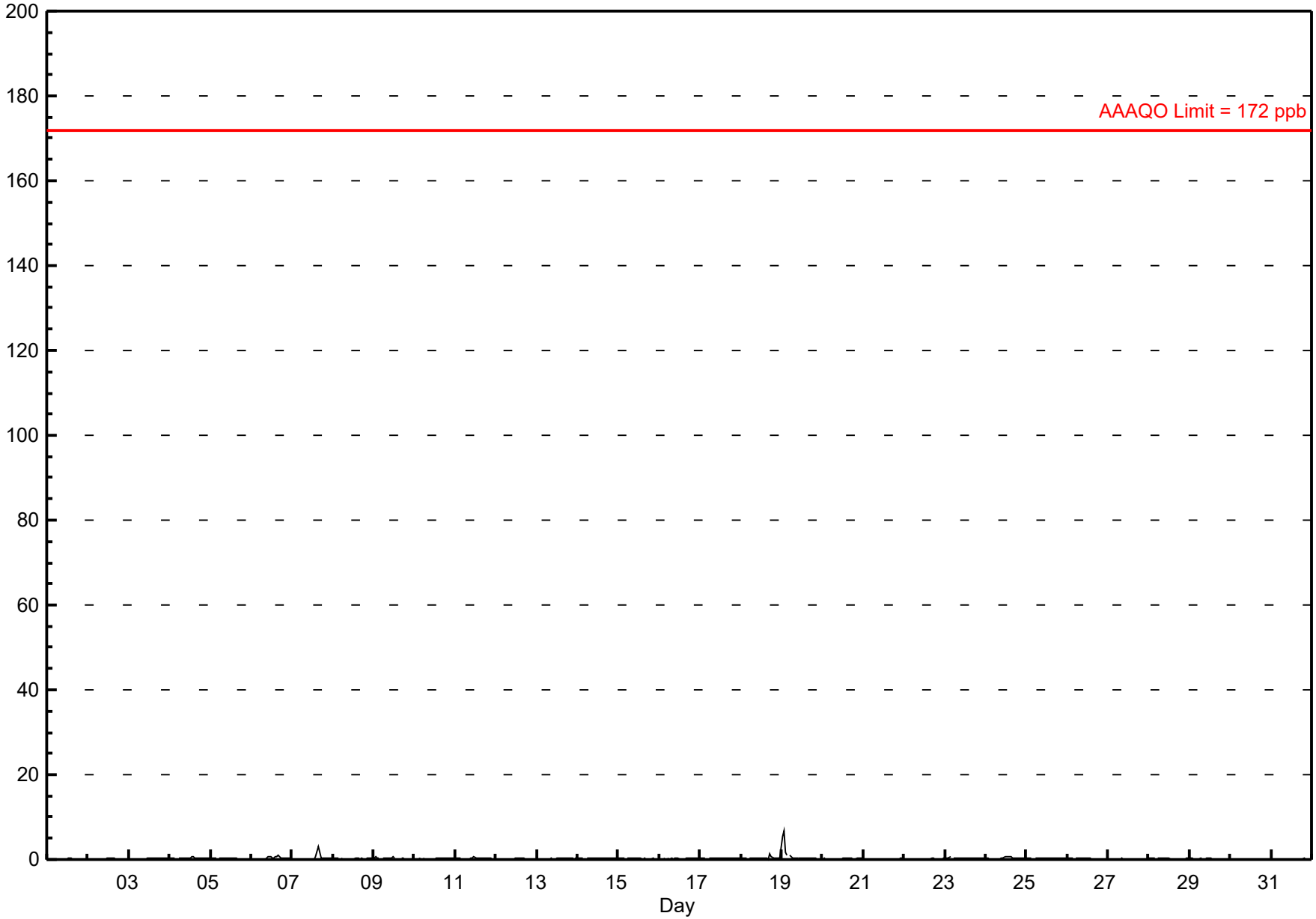
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - January 2017

Maximum Value: 27.9 ppb on Jan 19 01:00

Maximum Daily Average: 2.8 ppb on Jan 19

Minimum Value: 0 ppb on Feb 1 00:00

Minimum Daily Average: 0.2 ppb on Jan 30

Maximum Diurnal Average: 1.2 ppb at hour 1

Minimum Diurnal Average: 0.3 ppb at hour 8

Monthly Average: 0.42 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.5$ $P_{99} = 2.4$

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	0	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
2-Jan	0	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
3-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0.3	0.7
4-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	0.7
5-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
6-Jan	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	1.4
7-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	3	4	2	1	0	0	0	0	0	0	0.6	4.0
8-Jan	0	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
9-Jan	1	1	0	1	A	0	0	1	0	1	1	1	1	C	C	C	0	0	0	0	0	0	0	0	0.5	1.1
10-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
11-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0.4	0.9
12-Jan	0	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-Jan	0	0	0	0	A	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9
14-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.4	0.5
15-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
16-Jan	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
17-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
18-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	1	0	4	1	1	1	0	0	1	0.7	3.7
19-Jan	28	21	4	1	A	2	1	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2.8	27.9
20-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0.3	0.6
21-Jan	0	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
22-Jan	0	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-Jan	0	1	1	1	A	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.5	0.7
24-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0.5	0.8
25-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0.4	0.6
26-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
27-Jan	0	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
28-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
29-Jan	0	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
30-Jan	0	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
31-Jan	0	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
	1.2	0.9	0.4	0.3	--	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	27.9	20.5	4.0	1.1	--	1.7	1.1	0.7	1.9	1.1	0.7	0.9	0.8	0.8	2.6	4.0	2.5	3.7	1.3	1.0	0.6	0.5	0.5	0.7	Diurnal Maximum	

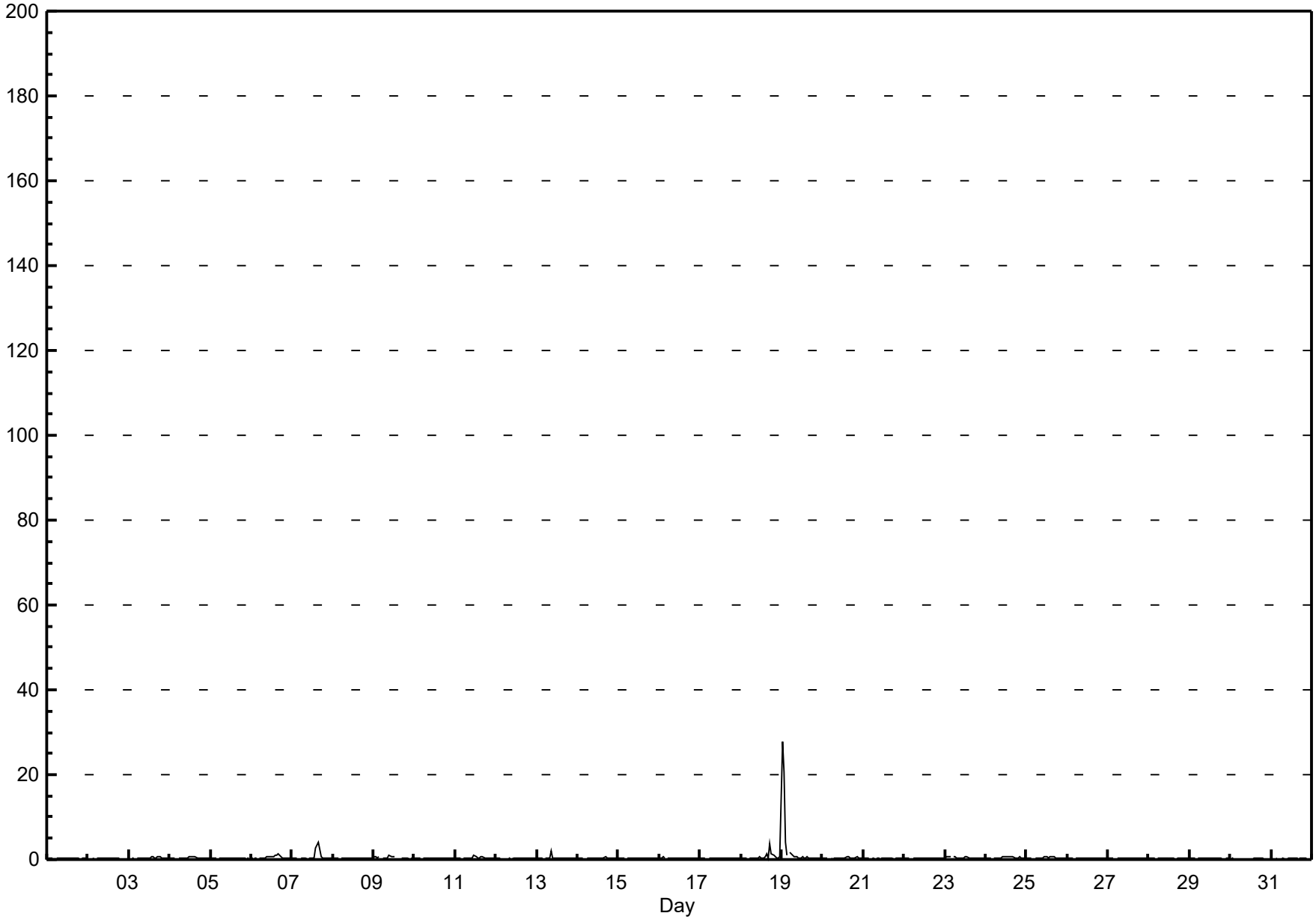
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

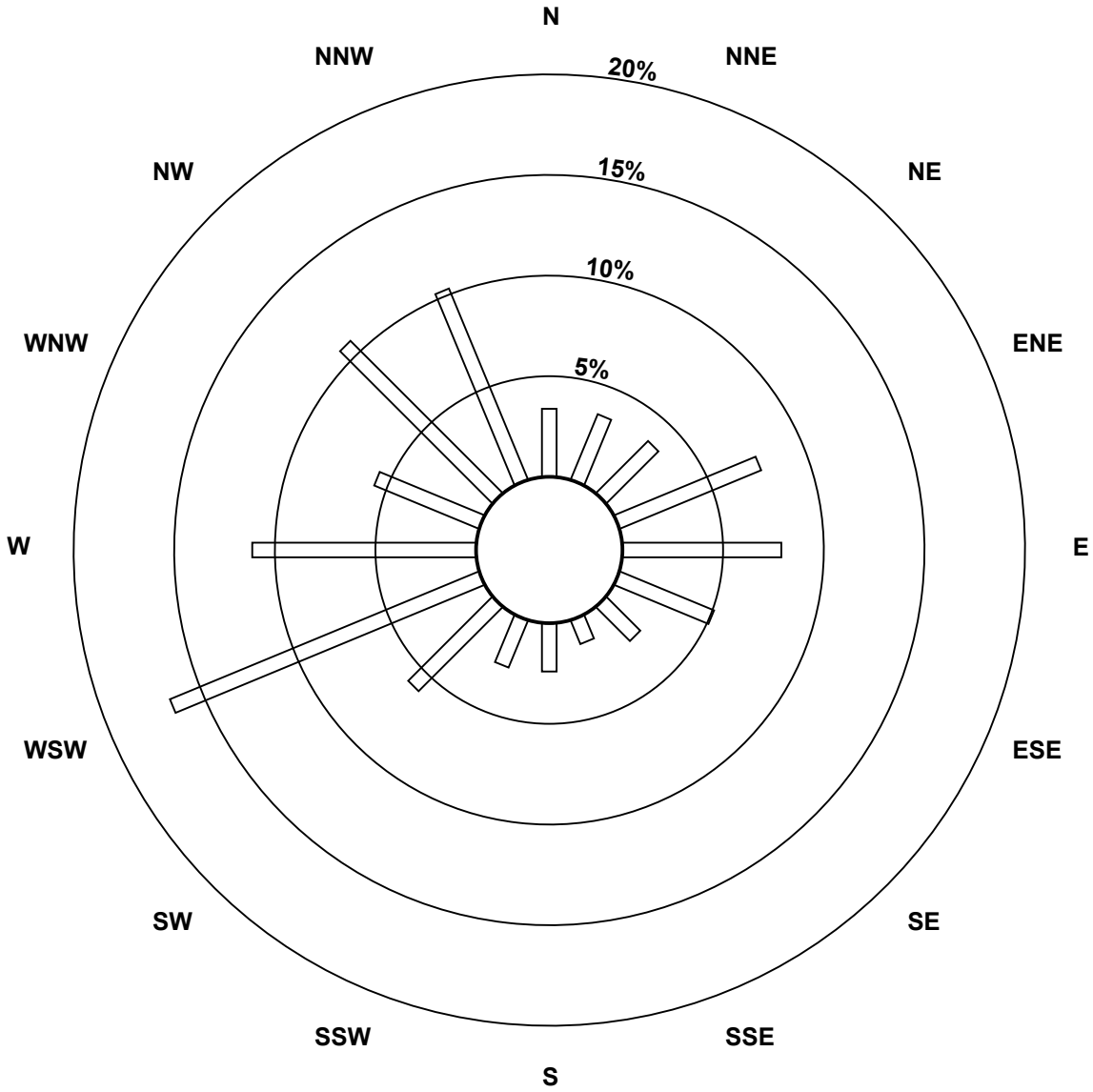
Beaverlodge - January 2017



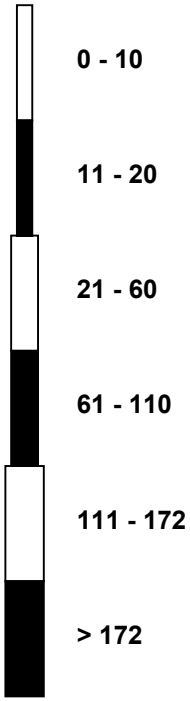
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - January 2017



Pollutant Classes (ppb)

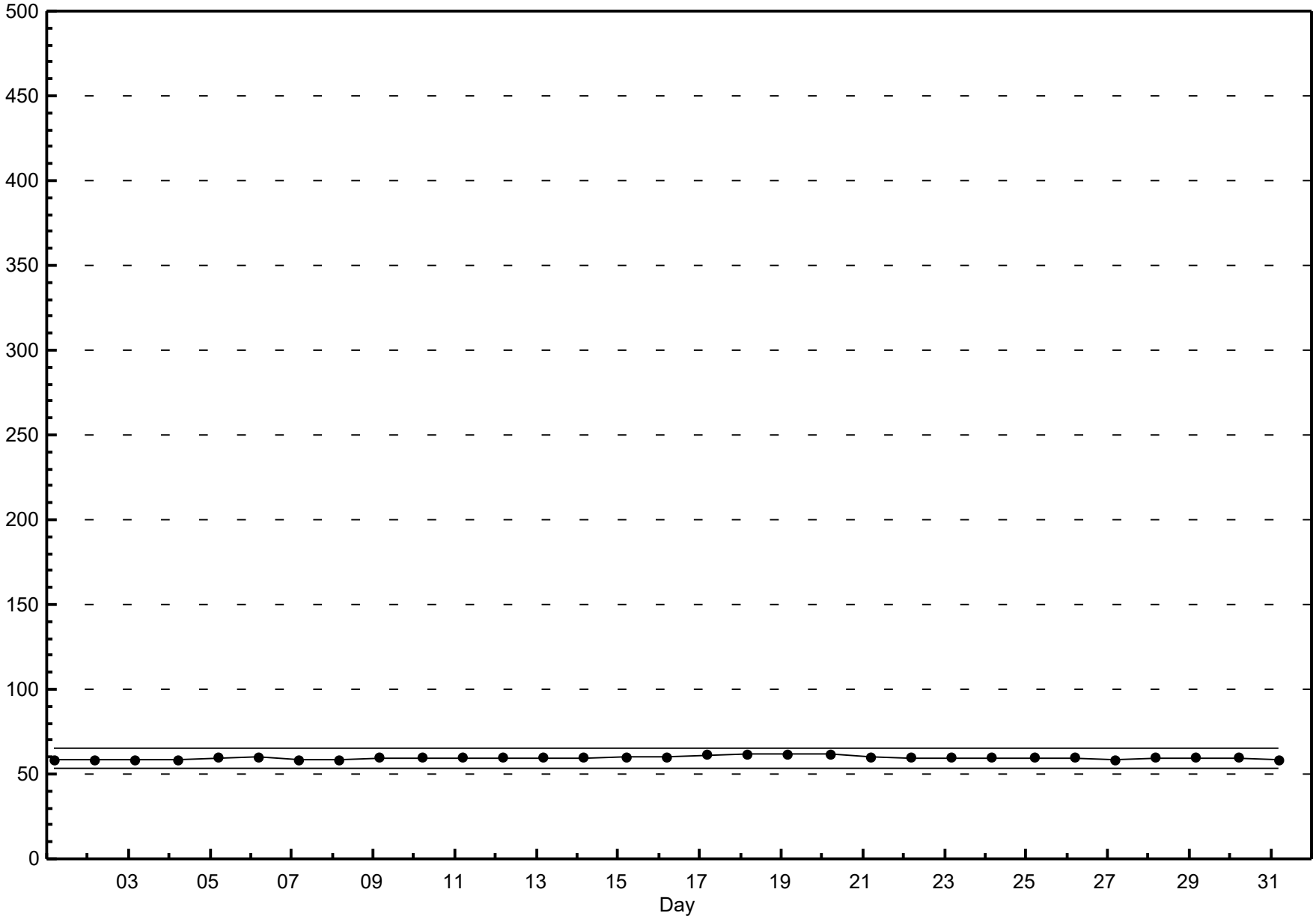


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 21.7 ppb on Jan 18 00:00
Maximum Daily Average: 11.8 ppb on Jan 19

Minimum Value: 0 ppb on Jan 30 02:00
Maximum Diurnal Average: 6.5 ppb at hour 18
Monthly Average: 4.68 ppb

Minimum Daily Average: 0.7 ppb on Jan 15
Minimum Diurnal Average: 3.3 ppb at hour 4
Percentiles: $P_1 = 0.4$ $P_{10} = 0.9$ $Q_1 = 1.5$ Median = 3.5 $Q_3 = 6.4$ $P_{90} = 10.6$ $P_{99} = 18.7$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	4	3	2	1	A	5	2	2	2	3	2	4	3	2	3	5	12	11	8	5	4	4	4	5	4.1	11.9
2-Jan	3	4	3	2	A	4	4	2	2	2	4	3	5	8	5	5	8	10	8	6	6	6	8	7	5.1	10.4
3-Jan	10	8	8	6	A	6	6	8	11	9	11	11	10	8	13	14	12	15	9	13	7	6	6	5	9.1	14.5
4-Jan	4	3	3	3	A	4	2	9	19	13	11	7	4	6	3	7	6	9	9	5	12	7	6	4	6.7	19.0
5-Jan	4	5	3	2	A	6	8	8	6	3	2	5	6	4	2	1	2	2	1	1	1	1	1	1	3.3	7.8
6-Jan	1	1	1	2	A	3	2	3	3	7	4	4	3	3	3	3	5	6	5	5	6	4	2	2	3.4	7.1
7-Jan	1	1	1	1	A	2	3	4	4	4	3	3	2	1	1	1	2	5	6	6	5	6	7	8	3.4	7.6
8-Jan	7	5	5	4	A	6	5	5	5	5	5	7	8	6	4	3	7	7	8	8	9	8	9	7	6.1	8.9
9-Jan	7	8	6	5	A	6	6	6	5	7	C	C	C	C	6	5	7	17	11	6	7	7	6	4	7.0	17.4
10-Jan	2	2	1	2	A	2	2	2	2	7	6	4	5	9	4	8	4	3	6	7	7	5	4	1	4.2	9.0
11-Jan	2	3	3	1	A	3	1	2	3	3	3	3	2	2	2	2	3	7	4	2	2	7	10	6	3.4	9.6
12-Jan	4	3	4	4	A	8	10	10	6	8	6	7	6	6	5	5	1	1	2	1	1	1	1	1	4.4	10.1
13-Jan	1	1	0	1	A	2	3	6	6	2	3	3	1	1	1	1	1	3	2	1	1	1	1	1	1.8	5.7
14-Jan	1	2	1	1	A	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7
15-Jan	0	1	1	1	A	2	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0	1	1	0.7	1.6
16-Jan	2	2	1	2	A	2	2	2	2	2	3	5	3	3	2	2	3	6	5	4	4	3	8	4	3.2	7.9
17-Jan	2	3	2	1	A	2	2	2	4	5	2	4	10	11	9	5	6	6	4	4	6	13	11	22	5.9	21.7
18-Jan	15	15	13	13	A	13	13	13	11	17	14	10	7	6	7	7	6	4	16	14	12	9	8	8	10.9	16.7
19-Jan	8	8	12	12	A	8	16	19	19	13	18	13	12	6	8	11	14	16	18	10	8	9	8	8	11.8	19.4
20-Jan	9	7	5	5	A	12	8	7	6	6	5	6	5	5	12	8	19	18	19	18	13	11	10	9	9.7	18.8
21-Jan	9	4	3	2	A	3	2	2	2	2	2	2	2	2	3	4	4	5	5	5	3	4	4	4	3.5	9.2
22-Jan	4	3	4	3	A	2	3	2	3	2	2	3	4	4	3	2	4	4	4	4	4	3	4	3	3.2	4.5
23-Jan	3	3	3	3	A	5	6	5	4	5	3	3	2	2	2	3	6	9	10	11	15	14	16	13	6.4	16.2
24-Jan	14	15	12	12	A	13	12	10	7	6	6	7	7	8	9	7	13	18	18	18	19	14	12	8	11.6	19.3
25-Jan	7	6	6	6	A	4	3	3	3	2	3	4	7	7	7	5	6	6	5	4	4	3	2	2	4.6	7.4
26-Jan	2	3	1	1	A	2	1	1	1	2	2	2	1	3	1	1	1	1	1	1	1	1	1	1	1.3	3.4
27-Jan	1	1	1	1	A	4	6	5	4	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.8	5.6
28-Jan	2	1	1	2	A	3	3	3	3	3	4	7	6	4	4	1	1	1	1	1	1	1	1	0	2.2	6.7
29-Jan	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.9	1.9
30-Jan	0	0	0	0	A	2	1	1	1	1	1	1	1	1	1	2	1	2	2	2	1	2	3	1	1.3	2.6
31-Jan	1	1	1	2	A	3	3	2	3	3	4	3	2	1	1	2	3	4	5	9	15	4	3	7	3.6	14.7
	4.2	3.9	3.6	3.3	--	4.5	4.4	4.7	4.9	4.8	4.4	4.5	4.3	4.2	4.0	4.0	5.1	6.5	6.3	5.6	5.7	5.0	5.1	4.7	Diurnal Average	
	14.5	15.3	13.4	13.2	--	13.5	16.0	19.4	19.0	16.7	17.6	13.0	11.7	11.0	13.2	14.1	18.8	18.1	18.8	18.0	19.3	14.4	16.2	21.7	Diurnal Maximum	

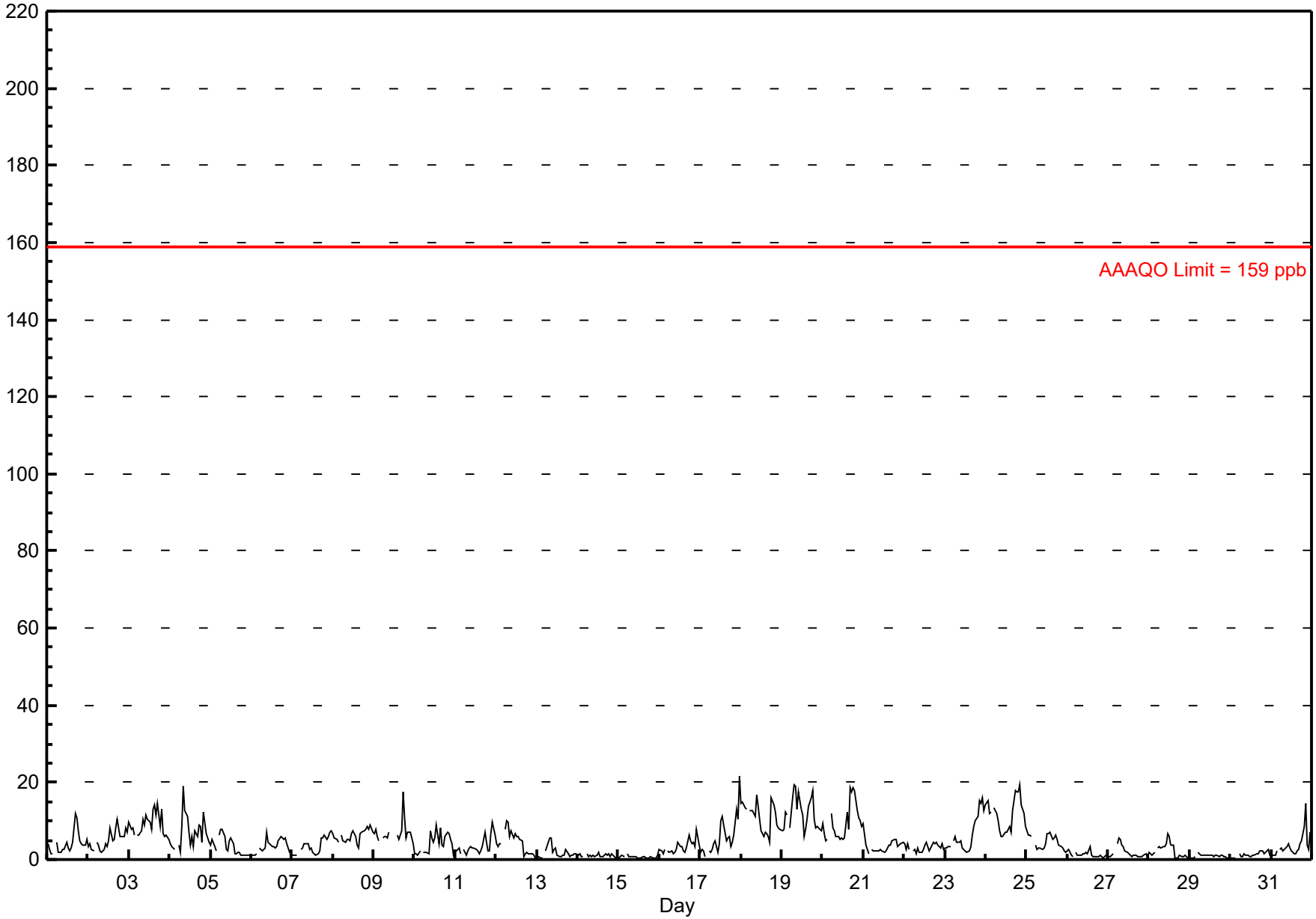
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - January 2017

Maximum Value: 139.7 ppb on Jan 13 09:00

Maximum Daily Average: 18.8 ppb on Jan 18

Minimum Value: 1 ppb on Jan 15 21:00

Minimum Daily Average: 1.8 ppb on Jan 15

Maximum Diurnal Average: 12.9 ppb at hour 10

Minimum Diurnal Average: 5.4 ppb at hour 4

Monthly Average: 8.29 ppb

Percentiles: P_1 = 1.0 P_{10} = 2.0 Q_1 = 3.3 Median = 5.9 Q_3 = 10.3 P_{90} = 18.6 P_{99} = 30.8

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	7	4	2	2	A	8	4	2	3	3	3	10	5	3	5	12	21	20	18	10	6	7	5	8	7.4	20.6
2-Jan	5	6	3	3	A	8	4	3	3	3	8	5	9	11	9	7	13	13	10	6	7	6	13	10	7.2	13.4
3-Jan	15	13	10	8	A	10	9	10	20	17	21	19	14	20	26	22	16	19	23	24	10	7	8	7	15.2	25.7
4-Jan	6	4	4	4	A	5	3	12	31	28	16	12	8	7	11	15	9	17	17	10	34	16	7	6	12.3	33.7
5-Jan	4	12	5	3	A	9	12	12	9	8	4	6	6	5	3	3	4	3	3	1	3	1	1	2	5.3	12.4
6-Jan	1	1	2	2	A	4	3	3	3	104	5	5	6	5	4	4	6	9	7	6	7	6	2	2	8.5	104.1
7-Jan	1	1	1	2	A	4	4	4	5	5	3	4	3	2	2	2	5	8	7	8	6	7	8	8	4.4	8.3
8-Jan	8	6	6	7	A	8	6	7	8	7	7	13	18	10	5	5	11	12	11	15	14	9	10	8	9.2	18.0
9-Jan	11	13	15	9	A	10	10	9	6	34	C	C	C	C	11	6	11	22	19	11	11	11	9	9	12.4	33.6
10-Jan	4	3	3	5	A	4	4	5	3	24	9	9	13	13	7	12	9	6	9	10	8	7	7	4	7.8	23.5
11-Jan	5	4	8	3	A	5	1	5	8	8	9	5	4	3	2	3	5	9	8	4	3	23	20	9	6.7	22.8
12-Jan	5	5	5	5	A	11	24	11	8	10	6	20	8	9	8	19	1	4	5	3	5	5	4	1	8.1	24.4
13-Jan	2	3	1	2	A	6	7	12	140	4	6	5	3	3	2	3	4	7	4	2	6	3	3	3	9.9	139.7
14-Jan	2	6	1	1	A	3	4	4	2	3	3	3	6	1	2	2	6	3	4	2	6	6	2	2	3.2	6.3
15-Jan	1	2	3	1	A	4	1	2	2	2	2	1	1	1	2	3	1	2	2	2	1	1	2	2	1.8	3.6
16-Jan	4	5	7	8	A	6	5	6	6	3	7	7	16	11	7	5	13	13	8	5	6	4	19	8	7.7	18.6
17-Jan	3	6	4	3	A	3	8	6	7	19	3	10	21	20	18	6	11	9	5	5	10	33	27	31	11.7	33.4
18-Jan	20	23	17	26	A	14	18	16	15	25	22	19	10	7	14	8	12	11	34	25	28	16	29	25	18.8	33.9
19-Jan	12	11	21	14	A	11	28	29	25	27	20	17	25	7	15	13	19	22	24	17	13	10	10	10	17.5	28.6
20-Jan	20	8	5	7	A	16	10	11	9	9	6	7	7	7	23	27	29	32	32	23	18	17	12	13	15.0	31.8
21-Jan	13	5	5	2	A	4	3	2	3	2	3	3	2	4	4	5	5	6	6	6	4	4	5	5	4.4	12.7
22-Jan	4	4	6	13	A	6	5	3	7	4	3	4	5	7	6	6	6	6	6	6	6	4	8	4	5.6	12.7
23-Jan	4	4	5	4	A	8	8	7	6	10	4	4	3	3	4	4	12	11	13	14	17	17	19	13	8.4	18.6
24-Jan	16	16	14	15	A	16	16	14	11	8	6	26	10	10	12	11	18	25	21	26	31	21	14	9	16.0	30.6
25-Jan	8	7	7	7	A	6	3	3	5	3	9	6	8	10	13	9	8	13	11	7	7	9	5	4	7.3	13.0
26-Jan	6	5	2	2	A	3	3	7	5	7	3	3	3	8	5	3	3	2	4	3	3	2	5	2	3.8	8.4
27-Jan	2	2	5	2	A	8	11	7	9	9	7	5	3	2	1	5	4	2	2	2	3	3	4	3	4.3	10.6
28-Jan	8	4	1	4	A	4	6	5	6	4	6	14	20	10	14	1	2	1	2	2	1	3	2	1	5.3	19.9
29-Jan	2	1	2	1	A	3	2	2	3	3	2	3	2	2	2	4	3	2	4	3	5	3	1	1	2.5	4.6
30-Jan	1	1	1	1	A	3	2	2	2	3	3	2	2	2	4	4	3	5	5	5	2	3	5	2	2.7	5.0
31-Jan	2	2	2	4	A	4	4	6	4	5	6	5	4	2	2	5	4	5	6	25	31	9	6	20	7.2	30.8
	6.6	6.1	5.7	5.4	--	6.9	7.3	7.4	12.1	12.9	7.1	8.4	8.2	6.9	7.8	7.5	8.8	10.3	10.7	9.3	10.0	8.9	8.9	7.4	Diurnal Average	
	19.8	22.7	21.3	26.5	--	15.8	28.4	28.6	139.7	104.1	22.3	26.4	25.0	20.2	25.7	26.6	28.6	31.7	33.9	26.0	33.7	33.4	29.4	31.4	Diurnal Maximum	

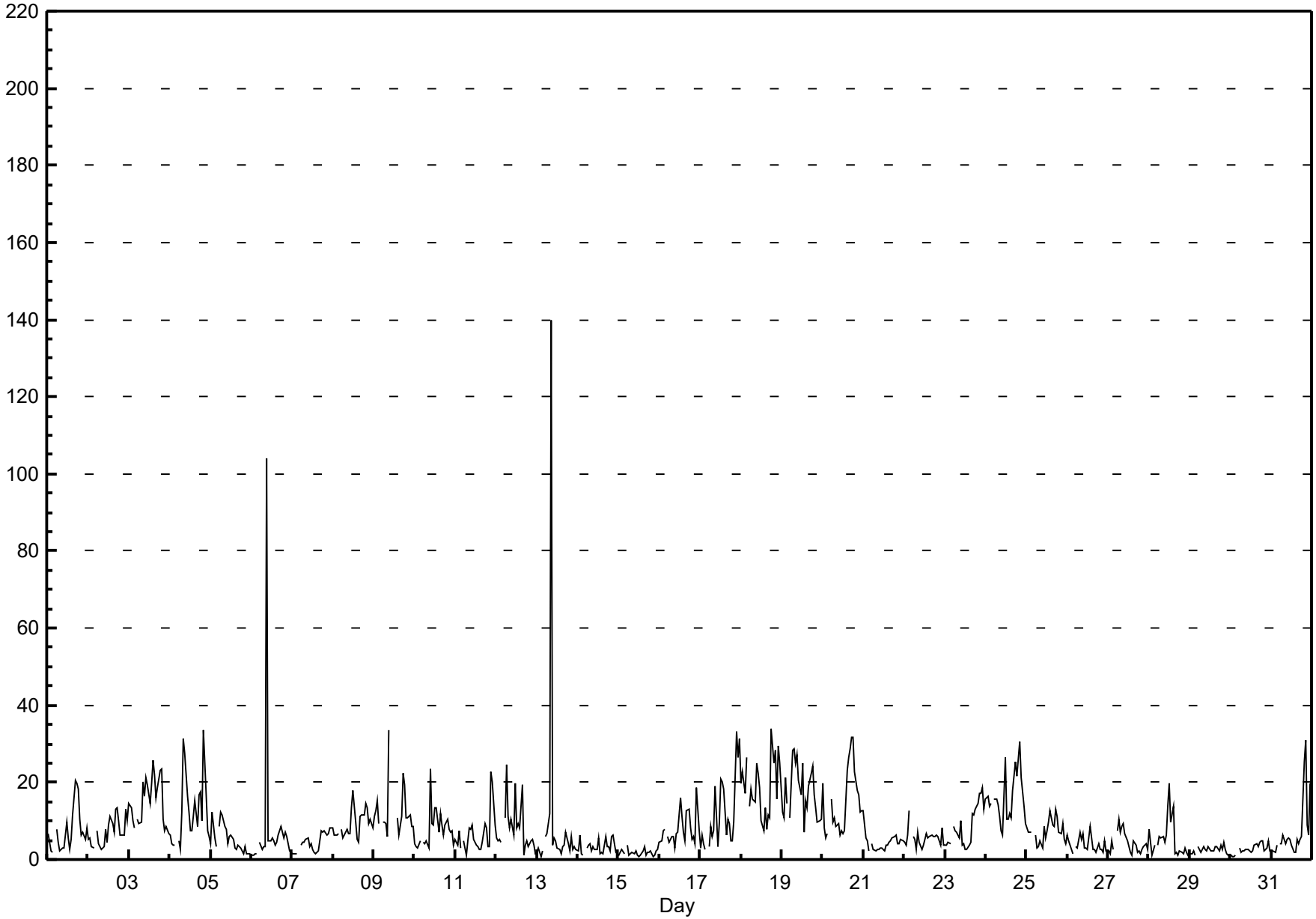
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

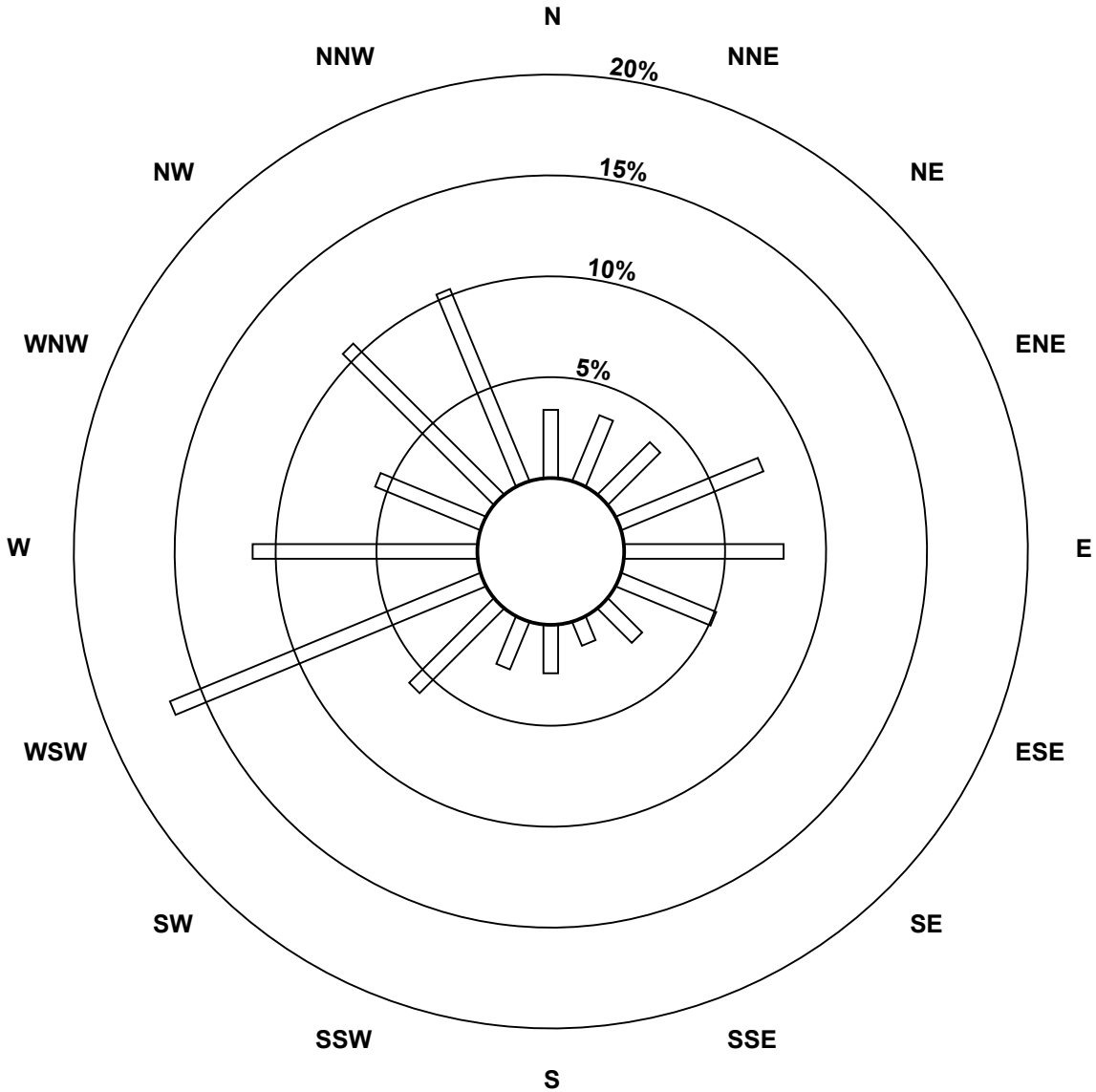
Beaverlodge - January 2017



Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - January 2017



Pollutant Classes (ppb)

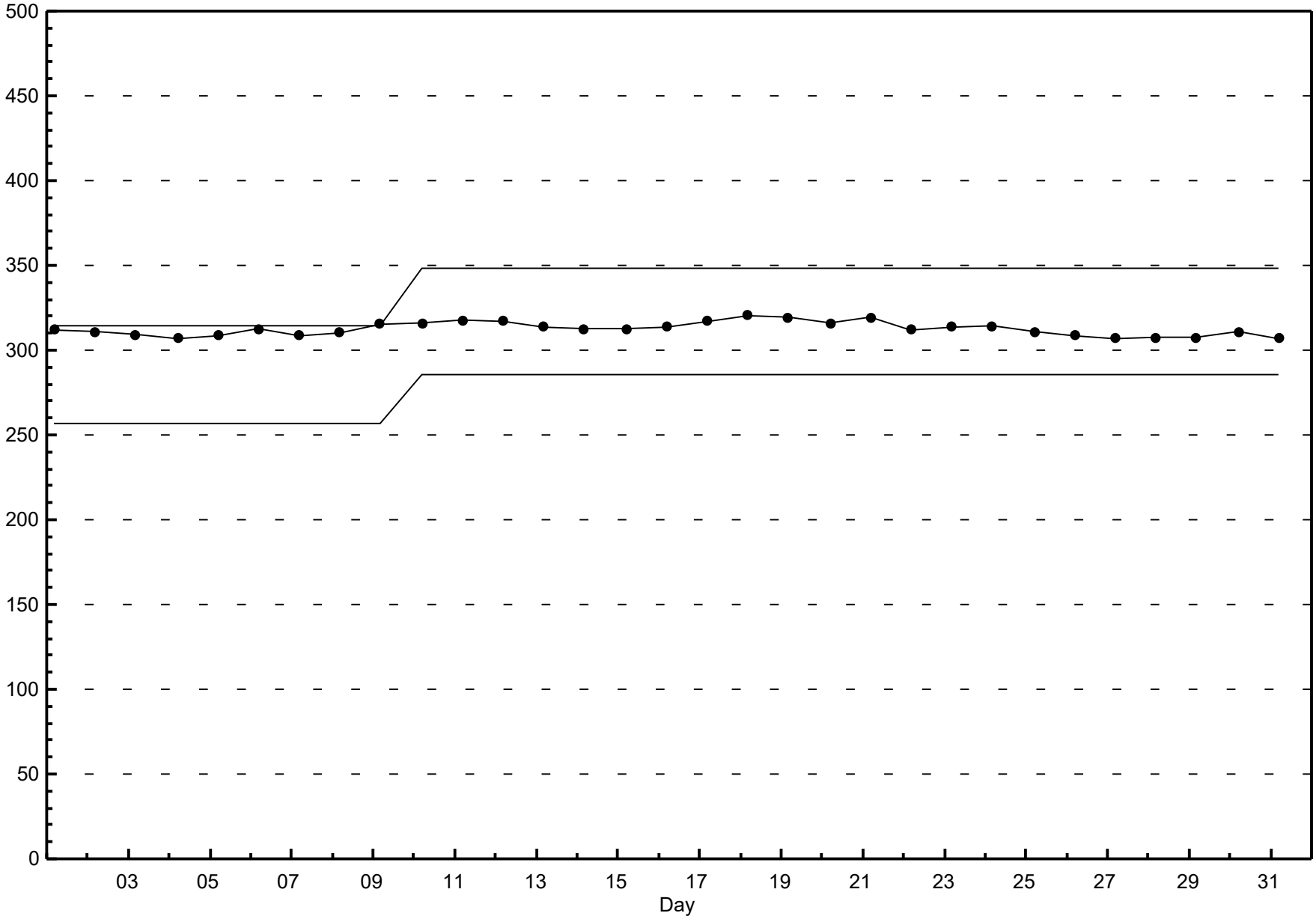
- 0 - 25
- 26 - 50
- 51 - 110
- 111 - 159
- > 159

Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - January 2017

Maximum Value: 12.1 ppb on Jan 20 15:00

Maximum Daily Average: 2.1 ppb on Jan 20

Minimum Value: 0 ppb on Jan 2 03:00

Minimum Daily Average: 0.0 ppb on Jan 15

Maximum Diurnal Average: 2.3 ppb at hour 13

Minimum Diurnal Average: 0.0 ppb at hour 3

Monthly Average: 0.58 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.4$ $P_{90} = 1.7$ $P_{99} = 6.6$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.3	1.5
2-Jan	0	0	0	0	A	0	0	0	0	0	1	1	2	3	2	1	0	0	0	0	0	0	0	0	0.4	3.5
3-Jan	0	0	0	0	A	0	0	0	0	1	4	6	6	4	6	5	1	0	0	0	0	0	0	0	1.5	6.5
4-Jan	0	0	0	0	A	0	0	0	1	1	2	1	1	2	1	1	0	0	0	0	0	0	0	0	0.4	1.6
5-Jan	0	0	0	0	A	0	0	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0.3	2.3
6-Jan	0	0	0	0	A	0	0	0	0	3	1	2	2	1	1	1	0	0	0	0	0	0	0	0	0.5	2.6
7-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.8
8-Jan	0	0	0	0	A	0	0	0	0	0	1	3	5	3	1	1	0	0	0	0	0	0	0	0	0.7	5.0
9-Jan	0	0	0	0	A	0	0	0	0	1	C	C	C	C	2	1	1	0	0	0	0	0	0	0	0.3	2.0
10-Jan	0	0	0	0	A	0	0	0	0	1	1	2	3	6	2	3	0	0	0	0	0	0	0	0	0.8	5.7
11-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	1.1
12-Jan	0	0	0	0	A	0	0	0	0	0	2	5	5	5	3	2	0	0	0	0	0	0	0	0	0.9	4.7
13-Jan	0	0	0	0	A	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.2
14-Jan	0	0	0	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
15-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
16-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.1	0.8
17-Jan	0	0	0	0	A	0	0	0	0	0	0	1	3	5	3	1	0	0	0	0	0	1	0	3	0.7	4.6
18-Jan	0	0	0	0	A	0	0	0	0	8	7	9	5	3	4	2	0	0	0	0	0	0	0	0	1.8	8.8
19-Jan	0	0	0	0	A	0	1	4	3	3	7	5	8	2	3	3	3	1	0	0	0	0	0	0	1.9	8.1
20-Jan	1	0	0	0	A	0	0	0	0	1	1	2	3	3	12	7	11	3	6	0	0	0	0	0	2.1	12.1
21-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.2	0.9
22-Jan	0	0	0	0	A	0	0	0	0	0	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0.3	2.4
23-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0.5	1.3
24-Jan	0	0	0	0	A	0	0	0	0	1	3	10	7	6	6	3	3	1	0	0	6	0	0	0	2.0	10.2
25-Jan	0	0	0	0	A	0	0	0	0	0	1	2	4	5	4	2	1	0	0	0	0	0	0	0	0.8	4.6
26-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0.2	1.6
27-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
28-Jan	0	0	0	0	A	0	0	0	0	0	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0.3	3.0
29-Jan	0	0	0	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
30-Jan	0	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
31-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0.2	1.0
	0.0	0.0	0.0	0.0	--	0.0	0.1	0.2	0.2	0.7	1.2	2.1	2.3	2.0	1.8	1.2	0.8	0.2	0.2	0.0	0.2	0.1	0.1	0.1	Diurnal Average	
	0.8	0.1	0.1	0.4	--	0.1	1.2	3.9	3.2	8.4	7.1	10.2	8.1	6.3	12.1	7.0	10.5	2.9	5.5	0.3	5.6	0.9	0.8	2.6	Diurnal Maximum	

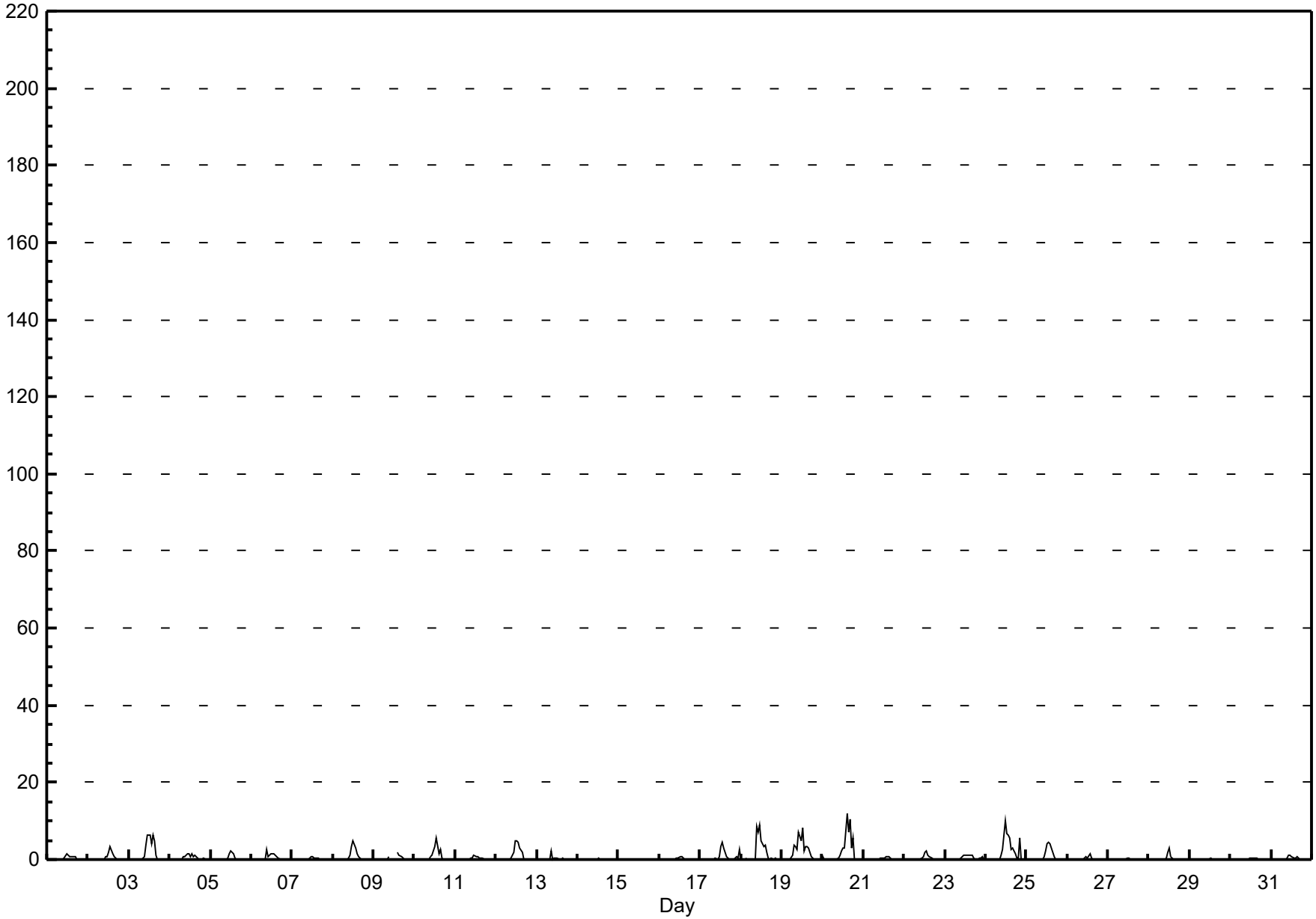
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - January 2017

Maximum Value: 82.7 ppb on Jan 13 09:00

Maximum Daily Average: 9.1 ppb on Jan 20

Minimum Value: 0 ppb on Jan 29 06:00

Minimum Daily Average: 0.2 ppb on Jan 29

Maximum Diurnal Average: 6.8 ppb at hour 12

Minimum Diurnal Average: 0.1 ppb at hour 3

Monthly Average: 2.02 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.3 $Q_3 = 1.0$ $P_{90} = 3.8$ $P_{99} = 36.1$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	0	0	0	0	A	0	0	0	0	0	1	4	2	1	1	1	1	0	0	0	0	0	0	0	0.6	3.7
2-Jan	0	0	0	0	A	0	0	0	0	0	2	1	4	5	4	1	1	0	0	0	0	0	0	0	0.9	5.3
3-Jan	0	0	0	0	A	1	0	0	2	3	9	19	12	15	21	10	4	0	2	1	0	0	0	0	4.4	21.0
4-Jan	0	0	0	0	A	0	0	0	5	3	3	4	2	2	3	2	0	0	0	0	3	0	0	0	1.3	5.4
5-Jan	0	0	0	0	A	0	1	0	1	0	1	2	3	2	1	1	0	0	0	0	1	0	0	0	0.6	2.8
6-Jan	0	0	0	0	A	0	0	0	0	71	1	2	3	3	2	3	1	0	0	0	0	0	0	0	3.8	71.1
7-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0.3	1.3
8-Jan	0	0	0	0	A	0	0	0	0	0	2	12	16	7	2	1	1	0	0	0	0	0	0	0	1.9	16.3
9-Jan	0	0	0	0	A	0	0	0	0	8	C	C	C	C	3	2	1	2	0	0	0	0	0	0	0.9	7.7
10-Jan	0	0	0	0	A	0	0	0	0	3	2	5	9	9	4	5	1	0	0	0	0	0	0	0	1.7	9.4
11-Jan	0	0	0	0	A	0	0	0	0	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0.5	2.2
12-Jan	0	0	0	0	A	0	1	0	0	1	3	22	9	7	4	8	0	0	0	0	0	0	0	0	2.5	21.7
13-Jan	0	0	0	0	A	0	0	0	83	0	1	1	1	2	0	1	0	0	0	0	0	0	0	0	3.9	82.7
14-Jan	0	0	0	0	A	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0.3	1.4
15-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.7
16-Jan	0	0	0	0	A	0	0	0	0	0	1	1	4	4	2	1	0	0	0	0	0	0	0	0	0.6	3.9
17-Jan	0	0	0	0	A	0	1	0	0	2	0	2	11	10	7	1	1	0	0	0	0	8	5	19	3.0	19.0
18-Jan	0	1	0	14	A	0	1	1	1	29	25	28	7	5	12	3	1	0	3	1	2	0	2	1	6.0	29.2
19-Jan	0	0	0	0	A	0	11	16	14	18	12	9	37	3	12	8	7	3	2	1	0	0	0	0	6.7	36.9
20-Jan	8	0	0	0	A	0	0	0	0	2	2	2	4	6	36	44	40	24	36	2	1	0	0	0	9.1	43.8
21-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.3
22-Jan	0	0	0	0	A	0	0	0	0	0	1	2	3	4	2	2	1	0	0	0	0	0	0	0	0.7	3.9
23-Jan	0	0	0	0	A	0	0	0	0	1	1	2	2	2	2	1	2	2	1	0	1	1	2	0	1.0	2.4
24-Jan	1	0	0	1	A	0	1	1	2	2	4	69	11	10	8	4	6	5	1	3	28	1	0	0	6.9	68.8
25-Jan	0	0	0	0	A	0	0	0	0	0	3	3	5	7	8	3	2	0	0	0	0	0	0	0	1.5	8.3
26-Jan	0	0	0	0	A	0	0	1	0	1	1	1	1	5	2	1	0	0	1	0	0	0	0	0	0.7	5.0
27-Jan	0	0	0	0	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.8
28-Jan	0	0	0	0	A	0	0	0	0	0	1	5	12	3	0	0	0	0	0	0	0	0	0	0	1.0	12.3
29-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
30-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.3	1.3
31-Jan	0	0	0	0	A	0	0	0	0	1	2	2	1	1	1	1	1	0	0	1	1	0	0	0	0.5	1.9
	0.3	0.1	0.1	0.5	--	0.1	0.6	0.7	3.6	4.8	2.7	6.8	5.5	3.9	4.6	3.5	2.4	1.4	1.6	0.4	1.3	0.4	0.4	0.7	Diurnal Average	
	7.7	0.8	0.4	13.5	--	0.9	10.7	16.2	82.7	71.1	25.2	68.8	36.9	15.1	36.4	43.8	39.5	24.4	35.8	2.8	28.4	7.6	4.5	19.0	Diurnal Maximum	

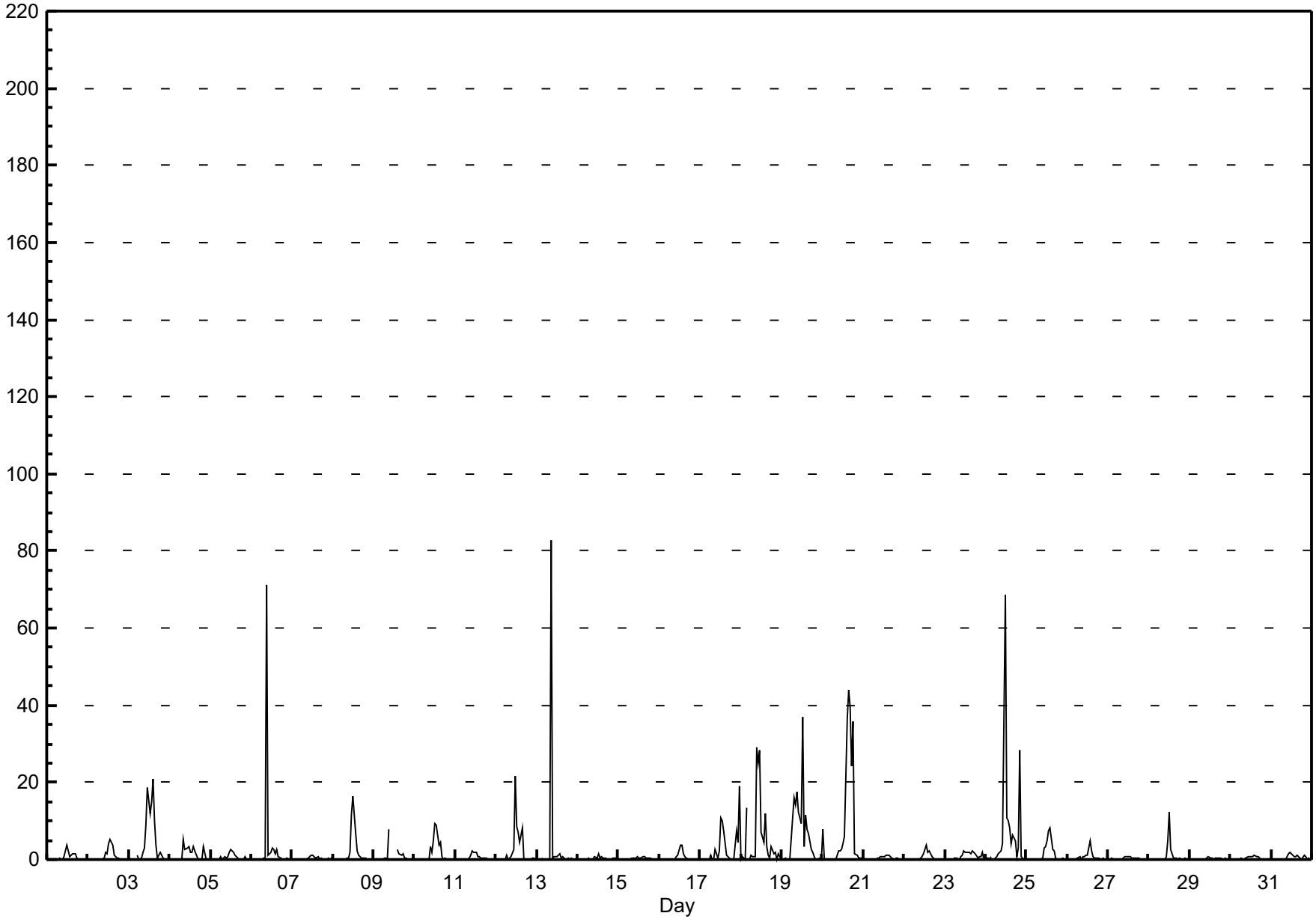
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - January 2017

Maximum Value: 29.3 ppb on Jan 20 17:00

Maximum Daily Average: 13.8 ppb on Jan 19

Minimum Value: 0 ppb on Jan 30 02:00

Minimum Daily Average: 0.7 ppb on Jan 15

Maximum Diurnal Average: 6.7 ppb at hour 18

Minimum Diurnal Average: 3.4 ppb at hour 4

Monthly Average: 5.29 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.9$ $Q_1 = 1.7$ Median = 3.9 $Q_3 = 7.1$ $P_{90} = 12.3$ $P_{99} = 24.2$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	4	3	2	2	A	5	2	2	2	3	3	6	4	3	4	5	13	11	8	5	4	4	4	5	4.4	12.6
2-Jan	3	4	3	2	A	4	4	2	2	3	5	4	7	12	6	6	8	10	8	6	6	6	8	7	5.5	11.8
3-Jan	10	8	8	6	A	6	6	8	11	10	15	17	16	12	20	19	13	15	9	13	7	6	6	5	10.6	19.5
4-Jan	4	3	3	3	A	4	2	9	20	14	13	9	4	8	4	8	6	9	9	5	12	7	6	5	7.2	19.9
5-Jan	4	5	3	2	A	6	8	8	6	3	3	7	8	6	2	2	2	2	1	1	1	1	1	1	3.6	7.9
6-Jan	1	1	1	2	A	3	2	3	3	10	5	6	5	5	4	4	5	6	6	5	6	4	2	2	4.0	9.7
7-Jan	1	1	1	1	A	3	3	4	4	4	3	4	3	2	2	2	2	6	6	6	5	6	7	8	3.6	7.7
8-Jan	7	5	5	4	A	6	5	5	5	6	6	10	12	9	5	4	7	7	8	8	9	8	9	7	6.8	12.5
9-Jan	7	8	6	5	A	6	6	6	5	8	C	C	C	C	8	6	8	18	11	6	7	7	5	4	7.2	17.8
10-Jan	2	1	1	2	A	2	2	2	2	8	7	7	9	15	6	11	4	3	6	7	7	5	4	1	4.9	14.7
11-Jan	2	3	3	1	A	3	1	2	3	4	4	4	3	3	2	3	4	7	5	2	2	7	10	6	3.6	9.7
12-Jan	4	3	4	4	A	8	10	10	6	8	7	11	11	11	8	7	1	1	2	1	1	1	1	1	5.3	11.4
13-Jan	0	1	0	1	A	2	3	6	8	2	3	3	1	1	1	1	1	3	2	1	1	1	1	1	2.0	7.9
14-Jan	1	2	1	1	A	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0	1.1	2.1
15-Jan	0	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0.7	1.6
16-Jan	3	2	1	3	A	2	2	2	2	2	3	5	4	4	3	2	3	6	5	4	4	3	8	4	3.4	8.0
17-Jan	2	3	2	1	A	2	2	3	4	5	2	5	13	16	12	6	6	6	4	4	6	14	11	24	6.6	24.2
18-Jan	15	15	13	14	A	13	13	13	11	25	21	19	12	9	11	9	6	5	16	14	12	9	8	8	12.7	25.1
19-Jan	8	8	12	12	A	8	17	23	22	16	25	18	20	8	11	14	17	17	18	11	8	9	8	8	13.8	24.5
20-Jan	10	7	5	5	A	12	8	7	6	6	6	8	8	8	25	15	29	21	24	18	13	11	10	9	11.8	29.3
21-Jan	9	4	3	2	A	3	2	2	2	2	3	3	3	3	4	5	4	5	5	5	4	4	4	4	3.7	9.3
22-Jan	4	3	4	3	A	2	3	2	3	2	2	3	5	7	5	3	4	5	4	4	4	3	4	3	3.5	6.9
23-Jan	3	3	4	4	A	5	6	5	4	5	4	4	4	3	4	4	8	9	10	11	16	15	17	13	6.9	17.0
24-Jan	14	15	12	12	A	13	12	10	8	7	9	17	14	14	14	10	16	19	18	18	25	14	12	9	13.6	24.8
25-Jan	7	6	6	6	A	4	3	3	3	3	4	6	11	11	11	7	7	6	5	4	4	3	2	2	5.4	11.3
26-Jan	2	3	1	1	A	2	1	1	1	2	2	2	2	5	1	1	1	1	1	1	1	1	1	1	1.5	5.0
27-Jan	1	1	1	1	A	4	6	5	4	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1.9	5.6
28-Jan	2	1	1	2	A	3	3	3	3	3	4	9	9	5	4	1	1	1	1	1	1	1	1	0	2.5	8.8
29-Jan	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1.0	2.0
30-Jan	0	0	0	0	A	2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	2	3	1	1.4	2.6
31-Jan	1	1	1	2	A	3	3	2	3	4	5	4	3	2	2	3	3	4	5	9	15	4	3	7	3.9	14.7
	4.3	3.9	3.6	3.4	--	4.6	4.5	4.9	5.1	5.5	5.7	6.6	6.6	6.2	5.9	5.2	6.0	6.7	6.5	5.7	6.0	5.1	5.1	4.8	Diurnal Average	
	14.5	15.3	13.4	13.6	--	13.5	17.2	23.3	22.1	25.1	24.5	19.3	19.8	15.7	24.5	19.1	29.3	20.5	24.3	18.1	24.8	14.6	17.0	24.2	Diurnal Maximum	

C - Calibration

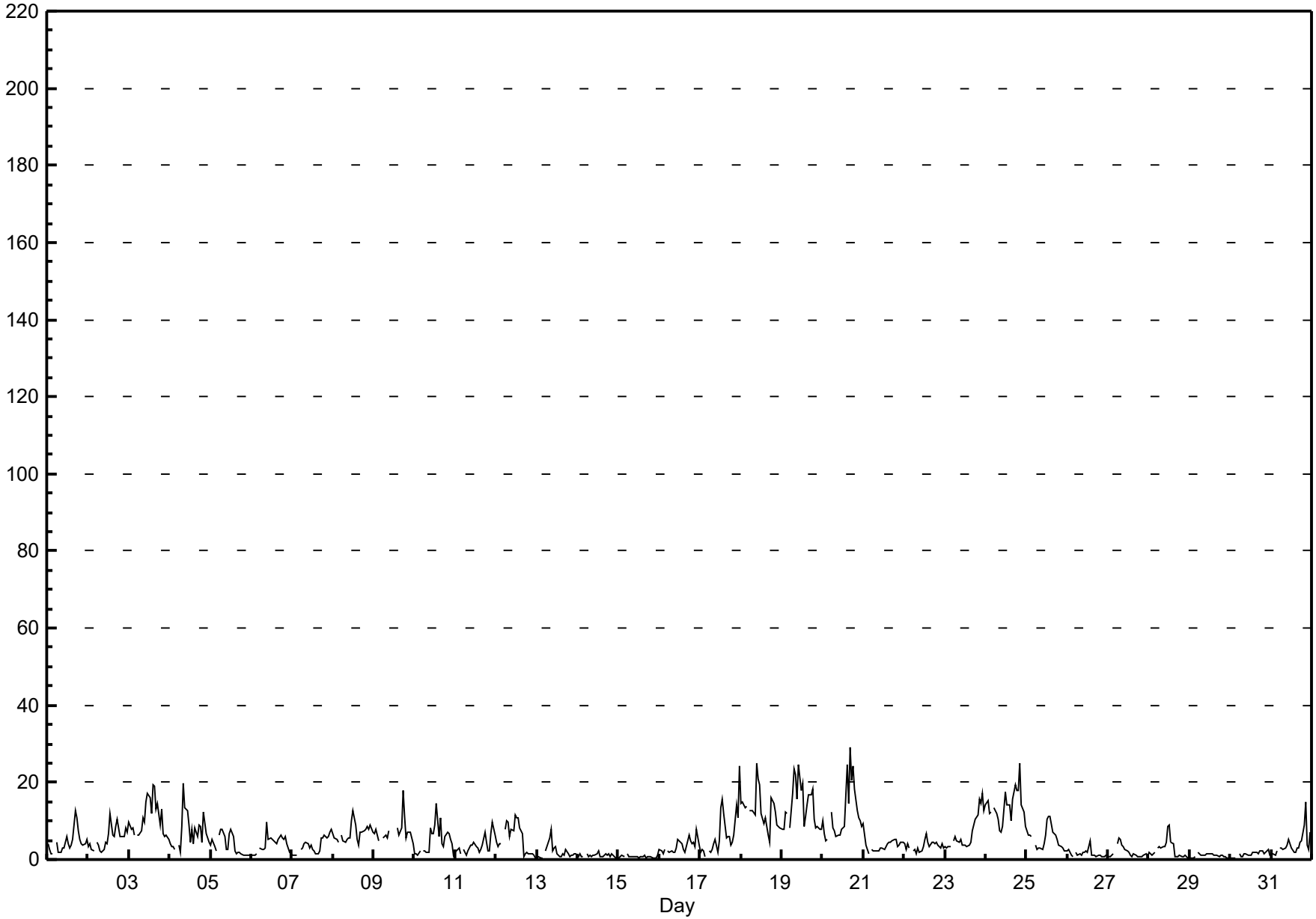
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - January 2017

Maximum Value: 208.3 ppb on Jan 13 09:00

Maximum Daily Average: 24.6 ppb on Jan 18

Minimum Value: 1 ppb on Jan 15 21:00

Minimum Daily Average: 2.0 ppb on Jan 15

Maximum Diurnal Average: 16.9 ppb at hour 10

Minimum Diurnal Average: 5.7 ppb at hour 3

Monthly Average: 10.15 ppb

Percentiles: P_1 = 1.1 P_{10} = 2.3 Q_1 = 3.5 Median = 6.3 Q_3 = 11.6 P_{90} = 21.3 P_{99} = 58.6

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	7	4	2	2	A	8	4	2	3	3	3	14	8	3	6	13	22	20	18	10	6	7	5	8	7.9	21.8
2-Jan	5	6	3	3	A	8	4	3	3	4	10	6	13	17	13	8	13	14	11	6	7	6	13	10	8.1	16.6
3-Jan	15	13	10	8	A	11	9	10	22	19	28	37	26	35	47	31	18	19	25	25	10	7	8	7	19.2	46.6
4-Jan	6	4	4	4	A	5	3	12	34	30	19	16	10	9	15	18	9	17	18	10	37	16	8	6	13.5	37.1
5-Jan	4	13	6	3	A	9	13	12	9	8	5	8	9	7	4	3	4	3	3	2	4	2	2	2	5.8	13.0
6-Jan	1	1	2	2	A	4	3	4	3	157	6	7	9	8	5	7	7	9	7	6	7	6	2	2	11.5	156.6
7-Jan	2	1	1	2	A	4	5	5	5	6	4	6	4	3	2	3	5	8	7	8	6	7	8	9	4.7	8.6
8-Jan	8	7	6	7	A	8	6	7	8	7	8	24	34	16	8	5	12	12	12	15	14	9	10	8	10.9	34.2
9-Jan	11	13	15	9	A	10	10	9	6	38	C	C	C	C	13	8	12	23	20	11	11	12	8	9	13.1	38.3
10-Jan	4	3	3	5	A	4	4	5	3	27	11	14	23	22	11	16	10	6	9	10	8	7	7	4	9.4	26.8
11-Jan	5	4	8	3	A	5	1	5	8	9	10	7	6	4	3	3	5	10	8	4	3	23	20	9	7.1	22.8
12-Jan	6	5	5	5	A	11	25	11	8	11	9	41	16	16	13	27	1	4	5	3	5	5	4	1	10.4	41.5
13-Jan	2	3	1	2	A	6	6	12	208	4	7	6	4	4	2	4	4	7	4	2	6	3	3	3	13.2	208.3
14-Jan	2	6	1	1	A	3	4	4	2	4	4	3	7	2	2	2	6	3	4	2	6	7	2	2	3.5	7.1
15-Jan	1	2	3	2	A	4	1	2	2	2	3	2	1	2	3	3	1	2	2	3	1	1	2	3	2.0	3.7
16-Jan	5	5	7	8	A	6	5	6	6	3	7	8	20	15	9	6	13	13	8	5	6	4	19	8	8.3	20.1
17-Jan	3	6	4	3	A	4	10	6	7	21	4	12	32	30	26	7	11	10	5	5	10	41	31	49	14.6	49.4
18-Jan	20	24	17	40	A	14	19	16	15	53	47	46	17	12	25	11	13	11	37	26	30	16	30	25	24.6	53.4
19-Jan	12	11	21	14	A	11	39	42	38	44	33	26	61	10	27	21	23	24	26	17	13	10	10	10	23.7	61.4
20-Jan	26	8	6	7	A	16	10	11	9	12	8	9	11	13	60	70	68	55	66	23	19	17	13	13	23.8	70.5
21-Jan	13	5	5	2	A	4	3	2	3	3	4	4	3	5	5	6	5	6	6	6	4	4	5	5	4.7	12.9
22-Jan	4	4	6	13	A	6	5	3	7	5	3	5	8	10	8	8	7	6	6	6	6	4	8	4	6.2	12.8
23-Jan	4	4	5	4	A	9	8	7	6	11	5	7	5	4	6	6	14	13	15	15	18	18	20	13	9.3	20.3
24-Jan	16	17	14	15	A	16	16	15	13	9	10	92	21	20	20	15	21	30	22	29	56	22	14	9	22.3	91.9
25-Jan	8	7	7	7	A	6	3	3	5	3	12	9	12	17	21	12	11	13	11	7	7	10	5	4	8.7	20.7
26-Jan	6	5	2	2	A	3	3	8	5	7	4	4	4	13	8	3	3	2	4	3	3	2	5	2	4.5	13.3
27-Jan	2	2	5	2	A	8	11	7	9	10	8	6	4	3	2	5	4	2	3	2	3	3	4	3	4.5	10.7
28-Jan	8	5	1	4	A	4	6	5	6	5	7	18	32	10	14	2	2	2	3	2	2	3	2	1	6.2	32.0
29-Jan	2	2	2	1	A	3	2	3	4	3	3	4	3	3	2	4	4	3	4	3	5	3	2	1	2.7	4.8
30-Jan	1	1	1	1	A	3	2	2	2	3	3	3	3	3	5	5	4	5	5	5	2	3	5	2	3.0	5.1
31-Jan	2	3	2	4	A	4	4	6	4	6	7	7	5	3	3	6	5	5	6	26	31	9	6	20	7.7	31.5
	6.8	6.1	5.7	6.0	--	7.0	7.9	8.0	15.0	16.9	9.7	15.0	13.6	10.7	12.4	11.0	10.8	11.5	12.2	9.6	11.1	9.3	9.2	8.1	Diurnal Average	
	26.2	23.6	21.4	40.0	--	15.9	39.1	42.4	208.3	156.6	46.9	91.9	61.4	35.0	59.5	70.5	68.0	55.3	66.3	28.7	55.8	40.7	31.1	49.4	Diurnal Maximum	

C - Calibration

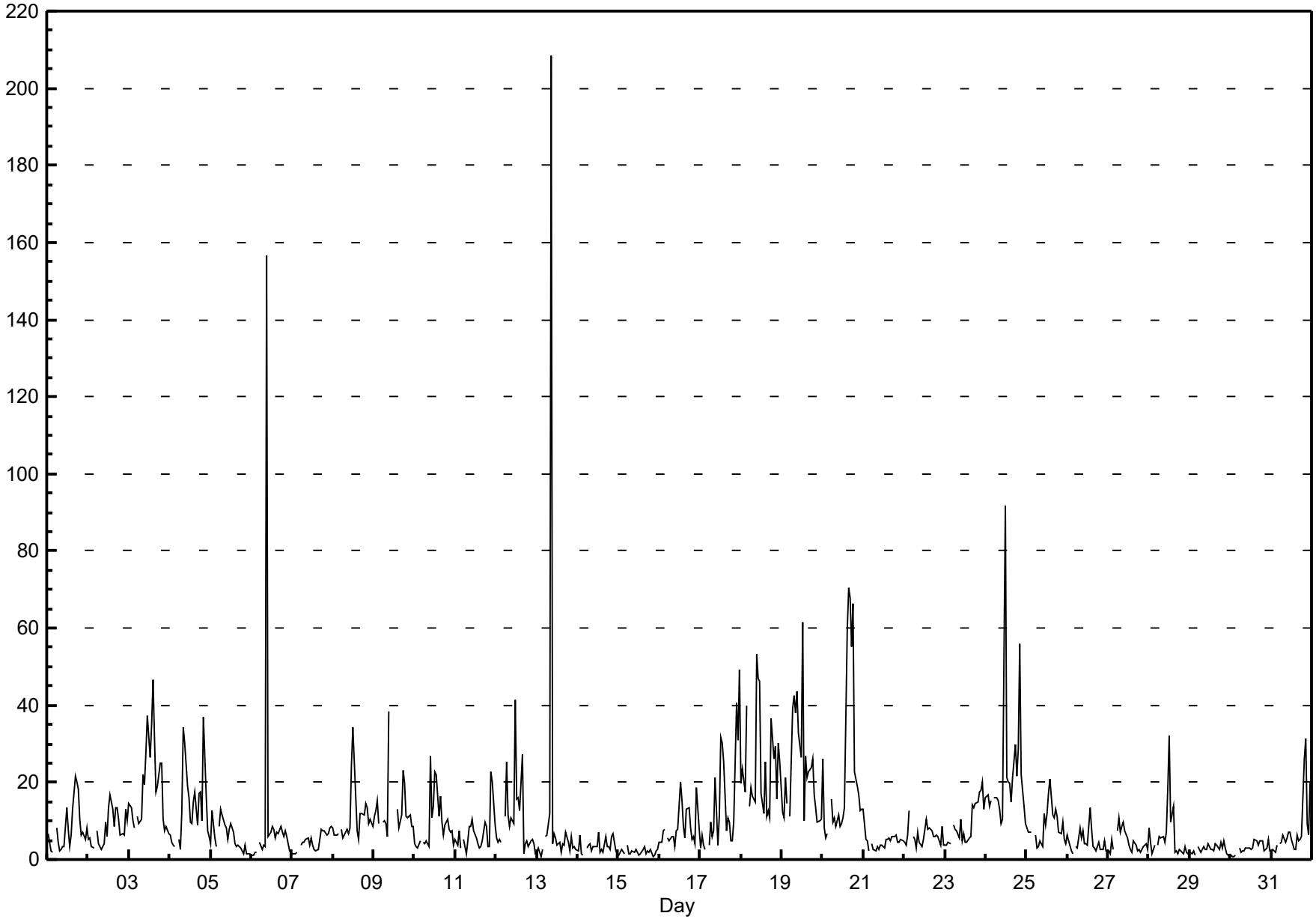
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - January 2017

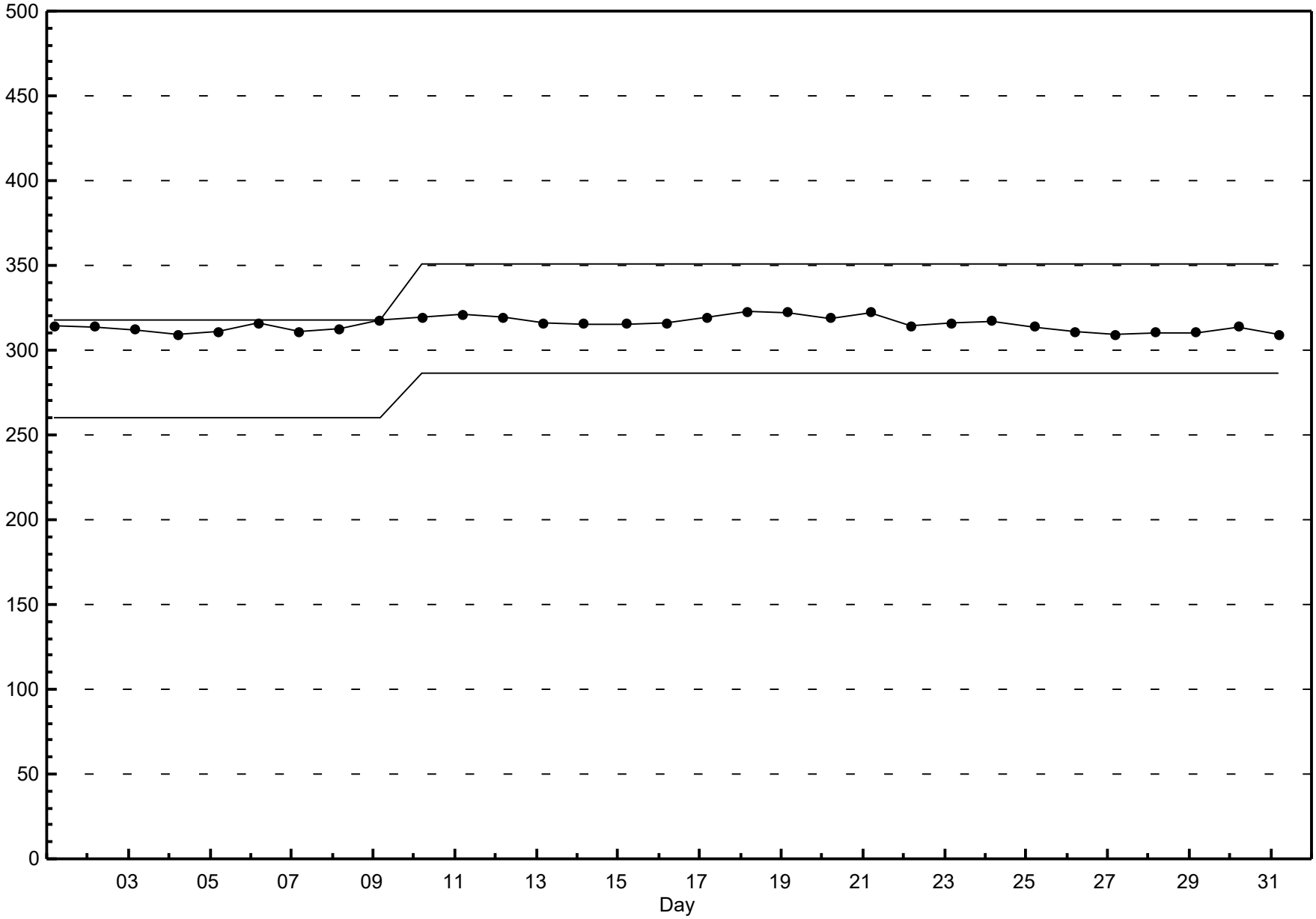


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 45.2 ppb on Jan 16 07:00
Maximum Daily Average: 42.9 ppb on Jan 14

Minimum Value: 6 ppb on Jan 23 23:00
Maximum Diurnal Average: 33.6 ppb at hour 16
Monthly Average: 31.31 ppb

Minimum Daily Average: 16.6 ppb on Jan 23
Minimum Diurnal Average: 29.9 ppb at hour 8
Percentiles: P_1 = 8.0 P_{10} = 19.2 Q_1 = 26.0 Median = 31.8 Q_3 = 38.9 P_{90} = 41.5 P_{99} = 44.2

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	33	34	35	35	A	33	35	35	35	35	35	34	35	36	36	34	27	28	29	33	33	33	34	30	33.4	35.9
2-Jan	31	30	31	31	A	31	31	33	34	33	31	33	31	28	32	32	31	28	30	30	29	31	27	26	30.6	34.0
3-Jan	21	24	21	21	A	21	21	19	18	22	19	18	20	23	20	18	21	23	27	22	28	28	28	27	22.2	28.3
4-Jan	28	28	27	28	A	28	30	25	16	21	25	30	34	32	36	32	34	30	30	36	25	29	28	28	28.7	35.7
5-Jan	29	27	29	29	A	26	22	23	26	32	33	28	28	30	33	35	34	32	32	31	31	28	26	28	29.2	35.4
6-Jan	29	29	28	27	A	28	27	28	27	26	24	25	27	28	27	27	25	24	25	26	25	27	30	31	26.9	30.6
7-Jan	31	32	32	33	A	33	31	30	30	30	31	31	32	32	33	33	32	29	29	29	29	28	26	26	30.5	32.8
8-Jan	27	27	27	28	A	29	29	29	29	28	29	26	26	29	31	32	28	27	24	24	23	24	22	24	27.2	31.8
9-Jan	25	25	26	29	A	29	29	28	29	28	28	30	C	C	C	32	30	23	28	32	31	30	31	32	28.8	32.5
10-Jan	36	36	36	37	A	39	38	38	37	32	33	35	33	30	34	31	35	35	33	31	31	32	33	38	34.4	38.7
11-Jan	37	38	37	38	A	38	39	38	37	38	38	38	40	40	41	41	40	37	39	41	41	36	32	34	38.1	41.2
12-Jan	35	36	35	34	A	30	28	28	30	27	28	28	29	30	33	38	43	42	41	41	41	41	41	42	34.8	42.8
13-Jan	42	41	42	42	A	40	39	37	39	40	39	39	41	42	42	42	42	40	41	42	42	42	42	41	40.7	42.2
14-Jan	42	41	43	43	A	44	44	44	44	44	43	43	43	43	43	43	42	43	42	43	42	42	42	42	42.9	44.3
15-Jan	42	41	40	41	A	40	40	40	39	39	40	40	40	40	40	40	40	40	40	40	41	41	42	41	40.4	42.1
16-Jan	40	41	42	42	A	45	45	45	45	45	44	42	44	42	43	43	41	38	38	39	38	40	34	36	41.4	45.2
17-Jan	36	34	33	34	A	34	34	33	32	30	35	32	26	25	28	33	32	32	33	31	28	20	21	9	29.9	35.8
18-Jan	15	13	14	17	A	17	17	15	17	10	17	20	26	29	29	31	35	38	24	23	25	28	30	30	22.6	37.9
19-Jan	29	28	22	23	A	29	16	10	8	19	9	17	14	17	17	16	11	13	14	19	20	18	16	16	17.5	28.8
20-Jan	16	23	24	24	A	17	18	19	20	19	22	24	27	28	23	28	13	18	16	19	25	26	26	27	21.8	28.0
21-Jan	17	19	21	23	A	24	24	24	25	26	26	27	28	28	28	27	27	27	27	26	27	27	26	25	25.2	28.4
22-Jan	25	25	24	25	A	26	26	27	25	26	26	25	24	22	23	24	23	22	22	21	22	22	21	21	23.8	26.6
23-Jan	21	21	20	20	A	19	17	18	17	17	19	20	21	21	21	20	18	15	13	15	8	10	6	9	16.6	21.3
24-Jan	7	6	8	7	A	7	7	8	13	17	21	22	23	27	28	32	24	17	16	18	12	19	21	25	16.8	31.6
25-Jan	27	28	27	27	A	32	31	30	29	30	30	31	29	29	31	32	34	35	36	38	37	38	39	40	32.1	39.8
26-Jan	39	39	40	40	A	40	40	39	39	39	38	38	39	39	41	41	41	42	42	41	40	41	40	40	40.0	42.4
27-Jan	40	41	40	40	A	39	36	36	39	40	42	42	42	43	43	42	42	42	43	43	42	42	41	41	40.9	43.3
28-Jan	40	41	41	39	A	40	39	39	39	40	39	37	37	40	42	44	43	42	41	41	40	39	39	39	40.0	43.6
29-Jan	39	38	37	37	A	36	36	36	35	35	35	35	35	35	38	37	37	37	40	40	40	37	38	38	37.1	40.2
30-Jan	38	39	38	38	A	38	40	39	41	42	42	42	42	42	42	41	41	40	40	40	40	39	38	39	40.1	42.2
31-Jan	37	38	37	36	A	36	35	35	35	35	34	36	37	39	39	39	38	36	35	31	26	36	36	31	35.5	39.5
	30.7	30.9	30.9	31.1	--	31.2	30.5	29.9	30.0	30.5	30.8	31.2	31.8	32.3	33.3	33.6	32.3	31.5	31.4	31.9	31.2	31.4	30.8	30.9	Diurnal Average	
	42.1	41.5	42.7	42.6	--	44.5	45.2	44.6	45.1	44.8	44.0	43.0	44.0	43.3	43.3	43.6	42.9	42.9	43.1	43.1	42.4	42.1	42.3	42.3	Diurnal Maximum	

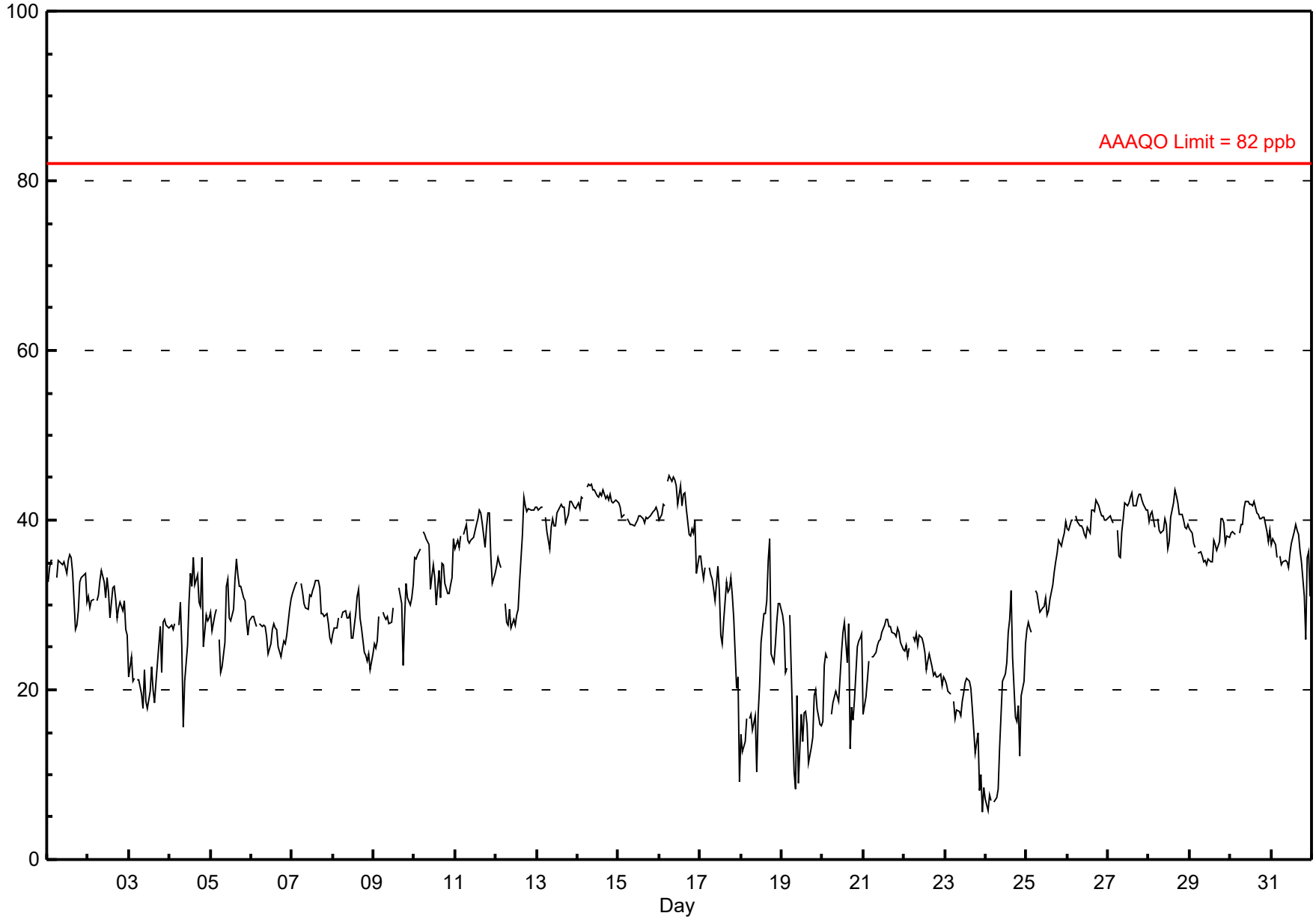
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - January 2017

Maximum Value: 46.4 ppb on Jan 16 07:00

Maximum Daily Average: 43.8 ppb on Jan 14

Minimum Value: 7 ppb on Jan 24 02:00

Minimum Daily Average: 18.3 ppb on Jan 23

Maximum Diurnal Average: 35.9 ppb at hour 16

Minimum Diurnal Average: 31.9 ppb at hour 8

Monthly Average: 33.51 ppb

Percentiles: P_1 = 8.8 P_{10} = 22.7 Q_1 = 28.2 Median = 34.2 Q_3 = 40.5 P_{90} = 42.8 P_{99} = 45.7

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	35	36	36	36	A	35	36	36	36	35	36	36	37	36	37	36	34	34	35	35	34	36	35	35	35.4	36.7
2-Jan	33	32	32	33	A	32	32	34	35	34	33	34	34	31	34	35	33	30	31	31	30	31	31	29	32.4	34.5
3-Jan	25	26	22	22	A	22	23	21	22	28	27	26	26	26	26	30	26	30	33	32	30	29	30	28	26.6	32.5
4-Jan	30	30	29	30	A	29	32	31	25	31	31	35	36	34	37	36	36	34	36	38	31	33	30	31	32.3	37.8
5-Jan	31	30	30	31	A	29	28	25	34	34	34	30	30	31	36	37	35	33	33	32	31	30	27	29	31.3	36.5
6-Jan	29	29	29	28	A	28	28	28	28	28	25	27	28	29	28	28	28	25	26	27	26	29	30	31	28.0	31.4
7-Jan	32	32	33	33	A	33	33	31	30	31	32	32	32	33	34	33	33	30	30	30	30	29	28	26	31.4	34.1
8-Jan	28	28	28	30	A	29	30	30	30	30	30	29	29	31	32	33	33	29	27	26	25	25	24	25	28.9	32.9
9-Jan	27	27	28	31	A	30	30	30	29	29	29	31	C	C	C	34	32	28	32	34	33	34	33	36	30.9	35.8
10-Jan	36	37	37	38	A	40	40	39	38	38	36	37	36	32	36	34	37	36	34	34	33	34	36	39	36.4	40.4
11-Jan	39	39	38	40	A	40	40	39	39	40	39	39	40	41	42	42	41	39	41	41	42	40	38	36	39.9	42.1
12-Jan	36	36	35	35	A	32	31	29	31	29	29	30	30	32	38	43	43	43	42	43	42	43	42	42	36.4	43.3
13-Jan	42	42	42	42	A	41	41	41	41	41	41	41	42	42	43	42	43	42	42	43	43	43	42	42	41.9	43.5
14-Jan	43	42	43	44	A	45	45	45	45	45	44	44	44	44	44	44	44	44	44	44	43	43	43	43	43.8	45.1
15-Jan	43	42	41	41	A	41	40	40	40	40	40	41	41	41	41	41	41	41	41	41	41	42	42	42	41.1	42.7
16-Jan	42	43	43	43	A	46	46	46	46	46	46	46	46	44	45	45	44	43	41	41	42	41	40	38	43.7	46.4
17-Jan	37	36	34	36	A	35	36	35	34	35	36	36	34	32	32	34	34	34	34	33	30	31	25	20	33.2	37.4
18-Jan	21	21	18	23	A	19	20	20	21	23	23	24	29	30	32	33	39	41	41	32	31	33	39	39	28.3	40.8
19-Jan	34	33	27	26	A	31	30	23	21	28	15	33	18	18	23	21	16	17	21	22	22	21	18	17	23.2	34.0
20-Jan	28	28	26	25	A	21	21	22	22	21	23	27	28	31	34	36	27	25	27	24	29	29	32	32	26.9	36.0
21-Jan	26	20	23	24	A	24	24	25	26	26	27	28	28	29	29	28	28	28	27	28	28	27	26	25	26.4	29.3
22-Jan	25	26	26	27	A	27	27	27	27	28	27	26	26	24	25	25	24	23	23	23	23	23	22	22	25.1	27.9
23-Jan	22	21	21	21	A	20	18	19	19	19	20	21	21	22	22	21	20	17	15	21	11	13	9	9	18.3	21.9
24-Jan	8	7	8	9	A	9	9	10	16	18	23	25	25	30	32	35	28	27	23	23	20	21	24	26	19.8	35.0
25-Jan	28	29	29	28	A	33	32	31	30	30	31	32	30	30	35	35	39	41	40	39	38	40	40	41	34.0	41.0
26-Jan	41	40	41	41	A	41	40	40	40	40	39	40	41	41	42	43	42	44	43	43	41	41	41	42	41.2	43.5
27-Jan	41	41	41	41	A	41	40	38	42	43	45	44	44	44	44	43	43	43	44	43	43	43	43	42	42.5	44.6
28-Jan	42	44	42	41	A	42	40	40	41	42	41	42	45	45	45	45	44	43	42	41	41	40	40	40	42.1	45.1
29-Jan	40	39	38	38	A	37	38	37	37	36	36	37	36	37	40	39	38	39	42	42	41	38	39	39	38.5	41.9
30-Jan	39	39	39	39	A	40	41	41	43	43	43	43	43	43	43	43	42	42	42	42	41	40	39	40	41.3	43.3
31-Jan	38	39	38	37	A	36	36	37	36	37	36	38	38	40	40	40	40	38	36	36	36	37	37	37	37.5	40.2
	32.9	32.8	32.3	32.6	--	32.7	32.5	31.9	32.3	33.2	32.9	34.0	33.9	34.1	35.7	35.9	35.1	34.3	34.4	34.3	33.4	33.6	33.1	33.1	Diurnal Average	
	42.8	43.7	43.4	43.7	--	46.0	46.4	46.1	46.0	45.8	46.3	45.5	46.1	45.0	45.4	45.0	44.0	44.0	43.9	43.7	43.5	43.2	43.0	43.1	Diurnal Maximum	

C - Calibration

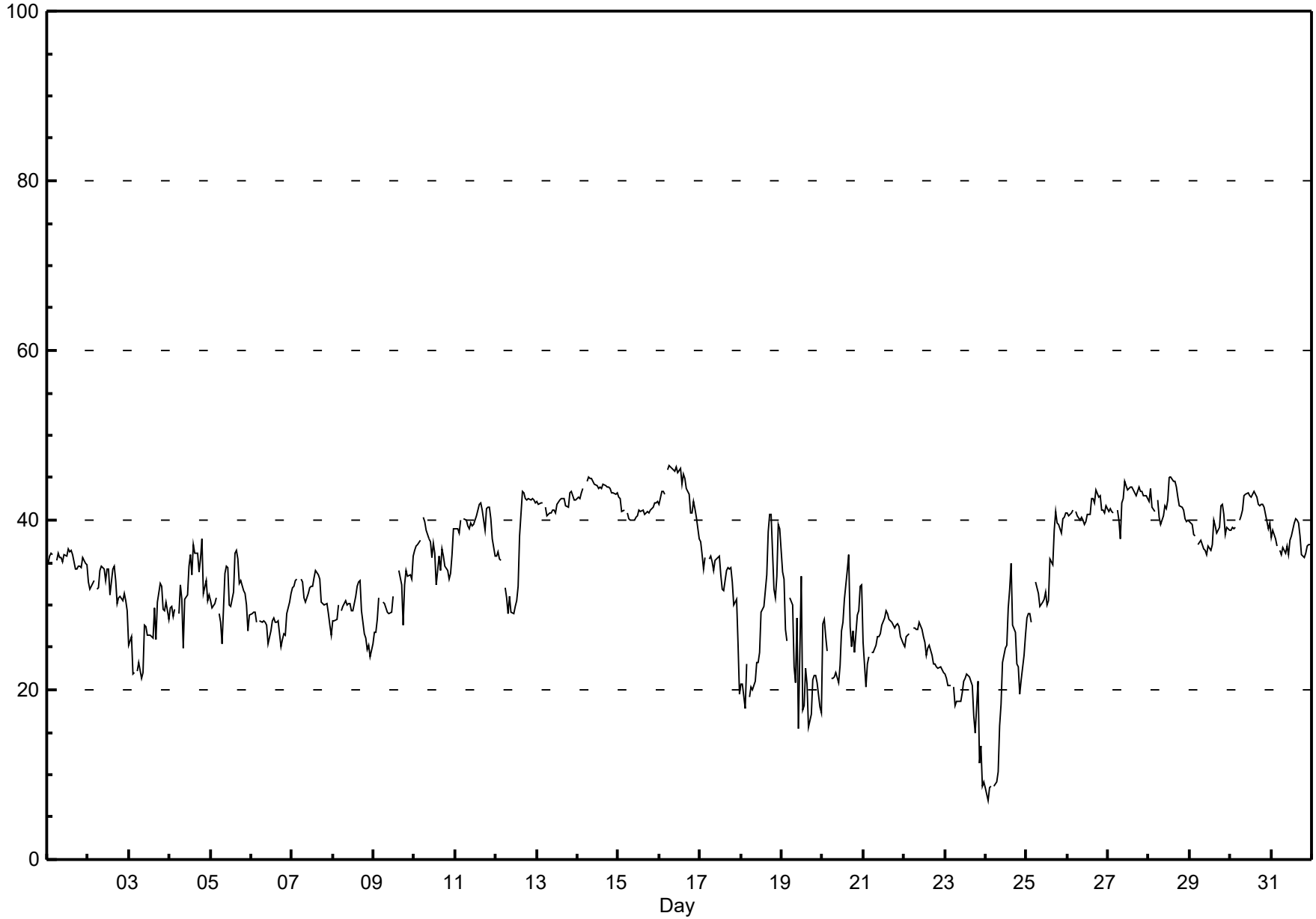
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

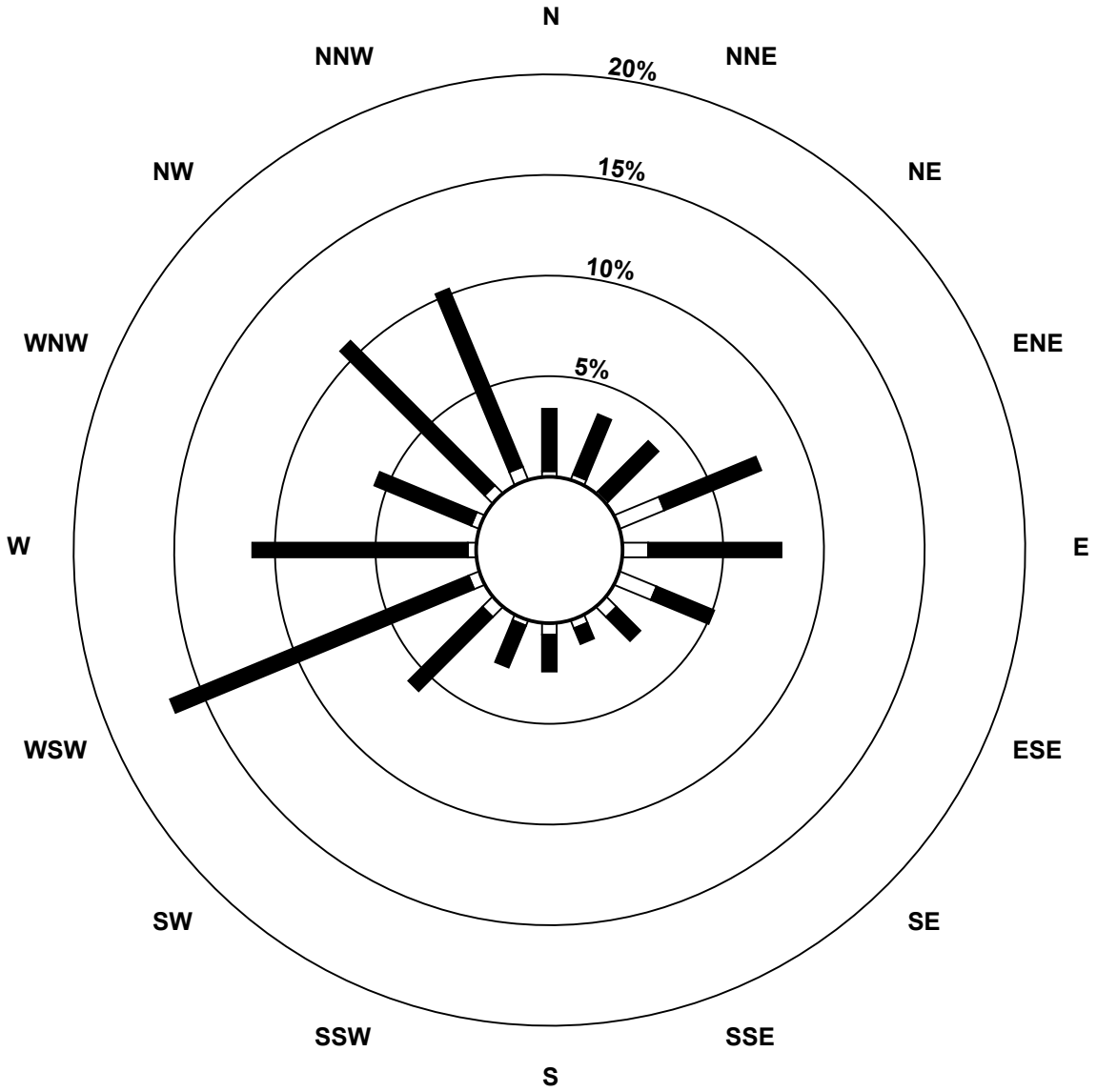
Beaverlodge - January 2017



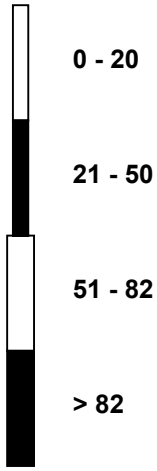
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - January 2017



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - January 2017

Maximum Value: 44.3 ppb on Jan 16 12:00

Minimum Value: 6.9 ppb on Jan 24 06:00

Percentiles: P_1 = 9.0 P_{10} = 19.8 Q_1 = 26.0 Median = 31.6 Q_3 = 39.0 P_{90} = 41.3 P_{99} = 43.7

Hours in Service:	744
Hours of Data:	738
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-Jan	36	35	35	35	35	34	34	34	35	35	35	35	35	35	35	35	34	33	32	32	32	32	31	31	35.8
2-Jan	31	32	32	32	31	31	31	31	31	32	32	32	32	32	32	32	31	31	31	30	30	30	30	29	32.2
3-Jan	28	27	26	25	25	23	22	21	21	21	20	20	20	20	20	20	20	20	21	22	23	24	24	26	27.9
4-Jan	26	27	27	28	28	28	28	28	26	25	25	25	26	27	27	28	31	32	32	33	32	31	30	30	32.9
5-Jan	29	29	29	28	29	28	27	26	26	27	27	27	27	28	29	31	32	32	32	32	32	32	31	30	32.2
6-Jan	30	29	29	28	28	28	28	28	28	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	29.7
7-Jan	27	28	29	30	31	32	32	32	32	31	31	31	31	31	31	31	32	32	31	31	31	30	29	28	31.8
8-Jan	28	28	27	27	27	27	28	28	28	29	29	28	28	28	28	29	29	29	28	28	27	27	26	25	28.8
9-Jan	24	24	24	25	25	26	27	27	28	28	28	29	29	29	N	N	N	N	N	N	29	30	30	30	29.8
10-Jan	30	32	33	33	34	35	36	37	37	37	36	36	36	35	34	33	33	33	33	33	32	33	33	34	37.1
11-Jan	34	34	35	35	36	37	38	38	38	38	38	38	38	38	39	39	39	39	39	40	40	39	38	37	39.9
12-Jan	37	37	36	35	34	34	33	32	31	30	29	28	28	28	29	30	32	34	35	37	39	40	41	41	41.5
13-Jan	41	41	41	41	41	41	41	40	40	40	39	39	39	39	40	40	41	41	41	41	41	41	41	41	41.4
14-Jan	41	42	42	42	42	42	43	43	43	44	44	44	44	44	43	43	43	43	43	43	43	43	43	42	43.8
15-Jan	42	42	42	42	42	41	41	41	40	40	40	40	40	40	40	40	40	40	40	40	40	40	41	41	42.4
16-Jan	41	41	41	41	41	42	42	43	43	44	44	44	44	44	44	43	43	42	41	41	40	40	39	38	44.3
17-Jan	37	37	36	36	35	34	34	34	34	33	33	33	32	31	30	30	30	30	30	30	30	30	29	26	37.4
18-Jan	24	21	19	17	16	15	14	15	16	15	16	16	17	19	20	22	25	28	29	29	29	29	29	29	29.4
19-Jan	28	27	27	27	27	27	25	22	19	18	16	16	15	14	14	15	15	14	15	15	16	16	16	16	28.5
20-Jan	17	18	19	20	20	19	20	20	21	20	20	20	21	22	23	24	23	23	22	21	21	21	21	21	23.8
21-Jan	22	22	22	23	23	22	22	22	23	24	25	25	25	26	27	27	27	27	27	27	27	27	27	26	27.4
22-Jan	26	26	26	25	25	25	25	25	25	26	26	26	26	25	25	25	24	24	23	23	22	22	22	22	26.1
23-Jan	21	21	21	21	21	20	20	19	19	18	18	18	18	19	19	20	20	19	19	18	16	15	13	12	21.5
24-Jan	10	9	8	7	7	7	7	7	8	10	12	14	15	17	20	23	24	24	24	23	22	21	20	19	24.2
25-Jan	20	21	22	23	25	27	28	29	29	29	30	30	30	30	30	30	31	31	32	33	34	35	36	37	37.0
26-Jan	38	38	39	39	39	40	40	40	40	40	39	39	39	39	39	39	40	40	40	41	41	41	41	41	41.2
27-Jan	41	41	40	40	40	40	39	39	38	38	39	39	39	40	41	42	42	42	42	42	43	42	42	42	42.5
28-Jan	42	42	41	41	41	40	40	40	40	40	39	39	39	39	39	40	40	41	41	41	42	41	41	40	41.9
29-Jan	40	40	39	39	38	38	38	37	37	36	36	36	35	35	36	36	36	36	37	37	38	38	38	38	40.0
30-Jan	39	39	39	38	38	38	39	39	39	40	40	41	41	41	42	42	42	41	41	41	41	40	40	40	41.8
31-Jan	39	39	38	38	37	37	37	36	36	35	35	35	35	36	36	37	37	37	38	37	35	35	35	34	39.1
	42.4	42.2	42.0	42.0	41.9	42.2	42.6	43.0	43.4	44.0	44.3	44.3	44.3	43.9	43.7	43.5	43.1	43.0	42.9	42.9	42.8	42.7	42.6	42.5	
	Diurnal Maximums																								

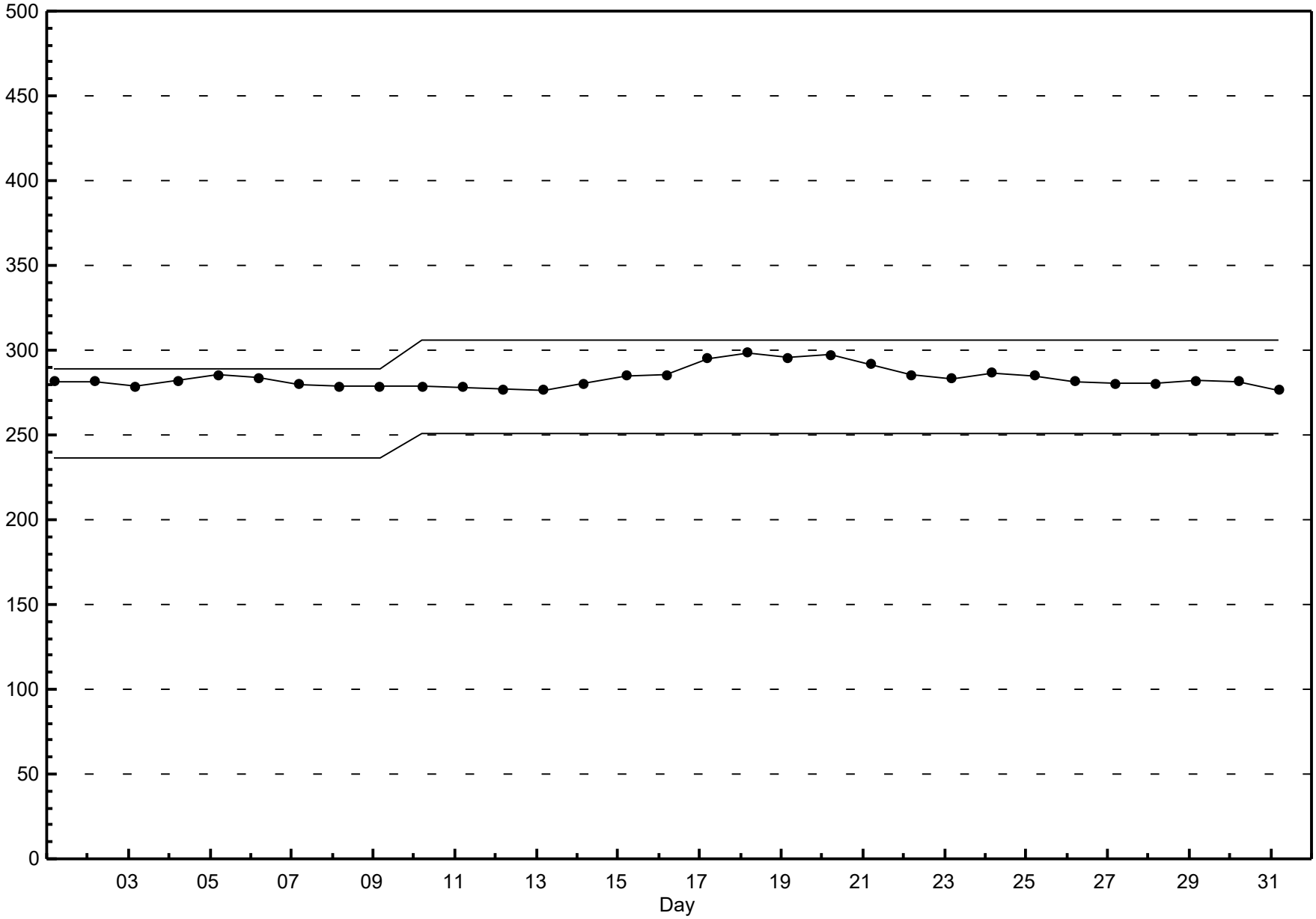
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - January 2017

