Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
April 2012

Operations and Reporting

FOCUS
AIR QUALITY MONITORING

Peace Airshed Zone Association
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May 22nd, 2012

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

RE: Peace Airshed Zone Association (PAZA) – April 2012 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **April 2012**.

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.	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	29-01-01
	Progress/Gordondale	01-01-077-10-W6	10036-02-00
	Gold Creek	13-26-067-05-W6	10446-02-00
	Teepee Creek	SE-2-074-04-W6	1635-02-02

Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	212-01-00
Devon Canada	Tangent	16-20-080-24-W5	11346-02-00
	NW Belloy (Dunvegan)	16-36-079-03-W6	9810-02-00
	Eaglesham (South)	02-14-077-25-W5	47669-01-00
	Puskwaskau	03-26-074-01-W6	17524-01-00
	North Normanville	03-36-079-23-W5	47455-01-00
	West Culp	05-34-078-25-W6	136284-00-00
	Cecil	08-15-084-08-W6	10032-02-00
EnCana Corporation	Hythe Brainard	11-18-074-12-W6	10910-02-02
	Sexsmith	04-08-075-07-W6	10002-01-00
Galleon Energy Inc.	Eaglesham	01-25-076-01-W6	241532-00-00
	Kakut	14-12-075-03-W6	248469-00-01
	Donnelly	06-01-077-21-W5	87-02-00
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	238762-00-02
Longview Oil Corp.	Sunset House	06-22-70-20-W5	138884-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	1746-02-01
	Pouce Coupe	16-07-078-11-W6	614-01-00
Spectra Energy Midstream Corporation	Fourth Creek	16-11-082-09-W6	263-01-00
Suncor Energy Inc.	Progress	07-22-078-09-W6	11428-02-00
Taqa North Ltd.	Valhalla	13-21-076-09-W6	17620-01-01
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	113-02-00

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

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

During the month of **April** 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.
- The TEOM analyzer was removed from service on April 10th and replaced with a Sharp 5030 in an effort to improve data stability.
- All analyzers and sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of April.

Evergreen Park Station:

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

Smoky Heights Station:

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

Beaverlodge Station:

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

Valleyview Station:

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

Sunset House Station:

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

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of April: Saddle Hills, Shaftesbury, Flyingshot, Kinuso, and Girouxville 4. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.7 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.2 ppb to 2.8 ppb, with a mean of 0.5 ppb.
- Monthly average concentrations for O_3 passives ranged from 30.0 ppb to 50.2 ppb, with a mean of 40.2 ppb.
- Monthly average concentrations for H_2S passives ranged from 0.1 to 0.2 ppb, with a mean of 0.1 ppb.

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

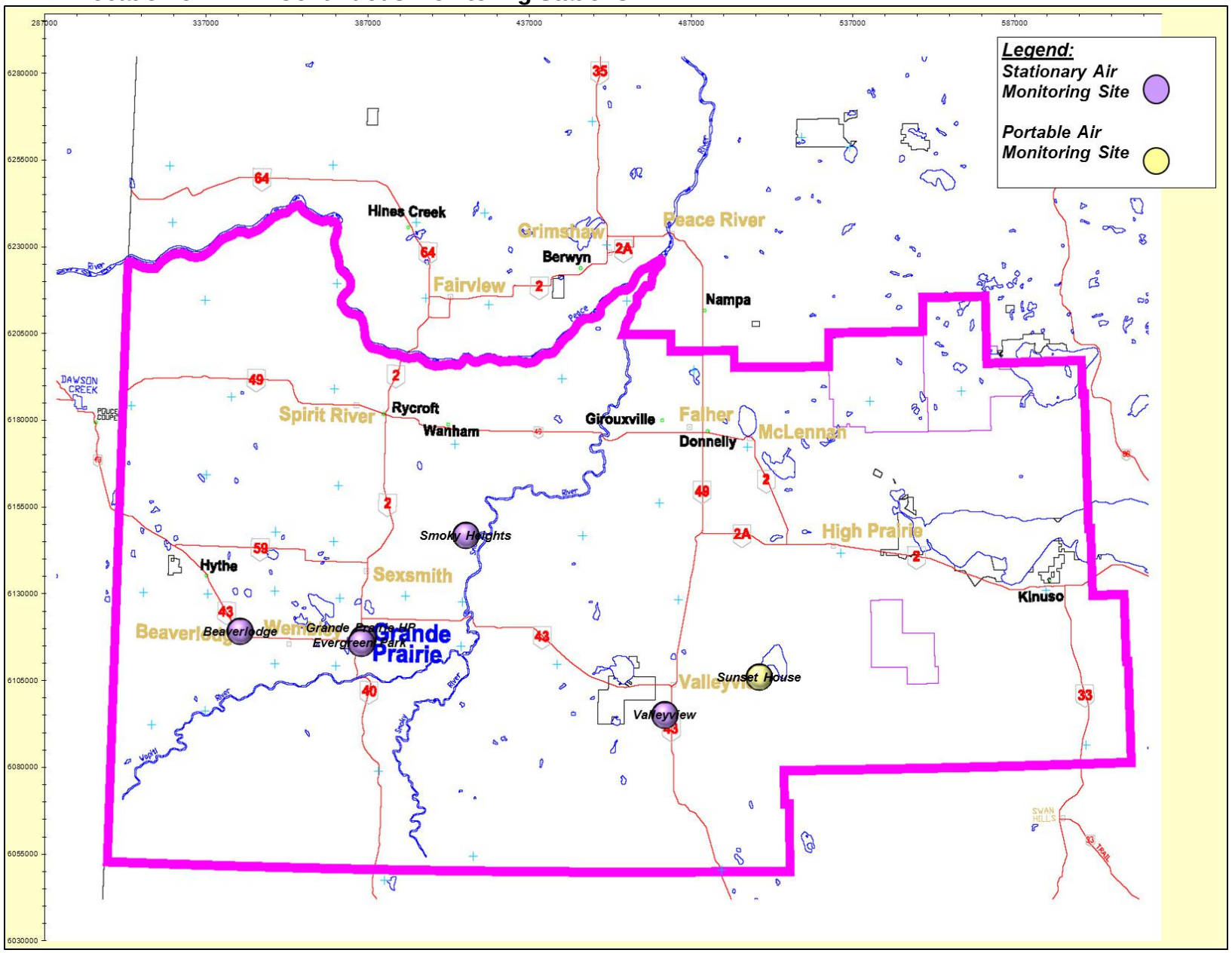
On Behalf of the,
Peace Airshed Zone Association

Shelly Pruden
Program Manager

Patrick Andersen, B.Sc.
FOCUS AQM Data Specialist

Jeff Cooper, C.Tech.
AQM Operations Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Apr-2012	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
Pollutant (units)	Objectives 1-hr	Objectives 24-hr	Station	Monthly Average	Exceedence 1-hr	Exceedence 24-hr	Conc	Day	Conc	Day	Operational Time (%)
SO_2 (ppb)	172	48	Henry Pirker	0.3	0	0	3.4	Apr-12 00:00	0.9	Apr-11	100%
SO_2 (ppb)	172	48	Evergreen Park	0.2	0	0	4.6	Apr-04 07:00	0.7	Apr-10	100%
SO_2 (ppb)	172	48	Smoky Heights	0.4	0	0	4.6	Apr-16 10:00	1.0	Apr-21	98%
SO_2 (ppb)	172	48	Beaverlodge	0.3	0	0	2.9	Apr-12 06:00	1.4	Apr-12	100%
SO_2 (ppb)	172	48	Valleyview	0.5	0	0	10.3	Apr-20 23:00	1.9	Apr-21	100%
SO_2 (ppb)	172	48	Sunset House	0.1	0	0	2.5	Apr-11 11:00	1.2	Apr-11	100%
NO (ppb)			Henry Pirker	1.0	0	0	24.9	Apr-30 08:00	2.5	Apr-02	100%
NO_2 (ppb)	159	106	Henry Pirker	5.3	0	0	36.8	Apr-02 07:00	9.0	Apr-03	100%
NO_X (ppb)			Henry Pirker	6.3	0	0	57.8	Apr-02 07:00	11.1	Apr-02	100%
NO (ppb)			Beaverlodge	0.2	0	0	7.3	Apr-30 09:00	0.8	Apr-16	100%
NO_2 (ppb)	159	106	Beaverlodge	1.9	0	0	11.7	Apr-05 07:00	3.1	Apr-10	100%
NO_X (ppb)			Beaverlodge	2.2	0	0	17.8	Apr-30 09:00	3.9	Apr-16	100%
NO (ppb)			Sunset House	0.1	0	0	1.7	Apr-11 12:00	0.6	Apr-11	100%
NO_2 (ppb)	159	106	Sunset House	1.1	0	0	4.0	Apr-20 00:00	2.3	Apr-19	100%
NO_X (ppb)			Sunset House	1.1	0	0	4.4	Apr-19 09:00	2.5	Apr-19	100%
O_3 (ppb)	82		Henry Pirker	33.6	0	-	54.2	Apr-03 16:00	42.3	Apr-03	99%
O_3 (ppb) - 8-hr			Henry Pirker		0				49.8	Apr-03	
O_3 (ppb)	82		Beaverlodge	38.9	0	-	55.8	Apr-15 16:00	48.5	Apr-15	100%
O_3 (ppb) - 8-hr			Beaverlodge		0				53.3	Apr-15	
O_3 (ppb)	82		Sunset House	42.2	0	-	62.7	Apr-03 17:00	55.7	Apr-03	100%
O_3 (ppb) - 8-hr			Sunset House		0				60.1	Apr-03	
CO (ppm)	13		Henry Pirker	0.19	0	-	0.7	Apr-02 07:00	0.2	Apr-23	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.5	Apr-01	
THC (ppm)			Henry Pirker	2.06	-	-	2.7	Apr-22 03:00	2.2	Apr-22	100%
TRS (ppb)			Henry Pirker	0.3	-	-	2.0	Apr-29 03:00	0.4	Apr-29	100%
TRS (ppb)			Evergreen Park	0.6	-	-	1.7	Apr-24 10:00	1.0	Apr-22	100%
TRS (ppb)			Smoky Heights	0.2	-	-	0.5	Apr-02 02:00	0.3	Apr-26	100%
TRS (ppb)			Sunset House	0.3	-	-	0.6	Apr-27 02:00	0.4	Apr-26	100%
H_2S (ppb)	10	3	Valleyview	0.0	0	0	0.9	Apr-04 01:00	0.2	Apr-04	100%
PM2.5 (µg/m3)	80	30	Henry Pirker	4.7	0	0	24.2	Apr-07 21:00	8.0	Apr-12	97%
PM2.5 (µg/m3)	80	30	Evergreen Park	2.1	0	0	17.8	Apr-03 23:00	6.7	Apr-12	100%
PM2.5 (µg/m3)	80	30	Smoky Heights	2.5	0	0	33.9	Apr-23 18:00	7.1	Apr-12	100%
PM2.5 (µg/m3)	80	30	Beaverlodge	6.5	0	0	20.5	Apr-12 18:00	11.8	Apr-12	100%
PM2.5 (µg/m3)	80	30	Sunset House	1.9	0	0	21.0	Apr-12 14:00	9.2	Apr-12	99%

PAZA Monthly Continuous Data Summary – continued

Apr-2012	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
RH (%)			Henry Pirker	56.0	-	-	90.3	Apr-24 03:00	86.8	Apr-13	100%
RH (%)			Evergreen Park	57.9	-	-	99.9	Apr-24 10:00	93.6	Apr-13	100%
RH (%)			Beaverlodge	63.3	-	-	100.0	Apr-13 02:00	99.3	Apr-13	100%
RH (%)			Valleyview	58.9	-	-	99.9	Apr-24 06:00	95.5	Apr-13	100%
SR (W/m^2)			Henry Pirker	167.9	-	-	748.3	Apr-19 13:00	252.4	Apr-21	100%
Temp (°C)			Henry Pirker	4.8	-	-	15.6	Apr-20 15:00	9.2	Apr-30	100%
Temp (°C)			Evergreen Park	4.6	-	-	15.0	Apr-30 16:00	9.4	Apr-29	100%
Temp (°C)			Smoky Heights	4.2	-	-	15.1	Apr-30 17:00	8.7	Apr-30	100%
Temp (°C)			Beaverlodge	4.3	-	-	15.2	Apr-30 16:00	8.7	Apr-30	100%
Temp (°C)			Valleyview	5.2	-	-	17.5	Apr-28 16:00	10.3	Apr-03	100%
Temp (°C)			Sunset House	4.2	-	-	15.5	Apr-28 16:00	9.8	Apr-03	100%
WSPD s (km/hr)			Henry Pirker	11.6	-	-	37.0	Apr-20 14:00	21.8	Apr-20	100%
WSPD s (km/hr)			Evergreen Park	14.6	-	-	59.0	Apr-20 17:00	33.9	Apr-20	100%
WSPD s (km/hr)			Smoky Heights	13.9	-	-	46.0	Apr-27 13:00	27.3	Apr-20	100%
WSPD s (km/hr)			Beaverlodge	13.6	-	-	47.0	Apr-20 15:00	25.4	Apr-20	100%
WSPD s (km/hr)			Valleyview	7.0	-	-	25.0	Apr-20 13:00	13.5	Apr-20	100%
WSPD s (km/hr)			Sunset House	12.2	-	-	30.0	Mar-15 13:00	20.5	Mar-27	100%
WSPD v (km/hr)			Henry Pirker	1.6	-	-	36.0	Apr-20 14:00	19.8	Apr-20	100%
WSPD v (km/hr)			Evergreen Park	3.4	-	-	58.0	Apr-20 17:00	32.5	Apr-20	100%
WSPD v (km/hr)			Smoky Heights	3.0	-	-	46.0	Apr-27 13:00	24.2	Apr-20	100%
WSPD v (km/hr)			Beaverlodge	0.7	-	-	46.0	Apr-20 15:00	23.8	Apr-20	100%
WSPD v (km/hr)			Valleyview	1.2	-	-	24.0	Apr-20 13:00	13.0	Apr-14	100%
WSPD v (km/hr)			Sunset House	2.1	-	-	29.0	Apr-20 16:00	18.5	Apr-20	100%
WDIR			Henry Pirker	NW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	WNW	-	-	-	-	-	-	100%
WDIR			Smoky Heights	WNW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	NNE	-	-	-	-	-	-	100%
WDIR			Valleyview	WNW	-	-	-	-	-	-	100%
WDIR			Sunset House	SSE	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on April 16th (SO_2, NO_X & O_3) and April 17th (TRS, CO & THC). TEOM was removed from service on April 10th and replaced with a Sharp model 5030.

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	Five (5) hours invalid after April 10th site visit, perhaps due to construction activity associated with installation of Sharp. In addition, span responses were disrupted by the same event, with invalid spans from April 11th through April 17th.
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. Calibrated and removed from service as per manufacturer spec April 10th.
$PM_{2.5}$	Sharp	5030	Installed on April 10th.
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 April 26th (SO_2 and $PM_{2.5}$) and April 30th (TRS).

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
TRS	TEI	43C	Flash lamp behaving erratically during calibration attempt on April 26th. Replaced and calibrated on April 30th.
$PM_{2.5}$	R&P	1400AB	One (1) hour was flagged invalid due to negative reading.
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 April 27th (SO_2 and TRS). Wind too high to calibrate TEOM, will be calibrated in May.

Parameter	Make	Model	Notes
SO_2	TEI	43C	Nine (9) hours were flagged invalid due to pump failure, requiring site visit and calibration.
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 April 12th (SO_2, NO_X, O_3).

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	Filter was cleaned April 12th.
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 April 10th (SO_2 & H_2S).

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 – Portable-Sunset House Station			
General Station Issues			
Routine monthly calibrations were performed on April 11th (SO_2, O_3, NO_X, $PM_{2.5}$) and April 10th (TRS).			
Parameter	**Make**	**Model**	**Notes**
SO_2	TEI	43i	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
TRS	TEI	39C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	Four (4) hours flagged invalid due to negative readings.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA
Henry Pirker Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2012

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

Maximum Value: 3.4 ppb on Apr 12 00:00

Maximum Daily Average: 0.9 ppb on Apr 11

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.0 ppb on Apr 25

Maximum Diurnal Average: 0.4 ppb at hour 11

Minimum Diurnal Average: 0.1 ppb at hour 4

Monthly Average: 0.26 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.3$ $P_{90} = 0.7$ $P_{99} = 1.7$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	A	0	0	0	0	0	0	0	0.4	1.5
2-Apr	2	0	0	0	0	0	0	1	0	0	0	0	0	0	1	A	0	0	1	0	0	0	0	0	0.3	1.5
3-Apr	0	0	0	0	0	2	2	1	1	0	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0.4	1.9
4-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0.2	0.7
5-Apr	0	0	0	1	1	0	0	1	1	1	1	2	A	1	0	0	0	1	0	0	0	0	0	0	0.5	1.7
6-Apr	1	2	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
7-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.6
8-Apr	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
9-Apr	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.2
10-Apr	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
11-Apr	1	1	1	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	0.9	3.4
12-Apr	2	1	1	0	0	A	0	0	1	1	1	1	1	1	0	0	0	1	1	1	0	0	0	0	0.7	2.1
13-Apr	0	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
14-Apr	0	0	0	A	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
15-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
16-Apr	0	A	0	0	0	0	0	C	C	C	C	C	1	1	1	1	0	0	0	0	0	0	0	0	0.2	0.8
17-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
18-Apr	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0.2	0.6
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.2
21-Apr	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	0.1
22-Apr	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0.3	1.6
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.4
24-Apr	0	0	0	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
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.0
26-Apr	0	0	0	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
27-Apr	0	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
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
29-Apr	0	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
30-Apr	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	1.0
	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	Diurnal Average	
	2.1	1.7	1.1	0.7	0.5	1.9	1.7	1.5	1.1	1.6	1.5	1.7	1.3	1.2	1.0	1.2	1.3	1.0	1.1	1.2	1.0	0.9	2.3	3.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

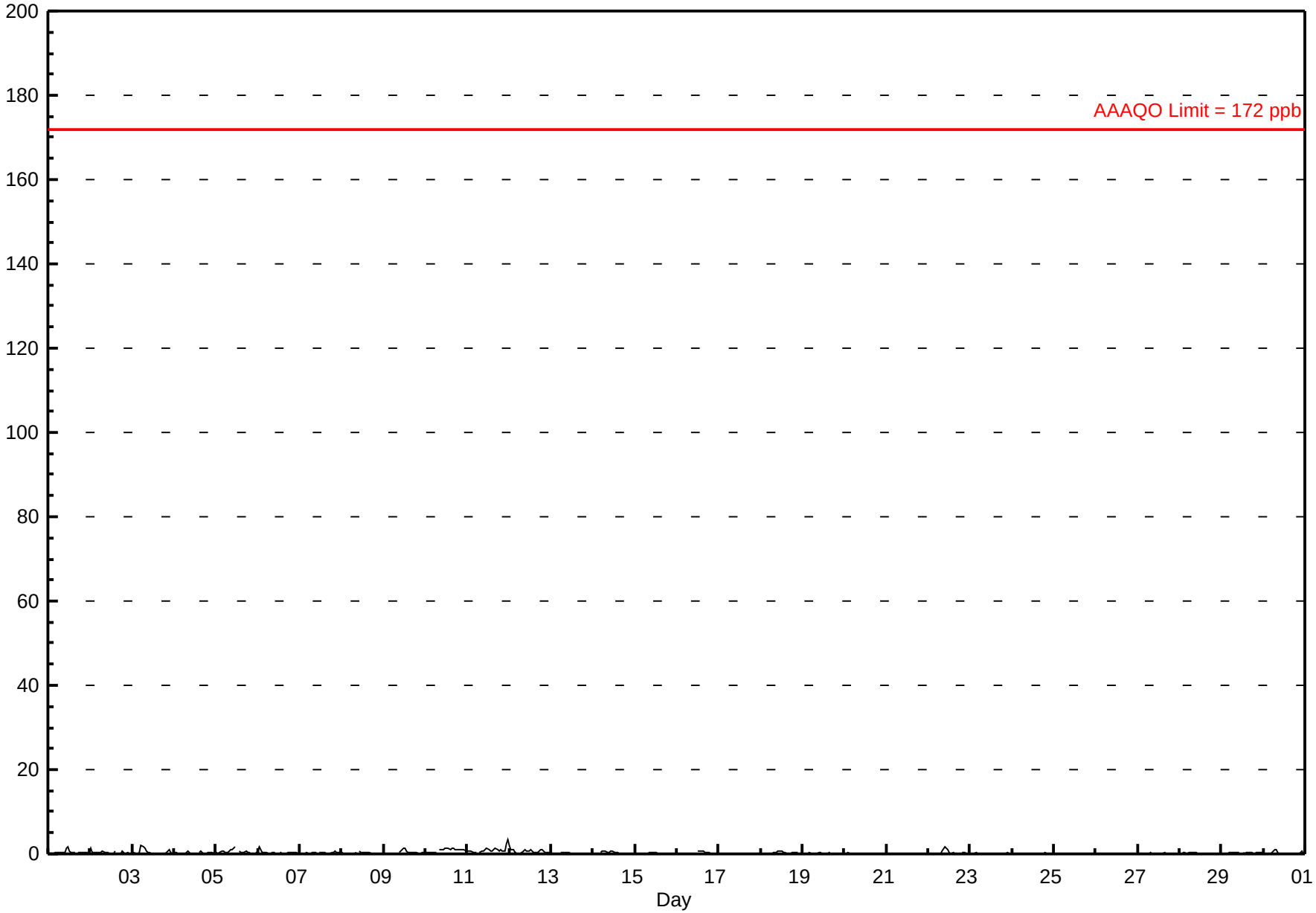
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2012

Maximum Value: 7.0 ppb on Apr 1 11:00

Maximum Daily Average: 1.5 ppb on Apr 11

Minimum Value: 0 ppb on Apr 23 16:00

Minimum Daily Average: 0.1 ppb on Apr 25

Maximum Diurnal Average: 1.0 ppb at hour 11

Minimum Diurnal Average: 0.4 ppb at hour 4

Monthly Average: 0.60 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.5 $Q_3 = 0.7$ $P_{90} = 1.1$ $P_{99} = 3.3$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	1	1	0	0	0	1	7	5	1	1	1	0	A	1	1	1	1	0	1	1	1.1	7.0
2-Apr	2	1	0	0	0	0	1	1	1	1	1	0	0	0	2	A	0	0	1	1	0	1	0	0	0.8	2.5
3-Apr	0	0	0	0	1	3	2	2	1	1	0	0	0	0	A	0	0	0	0	0	1	2	0	0	0.9	3.3
4-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	A	1	1	1	0	0	0	0	1	0	0	0.6	1.5
5-Apr	0	0	1	1	1	1	1	1	1	1	2	3	A	1	0	0	1	1	1	0	0	0	0	1	1.0	2.9
6-Apr	2	3	0	0	0	0	0	0	1	1	1	A	0	0	0	0	0	1	1	1	0	0	0	0	0.7	3.4
7-Apr	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	1	0	1	1	0	0	0.5	0.9
8-Apr	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	0.9
9-Apr	0	0	1	0	0	0	1	0	A	1	1	2	2	1	1	1	1	1	1	1	0	0	1	1	0.7	2.0
10-Apr	1	1	1	1	1	1	1	A	2	1	1	1	2	1	1	2	2	1	1	1	1	1	1	1	1.2	1.8
11-Apr	1	1	1	1	0	0	A	1	1	1	2	2	1	1	1	1	2	1	1	1	1	2	5	4	1.5	4.9
12-Apr	3	1	2	1	1	A	0	0	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0	1.2	3.4
13-Apr	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
14-Apr	0	0	0	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	1.3
15-Apr	0	0	A	0	0	0	0	0	1	2	0	0	1	0	1	0	1	1	1	1	1	1	1	1	0.6	1.7
16-Apr	1	A	1	0	0	0	0	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.2
17-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.5
18-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	1	0	A	0	0.6	1.0
19-Apr	0	0	0	0	1	0	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0	A	1	1	0.4	0.6
20-Apr	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0.3	0.7
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3
22-Apr	0	0	0	0	0	0	0	1	2	2	2	2	1	0	1	1	0	1	A	1	1	1	1	0	0.7	2.1
23-Apr	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0	0.3	0.6
24-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	1	0	0	0	0	0.2	0.5
25-Apr	0	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
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0.2	0.6
27-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.6
28-Apr	1	0	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
29-Apr	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
30-Apr	1	0	0	0	1	1	2	2	1	1	A	1	0	0	0	0	0	0	0	1	1	1	1	1	0.5	1.6
	0.6	0.5	0.5	0.4	0.5	0.5	0.5	0.6	0.8	0.7	1.0	0.9	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.7	0.6	Diurnal Average	
	3.4	3.4	1.9	0.9	1.0	3.3	2.0	2.0	2.4	2.1	7.0	5.4	2.0	1.4	2.0	1.6	1.9	1.4	1.4	1.6	1.4	2.0	4.9	4.4	Diurnal Maximum	

C - Calibration

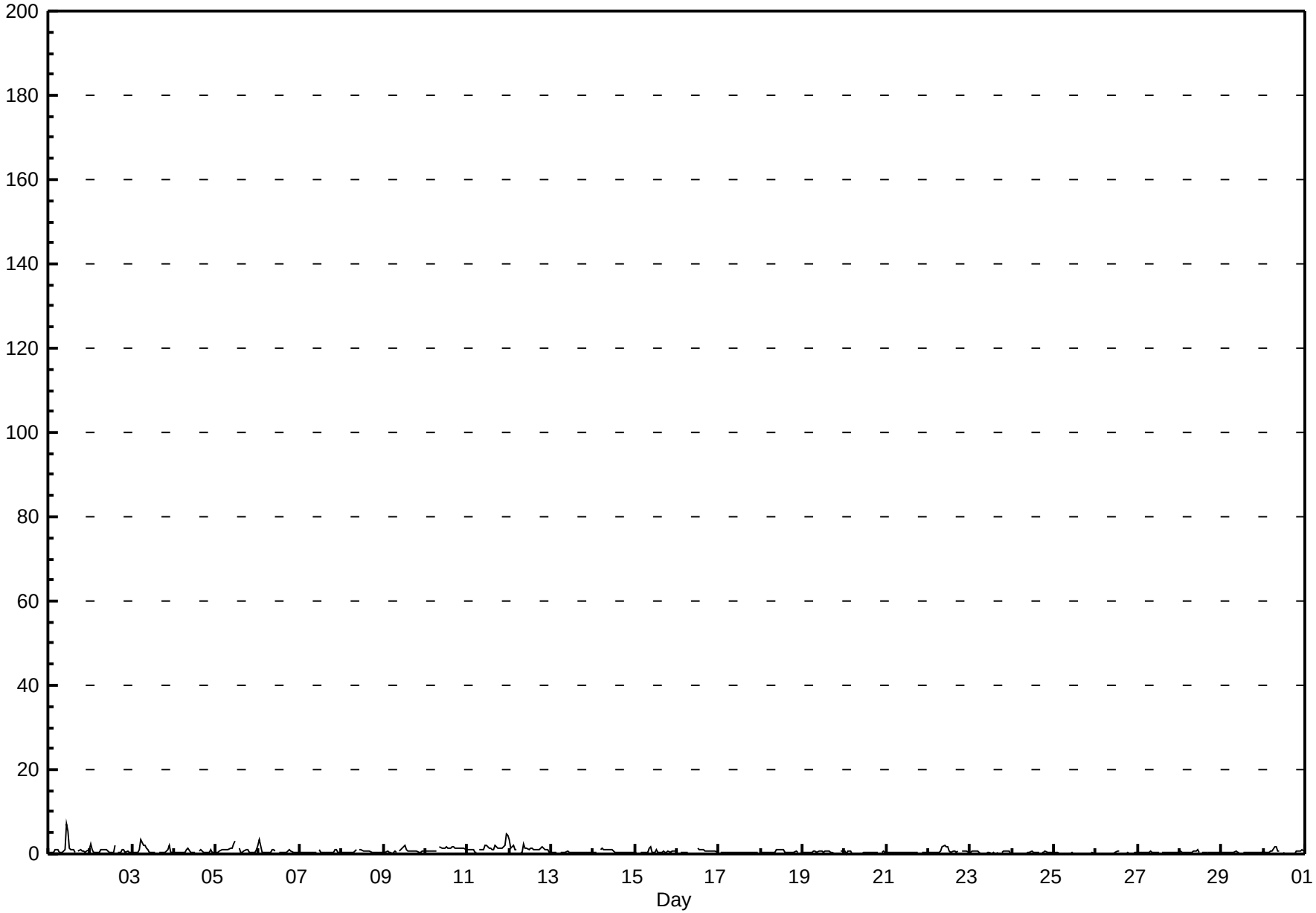
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2012

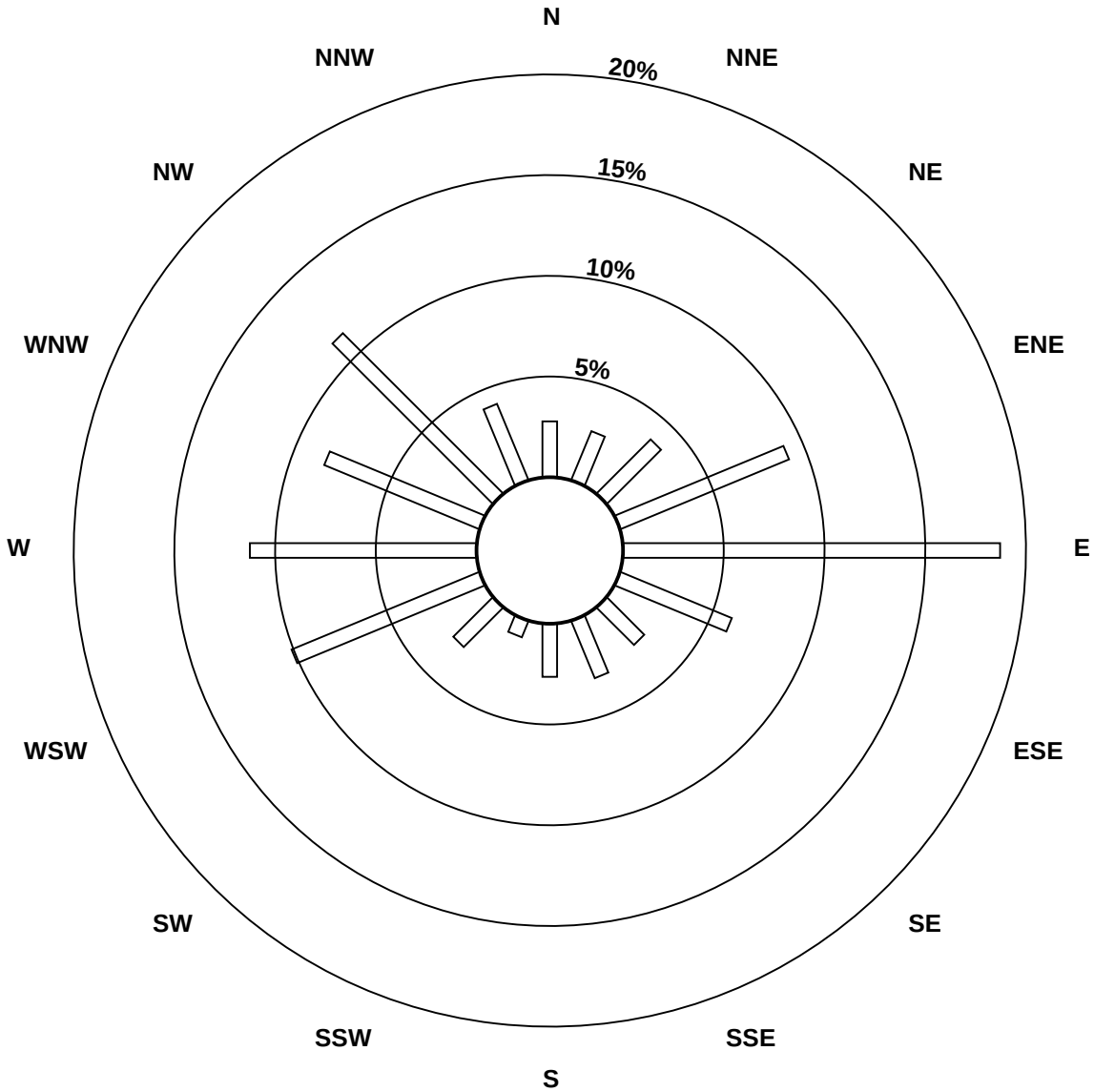


FOCUS AIR QUALITY MONITORING

Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2012



Pollutant Classes (ppb)

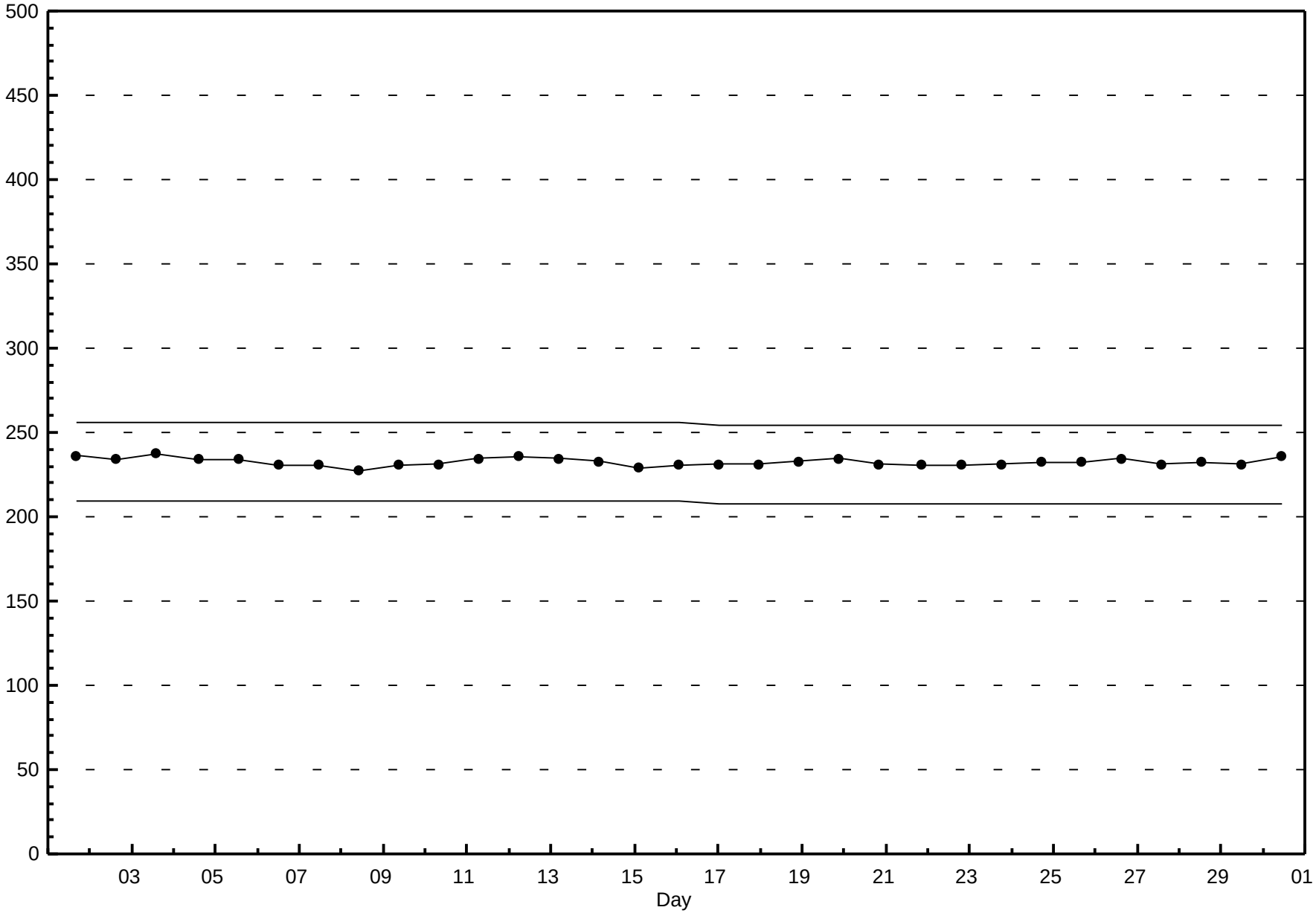
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2012

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

Maximum Value: 2.0 ppb on Apr 29 03:00

Maximum Daily Average: 0.4 ppb on Apr 29

Minimum Value: 0 ppb on Apr 18 04:00

Minimum Daily Average: 0.2 ppb on Apr 18

Maximum Diurnal Average: 0.4 ppb at hour 3

Minimum Diurnal Average: 0.3 ppb at hour 14

Monthly Average: 0.30 ppb

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

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.5
3-Apr	0	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
4-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3
5-Apr	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
6-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
7-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
8-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
9-Apr	0	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
10-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
11-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
12-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
14-Apr	0	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
15-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
16-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
17-Apr	A	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.5
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0.4	0.6
21-Apr	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	1	0.4	0.7
22-Apr	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.6
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.4
24-Apr	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.7
25-Apr	0	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
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.4
27-Apr	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0.3	0.8
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0.3	0.6
29-Apr	0	0	2	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0.4	2.0
30-Apr	1	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	0.6	0.5	2.0	0.8	1.0	0.9	0.5	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.6	0.6	0.4	0.6	0.8	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

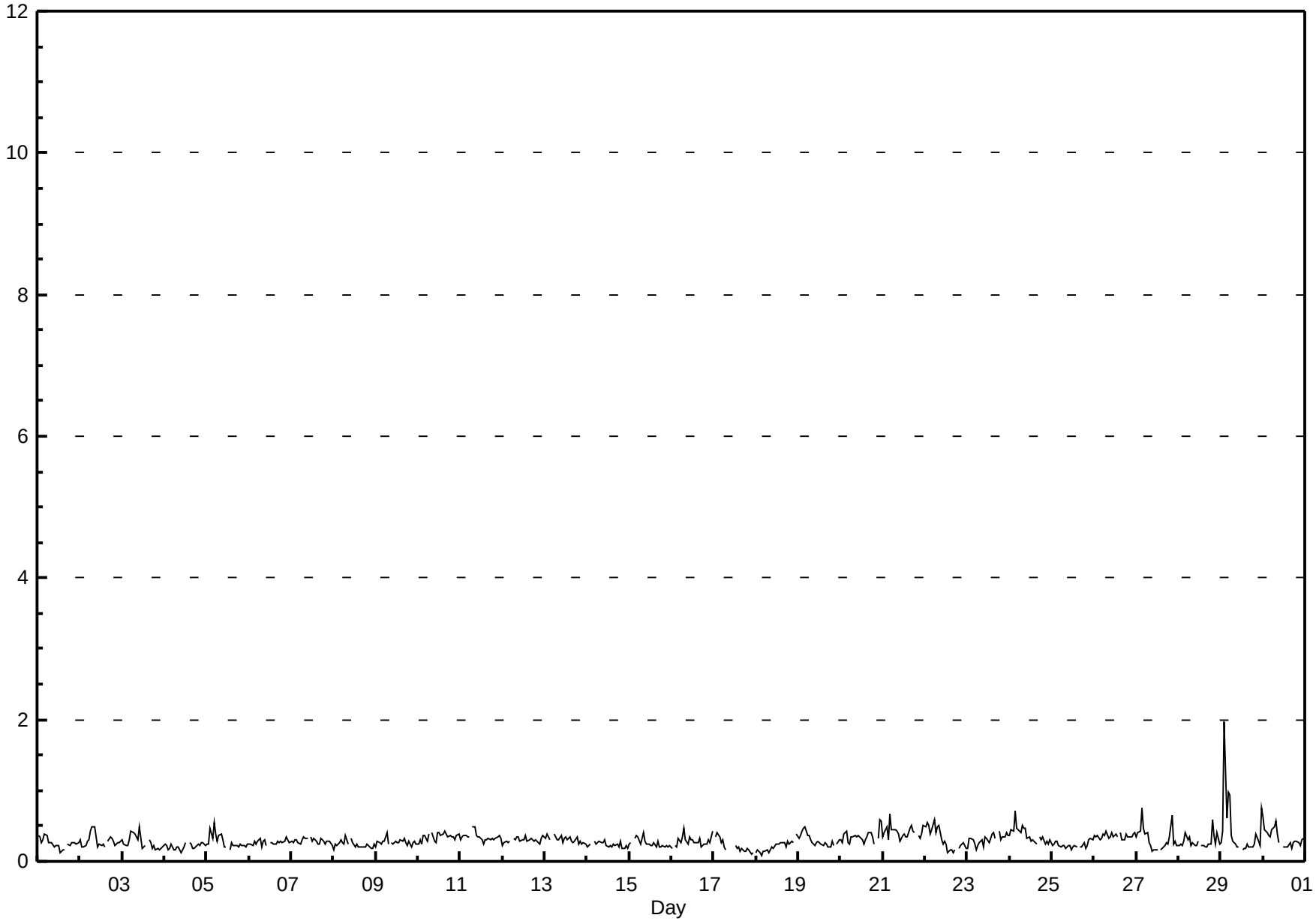
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2012

Maximum Value: 3.3 ppb on Apr 29 03:00

Maximum Daily Average: 1.0 ppb on Apr 29

Minimum Value: 0 ppb on Apr 4 18:00

Maximum Diurnal Average: 0.8 ppb at hour 5

Monthly Average: 0.72 ppb

Minimum Daily Average: 0.6 ppb on Apr 14

Minimum Diurnal Average: 0.6 ppb at hour 14

Percentiles: $P_1 = 0.5$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 0.9$ $P_{99} = 1.6$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	0.7	1.1
2-Apr	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	1.1
3-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0.7	1.1
4-Apr	1	1	0	1	1	1	1	1	1	0	1	1	1	A	1	1	1	0	1	1	1	1	1	1	0.6	0.8
5-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	1	1	1	1	1	0	0.7	1.1
6-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
7-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
8-Apr	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.6	0.8
9-Apr	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
10-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
11-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9
12-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
13-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
14-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.6	0.7
15-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
16-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
17-Apr	A	1	1	1	1	1	1	1	C	C	C	C	1	1	1	1	1	1	0	1	1	0	1	A	0.7	1.1
18-Apr	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.9
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	0.7	1.3
20-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.3
21-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.2
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	0.8	1.1
23-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	1.0
24-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.1
25-Apr	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	0.6	0.8
26-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	0.9
27-Apr	1	1	1	2	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.9
28-Apr	1	1	0	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	2	1	0.8	2.1
29-Apr	1	2	3	2	2	2	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	2	1.0	3.3
30-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.2
	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	Diurnal Average	
	1.2	1.6	3.3	1.9	2.1	2.1	1.1	1.1	0.9	0.9	1.1	0.9	0.9	0.8	1.0	1.1	1.0	1.0	1.0	1.3	1.2	0.9	2.1	1.7	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

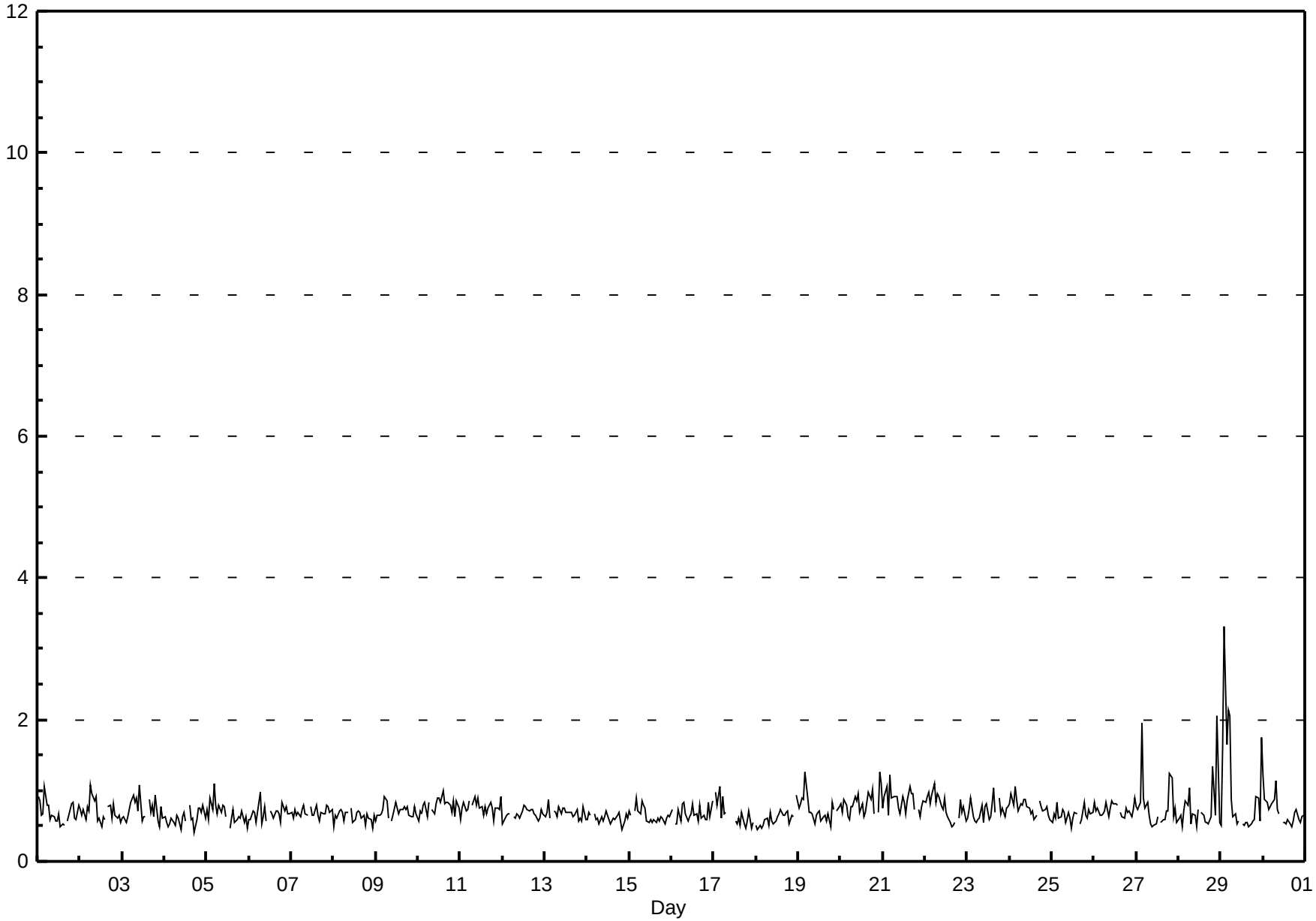
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2012

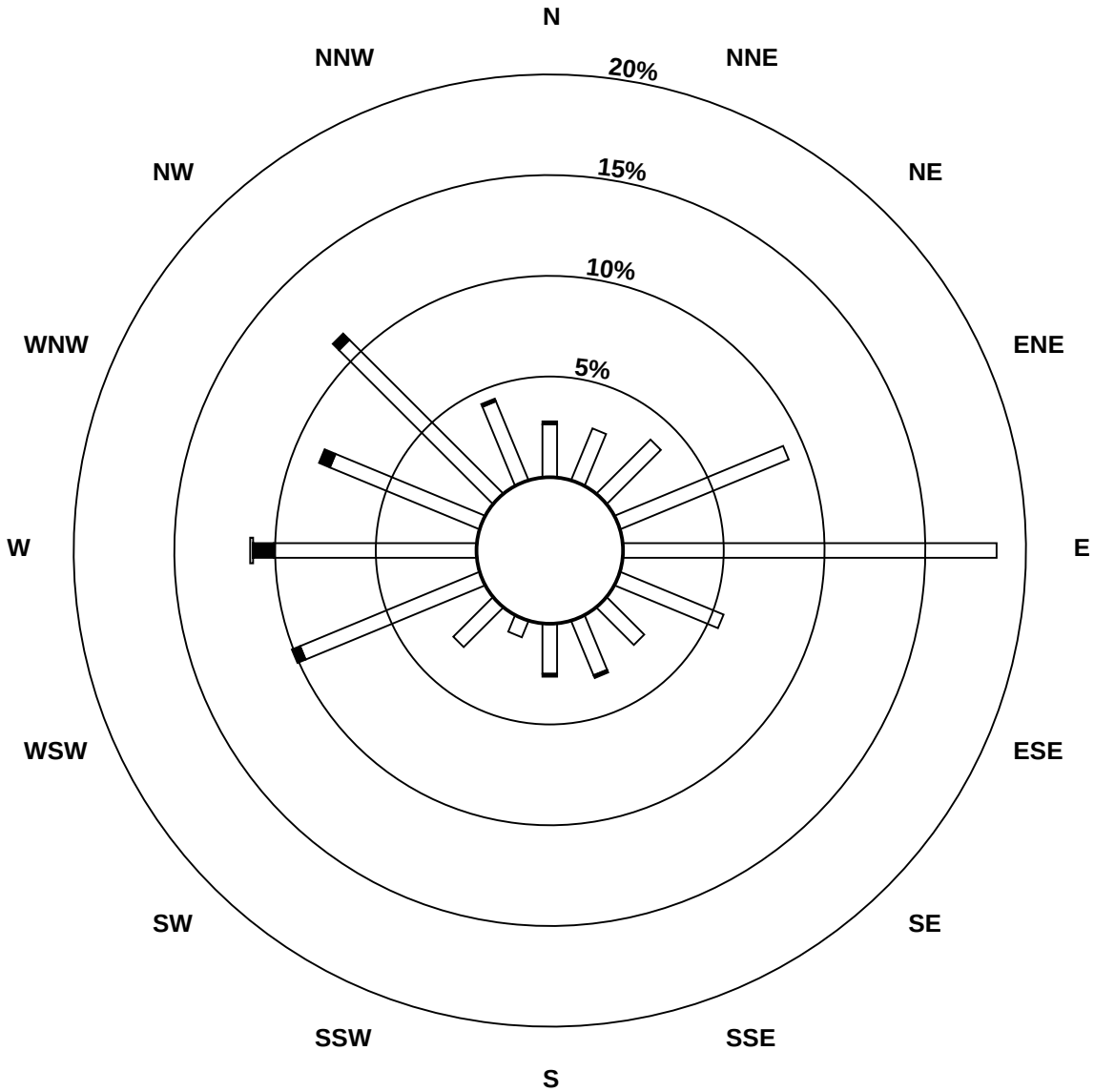


FOCUS AIR QUALITY MONITORING

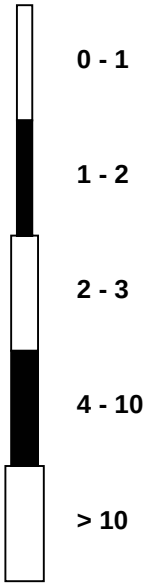
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2012



Pollutant Classes (ppb)

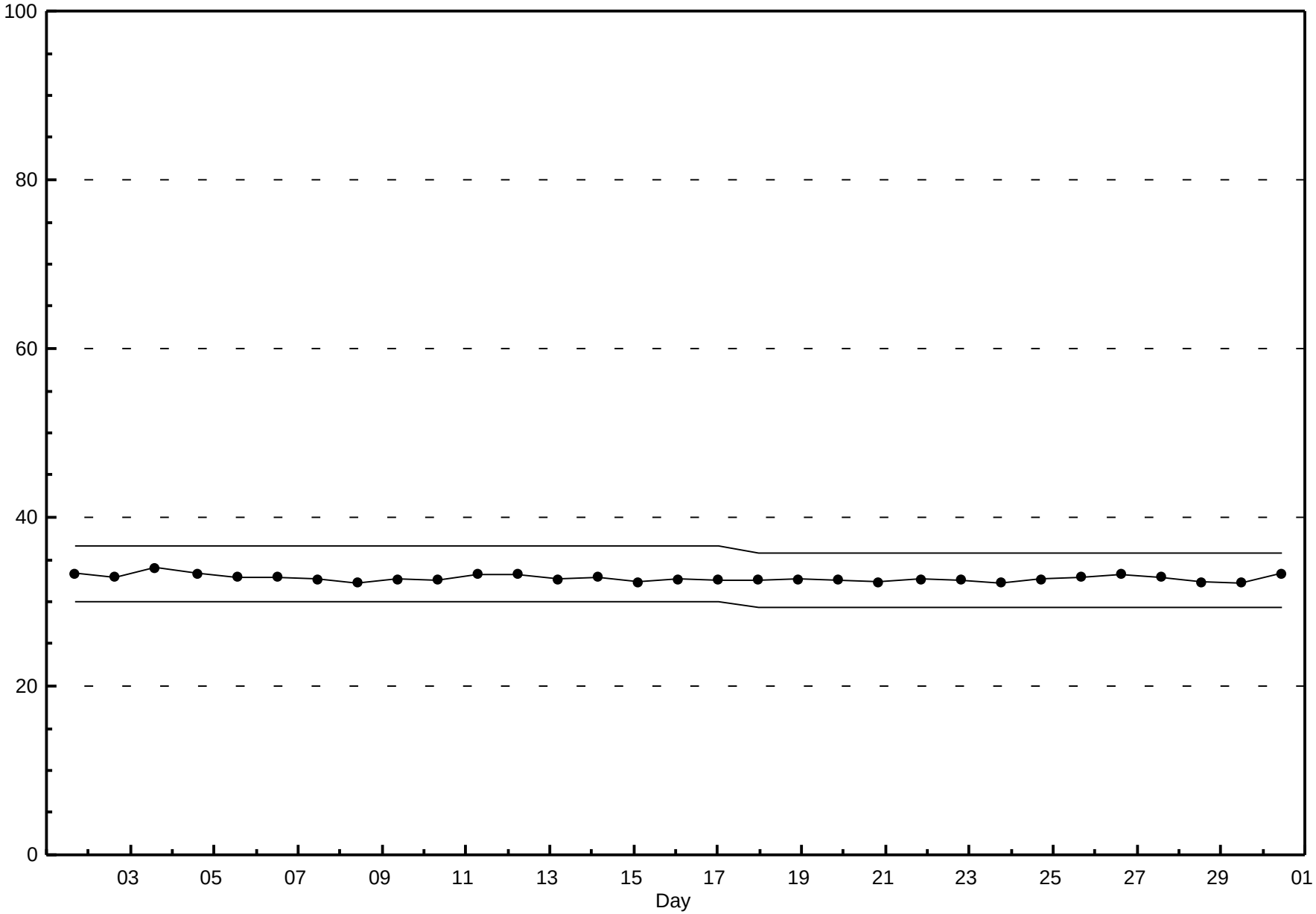


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2012

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

Maximum Value: 36.8 ppb on Apr 2 07:00

Maximum Daily Average: 9.0 ppb on Apr 3

Minimum Value: 1 ppb on Apr 6 17:00

Minimum Daily Average: 2.5 ppb on Apr 29

Maximum Diurnal Average: 11.8 ppb at hour 7

Minimum Diurnal Average: 2.1 ppb at hour 14

Monthly Average: 5.35 ppb

Percentiles: P_1 = 1.0 P_{10} = 1.7 Q_1 = 2.3 Median = 4.0 Q_3 = 6.7 P_{90} = 11.1 P_{99} = 22.4

