Peace AirShed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
October 2011

Operations and Reporting

FOCUS
AIR QUALITY MONITORING

Peace Airshed Zone Association
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December 8th, 2011

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

RE: Peace Airshed Zone Association (PAZA) – October 2011 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **October 2011**.

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	AENV Approval Number
Advantage Oil & Gas Ltd.	Sunset House	06-22-0707-20-W5	138884-01-00
	Glacier	05-02-076-13-W6	262479-00-00
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
Barrick Energy Inc.	Sturgeon/Valleyview	02-02-069-22-W5	1633-02-00
Birchcliff Energy Ltd.	Pouce Coupe	03-22-078-12-W6	252529-00-00
Bonavista Energy Corporation	Rycroft	08-25-077-06-W6	11351-02-00
	Spirit River	08-34-077-06-W6	11096-02-00
Canadian Natural Resources Limited	Bonanza	11-25-081-11-W6	00000029-01-00
	Progress/Gordondale	01-01-077-10-W6	00010036-02-00
	Gold Creek	13-26-067-05-W6	00010446-02-00
	Teepee Creek	SE-2-074-04-W6	00001635-02-00

Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	00000212-01-00
Devon Canada	Tangent	16-20-080-24-W5	00011346-01-00
	NW Belloy (Dunvegan)	16-36-079-03-W6	00009810-02-00
	Eaglesham (South)	02-14-077-25-W5	00047669-01-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
	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	Hythe Brainard	11-18-074-12-W6	00010910-02-00
	Sexsmith	04-08-075-07-W6	00010002-01-00
Galleon Energy Inc.	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
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00
	Pouce Coupe	16-07-078-11-W6	00000614-01-00
Spectra Energy Midstream Corporation	Fourth Creek	16-11-082-09-W6	00000263-01-00
Suncor Energy Inc.	Progress	07-22-078-09-W6	00011428-02-00
Taqa North Ltd.	Valhalla	13-21-076-09-W6	00017620-01-00
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: **Five (5) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge and Valleyview.**

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

Henry Pirker Station:

- The measured ambient air quality was within the Alberta Ambient Air Quality Objectives (AAAQO) for the Henry Pirker station.
- All analyzers and sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of October.

Evergreen Park Station:

- The measured ambient air quality was within the AAAQO for the Evergreen Park station, except for the $PM_{2.5}$ which had one (1) 1-hour exceedence of the AAAQO:
  - October 26 17:00 93 µg/m^3 Alberta Environment Reference #253134.

- All analyzers / sensors at the Evergreen Park station had an operational uptime greater than 90% for the month of October

Smoky Heights Station:

- The measured ambient air quality was within the AAAQO for the Smoky Heights station.
- All analyzers / sensors at the Smoky Heights station had an operational uptime of 100% for the month of October.

Beaverlodge Station:

- The measured ambient air quality was within the AAAQO for the Beaverlodge station.
- All analyzers / sensors at the Beaverlodge station had an operational uptime of 100% for the month of October.

Valleyview Station:

- The measured ambient air quality was within the AAAQO for the Valleyview station.
- All analyzers / sensors at the Valleyview station had an operational uptime of 100% for the month of October.

Passive Monitoring - 44 Stations throughout the PAZA zone:

There were four duplicate sites sampled in the month of October: Hythe, Wapiti, Crooked Creek, McLellan. 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 0.0 ppb to 0.3 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.3 ppb to 4.5 ppb, with a mean of 1.2 ppb.
- Monthly average concentrations for O_3 passives ranged from 17.4 ppb to 31.3 ppb, with a mean of 23.7 ppb.

If you have any questions or concerns, please contact Shelly Pruden, PAZA Program Manager at 780.833.4343 or 780.882.4071.

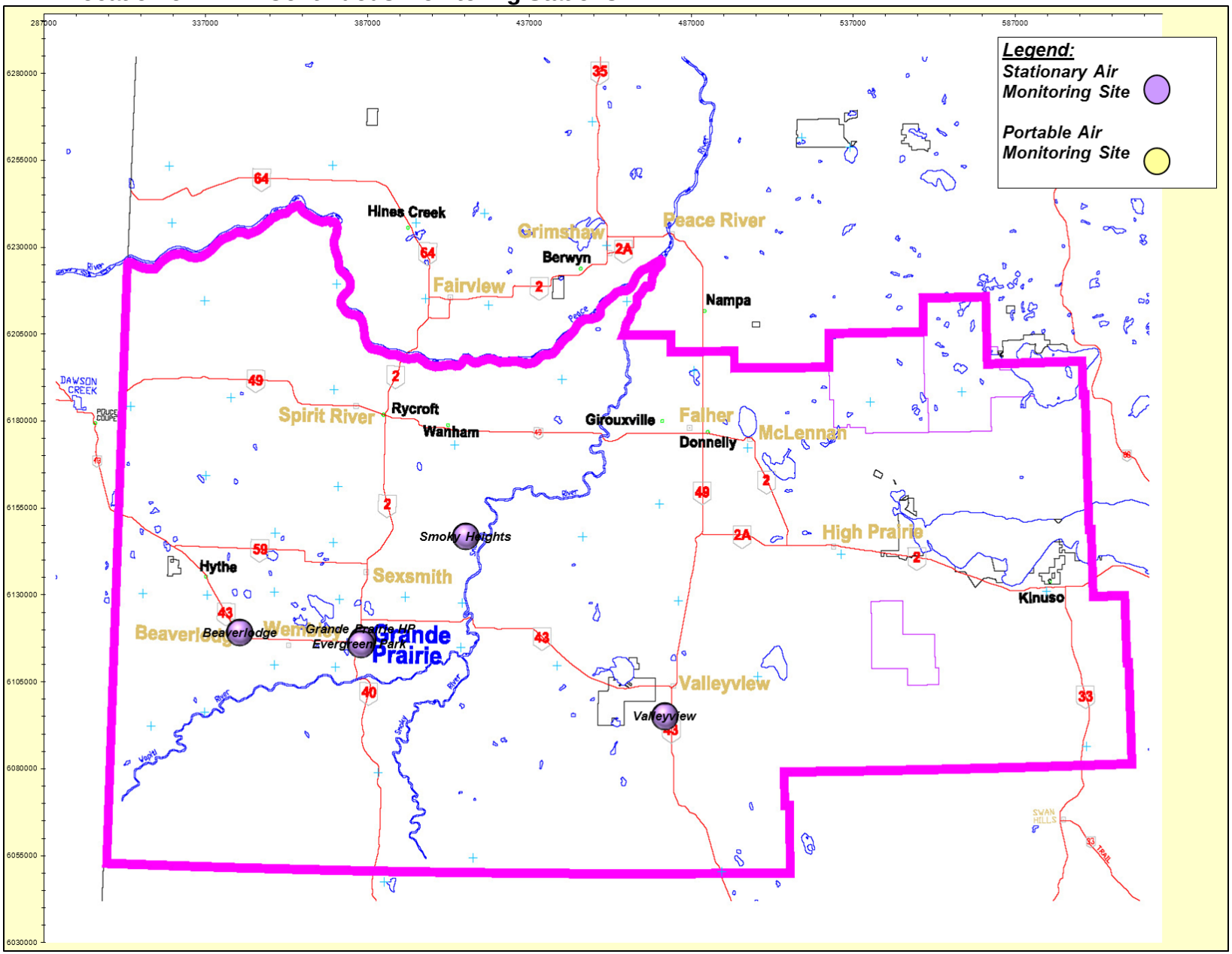
On Behalf of the,
Peace Airshed Zone Association

Shelly Pruden
Program Manager

Patrick Andersen, B.Sc.
FOCUS AQM Data Specialist

Jeff Cooper, CTech
AQM Operations Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Oct-2011	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
Pollutant (units)	**Objectives** 1-hr	24-hr	**Station**	**Monthly Average**	**Exceedence** 1-hr	24-hr	Conc	Day	Conc	Day	**Operational Time (%)**
SO_2 (ppb)	172	48	Henry Pirker	0.1	0	0	6.7	Oct-18 12:00	0.5	Oct-18	100%
SO_2 (ppb)	172	48	Evergreen Park	0.5	0	0	9.6	Oct-23 22:00	2.1	Oct-27	100%
SO_2 (ppb)	172	48	Smoky Heights	0.2	0	0	5.0	Oct-11 23:00	0.9	Oct-11	100%
SO_2 (ppb)	172	48	Beaverlodge	0.1	0	0	3.5	Oct-07 09:00	0.5	Oct-11	100%
SO_2 (ppb)	172	48	Valleyview	0.7	0	0	14.5	Oct-29 10:00	2.7	Oct-27	100%
NO (ppb)			Henry Pirker	2.7	0	0	64.7	Oct-17 10:00	8.3	Oct-17	100%
NO_2 (ppb)	159	106	Henry Pirker	8.6	0	0	32.0	Oct-28 19:00	15.4	Oct-18	100%
NO_X (ppb)			Henry Pirker	11.4	0	0	94.1	Oct-17 10:00	21.8	Oct-17	100%
NO (ppb)			Beaverlodge	0.3	0	0	14.5	Oct-19 11:00	1.9	Oct-19	100%
NO_2 (ppb)	159	106	Beaverlodge	2.7	0	0	16.5	Oct-19 09:00	5.5	Oct-19	100%
NO_X (ppb)			Beaverlodge	3.1	0	0	29.1	Oct-19 11:00	7.3	Oct-19	100%
O_3 (ppb)	82		Henry Pirker	20.3	0	-	38.4	Oct-16 16:00	30.7	Oct-31	100%
O_3 (ppb) - 8-hr			Henry Pirker		0				35.4	Oct-17	
O_3 (ppb)	82		Beaverlodge	26.4	0	-	43.3	Oct-18 17:00	34.5	Oct-22	100%
O_3 (ppb) - 8-hr			Beaverlodge		0				41.7	Oct-18	
CO (ppm)	13		Henry Pirker	0.16	0	-	0.9	Oct-21 08:00	0.2	Oct-18	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.4	Oct-16	
THC (ppm)			Henry Pirker	2.12	-	-	3.6	Oct-19 03:00	2.4	Oct-16	100%
TRS (ppb)			Henry Pirker	0.3	-	-	1.2	Oct-14 05:00	0.5	Oct-26	100%
TRS (ppb)			Evergreen Park	0.5	-	-	2.1	Oct-28 14:00	0.8	Oct-28	100%
TRS (ppb)			Smoky Heights	0.2	-	-	1.6	Oct-07 00:00	0.5	Oct-04	100%
H_2S (ppb)	10	3	Valleyview	0.1	0	0	3.7	Oct-24 19:00	0.4	Oct-25	100%
PM2.5 (µg/m3)	80	30	Henry Pirker	5.4	0	0	39.5	Oct-11 23:00	9.2	Oct-11	97%
PM2.5 (µg/m3)	80	30	Evergreen Park	4.0	1	0	92.6	Oct-26 17:00	13.9	Oct-27	98%
PM2.5 (µg/m3)	80	30	Smoky Heights	2.8	0	0	35.2	Oct-11 19:00	7.7	Oct-04	100%
PM2.5 (µg/m3)	80	30	Beaverlodge	5.0	0	0	14.2	Oct-05 01:00	9.2	Oct-05	100%

PAZA Monthly Continuous Data Summary – continued

Oct-2011	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
RH (%)			Henry Pirker	62.1	-	-	91.4	Oct-04 11:00	86.2	Oct-04	100%
RH (%)			Evergreen Park	63.3	-	-	98.8	Oct-04 11:00	93.4	Oct-04	100%
RH (%)			Beaverlodge	68.6	-	-	100.0	Oct-03 21:00	96.3	Oct-03	100%
RH (%)			Valleyview	63.9	-	-	99.4	Oct-05 10:00	92.8	Oct-04	100%
SR (W/m^2)			Henry Pirker	64.2	-	-	415.0	Oct-09 13:00	105.5	Oct-09	100%
Temp (°C)			Henry Pirker	5.3	-	-	18.8	Oct-18 16:00	9.3	Oct-18	100%
Temp (°C)			Evergreen Park	5.7	-	-	18.8	Oct-18 16:00	9.6	Oct-18	100%
Temp (°C)			Smoky Heights	4.3	-	-	18.0	Oct-18 16:00	9.3	Oct-18	100%
Temp (°C)			Beaverlodge	5.0	-	-	18.3	Oct-18 16:00	10.2	Oct-18	100%
Temp (°C)			Valleyview	5.9	-	-	18.9	Oct-18 16:00	9.6	Oct-03	100%
WSPD s (km/hr)			Henry Pirker	11.8	-	-	45.0	Oct-26 17:00	27.8	Oct-27	100%
WSPD s (km/hr)			Evergreen Park	7.8	-	-	33.0	Oct-30 16:00	19.9	Oct-27	100%
WSPD s (km/hr)			Smoky Heights	14.2	-	-	48.0	Oct-30 14:00	27.6	Oct-27	100%
WSPD s (km/hr)			Beaverlodge	12.8	-	-	53.0	Oct-26 15:00	28.1	Oct-27	100%
WSPD s (km/hr)			Valleyview	5.6	-	-	24.0	Oct-31 17:00	13.6	Oct-27	100%
WSPD v (km/hr)			Henry Pirker	7.0	-	-	45.0	Oct-26 17:00	26.6	Oct-27	100%
WSPD v (km/hr)			Evergreen Park	5.7	-	-	32.0	Oct-30 16:00	19.3	Oct-27	100%
WSPD v (km/hr)			Smoky Heights	10.2	-	-	48.0	Oct-30 14:00	27.2	Oct-27	100%
WSPD v (km/hr)			Beaverlodge	7.2	-	-	53.0	Oct-26 15:00	27.3	Oct-27	100%
WSPD v (km/hr)			Valleyview	3.1	-	-	24.0	Oct-31 17:00	12.4	Oct-27	100%
WDIR			Henry Pirker	WSW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	WSW	-	-	-	-	-	-	100%
WDIR			Smoky Heights	WSW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	WSW	-	-	-	-	-	-	100%
WDIR			Valleyview	WSW	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on October 12^{h} (SO_2, NO_X & O_3) and October 13th (TRS, CO & THC). Audit of all parameters was performed on October 19th. Maintenance was performed on the $PM_{2.5}$ on October 5th.

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
NOx/NO/NO_2	TEI	42C	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC	TEI	51-CLT	No operational issues observed.
TRS	TEI	45C/43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	Twenty (20) hours were flagged invalid due to negative readings.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Evergreen Park Station

General Station Issues

Routine monthly calibration performed on October 24th (SO_2, TRS). Audit of all parameters was performed on October 24th.

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	Fourteen (14) hours were flagged invalid due to negative readings. There was one exceedence of the 1-hour AAAQO guideline: October 26: 17:00 93 µg/m^3 AE Reference # 253134
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

Routine monthly calibrations were performed on October 26th (SO_2 & TRS). Audit of all parameters was performed on October 26th.

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	No operational issues observed.
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on October 6th (SO_2, NOx, O_3) and October 11th ($PM_{2.5}$). Audit of all parameters was performed on October 18th. Maintenance was performed on the $PM_{2.5}$ on October 1st and October 18th.

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.
$PM_{2.5}$	R&P	1400AB	Three (3) hours were flagged invalid due to negative readings.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on October 27th (SO_2 & H_2S). Audit of all parameters was performed on October 27th.

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
Henry Pirker Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 6.7 ppb on Oct 18 12:00 Maximum Daily Average: 0.5 ppb on Oct 18

Minimum Value: 0 ppb on Oct 1 22:00 Minimum Daily Average: 0.0 ppb on Oct 2
Maximum Diurnal Average: 0.3 ppb at hour 12 Minimum Diurnal Average: 0.0 ppb at hour 23
Monthly Average: 0.09 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.1$ $P_{90} = 0.2$ $P_{99} = 1.0$

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	42
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.0
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
5-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
6-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
7-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
8-Oct	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
9-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
10-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	0.6
11-Oct	0	0	0	0	0	A	0	0	0	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0.3	1.1
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
13-Oct	0	0	0	A	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
14-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
15-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
16-Oct	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.8
17-Oct	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.8
18-Oct	0	0	0	0	0	0	0	0	0	0	0	7	3	0	0	0	0	0	0	0	0	A	0	0	0.5	6.7
19-Oct	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	A	0	0	0	--	0.2
20-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
21-Oct	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0.3	0.9
22-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.1
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.3
24-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.3
26-Oct	0	0	0	0	0	1	1	1	1	2	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	1.8
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
28-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	1	1	0	0	0	0	0	0.3	1.0
29-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
30-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
31-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.4	0.3	0.3	0.3	0.5	1.2	0.5	0.9	0.9	1.8	1.1	6.7	2.7	0.9	1.0	0.5	0.4	0.6	0.6	0.3	0.2	0.2	0.1	0.4	Diurnal Maximum	

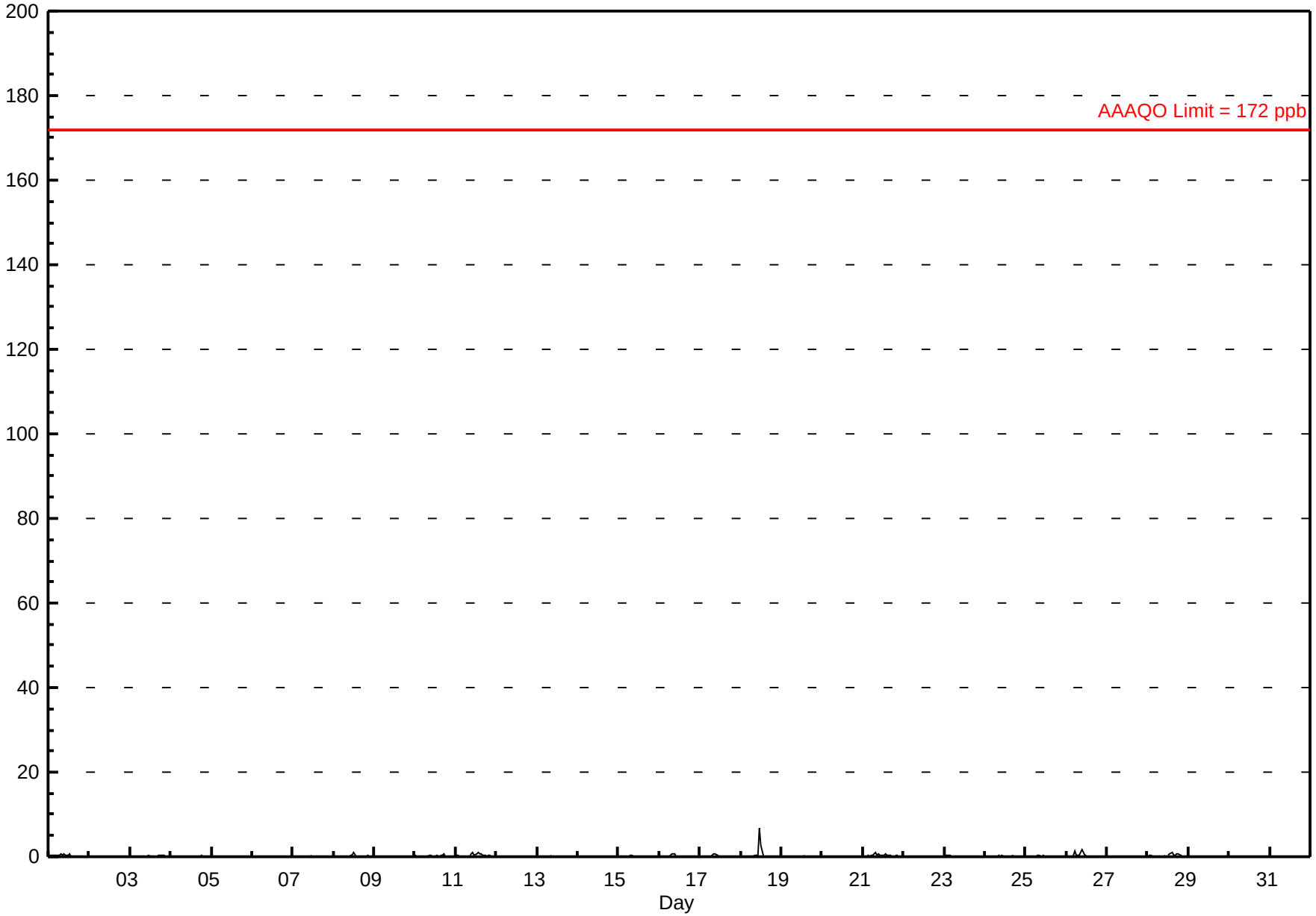
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - October 2011



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - October 2011

Maximum Value: 23.5 ppb on Oct 11 10:00

Maximum Daily Average: 2.4 ppb on Oct 11

Minimum Value: 0 ppb on Oct 4 02:00

Minimum Daily Average: 0.1 ppb on Oct 2

Maximum Diurnal Average: 1.5 ppb at hour 10

Minimum Diurnal Average: 0.2 ppb at hour 22

Monthly Average: 0.43 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.5$ $P_{90} = 0.7$ $P_{99} = 2.1$

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	42
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	A	1	1	0	0	0	0	0	0	0.5	0.9
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.5
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	2	0	0	0	1	0	0	0	0	0	0.3	1.8
5-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
6-Oct	0	0	0	0	0	0	0	0	0	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	2.2
7-Oct	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
8-Oct	0	0	0	0	0	0	0	1	A	0	0	2	3	0	0	0	0	0	0	0	0	0	0	1	0.5	3.5
9-Oct	0	1	1	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.9
10-Oct	1	0	0	0	0	0	A	0	1	2	1	0	0	0	0	1	0	2	1	0	0	0	0	1	0.6	2.4
11-Oct	1	1	1	0	0	A	0	0	1	23	19	1	1	1	1	1	1	1	1	1	1	1	1	0	2.4	23.5
12-Oct	0	1	1	0	A	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
13-Oct	0	0	0	A	0	0	0	0	2	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7
14-Oct	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	0.5
15-Oct	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.2	0.6
16-Oct	A	1	0	0	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	2.1
17-Oct	0	0	0	0	0	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.5
18-Oct	0	0	1	0	0	0	1	1	1	1	1	16	15	0	0	1	0	0	0	1	0	A	0	0	1.6	15.6
19-Oct	0	0	0	0	0	0	1	C	C	C	C	C	C	1	1	1	1	0	0	0	A	0	0	0	--	0.5
20-Oct	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	A	1	0	0	0	0.3	0.7
21-Oct	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	1	A	0	1	0	0	0	0.6	1.2
22-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0.2	0.6
23-Oct	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0.4	0.7
24-Oct	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	A	1	0	0	0	0	0	0	0	0.4	0.8
25-Oct	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.8
26-Oct	0	1	0	0	2	2	1	1	2	3	2	1	1	A	1	0	0	0	1	0	0	0	0	0	0.7	3.1
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0.3	0.7
28-Oct	0	1	1	0	0	0	1	0	0	0	1	A	1	1	2	1	1	1	1	1	0	0	0	0	0.7	2.2
29-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
30-Oct	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
31-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.5	0.6	1.5	1.2	0.9	1.0	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.3	Diurnal Average	
	1.0	0.9	0.7	0.7	2.1	2.0	1.2	2.1	1.7	23.5	19.5	15.6	14.6	1.2	2.2	1.0	0.9	2.0	1.4	0.7	0.7	0.5	0.5	0.9	Diurnal Maximum	

C - Calibration

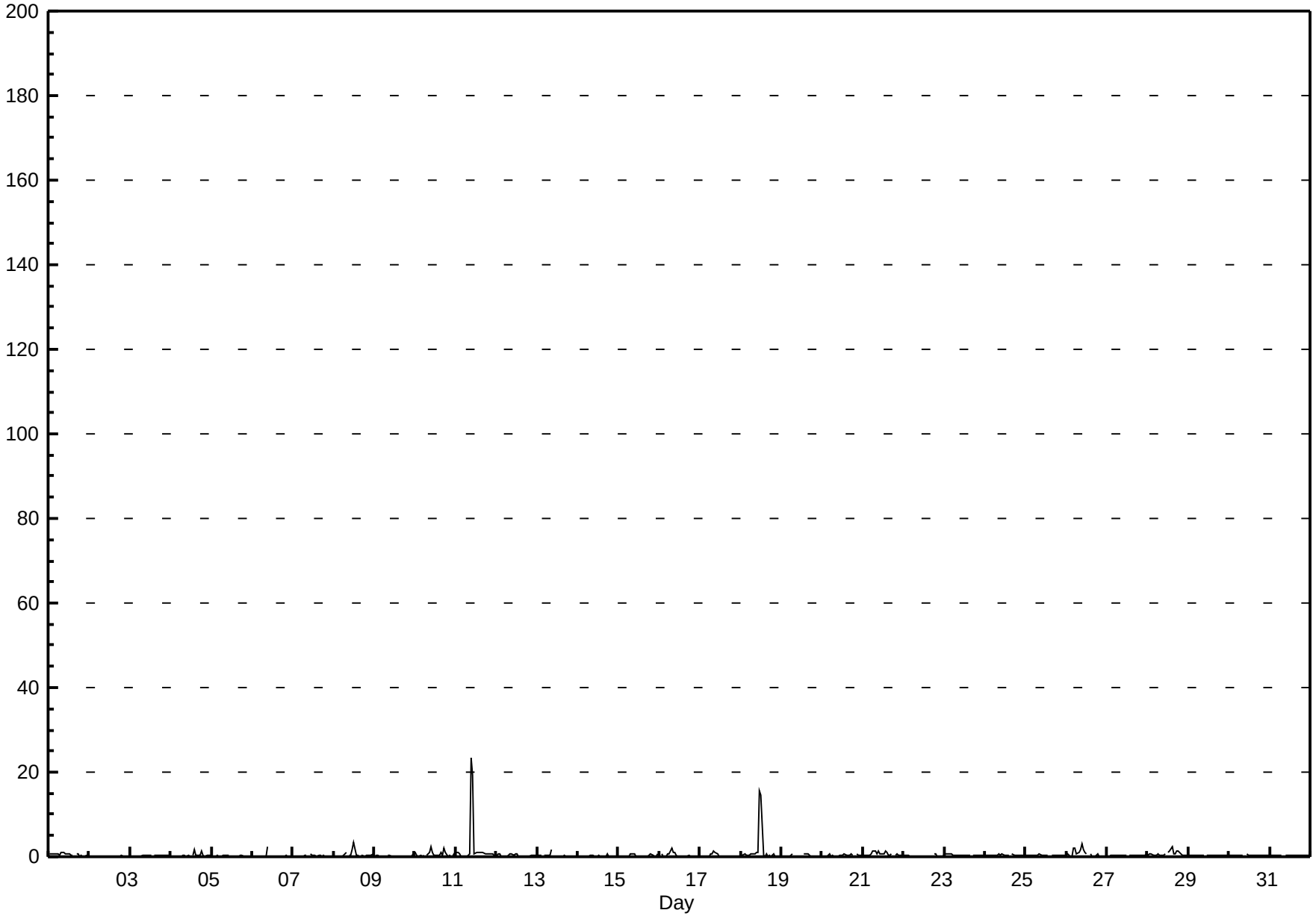
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - October 2011

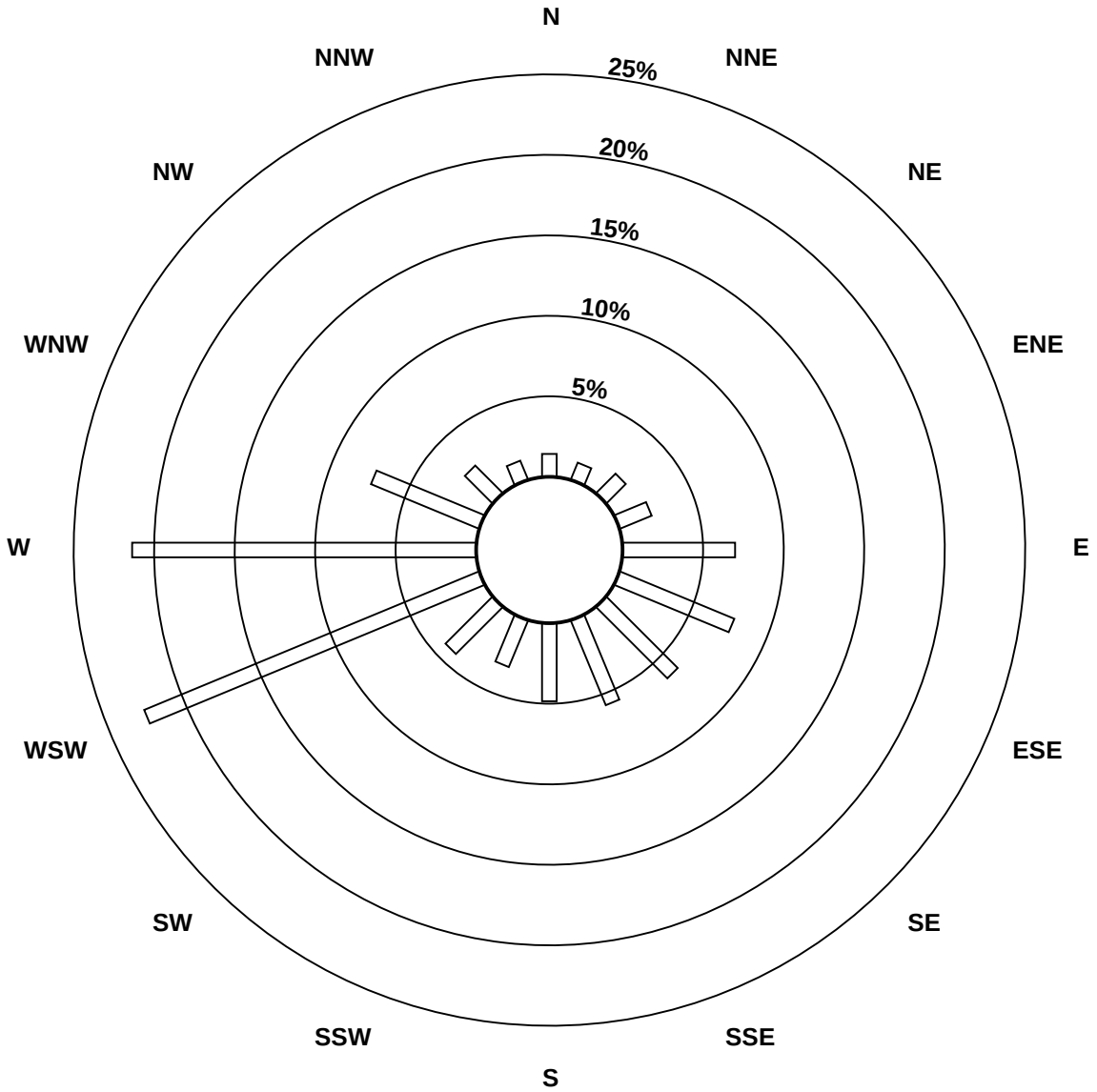


Peace Airshed Zone Association

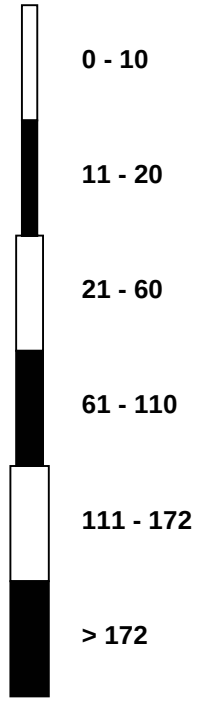
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - October 2011



Pollutant Classes (ppb)

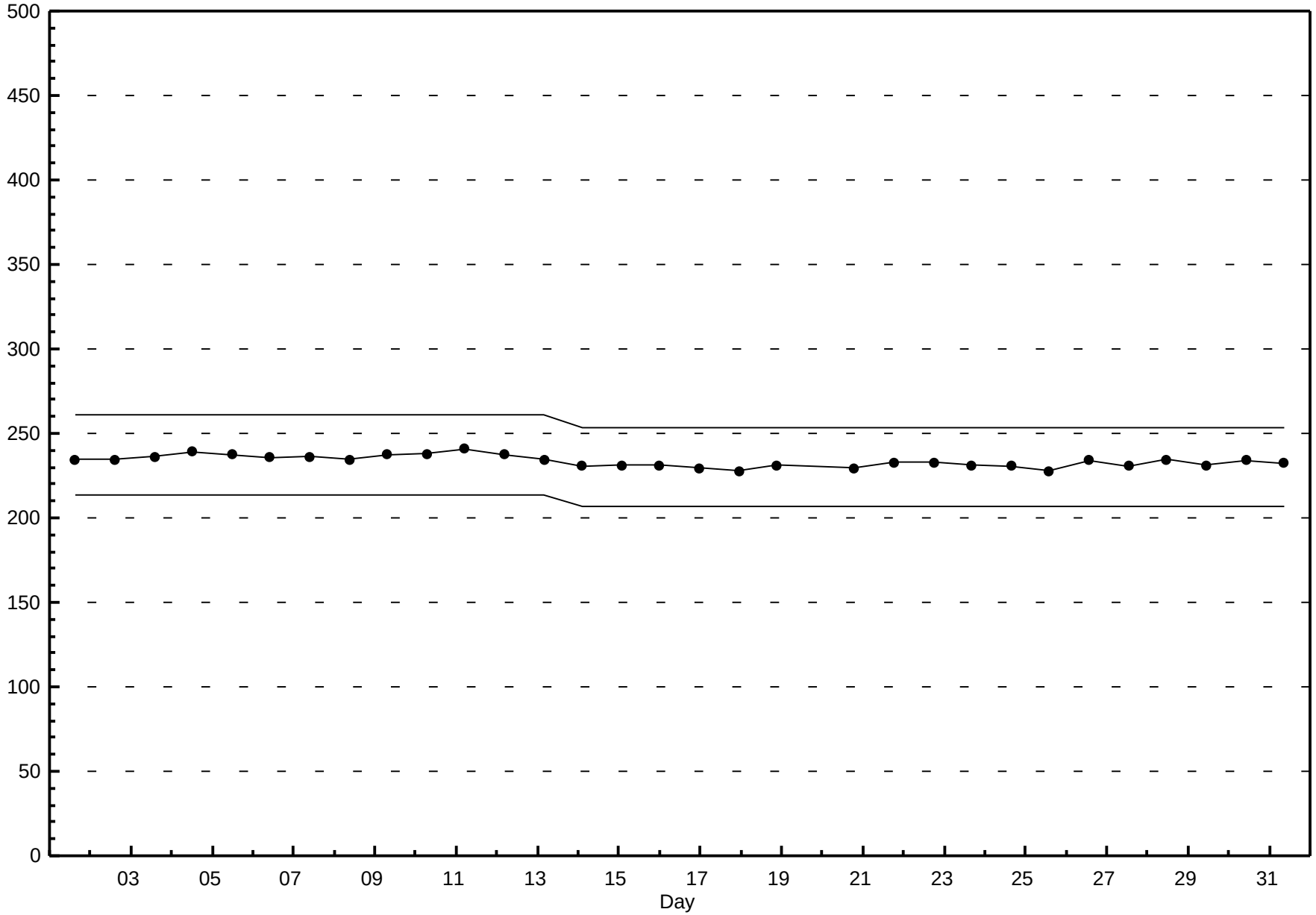


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.2 ppb on Oct 14 05:00 Maximum Daily Average: 0.5 ppb on Oct 26

Minimum Value: 0 ppb on Oct 1 15:00 Minimum Daily Average: 0.1 ppb on Oct 10
Maximum Diurnal Average: 0.4 ppb at hour 5 Minimum Diurnal Average: 0.2 ppb at hour 17
Monthly Average: 0.27 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 1.0$

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	42
Percent Operational Time:	100.0

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

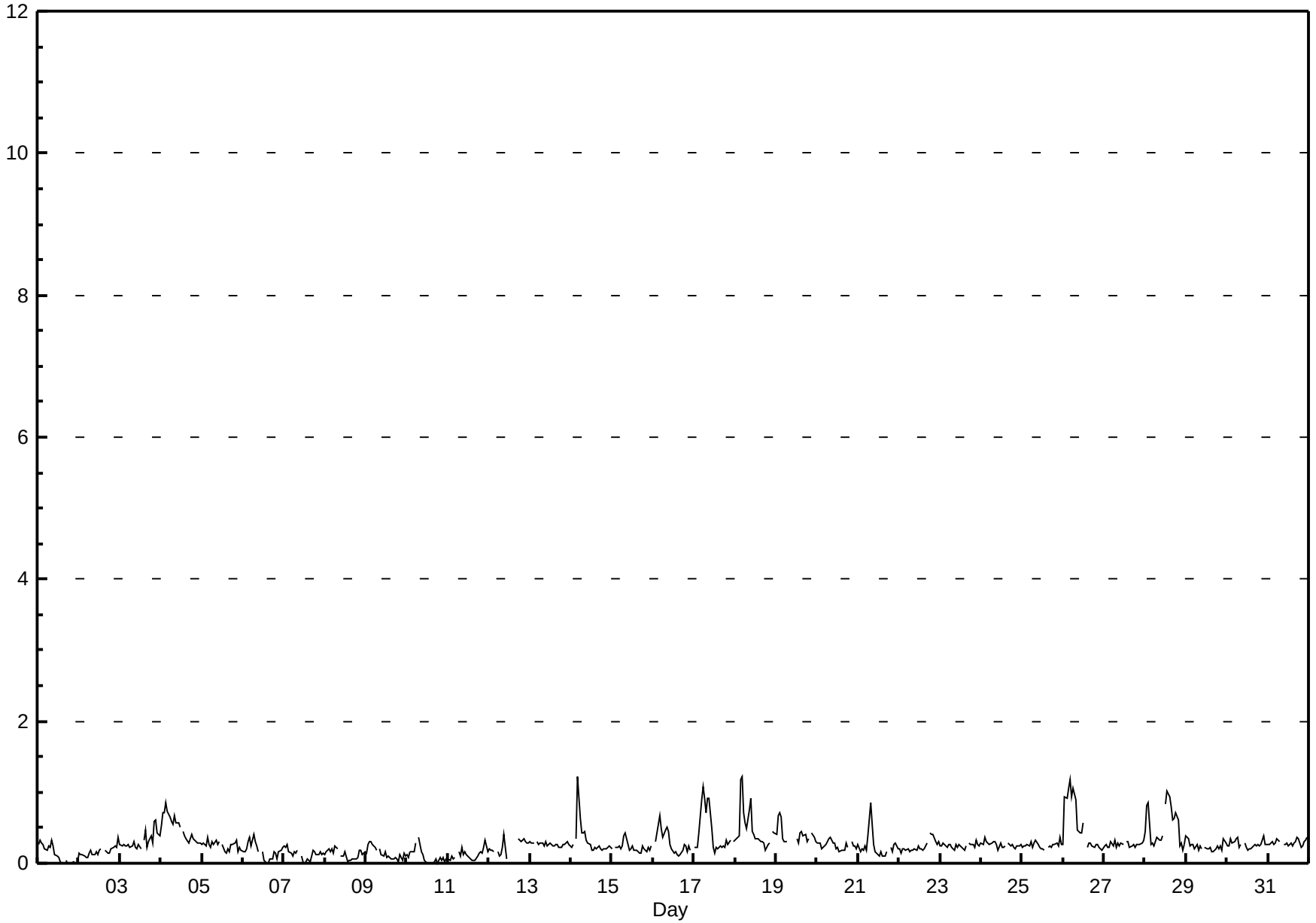
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2011

Maximum Value: 2.1 ppb on Oct 26 05:00

Maximum Daily Average: 1.0 ppb on Oct 26

Minimum Value: 0 ppb on Oct 10 19:00

Minimum Daily Average: 0.5 ppb on Oct 10

Maximum Diurnal Average: 0.8 ppb at hour 5

Minimum Diurnal Average: 0.6 ppb at hour 15

Monthly Average: 0.66 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.9$ $P_{99} = 1.6$

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	42
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0.5	0.7
2-Oct	1	1	0	0	0	0	1	1	0	0	0	0	1	1	A	1	0	1	0	0	1	1	1	1	0.5	0.8
3-Oct	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.2
4-Oct	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
5-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	0	0.6	0.8
6-Oct	1	1	1	1	1	1	1	1	1	0	A	1	0	1	0	0	0	0	1	1	1	1	1	1	0.6	0.8
7-Oct	1	1	1	0	1	1	1	0	1	A	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0.5	0.8
8-Oct	1	1	1	1	1	0	1	1	A	1	0	1	1	0	1	0	0	0	0	1	1	1	1	1	0.5	0.7
9-Oct	0	1	1	1	1	1	0	A	1	1	0	1	0	1	0	1	0	0	0	0	0	0	1	0	0.5	0.7
10-Oct	1	0	1	0	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8
11-Oct	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	1	0	1	0	1	1	0	0.5	0.9
12-Oct	1	0	1	1	A	1	1	0	1	1	0	C	1	C	C	C	C	1	1	1	1	1	1	1	0.6	0.9
13-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
14-Oct	1	1	A	1	2	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0.7	1.8
15-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0.6	0.9
16-Oct	A	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	1	1	1	1	1	0	A	0.7	1.3
17-Oct	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.5
18-Oct	1	1	1	2	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.9
19-Oct	1	1	1	1	1	1	1	C	C	C	C	C	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.4
20-Oct	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	A	1	1	1	1	0.6	0.8
21-Oct	1	0	1	1	1	1	1	1	2	1	1	1	0	1	1	0	1	1	A	1	1	1	1	1	0.7	1.5
22-Oct	1	0	1	1	1	1	0	1	0	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	0.6	0.9
23-Oct	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	0.6	0.7
24-Oct	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	0.7	0.8
25-Oct	1	1	1	1	0	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	0.6	0.7
26-Oct	1	2	2	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1.0	2.1
27-Oct	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
28-Oct	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
29-Oct	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.0
30-Oct	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
31-Oct	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	Diurnal Average	
	1.0	1.6	1.6	1.9	2.1	1.5	1.5	1.4	1.5	1.5	0.9	0.9	1.3	1.5	1.2	1.2	1.0	1.0	1.0	1.0	1.2	1.1	1.0	0.8	Diurnal Maximum	

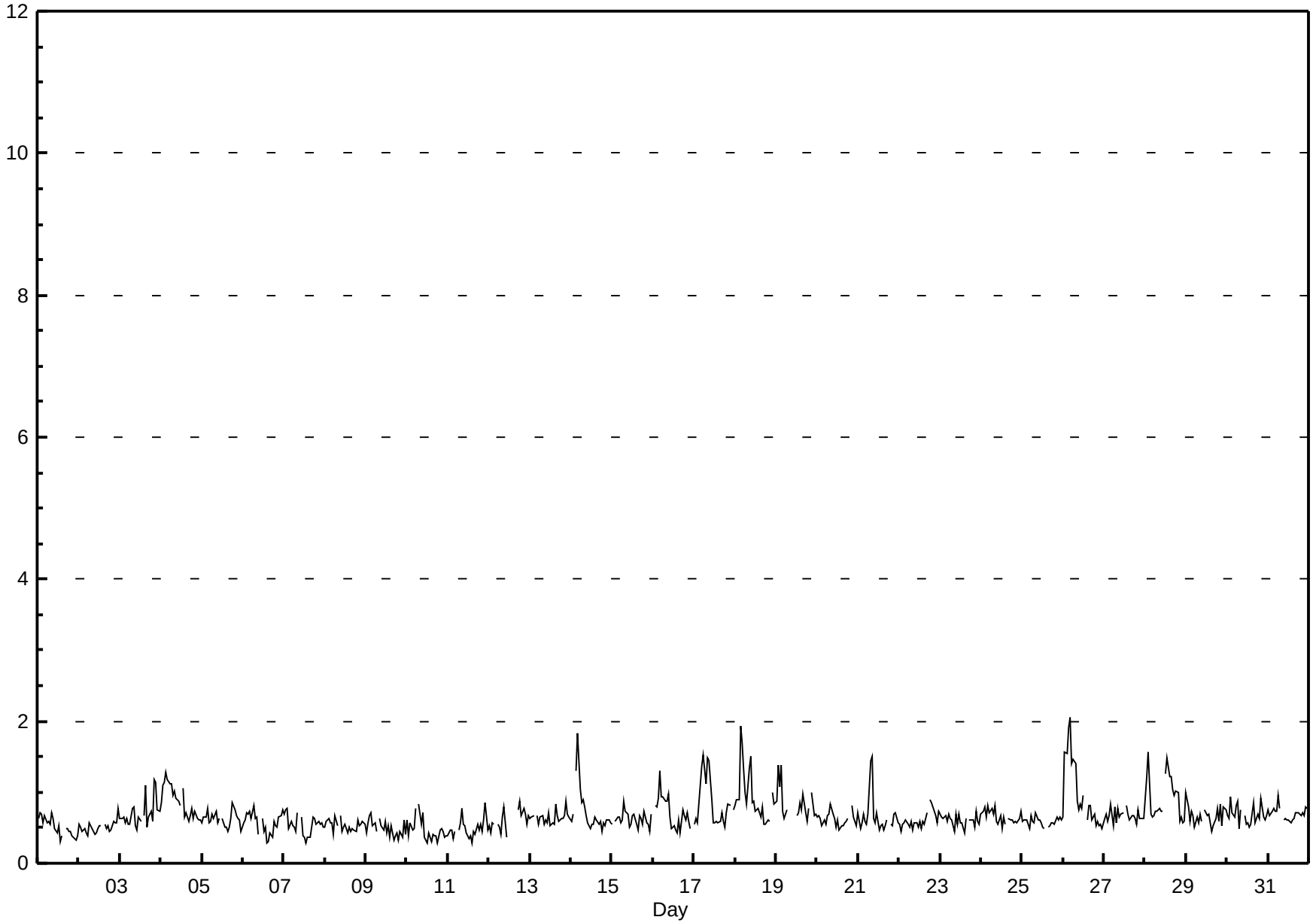
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2011

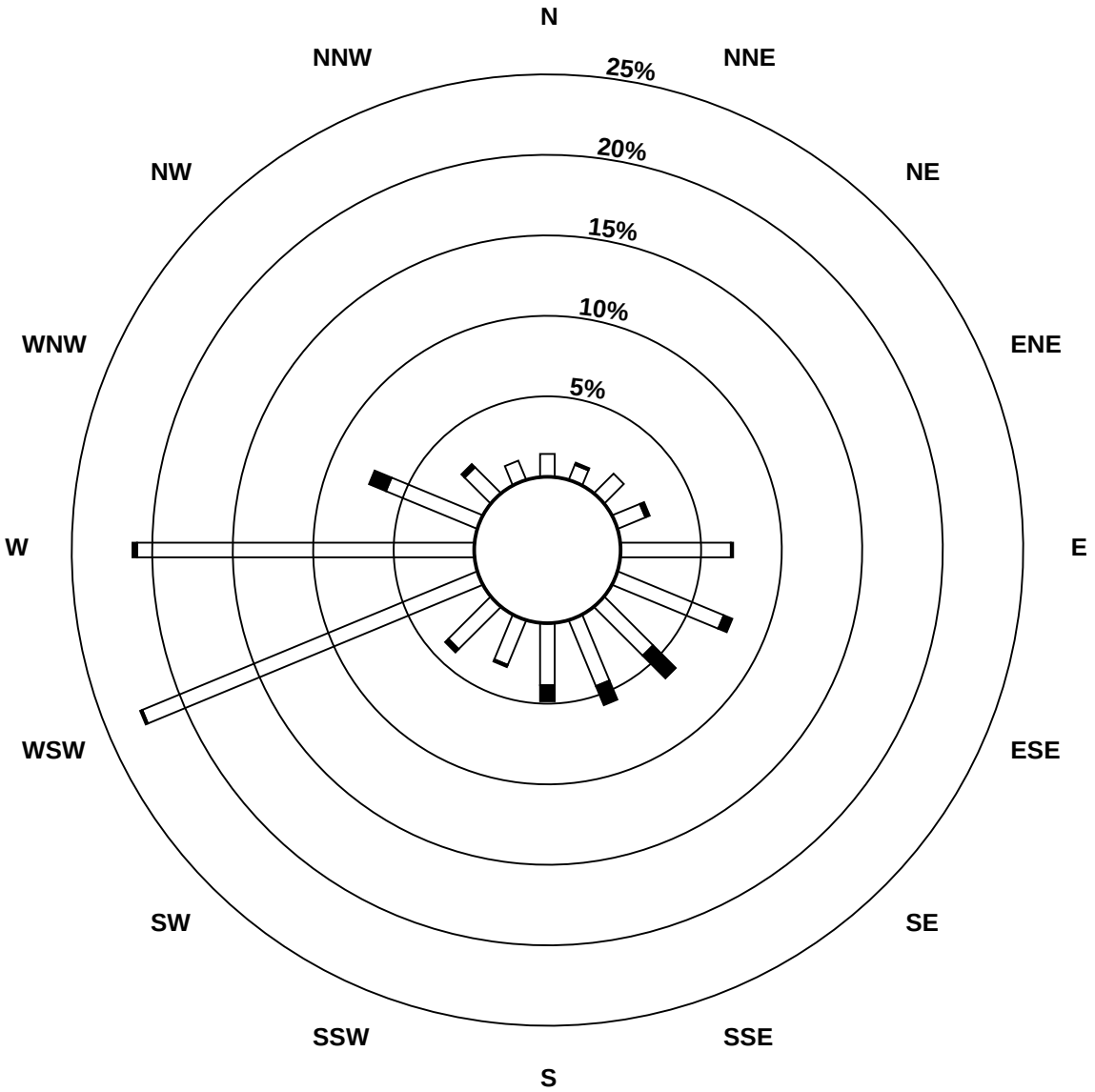


Peace Airshed Zone Association

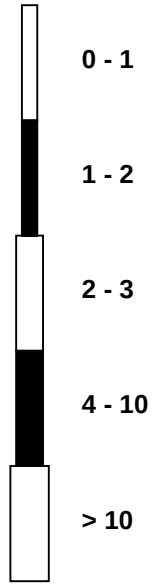
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - October 2011



Pollutant Classes (ppb)

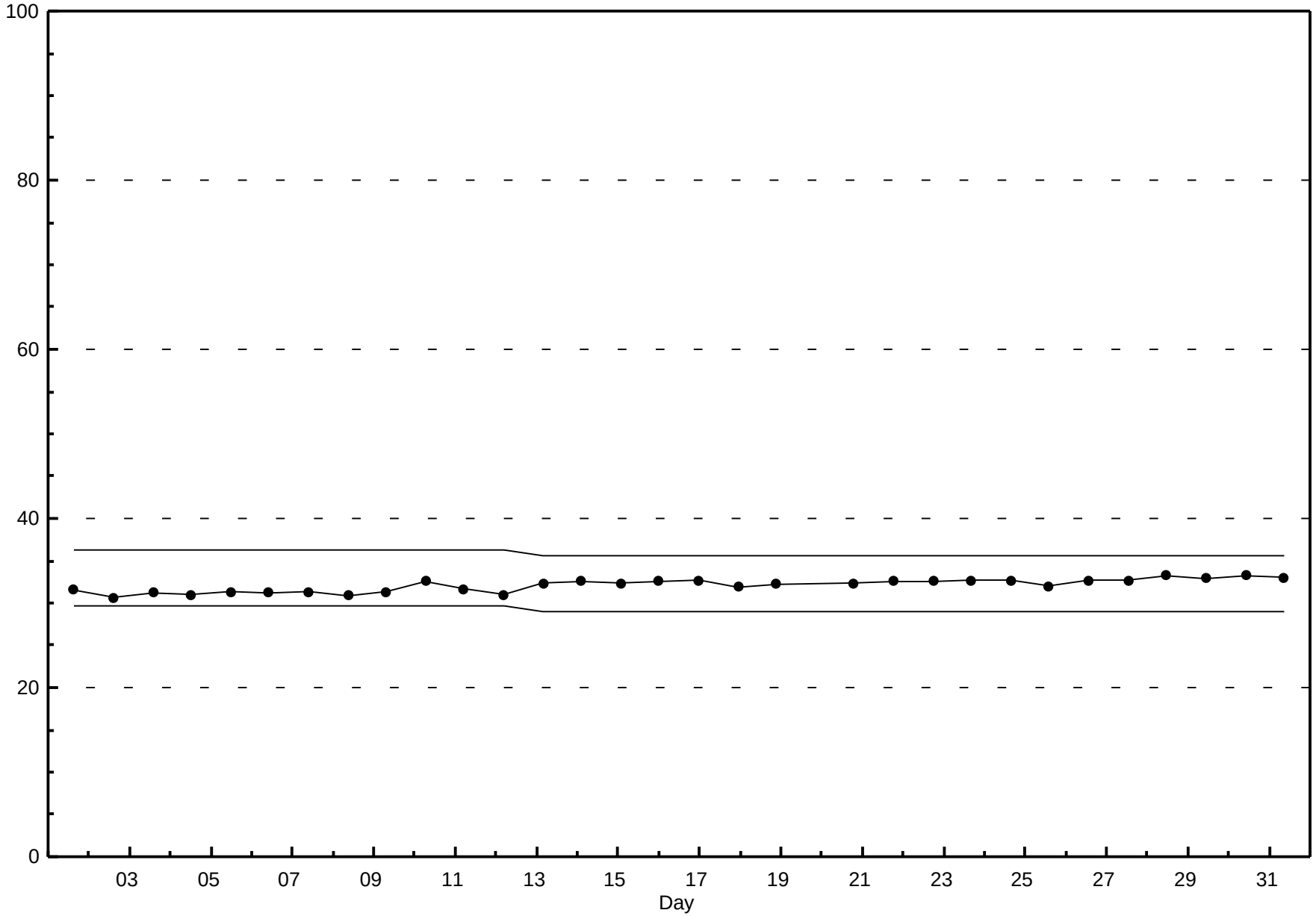


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 32.0 ppb on Oct 28 19:00 Maximum Daily Average: 15.4 ppb on Oct 18

Minimum Value: 1 ppb on Oct 27 03:00
Maximum Diurnal Average: 16.7 ppb at hour 8
Monthly Average: 8.59 ppb

Minimum Daily Average: 3.4 ppb on Oct 31
Minimum Diurnal Average: 4.0 ppb at hour 14
Percentiles: P_1 = 1.4 P_{10} = 2.5 Q_1 = 3.5 Median = 6.2 Q_3 = 11.5 P_{90} = 19.3 P_{99} = 29.2

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	3	3	2	2	4	10	15	22	22	17	6	4	4	3	3	A	6	7	7	6	3	3	3	2	6.9	22.3
2-Oct	2	3	2	2	2	3	4	4	4	4	5	3	3	3	A	5	5	4	5	8	9	6	5	4	4.1	8.9
3-Oct	3	3	3	4	4	5	6	7	5	5	5	4	4	A	5	5	7	9	14	13	8	9	7	7	6.2	14.5
4-Oct	9	12	9	7	8	7	7	9	8	10	9	6	A	8	9	5	6	9	11	13	9	7	5	5	8.1	12.5
5-Oct	6	6	5	5	6	6	8	15	9	6	6	A	6	4	6	8	5	5	7	7	4	3	3	2	6.1	15.5
6-Oct	2	3	2	5	7	10	8	9	9	6	A	6	4	4	4	3	5	7	12	14	16	19	20	16	8.3	20.3
7-Oct	13	7	6	2	3	6	9	15	11	A	3	2	2	2	2	3	3	6	8	19	12	6	3	4	6.4	19.2
8-Oct	4	3	4	4	11	18	22	21	A	13	12	7	4	2	2	2	3	5	5	6	6	7	7	7	7.7	22.0
9-Oct	8	16	9	5	8	12	16	A	15	11	2	2	2	1	1	2	1	2	5	7	16	21	20	21	8.9	20.7
10-Oct	18	18	19	19	21	21	A	22	14	7	4	4	4	3	3	3	4	5	7	7	6	5	4	3	9.6	22.1
11-Oct	3	4	9	8	10	A	15	15	15	11	7	7	5	4	5	5	7	6	20	26	22	16	15	10	10.6	25.9
12-Oct	9	8	9	9	A	16	16	18	14	13	13	7	5	4	3	5	4	6	6	8	8	5	3	2	8.2	18.3
13-Oct	2	2	2	A	4	5	8	9	5	C	C	C	C	C	C	7	8	4	5	4	4	5	6	5	--	8.9
14-Oct	4	7	A	12	13	19	26	25	23	16	11	9	5	4	6	4	6	8	9	7	10	8	8	6	10.6	25.5
15-Oct	5	A	9	9	13	19	18	24	23	16	8	4	3	2	2	2	4	9	13	8	10	13	17	21	10.9	23.5
16-Oct	A	22	19	22	21	22	25	26	25	23	14	7	5	4	2	2	3	6	6	5	5	6	7	A	12.4	25.5
17-Oct	11	13	23	24	19	25	29	28	30	29	21	5	4	3	2	3	3	4	3	5	7	8	A	7	13.3	30.0
18-Oct	16	25	24	17	15	18	26	28	28	29	24	14	9	6	5	5	8	13	11	9	7	A	6	11	15.4	29.2
19-Oct	14	16	14	14	9	18	25	C	C	C	C	C	C	9	13	19	24	10	11	6	A	5	3	2	--	24.8
20-Oct	2	2	2	2	3	9	14	27	24	15	10	4	3	3	3	5	8	12	11	A	13	12	6	7	8.6	26.7
21-Oct	6	9	12	13	13	22	28	31	21	10	7	8	5	5	6	8	10	11	A	19	16	15	11	8	12.8	31.3
22-Oct	5	3	2	2	3	4	6	9	9	7	3	3	3	3	3	8	7	A	26	31	11	7	4	3	7.1	30.8
23-Oct	3	3	2	3	5	7	9	8	5	3	2	2	2	2	2	2	A	4	6	4	4	6	6	4	4.0	9.2
24-Oct	5	8	10	6	8	10	17	19	18	13	6	3	2	3	3	A	7	5	5	5	7	7	6	3	7.7	19.3
25-Oct	3	3	3	5	12	12	11	23	22	11	8	3	3	3	A	4	7	10	9	9	15	13	8	12	9.0	23.1
26-Oct	12	12	10	12	13	19	23	27	24	22	29	29	23	A	6	3	3	4	5	4	3	2	2	2	12.6	29.0
27-Oct	1	1	1	1	1	2	4	5	6	4	3	2	A	4	3	3	5	6	9	6	6	8	18	28	5.5	28.1
28-Oct	20	10	11	8	6	8	15	12	12	12	12	A	15	15	17	13	26	31	32	27	6	4	2	3	13.7	32.0
29-Oct	3	3	3	3	3	3	3	4	4	4	A	3	3	3	3	4	4	7	8	5	5	6	17	8	4.7	17.4
30-Oct	15	10	9	7	5	7	7	16	16	A	11	3	2	2	2	2	2	3	3	4	4	3	4	4	6.1	16.3
31-Oct	2	2	3	3	3	6	6	8	A	5	3	2	3	2	3	4	3	3	3	3	3	3	2	2	3.4	8.0
	6.9	7.9	7.9	7.9	8.5	11.6	14.2	16.7	15.0	11.9	9.1	5.7	4.9	4.0	4.4	5.0	6.5	7.4	9.3	9.7	8.5	7.9	7.7	7.3	Diurnal Average	
	19.5	25.0	23.5	24.1	21.5	25.2	28.7	31.3	30.0	29.2	28.5	29.0	23.3	14.7	17.2	19.0	25.7	31.0	32.0	30.8	21.6	20.6	20.3	28.1	Diurnal Maximum	

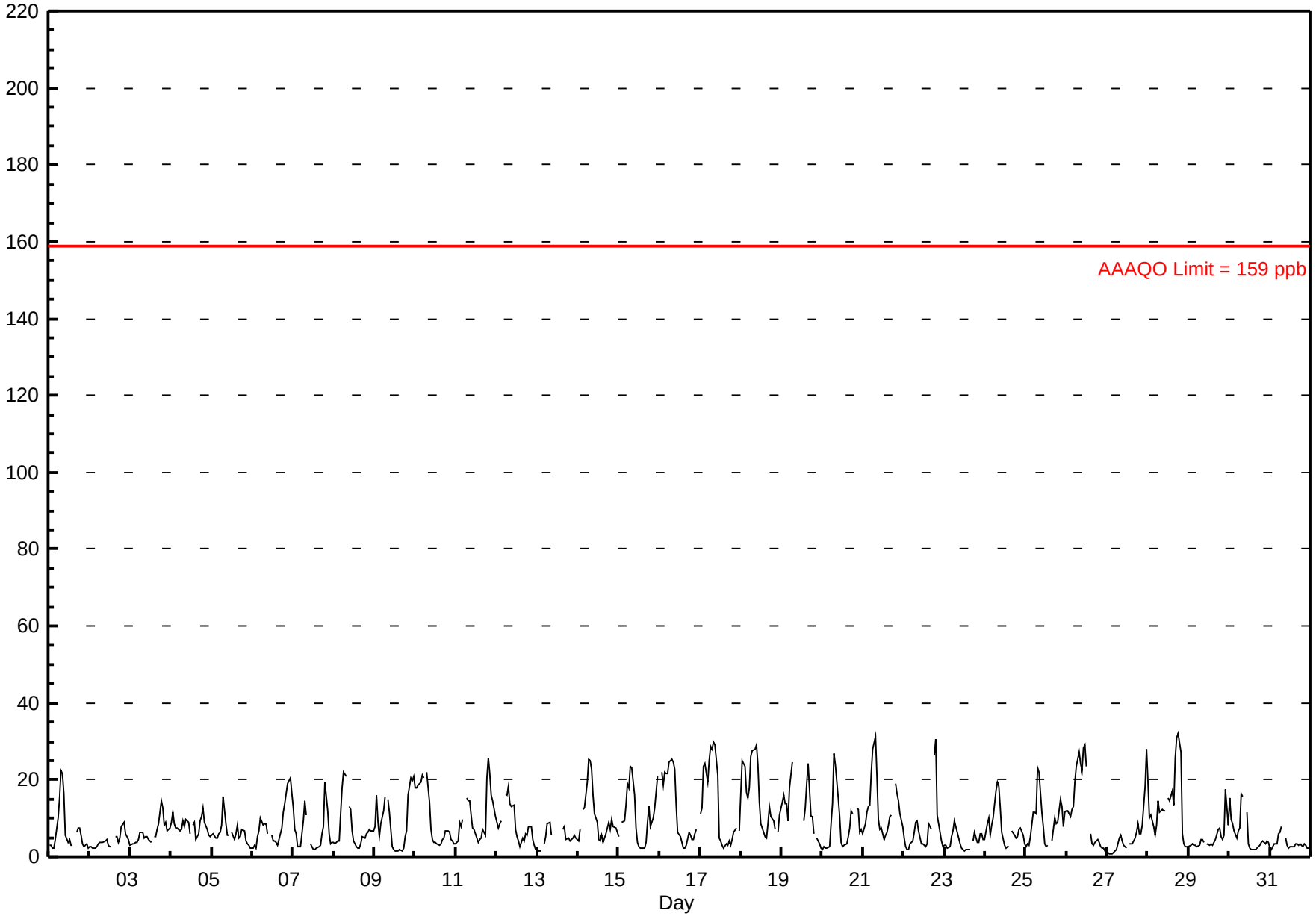
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - October 2011



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - October 2011

Maximum Value: 38.1 ppb on Oct 28 18:00

Maximum Daily Average: 21.2 ppb on Oct 18

Minimum Value: 1 ppb on Oct 27 04:00

Minimum Daily Average: 5.6 ppb on Oct 31

Maximum Diurnal Average: 21.0 ppb at hour 8

Minimum Diurnal Average: 7.1 ppb at hour 14

Monthly Average: 12.17 ppb

Percentiles: $P_1 = 2.5$ $P_{10} = 3.8$ $Q_1 = 5.6$ Median = 9.5 $Q_3 = 16.6$ $P_{90} = 25.9$ $P_{99} = 32.9$

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	5	5	3	4	8	15	20	25	24	22	9	6	6	4	5	A	10	13	10	9	8	5	8	3	9.9	24.8
2-Oct	4	4	3	4	4	5	6	6	6	6	6	4	4	5	A	8	10	6	7	11	11	9	10	6	6.1	11.1
3-Oct	4	4	4	5	5	6	10	9	6	9	7	5	5	A	7	7	10	11	19	15	13	12	9	9	8.1	18.9
4-Oct	11	13	11	8	10	9	9	12	10	12	11	8	A	22	14	7	12	11	14	14	16	10	8	7	11.3	22.4
5-Oct	12	7	7	6	8	9	12	21	14	9	8	A	12	9	11	14	8	6	8	11	9	5	5	4	9.4	21.0
6-Oct	3	5	3	7	11	14	14	13	10	10	A	8	5	5	6	4	9	11	18	21	23	23	23	19	11.5	23.0
7-Oct	15	10	8	3	3	11	15	22	17	A	5	4	3	3	3	5	6	15	19	22	19	9	5	6	10.0	22.0
8-Oct	4	6	6	6	18	22	26	30	A	17	15	11	8	5	4	6	5	15	7	8	8	10	12	10	11.3	30.0
9-Oct	16	19	17	7	13	18	24	A	24	17	6	2	2	2	2	3	2	3	9	17	27	26	25	25	13.3	26.5
10-Oct	22	22	23	23	25	24	A	26	19	10	6	5	5	4	4	6	8	7	10	10	9	7	8	5	12.5	26.2
11-Oct	5	5	18	11	18	A	20	17	17	14	9	9	8	5	8	8	12	9	29	28	27	18	17	14	14.2	28.9
12-Oct	11	9	10	12	A	18	20	21	17	17	16	13	9	8	4	7	7	9	8	13	13	7	6	3	11.0	21.1
13-Oct	3	3	3	A	5	8	12	11	10	C	C	C	C	C	C	13	16	7	8	6	6	8	9	7	--	15.6
14-Oct	6	9	A	16	14	26	29	27	27	21	15	14	8	7	8	12	12	13	19	10	13	11	9	10	14.5	29.0
15-Oct	10	A	12	16	16	23	21	28	25	22	9	6	4	3	5	4	6	15	24	13	16	18	24	26	15.1	28.1
16-Oct	A	28	26	26	26	27	29	30	28	27	19	9	9	6	5	4	5	11	10	10	7	10	10	A	16.4	29.8
17-Oct	13	22	25	27	22	28	31	29	35	33	28	10	8	6	6	5	5	6	4	8	10	13	A	9	16.8	34.6
18-Oct	27	29	28	24	18	24	29	28	31	35	29	23	13	9	10	11	14	19	20	18	21	A	8	20	21.2	35.5
19-Oct	17	26	16	20	12	27	28	C	C	C	C	C	C	26	16	27	31	19	19	9	A	8	5	4	--	31.4
20-Oct	3	4	3	4	4	15	17	33	32	20	15	8	6	6	7	9	17	24	19	A	20	19	9	11	13.2	33.3
21-Oct	13	13	17	15	17	29	33	36	30	14	9	10	8	8	10	14	16	16	A	23	21	20	14	12	17.1	35.5
22-Oct	8	5	3	3	6	7	8	11	15	10	6	5	4	5	7	25	15	A	34	36	21	9	6	4	10.9	36.0
23-Oct	4	5	3	5	8	11	12	18	8	5	5	3	3	3	3	3	A	6	8	6	7	10	13	11	7.0	18.1
24-Oct	7	15	16	11	12	15	24	28	29	18	10	4	4	4	5	A	9	7	6	7	11	9	7	4	11.4	29.2
25-Oct	3	5	4	7	20	19	18	27	28	21	13	6	5	5	A	6	11	17	14	13	23	19	15	16	13.7	28.1
26-Oct	16	16	14	15	21	29	29	30	29	28	33	33	26	A	11	6	4	6	11	11	3	3	5	2	16.5	33.4
27-Oct	2	1	1	1	3	4	5	7	7	7	5	4	A	6	6	6	7	10	15	8	9	16	30	32	8.3	31.6
28-Oct	27	14	15	10	8	15	25	18	16	14	15	A	28	22	22	19	33	38	36	33	13	5	3	4	18.8	38.1
29-Oct	4	4	7	4	4	4	4	6	5	5	A	5	4	5	5	5	7	12	12	7	7	9	33	13	7.4	33.1
30-Oct	20	15	11	9	7	10	13	28	22	A	26	6	3	3	3	3	3	4	6	5	6	5	6	5	9.5	28.2
31-Oct	3	3	8	7	8	8	9	11	A	8	6	4	4	4	5	6	6	5	5	4	4	4	3	3	5.6	11.3
	9.9	10.9	10.9	10.5	11.8	16.0	18.3	21.0	19.2	15.9	12.6	8.3	7.5	7.1	7.1	8.7	10.4	11.6	14.2	13.5	13.3	11.3	11.5	10.2	Diurnal Average	
	27.5	28.8	27.9	27.4	26.0	28.8	32.7	35.5	34.6	35.5	32.9	33.4	27.6	26.1	21.8	26.9	32.6	38.1	36.2	36.0	26.7	26.1	33.1	31.6	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

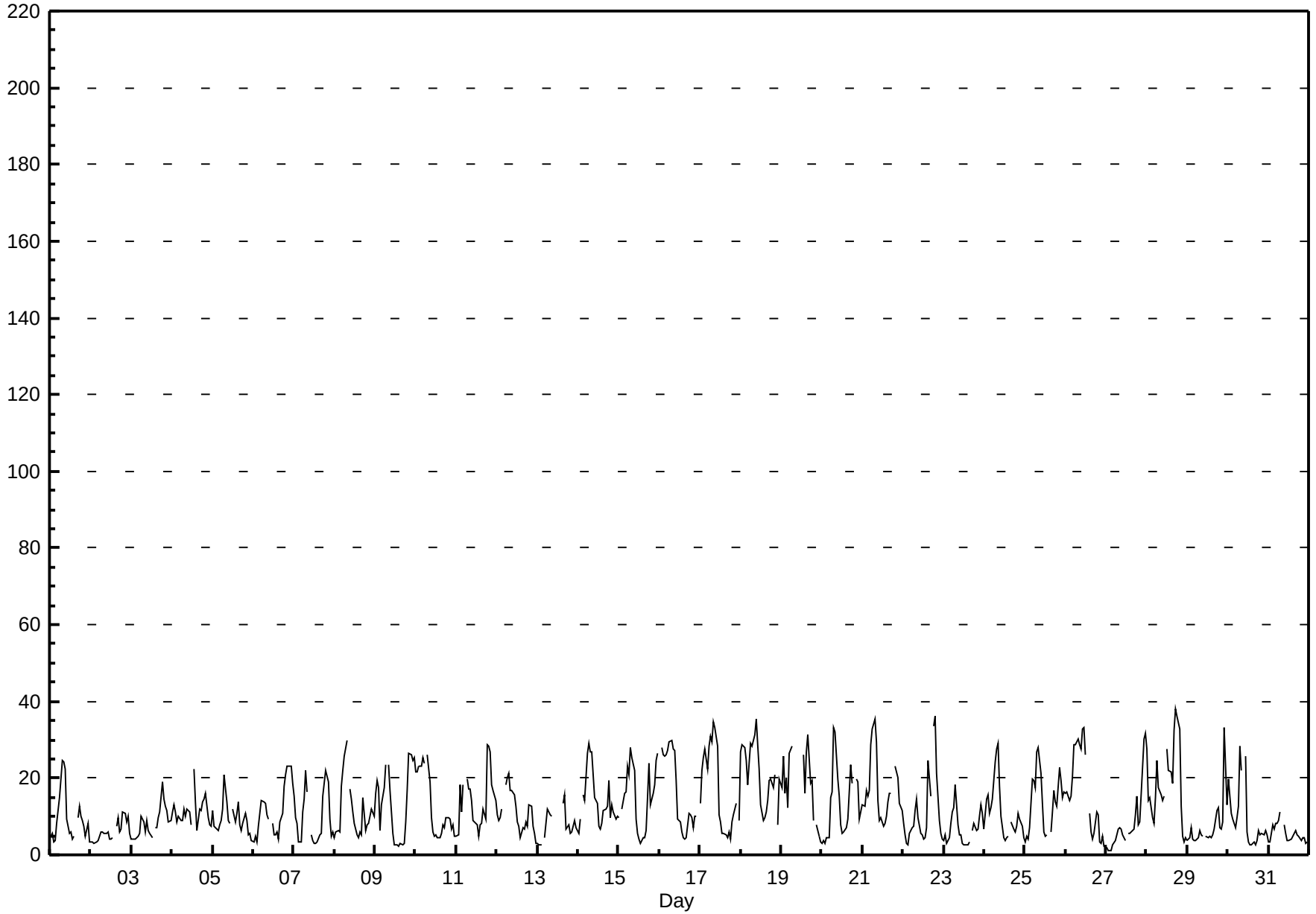
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

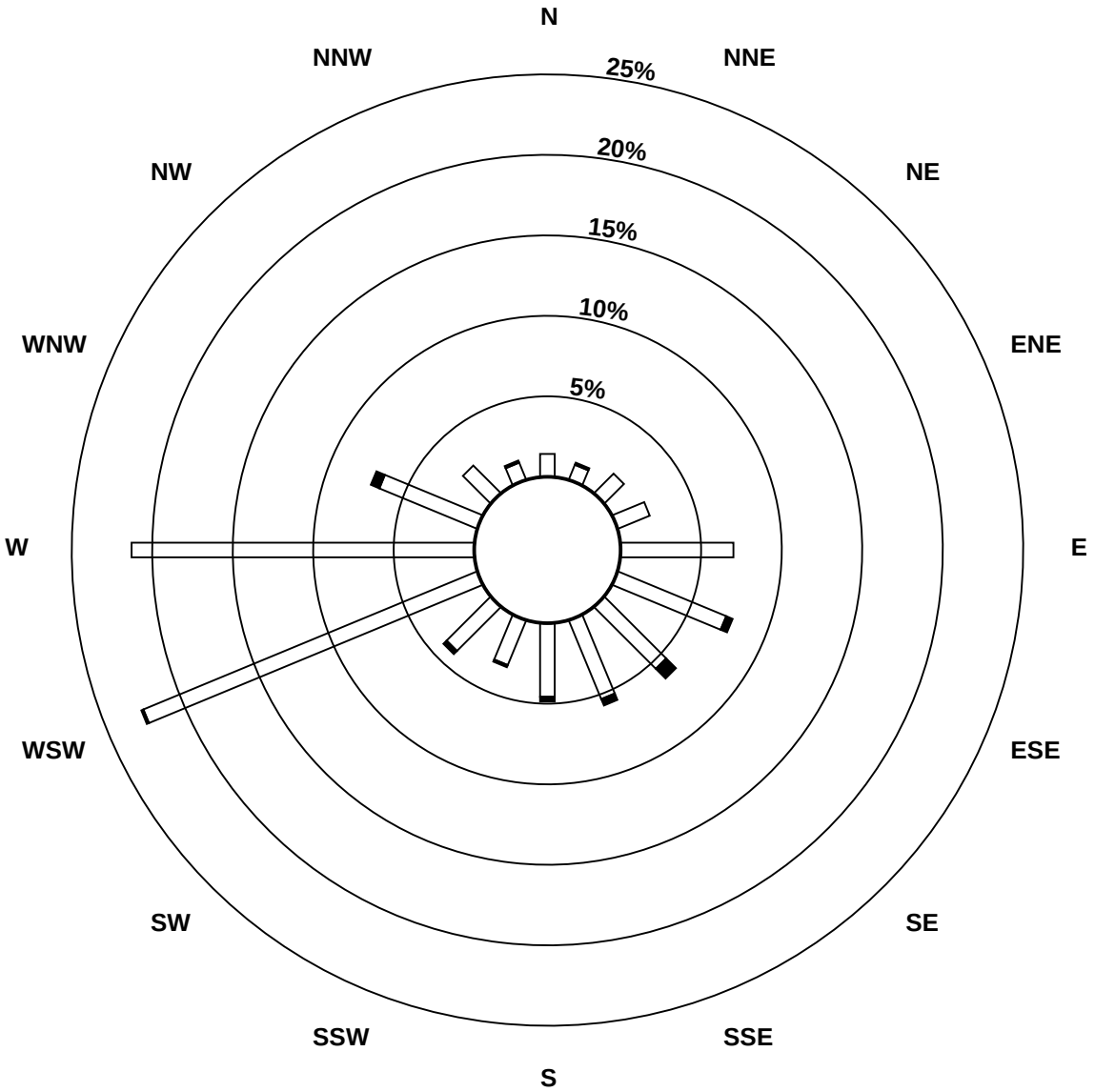
Henry Pirker - October 2011



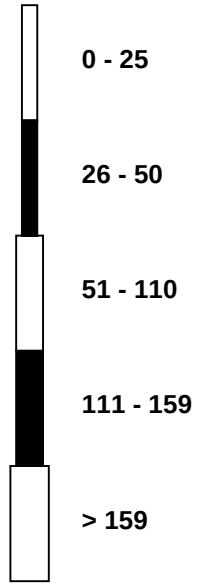
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - October 2011



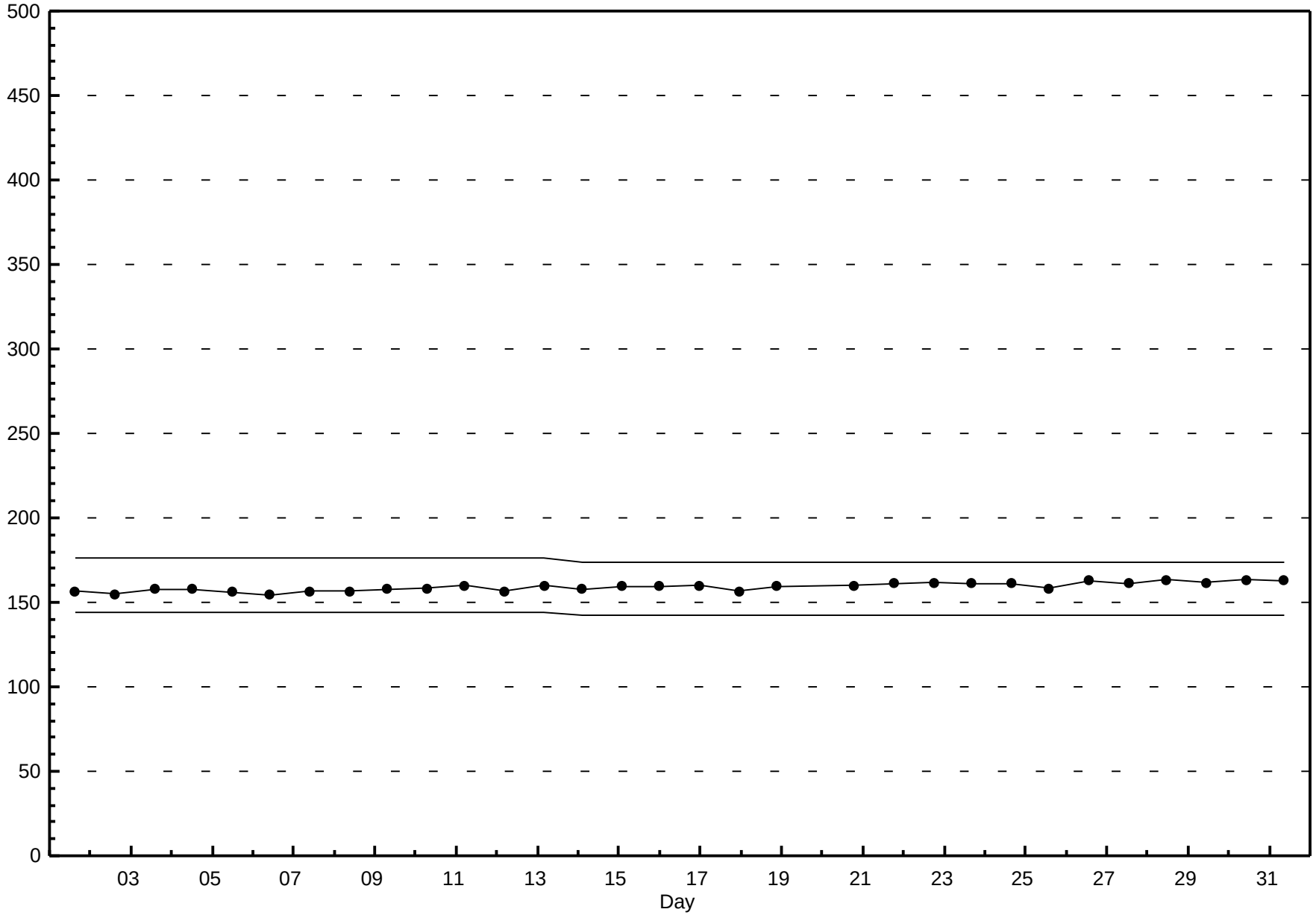
Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO_2)

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 64.7 ppb on Oct 17 10:00 Maximum Daily Average: 8.3 ppb on Oct 17

Minimum Value: 0 ppb on Oct 1 01:00 Minimum Daily Average: 0.2 ppb on Oct 23
Maximum Diurnal Average: 12.5 ppb at hour 9 Minimum Diurnal Average: 0.3 ppb at hour 1
Monthly Average: 2.71 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.2$ Median = 0.6 $Q_3 = 1.7$ $P_{90} = 6.3$ $P_{99} = 35.4$

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
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-Oct	0	0	0	0	0	0	0	12	26	13	2	1	1	1	1	A	1	1	1	0	0	0	0	0	2.7	26.0
2-Oct	0	0	0	0	0	0	0	1	0	1	1	1	1	0	A	1	1	0	0	1	1	0	1	1	0.5	1.5
3-Oct	1	1	1	1	1	1	3	3	2	2	2	2	2	A	2	2	2	2	8	5	4	6	1	1	2.3	7.8
4-Oct	3	3	0	0	1	1	2	7	7	13	14	6	A	5	8	3	3	4	3	9	2	1	1	0	4.2	14.4
5-Oct	0	0	0	0	0	0	2	6	2	2	2	A	1	1	2	3	1	1	1	1	1	0	0	0	1.2	6.1
6-Oct	0	0	0	0	0	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	2	3	4	5	1.2	4.7
7-Oct	1	0	0	0	0	0	1	2	2	A	1	1	1	0	0	1	0	0	0	1	1	0	0	0	0.6	2.2
8-Oct	0	0	0	0	1	5	17	36	A	9	9	4	1	0	0	0	0	0	0	0	0	0	0	0	3.7	35.8
9-Oct	0	1	0	0	0	0	2	A	6	6	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1.0	6.4
10-Oct	0	1	1	2	8	4	A	10	5	2	2	1	1	1	1	1	1	0	1	1	1	1	1	0	2.0	9.5
11-Oct	0	0	1	0	1	A	5	7	12	9	5	6	4	2	2	1	1	0	6	17	27	16	8	1	5.7	26.9
12-Oct	0	0	0	1	A	6	10	33	22	21	17	6	3	2	1	1	1	0	0	0	0	0	0	0	5.4	32.8
13-Oct	0	0	0	A	0	0	0	1	1	C	C	C	C	C	C	2	2	0	0	0	0	0	0	0	--	1.7
14-Oct	0	0	A	0	0	4	13	27	31	18	9	5	2	1	1	1	1	0	0	0	0	0	0	0	5.0	31.1
15-Oct	0	A	0	0	0	4	4	37	47	20	5	2	1	1	1	1	1	0	0	0	0	0	0	1	5.5	47.1
16-Oct	A	5	2	1	2	6	15	30	41	31	12	4	3	1	1	1	0	0	0	0	0	0	0	A	7.0	40.7
17-Oct	0	0	2	2	0	3	14	16	58	65	24	1	1	1	1	1	0	0	0	0	0	0	A	0	8.3	64.7
18-Oct	1	2	2	0	0	1	4	12	28	51	18	5	3	1	1	1	1	1	0	0	0	A	0	0	5.8	50.7
19-Oct	0	0	0	0	0	1	5	C	C	C	C	C	C	3	3	3	8	1	0	0	A	0	0	0	--	7.6
20-Oct	0	0	0	0	0	0	1	11	13	5	4	1	1	1	1	1	1	1	0	A	0	0	0	0	1.9	13.4
21-Oct	0	0	0	0	0	4	27	58	14	4	2	3	2	1	1	1	1	1	A	2	1	1	0	0	5.4	57.7
22-Oct	0	0	0	0	0	0	0	0	1	2	1	1	1	1	1	1	1	A	1	6	0	0	0	0	0.8	6.3
23-Oct	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0.2	0.8
24-Oct	0	0	0	0	0	0	2	7	6	6	3	1	1	1	1	A	1	0	0	0	0	0	0	0	1.3	6.6
25-Oct	0	0	0	0	1	1	1	16	17	6	4	1	1	1	A	1	1	1	0	0	0	0	0	0	2.3	16.8
26-Oct	0	0	0	0	1	2	3	5	3	4	10	12	7	A	1	1	1	0	0	0	0	0	0	0	2.3	11.8
27-Oct	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	1	10	0.9	9.9
28-Oct	2	0	1	1	1	1	2	1	2	2	2	A	4	3	2	2	5	14	16	14	0	0	0	0	3.2	16.2
29-Oct	0	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	0	0	0	0	0	0	1	0	0.4	1.2
30-Oct	0	0	0	0	0	0	0	0	1	A	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	3.6
31-Oct	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.3	0.9
	0.3	0.5	0.4	0.3	0.6	1.6	4.5	11.7	12.5	10.9	5.8	2.6	1.7	1.2	1.3	1.1	1.2	1.1	1.4	2.1	1.4	1.0	0.7	0.7	Diurnal Average	
	3.1	5.2	2.3	2.5	8.4	6.5	26.8	57.7	57.7	64.7	24.3	11.8	6.9	4.9	7.9	3.5	7.6	14.4	16.2	17.4	26.9	15.7	8.3	9.9	Diurnal Maximum	

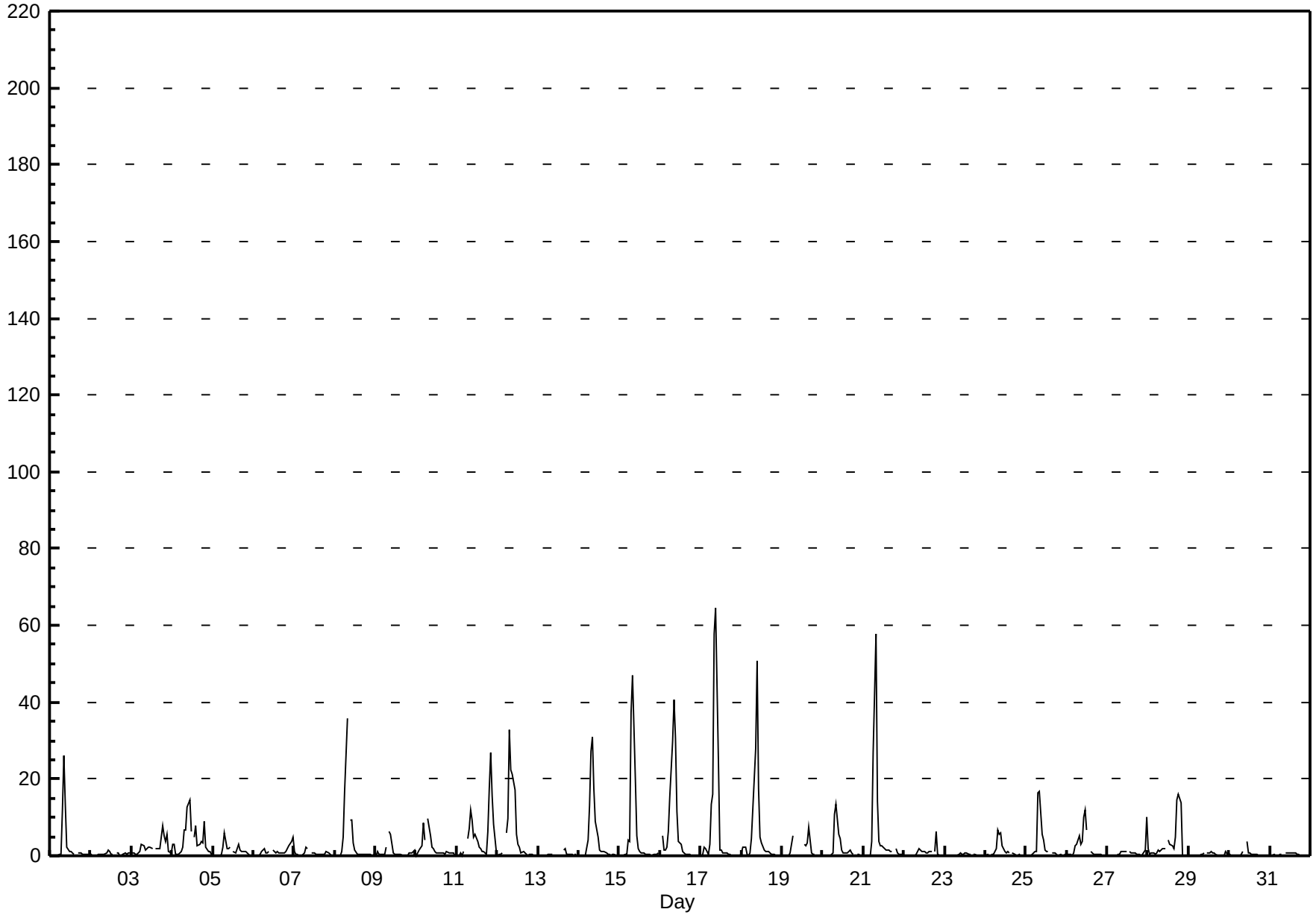
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2011



PAZA
Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2011

Maximum Value: 124.4 ppb on Oct 17 09:00

Maximum Daily Average: 17.3 ppb on Oct 17

Minimum Value: 0 ppb on Oct 1 01:00

Minimum Daily Average: 0.7 ppb on Oct 23

Maximum Diurnal Average: 24.0 ppb at hour 9

Minimum Diurnal Average: 1.5 ppb at hour 4

Monthly Average: 6.14 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.2$ $Q_1 = 0.5$ Median = 1.7 $Q_3 = 5.0$ $P_{90} = 16.4$ $P_{99} = 66.1$

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	3	3	27	36	25	4	1	2	1	1	A	4	3	2	1	3	2	1	1	5.3	35.6
2-Oct	0	1	1	1	1	1	2	1	1	1	2	2	1	0	A	1	2	0	0	2	2	1	6	2	1.4	5.8
3-Oct	3	1	2	1	2	2	21	6	3	6	4	4	3	A	6	3	4	3	17	9	10	14	2	3	5.7	21.0
4-Oct	10	7	1	1	1	3	5	16	14	21	22	10	A	13	17	4	7	7	11	21	15	4	7	3	9.8	22.5
5-Oct	4	0	0	0	0	2	29	18	5	6	7	A	3	2	8	23	5	3	4	5	5	2	2	0	5.9	28.6
6-Oct	0	0	0	1	5	4	17	3	2	3	A	2	2	2	3	1	1	2	3	4	5	9	8	8	3.8	17.4
7-Oct	3	3	1	0	0	1	3	8	5	A	1	1	1	1	1	1	1	2	2	3	2	1	0	1	1.8	7.8
8-Oct	0	0	0	1	4	13	28	83	A	16	12	8	4	1	1	1	1	3	1	1	1	2	1	2	8.0	82.8
9-Oct	0	11	1	2	1	3	19	A	16	10	2	1	1	1	1	1	1	1	0	0	5	4	4	9	4.0	19.2
10-Oct	1	2	4	9	12	10	A	19	11	6	3	2	2	1	1	3	2	1	6	4	5	3	4	1	4.9	18.6
11-Oct	2	1	4	3	8	A	17	13	17	14	7	8	7	4	3	3	2	1	27	38	43	26	20	4	11.8	43.2
12-Oct	1	0	1	2	A	10	38	50	39	37	29	15	7	5	2	2	1	0	0	1	0	0	0	0	10.5	50.3
13-Oct	0	0	0	A	0	0	1	1	1	C	C	C	C	C	C	5	5	0	1	0	0	0	1	0	--	5.2
14-Oct	0	0	A	0	0	21	19	46	44	32	16	8	3	2	2	4	2	1	2	0	1	0	1	0	9.1	46.1
15-Oct	0	A	0	7	1	14	11	78	64	37	7	3	2	1	1	1	1	1	1	0	2	3	3	4	10.6	77.9
16-Oct	A	17	8	6	8	22	43	39	50	42	21	7	6	1	1	1	0	0	0	1	0	0	1	A	12.5	49.7
17-Oct	1	5	5	4	2	8	21	32	124	121	45	3	15	5	2	1	1	0	0	1	1	1	A	0	17.3	124.4
18-Oct	4	6	6	2	1	3	10	25	70	94	27	12	6	2	3	2	3	1	1	6	5	A	0	0	12.6	94.4
19-Oct	2	1	2	0	0	9	15	C	C	C	C	C	C	11	5	10	20	5	1	0	A	0	0	0	--	19.6
20-Oct	0	0	0	0	0	3	1	33	45	11	7	4	2	2	3	3	5	2	1	A	1	1	0	0	5.5	45.5
21-Oct	3	1	1	0	3	14	57	90	57	7	4	4	3	3	3	4	3	3	A	5	3	1	1	1	11.8	89.7
22-Oct	0	0	0	0	0	1	0	0	2	2	2	2	1	1	1	4	7	A	4	15	2	1	0	0	2.2	15.5
23-Oct	0	0	0	0	0	1	1	1	2	1	2	1	1	1	1	1	A	0	0	0	1	1	1	1	0.7	2.0
24-Oct	0	4	1	0	4	3	5	21	15	9	5	2	2	2	2	A	1	1	0	0	0	1	0	0	3.5	21.4
25-Oct	0	0	0	0	4	6	3	26	33	18	9	3	2	2	A	1	2	1	1	0	1	1	0	1	5.1	33.4
26-Oct	1	1	1	1	3	6	9	9	6	8	16	21	11	A	2	2	1	1	1	1	1	0	0	0	4.5	21.5
27-Oct	0	0	0	0	1	1	1	1	2	2	2	2	A	2	2	2	1	1	1	0	1	4	11	23	2.5	22.7
28-Oct	9	1	2	2	2	3	7	4	3	3	4	A	16	6	7	3	15	53	38	34	1	0	0	0	9.1	52.9
29-Oct	0	0	1	0	0	1	0	0	1	1	A	1	1	2	1	1	1	0	0	0	0	0	5	0	0.9	5.0
30-Oct	1	1	0	0	0	0	1	1	4	A	13	2	1	1	1	1	0	0	1	0	0	0	0	0	1.2	13.0
31-Oct	0	0	6	1	1	0	1	1	A	2	2	1	1	2	2	2	1	2	0	0	0	0	0	0	1.1	6.4
	1.6	2.2	1.7	1.5	2.2	5.6	12.9	22.5	24.0	19.8	10.2	4.8	4.0	2.9	3.1	3.2	3.4	3.4	4.4	5.2	3.9	2.8	2.7	2.2	Diurnal Average	
	10.0	17.0	7.8	9.0	11.6	22.1	56.7	89.7	124.4	121.2	44.6	21.5	16.4	12.9	17.4	22.7	19.6	52.9	37.6	37.6	43.2	25.6	19.7	22.7	Diurnal Maximum	

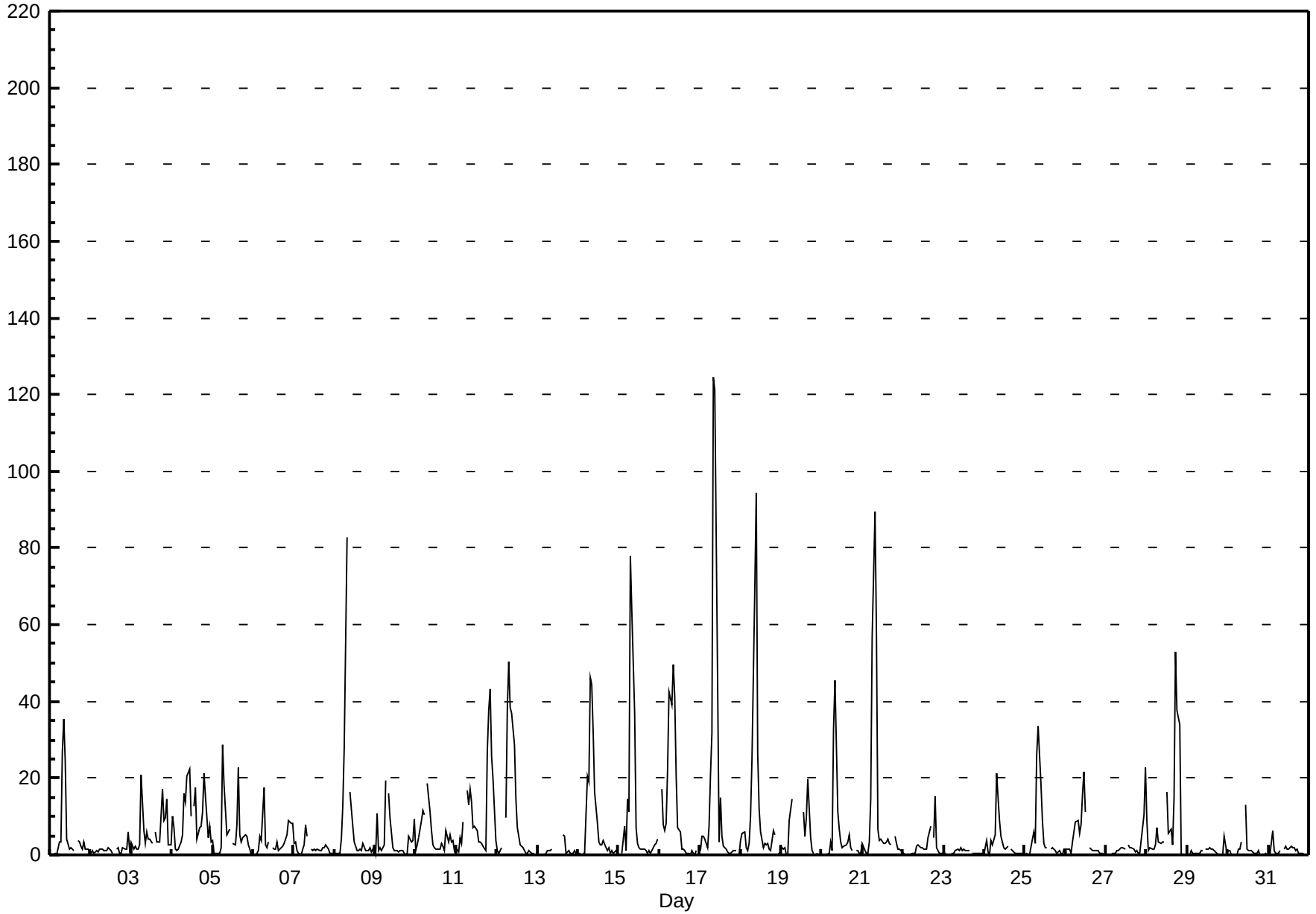
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 94.1 ppb on Oct 17 10:00 Maximum Daily Average: 21.8 ppb on Oct 17

Minimum Value: 1 ppb on Oct 27 03:00 Minimum Daily Average: 3.9 ppb on Oct 31
Maximum Diurnal Average: 28.5 ppb at hour 8 Minimum Diurnal Average: 5.3 ppb at hour 14
Monthly Average: 11.39 ppb Percentiles: P_1 = 1.6 P_{10} = 2.9 Q_1 = 4.1 Median = 7.1 Q_3 = 13.2 P_{90} = 25.6 P_{99} = 58.5

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	2	3	2	2	4	10	15	34	47	30	8	5	5	3	4	A	7	8	8	6	4	3	4	3	9.4	47.4
2-Oct	3	3	2	3	3	4	4	4	4	5	6	4	3	3	A	6	6	4	5	8	10	7	6	5	4.6	9.7
3-Oct	4	4	4	4	4	6	9	9	7	7	8	6	6	A	7	7	9	10	22	18	12	15	8	8	8.5	22.3
4-Oct	12	15	9	8	8	8	9	16	14	22	23	12	A	13	17	7	9	13	14	22	12	8	6	6	12.4	23.4
5-Oct	6	6	5	5	6	7	10	22	11	7	8	A	8	5	8	11	7	6	8	8	5	4	3	2	7.4	21.6
6-Oct	2	3	2	5	7	11	10	9	9	7	A	7	5	5	5	4	5	8	13	15	18	22	24	21	9.6	24.1
7-Oct	14	8	7	3	3	6	10	17	13	A	4	3	2	2	3	3	4	6	8	20	13	6	4	4	7.1	20.4
8-Oct	4	4	4	4	12	23	39	57	A	22	22	10	6	3	3	3	4	6	5	6	6	7	7	7	11.5	56.6
9-Oct	8	17	9	6	9	12	18	A	21	17	3	2	2	2	2	2	2	2	5	7	17	21	21	22	9.9	22.0
10-Oct	18	19	20	22	30	25	A	32	19	9	6	5	5	4	4	4	5	5	8	7	7	5	5	3	11.5	31.5
11-Oct	3	4	9	8	11	A	20	22	26	20	12	13	9	6	6	6	8	6	27	43	48	32	23	11	16.3	48.4
12-Oct	9	8	9	10	A	22	26	51	36	34	30	13	8	6	3	6	5	6	6	8	8	5	3	2	13.7	51.0
13-Oct	2	2	2	A	3	5	9	9	6	C	C	C	C	C	C	9	10	5	5	4	5	5	6	5	--	9.6
14-Oct	4	7	A	13	13	24	39	52	54	34	20	14	6	5	7	5	7	8	9	7	10	8	8	7	15.7	54.0
15-Oct	5	A	9	10	14	23	22	61	70	36	13	6	4	3	3	3	4	10	13	8	11	13	17	22	16.5	70.3
16-Oct	A	27	20	24	24	28	40	56	65	54	25	10	8	5	3	3	3	7	6	5	5	6	7	A	19.5	65.5
17-Oct	11	13	26	26	20	28	42	44	88	94	46	6	6	4	3	4	4	5	3	5	7	8	A	7	21.8	94.1
18-Oct	17	27	26	18	16	18	31	40	56	80	42	19	12	8	7	6	10	14	11	10	7	A	6	11	21.3	80.1
19-Oct	14	16	14	14	9	19	30	C	C	C	C	C	C	12	16	23	32	11	11	6	A	5	4	2	--	32.2
20-Oct	2	3	2	2	3	9	15	38	37	21	15	5	3	4	4	7	9	13	12	A	13	13	7	7	10.6	37.8
21-Oct	6	9	12	13	14	26	55	89	35	13	10	10	7	7	8	10	12	12	A	21	17	15	12	8	18.3	89.2
22-Oct	5	3	2	2	3	4	6	9	11	9	4	4	4	4	4	9	8	A	28	37	11	7	4	3	8.0	37.3
23-Oct	3	3	2	3	6	7	10	8	6	4	3	3	2	3	3	3	A	5	7	4	4	6	6	5	4.5	9.5
24-Oct	5	9	10	6	9	11	19	26	24	19	9	4	3	4	4	A	7	6	5	6	8	8	6	3	9.2	26.2
25-Oct	3	4	3	5	12	13	12	40	39	17	12	5	4	4	A	5	8	11	9	9	15	13	8	12	11.5	39.6
26-Oct	13	12	11	13	14	22	27	33	27	26	39	41	30	A	7	4	4	4	5	4	3	2	3	2	14.9	40.9
27-Oct	1	1	1	1	1	2	4	5	7	5	4	4	A	5	4	4	6	7	9	7	6	9	20	38	6.7	38.3
28-Oct	22	11	12	9	6	9	16	13	14	14	14	A	20	18	20	15	31	46	48	41	6	4	3	3	17.1	48.4
29-Oct	3	3	4	3	3	3	3	5	5	4	A	4	4	4	4	4	5	7	8	6	5	6	19	8	5.2	18.8
30-Oct	16	10	9	7	5	7	8	17	17	A	15	4	3	2	2	2	3	3	3	4	4	4	4	4	6.6	16.9
31-Oct	2	2	4	3	3	6	7	8	A	6	4	3	4	3	4	4	4	4	4	3	3	3	2	2	3.9	8.4
	7.3	8.5	8.4	8.3	9.2	13.3	18.8	28.5	27.5	22.9	15.0	8.3	6.6	5.3	5.8	6.2	7.9	8.6	10.8	11.9	10.0	9.0	8.5	8.1	Diurnal Average	
	21.5	27.4	26.0	26.3	29.6	28.4	54.9	89.2	87.9	94.1	45.6	40.9	30.3	17.7	19.8	22.6	32.2	45.7	48.4	43.2	48.4	31.9	24.1	38.3	Diurnal Maximum	

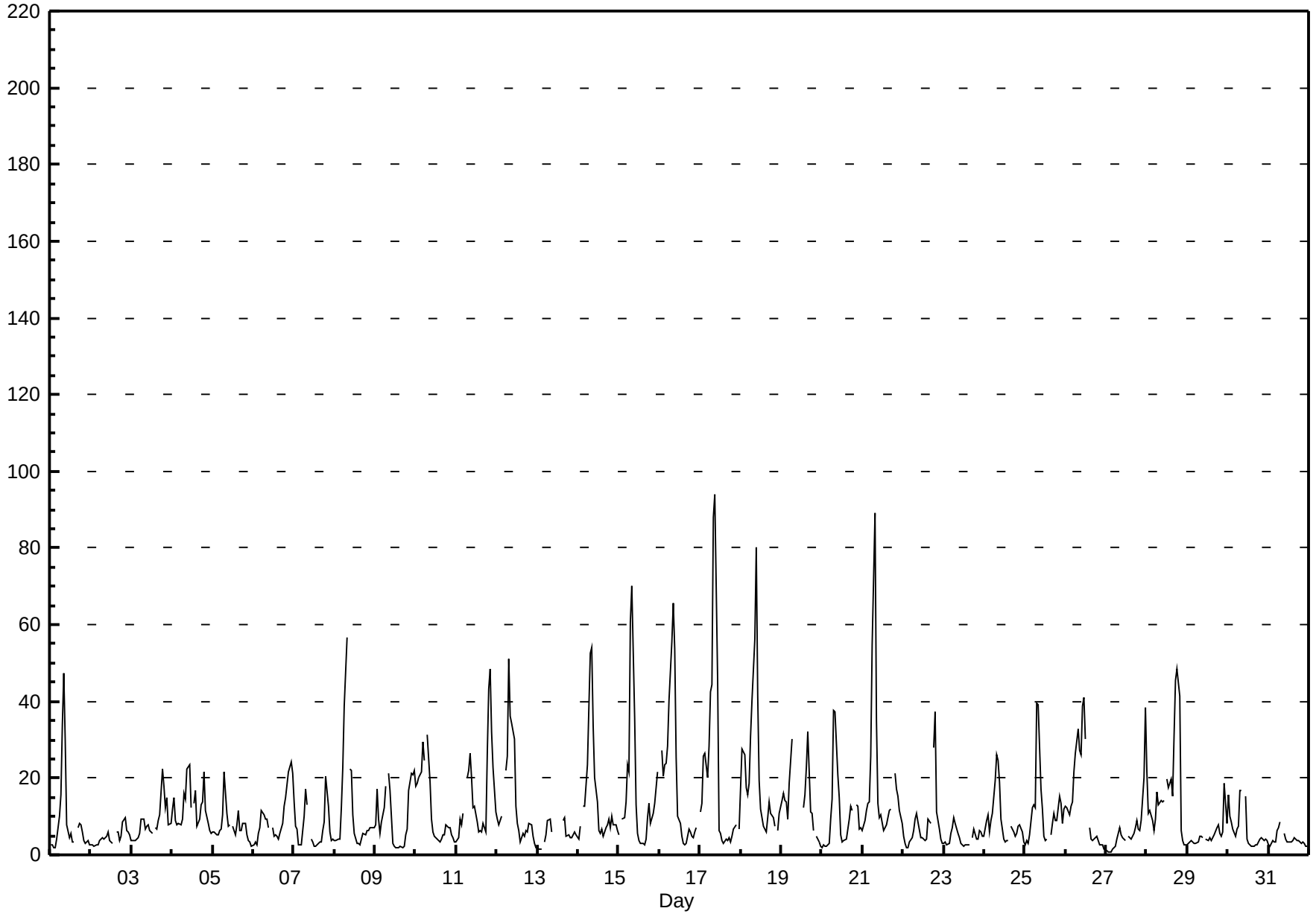
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - October 2011

Maximum Value: 158.1 ppb on Oct 17 09:00

Maximum Daily Average: 33.8 ppb on Oct 17

Minimum Value: 1 ppb on Oct 27 02:00

Minimum Daily Average: 6.8 ppb on Oct 31

Maximum Diurnal Average: 43.0 ppb at hour 9

Minimum Diurnal Average: 9.8 ppb at hour 14

Monthly Average: 18.06 ppb

Percentiles: P_1 = 2.5 P_{10} = 4.5 Q_1 = 6.9 Median = 11.7 Q_3 = 21.6 P_{90} = 38.1 P_{99} = 100.0

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	4	5	3	3	8	18	22	51	59	47	13	7	8	5	5	A	12	15	13	10	10	6	9	4	14.7	59.1
2-Oct	4	4	4	4	4	6	8	7	6	6	8	5	5	5	A	9	12	6	7	13	12	10	13	7	7.1	13.0
3-Oct	7	5	6	6	7	8	27	15	9	15	10	9	8	A	13	10	13	14	34	22	21	25	11	11	13.3	33.9
4-Oct	20	19	13	9	11	12	13	25	24	32	32	18	A	34	30	10	19	17	22	36	31	14	15	11	20.3	35.9
5-Oct	15	8	7	6	8	11	39	38	18	13	13	A	15	11	17	35	12	10	13	16	14	7	7	4	14.7	39.1
6-Oct	3	5	4	8	16	17	29	16	12	12	A	10	7	7	9	5	10	13	20	25	28	31	28	27	14.9	30.9
7-Oct	18	12	9	3	4	12	16	30	21	A	7	5	4	4	5	6	7	17	20	24	21	10	5	6	11.7	29.7
8-Oct	5	6	7	6	22	30	52	112	A	33	27	19	12	7	5	7	6	18	8	8	9	12	12	11	18.8	111.7
9-Oct	16	30	18	8	15	19	42	A	40	27	7	3	3	3	3	4	3	3	9	17	29	28	27	34	16.9	41.8
10-Oct	22	23	28	30	35	33	A	44	30	16	8	6	7	6	6	8	10	8	16	13	14	10	9	5	16.8	43.6
11-Oct	5	6	21	14	27	A	36	30	34	28	16	16	14	9	11	11	14	10	51	64	67	43	36	18	25.2	66.7
12-Oct	11	10	10	14	A	27	57	70	55	53	44	27	16	13	7	9	8	9	8	13	13	8	5	3	21.3	70.2
13-Oct	3	2	2	A	4	8	13	11	11	C	C	C	C	C	C	18	21	7	9	6	7	8	10	8	--	20.7
14-Oct	6	10	A	16	14	45	48	73	71	53	31	22	11	9	10	15	13	14	21	10	13	12	11	10	23.4	72.6
15-Oct	10	A	12	24	18	34	32	104	89	59	16	9	6	4	6	6	7	16	25	13	18	20	28	30	25.5	103.7
16-Oct	A	43	34	31	31	49	72	67	77	69	40	16	14	7	6	5	5	12	11	11	7	10	11	A	28.6	76.7
17-Oct	14	27	29	32	23	36	52	61	158	154	72	14	23	8	8	7	5	6	4	9	11	14	A	9	33.8	158.1
18-Oct	31	34	33	27	19	27	39	54	101	129	55	35	19	11	13	14	17	21	20	24	26	A	8	20	33.7	129.4
19-Oct	20	27	17	20	13	36	42	C	C	C	C	C	C	38	21	37	51	23	21	9	A	8	5	4	--	51.2
20-Oct	3	4	3	4	5	19	18	66	78	31	21	11	8	8	10	13	22	26	20	A	21	20	10	11	18.8	77.7
21-Oct	16	14	17	15	20	44	88	125	87	21	13	14	11	10	12	18	19	19	A	28	25	22	14	12	28.8	125.3
22-Oct	8	5	3	3	6	8	8	12	17	12	7	7	6	6	8	29	23	A	37	50	23	10	6	5	12.9	50.1
23-Oct	4	5	3	5	8	12	13	19	9	6	7	4	4	4	4	4	A	7	9	6	7	11	14	12	7.8	19.4
24-Oct	7	17	16	11	16	16	30	47	44	27	15	7	5	6	7	A	9	7	6	8	11	10	7	4	14.7	47.5
25-Oct	3	5	4	7	24	24	20	52	62	39	22	9	7	7	A	7	13	18	15	13	24	20	15	17	18.7	61.6
26-Oct	18	17	16	16	24	35	37	39	34	36	49	55	36	A	13	8	5	7	12	11	4	3	5	2	20.8	54.9
27-Oct	2	1	1	1	3	4	6	8	9	9	7	5	A	8	8	8	8	11	16	8	9	20	41	55	10.9	54.9
28-Oct	37	15	17	11	10	17	31	21	19	17	19	A	44	27	27	21	47	90	73	66	13	5	3	4	27.6	90.1
29-Oct	4	4	8	4	4	4	5	7	6	6	A	6	6	7	6	7	7	12	12	7	7	9	38	14	8.4	38.5
30-Oct	21	16	11	10	8	10	14	30	26	A	39	8	5	3	4	4	3	4	7	6	6	5	7	5	10.9	39.4
31-Oct	3	3	14	7	9	9	9	13	A	9	8	5	5	6	7	7	7	7	5	4	5	4	3	3	6.8	13.8
	11.3	12.8	12.3	11.9	13.8	21.0	30.7	43.0	43.0	35.5	22.5	13.1	11.4	9.8	10.0	11.8	13.7	14.9	18.1	18.5	16.8	13.8	13.8	12.3	Diurnal Average	
	36.8	43.3	34.0	31.6	35.1	49.3	88.3	125.3	158.1	154.2	71.9	54.9	44.2	37.5	30.4	36.6	51.2	90.1	72.6	66.1	66.7	43.0	41.0	54.9	Diurnal Maximum	

C - Calibration

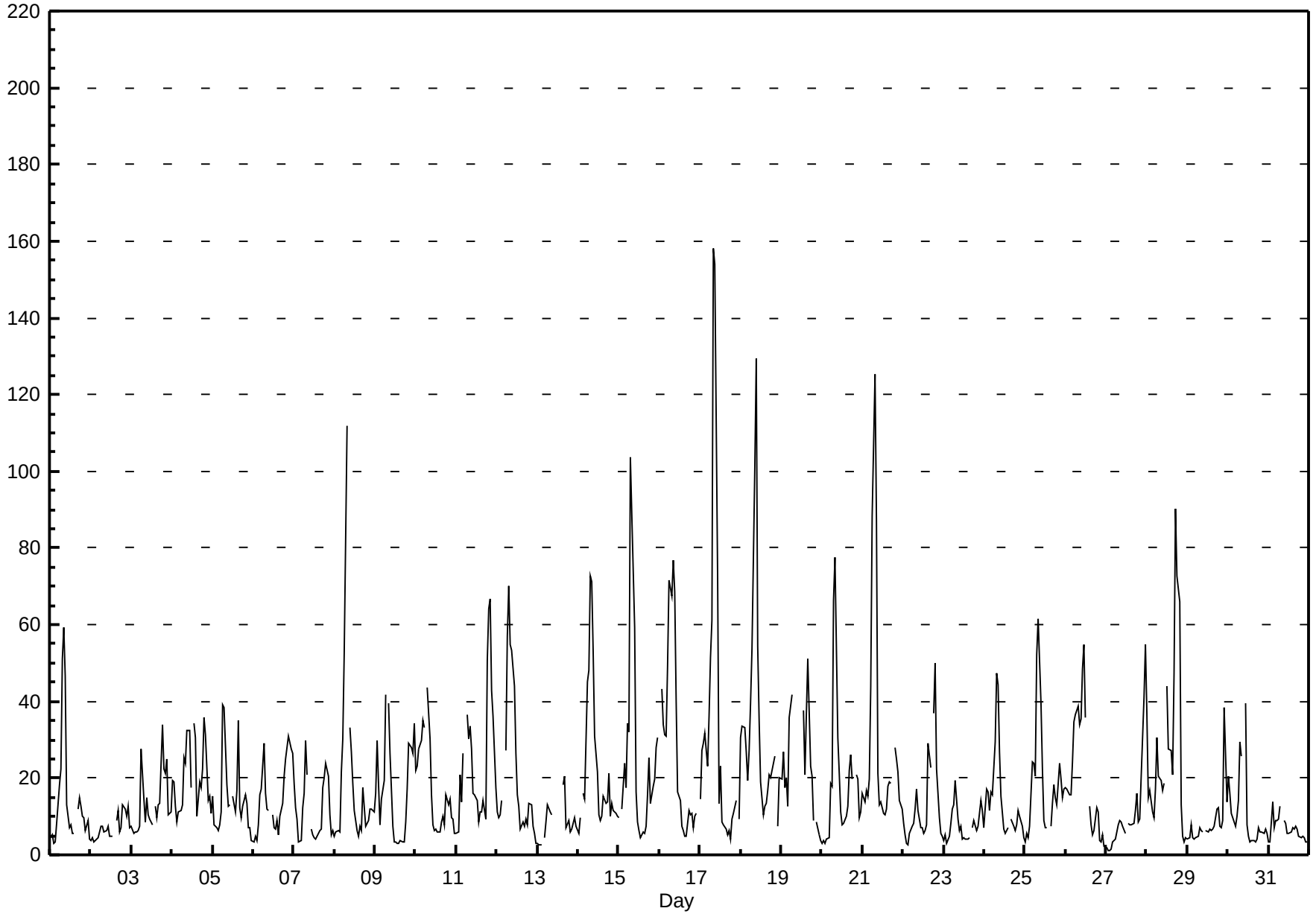
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