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

Maximum Value: 105.0 $\mu g/m^3$ on Jan 5 07:00

Maximum Daily Average: 23.5 $\mu g/m^3$ on Jan 23

Minimum Value: 0 $\mu g/m^3$ on Jan 11 05:00

Maximum Diurnal Average: 8.6 $\mu g/m^3$ at hour 20

Monthly Average: 6.00 $\mu g/m^3$

Minimum Daily Average: 0.7 $\mu g/m^3$ on Jan 13

Minimum Diurnal Average: 4.3 $\mu g/m^3$ at hour 9

Percentiles: P_1 = 0.4 P_{10} = 0.7 Q_1 = 1.2 Median = 3.7 Q_3 = 7.5 P_{90} = 13.9 P_{99} = 31.5

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	0
Percent Operational Time:	94.1

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-Jan	3	1	1	1	1	1	1	1	1	1	1	2	3	3	6	5	13	10	6	12	9	5	11	9	4.3	13.0
2-Jan	5	5	2	1	2	3	3	3	3	3	3	2	3	5	4	4	5	7	7	7	10	12	5	3	4.4	11.6
3-Jan	3	2	2	1	1	1	1	1	1	1	2	3	3	4	5	7	7	5	4	5	5	6	7	7	3.4	7.4
4-Jan	4	3	3	3	3	2	2	3	4	6	6	5	4	9	6	5	2	2	3	23	3	2	5	3	4.6	22.8
5-Jan	14	14	23	15	8	28	105	35	10	1	1	3	6	8	2	2	1	2	2	2	2	2	3	3	12.1	105.0
6-Jan	3	3	4	7	7	6	6	5	5	6	6	6	6	7	8	8	7	8	9	6	6	6	2	2	5.9	8.8
7-Jan	2	1	1	1	1	1	2	3	7	14	20	17	13	12	13	12	10	9	8	6	5	3	3	4	7.0	20.1
8-Jan	4	3	5	7	5	5	6	7	5	7	7	7	10	7	5	5	5	6	7	8	8	8	9	10	6.5	10.0
9-Jan	13	14	11	8	7	7	7	7	6	6	6	6	3	3	7	7	4	16	8	6	4	2	1	1	6.6	15.7
10-Jan	1	1	1	1	1	1	2	2	1	2	3	2	2	1	1	1	1	2	3	1	1	1	1	0	1.4	2.9
11-Jan	0	2	1	0	0	0	0	0	0	1	1	1	1	1	1	2	2	5	4	3	5	5	5	3	1.9	5.3
12-Jan	1	2	2	3	3	4	3	2	2	4	5	11	11	9	11	1	1	1	1	1	1	1	1	1	3.3	11.0
13-Jan	0	1	1	0	0	0	0	1	1	1	1	M	M	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9
15-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
16-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	4	2	1.3	4.1
17-Jan	1	1	1	1	1	1	1	1	3	2	2	2	3	M	M	M	2	2	1	1	2	4	3	4	1.9	3.9
18-Jan	4	8	12	13	18	14	12	10	12	13	9	13	11	7	7	6	7	7	17	18	13	10	7	4	10.6	18.0
19-Jan	4	3	5	5	5	6	8	11	7	6	13	7	10	7	7	8	12	13	23	14	14	15	14	15	9.6	23.3
20-Jan	29	61	32	23	19	21	14	14	N	N	N	N	N	N	N	N	N	9	12	15	8	6	8	7	--	61.4
21-Jan	10	8	6	6	4	4	3	3	3	2	3	5	6	10	10	11	10	11	11	11	9	8	9	10	7.2	11.3
22-Jan	9	5	5	6	7	6	6	4	3	3	3	3	4	7	9	9	11	12	12	11	11	11	12	12	7.6	12.2
23-Jan	15	18	20	21	22	21	20	18	17	17	21	23	21	18	21	28	29	28	32	41	27	35	28	24	23.5	41.4
24-Jan	27	24	8	17	10	3	4	4	10	12	8	9	8	8	9	12	16	26	24	28	23	23	25	19	14.9	27.7
25-Jan	19	14	12	10	8	12	8	10	4	2	3	3	4	4	3	3	4	3	15	21	18	14	13	10	9.1	21.4
26-Jan	8	7	5	4	4	4	5	5	5	5	5	5	5	6	5	5	5	4	4	4	3	3	3	3	4.7	7.7
27-Jan	3	3	3	3	4	3	2	3	7	6	5	5	5	4	4	4	4	4	5	5	5	5	5	5	4.3	6.6
28-Jan	4	4	4	5	4	5	5	5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	4.6
29-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	4	4	4	4	2	1	1	1	1	1	--	3.7
30-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	2	1	1.3	1.8
31-Jan	1	1	1	1	1	1	1	1	1	1	2	1	2	1	2	2	2	2	2	3	6	2	1	3	1.8	6.2
	6.3	7.1	5.8	5.6	5.0	5.4	7.6	5.4	4.3	4.5	5.0	5.4	5.5	5.4	5.6	5.5	5.8	6.8	7.5	8.6	6.8	6.6	6.3	5.6	Diurnal Average	
	28.6	61.4	31.6	22.8	21.5	28.3	105.0	34.7	16.5	17.3	20.8	22.7	20.5	17.6	21.3	27.6	29.2	28.1	31.6	41.4	27.2	34.8	28.0	23.7	Diurnal Maximum	

M - Maintenance N - Not Valid

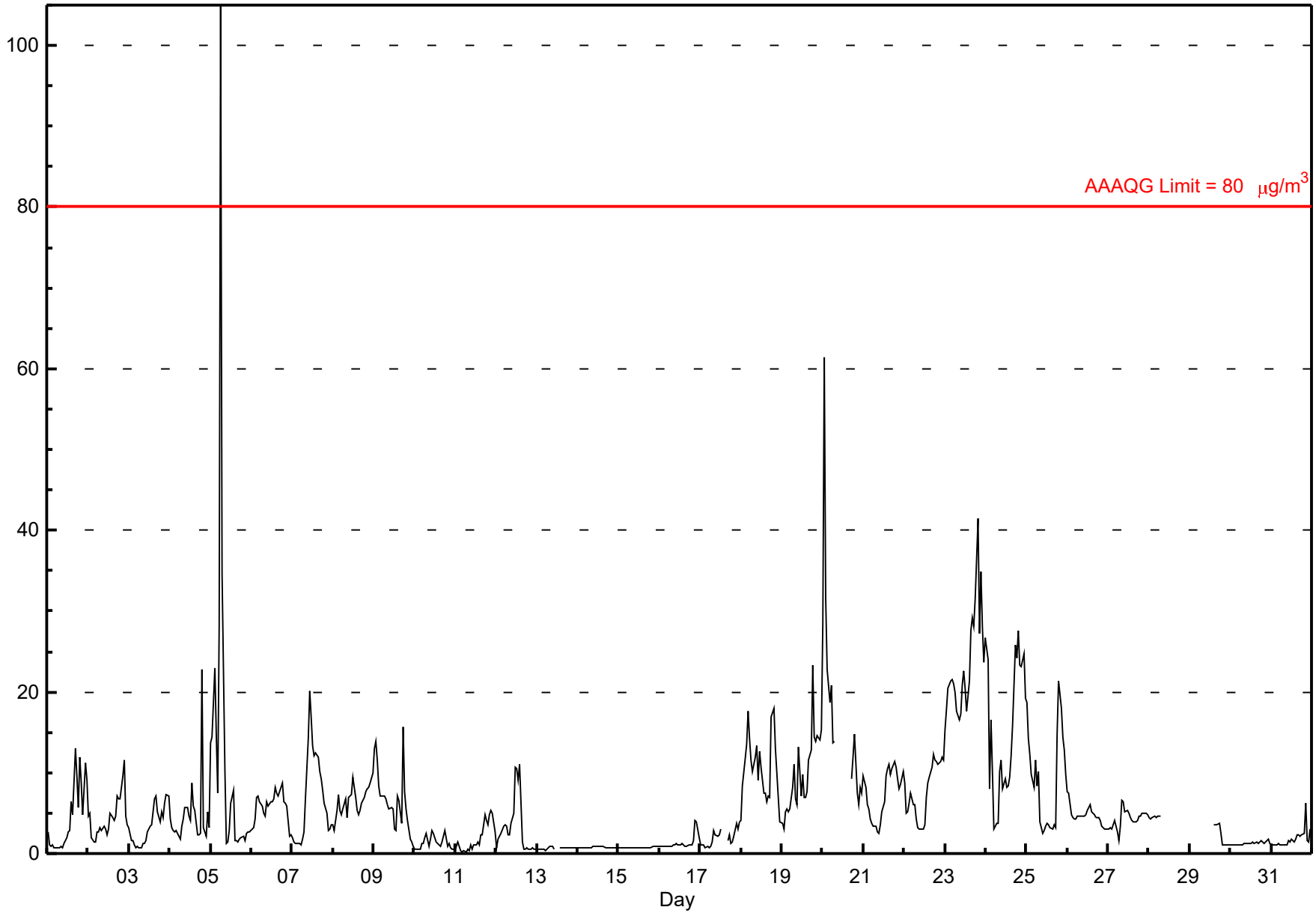
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - January 2017

Maximum Value: 136.6 $\mu g/m^3$ on Jan 1 17:00

Maximum Daily Average: 27.7 $\mu g/m^3$ on Jan 23

Minimum Value: 0 $\mu g/m^3$ on Jan 11 05:00

Minimum Daily Average: 0.9 $\mu g/m^3$ on Jan 15

Maximum Diurnal Average: 13.3 $\mu g/m^3$ at hour 20

Minimum Diurnal Average: 6.0 $\mu g/m^3$ at hour 11

Monthly Average: 8.98 $\mu g/m^3$

Percentiles: $P_1 = 0.7$ $P_{10} = 0.9$ $Q_1 = 1.9$ Median = 5.1 $Q_3 = 10.7$ $P_{90} = 23.0$ $P_{99} = 51.2$

Hours in Service:	744
Hours of Data:	627
Hours of Missing Data:	117
Hours of Calibration:	0
Percent Operational Time:	84.3

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-Jan	8	2	1	1	1	1	1	1	1	1	3	10	5	4	13	13	137	65	12	32	34	22	23	17	17.1	136.6
2-Jan	25	23	3	2	3	4	3	4	3	4	4	3	4	7	5	5	6	10	9	11	12	16	7	5	7.4	24.9
3-Jan	5	2	2	2	1	1	1	1	N	N	N	N	N	6	8	13	13	8	6	9	6	7	8	8	5.7	13.2
4-Jan	7	4	3	3	3	3	2	5	6	8	9	6	5	13	8	7	5	3	6	31	11	3	7	4	6.7	31.3
5-Jan	17	20	38	33	10	59	127	84	15	2	3	4	9	9	3	2	2	2	2	3	2	3	3	3	18.9	126.6
6-Jan	4	4	6	8	8	7	7	6	6	8	7	8	7	8	9	8	8	11	10	7	9	9	2	4	7.1	10.7
7-Jan	3	2	2	1	1	2	2	4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	3.9
8-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	5	7	8	7	9	9	9	10	13	--	13.4
9-Jan	15	26	16	17	8	8	9	9	7	6	7	7	4	7	12	18	9	29	15	17	11	3	3	2	11.0	29.1
10-Jan	1	1	2	2	2	2	3	3	1	4	3	6	3	3	1	1	2	8	7	2	3	1	1	5	2.8	7.8
11-Jan	1	6	3	0	0	1	0	1	1	8	1	2	2	2	2	5	3	6	5	4	6	8	7	4	3.3	8.3
12-Jan	1	2	3	4	5	5	5	3	N	N	N	N	N	N	N	N	1	1	1	1	1	1	1	1	--	5.3
13-Jan	1	1	1	1	1	1	1	3	6	3	2	M	M	1	1	1	1	1	1	1	1	1	1	1	1.3	5.6
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
15-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0
16-Jan	1	1	1	1	1	1	1	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	1.2
17-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	2	4	2	2	3	8	7	7	--	7.8
18-Jan	7	9	16	22	25	19	17	12	14	19	12	19	13	8	11	8	11	9	38	31	23	15	16	9	15.9	38.2
19-Jan	6	5	8	8	8	7	10	14	9	15	15	10	13	8	8	10	13	15	39	24	23	25	19	27	13.9	38.6
20-Jan	90	98	34	34	30	24	21	20	N	N	N	N	N	N	N	N	N	26	24	24	10	10	19	10	--	97.9
21-Jan	11	10	8	6	5	4	4	4	4	3	5	6	8	11	11	12	10	11	14	12	11	9	11	11	8.4	13.7
22-Jan	11	7	8	8	8	7	7	5	5	3	4	4	5	9	10	11	14	13	13	13	13	16	14	14	9.2	15.6
23-Jan	18	19	25	24	24	25	23	20	20	24	27	28	21	20	24	31	31	29	35	59	33	41	31	32	27.7	59.0
24-Jan	30	31	12	30	16	5	6	8	13	15	10	25	10	10	11	18	19	39	39	35	29	28	27	21	20.3	39.2
25-Jan	20	16	14	10	10	16	10	14	6	3	4	4	4	4	4	4	4	4	24	24	20	17	15	13	11.0	24.5
26-Jan	10	16	6	5	5	5	5	5	5	5	5	5	6	7	7	6	6	5	5	5	4	4	3	4	5.7	15.9
27-Jan	3	4	3	5	5	4	2	5	8	8	6	6	5	5	5	4	5	5	5	5	6	6	6	5	5.1	8.0
28-Jan	5	5	5	5	5	5	5	6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	5.6
29-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	4	4	4	4	5	1	1	1	1	1	--	4.6
30-Jan	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	2	2	3	2	2	1	2	2	1	1.6	2.7
31-Jan	1	1	1	1	1	1	1	1	1	2	2	2	4	2	2	3	3	2	2	5	44	2	2	10	4.1	44.3
	10.9	11.4	7.9	8.4	6.8	7.9	9.8	8.7	6.1	6.6	6.0	7.5	6.3	6.5	6.8	7.6	11.8	11.6	11.8	13.3	11.7	9.6	8.8	8.3	Diurnal Average	
	89.8	97.9	38.1	34.0	29.9	58.5	126.6	83.7	19.8	23.7	27.1	28.1	21.5	19.5	24.0	30.6	136.6	65.3	38.7	59.0	44.3	41.4	30.9	31.8	Diurnal Maximum	

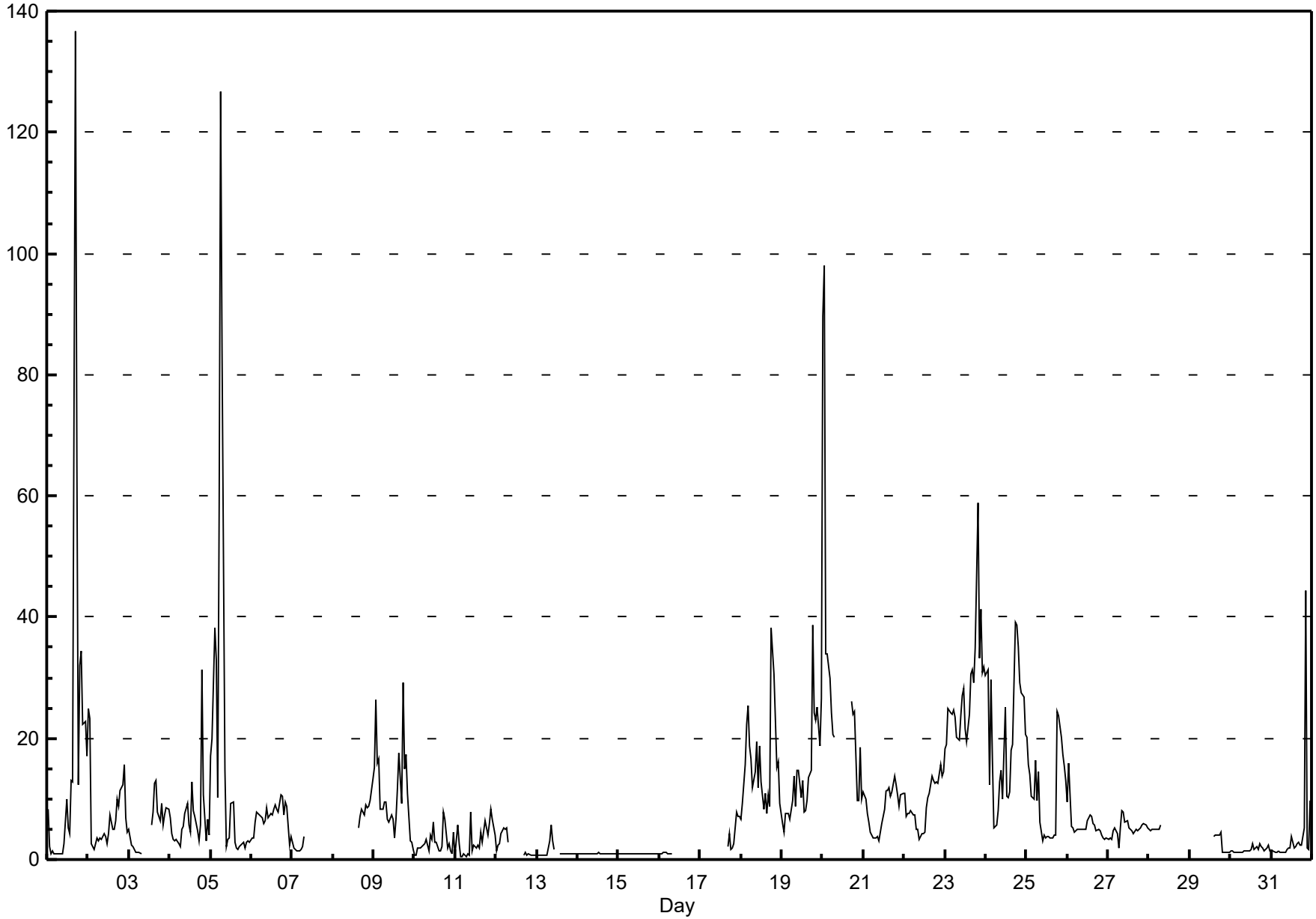
M - Maintenance N - Not Valid

Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - January 2017

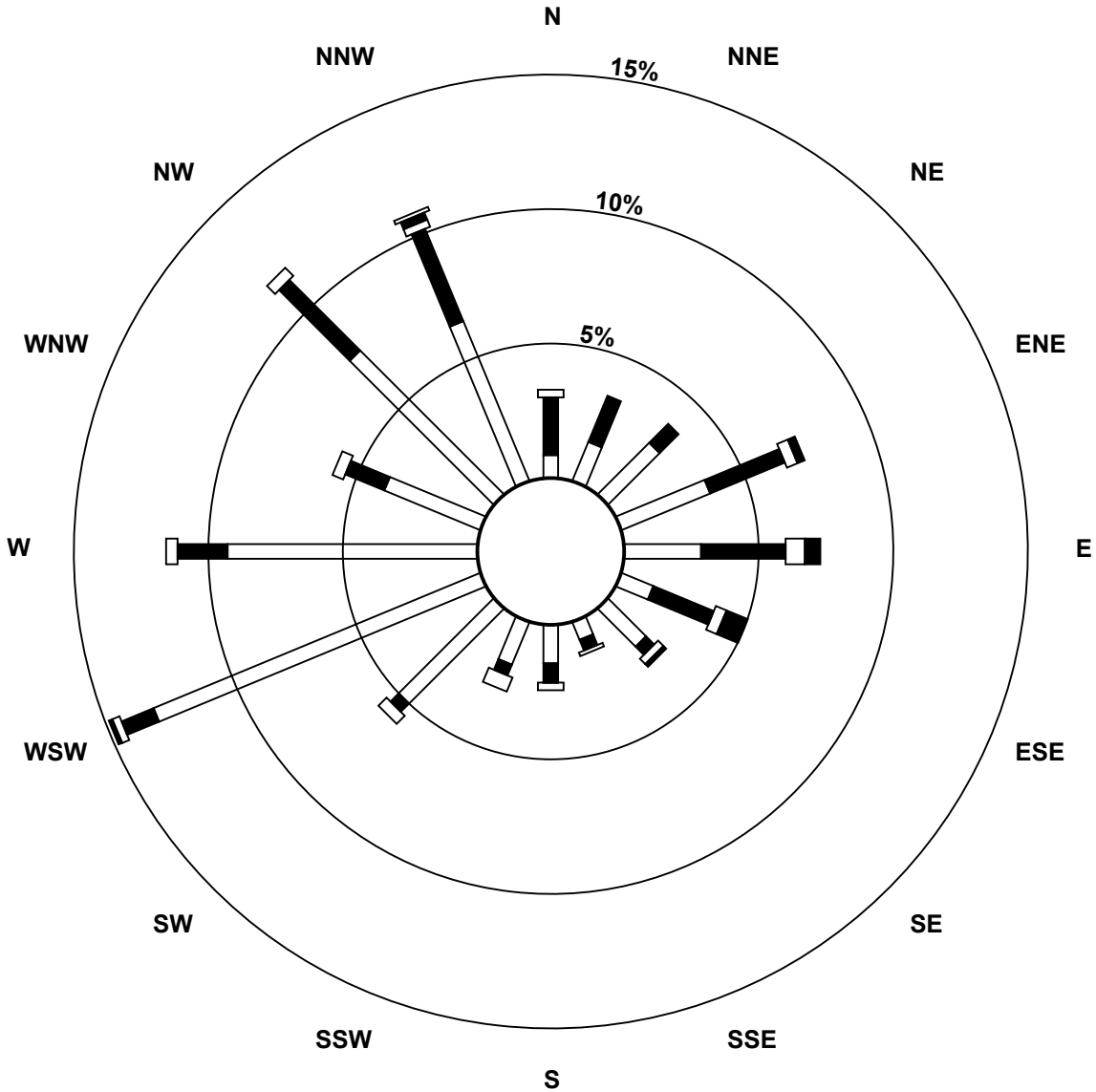


Peace Airshed Zone Association

Pollutant Rose

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

Beaverlodge - January 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 - January 2017

Maximum Value: 8.4 °C on Jan 18 15:00

Maximum Daily Average: 5.6 °C on Jan 16

Minimum Value: -23 °C on Jan 9 23:00

Minimum Daily Average: -20.1 °C on Jan 8

Maximum Diurnal Average: -4.5 °C at hour 16

Minimum Diurnal Average: -7.5 °C at hour 8

Monthly Average: -6.29 °C

Percentiles: P_1 = -20.4 P_{10} = -18.2 Q_1 = -13.2 Median = -6.0 Q_3 = 1.4 P_{90} = 4.6 P_{99} = 7.6

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

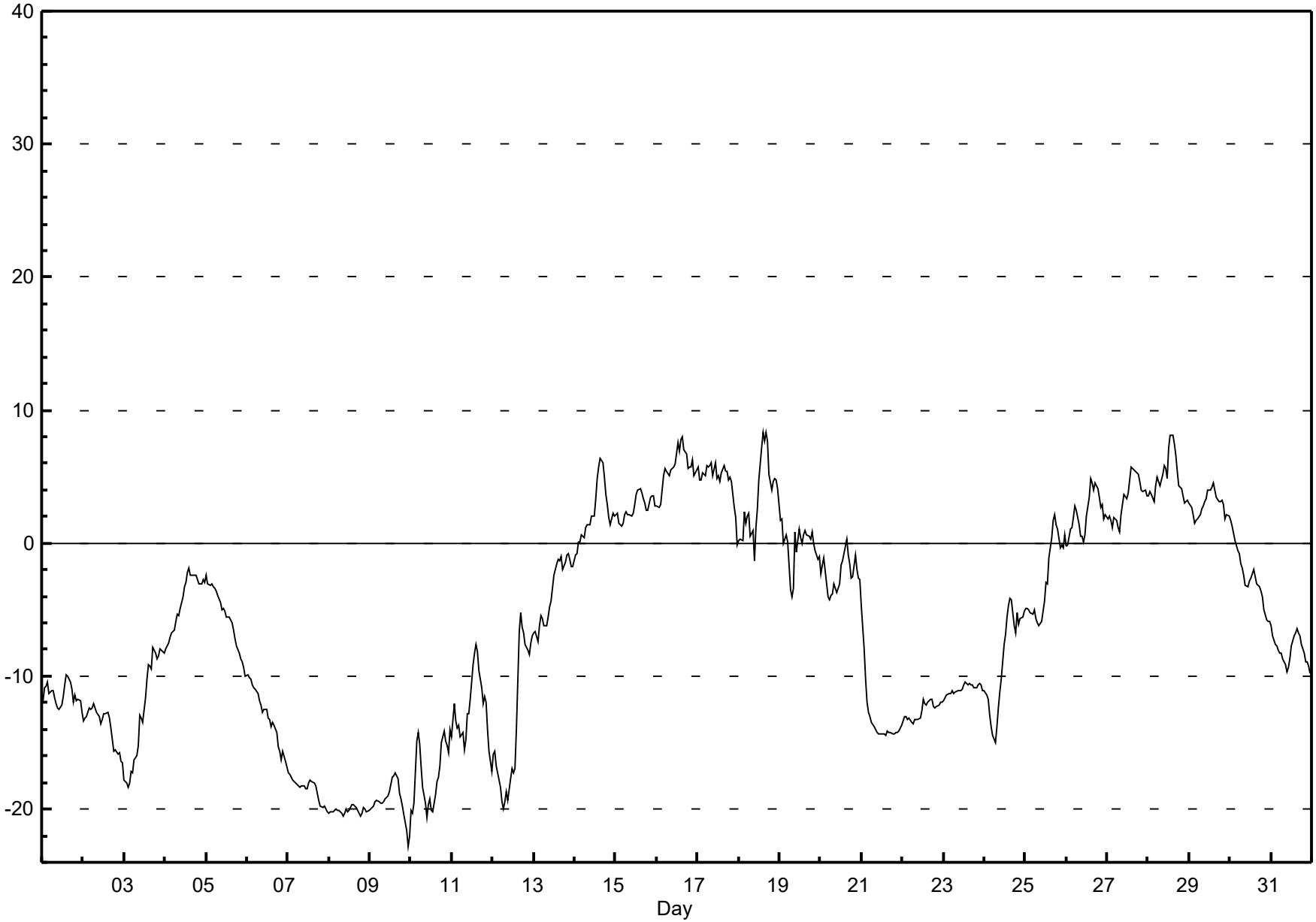
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	-12	-11	-11	-10	-11	-11	-11	-12	-12	-12	-13	-12	-11	-11	-10	-10	-10	-11	-12	-11	-12	-12	-12	-13	-11.4	-10.0
2-Jan	-13	-13	-13	-12	-13	-12	-12	-12	-13	-13	-14	-13	-13	-13	-13	-13	-14	-15	-16	-16	-16	-16	-16	-17	-13.7	-12.0
3-Jan	-18	-18	-18	-18	-17	-17	-16	-16	-15	-13	-13	-13	-12	-10	-9	-9	-9	-8	-8	-9	-9	-8	-8	-8	-12.6	-7.8
4-Jan	-8	-8	-7	-7	-7	-7	-6	-5	-5	-5	-4	-3	-3	-2	-2	-2	-2	-2	-2	-3	-3	-3	-3	-3	-4.3	-1.9
5-Jan	-2	-3	-3	-3	-3	-3	-4	-4	-4	-5	-5	-5	-6	-6	-6	-6	-7	-7	-8	-8	-9	-9	-9	-10	-5.6	-2.5
6-Jan	-10	-10	-10	-11	-11	-11	-11	-12	-12	-13	-12	-13	-13	-13	-14	-13	-14	-14	-15	-16	-16	-16	-16	-17	-13.1	-9.9
7-Jan	-17	-17	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-19	-19	-20	-20	-20	-20	-20	-18.5	-17.2
8-Jan	-20	-20	-20	-20	-20	-20	-20	-20	-21	-20	-20	-20	-20	-20	-20	-20	-20	-20	-21	-20	-20	-20	-20	-20	-20.1	-19.7
9-Jan	-20	-20	-20	-19	-19	-19	-20	-20	-19	-19	-19	-19	-18	-18	-17	-17	-18	-19	-19	-20	-20	-22	-23	-22	-19.4	-17.3
10-Jan	-20	-20	-20	-15	-14	-15	-17	-18	-20	-21	-20	-19	-20	-20	-19	-18	-18	-17	-15	-14	-15	-15	-16	-14	-17.5	-14.0
11-Jan	-15	-12	-13	-14	-14	-15	-14	-16	-15	-13	-13	-12	-9	-8	-8	-8	-10	-11	-12	-12	-12	-14	-16	-17	-12.5	-7.6
12-Jan	-16	-16	-17	-17	-18	-19	-20	-19	-19	-19	-18	-17	-17	-17	-14	-7	-5	-6	-7	-8	-8	-8	-7	-7	-13.6	-5.3
13-Jan	-7	-7	-7	-6	-5	-6	-6	-6	-6	-5	-4	-3	-2	-2	-1	-1	-1	-2	-1	-1	-1	-1	-2	-2	-3.6	-0.8
14-Jan	-1	-1	0	0	1	0	1	1	1	1	2	2	3	5	6	6	6	5	4	3	2	1	2	2	2.3	6.4
15-Jan	2	2	2	1	2	2	2	2	2	2	2	3	4	4	4	4	3	3	2	2	3	4	4	3	2.7	4.1
16-Jan	3	3	3	4	5	6	5	5	6	6	6	6	8	7	8	8	7	7	6	6	6	6	5	5	5.6	8.0
17-Jan	6	5	5	5	5	6	6	6	6	5	6	5	5	5	5	6	5	5	5	5	5	3	2	0	4.8	6.1
18-Jan	0	0	0	2	1	2	2	0	1	-1	1	3	5	7	8	8	8	8	5	4	5	5	5	4	3.5	8.4
19-Jan	2	2	0	0	1	0	-4	-4	-3	1	-1	1	0	0	1	1	1	1	0	1	0	-1	-1	-1	-0.1	1.9
20-Jan	-2	-2	-1	-2	-4	-4	-4	-4	-3	-4	-3	-3	-2	-1	0	0	-1	-2	-3	-3	-1	-2	-3	-3	-2.3	0.3
21-Jan	-5	-8	-10	-12	-13	-13	-13	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-13.1	-4.7
22-Jan	-13	-13	-13	-13	-13	-14	-14	-13	-13	-13	-13	-13	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12.6	-11.7
23-Jan	-12	-12	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-10	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11.0	-10.5
24-Jan	-11	-11	-12	-13	-14	-14	-15	-14	-12	-11	-10	-8	-7	-6	-5	-4	-4	-6	-7	-5	-6	-6	-6	-5	-8.8	-4.2
25-Jan	-5	-5	-5	-5	-5	-5	-6	-6	-6	-6	-5	-4	-3	-3	-1	0	2	2	1	1	0	0	0	1	-2.7	2.1
26-Jan	0	0	1	1	2	3	2	1	1	0	0	1	2	3	5	4	4	5	4	3	3	3	2	2	2.2	4.8
27-Jan	2	2	2	1	2	2	1	1	2	3	4	3	4	5	6	6	5	5	5	5	4	4	4	4	3.3	5.7
28-Jan	4	4	4	3	4	5	5	4	5	6	6	5	7	8	8	7	7	5	4	4	4	3	3	3	4.9	8.1
29-Jan	3	3	2	2	2	2	2	3	3	3	3	4	4	4	4	4	3	3	3	3	3	2	2	2	2.9	4.5
30-Jan	2	1	1	0	-1	-1	-2	-2	-2	-3	-3	-3	-3	-2	-2	-3	-3	-3	-4	-4	-5	-6	-6	-6	-2.5	1.7
31-Jan	-6	-7	-8	-8	-8	-8	-8	-9	-9	-10	-9	-9	-8	-7	-7	-6	-7	-7	-8	-8	-9	-9	-9	-10	-8.1	-6.2
	-6.8	-6.8	-7.1	-6.9	-7.0	-7.0	-7.2	-7.5	-7.3	-7.2	-6.9	-6.5	-5.8	-5.3	-4.7	-4.5	-4.7	-5.1	-5.6	-5.7	-6.0	-6.2	-6.5	-6.6	Diurnal Average	
	5.7	4.7	4.8	5.3	5.1	5.8	5.7	5.8	6.1	5.8	6.1	6.0	7.6	8.1	8.4	8.0	8.3	7.6	5.6	5.7	5.7	6.2	5.0	5.5	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - January 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - January 2017

Maximum Value: 100.0 % on Jan 4 09:00

Maximum Daily Average: 96.4 % on Jan 20

Minimum Value: 42 % on Jan 18 17:00

Minimum Daily Average: 57.6 % on Jan 30

Maximum Diurnal Average: 81.4 % at hour 1

Minimum Diurnal Average: 71.4 % at hour 16

Monthly Average: 78.03 %

Percentiles: P_1 = 45.9 P_{10} = 58.3 Q_1 = 65.9 Median = 78.7 Q_3 = 90.7 P_{90} = 98.1 P_{99} = 100.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

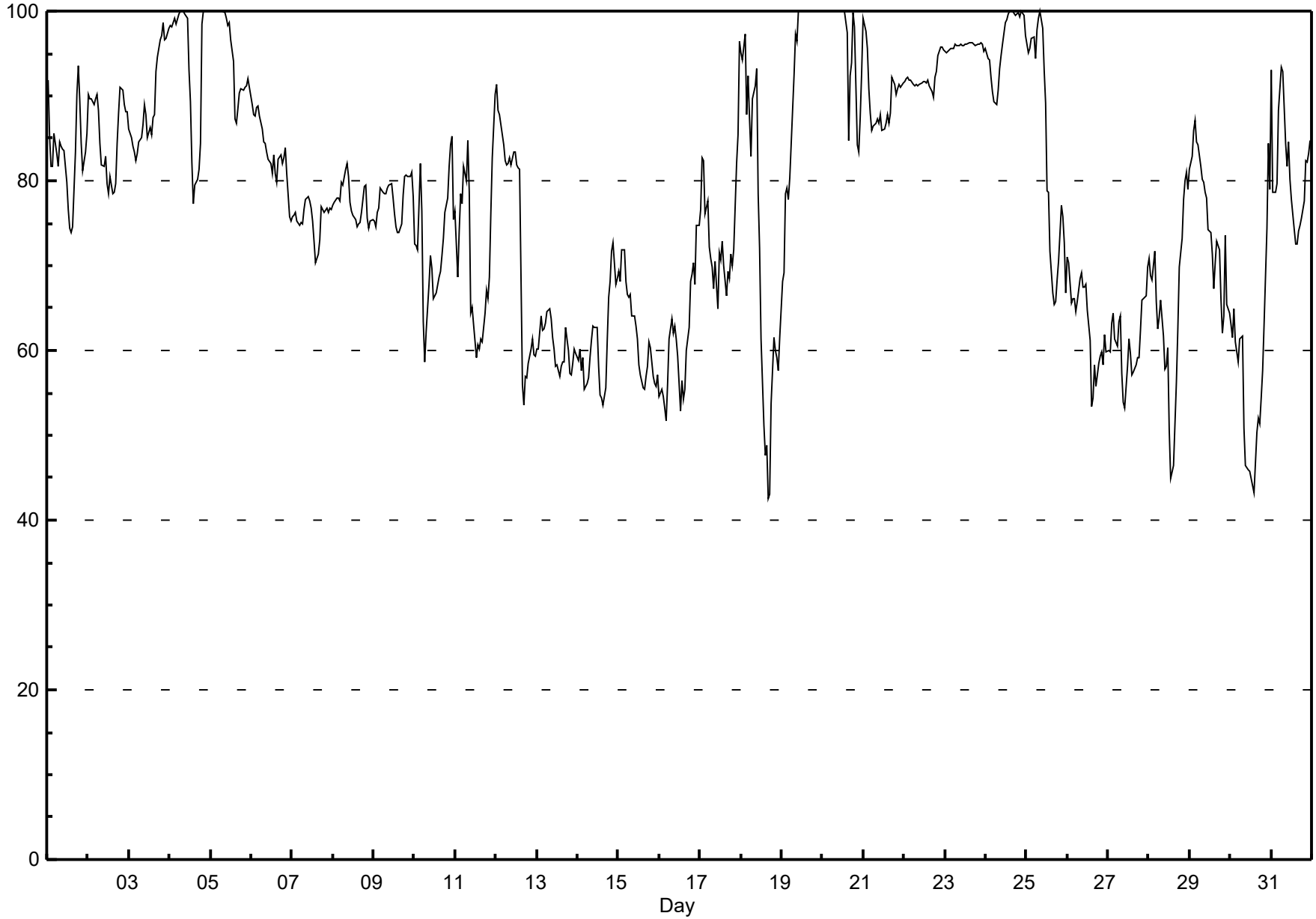
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	92	85	82	82	86	83	82	85	84	84	84	80	77	74	74	75	83	90	94	89	84	81	83	86	83.2	93.5
2-Jan	90	90	90	89	90	90	88	84	82	82	83	80	78	80	79	79	80	84	88	91	91	89	88	88	85.5	91.0
3-Jan	86	85	84	83	82	83	85	85	87	89	88	85	86	85	87	88	93	95	97	97	99	97	97	98	89.2	98.6
4-Jan	98	98	99	99	98	100	100	100	100	100	99	93	89	82	77	79	80	81	84	98	100	100	100	100	94.0	100.0
5-Jan	100	100	100	100	100	100	100	100	100	99	98	99	97	94	87	87	88	90	91	91	91	91	92	91	95.3	100.0
6-Jan	89	88	88	89	89	88	86	84	84	83	83	82	81	83	81	80	83	83	82	83	84	81	76	75	83.5	88.9
7-Jan	76	76	76	75	75	75	75	77	78	78	78	77	75	73	70	71	73	77	77	76	77	76	77	77	75.6	78.2
8-Jan	77	78	78	78	78	80	80	81	82	81	78	77	76	75	75	75	75	76	79	80	76	74	75	75	77.4	82.0
9-Jan	75	75	76	77	79	79	78	78	79	80	80	78	76	75	74	74	75	78	81	81	80	81	81	78	77.8	81.0
10-Jan	73	72	72	82	76	63	59	62	68	71	70	66	66	67	69	69	71	73	76	78	82	84	85	76	72.1	85.3
11-Jan	76	69	74	78	77	82	80	85	79	64	65	63	59	61	60	61	61	64	67	66	69	76	83	90	71.3	90.1
12-Jan	91	88	88	87	84	82	82	82	83	82	83	83	82	81	81	56	54	57	57	59	60	61	60	59	74.3	91.4
13-Jan	60	60	64	62	63	63	65	65	64	62	60	58	58	57	58	59	59	63	60	57	57	59	60	60	60.5	65.0
14-Jan	59	60	58	59	55	56	57	59	61	63	63	63	58	55	54	54	56	61	66	68	72	73	68	68	61.1	72.7
15-Jan	69	68	72	72	68	67	66	67	64	64	63	61	58	57	56	55	57	58	61	60	57	56	56	57	62.1	71.9
16-Jan	55	55	55	53	52	56	61	64	62	63	61	59	53	56	54	55	60	63	68	69	70	68	75	75	60.9	74.7
17-Jan	77	83	82	76	78	72	71	70	67	70	65	72	71	73	70	67	69	68	71	70	72	82	85	97	74.1	96.5
18-Jan	95	94	97	88	92	87	83	90	91	93	79	72	61	51	48	49	42	43	54	61	60	59	58	62	71.2	97.3
19-Jan	68	69	78	79	78	80	88	92	97	96	100	100	100	100	100	100	100	100	100	100	100	100	100	100	92.8	100.0
20-Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100	98	85	92	94	100	98	84	83	87	93	96.4	100.0
21-Jan	99	98	96	91	88	86	86	87	87	87	88	86	86	87	88	87	88	92	91	90	91	91	91	92	89.7	99.2
22-Jan	92	92	92	92	92	91	91	91	91	91	92	92	92	91	92	91	90	90	92	93	95	96	96	95	92.2	95.8
23-Jan	95	95	95	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	95	95.9	96.3
24-Jan	96	94	94	92	91	89	89	91	93	95	96	99	99	100	100	100	100	99	100	100	99	100	100	97	96.4	100.0
25-Jan	96	95	96	97	97	94	98	99	100	98	93	89	79	79	72	67	65	66	68	71	77	76	73	67	83.8	99.9
26-Jan	71	70	66	66	66	65	66	69	69	67	67	68	65	61	53	54	58	56	58	59	60	58	62	60	63.1	70.9
27-Jan	60	60	63	64	61	60	63	64	57	54	53	58	61	60	57	58	58	59	59	62	66	66	66	70	60.9	69.8
28-Jan	71	69	68	72	66	63	64	66	62	58	58	60	51	45	46	51	56	63	70	73	78	80	81	79	64.5	81.0
29-Jan	81	83	86	87	85	84	82	80	80	79	78	74	74	71	67	70	73	72	66	62	64	74	65	64	75.1	87.1
30-Jan	63	62	65	61	59	61	62	62	51	46	46	46	45	44	43	50	52	51	54	58	63	74	84	79	57.6	84.5
31-Jan	93	79	79	80	88	91	93	93	84	82	85	80	78	74	72	73	74	75	76	78	82	82	83	85	81.6	93.5
	81.4	80.3	81.0	80.8	80.3	79.6	79.9	80.9	80.1	79.2	78.4	77.3	75.1	73.8	72.2	71.4	73.0	74.8	76.9	77.9	78.6	79.5	80.1	80.2	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 - January 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - January 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	9	11	11	11	14	15	13	11	14	10	5	9	11	9	7	6	4	1	7	9	6	6	4	8.3	15.4
Dir	272	317	329	329	327	337	337	334	330	327	322	286	307	324	305	303	293	253	11	294	305	313	324	293	319	337
2 Spd	4	2	3	3	5	8	12	12	8	6	9	7	3	4	1	3	5	6	6	5	4	4	2	2	3.3	12.1
Dir	253	41	112	103	128	83	83	76	82	28	28	23	293	281	206	184	141	81	76	86	100	101	171	109	80	83
3 Spd	2	3	3	2	1	4	1	2	4	8	7	3	2	2	3	4	4	7	7	0	3	2	1	1	1.3	8.1
Dir	166	137	132	76	185	44	7	30	320	317	305	245	235	295	302	268	259	288	264	116	67	157	190	119	287	317
4 Spd	0	0	0	1	2	2	2	3	4	2	6	6	8	4	5	6	5	4	3	8	5	5	0	1	2.8	8.3
Dir	32	48	31	57	44	36	293	299	250	280	274	262	266	296	297	278	290	317	311	312	255	236	216	18	286	312
5 Spd	1	5	7	8	11	9	9	8	9	8	6	6	8	4	7	9	13	15	12	15	13	18	25	23	6.0	24.6
Dir	174	273	292	330	327	342	330	329	344	348	336	324	332	337	53	67	54	61	85	83	66	84	90	91	39	90
6 Spd	19	16	20	27	27	27	24	19	15	15	15	9	10	11	14	12	9	9	10	10	9	13	20	21	10.0	27.1
Dir	87	77	82	90	93	89	91	70	49	44	67	40	20	1	6	7	350	330	324	325	321	323	316	322	44	93
7 Spd	17	18	18	15	13	12	11	8	7	9	10	10	9	10	10	8	5	7	5	8	8	7	7	7	9.4	18.0
Dir	324	321	316	323	318	326	330	317	324	332	332	338	354	11	28	29	13	334	317	326	339	340	326	334	334	316
8 Spd	5	4	5	2	3	5	5	7	7	6	5	3	5	7	8	7	7	6	4	4	10	9	10	11	2.7	11.2
Dir	321	8	34	106	138	101	103	122	94	79	27	337	291	303	333	336	316	256	211	257	323	331	321	313	337	313
9 Spd	10	8	5	10	9	9	8	11	9	6	8	10	13	12	12	14	11	8	7	7	7	2	3	5	7.9	13.7
Dir	312	308	257	306	295	316	314	310	317	314	306	320	324	319	309	314	310	295	301	302	269	231	182	222	306	314
10 Spd	9	7	2	15	21	25	19	10	9	5	4	3	1	3	4	4	3	4	8	8	2	3	1	11	4.9	24.9
Dir	231	234	265	313	330	332	334	353	353	319	319	251	184	69	69	73	57	268	288	276	227	212	167	247	313	332
11 Spd	1	6	2	2	3	2	1	4	7	13	14	12	14	19	21	24	16	11	6	7	7	3	4	3	7.0	23.6
Dir	309	315	88	48	261	56	199	55	29	312	319	302	301	302	303	312	313	312	341	345	335	336	216	66	316	312
12 Spd	4	3	3	2	4	3	2	3	3	4	3	1	2	6	3	28	33	21	17	9	8	18	18	12	5.5	32.9
Dir	80	156	171	141	152	144	124	131	138	146	130	108	92	55	19	275	275	276	284	281	252	255	255	253	261	275
13 Spd	13	14	16	21	27	20	14	14	6	13	11	11	21	32	38	26	23	13	15	20	17	12	13	10	16.9	37.6
Dir	256	256	256	263	262	273	275	279	289	283	281	282	270	265	260	248	241	242	254	248	232	217	255	232	259	260
14 Spd	12	9	11	12	21	23	21	14	15	15	22	13	14	28	33	41	45	18	15	22	16	20	24	9	19.3	45.2
Dir	242	243	262	248	264	260	262	252	251	258	248	241	241	257	261	263	256	254	234	243	230	228	244	242	251	256
15 Spd	16	17	18	21	30	31	37	32	35	32	21	30	31	34	38	42	43	41	32	33	39	29	23	14	29.9	43.3
Dir	236	241	244	247	248	254	247	251	257	262	249	249	250	252	251	253	262	255	253	248	255	256	251	234	252	262
16 Spd	11	8	2	5	13	16	16	16	8	1	6	4	8	15	15	18	6	5	3	4	1	7	9	5	7.3	17.8
Dir	239	221	172	196	232	247	227	213	192	81	198	194	241	244	221	252	228	203	72	67	166	270	236	219	228	252
17 Spd	5	3	8	20	8	14	11	10	10	10	8	3	3	5	6	9	10	11	12	9	3	1	0	3	1.0	19.6
Dir	222	36	245	249	239	240	243	276	280	275	336	34	111	92	113	81	76	78	87	87	29	286	104	19	256	249
18 Spd	0	3	4	3	2	2	2	3	5	4	3	2	3	3	1	6	5	6	3	2	2	1	3	2	1.4	6.4
Dir	124	187	108	63	194	84	332	345	61	152	150	77	76	72	106	60	111	43	212	264	56	22	344	349	78	43
19 Spd	4	1	1	3	0	2	3	1	7	3	7	1	6	1	2	2	4	3	5	3	4	2	3	3	1.3	6.7
Dir	37	237	343	59	199	352	232	88	75	57	316	341	207	131	6	106	131	108	123	67	87	108	100	78	81	75
20 Spd	4	1	3	4	3	3	3	5	1	3	3	5	4	5	1	3	2	3	2	4	5	1	2	9	2.1	9.1
Dir	251	84	75	98	145	115	103	129	178	82	78	67	80	79	31	38	155	57	175	57	50	65	15	358	75	358
21 Spd	18	23	26	25	21	18	17	18	18	17	14	14	13	12	12	10	9	8	8	7	8	10	7	7	13.9	26.2
Dir	345	335	327	329	335	331	333	330	328	327	330	330	330	330	331	339	334	337	334	339	4	15	6	17	336	327
22 Spd	4	5	5	5	1	10	7	2	1	4	9	2	1	5	2	3	0	1	3	4	4	3	3	6	1.7	10.0
Dir	23	110	106	105	273	104	64	353	305	27	43	79	169	104	10	8	78	192	236	267	257	277	358	17	59	104

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - January 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	5	3	2	4	4	2	4	4	1	4	4	5	2	4	4	3	5	5	5	6	4	4	3	2	1.0	6.3
Dir	23	6	6	314	324	295	261	262	227	208	215	230	213	165	169	121	112	95	93	115	123	113	115	107	143	115
24 Spd	3	1	1	1	1	1	1	1	2	4	5	3	3	3	4	4	3	2	3	2	1	3	3	5	2.1	5.0
Dir	72	177	246	68	256	57	52	59	68	65	54	85	82	92	90	111	135	98	74	125	77	90	93	83	85	54
25 Spd	4	4	3	3	5	2	3	4	4	3	3	5	2	4	3	2	8	14	11	9	7	10	12	14	1.5	14.0
Dir	82	86	81	85	73	102	73	88	73	90	85	77	142	50	35	250	264	270	259	257	237	238	263	271	260	270
26 Spd	17	9	11	13	24	34	21	16	10	11	8	10	15	12	25	19	22	31	24	20	25	29	14	13	17.5	33.5
Dir	269	275	272	281	266	263	258	257	241	228	222	228	228	215	259	252	244	257	253	262	258	254	255	263	255	263
27 Spd	14	13	17	9	9	8	7	4	3	5	17	13	10	17	36	42	43	36	38	34	19	16	10	9	17.2	43.3
Dir	259	248	258	238	285	235	222	178	190	239	259	254	231	253	256	249	248	255	259	265	258	272	259	218	253	248
28 Spd	7	6	4	2	1	2	3	5	5	5	3	3	4	38	53	41	36	29	19	21	19	13	15	20	12.2	52.6
Dir	229	220	205	176	65	207	94	84	70	64	71	4	339	267	263	265	257	255	253	248	239	243	245	254	256	263
29 Spd	21	21	17	14	10	3	2	7	13	12	2	8	9	10	17	15	17	17	11	17	22	19	27	32	13.7	31.9
Dir	254	256	250	239	267	247	79	202	230	235	242	251	244	259	244	252	239	254	277	271	264	255	266	270	254	270
30 Spd	30	32	24	30	27	31	32	29	30	31	34	31	28	25	27	18	24	20	16	14	13	12	15	15	23.4	34.0
Dir	269	268	268	266	268	271	271	272	281	278	274	279	285	292	298	299	282	289	311	321	325	330	314	328	283	274
31 Spd	11	14	12	13	9	8	6	6	10	10	13	14	16	14	13	14	12	10	7	7	8	7	8	5	10.0	15.6
Dir	324	339	331	335	322	317	334	358	338	327	310	308	308	320	322	312	313	321	327	317	302	326	329	303	322	308
Spd	4.9	4.7	4.2	4.6	5.9	5.4	4.5	3.7	3.8	4.9	5.1	4.9	5.9	7.5	9.6	9.6	9.5	7.9	6.1	6.3	5.8	5.3	5.4	4.5	Diurnal Average	
Dir	276	281	282	287	281	287	285	289	299	299	298	287	280	282	277	276	268	273	271	274	272	267	272	281		
Spd	29.5	31.7	26.2	30.2	30.5	33.5	37.5	32.4	35.0	31.8	34.0	31.0	30.6	37.7	52.6	42.0	45.2	41.2	37.6	34.0	38.8	29.4	27.1	31.9	Diurnal Maximum	
Dir	269	268	327	266	248	263	247	251	257	262	274	279	250	267	263	253	256	255	259	265	255	256	266	270		

Maximum Speed Value: 53 km/h on Jan 28 15:00
Maximum Daily Speed Average: 29.9 km/h on Jan 15
Maximum Diurnal Speed Average: 9.6 km/h at hour 16

Minimum Speed Value: 0 km/h on Jan 17 23:00
Minimum Daily Speed Average: 1.0 km/h on Jan 24
Minimum Diurnal Speed Average: 3.7 km/h at hour 8

Monthly Average Velocity: 5.76 km/h 279.5 deg

Speed Percentiles: $P_1 = 0.4$ $P_{10} = 2.1$ $Q_1 = 3.5$ Median = 7.5 $Q_3 = 14.1$ $P_{90} = 23.4$ $P_{99} = 40.4$

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Frequency Distribution

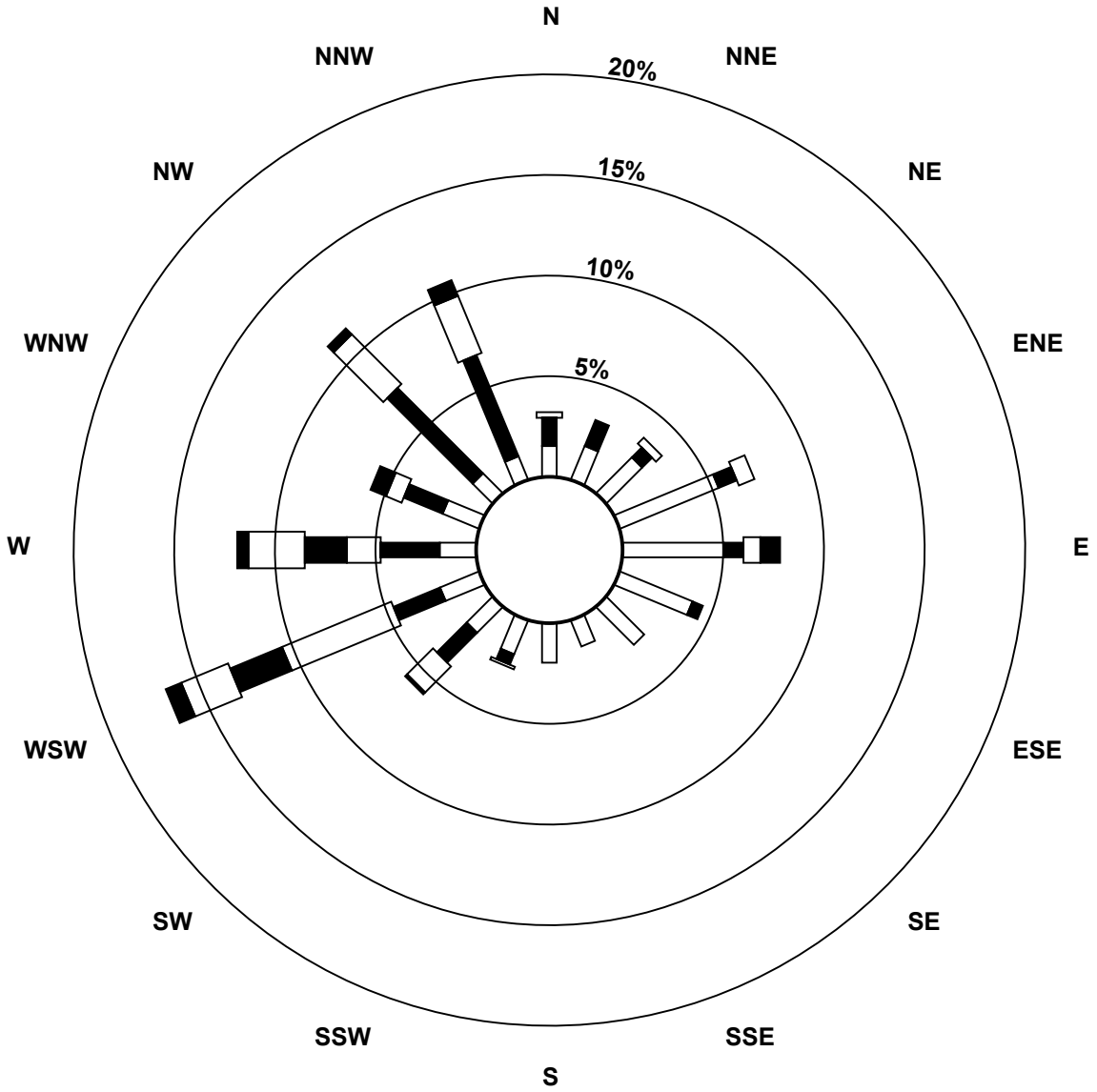
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	23	26	4	0	0	0	53
NorthEast	43	18	6	0	0	0	67
East	79	17	9	8	0	0	113
SouthEast	32	5	0	0	0	0	37
South	28	3	0	0	0	0	31
SouthWest	26	31	29	7	1	0	94
West	25	32	45	33	39	10	184
NorthWest	23	76	54	12	0	0	165
Total	279	208	147	60	40	10	744

Peace Airshed Zone Association

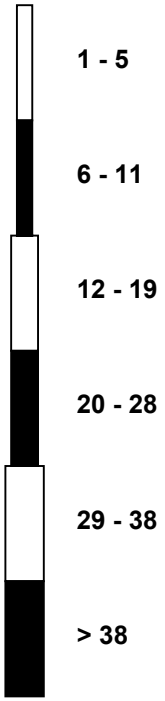
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - January 2017



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - January 2017

Maximum Speed: 53 km/h on Jan 28 15:00

Maximum Daily Speed Average: 30.1 km/h on Jan 15

Minimum Speed: 1 km/h on Jan 5 01:00

Minimum Daily Speed Average: 2.8 km/h on Jan 24

Maximum Diurnal Speed Average: 14.6 km/h at hour 16

Minimum Diurnal Speed Average: 8.8 km/h at hour 12

Monthly Average Speed: 10.77 km/h

Percentiles: $P_1 = 1.5$ $P_{10} = 3.1$ $Q_1 = 4.3$ Median = 7.8 $Q_3 = 14.2$ $P_{90} = 23.6$ $P_{99} = 40.6$

Hours in Service:	744
Hours of Data:	744
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-Jan	6	9	12	11	11	14	15	13	11	14	10	6	10	11	9	7	6	4	3	7	9	6	6	6	9.1	15.5
2-Jan	5	4	4	4	5	8	12	12	8	6	9	7	4	4	5	4	6	6	6	5	4	4	3	3	5.8	12.2
3-Jan	4	3	4	3	2	4	2	3	4	8	8	4	5	3	4	5	5	7	8	4	3	3	2	1	4.1	8.1
4-Jan	2	1	2	2	3	2	4	3	4	4	6	6	8	4	5	6	6	5	4	9	5	5	2	2	4.2	8.5
5-Jan	1	5	8	8	11	10	9	8	9	8	7	7	8	5	7	9	13	15	12	15	13	18	25	23	10.5	24.7
6-Jan	19	16	20	27	27	27	24	19	15	15	15	9	10	11	14	12	9	9	10	10	9	13	20	21	16.0	27.2
7-Jan	17	18	18	15	13	12	11	8	8	9	11	10	9	10	10	8	6	7	6	8	8	7	7	7	10.1	18.0
8-Jan	5	4	5	4	3	5	5	8	7	6	5	5	5	8	8	7	8	7	4	5	10	9	10	11	6.4	11.3
9-Jan	10	8	6	10	9	9	8	11	9	6	8	11	13	12	12	14	11	8	8	8	7	4	3	6	8.7	13.7
10-Jan	9	7	4	16	21	25	19	10	9	6	4	3	3	5	5	4	4	5	8	8	3	4	2	11	8.1	25.1
11-Jan	6	8	4	3	5	3	2	4	7	13	14	12	14	19	21	24	16	11	7	7	7	5	4	5	9.3	23.7
12-Jan	4	3	3	3	4	4	3	3	4	4	3	2	3	6	6	28	33	21	17	9	9	18	18	13	9.2	33.0
13-Jan	13	14	16	21	27	20	14	14	6	13	11	11	21	32	38	26	24	13	15	20	17	13	14	11	17.7	37.7
14-Jan	12	9	11	13	21	23	21	14	15	17	23	13	16	28	33	41	45	18	15	23	16	20	24	10	20.0	45.3
15-Jan	16	17	18	21	31	31	38	32	35	32	21	30	31	34	38	42	44	41	32	33	39	29	23	15	30.1	43.5
16-Jan	11	8	5	5	13	16	16	16	8	6	7	4	9	15	15	18	10	7	3	4	5	8	10	5	9.4	17.9
17-Jan	5	4	9	20	10	14	13	10	10	11	9	6	4	5	7	9	10	12	13	9	4	5	3	5	8.6	19.8
18-Jan	2	3	5	6	4	3	4	5	5	6	4	4	3	3	3	6	5	7	5	4	3	3	5	7	4.4	6.7
19-Jan	6	2	4	4	2	3	5	5	7	6	8	3	6	5	3	3	4	5	5	3	4	2	4	3	4.3	7.9
20-Jan	5	4	3	5	4	4	4	6	3	3	3	5	4	5	2	6	4	6	3	5	5	2	4	10	4.4	10.2
21-Jan	18	23	26	26	22	18	17	18	18	17	14	14	13	12	12	10	9	8	8	7	8	10	8	7	14.3	26.3
22-Jan	4	5	5	7	2	10	7	2	2	4	9	4	2	5	4	3	2	2	3	4	4	3	4	7	4.3	10.2
23-Jan	5	3	2	4	4	2	4	4	3	4	4	5	3	4	4	4	5	5	5	6	4	4	3	2	4.0	6.4
24-Jan	3	1	1	2	1	1	2	2	3	4	5	3	3	3	4	4	3	3	4	2	2	3	3	5	2.8	5.1
25-Jan	4	4	4	4	5	3	3	4	4	3	3	5	3	4	3	3	8	14	11	9	7	10	12	14	6.0	14.1
26-Jan	17	9	12	13	24	34	21	16	11	11	8	11	15	13	25	19	22	31	24	20	25	29	14	13	18.2	33.6
27-Jan	15	13	17	9	10	8	8	5	5	5	17	13	12	17	36	42	43	36	38	34	20	16	11	9	18.2	43.4
28-Jan	7	6	4	5	3	4	3	6	5	5	4	5	6	38	53	41	36	30	19	21	19	13	15	20	15.3	52.7
29-Jan	21	21	17	15	10	6	4	8	13	12	5	8	9	10	17	16	17	17	13	17	22	19	27	32	14.9	32.0
30-Jan	30	32	24	30	27	31	32	29	30	31	34	31	29	25	28	19	24	20	16	14	13	12	15	15	24.7	34.1
31-Jan	11	15	12	13	9	8	6	7	10	10	13	15	16	15	13	14	12	10	7	7	8	7	8	5	10.4	15.7
	9.5	9.1	9.2	10.5	11.1	11.7	10.9	9.9	9.4	9.7	9.8	8.8	9.6	12.0	14.3	14.6	14.5	12.6	10.7	10.9	10.1	9.8	10.0	9.8	Diurnal Average	
	29.6	31.8	26.3	30.3	30.5	33.6	37.5	32.5	35.0	31.9	34.1	31.2	30.6	38.1	52.7	42.1	45.3	41.3	37.7	34.0	38.9	29.5	27.3	32.0	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 - January 2017

Maximum Value: 98.6 deg on Jan 19 05:00

Minimum Value: 2.6 deg on Jan 27 17:00

Percentiles: P_1 = 3.0 P_{10} = 4.6 Q_1 = 6.8 Median = 12.5 Q_3 = 34.6 P_{90} = 63.4 P_{99} = 87.2

Hours in Service:	744
Hours of Data:	744
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-Jan	35	10	9	6	5	6	4	5	6	3	6	33	19	7	10	8	13	33	81	8	8	14	9	56	81.0
2-Jan	30	52	33	32	21	10	8	6	8	21	6	12	45	21	60	40	30	19	11	13	7	14	55	47	60.4
3-Jan	58	28	36	35	61	18	65	36	30	9	22	41	63	36	54	35	41	14	15	83	16	50	53	54	82.8
4-Jan	80	89	88	86	16	13	54	22	21	80	21	16	10	16	25	26	33	53	79	14	13	7	86	80	89.4
5-Jan	64	12	18	14	4	8	5	6	9	8	14	8	12	21	29	9	9	11	6	8	5	6	4	4	63.8
6-Jan	7	5	6	4	4	5	5	13	10	11	8	16	9	12	7	10	10	12	6	6	8	8	4	5	16.0
7-Jan	5	6	4	7	5	9	8	7	6	8	7	5	11	6	8	4	20	10	21	10	5	5	6	5	21.3
8-Jan	7	27	9	58	34	20	16	7	14	7	24	65	21	26	8	10	12	33	15	30	8	9	5	9	64.8
9-Jan	9	11	27	7	9	8	9	3	6	7	5	7	6	7	5	5	7	4	7	15	12	61	38	39	60.8
10-Jan	9	11	68	8	10	9	8	8	5	44	6	24	76	61	34	38	20	49	7	7	59	57	54	6	76.0
11-Jan	89	39	70	71	70	81	71	38	16	14	6	7	5	5	6	5	4	6	35	8	9	62	18	73	88.7
12-Jan	19	18	27	44	12	26	36	25	31	17	31	49	56	12	51	7	3	5	4	17	25	4	6	9	56.1
13-Jan	5	4	3	4	3	6	5	4	16	7	6	9	6	4	4	9	11	10	5	4	14	19	12	20	20.1
14-Jan	12	10	5	23	10	4	7	11	26	61	9	24	40	4	4	5	3	12	11	11	4	6	7	44	61.3
15-Jan	17	5	6	6	3	4	3	3	3	3	5	4	4	4	4	4	7	5	3	4	4	4	7	7	16.8
16-Jan	8	27	73	21	15	12	6	9	20	83	42	40	29	16	15	8	54	60	37	35	80	22	17	41	82.7
17-Jan	27	56	12	8	76	11	43	17	16	32	25	78	35	21	30	11	20	18	17	29	60	79	91	61	91.2
18-Jan	95	41	23	67	57	62	82	85	23	45	43	67	39	22	81	20	20	18	60	77	86	62	60	79	95.3
19-Jan	55	84	95	67	99	48	61	86	33	66	40	84	44	74	56	58	22	50	26	45	20	37	38	48	98.6
20-Jan	37	79	47	33	44	31	44	39	71	36	32	14	15	17	82	71	68	76	64	55	11	74	69	34	81.6
21-Jan	8	5	5	6	7	7	7	6	6	7	6	7	9	11	8	10	9	7	6	9	9	5	6	7	10.6
22-Jan	15	16	13	64	86	15	18	45	61	40	6	64	68	20	58	27	85	54	15	8	12	17	46	6	85.6
23-Jan	6	16	50	16	20	36	11	6	73	20	13	10	29	14	17	25	13	10	9	11	11	10	9	33	72.8
24-Jan	13	62	63	85	85	62	82	77	10	12	6	25	17	25	21	27	23	60	33	39	73	24	29	10	85.4
25-Jan	9	11	14	15	10	45	10	13	10	14	27	15	49	16	55	72	25	6	14	7	11	11	12	9	72.4
26-Jan	5	11	11	9	7	3	5	8	14	8	22	45	3	33	11	9	5	5	4	11	6	3	8	18	45.0
27-Jan	7	11	8	11	34	10	58	55	61	15	7	9	52	43	3	5	3	5	3	3	36	9	33	21	61.1
28-Jan	19	26	33	70	76	65	33	23	31	18	36	63	56	13	4	5	3	3	6	3	4	31	5	4	76.1
29-Jan	3	5	7	12	12	87	63	27	8	20	84	10	9	15	12	21	13	10	37	7	8	4	9	4	87.2
30-Jan	5	4	4	6	4	4	4	6	4	5	5	6	6	6	7	14	5	5	8	8	10	10	6	8	14.1
31-Jan	10	9	8	7	7	9	15	14	9	14	5	5	7	7	9	8	6	6	7	26	7	14	9	36	36.3
	95.3	89.4	94.6	85.9	98.6	87.2	82.3	85.7	72.8	82.7	84.3	83.9	76.0	74.1	81.6	72.4	84.7	75.9	81.0	82.8	85.6	79.0	91.2	80.3	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 23.9 ppb on Jan 26 23:00 Maximum Daily Average: 3.7 ppb on Jan 11

Minimum Value: 0 ppb on Jan 1 01:00 Minimum Daily Average: 0.0 ppb on Jan 21
Maximum Diurnal Average: 1.5 ppb at hour 16 Minimum Diurnal Average: 0.2 ppb at hour 9
Monthly Average: 0.70 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.3 P_{90} = 1.3 P_{99} = 13.0

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	0	0	0	0	0	A	0	0	0	0	0	1	2	0	2	0	1	4	1	0	0	0	0	0	0.5	4.1
2-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
3-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0.3	2.5
5-Jan	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
6-Jan	A	0	0	0	0	1	1	1	1	2	2	2	1	1	2	1	1	1	1	2	1	1	2	A	1.2	2.3
7-Jan	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
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0	1	A	0	5	0.6	5.2
9-Jan	8	8	1	5	2	1	1	5	1	1	10	1	1	1	1	1	1	1	1	0	A	0	0	0	2.1	9.7
10-Jan	0	0	0	0	2	1	0	0	0	1	0	1	1	C	C	18	1	0	0	A	0	0	0	0	1.3	17.7
11-Jan	0	0	6	8	4	3	5	4	1	16	13	12	8	1	0	0	0	0	A	0	1	0	0	0	3.7	16.0
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	4	7	15	1	2	1.4	15.2
13-Jan	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.5
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.5
15-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	3	A	18	1	0	0	0	0	0	0	0	1.0	18.3
16-Jan	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
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0.1	1.3
18-Jan	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
19-Jan	0	0	0	0	0	0	0	0	0	0	A	1	1	4	1	0	0	0	0	0	0	0	0	0	0.4	3.8
20-Jan	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	0.3
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-Jan	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
23-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	3	1	1	1	0	0	0	0	0	0	0	0.4	2.7
24-Jan	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
25-Jan	0	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
26-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	24	14	2.2	23.9
27-Jan	10	3	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	5	1	0	1.2	10.4
28-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0.3	2.6
29-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	A	0.3	2.9
30-Jan	12	11	5	5	6	4	3	2	2	4	0	0	0	0	0	0	2	5	1	0	0	0	A	0	2.8	11.6
31-Jan	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	A	1	1	0.3	1.4
Diurnal Average	1.2	0.9	0.6	0.7	0.6	0.4	0.4	0.5	0.2	0.9	1.0	0.7	0.6	0.6	0.4	1.5	0.4	0.6	0.4	0.4	0.8	1.2	1.1	0.9		
Diurnal Maximum	11.6	11.2	5.9	7.7	6.0	3.9	5.1	4.6	1.7	16.0	13.3	12.2	8.3	3.8	1.6	18.3	1.6	5.1	2.9	4.0	6.9	15.2	23.9	13.8		

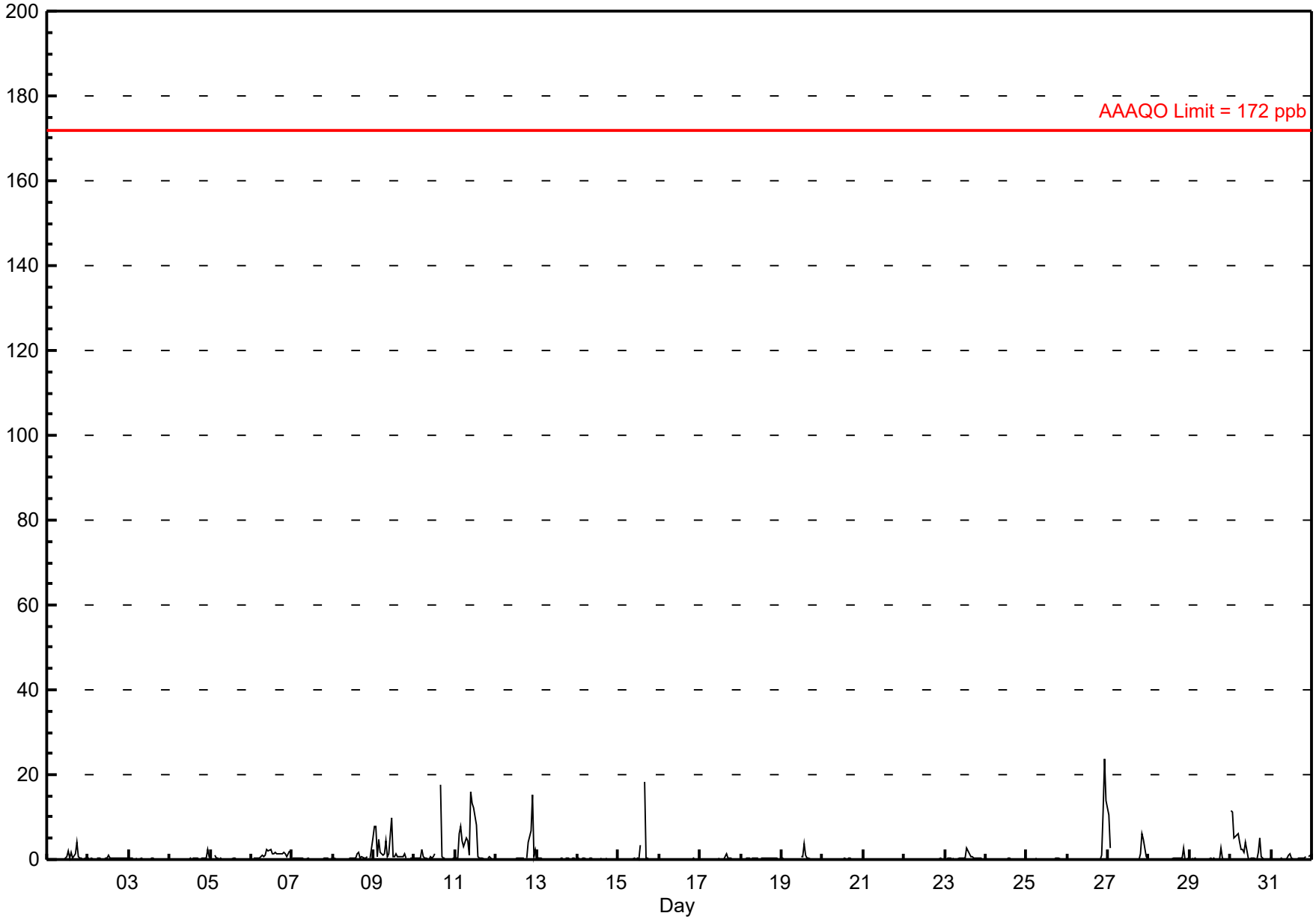
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - January 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - January 2017

Maximum Value: 143.3 ppb on Jan 12 22:00

Maximum Daily Average: 12.2 ppb on Jan 11

Minimum Value: 0 ppb on Jan 27 10:00

Minimum Daily Average: 0.5 ppb on Jan 21

Maximum Diurnal Average: 9.7 ppb at hour 22

Minimum Diurnal Average: 1.0 ppb at hour 9

Monthly Average: 2.92 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.5$ Median = 0.7 $Q_3 = 1.0$ $P_{90} = 4.2$ $P_{99} = 52.9$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1	0	0	0	0	A	1	0	0	0	0	9	10	3	5	3	11	13	1	1	1	1	1	1	2.8	13.1
2-Jan	1	1	1	1	A	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1.0	5.5
3-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
4-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	2	1.0	7.5
5-Jan	2	A	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0.8	3.5
6-Jan	A	1	1	1	1	1	2	1	2	3	3	3	2	2	2	2	2	2	2	2	2	1	6	A	2.0	6.4
7-Jan	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	2.0
8-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	4	1	2	1	1	2	A	1	25	2.2	25.5
9-Jan	19	18	2	19	9	2	11	14	2	3	23	1	5	8	4	1	1	3	5	1	A	1	1	1	6.7	22.7
10-Jan	1	1	1	1	5	1	1	1	1	3	1	10	3	C	C	76	2	1	1	A	1	1	1	1	5.3	76.1
11-Jan	1	1	15	14	6	6	13	7	5	76	61	33	29	2	1	1	1	1	A	2	2	1	1	1	12.2	76.4
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	40	62	143	5	5	11.6	143.3
13-Jan	2	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.5
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	0	0	0	0.7	1.3
15-Jan	1	1	0	1	1	1	1	1	1	2	1	1	0	12	A	119	5	2	1	0	0	0	0	1	6.6	119.3
16-Jan	1	1	1	1	1	0	1	0	0	1	0	0	0	A	0	0	0	1	1	1	1	1	1	0	0.6	0.9
17-Jan	0	1	1	0	0	0	1	0	0	0	1	1	A	0	0	3	1	1	1	0	0	1	1	1	0.7	2.9
18-Jan	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	1.1
19-Jan	1	1	1	1	1	1	1	1	1	1	A	3	2	18	2	1	1	1	1	1	1	1	1	1	1.7	17.9
20-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0.6	1.0
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0.8
22-Jan	0	1	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
23-Jan	1	1	1	1	1	1	A	1	1	1	1	1	1	6	4	1	1	1	1	1	1	1	1	1	1.1	5.6
24-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
25-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
26-Jan	1	1	1	A	1	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0	8	91	128	29	11.5	127.8
27-Jan	19	8	A	1	1	0	1	1	1	0	0	0	1	1	0	1	0	1	1	5	27	29	2	1	4.4	29.3
28-Jan	1	A	0	1	0	1	1	1	1	0	0	0	0	1	1	2	1	1	1	3	12	0	1	1	1.3	11.5
29-Jan	A	0	1	1	0	0	1	0	1	1	1	1	1	1	1	0	1	1	13	1	0	1	1	A	1.2	13.4
30-Jan	31	19	9	15	13	11	5	5	6	19	1	1	2	1	1	1	7	24	6	1	1	1	A	1	7.7	30.5
31-Jan	1	1	1	1	1	1	1	1	1	2	2	5	1	1	1	1	1	1	1	1	3	A	2	11	1.6	11.3
	3.0	2.2	1.6	2.3	1.7	1.3	1.6	1.4	1.0	4.1	3.5	2.7	2.4	2.3	1.4	7.6	1.6	2.1	1.5	2.3	4.4	9.7	5.7	3.0	Diurnal Average	
	30.5	19.3	14.9	18.9	13.0	11.2	12.9	14.1	6.3	76.4	61.4	33.4	29.2	17.9	5.1	119.3	11.0	23.7	13.4	40.0	61.5	143.3	127.8	28.6	Diurnal Maximum	

C - Calibration

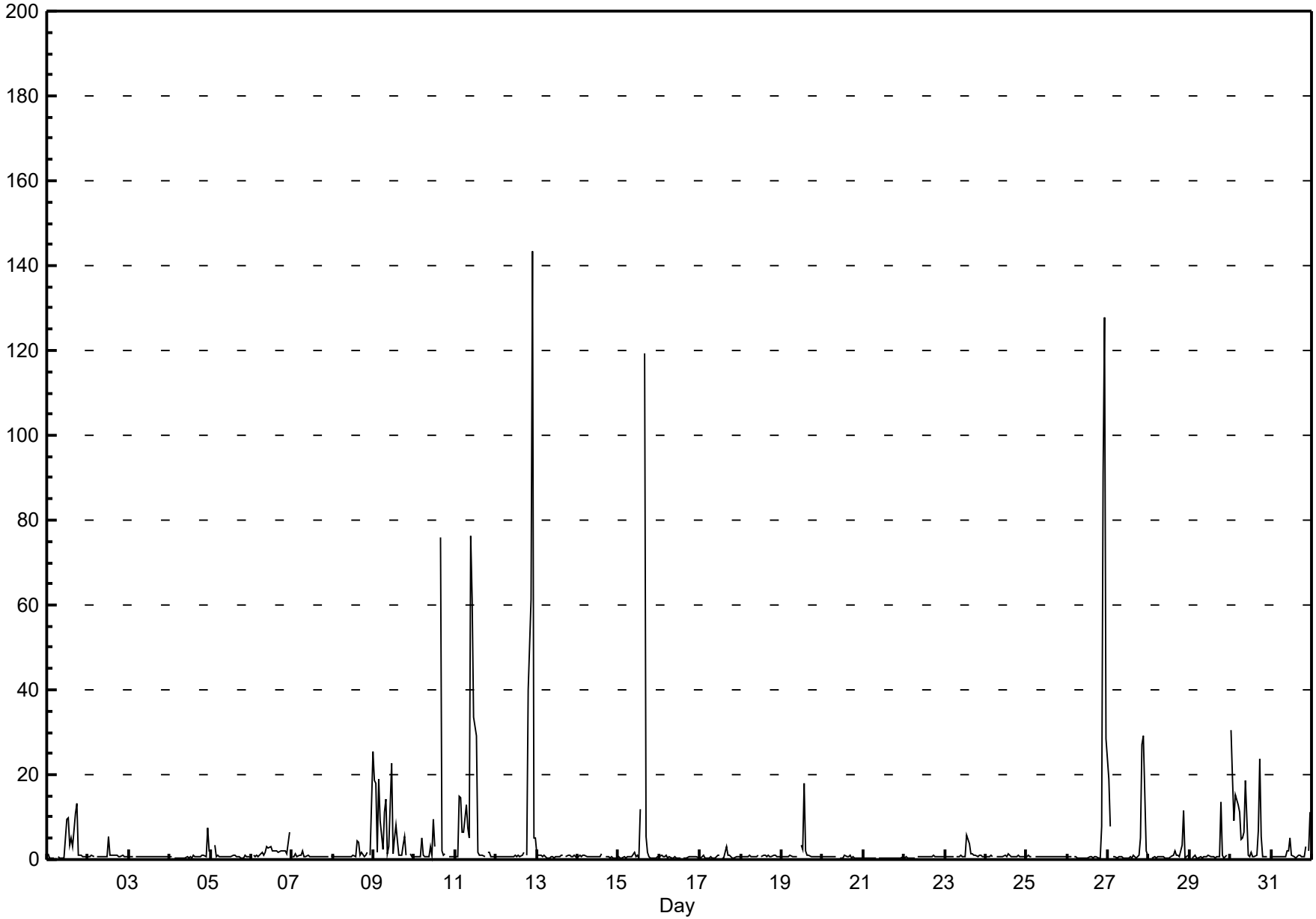
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

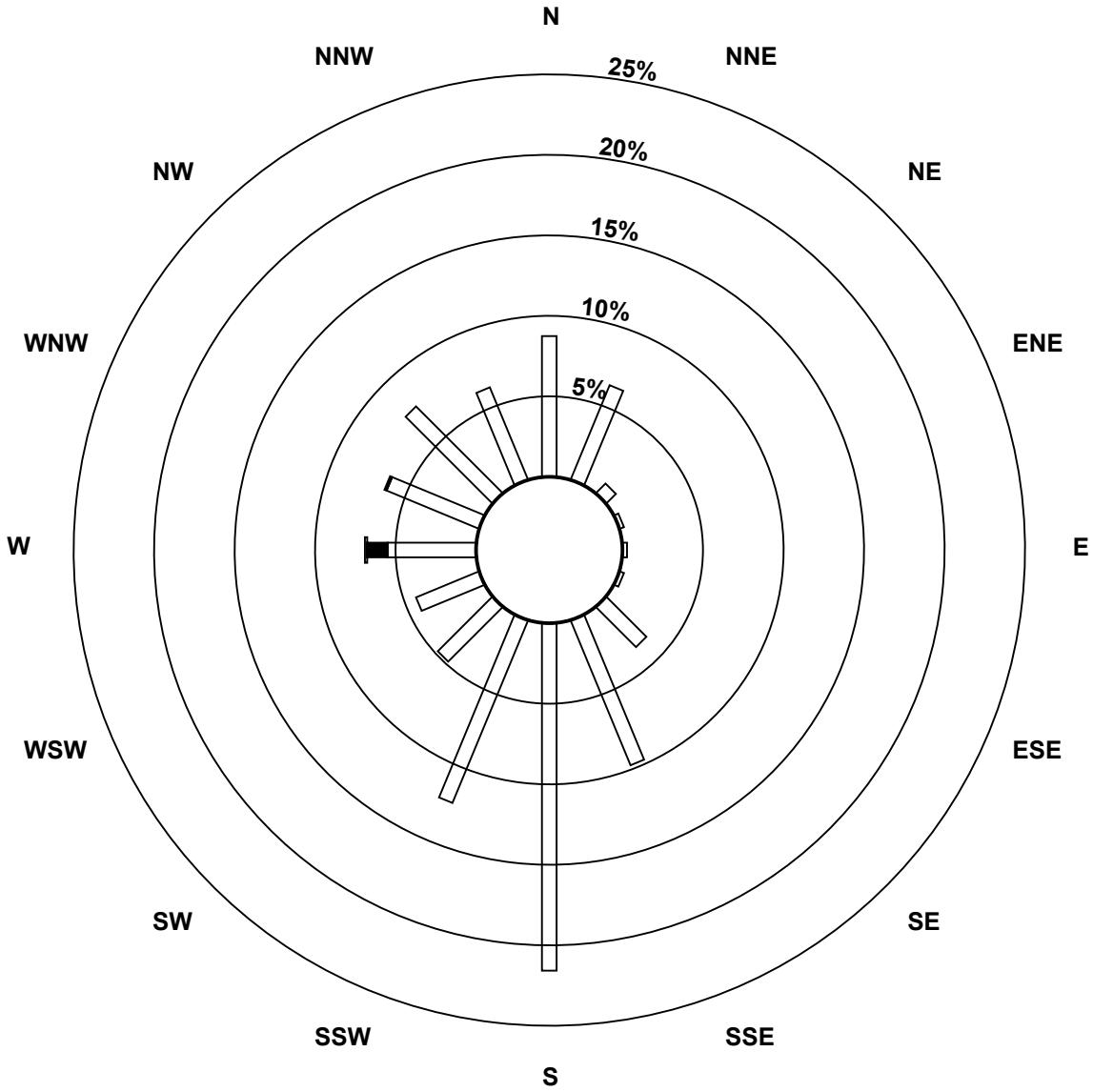
Valleyview - January 2017



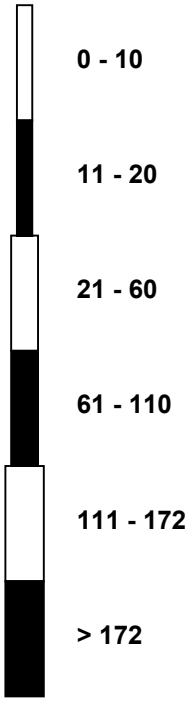
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - January 2017



Pollutant Classes (ppb)

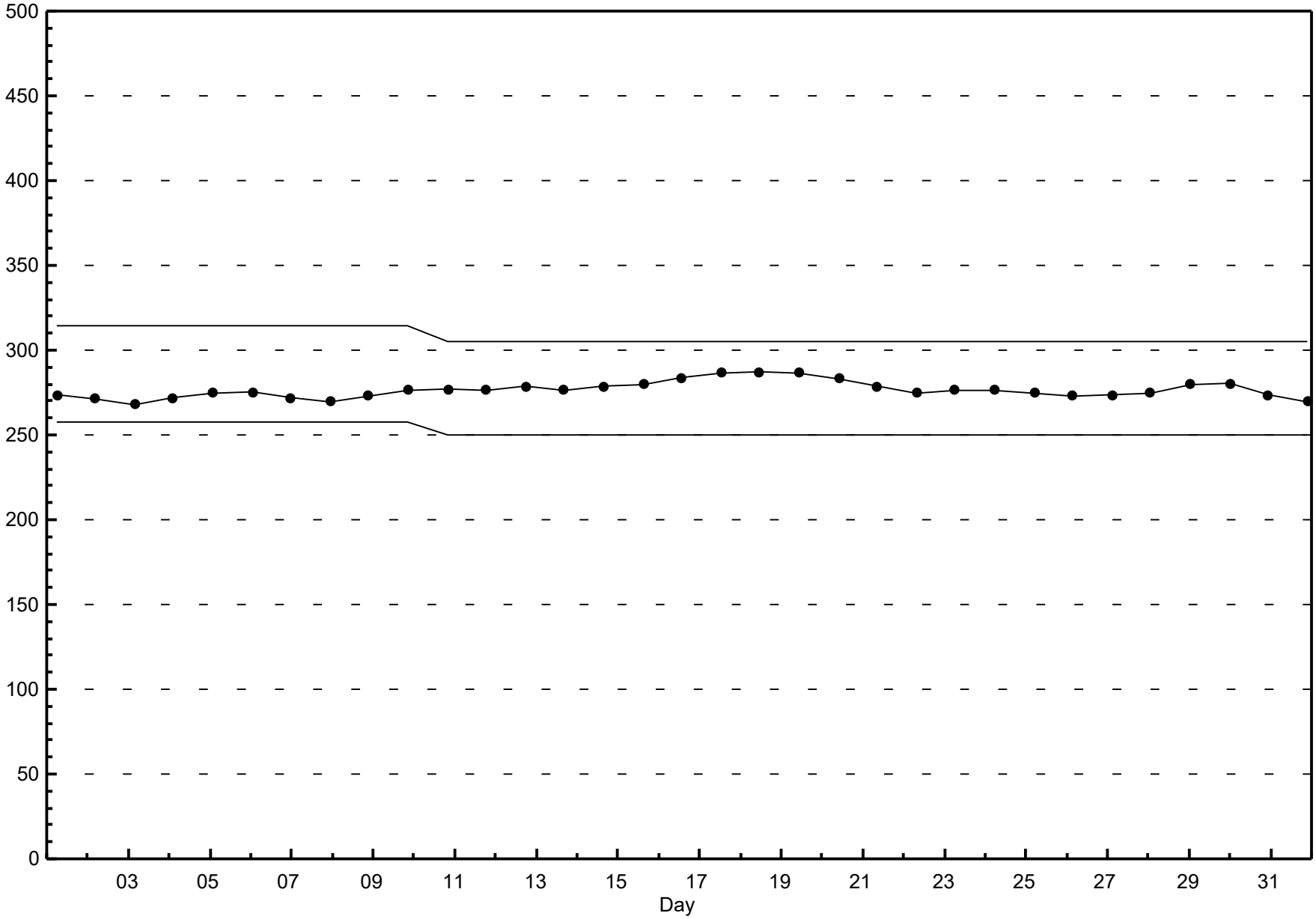


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Valleyview - January 2017



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 6.2 ppb on Jan 24 17:00 Maximum Daily Average: 1.0 ppb on Jan 24

Minimum Value: 0 ppb on Jan 1 01:00 Minimum Daily Average: 0.0 ppb on Jan 22
Maximum Diurnal Average: 0.5 ppb at hour 21 Minimum Diurnal Average: 0.0 ppb at hour 9
Monthly Average: 0.21 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.5 P_{99} = 2.7

Hours in Service:	744
Hours of Data:	707
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-Jan	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
2-Jan	1	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0	0.3	0.7
3-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
4-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1	1.0
5-Jan	2	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	1.6
6-Jan	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
7-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5
9-Jan	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0.1	0.7
10-Jan	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	1	0	0	0	A	0	0	0	0	0.1	0.5
11-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	2	0	0	0.2	2.0
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0	0.1	0.7
13-Jan	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.6
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	1	1	0	0	0	0	0	0.3	1.6
15-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0.1	0.6
16-Jan	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	0.1
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	1	3	2	1	1	1	1	0.6	3.1
18-Jan	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	5	0.4	4.7
19-Jan	5	1	1	1	1	0	0	0	0	0	A	1	0	1	2	1	0	0	0	0	0	0	0	0	0.7	5.1
20-Jan	0	0	0	0	0	0	0	0	0	A	0	0	2	0	1	0	1	1	0	1	2	1	2	1	0.5	1.8
21-Jan	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
22-Jan	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
23-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
24-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	1	5	2	6	4	2	1	0	0	0	0	1.0	6.2
25-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
27-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0.3	3.1
28-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.8
29-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
30-Jan	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.8
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	A	0	0	0.3	5.3
	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.3	0.3	0.3	0.2	0.5	0.4	0.2	0.3	Diurnal Average	
	5.1	1.5	1.0	1.1	0.8	0.6	0.4	0.6	0.3	0.3	0.4	1.4	1.8	0.8	5.1	2.1	6.2	3.8	3.1	1.9	5.3	3.1	1.6	4.7	Diurnal Maximum	

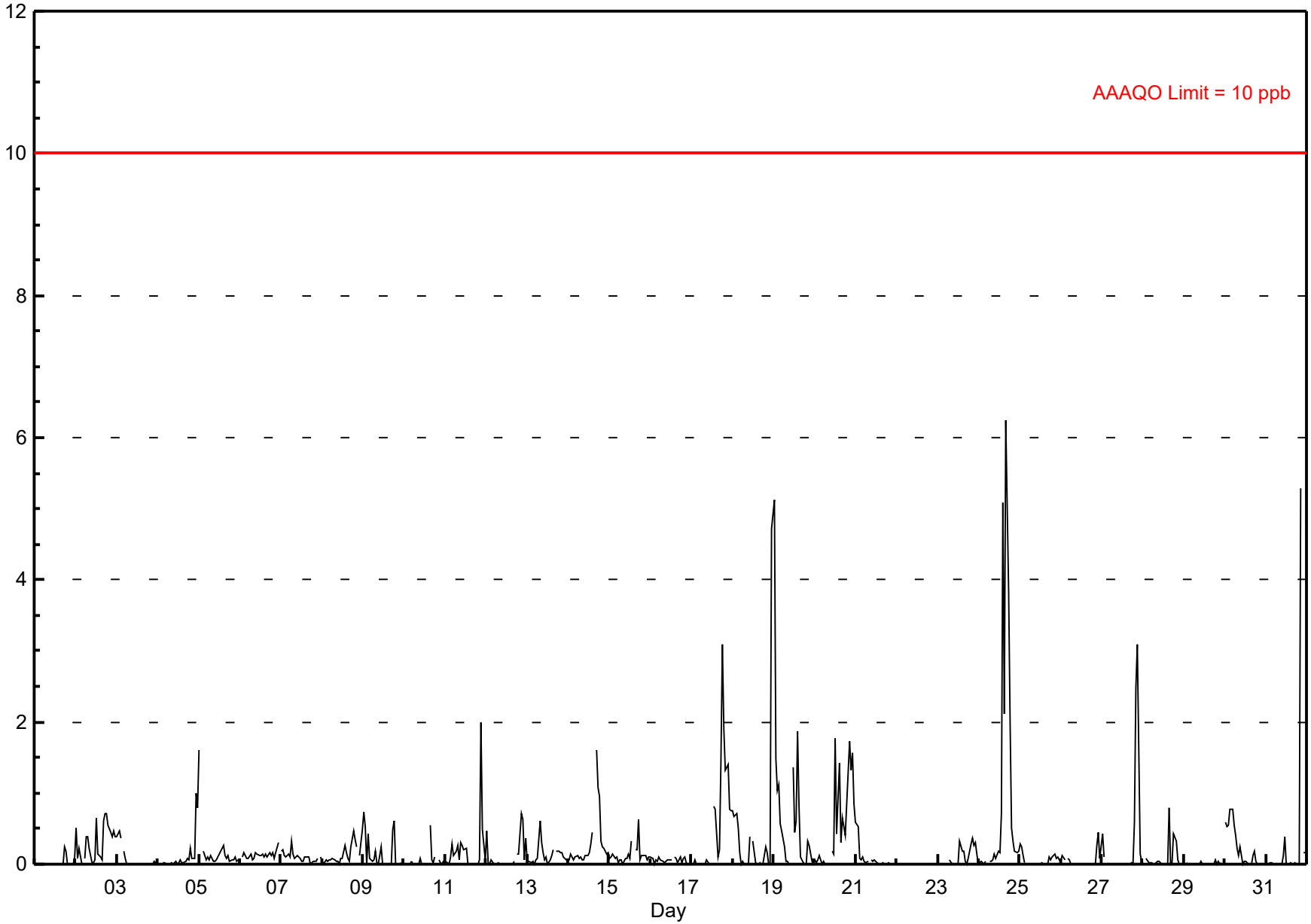
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - January 2017



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - January 2017

Maximum Value: 37.5 ppb on Jan 24 15:00

Maximum Daily Average: 4.0 ppb on Jan 24

Minimum Value: 0 ppb on Jan 27 12:00

Minimum Daily Average: 0.4 ppb on Jan 22

Maximum Diurnal Average: 2.2 ppb at hour 15

Minimum Diurnal Average: 0.5 ppb at hour 9

Monthly Average: 0.95 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.5 $Q_3 = 0.7$ $P_{90} = 1.5$ $P_{99} = 8.8$

Hours in Service:	744
Hours of Data:	707
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-Jan	0	0	0	0	0	A	1	0	1	0	0	0	1	0	1	1	1	1	1	0	1	0	0	1	0.5	1.2
2-Jan	1	1	1	1	A	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
3-Jan	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	1.1
4-Jan	0	0	A	0	1	0	0	1	0	0	1	1	1	1	0	1	1	1	0	1	1	1	2	2	0.7	2.1
5-Jan	3	A	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0	1	0.7	3.2
6-Jan	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	1.4
7-Jan	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	A	1	0.6	1.1
8-Jan	1	0	1	1	0	0	0	1	1	1	0	0	0	2	1	1	0	1	1	1	1	A	1	3	0.8	3.2
9-Jan	3	2	1	2	1	1	1	1	0	0	1	0	0	0	0	1	1	4	4	0	A	1	0	0	1.1	4.3
10-Jan	0	0	0	0	1	1	0	0	0	4	0	C	C	C	C	1	0	0	1	A	1	1	1	1	0.7	3.7
11-Jan	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	1	3	2	1	0.8	3.1
12-Jan	2	1	0	0	0	1	0	1	0	1	0	0	1	1	1	0	1	A	1	1	2	1	0	1	0.7	2.2
13-Jan	0	1	1	1	0	1	1	2	1	1	1	1	0	1	1	1	A	1	2	1	1	1	1	1	0.7	2.4
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	6	2	2	1	1	1	1	1	1.0	5.5
15-Jan	1	1	1	0	1	1	1	0	1	1	1	1	1	1	A	1	1	2	0	1	0	1	0	1	0.7	1.9
16-Jan	0	0	0	1	1	1	1	1	0	0	0	1	1	A	0	1	0	0	1	1	1	0	1	0	0.5	0.7
17-Jan	1	0	0	1	0	0	0	0	0	1	0	0	A	2	2	1	1	6	6	3	2	2	1	1	1.4	5.8
18-Jan	1	1	1	1	1	1	1	0	0	0	1	A	1	0	0	0	1	0	0	2	1	0	0	11	1.2	11.4
19-Jan	8	3	3	2	1	2	1	1	0	0	A	8	1	1	6	3	1	1	1	0	2	1	1	0	2.0	7.9
20-Jan	0	0	0	1	0	0	1	0	0	A	1	1	6	2	5	1	2	1	1	2	4	2	3	2	1.6	5.7
21-Jan	1	1	0	0	1	0	1	1	A	0	0	1	0	0	1	0	1	0	0	1	1	0	0	1	0.5	1.2
22-Jan	0	0	0	0	0	0	1	A	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.6
23-Jan	1	1	0	0	0	1	A	1	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
24-Jan	1	1	1	1	1	A	0	0	1	1	1	1	1	12	37	4	12	10	5	2	1	1	1	1	4.0	37.5
25-Jan	1	1	1	1	A	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0.5	0.7
26-Jan	1	1	1	A	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	2	3	1	0.7	2.8
27-Jan	3	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	12	1	1	1.3	11.9
28-Jan	0	A	0	1	0	0	0	0	0	1	0	0	1	1	0	8	0	1	1	1	0	0	1	0	0.8	7.5
29-Jan	A	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	1	0	0	A	0.5	0.9
30-Jan	3	2	2	2	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	1	1	A	0	1.0	2.9
31-Jan	0	0	0	0	1	0	0	0	0	0	1	2	0	0	0	0	0	1	0	1	13	A	1	1	1.1	13.4
	1.2	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.8	0.8	1.1	2.2	1.0	1.2	1.3	1.2	0.9	1.4	1.2	0.9	1.2	Diurnal Average	
	7.9	2.7	3.1	2.1	1.5	1.8	1.4	2.4	1.0	3.7	1.3	7.9	5.7	11.7	37.5	7.5	11.8	9.7	5.8	3.1	13.4	11.9	2.9	11.4	Diurnal Maximum	

C - Calibration

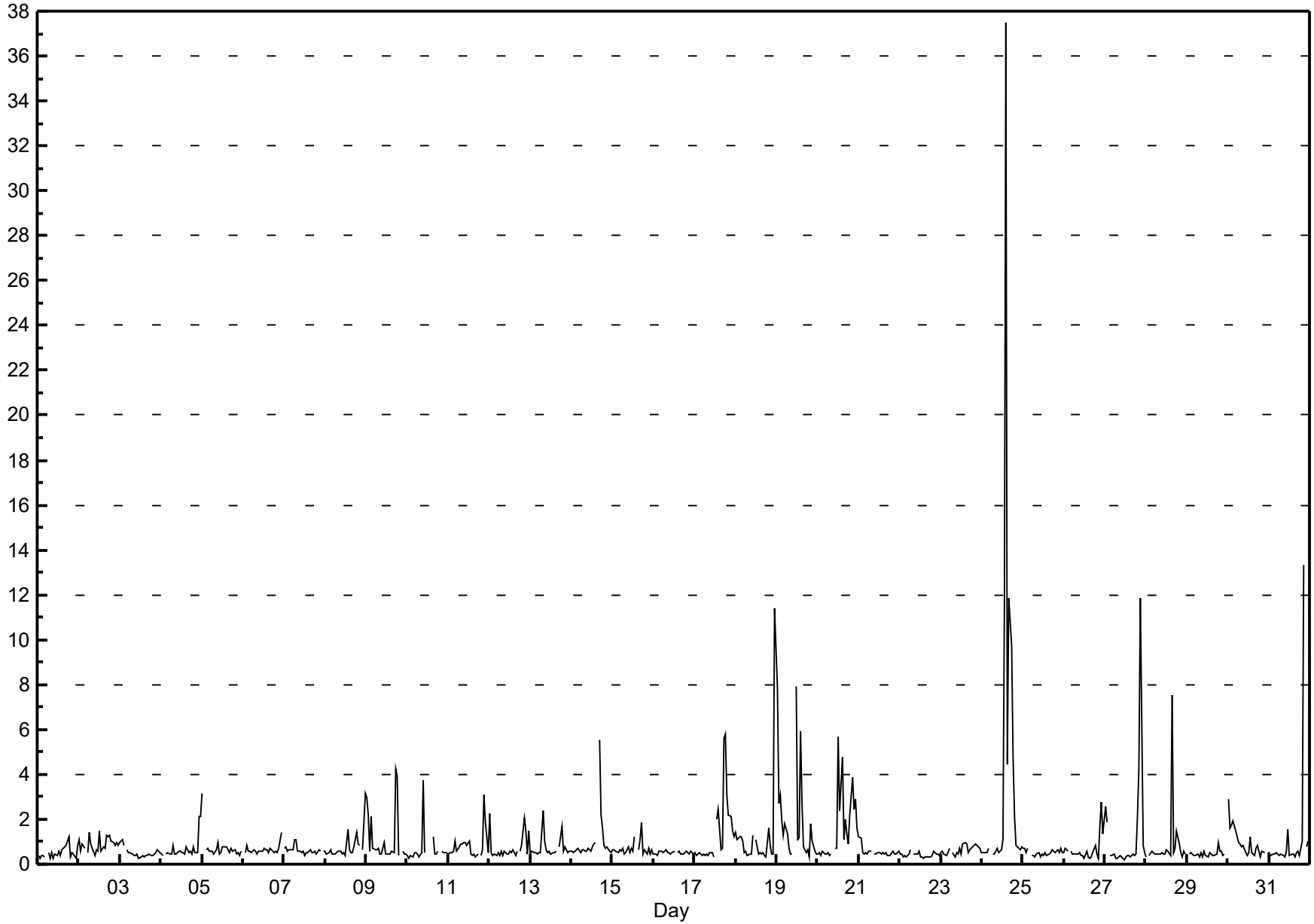
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

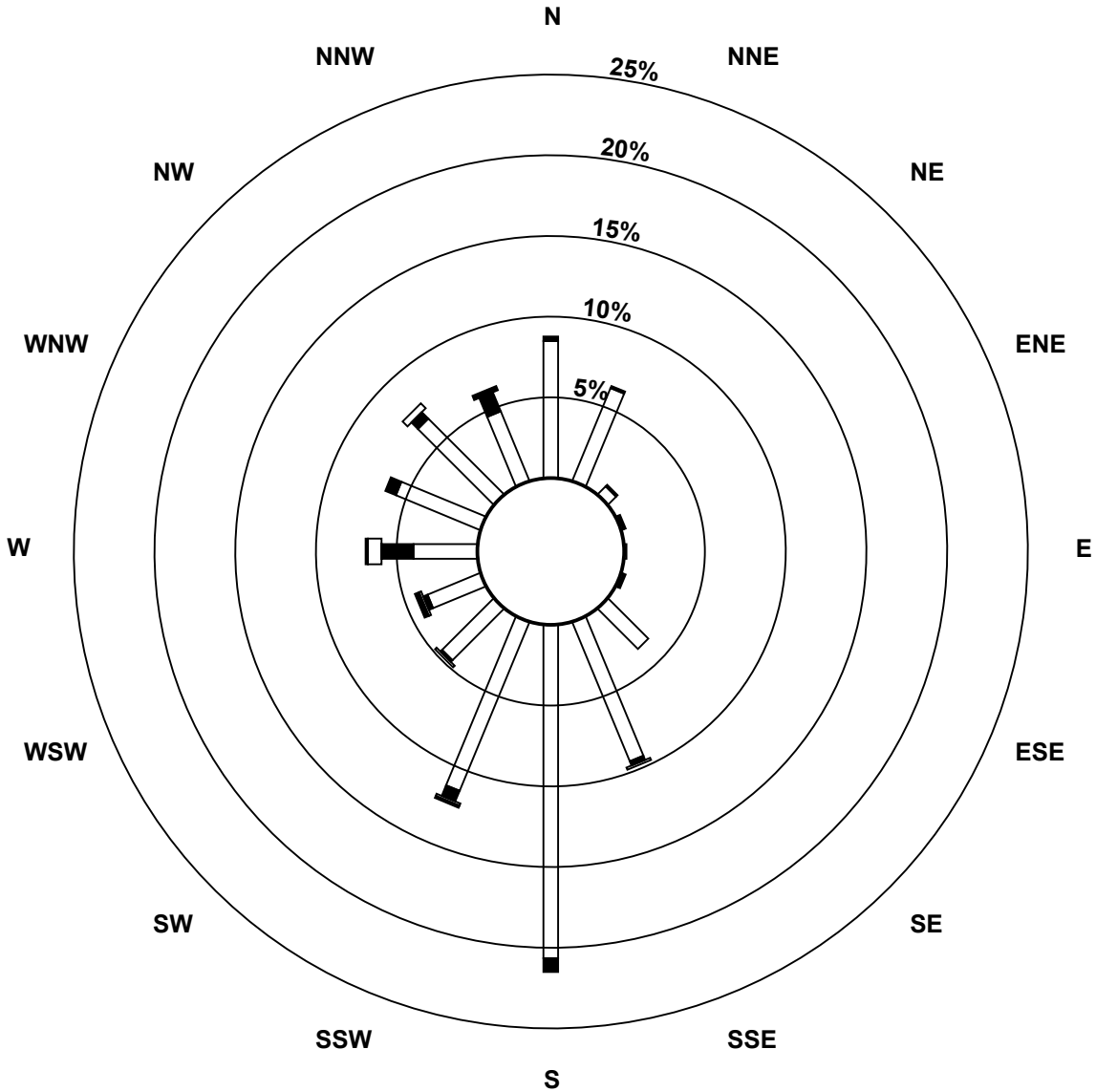
Valleyview - January 2017



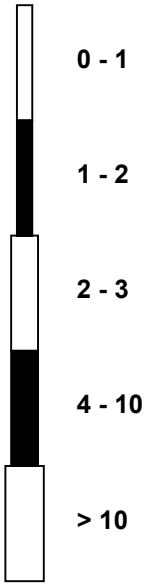
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - January 2017



Pollutant Classes (ppb)

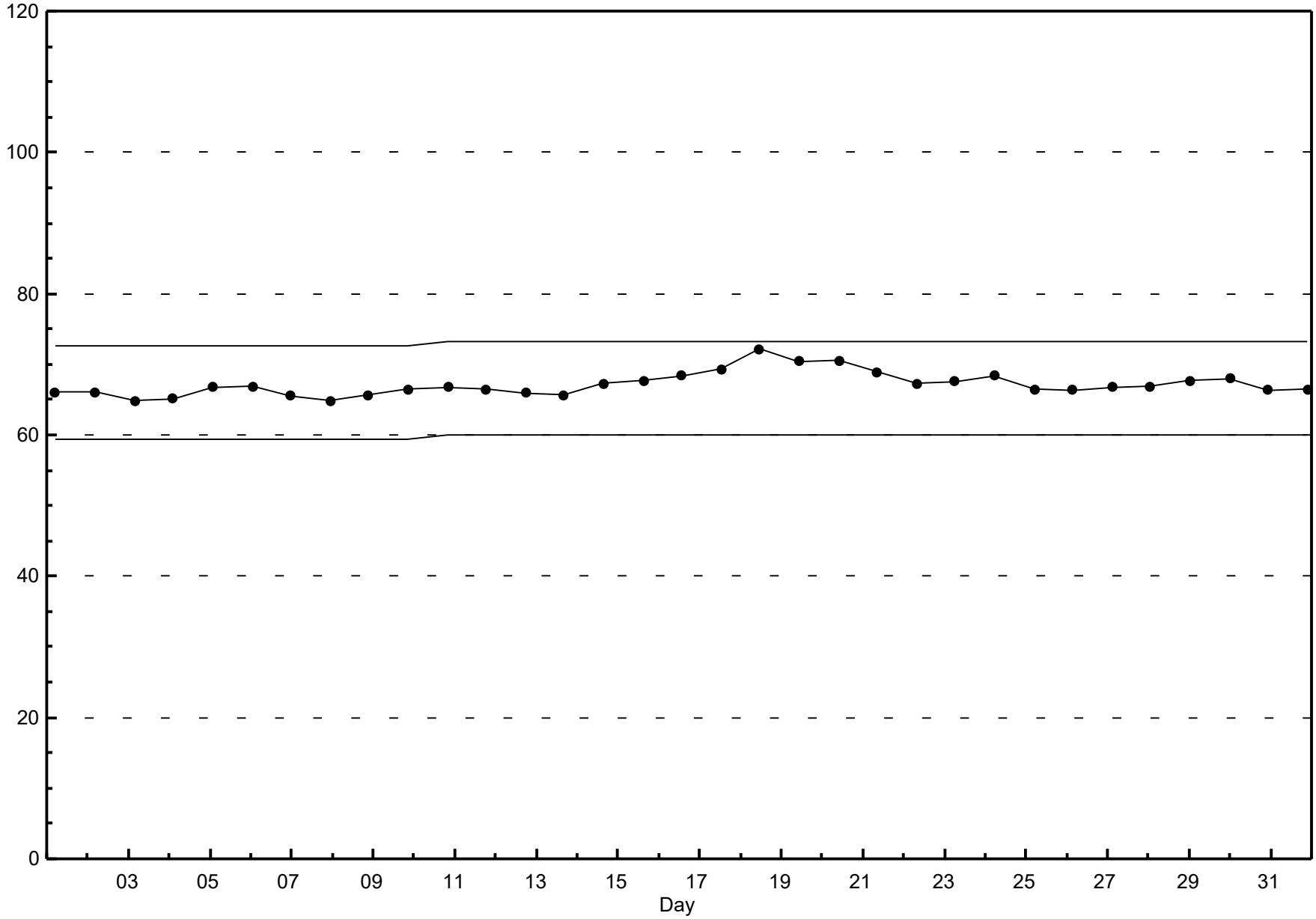


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - January 2017



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Valleyview - January 2017

Maximum Value: 11.7 °C on Jan 18 16:00

Maximum Daily Average: 6.0 °C on Jan 28

Minimum Value: -28 °C on Jan 3 07:00

Minimum Daily Average: -20.8 °C on Jan 3

Maximum Diurnal Average: -4.0 °C at hour 16

Minimum Diurnal Average: -9.1 °C at hour 10

Monthly Average: -7.14 °C

Percentiles: P_1 = -26.6 P_{10} = -19.0 Q_1 = -13.7 Median = -7.7 Q_3 = 0.6 P_{90} = 5.3 P_{99} = 8.8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