Hours in Service:	720
Hours of Data:	682
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-Apr	17	8	5	6	11	13	13	19	18	9	5	4	2	2	3	2	A	2	3	8	10	11	8	10	8.2	19.4
2-Apr	8	5	5	5	7	16	37	30	18	9	3	3	2	2	3	A	3	5	13	8	9	5	2	2	8.6	36.8
3-Apr	3	4	3	4	6	22	30	26	21	11	6	3	2	3	A	2	7	11	11	8	13	6	2	1	9.0	30.1
4-Apr	2	1	1	1	2	7	11	13	6	3	2	1	1	A	2	1	2	1	3	7	12	10	8	5	4.4	12.8
5-Apr	6	5	5	7	4	5	8	5	5	4	2	2	A	2	5	4	2	2	3	5	8	6	6	4	4.6	7.6
6-Apr	2	3	4	4	5	6	5	2	2	2	1	A	1	1	1	1	1	1	3	6	16	8	5	7	3.8	16.0
7-Apr	7	7	6	7	7	5	11	12	3	3	A	2	1	1	1	1	1	2	2	3	6	8	11	5	4.9	11.8
8-Apr	5	10	8	10	12	11	10	6	5	A	5	2	1	1	1	1	1	2	3	6	6	6	5	7	5.3	11.9
9-Apr	10	12	10	9	13	18	23	12	A	4	3	3	3	2	2	2	2	2	3	5	4	4	3	5	6.8	22.5
10-Apr	4	4	5	6	8	10	14	A	5	3	4	4	4	4	4	4	4	5	6	7	7	6	5	6	5.5	14.1
11-Apr	4	5	5	8	8	18	A	21	18	8	6	4	3	3	3	4	6	5	6	6	6	6	4	5	7.0	20.8
12-Apr	4	4	4	3	5	A	12	10	5	4	3	4	4	3	4	4	4	3	5	4	4	3	3	3	4.4	12.0
13-Apr	2	2	2	3	A	4	4	5	6	4	4	3	2	2	2	2	2	2	2	2	2	2	1	1	2.7	5.8
14-Apr	1	1	1	A	2	1	1	2	1	2	2	1	2	2	2	2	2	2	4	5	6	8	7	13	3.1	13.2
15-Apr	11	8	A	6	12	11	12	16	12	5	3	2	2	2	2	2	2	2	4	6	8	7	6	6	6.4	16.2
16-Apr	7	A	8	9	12	13	16	C	C	C	C	C	C	C	4	3	3	3	4	4	7	7	7	9	--	15.6
17-Apr	A	7	8	6	8	12	17	13	5	4	3	2	1	2	2	2	3	2	3	4	5	5	4	A	5.5	16.8
18-Apr	3	3	3	4	5	12	15	10	4	4	4	3	3	3	5	3	3	3	4	5	5	6	A	11	5.4	15.2
19-Apr	12	9	11	9	12	14	19	15	10	6	4	5	3	2	1	1	2	3	4	5	5	A	4	5	7.0	18.9
20-Apr	6	5	8	9	5	4	10	10	6	3	2	2	2	2	2	2	2	2	2	2	A	3	3	3	4.1	10.3
21-Apr	2	2	2	2	2	3	5	3	2	2	2	2	1	1	1	2	1	1	2	A	3	7	9	14	3.2	14.1
22-Apr	20	23	23	14	16	16	9	8	8	6	5	5	2	1	1	1	1	2	A	4	4	6	6	5	8.2	22.9
23-Apr	6	11	8	7	6	7	10	8	5	3	3	3	2	3	4	6	5	A	5	6	7	10	10	11	6.3	11.1
24-Apr	11	9	6	2	2	8	9	7	12	12	6	2	2	3	3	3	A	5	4	3	4	4	3	3	5.3	12.4
25-Apr	2	2	2	2	2	2	4	5	4	3	3	3	3	3	4	A	4	3	3	3	3	4	4	4	3.1	4.5
26-Apr	3	3	3	3	3	3	4	5	4	3	4	4	3	3	A	4	4	4	4	4	4	4	3	4	3.6	4.7
27-Apr	3	4	5	4	4	6	8	9	3	2	2	2	2	A	3	2	2	2	2	3	7	7	7	8	4.2	8.7
28-Apr	4	4	4	5	6	9	11	7	5	3	2	2	A	3	2	2	2	2	2	3	3	3	2	2	3.7	10.8
29-Apr	4	2	2	2	2	5	3	3	1	1	1	A	2	1	2	2	2	1	1	3	6	6	3	3	2.5	6.1
30-Apr	6	10	9	9	15	18	15	22	12	3	A	2	2	2	2	2	2	3	3	4	5	3	3	5	6.8	22.1
	6.0	6.0	5.7	5.7	7.0	9.7	11.8	10.9	7.4	4.5	3.3	2.8	2.1	2.1	2.5	2.4	2.7	2.9	3.9	4.9	6.4	5.9	4.9	5.8	Diurnal Average	
	19.8	22.9	22.8	13.7	16.2	21.7	36.8	30.2	21.1	12.2	6.3	5.0	3.7	3.7	5.5	6.2	6.8	11.1	12.6	8.4	16.0	11.2	10.9	14.1	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

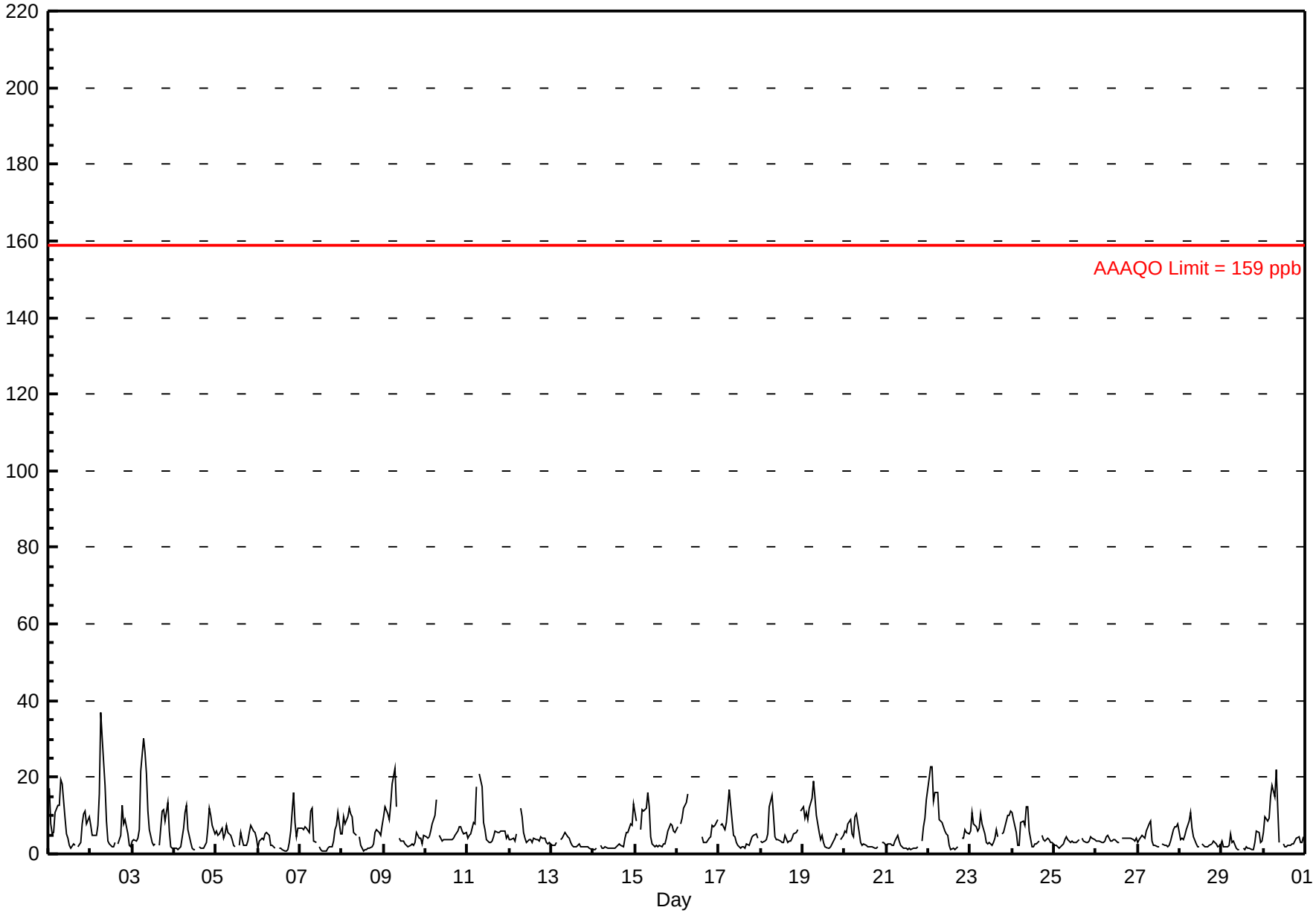
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2012

Maximum Value: 42.7 ppb on Apr 2 07:00

Maximum Daily Average: 14.3 ppb on Apr 3

Minimum Value: 1 ppb on Apr 6 17:00

Minimum Daily Average: 3.8 ppb on Apr 13

Maximum Diurnal Average: 16.9 ppb at hour 7

Minimum Diurnal Average: 3.7 ppb at hour 13

Monthly Average: 8.78 ppb

Percentiles: P_1 = 1.5 P_{10} = 3.0 Q_1 = 4.4 Median = 6.5 Q_3 = 11.5 P_{90} = 17.7 P_{99} = 34.3

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	24	16	7	9	17	17	23	25	22	15	7	6	3	4	5	3	A	3	5	11	12	13	11	11	11.7	24.7
2-Apr	12	7	6	7	11	37	43	41	24	15	5	6	4	6	5	A	5	13	19	12	14	10	3	2	13.2	42.7
3-Apr	6	5	6	5	9	35	36	40	36	22	9	6	5	9	A	7	12	15	18	14	21	11	3	3	14.3	40.0
4-Apr	3	2	2	2	5	13	14	17	12	5	3	3	3	A	3	5	3	3	5	14	19	21	22	7	8.1	21.9
5-Apr	11	8	8	8	7	9	23	8	8	7	3	4	A	6	12	10	5	4	9	10	16	18	9	8	9.1	22.8
6-Apr	3	10	8	5	7	8	9	4	3	3	2	A	2	2	3	2	1	2	7	9	33	21	5	10	6.9	33.2
7-Apr	10	9	8	9	12	8	17	15	7	5	A	3	2	2	2	2	3	3	7	5	12	13	17	8	7.7	17.0
8-Apr	7	16	11	14	20	20	12	9	6	A	7	3	2	2	5	4	6	5	6	19	8	9	6	11	9.0	20.1
9-Apr	18	17	13	15	21	25	28	27	A	6	6	5	6	5	3	5	5	4	6	10	7	7	4	10	10.9	28.2
10-Apr	6	6	7	13	20	15	21	A	8	5	5	6	5	8	6	5	5	7	9	9	10	7	7	16	8.9	20.7
11-Apr	6	7	6	10	13	34	A	24	29	14	12	5	4	4	6	8	9	7	12	8	9	23	6	16	11.9	33.7
12-Apr	5	5	6	6	8	A	19	14	9	7	5	6	6	5	10	8	7	5	8	13	7	7	6	7	7.6	18.7
13-Apr	2	3	3	3	A	5	5	7	7	6	5	4	3	3	3	4	4	3	3	3	3	3	2	2	3.8	7.0
14-Apr	2	2	2	A	4	2	2	4	3	2	3	2	3	12	4	5	4	5	6	9	11	13	10	21	5.6	21.2
15-Apr	15	15	A	14	18	15	19	19	16	10	5	3	3	4	5	4	7	7	16	12	12	10	8	9	10.5	18.5
16-Apr	13	A	14	16	16	21	23	C	C	C	C	C	C	C	10	5	5	5	11	7	15	15	10	13	--	23.1
17-Apr	A	10	12	8	14	17	22	27	7	8	6	5	3	4	5	3	5	5	11	7	8	9	6	A	9.2	26.9
18-Apr	5	7	5	5	8	20	20	18	6	6	6	5	5	5	13	5	6	5	7	10	9	11	A	15	8.8	20.2
19-Apr	18	13	13	13	19	22	23	18	14	11	5	6	5	3	4	3	3	6	8	8	7	A	5	8	10.1	23.5
20-Apr	8	8	14	23	8	7	16	15	11	5	4	4	3	4	3	3	3	3	3	3	A	4	4	4	6.9	23.2
21-Apr	3	4	3	3	3	5	7	4	4	3	3	3	3	3	3	3	3	3	4	A	6	15	19	25	5.6	25.0
22-Apr	27	32	28	20	29	21	13	10	11	7	7	10	4	4	3	3	7	5	A	13	7	10	9	7	12.5	32.2
23-Apr	12	15	11	10	13	11	17	17	8	5	5	5	5	6	6	12	8	A	8	11	10	17	13	16	10.3	17.3
24-Apr	14	11	8	3	3	12	12	10	16	17	9	5	4	5	10	6	A	7	7	5	10	5	5	4	8.2	17.1
25-Apr	4	4	3	3	4	4	5	7	7	5	6	6	5	4	8	A	7	5	4	5	6	5	5	6	5.0	8.5
26-Apr	5	4	4	4	4	5	9	13	5	5	10	6	4	5	A	5	6	6	5	5	5	5	5	13	5.9	13.0
27-Apr	4	5	6	6	6	8	10	11	6	4	4	4	4	A	5	4	4	4	4	7	11	13	10	17	6.8	16.7
28-Apr	6	6	5	7	9	13	14	15	34	5	3	3	A	4	3	3	3	5	4	7	6	5	4	7	7.4	33.8
29-Apr	5	5	3	3	3	9	5	5	2	2	2	A	3	3	5	3	6	3	3	5	10	11	4	4	4.5	10.5
30-Apr	13	16	13	20	21	21	20	32	26	5	A	5	3	4	4	3	4	5	11	9	12	5	5	8	11.6	31.8
	9.1	9.1	8.1	9.0	11.4	15.0	16.9	16.1	12.3	7.5	5.3	4.8	3.7	4.5	5.6	4.7	5.2	5.2	7.8	8.9	10.9	10.8	7.6	9.9	Diurnal Average	
	27.3	32.2	28.5	23.2	28.8	37.0	42.7	40.6	36.2	21.5	12.5	10.4	6.0	11.6	12.6	11.6	12.1	14.8	19.0	18.6	33.2	23.1	21.9	25.0	Diurnal Maximum	

C - Calibration

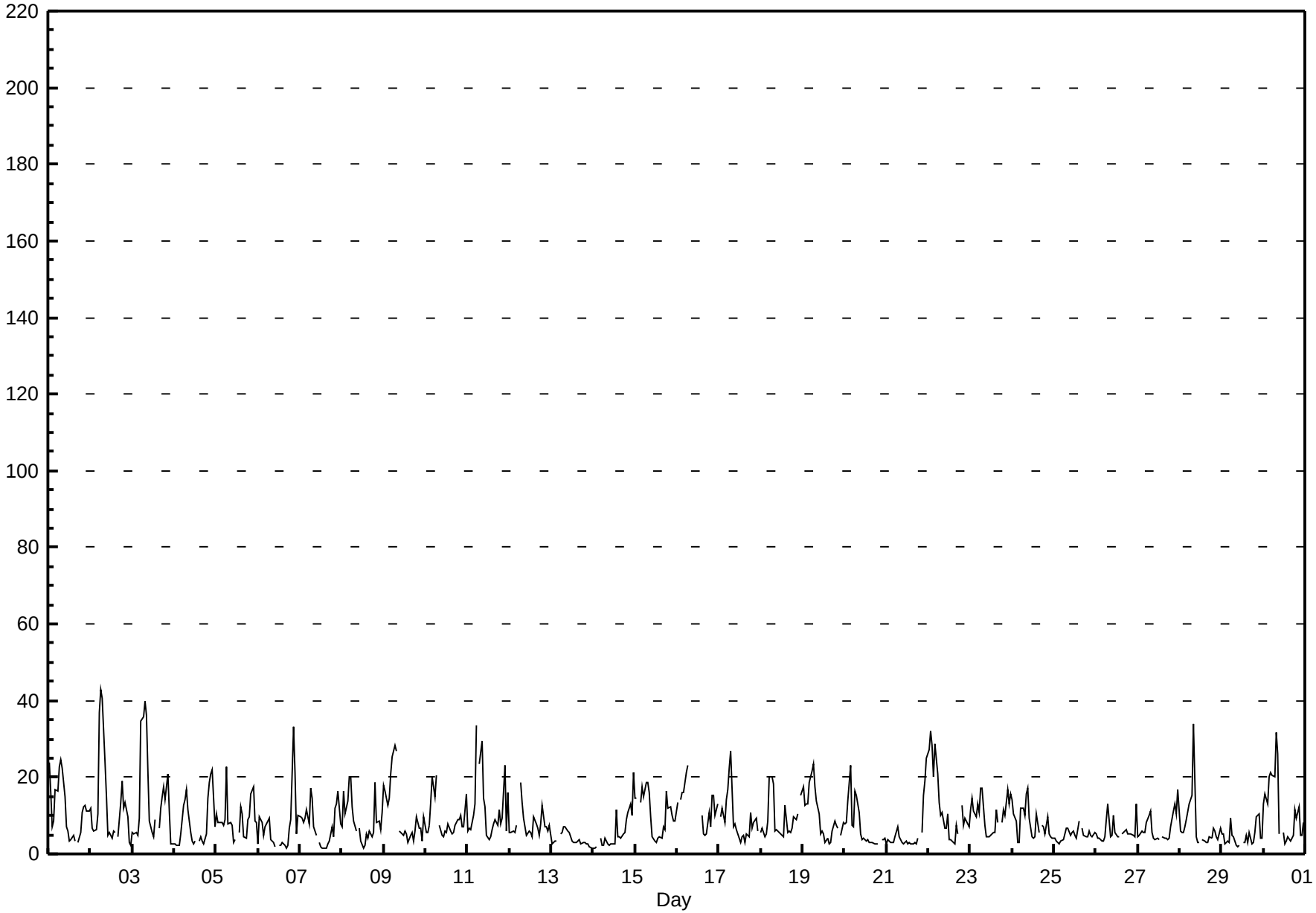
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2012

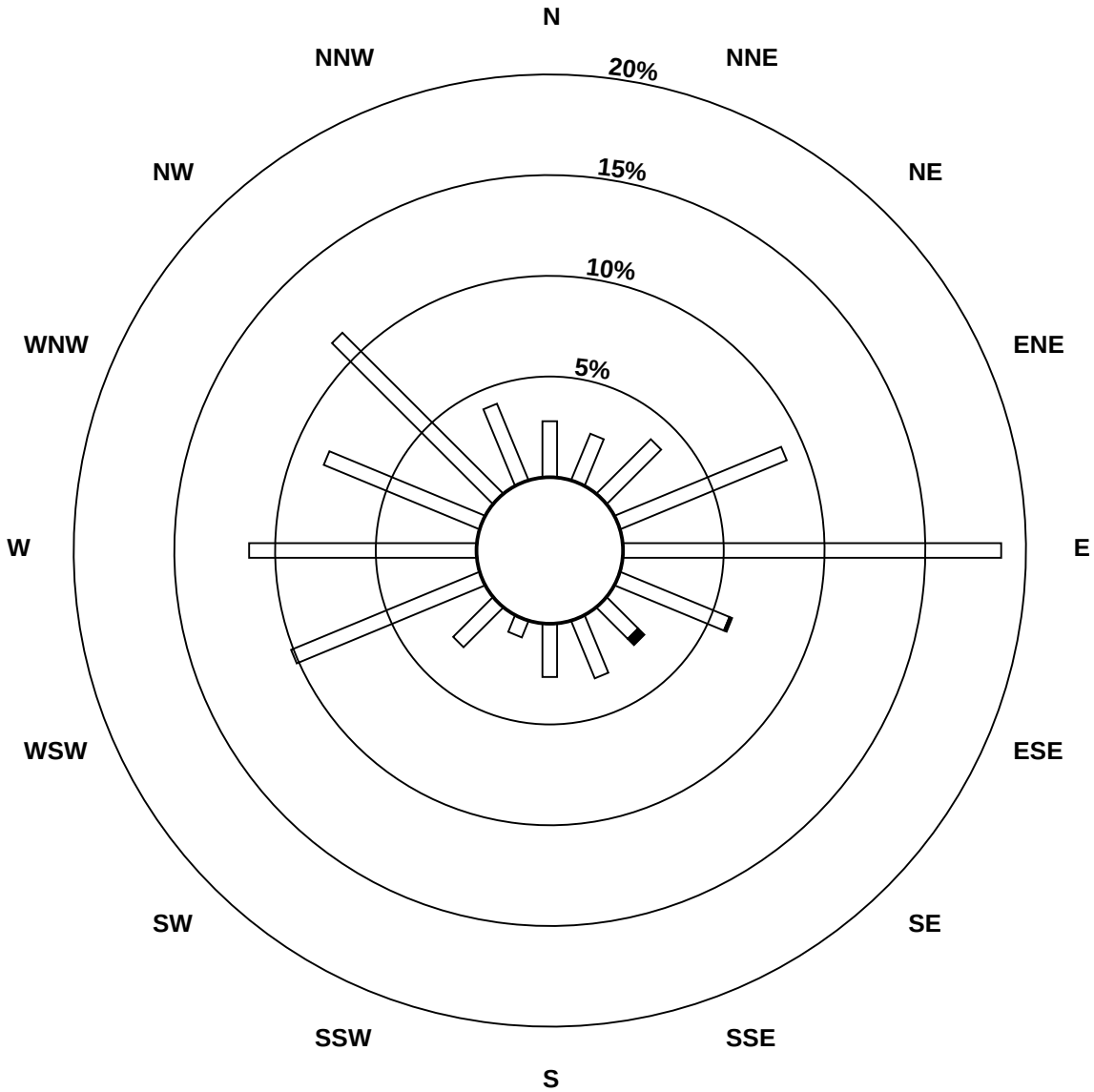


FOCUS AIR QUALITY MONITORING

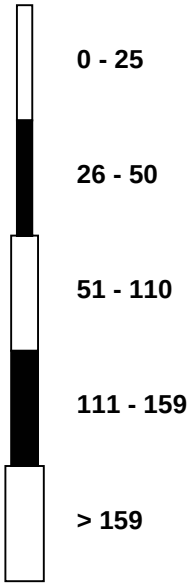
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2012



Pollutant Classes (ppb)

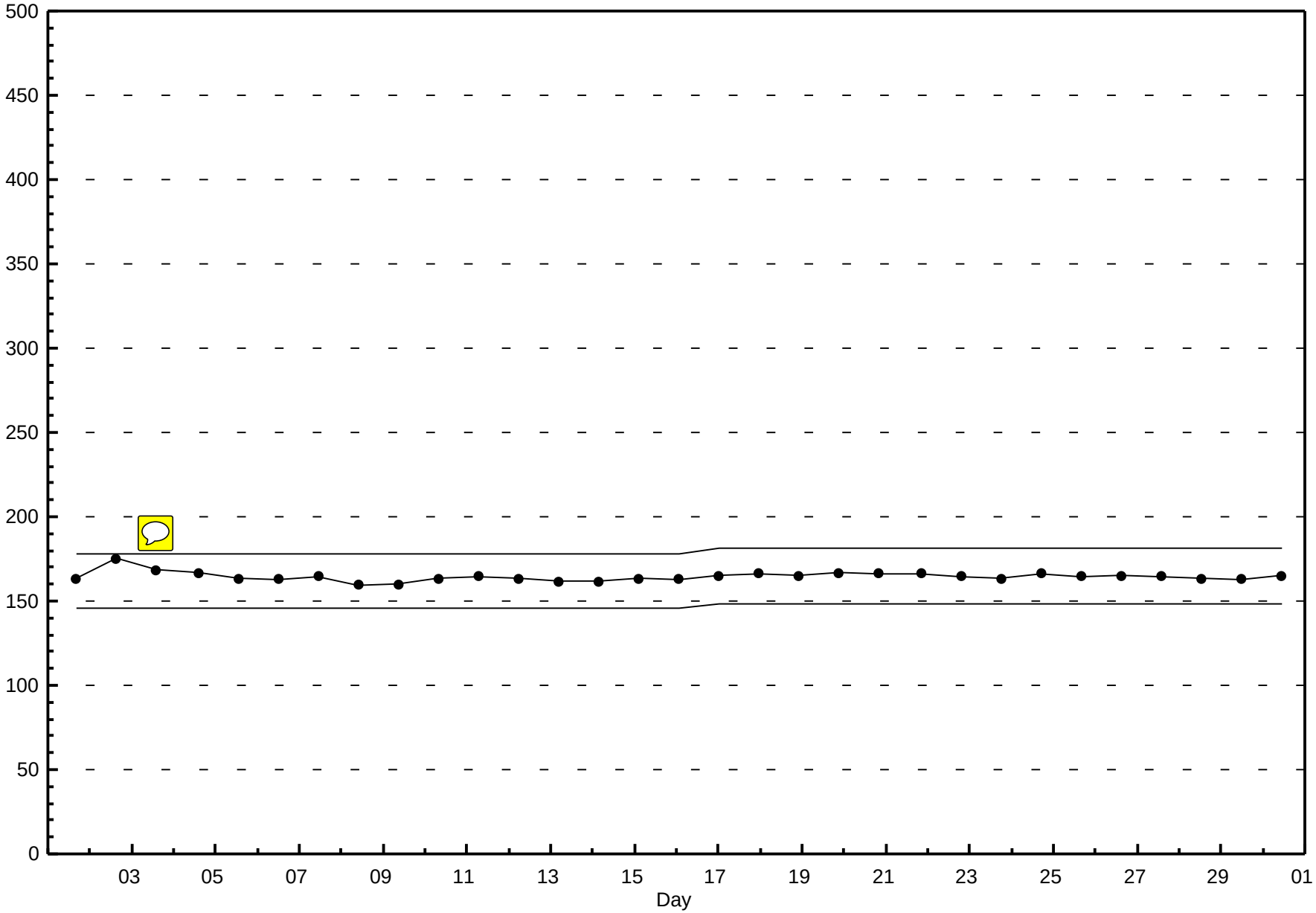


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2012

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

Maximum Value: 24.9 ppb on Apr 30 08:00

Maximum Daily Average: 2.5 ppb on Apr 2

Minimum Value: 0 ppb on Apr 15 04:00

Minimum Daily Average: 0.3 ppb on Apr 6

Maximum Diurnal Average: 4.5 ppb at hour 8

Minimum Diurnal Average: 0.3 ppb at hour 23

Monthly Average: 1.01 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.3$ Median = 0.5 $Q_3 = 0.9$ $P_{90} = 1.7$ $P_{99} = 9.0$

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2	1	0	0	0	0	1	4	7	3	2	1	1	0	1	1	A	0	0	0	0	0	0	0	1.1	6.7
2-Apr	0	0	0	0	0	1	21	18	8	3	1	1	1	1	1	A	0	0	1	0	0	0	0	0	2.5	21.0
3-Apr	0	0	0	0	0	2	2	4	4	2	1	1	1	1	A	0	1	1	1	0	0	0	0	0	0.9	4.0
4-Apr	0	0	0	0	0	0	1	2	1	1	1	0	1	A	1	1	1	0	0	1	1	1	0	0	0.5	1.7
5-Apr	0	0	0	0	0	0	2	1	1	1	1	1	A	1	3	1	1	1	1	1	0	0	0	0	0.7	2.8
6-Apr	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
7-Apr	0	0	0	0	0	0	1	3	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.7
8-Apr	0	0	0	0	2	1	2	2	2	A	2	1	0	0	0	0	0	1	1	0	0	0	0	0	0.7	2.4
9-Apr	0	0	0	0	0	5	17	4	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1.7	16.8
10-Apr	0	0	0	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.9	1.9
11-Apr	0	0	0	0	0	2	A	17	18	3	2	1	1	1	1	1	1	1	1	0	1	0	0	0	2.3	17.6
12-Apr	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.7	1.4
13-Apr	0	0	0	0	A	0	1	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.4	0.8
14-Apr	0	0	0	A	0	0	0	1	0	1	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0.5	2.0
15-Apr	0	0	A	0	0	0	2	6	7	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1.2	7.0
16-Apr	0	A	0	1	1	1	4	C	C	C	C	C	C	C	1	0	0	0	1	0	0	0	0	0	--	4.4
17-Apr	A	0	0	0	0	1	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1.0	2.9
18-Apr	0	0	0	0	0	1	3	3	2	2	2	2	1	1	3	1	1	1	0	1	1	0	A	0	1.1	3.3
19-Apr	0	0	0	0	0	1	7	10	8	4	1	2	1	1	0	0	0	0	0	0	0	A	0	0	1.7	10.0
20-Apr	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0.5	1.4
21-Apr	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	0	0	0	A	0	0	1	0	0.4	0.8
22-Apr	1	1	1	0	1	1	2	3	3	2	2	1	1	0	0	0	0	0	A	1	0	0	0	0	1.0	3.3
23-Apr	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	0	0.6	1.4
24-Apr	0	1	0	0	0	0	1	3	8	11	3	1	1	1	1	1	A	1	1	1	1	0	0	0	1.5	10.9
25-Apr	0	1	1	1	1	1	2	2	2	1	2	2	2	2	3	A	2	1	1	1	1	1	1	1	1.3	2.8
26-Apr	1	1	1	1	1	1	2	2	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1.1	2.3
27-Apr	1	0	0	0	1	1	4	4	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0.8	4.2
28-Apr	0	0	0	0	0	1	2	3	3	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0.6	2.5
29-Apr	0	0	0	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
30-Apr	0	1	0	1	2	4	8	25	9	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	2.5	24.9
	0.3	0.3	0.3	0.3	0.4	1.0	3.2	4.5	3.4	1.8	1.2	1.0	0.8	0.7	0.9	0.7	0.7	0.6	0.6	0.6	0.4	0.3	0.3	0.3	Diurnal Average	
	1.9	1.2	1.1	0.6	2.3	4.7	21.0	24.9	17.6	10.9	2.7	2.2	1.7	2.0	3.3	1.4	1.7	1.3	1.2	1.3	1.1	0.8	0.7	0.8	Diurnal Maximum	

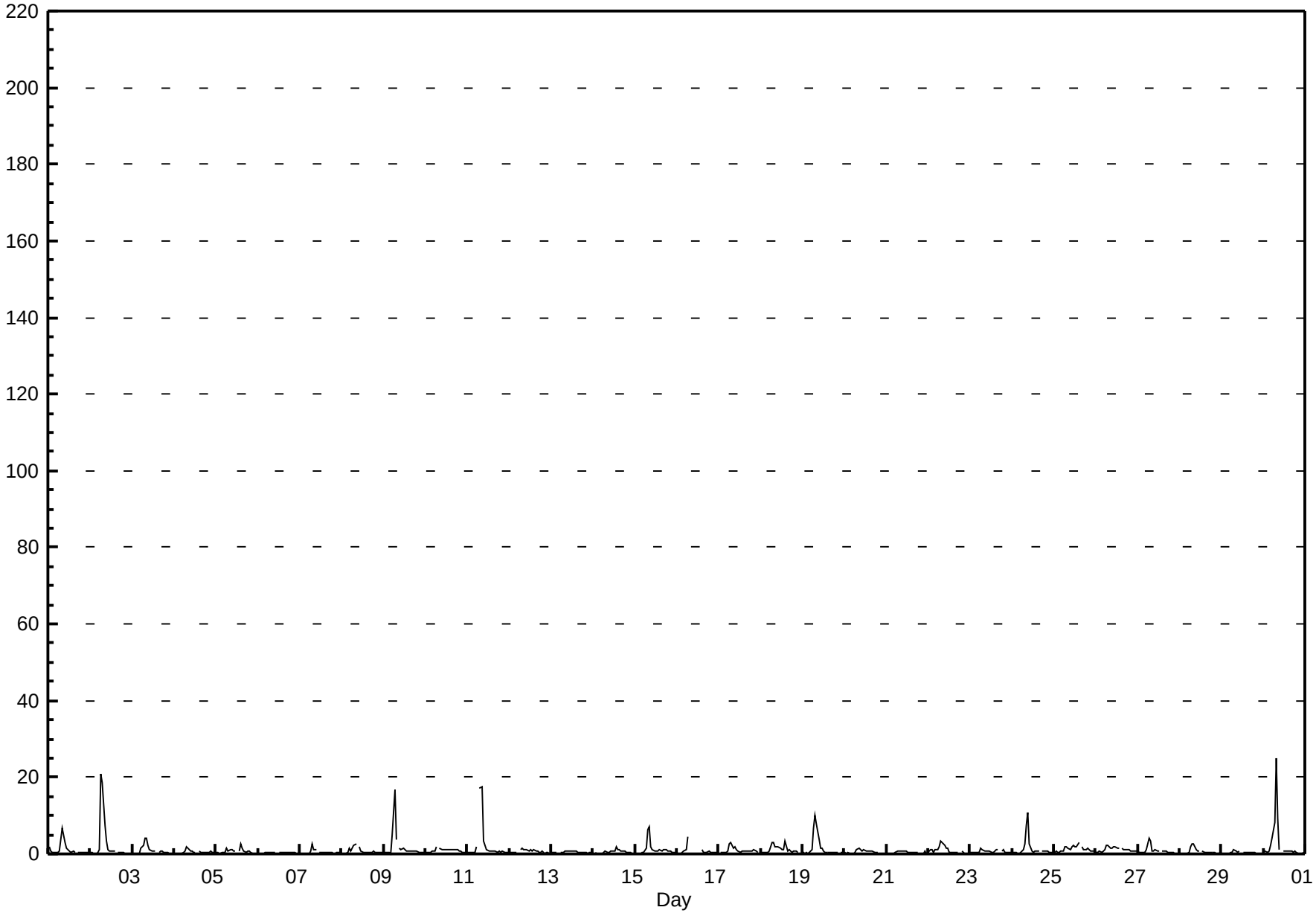
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2012

Maximum Value: 63.0 ppb on Apr 2 07:00

Maximum Daily Average: 6.9 ppb on Apr 2

Minimum Value: 0 ppb on Apr 15 02:00

Minimum Daily Average: 0.8 ppb on Apr 29

Maximum Diurnal Average: 10.5 ppb at hour 8

Minimum Diurnal Average: 0.9 ppb at hour 23

Monthly Average: 3.02 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.7$ Median = 1.5 $Q_3 = 3.0$ $P_{90} = 5.5$ $P_{99} = 33.0$

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	9	2	1	1	1	1	5	10	9	5	2	2	1	1	1	1	A	0	0	0	0	0	0	0	2.5	10.4
2-Apr	0	0	0	0	0	9	63	49	13	7	2	2	1	2	2	A	0	0	1	0	0	0	0	0	6.9	63.0
3-Apr	0	0	0	0	0	8	5	18	11	4	2	1	1	3	A	1	1	2	1	0	0	0	0	0	2.9	18.1
4-Apr	0	0	0	0	0	0	1	3	3	2	1	1	1	A	1	1	2	0	0	3	2	6	3	1	1.5	6.1
5-Apr	0	0	0	0	0	1	17	1	2	3	1	2	A	3	8	7	2	2	4	5	0	0	0	0	2.8	16.9
6-Apr	0	0	0	0	0	1	1	0	1	1	1	A	1	1	1	0	0	1	1	0	4	2	0	0	0.9	4.4
7-Apr	0	0	0	0	0	0	2	4	2	3	A	1	1	0	1	1	1	0	3	0	0	0	1	2	1.1	3.9
8-Apr	1	1	0	1	10	5	3	3	3	A	3	1	1	1	2	2	4	2	4	2	1	1	1	1	2.4	10.0
9-Apr	5	1	1	2	1	25	34	14	A	2	4	3	2	3	2	3	2	2	2	4	1	1	1	1	5.1	33.6
10-Apr	0	1	2	1	7	1	9	A	2	2	5	5	2	5	3	3	2	4	5	3	3	1	1	3	3.0	8.9
11-Apr	1	1	1	0	1	15	A	27	45	7	6	2	2	2	3	2	4	1	3	1	3	2	1	1	5.8	44.7
12-Apr	1	2	1	3	2	A	3	6	4	3	3	3	2	1	4	5	2	2	1	8	1	3	0	0	2.7	8.4
13-Apr	0	1	0	0	A	1	1	1	1	2	1	2	1	1	1	1	1	0	0	0	0	0	0	0	0.9	1.9
14-Apr	0	0	0	A	0	0	0	2	1	1	1	1	2	36	3	3	1	5	3	2	3	1	1	0	3.0	35.5
15-Apr	0	0	A	0	1	0	5	9	10	4	2	1	2	2	4	3	6	5	5	4	5	1	1	1	3.2	9.9
16-Apr	2	A	1	3	2	5	10	C	C	C	C	C	C	C	4	3	1	3	4	1	2	2	0	3	--	9.6
17-Apr	A	0	2	1	1	5	9	13	2	4	2	2	1	2	4	2	3	3	2	4	4	7	1	A	3.5	13.0
18-Apr	1	3	1	1	1	2	9	6	4	6	4	3	3	2	17	3	3	3	2	4	4	2	A	1	3.7	17.5
19-Apr	1	0	0	0	0	5	10	14	10	9	2	3	1	1	2	1	1	0	3	1	2	A	0	1	3.0	13.8
20-Apr	0	0	1	0	0	0	1	2	18	2	1	5	2	1	1	1	1	1	1	0	A	0	1	0	1.9	18.3
21-Apr	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	A	0	1	4	0	0.9	3.8
22-Apr	6	11	9	0	10	2	4	4	4	2	2	8	1	2	1	1	4	2	A	19	3	0	0	0	4.2	18.8
23-Apr	0	0	0	0	1	1	9	5	2	1	1	2	1	1	2	4	3	A	3	6	2	3	1	2	2.3	9.2
24-Apr	1	1	0	0	0	1	2	5	11	16	5	2	1	1	8	3	A	2	4	3	4	1	1	1	3.4	16.0
25-Apr	1	3	3	2	3	3	5	5	5	4	4	6	5	4	10	A	4	3	4	4	5	1	2	2	3.9	10.1
26-Apr	2	1	1	1	1	3	21	13	2	2	7	3	3	2	A	2	2	2	2	2	1	1	1	6	3.7	21.5
27-Apr	1	1	0	1	1	3	6	6	1	1	1	2	1	A	1	1	1	1	1	1	0	0	0	0	1.6	6.5
28-Apr	0	0	0	0	0	2	5	22	29	2	1	1	A	1	1	1	1	1	0	0	0	0	0	4	3.3	29.1
29-Apr	0	0	0	0	0	1	1	1	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0.8	1.5
30-Apr	2	5	1	5	5	8	19	48	38	2	A	3	1	2	2	1	2	1	2	1	1	1	0	0	6.5	48.2
	1.4	1.4	1.2	1.1	1.9	3.9	9.0	10.5	8.5	3.6	2.6	2.5	1.7	3.2	3.4	2.2	2.1	1.8	2.3	2.8	1.9	1.5	0.9	1.3	Diurnal Average	
	8.8	10.8	9.1	5.0	10.0	24.8	63.0	49.1	44.7	16.0	7.0	7.7	4.8	35.5	17.5	7.4	6.3	5.4	4.8	18.8	5.3	7.0	3.8	5.8	Diurnal Maximum	

C - Calibration

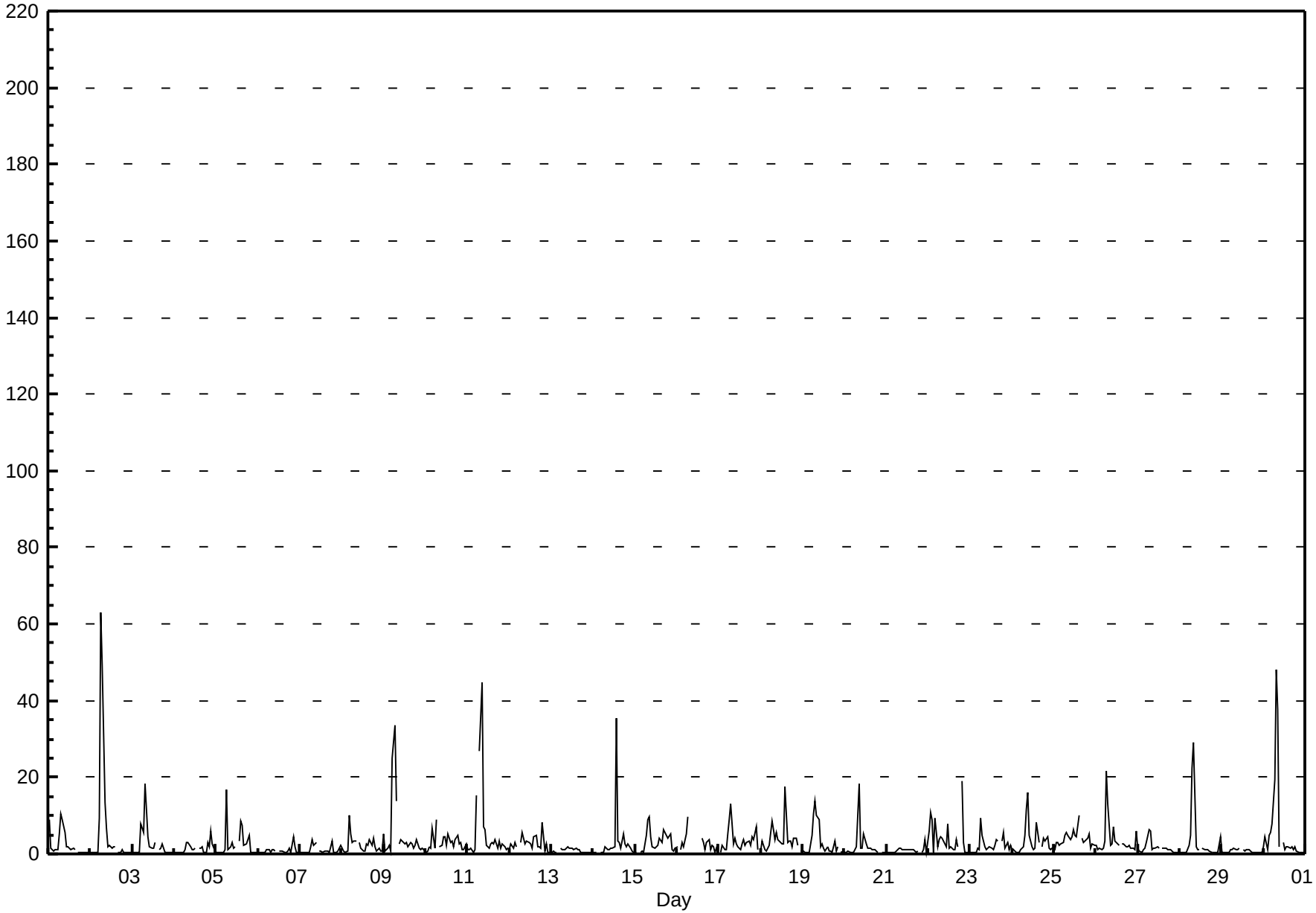
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2012

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

Maximum Value: 57.8 ppb on Apr 2 07:00

Maximum Daily Average: 11.1 ppb on Apr 2

Minimum Value: 1 ppb on Apr 6 17:00

Minimum Daily Average: 2.8 ppb on Apr 29

Maximum Diurnal Average: 15.2 ppb at hour 8

Minimum Diurnal Average: 2.9 ppb at hour 14

Monthly Average: 6.31 ppb

Percentiles: $P_1 = 1.2$ $P_{10} = 2.0$ $Q_1 = 2.9$ Median = 4.7 $Q_3 = 7.3$ $P_{90} = 11.8$ $P_{99} = 31.3$

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	19	8	6	6	11	13	13	23	25	12	7	5	3	2	3	3	A	2	3	8	11	11	8	10	9.3	24.8
2-Apr	8	5	5	5	8	17	58	49	25	12	5	3	2	2	4	A	3	5	13	8	9	5	2	2	11.1	57.8
3-Apr	3	4	4	4	7	23	32	30	25	13	7	4	3	3	A	3	7	12	12	9	14	6	2	1	9.9	32.3
4-Apr	2	1	1	1	2	7	11	14	7	4	2	2	2	A	2	2	2	2	3	7	12	11	8	5	4.8	14.3
5-Apr	6	5	5	7	4	5	9	6	6	5	3	2	A	3	8	5	3	3	4	6	8	6	6	4	5.1	8.9
6-Apr	2	3	4	4	5	6	5	2	2	2	2	A	2	2	1	1	1	1	3	6	16	9	5	7	3.9	16.4
7-Apr	7	7	6	7	7	6	12	14	4	4	A	3	2	1	1	1	2	2	2	3	7	8	11	5	5.3	14.5
8-Apr	5	10	8	10	13	11	11	8	7	A	6	3	1	1	1	2	2	2	3	6	6	6	5	7	5.9	13.3
9-Apr	10	13	11	9	13	23	39	16	A	6	5	5	4	3	3	3	3	3	4	6	5	4	3	5	8.5	39.3
10-Apr	5	5	5	6	8	11	16	A	6	5	5	5	5	5	5	5	5	6	7	8	8	6	6	6	6.4	16.0
11-Apr	4	5	5	9	8	20	A	38	35	12	9	5	4	4	4	5	7	6	6	6	7	6	4	5	9.3	38.0
12-Apr	4	4	4	4	6	A	13	11	7	5	4	5	5	4	5	5	4	4	5	5	4	3	3	3	5.1	13.1
13-Apr	2	3	3	3	A	4	5	5	6	5	5	4	3	3	2	3	3	2	2	2	2	2	2	1	3.1	6.4
14-Apr	1	1	2	A	2	1	2	2	2	2	2	2	2	4	3	4	3	3	5	6	6	8	7	13	3.7	13.3
15-Apr	11	9	A	6	12	11	14	22	19	7	4	3	3	3	3	3	4	3	5	7	8	8	6	6	7.6	22.4
16-Apr	7	A	8	10	13	15	20	C	C	C	C	C	C	C	5	3	3	3	4	4	8	7	7	9	--	20.3
17-Apr	A	8	8	7	9	13	19	15	6	6	4	3	2	3	3	2	3	3	4	5	6	6	4	A	6.4	19.3
18-Apr	4	3	3	4	5	13	18	13	6	5	5	5	4	4	8	4	4	4	4	6	6	7	A	11	6.4	18.0
19-Apr	13	9	11	9	12	16	25	25	18	9	5	6	4	3	2	2	2	3	4	6	5	A	4	5	8.6	25.4
20-Apr	6	6	8	9	5	5	10	11	7	4	3	3	3	3	2	2	2	2	2	2	A	3	3	3	4.6	11.3
21-Apr	2	3	3	2	2	4	5	4	3	2	2	2	2	2	2	2	2	2	2	A	3	7	10	14	3.5	14.0
22-Apr	20	24	24	14	17	17	10	12	11	8	7	6	2	1	2	2	2	2	A	5	4	7	6	5	9.0	23.8
23-Apr	6	11	8	7	6	7	12	9	6	4	3	3	3	3	5	7	6	A	6	6	7	10	10	11	6.9	11.6
24-Apr	11	9	6	2	2	8	10	10	20	23	9	3	2	3	4	4	A	6	4	4	5	4	3	3	6.8	23.1
25-Apr	3	3	2	2	2	3	6	6	5	4	6	5	5	4	7	A	6	5	4	4	5	5	5	4	4.4	6.5
26-Apr	4	4	4	3	4	4	7	7	5	5	5	5	4	5	A	5	5	5	5	5	5	4	4	5	4.8	6.8
27-Apr	4	4	5	5	4	7	12	12	4	3	3	3	3	A	4	3	3	2	3	4	7	7	7	8	5.0	12.1
28-Apr	4	4	4	5	7	9	12	9	7	4	2	2	A	3	2	2	2	3	3	4	3	3	2	3	4.3	12.4
29-Apr	4	2	2	2	2	6	4	4	2	1	1	A	2	1	2	2	2	1	1	3	6	6	3	3	2.8	6.3
30-Apr	6	10	9	10	17	22	23	47	22	4	A	3	2	2	3	3	3	3	4	4	5	3	3	5	9.3	46.9
	6.3	6.3	6.0	6.0	7.4	10.6	15.0	15.2	10.8	6.3	4.5	3.7	2.9	2.9	3.4	3.0	3.3	3.4	4.4	5.3	6.8	6.1	5.2	6.0	Diurnal Average	
	20.3	23.8	23.6	13.8	17.2	23.3	57.8	48.6	35.4	23.1	8.6	6.4	4.8	4.9	8.1	7.2	7.3	11.7	13.0	8.6	16.4	11.4	11.1	14.0	Diurnal Maximum	

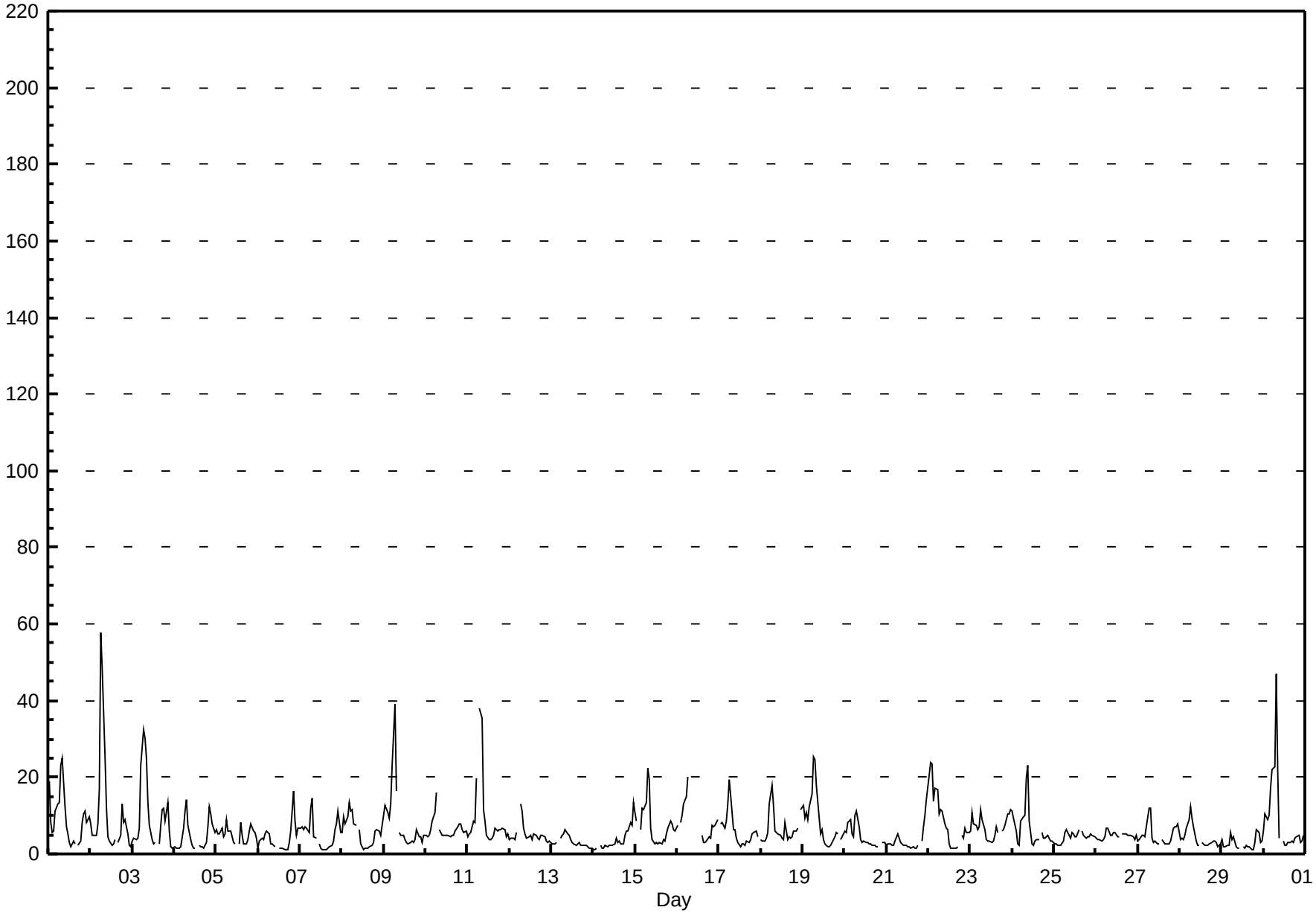
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2012

Maximum Value: 103.4 ppb on Apr 2 07:00

Maximum Daily Average: 19.8 ppb on Apr 2

Minimum Value: 1 ppb on Apr 14 02:00

Minimum Daily Average: 4.5 ppb on Apr 13

Maximum Diurnal Average: 26.1 ppb at hour 8

Minimum Diurnal Average: 5.2 ppb at hour 13

Monthly Average: 11.41 ppb

Percentiles: P_1 = 2.0 P_{10} = 3.5 Q_1 = 5.5 Median = 8.3 Q_3 = 13.6 P_{90} = 21.6 P_{99} = 58.0