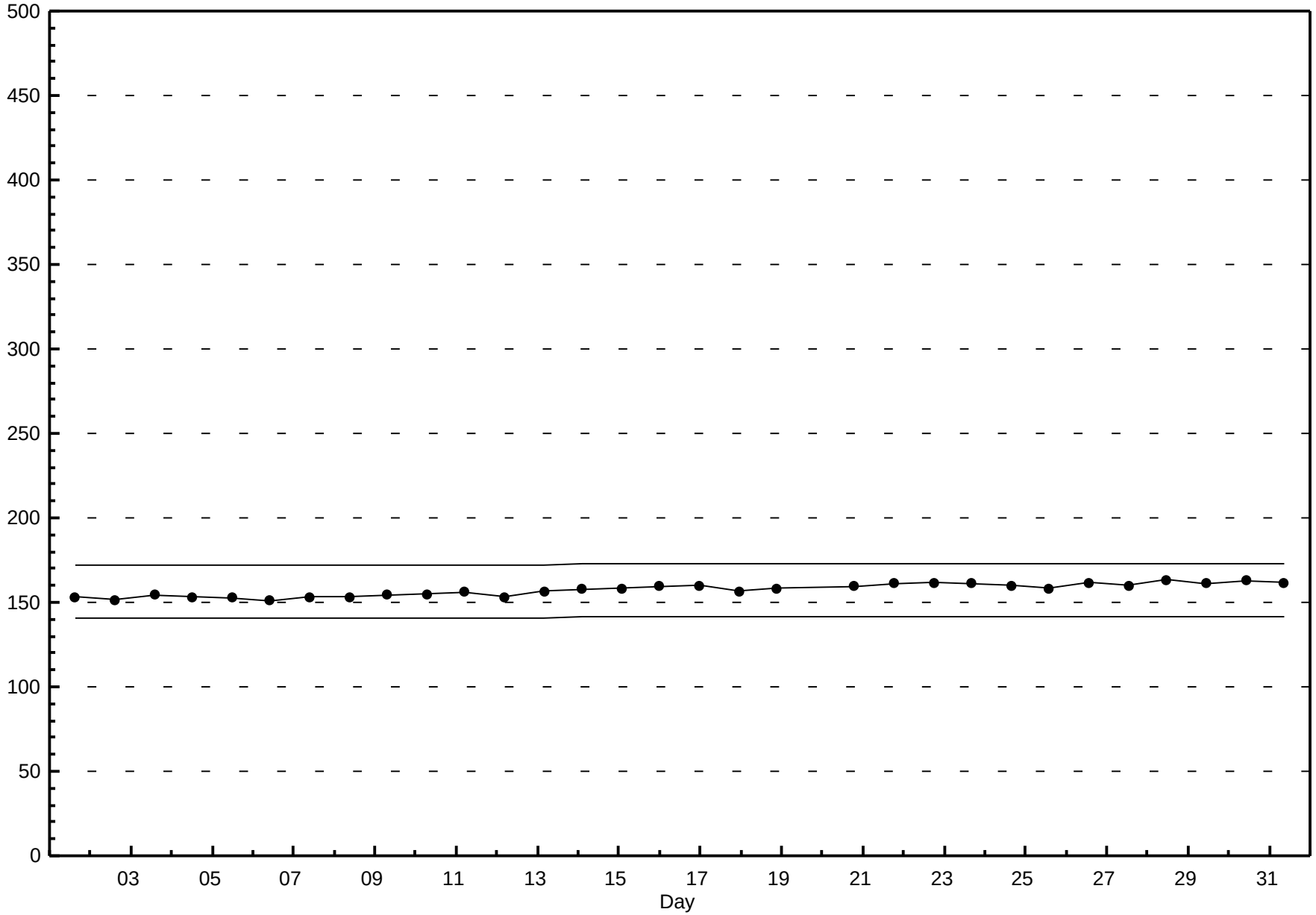
Henry Pirker - October 2011



Span Responses

Oxides of Nitrogen (NO_X)

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 38.4 ppb on Oct 16 16:00 Maximum Daily Average: 30.7 ppb on Oct 31

Minimum Value: 1 ppb on Oct 4 02:00 Minimum Daily Average: 5.3 ppb on Oct 4
Maximum Diurnal Average: 29.4 ppb at hour 15 Minimum Diurnal Average: 10.0 ppb at hour 8
Monthly Average: 20.34 ppb Percentiles: P_1 = 1.1 P_{10} = 3.8 Q_1 = 11.4 Median = 22.5 Q_3 = 29.0 P_{90} = 32.6 P_{99} = 36.6

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	27	26	27	25	21	14	8	3	4	11	22	24	26	27	26	A	24	22	21	26	33	31	24	23	21.6	32.6
2-Oct	23	24	24	22	21	19	17	15	15	14	15	19	21	21	A	20	19	19	17	13	9	11	11	10	17.4	23.8
3-Oct	8	7	8	9	9	8	6	7	9	10	10	11	11	A	12	12	11	9	3	2	2	2	6	3	7.6	12.5
4-Oct	1	1	3	3	3	4	3	2	2	2	2	6	A	6	7	13	14	9	5	2	6	9	10	10	5.3	13.8
5-Oct	11	10	10	8	9	11	10	6	12	14	13	A	20	19	17	16	20	18	14	14	20	23	24	24	14.7	23.6
6-Oct	22	20	18	14	14	11	12	12	13	14	A	22	26	27	28	29	28	24	16	13	9	6	2	1	16.5	29.3
7-Oct	5	9	10	20	22	21	19	13	16	A	26	26	28	30	32	31	28	24	21	10	16	22	24	23	20.7	32.4
8-Oct	23	21	21	19	10	2	1	1	A	13	16	25	31	32	32	33	32	31	30	28	26	25	25	24	21.7	33.0
9-Oct	20	10	11	14	9	10	5	A	14	19	33	36	36	36	36	35	35	33	28	26	16	10	10	8	21.3	36.2
10-Oct	10	7	3	2	1	3	A	4	9	19	25	26	27	31	33	32	31	29	25	24	21	23	25	26	19.0	32.7
11-Oct	26	24	16	15	10	A	4	3	4	6	11	12	17	21	22	24	23	24	8	1	1	1	1	8	12.3	25.8
12-Oct	8	9	7	5	A	1	2	1	2	3	6	15	18	22	30	28	29	26	26	23	20	24	27	28	15.6	30.0
13-Oct	28	30	32	A	31	28	24	24	28	29	27	26	26	C	C	C	23	27	26	26	25	23	21	23	26.4	32.3
14-Oct	24	20	A	12	11	6	1	1	4	9	15	19	28	30	31	32	32	28	26	28	23	22	18	18	19.0	31.9
15-Oct	21	A	15	13	9	3	5	1	2	9	17	25	30	33	34	36	34	28	23	26	23	19	14	11	18.7	36.0
16-Oct	A	6	8	4	5	5	1	2	3	5	14	20	23	30	36	38	37	31	31	32	33	29	26	A	19.0	38.4
17-Oct	17	11	3	3	10	3	1	1	2	3	12	34	35	37	37	36	36	33	34	31	25	24	A	26	19.8	37.4
18-Oct	14	3	3	11	12	11	3	2	2	3	9	15	28	35	37	38	33	28	29	29	31	A	28	23	18.6	38.1
19-Oct	15	14	13	14	19	10	3	C	C	C	C	C	C	28	22	15	7	19	21	23	A	25	26	30	--	30.2
20-Oct	29	29	28	26	27	22	16	4	8	18	23	30	32	35	35	33	30	22	20	A	21	18	25	23	24.1	35.0
21-Oct	24	22	18	12	14	3	1	2	6	15	19	17	22	23	24	23	21	20	A	11	13	14	14	15	15.3	24.0
22-Oct	24	29	33	33	30	29	28	23	23	26	33	34	35	36	38	32	31	A	10	5	25	28	31	32	28.1	37.8
23-Oct	30	31	31	29	25	23	21	23	26	27	30	31	33	33	34	33	A	29	24	27	27	23	23	24	27.7	33.7
24-Oct	24	19	18	23	20	17	12	9	13	17	25	30	32	32	33	A	28	28	28	26	23	21	22	25	22.7	32.7
25-Oct	25	22	22	20	12	12	16	4	5	16	20	26	29	31	A	32	28	24	24	23	16	18	23	20	20.4	31.8
26-Oct	20	19	21	18	18	13	9	6	9	11	6	6	10	A	33	35	34	33	32	31	31	31	32	33	21.4	34.8
27-Oct	33	33	33	33	33	32	31	30	29	31	32	33	A	32	32	32	30	27	24	28	27	24	12	3	28.2	33.0
28-Oct	10	20	19	21	23	20	15	17	16	19	21	A	21	22	19	23	11	5	2	3	32	34	33	32	19.2	33.8
29-Oct	32	30	29	28	29	30	30	29	29	30	A	33	33	33	34	33	31	29	29	31	31	30	19	28	30.0	33.7
30-Oct	20	26	27	31	33	31	31	21	21	A	28	33	35	34	34	36	35	33	31	30	28	28	27	29	29.7	36.1
31-Oct	29	29	27	28	29	26	26	25	A	30	33	34	34	34	34	33	33	33	32	32	31	30	31	32	30.7	34.5
	20.1	18.7	17.9	17.1	17.3	14.3	12.0	10.0	11.6	15.1	19.3	23.9	26.7	29.0	29.4	29.1	26.8	24.8	22.0	20.7	21.5	21.0	20.5	20.5	Diurnal Average	
	32.6	32.6	32.9	33.2	32.8	32.1	30.9	30.0	29.2	30.7	32.6	35.5	36.2	36.9	37.8	38.4	36.7	33.4	34.4	31.7	32.6	33.8	33.4	32.5	Diurnal Maximum	

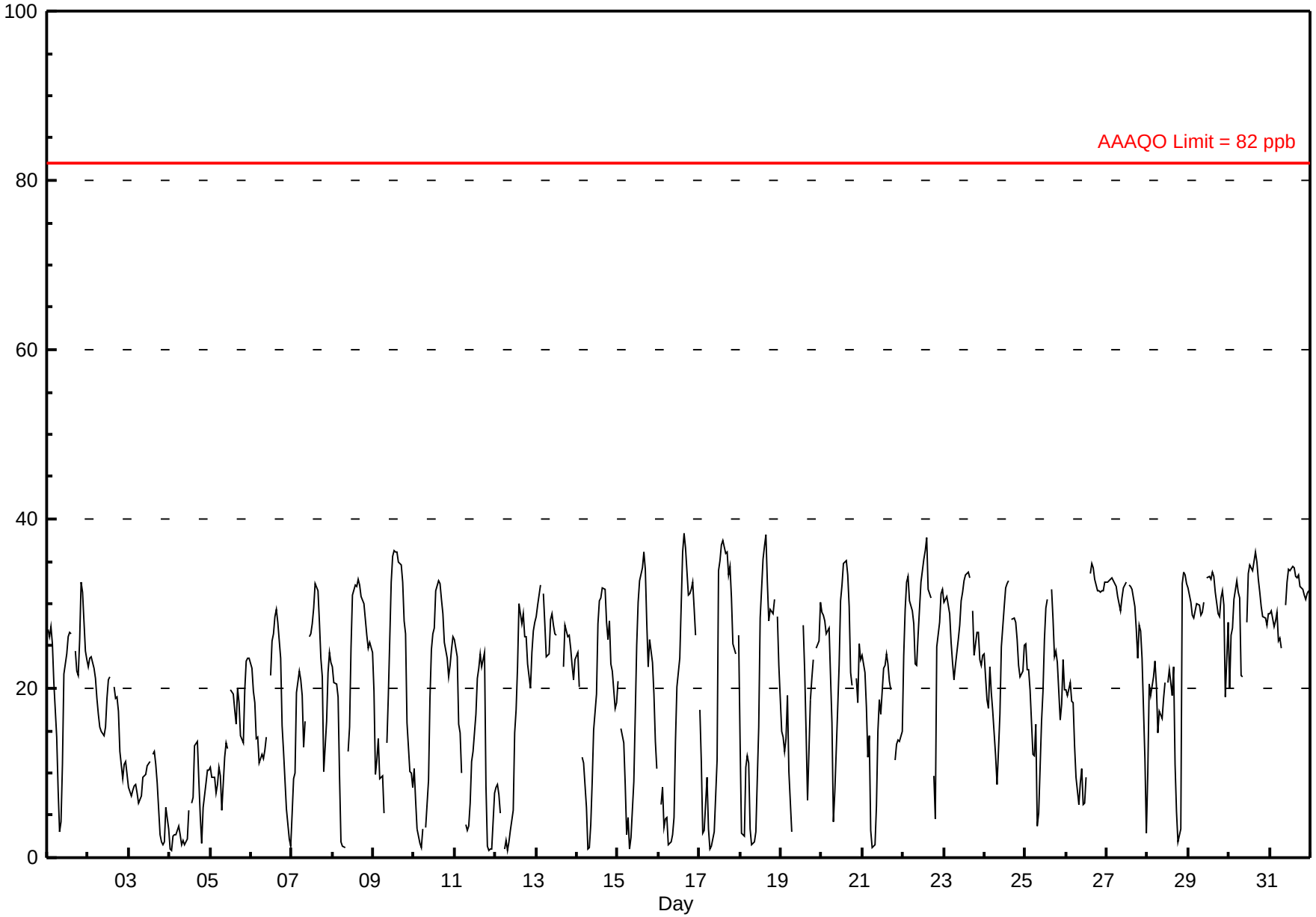
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - October 2011

Maximum Value: 41.9 ppb on Oct 22 15:00

Maximum Daily Average: 32.4 ppb on Oct 30

Minimum Value: 1 ppb on Oct 4 02:00

Minimum Daily Average: 7.4 ppb on Oct 4

Maximum Diurnal Average: 31.9 ppb at hour 15

Minimum Diurnal Average: 13.4 ppb at hour 8

Monthly Average: 23.58 ppb

Percentiles: P_1 = 2.3 P_{10} = 7.8 Q_1 = 16.4 Median = 25.8 Q_3 = 31.7 P_{90} = 34.7 P_{99} = 38.7

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	29	28	28	27	22	17	14	6	7	18	24	26	28	28	29	A	27	26	23	33	34	34	28	25	24.4	34.5
2-Oct	24	26	25	23	23	21	19	17	16	16	18	20	23	23	A	21	20	20	19	15	11	13	13	11	19.2	25.8
3-Oct	10	8	9	9	9	9	8	9	11	11	12	12	12	A	14	14	14	11	8	3	4	8	7	6	9.4	13.8
4-Oct	2	1	4	3	4	5	4	4	3	2	4	8	A	9	11	15	16	13	9	7	8	11	11	12	7.4	16.5
5-Oct	13	12	16	10	12	14	13	10	16	16	15	A	24	22	21	22	23	22	17	16	24	25	27	26	18.1	26.8
6-Oct	25	22	20	18	18	16	15	16	18	16	A	24	30	28	30	31	29	28	21	17	16	12	8	7	20.2	30.9
7-Oct	10	14	16	22	25	24	22	18	21	A	28	28	29	33	34	34	31	27	26	14	21	25	25	25	24.0	34.5
8-Oct	24	22	23	22	17	4	6	2	A	19	18	31	33	35	34	35	35	34	32	31	28	27	32	26	24.8	35.3
9-Oct	23	12	16	16	15	14	10	A	23	32	35	37	37	37	37	36	36	34	32	32	24	19	19	15	25.7	37.2
10-Oct	16	14	8	4	3	6	A	7	17	22	26	28	32	33	34	35	33	30	28	27	23	24	26	27	22.0	34.5
11-Oct	26	26	22	18	15	A	7	6	5	9	14	15	19	23	24	26	26	29	24	3	2	2	3	12	15.5	28.6
12-Oct	11	10	8	8	A	2	5	1	3	4	9	20	23	26	32	32	31	29	28	27	22	26	29	29	18.2	32.4
13-Oct	30	31	34	A	33	30	26	27	32	30	29	28	29	C	C	C	29	30	28	28	26	25	24	26	28.7	34.2
14-Oct	26	22	A	18	13	11	2	2	8	13	20	27	31	34	34	34	36	32	30	31	27	24	21	21	22.6	36.0
15-Oct	22	A	18	16	12	6	7	3	4	16	22	30	33	35	37	38	36	32	29	30	29	25	19	15	22.4	37.9
16-Oct	A	14	14	6	10	10	4	4	4	7	23	23	28	32	39	40	40	36	35	34	36	33	30	A	22.7	39.6
17-Oct	26	17	6	9	11	7	1	2	3	6	26	37	38	39	39	38	37	36	35	35	28	28	A	30	23.3	38.8
18-Oct	25	7	7	18	18	17	8	3	2	9	16	22	36	39	41	42	37	33	36	35	34	A	31	28	23.6	41.6
19-Oct	23	17	20	21	22	13	7	C	C	C	C	C	C	35	32	24	14	27	24	25	A	29	30	31	--	34.8
20-Oct	32	30	29	29	31	31	20	14	17	22	29	33	35	37	37	37	34	32	25	A	27	22	28	27	28.7	37.3
21-Oct	27	25	24	16	18	12	2	2	15	18	22	19	26	26	27	26	25	24	A	16	18	18	17	20	19.3	27.4
22-Oct	28	31	34	34	32	31	29	26	26	30	34	37	37	38	42	39	35	A	17	25	32	31	33	33	32.0	41.9
23-Oct	32	31	32	31	28	27	27	26	29	29	32	33	34	35	35	34	A	31	28	28	28	26	25	26	30.0	34.9
24-Oct	26	25	24	26	23	21	16	19	19	23	28	32	33	34	34	A	31	29	30	28	24	24	24	26	26.1	34.0
25-Oct	26	25	24	22	18	16	19	18	10	24	24	28	32	32	A	33	31	29	27	25	21	24	26	26	24.4	33.4
26-Oct	23	22	24	20	21	18	13	10	16	16	11	9	11	A	36	36	36	35	34	33	32	32	33	33	24.0	36.4
27-Oct	33	33	33	33	33	33	32	32	31	33	34	34	A	34	33	33	33	31	27	29	28	28	21	7	30.4	33.9
28-Oct	17	23	23	24	25	24	21	19	19	22	23	A	26	26	24	27	24	13	7	25	36	35	34	34	24.1	35.9
29-Oct	33	31	31	30	30	31	30	30	30	32	A	34	35	34	35	35	33	31	31	33	33	33	31	31	32.2	35.4
30-Oct	26	31	31	33	35	35	33	28	28	A	33	35	36	35	35	37	36	34	33	32	29	30	30	30	32.4	37.0
31-Oct	30	31	30	31	31	27	28	26	A	32	35	35	35	36	35	36	35	36	33	33	32	32	32	32	32.4	36.4
	23.3	21.4	21.2	20.0	20.3	17.8	15.1	13.4	15.5	18.9	23.1	26.6	29.5	31.3	31.9	31.8	30.2	28.5	25.9	25.0	24.7	24.3	23.9	23.3	Diurnal Average	
	33.4	33.0	34.4	34.5	35.0	35.1	33.5	32.0	31.9	32.6	35.1	37.1	37.6	38.8	41.9	41.6	39.6	36.3	36.1	35.1	36.1	35.4	34.4	34.0	Diurnal Maximum	

C - Calibration

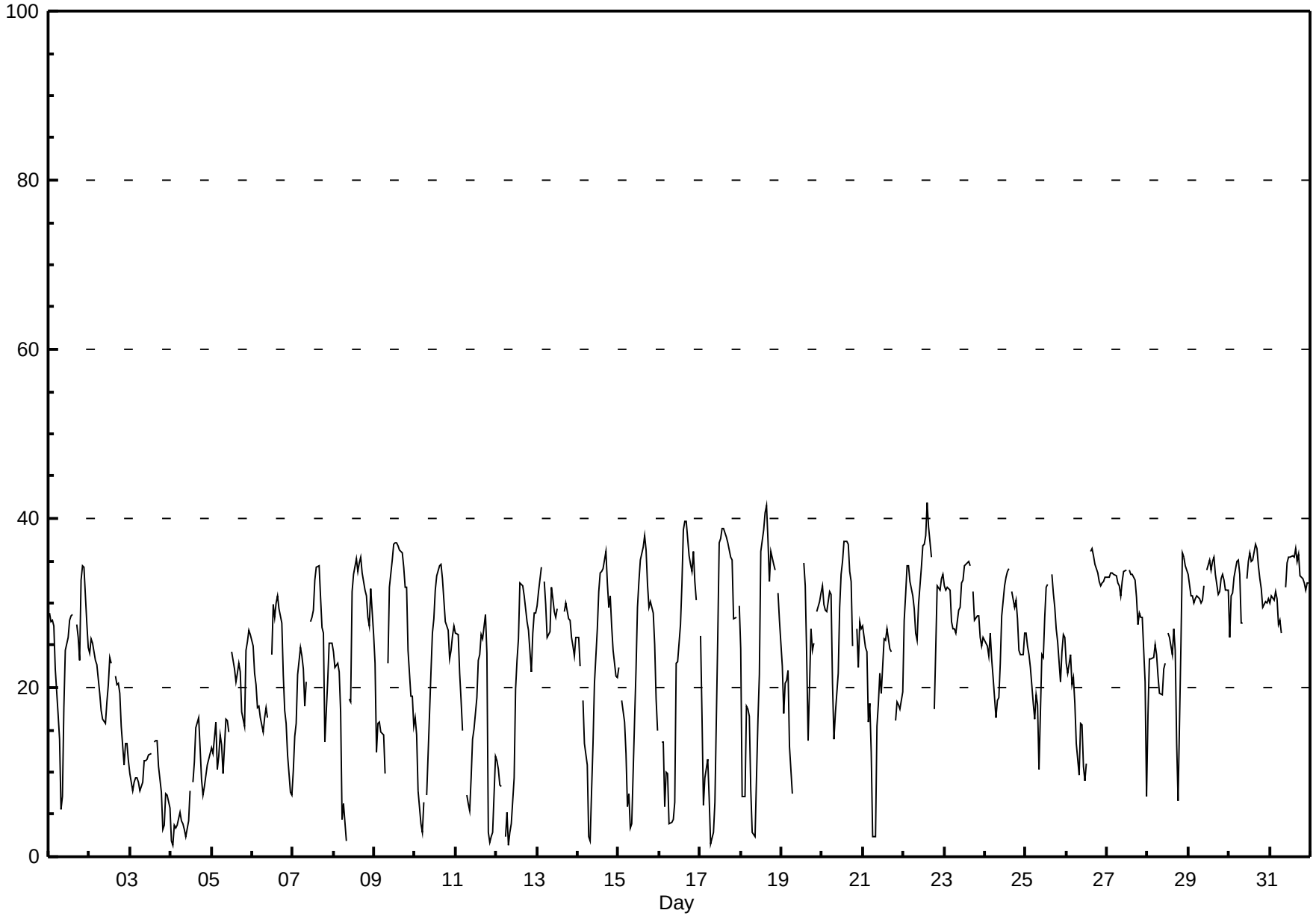
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - October 2011

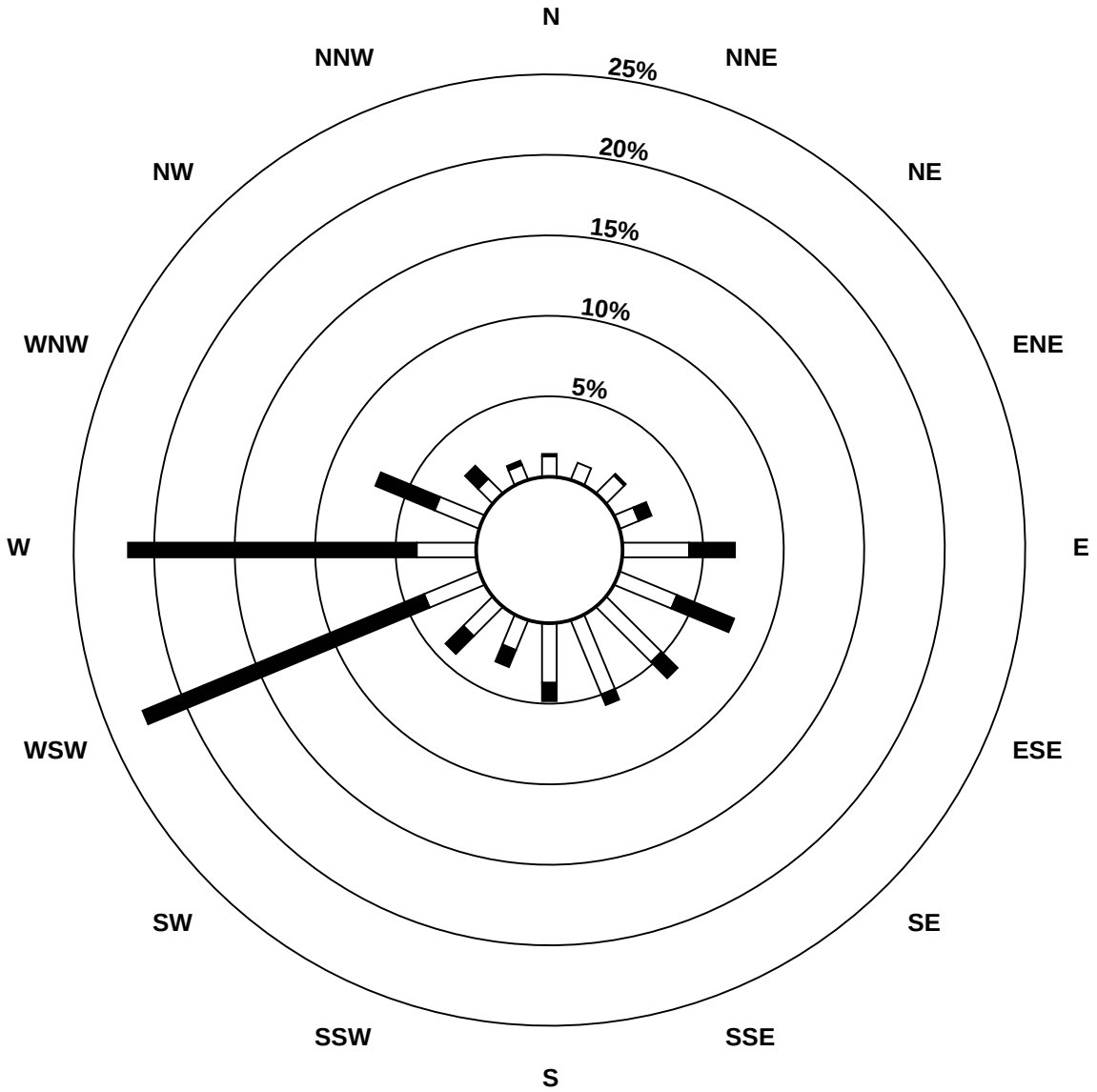


Peace Airshed Zone Association

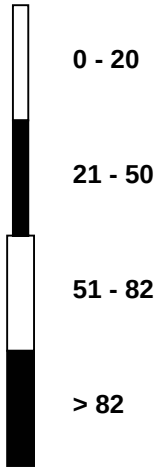
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - October 2011



Pollutant Classes (ppb)



Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - October 2011

Maximum Value: 35.4 ppb on Oct 17 19:00

Minimum Value: 2.2 ppb on Oct 4 08:00

Percentiles: P_1 = 2.5 P_{10} = 8.0 Q_1 = 13.8 Median = 21.0 Q_3 = 27.7 P_{90} = 31.0 P_{99} = 33.6

Hours in Service:	744
Hours of Data:	729
Hours of Missing Data:	15
Hours of Calibration:	15
Percent Operational Time:	100.0

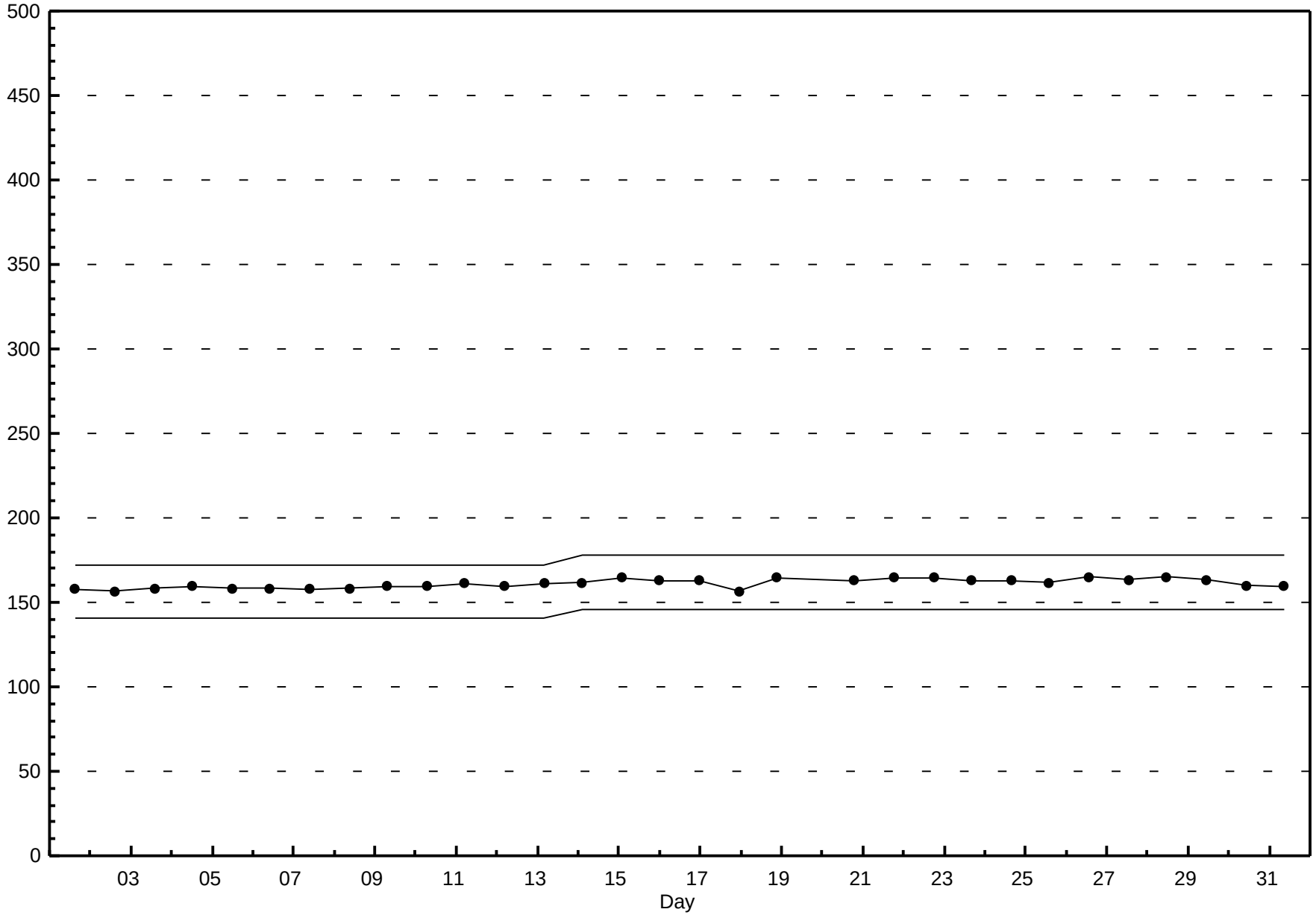
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	28	27	27	27	26	24	22	19	16	14	14	13	14	16	18	20	23	24	24	25	26	26	26	26	28.1
2-Oct	25	26	26	26	24	23	22	21	20	18	17	17	17	17	17	18	19	19	20	19	17	15	15	14	25.9
3-Oct	12	11	10	9	9	9	8	8	8	8	8	9	9	9	10	11	11	11	10	9	7	7	6	5	12.4
4-Oct	3	2	2	2	3	3	2	2	2	2	2	3	3	3	4	5	7	8	9	8	8	8	8	8	8.6
5-Oct	8	8	8	9	9	10	10	9	9	10	10	10	12	13	14	16	17	18	18	17	17	18	19	20	19.5
6-Oct	20	20	21	21	20	18	17	15	14	14	13	14	16	18	20	23	25	26	25	24	22	19	16	12	26.1
7-Oct	9	8	7	8	9	11	13	15	16	17	20	21	21	23	24	27	29	28	28	26	24	23	22	21	28.8
8-Oct	20	20	20	21	20	18	15	12	11	9	9	10	13	17	21	26	27	29	31	31	31	30	29	28	31.2
9-Oct	26	24	21	19	17	15	13	11	10	12	15	18	22	25	30	31	33	35	34	33	31	27	24	21	34.8
10-Oct	18	14	11	8	6	6	5	4	4	6	9	12	16	20	22	25	28	29	29	29	28	27	26	25	29.4
11-Oct	25	24	23	22	20	20	17	14	11	8	8	7	8	10	12	15	17	19	19	18	16	13	10	8	24.8
12-Oct	7	5	5	5	6	6	6	5	4	3	3	4	6	9	12	15	19	22	24	25	25	26	25	25	25.7
13-Oct	25	26	27	27	29	29	29	28	28	28	27	27	27	26	27	N	N	N	N	N	N	25	24	24	29.1
14-Oct	25	24	23	21	19	17	14	11	8	6	7	8	10	13	17	21	24	27	28	29	29	28	26	24	29.2
15-Oct	23	22	21	19	17	14	12	10	7	7	7	9	12	15	19	23	27	30	30	30	30	28	25	22	30.4
16-Oct	20	17	15	12	9	7	6	4	4	4	5	7	9	12	17	21	25	29	31	32	33	33	32	31	33.4
17-Oct	29	26	22	18	14	11	7	6	4	3	4	8	11	16	20	24	29	33	35	35	34	32	31	30	35.4
18-Oct	27	23	18	15	13	11	10	7	6	6	7	7	9	12	16	21	25	28	30	32	32	32	31	29	32.4
19-Oct	26	24	22	20	18	17	14	13	12	N	N	N	N	N	N	N	N	N	18	19	19	19	19	21	26.1
20-Oct	25	26	27	28	27	27	26	23	20	19	18	18	19	21	23	27	29	30	30	30	28	26	24	23	30.0
21-Oct	22	22	22	20	20	18	15	12	10	9	9	10	11	13	16	19	20	21	21	21	19	18	17	15	22.0
22-Oct	16	17	19	22	24	26	28	29	28	28	28	28	29	30	31	32	33	34	31	27	25	24	23	23	34.0
23-Oct	23	24	26	29	30	29	28	27	26	26	26	26	27	28	30	31	32	32	31	30	29	28	26	25	31.9
24-Oct	25	24	23	22	22	21	19	18	16	16	17	18	19	21	24	26	28	30	30	30	28	27	25	25	30.1
25-Oct	25	24	23	23	21	20	19	17	14	13	13	14	16	18	19	23	26	27	28	27	25	24	24	22	27.7
26-Oct	21	20	20	19	20	19	17	16	14	13	11	10	9	8	12	16	19	23	26	30	33	33	32	32	32.8
27-Oct	32	32	32	32	32	33	32	32	32	31	31	31	31	31	31	31	32	31	30	29	29	28	25	22	32.5
28-Oct	19	18	18	17	17	16	17	18	19	19	19	19	18	19	19	20	19	17	15	13	15	16	18	19	20.1
29-Oct	22	25	28	31	31	30	30	30	29	29	29	30	31	31	32	32	33	32	32	32	31	31	29	28	32.5
30-Oct	27	27	27	27	27	27	28	28	28	28	28	28	29	29	30	32	34	33	34	33	33	32	31	30	33.9
31-Oct	29	29	29	28	28	28	28	27	27	27	28	29	30	31	32	33	33	34	34	33	33	32	32	32	33.6
	31.9	31.9	32.1	32.2	32.4	32.5	32.4	32.1	31.7	31.5	31.3	31.3	31.1	31.1	31.9	33.2	33.6	34.8	35.4	35.0	33.7	33.4	32.4	32.1	
	Diurnal Maximums																								

N - Not Valid

Span Responses

Ozone (O_3)

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.90 ppm on Oct 21 08:00
Maximum Daily Average: 0.24 ppm on Oct 18

Minimum Value: 0.1 ppm on Oct 1 03:00
Minimum Daily Average: 0.10 ppm on Oct 1
Maximum Diurnal Average: 0.26 ppm at hour 8
Minimum Diurnal Average: 0.13 ppm at hour 14
Monthly Average: 0.161 ppm
Percentiles: P_1 = 0.07 P_{10} = 0.10 Q_1 = 0.11 Median = 0.14 Q_3 = 0.18 P_{90} = 0.24 P_{99} = 0.45

Hours in Service:	744
Hours of Data:	701
Hours of Missing Data:	43
Hours of Calibration:	43
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.10	0.34
2-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.11	0.17
3-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.16	0.27
4-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.20	0.27
5-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.18	0.25
6-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.17	0.32
7-Oct	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.12	0.20
8-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.15	0.43
9-Oct	0.2	0.2	0.2	0.1	0.1	0.2	0.2	A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.15	0.28
10-Oct	0.2	0.2	0.3	0.3	0.3	0.2	A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	0.30
11-Oct	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.2	0.2	0.1	0.17	0.40
12-Oct	0.1	0.1	0.1	0.2	A	0.2	0.2	0.3	0.3	0.2	0.2	C	C	C	C	C	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.17	0.33
13-Oct	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.14
14-Oct	0.1	0.1	A	0.1	0.1	0.2	0.3	0.4	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	0.39
15-Oct	0.1	A	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.15	0.25
16-Oct	A	0.3	0.2	0.2	0.2	0.3	0.4	0.6	0.7	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.22	0.72
17-Oct	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.20	0.50
18-Oct	0.2	0.3	0.3	0.2	0.2	0.2	0.4	0.4	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	A	0.1	0.1	0.24	0.45
19-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.4	C	C	C	C	C	C	0.2	0.2	0.3	0.3	0.2	0.2	0.2	A	0.2	0.2	0.1	--	0.38
20-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.1	0.1	0.16	0.29
21-Oct	0.1	0.1	0.1	0.2	0.2	0.3	0.6	0.9	0.4	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	A	0.3	0.2	0.2	0.2	0.1	0.24	0.90
22-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.3	0.3	0.2	0.1	0.1	0.1	0.15	0.34
23-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.14
24-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.17
25-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.14	0.23
26-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18	0.33
27-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.14	0.36
28-Oct	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.19	0.45
29-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.13	0.23
30-Oct	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	0.23
31-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.15
	0.14	0.14	0.14	0.13	0.14	0.16	0.21	0.26	0.24	0.19	0.17	0.14	0.13	0.13	0.14	0.14	0.15	0.16	0.17	0.17	0.16	0.15	0.15	0.15	Diurnal Average	
	0.25	0.28	0.26	0.26	0.30	0.28	0.60	0.90	0.72	0.45	0.34	0.33	0.28	0.20	0.22	0.25	0.32	0.45	0.36	0.38	0.40	0.32	0.30	0.36	Diurnal Maximum	

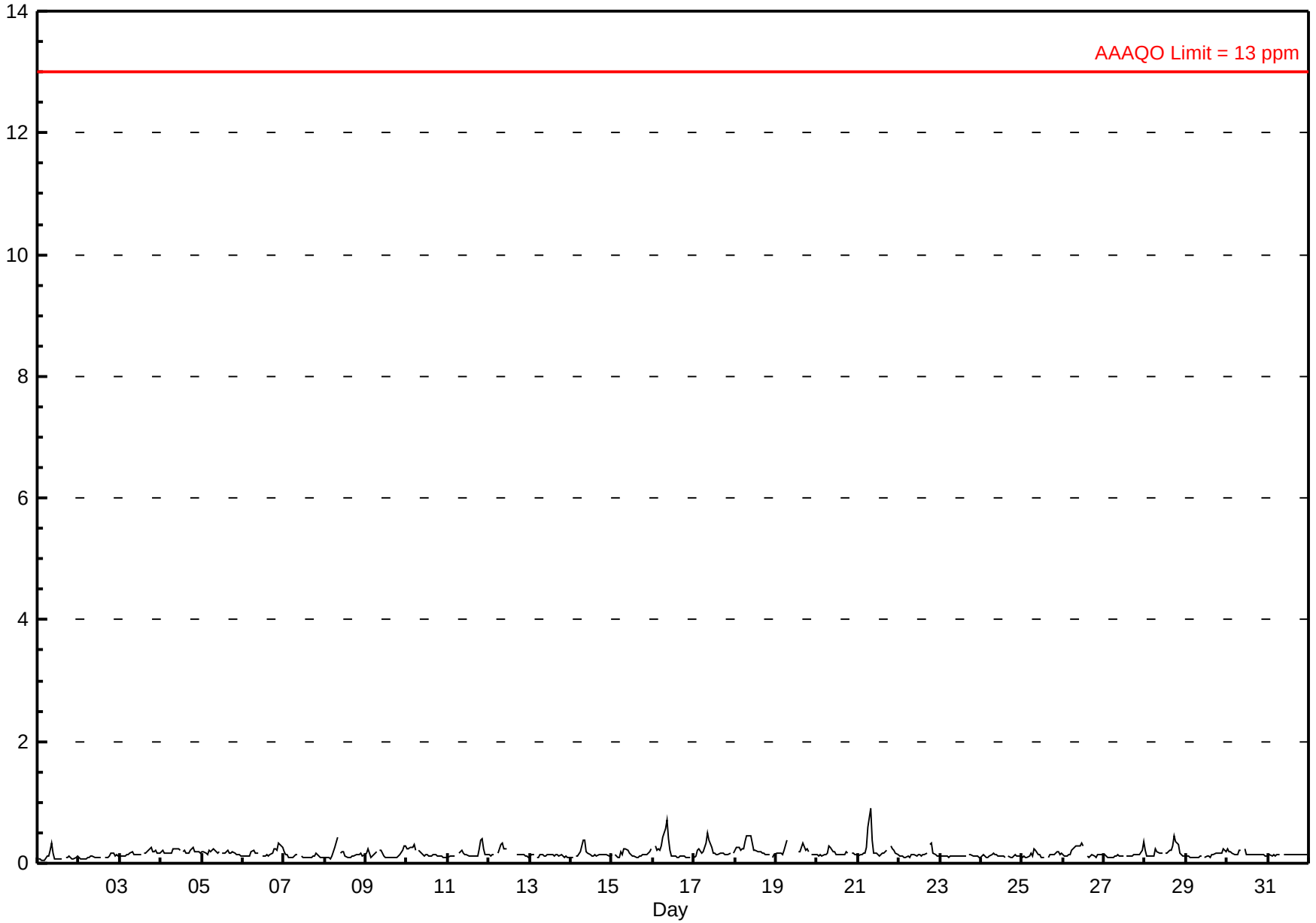
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na

Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2011



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2011

Maximum Value: 2.32 ppm on Oct 16 09:00

Maximum Daily Average: 0.42 ppm on Oct 21

Minimum Value: 0.1 ppm on Oct 1 01:00

Minimum Daily Average: 0.15 ppm on Oct 23

Maximum Diurnal Average: 0.45 ppm at hour 8

Minimum Diurnal Average: 0.16 ppm at hour 13

Monthly Average: 0.236 ppm

Percentiles: P_1 = 0.10 P_{10} = 0.13 Q_1 = 0.15 Median = 0.18 Q_3 = 0.25 P_{90} = 0.40 P_{99} = 0.97

Hours in Service:	744
Hours of Data:	701
Hours of Missing Data:	43
Hours of Calibration:	43
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0.1	0.1	0.1	0.1	0.2	0.5	0.2	0.4	0.6	0.3	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.7	0.2	0.1	0.2	0.2	0.21	0.70
2-Oct	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.16	0.28
3-Oct	0.2	0.2	0.2	0.2	0.5	0.2	0.4	0.7	0.4	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	0.5	0.3	0.3	0.3	0.2	0.2	0.28	0.73
4-Oct	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.4	0.3	0.4	0.3	A	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.28	0.45
5-Oct	0.2	0.2	0.2	0.2	0.8	0.3	0.7	0.6	0.3	0.2	0.3	A	0.2	0.2	0.2	0.5	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.30	0.76
6-Oct	0.2	0.2	0.1	0.1	0.2	0.3	0.4	0.3	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.5	0.5	0.3	0.4	0.4	0.4	0.26	0.54
7-Oct	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.15	0.25
8-Oct	0.1	0.1	0.1	0.1	0.3	1.1	0.5	0.8	A	0.2	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	1.09
9-Oct	0.2	0.7	0.4	0.1	0.2	0.3	0.3	A	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.23	0.73
10-Oct	0.3	0.3	0.3	0.3	0.4	0.3	A	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.23	0.38
11-Oct	0.1	0.2	0.2	0.2	0.2	A	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.5	0.8	0.8	0.6	0.2	0.2	0.27	0.79
12-Oct	0.2	0.2	0.2	0.2	A	0.3	0.3	0.4	0.6	0.3	0.3	C	C	C	C	C	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.21	0.55
13-Oct	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16	0.24
14-Oct	0.1	0.1	A	0.1	0.1	0.4	0.4	0.8	0.6	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.24	0.84
15-Oct	0.2	A	0.1	0.1	0.2	0.3	0.2	0.6	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.21	0.57
16-Oct	A	0.4	0.4	0.3	0.5	0.7	0.7	1.3	2.3	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.41	2.32
17-Oct	0.1	0.2	0.2	0.5	0.2	0.3	0.4	0.6	0.6	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.27	0.56
18-Oct	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.5	0.7	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	A	0.2	0.2	0.32	0.67
19-Oct	0.2	0.2	0.2	0.2	0.2	0.8	0.7	C	C	C	C	C	C	0.3	0.2	0.4	0.4	0.3	0.4	0.2	A	0.2	0.2	0.2	--	0.82
20-Oct	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.5	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.2	A	0.2	0.2	0.2	0.2	0.22	0.53
21-Oct	0.2	0.1	0.2	0.2	0.3	0.5	2.2	1.3	1.0	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.4	A	0.4	0.4	0.3	0.2	0.2	0.42	2.22
22-Oct	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	0.4	A	0.4	0.4	0.2	0.2	0.1	0.1	0.19	0.45
23-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.15	0.20
24-Oct	0.1	0.3	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	A	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.17	0.32
25-Oct	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.2	A	0.1	0.1	0.2	0.2	0.1	0.3	0.2	0.2	0.2	0.19	0.34
26-Oct	0.2	0.1	0.2	0.2	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.3	A	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.25	0.47
27-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.17	0.42
28-Oct	0.4	0.2	0.1	0.2	0.2	0.2	0.6	0.3	0.2	0.3	0.3	A	0.2	0.3	0.3	0.3	0.4	1.0	0.7	0.5	0.2	0.2	0.2	0.2	0.31	0.99
29-Oct	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.17	0.32
30-Oct	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.20	0.37
31-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	A	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.19
	0.18	0.21	0.19	0.18	0.23	0.30	0.39	0.45	0.42	0.25	0.23	0.18	0.16	0.16	0.18	0.19	0.20	0.22	0.24	0.26	0.23	0.21	0.20	0.20	Diurnal Average	
	0.36	0.73	0.38	0.54	0.76	1.09	2.22	1.30	2.32	0.67	0.50	0.47	0.30	0.30	0.45	0.54	0.41	0.99	0.66	0.75	0.79	0.56	0.40	0.42	Diurnal Maximum	

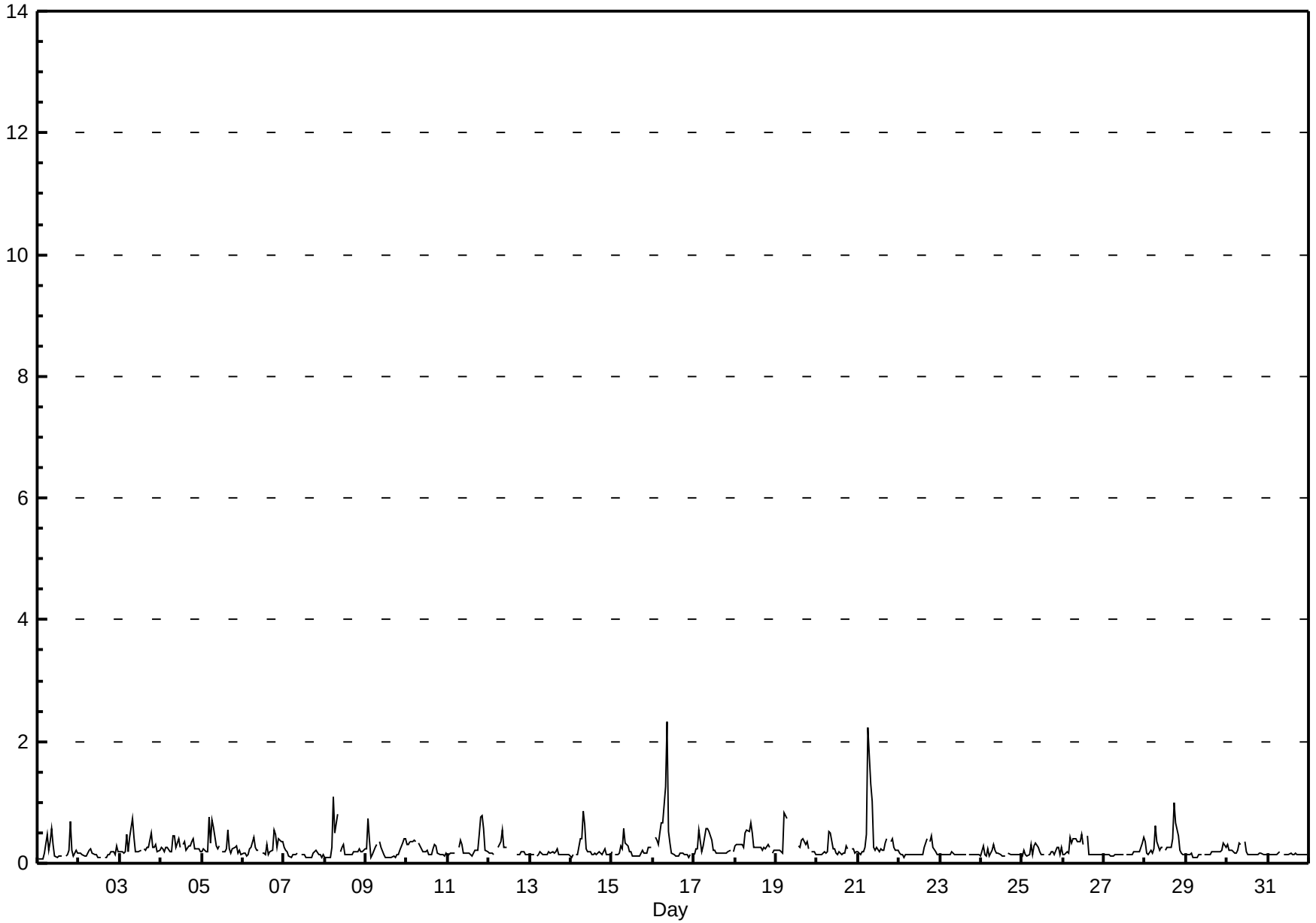
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2011

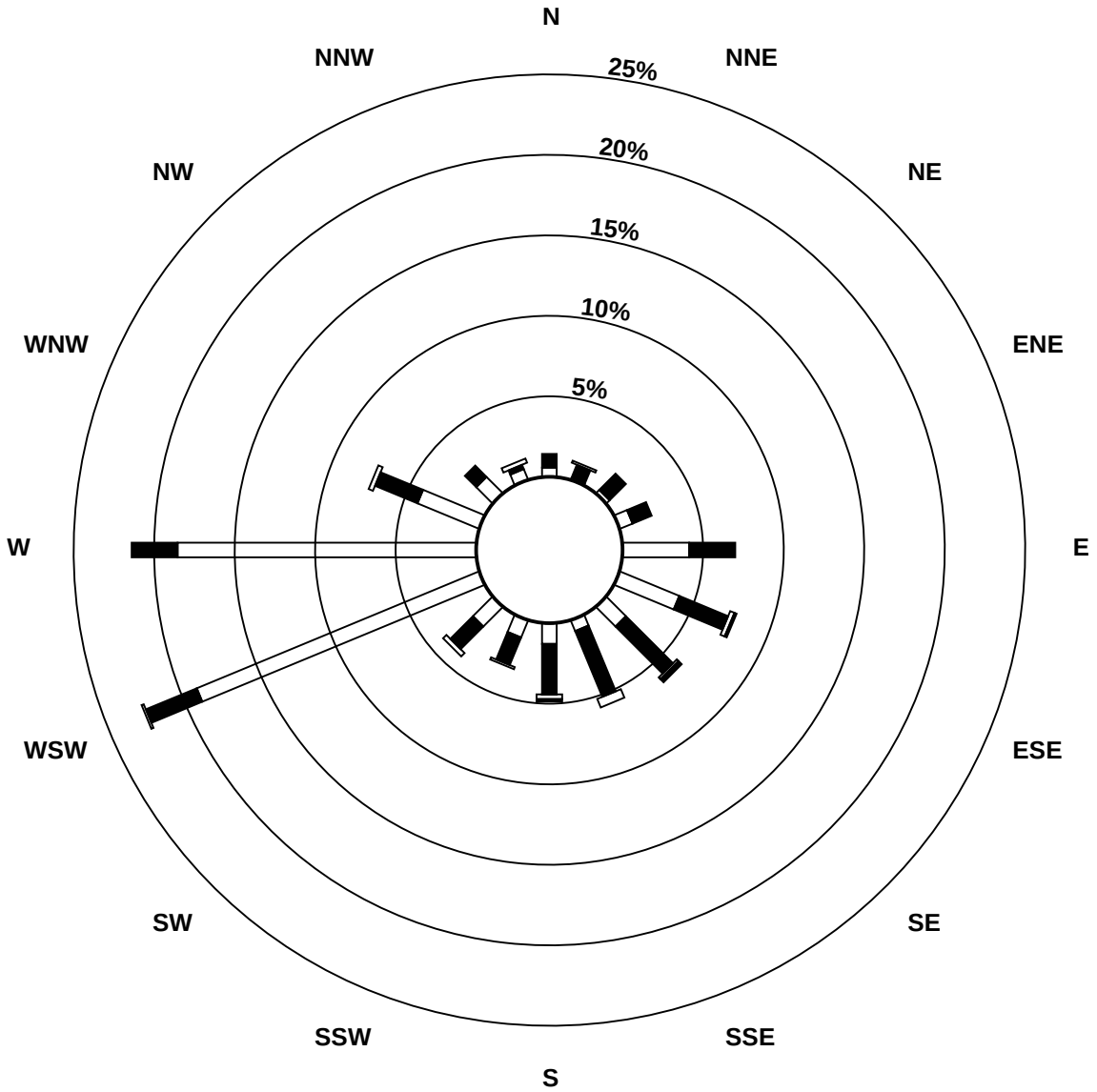


Peace Airshed Zone Association

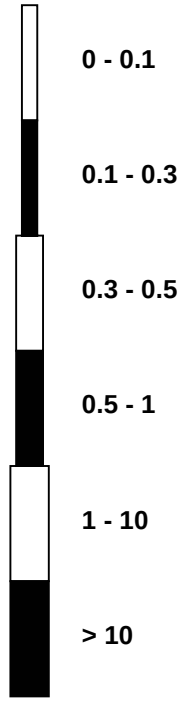
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2011



Pollutant Classes (ppm)



Peace Airshed Zone Association

Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.38 ppm on Oct 16 11:00

Minimum Value: 0.07 ppm on Oct 1 05:00

Percentiles: P_1 = 0.09 P_{10} = 0.11 Q_1 = 0.12 Median = 0.15 Q_3 = 0.19 P_{90} = 0.23 P_{99} = 0.35

Hours in Service:	744
Hours of Data:	727
Hours of Missing Data:	17
Hours of Calibration:	17
Percent Operational Time:	100.0

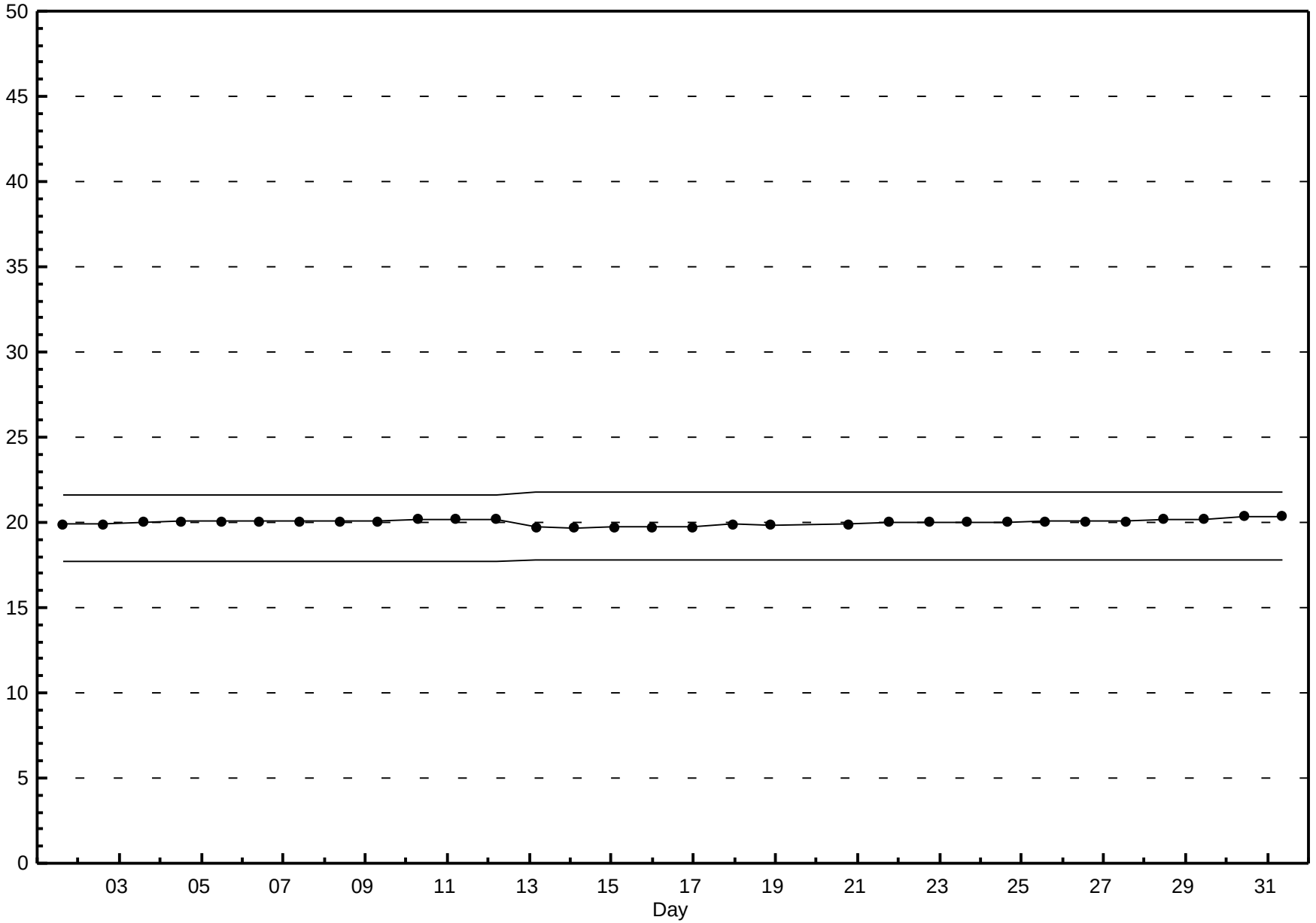
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
2-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
3-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
4-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
5-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
6-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.23
7-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.24
8-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.22
9-Oct	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.17
10-Oct	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.26
11-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.22
12-Oct	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	N	N	N	N	N	N	N	N	0.1	0.1	0.1	0.25
13-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
14-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.24
15-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.18
16-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.38
17-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
18-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.34
19-Oct	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	N	0.2	0.2	0.2	0.2	0.2	0.2	0.23
20-Oct	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
21-Oct	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	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	0.35
22-Oct	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.20
23-Oct	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
24-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
25-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.16
26-Oct	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.28
27-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.17
28-Oct	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	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.27
29-Oct	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.22
30-Oct	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.19
31-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
	0.24	0.24	0.23	0.24	0.26	0.26	0.27	0.31	0.36	0.38	0.38	0.36	0.35	0.33	0.31	0.28	0.25	0.24	0.26	0.27	0.27	0.26	0.25	0.24	
	Diurnal Maximums																								

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

Span Responses

Carbon Monoxide (CO)

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.64 ppm on Oct 19 03:00
Maximum Daily Average: 2.40 ppm on Oct 16

Minimum Value: 1.9 ppm on Oct 30 14:00
Minimum Daily Average: 2.00 ppm on Oct 31
Maximum Diurnal Average: 2.27 ppm at hour 4
Minimum Diurnal Average: 2.01 ppm at hour 14
Monthly Average: 2.123 ppm
Percentiles: P_1 = 1.95 P_{10} = 1.98 Q_1 = 2.00 Median = 2.05 Q_3 = 2.17 P_{90} = 2.34 P_{99} = 3.20

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-Oct	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.4	2.2	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.07	2.35
2-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.04	2.12
3-Oct	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.3	2.13	2.32
4-Oct	2.5	2.4	2.4	2.4	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	A	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.27	2.45
5-Oct	2.1	2.2	2.3	2.6	2.3	2.1	2.1	2.2	2.1	2.1	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.14	2.56
6-Oct	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.4	2.4	2.11	2.43
7-Oct	2.5	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.2	2.1	2.1	2.0	2.0	2.07	2.54
8-Oct	2.0	2.0	2.1	2.2	2.2	2.3	2.4	2.5	A	2.2	2.4	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	2.12	2.51
9-Oct	2.2	2.3	2.2	2.2	2.7	2.4	2.6	A	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.3	2.4	2.18	2.69
10-Oct	2.5	2.6	2.8	3.2	2.9	2.4	A	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.23	3.22
11-Oct	2.0	2.0	2.1	2.1	2.3	A	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.3	2.5	2.3	2.3	2.3	2.18	2.48
12-Oct	2.2	2.2	2.3	2.4	A	2.3	2.3	2.5	3.1	3.4	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.23	3.40
13-Oct	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.01	2.05
14-Oct	2.1	2.1	A	2.3	3.0	3.1	2.8	2.5	2.3	2.3	2.2	2.2	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.24	3.09
15-Oct	2.1	A	2.1	2.1	2.2	2.3	2.1	2.2	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.12	2.41
16-Oct	A	2.5	3.2	3.5	3.2	2.8	2.7	2.8	2.8	2.6	2.3	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.40	3.47
17-Oct	2.2	2.3	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.5	2.4	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	2.17	2.49
18-Oct	2.2	2.3	2.4	2.4	2.3	2.2	2.3	2.3	2.6	3.0	2.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.22	3.00
19-Oct	2.2	3.2	3.6	3.2	2.6	2.5	2.6	C	C	C	C	C	C	2.1	2.3	2.3	2.2	2.0	2.0	2.0	A	2.0	2.0	2.0	--	3.64
20-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.03	2.12
21-Oct	2.1	2.1	2.2	2.4	2.3	2.3	2.6	2.5	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	A	2.1	2.1	2.2	2.2	2.2	2.18	2.60
22-Oct	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.3	2.1	2.0	2.0	2.0	2.02	2.31
23-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.02	2.19
24-Oct	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	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	2.1	2.04	2.10
25-Oct	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.1	2.09	2.32
26-Oct	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.2	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.07	2.34
27-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.02	2.27
28-Oct	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.1	2.0	A	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	1.9	2.0	1.9	1.9	2.06	2.23
29-Oct	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.01	2.24
30-Oct	2.1	2.1	2.2	2.1	2.4	2.4	2.3	2.2	2.4	A	2.1	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.08	2.43
31-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.03
	2.11	2.17	2.23	2.27	2.25	2.22	2.21	2.20	2.24	2.22	2.13	2.07	2.04	2.01	2.02	2.02	2.02	2.03	2.05	2.07	2.07	2.08	2.11	2.11	Diurnal Average	
	2.54	3.21	3.64	3.47	3.20	3.09	2.76	2.78	3.08	3.40	2.44	2.35	2.20	2.23	2.26	2.31	2.19	2.22	2.25	2.31	2.48	2.26	2.43	2.40	Diurnal Maximum	

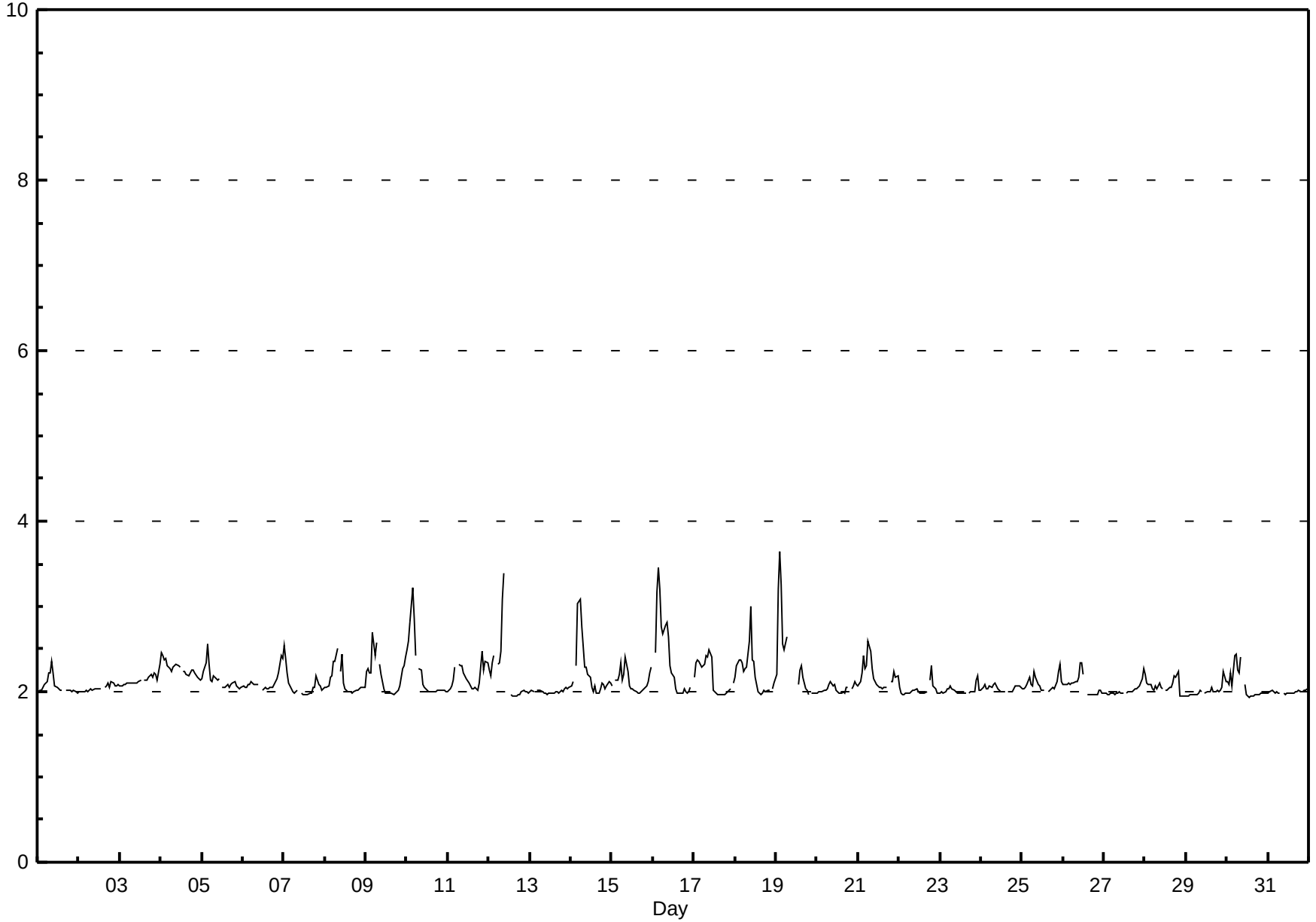
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2011

Maximum Value: 8.87 ppm on Oct 29 16:00

Maximum Daily Average: 2.71 ppm on Oct 16

Minimum Value: 2.0 ppm on Oct 28 23:00

Minimum Daily Average: 2.03 ppm on Oct 31

Maximum Diurnal Average: 2.51 ppm at hour 4

Minimum Diurnal Average: 2.08 ppm at hour 14

Monthly Average: 2.283 ppm

Percentiles: P_1 = 1.98 P_{10} = 2.01 Q_1 = 2.04 Median = 2.14 Q_3 = 2.37 P_{90} = 2.69 P_{99} = 3.99

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
Percent Operational Time:	100.0

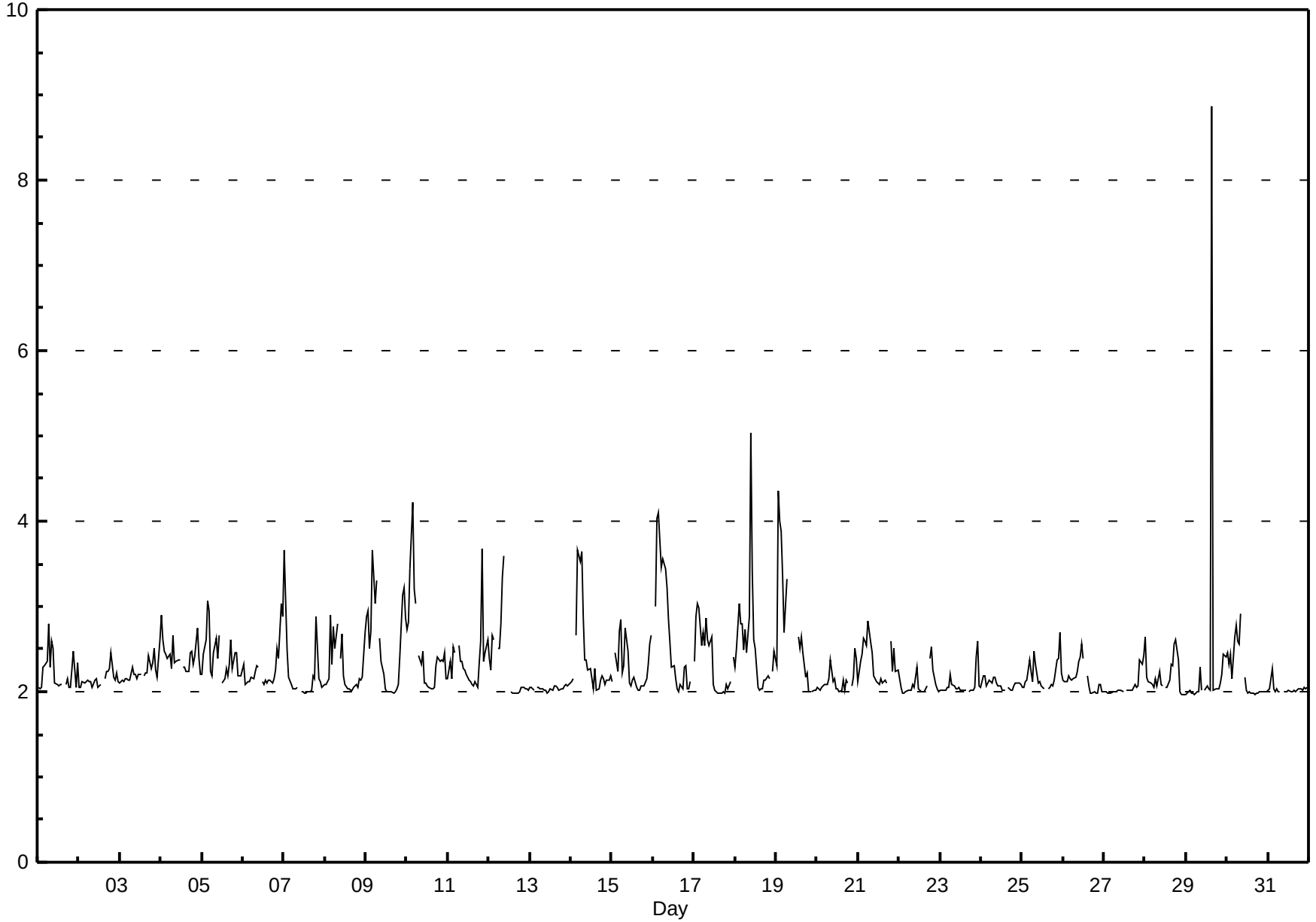
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	2.1	2.0	2.0	2.3	2.3	2.4	2.8	2.3	2.6	2.5	2.1	2.1	2.1	2.1	2.1	A	2.1	2.2	2.1	2.0	2.3	2.5	2.0	2.3	2.22	2.80
2-Oct	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	A	2.1	2.2	2.2	2.3	2.5	2.2	2.1	2.2	2.1	2.15	2.45
3-Oct	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.3	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.4	2.3	2.3	2.5	2.3	2.2	2.6	2.23	2.60
4-Oct	2.9	2.6	2.5	2.4	2.4	2.4	2.3	2.7	2.3	2.4	2.4	2.4	A	2.3	2.3	2.2	2.2	2.5	2.5	2.3	2.4	2.7	2.4	2.2	2.42	2.90
5-Oct	2.2	2.4	2.6	3.1	2.9	2.2	2.2	2.5	2.6	2.4	2.7	A	2.1	2.2	2.3	2.2	2.3	2.6	2.3	2.5	2.5	2.2	2.2	2.2	2.40	3.07
6-Oct	2.3	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.5	2.4	3.0	2.9	2.26	3.03
7-Oct	3.7	3.1	2.5	2.2	2.1	2.0	2.0	2.0	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.9	2.1	2.1	2.1	2.1	2.23	3.66
8-Oct	2.1	2.1	2.2	2.9	2.3	2.8	2.5	2.8	A	2.4	2.7	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.7	2.28	2.90
9-Oct	2.9	2.9	2.5	2.7	3.7	3.0	3.3	A	2.6	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	3.1	3.2	2.9	2.52	3.66
10-Oct	2.7	2.8	3.4	4.2	3.2	3.0	A	2.4	2.3	2.5	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.3	2.4	2.4	2.4	2.4	2.5	2.2	2.50	4.22
11-Oct	2.1	2.4	2.2	2.5	2.4	A	2.5	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.3	2.6	3.7	2.4	2.5	2.6	2.35	3.67
12-Oct	2.4	2.2	2.7	2.6	A	2.5	2.5	2.8	3.3	3.6	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.34	3.60
13-Oct	2.0	2.1	2.0	A	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.04	2.09
14-Oct	2.1	2.2	A	2.7	3.7	3.5	3.7	2.9	2.4	2.4	2.3	2.3	2.2	2.0	2.3	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.41	3.66
15-Oct	2.1	A	2.5	2.2	2.7	2.8	2.2	2.3	2.7	2.5	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.3	2.6	2.7	2.29	2.84
16-Oct	A	3.0	4.0	4.1	3.8	3.5	3.6	3.4	3.2	2.8	2.6	2.3	2.3	2.2	2.0	2.0	2.1	2.0	2.3	2.3	2.0	2.0	2.1	A	2.71	4.11
17-Oct	2.4	2.9	3.0	3.0	2.5	2.7	2.5	2.9	2.6	2.5	2.6	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	A	2.4	2.36	3.03
18-Oct	2.3	2.5	3.0	2.8	2.8	2.5	2.7	2.5	2.9	5.0	3.4	2.6	2.5	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	A	2.2	2.5	2.56	5.03
19-Oct	2.3	4.4	4.0	3.9	3.3	2.7	3.3	C	C	C	C	C	C	2.6	2.5	2.6	2.5	2.2	2.2	2.0	A	2.0	2.0	2.0	--	4.36
20-Oct	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.4	2.1	2.2	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	A	2.1	2.2	2.5	2.4	2.12	2.52
21-Oct	2.1	2.4	2.4	2.6	2.6	2.5	2.8	2.6	2.5	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	A	2.6	2.2	2.5	2.2	2.3	2.33	2.83
22-Oct	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.1	A	2.4	2.5	2.3	2.1	2.0	2.0	2.09	2.53
23-Oct	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.4	2.6	2.1	2.08	2.59
24-Oct	2.0	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	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	2.09	2.19
25-Oct	2.1	2.1	2.1	2.1	2.4	2.2	2.1	2.5	2.3	2.1	2.1	2.1	2.0	2.0	A	2.0	2.0	2.1	2.1	2.1	2.4	2.4	2.7	2.2	2.19	2.70
26-Oct	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.4	2.4	2.6	2.4	A	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.15	2.56
27-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.4	2.3	2.4	2.06	2.42
28-Oct	2.6	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	A	2.1	2.1	2.1	2.3	2.3	2.6	2.6	2.4	2.0	2.0	2.0	2.0	2.18	2.65
29-Oct	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.0	A	2.0	2.1	2.0	2.0	8.9	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.4	2.37	8.87
30-Oct	2.5	2.3	2.4	2.1	2.6	2.8	2.6	2.6	2.9	A	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.21	2.92
31-Oct	2.0	2.0	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	2.1	2.03	2.26
	2.28	2.37	2.44	2.51	2.49	2.42	2.43	2.37	2.42	2.40	2.26	2.13	2.10	2.08	2.09	2.32	2.09	2.14	2.16	2.22	2.23	2.24	2.29	2.28	Diurnal Average	
	3.66	4.36	4.03	4.22	3.77	3.53	3.65	3.45	3.33	5.03	3.41	2.60	2.51	2.64	2.51	8.87	2.46	2.61	2.60	2.88	3.67	3.14	3.21	2.88	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2011

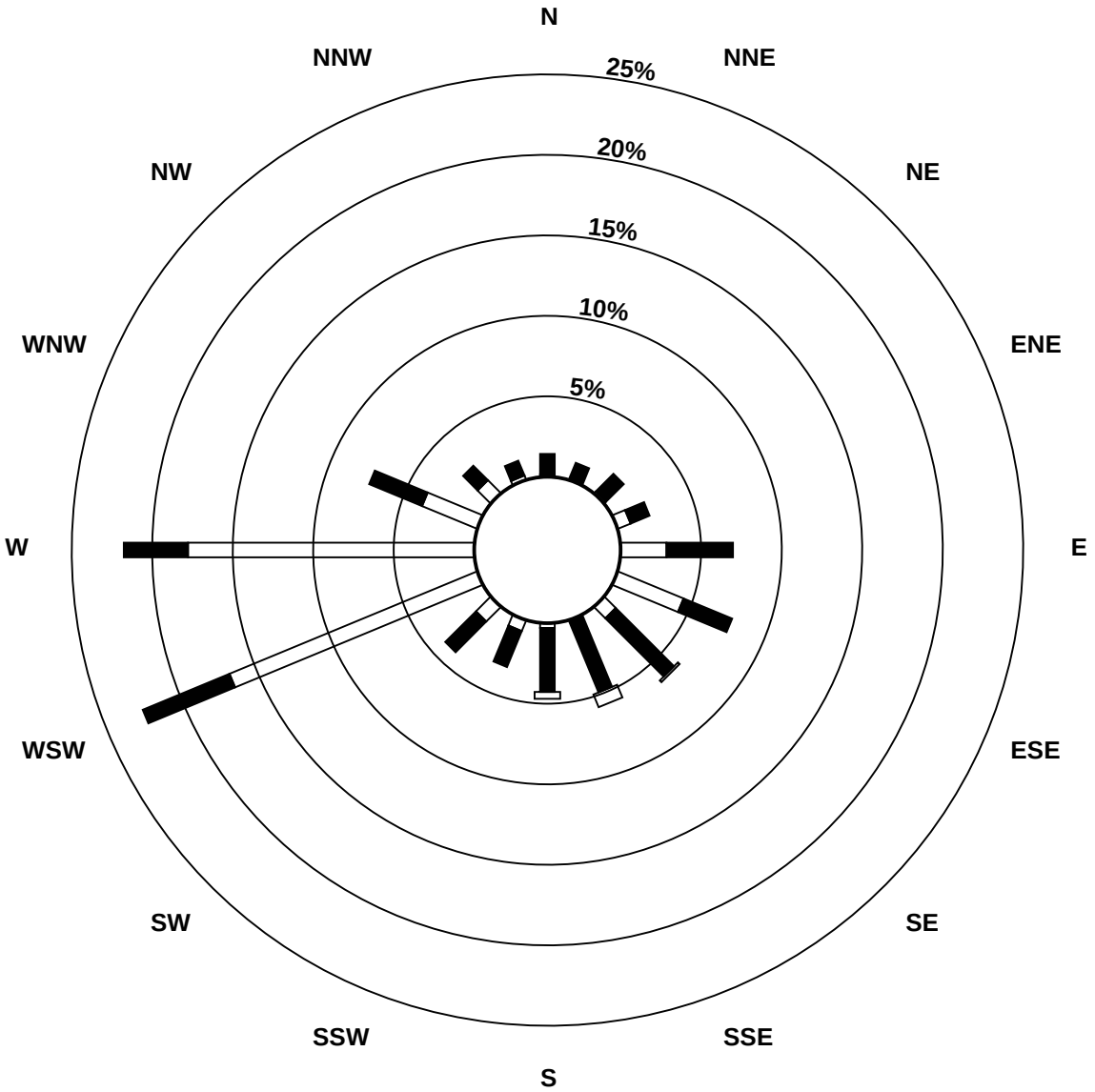


Peace Airshed Zone Association

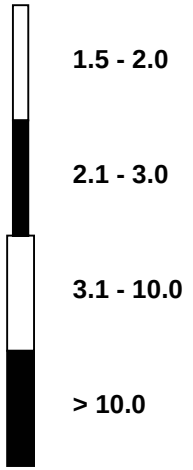
Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - October 2011



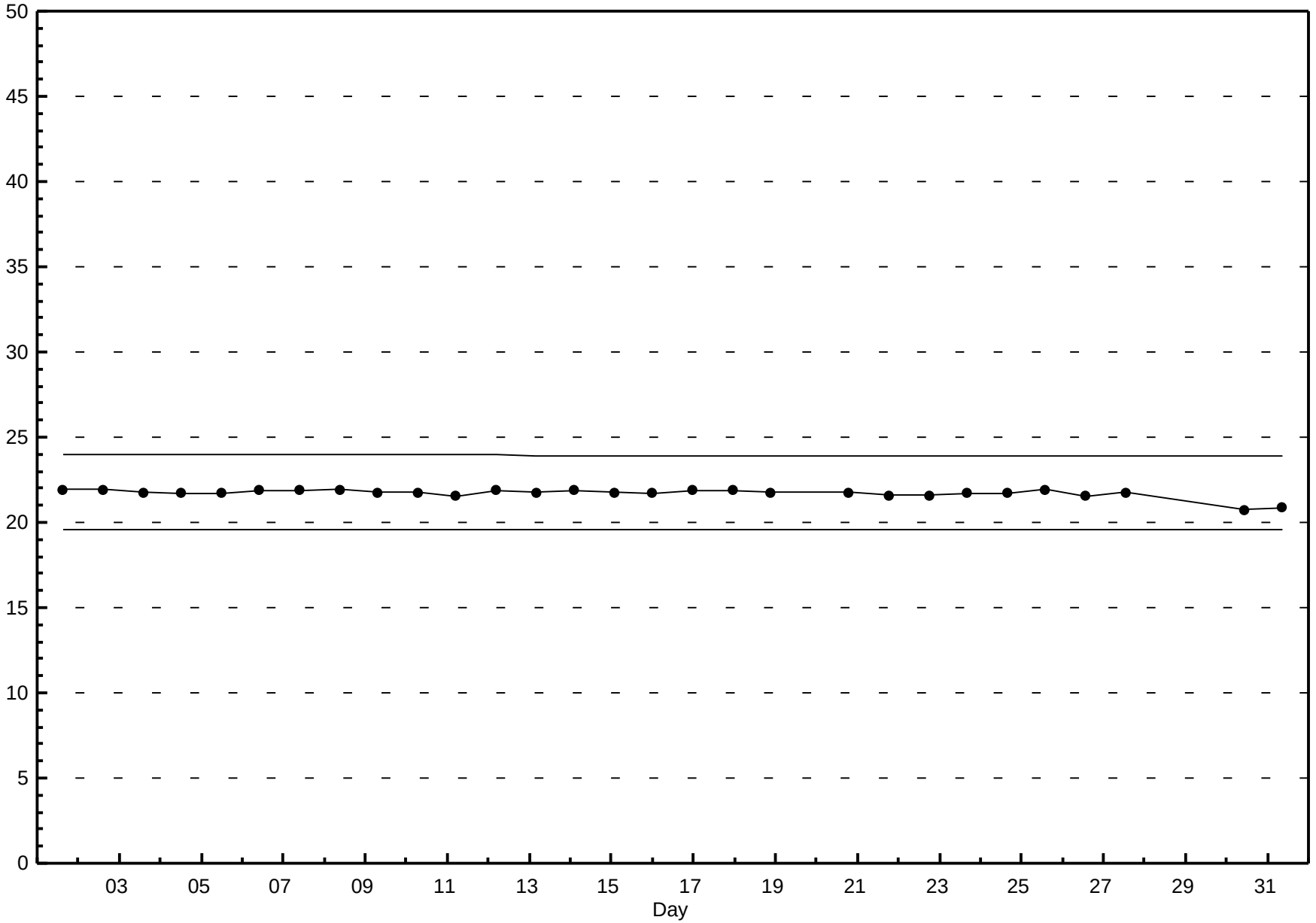
Pollutant Classes (ppm)



Span Responses

Total Hydrocarbons (THC)

Henry Pirker - October 2011



Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - October 2011

Number of Exceedences: 1-hr: 0 24-hr: 0
Maximum Value: 39.5 $\mu g/m^3$ on Oct 11 23:00
Maximum Daily Average: 9.2 $\mu g/m^3$ on Oct 11

Minimum Value: 0 $\mu g/m^3$ on Oct 1 03:00
Maximum Diurnal Average: 7.4 $\mu g/m^3$ at hour 10
Monthly Average: 5.40 $\mu g/m^3$
Minimum Daily Average: 2.7 $\mu g/m^3$ on Oct 31
Minimum Diurnal Average: 3.7 $\mu g/m^3$ at hour 14
Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 1.4 Median = 4.9 Q_3 = 8.3 P_{90} = 11.5 P_{99} = 19.3

Hours in Service:	744
Hours of Data:	716
Hours of Missing Data:	28
Hours of Calibration:	6
Percent Operational Time:	97.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	6	1	0	5	0	0	4	7	12	9	7	1	0	0	6	9	10	1	0	1	5	0	0	0	3.5	11.7
2-Oct	0	N	0	6	0	N	N	4	1	0	8	4	4	0	3	4	6	5	5	0	0	2	6	10	3.2	9.7
3-Oct	7	7	1	0	1	5	6	5	5	8	14	9	8	10	8	12	11	7	9	9	5	4	14	17	7.5	16.9
4-Oct	11	4	3	2	0	0	3	11	13	14	13	8	4	8	3	2	0	6	13	16	13	12	12	9	7.5	16.3
5-Oct	10	12	8	6	14	10	13	13	10	15	14	10	5	N	M	2	0	3	5	11	9	4	1	7	8.2	15.1
6-Oct	0	5	12	2	0	6	0	5	10	7	4	10	2	10	1	7	9	4	10	2	13	15	3	3	5.9	14.9
7-Oct	6	3	1	3	7	0	5	0	3	1	9	13	1	3	9	N	7	0	5	11	0	2	3	7	4.3	13.1
8-Oct	8	4	0	0	2	1	1	5	5	5	15	11	2	6	0	1	1	2	6	10	0	0	11	3	4.2	14.9
9-Oct	0	7	11	14	9	8	6	3	7	12	5	0	3	2	0	4	2	0	5	4	1	5	4	6	4.9	13.9
10-Oct	10	7	8	5	3	9	11	10	5	3	8	0	0	9	0	4	0	8	1	9	4	0	0	6	5.0	10.5
11-Oct	0	1	11	6	0	0	2	5	5	5	1	4	12	1	8	6	6	2	15	18	19	35	40	19	9.2	39.5
12-Oct	4	8	12	10	9	10	7	7	8	5	4	9	5	3	2	1	1	2	6	0	10	3	3	5	5.5	12.1
13-Oct	7	6	7	16	5	0	1	8	1	0	4	1	6	2	4	3	4	0	5	9	8	7	5	1	4.5	15.9
14-Oct	3	4	1	0	3	4	8	12	11	13	13	8	N	0	11	7	0	9	9	11	11	3	3	3	6.3	13.0
15-Oct	0	5	4	9	6	2	1	8	15	15	5	9	1	6	8	2	3	7	5	11	3	9	5	15	6.4	15.2
16-Oct	13	12	4	7	7	8	8	14	13	7	8	9	1	7	0	6	6	11	2	5	13	0	4	2	7.0	13.7
17-Oct	4	2	3	12	11	15	8	10	9	28	25	6	5	0	3	2	0	2	4	2	2	N	8	0	6.9	28.0
18-Oct	N	11	8	4	14	1	6	7	3	20	8	14	6	7	1	5	0	0	9	0	11	2	0	12	6.4	19.8
19-Oct	15	5	6	16	12	0	0	C	C	C	C	C	C	0	8	8	10	14	0	9	4	0	6	0	6.3	15.6
20-Oct	0	0	9	3	0	8	5	5	7	0	1	10	0	4	0	6	0	6	0	5	0	4	9	2	3.6	10.3
21-Oct	2	5	0	6	4	7	0	7	9	5	0	11	5	2	8	0	6	10	0	7	17	14	0	9	5.5	16.5
22-Oct	8	1	0	7	0	1	8	0	0	6	N	0	6	0	4	4	5	4	12	8	19	0	0	9	4.4	19.0
23-Oct	0	N	3	2	2	5	7	6	6	2	4	3	N	9	N	2	3	0	9	9	0	2	2	0	3.6	8.9
24-Oct	0	6	0	2	5	0	0	5	1	0	4	9	N	2	3	1	6	0	10	4	0	9	7	0	3.2	9.7
25-Oct	7	1	3	9	3	1	6	9	11	7	0	4	3	0	4	0	6	0	8	1	0	7	12	5	4.4	11.6
26-Oct	5	14	12	6	2	7	1	4	10	13	13	6	11	8	2	0	10	6	1	5	3	8	7	12	6.9	14.1
27-Oct	6	9	1	2	8	3	6	6	6	3	3	5	N	4	5	N	5	10	1	1	5	14	9	9	5.5	14.0
28-Oct	5	7	12	5	1	10	6	3	6	3	2	3	13	11	9	10	17	10	19	27	3	0	0	0	7.6	26.8
29-Oct	5	2	0	0	0	N	0	4	6	5	0	0	11	0	0	6	4	7	0	5	4	3	9	6	3.2	10.5
30-Oct	0	7	4	0	4	6	2	8	3	0	0	9	3	0	5	N	5	N	0	0	6	6	N	0	3.3	8.9
31-Oct	2	0	0	6	1	0	4	7	2	N	0	6	N	0	7	4	0	4	3	4	0	1	4	7	2.7	7.0
	4.7	5.3	4.6	5.6	4.3	4.4	4.5	6.6	6.7	7.4	6.5	6.4	4.6	3.7	4.1	4.1	4.7	4.6	5.7	6.8	6.1	5.7	6.2	6.0	Diurnal Average	
	15.2	14.1	12.2	15.9	14.1	14.7	13.1	13.7	14.7	28.0	25.2	13.7	13.1	11.4	10.7	11.5	16.8	14.3	19.1	26.8	19.0	35.4	39.5	19.5	Diurnal Maximum	

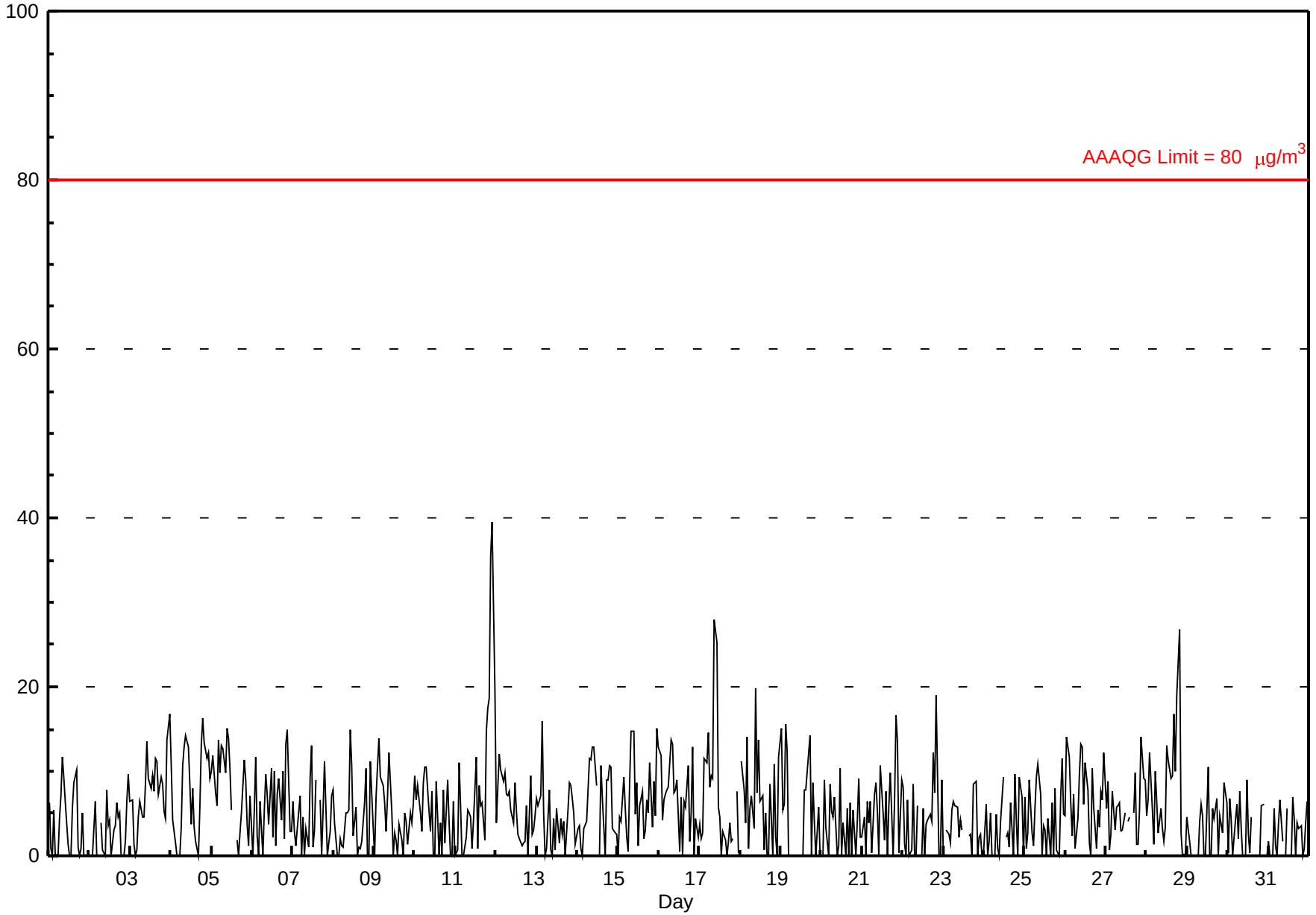
C - Calibration M - Maintenance N - Not Valid
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - October 2011



Hourly Maximums

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

Henry Pirker - October 2011

Maximum Value: 448.6 $\mu g/m^3$ on Oct 5 13:00

Maximum Daily Average: 31.3 $\mu g/m^3$ on Oct 5

Minimum Value: 0 $\mu g/m^3$ on Oct 1 06:00

Minimum Daily Average: 5.3 $\mu g/m^3$ on Oct 31

Maximum Diurnal Average: 22.7 $\mu g/m^3$ at hour 13

Minimum Diurnal Average: 6.6 $\mu g/m^3$ at hour 6

Monthly Average: 9.48 $\mu g/m^3$

Percentiles: $P_1 = 0.0$ $P_{10} = 2.2$ $Q_1 = 5.6$ Median = 8.6 $Q_3 = 11.6$ $P_{90} = 15.2$ $P_{99} = 29.4$

Hours in Service:	744
Hours of Data:	736
Hours of Missing Data:	8
Hours of Calibration:	8
Percent Operational Time:	100.0

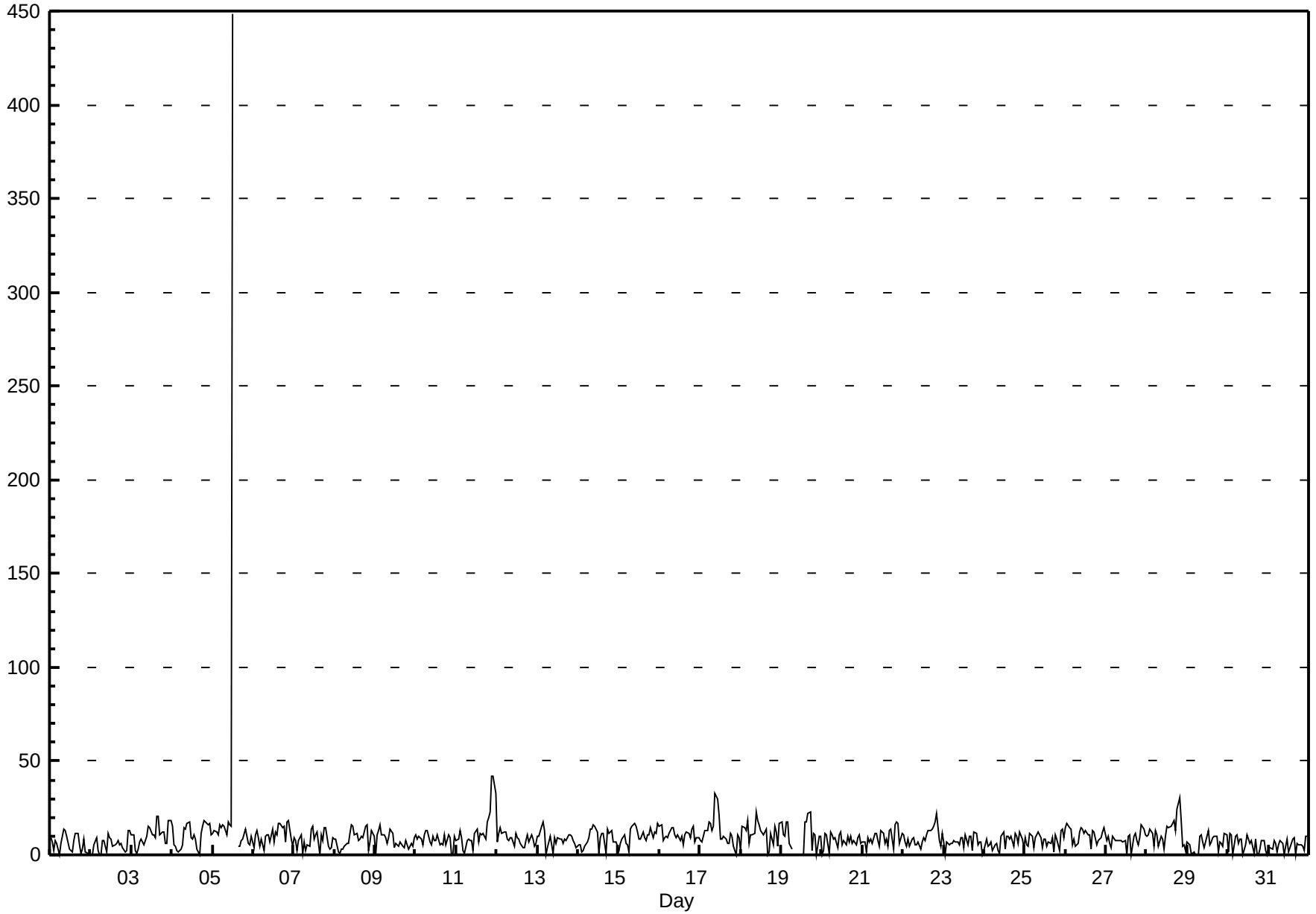
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	9	7	2	8	6	0	6	10	14	13	10	3	2	1	7	11	12	5	1	3	9	1	1	0	5.9	13.5
2-Oct	0	0	5	9	2	0	0	8	7	2	12	9	8	5	5	6	8	6	6	3	1	2	13	13	5.5	13.3
3-Oct	10	10	2	1	3	7	8	5	7	10	15	14	11	11	9	20	20	11	12	12	6	6	18	18	10.4	20.3
4-Oct	15	5	5	2	1	3	5	14	14	17	18	10	9	10	9	3	0	11	15	19	18	16	16	11	10.2	18.6
5-Oct	12	13	12	11	16	14	16	15	11	18	16	15	449	C	C	4	4	8	9	13	10	6	6	10	31.3	448.6
6-Oct	4	11	13	9	4	9	3	10	11	11	7	14	7	12	11	17	17	14	15	7	18	18	8	4	10.5	18.3
7-Oct	9	7	2	7	11	1	7	2	5	4	14	15	9	11	12	0	10	8	14	14	5	3	4	9	7.7	15.2
8-Oct	9	8	2	1	3	3	4	6	6	11	16	15	10	11	7	8	10	9	15	16	2	7	13	10	8.4	15.9
9-Oct	0	11	13	16	11	11	9	6	9	14	12	4	6	5	5	7	4	4	7	5	3	6	5	9	7.6	16.2
10-Oct	10	9	10	8	6	11	13	13	7	5	10	7	8	11	6	6	6	11	6	11	9	0	1	10	7.9	13.3
11-Oct	8	9	13	9	2	1	8	8	8	7	2	11	14	7	12	11	12	8	18	20	23	42	42	33	13.6	42.2
12-Oct	7	12	14	12	12	13	8	8	9	9	5	11	9	8	6	3	4	8	10	7	11	8	4	6	8.6	14.2
13-Oct	10	10	15	17	13	0	4	10	5	1	9	6	9	9	9	6	8	8	11	11	10	8	6	4	8.3	17.2
14-Oct	6	6	2	2	4	7	9	14	14	16	15	12	1	9	12	11	1	13	12	12	13	7	7	4	8.7	16.2
15-Oct	3	6	8	11	6	6	2	14	15	17	15	13	8	9	12	9	7	10	11	14	9	12	11	17	10.2	16.9
16-Oct	15	16	8	9	10	9	11	14	14	11	9	11	8	10	6	11	12	12	9	13	15	7	9	9	10.8	15.6
17-Oct	7	7	10	13	13	17	17	13	15	32	30	22	8	8	10	8	6	6	11	10	4	0	11	9	12.1	32.5
18-Oct	2	15	15	13	18	6	11	11	12	23	18	16	13	11	12	14	0	2	12	5	15	12	4	17	11.6	22.9
19-Oct	17	10	10	18	17	6	3	C	C	C	C	C	C	0	18	18	22	23	2	12	11	0	10	10	11.6	23.2
20-Oct	0	3	11	11	1	12	10	9	9	4	11	12	6	7	5	10	7	10	6	8	5	9	10	6	7.5	12.0
21-Oct	7	7	1	9	7	8	6	12	11	8	5	13	12	6	9	4	13	14	3	16	17	17	6	11	9.2	17.3
22-Oct	11	7	5	9	5	9	9	6	5	7	3	7	9	8	11	13	13	14	15	17	22	8	5	11	9.5	22.3
23-Oct	7	0	7	5	6	6	8	7	7	6	9	9	4	11	5	10	10	3	12	11	6	7	7	0	6.7	11.9
24-Oct	2	8	5	5	7	2	6	6	2	1	10	12	3	10	10	8	10	5	11	10	6	12	9	3	6.8	12.1
25-Oct	9	5	5	11	10	4	9	10	13	9	4	8	9	4	7	6	9	1	11	8	2	13	13	9	7.9	13.5
26-Oct	14	17	15	14	6	8	5	6	12	14	14	12	13	11	11	3	13	13	5	8	8	9	12	14	10.6	16.7
27-Oct	8	10	6	4	10	7	8	8	8	8	7	8	0	10	10	0	10	11	8	5	10	16	14	10	8.1	16.2
28-Oct	10	11	14	11	5	13	10	5	10	9	3	10	15	15	15	17	19	13	24	31	18	5	5	2	12.0	30.7
29-Oct	7	5	1	0	1	0	0	10	10	7	4	7	13	5	7	9	10	10	1	7	6	5	11	11	6.1	12.8
30-Oct	2	12	11	0	10	10	6	8	8	0	6	10	8	6	8	1	8	1	0	3	8	8	2	0	5.6	11.8
31-Oct	4	4	3	8	6	2	5	8	6	0	5	8	1	6	9	9	0	6	5	5	4	2	10	10	5.3	9.8
	7.5	8.4	7.8	8.5	7.5	6.6	7.3	9.2	9.5	9.8	10.4	10.8	22.7	8.2	9.1	8.5	9.1	8.9	9.6	10.9	9.8	8.8	9.6	9.4	Diurnal Average	
	17.3	16.7	15.0	17.8	18.2	17.4	16.6	15.2	15.5	32.5	30.0	21.7	448.6	14.9	17.8	20.2	22.4	23.2	24.2	30.7	22.9	42.2	42.1	32.9	Diurnal Maximum	

C - Calibration

Hourly Maximums

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

Henry Pirker - October 2011

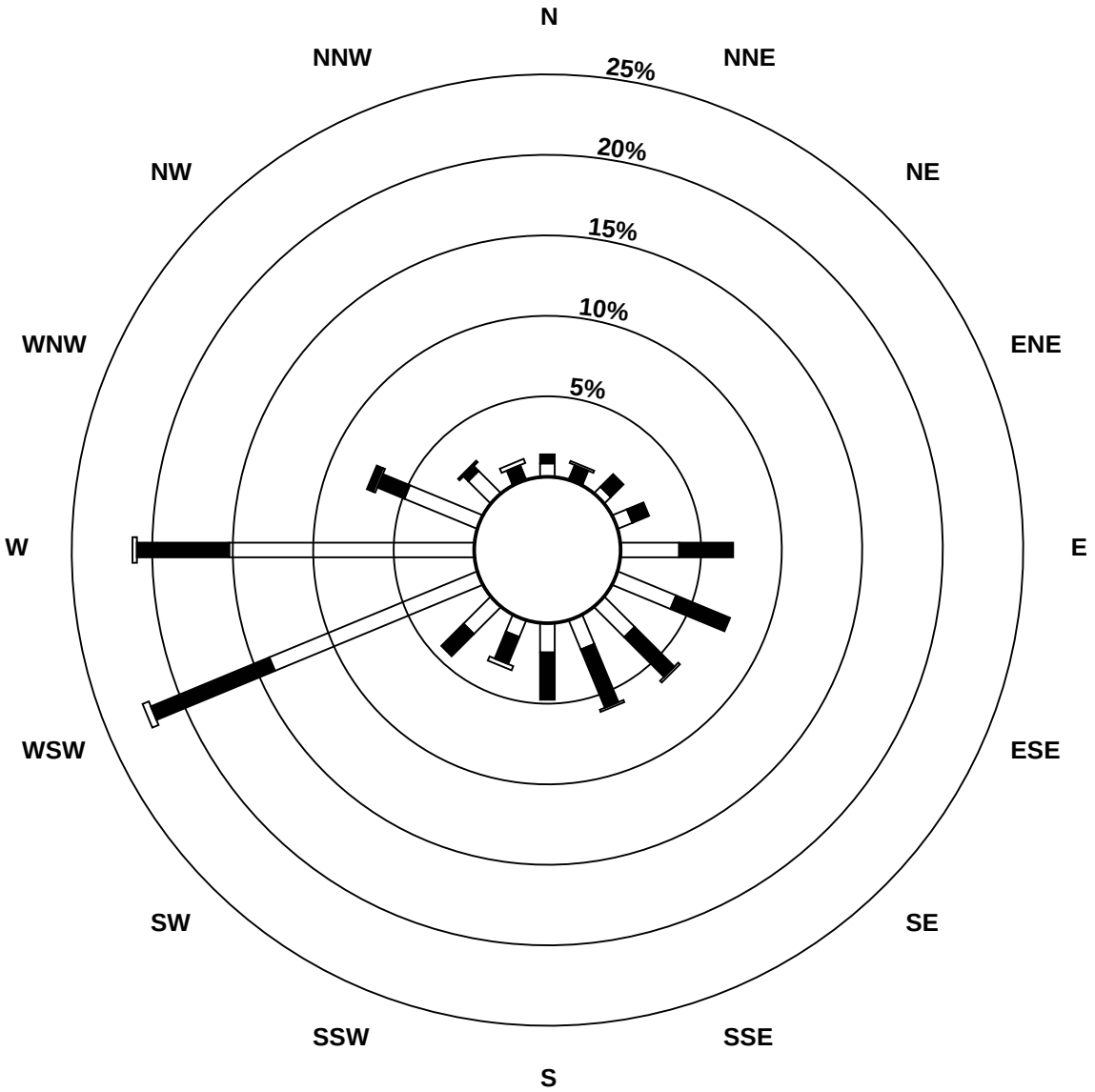


Peace Airshed Zone Association

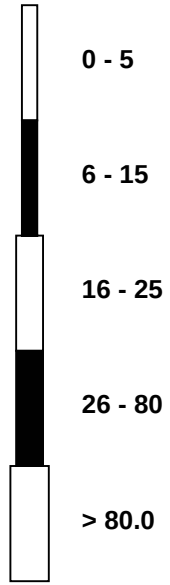
Pollutant Rose

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

Henry Pirker - October 2011



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



Hourly Averages

External Temperature (ET) - °C

Henry Pirker - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 18.8 °C on Oct 18 16:00 Maximum Daily Average: 9.3 °C on Oct 18

Minimum Value: -4 °C on Oct 16 08:00 Minimum Daily Average: 1.0 °C on Oct 21
Maximum Diurnal Average: 10.1 °C at hour 16 Minimum Diurnal Average: 1.9 °C at hour 8
Monthly Average: 5.27 °C Percentiles: P_1 = -3.3 P_{10} = 0.0 Q_1 = 2.8 Median = 5.4 Q_3 = 7.8 P_{90} = 10.3 P_{99} = 14.0

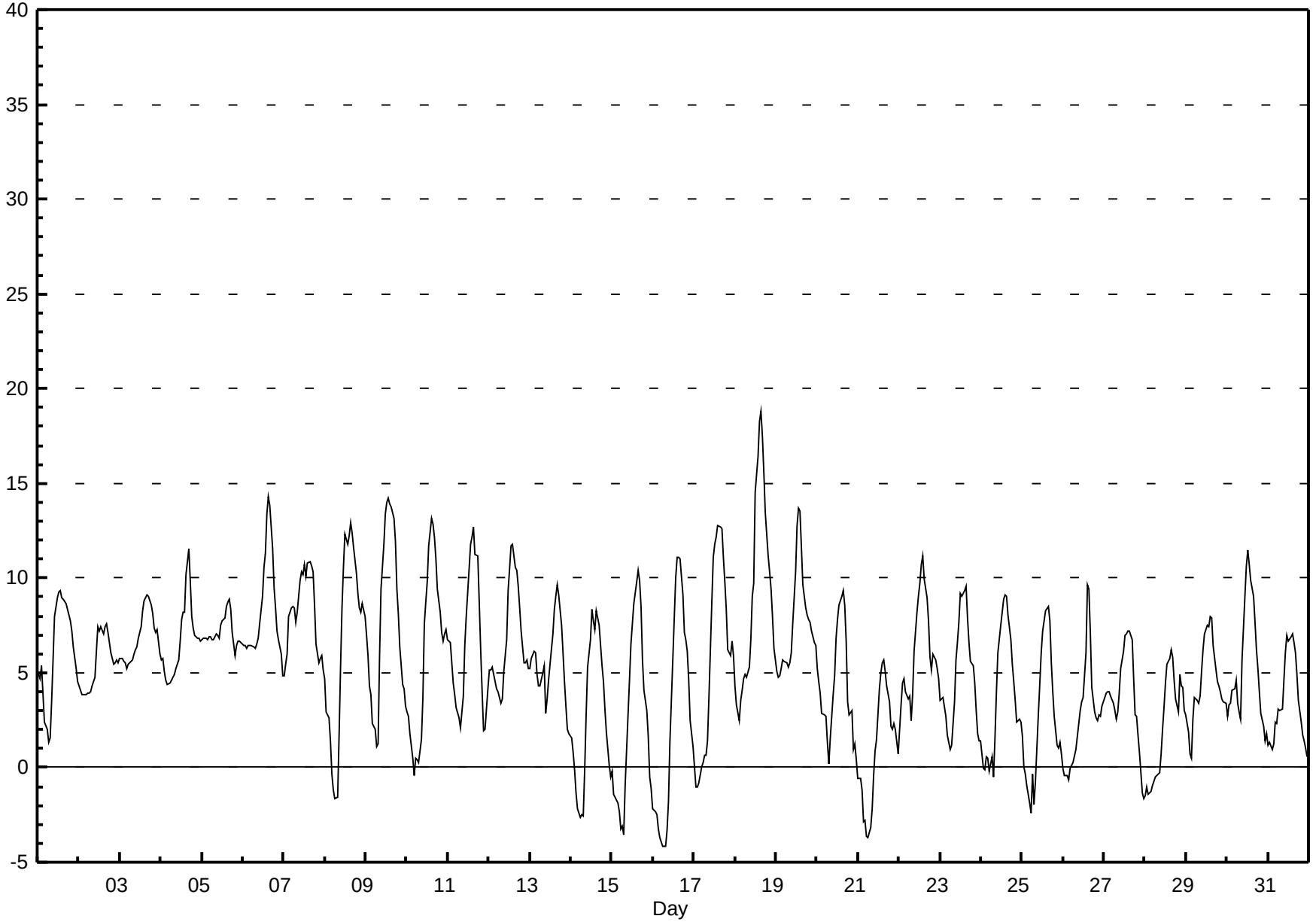
Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								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-Oct	5	5	5	4	2	2	1	2	3	6	8	9	9	9	9	9	9	8	8	8	7	6	5	5	6.0	9.3
2-Oct	4	4	4	4	4	4	4	4	4	5	6	7	7	7	7	7	8	7	7	6	5	6	6	6	5.5	7.6
3-Oct	6	6	6	6	5	5	6	6	6	6	6	7	7	8	9	9	9	9	9	8	7	7	7	6	6.9	9.1
4-Oct	6	6	5	5	4	4	5	5	5	5	6	7	8	8	8	10	12	10	8	7	7	7	7	7	6.7	11.6
5-Oct	7	7	7	7	7	7	7	7	7	7	7	8	8	8	9	9	9	8	7	6	6	7	7	7	7.2	8.9
6-Oct	6	6	6	6	6	6	6	6	7	7	8	9	11	11	13	14	14	12	9	8	7	7	6	5	8.3	14.3
7-Oct	5	5	6	8	8	9	8	8	8	10	10	10	11	10	11	11	11	10	9	7	6	6	6	5	8.2	10.8
8-Oct	5	3	3	1	0	-1	-2	-2	2	5	8	11	12	12	12	13	12	12	10	9	8	8	9	8	6.6	12.9
9-Oct	7	6	4	4	2	2	1	1	6	9	12	13	14	14	14	14	13	12	9	8	6	4	4	3	7.7	14.2
10-Oct	3	3	2	1	0	1	0	0	1	4	8	9	10	12	13	13	12	11	9	8	7	7	7	7	6.1	13.2
11-Oct	7	7	6	4	4	3	3	2	3	4	6	8	10	12	12	13	11	11	9	6	4	2	2	4	6.4	12.7
12-Oct	5	5	5	5	4	4	4	3	4	5	7	9	11	12	12	11	10	10	8	7	6	6	6	5	6.8	11.8
13-Oct	5	6	6	6	5	4	4	5	5	3	4	5	5	7	8	9	10	9	7	6	4	3	2	2	5.5	9.7
14-Oct	2	1	0	-1	-2	-3	-3	-3	0	3	5	7	8	8	7	8	8	6	5	5	3	2	0	0	2.7	8.3
15-Oct	0	-1	-2	-2	-2	-3	-3	-4	-1	3	5	7	8	9	10	10	10	9	6	4	3	2	0	-1	2.6	10.4
16-Oct	-2	-2	-3	-3	-4	-4	-4	-4	-3	-2	1	4	8	10	11	11	11	9	7	7	6	5	2	1	2.6	11.1
17-Oct	0	-1	-1	-1	0	0	1	1	1	4	9	11	12	12	13	13	13	11	10	8	6	6	7	6	5.8	12.7
18-Oct	4	3	2	4	4	5	5	5	5	7	9	10	15	16	18	19	18	16	13	11	10	9	8	6	9.3	18.8
19-Oct	5	5	5	5	6	6	6	5	6	6	8	10	13	14	14	12	10	8	8	8	8	7	7	6	7.7	13.7
20-Oct	5	5	4	3	3	3	1	0	2	4	5	7	8	9	9	9	9	7	3	3	3	1	1	0	4.3	9.3
21-Oct	-1	-1	-1	-3	-3	-4	-4	-3	-2	0	1	1	4	5	6	6	5	4	3	2	2	2	2	1	1.0	5.7
22-Oct	2	3	4	5	4	4	4	2	4	6	8	9	10	11	11	10	9	8	6	5	6	6	5	5	6.1	11.2
23-Oct	4	4	4	3	2	1	1	1	3	6	7	8	9	9	9	10	8	7	6	5	4	3	2	1	4.8	9.5
24-Oct	1	0	0	1	0	0	1	0	2	4	6	8	8	9	9	9	8	7	5	5	4	2	3	2	3.8	9.1
25-Oct	2	0	0	-1	-2	-2	0	-2	-1	3	4	6	7	8	8	8	8	6	4	3	1	1	1	1	2.6	8.5
26-Oct	0	0	0	-1	0	0	0	1	2	2	3	3	4	6	10	9	7	4	3	3	3	3	3	3	2.8	9.7
27-Oct	4	4	4	4	4	3	3	3	3	4	5	6	7	7	7	7	7	5	3	3	2	1	-1	-2	3.8	7.2
28-Oct	-2	-1	-1	-1	-1	-1	-1	0	0	1	2	3	4	5	6	6	6	5	4	3	5	4	4	3	2.2	6.2
29-Oct	3	2	1	0	3	4	4	3	4	5	6	7	8	7	8	8	6	5	5	4	4	4	3	3	4.5	8.0
30-Oct	3	3	3	4	4	5	3	3	3	6	9	11	11	11	10	9	8	6	5	4	3	2	1	2	5.4	11.4
31-Oct	1	1	1	1	2	2	3	3	3	5	6	7	7	7	7	7	6	5	4	2	2	1	1	1	3.5	7.1
	3.3	3.0	2.7	2.5	2.3	2.1	2.1	1.9	2.9	4.5	6.3	7.6	8.8	9.5	10.0	10.1	9.5	8.2	6.8	5.8	5.0	4.4	3.9	3.5	Diurnal Average	
	6.9	6.8	6.8	8.0	8.5	8.5	8.4	7.6	8.2	9.9	11.8	13.4	14.6	16.5	18.2	18.8	17.5	15.6	13.4	11.2	10.3	9.4	8.6	7.9	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - October 2011



Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - October 2011

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

Maximum Value: 91.4 % on Oct 4 11:00 Maximum Daily Average: 86.2 % on Oct 4

Minimum Value: 30 % on Oct 9 14:00 Minimum Daily Average: 49.4 % on Oct 27

Maximum Diurnal Average: 72.3 % at hour 8 Minimum Diurnal Average: 46.0 % at hour 16

Monthly Average: 62.11 % Percentiles: P_1 = 32.0 P_{10} = 41.6 Q_1 = 50.3 Median = 61.9 Q_3 = 73.9 P_{90} = 84.8 P_{99} = 91.1