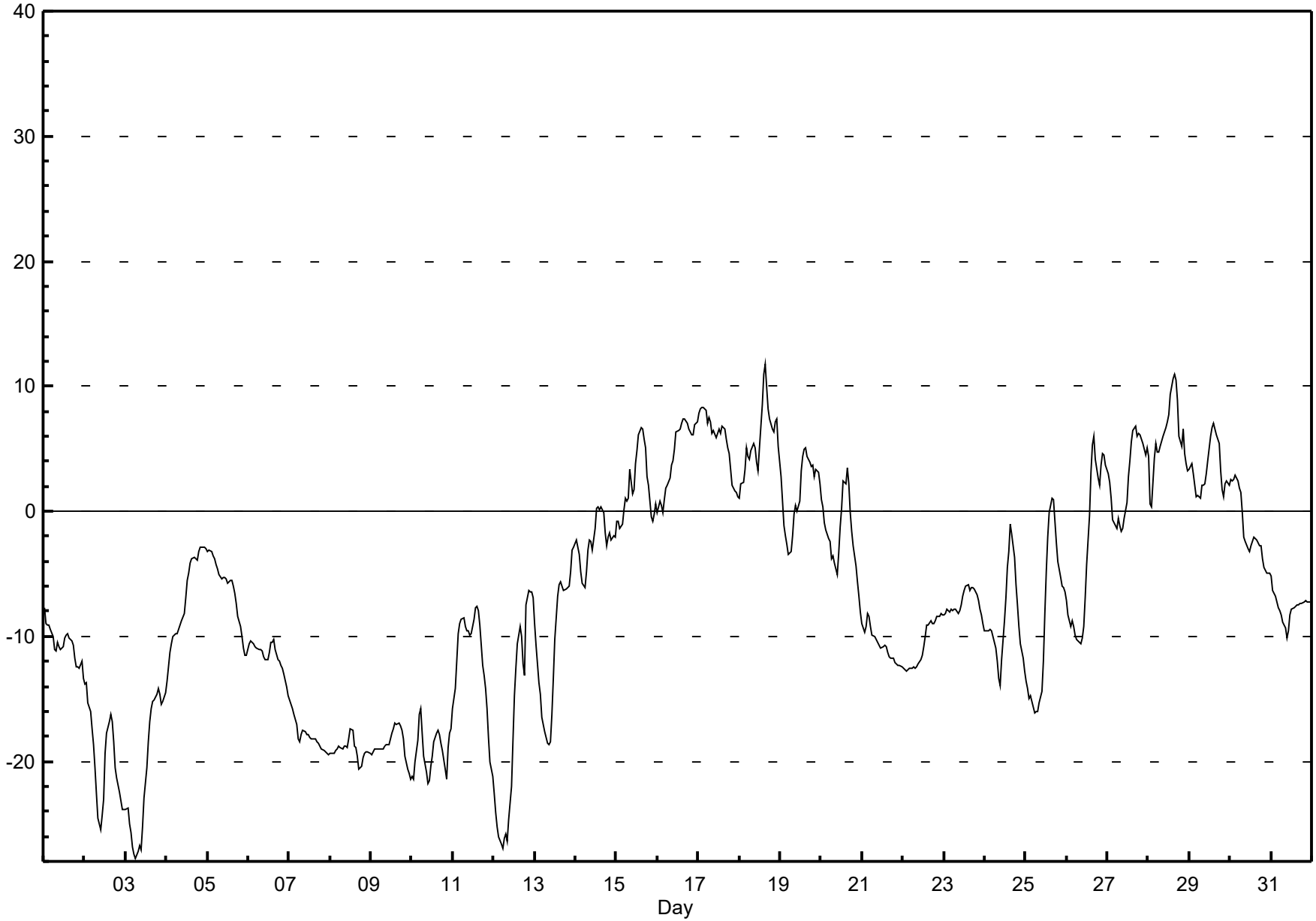
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	-8	-9	-9	-9	-9	-10	-11	-11	-11	-11	-11	-11	-10	-10	-10	-10	-10	-11	-12	-12	-12	-13	-12	-13	-10.6	-7.7
2-Jan	-14	-14	-15	-16	-17	-19	-21	-23	-25	-25	-24	-23	-19	-18	-17	-16	-17	-18	-20	-21	-22	-23	-24	-24	-19.8	-13.7
3-Jan	-24	-24	-25	-26	-27	-27	-28	-27	-27	-27	-25	-23	-21	-18	-17	-16	-15	-15	-15	-14	-15	-15	-15	-15	-20.8	-14.1
4-Jan	-14	-12	-11	-11	-10	-10	-10	-9	-9	-9	-8	-7	-5	-5	-4	-4	-4	-4	-4	-3	-3	-3	-3	-3	-6.9	-2.9
5-Jan	-3	-3	-3	-4	-4	-4	-5	-5	-5	-5	-5	-5	-6	-6	-6	-6	-7	-7	-8	-9	-10	-11	-12	-12	-6.3	-3.1
6-Jan	-11	-10	-11	-11	-11	-11	-11	-11	-11	-12	-12	-12	-11	-10	-10	-10	-11	-12	-12	-12	-13	-13	-14	-15	-11.5	-10.3
7-Jan	-15	-15	-16	-16	-17	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-19	-19	-19	-19	-19	-19	-19	-17.9	-15.0
8-Jan	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-18	-17	-18	-19	-19	-20	-21	-20	-20	-19	-19	-19	-19	-19.1	-17.4
9-Jan	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-18	-18	-17	-17	-17	-17	-17	-17	-18	-20	-21	-21	-21	-18.7	-16.9
10-Jan	-21	-21	-20	-18	-16	-16	-18	-20	-21	-22	-22	-20	-20	-18	-18	-18	-18	-19	-19	-21	-21	-19	-18	-17	-19.2	-15.7
11-Jan	-16	-14	-12	-10	-9	-9	-9	-9	-10	-10	-10	-10	-9	-8	-8	-8	-9	-12	-13	-14	-16	-18	-20	-21	-11.7	-7.6
12-Jan	-23	-24	-25	-26	-27	-27	-26	-26	-26	-25	-22	-18	-15	-13	-11	-9	-10	-12	-13	-7	-6	-6	-6	-7	-17.1	-6.3
13-Jan	-9	-11	-14	-15	-16	-17	-18	-19	-19	-18	-16	-13	-10	-7	-6	-6	-6	-6	-6	-6	-6	-5	-3	-3	-10.6	-2.9
14-Jan	-2	-3	-3	-5	-6	-6	-5	-3	-2	-2	-3	-1	0	0	0	0	0	-2	-3	-2	-2	-2	-2	-2	-2.3	0.4
15-Jan	-1	-1	-1	-1	0	1	1	1	3	1	2	4	5	6	7	7	6	5	3	2	0	-1	0	1	2.0	6.7
16-Jan	0	1	0	0	1	2	2	3	4	4	5	6	6	7	7	7	7	7	7	6	6	6	7	7	4.5	7.4
17-Jan	8	8	8	8	8	7	7	7	6	6	6	6	7	6	7	7	6	5	5	3	2	2	1	1	5.8	8.3
18-Jan	1	2	2	3	5	4	4	5	5	5	4	3	5	9	11	12	10	8	7	7	6	7	7	5	5.8	11.7
19-Jan	3	1	-1	-2	-3	-3	-3	-2	0	0	0	1	3	4	5	5	4	4	4	4	3	3	3	2	1.5	5.1
20-Jan	1	0	-1	-1	-2	-2	-4	-4	-4	-5	-3	-1	0	2	2	3	2	0	-2	-3	-4	-6	-7	-8	-1.9	3.5
21-Jan	-9	-10	-9	-8	-8	-9	-10	-10	-10	-10	-11	-11	-11	-11	-11	-11	-12	-12	-12	-12	-12	-12	-12	-12	-10.7	-8.1
22-Jan	-13	-13	-13	-13	-13	-13	-12	-13	-12	-12	-12	-12	-11	-10	-9	-9	-9	-9	-9	-9	-8	-8	-8	-8	-10.7	-8.2
23-Jan	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-7	-7	-6	-6	-6	-6	-6	-6	-6	-7	-7	-8	-8	-9	-7.4	-5.9
24-Jan	-10	-10	-10	-9	-10	-10	-11	-12	-13	-14	-12	-9	-7	-4	-3	-1	-2	-4	-6	-7	-9	-11	-12	-13	-8.6	-1.0
25-Jan	-14	-14	-15	-15	-16	-16	-16	-16	-15	-14	-12	-8	-5	-2	0	1	1	-1	-3	-4	-5	-6	-6	-6	-8.6	1.0
26-Jan	-7	-8	-9	-9	-9	-10	-10	-10	-11	-10	-9	-7	-4	0	3	5	6	4	3	2	4	5	4	4	-3.1	6.0
27-Jan	3	2	1	-1	-1	-1	-1	-1	-2	-1	-1	1	3	4	5	7	7	6	6	6	6	5	5	5	2.6	6.8
28-Jan	4	1	0	4	5	5	5	5	6	6	7	7	8	9	11	11	10	9	6	5	7	5	4	3	6.0	11.0
29-Jan	3	4	3	2	1	1	1	2	2	2	3	4	6	7	7	7	6	5	3	2	1	2	2	2	3.3	7.1
30-Jan	3	2	3	3	2	2	1	0	-2	-2	-3	-3	-3	-2	-2	-2	-3	-3	-3	-4	-4	-5	-5	-5	-1.5	2.9
31-Jan	-5	-6	-7	-7	-8	-8	-8	-9	-9	-10	-10	-8	-8	-8	-8	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7.7	-5.2
	-7.7	-8.0	-8.3	-8.3	-8.4	-8.7	-9.0	-9.0	-9.1	-9.1	-8.6	-7.5	-6.1	-5.0	-4.3	-4.0	-4.3	-5.2	-6.0	-6.3	-6.7	-7.0	-7.1	-7.4	Diurnal Average	
	7.8	8.2	8.3	8.3	8.0	7.1	7.5	7.1	6.2	6.5	6.7	7.1	7.8	9.4	11.0	11.7	10.5	8.9	7.4	6.6	6.6	7.1	7.4	7.1	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - January 2017



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - January 2017

Maximum Value: 97.1 % on Jan 20 04:00

Maximum Daily Average: 93.2 % on Jan 5

Minimum Value: 19 % on Jan 18 16:00

Minimum Daily Average: 35.7 % on Jan 16

Maximum Diurnal Average: 71.7 % at hour 2

Minimum Diurnal Average: 54.6 % at hour 16

Monthly Average: 66.61 %

Percentiles: P_1 = 24.9 P_{10} = 37.3 Q_1 = 48.3 Median = 71.7 Q_3 = 83.9 P_{90} = 88.8 P_{99} = 95.9

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

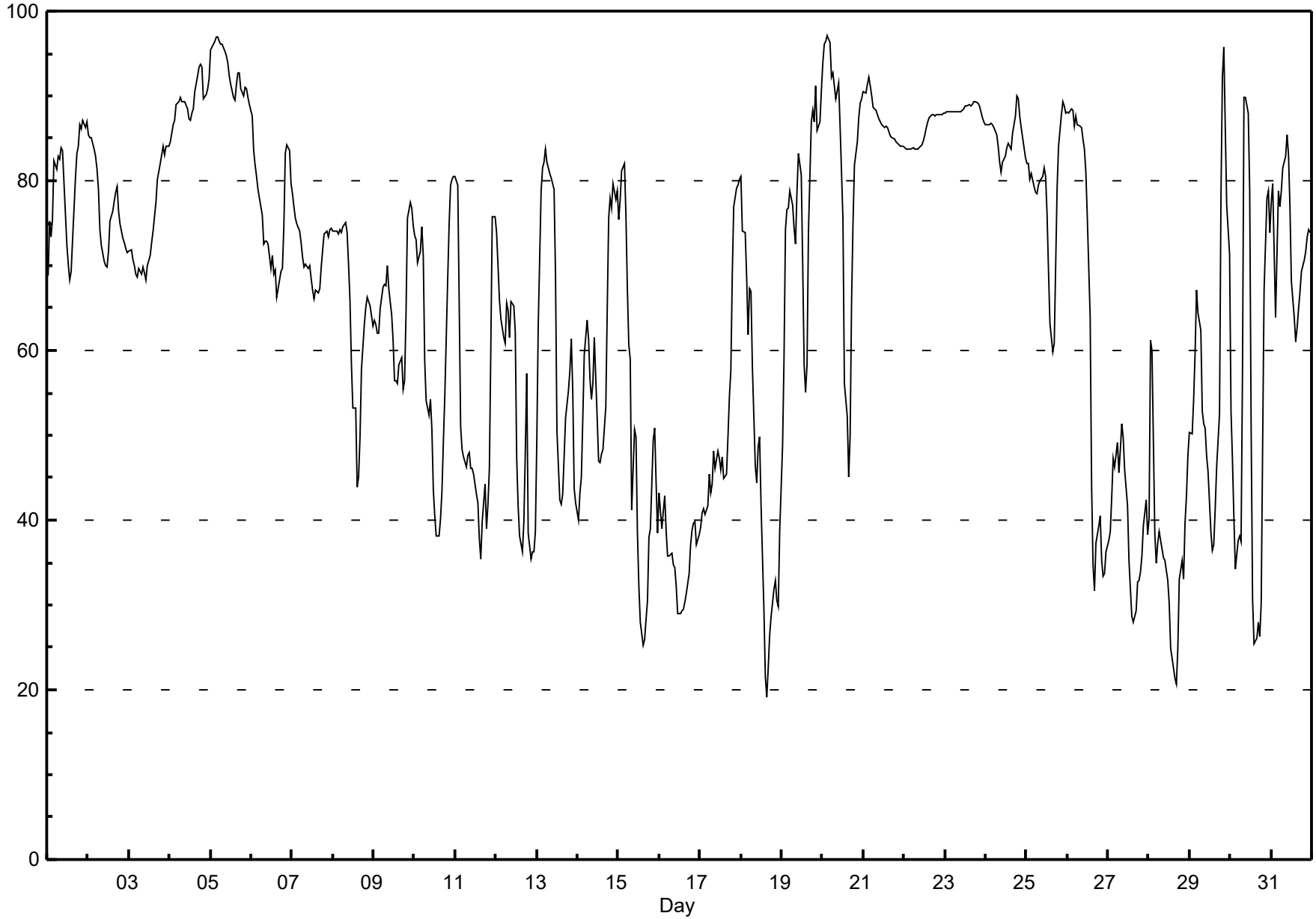
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	69	75	73	75	82	81	83	82	84	84	80	73	70	68	69	73	80	83	84	87	86	87	86	87	79.3	87.1
2-Jan	85	85	85	84	83	81	79	74	72	70	70	70	72	75	77	78	79	79	76	75	73	73	72	72	76.6	85.4
3-Jan	72	72	71	70	69	69	70	69	70	69	68	70	71	73	74	76	77	80	82	83	84	83	84	84	74.6	84.1
4-Jan	85	86	87	87	89	89	90	89	89	89	88	87	87	88	88	90	92	93	94	93	90	90	91	92	89.4	93.8
5-Jan	95	96	96	97	97	96	96	96	95	95	94	92	91	90	90	91	93	93	91	90	91	91	90	89	93.2	97.0
6-Jan	88	83	82	80	79	78	76	72	73	73	73	70	71	69	70	66	67	69	70	75	83	84	84	80	75.6	87.6
7-Jan	79	77	76	75	74	73	71	70	70	70	70	68	67	66	67	67	67	70	72	74	74	73	74	74	71.6	78.5
8-Jan	74	74	74	74	74	74	75	75	74	70	66	58	53	53	44	45	50	58	63	65	66	66	65	63	64.7	75.0
9-Jan	64	63	62	62	65	67	68	68	70	67	64	61	57	56	56	58	59	55	56	64	76	77	77	75	64.5	77.4
10-Jan	74	73	70	72	75	71	59	54	52	54	51	44	41	38	38	40	43	49	55	68	75	79	80	80	59.8	80.5
11-Jan	80	80	66	51	48	47	46	48	48	46	46	45	43	42	38	35	40	44	39	42	46	60	76	76	51.4	80.4
12-Jan	74	70	66	64	61	61	66	65	62	66	65	62	47	42	38	36	40	48	57	38	36	36	36	39	53.1	73.8
13-Jan	49	63	79	82	82	84	82	81	80	80	79	69	51	42	42	43	47	52	55	58	61	55	44	42	62.6	83.7
14-Jan	40	43	45	52	59	64	61	57	54	56	62	52	47	47	48	48	53	65	76	78	77	80	78	79	59.2	79.7
15-Jan	75	78	81	82	76	67	61	59	41	51	50	39	32	28	25	26	28	31	38	39	50	51	44	39	49.6	82.0
16-Jan	43	39	41	43	39	36	36	36	35	34	32	29	29	29	30	30	31	34	37	39	40	40	37	38	35.7	43.2
17-Jan	39	41	41	41	42	46	43	44	48	46	48	47	46	47	45	45	50	55	58	69	77	79	80	80	52.4	80.1
18-Jan	81	74	74	69	62	67	67	58	47	44	49	50	42	29	21	19	23	27	29	32	33	30	30	39	45.6	80.6
19-Jan	49	59	74	77	77	79	77	74	73	79	83	81	70	58	55	58	74	87	88	87	91	86	87	91	75.6	91.1
20-Jan	94	96	96	97	96	92	93	91	90	91	86	81	75	56	52	45	50	66	75	82	85	88	89	90	81.5	97.1
21-Jan	91	90	91	92	91	90	89	88	88	87	87	87	86	86	86	86	85	85	85	85	84	84	84	84	87.2	92.1
22-Jan	84	84	84	84	84	84	84	84	84	84	84	85	85	86	87	87	88	88	88	88	88	88	88	88	85.7	87.9
23-Jan	88	88	88	88	88	88	88	88	88	88	88	89	89	89	89	89	89	89	89	89	89	88	87	87	88.4	89.4
24-Jan	87	87	87	87	87	86	85	84	82	81	82	83	84	84	84	84	86	88	90	90	88	86	84	83	85.3	90.0
25-Jan	82	82	80	81	79	79	78	79	80	81	81	80	76	70	63	60	61	70	79	84	88	89	89	88	78.3	89.4
26-Jan	88	88	89	88	86	88	87	87	86	85	84	81	76	64	44	35	32	37	39	40	35	33	34	36	64.3	88.5
27-Jan	38	39	43	47	46	49	46	48	51	50	46	42	35	32	29	28	29	33	33	34	36	39	42	38	39.7	51.3
28-Jan	40	61	60	38	35	37	39	38	36	35	34	33	30	25	23	21	21	25	33	35	33	40	43	48	35.9	61.2
29-Jan	50	50	54	60	67	64	62	53	51	51	48	46	39	36	37	41	46	53	78	92	96	86	77	71	58.7	95.8
30-Jan	53	47	40	34	38	38	38	58	90	90	88	79	51	31	25	26	28	26	30	49	67	78	79	74	52.3	89.8
31-Jan	77	80	64	72	79	77	79	81	83	85	83	77	68	64	61	63	65	67	69	71	72	73	74	74	73.2	85.4
	70.5	71.7	71.6	71.1	71.3	71.1	70.1	69.4	69.2	69.4	68.7	65.4	60.7	56.9	54.7	54.6	57.2	61.2	64.8	67.6	69.9	70.8	70.5	70.3	Diurnal Average	
	95.4	96.2	96.5	97.1	96.9	96.5	96.1	96.1	95.2	94.8	94.0	92.4	91.3	89.9	89.6	91.3	92.7	93.4	93.8	93.4	95.8	90.9	90.8	92.1	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - January 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - January 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	7	7	9	7	10	8	7	9	9	6	8	7	8	7	6	8	6	6	2	0	1	2	1	2	5.5	10.2
Dir	326	290	292	294	299	299	308	317	315	304	306	291	289	296	290	304	287	280	274	227	143	135	157	352	299	299
2 Spd	1	1	3	2	3	0	1	0	0	0	1	1	0	1	1	1	0	0	1	0	0	0	1	0	0.4	3.1
Dir	40	143	342	22	349	312	332	83	131	171	157	335	213	354	347	322	262	191	180	75	28	34	4	335	354	342
3 Spd	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	2	2	1	0	0	2	2	0.8	2.1
Dir	233	7	165	170	174	169	187	168	331	198	197	169	161	178	180	170	177	183	157	194	189	180	204	192	183	204
4 Spd	1	1	1	1	1	1	2	1	1	1	0	1	1	2	2	1	1	1	1	3	5	5	4	4	0.8	5.2
Dir	177	169	169	181	205	179	165	164	173	154	137	167	163	160	160	166	172	179	201	281	317	298	280	281	231	317
5 Spd	2	1	1	2	2	3	3	4	4	3	4	8	7	5	5	5	4	4	4	3	3	3	2	2	3.4	7.6
Dir	275	323	349	353	15	23	351	355	360	349	348	2	4	4	0	2	5	18	19	16	12	5	28	7	3	2
6 Spd	3	4	3	4	5	5	5	5	6	7	8	7	6	5	7	7	5	5	5	3	2	1	4	7	4.1	8.5
Dir	120	134	127	134	138	141	141	140	141	137	139	149	154	159	162	162	162	162	167	176	176	185	259	280	155	139
7 Spd	8	7	7	10	11	8	4	4	9	9	7	10	12	12	10	10	9	7	6	6	5	4	4	4	7.2	12.3
Dir	302	329	330	330	327	324	281	292	315	333	358	347	0	1	355	354	357	5	14	6	3	9	356	351	343	1
8 Spd	3	2	1	0	1	0	0	1	2	3	3	2	3	1	6	5	4	2	2	3	4	2	3	3	0.9	6.5
Dir	347	13	29	110	167	158	144	160	170	165	162	142	163	300	336	332	341	317	309	306	320	325	240	263	309	336
9 Spd	3	2	2	3	3	2	2	2	1	2	5	4	4	5	7	7	6	5	3	1	1	1	2	2	2.7	7.3
Dir	276	260	250	264	251	251	249	256	228	250	284	312	304	301	306	290	294	289	263	203	175	199	225	166	277	290
10 Spd	1	3	4	3	12	18	25	17	10	3	2	1	3	3	3	5	2	2	2	2	2	2	2	3	2.1	25.0
Dir	175	159	173	177	284	320	355	353	349	314	27	95	174	177	240	271	230	185	164	151	166	183	160	148	321	355
11 Spd	1	1	8	16	20	18	16	14	5	6	10	15	16	16	17	16	17	10	5	3	2	0	0	0	8.1	20.1
Dir	138	149	258	269	278	280	274	281	312	275	271	270	273	297	316	321	345	20	22	317	316	158	193	158	293	278
12 Spd	0	0	0	0	0	0	1	1	0	0	0	3	5	7	5	3	2	1	1	12	18	18	15	8	2.9	17.8
Dir	242	177	162	209	176	281	248	223	179	198	237	180	171	170	174	175	232	210	146	288	283	282	290	273	261	282
13 Spd	3	2	2	2	1	0	0	1	1	1	2	2	3	2	2	2	3	2	1	3	3	4	3	4	2.0	4.1
Dir	169	182	202	197	211	24	345	190	205	203	193	185	188	187	194	198	197	200	202	195	176	169	158	170	186	169
14 Spd	4	3	3	2	2	2	3	2	2	0	1	2	1	2	1	1	0	0	0	2	2	3	1	2	1.4	4.4
Dir	174	196	200	210	212	200	182	174	202	191	142	169	138	346	317	205	272	241	184	207	208	202	226	193	197	174
15 Spd	3	2	1	1	3	3	3	5	10	3	2	4	9	6	10	10	8	4	1	1	2	2	3	4	3.4	10.4
Dir	170	202	137	146	201	220	196	235	249	225	200	233	246	266	271	260	260	258	202	195	167	165	182	181	235	271
16 Spd	2	4	3	2	3	5	5	5	6	7	9	10	9	8	7	6	5	5	5	3	4	5	6	4	5.3	10.0
Dir	194	178	192	185	178	173	173	174	174	174	169	171	169	173	170	169	173	167	177	180	179	175	172	178	174	171
17 Spd	4	3	4	4	4	4	4	3	2	2	2	1	0	1	2	1	0	1	0	0	1	0	0	0	1.3	4.5
Dir	177	180	180	176	180	183	171	175	152	173	205	211	206	18	346	347	332	337	324	263	168	330	190	209	181	177
18 Spd	1	0	1	2	1	1	3	3	3	1	1	1	2	2	4	3	1	4	5	2	3	4	3	1	1.8	4.7
Dir	200	103	302	198	144	190	174	183	174	185	318	233	194	204	169	167	204	168	175	180	175	174	175	337	180	175
19 Spd	1	1	1	0	1	1	1	2	2	2	1	2	2	2	1	1	5	2	2	0	1	1	1	1	0.6	5.0
Dir	327	341	338	182	297	165	218	234	199	3	146	326	27	338	251	204	235	175	160	236	148	203	209	201	235	235
20 Spd	1	1	0	0	1	1	1	1	0	0	0	1	1	1	1	0	2	3	1	1	1	1	0	2	0.4	3.1
Dir	168	171	192	204	208	226	196	221	262	335	172	259	260	259	269	294	343	338	337	230	320	319	199	0	282	338
21 Spd	1	3	7	10	13	15	39	14	9	14	16	13	23	7	5	5	5	4	4	4	4	4	3	3	8.9	39.3
Dir	347	355	21	19	5	1	359	25	7	37	32	43	58	34	23	21	21	21	17	19	20	14	16	12	21	359
22 Spd	4	4	4	2	2	2	2	2	1	1	1	2	2	3	3	4	4	3	3	2	1	1	0	1	2.3	3.7
Dir	2	9	13	20	18	29	6	12	32	20	4	10	22	17	6	3	1	354	5	16	19	356	20	16	10	2

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - January 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	2	0	1	0	0	1	1	2	1	0	0	1	1	1	1	0	0	0	2	0	0	0	0	0.6	1.7
Dir	10	356	7	359	0	347	9	360	356	31	29	351	351	326	339	269	227	284	328	5	324	302	177	181	352	356
24 Spd	0	0	1	1	1	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0.3	0.9
Dir	171	174	177	180	188	182	187	217	210	170	159	184	244	287	256	217	247	200	320	166	222	164	235	341	199	244
25 Spd	0	0	0	0	0	0	0	0	0	0	2	2	3	2	2	2	2	1	1	1	1	3	2	2	1.1	2.8
Dir	240	168	171	176	163	153	166	183	196	199	190	183	180	181	181	183	193	212	215	204	198	157	169	187	183	180
26 Spd	2	1	2	2	2	2	2	3	3	3	4	2	2	3	2	1	2	1	2	4	12	16	14	10	3.3	16.0
Dir	191	207	190	198	192	185	212	202	199	199	186	181	180	181	171	182	220	221	216	212	253	270	270	266	234	270
27 Spd	6	6	2	1	2	2	3	3	3	2	2	3	2	3	3	2	2	3	2	2	3	3	2	3	2.1	6.5
Dir	268	254	224	208	219	190	208	197	180	181	189	184	181	171	162	137	144	157	185	309	267	277	231	238	211	268
28 Spd	1	1	3	3	3	3	3	3	5	5	4	3	3	4	2	4	5	1	1	3	6	3	2	2	2.0	5.9
Dir	232	176	204	192	178	166	174	180	171	173	172	170	171	169	205	323	328	46	150	207	246	168	166	196	191	246
29 Spd	2	1	2	1	2	3	4	3	4	4	4	3	9	11	6	4	3	7	11	1	3	7	6	4	3.5	11.1
Dir	192	181	172	207	177	165	170	175	185	180	186	213	245	245	228	211	200	236	298	273	215	250	243	245	226	298
30 Spd	10	11	13	17	17	19	17	19	13	17	18	14	14	14	14	16	15	12	15	18	15	13	13	13	14.4	19.2
Dir	268	270	273	278	277	278	279	280	287	286	300	303	299	302	298	298	286	286	304	317	305	304	310	318	292	280
31 Spd	12	15	11	6	5	5	5	3	2	2	1	2	5	10	8	8	8	6	4	3	2	1	0	1	4.8	15.3
Dir	319	354	358	6	352	344	336	354	344	305	305	307	315	312	307	307	315	324	317	308	273	198	258	289	329	354
Spd	1.2	0.9	1.1	1.4	2.2	2.1	2.1	1.5	1.2	0.8	0.8	1.0	1.1	1.7	2.1	2.2	2.0	1.0	0.9	1.3	1.8	1.8	1.8	1.5	Diurnal Average	
Dir	271	283	283	281	285	292	312	288	278	272	275	271	272	286	290	297	300	293	294	293	273	265	260	267		
Spd	12.4	15.3	12.8	16.5	20.1	18.5	39.3	19.2	13.2	16.7	17.8	14.6	23.0	15.6	17.3	15.8	16.9	12.4	14.7	18.4	17.7	17.8	14.9	12.5	Diurnal Maximum	
Dir	319	354	273	278	278	278	359	280	287	286	300	270	58	297	316	321	345	286	304	317	283	282	290	318		

Maximum Speed Value: 39 km/h on Jan 21 07:00
Maximum Daily Speed Average: 14.4 km/h on Jan 30
Maximum Diurnal Speed Average: 2.2 km/h at hour 16

Minimum Speed Value: 0 km/h on Jan 24 17:00
Minimum Daily Speed Average: 0.3 km/h on Jan 24
Minimum Diurnal Speed Average: 0.8 km/h at hour 11

Monthly Average Velocity: 1.44 km/h 283.9 deg

Speed Percentiles: $P_1 = 0.1$ $P_{10} = 0.4$ $Q_1 = 1.0$ Median = 2.4 $Q_3 = 4.6$ $P_{90} = 9.8$ $P_{99} = 18.2$

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Frequency Distribution

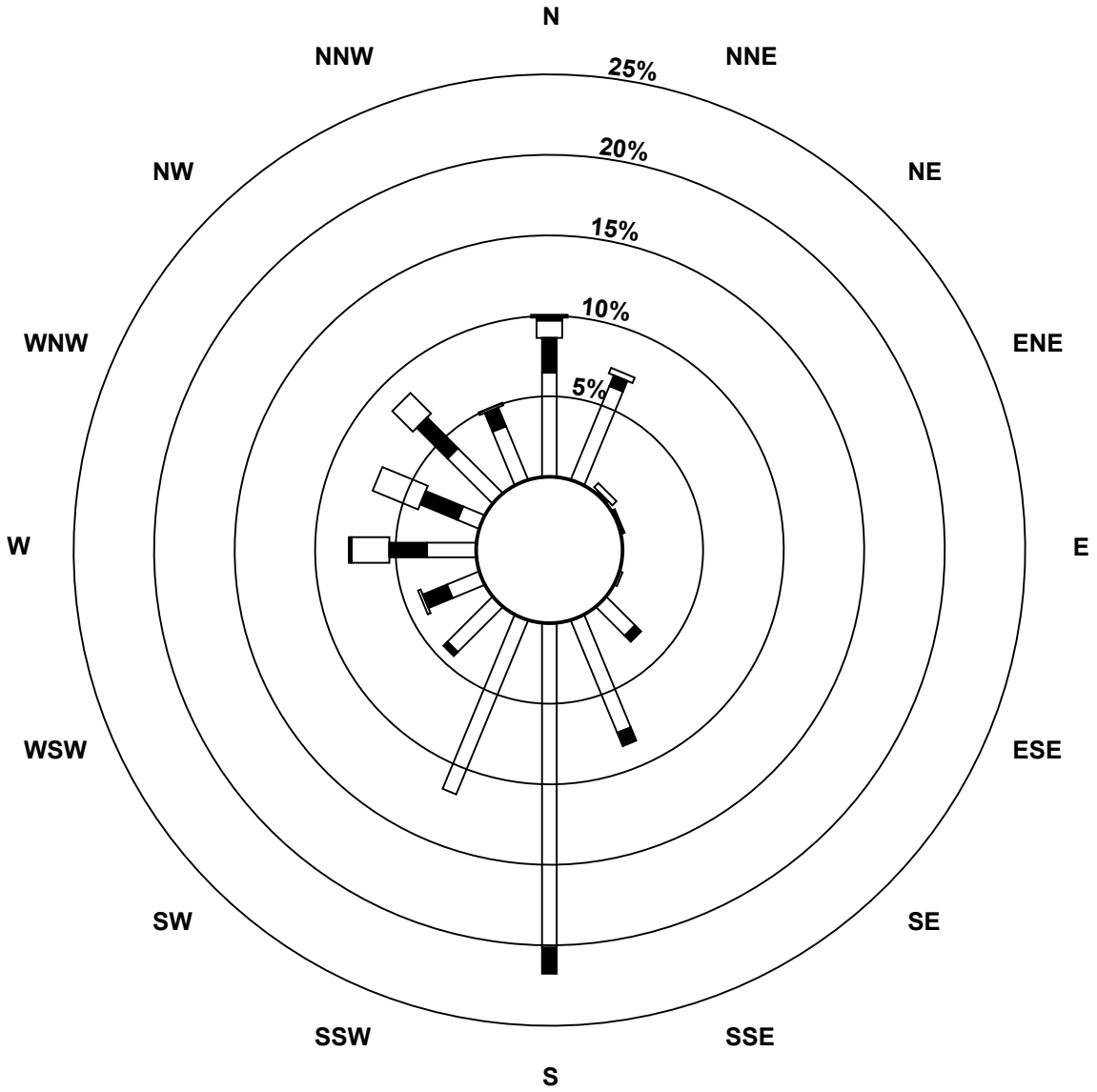
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	92	22	7	1	0	1	123
NorthEast	14	2	4	1	0	0	21
East	5	0	0	0	0	0	5
SouthEast	37	6	0	0	0	0	43
South	254	16	0	0	0	0	270
SouthWest	82	8	0	0	0	0	90
West	41	26	24	2	0	0	93
NorthWest	50	31	18	0	0	0	99
Total	575	111	53	4	0	1	744

Peace Airshed Zone Association

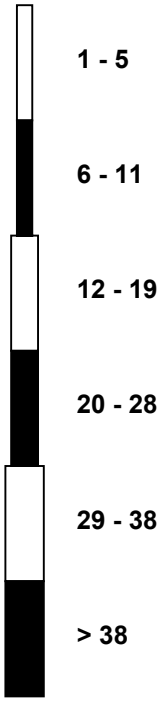
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - January 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - January 2017

Peace Airshed Zone Association

Maximum Speed: 39 km/h on Jan 21 07:00

Maximum Daily Speed Average: 15.0 km/h on Jan 30

Minimum Speed: 0 km/h on Jan 24 17:00

Minimum Daily Speed Average: 0.4 km/h on Jan 24

Maximum Diurnal Speed Average: 5.4 km/h at hour 7

Minimum Diurnal Speed Average: 3.0 km/h at hour 1

Monthly Average Speed: 4.00 km/h

Percentiles: $P_1 = 0.1$ $P_{10} = 0.5$ $Q_1 = 1.3$ Median = 2.5 $Q_3 = 4.8$ $P_{90} = 9.9$ $P_{99} = 18.9$

Hours in Service:	744
Hours of Data:	744
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-Jan	8	7	9	8	11	8	7	9	9	6	8	7	8	7	6	9	6	6	2	1	1	2	1	2	6.1	10.5
2-Jan	1	1	3	2	3	1	1	0	0	0	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1.0	3.1
3-Jan	1	0	0	0	0	0	1	0	1	1	1	1	1	2	1	1	1	2	2	1	1	0	2	2	0.9	2.3
4-Jan	1	1	1	1	1	1	2	1	1	1	0	1	1	2	2	1	1	1	1	3	5	5	4	4	1.8	5.3
5-Jan	2	1	1	2	2	3	3	4	4	4	4	8	7	6	6	5	4	4	4	3	3	3	2	2	3.7	7.7
6-Jan	3	4	3	4	5	5	5	6	6	7	9	7	6	5	7	7	6	5	5	4	2	1	4	7	5.1	8.6
7-Jan	8	8	7	10	11	8	4	4	9	10	7	10	12	13	10	11	9	7	6	6	5	4	4	4	7.9	12.5
8-Jan	3	2	1	1	1	0	0	1	2	3	3	3	3	2	7	5	4	2	2	3	4	3	3	4	2.6	6.6
9-Jan	3	2	2	3	3	2	2	3	1	2	5	4	5	5	7	7	6	5	3	1	1	1	2	2	3.3	7.4
10-Jan	1	3	4	3	12	18	25	17	10	3	2	2	3	3	3	5	3	2	2	2	3	2	2	3	5.5	25.3
11-Jan	2	1	9	16	20	19	16	15	6	7	11	15	16	16	18	16	19	11	6	3	2	0	0	0	10.1	20.3
12-Jan	0	0	0	0	0	1	1	1	0	0	1	3	5	7	5	3	2	2	2	12	18	18	15	8	4.3	17.9
13-Jan	3	2	2	2	2	1	1	1	1	1	2	2	3	2	2	2	3	2	1	3	4	4	4	4	2.3	4.2
14-Jan	4	3	3	2	2	2	3	2	2	1	2	2	2	2	2	1	1	1	1	2	2	4	2	3	2.1	4.4
15-Jan	3	2	3	2	3	3	3	5	10	3	2	5	9	6	11	10	8	4	1	1	2	2	3	4	4.4	10.5
16-Jan	3	4	3	2	3	5	5	5	6	7	9	10	9	8	7	6	6	5	5	3	4	5	6	4	5.4	10.0
17-Jan	5	3	4	4	4	4	4	3	2	2	2	1	1	1	2	2	1	1	1	1	1	1	0	0	2.1	4.5
18-Jan	1	1	2	3	2	1	3	3	3	1	1	2	2	3	4	3	3	4	5	2	3	4	3	1	2.5	4.8
19-Jan	1	1	2	1	1	1	1	2	3	3	3	3	2	2	1	1	5	2	2	1	1	2	1	1	1.8	5.3
20-Jan	1	1	0	0	1	1	1	1	0	1	0	1	1	1	2	1	2	3	2	2	1	1	0	2	1.1	3.1
21-Jan	1	3	7	10	13	15	39	15	9	15	17	15	25	8	6	6	5	4	4	4	4	4	3	3	9.9	39.5
22-Jan	4	4	4	2	3	2	2	2	2	2	1	2	2	3	3	4	4	3	3	2	1	1	0	1	2.4	3.8
23-Jan	1	2	0	1	0	0	1	1	2	1	1	0	1	1	1	1	0	0	0	2	0	0	0	0	0.7	1.7
24-Jan	0	0	1	1	1	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0.4	1.1
25-Jan	0	0	0	0	0	0	0	0	0	0	2	2	3	2	2	2	2	1	1	1	1	3	2	2	1.2	2.9
26-Jan	2	1	2	2	2	2	2	3	3	3	4	2	3	3	2	1	2	1	2	4	12	16	15	10	4.1	16.2
27-Jan	7	6	2	1	2	2	3	3	3	2	2	3	2	3	3	2	2	3	3	2	4	4	2	3	3.0	6.6
28-Jan	1	1	3	3	3	3	3	3	5	5	4	3	3	4	2	5	5	1	1	3	6	3	2	3	3.1	6.5
29-Jan	3	1	2	1	2	3	4	3	4	4	4	4	9	11	6	4	3	7	13	2	3	7	6	4	4.6	12.8
30-Jan	10	12	13	17	17	19	17	20	14	17	18	14	14	14	14	16	15	13	15	19	15	13	13	13	15.0	19.5
31-Jan	13	16	11	6	5	5	5	4	2	2	1	3	5	10	8	9	8	6	5	3	2	1	1	2	5.4	15.8
	3.0	3.0	3.4	3.6	4.3	4.4	5.4	4.5	3.9	3.7	4.1	4.4	5.3	4.9	4.9	4.7	4.4	3.5	3.2	3.2	3.6	3.8	3.5	3.2	Diurnal Average	
	12.6	15.8	12.9	16.7	20.3	19.1	39.5	19.5	13.5	17.1	18.1	15.1	25.3	15.8	17.6	16.0	19.0	12.6	15.1	18.6	17.8	17.9	15.0	12.7	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 - January 2017

Maximum Value: 93.6 deg on Jan 2 22:00

Minimum Value: 4.7 deg on Jan 29 11:00

Percentiles: P_1 = 5.9 P_{10} = 8.2 Q_1 = 10.4 Median = 15.9 Q_3 = 32.8 P_{90} = 65.1 P_{99} = 90.3

Hours in Service:	744
Hours of Data:	744
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-Jan	20	13	9	11	14	11	11	7	8	13	9	11	11	15	17	12	18	13	77	75	70	19	39	75	77.1
2-Jan	90	24	12	43	41	92	82	90	74	49	47	40	82	23	18	24	78	67	27	82	69	94	72	82	93.6
3-Jan	45	79	55	68	21	30	23	42	81	30	46	20	18	19	18	15	15	12	11	22	79	78	24	13	81.1
4-Jan	9	12	16	14	13	11	9	26	16	28	33	17	31	8	10	12	9	10	25	27	8	17	9	10	33.5
5-Jan	12	29	14	10	11	10	13	9	8	9	10	8	9	12	9	8	13	10	11	10	8	8	10	22	28.8
6-Jan	25	10	12	12	14	13	14	11	13	10	10	10	13	16	9	10	10	11	11	10	9	7	34	13	33.6
7-Jan	14	14	11	7	9	7	13	15	10	20	16	10	10	11	13	10	10	9	11	11	10	14	15	10	20.4
8-Jan	13	19	18	55	12	42	24	9	8	12	11	26	16	80	13	9	21	16	13	10	11	35	27	18	80.4
9-Jan	28	32	44	17	18	21	30	28	34	23	17	17	18	18	12	10	12	12	29	13	21	30	15	16	43.5
10-Jan	45	10	9	33	19	13	8	7	8	29	63	78	17	15	33	17	23	9	12	22	11	12	22	22	78.1
11-Jan	43	31	44	10	8	20	10	11	49	18	13	9	10	9	9	9	28	13	17	30	41	35	32	49	48.8
12-Jan	86	36	39	40	42	65	52	62	91	31	45	18	9	8	10	12	28	44	52	15	7	6	8	19	90.9
13-Jan	10	25	14	29	38	91	76	11	19	24	13	10	8	20	13	12	13	12	14	10	15	11	19	11	90.7
14-Jan	8	11	8	15	14	47	15	21	14	90	65	38	75	41	43	60	70	69	61	13	18	13	53	60	90.5
15-Jan	16	19	64	46	19	16	23	25	9	37	13	18	8	19	11	8	9	18	39	32	20	16	13	6	64.3
16-Jan	17	7	21	10	32	7	6	8	8	6	8	7	7	9	7	6	19	8	15	19	11	6	6	6	32.3
17-Jan	6	20	6	7	7	7	8	7	33	24	13	24	80	39	26	44	77	69	82	78	71	80	65	28	81.7
18-Jan	27	71	76	39	59	48	15	9	9	29	77	49	26	71	17	16	91	8	6	33	18	8	9	78	90.7
19-Jan	52	85	61	55	85	74	64	33	30	70	72	58	39	43	42	50	32	8	22	88	44	47	16	38	87.8
20-Jan	26	64	86	18	21	23	27	20	42	63	54	37	55	55	48	93	25	35	65	78	68	65	26	37	93.0
21-Jan	39	19	14	10	8	8	7	19	12	18	22	37	29	17	14	14	15	13	14	11	15	14	17	17	39.3
22-Jan	15	14	12	15	15	16	12	18	17	14	19	16	16	14	15	11	8	9	10	14	18	15	41	15	41.0
23-Jan	22	8	15	9	30	28	20	12	14	21	40	71	32	32	40	43	70	79	72	19	70	65	29	14	79.1
24-Jan	11	8	11	8	6	14	11	20	35	27	68	79	49	58	52	61	81	55	74	29	35	23	90	82	89.7
25-Jan	56	42	85	36	37	42	52	43	32	21	9	6	9	15	14	14	5	28	21	10	17	21	25	21	84.8
26-Jan	38	23	19	13	29	28	15	11	11	11	6	12	10	11	14	18	9	14	16	14	9	9	9	9	38.1
27-Jan	11	13	21	14	16	9	7	9	8	8	15	7	9	8	12	15	26	20	37	49	37	75	18	14	74.9
28-Jan	34	56	14	6	8	7	10	18	6	7	7	9	9	10	33	30	17	71	53	25	33	11	11	25	70.6
29-Jan	25	21	14	30	10	12	11	8	6	9	5	20	10	9	14	17	11	21	28	57	17	15	15	20	57.1
30-Jan	9	10	7	7	8	8	9	11	12	13	10	11	14	12	10	9	8	9	14	9	9	9	9	9	14.1
31-Jan	9	15	8	10	10	15	8	27	22	24	23	40	13	11	12	12	10	9	11	23	22	18	68	66	67.9
	89.5	84.9	85.9	67.7	85.4	91.6	82.3	90.5	90.9	90.5	76.8	79.2	81.8	80.4	52.5	93.0	90.7	79.1	81.7	87.8	78.7	93.6	89.7	82.3	

PAZA
Donnelly Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Donnelly - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.9 ppb on Jan 3 11:00 Maximum Daily Average: 0.6 ppb on Jan 9

Minimum Value: 0 ppb on Jan 1 01:00 Minimum Daily Average: 0.0 ppb on Jan 5
Maximum Diurnal Average: 0.2 ppb at hour 2 Minimum Diurnal Average: 0.1 ppb at hour 18
Monthly Average: 0.17 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.4$ $P_{99} = 0.8$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	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
2-Jan	0	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
3-Jan	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0.4	0.9
4-Jan	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
5-Jan	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
6-Jan	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
7-Jan	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	0.5
8-Jan	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
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	A	1	1	1	0.6	0.8
10-Jan	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0.3	0.6
11-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.5
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	0.3	0.8
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.5
14-Jan	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
15-Jan	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
16-Jan	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
17-Jan	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
18-Jan	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	0.2
19-Jan	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	0.3
20-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	C	C	0	0	0	0	0	0	0	0	0.2	0.3
24-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.2	0.6
25-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
26-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
27-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.5
28-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Jan	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.7
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.2
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	Diurnal Average	
	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.9	0.6	0.6	0.5	0.6	0.6	0.8	0.4	0.7	0.6	0.6	0.6	0.6	0.6	Diurnal Maximum	

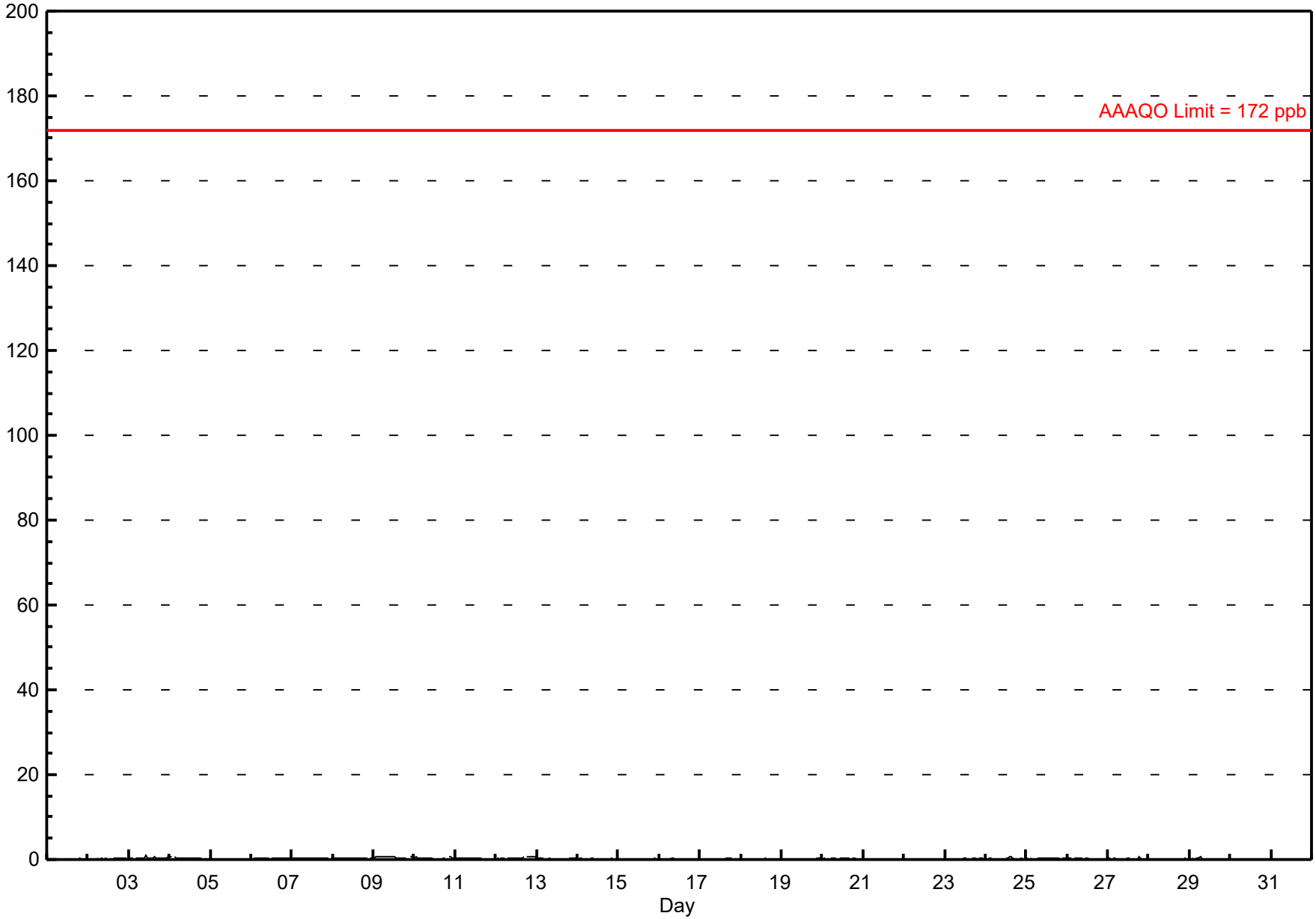
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Donnelly - January 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Donnelly - January 2017

Maximum Value: 2.1 ppb on Jan 3 11:00

Maximum Daily Average: 1.1 ppb on Jan 9

Minimum Value: 0 ppb on Jan 17 09:00

Minimum Daily Average: 0.5 ppb on Jan 18

Maximum Diurnal Average: 0.8 ppb at hour 24

Minimum Diurnal Average: 0.7 ppb at hour 21

Monthly Average: 0.72 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 1.0$ $P_{99} = 1.3$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1	1	1	1	1	A	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0.6	0.8
2-Jan	1	0	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
3-Jan	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.1
4-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
5-Jan	1	A	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	1	1	1	1	1	0.5	0.8
6-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	0.9
7-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.2
8-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.0
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.3
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.3
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.0
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.3
13-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.1
14-Jan	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1	A	1	1	1	1	1	1	1	1	0.7	1.1
15-Jan	0	1	0	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	1.0
16-Jan	1	0	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.9
17-Jan	1	0	0	0	1	0	1	0	0	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	0.6	0.8
18-Jan	1	1	1	0	0	1	1	1	1	1	1	A	1	0	1	0	1	0	0	0	0	0	0	1	0.5	0.8
19-Jan	1	1	1	0	0	1	1	1	1	0	A	0	1	1	1	1	1	1	0	1	1	1	1	1	0.6	1.0
20-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.8	1.1
21-Jan	1	0	0	1	1	0	0	1	A	1	1	1	1	1	0	1	0	1	1	0	1	0	1	1	0.6	0.8
22-Jan	1	0	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
23-Jan	1	1	0	0	1	1	A	1	1	1	1	1	1	1	C	C	1	1	1	1	1	1	1	1	0.7	1.0
24-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.8	1.8
25-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
26-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.0
27-Jan	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.1
28-Jan	1	A	1	1	0	0	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
29-Jan	A	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	0	1	0	0	1	1	A	0.7	1.3
30-Jan	1	1	1	1	1	1	1	1	0	1	0	0	0	1	1	1	1	1	0	0	0	0	A	1	0.6	0.8
31-Jan	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	1	1	0.6	0.8
	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	Diurnal Average	
	1.2	1.2	1.3	1.3	1.2	1.3	1.3	1.3	1.3	1.2	2.1	1.1	1.1	1.1	1.1	1.3	1.3	1.2	1.3	1.2	1.3	1.3	1.2	1.8	Diurnal Maximum	

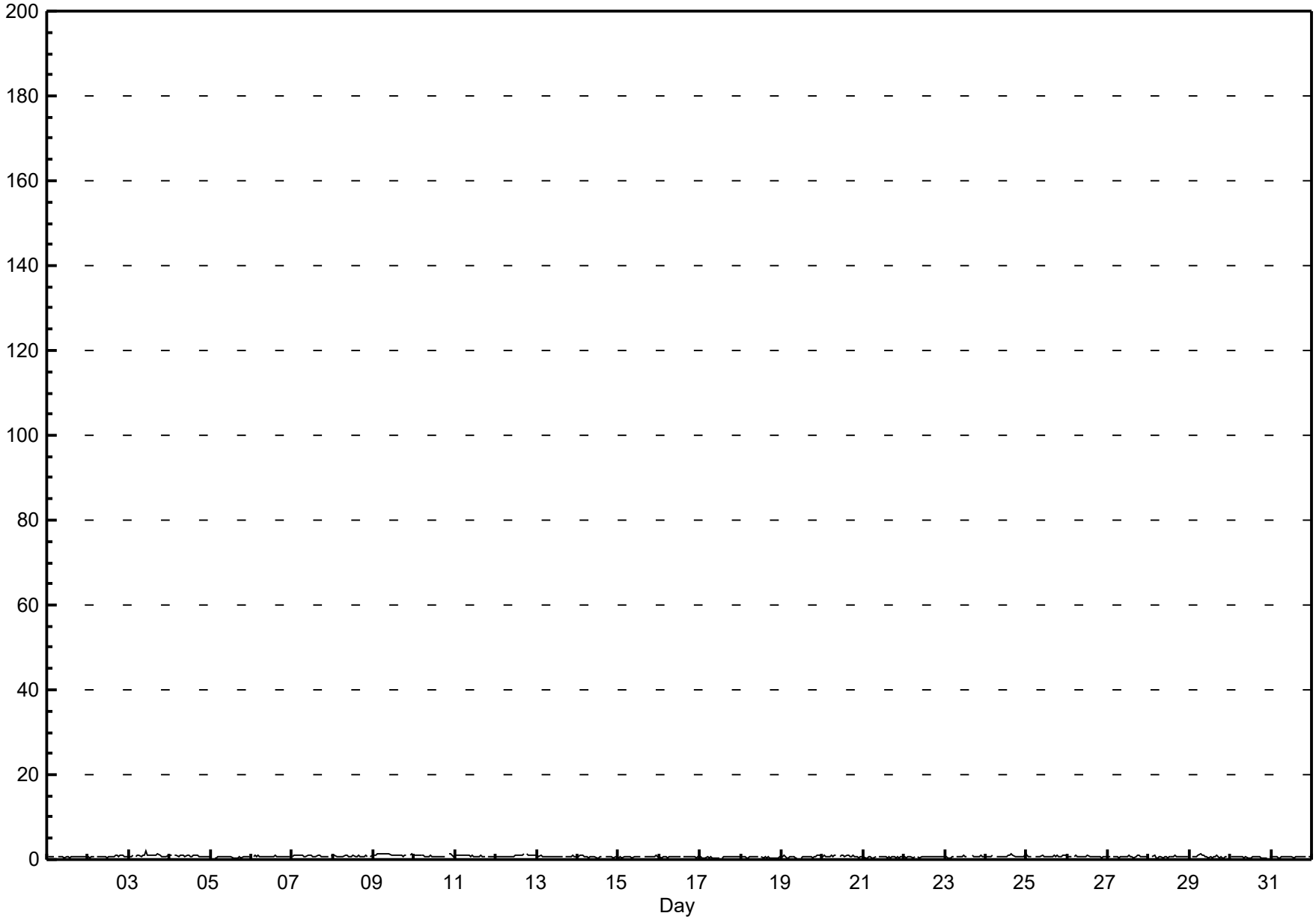
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

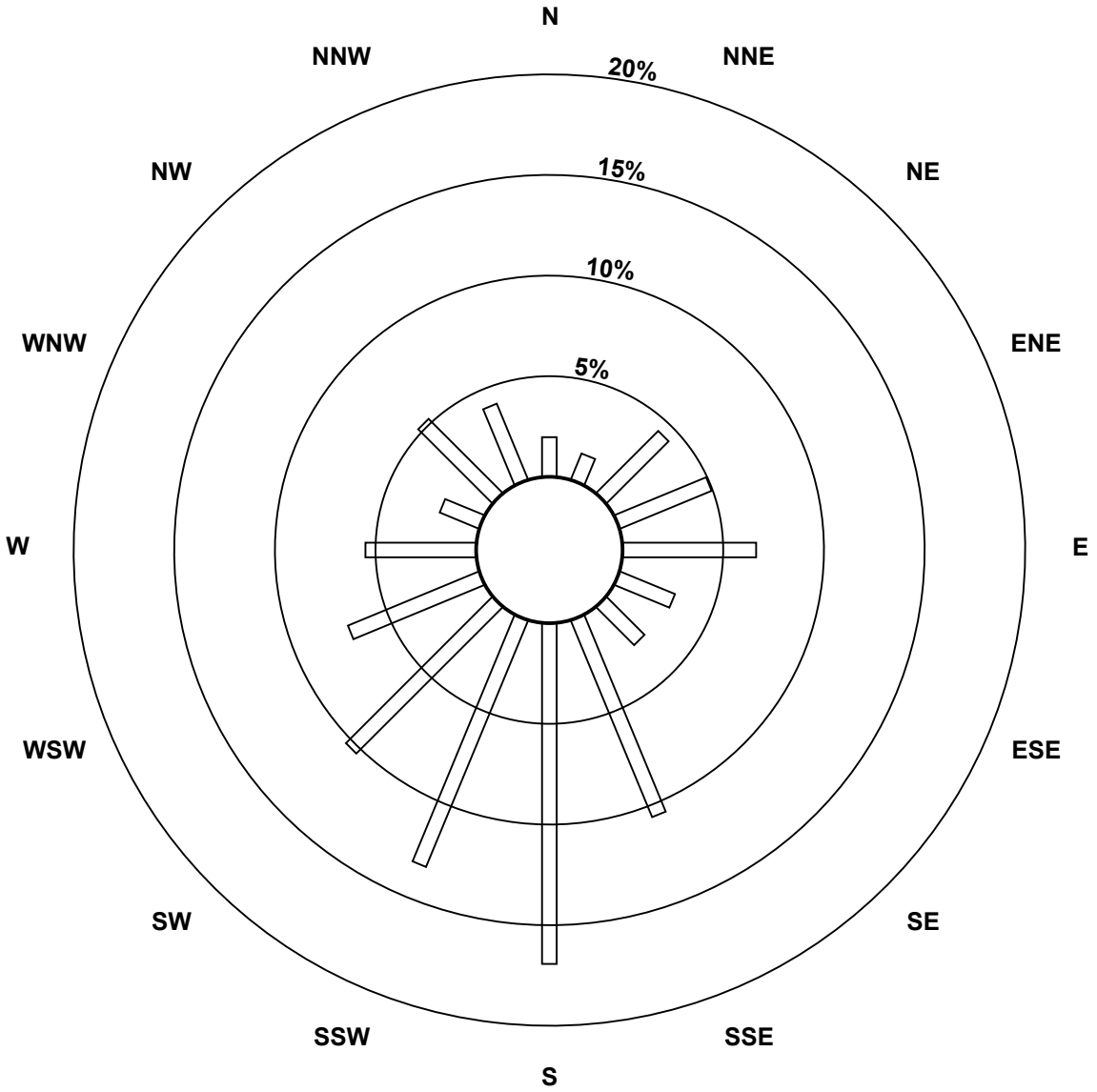
Donnelly - January 2017



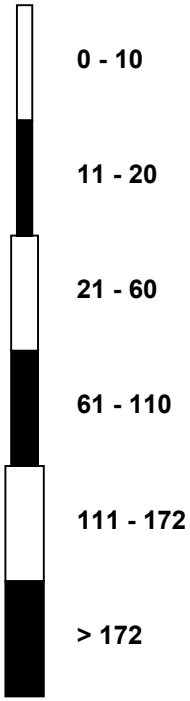
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Donnelly - January 2017



Pollutant Classes (ppb)

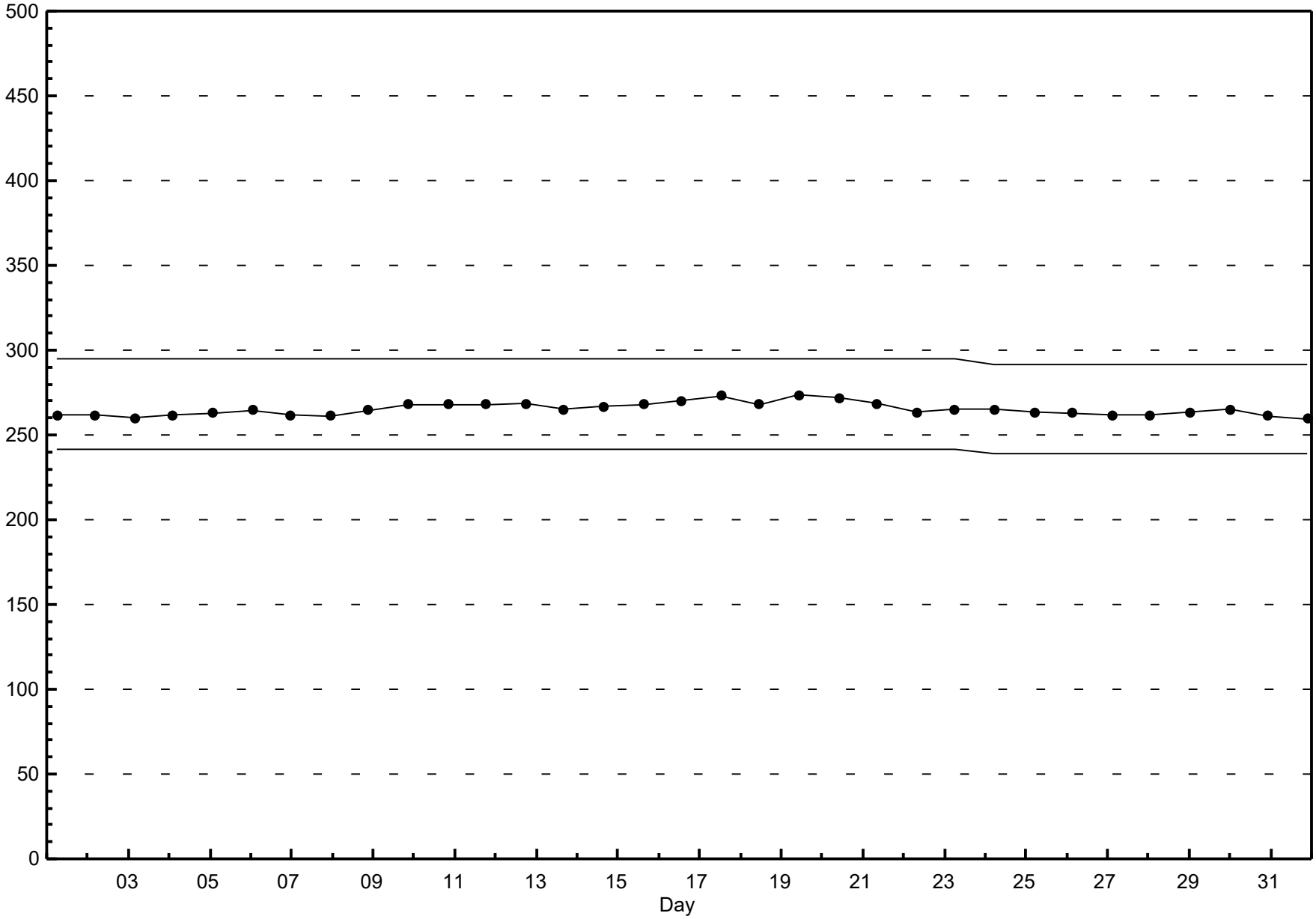


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Donnelly - January 2017



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Donnelly - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.5 ppb on Jan 22 20:00 Maximum Daily Average: 0.5 ppb on Jan 19

Minimum Value: 0 ppb on Jan 1 01:00 Minimum Daily Average: 0.0 ppb on Jan 27
Maximum Diurnal Average: 0.2 ppb at hour 20 Minimum Diurnal Average: 0.1 ppb at hour 11
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:	744
Hours of Data:	707
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-Jan	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	0.3
2-Jan	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.6
3-Jan	0	0	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
4-Jan	0	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
5-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.6
6-Jan	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
7-Jan	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
8-Jan	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
9-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.3
10-Jan	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
11-Jan	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
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0.3	0.5
13-Jan	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
14-Jan	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
15-Jan	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
16-Jan	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
17-Jan	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
18-Jan	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
19-Jan	0	0	0	1	0	1	1	1	1	1	A	1	1	1	0	0	0	0	0	0	1	0	0	0	0.5	1.4
20-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0.3	1.5
23-Jan	0	0	0	0	0	0	A	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.3
24-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.3	1.4
25-Jan	0	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
26-Jan	0	0	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
27-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
28-Jan	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
29-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
31-Jan	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
Diurnal Average	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	0.2	0.2	0.2	0.1	0.1		
Diurnal Maximum	0.4	0.4	0.4	0.7	0.5	0.5	1.3	1.4	0.7	0.5	0.4	0.5	0.6	0.8	0.6	0.5	0.5	0.4	0.4	1.5	1.4	0.7	0.4	0.4		

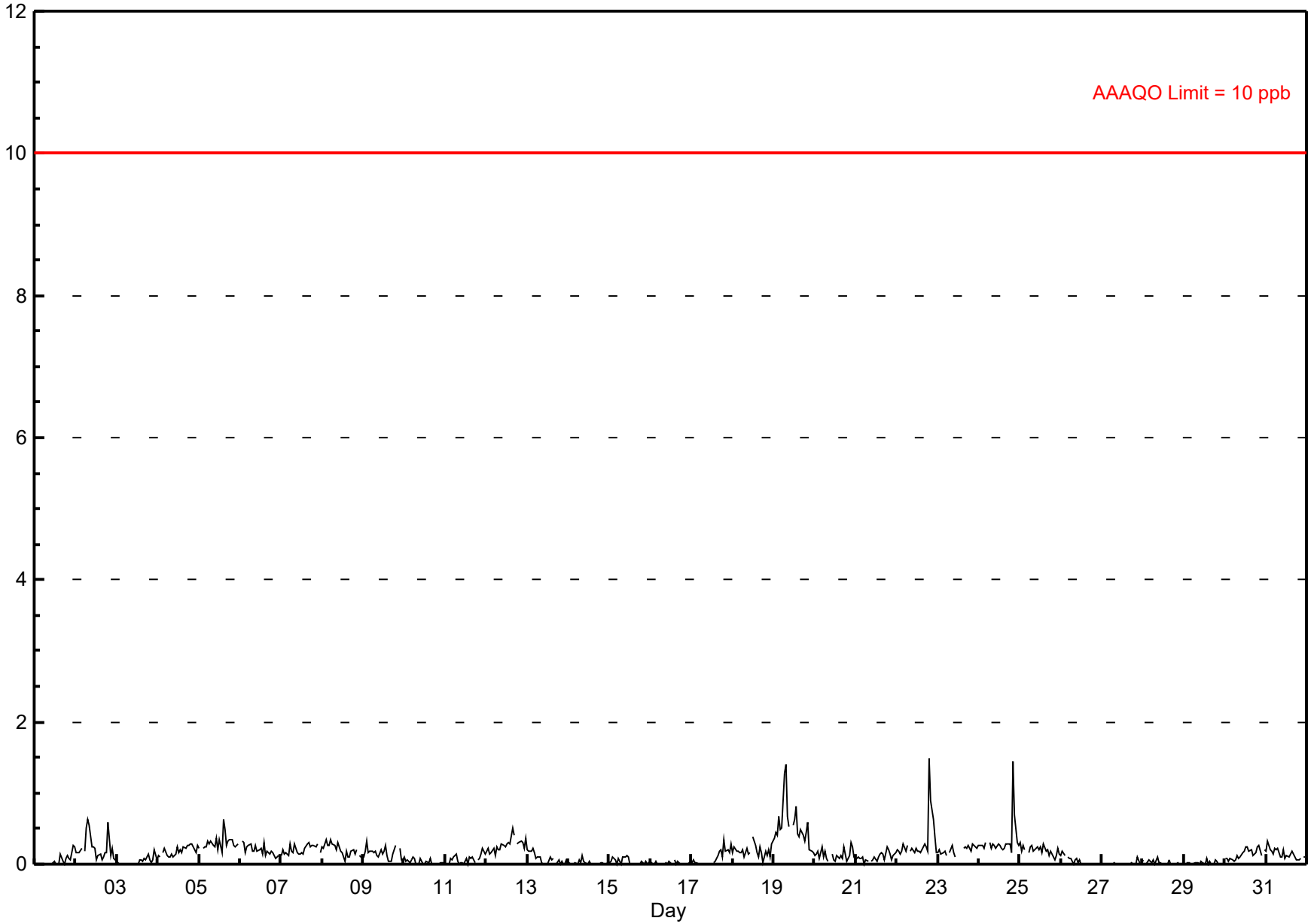
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Donnelly - January 2017



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Donnelly - January 2017

Maximum Value: 5.3 ppb on Jan 19 21:00

Maximum Daily Average: 1.3 ppb on Jan 19

Minimum Value: 0 ppb on Jan 1 13:00

Minimum Daily Average: 0.5 ppb on Jan 28

Maximum Diurnal Average: 1.0 ppb at hour 21

Minimum Diurnal Average: 0.7 ppb at hour 12

Monthly Average: 0.74 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 0.9$ $P_{99} = 2.6$

Hours in Service:	744
Hours of Data:	707
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-Jan	0	0	0	0	1	A	0	0	1	0	0	0	0	1	1	1	0	0	1	1	1	1	2	1	0.6	2.0
2-Jan	1	1	1	1	A	1	3	3	2	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1.2	3.4
3-Jan	1	0	1	A	0	0	1	0	1	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	0.6	0.8
4-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
5-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	0.9	1.7
6-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.0
7-Jan	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	0.9
8-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.1
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	0.9
10-Jan	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	1	1	0	0	A	0	1	0	0	0.5	0.9
11-Jan	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	0.6	1.0
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.3
13-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	0	1	1	1	1	0.6	0.9
14-Jan	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	A	1	1	1	1	1	0	1	1	0.6	1.0
15-Jan	1	0	1	1	1	1	1	0	1	1	1	1	1	1	A	1	0	1	0	1	1	1	0	1	0.6	0.9
16-Jan	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	0	0	0	0	1	0.6	0.8
17-Jan	1	1	1	1	1	1	0	1	0	1	1	1	A	0	1	1	1	1	1	2	1	1	1	1	0.7	1.8
18-Jan	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	1.4
19-Jan	1	1	1	1	1	1	3	3	1	1	A	1	1	1	1	1	1	1	1	1	5	1	1	1	1.3	5.3
20-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.7	1.2
21-Jan	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
22-Jan	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	5	2	2	1	1	1.0	5.1
23-Jan	1	1	1	1	1	1	A	1	1	1	0	C	C	C	C	1	1	1	1	1	1	1	1	1	0.8	1.3
24-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	3	1	1	1.0	4.1
25-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
26-Jan	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0.6	0.8
27-Jan	1	0	A	1	0	0	0	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	0.5	0.8
28-Jan	1	A	0	1	1	1	1	1	1	0	0	0	0	1	0	1	0	0	1	1	1	0	1	1	0.5	0.9
29-Jan	A	0	0	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1	A	0.6	0.9
30-Jan	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	0.7	1.0
31-Jan	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	A	1	1	0.7	0.9
	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.0	1.0	0.8	0.7	0.7	Diurnal Average	
	0.9	1.0	1.0	1.2	1.1	1.0	2.6	3.3	1.9	1.2	1.3	1.1	1.4	1.4	1.7	1.3	1.1	1.1	1.2	5.1	5.3	2.8	2.0	1.0	Diurnal Maximum	

C - Calibration

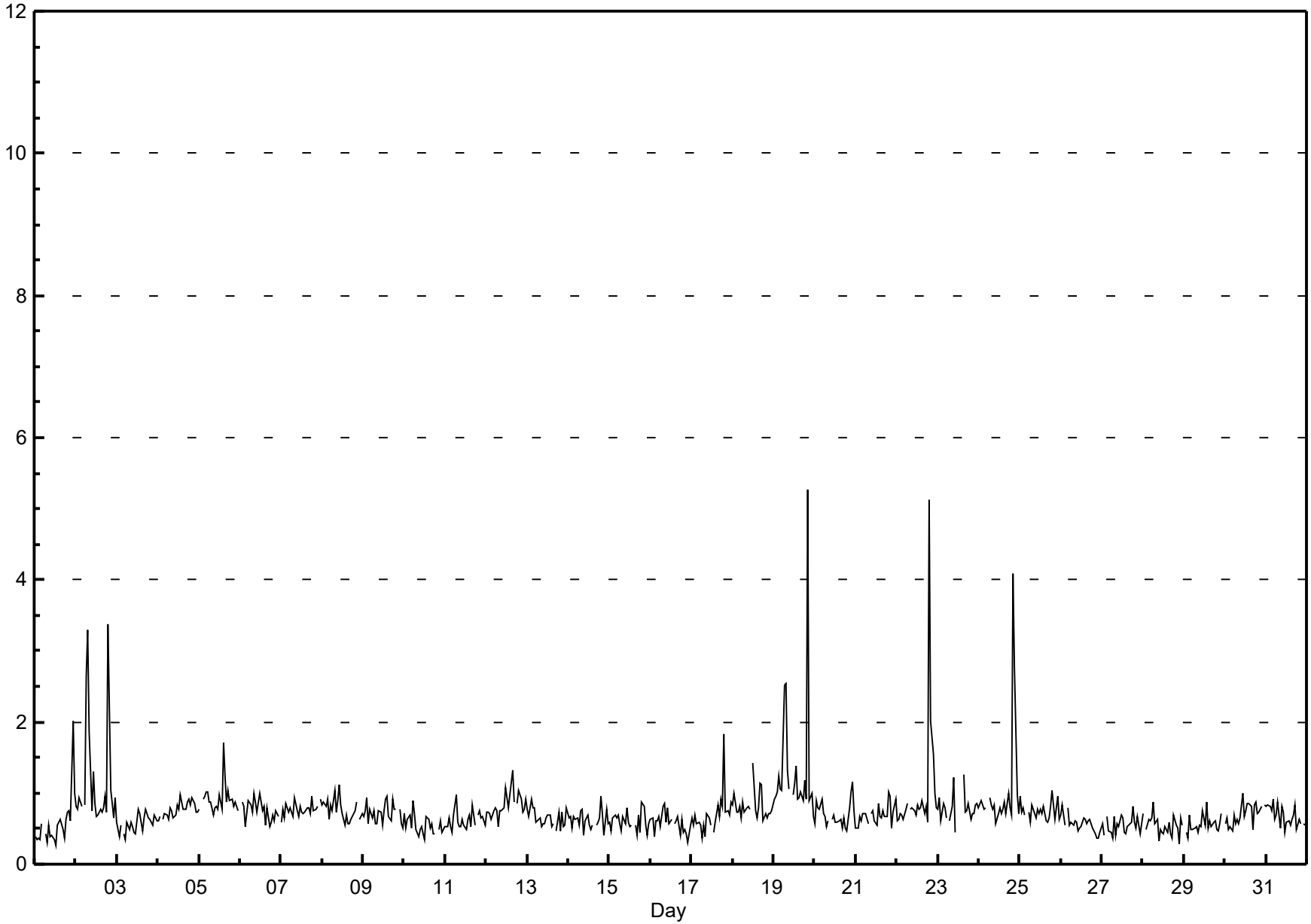
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

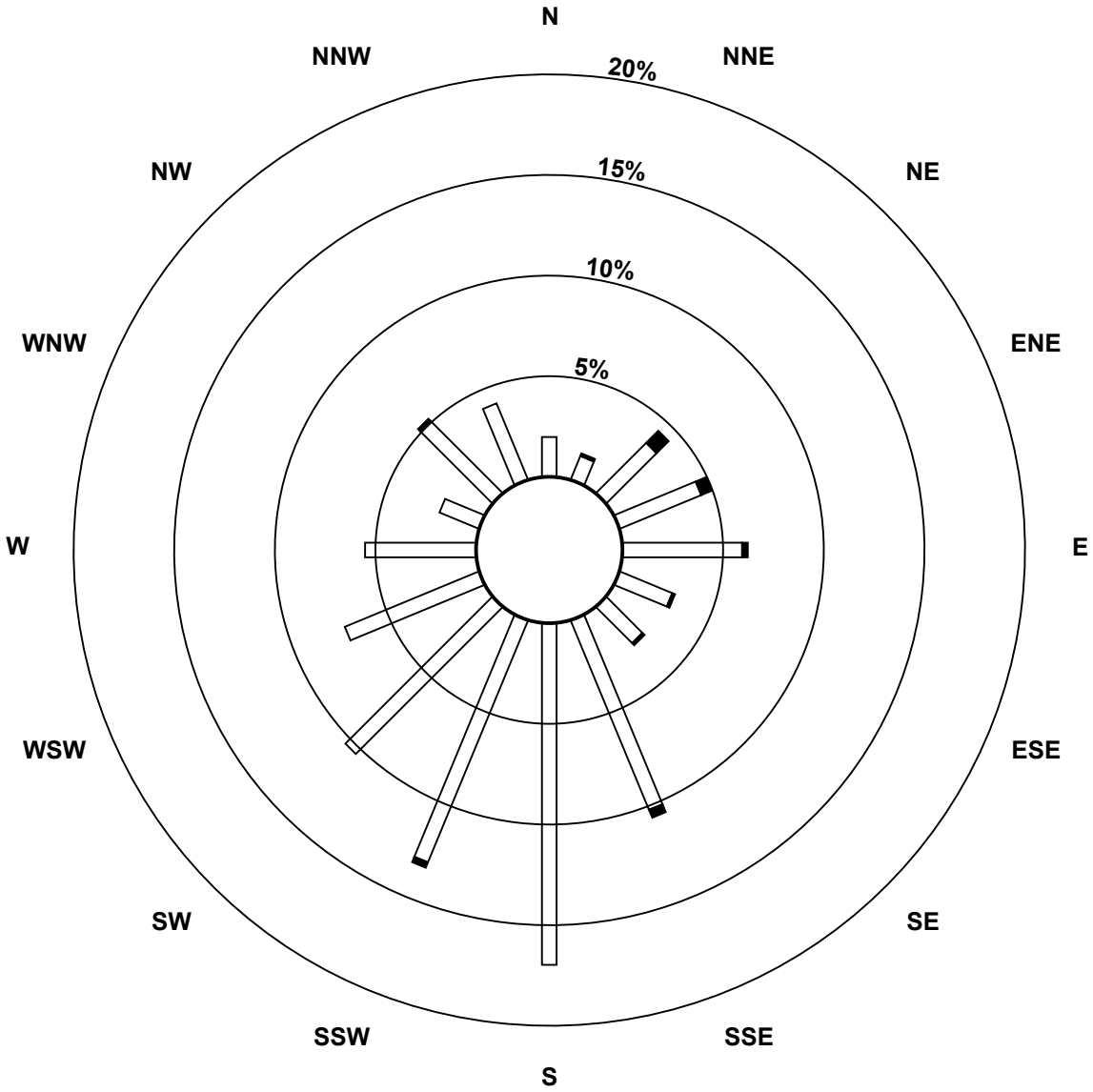
Donnelly - January 2017



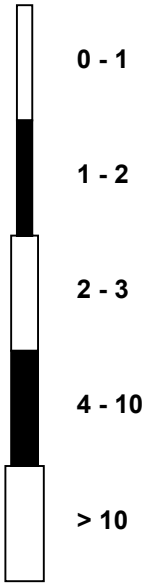
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Donnelly - January 2017



Pollutant Classes (ppb)

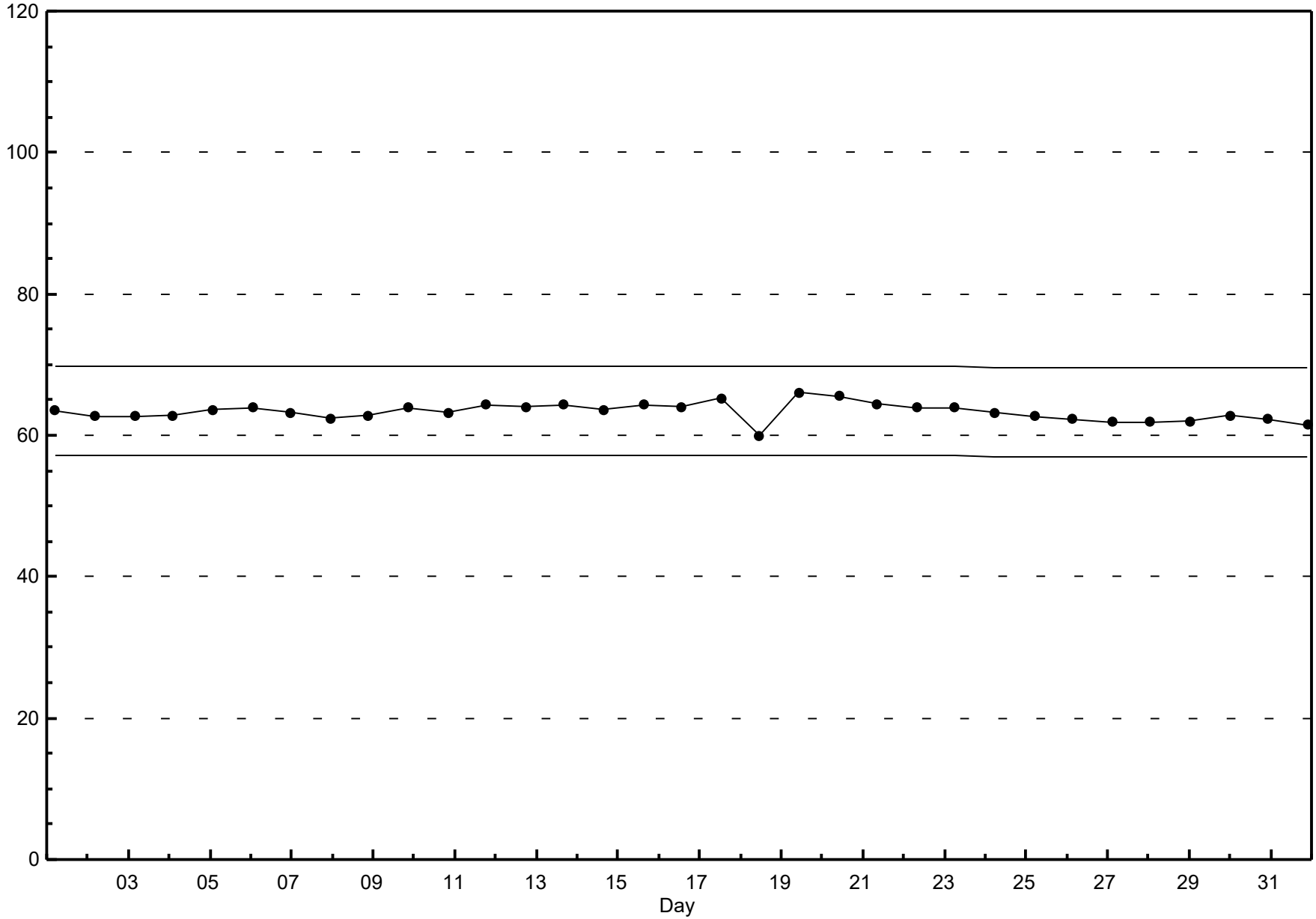


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Donnelly - January 2017



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Donnelly - January 2017

Maximum Value: 9.2 °C on Jan 28 16:00

Maximum Daily Average: 5.5 °C on Jan 18

Minimum Value: -27 °C on Jan 10 10:00

Minimum Daily Average: -21.9 °C on Jan 10

Maximum Diurnal Average: -5.8 °C at hour 16

Minimum Diurnal Average: -9.1 °C at hour 9

Monthly Average: -7.61 °C

Percentiles: P_1 = -25.3 P_{10} = -20.8 Q_1 = -14.5 Median = -7.9 Q_3 = 1.5 P_{90} = 4.0 P_{99} = 7.3

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

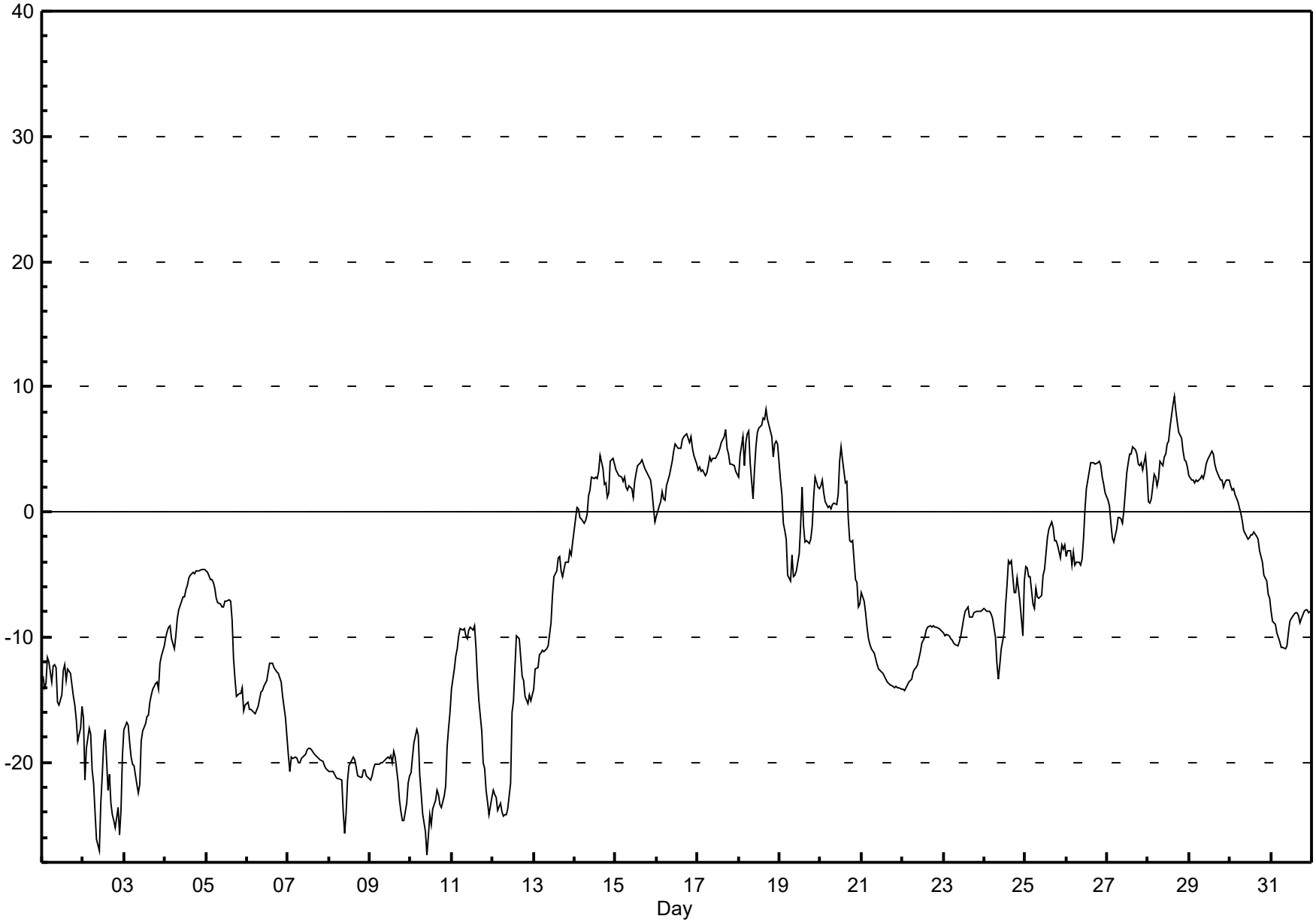
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	-13	-14	-14	-12	-12	-14	-12	-12	-12	-15	-15	-15	-13	-12	-13	-13	-13	-14	-15	-15	-17	-18	-17	-16	-14.0	-11.6
2-Jan	-16	-21	-19	-17	-18	-21	-22	-24	-26	-27	-23	-21	-18	-17	-22	-21	-23	-24	-25	-25	-24	-26	-24	-19	-21.9	-16.5
3-Jan	-17	-17	-17	-18	-20	-20	-20	-22	-22	-22	-18	-18	-17	-16	-16	-15	-15	-14	-14	-14	-14	-12	-12	-11	-16.7	-10.7
4-Jan	-10	-10	-9	-9	-10	-11	-10	-9	-8	-8	-7	-7	-6	-6	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-6.9	-4.6
5-Jan	-5	-5	-5	-5	-6	-6	-7	-7	-7	-8	-8	-7	-7	-7	-7	-9	-12	-13	-15	-15	-14	-14	-16	-15	-9.2	-4.7
6-Jan	-15	-16	-16	-16	-16	-16	-16	-15	-14	-14	-14	-14	-13	-12	-12	-12	-12	-13	-13	-13	-14	-15	-17	-18	-14.4	-12.0
7-Jan	-19	-21	-20	-20	-20	-20	-20	-20	-20	-19	-19	-19	-19	-19	-19	-19	-20	-20	-20	-20	-20	-20	-21	-21	-19.7	-18.9
8-Jan	-21	-21	-21	-21	-21	-21	-21	-21	-24	-26	-24	-21	-20	-20	-20	-20	-20	-21	-21	-21	-21	-21	-21	-21	-21.3	-19.5
9-Jan	-21	-21	-21	-20	-20	-20	-20	-20	-20	-20	-20	-20	-19	-20	-19	-20	-22	-23	-24	-25	-25	-23	-22	-21	-21.0	-19.1
10-Jan	-21	-20	-18	-17	-18	-21	-22	-24	-26	-27	-26	-24	-25	-24	-23	-22	-23	-23	-24	-23	-22	-19	-17	-16	-21.9	-16.0
11-Jan	-14	-13	-12	-11	-10	-9	-9	-9	-10	-10	-9	-9	-9	-9	-11	-13	-15	-18	-20	-21	-22	-23	-24	-23	-13.9	-9.2
12-Jan	-22	-23	-23	-24	-23	-24	-24	-24	-24	-24	-22	-16	-15	-12	-10	-10	-12	-13	-13	-15	-15	-15	-15	-15	-18.0	-10.0
13-Jan	-14	-13	-12	-11	-11	-11	-11	-11	-11	-10	-9	-7	-5	-5	-4	-4	-5	-5	-4	-4	-4	-3	-3	-2	-7.5	-2.4
14-Jan	-1	0	0	0	-1	-1	-1	0	1	2	3	3	3	3	3	4	3	2	2	1	1	4	4	4	1.7	4.5
15-Jan	3	3	3	3	2	3	2	2	2	2	1	2	3	4	4	4	4	3	3	3	3	2	0	-1	2.5	4.2
16-Jan	0	0	1	2	1	1	2	3	3	4	5	5	5	5	5	6	6	6	6	6	6	5	5	4	3.8	6.3
17-Jan	3	4	3	3	3	3	4	4	4	4	4	4	5	5	6	6	7	5	5	4	4	4	3	3	4.2	6.6
18-Jan	3	5	6	4	6	6	6	4	1	3	5	6	7	7	7	7	8	7	7	6	4	5	6	5	5.5	8.2
19-Jan	3	1	-1	-2	-2	-5	-6	-3	-5	-5	-5	-3	-1	2	-1	-2	-2	-3	-2	-1	1	3	2	2	-1.5	2.8
20-Jan	2	3	2	1	0	0	0	1	1	1	1	4	5	4	2	2	-1	-2	-2	-2	-5	-6	-8	-7	-0.2	5.2
21-Jan	-6	-7	-8	-9	-10	-11	-11	-11	-12	-12	-13	-13	-13	-13	-13	-14	-14	-14	-14	-14	-14	-14	-14	-14	-12.0	-6.5
22-Jan	-14	-14	-14	-14	-14	-13	-13	-13	-12	-12	-11	-10	-10	-10	-9	-9	-9	-9	-9	-9	-9	-9	-9	-10	-11.2	-9.1
23-Jan	-10	-10	-10	-10	-10	-10	-10	-11	-11	-10	-10	-9	-9	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8	-9.1	-7.6
24-Jan	-8	-8	-8	-8	-8	-8	-10	-12	-13	-12	-11	-10	-7	-6	-4	-4	-4	-6	-6	-5	-6	-7	-10	-6	-7.9	-3.9
25-Jan	-4	-5	-5	-5	-7	-8	-6	-7	-7	-7	-5	-5	-3	-2	-1	-1	-1	-2	-2	-3	-4	-3	-3	-3	-4.1	-0.8
26-Jan	-4	-3	-3	-4	-3	-4	-4	-4	-4	-4	-2	0	2	3	4	4	4	4	4	4	4	3	2	2	0.0	4.0
27-Jan	1	0	-1	-2	-2	-1	0	0	-1	-1	0	3	4	5	5	5	5	5	4	4	4	3	5	3	1.9	5.1
28-Jan	1	1	1	3	3	2	3	4	4	4	5	5	6	7	9	9	8	7	6	6	5	4	4	4	4.6	9.2
29-Jan	3	3	2	2	3	2	3	3	3	3	4	4	5	5	5	4	3	3	3	3	2	2	3	3	3.0	4.9
30-Jan	2	2	2	1	1	0	0	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-3	-4	-4	-5	-6	-7	-7	-1.8	2.1
31-Jan	-8	-9	-9	-10	-10	-10	-11	-11	-11	-11	-10	-9	-8	-8	-8	-8	-8	-9	-9	-8	-8	-8	-8	-8	-9.0	-7.8
	-7.9	-8.0	-7.9	-8.0	-8.2	-8.7	-8.6	-8.8	-9.1	-9.1	-8.2	-7.1	-6.4	-5.8	-5.8	-5.8	-6.4	-7.1	-7.4	-7.5	-7.8	-7.7	-7.9	-7.6	Diurnal Average	
	3.4	4.5	6.0	3.7	5.5	6.2	6.5	4.4	4.1	4.4	5.2	6.4	6.7	6.9	8.6	9.2	8.2	7.3	6.9	6.0	5.9	5.4	5.7	5.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Donnelly - January 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Donnelly - January 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	19	17	16	13	15	18	13	11	9	12	15	11	8	8	7	5	6	3	1	3	1	9.4	19.3
Dir	249	238	249	261	258	255	271	265	261	247	238	240	246	258	259	266	253	250	194	167	145	48	83	118	251	261
2 Spd	2	5	3	4	4	2	2	2	1	0	2	2	1	0	1	3	2	0	2	1	2	2	1	1	1.4	4.8
Dir	108	56	96	76	82	73	62	47	61	70	43	58	166	16	260	165	174	204	77	66	135	149	70	200	89	56
3 Spd	5	7	5	7	8	6	8	7	5	4	6	7	6	5	5	7	8	8	10	12	8	11	8	9	6.9	11.8
Dir	169	156	169	166	172	174	180	190	184	184	202	198	203	241	228	195	181	177	176	174	179	185	191	189	184	174
4 Spd	9	7	6	9	8	8	7	4	5	5	10	9	10	10	10	9	9	6	6	7	5	4	4	2	5.9	9.9
Dir	178	194	202	181	187	182	185	180	162	153	168	178	184	188	191	190	216	234	252	258	269	281	292	291	197	188
5 Spd	1	0	1	1	1	1	3	4	2	1	0	4	6	9	9	6	6	5	6	5	5	6	6	7	3.0	9.3
Dir	291	301	307	305	305	300	280	288	304	345	322	17	22	28	41	58	57	59	54	63	65	70	66	77	42	41
6 Spd	9	9	10	10	7	8	11	12	12	12	11	11	11	8	8	8	8	7	7	4	3	2	2	7	7.4	12.4
Dir	82	80	77	80	78	75	83	83	85	83	84	85	87	79	81	83	78	75	87	80	89	7	316	278	80	83
7 Spd	9	9	12	10	13	12	10	9	9	9	8	9	11	11	11	12	11	9	6	6	6	7	5	3	8.5	12.5
Dir	283	295	311	326	315	314	309	321	321	333	336	326	337	339	342	343	348	355	359	349	344	345	349	341	329	315
8 Spd	3	2	1	0	0	1	0	1	1	2	4	3	3	3	3	3	3	1	6	9	8	8	8	11	1.3	11.4
Dir	324	325	283	275	101	157	134	145	100	64	66	88	59	62	34	43	8	215	194	200	221	221	206	195	194	195
9 Spd	10	9	10	11	8	9	10	8	10	9	10	8	9	8	9	7	6	7	10	7	7	11	12	15	8.0	14.7
Dir	195	224	244	258	271	259	246	257	245	241	252	251	254	254	276	278	247	238	237	240	207	186	187	184	237	184
10 Spd	15	21	22	15	18	18	14	11	4	6	2	3	12	12	12	13	11	11	10	12	14	15	14	19	8.3	22.4
Dir	178	173	175	221	297	331	328	305	296	242	272	163	173	173	180	190	216	204	190	192	194	187	188	189	204	175
11 Spd	19	18	20	16	19	29	24	28	28	34	32	28	28	23	23	20	19	15	7	3	2	2	5	4	12.7	33.7
Dir	196	216	228	242	243	244	245	262	259	255	260	267	268	277	321	349	3	25	47	120	114	39	79	102	263	255
12 Spd	7	6	7	6	7	4	7	8	8	8	9	17	17	4	3	3	7	18	15	8	5	6	5	7	5.6	17.5
Dir	100	94	93	91	101	94	95	100	98	89	102	148	157	108	125	106	158	176	202	220	221	229	206	187	142	176
13 Spd	10	12	13	18	19	18	17	16	16	16	14	20	19	15	19	18	16	16	18	19	19	20	16	16	16.3	20.2
Dir	184	180	188	188	192	200	200	188	184	178	189	201	211	201	217	215	208	193	174	172	178	179	184	199	192	179
14 Spd	21	23	23	20	25	21	20	19	20	26	20	17	20	16	18	24	15	15	25	22	20	29	32	29	20.6	31.6
Dir	208	213	211	205	194	184	182	194	212	212	226	198	192	175	196	214	197	171	170	171	182	221	228	226	201	228
15 Spd	25	24	25	23	22	25	19	22	25	23	20	24	21	23	24	28	27	27	28	29	27	28	26	19	24.0	29.3
Dir	219	218	221	225	222	222	216	213	221	219	205	211	215	214	216	220	221	218	221	222	216	208	199	186	216	222
16 Spd	17	19	17	13	19	19	22	24	29	28	28	23	26	16	15	13	18	17	16	19	16	14	9	5	18.3	28.9
Dir	183	172	169	163	171	172	171	167	166	169	165	163	165	167	161	152	162	157	160	164	159	164	156	157	166	166
17 Spd	10	14	10	16	14	16	15	13	12	16	16	15	15	18	14	13	10	9	7	5	10	9	7	5	10.3	18.0
Dir	182	181	191	196	193	193	184	169	170	174	178	178	180	172	168	162	154	128	108	91	91	92	98	95	167	172
18 Spd	7	11	15	5	10	16	9	7	7	6	18	20	19	17	19	16	12	11	10	11	6	10	19	10	11.2	20.4
Dir	102	142	156	57	138	163	149	106	70	148	163	166	168	167	165	162	153	151	148	136	115	146	167	177	153	166
19 Spd	0	8	3	4	3	2	5	2	7	10	7	4	6	2	10	4	5	4	5	7	6	14	13	15	2.5	15.1
Dir	93	192	359	87	79	308	52	165	208	213	296	27	91	68	252	297	246	297	94	110	143	168	173	171	176	171
20 Spd	13	14	13	14	15	14	12	15	17	18	11	4	3	4	9	3	3	4	5	1	6	7	6	7	6.7	17.9
Dir	175	183	176	177	168	166	164	161	163	161	163	118	118	161	180	148	40	92	108	86	34	42	8	11	157	161
21 Spd	10	13	9	11	11	12	11	10	10	9	9	8	8	7	8	7	6	6	5	5	4	4	4	4	7.9	12.8
Dir	343	347	333	321	327	331	337	337	339	332	331	332	328	321	317	319	319	326	333	322	319	311	314	336	330	347
22 Spd	3	3	2	2	1	2	3	3	4	6	3	3	4	5	6	6	6	5	5	6	6	5	4	5	3.5	6.4
Dir	320	310	323	300	323	319	359	16	16	23	55	66	50	45	47	49	52	49	51	47	49	55	55	54	36	47

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Donnelly - January 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	5	4	3	2	3	3	4	4	2	2	3	3	2	1	1	6	1	1	2	4	3	3	5	3	1.7	5.6
Dir	56	65	72	68	54	44	39	46	54	66	64	93	94	84	95	248	226	210	119	192	165	125	116	107	87	248
24 Spd	4	0	3	6	6	4	2	3	1	1	4	2	5	4	3	4	2	4	5	7	5	4	3	11	3.4	11.1
Dir	110	97	150	129	160	173	173	168	41	124	175	29	198	187	178	200	144	138	149	140	148	147	141	152	154	152
25 Spd	16	17	18	16	3	4	17	17	15	14	6	12	12	10	12	12	12	15	14	10	6	11	12	13	11.8	18.1
Dir	157	158	160	157	111	139	158	160	160	159	138	170	173	176	173	172	168	174	182	190	195	190	189	189	168	160
26 Spd	13	14	14	13	12	10	11	13	9	11	11	15	19	20	16	16	21	27	30	31	30	26	26	22	17.4	31.3
Dir	193	191	191	191	183	190	192	178	183	194	198	206	205	211	218	221	218	223	224	224	224	224	227	223	211	224
27 Spd	20	18	13	13	13	15	15	15	14	10	15	22	25	32	30	31	25	20	15	19	19	17	19	15	18.1	31.8
Dir	216	228	206	186	180	191	193	191	190	177	201	212	217	228	228	226	227	221	232	229	225	215	227	211	215	228
28 Spd	11	13	18	23	15	13	15	15	14	17	16	18	18	15	16	27	25	32	30	31	26	21	22	17	18.3	31.8
Dir	189	193	198	205	205	192	192	183	174	174	168	168	170	177	210	224	224	224	223	218	209	206	207	204	202	224
29 Spd	17	19	21	19	19	20	25	28	25	25	20	20	19	15	9	7	2	11	14	15	15	16	16	19	17.0	27.9
Dir	199	194	198	196	204	201	200	202	200	203	212	211	214	222	225	209	153	184	194	205	205	210	222	231	205	202
30 Spd	20	21	26	23	19	17	21	20	21	25	30	28	33	40	39	35	28	27	26	24	20	12	14	12	22.8	40.0
Dir	239	238	246	254	261	266	261	257	252	259	252	261	252	253	255	259	270	277	274	272	292	319	333	326	263	253
31 Spd	14	11	8	8	8	5	3	5	4	5	8	12	14	12	12	10	6	3	6	10	8	9	8	10	6.1	14.2
Dir	351	355	342	351	353	337	310	264	260	262	263	266	276	279	282	274	261	240	217	232	247	253	235	235	281	351
Spd	6.8	7.5	7.6	6.9	6.2	6.5	6.4	6.5	6.7	7.5	7.0	7.4	8.4	7.4	7.1	7.0	5.8	6.4	7.1	7.7	6.4	6.9	6.9	7.1	Diurnal Average	
Dir	197	198	202	207	210	212	205	203	204	203	205	204	206	215	222	221	216	205	199	202	201	200	202	200		
Spd	24.7	24.2	25.6	23.2	24.7	28.6	24.6	28.2	28.9	33.7	32.4	28.5	33.3	40.0	39.5	34.8	28.1	31.8	30.0	31.3	30.3	28.7	31.6	29.2	Diurnal Maximum	
Dir	219	218	246	254	194	244	200	262	166	255	260	267	252	253	255	259	270	224	223	224	224	221	228	226		

Maximum Speed Value: 40 km/h on Jan 30 14:00
Maximum Daily Speed Average: 24.0 km/h on Jan 15
Maximum Diurnal Speed Average: 8.4 km/h at hour 13

Minimum Speed Value: 0 km/h on Jan 8 05:00
Minimum Daily Speed Average: 1.3 km/h on Jan 2
Minimum Diurnal Speed Average: 5.8 km/h at hour 17

Monthly Average Velocity: 6.92 km/h 205.6 deg

Speed Percentiles: $P_1 = 0.4$ $P_{10} = 2.6$ $Q_1 = 5.4$ Median = 10.1 $Q_3 = 16.5$ $P_{90} = 22.9$ $P_{99} = 31.3$

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

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

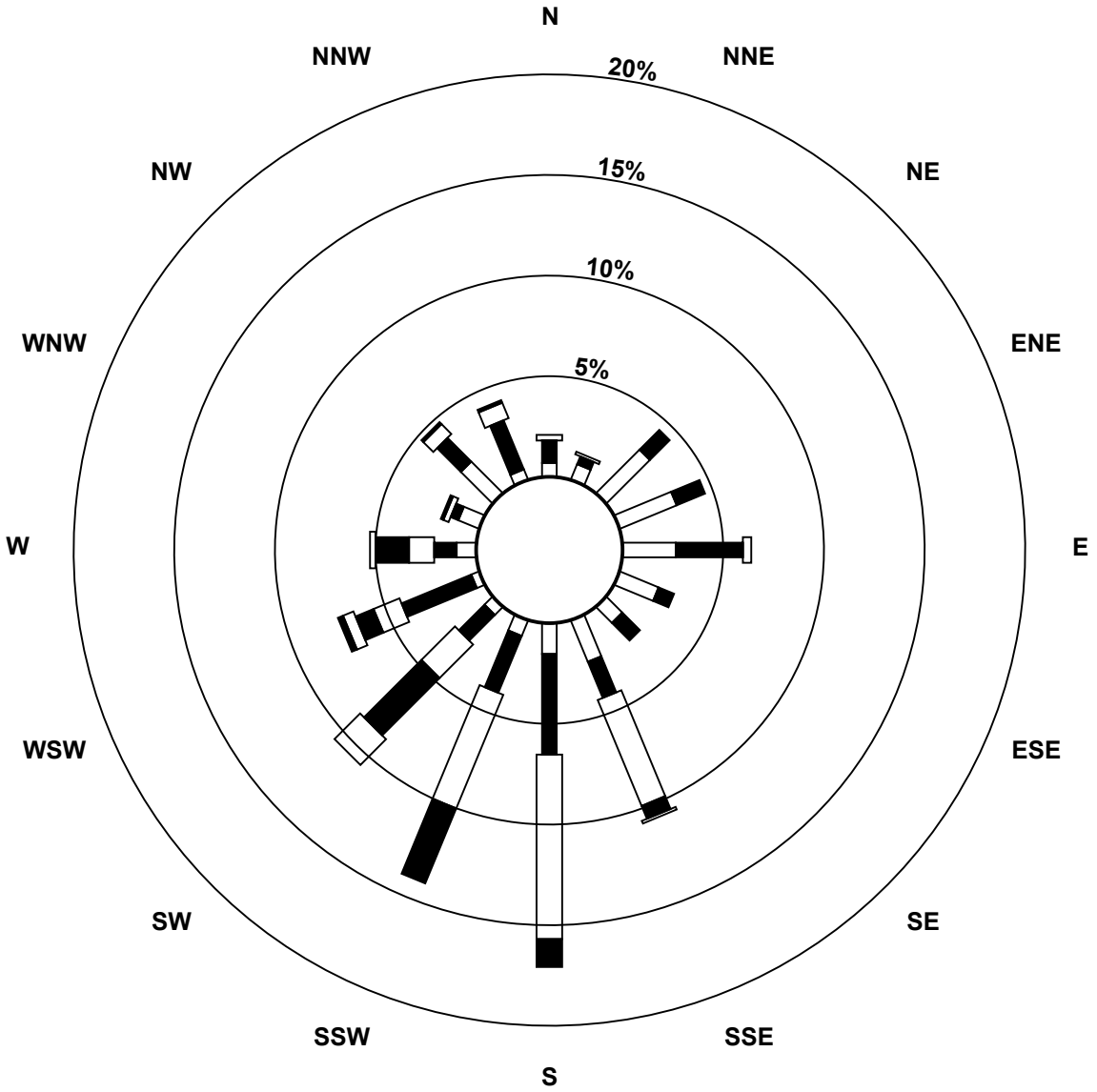
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	11	16	4	2	0	0	33
NorthEast	36	21	1	0	0	0	58
East	36	38	5	0	0	0	79
SouthEast	25	17	12	0	0	0	54
South	20	56	126	32	2	0	236
SouthWest	9	31	33	56	15	0	144
West	12	26	13	12	11	2	76
NorthWest	27	24	12	1	0	0	64
Total	176	229	206	103	28	2	744

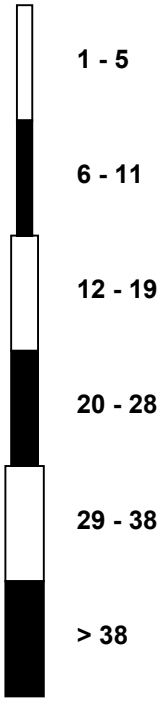
Wind Rose

Wind Speed (WS) (km/h)

Donnelly - January 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Donnelly - January 2017

Maximum Speed: 40 km/h on Jan 30 14:00

Maximum Daily Speed Average: 24.3 km/h on Jan 30

Minimum Speed: 0 km/h on Jan 8 05:00

Minimum Daily Speed Average: 2.2 km/h on Jan 2

Maximum Diurnal Speed Average: 13.5 km/h at hour 13

Minimum Diurnal Speed Average: 10.5 km/h at hour 21

Monthly Average Speed: 11.67 km/h

Percentiles: $P_1 = 0.4$ $P_{10} = 2.8$ $Q_1 = 5.5$ Median = 10.3 $Q_3 = 16.5$ $P_{90} = 22.8$ $P_{99} = 31.2$

Hours in Service: 744

Hours of Data: 744

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-Jan	13	13	13	19	17	16	13	15	18	13	11	9	12	15	11	8	8	7	5	6	3	1	3	1	10.5	19.3
2-Jan	3	5	3	4	4	2	2	3	1	1	2	3	1	0	1	4	2	0	2	0	1	3	2	1	2.2	5.3
3-Jan	5	7	5	7	8	6	8	7	5	5	6	7	7	5	5	7	8	8	10	12	8	11	9	9	7.3	11.8
4-Jan	9	7	6	9	8	8	7	4	6	6	10	9	10	10	10	9	9	6	6	7	5	4	4	3	7.1	9.9
5-Jan	1	0	1	1	1	1	3	4	2	1	1	4	6	9	9	6	6	5	6	5	5	7	6	7	4.0	9.4
6-Jan	9	9	10	10	7	8	11	12	12	12	11	11	11	8	8	8	8	7	7	4	3	2	3	7	8.3	12.5
7-Jan	9	9	12	10	13	12	10	9	9	9	8	9	11	11	11	12	11	9	6	6	6	7	5	3	9.0	12.6
8-Jan	3	2	1	0	0	0	0	1	1	3	4	3	3	3	3	3	3	2	6	9	8	8	8	11	3.6	11.4
9-Jan	10	9	10	11	8	9	10	8	10	9	10	8	9	9	9	7	6	7	10	7	8	11	12	15	9.2	14.7
10-Jan	16	21	23	16	19	18	14	11	5	7	2	3	12	12	12	13	11	11	10	12	14	15	15	19	12.9	22.5
11-Jan	19	18	21	16	20	29	24	28	28	34	33	29	28	23	26	20	20	15	7	5	3	3	5	4	19.1	33.8
12-Jan	7	6	7	6	7	4	7	8	9	9	11	17	17	6	3	3	7	18	15	8	6	6	5	7	8.3	17.6
13-Jan	10	12	13	18	19	18	17	16	16	16	14	20	19	16	19	18	16	16	18	19	19	20	16	17	16.8	20.2
14-Jan	21	23	23	20	25	21	20	19	20	26	20	17	20	16	19	24	16	15	25	22	21	29	32	29	21.8	31.6
15-Jan	25	24	25	23	22	25	19	22	25	23	20	24	21	23	24	28	27	28	28	29	27	28	26	19	24.3	29.4
16-Jan	17	19	17	13	19	19	22	24	29	28	28	23	26	16	15	13	18	17	16	19	16	14	9	6	18.4	29.0
17-Jan	10	14	10	16	14	16	15	13	12	16	16	15	15	18	14	13	10	9	7	5	10	9	7	5	12.1	18.0
18-Jan	7	12	15	6	10	16	10	8	7	7	18	20	20	17	19	16	12	11	11	11	8	12	19	11	12.5	20.4
19-Jan	2	8	5	4	3	3	5	6	7	11	7	5	6	4	11	4	5	8	6	7	7	14	13	15	7.0	15.1
20-Jan	13	14	13	14	15	14	12	15	17	18	11	4	4	4	9	5	4	4	6	2	6	8	7	7	9.4	17.9
21-Jan	10	13	9	11	11	12	12	10	10	9	9	9	8	8	8	7	6	6	5	5	4	4	4	4	8.1	12.9
22-Jan	3	3	2	2	2	2	3	3	4	6	4	3	4	6	6	6	6	5	5	6	6	5	4	5	4.1	6.4
23-Jan	5	4	3	2	3	3	4	4	2	2	3	3	2	2	1	6	1	2	2	4	3	3	5	3	3.0	5.7
24-Jan	4	0	3	6	6	4	3	3	1	2	4	2	6	4	3	5	3	4	5	7	5	4	4	11	4.1	11.3
25-Jan	16	17	18	16	5	5	17	17	15	14	6	12	12	10	12	12	12	15	14	10	6	11	12	13	12.3	18.2
26-Jan	13	14	14	14	12	10	11	13	9	11	11	15	19	20	16	16	21	27	30	31	30	26	26	22	18.0	31.3
27-Jan	20	18	14	13	13	15	15	15	15	10	15	22	26	32	30	31	25	20	15	19	19	17	20	15	18.9	31.9
28-Jan	11	13	18	23	15	13	15	15	14	17	16	18	18	15	16	27	25	32	30	31	26	21	22	17	19.4	31.9
29-Jan	17	19	21	19	19	20	25	28	25	25	20	20	19	15	9	7	3	11	14	15	15	16	17	19	17.3	27.9
30-Jan	20	21	26	23	19	17	21	20	21	25	30	29	33	40	40	35	28	27	26	24	20	12	14	12	24.3	40.1
31-Jan	14	11	8	8	8	5	3	5	4	6	8	12	14	12	12	10	6	3	6	10	8	9	8	10	8.3	14.3
	11.0	11.7	11.9	11.7	11.3	11.4	11.5	11.8	11.7	12.2	11.9	12.4	13.5	12.5	12.6	12.3	11.1	11.5	11.6	11.6	10.5	10.9	11.0	10.7	Diurnal Average	
	24.8	24.3	25.7	23.2	24.7	28.7	24.6	28.3	29.0	33.8	32.6	28.5	33.4	40.1	39.5	34.9	28.2	31.9	30.0	31.3	30.3	29.3	31.6	29.3	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