Hours in Service:	720
Hours of Data:	682
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	31	18	7	9	18	18	28	35	30	20	9	8	5	4	6	4	A	3	6	11	12	13	11	12	13.9	34.9
2-Apr	12	7	6	7	11	46	103	89	37	21	7	8	5	7	7	A	5	14	20	12	14	10	3	2	19.8	103.4
3-Apr	5	5	5	5	10	42	41	58	48	26	10	7	5	12	A	8	13	16	18	14	21	11	2	3	16.8	58.0
4-Apr	2	2	2	2	5	13	15	18	14	7	4	3	4	A	4	6	4	3	5	16	19	22	24	7	9.0	24.3
5-Apr	11	8	8	8	7	9	40	8	10	10	4	5	A	9	19	17	7	6	13	14	16	18	8	8	11.5	39.5
6-Apr	3	10	8	5	7	9	10	4	4	4	2	A	3	3	3	2	2	3	7	9	38	23	5	10	7.6	37.5
7-Apr	10	10	8	9	12	8	19	18	9	8	A	4	3	2	3	2	3	4	10	5	12	13	17	9	8.6	18.9
8-Apr	7	17	11	14	29	25	14	11	9	A	9	4	2	3	7	6	10	7	10	20	9	9	7	11	11.0	29.2
9-Apr	24	17	13	15	22	49	58	40	A	8	9	8	8	8	5	7	8	5	8	12	8	7	5	10	15.5	58.1
10-Apr	6	6	9	14	22	15	29	A	9	7	9	11	8	13	9	9	7	11	14	12	12	8	7	17	11.5	28.9
11-Apr	7	8	8	10	13	49	A	50	74	21	19	7	5	7	9	10	11	8	15	9	12	25	6	17	17.5	74.2
12-Apr	6	7	7	9	9	A	21	17	13	9	8	9	8	6	14	13	8	6	9	21	8	7	6	8	9.9	21.2
13-Apr	3	3	4	3	A	7	6	8	8	8	7	5	4	4	4	4	4	3	3	3	3	2	2	2	4.5	8.0
14-Apr	2	1	2	A	4	2	2	5	3	3	4	4	4	44	6	7	5	10	8	11	13	14	10	21	8.2	44.1
15-Apr	15	15	A	14	18	15	23	26	26	14	6	5	4	6	9	7	13	12	20	14	17	10	9	10	13.4	25.9
16-Apr	15	A	15	17	18	26	33	C	C	C	C	C	C	C	14	8	6	8	12	8	17	17	11	14	--	32.5
17-Apr	A	10	14	9	15	21	30	40	9	12	9	7	4	6	8	5	8	8	12	11	12	16	7	A	12.3	39.7
18-Apr	6	10	5	5	9	21	27	24	10	12	10	8	7	6	28	8	9	8	8	14	13	11	A	15	12.0	28.4
19-Apr	18	13	13	13	19	26	33	31	23	19	7	8	7	4	6	3	4	6	11	8	9	A	5	8	12.9	33.4
20-Apr	8	9	14	23	8	8	17	17	15	7	5	7	5	5	4	4	4	3	3	3	A	4	4	4	7.9	23.4
21-Apr	3	3	3	3	3	5	8	5	5	4	3	4	3	4	3	3	3	3	4	A	5	15	22	25	6.2	25.1
22-Apr	33	42	37	20	38	23	15	14	14	9	9	18	5	5	4	3	11	7	A	31	10	10	9	7	16.3	42.4
23-Apr	12	15	11	10	15	11	26	21	9	5	5	6	6	6	8	14	11	A	11	14	11	20	13	18	12.1	25.9
24-Apr	15	12	9	3	3	13	13	15	27	32	14	6	5	6	18	8	A	9	11	9	14	6	5	5	11.3	32.4
25-Apr	4	7	5	5	6	7	10	12	10	8	9	12	10	9	19	A	10	8	8	8	11	6	7	8	8.7	18.5
26-Apr	8	5	6	4	4	8	30	26	6	7	17	9	7	6	A	7	7	8	7	7	6	5	5	19	9.4	30.3
27-Apr	6	5	6	7	6	11	15	17	6	5	5	6	4	A	6	5	6	4	5	8	11	13	11	17	8.1	17.4
28-Apr	6	6	5	7	9	14	18	38	53	6	4	4	A	5	4	4	4	5	4	7	6	5	4	10	10.1	53.1
29-Apr	6	5	3	3	3	10	5	6	3	2	3	A	4	4	6	4	6	3	3	6	10	11	4	4	5.0	10.8
30-Apr	15	20	14	25	25	28	39	77	64	7	A	8	3	5	6	4	6	5	12	10	13	5	5	8	17.6	76.6
	10.3	10.2	9.0	9.7	12.7	18.6	25.2	26.1	19.6	10.8	7.8	7.1	5.2	7.5	8.6	6.6	7.1	6.9	9.6	11.3	12.4	11.7	8.2	10.7	Diurnal Average	
	33.2	42.4	37.2	24.9	37.9	49.1	103.4	88.9	74.2	32.4	18.7	17.7	9.8	44.1	28.4	17.3	13.0	15.7	19.9	31.4	37.5	25.0	24.3	25.1	Diurnal Maximum	

C - Calibration

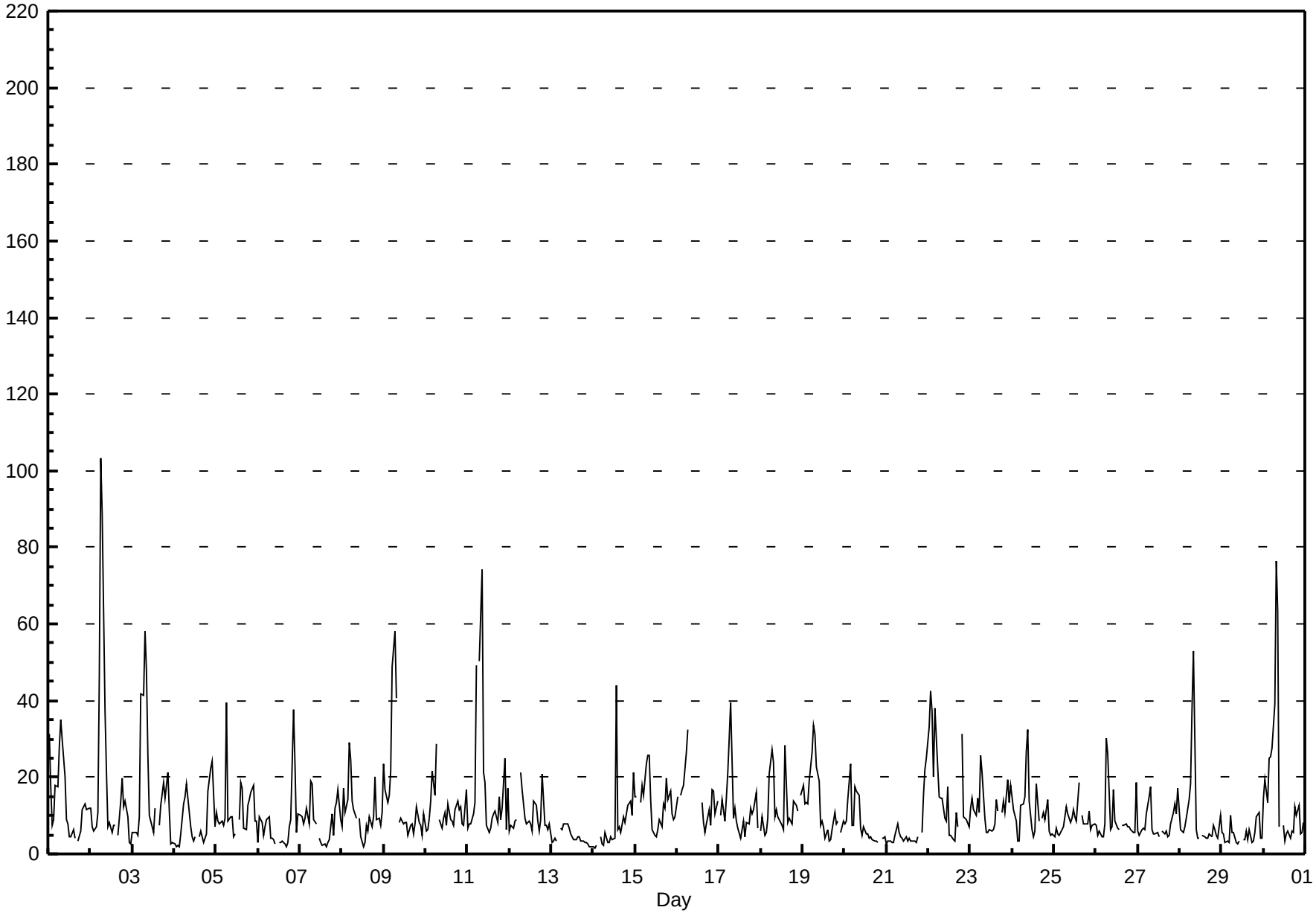
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2012



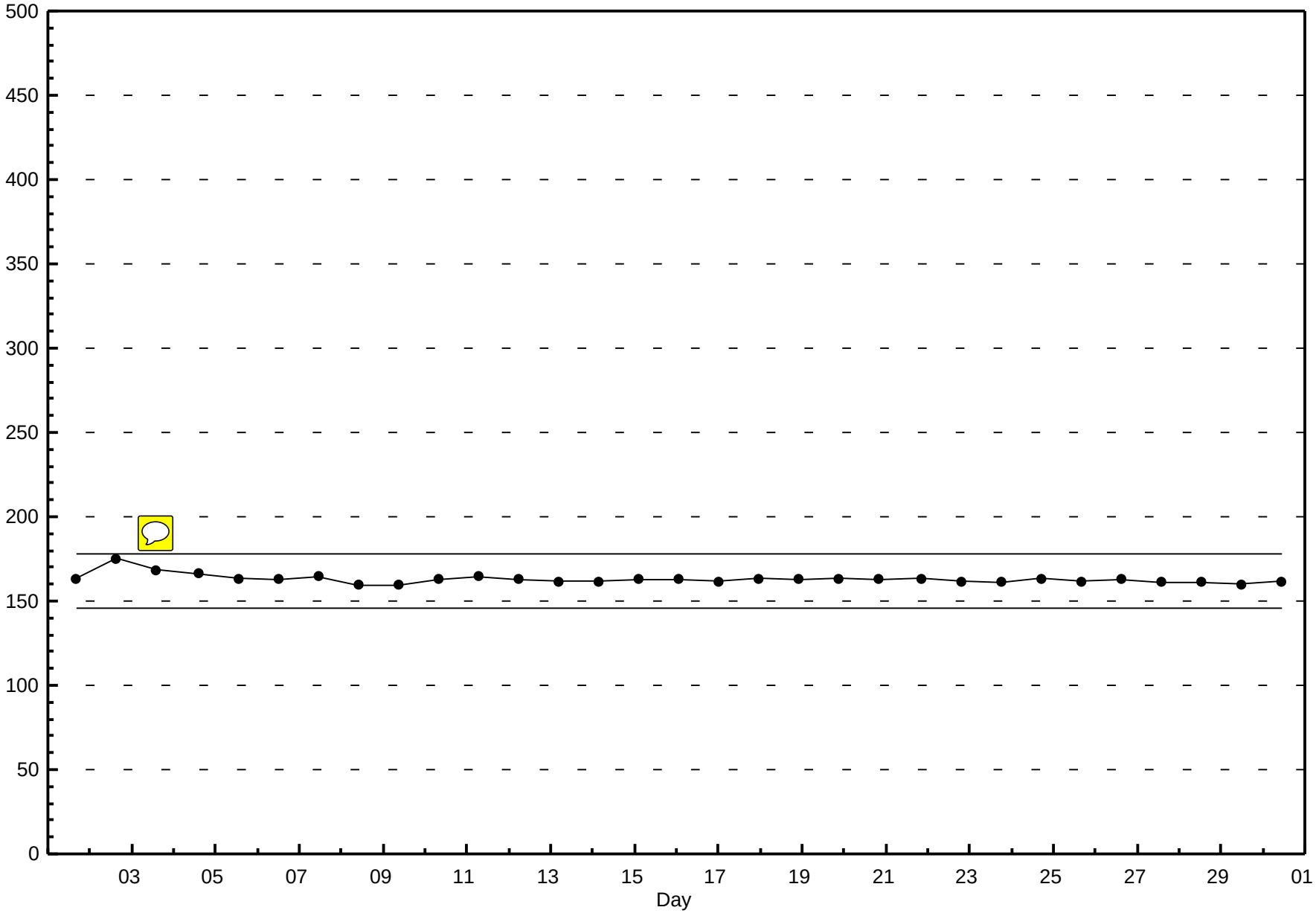
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - April 2012

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

Maximum Value: 54.2 ppb on Apr 3 16:00 Maximum Daily Average: 42.3 ppb on Apr 3

Minimum Value: 3 ppb on Apr 9 07:00 Minimum Daily Average: 16.1 ppb on Apr 26

Maximum Diurnal Average: 44.0 ppb at hour 16 Minimum Diurnal Average: 19.9 ppb at hour 7

Monthly Average: 33.60 ppb Percentiles: P_1 = 5.7 P_{10} = 16.4 Q_1 = 26.6 Median = 35.3 Q_3 = 42.7 P_{90} = 46.3 P_{99} = 50.4

Hours in Service:	720
Hours of Data:	680
Hours of Missing Data:	40
Hours of Calibration:	35
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	5	14	21	15	11	15	18	11	13	23	33	37	43	46	44	44	A	46	44	37	33	31	33	30	28.2	45.9
2-Apr	31	33	33	34	31	22	3	10	23	34	42	44	47	48	48	A	51	48	39	42	42	45	48	48	36.8	50.7
3-Apr	47	46	46	46	43	29	21	25	31	40	46	50	53	54	A	54	48	44	43	42	35	41	43	44	42.3	54.2
4-Apr	44	47	47	46	44	39	35	34	40	44	44	45	44	A	44	44	44	44	41	35	29	31	31	25	40.0	47.3
5-Apr	26	26	24	22	23	23	21	25	27	31	36	39	A	39	36	37	38	36	34	32	29	30	29	31	30.1	39.0
6-Apr	37	34	30	30	28	27	28	29	32	34	38	A	40	41	42	44	45	44	42	38	25	32	36	32	35.1	44.5
7-Apr	30	27	27	28	27	30	22	20	31	33	A	43	46	47	48	48	47	46	46	41	32	26	23	34	34.8	48.2
8-Apr	33	24	23	16	12	14	8	13	20	A	33	39	45	46	46	47	47	47	47	41	39	38	38	34	32.5	47.1
9-Apr	30	25	28	31	20	5	3	24	A	35	38	39	42	45	48	49	50	51	50	45	41	40	41	38	35.5	51.1
10-Apr	39	39	38	35	33	30	26	A	36	38	38	35	37	35	N	N	N	N	N	34	33	34	35	36	34.9	39.0
11-Apr	37	36	35	22	22	11	A	6	19	30	35	39	41	43	44	43	40	40	40	38	37	36	37	35	33.4	44.1
12-Apr	35	34	34	34	32	A	27	28	33	35	38	38	40	42	41	42	43	43	42	40	37	41	43	40	37.5	43.0
13-Apr	39	37	34	27	A	24	25	25	23	22	23	26	28	29	30	30	29	31	33	34	34	34	33	33	29.9	38.8
14-Apr	33	34	34	A	36	37	38	39	39	39	40	43	46	48	48	48	48	48	46	45	45	42	41	34	41.4	48.3
15-Apr	36	37	A	38	33	32	22	20	27	38	42	44	45	46	45	45	44	43	41	37	34	34	35	35	37.2	45.8
16-Apr	32	A	21	14	9	12	12	16	22	25	28	C	C	C	C	51	49	49	48	45	40	39	38	35	30.8	51.4
17-Apr	A	38	36	37	35	31	26	31	37	37	42	46	48	48	47	48	47	47	46	43	40	39	39	A	40.5	48.2
18-Apr	41	41	40	39	36	27	24	28	31	32	33	36	39	42	43	46	46	46	47	45	43	39	A	33	38.0	46.9
19-Apr	26	23	19	20	16	11	7	11	16	23	37	42	45	47	49	49	48	48	46	43	41	A	39	37	32.3	49.1
20-Apr	37	38	35	34	35	39	35	35	40	39	46	44	45	44	42	42	40	39	39	39	A	40	38	37	39.2	45.9
21-Apr	39	37	37	36	36	33	32	35	39	42	44	44	46	49	50	50	49	49	48	A	41	33	27	20	39.9	50.2
22-Apr	14	12	10	12	11	10	12	13	17	29	35	39	44	49	49	50	50	49	A	45	43	35	39	38	30.6	50.1
23-Apr	36	31	34	33	32	31	28	31	35	40	41	41	41	40	40	34	35	A	31	30	26	21	18	15	32.4	41.3
24-Apr	11	8	17	24	25	18	15	16	14	17	34	40	43	44	46	47	A	45	44	39	36	35	33	33	29.8	46.8
25-Apr	32	24	23	23	22	19	19	20	20	18	17	17	17	17	16	A	17	18	19	17	16	15	15	13	18.8	31.9
26-Apr	12	11	11	11	12	14	14	15	17	17	17	17	18	18	A	19	19	19	18	17	17	19	20	20	16.1	19.8
27-Apr	20	18	15	13	12	8	6	15	35	38	39	44	43	A	44	45	44	45	45	41	35	31	30	30	30.3	45.3
28-Apr	34	31	32	28	25	21	22	27	33	36	40	43	A	42	41	41	40	39	37	35	35	35	33	31	33.9	42.7
29-Apr	27	31	31	29	27	22	25	25	30	33	34	A	44	43	47	46	44	45	44	39	33	30	33	30	34.4	47.3
30-Apr	24	15	14	13	5	4	5	6	21	34	A	43	44	46	46	46	46	46	43	45	46	47	45	41	31.5	46.7
	30.5	29.4	28.6	27.3	25.3	22.0	19.9	21.8	27.6	32.4	36.1	39.2	41.3	42.0	43.3	44.0	42.5	42.7	40.8	38.1	35.0	34.2	34.2	32.5	Diurnal Average	
	47.1	47.3	46.9	45.8	44.0	39.0	38.3	38.8	40.2	43.7	46.0	50.3	52.8	53.7	50.2	54.2	50.7	51.1	50.4	45.2	46.0	46.7	48.1	48.1	Diurnal Maximum	

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

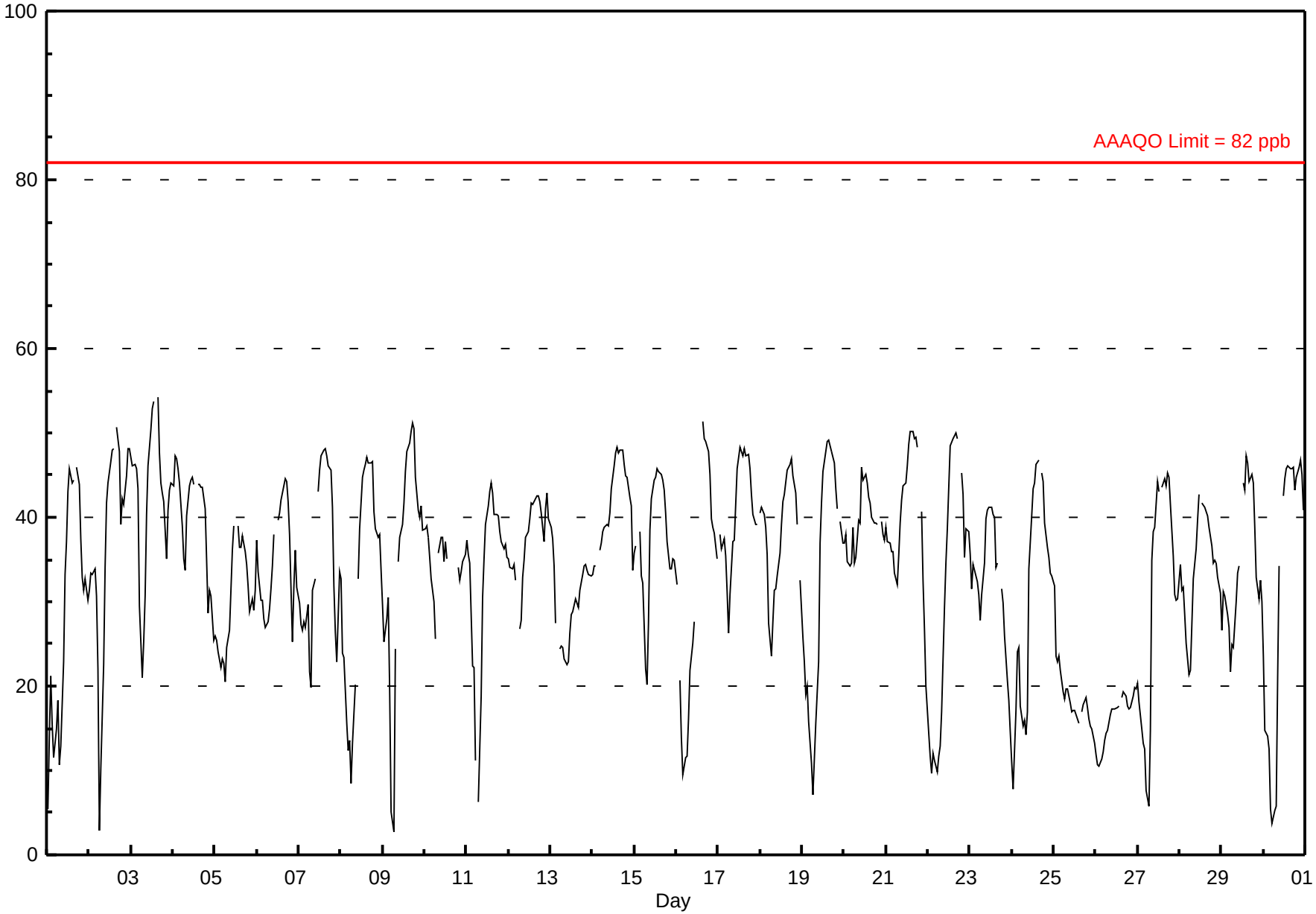
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - April 2012

Maximum Value: 56.3 ppb on Apr 3 14:00

Maximum Daily Average: 46.1 ppb on Apr 3

Minimum Value: 6 ppb on Apr 2 07:00

Minimum Daily Average: 17.3 ppb on Apr 26

Maximum Diurnal Average: 45.9 ppb at hour 16

Minimum Diurnal Average: 23.4 ppb at hour 7

Monthly Average: 36.47 ppb

Percentiles: P_1 = 10.2 P_{10} = 18.8 Q_1 = 30.0 Median = 38.5 Q_3 = 45.1 P_{90} = 48.3 P_{99} = 52.5

Hours in Service:	720
Hours of Data:	680
Hours of Missing Data:	40
Hours of Calibration:	35
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	7	20	26	19	17	22	22	13	17	30	36	39	46	47	46	46	A	47	47	41	37	34	37	34	31.6	47.2
2-Apr	34	35	35	35	33	28	6	20	30	40	44	47	48	50	50	A	52	53	45	46	45	48	49	49	40.1	53.0
3-Apr	49	47	48	47	45	42	26	33	39	46	50	53	55	56	A	56	52	48	48	46	39	45	44	46	46.1	56.3
4-Apr	46	49	48	47	46	41	39	39	44	46	46	46	45	A	45	45	45	45	44	40	34	35	36	27	42.4	48.9
5-Apr	32	28	27	24	26	24	24	27	30	35	39	40	A	40	40	39	39	38	38	36	35	33	32	38	33.2	40.4
6-Apr	39	38	33	31	30	29	29	31	32	38	39	A	41	42	44	45	46	46	45	41	37	37	38	36	37.7	45.6
7-Apr	33	30	28	30	29	33	30	28	34	36	A	44	47	49	49	49	49	48	48	47	37	31	30	35	38.1	49.2
8-Apr	35	29	28	19	20	19	11	17	26	A	35	42	46	47	47	49	48	48	48	46	40	39	39	36	35.5	48.8
9-Apr	36	30	30	34	27	16	8	32	A	36	39	41	45	48	49	50	52	52	52	48	42	42	42	40	38.9	52.4
10-Apr	40	40	39	37	37	33	29	A	38	38	40	38	38	39	N	N	N	N	N	35	34	35	36	37	37.0	40.3
11-Apr	38	38	36	35	26	22	A	8	34	34	38	41	42	45	46	45	44	42	43	41	39	39	38	37	37.1	45.6
12-Apr	36	36	35	35	35	A	31	32	35	37	39	40	43	43	44	44	44	44	44	42	40	46	46	43	39.7	46.1
13-Apr	41	40	38	31	A	26	26	27	24	25	25	28	30	30	32	31	31	33	35	35	35	35	34	34	31.6	41.4
14-Apr	34	35	35	A	38	38	39	40	40	40	43	45	48	49	50	49	49	49	48	48	48	46	45	40	43.2	49.7
15-Apr	39	39	A	41	37	38	28	25	37	42	44	45	46	47	47	46	46	44	43	40	36	36	37	36	40.0	46.8
16-Apr	36	A	29	20	13	17	15	22	26	30	30	C	C	C	C	52	51	50	50	49	43	41	40	38	34.3	52.4
17-Apr	A	41	39	39	38	35	31	37	39	41	47	48	50	50	49	50	49	49	48	46	42	41	41	A	43.2	50.2
18-Apr	42	43	42	41	38	32	27	32	32	33	35	38	42	44	45	47	48	48	49	46	46	44	A	37	40.4	48.7
19-Apr	30	26	22	25	22	16	12	15	18	35	41	45	47	49	50	50	50	51	50	47	43	A	41	39	35.9	50.9
20-Apr	39	41	37	41	38	44	42	39	43	44	48	46	47	45	44	44	42	40	40	41	A	40	40	39	42.0	48.2
21-Apr	40	39	39	38	37	35	34	37	41	44	45	46	49	52	53	53	50	51	50	A	47	36	34	28	42.5	53.3
22-Apr	19	21	20	19	15	14	14	15	24	34	36	44	48	50	50	51	52	51	A	48	48	39	43	41	34.7	51.9
23-Apr	39	40	38	36	35	34	31	36	41	42	43	44	44	43	42	43	37	A	35	33	29	26	21	18	36.0	43.7
24-Apr	17	13	28	26	27	24	17	19	19	26	41	43	46	46	48	49	A	48	47	42	39	36	35	35	33.5	49.2
25-Apr	34	28	24	24	23	21	20	21	21	20	18	18	18	18	17	A	18	19	20	19	17	17	16	15	20.3	33.5
26-Apr	13	11	11	12	14	15	15	16	18	18	19	19	18	19	A	20	20	20	19	18	19	20	22	21	17.3	21.5
27-Apr	21	20	16	15	14	10	9	30	40	41	45	46	44	A	45	46	45	47	46	45	40	34	35	35	33.5	46.6
28-Apr	36	35	34	32	27	26	26	30	35	40	42	45	A	44	43	42	42	41	38	37	38	36	35	35	36.4	44.6
29-Apr	28	34	33	31	29	25	27	29	33	35	36	A	46	45	50	49	47	47	47	43	38	34	34	33	37.0	49.8
30-Apr	28	21	17	18	16	8	8	11	34	36	A	45	46	48	49	47	47	47	47	48	48	48	47	45	35.2	49.3
	33.2	32.6	31.6	30.4	28.6	26.5	23.4	26.2	31.9	35.9	38.8	41.3	43.1	43.9	45.2	45.9	44.3	44.5	43.4	41.1	38.5	36.9	36.8	35.5	Diurnal Average	
	48.6	48.9	48.1	46.7	45.6	44.2	42.1	39.8	43.5	45.8	49.7	52.5	55.1	56.3	52.6	56.0	52.5	53.0	52.0	48.5	48.4	48.4	49.2	48.8	Diurnal Maximum	

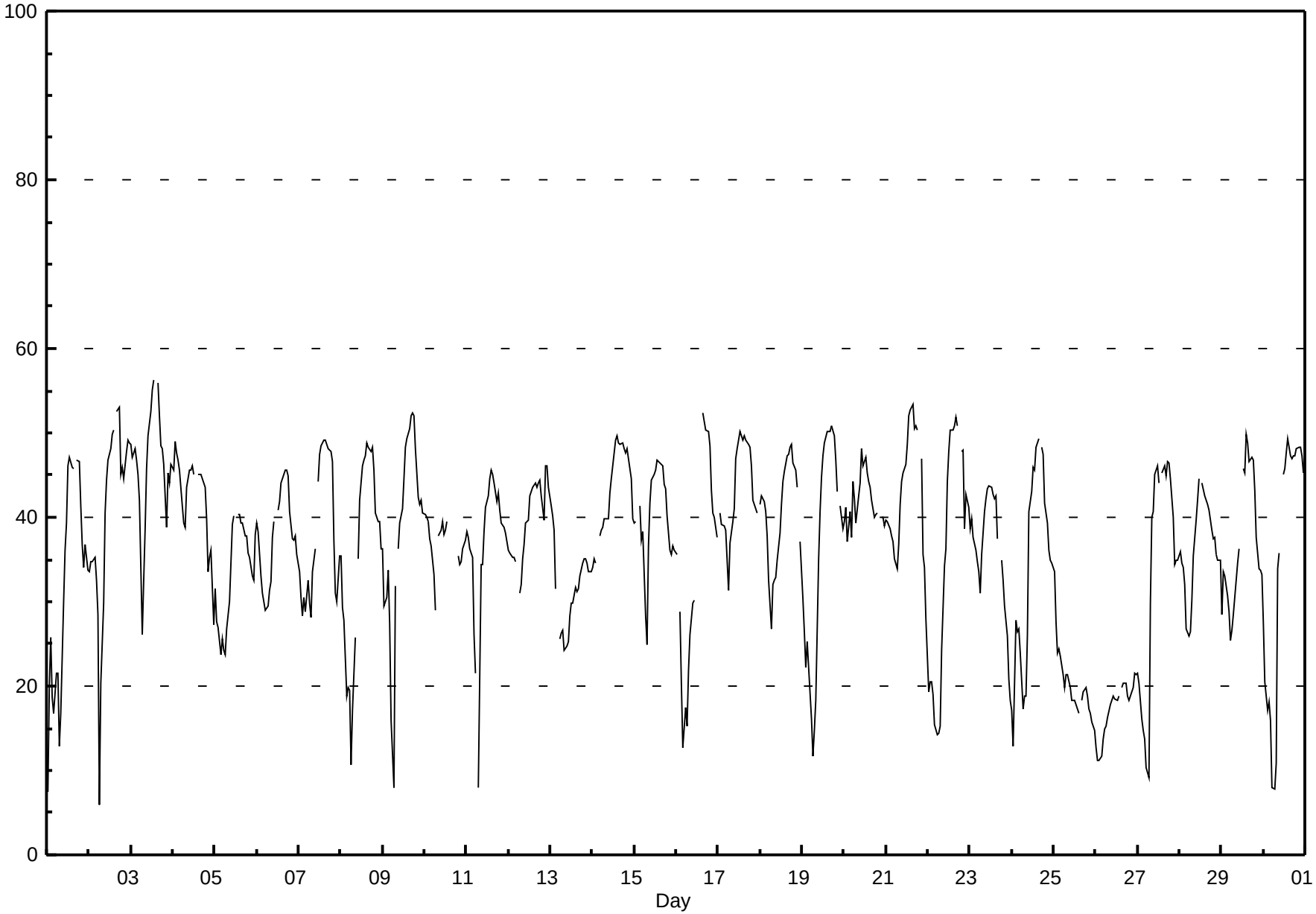
C - Calibration N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

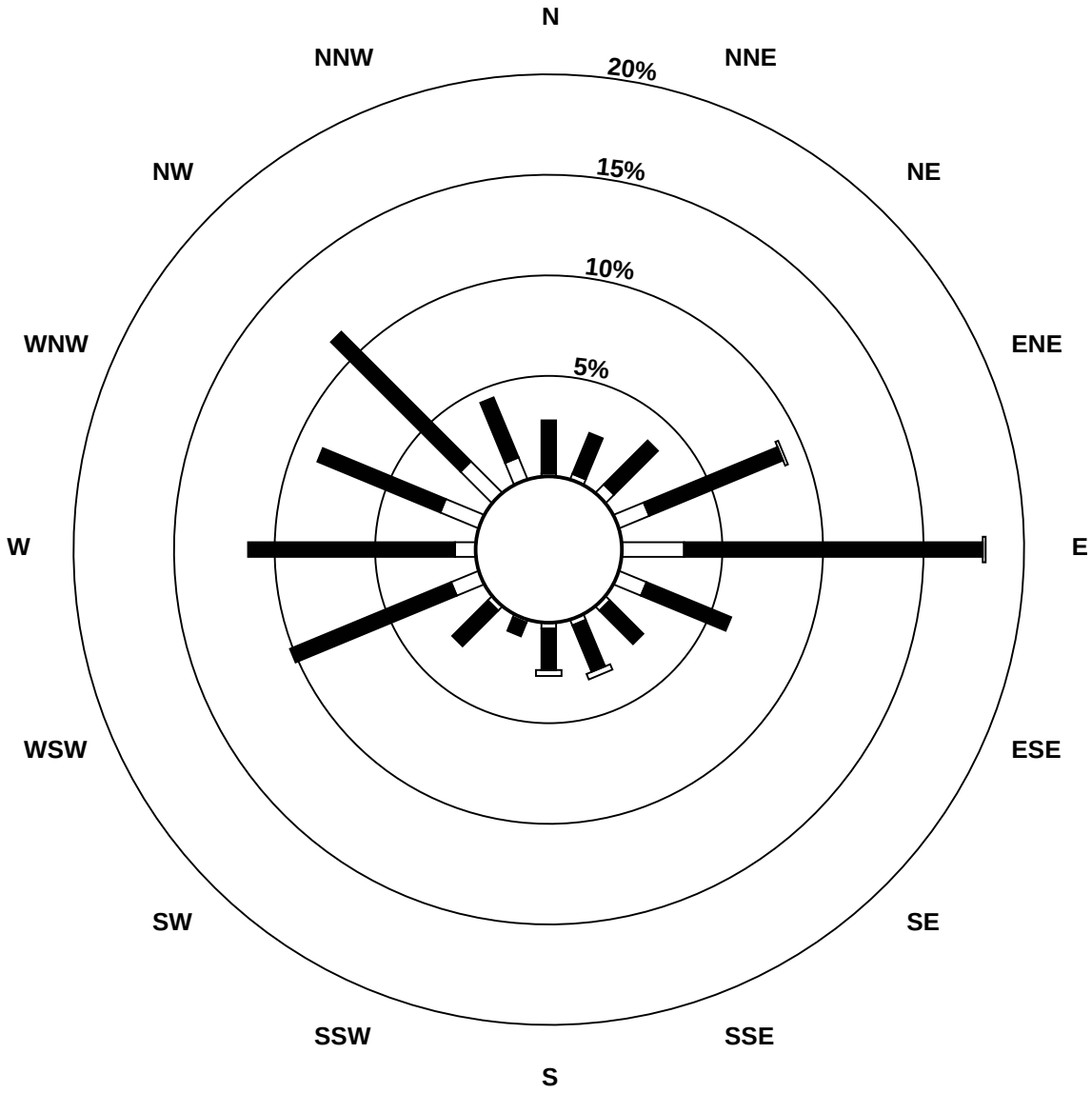
Henry Pirker - April 2012



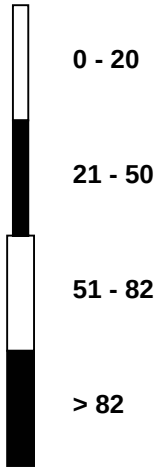
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - April 2012



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - April 2012

Maximum Value: 49.8 ppb on Apr 3 18:00

Minimum Value: 8.8 ppb on Apr 1 04:00

Percentiles: P_1 = 11.9 P_{10} = 17.5 Q_1 = 27.7 Median = 35.3 Q_3 = 41.2 P_{90} = 44.8 P_{99} = 48.1

Hours in Service:	720
Hours of Data:	705
Hours of Missing Data:	15
Hours of Calibration:	7
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	13	13	10	9	9	11	13	14	15	16	17	20	24	28	31	35	39	42	43	44	42	40	38	36	43.5
2-Apr	36	34	33	32	32	31	27	25	24	24	25	26	28	31	37	41	45	47	46	46	45	45	45	45	46.7
3-Apr	45	45	46	46	46	44	41	38	36	35	35	36	37	40	43	47	49	50	49	48	46	44	44	42	49.8
4-Apr	42	42	43	43	44	44	43	42	42	41	41	41	41	41	42	44	44	44	44	42	40	39	37	35	44.5
5-Apr	33	30	28	27	26	25	24	24	24	24	26	28	29	31	33	35	37	37	37	36	35	34	33	32	37.2
6-Apr	32	32	32	31	31	31	31	30	30	30	31	31	32	34	36	39	40	42	42	42	40	39	38	37	42.4
7-Apr	35	33	31	30	30	29	28	26	26	27	27	29	32	35	38	42	45	47	46	46	44	42	39	37	46.5
8-Apr	35	32	29	26	24	22	20	18	16	15	17	20	25	29	35	39	43	44	45	46	45	44	43	41	45.5
9-Apr	39	36	34	33	30	26	22	21	19	21	22	23	26	32	39	42	43	45	47	48	47	47	46	45	47.5
10-Apr	43	42	40	39	38	37	35	34	34	34	34	33	34	35	36	36	N	N	N	N	N	N	N	N	43.2
11-Apr	35	35	35	33	32	29	28	24	22	21	21	23	26	31	32	37	40	41	41	41	41	40	39	38	41.4
12-Apr	37	37	36	35	35	35	33	32	32	32	32	33	34	35	37	39	40	41	41	42	41	41	41	41	41.6
13-Apr	41	40	39	37	37	35	32	30	28	26	24	24	25	25	26	27	27	28	30	31	31	32	32	33	40.6
14-Apr	33	34	34	34	34	34	35	36	37	38	38	39	40	42	43	44	45	46	47	47	47	46	45	44	47.1
15-Apr	42	41	40	39	37	36	33	31	30	30	32	32	34	36	39	42	44	44	44	43	42	40	39	38	44.4
16-Apr	36	35	33	29	26	23	19	16	15	16	17	18	19	N	N	N	N	N	N	N	47	46	45	43	47.1
17-Apr	42	40	39	38	37	36	34	34	34	34	35	36	37	39	42	44	45	47	47	47	46	45	44	43	47.2
18-Apr	42	41	41	40	39	38	35	34	33	32	31	31	31	33	35	38	39	41	43	44	45	44	45	43	44.6
19-Apr	40	36	32	29	25	21	19	17	15	15	18	20	24	28	34	38	43	46	47	47	46	46	45	43	47.0
20-Apr	42	40	39	37	36	37	36	36	36	36	38	39	40	41	42	43	43	43	42	41	41	40	40	39	42.8
21-Apr	39	38	38	38	37	37	36	36	36	36	37	38	39	41	44	46	47	48	48	49	48	46	42	38	48.9
22-Apr	33	28	22	21	17	14	13	12	12	14	17	21	25	30	34	39	43	45	47	48	48	46	44	43	47.9
23-Apr	41	38	38	36	35	34	33	32	32	33	34	35	36	37	39	39	39	39	38	36	34	31	28	25	40.7
24-Apr	22	20	18	17	17	17	17	17	17	18	20	22	25	28	32	36	39	43	44	44	43	42	40	38	44.3
25-Apr	37	35	32	30	28	26	24	23	21	20	20	19	18	18	18	17	17	17	17	17	17	17	17	16	37.4
26-Apr	16	15	14	13	13	12	12	12	13	14	15	15	16	17	17	18	18	18	18	18	18	18	18	19	18.6
27-Apr	19	19	18	18	17	16	14	13	15	18	21	25	28	31	37	41	42	43	44	44	43	41	40	38	44.1
28-Apr	37	35	33	32	30	29	28	28	27	28	29	31	32	35	37	39	40	41	40	39	39	38	37	35	40.7
29-Apr	34	33	32	31	30	29	28	27	27	28	28	28	30	33	37	40	42	43	45	44	43	41	39	37	44.9
30-Apr	35	31	27	24	20	17	14	11	10	13	13	17	22	28	34	40	44	45	45	45	45	46	45	45	45.5
Diurnal Maximums	44.9	44.7	45.6	46.0	46.2	44.3	43.3	42.0	41.5	41.1	40.7	40.6	40.6	41.6	43.7	46.9	49.3	49.8	49.4	48.9	48.1	46.8	45.9	45.3	

N - Not Valid

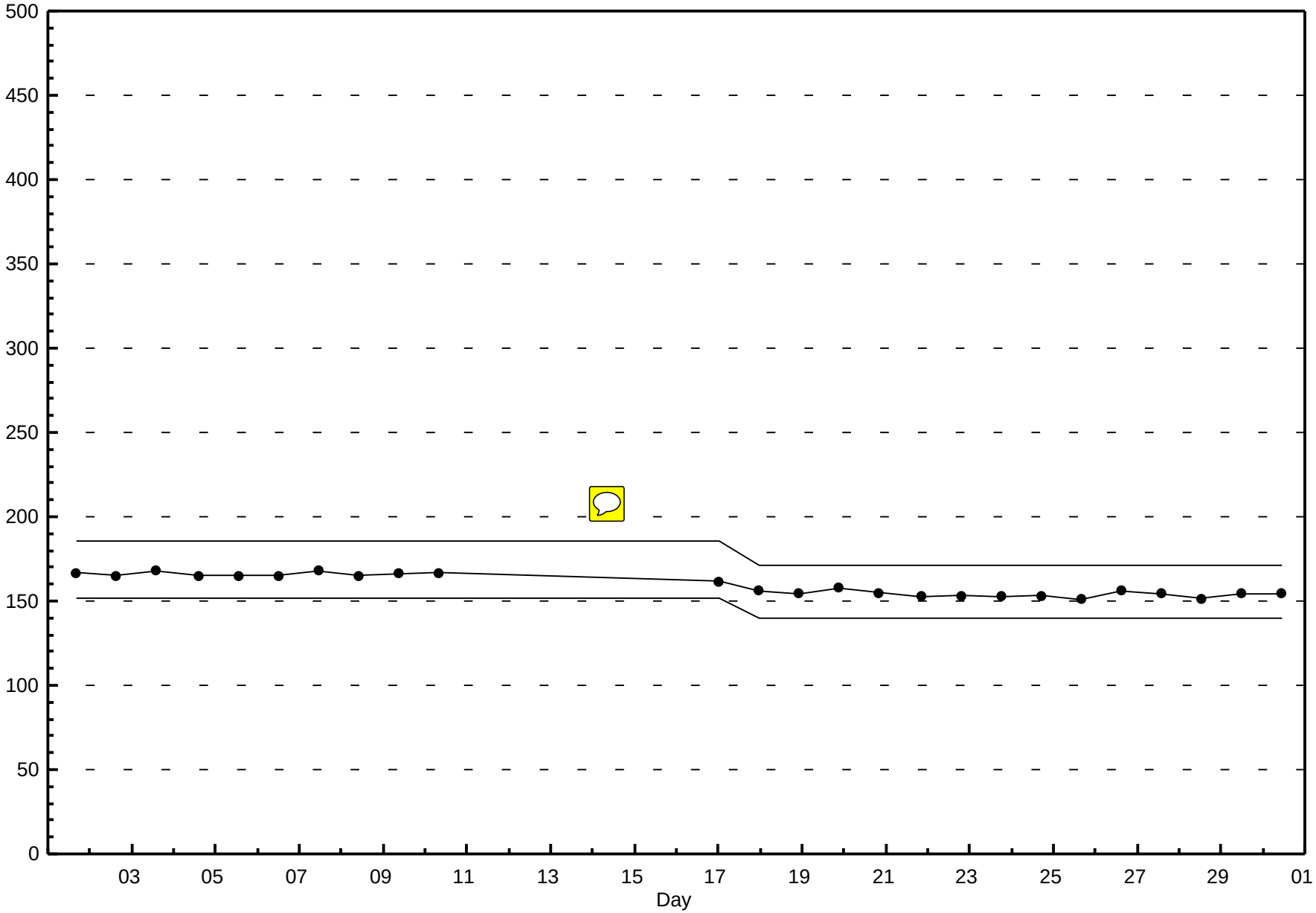
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2012

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

Maximum Value: 0.68 ppm on Apr 2 07:00

Maximum Daily Average: 0.23 ppm on Apr 23

Minimum Value: 0.1 ppm on Apr 21 05:00

Minimum Daily Average: 0.16 ppm on Apr 21

Maximum Diurnal Average: 0.25 ppm at hour 8

Minimum Diurnal Average: 0.18 ppm at hour 16

Monthly Average: 0.194 ppm

Percentiles: $P_1 = 0.14$ $P_{10} = 0.16$ $Q_1 = 0.17$ Median = 0.18 $Q_3 = 0.21$ $P_{90} = 0.23$ $P_{99} = 0.39$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.32
2-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.7	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.68
3-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.40
4-Apr	0.2	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	0.18	0.27
5-Apr	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	0.2	0.2	0.2	0.2	0.2	0.17	0.19
6-Apr	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	0.3	0.2	0.2	0.2	0.17	0.29
7-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.21
8-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.22
9-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.41
10-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.39
11-Apr	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.34
12-Apr	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.24
13-Apr	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.21
14-Apr	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.21
15-Apr	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.23
16-Apr	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.29
17-Apr	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	C	C	C	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	A	0.20	0.33
18-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.21	0.30
19-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.22	0.31
20-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	A	0.2	0.2	0.2	0.18	0.22
21-Apr	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	A	0.2	0.2	0.2	0.2	0.16	0.22
22-Apr	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.21	0.42
23-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.23	0.30
24-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.28
25-Apr	0.2	0.2	0.2	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	0.2	0.2	0.20	0.23
26-Apr	0.2	0.2	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	0.2	0.2	0.2	0.20	0.24
27-Apr	0.2	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	0.2	0.2	0.2	0.2	0.18	0.23
28-Apr	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	0.2	0.2	0.2	0.2	0.2	0.18	0.21
29-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.20
30-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.37
	0.19	0.19	0.19	0.18	0.18	0.20	0.24	0.25	0.22	0.20	0.19	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.19	0.20	0.19	0.19	0.19	Diurnal Average	
	0.29	0.39	0.42	0.28	0.25	0.29	0.68	0.61	0.34	0.38	0.39	0.27	0.26	0.29	0.23	0.24	0.24	0.23	0.24	0.23	0.29	0.30	0.27	0.27	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

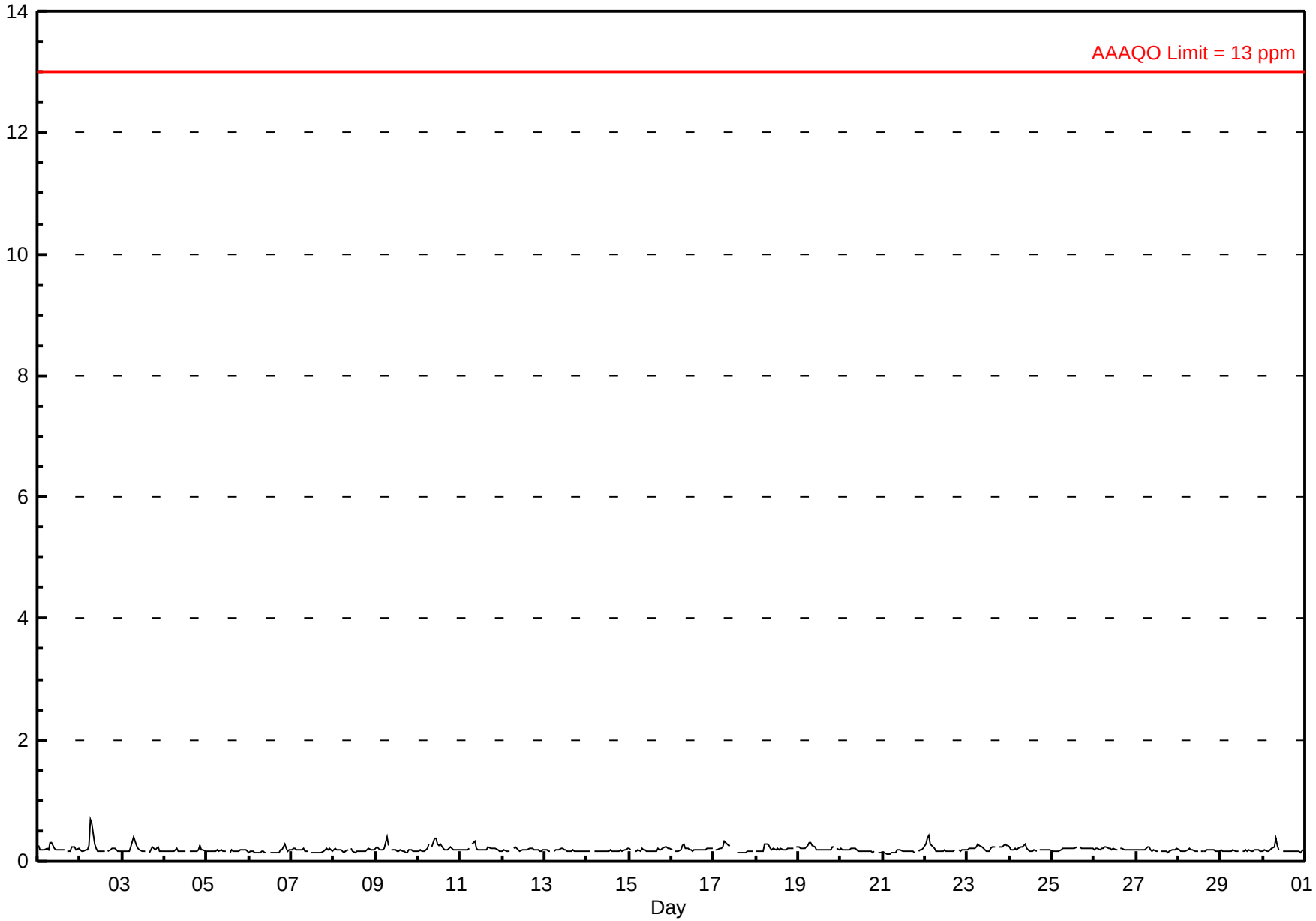
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na

Peace Airshed Zone Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2012

Maximum Value: 1.70 ppm on Apr 2 07:00

Maximum Daily Average: 0.35 ppm on Apr 23

Minimum Value: 0.1 ppm on Apr 21 08:00

Minimum Daily Average: 0.21 ppm on Apr 21

Maximum Diurnal Average: 0.39 ppm at hour 7

Minimum Diurnal Average: 0.22 ppm at hour 13

Monthly Average: 0.270 ppm

Percentiles: $P_1 = 0.15$ $P_{10} = 0.18$ $Q_1 = 0.21$ Median = 0.24 $Q_3 = 0.29$ $P_{90} = 0.37$ $P_{99} = 0.74$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.4	0.3	0.2	0.3	0.2	0.3	0.2	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.27	0.51
2-Apr	0.3	0.2	0.2	0.2	0.2	0.5	1.7	1.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.35	1.70
3-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.8	0.5	0.4	0.3	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.27	0.77
4-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.7	0.3	0.3	0.2	0.24	0.69
5-Apr	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	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.23	0.36
6-Apr	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	0.3	0.5	0.4	0.2	0.2	0.21	0.52
7-Apr	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.23	0.39
8-Apr	0.2	0.6	0.3	0.2	0.4	0.3	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.26	0.64
9-Apr	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.5	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.29	0.71
10-Apr	0.3	0.3	0.3	0.2	0.2	0.3	0.6	A	0.4	0.4	0.5	0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.32	0.59
11-Apr	0.2	0.3	0.3	0.4	0.4	0.3	A	0.4	0.5	0.3	0.2	0.3	0.3	0.2	0.2	0.3	1.2	0.3	0.3	0.3	0.4	0.4	0.2	0.2	0.35	1.15
12-Apr	0.2	0.2	0.3	0.2	0.2	A	0.3	0.3	0.2	0.3	0.2	0.6	0.3	0.2	0.3	0.4	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.28	0.62
13-Apr	0.2	0.2	0.2	0.3	A	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.29
14-Apr	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	1.2	0.5	0.3	0.2	0.2	0.3	0.6	0.2	0.3	0.2	0.3	0.28	1.17
15-Apr	0.3	0.2	A	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.26	0.43
16-Apr	0.3	A	0.2	0.3	0.2	0.3	0.7	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.4	0.29	0.66
17-Apr	A	0.3	0.3	0.3	0.3	0.3	0.6	0.5	0.3	0.3	C	C	C	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.28	0.64
18-Apr	0.2	0.3	0.2	0.2	0.3	1.1	0.4	0.4	0.3	0.2	0.4	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.3	0.2	0.2	A	0.3	0.33	1.10
19-Apr	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	A	0.3	0.2	0.27	0.39
20-Apr	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.21	0.29
21-Apr	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	0.2	0.2	A	0.3	0.3	0.2	0.3	0.21	0.33
22-Apr	0.4	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.3	0.2	0.2	0.7	A	0.4	0.3	0.3	0.3	0.2	0.32	0.75
23-Apr	0.2	0.3	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.6	0.3	A	0.3	0.3	0.3	0.4	0.4	0.3	0.35	0.63
24-Apr	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.2	A	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.27	0.36
25-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.28	0.44
26-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.2	A	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.28	0.42
27-Apr	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.23	0.36
28-Apr	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.31
29-Apr	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.27
30-Apr	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.26	0.52
	0.25	0.26	0.24	0.24	0.25	0.31	0.39	0.36	0.30	0.26	0.24	0.26	0.22	0.27	0.27	0.24	0.26	0.25	0.26	0.27	0.30	0.27	0.25	0.25	Diurnal Average	
	0.39	0.64	0.51	0.41	0.54	1.10	1.70	1.35	0.53	0.43	0.48	0.62	0.33	1.17	0.50	0.63	1.15	0.75	0.45	0.56	0.69	0.41	0.36	0.38	Diurnal Maximum	

C - Calibration

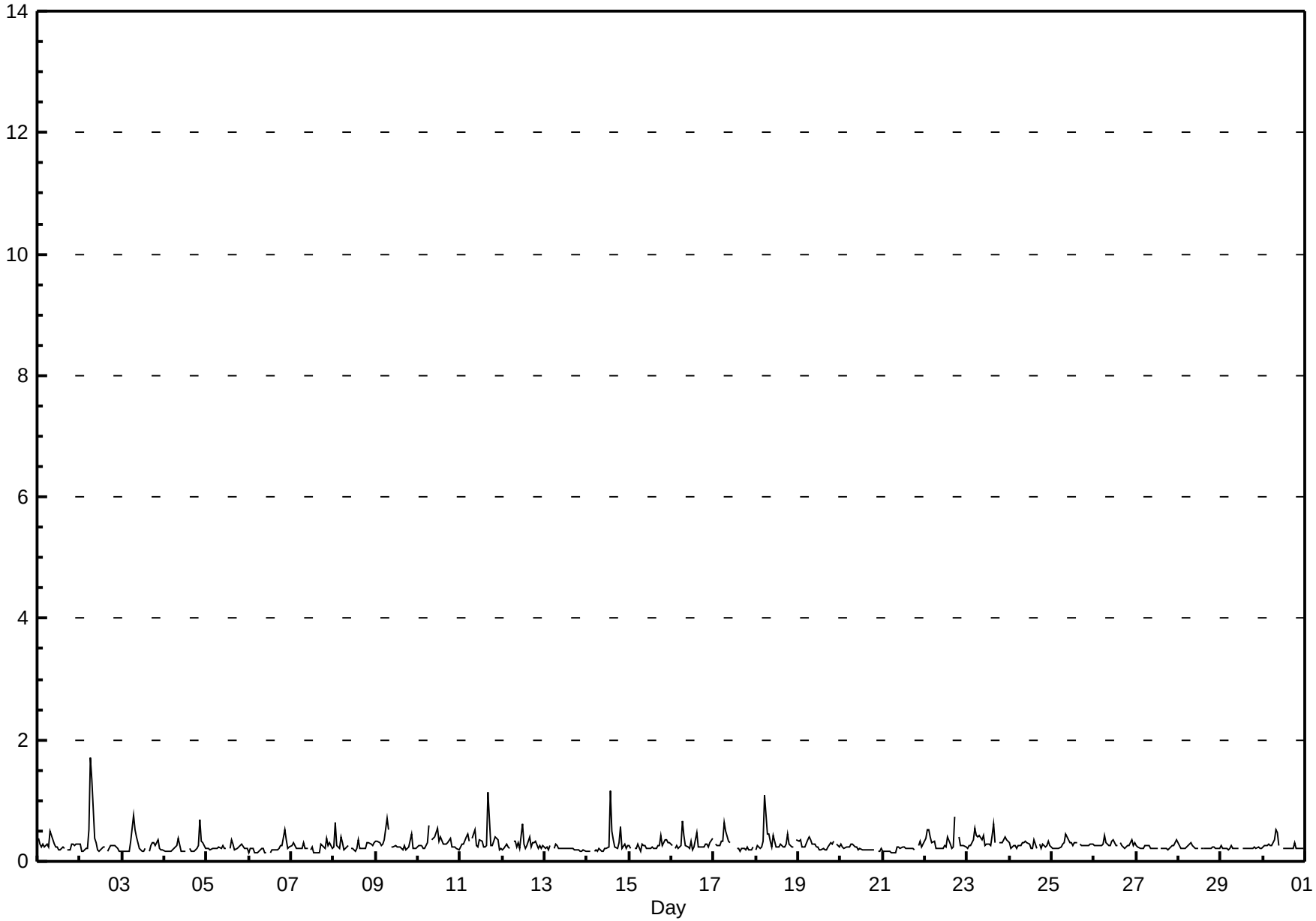
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Carbon Monoxide (CO) - ppm