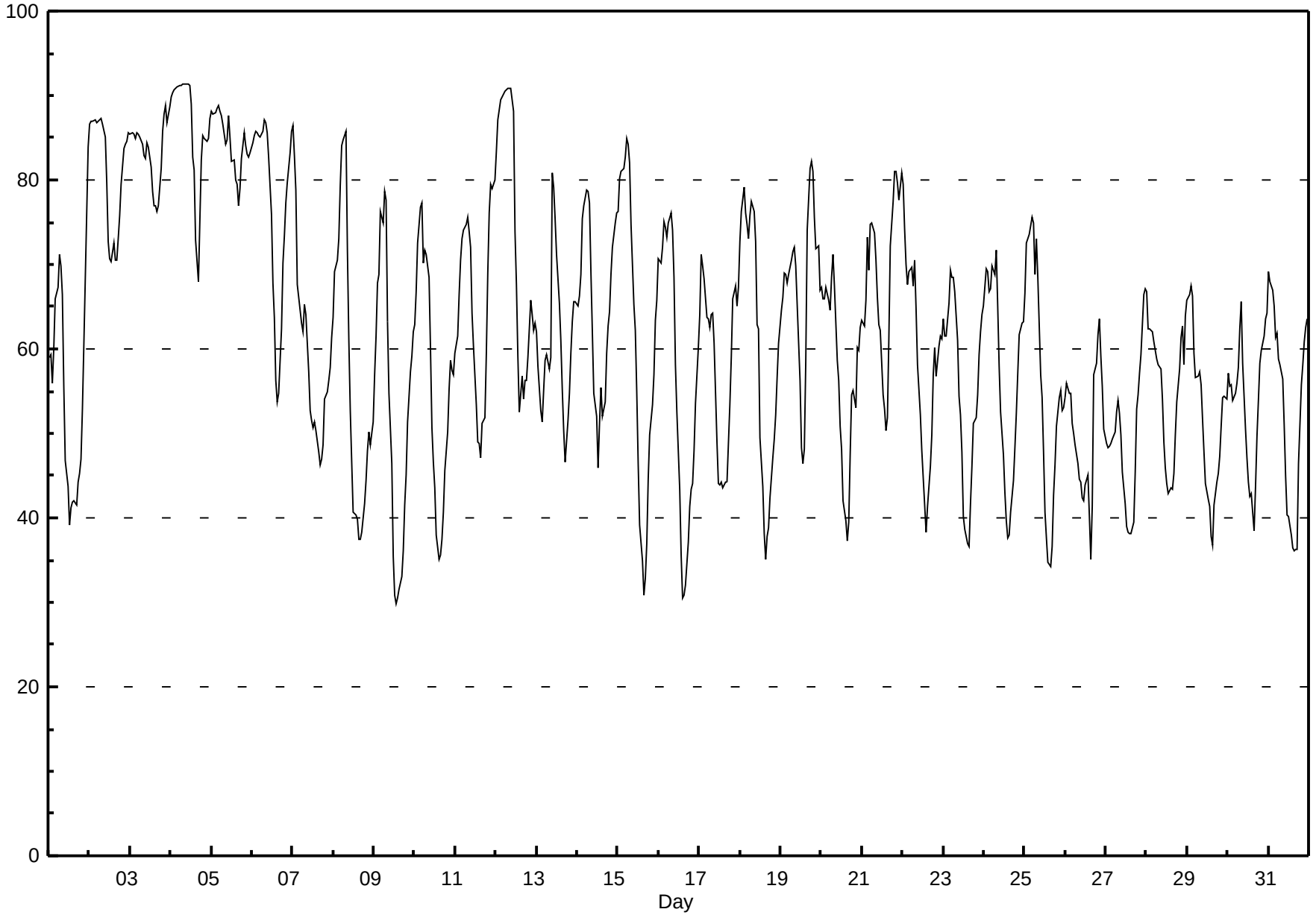
Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

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-Oct	59	59	56	60	66	67	71	70	66	56	47	44	39	41	42	42	42	44	45	47	53	61	76	84	55.7	84.0
2-Oct	87	87	87	87	87	87	87	87	87	85	80	73	71	70	73	71	71	73	76	80	84	84	85	86	80.9	87.2
3-Oct	85	86	85	85	86	85	85	84	83	82	84	84	81	79	77	77	76	77	81	86	88	89	87	89	83.4	88.8
4-Oct	90	90	91	91	91	91	91	91	91	91	91	91	89	83	81	73	68	75	82	85	85	85	85	87	86.2	91.4
5-Oct	88	88	88	88	89	88	88	87	84	85	88	85	82	82	80	79	77	79	83	86	84	83	83	83	84.4	88.8
6-Oct	84	85	86	86	85	85	86	87	87	86	83	76	68	64	56	54	55	62	70	73	77	80	83	86	76.8	87.2
7-Oct	86	83	79	68	65	63	62	65	64	57	53	52	51	51	50	48	46	47	49	54	55	56	58	61	59.3	86.5
8-Oct	64	69	70	73	79	84	85	86	72	61	53	47	41	40	40	37	38	38	42	44	48	50	49	51	56.7	85.7
9-Oct	57	62	68	69	76	75	79	78	63	55	46	35	31	30	31	32	33	36	42	45	51	57	59	62	53.0	78.7
10-Oct	63	67	73	77	77	70	72	71	68	60	51	47	44	38	35	36	37	41	46	50	55	59	57	57	56.2	77.4
11-Oct	59	61	67	70	73	74	75	76	74	72	64	60	53	49	49	47	51	52	59	69	76	80	79	80	65.4	80.0
12-Oct	83	87	88	90	90	90	91	91	91	91	88	74	68	59	53	57	54	56	56	59	66	64	62	63	73.8	90.9
13-Oct	62	58	53	51	55	59	59	58	59	81	79	75	71	65	61	55	50	47	51	55	60	63	66	66	60.8	80.9
14-Oct	65	66	69	75	77	79	79	77	69	62	55	52	46	51	55	52	54	59	63	64	69	72	75	76	65.1	78.9
15-Oct	76	80	81	81	83	85	84	82	75	65	62	55	46	39	35	31	33	37	45	50	53	57	63	66	61.1	84.8
16-Oct	71	70	72	75	74	73	75	76	74	68	58	53	43	36	31	31	32	37	41	43	44	48	54	60	55.8	76.1
17-Oct	64	71	70	68	64	64	63	64	64	61	49	44	44	44	44	44	44	49	53	59	66	68	65	67	58.0	71.1
18-Oct	73	76	79	76	75	73	76	78	76	73	63	62	49	44	38	35	38	39	42	47	49	52	57	61	59.6	79.1
19-Oct	65	66	69	69	68	69	71	72	72	70	65	56	48	46	48	58	74	81	82	81	76	72	72	67	67.4	82.3
20-Oct	67	66	66	67	66	65	69	71	68	59	56	51	48	42	40	37	40	48	55	55	53	60	60	63	57.1	71.1
21-Oct	63	63	66	73	69	75	75	74	71	66	63	62	55	53	50	52	61	72	77	81	81	80	78	81	68.3	81.0
22-Oct	80	74	70	68	69	70	67	71	65	58	52	48	45	41	38	41	46	50	57	60	57	60	62	61	58.7	79.5
23-Oct	64	62	61	65	69	69	68	67	61	54	52	48	40	39	37	37	42	46	51	52	55	59	62	64	55.1	69.3
24-Oct	65	70	69	67	67	70	69	72	65	58	52	47	43	40	38	38	41	44	48	52	57	62	63	63	56.7	71.7
25-Oct	67	73	73	74	76	75	69	73	68	57	54	48	41	38	35	34	37	43	46	51	54	55	53	53	56.0	75.5
26-Oct	54	56	55	55	51	50	49	46	45	44	42	42	44	45	40	35	41	57	58	62	64	59	56	51	50.0	63.5
27-Oct	49	48	48	49	49	50	53	54	52	50	45	42	39	38	38	38	40	45	53	55	57	59	66	67	49.4	67.1
28-Oct	67	62	62	62	61	60	59	58	58	54	49	46	44	43	44	43	45	50	54	58	61	63	58	64	55.2	66.8
29-Oct	66	66	68	66	59	57	57	57	56	52	48	44	42	41	38	37	42	44	45	47	51	54	54	54	51.9	67.5
30-Oct	57	56	56	54	55	56	58	62	66	58	51	47	44	43	43	38	44	50	54	58	60	62	64	64	54.1	65.7
31-Oct	69	68	67	65	61	62	59	58	56	51	45	40	40	38	36	36	36	36	46	56	58	61	62	64	53.0	69.2
	69.3	70.2	70.7	71.1	71.4	71.6	71.8	72.3	69.3	65.2	60.3	55.8	51.3	48.8	46.9	46.0	47.9	52.1	56.6	60.1	62.8	64.9	66.2	67.8	Diurnal Average	
	89.9	90.4	90.7	90.8	91.0	91.1	91.2	91.3	91.4	91.4	91.4	91.1	88.9	82.8	81.3	79.4	77.0	81.4	82.6	85.8	87.8	88.8	86.8	88.7	Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - October 2011



Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - October 2011

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

Maximum Value: 415.0 W/m^2 on Oct 9 13:00

Maximum Daily Average: 105.5 W/m^2 on Oct 9

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

Minimum Daily Average: 25.2 W/m^2 on Oct 5

Maximum Diurnal Average: 255.7 W/m^2 at hour 13

Minimum Diurnal Average: 0.0 W/m^2 at hour 1

Monthly Average: 64.16 W/m^2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 100.9 P_{90} = 243.2 P_{99} = 363.9

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

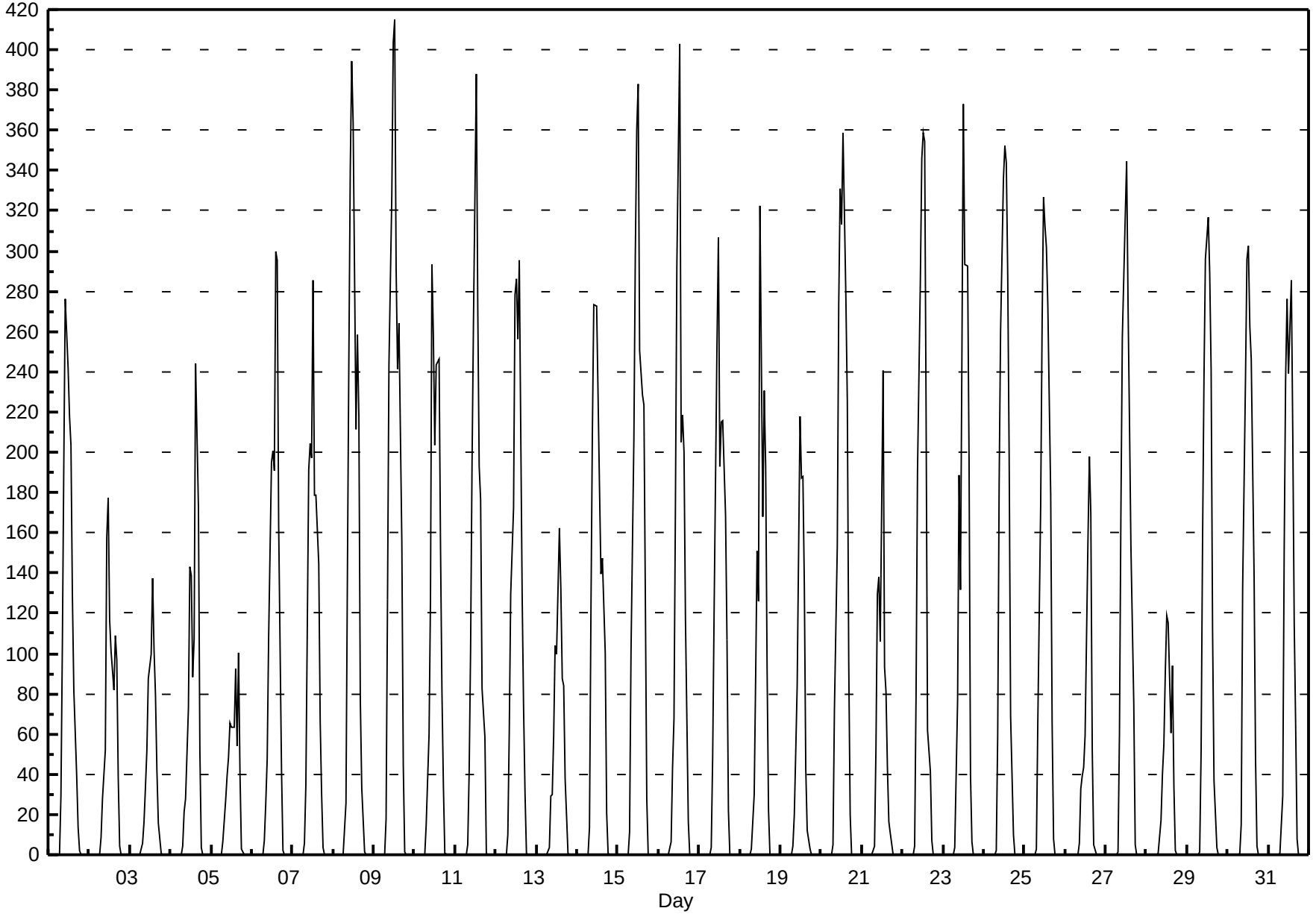
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0	0	0	0	0	0	0	29	104	194	276	242	218	204	129	82	39	13	2	0	0	0	0	0	63.8	276.0
2-Oct	0	0	0	0	0	0	0	9	28	52	158	177	117	101	82	109	97	39	4	0	0	0	0	0	40.5	177.2
3-Oct	0	0	0	0	0	0	0	6	16	34	52	88	100	138	102	80	42	16	1	0	0	0	0	0	28.0	137.6
4-Oct	0	0	0	0	0	0	0	4	22	28	72	143	139	88	108	244	173	52	4	0	0	0	0	0	44.8	244.0
5-Oct	0	0	0	0	0	0	0	6	27	39	48	66	64	64	92	54	101	41	3	0	0	0	0	0	25.2	100.5
6-Oct	0	0	0	0	0	0	0	7	25	48	108	195	201	190	300	296	164	42	2	0	0	0	0	0	65.7	299.6
7-Oct	0	0	0	0	0	0	0	6	35	191	205	198	285	179	179	144	66	30	3	0	0	0	0	0	63.4	285.4
8-Oct	0	0	0	0	0	0	0	26	138	245	340	395	364	211	258	218	77	33	1	0	0	0	0	0	96.1	394.6
9-Oct	0	0	0	0	0	0	0	18	126	243	327	404	415	292	241	264	155	45	2	0	0	0	0	0	105.5	415.0
10-Oct	0	0	0	0	0	0	0	15	60	127	293	259	203	243	246	154	81	35	1	0	0	0	0	0	71.6	293.4
11-Oct	0	0	0	0	0	0	0	5	42	101	194	264	388	272	193	176	83	58	1	0	0	0	0	0	74.0	387.8
12-Oct	0	0	0	0	0	0	0	10	61	130	172	278	286	257	296	129	73	30	1	0	0	0	0	0	71.8	295.6
13-Oct	0	0	0	0	0	0	0	3	29	30	59	104	100	162	133	88	84	38	1	0	0	0	0	0	34.6	162.2
14-Oct	0	0	0	0	0	0	0	13	119	209	273	273	228	182	139	148	100	20	0	0	0	0	0	0	71.0	273.3
15-Oct	0	0	0	0	0	0	0	11	101	207	298	360	383	251	228	223	128	28	0	0	0	0	0	0	92.4	382.8
16-Oct	0	0	0	0	0	0	0	7	43	68	173	292	403	205	218	200	117	16	0	0	0	0	0	0	72.6	403.1
17-Oct	0	0	0	0	0	0	0	3	48	121	253	307	193	215	216	168	107	22	0	0	0	0	0	0	68.9	306.6
18-Oct	0	0	0	0	0	0	0	3	30	88	151	126	323	168	230	193	92	22	0	0	0	0	0	0	59.4	322.6
19-Oct	0	0	0	0	0	0	0	4	20	51	84	218	188	188	134	43	12	3	0	0	0	0	0	0	39.4	217.6
20-Oct	0	0	0	0	0	0	0	5	72	153	272	331	313	359	277	226	95	20	0	0	0	0	0	0	88.5	358.9
21-Oct	0	0	0	0	0	0	0	5	52	129	138	106	241	93	81	44	16	11	0	0	0	0	0	0	38.1	240.6
22-Oct	0	0	0	0	0	0	0	4	80	190	285	346	359	355	220	62	41	7	0	0	0	0	0	0	81.2	359.0
23-Oct	0	0	0	0	0	0	0	3	77	189	132	247	373	293	292	195	40	7	0	0	0	0	0	0	77.0	373.0
24-Oct	0	0	0	0	0	0	0	2	60	183	260	336	352	344	287	197	69	10	0	0	0	0	0	0	87.6	352.4
25-Oct	0	0	0	0	0	0	0	3	67	174	264	327	313	302	273	179	65	8	0	0	0	0	0	0	82.2	326.8
26-Oct	0	0	0	0	0	0	0	0	6	32	39	44	59	156	198	170	52	5	0	0	0	0	0	0	31.7	197.9
27-Oct	0	0	0	0	0	0	0	1	61	170	257	316	344	274	215	153	75	5	0	0	0	0	0	0	78.0	344.2
28-Oct	0	0	0	0	0	0	0	1	17	40	55	90	119	115	60	94	34	2	0	0	0	0	0	0	26.2	119.1
29-Oct	0	0	0	0	0	0	0	1	51	155	236	296	317	289	241	112	37	3	0	0	0	0	0	0	72.4	316.6
30-Oct	0	0	0	0	0	0	0	0	15	133	237	296	302	262	246	138	47	4	0	0	0	0	0	0	70.1	302.4
31-Oct	0	0	0	0	0	0	0	1	29	151	237	276	240	286	209	115	65	8	0	0	0	0	0	0	67.3	285.7
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	53.6	125.9	191.9	238.6	255.7	217.3	197.5	151.5	78.4	21.7	0.8	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.0	0.0	0.0	0.3	29.2	138.5	244.6	340.3	403.6	415.0	358.9	299.6	295.6	172.6	58.5	4.4	0.0	0.0	0.0	0.0	0.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - October 2011



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - October 2011

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	14	17	14	5	3	2	3	2	1	2	4	1	6	9	10	7	7	7	10	11	11	12	10	10	2.2	17.5
Dir	256	256	263	308	283	325	158	329	192	333	349	279	114	120	119	93	92	88	91	102	102	93	92	87	108.5	256.4
2 Spd	12	11	11	10	9	7	7	6	5	3	3	4	4	4	6	4	5	5	5	5	6	7	6	8	4.3	11.6
Dir	94	97	93	105	108	111	102	106	132	175	270	264	281	269	219	197	176	153	143	126	120	121	94	90	119.8	94.4
3 Spd	8	9	9	9	9	10	9	10	11	11	11	11	11	11	10	10	8	5	4	4	5	4	8	1	7.5	11.4
Dir	89	95	91	97	93	94	91	91	98	97	92	94	103	112	100	92	94	86	12	4	307	73	119	199	93.1	103.1
4 Spd	1	2	4	4	5	6	5	2	4	1	5	7	6	4	7	5	2	6	4	4	5	6	5	3	1.7	7.0
Dir	277	230	301	311	287	271	300	77	98	173	302	283	300	16	5	318	1	80	85	23	44	79	95	53	350.4	4.9
5 Spd	2	2	3	1	2	5	5	5	5	7	6	3	7	6	5	6	9	7	6	7	10	6	5	4	4.0	9.9
Dir	61	139	191	194	41	13	355	15	56	66	67	105	130	118	75	33	51	52	53	61	78	78	91	142	68.3	78.1
6 Spd	1	5	4	4	4	5	9	5	5	7	6	6	4	2	1	3	2	7	7	7	6	3	1	2	2.3	8.7
Dir	245	324	326	5	0	76	98	138	156	164	125	117	140	178	284	226	181	111	113	112	139	124	253	240	122.2	97.9
7 Spd	3	2	5	15	12	12	14	12	14	23	29	29	31	27	19	17	16	10	9	6	9	16	18	15	13.9	30.8
Dir	238	282	230	253	267	275	269	261	265	276	291	295	309	304	316	302	297	291	286	248	238	257	255	253	281.2	309.5
8 Spd	15	7	8	4	3	1	1	1	5	5	5	8	9	9	13	15	14	13	14	11	11	4	6	6	4.5	15.3
Dir	250	292	258	275	320	300	303	232	165	174	154	137	135	127	112	115	116	108	105	101	99	87	123	86	125.9	114.9
9 Spd	4	2	7	1	5	3	1	1	3	7	16	25	30	30	30	27	24	20	8	9	5	4	1	4	9.1	30.5
Dir	158	55	325	4	192	205	152	193	157	141	207	242	262	261	261	259	271	268	240	246	271	175	85	175	250.1	260.9
10 Spd	3	1	1	1	3	5	1	4	5	7	12	13	12	14	15	13	12	12	9	9	8	9	10	10	7.2	15.0
Dir	186	303	143	136	98	137	97	35	82	83	102	101	110	107	112	94	91	89	74	60	53	65	78	87	91.5	111.8
11 Spd	8	5	3	3	3	6	6	7	8	7	6	6	8	8	7	4	5	4	4	4	4	4	4	7	3.2	8.5
Dir	86	71	36	342	280	254	243	247	247	229	253	237	225	262	278	273	302	313	356	345	348	296	313	259	271.9	224.9
12 Spd	3	6	2	3	1	2	3	3	6	5	4	8	12	18	28	21	24	19	17	14	10	11	12	13	8.8	27.9
Dir	274	340	148	198	297	156	179	149	162	167	178	217	249	261	264	262	263	262	263	257	246	245	243	244	250.1	263.6
13 Spd	17	18	21	21	19	15	17	17	21	23	21	23	21	18	15	13	15	22	22	22	21	15	10	10	17.8	23.0
Dir	253	254	260	258	257	251	256	260	283	271	263	253	263	265	288	282	279	263	257	258	258	255	234	232	261.4	253.0
14 Spd	9	8	3	5	4	1	4	5	5	4	5	6	11	19	16	15	13	12	11	11	9	8	5	6	6.8	19.4
Dir	237	241	233	177	171	169	185	174	166	205	227	229	254	267	258	284	254	195	202	207	229	244	289	272	235.4	266.8
15 Spd	7	3	5	6	4	3	5	3	1	3	6	10	13	13	11	13	15	12	11	12	11	5	3	3	7.1	15.0
Dir	267	267	266	278	262	226	251	313	182	216	273	247	261	258	256	263	267	263	255	253	274	265	199	275	260.0	266.9
16 Spd	0	3	3	3	3	3	3	3	2	1	5	6	11	17	25	27	21	16	13	19	14	10	5	5	7.3	27.5
Dir	156	143	158	172	188	144	148	141	170	211	221	185	204	244	262	273	264	262	271	275	266	264	300	306	253.6	272.7
17 Spd	4	3	4	4	4	5	3	3	1	4	6	17	21	28	33	28	28	25	27	19	9	1	9	6	10.1	32.7
Dir	11	140	127	123	147	149	142	168	216	297	242	253	257	269	272	260	264	261	265	278	301	301	260	242	261.2	271.9
18 Spd	2	2	5	5	4	5	4	5	2	3	7	8	9	13	16	19	15	13	13	7	8	9	6	4	4.8	18.9
Dir	109	132	150	148	134	142	126	162	174	246	220	175	206	255	252	270	283	277	274	304	299	292	308	270	251.6	270.0
19 Spd	2	4	2	5	4	2	2	4	3	5	4	5	6	2	4	6	7	11	8	10	13	15	13	21	4.7	21.2
Dir	165	163	168	164	170	175	157	168	322	332	293	333	320	269	186	219	278	281	215	241	245	254	241	256	246.8	255.8
20 Spd	16	15	12	10	12	11	9	4	3	7	10	15	12	16	15	17	13	8	8	11	10	8	10	6	10.4	17.0
Dir	268	258	260	281	281	258	263	302	297	257	258	277	300	283	282	285	302	292	295	272	266	245	266	254	274.9	285.2
21 Spd	5	4	4	6	4	4	4	4	6	7	9	10	11	13	13	11	9	9	8	5	6	8	7	6	4.7	13.4
Dir	320	302	213	195	175	155	137	117	115	114	119	116	111	93	114	117	103	109	112	98	137	207	247	271	127.4	114.1
22 Spd	7	12	18	18	13	13	16	10	11	12	19	24	23	18	16	10	8	4	4	4	10	13	14	15	11.6	24.3
Dir	251	240	244	240	243	247	258	285	261	247	260	256	256	253	266	302	2	70	122	228	266	239	243	254	255.0	255.8

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - October 2011

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
23 Spd	13	13	14	12	10	10	7	7	15	13	25	30	32	33	32	28	24	23	12	13	17	12	6	10	16.9	33.3
Dir	252	248	257	252	260	258	244	256	247	255	270	264	268	264	260	260	267	273	255	263	256	252	233	234	259.5	263.7
24 Spd	8	2	4	7	8	5	8	7	13	12	20	26	29	28	29	28	22	22	21	19	15	11	13	15	15.1	29.3
Dir	251	12	284	250	270	293	272	281	254	243	255	264	270	270	272	267	266	262	262	255	254	244	250	254	262.6	270.0
25 Spd	15	5	7	7	7	6	14	6	5	9	14	15	20	20	21	21	19	15	16	10	5	6	6	7	10.3	20.9
Dir	257	304	272	253	232	296	260	223	253	257	250	272	266	261	267	272	263	258	253	258	221	174	162	141	256.8	267.1
26 Spd	9	9	8	7	9	8	8	8	8	3	2	5	5	12	25	40	45	35	24	22	24	26	21	29	11.4	44.6
Dir	126	136	138	146	131	126	133	142	155	159	150	133	154	218	246	264	263	255	245	244	251	256	249	253	235.6	263.1
27 Spd	34	34	39	43	42	39	37	33	31	33	34	34	33	30	31	29	25	20	15	18	13	3	3	5	26.6	43.1
Dir	257	258	260	259	258	258	256	256	256	258	262	269	274	270	269	264	267	266	254	254	245	265	43	109	261.0	259.4
28 Spd	6	7	8	10	13	9	4	9	10	12	10	10	9	6	2	4	1	1	4	7	20	17	17	14	3.5	19.7
Dir	132	128	118	102	102	115	134	111	117	118	117	123	127	141	111	125	206	33	288	293	262	255	249	241	153.6	262.4
29 Spd	14	7	5	8	21	32	31	28	27	35	41	41	38	37	28	28	18	8	9	9	7	4	6	7	19.2	41.2
Dir	238	238	334	273	256	258	258	257	256	256	258	259	260	258	268	256	243	238	230	226	210	191	161	150	253.3	257.9
30 Spd	6	6	8	8	8	10	6	2	7	6	6	19	33	36	40	42	36	26	21	14	13	12	11	11	13.1	42.4
Dir	151	145	161	164	176	184	162	170	173	151	183	250	264	266	258	260	260	265	271	250	241	244	233	235	245.1	260.1
31 Spd	10	16	5	8	14	17	19	17	20	29	33	37	37	35	35	34	32	32	28	28	18	20	19	17	23.2	37.5
Dir	250	255	281	246	265	262	259	258	258	257	266	273	261	266	273	268	271	276	260	258	267	258	266	261	264.2	261.4
Spd	4.8	3.9	4.1	4.4	4.5	4.5	4.9	3.6	4.4	5.6	8.0	10.2	11.5	12.6	13.0	13.1	11.3	8.7	7.3	7.1	6.5	5.6	4.7	5.4	Diurnal Average	
Dir	243.3	246.5	247.1	239.6	242.4	240.3	243.2	240.6	234.8	242.8	252.1	254.6	258.9	260.1	263.4	265.1	267.4	262.4	254.3	255.3	253.1	245.3	240.7	241.1		
Spd	34.2	34.0	38.8	43.1	42.3	38.7	37.0	32.8	30.8	35.0	41.2	40.8	37.7	36.5	40.2	42.4	44.6	34.5	28.4	28.1	23.8	26.3	21.5	28.8	Diurnal Maximum	
Dir	257.3	257.6	260.2	259.4	257.8	258.1	255.8	256.3	256.3	256.4	257.9	258.9	260.0	257.7	258.4	260.1	263.1	255.1	259.9	257.9	250.6	255.8	249.2	253.5		

Maximum Speed Value: 45 km/h on Oct 26 17:00
Minimum Speed Value: 0 km/h on Oct 16 01:00
Maximum Daily Speed Average: 26.6 km/h on Oct 27
Minimum Daily Speed Average: 1.7 km/h on Oct 4
Maximum Diurnal Speed Average: 13.1 km/h at hour 16
Minimum Diurnal Speed Average: 3.6 km/h at hour 8

Monthly Average Velocity: 6.98 km/h 253.45 deg
Speed Percentiles: P_1 = 0.8 P_{10} = 2.9 Q_1 = 4.8 Median = 8.4 Q_3 = 15.0 P_{90} = 25.2 P_{99} = 39.6
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

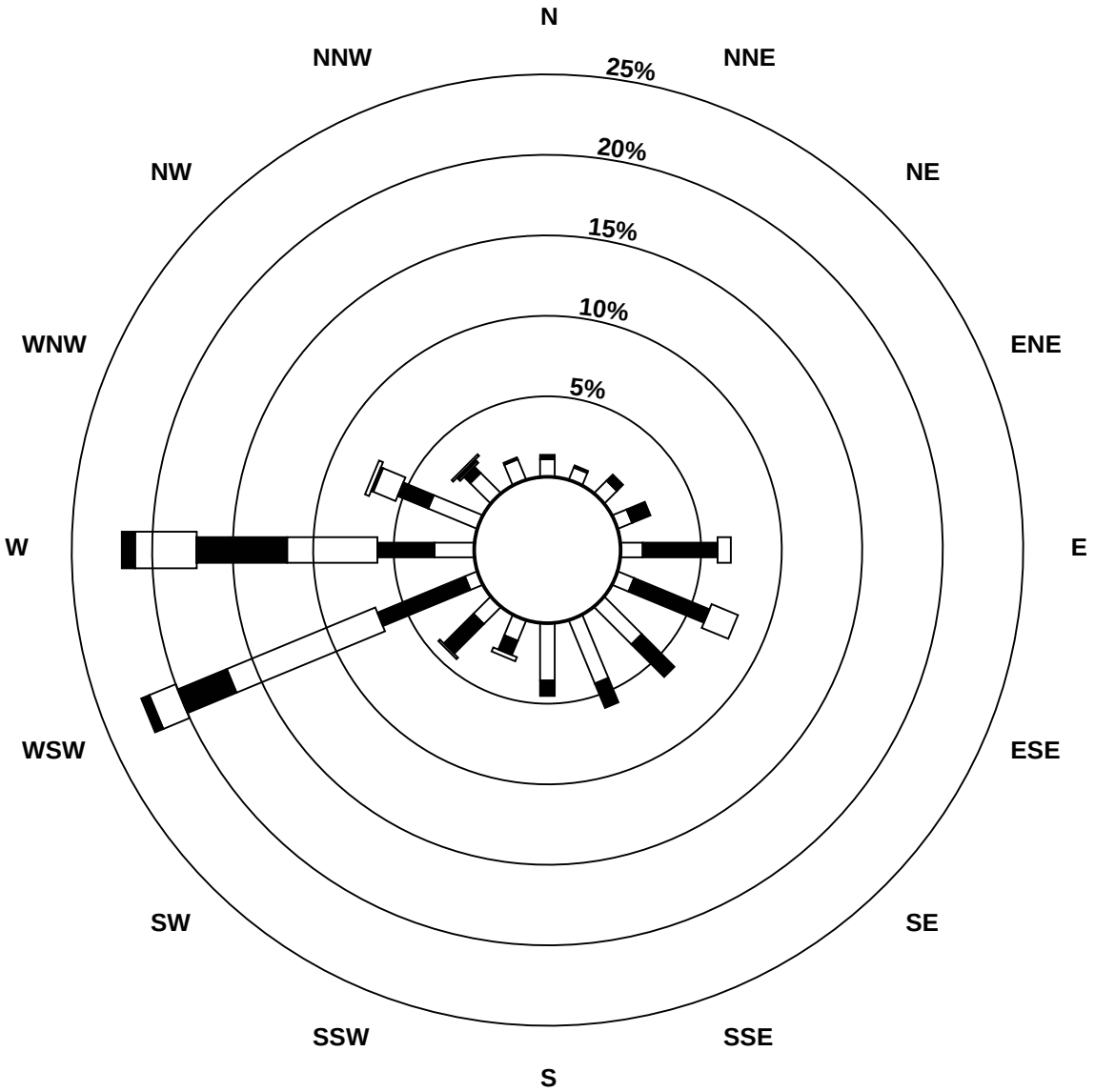
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	14	6	0	0	0	0	20
NorthEast	11	10	0	0	0	0	21
East	19	52	20	0	0	0	91
SouthEast	43	48	5	0	0	0	96
South	43	23	1	0	0	0	67
SouthWest	18	46	27	4	0	0	95
West	23	60	96	59	50	10	298
NorthWest	29	19	5	1	2	0	56
Total	200	264	154	64	52	10	744

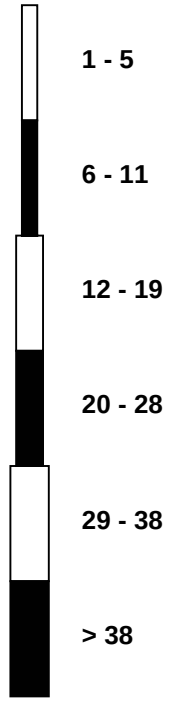
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - October 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - October 2011

Maximum Speed: 45 km/h on Oct 26 17:00

Maximum Daily Speed Average: 27.8 km/h on Oct 27

Minimum Speed: 2 km/h on Oct 16 10:00

Minimum Daily Speed Average: 5.1 km/h on Oct 4

Maximum Diurnal Speed Average: 18.6 km/h at hour 15

Minimum Diurnal Speed Average: 8.1 km/h at hour 8

Monthly Average Speed: 11.80 km/h

Percentiles: P_1 = 2.4 P_{10} = 3.9 Q_1 = 5.3 Median = 8.9 Q_3 = 15.2 P_{90} = 25.5 P_{99} = 40.1

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	14	18	14	7	4	5	3	3	3	3	5	4	7	10	10	7	8	9	10	11	11	12	10	11	8.3	17.5
2-Oct	12	11	11	11	9	8	7	6	5	4	4	5	5	5	6	5	6	6	5	5	6	7	6	8	6.7	11.7
3-Oct	9	9	9	10	9	10	9	11	11	11	11	11	12	11	11	10	8	5	4	5	5	6	8	3	8.6	11.7
4-Oct	3	4	5	4	5	7	5	3	5	3	5	7	7	4	7	6	5	6	5	4	5	6	6	4	5.1	7.3
5-Oct	3	3	4	2	3	6	6	6	5	7	6	4	7	7	6	6	9	8	7	8	10	6	5	4	5.7	10.0
6-Oct	3	5	5	5	4	6	9	5	5	7	7	6	5	4	6	5	5	7	7	7	6	3	4	3	5.4	8.8
7-Oct	3	3	6	15	13	12	14	12	14	23	30	29	31	27	19	17	16	10	9	7	9	16	18	16	15.4	31.2
8-Oct	15	8	8	5	3	2	3	3	5	5	5	9	9	10	13	16	14	13	14	11	11	8	8	6	8.5	15.7
9-Oct	5	4	7	5	6	5	4	5	6	8	17	26	31	30	31	27	24	20	9	10	6	5	3	4	12.4	30.8
10-Oct	3	2	3	2	3	5	3	4	5	7	13	13	12	15	15	13	13	12	9	9	9	9	11	10	8.3	15.2
11-Oct	8	5	4	4	4	7	7	7	8	7	7	6	10	9	8	5	6	5	5	4	4	4	4	7	6.0	9.7
12-Oct	4	6	4	4	3	3	4	4	6	6	5	8	13	19	28	21	24	19	17	15	10	11	12	14	10.8	28.3
13-Oct	17	18	21	21	19	16	17	17	22	23	21	23	22	19	15	13	15	22	23	22	21	15	10	10	18.4	23.3
14-Oct	10	8	4	6	4	2	4	6	5	5	6	7	11	20	16	16	14	12	11	11	9	8	6	6	8.6	19.8
15-Oct	7	4	6	6	5	3	5	3	2	4	6	10	14	13	11	13	15	12	12	12	11	7	3	3	7.9	15.3
16-Oct	3	3	3	4	4	3	3	3	2	2	6	7	12	17	25	28	22	16	13	19	14	10	6	5	9.6	27.7
17-Oct	4	3	4	4	5	5	3	3	3	4	6	18	21	28	33	29	28	25	28	19	9	4	9	6	12.6	32.9
18-Oct	4	3	5	5	4	5	4	5	4	4	7	8	11	14	16	19	15	13	14	8	8	10	6	4	8.2	19.4
19-Oct	2	4	2	5	4	3	3	4	4	5	4	6	7	4	5	6	8	11	9	10	13	15	13	21	7.1	21.3
20-Oct	17	15	12	10	12	11	9	5	4	7	10	15	12	17	16	17	13	8	8	11	10	8	11	7	11.1	17.5
21-Oct	6	5	5	6	4	5	5	4	6	7	9	10	11	13	14	12	9	9	8	6	7	8	7	7	7.6	13.9
22-Oct	8	13	18	18	13	14	16	10	11	12	20	24	24	18	16	11	8	6	5	5	11	13	14	15	13.4	24.4
23-Oct	13	13	14	12	10	11	8	8	15	13	25	31	32	34	32	28	24	23	13	14	17	12	6	10	17.4	33.8
24-Oct	8	4	5	7	9	6	9	8	13	12	20	27	30	28	29	28	22	23	21	19	15	11	13	15	15.9	29.8
25-Oct	16	6	8	7	7	6	14	7	6	9	14	16	20	21	21	21	19	16	16	10	6	6	7	7	11.9	21.3
26-Oct	9	9	8	7	9	8	9	9	8	4	3	5	5	14	26	40	45	35	24	22	24	26	22	29	16.7	45.0
27-Oct	34	34	39	43	42	39	37	33	31	33	34	35	33	30	32	29	25	20	15	18	13	8	4	5	27.8	43.3
28-Oct	6	7	8	10	13	11	7	9	10	12	10	10	9	7	3	5	3	3	5	8	20	17	17	14	9.2	20.1
29-Oct	14	8	6	9	21	33	31	28	27	35	41	41	38	37	29	28	18	9	9	9	8	5	7	8	20.8	41.5
30-Oct	6	7	8	8	8	10	6	4	7	6	6	19	33	37	41	43	36	26	21	15	13	12	11	11	16.4	42.8
31-Oct	10	16	9	10	14	17	19	17	20	29	33	37	38	36	36	34	32	32	29	28	18	20	19	17	23.8	37.9
	8.9	8.3	8.5	8.8	8.9	9.1	9.1	8.1	9.0	10.3	12.8	15.4	17.1	17.9	18.6	18.1	16.4	14.2	12.3	11.7	11.0	10.0	9.2	9.4	Diurnal Average	
	34.3	34.2	39.0	43.3	42.5	38.9	37.2	33.0	31.0	35.1	41.5	41.1	38.0	36.8	40.6	42.8	45.0	34.8	28.6	28.2	24.0	26.4	21.7	29.0	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - October 2011

Maximum Value: 96.3 deg on Oct 6 15:00

Minimum Value: 4.5 deg on Oct 13 21:00

Percentiles: P_1 = 5.1 P_{10} = 6.8 Q_1 = 8.7 Median = 13.8 Q_3 = 26.3 P_{90} = 48.2 P_{99} = 82.5

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)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	9	6	10	40	40	88	27	63	85	52	48	73	35	18	15	24	15	50	10	17	20	19	11	9	88.2
2-Oct	7	8	8	11	10	11	12	18	18	26	38	37	26	32	21	31	30	29	18	28	12	12	17	10	37.5
3-Oct	14	8	8	10	9	8	9	10	12	11	10	13	12	12	13	12	12	26	19	40	33	47	10	78	77.8
4-Oct	82	62	31	25	17	24	26	59	32	77	30	17	26	37	18	40	72	20	34	29	21	15	19	29	82.1
5-Oct	48	53	38	72	53	36	16	30	23	17	16	53	18	26	39	26	17	18	19	15	11	15	26	23	72.4
6-Oct	59	20	36	31	20	33	9	22	18	15	33	26	46	70	96	56	71	13	9	7	17	42	75	54	96.3
7-Oct	53	57	78	9	18	10	8	8	7	8	9	6	9	7	10	13	8	6	13	22	9	8	7	7	77.6
8-Oct	8	30	14	36	39	70	66	81	6	18	22	21	19	18	12	14	8	10	8	9	7	70	51	21	81.5
9-Oct	34	51	23	85	24	70	75	94	68	21	18	15	10	12	9	11	9	7	16	14	39	48	78	21	93.7
10-Oct	23	55	77	66	39	21	69	23	30	16	10	11	11	11	11	13	9	9	12	11	12	13	9	8	76.6
11-Oct	8	21	41	38	64	25	25	17	14	12	21	24	31	25	25	49	28	14	22	25	33	23	23	23	63.9
12-Oct	42	14	75	47	91	62	28	41	9	14	28	16	16	12	9	8	9	7	6	7	8	8	10	7	91.2
13-Oct	6	6	5	6	6	7	7	7	15	10	8	9	11	12	9	12	9	6	6	5	4	6	7	7	15.4
14-Oct	7	7	48	22	12	52	22	13	8	37	23	43	20	12	10	20	26	11	10	7	11	13	26	23	52.0
15-Oct	12	33	22	11	22	18	19	14	64	45	18	16	17	17	21	18	10	7	13	7	10	59	35	43	64.5
16-Oct	90	37	37	30	43	27	26	23	35	84	26	24	25	13	10	8	8	10	18	7	17	8	28	17	90.2
17-Oct	31	39	20	25	38	15	49	13	68	28	32	10	9	10	7	7	8	7	6	9	17	80	11	17	80.0
18-Oct	62	66	24	22	30	14	43	23	58	50	21	13	30	12	11	15	8	7	28	21	14	13	45	36	66.4
19-Oct	43	13	31	16	19	73	46	17	79	19	20	24	23	78	38	28	32	18	15	9	7	8	6	6	78.9
20-Oct	19	9	6	22	7	12	10	28	31	15	14	10	18	12	12	14	12	9	5	17	13	12	9	41	40.5
21-Oct	25	37	33	8	28	15	33	15	17	14	11	10	11	10	15	8	11	9	10	29	24	16	17	35	36.8
22-Oct	23	9	7	8	10	10	7	9	19	10	8	7	8	9	14	19	13	41	35	42	19	9	8	6	42.0
23-Oct	10	11	6	10	13	18	14	19	11	17	12	9	9	10	8	8	8	8	15	10	5	7	25	8	25.0
24-Oct	9	75	62	17	23	40	32	17	5	10	7	9	10	9	11	8	8	6	6	5	6	8	6	6	74.6
25-Oct	6	28	26	12	15	18	8	27	32	15	8	14	10	11	11	10	9	12	7	10	26	22	17	16	31.7
26-Oct	8	8	13	11	9	7	7	16	7	46	48	14	13	32	15	9	8	7	8	8	8	6	7	5	47.7
27-Oct	5	6	6	5	5	6	5	5	6	6	7	8	10	9	9	9	7	10	11	7	8	80	46	16	80.2
28-Oct	16	10	9	7	10	47	59	10	9	6	8	8	12	13	51	27	90	80	37	24	12	9	7	10	90.0
29-Oct	12	24	40	36	6	6	5	5	5	5	6	7	6	7	10	9	11	18	11	12	21	47	22	22	46.5
30-Oct	24	25	6	8	15	10	32	76	8	12	28	12	10	9	8	7	7	7	7	15	7	8	7	9	75.7
31-Oct	8	7	66	60	12	9	5	6	7	6	8	8	9	9	9	10	7	6	7	6	8	6	8	9	65.8
	90.2	74.6	77.6	85.1	91.2	88.2	75.2	93.7	85.2	84.5	47.7	73.1	46.2	77.9	96.3	56.0	90.0	80.0	37.5	42.0	38.8	80.2	78.5	77.8	

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 9.6 ppb on Oct 23 22:00 Maximum Daily Average: 2.1 ppb on Oct 27

Minimum Value: 0 ppb on Oct 1 01:00 Minimum Daily Average: 0.0 ppb on Oct 5
Maximum Diurnal Average: 1.6 ppb at hour 17 Minimum Diurnal Average: 0.1 ppb at hour 5
Monthly Average: 0.45 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.8$ $P_{99} = 6.8$

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.1
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
5-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
6-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
7-Oct	0	0	0	0	0	0	0	0	6	A	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	5.7
8-Oct	0	0	0	0	0	0	0	0	A	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0.3	3.0
9-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.5
11-Oct	0	0	0	0	0	A	0	0	3	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	3.1
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	7	9	7	4	0	0	0	0	0	0	1.3	9.0
13-Oct	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	6	0	5	8	0	0	0	0	0	1.0	8.5
14-Oct	0	0	A	0	0	0	0	1	0	0	0	0	2	2	6	0	0	0	0	0	0	0	0	0	0.6	5.8
15-Oct	0	A	0	0	0	0	0	0	0	0	3	2	0	0	0	1	6	0	0	0	0	0	0	0	0.6	5.7
16-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
17-Oct	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	6	2	0	0	0	0	A	0	0.6	5.7
18-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	1	0	0	0	0	A	0	0	0.2	1.5
19-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0.2	1.0
20-Oct	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	0	0	0	0	A	0	0	0	0	0.4	1.5
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
22-Oct	0	0	0	0	0	0	0	0	0	1	2	0	3	3	2	0	0	A	0	0	0	0	0	0	0.5	3.1
23-Oct	0	0	0	0	0	0	0	0	0	0	3	1	0	0	3	2	A	1	0	0	0	10	2	0	1.0	9.6
24-Oct	0	0	0	0	0	0	0	0	0	0	2	C	C	C	0	A	6	2	0	0	0	0	0	0	0.6	5.8
25-Oct	0	0	0	0	0	0	0	0	0	1	5	6	6	0	A	0	4	0	0	0	0	0	0	0	1.0	5.9
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	6	1	0	0	0	0	0	0	0.4	5.5
27-Oct	0	0	0	0	0	0	0	0	0	6	2	5	A	3	3	9	7	8	4	0	0	0	0	0	2.1	8.7
28-Oct	0	0	0	0	0	0	0	0	0	1	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0.3	0.8
29-Oct	0	0	0	0	0	0	0	0	6	1	A	3	1	0	0	0	0	0	0	0	0	0	0	0	0.5	6.1
30-Oct	0	0	0	0	0	0	0	0	0	A	0	0	2	0	0	0	2	5	0	0	0	0	0	0	0.4	4.7
31-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.5	0.9	1.0	0.8	0.5	0.9	1.1	1.6	1.0	0.5	0.1	0.1	0.4	0.1	0.1	Diurnal Average	
	0.3	0.2	0.3	0.3	0.2	0.3	0.5	1.5	6.1	6.0	4.7	5.9	5.8	3.1	6.9	9.0	6.8	8.5	8.5	0.4	0.4	9.6	2.0	0.4	Diurnal Maximum	

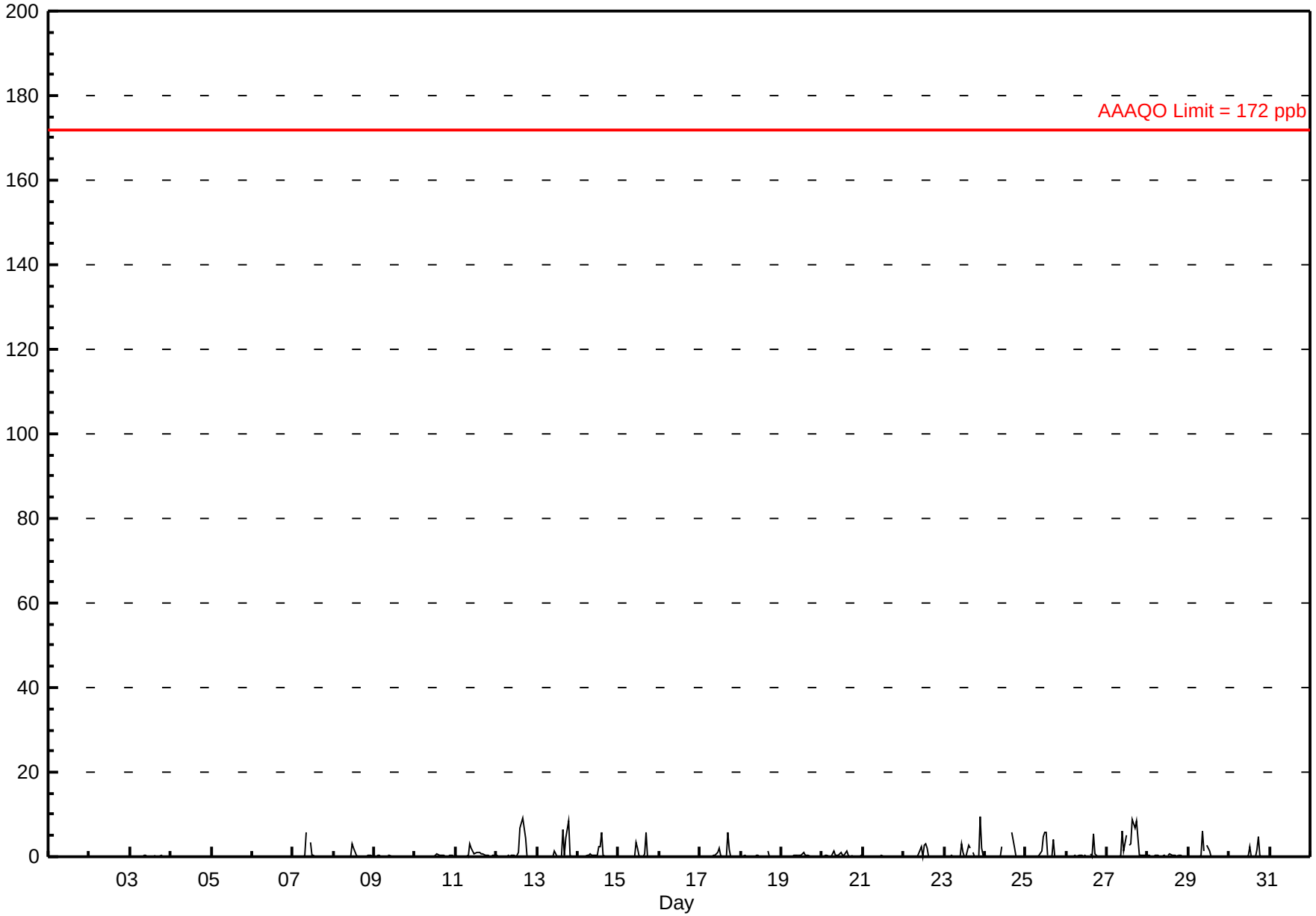
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - October 2011



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - October 2011

Maximum Value: 33.1 ppb on Oct 27 12:00

Maximum Daily Average: 7.3 ppb on Oct 27

Minimum Value: 0 ppb on Oct 16 03:00

Minimum Daily Average: 0.4 ppb on Oct 1

Maximum Diurnal Average: 5.0 ppb at hour 18

Minimum Diurnal Average: 0.5 ppb at hour 4

Monthly Average: 1.99 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.5 $Q_3 = 0.7$ $P_{90} = 5.9$ $P_{99} = 19.6$

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	1	0	0	1	1	0	0	0	0.4	0.7
2-Oct	0	0	1	0	0	1	0	0	0	0	1	0	0	0	A	0	1	0	0	1	1	0	1	1	0.5	0.7
3-Oct	1	1	0	1	1	1	0	0	1	1	0	1	1	A	1	1	1	1	1	1	0	0	0	0	0.6	0.8
4-Oct	1	1	1	1	0	0	1	1	0	1	1	1	A	0	0	1	1	0	0	0	0	0	0	0	0.5	0.7
5-Oct	0	0	1	0	0	0	0	0	0	0	0	A	0	1	0	0	1	0	1	0	0	0	0	0	0.4	0.6
6-Oct	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	1	0.4	0.8
7-Oct	0	0	0	1	0	0	0	6	14	A	12	1	1	1	0	1	1	1	0	0	0	0	1	1	1.9	13.7
8-Oct	0	1	0	0	1	0	0	1	A	1	0	13	9	1	1	0	1	1	0	0	1	1	1	1	1.4	12.6
9-Oct	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	0	0	0	1	1	1	0.6	2.2
10-Oct	1	1	0	1	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	1.4
11-Oct	1	1	1	0	0	A	1	1	9	9	8	1	2	1	9	2	1	1	1	1	0	1	1	1	2.2	9.4
12-Oct	1	1	0	0	A	1	1	1	0	1	2	1	1	8	16	22	15	30	1	1	1	0	1	1	4.5	30.4
13-Oct	0	0	0	A	0	0	1	0	0	1	6	3	1	0	1	16	1	22	26	1	1	1	1	1	3.6	26.5
14-Oct	1	0	A	0	0	1	1	1	1	1	1	6	14	12	20	1	1	1	1	1	1	1	0	0	2.8	19.9
15-Oct	0	A	1	0	1	1	1	1	0	1	27	10	1	1	1	10	18	6	0	0	0	0	0	0	3.5	27.1
16-Oct	A	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	1	0	0	1	0	0	A	0.4	1.4
17-Oct	0	0	0	0	0	1	0	1	1	1	7	13	5	0	1	1	17	14	2	1	0	1	A	1	2.9	17.4
18-Oct	0	1	1	0	0	0	0	0	1	1	1	1	1	C	C	C	10	1	1	0	1	A	0	1	1.1	10.4
19-Oct	1	1	0	0	0	1	1	1	1	1	1	1	2	3	1	1	1	1	0	0	A	1	0	2	0.8	2.8
20-Oct	1	1	1	1	0	0	3	4	1	1	3	4	3	2	20	1	1	1	1	A	1	1	1	1	2.2	20.4
21-Oct	1	1	1	0	1	1	0	0	0	1	0	2	1	1	1	1	1	0	A	0	0	1	1	1	0.6	1.9
22-Oct	1	0	0	0	1	1	0	0	2	4	12	1	13	18	8	1	0	A	0	1	1	0	1	0	2.9	17.9
23-Oct	1	1	1	1	1	0	1	0	1	0	12	11	0	0	12	12	A	9	1	2	1	16	8	1	4.0	15.6
24-Oct	1	1	1	0	0	0	0	0	0	1	10	C	C	C	5	A	16	15	0	1	2	1	0	0	2.7	15.6
25-Oct	1	1	1	0	0	0	0	1	7	5	13	13	18	1	A	1	16	1	0	1	0	1	1	1	3.6	18.2
26-Oct	1	0	1	0	1	1	1	1	1	1	1	1	1	A	9	4	14	7	1	1	1	0	0	0	2.0	14.0
27-Oct	1	0	1	0	1	1	1	0	5	15	14	33	A	15	15	17	17	16	13	1	1	1	1	1	7.3	33.1
28-Oct	1	1	1	0	1	1	1	1	1	2	1	A	1	2	1	1	1	1	1	1	1	1	0	1	0.8	1.9
29-Oct	1	0	0	1	0	0	0	11	16	12	A	11	14	1	0	0	0	1	0	1	0	0	0	0	3.2	15.9
30-Oct	0	0	1	0	1	0	0	0	1	A	1	4	16	0	0	0	12	14	1	2	1	0	1	0	2.4	16.2
31-Oct	0	1	0	1	0	1	0	0	A	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	0.5	1.8
	0.5	0.5	0.5	0.5	0.5	0.5	0.6	1.2	2.3	2.1	4.7	4.8	3.8	2.7	4.5	3.4	5.0	5.0	1.9	0.6	0.6	1.0	0.8	0.6	Diurnal Average	
	0.8	0.8	1.5	1.0	0.8	0.9	2.8	10.8	15.9	14.5	27.1	33.1	18.2	17.9	20.4	21.9	17.7	30.4	26.5	2.2	1.7	15.6	8.3	1.6	Diurnal Maximum	

C - Calibration

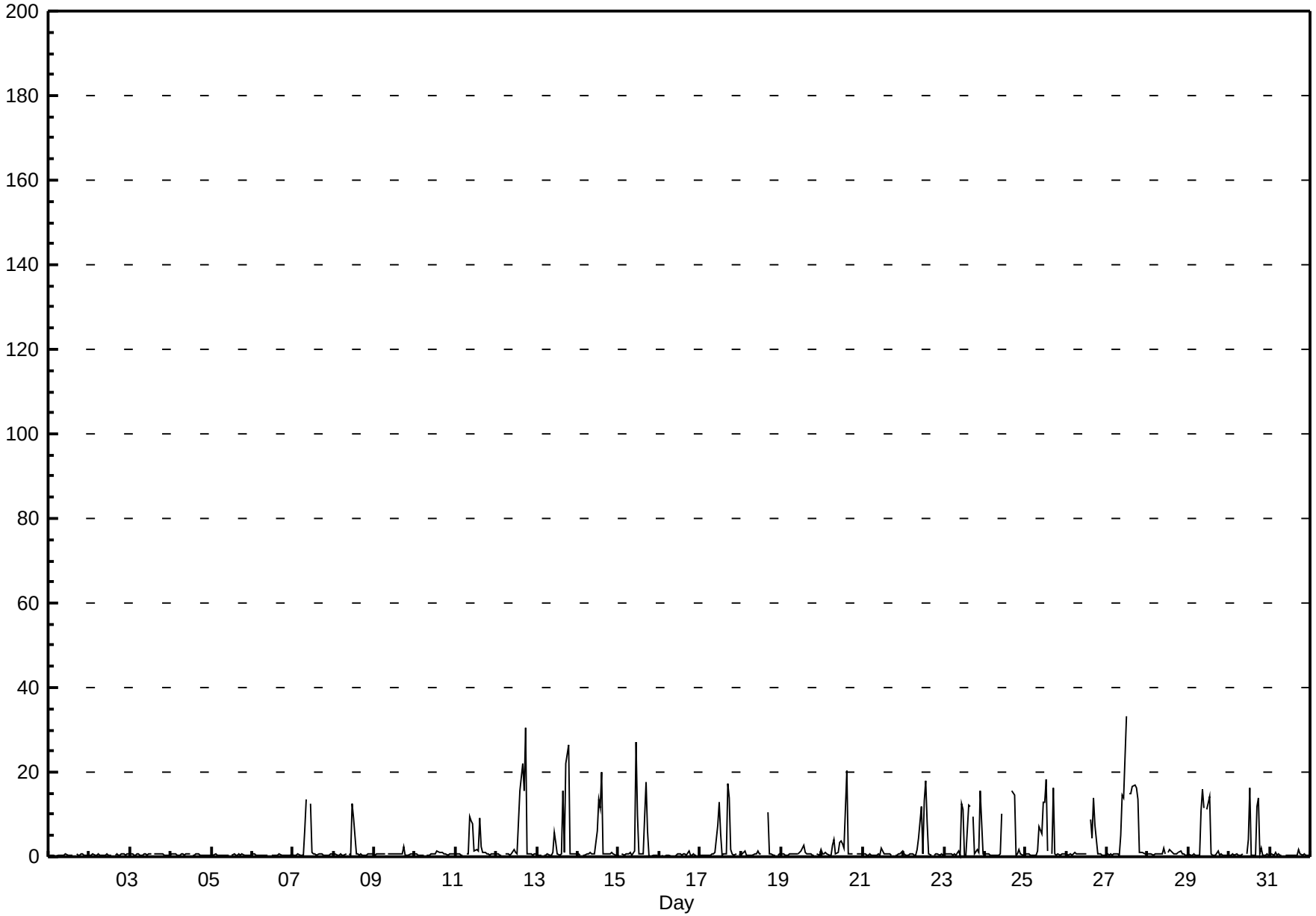
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - October 2011

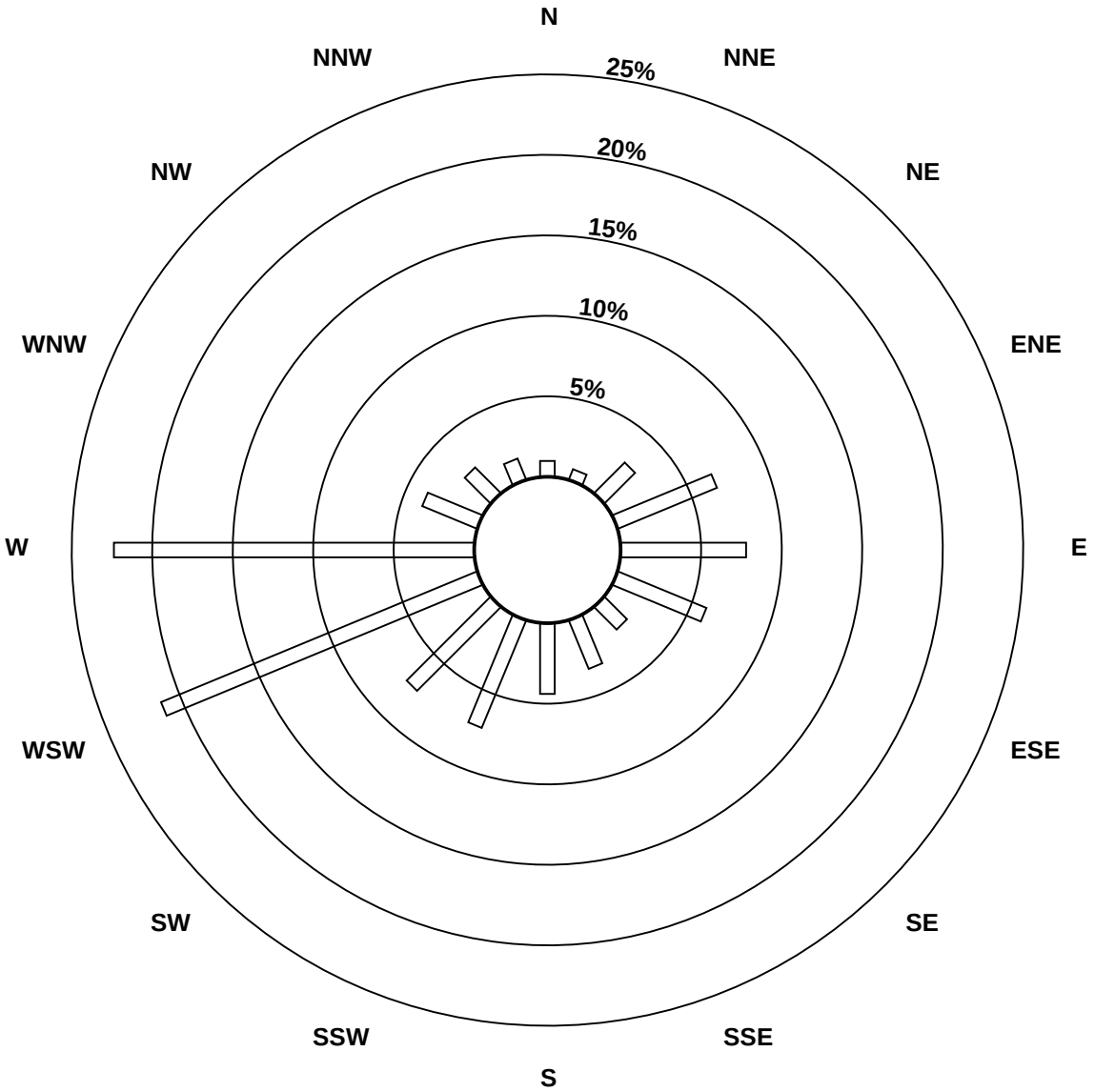


Peace Airshed Zone Association

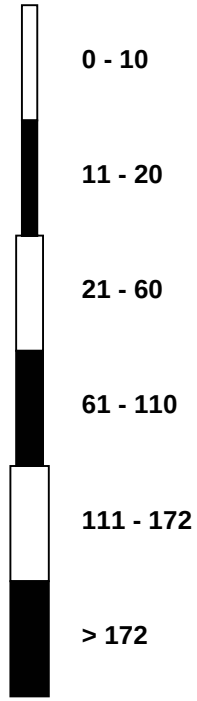
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - October 2011



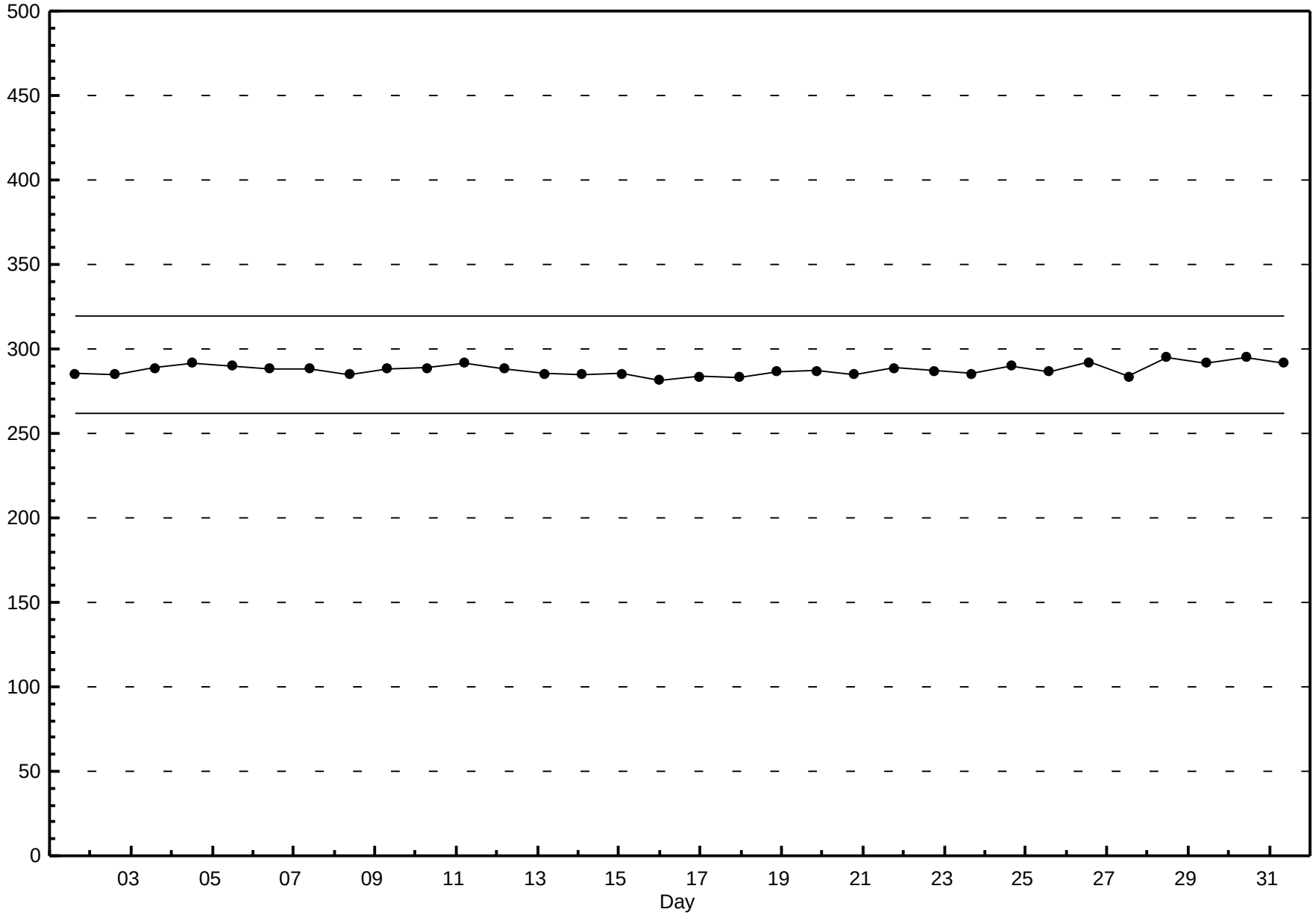
Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO_2)

Evergreen Park - October 2011



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.1 ppb on Oct 28 14:00
Maximum Daily Average: 0.8 ppb on Oct 28

Minimum Value: 0 ppb on Oct 10 13:00
Minimum Daily Average: 0.3 ppb on Oct 10
Maximum Diurnal Average: 0.6 ppb at hour 11
Minimum Diurnal Average: 0.5 ppb at hour 23
Monthly Average: 0.52 ppb
Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.7$ $P_{99} = 1.3$

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	40
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0.5	0.8
2-Oct	0	0	0	0	0	0	0	0	0	1	0	0	1	0	A	1	1	0	0	0	0	1	0	1	0.5	0.5
3-Oct	1	0	0	0	0	0	0	0	0	0	1	0	0	A	1	1	1	1	1	1	1	1	1	1	0.6	0.9
4-Oct	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0	1	1	0.8	1.1
5-Oct	1	1	1	0	0	0	0	0	1	1	1	A	1	0	0	1	0	1	1	1	1	0	1	0	0.5	0.7
6-Oct	0	0	1	1	1	1	1	1	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
7-Oct	0	0	0	0	0	0	0	1	1	A	1	1	0	1	0	0	1	1	1	1	1	1	1	1	0.5	1.0
8-Oct	1	1	1	0	1	1	1	0	A	1	1	1	1	0	0	1	0	0	0	0	0	0	1	1	0.6	1.0
9-Oct	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.3
10-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
11-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	0	1	0.5	1.2
13-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	0	0	0	0	0	0.5	0.7
14-Oct	0	0	A	0	0	1	0	1	1	0	0	1	1	1	1	0	0	1	0	0	1	0	1	1	0.5	0.8
15-Oct	1	A	0	1	0	0	1	0	0	1	1	1	1	1	0	0	1	1	0	1	1	0	1	0	0.5	0.8
16-Oct	A	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	A	0.5	0.6
17-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	0	1	0	A	1	0.6	1.1
18-Oct	0	0	1	1	1	1	1	0	1	1	1	1	1	C	C	C	0	0	0	0	0	A	0	0	0.5	0.8
19-Oct	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1	1	1	0	A	0	1	0	0.5	0.8
20-Oct	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.7
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	1	1	0	1	0.4	0.6
22-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.7
23-Oct	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	A	1	0	1	1	1	0	0	0.5	0.6
24-Oct	0	0	0	0	1	0	0	0	0	C	C	C	C	C	0	A	1	1	1	0	1	1	0	0	0.5	0.7
25-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	1.2
26-Oct	0	1	1	1	1	2	2	1	1	1	1	0	1	A	0	0	1	0	0	0	0	0	0	1	0.6	1.9
27-Oct	0	0	0	0	0	0	0	0	0	1	0	1	A	1	0	1	1	1	1	0	0	0	0	0	0.5	1.0
28-Oct	0	0	0	0	0	0	1	0	0	1	2	A	1	2	2	1	1	1	1	1	1	0	0	0	0.8	2.1
29-Oct	0	0	0	0	0	0	0	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	1	0.5	0.6
30-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0.5	0.6
31-Oct	1	0	0	1	1	1	0	0	A	1	1	1	1	1	0	0	0	1	1	1	1	0	0	1	0.5	0.6
	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Diurnal Average	
	0.8	0.8	1.3	1.0	0.9	1.7	1.9	1.0	0.8	1.4	1.6	1.2	1.5	2.1	1.5	1.2	0.8	1.0	1.1	1.2	0.9	0.9	0.7	0.9	Diurnal Maximum	

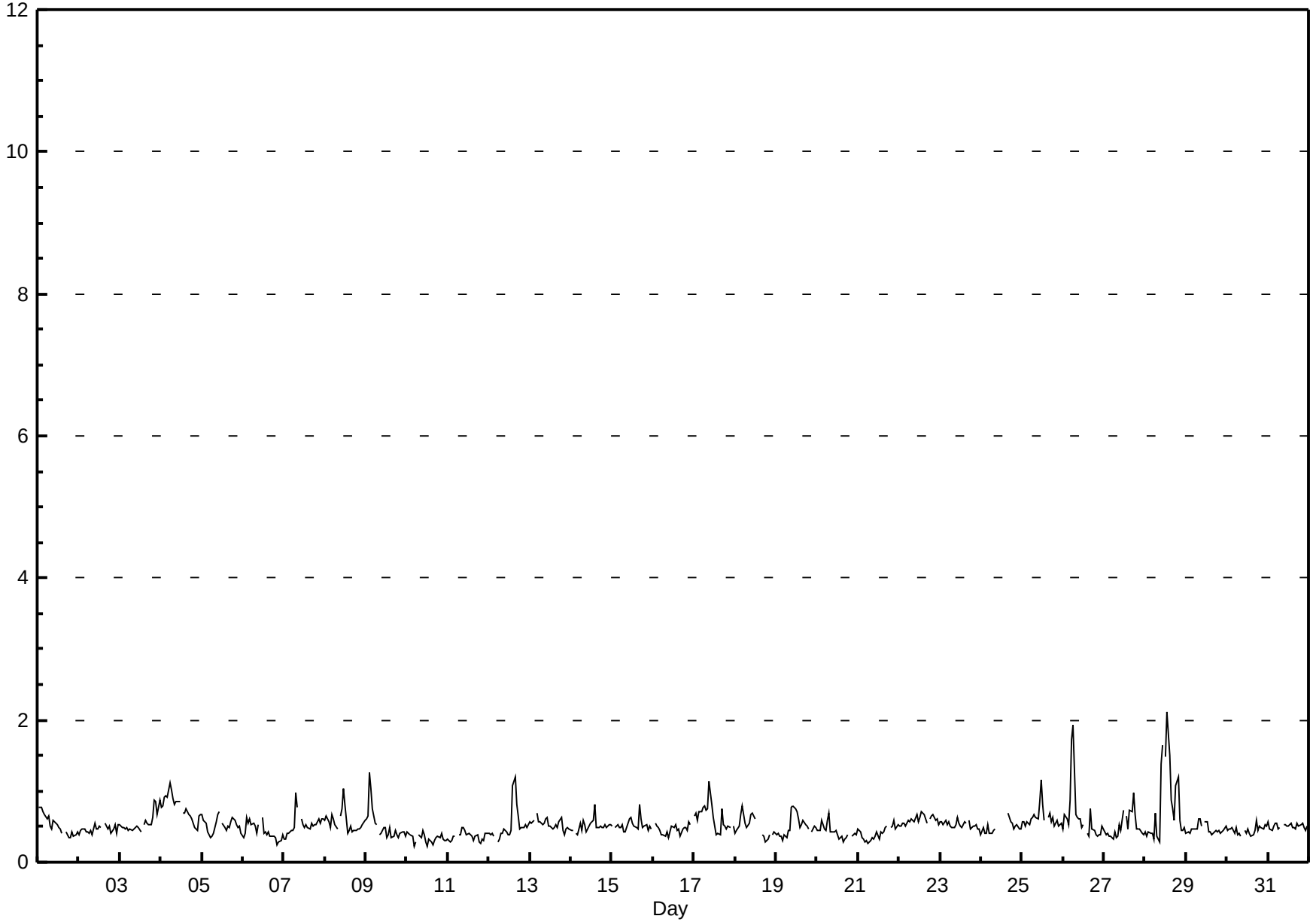
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2011



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2011

Maximum Value: 3.4 ppb on Oct 27 12:00

Maximum Daily Average: 1.3 ppb on Oct 28

Minimum Value: 1 ppb on Oct 6 23:00

Minimum Daily Average: 0.7 ppb on Oct 10

Maximum Diurnal Average: 1.1 ppb at hour 12

Minimum Diurnal Average: 0.9 ppb at hour 23

Monthly Average: 0.97 ppb

Percentiles: $P_1 = 0.6$ $P_{10} = 0.7$ $Q_1 = 0.8$ Median = 0.9 $Q_3 = 1.0$ $P_{90} = 1.3$ $P_{99} = 2.3$

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	40
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.3
2-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.0
3-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.4
4-Oct	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6
5-Oct	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
6-Oct	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
7-Oct	1	1	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9
8-Oct	1	1	1	1	1	1	1	1	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1.0	2.0
9-Oct	1	1	3	2	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1.0	2.9
10-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
11-Oct	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
12-Oct	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1.1	2.3
13-Oct	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
14-Oct	1	1	A	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1.0	1.9
15-Oct	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.0	1.8
16-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.1
17-Oct	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1.1	1.8
18-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	A	1	1	1.0	1.4
19-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.2
20-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.3
21-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.2
22-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1	1	1	1.0	1.7
23-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1.0	1.8
24-Oct	1	1	1	1	1	1	1	1	1	C	C	C	C	C	1	A	1	1	1	1	1	1	1	1	0.9	1.2
25-Oct	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1.0	2.1
26-Oct	1	1	1	1	2	2	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.1	2.4
27-Oct	1	1	1	1	1	1	1	1	1	1	1	3	A	2	1	1	1	2	1	1	1	1	1	1	1.0	3.4
28-Oct	1	1	1	1	1	1	1	1	1	3	2	A	2	2	2	2	2	1	2	2	1	1	1	1	1.3	2.7
29-Oct	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
30-Oct	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	0.9	1.7
31-Oct	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
	0.9	0.9	1.0	0.9	0.9	1.0	1.0	1.0	0.9	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	0.9	0.9	0.9	0.9	Diurnal Average	
	1.2	1.3	2.9	1.8	1.5	2.2	2.4	1.9	1.4	2.7	2.2	3.4	2.0	2.5	2.0	2.3	2.1	2.0	2.0	2.3	1.4	1.4	1.2	1.4	Diurnal Maximum	

C - Calibration

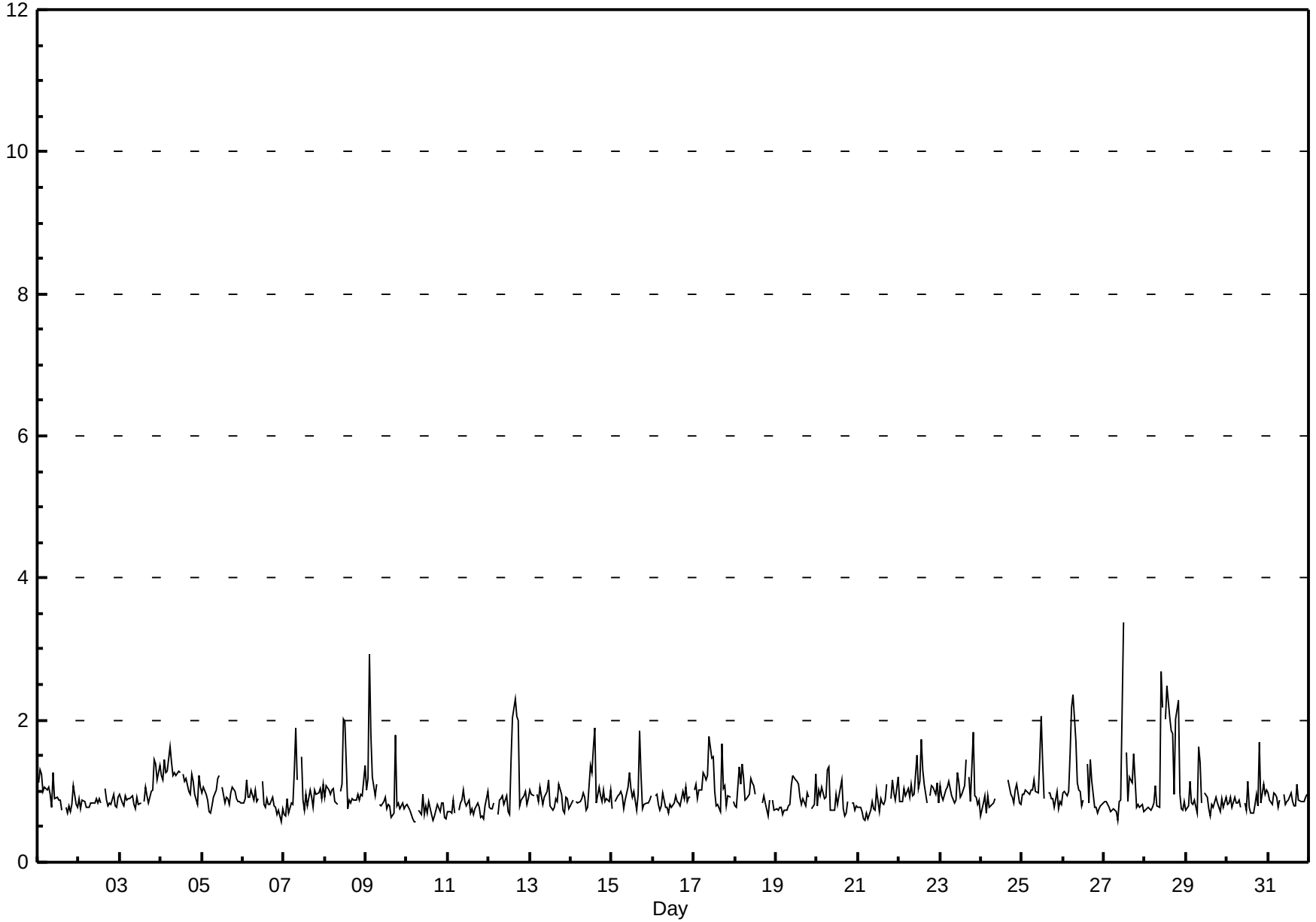
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2011

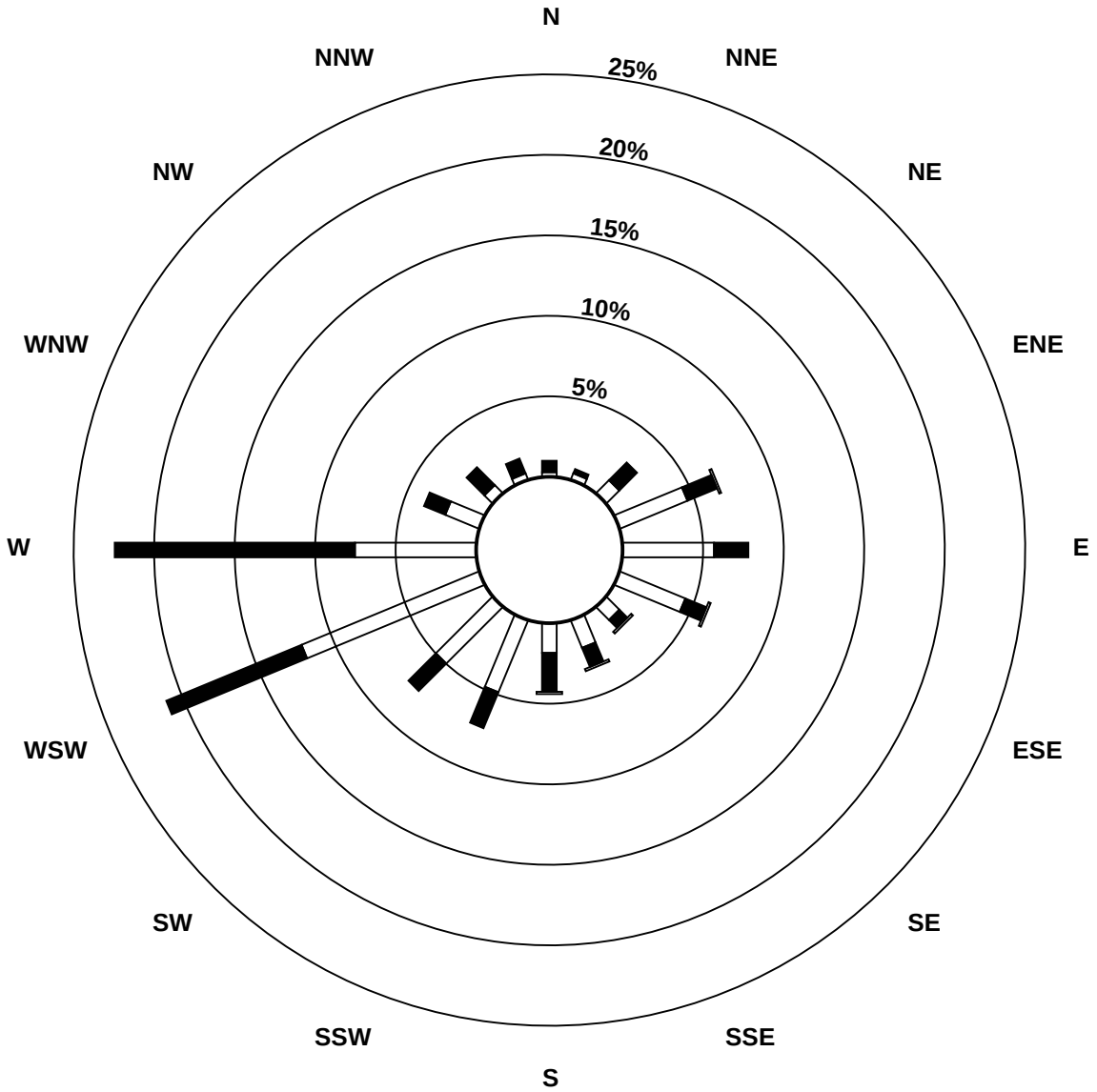


Peace Airshed Zone Association

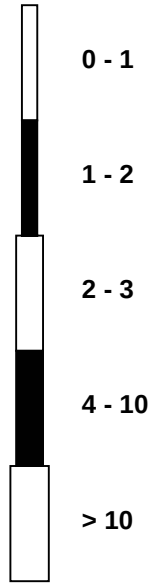
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - October 2011



Pollutant Classes (ppb)

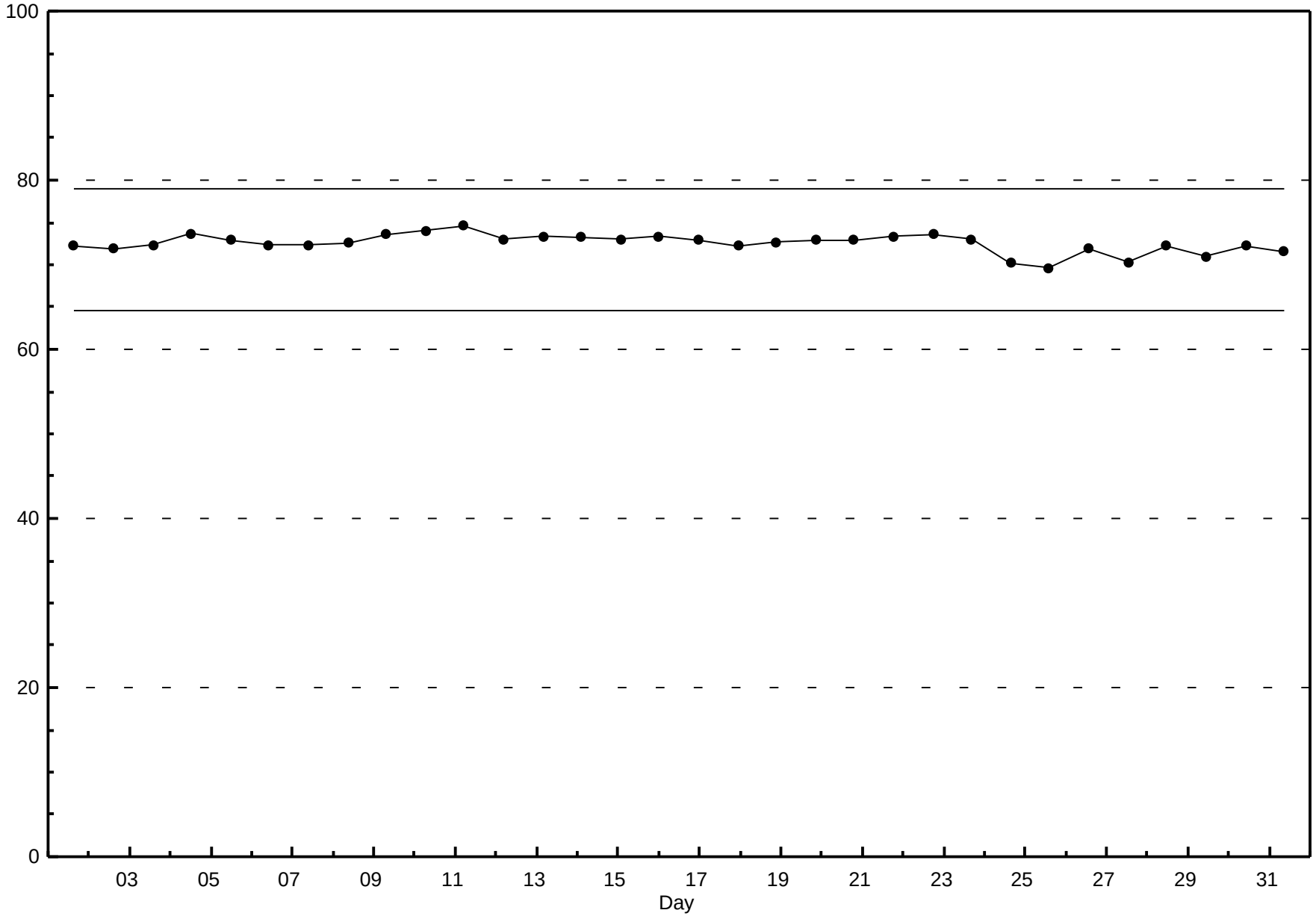


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Evergreen Park - October 2011



Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - October 2011

Number of Exceedences: 1-hr: 1 24-hr: 0
Maximum Value: 92.6 $\mu g/m^3$ on Oct 26 17:00
Maximum Daily Average: 13.9 $\mu g/m^3$ on Oct 27

Minimum Value: 0 $\mu g/m^3$ on Oct 1 01:00
Maximum Diurnal Average: 10.2 $\mu g/m^3$ at hour 17
Monthly Average: 3.97 $\mu g/m^3$
Minimum Daily Average: 0.4 $\mu g/m^3$ on Oct 10
Minimum Diurnal Average: 1.6 $\mu g/m^3$ at hour 22
Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 1.8 Q_3 = 4.3 P_{90} = 9.7 P_{99} = 27.0

Hours in Service:	744
Hours of Data:	727
Hours of Missing Data:	17
Hours of Calibration:	3
Percent Operational Time:	98.1

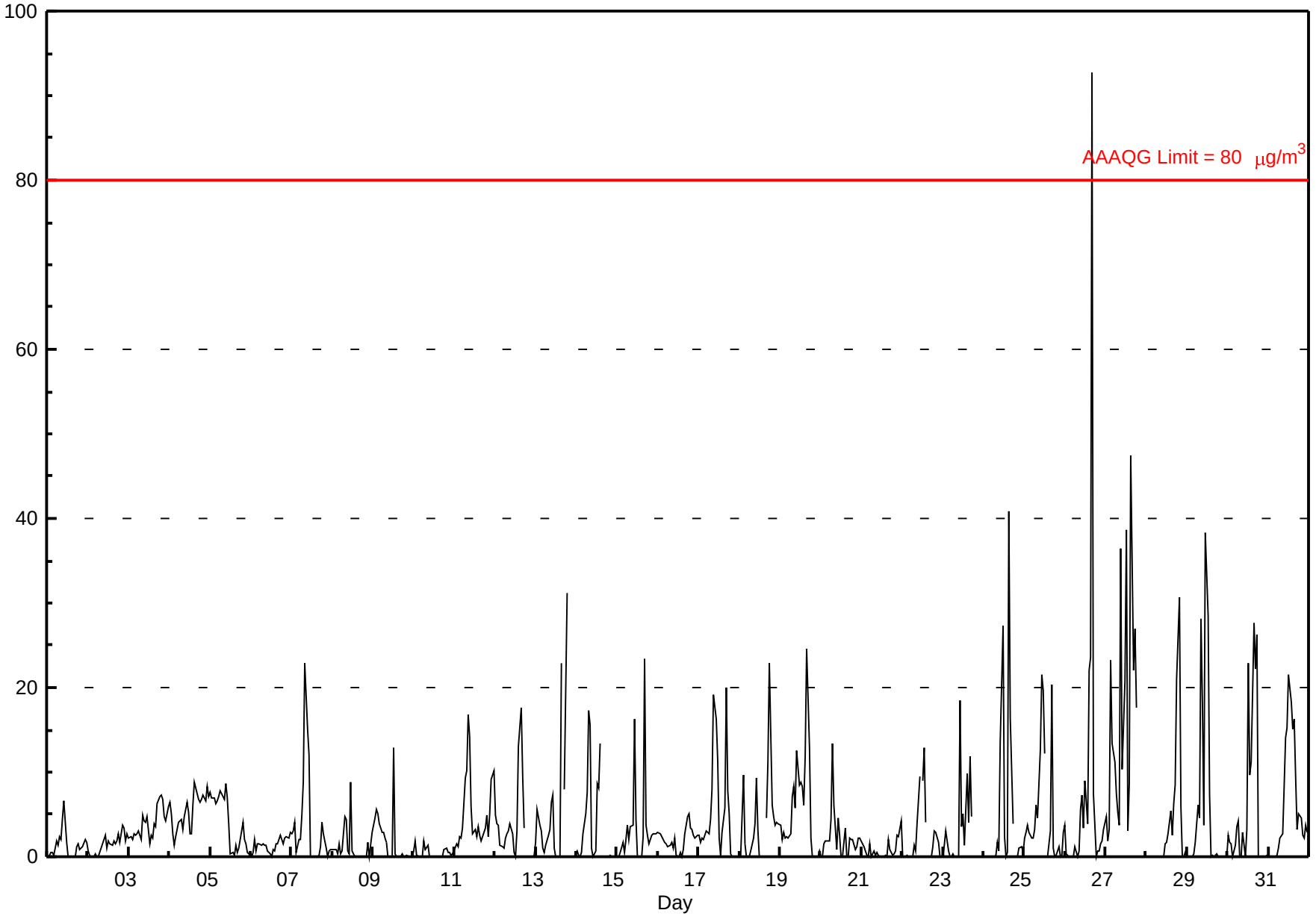
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	1	0	0	2	1	2	2	4	7	2	0	0	0	0	0	1	1	1	1	1	2	2	1.3	6.7
2-Oct	1	0	0	0	0	0	0	1	1	2	3	1	2	2	1	2	1	2	3	2	4	3	2	3	1.4	3.7
3-Oct	2	2	2	3	3	3	3	2	5	4	4	5	2	3	2	4	3	6	7	7	7	5	4	6	3.9	7.3
4-Oct	6	5	3	1	2	4	4	4	3	5	6	5	3	3	6	9	8	7	6	7	7	7	8	7	5.3	8.8
5-Oct	8	7	7	6	7	7	8	7	7	9	7	4	0	1	0	1	0	1	2	4	2	1	0	0	4.1	8.6
6-Oct	0	1	2	1	1	2	1	2	1	1	1	0	0	1	1	2	2	2	2	2	2	2	2	3	1.4	2.9
7-Oct	3	3	4	1	2	2	5	9	23	15	12	0	0	0	0	0	0	1	4	3	1	0	1	1	3.7	22.9
8-Oct	1	1	1	0	2	0	1	5	4	1	0	9	1	0	0	0	0	0	0	0	0	2	0	3	1.2	8.8
9-Oct	4	5	6	5	4	3	3	2	2	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	1.9	12.9
10-Oct	1	2	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0.4	1.8
11-Oct	1	1	1	2	2	3	9	10	17	14	6	3	3	2	4	3	2	3	3	5	2	5	9	10	5.1	16.8
12-Oct	5	4	4	1	1	1	2	3	3	4	3	0	0	3	13	18	10	3	N	0	0	N	0	0	3.5	17.7
13-Oct	2	6	4	3	1	1	1	3	3	6	7	1	0	0	0	23	N	8	31	N	N	0	0	0	4.7	31.1
14-Oct	1	0	0	0	3	5	8	17	16	1	0	1	9	8	13	N	0	0	0	0	0	0	0	0	3.6	17.3
15-Oct	0	0	1	2	1	2	4	2	4	4	16	4	0	0	0	2	23	4	2	2	3	3	3	3	3.4	23.4
16-Oct	3	3	2	2	2	1	1	1	2	1	2	0	0	0	0	1	3	5	5	3	3	3	2	3	2.0	5.0
17-Oct	3	2	2	2	3	3	3	4	8	19	16	11	2	0	3	6	20	8	5	0	0	0	0	0	5.0	20.1
18-Oct	0	0	10	1	0	0	0	1	2	4	9	3	0	C	C	C	5	11	23	6	5	4	4	4	4.4	22.8
19-Oct	4	2	3	2	2	2	3	7	8	6	13	8	9	8	6	12	25	13	2	0	0	0	0	1	5.7	24.6
20-Oct	0	0	2	2	2	2	4	13	6	1	5	3	0	0	3	0	0	2	2	2	1	1	2	2	2.3	13.4
21-Oct	2	1	1	0	0	1	0	1	0	1	0	0	0	0	0	0	2	1	0	0	1	3	2	4	0.8	4.2
22-Oct	0	0	0	0	0	0	0	1	1	4	10	N	9	13	4	N	0	0	1	3	3	2	0	0	2.3	12.8
23-Oct	0	1	3	1	0	0	0	0	0	0	19	4	5	1	10	4	12	5	N	0	0	0	0	0	2.8	18.5
24-Oct	0	0	0	0	0	0	0	0	2	1	14	27	2	0	0	41	16	4	N	0	0	1	1	1	4.8	40.8
25-Oct	2	3	4	3	2	2	3	6	5	13	22	20	12	N	0	3	20	1	0	0	1	0	0	3	5.4	21.5
26-Oct	4	0	0	0	0	0	1	0	1	6	7	3	9	4	22	24	93	8	0	1	1	2	2	3	7.9	92.6
27-Oct	5	2	3	23	13	11	7	5	4	36	10	21	39	3	9	47	22	27	18	N	0	N	0	0	13.9	47.5
28-Oct	0	0	0	0	N	0	0	0	0	0	0	1	2	3	6	3	6	8	21	31	6	0	0	0	3.8	30.7
29-Oct	0	0	0	0	0	2	6	5	28	18	4	38	28	7	0	0	0	0	0	0	0	0	0	0	5.7	38.3
30-Oct	3	2	2	0	1	3	4	0	0	3	0	3	23	10	11	28	22	26	0	0	0	0	0	0	5.9	27.6
31-Oct	0	0	0	0	0	0	1	2	3	8	14	15	21	18	15	16	9	3	5	5	2	2	4	3	6.2	21.5
	1.8	1.7	2.1	2.1	1.8	2.0	2.8	3.8	5.2	6.1	7.0	6.5	6.2	3.1	4.3	8.8	10.2	5.2	5.2	2.9	1.8	1.6	1.6	2.0	Diurnal Average	
	7.6	7.0	9.7	23.3	13.5	11.2	9.4	17.3	28.1	36.4	21.5	38.3	38.7	18.3	22.0	47.5	92.6	27.0	31.1	30.7	7.3	6.7	9.2	10.1	Diurnal Maximum	

C - Calibration 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 $\mu g/m^3$

Hourly Averages

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

Evergreen Park - October 2011



Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - October 2011

Maximum Value: 165.1 $\mu g/m^3$ on Oct 26 17:00

Maximum Daily Average: 26.9 $\mu g/m^3$ on Oct 27

Minimum Value: 0 $\mu g/m^3$ on Oct 8 15:00

Minimum Daily Average: 1.8 $\mu g/m^3$ on Oct 10

Maximum Diurnal Average: 21.5 $\mu g/m^3$ at hour 17

Minimum Diurnal Average: 3.2 $\mu g/m^3$ at hour 22

Monthly Average: 9.04 $\mu g/m^3$

Percentiles: $P_1 = 0.0$ $P_{10} = 0.6$ $Q_1 = 2.1$ Median = 4.3 $Q_3 = 8.2$ $P_{90} = 26.2$ $P_{99} = 63.1$

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	3
Percent Operational Time:	100.0

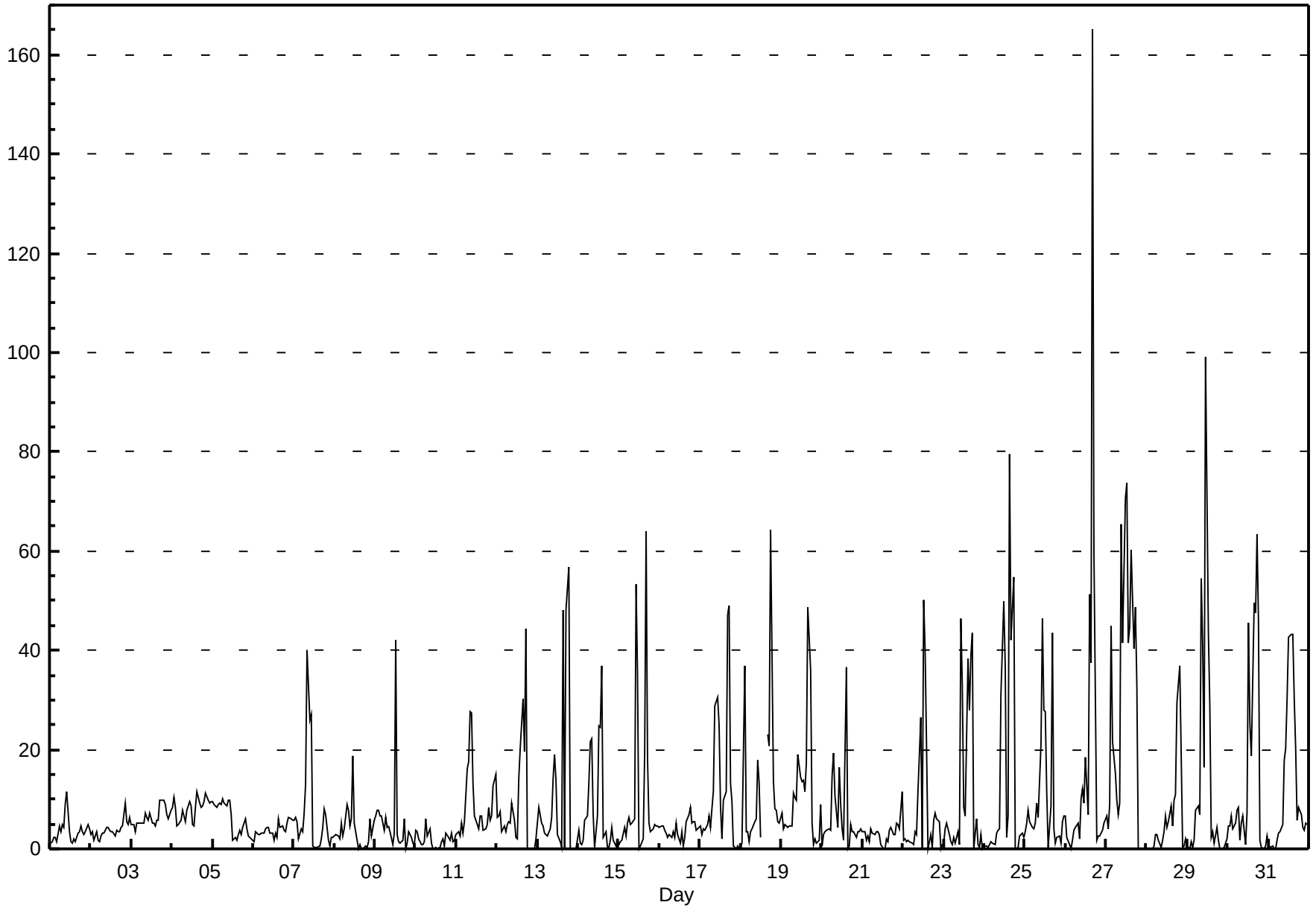
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	1	2	2	2	5	4	5	4	9	12	3	1	1	2	1	3	4	5	4	3	4	5	4	3.6	11.7
2-Oct	3	4	2	4	2	1	3	3	3	4	4	4	3	3	3	4	3	4	4	5	9	6	5	6	3.8	9.2
3-Oct	5	5	4	5	5	5	5	5	7	6	6	7	5	5	5	6	6	10	10	10	9	7	6	8	6.4	9.9
4-Oct	8	10	8	5	5	6	8	7	6	8	9	9	5	5	8	11	9	8	9	9	11	10	9	9	8.0	11.4
5-Oct	9	9	8	9	9	9	10	9	9	10	10	7	2	2	2	3	4	3	4	6	4	3	2	2	6.1	10.2
6-Oct	2	3	3	3	3	3	3	4	4	4	3	3	2	3	2	6	4	5	4	3	5	6	6	6	3.8	6.3
7-Oct	6	6	6	2	4	4	7	13	40	26	27	1	0	0	0	1	2	4	8	7	2	1	2	2	7.1	39.9
8-Oct	3	3	3	2	5	3	4	9	8	5	6	19	5	2	0	1	0	0	1	0	1	6	3	6	3.8	18.7
9-Oct	6	8	8	7	7	4	6	4	5	3	1	3	42	3	1	1	2	6	0	1	4	2	1	1	5.3	42.1
10-Oct	4	4	2	1	1	1	6	3	4	1	0	0	0	0	0	1	2	1	3	2	2	3	1	2	1.8	6.0
11-Oct	3	4	3	5	3	6	16	18	28	27	13	7	5	4	7	7	4	4	5	8	6	7	13	15	9.0	27.8
12-Oct	6	7	7	4	5	4	5	6	5	9	6	2	2	14	20	30	20	44	0	0	0	0	0	2	8.2	44.5
13-Oct	5	8	5	5	3	3	3	4	6	14	19	14	3	1	0	48	0	48	57	0	0	0	0	0	10.3	56.7
14-Oct	4	1	1	2	6	7	13	22	22	7	0	7	25	25	37	2	3	0	0	2	4	2	1	2	8.0	36.8
15-Oct	1	1	2	4	3	5	6	5	5	6	53	35	0	1	2	19	64	18	5	3	4	5	5	5	10.8	64.1
16-Oct	4	5	5	4	3	2	3	2	4	2	5	3	1	3	1	2	6	7	8	5	6	6	4	4	3.9	8.2
17-Oct	5	3	4	4	5	7	4	8	12	29	31	25	9	2	10	12	47	49	13	10	1	0	1	0	12.0	49.1
18-Oct	1	1	37	3	3	1	3	4	6	6	18	13	2	C	C	C	23	21	64	14	8	8	6	5	11.8	64.3
19-Oct	7	4	5	5	4	5	5	11	10	10	19	14	14	14	12	17	49	36	5	1	2	1	2	9	10.8	48.7
20-Oct	1	3	4	4	4	4	15	19	11	4	16	9	4	2	37	0	1	5	4	4	2	4	4	4	6.7	36.5
21-Oct	3	3	2	3	1	4	3	3	3	4	3	1	0	0	2	1	4	4	3	3	5	5	4	12	3.2	11.6
22-Oct	2	2	1	2	1	1	1	3	3	11	26	0	50	40	21	0	3	0	6	7	6	6	0	1	8.1	50.2
23-Oct	1	4	5	3	1	1	2	1	3	1	46	33	8	7	38	28	39	44	0	6	1	0	3	0	11.5	46.5
24-Oct	1	1	0	1	1	1	1	3	4	4	31	50	37	2	7	79	42	55	0	0	0	3	3	2	13.7	79.5
25-Oct	4	5	8	6	4	4	5	9	6	21	47	28	28	12	0	9	44	4	1	2	3	1	6	7	10.9	46.5
26-Oct	6	2	1	0	2	4	4	5	2	10	12	9	18	7	51	37	165	60	2	3	3	3	4	5	17.4	165.1
27-Oct	7	4	9	45	22	15	10	7	9	66	41	70	74	42	45	60	40	49	33	0	0	0	0	0	26.9	73.6
28-Oct	0	0	0	0	1	3	3	2	0	2	4	7	4	6	9	5	10	11	29	37	19	0	1	2	6.3	37.0
29-Oct	1	0	1	0	2	8	9	7	55	41	16	99	43	29	2	3	1	4	2	0	0	0	0	2	13.6	99.2
30-Oct	5	5	7	4	5	8	8	2	5	7	1	7	46	25	19	50	47	63	46	2	0	0	1	3	15.1	63.4
31-Oct	1	0	1	0	0	2	3	4	5	18	20	30	43	43	43	30	20	6	8	7	4	4	5	5	12.6	43.1
	3.6	3.7	4.9	4.6	3.9	4.3	5.8	6.7	9.5	12.1	16.3	16.8	15.6	10.1	12.8	15.9	21.5	18.6	10.9	5.2	4.0	3.2	3.2	4.2	Diurnal Average	
	9.4	10.4	37.0	45.0	21.5	15.2	16.2	21.6	54.6	65.6	53.3	99.2	73.6	43.1	51.4	79.5	165.1	63.4	64.3	37.0	18.7	9.9	12.6	15.1	Diurnal Maximum	

C - Calibration

Hourly Maximums

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

Evergreen Park - October 2011

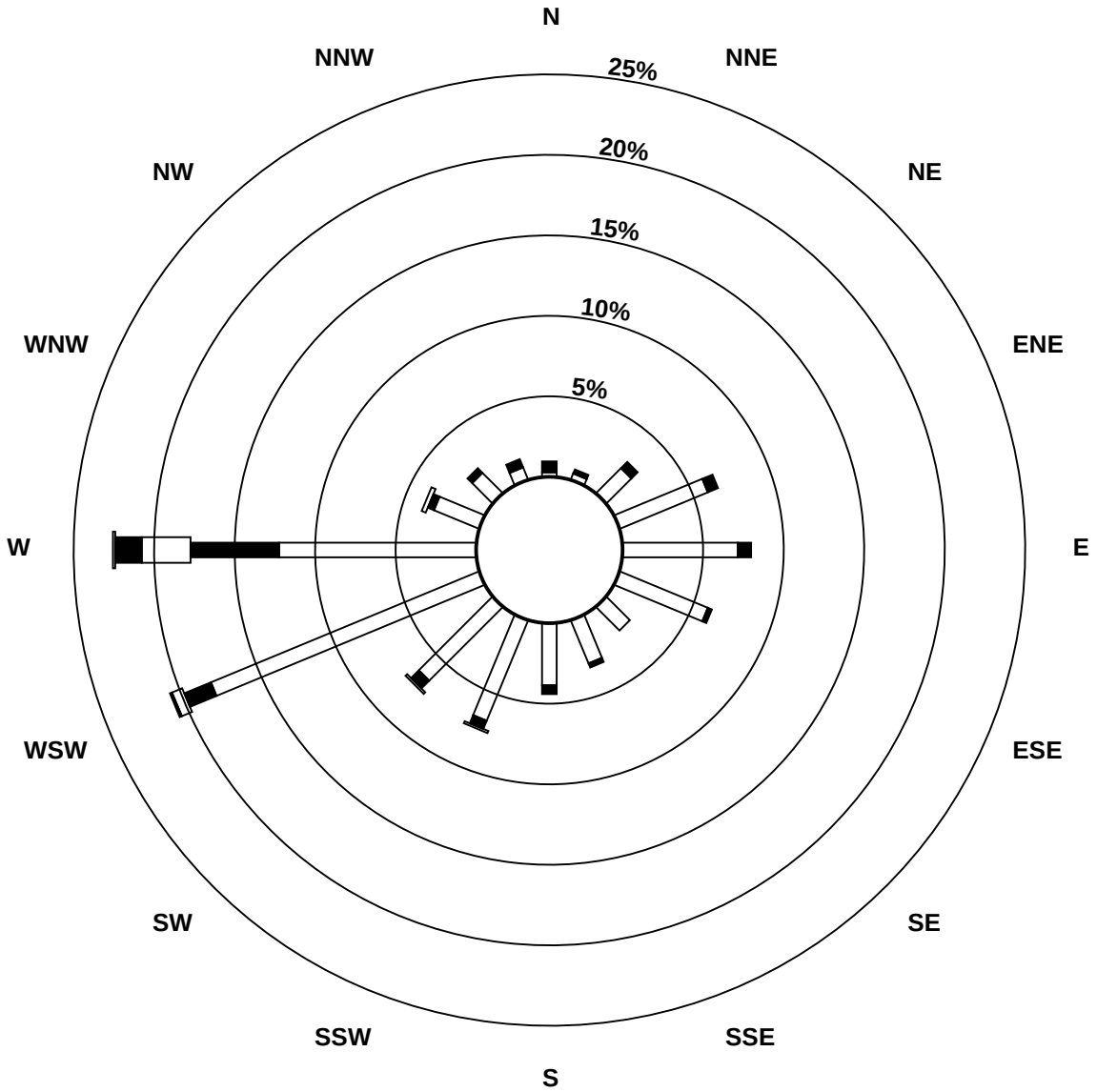


Peace Airshed Zone Association

Pollutant Rose

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

Evergreen Park - October 2011



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

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

Hourly Averages

External Temperature (ET) - °C

Evergreen Park - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 18.8 °C on Oct 18 16:00 Maximum Daily Average: 9.6 °C on Oct 18

Minimum Value: -5 °C on Oct 21 08:00 Minimum Daily Average: 0.8 °C on Oct 21
Maximum Diurnal Average: 10.2 °C at hour 16 Minimum Diurnal Average: 2.2 °C at hour 8
Monthly Average: 5.68 °C Percentiles: P_1 = -4.4 P_{10} = 0.4 Q_1 = 3.5 Median = 5.7 Q_3 = 8.1 P_{90} = 10.4 P_{99} = 14.4

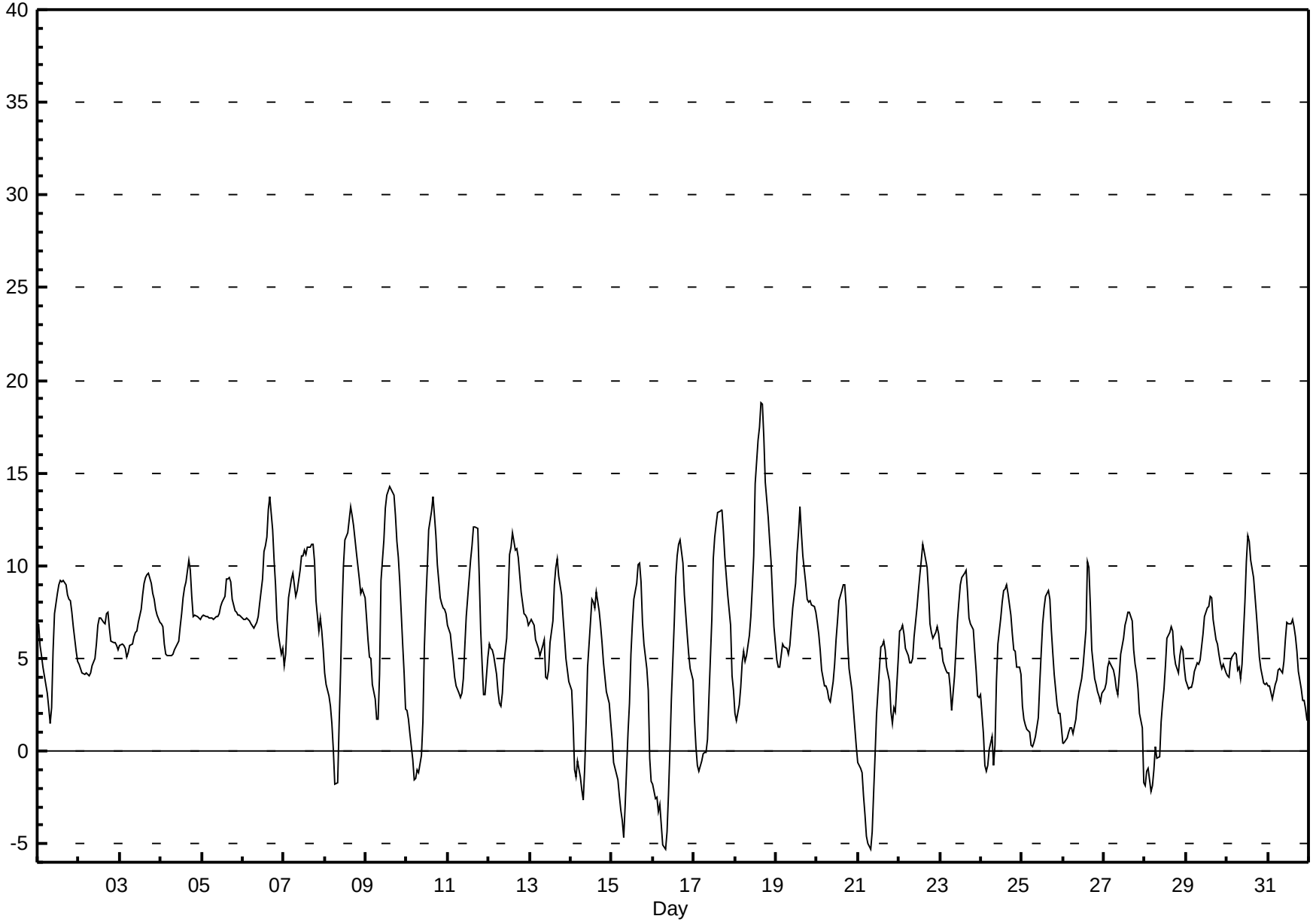
Hours in Service: 744
Hours of Data: 744
Hours of Missing Data: 0
Hours of Calibration: 0
Percent Operational Time: 100.0

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-Oct	7	6	5	5	4	3	2	1	2	5	7	9	9	9	9	9	9	8	8	8	7	7	5	5	6.3	9.2
2-Oct	5	4	4	4	4	4	4	4	5	5	6	7	7	7	7	7	7	7	7	6	6	6	6	5	5.6	7.5
3-Oct	6	6	6	6	5	5	6	6	6	6	6	7	8	8	9	9	10	10	9	9	8	8	7	7	7.2	9.6
4-Oct	7	7	6	5	5	5	5	5	5	6	6	7	7	8	9	9	10	10	8	7	7	7	7	7	7.0	10.3
5-Oct	7	7	7	7	7	7	7	7	7	7	7	8	8	8	9	9	9	9	8	8	8	7	7	7	7.7	9.4
6-Oct	7	7	7	7	7	7	7	7	7	7	8	9	11	11	12	13	14	12	10	9	7	6	5	6	8.4	13.7
7-Oct	5	5	7	8	9	10	9	8	9	10	11	11	11	11	11	11	11	11	10	8	6	7	6	5	8.8	11.2
8-Oct	4	4	3	2	1	0	-2	-2	1	4	7	10	11	12	12	13	13	12	11	10	9	8	9	8	6.8	13.2
9-Oct	7	6	5	5	4	3	2	2	4	9	11	13	14	14	14	14	14	13	11	10	9	6	4	2	8.2	14.3
10-Oct	2	2	1	0	-2	-2	-1	-1	0	2	6	8	10	12	13	14	13	12	10	8	8	8	8	7	5.7	13.7
11-Oct	7	6	6	5	4	4	3	3	3	4	6	7	9	10	11	12	12	12	9	7	5	3	3	5	6.5	12.1
12-Oct	6	6	5	5	4	3	3	2	3	5	6	8	11	11	12	11	11	10	10	9	7	7	7	7	7.0	11.8
13-Oct	7	7	7	6	6	6	5	6	6	4	4	4	6	7	9	10	10	9	8	7	6	5	4	4	6.4	10.3
14-Oct	3	1	-1	-1	-1	-1	-2	-3	-1	2	5	7	8	8	8	9	8	7	6	5	4	3	3	2	3.2	8.6
15-Oct	1	-1	-1	-2	-2	-3	-4	-5	-3	1	3	5	7	8	9	10	10	9	7	6	4	3	0	-2	2.5	10.1
16-Oct	-2	-3	-3	-3	-3	-4	-5	-5	-4	-2	0	3	7	9	11	11	11	10	8	7	6	5	4	4	2.7	11.4
17-Oct	2	0	-1	-1	-1	0	0	0	1	3	7	10	12	12	13	13	13	12	10	9	8	7	4	3	5.7	13.0
18-Oct	2	2	2	3	5	5	5	5	6	7	9	11	14	17	17	19	19	17	14	13	11	10	8	7	9.6	18.8
19-Oct	5	5	5	5	6	6	6	5	6	7	8	9	11	12	13	12	11	9	8	8	8	8	8	7	7.7	13.2
20-Oct	7	6	5	4	4	3	3	3	3	4	5	6	7	8	9	9	9	8	6	4	3	2	1	0	5.0	9.0
21-Oct	-1	-1	-1	-2	-3	-5	-5	-5	-4	-2	0	2	4	6	6	6	5	5	4	2	2	2	2	5	0.8	5.9
22-Oct	6	7	7	6	6	5	5	5	5	6	8	9	10	10	11	11	10	9	7	6	6	6	7	6	7.2	11.2
23-Oct	6	6	5	4	4	4	3	2	4	6	7	8	9	9	10	10	9	7	7	7	5	4	3	3	5.9	9.8
24-Oct	3	1	-1	-1	-1	0	1	-1	0	4	6	7	8	9	9	9	9	7	6	5	5	5	5	4	4.1	9.0
25-Oct	2	2	1	1	1	0	0	0	1	2	4	5	7	8	8	9	8	7	5	4	3	2	2	1	3.5	8.7
26-Oct	0	0	1	1	1	1	1	2	3	3	3	4	5	7	10	10	8	5	4	4	3	3	3	3	3.5	10.2
27-Oct	3	4	5	5	5	4	4	3	3	4	5	6	7	7	7	8	7	5	5	4	3	2	1	-2	4.4	7.5
28-Oct	-2	-1	-1	-2	-2	-1	0	0	0	2	3	3	5	6	6	7	6	5	5	4	5	6	5	5	2.6	6.7
29-Oct	4	3	3	3	4	4	5	5	5	6	6	7	8	8	8	8	7	6	6	5	5	4	5	4	5.4	8.3
30-Oct	4	4	5	5	5	5	4	5	4	5	8	10	12	11	10	9	8	7	6	5	4	4	4	4	6.2	11.6
31-Oct	4	4	3	3	4	4	4	4	4	5	6	7	7	7	7	7	6	5	4	3	3	3	2	2	4.5	7.1
	4.0	3.6	3.3	3.0	2.9	2.7	2.4	2.2	2.9	4.3	5.9	7.3	8.6	9.4	10.0	10.2	9.9	8.9	7.7	6.7	6.0	5.3	4.7	4.3	Diurnal Average	
	7.2	7.3	7.3	8.3	9.3	9.6	9.0	8.3	8.7	9.8	11.4	13.1	14.5	16.7	17.5	18.8	18.7	17.0	14.5	12.6	11.4	10.2	8.7	8.2	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - October 2011



Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 98.8 % on Oct 4 11:00 Maximum Daily Average: 93.4 % on Oct 4

Minimum Value: 28 % on Oct 9 14:00 Minimum Daily Average: 47.3 % on Oct 27
Maximum Diurnal Average: 75.4 % at hour 8 Minimum Diurnal Average: 46.2 % at hour 16
Monthly Average: 63.31 % Percentiles: P_1 = 29.6 P_{10} = 40.2 Q_1 = 48.6 Median = 61.7 Q_3 = 77.3 P_{90} = 91.6 P_{99} = 98.4

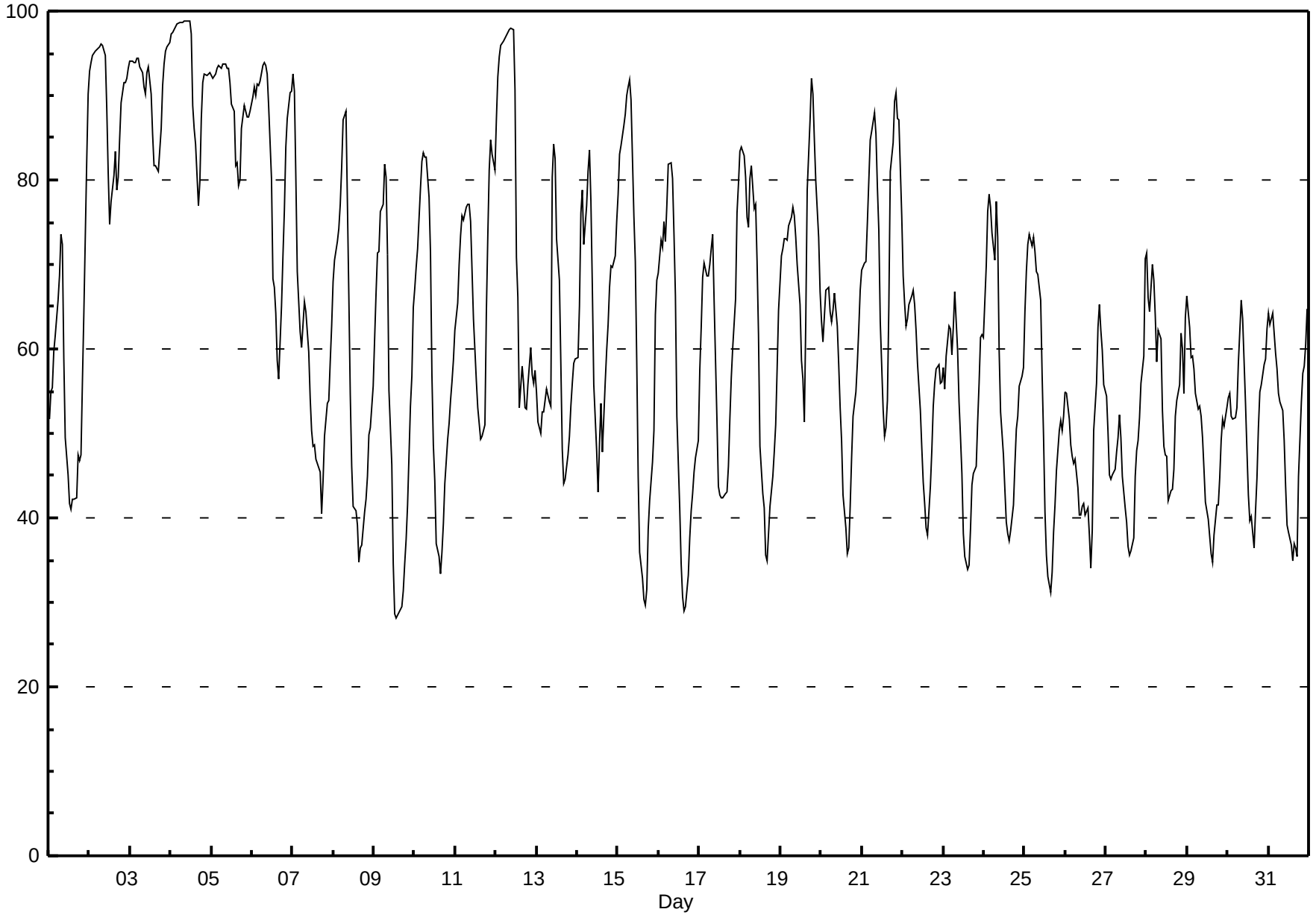
Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	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-Oct	52	55	55	60	62	66	69	74	72	59	50	45	42	41	42	42	42	47	47	47	56	64	82	90	56.7	90.2
2-Oct	93	94	95	95	95	96	96	96	96	95	88	81	75	78	80	83	79	80	85	89	92	92	92	93	89.1	96.1
3-Oct	94	94	94	94	94	94	93	93	91	90	93	93	90	85	82	82	81	81	86	91	94	95	96	96	90.8	96.3
4-Oct	97	98	98	98	98	99	99	99	99	99	99	99	97	89	86	84	77	80	87	92	93	92	92	93	93.4	98.8
5-Oct	92	92	92	93	94	93	93	94	94	93	93	92	89	88	82	82	79	80	86	89	88	88	88	88	89.2	93.7
6-Oct	90	91	90	91	91	92	94	94	94	92	89	80	68	67	64	59	56	65	71	76	84	87	90	90	82.0	94.0
7-Oct	93	90	80	69	62	60	63	66	64	60	54	50	48	49	47	46	45	41	44	50	54	54	58	63	58.8	92.6
8-Oct	68	70	73	74	77	82	87	88	77	66	55	46	41	41	39	35	37	37	41	42	45	50	51	56	57.4	88.1
9-Oct	61	67	71	71	76	77	82	80	71	55	46	35	29	28	28	29	30	31	35	37	42	53	57	65	52.4	81.8
10-Oct	67	70	72	79	82	83	83	83	78	71	57	49	44	37	35	33	36	39	44	49	51	54	56	59	58.8	83.2
11-Oct	62	65	70	73	76	75	77	77	77	75	69	63	56	53	51	49	50	51	64	73	81	85	83	81	68.3	84.8
12-Oct	87	92	94	96	96	97	97	97	98	98	98	91	71	66	53	58	56	53	53	56	60	57	56	57	76.6	97.9
13-Oct	55	51	50	53	53	54	55	54	53	80	84	83	73	68	58	48	44	45	47	50	53	56	58	59	57.7	84.2
14-Oct	59	65	76	79	72	77	81	83	77	67	56	48	43	49	54	48	56	60	63	67	70	70	71	75	65.3	83.5
15-Oct	78	83	84	86	88	90	91	92	90	76	70	58	45	36	33	30	30	32	39	42	47	50	64	68	62.6	91.9
16-Oct	69	73	72	75	73	77	82	82	80	73	66	52	41	35	31	29	29	33	38	41	43	45	47	49	55.7	82.0
17-Oct	57	63	68	70	69	69	70	72	74	66	52	44	43	42	42	43	43	46	52	57	60	66	76	79	59.3	79.5
18-Oct	83	84	83	80	76	74	80	82	77	77	70	62	49	43	41	36	35	38	41	45	48	51	58	65	61.5	83.9
19-Oct	71	72	73	73	73	75	76	77	76	73	70	65	59	56	51	63	79	87	92	90	85	80	73	67	73.1	92.0
20-Oct	63	61	64	67	67	64	63	65	67	63	58	53	49	43	39	36	36	41	47	52	55	58	62	67	55.9	67.3
21-Oct	69	70	70	75	80	85	86	88	85	79	74	63	53	50	51	54	65	81	84	89	90	87	87	76	74.7	90.3
22-Oct	69	65	63	64	65	66	67	65	62	58	53	48	44	42	39	38	44	48	53	56	58	58	56	56	55.7	68.7
23-Oct	58	55	59	63	62	59	63	67	60	54	50	45	38	35	34	34	39	44	45	46	51	56	61	62	51.7	66.8
24-Oct	61	70	76	78	77	74	71	77	73	60	53	47	43	39	38	37	38	42	46	50	52	56	57	58	57.3	78.3
25-Oct	64	69	72	74	72	73	71	69	69	66	57	50	41	36	33	31	33	38	41	46	50	52	50	52	54.6	73.5
26-Oct	55	55	52	49	47	47	47	43	40	40	41	42	40	41	38	34	38	50	56	63	65	62	60	56	48.4	65.3
27-Oct	54	50	45	45	45	46	48	49	52	49	45	41	39	37	36	36	38	45	48	49	52	56	59	71	47.3	70.7
28-Oct	71	66	64	70	68	64	58	62	61	53	49	47	47	42	43	43	46	52	54	56	62	60	55	64	56.6	71.3
29-Oct	66	63	59	59	58	55	53	53	52	49	46	42	40	38	36	35	38	41	42	45	49	52	51	53	48.9	66.3
30-Oct	54	55	52	52	52	53	58	62	66	64	53	48	43	40	40	36	41	45	51	55	56	58	59	62	52.2	65.7
31-Oct	64	63	64	62	60	58	55	54	53	49	44	39	38	37	35	37	36	36	45	54	57	58	60	65	50.9	64.8
	70.3	71.3	72.0	73.1	72.9	73.3	74.4	75.4	73.5	69.4	63.9	58.1	52.2	49.3	47.2	46.2	47.7	51.3	55.7	59.5	62.6	64.6	66.7	68.9	Diurnal Average	
	97.2	97.5	97.9	98.2	98.4	98.6	98.7	98.7	98.7	98.8	98.8	98.8	97.2	88.9	86.1	84.2	81.3	87.2	92.0	91.6	93.8	95.2	95.8	96.3	Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - October 2011



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - October 2011

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	11	9	8	3	3	3	0	1	0	1	1	1	3	5	5	3	2	3	4	5	5	6	3	4	0.6	11.1
Dir	261	260	265	280	304	223	101	109	150	256	345	58	102	125	133	84	90	67	91	115	102	109	94	75	144.7	260.7
2 Spd	5	4	4	3	2	2	2	1	1	2	2	2	2	3	3	3	4	2	1	2	2	2	3	3	1.1	5.0
Dir	92	94	88	95	84	87	79	78	148	236	289	328	267	217	212	216	208	165	153	112	116	117	72	75	124.6	92.3
3 Spd	3	3	3	2	2	2	3	4	4	4	4	4	5	4	4	3	3	1	1	1	2	1	2	2	2.4	4.7
Dir	80	80	79	88	84	81	81	78	94	86	78	92	90	104	100	78	73	45	13	354	283	89	135	268	83.8	90.3
4 Spd	1	1	4	4	3	4	3	1	1	1	3	3	3	1	2	3	2	2	1	1	1	2	2	1	1.0	4.2
Dir	334	294	279	267	265	250	331	121	115	298	309	305	292	79	3	351	8	75	54	24	47	63	91	37	323.0	278.8
5 Spd	0	0	1	1	1	0	1	1	2	4	4	2	4	3	6	6	6	5	6	4	5	3	2	1	2.6	6.4
Dir	219	162	198	103	83	94	116	94	81	77	67	88	104	87	56	54	60	59	56	71	78	74	103	152	73.4	53.8
6 Spd	1	2	1	1	1	2	3	0	1	2	3	2	4	1	3	1	0	3	2	1	0	1	1	1	0.9	3.5
Dir	13	288	307	35	36	70	101	155	145	161	120	146	183	120	58	201	117	94	109	113	236	69	218	254	118.5	183.0
7 Spd	0	2	3	10	11	8	6	7	10	14	16	15	16	15	13	10	7	9	5	2	4	10	9	6	7.7	16.0
Dir	151	194	235	256	252	275	268	263	270	274	282	304	318	325	330	311	310	275	259	242	225	258	260	264	282.9	318.1
8 Spd	4	3	2	2	2	0	1	1	0	2	2	5	4	4	6	9	7	6	5	5	3	2	3	1	1.8	8.7
Dir	244	265	304	286	326	258	202	197	241	207	172	156	128	112	105	118	118	104	97	97	89	25	90	343	120.4	118.3
9 Spd	1	1	2	1	4	1	1	2	2	6	11	20	25	22	21	20	16	18	14	13	2	2	1	2	8.0	25.5
Dir	41	44	312	227	208	174	185	210	141	200	225	251	258	254	245	254	258	251	243	250	227	216	187	207	246.2	257.8
10 Spd	1	1	1	1	1	1	1	1	2	4	4	4	4	8	7	7	7	6	5	6	5	5	5	4	3.5	8.3
Dir	235	211	199	46	70	45	44	61	63	78	75	84	81	107	98	104	99	86	66	63	68	68	75	76	83.4	106.9
11 Spd	3	2	1	2	4	7	6	7	8	7	7	5	7	6	6	4	5	2	1	1	1	0	1	4	3.1	8.2
Dir	77	67	26	252	268	259	257	268	267	255	262	269	275	269	251	308	318	322	46	181	54	247	214	272	270.6	267.1
12 Spd	2	1	2	2	0	1	1	1	1	4	2	4	11	11	20	16	16	15	13	9	12	12	14	15	7.1	20.4
Dir	285	332	213	193	223	115	218	92	142	209	211	221	250	252	269	264	262	265	265	255	249	251	251	253	255.1	268.6
13 Spd	15	17	20	16	14	15	13	15	13	16	18	17	14	10	9	12	14	17	17	16	11	9	8	8	13.8	20.1
Dir	257	257	258	255	260	252	257	260	264	278	259	254	267	263	286	271	271	266	263	262	256	245	244	228	260.5	258.5
14 Spd	4	1	0	2	3	3	3	4	4	3	4	5	8	12	14	8	7	10	8	7	5	6	4	2	4.7	14.3
Dir	233	147	183	184	190	215	215	205	214	223	212	258	271	278	264	273	287	216	217	218	231	251	257	259	242.9	264.0
15 Spd	1	1	1	1	1	2	1	0	0	1	4	6	10	10	11	7	10	9	8	8	5	2	0	1	3.9	10.7
Dir	327	280	293	273	227	215	207	108	92	238	288	268	264	271	258	262	270	263	257	262	270	284	60	199	264.4	257.8
16 Spd	1	0	2	2	3	1	0	0	1	1	3	4	6	12	17	16	12	10	7	10	9	6	3	2	5.0	17.2
Dir	194	192	195	200	214	77	65	115	200	203	243	208	244	250	251	251	265	266	258	257	254	263	270	316	251.1	250.8
17 Spd	0	1	1	1	1	1	1	0	0	1	5	11	17	15	18	22	19	19	15	13	6	0	1	1	6.4	21.7
Dir	165	185	82	161	176	88	39	352	323	263	248	258	256	255	274	269	266	272	269	259	237	138	69	87	263.0	269.3
18 Spd	0	0	2	1	1	1	1	1	1	1	1	4	7	9	6	9	9	5	3	2	4	2	1	2	2.5	9.0
Dir	111	164	193	108	173	166	66	202	193	279	262	198	229	254	238	239	277	252	262	243	244	252	356	208	239.8	254.5
19 Spd	0	1	2	1	1	1	1	2	1	2	3	1	2	2	1	2	2	5	7	9	9	8	12	14	3.3	13.6
Dir	190	197	213	203	228	285	166	201	360	297	244	329	217	231	187	230	281	278	222	228	243	251	245	254	242.8	253.6
20 Spd	13	9	7	7	6	8	6	4	1	2	7	11	9	9	11	11	7	7	5	6	5	4	1	4	6.4	12.6
Dir	258	252	255	262	269	258	268	269	247	277	289	282	298	293	283	280	304	275	281	264	271	251	225	241	272.8	258.2
21 Spd	3	1	1	2	1	1	1	0	2	2	2	3	5	5	5	4	3	3	2	1	2	0	3	13	1.2	13.3
Dir	228	158	171	190	186	198	61	103	61	55	60	109	108	84	125	105	97	104	90	61	196	163	231	241	134.7	241.0
22 Spd	17	18	22	17	12	11	11	13	13	14	18	17	15	12	10	4	3	3	2	2	4	8	14	15	10.7	22.3
Dir	243	249	248	243	246	251	254	250	250	253	257	253	260	265	270	320	43	84	170	235	267	247	248	252	252.4	247.9

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - October 2011

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
23 Spd	12	15	11	9	7	12	4	1	11	17	21	24	28	24	22	17	15	12	12	10	6	7	1	8	12.4	28.2
Dir	253	248	254	252	257	249	231	227	252	244	259	266	269	273	272	282	278	260	249	251	253	250	207	228	259.7	269.2
24 Spd	7	1	0	2	1	1	3	1	4	7	17	19	19	21	18	20	19	16	14	13	12	9	11	10	9.5	20.6
Dir	224	55	167	209	131	120	222	84	195	238	257	266	271	268	274	271	268	268	264	262	256	248	254	259	260.8	268.3
25 Spd	9	8	8	7	8	4	6	7	6	8	11	16	16	14	13	15	14	11	10	8	2	4	4	3	8.3	16.3
Dir	261	261	262	277	273	311	272	268	272	258	272	270	268	271	258	269	266	258	257	262	197	199	195	180	263.3	267.7
26 Spd	3	4	3	4	4	3	1	3	4	1	1	1	2	6	23	26	30	27	22	23	20	16	14	16	9.5	29.9
Dir	162	173	172	179	171	163	169	180	181	186	175	159	187	222	253	264	269	255	247	248	249	248	242	247	244.2	268.6
27 Spd	16	17	24	32	31	29	27	22	22	24	25	26	22	19	23	23	19	16	17	16	10	9	1	1	19.2	31.7
Dir	245	249	257	262	262	264	262	257	257	262	267	268	271	278	271	265	273	262	259	257	240	223	144	76	261.5	261.6
28 Spd	1	1	1	3	4	2	1	2	2	2	2	2	2	2	2	1	0	1	2	4	10	15	16	14	1.6	16.3
Dir	109	119	109	62	84	98	98	65	104	131	122	109	96	134	62	99	93	340	273	255	261	250	254	244	235.4	253.7
29 Spd	12	12	13	16	18	21	22	21	22	25	24	29	29	25	17	21	17	6	13	12	10	8	6	3	16.0	28.9
Dir	238	240	253	254	252	255	262	263	262	263	260	263	268	271	264	255	250	217	236	227	222	217	196	161	253.7	267.5
30 Spd	3	5	5	4	4	4	6	4	1	1	6	17	25	25	27	32	29	21	15	9	9	10	11	11	10.9	32.4
Dir	174	197	193	198	190	183	211	213	199	131	219	250	258	265	265	268	262	268	276	252	245	228	236	245	251.5	268.2
31 Spd	13	14	8	11	15	16	18	17	19	24	27	25	27	27	26	26	24	21	24	24	18	17	16	11	19.3	27.4
Dir	254	247	227	250	255	260	260	262	259	262	267	273	267	267	270	265	264	268	263	261	259	260	266	275	262.7	267.0
Spd	4.0	3.9	4.3	4.4	4.3	4.1	3.7	3.5	3.8	5.1	6.6	8.0	9.2	8.6	9.1	9.1	8.2	7.0	6.4	6.1	4.8	4.5	4.1	4.5	Diurnal Average	
Dir	245.7	244.4	248.7	249.7	250.7	252.3	255.1	251.9	251.8	254.9	260.0	261.7	264.6	265.5	265.1	266.4	269.2	261.3	255.3	250.6	246.5	243.6	242.6	246.7		
Spd	16.7	17.7	24.3	31.7	31.1	28.7	26.7	21.9	21.8	24.6	26.8	28.7	28.9	27.2	27.5	32.4	29.9	26.6	23.5	23.6	19.7	16.7	16.3	16.0	Diurnal Maximum	
Dir	242.9	249.3	257.5	261.6	262.0	264.3	262.5	256.8	256.9	262.7	266.7	263.5	267.5	267.0	265.4	268.2	268.6	255.1	262.8	261.4	249.3	260.1	265.9	246.6		

Maximum Speed Value: 32 km/h on Oct 30 16:00
Minimum Speed Value: 0 km/h on Oct 12 05:00
Maximum Daily Speed Average: 19.3 km/h on Oct 27
Minimum Daily Speed Average: 0.6 km/h on Oct 6
Maximum Diurnal Speed Average: 9.2 km/h at hour 13
Minimum Diurnal Speed Average: 3.5 km/h at hour 8

Monthly Average Velocity: 5.66 km/h 256.71 deg
Speed Percentiles: P_1 = 0.3 P_{10} = 0.9 Q_1 = 1.7 Median = 4.3 Q_3 = 11.3 P_{90} = 18.0 P_{99} = 28.6
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

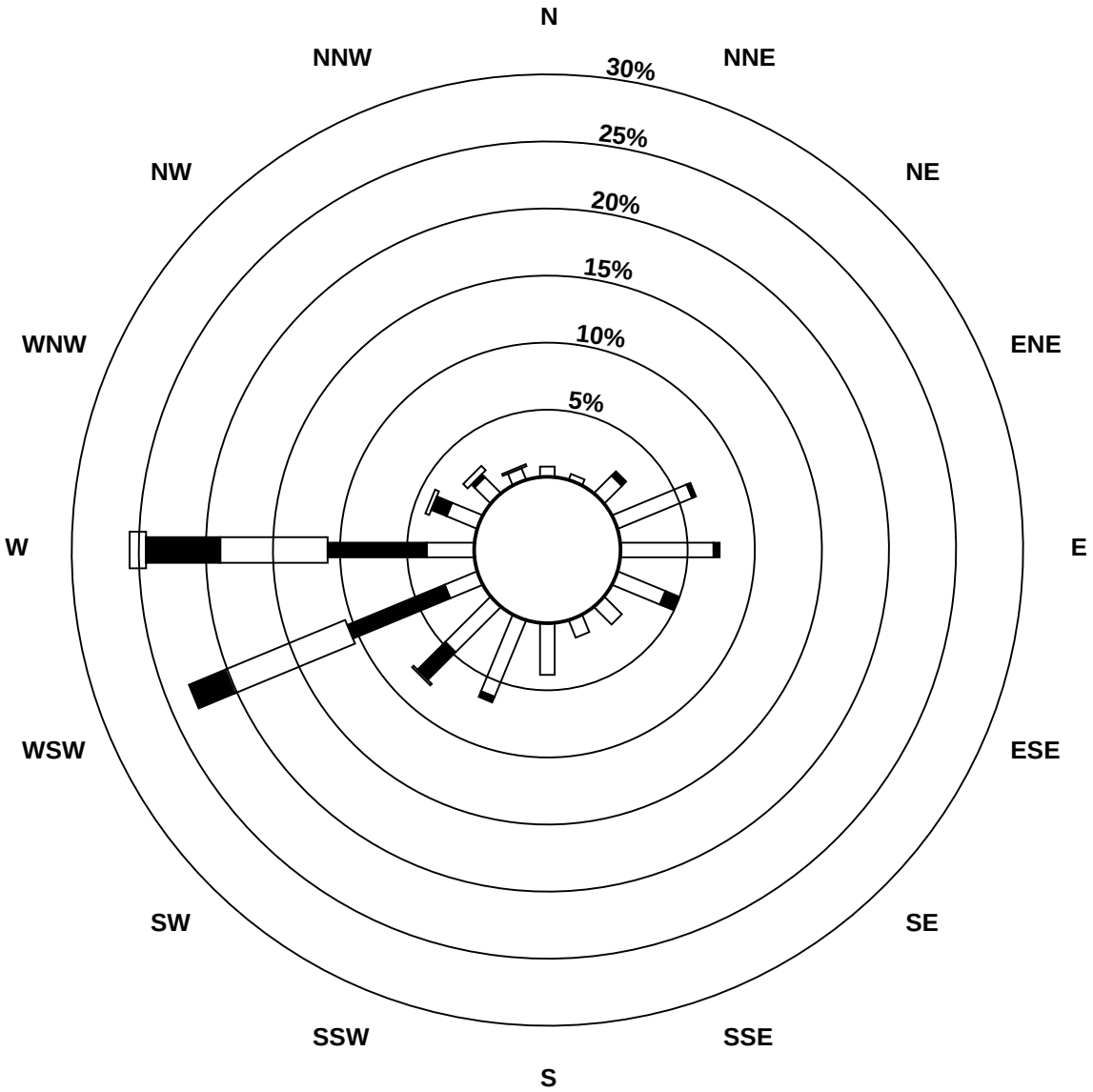
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	12	0	0	0	0	0	12
NorthEast	39	6	0	0	0	0	45
East	99	14	0	0	0	0	113
SouthEast	36	4	0	0	0	0	40
South	75	3	0	0	0	0	78
SouthWest	68	31	18	2	0	0	119
West	45	89	105	56	9	0	304
NorthWest	24	5	4	0	0	0	33
Total	398	152	127	58	9	0	744

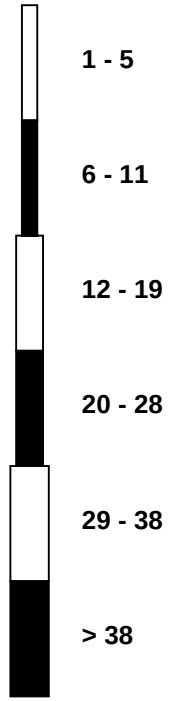
Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - October 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - October 2011

Maximum Speed: 33 km/h on Oct 30 16:00

Maximum Daily Speed Average: 19.9 km/h on Oct 27

Minimum Speed: 1 km/h on Oct 21 08:00

Minimum Daily Speed Average: 2.3 km/h on Oct 6

Maximum Diurnal Speed Average: 12.4 km/h at hour 15

Minimum Diurnal Speed Average: 5.2 km/h at hour 8

Monthly Average Speed: 7.79 km/h

Percentiles: P_1 = 1.1 P_{10} = 1.6 Q_1 = 2.3 Median = 4.6 Q_3 = 11.7 P_{90} = 18.1 P_{99} = 28.9

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	11	9	8	5	4	3	2	2	1	1	2	2	4	5	6	3	2	3	5	5	5	6	3	4	4.3	11.2
2-Oct	5	5	5	4	2	2	2	2	1	3	3	2	3	4	3	4	4	3	1	2	2	2	3	3	2.9	5.2
3-Oct	3	3	3	3	2	3	3	4	4	5	4	4	5	5	5	4	3	1	2	2	3	2	2	2	3.2	5.0
4-Oct	2	2	4	4	3	4	3	2	2	3	4	4	5	2	3	4	3	2	2	1	2	2	2	2	2.8	4.9
5-Oct	1	1	1	1	1	1	2	2	2	4	5	3	4	3	6	7	6	6	6	4	5	3	2	2	3.2	6.6
6-Oct	2	2	2	1	2	2	4	1	2	3	3	3	4	3	3	3	2	3	2	1	1	2	2	1	2.3	4.3
7-Oct	1	2	4	10	11	8	6	7	10	14	16	16	17	16	14	10	7	9	5	2	4	10	9	6	9.0	16.7
8-Oct	4	3	3	3	2	2	1	2	1	2	3	5	5	4	7	9	7	6	6	5	3	3	4	2	3.8	9.1
9-Oct	2	2	3	3	4	2	3	3	4	6	11	20	26	22	21	20	16	18	14	13	3	2	2	2	9.4	25.8
10-Oct	1	1	1	1	1	1	2	1	2	4	5	5	5	9	7	8	7	6	5	6	5	5	5	4	4.1	8.7
11-Oct	3	2	2	2	4	7	6	7	8	7	7	5	8	7	6	4	5	2	2	2	1	1	2	4	4.4	8.4
12-Oct	3	2	3	2	2	2	2	2	1	4	2	4	11	11	21	16	16	15	13	9	12	12	14	15	8.0	20.7
13-Oct	15	17	20	17	14	15	13	15	13	17	18	17	15	11	9	12	14	17	18	16	11	9	8	8	14.2	20.2
14-Oct	4	1	1	2	3	3	3	4	4	3	4	6	8	13	15	9	8	10	8	8	5	6	4	2	5.7	14.6
15-Oct	1	2	2	2	1	2	1	1	1	1	4	6	10	11	11	8	11	9	8	8	5	3	1	1	4.6	11.0
16-Oct	2	1	2	3	3	1	1	1	1	1	3	4	7	12	17	17	12	11	7	10	9	7	4	3	5.8	17.4
17-Oct	1	2	1	1	2	1	2	1	2	2	5	11	17	15	19	22	19	19	15	13	6	2	2	2	7.6	21.9
18-Oct	1	1	2	2	2	2	2	2	2	2	2	5	7	9	7	9	9	5	3	3	4	3	2	2	3.6	9.2
19-Oct	1	1	2	2	2	2	1	2	2	2	4	2	2	2	2	3	2	6	7	10	9	8	12	14	4.2	13.6
20-Oct	13	10	7	7	6	8	6	4	2	3	7	12	10	10	12	12	7	7	5	6	6	4	2	4	7.0	12.7
21-Oct	3	1	1	2	2	2	1	1	2	2	2	3	5	6	6	4	3	3	3	2	3	2	4	14	3.3	13.6
22-Oct	17	18	22	17	13	11	11	13	13	14	18	17	16	13	10	4	3	3	2	3	4	8	15	15	11.6	22.4
23-Oct	12	15	11	9	7	12	5	3	11	17	21	24	29	25	23	18	15	12	12	10	6	7	2	8	13.1	28.6
24-Oct	7	3	1	2	1	2	4	3	4	7	17	20	19	21	18	20	19	17	14	13	12	9	11	10	10.5	20.9
25-Oct	9	8	8	7	8	5	6	7	6	8	11	16	16	15	14	15	14	11	10	8	3	4	4	3	9.0	16.5
26-Oct	3	4	4	4	4	3	2	4	4	2	2	2	2	7	24	26	30	27	22	23	20	16	14	16	11.0	30.2
27-Oct	16	18	25	32	31	29	27	22	22	24	25	27	23	20	23	23	19	16	17	16	10	9	3	2	19.9	32.0
28-Oct	1	2	2	3	4	4	2	2	2	2	3	3	2	2	2	2	2	2	2	4	10	15	16	15	4.3	16.4
29-Oct	12	12	13	16	18	22	22	21	22	25	24	29	29	25	18	21	17	6	13	12	10	8	6	4	16.9	29.2
30-Oct	3	5	5	4	4	4	6	4	2	2	7	18	25	26	28	33	29	21	15	10	9	10	12	11	12.2	32.7
31-Oct	13	14	9	11	16	16	18	17	20	24	27	26	28	28	26	26	24	21	24	24	18	17	16	12	19.6	27.7
	5.6	5.4	5.7	5.8	5.8	5.8	5.4	5.2	5.6	7.0	8.7	10.3	11.8	11.6	12.4	12.1	10.9	9.5	8.7	8.1	6.7	6.4	6.1	6.2	Diurnal Average	
	16.8	17.8	24.6	32.0	31.4	28.9	26.9	22.1	21.9	24.8	26.9	29.1	29.2	27.5	27.8	32.7	30.2	27.1	23.7	23.8	19.9	16.8	16.4	16.1	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - October 2011

Maximum Value: 99.4 deg on Oct 5 01:00

Minimum Value: 4.4 deg on Oct 27 22:00

Percentiles: P_1 = 5.3 P_{10} = 6.7 Q_1 = 9.3 Median = 19.0 Q_3 = 45.6 P_{90} = 72.1 P_{99} = 91.7

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
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	12	5	16	58	26	60	96	72	82	73	75	71	37	31	23	27	22	15	24	32	30	22	17	17	96.2
2-Oct	15	15	15	25	28	23	21	58	59	36	38	55	33	30	22	27	21	26	46	40	21	18	12	24	59.0
3-Oct	14	16	14	24	19	20	21	17	20	16	19	25	23	26	24	29	15	43	36	56	71	76	57	58	76.5
4-Oct	63	74	19	15	21	25	21	77	81	76	52	34	63	59	70	33	53	23	33	72	29	16	45	38	81.0
5-Oct	99	83	69	68	61	82	57	20	22	20	20	26	21	45	18	19	20	18	12	23	16	23	44	40	99.4
6-Oct	58	43	74	71	29	17	22	79	67	34	25	52	45	75	43	83	84	17	9	40	89	84	67	75	88.7
7-Oct	83	47	20	5	6	17	13	10	8	9	14	16	17	16	13	17	18	12	13	20	13	6	6	6	82.7
8-Oct	11	19	27	49	37	89	53	70	94	39	37	24	37	33	25	19	13	18	14	13	19	53	51	83	94.0
9-Oct	59	68	60	87	31	86	89	88	65	16	19	10	10	11	13	12	14	7	7	7	58	73	67	61	89.3
10-Oct	58	24	62	58	59	63	71	58	56	18	24	25	28	18	20	20	14	14	12	7	9	9	10	11	71.2
11-Oct	15	29	77	43	19	8	13	15	11	11	17	35	24	27	21	38	20	30	63	81	73	93	37	19	92.9
12-Oct	28	92	52	61	93	78	84	69	56	20	44	20	15	13	9	10	9	7	7	10	7	6	6	6	92.7
13-Oct	6	7	7	5	7	7	6	6	8	18	7	7	13	13	17	16	13	8	7	5	6	8	5	5	18.2
14-Oct	22	48	87	40	12	11	20	10	10	12	18	25	18	16	11	20	40	7	7	5	9	10	10	74	87.1
15-Oct	42	66	55	55	64	19	76	81	74	86	24	25	18	17	13	32	11	8	5	8	16	40	70	52	85.9
16-Oct	38	74	55	67	15	65	80	78	78	75	22	28	23	10	8	9	14	10	12	6	7	39	41	31	80.5
17-Oct	87	61	62	76	55	67	45	89	88	68	18	13	8	11	14	7	9	8	7	11	25	81	48	66	88.9
18-Oct	88	85	33	83	46	68	61	75	64	63	72	27	33	11	21	19	13	15	14	54	25	39	73	27	88.5
19-Oct	92	72	51	50	38	72	80	36	43	34	46	71	35	36	69	72	35	29	6	6	9	6	7	5	91.7
20-Oct	7	14	8	10	8	7	14	57	92	75	18	14	23	24	22	20	17	9	18	7	13	12	55	22	91.9
21-Oct	23	59	62	37	72	65	60	68	12	11	15	21	26	18	25	16	20	16	60	67	51	78	61	27	77.9
22-Oct	6	5	5	8	10	9	9	6	6	6	9	9	12	15	17	21	23	28	52	71	27	7	6	6	71.0
23-Oct	6	7	7	9	11	6	71	90	6	7	8	9	9	10	12	12	9	13	6	9	19	7	68	6	90.5
24-Oct	25	88	81	59	66	52	36	72	6	25	7	12	11	9	11	10	9	7	7	7	6	9	5	5	87.9
25-Oct	6	7	7	11	8	31	21	7	19	10	13	10	10	14	19	9	8	7	9	8	30	27	12	30	30.7
26-Oct	35	16	20	11	15	17	43	23	19	74	74	34	27	23	11	10	8	11	8	6	7	7	6	7	73.7
27-Oct	7	9	9	7	7	7	6	7	6	8	7	9	11	13	10	8	9	7	6	6	12	4	69	48	69.0
28-Oct	57	33	42	12	34	72	74	30	36	23	27	22	36	47	39	67	88	69	63	15	9	7	7	9	87.6
29-Oct	8	10	8	6	5	6	6	6	7	7	7	9	9	9	11	11	11	13	10	5	10	7	15	25	25.0
30-Oct	17	13	13	33	21	20	12	14	88	60	23	8	8	9	9	8	7	8	11	15	10	6	9	7	88.2
31-Oct	5	7	14	7	6	6	5	7	6	7	7	10	8	9	9	7	8	7	7	7	7	7	6	11	14.2
	99.4	92.0	87.1	87.4	92.7	88.8	96.2	90.5	94.0	85.9	74.9	71.4	62.8	74.6	70.3	82.9	87.6	68.5	63.4	81.1	88.7	92.9	72.9	83.3	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 5.0 ppb on Oct 11 23:00 Maximum Daily Average: 0.9 ppb on Oct 11

Minimum Value: 0 ppb on Oct 18 06:00 Minimum Daily Average: 0.0 ppb on Oct 6
Maximum Diurnal Average: 0.4 ppb at hour 22 Minimum Diurnal Average: 0.1 ppb at hour 4
Monthly Average: 0.19 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.5$ $P_{99} = 1.8$

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	1	1	0	0	0	0	0	0	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.9
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.2
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.1
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0.1	0.5
5-Oct	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
6-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
7-Oct	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
8-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
9-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2	0.3	1.9
10-Oct	1	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	1.2
11-Oct	0	0	0	0	0	A	1	2	0	1	1	0	0	0	1	1	1	1	0	0	1	4	5	1	0.9	5.0
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
13-Oct	0	0	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	1	2	1	1	2	2	0	0.6	2.1
14-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
15-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
16-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	A	0.2	1.8
17-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	1	A	0	0.2	0.9
18-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
19-Oct	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.7
20-Oct	0	1	0	0	1	0	0	0	0	1	1	0	1	1	0	0	0	1	0	A	0	0	0	0	0.4	1.4
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.1
22-Oct	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	A	0	0	0	0	0	1	0.2	0.9
23-Oct	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	3	0	0	0.3	2.5
24-Oct	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.5
25-Oct	1	1	0	0	1	0	1	1	0	1	1	1	0	0	A	0	1	0	0	1	0	0	0	0	0.4	1.1
26-Oct	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0	0.2
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
28-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
29-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
31-Oct	0	0	0	0	0	0	3	1	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	3.3
	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.3	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.4	0.3	0.2	Diurnal Average	
	1.2	0.8	0.6	0.5	1.0	0.7	3.3	1.8	1.0	1.4	1.3	0.9	0.8	0.6	0.5	0.8	0.7	1.2	1.8	0.7	1.3	4.1	5.0	1.9	Diurnal Maximum	

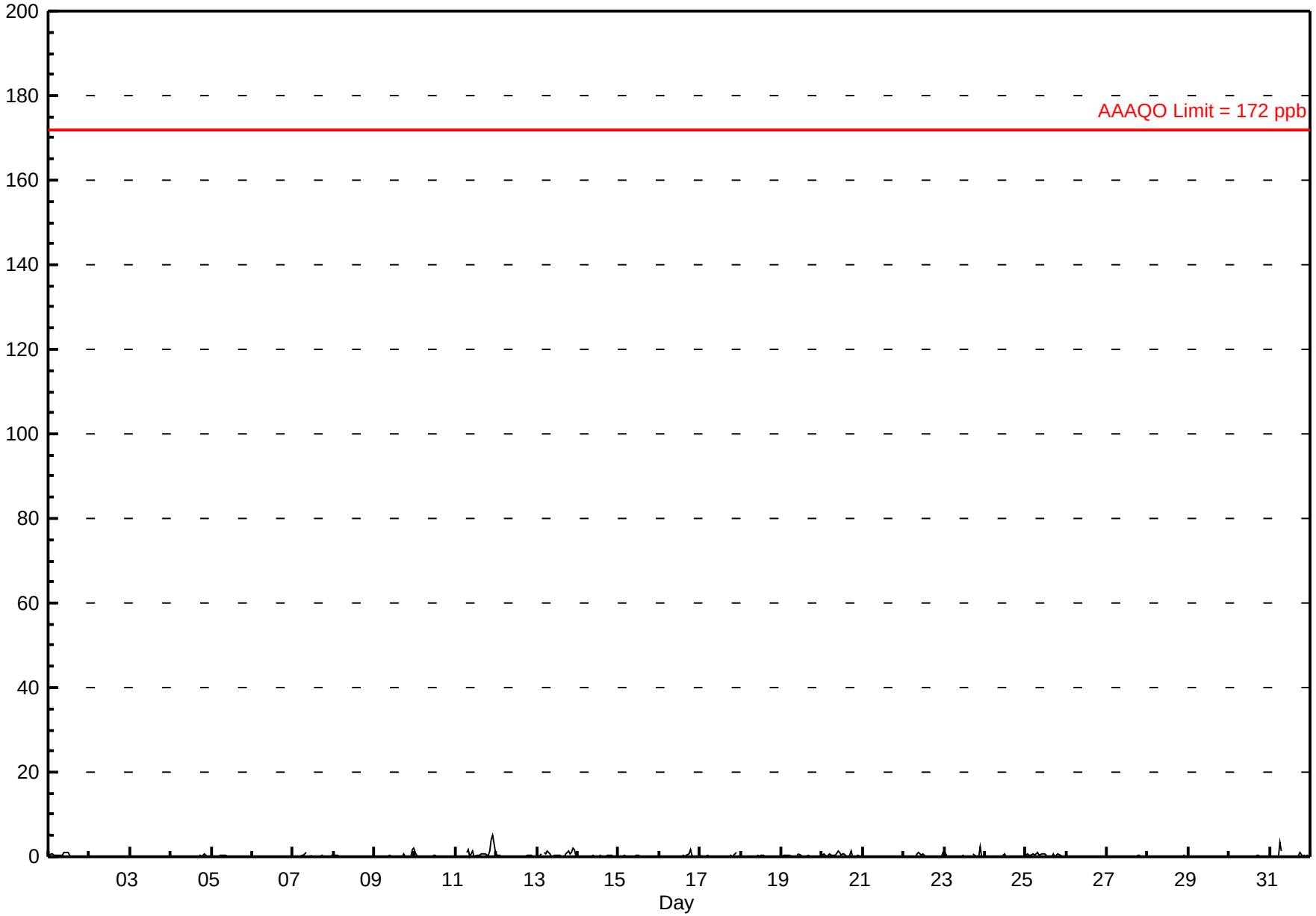
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - October 2011



Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - October 2011

Maximum Value: 9.0 ppb on Oct 10 00:00

Maximum Daily Average: 1.8 ppb on Oct 11

Minimum Value: 0 ppb on Oct 5 18:00

Minimum Daily Average: 0.2 ppb on Oct 6

Maximum Diurnal Average: 1.2 ppb at hour 19

Minimum Diurnal Average: 0.4 ppb at hour 4

Monthly Average: 0.67 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.6$ $P_{90} = 1.4$ $P_{99} = 4.2$

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	2	1	1	1	1	1	1	1	2	1	1	1	0	1	A	0	0	0	0	0	0	0	0	0.8	2.2
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0.3	0.8
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.5
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	1	1	1	0	1	3	0	1	0	0.6	2.6
5-Oct	0	0	0	0	0	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
6-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
7-Oct	0	0	0	0	1	1	1	2	2	A	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0.6	2.4
8-Oct	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
9-Oct	0	0	0	0	0	1	1	A	0	1	0	0	0	0	0	0	0	2	1	0	0	0	6	9	1.1	9.0
10-Oct	4	1	0	0	1	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.5	3.6
11-Oct	0	0	0	0	0	A	3	3	1	2	3	1	1	1	1	1	1	1	1	1	5	7	8	2	1.8	7.7
12-Oct	1	1	1	0	A	0	0	0	0	0	0	0	0	1	0	1	0	0	2	1	3	0	0	0	0.6	2.7
13-Oct	0	0	3	A	2	2	2	1	0	1	1	1	1	1	1	1	0	2	5	2	2	4	4	1	1.6	4.7
14-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	1	0	0	0	0.5	1.6
15-Oct	0	A	0	1	0	0	0	0	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0.5	1.7
16-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	4	1	0	0	0	A	0.7	4.5
17-Oct	0	0	0	0	1	1	0	1	0	0	0	0	0	C	C	C	0	2	3	1	2	2	A	1	0.8	3.3
18-Oct	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	1	1	0	A	0	0	0.4	1.4
19-Oct	1	1	1	1	1	1	0	0	0	0	2	1	0	1	0	0	1	0	0	0	A	0	1	0	0.6	2.0
20-Oct	2	2	1	0	2	1	1	1	1	3	2	1	2	1	1	0	2	2	1	A	1	1	0	0	1.1	2.9
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0.3	0.6
22-Oct	0	0	0	0	0	0	0	0	3	3	2	1	1	0	0	0	0	A	0	0	0	0	0	4	0.8	3.6
23-Oct	4	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	3	3	0	1	7	0	0	1.2	7.0
24-Oct	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	1	0	1	1	0.5	1.4
25-Oct	2	1	1	1	1	1	1	2	1	1	1	1	1	0	A	1	1	1	2	2	2	0	0	0	1.0	2.1
26-Oct	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0.3	0.5
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	3	2	0	0	0	0	0.5	2.6
28-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	2	0	0	0.5	2.4
29-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6
30-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	2	2	0	1	0	0	0	0	0.5	1.8
31-Oct	0	0	0	0	1	0	7	3	A	0	1	1	0	0	0	0	0	2	4	1	1	0	1	1	1.1	7.2
	0.7	0.6	0.5	0.4	0.5	0.5	0.8	0.7	0.5	0.7	0.8	0.6	0.6	0.5	0.4	0.5	0.5	0.9	1.2	0.7	0.9	1.0	0.9	0.9	Diurnal Average	
	3.6	3.2	3.3	0.9	1.6	1.8	7.2	3.3	2.6	2.9	2.6	1.4	1.7	1.4	1.1	1.1	1.7	2.9	4.7	2.1	4.8	7.0	7.7	9.0	Diurnal Maximum	

C - Calibration

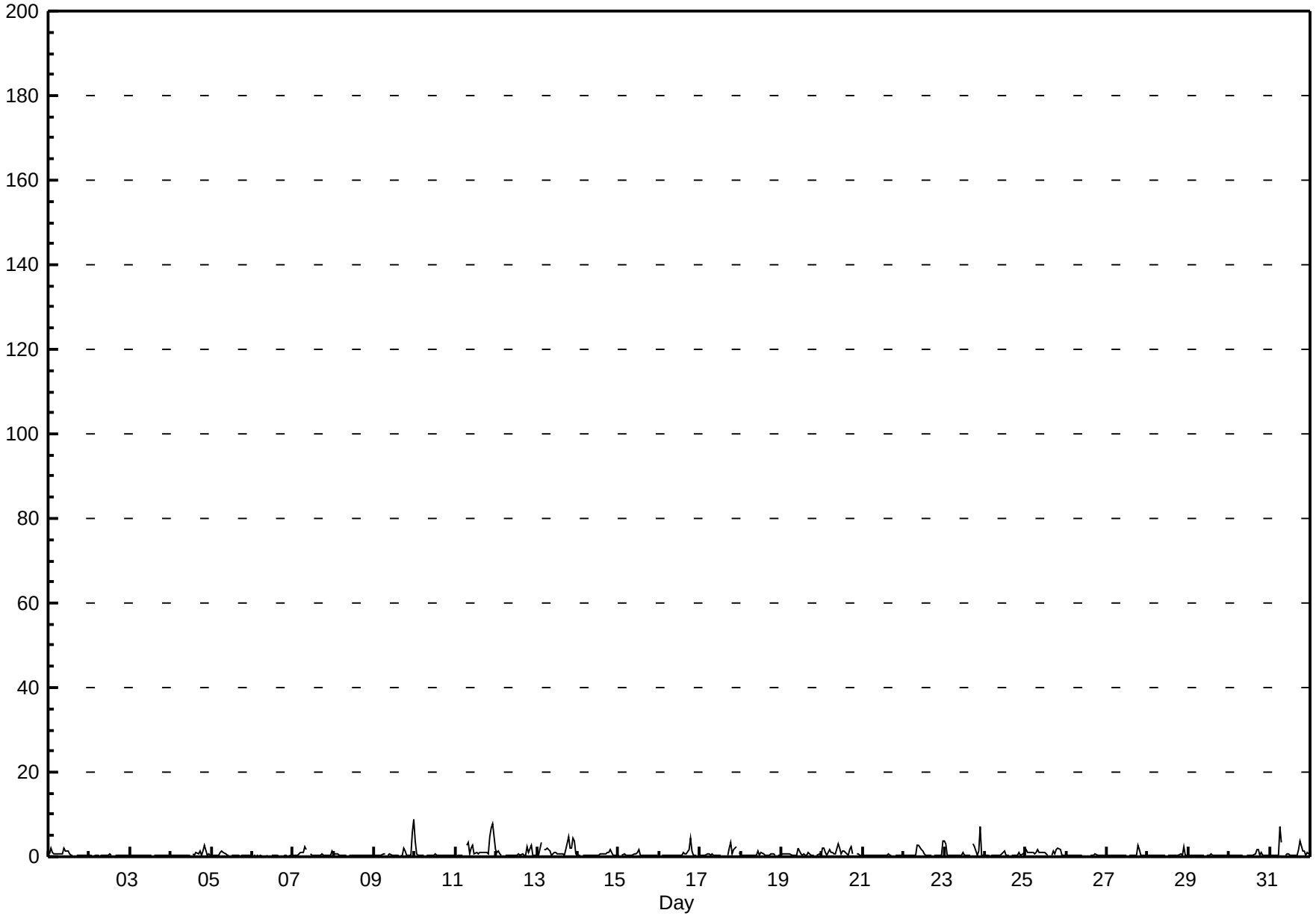
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - October 2011

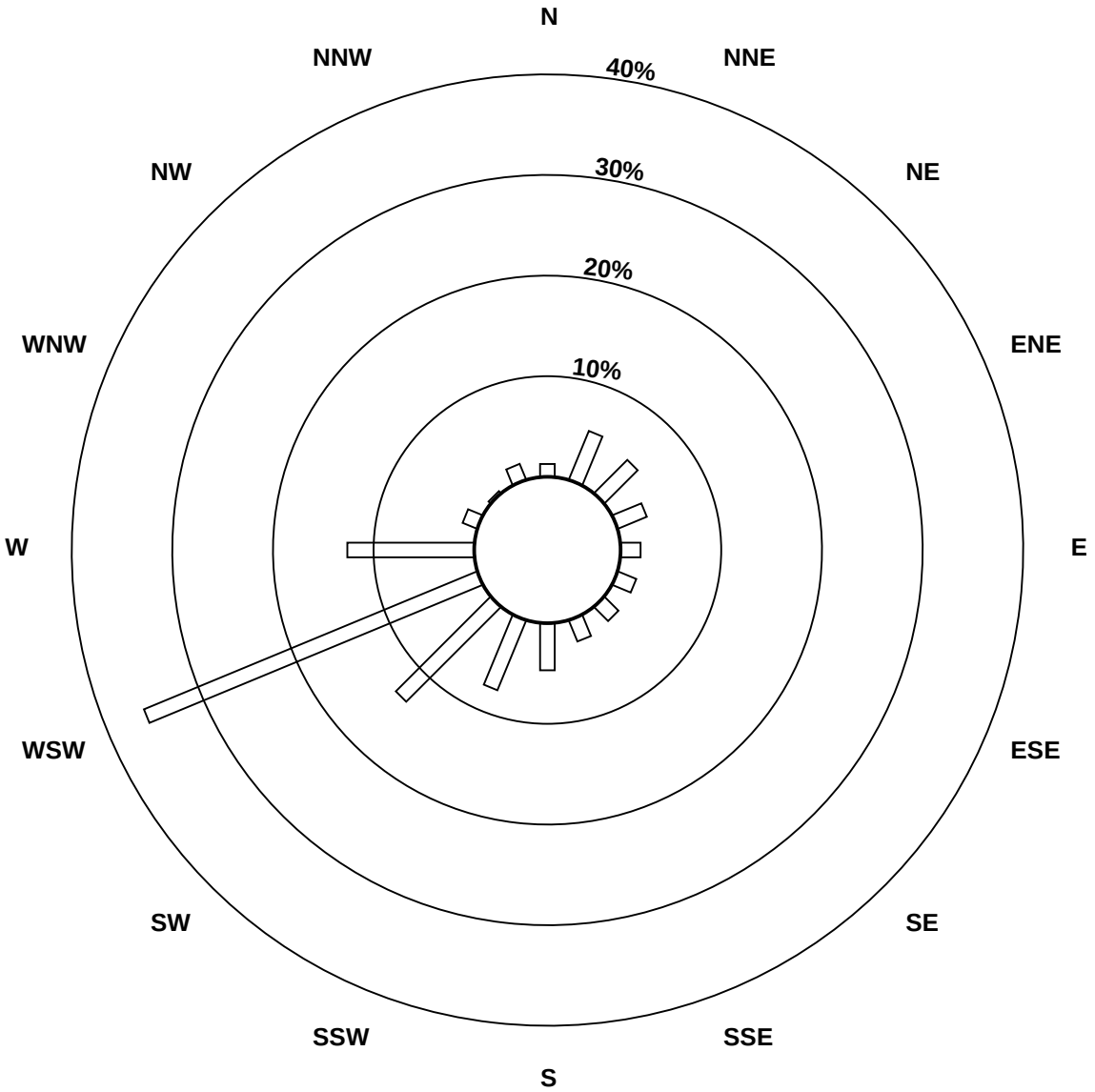


Peace Airshed Zone Association

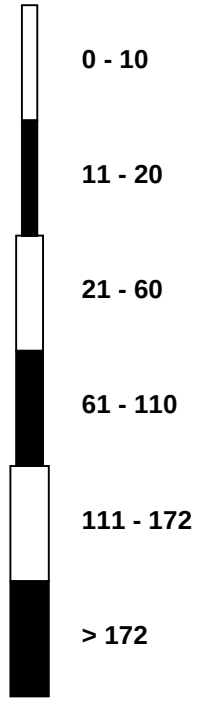
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - October 2011



Pollutant Classes (ppb)

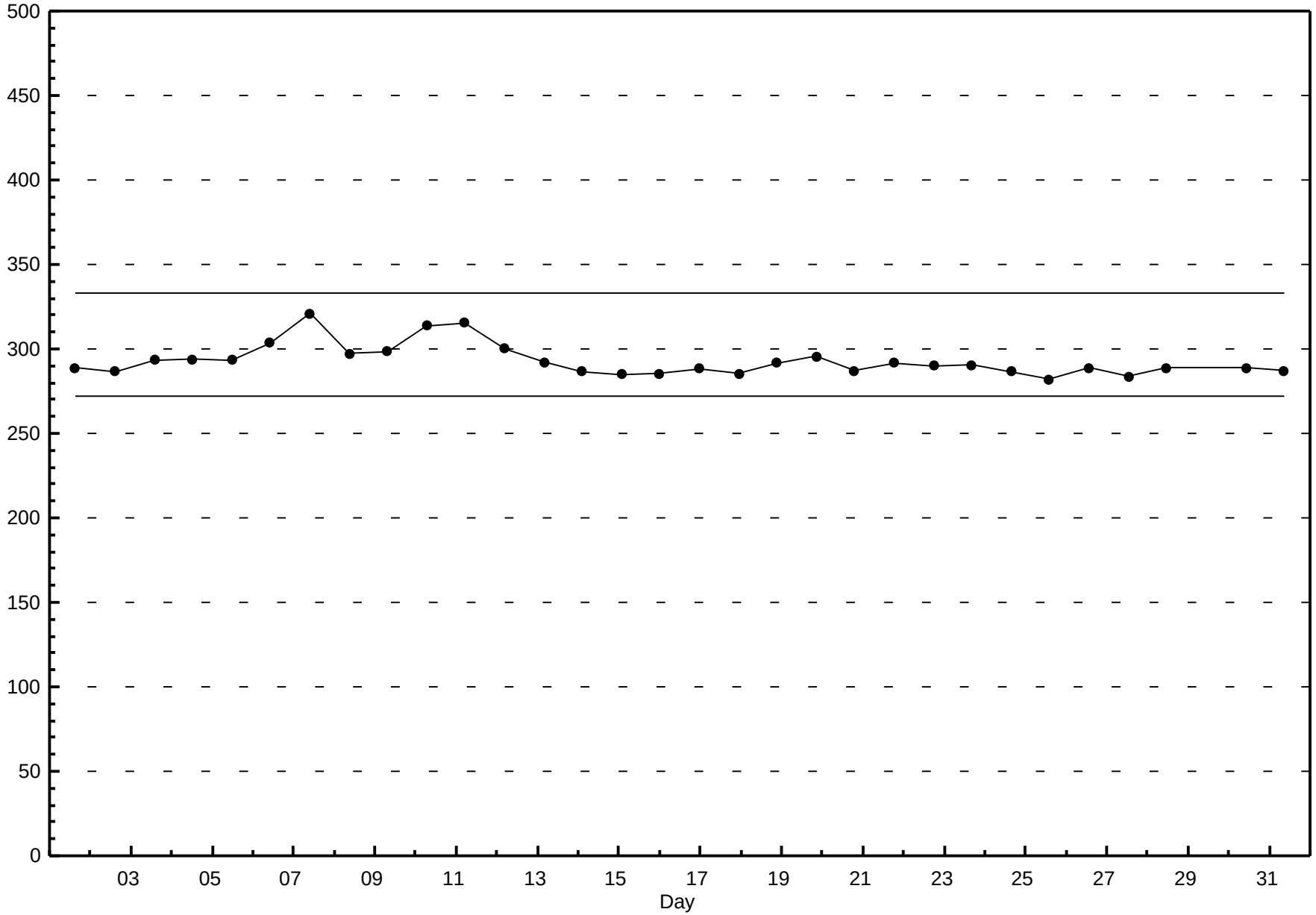


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Smoky Heights - October 2011



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.6 ppb on Oct 7 00:00 Maximum Daily Average: 0.5 ppb on Oct 4

Minimum Value: 0 ppb on Oct 10 16:00 Minimum Daily Average: 0.1 ppb on Oct 14
Maximum Diurnal Average: 0.3 ppb at hour 24 Minimum Diurnal Average: 0.1 ppb at hour 14
Monthly Average: 0.23 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 1.0$

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)																								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-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
3-Oct	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0.4	0.6
4-Oct	0	1	1	1	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	1	2	0.5	1.6
5-Oct	1	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
6-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	2	2	0.5	1.6
7-Oct	1	0	0	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
8-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
9-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
10-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
11-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
12-Oct	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
13-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
14-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
16-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
17-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	A	0	0.2	0.3
18-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4
19-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.5
20-Oct	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0.3	0.5
22-Oct	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	0.6
23-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3
24-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
25-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.3
26-Oct	0	0	0	0	0	0	0	0	0	C	C	C	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3
27-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
29-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
30-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
31-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	Diurnal Average	
	1.2	0.5	0.6	0.9	0.5	0.7	0.4	1.1	0.7	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.7	1.3	0.8	1.5	1.6	Diurnal Maximum	

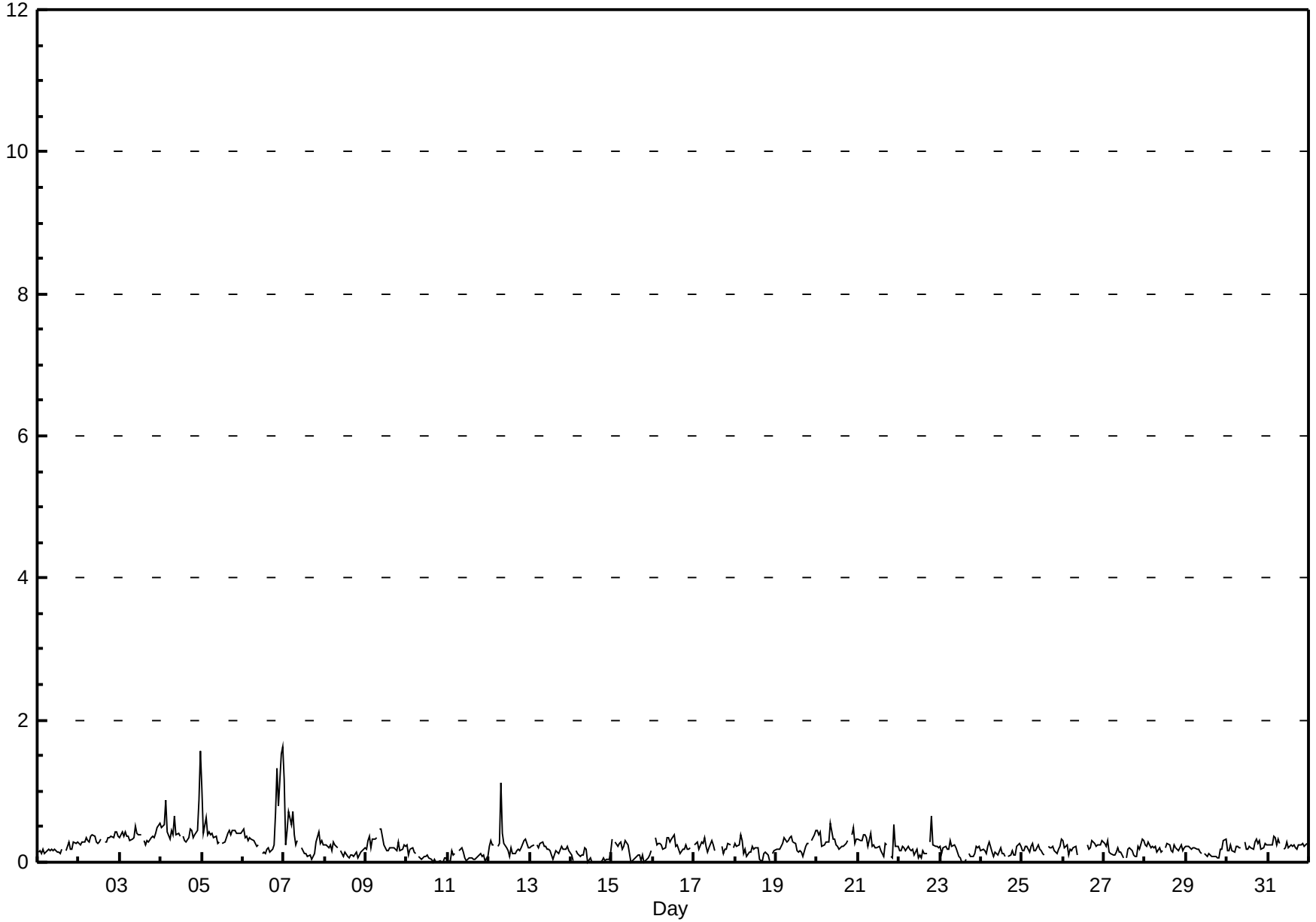
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2011



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2011

Maximum Value: 4.6 ppb on Oct 5 00:00

Maximum Daily Average: 1.1 ppb on Oct 4

Minimum Value: 0 ppb on Oct 14 11:00

Minimum Daily Average: 0.5 ppb on Oct 14

Maximum Diurnal Average: 0.9 ppb at hour 24

Minimum Diurnal Average: 0.5 ppb at hour 14

Monthly Average: 0.66 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 2.1$

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	1	0	1	1	1	1	1	1	1	0	0	1	0	1	1	A	1	1	1	1	1	1	1	1	0.6	0.8
2-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.2
3-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.1
4-Oct	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	5	1.1	4.6
5-Oct	3	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.8
6-Oct	2	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	0	1	1	2	2	2	3	3	1.0	3.5
7-Oct	2	1	1	1	1	2	1	1	1	A	1	1	0	0	1	0	0	0	1	1	1	1	1	1	0.8	2.3
8-Oct	1	1	1	0	1	1	1	1	A	1	1	0	1	0	0	0	1	0	1	1	1	1	1	1	0.6	0.8
9-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
10-Oct	1	0	0	1	1	0	A	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0.5	0.7
11-Oct	0	0	0	0	0	A	1	1	1	1	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0.5	0.7
12-Oct	1	1	1	1	A	1	1	5	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	0.8	4.5
13-Oct	0	1	1	A	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0	1	0	0.6	0.7
14-Oct	1	0	A	1	1	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0.7
15-Oct	1	A	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0	1	0	1	0	0	1	0.6	0.8
16-Oct	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	A	0.6	0.8
17-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	1	0	1	1	1	1	A	1	0.7	0.8
18-Oct	1	1	1	1	1	0	1	0	1	1	1	1	0	1	0	0	0	1	0	0	0	A	0	1	0.6	1.0
19-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	0.7	0.8
20-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.0
21-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	A	0	0	2	1	1	0.7	2.1
22-Oct	1	1	1	1	0	1	1	0	1	0	1	0	0	1	1	1	0	A	1	1	1	1	1	1	0.6	1.3
23-Oct	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	1	A	0	0	0	0	1	1	1	0.6	0.8
24-Oct	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	A	0	1	1	1	1	1	1	1	0.6	0.9
25-Oct	1	1	1	1	0	1	1	0	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	0.6	0.8
26-Oct	1	1	1	1	1	1	0	1	1	C	C	C	1	A	1	1	1	1	1	1	1	1	1	1	0.6	0.9
27-Oct	1	1	1	1	1	0	0	1	1	1	1	0	A	0	1	1	0	1	0	0	1	1	1	1	0.6	0.7
28-Oct	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
29-Oct	1	1	1	1	1	1	1	1	1	1	A	1	0	1	0	1	0	1	0	1	1	1	1	1	0.6	1.1
30-Oct	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
31-Oct	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8
	0.8	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.9	Diurnal Average	
	2.8	1.0	1.9	1.8	1.0	2.0	1.2	4.5	1.4	1.1	0.8	0.9	0.8	0.8	0.7	0.8	0.9	0.9	1.0	1.7	2.2	2.1	3.1	4.6	Diurnal Maximum	

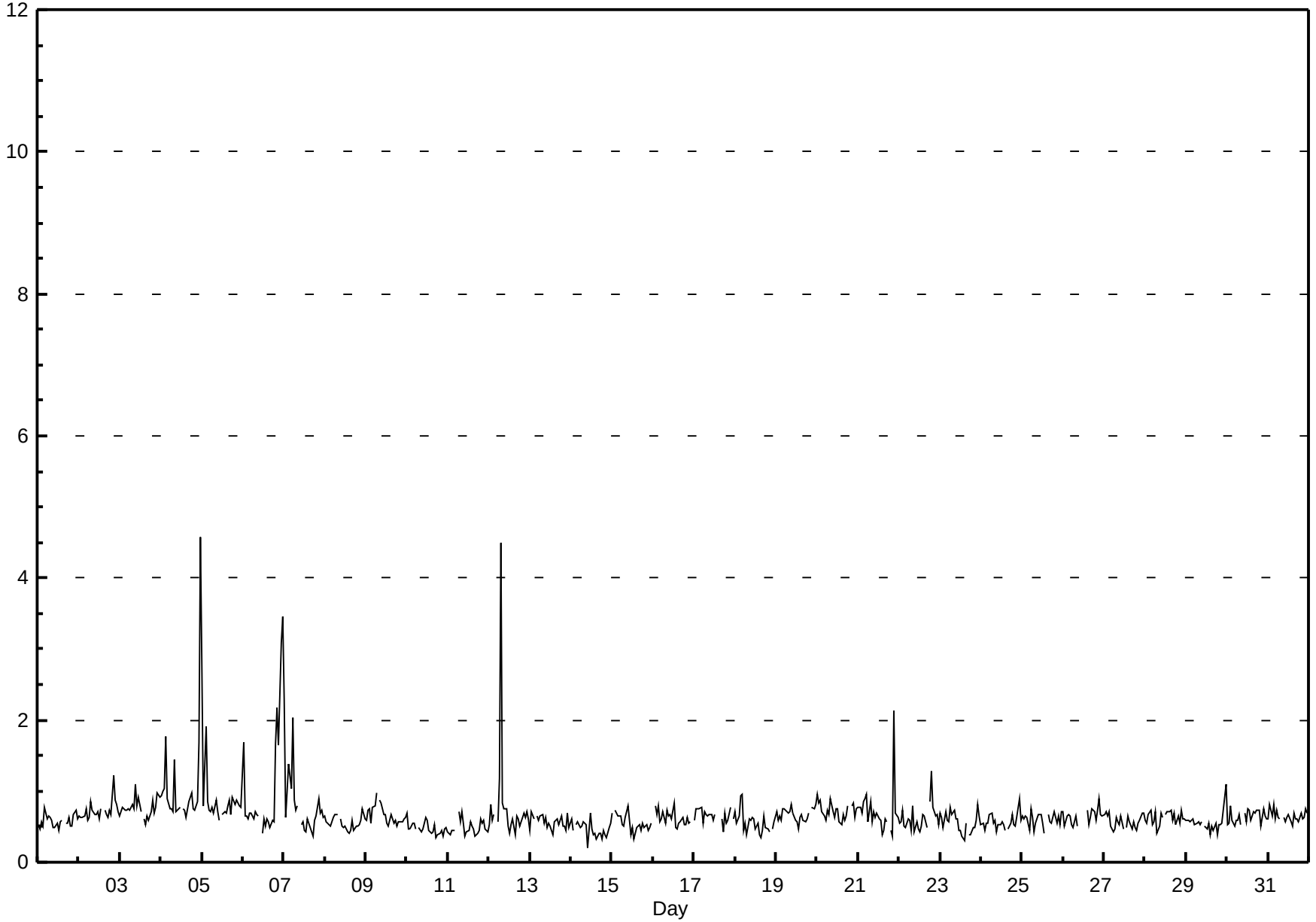
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2011

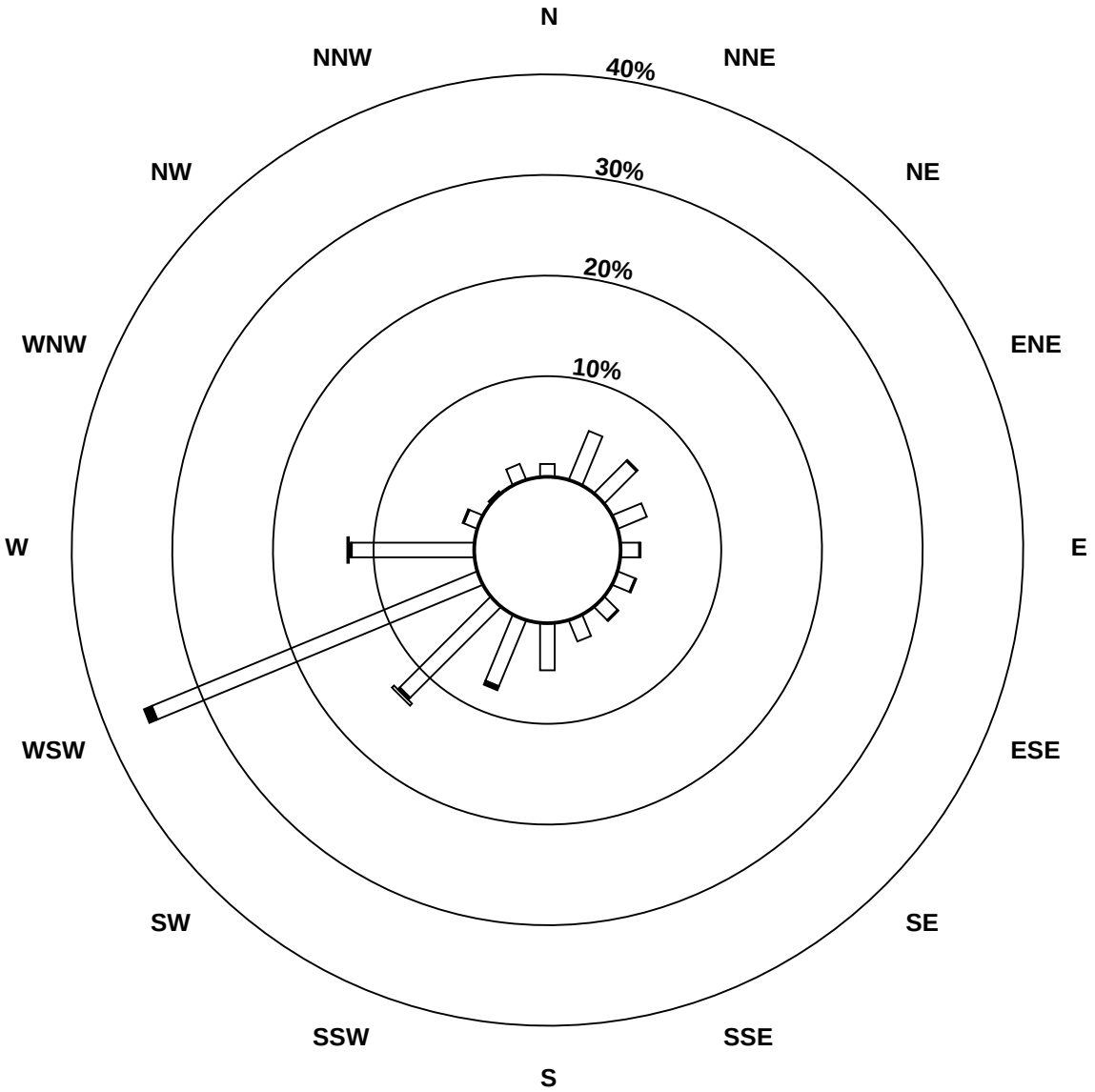


Peace Airshed Zone Association

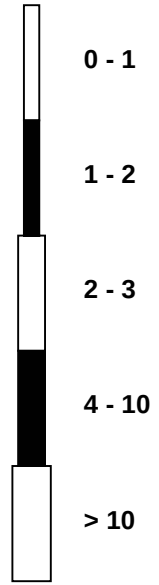
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - October 2011



Pollutant Classes (ppb)

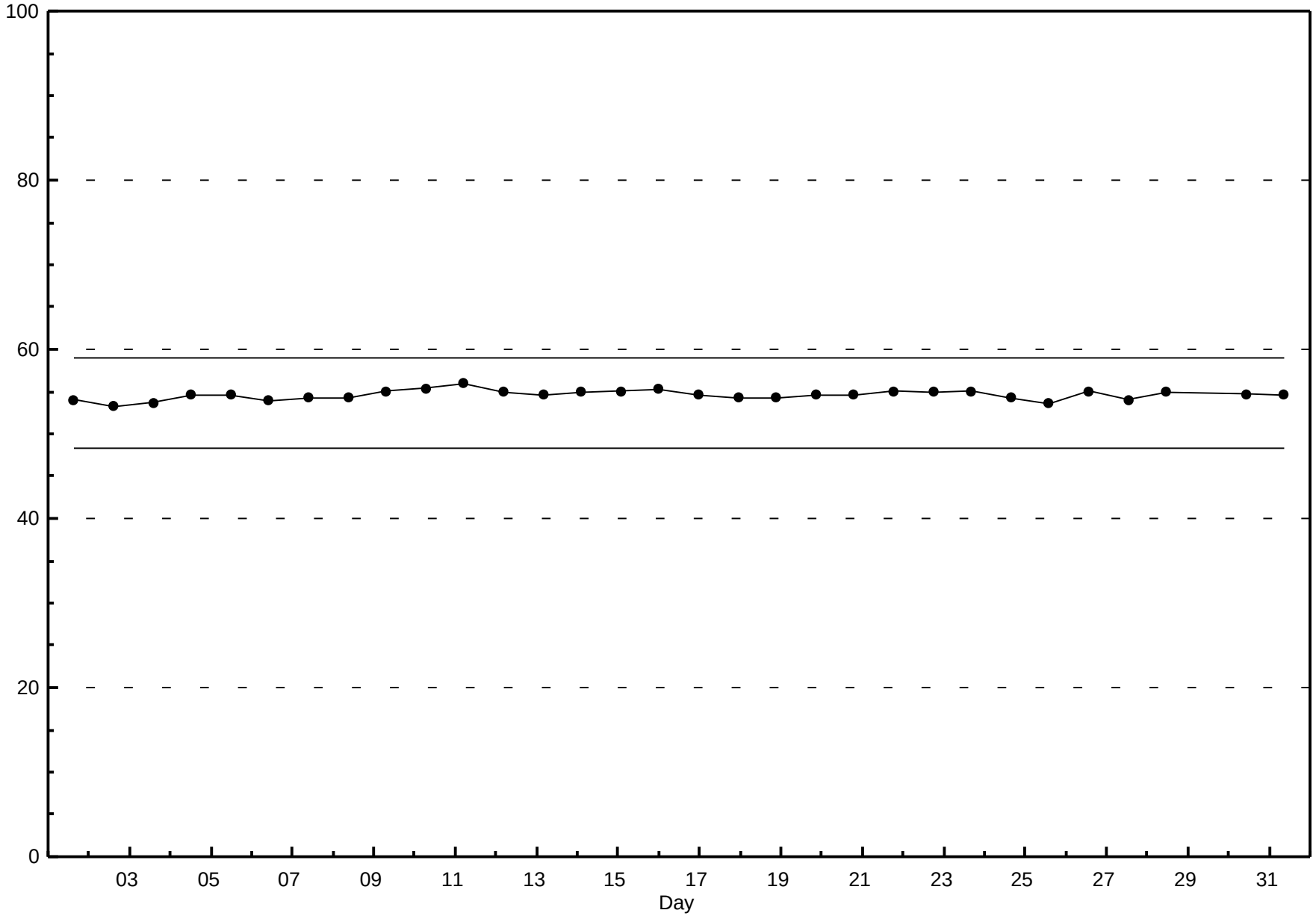


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Smoky Heights - October 2011



Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - October 2011

Number of Exceedences: 1-hr: 0 24-hr: 0
Maximum Value: 35.2 $\mu g/m^3$ on Oct 11 19:00
Maximum Daily Average: 7.7 $\mu g/m^3$ on Oct 4

Minimum Value: 0 $\mu g/m^3$ on Oct 1 14:00
Maximum Diurnal Average: 4.1 $\mu g/m^3$ at hour 19
Monthly Average: 2.75 $\mu g/m^3$
Minimum Daily Average: 0.5 $\mu g/m^3$ on Oct 18
Minimum Diurnal Average: 1.9 $\mu g/m^3$ at hour 14
Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.8 Median = 2.0 Q_3 = 4.0 P_{90} = 6.0 P_{99} = 13.4

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	3
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	2	3	2	1	2	2	5	6	7	3	3	1	0	0	1	1	1	1	3	2	2	2	3	2	2.3	6.8
2-Oct	1	1	0	0	1	1	1	1	1	2	4	3	3	3	3	3	4	4	4	4	4	4	3	3	2.5	4.4
3-Oct	3	3	3	3	3	4	4	4	5	5	4	4	4	3	4	4	2	2	4	5	5	8	10	12	4.5	12.1
4-Oct	11	8	9	5	5	6	6	5	8	6	6	8	9	8	8	9	10	12	10	9	7	6	7	6	7.7	11.5
5-Oct	8	7	7	5	6	8	7	8	8	5	2	2	1	3	5	10	11	5	4	4	4	3	3	2	5.3	10.8
6-Oct	2	2	3	1	2	2	2	2	2	1	0	0	0	2	1	2	1	1	0	1	1	1	0	0	1.2	2.6
7-Oct	1	3	3	5	4	4	3	4	4	5	5	3	3	1	0	0	2	5	4	6	4	2	2	2	3.1	5.8
8-Oct	1	1	1	1	1	0	1	1	3	2	2	2	3	1	1	0	1	0	0	1	1	11	2	2	1.6	10.6
9-Oct	9	5	2	2	0	1	1	4	6	5	0	0	0	0	0	1	1	1	0	2	2	2	1	1	2.0	9.4
10-Oct	2	2	3	0	0	1	0	0	1	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0.6	3.5
11-Oct	1	1	1	1	2	2	3	3	3	3	4	3	3	4	5	5	5	14	35	7	5	5	5	4	5.3	35.2
12-Oct	5	6	5	5	4	4	1	3	3	4	4	3	2	1	0	0	0	0	0	0	1	1	1	1	2.2	5.7
13-Oct	2	3	4	6	8	6	5	4	4	3	2	2	1	1	0	0	0	1	0	0	1	1	1	1	2.4	8.0
14-Oct	2	0	1	2	2	0	2	3	5	4	2	1	1	1	2	1	3	1	2	3	2	4	1	0	1.9	4.8
15-Oct	1	1	3	1	1	2	4	5	7	8	7	6	6	5	4	3	5	4	19	14	6	6	6	6	5.4	18.7
16-Oct	6	6	6	6	6	4	4	5	7	7	5	4	3	1	1	1	3	4	4	9	7	3	3	6	4.6	8.6
17-Oct	4	3	5	5	4	4	6	24	7	5	4	4	1	4	C	C	C	1	1	6	4	3	1	1	4.7	23.7
18-Oct	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	2	0.5	2.4
19-Oct	3	2	3	4	4	6	6	7	6	6	4	4	6	5	5	6	7	7	7	3	3	2	0	0	4.5	6.9
20-Oct	1	2	2	2	3	3	3	3	4	5	4	3	2	2	1	0	1	1	1	3	1	1	1	2	2.2	5.0
21-Oct	2	2	3	3	3	3	4	3	3	3	3	2	2	1	2	1	2	1	1	1	1	2	2	3	2.2	3.8
22-Oct	3	1	2	2	2	1	0	1	1	1	1	0	0	0	0	0	0	0	4	1	1	2	2	1	1.1	4.4
23-Oct	1	2	3	3	3	3	3	2	3	2	1	0	0	0	0	0	0	1	1	1	0	1	0	0	1.3	3.1
24-Oct	0	0	0	1	0	0	1	1	2	2	1	1	0	1	0	1	1	5	4	2	1	3	4	4	1.5	5.4
25-Oct	4	4	4	3	3	3	2	2	3	2	2	1	0	0	0	1	5	3	2	2	3	1	2	2	2.3	4.6
26-Oct	1	1	1	0	0	0	1	5	2	0	1	1	1	1	4	2	1	4	1	2	3	4	4	4	1.8	4.7
27-Oct	6	7	5	3	3	2	2	2	2	2	1	1	1	3	4	2	3	20	3	1	2	4	3	7	3.7	19.5
28-Oct	6	5	2	0	0	0	1	0	1	0	2	2	2	4	6	5	18	9	7	8	8	6	2	1	4.0	17.8
29-Oct	0	0	1	1	1	2	2	2	3	2	2	2	2	1	0	0	1	0	1	0	0	0	1	1	1.0	2.5
30-Oct	0	0	0	0	0	0	0	1	1	0	1	1	1	0	1	0	2	3	2	2	1	1	1	0	0.7	3.3
31-Oct	0	1	1	1	1	0	1	1	2	2	1	1	1	2	2	4	3	4	1	3	3	2	2	2	1.7	4.5
	2.9	2.7	2.7	2.3	2.4	2.3	2.6	3.6	3.6	3.1	2.5	2.1	1.9	1.9	2.1	2.2	3.1	3.7	4.1	3.2	2.8	3.0	2.4	2.6	Diurnal Average	
	11.1	7.7	9.0	6.4	8.0	7.6	7.3	23.7	7.6	7.6	7.2	8.0	8.6	8.2	7.8	9.7	17.8	19.5	35.2	13.7	7.9	10.6	10.2	12.1	Diurnal Maximum	

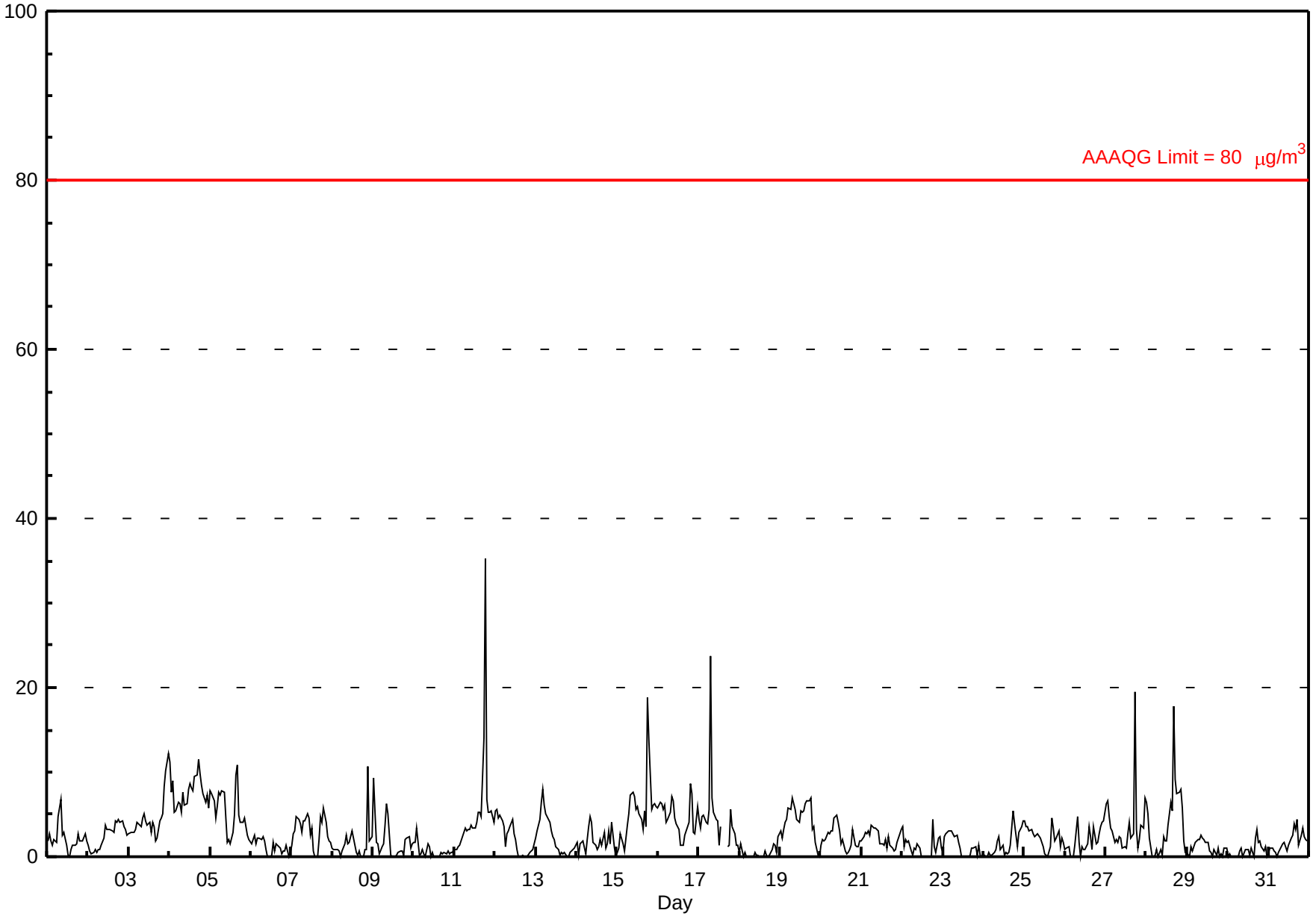
C - Calibration
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - October 2011



Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - October 2011

Maximum Value: 102.1 $\mu g/m^3$ on Oct 11 19:00

Maximum Daily Average: 11.5 $\mu g/m^3$ on Oct 11

Minimum Value: 0 $\mu g/m^3$ on Oct 12 15:00

Minimum Daily Average: 2.3 $\mu g/m^3$ on Oct 18

Maximum Diurnal Average: 9.9 $\mu g/m^3$ at hour 19

Minimum Diurnal Average: 3.8 $\mu g/m^3$ at hour 13

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

Percentiles: $P_1 = 0.5$ $P_{10} = 1.9$ $Q_1 = 2.9$ Median = 4.3 $Q_3 = 6.6$ $P_{90} = 9.7$ $P_{99} = 30.1$

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	3
Percent Operational Time:	100.0

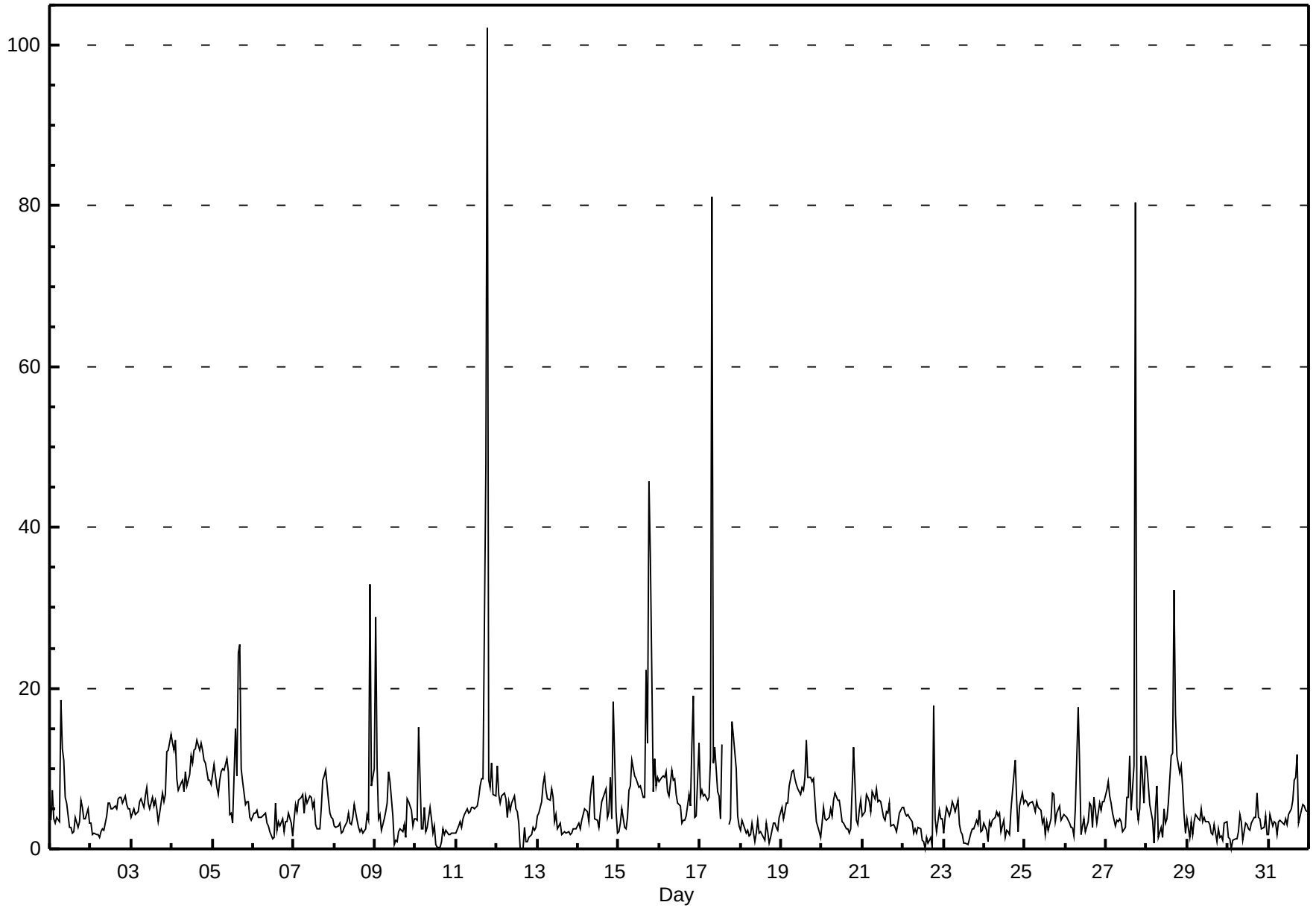
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	4	7	4	3	4	3	19	12	11	6	6	3	3	2	2	4	3	3	6	5	4	4	5	3	5.2	18.5
2-Oct	3	2	2	2	2	2	2	3	2	4	6	6	5	5	5	5	6	6	6	6	7	5	5	5	4.2	6.6
3-Oct	4	5	4	4	5	6	6	5	7	8	6	5	6	5	6	5	3	4	7	6	7	12	12	14	6.4	14.3
4-Oct	13	12	13	9	7	8	9	7	10	8	9	12	11	12	12	13	12	13	12	11	11	9	9	8	10.4	13.5
5-Oct	9	11	8	7	9	10	10	10	11	10	4	4	3	15	9	24	25	10	8	5	6	6	4	4	9.2	25.4
6-Oct	4	4	5	4	4	4	4	4	3	3	2	1	1	6	2	3	3	4	2	3	3	4	3	2	3.4	5.7
7-Oct	4	5	5	6	6	7	4	7	6	7	6	5	6	3	2	2	5	8	9	10	6	4	4	4	5.5	9.8
8-Oct	3	3	3	3	2	2	3	3	4	3	3	4	5	3	3	2	2	2	2	4	3	33	8	10	4.8	33.0
9-Oct	29	10	4	4	2	4	5	6	10	8	4	0	1	1	2	2	2	3	1	6	6	5	3	4	5.1	28.8
10-Oct	4	4	15	2	2	5	2	3	5	4	2	3	1	0	0	1	3	2	2	2	2	2	2	2	2.9	15.2
11-Oct	2	3	3	3	4	4	5	4	5	5	5	5	5	6	8	9	9	47	102	9	8	11	7	7	11.5	102.1
12-Oct	10	7	6	7	7	6	4	6	5	6	7	5	5	3	0	0	3	1	1	1	2	3	2	3	4.1	10.3
13-Oct	4	4	6	8	9	7	6	6	8	6	3	4	2	3	2	2	2	2	2	2	2	3	2	3	4.2	9.0
14-Oct	3	3	4	4	5	5	3	6	8	9	4	3	3	4	6	6	7	4	5	9	4	18	5	2	5.4	18.4
15-Oct	2	3	5	3	2	4	7	8	11	9	9	8	8	8	6	6	22	13	46	36	7	11	8	9	10.5	45.7
16-Oct	8	9	9	9	10	7	7	10	9	9	7	6	5	3	4	4	4	7	5	13	19	4	4	13	7.6	19.0
17-Oct	7	7	7	7	6	6	11	81	11	13	7	7	4	13	C	C	C	3	4	16	14	10	4	3	11.4	81.2
18-Oct	2	4	2	2	2	2	2	3	1	2	3	2	2	1	1	3	2	1	1	3	3	3	2	4	2.3	3.9
19-Oct	5	4	5	6	6	8	10	10	9	8	7	7	8	7	9	14	9	9	8	9	6	3	2	1	7.0	13.5
20-Oct	3	5	4	4	4	5	4	6	7	6	6	5	3	3	3	2	2	3	7	13	4	3	5	6	4.7	12.7
21-Oct	4	5	7	6	6	5	7	6	7	6	6	6	4	4	5	4	6	3	3	3	2	3	4	5	4.9	7.4
22-Oct	5	4	4	4	4	3	2	2	2	3	2	1	1	0	1	1	2	0	18	4	2	5	4	4	3.3	17.8
23-Oct	2	4	5	4	5	6	5	5	6	3	2	2	1	1	1	1	2	2	2	3	3	5	2	2	3.1	6.0
24-Oct	3	2	1	3	3	4	4	5	4	4	2	3	1	2	2	2	5	9	11	6	2	5	7	6	4.1	11.0
25-Oct	6	6	5	6	6	5	5	6	5	5	3	4	2	3	2	4	7	7	3	4	5	4	4	4	4.6	6.9
26-Oct	4	4	3	3	3	2	5	18	11	2	3	4	2	3	6	5	3	6	3	4	6	5	6	6	4.8	17.7
27-Oct	7	8	7	6	4	3	4	3	4	3	2	3	6	6	12	5	10	80	5	4	5	12	6	12	9.0	80.4
28-Oct	10	8	5	4	1	5	8	1	3	1	5	3	4	6	12	12	32	17	12	9	10	8	4	2	7.6	32.2
29-Oct	4	1	3	2	3	4	4	4	5	3	4	3	3	3	2	2	3	1	2	1	2	1	3	3	2.8	5.0
30-Oct	1	1	0	1	1	1	2	4	3	1	3	3	3	2	3	4	4	7	4	4	2	3	4	2	2.7	6.9
31-Oct	2	4	3	3	3	2	3	4	3	3	4	3	4	5	6	9	9	12	3	5	5	5	5	5	4.6	11.8
	5.6	5.2	5.0	4.5	4.4	4.6	5.5	8.3	6.3	5.4	4.6	4.2	3.8	4.6	4.5	5.3	6.9	9.4	9.9	7.0	5.4	6.7	4.7	5.0	Diurnal Average	
	28.8	12.3	15.2	8.9	9.6	9.5	18.5	81.2	11.3	12.7	9.3	11.6	10.8	14.9	12.5	24.4	32.2	80.4	102.1	36.1	19.0	33.0	12.3	14.3	Diurnal Maximum	

C - Calibration

Hourly Maximums

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

Smoky Heights - October 2011

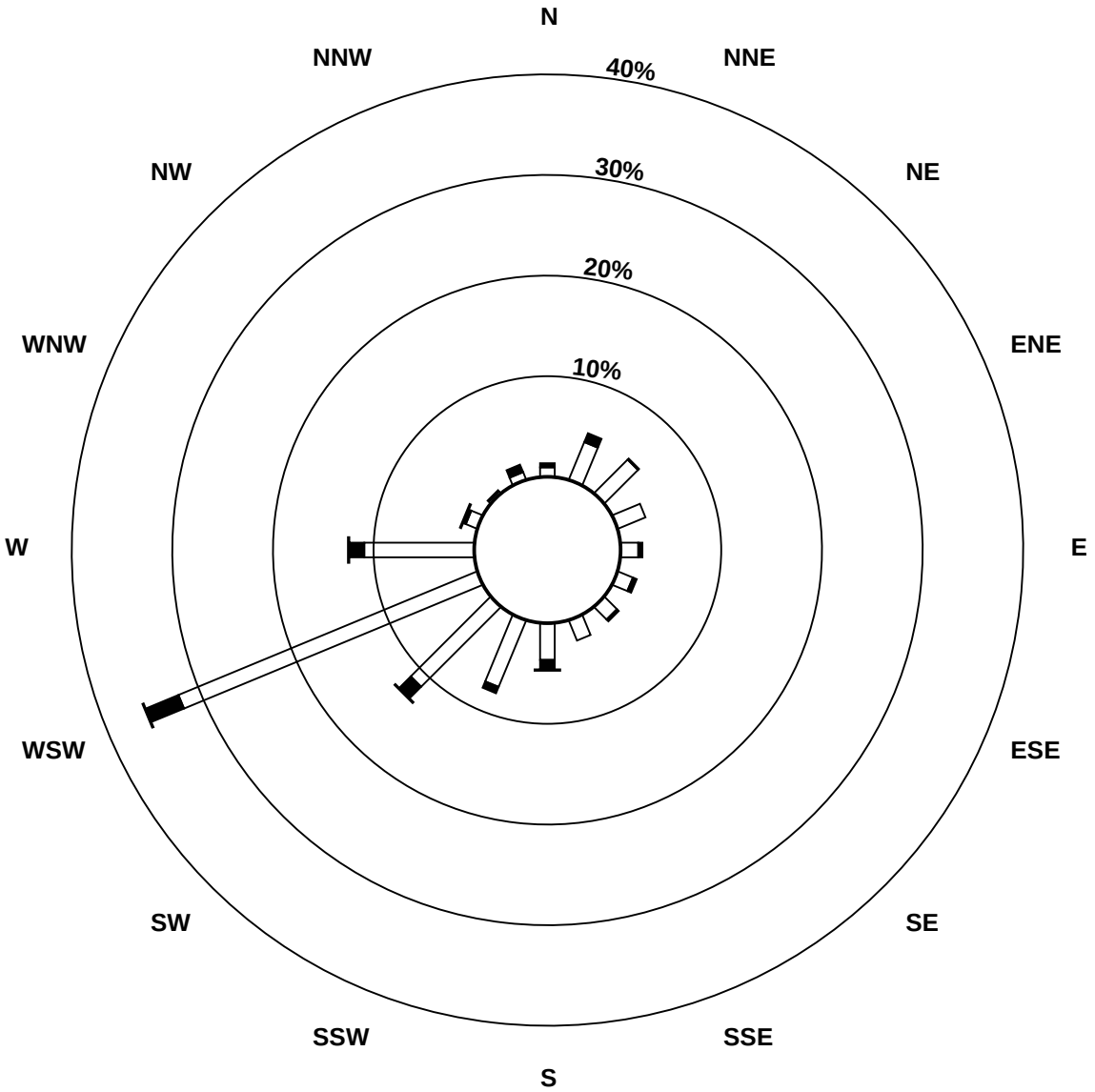


Peace Airshed Zone Association

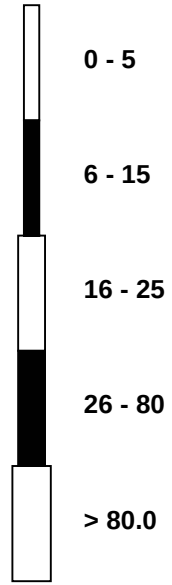
Pollutant Rose

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

Smoky Heights - October 2011



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



Hourly Averages

External Temperature (ET) - °C

Smoky Heights - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 18.0 °C on Oct 18 16:00
Maximum Daily Average: 9.3 °C on Oct 18

Minimum Value: -7 °C on Oct 21 06:00
Maximum Diurnal Average: 9.9 °C at hour 16
Monthly Average: 4.32 °C
Minimum Daily Average: -0.5 °C on Oct 21
Minimum Diurnal Average: 0.6 °C at hour 8
Percentiles: P_1 = -5.7 P_{10} = -1.8 Q_1 = 1.1 Median = 4.7 Q_3 = 7.3 P_{90} = 9.8 P_{99} = 14.3

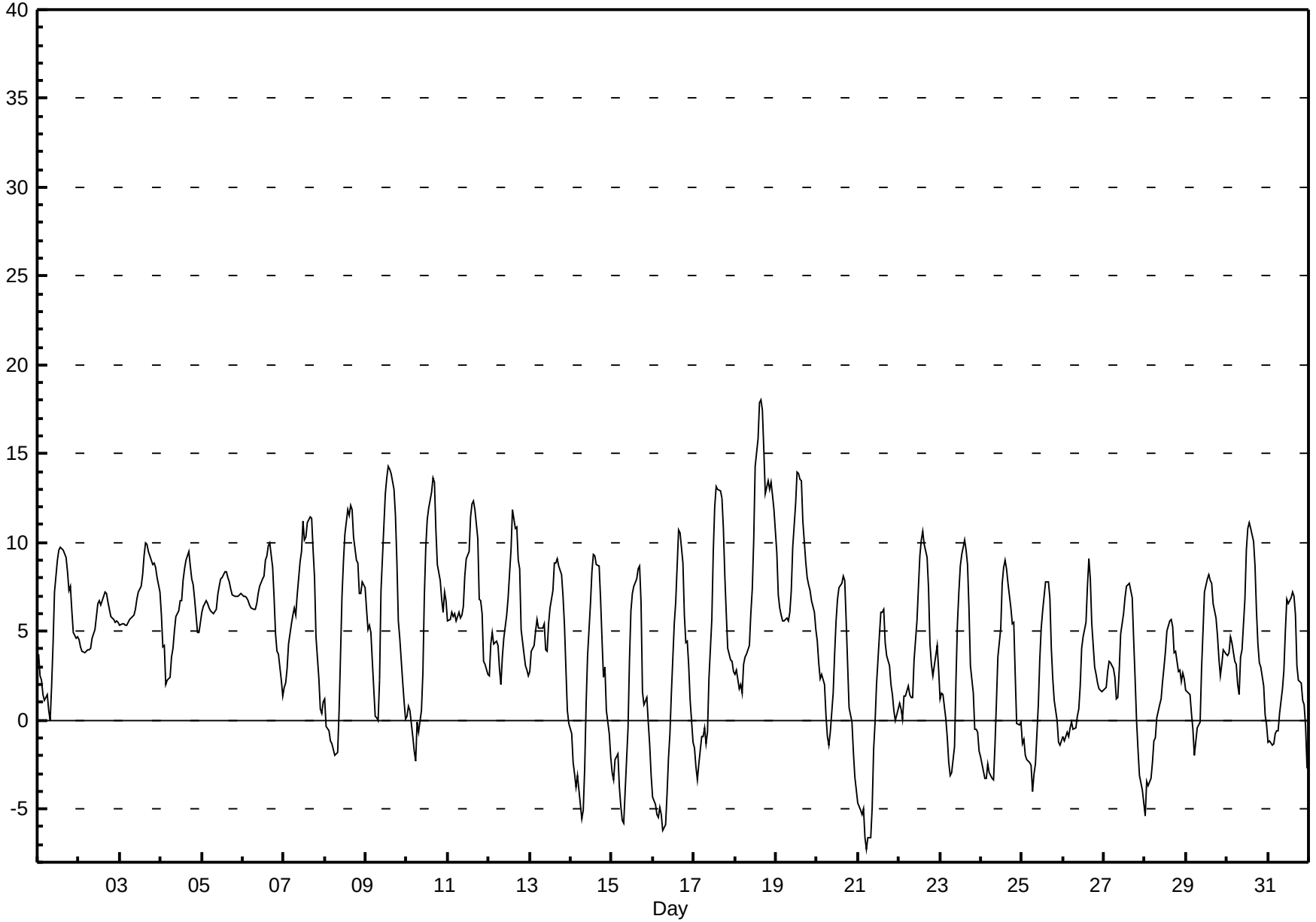
Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	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-Oct	4	3	2	1	1	1	1	0	2	4	7	9	10	10	10	10	9	8	7	8	6	5	5	5	5.3	9.8
2-Oct	5	4	4	4	4	4	4	4	5	5	6	7	7	6	7	7	7	7	6	6	6	5	6	6	5.4	7.2
3-Oct	5	5	5	5	5	6	6	6	6	6	7	7	8	8	9	10	10	9	9	9	9	9	8	7	7.3	10.0
4-Oct	6	4	4	2	2	2	4	4	5	6	6	7	7	8	8	9	9	9	8	8	7	5	5	6	5.8	9.5
5-Oct	6	6	7	7	6	6	6	6	6	7	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7.1	8.3
6-Oct	7	7	7	7	6	6	6	6	7	7	8	8	8	9	9	10	10	9	7	5	4	4	2	1	6.7	10.0
7-Oct	2	2	3	4	5	6	6	6	7	9	9	11	10	10	11	11	11	10	8	5	2	1	0	1	6.3	11.4
8-Oct	1	0	-1	-1	-1	-2	-2	-2	1	4	7	9	10	12	12	12	12	10	9	9	7	7	8	7	5.3	12.1
9-Oct	6	5	5	5	3	0	0	0	2	7	11	13	14	14	14	14	13	12	9	6	5	2	1	0	6.7	14.3
10-Oct	0	1	1	-1	-2	-2	0	-1	1	3	7	10	11	12	13	14	13	11	9	8	7	6	7	7	5.5	13.6
11-Oct	6	6	6	6	6	6	6	6	6	6	8	9	10	11	12	12	12	10	7	7	6	3	3	3	7.2	12.3
12-Oct	3	4	5	4	4	4	3	2	4	5	6	7	8	10	12	11	11	9	8	5	4	3	3	2	5.7	11.9
13-Oct	3	4	4	5	6	5	5	5	5	4	4	5	6	7	9	9	9	9	8	7	5	3	1	0	5.4	9.1
14-Oct	-1	-2	-3	-4	-3	-5	-6	-5	-3	1	4	7	8	9	9	9	9	7	5	2	3	1	-1	-2	1.6	9.3
15-Oct	-3	-3	-2	-2	-4	-5	-6	-6	-4	0	3	6	7	8	8	8	9	7	2	1	1	0	-1	-3	0.8	8.6
16-Oct	-4	-5	-5	-5	-5	-5	-6	-6	-4	-2	-1	2	5	7	9	11	11	9	6	4	4	3	1	-1	0.9	10.7
17-Oct	-2	-3	-3	-2	-1	-1	0	-1	-1	2	6	10	12	13	13	13	12	11	8	6	4	3	3	3	4.4	13.1
18-Oct	3	3	2	2	2	3	4	4	4	6	7	10	14	16	18	18	17	15	13	13	13	13	13	12	9.3	18.0
19-Oct	9	7	6	6	6	6	6	6	6	7	10	12	14	14	14	14	11	9	8	8	7	7	6	5	8.4	13.9
20-Oct	4	3	2	3	2	0	-1	-1	-1	2	4	6	7	7	8	8	8	6	3	1	0	-2	-3	-4	2.5	8.1
21-Oct	-5	-5	-5	-5	-7	-7	-7	-7	-5	-2	0	2	5	6	6	6	4	4	3	2	1	1	0	1	-0.5	6.3
22-Oct	1	1	0	1	1	2	1	1	1	3	6	7	9	10	11	10	9	7	4	3	3	4	4	3	4.3	10.6
23-Oct	1	2	1	0	-1	-2	-3	-3	-2	2	5	7	9	9	10	10	9	6	3	2	0	-1	-1	-2	2.6	10.1
24-Oct	-2	-3	-3	-3	-2	-3	-3	-3	-1	1	4	5	8	9	9	8	8	6	5	6	3	0	0	0	1.9	9.0
25-Oct	-1	-1	-2	-2	-2	-3	-4	-3	-3	1	3	5	6	7	8	8	7	4	2	1	0	-1	-1	-1	1.1	7.8
26-Oct	-1	-1	-1	-1	0	0	-1	0	0	1	2	4	5	5	8	9	8	5	3	3	2	2	2	2	2.3	9.1
27-Oct	2	2	3	3	3	3	2	1	1	3	5	6	7	8	8	8	7	5	2	0	-2	-3	-4	-5	2.7	7.7
28-Oct	-5	-3	-4	-3	-2	-1	-1	0	1	1	2	3	4	5	6	6	5	4	4	3	3	2	3	2	1.4	5.7
29-Oct	2	2	1	0	0	-2	0	0	0	3	5	7	8	8	8	8	7	6	5	4	2	3	4	4	3.4	8.2
30-Oct	4	4	5	4	3	3	2	1	4	4	7	10	11	11	11	10	9	6	4	3	3	2	0	0	5.0	11.1
31-Oct	-1	-1	-1	-1	-1	-1	-1	0	2	3	5	7	7	7	7	7	6	3	2	2	1	1	0	-3	2.1	7.2
	1.7	1.5	1.4	1.2	1.1	0.8	0.7	0.6	1.7	3.5	5.5	7.2	8.4	9.2	9.8	9.9	9.4	7.7	6.0	4.8	4.0	3.0	2.6	2.0	Diurnal Average	
	9.4	7.1	6.9	6.7	6.5	6.3	6.4	6.2	7.0	8.9	10.9	12.7	14.3	15.8	17.8	18.0	17.5	15.2	12.8	13.5	13.0	13.4	12.6	11.8	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - October 2011



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - October 2011

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	21	20	17	15	13	14	11	7	2	6	4	5	6	7	8	6	5	7	5	13	16	10	7	8	2.2	21.1
Dir	249	263	264	264	264	259	252	233	215	186	149	113	113	106	130	100	44	50	66	136	120	92	62	50	210.2	249.2
2 Spd	10	9	8	9	7	6	6	7	5	1	1	3	5	6	5	5	5	6	3	4	6	4	3	6	5.1	10.1
Dir	75	68	53	56	50	32	41	42	41	9	155	49	22	26	49	58	84	87	56	63	61	68	51	30	53.8	74.8
3 Spd	6	4	6	8	8	9	9	9	11	9	8	10	10	8	8	7	10	10	7	6	5	6	9	8	7.1	10.8
Dir	50	19	31	49	57	68	68	61	56	55	57	49	55	41	30	35	45	47	43	21	94	146	122	131	57.8	56.4
4 Spd	2	4	1	2	5	2	2	2	2	5	5	4	10	2	6	6	8	8	6	7	8	2	2	2	2.4	9.6
Dir	190	83	107	317	10	48	7	55	318	21	183	118	87	293	343	344	347	14	11	337	349	223	286	273	7.1	87.0
5 Spd	5	5	8	8	5	3	2	5	5	6	7	8	7	6	8	9	10	8	7	7	4	6	4	4	3.5	9.7
Dir	266	247	244	234	269	338	25	87	33	32	49	47	92	48	30	29	29	36	32	42	55	59	46	5	30.6	28.8
6 Spd	6	6	3	4	3	3	2	1	2	6	6	5	6	3	7	7	7	9	6	5	6	6	5	4	1.9	9.2
Dir	29	21	1	56	12	2	348	17	88	156	176	170	182	127	105	121	145	147	139	207	213	253	233	227	148.3	147.2
7 Spd	6	9	7	7	11	11	15	17	16	22	19	23	21	20	19	18	18	13	8	8	10	14	15	18	13.6	23.0
Dir	224	227	242	263	236	258	257	245	246	255	258	281	297	301	286	289	279	266	261	255	255	253	261	260	265.1	281.0
8 Spd	19	15	15	15	15	14	13	9	6	7	10	10	10	8	11	13	13	13	12	11	10	4	5	6	3.9	19.4
Dir	262	264	265	262	265	270	262	213	202	198	183	172	161	200	155	121	104	98	77	77	59	21	168	167	204.1	262.0
9 Spd	2	2	10	7	2	8	9	6	4	2	21	29	36	38	40	35	36	26	15	10	13	13	9	9	15.4	40.5
Dir	267	220	277	256	227	232	236	235	187	254	194	226	236	240	247	240	247	248	240	244	266	232	241	257	239.7	247.4
10 Spd	9	6	5	4	5	3	7	6	4	5	6	11	9	18	18	16	15	12	10	12	13	15	12	11	4.9	17.9
Dir	259	220	222	185	224	210	262	301	24	19	42	51	96	113	107	95	76	55	48	23	25	30	44	24	60.9	107.3
11 Spd	9	10	10	9	10	7	7	8	9	5	2	7	8	7	9	7	6	6	5	7	7	7	6	4	4.1	10.1
Dir	24	22	24	21	13	351	359	347	346	335	190	232	251	265	256	233	228	254	288	342	343	342	26	20	335.7	12.8
12 Spd	6	9	5	7	4	5	5	6	7	7	7	6	7	11	29	25	22	16	17	16	15	12	14	14	10.2	29.4
Dir	243	272	243	179	249	205	195	236	223	199	192	162	153	190	242	253	255	238	248	257	257	244	240	244	236.5	242.4
13 Spd	14	20	18	20	25	24	24	24	24	31	29	27	30	24	28	22	21	14	17	22	17	12	12	13	20.9	30.8
Dir	250	245	254	247	250	256	257	256	261	252	249	252	252	244	252	256	265	256	248	251	242	201	211	221	249.5	252.4
14 Spd	13	12	13	13	12	9	12	7	6	11	14	15	20	23	27	23	25	15	10	10	9	11	13	13	13.4	27.3
Dir	236	242	257	222	205	227	237	237	232	203	218	221	232	252	244	243	244	268	264	270	274	262	267	264	242.9	244.1
15 Spd	14	16	15	16	15	13	11	8	9	9	13	18	18	19	18	15	11	6	8	15	16	14	10	13	12.8	19.0
Dir	258	261	264	262	265	257	256	227	224	214	221	239	242	243	243	233	221	202	225	258	256	269	263	256	247.1	243.1
16 Spd	12	11	10	7	7	10	9	9	9	6	8	11	11	10	6	29	23	16	13	15	17	15	12	11	10.5	28.7
Dir	252	253	238	235	238	239	212	210	210	222	193	196	180	172	179	254	256	248	250	274	263	259	255	254	238.9	254.3
17 Spd	9	9	9	10	9	6	5	3	5	7	10	11	26	33	37	28	27	19	16	14	14	14	10	8	13.2	36.7
Dir	252	241	229	211	225	201	197	179	187	192	195	222	240	259	259	252	255	253	240	247	265	243	238	217	241.6	258.8
18 Spd	10	10	6	6	5	7	5	3	9	12	9	11	19	22	26	21	18	16	12	23	17	19	16	15	11.5	25.7
Dir	199	215	243	271	231	201	209	226	240	216	191	195	213	226	231	223	221	236	215	252	258	287	302	293	235.5	231.1
19 Spd	8	8	7	8	8	8	8	8	7	5	5	9	20	16	13	11	10	10	9	12	14	13	14	13	9.3	19.8
Dir	214	183	232	234	221	221	183	187	199	170	216	251	256	245	228	252	245	251	197	204	211	220	236	246	225.8	255.7
20 Spd	14	14	15	20	18	16	15	17	15	13	11	13	13	16	20	19	15	14	11	7	11	13	13	13	14.1	19.7
Dir	248	254	251	256	257	260	265	262	255	262	240	250	249	230	239	239	240	250	275	268	262	267	256	260	253.1	256.3
21 Spd	13	13	11	9	7	7	9	9	6	6	3	3	3	6	6	14	11	12	9	6	5	4	8	17	3.9	16.5
Dir	264	262	247	256	244	232	235	245	244	232	214	145	127	83	72	130	130	97	106	105	138	198	216	215	201.6	215.1
22 Spd	18	18	15	19	22	22	22	19	18	17	20	24	24	28	24	15	11	7	2	5	10	13	15	12	15.9	28.4
Dir	238	239	253	242	240	236	243	250	256	243	244	249	260	263	268	262	293	312	85	233	232	237	239	253	250.3	263.2