Donnelly - January 2017

Maximum Value: 92.8 deg on Jan 19 01:00

Minimum Value: 0.2 deg on Jan 8 04:00

Percentiles: P_1 = 1.8 P_{10} = 2.8 Q_1 = 4.0 Median = 6.6 Q_3 = 12.6 P_{90} = 27.3 P_{99} = 68.7

Hours in Service:	744
Hours of Data:	744
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-Jan	5	3	13	2	4	2	6	5	2	7	4	5	6	6	6	9	18	16	18	27	27	63	17	44	63.4
2-Jan	34	26	33	16	10	26	27	22	37	38	20	43	64	24	90	18	11	75	38	60	70	48	47	85	90.0
3-Jan	19	8	5	3	5	8	3	10	10	9	12	11	13	11	23	7	6	7	4	3	6	4	6	7	22.7
4-Jan	11	9	15	9	5	3	11	13	13	16	6	3	5	4	5	7	10	4	8	4	9	9	8	8	16.4
5-Jan	17	42	49	16	14	19	10	12	12	21	68	12	5	6	7	6	4	4	4	6	5	7	5	8	67.8
6-Jan	7	6	6	7	9	7	7	6	6	7	9	8	7	10	8	8	7	6	35	21	20	22	39	10	39.4
7-Jan	5	8	9	7	7	6	8	10	9	11	7	7	6	6	5	4	5	8	11	7	6	7	12	16	15.8
8-Jan	10	11	12	0	0	50	8	15	29	26	15	18	30	20	6	20	9	64	8	10	6	4	9	4	64.2
9-Jan	13	11	6	9	8	12	8	7	5	5	6	9	5	10	7	9	7	7	5	7	23	4	3	2	23.0
10-Jan	4	2	6	27	24	5	6	7	34	16	21	25	4	2	3	5	7	9	3	3	3	4	5	2	34.0
11-Jan	9	6	10	8	6	5	6	4	4	2	6	3	4	6	26	5	10	6	19	49	46	68	19	12	68.4
12-Jan	5	5	7	5	7	12	11	9	7	8	32	7	8	62	36	44	29	5	13	5	13	8	25	7	62.5
13-Jan	6	4	4	2	2	6	5	3	4	2	7	2	3	8	2	2	4	8	4	3	3	2	4	11	10.8
14-Jan	2	5	3	6	2	4	4	5	6	4	4	14	6	6	17	6	18	3	2	2	7	12	2	4	18.4
15-Jan	3	3	4	3	7	3	3	4	2	3	8	2	5	3	3	3	3	3	3	4	8	3	6	6	8.1
16-Jan	6	3	9	14	3	3	3	2	2	3	3	4	2	3	7	6	4	5	7	3	5	5	7	15	15.1
17-Jan	5	5	21	3	8	4	3	13	6	3	4	4	4	4	3	6	5	10	6	13	4	5	6	8	20.6
18-Jan	7	25	5	29	19	9	12	33	20	39	4	3	2	2	2	3	4	5	13	10	33	36	4	28	39.5
19-Jan	93	16	51	27	6	64	28	64	15	21	20	36	21	72	16	30	27	57	27	14	21	6	4	3	92.8
20-Jan	3	5	3	5	4	4	4	4	2	2	9	25	44	22	14	60	43	18	13	84	22	16	29	24	84.4
21-Jan	9	6	11	7	6	6	8	6	7	8	8	10	12	10	9	10	10	12	10	13	14	12	13	11	14.5
22-Jan	12	11	16	19	19	17	16	11	9	6	20	16	13	7	6	7	6	6	5	4	6	7	7	6	19.7
23-Jan	6	8	11	27	11	18	5	5	12	15	11	19	25	59	56	37	18	43	63	31	21	9	7	10	63.1
24-Jan	8	51	22	7	7	18	23	11	91	47	12	27	42	16	30	16	50	11	12	4	11	30	45	11	91.3
25-Jan	3	3	4	6	38	42	3	3	3	6	12	4	5	4	4	3	2	2	4	5	5	4	3	2	42.2
26-Jan	2	4	4	4	3	3	3	8	13	6	5	2	3	3	4	6	4	3	3	2	3	2	2	4	13.3
27-Jan	2	5	21	3	1	7	4	6	6	10	9	3	5	2	2	3	3	4	5	5	3	7	4	14	21.3
28-Jan	5	3	4	4	12	6	4	6	4	3	2	4	3	4	11	6	6	5	4	4	4	4	4	9	12.0
29-Jan	4	3	2	2	6	2	3	1	2	4	3	4	3	4	10	50	53	5	6	5	2	3	4	6	53.4
30-Jan	2	2	6	4	3	5	3	5	9	5	3	6	5	4	3	4	5	8	3	4	9	12	9	9	12.1
31-Jan	8	7	7	7	8	21	26	9	22	21	6	8	7	8	6	5	14	15	9	3	10	8	7	4	26.1
	92.8	50.9	50.7	29.5	38.4	64.3	28.4	64.3	91.3	46.7	67.8	43.1	64.2	72.0	90.0	59.7	53.4	75.4	63.1	84.4	70.0	68.4	47.4	84.8	

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

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - January 2017

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.9 ppb on Jan 26 12:00 Maximum Daily Average: 0.6 ppb on Jan 4

Minimum Value: 0 ppb on Jan 5 08:00 Minimum Daily Average: 0.1 ppb on Jan 7
Maximum Diurnal Average: 0.3 ppb at hour 15 Minimum Diurnal Average: 0.2 ppb at hour 7
Monthly Average: 0.26 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.7$ $P_{99} = 1.3$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	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
2-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	1	1	0.4	1.7
3-Jan	1	1	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.3
4-Jan	0	0	A	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.6	1.0
5-Jan	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
6-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
7-Jan	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
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	A	0	0	0.2	1.1
9-Jan	0	1	0	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	1	1	A	0	0	1	0.5	0.8
10-Jan	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	1	1	0.3	0.9
11-Jan	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	1	1	0	A	0	0	0	0	0	0.5	1.2
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0.2	0.9
13-Jan	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	1.0
14-Jan	0	0	1	0	1	0	0	1	1	0	0	0	0	0	0	A	1	0	0	0	0	0	1	0	0.3	1.0
15-Jan	0	1	1	1	1	0	0	0	1	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0.3	1.2
16-Jan	0	0	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0.3	1.1
17-Jan	1	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
18-Jan	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.4
19-Jan	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
20-Jan	0	0	1	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
21-Jan	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
22-Jan	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
23-Jan	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
24-Jan	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
25-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-Jan	0	0	0	A	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.9
27-Jan	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	1	2	1	0	0.4	1.8
28-Jan	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	0.5
29-Jan	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.5
30-Jan	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	A	0	0.1	1.0
31-Jan	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	1	1	0	A	1	0	0.4	1.5
	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	1.3	0.9	1.2	1.3	1.0	0.9	0.7	0.8	1.0	1.0	0.7	1.9	0.7	0.8	1.7	1.1	1.5	1.0	1.3	1.1	1.2	1.8	1.5	1.1	Diurnal Maximum	

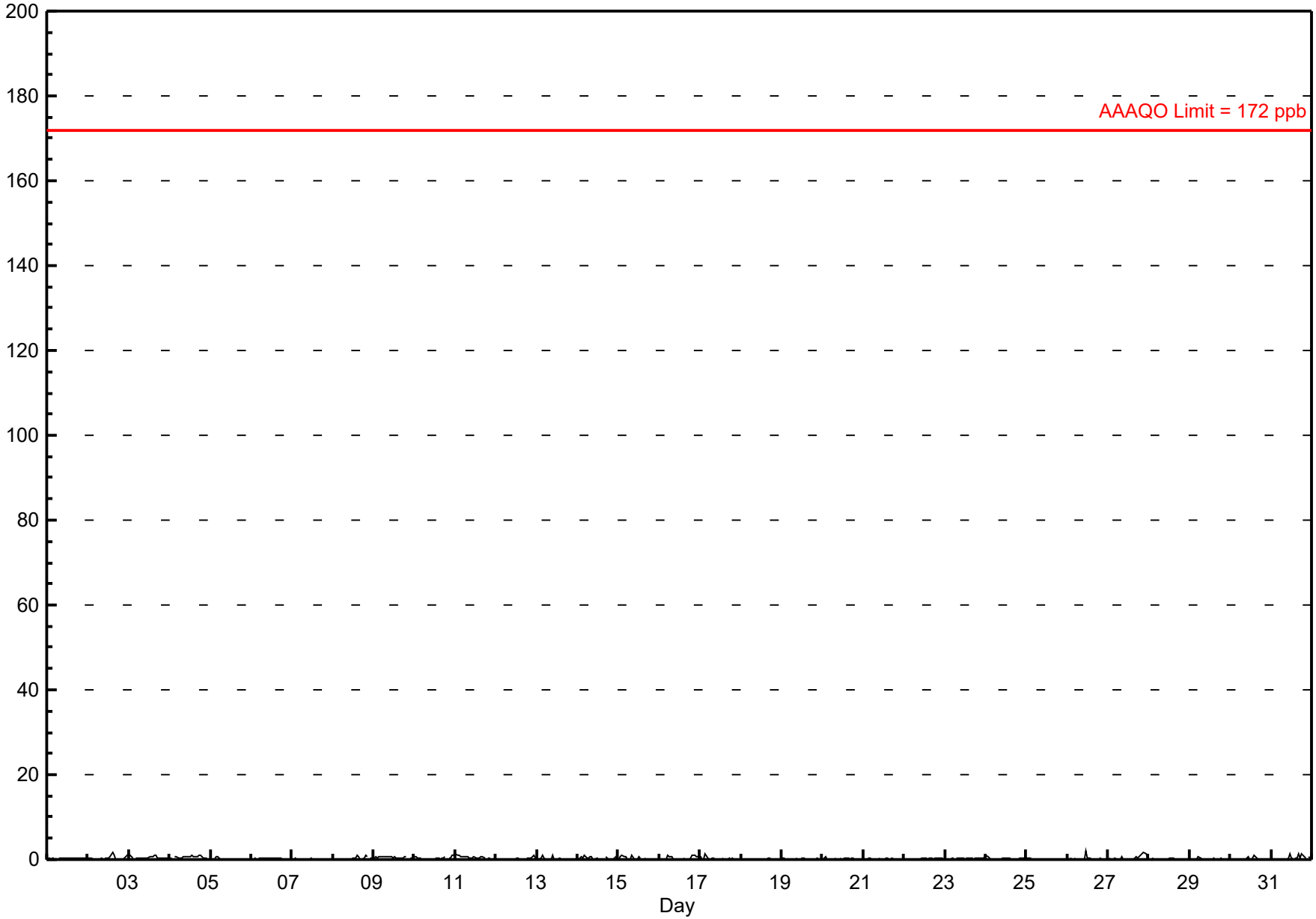
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - January 2017

Maximum Value: 11.7 ppb on Jan 30 15:00

Maximum Daily Average: 1.9 ppb on Jan 31

Minimum Value: 0 ppb on Jan 7 15:00

Minimum Daily Average: 0.6 ppb on Jan 7

Maximum Diurnal Average: 1.4 ppb at hour 15

Minimum Diurnal Average: 0.8 ppb at hour 10

Monthly Average: 1.02 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 0.7$ Median = 0.8 $Q_3 = 1.1$ $P_{90} = 1.6$ $P_{99} = 4.2$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
2-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	2	3	2	1	1	1	1	1	1	1	2	1.1	2.7
3-Jan	2	1	1	A	1	1	1	1	1	1	1	1	1	1	2	3	2	1	1	1	1	1	1	1	1.2	3.3
4-Jan	1	1	A	1	1	1	1	1	2	1	1	2	2	2	2	1	1	2	3	1	1	1	1	1	1.3	2.6
5-Jan	1	A	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	1	0	1	1	1	0	0.7	1.2
6-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.2
7-Jan	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	0	1	1	1	1	1	1	A	1	0.6	0.8
8-Jan	0	0	0	1	1	1	0	1	1	1	1	1	1	1	2	1	1	0	1	2	1	A	1	2	0.9	2.3
9-Jan	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	3	1.3	2.9
10-Jan	2	2	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1.0	1.9
11-Jan	2	1	2	2	1	1	1	1	1	1	1	3	1	1	1	1	1	1	A	1	1	1	1	1	1.2	3.4
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	0.8	1.4
13-Jan	1	1	1	2	1	1	1	0	1	2	1	1	1	1	0	1	A	0	1	1	1	1	1	1	0.8	2.4
14-Jan	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	3	1	1.3	2.8
15-Jan	1	2	3	2	3	1	1	1	3	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1.2	3.2
16-Jan	1	1	0	1	1	3	2	2	1	1	1	1	1	A	1	1	1	1	1	2	2	2	1	1	1.1	2.6
17-Jan	2	1	0	2	3	1	1	2	5	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.2	4.6
18-Jan	1	1	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	1	1	1	1	0.7	1.2
19-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
20-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.8	1.2
21-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.8	1.3
22-Jan	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
23-Jan	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	1.3
24-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
25-Jan	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	0.8
26-Jan	1	1	1	A	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1	2	1	1	1	1	1.0	5.2
27-Jan	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	2	3	2	3	2	4	3	2	1.4	4.3
28-Jan	1	A	1	1	1	1	1	1	1	1	0	1	2	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5
29-Jan	A	1	0	1	1	3	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	0.9	2.6
30-Jan	1	1	1	1	1	1	0	1	1	1	11	1	1	1	12	4	1	1	1	1	1	1	A	1	1.8	11.7
31-Jan	1	1	1	1	1	1	1	1	1	1	1	10	1	1	2	2	9	2	3	3	1	A	1	1	1.9	10.4
	1.0	1.0	0.9	1.0	1.0	1.0	0.9	0.9	1.1	0.8	1.1	1.4	1.0	0.9	1.4	1.1	1.2	0.9	1.0	1.1	0.9	0.9	1.0	1.0	Diurnal Average	
	2.1	2.3	2.8	2.3	2.9	2.6	2.5	2.1	4.6	2.4	11.1	10.4	1.7	1.7	11.7	4.3	9.0	2.7	2.7	2.7	1.9	4.3	2.8	2.9	Diurnal Maximum	

C - Calibration

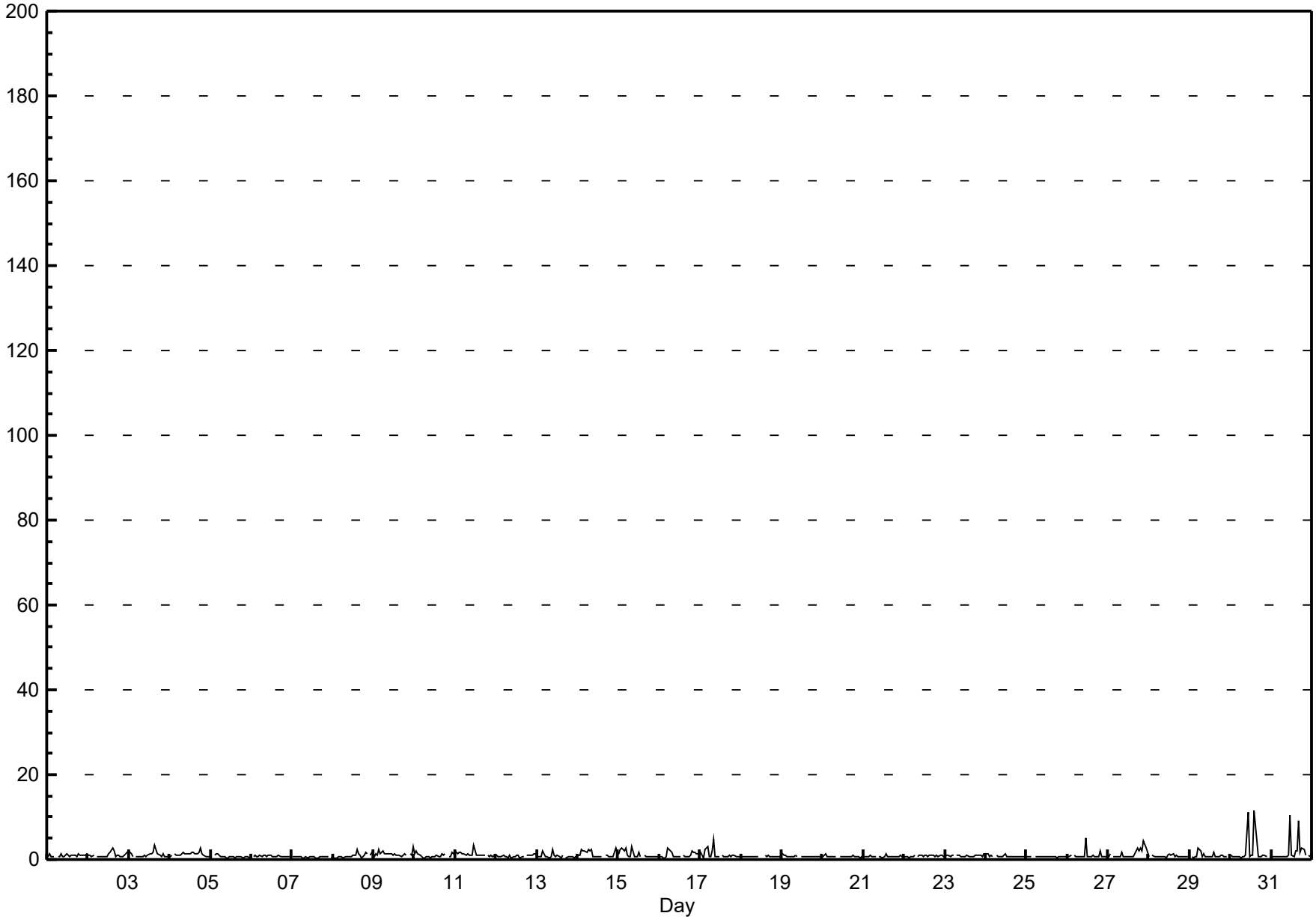
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

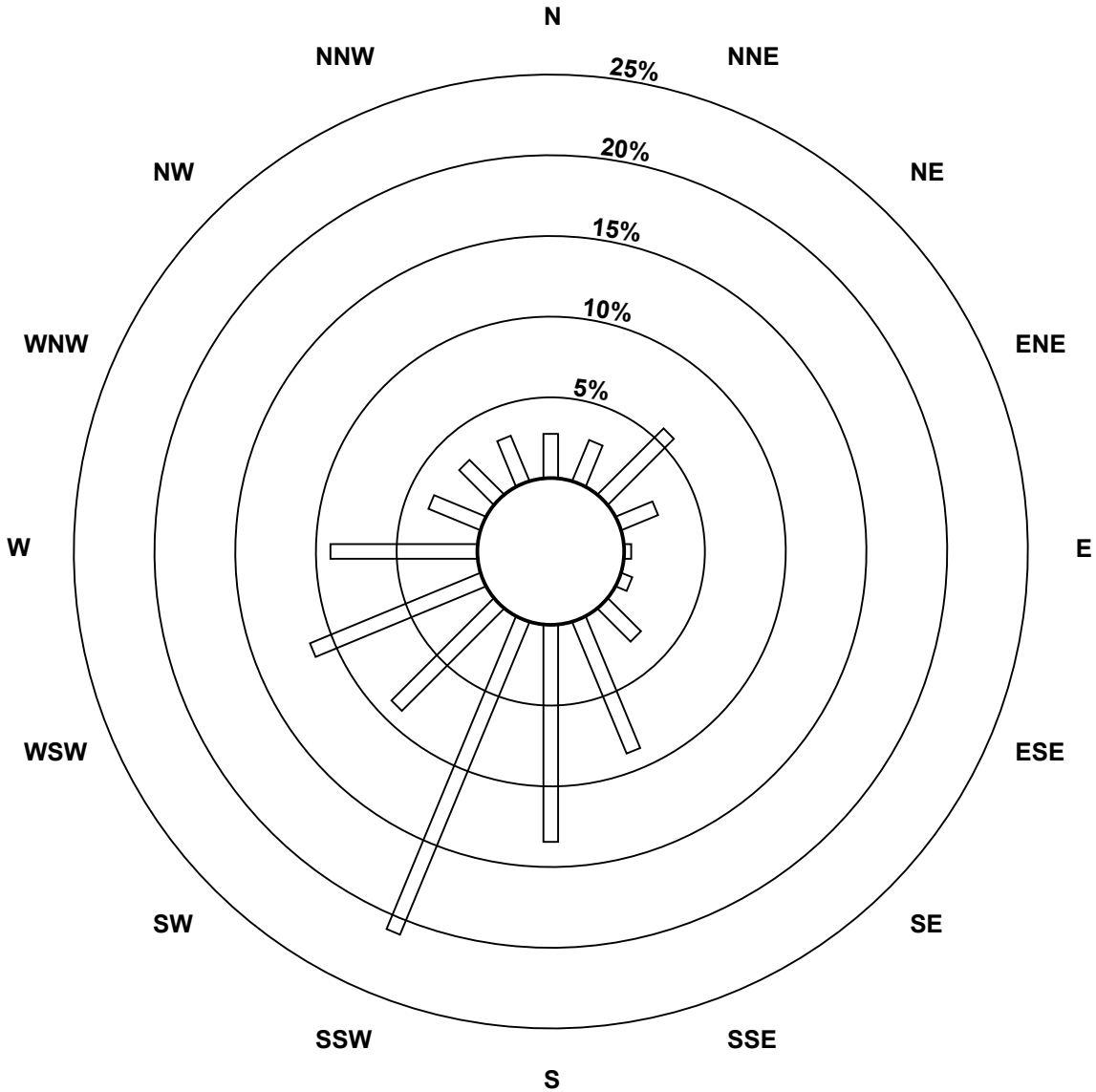
Portable Rycroft - January 2017



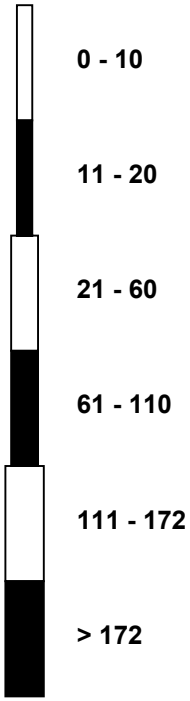
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Portable Rycroft - January 2017



Pollutant Classes (ppb)

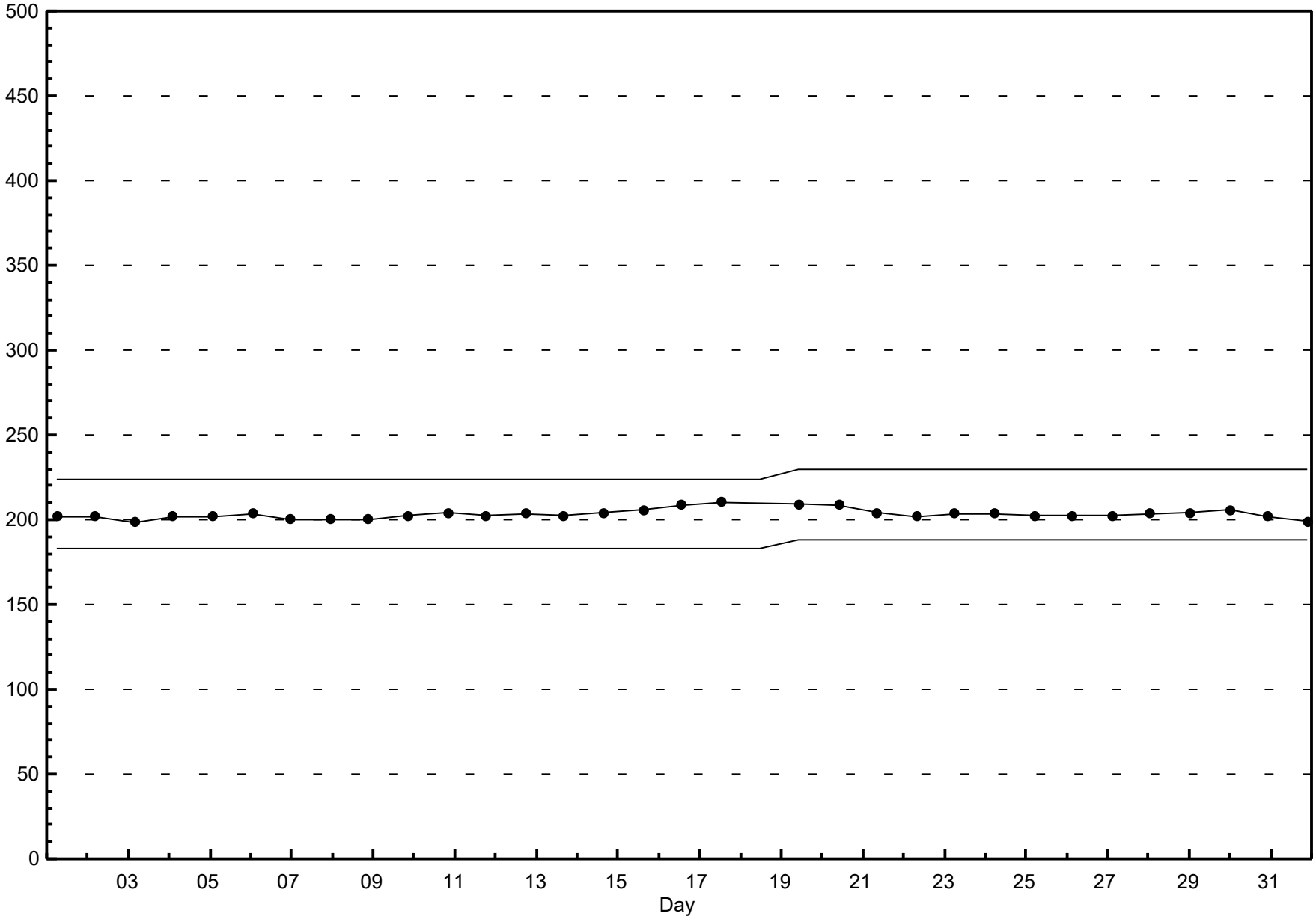


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - January 2017

Maximum Value: 4.3 ppb on Jan 25 03:00

Maximum Daily Average: 0.6 ppb on Jan 25

Minimum Value: 0 ppb on Jan 22 04:00

Minimum Daily Average: 0.2 ppb on Jan 22

Maximum Diurnal Average: 0.4 ppb at hour 3

Minimum Diurnal Average: 0.3 ppb at hour 10

Monthly Average: 0.30 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 0.6$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
2-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
3-Jan	0	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
4-Jan	0	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
5-Jan	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
6-Jan	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
7-Jan	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
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0.4	0.6
9-Jan	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	0.4
10-Jan	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	0.3
11-Jan	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
12-Jan	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
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.3
14-Jan	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	0.3
15-Jan	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
16-Jan	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
17-Jan	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	0.4
18-Jan	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	1	1	0	0	0	0.4	1.1
19-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
20-Jan	0	0	0	0	0	0	0	0	0	A	0	0	C	C	C	1	0	1	0	0	0	0	0	0	0.3	0.5
21-Jan	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
22-Jan	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
23-Jan	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
24-Jan	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
25-Jan	0	0	4	1	A	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.3
26-Jan	0	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
27-Jan	0	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
28-Jan	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
29-Jan	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	0.5
30-Jan	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
31-Jan	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
	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	0.4	0.4	4.3	0.7	0.4	0.6	0.6	0.5	0.4	0.4	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	1.1	0.8	0.4	0.6	0.4	Diurnal Maximum	

C - Calibration

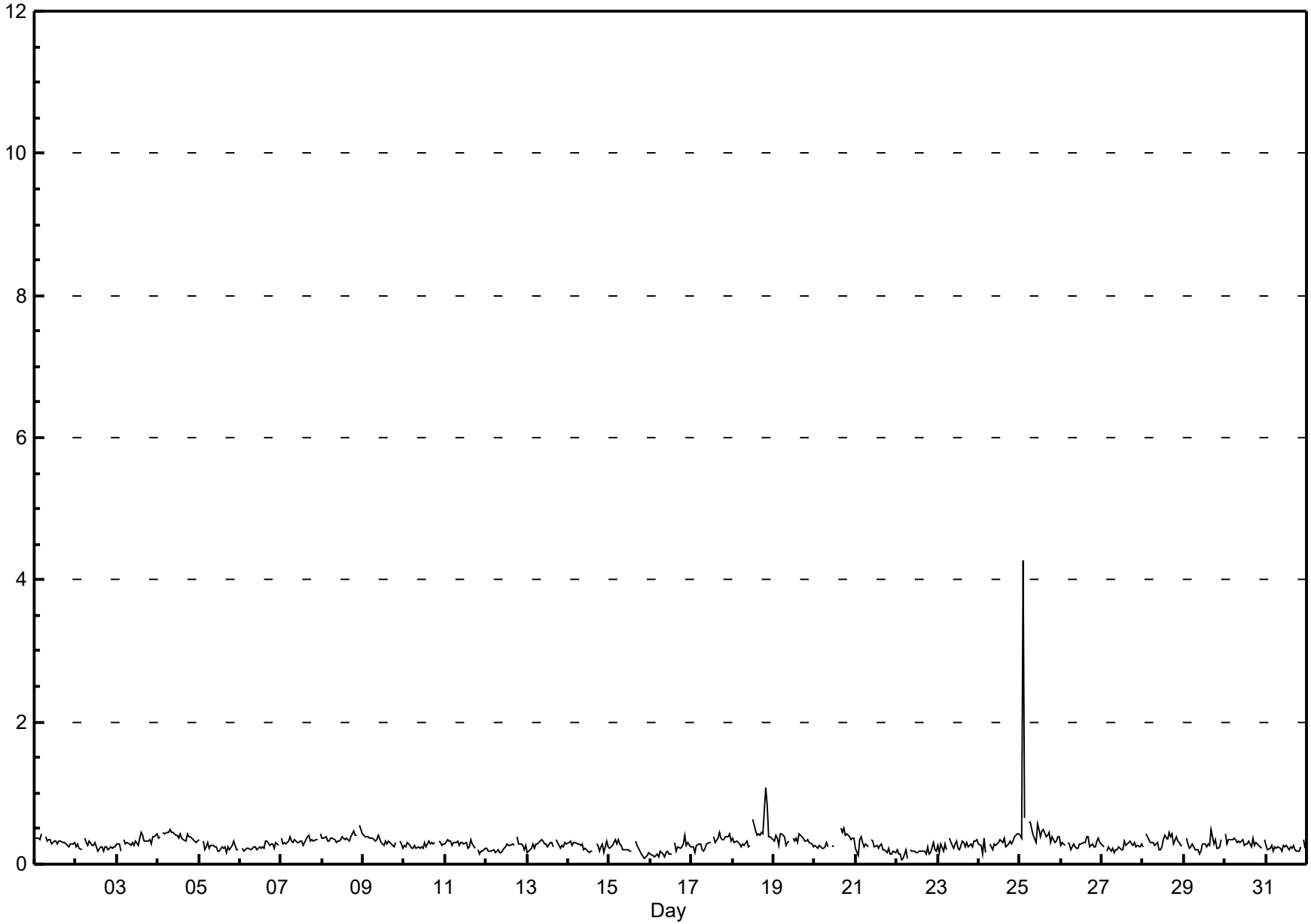
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - January 2017

Maximum Value: 59.0 ppb on Jan 25 03:00

Maximum Daily Average: 3.6 ppb on Jan 25

Minimum Value: 0 ppb on Jan 22 18:00

Maximum Diurnal Average: 2.8 ppb at hour 3

Monthly Average: 0.89 ppb

Minimum Daily Average: 0.6 ppb on Jan 22

Minimum Diurnal Average: 0.7 ppb at hour 10

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.7$ Median = 0.8 $Q_3 = 0.9$ $P_{90} = 1.0$ $P_{99} = 1.4$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	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	0.9
2-Jan	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	0.8
3-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
4-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
5-Jan	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
6-Jan	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	0.9
7-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.0
8-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.1
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.0
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.0
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	0.9
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	0.9
13-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.0
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	0.9
15-Jan	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	1.0
16-Jan	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	1.0
17-Jan	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	1.0
18-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	12	2	1	1	1	1.4	11.9
19-Jan	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
20-Jan	1	1	1	1	1	1	1	1	1	A	1	1	C	C	C	1	1	1	1	1	1	1	1	1	0.8	1.0
21-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
22-Jan	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.6	0.9
23-Jan	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
24-Jan	1	1	1	3	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.6
25-Jan	1	1	59	1	A	1	1	1	1	1	3	2	1	1	1	1	1	1	1	1	1	1	1	1	3.6	59.0
26-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
27-Jan	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	1.1
28-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
29-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	A	0.8	2.3
30-Jan	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	1.1
31-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9
	0.8	0.8	2.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.1	0.9	0.8	0.8	0.8	Diurnal Average	
	1.3	1.0	59.0	2.6	1.0	1.1	1.0	1.1	0.9	1.0	3.0	1.8	1.2	1.0	1.1	1.0	2.3	1.0	1.0	11.9	2.3	1.1	1.1	1.1	Diurnal Maximum	

C - Calibration

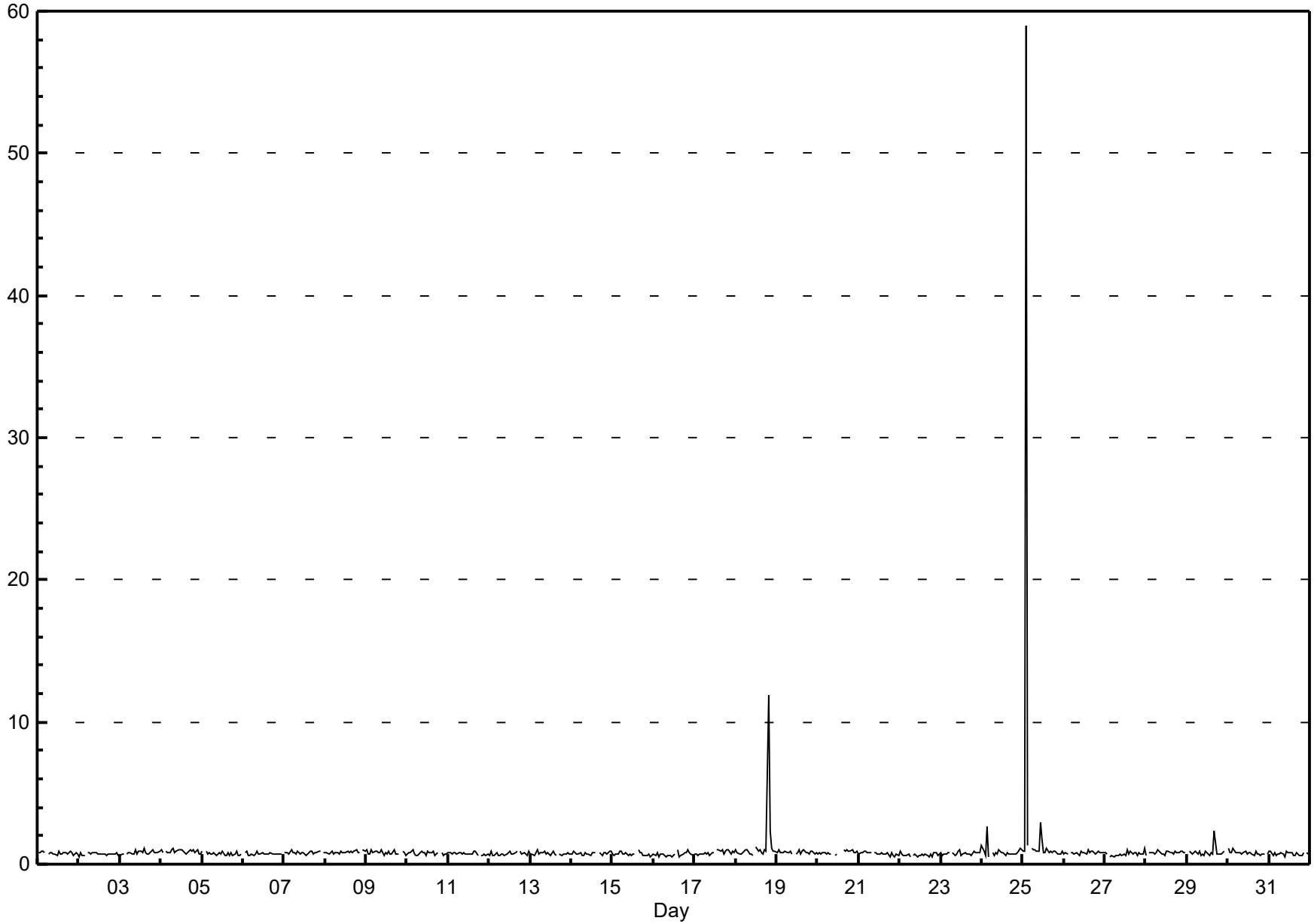
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - January 2017

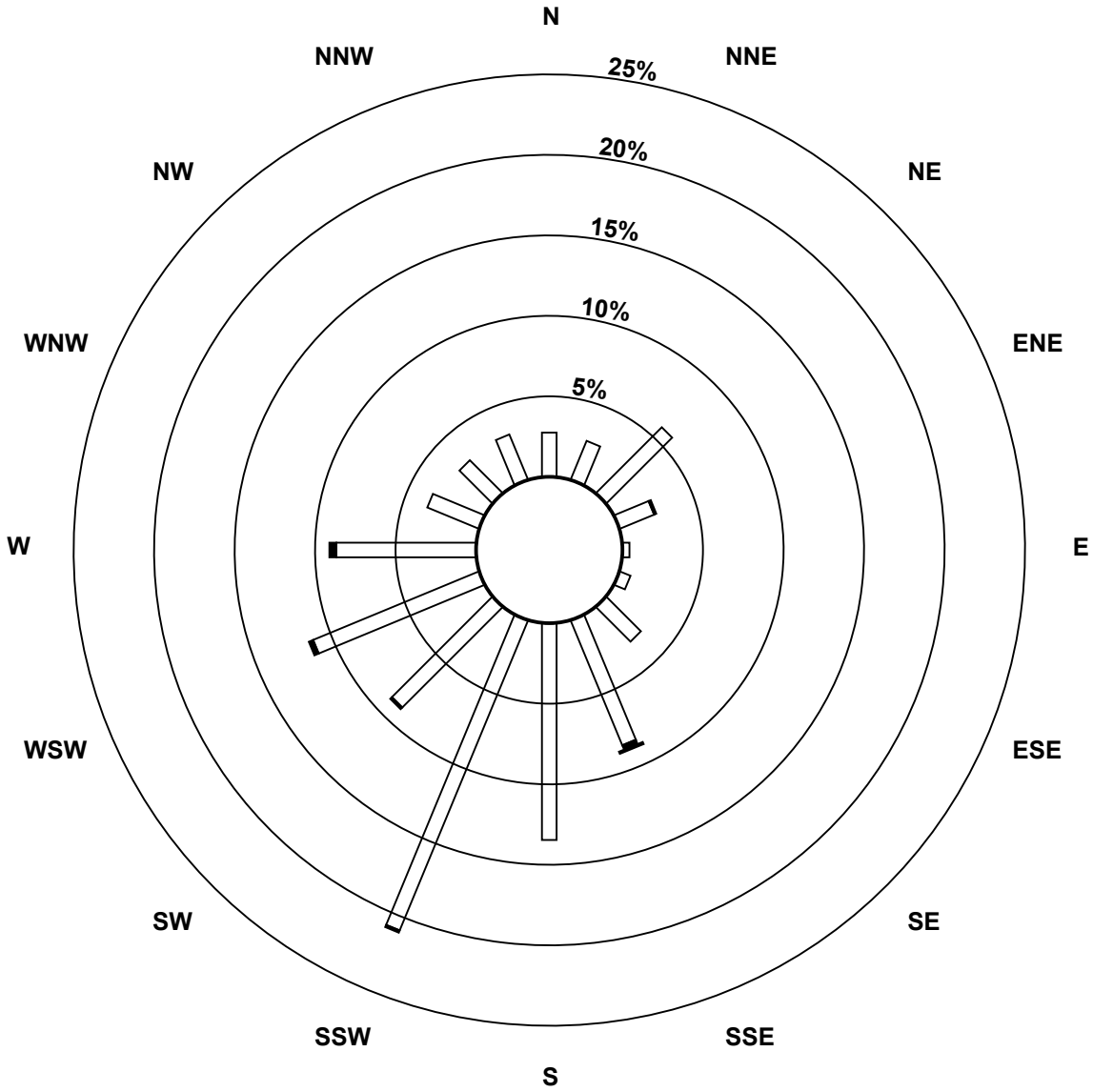


Peace Airshed Zone Association

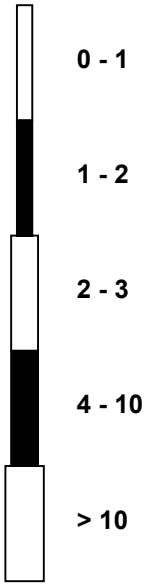
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Portable Rycroft - January 2017



Pollutant Classes (ppb)

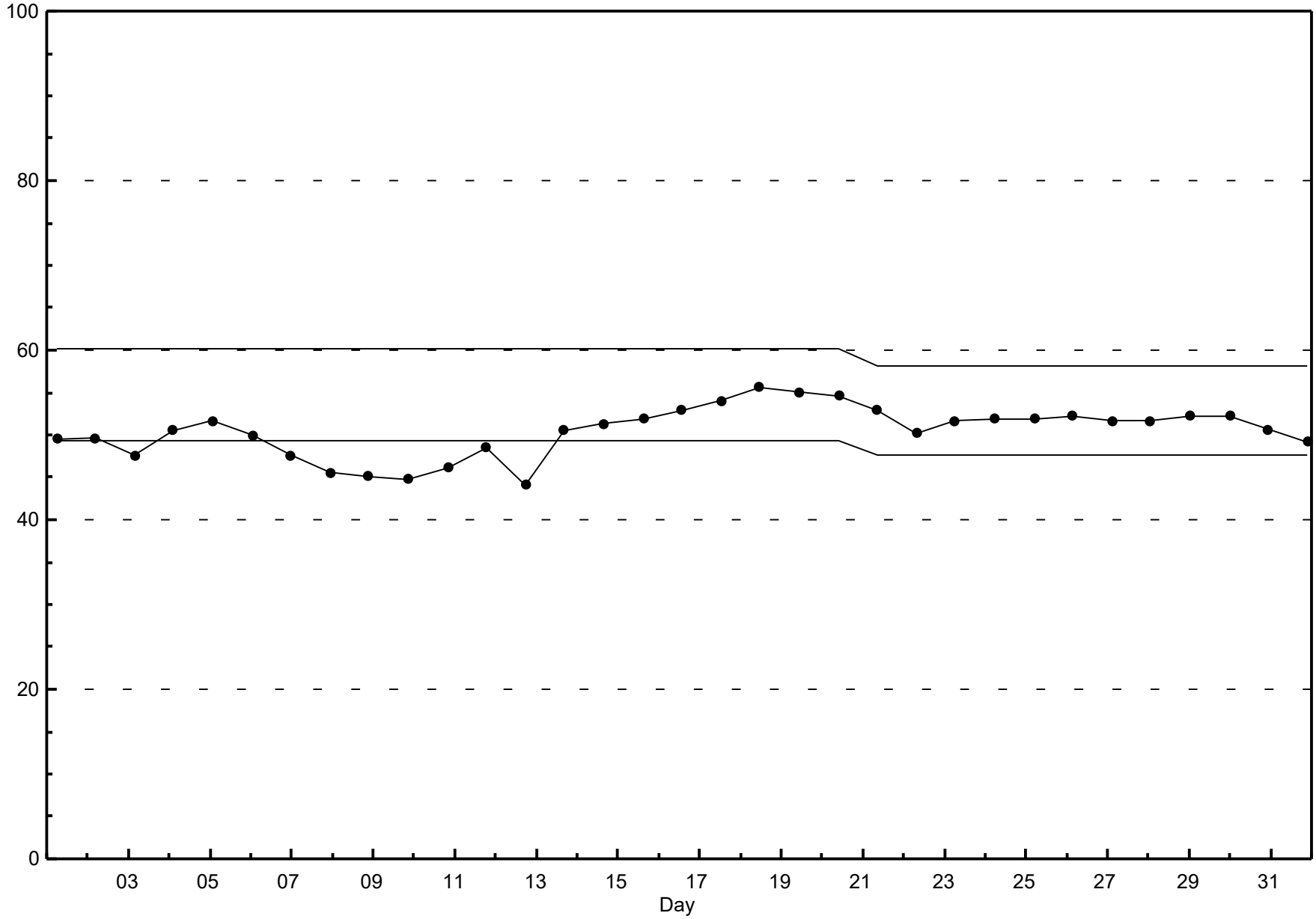


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - January 2017

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

Maximum Value: 13.7 ppb on Jan 25 04:00

Maximum Daily Average: 7.7 ppb on Jan 25

Minimum Value: 0 ppb on Jan 31 03:00

Minimum Daily Average: 0.7 ppb on Jan 22

Maximum Diurnal Average: 4.0 ppb at hour 19

Minimum Diurnal Average: 1.6 ppb at hour 5

Monthly Average: 2.64 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 0.8$ Median = 1.6 $Q_3 = 3.6$ $P_{90} = 6.3$ $P_{99} = 10.8$

Hours in Service:	744
Hours of Data:	707
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-Jan	3	2	1	1	1	A	1	1	1	2	1	1	3	3	2	2	4	7	8	3	2	4	3	3	2.5	7.6
2-Jan	3	2	2	2	A	2	2	2	1	2	2	2	2	2	3	2	2	1	2	2	2	2	3	4	2.2	4.3
3-Jan	5	5	5	A	6	6	6	6	6	6	5	4	5	8	8	5	6	6	6	5	4	4	5	4	5.4	8.2
4-Jan	4	4	A	4	4	4	6	7	3	3	4	7	3	4	3	3	3	7	9	7	4	4	3	4	4.6	9.0
5-Jan	5	A	3	3	3	2	3	2	2	3	2	2	3	2	1	1	1	1	1	1	1	1	1	1	1.8	4.7
6-Jan	A	1	1	2	2	2	2	2	2	2	2	2	1	1	2	3	4	5	4	2	3	5	6	A	2.5	6.3
7-Jan	2	2	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	2.3
8-Jan	1	1	1	0	1	1	1	1	1	1	1	1	3	5	6	2	3	4	7	6	4	A	9	9	2.9	8.8
9-Jan	6	5	7	5	3	4	3	3	3	3	3	3	3	4	11	10	4	5	6	6	A	5	4	3	4.8	10.7
10-Jan	3	2	3	1	1	0	0	1	4	5	3	4	2	2	2	3	3	4	6	A	5	5	3	2	2.8	5.7
11-Jan	2	2	4	2	2	2	2	3	4	3	3	5	3	1	1	2	3	4	A	6	4	1	1	1	2.7	6.2
12-Jan	3	4	2	3	2	2	4	3	3	4	11	4	7	5	5	8	11	A	9	4	1	1	1	1	4.3	11.1
13-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	1.2
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	8	5	1	1	1	1	1	1	1.3	7.9
15-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.2
16-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	2	2	4	2	2	1.2	3.8
17-Jan	2	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	2	3	6	5	6	3	2	1.9	5.8
18-Jan	3	3	3	2	2	3	4	6	4	5	3	C	C	C	C	C	3	3	2	6	9	10	7	8	4.6	9.8
19-Jan	7	5	5	4	4	3	2	2	2	2	A	2	1	1	2	2	2	3	4	3	3	3	4	3	2.9	6.7
20-Jan	3	2	1	1	1	2	2	4	4	A	3	3	3	4	3	3	6	7	7	8	8	5	4	3	3.9	8.3
21-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
22-Jan	1	1	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
23-Jan	1	1	1	1	1	1	A	1	1	2	1	2	2	2	2	2	3	4	3	2	4	9	10	10	2.8	10.4
24-Jan	7	6	9	9	4	A	8	10	10	9	7	7	6	5	4	3	6	9	9	11	13	7	7	8	7.6	13.3
25-Jan	6	6	10	14	A	13	13	13	10	7	7	5	7	8	7	7	9	11	12	4	3	2	2	2	7.7	13.7
26-Jan	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8
27-Jan	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	2	2	1	1.3	3.9
28-Jan	1	A	1	1	1	1	1	1	1	1	1	3	3	1	1	1	1	1	1	1	0	0	0	0	1.0	2.6
29-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	2	1	A	1.1	2.3
30-Jan	1	1	1	1	1	1	1	1	1	2	1	2	1	2	1	1	1	1	0	0	0	0	A	1	0.9	2.2
31-Jan	1	0	0	0	0	0	1	1	1	2	4	1	1	1	1	1	3	6	6	5	4	A	3	3	1.9	6.3
	2.6	2.2	2.4	2.2	1.6	2.0	2.3	2.6	2.5	2.4	2.5	2.3	2.3	2.4	2.5	2.4	3.1	3.5	4.0	3.3	3.1	3.0	3.0	2.8	Diurnal Average	
	7.1	6.3	10.3	13.7	6.0	13.1	13.5	12.8	10.5	9.1	11.1	6.9	6.9	8.2	10.7	10.2	11.1	10.6	11.8	10.8	13.3	9.8	10.4	9.9	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

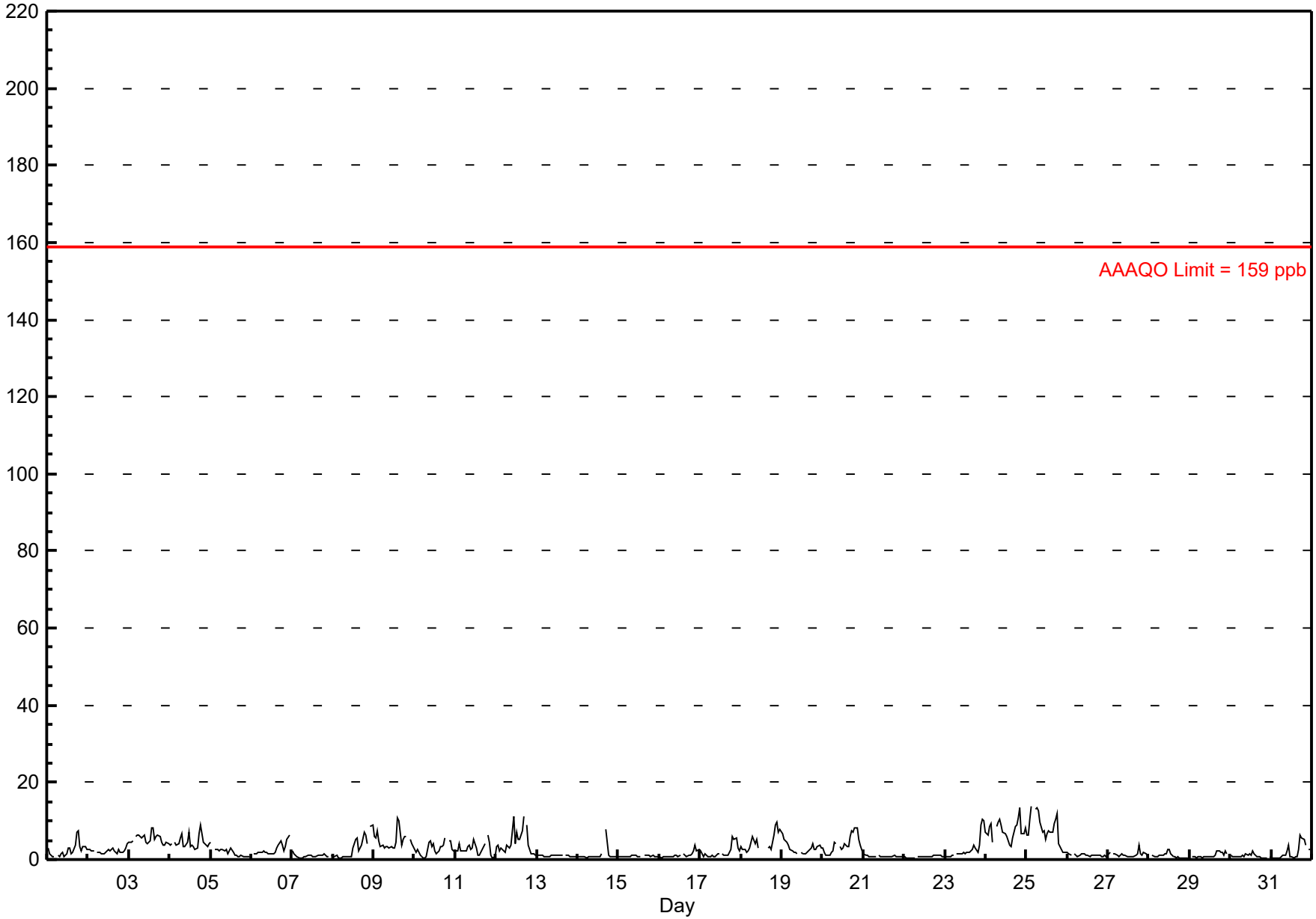
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - January 2017

Maximum Value: 29.5 ppb on Jan 27 19:00

Maximum Daily Average: 10.7 ppb on Jan 25

Minimum Value: 1 ppb on Jan 22 04:00

Minimum Daily Average: 1.1 ppb on Jan 22

Maximum Diurnal Average: 6.9 ppb at hour 19

Minimum Diurnal Average: 2.3 ppb at hour 5

Monthly Average: 4.38 ppb

Percentiles: $P_1 = 0.7$ $P_{10} = 1.0$ $Q_1 = 1.4$ Median = 2.5 $Q_3 = 5.9$ $P_{90} = 10.6$ $P_{99} = 19.5$

Hours in Service:	744
Hours of Data:	707
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-Jan	23	12	4	1	2	A	2	2	4	7	1	3	11	8	2	2	8	17	16	6	3	8	8	3	6.7	23.5
2-Jan	4	3	3	3	A	3	2	2	2	3	2	3	3	3	3	3	8	2	3	3	2	2	4	5	3.1	7.7
3-Jan	5	5	6	A	7	8	7	6	11	11	6	5	6	10	10	6	7	7	7	5	4	4	6	5	6.7	11.3
4-Jan	4	5	A	5	4	9	12	13	5	6	7	10	5	6	5	4	6	15	17	9	7	4	4	5	7.3	16.8
5-Jan	5	A	3	3	3	4	5	4	5	7	4	10	9	3	3	3	3	2	2	1	1	1	1	1	3.6	10.4
6-Jan	A	2	2	2	2	2	2	2	2	2	2	2	2	5	5	11	7	8	9	5	6	7	8	A	4.4	11.2
7-Jan	4	3	3	2	2	2	1	3	3	2	2	2	1	1	2	4	3	2	2	2	1	1	A	2	2.2	4.2
8-Jan	1	3	10	1	1	1	1	1	1	1	1	1	6	9	12	5	6	6	8	9	5	A	20	24	5.7	24.1
9-Jan	6	7	8	8	5	5	5	4	4	4	4	5	8	8	18	26	5	8	8	7	A	6	5	4	7.4	26.3
10-Jan	3	3	6	2	1	1	1	2	8	8	5	5	4	2	3	4	4	5	9	A	6	6	3	3	4.0	8.6
11-Jan	2	4	7	3	3	3	6	6	8	5	5	8	5	2	2	4	4	6	A	11	9	3	1	1	4.6	10.6
12-Jan	12	12	3	7	3	3	9	6	4	5	27	8	15	13	9	14	18	A	10	8	2	4	2	1	8.4	26.7
13-Jan	2	1	1	2	1	1	1	1	2	1	2	1	3	4	1	3	A	3	3	1	1	1	1	1	1.8	4.0
14-Jan	1	1	2	1	1	1	2	2	1	1	1	1	2	3	21	A	25	7	3	1	1	1	1	1	3.5	25.2
15-Jan	1	1	2	2	2	1	1	1	2	2	1	1	1	1	A	1	1	1	2	1	2	1	1	1	1.3	1.8
16-Jan	1	1	1	1	1	1	1	1	1	1	2	1	2	A	17	2	2	1	1	6	3	6	3	3	2.6	17.3
17-Jan	3	2	1	2	1	1	1	2	2	1	2	2	A	2	2	1	2	2	3	19	16	13	5	4	3.9	19.0
18-Jan	4	3	11	2	3	4	6	10	6	7	4	C	C	C	C	C	4	7	3	12	13	16	9	9	7.1	15.8
19-Jan	8	6	6	6	4	3	3	2	2	3	A	3	2	2	2	3	2	8	7	4	5	4	4	4	4.0	7.7
20-Jan	4	2	1	1	2	3	4	5	4	A	10	3	4	7	6	8	7	8	8	11	10	9	4	4	5.5	11.0
21-Jan	2	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	2	2	1	1	2	1	1	1.3	2.3
22-Jan	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	2	2	1	1	2	1	1	1.1	2.0
23-Jan	1	1	1	1	1	1	A	2	2	2	2	2	2	6	2	3	4	4	4	2	7	11	11	11	3.6	11.0
24-Jan	9	7	10	13	5	A	12	11	12	11	11	11	10	7	4	5	11	14	12	16	16	10	9	11	10.3	16.2
25-Jan	7	15	16	19	A	15	17	15	14	13	12	7	8	12	8	11	12	13	17	7	4	2	2	2	10.7	18.7
26-Jan	2	2	2	A	2	1	1	4	2	2	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1.6	3.9
27-Jan	2	3	A	2	2	1	1	2	3	2	1	1	1	1	1	1	2	3	29	2	2	3	2	2	3.1	29.5
28-Jan	1	A	1	1	1	1	1	1	2	5	2	12	4	2	1	1	1	1	1	1	1	1	1	1	1.9	12.2
29-Jan	A	1	1	1	1	3	2	1	1	1	1	1	1	1	1	3	8	4	2	3	2	5	3	A	2.1	8.5
30-Jan	1	1	1	1	1	1	1	2	2	4	3	2	2	9	4	2	2	2	1	1	1	1	A	2	2.1	9.3
31-Jan	1	2	1	1	1	1	1	3	2	6	11	2	1	1	2	2	6	13	12	12	7	A	3	3	4.1	12.7
	4.2	3.8	3.9	3.2	2.3	2.9	3.6	3.9	4.0	4.2	4.6	4.0	4.1	4.5	5.3	4.7	5.7	5.8	6.9	5.7	4.6	4.7	4.3	4.0	Diurnal Average	
	23.5	14.6	16.0	18.7	6.8	15.4	16.8	14.7	14.1	12.6	26.7	12.2	15.3	12.5	20.9	26.3	25.2	17.3	29.5	19.0	16.2	15.8	19.8	24.1	Diurnal Maximum	

C - Calibration

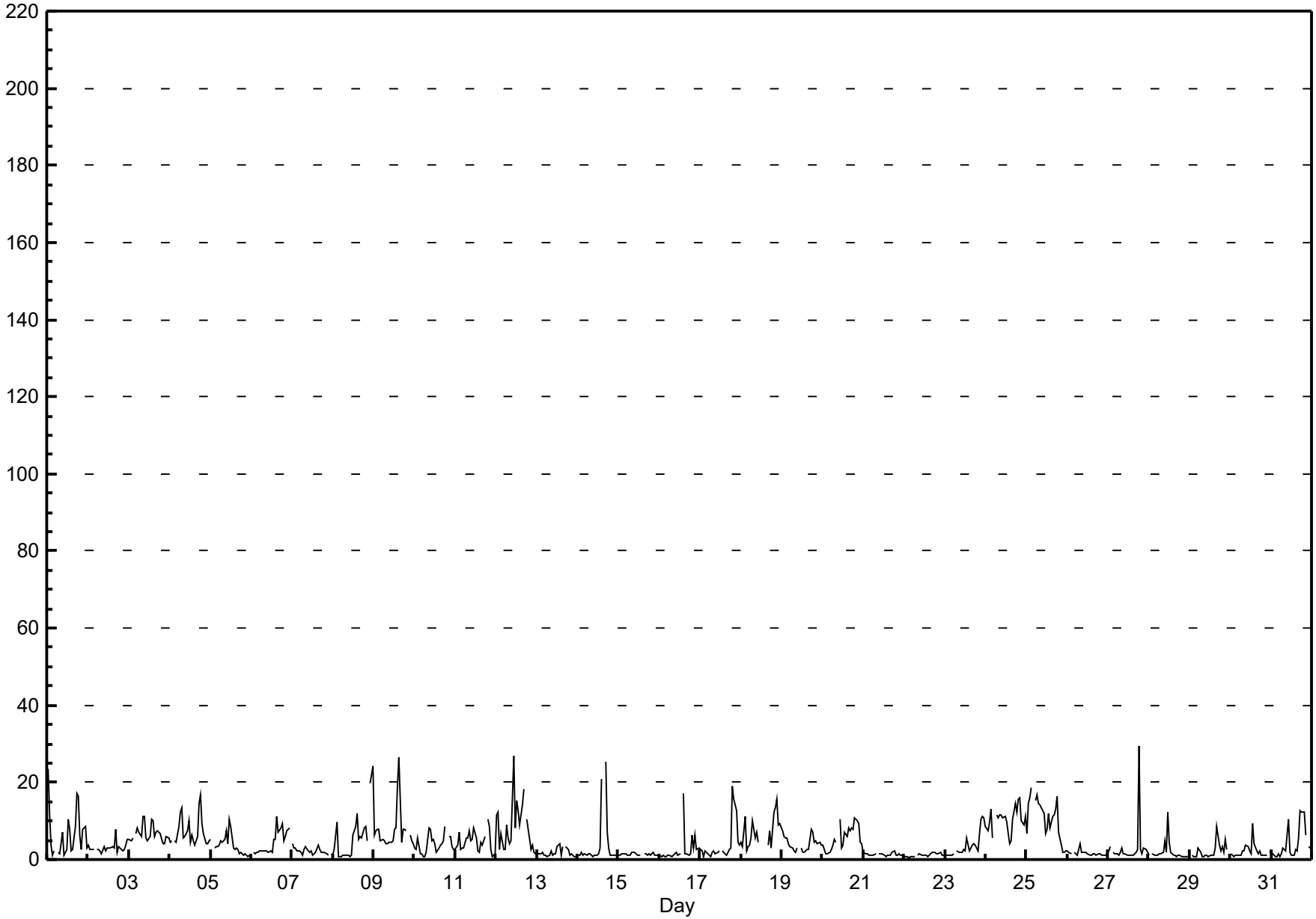
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - January 2017

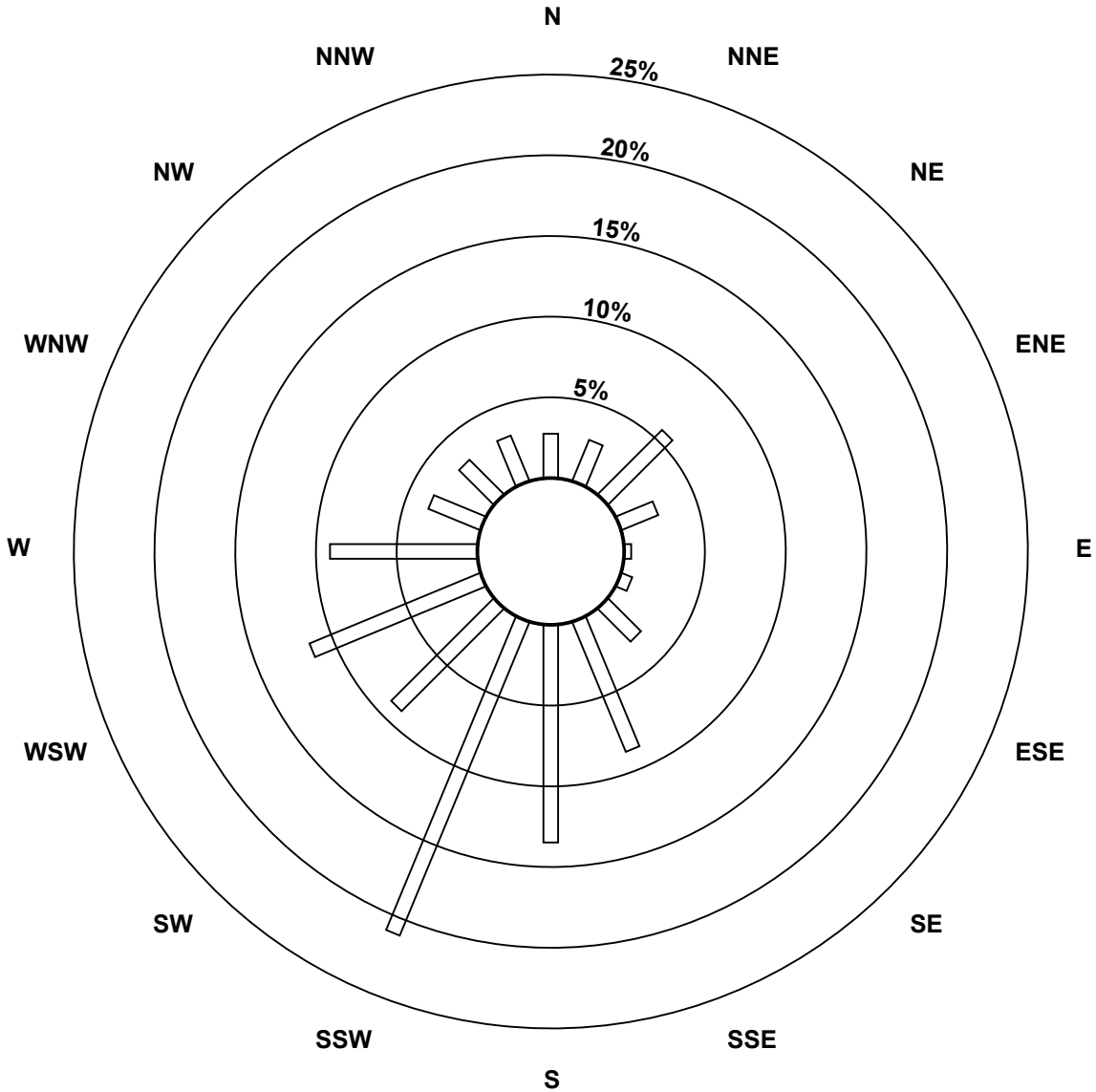


Peace Airshed Zone Association

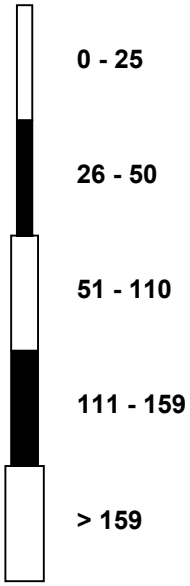
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Portable Rycroft - January 2017



Pollutant Classes (ppb)

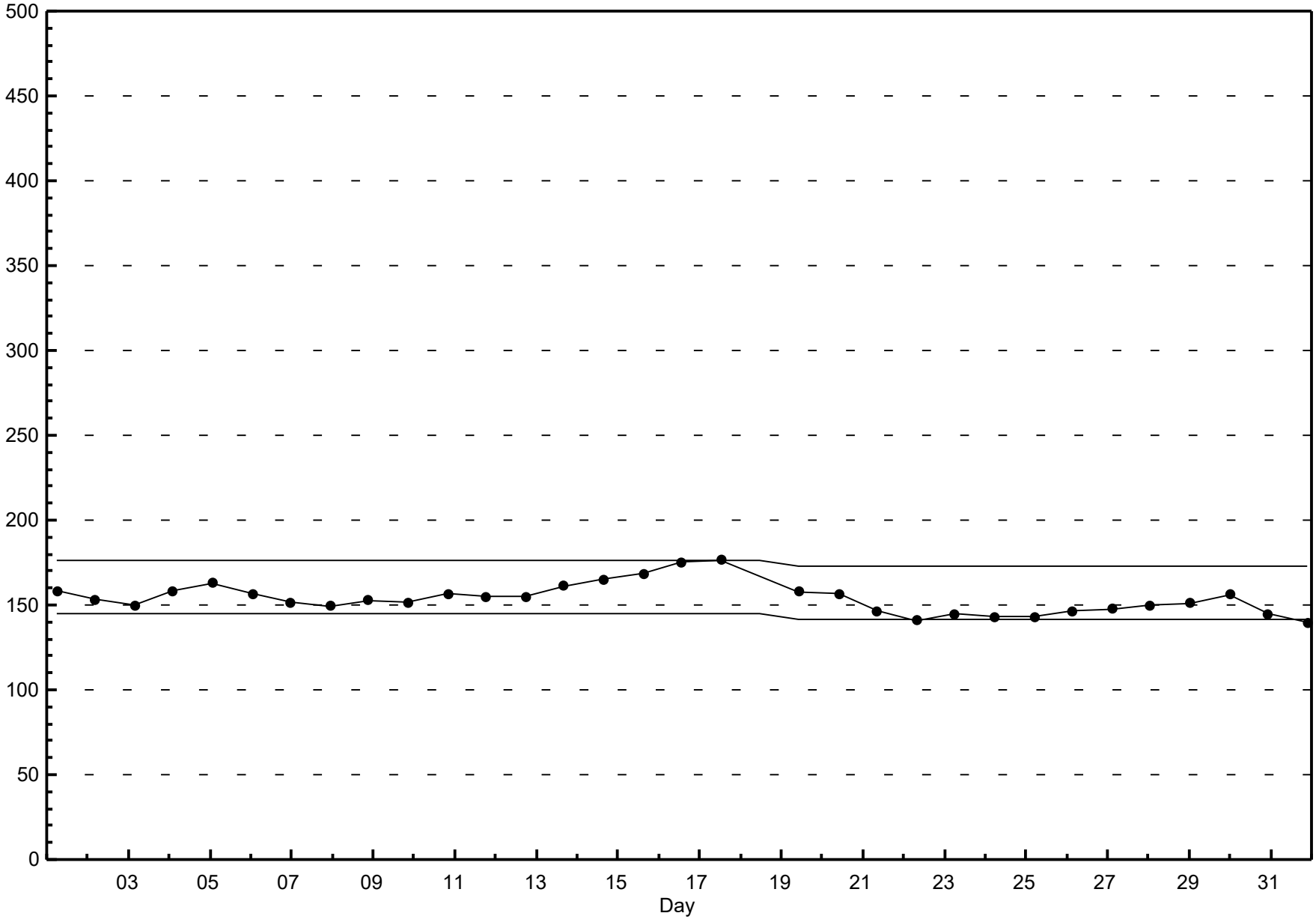


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Rycroft - January 2017

Maximum Value: 15.0 ppb on Jan 25 14:00

Maximum Daily Average: 4.3 ppb on Jan 25

Minimum Value: 0 ppb on Jan 1 21:00

Minimum Daily Average: 0.0 ppb on Jan 29

Maximum Diurnal Average: 1.6 ppb at hour 14

Minimum Diurnal Average: 0.0 ppb at hour 5

Monthly Average: 0.47 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.9$ $P_{99} = 10.5$

Hours in Service:	744
Hours of Data:	707
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-Jan	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2	1.1
2-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0.2	1.0
3-Jan	0	0	0	A	0	0	0	0	0	0	1	1	2	3	3	1	0	0	0	0	0	0	0	0	0.6	3.5
4-Jan	0	0	A	0	0	0	0	0	0	0	0	2	1	1	1	0	0	0	1	0	0	0	0	0	0.3	1.5
5-Jan	0	A	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	1.3
6-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0.2	0.8
7-Jan	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
8-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	0	0	0	0	0	A	0	1	0.4	2.5
9-Jan	0	0	0	0	0	0	0	0	0	0	1	1	2	2	5	4	0	0	0	0	A	0	0	0	0.7	5.4
10-Jan	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	0	0	0	A	0	0	0	0	0.3	1.8
11-Jan	0	0	1	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	A	0	0	0	0	0	0.3	1.8
12-Jan	0	0	0	0	0	0	0	0	0	0	4	2	5	4	3	3	2	A	0	0	0	0	0	0	1.0	5.2
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0.1	1.1
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0.2	1.3
15-Jan	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
16-Jan	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
17-Jan	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
18-Jan	0	0	0	0	0	0	0	0	0	1	1	C	C	C	C	C	0	0	0	0	0	0	0	0	0.3	0.9
19-Jan	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
20-Jan	0	0	0	0	0	0	0	0	0	A	1	1	1	2	2	1	1	0	0	0	0	0	0	0	0.5	1.7
21-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Jan	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0.2	0.8
24-Jan	0	0	0	2	0	A	0	1	2	15	14	14	11	9	4	2	2	1	0	2	1	0	0	0	3.5	14.7
25-Jan	0	0	4	11	A	5	6	5	2	3	11	7	10	15	10	3	4	1	1	0	0	0	0	0	4.3	15.0
26-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
27-Jan	0	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
28-Jan	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
29-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0.1	0.8
31-Jan	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	A	0	0	0.2	1.0
	0.1	0.0	0.2	0.5	0.0	0.2	0.2	0.3	0.2	0.7	1.2	1.3	1.5	1.6	1.3	0.7	0.5	0.2	0.1	0.2	0.1	0.0	0.0	0.1	Diurnal Average	
	0.5	0.2	3.9	11.2	0.1	5.2	6.0	5.2	2.3	14.7	14.1	13.5	11.1	15.0	10.0	4.4	4.1	1.3	0.6	2.3	1.2	0.2	0.2	1.1	Diurnal Maximum	

C - Calibration

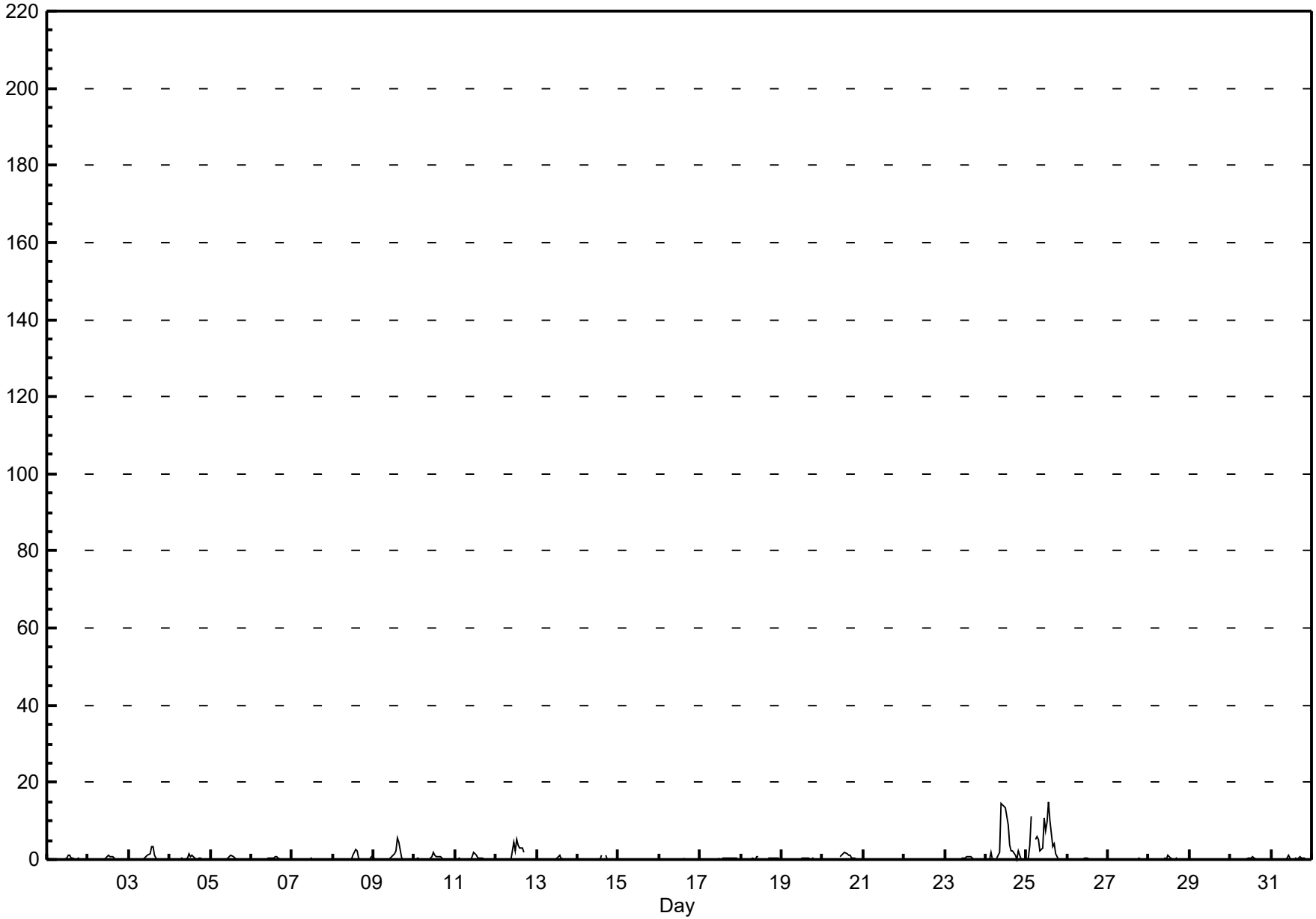
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Rycroft - January 2017

Maximum Value: 51.2 ppb on Jan 14 15:00

Maximum Daily Average: 10.1 ppb on Jan 25

Minimum Value: 0 ppb on Jan 8 18:00

Minimum Daily Average: 0.2 ppb on Jan 29

Maximum Diurnal Average: 4.3 ppb at hour 15

Minimum Diurnal Average: 0.2 ppb at hour 5

Monthly Average: 1.52 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.7$ $P_{90} = 3.5$ $P_{99} = 25.1$

Hours in Service:	744
Hours of Data:	707
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-Jan	8	2	0	0	0	A	0	0	0	2	0	1	6	4	1	0	0	2	2	0	0	0	0	0	1.3	8.0
2-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	3	0	0	0	0	0	0	0	0.6	3.2
3-Jan	0	0	0	A	0	0	0	0	0	1	1	1	2	5	5	2	1	0	0	0	0	0	0	0	1.0	4.7
4-Jan	0	0	A	0	0	1	1	1	0	0	1	3	1	2	1	1	0	1	2	1	0	0	0	0	0.8	2.5
5-Jan	0	A	0	0	0	0	0	0	0	0	1	5	4	1	1	1	0	0	0	0	0	0	0	0	0.8	5.0
6-Jan	A	0	0	0	0	0	0	0	0	0	0	1	1	2	4	6	2	1	1	1	0	0	0	A	0.9	5.6
7-Jan	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	A	0	0.3	0.7
8-Jan	0	0	4	0	0	0	0	0	0	0	0	0	3	5	6	2	1	0	0	0	0	A	4	16	1.8	15.6
9-Jan	0	0	0	0	0	1	0	0	0	0	1	2	5	4	13	21	1	0	0	0	A	0	0	0	2.3	21.0
10-Jan	0	0	2	0	0	0	0	0	0	1	1	3	3	1	1	1	1	0	1	A	0	0	0	0	0.7	2.7
11-Jan	0	0	2	0	0	0	0	0	1	0	2	3	2	1	1	1	1	0	A	0	0	0	0	0	0.7	3.5
12-Jan	0	0	0	0	0	0	0	0	0	0	16	5	16	12	7	6	4	A	0	0	0	0	0	0	3.0	16.1
13-Jan	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	3	A	0	1	0	0	0	0	0	0.9	6.1
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	51	A	36	0	0	0	0	0	0	0	4.1	51.2
15-Jan	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
16-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	4	0	0	0	0	1	0	0	0	0	0.4	4.2
17-Jan	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0.4	1.0
18-Jan	0	0	1	0	0	0	0	1	1	1	1	C	C	C	C	C	1	1	0	4	1	1	1	1	0.9	4.1
19-Jan	0	0	1	0	0	0	0	0	0	0	A	1	0	1	0	1	1	0	3	0	0	0	0	0	0.5	3.3
20-Jan	0	0	0	0	0	0	0	0	0	A	2	2	2	4	4	4	2	1	4	1	0	0	0	0	1.2	3.8
21-Jan	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
22-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.3	0.9
23-Jan	0	0	0	0	0	0	A	0	0	0	0	1	1	6	1	2	1	0	0	0	0	0	0	0	0.7	5.6
24-Jan	0	0	0	11	1	A	1	3	10	17	31	26	22	15	5	4	4	7	0	17	4	1	0	1	7.9	31.3
25-Jan	0	8	16	29	A	11	14	9	9	19	20	11	14	30	12	9	13	5	3	0	0	0	0	0	10.1	30.0
26-Jan	0	0	0	A	0	0	0	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	7.1
27-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0.4	5.4
28-Jan	0	A	0	0	0	0	0	0	0	6	0	42	1	1	0	0	0	0	0	0	0	0	0	0	2.4	42.1
29-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0.2	0.6
30-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	4	2	1	0	0	0	0	0	0	A	0	0.6	4.4
31-Jan	0	0	0	0	0	0	0	0	0	1	3	1	1	0	1	1	1	2	2	2	0	A	0	0	0.7	3.1
	0.5	0.6	1.0	1.6	0.2	0.6	0.7	0.9	0.9	1.8	2.9	3.8	3.3	3.7	4.3	2.4	2.6	0.8	1.0	1.1	0.4	0.3	0.4	0.8	Diurnal Average	
	8.0	7.8	15.7	28.7	0.7	10.8	13.7	9.3	9.8	19.0	31.3	42.1	22.3	30.0	51.2	21.0	35.8	6.7	5.4	17.1	4.0	0.8	3.8	15.6	Diurnal Maximum	

C - Calibration

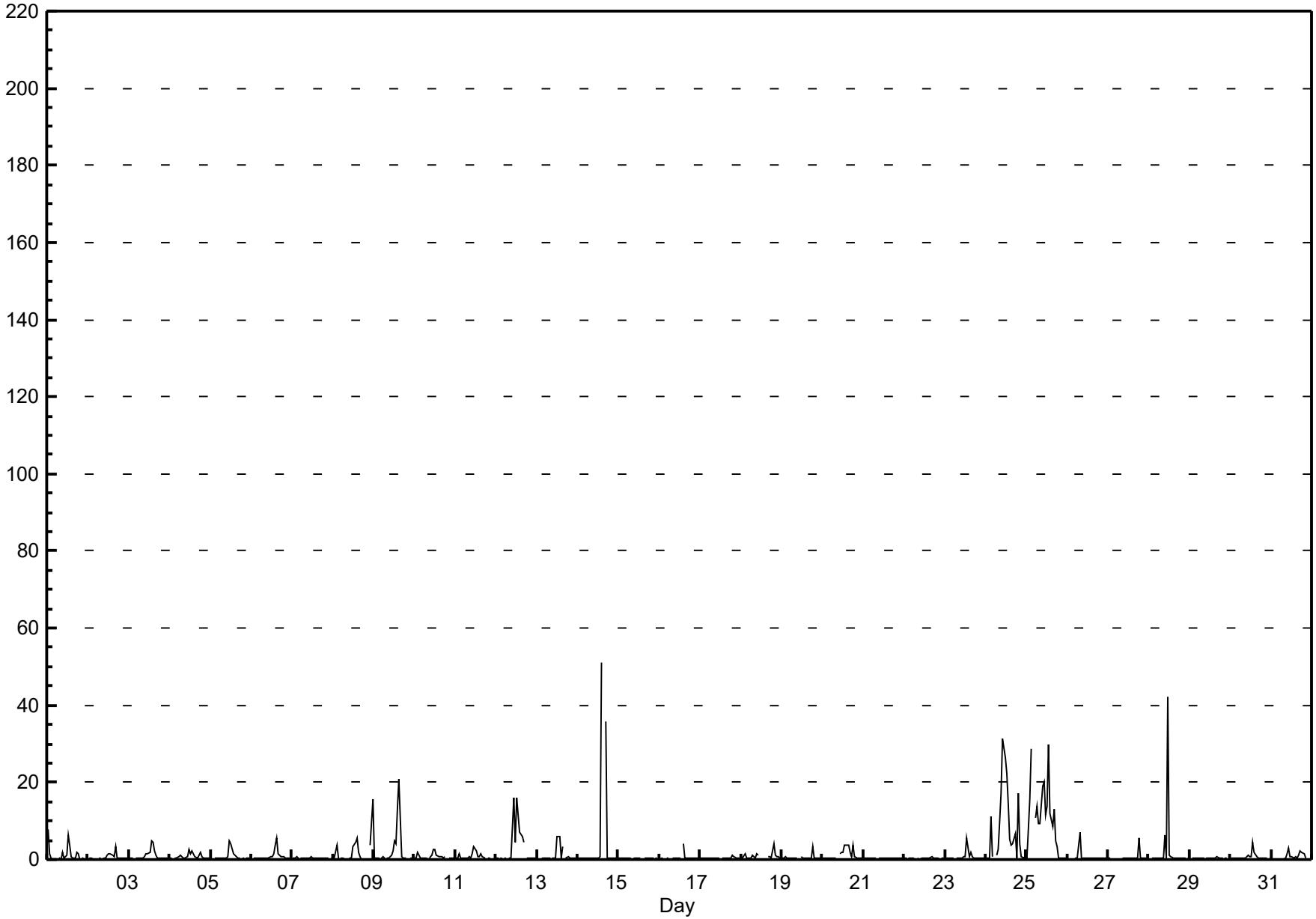
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - January 2017

Maximum Value: 25.1 ppb on Jan 25 04:00

Maximum Daily Average: 12.2 ppb on Jan 25

Minimum Value: 0 ppb on Jan 31 03:00

Minimum Daily Average: 0.8 ppb on Jan 22

Maximum Diurnal Average: 4.1 ppb at hour 19

Minimum Diurnal Average: 1.7 ppb at hour 5

Monthly Average: 3.12 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.7$ $Q_1 = 0.9$ Median = 1.8 $Q_3 = 3.9$ $P_{90} = 7.0$ $P_{99} = 17.9$

Hours in Service:	744
Hours of Data:	707
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-Jan	3	2	1	1	1	A	1	1	1	2	1	2	4	4	2	2	4	7	8	3	2	4	3	3	2.7	7.9
2-Jan	3	2	2	2	A	2	2	2	1	2	2	3	3	3	4	3	2	2	3	2	2	2	3	4	2.4	4.3
3-Jan	5	5	5	A	6	7	6	6	6	6	5	5	6	12	12	6	7	6	6	5	4	4	5	4	6.0	11.7
4-Jan	4	4	A	4	4	4	6	7	4	4	5	9	4	5	4	3	3	7	10	7	4	4	3	4	4.9	9.6
5-Jan	5	A	3	3	3	2	3	3	2	3	2	3	4	3	1	1	1	1	1	1	1	1	1	1	2.0	4.7
6-Jan	A	1	1	2	2	2	2	2	2	2	2	2	2	2	2	4	4	5	4	2	3	5	6	A	2.7	6.4
7-Jan	2	2	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.0	2.3
8-Jan	1	1	1	1	1	1	1	1	1	1	1	1	4	8	8	3	3	4	7	7	4	A	9	10	3.3	10.0
9-Jan	6	5	7	5	3	4	3	3	3	3	4	4	5	7	16	15	4	5	6	6	A	5	4	3	5.6	16.4
10-Jan	3	2	3	1	1	0	0	1	4	5	4	6	3	2	3	4	3	4	6	A	5	5	3	2	3.1	5.9
11-Jan	2	2	5	2	2	2	2	3	4	3	4	7	4	2	2	2	3	4	A	6	5	1	1	1	3.0	7.1
12-Jan	3	4	2	3	2	2	4	3	3	4	16	6	12	9	8	10	13	A	9	4	1	1	1	1	5.4	15.6
13-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1.0	2.3
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	A	9	5	1	1	1	1	1	1	1.4	9.3
15-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.3
16-Jan	1	0	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	2	2	4	2	3	1.3	3.9
17-Jan	2	1	1	2	1	1	1	1	1	1	2	2	A	2	1	1	1	2	3	6	5	6	3	3	2.1	6.2
18-Jan	3	3	3	2	2	3	5	6	4	6	4	C	C	C	C	C	4	4	3	7	9	10	7	8	4.9	10.1
19-Jan	7	5	5	5	4	3	2	2	2	2	A	2	2	2	2	2	2	3	5	3	3	4	4	3	3.1	6.9
20-Jan	3	2	1	1	1	2	2	4	4	A	4	4	4	6	5	4	7	8	7	8	8	6	4	3	4.4	8.5
21-Jan	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	1.3
22-Jan	1	1	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
23-Jan	1	1	1	1	1	1	A	2	1	2	2	2	2	3	2	3	3	4	3	2	4	9	11	10	3.0	10.5
24-Jan	7	6	9	11	4	A	9	11	12	24	21	20	17	14	7	5	8	10	9	13	15	7	7	8	11.2	23.8
25-Jan	6	7	14	25	A	19	20	18	12	10	18	13	17	23	17	10	13	12	13	4	3	2	2	2	12.2	25.1
26-Jan	2	1	1	A	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.9
27-Jan	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	2	2	1	1.3	4.2
28-Jan	1	A	1	1	1	1	1	1	1	2	2	4	3	2	1	1	1	1	1	1	1	0	0	0	1.1	3.9
29-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	2	1	A	1.1	2.3
30-Jan	1	1	1	1	1	1	1	1	1	2	1	2	1	3	2	1	1	1	0	0	0	0	A	1	1.0	3.0
31-Jan	1	0	0	0	0	0	1	1	1	3	5	1	1	1	1	1	3	7	6	6	4	A	3	3	2.1	7.0
	2.7	2.3	2.6	2.7	1.7	2.2	2.6	2.9	2.7	3.1	3.8	3.6	3.8	4.1	3.9	3.2	3.6	3.7	4.1	3.5	3.2	3.1	3.1	2.9	Diurnal Average	
	7.3	6.6	14.3	25.1	6.1	18.5	19.7	18.3	12.4	23.8	21.3	20.4	17.3	22.7	17.4	14.7	13.4	12.0	12.6	13.3	14.7	10.1	10.5	10.0	Diurnal Maximum	

C - Calibration

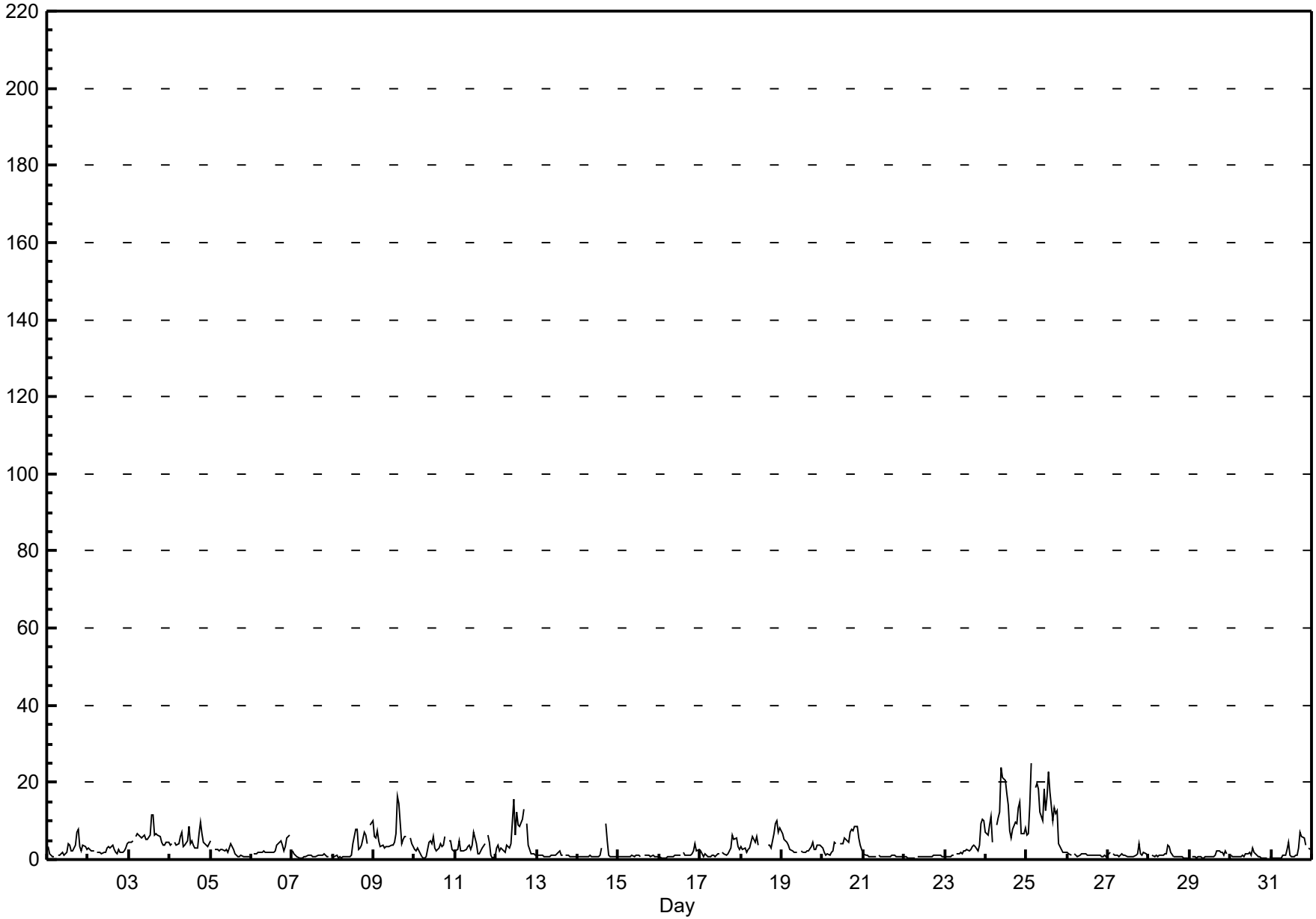
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - January 2017

Maximum Value: 72.2 ppb on Jan 14 15:00

Maximum Daily Average: 20.5 ppb on Jan 25

Minimum Value: 1 ppb on Jan 31 03:00

Minimum Daily Average: 1.2 ppb on Jan 22

Maximum Diurnal Average: 9.4 ppb at hour 15

Minimum Diurnal Average: 2.3 ppb at hour 5

Monthly Average: 5.68 ppb

Percentiles: $P_1 = 0.6$ $P_{10} = 1.0$ $Q_1 = 1.4$ Median = 2.8 $Q_3 = 6.8$ $P_{90} = 13.1$ $P_{99} = 41.6$

Hours in Service:	744
Hours of Data:	707
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-Jan	32	14	4	1	2	A	2	2	4	9	1	4	17	11	3	3	9	19	18	6	3	8	9	3	7.9	31.9
2-Jan	4	3	3	2	A	3	2	2	2	4	3	4	4	4	4	4	11	2	3	3	2	2	4	5	3.5	11.1
3-Jan	5	5	6	A	7	8	7	6	11	11	7	6	8	15	15	8	8	7	7	5	4	4	6	6	7.5	15.0
4-Jan	4	5	A	5	4	9	14	14	5	6	8	13	6	8	6	4	6	16	19	10	7	4	4	5	8.0	19.0
5-Jan	5	A	3	3	3	4	5	4	6	8	5	15	13	4	3	3	3	2	2	1	1	1	1	1	4.2	14.9
6-Jan	A	2	2	2	2	2	2	2	2	2	2	3	3	7	9	16	9	9	10	5	6	8	8	A	5.1	16.3
7-Jan	4	3	3	2	2	2	1	3	3	2	2	3	1	2	2	4	3	2	2	2	1	1	A	2	2.4	4.4
8-Jan	1	3	13	1	1	1	1	1	1	1	1	1	10	13	18	7	7	6	8	9	5	A	24	40	7.4	40.0
9-Jan	6	8	8	8	5	6	5	4	4	5	6	7	13	13	32	48	5	8	8	8	A	6	5	4	9.6	47.6
10-Jan	3	3	7	2	2	1	1	2	8	8	6	8	7	3	4	5	4	5	10	A	6	6	3	3	4.5	9.5
11-Jan	3	4	8	3	3	3	6	6	8	5	7	12	8	3	3	6	4	6	A	11	9	3	1	1	5.2	11.5
12-Jan	12	13	3	7	3	2	9	6	4	5	43	12	30	24	16	19	22	A	11	8	3	4	2	1	11.2	43.1
13-Jan	2	1	1	2	1	1	1	1	2	1	2	2	7	9	1	5	A	3	3	1	1	1	1	1	2.3	9.3
14-Jan	1	1	2	1	1	1	2	2	1	1	1	1	2	4	72	A	54	7	3	1	1	1	1	1	7.1	72.2
15-Jan	1	1	1	1	2	1	1	1	2	1	1	1	1	1	A	2	1	1	2	1	2	1	1	1	1.3	1.8
16-Jan	1	1	1	1	1	1	1	1	1	1	2	1	2	A	22	2	2	1	1	7	3	6	3	3	2.8	21.7
17-Jan	3	2	1	2	1	1	1	2	2	1	2	2	A	3	2	1	2	3	3	20	17	13	5	4	4.1	20.3
18-Jan	4	4	13	2	3	4	6	11	6	9	5	C	C	C	C	C	4	8	3	14	14	17	10	9	7.7	16.8
19-Jan	8	6	6	6	4	4	3	2	2	3	A	4	2	2	2	3	3	8	10	5	5	4	4	4	4.4	10.4
20-Jan	4	2	2	2	2	3	4	5	4	A	12	5	5	11	10	12	9	8	11	12	10	10	5	4	6.5	12.2
21-Jan	2	1	1	1	1	1	1	2	A	2	1	2	1	1	1	1	1	2	2	1	1	2	1	1	1.4	2.4
22-Jan	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1	1	3	2	2	1	1	2	1	1	1.2	2.9
23-Jan	1	1	1	1	1	1	A	2	2	2	2	3	3	11	3	5	4	4	4	3	7	11	11	11	4.1	11.4
24-Jan	9	7	10	24	6	A	12	13	21	27	42	37	31	21	9	8	14	21	13	31	20	11	9	12	17.8	42.2
25-Jan	7	23	31	44	A	26	30	23	23	32	31	18	21	42	20	20	25	18	20	7	4	2	2	2	20.5	43.9
26-Jan	2	2	1	A	2	1	1	11	2	2	2	2	2	1	1	1	1	1	2	1	1	1	1	1	2.0	11.1
27-Jan	2	3	A	2	2	1	1	2	3	1	2	1	1	1	1	1	2	3	35	2	2	3	3	2	3.3	35.4
28-Jan	1	A	2	1	1	1	1	1	2	10	2	50	5	2	1	1	1	1	1	1	1	1	1	1	3.9	50.2
29-Jan	A	1	1	1	1	3	2	1	1	1	1	1	1	1	1	3	9	3	2	3	2	5	3	A	2.1	9.1
30-Jan	1	1	1	1	1	1	1	2	2	4	4	3	2	14	6	3	2	2	1	1	1	1	A	2	2.6	13.8
31-Jan	1	1	1	1	1	1	1	3	2	8	14	3	2	1	3	3	6	15	14	14	7	A	3	3	4.7	15.0
	4.5	4.2	4.7	4.5	2.3	3.3	4.2	4.6	4.6	5.8	7.3	7.4	7.2	8.0	9.4	6.9	7.8	6.5	7.7	6.5	4.9	4.8	4.5	4.6	Diurnal Average	
	31.9	22.6	31.4	43.9	6.8	26.3	30.5	23.1	23.2	31.6	43.1	50.2	31.4	41.9	72.2	47.6	54.0	21.3	35.4	31.3	20.2	16.8	23.9	40.0	Diurnal Maximum	

C - Calibration

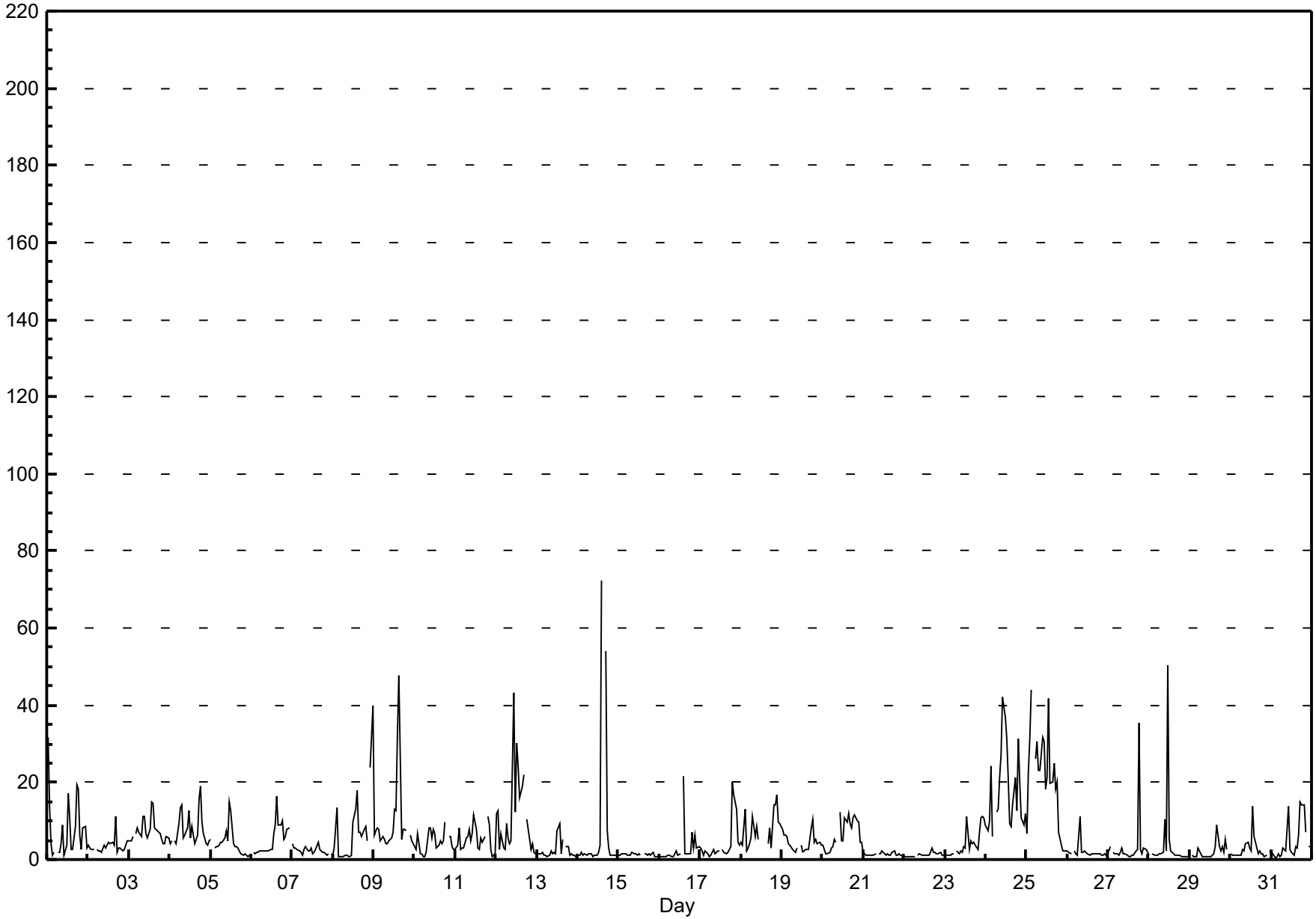
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable Rycroft - January 2017

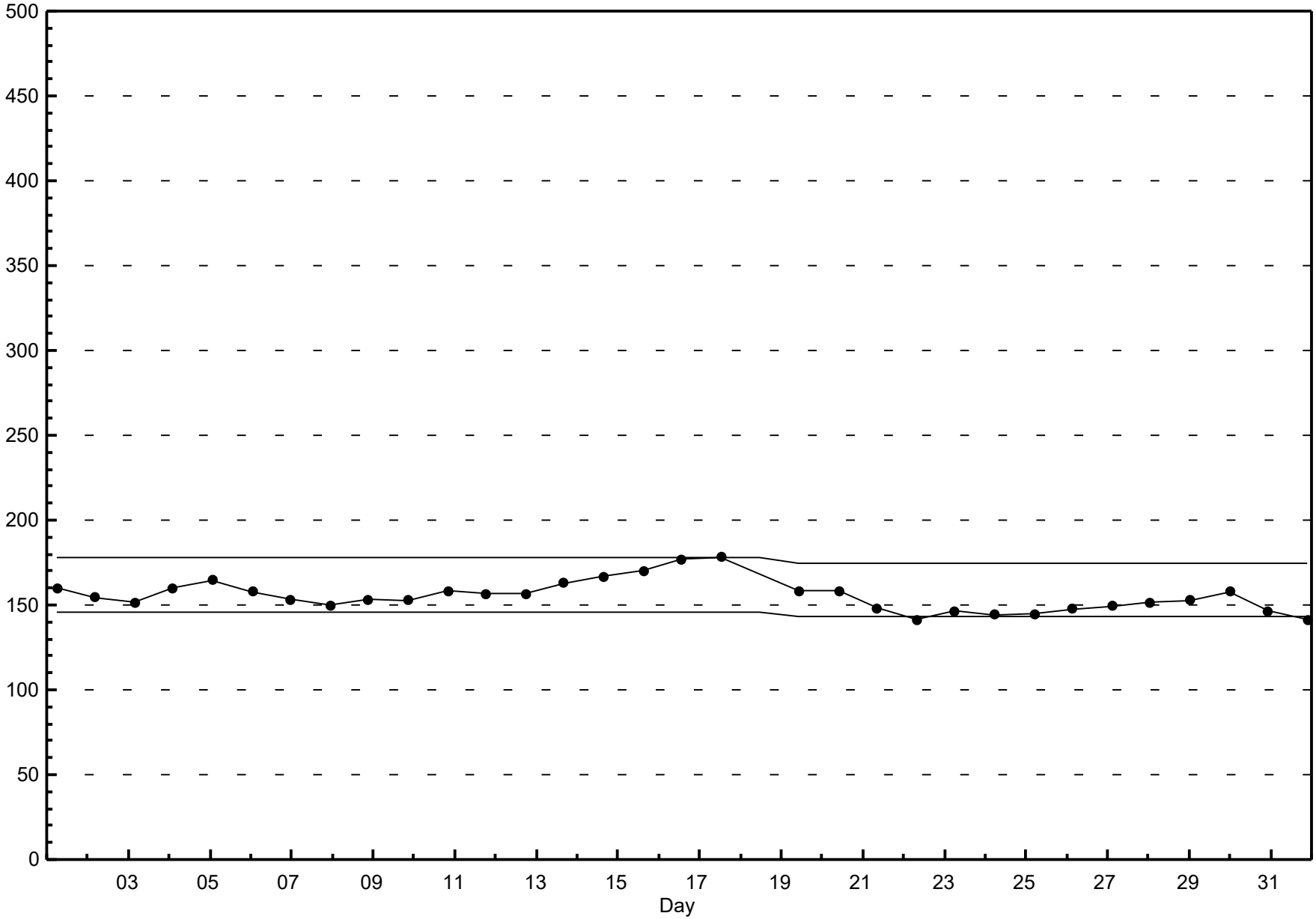


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Rycroft - January 2017

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

Maximum Value: 45.7 ppb on Jan 16 09:00

Maximum Daily Average: 41.7 ppb on Jan 14

Minimum Value: 1 ppb on Jan 24 09:00

Minimum Daily Average: 8.5 ppb on Jan 24

Maximum Diurnal Average: 31.8 ppb at hour 5

Minimum Diurnal Average: 28.4 ppb at hour 19

Monthly Average: 30.10 ppb

Percentiles: P_1 = 2.3 P_{10} = 17.4 Q_1 = 26.5 Median = 31.7 Q_3 = 36.6 P_{90} = 40.0 P_{99} = 43.6

Hours in Service:	744
Hours of Data:	690
Hours of Missing Data:	54
Hours of Calibration:	36
Percent Operational Time:	97.6

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-Jan	34	35	35	35	35	A	35	35	34	34	35	35	34	34	35	34	32	29	28	31	32	29	28	29	32.8	35.2
2-Jan	27	27	27	27	A	28	29	30	30	29	28	27	27	29	28	30	31	31	27	29	30	29	29	28	28.6	31.0
3-Jan	27	27	26	A	23	22	21	22	20	21	21	22	24	22	21	24	24	23	24	26	28	28	25	27	23.8	27.9
4-Jan	28	28	A	27	29	30	27	26	30	31	32	31	34	33	33	34	34	31	29	32	33	33	33	31	30.8	34.2
5-Jan	29	A	30	28	28	27	26	26	29	29	30	33	29	31	30	30	33	32	31	30	28	27	28	29	29.2	32.7
6-Jan	A	29	30	30	29	29	28	28	27	28	29	29	29	30	29	27	27	25	26	27	25	23	22	A	27.6	30.0
7-Jan	27	29	30	33	33	33	33	32	32	32	31	32	33	33	33	33	33	33	34	33	34	34	A	34	32.3	34.1
8-Jan	33	34	33	33	33	32	31	31	31	30	28	29	29	27	27	29	28	27	24	24	26	A	23	23	28.8	34.0
9-Jan	25	26	23	27	28	28	28	27	28	29	29	30	30	29	24	25	32	31	30	29	A	30	31	33	28.3	32.8
10-Jan	34	35	35	35	34	34	34	35	31	30	31	31	33	35	34	33	34	33	31	A	32	32	34	35	33.2	35.2
11-Jan	36	37	36	37	38	38	38	36	36	37	37	36	38	39	39	38	37	35	A	32	32	38	41	39	36.9	40.5
12-Jan	37	36	38	36	35	34	32	32	33	32	26	27	27	29	29	27	23	A	26	35	38	38	38	38	32.4	38.1
13-Jan	38	37	37	38	38	39	40	40	40	39	38	38	38	38	39	39	A	40	40	41	41	41	42	42	39.4	41.9
14-Jan	42	41	41	43	43	44	44	43	43	43	43	43	42	42	41	A	35	36	41	42	42	42	41	41	41.7	43.7
15-Jan	41	40	40	40	40	39	39	39	38	38	38	38	39	39	A	40	39	39	39	38	38	39	39	40	39.1	40.9
16-Jan	40	40	41	42	43	43	44	45	46	45	45	43	42	A	42	42	43	42	41	37	34	32	32	31	40.6	45.7
17-Jan	31	32	35	33	33	33	32	33	32	31	30	31	A	31	33	33	33	28	28	23	17	17	18	19	29.0	34.6
18-Jan	15	18	15	15	18	21	17	9	12	12	18	A	25	C	C	C	C	N	N	N	N	N	N	N	--	25.0
19-Jan	N	N	N	N	N	N	N	N	N	N	N	17	17	17	16	15	14	12	12	13	10	18	22	23	--	23.1
20-Jan	24	29	30	31	31	27	25	20	21	A	27	24	23	22	22	21	18	15	17	14	13	14	14	19	21.8	31.1
21-Jan	23	22	21	22	22	22	22	21	A	22	24	25	26	28	28	29	29	29	29	29	29	29	29	28	25.6	29.3
22-Jan	28	28	28	28	28	28	28	A	28	28	27	27	27	27	26	25	25	24	24	23	23	23	23	23	26.1	28.5
23-Jan	23	22	22	22	21	21	A	20	20	19	20	19	19	19	19	19	18	16	16	17	15	10	8	8	17.9	22.5
24-Jan	11	10	6	5	12	A	5	2	1	2	5	9	11	12	14	15	12	9	8	6	3	11	13	13	8.5	15.1
25-Jan	20	18	9	1	A	2	2	2	7	14	7	10	11	9	10	20	12	7	9	30	33	34	34	33	14.6	34.3
26-Jan	33	33	35	A	35	35	35	34	33	33	34	35	36	37	37	37	37	37	35	38	39	39	39	39	35.9	39.2
27-Jan	39	37	A	34	34	34	34	35	36	38	39	41	41	41	41	40	38	36	35	36	39	36	37	39	37.3	41.0
28-Jan	40	A	41	39	39	38	36	34	35	35	37	34	35	37	42	41	41	40	39	39	38	39	39	39	38.2	42.3
29-Jan	A	40	39	38	36	35	35	34	34	34	34	34	34	35	35	36	32	29	30	32	33	32	34	A	34.4	39.7
30-Jan	36	37	38	37	38	38	39	38	39	39	40	41	41	40	42	41	41	40	40	39	39	38	A	37	39.0	41.6
31-Jan	35	35	35	35	35	34	35	33	33	32	32	35	36	37	37	37	36	33	33	33	33	A	34	34	34.5	37.3
	30.5	30.8	30.6	30.4	31.8	31.0	30.1	29.1	29.6	29.8	29.7	30.1	30.4	30.4	30.6	30.9	30.0	29.0	28.4	29.6	29.5	29.8	29.7	30.5	Diurnal Average	
	41.5	41.4	41.3	42.8	43.4	43.7	44.0	45.1	45.7	45.4	44.5	43.2	42.4	41.8	42.3	42.4	42.9	41.7	41.1	42.2	42.2	41.8	41.9	41.8	Diurnal Maximum	