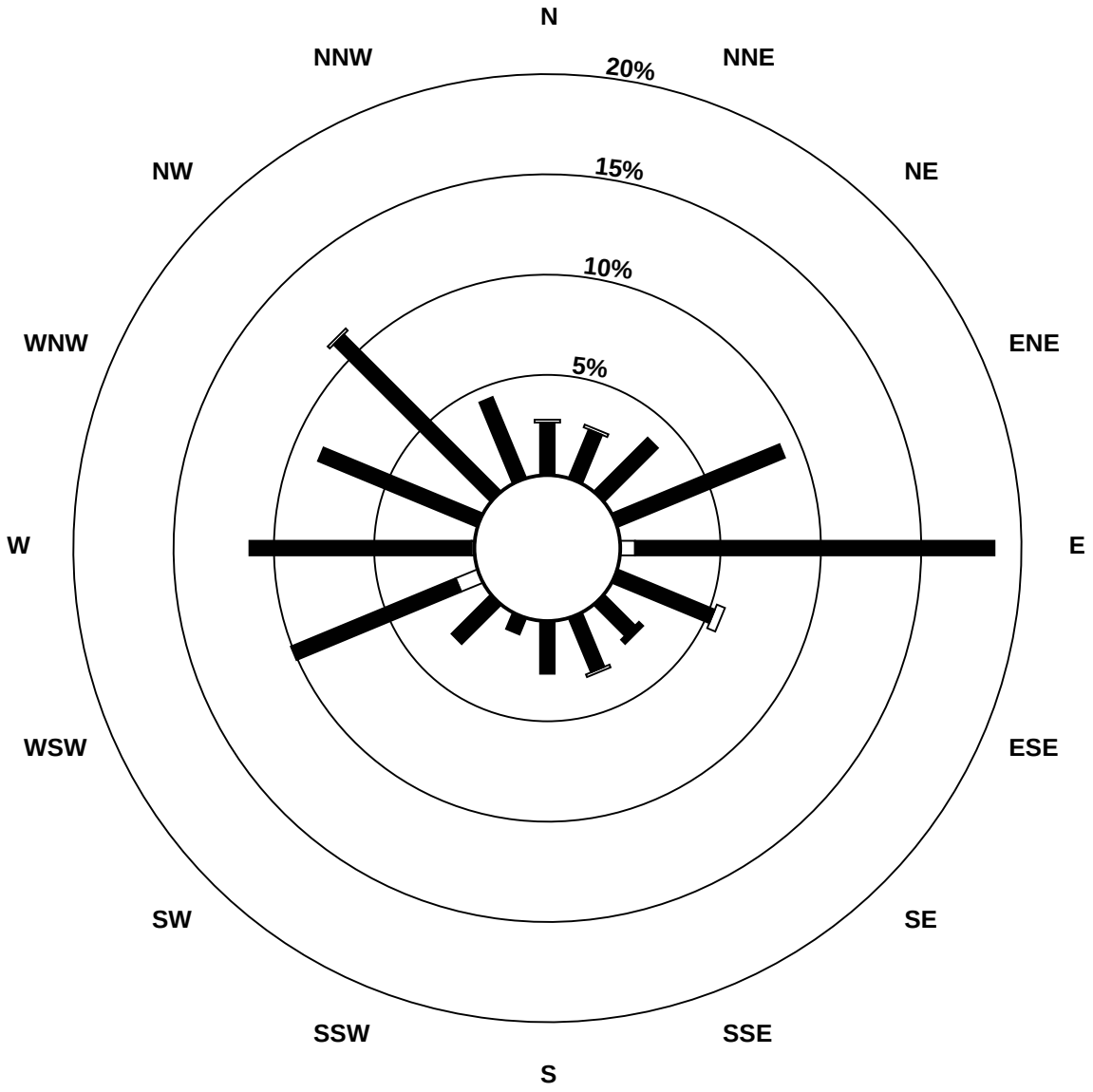
Henry Pirker - April 2012



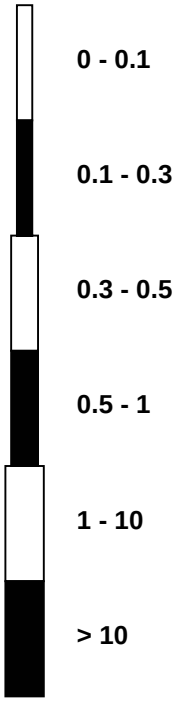
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2012



Pollutant Classes (ppm)



Peace Airshed Zone Association

Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2012

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.47 ppm on Apr 1 01:00

Minimum Value: 0.13 ppm on Apr 21 08:00

Percentiles: P_1 = 0.14 P_{10} = 0.16 Q_1 = 0.17 Median = 0.19 Q_3 = 0.21 P_{90} = 0.23 P_{99} = 0.33

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.47
2-Apr	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.33
3-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
4-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
5-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
6-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
7-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
8-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
9-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
10-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.30
11-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
13-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
14-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
15-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
16-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
17-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	N	N	N	N	N	N	0.1	0.1	0.1	0.2	0.2	0.2	0.27
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
19-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
20-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
21-Apr	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
22-Apr	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	0.2	0.2	0.2	0.2	0.2	0.2	0.28
23-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.25
24-Apr	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
25-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
26-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
27-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
28-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
29-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
30-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
Diurnal Maximums	0.47	0.43	0.43	0.42	0.36	0.30	0.28	0.31	0.32	0.33	0.33	0.32	0.32	0.31	0.29	0.28	0.27	0.25	0.23	0.23	0.23	0.25	0.25	0.25	

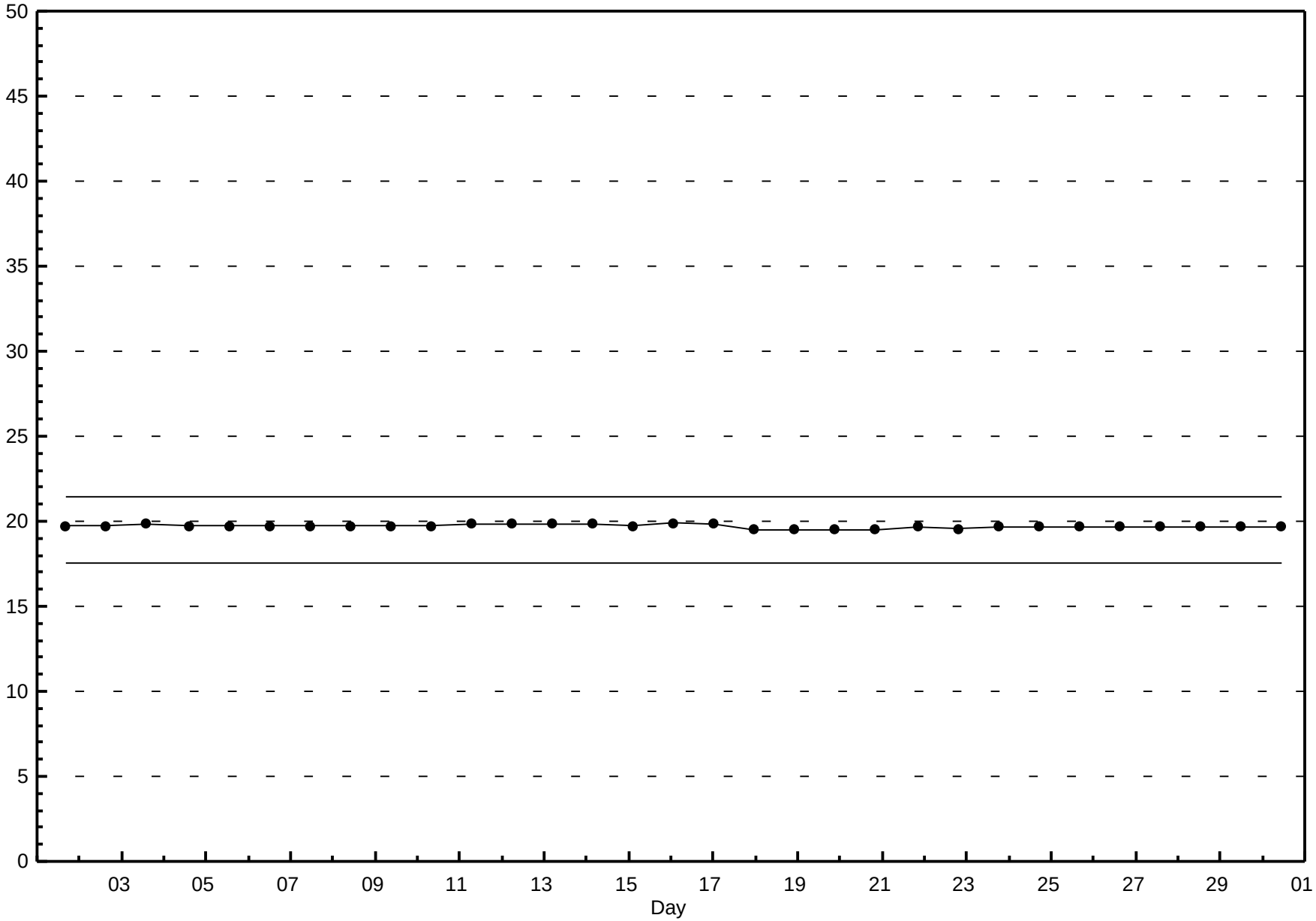
N - Not Valid
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

Peace Airshed Zone Association

Span Responses

Carbon Monoxide (CO)

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2012

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

Maximum Value: 2.70 ppm on Apr 22 03:00

Maximum Daily Average: 2.20 ppm on Apr 22

Minimum Value: 1.9 ppm on Apr 20 10:00

Minimum Daily Average: 1.96 ppm on Apr 29

Maximum Diurnal Average: 2.16 ppm at hour 8

Minimum Diurnal Average: 2.00 ppm at hour 16

Monthly Average: 2.062 ppm

Percentiles: P_1 = 1.94 P_{10} = 1.96 Q_1 = 2.00 Median = 2.04 Q_3 = 2.09 P_{90} = 2.17 P_{99} = 2.47

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2.2	2.4	2.3	2.4	2.5	2.4	2.2	2.3	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.18	2.51
2-Apr	2.2	2.1	2.1	2.1	2.1	2.1	2.4	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.2	2.1	2.0	2.0	2.1	2.11	2.37
3-Apr	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.03	2.13
4-Apr	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	A	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.02	2.11
5-Apr	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.0	2.08	2.22
6-Apr	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.04	2.15
7-Apr	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.3	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.06	2.28
8-Apr	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.3	2.3	A	2.2	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.11	2.32
9-Apr	2.2	2.2	2.2	2.1	2.2	2.2	2.4	2.2	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.10	2.36
10-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.09	2.11
11-Apr	2.1	2.1	2.1	2.1	2.2	2.2	A	2.5	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.12	2.48
12-Apr	2.1	2.1	2.1	2.1	2.1	A	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.08	2.16
13-Apr	2.0	2.0	2.0	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.11
14-Apr	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	2.1	2.1	2.1	2.1	2.03	2.11
15-Apr	2.1	2.1	A	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.08	2.21
16-Apr	2.1	A	2.2	2.3	2.4	2.5	2.5	2.5	2.4	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	2.1	2.1	2.17	2.52
17-Apr	A	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.06	2.18
18-Apr	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.1	2.05	2.15
19-Apr	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.08	2.30
20-Apr	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.98	2.10
21-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.3	2.01	2.29
22-Apr	2.4	2.6	2.7	2.4	2.4	2.3	2.4	2.5	2.5	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.1	2.1	2.20	2.70
23-Apr	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.02	2.15
24-Apr	2.2	2.2	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	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.20
25-Apr	2.0	2.0	2.0	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	2.1	2.1	2.1	2.01	2.09
26-Apr	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.13
27-Apr	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.00	2.10
28-Apr	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.99	2.10
29-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.96	2.01
30-Apr	2.0	2.2	2.1	2.1	2.2	2.4	2.4	2.4	2.2	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.05	2.45
	2.09	2.11	2.11	2.11	2.13	2.13	2.15	2.16	2.12	2.06	2.05	2.03	2.01	2.01	2.00	2.00	2.00	2.00	2.01	2.02	2.03	2.04	2.04	2.06	Diurnal Average	
	2.39	2.61	2.70	2.43	2.51	2.52	2.50	2.49	2.46	2.26	2.28	2.11	2.10	2.10	2.09	2.08	2.08	2.10	2.13	2.17	2.22	2.17	2.17	2.29	Diurnal Maximum	

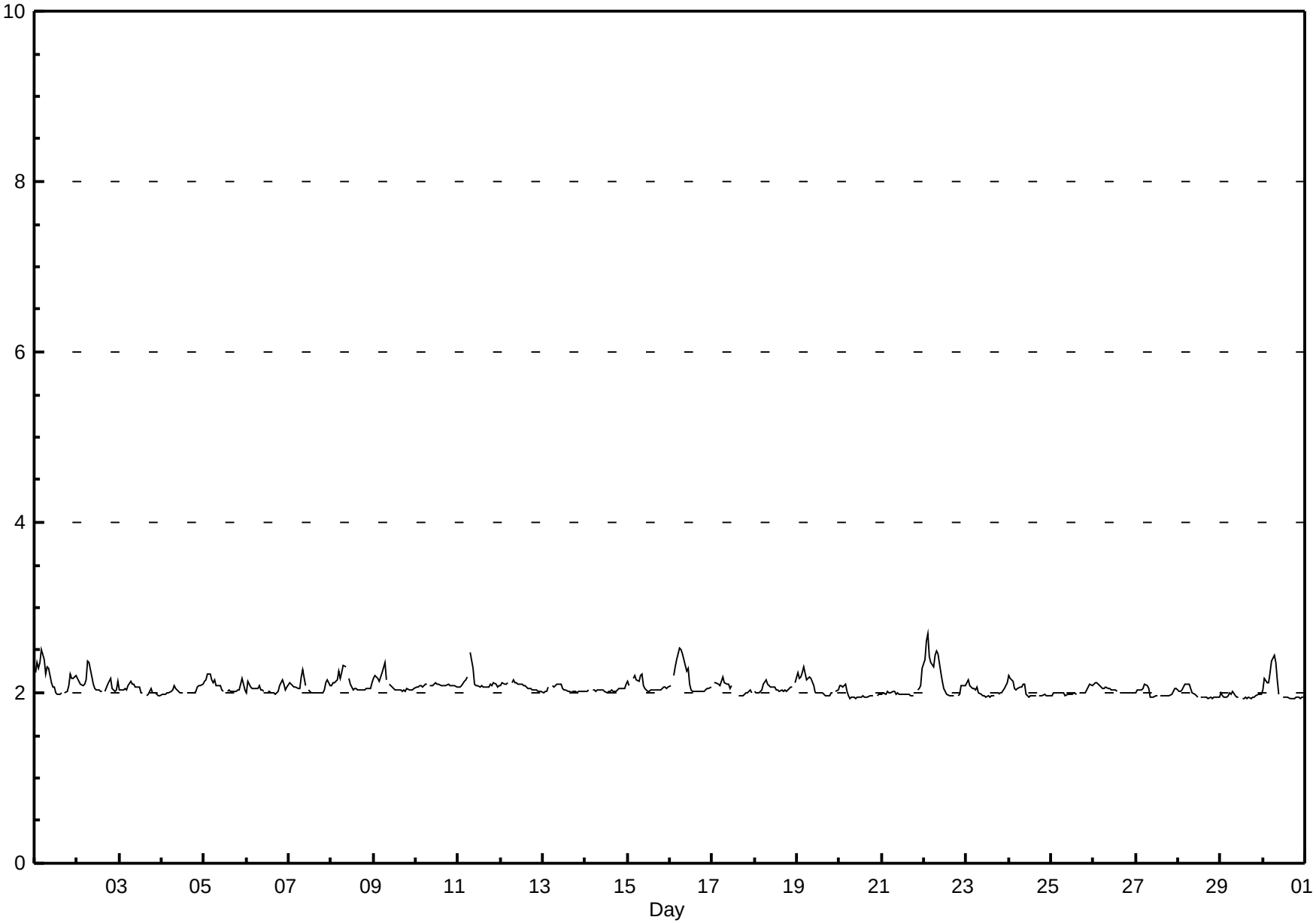
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2012

Maximum Value: 3.32 ppm on Apr 22 02:00

Maximum Daily Average: 2.41 ppm on Apr 22

Minimum Value: 2.0 ppm on Apr 20 10:00

Minimum Daily Average: 1.99 ppm on Apr 29

Maximum Diurnal Average: 2.27 ppm at hour 8

Minimum Diurnal Average: 2.08 ppm at hour 13

Monthly Average: 2.170 ppm

Percentiles: P_1 = 1.96 P_{10} = 1.99 Q_1 = 2.03 Median = 2.12 Q_3 = 2.26 P_{90} = 2.40 P_{99} = 2.78

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2.3	2.5	2.4	2.4	2.7	2.9	2.3	2.4	2.4	2.2	2.1	2.1	2.1	2.0	2.0	2.0	A	2.0	2.1	2.3	2.4	2.3	2.3	2.3	2.28	2.86
2-Apr	2.3	2.2	2.1	2.1	2.1	2.3	2.7	2.6	2.2	2.2	2.1	2.1	2.1	2.0	2.0	A	2.1	2.2	2.3	2.3	2.2	2.1	2.3	2.3	2.21	2.66
3-Apr	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.0	2.1	A	2.1	2.1	2.5	2.2	2.1	2.1	2.0	2.0	2.0	2.11	2.53
4-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.2	2.1	2.06	2.20
5-Apr	2.2	2.2	3.1	2.4	2.2	2.1	2.5	2.1	2.1	2.1	2.1	2.0	A	2.0	2.1	2.0	2.0	2.0	2.4	2.4	2.3	2.7	2.4	2.1	2.25	3.05
6-Apr	2.0	2.7	2.2	2.1	2.1	2.1	2.1	2.4	2.1	2.1	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.4	2.1	2.1	2.13	2.68
7-Apr	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.7	2.2	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.3	2.3	2.14	2.71
8-Apr	2.2	2.2	2.2	2.3	2.4	2.2	2.3	2.4	2.4	A	2.2	2.1	2.1	2.4	2.4	2.4	2.3	2.3	2.3	2.1	2.1	2.1	2.1	2.5	2.25	2.52
9-Apr	2.6	2.3	2.3	2.8	2.3	2.3	2.5	2.4	A	2.4	2.3	2.1	2.2	2.2	2.3	2.2	2.1	2.3	2.3	2.3	2.1	2.2	2.1	2.2	2.28	2.84
10-Apr	2.1	2.1	2.3	2.5	2.2	2.2	2.3	A	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.22	2.49
11-Apr	2.4	2.1	2.2	2.2	2.2	2.3	A	2.5	2.6	2.2	2.2	2.2	2.2	2.4	2.3	2.2	2.2	2.3	2.4	2.2	2.1	2.3	2.1	2.2	2.26	2.56
12-Apr	2.2	2.4	2.2	2.1	2.1	A	2.2	2.5	2.4	2.6	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.20	2.56
13-Apr	2.0	2.0	2.1	2.1	A	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.16
14-Apr	2.0	2.0	2.1	A	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.2	2.0	2.0	2.1	2.3	2.7	2.2	2.1	2.3	2.12	2.67
15-Apr	2.3	2.1	A	2.2	2.4	2.2	2.2	2.2	2.3	2.1	2.1	2.0	2.0	2.2	2.1	2.3	2.4	2.2	2.3	2.2	2.2	2.1	2.2	2.1	2.20	2.42
16-Apr	2.3	A	2.3	2.4	2.5	2.6	2.7	2.5	2.5	2.3	2.3	2.3	2.2	2.0	2.1	2.2	2.4	2.2	2.4	2.2	2.3	2.2	2.1	2.3	2.32	2.70
17-Apr	A	2.2	2.6	2.2	2.1	2.7	2.5	2.3	2.1	2.1	2.1	2.1	C	C	C	2.2	2.1	2.1	2.2	2.4	2.4	2.4	2.1	A	2.26	2.72
18-Apr	2.1	2.0	2.1	2.1	2.2	2.4	2.5	2.4	2.3	2.1	2.2	2.3	2.3	2.3	2.2	2.3	2.2	2.3	2.2	2.2	2.4	2.5	A	2.2	2.26	2.50
19-Apr	2.5	2.2	2.3	2.3	2.4	2.3	2.3	2.2	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	A	2.1	2.1	2.16	2.51
20-Apr	2.2	2.2	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.03	2.29
21-Apr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.2	2.8	2.06	2.80
22-Apr	2.8	3.3	3.3	2.7	2.6	2.4	2.5	2.6	2.5	2.4	2.2	2.4	2.0	2.2	2.2	2.1	2.0	2.0	A	2.0	2.1	2.4	2.2	2.3	2.41	3.32
23-Apr	2.3	2.5	2.3	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.1	2.0	2.1	2.0	2.0	2.1	2.1	A	2.3	2.4	2.5	2.1	2.2	2.3	2.18	2.50
24-Apr	2.7	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	A	2.2	2.2	2.3	2.2	2.1	2.1	2.0	2.14	2.73
25-Apr	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.0	2.0	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.3	2.3	2.4	2.1	2.2	2.1	2.19	2.42
26-Apr	2.1	2.4	2.2	2.1	2.2	2.1	2.1	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	2.1	2.1	2.1	2.11	2.40
27-Apr	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.03	2.12
28-Apr	2.0	2.0	2.0	2.1	2.3	2.2	2.1	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	2.0	2.0	2.0	2.03	2.29
29-Apr	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.09
30-Apr	2.3	2.5	2.2	2.3	2.5	2.5	2.5	2.5	2.5	2.1	A	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.18	2.54
	2.23	2.24	2.25	2.22	2.21	2.24	2.25	2.27	2.23	2.13	2.12	2.11	2.08	2.11	2.09	2.09	2.10	2.11	2.14	2.16	2.18	2.18	2.13	2.18	Diurnal Average	
	2.78	3.32	3.28	2.84	2.66	2.86	2.70	2.63	2.71	2.56	2.37	2.42	2.32	2.40	2.42	2.37	2.40	2.53	2.38	2.42	2.67	2.74	2.43	2.80	Diurnal Maximum	

C - Calibration

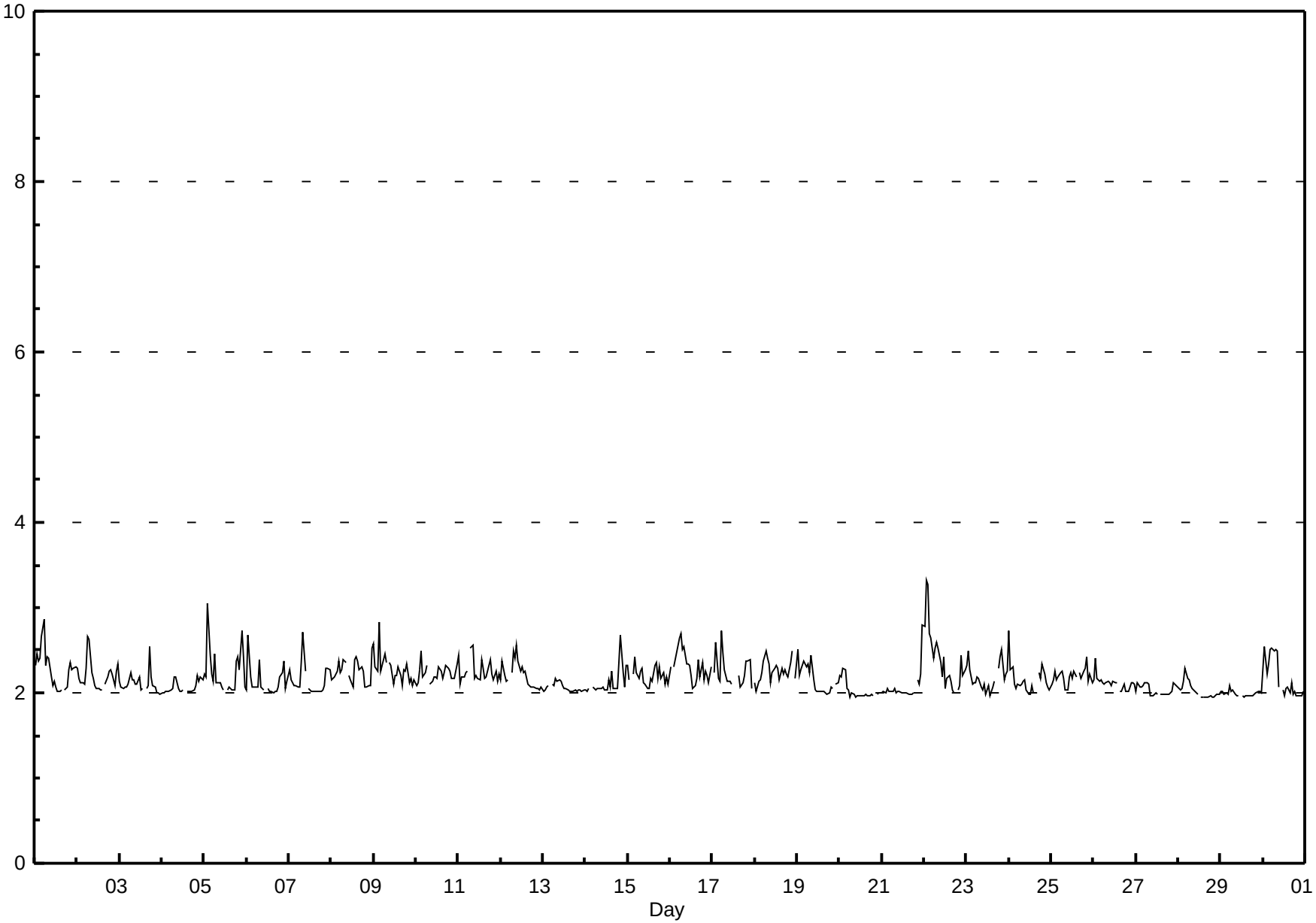
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

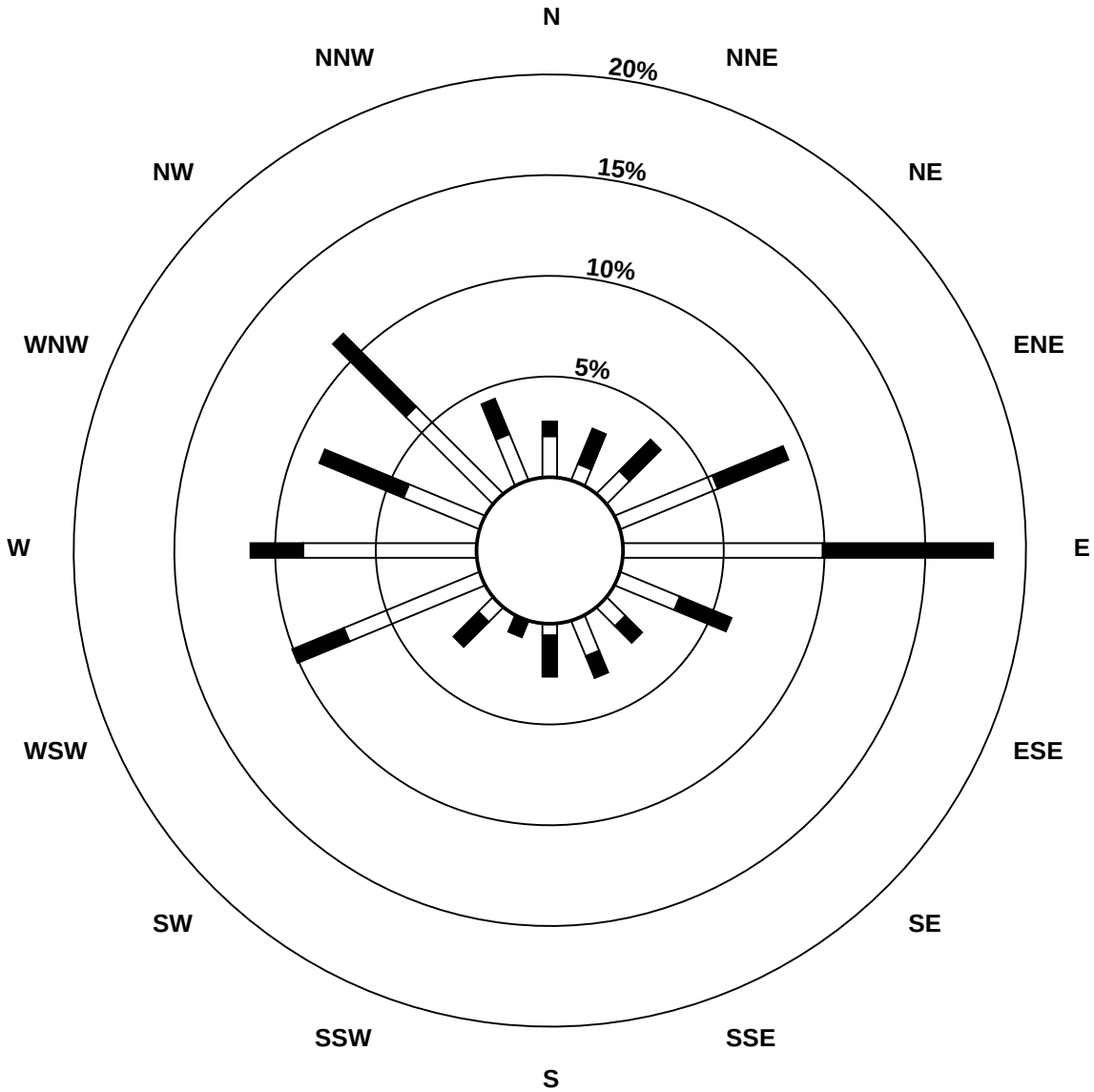
Henry Pirker - April 2012



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2012



Pollutant Classes (ppm)

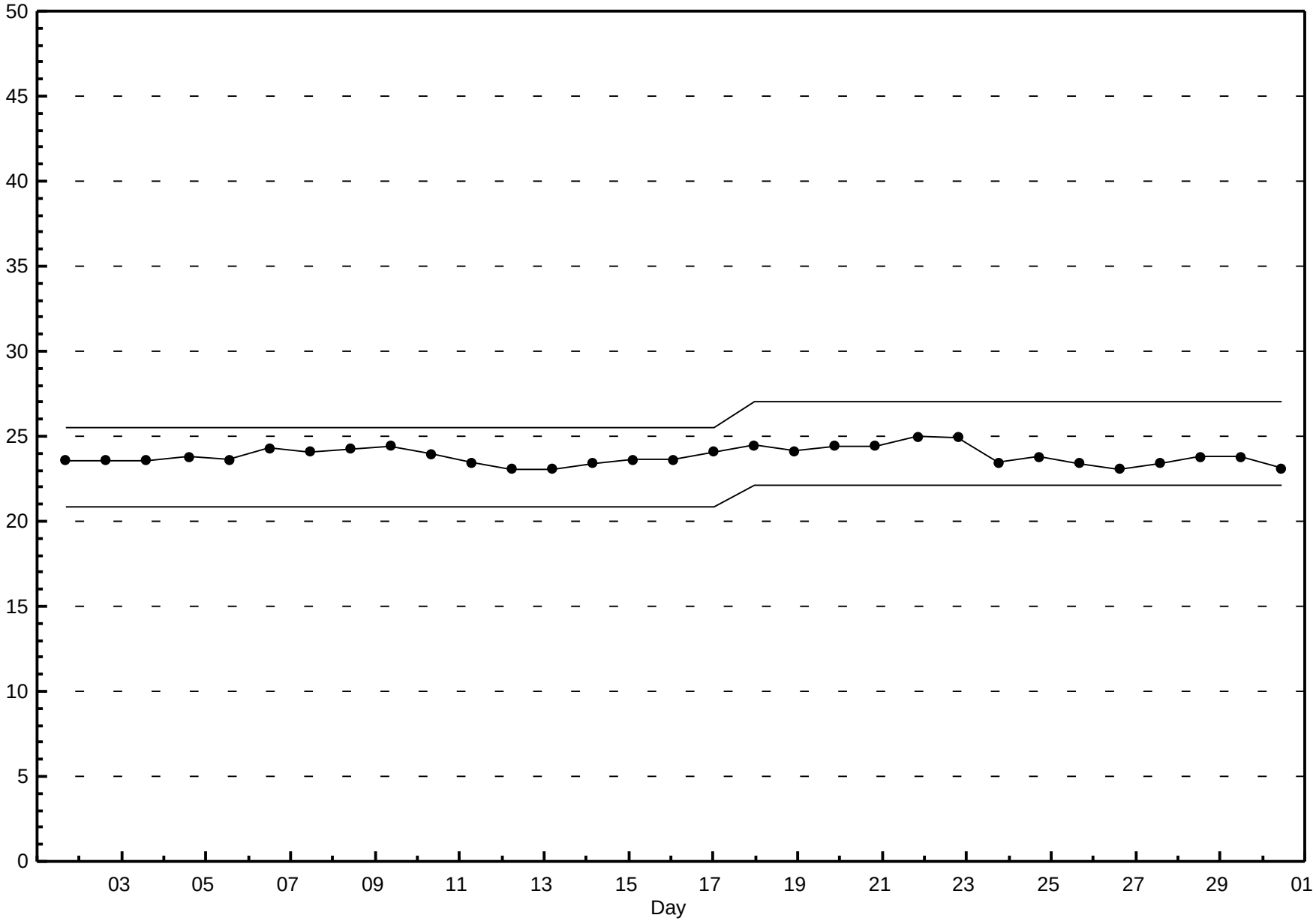
- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Peace Airshed Zone Association

Span Responses

Total Hydrocarbons (THC)

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - April 2012

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

Maximum Value: 24.2 $\mu g/m^3$ on Apr 7 21:00

Maximum Daily Average: 8.0 $\mu g/m^3$ on Apr 12

Minimum Value: 0 $\mu g/m^3$ on Apr 1 03:00

Maximum Diurnal Average: 6.3 $\mu g/m^3$ at hour 7

Monthly Average: 4.65 $\mu g/m^3$

Minimum Daily Average: 1.8 $\mu g/m^3$ on Apr 28

Minimum Diurnal Average: 2.7 $\mu g/m^3$ at hour 15

Percentiles: P_1 = 0.0 P_{10} = 1.4 Q_1 = 2.1 Median = 3.7 Q_3 = 6.3 P_{90} = 9.4 P_{99} = 15.8

Hours in Service:	720
Hours of Data:	693
Hours of Missing Data:	27
Hours of Calibration:	7
Percent Operational Time:	97.2

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	12	2	0	0	1	5	4	0	5	3	2	7	6	5	2	0	0	3	5	5	8	4	7	6	3.9	12.4
2-Apr	4	2	9	8	10	6	14	20	9	4	6	9	10	3	0	0	6	0	2	7	9	7	0	0	6.1	20.0
3-Apr	0	0	0	2	3	2	5	6	8	7	8	3	0	1	5	0	1	14	13	3	4	11	15	5	4.8	15.1
4-Apr	0	4	2	0	3	1	4	N	0	3	9	7	0	0	0	6	1	N	5	13	14	9	6	9	4.4	13.6
5-Apr	N	0	7	3	1	6	0	2	6	2	2	6	6	1	1	11	5	N	1	5	3	6	9	8	4.1	11.0
6-Apr	3	0	0	2	6	1	2	5	3	0	N	N	N	N	8	10	5	N	1	12	14	14	8	1	4.8	13.8
7-Apr	1	5	7	1	3	7	2	3	3	1	0	1	6	9	0	0	8	0	0	14	24	16	14	6	5.5	24.2
8-Apr	N	2	7	8	2	4	9	6	9	12	14	13	2	N	4	9	N	0	10	N	0	9	14	4	6.8	14.1
9-Apr	3	10	N	N	0	10	20	15	7	11	11	4	0	N	N	N	N	0	3	3	5	11	7	0	6.7	19.7
10-Apr	N	0	11	6	2	6	11	0	C	C	C	C	C	C	C	11	12	12	13	12	12	12	12	12	--	12.8
11-Apr	11	9	8	7	7	10	11	12	11	6	6	5	4	4	4	5	5	6	6	5	6	5	5	5	6.8	11.6
12-Apr	7	7	7	7	7	8	8	9	9	7	7	7	7	6	7	11	12	11	9	8	8	7	7	8	8.0	11.8
13-Apr	8	8	8	8	7	6	5	5	5	4	4	5	4	4	4	3	3	3	3	3	2	2	2	2	4.6	8.2
14-Apr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	4	2.1	3.7
15-Apr	4	4	5	5	6	7	7	9	8	6	4	2	2	1		1	1	1	2	2	3	3	4	3	3.9	8.9
16-Apr	5	6	8	10	12	15	14	12	9	7	6	4	3	3	3	3	3	2	3	3	4	4	4	4	6.1	15.2
17-Apr	4	4	4	4	4	4	5	4	3	3	3	3	2	2	2	2	2	2	3	3	4	4	4	4	3.3	4.5
18-Apr	4	4	4	4	5	6	6	5	4	4	4	4	4	4	5	4	4	4	5	6	7	6	6	7	4.8	7.0
19-Apr	8	9	10	10	11	8	9	6	5	4	3	3	2	2	2	1	1	1	2	2	3	3	3	4	4.7	10.6
20-Apr	4	4	4	4	3	3	3	4	3	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	2.8	4.4
21-Apr	3	4	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	5	7	2.8	7.1
22-Apr	11	16	17	17	15	13	12	10	9	7	7	5	4	3	3	3	3	3	3	4	4	5	5	5	7.6	17.0
23-Apr	5	6	6	6	5	5	5	5	5	4	4	3	3	4	4	3	2	2	3	4	5	6	7	8	4.6	8.0
24-Apr	8	8	7	5	4	4	4	3	4	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3.4	8.2
25-Apr	3	5	5	5	5	4	3	3	3	2	2	2	2	3	3	3	3	3	3	2	3	4	4	4	3.3	5.2
26-Apr	4	5	5	4	4	5	6	6	6	5	4	4	4	4	5	5	5	6	6	5	7	8	7	6	5.4	7.9
27-Apr	6	5	8	8	8	6	4	3	3	2	2	1	1	1	1	1	1	1	1	1	2	2	3	3	3.1	8.2
28-Apr	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	2	1.8	2.8
29-Apr	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	3	2.1	3.8
30-Apr	4	5	6	6	7	9	9	13	8	4	4	3	2	2	2	2	2	2	2	3	3	3	3	4	4.5	12.8
	4.7	4.7	5.6	5.2	5.1	5.7	6.3	6.0	5.2	4.2	4.3	4.0	3.2	2.8	2.7	3.7	3.5	3.4	3.8	4.8	5.6	6.0	5.8	4.6	Diurnal Average	
	12.4	16.3	16.9	17.0	15.1	15.2	19.7	20.0	10.8	12.4	14.1	13.2	10.3	8.6	8.4	11.4	11.8	14.2	12.8	14.4	24.2	15.9	15.1	12.3	Diurnal Maximum	

C - Calibration N - Not Valid

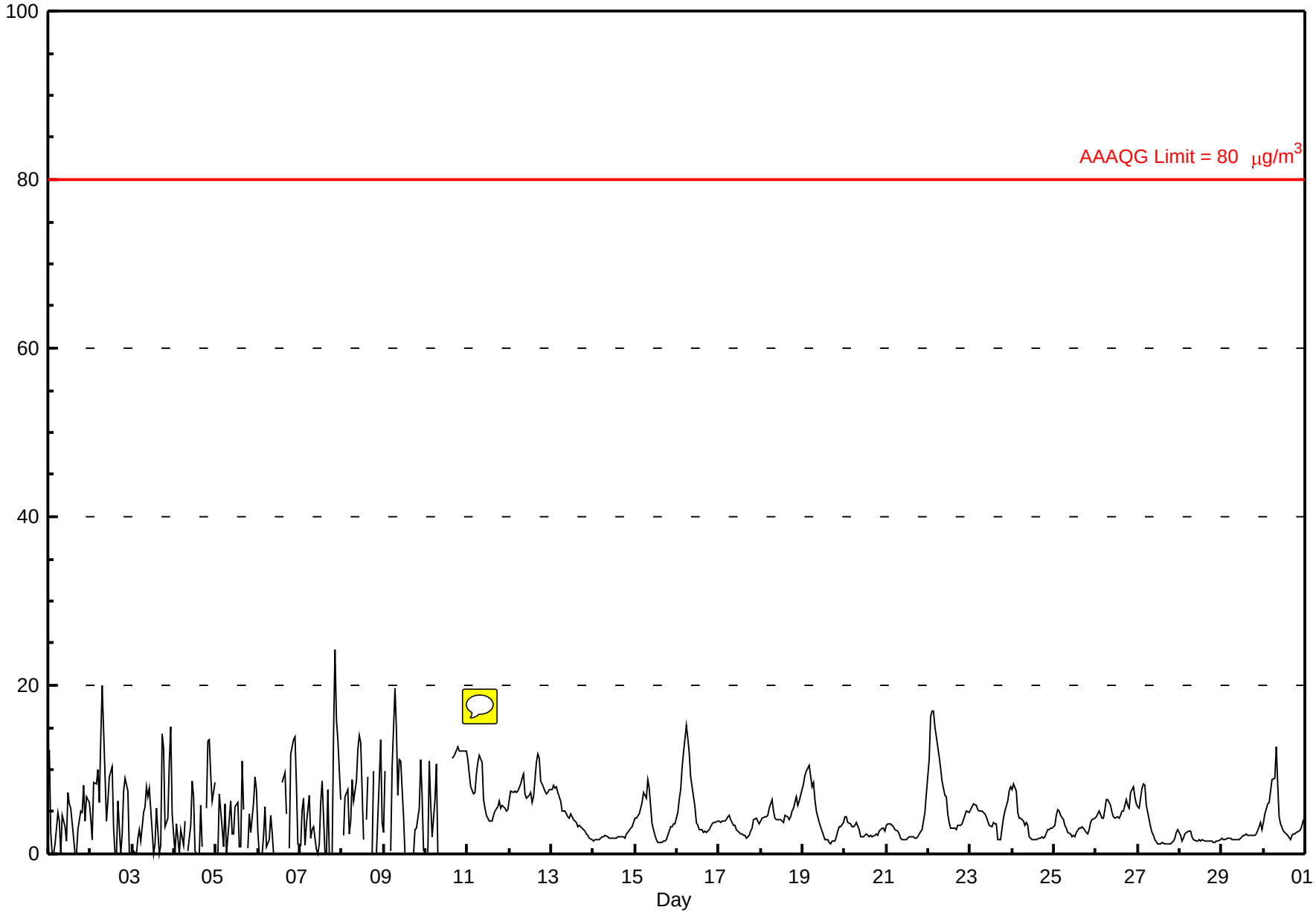
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - April 2012

Maximum Value: 26.2 $\mu g/m^3$ on Apr 7 21:00

Maximum Daily Average: 10.6 $\mu g/m^3$ on Apr 12

Minimum Value: 0 $\mu g/m^3$ on Apr 1 03:00

Maximum Diurnal Average: 8.2 $\mu g/m^3$ at hour 7

Monthly Average: 6.04 $\mu g/m^3$

Minimum Daily Average: 2.6 $\mu g/m^3$ on Apr 14

Minimum Diurnal Average: 3.3 $\mu g/m^3$ at hour 14

Percentiles: P_1 = 0.0 P_{10} = 1.9 Q_1 = 2.7 Median = 4.7 Q_3 = 8.4 P_{90} = 12.3 P_{99} = 21.7

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

Day	Hourly Period Ending At (MST)																								Daily 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-Apr	17	8	0	1	3	7	8	1	7	6	4	8	7	7	3	1	0	7	8	8	9	6	9	9	6.1	17.4
2-Apr	5	4	11	11	12	10	18	23	17	4	10	10	12	8	0	5	9	3	6	11	12	8	5	0	8.9	23.0
3-Apr	0	3	1	4	3	3	6	10	10	8	8	6	0	4	6	5	9	16	16	7	8	13	16	12	7.4	16.4
4-Apr	2	7	7	4	5	4	8	0	3	9	10	9	3	0	3	7	7	0	10	16	16	12	8	10	6.7	16.2
5-Apr	4	7	10	4	3	9	4	6	9	3	4	9	9	3	8	12	10	0	5	6	4	10	10	11	6.6	12.3
6-Apr	4	0	0	8	8	3	5	7	5	3	0	0	0	2	12	11	11	0	8	14	16	17	10	7	6.3	17.2
7-Apr	5	6	8	4	7	9	3	6	5	4	1	5	7	10	7	5	9	5	6	21	26	23	14	13	8.8	26.2
8-Apr	0	10	10	10	5	8	12	7	11	14	15	16	9	0	11	13	2	9	12	3	5	11	15	10	9.1	16.0
9-Apr	7	12	8	0	2	23	24	17	10	13	13	7	3	0	0	0	0	2	4	8	9	14	11	3	8.0	24.5
10-Apr	0	6	14	12	3	13	13	4	C	C	C	C	C	C	C	16	13	15	15	12	12	12	12	12	--	15.6
11-Apr	12	11	9	8	9	14	13	14	16	7	7	5	4	4	4	6	6	7	8	6	7	6	6	6	8.2	16.3
12-Apr	22	9	8	8	8	8	10	11	26	8	7	9	9	7	8	13	13	15	10	12	9	11	7	9	10.6	25.7
13-Apr	8	8	8	8	8	7	5	5	6	6	5	7	5	5	5	3	4	3	3	3	3	2	2	2	5.1	8.5
14-Apr	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	3	3	3	6	4	2.6	5.7
15-Apr	5	5	5	6	7	9	7	11	9	9	4	3	2	2	2	2	2	2	2	4	4	3	4	4	4.7	10.5
16-Apr	6	7	9	11	15	17	16	13	10	7	6	6	4	3	3	3	3	3	3	4	4	4	4	4	6.9	17.0
17-Apr	6	4	4	4	4	6	5	5	4	4	3	3	2	2	2	2	2	2	3	4	4	5	4	4	3.7	6.2
18-Apr	4	4	5	5	5	8	12	6	5	4	4	4	4	4	7	5	4	5	5	7	10	7	7	8	5.9	11.8
19-Apr	11	12	11	11	11	9	13	7	6	4	3	3	3	2	2	2	1	2	2	2	3	4	3	4	5.5	13.1
20-Apr	5	9	4	4	3	4	4	5	3	2	2	3	3	3	3	4	2	2	3	2	3	3	3	3	3.5	8.8
21-Apr	15	4	4	4	3	3	3	2	2	2	2	2	2	3	2	2	2	2	2	2	3	4	6	9	3.6	14.6
22-Apr	22	20	20	20	18	14	13	11	9	11	8	6	4	3	3	3	3	6	4	5	4	6	6	5	9.4	21.5
23-Apr	6	6	8	6	6	5	5	5	5	5	4	3	4	4	4	4	3	2	4	5	6	7	8	10	5.3	10.1
24-Apr	12	10	9	6	5	5	4	4	4	4	2	2	2	2	2	2	2	2	3	2	3	3	3	3	4.0	11.9
25-Apr	4	5	6	6	5	4	4	3	3	2	2	2	2	3	3	3	4	3	3	2	4	4	4	4	3.7	5.5
26-Apr	6	5	5	5	5	6	7	7	7	5	5	5	5	4	5	5	6	8	7	6	8	9	8	6	6.0	8.6
27-Apr	6	7	8	9	9	7	5	4	3	2	2	2	1	1	2	1	1	1	1	1	2	2	3	4	3.6	9.1
28-Apr	15	2	2	3	3	3	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.7	14.8
29-Apr	10	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	3	4	7	3	2.8	10.1
30-Apr	13	6	8	7	8	11	10	18	19	5	4	3	3	3	3	2	3	3	3	3	3	3	4	5	6.2	19.1
	7.9	6.7	6.8	6.4	6.3	7.9	8.2	7.3	7.6	5.5	5.0	5.0	4.0	3.3	4.0	4.8	4.6	4.4	5.4	6.2	6.9	7.3	7.0	6.3	Diurnal Average	
	22.0	19.7	20.5	19.7	17.5	23.3	24.5	23.0	25.7	13.8	15.5	16.0	11.8	10.1	11.8	15.6	13.1	15.7	15.7	21.3	26.2	22.5	16.4	13.3	Diurnal Maximum	

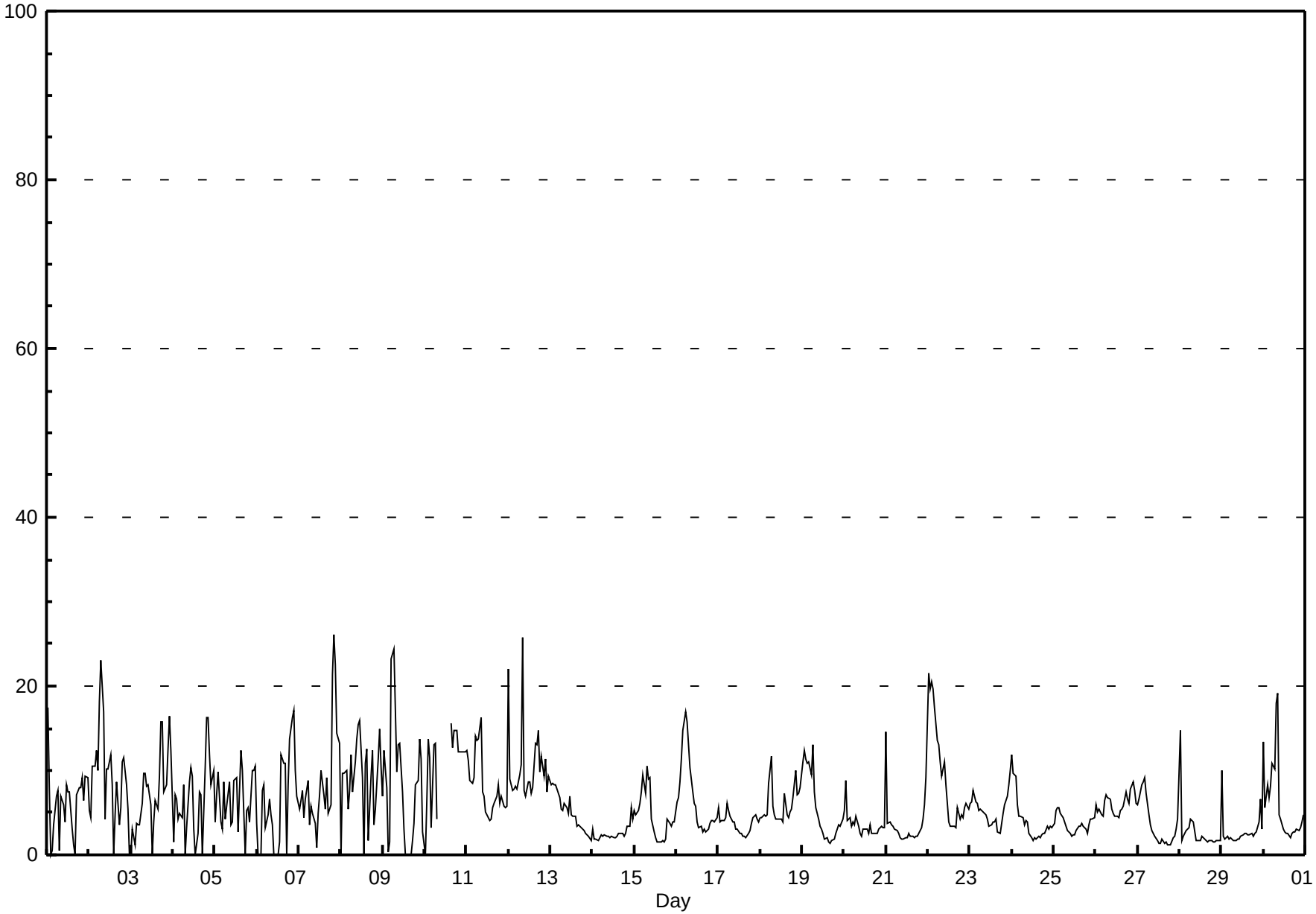
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - April 2012

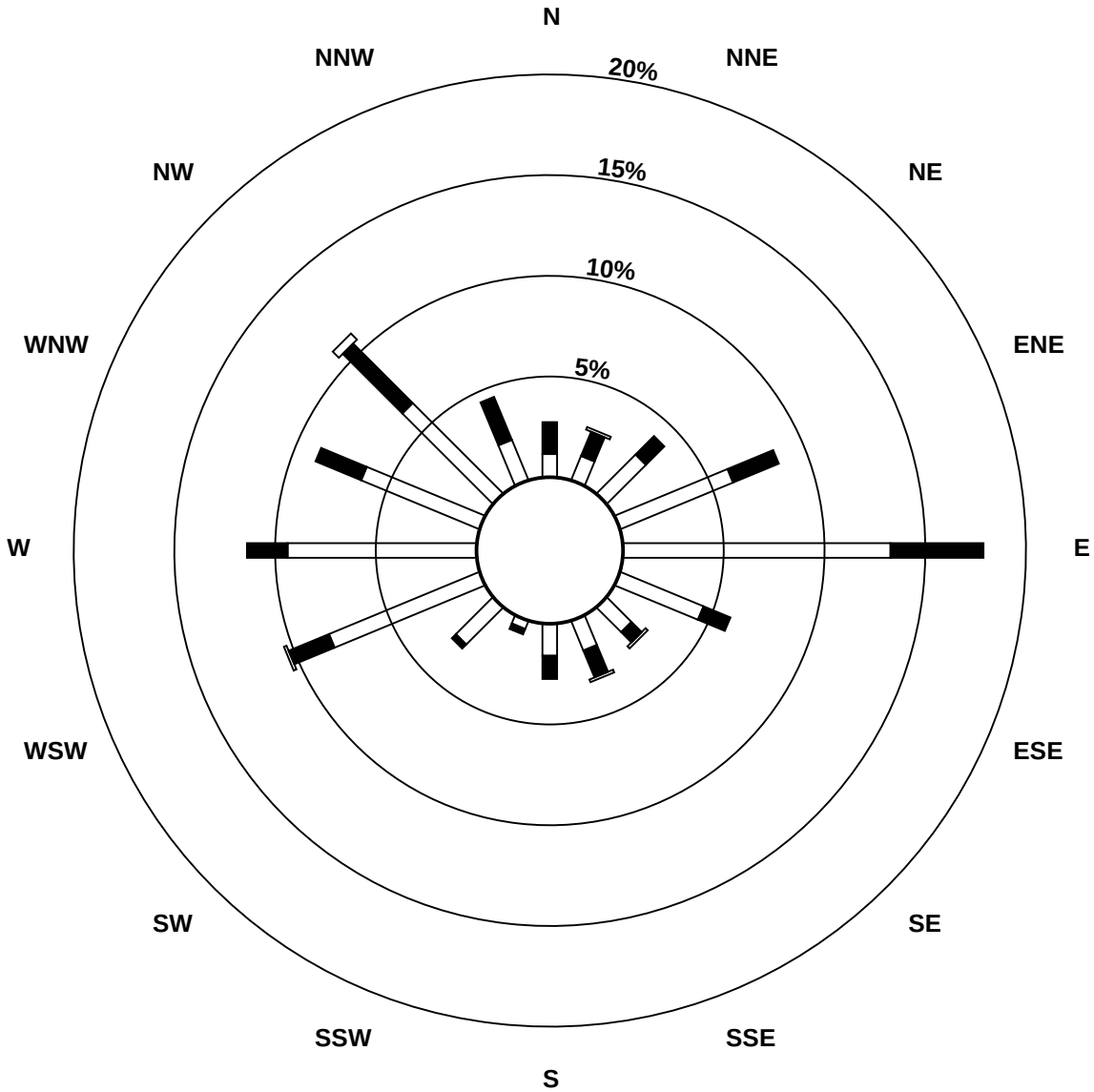


Peace Airshed Zone Association

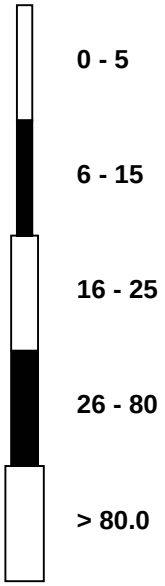
Pollutant Rose

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

Henry Pirker - April 2012



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



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - April 2012

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

Maximum Value: 15.6 ^{o}C on Apr 30 15:00

Maximum Daily Average: 9.2 ^{o}C on Apr 30

Minimum Value: -9 ^{o}C on Apr 15 07:00

Minimum Daily Average: -2.7 ^{o}C on Apr 14

Maximum Diurnal Average: 9.6 ^{o}C at hour 15

Minimum Diurnal Average: -0.4 ^{o}C at hour 6

Monthly Average: 4.82 ^{o}C

Percentiles: P_1 = -6.4 P_{10} = -1.8 Q_1 = 1.0 Median = 4.8 Q_3 = 8.7 P_{90} = 11.6 P_{99} = 14.7