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - October 2011

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
23 Spd	13	19	15	13	11	13	14	13	11	10	16	25	36	31	32	32	30	24	15	8	3	6	10	14	16.9	35.6
Dir	236	240	246	230	238	234	255	254	244	222	235	252	260	256	258	248	241	249	239	239	128	261	242	250	246.6	260.2
24 Spd	15	12	13	13	13	12	14	14	16	17	21	24	30	29	29	25	18	18	18	21	17	15	18	16	18.1	30.5
Dir	246	255	247	234	243	241	247	256	253	261	252	254	259	260	265	256	254	269	267	262	258	259	261	260	256.2	258.7
25 Spd	17	17	17	18	17	17	5	15	16	13	16	19	23	25	21	22	12	13	16	14	16	12	11	12	15.4	24.9
Dir	249	247	248	250	249	249	271	264	261	246	246	233	241	258	245	251	246	231	254	236	226	223	192	194	243.7	258.2
26 Spd	15	15	15	16	17	19	9	3	7	8	11	12	16	13	21	43	41	40	35	37	32	30	30	29	18.9	43.3
Dir	176	175	170	173	167	167	180	213	195	210	224	195	193	198	211	243	245	245	238	236	241	242	240	241	221.7	243.5
27 Spd	28	27	33	36	36	38	35	27	28	29	38	44	38	35	31	29	24	17	16	16	15	13	14	11	27.2	44.2
Dir	241	241	246	247	248	249	248	242	245	241	252	258	258	264	262	255	271	262	247	232	253	268	263	242	251.4	258.0
28 Spd	8	7	4	4	2	6	5	13	13	9	8	4	5	2	2	3	3	7	6	7	13	18	22	23	5.6	22.8
Dir	233	219	210	216	159	26	148	141	172	170	161	143	162	182	272	26	256	201	260	235	228	243	245	241	213.1	241.1
29 Spd	21	21	20	20	18	18	22	20	21	26	31	40	45	39	38	31	29	26	25	19	19	21	22	21	24.7	44.7
Dir	237	230	230	239	250	250	244	250	257	247	252	255	254	252	252	241	240	229	224	224	222	215	204	196	239.7	253.9
30 Spd	15	14	18	16	12	14	16	6	16	17	16	34	43	48	41	43	39	27	21	22	25	23	18	15	21.3	47.6
Dir	189	178	192	198	204	192	196	212	208	188	184	234	240	244	241	250	255	243	246	250	247	242	232	234	230.0	244.5
31 Spd	18	17	15	19	18	18	23	26	28	29	34	43	44	45	43	43	44	29	20	20	21	23	18	17	27.0	45.5
Dir	236	227	239	237	253	254	256	255	254	248	252	260	260	261	259	256	260	255	257	253	258	262	252	243	254.1	260.9
Spd	9.4	9.3	9.2	9.3	8.8	8.7	8.8	7.6	7.9	8.5	10.3	12.4	14.6	14.9	15.7	15.1	13.2	9.6	7.9	8.8	8.6	9.0	8.8	9.1	Diurnal Average	
Dir	240.8	240.2	245.0	240.2	244.5	243.0	243.8	243.9	242.2	234.0	229.3	240.6	243.0	248.0	248.2	246.8	250.9	247.9	245.0	248.3	248.2	248.6	243.4	243.4		
Spd	28.0	27.3	33.0	35.7	36.1	38.4	34.7	27.5	28.2	30.8	38.1	44.2	44.7	47.6	43.1	43.3	43.7	40.2	35.0	37.0	32.2	30.0	30.0	29.0	Diurnal Maximum	
Dir	241.5	241.3	245.5	246.7	248.3	249.3	248.3	242.2	244.7	252.4	251.6	258.0	253.9	244.5	258.9	243.5	260.0	245.3	237.8	236.4	241.0	242.0	239.8	240.6		

Maximum Speed Value: 48 km/h on Oct 30 14:00
Minimum Speed Value: 1 km/h on Oct 4 03:00
Maximum Daily Speed Average: 27.2 km/h on Oct 27
Minimum Daily Speed Average: 1.9 km/h on Oct 4
Maximum Diurnal Speed Average: 15.7 km/h at hour 15
Minimum Diurnal Speed Average: 7.6 km/h at hour 8

Monthly Average Velocity: 10.19 km/h 244.01 deg
Speed Percentiles: P_1 = 1.9 P_{10} = 4.8 Q_1 = 6.9 Median = 11.9 Q_3 = 18.1 P_{90} = 27.3 P_{99} = 42.9
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

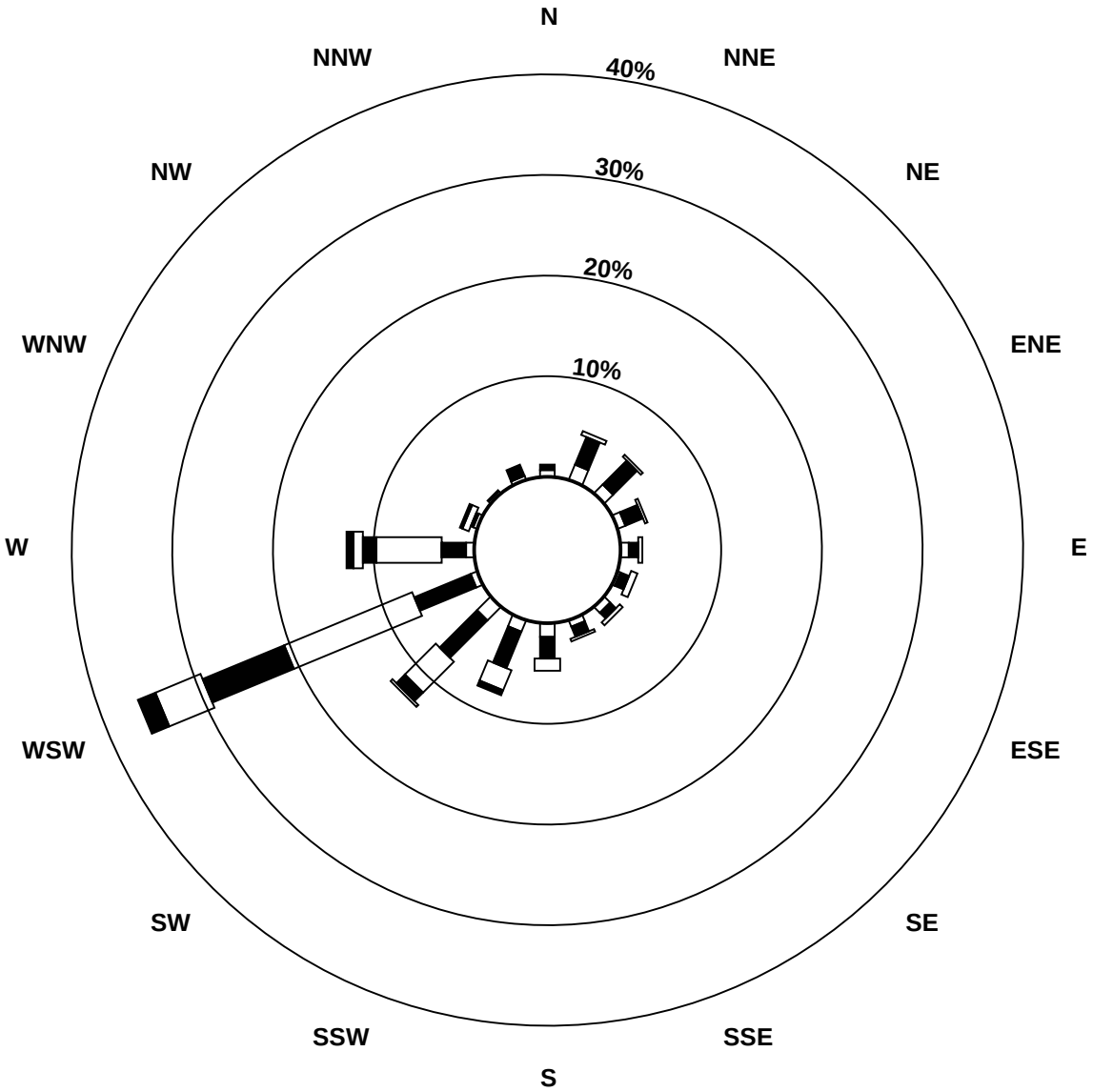
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	14	20	0	0	0	0	34
NorthEast	15	52	5	0	0	0	72
East	5	20	7	0	0	0	32
SouthEast	8	16	6	0	0	0	30
South	12	40	22	3	0	0	77
SouthWest	17	75	87	42	20	8	249
West	9	33	107	49	24	16	238
NorthWest	3	4	3	2	0	0	12
Total	83	260	237	96	44	24	744

Peace Airshed Zone Association

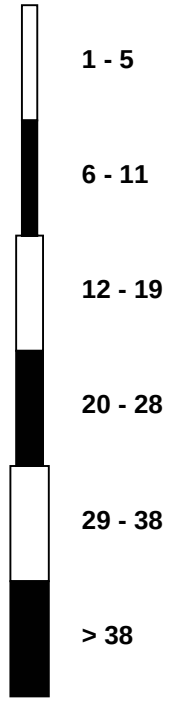
Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - October 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - October 2011

Maximum Speed: 48 km/h on Oct 30 14:00

Maximum Daily Speed Average: 27.6 km/h on Oct 27

Minimum Speed: 2 km/h on Oct 6 08:00

Minimum Daily Speed Average: 5.3 km/h on Oct 4

Maximum Diurnal Speed Average: 20.9 km/h at hour 15

Minimum Diurnal Speed Average: 11.1 km/h at hour 8

Monthly Average Speed: 14.22 km/h

Percentiles: P_1 = 3.2 P_{10} = 5.3 Q_1 = 7.3 Median = 12.2 Q_3 = 18.2 P_{90} = 27.2 P_{99} = 43.8

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	21	20	17	15	13	14	11	8	4	6	5	6	7	7	8	6	5	7	6	13	17	10	7	8	10.0	21.4
2-Oct	10	9	8	9	7	6	6	7	5	3	3	4	6	6	5	5	6	6	3	5	6	5	4	6	5.8	10.3
3-Oct	6	4	6	8	9	9	10	9	11	10	8	10	11	9	8	7	10	10	7	6	7	7	9	8	8.3	10.8
4-Oct	4	5	3	3	5	4	4	3	4	5	6	6	10	4	6	6	9	8	6	7	8	4	3	4	5.3	9.9
5-Oct	5	6	8	8	6	4	3	6	6	6	7	8	7	7	9	9	10	8	7	7	4	6	4	5	6.5	9.8
6-Oct	6	6	4	4	4	4	2	2	3	7	7	6	7	4	7	7	7	9	6	5	6	7	5	5	5.3	9.3
7-Oct	7	9	7	9	11	11	15	17	16	22	19	23	22	21	19	19	18	13	8	8	10	14	15	18	14.7	23.3
8-Oct	19	15	15	15	15	14	13	9	7	7	10	10	10	9	11	14	14	13	12	11	10	5	7	8	11.4	19.4
9-Oct	4	4	10	7	4	9	10	9	6	5	21	30	37	38	41	35	36	26	16	11	13	13	9	10	16.9	40.9
10-Oct	9	7	6	5	5	4	8	6	6	6	6	11	11	18	18	17	15	13	10	12	13	15	13	11	10.1	18.3
11-Oct	9	10	10	9	10	7	7	8	10	6	4	8	9	7	10	7	6	6	5	7	8	7	6	4	7.5	10.3
12-Oct	8	10	8	8	5	5	6	6	7	7	7	6	7	13	30	25	23	17	17	16	15	12	14	14	12.0	29.6
13-Oct	14	20	18	20	25	24	24	24	24	31	29	27	30	24	28	23	21	14	17	22	17	12	12	13	21.4	30.9
14-Oct	13	12	13	14	12	9	12	8	6	11	14	15	21	23	28	23	25	16	11	11	10	12	14	13	14.4	27.6
15-Oct	14	16	15	16	15	13	11	9	9	9	13	19	19	19	19	15	11	6	8	15	16	14	10	13	13.5	19.3
16-Oct	12	11	10	7	7	10	9	9	9	6	8	11	11	10	12	29	23	16	13	15	17	15	12	11	12.3	28.9
17-Oct	9	10	9	10	9	6	5	4	5	7	10	14	26	33	37	28	28	19	16	14	14	14	10	9	14.5	36.9
18-Oct	10	11	6	6	6	7	5	5	9	13	10	11	20	23	26	21	18	17	12	24	17	19	16	15	13.6	26.1
19-Oct	11	8	8	9	8	8	8	8	7	5	6	9	20	16	13	11	10	10	9	13	14	13	14	13	10.5	20.0
20-Oct	14	14	15	20	18	16	15	17	15	13	12	13	14	16	20	19	15	15	11	8	11	13	13	13	14.5	19.8
21-Oct	13	13	11	9	7	7	9	9	7	6	4	4	4	7	7	15	11	12	9	7	6	5	8	17	8.5	16.6
22-Oct	18	18	15	19	22	22	22	19	18	17	20	24	24	29	24	15	11	8	4	5	11	13	15	12	16.9	28.6
23-Oct	13	19	15	13	11	13	15	13	12	10	17	26	36	31	33	33	30	25	15	8	4	7	10	14	17.5	35.8
24-Oct	15	12	13	13	13	12	14	14	16	17	21	24	31	29	29	25	18	18	18	21	17	15	18	16	18.4	30.7
25-Oct	18	17	17	18	17	17	6	15	16	14	16	19	23	25	21	22	12	13	16	14	17	12	11	12	16.2	25.2
26-Oct	15	15	15	16	17	19	9	4	7	8	12	12	16	13	21	44	41	40	35	37	32	30	30	29	21.7	43.9
27-Oct	28	27	33	36	36	38	35	28	28	29	38	44	38	35	31	29	24	17	17	16	15	13	14	12	27.6	44.4
28-Oct	8	7	4	4	4	6	8	14	13	9	8	4	5	3	3	4	4	7	7	8	13	18	22	23	8.6	22.9
29-Oct	21	22	20	20	18	18	22	21	21	26	31	40	45	39	38	32	29	26	25	19	19	21	22	21	25.8	44.9
30-Oct	15	14	18	17	12	14	16	9	16	17	17	34	43	48	41	43	39	27	21	22	25	23	18	15	23.5	47.7
31-Oct	18	17	15	19	18	18	23	26	28	29	34	43	44	46	43	43	44	29	21	21	22	23	18	17	27.4	45.6
	12.5	12.5	12.0	12.5	12.0	11.9	11.8	11.1	11.3	11.9	13.6	16.8	19.7	19.8	20.9	20.3	18.5	15.2	12.6	13.1	13.4	12.8	12.5	12.6	Diurnal Average	
	28.1	27.3	33.0	35.8	36.2	38.5	34.8	27.5	28.2	30.9	38.3	44.4	44.9	47.7	43.4	43.9	43.9	40.5	35.1	37.1	32.3	30.1	30.0	29.0	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - October 2011

Maximum Value: 95.6 deg on Oct 2 10:00

Minimum Value: 2.4 deg on Oct 12 20:00

Percentiles: P_1 = 2.8 P_{10} = 4.2 Q_1 = 5.8 Median = 9.3 Q_3 = 16.7 P_{90} = 31.5 P_{99} = 68.8

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)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	10	4	4	9	7	4	8	26	79	23	34	27	29	24	17	23	15	8	27	15	15	13	14	9	78.7
2-Oct	12	9	7	6	7	9	7	12	13	96	79	32	34	13	14	20	21	13	29	11	12	24	27	17	95.6
3-Oct	10	17	13	12	8	10	8	7	6	10	7	6	11	10	7	8	7	6	13	22	45	34	16	22	44.9
4-Oct	70	31	81	51	27	64	59	67	53	24	53	47	17	66	32	21	17	14	22	9	11	70	51	73	80.7
5-Oct	17	26	18	14	38	56	69	35	26	19	14	17	18	24	13	12	9	18	23	11	16	14	32	19	68.9
6-Oct	9	17	33	28	23	15	24	54	42	24	23	28	32	60	14	20	16	4	10	16	9	21	18	14	60.2
7-Oct	32	9	21	41	11	9	5	8	5	5	7	10	12	8	10	15	11	6	9	4	6	7	6	3	40.5
8-Oct	3	4	4	6	3	5	9	9	17	13	15	18	19	28	20	20	14	8	7	11	9	46	49	72	72.0
9-Oct	45	63	11	32	66	23	28	53	69	77	12	13	10	8	8	7	5	6	11	24	17	5	9	11	77.3
10-Oct	5	34	26	17	19	30	18	29	49	24	11	10	34	11	12	14	17	9	10	12	6	5	11	10	49.0
11-Oct	7	8	12	9	11	14	13	13	9	19	82	30	20	36	28	16	18	10	31	14	10	12	14	39	81.9
12-Oct	70	8	51	11	48	17	32	22	17	10	14	27	15	26	8	9	16	6	5	2	4	9	4	4	70.2
13-Oct	7	4	4	4	3	4	4	5	4	4	5	5	5	7	7	6	4	4	5	4	8	10	10	8	10.4
14-Oct	6	8	8	16	10	11	5	29	15	8	9	11	10	13	9	8	7	15	13	19	15	10	8	5	28.8
15-Oct	6	3	4	4	3	9	4	23	9	14	8	11	13	11	12	11	12	15	21	4	4	7	7	7	23.1
16-Oct	7	5	5	23	11	7	22	9	9	19	10	13	10	23	53	7	6	4	9	3	6	3	12	11	53.3
17-Oct	15	28	13	13	10	17	18	57	31	18	16	42	8	10	6	7	5	5	5	8	9	10	11	16	57.0
18-Oct	11	16	14	7	24	14	24	57	13	5	21	12	15	19	11	11	13	13	14	10	7	5	5	5	57.5
19-Oct	46	19	28	24	14	16	8	14	16	17	35	8	9	11	7	15	19	7	15	14	5	4	7	5	45.5
20-Oct	12	14	12	3	6	5	5	3	5	5	8	11	12	10	9	7	7	6	13	19	7	5	6	5	18.6
21-Oct	5	3	10	9	11	15	12	17	19	9	31	44	45	26	37	18	16	9	9	15	14	30	22	5	44.5
22-Oct	9	8	11	3	3	3	4	4	3	6	7	6	8	7	8	7	14	47	67	17	26	6	5	7	67.3
23-Oct	6	6	11	7	13	6	5	6	6	9	8	9	7	9	12	7	5	4	5	20	62	15	9	4	62.3
24-Oct	3	10	9	14	6	3	7	6	5	3	4	6	7	8	9	7	7	6	5	8	3	7	6	3	13.9
25-Oct	7	3	3	3	4	4	46	6	5	5	8	8	9	9	10	8	6	9	7	9	8	13	8	14	46.0
26-Oct	4	5	6	6	4	4	24	33	18	18	8	18	4	6	6	11	6	6	4	4	4	4	3	3	33.1
27-Oct	3	3	3	3	4	4	4	4	3	4	5	6	7	8	8	6	7	8	7	5	6	4	6	16	16.2
28-Oct	14	11	19	19	65	19	66	17	10	7	7	18	13	63	39	46	46	15	29	25	15	12	4	5	65.7
29-Oct	4	5	5	5	7	7	4	5	5	4	4	6	6	5	6	8	8	6	3	3	5	4	5	6	7.8
30-Oct	8	8	7	5	12	6	8	69	4	9	14	7	6	5	7	7	4	6	7	6	5	5	7	5	68.9
31-Oct	6	4	5	4	6	4	3	4	6	4	4	5	5	4	6	5	5	6	9	9	6	4	10	3	9.5
	70.2	63.1	80.7	50.8	66.0	64.1	68.9	68.9	78.7	95.6	81.9	46.8	44.5	66.0	53.3	46.2	46.2	46.8	67.3	24.9	62.3	70.1	50.7	72.9	

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.5 ppb on Oct 7 09:00 Maximum Daily Average: 0.5 ppb on Oct 11

Minimum Value: 0 ppb on Oct 9 14:00 Minimum Daily Average: 0.0 ppb on Oct 27
Maximum Diurnal Average: 0.2 ppb at hour 9 Minimum Diurnal Average: 0.1 ppb at hour 6
Monthly Average: 0.10 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.1$ $P_{90} = 0.2$ $P_{99} = 0.8$

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
3-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
5-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
6-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
7-Oct	0	0	0	1	A	0	0	1	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.5
8-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
9-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
10-Oct	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0.4	1.4
11-Oct	1	1	1	0	A	0	0	0	C	C	C	C	1	1	1	0	0	0	0	0	0	1	1	0	0.5	1.3
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
13-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
14-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
15-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
16-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
17-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
18-Oct	0	0	0	0	A	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	--	0.3
19-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
21-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.7
25-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
26-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
27-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
28-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
29-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
30-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
31-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
	0.1	0.1	0.1	0.1	--	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	1.3	0.8	0.7	0.5	--	0.3	0.3	1.4	3.5	1.9	0.3	0.3	0.7	0.8	0.5	0.7	0.9	0.4	0.3	0.3	0.4	1.2	0.6	1.2	Diurnal Maximum	

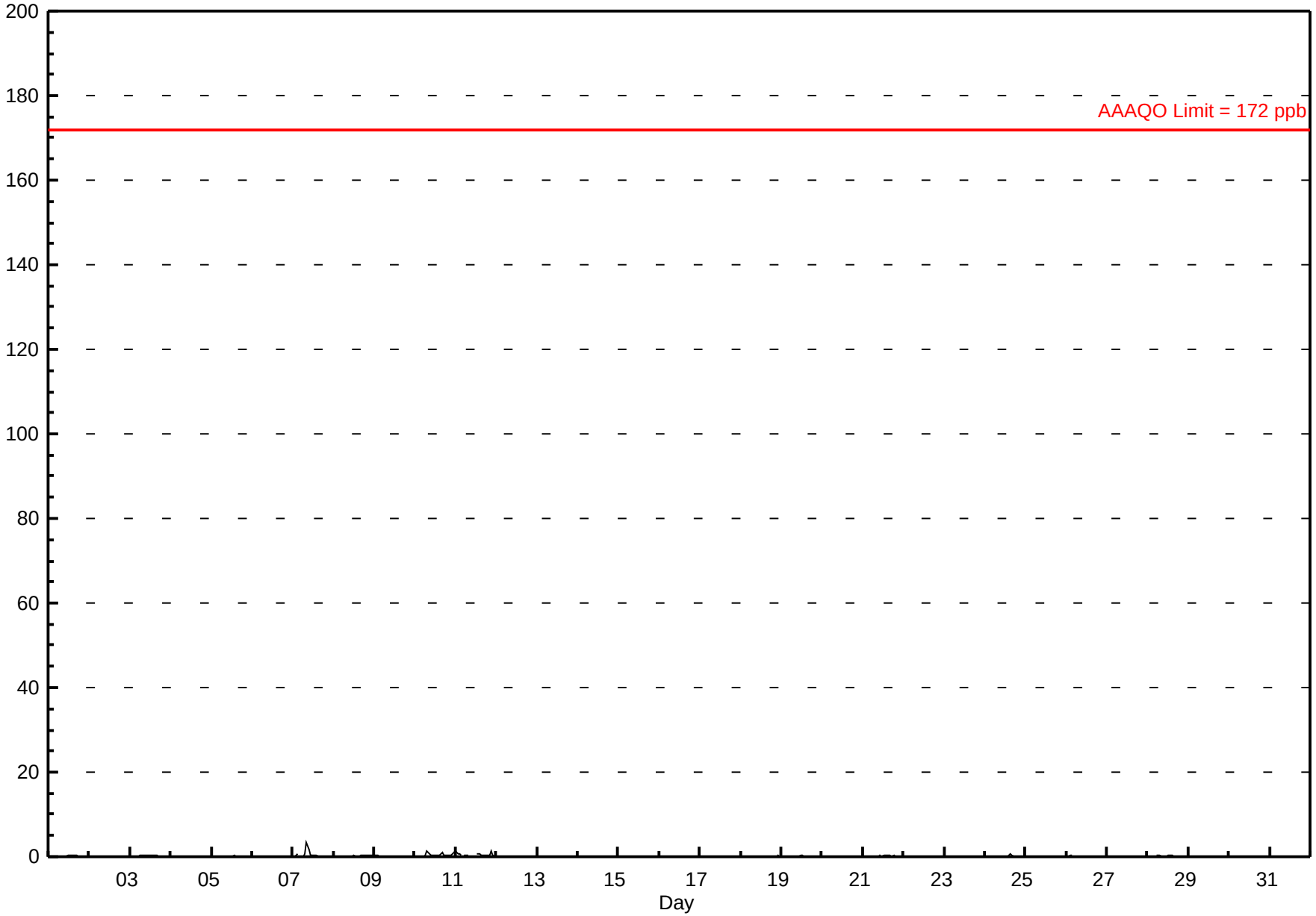
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - October 2011

Maximum Value: 5.3 ppb on Oct 7 09:00

Maximum Daily Average: 0.8 ppb on Oct 11

Minimum Value: 0 ppb on Oct 12 23:00

Minimum Daily Average: 0.1 ppb on Oct 27

Maximum Diurnal Average: 0.4 ppb at hour 10

Minimum Diurnal Average: 0.2 ppb at hour 6

Monthly Average: 0.22 ppb

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

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
2-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
3-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
4-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
5-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
6-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
7-Oct	0	0	1	1	A	0	0	2	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	5.3
8-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	1	0.3	0.6
9-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
10-Oct	0	0	0	0	A	0	1	2	1	1	0	0	0	0	1	1	3	1	0	0	1	1	1	2	0.7	3.1
11-Oct	2	1	1	1	A	0	0	0	C	C	C	C	1	1	1	0	0	0	0	0	2	2	1	0	0.8	2.2
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
16-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
18-Oct	0	0	0	0	A	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	1	1	0	--	0.6
19-Oct	0	0	0	0	A	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
20-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
21-Oct	0	0	0	0	A	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.7
22-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0.2	1.1
25-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-Oct	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
27-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
29-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
30-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
31-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
	0.2	0.2	0.2	0.2	--	0.2	0.2	0.3	0.4	0.4	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	Diurnal Average	
	1.5	1.0	0.9	0.9	--	0.4	1.0	2.4	5.3	4.6	0.5	0.6	0.9	0.9	0.7	1.1	3.1	0.8	0.5	0.4	1.6	2.2	1.0	1.6	Diurnal Maximum	

C - Calibration

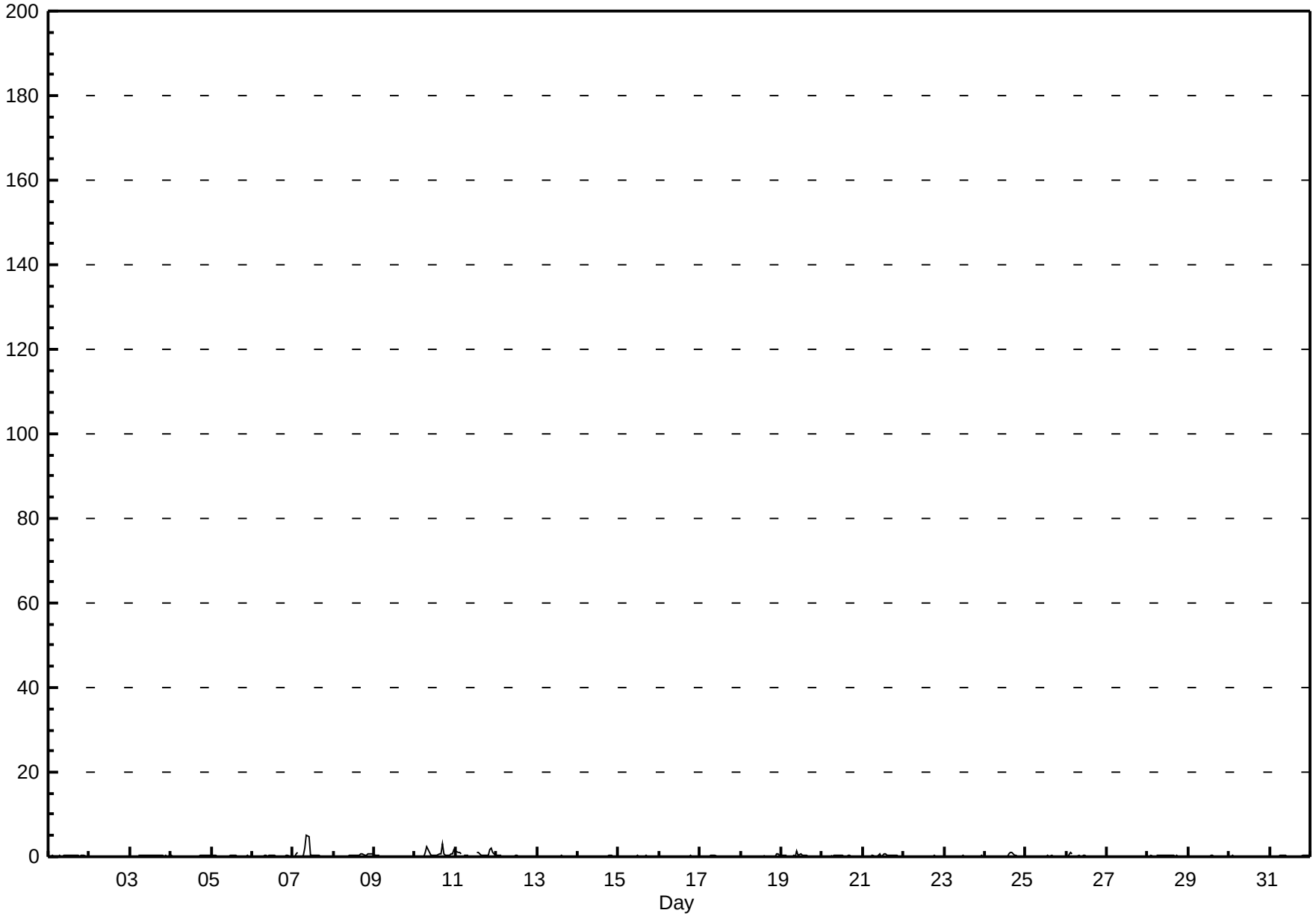
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - October 2011

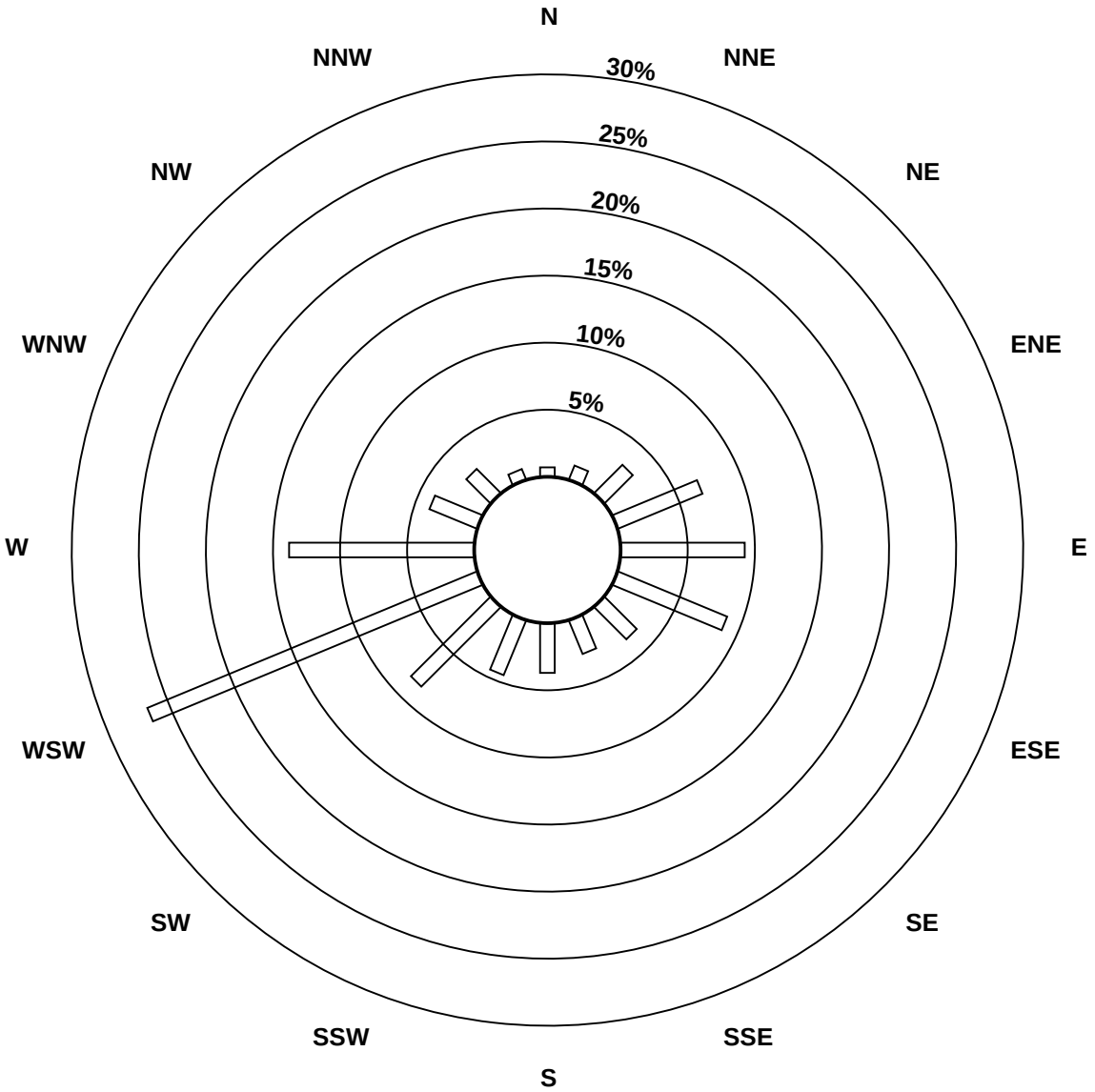


Peace Airshed Zone Association

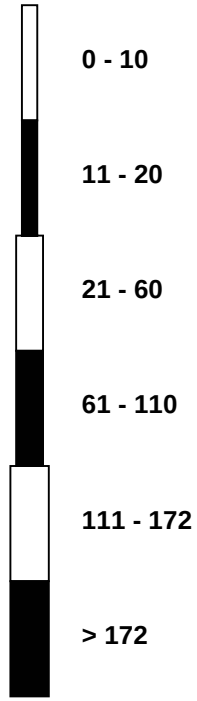
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - October 2011



Pollutant Classes (ppb)

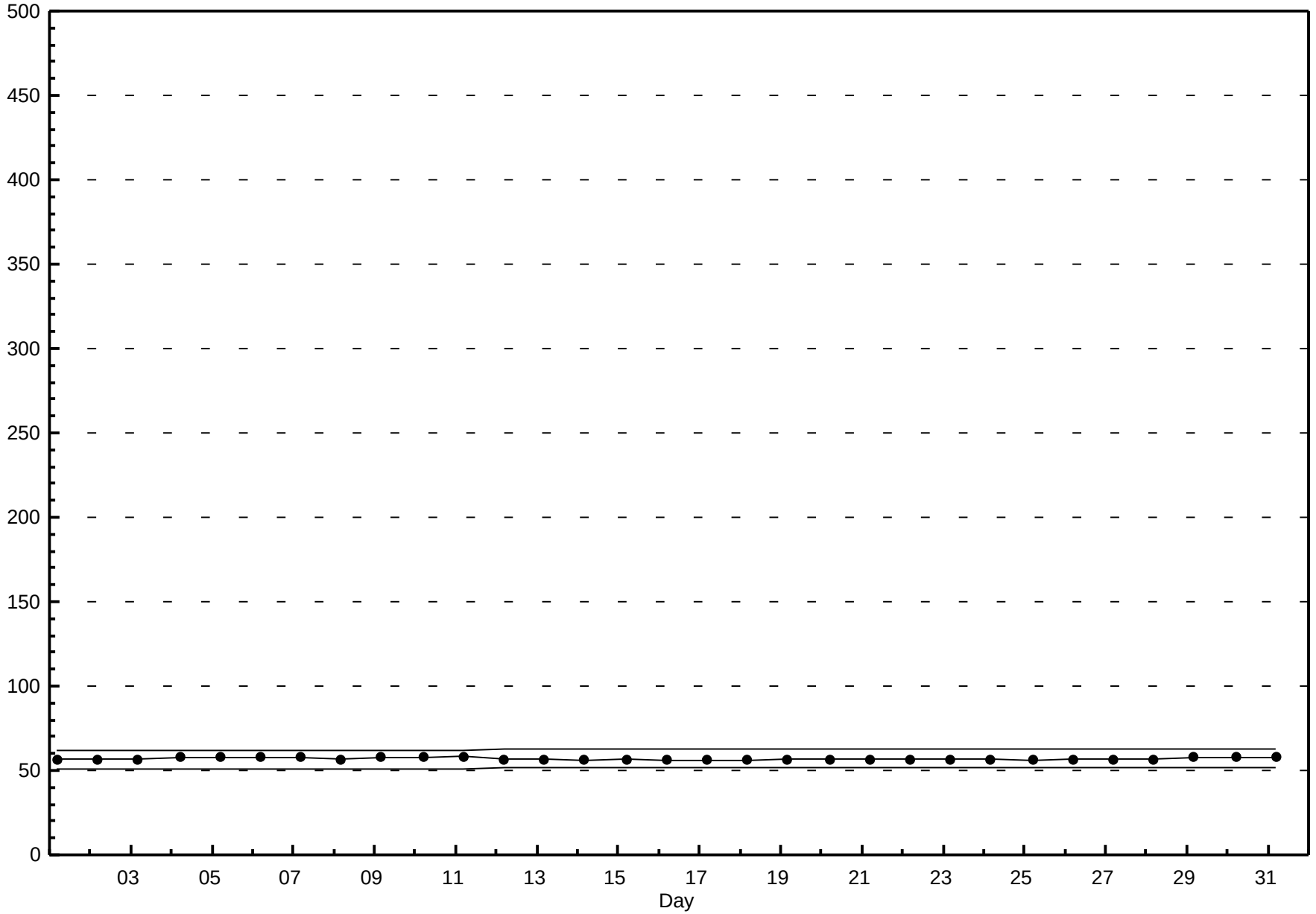


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 16.5 ppb on Oct 19 09:00 Maximum Daily Average: 5.5 ppb on Oct 19

Minimum Value: 0 ppb on Oct 25 15:00
Maximum Diurnal Average: 5.5 ppb at hour 6
Monthly Average: 2.72 ppb

Minimum Daily Average: 1.2 ppb on Oct 23
Minimum Diurnal Average: 1.6 ppb at hour 15
Percentiles: $P_1 = 0.4$ $P_{10} = 0.8$ $Q_1 = 1.2$ Median = 1.9 $Q_3 = 3.5$ $P_{90} = 5.9$ $P_{99} = 10.6$

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
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-Oct	2	2	1	1	A	4	2	4	3	3	7	4	2	1	2	3	3	3	2	1	1	1	1	1	2.3	6.9
2-Oct	1	1	1	1	A	4	2	3	2	2	1	1	2	1	2	1	1	2	3	2	2	2	2	2	1.8	4.1
3-Oct	2	2	2	2	A	6	4	4	3	3	3	3	3	2	2	2	3	3	5	6	4	4	5	4	3.5	6.3
4-Oct	4	3	3	3	A	7	9	6	5	4	3	4	3	4	3	3	3	6	6	6	4	8	7	6	4.9	8.9
5-Oct	5	4	4	4	A	7	7	6	4	3	2	3	3	2	3	2	2	2	2	1	1	1	1	1	3.1	7.0
6-Oct	1	1	1	2	A	4	4	3	5	C	C	C	C	C	C	C	3	5	11	4	3	4	3	4	--	10.9
7-Oct	2	1	1	1	A	4	4	2	1	1	1	1	1	1	1	1	1	1	3	4	2	2	1	1	1.6	4.0
8-Oct	1	1	1	1	A	5	4	7	4	4	4	2	1	1	1	1	1	1	1	2	2	2	3	3	2.4	6.7
9-Oct	3	4	3	2	A	6	5	4	3	2	1	1	0	0	0	0	0	1	1	2	2	2	2	1	2.0	6.3
10-Oct	1	1	2	2	A	8	6	3	5	8	7	5	3	2	2	2	2	2	2	1	2	1	1	2	3.1	8.3
11-Oct	2	2	3	3	A	9	6	9	5	3	3	3	2	3	2	2	2	3	3	4	5	6	6	3	3.8	9.2
12-Oct	3	2	3	3	A	6	9	7	7	5	3	3	1	1	1	1	1	2	2	1	1	1	2	2	2.9	8.6
13-Oct	2	1	1	1	A	4	2	2	1	1	1	2	1	1	1	1	1	1	2	1	2	2	2	3	1.7	3.6
14-Oct	3	3	2	3	A	8	7	9	8	5	5	4	3	1	1	1	1	4	5	5	4	6	4	3	4.2	8.7
15-Oct	3	2	2	2	A	4	3	4	3	3	2	1	1	1	1	1	1	1	2	2	4	4	3	3	2.2	4.3
16-Oct	3	2	2	2	A	4	4	4	5	5	4	2	1	1	1	1	1	2	1	1	2	3	1	1	2.3	5.5
17-Oct	1	1	2	2	A	7	4	5	6	5	3	1	1	1	1	1	1	1	1	2	3	2	2	2	2.4	6.6
18-Oct	2	2	2	2	A	6	9	C	C	C	C	C	C	1	0	1	1	2	2	2	2	2	1	7	--	8.7
19-Oct	7	5	4	4	A	7	7	14	17	14	15	8	4	2	3	4	2	1	2	2	2	1	1	1	5.5	16.5
20-Oct	1	1	1	1	A	4	3	5	5	4	3	1	1	1	1	1	1	2	4	3	3	2	2	2	2.3	4.9
21-Oct	2	1	2	2	A	6	5	5	5	9	13	11	7	7	5	4	4	3	3	6	7	5	5	4	5.3	13.4
22-Oct	1	1	1	0	A	3	2	2	1	1	1	1	1	1	1	2	2	1	9	1	2	2	2	2	1.7	9.3
23-Oct	2	1	2	2	A	4	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.6
24-Oct	1	2	2	2	A	7	6	7	4	5	2	1	1	0	1	1	1	1	2	2	1	1	1	2	2.3	6.9
25-Oct	2	2	1	2	A	7	4	2	2	2	2	1	1	3	0	1	1	1	1	1	2	4	2	2	2.0	6.7
26-Oct	1	2	3	3	A	7	6	6	9	8	7	5	2	1	2	3	2	1	1	1	1	1	1	1	3.2	9.4
27-Oct	1	1	1	1	A	3	2	1	0	1	1	1	1	2	1	1	1	2	2	2	1	2	3	3	1.4	3.4
28-Oct	2	2	2	2	A	7	5	6	4	12	9	9	6	5	6	8	2	8	4	2	1	1	1	1	4.6	11.7
29-Oct	1	0	0	1	A	3	2	2	1	1	1	1	1	1	1	1	1	1	2	1	4	1	1	1	1.3	3.7
30-Oct	1	1	1	2	A	5	4	2	3	3	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1.7	4.9
31-Oct	1	1	0	0	A	4	3	3	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.3	3.7
	2.1	1.8	1.8	1.9	--	5.5	4.6	4.6	4.3	4.2	3.7	2.8	2.0	1.7	1.6	1.8	1.7	2.1	2.8	2.3	2.4	2.5	2.2	2.3	Diurnal Average	
	6.6	5.1	4.3	4.3	--	8.9	8.9	14.0	16.5	14.5	14.6	10.6	7.4	7.0	6.2	7.8	4.2	8.0	10.9	6.3	6.5	7.6	6.9	7.1	Diurnal Maximum	

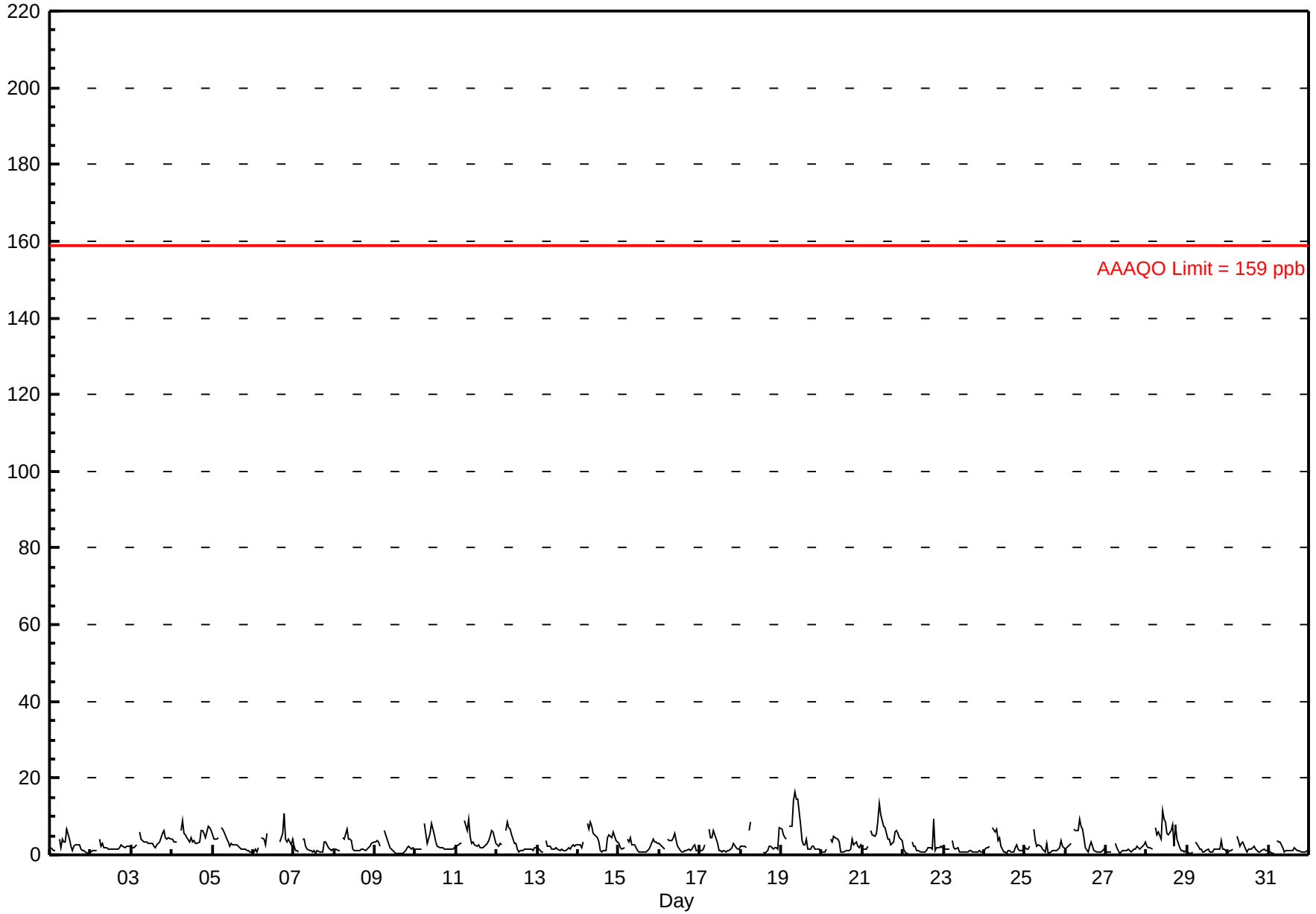
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - October 2011

Maximum Value: 281.4 ppb on Oct 19 10:00

Maximum Daily Average: 20.1 ppb on Oct 19

Minimum Value: 1 ppb on Oct 9 16:00

Minimum Daily Average: 2.3 ppb on Oct 23

Maximum Diurnal Average: 15.5 ppb at hour 10

Minimum Diurnal Average: 2.6 ppb at hour 3

Monthly Average: 5.92 ppb

Percentiles: P_1 = 0.9 P_{10} = 1.5 Q_1 = 2.2 Median = 3.4 Q_3 = 6.4 P_{90} = 9.6 P_{99} = 35.6

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	4	5	2	2	A	7	3	8	7	7	9	7	4	2	5	5	6	6	4	2	2	1	1	1	4.5	8.9
2-Oct	1	1	1	1	A	7	3	7	3	3	2	2	2	2	2	2	2	3	4	2	3	4	3	3	2.7	7.0
3-Oct	2	2	3	3	A	10	5	4	4	4	4	3	3	3	2	3	4	4	11	9	6	7	5	5	4.6	10.9
4-Oct	4	4	4	4	A	10	12	7	7	5	5	5	4	4	4	4	4	9	8	7	5	10	8	8	6.2	12.2
5-Oct	6	5	5	5	A	8	9	7	5	4	3	4	4	3	3	3	2	2	2	2	1	2	1	1	4.0	9.2
6-Oct	1	3	1	4	A	8	7	4	24	C	C	C	C	C	C	C	5	11	19	8	4	5	4	9	--	23.7
7-Oct	4	3	2	1	A	7	7	25	3	3	2	1	6	2	2	2	2	2	6	5	4	3	2	2	4.1	25.0
8-Oct	2	2	2	2	A	8	8	10	5	5	5	3	2	2	1	1	3	2	2	2	2	3	5	4	3.5	10.2
9-Oct	5	4	6	4	A	10	8	5	4	3	2	1	1	1	1	1	1	2	2	7	8	3	6	2	3.7	9.7
10-Oct	2	2	2	2	A	14	10	5	8	12	8	7	5	2	2	2	3	3	2	3	2	2	2	2	4.4	13.6
11-Oct	2	3	6	5	A	19	8	11	7	4	4	4	3	37	2	2	2	5	4	6	7	10	11	4	7.2	37.2
12-Oct	4	3	4	4	A	8	11	9	9	7	4	4	2	1	2	2	3	3	3	3	3	2	3	4	4.3	10.6
13-Oct	4	2	1	2	A	6	4	4	4	3	4	3	2	2	3	3	4	3	3	3	5	4	3	4	3.3	6.5
14-Oct	3	5	2	4	A	11	8	12	12	7	8	5	19	2	2	2	2	8	13	8	7	13	6	6	7.2	18.7
15-Oct	7	2	3	2	A	7	5	6	4	4	2	2	1	1	1	1	2	3	3	4	9	7	7	7	4.0	9.2
16-Oct	7	3	3	2	A	8	6	5	7	7	6	3	2	3	1	2	2	4	3	3	3	7	2	3	3.9	7.5
17-Oct	1	2	3	3	A	9	6	7	12	7	6	2	2	1	2	2	2	2	3	4	4	6	4	3	4.0	12.1
18-Oct	3	3	3	3	A	9	20	C	C	C	C	C	C	2	1	16	9	6	8	3	5	3	3	14	--	20.4
19-Oct	10	9	5	5	A	9	10	28	26	281	20	15	6	3	4	7	2	2	4	4	3	3	3	1	20.1	281.4
20-Oct	1	2	2	2	A	7	8	9	23	9	11	2	2	1	8	6	2	3	7	4	5	3	2	4	5.5	23.3
21-Oct	3	2	2	3	A	8	8	8	6	13	30	17	13	11	8	5	6	4	4	9	12	7	7	8	8.4	29.8
22-Oct	2	1	1	1	A	6	4	3	2	3	2	2	1	1	2	3	3	2	23	2	3	4	4	5	3.5	23.0
23-Oct	3	3	2	2	A	7	3	3	3	1	2	1	2	1	2	2	3	2	1	1	3	2	2	1	2.3	6.9
24-Oct	2	2	3	6	A	13	8	11	7	7	3	1	1	1	15	26	2	1	4	4	3	2	1	2	5.5	26.2
25-Oct	2	3	3	3	A	8	7	4	4	5	3	2	2	184	1	2	2	3	2	2	3	6	3	2	11.2	184.0
26-Oct	2	3	4	4	A	8	11	14	20	12	10	6	4	1	6	7	6	2	2	1	2	2	2	3	5.7	19.9
27-Oct	2	1	1	2	A	6	3	3	3	2	4	4	2	44	2	2	3	4	4	4	3	4	4	5	4.8	44.5
28-Oct	3	3	2	2	A	9	7	10	6	21	13	15	7	8	9	177	7	14	12	4	3	2	2	2	14.7	176.6
29-Oct	2	1	1	1	A	6	4	3	2	2	2	4	3	2	2	2	8	6	3	3	10	2	2	1	3.0	9.6
30-Oct	4	4	2	3	A	8	5	3	4	6	3	2	4	4	5	72	36	8	2	1	2	2	2	2	8.0	72.2
31-Oct	3	1	1	1	A	7	6	6	4	1	31	4	11	40	2	7	5	2	2	1	2	1	1	2	6.2	40.3
	3.3	2.9	2.6	2.8	--	8.6	7.2	8.0	7.8	15.5	7.1	4.5	4.2	12.4	3.4	12.4	4.6	4.2	5.5	4.0	4.3	4.2	3.7	3.9	Diurnal Average	
	10.1	8.5	6.1	5.6	--	18.6	20.4	28.3	25.7	281.4	30.6	16.7	18.7	184.0	14.9	176.6	35.6	13.8	23.0	9.3	12.5	13.3	11.0	14.0	Diurnal Maximum	

C - Calibration

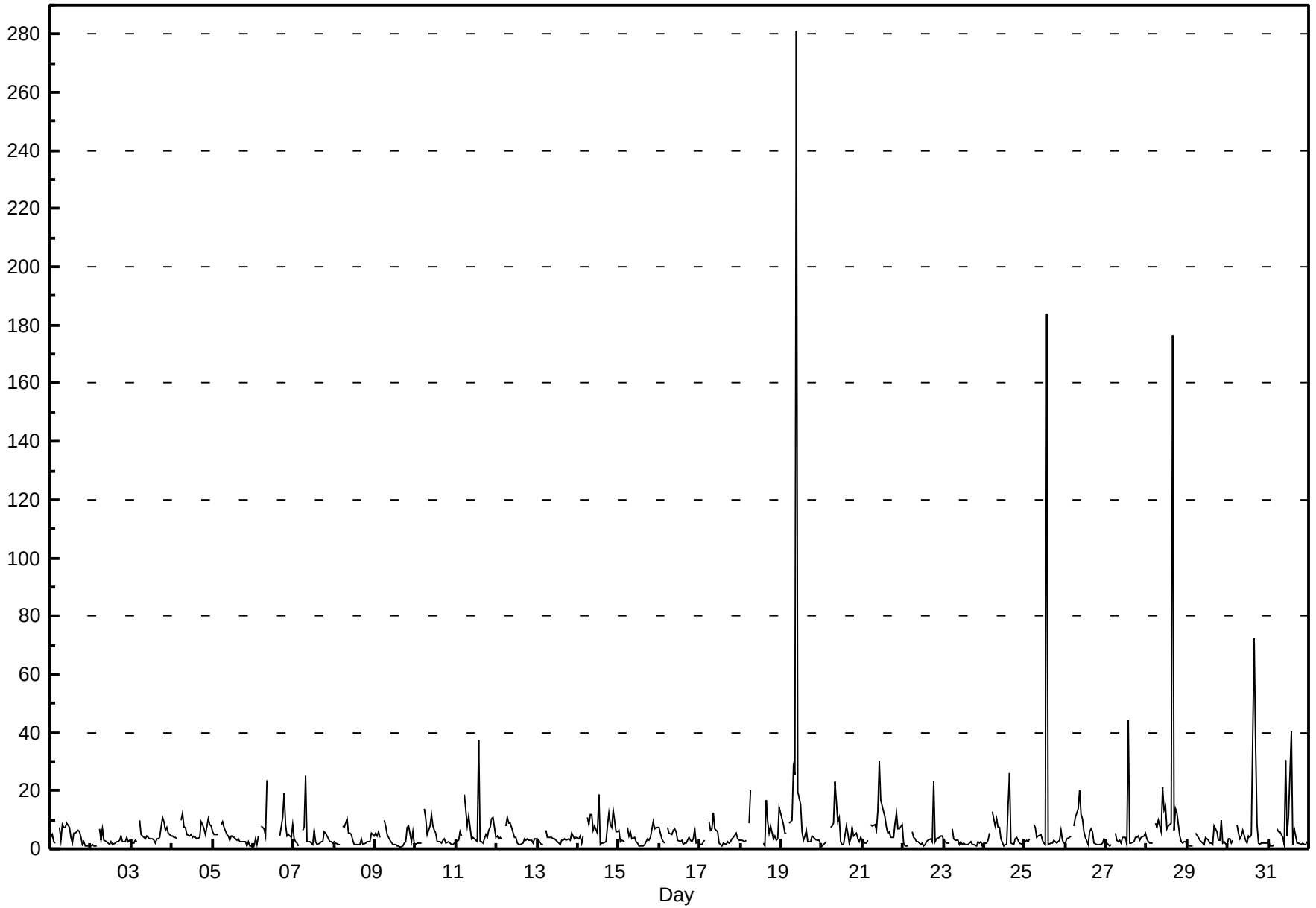
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - October 2011



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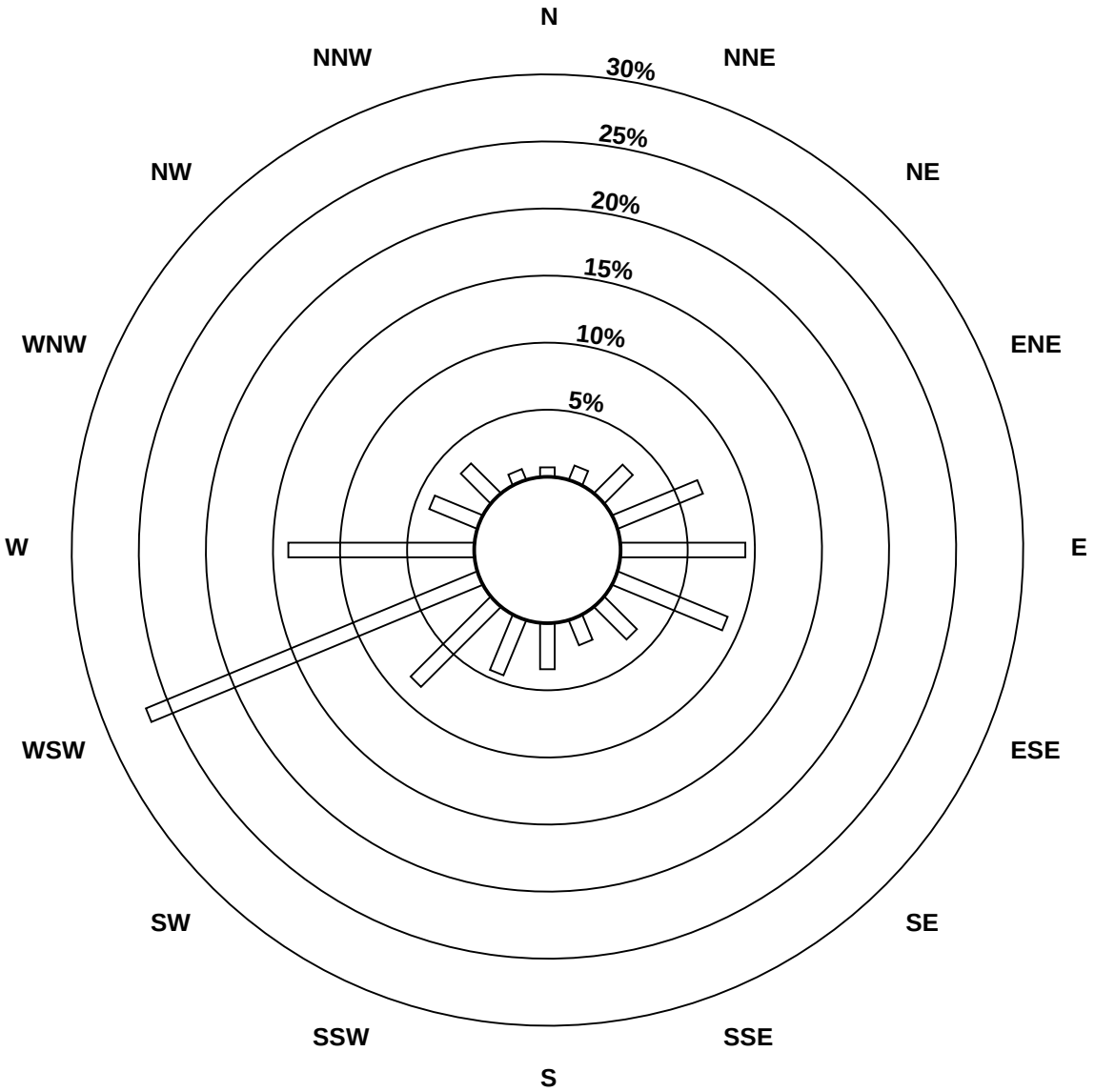
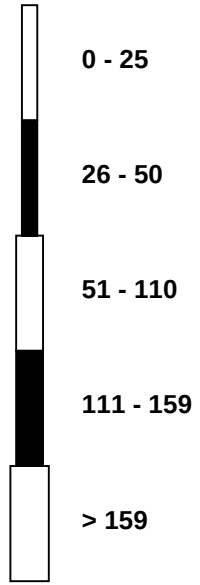
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - October 2011



Pollutant Classes (ppb)

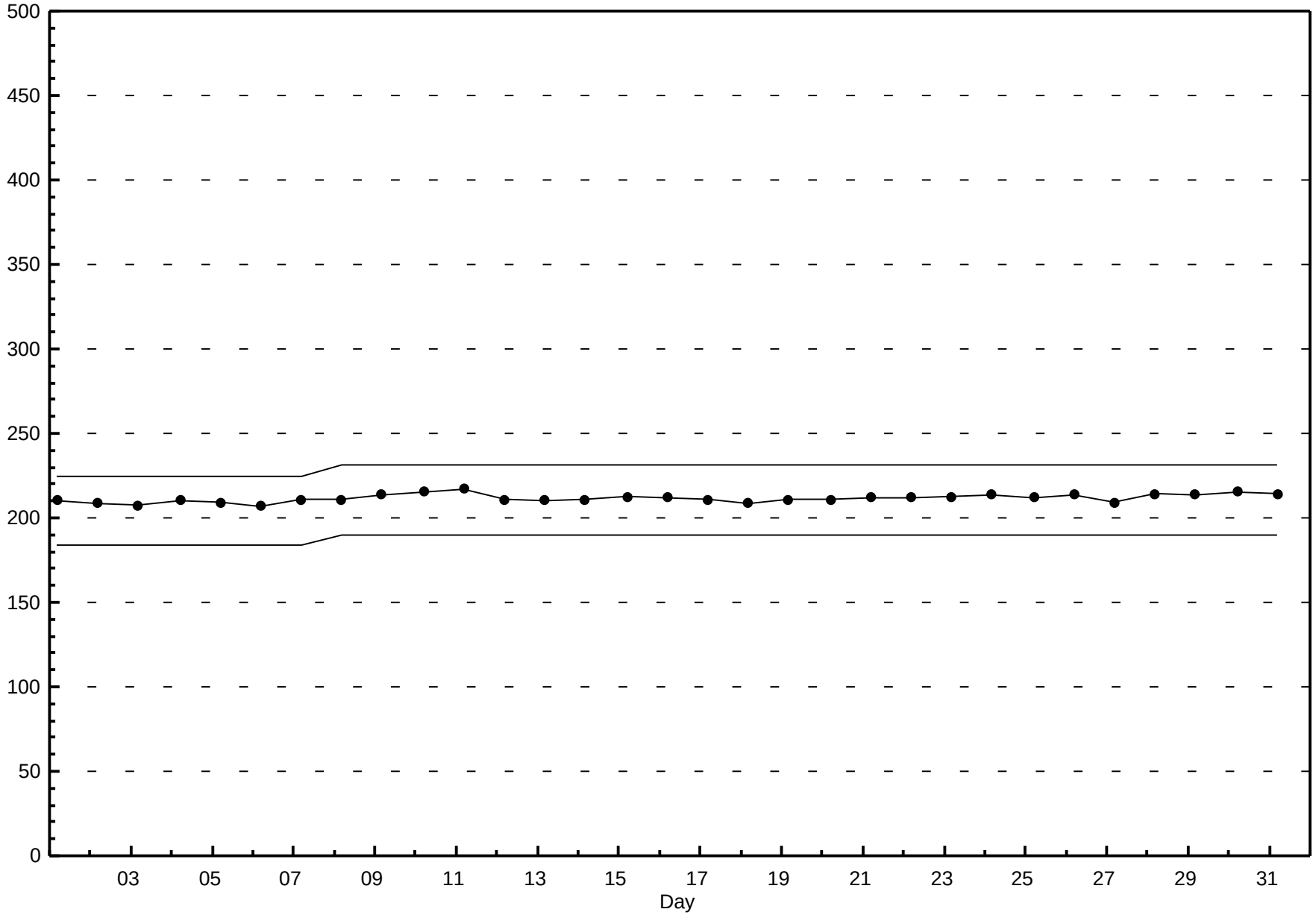


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 14.5 ppb on Oct 19 11:00 Maximum Daily Average: 1.9 ppb on Oct 19

Minimum Value: 0 ppb on Oct 1 07:00 Minimum Daily Average: 0.0 ppb on Oct 23
Maximum Diurnal Average: 1.6 ppb at hour 10 Minimum Diurnal Average: 0.0 ppb at hour 2
Monthly Average: 0.33 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.8$ $P_{99} = 4.7$

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
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-Oct	0	0	0	0	A	0	0	0	1	2	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0.5	4.7
2-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Oct	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0.4	1.3
4-Oct	0	0	0	0	A	0	0	1	2	2	2	3	3	3	2	2	2	1	0	0	0	0	0	0	1.1	3.1
5-Oct	0	0	0	0	A	0	2	4	5	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.8
6-Oct	0	0	0	0	A	0	0	0	1	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	--	1.5
7-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	0.8
8-Oct	0	0	0	0	A	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.3
9-Oct	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
10-Oct	0	0	0	0	A	0	0	0	1	8	4	2	1	1	1	0	0	0	0	0	0	0	0	0	0.7	7.7
11-Oct	0	0	0	0	A	0	0	1	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0.4	1.5
12-Oct	0	0	0	0	A	0	0	1	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8
13-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-Oct	0	0	0	0	A	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.2
15-Oct	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
16-Oct	0	0	0	0	A	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.6
17-Oct	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
18-Oct	0	0	0	0	A	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	--	0.1
19-Oct	0	0	0	0	A	0	0	7	4	13	14	3	1	0	0	0	0	0	0	0	0	0	0	0	1.9	14.5
20-Oct	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
21-Oct	0	0	0	0	A	0	0	0	0	2	5	3	2	2	1	0	0	0	0	0	0	0	0	0	0.7	5.4
22-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
23-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Oct	0	0	0	0	A	0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	1.6
25-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	1.3
26-Oct	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
27-Oct	0	0	0	0	A	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.8
28-Oct	0	0	0	0	A	0	0	0	0	2	1	3	1	1	1	1	0	0	0	0	0	0	0	0	0.4	2.5
29-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
31-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
	0.0	0.0	0.0	0.0	--	0.1	0.1	0.5	0.9	1.6	1.6	0.9	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.2	0.1	0.2	0.1	--	0.2	2.1	7.1	4.8	12.5	14.5	3.1	2.7	2.6	2.2	2.5	1.6	1.4	1.3	0.4	0.3	0.2	0.2	0.3	Diurnal Maximum	

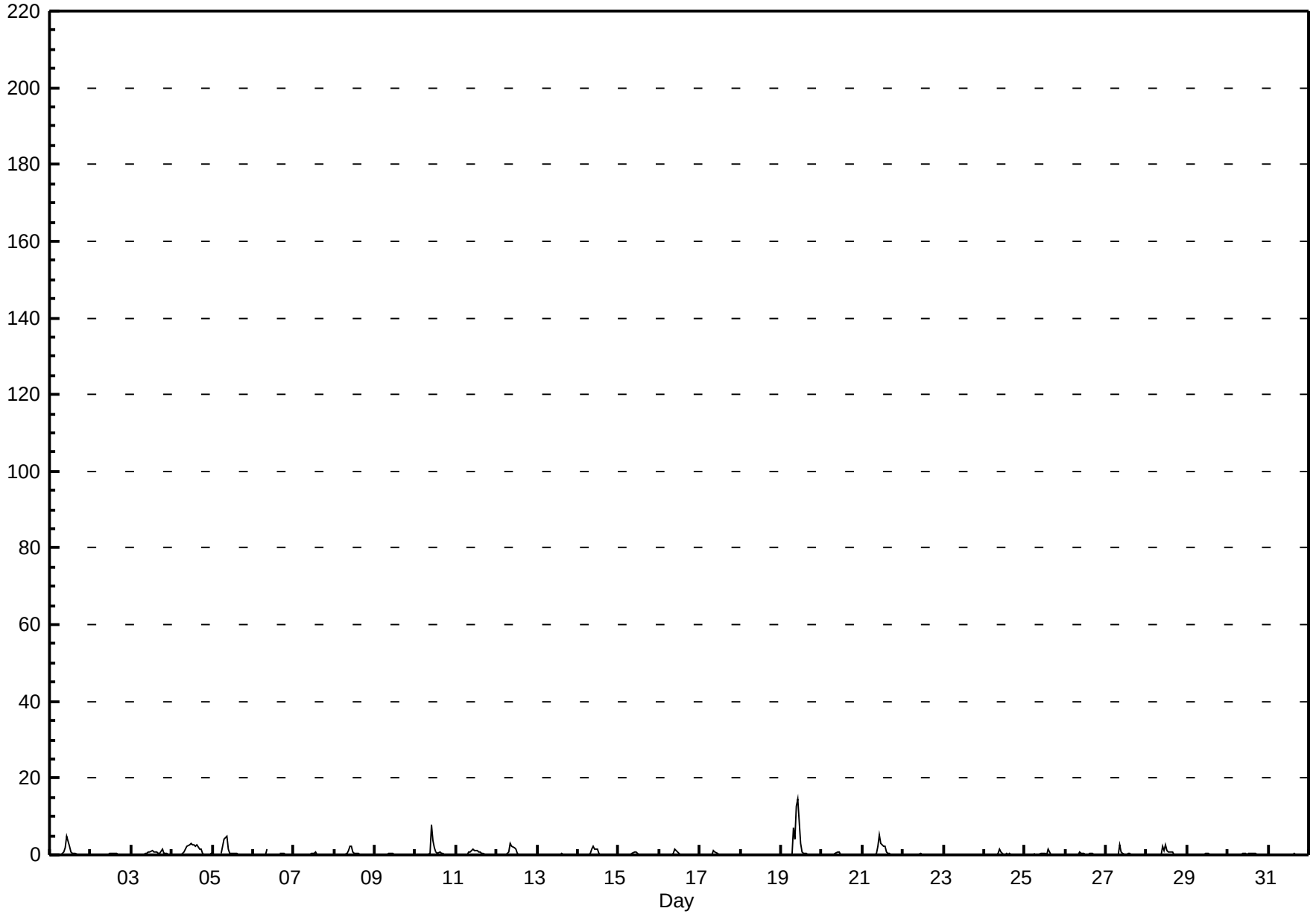
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - October 2011

Maximum Value: 209.7 ppb on Oct 19 10:00

Maximum Daily Average: 14.7 ppb on Oct 19

Minimum Value: 0 ppb on Oct 1 22:00

Minimum Daily Average: 0.2 ppb on Oct 23

Maximum Diurnal Average: 12.1 ppb at hour 10

Minimum Diurnal Average: 0.1 ppb at hour 3

Monthly Average: 1.96 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.3 Q_3 = 0.7 P_{90} = 2.6 P_{99} = 28.6

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	A	0	0	1	2	5	7	5	1	0	2	2	1	0	0	0	0	0	0	0	1.2	7.2
2-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.7
3-Oct	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	8	2	4	2	1	1	1.2	7.6
4-Oct	0	0	0	0	A	0	1	2	2	3	4	4	3	3	3	4	2	2	1	1	1	0	1	1	1.7	4.1
5-Oct	0	0	1	0	A	1	12	7	7	5	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1.7	12.1
6-Oct	0	0	0	0	A	0	0	0	21	C	C	C	C	C	C	C	0	1	2	0	0	0	0	0	--	21.4
7-Oct	0	0	0	0	A	0	0	0	0	0	1	0	1	49	0	0	0	0	0	0	0	0	0	0	2.4	48.6
8-Oct	0	0	0	0	A	0	0	1	2	4	3	2	1	0	0	0	1	0	0	0	0	0	0	0	0.6	3.7
9-Oct	0	0	0	0	A	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	3	0	0	0	0.4	3.3
10-Oct	0	0	0	0	A	1	0	0	2	20	6	4	2	1	1	1	0	0	0	0	0	0	0	0	1.7	19.9
11-Oct	0	0	0	0	A	1	1	4	1	2	2	2	1	6	3	0	0	2	0	1	0	0	1	0	1.2	5.6
12-Oct	0	0	0	0	A	0	1	4	5	5	3	3	1	0	0	0	1	0	0	0	0	0	0	0	1.1	5.2
13-Oct	0	0	0	0	A	0	0	0	0	0	1	0	1	0	1	1	1	1	0	0	0	0	0	0	0.3	0.9
14-Oct	0	0	0	0	A	0	0	2	3	3	3	10	1	0	0	0	0	0	0	0	0	0	0	0	1.1	9.8
15-Oct	0	0	0	0	A	0	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.6
16-Oct	0	0	0	0	A	0	0	0	1	3	3	1	1	1	0	0	0	0	0	0	0	1	0	0	0.5	3.3
17-Oct	0	0	0	0	A	0	0	1	8	2	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0.7	7.8
18-Oct	0	0	0	0	A	0	1	C	C	C	C	C	C	1	0	0	0	0	0	0	0	0	0	0	--	1.0
19-Oct	0	0	0	0	A	0	1	32	18	210	40	11	2	0	19	0	3	0	0	0	0	0	0	0	14.7	209.7
20-Oct	0	0	0	0	A	0	0	0	10	3	6	1	0	0	1	1	0	0	0	0	0	0	0	0	1.1	10.1
21-Oct	0	0	0	0	A	0	1	0	1	4	19	8	7	8	1	2	1	0	0	1	1	1	0	1	2.4	19.1
22-Oct	0	0	0	0	A	0	0	0	0	1	15	0	4	0	0	0	0	0	2	0	0	0	0	0	1.1	15.4
23-Oct	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
24-Oct	0	0	0	0	A	1	1	3	1	4	1	2	1	32	0	13	0	0	0	0	0	0	0	0	2.7	32.4
25-Oct	0	0	0	0	A	0	0	0	0	1	1	1	1	0	97	0	0	0	1	0	0	0	0	0	4.6	96.8
26-Oct	0	0	0	0	A	0	0	0	6	1	3	1	1	0	1	1	1	0	0	0	0	0	0	0	0.8	6.4
27-Oct	0	0	0	0	A	0	0	1	172	51	11	1	1	1	1	1	1	1	0	0	0	0	0	0	10.5	171.5
28-Oct	0	0	0	0	A	0	0	0	1	17	3	7	2	1	2	2	0	0	0	0	0	0	0	0	1.6	16.7
29-Oct	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	1	0	7	0	0	0	0	0	0.6	6.7
30-Oct	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	9	10	0	0	0	0	0	0	0	1.1	9.9
31-Oct	0	0	0	0	A	0	0	0	0	1	1	5	0	0	0	1	1	0	0	0	0	0	0	0	0.6	5.5
	0.1	0.1	0.1	0.1	--	0.3	0.8	2.1	9.0	12.1	4.8	2.5	1.2	3.7	4.6	1.4	0.9	0.4	0.8	0.3	0.4	0.2	0.2	0.2	Diurnal Average	
	0.4	0.3	0.6	0.4	--	0.7	12.1	32.1	171.5	209.7	40.1	10.9	6.7	48.6	96.8	12.8	9.9	2.2	7.6	2.1	3.6	1.8	1.2	0.7	Diurnal Maximum	

C - Calibration

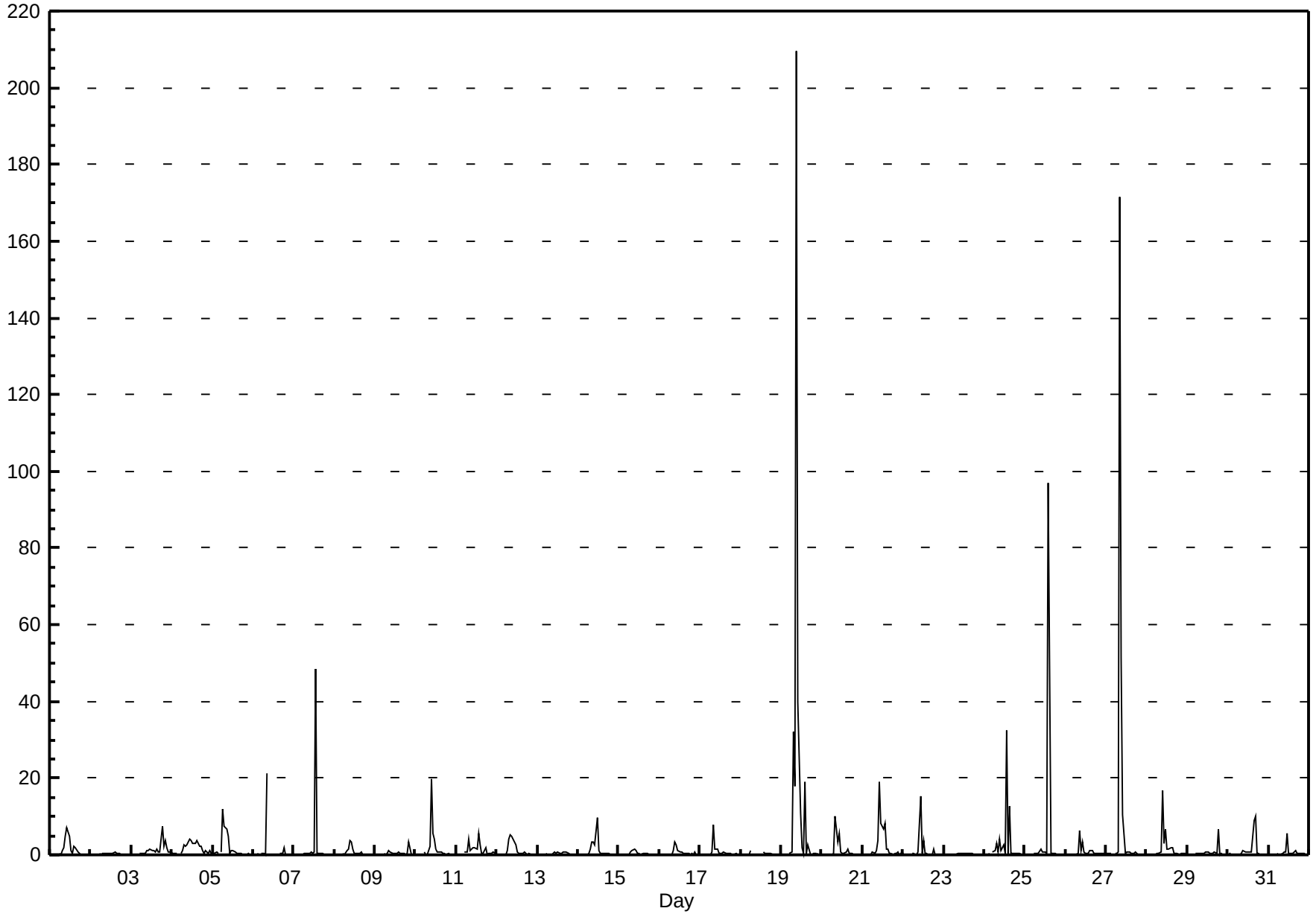
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - October 2011



Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 29.1 ppb on Oct 19 11:00 Maximum Daily Average: 7.3 ppb on Oct 19

Minimum Value: 0 ppb on Oct 9 16:00 Minimum Daily Average: 1.3 ppb on Oct 23
Maximum Diurnal Average: 5.7 ppb at hour 10 Minimum Diurnal Average: 1.8 ppb at hour 3
Monthly Average: 3.07 ppb Percentiles: $P_1 = 0.5$ $P_{10} = 0.9$ $Q_1 = 1.3$ Median = 2.0 $Q_3 = 4.0$ $P_{90} = 6.6$ $P_{99} = 12.9$

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
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-Oct	2	2	1	1	A	4	2	5	4	5	12	7	3	1	3	3	3	3	2	1	1	1	1	1	2.9	11.8
2-Oct	1	1	1	1	A	4	2	3	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2.0	4.2
3-Oct	2	2	3	3	A	6	4	4	4	4	4	4	4	3	3	3	4	4	7	7	5	5	5	4	4.0	6.8
4-Oct	4	3	3	3	A	7	9	6	7	7	6	8	6	6	5	5	5	8	7	6	5	8	7	7	6.0	9.4
5-Oct	5	4	4	4	A	7	9	10	9	5	2	4	3	3	3	3	2	2	2	1	1	1	1	1	3.8	10.2
6-Oct	1	1	1	2	A	4	4	3	7	C	C	C	C	C	C	C	4	6	11	4	3	4	3	4	--	11.4
7-Oct	2	1	1	1	A	4	4	2	2	1	1	1	2	1	1	1	1	1	4	4	2	2	1	1	1.8	4.1
8-Oct	1	1	1	1	A	5	4	7	5	6	6	2	2	1	1	1	2	1	1	2	2	2	3	3	2.7	7.0
9-Oct	3	4	4	2	A	6	5	4	3	2	2	1	0	0	0	0	0	1	1	2	2	2	2	1	2.1	6.3
10-Oct	1	1	2	2	A	8	6	3	6	16	10	7	4	3	3	2	2	2	1	1	2	1	1	2	3.8	16.1
11-Oct	2	2	3	3	A	9	7	10	6	4	5	4	3	4	3	2	2	3	3	4	5	6	6	3	4.3	10.2
12-Oct	3	2	3	3	A	6	9	8	10	8	5	4	2	1	1	1	2	2	2	1	1	1	2	2	3.4	9.8
13-Oct	2	1	1	1	A	4	2	2	1	1	2	2	2	1	2	1	1	1	2	2	2	3	2	3	1.8	3.6
14-Oct	3	3	2	3	A	8	7	9	9	8	7	6	4	1	1	1	1	5	5	5	4	6	4	3	4.5	9.1
15-Oct	3	2	2	2	A	4	3	4	3	4	3	1	1	1	1	1	1	1	2	2	4	4	3	3	2.3	4.4
16-Oct	3	2	2	2	A	4	4	4	5	7	5	3	1	1	1	1	1	2	1	2	2	3	1	1	2.5	7.1
17-Oct	1	1	2	2	A	7	4	5	7	6	3	1	1	1	1	1	1	1	1	2	3	2	2	2	2.5	7.4
18-Oct	2	2	2	2	A	6	9	C	C	C	C	C	C	1	1	1	1	2	2	2	2	2	1	7	--	8.8
19-Oct	7	5	4	4	A	7	7	21	21	23	29	11	5	3	3	4	2	2	2	2	2	1	1	1	7.3	29.1
20-Oct	1	1	1	1	A	4	4	5	5	5	4	1	1	1	1	1	1	2	4	3	3	2	2	2	2.4	5.2
21-Oct	2	1	2	2	A	6	5	5	6	11	19	14	10	9	6	4	4	3	3	6	7	6	5	4	6.0	18.8
22-Oct	1	1	1	0	A	3	2	2	1	1	1	1	1	1	1	2	2	1	9	1	2	2	2	2	1.8	9.5
23-Oct	2	1	2	2	A	4	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.6
24-Oct	1	2	2	2	A	7	6	7	4	6	3	1	1	1	1	1	1	1	2	3	1	1	1	2	2.5	7.0
25-Oct	2	2	1	2	A	7	4	2	3	3	2	1	1	3	1	1	1	1	1	1	2	4	2	2	2.2	6.9
26-Oct	2	2	3	3	A	7	7	6	10	8	7	5	2	1	3	4	3	1	1	1	1	1	1	1	3.4	10.1
27-Oct	1	1	1	1	A	3	2	1	1	1	1	1	1	2	1	1	2	2	2	2	1	2	3	3	1.6	3.4
28-Oct	2	2	2	2	A	7	5	6	4	14	10	11	7	6	7	9	2	8	4	2	1	1	1	1	5.0	14.0
29-Oct	1	0	0	1	A	3	2	2	2	1	1	1	2	1	1	1	2	1	2	1	4	1	1	1	1.5	3.8
30-Oct	1	1	1	2	A	5	4	2	3	4	2	1	2	2	2	3	2	1	1	1	1	1	1	1	1.9	5.0
31-Oct	1	1	1	1	A	4	4	3	2	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1.5	3.8
	2.1	1.9	1.8	2.0	--	5.6	4.8	5.1	5.2	5.7	5.4	3.7	2.5	2.1	2.0	2.1	1.9	2.3	2.9	2.4	2.5	2.5	2.2	2.4	Diurnal Average	
	6.6	5.1	4.3	4.5	--	9.0	9.4	21.2	20.7	23.4	29.1	13.6	9.6	9.2	7.0	8.7	5.0	8.1	11.4	6.8	6.6	7.7	7.2	7.1	Diurnal Maximum	

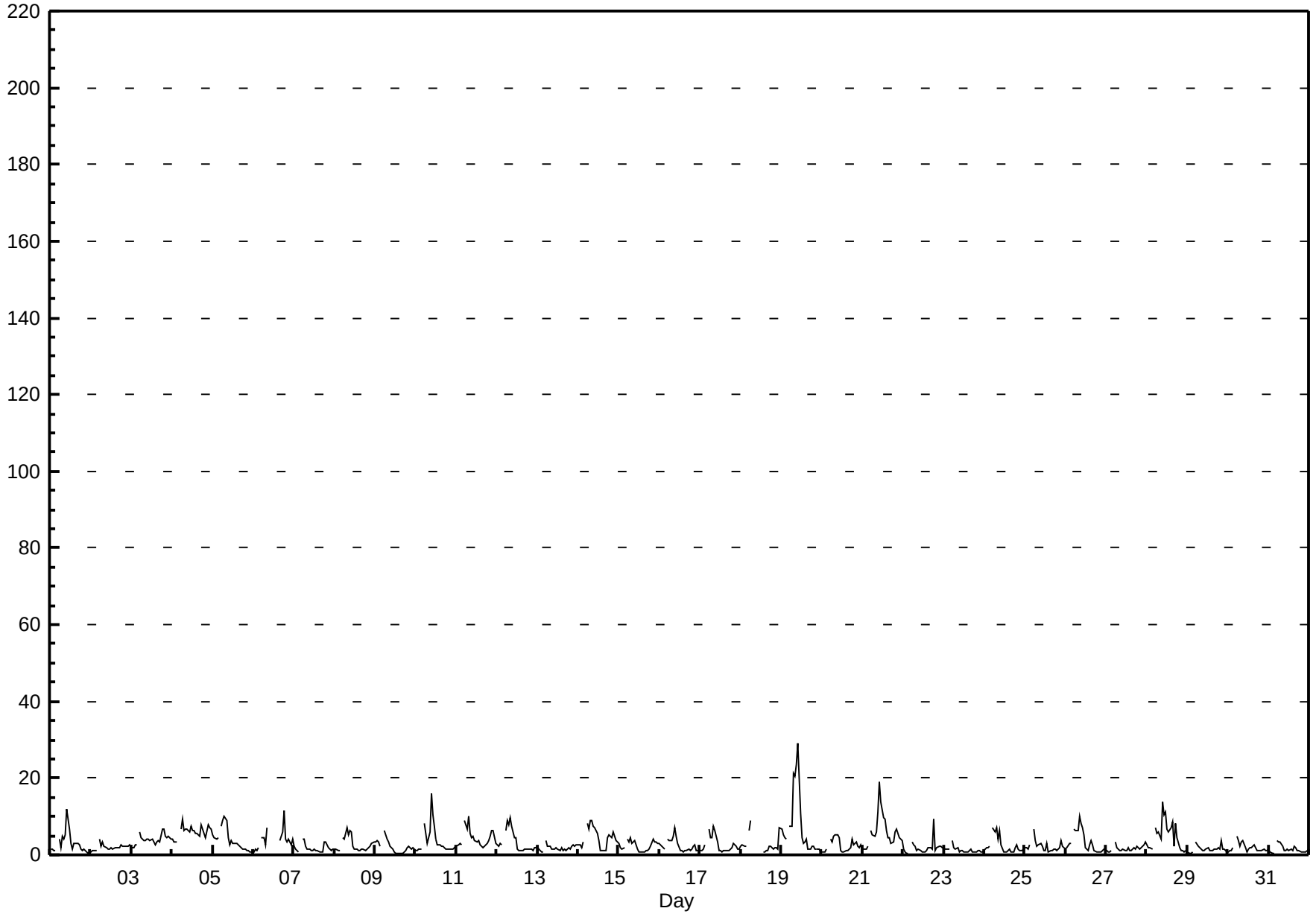
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - October 2011

Maximum Value: 289.7 ppb on Oct 19 10:00

Maximum Daily Average: 24.7 ppb on Oct 19

Minimum Value: 1 ppb on Oct 29 03:00

Minimum Daily Average: 2.5 ppb on Oct 23

Maximum Diurnal Average: 18.7 ppb at hour 10

Minimum Diurnal Average: 2.7 ppb at hour 3

Monthly Average: 6.76 ppb

Percentiles: P_1 = 1.1 P_{10} = 1.8 Q_1 = 2.3 Median = 3.8 Q_3 = 7.2 P_{90} = 11.3 P_{99} = 45.9

Hours in Service:	744
Hours of Data:	700
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	4	5	2	2	A	8	3	9	9	12	16	12	5	2	7	7	7	6	4	2	2	1	1	2	5.6	16.2
2-Oct	1	1	1	1	A	7	3	7	3	3	2	2	3	2	3	3	3	3	4	3	3	4	3	3	2.9	7.5
3-Oct	2	2	3	3	A	10	5	4	4	5	5	5	4	4	3	5	4	4	18	12	10	9	5	5	5.7	18.2
4-Oct	5	4	4	4	A	10	14	10	9	8	8	9	7	7	7	7	6	11	9	7	5	11	9	8	7.8	13.7
5-Oct	6	5	5	5	A	9	21	13	12	8	3	6	5	4	4	4	3	3	2	2	1	3	1	1	5.5	21.5
6-Oct	1	3	1	5	A	8	7	4	31	C	C	C	C	C	C	C	5	11	21	8	4	5	4	9	--	30.8
7-Oct	4	3	2	1	A	7	7	25	3	3	3	2	7	6	2	2	3	2	6	5	4	3	3	2	4.5	25.0
8-Oct	2	2	2	2	A	8	8	11	6	9	8	4	2	2	2	2	4	2	2	2	2	3	5	5	4.1	11.2
9-Oct	5	4	6	4	A	10	8	5	5	3	2	2	2	1	2	1	1	2	2	8	8	2	6	2	4.0	9.6
10-Oct	2	2	2	2	A	14	10	5	10	32	13	11	7	3	3	3	3	4	2	3	2	2	2	2	5.9	31.8
11-Oct	2	3	6	4	A	19	9	13	8	5	6	5	4	38	3	3	2	5	4	7	8	10	12	4	7.9	38.1
12-Oct	4	3	4	4	A	8	11	12	14	12	7	6	3	2	2	2	4	3	3	3	3	2	3	4	5.2	13.9
13-Oct	4	2	2	2	A	6	4	4	4	4	4	3	3	2	3	4	4	4	4	3	5	4	3	4	3.6	6.4
14-Oct	3	5	2	4	A	11	8	13	15	10	10	8	19	2	2	2	3	8	13	8	7	13	6	6	7.8	18.8
15-Oct	6	3	3	2	A	7	5	7	5	6	3	2	1	1	1	2	3	4	3	4	9	7	8	7	4.3	9.2
16-Oct	7	3	3	2	A	8	6	5	8	10	8	4	3	4	2	2	2	4	3	3	3	8	2	3	4.4	10.3
17-Oct	1	2	3	3	A	10	6	7	16	9	8	2	2	1	3	2	3	2	3	4	4	6	4	3	4.4	15.6
18-Oct	3	3	3	3	A	9	21	C	C	C	C	C	C	2	1	17	9	6	8	3	5	3	3	14	--	20.7
19-Oct	10	9	5	5	A	9	11	60	43	290	46	26	8	3	11	7	3	3	4	4	4	3	3	1	24.7	289.7
20-Oct	1	2	2	3	A	8	8	9	34	13	17	3	2	2	8	7	2	3	7	4	5	3	2	4	6.5	33.5
21-Oct	3	2	2	3	A	8	9	8	7	16	46	25	19	17	9	7	6	4	4	9	13	8	7	9	10.4	46.5
22-Oct	2	1	1	1	A	6	4	3	2	3	2	3	2	2	3	3	3	2	24	3	3	4	4	5	3.8	24.3
23-Oct	3	3	2	2	A	7	3	3	3	2	3	2	3	2	2	2	3	2	1	1	3	2	2	1	2.5	6.9
24-Oct	2	2	3	6	A	13	8	14	8	12	4	1	2	2	17	27	2	2	4	4	3	2	1	2	6.2	27.0
25-Oct	2	3	3	3	A	8	8	4	5	6	3	2	2	185	2	2	3	3	3	2	3	6	3	2	11.5	184.8
26-Oct	2	3	4	4	A	8	11	14	23	13	13	6	4	2	7	8	7	2	2	2	2	2	2	4	6.3	22.7
27-Oct	2	2	1	2	A	6	3	3	4	2	10	4	2	45	3	2	3	5	4	4	3	4	4	5	5.4	45.0
28-Oct	4	3	2	2	A	9	7	10	7	35	15	22	9	9	11	179	7	14	12	4	3	2	3	2	16.1	178.9
29-Oct	2	1	1	1	A	6	4	3	2	2	2	4	3	2	2	2	8	6	3	3	10	2	3	1	3.3	9.7
30-Oct	4	4	2	3	A	8	5	3	5	8	4	2	5	4	6	73	36	8	2	2	2	2	2	2	8.4	73.3
31-Oct	3	1	1	2	A	7	6	6	4	2	31	8	12	40	2	7	6	2	3	2	2	2	1	2	6.6	40.5
	3.3	2.9	2.7	2.9	--	8.7	7.9	9.9	10.2	18.7	10.5	6.6	5.1	13.3	4.4	13.1	5.1	4.6	6.0	4.2	4.6	4.4	3.8	4.0	Diurnal Average	
	10.1	8.6	6.1	6.0	--	19.3	21.5	59.5	43.0	289.7	46.5	25.9	18.8	184.8	16.9	178.9	36.2	14.0	24.3	11.6	13.0	13.4	11.6	14.0	Diurnal Maximum	

C - Calibration

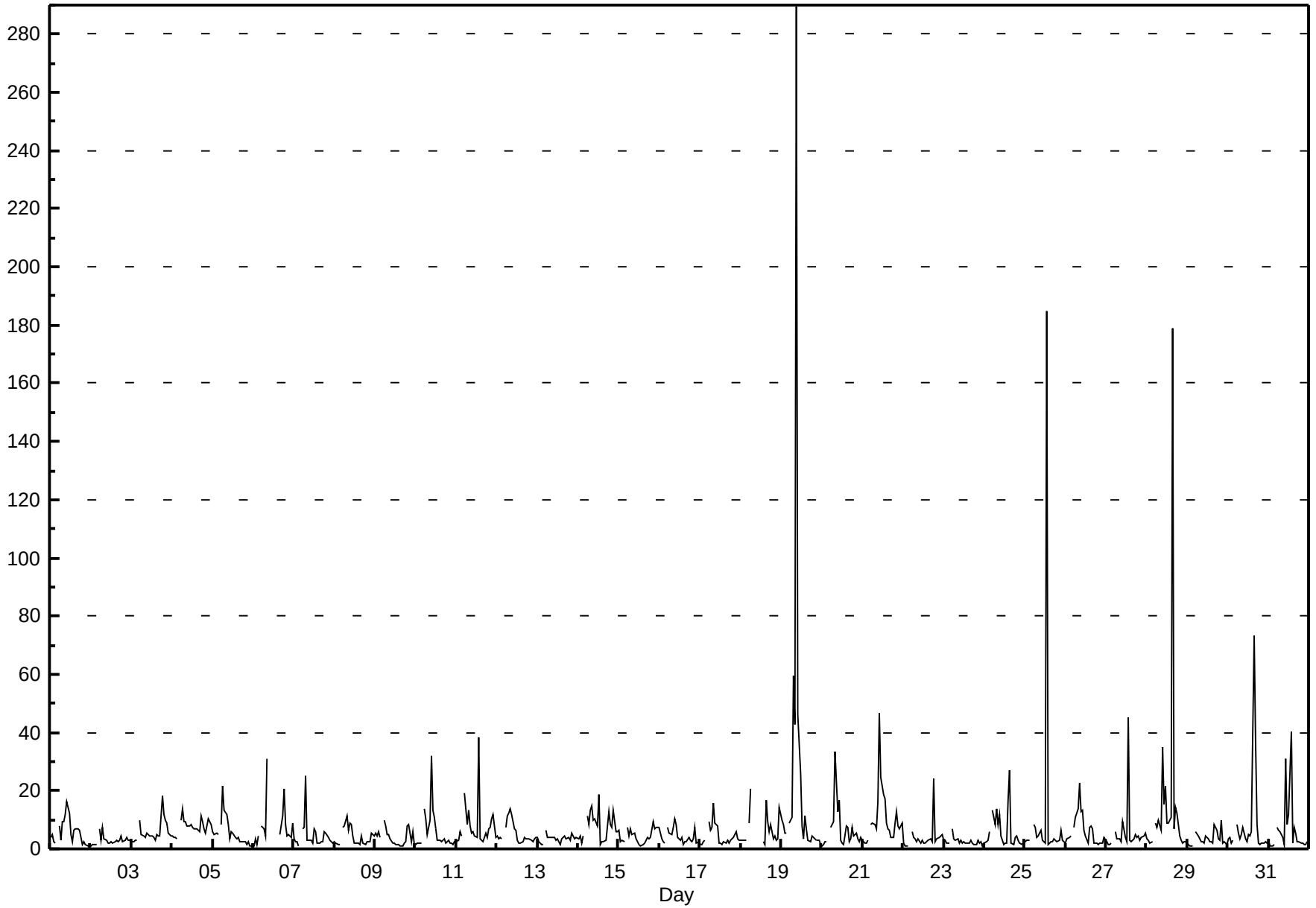
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - October 2011

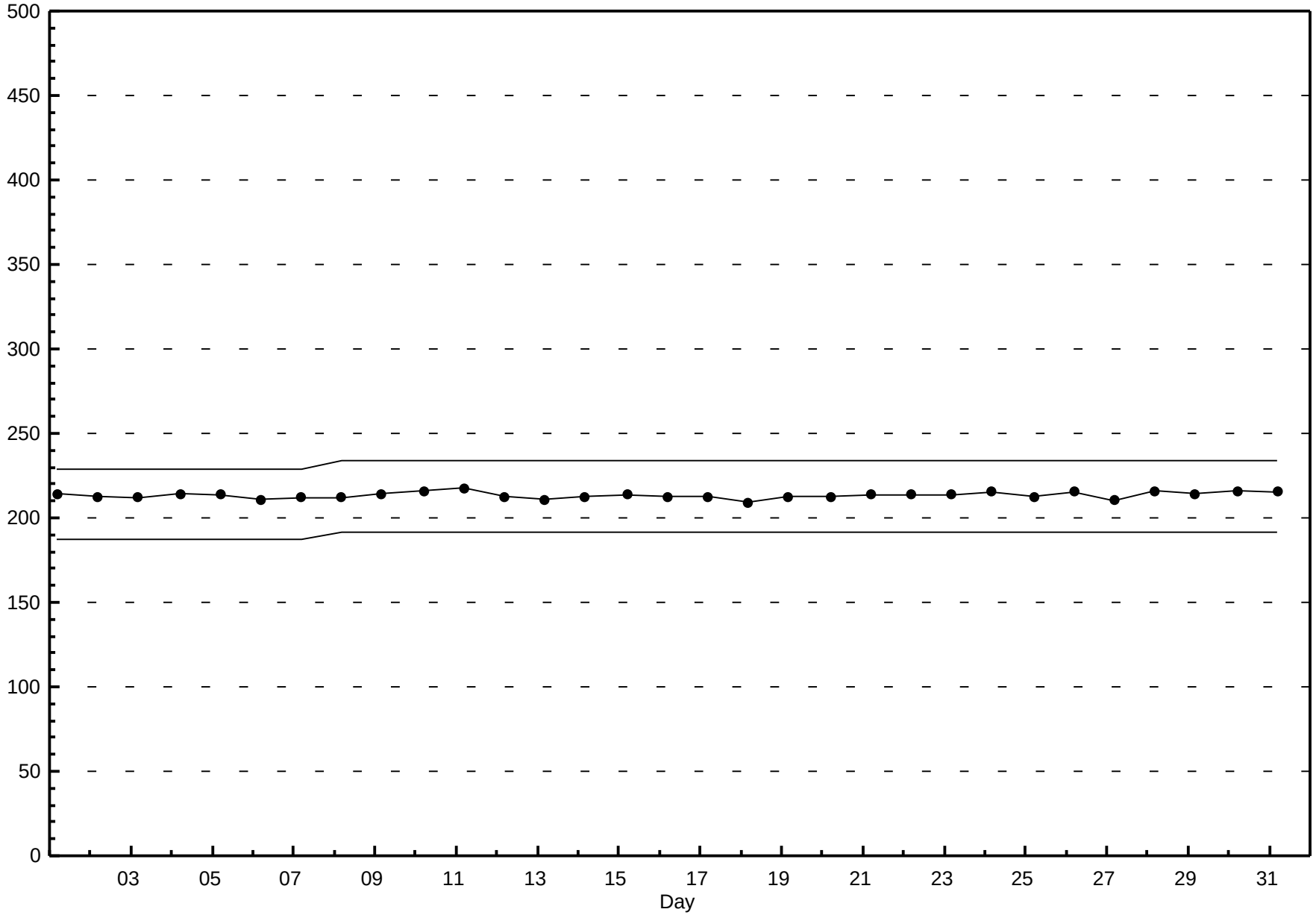


Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 43.3 ppb on Oct 18 17:00 Maximum Daily Average: 34.5 ppb on Oct 22

Minimum Value: 1 ppb on Oct 5 08:00 Minimum Daily Average: 8.4 ppb on Oct 4
Maximum Diurnal Average: 31.6 ppb at hour 17 Minimum Diurnal Average: 20.9 ppb at hour 9
Monthly Average: 26.44 ppb Percentiles: P_1 = 4.5 P_{10} = 13.9 Q_1 = 21.7 Median = 28.3 Q_3 = 32.8 P_{90} = 35.4 P_{99} = 40.7

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-Oct	24	23	26	23	A	24	26	16	19	18	14	22	25	27	27	26	25	24	24	28	27	28	30	25	23.9	29.8
2-Oct	24	24	22	21	A	19	17	14	15	17	21	20	20	21	21	22	22	21	18	17	16	14	13	13	18.7	24.3
3-Oct	14	11	8	7	A	8	8	8	9	9	10	10	10	11	11	11	9	9	6	4	4	6	5	7	8.6	13.5
4-Oct	8	8	8	7	A	7	3	5	5	6	5	7	9	10	12	14	16	11	12	10	11	7	5	5	8.4	15.5
5-Oct	6	7	5	5	A	5	2	1	1	12	19	16	17	19	20	21	21	21	21	20	20	21	20	21	13.9	21.2
6-Oct	23	21	20	19	A	19	15	19	14	17	20	22	23	25	C	C	C	C	16	23	24	23	25	18	20.3	24.8
7-Oct	20	24	26	31	A	29	26	27	26	26	27	28	28	29	29	31	32	32	29	27	27	27	27	24	27.6	32.3
8-Oct	24	22	22	21	A	21	20	15	18	18	22	27	33	34	34	35	33	32	31	31	30	29	28	27	26.4	34.7
9-Oct	27	24	24	26	A	17	17	18	20	27	31	35	36	36	36	35	35	33	31	30	29	28	29	29	28.4	36.3
10-Oct	29	29	29	30	A	15	19	28	22	7	13	18	27	32	31	34	34	32	31	29	28	29	29	28	26.1	33.6
11-Oct	27	26	27	21	A	15	13	8	13	15	15	17	19	23	25	26	27	24	26	24	22	17	14	19	20.2	27.1
12-Oct	17	19	17	15	A	12	6	6	6	9	10	14	24	29	31	31	31	30	30	29	29	28	26	25	20.6	31.5
13-Oct	25	27	33	35	A	34	33	32	33	31	30	28	30	31	30	32	32	31	28	28	26	26	27	24	29.7	34.9
14-Oct	24	25	28	26	A	22	22	17	16	18	21	24	28	34	36	35	34	30	30	27	27	24	26	23	25.9	35.6
15-Oct	21	23	22	21	A	21	20	18	18	18	22	29	34	36	37	37	36	35	34	33	31	32	30	29	27.7	37.2
16-Oct	28	28	30	29	A	29	27	24	25	23	24	25	35	37	38	39	41	37	36	34	34	33	35	37	31.7	40.7
17-Oct	36	36	36	35	A	25	30	30	25	27	33	39	39	39	38	39	37	36	35	33	30	31	32	31	33.4	38.8
18-Oct	30	28	29	29	A	30	26	C	C	C	C	C	C	42	42	43	43	41	40	39	39	39	41	32	--	43.3
19-Oct	32	33	31	26	A	23	24	16	9	12	7	24	30	29	28	25	35	36	34	30	30	30	31	33	26.4	36.3
20-Oct	33	32	33	32	A	30	32	28	28	26	29	36	37	38	38	37	36	35	32	33	32	31	30	30	32.3	37.6
21-Oct	31	28	28	28	A	26	24	23	22	17	15	16	24	25	24	25	24	29	29	21	17	14	20	21	23.0	31.4
22-Oct	29	33	34	34	A	33	30	30	33	33	35	37	39	41	41	40	37	39	27	39	35	32	32	29	34.5	41.3
23-Oct	27	31	30	28	A	30	32	31	30	31	32	33	34	34	35	34	32	32	31	30	29	28	29	29	30.9	34.6
24-Oct	27	25	25	25	A	23	21	20	24	19	27	32	33	34	34	33	33	32	30	27	28	28	28	28	27.6	34.0
25-Oct	26	26	26	25	A	23	24	26	26	26	28	31	33	34	34	34	33	32	31	32	30	27	28	29	28.9	34.4
26-Oct	29	29	27	26	A	26	25	23	18	21	22	27	38	39	32	31	34	35	33	32	34	34	34	33	29.5	38.6
27-Oct	33	33	33	33	A	34	33	34	33	34	34	34	34	34	34	34	33	32	30	31	31	31	29	26	32.4	34.2
28-Oct	29	27	27	28	A	23	23	22	24	18	19	19	25	29	28	31	40	26	34	36	37	35	34	33	28.1	39.7
29-Oct	33	34	33	33	A	31	30	31	31	33	33	34	34	34	35	35	33	34	32	31	28	32	33	37	32.7	36.6
30-Oct	37	38	39	38	A	34	35	35	32	30	34	35	34	32	35	37	35	33	33	31	30	30	29	30	33.8	38.9
31-Oct	28	29	32	32	A	31	29	29	31	34	35	36	36	36	36	35	36	36	35	36	35	35	35	33	33.4	36.4
	25.8	25.9	26.1	25.5	--	23.1	22.2	21.1	20.9	21.1	22.9	25.8	28.9	30.8	31.1	31.3	31.6	30.3	28.5	28.2	27.5	26.8	26.9	26.0	Diurnal Average	
	37.1	38.3	38.9	37.8	--	34.0	34.7	35.2	33.5	34.4	35.4	38.6	38.8	41.7	41.8	42.7	43.3	40.8	39.8	39.0	39.3	39.4	40.7	36.7	Diurnal Maximum	

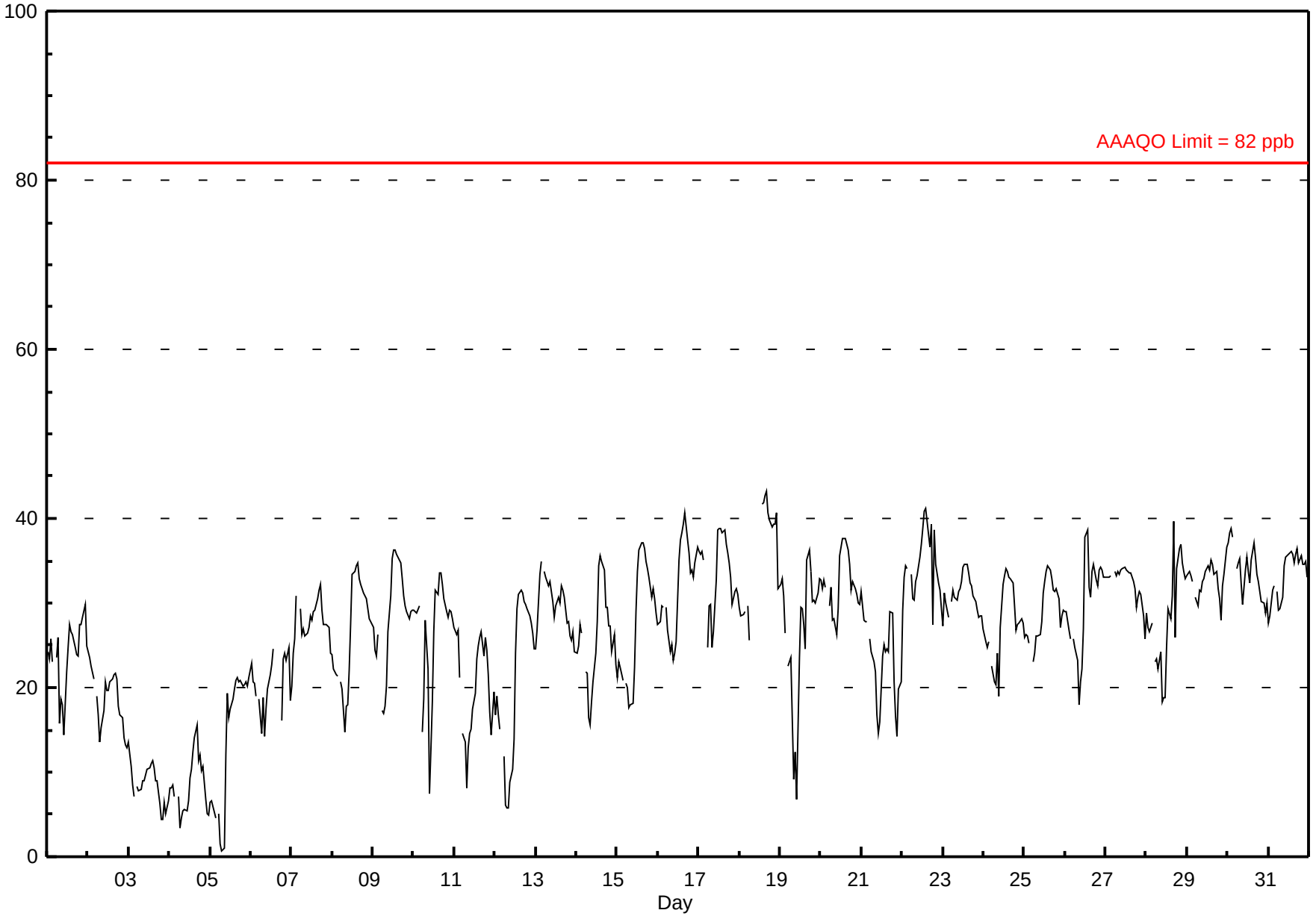
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - October 2011

Maximum Value: 45.2 ppb on Oct 18 16:00

Maximum Daily Average: 37.3 ppb on Oct 22

Minimum Value: 1 ppb on Oct 5 08:00

Minimum Daily Average: 10.1 ppb on Oct 3

Maximum Diurnal Average: 33.7 ppb at hour 16

Minimum Diurnal Average: 23.8 ppb at hour 9

Monthly Average: 28.91 ppb

Percentiles: P_1 = 6.3 P_{10} = 17.1 Q_1 = 25.1 Median = 31.0 Q_3 = 34.5 P_{90} = 37.4 P_{99} = 42.9

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	41
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-Oct	26	26	27	27	A	27	27	26	24	26	18	29	29	29	29	28	27	30	26	31	31	32	32	27	27.5	32.0
2-Oct	26	25	24	22	A	20	20	17	17	21	22	21	21	22	22	23	23	22	21	18	18	16	16	14	20.6	25.6
3-Oct	14	13	10	8	A	9	13	9	10	10	10	11	11	12	12	12	10	11	11	6	7	10	6	8	10.1	14.5
4-Oct	9	9	9	9	A	8	6	6	7	6	7	8	11	12	14	17	17	15	15	15	13	8	7	7	10.3	17.4
5-Oct	8	7	8	6	A	8	6	1	2	20	21	20	21	21	21	24	22	22	23	21	21	22	22	23	16.1	24.1
6-Oct	24	25	23	22	A	25	20	22	19	19	22	23	25	26	C	C	C	C	25	26	26	26	28	26	23.7	27.9
7-Oct	25	27	32	32	A	31	28	28	28	28	28	30	30	31	31	33	33	34	33	29	29	29	29	25	29.6	34.0
8-Oct	26	26	23	24	A	22	22	19	19	21	25	31	35	35	36	37	34	34	32	32	32	31	30	29	28.5	37.1
9-Oct	28	28	29	32	A	20	20	20	23	31	34	37	37	37	37	36	36	35	33	32	31	32	32	32	30.9	37.3
10-Oct	31	31	30	30	A	28	24	31	26	23	15	21	32	33	33	35	36	34	32	32	30	30	30	29	29.3	35.7
11-Oct	28	27	28	27	A	17	17	12	15	16	18	20	22	26	27	28	28	26	27	27	24	22	20	24	22.8	28.3
12-Oct	24	23	20	17	A	15	11	8	9	11	13	20	30	31	33	33	33	32	32	31	30	29	29	29	23.6	33.2
13-Oct	27	30	35	36	A	35	34	34	34	34	33	31	31	33	33	34	33	33	30	30	28	27	28	28	31.7	36.0
14-Oct	26	27	29	28	A	24	23	22	19	22	24	28	34	37	38	37	36	33	35	30	30	29	29	25	28.8	38.1
15-Oct	24	24	24	22	A	22	22	19	20	20	26	32	37	38	39	39	38	37	36	36	34	35	35	31	29.9	39.4
16-Oct	33	31	31	31	A	30	30	26	26	26	27	34	38	39	40	42	43	40	39	35	36	37	38	38	34.3	42.9
17-Oct	37	37	37	36	A	31	32	32	33	32	38	40	40	40	39	40	39	37	36	36	33	35	35	34	36.0	40.2
18-Oct	33	31	31	33	A	32	34	C	C	C	C	C	C	43	43	45	45	44	42	41	41	42	42	38	--	45.2
19-Oct	35	39	35	31	A	27	25	27	22	29	18	34	32	31	30	35	39	38	37	34	34	33	33	34	31.9	39.5
20-Oct	34	33	34	33	A	34	34	33	34	33	36	37	38	39	39	38	38	37	34	35	34	33	31	31	34.9	39.4
21-Oct	33	33	29	29	A	28	26	24	24	20	22	24	27	28	26	26	28	31	31	27	21	18	24	26	26.4	33.0
22-Oct	34	34	35	36	A	34	33	34	34	35	37	39	40	43	43	42	40	43	42	41	39	34	33	31	37.3	43.5
23-Oct	31	33	31	30	A	32	33	32	32	33	33	34	35	36	36	35	33	34	32	31	30	30	29	30	32.4	36.0
24-Oct	30	27	27	26	A	26	23	23	26	24	32	33	35	35	35	34	34	34	32	28	28	29	29	28	29.6	34.9
25-Oct	27	27	27	26	A	25	26	28	27	27	30	33	34	35	36	35	35	33	33	33	33	31	31	30	30.5	35.5
26-Oct	30	32	29	27	A	28	29	26	25	24	28	35	40	40	38	36	36	36	34	33	35	35	35	34	32.4	39.9
27-Oct	34	34	34	34	A	34	34	34	34	35	35	35	35	34	34	34	34	33	32	32	32	33	32	30	33.7	35.0
28-Oct	30	29	27	30	A	25	26	25	26	24	23	24	29	33	30	39	42	37	40	39	39	37	35	35	31.5	42.1
29-Oct	35	35	34	34	A	32	33	33	33	34	34	36	35	35	36	36	36	35	34	31	32	33	36	39	34.3	38.9
30-Oct	39	39	40	39	A	37	39	37	34	34	36	36	36	34	39	39	37	35	34	33	32	32	31	31	35.8	40.0
31-Oct	30	30	33	34	A	33	32	32	34	36	36	37	37	37	37	36	38	37	37	37	36	36	36	35	34.9	37.5
	28.1	28.1	27.9	27.5	--	25.6	25.2	24.0	23.8	25.0	26.0	29.1	31.2	32.5	33.0	33.7	33.4	32.7	31.6	30.3	29.6	29.2	29.0	28.4	Diurnal Average	
	39.2	39.5	40.0	39.4	--	37.0	38.6	37.1	34.5	35.5	38.3	40.2	40.3	43.0	43.5	45.2	45.0	44.0	42.3	40.9	40.8	42.0	41.6	38.9	Diurnal Maximum	

C - Calibration

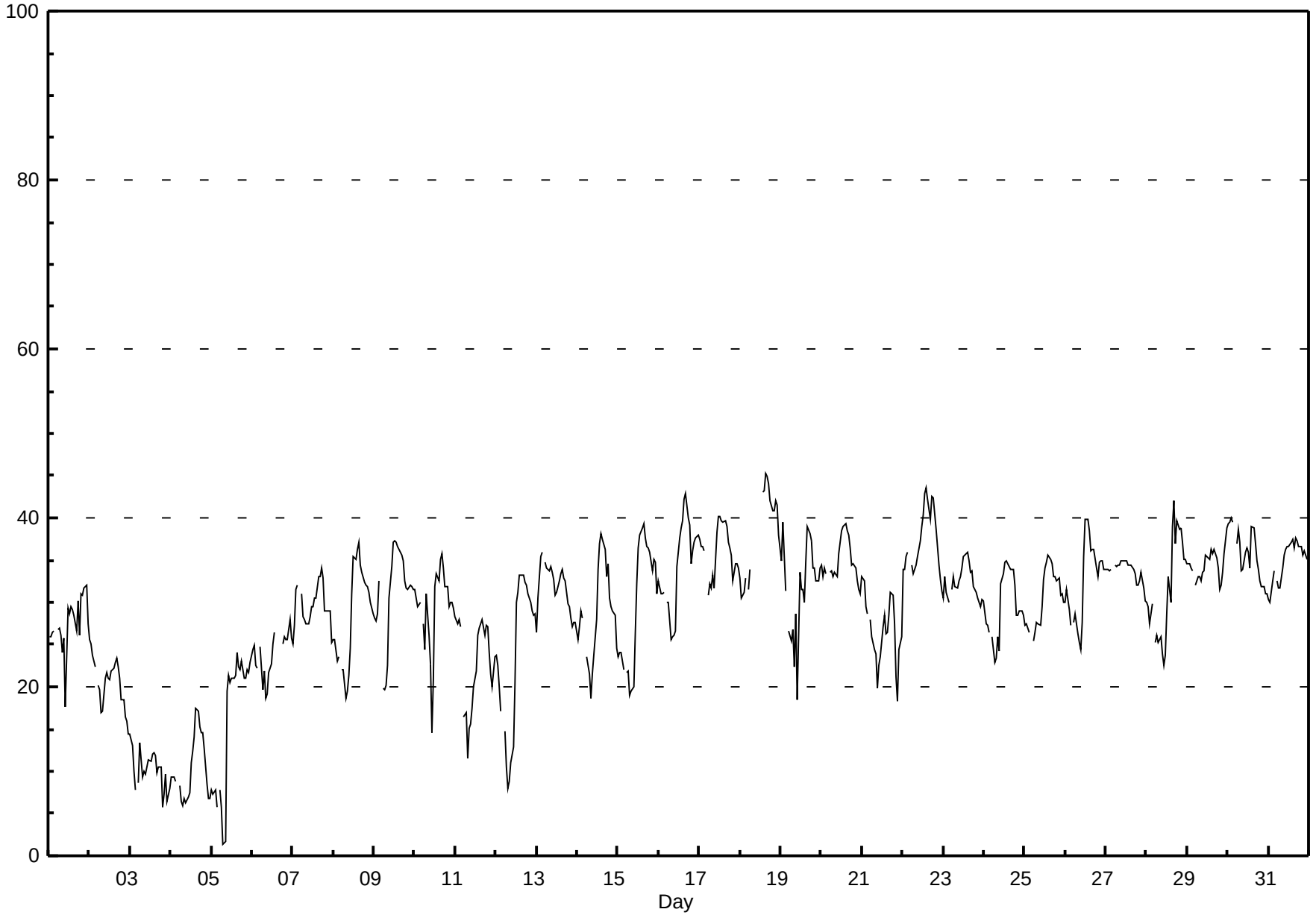
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - October 2011