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

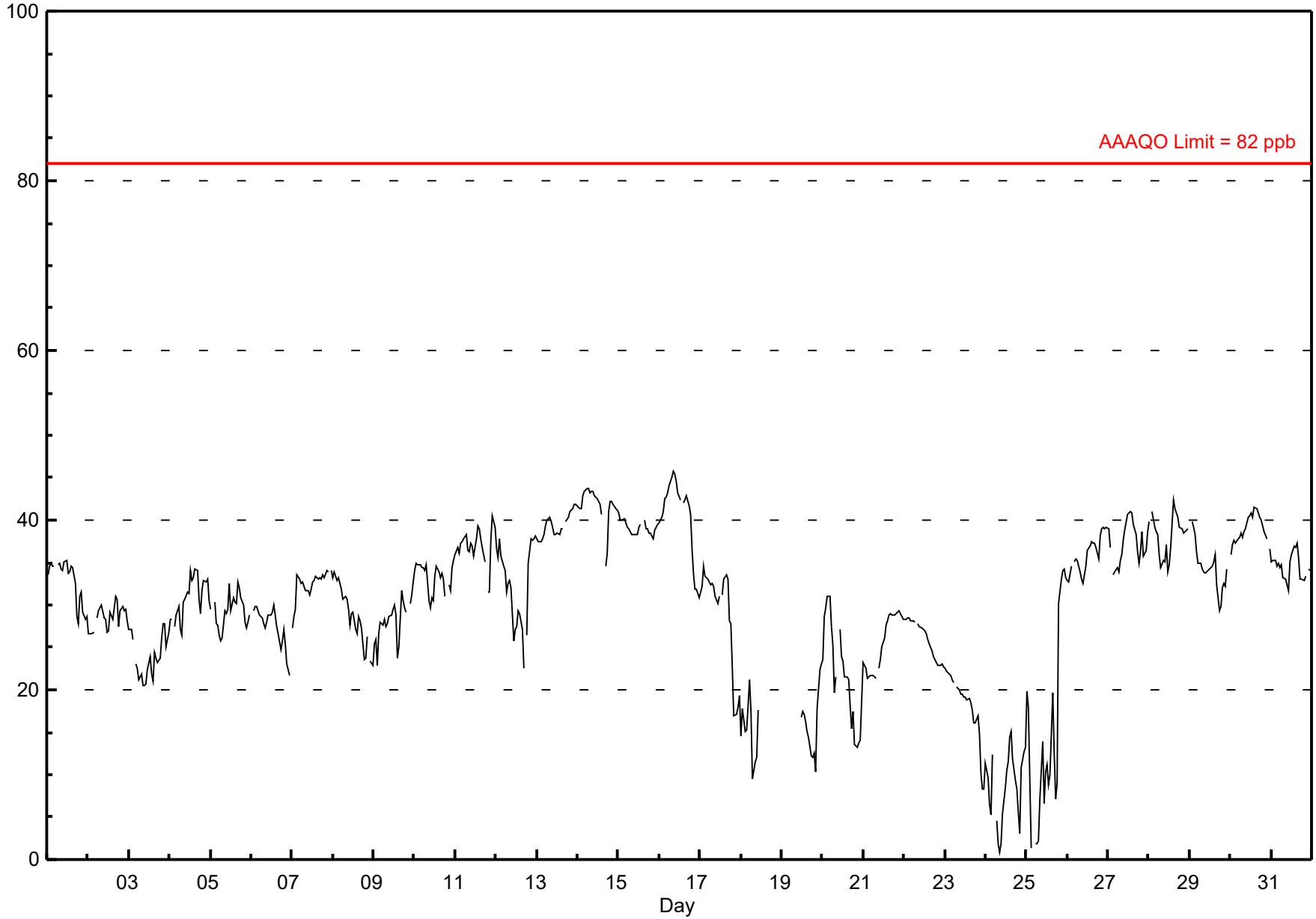
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Portable Rycroft - January 2017

Maximum Value: 46.4 ppb on Jan 16 09:00

Maximum Daily Average: 42.6 ppb on Jan 14

Minimum Value: 1 ppb on Jan 24 09:00

Minimum Daily Average: 11.3 ppb on Jan 24

Maximum Diurnal Average: 32.9 ppb at hour 5

Minimum Diurnal Average: 30.6 ppb at hour 8

Monthly Average: 31.64 ppb

Percentiles: P_1 = 8.1 P_{10} = 19.8 Q_1 = 28.0 Median = 33.4 Q_3 = 38.1 P_{90} = 40.9 P_{99} = 44.2

Hours in Service:	744
Hours of Data:	690
Hours of Missing Data:	54
Hours of Calibration:	36
Percent Operational Time:	97.6

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-Jan	36	36	36	35	35	A	35	35	35	35	36	36	36	36	35	35	34	32	32	32	33	31	31	30	34.2	36.1
2-Jan	29	29	29	27	A	30	30	30	31	30	30	28	28	30	29	32	32	32	30	31	31	30	30	29	29.9	32.4
3-Jan	28	28	27	A	25	25	22	23	23	22	22	24	24	24	23	25	25	25	25	27	28	29	26	28	25.1	28.7
4-Jan	29	30	A	28	30	31	31	31	31	32	33	35	36	34	34	35	35	35	33	33	34	34	34	32	32.6	35.8
5-Jan	30	A	32	29	30	28	27	29	31	30	34	35	31	32	31	32	34	33	31	31	29	28	29	30	30.7	35.2
6-Jan	A	30	30	30	30	29	29	28	28	29	29	29	30	30	30	29	28	27	28	28	27	25	24	A	28.5	30.4
7-Jan	31	31	34	34	34	33	33	33	32	32	32	33	33	33	34	34	34	34	34	34	34	34	A	35	33.3	34.6
8-Jan	34	35	34	34	33	33	32	32	32	31	31	30	32	30	29	30	30	29	26	26	27	A	26	26	30.4	34.5
9-Jan	26	27	23	28	28	29	29	28	29	29	30	31	31	31	28	31	32	33	30	30	A	32	32	34	29.7	33.9
10-Jan	35	37	36	36	35	35	35	35	34	32	32	31	35	35	35	34	34	34	33	A	34	33	35	36	34.4	36.6
11-Jan	37	37	38	38	38	38	39	37	37	38	38	38	39	40	40	39	38	37	A	34	34	41	41	41	38.2	41.2
12-Jan	39	39	39	38	35	35	34	35	36	34	33	30	32	34	31	30	26	A	31	38	39	38	39	38	34.9	39.4
13-Jan	38	38	38	38	39	40	40	41	40	40	39	39	39	39	39	40	A	40	41	41	42	42	42	42	39.9	42.3
14-Jan	42	44	43	43	44	44	44	44	44	44	43	43	43	42	42	A	38	38	43	43	43	42	42	42	42.6	44.3
15-Jan	42	41	41	41	41	40	40	39	39	39	39	39	40	40	A	41	40	40	39	39	39	40	40	40	39.8	41.6
16-Jan	40	42	42	43	44	44	46	46	46	46	46	45	44	A	44	44	44	43	42	42	37	35	34	34	42.2	46.4
17-Jan	37	35	35	35	34	33	33	34	34	32	31	33	A	33	35	35	34	32	29	31	25	21	21	21	31.4	36.6
18-Jan	17	23	18	20	24	25	22	15	17	20	24	A	29	C	C	C	C	N	N	N	N	N	N	N	--	29.3
19-Jan	N	N	N	N	N	N	N	N	N	N	N	18	18	18	17	16	15	14	14	14	13	23	24	25	--	24.8
20-Jan	27	30	31	32	33	30	31	22	25	A	31	26	26	27	23	23	21	18	19	18	18	18	16	22	24.5	33.0
21-Jan	24	23	22	22	22	22	22	22	A	23	24	26	27	28	29	29	29	29	29	29	30	30	30	29	26.1	29.7
22-Jan	29	29	29	29	29	28	28	A	28	28	28	28	27	27	29	26	25	25	24	24	23	23	24	23	26.6	29.2
23-Jan	23	23	22	22	22	21	A	21	20	20	20	20	20	19	19	19	18	17	17	17	17	12	9	10	18.6	23.0
24-Jan	12	12	8	13	13	A	8	5	1	4	8	11	11	15	16	16	15	14	12	11	6	14	15	19	11.3	18.7
25-Jan	21	21	18	10	A	4	4	6	14	20	9	13	16	10	17	24	21	10	22	33	35	36	36	35	18.9	35.8
26-Jan	34	34	36	A	36	36	36	35	34	34	34	36	37	37	38	38	38	38	37	40	40	40	40	40	36.9	39.8
27-Jan	40	39	A	35	35	36	36	37	38	38	40	41	41	41	42	41	39	38	39	38	40	38	38	40	38.7	41.6
28-Jan	41	A	42	40	40	40	39	38	38	36	39	38	38	40	44	43	42	41	40	40	39	39	39	40	39.8	44.4
29-Jan	A	40	40	40	38	37	36	35	35	34	35	35	35	35	36	38	36	32	32	35	35	34	35	A	35.9	40.5
30-Jan	37	38	39	38	39	39	40	39	40	42	41	42	41	43	43	42	42	41	41	40	39	38	A	37	40.1	42.7
31-Jan	36	36	36	35	35	35	35	35	34	34	35	36	37	37	38	38	37	36	36	35	34	A	35	35	35.8	38.4
	32.0	32.4	32.1	31.9	32.9	32.2	31.6	30.6	31.2	31.3	31.5	31.6	31.9	31.7	32.0	32.4	31.6	31.0	30.7	31.5	31.2	31.4	30.9	31.9	Diurnal Average	
	41.9	44.1	42.6	43.4	43.9	44.4	45.6	45.9	46.4	46.2	45.9	44.9	44.0	42.7	44.4	44.3	44.0	43.5	42.8	42.6	42.6	42.2	42.3	42.3	Diurnal Maximum	

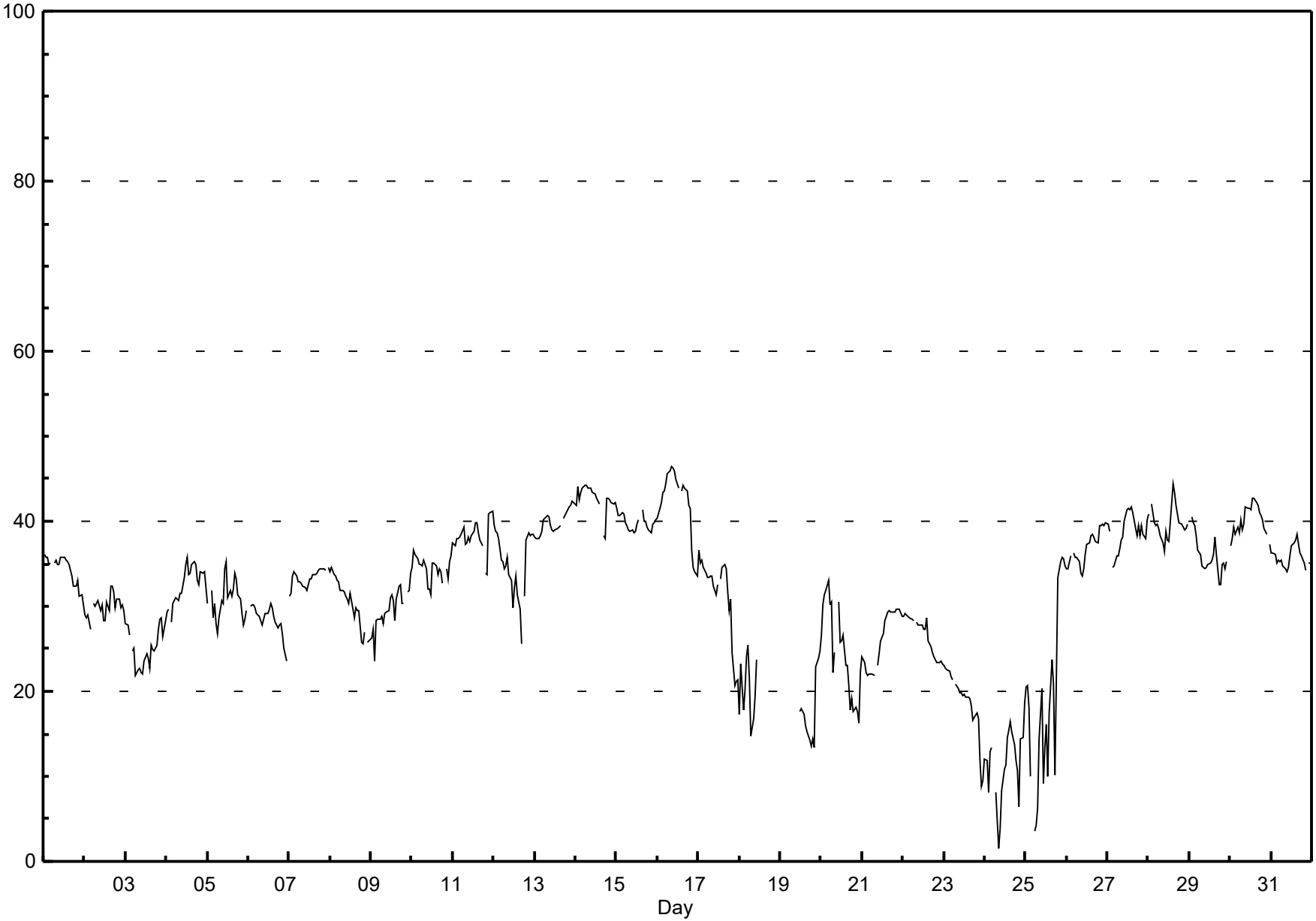
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Portable Rycroft - January 2017

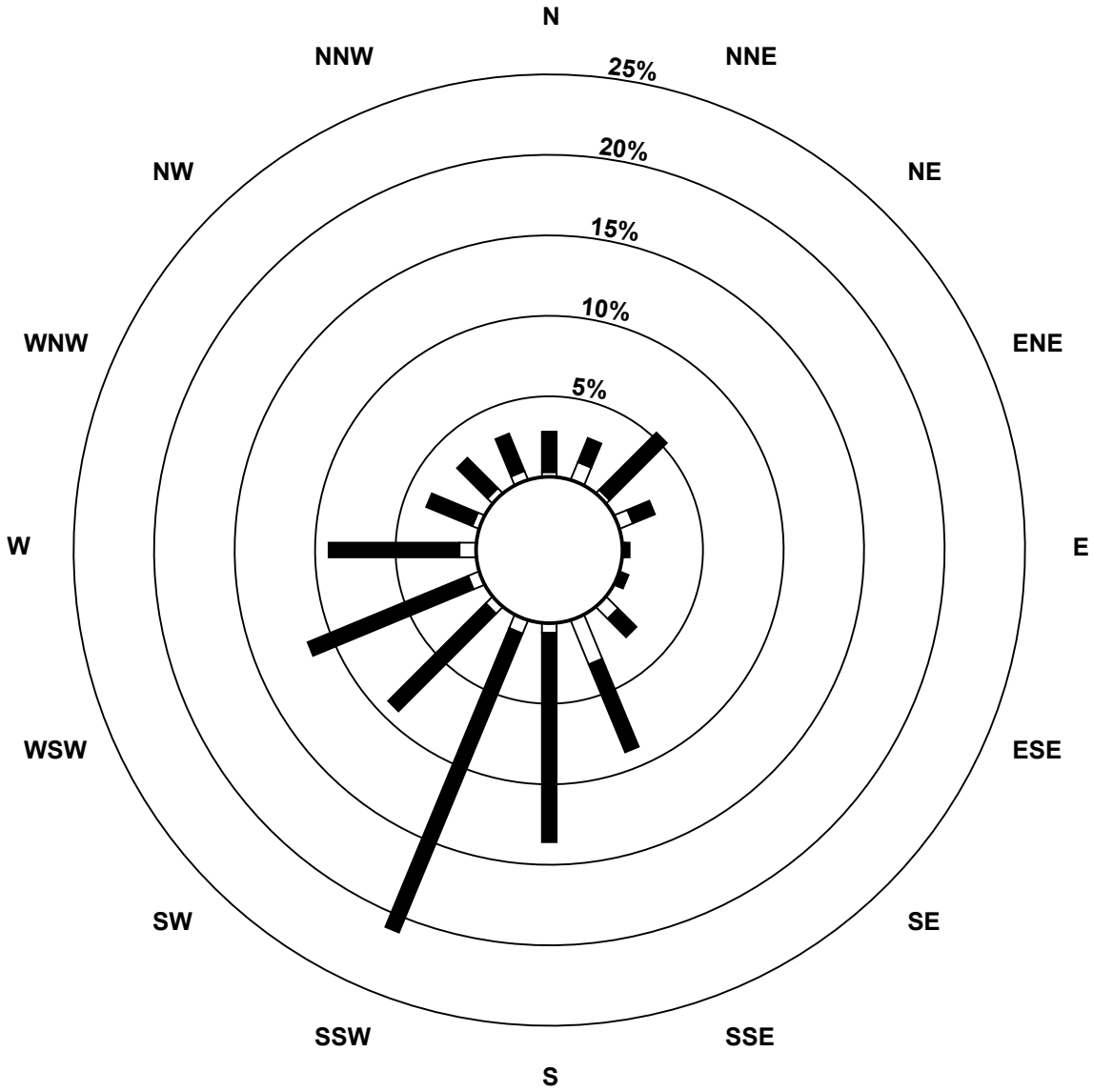


Peace Airshed Zone Association

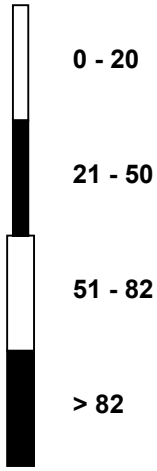
Pollutant Rose

Ozone (O_3) - ppb

Portable Rycroft - January 2017



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Portable Rycroft - January 2017

Maximum Value: 44.4 ppb on Jan 16 14:00

Minimum Value: 4.6 ppb on Jan 24 11:00

Percentiles: P_1 = 5.8 P_{10} = 17.3 Q_1 = 26.5 Median = 32.0 Q_3 = 36.8 P_{90} = 39.3 P_{99} = 43.7

Hours in Service:	744
Hours of Data:	718
Hours of Missing Data:	26
Hours of Calibration:	10
Percent Operational Time:	97.9

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 Maximum
1-Jan	35	35	35	34	34	34	35	35	35	35	35	35	35	34	34	34	34	34	33	32	32	31	30	30	35.0
2-Jan	29	29	29	28	27	27	28	28	28	28	29	29	29	29	28	28	29	29	29	29	29	29	30	29	29.6
3-Jan	29	28	28	28	27	26	25	24	23	22	21	22	22	22	22	22	22	23	23	24	24	25	25	26	28.9
4-Jan	26	27	27	27	27	28	28	28	28	29	29	30	30	31	31	32	33	33	32	32	32	32	32	32	32.8
5-Jan	31	31	32	31	30	29	28	28	28	28	28	28	29	29	30	30	31	31	31	31	31	30	30	30	31.6
6-Jan	29	29	29	29	29	29	29	29	29	29	29	28	28	29	29	29	28	28	28	27	27	26	25	25	29.3
7-Jan	25	26	26	27	28	29	31	31	32	32	32	32	32	32	32	32	32	33	33	33	33	33	33	34	33.6
8-Jan	34	34	34	34	33	33	33	32	32	32	31	30	30	29	29	29	28	28	27	27	26	26	26	25	33.7
9-Jan	25	24	24	25	25	25	26	27	27	27	28	28	29	29	28	28	28	29	29	29	28	29	30	31	30.8
10-Jan	31	32	32	33	33	34	34	34	34	33	33	32	32	32	32	32	32	33	33	33	33	33	33	33	34.5
11-Jan	33	34	35	35	36	36	37	37	37	37	37	37	37	37	37	38	38	37	37	37	36	36	36	36	37.6
12-Jan	36	36	36	37	37	37	36	35	34	34	32	31	30	30	29	29	28	27	27	28	30	31	32	34	37.2
13-Jan	36	36	37	38	38	38	38	39	39	39	39	39	39	39	39	39	39	39	39	39	40	40	41	41	41.0
14-Jan	41	41	41	42	42	42	42	43	43	43	43	43	43	43	43	42	41	40	40	40	40	40	40	40	43.3
15-Jan	41	41	41	41	41	40	40	40	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	41.3
16-Jan	39	39	39	40	40	41	42	42	43	44	44	44	44	44	44	44	43	43	42	41	40	39	38	36	44.4
17-Jan	35	34	33	33	32	33	33	33	33	33	32	32	32	32	32	32	32	31	31	30	28	27	25	23	34.9
18-Jan	21	19	18	17	17	17	17	16	16	15	15	15	16	15	N	N	N	N	N	N	N	N	N	N	20.6
19-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	16	16	15	15	14	14	15	16	16.2
20-Jan	17	19	21	23	26	27	27	27	27	27	26	25	24	23	23	23	22	22	20	19	18	17	16	16	27.5
21-Jan	16	17	18	19	20	21	22	22	22	22	22	22	23	24	25	26	26	27	28	28	29	29	29	29	29.0
22-Jan	29	29	29	29	29	28	28	28	28	28	28	28	28	27	27	27	26	26	26	25	25	24	24	23	28.9
23-Jan	23	23	23	23	22	22	22	22	21	21	20	20	20	19	19	19	19	18	18	18	17	16	15	14	23.1
24-Jan	13	12	11	9	9	9	8	7	6	5	5	5	5	6	7	9	10	11	11	11	10	10	10	9	12.7
25-Jan	10	11	12	11	12	11	9	8	6	5	5	6	7	8	9	11	12	11	11	14	16	19	22	24	24.1
26-Jan	27	30	33	34	34	34	34	34	34	34	34	34	34	35	35	35	36	36	37	37	37	38	38	38	38.0
27-Jan	38	38	39	38	37	37	36	35	35	35	35	36	37	38	39	39	40	40	39	38	38	38	37	37	39.7
28-Jan	37	37	38	39	39	39	39	38	38	37	37	36	36	35	36	37	38	38	39	39	40	40	40	39	40.0
29-Jan	39	39	39	39	39	38	37	37	36	36	35	35	34	34	34	34	34	34	33	33	33	32	32	32	39.0
30-Jan	32	33	35	35	36	37	37	38	38	38	38	39	39	40	40	40	41	41	41	41	40	40	40	39	40.8
31-Jan	38	38	37	36	36	35	35	35	34	34	34	34	34	34	34	35	35	35	35	35	35	35	34	34	38.2
Diurnal Maximums	41.1	41.3	41.4	41.7	41.9	42.2	42.4	42.6	43.1	43.7	44.2	44.3	44.2	44.4	44.1	43.7	43.3	42.7	42.2	41.3	40.3	40.2	40.6	41.0	

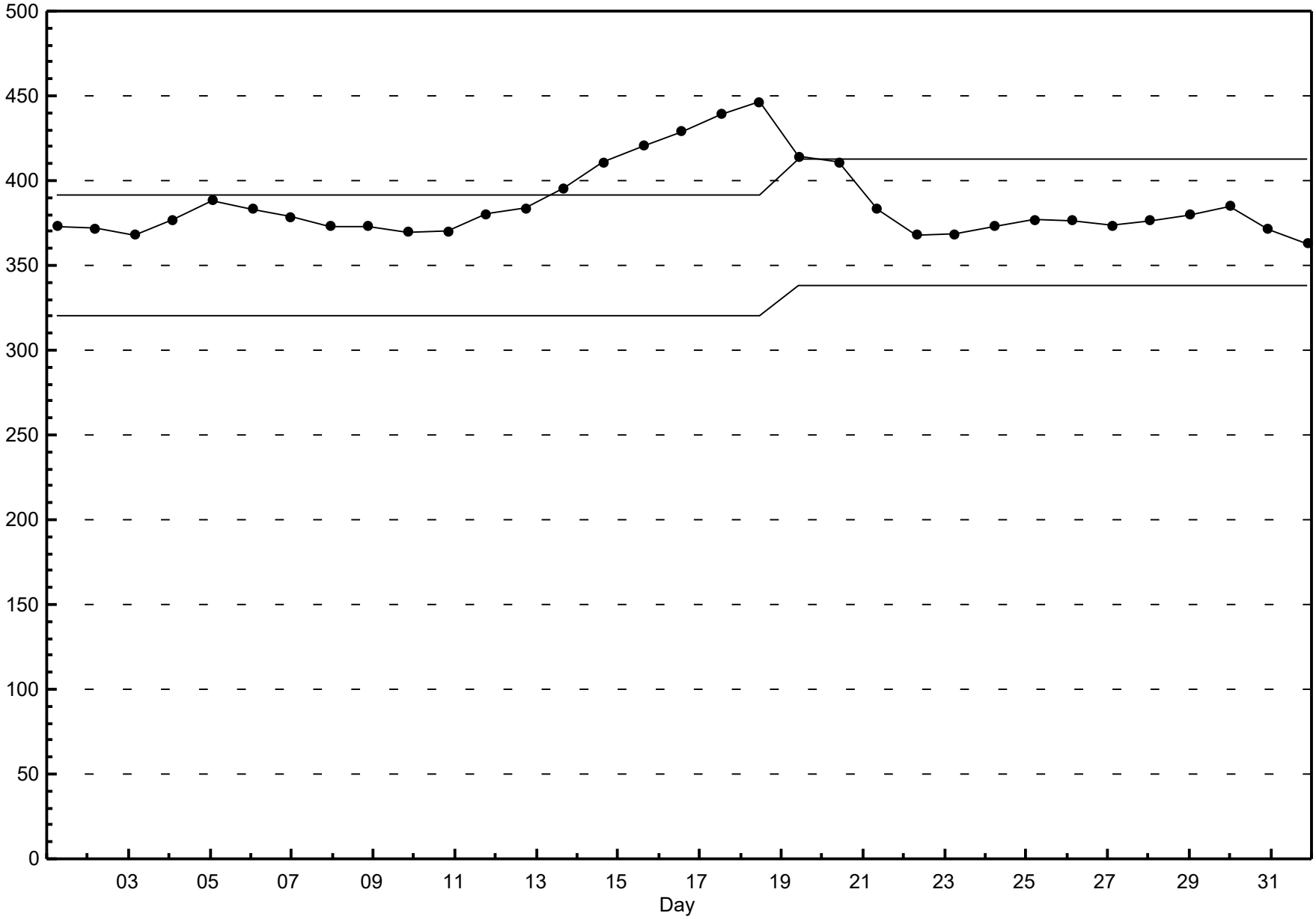
N - Not Valid

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Rycroft - January 2017

Maximum Value: 2.10 ppm on Jan 25 04:00

Maximum Daily Average: 2.03 ppm on Jan 25

Minimum Value: 1.7 ppm on Jan 17 04:00

Minimum Daily Average: 1.76 ppm on Jan 17

Maximum Diurnal Average: 1.87 ppm at hour 19

Minimum Diurnal Average: 1.85 ppm at hour 5

Monthly Average: 1.860 ppm

Percentiles: P_1 = 1.75 P_{10} = 1.79 Q_1 = 1.81 Median = 1.85 Q_3 = 1.90 P_{90} = 1.93 P_{99} = 2.08

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.84	1.87
2-Jan	1.9	1.9	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	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	1.86	1.93
3-Jan	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	1.91	1.94
4-Jan	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.9	1.86	1.92
5-Jan	1.9	A	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.86
6-Jan	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	A	1.84	1.91
7-Jan	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.83	1.87
8-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.9	1.9	1.9	A	1.9	1.9	1.84	1.91
9-Jan	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.84	1.90
10-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.80	1.83
11-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.80	1.81
12-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.82	1.87
13-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.81
14-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.79	1.81
15-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.79	1.80
16-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.7	1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.77	1.79
17-Jan	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	A	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.76	1.80
18-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.81	1.87
19-Jan	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.87
20-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.8	1.8	1.8	1.9	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.88	2.01
21-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.94
22-Jan	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	1.90	1.91
23-Jan	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	2.0	2.0	2.0	2.0	1.94	1.99
24-Jan	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.08
25-Jan	2.0	2.0	2.0	2.1	A	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	2.03	2.10
26-Jan	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	1.91
27-Jan	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	1.92
28-Jan	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	1.88	1.90
29-Jan	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.87	1.88
30-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.90	1.92
31-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	1.9	1.93	1.95
	1.86	1.85	1.85	1.86	1.85	1.85	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.87	1.86	1.86	1.86	1.87	1.87	1.86	1.86	1.86	1.86	1.86	Diurnal Average	
	2.00	2.01	2.04	2.10	1.96	2.09	2.07	2.06	2.04	2.08	2.09	2.07	2.06	2.07	2.07	2.03	2.07	2.10	2.09	2.01	2.02	1.99	2.01	2.02	Diurnal Maximum	

C - Calibration

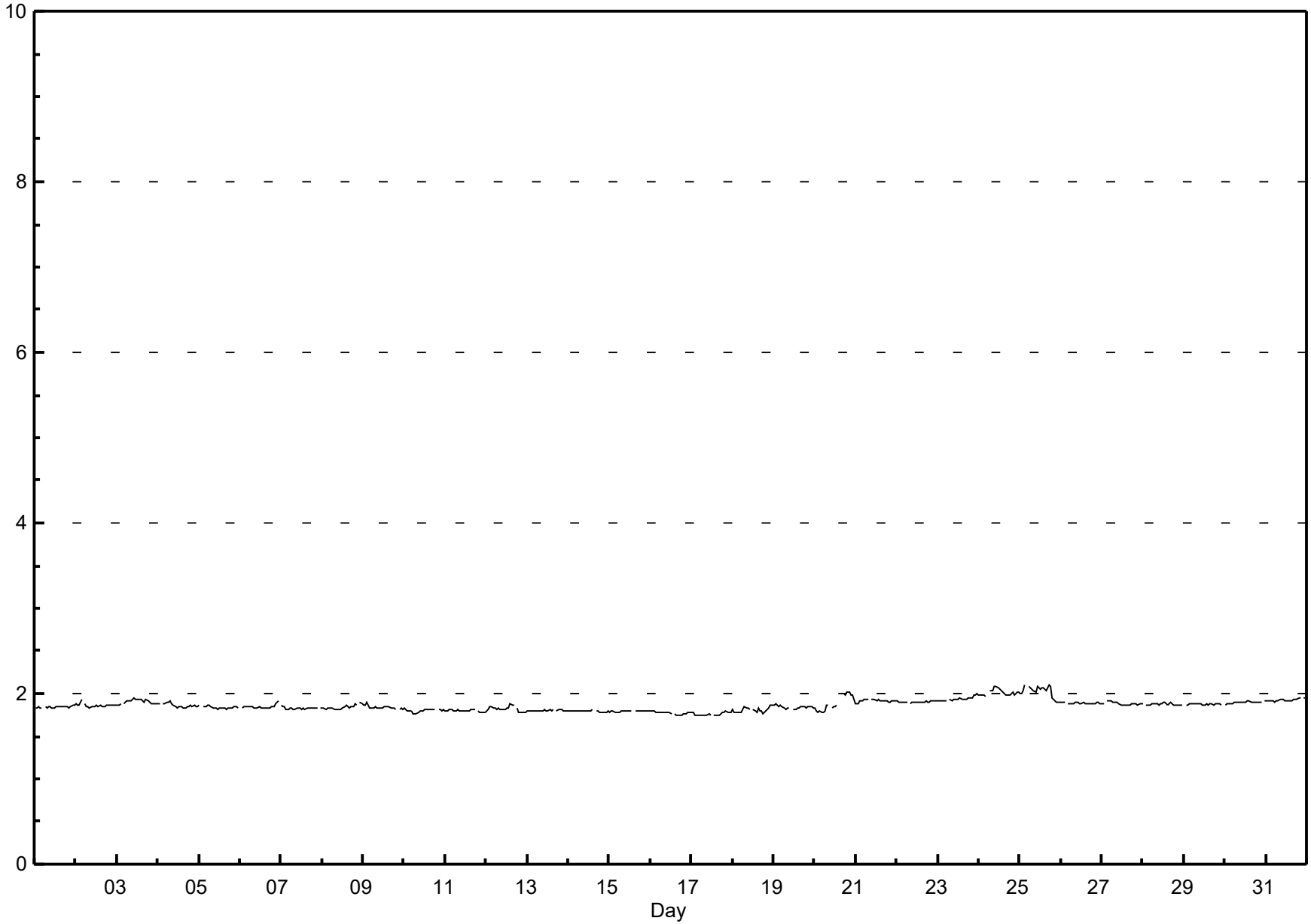
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Portable Rycroft - January 2017

Maximum Value: 2.87 ppm on Jan 4 08:00

Maximum Daily Average: 2.06 ppm on Jan 25

Minimum Value: 1.8 ppm on Jan 17 08:00

Minimum Daily Average: 1.78 ppm on Jan 17

Maximum Diurnal Average: 1.91 ppm at hour 8

Minimum Diurnal Average: 1.86 ppm at hour 5

Monthly Average: 1.879 ppm

Percentiles: P_1 = 1.75 P_{10} = 1.80 Q_1 = 1.83 Median = 1.87 Q_3 = 1.91 P_{90} = 1.95 P_{99} = 2.13

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.86	1.88
2-Jan	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.99
3-Jan	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.96
4-Jan	1.9	1.9	A	1.9	1.9	1.9	1.9	2.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.8	1.9	1.9	2.1	1.9	1.9	1.9	1.9	1.93	2.87
5-Jan	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	1.87
6-Jan	A	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	A	1.86	1.98
7-Jan	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	A	1.8	1.85	1.94
8-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.86	1.94
9-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.86	1.93
10-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.82	1.85
11-Jan	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.81	1.86
12-Jan	1.8	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.8	1.8	1.8	1.85	1.92
13-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.81	1.84
14-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.84
15-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.81
16-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.79	1.85
17-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.78	1.91
18-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.8	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.83	1.88
19-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.85	1.89
20-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.8	1.9	1.9	2.2	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.92	2.25
21-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	1.94
22-Jan	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	1.91	1.92
23-Jan	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.95	2.00
24-Jan	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.04	2.14
25-Jan	2.0	2.0	2.1	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	2.0	1.9	1.9	1.9	1.9	2.06	2.16
26-Jan	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	1.90	1.92
27-Jan	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	1.90	1.93
28-Jan	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	1.92
29-Jan	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.89	1.91
30-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.91	1.93
31-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	A	2.0	2.0	1.94	1.96
	1.87	1.88	1.87	1.88	1.86	1.87	1.87	1.91	1.87	1.88	1.88	1.88	1.88	1.89	1.88	1.88	1.88	1.88	1.88	1.89	1.88	1.87	1.88	1.88	Diurnal Average	
	2.01	2.05	2.08	2.16	1.98	2.13	2.13	2.87	2.12	2.11	2.14	2.13	2.08	2.25	2.09	2.07	2.11	2.11	2.11	2.11	2.06	2.02	2.05	2.04	Diurnal Maximum	

C - Calibration

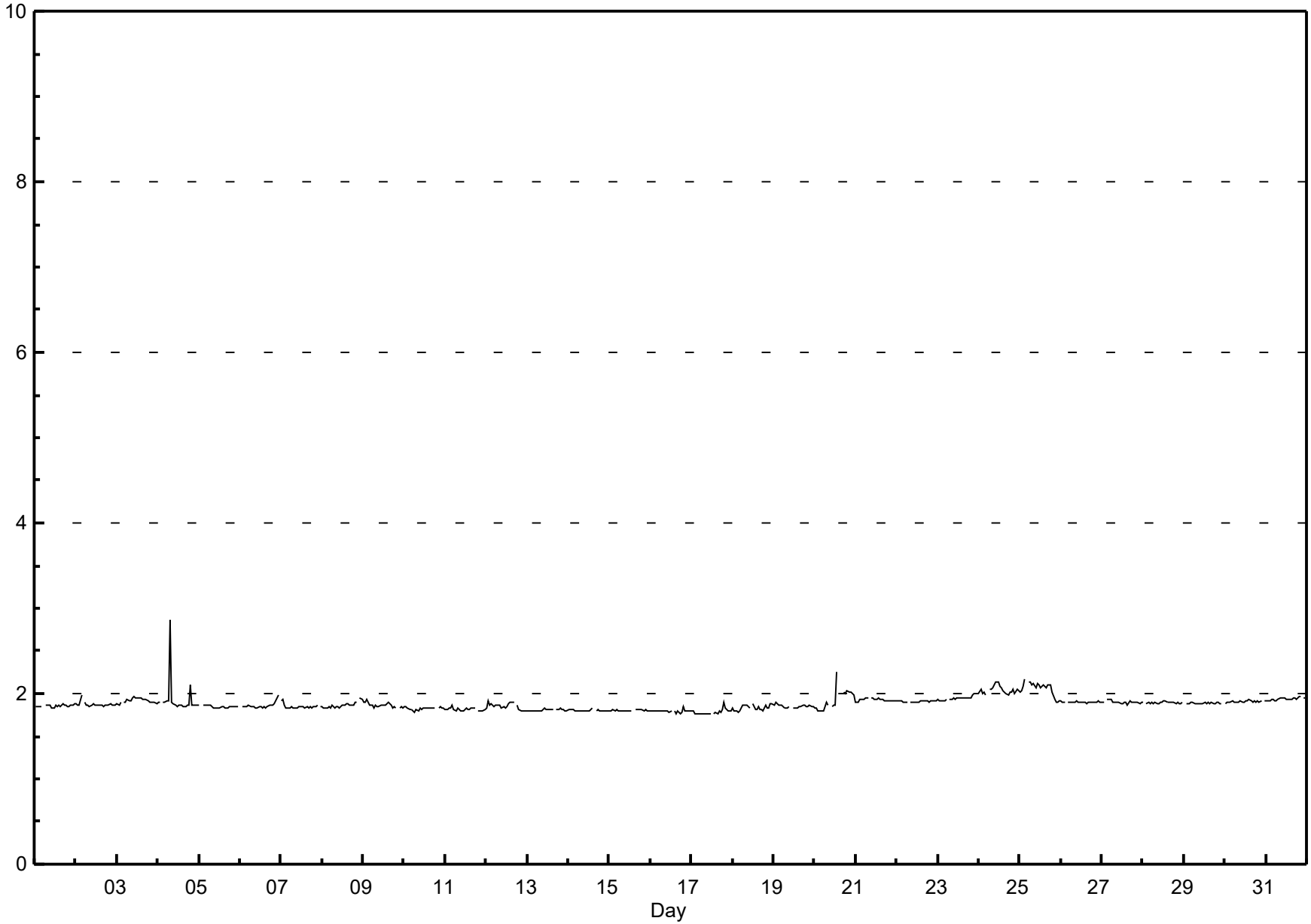
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Portable Rycroft - January 2017

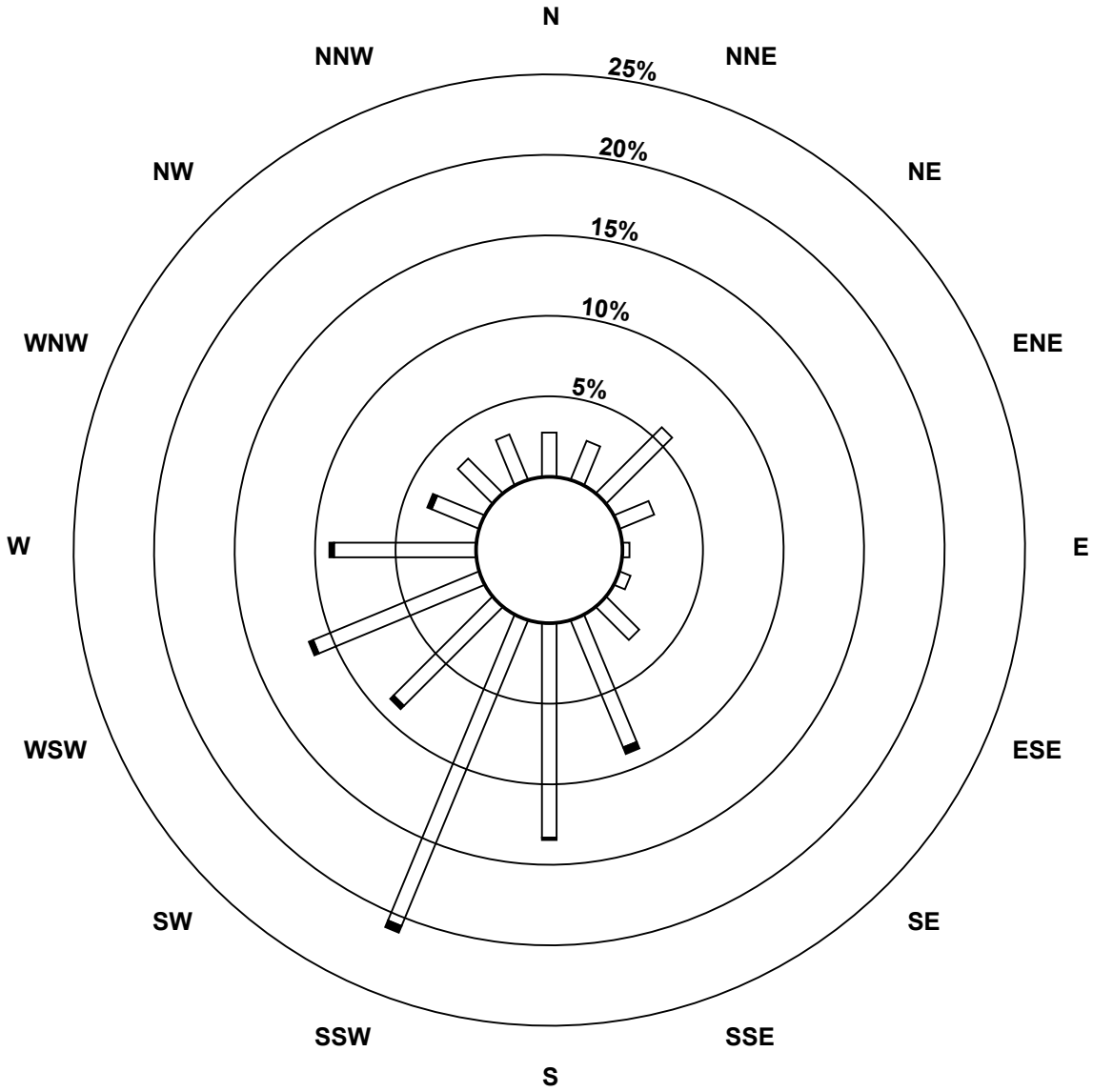


Peace Airshed Zone Association

Pollutant Rose

Total Hydrocarbons (THC) - ppm

Portable Rycroft - January 2017



Pollutant Classes (ppm)

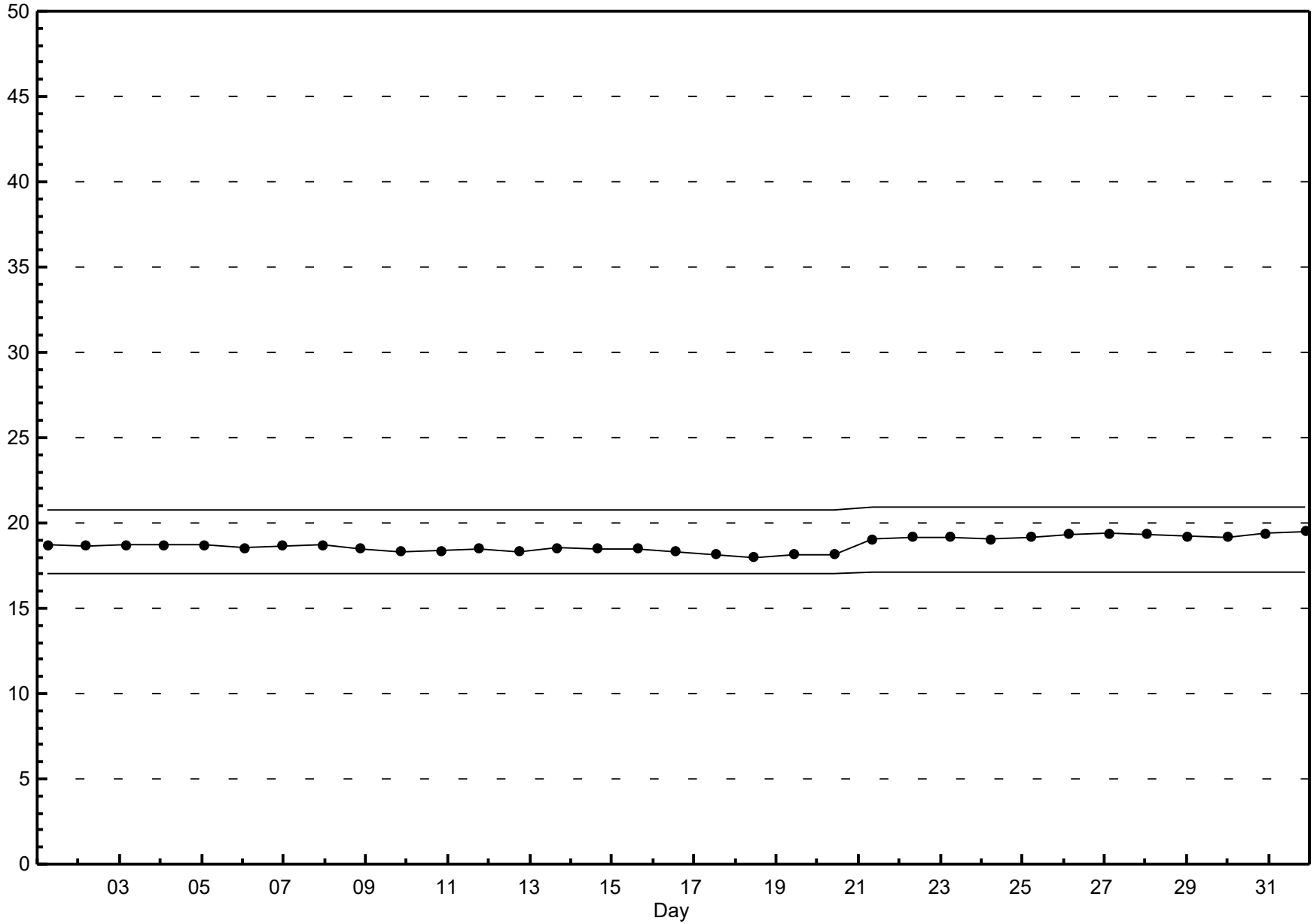
- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Portable Rycroft - January 2017

Maximum Value: 2.10 ppm on Jan 25 04:00

Maximum Daily Average: 2.02 ppm on Jan 25

Minimum Value: 1.7 ppm on Jan 17 04:00

Minimum Daily Average: 1.75 ppm on Jan 17

Maximum Diurnal Average: 1.86 ppm at hour 19

Minimum Diurnal Average: 1.84 ppm at hour 5

Monthly Average: 1.853 ppm

Percentiles: P_1 = 1.74 P_{10} = 1.78 Q_1 = 1.80 Median = 1.84 Q_3 = 1.89 P_{90} = 1.93 P_{99} = 2.07

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.83	1.86
2-Jan	1.9	1.9	1.8	1.9	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.9	1.85	1.92
3-Jan	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	1.90	1.94
4-Jan	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.85	1.89
5-Jan	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.85
6-Jan	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.84	1.91
7-Jan	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.82	1.86
8-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.9	A	1.9	1.9	1.83	1.90
9-Jan	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.83	1.89
10-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.79	1.82
11-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.79	1.81
12-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.81	1.87
13-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.79	1.80
14-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.79	1.80
15-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.78	1.80
16-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.76	1.78
17-Jan	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	A	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.75	1.79
18-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.80	1.86
19-Jan	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.87
20-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.8	1.8	1.8	1.8	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.87	2.01
21-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.93
22-Jan	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	1.90
23-Jan	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	2.0	2.0	2.0	2.0	1.93	1.99
24-Jan	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.08
25-Jan	2.0	2.0	2.0	2.1	A	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	2.02	2.10
26-Jan	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	1.88	1.90
27-Jan	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	1.92
28-Jan	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	1.87	1.89
29-Jan	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.87	1.87
30-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.89	1.91
31-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.92	1.95
	1.85	1.85	1.85	1.85	1.84	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.86	1.86	1.86	1.85	1.85	1.86	1.86	1.86	1.86	1.85	1.86	1.86	Diurnal Average	
	2.00	2.00	2.03	2.10	1.96	2.08	2.06	2.05	2.03	2.07	2.08	2.07	2.05	2.07	2.07	2.03	2.06	2.09	2.08	2.00	2.01	1.99	2.01	2.02	Diurnal Maximum	

C - Calibration

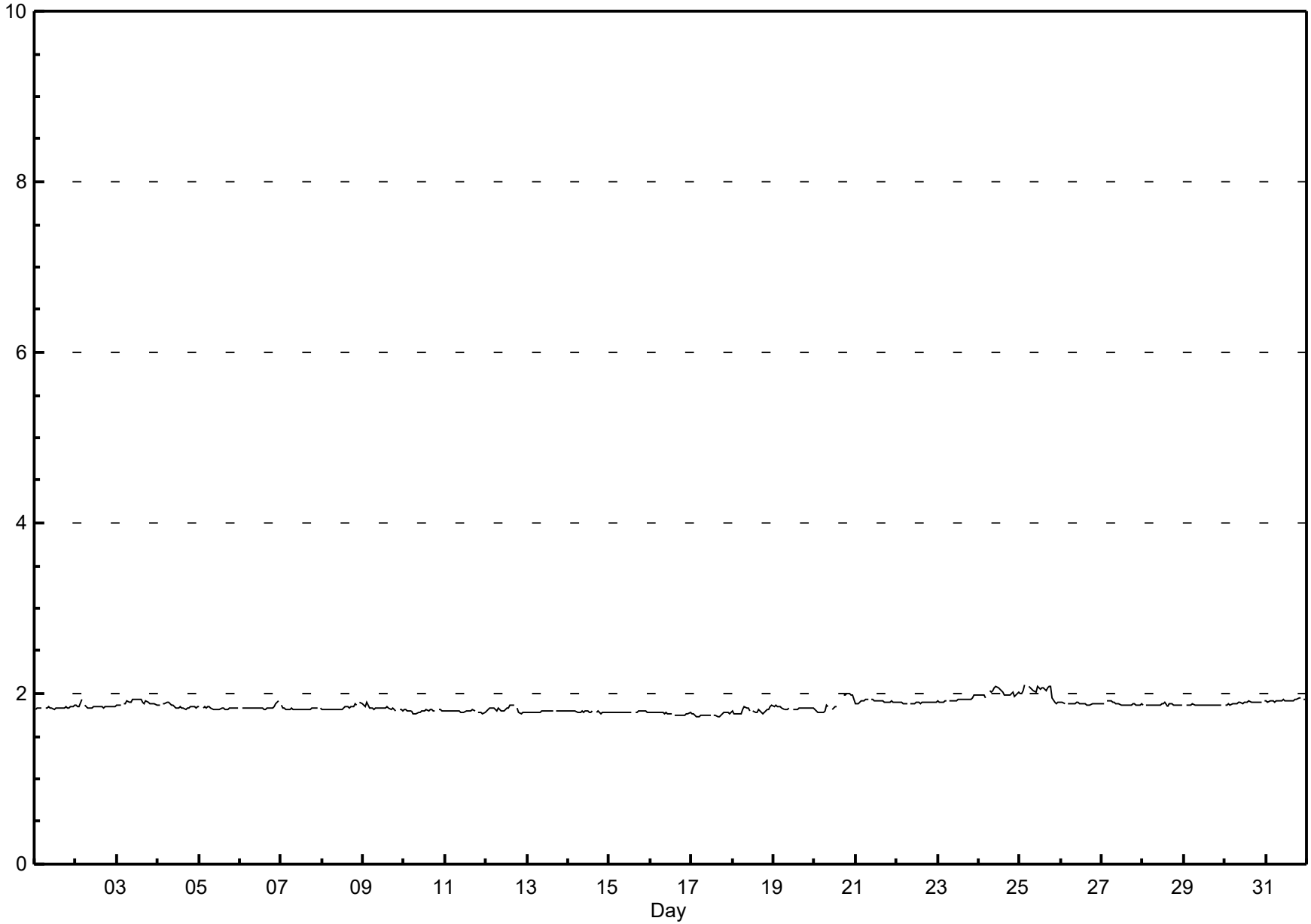
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Methane (CH_4) - ppm

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

Portable Rycroft - January 2017

Maximum Value: 2.16 ppm on Jan 25 04:00

Maximum Daily Average: 2.05 ppm on Jan 25

Minimum Value: 1.7 ppm on Jan 17 04:00

Minimum Daily Average: 1.77 ppm on Jan 17

Maximum Diurnal Average: 1.88 ppm at hour 20

Minimum Diurnal Average: 1.85 ppm at hour 5

Monthly Average: 1.869 ppm

Percentiles: P_1 = 1.75 P_{10} = 1.79 Q_1 = 1.82 Median = 1.86 Q_3 = 1.90 P_{90} = 1.94 P_{99} = 2.11

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.85	1.87
2-Jan	1.9	1.9	1.9	2.0	A	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.86	1.98
3-Jan	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.91	1.96
4-Jan	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.8	1.8	1.87	1.91
5-Jan	1.9	A	1.8	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.86
6-Jan	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	A	1.85	1.97
7-Jan	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.84	1.93
8-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	A	1.9	1.9	1.85	1.93
9-Jan	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.86	1.92
10-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.81	1.84
11-Jan	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.81	1.85
12-Jan	1.8	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.8	1.8	1.8	1.84	1.91
13-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.83
14-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.82
15-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.79	1.80
16-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.78	1.84
17-Jan	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	A	1.8	1.8	1.7	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.77	1.90
18-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.82	1.88
19-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.89
20-Jan	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.8	1.8	1.8	1.9	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.89	2.03
21-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.94
22-Jan	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	1.90	1.92
23-Jan	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.94	2.00
24-Jan	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.04	2.13
25-Jan	2.0	2.0	2.1	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	2.0	1.9	1.9	1.9	1.9	2.05	2.16
26-Jan	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	1.91
27-Jan	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	1.92
28-Jan	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	1.92
29-Jan	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.88	1.90
30-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.90	1.92
31-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	2.0	1.93	1.96
	1.87	1.87	1.86	1.87	1.85	1.86	1.87	1.87	1.86	1.87	1.87	1.87	1.87	1.88	1.87	1.87	1.87	1.87	1.87	1.88	1.87	1.87	1.87	1.87	Diurnal Average	
	2.01	2.05	2.08	2.16	1.98	2.12	2.12	2.09	2.11	2.10	2.13	2.12	2.07	2.08	2.08	2.06	2.09	2.11	2.10	2.03	2.05	2.01	2.04	2.04	Diurnal Maximum	

C - Calibration

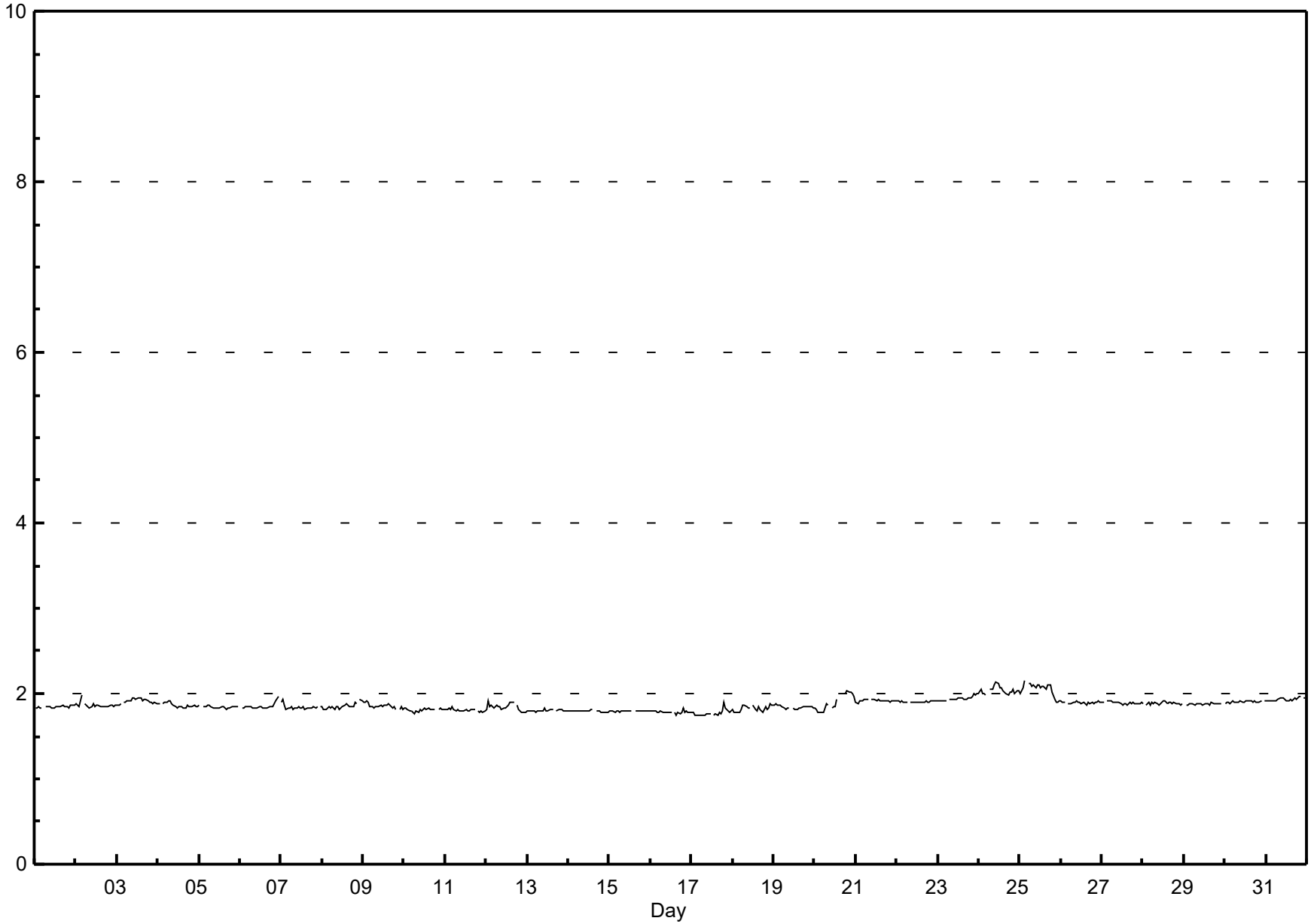
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Methane (CH_4) - ppm

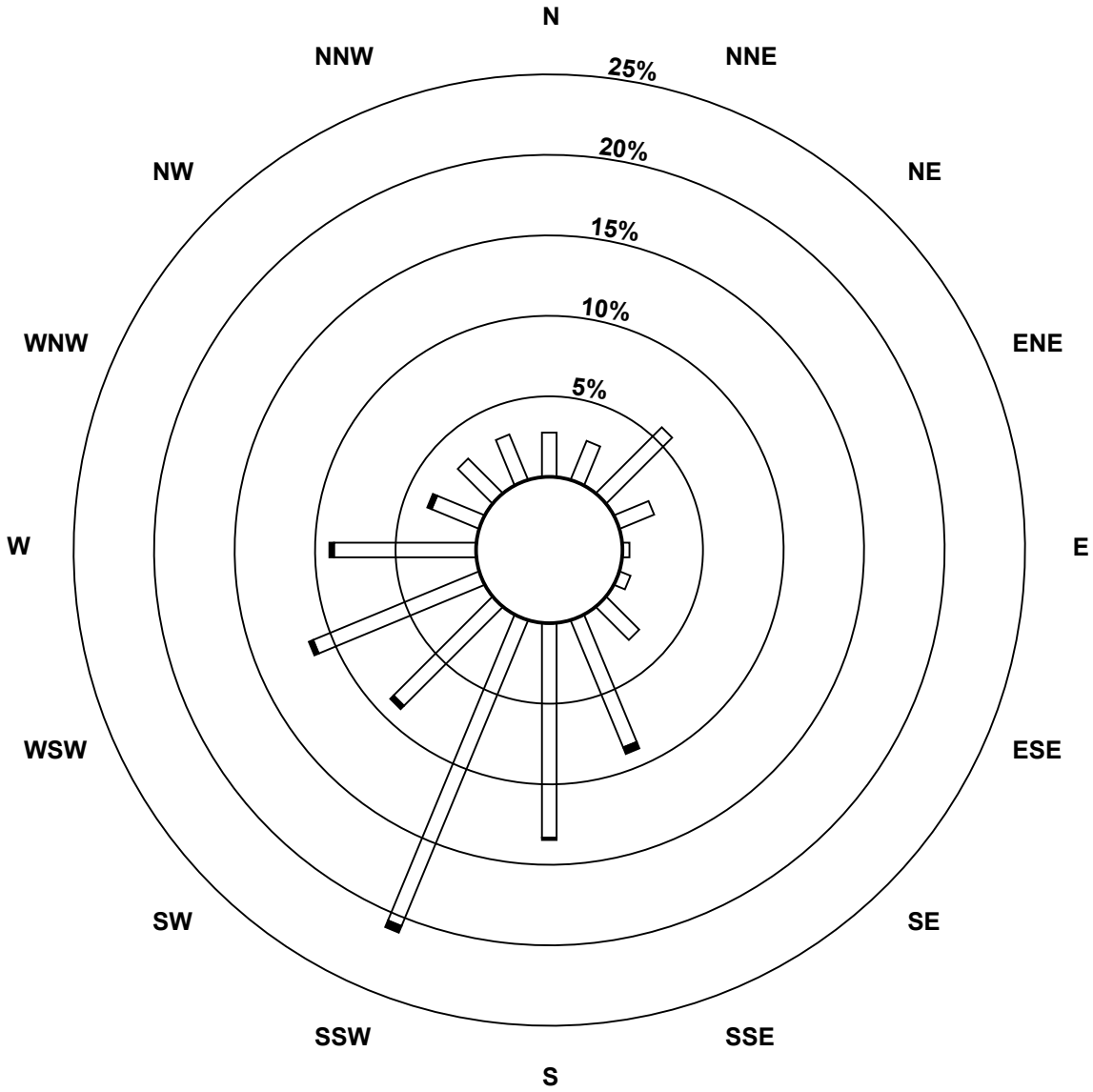
Portable Rycroft - January 2017



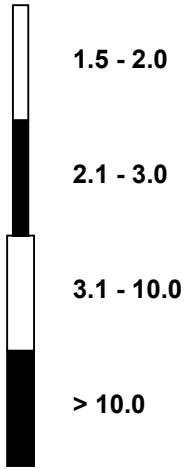
Pollutant Rose

Methane (CH_4) - ppm

Portable Rycroft - January 2017



Pollutant Classes (ppm)

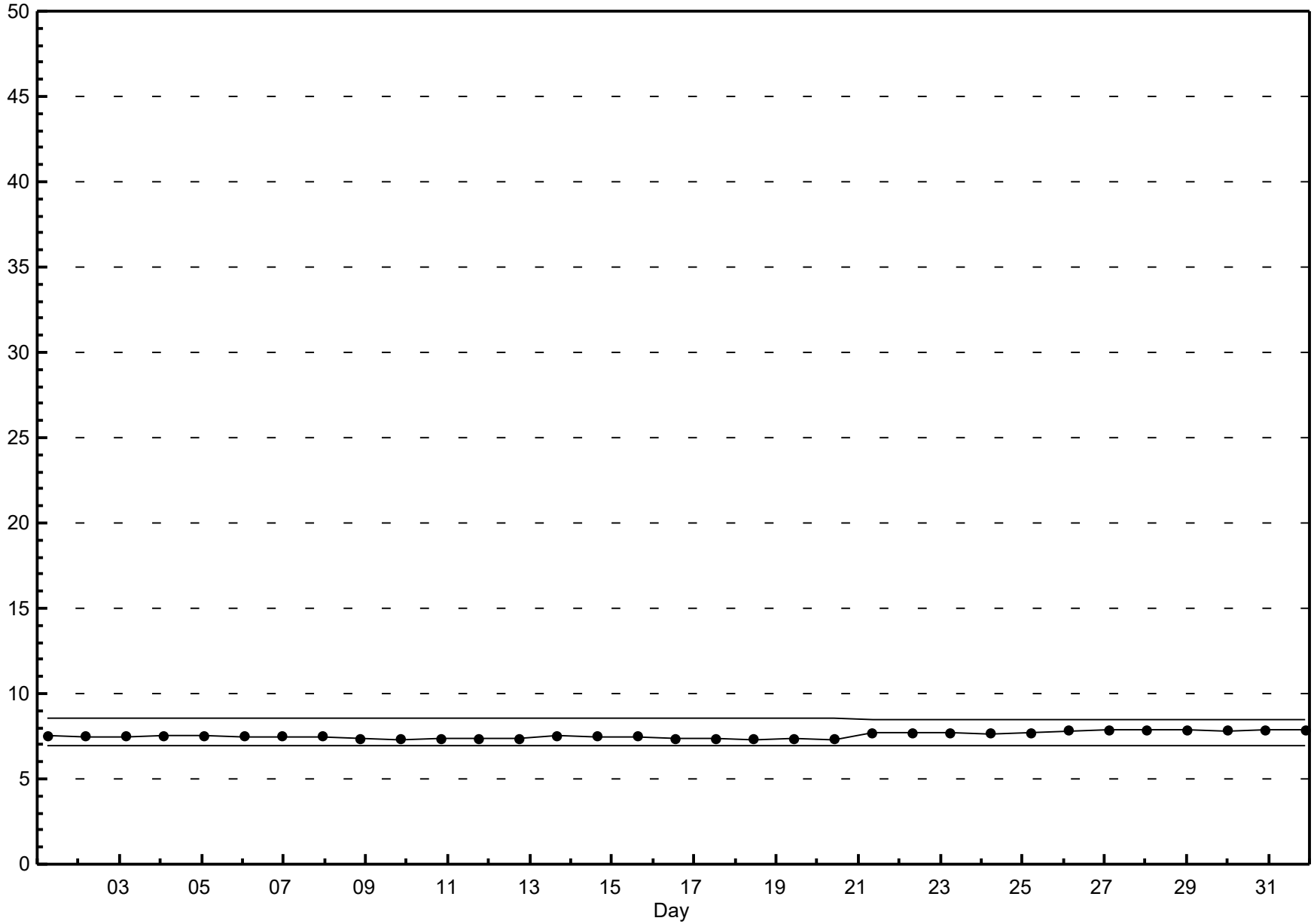


Peace Airshed Zone Association

Span Responses

Methane (CH_4)

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - January 2017

Maximum Value: 0.02 ppm on Jan 4 08:00

Maximum Daily Average: 0.00 ppm on Jan 4

Minimum Value: 0.0 ppm on Jan 1 01:00

Minimum Daily Average: 0.00 ppm on Jan 1

Maximum Diurnal Average: 0.00 ppm at hour 8

Minimum Diurnal Average: 0.00 ppm at hour 7

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:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	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
2-Jan	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
3-Jan	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
4-Jan	0.0	0.0	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	0.02
5-Jan	0.0	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
6-Jan	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
7-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
8-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
10-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
11-Jan	0.0	0.0	0.0	0.0	0.0	0.0	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
12-Jan	0.0	0.0	0.0	0.0	0.0	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
13-Jan	0.0	0.0	0.0	0.0	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
14-Jan	0.0	0.0	0.0	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
15-Jan	0.0	0.0	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
16-Jan	0.0	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
17-Jan	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
18-Jan	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
19-Jan	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
20-Jan	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	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.01
21-Jan	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
22-Jan	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
23-Jan	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
24-Jan	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
25-Jan	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
26-Jan	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
27-Jan	0.0	0.0	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
28-Jan	0.0	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
29-Jan	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
30-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
31-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
	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	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	Diurnal Maximum	

C - Calibration

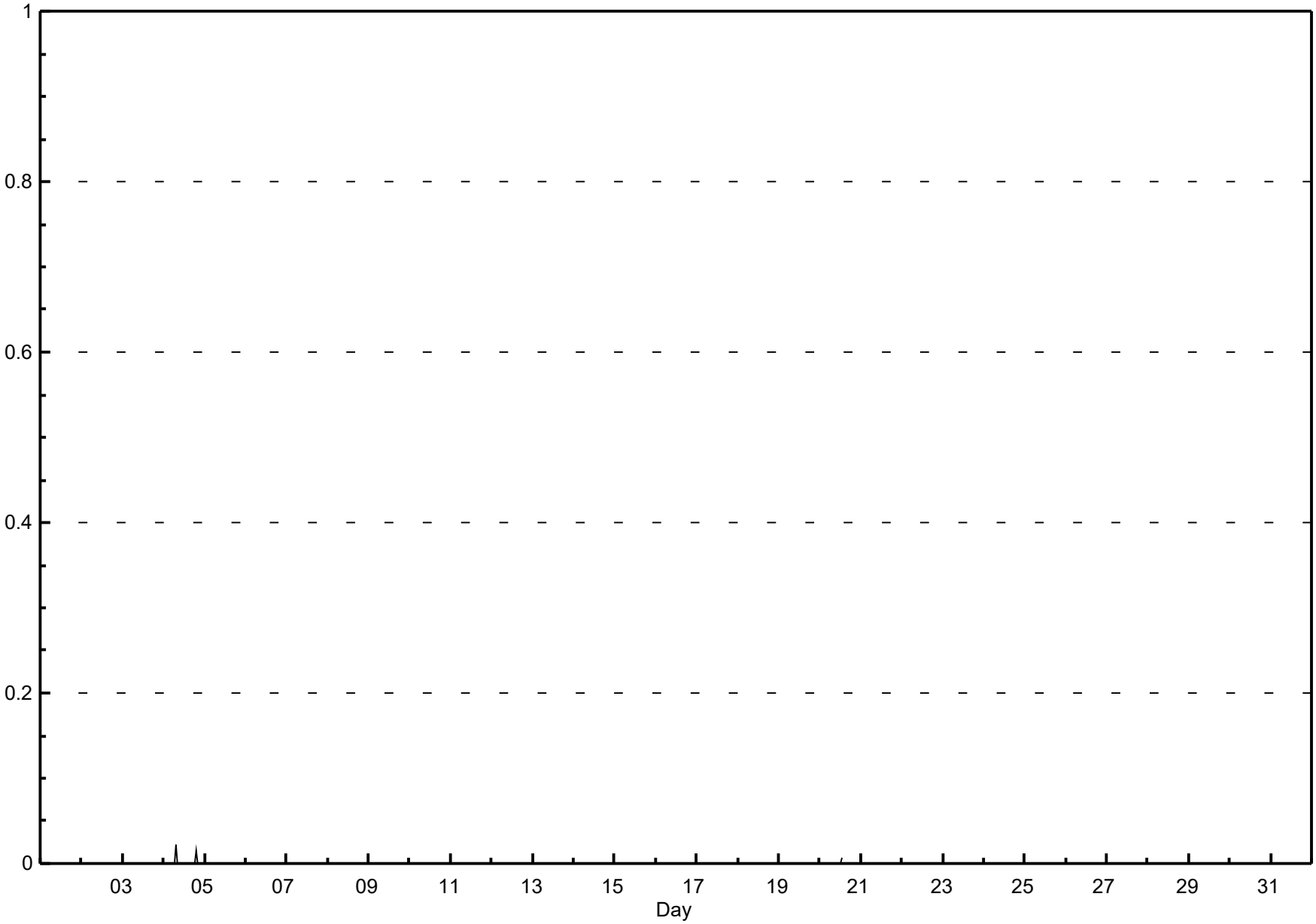
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - January 2017

Maximum Value: 0.94 ppm on Jan 4 08:00

Maximum Daily Average: 0.05 ppm on Jan 4

Minimum Value: 0.0 ppm on Jan 1 01:00

Minimum Daily Average: 0.00 ppm on Jan 14

Maximum Diurnal Average: 0.03 ppm at hour 8

Minimum Diurnal Average: 0.00 ppm at hour 7

Monthly Average: 0.002 ppm

Percentiles: P_1 = 0.00 P_{10} = 0.00 Q_1 = 0.00 Median = 0.00 Q_3 = 0.00 P_{90} = 0.00 P_{99} = 0.00

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 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-Jan	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
2-Jan	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
3-Jan	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
4-Jan	0.0	0.0	A	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.05	0.94
5-Jan	0.0	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
6-Jan	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
7-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
8-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
9-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
10-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
11-Jan	0.0	0.0	0.0	0.0	0.0	0.0	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
12-Jan	0.0	0.0	0.0	0.0	0.0	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
13-Jan	0.0	0.0	0.0	0.0	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
14-Jan	0.0	0.0	0.0	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
15-Jan	0.0	0.0	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
16-Jan	0.0	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
17-Jan	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
18-Jan	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
19-Jan	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
20-Jan	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	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.32
21-Jan	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
22-Jan	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
23-Jan	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
24-Jan	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
25-Jan	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
26-Jan	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
27-Jan	0.0	0.0	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
28-Jan	0.0	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
29-Jan	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
30-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
31-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	Diurnal Average	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	Diurnal Maximum	

C - Calibration

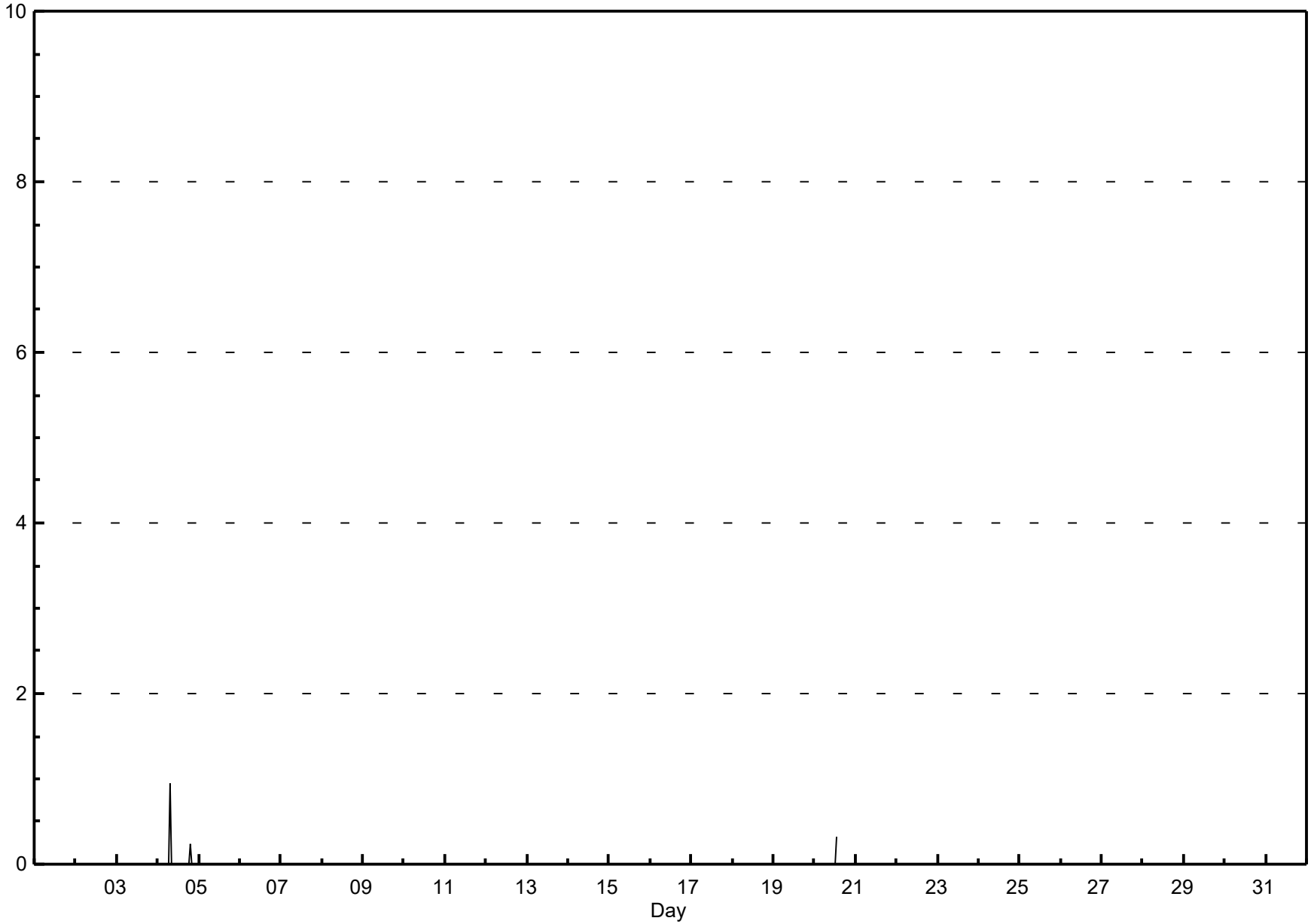
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - January 2017

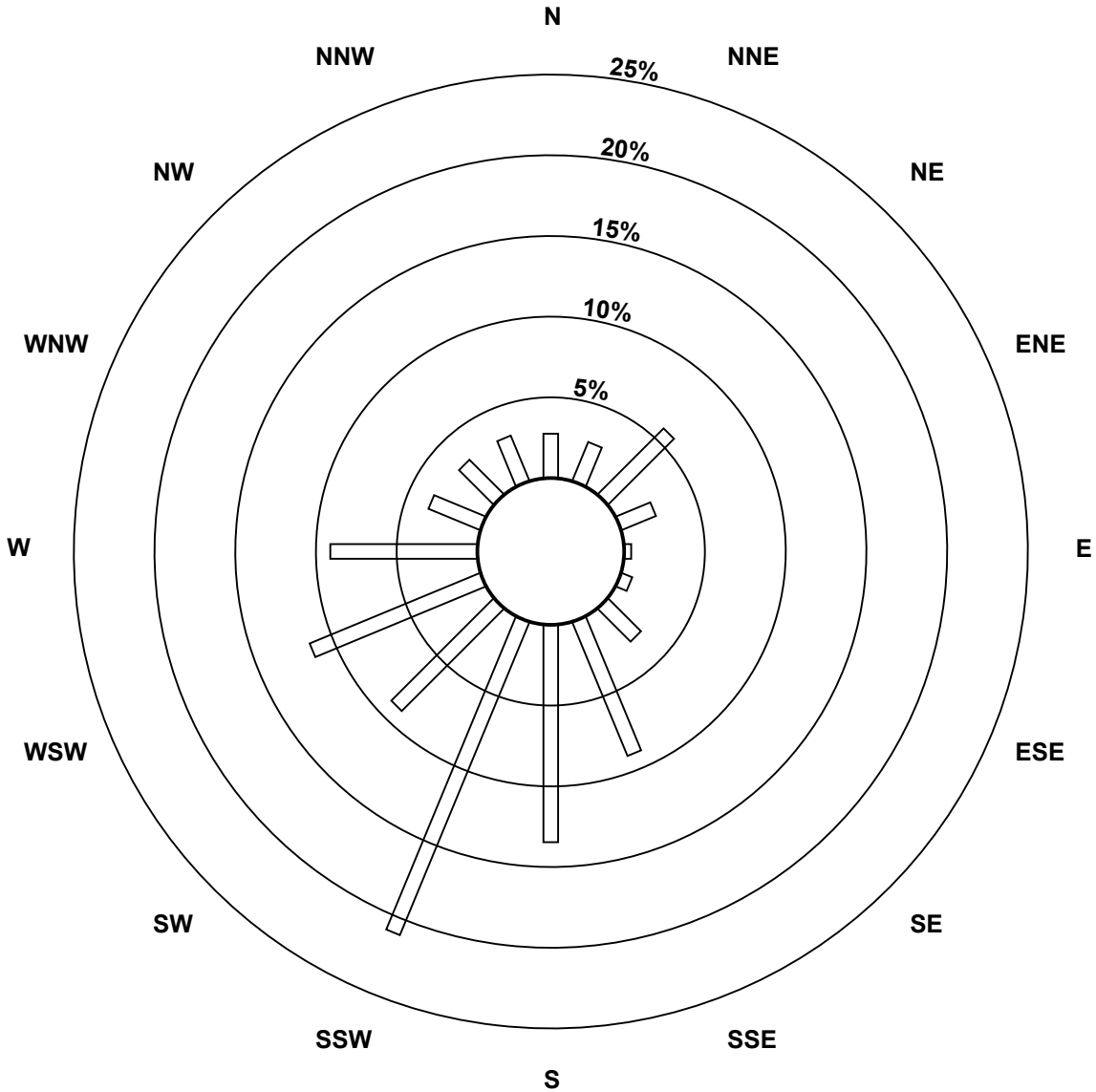


Peace Airshed Zone Association

Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Portable Rycroft - January 2017



Pollutant Classes (ppm)

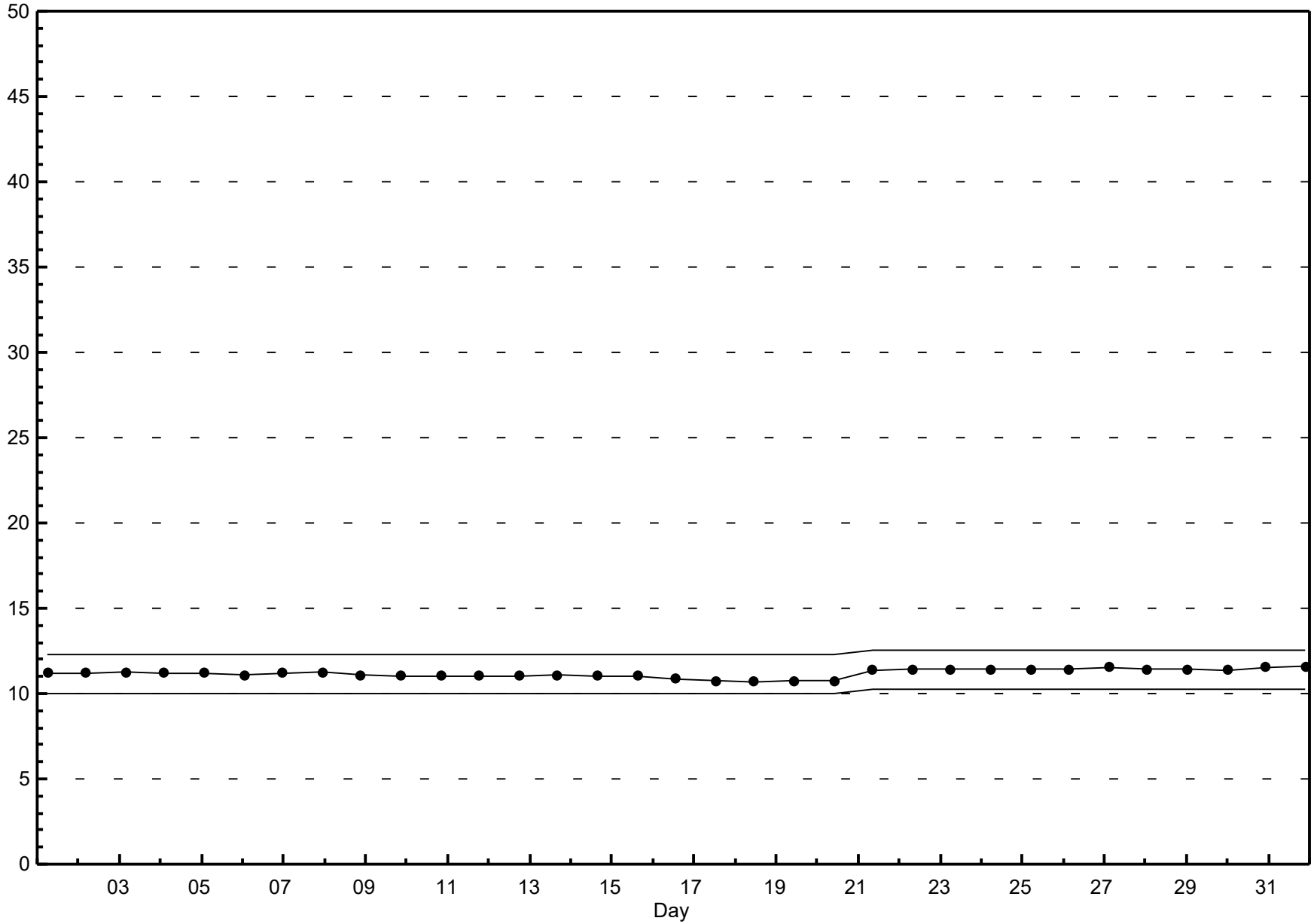
- 0 - 0.05
- 0.06 - 0.1
- 0.11 - 0.30
- > 0.30

Peace Airshed Zone Association

Span Responses

Non Methane Hydrocarbon (NMHC)

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

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

Portable Rycroft - January 2017

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

Maximum Value: 17.2 $\mu g/m^3$ on Jan 24 18:00

Maximum Daily Average: 12.8 $\mu g/m^3$ on Jan 24

Minimum Value: 0 $\mu g/m^3$ on Jan 1 04:00

Maximum Diurnal Average: 3.2 $\mu g/m^3$ at hour 18

Monthly Average: 2.17 $\mu g/m^3$

Minimum Daily Average: 0.0 $\mu g/m^3$ on Jan 16

Minimum Diurnal Average: 1.7 $\mu g/m^3$ at hour 13

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.9 Q_3 = 2.6 P_{90} = 5.8 P_{99} = 15.1

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	0
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-Jan	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	2	1	1	0	0.5	2.1
2-Jan	1	1	2	3	3	2	3	2	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.6	3.0
3-Jan	2	3	3	3	2	2	2	3	2	3	3	2	3	3	2	1	1	1	1	1	1	1	1	1	1.9	3.1
4-Jan	0	1	5	5	2	2	2	2	2	2	2	1	1	0	0	1	1	1	2	1	0	0	1	1	1.5	4.7
5-Jan	1	1	1	1	0	1	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	2.1
6-Jan	0	0	2	4	5	6	6	7	7	5	3	3	2	3	3	3	4	4	3	3	3	3	3	4	3.6	6.9
7-Jan	3	3	2	2	0	1	3	4	3	4	6	5	5	4	4	4	4	4	2	2	2	2	2	2	3.0	6.0
8-Jan	3	2	1	2	1	1	0	1	2	2	1	1	1	3	3	2	1	2	2	3	3	4	5	5	2.1	4.8
9-Jan	4	3	6	3	1	2	2	2	3	2	1	1	1	1	1	1	1	1	0	1	2	1	0	0	1.7	6.4
10-Jan	15	11	1	1	3	1	1	1	0	1	1	0	0	0	0	0	0	1	2	2	1	1	0	11	2.2	14.6
11-Jan	6	0	0	1	0	0	0	1	1	1	2	1	2	1	2	2	2	2	1	1	0	0	0	0	1.1	6.2
12-Jan	0	0	0	0	0	0	0	1	1	2	4	5	1	0	2	4	4	4	5	2	0	1	1	1	1.6	5.4
13-Jan	0	1	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.0	1.1
15-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.1	1.0
16-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
17-Jan	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
18-Jan	3	0	0	0	1	2	2	2	2	1	2	0	0	0	0	1	0	0	0	1	7	5	3	3	1.6	6.8
19-Jan	3	3	4	4	3	3	2	4	6	4	1	2	2	2	2	3	3	3	3	2	3	4	2	1	2.9	5.8
20-Jan	1	0	0	0	0	0	0	4	3	2	3	2	2	2	M	M	M	12	9	7	8	6	7	8	3.6	11.6
21-Jan	5	5	5	4	5	5	3	3	3	2	2	2	1	2	2	2	2	2	2	2	2	2	1	3	2.7	5.3
22-Jan	3	2	2	2	2	2	2	2	2	3	3	3	1	1	1	1	2	2	1	1	2	3	2	2	2.0	3.4
23-Jan	1	3	3	3	4	5	5	7	9	10	9	10	10	11	12	12	12	13	12	11	11	15	15	15	9.1	15.4
24-Jan	14	13	12	13	8	11	14	15	16	14	15	16	12	12	12	10	9	17	16	12	13	11	11	11	12.8	17.2
25-Jan	9	7	8	11	14	14	13	12	10	5	9	11	7	8	8	5	6	16	17	2	1	3	1	2	8.3	16.6
26-Jan	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	0.3	1.7
27-Jan	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0.2	1.7
28-Jan	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0.1	0.9
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.0	0.7
30-Jan	0	0	4	2	1	0	0	1	1	1	1	0	0	0	2	1	1	1	1	0	0	0	1	1	0.8	4.2
31-Jan	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	2	9	4	4	3	2	2	1	1.3	9.1
	2.4	1.9	2.1	2.1	1.9	2.0	2.0	2.5	2.5	2.2	2.4	2.2	1.7	1.7	1.9	1.7	1.9	3.2	2.8	2.1	2.2	2.1	2.0	2.4	Diurnal Average	
	14.6	12.6	12.4	12.8	14.3	13.7	14.0	15.1	15.7	14.3	14.7	15.8	11.7	12.0	12.1	11.7	11.6	17.2	16.6	12.3	12.7	14.8	14.8	15.4	Diurnal Maximum	

M - Maintenance

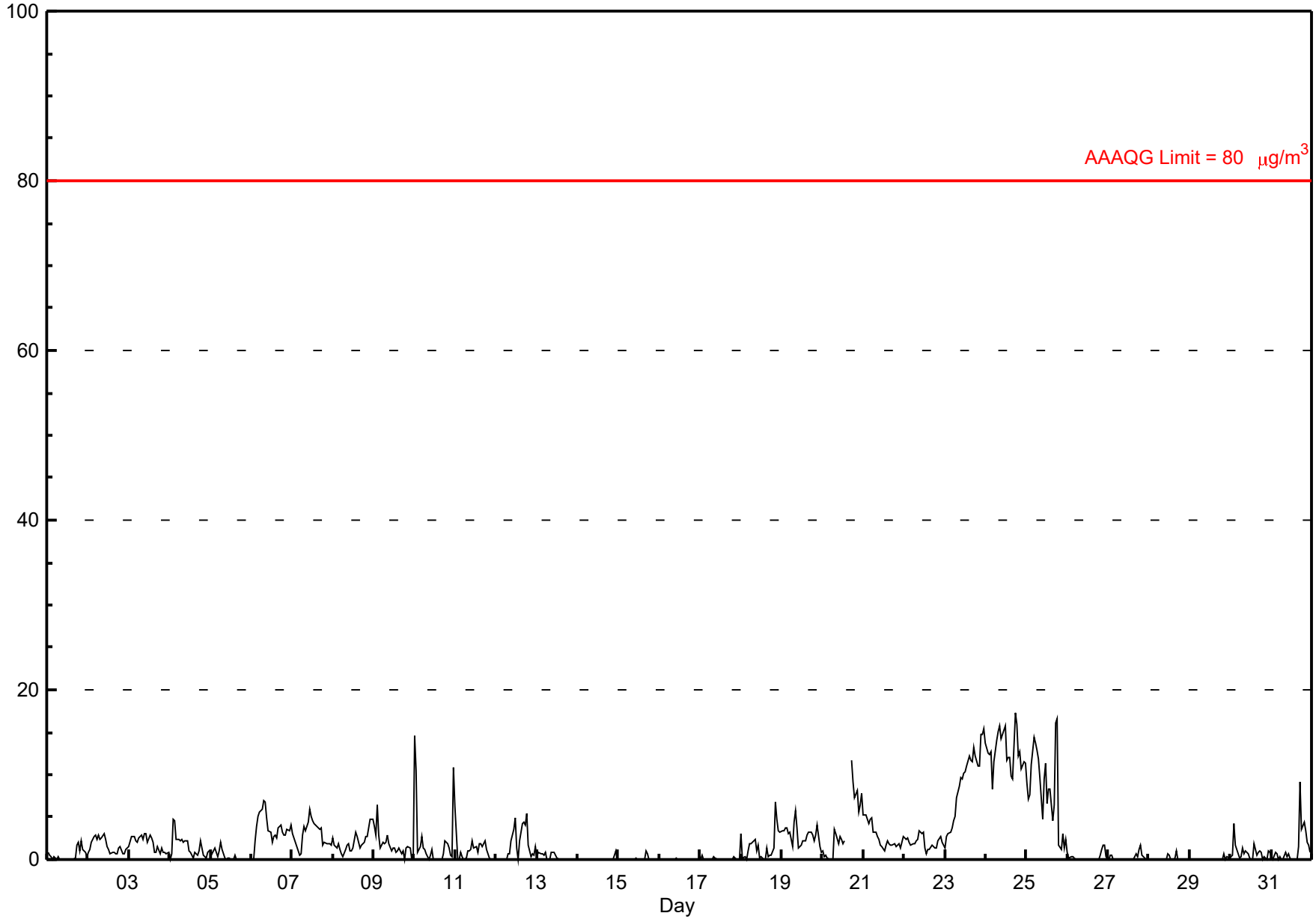
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Maximums

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

Portable Rycroft - January 2017

Maximum Value: 25.8 $\mu g/m^3$ on Jan 24 18:00

Maximum Daily Average: 15.7 $\mu g/m^3$ on Jan 24

Minimum Value: 0 $\mu g/m^3$ on Jan 5 23:00

Maximum Diurnal Average: 5.2 $\mu g/m^3$ at hour 18

Monthly Average: 4.08 $\mu g/m^3$

Minimum Daily Average: 0.7 $\mu g/m^3$ on Jan 29

Minimum Diurnal Average: 3.4 $\mu g/m^3$ at hour 14

Percentiles: P_1 = 0.0 P_{10} = 0.6 Q_1 = 1.6 Median = 3.1 Q_3 = 4.9 P_{90} = 9.1 P_{99} = 17.5

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	0
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-Jan	3	2	2	2	3	1	2	2	2	2	3	2	2	1	1	2	3	5	5	3	4	3	3	3	2.5	5.1
2-Jan	3	3	5	5	5	4	5	5	4	6	5	4	3	2	3	3	2	2	4	4	3	3	4	5	3.9	5.7
3-Jan	4	5	5	5	5	4	5	5	4	5	5	4	6	5	5	3	3	3	3	4	2	2	2	2	4.0	5.5
4-Jan	1	3	6	6	4	4	4	3	4	4	4	2	3	2	2	2	2	3	3	3	2	1	2	3	3.1	6.2
5-Jan	2	2	2	2	2	3	3	3	2	1	1	1	2	2	2	1	2	1	1	1	0	0	0	1	1.5	3.4
6-Jan	1	1	5	7	7	7	7	9	9	7	6	5	4	5	5	4	6	6	6	5	5	5	6	6	5.6	9.2
7-Jan	5	5	4	4	2	3	5	6	6	7	9	7	7	7	7	6	6	6	3	4	4	4	4	4	5.1	9.0
8-Jan	5	4	4	4	3	3	3	4	4	4	3	3	4	6	5	4	4	4	5	5	5	6	7	9	4.4	8.8
9-Jan	6	6	9	8	4	4	4	5	4	4	3	4	4	3	4	4	3	3	3	4	5	4	1	3	4.3	8.7
10-Jan	22	19	4	4	4	3	3	3	3	3	5	2	2	2	2	2	3	4	6	5	3	3	11	17	5.6	22.2
11-Jan	13	1	3	3	5	1	4	3	4	3	5	3	4	3	4	4	4	4	3	3	2	2	1	2	3.5	12.7
12-Jan	1	2	3	2	3	2	2	3	3	4	6	7	8	3	5	7	7	6	8	5	3	3	2	3	4.0	7.7
13-Jan	2	3	2	2	3	3	1	1	3	2	3	2	2	1	1	1	2	2	1	0	0	2	1	1	1.7	3.3
14-Jan	2	2	2	1	0	1	1	1	3	1	2	1	0	0	0	1	1	1	1	0	1	2	2	3	1.2	3.3
15-Jan	2	1	1	1	1	0	1	0	1	2	1	1	1	1	2	1	3	2	1	0	0	2	1	2	1.2	2.6
16-Jan	0	1	0	2	0	3	0	0	0	2	2	1	1	1	0	1	1	0	0	0	0	1	2	1	0.7	2.7
17-Jan	1	2	1	1	0	0	0	0	2	2	1	1	0	0	1	1	1	2	0	3	3	1	3	3	1.3	3.1
18-Jan	6	2	5	1	6	4	4	4	4	3	7	2	3	0	2	6	4	2	3	8	13	8	8	5	4.5	13.4
19-Jan	6	5	7	7	6	5	4	6	8	7	3	3	4	4	4	7	5	4	4	3	5	6	3	2	4.9	8.3
20-Jan	2	3	2	2	1	2	1	6	4	5	6	4	4	4	M	M	M	14	11	9	10	8	10	10	5.6	13.8
21-Jan	7	7	7	6	6	7	5	5	4	4	3	4	4	3	4	3	4	4	3	3	4	4	3	5	4.5	7.4
22-Jan	4	5	5	4	4	4	3	4	5	6	5	5	3	2	3	3	3	4	3	3	4	4	4	3	3.9	5.7
23-Jan	4	5	5	5	6	6	7	9	11	12	11	12	12	12	14	13	14	15	14	13	13	16	16	17	10.9	17.3
24-Jan	16	15	15	15	10	16	17	17	18	17	17	18	14	16	14	13	13	26	22	15	14	13	14	13	15.7	25.8
25-Jan	12	9	11	16	16	15	15	14	13	8	12	13	9	13	11	7	11	20	21	8	4	6	3	6	11.4	21.0
26-Jan	4	4	4	2	2	1	0	0	2	1	0	0	1	1	1	1	2	0	2	4	3	3	3	2	1.7	4.2
27-Jan	1	2	2	1	0	0	0	1	1	1	0	0	0	0	1	1	2	1	3	3	2	2	0	0	1.1	3.5
28-Jan	1	0	1	0	1	1	0	0	1	2	2	3	3	2	4	4	4	1	0	1	1	1	1	2	1.5	4.4
29-Jan	1	0	1	1	2	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	5	1	1	2	0.7	5.2
30-Jan	2	2	11	5	3	3	3	3	3	6	2	3	0	2	7	2	2	3	4	2	2	2	3	3	3.2	11.2
31-Jan	1	2	3	2	1	2	1	1	3	2	3	2	1	2	2	2	5	14	11	10	5	4	4	2	3.5	14.1
	4.5	3.9	4.3	4.1	3.7	3.6	3.6	4.0	4.3	4.2	4.4	3.9	3.5	3.4	3.8	3.7	4.0	5.2	5.0	4.3	4.1	3.9	4.0	4.5	Diurnal Average	
	22.2	19.0	14.9	16.3	16.2	16.1	16.7	17.2	17.8	16.8	16.8	18.2	14.4	15.6	14.4	13.1	13.8	25.8	22.2	15.1	14.0	15.8	16.2	17.3	Diurnal Maximum	

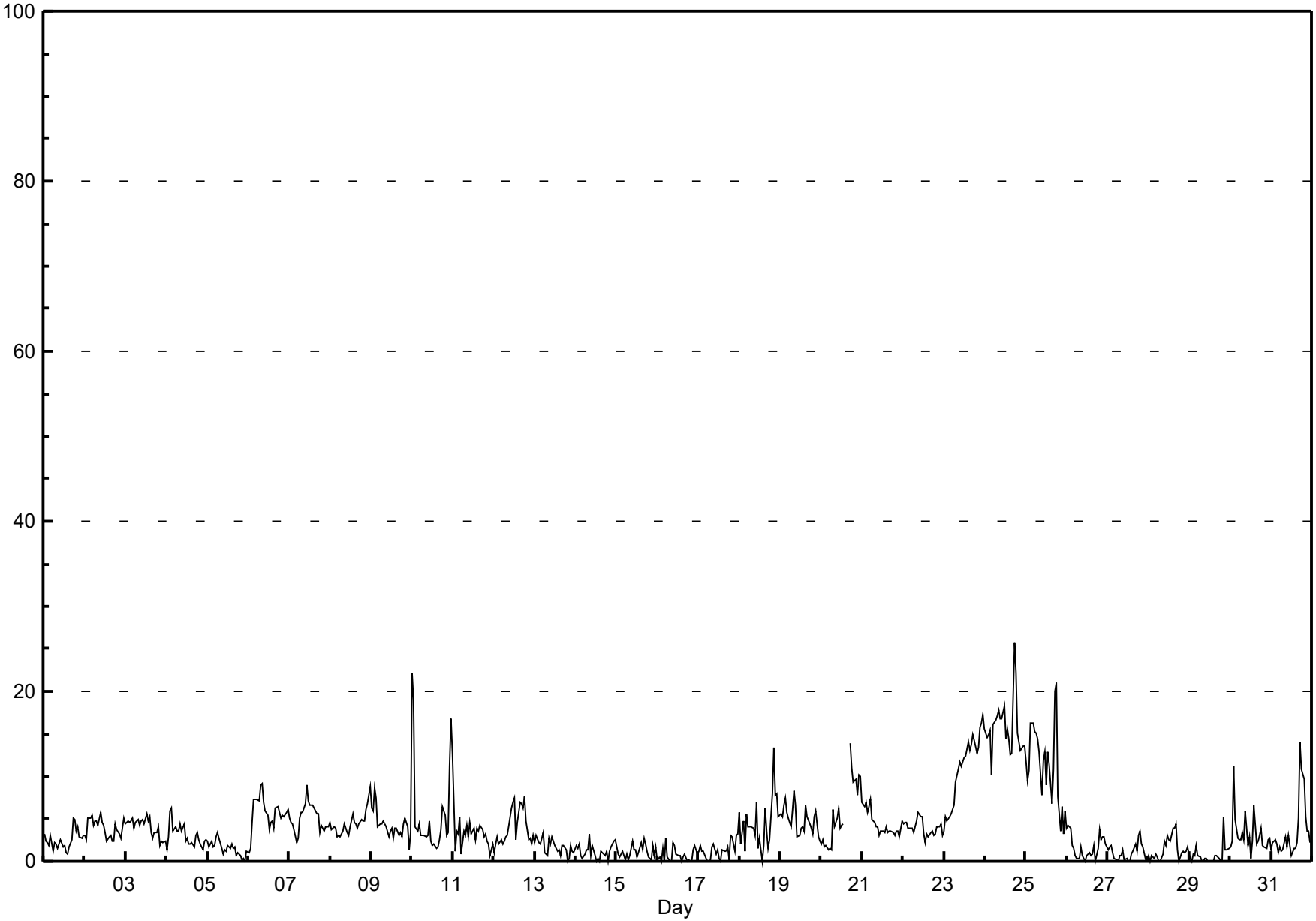
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

Portable Rycroft - January 2017

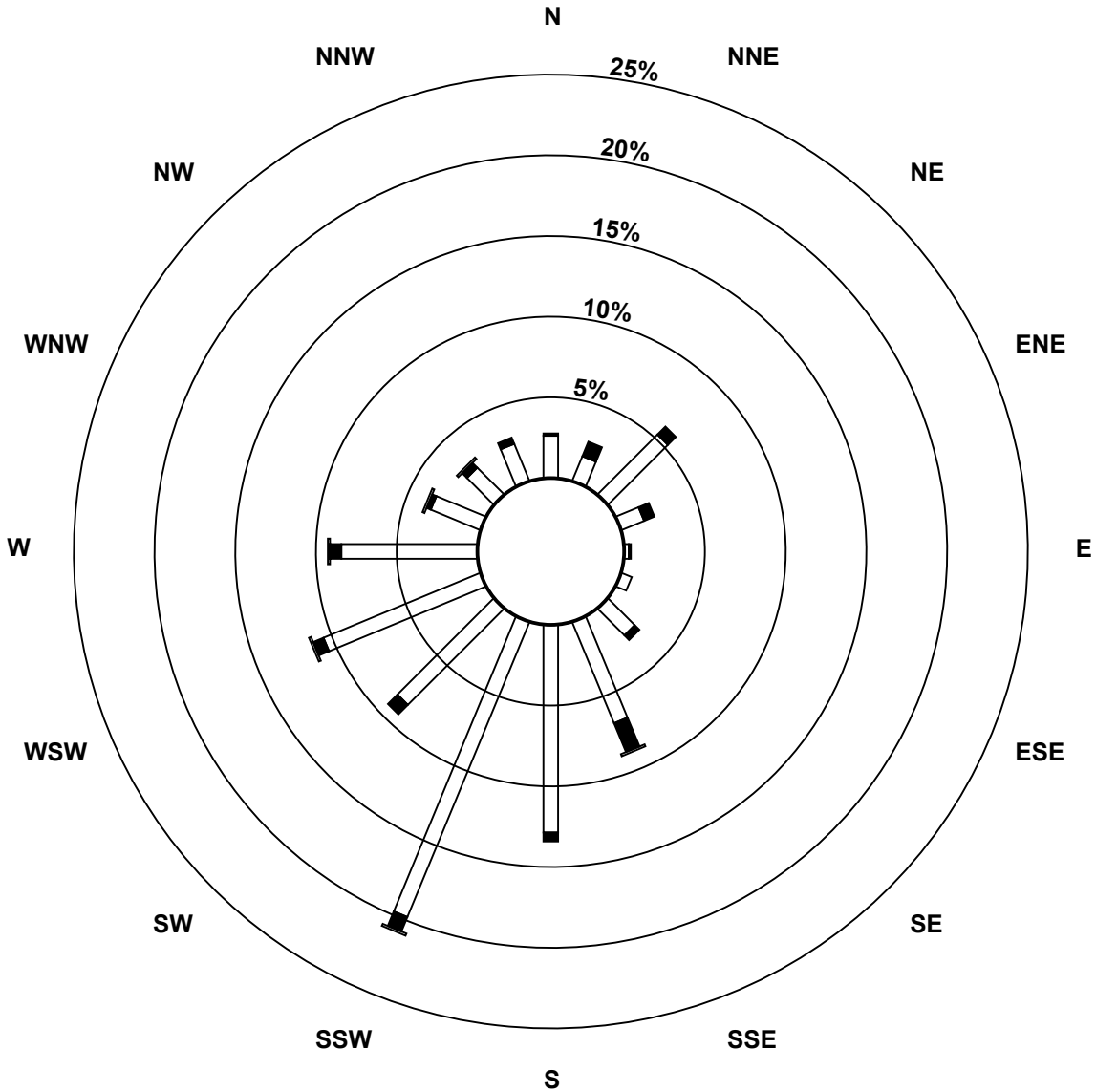


Peace Airshed Zone Association

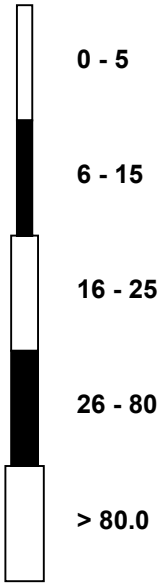
Pollutant Rose

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

Portable Rycroft - January 2017



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



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - °C

Portable Rycroft - January 2017

Maximum Value: 11.2 °C on Jan 18 14:00

Maximum Daily Average: 5.3 °C on Jan 28

Minimum Value: -26 °C on Jan 10 10:00

Minimum Daily Average: -21.8 °C on Jan 8

Maximum Diurnal Average: -4.9 °C at hour 14

Minimum Diurnal Average: -8.4 °C at hour 10

Monthly Average: -7.12 °C

Percentiles: P_1 = -25.3 P_{10} = -18.7 Q_1 = -14.3 Median = -7.1 Q_3 = 0.9 P_{90} = 4.2 P_{99} = 8.3

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

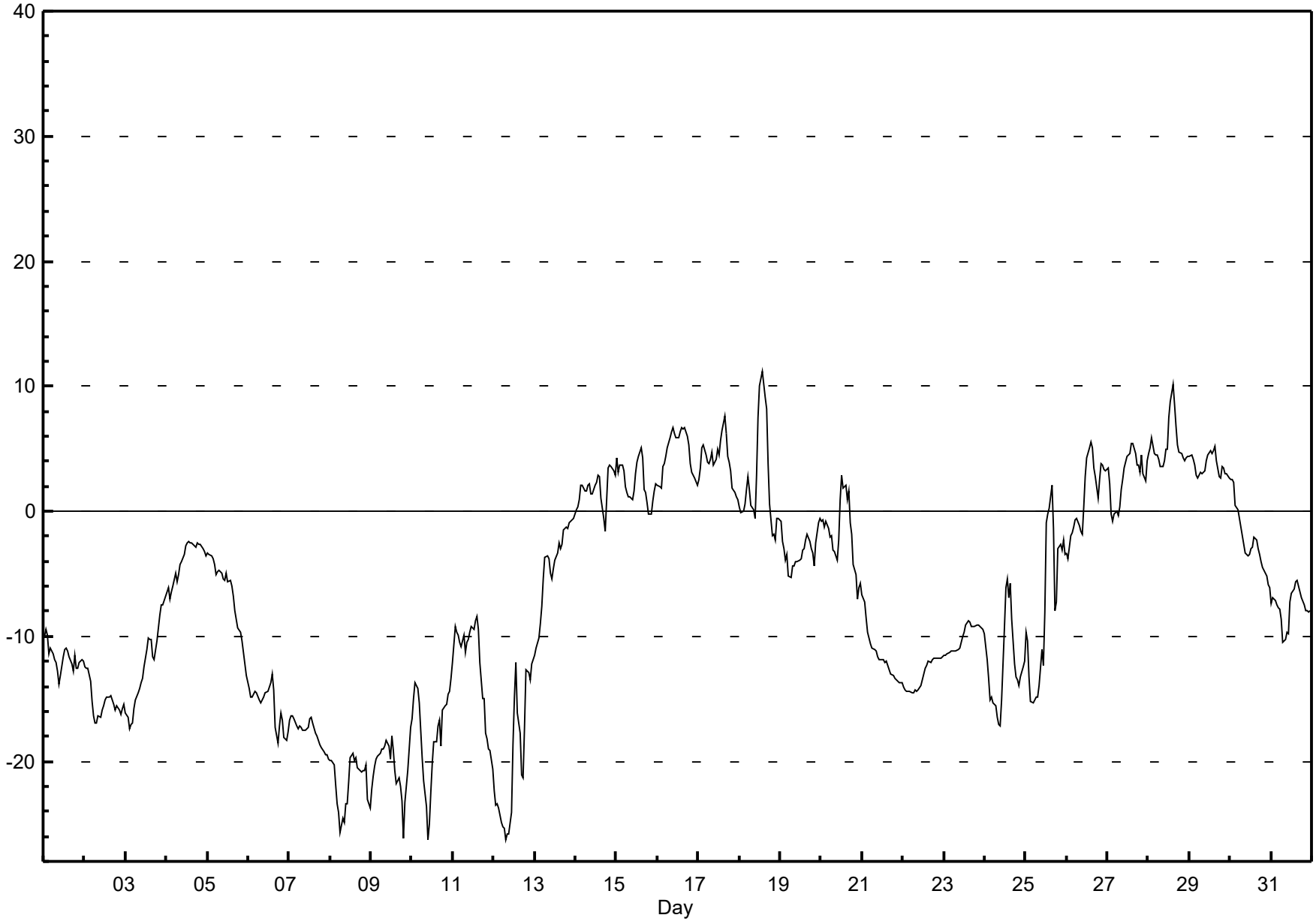
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Jan	-10	-9	-10	-11	-11	-11	-12	-12	-13	-14	-13	-12	-11	-11	-11	-12	-12	-13	-12	-13	-13	-12	-12	-12	-11.7	-9.5
2-Jan	-12	-13	-13	-14	-15	-16	-17	-17	-16	-16	-16	-16	-15	-15	-15	-15	-15	-15	-16	-16	-16	-16	-16	-15	-15.2	-12.4
3-Jan	-16	-17	-17	-17	-17	-16	-15	-15	-14	-14	-13	-12	-11	-10	-10	-10	-12	-12	-10	-9	-8	-7	-8	-7	-12.4	-6.8
4-Jan	-6	-6	-7	-6	-6	-5	-6	-5	-4	-4	-3	-3	-3	-2	-3	-3	-3	-3	-3	-3	-3	-3	-3	-4	-4.0	-2.5
5-Jan	-3	-3	-4	-4	-4	-5	-5	-5	-5	-5	-6	-5	-6	-6	-6	-7	-8	-9	-9	-10	-10	-11	-12	-13	-6.7	-3.4
6-Jan	-14	-15	-15	-15	-14	-15	-15	-15	-15	-15	-14	-14	-14	-14	-13	-14	-17	-19	-17	-16	-17	-18	-18	-18	-15.5	-13.0
7-Jan	-17	-16	-16	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-17	-18	-18	-18	-19	-19	-19	-19	-20	-20	-17.7	-16.4
8-Jan	-20	-20	-20	-22	-23	-24	-26	-25	-25	-23	-23	-22	-20	-19	-20	-20	-20	-21	-21	-21	-21	-20	-23	-24	-21.8	-19.4
9-Jan	-22	-21	-20	-20	-20	-19	-19	-19	-19	-18	-19	-20	-18	-19	-21	-22	-21	-22	-23	-26	-23	-21	-19	-17	-20.4	-17.3
10-Jan	-17	-15	-14	-14	-15	-17	-20	-22	-24	-26	-25	-22	-20	-18	-18	-17	-17	-19	-16	-15	-15	-15	-14	-13	-17.9	-13.4
11-Jan	-12	-9	-10	-10	-11	-11	-10	-11	-10	-10	-10	-9	-9	-9	-8	-9	-12	-15	-15	-18	-18	-19	-19	-21	-12.3	-8.4
12-Jan	-22	-24	-23	-24	-25	-25	-25	-26	-26	-26	-24	-19	-15	-12	-16	-18	-21	-21	-17	-13	-13	-13	-12	-12	-19.7	-11.9
13-Jan	-12	-11	-10	-9	-8	-5	-4	-4	-4	-5	-5	-5	-4	-3	-2	-3	-3	-1	-1	-1	-1	-1	-1	-1	-4.3	-0.6
14-Jan	0	0	1	2	2	2	2	2	2	1	1	2	2	3	3	1	-1	-2	1	3	4	4	3	3	1.8	3.6
15-Jan	4	3	4	4	3	2	2	1	1	1	2	3	4	4	5	4	2	2	1	0	0	1	2	2	2.3	5.1
16-Jan	2	2	2	4	4	4	5	6	6	7	6	6	6	6	7	7	7	6	5	4	3	3	3	2	4.7	6.7
17-Jan	2	3	5	5	4	4	4	4	5	4	4	5	5	6	7	8	6	4	4	3	2	2	1	1	4.1	7.6
18-Jan	0	0	0	1	2	3	2	0	0	-1	3	8	10	11	10	9	8	4	1	-2	-2	-2	-1	-1	2.6	11.2
19-Jan	-1	-2	-3	-4	-3	-5	-5	-4	-4	-4	-4	-4	-4	-3	-3	-2	-2	-2	-3	-3	-4	-3	-1	-1	-3.2	-0.6
20-Jan	-1	-1	-1	-1	-1	-2	-2	-3	-3	-4	-2	1	3	2	2	1	2	-1	-2	-4	-5	-7	-6	-6	-1.7	2.9
21-Jan	-7	-7	-9	-10	-10	-11	-11	-11	-11	-12	-12	-12	-12	-12	-12	-12	-13	-13	-13	-13	-14	-14	-14	-14	-11.5	-6.7
22-Jan	-14	-14	-14	-14	-14	-15	-15	-14	-14	-14	-14	-13	-13	-13	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-13.1	-11.6
23-Jan	-12	-11	-11	-11	-11	-11	-11	-11	-11	-11	-10	-10	-10	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-10.1	-8.7
24-Jan	-10	-12	-13	-15	-15	-15	-16	-17	-17	-17	-15	-9	-6	-5	-7	-6	-9	-12	-13	-13	-14	-13	-12	-12	-12.3	-5.4
25-Jan	-10	-10	-13	-15	-15	-15	-15	-15	-14	-11	-12	-8	-1	0	0	2	-1	-8	-7	-3	-3	-3	-2	-3	-7.7	2.1
26-Jan	-3	-4	-2	-2	-1	-1	-1	-1	-2	-2	0	3	4	5	6	5	3	3	1	3	4	4	3	3	1.2	5.6
27-Jan	3	2	0	-1	0	0	0	0	2	3	3	4	5	5	5	5	5	4	4	3	4	3	2	4	2.7	5.4
28-Jan	5	5	6	5	4	5	4	4	4	4	5	5	7	9	10	9	7	5	5	5	4	4	4	4	5.3	10.2
29-Jan	4	5	4	4	3	3	3	3	3	3	4	5	5	5	5	5	4	3	3	4	3	3	3	3	3.7	5.2
30-Jan	3	3	2	0	0	-1	-1	-2	-3	-3	-4	-3	-3	-3	-2	-2	-3	-3	-4	-5	-5	-5	-6	-6	-2.3	2.6
31-Jan	-7	-7	-7	-8	-8	-8	-9	-10	-10	-10	-10	-7	-7	-6	-6	-6	-6	-6	-7	-7	-8	-8	-8	-8	-7.6	-5.5
	-7.2	-7.3	-7.4	-7.7	-7.9	-8.0	-8.2	-8.4	-8.4	-8.4	-7.9	-6.5	-5.4	-4.9	-4.9	-5.2	-6.2	-7.3	-7.3	-7.3	-7.3	-7.4	-7.3	-7.3	Diurnal Average	
	4.6	5.1	5.9	5.3	4.5	4.5	5.0	5.9	6.3	6.7	6.2	7.5	10.0	11.2	10.2	9.1	8.2	6.0	5.3	4.6	4.5	4.0	4.3	4.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable Rycroft - January 2017