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

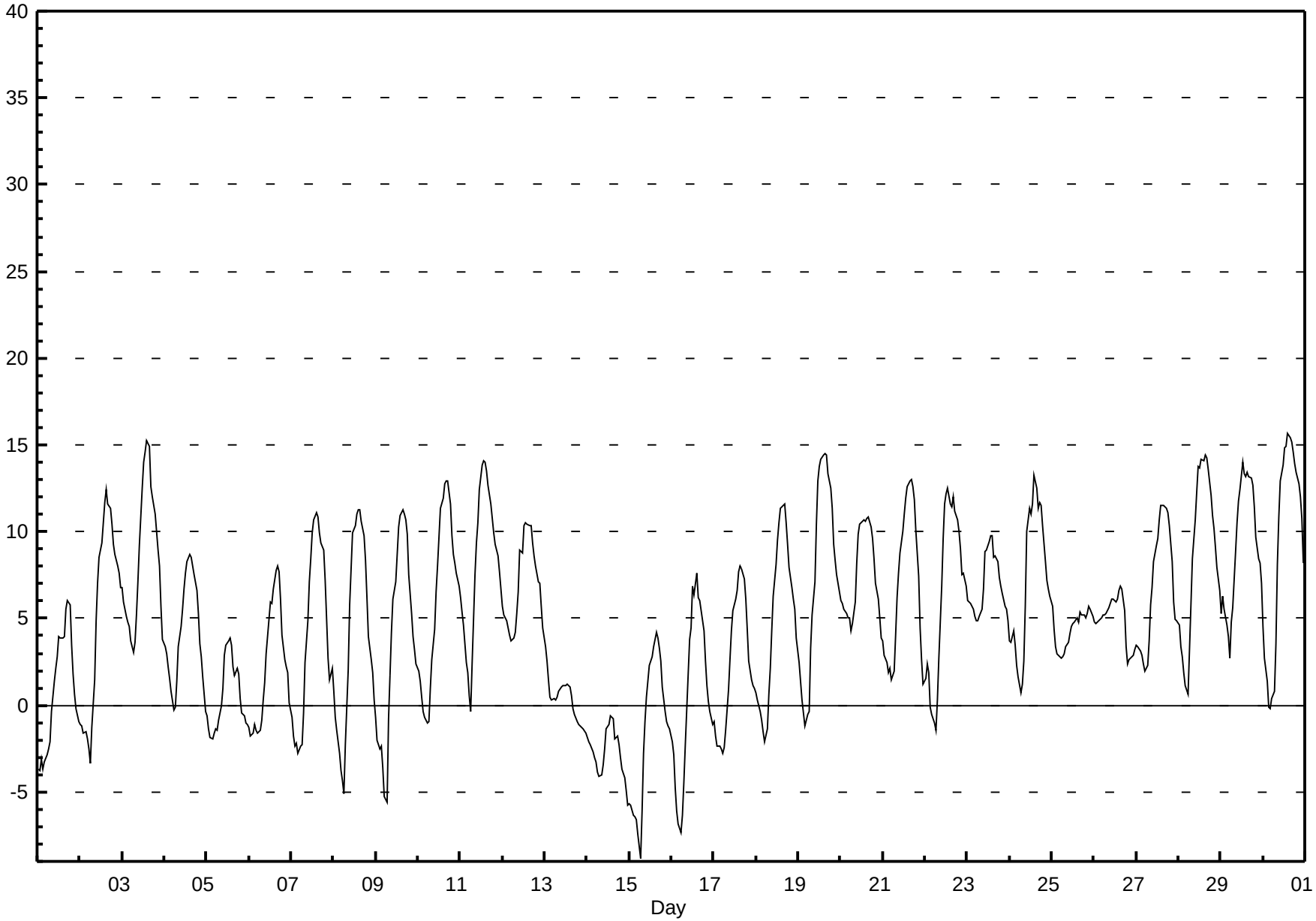
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	-4	-4	-3	-4	-3	-3	-3	-2	0	1	2	3	4	4	4	4	6	6	6	3	2	1	0	-1	0.8	6.0
2-Apr	-1	-1	-2	-2	-2	-3	-3	-1	1	5	7	9	9	10	12	12	12	11	10	9	9	8	8	7	5.2	12.4
3-Apr	7	6	5	5	5	4	3	4	5	7	9	13	14	15	15	15	13	12	12	11	9	8	6	4	8.5	15.3
4-Apr	3	3	2	2	1	0	0	1	3	5	6	7	8	8	9	9	8	8	7	5	4	3	2	0	4.2	8.7
5-Apr	-1	-1	-2	-2	-2	-1	-1	-1	0	1	3	3	4	4	3	2	2	2	2	0	0	-1	-1	-1	0.5	3.9
6-Apr	-1	-2	-2	-1	-1	-2	-1	-1	0	1	3	5	6	6	7	8	8	8	6	4	3	2	2	0	2.4	8.0
7-Apr	-1	-2	-2	-2	-3	-2	-2	0	2	5	7	8	10	11	11	11	10	9	9	7	5	3	1	2	4.0	11.1
8-Apr	1	-1	-1	-3	-4	-4	-5	-2	2	6	8	10	10	11	11	11	11	10	8	6	4	3	2	0	3.9	11.3
9-Apr	-1	-2	-3	-2	-4	-5	-6	-1	2	4	6	7	9	10	11	11	11	11	10	8	5	4	3	2	3.8	11.2
10-Apr	2	1	0	0	-1	-1	-1	1	3	4	7	8	10	11	12	13	13	13	12	10	9	8	8	7	6.1	12.9
11-Apr	6	5	5	2	2	1	0	2	8	9	11	12	14	14	14	14	13	12	11	10	9	9	8	7	8.2	14.1
12-Apr	6	5	5	4	4	4	4	4	5	7	9	9	10	11	10	10	10	9	9	8	7	7	6	4	7.0	10.5
13-Apr	3	3	1	0	0	0	0	0	1	1	1	1	1	1	1	1	0	-1	-1	-1	-1	-1	-1	-2	0.4	3.4
14-Apr	-2	-2	-2	-3	-3	-3	-4	-4	-4	-3	-3	-1	-1	-1	-1	-1	-2	-2	-2	-3	-4	-4	-5	-6	-2.7	-0.6
15-Apr	-6	-6	-6	-6	-7	-7	-9	-6	-3	-1	0	2	3	3	3	4	4	3	3	1	0	-1	-1	-1	-1.4	4.2
16-Apr	-2	-3	-5	-6	-7	-7	-6	-4	-2	2	4	4	7	6	8	6	6	5	4	3	1	0	0	-1	0.5	7.6
17-Apr	-1	-2	-2	-2	-2	-3	-2	-1	1	3	4	5	6	7	8	8	8	7	6	4	3	1	1	1	2.4	8.0
18-Apr	1	0	0	-1	-2	-2	-1	1	2	4	6	8	10	11	11	12	12	10	9	8	7	6	6	4	5.0	11.6
19-Apr	2	1	0	0	-1	0	0	3	5	7	10	13	14	14	14	14	14	13	12	11	9	8	7	7	7.5	14.5
20-Apr	6	6	6	5	5	5	4	5	6	8	10	10	11	11	11	11	11	10	10	8	7	6	5	4	7.5	10.8
21-Apr	4	3	2	2	2	1	2	4	6	8	9	10	11	12	13	13	13	13	12	10	7	4	3	1	6.9	13.0
22-Apr	2	2	2	0	-1	-1	-1	0	3	7	10	12	12	13	12	11	12	11	11	10	9	8	8	7	6.5	12.5
23-Apr	6	6	6	6	5	5	5	5	6	7	9	9	9	10	10	9	9	8	7	7	6	6	6	5	6.9	9.8
24-Apr	4	4	4	3	2	2	1	1	3	6	10	11	11	12	13	13	11	12	12	10	8	7	7	6	7.2	13.2
25-Apr	6	4	3	3	3	3	3	3	3	4	4	5	5	5	5	5	5	5	5	5	5	6	6	5	4.4	5.7
26-Apr	5	5	5	5	5	5	5	5	6	6	6	6	6	6	7	7	7	5	3	2	3	3	3	3	4.9	6.8
27-Apr	3	3	3	3	2	2	2	4	6	7	8	9	10	11	11	12	11	11	11	10	8	6	5	5	6.9	11.5
28-Apr	5	3	3	2	1	1	3	6	8	11	12	14	14	14	14	14	14	14	12	11	10	9	8	7	8.7	14.5
29-Apr	5	6	6	5	4	3	5	6	9	10	12	12	14	13	13	13	13	13	13	11	10	8	8	7	9.2	14.0
30-Apr	5	3	1	0	0	0	1	4	8	11	13	14	15	15	16	15	15	15	14	13	13	12	11	8	9.2	15.6
	2.1	1.5	1.0	0.4	0.0	-0.4	-0.3	1.2	3.2	5.0	6.8	8.0	8.8	9.2	9.6	9.6	9.3	8.8	8.0	6.8	5.5	4.6	3.9	3.0	Diurnal Average	
	6.8	6.3	5.9	5.5	5.2	5.2	5.2	5.8	8.8	10.8	13.0	13.8	14.8	14.9	15.6	15.4	15.2	14.6	13.9	13.4	12.8	12.0	10.8	8.2	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - April 2012

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

Maximum Value: 90.3 % on Apr 24 03:00 Maximum Daily Average: 86.8 % on Apr 13

Minimum Value: 16 % on Apr 21 16:00 Minimum Daily Average: 34.4 % on Apr 21

Maximum Diurnal Average: 72.6 % at hour 7 Minimum Diurnal Average: 40.5 % at hour 15

Monthly Average: 56.00 % Percentiles: P_1 = 21.5 P_{10} = 29.9 Q_1 = 38.6 Median = 55.5 Q_3 = 72.9 P_{90} = 84.4 P_{99} = 89.9

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

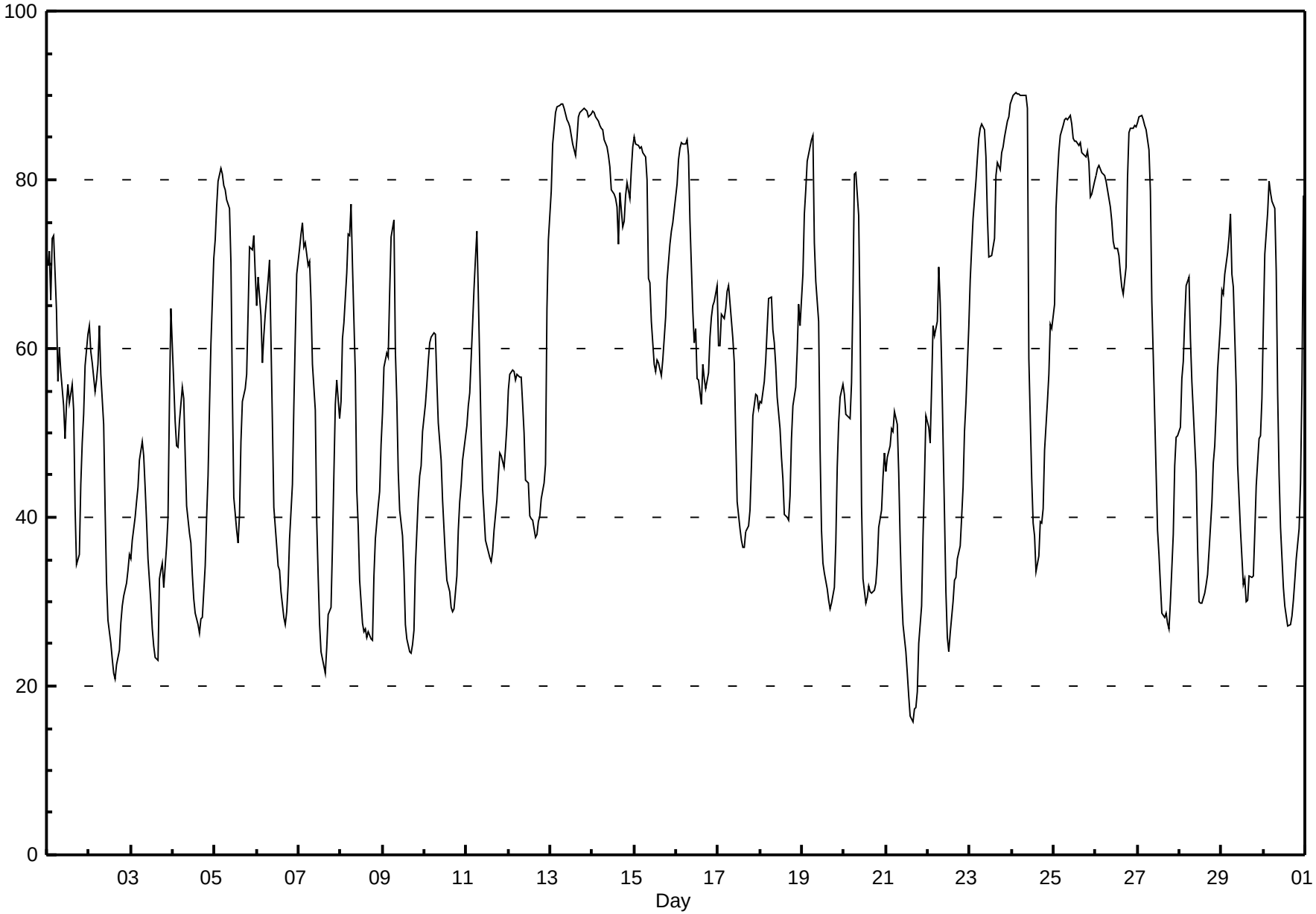
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	70	72	66	73	73	65	56	60	57	53	49	53	56	54	56	53	41	34	36	44	49	52	58	62	55.9	73.3
2-Apr	63	60	58	55	56	58	63	57	51	41	32	28	25	23	22	21	23	24	27	30	31	32	34	36	39.5	62.7
3-Apr	35	37	40	42	44	47	49	47	44	39	35	30	27	25	23	23	33	34	34	32	37	40	54	65	38.1	64.8
4-Apr	56	51	48	48	51	55	54	47	41	38	37	33	30	29	27	26	28	28	34	40	45	53	61	71	43.1	70.6
5-Apr	73	77	80	81	81	79	79	78	77	70	55	42	38	37	40	49	54	55	57	64	72	72	73	69	64.7	81.3
6-Apr	65	68	64	58	61	64	68	70	61	51	41	37	34	34	31	28	27	29	32	37	44	53	61	69	49.6	70.5
7-Apr	72	74	75	72	73	70	70	66	58	53	40	33	27	24	22	22	25	28	29	37	45	53	56	52	49.0	74.9
8-Apr	54	61	63	69	74	73	77	70	57	43	39	33	27	26	27	26	26	26	25	33	37	41	43	49	45.8	77.0
9-Apr	52	58	60	59	67	73	75	60	54	45	41	38	34	27	26	24	24	25	27	34	42	45	46	50	45.2	75.3
10-Apr	53	56	58	61	61	62	62	56	51	47	42	39	35	33	31	29	29	29	33	38	42	44	47	50	45.3	61.9
11-Apr	51	53	55	63	67	71	74	66	50	43	40	37	36	35	35	36	38	42	45	48	47	46	48	51	49.1	73.9
12-Apr	55	57	57	57	56	57	57	57	53	50	44	44	40	40	40	38	38	40	40	42	44	46	65	73	49.6	72.9
13-Apr	79	84	86	88	89	89	89	89	88	87	87	86	85	84	83	85	87	88	88	88	88	88	87	88	86.8	89.0
14-Apr	88	88	87	87	86	86	86	85	84	83	82	79	78	78	77	72	78	74	75	78	80	78	81	84	81.4	88.1
15-Apr	85	84	84	84	84	83	83	80	68	68	63	58	57	59	58	57	59	61	64	68	72	74	75	76	71.0	85.1
16-Apr	79	82	84	84	84	84	85	83	75	64	61	62	56	56	53	58	56	55	57	61	64	65	66	67	68.5	84.7
17-Apr	60	60	64	64	65	67	67	65	61	58	50	42	39	37	36	36	38	39	41	46	52	55	54	53	52.1	67.4
18-Apr	54	54	56	59	62	66	66	62	61	58	54	50	47	45	40	40	40	43	49	53	55	60	65	63	54.2	66.1
19-Apr	69	76	79	82	83	85	85	73	68	63	48	38	35	33	32	30	29	30	32	37	46	51	54	56	54.7	85.3
20-Apr	54	52	52	52	56	66	81	81	76	63	42	33	30	30	32	31	31	31	32	35	39	41	45	48	47.2	80.8
21-Apr	45	47	48	50	50	52	51	45	37	31	27	24	21	19	16	16	17	18	19	25	30	38	44	52	34.4	52.5
22-Apr	51	49	55	63	62	63	70	65	58	41	31	26	24	26	30	33	33	35	37	40	44	50	53	63	45.8	69.7
23-Apr	68	72	75	80	83	85	86	87	86	83	76	71	71	72	73	81	82	81	83	84	85	87	87	89	80.3	88.9
24-Apr	89	90	90	90	90	90	90	90	90	88	59	45	39	38	34	36	40	39	41	48	54	57	63	62	64.7	90.3
25-Apr	65	77	80	83	85	86	87	87	87	88	87	85	85	85	84	84	83	83	83	83	82	78	78	80	82.7	87.6
26-Apr	81	81	82	81	81	81	80	79	77	75	73	72	72	71	69	67	66	70	80	86	86	86	86	86	77.8	86.4
27-Apr	87	88	88	87	86	86	84	79	66	59	52	38	36	32	29	28	29	27	27	30	38	46	49	50	55.0	87.6
28-Apr	51	56	58	63	67	68	61	56	53	45	37	30	30	30	31	32	33	36	42	46	48	53	58	63	47.8	68.4
29-Apr	67	67	69	71	73	76	69	67	56	46	42	38	32	33	30	30	33	33	33	38	44	49	50	54	50.0	75.9
30-Apr	63	71	76	80	78	77	77	69	55	45	39	32	29	28	27	27	28	30	33	35	39	44	56	78	50.7	79.8
	64.5	66.7	68.0	69.5	71.0	72.2	72.6	69.2	63.3	57.4	50.1	45.2	42.6	41.4	40.5	40.6	41.6	42.3	44.5	48.7	52.7	55.9	60.0	63.5	Diurnal Average	
	89.4	89.9	90.3	90.1	90.1	90.1	90.0	90.0	89.9	88.5	86.7	86.3	85.3	84.5	84.1	84.9	87.4	88.0	88.3	88.4	88.4	88.1	87.4	88.9	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - April 2012

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

Maximum Value: 748.3 W/m^2 on Apr 19 13:00

Maximum Daily Average: 252.4 W/m^2 on Apr 21

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

Minimum Daily Average: 39.1 W/m^2 on Apr 13

Maximum Diurnal Average: 519.2 W/m^2 at hour 13

Minimum Diurnal Average: 0.0 W/m^2 at hour 22

Monthly Average: 167.90 W/m^2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 40.6 Q_3 = 315.3 P_{90} = 545.8 P_{99} = 689.3

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

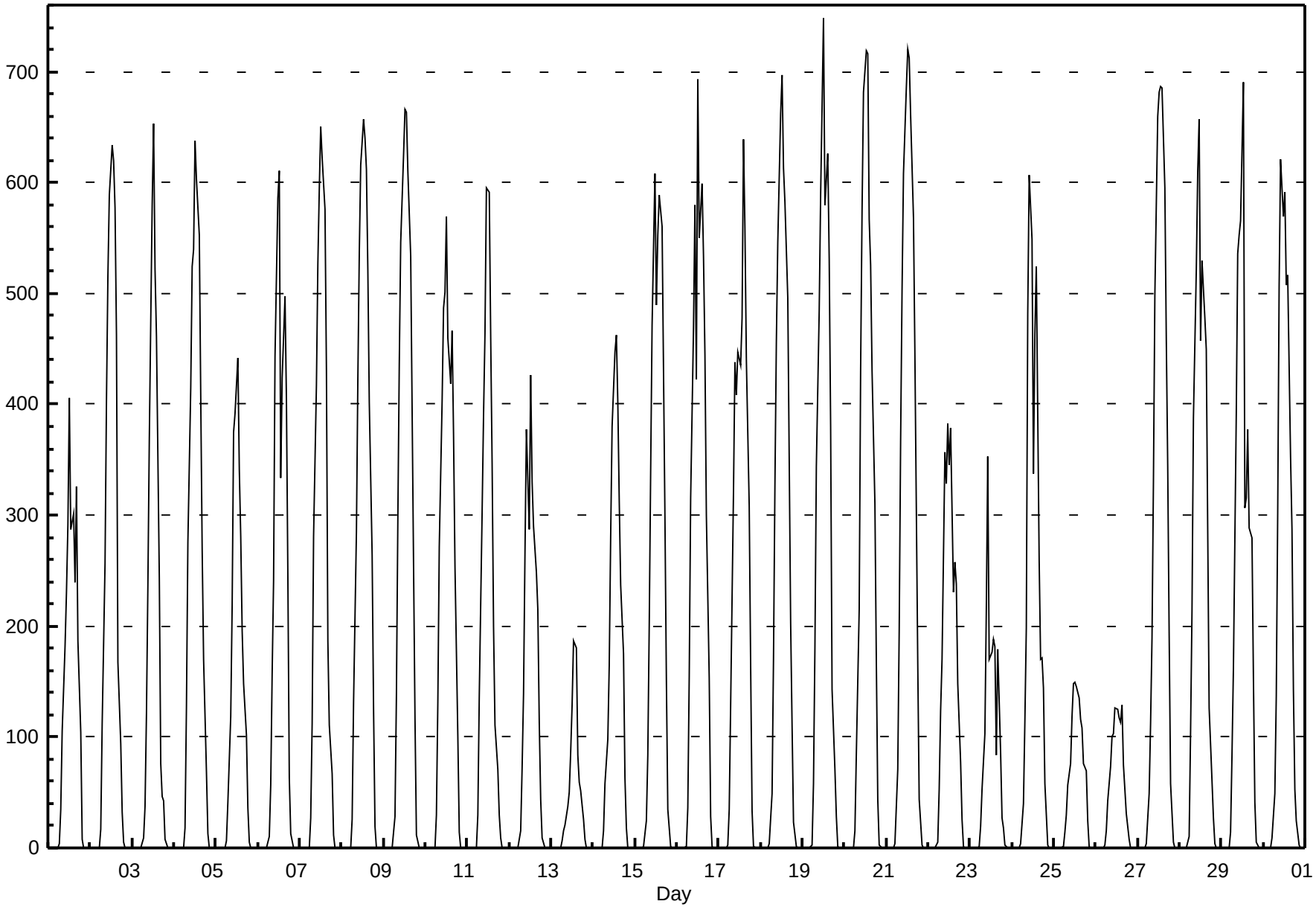
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	0	0	0	0	0	0	3	35	106	182	231	291	405	287	302	240	326	186	105	7	0	0	0	0	112.7	405.4
2-Apr	0	0	0	0	0	0	17	113	257	403	515	589	633	620	577	463	167	94	33	5	0	0	0	0	186.9	633.3
3-Apr	0	0	0	0	0	0	9	38	121	237	370	580	653	522	461	243	75	46	42	8	0	0	0	0	141.8	653.2
4-Apr	0	0	0	0	0	0	18	127	276	414	524	540	638	603	553	408	269	170	68	13	0	0	0	0	192.6	637.9
5-Apr	0	0	0	0	0	0	6	41	118	220	375	392	442	341	281	195	149	101	36	6	0	0	0	0	112.6	441.8
6-Apr	0	0	0	0	0	0	10	57	157	241	444	586	610	334	424	497	403	244	64	13	0	0	0	0	170.1	610.1
7-Apr	0	0	0	0	0	0	27	112	281	418	527	594	650	622	576	430	187	111	66	12	0	0	0	0	192.3	650.3
8-Apr	0	0	0	0	0	0	26	132	285	422	536	616	657	640	612	521	402	264	126	19	0	0	0	0	219.1	657.0
9-Apr	0	0	0	0	0	0	28	138	297	437	546	625	666	663	611	533	394	255	117	12	0	0	0	0	221.7	666.1
10-Apr	0	0	0	0	0	0	30	132	271	403	487	502	570	460	419	466	373	254	101	14	0	0	0	0	186.7	569.7
11-Apr	0	0	0	0	0	0	30	136	303	390	463	595	591	462	346	200	110	71	30	9	0	0	0	0	155.7	595.0
12-Apr	0	0	0	0	0	0	16	72	139	266	377	287	426	330	290	249	215	113	44	9	0	0	0	0	118.1	426.4
13-Apr	0	0	0	0	0	0	6	15	20	37	50	87	129	187	180	84	60	51	25	8	0	0	0	0	39.1	186.7
14-Apr	0	0	0	0	0	0	15	58	98	165	280	380	447	463	401	313	237	175	63	18	0	0	0	0	129.7	462.9
15-Apr	0	0	0	0	0	1	24	83	202	340	471	608	490	553	588	560	430	298	152	34	1	0	0	0	201.4	608.3
16-Apr	0	0	0	0	0	1	36	154	315	468	580	423	693	550	600	533	445	300	153	29	1	0	0	0	220.0	692.6
17-Apr	0	0	0	0	0	3	35	128	322	438	409	447	435	478	640	559	440	308	165	34	1	0	0	0	201.7	639.6
18-Apr	0	0	0	0	0	4	49	170	328	457	547	663	697	613	582	496	351	204	111	23	1	0	0	0	220.6	697.3
19-Apr	0	0	0	0	0	2	57	181	344	485	589	667	748	580	626	531	380	143	70	28	1	0	0	0	226.4	748.3
20-Apr	0	0	0	0	0	1	16	85	215	432	574	681	719	716	567	525	430	310	167	44	2	0	0	0	228.5	718.8
21-Apr	0	0	0	0	0	4	71	196	367	502	609	685	720	712	661	568	445	305	166	44	2	0	0	0	252.4	720.4
22-Apr	0	0	0	0	0	5	53	124	170	357	328	383	345	378	231	257	239	148	78	26	2	0	0	0	130.1	383.2
23-Apr	0	0	0	0	0	1	19	53	104	215	353	170	177	187	182	83	179	86	27	18	2	0	0	0	77.4	352.5
24-Apr	0	0	0	0	0	4	40	115	198	481	607	548	338	463	525	259	171	172	145	58	3	0	0	0	171.9	606.9
25-Apr	0	0	0	0	0	1	15	30	57	75	119	149	150	146	135	116	109	76	69	24	1	0	0	0	53.0	149.9
26-Apr	0	0	0	0	0	3	15	42	73	100	103	127	125	118	113	129	75	32	19	7	0	0	0	0	45.1	129.5
27-Apr	0	0	0	0	0	3	49	112	189	329	498	660	681	686	685	595	458	344	194	59	5	0	0	0	231.1	686.5
28-Apr	0	0	0	0	0	10	104	214	388	521	609	657	458	529	478	450	288	126	61	27	4	0	0	0	205.1	656.9
29-Apr	0	0	0	0	0	14	84	162	392	536	553	565	691	306	315	378	289	279	153	41	6	0	0	0	198.6	691.0
30-Apr	0	0	0	0	0	9	48	137	301	506	620	570	591	507	516	353	288	143	52	24	2	0	0	0	194.6	620.3
	0.0	0.0	0.0	0.0	0.0	2.3	31.9	106.4	223.2	349.2	443.1	488.8	519.2	468.6	449.3	374.5	279.4	180.3	90.1	22.4	1.2	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.0	0.0	14.2	104.1	213.6	392.1	536.3	620.3	685.3	748.3	716.4	684.8	594.7	458.1	343.8	193.8	58.5	5.7	0.0	0.0	0.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - April 2012



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - April 2012

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	3	6	6	4	2	4	3	1	1	8	13	12	12	12	13	12	12	6	8	7	7	7	7	6	5.5	13.3
Dir	342	329	331	310	232	219	288	21	297	276	254	264	252	274	275	234	236	242	234	222	190	179	181	178	250.4	275.4
2 Spd	10	12	12	12	9	4	4	6	7	9	14	14	15	15	14	12	10	8	7	8	10	13	16	13	8.7	16.0
Dir	231	236	245	245	235	179	126	124	133	142	156	158	162	153	143	162	168	183	172	163	157	158	168	171	172.5	168.0
3 Spd	11	12	12	12	11	10	8	9	8	9	12	16	18	17	16	12	10	6	2	9	10	15	27	29	7.9	28.8
Dir	159	154	150	145	145	119	114	130	133	150	158	182	182	185	171	160	94	81	223	229	245	247	258	271	180.2	271.0
4 Spd	22	27	26	23	18	13	14	9	9	14	19	20	24	22	19	19	17	15	10	7	6	7	6	7	12.8	27.5
Dir	254	261	261	269	255	230	242	204	217	251	281	292	291	300	297	307	321	312	324	347	359	29	341	316	280.9	260.8
5 Spd	9	7	4	5	8	9	10	11	13	16	17	20	23	20	20	17	19	13	12	6	7	5	2	7	9.5	23.0
Dir	320	317	293	300	308	297	297	298	301	307	320	335	346	344	9	3	347	332	329	84	131	169	257	311	330.2	346.0
6 Spd	12	6	12	16	16	17	17	15	18	18	16	16	14	15	17	16	14	12	6	1	1	9	13	7	11.2	17.7
Dir	330	287	247	265	261	268	278	298	307	307	311	298	305	314	313	316	317	345	352	175	238	255	261	270	295.1	306.6
7 Spd	8	6	7	8	8	11	7	6	8	7	14	13	14	15	18	19	15	14	14	9	6	6	5	6	9.1	19.0
Dir	261	284	280	271	277	274	284	293	292	309	310	320	314	312	308	310	311	308	345	338	321	313	8	79	307.3	310.0
8 Spd	4	3	2	3	5	4	4	5	2	4	5	3	7	5	6	7	9	10	11	10	10	10	9	6	3.0	10.6
Dir	70	27	325	321	347	329	322	319	317	252	259	266	283	16	14	48	57	69	74	88	90	89	92	109	46.3	74.1
9 Spd	4	3	4	4	2	3	3	7	7	7	12	16	15	13	13	14	16	15	15	11	12	12	13	11	9.3	15.9
Dir	104	90	72	57	41	319	22	85	107	76	93	97	95	91	87	83	80	79	76	72	85	86	86	88	83.9	97.0
10 Spd	14	11	9	7	8	8	7	9	12	9	8	8	9	8	10	13	13	13	13	13	13	13	13	10	10.4	14.5
Dir	98	95	88	77	86	89	84	95	112	105	105	89	86	88	89	93	92	89	85	82	83	85	83	82	90.2	98.3
11 Spd	8	9	6	4	5	5	4	2	2	4	4	5	7	10	9	10	12	14	8	9	10	9	13	10	5.9	14.2
Dir	82	94	90	318	321	334	329	265	109	269	6	59	72	73	75	48	43	32	60	49	25	48	44	51	46.8	32.2
12 Spd	11	10	9	9	7	10	9	4	7	9	8	10	9	10	8	10	9	14	14	13	10	10	9	8	8.4	14.1
Dir	45	58	52	54	22	41	28	75	53	61	62	31	45	42	59	33	14	356	354	352	334	351	13	346	27.0	356.2
13 Spd	12	11	11	12	11	12	10	11	12	14	14	16	21	22	23	21	19	20	20	21	19	18	20	22	15.9	23.4
Dir	344	350	321	320	324	318	316	315	313	316	311	307	306	305	305	296	296	296	294	293	297	296	301	300	306.8	304.9
14 Spd	20	21	21	19	18	17	20	20	18	18	17	15	15	12	14	15	15	13	9	6	6	2	3	3	12.6	21.0
Dir	301	303	306	311	316	317	317	318	314	317	321	318	344	357	1	3	356	355	21	41	36	50	304	261	327.9	305.9
15 Spd	5	4	4	2	4	3	3	1	1	7	7	7	6	9	9	8	8	9	9	8	8	8	8	8	4.3	9.1
Dir	209	293	338	307	358	338	295	200	191	117	113	116	103	86	85	80	77	78	87	87	90	94	90	93	87.8	86.5
16 Spd	6	4	0	3	3	5	5	6	7	6	6	7	6	7	7	10	11	12	12	10	7	9	7	6	3.9	12.1
Dir	91	108	273	315	303	311	332	331	328	295	292	31	78	14	47	76	82	82	82	93	84	94	96	88	57.3	81.9
17 Spd	6	5	4	7	7	5	6	9	10	10	9	9	9	9	10	10	12	14	14	11	11	9	11	11	8.8	14.3
Dir	82	89	88	97	93	74	75	98	108	100	112	118	133	100	98	92	79	84	80	77	72	78	94	98	92.3	79.8
18 Spd	10	10	9	9	6	4	5	8	10	9	9	11	13	13	15	14	13	13	12	9	9	8	3	3	9.2	15.2
Dir	94	90	93	92	81	75	74	86	95	88	81	76	77	74	82	72	65	59	49	53	66	109	80	85	77.9	82.4
19 Spd	2	3	4	4	4	5	4	4	6	8	5	3	5	5	6	11	11	12	12	10	11	14	13	9	3.0	13.6
Dir	194	297	298	302	276	271	255	256	246	228	244	251	223	152	171	142	115	123	119	92	87	87	94	111	138.1	87.3
20 Spd	8	6	8	6	8	14	12	9	13	20	31	35	36	36	35	34	34	36	34	26	22	22	17	13	19.8	35.9
Dir	113	118	129	230	270	259	246	246	244	260	263	254	254	256	263	265	262	259	260	262	254	257	251	247	255.6	256.1
21 Spd	17	14	14	14	15	15	14	21	25	27	24	22	22	22	24	23	22	22	21	15	9	7	5	1	16.5	26.8
Dir	255	253	252	246	251	252	240	243	249	253	258	257	265	268	277	275	277	282	279	282	300	307	333	169	263.6	252.9
22 Spd	3	2	4	2	3	5	5	5	3	3	3	3	3	5	8	7	4	8	8	10	6	4	6	4	1.8	9.8
Dir	158	162	312	258	289	309	312	298	282	296	305	103	83	83	54	62	29	13	24	2	316	258	207	219	351.0	2.0

FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - April 2012

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	4	4	5	7	8	9	8	11	11	14	13	11	6	2	4	8	10	6	6	6	4	3	2	2	5.3	14.0
Dir	160	124	121	112	110	107	95	108	99	101	113	121	97	292	307	348	42	58	58	65	80	77	71	71	93.0	101.0
24 Spd	1	5	4	6	4	3	4	3	4	4	5	3	2	4	2	4	4	8	11	13	12	13	13	10	1.9	13.2
Dir	321	325	275	293	305	263	302	300	281	256	284	335	150	131	317	234	313	51	69	76	76	80	90	91	46.4	75.6
25 Spd	13	13	15	15	15	15	15	16	15	15	15	15	13	13	12	13	12	13	12	11	12	13	13	13	13.3	15.5
Dir	84	69	70	71	66	73	70	74	83	87	79	76	67	60	49	51	53	52	62	62	78	98	97	94	72.2	73.5
26 Spd	15	14	14	15	14	16	18	17	19	19	16	15	18	18	16	17	19	21	18	16	13	12	11	11	15.7	20.9
Dir	95	91	93	90	91	90	92	98	97	104	103	99	101	107	104	111	118	117	111	100	96	97	88	93	100.3	117.0
27 Spd	10	5	7	11	12	12	11	13	26	28	27	32	34	32	33	32	31	26	21	18	11	7	9	8	17.8	33.6
Dir	106	170	255	272	255	254	257	248	256	265	258	265	262	251	259	263	261	264	270	271	271	241	248	241	258.8	261.7
28 Spd	11	7	7	3	7	5	2	7	10	11	16	20	22	25	26	22	21	21	22	17	16	16	13	11	13.5	25.5
Dir	247	256	250	244	210	183	231	224	244	241	264	253	266	256	253	264	255	262	274	278	268	262	279	284	258.8	253.0
29 Spd	4	12	14	10	9	5	7	9	19	21	18	19	18	18	21	21	21	20	15	11	8	9	11	8	13.1	21.4
Dir	304	265	261	270	268	339	293	249	261	275	278	275	290	304	280	269	287	291	286	259	274	252	259	275	276.8	268.7
30 Spd	4	1	3	2	3	2	5	3	5	12	12	16	15	17	16	17	18	18	14	12	12	15	15	9	8.0	18.3
Dir	298	284	303	321	322	297	335	10	76	101	93	95	98	90	100	88	87	90	91	120	131	130	145	154	100.4	87.0
Spd	0.2	1.0	1.9	2.5	2.6	2.3	2.5	1.2	2.1	2.9	3.5	3.1	3.3	3.0	3.3	3.0	3.3	3.5	3.0	2.0	1.7	1.6	0.9	0.4	Diurnal Average	
Dir	60.9	294.0	278.9	288.3	287.7	293.9	308.3	285.1	263.7	269.2	276.7	280.4	286.1	303.6	310.1	320.4	343.2	353.1	3.7	29.0	56.3	106.8	115.8	120.1		
Spd	21.7	27.5	26.0	23.1	18.3	16.8	19.5	20.8	26.1	27.8	31.3	34.9	35.9	35.9	35.5	33.9	33.9	35.6	34.2	26.0	22.3	22.1	26.6	28.8	Diurnal Maximum	
Dir	253.8	260.8	261.2	269.0	255.3	316.5	317.2	243.1	255.5	264.8	263.5	253.7	253.6	256.1	262.6	264.5	261.8	258.6	259.7	262.5	254.1	256.5	258.3	271.0		

Maximum Speed Value: 36 km/h on Apr 20 14:00
Maximum Daily Speed Average: 19.8 km/h on Apr 20
Maximum Diurnal Speed Average: 3.5 km/h at hour 18

Minimum Speed Value: 0 km/h on Apr 16 03:00
Minimum Daily Speed Average: 1.8 km/h on Apr 22
Minimum Diurnal Speed Average: 0.2 km/h at hour 1

Monthly Average Velocity: 1.62 km/h 308.51 deg

Speed Percentiles: $P_1 = 1.3$ $P_{10} = 3.6$ $Q_1 = 6.4$ Median = 10.2 $Q_3 = 14.6$ $P_{90} = 19.8$ $P_{99} = 33.7$

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

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

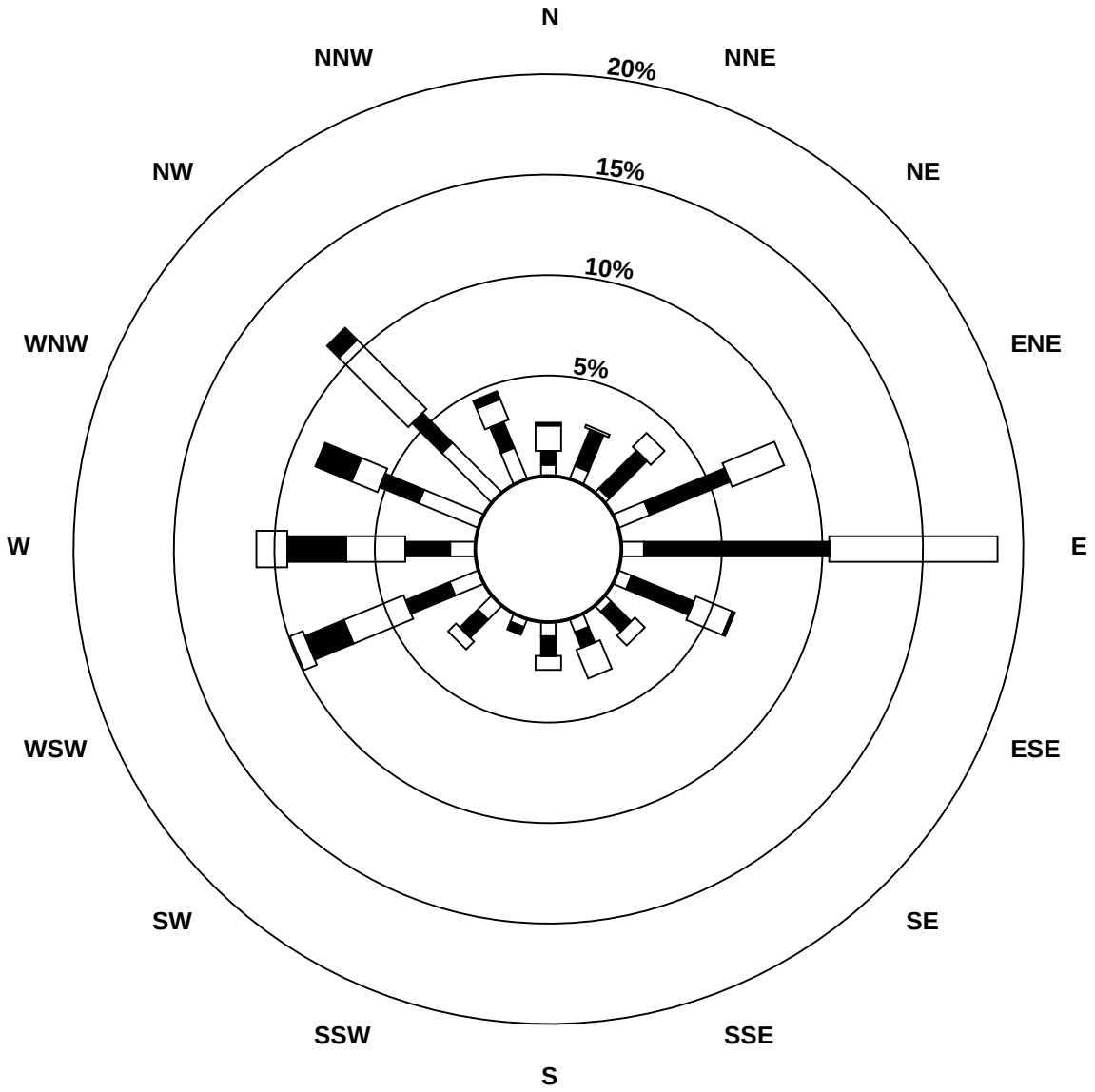
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	11	17	14	4	0	0	46
NorthEast	5	37	16	0	0	0	58
East	18	96	90	0	0	0	204
SouthEast	4	22	16	2	0	0	44
South	11	10	13	0	0	0	34
SouthWest	9	23	14	1	0	0	47
West	24	29	39	41	16	0	149
NorthWest	44	30	44	20	0	0	138
Total	126	264	246	68	16	0	720

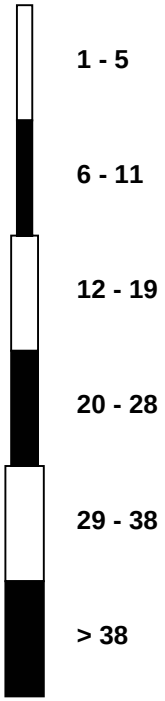
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - April 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - April 2012

Maximum Speed: 37 km/h on Apr 20 14:00

Maximum Daily Speed Average: 21.8 km/h on Apr 20

Minimum Speed: 2 km/h on Apr 6 20:00

Minimum Daily Speed Average: 5.8 km/h on Apr 22

Maximum Diurnal Speed Average: 15.7 km/h at hour 16

Minimum Diurnal Speed Average: 8.4 km/h at hour 7

Monthly Average Speed: 11.64 km/h

Percentiles: P_1 = 2.7 P_{10} = 4.5 Q_1 = 7.0 Median = 10.4 Q_3 = 14.9 P_{90} = 20.1 P_{99} = 34.3

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

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	4	7	6	5	3	5	5	2	2	8	13	12	13	13	14	13	12	7	8	7	7	7	7	6	7.7	13.6
2-Apr	10	12	12	12	9	5	5	6	7	9	15	14	16	15	15	13	11	8	7	8	10	13	16	13	10.9	16.1
3-Apr	11	12	12	13	11	10	9	9	8	10	12	16	18	18	17	13	10	6	5	10	10	16	27	29	12.9	29.2
4-Apr	22	28	26	23	19	13	15	9	9	14	20	20	25	22	20	20	17	15	10	7	7	8	7	8	16.0	27.9
5-Apr	9	7	5	6	8	9	10	11	13	17	17	21	24	21	20	18	20	14	14	7	7	5	4	7	12.1	23.5
6-Apr	12	7	12	16	16	17	17	15	18	18	17	16	16	15	17	17	15	13	6	2	3	10	13	7	13.1	17.9
7-Apr	8	6	7	8	8	11	7	6	9	8	14	14	15	16	18	19	15	14	14	9	7	6	6	6	10.4	19.4
8-Apr	4	3	4	4	5	4	4	5	4	4	5	5	9	8	8	9	10	10	11	10	10	10	10	6	6.8	10.9
9-Apr	5	4	4	5	3	4	4	7	7	8	13	16	15	13	14	15	16	16	15	11	12	12	14	11	10.1	16.2
10-Apr	15	11	9	8	8	8	7	9	12	10	9	9	10	9	11	13	14	13	13	13	14	13	13	10	10.8	14.5
11-Apr	8	9	7	5	6	6	4	3	4	4	7	7	8	10	10	10	12	15	8	9	10	10	13	11	8.1	14.7
12-Apr	11	10	9	9	8	10	9	5	8	9	9	11	10	11	9	11	10	15	14	13	10	12	10	8	10.0	14.5
13-Apr	12	12	11	12	12	12	10	11	12	14	14	16	21	22	24	21	19	20	20	21	19	19	20	22	16.4	23.5
14-Apr	20	21	21	19	18	17	20	21	18	18	17	15	16	13	15	15	15	13	10	6	6	3	3	3	14.3	21.1
15-Apr	5	5	4	2	4	4	3	2	4	7	8	8	8	9	9	8	9	9	9	8	8	8	8	8	6.5	9.2
16-Apr	6	5	2	4	4	5	5	6	8	6	7	8	7	8	8	10	11	12	12	10	7	9	7	6	7.2	12.4
17-Apr	6	5	4	7	7	5	6	9	10	10	10	9	10	10	11	11	12	14	15	11	11	10	11	11	9.4	14.6
18-Apr	10	10	9	9	6	5	5	8	11	10	10	12	14	14	16	14	13	13	12	9	9	8	4	4	9.8	15.7
19-Apr	4	4	4	4	4	6	4	5	6	8	6	5	7	8	9	12	12	12	12	10	11	14	13	9	7.9	13.8
20-Apr	8	6	8	8	9	14	12	9	13	20	32	35	36	37	36	35	34	36	34	26	22	22	17	14	21.8	36.6
21-Apr	17	14	14	14	16	15	14	21	26	27	25	23	22	23	24	24	22	22	21	15	9	7	6	2	17.7	27.1
22-Apr	3	3	4	3	3	5	5	5	4	5	4	5	5	8	9	9	7	10	8	10	8	5	6	4	5.8	10.2
23-Apr	5	4	5	7	8	9	8	11	11	14	13	12	7	5	5	10	10	7	6	6	5	4	4	4	7.4	14.1
24-Apr	4	5	4	7	5	4	4	4	4	4	5	5	4	7	6	7	9	9	11	13	12	13	13	10	7.1	13.4
25-Apr	13	13	15	16	16	16	15	16	16	15	15	15	14	13	12	13	13	13	12	12	13	13	13	13	13.9	15.7
26-Apr	15	14	14	15	14	16	18	17	19	19	17	16	18	18	16	17	19	21	19	16	13	12	11	11	16.1	21.2
27-Apr	10	8	8	11	12	12	11	13	26	28	28	33	34	32	33	33	32	26	22	18	11	7	9	8	19.4	34.4
28-Apr	11	8	7	5	7	6	4	7	11	11	17	20	23	26	26	23	21	21	23	17	16	17	14	12	14.7	26.3
29-Apr	5	12	14	11	9	6	7	9	19	22	19	19	20	18	22	22	21	20	15	11	8	9	11	8	14.1	21.9
30-Apr	4	3	3	3	5	5	5	4	6	12	13	17	16	18	17	17	19	18	15	12	12	15	15	9	10.9	18.7
	9.2	8.9	8.9	8.9	8.7	8.7	8.4	8.8	10.7	12.3	13.6	14.5	15.3	15.4	15.7	15.7	15.3	14.7	13.4	11.3	10.3	10.5	10.8	9.3	Diurnal Average	
	21.8	27.9	26.2	23.3	18.5	16.9	19.6	21.0	26.3	28.1	31.9	35.4	36.3	36.6	36.2	34.6	34.3	35.9	34.4	26.3	22.4	22.2	27.0	29.2	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - April 2012

Maximum Value: 90.7 deg on Apr 22 00:00

Minimum Value: 4.0 deg on Apr 13 20:00

Percentiles: P_1 = 4.6 P_{10} = 6.6 Q_1 = 8.8 Median = 12.9 Q_3 = 21.3 P_{90} = 39.9 P_{99} = 76.2

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	52	18	20	61	47	38	48	57	61	16	13	14	14	17	13	19	13	26	16	12	7	7	6	10	61.3
2-Apr	15	6	7	7	7	43	18	13	11	16	13	16	15	16	20	19	13	13	18	15	10	6	8	5	43.2
3-Apr	8	6	10	9	8	6	6	6	12	14	10	13	11	15	14	24	12	19	72	15	7	9	9	10	71.8
4-Apr	6	10	7	7	11	9	8	17	19	18	20	8	12	12	14	17	11	8	11	8	17	10	27	9	27.0
5-Apr	6	6	35	43	6	6	5	7	8	8	15	13	13	13	10	16	10	17	42	29	18	23	57	8	56.5
6-Apr	7	33	10	6	6	6	7	8	5	8	10	16	23	13	12	14	15	26	28	71	85	28	8	17	85.3
7-Apr	14	6	13	8	8	7	8	12	16	23	14	17	18	16	13	12	9	8	12	8	17	14	40	10	40.4
8-Apr	35	25	67	26	18	15	9	13	56	20	23	63	49	70	56	39	25	16	13	8	6	6	7	13	69.9
9-Apr	27	30	10	42	81	33	41	16	19	26	15	12	13	16	19	18	12	10	8	10	7	7	8	7	80.9
10-Apr	5	8	8	11	10	7	9	10	11	17	26	27	21	28	37	18	17	13	11	8	8	6	7	10	36.6
11-Apr	10	7	12	33	32	30	25	45	74	49	60	43	32	23	21	21	13	17	13	14	15	13	12	12	73.7
12-Apr	13	12	12	16	19	11	14	48	20	16	19	24	24	24	26	18	23	13	11	10	8	26	22	17	48.2
13-Apr	7	10	9	6	6	6	5	5	6	5	7	6	6	6	6	6	5	5	5	4	4	5	5	5	10.4
14-Apr	5	4	5	5	5	5	5	4	5	5	7	10	15	12	15	13	10	12	13	17	19	55	26	32	55.4
15-Apr	13	39	20	36	12	34	32	71	66	16	25	23	52	19	18	22	19	16	10	9	9	8	7	6	71.2
16-Apr	12	27	83	34	25	12	15	16	14	15	37	29	25	35	39	19	16	13	13	10	9	9	9	8	83.2
17-Apr	9	13	14	10	8	15	13	12	11	13	20	22	27	26	25	28	18	12	12	9	9	10	9	7	27.8
18-Apr	9	9	8	9	8	15	12	12	15	20	21	18	19	20	15	14	13	11	13	13	10	27	27	36	35.6
19-Apr	62	25	13	22	16	21	15	23	13	22	38	57	49	58	68	29	24	15	13	11	7	7	7	9	68.4
20-Apr	10	9	12	37	19	9	9	15	9	10	11	9	9	11	11	11	9	9	7	7	6	5	6	7	37.3
21-Apr	6	6	5	8	7	7	8	6	9	8	11	13	16	16	13	10	12	10	8	5	11	10	42	91	90.7
22-Apr	40	50	25	52	47	17	14	13	23	43	56	55	61	64	35	42	69	43	12	11	46	39	22	27	69.0
23-Apr	28	25	14	13	6	7	9	8	12	9	16	13	24	82	34	34	16	17	16	21	36	25	59	62	82.4
24-Apr	89	38	34	25	25	31	28	51	32	27	37	78	71	69	75	68	72	17	13	10	8	11	7	8	88.5
25-Apr	9	9	10	10	10	9	9	9	8	9	9	10	11	13	14	13	14	14	13	15	11	8	8	8	15.0
26-Apr	7	8	7	8	8	7	7	6	8	8	9	10	10	10	8	10	10	9	8	6	6	8	11	8	10.6
27-Apr	8	49	18	10	9	9	7	8	8	9	10	10	12	11	11	12	11	12	10	8	8	15	11	12	49.3
28-Apr	13	18	13	75	22	58	70	18	12	17	14	15	16	10	14	12	13	11	12	6	9	7	21	25	75.1
29-Apr	32	13	10	19	14	27	10	28	10	13	16	14	19	15	17	10	15	9	10	19	13	8	8	21	31.9
30-Apr	35	64	33	58	56	65	16	37	31	14	15	12	18	13	15	15	11	9	13	13	16	13	15	12	65.4
	88.5	63.5	83.2	75.1	80.9	65.4	69.7	71.2	73.7	48.6	60.3	78.1	71.0	82.4	75.4	68.2	72.1	43.5	71.8	71.5	85.3	55.4	58.6	90.7	

PAZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2012

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

Maximum Value: 4.6 ppb on Apr 4 07:00 Maximum Daily Average: 0.7 ppb on Apr 10

Minimum Value: 0 ppb on Apr 1 04:00 Minimum Daily Average: 0.0 ppb on Apr 29

Maximum Diurnal Average: 0.4 ppb at hour 12 Minimum Diurnal Average: 0.1 ppb at hour 24

Monthly Average: 0.21 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.5 P_{99} = 1.2

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.8
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.4
3-Apr	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0.2	1.0
4-Apr	0	0	0	0	0	0	5	2	1	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0.5	4.6
5-Apr	0	0	0	1	1	0	0	0	0	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0.4	1.3
6-Apr	0	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
7-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.5
8-Apr	0	0	0	0	0	0	0	0	0	A	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	1.0
9-Apr	0	0	0	0	0	0	0	0	A	0	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0.3	1.2
10-Apr	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.3
11-Apr	0	0	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0.4	0.8
12-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0.4	1.0
13-Apr	0	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-Apr	0	0	0	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
15-Apr	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.4	1.2
16-Apr	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
17-Apr	A	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0.2	1.3
18-Apr	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0.3	0.6
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.1
21-Apr	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
22-Apr	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.9
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.5
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
25-Apr	0	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
26-Apr	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.0	0.1
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.0
28-Apr	0	0	0	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
29-Apr	0	0	0	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
30-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	Diurnal Average	
	0.4	0.4	0.4	0.9	0.7	0.9	4.6	2.0	1.5	1.3	1.3	1.2	1.2	1.2	1.0	1.2	1.3	1.2	1.1	1.0	0.8	1.0	0.6	0.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

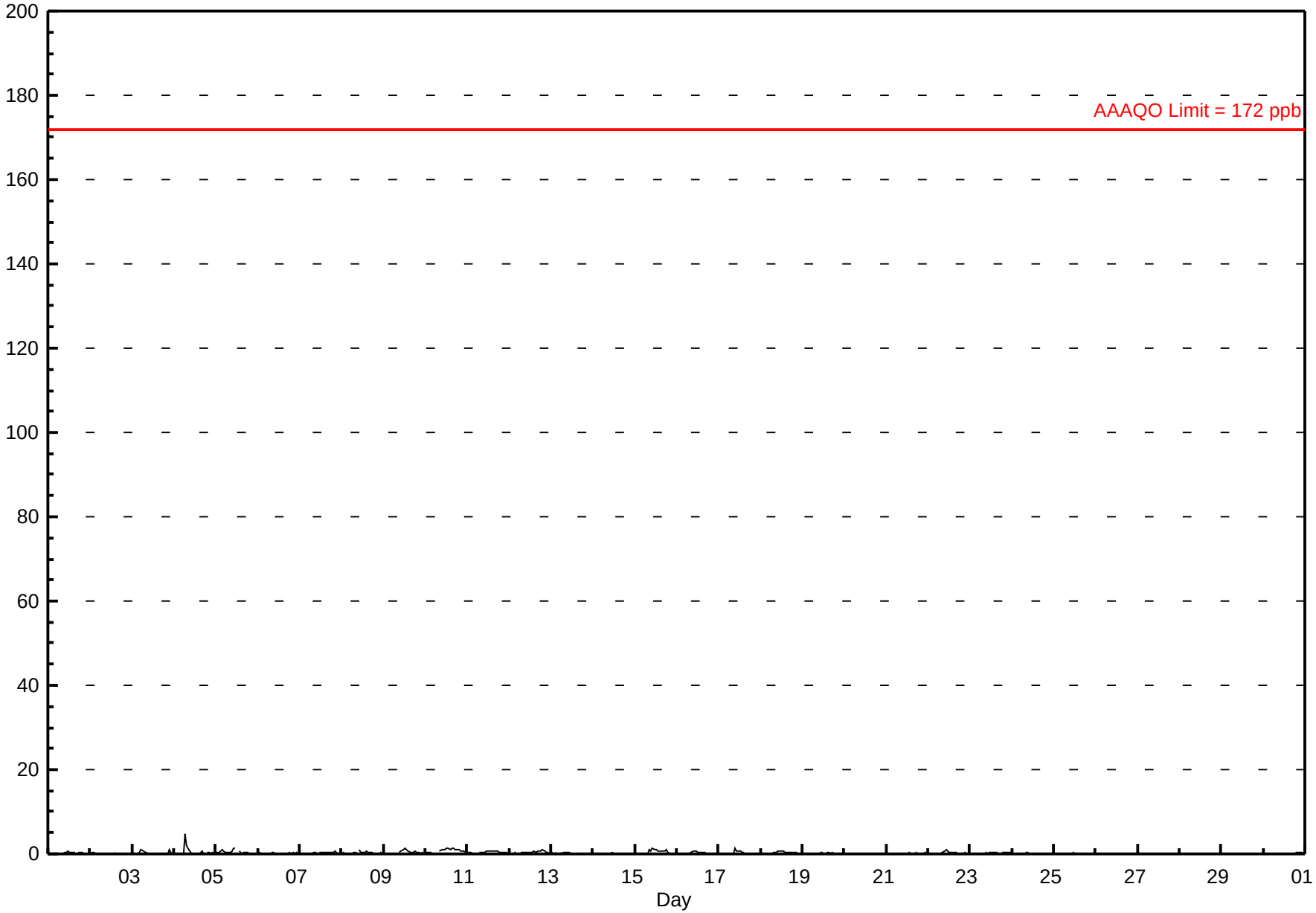
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2012

Maximum Value: 9.4 ppb on Apr 4 07:00

Maximum Daily Average: 1.3 ppb on Apr 4

Minimum Value: 0 ppb on Apr 25 20:00

Minimum Daily Average: 0.2 ppb on Apr 26

Maximum Diurnal Average: 1.0 ppb at hour 10

Minimum Diurnal Average: 0.5 ppb at hour 24

Monthly Average: 0.73 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.4 Q_1 = 0.5 Median = 0.6 Q_3 = 0.8 P_{90} = 1.2 P_{99} = 2.6

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	0	1	0	1	0	0	1	1	2	1	1	1	1	A	1	1	1	0	0	1	1	0.7	1.6
2-Apr	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	0	1	1	0	1	1	0	1	0.6	1.4
3-Apr	1	1	0	0	1	2	1	1	1	1	1	1	1	0	A	1	0	1	1	1	1	2	1	1	0.7	2.0
4-Apr	0	1	1	0	0	1	9	5	2	2	1	1	1	A	1	1	1	1	0	1	1	0	1	1	1.3	9.4
5-Apr	1	1	1	2	1	1	1	1	1	1	2	2	A	1	1	1	1	1	1	1	0	1	1	0	0.9	2.2
6-Apr	1	1	1	1	1	0	1	1	1	1	1	A	1	1	1	0	1	1	1	1	2	1	1	1	0.7	1.8
7-Apr	1	1	1	0	1	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
8-Apr	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6
9-Apr	1	0	1	0	0	0	1	1	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7
10-Apr	1	1	1	1	1	1	1	A	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1.2	1.9
11-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
12-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
13-Apr	1	1	1	1	A	1	1	1	1	1	1	0	1	1	0	1	1	1	0	0	1	0	1	0	0.6	0.9
14-Apr	0	0	1	A	0	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0	1	0	0.5	0.7
15-Apr	0	0	A	0	0	1	1	0	5	3	2	1	1	1	1	1	1	1	2	1	1	1	0	0	1.2	4.6
16-Apr	0	A	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0.7	1.4
17-Apr	A	1	0	1	0	0	1	0	1	3	2	1	2	1	1	1	1	1	1	1	1	1	1	A	0.9	3.5
18-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.2
19-Apr	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.6	1.2
20-Apr	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	1	1	1	0	2	A	1	0	0	0.6	2.3
21-Apr	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	0	0.6	0.8
22-Apr	1	1	0	1	1	0	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1	0	0.8	1.6
23-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	0.9
24-Apr	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	0.6	0.8
25-Apr	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0.4	0.8
26-Apr	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.5
27-Apr	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0.4	0.7
28-Apr	1	0	0	1	0	1	1	0	0	0	1	0	A	0	0	1	0	0	0	1	0	0	2	1	0.6	1.7
29-Apr	0	0	0	0	0	1	0	0	0	0	0	A	0	1	0	1	0	0	0	0	0	1	3	0	0.5	3.3
30-Apr	0	0	0	0	1	1	0	1	1	1	A	1	1	0	1	0	3	0	1	1	1	1	1	1	0.7	3.1
	0.6	0.6	0.5	0.6	0.5	0.6	0.9	0.7	0.9	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.5	Diurnal Average	
	1.3	1.1	0.9	1.5	1.2	1.5	9.4	4.8	4.6	3.5	2.2	1.8	2.2	1.7	1.6	1.7	3.1	1.7	2.3	2.3	1.8	2.0	3.3	0.8	Diurnal Maximum	

C - Calibration

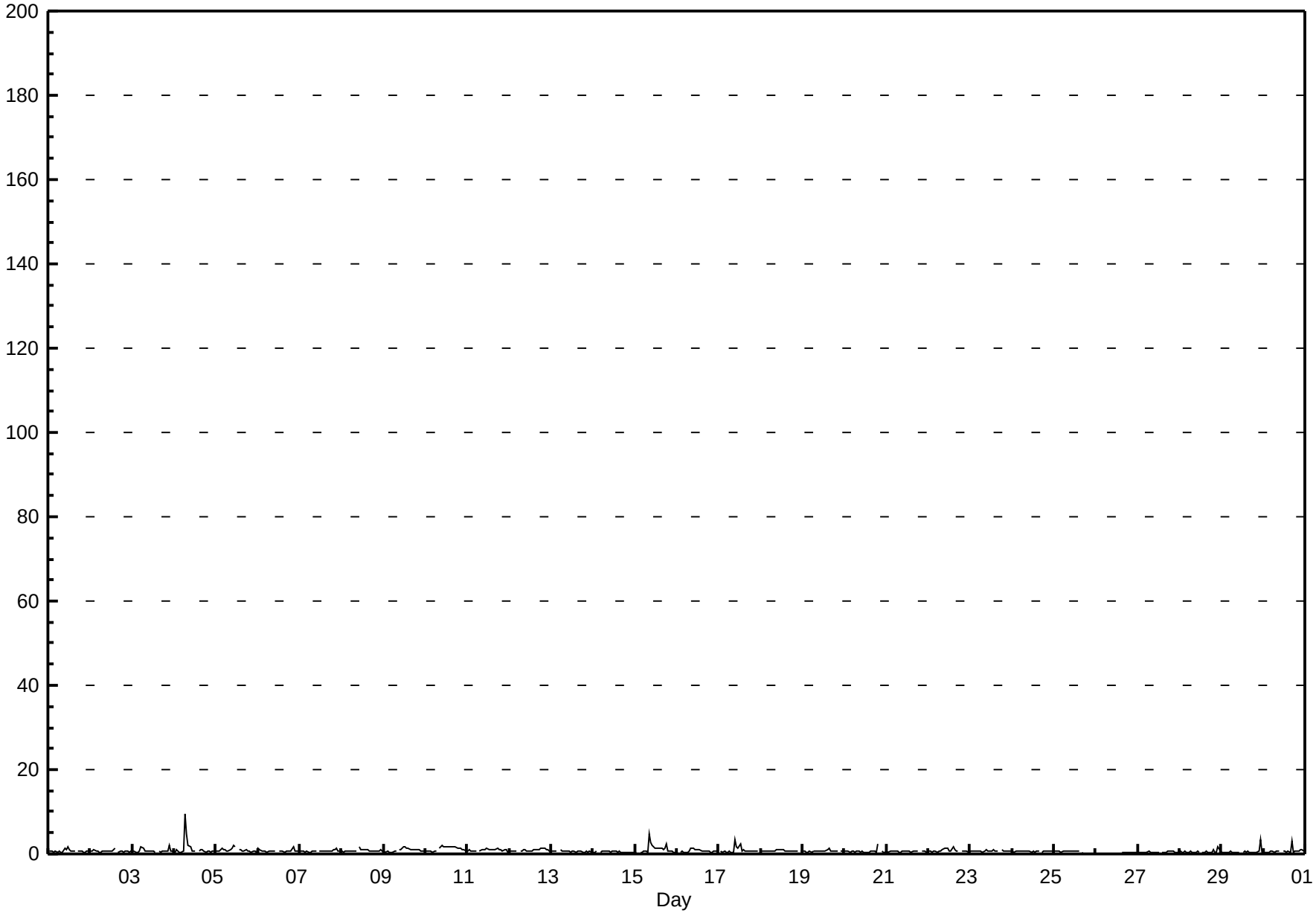
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2012

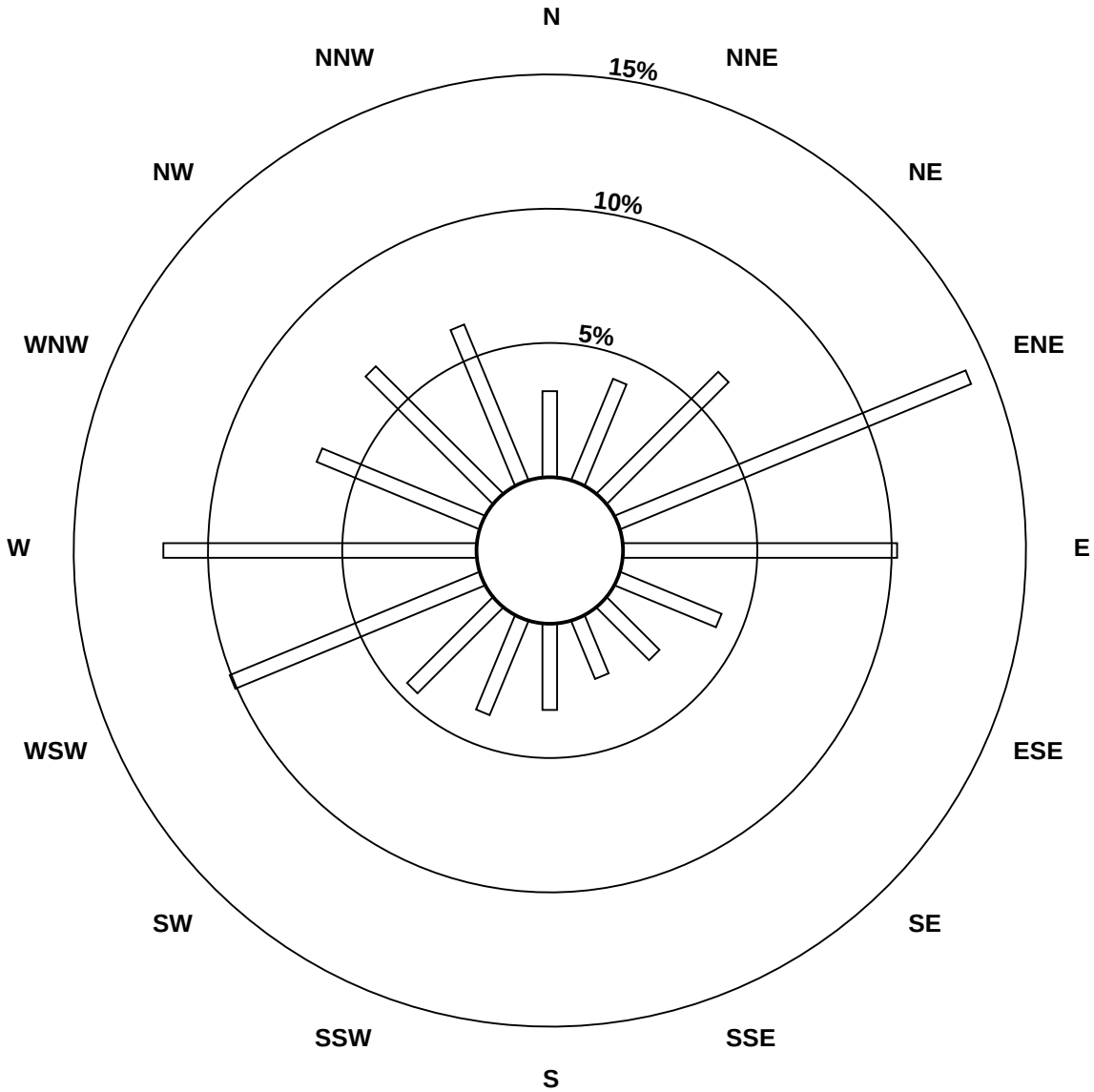


FOCUS AIR QUALITY MONITORING

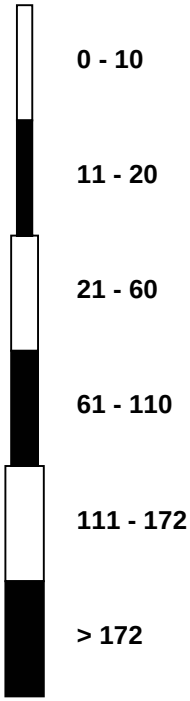
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2012



Pollutant Classes (ppb)

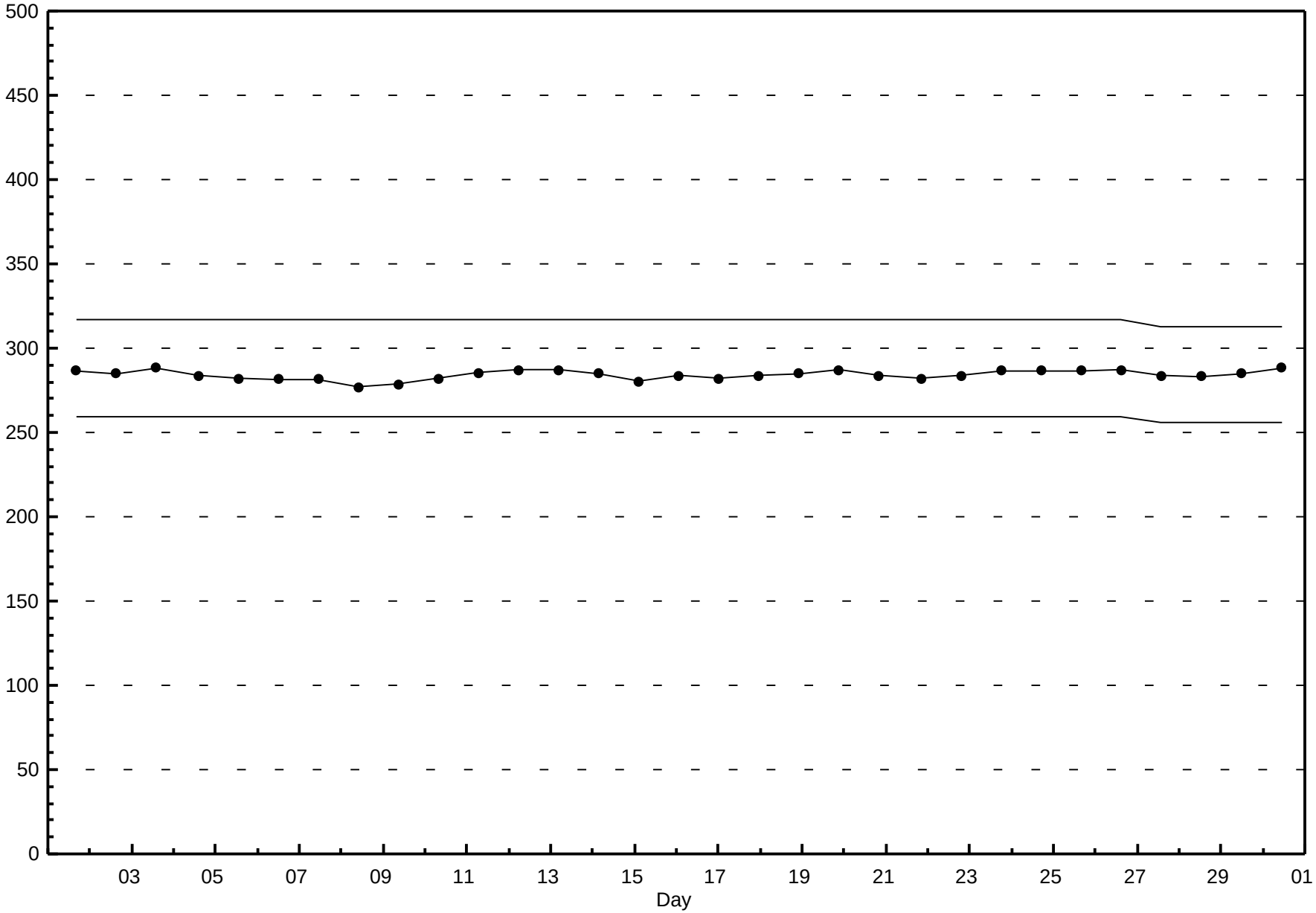


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Evergreen Park - April 2012



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2012

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

Maximum Value: 1.7 ppb on Apr 24 10:00

Maximum Daily Average: 1.0 ppb on Apr 22

Minimum Value: 0 ppb on Apr 2 03:00

Minimum Daily Average: 0.2 ppb on Apr 27

Maximum Diurnal Average: 0.6 ppb at hour 10

Minimum Diurnal Average: 0.5 ppb at hour 19

Monthly Average: 0.59 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.4$ Median = 0.6 $Q_3 = 0.8$ $P_{90} = 1.0$ $P_{99} = 1.4$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.6	1.0
2-Apr	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	1	1	1	1	1	1	1	1	0.4	0.8
3-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	1	1	0	0	0	0	0.7	1.3
4-Apr	0	1	0	0	0	0	0	0	0	1	1	0	0	A	1	1	1	0	1	1	1	1	1	1	0.4	0.8
5-Apr	1	1	0	1	1	1	1	1	1	1	0	0	A	1	0	0	1	1	1	1	1	1	1	1	0.7	1.1
6-Apr	1	1	1	1	1	0	1	1	1	2	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0.8	1.6
7-Apr	0	1	1	1	1	1	1	1	0	1	A	0	0	0	1	0	0	0	0	0	0	1	1	1	0.6	0.9
8-Apr	1	0	0	1	1	1	1	1	0	A	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0.6	0.9
9-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.6
10-Apr	1	1	1	0	0	1	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	0.7
11-Apr	0	0	0	0	1	1	A	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0.6	0.7
12-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.7	0.9
13-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
14-Apr	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.9	1.2
15-Apr	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0.7	1.0
16-Apr	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.7	0.9
17-Apr	A	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	0	1	0	1	1	A	0.5	1.1
18-Apr	0	0	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	1.3
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.3
20-Apr	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.8
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	1	0	1	0.3	0.8
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1.0	1.4
23-Apr	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	A	0	0	1	0	0	1	0.7	1.3
24-Apr	1	1	1	1	1	1	0	1	1	2	1	1	2	1	1	1	A	2	1	0	0	0	1	0	0.9	1.7
25-Apr	0	1	1	1	1	0	0	0	0	0	1		1	0	1	A	1	0	0	0	0	1	1	1	0.4	0.8
26-Apr	1	0	1	0	0	1	1	1	1	C	C	C	0	0	A	1	1	0	1	0	0	1	0	0	0.5	1.1
27-Apr	0	0	0	0	0	1	1	0	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.8
28-Apr	1	1	1	1	0	0	1	0	0	0	0	0	A	0	1	1	1	0	0	0	1	1	1	1	0.5	1.2
29-Apr	1	0	0	1	0	0	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.8
30-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	0	C	C	C	C	C	1	1	1	1	1	0.7	0.9
	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	Diurnal Average	
	1.3	1.2	1.3	1.1	1.0	1.3	1.4	1.5	1.5	1.7	1.4	1.2	1.6	1.3	1.0	1.1	1.1	1.5	1.1	1.3	1.1	1.2	1.3	1.3	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

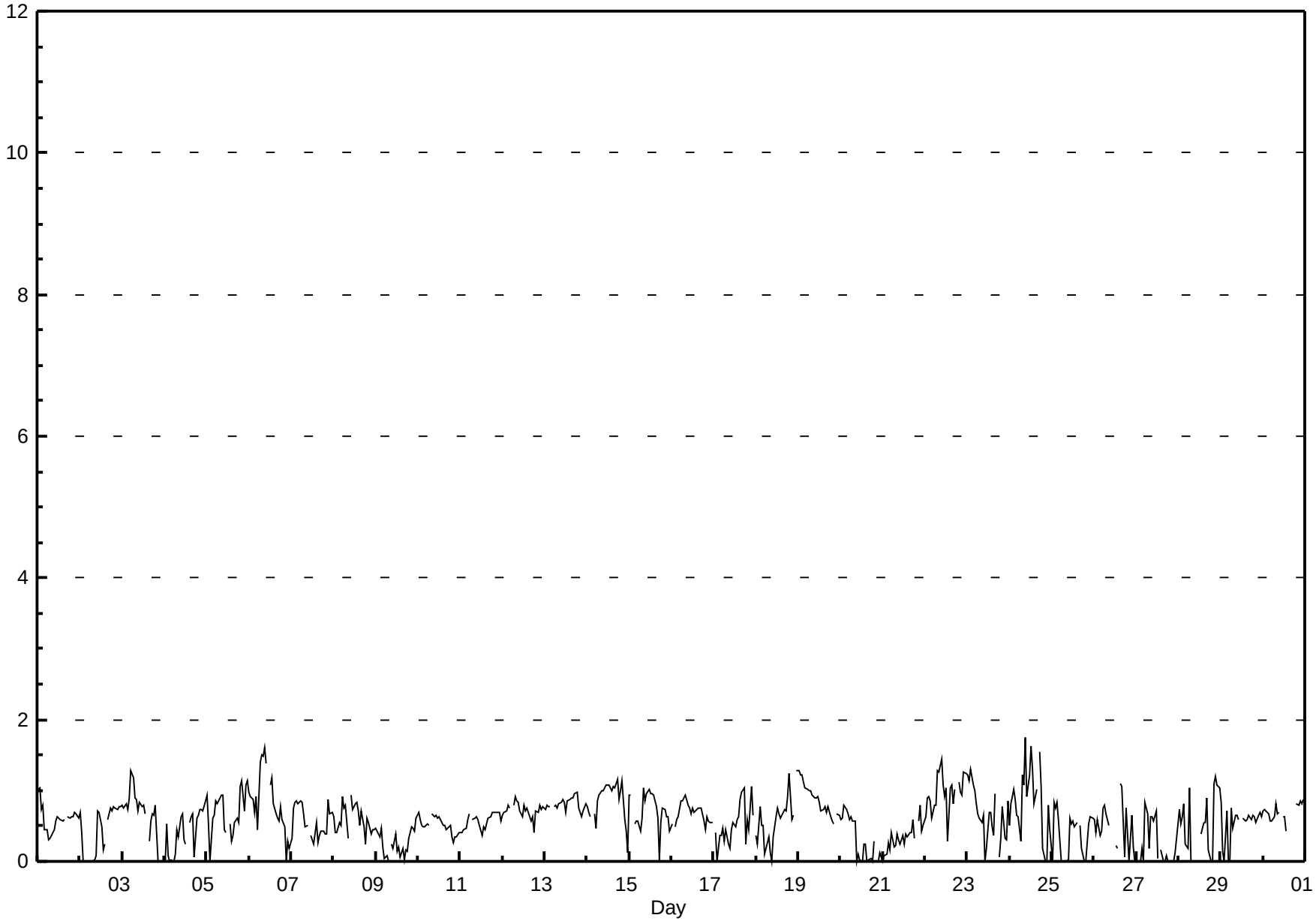
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2012



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2012

Maximum Value: 2.5 ppb on Apr 24 10:00

Maximum Daily Average: 1.7 ppb on Apr 24

Minimum Value: 0 ppb on Apr 2 07:00

Minimum Daily Average: 0.8 ppb on Apr 9

Maximum Diurnal Average: 1.2 ppb at hour 2

Minimum Diurnal Average: 1.1 ppb at hour 19

Monthly Average: 1.14 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.8$ $Q_1 = 0.9$ Median = 1.1 $Q_3 = 1.3$ $P_{90} = 1.5$ $P_{99} = 2.0$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.1	1.5
2-Apr	1	1	0	0	1	1	0	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.2
3-Apr	1	1	1	1	1	2	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.1	1.8
4-Apr	1	1	1	0	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	1.4
5-Apr	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	2	2	2	2	2	1.3	1.9
6-Apr	2	1	2	1	2	1	2	2	2	2	2	A	2	2	2	1	1	1	1	2	1	1	1	1	1.5	2.0
7-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1.0	1.5
8-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
9-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.8	1.0
10-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
11-Apr	1	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	1.1
12-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.4
13-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.2	1.5
14-Apr	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1	2	2	2	1	2	1	1	1	1	1.4	1.7
15-Apr	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6
16-Apr	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
17-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.1	1.5
18-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	2	1	A	2	1.3	1.8
19-Apr	2	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.3	1.6
20-Apr	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.5
21-Apr	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	0.9	1.8
22-Apr	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	A	2	2	1	2	2	1.5	2.2
23-Apr	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.3	1.7
24-Apr	1	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	A	2	2	1	1	2	2	2	1.7	2.5
25-Apr	1	2	2	1	1	1	0	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.6
26-Apr	1	1	1	1	1	1	1	1	1	C	C	C	1	1	A	2	1	1	1	1	1	1	1	1	1.1	1.6
27-Apr	0	0	0	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	0	1	1	1	0.9	1.2
28-Apr	1	1	2	2	1	1	2	1	0	1	0	1	A	1	1	1	2	1	1	1	2	2	2	2	1.3	1.8
29-Apr	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1.1	1.8
30-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	C	C	C	C	C	1	1	1	1	1	1.1	1.3
	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.1	Diurnal Average	
	1.7	1.9	1.6	1.8	1.8	1.8	1.8	2.0	1.9	2.5	2.0	1.9	2.0	2.0	1.9	1.6	1.8	2.0	1.8	1.8	1.7	1.8	1.9	1.7	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

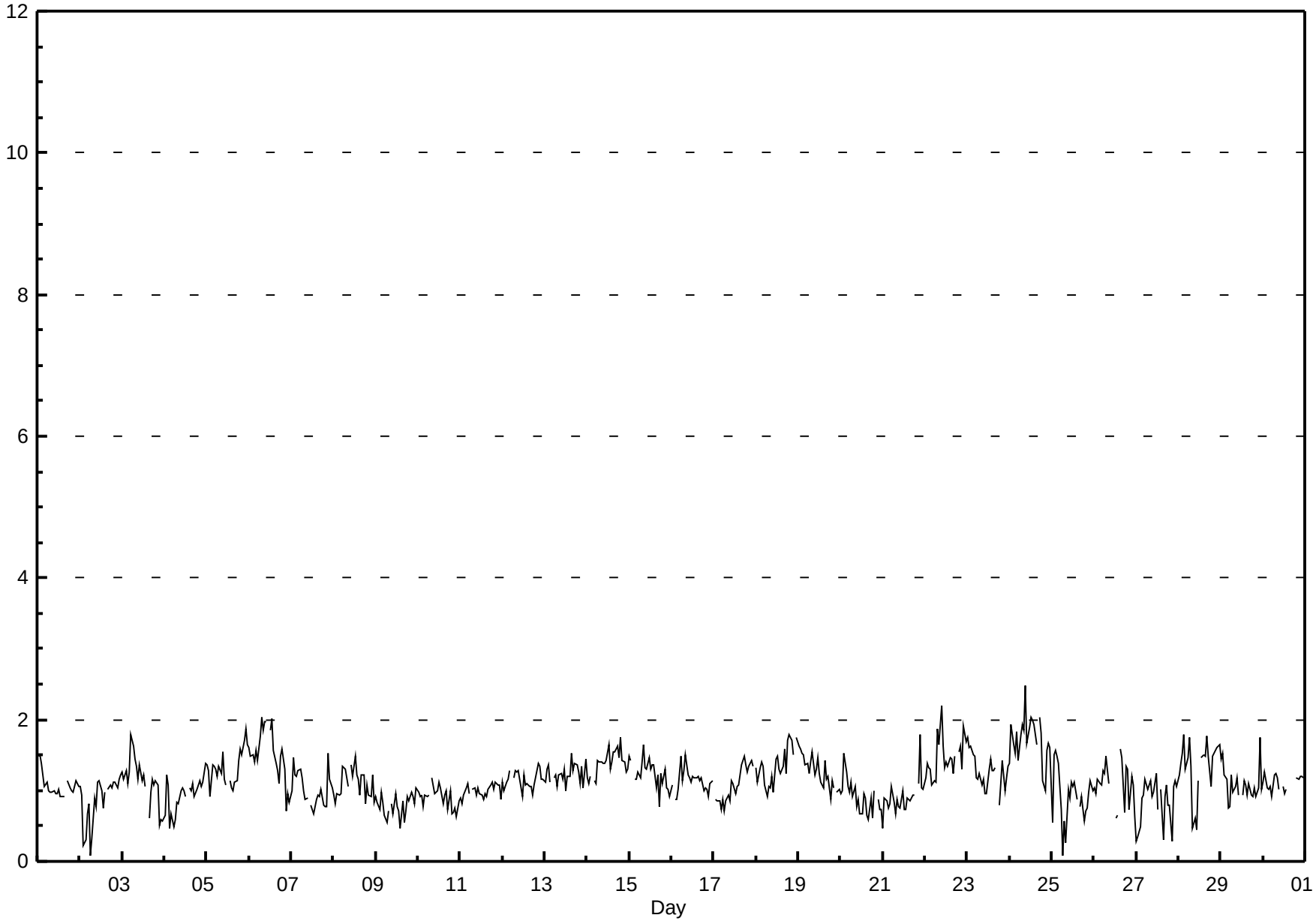
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

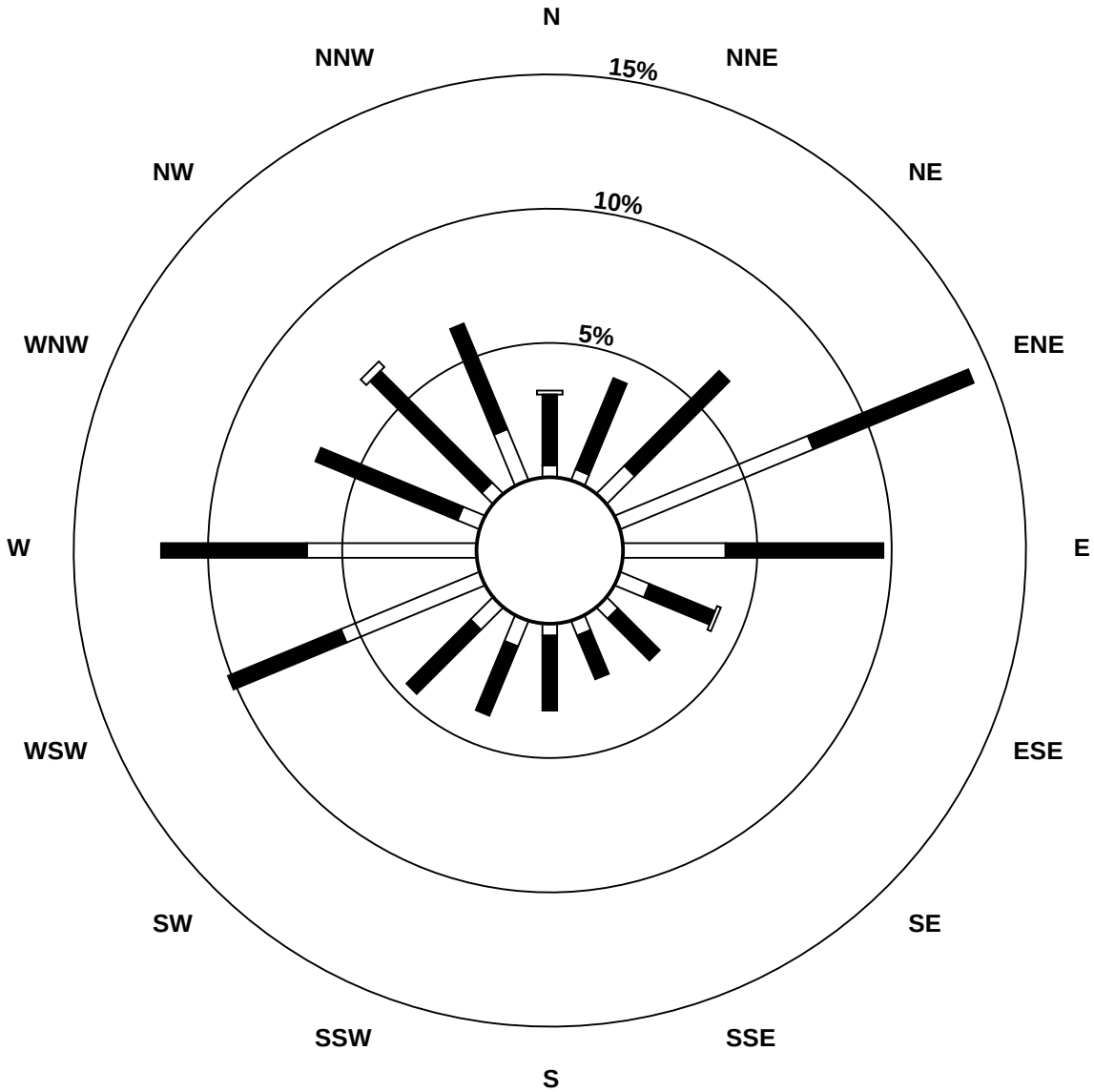
Evergreen Park - April 2012



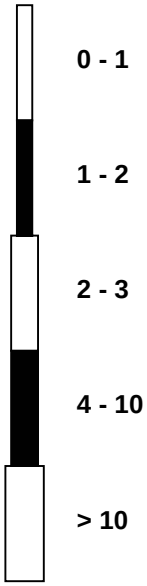
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2012



Pollutant Classes (ppb)

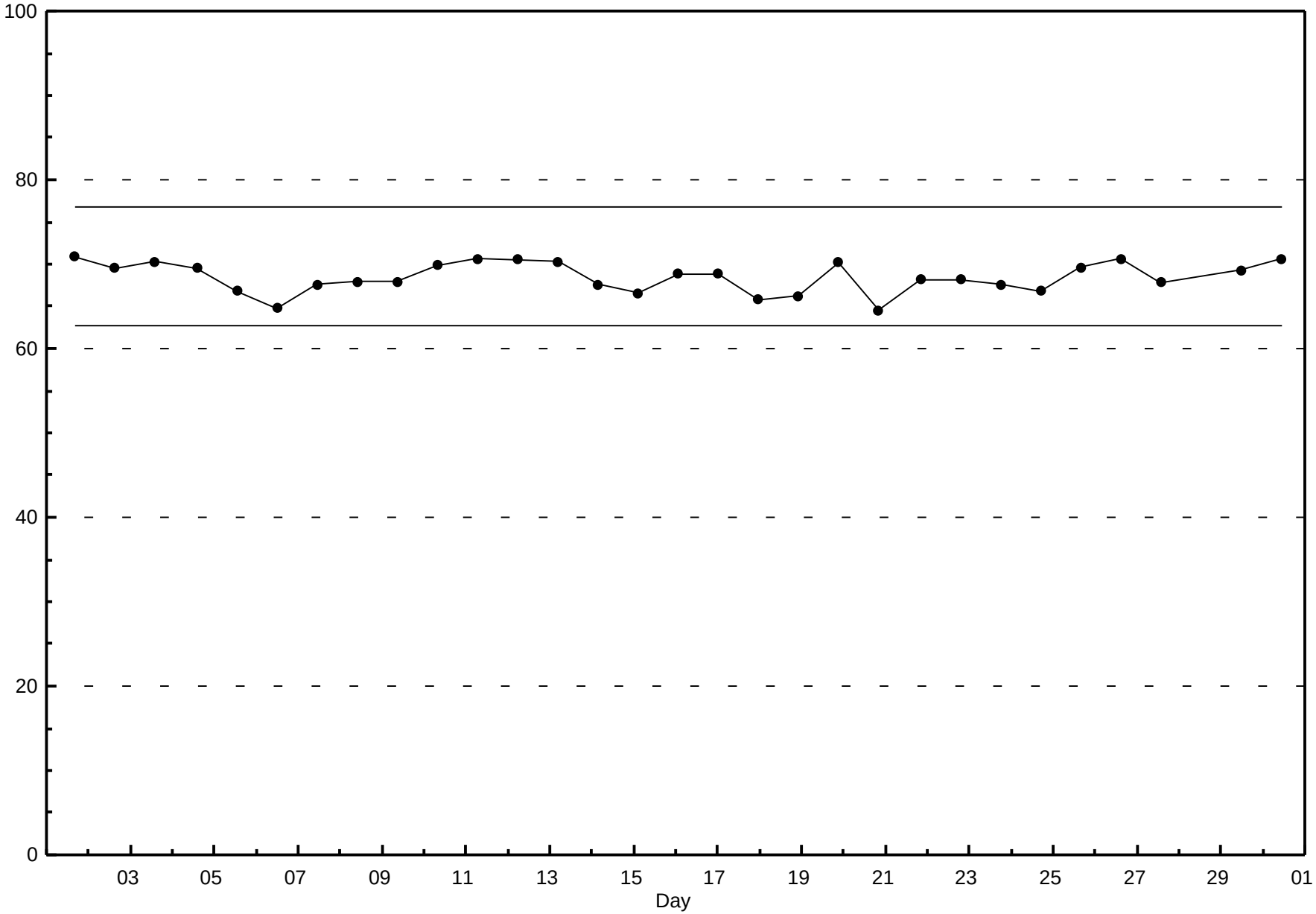


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Evergreen Park - April 2012



Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - April 2012

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

Maximum Value: 17.8 $\mu g/m^3$ on Apr 3 23:00

Maximum Daily Average: 6.7 $\mu g/m^3$ on Apr 12

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

Maximum Diurnal Average: 3.6 $\mu g/m^3$ at hour 21

Monthly Average: 2.14 $\mu g/m^3$

Minimum Daily Average: 0.3 $\mu g/m^3$ on Apr 29

Minimum Diurnal Average: 0.9 $\mu g/m^3$ at hour 12

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.5 Median = 1.7 Q_3 = 3.1 P_{90} = 4.9 P_{99} = 9.4

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	1
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	9	8	4	5	3	3	2	3	2	2	3	2	2	3	2	2	0	0	2	4	2	3	2	2	3.0	8.9
2-Apr	1	2	4	3	4	5	3	1	1	3	0	0	0	0	0	0	1	3	2	2	1	2	1	1	1.7	5.0
3-Apr	4	1	0	1	2	3	2	1	0	0	0	0	0	0	0	0	1	3	6	2	3	4	18	5	2.5	17.8
4-Apr	1	3	1	1	1	1	1	2	2	1	1	0	0	0	0	1	1	1	2	4	7	5	2	3	1.7	6.8
5-Apr	2	1	2	1	1	1	2	1	1	0	0	0	0	0	0	2	1	1	2	2	2	1	1	4	1.1	4.1
6-Apr	0	0	0	1	1	1	3	2	0	0	0	0	0	0	0	0	0	1	2	3	8	9	3	4	1.6	9.0
7-Apr	4	2	2	2	1	1	1	2	3	1	0	0	0	0	0	0	1	2	3	4	6	5	7	4	2.2	6.8
8-Apr	6	3	3	3	3	4	5	2	2	2	1	0	0	0	0	0	0	0	0	3	2	5	6	3	2.2	6.0
9-Apr	2	1	4	5	3	3	3	1	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	1.2	4.9
10-Apr	0	2	1	1	1	1	1	0	1	1	1	0	1	1	1	2	2	3	3	6	12	4	5	4	2.2	12.4
11-Apr	2	3	4	6	3	5	9	11	6	5	9	4	3	3	3	4	3	5	5	5	3	4	2	3	4.5	11.5
12-Apr	4	5	4	5	5	6	8	7	5	4	5	5	5	5	6	10	16	14	8	7	6	8	8	7	6.7	16.1
13-Apr	6	6	4	4	3	2	1	1	1	0	1	1	2	2	2	2	3	2	1	1	1	0	0	0	2.0	5.7
14-Apr	0	0	0	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2	2	2	2	1	1	0	1.4	2.6
15-Apr	0	2	2	1	0	1	1	2	4	0	0	0	1	1	1	2	2	3	4	3	2	2	1	1	1.6	4.5
16-Apr	2	1	2	1	3	6	5	7	8	3	3	2	2	3	2	3	2	2	4	4	4	3	3	4	3.2	7.9
17-Apr	3	3	2	3	2	2	2	0	0	1	1	0	0	1	0	0	1	1	2	3	3	3	2	1	1.5	3.4
18-Apr	2	1	2	2	2	2	2	1	2	3	2	3	2	3	2	2	4	4	5	6	6	4	3	4	2.7	6.0
19-Apr	4	3	3	3	2	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1.2	3.9
20-Apr	0	1	1	3	2	4	3	2	0	0	0	4	5	6	6	7	9	5	3	2	2	1	1	0	2.9	8.6
21-Apr	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	1	1	2	1	3	3	2	4	5	1.1	4.8
22-Apr	4	3	4	4	3	4	2	2	0	0	2	0	1	1	2	3	2	3	2	3	5	6	4	3	2.6	5.7
23-Apr	2	2	7	3	3	2	2	2	2	1	0	0	2	4	4	6	3	2	2	2	3	4	1	3	2.6	6.5
24-Apr	5	4	2	1	0	0	0	0	1	0	N	0	0	0	0	1	1	1	1	4	3	2	1	2	1.2	5.0
25-Apr	0	3	3	3	2	1	0	0	0	0	0	0	0	0	1	2	2	1	0	1	1	2	2	2	1.1	3.4
26-Apr	4	2	3	2	1	2	5	4	3	3	3	2	2	2	C	2	4	5	3	2	5	7	5	5	3.3	6.5
27-Apr	5	6	7	8	5	3	1	1	1	1	0	1	1	1	2	2	2	0	0	1	3	1	1	1	2.2	8.2
28-Apr	2	0	1	1	1	1	3	4	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	0	0.7	4.1
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	2	0	1	0	0.3	2.3
30-Apr	0	0	0	0	0	0	1	4	3	0	0	0	0	0	1	1	2	2	3	4	6	5	7	6	1.9	6.8
	2.5	2.3	2.4	2.5	2.0	2.2	2.4	2.3	1.8	1.1	1.2	0.9	1.0	1.3	1.4	1.9	2.3	2.4	2.2	2.9	3.6	3.1	3.1	2.7	Diurnal Average	
	8.9	8.0	6.8	8.2	5.0	6.0	9.5	11.5	7.9	4.5	8.6	4.7	4.8	6.3	6.4	9.5	16.1	13.9	8.0	7.1	12.4	9.0	17.8	7.1	Diurnal Maximum	

C - Calibration N - Not Valid

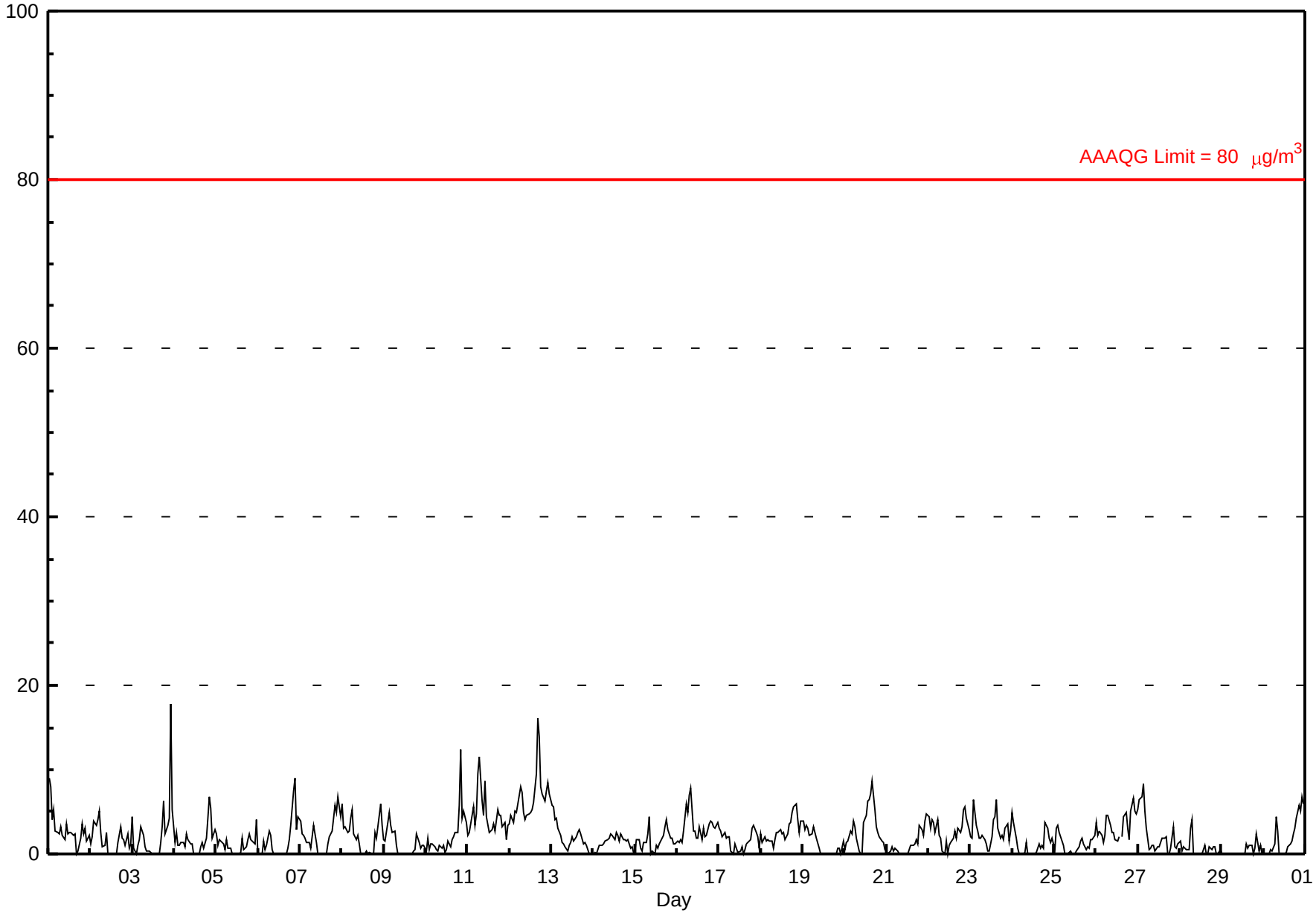
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - April 2012

Maximum Value: 47.2 $\mu g/m^3$ on Apr 3 23:00

Maximum Daily Average: 9.7 $\mu g/m^3$ on Apr 12

Minimum Value: 0 $\mu g/m^3$ on Apr 2 12:00

Maximum Diurnal Average: 6.8 $\mu g/m^3$ at hour 23

Monthly Average: 4.48 $\mu g/m^3$

Minimum Daily Average: 1.8 $\mu g/m^3$ on Apr 29

Minimum Diurnal Average: 2.6 $\mu g/m^3$ at hour 12

Percentiles: P_1 = 0.0 P_{10} = 1.4 Q_1 = 2.4 Median = 3.8 Q_3 = 5.8 P_{90} = 8.1 P_{99} = 15.1

Hours in Service:	720
Hours of Data:	719
Hours of Missing Data:	1
Hours of Calibration:	1
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	15	13	7	7	6	4	5	8	7	4	5	4	6	5	5	5	3	2	4	5	5	5	4	4	5.6	15.0
2-Apr	3	4	6	6	7	7	5	4	4	5	1	0	1	0	0	1	5	7	5	4	5	6	5	4	3.9	7.5
3-Apr	9	3	2	4	4	5	4	3	2	3	2	2	3	1	2	2	3	10	15	5	7	22	47	12	7.1	47.2
4-Apr	4	6	4	3	3	3	4	6	8	3	3	2	2	3	2	3	4	2	6	7	10	9	3	4	4.2	9.9
5-Apr	4	3	3	3	3	2	3	2	2	2	3	2	2	2	2	5	2	4	4	4	4	3	3	7	3.0	6.7
6-Apr	2	1	0	4	2	2	4	4	2	1	2	1	1	1	2	2	2	3	4	8	20	12	5	6	3.7	20.4
7-Apr	6	4	4	4	3	3	2	4	6	3	2	2	2	1	2	2	3	4	5	7	7	11	10	7	4.3	10.9
8-Apr	8	6	5	5	5	6	6	6	4	4	3	3	1	2	2	1	2	1	2	5	5	10	16	8	4.8	15.7
9-Apr	3	3	7	7	5	4	5	5	0	0	1	1	2	0	1	2	2	4	3	6	4	4	3	3	3.0	7.2
10-Apr	2	3	2	2	3	2	2	3	3	2	3	2	2	4	3	4	5	5	4	9	15	8	7	8	4.4	14.8
11-Apr	4	5	6	9	8	11	13	16	13	8	13	9	6	5	4	5	5	10	7	7	7	6	5	6	7.9	16.5
12-Apr	5	11	6	8	7	8	12	10	7	6	8	7	7	7	9	15	18	17	11	10	9	14	12	9	9.7	18.0
13-Apr	7	8	7	6	6	4	3	3	2	1	3	3	3	3	4	4	6	4	2	2	3	2	1	1	3.7	7.7
14-Apr	1	1	1	4	2	2	2	3	3	3	3	4	4	5	3	5	5	3	3	3	3	2	2	2	2.9	4.8
15-Apr	2	3	4	2	1	3	3	4	9	2	2	3	4	3	5	4	5	6	7	7	4	4	4	3	3.8	8.7
16-Apr	3	3	3	3	4	9	8	10	12	5	6	5	4	5	4	6	4	6	6	7	6	5	5	7	5.7	12.2
17-Apr	5	4	4	4	3	4	4	3	1	3	3	3	3	3	1	4	3	4	4	6	5	5	3	3	3.6	5.5
18-Apr	5	4	4	3	3	3	4	3	4	4	6	4	5	6	6	5	5	5	7	7	9	7	6	6	5.0	8.7
19-Apr	7	5	5	6	4	5	5	9	4	3	1	1	2	2	3	1	1	2	0	1	3	4	3	4	3.4	9.1
20-Apr	4	5	4	7	6	6	6	4	6	2	2	7	8	12	10	12	13	9	5	7	3	4	3	2	6.0	12.6
21-Apr	1	1	2	2	2	2	2	1	1	2	1	0	1	3	4	3	3	3	3	5	5	4	7	7	2.7	7.5
22-Apr	7	7	7	6	4	7	4	5	2	3	4	1	3	3	3	6	4	5	5	6	7	9	7	4	5.0	8.7
23-Apr	5	6	12	7	4	5	5	6	5	3	5	2	6	7	8	8	7	5	6	4	5	7	4	5	5.6	12.1
24-Apr	10	6	6	2	2	2	0	2	4	1	0	1	3	1	2	3	4	4	3	7	5	4	4	4	3.4	10.2
25-Apr	4	6	6	4	5	3	2	2	1	3	3	3	4	2	3	5	4	5	3	6	3	4	4	5	3.6	5.7
26-Apr	6	5	5	6	3	4	7	7	7	6	6	4	4	5	C	3	8	7	7	4	8	8	7	8	5.8	8.5
27-Apr	8	9	11	11	8	5	3	2	3	3	2	3	2	4	4	4	4	2	2	3	10	3	3	3	4.6	10.9
28-Apr	3	1	2	2	2	3	7	7	2	1	0	0	1	1	3	2	1	3	2	3	3	2	7	7	2.7	6.8
29-Apr	1	2	1	0	1	1	1	0	0	0	0	0	1	1	3	2	3	4	1	3	6	3	9	1	1.8	8.9
30-Apr	2	1	0	0	2	2	3	8	6	1	0	1	1	2	3	4	3	4	5	6	7	8	9	8	3.6	9.0
	4.8	4.7	4.4	4.5	4.0	4.2	4.5	5.0	4.3	2.9	3.1	2.6	3.0	3.3	3.5	4.2	4.5	4.9	4.7	5.4	6.4	6.4	6.8	5.2	Diurnal Average	
	15.0	13.3	12.1	10.9	8.5	11.4	13.3	16.5	13.1	8.5	12.6	8.7	7.7	11.7	9.9	15.1	18.0	16.5	14.8	9.9	20.4	22.3	47.2	12.4	Diurnal Maximum	