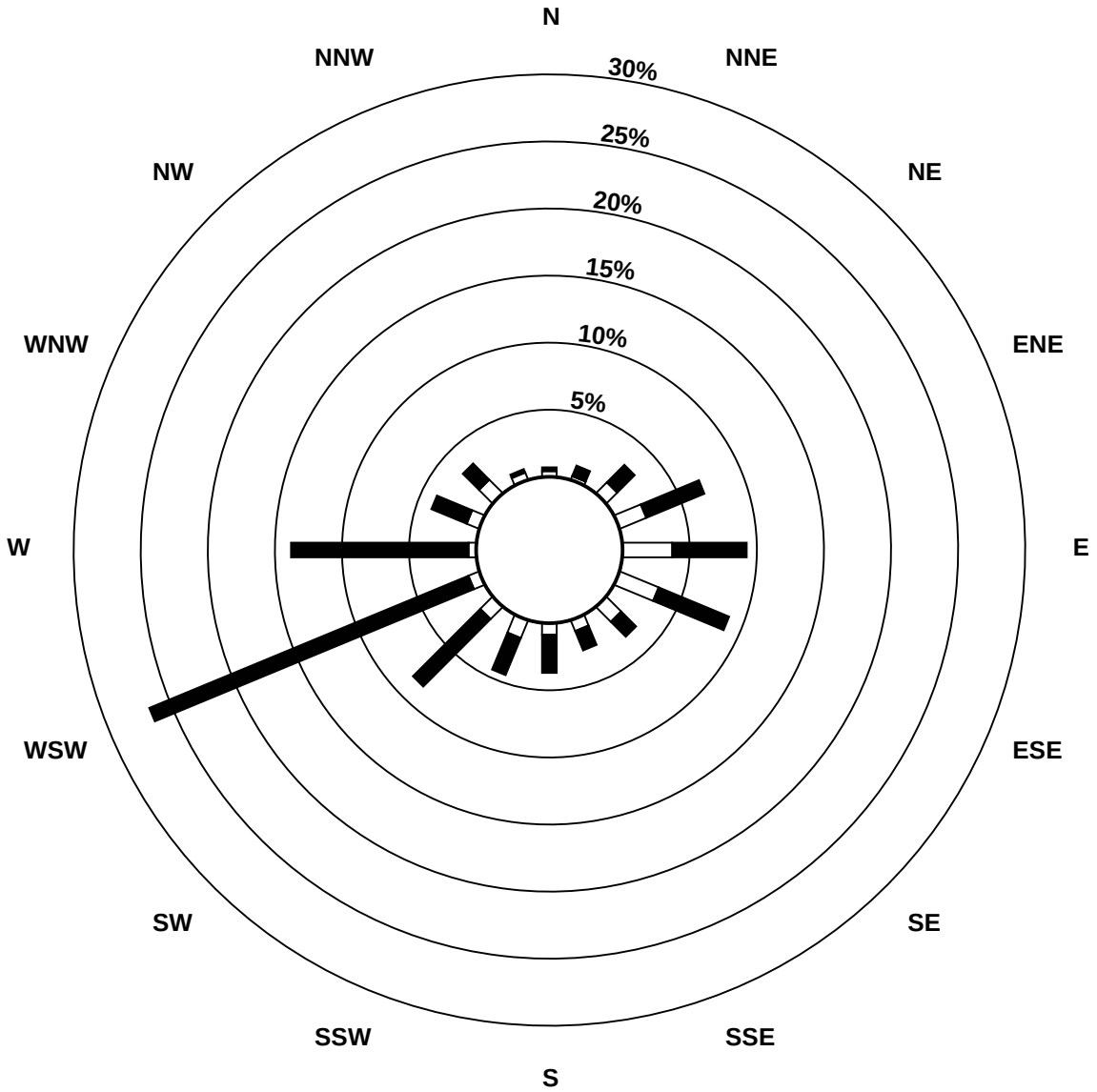


Peace Airshed Zone Association

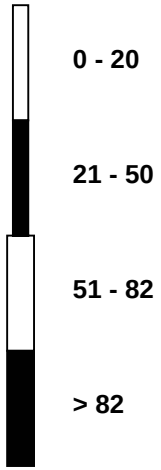
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - October 2011



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - October 2011

Maximum Value: 41.7 ppb on Oct 18 19:00

Minimum Value: 3.5 ppb on Oct 5 09:00

Percentiles: P_1 = 5.5 P_{10} = 15.4 Q_1 = 21.9 Median = 28.2 Q_3 = 32.2 P_{90} = 34.2 P_{99} = 38.1

Hours in Service:	744
Hours of Data:	727
Hours of Missing Data:	17
Hours of Calibration:	17
Percent Operational Time:	100.0

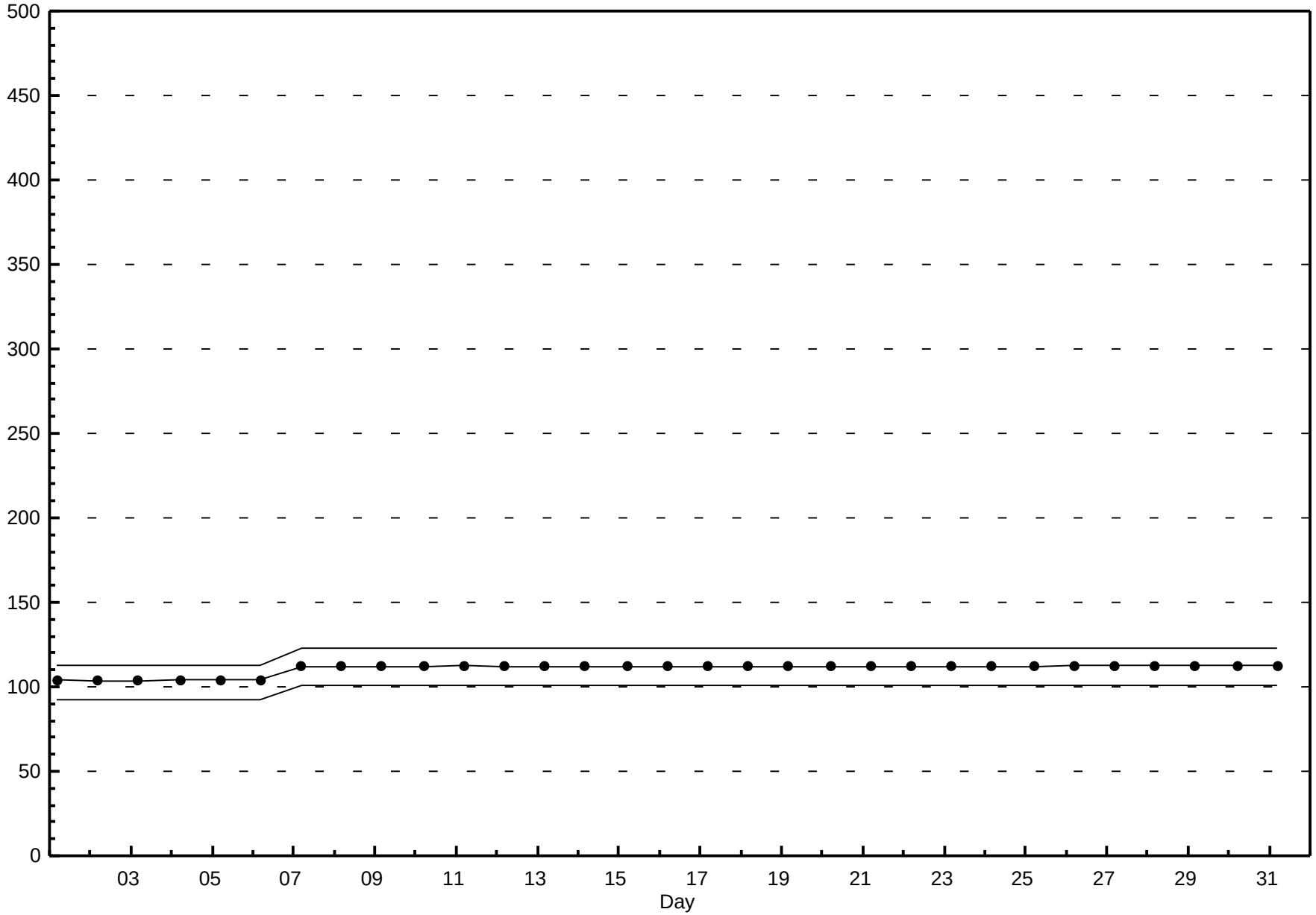
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	27	26	25	25	24	24	24	23	22	22	20	20	20	21	21	22	23	24	25	26	26	26	26	26	26.8
2-Oct	26	26	26	25	25	24	22	20	19	18	18	17	18	18	19	20	20	21	20	20	20	19	18	17	26.2
3-Oct	16	14	13	12	11	11	10	9	9	8	8	9	9	9	10	10	10	10	10	9	8	8	7	6	15.7
4-Oct	6	6	6	7	7	7	7	7	6	6	6	5	6	6	7	9	10	11	11	12	12	12	11	10	12.1
5-Oct	8	8	7	6	6	5	5	4	4	4	6	8	9	11	13	16	18	19	19	20	20	21	21	21	20.7
6-Oct	21	21	21	21	21	20	20	19	18	18	18	18	18	19	20	20	N	N	N	N	N	N	N	22	21.7
7-Oct	21	22	23	24	24	25	25	26	27	27	28	27	27	27	28	28	29	30	30	30	30	29	29	28	29.8
8-Oct	27	26	25	24	24	23	22	21	20	19	19	20	22	23	25	28	30	31	32	33	33	32	31	30	32.9
9-Oct	30	29	28	27	27	25	23	22	21	21	22	24	25	28	30	32	34	35	35	34	33	32	31	30	34.7
10-Oct	30	29	29	29	29	27	26	25	24	21	19	17	19	21	22	23	24	27	30	31	31	31	31	30	31.2
11-Oct	29	28	28	27	27	25	22	20	18	16	14	14	14	16	17	19	21	22	23	24	25	24	22	22	29.2
12-Oct	20	20	19	18	17	16	15	13	11	10	9	9	11	13	16	19	23	25	28	30	30	30	29	28	30.1
13-Oct	28	27	28	28	28	29	30	31	32	33	33	32	31	31	31	31	30	30	30	30	30	29	29	28	33.0
14-Oct	27	26	26	26	26	25	24	23	22	21	20	20	21	22	24	26	29	30	31	32	32	30	29	28	31.6
15-Oct	26	25	24	24	23	22	22	21	20	20	20	21	22	24	27	29	31	33	35	35	35	34	34	33	35.3
16-Oct	31	31	30	30	29	29	28	28	27	27	26	25	27	28	29	31	33	35	36	37	37	37	36	36	37.2
17-Oct	35	35	35	35	35	34	33	32	31	30	29	30	31	32	34	35	36	37	38	37	36	35	34	33	37.6
18-Oct	32	31	30	30	30	30	29	28	N	N	N	N	N	N	N	N	N	N	42	41	41	41	41	39	41.7
19-Oct	38	37	36	34	33	31	29	26	23	20	17	16	18	19	19	20	24	27	30	31	31	31	31	32	37.8
20-Oct	32	32	31	32	32	32	32	31	31	30	29	30	31	32	32	34	35	36	36	35	35	34	33	32	35.8
21-Oct	32	31	30	30	29	29	28	27	26	24	22	20	21	21	21	21	21	23	24	25	24	23	22	22	31.6
22-Oct	22	23	24	25	26	29	31	32	33	33	33	33	34	35	36	37	38	39	38	38	37	36	35	34	38.6
23-Oct	33	32	32	31	30	30	30	30	30	30	31	31	32	32	33	33	33	33	33	33	32	31	31	30	33.2
24-Oct	29	28	28	27	27	26	25	24	23	22	23	24	25	26	28	30	31	32	33	32	31	30	30	29	32.6
25-Oct	28	27	27	27	27	26	25	25	25	25	25	26	27	28	30	31	32	32	33	33	32	32	31	30	32.8
26-Oct	30	30	29	28	28	28	27	26	25	24	23	23	25	27	27	28	30	32	33	34	34	33	33	33	34.0
27-Oct	33	33	33	33	33	33	33	33	33	33	34	34	34	34	34	34	34	33	33	32	32	32	31	30	33.8
28-Oct	30	29	29	28	28	27	26	26	25	24	23	21	22	22	23	24	26	27	29	31	33	33	34	34	34.3
29-Oct	33	34	34	34	33	33	32	32	32	32	32	32	32	32	33	34	34	34	34	33	33	32	32	32	34.4
30-Oct	33	33	34	35	36	37	37	37	36	35	34	34	34	33	34	34	34	35	34	34	33	33	32	31	36.8
31-Oct	30	30	30	30	30	30	30	30	30	31	32	32	33	33	34	35	35	36	36	36	35	35	35	35	35.7
Diurnal Maximums	37.8	36.8	35.7	35.2	36.3	36.6	36.8	36.6	35.9	34.7	34.0	33.8	33.9	34.8	36.2	37.3	37.8	38.6	41.7	41.3	41.0	40.7	40.6	39.2	

N - Not Valid

Span Responses

Ozone (O_3)

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - October 2011

Number of Exceedences: 1-hr: 0 24-hr: 0
Maximum Value: 14.2 $\mu g/m^3$ on Oct 5 01:00
Maximum Daily Average: 9.2 $\mu g/m^3$ on Oct 5

Minimum Value: 0 $\mu g/m^3$ on Oct 30 15:00
Maximum Diurnal Average: 5.5 $\mu g/m^3$ at hour 1
Monthly Average: 4.99 $\mu g/m^3$
Minimum Daily Average: 2.4 $\mu g/m^3$ on Oct 30
Minimum Diurnal Average: 4.3 $\mu g/m^3$ at hour 15
Percentiles: P_1 = 0.7 P_{10} = 2.3 Q_1 = 3.2 Median = 4.5 Q_3 = 6.3 P_{90} = 8.4 P_{99} = 11.8

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	2
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	4	3	4	4	3	4	3	0	2	4	3	4	M	M	4	7	7	5	5	5	5	5	2	3	3.9	7.1
2-Oct	4	3	2	3	3	5	3	5	5	6	4	4	5	5	5	8	5	6	5	6	6	6	6	7	4.9	8.2
3-Oct	7	7	9	9	9	8	10	10	9	10	10	11	9	7	8	7	9	9	10	11	11	8	7	9	8.8	11.2
4-Oct	10	8	5	6	6	7	6	7	9	7	7	9	10	11	9	6	7	7	8	11	10	10	13	13	8.6	13.5
5-Oct	14	14	13	9	9	10	10	8	8	8	10	10	12	11	9	9	7	8	7	5	6	8	9	9	9.2	14.2
6-Oct	7	5	5	4	6	7	6	6	7	6	7	8	7	6	5	3	5	6	7	5	6	6	6	6	6.0	7.6
7-Oct	6	7	7	4	4	4	4	5	8	10	6	5	5	5	2	2	3	2	1	3	3	4	3	3	4.3	9.8
8-Oct	2	2	5	2	4	3	4	4	4	4	4	4	5	3	3	3	4	4	3	5	4	6	5	6	3.8	5.6
9-Oct	7	6	7	6	4	6	5	5	4	2	3	1	1	1	1	2	2	1	2	3	3	2	2	2	3.2	6.7
10-Oct	3	2	3	4	2	3	2	3	2	6	6	4	4	4	3	3	3	5	5	4	3	4	3	4	3.5	6.0
11-Oct	4	3	4	3	4	3	3	6	5	3	4	M	M	4	5	5	4	5	6	6	3	5	7	6	4.6	7.0
12-Oct	4	5	5	3	3	3	4	5	4	4	4	3	3	1	2	3	3	4	5	3	3	5	5	6	3.9	6.5
13-Oct	7	8	12	11	9	8	6	6	5	3	4	6	5	5	3	3	2	3	4	4	4	4	4	4	5.4	11.9
14-Oct	5	5	6	5	6	7	6	5	6	6	4	3	2	3	3	3	3	5	4	4	4	4	5	6	4.7	6.7
15-Oct	5	5	7	6	5	4	5	6	8	7	6	6	6	6	7	6	5	6	6	7	6	5	6	7	6.0	8.0
16-Oct	7	5	4	3	5	5	4	5	5	4	4	5	3	5	5	6	6	6	5	7	6	5	3	5	5.0	7.4
17-Oct	4	4	5	4	3	4	6	6	7	6	4	3	4	4	3	5	3	3	4	2	1	2	2	4	3.8	6.5
18-Oct	4	3	4	5	4	3	3	5	N	N	N	C	C	0	3	3	3	4	5	5	6	6	6	6	4.0	5.8
19-Oct	6	5	7	8	8	6	7	9	12	10	12	10	11	12	11	12	8	6	6	5	5	6	4	6	8.0	12.2
20-Oct	6	5	6	5	7	7	7	6	7	6	6	5	6	5	5	5	6	6	7	6	8	8	8	7	6.3	7.8
21-Oct	6	7	7	8	8	8	10	10	7	5	7	9	9	6	8	6	4	5	5	8	6	6	5	6	7.0	9.8
22-Oct	5	4	3	3	4	2	4	5	3	2	2	2	2	3	3	3	2	4	4	5	2	3	3	4	3.3	5.4
23-Oct	6	5	4	5	5	6	3	2	3	3	4	3	2	1	3	3	3	4	3	3	2	3	2	2	3.4	6.0
24-Oct	3	2	2	2	2	3	3	2	3	3	3	4	4	2	3	3	2	2	4	4	3	5	6	7	3.2	6.7
25-Oct	6	7	6	5	4	5	4	3	3	3	3	2	2	3	2	3	4	5	4	4	4	6	6	6	4.2	6.7
26-Oct	6	4	5	4	5	5	5	5	7	6	7	5	3	3	3	5	6	2	6	6	6	6	7	9	5.3	9.0
27-Oct	9	9	6	5	5	6	4	3	3	3	3	0	3	6	3	4	4	4	3	6	10	12	10	10	5.6	12.0
28-Oct	9	8	7	3	4	5	7	7	7	6	8	9	10	10	10	10	7	6	8	4	3	4	3	2	6.5	10.3
29-Oct	2	2	2	2	0	1	3	4	3	3	4	3	3	3	2	2	3	4	3	6	4	4	2	2	2.8	6.5
30-Oct	3	1	3	2	2	0	2	1	2	3	2	2	3	3	0	3	4	4	4	4	3	1	3	3	2.4	4.2
31-Oct	3	2	4	4	2	3	2	2	3	1	2	1	2	4	2	4	4	3	4	4	3	3	3	2	2.8	4.5
	5.5	5.1	5.3	4.8	4.7	5.0	5.0	5.0	5.3	5.1	5.1	4.9	5.1	4.7	4.3	4.8	4.5	4.6	4.9	5.3	4.8	5.2	5.1	5.5	Diurnal Average	
	14.2	13.7	12.7	10.8	9.0	9.9	10.2	9.9	11.8	10.5	11.9	11.0	11.7	11.8	11.2	12.2	8.7	9.3	9.7	11.5	10.7	12.0	12.9	13.5	Diurnal Maximum	

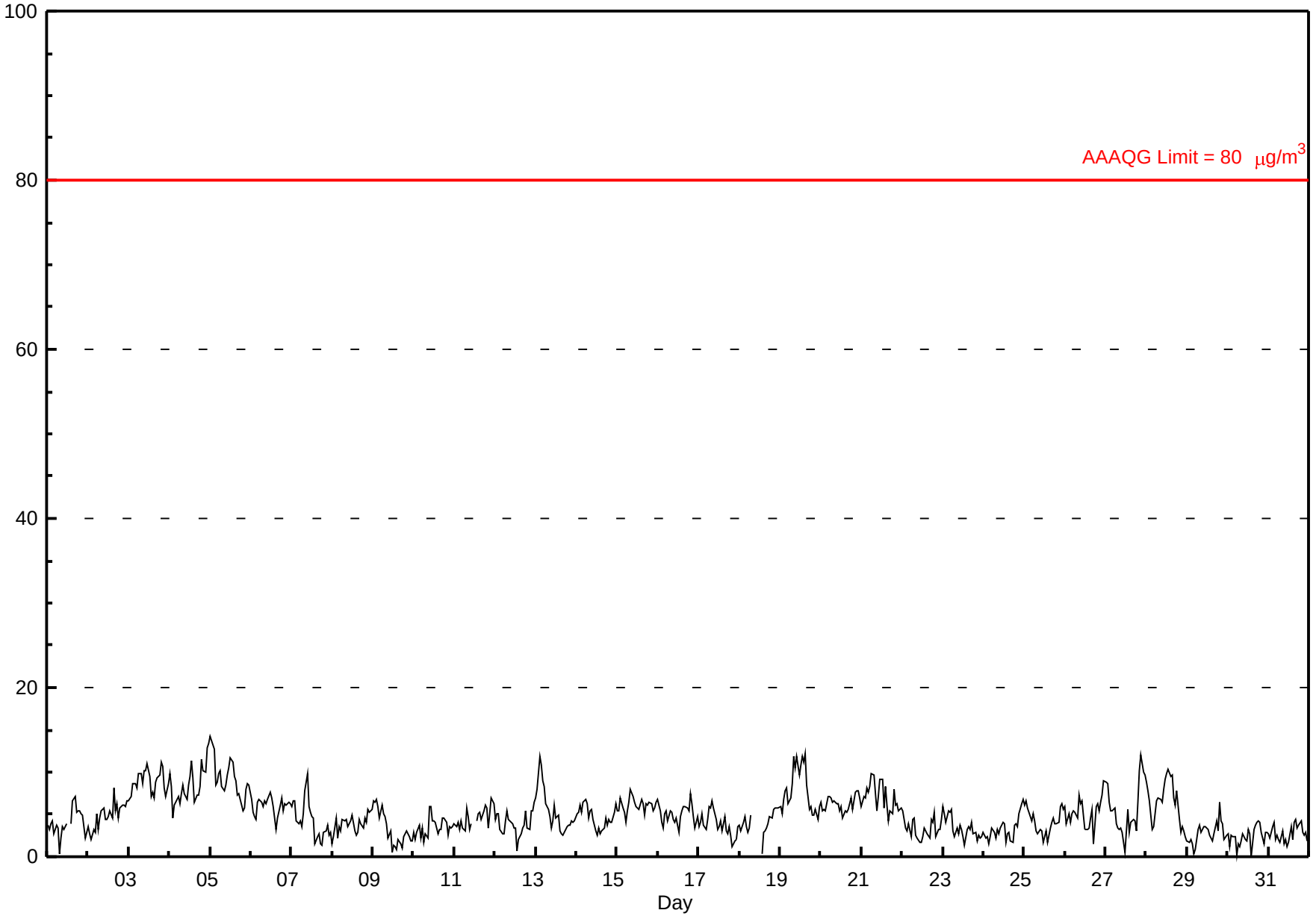
C - Calibration M - Maintenance N - Not Valid
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - October 2011



Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - October 2011

Maximum Value: 15.0 $\mu g/m^3$ on Oct 5 01:00

Maximum Daily Average: 10.1 $\mu g/m^3$ on Oct 5

Minimum Value: 1 $\mu g/m^3$ on Oct 30 15:00

Minimum Daily Average: 3.3 $\mu g/m^3$ on Oct 30

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

Minimum Diurnal Average: 5.3 $\mu g/m^3$ at hour 15

Monthly Average: 5.93 $\mu g/m^3$

Percentiles: P_1 = 1.8 P_{10} = 3.1 Q_1 = 4.1 Median = 5.5 Q_3 = 7.2 P_{90} = 9.2 P_{99} = 13.1

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	2
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	5	5	5	6	4	4	4	2	3	5	4	5	M	M	6	8	8	6	6	6	7	7	4	3	5.1	8.0
2-Oct	4	4	3	5	4	6	4	5	6	6	5	5	6	7	6	9	6	7	5	8	8	7	6	7	5.8	9.0
3-Oct	7	9	9	9	9	10	11	11	9	11	10	11	11	8	9	8	9	10	10	12	12	9	8	9	9.7	11.9
4-Oct	11	10	6	7	7	8	8	9	10	8	8	11	11	13	11	8	8	8	10	12	11	12	14	14	9.8	14.4
5-Oct	15	15	14	11	10	11	11	9	8	9	10	11	13	13	10	10	8	8	7	6	7	8	9	9	10.1	15.0
6-Oct	8	6	6	5	8	8	7	7	7	7	8	8	8	6	5	4	5	7	7	7	7	7	8	7	6.8	8.0
7-Oct	7	8	8	5	5	5	4	7	9	10	9	6	5	5	3	3	3	3	3	3	4	5	3	3	5.3	10.5
8-Oct	2	3	5	4	4	4	6	5	5	5	5	5	6	5	3	6	6	5	4	5	5	7	6	6	4.9	6.5
9-Oct	8	8	8	8	5	7	6	5	5	3	4	3	2	2	2	3	2	2	3	4	4	3	3	2	4.2	8.1
10-Oct	4	3	5	5	4	4	2	4	4	7	7	5	5	5	4	5	5	5	5	5	4	4	4	4	4.5	7.2
11-Oct	4	4	5	5	5	5	5	6	6	4	5	M	M	5	6	6	5	6	7	6	5	7	7	7	5.5	7.2
12-Oct	5	6	6	4	4	3	6	6	5	5	5	5	5	1	2	3	4	6	6	4	4	6	6	7	4.7	6.9
13-Oct	8	10	13	13	9	9	7	6	6	5	5	7	5	6	5	3	3	3	4	4	4	5	5	5	6.2	13.1
14-Oct	6	7	7	6	7	7	7	5	7	6	5	4	4	4	3	3	5	5	4	5	5	5	6	7	5.4	7.5
15-Oct	6	6	8	7	6	5	6	8	8	7	7	7	6	7	7	7	6	7	7	7	7	6	7	7	6.7	8.4
16-Oct	7	7	5	4	6	6	5	6	6	5	5	5	4	7	7	7	6	6	6	8	7	6	5	5	5.9	8.3
17-Oct	4	5	6	5	4	5	7	7	7	6	6	4	5	5	4	5	5	3	4	4	2	4	3	5	4.7	7.0
18-Oct	4	4	6	6	5	3	5	5	N	N	N	C	C	3	4	4	4	5	6	5	6	6	6	7	4.9	6.5
19-Oct	7	6	8	8	9	7	8	11	13	12	12	11	12	13	12	13	11	7	7	5	6	6	5	7	9.0	12.9
20-Oct	7	6	6	6	8	8	8	7	7	7	7	6	7	6	6	6	7	7	7	7	9	8	8	8	7.0	8.5
21-Oct	7	8	7	9	8	9	10	10	9	7	8	13	13	7	9	8	5	6	7	9	7	7	6	6	8.2	13.1
22-Oct	6	5	4	4	4	4	6	5	5	3	2	2	3	4	3	3	4	5	6	7	3	4	4	5	4.2	6.7
23-Oct	7	6	5	6	6	6	4	3	4	3	5	4	3	2	4	4	5	5	3	3	2	3	2	3	4.2	6.5
24-Oct	3	3	3	2	3	4	4	3	4	4	4	5	4	3	4	4	2	2	5	5	4	6	7	8	4.0	7.7
25-Oct	7	7	6	6	5	6	5	4	3	5	5	2	4	4	3	4	5	5	5	5	5	7	7	6	4.9	7.4
26-Oct	7	5	6	6	6	6	6	6	8	7	7	6	4	4	4	6	6	3	8	9	6	7	9	9	6.3	9.5
27-Oct	10	9	8	7	6	7	6	4	4	4	4	2	5	6	4	5	6	5	5	9	12	13	12	11	6.7	12.6
28-Oct	11	9	8	5	5	6	8	8	7	7	9	10	11	11	10	10	9	8	9	6	4	4	4	3	7.7	10.9
29-Oct	3	2	3	2	2	2	4	4	3	4	4	4	4	3	3	3	3	5	5	8	5	5	4	4	3.7	7.7
30-Oct	3	2	3	3	3	2	2	2	3	3	2	3	4	4	1	5	5	6	6	5	5	3	3	4	3.3	5.5
31-Oct	3	3	4	4	5	4	4	3	4	2	3	2	2	4	4	6	7	6	4	5	4	4	4	3	3.9	6.5
	6.3	6.1	6.3	5.9	5.7	5.9	6.0	5.9	6.2	5.9	6.0	5.8	6.1	5.8	5.3	5.8	5.6	5.6	5.8	6.2	5.8	6.1	6.0	6.2	Diurnal Average	
	15.0	14.8	13.6	12.6	9.6	10.7	10.9	11.1	12.7	11.9	12.4	13.1	13.1	13.0	11.9	12.9	10.9	10.2	10.2	12.4	11.9	12.6	13.8	14.4	Diurnal Maximum	

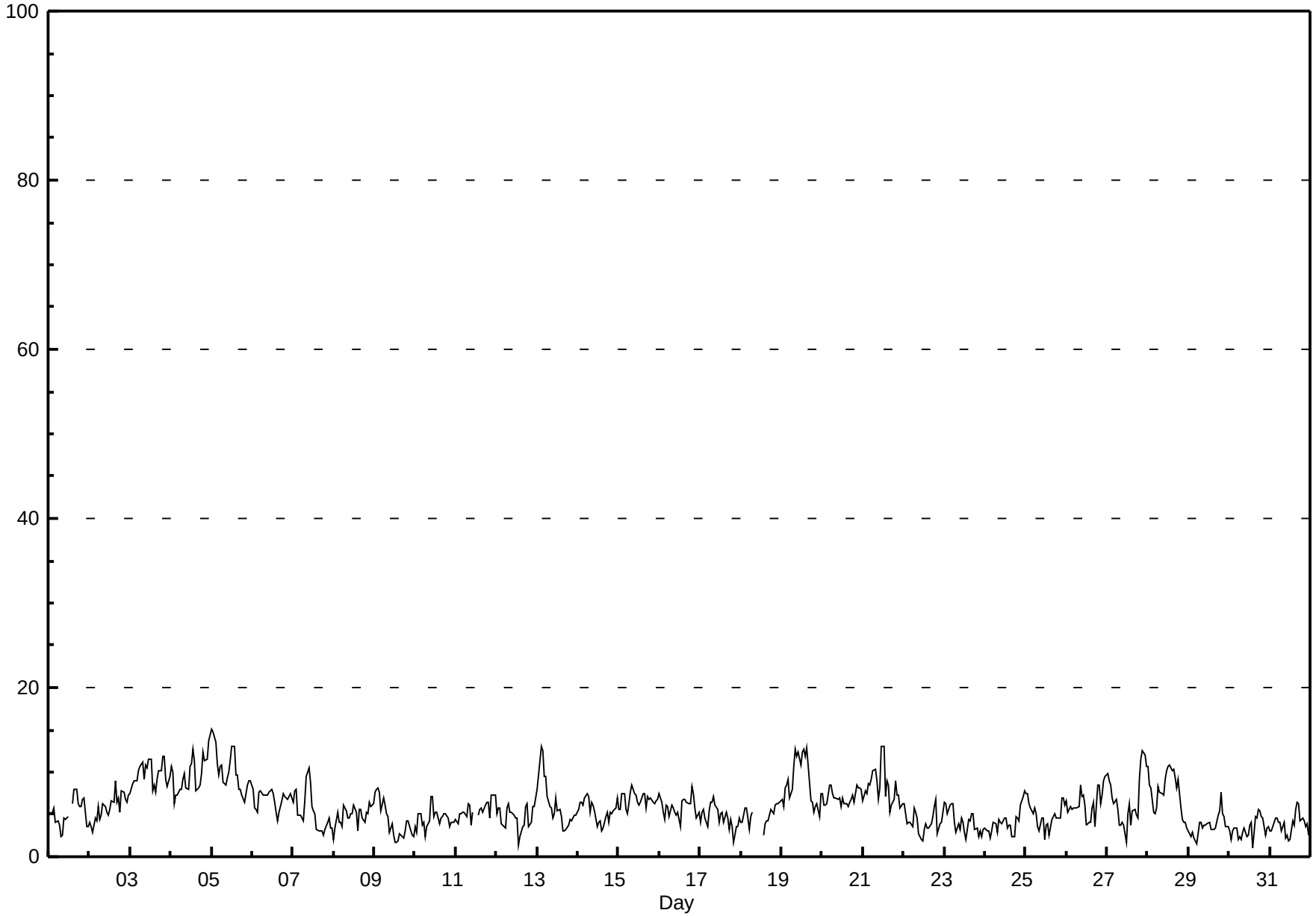
C - Calibration M - Maintenance N - Not Valid

Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - October 2011

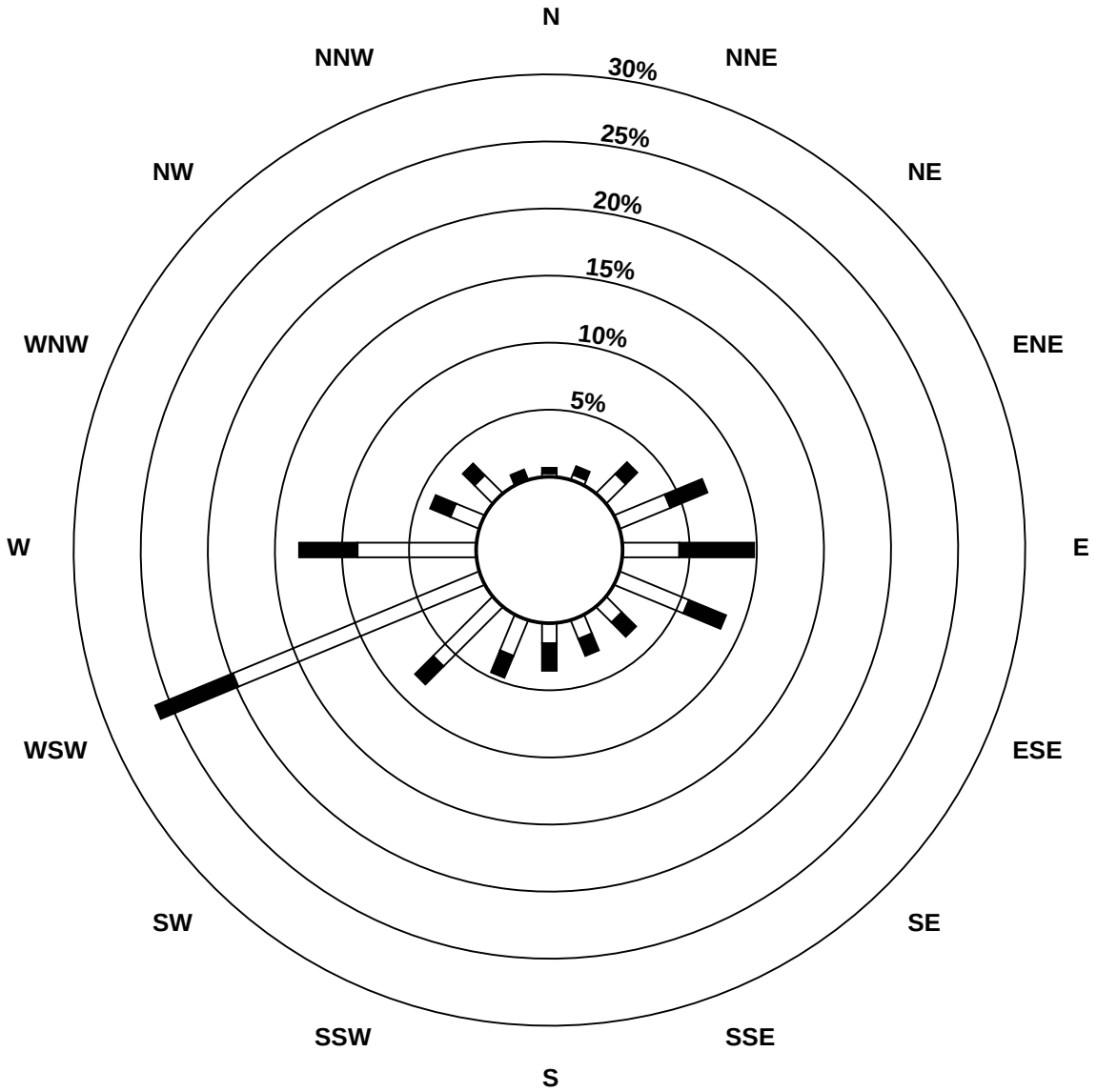


Peace Airshed Zone Association

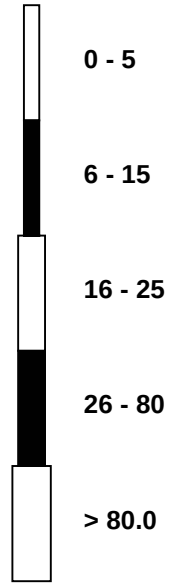
Pollutant Rose

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

Beaverlodge - October 2011



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



Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 18.3 ^{o}C on Oct 18 16:00
Maximum Daily Average: 10.2 ^{o}C on Oct 18

Minimum Value: -3 ^{o}C on Oct 15 08:00
Maximum Diurnal Average: 9.4 ^{o}C at hour 16
Monthly Average: 5.03 ^{o}C
Minimum Daily Average: 0.7 ^{o}C on Oct 21
Minimum Diurnal Average: 2.2 ^{o}C at hour 8
Percentiles: P_1 = -2.6 P_{10} = 0.2 Q_1 = 2.2 Median = 5.1 Q_3 = 7.4 P_{90} = 9.7 P_{99} = 12.6

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

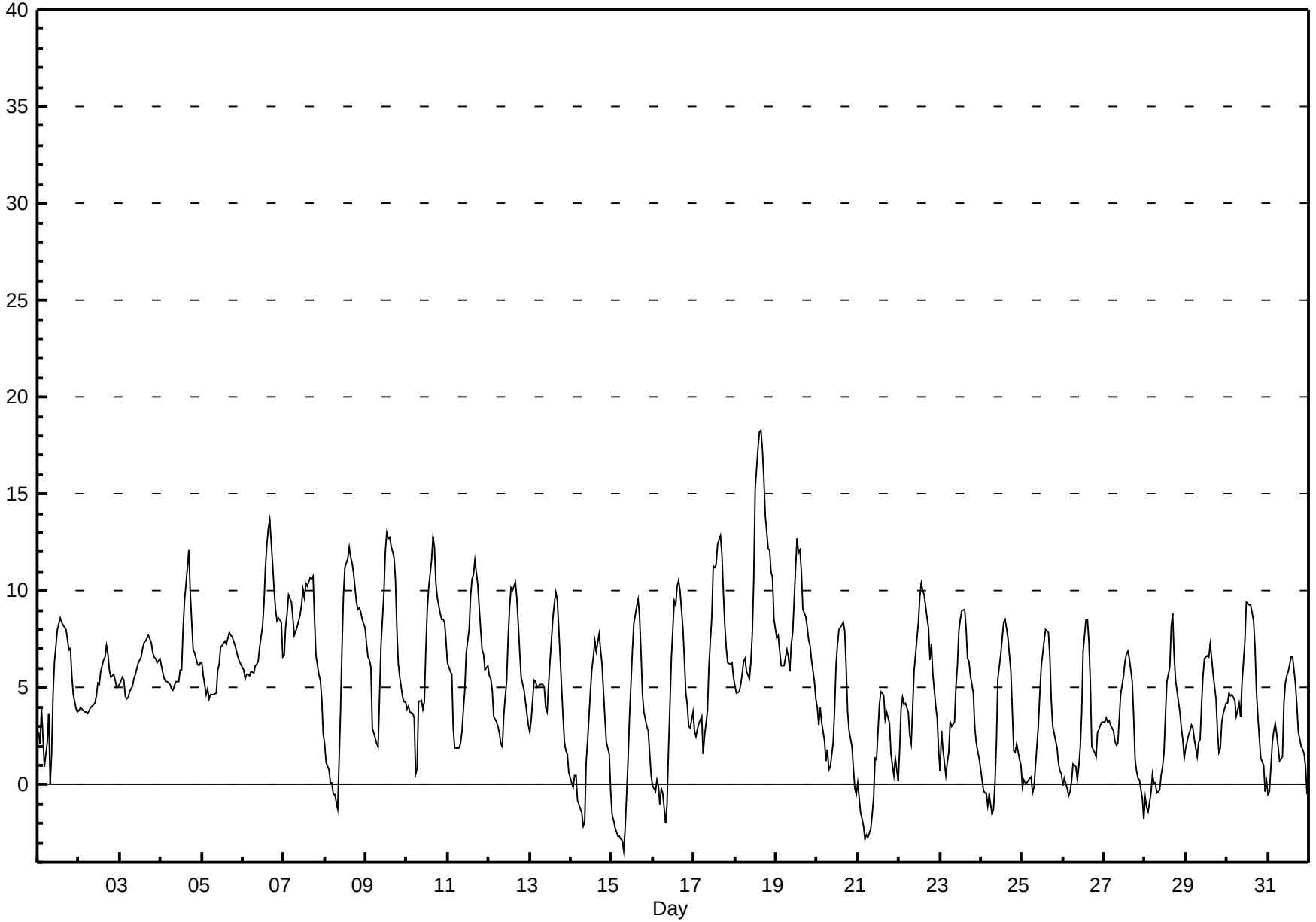
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	3	2	4	2	1	2	4	0	2	5	6	8	8	9	8	8	8	7	7	7	6	5	4	4	5.0	8.6
2-Oct	4	4	4	4	4	4	4	4	4	4	5	5	5	6	6	7	7	7	6	6	6	5	5	5	5.0	7.2
3-Oct	5	6	5	5	4	4	5	5	5	6	6	6	7	7	7	7	8	8	7	7	7	7	6	7	6.1	7.7
4-Oct	6	6	5	5	5	5	5	5	5	5	5	6	6	8	9	10	12	10	8	7	7	6	6	6	6.7	12.1
5-Oct	6	6	5	5	4	5	5	5	5	6	6	7	7	7	7	8	8	8	8	7	7	7	6	6	6.2	7.9
6-Oct	6	5	6	6	6	6	6	6	6	6	7	8	9	11	12	13	14	11	10	9	8	9	8	7	8.2	13.7
7-Oct	7	8	9	10	9	9	8	8	8	9	9	10	10	10	10	11	11	11	9	7	6	5	4	3	8.3	10.8
8-Oct	2	1	1	0	0	0	-1	-1	1	4	7	10	11	12	12	12	11	11	9	9	9	9	9	8	6.1	12.2
9-Oct	7	7	6	6	3	2	2	2	5	7	10	12	13	13	13	12	12	11	8	6	6	4	4	4	7.3	13.0
10-Oct	4	4	4	4	3	1	1	4	4	4	4	7	9	10	12	13	12	10	10	9	9	9	8	7	6.7	12.7
11-Oct	6	6	6	3	2	2	2	2	3	4	5	7	8	10	11	11	12	10	9	8	7	7	6	6	6.3	11.6
12-Oct	6	5	5	4	3	3	3	2	2	4	5	8	9	10	10	10	10	8	7	6	5	4	4	3	5.6	10.4
13-Oct	3	3	5	5	5	5	5	5	5	4	4	5	6	9	9	10	10	8	5	4	2	2	2	1	5.1	10.0
14-Oct	0	0	0	0	-1	-1	-1	-2	-2	1	2	5	6	7	7	7	8	7	6	5	3	2	2	0	2.5	7.8
15-Oct	-2	-2	-2	-3	-3	-3	-3	-3	-2	1	3	5	7	8	9	10	9	7	5	4	3	3	2	0	2.2	9.5
16-Oct	0	0	0	0	-1	0	0	-2	-1	2	4	6	9	9	10	11	10	8	7	5	4	3	3	4	3.8	10.5
17-Oct	3	2	3	3	4	2	3	3	4	6	9	11	11	11	12	13	12	10	8	7	6	6	6	6	6.7	12.9
18-Oct	5	5	5	5	6	6	6	6	5	6	8	11	15	17	18	18	17	16	14	12	12	11	11	9	10.2	18.3
19-Oct	8	8	7	6	6	6	7	7	6	7	8	11	13	12	12	11	9	9	8	7	7	6	5	4	7.9	12.7
20-Oct	4	3	4	3	2	1	2	1	1	2	4	6	7	8	8	8	8	6	4	3	2	1	0	0	3.7	8.4
21-Oct	0	-1	-2	-2	-3	-3	-3	-2	-2	-1	1	1	4	5	5	5	3	4	3	2	1	0	1	0	0.7	4.8
22-Oct	2	4	5	4	4	4	3	2	4	6	8	8	10	10	10	10	9	8	6	7	6	4	3	2	5.8	10.4
23-Oct	1	3	2	0	1	2	3	3	3	5	6	8	9	9	9	8	7	6	6	5	3	2	2	1	4.3	9.0
24-Oct	1	0	0	0	-1	-1	-2	-1	0	2	5	7	8	8	9	8	8	6	4	2	2	2	1	1	2.8	8.5
25-Oct	0	0	0	0	0	0	0	0	1	3	5	6	7	7	8	8	7	4	3	3	2	1	1	1	2.7	8.0
26-Oct	0	0	0	-1	0	0	1	1	0	1	2	4	7	9	9	7	5	2	2	1	3	3	3	3	2.6	8.6
27-Oct	3	3	3	3	3	3	2	2	2	3	5	6	6	7	7	6	5	4	1	1	0	0	-1	-2	3.1	6.9
28-Oct	-1	-1	-1	0	1	0	0	0	0	0	1	2	4	5	6	8	9	7	5	4	4	3	2	1	2.4	8.9
29-Oct	2	3	3	3	3	2	1	2	2	4	6	7	7	7	7	7	6	4	3	2	2	3	4	4	3.9	7.3
30-Oct	4	5	5	5	4	4	4	4	4	5	7	9	9	9	9	8	7	5	4	2	1	1	0	0	4.8	9.4
31-Oct	0	0	2	3	3	3	2	1	1	4	5	6	6	7	7	6	5	4	3	2	2	2	1	0	3.0	6.6
	3.0	3.0	3.1	2.9	2.6	2.3	2.3	2.2	2.6	4.1	5.5	7.0	8.2	8.9	9.4	9.4	8.9	7.6	6.2	5.3	4.7	4.3	3.8	3.2	Diurnal Average	
	7.5	8.2	8.8	9.8	9.4	8.6	7.7	7.9	8.2	8.7	9.9	12.0	15.3	17.4	18.2	18.3	17.4	15.8	13.9	12.2	12.1	11.0	10.7	8.5	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - October 2011



Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 100.0 % on Oct 3 21:00 Maximum Daily Average: 96.3 % on Oct 3

Minimum Value: 32 % on Oct 18 17:00 Minimum Daily Average: 55.0 % on Oct 16
Maximum Diurnal Average: 78.1 % at hour 8 Minimum Diurnal Average: 51.4 % at hour 16
Monthly Average: 68.58 % Percentiles: P_1 = 35.2 P_{10} = 45.1 Q_1 = 55.9 Median = 68.0 Q_3 = 79.6 P_{90} = 95.8 P_{99} = 100.0

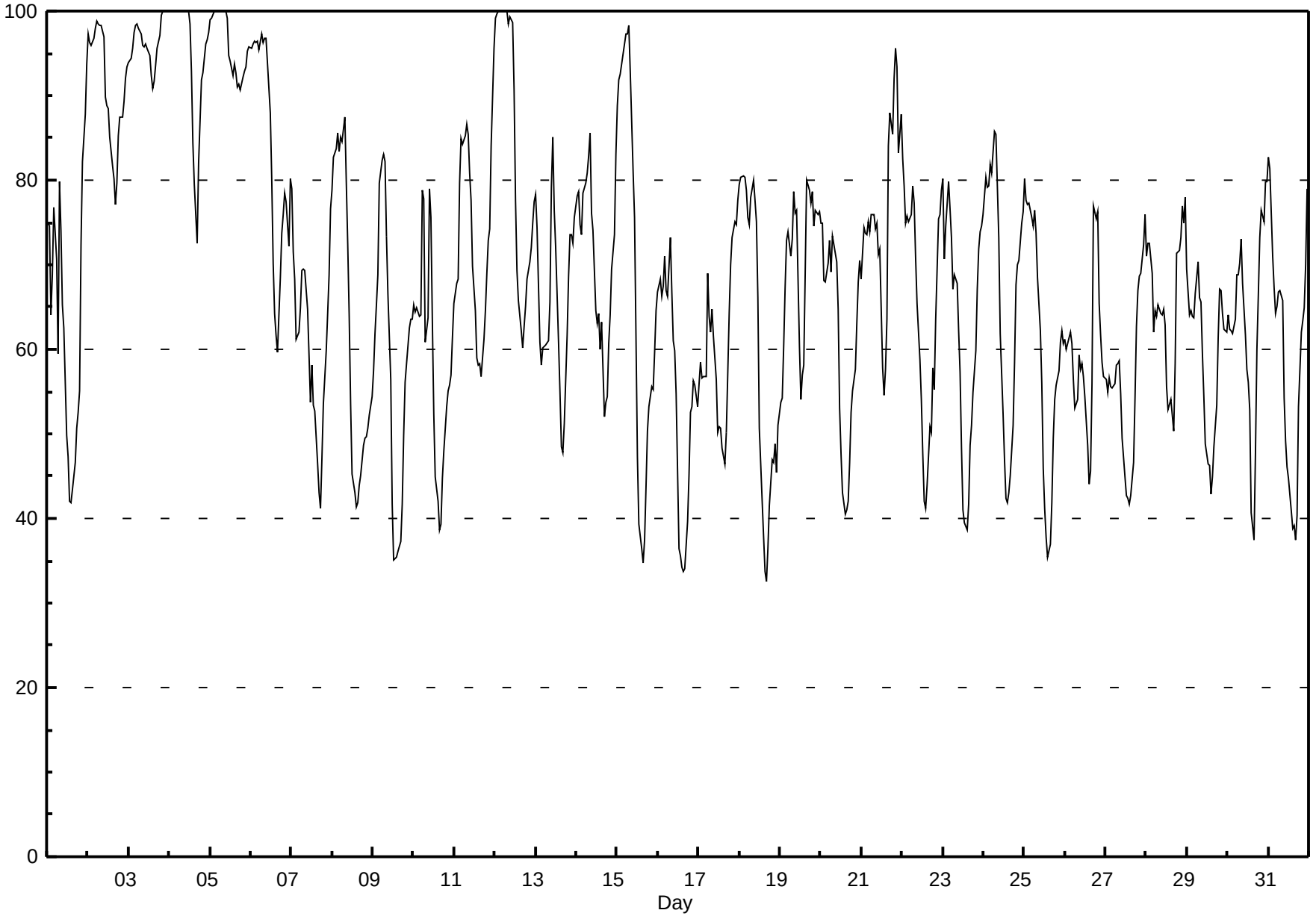
Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								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-Oct	75	75	64	69	77	71	60	80	74	65	62	50	47	42	42	43	47	51	53	55	72	82	88	94	64.0	93.7
2-Oct	97	96	96	97	98	99	98	98	98	97	90	89	89	85	82	80	77	80	85	87	87	89	92	93	90.9	98.7
3-Oct	94	94	96	97	98	99	98	97	96	96	96	96	95	92	91	92	94	96	97	100	100	100	100	100	96.3	100.0
4-Oct	100	100	100	100	100	100	100	100	100	100	100	100	98	93	84	80	73	82	87	92	93	96	97	98	94.7	100.0
5-Oct	99	99	100	100	100	100	100	100	100	100	99	95	94	92	94	93	91	91	91	92	93	93	95	96	96.2	100.0
6-Oct	96	96	96	96	96	95	97	96	97	97	94	88	80	70	64	62	60	69	74	76	78	77	72	80	83.6	97.3
7-Oct	79	71	68	61	62	65	69	69	69	65	59	54	58	53	53	46	43	41	47	54	60	64	69	77	60.7	79.0
8-Oct	79	83	84	86	83	85	84	87	80	72	64	54	45	43	41	42	44	45	49	49	50	51	52	54	62.8	87.5
9-Oct	57	62	65	69	80	82	83	82	73	67	57	42	35	35	36	36	37	42	50	56	58	63	64	64	58.1	83.1
10-Oct	65	64	65	64	64	79	78	61	64	79	76	63	52	45	42	39	39	45	48	53	55	56	57	61	58.9	78.9
11-Oct	65	68	68	80	85	84	85	87	85	81	78	70	65	59	58	58	57	61	65	69	73	74	84	96	73.1	95.6
12-Oct	99	100	100	100	100	100	100	100	98	99	99	91	78	69	66	62	60	63	65	68	70	72	75	77	83.8	100.0
13-Oct	78	74	61	58	60	60	60	61	66	79	85	76	72	61	55	48	48	51	62	69	73	74	73	76	65.9	85.1
14-Oct	78	79	75	74	78	80	81	83	86	76	74	65	63	64	60	63	52	54	54	61	64	69	74	83	70.4	85.6
15-Oct	89	92	93	95	96	97	97	98	93	81	76	61	47	39	36	35	38	44	50	53	56	55	60	65	68.6	98.3
16-Oct	67	68	66	67	71	67	66	73	67	61	60	55	36	36	34	34	34	40	45	53	53	56	56	53	55.0	73.3
17-Oct	56	59	57	57	57	69	64	62	65	62	57	50	51	51	48	47	50	57	64	70	73	75	75	78	60.4	77.6
18-Oct	79	80	80	80	79	76	75	78	80	78	75	66	51	42	38	34	32	36	41	47	47	49	46	51	60.0	80.4
19-Oct	54	54	60	67	73	74	71	73	79	76	76	60	54	57	58	69	80	79	77	79	75	76	76	76	69.8	80.0
20-Oct	75	75	68	68	70	73	69	73	72	70	65	53	48	43	40	41	42	47	53	55	58	63	68	71	60.8	75.0
21-Oct	68	74	74	74	75	74	76	76	74	75	71	72	58	55	58	64	84	88	85	92	96	93	83	88	76.1	95.7
22-Oct	83	79	75	76	75	76	79	77	71	65	59	54	48	42	41	44	51	50	58	55	64	75	76	79	64.7	82.6
23-Oct	80	71	75	80	77	73	67	69	68	62	57	48	41	40	39	42	49	51	55	60	67	72	74	75	62.1	80.2
24-Oct	76	80	79	79	82	81	86	85	79	73	62	52	47	42	42	43	45	51	58	68	70	70	75	76	66.8	85.7
25-Oct	80	78	77	77	76	75	76	74	68	62	56	46	41	38	35	37	42	49	54	56	58	61	62	61	59.9	80.2
26-Oct	61	60	61	62	61	56	53	54	59	58	58	57	54	49	44	46	56	77	75	76	65	62	58	57	59.2	77.0
27-Oct	56	55	57	56	55	56	58	58	59	55	50	45	43	42	42	43	47	54	63	67	69	69	72	76	56.0	75.9
28-Oct	71	72	73	69	62	65	64	65	64	64	65	63	56	53	54	52	50	58	71	72	73	77	75	78	65.3	78.0
29-Oct	69	64	65	64	64	67	70	66	66	59	54	49	46	46	43	45	48	53	61	67	67	64	62	62	59.3	70.3
30-Oct	64	62	62	62	64	69	69	70	73	68	62	58	56	53	41	37	48	60	66	73	76	75	80	80	63.6	79.8
31-Oct	83	81	71	67	64	65	67	67	66	54	49	46	45	41	39	39	37	40	53	62	63	65	70	79	58.9	82.7
	76.6	76.4	75.2	75.8	76.8	77.7	77.5	78.1	77.1	74.1	70.4	63.4	57.8	53.9	51.6	51.4	53.4	58.2	63.2	67.3	69.6	71.6	72.8	75.8	Diurnal Average	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.4	92.9	93.8	92.7	93.6	95.6	97.1	99.5	100.0	100.0	100.0	100.0	Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - October 2011



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - October 2011

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	10	2	12	3	3	3	8	2	5	0	3	1	5	10	13	11	9	8	9	15	15	12	12	8	3.9	15.4
Dir	247	255	267	251	76	24	311	210	54	246	205	35	146	114	123	107	67	97	84	94	106	94	67	75	98	94
2 Spd	12	18	16	11	6	8	4	2	3	3	3	3	4	2	3	3	3	4	5	3	3	5	7	6	4.6	17.7
Dir	69	91	94	104	97	93	98	176	205	228	236	153	146	120	107	83	84	152	156	111	105	73	79	87	103	91
3 Spd	9	13	12	8	12	14	13	12	13	13	12	13	14	15	15	12	8	3	3	7	8	2	2	2	8.5	15.0
Dir	86	93	96	87	89	91	93	88	96	94	95	96	92	104	103	118	111	91	323	322	57	207	298	278	93	104
4 Spd	1	1	2	3	7	6	5	6	3	8	7	3	5	5	3	6	2	10	5	6	4	2	3	5	0.9	9.6
Dir	303	109	257	357	62	55	116	131	335	182	229	291	302	317	344	308	21	286	338	32	61	244	146	102	342	286
5 Spd	6	5	2	2	5	4	6	6	5	5	8	5	8	7	7	6	10	8	6	10	9	8	10	10	4.8	10.4
Dir	100	89	231	269	45	76	217	178	199	94	81	107	117	93	71	48	44	48	56	74	80	64	67	76	81	74
6 Spd	11	2	3	3	5	5	5	6	5	7	5	5	4	6	6	5	5	7	5	6	5	1	4	2	2.7	10.7
Dir	81	288	47	309	324	45	100	84	152	155	160	168	175	179	166	151	128	124	111	110	79	207	276	213	126	81
7 Spd	4	7	15	22	22	19	12	13	17	24	26	25	17	16	13	16	23	18	8	9	11	9	8	2	14.0	26.0
Dir	250	252	251	254	253	265	278	269	264	274	285	295	323	317	306	286	268	274	271	259	260	254	245	238	274	285
8 Spd	4	2	4	3	2	3	4	4	3	3	5	7	11	17	20	21	20	21	19	21	17	13	7	3	9.1	21.1
Dir	231	61	61	71	41	92	110	73	78	136	135	143	116	111	110	112	103	96	100	97	97	98	115	131	105	96
9 Spd	0	9	6	1	6	0	4	5	3	6	9	25	37	41	37	39	34	18	15	9	1	2	4	3	11.0	40.6
Dir	348	318	359	227	194	119	112	102	123	172	218	252	249	257	255	254	252	246	249	245	182	275	171	207	249	257
10 Spd	2	2	3	2	4	0	5	6	1	5	4	2	9	15	13	11	15	17	17	19	24	23	21	13	8.8	24.4
Dir	94	108	73	75	35	116	66	73	164	191	245	48	95	110	101	104	86	76	80	63	69	71	81	80	82	69
11 Spd	9	6	5	3	10	16	11	9	14	11	10	10	9	7	6	4	4	4	5	6	8	7	7	5	5.6	15.5
Dir	78	79	305	7	324	315	304	297	312	312	312	308	272	304	302	289	325	18	30	27	29	0	274	244	322	315
12 Spd	5	5	2	3	3	2	3	2	2	3	7	11	21	26	22	25	24	17	14	15	11	7	7	7	8.4	26.0
Dir	77	217	204	68	92	145	128	105	102	175	200	223	239	245	249	249	254	253	250	240	245	238	235	211	238	245
13 Spd	9	10	20	25	23	20	19	19	21	23	21	15	17	16	12	25	28	23	14	14	9	10	11	4	16.4	28.4
Dir	219	231	249	254	259	258	258	261	273	273	261	258	266	298	295	259	259	252	248	248	243	238	247	220	258	259
14 Spd	2	3	2	3	2	1	1	2	5	3	6	8	10	9	8	13	16	6	6	8	7	4	4	2	3.2	15.7
Dir	108	85	88	233	207	170	195	142	50	109	164	195	234	265	317	270	270	266	242	279	291	273	266	161	254	270
15 Spd	3	5	3	4	2	3	3	4	4	2	5	15	14	11	13	20	23	19	14	13	7	8	3	2	5.2	23.2
Dir	70	51	78	63	94	62	104	67	64	133	203	236	240	249	247	253	235	245	260	279	288	285	274	96	250	235
16 Spd	1	2	3	2	2	4	5	5	5	2	4	7	24	30	30	28	30	19	17	14	13	5	1	2	8.1	30.0
Dir	128	75	55	102	92	55	208	57	54	117	191	206	251	252	250	255	266	256	252	253	262	256	61	272	252	250
17 Spd	1	4	3	4	2	3	5	3	1	3	13	29	28	30	30	36	28	23	16	7	4	5	6	2	9.6	36.1
Dir	141	50	56	53	76	119	63	74	78	207	233	251	251	256	256	261	255	247	252	259	187	235	218	206	251	261
18 Spd	2	2	3	3	3	3	3	2	5	4	2	13	14	29	25	31	26	24	21	9	14	11	10	3	8.3	31.0
Dir	174	109	109	86	113	105	196	165	189	225	224	235	241	255	250	252	252	261	267	277	298	322	340	14	257	252
19 Spd	2	4	0	4	3	3	4	2	3	1	1	3	4	7	6	3	14	13	11	11	12	12	12	14	4.1	14.2
Dir	184	262	261	122	93	90	66	352	37	331	97	305	218	169	158	264	266	263	248	246	246	242	245	242	243	266
20 Spd	14	12	19	9	6	5	11	6	2	2	10	21	19	20	19	18	19	17	12	13	7	7	1	6	11.2	21.5
Dir	249	251	265	293	282	278	274	274	242	275	258	266	272	275	279	276	263	269	275	269	251	229	210	255	267	266
21 Spd	7	1	3	4	5	4	6	3	3	2	2	3	12	14	17	19	14	13	14	8	8	6	9	8	5.6	18.6
Dir	246	223	81	81	78	132	54	81	89	203	144	170	96	111	106	104	106	104	112	151	141	195	226	191	120	104
22 Spd	9	23	27	23	29	22	14	5	7	12	21	27	26	26	18	5	8	5	10	22	13	12	14	10	14.8	28.7
Dir	228	240	240	242	239	235	231	250	257	250	245	250	246	251	262	325	34	76	263	250	229	229	238	233	245	239

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - October 2011

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
23 Spd	6	21	10	3	6	15	19	16	15	23	29	36	42	34	34	33	26	25	21	15	13	7	10	5	18.9	42.1
Dir	213	231	244	182	234	254	261	253	244	239	255	254	267	260	260	256	254	249	241	255	238	230	233	228	251	267
24 Spd	8	2	4	8	5	6	2	4	3	2	10	32	30	35	34	29	30	29	17	11	14	13	11	7	12.8	35.4
Dir	204	145	169	214	209	202	119	53	63	99	258	264	270	264	259	258	258	257	253	250	251	246	255	265	254	264
25 Spd	3	10	8	5	11	11	4	2	5	5	15	29	26	24	27	26	24	20	18	13	8	6	4	5	12.0	28.5
Dir	286	273	269	294	283	289	265	301	282	266	252	260	261	260	266	254	250	246	254	249	215	188	185	177	257	260
26 Spd	4	6	6	8	6	7	5	1	2	3	3	3	24	26	53	49	46	27	26	27	35	34	38	42	16.6	52.8
Dir	137	147	112	118	111	112	111	136	137	184	83	172	226	243	254	249	255	236	237	242	252	256	255	256	243	254
27 Spd	34	36	34	39	39	40	33	29	25	34	41	40	39	37	36	33	32	23	13	8	6	9	6	4	27.3	40.9
Dir	255	256	256	253	254	258	251	249	244	252	258	263	262	260	257	260	259	261	248	246	239	236	210	115	255	258
28 Spd	5	7	9	9	14	7	9	8	10	8	3	3	3	2	3	14	20	11	16	14	22	18	22	19	4.3	22.3
Dir	67	91	89	91	99	111	96	115	107	126	225	227	173	153	292	246	244	311	259	253	242	230	240	232	217	240
29 Spd	22	30	29	22	20	20	16	17	17	27	36	41	41	29	37	30	19	19	13	12	11	11	6	10	22.1	41.3
Dir	239	241	245	250	252	244	238	246	241	245	248	254	256	248	248	251	238	234	240	249	221	217	217	248	245	254
30 Spd	12	9	2	2	3	6	6	7	4	2	13	37	42	43	44	42	34	23	17	15	7	4	5	7	15.4	44.1
Dir	228	220	177	135	148	223	213	198	193	68	221	241	244	243	250	253	247	241	234	230	219	232	234	247	239	250
31 Spd	9	5	17	16	18	10	3	7	5	29	38	40	38	40	36	45	43	36	32	34	26	32	23	14	23.9	45.0
Dir	159	197	242	241	248	234	205	226	265	260	265	262	258	263	266	259	264	264	253	265	260	267	274	277	259	259
Spd	2.8	3.7	4.2	3.6	3.5	3.5	2.8	2.2	2.4	5.4	9.1	13.7	14.7	14.4	14.3	15.8	14.7	10.6	8.5	6.7	4.7	5.1	4.8	3.8	Diurnal Average	
Dir	213	231	244	243	247	248	238	231	246	240	247	253	251	252	254	253	254	252	247	251	241	244	244	232		
Spd	33.6	36.1	33.9	39.0	39.2	39.5	32.9	28.8	25.4	33.7	40.9	41.3	42.2	42.8	52.8	49.2	45.7	35.6	31.9	34.2	35.5	33.6	38.2	42.3	Diurnal Maximum	
Dir	255	256	256	253	254	258	251	249	244	252	258	254	244	243	254	249	255	264	253	265	252	256	255	256		

Maximum Speed Value: 53 km/h on Oct 26 15:00
Minimum Speed Value: 0 km/h on Oct 9 01:00
Maximum Daily Speed Average: 27.3 km/h on Oct 27
Minimum Daily Speed Average: 0.9 km/h on Oct 4
Maximum Diurnal Speed Average: 15.8 km/h at hour 16
Minimum Diurnal Speed Average: 2.2 km/h at hour 8

Monthly Average Velocity: 7.23 km/h 248.2 deg
Speed Percentiles: P_1 = 0.7 P_{10} = 2.4 Q_1 = 4.1 Median = 8.5 Q_3 = 17.3 P_{90} = 28.7 P_{99} = 42.3
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

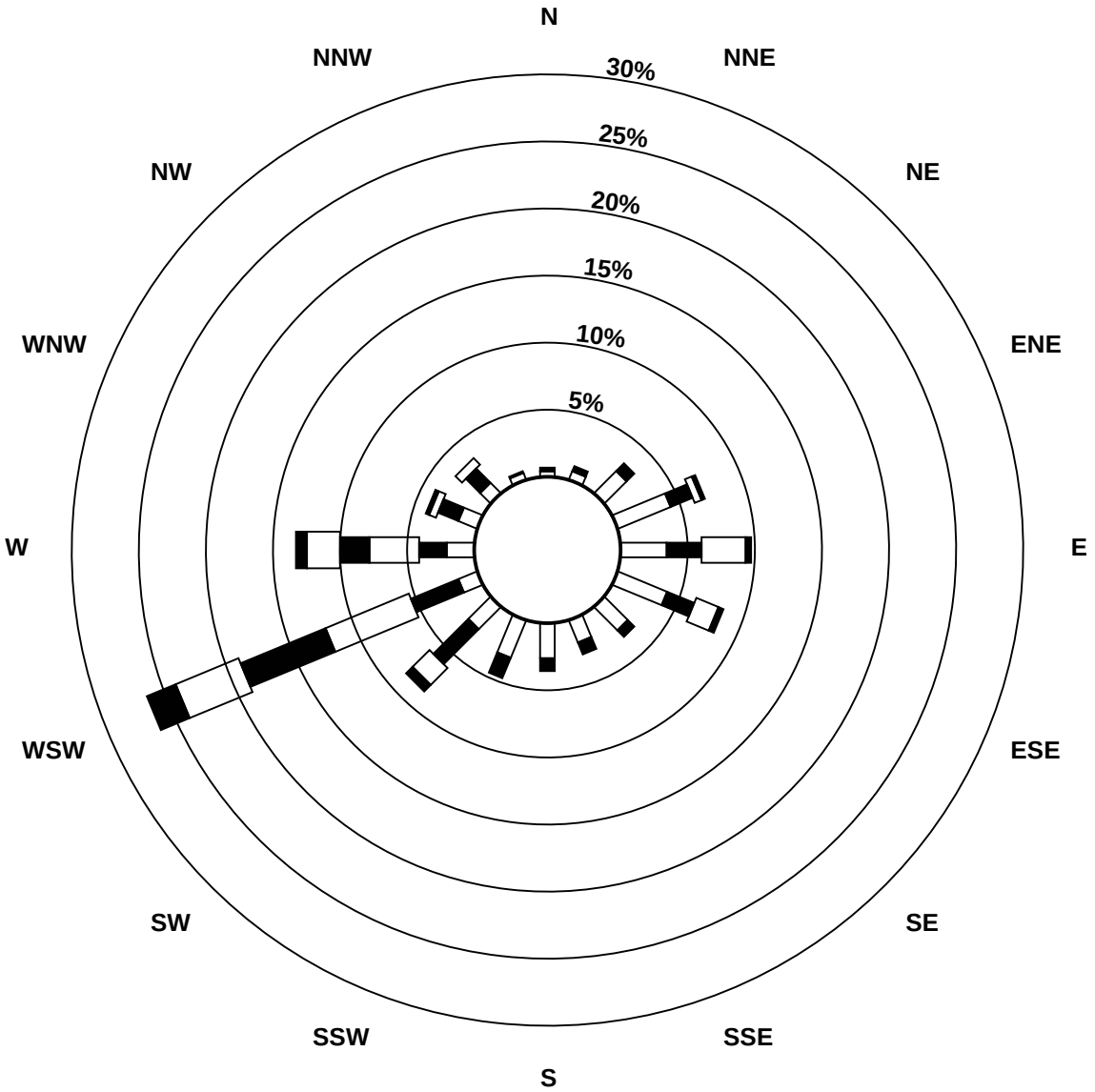
Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	9	3	0	0	0	0	12
NorthEast	31	18	1	1	0	0	51
East	61	39	39	8	0	0	147
SouthEast	35	16	3	0	0	0	54
South	30	18	0	0	0	0	48
SouthWest	35	52	36	28	5	2	158
West	26	33	55	46	52	22	234
NorthWest	12	16	11	1	0	0	40
Total	239	195	145	84	57	24	744

Peace Airshed Zone Association

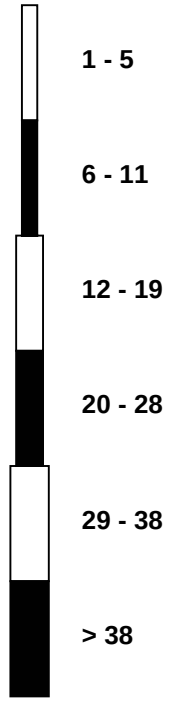
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - October 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - October 2011

Maximum Speed: 53 km/h on Oct 26 15:00

Maximum Daily Speed Average: 28.1 km/h on Oct 27

Minimum Speed: 2 km/h on Oct 19 03:00

Minimum Daily Speed Average: 5.5 km/h on Oct 6

Maximum Diurnal Speed Average: 21.9 km/h at hour 16

Minimum Diurnal Speed Average: 7.8 km/h at hour 9

Monthly Average Speed: 12.76 km/h

Percentiles: P_1 = 2.1 P_{10} = 3.4 Q_1 = 4.8 Median = 9.1 Q_3 = 17.4 P_{90} = 28.8 P_{99} = 42.4

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	10	4	13	6	4	4	8	5	5	2	4	4	6	11	14	12	9	9	9	16	16	13	12	8	8.5	15.8
2-Oct	12	18	16	11	7	8	4	2	3	4	3	3	4	3	3	4	3	5	5	4	3	5	7	7	5.9	17.8
3-Oct	9	13	12	8	12	15	13	12	13	13	12	13	14	15	15	13	8	4	4	8	9	8	3	2	10.3	15.1
4-Oct	2	3	3	4	8	8	6	10	11	9	8	4	6	5	4	8	3	10	5	7	4	3	3	6	5.8	11.1
5-Oct	6	5	5	3	5	6	7	7	6	5	9	6	8	7	7	6	10	8	6	11	9	8	10	10	7.1	10.5
6-Oct	11	3	4	4	5	5	5	6	5	7	5	5	6	7	7	6	5	7	6	7	5	3	5	3	5.5	10.8
7-Oct	5	8	15	22	22	20	12	13	17	24	26	26	18	16	13	17	24	18	9	9	11	10	8	4	15.2	26.2
8-Oct	5	3	5	4	5	4	5	4	3	3	6	8	12	17	20	21	20	21	19	21	17	13	8	3	10.2	21.2
9-Oct	3	9	8	4	6	4	5	6	4	7	9	25	37	41	37	40	34	18	15	10	3	5	5	5	14.2	40.9
10-Oct	3	4	3	3	5	2	5	7	2	6	4	3	9	16	13	12	16	17	17	19	24	23	21	13	10.3	24.4
11-Oct	9	7	5	6	11	16	11	9	14	11	10	11	10	8	6	5	4	5	5	6	8	8	10	6	8.3	15.5
12-Oct	6	5	3	4	5	3	3	3	3	4	8	11	21	26	22	25	24	17	15	15	11	8	7	7	10.6	26.1
13-Oct	9	10	20	26	23	20	19	19	21	23	21	15	17	17	12	26	29	23	14	14	9	10	11	5	17.2	28.6
14-Oct	3	3	2	3	2	2	2	5	5	5	6	8	11	13	10	14	16	6	6	8	8	5	6	2	6.2	15.7
15-Oct	3	5	3	4	3	3	3	4	4	3	5	15	14	12	14	21	23	19	14	13	8	9	5	3	8.8	23.2
16-Oct	3	3	3	3	3	4	5	5	5	3	4	8	24	30	30	28	30	19	17	14	13	7	4	4	11.2	30.4
17-Oct	2	4	3	4	3	4	5	3	2	4	13	29	28	30	30	36	28	23	17	8	5	8	6	4	12.6	36.4
18-Oct	4	3	3	4	3	3	4	5	6	4	8	13	16	29	25	31	26	25	21	10	14	12	10	4	11.7	31.3
19-Oct	3	5	2	4	3	4	4	4	4	4	3	6	6	7	6	8	14	14	11	11	12	12	12	14	7.2	14.3
20-Oct	14	12	19	9	7	8	11	8	5	5	11	22	20	20	19	18	20	17	12	13	8	7	2	7	12.2	21.7
21-Oct	7	4	4	4	5	4	6	3	3	3	3	6	12	16	17	19	14	13	14	9	8	6	10	9	8.3	18.8
22-Oct	9	23	27	23	29	22	14	9	7	12	22	27	26	26	19	6	8	5	11	22	13	12	14	10	16.6	28.8
23-Oct	6	21	10	4	7	15	19	16	15	23	29	36	42	34	35	33	26	26	21	15	13	8	10	5	19.6	42.5
24-Oct	8	5	6	8	6	6	3	4	4	3	11	32	30	36	34	30	30	29	17	11	14	13	11	7	14.9	35.7
25-Oct	5	10	8	5	11	11	5	3	5	5	16	29	26	25	27	27	24	20	18	13	8	7	6	5	13.3	28.6
26-Oct	4	7	6	8	6	7	5	2	4	4	5	6	24	27	53	49	46	27	26	27	36	34	38	42	20.5	53.0
27-Oct	34	36	34	39	39	40	33	29	25	34	41	40	39	37	36	33	32	23	13	8	6	10	7	5	28.1	41.1
28-Oct	5	7	9	9	15	9	10	8	10	8	4	4	3	2	4	15	20	11	17	14	22	18	22	19	11.1	22.4
29-Oct	22	30	29	22	20	20	16	17	17	27	36	42	41	29	37	30	19	19	13	12	11	11	7	10	22.5	41.6
30-Oct	12	9	3	3	4	8	7	7	4	4	13	37	42	43	45	42	34	23	17	15	7	5	6	8	16.6	44.7
31-Oct	9	8	17	16	19	11	4	7	9	29	38	40	38	40	37	45	44	36	32	34	26	32	23	14	25.3	45.2
	7.9	9.2	9.7	8.9	9.8	9.5	8.3	7.8	7.8	9.6	12.7	17.2	19.7	20.8	21.0	21.9	20.8	16.6	13.7	13.0	11.6	10.6	9.9	8.1	Diurnal Average	
	33.7	36.2	34.0	39.1	39.3	39.6	33.0	28.8	25.4	33.8	41.1	41.6	42.5	43.0	53.0	49.3	46.1	35.8	32.2	34.3	35.5	33.7	38.3	42.3	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - October 2011

Maximum Value: 95.5 deg on Oct 1 12:00

Minimum Value: 2.0 deg on Oct 10 21:00

Percentiles: P_1 = 2.7 P_{10} = 4.6 Q_1 = 6.6 Median = 14.6 Q_3 = 34.5 P_{90} = 59.7 P_{99} = 90.2

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
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	9	83	12	81	50	47	10	63	18	95	46	96	47	15	13	11	23	35	14	12	15	16	6	8	95.5
2-Oct	6	5	5	6	18	11	9	36	20	24	19	43	17	64	50	24	29	62	15	25	15	16	13	22	64.0
3-Oct	7	5	6	10	5	5	4	7	4	7	7	8	9	7	9	8	11	28	35	10	23	73	64	55	72.6
4-Oct	74	85	63	35	51	50	26	60	94	31	19	31	19	26	46	38	66	22	24	27	33	39	31	28	94.4
5-Oct	18	6	72	63	23	46	17	38	20	36	19	39	20	15	11	11	6	8	15	8	7	7	5	9	71.9
6-Oct	5	68	42	54	15	16	21	15	21	20	25	22	52	42	37	50	21	9	21	20	13	74	43	73	73.7
7-Oct	75	27	16	6	4	9	17	6	4	6	6	10	13	9	11	15	6	5	8	9	5	14	33	92	92.0
8-Oct	45	53	35	42	74	30	34	30	21	20	16	19	15	10	11	8	4	3	2	3	4	7	37	19	74.0
9-Oct	90	18	42	79	21	87	43	33	50	22	18	11	7	8	7	7	6	7	4	26	79	71	56	68	90.4
10-Oct	34	49	19	17	39	89	10	23	76	72	36	63	56	15	15	14	11	5	3	5	2	4	5	11	89.0
11-Oct	7	58	30	64	10	3	6	17	5	12	10	24	24	27	26	35	41	18	7	7	7	20	46	36	64.3
12-Oct	35	16	51	62	60	47	22	36	42	30	12	10	7	6	8	9	5	6	6	2	4	22	23	46	61.8
13-Oct	7	11	3	4	3	5	4	5	7	7	12	7	12	16	15	12	7	5	5	5	10	4	5	60	60.5
14-Oct	26	24	54	10	49	62	65	61	11	43	14	13	28	44	32	17	5	7	14	11	9	33	53	40	64.7
15-Oct	31	14	20	16	50	17	31	17	18	20	35	13	12	20	19	15	4	5	5	8	33	28	55	44	54.9
16-Oct	73	70	27	34	51	24	28	12	11	44	27	22	7	5	9	11	6	10	5	4	6	59	81	56	81.3
17-Oct	57	15	24	9	48	39	12	28	78	85	12	7	7	5	10	6	7	4	5	50	45	84	23	59	85.2
18-Oct	65	46	30	33	29	21	52	57	35	36	87	18	41	8	9	8	7	6	5	25	5	12	7	54	86.5
19-Oct	34	28	90	37	48	39	13	79	40	83	80	65	59	14	7	80	6	8	10	10	4	7	5	4	90.3
20-Oct	11	8	8	27	42	73	8	82	84	95	37	8	12	10	10	10	8	6	3	4	23	9	85	16	94.8
21-Oct	16	85	24	11	19	23	16	24	20	61	63	68	14	25	8	9	5	4	10	13	16	19	31	30	84.8
22-Oct	25	3	3	3	3	4	5	70	40	12	13	8	8	10	18	34	15	23	19	8	8	5	8	17	70.0
23-Oct	46	2	23	53	43	6	6	6	7	5	6	6	8	9	9	6	7	4	6	7	4	20	4	45	53.3
24-Oct	22	59	45	18	46	37	40	18	58	44	38	7	9	7	8	9	5	4	7	4	5	3	5	10	59.2
25-Oct	69	6	8	14	6	5	65	45	15	29	25	5	8	12	8	8	7	3	9	16	19	31	39	12	69.0
26-Oct	15	26	20	7	12	9	39	72	75	36	52	66	5	9	6	4	8	4	4	3	3	4	3	3	74.7
27-Oct	4	5	5	4	5	4	4	4	4	4	5	6	7	6	6	7	4	4	7	15	26	15	47	46	47.3
28-Oct	20	15	8	33	21	48	23	20	6	12	45	39	30	51	56	19	15	19	14	5	5	3	7	6	55.6
29-Oct	6	3	3	4	5	7	7	6	5	5	5	7	5	9	7	5	14	8	5	4	12	6	34	11	34.4
30-Oct	9	8	31	34	26	41	20	9	26	71	12	5	5	5	9	7	5	4	4	3	41	36	61	34	71.2
31-Oct	23	70	6	5	8	16	63	17	84	5	5	7	7	6	8	5	7	5	8	4	3	4	6	10	83.7
	90.4	85.2	90.3	80.9	74.0	89.0	65.5	82.0	94.4	95.5	86.5	95.5	59.4	64.0	55.6	79.5	66.0	61.7	34.7	49.8	79.5	84.4	85.4	92.0	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 14.5 ppb on Oct 29 10:00 Maximum Daily Average: 2.7 ppb on Oct 27

Minimum Value: 0 ppb on Oct 1 01:00
Maximum Diurnal Average: 1.6 ppb at hour 15
Monthly Average: 0.72 ppb

Minimum Daily Average: 0.1 ppb on Oct 1
Minimum Diurnal Average: 0.2 ppb at hour 24
Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.5$ $P_{90} = 2.2$ $P_{99} = 7.2$

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Oct	0	0	0	0	0	0	0	0	0	1	1	1	1	A	3	3	2	1	1	0	0	0	0	0	0.7	2.8
4-Oct	0	0	0	0	0	0	0	0	0	1	1	1	A	0	0	0	0	1	0	0	0	0	0	0	0.4	1.2
5-Oct	0	1	2	2	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.5
6-Oct	0	0	0	0	0	0	0	0	0	1	A	1	1	1	2	0	0	0	0	0	0	0	0	0	0.3	2.3
7-Oct	0	0	0	0	0	0	0	0	2	A	1	0	0	0	0	0	0	0	1	0	0	0	4	2	0.6	4.3
8-Oct	5	3	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	5.0
9-Oct	0	0	0	0	0	0	0	A	0	0	0	0	0	0	6	4	1	7	0	0	0	0	0	0	0.9	7.3
10-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0.2	0.8
11-Oct	0	0	0	0	0	A	0	0	0	1	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0.3	2.0
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1	1	3	1	0	0.4	2.8
13-Oct	0	0	0	A	0	0	1	0	1	2	0	1	3	4	3	2	1	2	4	2	1	2	0	0	1.4	4.4
14-Oct	0	0	A	0	0	0	0	0	0	0	0	0	3	1	1	5	4	0	1	1	0	0	0	0	0.8	4.8
15-Oct	0	A	0	0	0	0	0	0	0	0	2	2	1	2	0	0	1	0	0	0	0	0	0	0	0.3	2.3
16-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	A	0.4	4.5
17-Oct	0	0	0	0	0	0	0	0	0	C	C	C	1	6	5	7	5	6	1	1	0	0	A	0	1.5	6.6
18-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3
19-Oct	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	0	0	1	1	0	A	0	0	0	0.4	4.6
20-Oct	0	0	0	0	0	1	0	2	1	2	0	0	0	0	1	2	1	0	0	A	0	0	0	0	0.6	2.4
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
22-Oct	0	0	0	0	0	0	0	0	0	6	4	2	2	3	0	0	0	A	0	0	0	0	0	0	0.7	5.6
23-Oct	0	0	0	0	0	0	0	0	0	0	1	3	2	0	0	0	A	0	0	0	0	0	0	0	0.4	3.4
24-Oct	0	0	0	0	0	0	0	0	0	0	3	8	1	0	2	A	0	0	1	1	2	2	1	0	1.0	7.5
25-Oct	0	2	10	2	1	1	1	2	1	1	0	0	0	3	A	5	1	1	0	0	0	0	0	0	1.4	10.5
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	3	5	5	0	0	0	0	0.7	5.4
27-Oct	0	0	0	0	7	8	3	4	10	7	5	2	C	C	C	0	0	0	6	4	0	0	0	0	2.7	10.4
28-Oct	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0.2	0.7
29-Oct	0	0	0	0	0	0	0	1	14	15	A	1	6	2	6	5	1	2	0	0	0	0	0	0	2.3	14.5
30-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	3	6	4	3	2	0	6	7	0	0	0	1.4	6.8
31-Oct	0	0	0	0	0	0	0	0	A	7	4	3	2	3	0	0	3	5	2	2	0	1	1	0	1.5	6.8
	0.3	0.3	0.5	0.2	0.4	0.4	0.3	0.4	1.1	1.5	0.9	1.0	1.0	1.3	1.6	1.4	0.9	1.2	0.8	0.8	0.4	0.3	0.3	0.2	Diurnal Average	
	5.0	2.8	10.5	2.5	7.3	8.4	3.3	3.6	13.9	14.5	4.7	7.5	5.5	5.6	6.3	6.6	5.0	7.3	5.8	5.6	6.8	2.8	4.3	2.2	Diurnal Maximum	

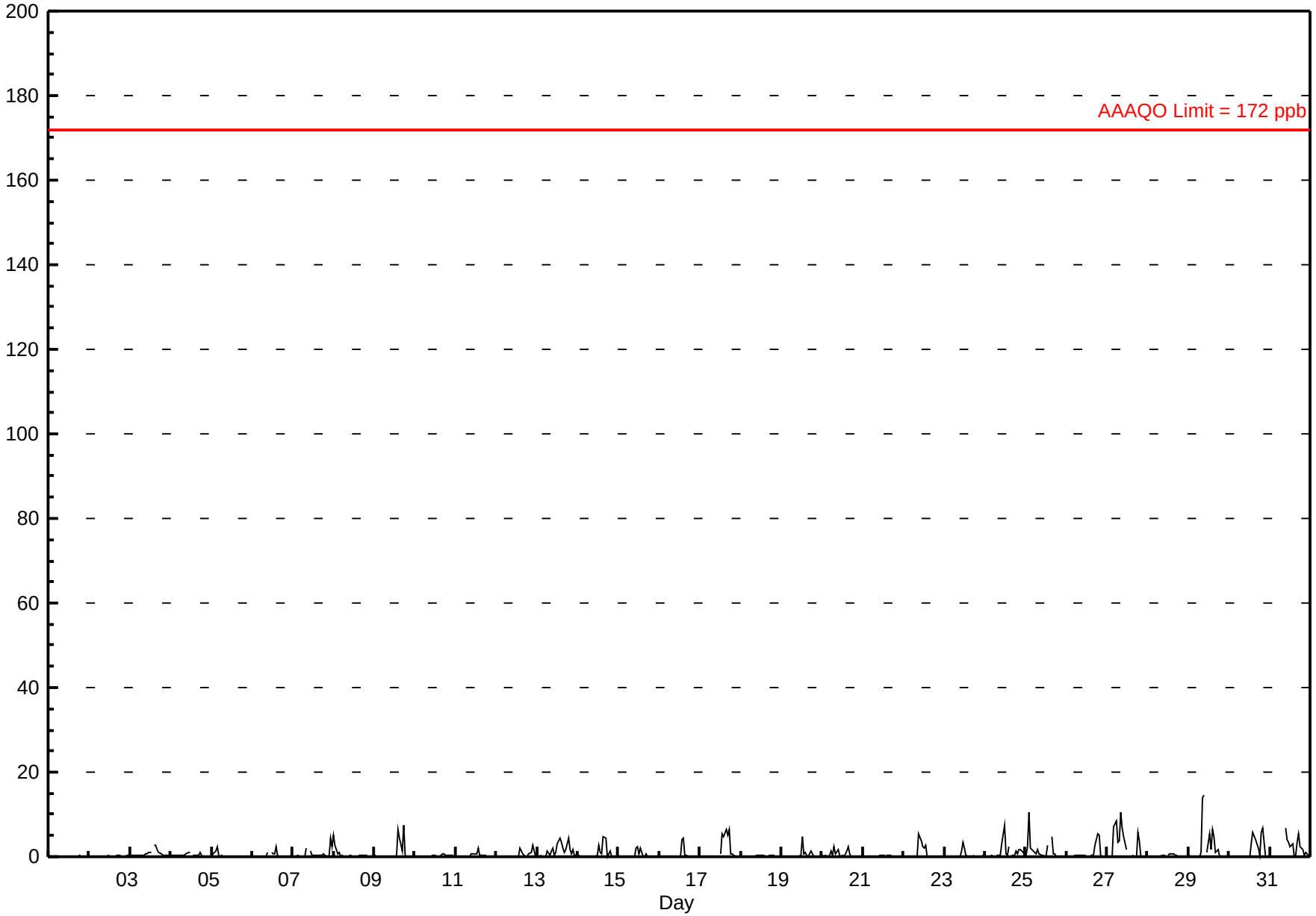
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2011



Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2011

Maximum Value: 54.6 ppb on Oct 29 09:00

Maximum Daily Average: 9.3 ppb on Oct 29

Minimum Value: 0 ppb on Oct 20 00:00

Minimum Daily Average: 0.7 ppb on Oct 1

Maximum Diurnal Average: 7.9 ppb at hour 14

Minimum Diurnal Average: 1.0 ppb at hour 24

Monthly Average: 3.17 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.6$ $Q_1 = 0.7$ Median = 0.9 $Q_3 = 1.8$ $P_{90} = 10.4$ $P_{99} = 22.9$

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.2
2-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.5
3-Oct	1	1	1	1	1	1	1	1	1	1	1	2	2	A	4	3	3	2	1	1	1	1	1	1	1.4	3.7
4-Oct	1	1	1	1	1	1	1	1	1	3	3	2	A	1	1	1	1	5	1	1	1	1	1	1	1.4	5.2
5-Oct	1	4	4	10	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.4	10.1
6-Oct	0	1	1	1	1	0	0	1	1	2	A	3	3	3	13	1	1	1	1	1	1	1	1	1	1.7	12.6
7-Oct	1	1	1	1	1	1	1	1	15	A	4	1	1	1	1	1	1	1	1	1	1	1	10	7	2.4	15.4
8-Oct	9	8	3	4	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.8	8.9
9-Oct	1	1	1	1	1	1	1	A	1	1	1	1	1	4	21	20	15	22	2	1	1	1	1	1	4.3	21.9
10-Oct	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	0.9	1.6
11-Oct	1	1	1	1	1	A	1	1	1	1	2	2	1	10	2	1	1	1	1	1	1	0	1	1	1.3	10.0
12-Oct	1	1	1	1	A	1	1	1	2	1	1	1	1	1	16	6	8	1	1	3	5	14	10	1	3.2	15.8
13-Oct	1	1	4	A	1	1	7	2	4	9	3	7	7	9	10	8	8	6	10	6	3	10	2	1	5.2	10.4
14-Oct	1	1	A	1	1	1	1	1	1	1	1	4	14	11	7	34	33	1	4	6	1	0	1	1	5.3	33.6
15-Oct	1	A	1	1	1	0	1	1	1	2	10	14	10	23	1	1	5	1	1	1	1	0	0	0	3.3	23.4
16-Oct	A	1	1	1	0	1	1	1	1	1	1	1	3	32	19	3	3	1	1	1	1	1	1	A	3.3	32.2
17-Oct	1	1	1	1	1	1	1	1	0	C	C	C	4	26	13	19	22	20	3	3	1	1	A	0	5.9	26.3
18-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	0.8	1.6
19-Oct	1	1	1	1	1	1	1	1	1	1	1	4	11	6	3	1	1	4	3	0	A	1	0	0	1.9	10.5
20-Oct	3	3	4	0	2	7	2	8	3	4	1	1	1	1	7	17	3	1	1	A	1	1	1	1	3.1	16.7
21-Oct	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.1
22-Oct	1	1	1	1	0	0	1	1	1	11	11	9	12	15	1	1	1	A	1	1	1	1	0	1	3.1	15.4
23-Oct	1	1	0	1	0	0	1	0	1	1	13	14	12	9	1	1	A	3	1	1	1	1	1	1	2.7	13.7
24-Oct	1	1	1	1	1	1	1	1	1	1	15	47	3	1	15	A	1	2	2	2	6	8	3	1	5.0	47.3
25-Oct	1	11	17	6	3	2	2	11	2	2	1	1	1	19	A	22	4	3	1	1	1	1	1	1	5.0	22.4
26-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	14	15	14	3	1	1	1	2.7	14.6
27-Oct	1	1	1	1	14	16	10	10	20	18	13	9	C	C	C	8	0	1	18	16	1	1	0	1	7.6	19.7
28-Oct	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
29-Oct	2	1	1	1	0	1	1	12	55	52	A	4	21	10	21	16	5	9	1	1	1	1	1	1	9.3	54.6
30-Oct	1	1	1	1	1	1	1	1	1	A	1	1	4	18	15	17	14	15	2	17	20	1	1	1	5.8	19.9
31-Oct	1	1	1	1	1	0	1	1	A	17	12	8	17	13	1	4	12	15	13	9	2	8	3	1	6.1	17.3
	1.1	1.5	1.6	1.3	1.3	1.5	1.3	2.1	4.0	4.9	3.7	5.0	4.7	7.9	6.3	6.6	5.1	4.5	3.0	3.1	1.9	2.0	1.6	1.0	Diurnal Average	
	8.9	11.3	17.3	10.1	14.3	16.0	10.0	11.8	54.6	51.7	15.5	47.3	20.9	32.2	21.2	33.6	33.0	21.9	18.3	17.3	19.9	13.6	10.4	7.5	Diurnal Maximum	

C - Calibration

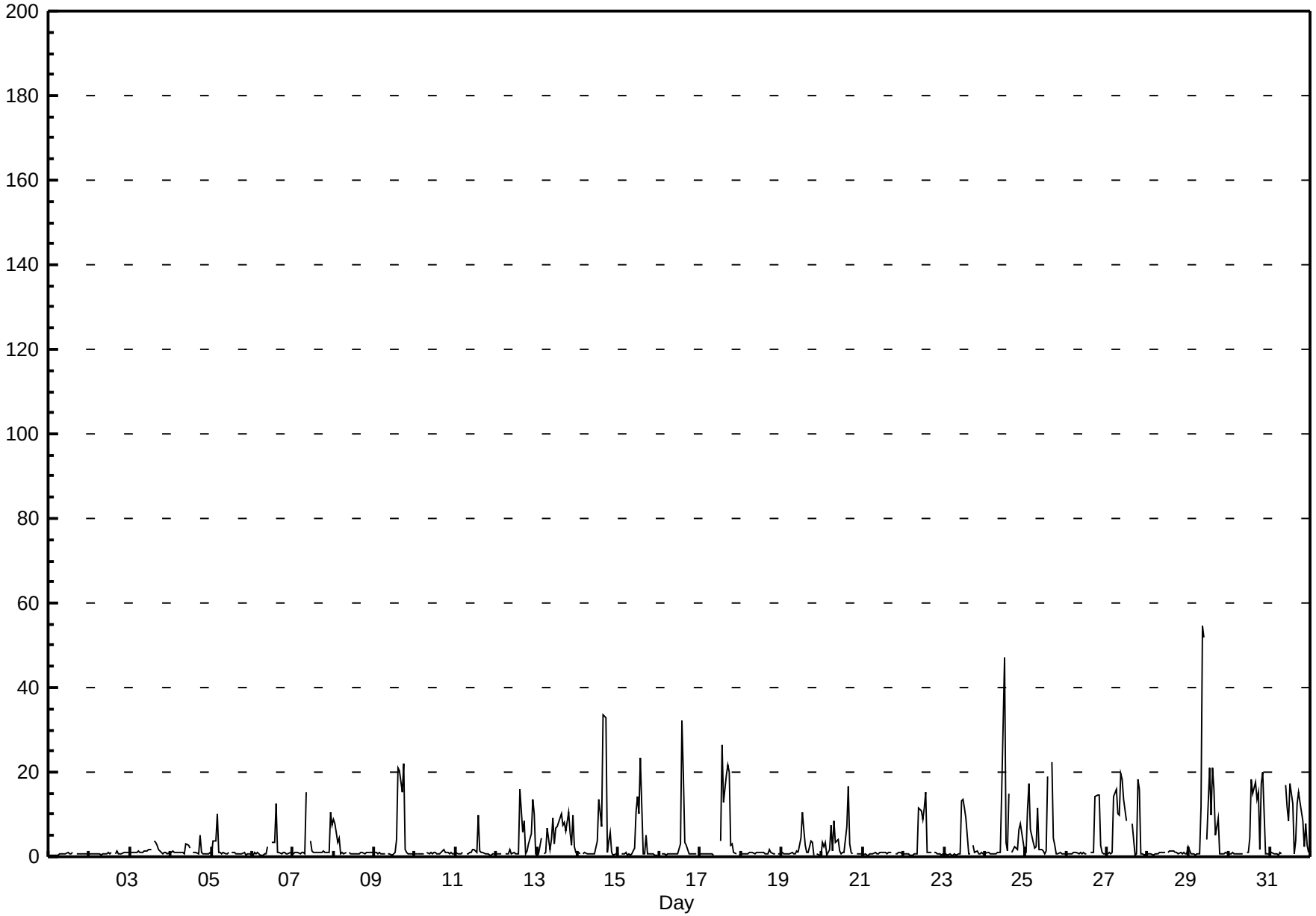
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2011

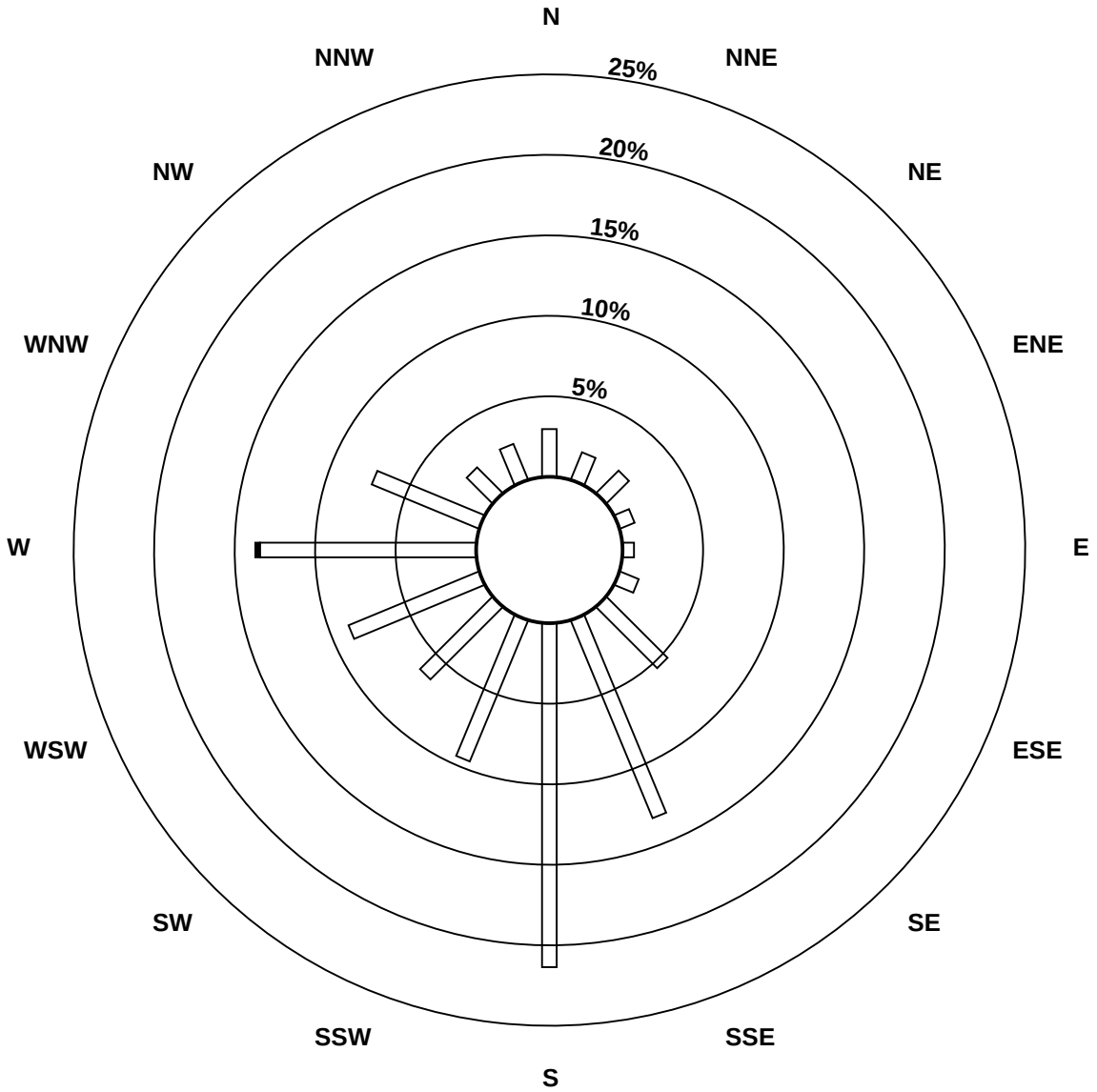


Peace Airshed Zone Association

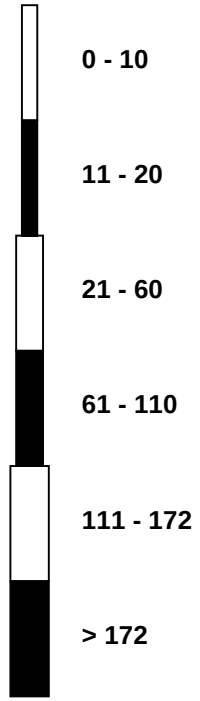
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - October 2011



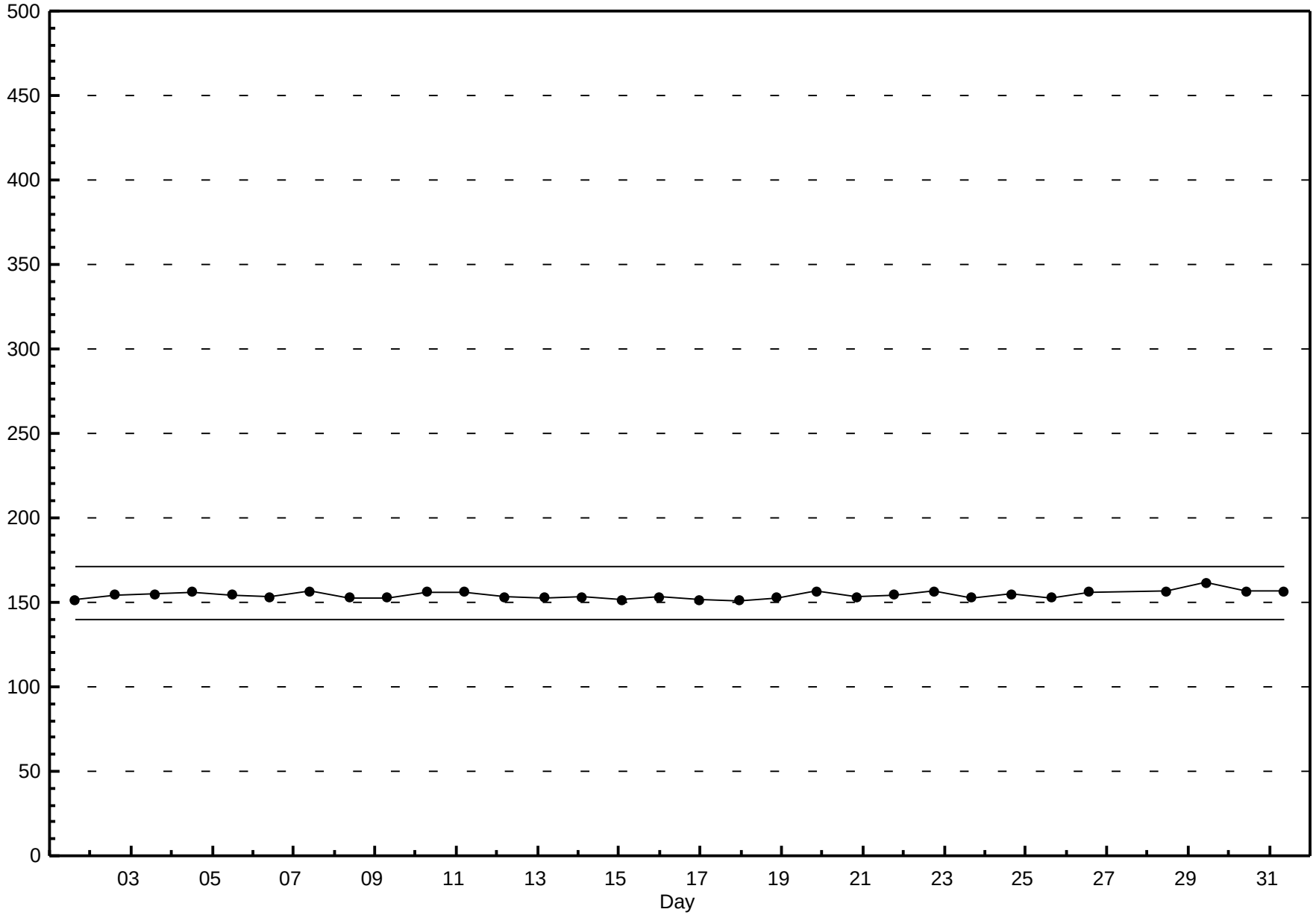
Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO_2)

Valleyview - October 2011



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.7 ppb on Oct 24 19:00 Maximum Daily Average: 0.4 ppb on Oct 25

Minimum Value: 0 ppb on Oct 1 01:00 Minimum Daily Average: 0.0 ppb on Oct 1
Maximum Diurnal Average: 0.4 ppb at hour 19 Minimum Diurnal Average: 0.0 ppb at hour 1
Monthly Average: 0.13 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.1$ $P_{90} = 0.4$ $P_{99} = 1.3$

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.0
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.0
3-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.4
4-Oct	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
5-Oct	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
6-Oct	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
7-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.9
8-Oct	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.0	0.7
9-Oct	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.2	1.3
10-Oct	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
11-Oct	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
12-Oct	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	0.5
13-Oct	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
14-Oct	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	0.8
15-Oct	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
16-Oct	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
17-Oct	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	1	0	0	0	A	0	0.1	0.6
18-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0.1	1.0
19-Oct	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	1.0
20-Oct	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	A	1	0	0	0	0.3	1.4
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
22-Oct	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	A	0	0	0	0	0	0	0.2	1.9
23-Oct	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	1	0	0	0	0	0	0	0.1	1.3
24-Oct	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	1	4	2	1	0	0	0	0.4	3.7
25-Oct	0	0	0	0	0	3	1	1	1	1	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0.4	3.0
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0.1	0.9
27-Oct	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	1	0	0	0	0	0.2	0.5
28-Oct	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.3
29-Oct	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
30-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0.2	0.8
31-Oct	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0.3	1.0
	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.3	0.2	0.1	0.1	0.1	Diurnal Average	
	0.4	0.4	0.4	0.8	0.6	3.0	1.0	0.6	0.9	1.4	1.2	0.7	1.9	0.9	0.3	0.3	0.9	1.4	3.7	2.1	1.4	0.6	1.0	0.4	Diurnal Maximum	

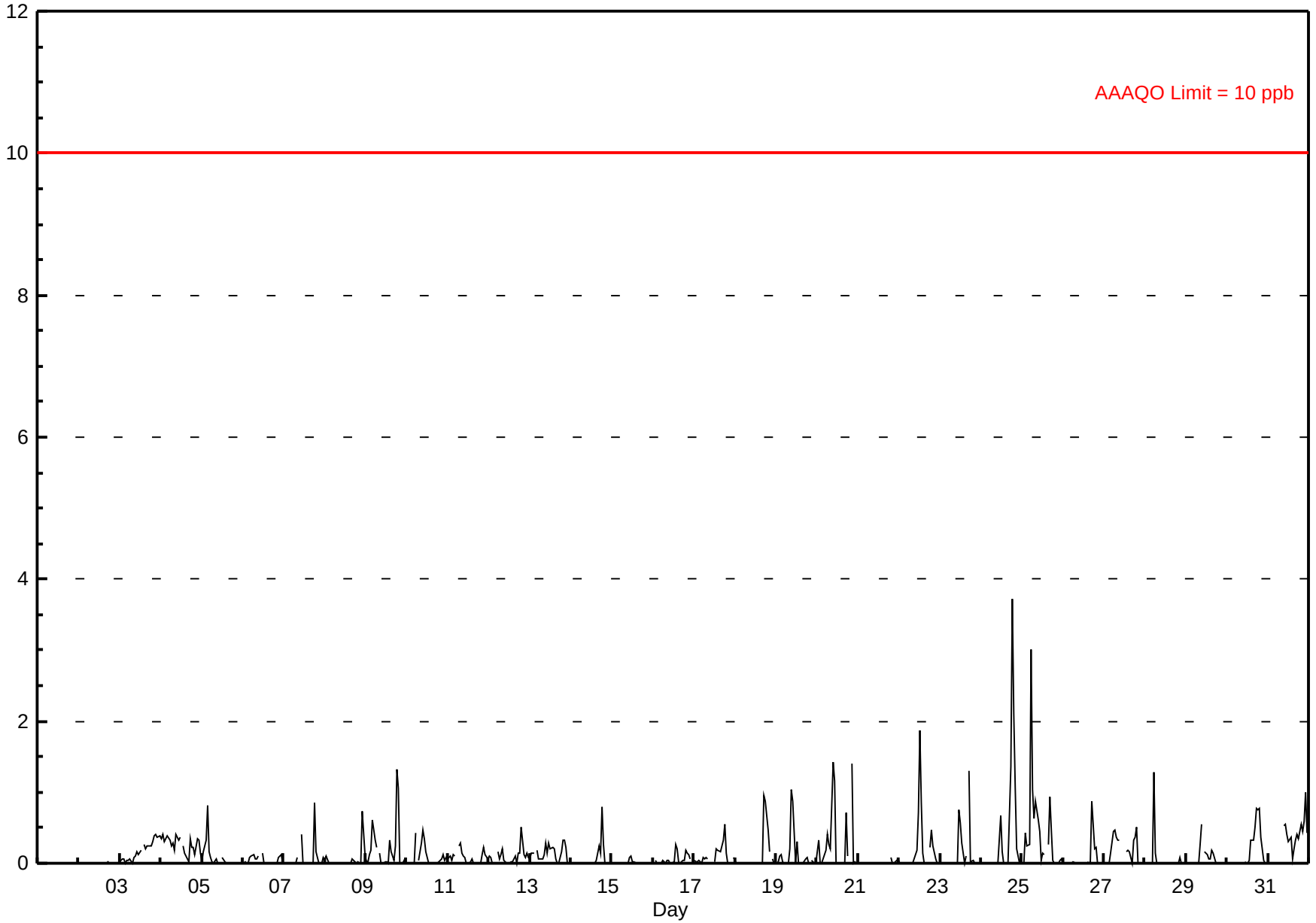
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2011



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2011

Maximum Value: 10.5 ppb on Oct 20 10:00

Maximum Daily Average: 2.0 ppb on Oct 20

Minimum Value: 0 ppb on Oct 20 13:00

Minimum Daily Average: 0.2 ppb on Oct 21

Maximum Diurnal Average: 1.4 ppb at hour 19

Minimum Diurnal Average: 0.3 ppb at hour 1

Monthly Average: 0.62 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.6$ $P_{90} = 1.1$ $P_{99} = 3.3$

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)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.4
2-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5
3-Oct	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.5	0.8
4-Oct	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	2	1	1	1	1	1	0	0.7	1.9
5-Oct	0	1	1	2	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.2
6-Oct	0	0	0	0	0	0	0	0	0	1	A	1	0	0	1	0	0	0	0	0	0	0	1	0	0.4	0.8
7-Oct	0	0	0	0	0	0	0	0	1	A	1	0	0	1	0	0	0	0	2	2	0	0	0	1	0.5	2.4
8-Oct	0	1	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0.4	2.5
9-Oct	0	1	0	1	2	1	1	A	1	0	0	0	0	0	1	1	0	1	4	4	0	0	1	0	0.9	4.0
10-Oct	0	0	0	0	0	2	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.6
11-Oct	0	0	0	0	0	A	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0.4	0.7
12-Oct	0	0	0	0	A	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0.5	1.2
13-Oct	0	0	0	A	2	0	0	0	0	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	0.6	1.5
14-Oct	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	10	2	0	0	0	1	0.8	9.6
15-Oct	0	A	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0.4	1.2
16-Oct	A	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	1	0	0	0	A	0.5	1.4
17-Oct	0	0	0	1	0	1	0	0	0	C	C	C	0	1	1	0	1	1	2	1	1	0	A	1	0.6	2.3
18-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	1	A	0	0	0.5	3.2
19-Oct	0	0	0	1	0	0	0	0	1	2	2	0	1	0	0	0	0	0	1	0	A	0	0	0	0.6	2.4
20-Oct	1	1	0	0	1	1	1	1	1	11	9	0	0	0	1	1	2	7	4	A	3	0	1	0	2.0	10.5
21-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.5
22-Oct	0	0	0	0	0	0	0	0	0	0	1	3	4	3	1	0	0	A	1	1	1	0	0	0	0.8	4.0
23-Oct	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	1	A	4	0	0	1	0	0	0	0.7	4.1
24-Oct	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	A	0	9	6	4	2	1	0	0	1.3	9.0
25-Oct	0	0	1	1	1	4	3	1	1	1	1	1	1	1	A	1	3	3	0	0	0	0	0	0	1.1	4.4
26-Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	2	1	1	0	0	0	0	0.5	2.4
27-Oct	0	1	0	0	1	1	1	1	1	1	C	C	C	1	1	1	0	1	1	1	0	0	0	0	0.6	1.3
28-Oct	0	0	0	0	1	3	1	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0.4	3.2
29-Oct	0	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.0
30-Oct	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	1	2	2	2	1	0	0	0	0.6	1.6
31-Oct	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	0.7	1.6
	0.3	0.4	0.4	0.4	0.5	0.7	0.5	0.4	0.5	0.9	0.9	0.6	0.6	0.6	0.5	0.5	0.5	1.4	1.4	0.9	0.6	0.5	0.5	0.4	Diurnal Average	
	1.0	1.3	1.0	2.2	1.7	4.4	2.8	1.1	1.4	10.5	9.4	2.7	4.0	2.6	1.3	1.2	2.6	9.0	9.6	4.0	3.2	1.5	2.5	1.5	Diurnal Maximum	

C - Calibration

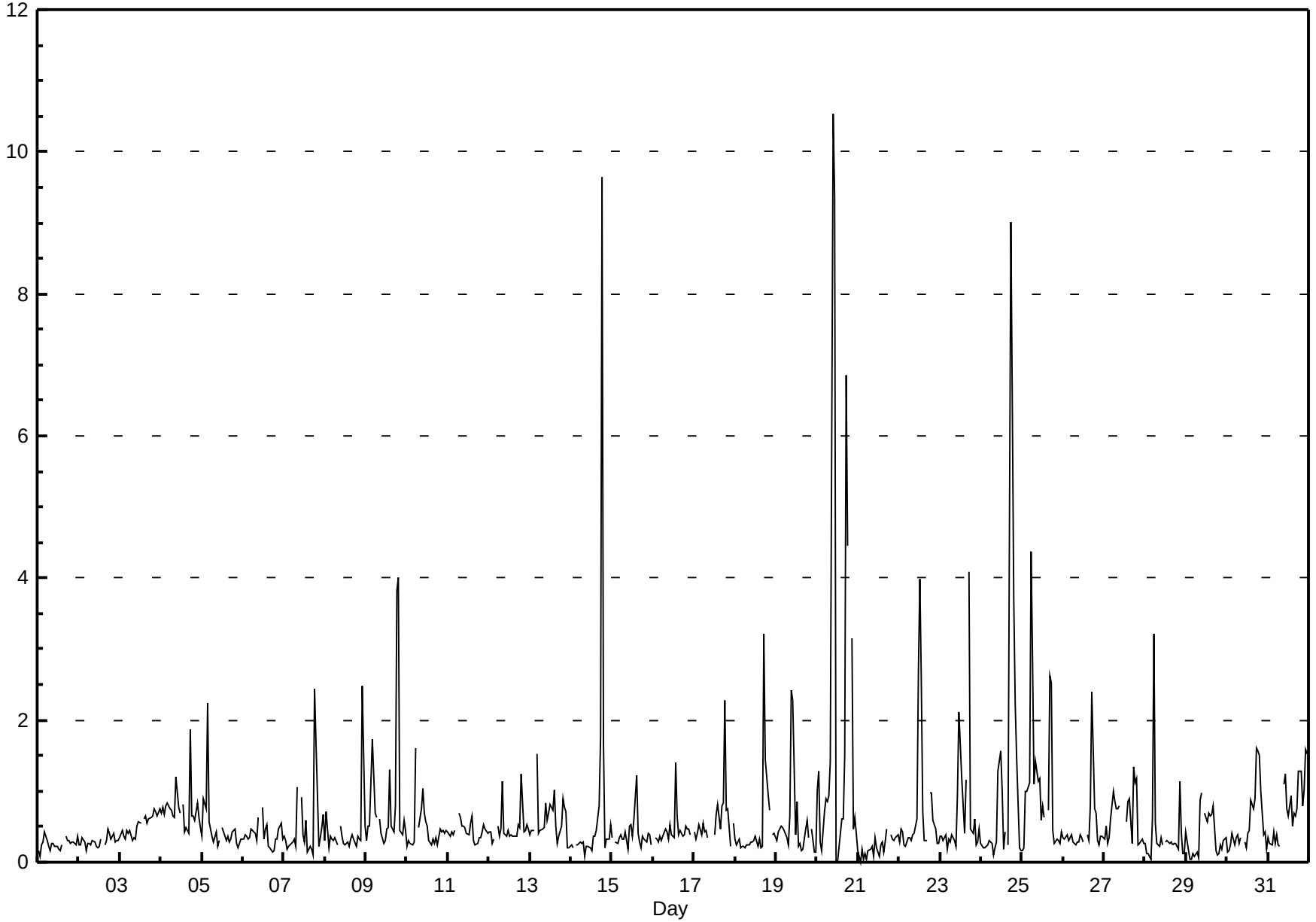
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2011