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - January 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	20	24	23	20	26	21	22	21	17	12	14	13	16	17	13	13	10	9	6	5	4	3	3	2	13.3	25.9
Dir	253	259	259	259	264	261	257	259	255	242	236	242	251	246	240	238	244	249	243	162	181	226	186	164	249.7	263.6
2 Spd	1	4	6	8	10	9	6	5	0	2	2	2	3	3	3	2	2	3	2	7	3	5	7	5	1.8	10.2
Dir	163	68	45	42	37	40	47	59	57	215	232	194	205	217	208	148	138	119	130	149	191	152	155	171	100.6	37.2
3 Spd	6	5	6	6	5	5	4	3	0	1	1	2	3	5	4	6	5	6	5	5	6	5	5	5	3.9	6.1
Dir	175	168	161	178	171	194	179	175	66	306	93	157	201	247	207	185	186	194	168	173	155	164	182	187	180.1	185.3
4 Spd	5	5	4	4	5	9	5	8	11	12	9	10	12	13	11	13	11	10	15	13	8	7	3	3	8.0	14.8
Dir	199	190	184	176	206	253	239	252	259	254	240	247	248	254	264	269	261	253	251	250	237	235	216	209	245.2	250.7
5 Spd	2	4	7	5	5	6	8	7	8	8	10	9	7	8	9	15	19	12	10	15	16	16	17	17	7.7	18.7
Dir	259	287	322	331	321	303	330	329	320	320	340	348	344	6	13	13	34	50	50	50	49	50	50	52	15.6	33.5
6 Spd	16	17	14	18	19	18	20	20	20	19	20	18	16	17	9	10	10	8	6	7	6	7	6	8	10.5	20.3
Dir	53	55	54	52	56	53	53	51	52	51	51	44	43	36	2	344	339	293	334	4	265	262	276	269	36.9	50.8
7 Spd	10	4	12	16	13	9	13	11	8	9	8	10	9	9	8	7	6	3	4	6	6	7	3	6	6.5	16.5
Dir	303	310	317	333	316	292	302	313	307	323	318	334	352	351	345	324	332	19	70	59	75	55	47	60	334.3	332.7
8 Spd	3	5	2	5	4	5	5	5	5	2	1	2	4	5	5	4	3	4	5	5	5	8	8	7	3.0	8.0
Dir	117	148	121	152	161	156	168	189	173	149	133	175	277	282	246	273	249	208	186	195	196	263	265	235	205.4	264.5
9 Spd	7	5	6	12	11	7	10	11	8	9	9	14	14	10	9	11	17	13	10	7	9	9	10	15	8.8	17.0
Dir	222	207	210	259	274	255	272	278	261	265	259	264	266	263	266	244	236	235	227	212	212	190	195	188	242.1	235.7
10 Spd	14	18	36	39	31	28	21	9	3	6	6	6	6	6	5	6	7	7	17	12	9	8	11	10	8.8	38.6
Dir	191	221	253	279	306	320	321	337	260	210	193	203	192	183	188	183	217	212	246	230	197	190	176	185	250.0	279.0
11 Spd	10	29	24	18	21	21	20	20	22	28	30	30	26	30	31	26	19	8	5	3	2	6	5	1	16.8	31.1
Dir	216	249	252	272	257	248	250	266	252	245	247	251	253	261	263	262	267	293	297	228	133	140	137	127	253.8	263.0
12 Spd	2	1	1	4	2	1	1	4	3	1	2	4	5	3	5	4	5	9	8	6	7	6	8	8	2.2	8.9
Dir	337	53	50	70	43	179	286	7	52	67	11	145	165	201	284	274	236	173	177	169	194	189	173	177	181.2	173.3
13 Spd	7	10	10	14	18	18	23	19	15	11	15	14	15	15	12	12	11	13	15	17	21	20	19	14	14.5	22.6
Dir	194	195	195	194	185	221	226	223	219	204	188	199	193	185	182	189	200	202	210	206	202	203	201	202	202.3	225.6
14 Spd	13	11	10	15	17	16	15	17	17	13	9	9	8	7	6	4	3	3	9	14	18	17	10	1	10.6	18.1
Dir	207	211	214	217	218	214	213	218	207	204	210	204	201	192	190	286	171	176	206	207	207	209	214	94	209.5	207.5
15 Spd	18	14	18	21	18	14	14	13	12	13	13	13	13	11	12	11	8	11	10	8	11	11	12	14	12.7	20.9
Dir	229	208	213	220	217	211	208	208	205	202	202	203	211	208	214	212	194	192	200	203	185	174	176	187	205.1	219.7
16 Spd	11	11	8	9	5	4	6	13	15	24	11	9	7	9	11	13	13	13	10	6	7	5	5	2	9.1	24.0
Dir	186	185	182	177	189	212	185	173	158	159	212	201	204	160	174	188	161	161	163	187	180	193	169	165	177.0	159.3
17 Spd	6	7	13	13	9	9	10	9	7	5	8	10	8	8	7	6	5	3	5	1	2	3	4	5	5.7	13.2
Dir	168	191	217	221	212	201	197	217	205	195	181	183	195	174	150	148	141	148	118	289	269	16	157	184	190.0	217.1
18 Spd	3	2	2	0	6	5	4	3	4	2	7	5	3	7	9	2	4	3	3	6	2	4	5	0	2.5	9.1
Dir	182	34	142	1	151	181	238	228	132	341	142	157	162	140	147	54	115	144	144	262	193	210	245	191	167.2	147.0
19 Spd	6	4	4	7	9	10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	10.3
Dir	152	171	76	45	56	46	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	45.8
20 Spd	8	7	8	10	7	10	7	7	7	2	5	3	5	2	4	7	3	4	7	1	1	6	18	20	5.1	20.1
Dir	196	165	148	164	183	157	180	163	158	196	144	127	157	326	27	65	133	152	153	268	24	327	165	172	161.1	172.0
21 Spd	19	21	25	28	27	24	21	19	18	19	18	17	18	18	16	16	14	13	10	10	8	7	7	7	13.2	28.0
Dir	176	174	207	219	230	225	226	228	228	235	265	270	268	270	277	276	282	279	286	284	292	299	326	45	243.9	218.9
22 Spd	9	7	7	7	9	12	11	5	6	14	28	31	29	22	11	7	7	5	6	7	6	6	6	7	2.4	31.2
Dir	48	38	52	41	32	27	23	18	23	173	178	179	176	177	174	166	15	3	356	13	9	339	340	350	126.3	178.5

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Portable Rycroft - January 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	6	6	5	4	4	5	3	3	2	4	1	4	4	4	2	3	5	4	4	4	3	4	4	5	2.5	6.0
Dir	11	6	2	354	350	5	10	39	14	33	27	20	25	28	69	65	65	67	79	125	149	158	140	145	42.7	11.0
24 Spd	4	4	5	8	6	1	1	1	1	1	2	7	5	3	4	2	2	2	1	2	1	2	5	5	1.7	7.6
Dir	165	235	239	259	274	233	193	206	204	210	235	272	296	349	318	350	321	321	251	274	335	72	152	154	256.2	259.3
25 Spd	9	7	6	3	4	4	4	1	4	5	3	3	1	1	2	4	4	1	4	7	5	6	7	7	3.3	8.7
Dir	158	158	155	231	256	257	247	207	167	160	267	178	200	304	156	147	152	292	151	186	200	199	194	215	188.3	157.6
26 Spd	6	8	11	9	11	12	10	10	9	10	11	16	17	13	13	12	12	11	8	14	20	22	19	19	12.2	22.3
Dir	203	198	191	177	190	183	197	197	200	176	179	192	195	197	186	193	200	191	203	216	224	227	226	227	201.7	226.8
27 Spd	24	15	8	9	11	8	8	6	6	8	9	13	16	14	13	10	9	7	9	8	10	5	3	9	9.6	23.7
Dir	235	229	204	191	191	181	192	181	209	204	208	210	210	213	212	208	215	211	225	224	225	205	156	214	211.0	235.4
28 Spd	15	14	16	11	9	7	6	5	5	9	11	8	9	9	19	16	16	15	17	14	13	14	16	17	11.6	18.9
Dir	236	229	224	199	209	211	212	198	178	170	163	178	185	187	223	204	198	199	199	210	206	209	206	206	204.6	223.3
29 Spd	13	15	14	12	8	8	8	9	11	12	13	13	12	10	9	13	2	4	6	12	15	18	22	24	11.3	23.6
Dir	205	207	209	209	202	208	204	201	199	198	201	202	206	208	229	238	294	198	199	227	239	234	236	238	217.0	237.7
30 Spd	27	26	37	31	21	24	22	21	24	29	28	30	25	27	31	36	35	34	37	35	31	29	23	21	28.0	37.3
Dir	239	239	254	246	241	248	253	246	241	251	261	246	241	243	253	263	264	264	264	261	267	265	271	275	254.7	254.4
31 Spd	9	13	15	17	13	9	14	11	11	11	14	17	17	16	16	15	16	18	19	16	13	13	11	11	13.4	18.8
Dir	283	296	293	277	300	295	270	264	260	250	253	258	264	271	260	264	254	249	249	246	245	251	244	241	263.0	249.2
Spd	6.2	6.4	7.1	6.6	5.7	5.3	6.0	5.5	5.4	6.2	6.4	7.2	7.1	6.3	6.4	6.0	4.9	5.0	5.5	5.6	5.8	5.5	5.7	5.5	Diurnal Average	
Dir	213.3	218.8	231.2	239.2	243.3	241.2	242.2	237.6	226.1	219.2	220.8	223.9	225.9	230.4	235.4	241.6	238.9	225.8	225.0	224.6	219.7	221.4	207.4	206.0		
Spd	26.9	28.7	37.3	38.6	31.2	28.5	22.6	21.5	24.4	29.0	30.4	31.2	29.3	29.6	31.1	36.0	35.5	33.9	37.2	34.5	31.1	28.8	22.6	23.6	Diurnal Maximum	
Dir	239.1	249.2	254.4	279.0	306.0	320.0	225.6	258.6	240.8	251.2	247.4	178.5	176.4	260.8	263.0	262.8	264.5	264.2	264.2	261.2	267.1	265.0	270.9	237.7		

Maximum Speed Value: 39 km/h on Jan 10 04:00
Maximum Daily Speed Average: 28.0 km/h on Jan 30
Maximum Diurnal Speed Average: 7.2 km/h at hour 12

Minimum Speed Value: 0 km/h on Jan 18 04:00
Minimum Daily Speed Average: 1.7 km/h on Jan 24
Minimum Diurnal Speed Average: 4.9 km/h at hour 17

Monthly Average Velocity: 5.87 km/h 227.44 deg

Speed Percentiles: P_1 = 0.8 P_{10} = 2.7 Q_1 = 4.9 Median = 8.5 Q_3 = 13.8 P_{90} = 19.6 P_{99} = 33.8

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

Hours in Service:	744
Hours of Data:	726
Hours of Missing Data:	18
Percent Operational Time:	97.6

N - Not Valid

Frequency Distribution

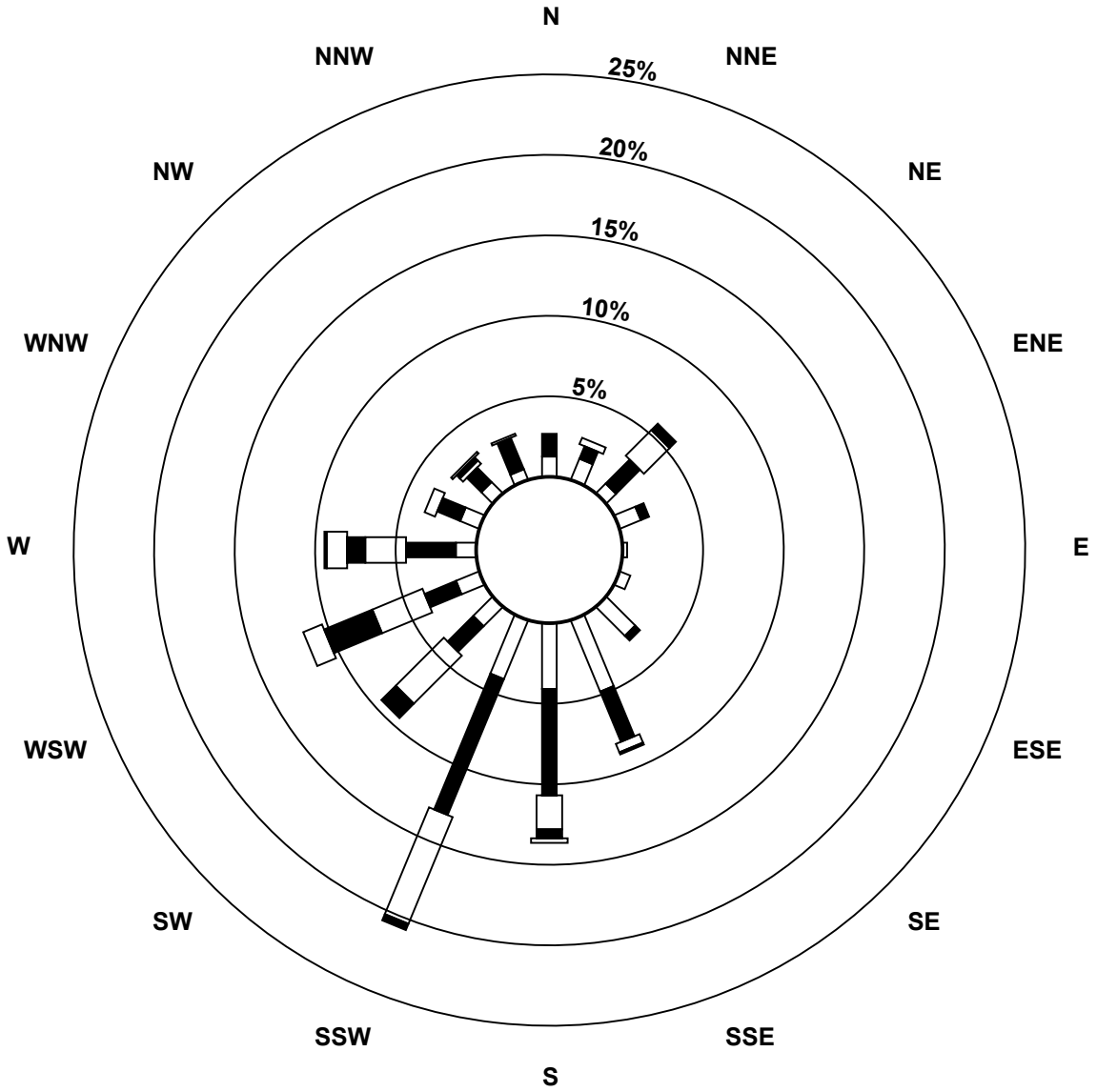
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	15	23	1	0	0	0	39
NorthEast	20	22	17	5	0	0	64
East	9	1	0	0	0	0	10
SouthEast	35	23	0	0	0	0	58
South	48	95	48	6	3	0	200
SouthWest	31	53	73	26	3	0	186
West	19	32	35	21	15	1	123
NorthWest	13	23	7	1	2	0	46
Total	190	272	181	59	23	1	726

Peace Airshed Zone Association

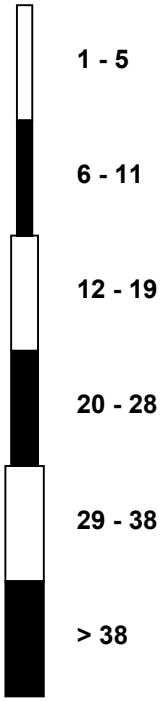
Wind Rose

Wind Speed (WS) (km/h)

Portable Rycroft - January 2017



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Rycroft - January 2017

Peace Airshed Zone Association

Maximum Speed: 39 km/h on Jan 10 04:00

Maximum Daily Speed Average: 28.6 km/h on Jan 30

Minimum Speed: 1 km/h on Jan 24 09:00

Minimum Daily Speed Average: 3.4 km/h on Jan 24

Maximum Diurnal Speed Average: 12.4 km/h at hour 4

Minimum Diurnal Speed Average: 8.9 km/h at hour 18

Monthly Average Speed: 10.43 km/h

Percentiles: $P_1 = 1.5$ $P_{10} = 3.5$ $Q_1 = 5.2$ Median = 8.7 $Q_3 = 13.8$ $P_{90} = 19.7$ $P_{99} = 33.8$

Hours in Service: 744

Hours of Data: 726

Hours of Missing Data: 18

Percent Operational Time: 97.6

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-Jan	20	24	23	20	26	21	22	21	17	13	14	14	16	17	13	13	10	9	7	5	4	3	3	3	14.0	25.9
2-Jan	1	4	6	8	10	9	6	5	1	3	2	2	3	3	3	3	2	3	2	7	3	5	7	5	4.4	10.3
3-Jan	6	5	6	6	5	5	4	3	2	2	1	3	3	5	4	6	5	6	5	5	6	5	5	5	4.5	6.2
4-Jan	5	5	4	4	5	9	5	8	11	12	10	10	12	13	11	13	11	10	15	13	8	7	3	3	8.6	14.8
5-Jan	2	5	7	5	5	6	8	7	8	8	10	9	7	8	9	15	19	12	10	15	16	16	17	17	10.0	18.9
6-Jan	16	17	14	18	19	18	20	20	20	19	20	18	16	17	9	10	10	8	7	7	6	7	6	8	13.8	20.3
7-Jan	11	5	12	17	13	9	13	11	8	9	8	10	9	9	9	7	6	4	4	6	6	7	4	6	8.4	16.6
8-Jan	4	5	2	5	4	5	5	5	5	2	2	2	4	5	5	5	3	4	5	5	5	9	8	8	4.7	8.5
9-Jan	7	5	6	12	11	8	10	11	8	9	9	14	14	10	9	11	17	13	10	7	9	9	10	15	10.1	17.0
10-Jan	14	19	37	39	33	29	21	9	4	6	6	6	6	7	5	6	7	7	17	12	9	8	11	10	13.7	38.7
11-Jan	10	29	24	18	21	21	20	20	22	28	30	30	26	30	31	26	19	10	6	4	3	6	5	2	18.3	31.1
12-Jan	3	3	1	4	2	3	3	4	4	1	2	4	6	7	6	5	6	9	8	7	7	6	8	8	4.9	8.9
13-Jan	7	10	10	14	18	18	23	19	15	11	15	14	15	15	12	12	11	14	15	17	21	20	19	14	14.9	22.6
14-Jan	13	11	10	15	17	16	15	17	17	13	9	9	8	8	6	4	3	4	9	15	18	17	10	5	11.2	18.2
15-Jan	18	14	18	21	18	14	14	13	12	13	13	13	13	11	12	11	8	11	10	8	11	11	12	14	13.1	20.9
16-Jan	12	12	8	9	5	4	7	13	15	24	11	9	7	9	12	13	13	13	10	7	7	5	5	3	9.7	24.1
17-Jan	7	7	13	13	9	9	10	9	7	5	8	10	8	8	8	6	5	4	5	4	3	4	4	5	7.1	13.5
18-Jan	5	3	4	1	6	6	5	4	4	4	7	5	4	8	9	4	4	3	4	7	3	5	6	4	4.7	9.1
19-Jan	6	5	5	8	9	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	10.6
20-Jan	9	7	9	10	8	10	7	8	7	4	5	7	5	3	5	8	4	4	7	6	2	6	20	20	7.6	20.2
21-Jan	19	21	25	28	28	25	21	19	18	19	19	17	18	18	16	16	15	13	10	10	8	7	8	8	16.9	28.1
22-Jan	9	7	7	7	9	12	11	5	6	15	28	31	29	22	11	10	7	5	7	7	6	6	7	7	11.3	31.2
23-Jan	6	6	5	4	4	5	3	3	2	4	2	4	4	4	3	4	5	4	4	4	3	4	4	5	3.9	6.1
24-Jan	4	4	5	8	6	2	1	1	1	1	3	7	5	3	4	2	2	2	1	3	2	3	5	5	3.4	7.7
25-Jan	9	7	6	3	4	4	4	2	4	5	3	4	2	2	3	4	4	2	6	7	5	6	7	7	4.6	8.7
26-Jan	6	8	11	9	11	12	10	10	9	10	11	16	17	13	13	12	13	11	8	14	20	22	19	19	12.8	22.3
27-Jan	24	15	8	9	11	8	8	6	6	8	9	13	16	14	13	11	9	8	9	8	10	6	4	9	10.1	23.8
28-Jan	15	14	16	11	9	7	6	5	5	9	11	8	9	9	19	16	16	15	17	14	13	14	16	17	12.2	19.1
29-Jan	13	15	14	12	8	9	8	9	11	12	13	13	12	10	9	13	4	5	6	12	16	18	22	24	12.0	23.6
30-Jan	27	26	38	31	22	24	22	21	24	30	28	30	25	27	31	36	36	34	37	35	31	29	23	21	28.6	37.7
31-Jan	9	13	15	17	14	9	14	11	11	11	14	17	18	16	16	15	16	18	19	16	13	13	11	11	14.1	18.9
	10.2	10.6	11.9	12.4	11.9	11.2	10.8	10.0	9.5	10.4	10.8	11.6	11.2	11.1	10.6	10.5	9.7	8.9	9.4	9.5	9.3	9.5	9.7	9.6	Diurnal Average	
	26.9	28.9	37.7	38.7	32.7	28.5	22.6	21.5	24.5	29.8	30.4	31.2	29.4	29.6	31.5	36.1	35.5	34.0	37.3	34.6	31.2	28.9	22.7	23.6	Diurnal Maximum	

N - Not Valid

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 - January 2017

Maximum Value: 93.7 deg on Jan 3 09:00

Minimum Value: 1.4 deg on Jan 22 12:00

Percentiles: P_1 = 2.0 P_{10} = 3.4 Q_1 = 4.8 Median = 7.9 Q_3 = 15.1 P_{90} = 35.8 P_{99} = 84.3

Hours in Service:	744
Hours of Data:	726
Hours of Missing Data:	18
Hours of Calibration:	0
Percent Operational Time:	97.6

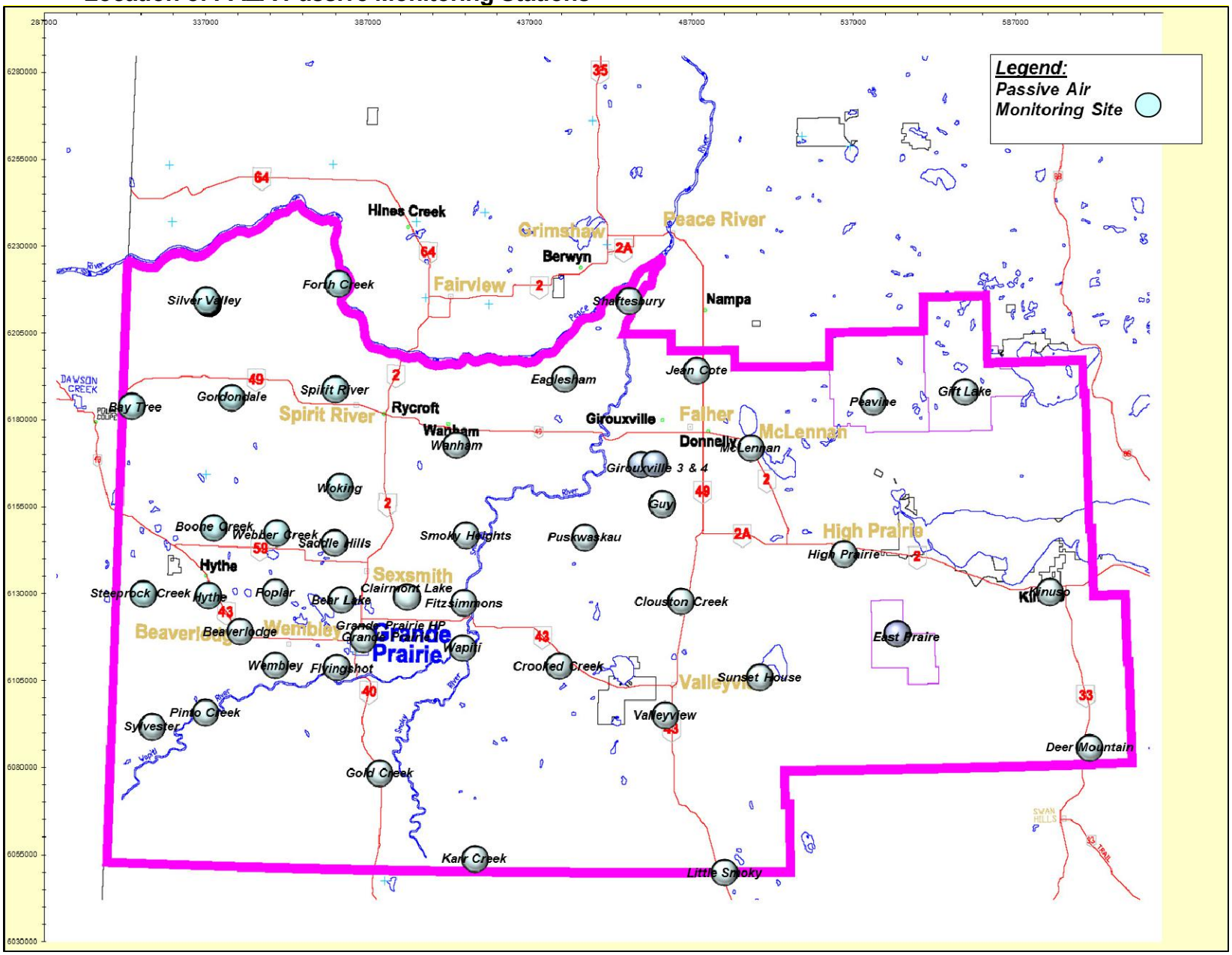
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	5	7	4	3	3	4	2	2	3	14	3	5	5	5	7	5	5	3	12	23	10	19	24	30	30.1
2-Jan	70	12	20	6	8	8	14	8	89	26	46	21	15	28	14	40	36	50	61	6	33	20	7	14	89.5
3-Jan	7	11	8	10	12	9	14	15	94	39	34	52	22	11	19	5	9	7	8	8	7	14	10	6	93.7
4-Jan	5	8	8	10	22	6	8	10	4	6	5	5	8	2	4	6	4	4	3	3	8	6	5	4	21.7
5-Jan	27	14	3	6	22	11	3	4	2	5	12	9	15	5	4	4	8	9	16	7	5	4	4	5	27.3
6-Jan	6	7	6	4	6	5	5	4	5	5	4	7	6	5	9	3	6	13	29	18	12	4	12	10	28.8
7-Jan	23	30	9	7	7	4	5	3	9	4	5	6	6	9	12	4	9	39	10	11	11	9	28	14	39.1
8-Jan	32	13	11	16	5	6	8	9	7	56	50	23	11	12	15	14	31	10	10	10	6	28	5	21	55.9
9-Jan	7	7	16	8	6	12	8	7	8	6	4	3	5	4	8	7	3	6	11	7	10	6	5	4	16.2
10-Jan	5	19	8	4	17	3	4	8	43	17	7	5	6	9	12	13	9	10	7	11	11	10	5	5	42.6
11-Jan	18	7	5	11	7	10	5	8	5	2	2	4	3	3	3	3	4	41	36	50	75	8	11	58	75.2
12-Jan	30	86	61	17	34	84	79	40	33	83	48	34	36	63	14	44	33	6	9	18	14	7	5	6	85.8
13-Jan	9	4	6	4	5	14	3	4	5	5	7	3	4	5	6	4	6	8	3	4	5	4	4	4	14.2
14-Jan	3	4	4	5	4	3	2	4	6	4	7	5	3	8	6	16	22	56	4	5	3	4	31	85	84.6
15-Jan	14	5	3	4	4	2	2	3	4	4	3	6	2	4	7	9	12	14	6	5	5	5	6	7	14.3
16-Jan	15	8	16	15	10	42	49	8	13	6	18	5	16	13	12	11	6	11	12	12	6	10	25	56	56.2
17-Jan	17	16	12	5	3	5	4	5	8	12	6	7	6	4	20	12	11	42	14	76	58	45	30	13	76.4
18-Jan	62	56	62	91	54	32	32	39	23	74	8	15	29	13	22	58	11	34	59	29	52	25	35	87	90.7
19-Jan	9	69	22	21	15	14	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	69.0
20-Jan	32	9	13	7	7	11	16	17	15	54	13	51	28	67	43	10	36	19	12	85	73	30	56	6	84.9
21-Jan	5	7	9	6	13	6	4	4	7	6	16	5	5	7	6	4	7	6	8	7	7	7	12	29	28.7
22-Jan	9	26	10	11	6	5	5	6	6	44	2	1	4	4	5	52	7	12	8	8	7	8	9	10	52.2
23-Jan	11	9	13	13	14	11	17	13	29	14	23	12	9	24	32	19	8	7	17	11	22	9	9	7	31.9
24-Jan	10	27	6	9	11	47	10	15	18	22	28	6	24	21	15	14	21	30	34	21	74	40	15	40	73.8
25-Jan	7	13	8	32	18	12	25	52	34	20	28	38	76	61	61	23	30	70	57	7	9	6	11	7	75.7
26-Jan	8	7	5	5	7	4	5	3	3	11	5	3	4	5	5	8	8	6	5	8	3	4	5	3	10.6
27-Jan	4	14	8	5	4	11	11	19	8	7	4	2	2	2	3	6	8	11	15	10	5	42	44	6	44.0
28-Jan	6	6	6	8	3	5	4	9	13	8	6	7	8	13	9	6	5	4	4	3	3	3	4	3	13.3
29-Jan	4	4	6	4	11	26	10	4	4	5	4	4	3	6	14	11	54	18	13	10	18	3	3	3	54.0
30-Jan	2	2	9	5	7	3	6	5	4	16	14	3	3	4	10	2	3	5	3	2	3	3	3	4	16.5
31-Jan	9	7	11	4	15	15	4	3	3	4	6	3	4	5	4	5	5	4	4	3	4	8	3	3	15.5
	70.5	85.8	62.5	90.7	53.8	84.4	78.7	51.9	93.7	83.0	49.8	51.8	75.7	66.8	60.7	57.8	54.0	69.6	60.9	84.9	75.2	45.0	55.6	87.2	

N - Not Valid

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for January 2017

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
28a	Clairmont Lake	**0.3**	**37.6**	**2.6**		
28b	Clairmont Lake	**0.3**	**39.2**	**2.6**		
32a	Gold Creek	**0.1**	**22.9**	**4.9**		
32b	Gold Creek	**0.1**	**22.6**	**4.8**		
33a	Wapiti	**0.2**	**32.7**	**2.4**		
33b	Wapiti	**N/S**	**36.1**	**2.0**		
50a	East Prairie	**0.2**	**32.3**	**1.0**		
50b	East Prairie	**0.1**	**29.8**	**0.8**		
64a	Girouxville 4				**0.3**	
64b	Girouxville 4				**0.3**	
1	Silver Valley	**0.4**	**36.9**	**1.3**		08-27-081-11 W6M
2	Bay Tree	**0.2**	**34.9**	**1.8**		13-16-078-13 W6M
3	Fourth Creek	**0.3**	**45.9**	**1.3**		04-13-082-07 W6M
4	Gordondale	**0.3**	**N/S**	**2.6**		04-34-078-10 W6M
5	Boone Creek	**0.2**	**37.6**	**1.1**		16-36-074-11 W6M
7	Steeprock Creek	**0.1**	**22.8**	**4.9**		09-35-072-13 W6M
9	Spirit River	**0.2**	**35.4**	**1.3**		08-12-079-07 W6M
10	Woking	**0.6**	**43.4**	**1.1**		01-13-076-07 W6M
11	Webber Creek	**0.4**	**29.9**	**2.4**		09-36-074-09 W6M
12	Hythe	**0.4**	**36.4**	**1.5**		14-36-072-11 W6M
14	Sylvester	**0.1**	**32.2**	**0.5**		08-06-069-12 W6M
16	Beaverlodge	**0.3**	**38.3**	**3.3**		15-36-071-10 W6M
17	Poplar	**0.3**	**42.7**	**2.1**		13-06-073-08 W6M
18	Saddle Hills	**0.4**	**42.0**	**1.1**		04-25-074-07 W6M
19	Wanham	**0.3**	**43.2**	**1.3**		16-22-077-03 W6M
20	Shaftesbury	**0.2**	**39.8**	**1.6**		04-03-082-23 W5M
21	Eaglesham	**0.1**	**35.6**	**1.0**		16-21-079-25 W5M
23	Bear Lake	**0.1**	**36.9**	**2.4**		15-31-072-06 W6M
24	Wembley	**0.2**	**35.0**	**2.9**		12-31-070-08 W6M
25	Pinto Creek	**0.1**	**35.6**	**1.0**		04-24-069-11 W6M
26	Flyingshot	**0.2**	**35.0**	**3.4**		15-36-070-07 W6M
27	Grande Prairie I	**0.3**	**25.7**	**14.1**		08-15-071-06 W6M
28	Clairmont Lake	**0.3**	**38.4**	**2.6**		09-06-073-04 W6M

PAZA Passive Results for January 2017 (Continued)

29	Smoky Heights	**0.3**	**36.4**	**2.2**		04-06-075-02 W6M
30	Fitzsimmons	**0.3**	**29.1**	**2.0**		15-36-072-03 W6M
32	Gold Creek	**0.1**	**22.8**	**4.9**		06-33-067-05 W6M
33	Wapiti	**0.2**	**34.4**	**2.2**		02-25-071-03 W6M
34	Puskwaskau	**0.2**	**31.8**	**0.9**		15-35-074-25 W5M
35	Jean Cote	**0.2**	**41.3**	**1.0**		12-35-079-21 W5M
36	Guy	**0.1**	**37.3**	**0.6**		03-04-076-22 W5M
37	Crooked Creek	**0.2**	**31.6**	**1.7**		16-01-071-26 W5M
38	Karr Creek	**0.1**	**29.5**	**1.3**		10-16-065-02 W6M
39	Clouston Creek	**0.2**	**35.9**	**2.0**		12-01-073-22 W5M
40	McLennan	**0.4**	**34.1**	**0.9**		03-29-077-19 W5M
41	Valleyview	**0.1**	**35.4**	**1.9**		09-30-069-22 W5M
42	Sunset House	**0.3**	**40.0**	**1.8**		05-32-070-19 W5M
43	High Prairie	**0.1**	**34.9**	**1.9**		16-13-074-17 W5M
44	Peavine	**0.1**	**36.1**	**0.5**		03-05-079-15 W5M
45	Gift Lake	**0.1**	**31.2**	**0.7**	**0.1**	10-07-079-12 W5M
46	Little Smoky	**0.1**	**26.8**	**6.6**		12-01-065-21 W5M
47	Kinuso	**0.1**	**25.9**	**1.3**		12-10-073-10 W5M
65	Deer Mountain 2	**0.1**	**31.5**	**1.2**		15-22-068-09 W5M
49	Grande Prairie HP	**0.3**	**22.2**	**16.4**		17-26-071-06 W6M
50	East Prairie	**0.1**	**31.1**	**0.9**		13-02-072-15 W5M
63	Girouxville 3				**0.3**	14-02-077-23 W5M
64	Girouxville 4				**0.3**	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample

Passive Summary for January 2017

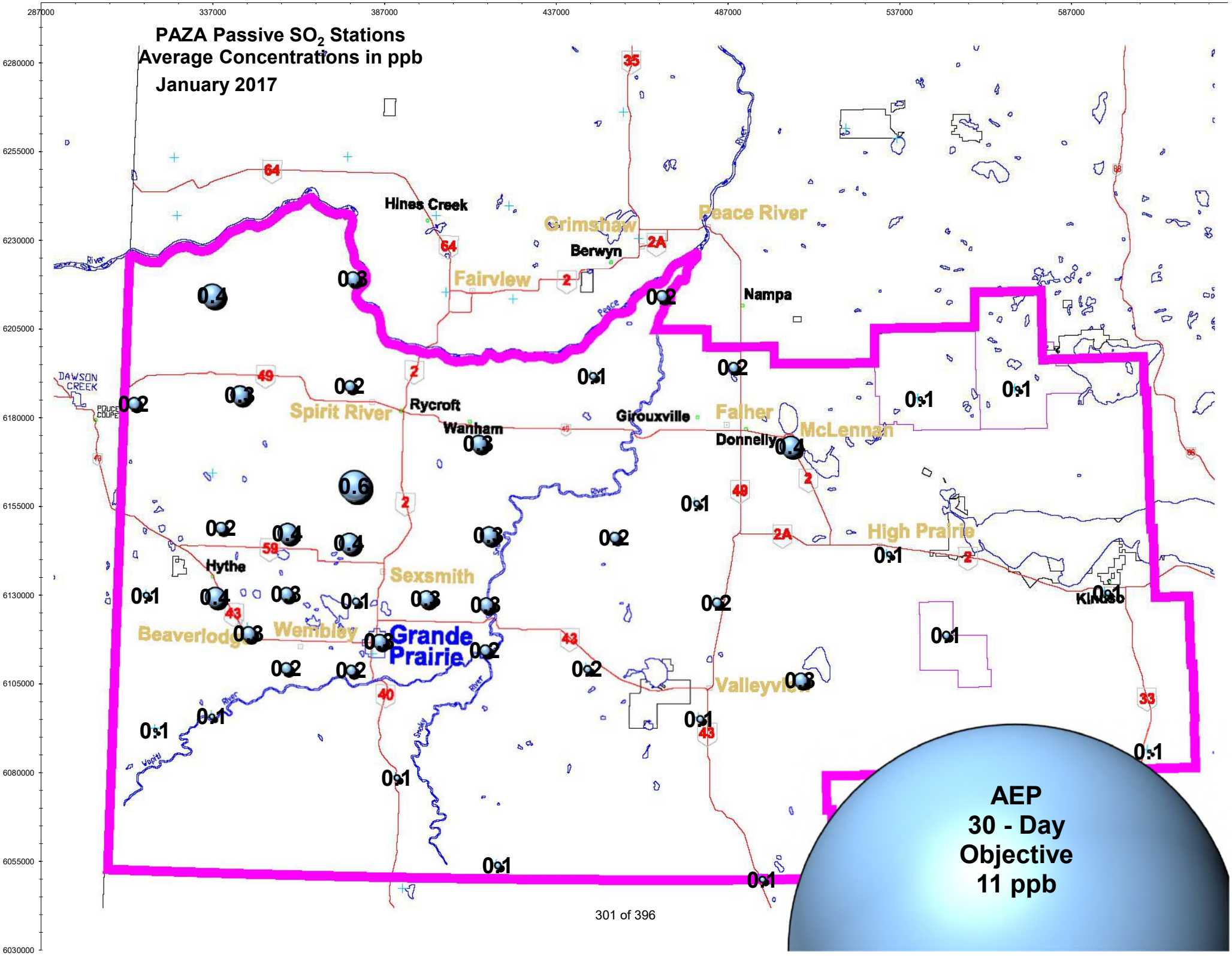
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for January 2017 (PAZA Zone)			
Mean	**0.2**	**34.5**	**2.5**	**0.2**
Standard Deviation	**0.1**	**5.7**	**3.1**	**0.1**
Minimum	**0.1**	**22.2**	**0.5**	**0.1**
Minimum At	**Sylvester (#14)**	**Grande Prairie HP**	**Sylvester (#14)**	**Gift Lake (#45)**
Maximum	**0.6**	**45.9**	**16.4**	**0.3**
Maximum At	**Woking (#10)**	**Fourth Creek (#3)**	**Grande Prairie HP**	**Girouxville 3 (#63)**

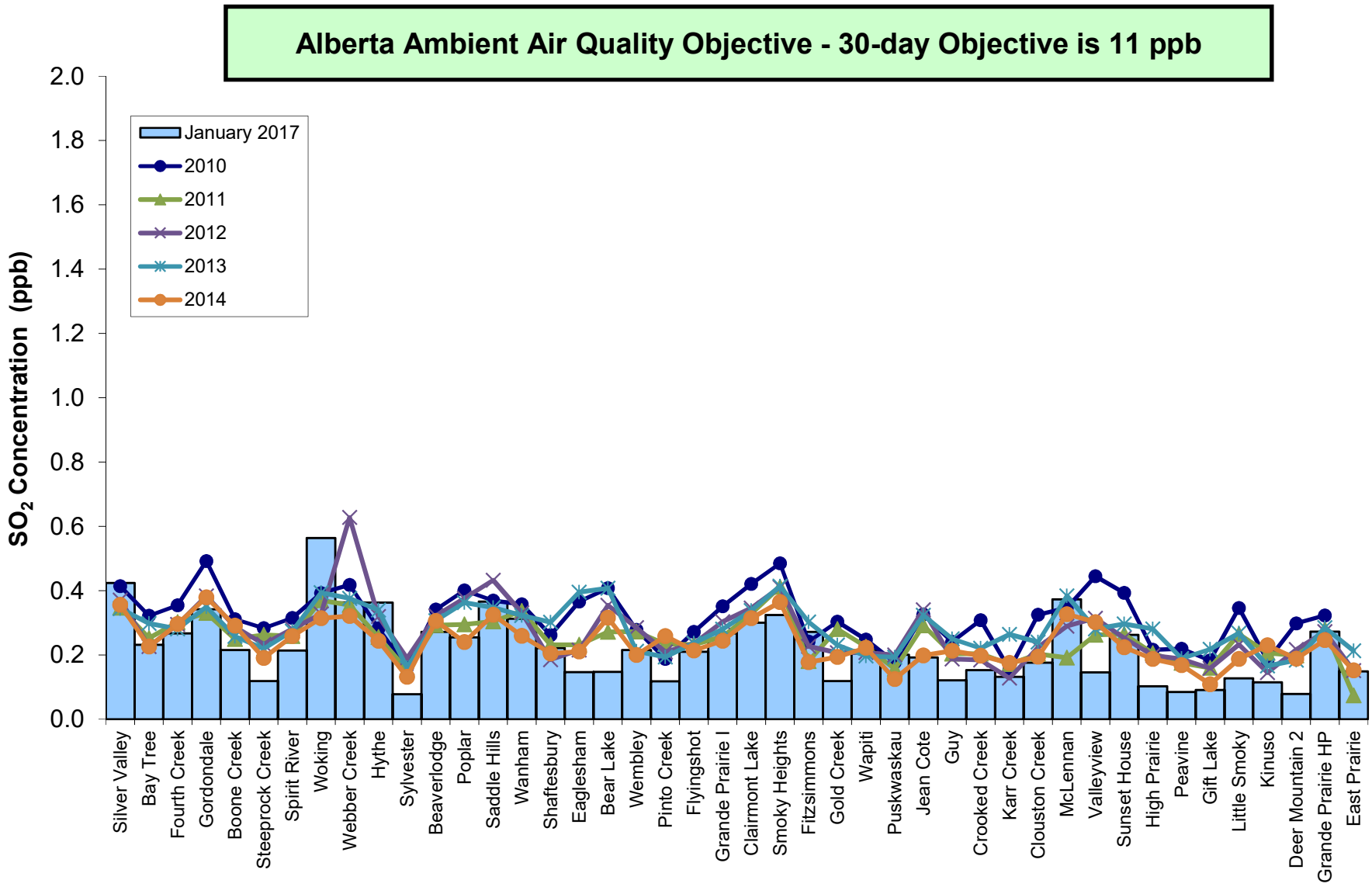
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

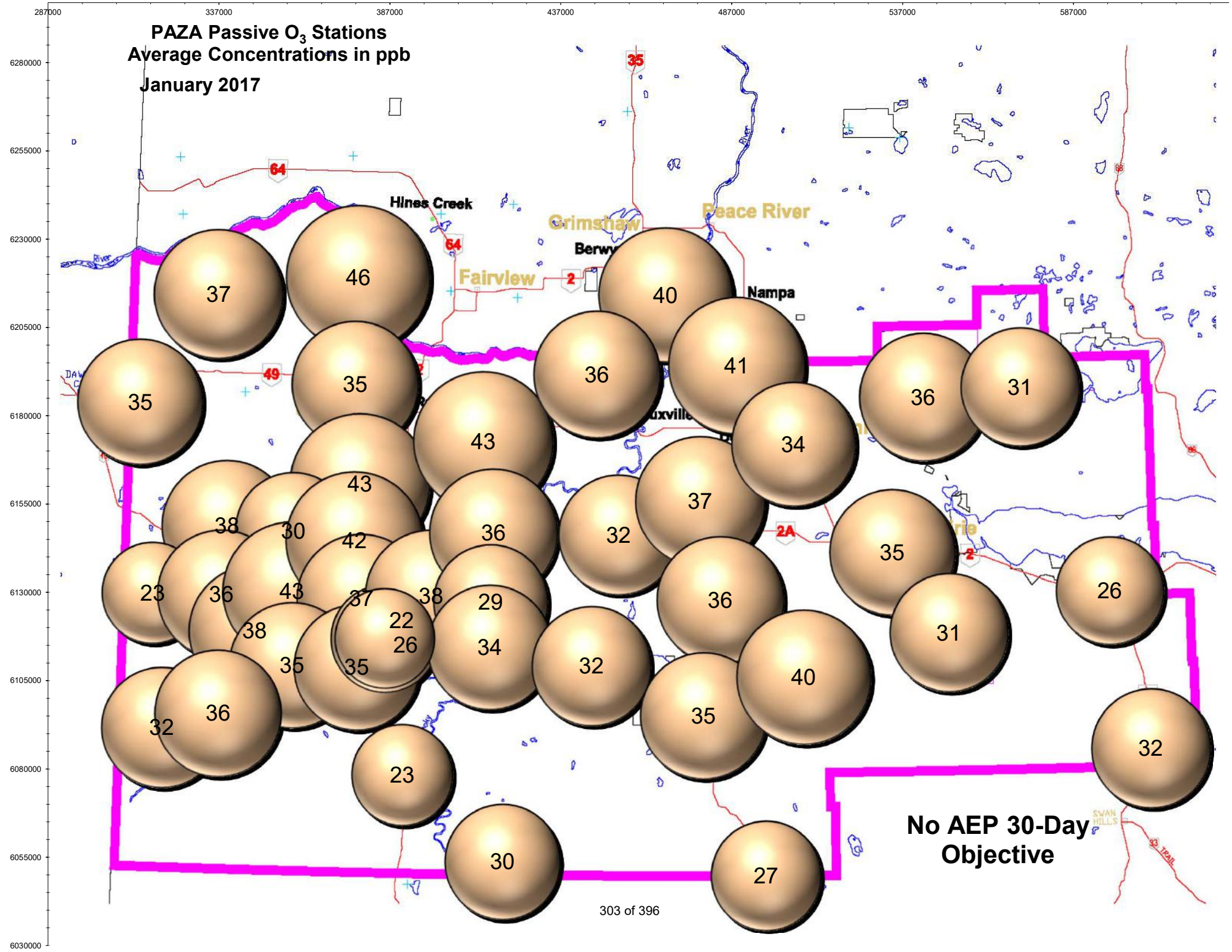
	SO_2	O_3	NO_2
PAZA Beaverlodge station	**0.2**	**31.3**	**4.7**
PAZA Beaverlodge passive	**0.3**	**38.3**	**3.3**

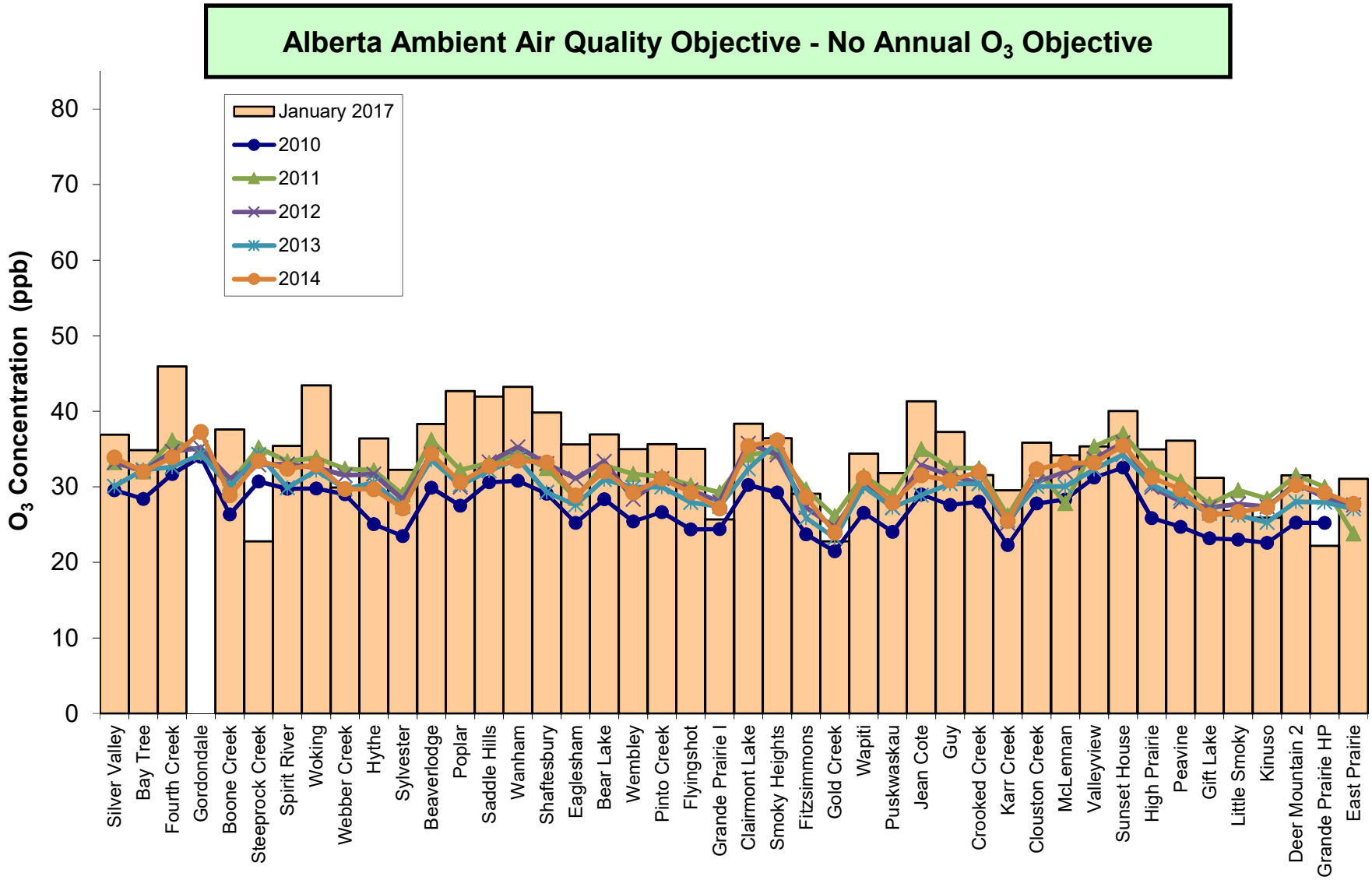
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

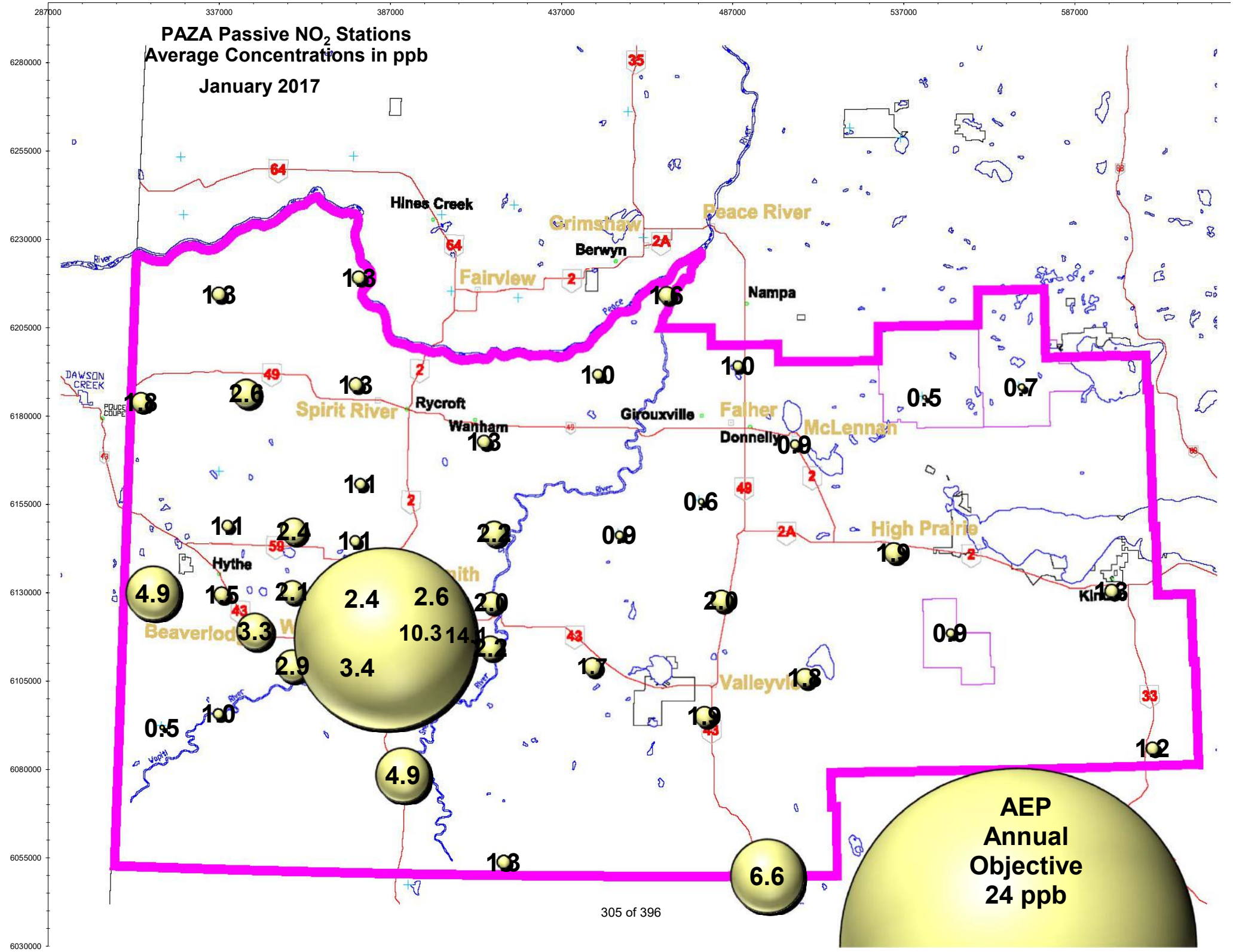
	SO_2	O_3	NO_2
PAZA Henry Pirker station	**0.2**	**20.3**	**15.5**
PAZA Grande Prairie passive	**0.3**	**22.2**	**16.4**

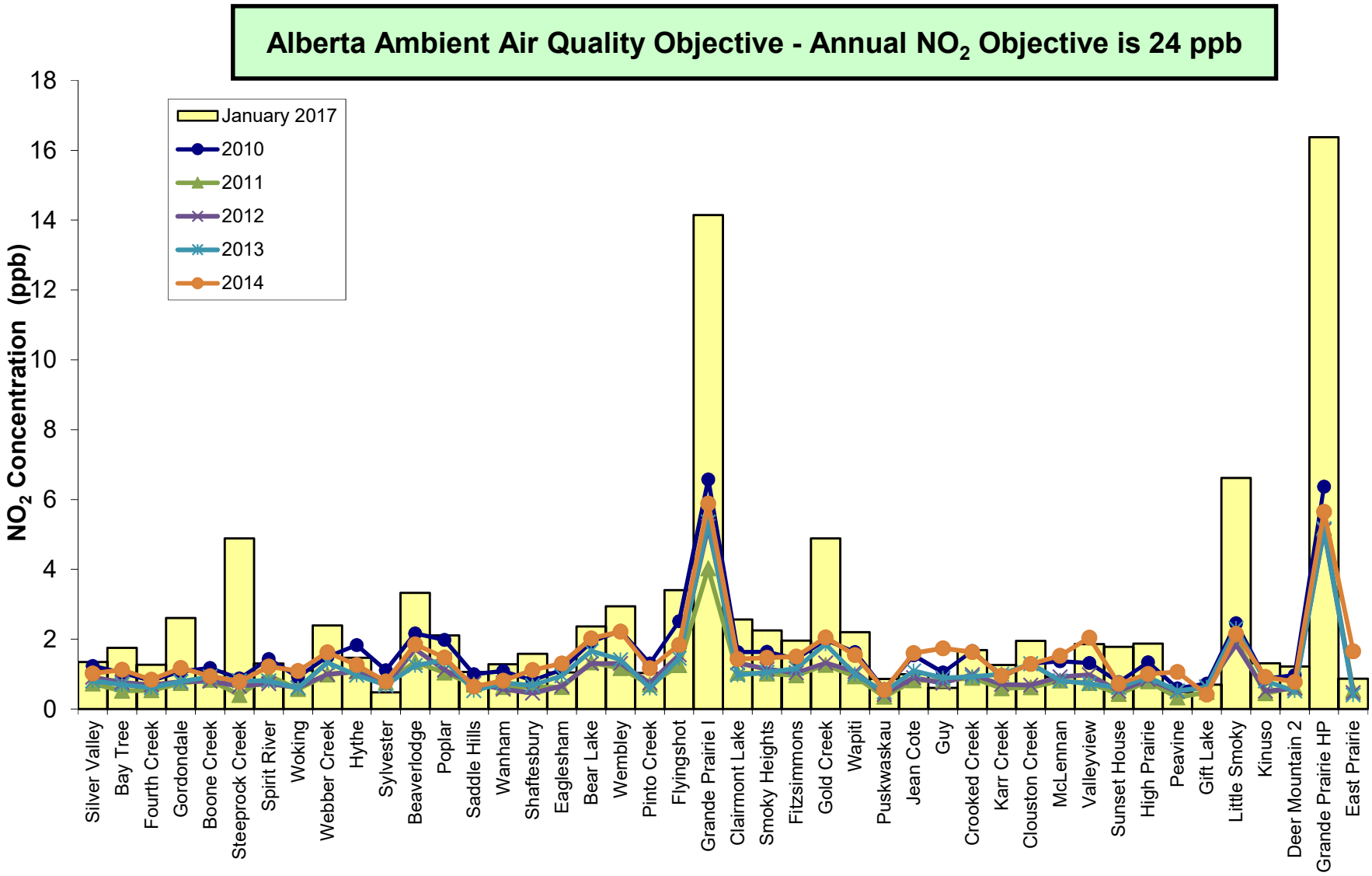

PAZA Passive SO_2 Stations
Average Concentrations in ppb
January 2017
Hines Creek
Grimshaw
Peace River
Berwyn
Fairview
Nampa
DAWSON CREEK
POUCE COUPE
Spirit River
Rycroft
Wanham
Girouxville
Falher
Donnelly
McLennan
High Prairie
Hythe
Sexsmith
Beaverlodge
Wembley
Grande Prairie
Valleyview
Kinuso
AEP
30 - Day
Objective
11 ppb

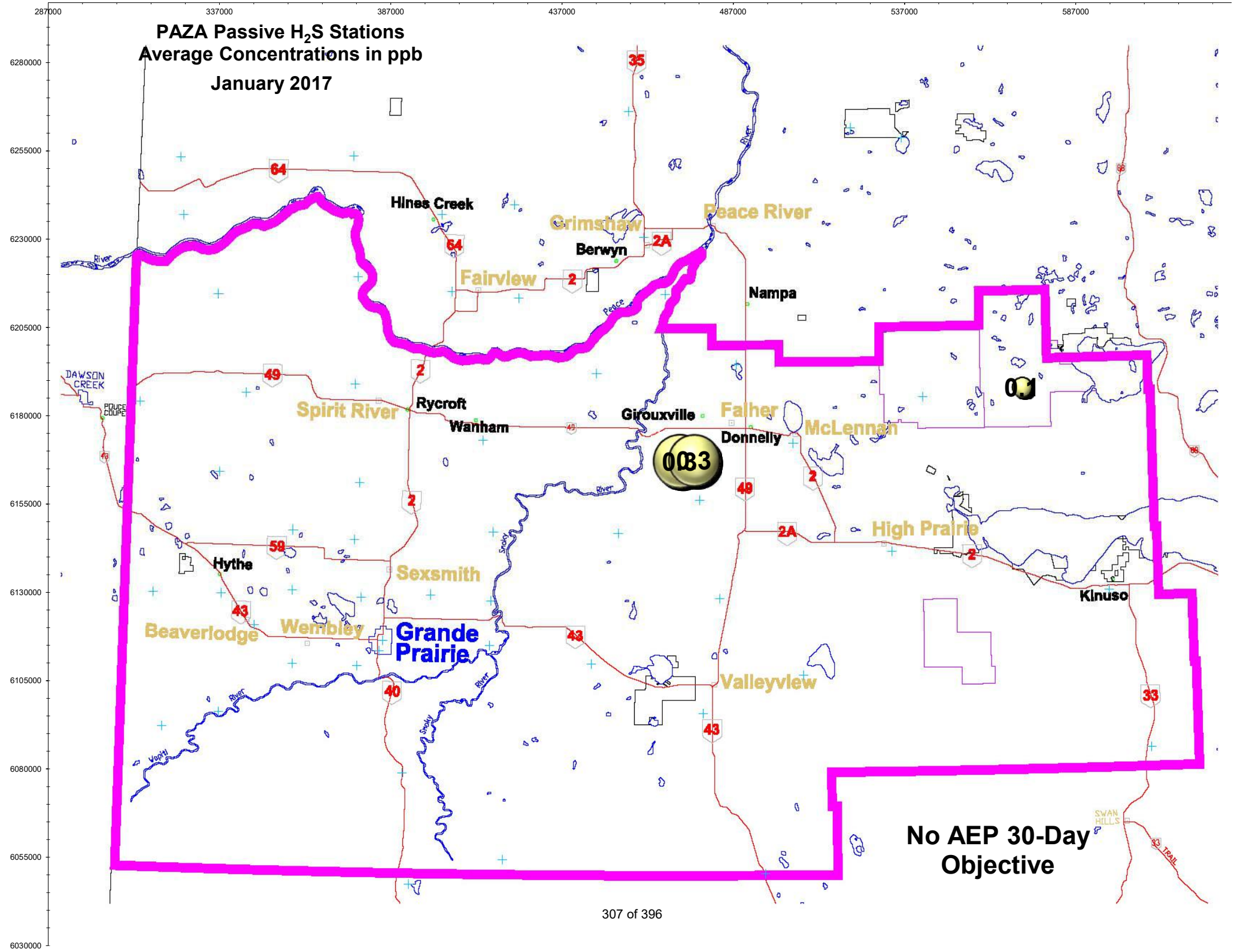

Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb
SO_2 Concentration (ppb)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
January 2017
2010
2011
2012
2013
2014
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Shaftesbury
Eaglesham
Bear Lake
Wembley
Pinto Creek
Flyingshot
Grande Prairie I
Clairmont Lake
Smoky Heights
Fitzsimmons
Gold Creek
Wapiti
Puskwaskau
Jean Cote
Guy
Crooked Creek
Karr Creek
Clouston Creek
McLennan
Valleyview
Sunset House
High Prairie
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain 2
Grande Prairie HP
East Prairie

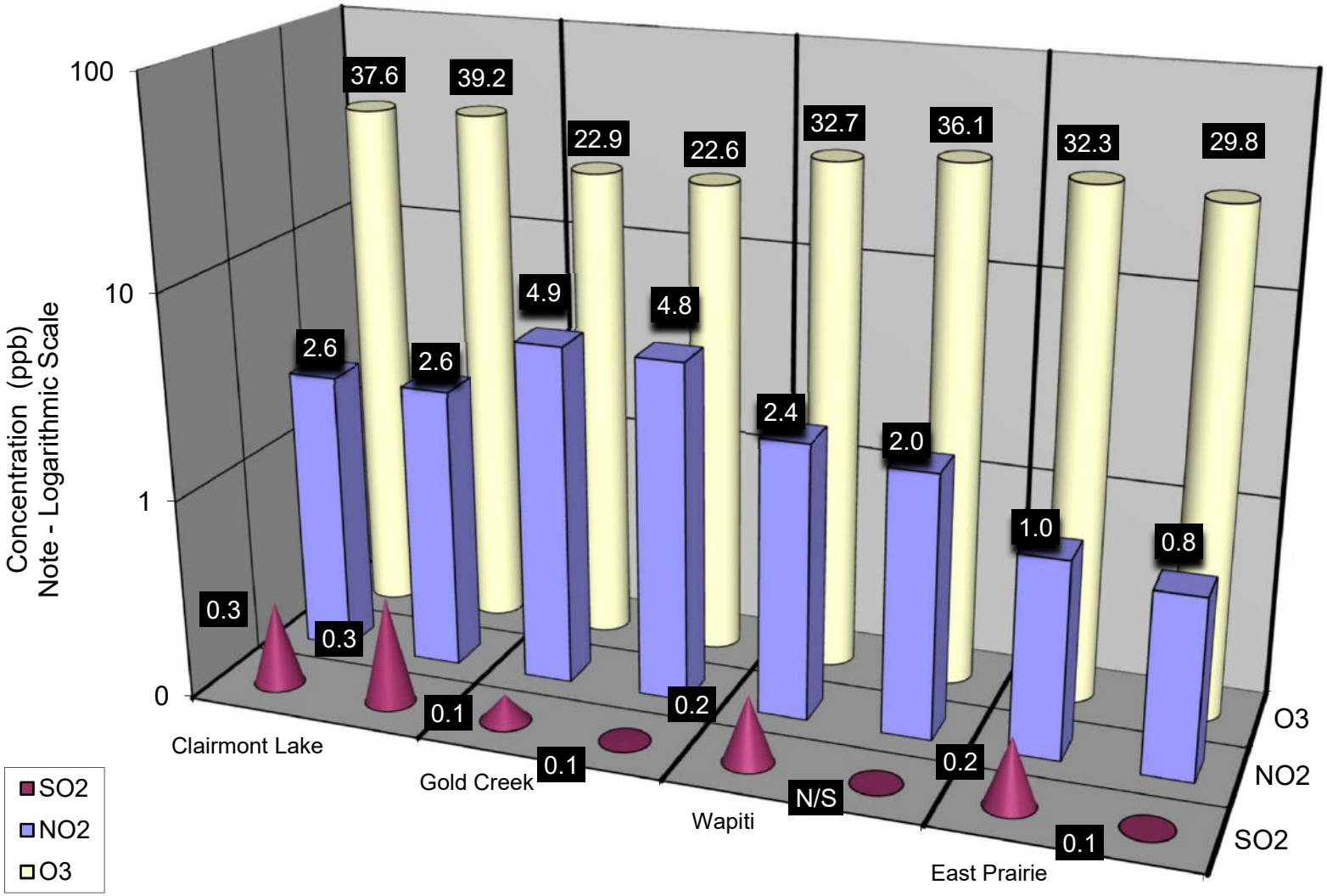

PAZA Passive O_3 Stations
Average Concentrations in ppb
January 2017
287000
337000
387000
437000
487000
537000
587000
6280000
6255000
6230000
6205000
6180000
6155000
6130000
6105000
6080000
6055000
6030000
Hines Creek
Grimshaw
Peace River
Fairview
Nampa
37
46
40
35
35
36
41
36
31
43
34
43
38
30
42
36
32
37
35
23
36
43
37
38
29
22
26
34
36
31
26
38
35
35
32
40
32
36
35
32
23
30
27
No AEP 30-Day Objective


Alberta Ambient Air Quality Objective - No Annual O_3 Objective
O_3 Concentration (ppb)
0
10
20
30
40
50
60
70
80
January 2017
2010
2011
2012
2013
2014
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Shaftesbury
Eaglesham
Bear Lake
Wembley
Pinto Creek
Flyingshot
Grande Prairie I
Clairmont Lake
Smoky Heights
Fitzsimmons
Gold Creek
Wapiti
Puskwaskau
Jean Cote
Guy
Crooked Creek
Karr Creek
Clouston Creek
McLennan
Valleyview
Sunset House
High Prairie
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain 2
Grande Prairie HP
East Prairie


PAZA Passive NO_2 Stations
Average Concentrations in ppb
January 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
Beaverlodge
Valleyview
1.8
2.6
1.3
1.3
1.6
1.0
1.0
0.5
0.7
1.3
0.9
1.1
0.6
1.1
2.4
1.1
2.2
0.9
1.9
4.9
1.5
2.1
2.4
2.6
2.0
2.0
3.3
10.3
14.1
2.2
0.9
2.9
3.4
1.7
1.8
0.5
1.0
1.9
1.2
4.9
1.3
6.6
AEP
Annual
Objective
24 ppb


Alberta Ambient Air Quality Objective - Annual NO2 Objective is 24 ppb
NO2 Concentration (ppb)
0
2
4
6
8
10
12
14
16
18
January 2017
2010
2011
2012
2013
2014
Silver Valley
Bay Tree
Fourth Creek
Gordondale
Boone Creek
Steeprock Creek
Spirit River
Woking
Webber Creek
Hythe
Sylvester
Beaverlodge
Poplar
Saddle Hills
Wanham
Shaftesbury
Eaglesham
Bear Lake
Wembley
Pinto Creek
Flyingshot
Grande Prairie I
Clairmont Lake
Smoky Heights
Fitzsimmons
Gold Creek
Wapiti
Puskwaskau
Jean Cote
Guy
Crooked Creek
Karr Creek
Clouston Creek
McLennan
Valleyview
Sunset House
High Prairie
Peavine
Gift Lake
Little Smoky
Kinuso
Deer Mountain 2
Grande Prairie HP
East Prairie


PAZA Passive H_2S Stations
Average Concentrations in ppb
January 2017
Hines Creek
Crimshaw
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
SWAN HILLS
0.1
0.3
No AEP 30-Day Objective



Duplicate Summary Chart

January 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, TRS and $PM_{2.5}$

PAZA – Smoky Heights Station with the following calibrations:
SO_2, TRS and $PM_{2.5}$

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 and TRS

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 4, 2017	Previous Calibration	December 5, 2016
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	9:45	End Time (MST)	12:20
Barometric Pressure	721.000 mm	Station Temperature	19.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Conc	49.7 ppm	Cal Gas Cert Date	October 5, 2018
		Cal Gas Cylinder #	LL103793
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.987360	Calculated slope	0.997920
Calculated intercept	1.516513	Calculated intercept	1.043761
Analyzer make	TEI 43I-TLE	Analyzer serial #	1507864682 (AMU 2006)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	1.43		1.42	
Coefficient	0.920		0.920	
Pressure	677.9	mm Hg	676.7	mm Hg
Flow	0.446	lpm	0.447	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)
4996	0.00	0.0	0.1	N/A
4989	39.91	394.4	395.0	0.9985
4992	19.96	197.9	196.0	1.0100
4995	9.87	98.0	96.5	1.0158
4996	0.00	0.0	0.1	As Found Zero
4996	39.93	394.1	395.0	As Found Span
			Average Correction Factor	1.0081

Calculated value of As Found Response: 391.4 ppb Percent Change of As Found: 0.7%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.2	ppb
Auto span	276.8	ppb	278.7	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

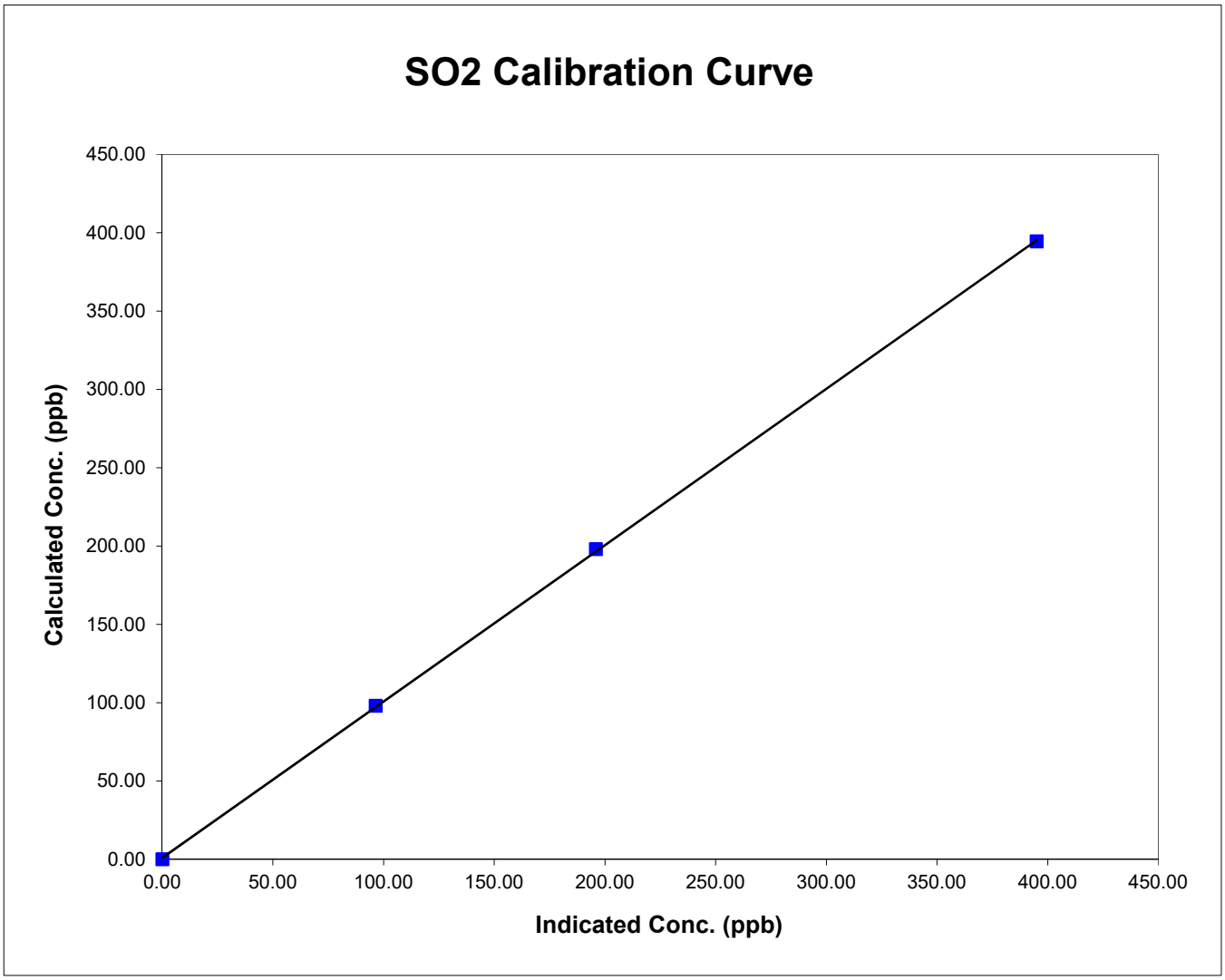
WSP AIR QUALITY MONITORING

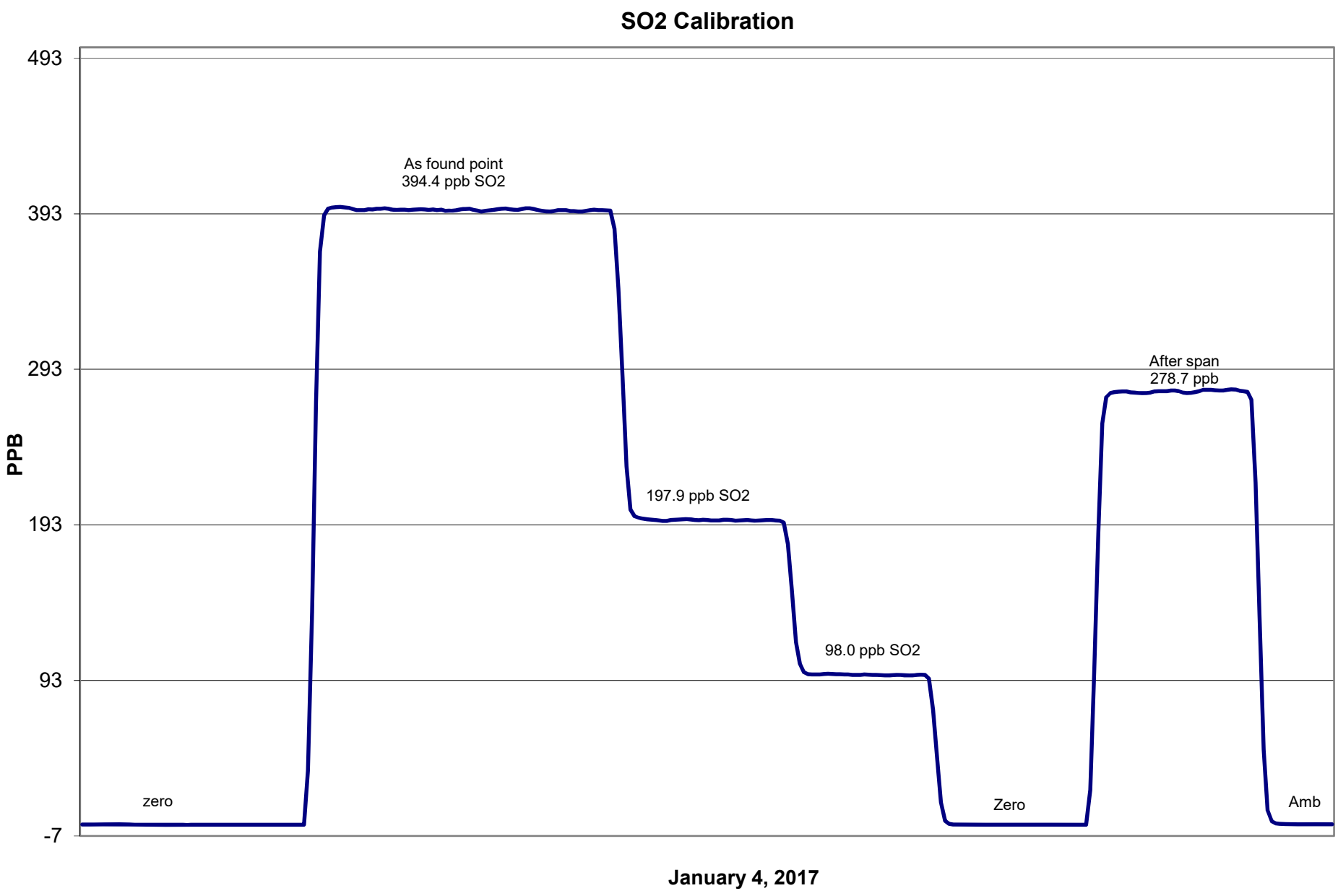
Station Information

Calibration Date	January 4, 2017	Previous Calibration	December 5, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:45	End Time (MST)	12:20
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		
394.4	395.0	0.9985	Correlation Coefficient	0.999950
197.9	196.0	1.0100		
98.0	96.5	1.0158	Slope	0.997920
			Intercept	1.043761




SO2 Calibration
493
393
293
193
93
-7
PPB
As found point
394.4 ppb SO2
197.9 ppb SO2
98.0 ppb SO2
After span
278.7 ppb
zero
Zero
Amb
January 4, 2017

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 4, 2017	Previous Calibration	December 5, 2016
Station Number	1	Station Location	Henry Pirker

Reason: Routine Installation Removal Other:

Start Time (MST)	9:52		End Time (MST)	13:35:00 PM	
Barometric Pressure	721.000	mm	Station Temperature	19.0	Deg C
Calibrator	Environics		Serial Number	906535067(AMU 197	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	October 5, 2018	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL103793	

DACS Information

DACS make	CR3000	DACS serial No.	5408

Parameter		NO2	NOx	NO
Before	Data Slope	0.999991	0.999402	0.993016
	Data Offset	-0.023323	0.886663	1.025477
After	Data Slope	1.002386	1.006190	1.001191
	Data Offset	-0.120676	0.764176	0.656805
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	42i	Analyzer serial #	906535087

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	5.9	mV	6.0	mV
NOx bkgnd	6.3	mV	6.5	mV
NO coefficient	0.928		0.946	
NOx coefficient	1.000		1.000	
NO2 conv temp	322.6	Deg C	322.8	Deg C
Cooler Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-844.3	mV	-844.4	mV
R Cell Press	173.1	in Hg	173.1	in Hg
Sample Flow	0.622	LPM	0.624	LPM

Notes: Slight span adjustment made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: January 4, 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	4996	0.00	0.0	0.0	0.0	0.4	0.8	0.1	N/A	N/A
1	4989	39.95	406.7	404.3	2.4	403.9	403.9	0.3	1.0071	1.0012
2	4991	19.90	203.3	202.1	1.2	201.2	200.7	0.3	1.0104	1.0074
3	4993	9.93	101.6	101.0	0.6	98.8	98.7	0.2	1.0286	1.0235
AFZ	4996	0.00	0.0	0.0	0.0	0.4	0.8	0.1	0.0000	0.0000
AFS	4996	39.92	405.9	403.5	0.8	397.4	397.6	0.2	1.0212	1.0149
							Average Correction Factor		1.0154	1.0107

As Found Concentrations: NO_X= 397.7 NO= 395.0 As Found Percent Change NO_X= -2.0% NO= -2.1%

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	0.8	0.8	0.0	0.4	0.8	0.1	N/A	N/A	N/A	N/A
NO point	402.2	402.2	0.0	402.0	402.2	0.0	1.0005	1.0000	N/A	N/A
300	402.2	64.3	337.8	401.5	64.3	336.9	1.0017	1.0000	1.0027	99.7%
200	402.2	175.3	226.9	403.0	175.3	226.8	0.9980	1.0000	1.0001	100.0%
100	402.2	292.7	109.5	402.9	292.7	109.2	0.9981	1.0000	1.0021	99.8%
					Average Correction Factor		0.9993	1.0000	1.0017	99.8%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.6	0.0	0.8	ppb	0.5	0.1	0.9	ppb
Auto span	310.6	307.6	2.8	ppb	311.2	308.1	2.8	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

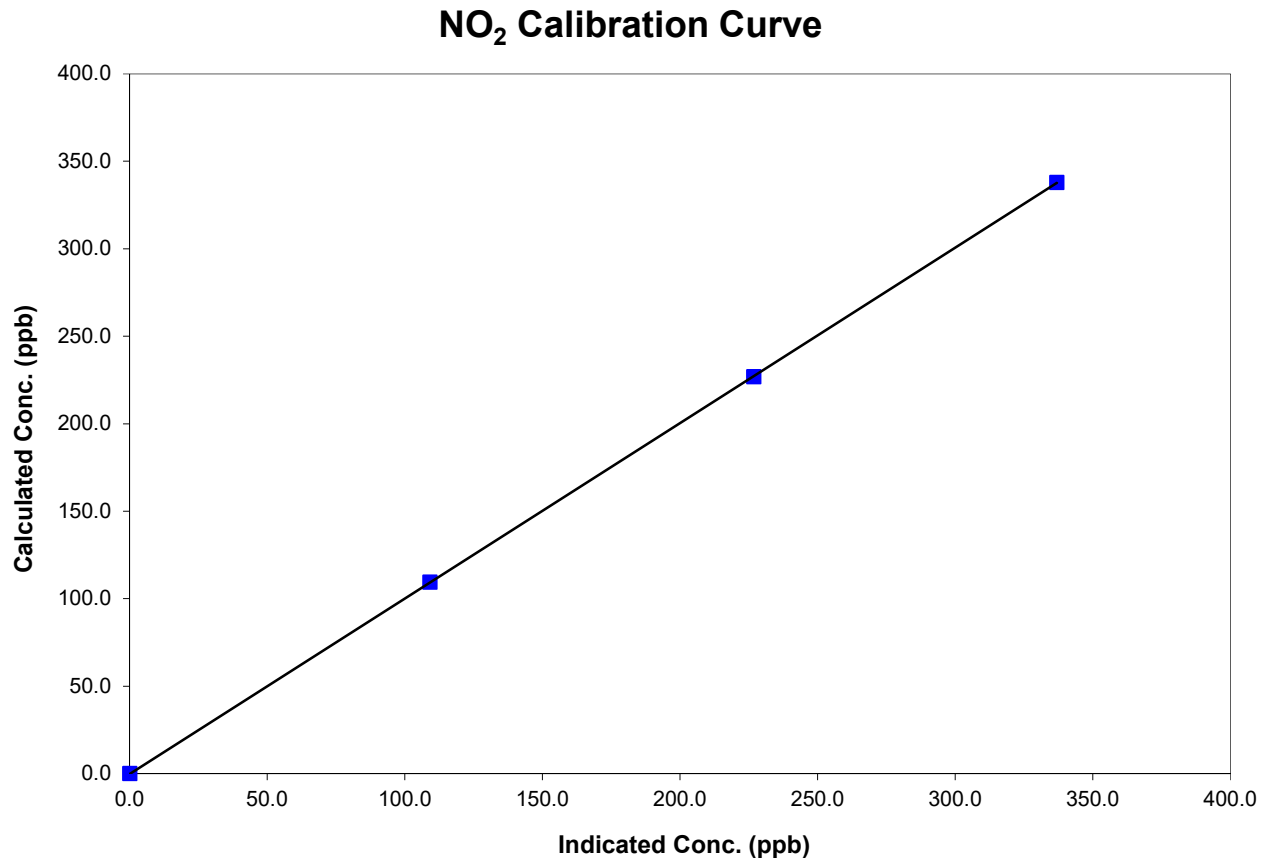
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 4, 2017	Previous Calibration	December 5, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:52	End Time (MST)	13:35:00 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		
337.8	336.9	1.0027	Correlation Coefficient	0.999997
226.9	226.8	1.0001		
109.5	109.2	1.0021	Slope	1.002386
			Intercept	-0.120676



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

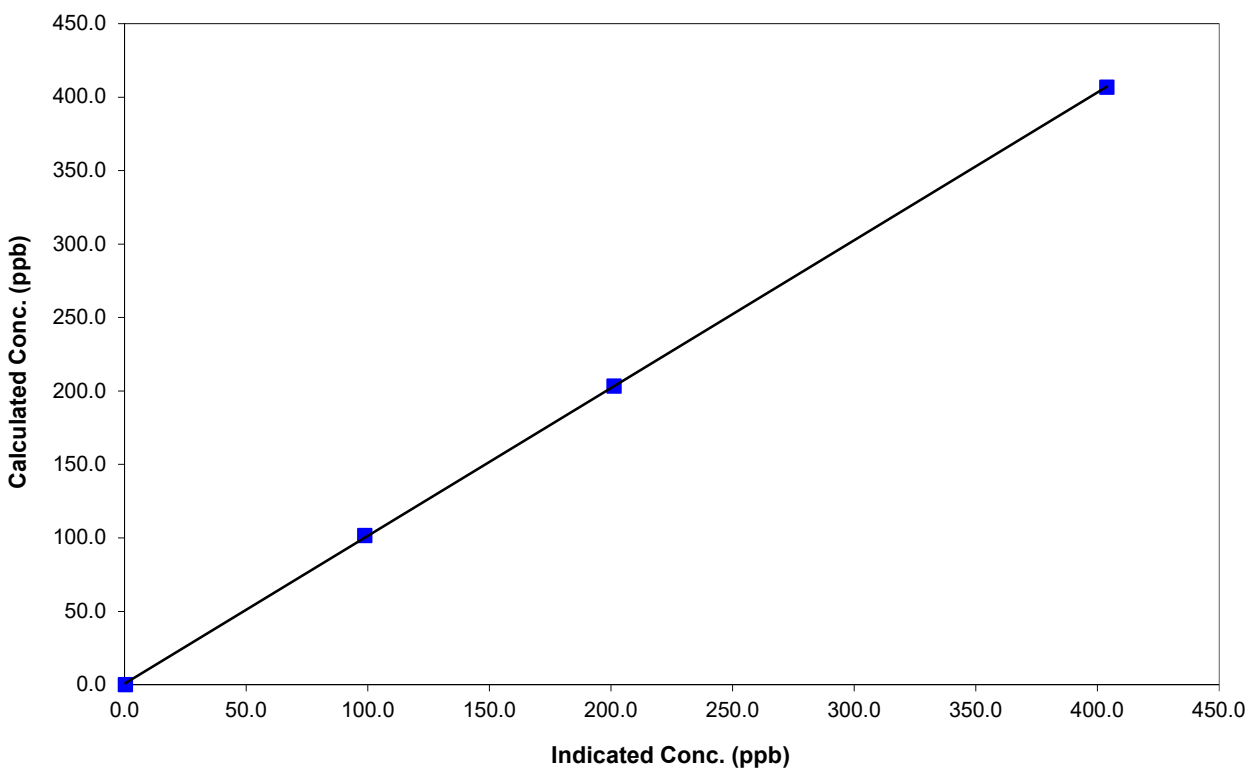
Station Information

Calibration Date	January 4, 2017	Previous Calibration	December 5, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:52	End Time (MST)	13:35:00 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	0.4	N/A		
406.7	403.9	1.0071	Correlation Coefficient	0.999961
203.3	201.2	1.0104		
101.6	98.8	1.0286	Slope	1.006190
			Intercept	0.764176

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

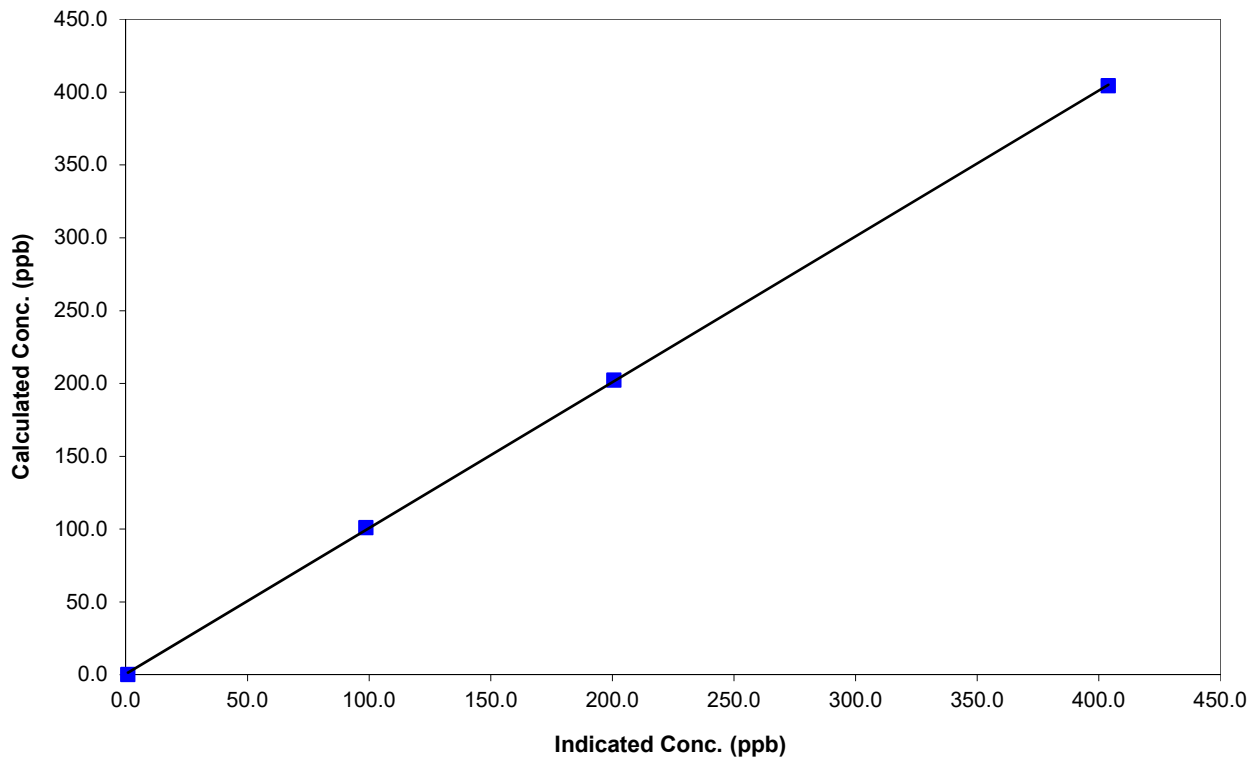
Station Information

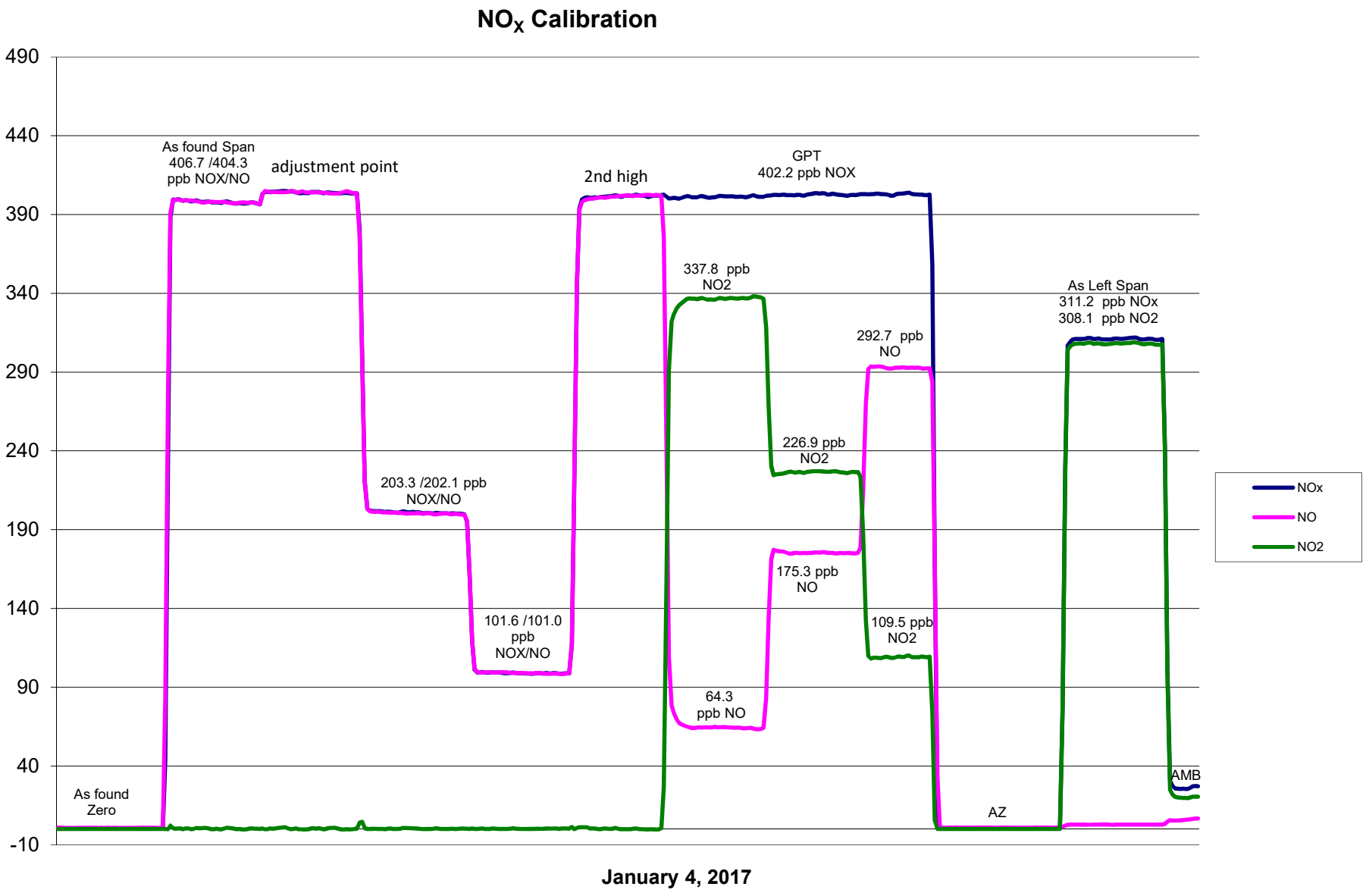
Calibration Date	January 4, 2017	Previous Calibration	December 5, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:52	End Time (MST)	13:35:00 PM
Analyzer make	42i	Analyzer serial #	906535087

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	N/A		
404.3	403.9	1.0012	Correlation Coefficient	0.999941
202.1	200.7	1.0074		
101.0	98.7	1.0235	Slope	1.001191
			Intercept	0.656805

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
406.7 /404.3
ppb NOX/NO
adjustment point
2nd high
GPT
402.2 ppb NOX
337.8 ppb
NO2
As Left Span
311.2 ppb NOx
308.1 ppb NO2
292.7 ppb
NO
226.9 ppb
NO2
203.3 /202.1 ppb
NOX/NO
175.3 ppb
NO
101.6 /101.0
ppb
NOX/NO
109.5 ppb
NO2
64.3
ppb NO
AMB
As found
Zero
AZ
NOx
NO
NO2
January 4, 2017

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 4, 2017	Previous Calibration	December 5, 2016
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	12:35	End Time (MST)	15:25:00 PM
Barometric Pressure	721.000 mm	Station Temperature	19.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.013428	Calculated slope	0.990054
Calculated intercept	-1.525955	Calculated intercept	0.258874
Analyzer make	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.10	ppb	-0.20	ppb
slope	1.017		1.017	
Lamp temp	53.6	mV	53.6	mV
Lamp Intensity A/B	71424/78274	mV	71321/78987	mV
Pressure	700	mm Hg	701	mm Hg
Flow A	0.737	ccm	0.738	ccm
Flow B	0.738	ccm	0.738	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)
4997	0.0	0.0	-0.2	N/A
4999	0.3	337.8	341.6	0.9888
4999	0.2	226.9	227.6	0.9969
4998	0.1	109.5	110.9	0.9877
4997	0.0	0.0	1.6	As found zero
4997	0.3	337.8	323.6	As found span
			Average Correction Factor	0.9911

Calculated value of As Found Response: 324.8 ppm Percent Change of As Found: -3.9%

	before calibration		after calibration	
Auto zero	1.1	ppb	0.0	ppb
Auto span	375.8	ppb	382.4	ppb

Notes: Zero adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

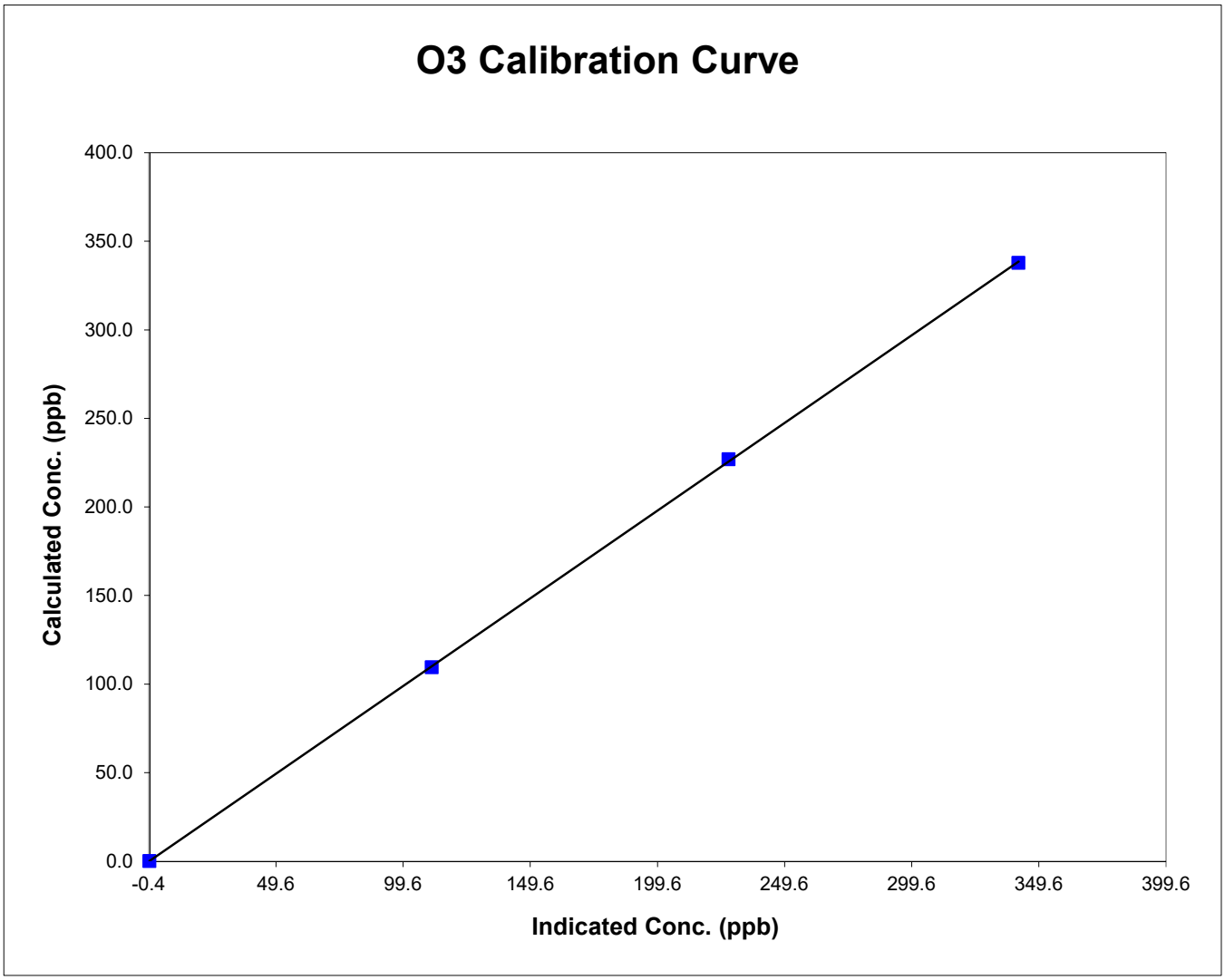
WSP AIR QUALITY MONITORING

Station Information

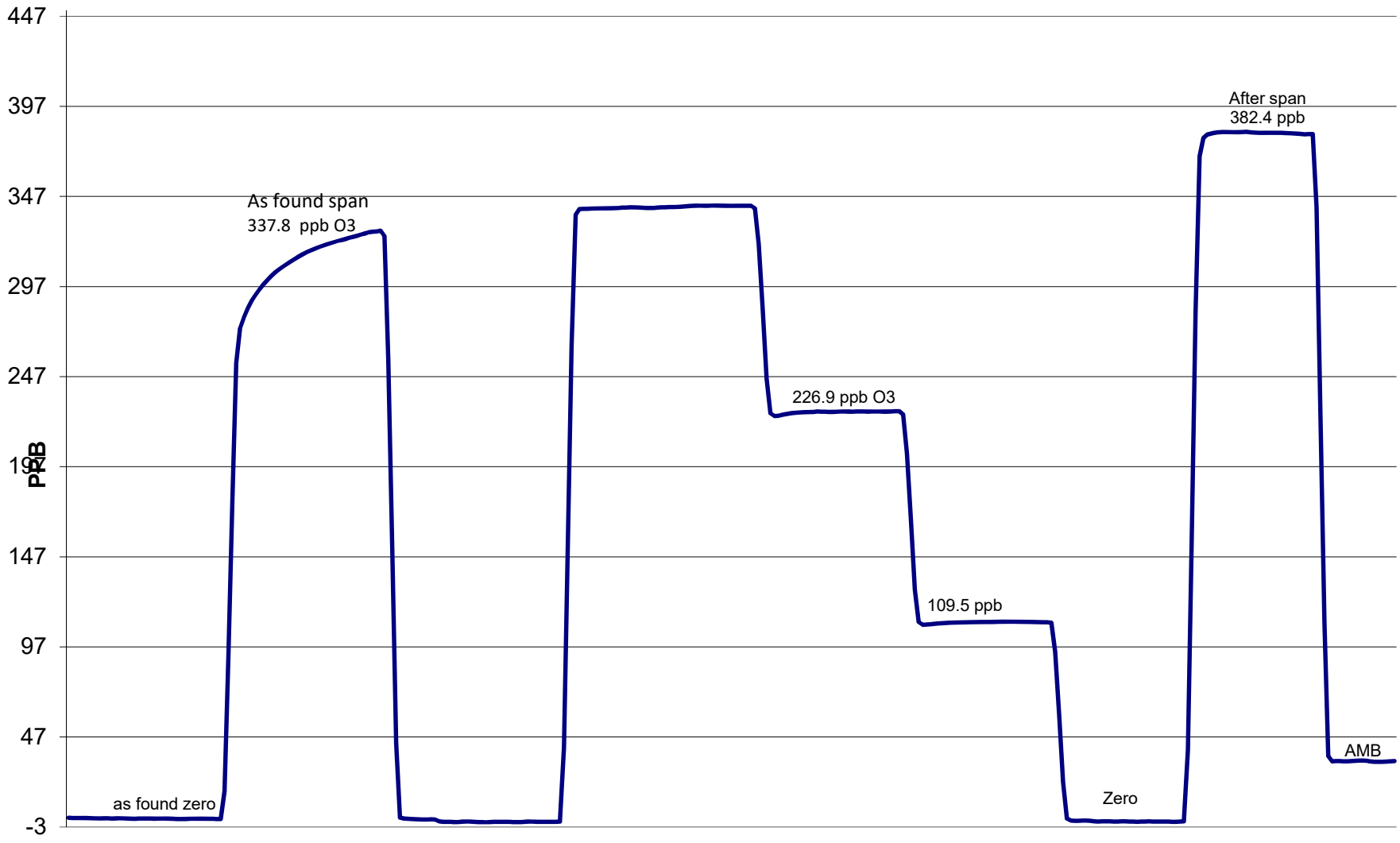
Calibration Date	January 4, 2017	Previous Calibration	December 5, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:35	End Time (MST)	15:25:00 PM
Analyzer make/model	Teco 49I	Analyzer serial #	1507964699 (AMU:2015)

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	NA		
337.8	341.6	0.9888	Correlation Coefficient	0.999961
226.9	227.6	0.9969		
109.5	110.9	0.9877	Slope	0.990054
			Intercept	0.258874



O3 Calibration



January 4, 2017

Calibration Report

Parameter **CO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 5, 2017	Previous Calibration	December 6, 2016
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:55	End Time (MST)	13:35:00 PM
Barometric Pressure	720.0 mm/hg	Station Temperature	20.0 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	1.000146	Calculated slope	0.997626
Calculated intercept	-0.168927	Calculated intercept	-0.254353
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	6.889		7.247	
CO span setting	1.058		1.058	
Sample pressure	700.7	mm Hg	700.4	mm Hg
Sample Flow	0.450	LPM	0.451	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.04	N/A
4995	69.92	40.12	40.34	0.9946
4996	34.95	20.19	20.65	0.9778
4994	17.97	10.42	10.89	0.9568
4995	0.00	0.00	0.35	As Found Zero
4995	69.92	40.12	41.25	As Found Span
			Average Correction Factor	0.9764

Calculated value of As Found Response: 40.732 ppm Percent Change of As Found: -1.5%

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	20.51	ppm	20.50	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CO**