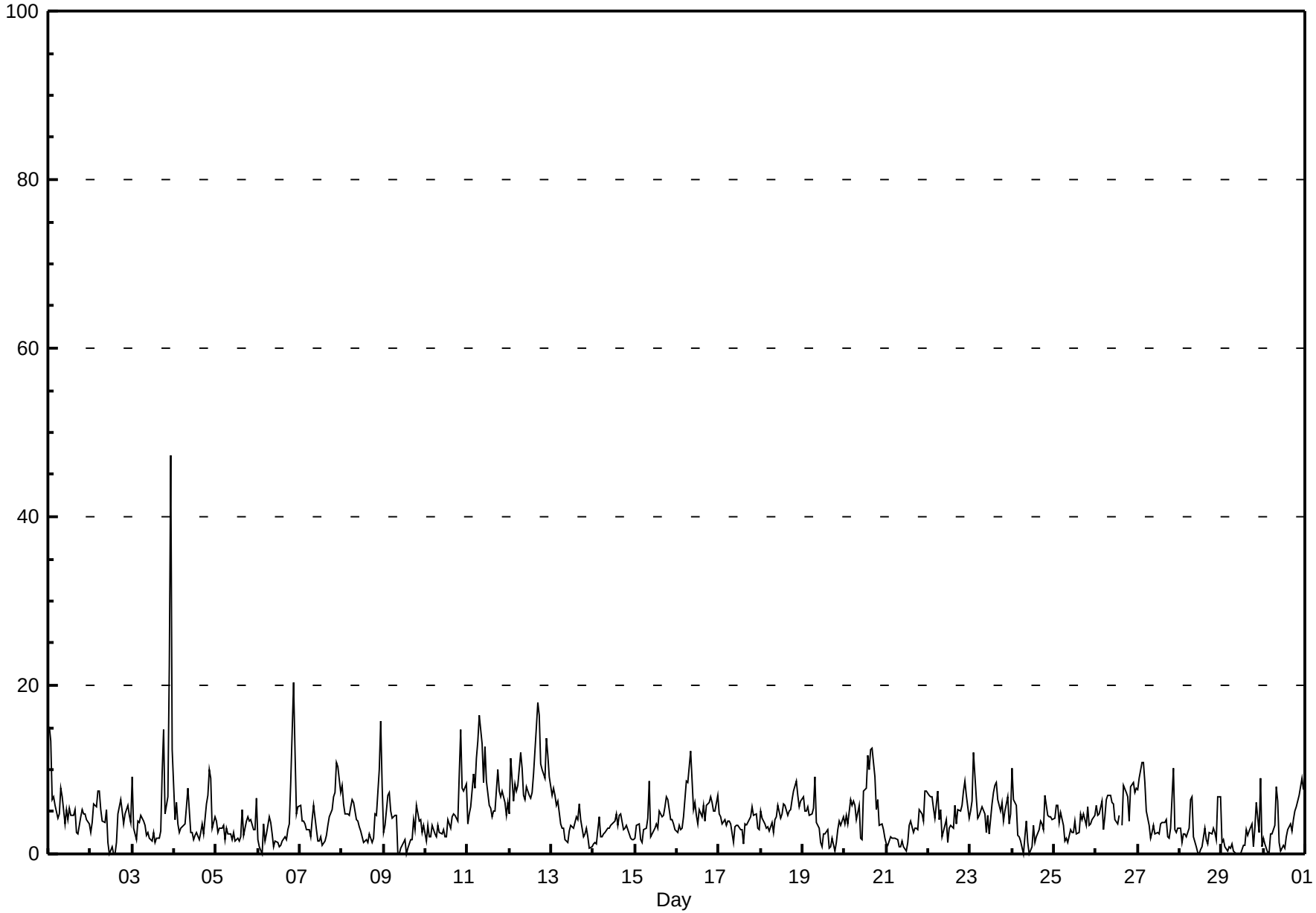
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

Evergreen Park - April 2012



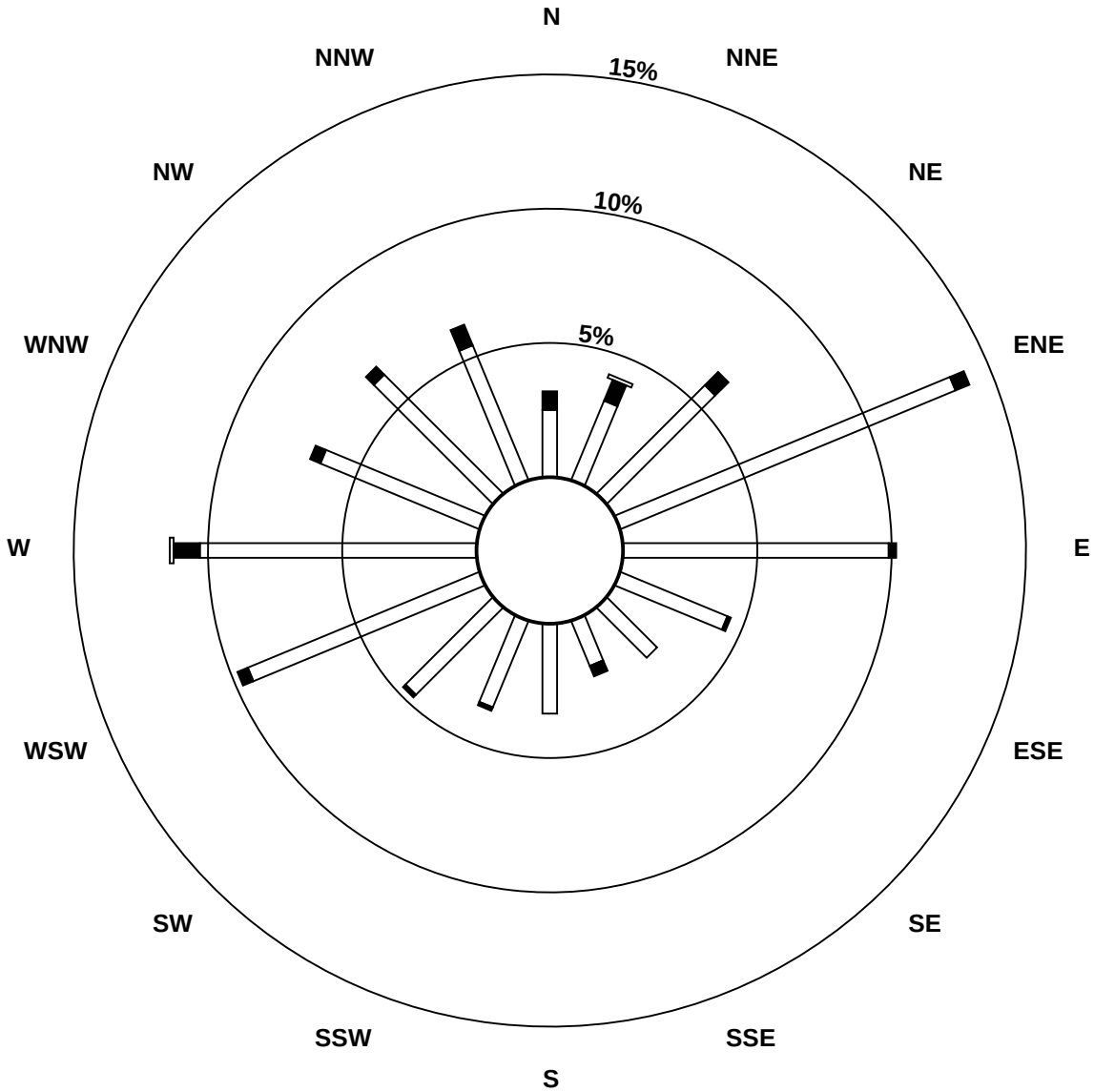
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

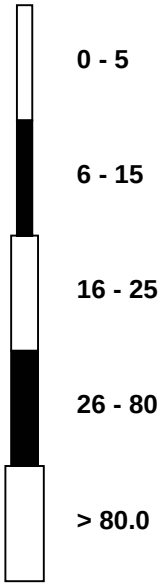
Pollutant Rose

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

Evergreen Park - April 2012



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



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - April 2012

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

Maximum Value: 15.0 ^{o}C on Apr 30 16:00

Maximum Daily Average: 9.4 ^{o}C on Apr 29

Minimum Value: -7 ^{o}C on Apr 15 07:00

Maximum Diurnal Average: 8.9 ^{o}C at hour 16

Monthly Average: 4.57 ^{o}C

Minimum Daily Average: -3.1 ^{o}C on Apr 14

Minimum Diurnal Average: -0.2 ^{o}C at hour 7

Percentiles: P_1 = -5.4 P_{10} = -2.3 Q_1 = 0.8 Median = 4.6 Q_3 = 8.5 P_{90} = 11.2 P_{99} = 14.2

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

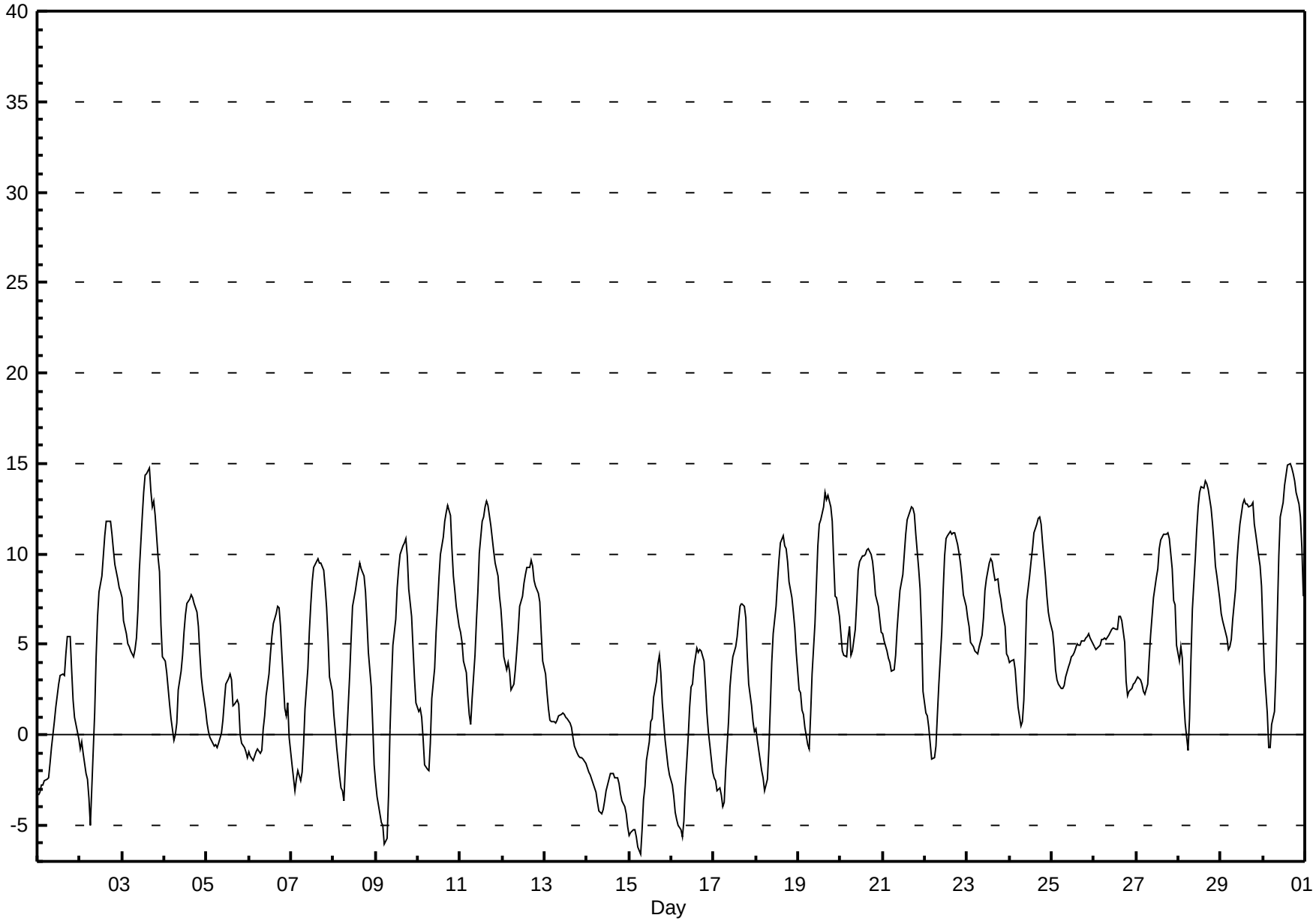
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	-3	-3	-3	-3	-3	-2	-2	-2	-1	1	2	2	3	3	3	3	4	5	5	4	2	1	1	0	0.7	5.4
2-Apr	-1	0	-1	-2	-2	-4	-5	-3	1	4	7	8	9	10	11	12	12	12	11	10	9	9	8	8	5.1	11.8
3-Apr	8	6	6	5	5	5	4	5	5	7	9	12	13	14	14	15	14	13	13	12	10	9	6	4	8.9	14.7
4-Apr	4	3	3	2	1	0	0	1	2	3	4	6	7	7	7	8	8	7	7	6	4	3	2	1	4.0	7.7
5-Apr	1	0	0	0	-1	-1	-1	-1	0	1	2	3	3	3	3	2	2	2	2	0	-1	-1	-1	-1	0.7	3.3
6-Apr	-1	-1	-1	-1	-1	-1	-1	-1	0	1	2	3	4	5	6	7	7	7	6	4	1	1	2	0	2.1	7.1
7-Apr	-2	-2	-3	-2	-2	-3	-2	-1	1	4	6	7	8	9	10	10	9	9	9	8	7	5	3	2	3.8	9.8
8-Apr	1	0	-1	-2	-3	-3	-4	-2	2	3	5	7	8	9	9	9	9	9	8	6	5	3	1	-2	3.2	9.5
9-Apr	-3	-3	-4	-5	-5	-6	-6	-3	0	3	5	6	8	9	10	10	11	11	10	8	7	5	3	2	3.0	10.8
10-Apr	1	1	1	0	-2	-2	-2	0	2	4	6	7	9	10	11	12	12	13	12	10	9	8	7	6	5.6	12.7
11-Apr	6	5	4	3	2	1	1	2	4	6	8	10	12	12	13	13	13	12	11	10	10	9	8	7	7.5	12.9
12-Apr	6	4	4	4	3	3	3	4	5	6	7	8	8	9	9	9	10	9	9	8	8	7	6	4	6.3	9.7
13-Apr	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	-1	-1	-1	-1	-1	-1	-2	0.4	3.3
14-Apr	-2	-2	-2	-3	-3	-3	-4	-4	-4	-4	-4	-3	-2	-2	-2	-2	-2	-2	-3	-3	-4	-4	-4	-5	-3.1	-1.9
15-Apr	-6	-5	-5	-5	-6	-6	-7	-5	-4	-3	-1	0	1	1	2	3	4	4	3	2	0	-1	-2	-2	-1.6	4.4
16-Apr	-3	-3	-4	-5	-5	-5	-6	-5	-3	0	2	3	3	4	5	5	5	5	4	3	1	0	-1	-2	-0.2	4.8
17-Apr	-2	-3	-3	-3	-3	-4	-4	-2	1	3	4	4	5	5	6	7	7	7	6	4	3	2	1	0	1.7	7.3
18-Apr	0	0	-1	-2	-2	-3	-2	-1	2	4	6	7	8	10	11	11	10	10	10	8	8	7	6	5	4.6	11.0
19-Apr	2	2	1	1	0	-1	-1	1	3	6	8	10	12	12	13	13	13	13	13	12	10	8	8	7	7.0	13.4
20-Apr	6	5	4	4	5	6	4	5	6	7	9	10	10	10	10	10	10	10	10	9	8	7	6	6	7.4	10.3
21-Apr	6	5	5	4	4	4	4	4	6	7	8	9	10	11	12	12	13	13	12	11	9	8	6	2	7.7	12.6
22-Apr	1	1	0	-1	-1	-1	-1	1	3	6	8	10	11	11	11	11	11	11	11	10	10	9	8	7	6.1	11.3
23-Apr	6	6	5	5	5	5	4	5	6	7	8	9	9	10	10	9	9	9	8	7	7	6	4	4	6.7	9.7
24-Apr	4	4	4	4	2	2	0	1	2	4	7	9	10	10	11	12	12	12	12	11	9	8	7	6	6.8	12.0
25-Apr	6	5	4	3	3	3	3	3	3	4	4	4	4	5	5	5	5	5	5	5	5	6	5	5	4.3	5.7
26-Apr	5	5	5	5	5	5	5	5	5	6	6	6	6	6	7	7	6	5	3	2	2	3	3	3	4.8	6.5
27-Apr	3	3	3	3	2	2	3	4	5	7	8	9	9	10	11	11	11	11	11	11	9	7	7	5	6.9	11.2
28-Apr	4	5	4	2	1	-1	1	4	7	10	11	13	13	14	14	14	14	14	12	12	11	9	9	7	8.5	14.0
29-Apr	7	6	6	5	5	5	5	6	8	10	11	12	13	13	13	13	13	13	13	12	11	10	9	8	9.4	13.0
30-Apr	6	3	1	-1	-1	1	1	3	7	10	12	13	14	14	15	15	15	14	14	13	13	12	10	8	8.9	15.0
	2.1	1.7	1.0	0.5	0.2	-0.2	-0.2	0.9	2.6	4.2	5.6	6.8	7.6	8.2	8.6	8.9	8.8	8.7	8.2	7.2	6.0	5.1	4.2	3.1	Diurnal Average	
	7.6	6.3	6.0	5.3	5.3	6.0	5.3	6.4	8.1	9.9	12.0	12.8	13.8	14.3	14.9	15.0	14.8	14.5	14.0	13.4	12.7	12.1	10.4	8.2	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - April 2012



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - April 2012

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

Maximum Value: 99.9 % on Apr 24 10:00 Maximum Daily Average: 93.6 % on Apr 13

Minimum Value: 16 % on Apr 21 16:00 Minimum Daily Average: 28.9 % on Apr 21

Maximum Diurnal Average: 77.2 % at hour 7 Minimum Diurnal Average: 41.3 % at hour 16

Monthly Average: 57.93 % Percentiles: P_1 = 20.5 P_{10} = 28.3 Q_1 = 36.6 Median = 55.5 Q_3 = 79.0 P_{90} = 93.2 P_{99} = 99.0

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

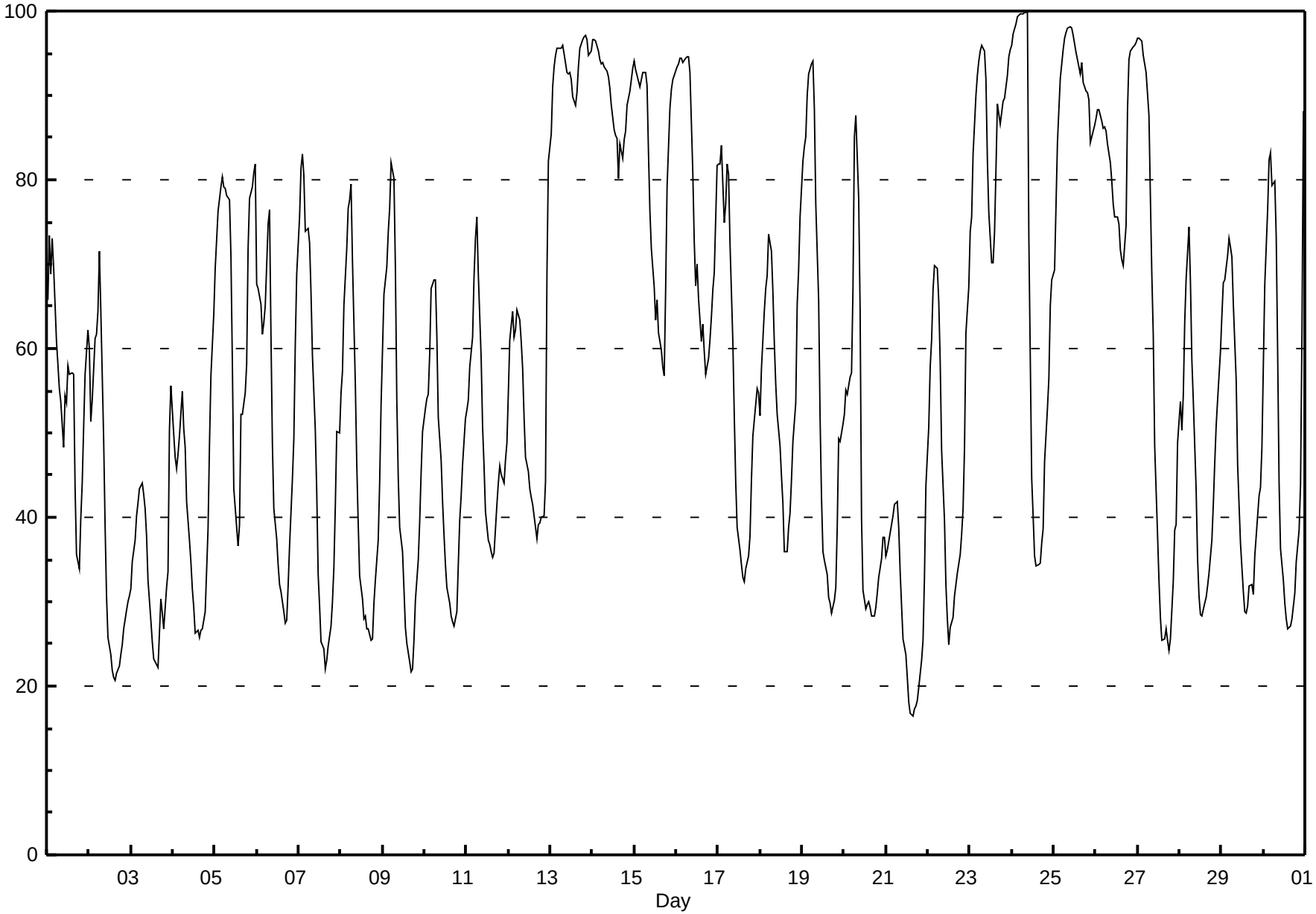
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	66	73	69	73	70	61	58	55	54	48	54	54	58	57	57	57	44	36	34	40	44	51	57	62	55.5	73.4
2-Apr	60	51	54	61	62	64	72	65	49	39	31	26	24	22	21	21	21	22	24	25	27	29	30	31	38.7	71.5
3-Apr	32	35	37	40	42	43	44	43	41	38	33	28	25	23	23	22	26	30	29	27	32	34	50	56	34.7	55.6
4-Apr	50	47	46	47	50	55	51	48	42	37	35	31	29	26	27	26	27	27	29	34	39	49	57	64	40.5	64.0
5-Apr	69	73	76	79	80	79	79	78	78	71	58	43	39	37	39	52	52	55	58	72	78	79	81	82	66.2	81.8
6-Apr	68	67	65	62	63	65	75	76	61	49	41	37	34	32	31	29	28	28	32	37	45	49	60	69	50.1	76.4
7-Apr	76	81	83	81	74	74	73	67	59	50	43	33	30	25	24	22	23	25	27	30	34	41	50	50	49.0	83.1
8-Apr	55	57	65	72	77	78	79	70	56	46	39	33	30	28	28	27	27	25	26	30	32	37	44	53	46.5	79.4
9-Apr	60	66	70	74	77	82	80	70	54	45	39	36	32	27	25	23	22	22	25	30	35	39	45	50	46.9	82.0
10-Apr	53	54	55	59	67	68	68	61	52	47	42	38	34	32	30	28	28	27	29	34	40	43	46	52	45.3	68.2
11-Apr	53	54	58	61	68	73	76	69	59	51	46	41	37	37	36	35	36	42	44	46	45	44	47	49	50.2	75.6
12-Apr	55	61	64	61	62	65	63	61	58	52	47	45	43	42	42	39	38	39	39	40	40	44	69	82	52.2	82.1
13-Apr	85	91	93	95	96	96	96	96	95	93	93	93	92	90	89	90	93	96	97	97	97	97	95	95	93.6	97.1
14-Apr	97	97	96	95	94	94	94	93	93	92	91	89	86	85	85	80	84	83	85	86	89	90	92	93	90.1	96.6
15-Apr	94	93	92	91	92	93	93	91	83	76	72	67	63	66	62	60	58	57	67	79	89	91	92	92	79.7	94.0
16-Apr	93	94	94	94	94	94	95	94	93	81	73	67	70	66	61	63	60	57	59	61	64	67	69	82	76.9	94.6
17-Apr	82	82	84	75	77	82	81	73	61	52	44	39	36	34	33	32	34	35	38	44	50	53	55	55	55.5	84.1
18-Apr	52	58	64	67	69	74	72	67	61	56	52	48	45	42	36	36	39	40	44	49	53	65	69	76	55.6	75.6
19-Apr	82	84	85	90	93	94	94	89	77	66	52	42	36	35	33	30	30	29	30	32	39	49	49	51	57.9	94.1
20-Apr	52	55	55	57	57	67	85	88	78	65	40	31	29	30	30	29	28	28	29	31	33	35	38	38	46.1	87.7
21-Apr	35	36	38	39	40	42	42	39	34	29	26	24	21	18	17	16	17	18	18	20	23	26	33	44	28.9	43.7
22-Apr	51	58	61	67	70	69	66	59	48	40	32	28	25	27	28	31	32	33	36	38	41	48	62	67	46.5	69.8
23-Apr	74	76	83	90	92	94	95	96	95	92	82	76	70	70	74	81	89	87	88	89	90	92	95	95	86.1	95.9
24-Apr	96	97	99	99	100	100	100	100	100	100	73	45	40	35	34	34	34	37	39	47	53	56	65	68	68.8	99.9
25-Apr	69	77	84	88	92	95	97	97	98	98	98	97	96	95	93	93	94	92	91	90	89	84	85	86	90.9	98.1
26-Apr	87	88	88	87	86	86	86	84	82	80	77	76	76	75	72	71	70	75	88	94	95	96	96	96	83.8	96.3
27-Apr	97	97	96	95	94	93	88	78	69	62	49	38	33	28	25	26	27	25	24	26	32	38	39	49	55.3	96.9
28-Apr	54	50	54	63	68	74	68	59	54	43	35	31	28	28	30	30	32	33	37	41	46	51	54	60	46.9	74.4
29-Apr	64	68	68	71	73	72	71	65	56	46	42	37	31	29	29	30	32	32	31	35	38	42	44	48	48.1	73.1
30-Apr	58	68	77	82	83	79	80	73	60	44	36	32	30	28	27	27	28	30	31	35	38	44	62	88	51.7	88.1
	67.3	69.6	71.8	73.9	75.3	76.8	77.2	73.5	66.6	59.6	52.5	46.9	44.1	42.3	41.3	41.3	41.7	42.1	44.2	48.0	51.6	55.5	61.0	66.1	Diurnal Average	
	96.8	97.2	98.5	99.3	99.5	99.7	99.7	99.9	99.9	99.9	97.9	97.1	96.2	95.1	93.4	92.6	93.9	95.6	96.6	97.0	97.1	96.7	95.9	96.3	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - April 2012



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - April 2012

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	2	2	4	4	4	4	4	7	14	16	12	13	14	17	22	18	12	11	10	6	9	10	9	7.9	21.8
Dir	327	325	238	260	243	225	343	278	274	265	266	308	283	275	281	259	217	232	232	219	199	201	210	210	251.9	258.9
2 Spd	9	14	10	3	4	4	1	3	7	13	17	18	19	16	16	16	14	9	8	10	12	13	14	16	10.0	18.9
Dir	226	232	251	253	232	203	97	106	166	175	168	171	192	170	162	181	204	212	188	179	173	175	176	193	187.4	192.3
3 Spd	15	10	10	11	12	11	11	12	13	13	18	19	26	24	18	11	11	4	11	17	9	19	49	46	12.0	49.1
Dir	179	167	169	168	163	170	169	175	174	174	181	197	213	193	188	201	71	57	248	242	239	250	264	269	210.6	264.0
4 Spd	35	40	39	32	24	16	20	18	15	21	32	27	26	29	23	21	18	21	17	8	4	10	6	7	16.3	40.0
Dir	261	265	261	257	243	225	241	214	237	268	272	289	289	298	302	319	342	344	342	13	29	42	19	312	279.7	265.2
5 Spd	7	10	8	9	7	8	9	10	15	20	25	28	29	29	22	20	21	19	14	8	6	4	2	4	11.0	29.5
Dir	297	319	311	304	309	300	286	300	313	322	325	350	347	348	25	37	354	339	358	94	140	155	215	265	339.4	347.2
6 Spd	15	8	14	19	18	23	22	17	18	21	21	24	23	25	22	21	17	16	7	3	1	4	10	3	13.0	25.0
Dir	348	291	240	270	274	272	278	292	313	320	299	308	306	303	342	335	351	357	33	203	69	303	268	245	305.3	302.7
7 Spd	3	2	2	4	7	8	9	13	15	19	15	19	17	22	23	30	26	19	16	14	8	7	1	8	11.0	30.4
Dir	227	219	263	312	316	307	286	280	280	287	303	336	343	347	343	337	338	327	352	348	333	300	45	69	325.7	337.3
8 Spd	5	5	3	1	1	1	2	3	1	7	8	6	8	13	12	13	14	15	16	10	9	8	2	0	4.0	16.4
Dir	36	59	237	359	321	294	315	303	307	234	283	319	337	345	16	41	63	60	63	72	85	76	92	207	33.8	63.0
9 Spd	1	3	4	2	0	1	3	7	6	9	13	17	13	14	16	17	18	15	16	14	16	13	9	9	9.5	18.4
Dir	55	61	46	1	188	323	46	65	95	64	68	66	90	100	91	84	91	88	68	73	82	75	70	67	77.8	91.2
10 Spd	10	8	9	6	6	6	7	7	9	8	6	6	11	12	11	15	16	15	12	11	10	10	8	9	8.8	16.0
Dir	84	86	89	64	66	69	66	69	113	107	124	96	101	130	97	119	110	104	86	64	67	69	65	54	90.3	109.9
11 Spd	10	7	4	4	4	1	2	5	5	7	6	6	11	12	13	12	15	19	12	14	14	11	11	8	6.7	19.4
Dir	79	78	59	281	319	309	225	273	306	297	306	360	61	67	61	68	49	39	52	46	42	51	48	45	43.3	38.8
12 Spd	7	3	6	6	3	2	3	3	6	11	10	11	14	14	13	15	12	12	14	11	15	15	11	9	8.7	14.9
Dir	22	46	39	51	358	25	327	359	42	51	58	43	52	47	45	40	31	14	18	10	337	6	29	11	28.3	39.7
13 Spd	15	12	13	17	16	14	10	10	13	16	16	18	22	23	23	21	20	21	21	21	20	20	23	27	17.3	27.5
Dir	343	8	337	335	333	329	324	320	320	326	317	313	316	313	303	299	293	301	298	294	297	296	304	311	313.1	311.4
14 Spd	22	22	23	28	27	25	31	30	31	28	27	23	22	13	17	17	15	14	11	11	6	2	3	6	16.4	31.3
Dir	308	306	314	323	332	333	334	334	333	332	334	334	342	22	32	33	19	358	30	46	46	12	222	208	340.2	334.3
15 Spd	6	5	5	3	2	0	2	3	5	10	8	7	7	10	5	5	3	1	7	6	6	5	5	3	3.2	10.1
Dir	221	236	259	215	12	37	162	126	140	124	130	139	120	105	130	168	178	145	102	91	72	70	66	70	125.5	104.5
16 Spd	4	1	1	1	1	4	5	3	10	5	10	12	9	12	10	15	14	15	13	10	6	9	4	2	5.7	15.4
Dir	79	350	42	226	310	290	334	303	349	1	27	15	42	30	31	59	58	78	86	81	80	87	87	58	46.8	77.9
17 Spd	4	1	4	6	4	4	5	7	9	11	14	13	11	9	10	8	15	16	15	12	10	8	7	6	7.3	16.4
Dir	66	88	68	80	76	57	64	86	115	140	158	141	143	146	118	103	71	68	71	67	71	74	81	81	96.1	67.9
18 Spd	5	5	4	4	4	4	4	7	8	6	12	16	17	17	15	14	18	18	17	13	6	15	3	1	8.1	17.9
Dir	74	67	58	66	67	52	59	66	62	59	54	51	60	76	92	81	60	63	53	56	114	228	53	222	66.6	62.7
19 Spd	5	4	1	3	4	5	8	8	10	9	5	3	9	10	8	9	13	8	14	8	9	11	8	3	2.8	13.9
Dir	230	238	224	274	259	227	218	254	269	233	275	253	205	188	164	138	108	162	113	85	72	65	87	104	168.6	112.9
20 Spd	5	2	3	1	13	26	16	9	21	32	49	57	56	54	56	55	58	57	51	41	41	38	30	28	32.5	58.1
Dir	95	115	176	243	255	251	248	245	254	259	263	263	258	266	266	265	264	262	263	264	258	258	252	249	260.1	263.7
21 Spd	34	30	27	33	34	30	26	37	40	41	38	37	34	31	32	29	27	24	21	17	10	8	1	2	25.8	40.9
Dir	254	254	251	252	251	247	255	253	255	255	260	259	273	279	281	292	279	288	293	284	305	293	291	185	264.7	254.7
22 Spd	1	2	1	2	1	2	2	4	5	3	6	4	9	8	2	8	5	10	12	11	3	7	10	4	2.0	12.3
Dir	223	220	241	210	255	236	202	299	324	320	355	41	27	13	237	48	17	27	36	35	307	201	223	211	1.8	35.8

FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - April 2012

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	5	3	3	5	6	6	6	7	11	13	13	9	5	5	11	12	10	7	7	7	4	2	2	3	4.3	13.1
Dir	184	78	73	100	94	88	82	93	93	102	110	124	137	326	338	331	39	29	46	64	84	75	54	130	74.8	101.9
24 Spd	1	4	6	7	7	3	8	4	5	5	4	5	8	9	9	11	8	11	11	18	14	11	10	9	3.4	18.2
Dir	269	314	254	318	252	300	338	236	250	314	249	343	8	25	35	352	104	110	90	70	71	80	79	77	41.1	69.9
25 Spd	12	16	19	18	19	19	19	16	15	14	15	16	16	18	19	18	17	21	19	16	11	13	14	16	16.3	20.6
Dir	75	68	73	72	69	74	72	72	79	78	78	70	64	60	61	60	62	59	60	67	81	98	96	95	71.5	58.8
26 Spd	12	13	14	15	14	15	18	20	20	21	19	20	20	22	19	19	22	21	20	15	14	11	9	7	16.3	22.2
Dir	89	83	86	88	87	91	88	95	99	102	102	102	111	109	111	105	122	122	107	97	93	86	82	78	99.8	121.7
27 Spd	6	7	9	20	18	11	15	30	39	39	44	46	49	48	50	45	43	32	28	23	14	8	14	2	26.0	50.2
Dir	100	248	251	264	259	259	255	250	253	264	252	260	270	265	271	271	268	276	270	256	260	255	249	227	262.3	271.0
28 Spd	8	16	10	2	3	4	3	4	9	17	27	23	30	29	38	36	35	29	35	20	12	16	18	12	17.6	38.0
Dir	269	260	258	218	200	197	209	246	268	279	272	240	262	249	268	266	263	268	251	258	274	275	257	297	261.6	267.6
29 Spd	8	9	16	16	17	11	9	22	31	33	27	27	27	23	31	30	29	23	20	17	10	13	15	11	19.3	32.8
Dir	304	260	265	251	251	260	262	255	265	278	279	285	289	295	281	274	273	296	286	257	252	256	266	267	273.3	277.8
30 Spd	2	2	2	2	4	2	3	3	7	16	17	19	17	19	18	21	21	17	14	12	14	16	13	7	9.4	21.1
Dir	4	222	202	77	205	347	5	70	68	92	89	82	90	96	94	91	92	96	117	133	149	134	165	147	104.4	92.5
Spd	2.1	3.0	3.5	3.9	3.9	3.6	3.3	3.8	4.9	5.9	6.8	6.1	6.4	5.4	5.5	5.3	4.0	5.0	3.5	1.9	1.0	0.5	2.3	2.1	Diurnal Average	
Dir	289.5	276.8	271.2	282.4	274.9	271.5	287.8	272.1	277.2	280.5	278.5	296.6	297.2	305.8	315.4	322.6	339.3	345.2	0.7	15.5	34.8	255.4	253.9	271.8		
Spd	34.6	40.0	39.2	32.7	33.9	30.3	31.3	37.4	39.6	40.9	48.6	57.3	55.8	54.0	55.8	54.9	58.1	57.0	51.0	41.1	41.3	38.3	49.1	45.8	Diurnal Maximum	
Dir	261.5	265.2	261.4	251.9	250.7	247.0	334.3	253.4	254.5	254.7	262.7	262.7	258.0	265.8	266.4	265.3	263.7	262.3	263.4	263.9	258.4	258.3	264.0	269.1		

Maximum Speed Value: 58 km/h on Apr 20 17:00
Maximum Daily Speed Average: 32.5 km/h on Apr 20
Maximum Diurnal Speed Average: 6.8 km/h at hour 11

Minimum Speed Value: 0 km/h on Apr 9 00:00
Minimum Daily Speed Average: 2.0 km/h on Apr 15
Minimum Diurnal Speed Average: 0.5 km/h at hour 22

Monthly Average Velocity: 3.43 km/h 296.92 deg

Speed Percentiles: $P_1 = 0.8$ $P_{10} = 3.0$ $Q_1 = 6.1$ Median = 11.3 $Q_3 = 17.9$ $P_{90} = 27.2$ $P_{99} = 53.3$

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

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

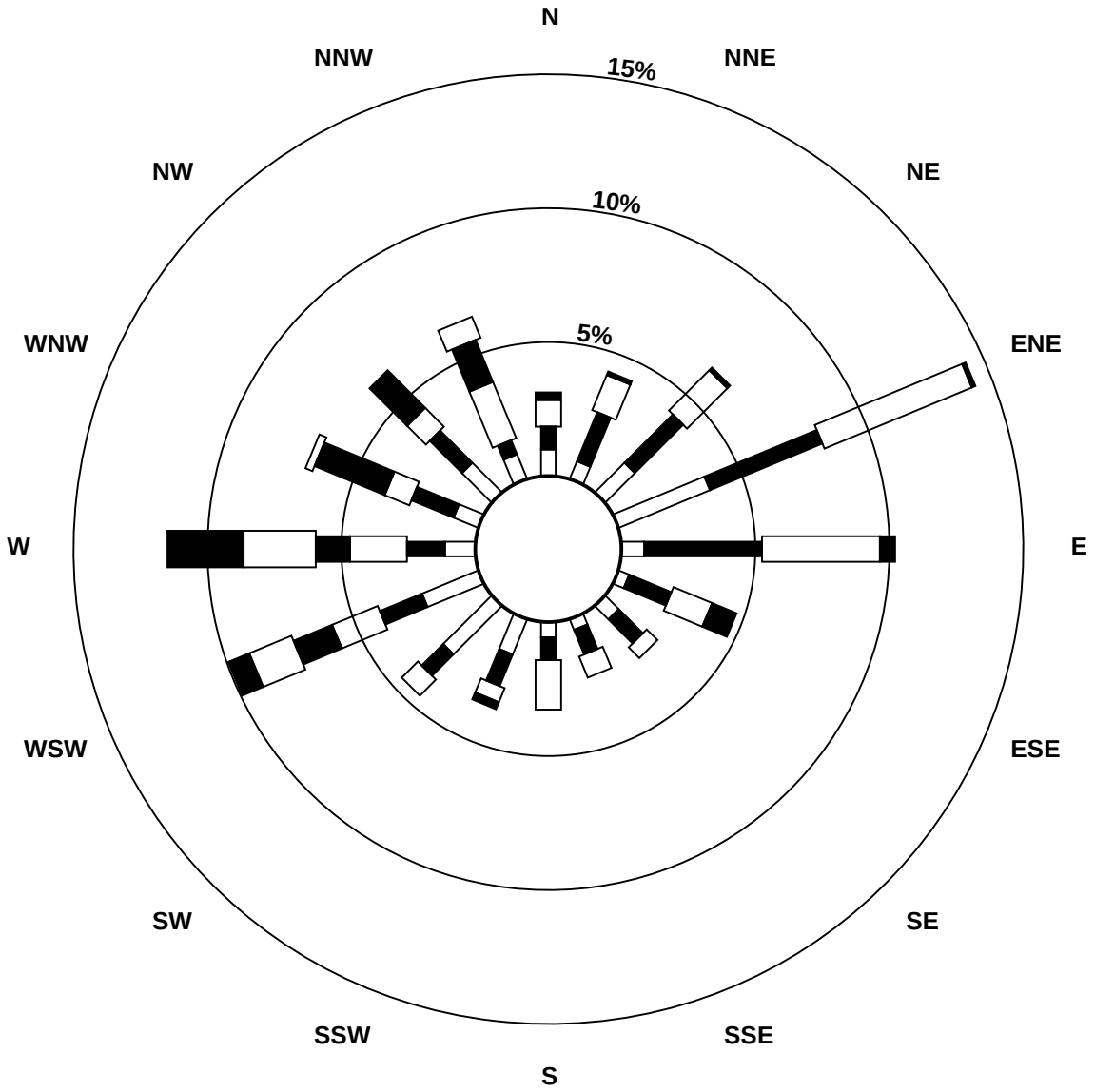
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	12	14	21	9	2	0	58
NorthEast	26	43	38	5	0	0	112
East	20	53	59	14	0	0	146
SouthEast	6	17	9	2	0	0	34
South	11	13	22	2	0	0	48
SouthWest	37	15	10	4	1	0	67
West	16	23	32	23	29	29	152
NorthWest	22	25	15	35	6	0	103
Total	150	203	206	94	38	29	720

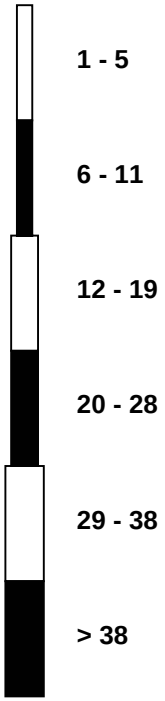
Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - April 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - April 2012

Maximum Speed: 59 km/h on Apr 20 17:00

Maximum Daily Speed Average: 33.9 km/h on Apr 20

Minimum Speed: 2 km/h on Apr 15 06:00

Minimum Daily Speed Average: 6.1 km/h on Apr 15

Maximum Diurnal Speed Average: 21.4 km/h at hour 16

Minimum Diurnal Speed Average: 9.7 km/h at hour 1

Monthly Average Speed: 14.63 km/h

Percentiles: P_1 = 2.1 P_{10} = 3.9 Q_1 = 7.2 Median = 12.5 Q_3 = 18.9 P_{90} = 28.5 P_{99} = 54.3

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	3	4	5	4	8	6	4	5	8	15	16	14	15	15	18	23	19	13	11	10	6	9	10	9	10.4	23.4
2-Apr	9	14	10	3	5	4	2	4	8	14	18	19	21	18	18	18	15	10	9	10	13	14	14	16	11.8	20.7
3-Apr	15	10	10	11	12	11	11	12	13	13	18	21	27	25	20	14	12	7	13	18	9	19	49	46	17.4	49.4
4-Apr	35	41	39	32	24	17	20	18	16	22	33	30	28	30	25	23	19	22	17	8	4	11	7	7	22.0	40.5
5-Apr	8	10	9	9	7	8	10	11	16	21	26	29	31	30	24	21	22	20	19	9	7	5	3	6	14.9	30.8
6-Apr	15	11	15	20	18	23	22	18	19	22	23	26	26	27	24	22	19	18	8	4	4	6	10	3	16.8	26.8
7-Apr	4	2	3	4	7	9	9	13	15	20	17	21	20	24	24	31	26	20	17	14	9	7	7	8	13.9	31.2
8-Apr	5	6	4	3	2	2	2	4	3	7	10	10	12	15	15	15	16	15	17	11	9	8	3	2	8.2	17.0
9-Apr	4	3	4	3	3	3	3	7	8	10	14	18	16	17	18	19	20	17	17	14	17	13	9	9	11.0	19.8
10-Apr	11	9	9	6	6	6	7	7	10	10	9	10	14	15	13	17	17	16	13	11	10	10	8	9	10.5	17.1
11-Apr	11	8	4	5	6	5	3	6	7	9	10	9	12	14	15	13	16	20	12	14	14	11	11	9	10.1	19.9
12-Apr	7	6	6	6	4	3	4	3	7	11	11	12	15	15	14	16	14	13	14	11	15	18	12	10	10.5	18.2
13-Apr	15	13	14	17	16	14	10	10	13	17	16	18	23	24	23	22	21	22	22	21	21	20	23	28	18.5	28.2
14-Apr	22	22	23	29	28	25	32	30	31	28	27	24	24	14	18	18	16	15	11	11	7	3	4	6	19.4	31.7
15-Apr	6	5	6	3	3	2	3	3	6	11	9	9	9	11	8	8	6	5	8	6	6	5	5	3	6.1	11.4
16-Apr	4	2	2	4	2	4	6	5	10	7	11	14	10	13	12	16	15	16	13	11	6	9	5	2	8.3	16.4
17-Apr	4	2	4	6	4	4	5	7	10	12	15	14	13	11	13	11	17	17	15	13	11	8	7	6	9.6	17.5
18-Apr	5	5	4	4	4	4	4	8	9	8	14	17	19	19	16	16	18	18	18	13	11	15	4	3	10.7	19.4
19-Apr	5	4	2	3	4	5	9	8	10	10	7	8	12	14	12	14	14	11	14	8	9	11	9	4	8.7	14.5
20-Apr	5	3	4	4	14	26	16	9	21	32	49	58	57	55	57	56	59	58	52	41	42	38	30	29	33.9	58.9
21-Apr	35	31	27	33	34	30	27	38	40	42	39	37	35	33	33	33	29	26	22	17	11	8	5	3	27.7	41.6
22-Apr	2	3	2	3	3	4	2	5	5	5	8	7	11	13	10	12	10	11	13	11	6	8	10	5	7.1	13.5
23-Apr	6	4	3	5	7	7	7	8	11	14	14	10	7	9	12	14	10	7	8	7	4	4	3	6	7.8	14.2
24-Apr	4	5	7	8	8	5	8	6	6	7	7	8	10	11	12	12	9	13	12	19	15	12	11	9	9.2	18.9
25-Apr	12	17	20	19	20	19	20	17	16	15	15	17	17	18	20	19	17	21	19	17	11	14	15	16	17.0	20.9
26-Apr	12	14	15	15	14	16	18	20	21	22	19	21	21	22	20	20	23	22	21	16	14	11	9	7	17.2	23.0
27-Apr	6	8	9	21	18	12	15	31	39	39	44	47	50	49	51	47	43	34	28	24	14	8	14	3	27.4	51.0
28-Apr	9	16	10	4	4	6	4	6	10	18	28	25	31	31	39	38	36	30	35	20	12	17	18	12	19.1	38.6
29-Apr	9	10	17	16	17	14	10	22	32	33	28	29	29	25	33	32	30	26	21	18	10	13	15	11	20.9	33.5
30-Apr	4	4	3	5	7	3	4	4	7	17	19	21	19	21	20	22	22	18	16	13	15	17	14	8	12.7	22.2
	9.7	9.7	9.7	10.2	10.3	9.8	9.9	11.5	14.3	17.2	19.2	20.1	21.1	21.3	21.2	21.4	20.3	18.7	17.2	14.0	11.4	11.8	11.4	9.8	Diurnal Average	
	35.0	40.5	39.5	32.8	34.0	30.4	31.7	37.7	39.9	41.6	49.3	58.1	56.7	54.9	56.7	55.7	58.9	57.6	51.5	41.4	41.6	38.4	49.4	46.1	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - April 2012

Maximum Value: 97.0 deg on Apr 22 15:00

Minimum Value: 4.2 deg on Apr 29 05:00

Percentiles: P_1 = 5.5 P_{10} = 9.1 Q_1 = 12.8 Median = 20.2 Q_3 = 33.9 P_{90} = 61.6 P_{99} = 88.9

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	71	56	65	44	56	51	33	29	52	12	11	32	34	20	23	21	18	28	20	7	7	7	6	8	70.7
2-Apr	7	6	8	36	30	42	59	49	21	20	18	22	26	29	32	27	17	20	32	15	16	10	18	10	59.1
3-Apr	12	12	12	12	9	9	9	10	11	14	13	22	23	19	26	46	21	73	61	8	17	14	7	7	72.6
4-Apr	8	9	7	7	15	17	9	7	26	14	14	24	23	19	23	29	24	16	12	16	19	9	12	20	29.2
5-Apr	21	19	16	14	17	12	16	15	16	15	15	17	19	20	20	14	17	19	50	33	30	33	71	41	71.4
6-Apr	15	49	15	9	9	8	12	13	16	21	26	25	28	21	26	25	23	31	49	67	81	82	10	55	82.0
7-Apr	56	46	69	26	18	14	20	12	13	21	33	26	36	26	21	14	14	15	22	12	28	26	89	15	88.9
8-Apr	21	59	43	62	69	51	48	43	80	20	44	62	62	41	47	34	31	22	15	12	12	18	65	85	84.8
9-Apr	84	37	25	60	86	70	46	17	34	37	25	20	35	37	33	28	22	28	15	15	13	14	10	6	86.3
10-Apr	12	13	13	24	7	9	8	15	29	38	64	72	41	34	39	32	28	23	17	9	10	9	12	7	72.3
11-Apr	10	15	29	76	58	80	79	40	55	52	56	58	39	29	25	25	15	14	10	8	15	8	10	19	79.5
12-Apr	18	71	13	21	50	71	39	42	36	25	31	39	30	24	25	22	32	22	17	20	14	36	28	21	71.1
13-Apr	15	21	16	8	9	11	10	13	13	11	15	15	13	14	13	14	13	15	15	12	13	11	12	13	20.8
14-Apr	14	15	12	13	10	10	10	9	9	10	9	11	24	23	15	16	20	20	15	15	32	33	52	9	52.1
15-Apr	12	13	16	29	37	84	40	38	39	32	40	45	43	32	76	73	85	93	25	25	7	12	11	19	93.0
16-Apr	23	84	53	87	78	32	41	55	20	57	30	28	29	25	37	29	28	22	19	17	11	15	42	59	87.3
17-Apr	11	70	23	20	23	10	13	25	26	25	30	30	45	46	43	60	30	22	16	11	10	8	11	24	69.9
18-Apr	25	16	19	12	18	9	14	22	32	62	32	22	28	33	30	29	17	14	11	13	50	28	50	90	90.0
19-Apr	49	35	81	24	21	11	8	21	17	36	70	76	57	52	54	65	23	50	18	12	7	8	17	65	80.9
20-Apr	21	55	56	80	37	7	7	18	10	9	10	10	10	10	10	10	9	8	8	7	7	5	6	6	79.6
21-Apr	6	6	5	4	5	5	9	7	7	11	11	11	14	19	17	28	23	18	18	13	16	17	84	75	84.3
22-Apr	71	89	92	67	73	69	55	36	26	61	39	74	51	57	97	50	68	34	13	27	80	33	7	24	97.0
23-Apr	39	36	29	13	12	16	18	18	19	21	28	27	58	85	23	30	18	26	26	22	43	69	32	75	85.0
24-Apr	81	53	34	27	32	49	16	79	39	44	71	70	39	36	46	28	41	29	25	16	12	12	10	12	80.8
25-Apr	11	14	14	16	13	12	12	14	13	15	17	14	14	12	14	18	13	11	11	17	17	17	16	17	18.4
26-Apr	18	15	15	15	13	14	14	15	15	16	23	19	16	15	16	19	17	16	18	16	14	15	16	17	23.5
27-Apr	17	67	12	11	8	11	8	6	7	8	9	14	12	11	10	16	11	19	13	13	21	33	8	39	67.2
28-Apr	24	6	12	77	80	72	77	80	32	23	14	26	15	19	10	16	14	13	10	12	17	18	9	17	80.4
29-Apr	21	27	11	6	4	55	30	8	12	11	20	26	23	23	23	18	15	27	22	12	14	5	9	13	54.6
30-Apr	66	91	80	69	89	57	38	45	33	24	29	32	37	27	27	22	24	19	28	23	23	22	15	34	91.4
	83.7	91.4	92.3	87.3	88.9	83.9	79.1	80.4	80.5	61.6	71.3	75.9	61.6	85.0	97.0	73.2	84.7	93.0	61.5	66.6	81.1	82.0	88.9	90.0	

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.6 ppb on Apr 16 10:00 Maximum Daily Average: 1.0 ppb on Apr 21

Minimum Value: 0 ppb on Apr 20 22:00 Minimum Daily Average: 0.0 ppb on Apr 26
Maximum Diurnal Average: 0.7 ppb at hour 10 Minimum Diurnal Average: 0.2 ppb at hour 23
Monthly Average: 0.37 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.4 P_{90} = 0.9 P_{99} = 2.9

Hours in Service:	720
Hours of Data:	676
Hours of Missing Data:	44
Hours of Calibration:	32
Percent Operational Time:	98.3