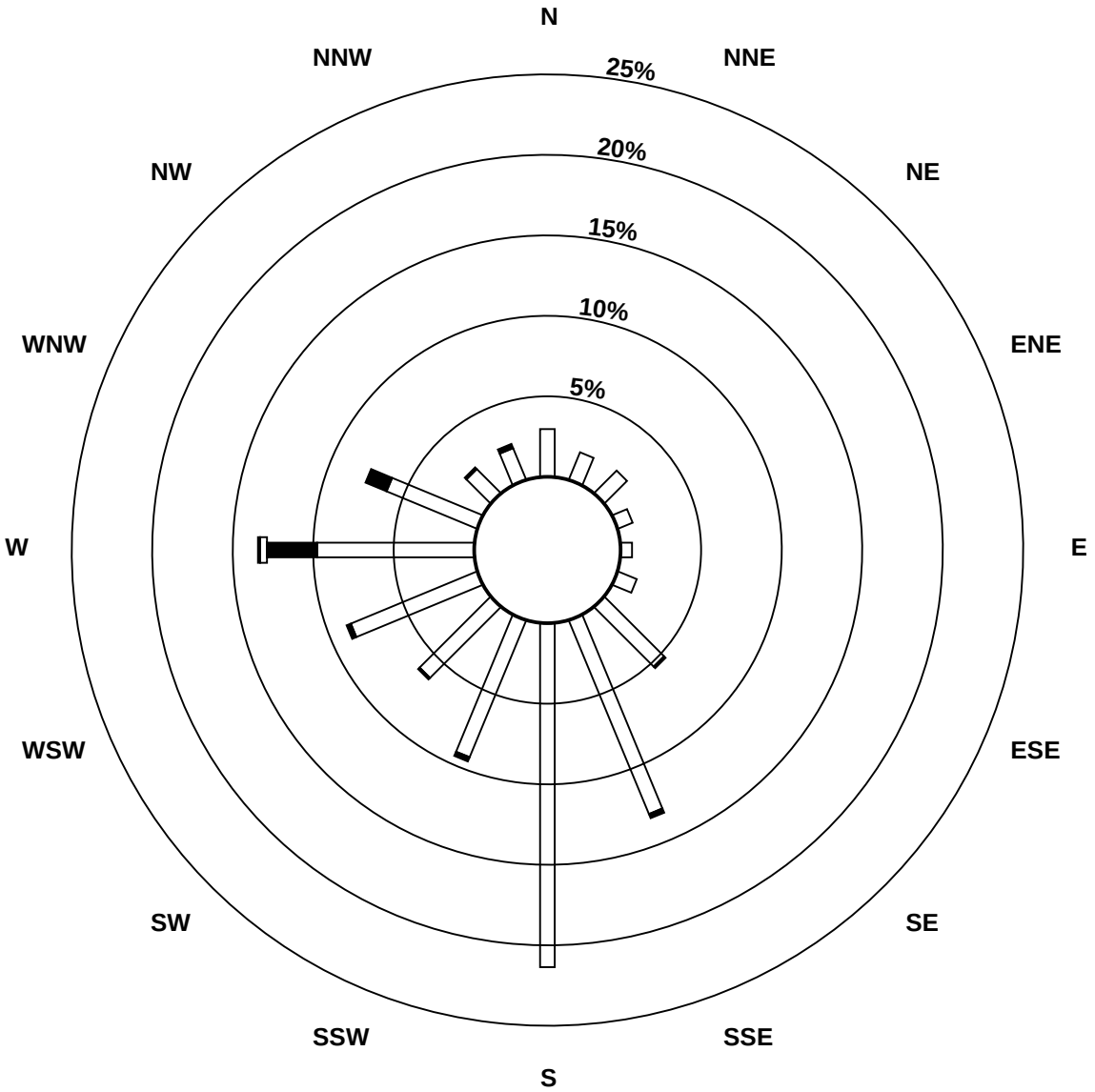


Peace Airshed Zone Association

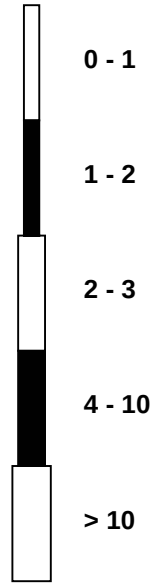
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - October 2011



Pollutant Classes (ppb)

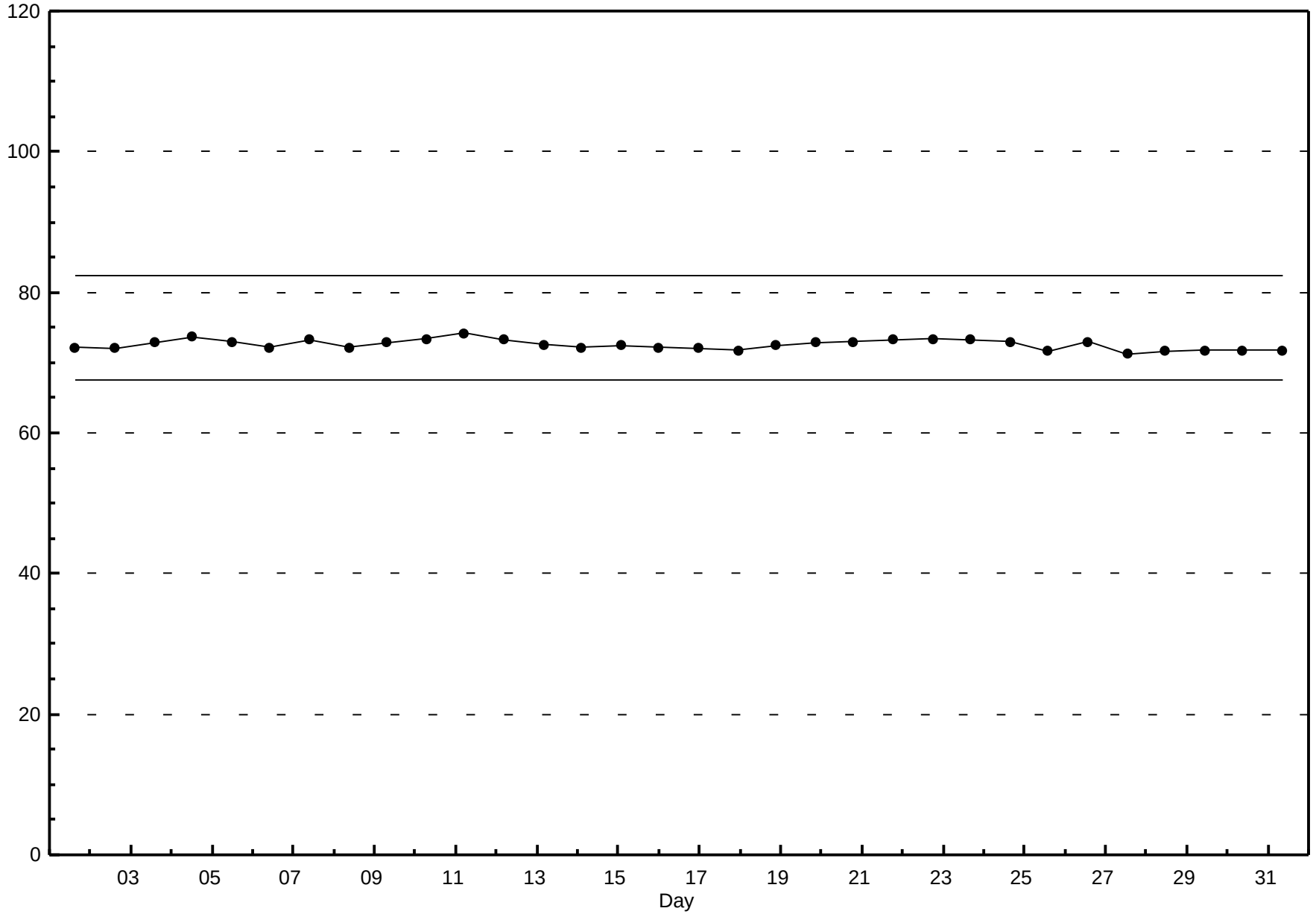


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - October 2011



Hourly Averages

External Temperature (ET) - °C

Valleyview - October 2011

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 18.9 °C on Oct 18 16:00 Maximum Daily Average: 9.6 °C on Oct 3

Minimum Value: -3 °C on Oct 16 06:00 Minimum Daily Average: 2.4 °C on Oct 16
Maximum Diurnal Average: 10.6 °C at hour 16 Minimum Diurnal Average: 2.4 °C at hour 7
Monthly Average: 5.87 °C Percentiles: P_1 = -2.6 P_{10} = 0.2 Q_1 = 3.1 Median = 6.2 Q_3 = 8.6 P_{90} = 10.9 P_{99} = 15.2

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

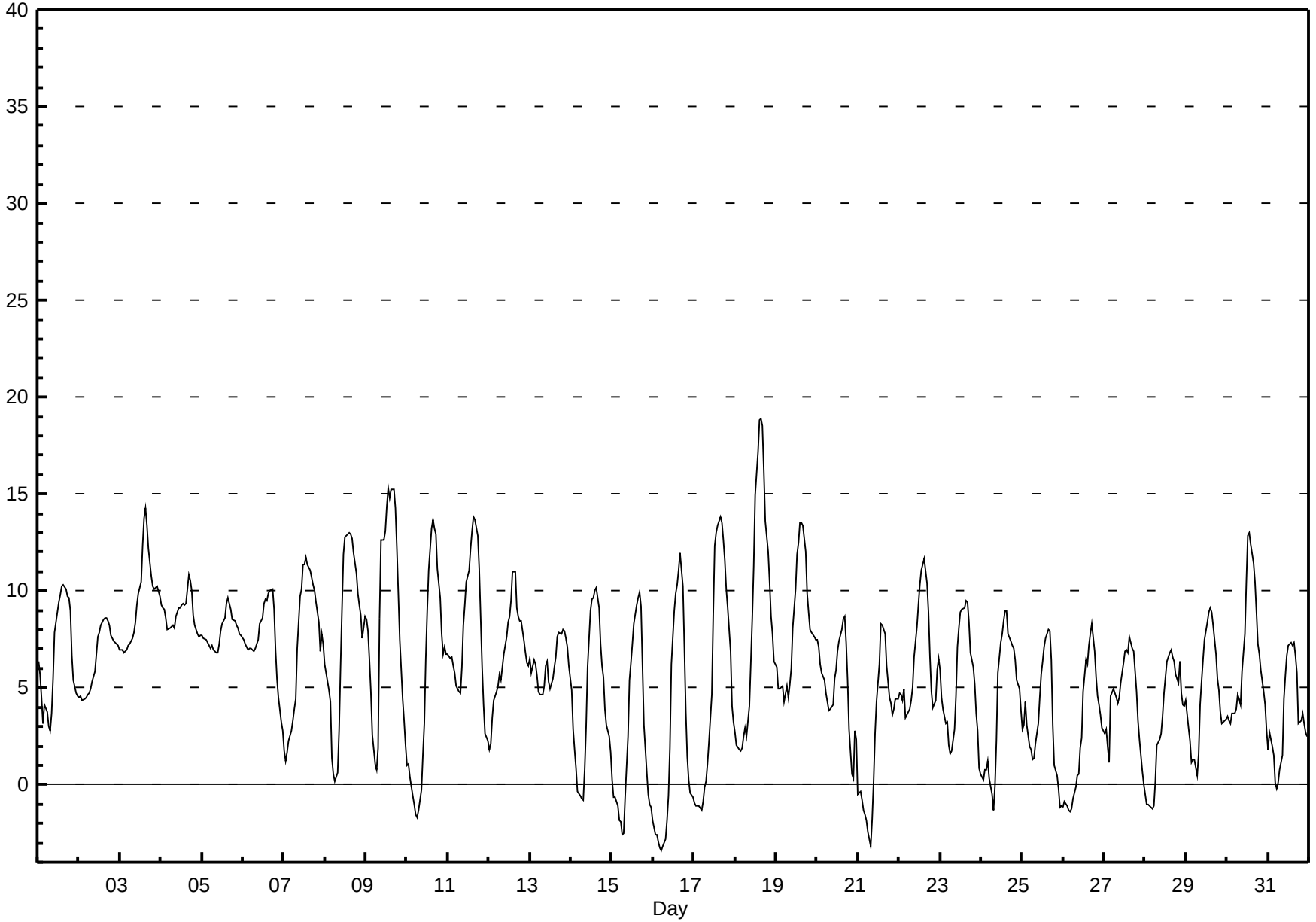
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	6	6	5	3	4	4	3	3	4	5	8	9	9	10	10	10	10	10	10	9	7	5	5	5	6.6	10.3
2-Oct	4	5	4	4	5	5	5	5	5	6	7	8	8	8	9	9	9	8	8	8	7	7	7	7	6.6	8.6
3-Oct	7	7	7	7	7	7	7	8	8	8	9	10	11	12	14	14	13	12	11	10	10	10	10	10	9.6	14.3
4-Oct	9	9	9	9	8	8	8	8	8	9	9	9	9	9	9	9	11	11	10	9	8	8	8	8	8.8	10.8
5-Oct	8	8	7	7	7	7	7	7	7	7	7	8	8	9	9	10	9	9	9	8	8	8	8	8	7.9	9.6
6-Oct	8	7	7	7	7	7	7	7	7	7	8	9	9	10	10	10	10	10	9	7	5	5	3	3	7.5	10.1
7-Oct	2	1	2	2	3	3	4	4	7	10	10	11	11	12	11	11	11	10	10	9	8	7	8	7	7.3	11.7
8-Oct	6	6	5	4	1	1	0	1	3	6	9	12	13	13	13	13	13	12	11	10	9	9	8	9	7.7	13.0
9-Oct	9	8	6	5	3	1	1	2	9	13	13	13	14	15	15	15	15	14	12	10	8	4	3	2	8.7	15.3
10-Oct	1	1	0	-1	-1	-2	-2	-1	0	2	3	6	9	11	13	14	13	13	11	10	8	7	7	7	5.4	13.7
11-Oct	7	6	7	6	6	5	5	5	6	8	9	10	11	12	13	14	14	13	11	9	6	4	3	2	8.0	13.8
12-Oct	2	2	3	4	5	5	6	5	6	7	8	8	9	10	11	11	9	9	8	8	7	7	6	6	6.8	11.0
13-Oct	7	6	6	6	6	5	5	5	5	6	6	5	5	5	6	7	8	8	8	8	8	8	7	6	6.3	8.0
14-Oct	5	3	2	1	0	-1	-1	-1	1	3	6	9	10	10	10	10	9	7	6	6	4	3	3	2	4.4	10.2
15-Oct	0	-1	-1	-1	-2	-2	-3	-2	-1	2	5	6	7	8	9	10	10	9	6	3	1	0	-1	-1	2.6	9.9
16-Oct	-2	-3	-3	-3	-3	-3	-3	-3	-2	-1	2	6	9	10	10	11	12	10	7	4	1	0	0	-1	2.4	12.0
17-Oct	-1	-1	-1	-1	-1	-1	0	0	1	2	5	9	12	13	13	14	14	13	12	10	9	7	4	3	5.6	13.9
18-Oct	3	2	2	2	2	2	3	3	4	6	9	11	15	17	19	19	18	16	14	12	10	9	8	6	8.8	18.9
19-Oct	6	5	5	5	5	4	5	4	5	6	8	10	12	12	14	14	13	12	10	9	8	8	8	7	8.2	13.6
20-Oct	8	7	6	6	5	5	4	4	4	4	5	6	7	7	8	9	9	7	5	3	1	0	3	2	5.2	8.7
21-Oct	-1	0	-1	-1	-2	-2	-2	-3	-2	0	3	4	6	8	8	8	8	6	5	4	4	4	4	4	2.6	8.3
22-Oct	5	5	4	5	3	4	4	4	5	7	8	9	10	11	11	12	10	9	7	5	4	4	6	7	6.6	11.6
23-Oct	6	5	4	3	3	2	2	2	3	5	7	8	9	9	9	10	9	8	7	6	5	4	3	1	5.4	9.5
24-Oct	1	0	1	1	1	0	0	-1	0	2	6	7	8	8	9	9	8	7	7	7	6	5	5	4	4.2	9.0
25-Oct	3	3	4	3	2	2	1	1	2	3	4	6	6	7	8	8	8	6	3	1	0	0	-1	-1	3.4	8.0
26-Oct	-1	-1	-1	-1	-1	-1	-1	0	0	1	2	2	5	6	6	7	8	8	7	6	5	4	4	3	2.7	8.3
27-Oct	3	3	2	1	5	5	5	4	4	4	5	6	7	7	7	8	7	7	6	5	3	2	1	0	4.5	7.7
28-Oct	0	-1	-1	-1	-1	-1	0	2	2	3	4	5	6	6	7	7	7	6	6	5	6	5	4	4	3.3	7.0
29-Oct	4	3	2	1	1	1	1	2	4	5	6	8	8	9	9	9	8	7	6	5	4	3	3	3	4.7	9.1
30-Oct	4	3	3	4	4	4	5	4	4	6	8	10	13	13	12	11	10	9	7	7	6	5	4	3	6.6	13.0
31-Oct	2	3	2	2	0	0	0	1	2	4	6	7	7	7	7	7	7	6	3	3	4	3	3	2	3.6	7.3
	3.8	3.4	3.2	2.9	2.6	2.4	2.4	2.5	3.6	5.1	6.6	8.0	9.2	9.9	10.3	10.6	10.3	9.5	8.1	6.9	5.9	5.0	4.6	4.1	Diurnal Average	
	9.3	9.1	9.1	8.6	8.0	8.1	8.2	8.2	8.6	12.6	12.6	13.1	15.0	17.2	18.8	18.9	18.5	16.2	13.6	12.0	10.5	10.2	10.2	9.7	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - October 2011



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - October 2011

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

Maximum Value: 99.4 % on Oct 5 10:00

Maximum Daily Average: 92.8 % on Oct 4

Minimum Value: 24 % on Oct 9 17:00

Minimum Daily Average: 45.1 % on Oct 27

Maximum Diurnal Average: 76.6 % at hour 6

Minimum Diurnal Average: 46.1 % at hour 16

Monthly Average: 63.87 %

Percentiles: P_1 = 28.0 P_{10} = 38.2 Q_1 = 48.7 Median = 63.4 Q_3 = 80.4 P_{90} = 91.4 P_{99} = 99.0

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

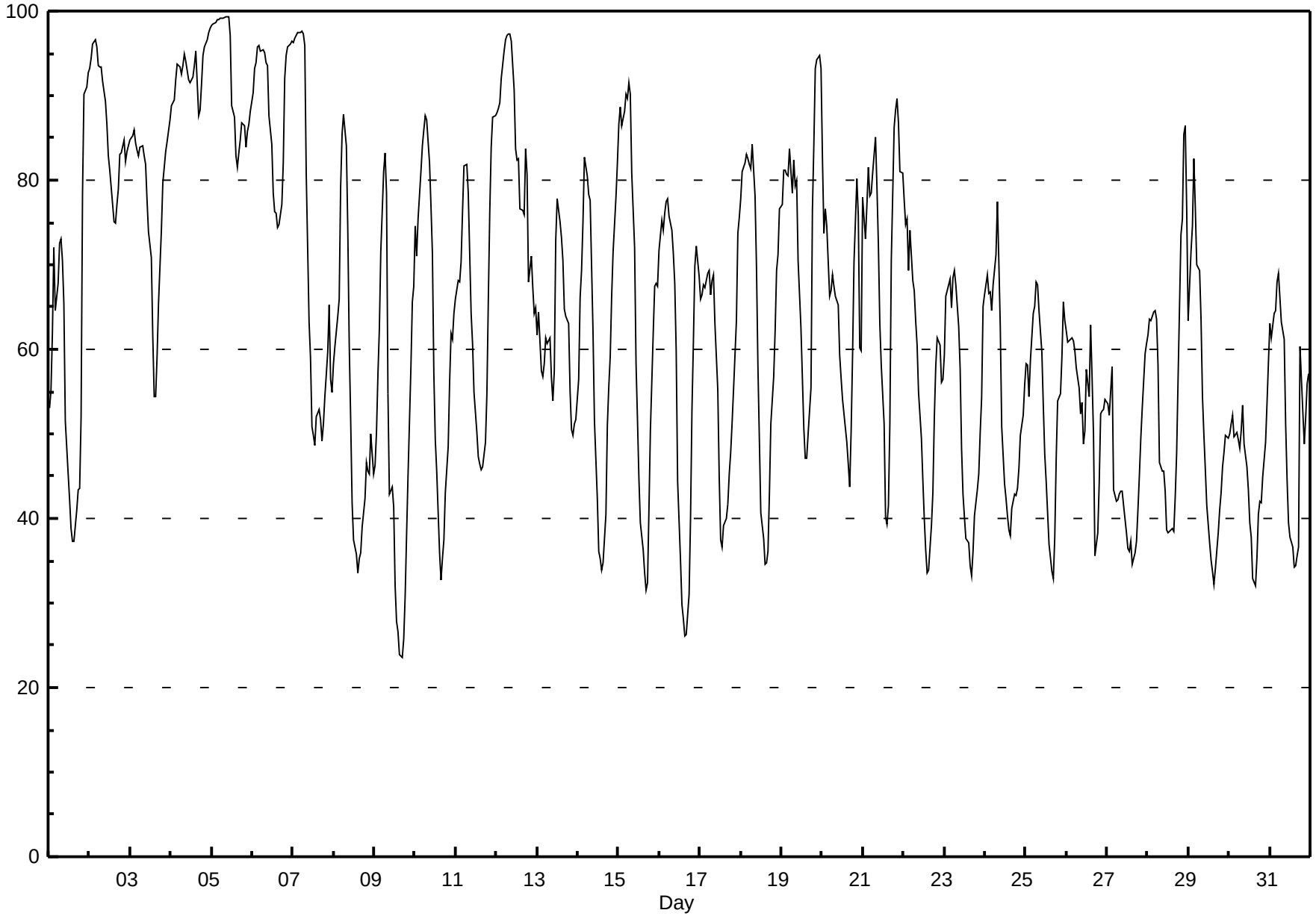
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	53	55	62	72	65	68	72	73	71	65	52	45	42	39	37	37	41	43	44	52	78	90	91	93	60.0	92.6
2-Oct	93	94	96	97	96	94	93	93	92	89	87	83	81	79	75	75	77	79	83	83	85	82	83	84	86.4	96.6
3-Oct	85	85	86	84	84	83	84	84	83	82	78	74	71	62	54	54	59	65	74	80	82	83	85	87	77.0	87.2
4-Oct	89	89	89	92	94	93	93	94	95	94	92	92	92	92	94	95	88	88	91	95	96	97	97	98	92.8	98.0
5-Oct	98	99	99	99	99	99	99	99	99	99	99	97	89	87	83	82	83	85	87	86	84	86	87	88	92.2	99.4
6-Oct	90	93	94	96	96	95	95	95	94	94	88	84	78	76	76	74	75	77	82	92	95	96	96	96	88.7	96.4
7-Oct	96	97	97	97	98	98	97	96	81	63	59	51	50	49	52	53	52	49	51	54	60	65	57	55	69.8	97.6
8-Oct	58	60	64	66	79	85	88	84	74	60	52	42	37	36	34	35	36	39	42	47	46	45	50	45	54.4	87.8
9-Oct	46	50	57	62	72	81	83	78	55	43	44	41	32	28	27	24	24	26	31	38	45	58	66	68	49.1	83.3
10-Oct	75	71	75	81	84	86	88	87	82	77	71	57	49	46	36	33	35	37	43	48	56	62	61	64	62.7	87.7
11-Oct	66	68	68	70	76	82	82	79	71	64	61	55	50	47	46	46	46	49	55	66	76	84	88	88	66.0	87.7
12-Oct	88	88	89	92	95	97	97	97	97	97	91	84	82	83	77	77	76	84	81	68	71	67	64	65	83.6	97.3
13-Oct	62	64	57	57	58	61	61	61	57	54	57	73	78	75	73	71	65	64	63	55	50	50	51	52	61.2	77.7
14-Oct	56	66	69	75	83	80	78	78	70	62	52	42	36	35	34	35	41	51	56	59	66	71	78	82	60.7	82.7
15-Oct	87	89	86	88	90	90	91	90	81	72	58	52	45	39	36	34	31	32	41	50	62	67	68	67	64.5	91.5
16-Oct	72	75	74	76	77	78	76	74	71	68	60	44	35	30	28	26	26	31	40	53	61	70	72	69	57.8	77.8
17-Oct	66	66	68	67	69	69	66	68	69	63	55	45	38	37	39	40	42	45	48	51	55	63	74	76	57.5	75.6
18-Oct	78	81	82	83	83	82	81	84	78	70	58	49	41	38	35	35	36	43	51	57	62	69	71	77	63.5	84.2
19-Oct	77	81	81	81	80	84	78	82	79	80	70	63	57	51	47	47	50	55	77	84	93	94	95	93	74.2	94.7
20-Oct	83	74	77	75	66	67	69	67	66	65	59	57	54	52	49	46	44	50	59	70	80	76	60	60	63.6	82.6
21-Oct	78	73	77	82	78	78	81	85	79	72	63	58	51	40	39	42	51	70	86	88	90	87	81	81	71.3	89.7
22-Oct	78	75	75	69	74	68	67	63	60	55	49	45	40	36	34	34	39	43	52	58	61	61	56	56	56.2	77.7
23-Oct	59	66	67	68	65	69	69	68	63	58	48	43	40	38	37	34	33	36	40	43	45	50	54	65	52.5	69.3
24-Oct	66	69	67	67	65	68	71	77	70	63	51	44	42	40	39	38	41	43	43	44	46	50	52	56	54.6	77.4
25-Oct	58	58	54	59	64	65	68	68	65	60	53	48	44	41	37	34	33	38	47	54	55	59	66	63	53.7	67.9
26-Oct	62	61	61	61	61	60	58	55	52	54	49	50	58	54	63	57	50	36	38	44	52	53	53	54	54.0	62.9
27-Oct	54	52	55	58	43	42	42	43	43	43	42	38	36	36	37	35	36	37	41	45	49	53	60	61	45.1	60.8
28-Oct	62	64	63	64	65	63	58	47	46	46	43	39	38	38	39	38	42	48	57	74	75	85	86	77	56.5	86.5
29-Oct	63	72	75	82	77	70	69	64	54	50	46	41	37	35	34	32	34	38	41	43	46	48	50	50	52.1	82.5
30-Oct	50	51	52	50	50	49	48	50	53	49	46	43	40	38	33	32	36	41	42	42	45	49	54	58	45.9	58.4
31-Oct	63	61	64	65	68	69	66	63	61	51	45	39	38	37	34	34	36	37	60	53	49	52	56	57	52.4	68.9
	71.3	72.5	73.6	75.3	75.9	76.6	76.5	75.7	71.4	66.5	60.6	55.4	51.7	48.8	47.0	46.1	47.0	50.3	56.3	60.6	65.1	68.5	69.7	70.5	Diurnal Average	
	98.3	98.6	98.7	99.0	99.1	99.1	99.1	99.2	99.4	99.4	99.3	97.1	91.9	92.2	93.6	95.3	87.6	88.4	91.3	94.7	95.8	96.7	97.4	98.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - October 2011



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - October 2011

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	2	4	3	3	2	2	2	2	1	1	1	1	3	3	2	2	2	3	3	3	4	4	3	2	1.6	4.3
Dir	214	246	231	159	181	171	174	180	171	163	168	149	121	126	123	95	81	60	110	137	132	129	107	47	142	246
2 Spd	2	2	2	2	2	1	2	3	4	4	3	1	2	1	2	0	1	1	1	2	2	3	3	2	1.2	4.5
Dir	10	351	26	52	71	118	148	160	160	159	164	174	167	193	229	208	355	68	100	123	128	140	143	142	138	160
3 Spd	3	2	3	3	3	3	4	3	4	3	5	5	4	5	7	6	6	8	8	8	6	6	4	4	4.7	8.3
Dir	145	137	131	130	125	130	129	125	132	142	156	136	150	154	149	150	159	152	150	152	153	165	165	153	147	152
4 Spd	3	3	1	0	0	3	3	0	0	3	2	2	4	5	2	5	1	3	1	2	1	1	4	4	0.4	4.8
Dir	163	160	164	32	290	158	162	53	134	310	126	1	344	336	72	102	81	278	316	327	198	322	357	40	34	102
5 Spd	2	1	2	3	3	2	1	2	4	4	5	5	4	6	6	8	8	7	8	6	7	4	3	2	3.7	8.1
Dir	1	279	293	283	10	48	104	24	41	63	56	38	14	6	7	17	4	360	4	19	31	55	57	69	20	4
6 Spd	2	2	3	4	2	3	3	1	2	2	1	2	1	3	4	2	2	1	1	0	1	1	1	0	0.6	4.5
Dir	54	344	318	353	349	338	345	48	302	341	359	169	176	257	258	220	153	151	114	199	196	225	175	213	305	258
7 Spd	1	1	1	1	1	2	3	2	4	14	15	17	16	20	20	16	13	8	5	3	2	3	8	6	6.6	19.7
Dir	203	220	189	182	185	171	167	177	253	273	282	296	293	294	305	302	294	293	271	242	220	223	258	259	282	305
8 Spd	8	8	5	4	3	2	1	2	3	3	3	3	3	4	4	4	5	5	5	5	5	2	1	4	2.7	7.9
Dir	259	254	246	236	152	156	170	169	161	165	151	150	164	141	150	143	132	131	131	140	153	163	195	180	172	254
9 Spd	4	2	1	0	1	1	1	2	7	10	7	6	14	16	14	15	15	9	4	2	2	2	0	1	4.9	16.1
Dir	163	171	194	290	340	184	169	91	234	233	227	215	243	253	271	255	254	265	285	221	211	177	160	181	244	253
10 Spd	1	1	1	0	1	0	1	1	1	1	2	1	1	2	7	9	6	3	3	4	5	4	3	2	0.5	8.9
Dir	178	188	194	218	271	258	187	175	332	186	263	183	202	26	134	132	125	79	56	351	345	341	329	359	92	132
11 Spd	1	2	2	2	1	0	0	1	3	3	5	4	4	5	6	5	5	4	2	0	1	1	1	1	1.0	5.8
Dir	349	28	351	32	6	306	296	192	172	188	231	216	229	270	304	319	339	0	5	255	161	225	167	219	287	304
12 Spd	0	2	1	1	1	1	0	2	1	2	3	4	3	2	2	1	5	2	2	8	10	10	8	4	2.1	10.1
Dir	29	160	175	164	91	184	53	158	164	176	164	167	165	203	12	48	262	224	252	264	257	259	250	232	232	259
13 Spd	9	3	7	9	7	7	6	1	3	15	16	16	15	15	15	13	10	5	4	9	10	5	3	4	8.2	16.4
Dir	248	228	253	245	252	248	249	184	244	277	289	280	272	269	268	255	257	241	247	271	276	270	182	238	263	289
14 Spd	2	2	3	1	2	2	3	3	4	4	4	4	9	9	8	11	9	4	3	5	2	1	0	2	2.6	10.9
Dir	184	158	184	176	170	171	172	173	166	169	177	186	268	299	256	264	285	289	251	254	187	152	96	170	235	264
15 Spd	2	2	2	2	2	1	2	2	2	2	4	6	7	6	4	6	4	2	1	1	1	2	2	2	1.8	7.2
Dir	164	140	176	167	152	154	150	153	149	161	260	287	285	273	221	235	238	234	178	197	169	181	195	199	223	285
16 Spd	2	2	2	3	3	2	4	2	1	2	3	4	3	5	6	3	3	2	1	2	2	2	1	2	1.8	6.1
Dir	201	197	200	193	190	192	180	184	176	184	185	172	160	272	265	246	326	349	147	187	165	165	164	196	205	265
17 Spd	3	3	2	2	2	2	2	1	1	3	4	3	7	12	17	13	15	7	2	4	2	1	1	2	3.7	17.0
Dir	200	200	197	198	201	192	182	149	168	184	179	155	268	275	266	264	271	265	247	257	218	198	201	206	247	266
18 Spd	2	3	3	3	3	3	2	1	3	3	6	7	6	6	6	4	3	2	0	1	2	1	1	3	2.9	7.0
Dir	215	209	195	198	193	192	202	176	181	176	171	175	177	166	176	170	183	285	143	154	180	127	172	173	181	175
19 Spd	2	2	3	3	1	2	2	1	1	1	1	2	0	2	1	1	2	5	11	14	7	2	2	2	1.4	14.3
Dir	193	194	199	194	207	183	228	223	12	315	211	205	189	230	176	125	328	331	324	322	307	176	190	196	278	322
20 Spd	7	8	5	3	7	9	9	10	4	4	8	9	9	7	5	4	3	3	1	1	2	2	5	3	4.7	10.0
Dir	272	278	248	240	260	267	270	272	272	264	293	309	320	302	279	303	270	345	174	210	167	209	261	232	277	272
21 Spd	2	3	2	2	2	2	1	0	0	3	4	3	3	4	7	5	5	9	4	2	4	5	5	4	3.2	8.8
Dir	162	191	168	170	178	173	191	51	155	158	169	138	131	157	166	142	138	158	142	196	190	177	176	171	163	158
22 Spd	3	4	3	5	4	4	5	11	11	9	12	15	18	14	14	10	8	2	1	1	2	2	3	9	5.5	17.5
Dir	188	202	201	219	186	222	226	244	247	259	268	282	278	283	291	316	338	19	179	185	263	191	229	244	264	278

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - October 2011

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
23 Spd	5	4	4	4	4	4	4	4	5	4	7	15	15	18	13	10	12	5	6	5	3	3	3	2	4.8	18.5
Dir	225	187	179	182	196	175	162	174	183	191	247	276	279	287	308	290	282	267	247	244	227	217	228	197	254	287
24 Spd	2	3	3	3	3	3	3	3	2	4	5	14	15	14	14	12	7	3	10	9	11	8	6	2	5.0	15.0
Dir	188	159	169	175	181	194	190	166	176	164	249	285	288	295	284	300	306	286	276	279	275	258	258	221	269	288
25 Spd	2	5	9	8	3	8	6	13	7	9	16	15	14	12	12	9	5	1	2	2	3	2	2	2	6.2	16.1
Dir	209	254	268	258	253	278	262	271	277	279	283	290	288	286	272	267	282	179	190	199	198	181	178	186	270	283
26 Spd	4	5	4	4	4	5	5	6	7	5	5	4	5	10	10	7	2	19	22	18	16	15	14	11	6.3	21.7
Dir	179	172	179	184	184	176	174	176	175	177	164	196	184	168	172	175	214	277	267	263	255	256	252	243	225	267
27 Spd	11	7	3	3	18	23	22	21	18	21	23	22	21	19	16	17	12	10	9	9	5	2	3	3	12.4	23.4
Dir	248	238	201	184	266	272	278	276	265	267	274	279	287	284	287	285	292	285	265	267	244	191	160	173	272	274
28 Spd	3	2	3	2	1	1	2	7	3	5	4	8	7	5	5	4	2	3	5	2	9	3	3	5	3.2	8.5
Dir	172	187	181	157	158	151	144	172	157	155	160	174	171	174	176	169	159	182	181	197	296	271	214	239	183	296
29 Spd	6	3	3	3	3	3	2	5	13	17	20	20	22	21	18	16	9	6	4	3	2	2	3	5	7.4	21.6
Dir	253	185	195	186	184	193	200	242	271	274	277	283	276	283	269	271	263	239	210	185	197	192	179	175	261	276
30 Spd	5	6	7	7	4	5	5	5	5	6	8	7	10	16	23	22	22	14	12	12	11	11	4	2	6.9	23.1
Dir	175	172	170	172	184	179	174	181	191	174	171	179	234	260	274	275	277	278	284	275	259	242	216	155	242	274
31 Spd	3	3	3	3	3	2	4	4	3	11	18	22	21	23	22	22	24	22	13	12	20	17	14	14	11.4	23.8
Dir	145	230	173	194	203	173	193	191	183	272	273	276	279	280	287	284	277	275	290	276	282	278	277	285	274	277
Spd	2.1	2.1	2.2	2.0	1.8	2.1	2.1	2.3	2.5	3.6	4.6	5.1	6.3	7.0	6.5	5.3	4.9	3.3	2.5	3.1	3.0	2.6	2.2	2.2	Diurnal Average	
Dir	215	211	209	203	218	221	217	220	223	241	252	265	269	273	269	270	276	274	265	262	255	234	231	221		
Spd	10.5	8.3	9.0	8.8	18.0	22.6	22.0	21.0	17.8	21.4	23.4	22.1	21.6	23.3	23.1	22.2	23.8	21.7	21.7	18.3	19.9	17.2	14.4	14.4	Diurnal Maximum	
Dir	248	278	268	245	266	272	278	276	265	267	274	279	276	280	274	275	277	275	267	263	282	278	252	285		

Maximum Speed Value: 24 ppb on Oct 31 17:00
Minimum Speed Value: 0 ppb on Oct 4 09:00
Maximum Daily Speed Average: 12.4 ppb on Oct 27
Minimum Daily Speed Average: 0.4 ppb on Oct 6
Maximum Diurnal Speed Average: 7.0 ppb at hour 14
Minimum Diurnal Speed Average: 1.8 ppb at hour 5

Monthly Average Velocity: 3.11 ppb 251.0 deg
Speed Percentiles: P_1 = 0.3 P_{10} = 1.2 Q_1 = 2.0 Median = 3.4 Q_3 = 6.6 P_{90} = 13.5 P_{99} = 22.1
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

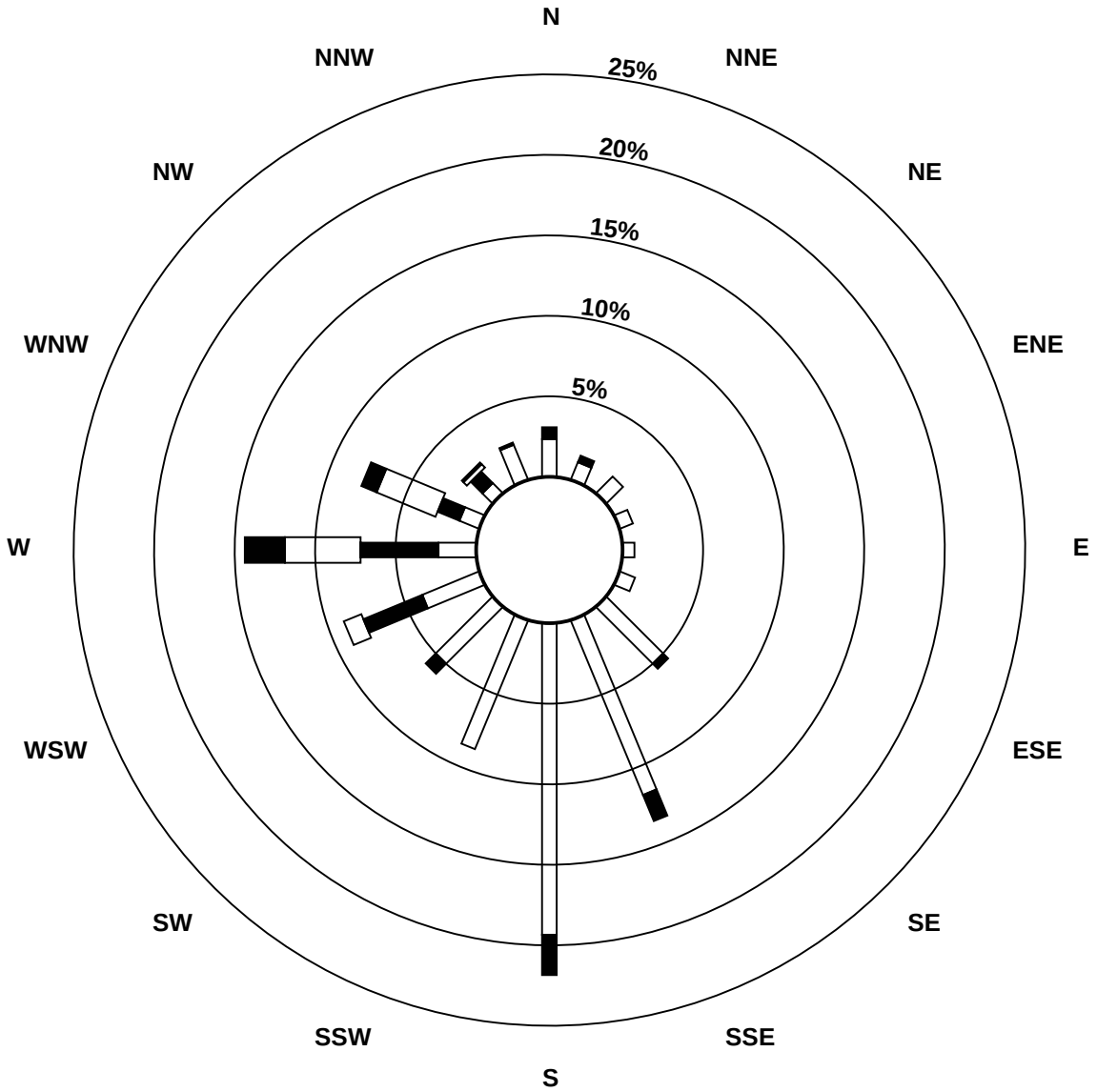
Frequency Distribution

Direction	Speed Range (ppb) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	32	8	0	0	0	0	40
NorthEast	25	1	0	0	0	0	26
East	16	0	0	0	0	0	16
SouthEast	69	14	0	0	0	0	83
South	241	34	0	0	0	0	275
SouthWest	65	21	1	0	0	0	87
West	32	60	60	25	0	0	177
NorthWest	18	12	8	2	0	0	40
Total	498	150	69	27	0	0	744

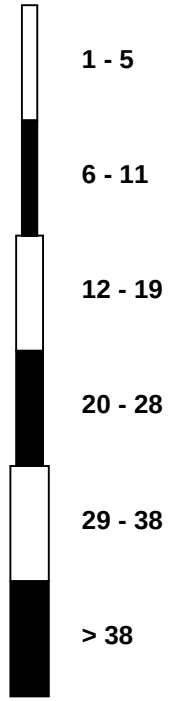
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - October 2011



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - October 2011

Maximum Speed: 24 km/h on Oct 31 17:00

Maximum Daily Speed Average: 13.6 km/h on Oct 27

Minimum Speed: 1 km/h on Oct 11 20:00

Minimum Daily Speed Average: 2.1 km/h on Oct 6

Maximum Diurnal Speed Average: 9.9 km/h at hour 15

Minimum Diurnal Speed Average: 3.2 km/h at hour 4

Monthly Average Speed: 5.58 km/h

Percentiles: P_1 = 0.7 P_{10} = 1.5 Q_1 = 2.2 Median = 3.7 Q_3 = 7.0 P_{90} = 14.0 P_{99} = 22.4

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	2	4	3	3	2	2	2	2	1	2	2	2	3	4	2	3	2	4	4	3	4	4	3	2	2.7	4.5
2-Oct	3	2	2	2	2	2	2	3	5	4	3	1	2	2	2	1	2	1	1	2	2	3	3	2	2.2	4.5
3-Oct	3	2	3	3	3	4	4	3	4	3	5	5	4	5	8	6	6	8	8	8	7	7	4	4	4.9	8.5
4-Oct	4	3	1	1	1	3	3	2	2	4	3	3	4	5	3	5	4	3	1	3	1	2	4	4	2.8	5.5
5-Oct	2	1	3	3	3	3	1	2	4	4	5	5	4	6	6	8	8	7	8	6	7	4	4	2	4.4	8.3
6-Oct	2	2	3	4	2	3	3	1	2	2	1	2	2	3	5	3	2	1	1	1	1	1	1	1	2.1	4.9
7-Oct	1	1	1	1	2	2	3	2	5	15	15	18	17	20	20	17	13	8	5	3	2	3	8	6	7.7	20.4
8-Oct	8	8	6	5	3	2	2	2	3	3	3	4	4	4	5	4	5	5	5	5	5	3	2	5	4.2	8.0
9-Oct	4	2	1	1	2	2	2	3	8	10	8	6	14	17	14	16	15	9	5	2	2	2	2	2	6.2	16.6
10-Oct	1	1	1	1	1	1	1	1	1	1	2	2	2	3	7	9	6	3	3	4	5	4	3	3	2.8	9.0
11-Oct	2	2	2	3	1	1	1	2	3	3	5	5	5	5	7	5	5	4	2	1	1	1	1	1	2.8	6.7
12-Oct	1	2	1	2	2	2	1	2	1	2	4	4	3	3	3	2	6	2	2	8	10	10	8	4	3.5	10.2
13-Oct	9	3	7	9	7	7	6	2	3	15	17	17	15	15	15	13	11	5	4	9	11	7	3	5	9.0	16.9
14-Oct	2	2	3	1	2	2	3	3	4	4	5	5	10	10	9	11	10	5	3	5	2	1	2	2	4.4	11.5
15-Oct	2	2	2	2	2	2	2	2	2	2	4	7	8	7	6	7	5	2	1	1	1	2	2	3	3.1	7.9
16-Oct	2	2	3	3	3	2	4	2	1	2	3	4	3	6	6	3	3	2	1	2	2	2	2	3	2.8	6.4
17-Oct	3	3	2	2	2	2	2	1	1	3	4	3	9	12	17	14	15	7	3	4	2	2	1	2	4.9	17.4
18-Oct	3	3	3	3	3	3	2	2	3	3	6	7	6	6	6	4	3	3	2	2	2	2	1	3	3.3	7.1
19-Oct	2	3	3	3	1	2	2	2	1	1	1	2	1	3	2	1	3	5	11	15	7	3	2	2	3.2	14.7
20-Oct	8	8	5	3	7	9	9	10	4	4	9	10	9	7	6	5	4	4	1	1	2	2	5	4	5.7	10.3
21-Oct	2	3	2	2	2	2	1	1	1	3	4	3	3	5	7	5	5	9	4	3	4	5	5	4	3.6	9.0
22-Oct	3	4	3	5	4	4	5	11	11	9	13	15	18	15	14	10	8	2	1	1	2	2	3	9	7.2	17.8
23-Oct	5	4	4	4	4	4	4	4	5	4	8	15	15	19	13	10	12	5	6	6	3	3	3	2	6.8	18.8
24-Oct	2	3	3	3	3	3	3	3	3	4	7	15	15	14	14	13	7	4	10	10	11	8	6	2	6.8	15.4
25-Oct	2	5	9	8	4	8	6	13	8	9	16	15	14	12	13	9	6	1	2	2	3	2	2	2	7.1	16.3
26-Oct	4	5	4	4	4	5	5	6	7	6	6	5	5	10	10	7	4	19	22	19	16	16	15	11	8.8	21.9
27-Oct	11	7	4	4	18	23	22	21	18	22	24	22	22	20	17	17	13	10	9	9	5	3	3	3	13.6	23.7
28-Oct	3	2	3	2	2	2	2	7	4	6	5	8	7	5	5	5	5	4	5	3	9	5	3	5	4.5	8.9
29-Oct	6	3	3	3	3	3	2	6	13	18	21	20	22	21	19	17	10	6	4	3	2	2	3	5	9.0	22.0
30-Oct	5	6	7	7	4	5	5	6	5	6	8	8	11	17	24	22	22	14	12	12	12	11	6	2	9.8	23.5
31-Oct	4	3	3	3	3	2	4	4	3	12	18	22	21	24	22	22	24	22	14	12	20	17	14	15	12.9	24.0
	3.5	3.4	3.4	3.2	3.3	3.7	3.6	4.2	4.4	6.0	7.6	8.3	9.0	9.8	9.9	8.9	7.8	6.0	5.1	5.3	5.2	4.5	4.0	3.8	Diurnal Average	
	10.6	8.4	9.1	8.8	18.4	22.8	22.2	21.2	18.0	21.7	23.7	22.5	22.0	23.7	23.5	22.5	24.0	21.9	21.9	18.6	20.1	17.3	14.5	14.5	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - October 2011

Maximum Value: 94.1 deg on Oct 4 08:00

Minimum Value: 4.7 deg on Oct 30 02:00

Percentiles: P_1 = 5.6 P_{10} = 8.4 Q_1 = 10.8 Median = 16.7 Q_3 = 31.3 P_{90} = 53.9 P_{99} = 86.9

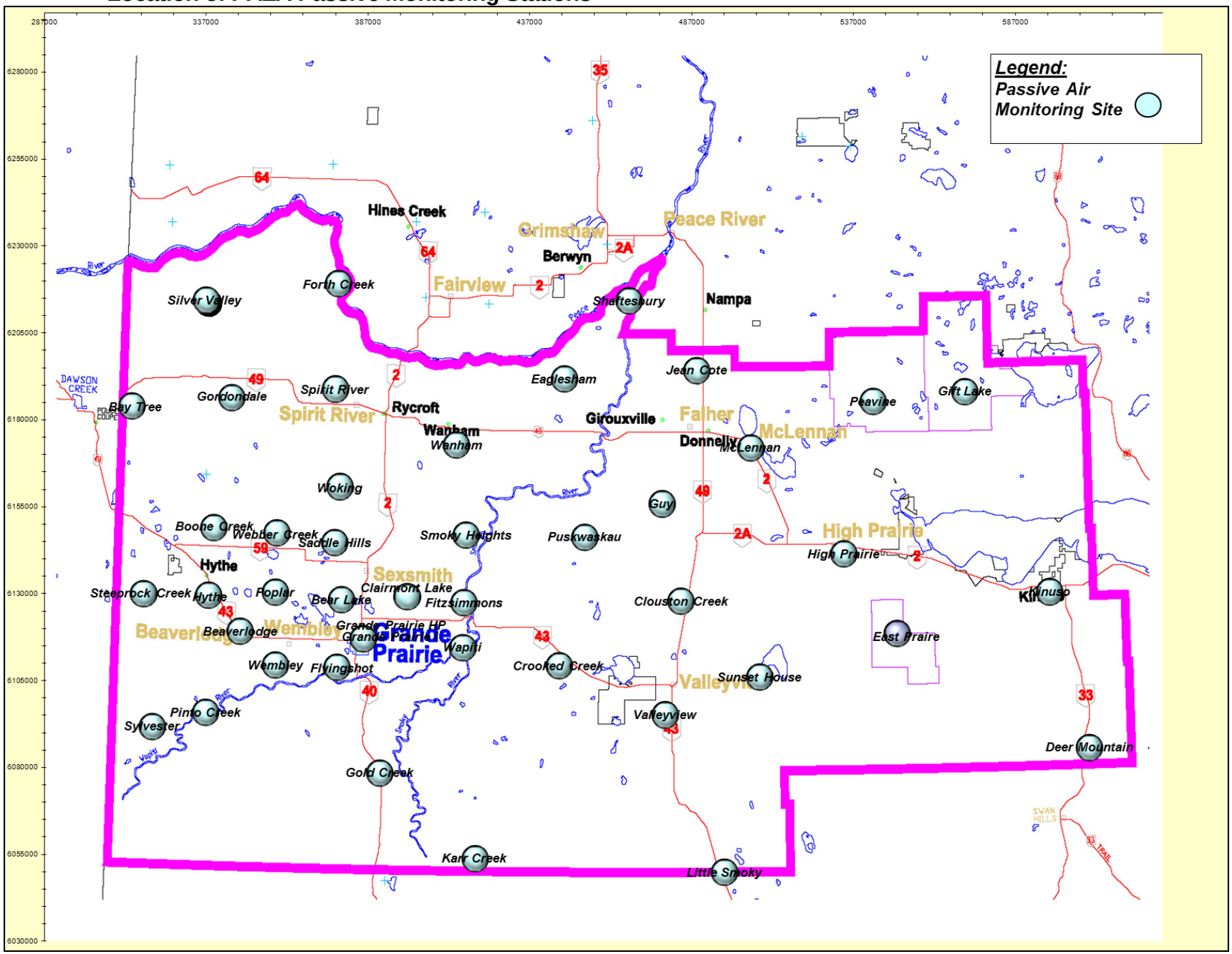
Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	17	21	25	19	26	20	21	22	20	33	49	43	27	33	29	32	26	35	21	20	9	13	26	29	49.0
2-Oct	19	25	18	15	19	26	16	10	10	11	14	43	29	31	46	78	45	38	55	24	18	9	19	14	78.3
3-Oct	13	11	10	14	12	11	13	13	10	12	15	16	17	21	13	16	15	10	10	10	11	9	11	11	21.1
4-Oct	10	11	42	87	91	29	20	94	94	68	63	66	17	19	37	35	80	25	57	70	55	69	15	31	94.1
5-Oct	46	72	53	19	17	28	50	33	24	27	25	19	22	12	14	14	13	11	7	14	12	27	23	32	71.6
6-Oct	47	17	15	25	26	14	21	89	39	36	89	28	50	37	30	40	23	40	40	38	43	44	31	59	89.1
7-Oct	57	46	13	27	30	24	9	12	41	8	10	13	14	16	12	11	10	11	13	16	14	15	14	9	57.1
8-Oct	9	12	13	35	8	10	10	9	10	16	22	24	58	37	17	18	9	7	10	10	10	53	75	30	75.5
9-Oct	9	12	52	70	52	71	60	40	33	23	23	25	17	17	11	12	9	10	15	46	35	23	85	17	85.5
10-Oct	33	14	20	81	68	61	28	31	76	88	41	60	78	68	20	10	12	28	9	14	18	14	32	47	87.9
11-Oct	76	29	33	28	39	72	78	58	7	17	36	39	39	28	31	30	17	19	28	82	51	47	61	58	82.3
12-Oct	84	26	30	54	66	30	75	20	23	19	15	20	23	44	52	85	35	37	43	10	7	7	8	15	84.6
13-Oct	7	16	10	8	9	7	41	55	28	14	13	13	11	11	13	14	14	30	32	19	13	60	47	45	59.7
14-Oct	23	20	9	23	12	15	7	6	8	10	14	37	23	31	23	22	19	27	35	15	35	37	87	14	86.8
15-Oct	21	13	16	16	29	32	22	15	7	35	54	24	26	38	40	31	27	19	13	28	60	34	26	8	60.1
16-Oct	10	16	8	12	8	8	8	10	12	15	12	20	41	20	19	41	36	30	52	35	24	22	36	17	52.4
17-Oct	11	12	23	13	9	21	10	71	37	13	13	23	55	15	13	12	13	12	36	20	15	41	35	10	70.8
18-Oct	19	11	14	14	6	10	23	46	15	11	8	9	14	13	13	12	16	51	85	58	30	86	64	23	86.1
19-Oct	13	17	20	9	20	9	29	56	74	33	61	64	94	54	37	64	73	18	13	14	34	41	15	13	93.8
20-Oct	20	11	15	13	11	11	8	14	36	23	14	15	16	24	37	50	54	40	60	68	37	21	11	16	67.9
21-Oct	26	19	7	12	7	6	39	85	75	12	10	22	21	32	11	22	26	14	15	40	21	7	8	9	85.1
22-Oct	7	13	20	31	11	22	19	8	9	11	15	16	11	19	13	14	8	65	32	18	58	28	16	6	64.6
23-Oct	17	12	12	11	12	8	10	8	8	8	33	11	12	10	10	12	9	19	9	9	11	8	12	49	49.2
24-Oct	24	35	27	7	12	6	7	11	23	14	46	12	13	12	16	12	11	23	7	10	10	9	8	22	46.3
25-Oct	14	23	9	10	21	8	11	7	37	24	8	10	13	20	15	15	15	24	26	34	16	20	15	11	37.3
26-Oct	7	6	9	10	10	5	6	8	7	12	30	38	19	10	6	10	50	9	8	11	8	8	6	8	50.0
27-Oct	7	22	40	40	13	8	7	9	9	8	9	10	12	11	13	14	9	11	12	11	28	19	17	10	39.9
28-Oct	13	14	11	25	85	73	59	11	38	11	34	10	8	10	9	23	72	74	19	18	15	51	15	20	85.3
29-Oct	19	28	25	7	8	8	13	19	9	8	8	10	10	10	12	13	21	14	20	14	21	11	14	6	28.2
30-Oct	7	5	5	5	14	13	8	9	7	9	9	10	25	17	11	9	9	9	9	10	15	11	51	23	50.5
31-Oct	30	30	17	17	12	53	20	9	19	14	10	10	12	10	8	8	8	7	30	26	8	7	7	7	52.6
	84.3	71.6	53.4	87.4	91.1	72.7	78.4	94.1	93.8	87.9	89.1	66.3	93.8	67.7	51.6	84.6	80.3	73.9	84.6	82.3	60.1	86.1	86.8	59.3	

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



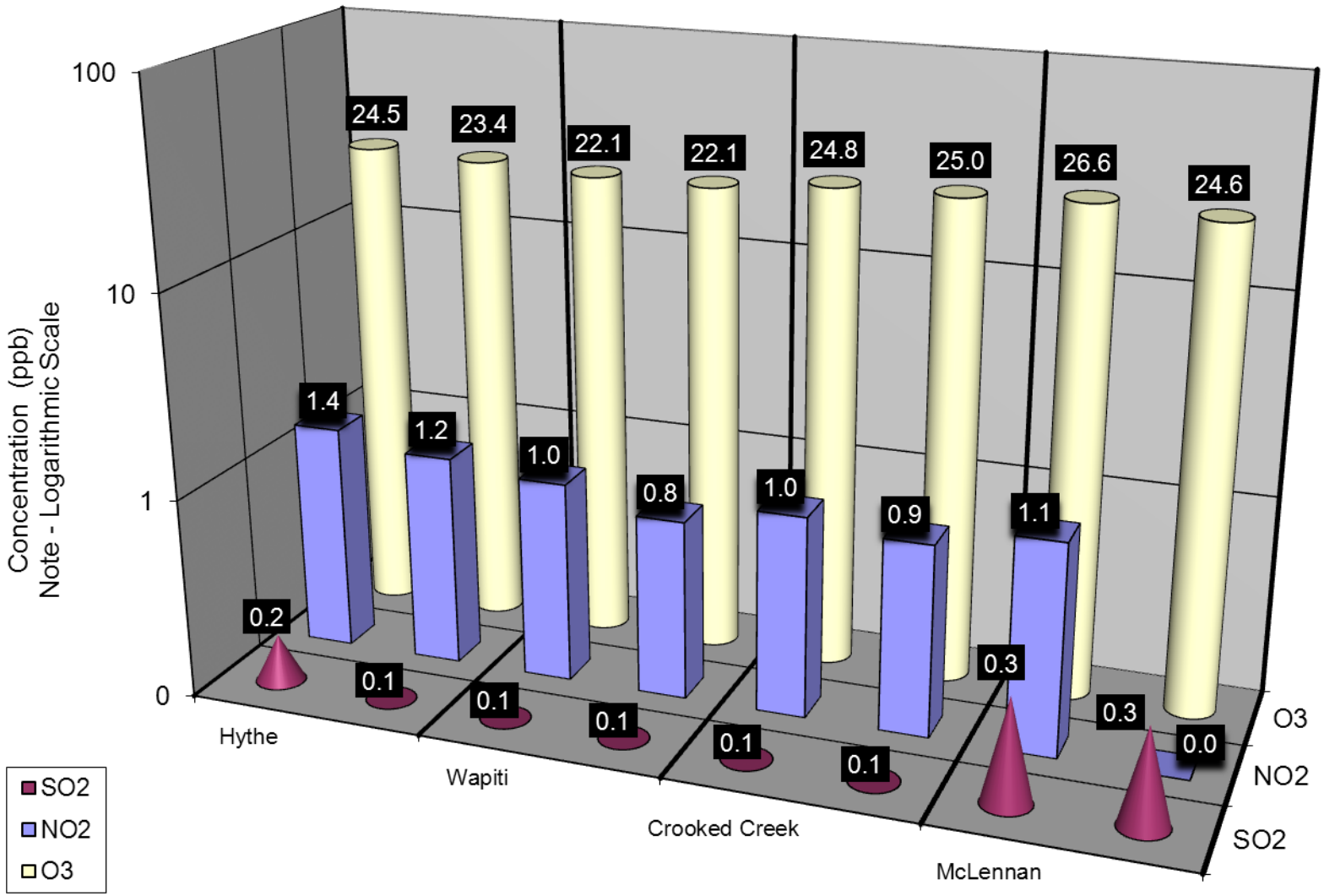
PAZA Passive Results for October 2011

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
Duplicates					
12a	Hythe	**0.2**	**24.5**	**1.4**	
12b	Hythe	**0.1**	**23.4**	**1.2**	
33a	Wapiti	**0.1**	**22.1**	**1.0**	
33b	Wapiti	**0.1**	**22.1**	**0.8**	
37a	Crooked Creek	**0.1**	**24.8**	**1.0**	
37b	Crooked Creek	**0.1**	**25.0**	**0.9**	
40a	McLennan	**0.3**	**26.6**	**1.1**	
40b	McLennan	**0.3**	**24.6**	**BDL**	
1	Silver Valley	**0.2**	**22.2**	**0.9**	08-27-081-11 W6M
2	Bay Tree	**0.1**	**24.2**	**0.6**	13-16-078-13 W6M
3	Fourth Creek	**0.2**	**30.1**	**0.9**	04-13-082-07 W6M
4	Gordondale	**0.1**	**24.0**	**1.3**	04-34-078-10 W6M
5	Boone Creek	**0.2**	**22.4**	**1.3**	16-36-074-11 W6M
7	Steeprock Creek	**0.1**	**28.0**	**0.4**	09-35-072-13 W6M
9	Spirit River	**0.2**	**25.3**	**1.3**	08-12-079-07 W6M
10	Woking	**0.3**	**27.5**	**0.7**	01-13-076-07 W6M
11	Webber Creek	**0.2**	**23.1**	**1.3**	09-36-074-09 W6M
12	Hythe	**0.1**	**24.0**	**1.3**	14-36-072-11 W6M
14	Sylvester	**0.1**	**20.9**	**0.7**	08-06-069-12 W6M
16	Beaverlodge	**0.1**	**28.0**	**1.4**	15-36-071-10 W6M
17	Poplar	**0.2**	**23.5**	**1.0**	13-06-073-08 W6M
18	Saddle Hills	**0.2**	**23.0**	**1.1**	04-25-074-07 W6M
19	Wanham	**0.3**	**31.3**	**0.8**	16-22-077-03 W6M
20	Shaftesbury	**0.2**	**24.6**	**0.6**	04-03-082-23 W5M
21	Eaglesham	**0.1**	**17.4**	**Damaged**	16-21-079-25 W5M
23	Bear Lake	**0.1**	**21.9**	**1.7**	15-31-072-06 W6M

PAZA Passive Results for October 2011 (Continued)

24	Wembley	**BDL**	**21.3**	**0.9**	12-31-070-08 W6M
25	Pinto Creek	**BDL**	**24.9**	**0.6**	04-24-069-11 W6M
26	Flyingshot	**0.1**	**24.7**	**1.5**	15-36-070-07 W6M
27	Grande Prairie I	**0.1**	**21.4**	**4.3**	08-15-071-06 W6M
28	Clairmont Lake	**0.2**	**24.1**	**1.0**	09-06-073-04 W6M
29	Smoky Heights	**0.3**	**27.5**	**1.0**	04-06-075-02 W6M
30	Fitzsimmons	**0.1**	**20.1**	**1.5**	15-36-072-03 W6M
32	Gold Creek	**0.1**	**17.9**	**1.5**	06-33-067-05 W6M
33	Wapiti	**0.1**	**22.1**	**0.9**	02-25-071-03 W6M
34	Puskwaskau	**BDL**	**21.7**	**0.3**	15-35-074-25 W5M
35	Jean Cote	**0.2**	**21.2**	**1.3**	12-35-079-21 W5M
36	Guy	**0.1**	**23.2**	**1.1**	03-04-076-22 W5M
37	Crooked Creek	**0.1**	**24.9**	**1.0**	16-01-071-26 W5M
38	Karr Creek	**0.0**	**18.2**	**0.8**	10-16-065-02 W6M
39	Clouston Creek	**0.1**	**23.7**	**0.7**	12-01-073-22 W5M
40	McLennan	**0.3**	**25.6**	**1.1**	03-29-077-19 W5M
41	Valleyview	**0.2**	**26.9**	**0.8**	09-30-069-22 W5M
42	Sunset House	**0.1**	**30.7**	**0.6**	05-32-070-19 W5M
43	High Prairie	**0.1**	**23.6**	**0.6**	16-13-074-17 W5M
44	Peavine	**0.1**	**24.2**	**0.3**	03-05-079-15 W5M
45	Gift Lake	**BDL**	**19.3**	**BDL**	10-07-079-12 W5M
46	Little Smoky	**0.2**	**19.2**	**2.1**	12-01-065-21 W5M
47	Kinuso	**0.2**	**21.4**	**BDL**	12-10-073-10 W5M
48	Deer Mountain	**0.1**	**23.5**	**BDL**	15-22-068-09 W5M
49	Grande Prairie HP	**0.1**	**24.3**	**4.5**	17-26-071-06 W6M
50	East Prairie	**0.1**	**22.8**	**0.4**	13-02-072-15 W5M

*BDL = Below Detection Level



Duplicate Summary Chart

Passive Summary for October 2011

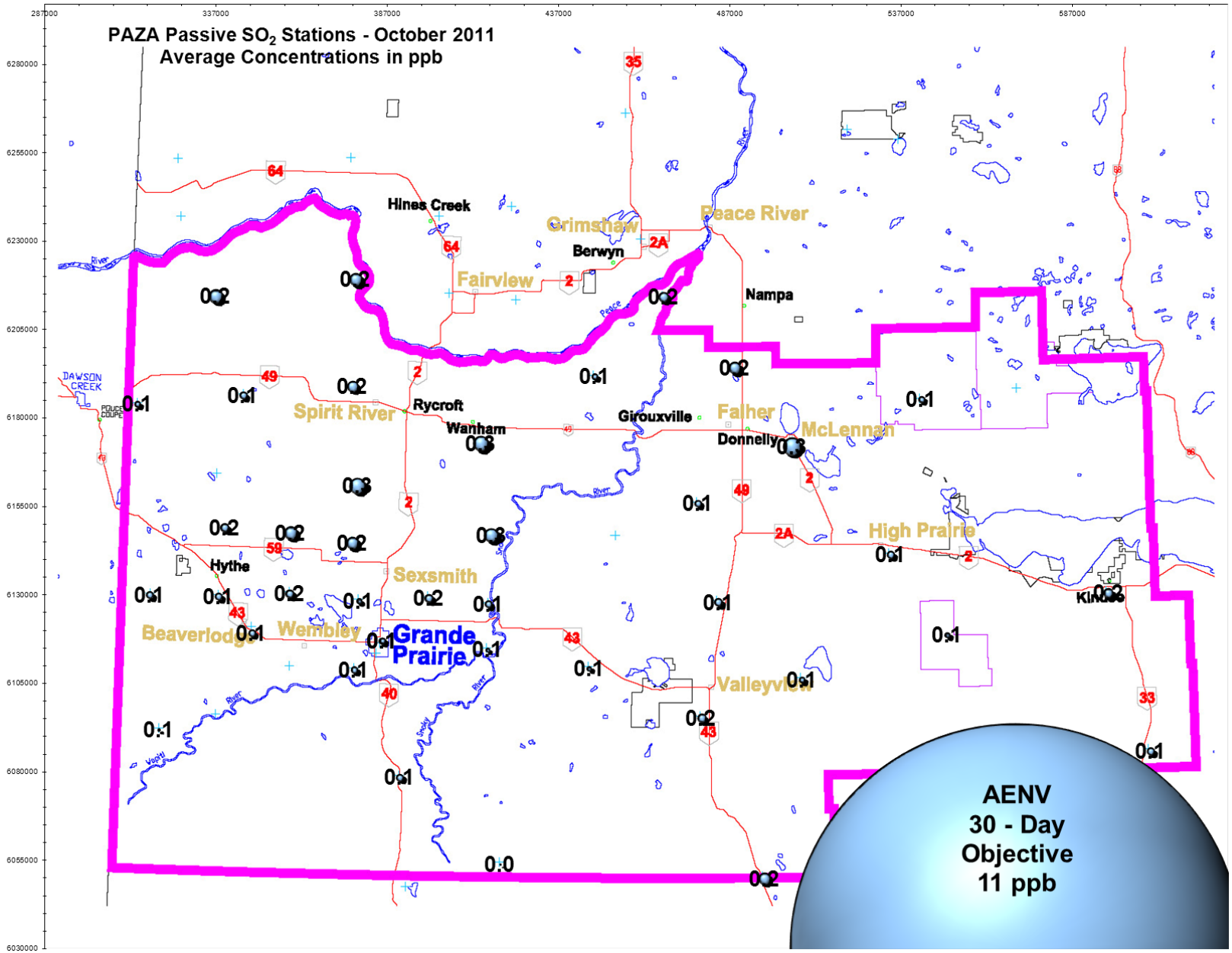
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2
	ppb	ppb	ppb
	Passive Summary for October 2011 (PAZA Zone)		
Mean	**0.2**	**23.7**	**1.2**
Standard Deviation	**0.1**	**3.2**	**0.9**
Minimum	**0.0**	**17.4**	**0.3**
Minimum At	**Karr Creek (#38)**	**Eaglesham (#21)**	**Puskwaskau (#34)**
Maximum	**0.3**	**31.3**	**4.5**
Maximum At	**McLennan (#40)**	**Wanham (#19)**	**Grande Prairie HP**

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

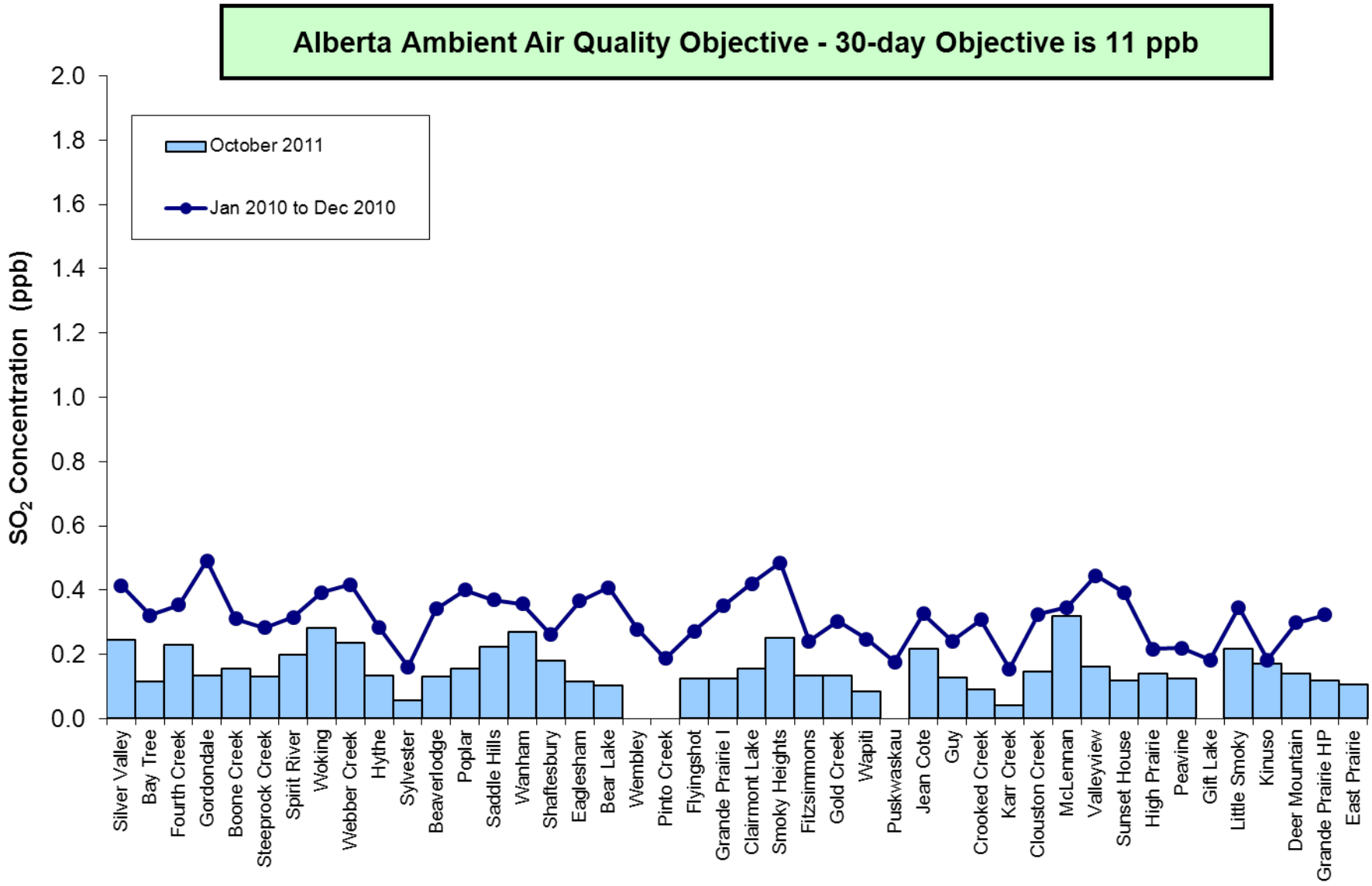
	SO_2	O_3	NO_2
PAZA Beaverlodge station	**0.1**	**26.4**	**2.7**
PAZA Beaverlodge passive	**0.1**	**28.0**	**1.4**

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

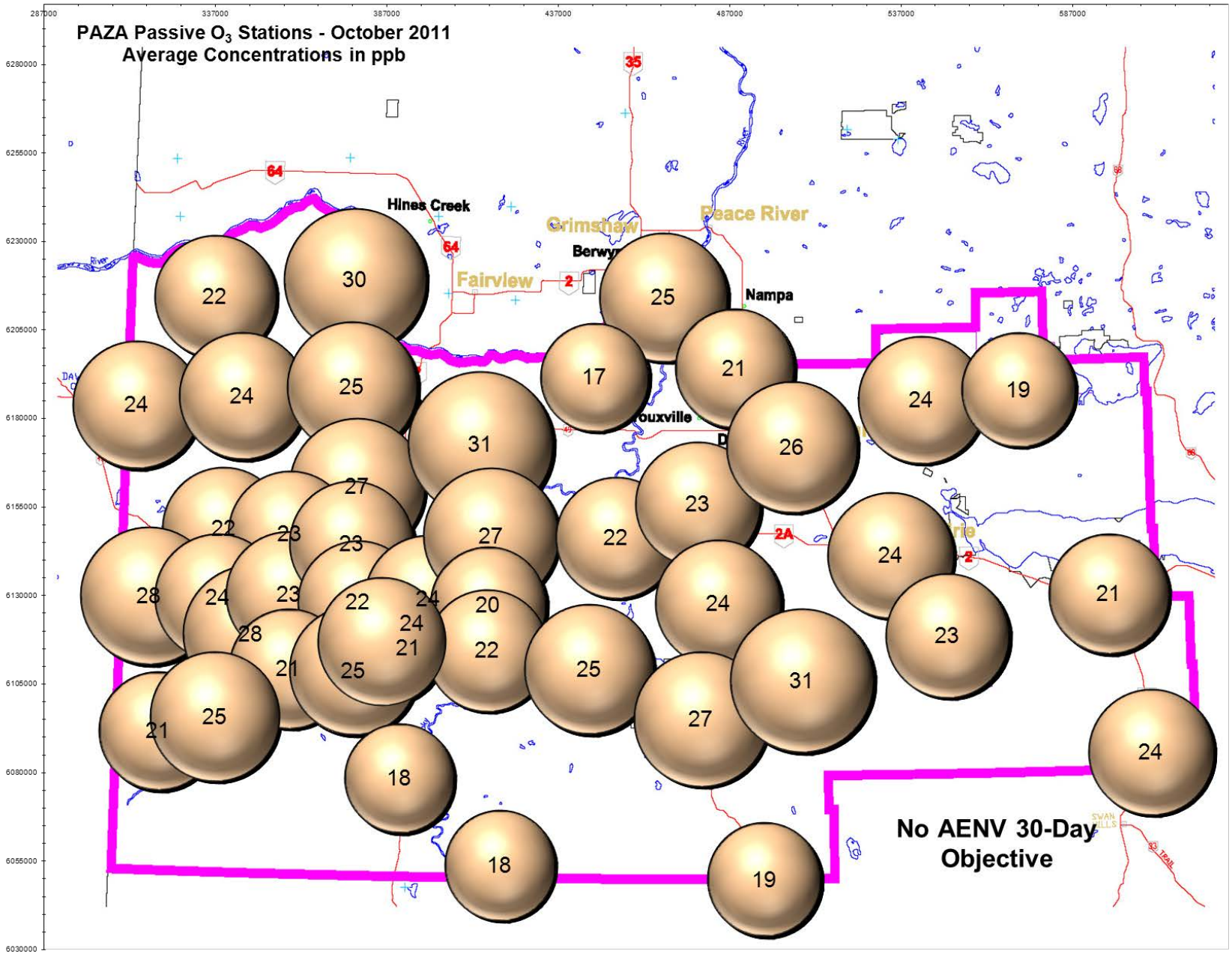
	SO_2	O_3	NO_2
PAZA Henry Pirker station	**0.1**	**20.2**	**8.6**
PAZA Grande Prairie passive	**0.1**	**24.3**	**4.5**



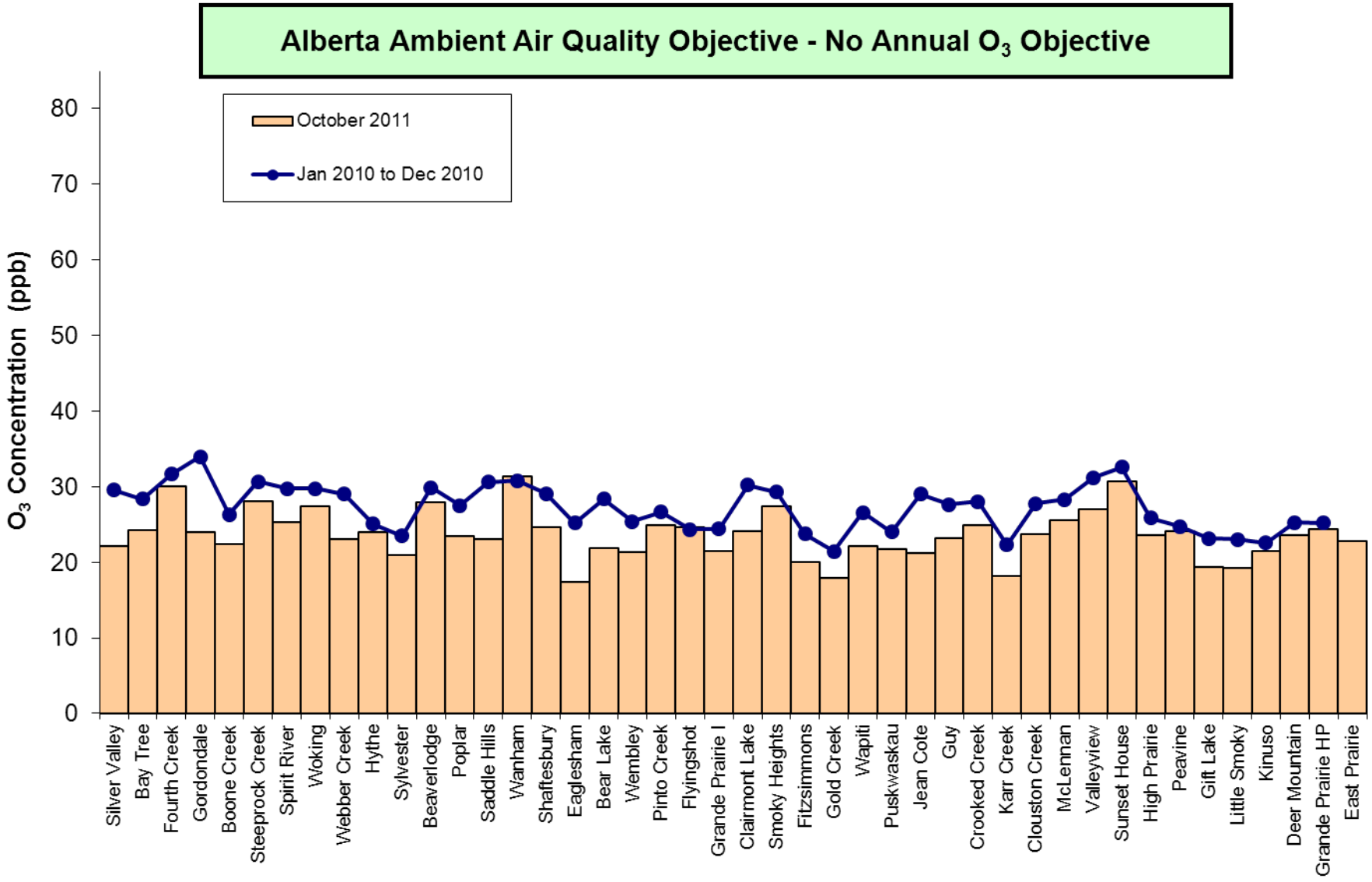
SO_2 Bubble Chart



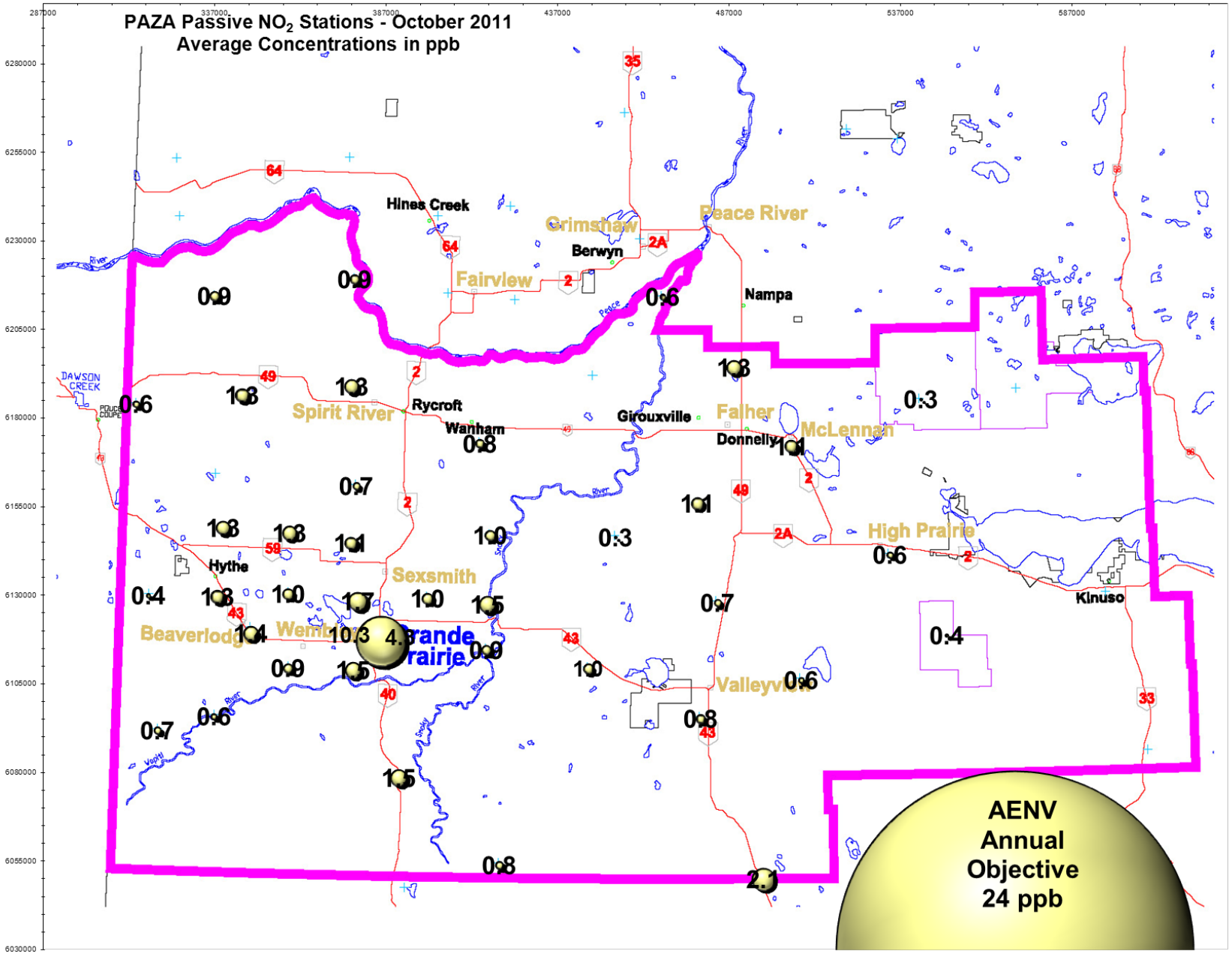
SO_2 Summary Chart



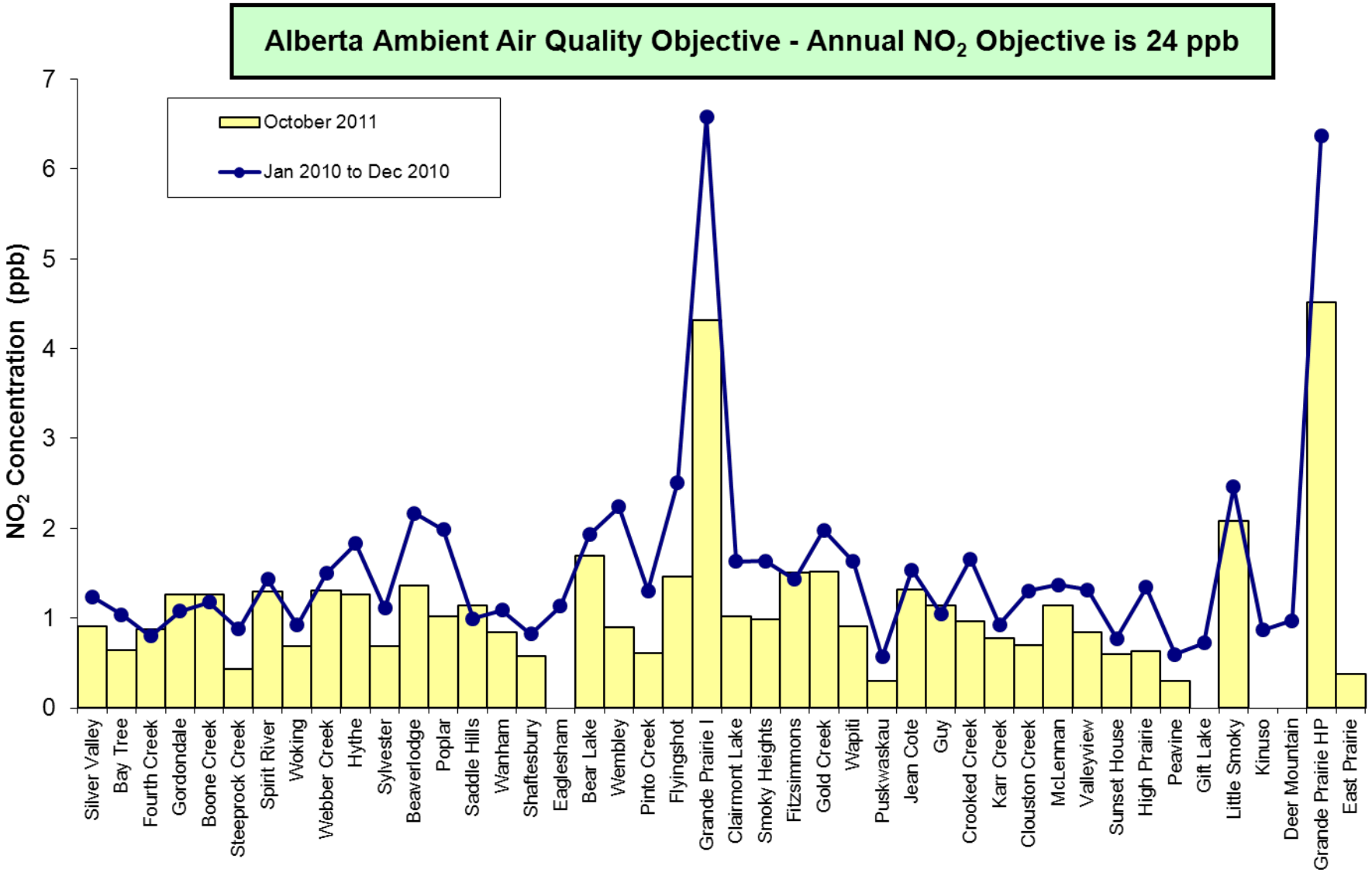
O_3 Bubble Chart



O_3 Summary Chart



NO_2 Bubble Chart



NO_2 Summary Chart

PAZA

ALBERTA ENVIRONMENT
INCIDENCE REPORTS

October 2011

Air Monitoring Directive Exceedence Report

Alberta Environment
Environmental Service Response Centre
111 Twin Atria Building
4999 – 98th Avenue
Edmonton, Alberta T6B 2X3
Phone: (780) 422-4505
Fax: (780) 427-1044

Reference Number:	253134	**Reported To (AENV Contact):**	Stephen
Date & Time Incident Reported to AENV:	October 26, 2011 @ 18:00	**Reported By:**	Steve Prodanuk - Focus
Reported on Behalf of:	PAZA	**Approval Number (if applicable):**	
Location(s) of Incident:	Evergreen Park		
Start Date & Time of Incident:	October 26, 2011 @17:00	**End Date & Time of Incident:**	October 26, 2011 @18:00

Details of Exceedence:

PM 2.5 Hourly Exceedence 17:00 = 92.6 ug/m3,WS 29.9 km/h, WD 268.5 degrees

Immediate Actions Taken:

Called in to AENV.

Follow-up Details:

N/A

Actions Taken to Prevent Reoccurrence (if any):

Not Applicable

Additional Actions Required (if any):

Not applicable

Report Completed By:	Steven Prodanuk	Date Report Submitted:	October 07, 2011
7-Day Letter Due Date:	November 2, 2011		

October 2011 Calibration Reports

PAZA - Henry Pirker Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3, CO, THC, TRS

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

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

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

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

Calibration Report

Parameter **SO2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 13, 2011	Previous Calibration	September 19, 2011
Station Number	1	Station Location	Henry Pirker

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	9:30	End Time (MST)	12:20
Barometric Pressure	0.922 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Conc	49.8 ppm	Cal Gas Cert Date	3/28/2013
		Cal Gas Cylinder #	LL85275
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.998587	Calculated slope	1.001412
Calculated intercept	-1.355977	Calculated intercept	-1.225401

Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.0		9.0	
Coefficient	0.786		0.786	
Pressure	645.1	mm Hg	642.5	mm Hg
Flow	0.493	lpm	0.482	lpm
Lamp Voltage	44089	Hz	43616	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)
4989	0.00	0.0	-0.1	N/A
4989	39.84	394.5	394.6	0.9997
4989	19.91	198.0	199.2	0.9939
4989	9.93	98.9	101.6	0.9733
4989	0.00	0.0	-0.1	As Found Zero
4989	39.84	394.5	398.3	As Found Span
			Average Correction Factor	0.9890

Calculated value of As Found Response: 396.5 ppb Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	248.1	ppb	231.0	ppb

Notes: Span adjusted

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

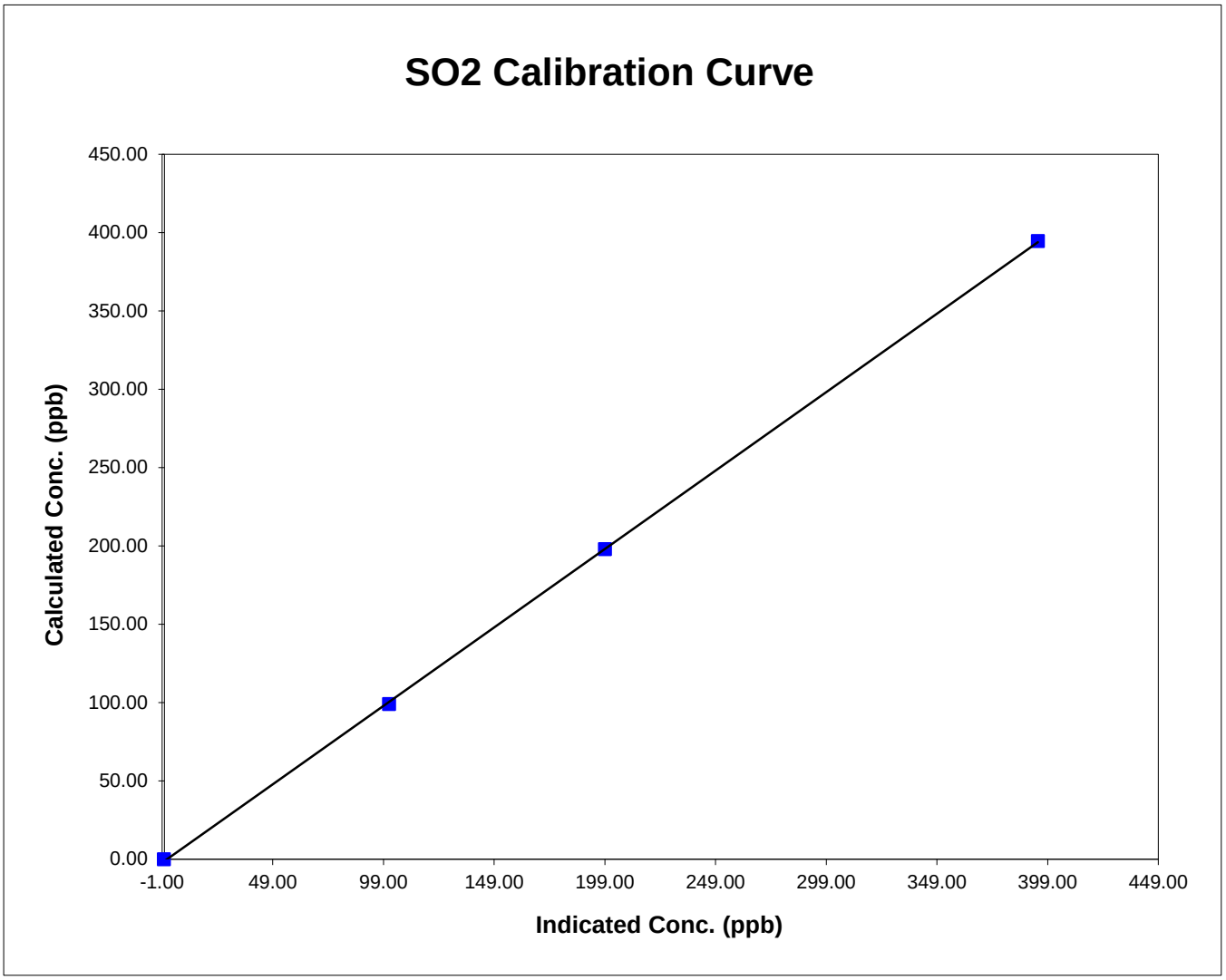
FOCUS AIR QUALITY MONITORING

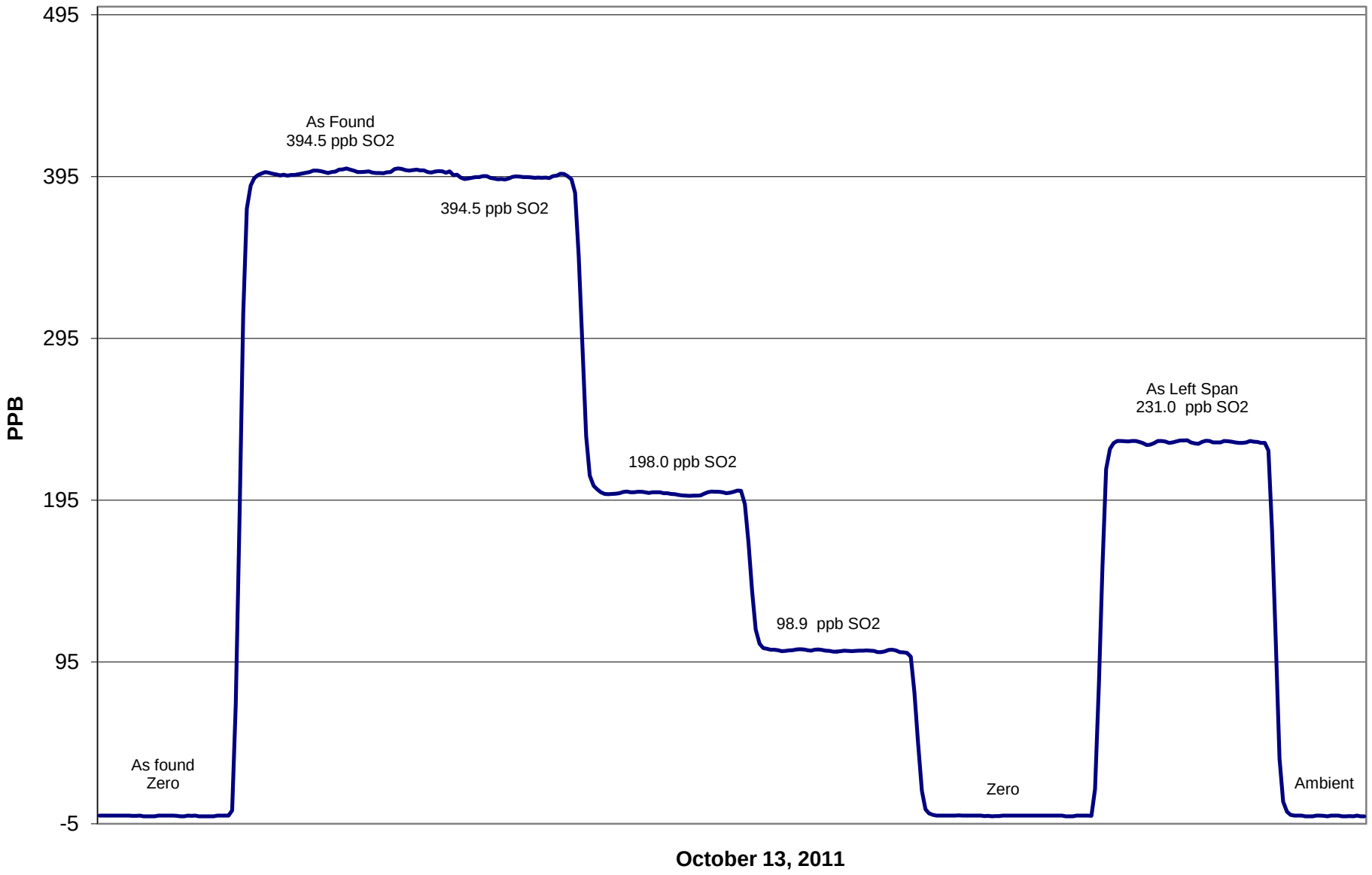
Station Information

Calibration Date	October 13, 2011	Previous Calibration	September 19, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	12:20
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
394.5	394.6	0.9997	Correlation Coefficient	0.999943
198.0	199.2	0.9939		
98.9	101.6	0.9733	Slope	1.001412
			Intercept	-1.225401




SO2 Calibration
495
395
295
195
95
-5
PPB
As Found
394.5 ppb SO2
394.5 ppb SO2
198.0 ppb SO2
98.9 ppb SO2
Zero
As Left Span
231.0 ppb SO2
Ambient
As found
Zero
October 13, 2011

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 13, 2011	Previous Calibration	September 19, 2011
Station Number	1	Station Location	Henry Pirker

Reason: **Routine** Installation Removal Other:

Start Time (MST)	9:20		End Time (MST)	14:44	
Barometric Pressure	0.926	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	3474	
NO Cal Gas Conc	52.5	ppm	Cal Gas Expiry Date	March 28, 2013	
NOx Cal Gas Conc	52.5	ppm	Cal Gas Serial #	LL85275	

DACS Information

DACS make: CR3000 DACS serial No.: 5408

Parameter		NO2	NOx	NO
Before	Data Slope	1.008469	1.003803	1.004286
	Data Offset	0.697069	-3.053327	-2.978236
After	Data Slope	0.995474	1.003261	1.004000
	Data Offset	-0.027494	-2.575438	-2.565750
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model: TEI 42C Analyzer serial #: 508011073

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	10.1	mV	10.1	mV
NOx bkgnd	10.7	mV	10.5	mV
NO coefficient	0.741		0.742	
NOx coefficient	1.001		1.002	
NO2 conv temp	318.0	Deg C	318.0	Deg C
PMT Temp	-2.5	Deg C	-2.5	Deg C
PMT Volt	-786.0	mV	-786.0	mV
R Cell Press	174.2	in Hg	174.9	in Hg

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Calibration Date: October 13, 2011 Station Location: Henry Pirker

	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	4989	0.00	0.0	0.0	0.0	-0.2	0.0	-0.2	N/A	N/A
1	4989	39.84	415.9	415.9	0.0	415.6	415.4	0.1	1.0007	1.0012
2	4989	19.91	208.7	208.7	0.0	212.2	211.8	0.3	0.9834	0.9852
3	4989	9.94	104.4	104.4	0.0	109.2	109.1	0.1	0.9557	0.9570
AFZ	4989	0.00	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0000	0.0000
AFS	4989	39.83	415.8	415.8	0.0	415.6	415.4	0.1	1.0004	1.0011
							Average Correction Factor		0.9799	0.9812

As Found Concentrations: NO_X= 412.7 NO= 412.4 As Found Percent Change NO_X= -0.8% NO= -0.8%

Dilution Flow 4989 ccm Source Gas Flow 39.85 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	0.0	0.0	0.0	-0.2	0.0	-0.2	N/A	N/A	N/A	N/A
NO point	415.4	415.4	0.0	416.2	415.4	0.7	0.9981	1.0000	N/A	N/A
300	415.4	159.8	255.6	416.2	159.8	256.5	0.9981	1.0000	0.9962	100.4%
200	415.4	242.5	172.9	416.4	242.5	173.9	0.9977	1.0000	0.9941	100.6%
100	415.4	322.8	92.6	416.1	322.8	93.3	0.9984	1.0000	0.9929	100.7%
					Average Correction Factor		0.9981	1.0000	0.9944	100.6%

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	0.0	0.0	ppb	0.1	0.1	0.0	ppb
Auto span	168.4	169.5	1.2	ppb	156.8	155.9	1.0	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

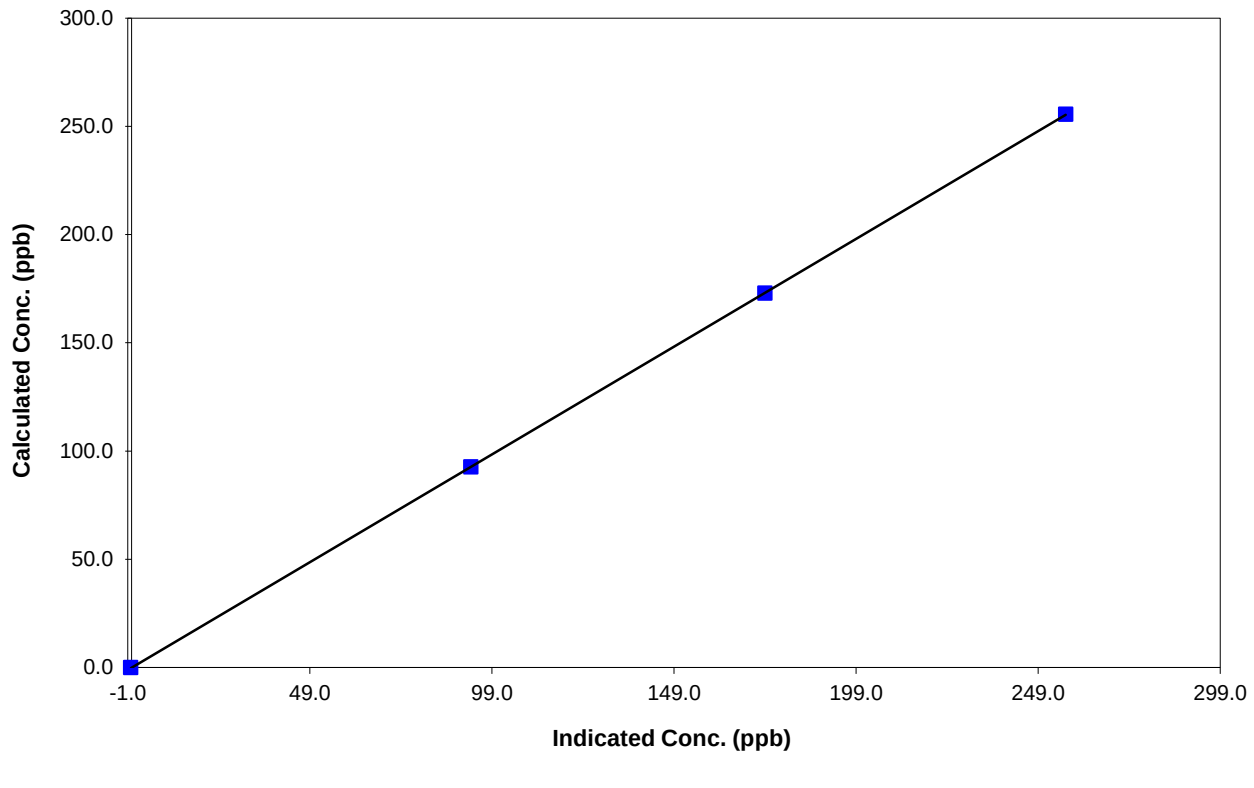
Station Information

Calibration Date	October 13, 2011	Previous Calibration	September 19, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	14:44
Analyzer make	TEI 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
255.6	256.5	0.9962	Correlation Coefficient	0.999995
172.9	173.9	0.9941		
92.6	93.3	0.9929	Slope	0.995474
			Intercept	-0.027494

NO_2 Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

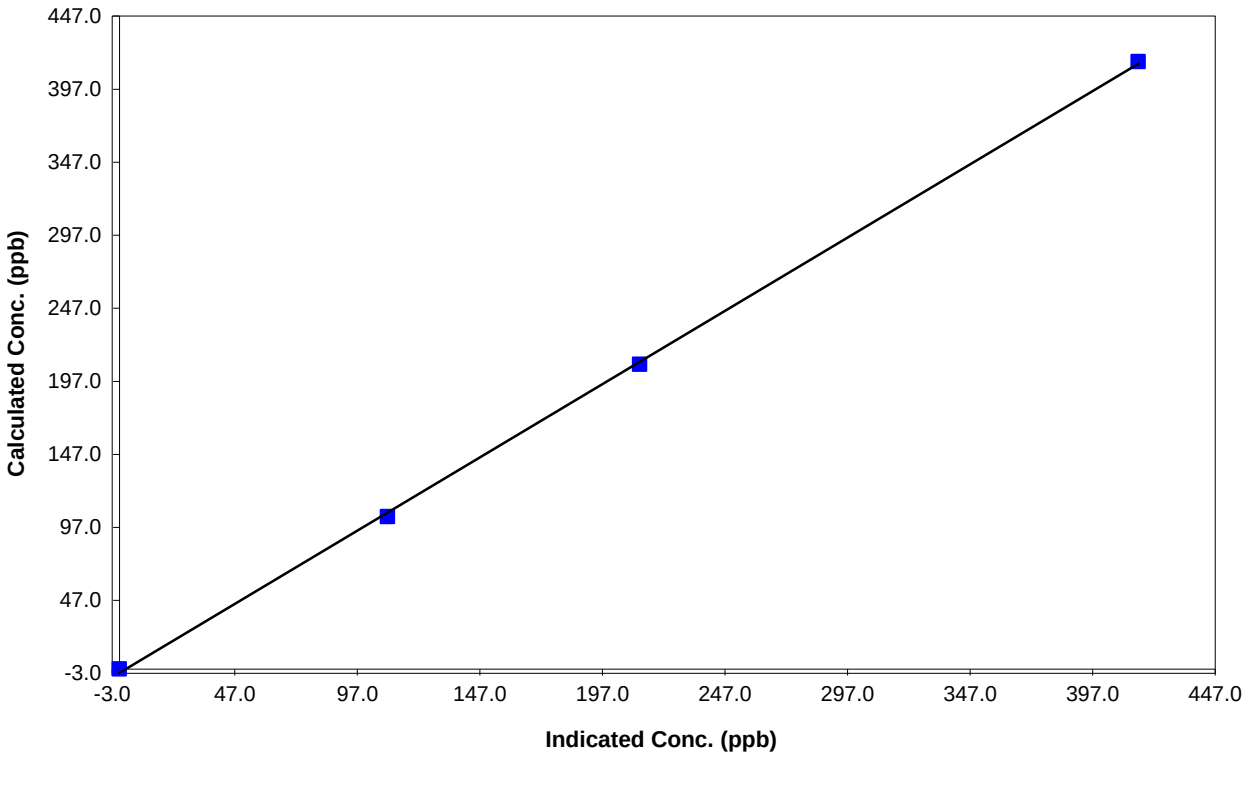
Station Information

Calibration Date	October 13, 2011	Previous Calibration	September 19, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	14:44
Analyzer make	TEI 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
415.9	415.6	1.0007	Correlation Coefficient	0.999795
208.7	212.2	0.9834		
104.4	109.2	0.9557	Slope	1.003261
			Intercept	-2.575438

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

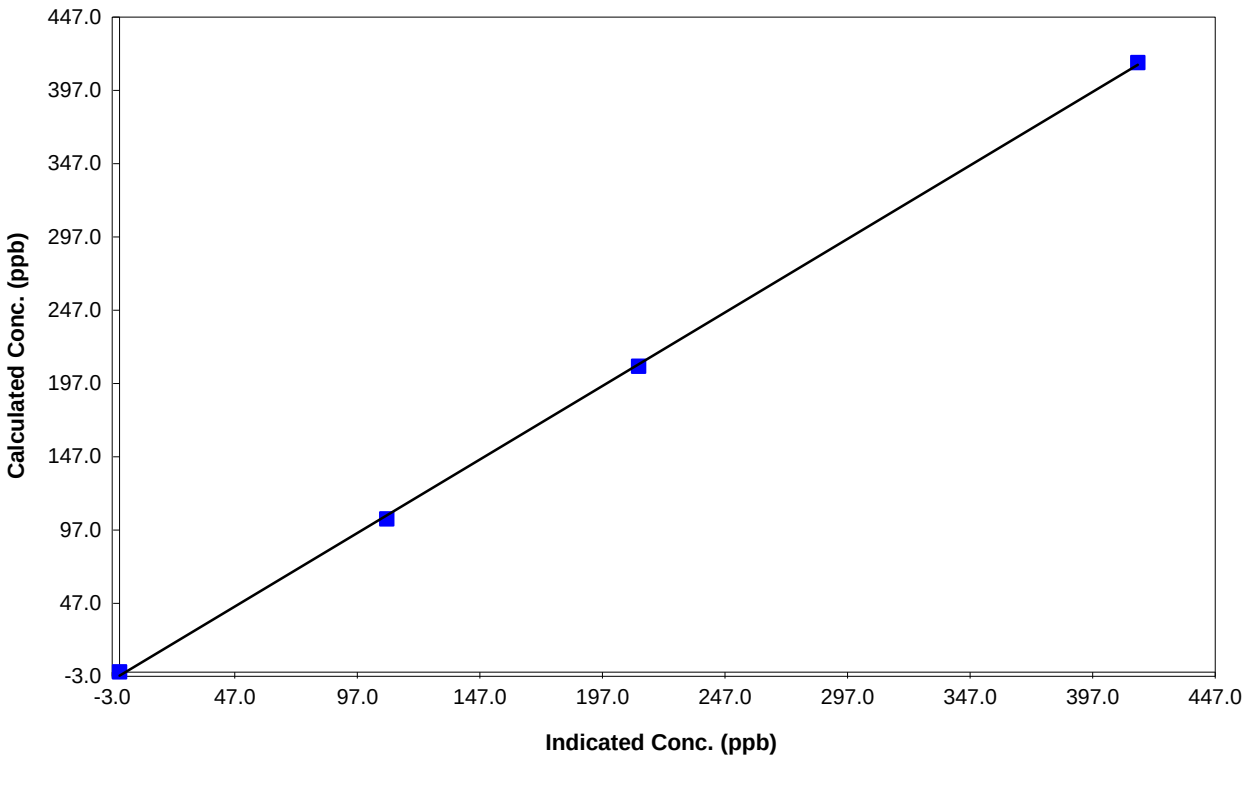
Station Information

Calibration Date	October 13, 2011	Previous Calibration	September 19, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	14:44
Analyzer make	TEI 42C	Analyzer serial #	508011073

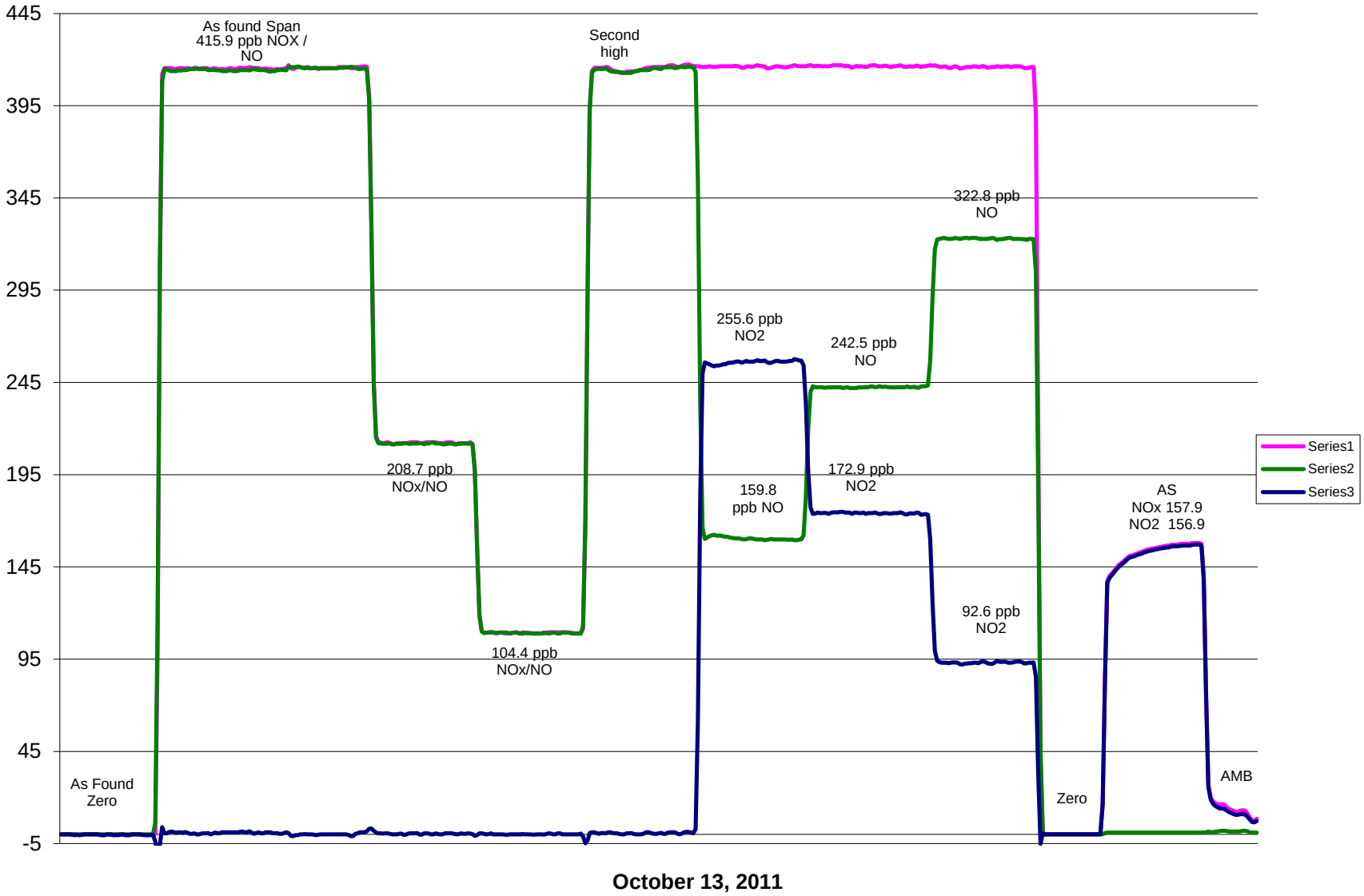
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
415.9	415.4	1.0012	Correlation Coefficient	0.999820
208.7	211.8	0.9852		
104.4	109.1	0.9570	Slope	1.004000
			Intercept	-2.565750

NO Calibration Curve



PASZA
NO_X Calibration



October 13, 2011

Calibration Report

Parameter **O3**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 13, 2011	Previous Calibration	September 19, 2011
Station Number	1	Station Location	Henry Pirker
Reason:	Routine ☒ Install ☐	Removal ☐	Other: ☐
Start Time (MST)	13:06:00 PM	End Time (MST)	16:09
Barometric Pressure	0.922 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	0.998457	Calculated slope	1.004939
Calculated intercept	0.806108	Calculated intercept	-0.135245
Analyzer make	TECO 49C	Analyzer serial #	607415761

	before		after	
Concentration range	500	ppb	500	ppb
offset	-0.6	ppb	-0.6	ppb
slope	1.011		1.011	
O3 Lamp temp	71.1	Deg C	71.1	Deg C
Intensities	83230/72987	mV	83573/73208	mV
Pressure	691.2	inches Hg	698.4	inches Hg
Flow A	0.723	ccm	0.727	ccm
Flow B	0.739	ccm	0.743	ccm

Calibration Data

Referenced concentration (ppb)	Dilution air flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
0	4989	0.0	0.2	N/A
300	4989	255.6	254.5	1.0044
200	4989	172.9	172.3	1.0037
100	4989	92.6	92.1	1.0053
0	4989	0.0	0.5	As found zero
300	4989	255.6	254.5	As found span
			Average Correction Factor	1.0044

Calculated value of As Found Response: 254.4 ppm Percent Change of As Found: -0.5%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	156.4	ppb	158.5	ppb