Air Monitoring Network **PAZA**

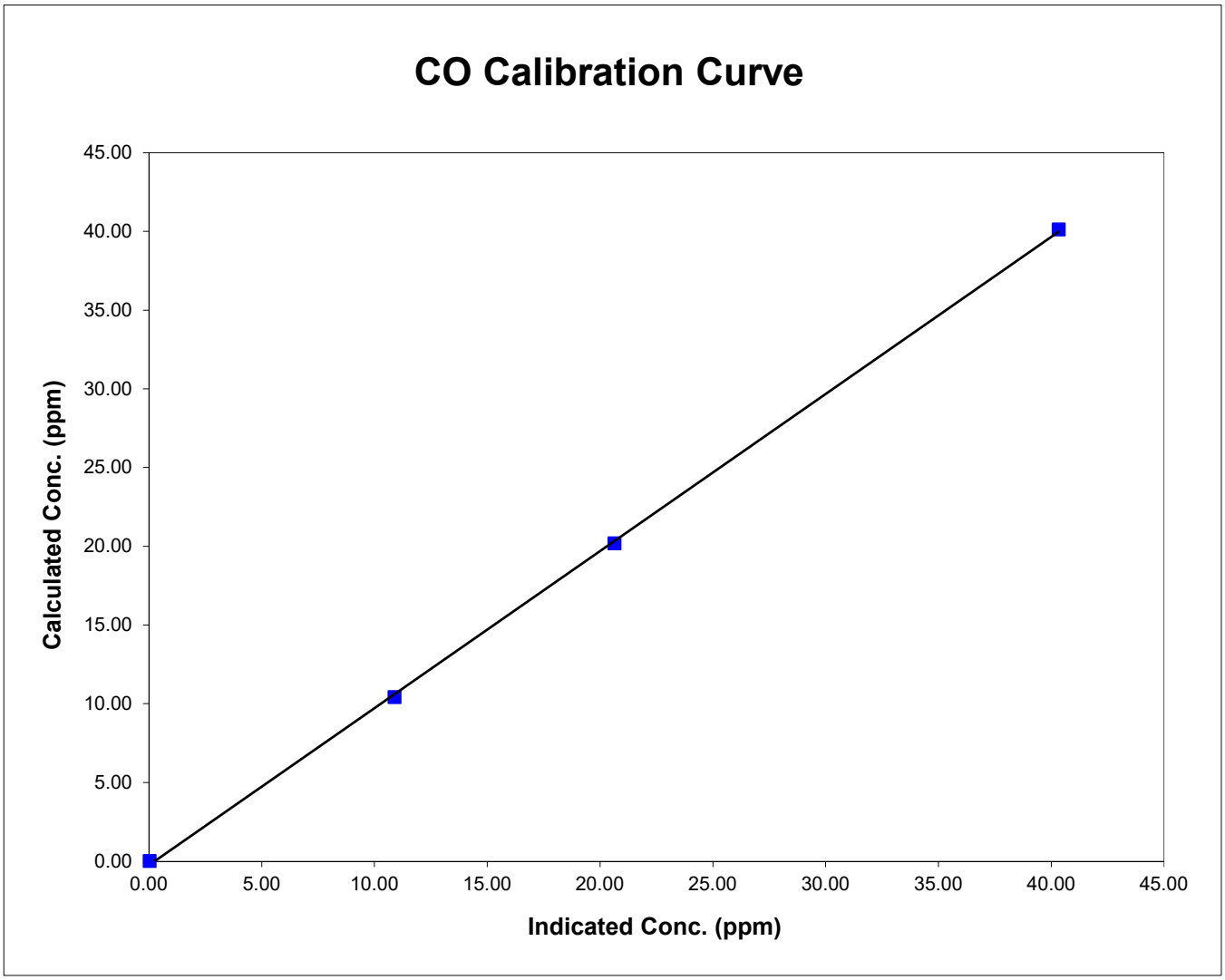
WSP AIR QUALITY MONITORING

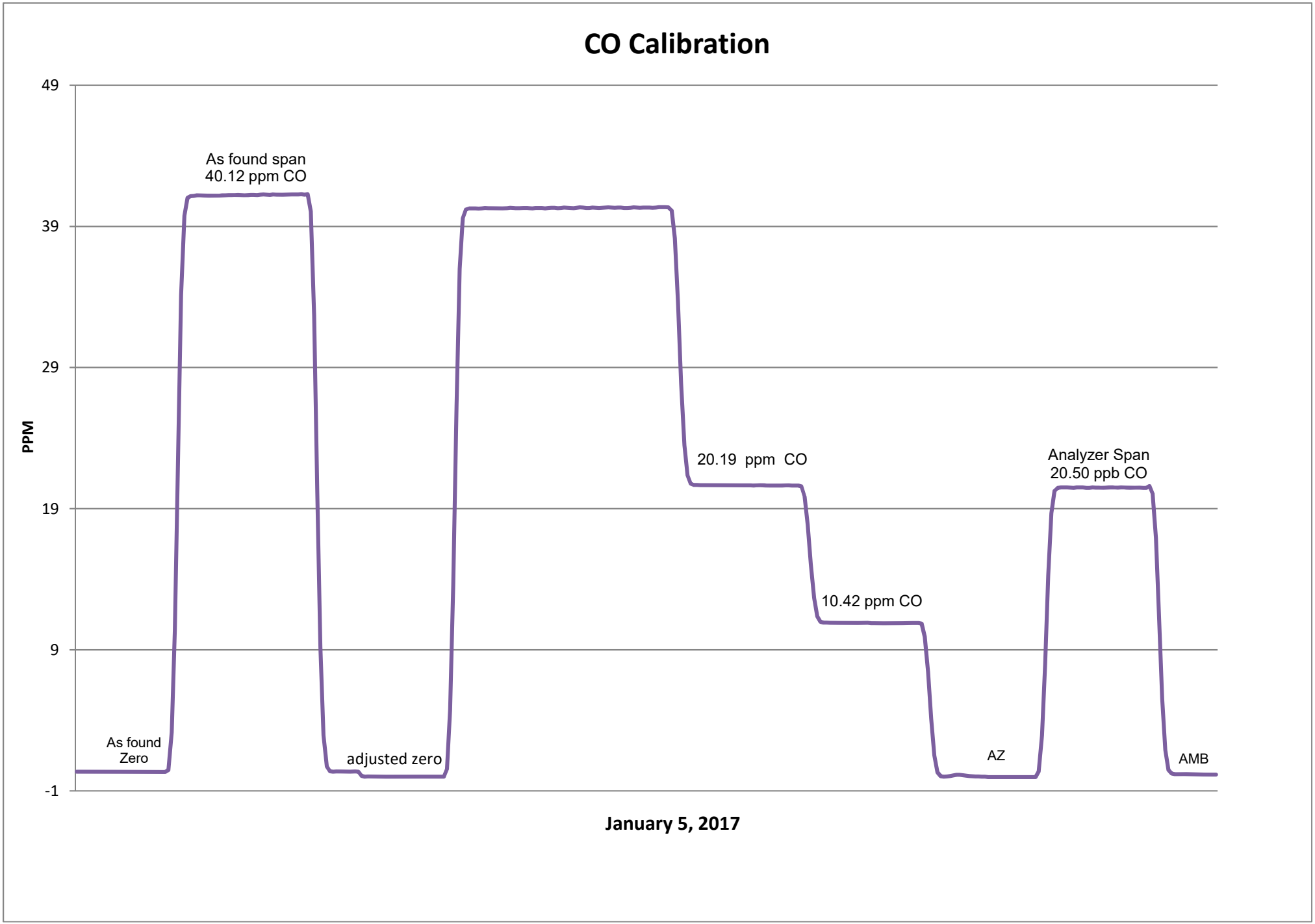
Station Information

Calibration Date	January 5, 2017	Previous Calibration	December 6, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:55	End Time (MST)	13:35:00 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	0.040	N/A		
40.117	40.336	0.9946	Correlation Coefficient	0.999859
20.188	20.646	0.9778		
10.419	10.889	0.9568	Slope	0.997626
			Intercept	-0.254353




CO Calibration
49
39
29
19
9
-1
PPM
As found span
40.12 ppm CO
20.19 ppm CO
Analyzer Span
20.50 ppb CO
10.42 ppm CO
As found
Zero
adjusted zero
AZ
AMB
January 5, 2017

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 5, 2017	Previous Calibration	December 6, 2016
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:

Start Time (MST)	12:55	End Time (MST)	15:20:00 PM
Barometric Pressure	726.00 mm/hg	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	3/28/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make	TEI 55I	Analyzer serial #	1134650658

	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	27.8	PSI	27.8	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	6.01		6.42	E^{-4}
NMHC cal factor	2.45		2.61	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)
1995	0.00	0.00	0.02	N/A
1997	68.96	12.88	12.96	0.9939
1998	40.99	7.76	6.69	1.1606
1999	15.97	3.06	3.45	0.8867
1995	0.00	0.00	0.02	As Found Zero
1995	68.93	12.89	13.31	As Found Span
			Average Correction Factor	1.0137

Calculated value of As Found Response: 13.270 ppm Percent Change of As Found: -2.9%

	Before		After
Calculated slope	0.998226	Calculated slope	1.015581
Calculated intercept	-0.002254	Calculated intercept	0.056214

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.41	ppm	8.90	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)
1995	0.00	0.00	0.02	N/A
1997	68.96	19.00	19.09	0.9952
1998	40.99	11.44	10.07	1.1368
1999	15.97	4.51	5.28	0.8545
1995	0.00	0.00	0.02	As Found Zero
1995	68.93	19.01	18.52	As Found Span
			Average Correction Factor	0.9955

Calculated value of As Found Response: 18.301 ppm Percent Change of As Found: 3.7%

	Before		After
Calculated slope	1.000443	Calculated slope	1.019132
Calculated intercept	-0.206455	Calculated intercept	-0.040428

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	11.81	ppm	12.34	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)
1995	0.00	0.00	0.03	N/A
1997	68.96	31.89	32.03	0.9955
1998	40.99	19.20	16.74	1.1472
1999	15.97	7.57	8.71	0.8691
1995	0.00	0.00	0.03	As Found Zero
1995	68.93	31.90	31.81	As Found Span
			Average Correction Factor	1.0039

Calculated value of As Found Response: 31.579 ppm Percent Change of As Found: 1.0%

	Before		After
Calculated slope	1.000170	Calculated slope	1.018365
Calculated intercept	-0.201140	Calculated intercept	0.022704

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	20.20	ppm	21.24	ppm

Notes: Span adjustment made
Calibration was is non liniar,analyzer needs maintenance

Calibration Performed By: Dmytro Doloti

Calibration Summary

Parameter **CH4**

Air Monitoring Network **PAZA**

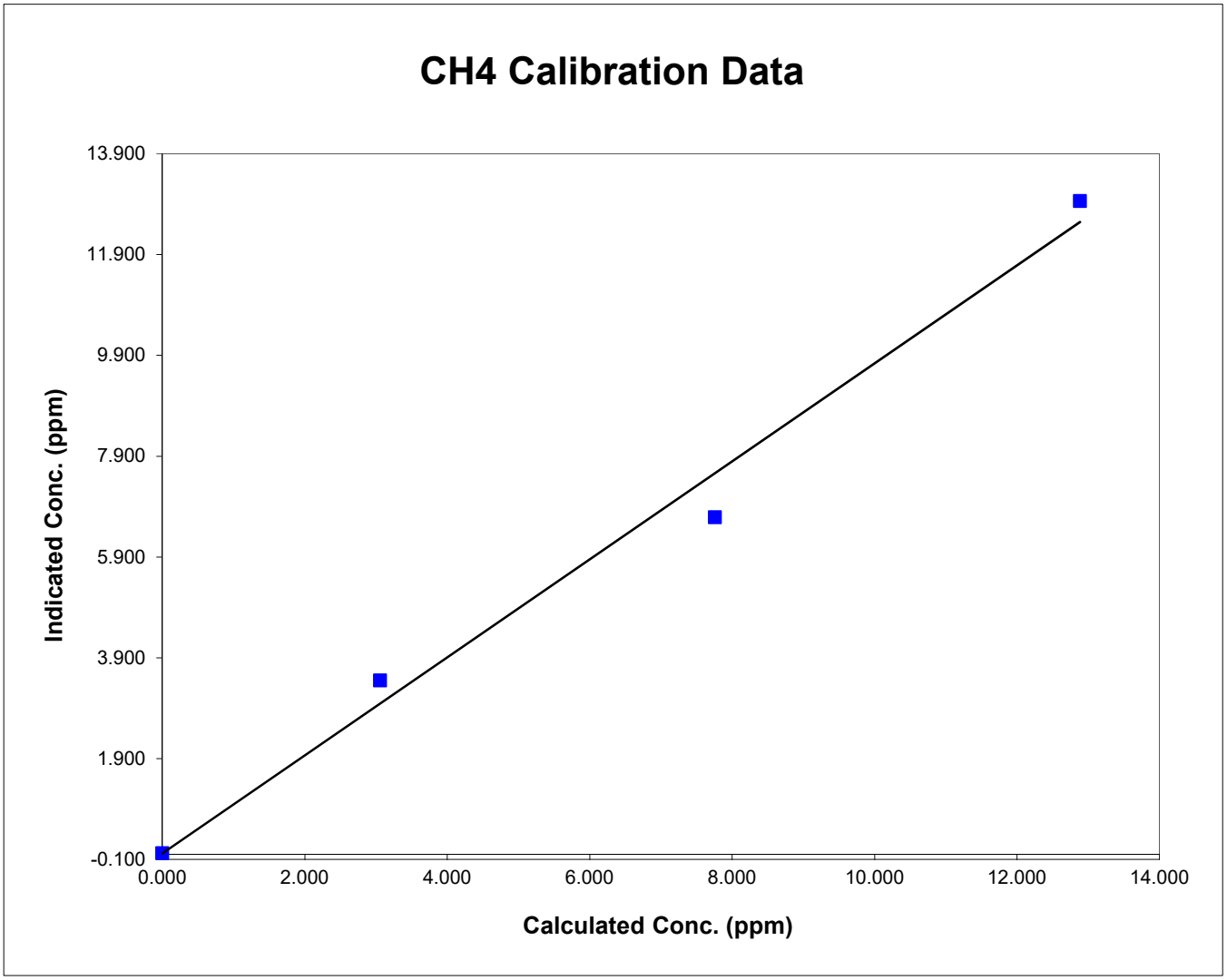
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 5, 2017	Previous Calibration	December 6, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:55	End Time (MST)	15:20:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A		
12.884	12.964	0.9939	Correlation Coefficient	0.987333
7.760	6.686	1.1606		
3.059	3.450	0.8867	Slope	1.015581
			Intercept	0.056214



Calibration Summary

Parameter **NMHC**

Air Monitoring Network **PAZA**

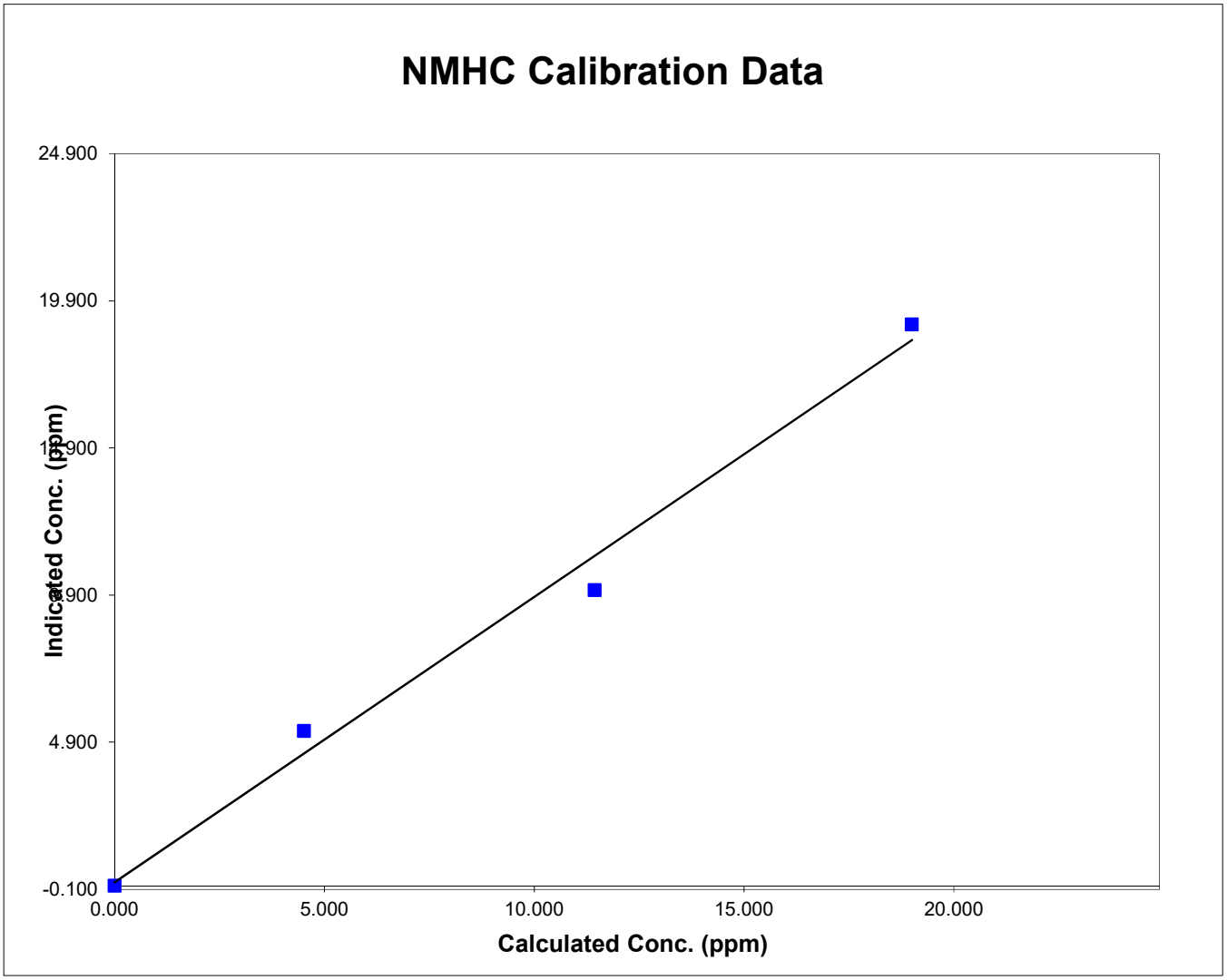
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 5, 2017	Previous Calibration	December 6, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:55	End Time (MST)	15:20:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A		
19.001	19.093	0.9952	Correlation Coefficient	0.988585
11.444	10.067	1.1368		
4.512	5.280	0.8545	Slope	1.019132
			Intercept	-0.040428



Calibration Summary

Parameter **THC**

Air Monitoring Network **PAZA**

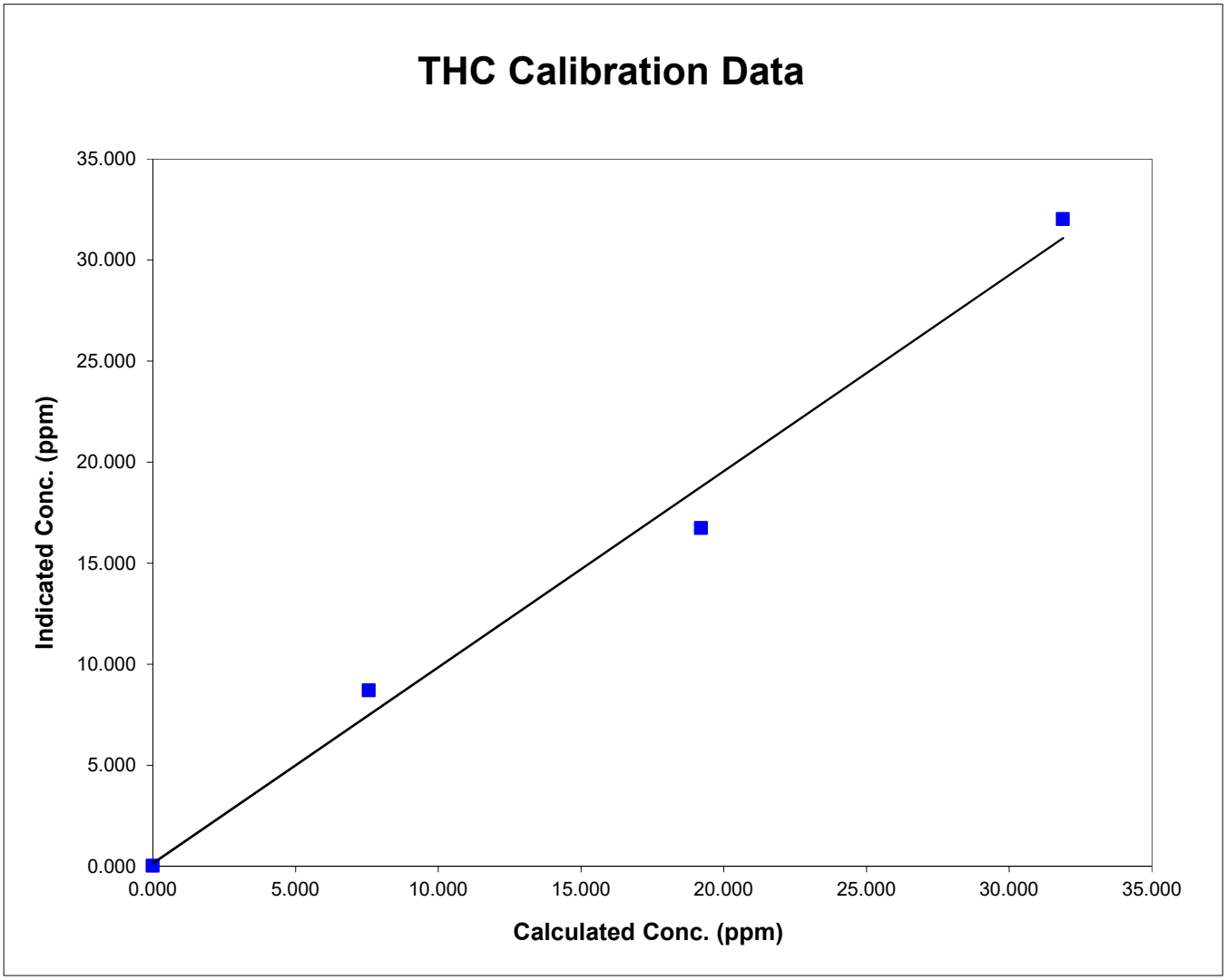
WSP AIR QUALITY MONITORING

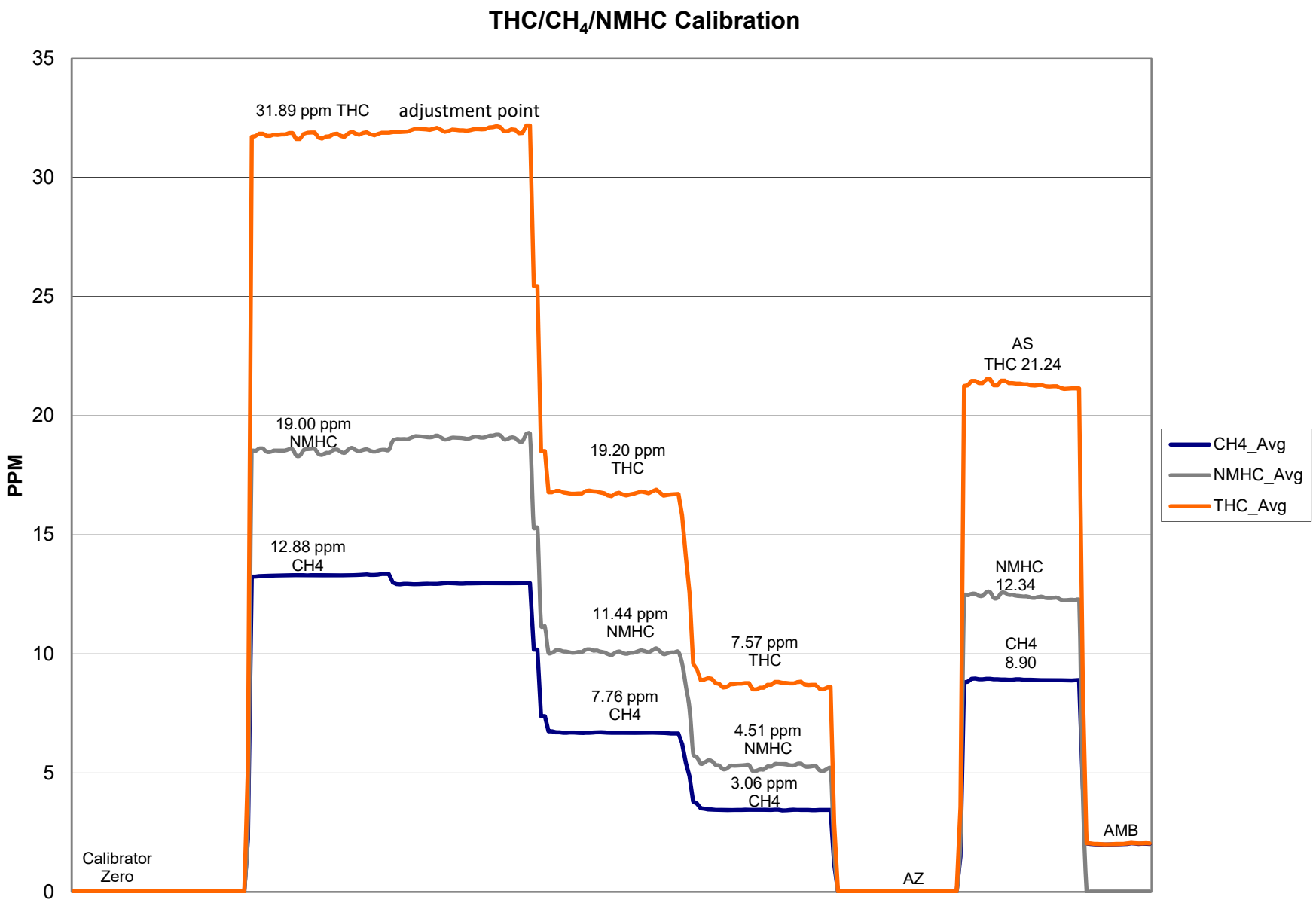
Station Information

Calibration Date	January 5, 2017	Previous Calibration	December 6, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:55	End Time (MST)	15:20:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.032	N/A		
31.885	32.030	0.9955	Correlation Coefficient	0.988187
19.203	16.739	1.1472		
7.571	8.712	0.8691	Slope	1.018365
			Intercept	0.022704




THC/CH4/NMHC Calibration
PPM
35
30
25
20
15
10
5
0
31.89 ppm THC
adjustment point
19.00 ppm NMHC
12.88 ppm CH4
19.20 ppm THC
11.44 ppm NMHC
7.76 ppm CH4
7.57 ppm THC
4.51 ppm NMHC
3.06 ppm CH4
AS THC 21.24
NMHC 12.34
CH4 8.90
Calibrator Zero
AZ
AMB
CH4_Avg
NMHC_Avg
THC_Avg

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 7, 2017	Previous Calibration	January 5, 2017
Station Number	1	Station Location	Henry Pirker

Reason: Routine | Install | Removal | Other:Main

Start Time (MST)	12:40	End Time (MST)	15:10:00 PM
Barometric Pressure	722.00 mm/hg	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	3/28/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make	TEI 55I	Analyzer serial #	1134650658

	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	27.8	PSI	27.8	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	6.42		5.22	E^{-4}
NMHC cal factor	2.61		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)
1995	0.00	0.00	0.02	N/A
1997	68.96	12.88	12.92	0.9970
1998	40.99	7.76	7.79	0.9966
1999	15.97	3.06	3.06	0.9982
1995	0.00	0.00	0.02	As Found Zero
1995	68.93	12.89	13.25	As Found Span
			Average Correction Factor	0.9973

Calculated value of As Found Response: 13.493 ppm Percent Change of As Found: -4.7%

	Before		After
Calculated slope	1.015581	Calculated slope	0.998013
Calculated intercept	0.056214	Calculated intercept	-0.010679

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	8.90	ppm	8.96	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)
1995	0.00	0.00	0.02	N/A
1997	68.96	19.00	19.03	0.9984
1998	40.99	11.44	11.59	0.9877
1999	15.97	4.51	4.64	0.9733
1995	0.00	0.00	0.02	As Found Zero
1995	68.93	19.01	19.39	As Found Span
			Average Correction Factor	0.9865

Calculated value of As Found Response: 19.704 ppm Percent Change of As Found: -3.6%

	Before		After
Calculated slope	1.019132	Calculated slope	0.999937
Calculated intercept	-0.040428	Calculated intercept	-0.078522

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.34	ppm	12.34	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)
1995	0.00	0.00	0.03	N/A
1997	68.96	31.89	31.93	0.9987
1998	40.99	19.20	19.36	0.9921
1999	15.97	7.57	7.69	0.9851
1995	0.00	0.00	0.03	As Found Zero
1995	68.93	31.90	32.62	As Found Span
			Average Correction Factor	0.9920

Calculated value of As Found Response: 33.212 ppm Percent Change of As Found: -4.1%

	Before		After
Calculated slope	1.018365	Calculated slope	0.999828
Calculated intercept	0.022704	Calculated intercept	-0.082489

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	21.24	ppm	21.30	ppm

Notes: Span adjustment made following rotor replacement/stabiliziation

Calibration Performed By: Dmytro Doloti,Grover Christiansen.

Calibration Summary

Parameter **CH4**

Air Monitoring Network **PAZA**

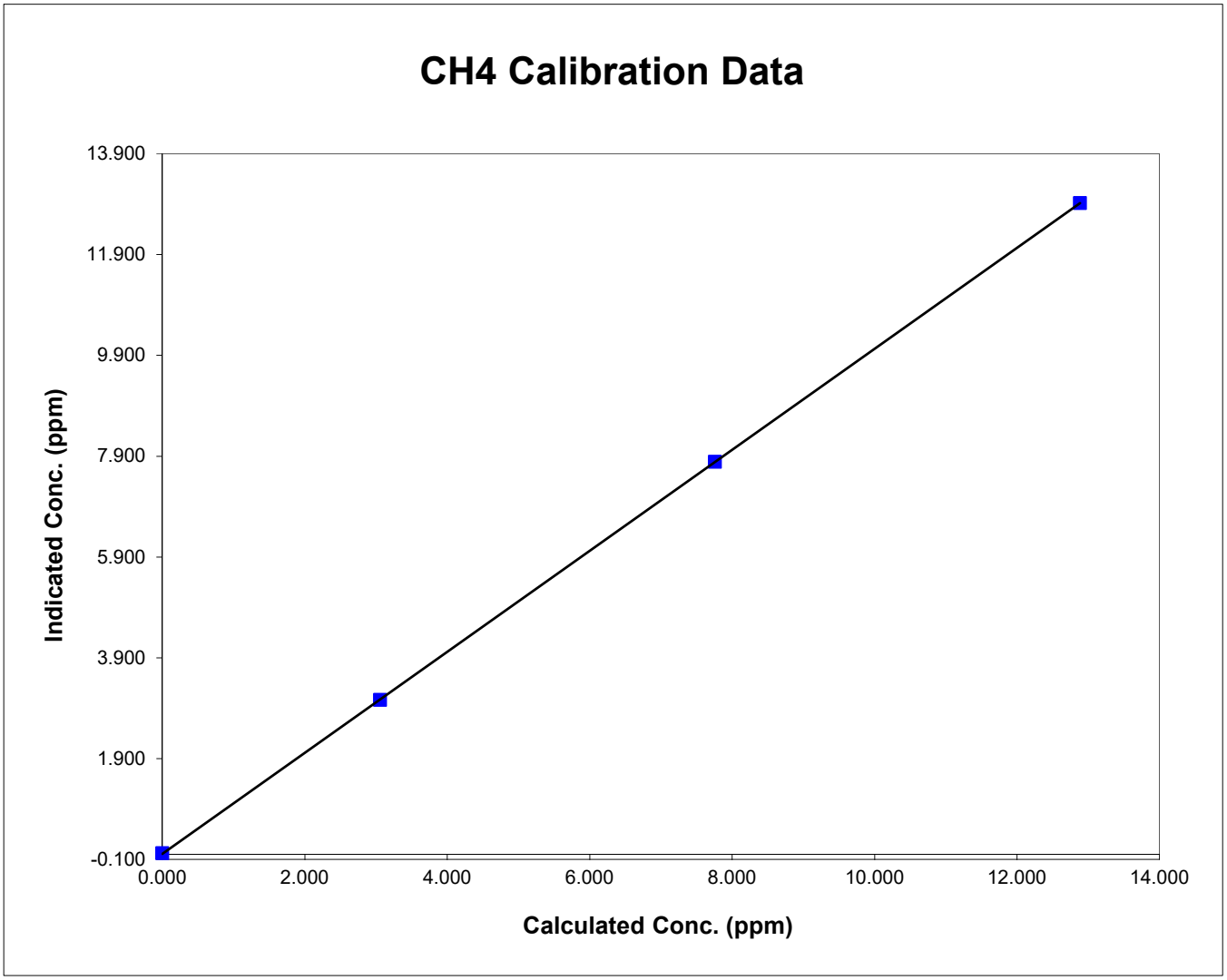
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 7, 2017	Previous Calibration	January 5, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:40	End Time (MST)	15:10:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A		
12.884	12.923	0.9970	Correlation Coefficient	0.999998
7.760	7.786	0.9966		
3.059	3.065	0.9982	Slope	0.998013
			Intercept	-0.010679



Calibration Summary

Parameter **NMHC**

Air Monitoring Network **PAZA**

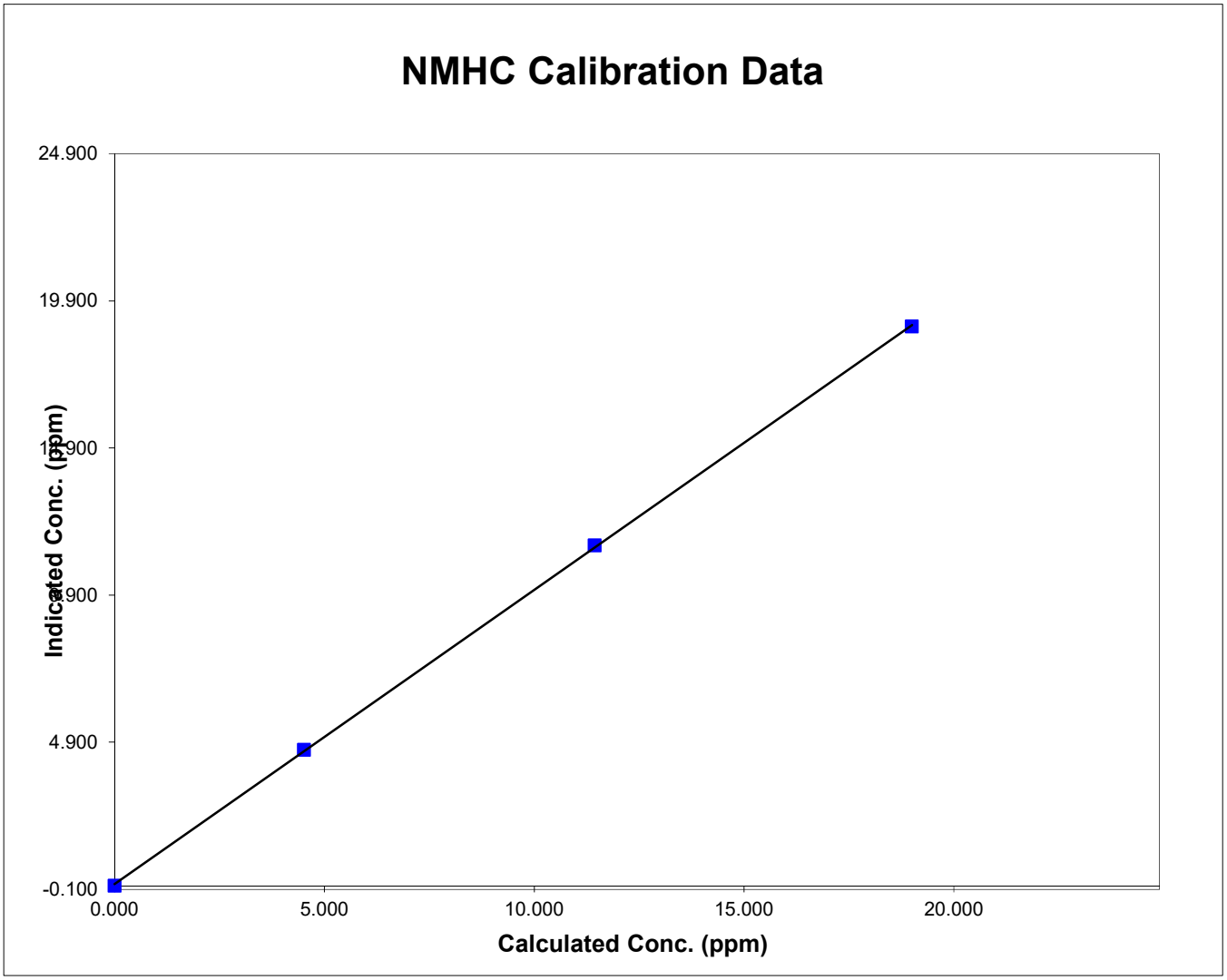
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 7, 2017	Previous Calibration	January 5, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:40	End Time (MST)	15:10:00 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		
19.001	19.031	0.9984	Correlation Coefficient	0.999942
11.444	11.587	0.9877		
4.512	4.636	0.9733	Slope	0.999937
			Intercept	-0.078522



Calibration Summary

Parameter **THC**

Air Monitoring Network **PAZA**

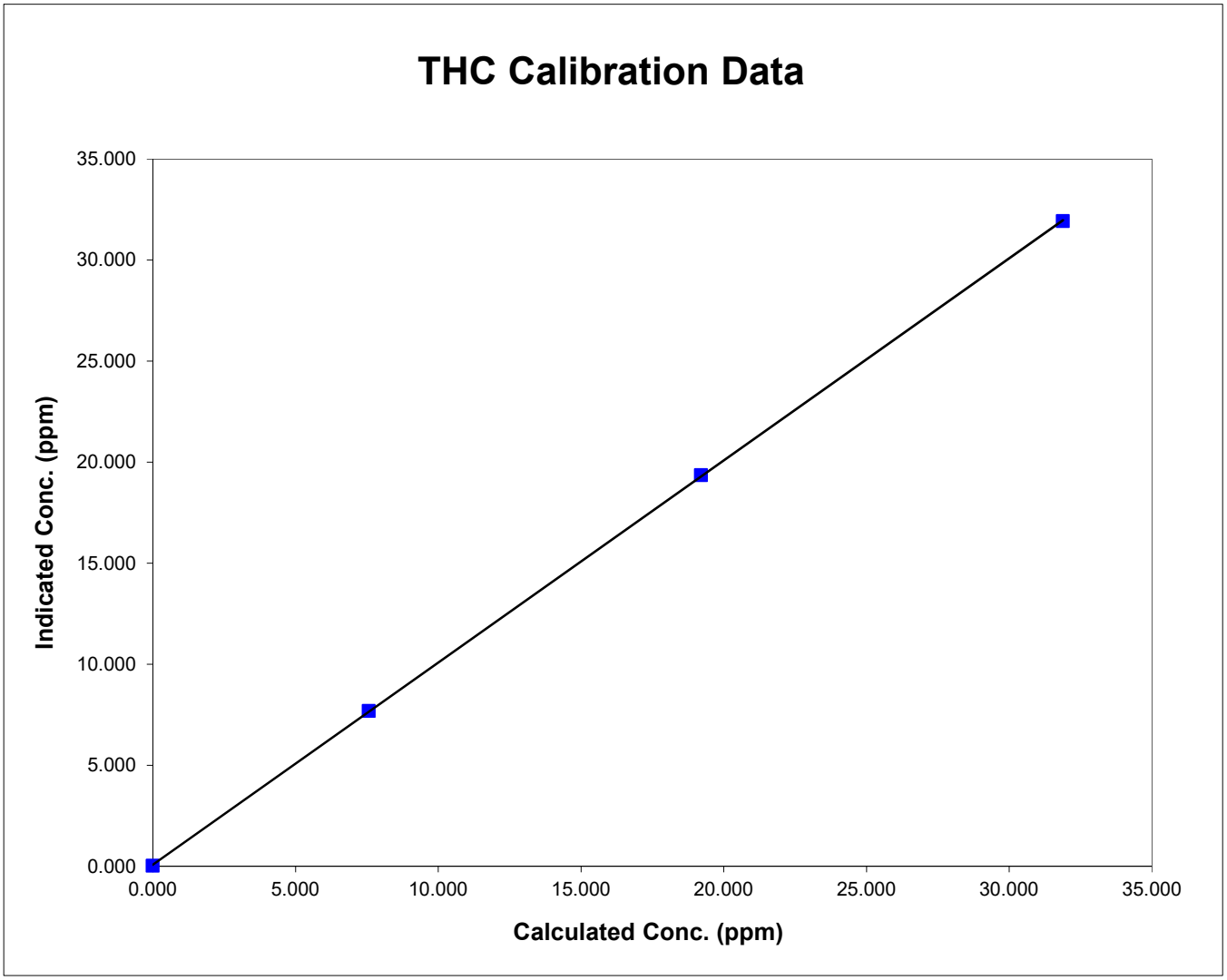
WSP AIR QUALITY MONITORING

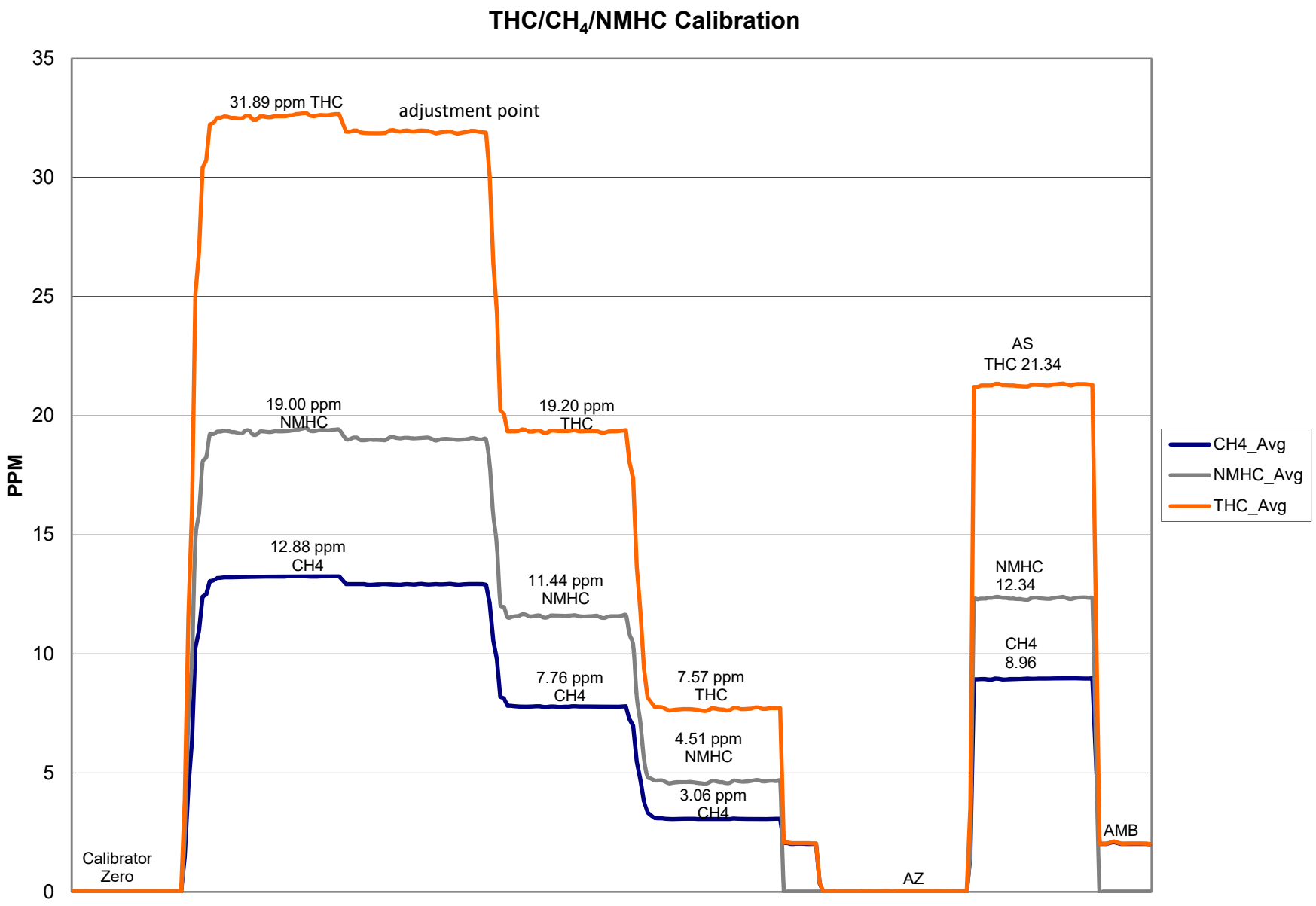
Station Information

Calibration Date	January 7, 2017	Previous Calibration	January 5, 2017
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:40	End Time (MST)	15:10:00 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		
31.885	31.926	0.9987	Correlation Coefficient	0.999983
19.203	19.356	0.9921		
7.571	7.686	0.9851	Slope	0.999828
			Intercept	-0.082489




THC/CH4/NMHC Calibration
PPM
35
30
25
20
15
10
5
0
31.89 ppm THC
adjustment point
19.00 ppm
NMHC
19.20 ppm
THC
12.88 ppm
CH4
11.44 ppm
NMHC
7.76 ppm
CH4
7.57 ppm
THC
4.51 ppm
NMHC
3.06 ppm
CH4
AS
THC 21.34
NMHC
12.34
CH4
8.96
AMB
Calibrator
Zero
AZ
CH4_Avg
NMHC_Avg
THC_Avg

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 5, 2017	Previous Calibration	December 6, 2016
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:10	End Time (MST)	11:50
Barometric Pressure	720.00 mm/Hg	Station Temperature	20.0 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	1.018511	Calculated slope	0.983289
Calculated intercept	0.667790	Calculated intercept	0.097228
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.940		1.010	
Background	19.2		20.7	
Pressure	667.3	mm Hg	667.2	mm Hg
Flow	0.445	ccm	0.445	ccm
Lamp Voltage	910	V	910	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)
4998	0.00	0.00	0.87	N/A
4991	39.96	81.02	82.79	0.9786
4994	19.92	40.52	40.31	1.0053
6998	10.01	14.56	14.05	1.0365
4998	0.00	0.00	0.87	As Found Zero
4998	39.93	80.84	75.00	As Found Span
			Average Correction Factor	1.0068

Calculated value of As Found Response: 76.2 ppb Percent Change of As Found: 5.8%

	before calibration		after calibration	
Auto zero	0.51	ppb	0.95	ppb
Auto span	26.70	ppb	29.51	ppb

Notes: Span adjustment made
Sox scrubber check performed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

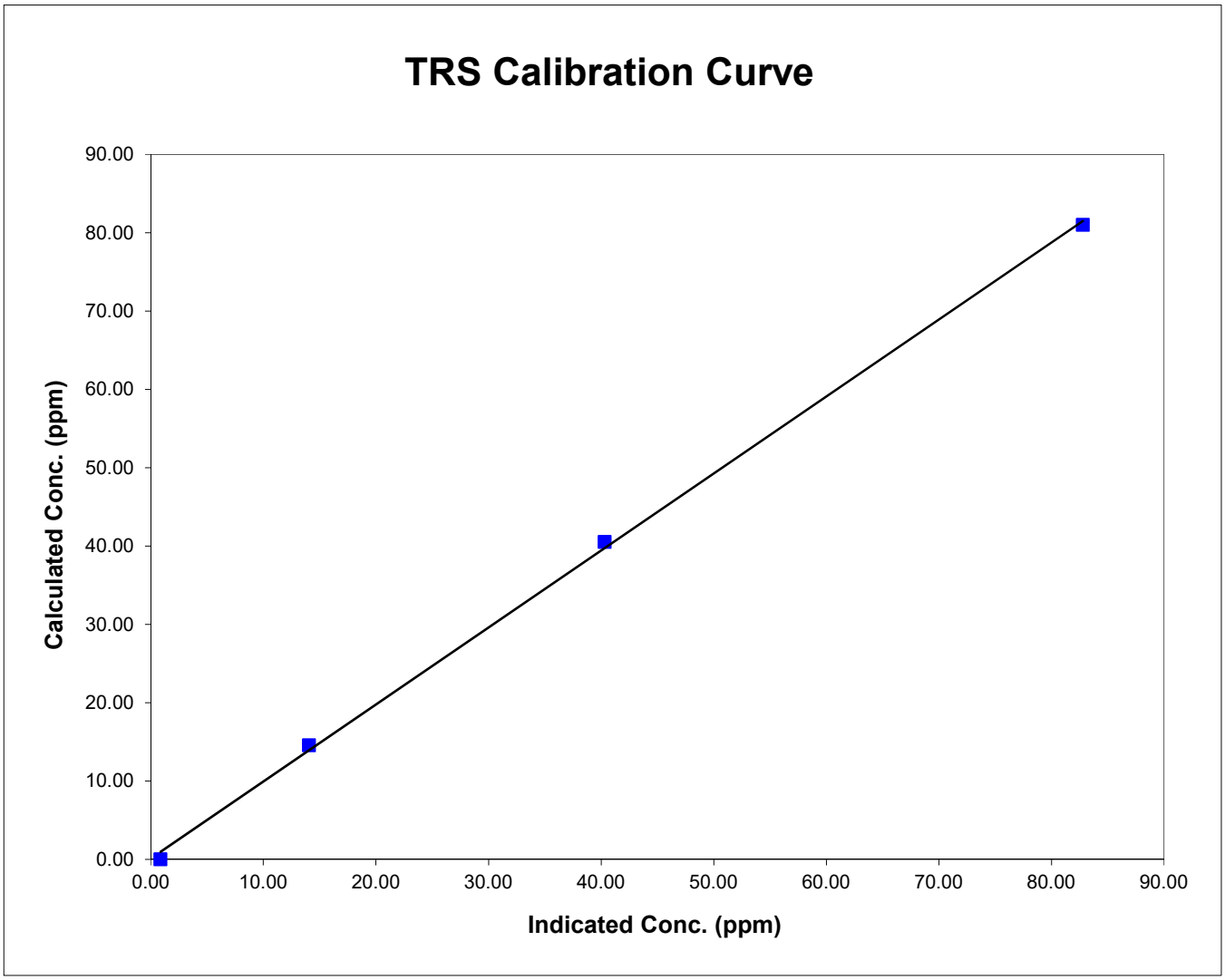
WSP AIR QUALITY MONITORING

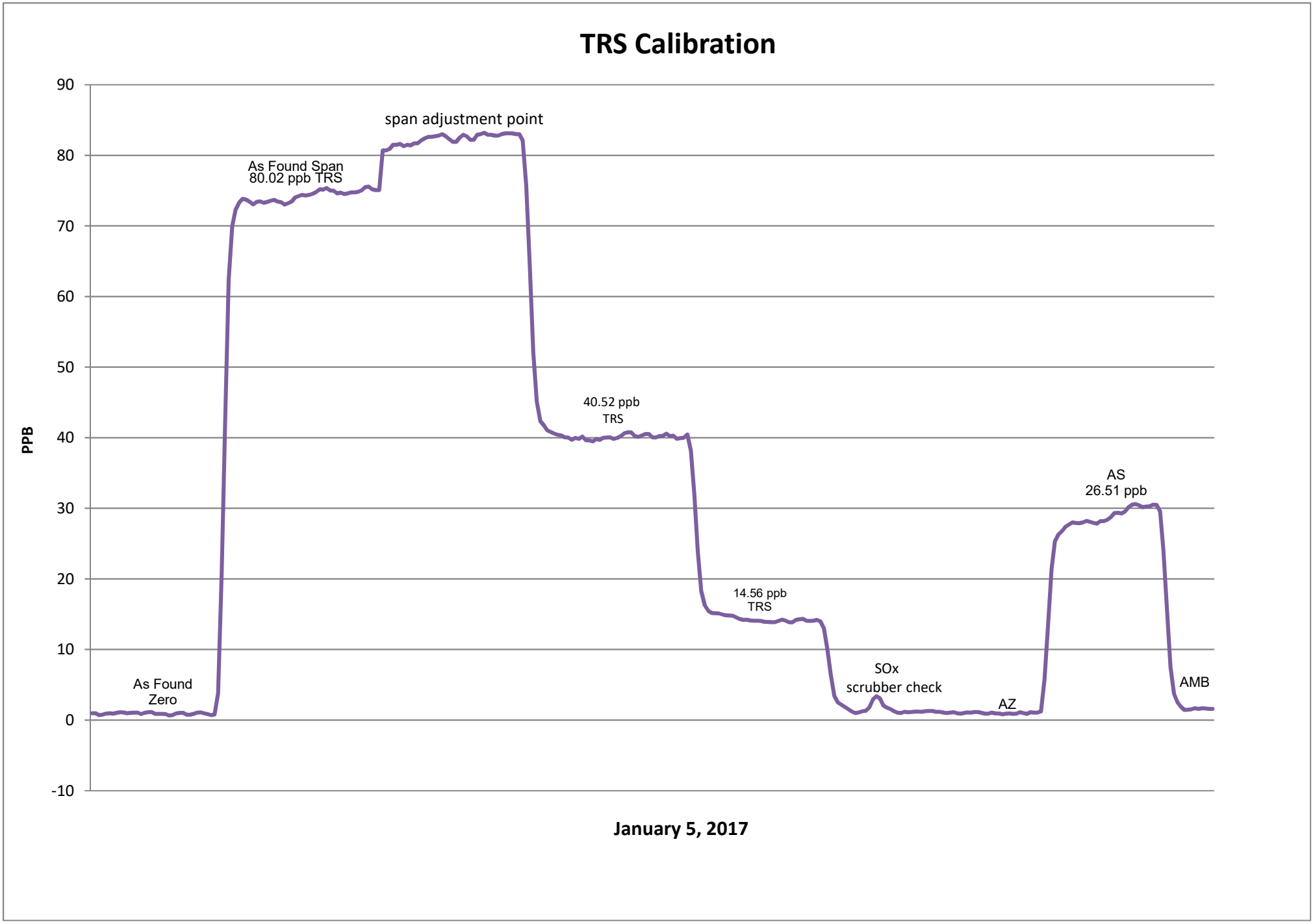
Station Information

Calibration Date	January 5, 2017	Previous Calibration	December 6, 2016
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:10	End Time (MST)	11:50
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	0.874	N/A		
81.017	82.789	0.9786	Correlation Coefficient	0.999419
40.524	40.308	1.0053		
14.562	14.049	1.0365	Slope	0.983289
			Intercept	0.097228




TRS Calibration
90
80
70
60
50
40
30
20
10
0
-10
PPB
span adjustment point
As Found Span
80.02 ppb TRS
40.52 ppb
TRS
14.56 ppb
TRS
SOx
scrubber check
AZ
AS
26.51 ppb
AMB
As Found
Zero
January 5, 2017

Calibration Report

WSP AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	January 3 2017	Previous Calibration	December 7 2016
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:05	End Time (MST)	14:05:00 PM
Barometric Pressure	0.927 ATM	Station Temperature	21.5 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	49.7 ppm	Cal Gas Expiry Date	10/5/2018
Correction factor	0.031351	Cal Gas Cylinder #	LL103793
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.006556	Calculated slope	1.002449
Calculated intercept	0.489541	Calculated intercept	1.029704
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.4		11.4	
coefficient	1.224		1.224	
Lamp Voltage	835	volts	835	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	679.2	mm Hg	679.4	mm Hg
Sample Flow	0.451	ccm	0.452	ccm
Lamp Intensity	89	%	89	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4996	0.0	0.00	0.8	N/A
4999	39.95	394.0	392.9	1.0029
4996	19.92	197.4	195.1	1.0115
4997	9.98	99.1	95.9	1.0333
4996	0.0	0.0	0.8	As Found Zero
4996	39.93	394.1	392.9	As Found Span
			Average Correction Factor	1.0159

Calculated value of As Found Response: 395.133 ppm Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.8	ppm	1.0	ppm
Auto span	247.9	ppm	249.5	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

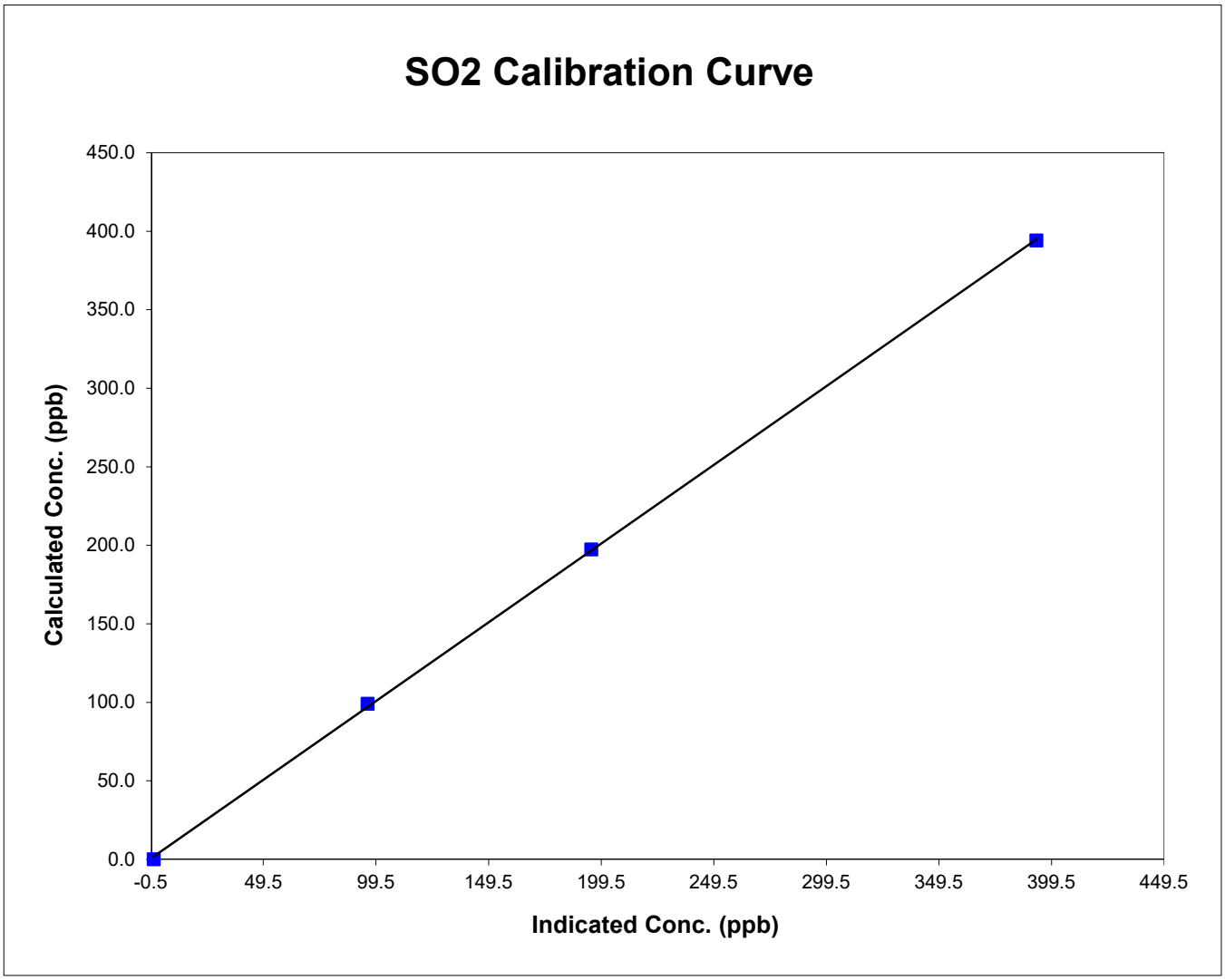
WSP AIR QUALITY MONITORING

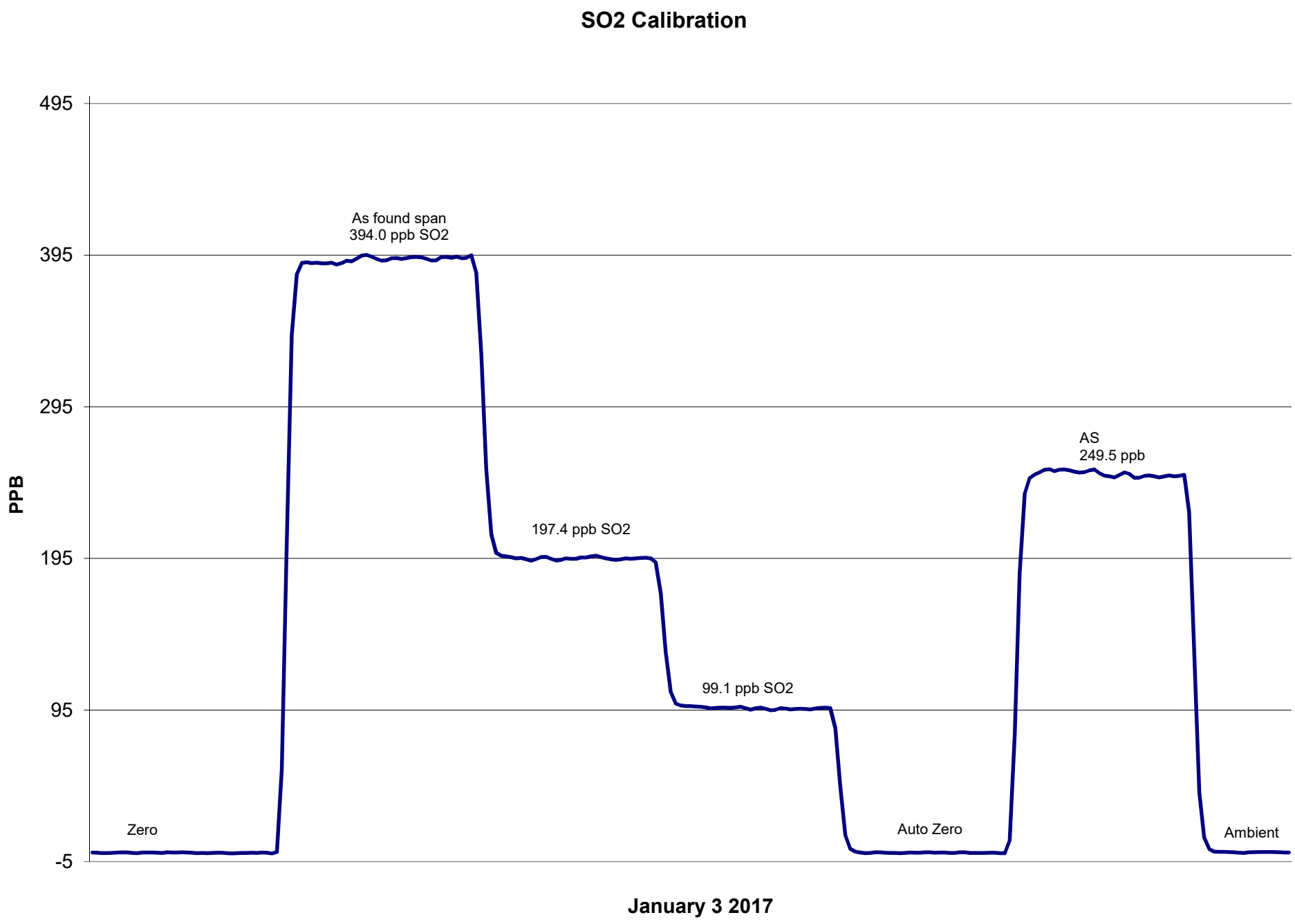
Station Information

Calibration Date	January 3 2017	Previous Calibration	December 7 2016
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	12:05	End Time (MST)	14:05:00 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	0.8	N/A		
394.0	392.9	1.0029	Correlation Coefficient	0.999902
197.4	195.1	1.0115		
99.1	95.9	1.0333	Slope	1.002449
			Intercept	1.029704




SO2 Calibration
495
395
295
195
95
-5
PPB
As found span
394.0 ppb SO2
197.4 ppb SO2
99.1 ppb SO2
AS
249.5 ppb
Zero
Auto Zero
Ambient
January 3 2017

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 3 2017	Previous Calibration	December 7 2016
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:30	End Time (MST)	13:00:00 PM
Barometric Pressure	0.927 ATM	Station Temperature	21.5 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	7/8/2016
Correction factor	0.031351	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.000849	Calculated slope	0.988267
Calculated intercept	0.412529	Calculated intercept	0.252788

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

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	15.3	ppb	15.3	ppb
coefficient	0.940		0.940	
Lamp Voltage	1020	volts	1020	volts
Chamber Temp	44.3	Deg C	44.4	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	662.9	mm Hg	661.4	mm Hg
Sample Flow	0.521	ccm	0.533	ccm
Lamp Intensity	36,605	mv	35,987	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4996	0.00	0.00	0.2	N/A
4995	39.95	80.93	82.0	0.9873
4992	19.93	40.56	40.2	1.0100
6998	9.90	14.41	14.2	1.0180
4999	9.98		0.4	Sox Test
4996	0.00	0.00	0.2	As Found Zero
4996	39.93	80.88	82.0	As Found Span
			Average Correction Factor	1.0051

Calculated value of As Found Response: 82.25 ppm Percent Change of As Found: -1.7%

	before calibration		after calibration	
Auto zero	-0.2	ppm	0.3	ppm
Auto span	76.1	ppm	80.4	ppm

Notes: No adjustment made
Sox scrubber check performed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

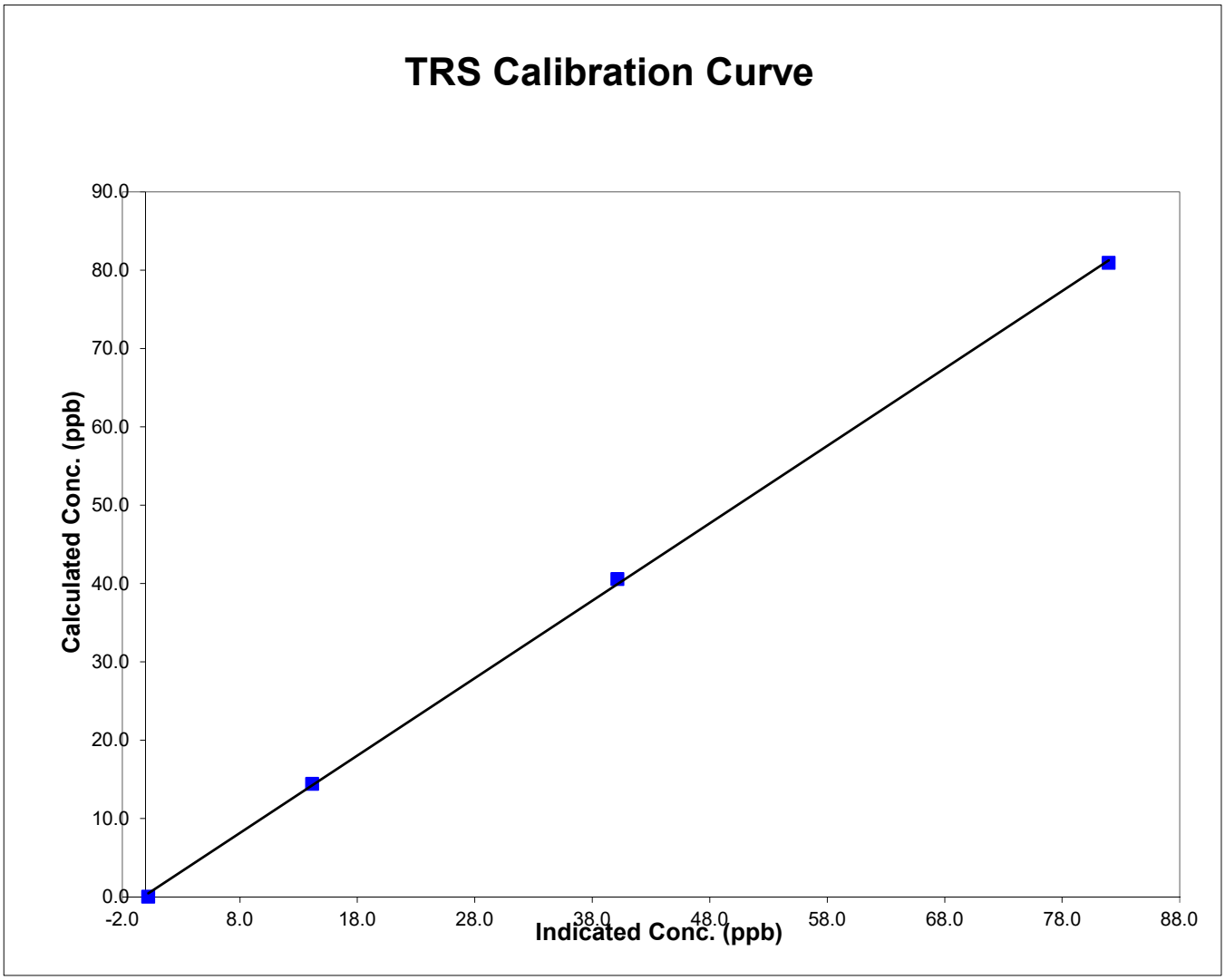
Air Monitoring Network **PAZA**

Station Information

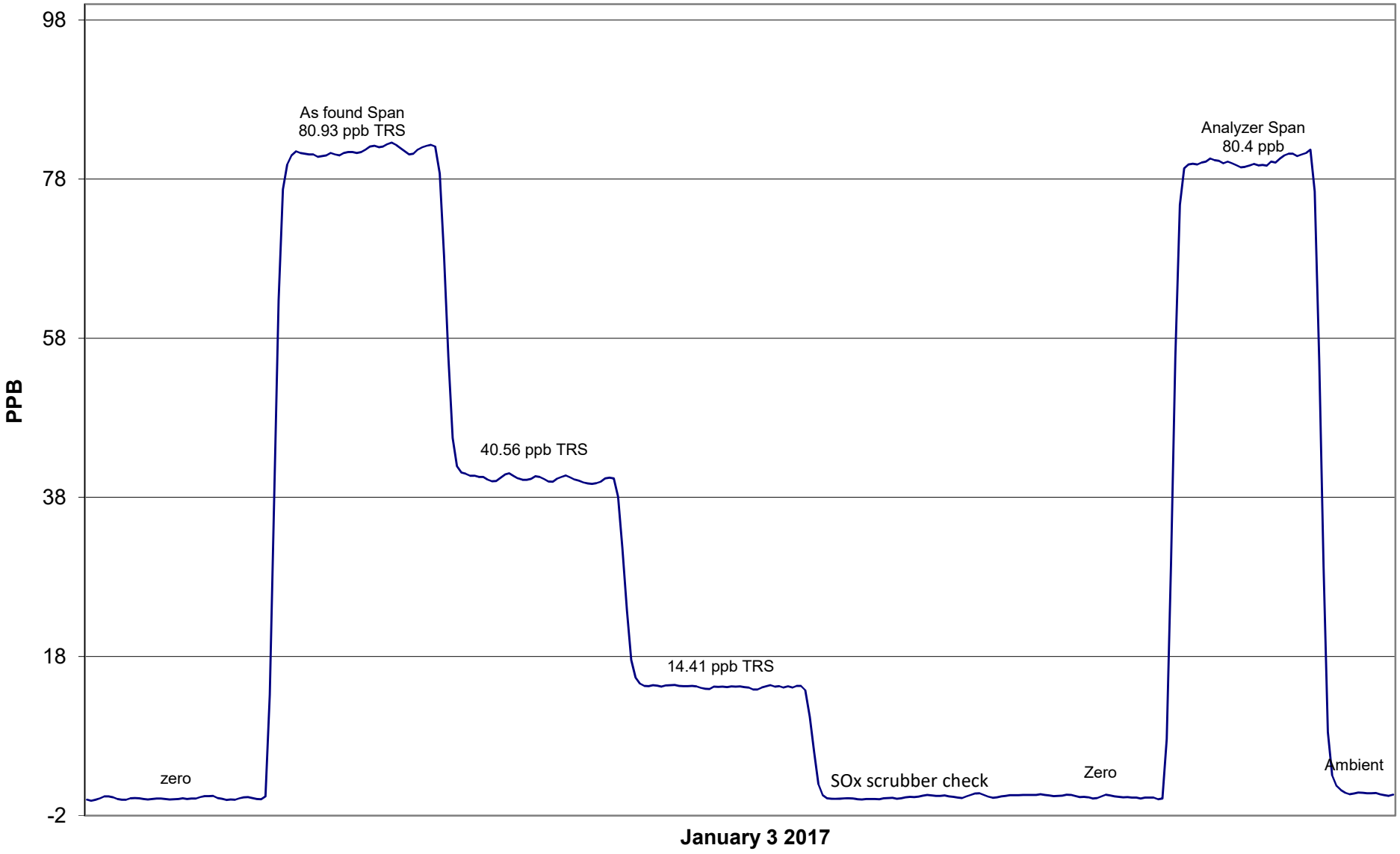
Calibration Date	January 3 2017	Previous Calibration	December 7 2016
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:30	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
80.9	82.0	0.9873	Correlation Coefficient	0.999806
40.6	40.2	1.0100		
14.4	14.2	1.0180	Slope	0.988267
			Intercept	0.252788



TRS Calibration



Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 12, 2017	Previous Calibration	December 15, 2016
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	12:20	End Time (MST)	15:00:00 PM
Barometric Pressure	0.922 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Concentration	49.7 ppm	Cal Gas Cert Date	11/5/2018
Correction factor	0.031341	Cal Gas Cylinder #	LL103793
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.016099	Calculated slope	0.999085
Calculated intercept	-0.030757	Calculated intercept	1.198616

Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12.8		14.1	
coefficient	0.939		0.955	
Lamp Voltage	946	volts	946	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	664.5	mm Hg	666.9	mm Hg
Sample Flow	0.440	lpm	0.444	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)
4997	0.0	0.00	0.2	N/A
4994	39.91	394.03	393.9	1.0003
4992	19.92	197.53	195.7	1.0092
4993	9.96	98.94	96.5	1.0258
4997	0.0	0.00	1.1	As Found Zero
4994	39.91	394.03	387.0	As Found Span
			Average Correction Factor	1.0118

Calculated value of As Found Response: 392.121 ppm Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	1.2	ppb	0.2	ppb
Auto span	202.9	ppb	210.1	ppb

Notes: Zero/span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

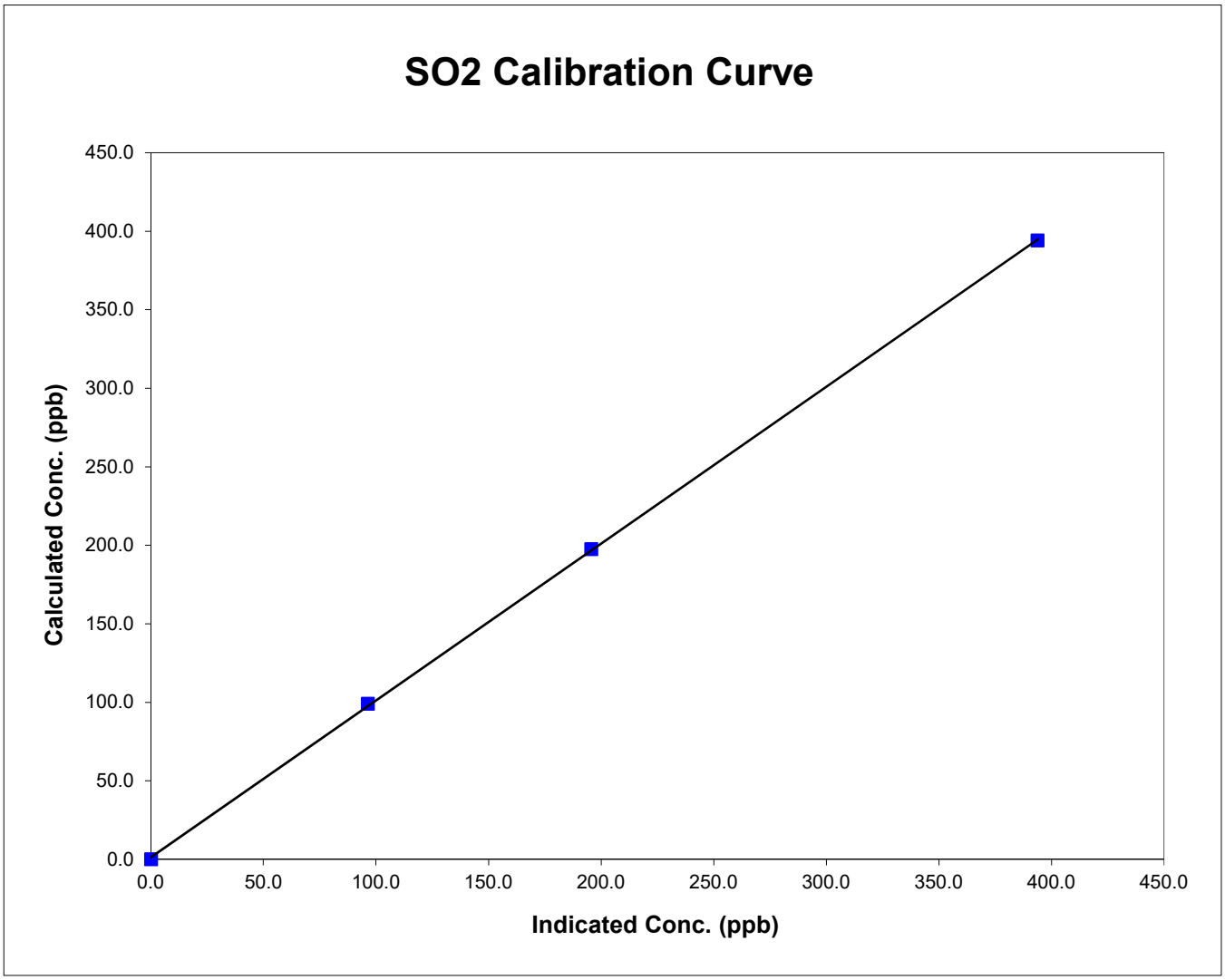
Air Monitoring Network **PAZA**

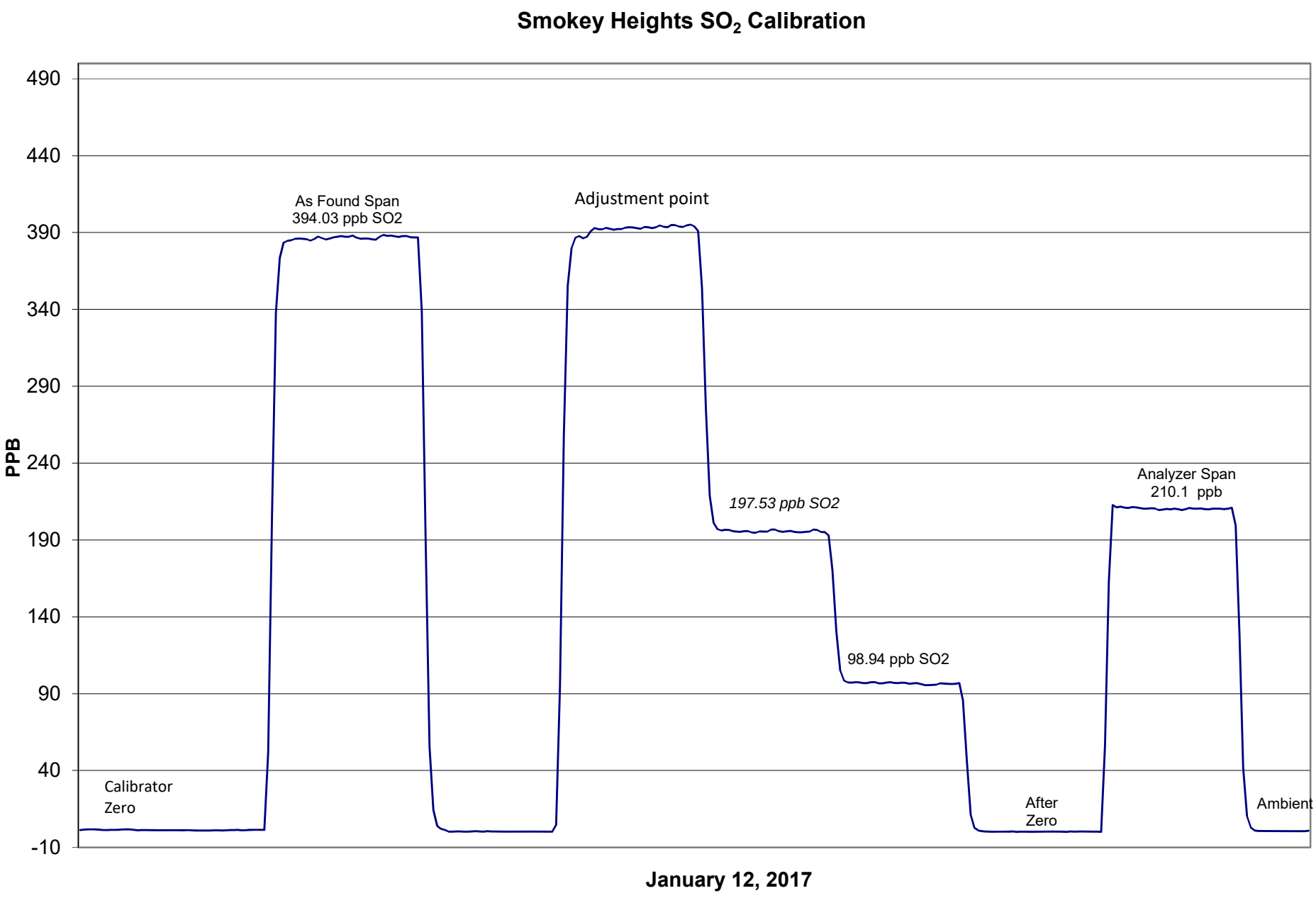
Station Information

Calibration Date	January 12, 2017	Previous Calibration	December 15, 2016
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	12:20	End Time (MST)	15:00:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
394.0	393.9	1.0003	Correlation Coefficient	0.999940
197.5	195.7	1.0092		
98.9	96.5	1.0258	Slope	0.999085
			Intercept	1.198616




Smokey Heights SO_2 Calibration
490
440
390
340
290
240
190
140
90
40
-10
PPB
As Found Span
394.03 ppb SO2
Adjustment point
197.53 ppb SO2
98.94 ppb SO2
Analyzer Span
210.1 ppb
Calibrator
Zero
After
Zero
Ambient
January 12, 2017

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 12, 2017	Previous Calibration	December 15, 2016
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:20	End Time (MST)	13:30:00 PM
Barometric Pressure	0.922 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	7/8/2016
Correction factor	0.031341	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.993791	Calculated slope	0.991859
Calculated intercept	-0.108640	Calculated intercept	-0.060924
Analyzer make	TEI Model 43I APSAA	Analyzer serial #	1153630151

	before		after	
Concentration range	100	ppb	100	ppb
Background	14.4	ppb	14.5	ppb
coefficient	0.949		0.949	
Lamp Voltage	809	volts	809	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	668.5	mm Hg	668.2	mm Hg
Sample Flow	0.418	lpm	0.419	lpm
Lamp Intensity	91	mv	90	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)
4990	0.0	0.00	0.5	N/A
4989	39.87	80.87	81.9	0.9876
4992	19.96	40.62	40.5	1.0028
6997	9.91	14.43	14.4	1.0029
4990	9.95		0.7	Sox test
4990	0.0	0.00	0.5	As Found Zero
4989	39.87	80.87	81.9	As Found Span
			Average Correction Factor	0.9978

Calculated value of As Found Response: 80.76 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	0.7	ppm	0.4	ppm
Auto span	67.8	ppm	69.9	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

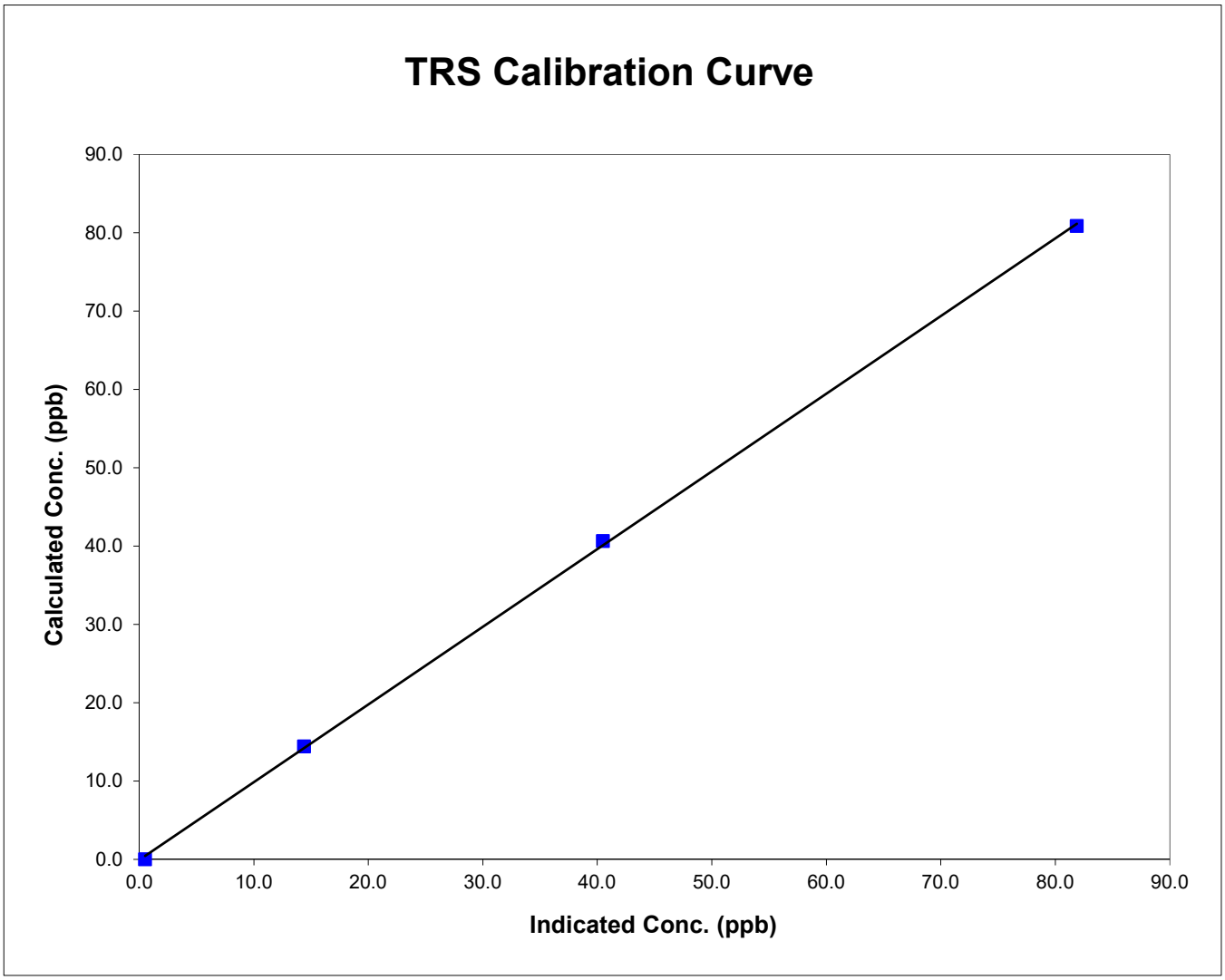
WSP AIR QUALITY MONITORING

Station Information

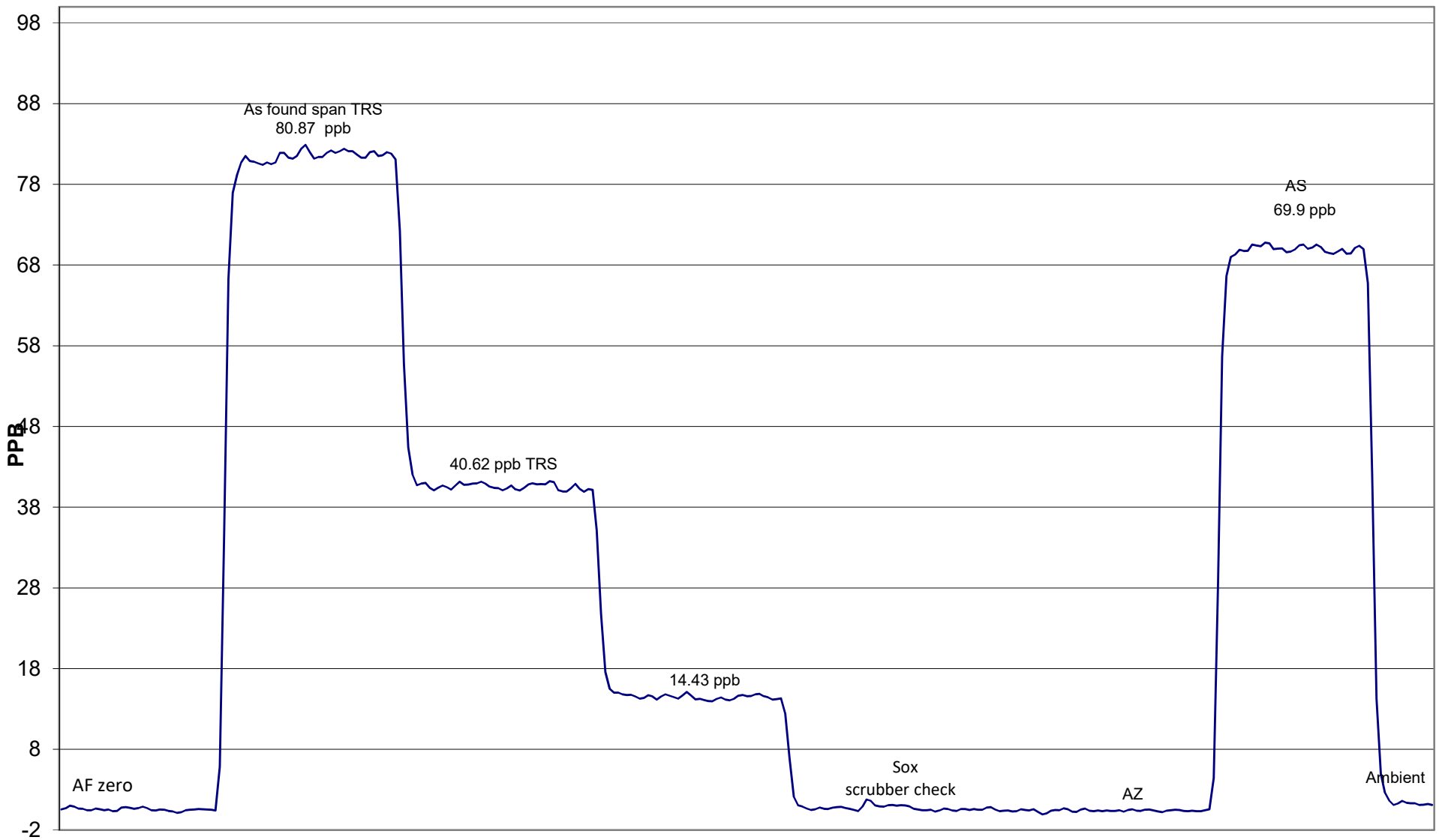
Calibration Date	January 12, 2017	Previous Calibration	December 15, 2016
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:20	End Time (MST)	13:30:00 PM
Analyzer make/model	TEI Model 43I APSAA	Analyzer serial #	1153630151

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
80.9	81.9	0.9876	Correlation Coefficient	0.999848
40.6	40.5	1.0028		
14.4	14.4	1.0029	Slope	0.991859
			Intercept	-0.060924



Smokey Heights TRS Calibration



January 12, 2017

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 9, 2017	Previous Calibration	December 14, 2016
Station Number	4	Station Location	Beaverlodge
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	13:55:00 PM	End Time (MST)	13:55:00 PM
Barometric Pressure	0.931 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	1.008263	Calculated slope	1.009424
Calculated intercept	-0.320337	Calculated intercept	-0.262771
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	-767.6	V	-767.5	V
UV Lamp Voltage	1125	V	1125	V
Chamber Temp	45.2	Deg C	45.2	Deg C
Pressure	660.7	mm Hg	661.1	mm Hg
Sample Flow	0.451	LPM	0.453	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)
4989	0.00	0.0	0.3	N/A
4992	39.91	83.3	82.8	1.0060
4995	19.90	41.7	41.6	1.0023
4991	9.96	20.9	20.8	1.0035
4989	0.00	0.0	0.3	As found zero
4989	39.84	83.2	82.8	As found span
			Average Correction Factor	1.0039

Calculated value of As Found Response: 82.794 ppm Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.1	ppb
Auto span	58.5	ppb	59.4	ppb

Notes: No adjustment

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

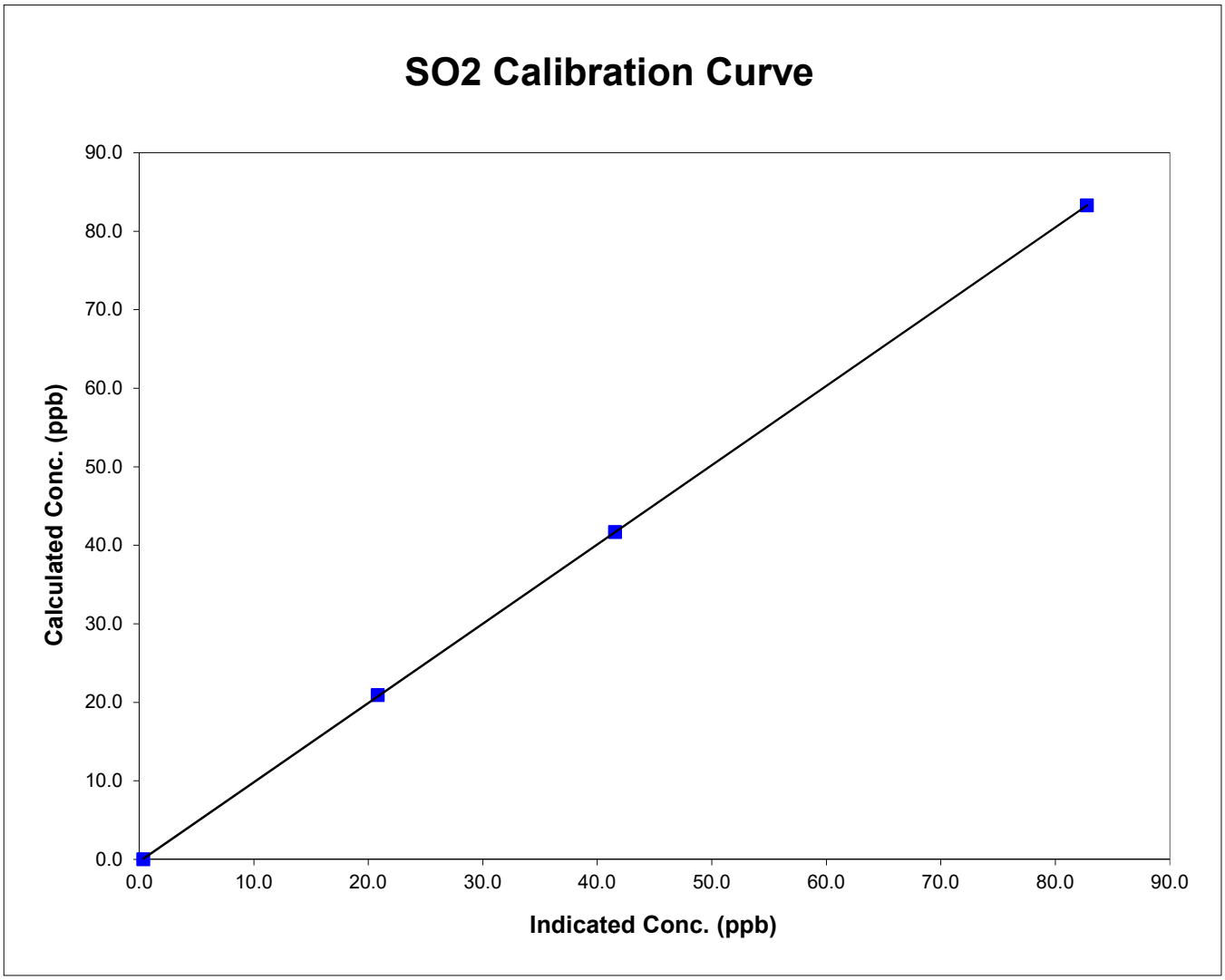
WSP AIR QUALITY MONITORING

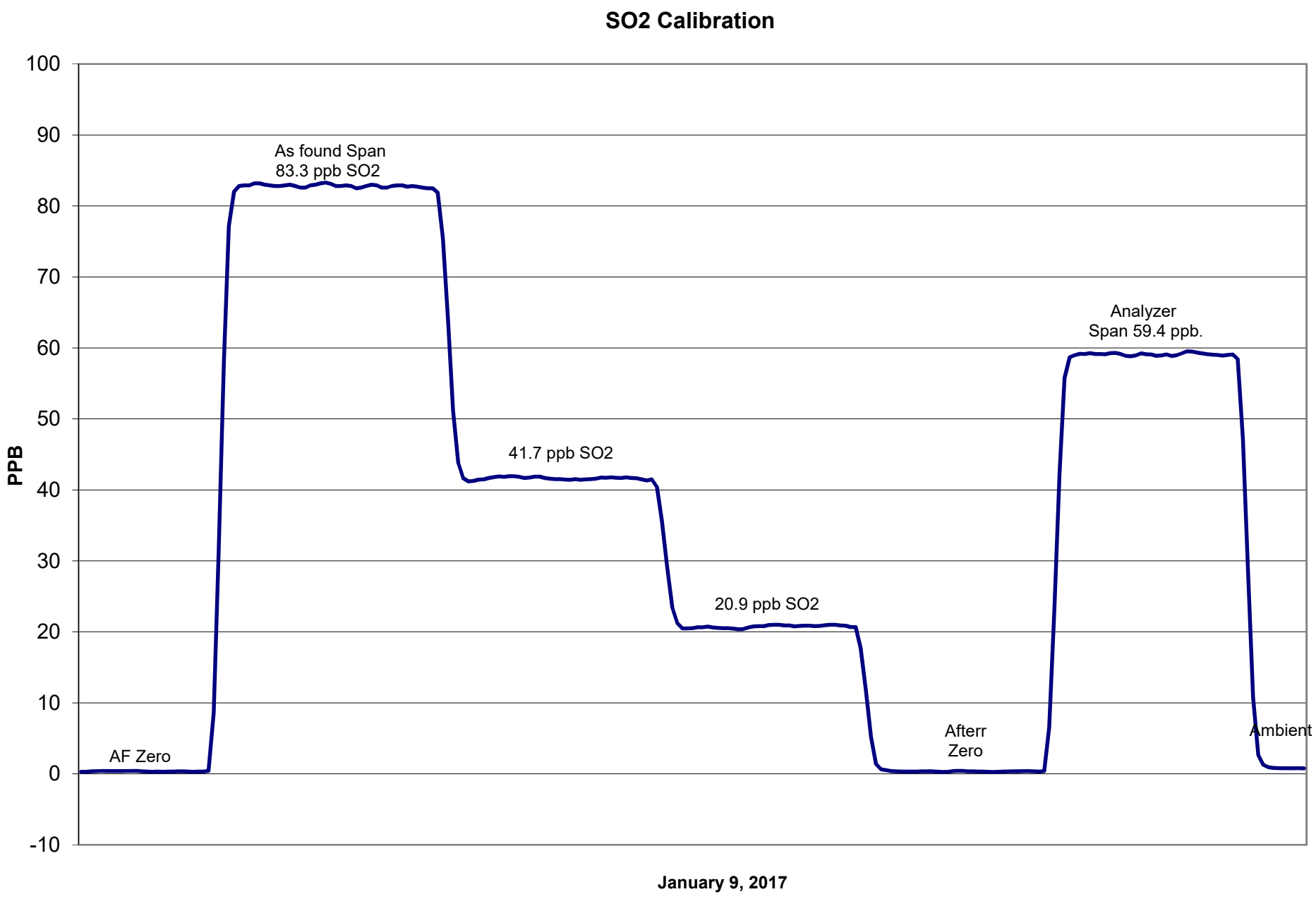
Station Information

Calibration Date	January 9, 2017	Previous Calibration	December 14, 2016
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:55:00 PM	End Time (MST)	13:55:00 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		
83.3	82.8	1.0060	Correlation Coefficient	0.999993
41.7	41.6	1.0023		
20.9	20.8	1.0035	Slope	1.009424
			Intercept	-0.262771




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As found Span
83.3 ppb SO2
41.7 ppb SO2
20.9 ppb SO2
Analyzer
Span 59.4 ppb.
AF Zero
Afterr
Zero
Ambient
January 9, 2017

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 9, 2017	Previous Calibration	December 14, 2016
Station Number	4	Station Location	Beaverlodge

Reason: Routine Installation Removal Other:

Start Time (MST)	10:05		End Time (MST)	13:40:00 PM	
Barometric Pressure	0.931	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	3474	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	November 5, 2018	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL103793	

DACS Information

DACS make: CR3000 DACS serial No.: 5237

Parameter		NO2	NOx	NO
Before	Data Slope	1.000980	1.006672	1.001463
	Data Offset	-0.012409	0.597120	1.206290
After	Data Slope	1.001402	0.999791	0.994245
	Data Offset	0.382145	1.588336	1.564200
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	3.3	mV	3.3	mV
NO coefficient	1.183		1.183	
NOx coefficient	0.999		0.999	
NO2 conv temp	323.4	Deg C	324.2	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-728.9	mV	-730.0	mV
R Cell Press	182.2	in Hg	183.0	in Hg
Sample Flow	0.656	LPM	0.660	LPM

Notes: No adjustment made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: January 9, 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	4993	0.00	0.0	0.0	0.0	-0.3	-0.2	-0.2	N/A	N/A
1	4994	39.91	405.9	403.5	2.4	405.1	405.1	-0.8	1.0021	0.9961
2	4991	19.92	203.5	202.3	1.2	201.3	200.8	-0.4	1.0111	1.0075
3	4997	9.94	101.6	101.0	0.6	98.8	99.0	-0.4	1.0289	1.0207
AFZ	4993	0.00	0.0	0.0	0.0	-0.3	-0.2	-0.2	0.0000	0.0000
AFS	4993	39.92	406.1	403.7	0.8	405.1	405.1	-0.8	1.0025	0.9966
							Average Correction Factor		1.0140	1.0081

As Found Concentrations: NO_X= 408.7 NO= 407.1 As Found Percent Change NO_X= 0.6% NO= 0.8%

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	-0.3	-0.2	-0.2	N/A	N/A	N/A	N/A
NO point	403.7	403.7	0.0	403.7	403.7	-0.7	1.0000	1.0000	N/A	N/A
300	403.7	61.0	342.7	403.7	61.0	341.7	1.0000	1.0000	1.0030	99.7%
200	403.7	173.5	230.2	404.4	173.5	230.0	0.9983	1.0000	1.0010	99.9%
100	403.7	291.9	111.8	403.4	291.9	110.8	1.0008	1.0000	1.0092	99.1%
					Average Correction Factor		0.9997	1.0000	1.0044	99.6%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.1	0.1	-0.1	ppb	-0.3	-0.3	-0.1	ppb
Auto span	312.9	310.3	1.9	ppb	320.9	318.2	1.9	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

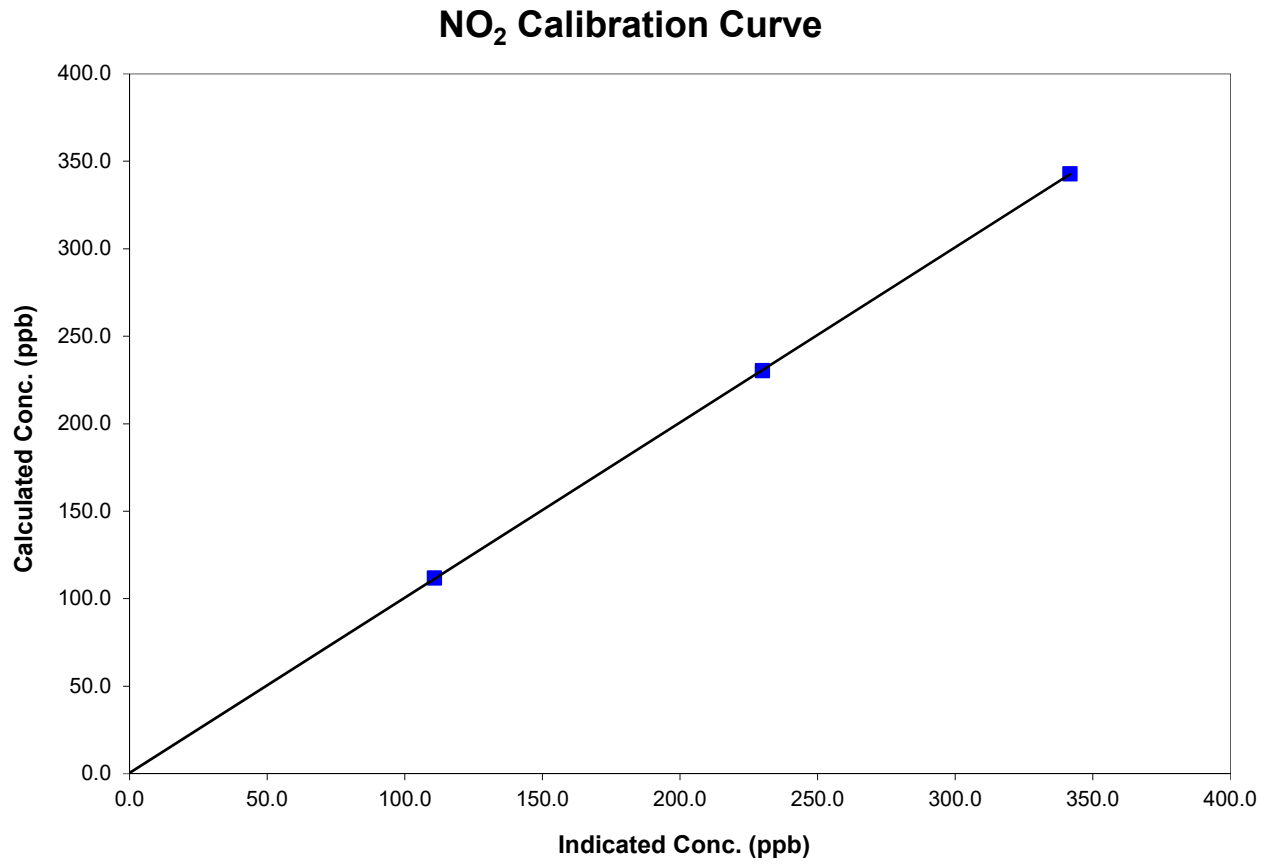
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 9, 2017	Previous Calibration	December 14, 2016
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:05	End Time (MST)	13:40:00 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		
342.7	341.7	1.0030	Correlation Coefficient	0.999992
230.2	230.0	1.0010		
111.8	110.8	1.0092	Slope	1.001402
			Intercept	0.382145



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

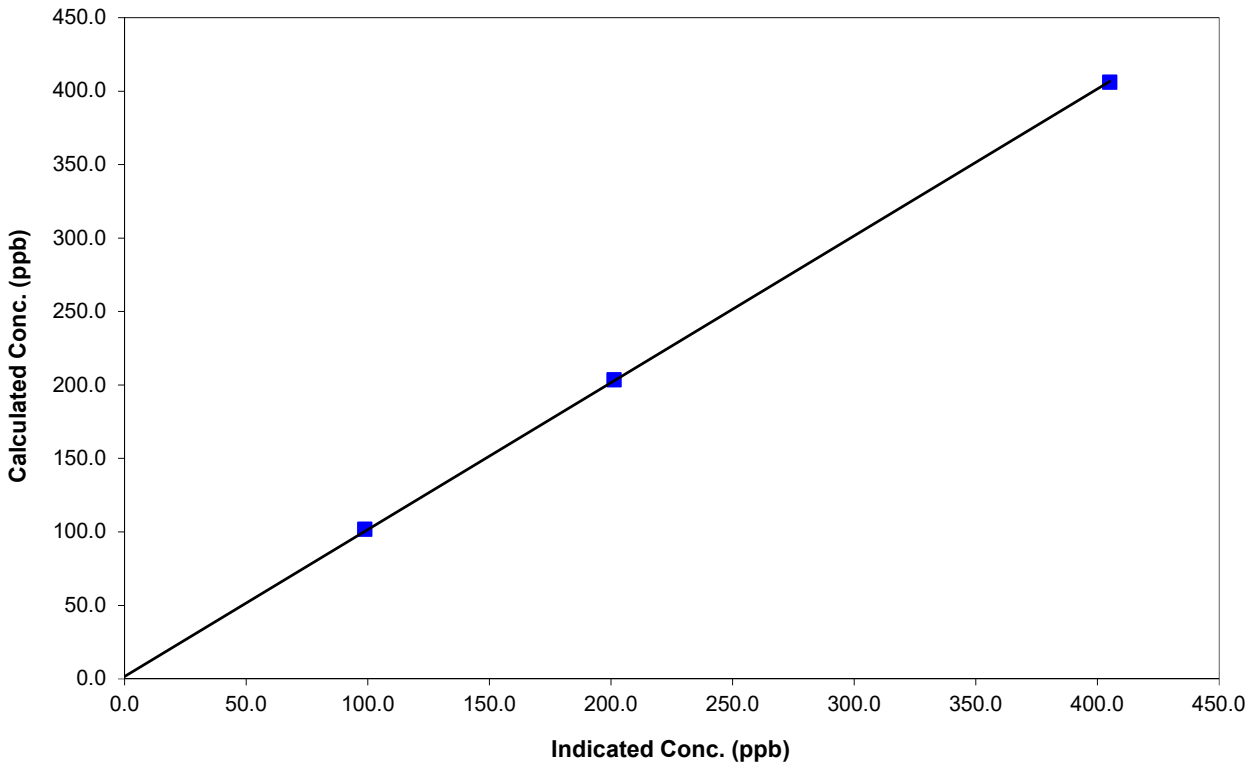
Station Information

Calibration Date	January 9, 2017	Previous Calibration	December 14, 2016
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:05	End Time (MST)	13:40:00 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		
405.9	405.1	1.0021	Correlation Coefficient	0.999952
203.5	201.3	1.0111		
101.6	98.8	1.0289	Slope	0.999791
			Intercept	1.588336

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

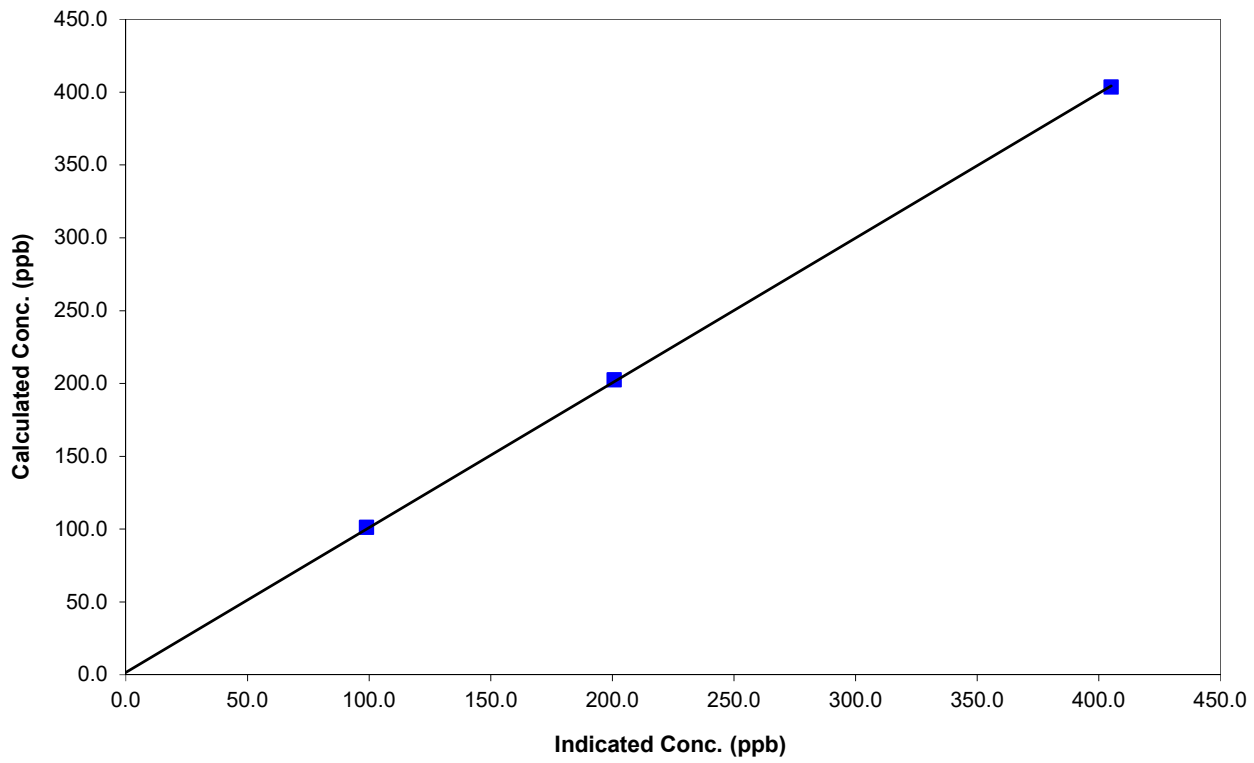
Station Information

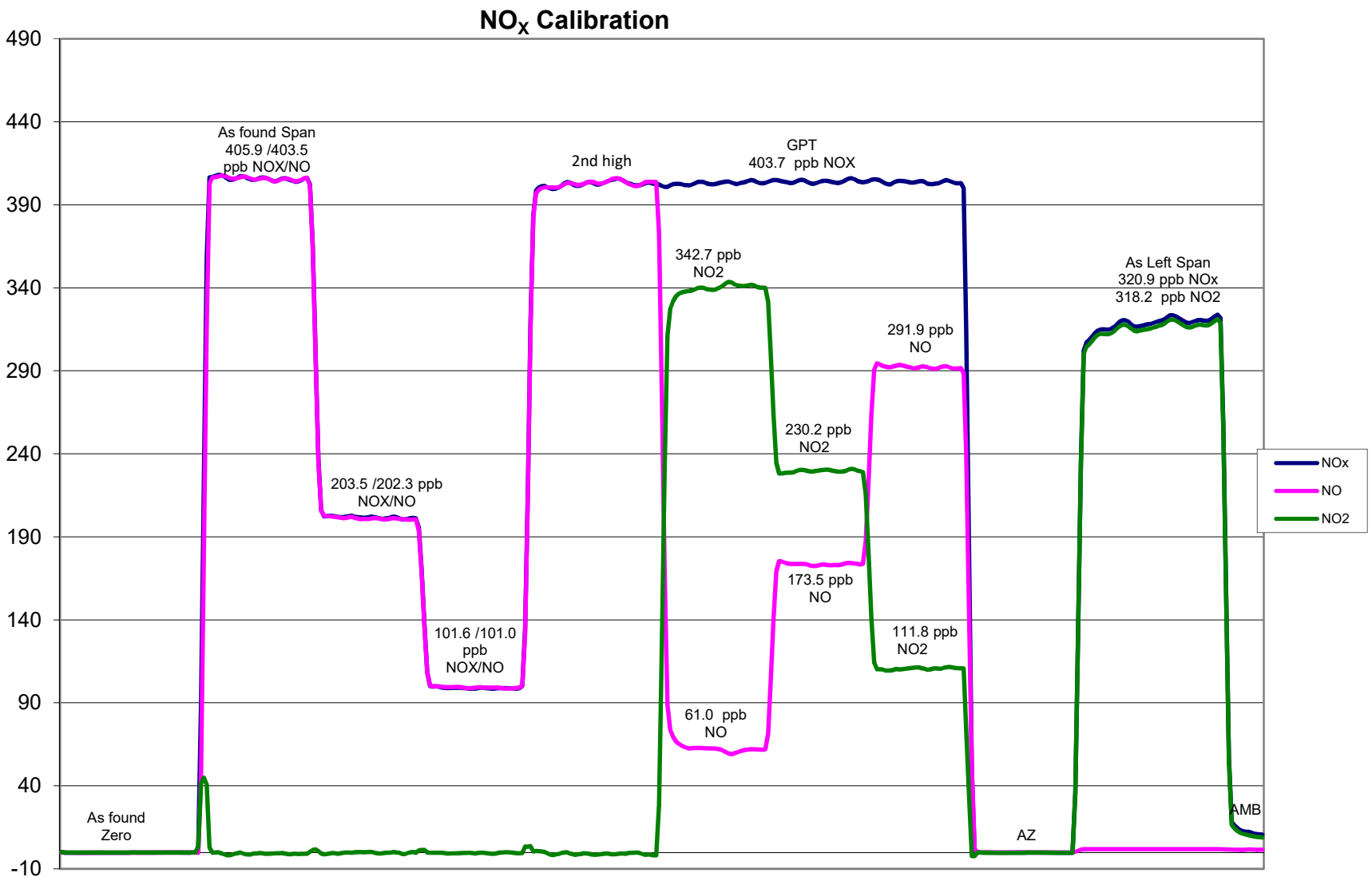
Calibration Date	January 9, 2017	Previous Calibration	December 14, 2016
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:05	End Time (MST)	13:40:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
403.5	405.1	0.9961	Correlation Coefficient	0.999947
202.3	200.8	1.0075		
101.0	99.0	1.0207	Slope	0.994245
			Intercept	1.564200