Notes: No adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

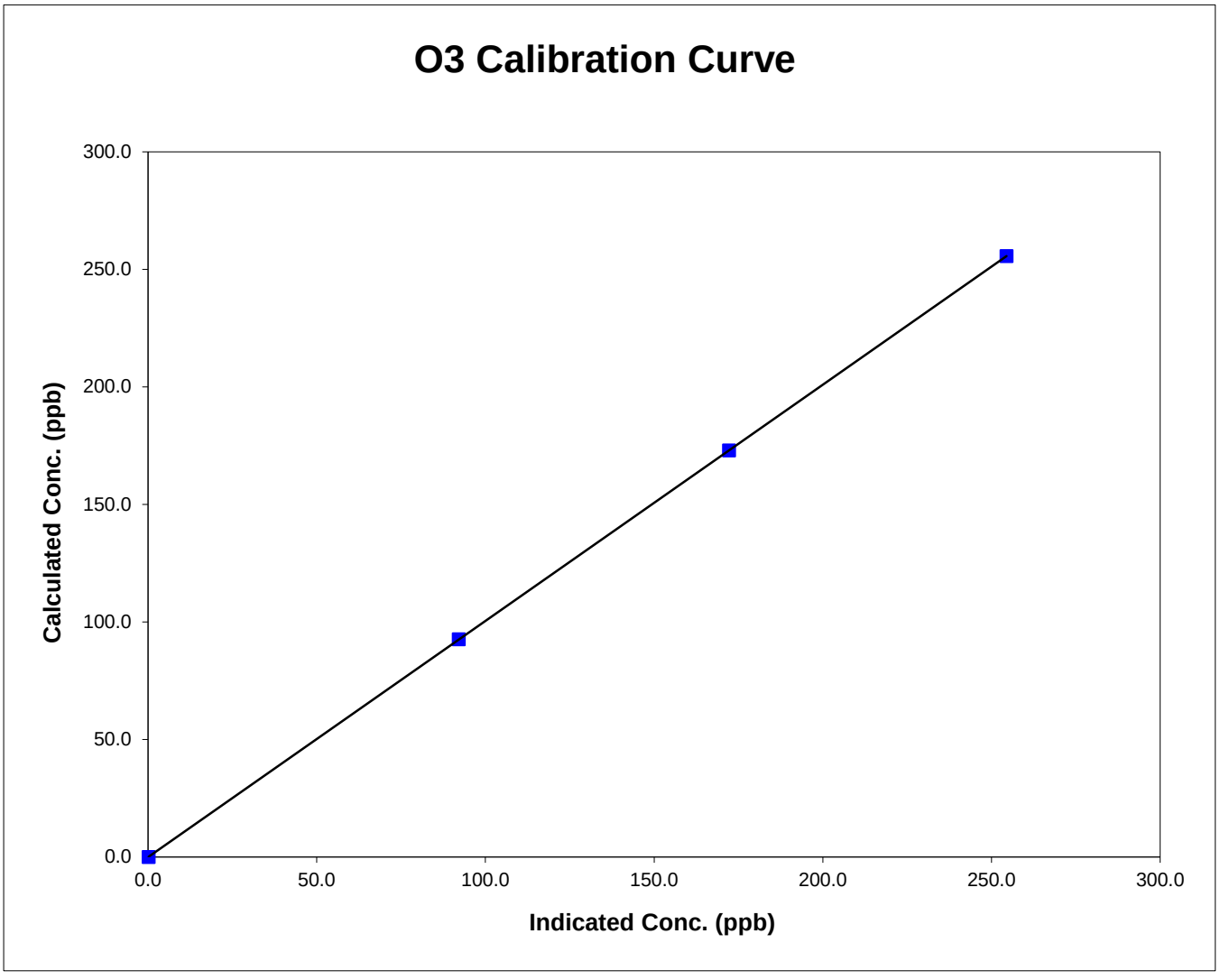
FOCUS AIR QUALITY MONITORING

Station Information

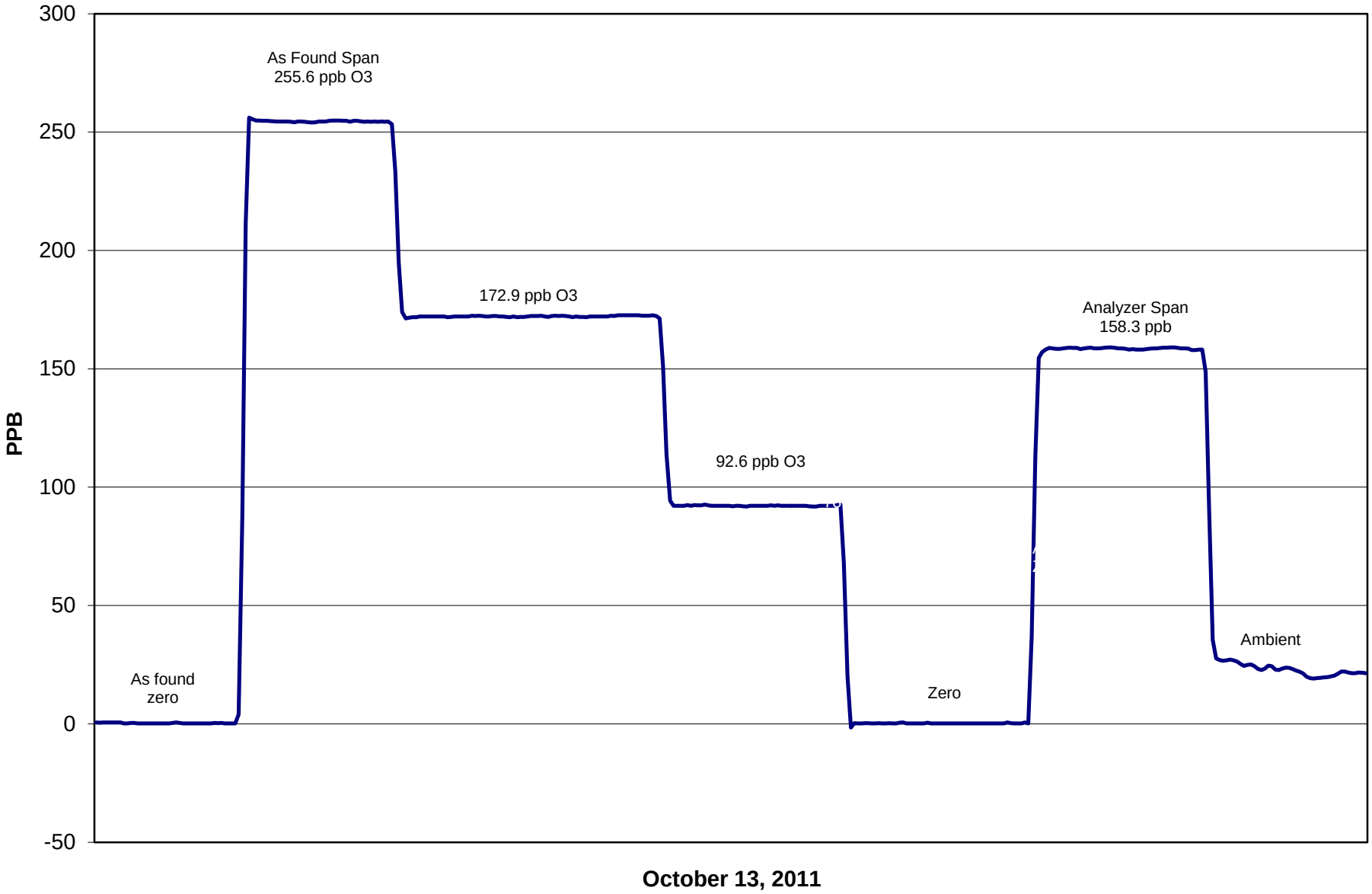
Calibration Date	October 13, 2011	Previous Calibration	September 19, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:06:00 PM	End Time (MST)	16:09
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA		
255.6	254.5	1.0044	Correlation Coefficient	0.999999
172.9	172.3	1.0037		
92.6	92.1	1.0053	Slope	1.004939
			Intercept	-0.135245



O3 Calibration



Calibration Report

Parameter **CO**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 12, 2011	Previous Calibration	September 16, 2011
Station Number	1	Station Location	Henry Pirker

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	11:39	End Time (MST)	14:30
Barometric Pressure	0.921 ATM	Station Temperature	21.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.001216	Calculated slope	0.999867
Calculated intercept	-0.493571	Calculated intercept	-0.472087
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.088		1.088	
CO zero setting	1.100		1.308	
Sample pressure	676.4	mm Hg	677	mm Hg
Sample Flow	1.135	LPM	1.137	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)
4989	0.00	0.00	0.36	N/A
4989	39.85	23.77	24.19	0.9828
4989	19.91	11.92	12.46	0.9573
4989	9.93	5.96	6.55	0.9103
4989	0.00	0.00	0.56	As Found Zero
4989	39.85	23.77	24.19	As Found Span
			Average Correction Factor	0.9501

Calculated value of As Found Response: 23.163 ppm Percent Change of As Found: 2.6%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.56	ppm	19.71	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **CO**

Air Monitoring Network **PASZA**

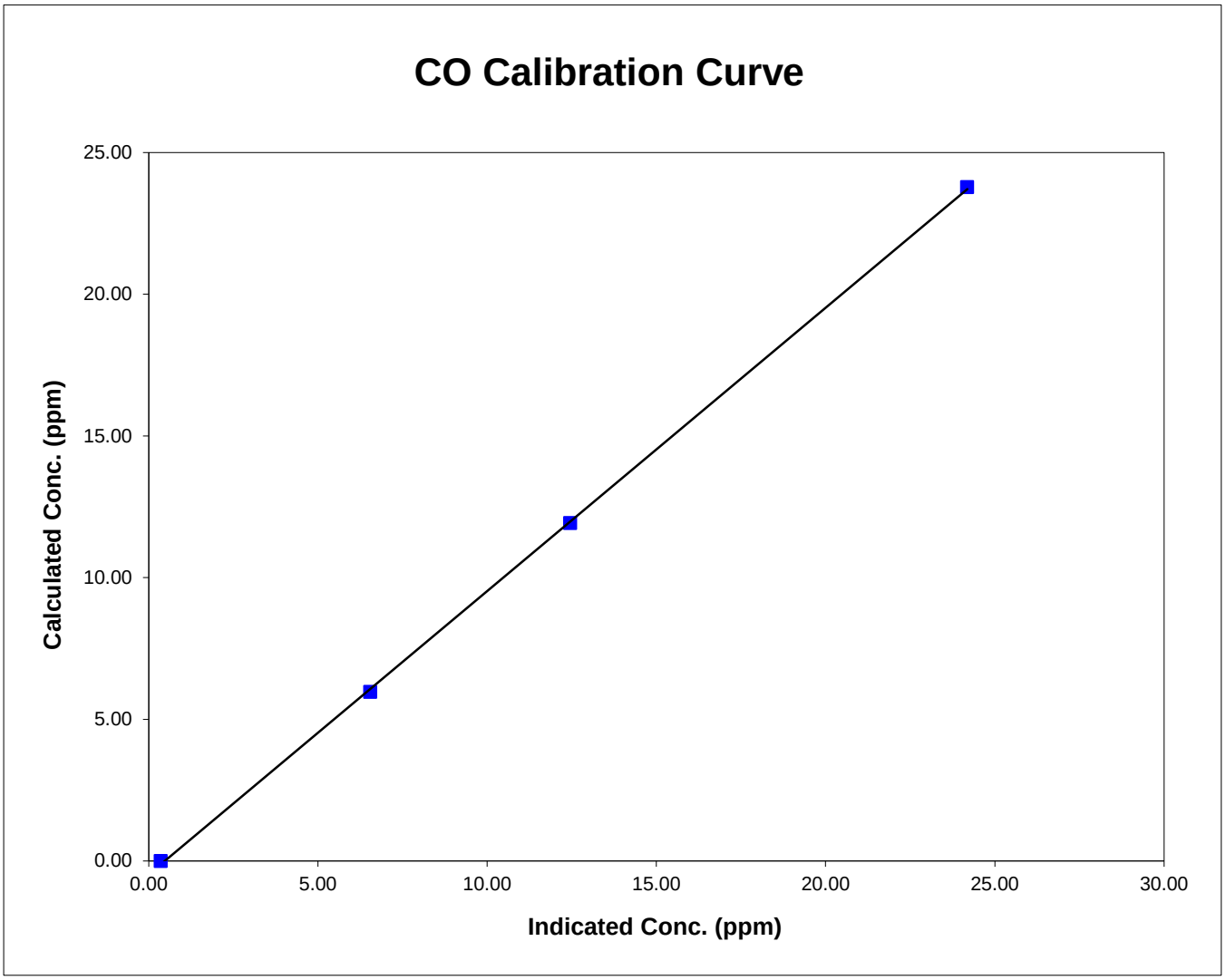
FOCUS AIR QUALITY MONITORING

Station Information

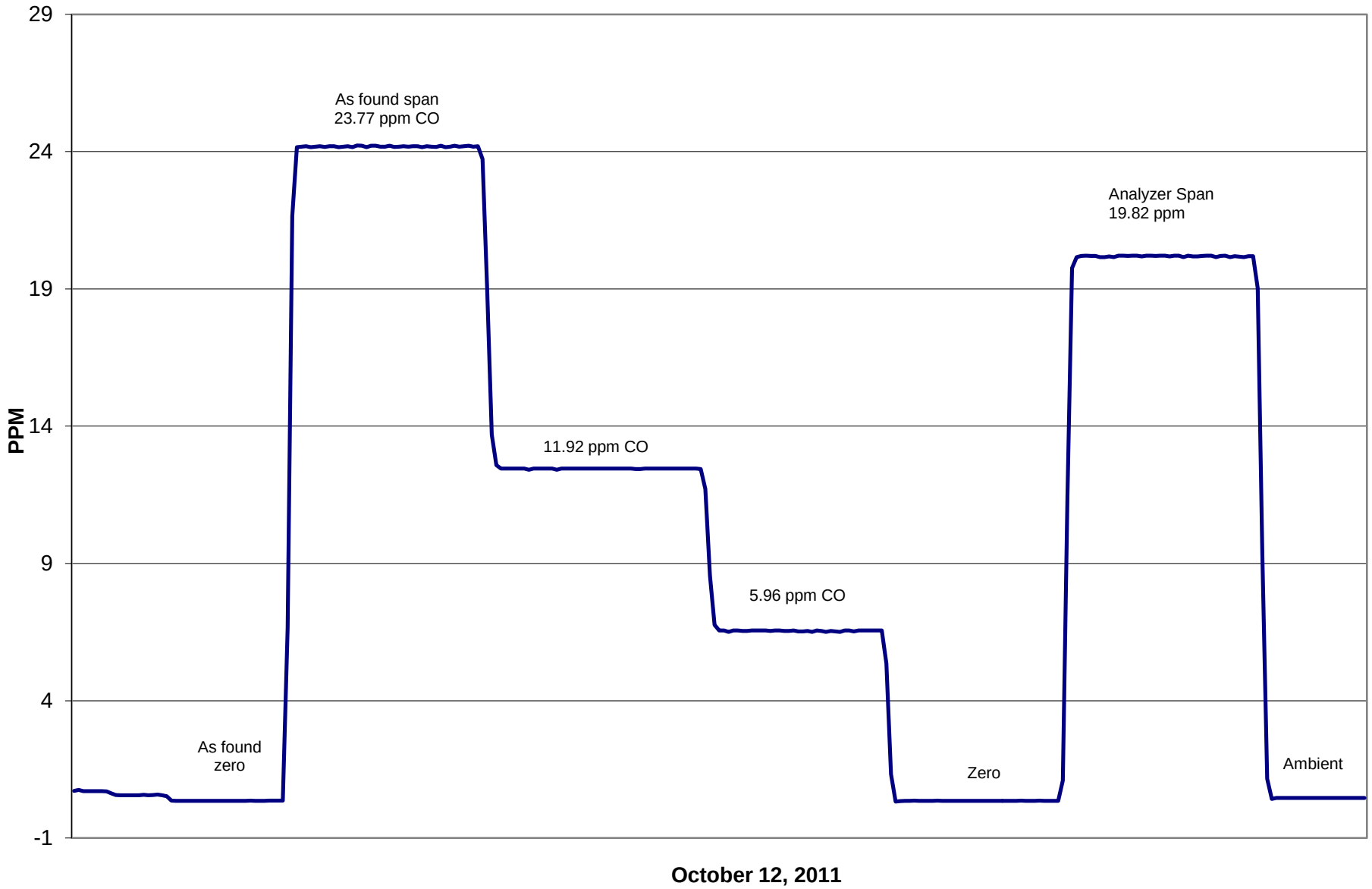
Calibration Date	October 12, 2011	Previous Calibration	September 16, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:39	End Time (MST)	14:30
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.359	N/A		
23.773	24.189	0.9828	Correlation Coefficient	0.999894
11.925	12.457	0.9573		
5.959	6.547	0.9103	Slope	0.999867
			Intercept	-0.472087



CO Calibration



Calibration Report

Parameter **THC**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 12, 2011	Previous Calibration	September 16, 2011
Station Number	1	Station Location	Henry Pirker

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	10:00	End Time (MST)	12:55
Barometric Pressure	0.921 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	701 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	2/4/2010
Cal Gas CH4 equiv	1523.25 ppm	Cal Gas Cylinder #	ALM 004476
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.071076	Calculated slope	1.062131
Calculated intercept	-0.078568	Calculated intercept	-0.055840

Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.50	psi	6.50	psi
THC span counts	9616	capture	9616	capture
THC zero counts	447	capture	447	capture

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)
4989	0.00	0.00	0.03	N/A
4989	69.79	21.01	19.85	1.0588
4989	29.87	9.07	8.55	1.0607
4989	9.92	3.02	2.95	1.0236
4989	0.00	0.00	0.03	As Found Zero
4989	69.79	21.01	19.85	As Found Span
			Average Correction Factor	1.0477

Calculated value of As Found Response: 21.148 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.10	ppm	-0.03	ppm
Auto span	21.83	ppm	21.64	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **THC**

Air Monitoring Network **PASZA**

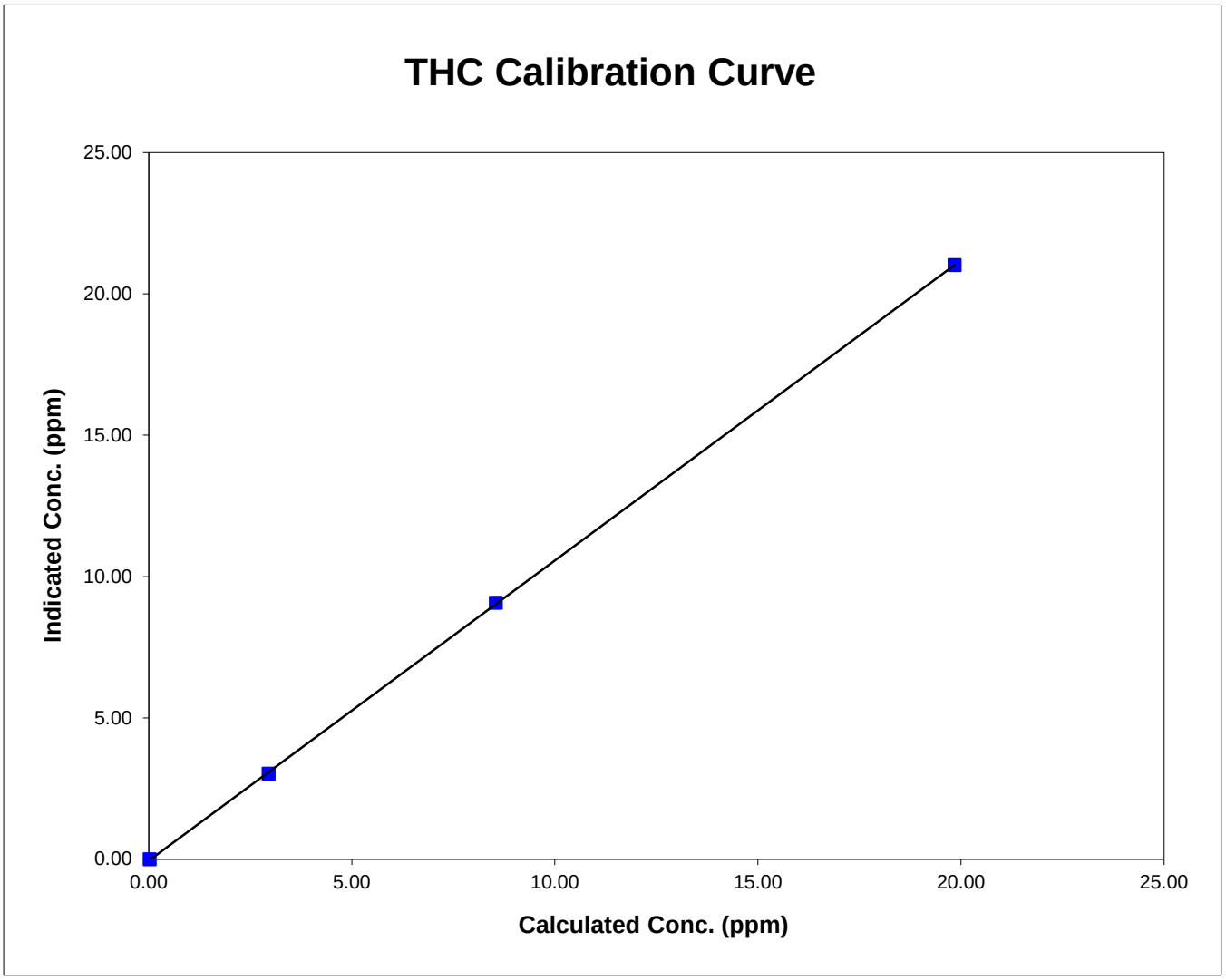
FOCUS AIR QUALITY MONITORING

Station Information

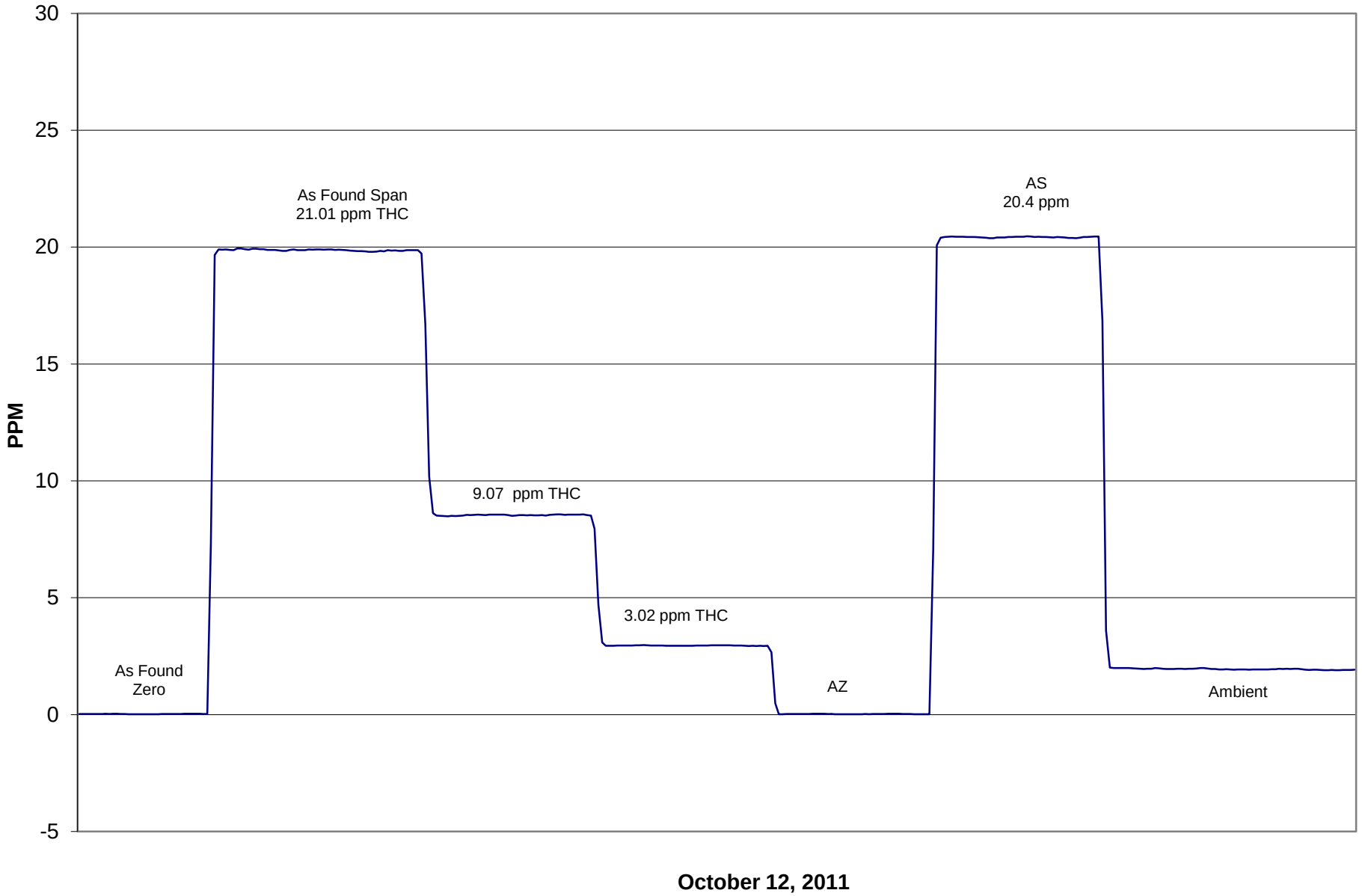
Calibration Date	October 12, 2011	Previous Calibration	September 16, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:00	End Time (MST)	12:55
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.029	N/A		
21.014	19.847	1.0588	Correlation Coefficient	0.999977
9.066	8.547	1.0607		
3.023	2.953	1.0236	Slope	1.062131
			Intercept	-0.055840



THC Calibration



Calibration Report

Parameter **TRS**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 24, 2011	Previous Calibration	September 15, 2011
Station Number	2	Station Location	Evergreen Park

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	9:30	End Time (MST)	13:30
Barometric Pressure	0.923 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Conc	5.77 ppm	Cal Gas Expiry Date	9/3/2011
Correction factor	0.031375	Cal Gas Cylinder #	BLM001434
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.998319	Calculated slope	1.001741
Calculated intercept	0.194202	Calculated intercept	-0.081784

Analyzer make	TEI Model 43C	Analyzer serial # 436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	19.4	ppb	18.6	ppb
coefficient	0.952		0.922	
Lamp Voltage	807	volts	807	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45.01	Deg C	45.01	Deg C
Pressure	646.2	mm Hg	645.5	mm Hg
Sample Flow	0.474	ccm	0.473	ccm
Lamp Intensity	45,400	mv	45,520	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)
4989	0.00	0.00	-0.1	N/A
4989	69.79	79.60	79.5	1.0008
4989	34.87	40.05	40.0	1.0004
4989	8.96	10.34	10.6	0.9775
4989	0.00	0.00	-0.1	As Found Zero
4989	69.79	79.60	82.1	As Found Span
			Average Correction Factor	0.9929

Calculated value of As Found Response: 82.18 ppm Percent Change of As Found: -3.2%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.2	ppm
Auto span	71.9	ppm	71.7	ppm

Notes: Bumped oxidizer temp to 810 from 800 deg C.
Slight span adjust.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

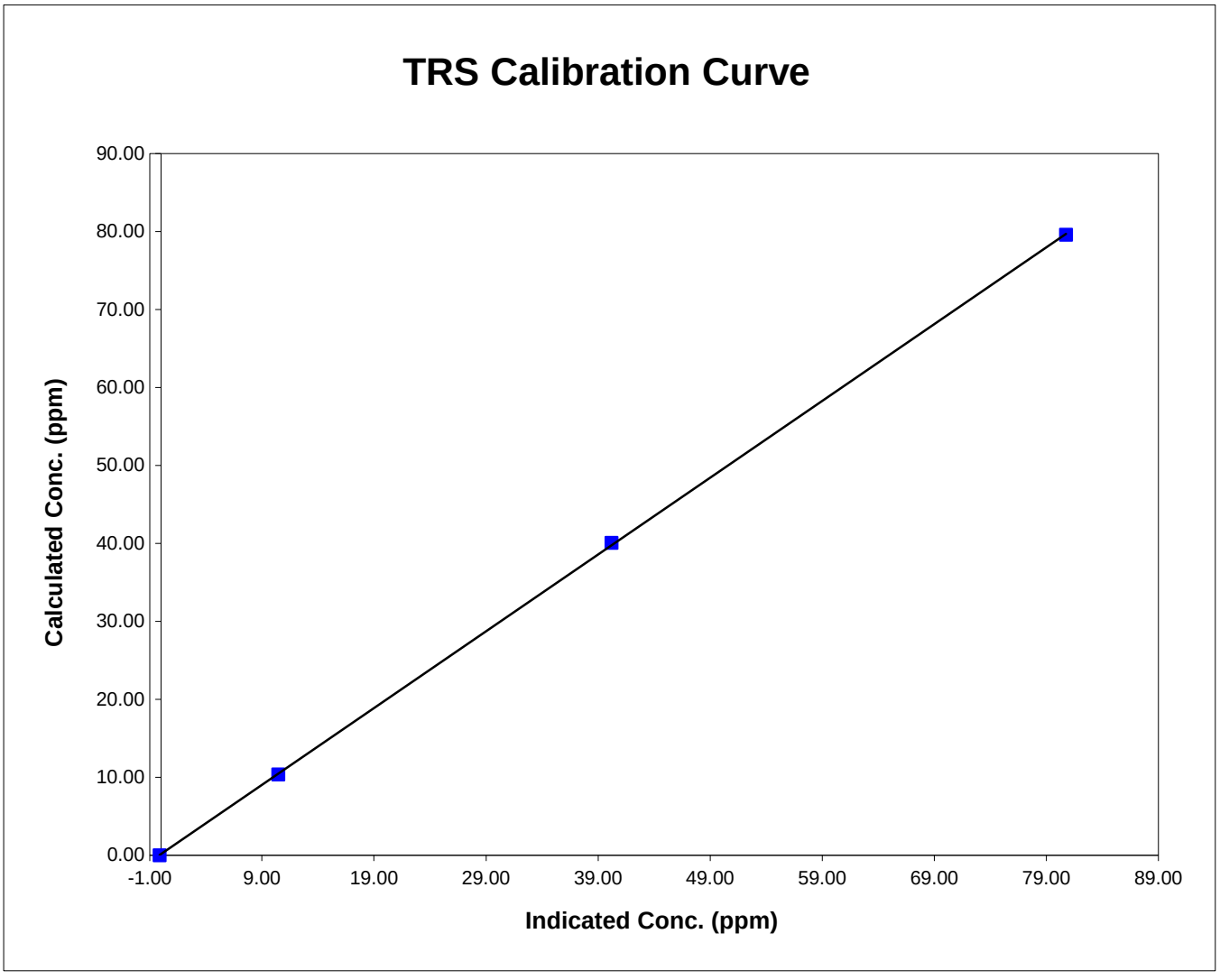
FOCUS AIR QUALITY MONITORING

Station Information

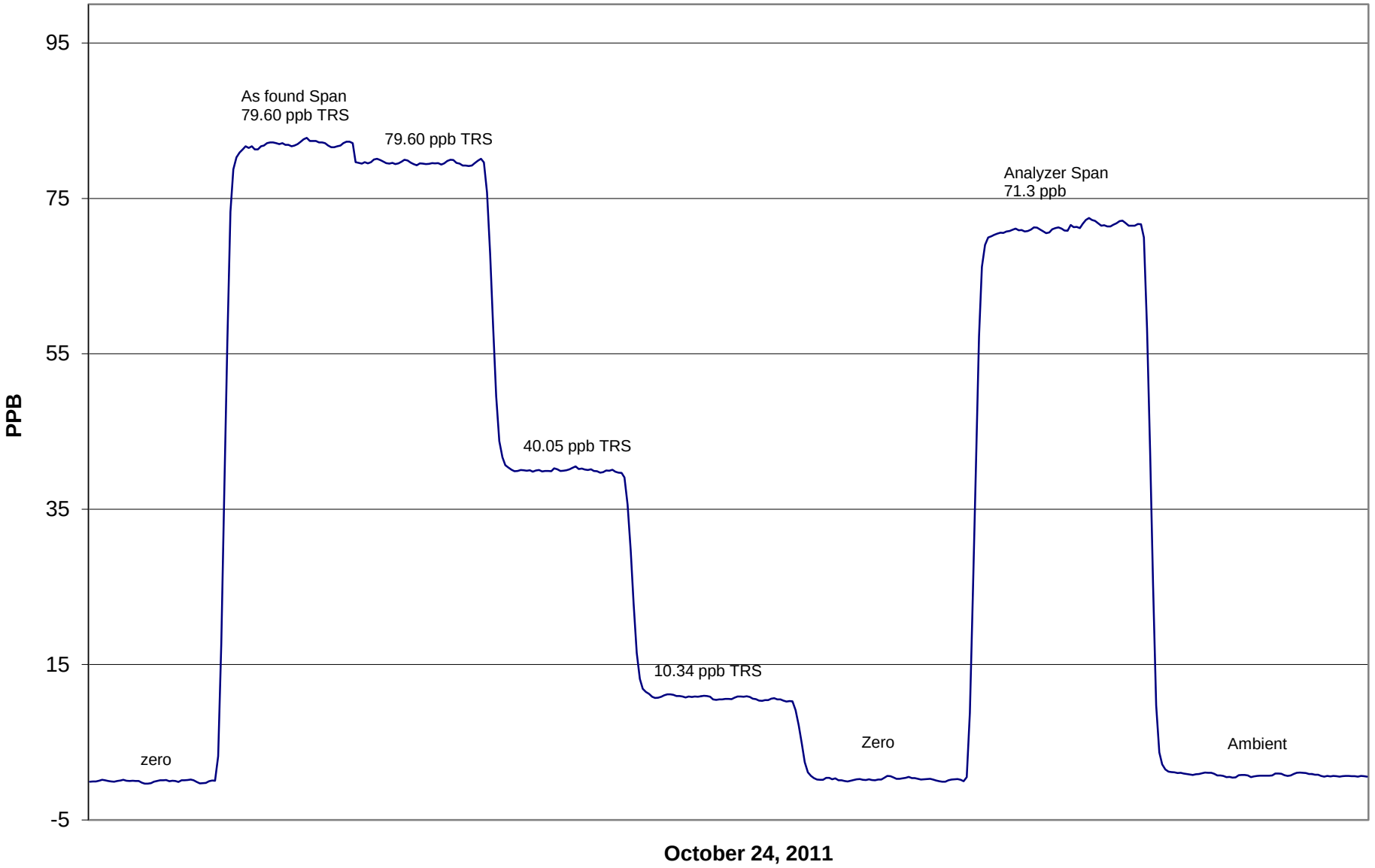
Calibration Date	October 12, 2011	Previous Calibration	September 16, 2011
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:00	End Time (MST)	17:00
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.130	N/A		
79.590	80.765	0.9855	Correlation Coefficient	0.999968
40.060	40.200	0.9965		
10.344	10.467	0.9883	Slope	0.985046
			Intercept	0.163939



TRS Calibration



Calibration Report

Parameter **SO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 24, 2011	Previous Calibration	September 15, 2011
Station Number	2	Station Location	Evergreen Park

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	11:30	End Time (MST)	14:15
Barometric Pressure	0.921 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	3/28/2013
Correction factor	0.031307	Cal Gas Cylinder #	SGAL3245
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.002837	Calculated slope	0.998962
Calculated intercept	-0.994000	Calculated intercept	-1.408999

Analyzer make	Teco 43i	Analyzer serial # 701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11		11.2	
coefficient	1.06		1.079	
Lamp Voltage	830	volts	830	volts
Chamber Temp	45.2	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	668	mm Hg	667.7	mm Hg
Sample Flow	0.455	ccm	0.456	ccm
Lamp Intensity	90	%	90	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.0	0.00	0.6	N/A
4989	39.84	394.5	396.1	0.9961
4989	20.15	200.3	202.0	0.9920
4989	10.10	100.6	103.2	0.9746
4989	0.0	0.0	0.6	As Found Zero
4989	39.84	394.5	389.8	As Found Span
			Average Correction Factor	0.9876

Calculated value of As Found Response: 389.338 ppm Percent Change of As Found: 1.3%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.5	ppm
Auto span	292.7	ppm	289.5	ppm

Notes: Adjusted span

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

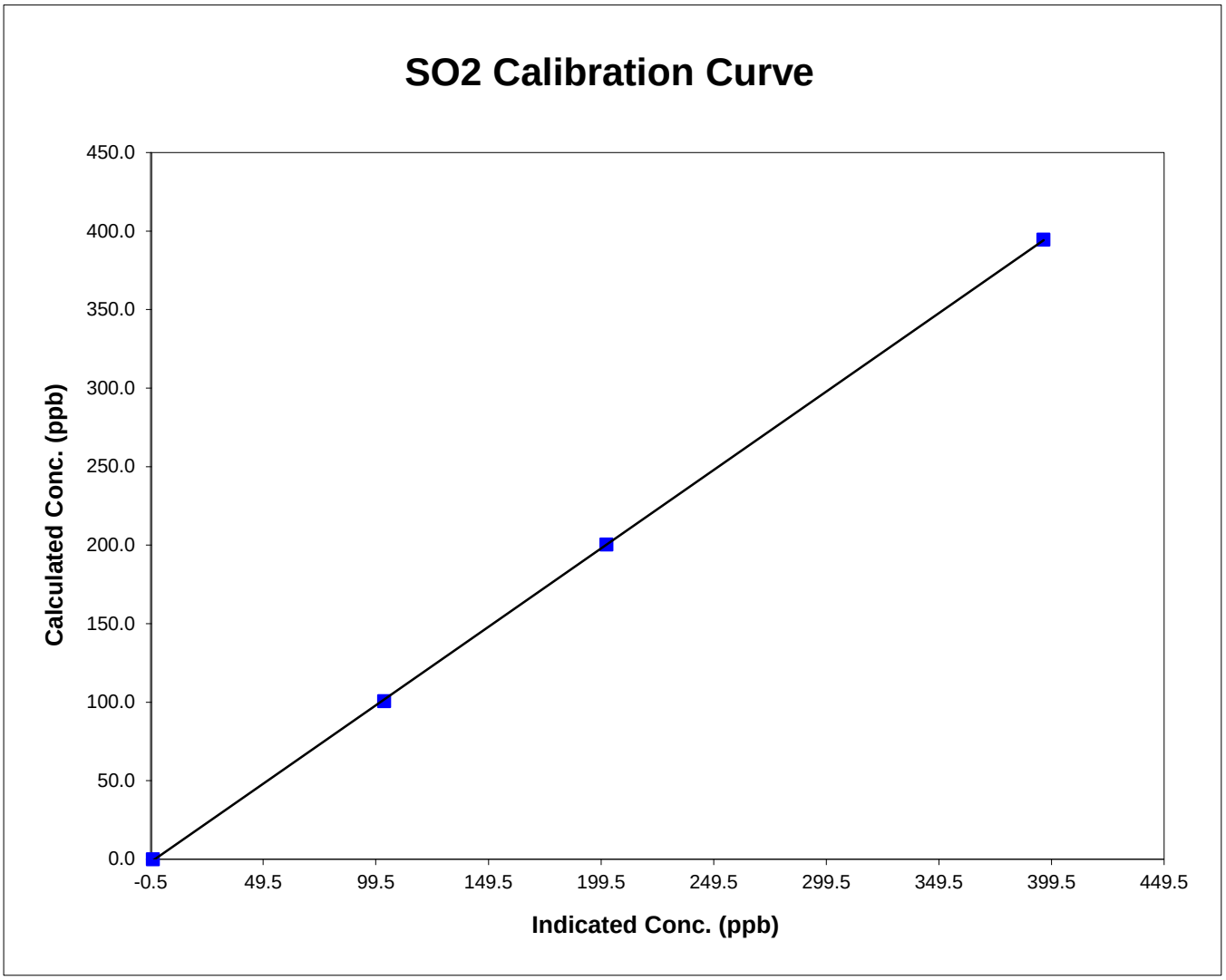
FOCUS AIR QUALITY MONITORING

Station Information

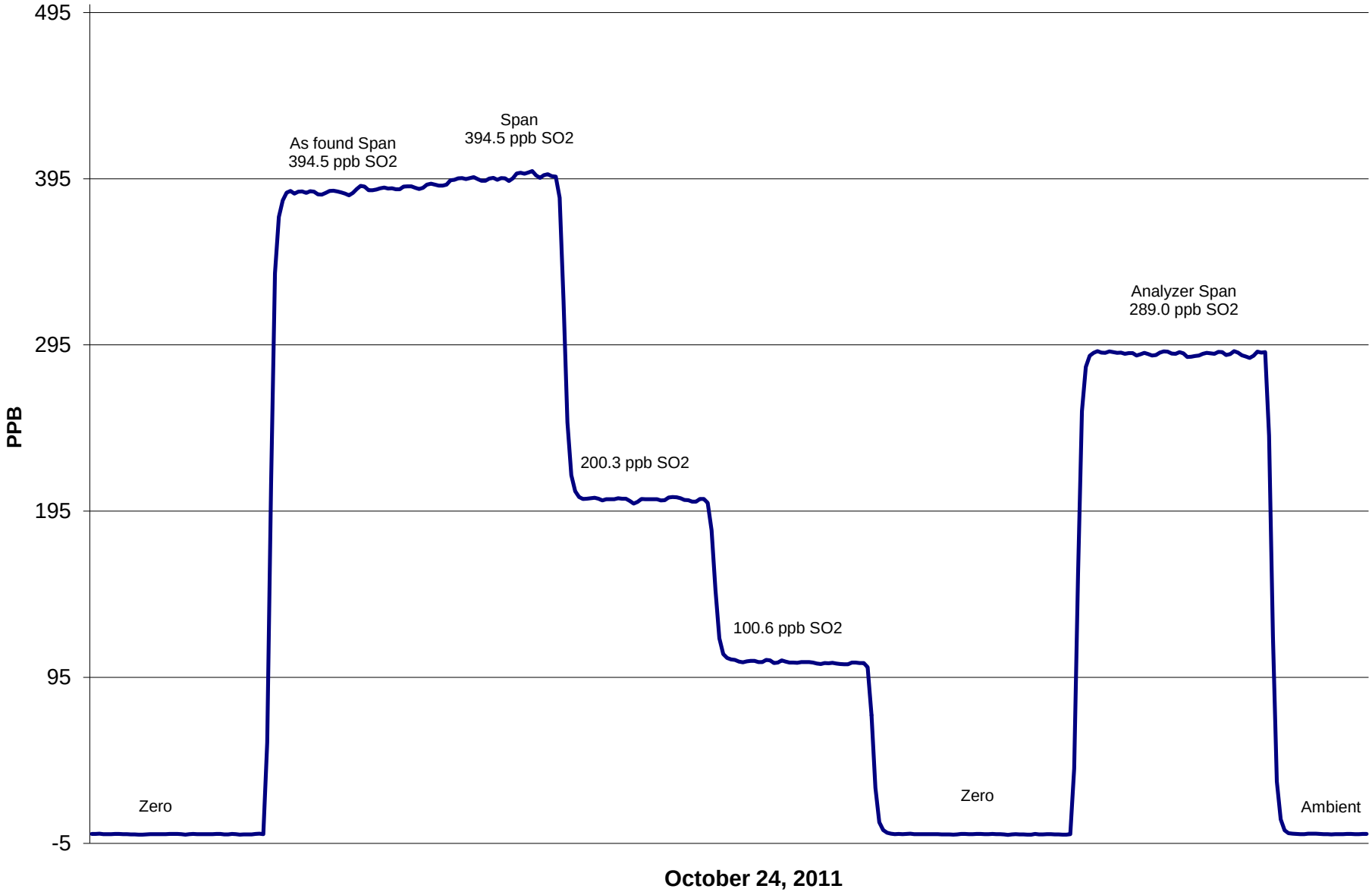
Calibration Date	October 24, 2011	Previous Calibration	September 15, 2011
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:30	End Time (MST)	14:15
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A		
394.5	396.1	0.9961	Correlation Coefficient	0.999977
200.3	202.0	0.9920		
100.6	103.2	0.9746	Slope	0.998962
			Intercept	-1.408999



SO2 Calibration



Calibration Report

Parameter **SO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 26, 2011	Previous Calibration	September 22, 2011
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:35	End Time (MST)	13:56
Barometric Pressure	0.919 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	3/28/2011
Correction factor	0.031239	Cal Gas Cylinder #	LL85275
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.002041	Calculated slope	0.999893
Calculated intercept	-1.728444	Calculated intercept	-2.121968
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.9		10	
coefficient	0.969		0.978	
Lamp Voltage	920	volts	920	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	665.7	mm Hg	662.4	mm Hg
Sample Flow	0.439	ccm	0.440	ccm
Lamp Intensity	88	%	87	%

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)
4989	0.0	0.00	0.3	N/A
4989	39.84	394.53	395.7	0.9970
4989	19.91	197.95	201.1	0.9844
4989	9.94	99.02	103.0	0.9614
4989	0.0	0.00	0.3	As Found Zero
4989	39.84	394.53	391.0	As Found Span
			Average Correction Factor	0.9809

Calculated value of As Found Response: 389.8 ppm Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.3	ppb
Auto span	304.5	ppb	290.2	ppb

Notes: Adjusted span

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

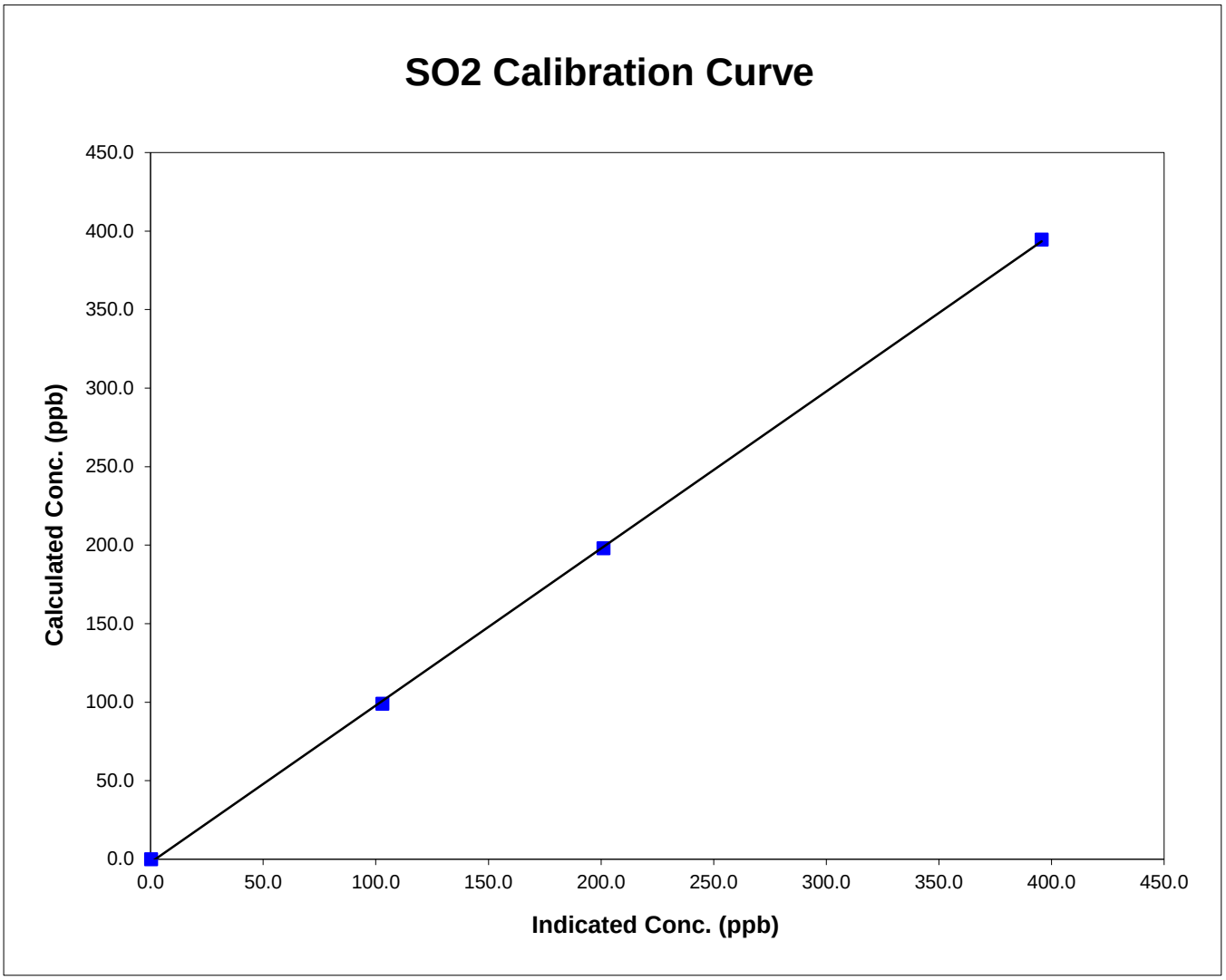
FOCUS AIR QUALITY MONITORING

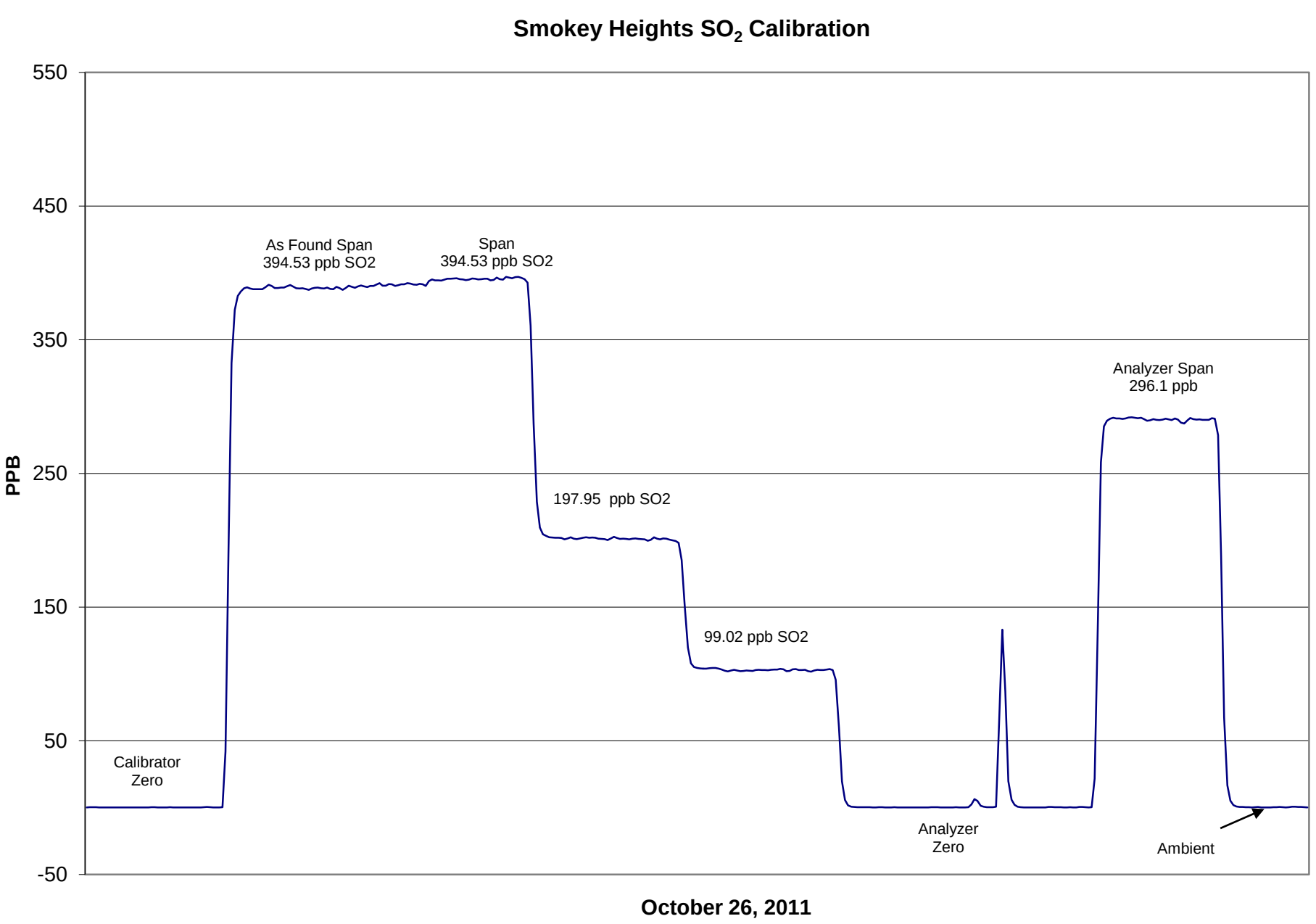
Station Information

Calibration Date	October 26, 2011	Previous Calibration	September 22, 2011
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:35	End Time (MST)	13:56
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
394.5	395.7	0.9970	Correlation Coefficient	0.999896
198.0	201.1	0.9844		
99.0	103.0	0.9614	Slope	0.999893
			Intercept	-2.121968




Smokey Heights SO2 Calibration
550
450
350
250
150
50
-50
PPB
As Found Span
394.53 ppb SO2
Span
394.53 ppb SO2
197.95 ppb SO2
99.02 ppb SO2
Analyzer Span
296.1 ppb
Calibrator
Zero
Analyzer
Zero
Ambient
October 26, 2011

Calibration Report

Parameter **TRS**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 26, 2011	Previous Calibration	September 22, 2011
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other: Maintenance
Start Time (MST)	8:52	End Time (MST)	11:58
Barometric Pressure	0.916 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.77 ppm	Cal Gas Expiry Date	9/3/2011
Correction factor	0.031137	Cal Gas Cylinder #	BLM001434
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.003218	Calculated slope	0.994397
Calculated intercept	-0.206610	Calculated intercept	-0.233635
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	17.4	ppb	17.4	ppb
coefficient	0.953		0.953	
Lamp Voltage	797	volts	797	volts
Chamber Temp	44	Deg C	44.99	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	545.6	mm Hg	544	mm Hg
Sample Flow	0.592	ccm	0.593	ccm
Lamp Intensity	35,427	mv	35,430	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)
4989	0.0	0.00	0.4	N/A
4989	69.80	79.61	80.2	0.9921
4989	34.88	40.06	40.7	0.9846
4989	8.96	10.34	10.4	0.9972
4989	0.0	0.00	0.4	As Found Zero
4989	69.80	79.61	80.2	As Found Span
			Average Correction Factor	0.9913

Calculated value of As Found Response: 79.91 ppm Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.2	ppm
Auto span	52.9	ppm	54.6	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

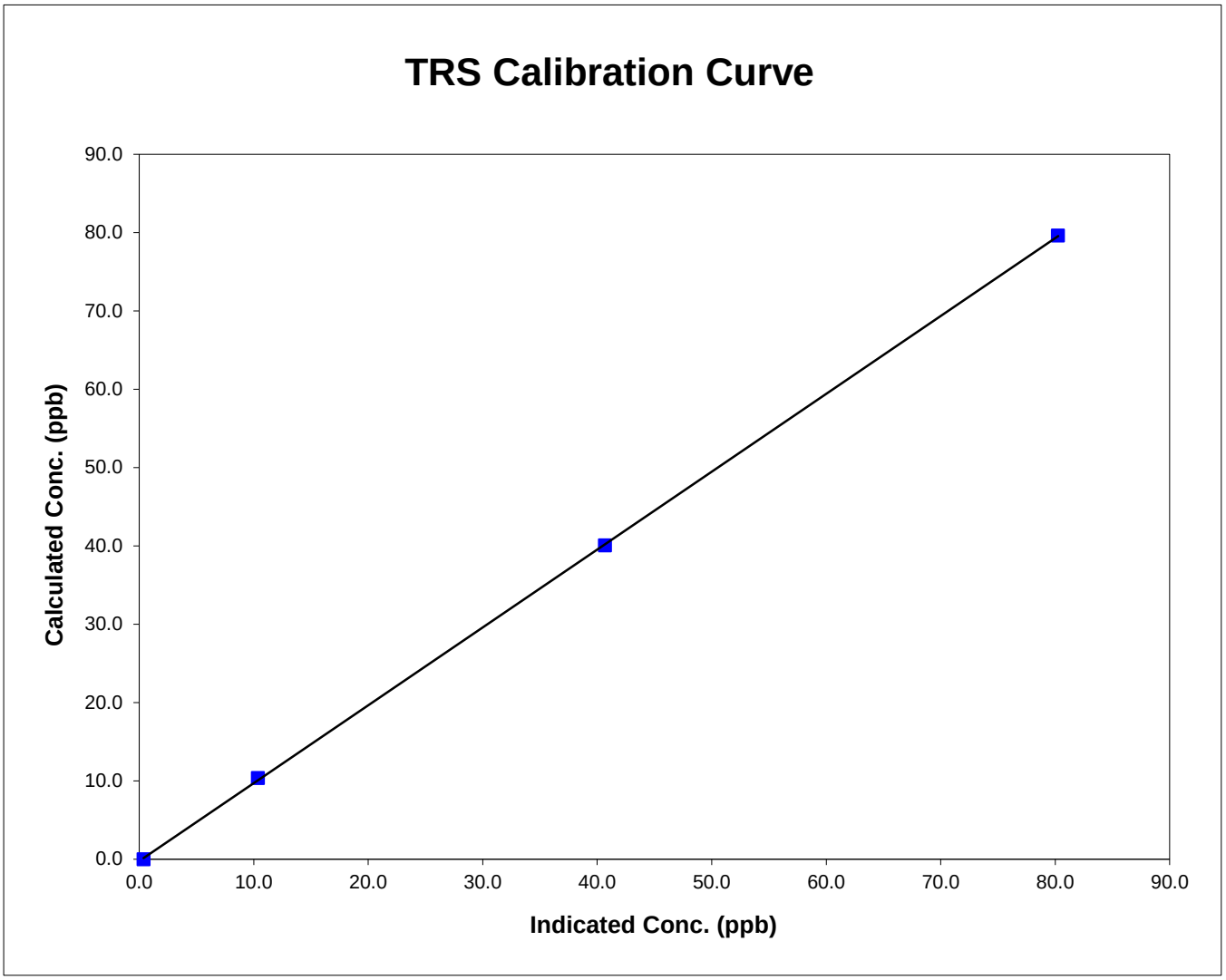
FOCUS AIR QUALITY MONITORING

Station Information

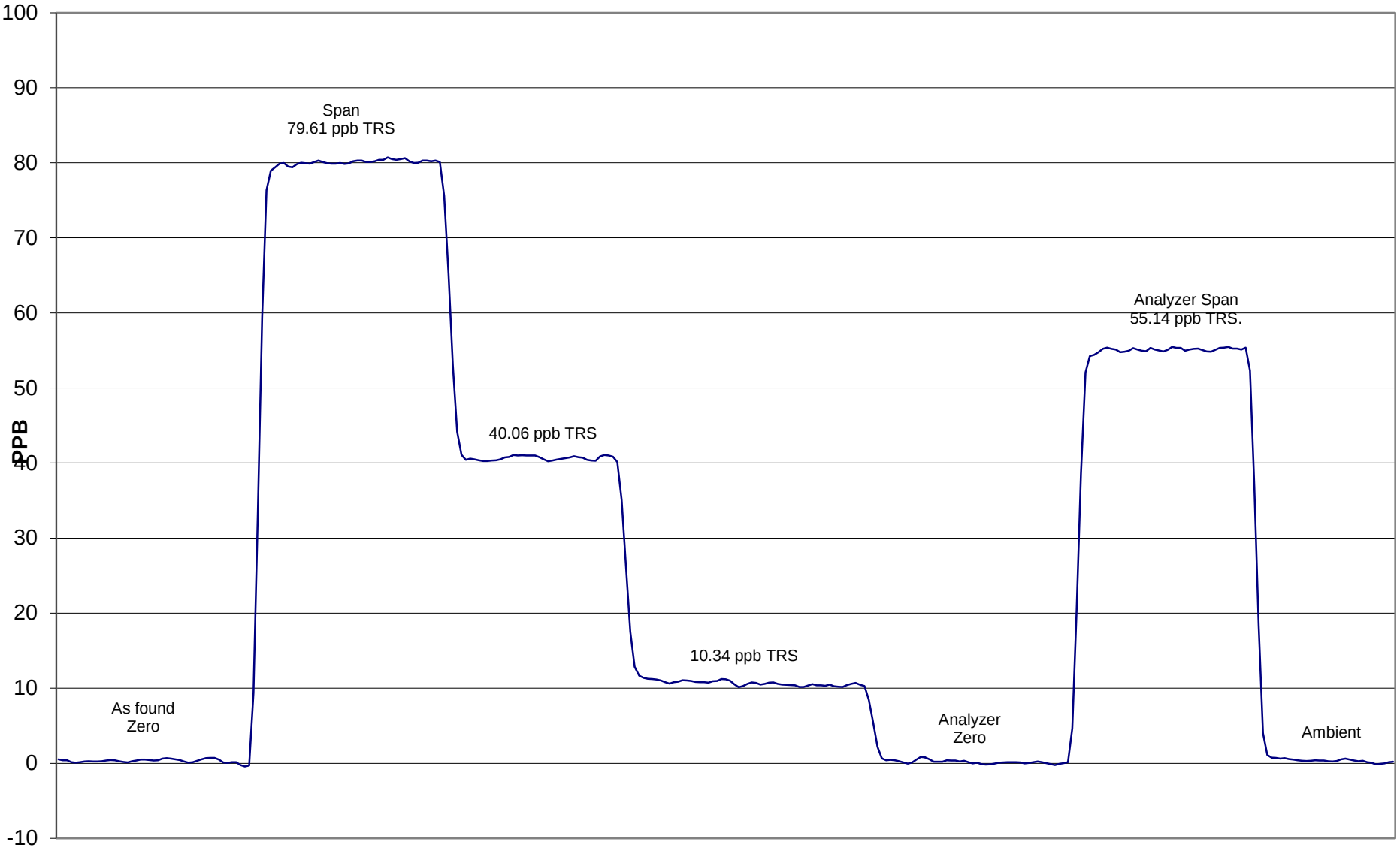
Calibration Date	October 26, 2011	Previous Calibration	September 22, 2011
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	8:52	End Time (MST)	11:58
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
79.6	80.2	0.9921	Correlation Coefficient	0.999969
40.1	40.7	0.9846		
10.3	10.4	0.9972	Slope	0.994397
			Intercept	-0.233635



Smokey Heights TRS Calibration



Calibration Report

Parameter **SO2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 11, 2011	Previous Calibration	September 7, 2011
Station Number	4	Station Location	Beaverlodge

Reason: Routine | Install | Removal | Other:

Start Time (MST)	8:44	End Time (MST)	11:44
Barometric Pressure	0.897 atm	Station Temperature	23.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	10.1 ppm	Cal Gas Expiry Date	1/25/2010
Gas Cert Reference	SAGL 671		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.986812	Calculated slope	0.998704
Calculated intercept	-0.628332	Calculated intercept	-0.610357

Analyzer make	TEI Model 43i-TLE	Analyzer serial # 713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.43		2.44	
Coefficient	1.082		1.063	
PMT	-767.8	V	-767.6	V
UV Lamp Voltage	1046	V	1052	V
Chamber Temp	45	Deg C	45.2	Deg C
Pressure	657.4	mm Hg	654.7	mm Hg
Sample Flow	0.485	LPM	0.483	LPM
Lamp Intesity	97%	%	97%	%

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	0.1	N/A
4989	39.83	80.0	80.5	0.9941
4989	19.90	40.1	41.0	0.9789
4989	9.93	20.1	21.2	0.9461
4989	0.00	0.0	0.1	As found zero
4989	39.83	80.0	81.7	As found span
			Average Correction Factor	0.9730

Calculated value of As Found Response: 79.858 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	-0.3	ppb	-0.5	ppb
Auto span	58.2	ppb	57.6	ppb

Notes: Slight adjust first point.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

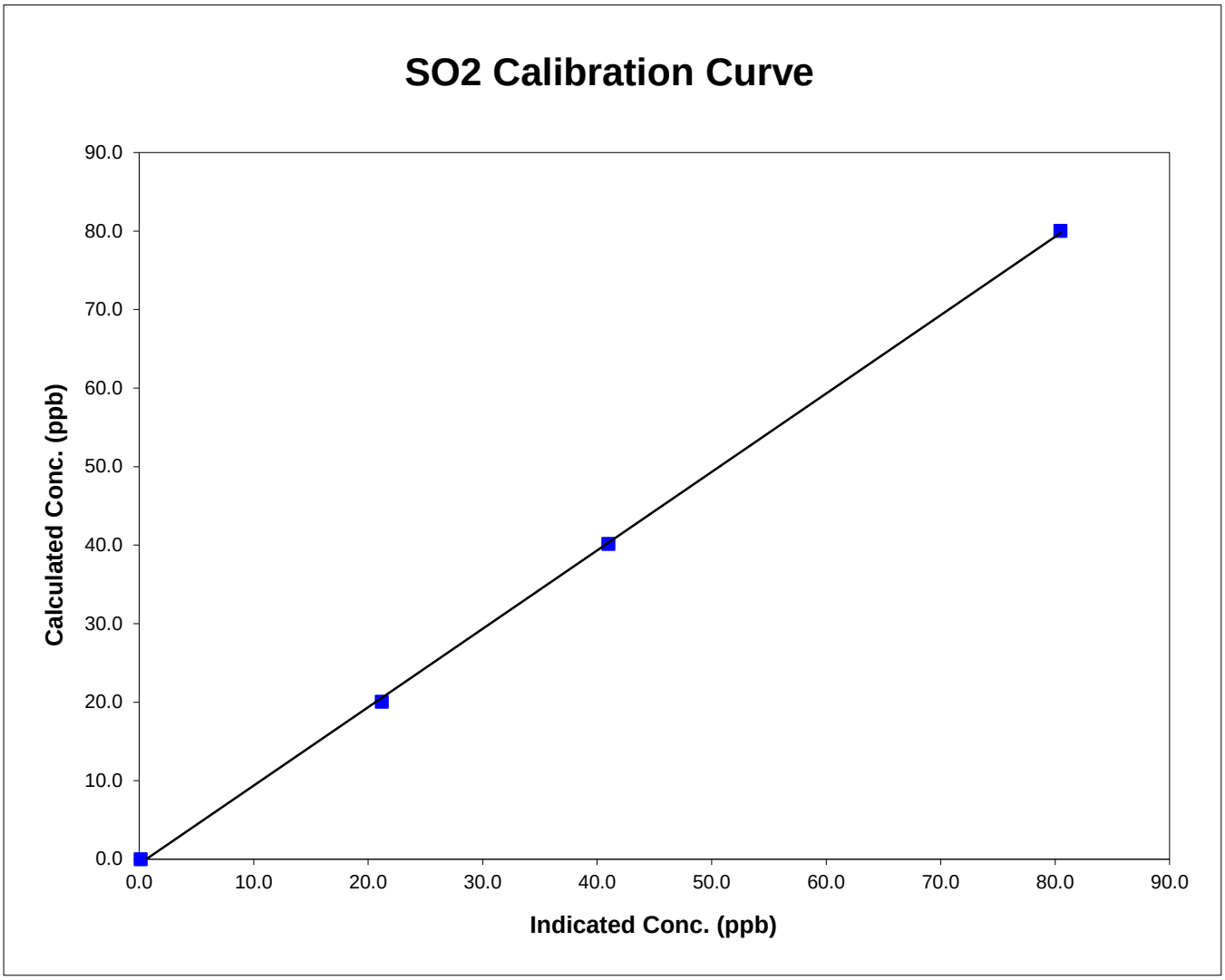
FOCUS AIR QUALITY MONITORING

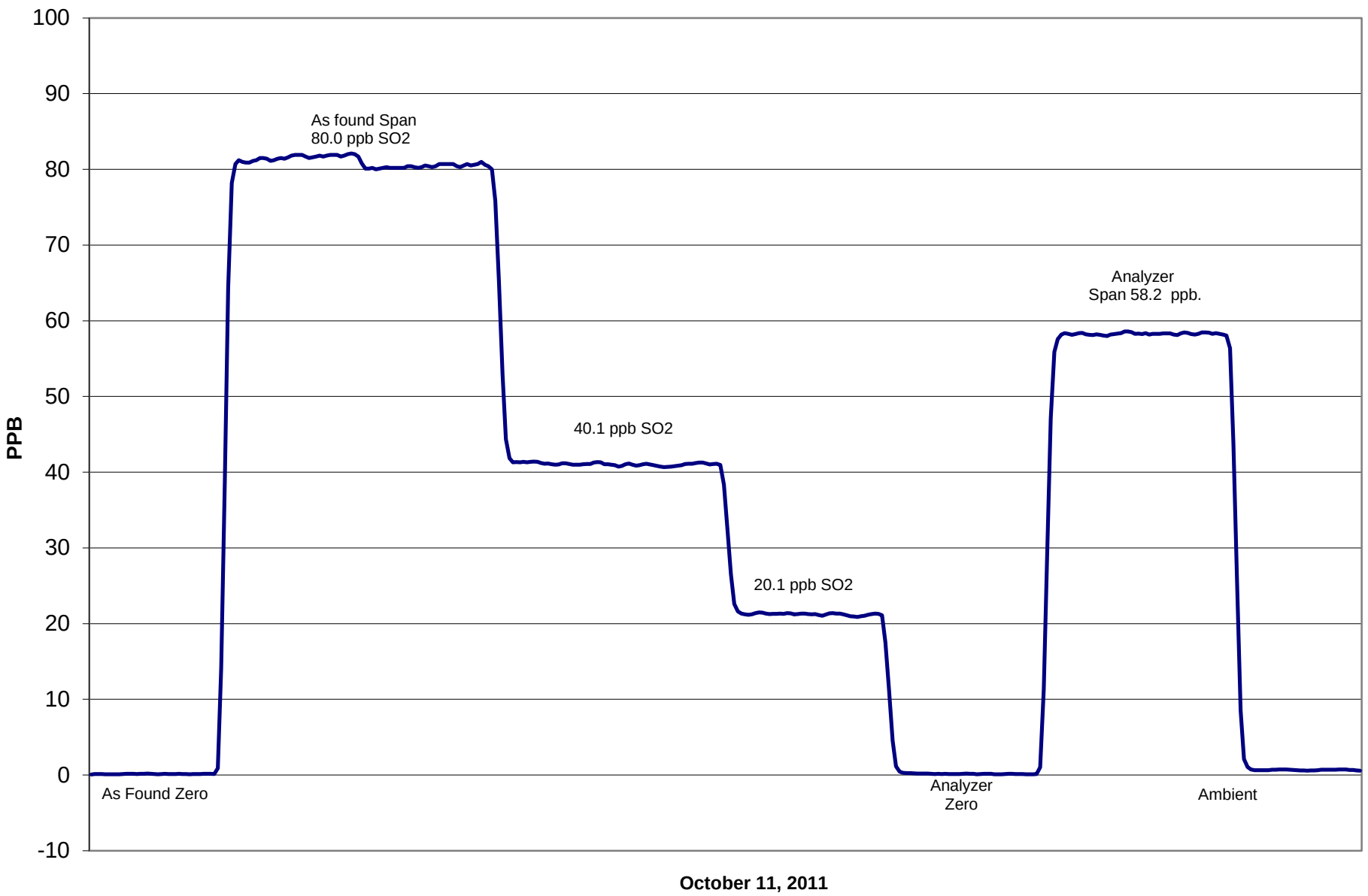
Station Information

Calibration Date	October 11, 2011	Previous Calibration	September 7, 2011
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:44	End Time (MST)	11:44
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
80.0	80.5	0.9941	Correlation Coefficient	0.999835
40.1	41.0	0.9789		
20.1	21.2	0.9461	Slope	0.998704
			Intercept	-0.610357




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As found Span
80.0 ppb SO2
40.1 ppb SO2
20.1 ppb SO2
Analyzer
Span 58.2 ppb.
As Found Zero
Analyzer
Zero
Ambient
October 11, 2011

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 6, 2011	Previous Calibration	September 7, 2011
Station Number	4	Station Location	BeaverLodge

Reason: Routine | Installation | Removal | Other:

Start Time (MST)	10:02		End Time (MST)	15:51	
Barometric Pressure	0.909	Atm	Station Temperature	23.0	Deg C
Calibrator	Environics		Serial Number	2844	
NO Cal Gas Conc	52.5	ppm	Cal Gas Expiry Date	March 28, 2013	
NOx Cal Gas Conc	52.5	ppm	Cal Gas Serial #	LL8575	

DACS Information

DACS make: AP1000 DACS serial No.:

Parameter		NO2	NOx	NO
Before	Data Slope	0.990504	1.003733	1.004322
	Data Offset	-0.453641	-1.089955	-0.886324
After	Data Slope	1.000416	1.002392	1.001460
	Data Offset	-0.036631	-1.302744	-0.972551
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	2.2	mV	2.1	mV
NOx bkgnd	2.6	mV	2.6	mV
NO coefficient	1.344		1.344	
NOx coefficient	0.999		0.999	
NO2 conv temp	324.7	Deg C	326.8	Deg C
PMT Temp	-3.0	Deg C	-2.9	Deg C
PMT Volt	-671.9	mV	-671.2	mV
R Cell Press	156.1	in Hg	158.2	in Hg
Sample Flow	0.690	ccm	0.714	ccm

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: October 6, 2011 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	4989	0.00	0.0	0.0	0.0	0.1	-0.2	0.2	N/A	N/A
1	4989	38.85	405.7	405.7	0.0	406.0	406.1	-0.3	0.9993	0.9990
2	4989	19.92	208.8	208.8	0.0	208.5	208.1	-0.3	1.0015	1.0033
3	4989	9.93	104.3	104.3	0.0	107.7	107.6	-0.1	0.9684	0.9693
AFZ	4989	0.00	0.0	0.0	0.0	0.1	-0.2	0.2	0.0000	0.0000
AFS	4989	38.85	405.7	405.7	0.8	406.0	406.2	-0.4	0.9992	0.9987
							Average Correction Factor		0.9898	0.9905

As Found Concentrations: NO_X= 404.8 NO= 405.5 As Found Percent Change NO_X= -0.2% NO= 0.0%

GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 38.86 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.2	-0.2	0.0	0.1	-0.2	0.2	N/A	N/A	N/A	N/A
NO point	408.4	408.4	0.0	408.3	408.4	-0.3	1.0001	1.0000	N/A	N/A
300	408.4	144.8	263.5	408.9	144.8	263.6	0.9988	1.0000	1.0000	100.0%
200	408.4	227.7	180.6	408.7	227.7	180.6	0.9991	1.0000	1.0002	100.0%
100	408.4	308.5	99.9	408.3	308.5	99.7	1.0001	1.0000	1.0021	99.8%
					Average Correction Factor		0.9993	1.0000	1.0008	99.9%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.3	-0.2	ppb	0.0	-0.1	-0.1	ppb
Auto span	238.0	235.5	1.6	ppb	232.4	230.0	1.7	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

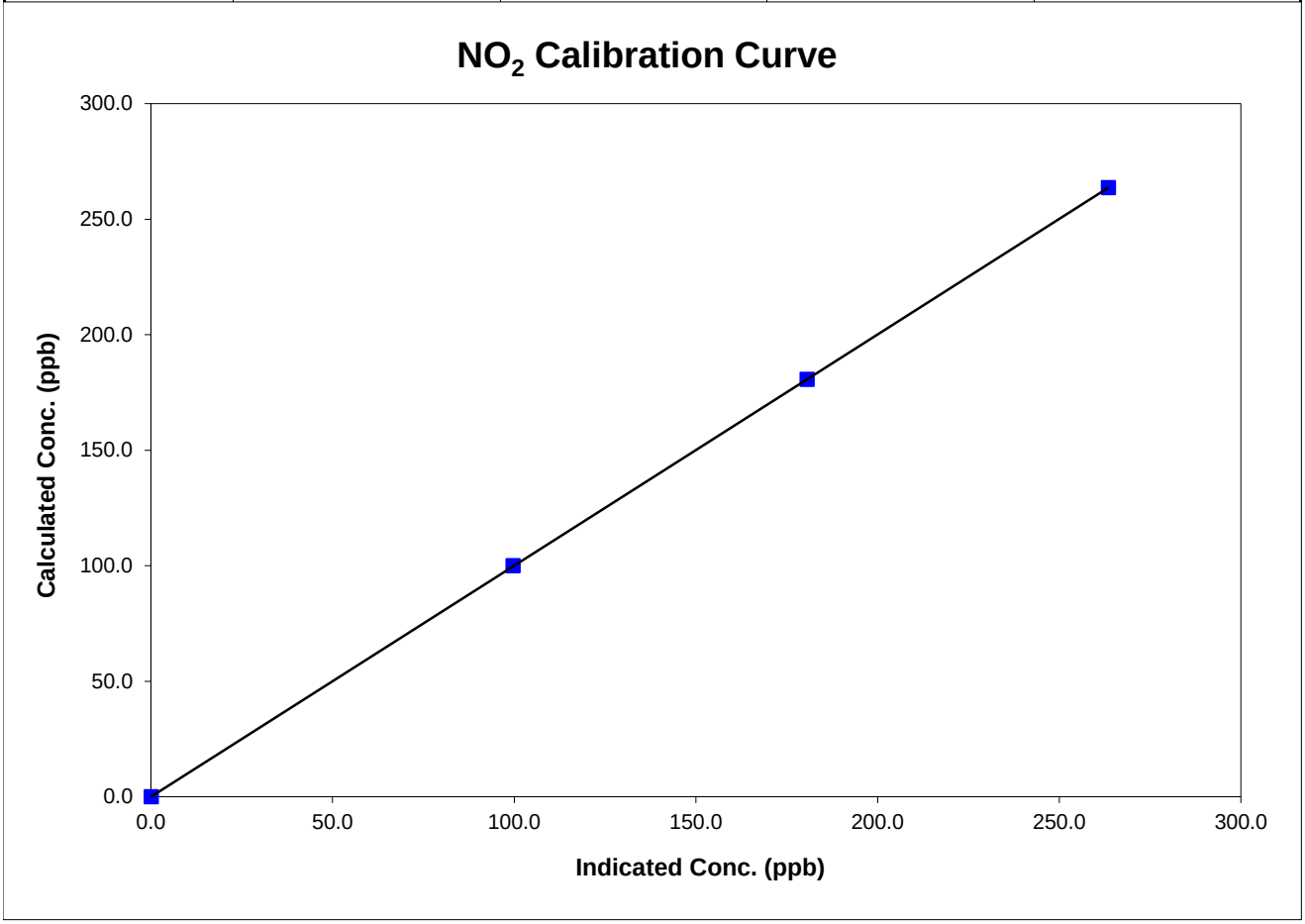
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 6, 2011	Previous Calibration	September 7, 2011
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	10:02	End Time (MST)	15:51
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		
263.5	263.6	1.0000	Correlation Coefficient	0.999998
180.6	180.6	1.0002		
99.9	99.7	1.0021	Slope	1.000416
			Intercept	-0.036631



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

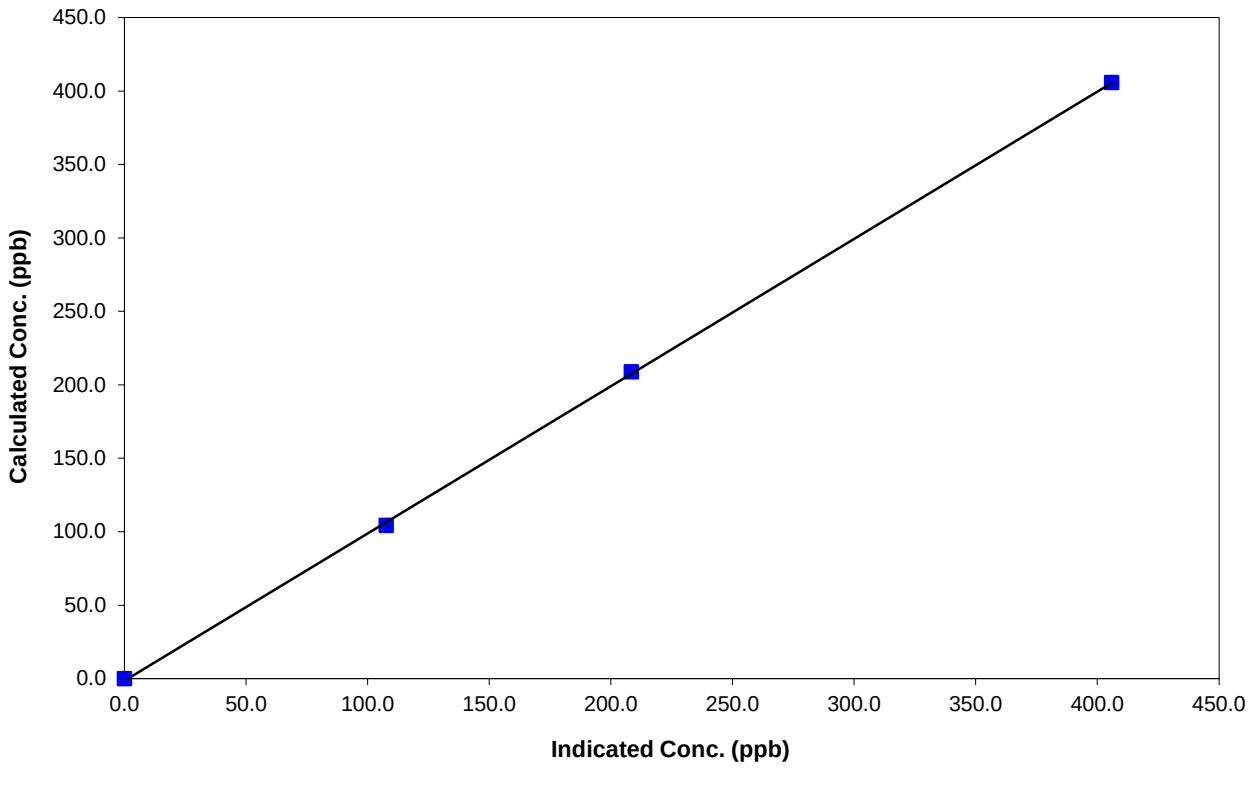
Station Information

Calibration Date	October 6, 2011	Previous Calibration	September 7, 2011
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	10:02	End Time (MST)	15:51
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
405.7	406.0	0.9993	Correlation Coefficient	0.999909
208.8	208.5	1.0015		
104.3	107.7	0.9684	Slope	1.002392
			Intercept	-1.302744

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

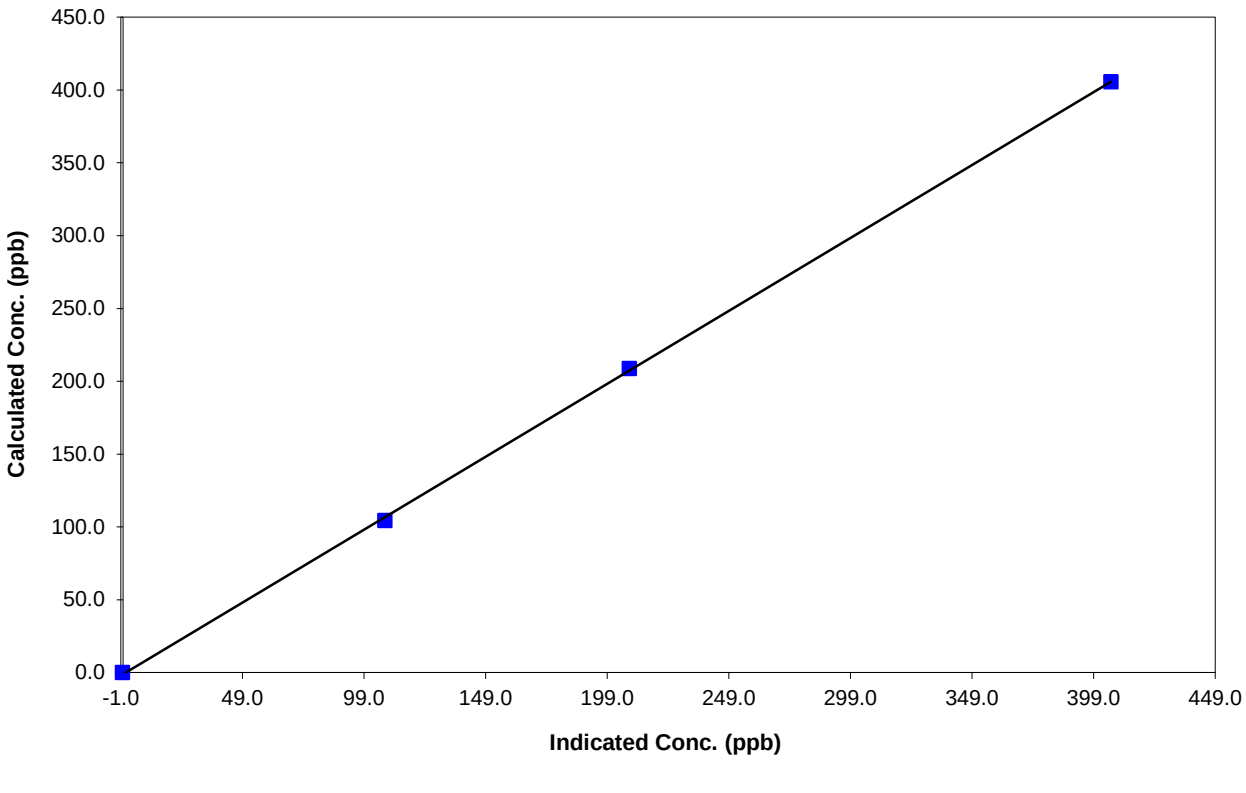
Station Information

Calibration Date	October 6, 2011	Previous Calibration	September 7, 2011
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	10:02	End Time (MST)	15:51
Analyzer make	TEI 42i	Analyzer serial #	906535068

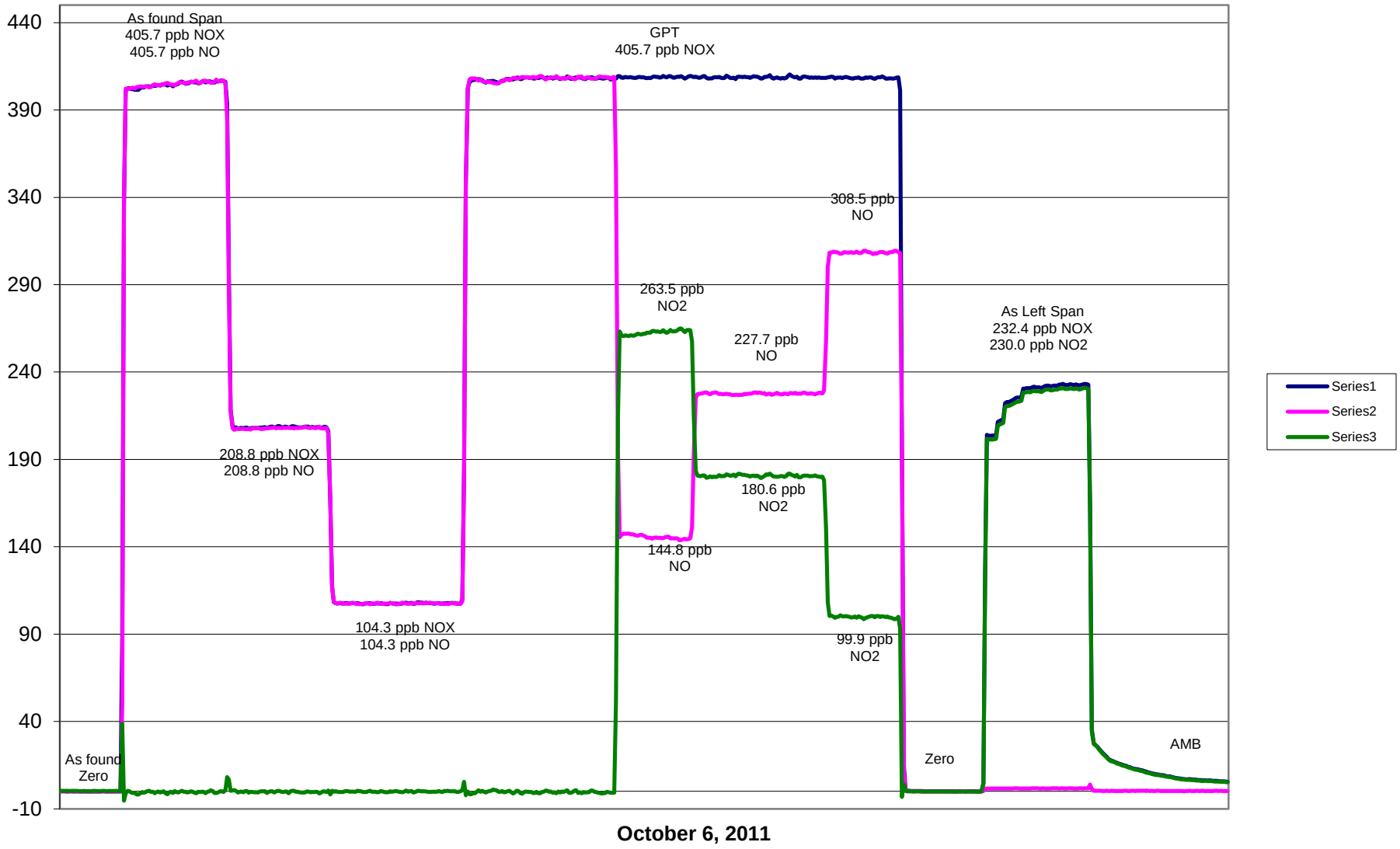
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
405.7	406.1	0.9990	Correlation Coefficient	0.999896
208.8	208.1	1.0033		
104.3	107.6	0.9693	Slope	1.001460
			Intercept	-0.972551

NO Calibration Curve



PASZA Beaverlodge NO_X Calibration



Calibration Report

Parameter **O3**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 6, 2011	Previous Calibration	September 7, 2011
Station Number	4	Station Location	Beaverlodge

Reason: Routine | Install | Removal | Other:

Start Time (MST)	13:56	End Time (MST)	17:43
Barometric Pressure	0.909 atm	Station Temperature	23.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.982190	Calculated slope	1.000054
Calculated intercept	-0.631546	Calculated intercept	1.976143
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.50	ppb	-1.70	ppb
slope	0.987		1.030	
Lamp temp	56.3	mV	56.3	mV
Lamp Intensity A/B	58146/59595	mV	58029/59625	mV
Pressure	666.5	mm Hg	668.5	mm Hg
Flow A	0.755	ccm	0.755	ccm
Flow B	0.702	ccm	0.701	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)
4989	0.0	0.0	0.5	N/A
4989	260.0	263.5	263.0	1.0020
4989	180.0	180.6	178.4	1.0122
4989	100.0	99.9	94.2	1.0610
4989	0.0	0.0	0.5	As found zero
4989	260.0	263.5	263.4	As found span
			Average Correction Factor	1.0250

Calculated value of As Found Response: 257.6 ppm Percent Change of As Found: -2.2%

	before calibration		after calibration	
Auto zero	0.1	ppb	2.1	ppb
Auto span	114.3	ppb	109.2	ppb

Notes: Adjusted span

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

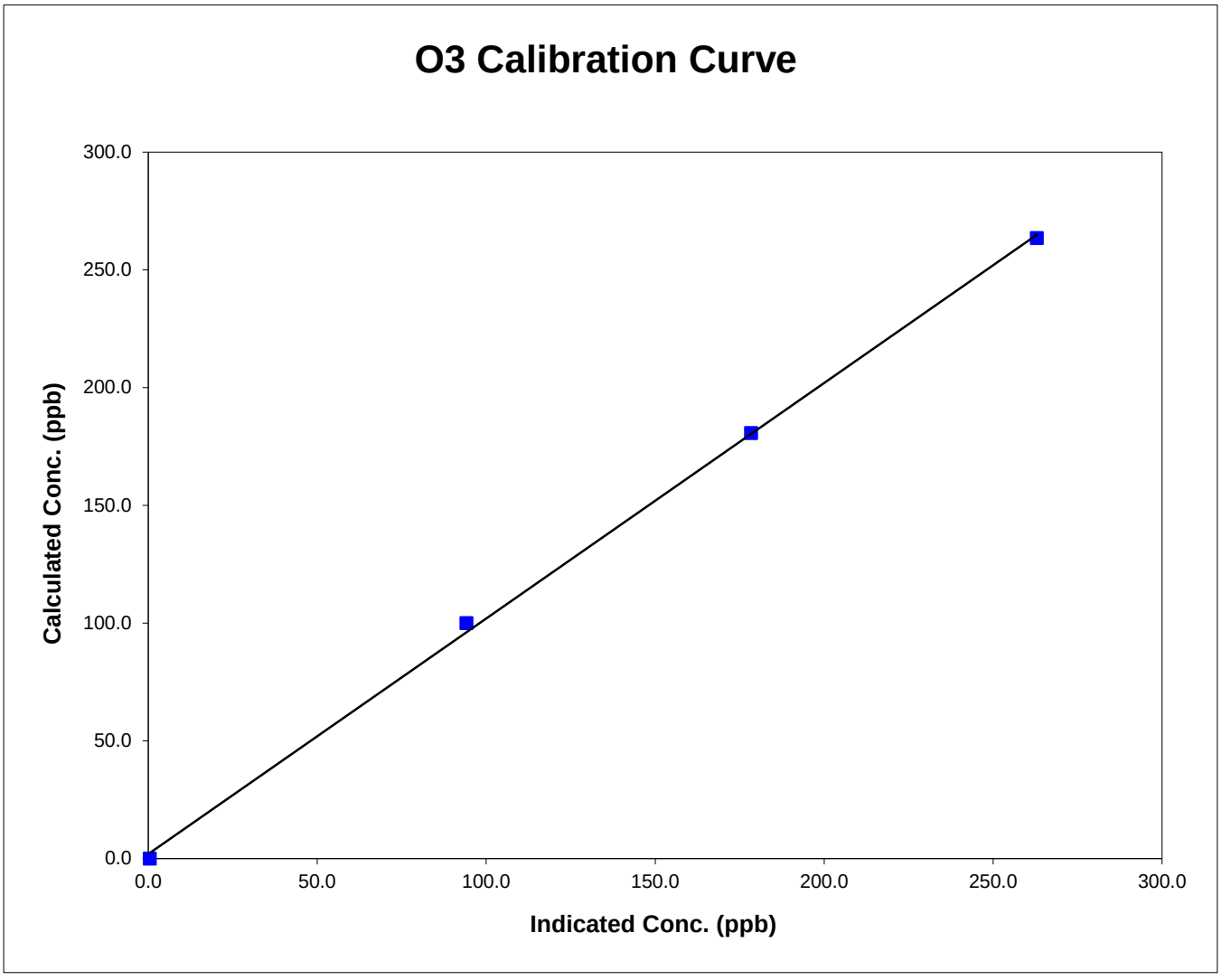
FOCUS AIR QUALITY MONITORING

Station Information

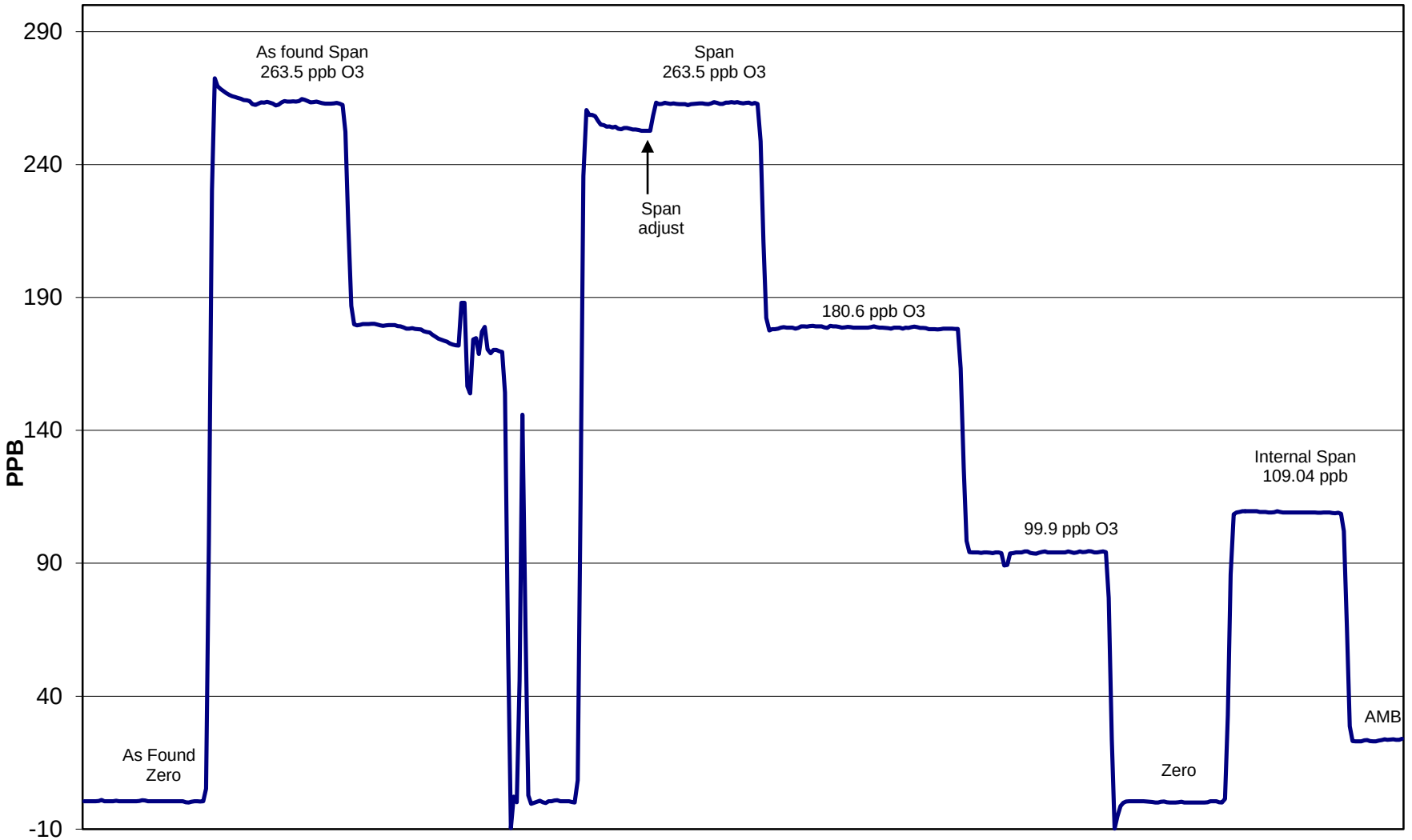
Calibration Date	October 6, 2011	Previous Calibration	September 7, 2011
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:56	End Time (MST)	17:43
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	NA		
263.5	263.0	1.0020	Correlation Coefficient	0.999409
180.6	178.4	1.0122		
99.9	94.2	1.0610	Slope	1.000054
			Intercept	1.976143



O3 Calibration



October 6, 2011

FDMS TEOM PM2.5 AUDIT

FOCUS AIR QUALITY MONITORING

STATION: **BeaverLodge**

LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 11-Oct-11

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	AMU1649
Site Number	4
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	30/30
T-Air Indicated / Set Point	30/30
T-Cap Indicated / Set Point	30/30
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	13-Sep-11
Previous Calibration	

PUMP CAPACITY CHECK *	PASS

* capacity test or pump on timed test utilized to verify pump integrity

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	-0.09	0.12
PUMP OFF	0.01	0.01
NET	-0.10	0.11
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	14287	13.67	3.00
	INDICATED (I)	7.6	0.899		13.67	3.00
As Found Data	MEASURED (AF)	7.7	0.900		13.68	3.01
Adjusted Data	MEASURED (M)	7.7	0.900	14184	13.68	3.01
	DIFFERENCE (M-I)	0.1	0.001	-0.7%	0.01	0.01
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

Ko Audit Filter data *Weight:* 0.11477 *Serial #:* *CVK 3532*

COMMENTS: PASS

Sample Head was cleaned.

Reference leak check: Main: -0.09 Aux: 0.12

PASS

Sample Head Inspection Or Cleaning: TEOM / FDMS IN LINE FILTER INSPECTION OR REPLAC

Calibration Report

Parameter **SO2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 27, 2011	Previous Calibration	September 26, 2011
Station Number	6	Station Location	Valleyview

Reason: Routine | Install | Removal | Other:

Start Time (MST)	12:00	End Time (MST)	15:08
Barometric Pressure	702.00 mmHg	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	7/23/2010
Gas Cert Reference	SGAL3245		
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	1.007971	Calculated slope	0.997303
Calculated intercept	-2.072773	Calculated intercept	-2.662659

Analyzer make	TEI 45C	Analyzer serial # 45C-57531-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	28.3		27.9	
Coefficient	0.857		0.865	
UV Lamp Voltage	950	LPM	957	LPM
Chamber Temp	44.4	V	44.5	V
Perm Gas Temp	35.1	C	35.1	C
Pressure	609.4	in Hg	615.9	in Hg
Sample Flow	0.563	LPM	0.565	LPM
Lamp Intensity	48448	Hz	48127	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)
4989	0.00	0.0	1.2	N/A
4989	39.84	394.5	397.4	0.9928
4989	19.89	197.8	202.0	0.9788
4989	9.94	99.0	103.3	0.9588
4989	0.00	0.0	1.2	As found zero
4989	39.84	394.5	389.0	As found span
			Average Correction Factor	0.9768

Calculated value of As Found Response: 388.9 ppm Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	155.5	ppm	154.6	ppm

Notes: No adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

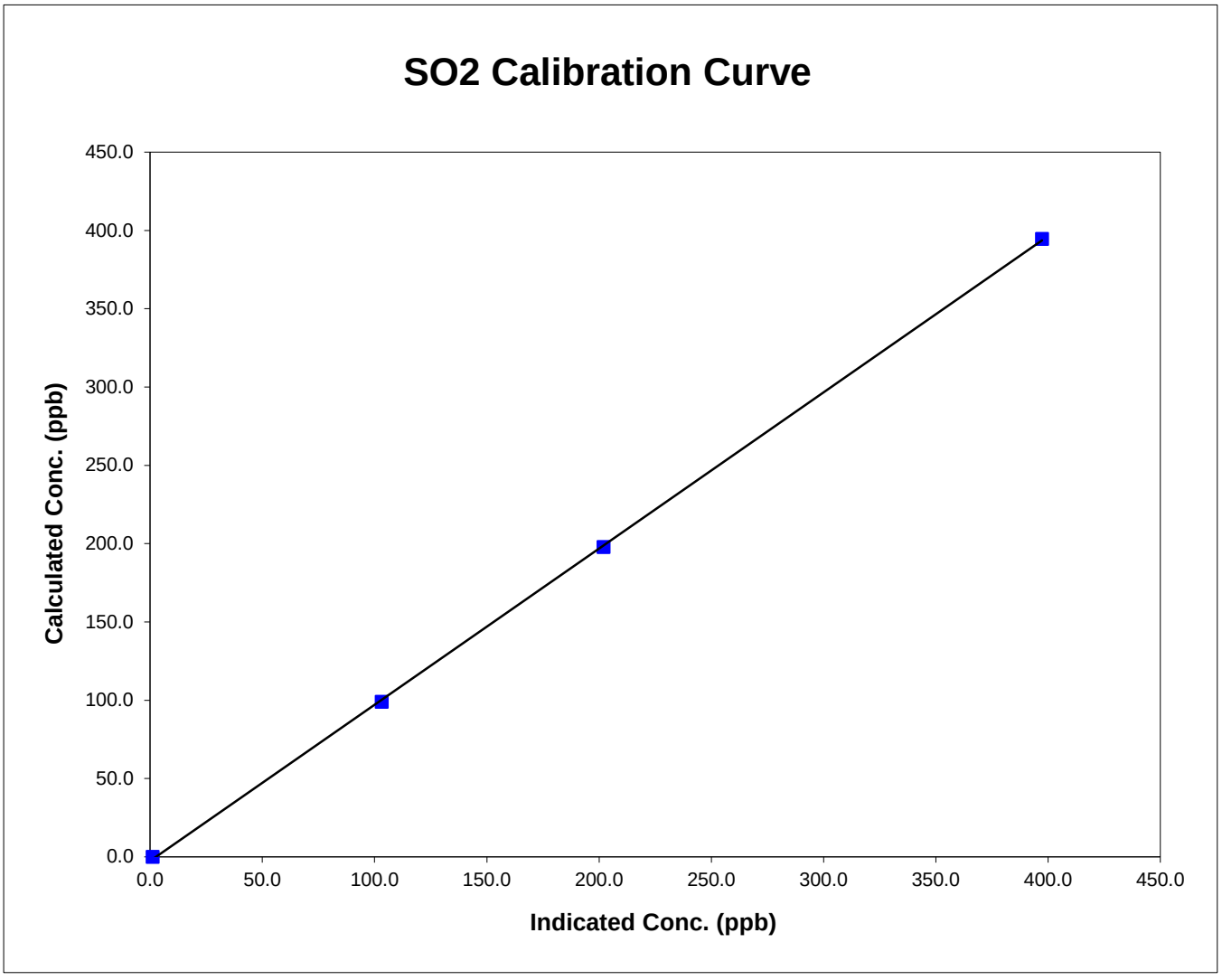
FOCUS AIR QUALITY MONITORING

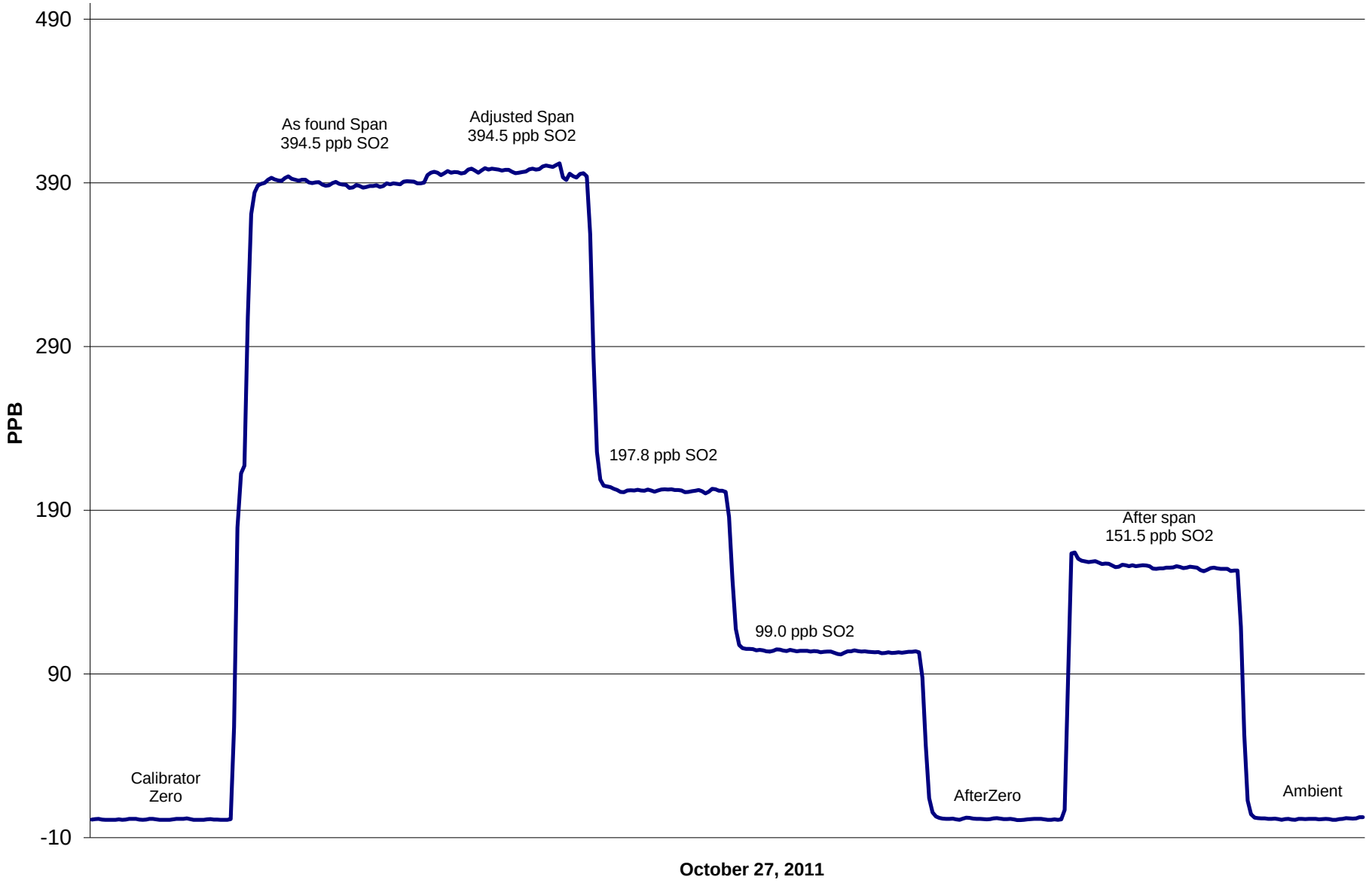
Station Information

Calibration Date	October 27, 2011	Previous Calibration	September 26, 2011
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:00	End Time (MST)	14:42
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.2	N/A		
394.5	397.4	0.9928	Correlation Coefficient	0.999930
197.8	202.0	0.9788		
99.0	103.3	0.9588	Slope	0.997303
			Intercept	-2.662659




SO2 Calibration
490
390
290
190
90
-10
PPB
As found Span
394.5 ppb SO2
Adjusted Span
394.5 ppb SO2
197.8 ppb SO2
99.0 ppb SO2
After span
151.5 ppb SO2
Calibrator
Zero
AfterZero
Ambient
October 27, 2011

Calibration Report

Parameter **H2S**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	October 27, 2011	Previous Calibration	September 26, 2011
Station Number	6	Station Location	Valleyview

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	9:40	End Time (MST)	13:00
Barometric Pressure	702.00 mm	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	5.77 ppm	Cal Gas Expiry Date	9/3/2012
Gas Cert Reference	BLM001434		
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	0.992523	Calculated slope	1.002151
Calculated intercept	-0.055421	Calculated intercept	-0.169276

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

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.2	ppb	7.0	ppb
Coefficient	1.377		1.343	
Lamp Voltage	785	V	786	V
Chamber Temp	45.01	c	44.9	c
Perm Oven Temp	45.01	c	45.00	c
Pressure	625.50	mm Hg	627.40	mm Hg
Sample Flow	.424	ccm	.425	ccm
Lamp Intensity	91.0	%	91.0	%

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)
4989	0.00	0.0	0.2	N/A
4989	69.79	79.6	79.7	0.9992
4989	34.87	40.0	40.0	1.0018
4989	8.96	10.3	10.6	0.9792
4989	0.00	0.0	0.2	As found zero
4989	69.79	79.6	80.9	As found span
			Average Correction Factor	0.9934

Calculated value of As Found Response: 80.10 ppm Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	70.6	ppm	72.0	ppm

Notes: Auto cal kicked in after last point. Re enable data channel.
Adjusted Span

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PASZA**

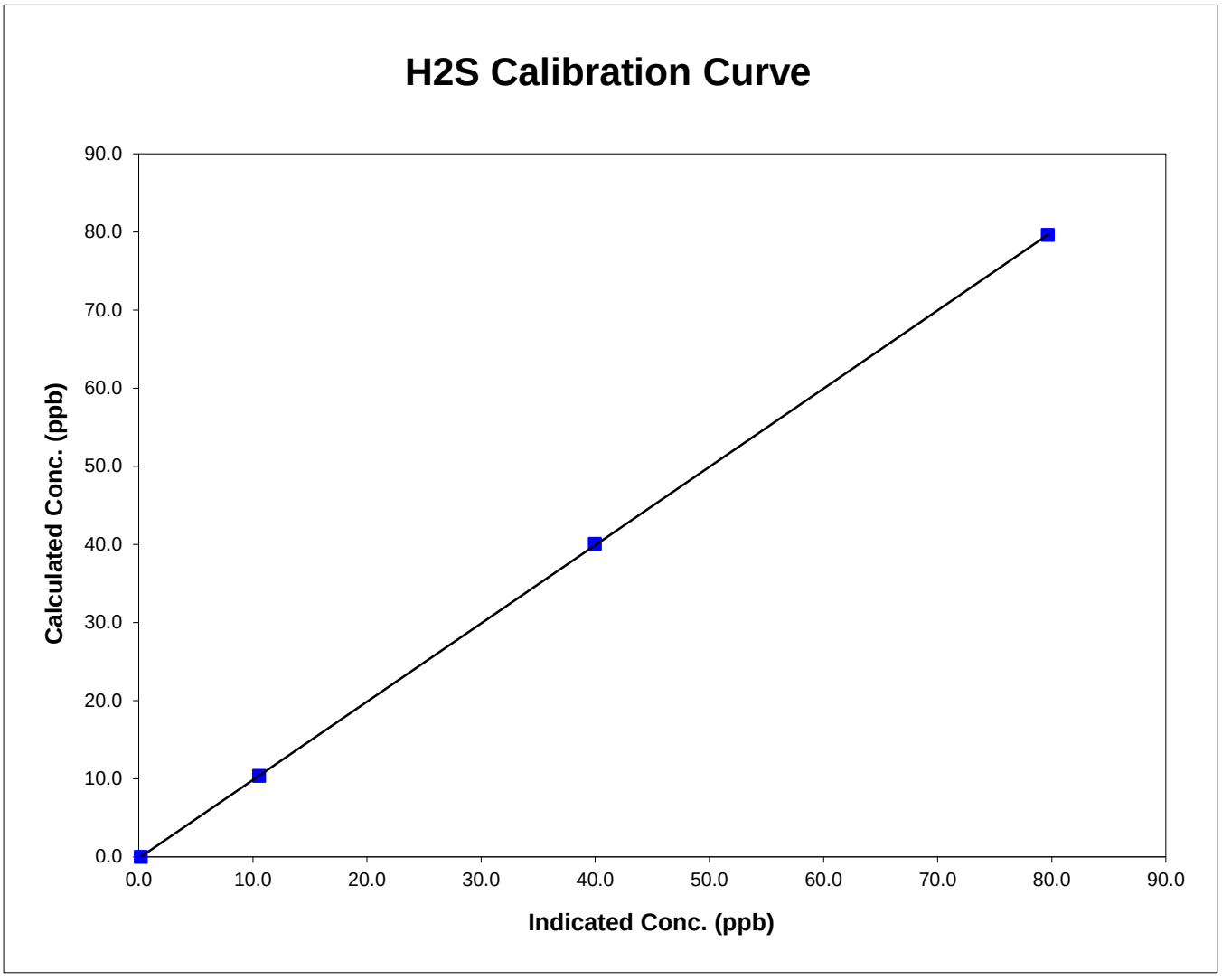
FOCUS AIR QUALITY MONITORING

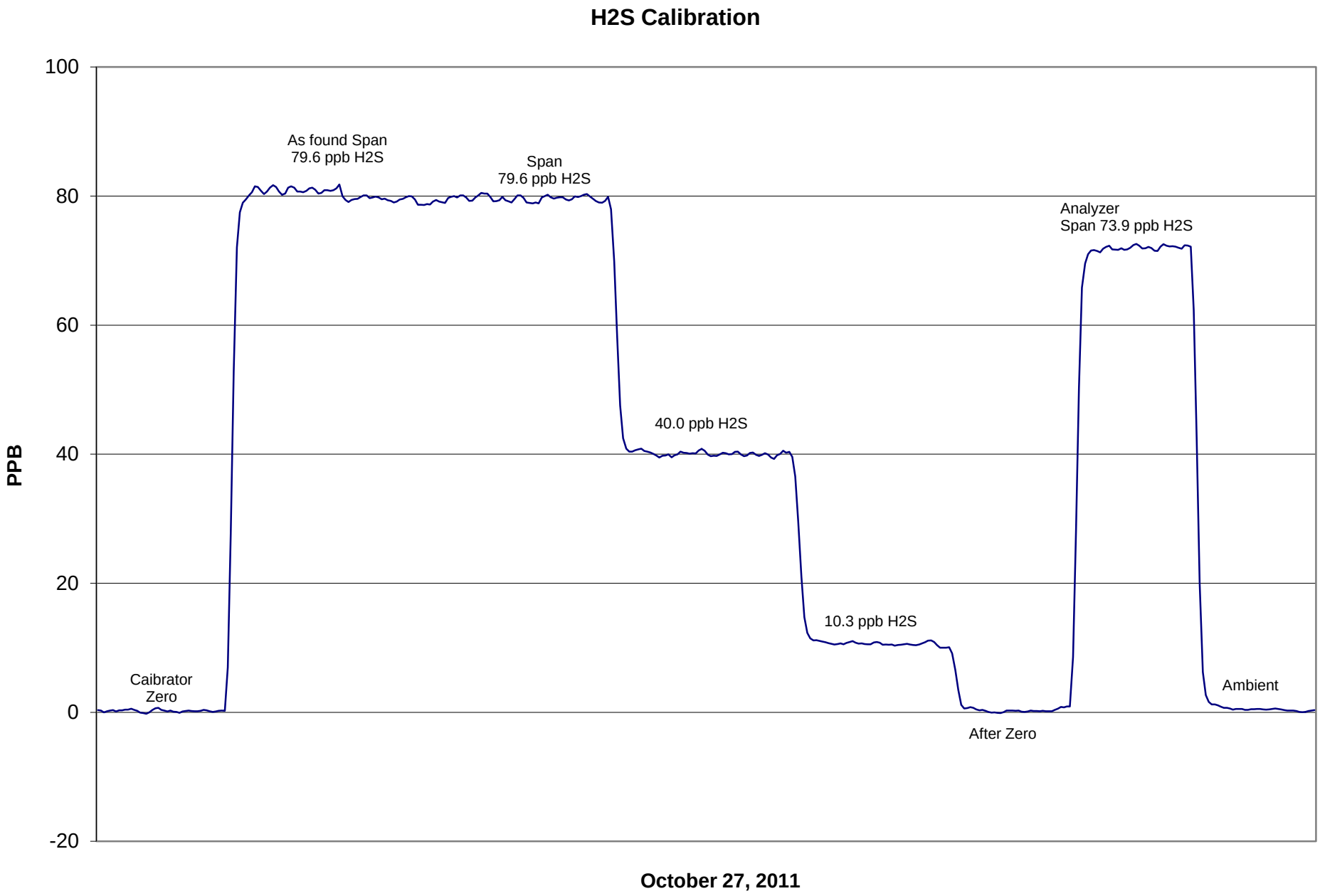
Station Information

Calibration Date	October 27, 2011	Previous Calibration	September 26, 2011
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:40	End Time (MST)	13:00
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	0.2	N/A		
79.6	79.7	0.9992	Correlation Coefficient	0.999991
40.0	40.0	1.0018		
10.3	10.6	0.9792	Slope	1.002151
			Intercept	-0.169276




H2S Calibration
100
80
60
40
20
0
-20
PPB
As found Span
79.6 ppb H2S
Span
79.6 ppb H2S
40.0 ppb H2S
10.3 ppb H2S
Analyzer
Span 73.9 ppb H2S
Caibrator
Zero
After Zero
Ambient
October 27, 2011