NO Calibration Curve




NOx Calibration
490
440
390
340
290
240
190
140
90
40
-10
As found Span
405.9 /403.5
ppb NOX/NO
2nd high
GPT
403.7 ppb NOX
342.7 ppb
NO2
As Left Span
320.9 ppb NOx
318.2 ppb NO2
291.9 ppb
NO
230.2 ppb
NO2
203.5 /202.3 ppb
NOX/NO
173.5 ppb
NO
101.6 /101.0
ppb
NOX/NO
111.8 ppb
NO2
61.0 ppb
NO
As found
Zero
AZ
AMB
NOx
NO
NO2
January 9, 2017

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 9, 2017	Previous Calibration	December 14, 2016
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:40	End Time (MST)	15:35:00 PM
Barometric Pressure	0.931 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	1.010175	Calculated slope	1.021674
Calculated intercept	-0.567631	Calculated intercept	-0.014257

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	1.080		1.080	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	60650/68409	mV	60002/67342	mV
Pressure	678.1	mm Hg	686.3	mm Hg
Flow A	0.789	LPM	0.788	LPM
Flow B	0.740	LPM	0.740	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5028	0.00	0.0	0.7	N/A
5028	0.30	342.7	336.5	1.0184
5028	0.20	230.2	223.8	1.0284
5028	0.10	111.8	109.2	1.0237
5028	0.00	0.0	0.7	As found zero
5028	0.30	342.7	336.5	As found span
			Average Correction Factor	1.0235

Calculated value of As Found Response: 338.7 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.6	ppb
Auto span	274.2	ppb	276.4	ppb

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

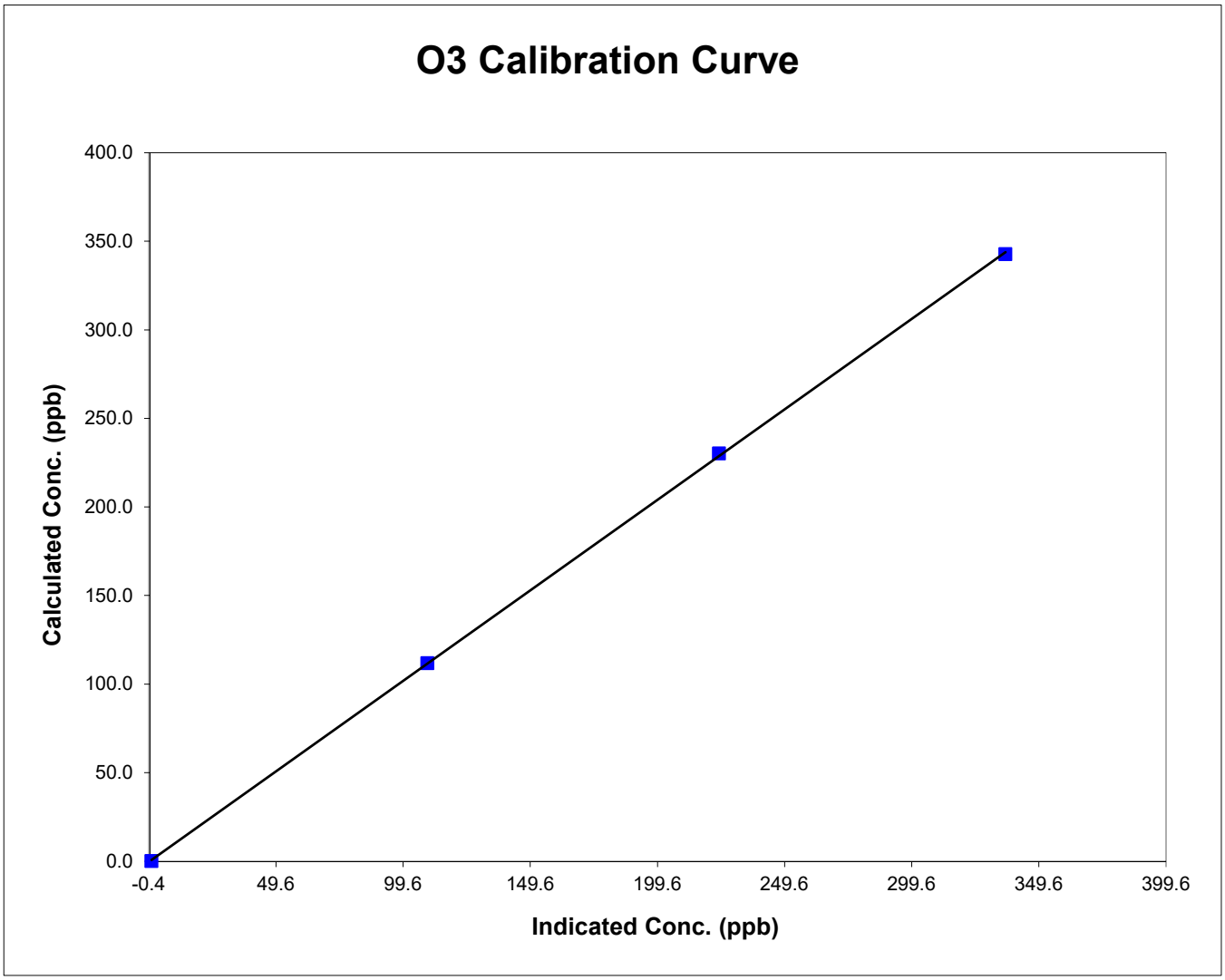
WSP AIR QUALITY MONITORING

Station Information

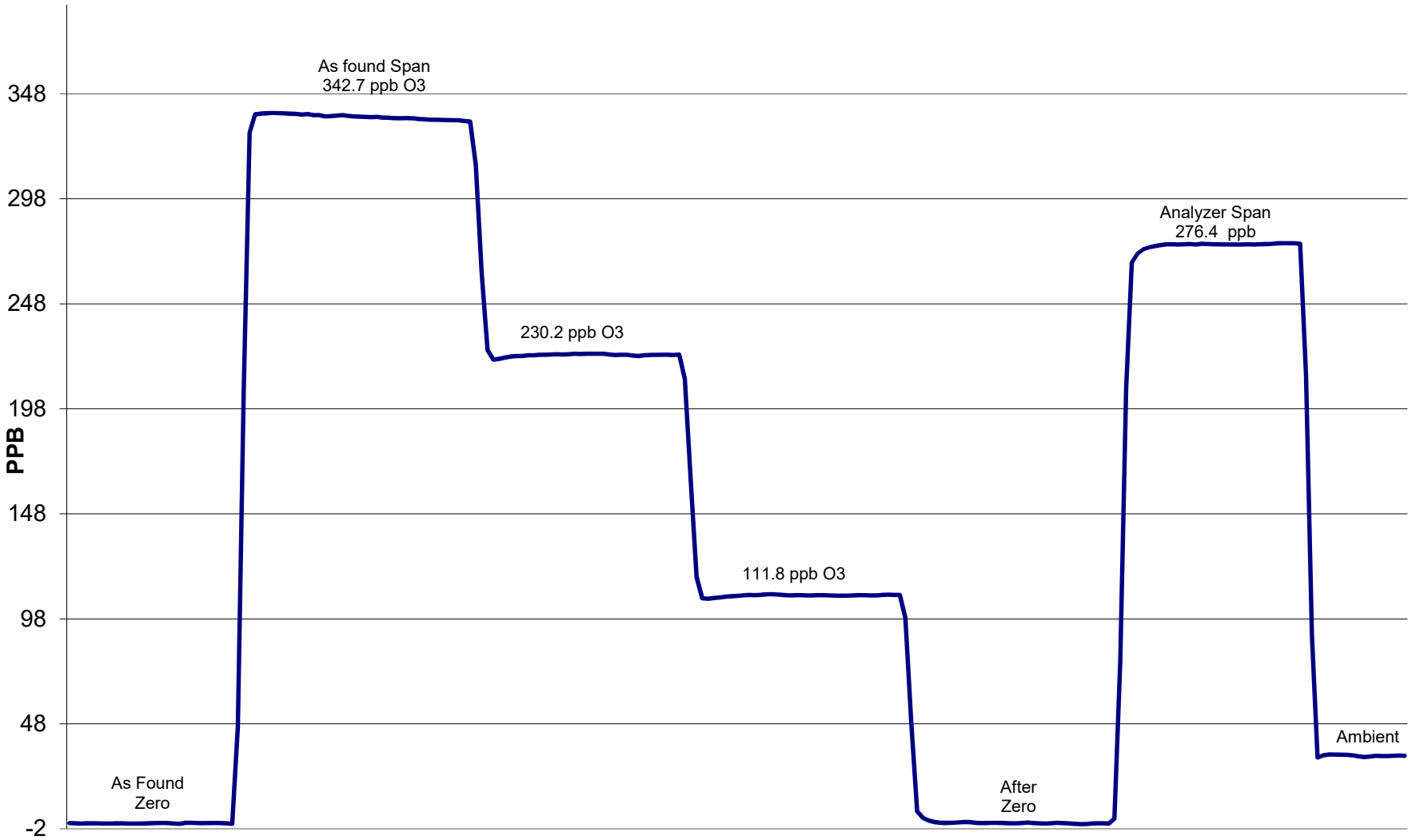
Calibration Date	January 9, 2017	Previous Calibration	December 14, 2016
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:40	End Time (MST)	15:35:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236,AMU 1879

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	NA		
342.7	336.5	1.0184	Correlation Coefficient	0.999939
230.2	223.8	1.0284		
111.8	109.2	1.0237	Slope	1.021674
			Intercept	-0.014257



O3 Calibration



January 9, 2017

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	December 10 2017	Previous Calibration	December 16 2016
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	13:10:00 PM	End Time (MST)	15:15:00 PM
Barometric Pressure	0.922 atm	Station Temperature	19.0 Deg C
Calibrator	Environics	Serial Number	3016
Cal Gas Concentration	49.7 ppm	Cal Gas Exp Date	November 5, 2018
Gas Cylinder Num.	LL103793		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.004772	Calculated slope	1.011987
Calculated intercept	1.398353	Calculated intercept	1.415515
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	16.5		16.5	
Coefficient	1.011		1.011	
UV Lamp Voltage	743	LPM	743	LPM
Chamber Temp	43	V	43	V
Perm Gas Temp	45	C	45	C
Pressure	673	in Hg	673.4	in Hg
Sample Flow	0.488	LPM	0.488	LPM
Lamp Intensity	47520	Hz	47511	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	-0.2	N/A
4999	39.91	393.6	388.4	1.0134
4996	19.96	197.8	192.7	1.0265
4995	9.90	98.3	95.1	1.0343
4995	0.00	0.0	-0.2	As found zero
4995	39.93	394.2	388.4	As found span
			Average Correction Factor	1.0247

Calculated value of As Found Response: 391.9 ppm Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	-0.1	ppm	-0.2	ppm
Auto span	275.0	ppm	274.9	ppm

Notes: No adjustment made

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

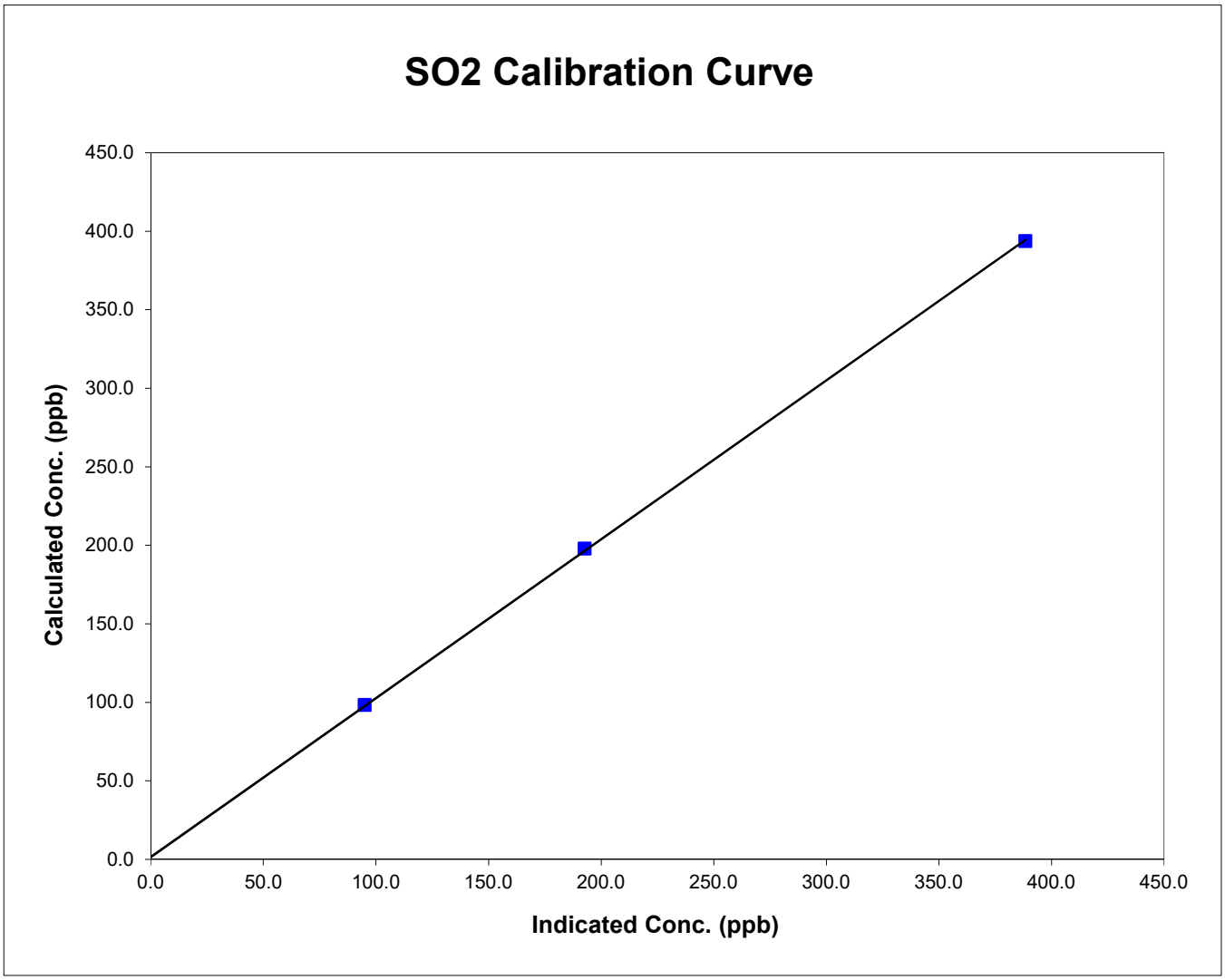
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	December 10 2017	Previous Calibration	December 16 2016
Station Number	6	Station Location	Valleyview
Start Time (MST)	13:10:00 PM	End Time (MST)	15:15:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

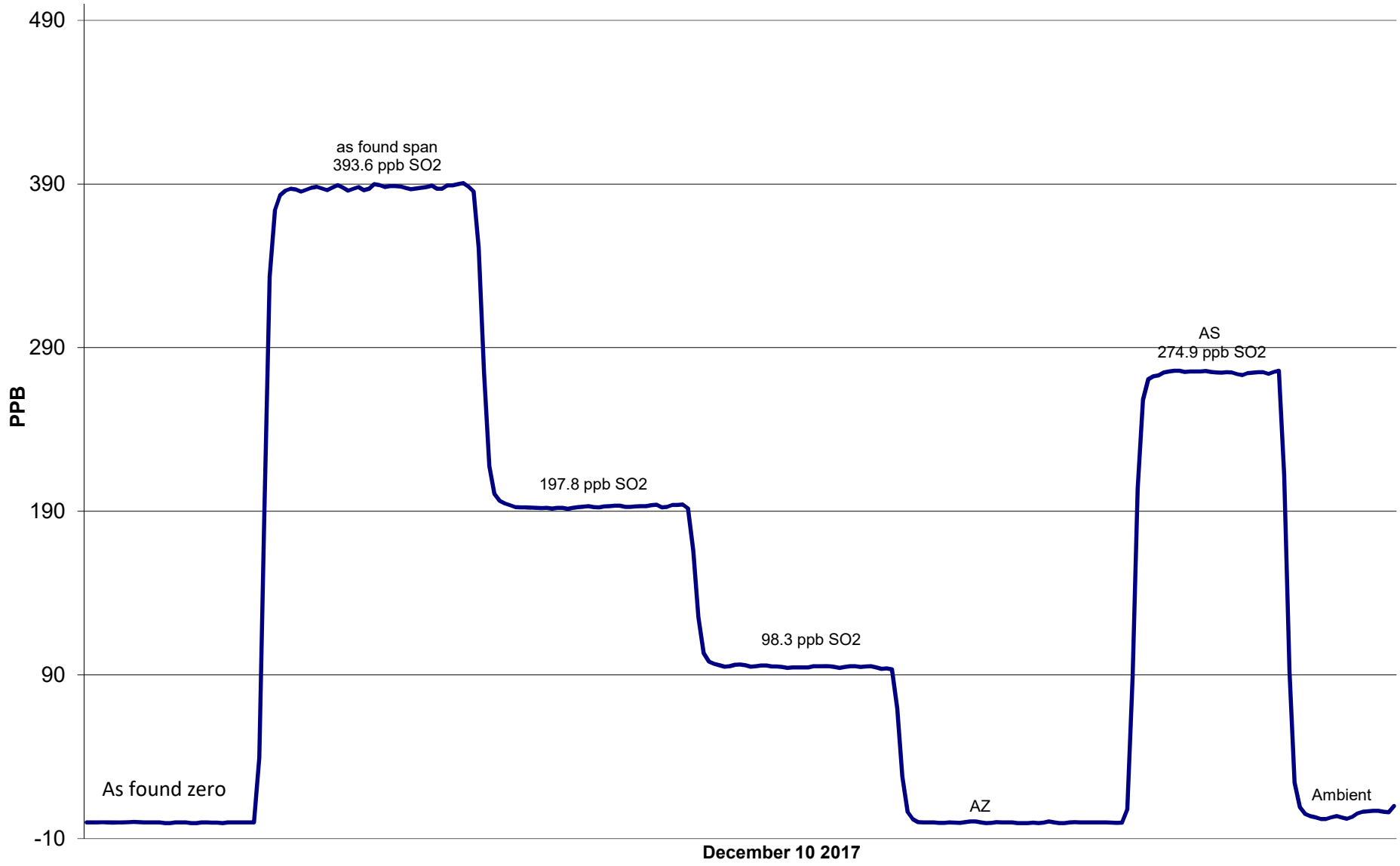
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
393.6	388.4	1.0134	Correlation Coefficient	0.999945
197.8	192.7	1.0265		
98.3	95.1	1.0343	Slope	1.011987
			Intercept	1.415515



AZ

SO2 Calibration



Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 10 2017	Previous Calibration	December 16 2016
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:40	End Time (MST)	14:15:00 PM
Barometric Pressure	0.922 atm	Station Temperature	19.0 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	0.991382	Calculated slope	0.997828
Calculated intercept	0.651700	Calculated intercept	0.612678
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	9.5	ppb	9.5	ppb
Coefficient	0.861		0.861	
Lamp Voltage	797	V	797	V
Chamber Temp	45	c	45	c
Perm Oven Temp	45	c	45	c
Pressure	524.20	mm Hg	523.30	mm Hg
Sample Flow	0.362	ccm	0.362	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)
4996	0.00	0.0	0.0	N/A
4991	39.92	80.9	80.7	1.0031
4993	19.98	40.7	39.9	1.0181
6997	10.01	14.6	13.4	1.0849
4997	9.97		2.8	Sox Test
4996	0.00	0.0	0.0	As found zero
4996	39.93	80.9	80.7	As found span
			Average Correction Factor	1.0354

Calculated value of As Found Response: 80.69 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	-0.1	ppm	-0.3	ppm
Auto span	67.0	ppm	66.7	ppm

Notes: No adjustments made
Sox scrubber cjeck performed

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PAZA**

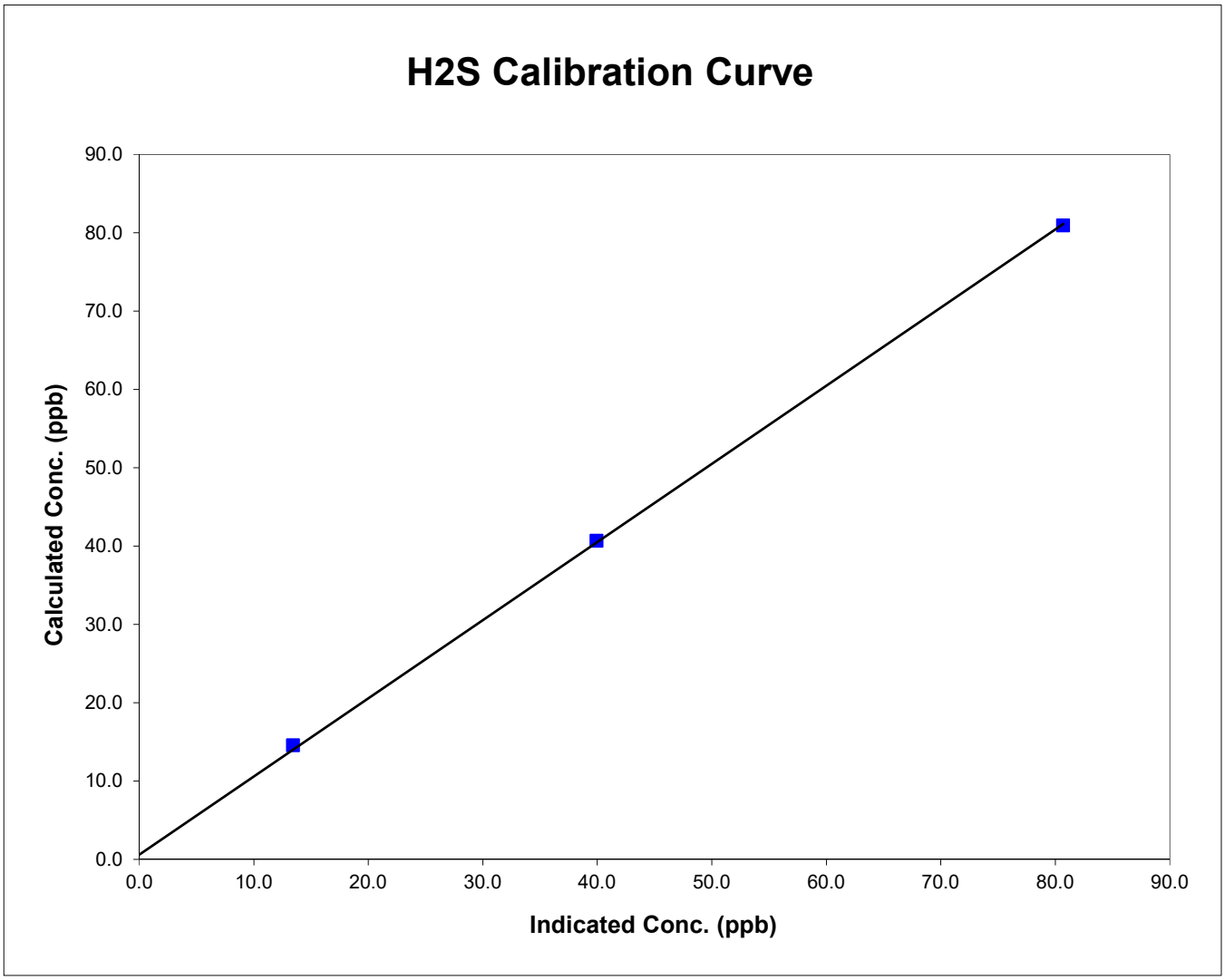
WSP AIR QUALITY MONITORING

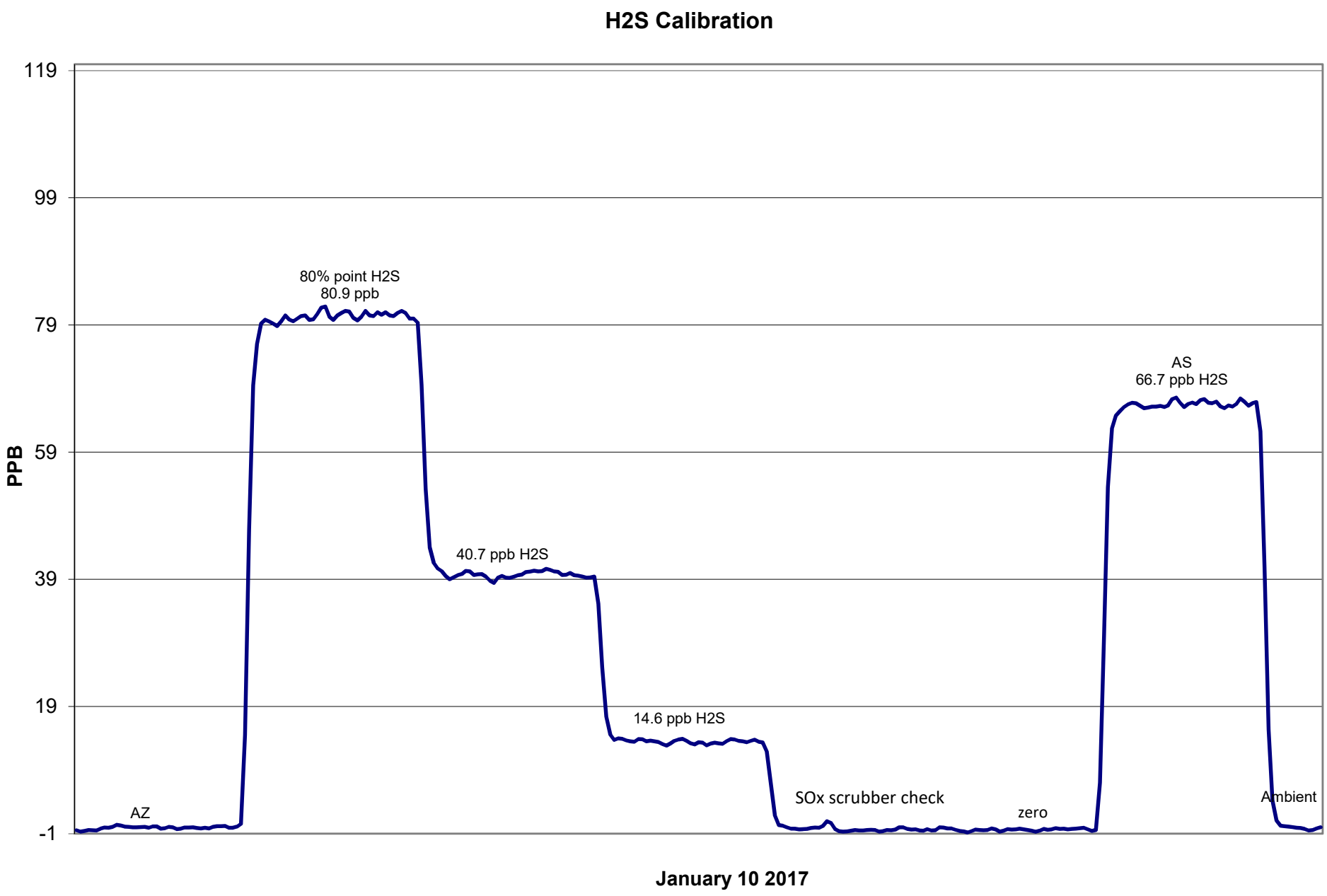
Station Information

Calibration Date	January 10 2017	Previous Calibration	December 16 2016
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:40	End Time (MST)	14:15:00 PM
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
80.9	80.7	1.0031	Correlation Coefficient	0.999814
40.7	39.9	1.0181		
14.6	13.4	1.0849	Slope	0.997828
			Intercept	0.612678




H2S Calibration
119
99
79
59
39
19
-1
PPB
80% point H2S
80.9 ppb
40.7 ppb H2S
14.6 ppb H2S
AS
66.7 ppb H2S
AZ
SOx scrubber check
zero
Ambient
January 10 2017

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 23, 2017	Previous Calibration	December 9, 2016
Station Number	1	Station Location	Donnely
Reason: Routine	Install	Removal	Other:

Start Time (MST)	13:50:00 PM	End Time (MST)	15:55:00 PM
Barometric Pressure	0.921 mm	Station Temperature	18.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Concentration	49.7 ppm	Cal Gas Expiry Date	11/5/2018
Correction factor	0.031523	Cal Gas Cylinder #	LL103793
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.004346	Calculated slope	1.003121
Calculated intercept	-0.468887	Calculated intercept	-0.447895

Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.4		6.4	
coefficient	0.908		0.908	
Lamp Voltage	862	volts	860	volts
Chamber Temp	45	Deg C	44.9	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	677.9	mm Hg	677.3	mm Hg
Sample Flow	0.393	ccm	0.393	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)
4995	0.0	0.00	1.3	N/A
4992	39.91	394.2	393.7	1.0011
4993	19.94	197.7	197.4	1.0017
4991	9.99	99.3	98.4	1.0088
4995	0.0	0.0	1.3	As Found Zero
4995	39.93	394.2	393.7	As Found Span
			Average Correction Factor	1.0039

Calculated value of As Found Response: 393.695 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	1.4	ppm	1.3	ppm
Auto span	258.1	ppm	265.2	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

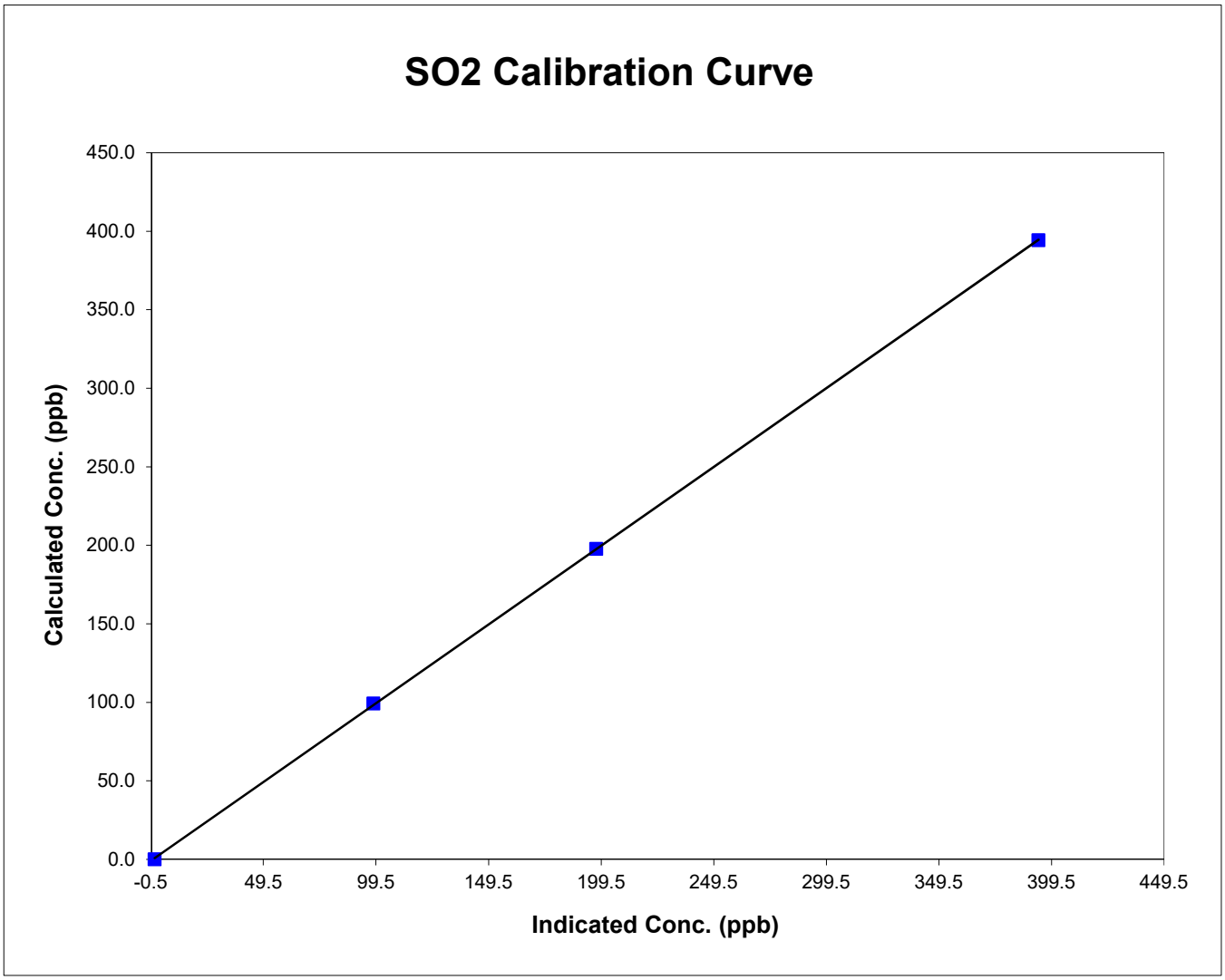
WSP AIR QUALITY MONITORING

Station Information

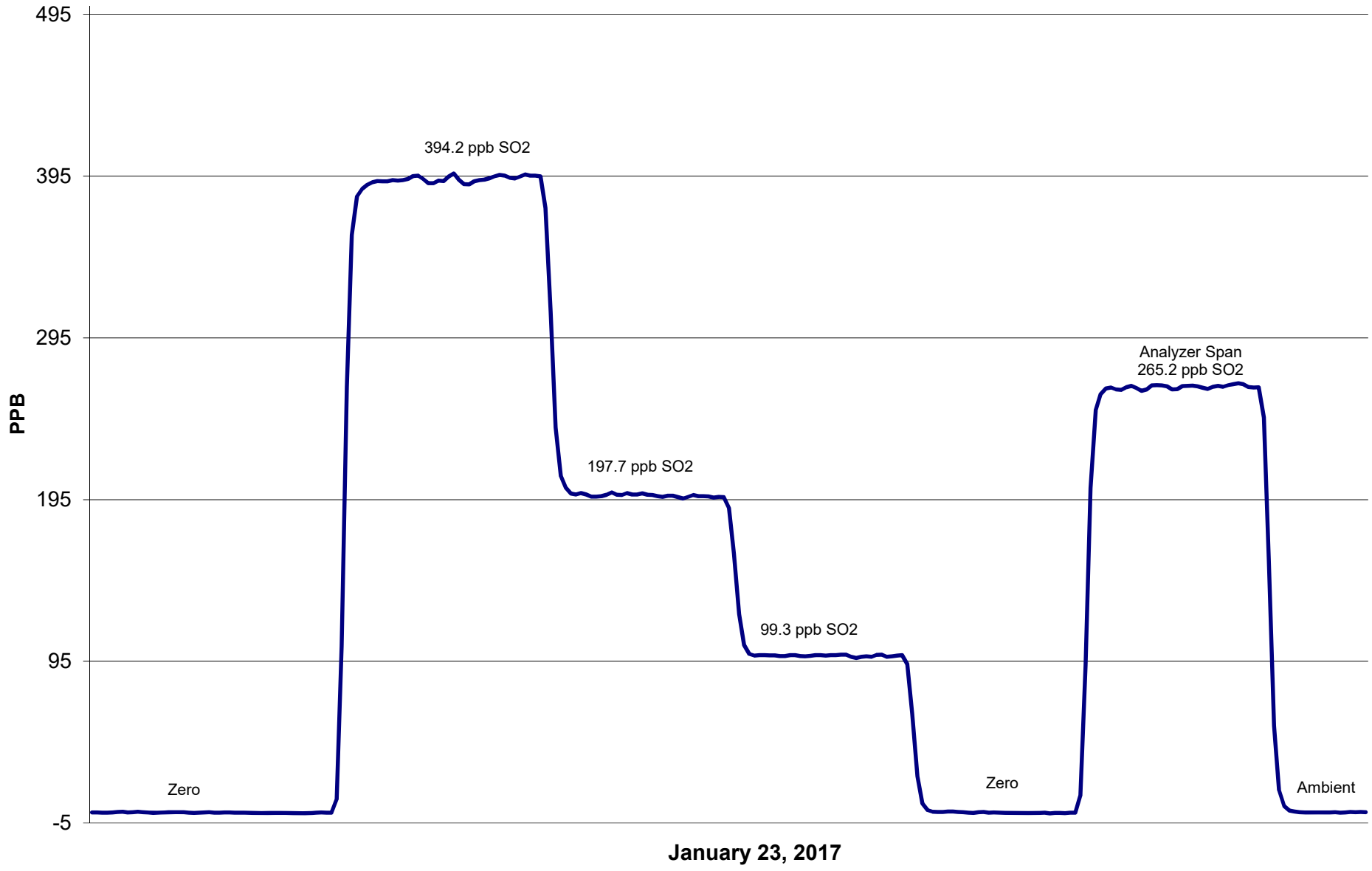
Calibration Date	January 23, 2017	Previous Calibration	December 9, 2016
Station Number	1	Station Location	Donnely
Start Time (MST)	13:50:00 PM	End Time (MST)	15:55:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.3	N/A		
394.2	393.7	1.0011	Correlation Coefficient	0.999978
197.7	197.4	1.0017		
99.3	98.4	1.0088	Slope	1.003121
			Intercept	-0.447895



SO2 Calibration



Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 23, 2017	Previous Calibration	December 9, 2016
Station Number	1	Station Location	Donnely
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	11:45	End Time (MST)	15:00:00 PM
Barometric Pressure	0.925 mm	Station Temperature	18.0 Deg C
Calibrator	Environics	Serial Number	6586
Cal Gas Conc	10.2 ppm	Cal Gas Expiry Date	7/8/2016
Correction factor	0.031659	Cal Gas Cylinder #	LL103793
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.013180	Calculated slope	1.008883
Calculated intercept	-0.467762	Calculated intercept	0.058114
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	15.1	ppb	15.9	ppb
coefficient	1.031		1.031	
Lamp Voltage	809	volts	809	volts
Chamber Temp	44.9	Deg C	45	Deg C
Perm Gas Temp	44.99	Deg C	45	Deg C
Pressure	486.9	mm Hg	487.2	mm Hg
Sample Flow	0.766	lpm	0.765	lpm
Lamp Intensity	90	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.2	N/A
4991	39.93	80.96	80.5	1.0062
4994	19.96	40.61	39.6	1.0252
6998	9.97	14.51	14.4	1.0072
4995	0.00	0.00	1.1	As Found Zero
4995	39.93	80.89	80.5	As Found Span
			Average Correction Factor	1.0129

Calculated value of As Found Response: 79.90 ppm Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	0.9	ppm	0.5	ppm
Auto span	62.1	ppm	63.3	ppm

Notes: Zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PAZA**

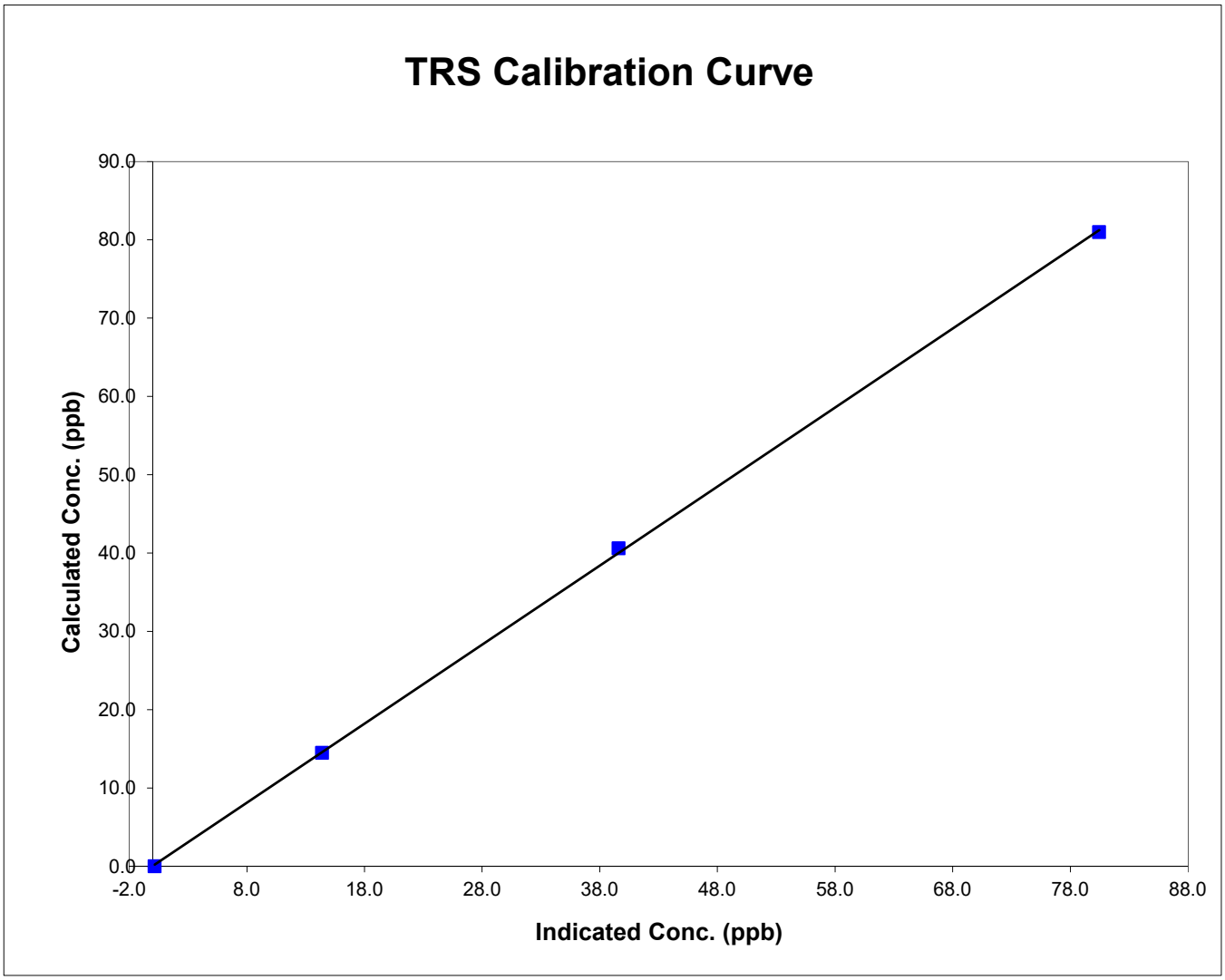
WSP AIR QUALITY MONITORING

Station Information

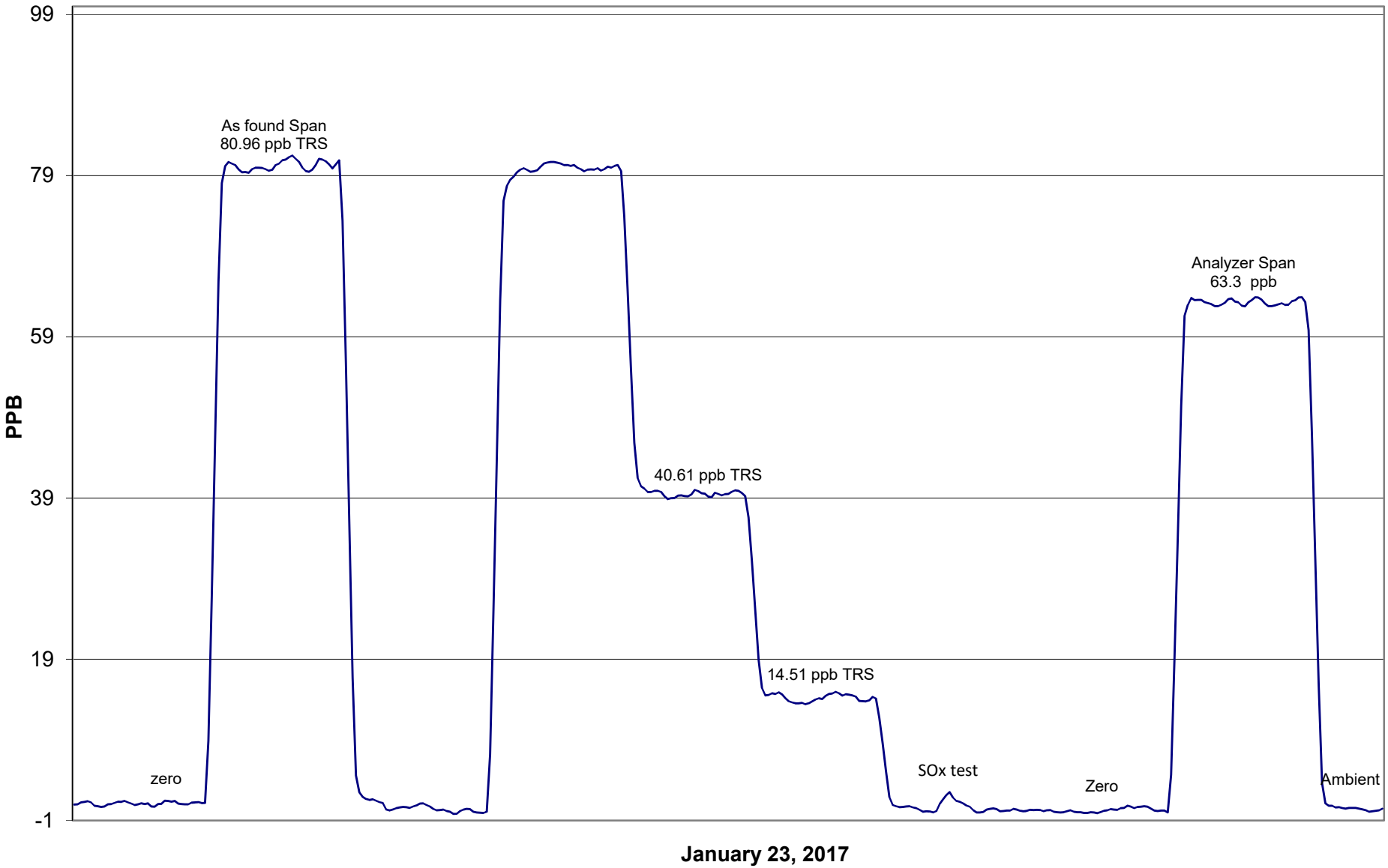
Calibration Date	January 23, 2017	Previous Calibration	December 9, 2016
Station Number	1	Station Location	Donnely
Start Time (MST)	11:45	End Time (MST)	15:00:00 PM
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
81.0	80.5	1.0062	Correlation Coefficient	0.999872
40.6	39.6	1.0252		
14.5	14.4	1.0072	Slope	1.008883
			Intercept	0.058114



H2S Calibration



Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 18, 2017	Previous Calibration	December 13, 2016
Station Number	10	Station Location	Rycroft
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:00	End Time (MST)	13:30:00 PM
Barometric Pressure	0.925 Atm	Station Temperature	21.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas Concentratior	49.8 ppm	Cal Gas Expiry Date	3/10/2017
Gas Cert Reference	LL119493		
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	0.998748	Calculated slope	0.997092
Calculated intercept	1.385964	Calculated intercept	0.940311
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	23.8		23.9	
Coefficient	1.056		1.056	
UV Lamp Voltage	895	V	896	V
Chamber Temp	44.6	C	44.8	C
Perm Gas Temp	45	C	45	C
Pressure	655.3	mm Hg	654.5	mm Hg
Sample Flow	0.459	LPM	0.459	LPM
Lamp Intesity	30299	Hz	30789	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)
4998	0.00	0.0	0.3	N/A
4996	39.95	395.1	396.1	0.9975
4997	19.98	198.3	196.9	1.0074
4999	9.94	98.8	97.2	1.0165
4998	0.00	0.0	0.3	As found zero
4999	39.93	394.6	396.1	As found span
			Average Correction Factor	1.0071

Calculated value of As Found Response: 396.613 ppm Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	200.6	ppm	214.2	ppm

Notes: No adjustment made

Calibration Summary

Parameter **SO2**

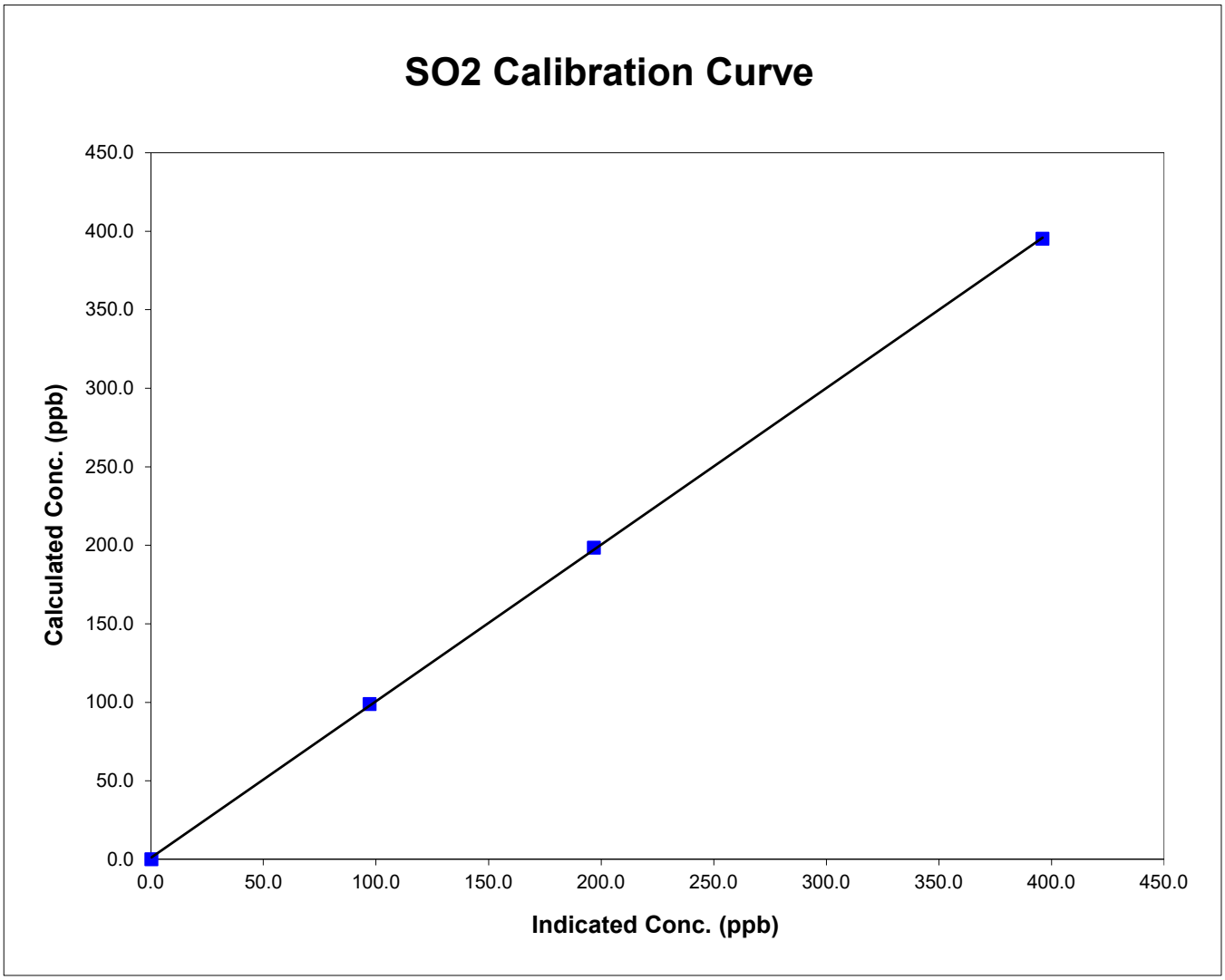
Air Monitoring Network **PAZA**

Station Information

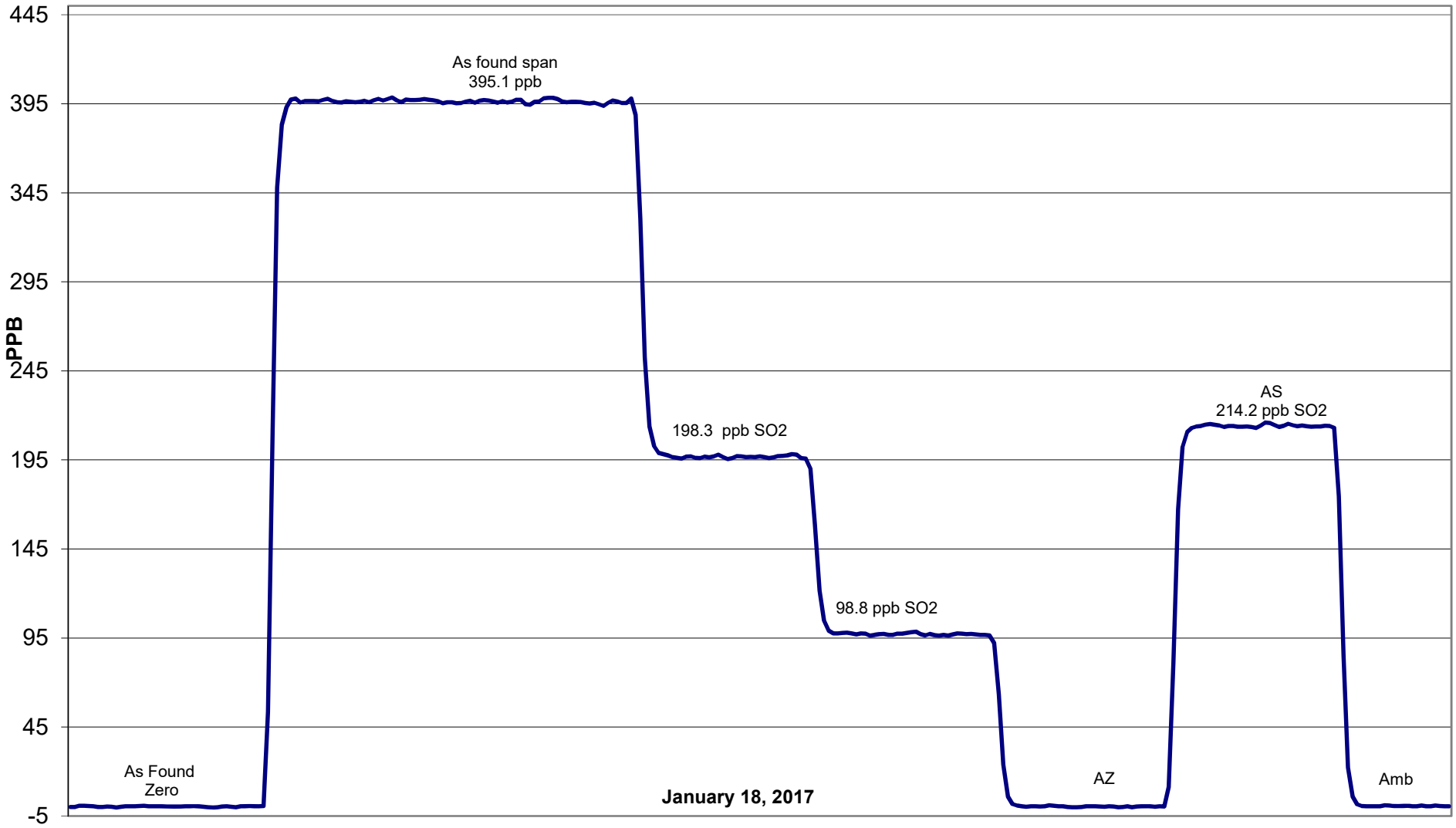
Calibration Date	January 18, 2017	Previous Calibration	December 13, 2016
Station Number	10	Station Location	Rycroft
Start Time (MST)	11:00	End Time (MST)	13:30:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
395.1	396.1	0.9975	Correlation Coefficient	0.999950
198.3	196.9	1.0074		
98.8	97.2	1.0165	Slope	0.997092
			Intercept	0.940311



SO2 Calibration



Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 18, 2017	Previous Calibration	December 13, 2016
Station Number	10	Station Location	Rycroft

Reason: Routine Installation Removal Other:

Start Time (MST)	11:00		End Time (MST)	14:40:00 PM	
Barometric Pressure	0.925	Atm	Station Temperature	21.0	Deg C
Calibrator	Environics		Serial Number	6586	
NO Cal Gas Conc	50.9	ppm	Cal Gas Expiry Date	March 10, 2017	
NOx Cal Gas Conc	51.2	ppm	Cal Gas Serial #	LL103793	

DACS Information

DACS make	CR3000	DACS serial No.	5407

Parameter		NO2	NOx	NO
Before	Data Slope	1.002167	1.002506	0.995367
	Data Offset	-0.856063	0.322499	0.236681
After	Data Slope	0.997313	0.995820	0.994996
	Data Offset	-0.491947	0.320115	0.137367
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	8.8	mV	8.2	mV
NOx bkgnd	9.0	mV	8.3	mV
NO coefficient	1.617		1.478	
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	-835.1	mV	-835.2	mV
R Cell Press	227.4	in Hg	221.3	in Hg
Sample Flow	0.607	LPM	0.634	LPM

Notes: Span adjustment made

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date: January 18, 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	4996	0.00	0.0	0.0	0.0	-0.1	0.1	-0.1	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	407.3	405.6	0.0	0.9967	0.9951
2	4994	19.96	203.8	202.6	1.2	204.7	203.4	0.5	0.9955	0.9961
3	4998	9.98	102.0	101.4	0.6	101.6	101.6	0.1	1.0045	0.9987
AFZ	4996	0.00	0.0	0.0	0.0	-0.1	0.1	-0.1	0.0000	0.0000
AFS	4999	39.92	405.6	403.2	0.8	442.6	440.7	0.2	0.9164	0.9150
							Average Correction Factor		0.9989	0.9966

As Found Concentrations: NO_X= 444.2 NO= 438.8 As Found Percent Change NO_X= 9.5% NO= 8.8%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOX high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.1	0.1	0.0	-0.1	0.1	-0.1	N/A	N/A	N/A	N/A
NO point	410.2	410.2	0.0	411.8	410.2	-0.4	0.9960	1.0000	N/A	N/A
300	410.2	67.6	342.5	412.5	67.6	343.5	0.9943	1.0000	0.9973	100.3%
200	410.2	182.0	228.2	413.8	182.0	229.8	0.9911	1.0000	0.9931	100.7%
100	410.2	300.8	109.4	413.6	300.8	110.7	0.9918	1.0000	0.9877	101.2%
					Average Correction Factor		0.9924	1.0000	0.9927	100.7%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.1	0.0	ppb	0.3	0.0	0.3	ppb
Auto span	169.3	167.4	1.2	ppb	174.4	172.2	1.4	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

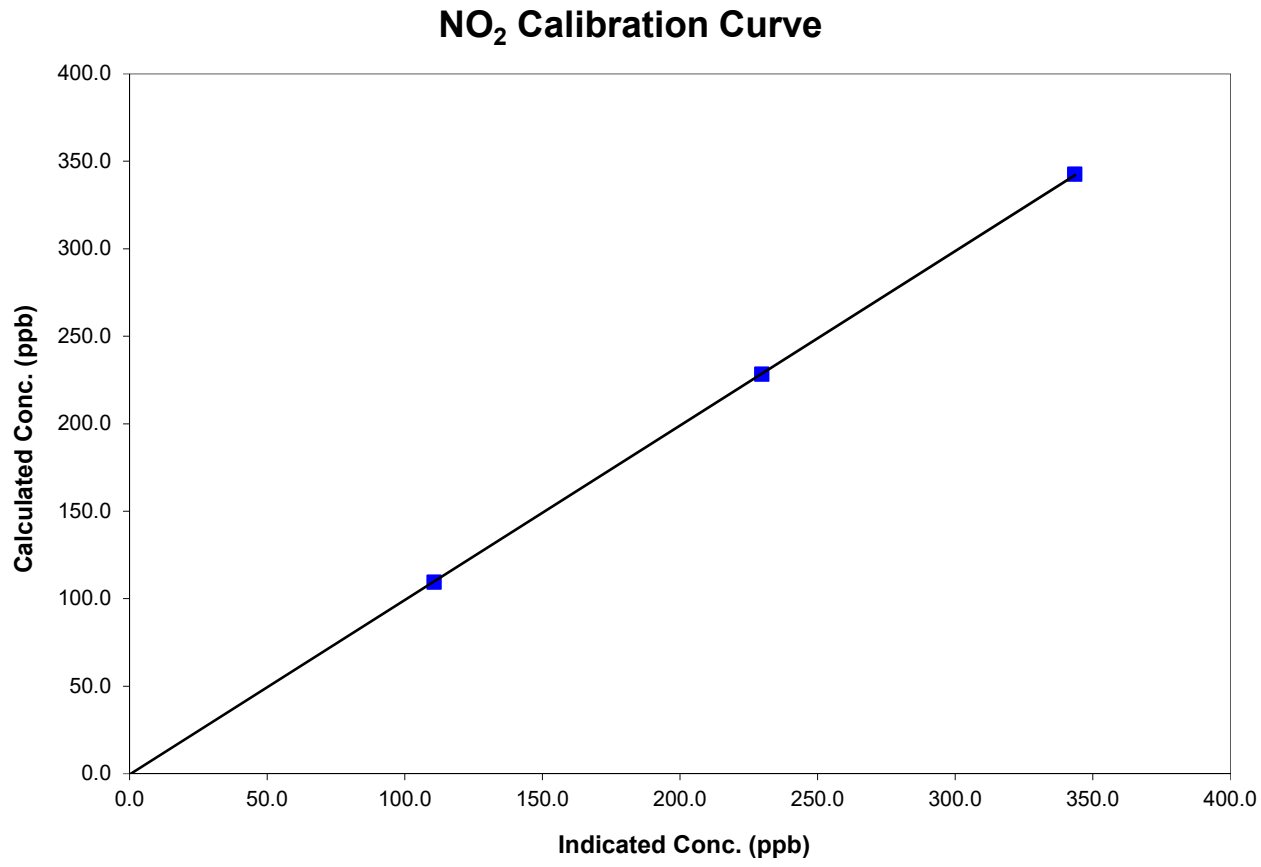
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 18, 2017	Previous Calibration	December 13, 2016
Station Number	10	Station Location	Rycroft
Start Time (MST)	11:00	End Time (MST)	14:40:00 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		
342.5	343.5	0.9973	Correlation Coefficient	0.999983
228.2	229.8	0.9931		
109.4	110.7	0.9877	Slope	0.997313
			Intercept	-0.491947



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

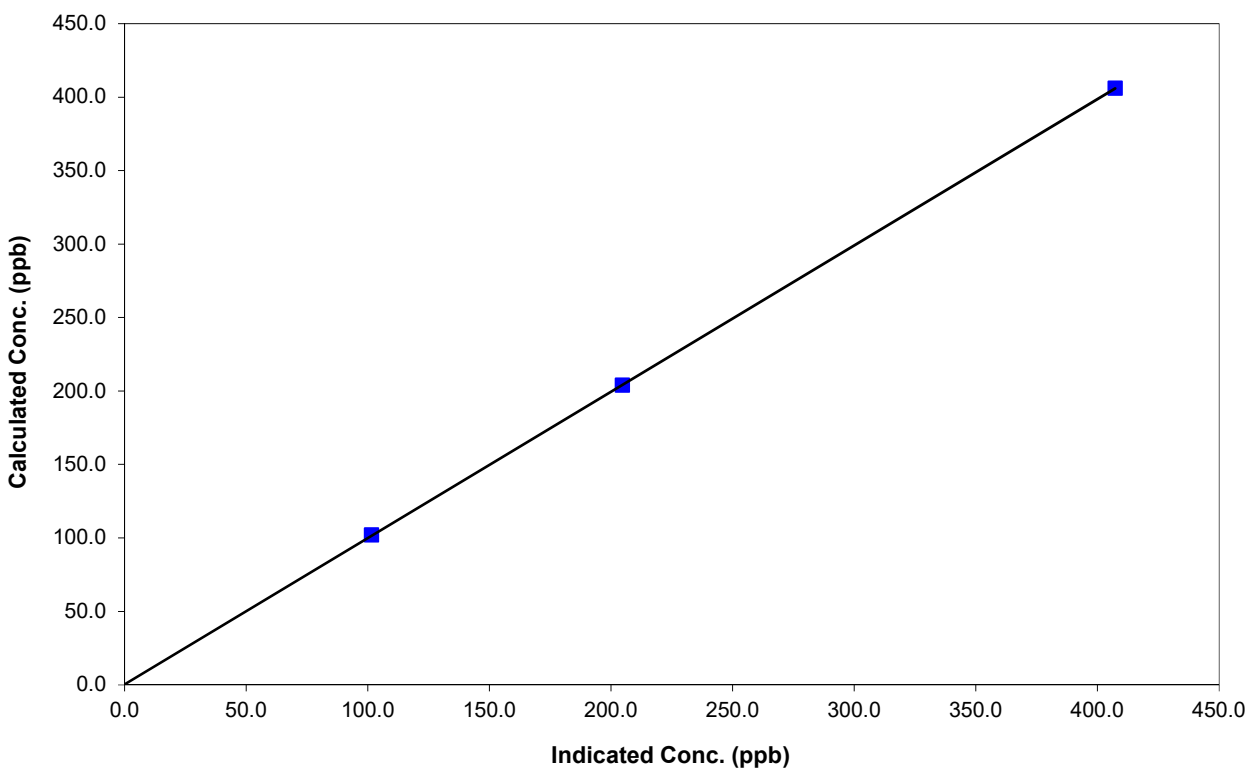
Station Information

Calibration Date	January 18, 2017	Previous Calibration	December 13, 2016
Station Number	10	Station Location	Rycroft
Start Time (MST)	11:00	End Time (MST)	14:40:00 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		
405.9	407.3	0.9967	Correlation Coefficient	0.999994
203.8	204.7	0.9955		
102.0	101.6	1.0045	Slope	0.995820
			Intercept	0.320115

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

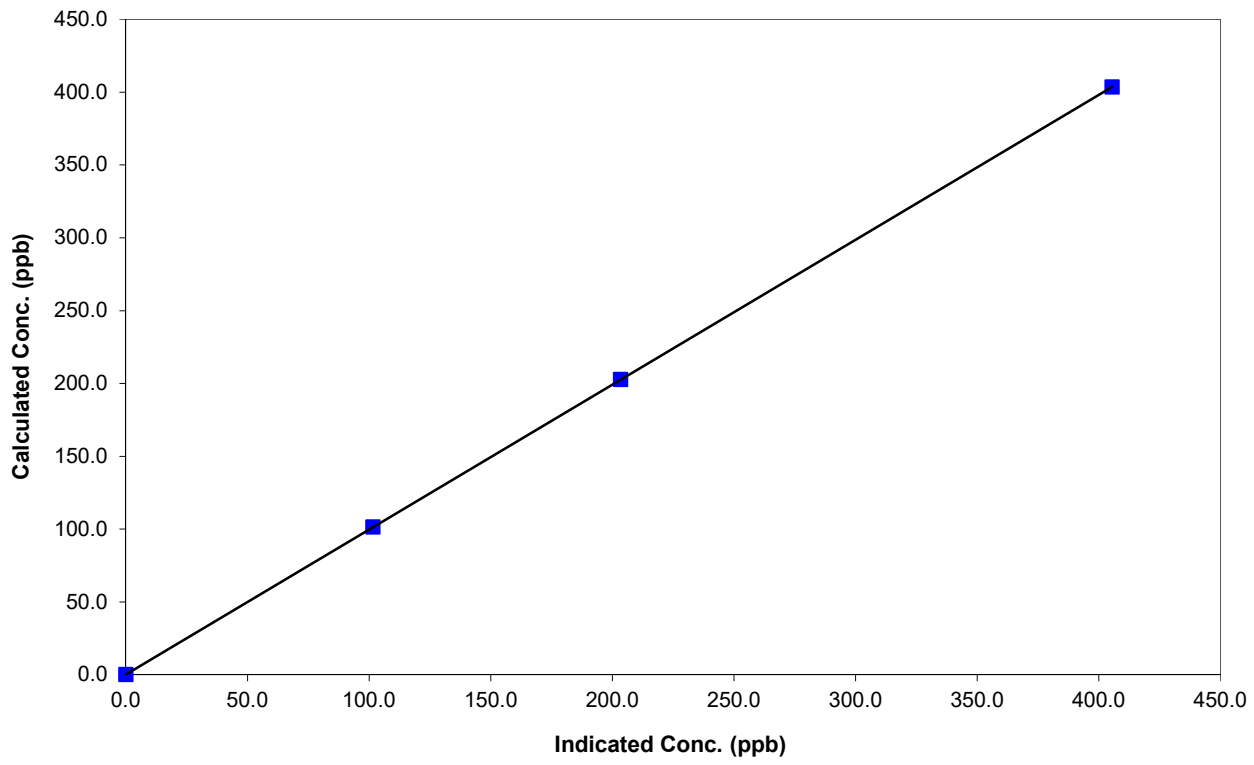
Station Information

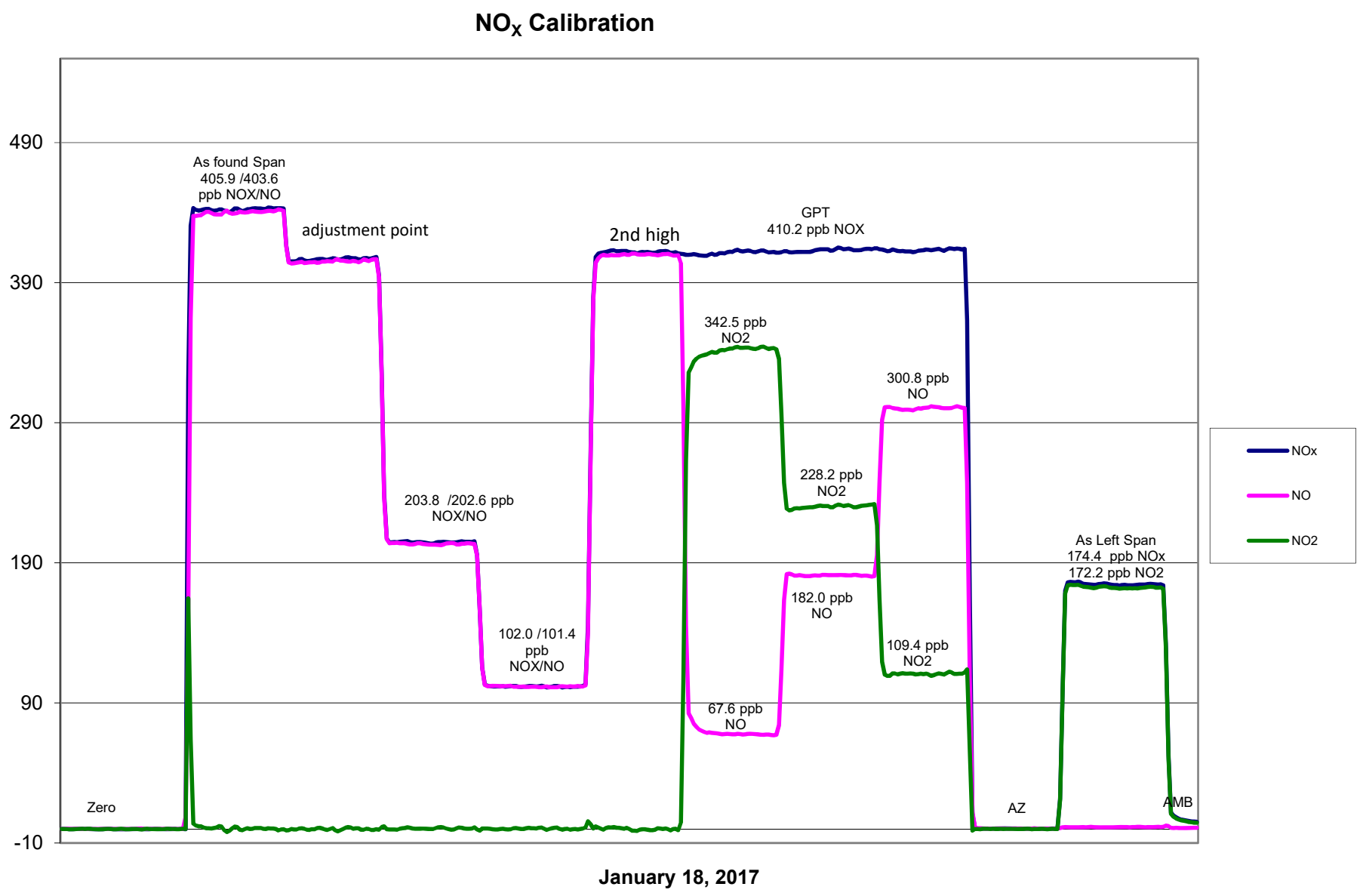
Calibration Date	January 18, 2017	Previous Calibration	December 13, 2016
Station Number	10	Station Location	Rycroft
Start Time (MST)	11:00	End Time (MST)	14:40:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
403.6	405.6	0.9951	Correlation Coefficient	0.999999
202.6	203.4	0.9961		
101.4	101.6	0.9987	Slope	0.994996
			Intercept	0.137367

NO Calibration Curve




NOx Calibration
490
390
290
190
90
-10
As found Span
405.9 /403.6
ppb NOX/NO
adjustment point
2nd high
GPT
410.2 ppb NOX
342.5 ppb
NO2
300.8 ppb
NO
228.2 ppb
NO2
203.8 /202.6 ppb
NOX/NO
As Left Span
174.4 ppb NOx
172.2 ppb NO2
182.0 ppb
NO
102.0 /101.4
ppb
NOX/NO
109.4 ppb
NO2
67.6 ppb
NO
Zero
AZ
AMB
NOx
NO
NO2
January 18, 2017

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 18 2017	Previous Calibration	December 13 2016
Station Number	10	Station Location	Rycroft
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	13:50:00 PM	End Time (MST)	16:25:00 PM
Barometric Pressure	0.925 atm	Station Temperature	21.0 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	1.021685	Calculated slope	1.012304
Calculated intercept	-2.135616	Calculated intercept	-0.044385
Analyzer make	Model 49-I	Analyzer serial #	1153630156

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	-0.6	ppb	0.6	ppb
Span	1.088		1.046	
Cell A intensity	86780	Hz	86123	Hz
Cell B intensity	106623	Hz	107345	Hz
Pressure	676.20	in Hg	646.70	in Hg
CellA Flow	0.681	ccm	0.683	ccm
Cell B Flow	0.680	cmm	0.681	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)
5020	0.00	0.0	0.1	N/A
5020	0.30	342.5	339.0	1.0104
5025	0.20	228.2	224.3	1.0172
5020	0.10	109.4	108.6	1.0074
5020	0.00	0.0	1.1	As found zero
5020	0.30	342.5	355.2	As found span
			Average Correction Factor	1.0117

Calculated value of As Found Response: 359.7 ppm Percent Change of As Found: 5.0%

	before calibration		after calibration	
Auto zero	0.6	ppb	0.3	ppb
Auto span	353.9	ppb	420.1	ppb

Notes: Zero & span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

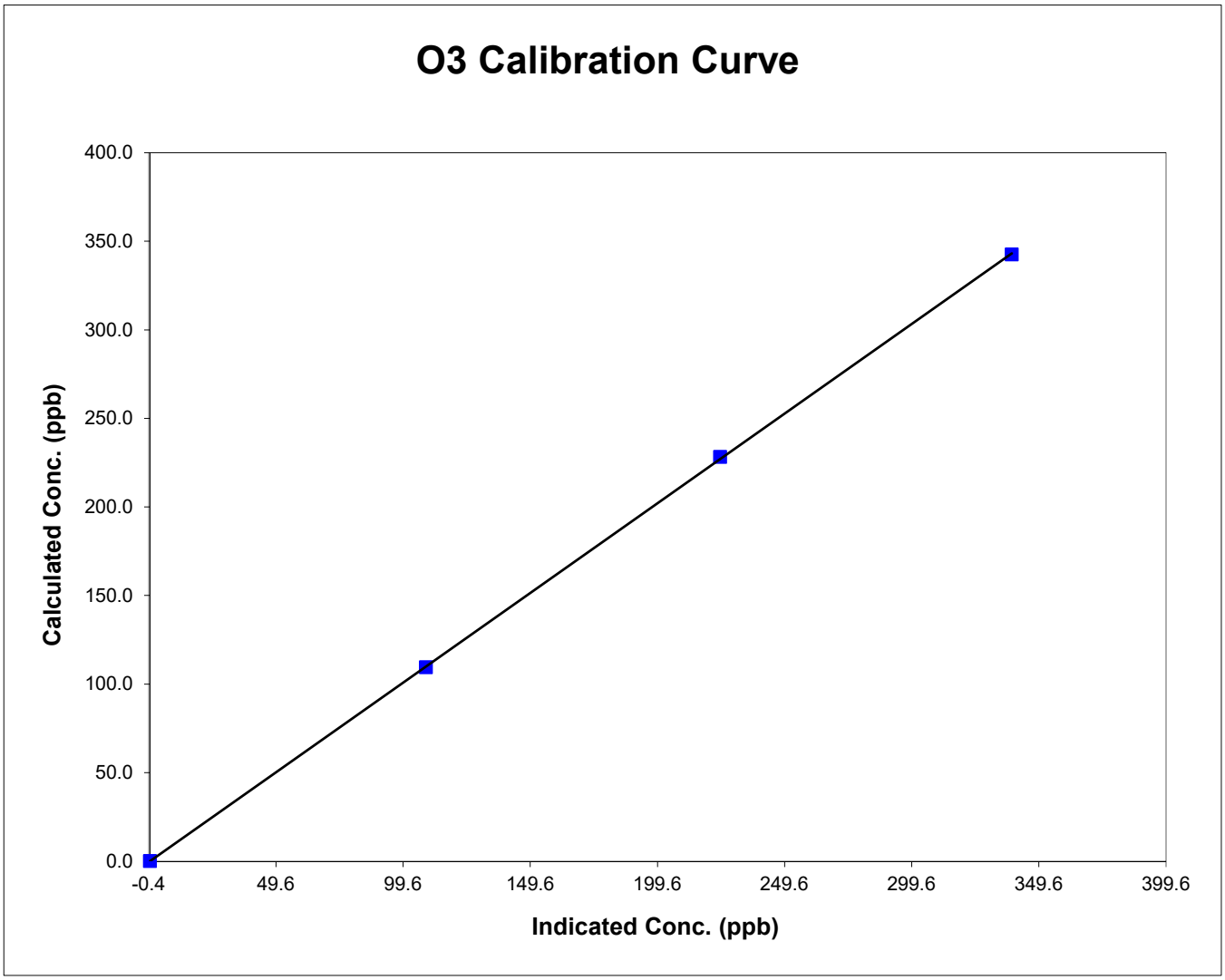
WSP AIR QUALITY MONITORING

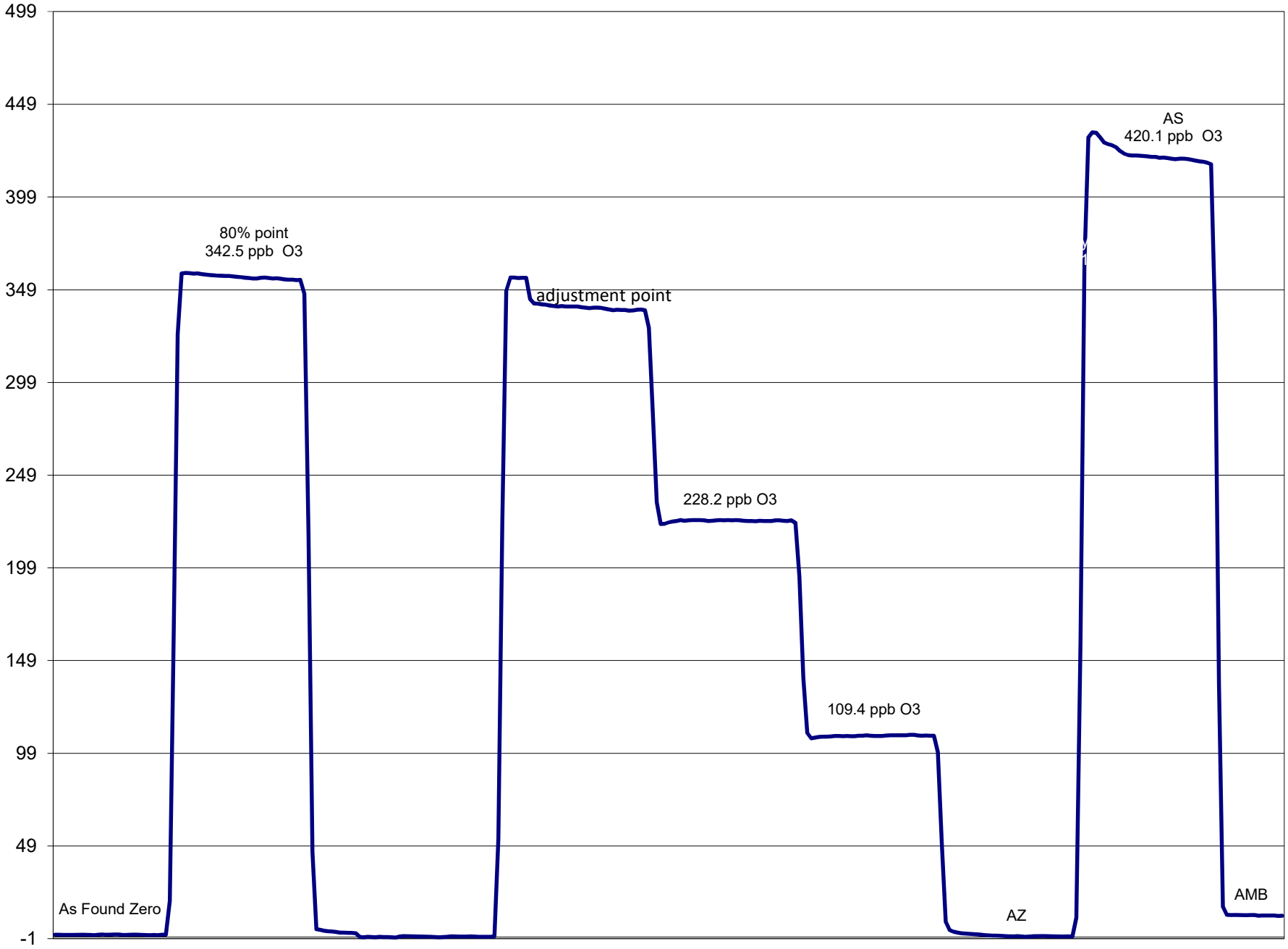
Station Information

Calibration Date	January 18 2017	Previous Calibration	December 13 2016
Station Number	10	Station Location	Rycroft
Start Time (MST)	13:50:00 PM	End Time (MST)	16:25:00 PM
Analyzer make/model	Model 49-I	Analyzer serial #	1153630156

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA		
342.5	339.0	1.0104	Correlation Coefficient	0.999971
228.2	224.3	1.0172		
109.4	108.6	1.0074	Slope	1.012304
			Intercept	-0.044385





January 18 2017

Calibration Report

Parameter **CH4 / NMHC / THC**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 20, 2017	Previous Calibration	December 12, 2016
Station Number	1	Station Location	Rycroft
Reason: Routine	Install	Removal	Other:

Start Time (MST)	14:10:00 PM	End Time (MST)	16:25:00 PM
Barometric Pressure	725.00 mm/hg	Station Temperature	21.0 Deg C
Calibrator	Environics 6103	Serial Number	6586
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	3/28/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 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)
1995	0.00	0.00	0.00	N/A
1997	68.96	12.88	12.86	1.0021
1998	40.99	7.76	7.71	1.0061
1999	15.97	3.06	3.00	1.0208
1995	0.00	0.00	0.00	As Found Zero
1995	68.93	12.89	12.30	As Found Span
			Average Correction Factor	1.0097

Calculated value of As Found Response: 12.526 ppm Percent Change of As Found: 2.8%

	Before		After
Calculated slope	1.018425	Calculated slope	1.001042
Calculated intercept	0.004996	Calculated intercept	0.027502

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	7.59	ppm	7.66	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)
1995	0.00	0.00	0.00	N/A
1997	68.96	19.00	18.98	1.0009
1998	40.99	11.44	11.37	1.0067
1999	15.97	4.51	4.31	1.0464
1995	0.00	0.00	0.00	As Found Zero
1995	68.93	19.01	18.33	As Found Span
			Average Correction Factor	1.0180

Calculated value of As Found Response: 18.345 ppm Percent Change of As Found: 3.5%

	Before		After
Calculated slope	0.996385	Calculated slope	0.997659
Calculated intercept	0.083287	Calculated intercept	0.093240

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	11.17	ppm	11.15	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)
1995	0.00	0.00	0.00	N/A
1997	68.96	31.89	31.88	1.0001
1998	40.99	19.20	19.08	1.0067
1999	15.97	7.57	7.33	1.0322
1995	0.00	0.00	0.00	As Found Zero
1995	68.93	31.90	30.67	As Found Span
			Average Correction Factor	1.0130

Calculated value of As Found Response: 30.890 ppm Percent Change of As Found: 3.2%

	Before		After
Calculated slope	1.004430	Calculated slope	0.998198
Calculated intercept	0.085042	Calculated intercept	0.118099

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.00	ppm	0.00	ppm
Auto span	18.76	ppm	18.81	ppm

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter **CH4**

Air Monitoring Network **PAZA**

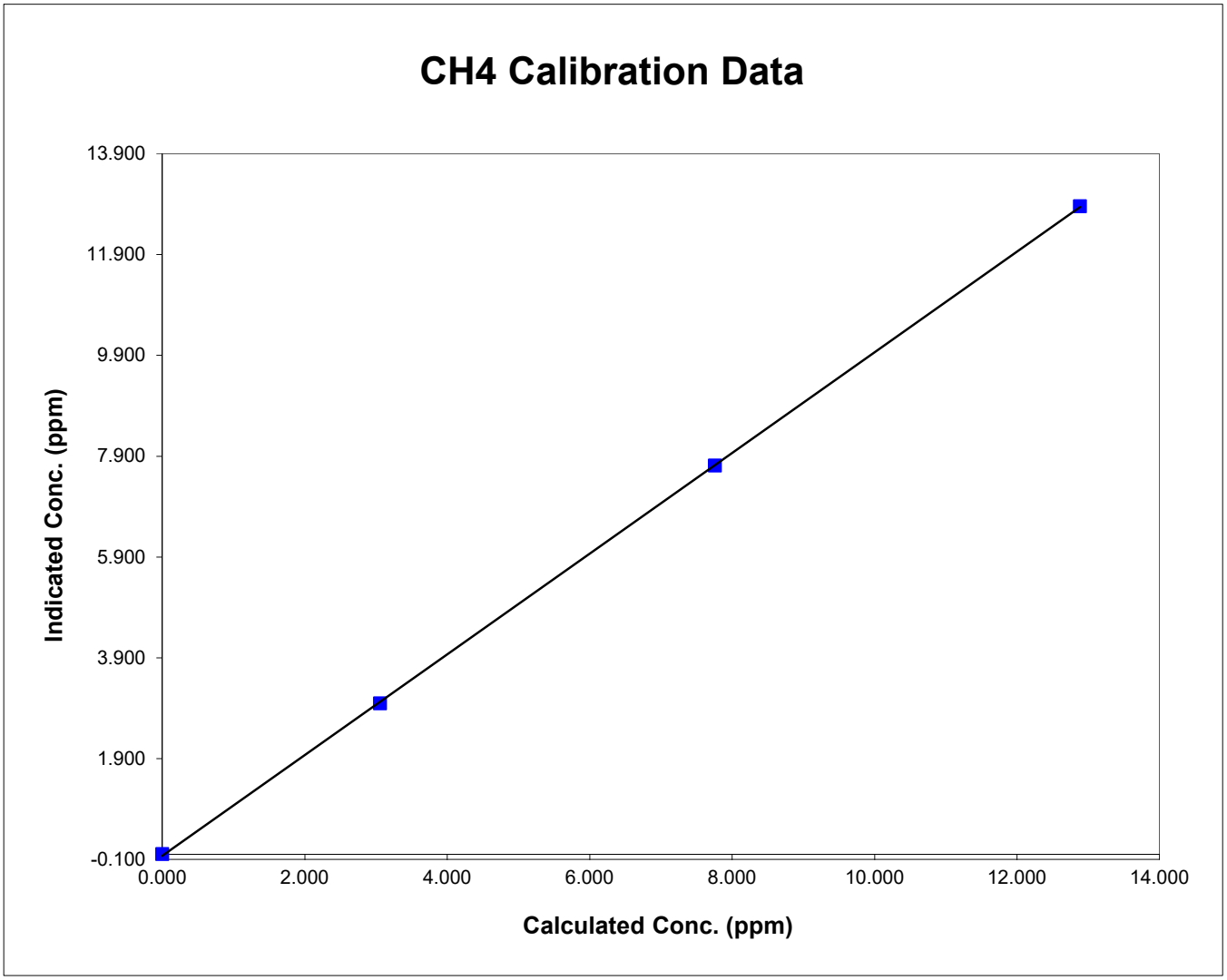
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 20, 2017	Previous Calibration	December 12, 2016
Station Number	1	Station Location	Rycroft
Start Time (MST)	14:10:00 PM	End Time (MST)	16:25:00 PM
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.002	N/A		
12.884	12.858	1.0021	Correlation Coefficient	0.999977
7.760	7.713	1.0061		
3.059	2.997	1.0208	Slope	1.001042
			Intercept	0.027502



Calibration Summary

Parameter **NMHC**

Air Monitoring Network **PAZA**

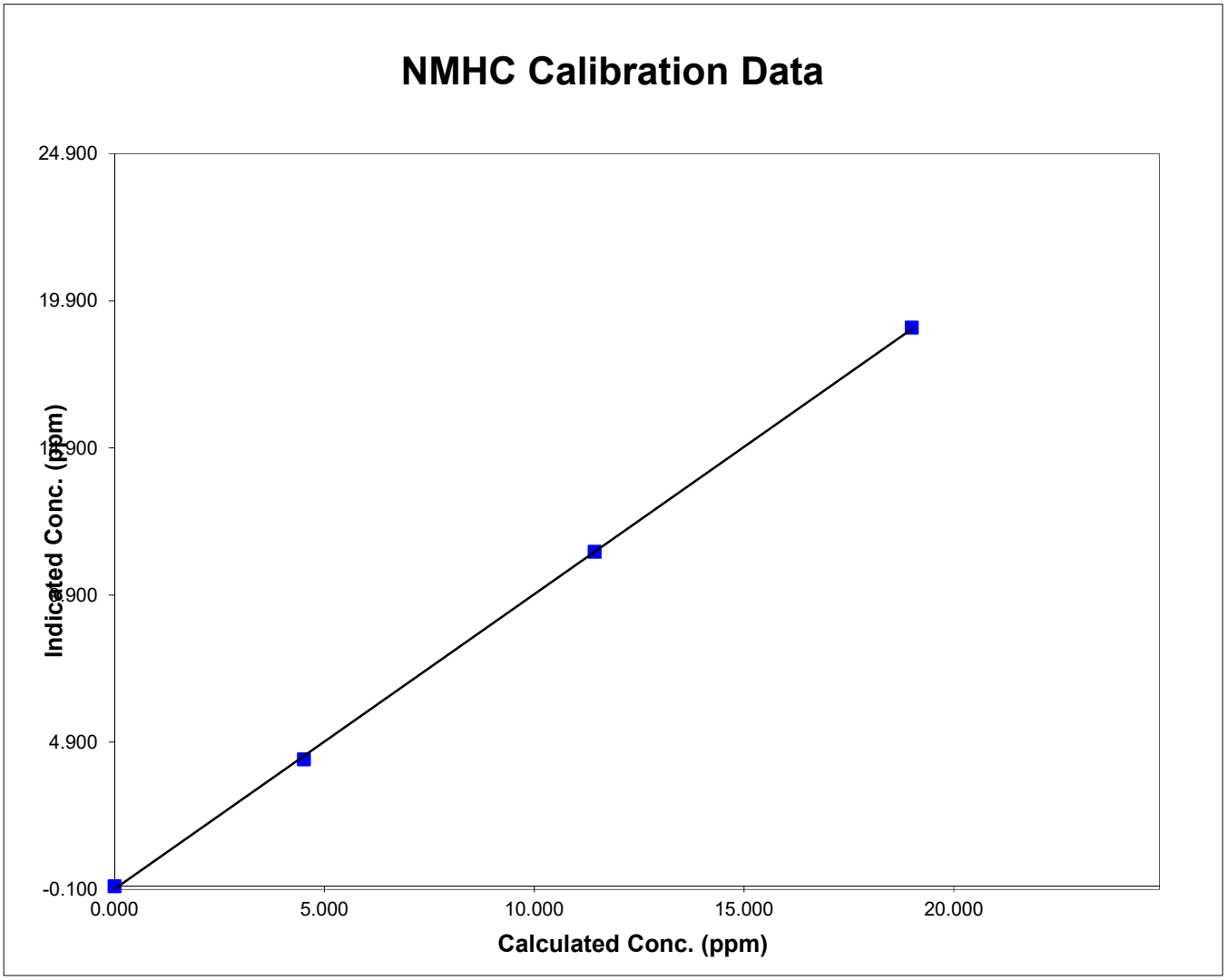
WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 20, 2017	Previous Calibration	December 12, 2016
Station Number	1	Station Location	Rycroft
Start Time (MST)	14:10:00 PM	End Time (MST)	16:25:00 PM
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.001	N/A		
19.001	18.984	1.0009	Correlation Coefficient	0.999885
11.444	11.368	1.0067		
4.512	4.311	1.0464	Slope	0.997659
			Intercept	0.093240



Calibration Summary

Parameter **THC**

Air Monitoring Network **PAZA**

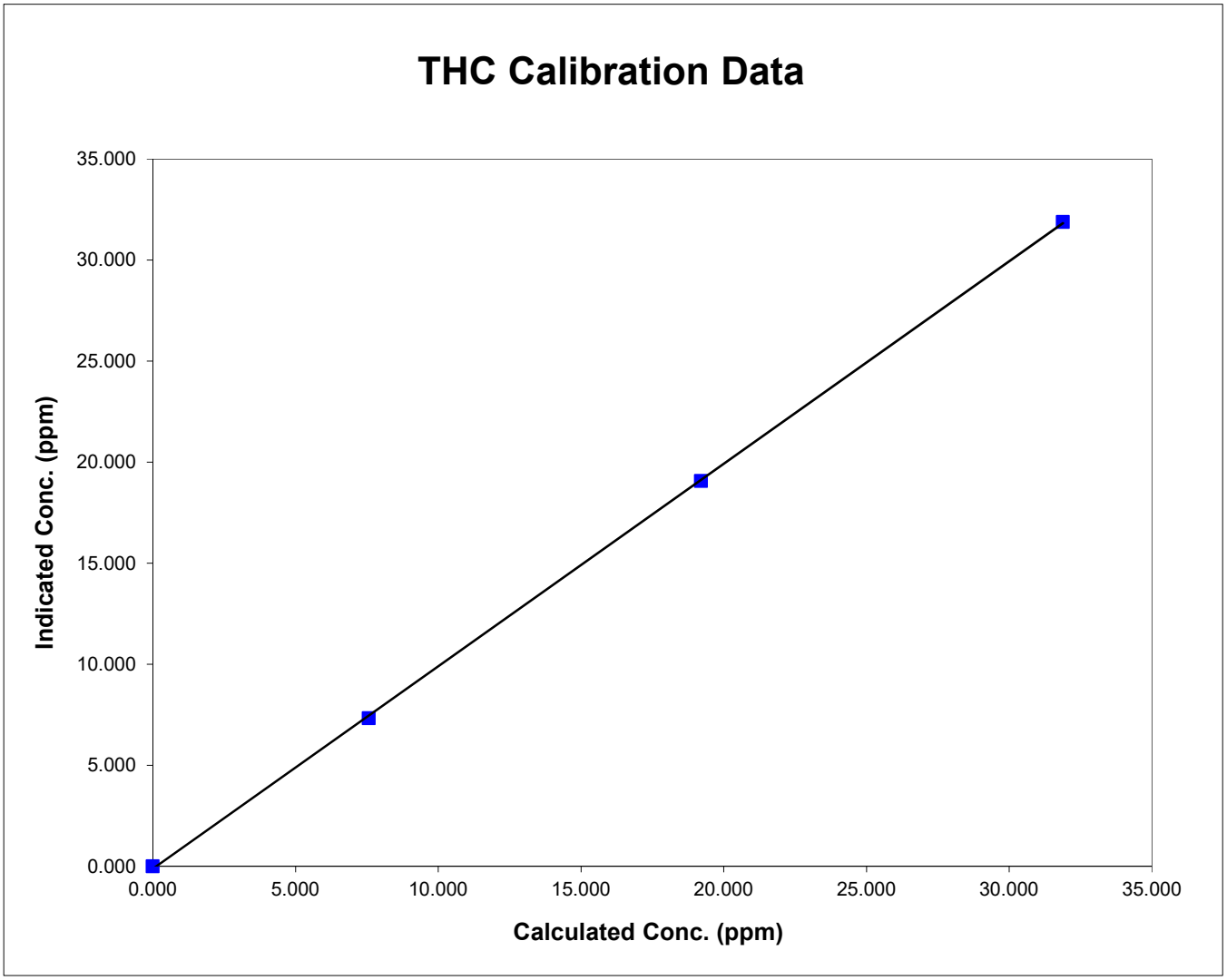
WSP AIR QUALITY MONITORING

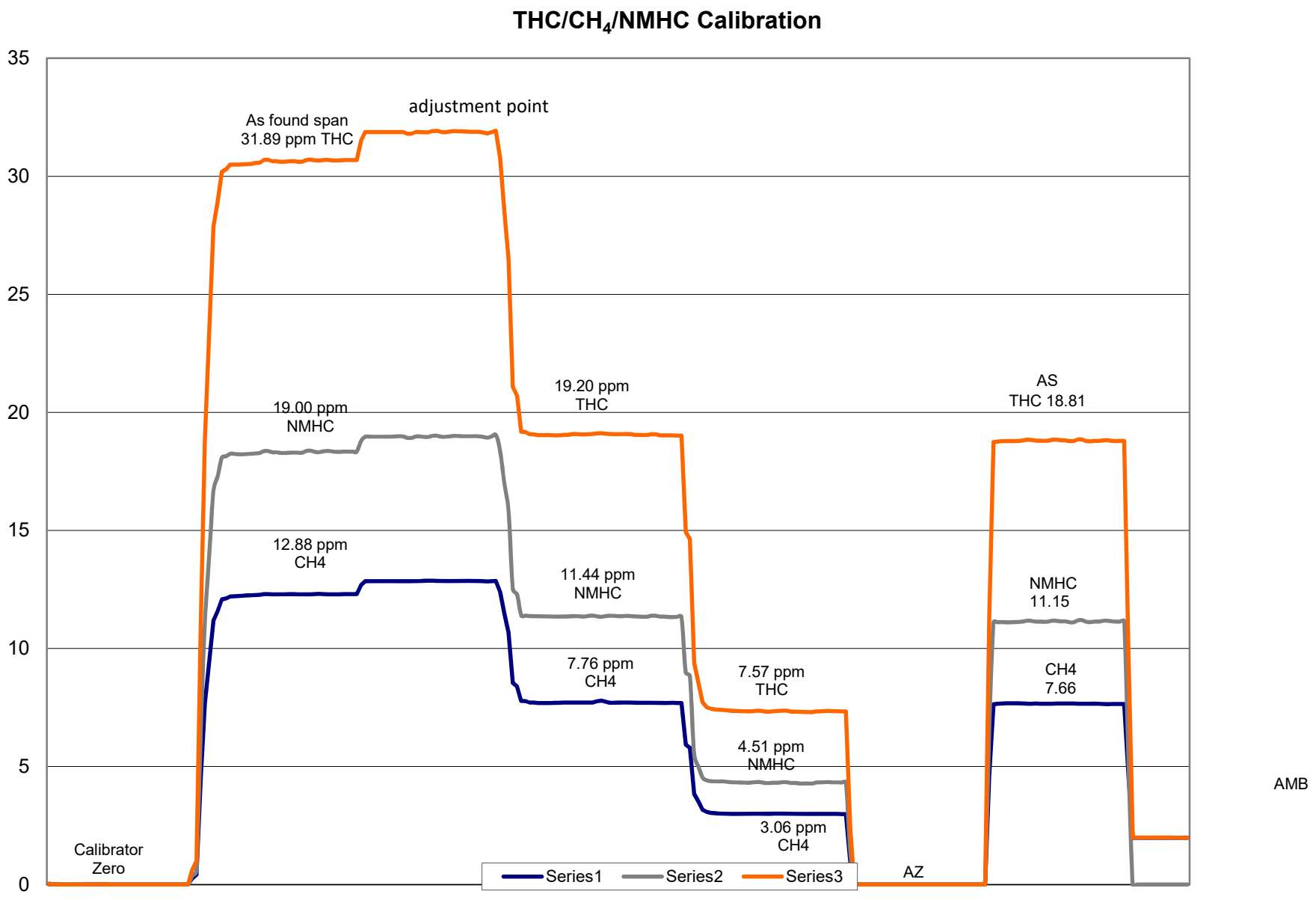
Station Information

Calibration Date	January 20, 2017	Previous Calibration	December 12, 2016
Station Number	1	Station Location	Rycroft
Start Time (MST)	14:10:00 PM	End Time (MST)	16:25:00 PM
Analyzer make/model	TEI 55I-A3PHAA	Analyzer serial #	1151980005

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.001	N/A		
31.885	31.881	1.0001	Correlation Coefficient	0.999938
19.203	19.076	1.0067		
7.571	7.335	1.0322	Slope	0.998198
			Intercept	0.118099




THC/CH4/NMHC Calibration
35
30
25
20
15
10
5
0
As found span
31.89 ppm THC
adjustment point
19.00 ppm
NMHC
12.88 ppm
CH4
19.20 ppm
THC
11.44 ppm
NMHC
7.76 ppm
CH4
7.57 ppm
THC
4.51 ppm
NMHC
3.06 ppm
CH4
AS
THC 18.81
NMHC
11.15
CH4
7.66
Calibrator
Zero
AZ
AMB
Series1
Series2
Series3

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

WSP AIR QUALITY MONITORING

Station Information

Calibration Date	January 20, 2017	Previous Calibration	December 12, 2016
Station Name	PAZA Rover	Station Location	Rycroft
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	12:25 PM	End Time (MST)	14:50:00 PM
Barometric Pressure	0.925 Atm	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	6586
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	1.023975	Calculated slope	1.014800
Calculated intercept	-0.551352	Calculated intercept	0.503917
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	27.1	ppb	27.1	ppb
Coefficient	0.937		0.937	
Lamp Voltage	799	V	798	V
Chamber Temp	43.8	C	43.9	C
Perm gas Temp	45	C	45	C
Pressure	647.0	mmHg	650.2	mmHg
Sample Flow	0.445	lpm	0.446	lpm
Lamp Intensity	43633	Hz	43239	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)
4996	0.0	0.0	0.1	N/A
4994	39.94	80.9	79.6	1.0170
4996	19.91	40.5	38.9	1.0410
6993	9.97	14.5	13.4	1.0863
4996	9.97		0.7	Sox Test
4996	0.00	0.0	0.1	As found zero
4996	39.93	80.9	79.6	As found span
			Average Correction Factor	1.0481

Calculated value of As Found Response: 80.79 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	14.9	ppm	0.3	ppm
Auto span	51.1	ppm	54.9	ppm

Notes: No adjustment made
Sox scrubber check performed

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

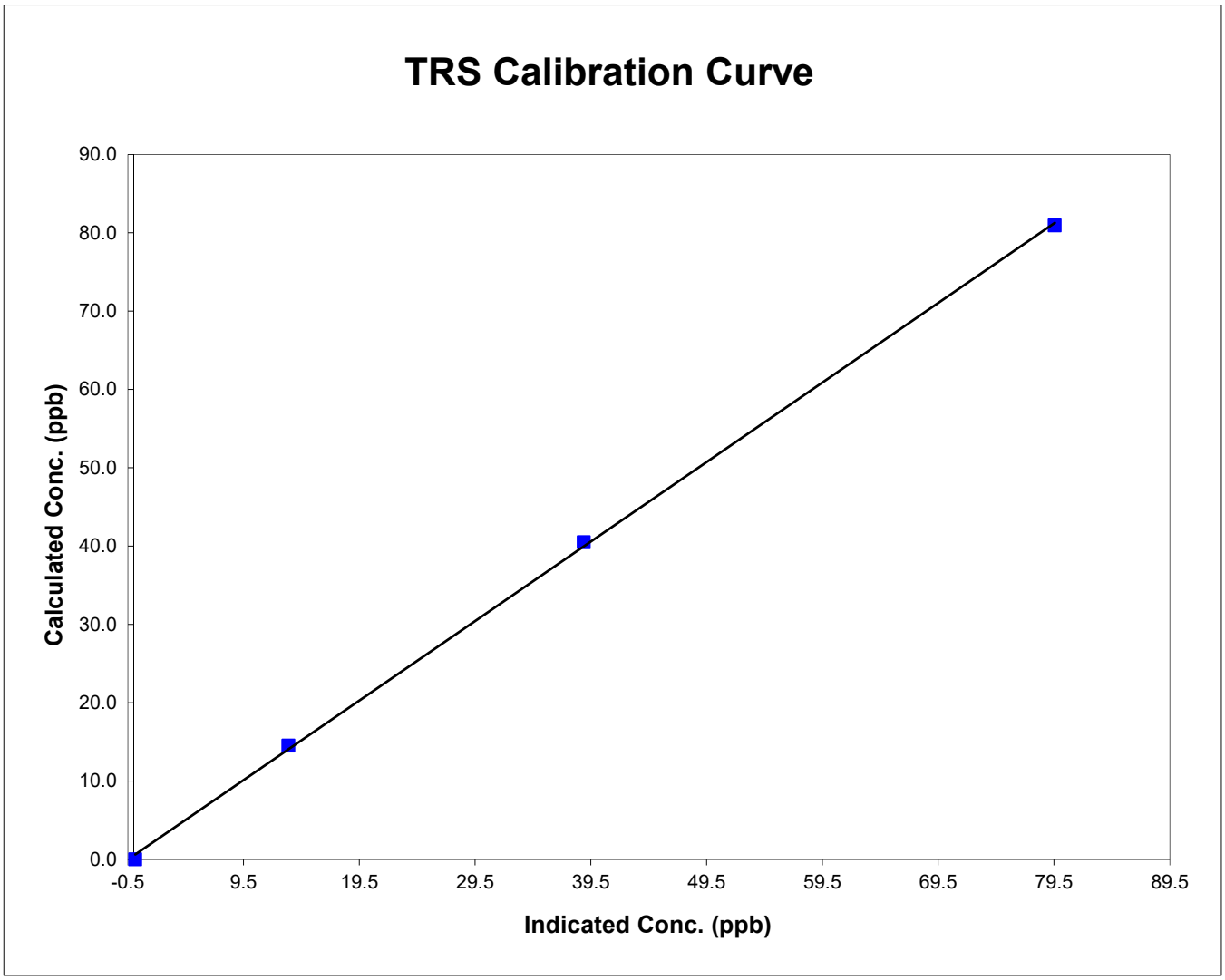
WSP AIR QUALITY MONITORING

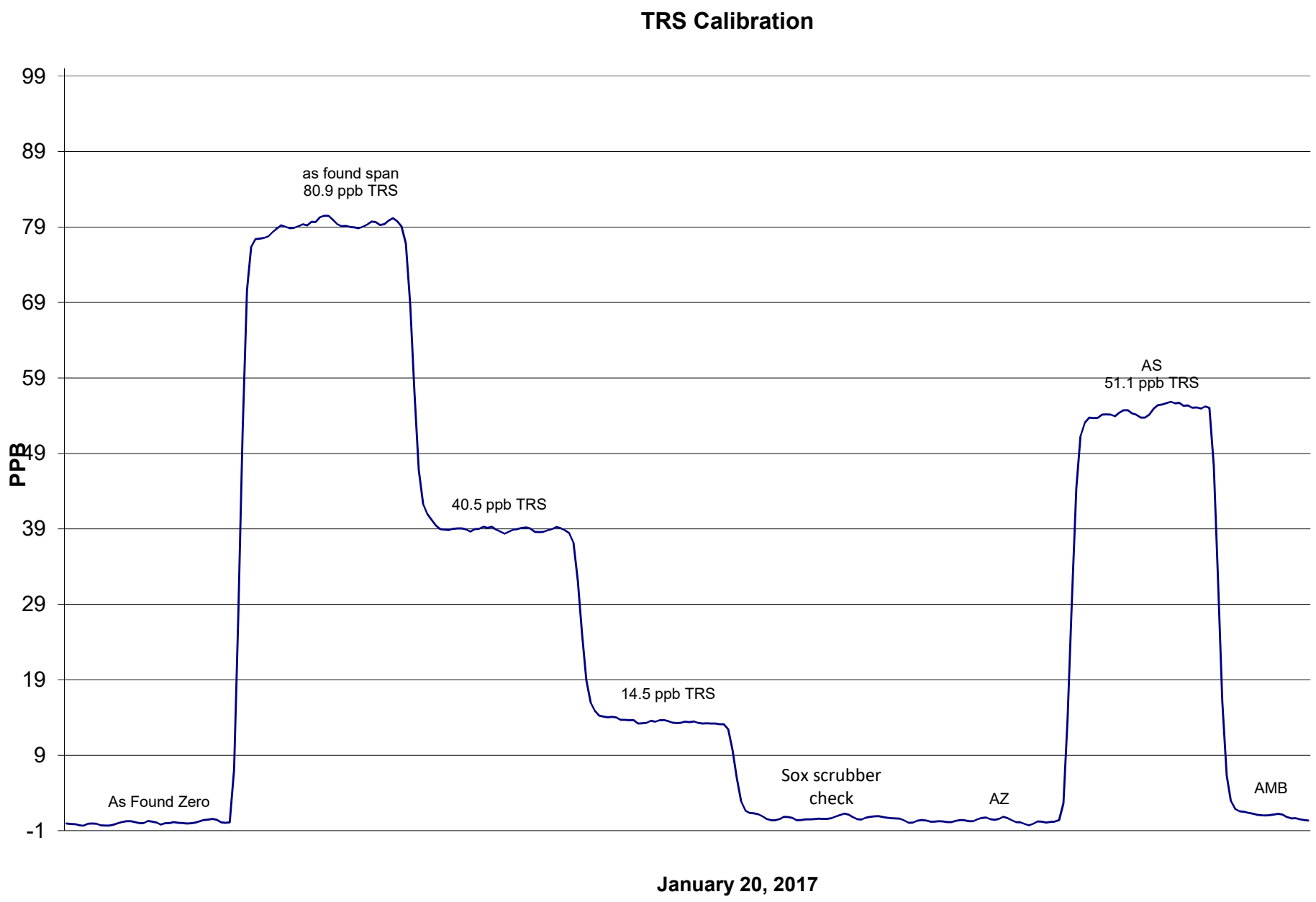
Station Information

Calibration Date	January 20, 2017	Previous Calibration	December 12, 2016
Station Number	PAZA Rover	Station Location	Rycroft
Start Time (MST)	12:25	End Time (MST)	14:50:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
80.9	79.6	1.0170	Correlation Coefficient	0.999739
40.5	38.9	1.0410		
14.5	13.4	1.0863	Slope	1.014800
			Intercept	0.503917




TRS Calibration
99
89
79
69
59
49
39
29
19
9
-1
PPB
as found span
80.9 ppb TRS
40.5 ppb TRS
14.5 ppb TRS
Sox scrubber
check
AZ
AS
51.1 ppb TRS
AMB
As Found Zero
January 20, 2017