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	0	1	1	1	0	1	1	2	1	3	2	2	1	1	1	A	0	1	0	1	0	1	1	1.0	2.5
2-Apr	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6
3-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0.2	0.9
4-Apr	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	1	3	0	0	0	0.4	2.9
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0.2	0.8
6-Apr	0	0	0	2	2	2	1	0	0	0	0	A	0	0	0	0	0	0	0	2	0	0	0	0	0.5	2.1
7-Apr	0	0	0	0	0	0	0	1	1	1	A	1	1	0	0	0	0	1	0	0	0	0	0	0	0.4	1.3
8-Apr	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
9-Apr	0	0	0	0	0	0	0	0	A	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9
10-Apr	0	1	1	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.9	1.4
11-Apr	0	0	0	0	0	0	A	3	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0.7	3.2
12-Apr	0	1	0	0	2	A	0	0	0	0	0	0	0	1	1	1	1	1	2	1	0	1	1	0	0.7	2.2
13-Apr	0	1	1	1	A	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
14-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0.2	1.1
15-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
16-Apr	0	A	0	0	0	0	0	0	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.6
17-Apr	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.6
18-Apr	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	0	1	1	1	0	0	0	A	0	0.4	0.7
19-Apr	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	1.5
20-Apr	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	1.2
21-Apr	3	3	2	2	2	0	3	2	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	1.0	3.4
22-Apr	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0.5	1.4
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3
24-Apr	0	0	0	1	1	0	0	1	2	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0.5	1.9
25-Apr	0	0	0	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
26-Apr	0	0	0	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
27-Apr	0	0	0	0	0	1	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	1.0
28-Apr	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	3	0.4	3.0
29-Apr	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
30-Apr	0	N	N	N	N	N	N	N	N	N	M	M	M	0	0	0	0	0	0	0	0	0	0	0	--	0.2
	0.4	0.4	0.4	0.5	0.4	0.3	0.4	0.6	0.6	0.7	0.6	0.5	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	Diurnal Average	
	3.4	3.3	1.8	2.1	2.1	1.8	3.1	3.2	2.7	4.6	2.5	1.7	2.1	1.3	1.2	1.0	1.1	1.5	2.2	1.5	2.9	1.1	1.4	3.0	Diurnal Maximum	

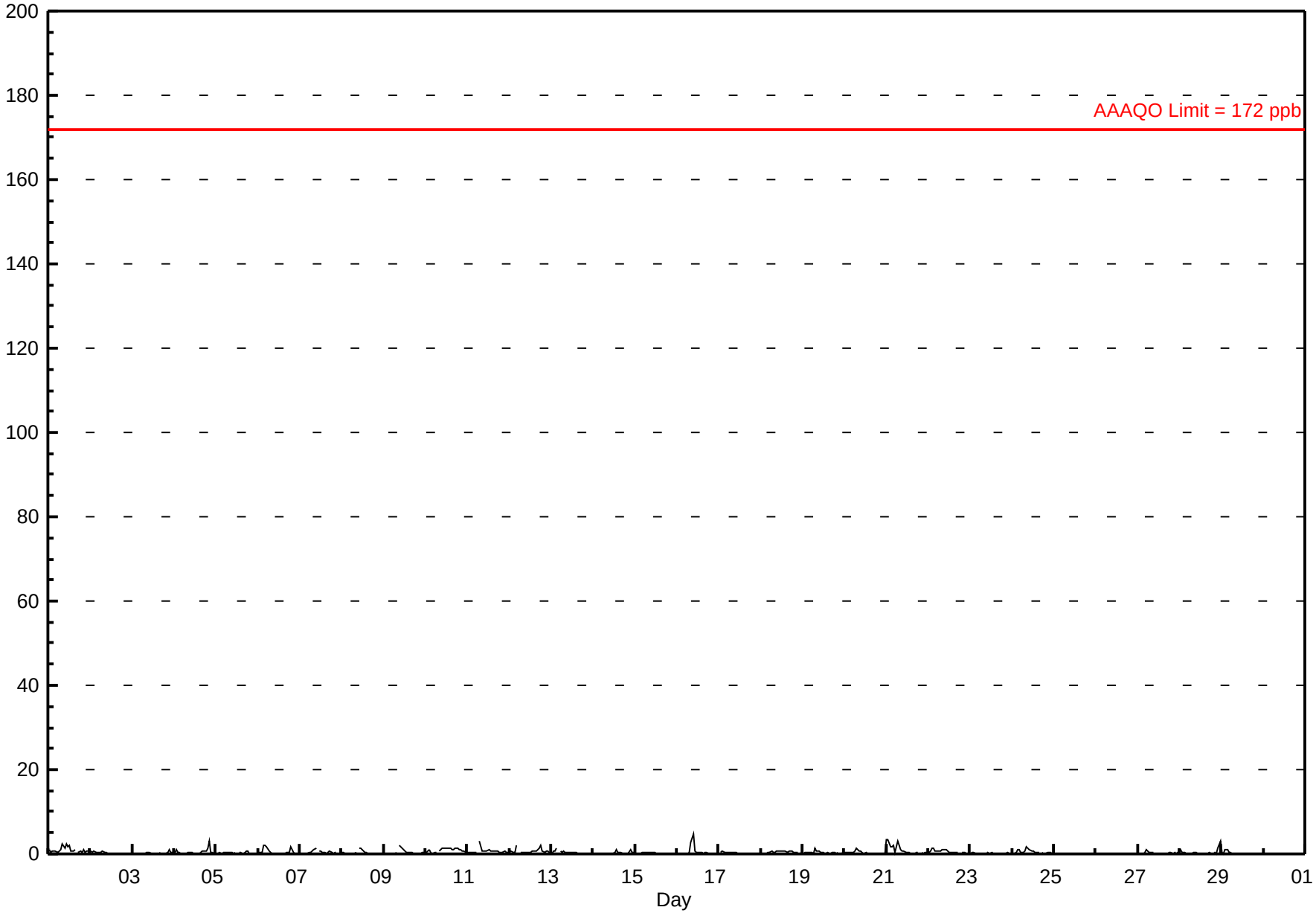
C - Calibration M - Maintenance N - Not Valid A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2012

Maximum Value: 13.3 ppb on Apr 21 05:00

Maximum Daily Average: 2.9 ppb on Apr 21

Minimum Value: 0 ppb on Apr 30 17:00

Minimum Daily Average: 0.3 ppb on Apr 26

Maximum Diurnal Average: 1.7 ppb at hour 8

Minimum Diurnal Average: 0.7 ppb at hour 15

Monthly Average: 1.04 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.4$ $Q_1 = 0.4$ Median = 0.6 $Q_3 = 1.0$ $P_{90} = 1.8$ $P_{99} = 10.2$

Hours in Service:	720
Hours of Data:	676
Hours of Missing Data:	44
Hours of Calibration:	32
Percent Operational Time:	98.3

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2	1	2	1	1	1	2	3	7	6	12	4	4	1	1	3	A	1	2	1	1	1	1	1	2.6	12.1
2-Apr	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	1	0	1	0	0	0.6	1.0
3-Apr	0	0	0	0	0	0	0	1	1	1	1	0	0	0	A	1	0	0	0	0	1	3	1	1	0.6	3.2
4-Apr	1	5	1	1	0	0	0	0	1	1	1	1	1	A	1	1	2	1	2	4	10	2	1	0	1.6	9.5
5-Apr	1	1	1	0	1	0	1	1	1	1	0	1	A	1	1	0	1	2	2	0	0	0	1	0	0.7	2.1
6-Apr	0	1	1	7	3	3	1	1	1	0	1	A	1	0	0	1	1	1	1	4	1	0	0	0	1.4	7.4
7-Apr	0	1	0	0	0	1	1	1	1	2	A	2	1	1	1	0	1	2	2	1	2	0	0	1	0.9	1.9
8-Apr	1	1	1	1	0	0	1	1	1	A	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0.7	2.3
9-Apr	0	0	0	0	0	0	0	1	A	2	2	1	1	1	1	1	1	1	1	1	0	0	1	1	0.8	2.5
10-Apr	1	1	1	1	0	1	1	A	1	2	2	2	2	2	2	1	1	2	2	1	1	1	1	1	1.3	1.8
11-Apr	1	1	1	1	1	1	A	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	5.8
12-Apr	1	1	1	1	4	A	1	1	1	1	1	1	1	1	1	1	1	2	5	1	1	2	2	1	1.3	5.0
13-Apr	0	2	2	3	A	1	1	3	1	1	1	1	1	1	1	0	0	0	0	1	1	0	1	0	1.0	2.7
14-Apr	0	0	0	A	0	0	0	1	1	1	0	0	1	2	1	1	1	0	0	0	0	3	1	1	0.8	3.2
15-Apr	1	0	A	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	1	0	0	0	0.6	1.4
16-Apr	0	A	0	1	0	0	1	1	11	10	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1.5	11.4
17-Apr	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	0	0	0	0	0	A	0.6	1.0
18-Apr	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.2
19-Apr	1	1	1	1	1	1	0	10	1	1	1	1	1	1	1	0	0	1	0	1	1	A	1	1	1.1	10.2
20-Apr	1	1	1	1	1	2	1	3	2	2	1	1	2	0	1	0	0	1	1	1	A	0	1	1	1.0	2.9
21-Apr	11	8	4	4	13	2	5	6	2	2	2	1	1	1	0	1	1	1	1	A	1	0	1	1	2.9	13.3
22-Apr	1	2	2	5	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	0	1	0	0	1.1	4.6
23-Apr	0	1	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0.5	1.0
24-Apr	0	0	1	3	3	1	1	2	2	2	2	1	1	1	1	1	A	1	0	0	1	1	1	1	1.1	2.8
25-Apr	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.5
26-Apr	0	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
27-Apr	0	0	0	0	2	2	1	1	1	1	C	C	C	C	0	1	1	1	1	2	1	1	0	1	0.8	1.8
28-Apr	3	2	1	0	1	1	0	0	1	1	1	0	A	0	0	0	1	3	0	0	3	1	5	11	1.5	11.4
29-Apr	5	0	8	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	8.0
30-Apr	1	N	N	N	N	N	N	N	N	N	M	M	M	1	0	0	0	0	0	0	0	0	0	0	--	0.7
	1.2	1.2	1.2	1.4	1.4	0.9	0.9	1.7	1.5	1.5	1.4	0.9	1.0	0.7	0.7	0.7	0.7	0.9	0.9	0.8	1.0	0.8	0.7	0.9	Diurnal Average	
	11.3	8.5	8.0	7.4	13.3	2.9	5.2	10.2	11.4	10.3	12.1	3.9	4.5	2.4	1.6	3.2	1.8	2.5	5.0	4.5	9.5	3.2	4.9	11.4	Diurnal Maximum	

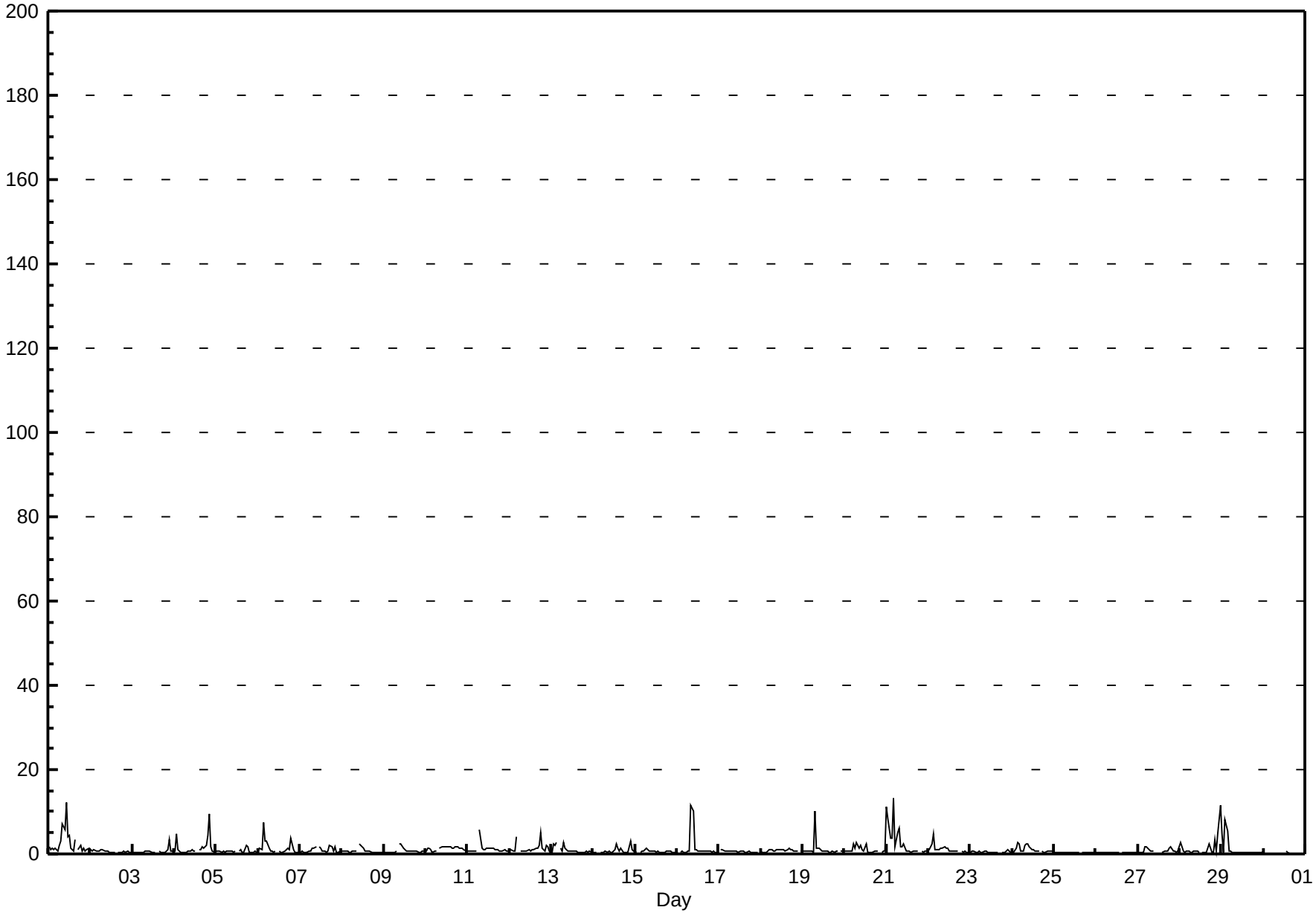
C - Calibration M - Maintenance N - Not Valid A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

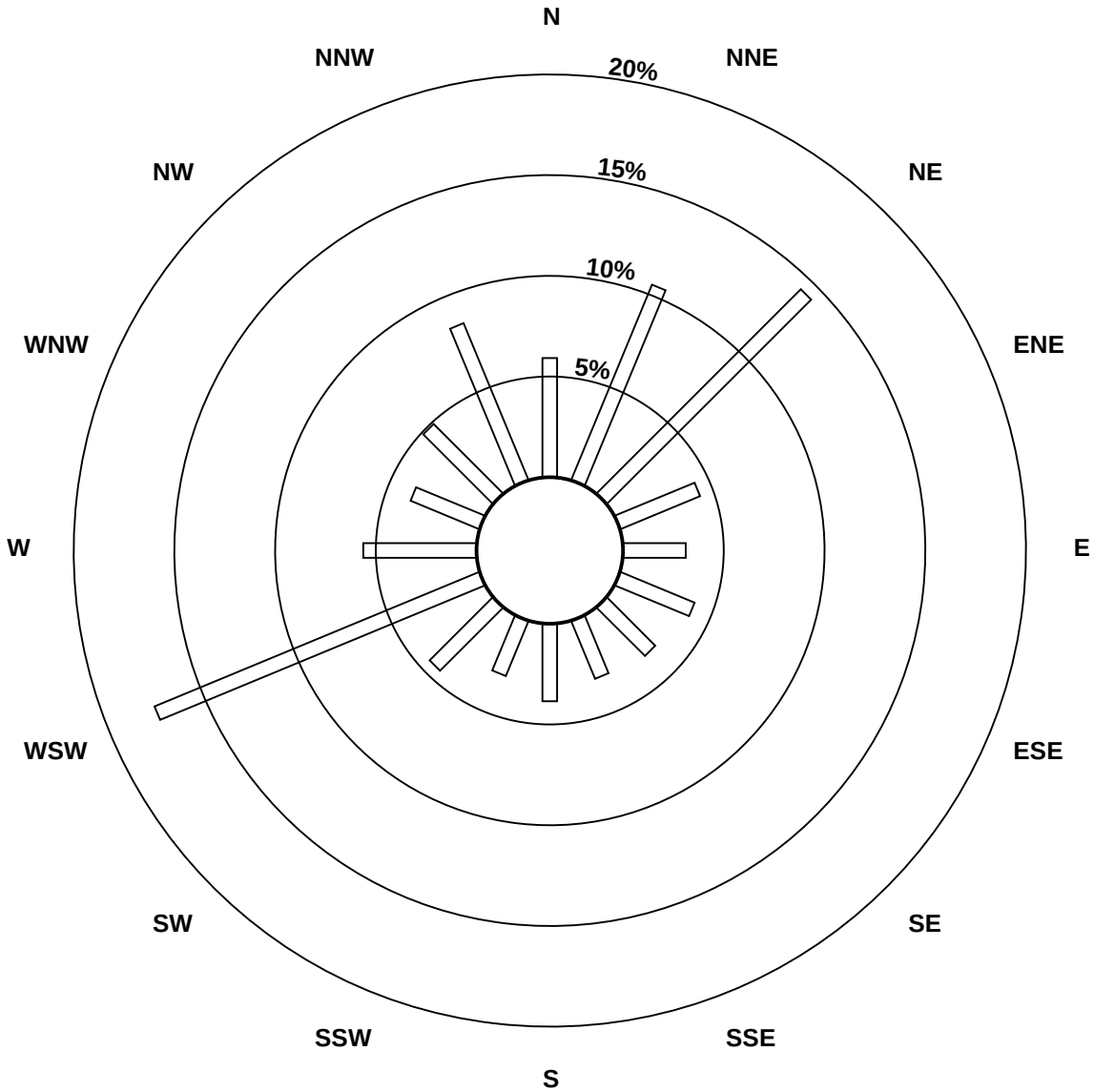
Smoky Heights - April 2012



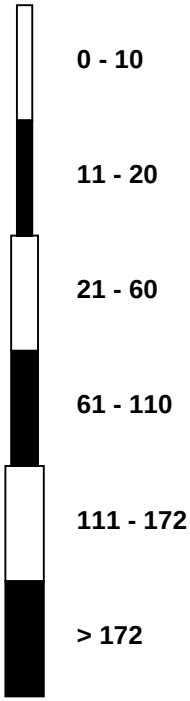
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2012



Pollutant Classes (ppb)

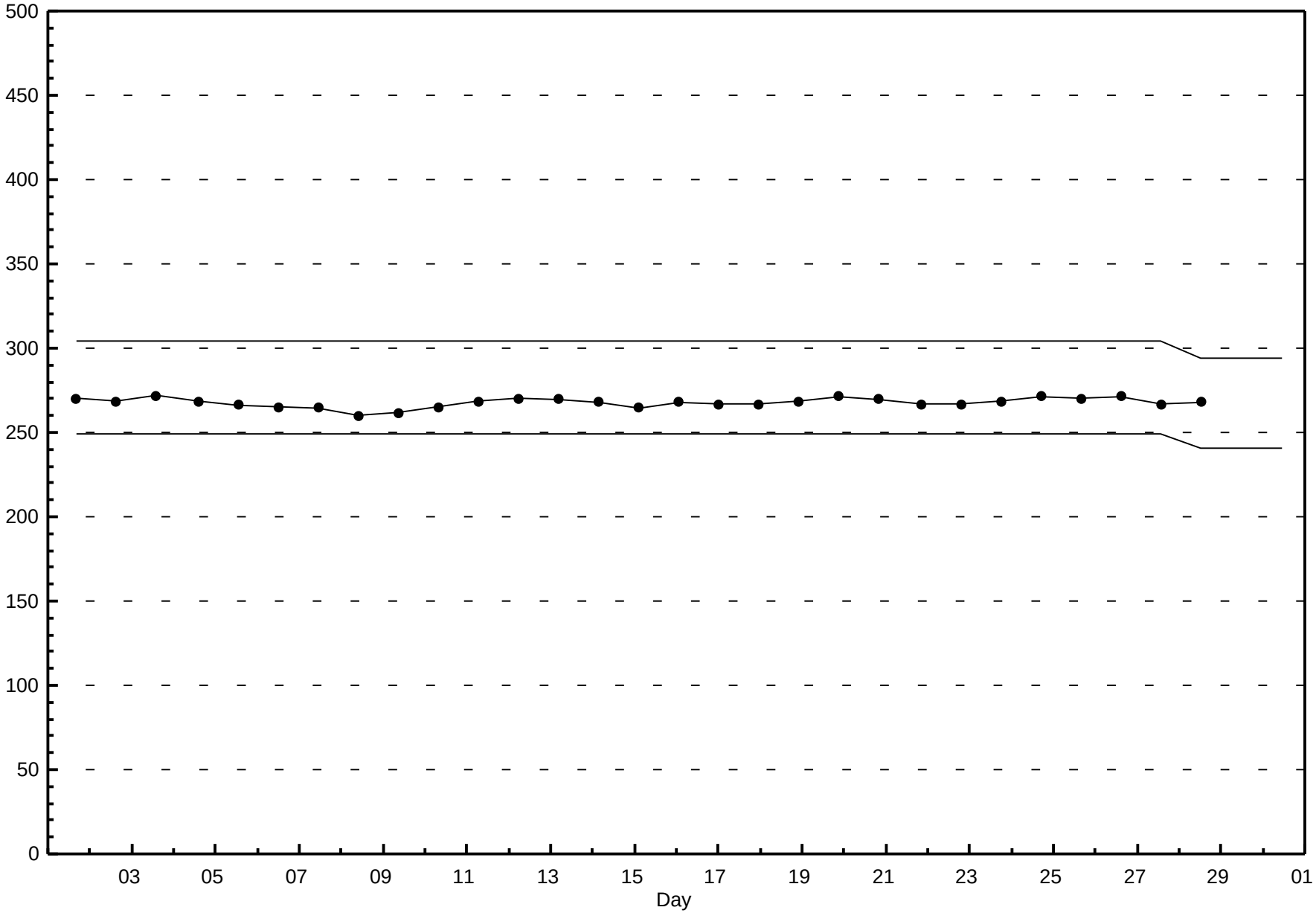


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Smoky Heights - April 2012



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2012

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

Maximum Value: 0.5 ppb on Apr 2 02:00 Maximum Daily Average: 0.3 ppb on Apr 26

Minimum Value: 0 ppb on Apr 5 12:00 Minimum Daily Average: 0.1 ppb on Apr 5

Maximum Diurnal Average: 0.2 ppb at hour 8 Minimum Diurnal Average: 0.2 ppb at hour 17

Monthly Average: 0.21 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.3$ $P_{99} = 0.4$

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

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

C - Calibration A - Automated Daily Zero Span

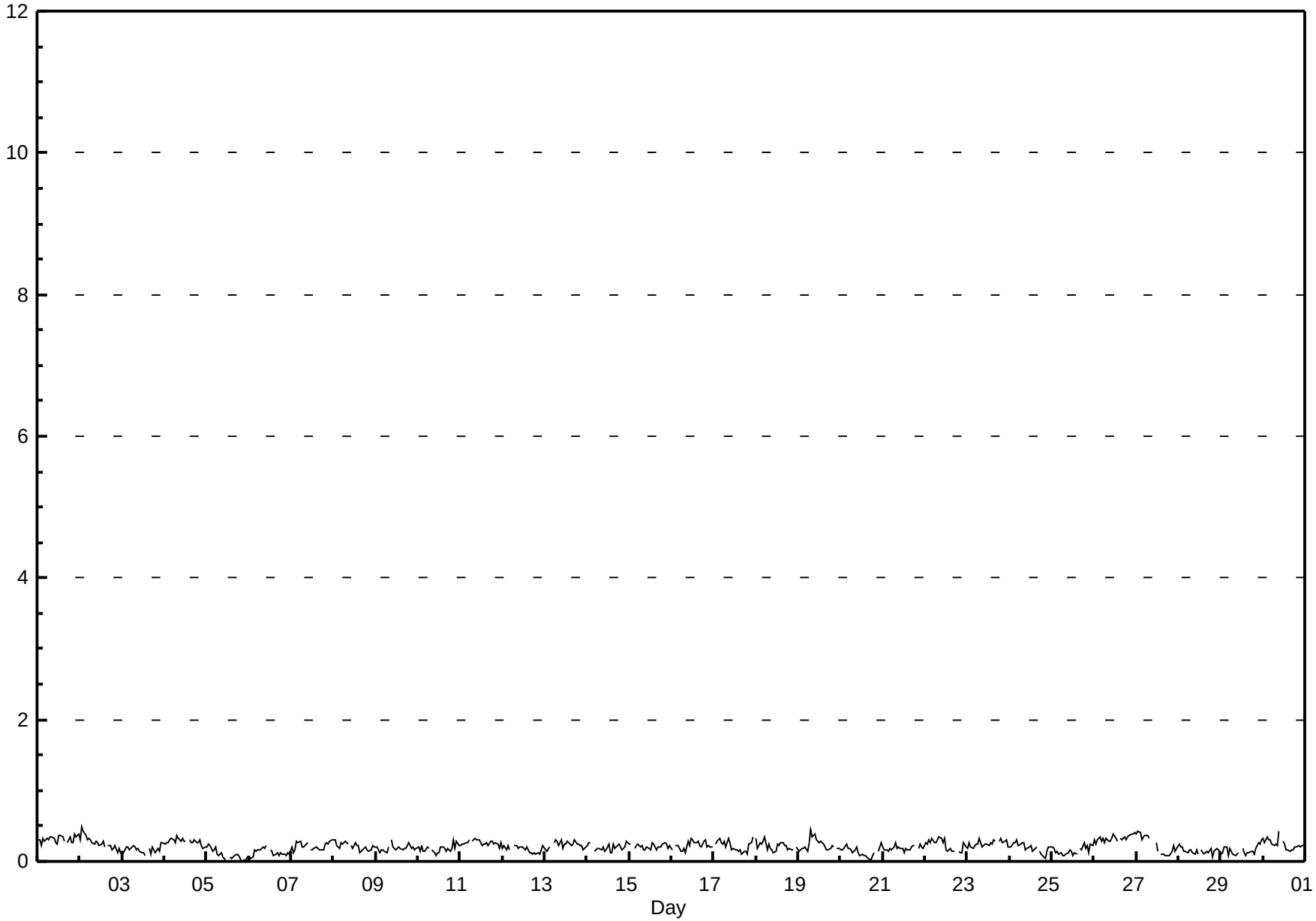
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2012



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2012

Maximum Value: 2.4 ppb on Apr 23 08:00

Maximum Daily Average: 0.8 ppb on Apr 23

Minimum Value: 0 ppb on Apr 5 15:00

Maximum Diurnal Average: 0.7 ppb at hour 8

Monthly Average: 0.64 ppb

Minimum Daily Average: 0.5 ppb on Apr 5

Minimum Diurnal Average: 0.6 ppb at hour 17

Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 1.2$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	0.9
2-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	0	0.7	0.9
3-Apr	1	0	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	2	1	1	1	1	1	1	0.6	1.7
4-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.9
5-Apr	1	1	1	1	0	1	1	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0.5	0.7
6-Apr	1	0	1	0	1	1	1	1	1	1	1	A	0	1	1	1	0	1	1	0	0	0	1	1	0.5	0.7
7-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	1	1	1	1	1	0.6	0.8
8-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0.6	0.8
9-Apr	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0.6	1.2
10-Apr	1	0	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	2	1	1	1	0.6	1.5
11-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	0.8
12-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0.6	0.8
13-Apr	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
14-Apr	1	1	1	A	0	0	1	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0.6	1.0
15-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
16-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
17-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	A	0.6	0.9
18-Apr	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	0.8
19-Apr	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.0
20-Apr	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	1	A	1	1	1	0.6	0.9
21-Apr	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	0.7
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	0.7	0.9
23-Apr	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0.8	2.4
24-Apr	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	A	1	1	0	0	1	1	1	0.6	0.8
25-Apr	1	0	0	0	1	1	1	0	1	1	1	1	1	1	0	A	1	1	1	1	2	1	1	1	0.7	1.7
26-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.2
27-Apr	1	1	1	1	1	1	1	1	C	C	C	1	1	A	1	0	0	0	1	0	1	1	1	1	0.6	0.9
28-Apr	1	1	1	1	1	0	0	1	1	1	1	0	A	1	1	1	0	1	1	0	1	1	1	0	0.6	0.8
29-Apr	1	1	1	1	0	1	1	1	0	1	1	A	1	0	0	0	0	1	1	0	1	1	1	1	0.6	0.7
30-Apr	1	1	1	1	1	1	1	1	1	1	A	2	1	0	0	1	1	1	1	1	1	1	1	1	0.7	2.1
	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.6	Diurnal Average	
	0.9	0.8	0.9	0.9	0.9	0.9	1.3	2.4	0.9	1.1	0.8	2.1	0.9	0.8	0.8	0.8	0.8	1.7	0.8	1.2	1.7	0.9	1.2	1.0	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

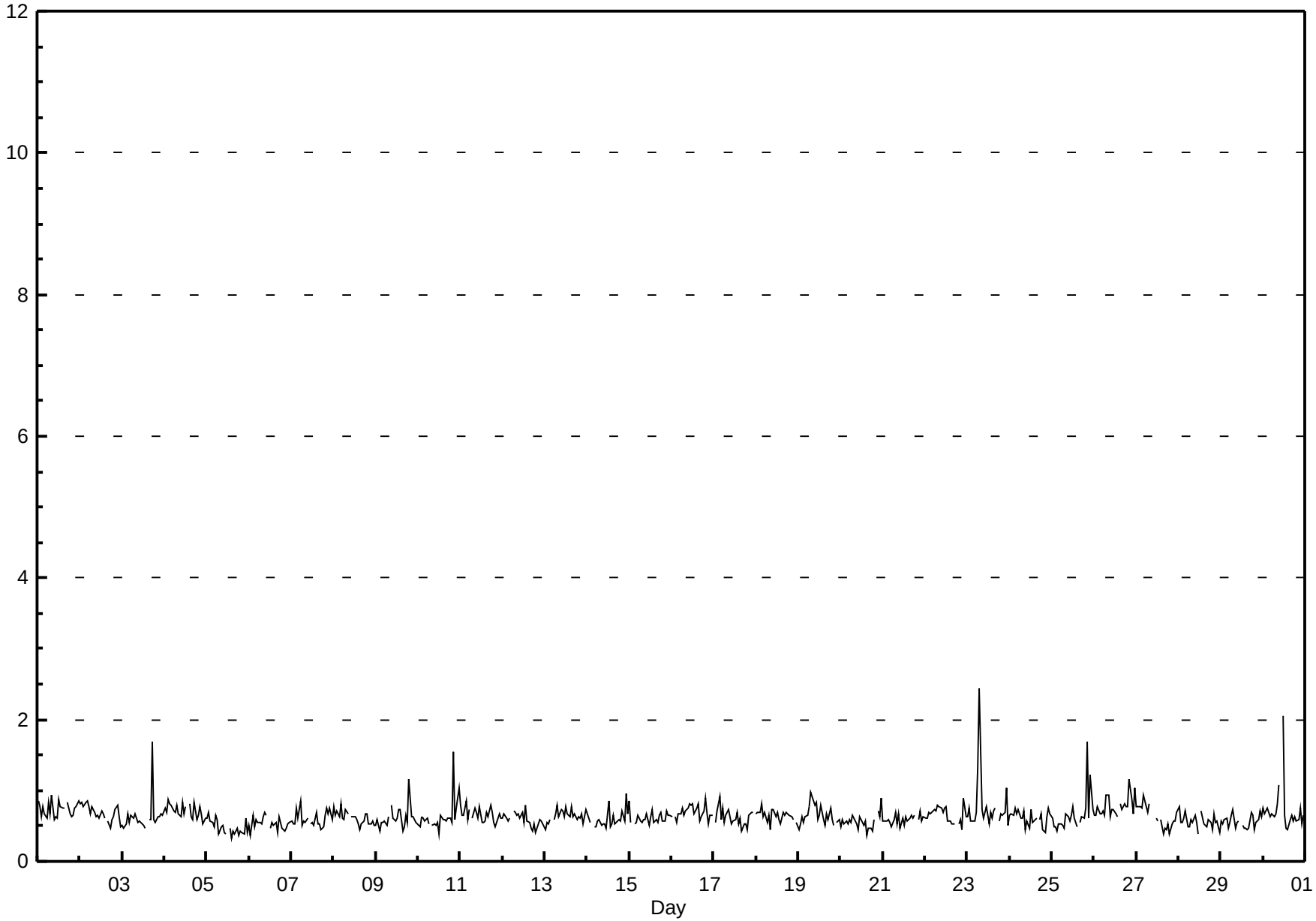
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

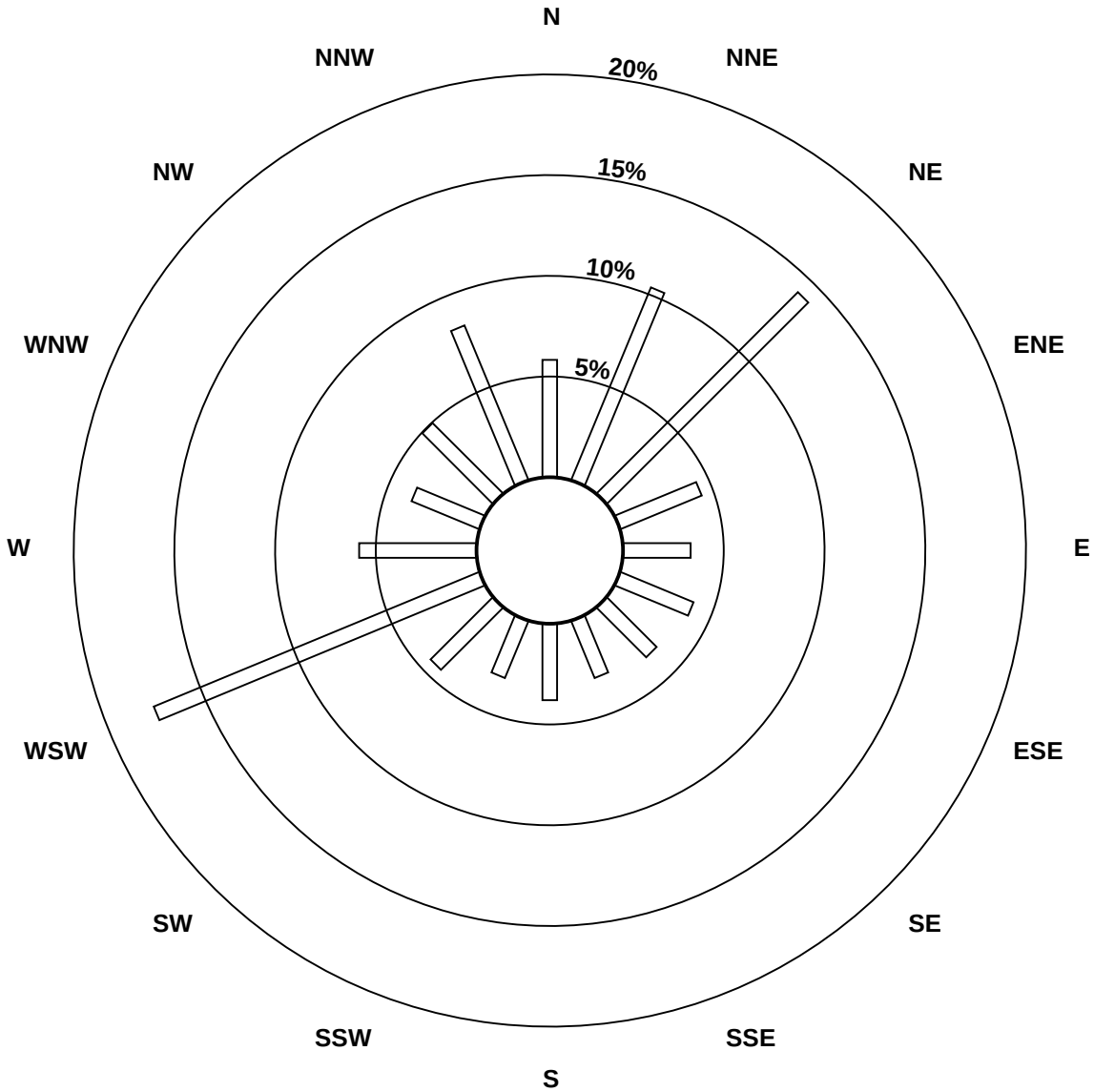
Smoky Heights - April 2012



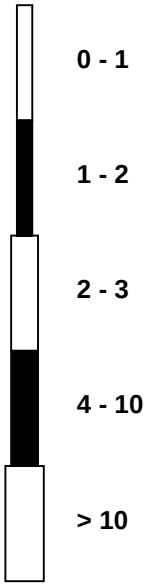
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2012



Pollutant Classes (ppb)

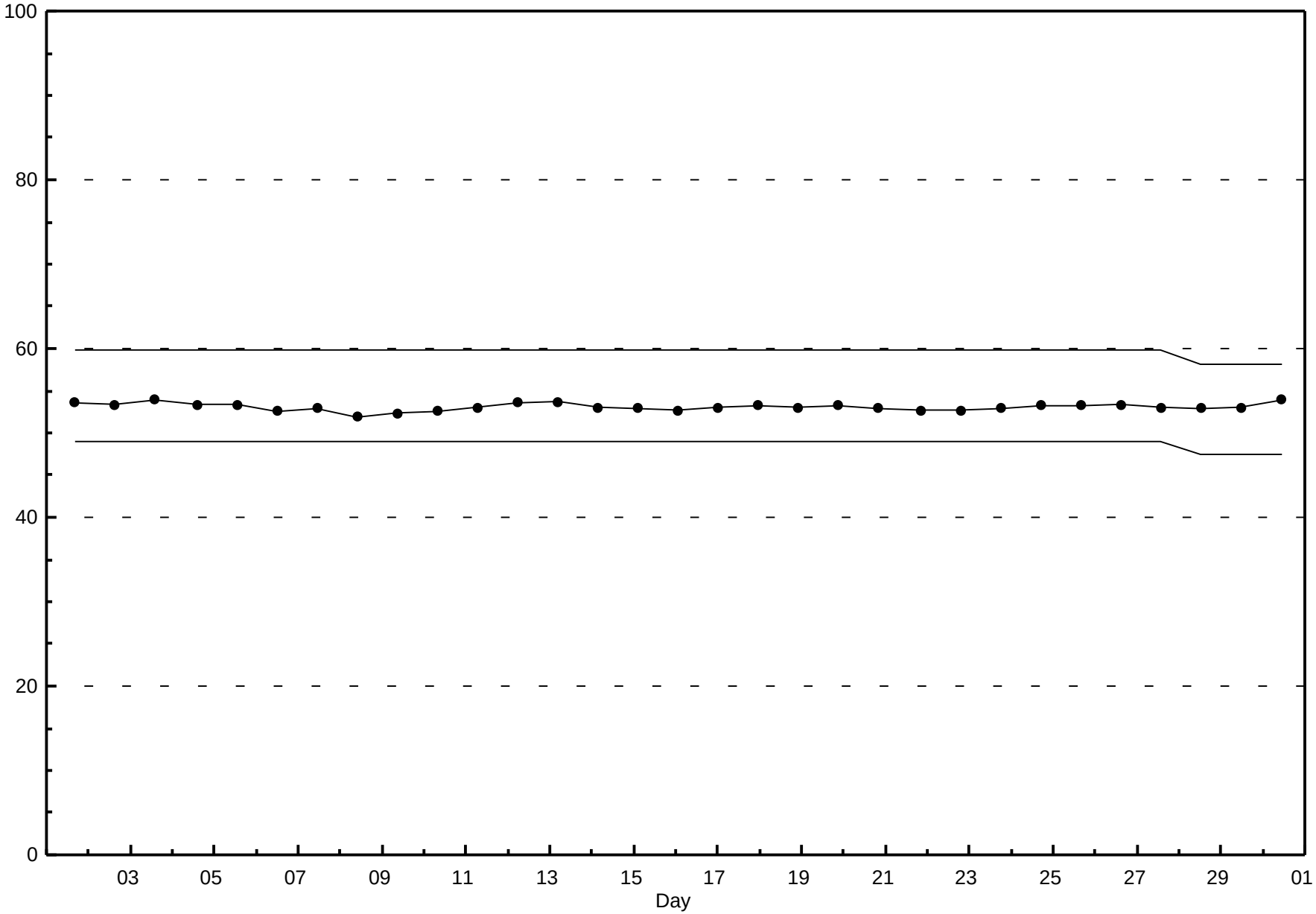


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Smoky Heights - April 2012



Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - April 2012

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

Maximum Value: 33.9 $\mu g/m^3$ on Apr 23 18:00

Maximum Daily Average: 7.1 $\mu g/m^3$ on Apr 12

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

Maximum Diurnal Average: 3.6 $\mu g/m^3$ at hour 18

Monthly Average: 2.48 $\mu g/m^3$

Minimum Daily Average: 0.9 $\mu g/m^3$ on Apr 29

Minimum Diurnal Average: 1.5 $\mu g/m^3$ at hour 13

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.9$ Median = 1.9 $Q_3 = 3.1$ $P_{90} = 5.0$ $P_{99} = 13.2$

Hours in Service:	720
Hours of Data:	719
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	2	3	2	3	3	3	2	3	3	3	2	3	3	2	3	3	2	2	3	2	2	2	3	2.4	3.3
2-Apr	3	4	4	6	4	5	4	4	2	2	1	0	0	0	0	0	0	1	1	0	1	0	1	1	1.9	5.5
3-Apr	2	1	1	1	1	1	2	2	3	2	1	2	1	0	0	0	1	2	9	6	6	4	5	6	2.5	8.8
4-Apr	2	3	1	0	1	1	2	3	2	1	1	0	1	0	1	0	7	3	2	3	3	2	1	1	1.8	6.9
5-Apr	1	1	1	1	1	1	1	1	1	0	0	1	1	3	1	1	1	1	1	1	1	1	1	0	1.1	3.4
6-Apr	0	0	0	1	0	1	2	2	2	1	1	1	1	0	1	1	1	1	1	1	1	2	1	1	1.0	2.1
7-Apr	1	1	3	2	2	1	2	3	3	2	0	1	1	1	1	1	2	2	3	2	5	3	15	5	2.6	15.1
8-Apr	3	1	2	1	1	1	4	3	2	2	2	1	2	1	1	0	0	1	0	0	1	6	2	7	1.9	7.2
9-Apr	6	0	0	0	0	0	2	3	2	1	0	0	0	0	1	0	1	1	0	1	1	0	1	2	1.0	6.4
10-Apr	2	2	2	0	2	1	2	5	3	1	2	2	2	2	2	2	2	3	2	3	3	3	3	3	2.3	5.0
11-Apr	3	2	3	3	4	3	5	7	13	7	4	4	4	4	4	5	6	5	8	11	10	7	10	8	5.8	12.6
12-Apr	3	4	3	5	6	5	5	7	5	6	6	6	6	9	14	14	12	6	5	4	5	16	9	12	7.1	15.9
13-Apr	6	3	4	4	3	3	2	1	2	1	2	2	1	0	0	0	0	0	0	1	1	0	0	0	1.5	6.1
14-Apr	0	1	0	0	1	1	1	2	2	2	3	3	2	3	3	3	2	8	16	11	2	1	0	0	2.8	15.7
15-Apr	1	0	1	0	0	2	1	4	4	1	2	2	2	0	2	1	2	2	2	2	3	3	2	2	1.6	3.8
16-Apr	2	2	2	2	4	2	5	4	5	5	7	4	4	4	4	4	3	2	2	2	2	2	3	3	3.3	6.9
17-Apr	3	3	2	3	3	3	3	3	4	4	2	1	2	2	1	2	2	2	2	1	2	2	1	2	2.2	3.9
18-Apr	10	0	5	2	2	3	3	4	4	4	5	5	4	4	4	4	5	5	4	4	4	4	3	3	3.9	9.8
19-Apr	3	5	4	4	3	4	3	5	7	8	3	1	0	0	0	0	0	2	1	1	2	1	1	1	2.5	7.7
20-Apr	2	2	2	2	2	4	5	2	2	2	0	0	0	2	2	2	1	1	1	1	2	2	1	2	1.8	5.4
21-Apr	1	1	1	2	1	1	2	1	1	0	0	0	2	1	1	2	1	2	2	7	3	4	3	6	1.9	7.3
22-Apr	4	3	2	3	2	2	4	2	3	1	1	1	1	2	3	2	2	3	2	3	9	5	3	2	2.7	8.6
23-Apr	3	6	5	8	10	6	5	3	3	3	2	3	1	10	11	2	23	34	13	5	0	0	0	2	6.5	33.9
24-Apr	3	1	2	1	0	1	0	2	5	7	5	0	0	0	1	3	5	7	0	0	2	5	2	3	2.3	6.6
25-Apr	4	4	3	2	1	0	0	0	0	0	0	0	0	2	1	2	2	0	0	0	0	1	0	0	1.0	3.8
26-Apr	1	1	0	0	1	0	0	1	1	2	3	3	1	1	2	2	3	5	4	5	5	4	3	3	2.1	5.0
27-Apr	3	3	4	5	6	4	3	2	2	0	0	0	M	6	5	3	2	3	2	3	2	3	2	2	2.8	6.0
28-Apr	2	2	2	2	2	2	2	2	1	1	1	0	0	0	0	1	2	1	1	1	2	1	1	0	1.1	2.4
29-Apr	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	2	2	2	3	2	3	2	2	0.9	2.6
30-Apr	2	1	1	2	1	1	3	2	1	1	1	0	1	2	2	2	2	2	2	3	4	4	3	4	1.9	4.0
	2.6	2.0	2.1	2.1	2.2	2.1	2.6	2.8	2.8	2.3	1.8	1.5	1.5	2.1	2.4	2.1	3.2	3.6	3.0	3.0	2.8	3.0	2.8	3.0	Diurnal Average	
	9.8	6.2	5.2	8.4	9.6	5.7	5.4	7.3	12.6	7.7	6.9	6.2	6.0	9.9	13.6	14.0	23.0	33.9	15.7	10.9	10.2	15.9	15.1	12.2	Diurnal Maximum	

M - Maintenance

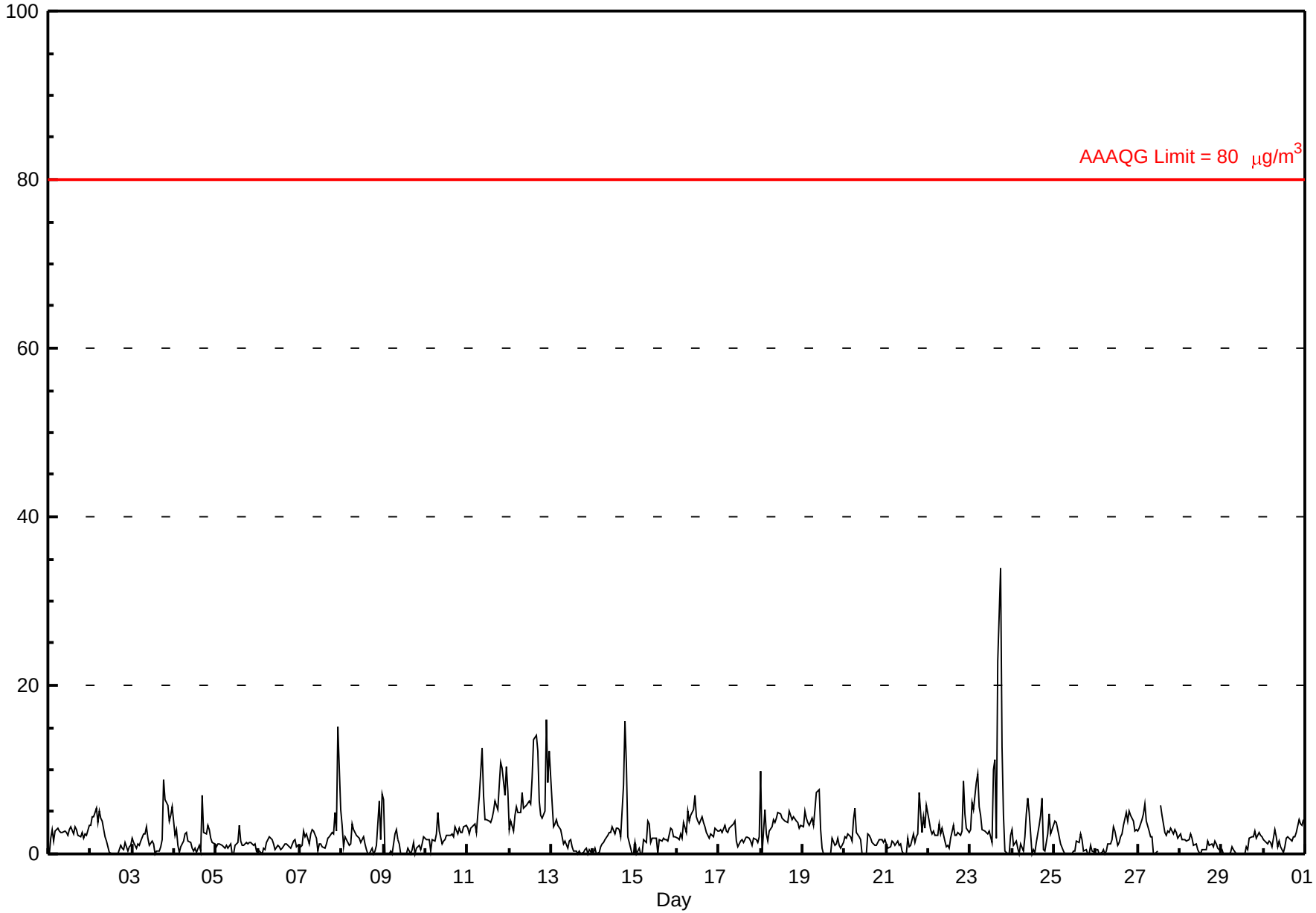
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - April 2012



Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - April 2012

Maximum Value: 56.9 $\mu g/m^3$ on Apr 23 18:00

Maximum Daily Average: 15.7 $\mu g/m^3$ on Apr 23

Minimum Value: 0 $\mu g/m^3$ on Apr 29 10:00

Maximum Diurnal Average: 8.0 $\mu g/m^3$ at hour 23

Monthly Average: 5.80 $\mu g/m^3$

Minimum Daily Average: 2.4 $\mu g/m^3$ on Apr 29

Minimum Diurnal Average: 3.7 $\mu g/m^3$ at hour 13

Percentiles: P_1 = 0.8 P_{10} = 2.2 Q_1 = 3.2 Median = 4.4 Q_3 = 6.1 P_{90} = 9.3 P_{99} = 32.6

Hours in Service:	720
Hours of Data:	719
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	9	5	6	6	8	10	5	5	4	5	4	4	4	6	5	5	5	5	4	4	4	5	6	6	5.4	9.5
2-Apr	8	7	7	9	8	8	8	5	4	4	4	3	1	2	1	2	2	2	4	5	4	3	3	3	4.5	9.4
3-Apr	4	3	2	3	3	5	5	6	6	4	4	4	3	3	2	3	3	5	23	11	18	14	7	9	6.3	23.2
4-Apr	6	5	6	2	3	3	5	4	4	3	3	2	2	2	4	3	18	10	6	5	4	5	3	3	4.7	17.8
5-Apr	3	3	5	4	2	4	3	4	5	3	1	2	3	5	3	2	4	7	7	4	4	4	4	3	3.8	7.1
6-Apr	4	2	4	3	4	5	5	6	5	3	3	4	4	2	4	3	2	3	3	2	3	4	5	4	3.6	6.3
7-Apr	5	5	7	5	6	4	5	4	4	3	3	3	3	3	3	3	4	4	5	4	16	7	56	15	7.5	56.2
8-Apr	11	3	6	5	4	5	7	5	5	5	4	4	4	4	3	2	2	3	2	2	2	27	10	14	5.8	26.9
9-Apr	15	2	4	3	6	4	7	7	4	3	1	2	1	1	5	2	3	3	1	3	2	2	3	4	3.7	14.7
10-Apr	5	4	3	3	5	5	6	8	5	2	3	3	5	4	4	4	4	5	5	4	4	4	5	5	4.4	7.6
11-Apr	5	4	4	5	6	7	9	8	19	14	7	7	7	5	6	9	18	16	16	30	26	27	22	17	12.3	29.8
12-Apr	10	8	5	11	7	6	8	10	8	8	8	8	8	15	15	17	21	9	6	7	6	52	28	34	13.2	51.8
13-Apr	21	6	5	5	5	5	4	3	4	4	3	3	3	2	2	1	2	3	1	2	2	2	2	3	3.8	20.9
14-Apr	3	2	3	2	4	6	5	6	5	6	5	5	6	5	5	5	5	23	31	23	8	2	3	3	7.2	31.1
15-Apr	6	4	4	5	4	5	7	8	7	4	3	4	4	2	4	4	5	4	4	3	6	5	7	5	4.8	8.3
16-Apr	6	5	5	3	7	6	11	7	7	7	10	8	6	5	8	6	7	4	4	4	4	4	6	6	6.0	11.0
17-Apr	6	6	6	6	7	5	6	6	6	6	4	4	4	5	4	4	5	5	4	3	4	4	4	9	5.1	9.3
18-Apr	28	2	16	9	4	7	6	6	5	6	7	8	6	7	8	6	8	6	6	6	5	5	6	5	7.4	27.9
19-Apr	7	7	7	5	6	6	9	9	11	11	5	3	2	3	2	2	2	6	2	4	5	2	3	4	5.2	10.6
20-Apr	4	4	4	3	3	6	7	4	3	5	3	5	3	6	5	5	4	2	3	3	4	3	3	3	3.9	7.1
21-Apr	2	3	3	3	4	4	5	2	3	2	2	7	7	4	3	9	5	5	6	15	6	12	10	12	5.5	14.9
22-Apr	7	6	6	5	6	6	6	6	6	4	4	5	4	6	6	5	4	6	4	6	23	9	8	6	6.4	22.7
23-Apr	9	10	7	14	17	10	6	5	5	5	5	6	5	22	32	20	41	57	36	38	10	0	8	11	15.7	56.9
24-Apr	14	3	3	2	1	3	2	4	8	11	11	6	5	3	4	12	14	18	13	4	4	9	6	6	6.9	18.1
25-Apr	6	5	5	5	2	2	1	1	1	1	1	2	2	3	5	5	4	2	2	3	2	3	2	2	2.7	5.6
26-Apr	2	3	2	2	2	1	1	3	3	3	5	5	3	3	4	4	6	7	5	6	6	6	4	5	3.7	6.6
27-Apr	4	5	6	7	9	7	4	3	6	3	2	4	M	10	7	6	4	5	4	4	4	5	4	3	5.1	9.6
28-Apr	4	6	5	4	4	4	3	3	3	3	2	1	1	3	2	2	4	2	2	3	3	2	3	2	2.9	5.5
29-Apr	2	1	2	2	2	2	3	2	1	0	1	0	0	2	3	2	4	5	4	4	3	4	4	3	2.4	5.1
30-Apr	3	2	4	4	3	4	5	3	3	8	6	2	2	3	4	3	3	4	3	4	5	5	5	6	4.0	8.1
	7.2	4.3	5.1	4.9	5.1	5.2	5.4	5.2	5.3	4.9	4.1	4.1	3.7	4.9	5.4	5.3	7.1	7.9	7.2	7.2	6.6	7.9	8.0	7.0	Diurnal Average	
	27.9	9.6	15.5	13.9	16.9	9.6	11.0	10.3	18.8	13.9	10.8	8.3	7.9	22.5	31.8	19.5	40.9	56.9	35.9	37.6	25.7	51.8	56.2	34.0	Diurnal Maximum	

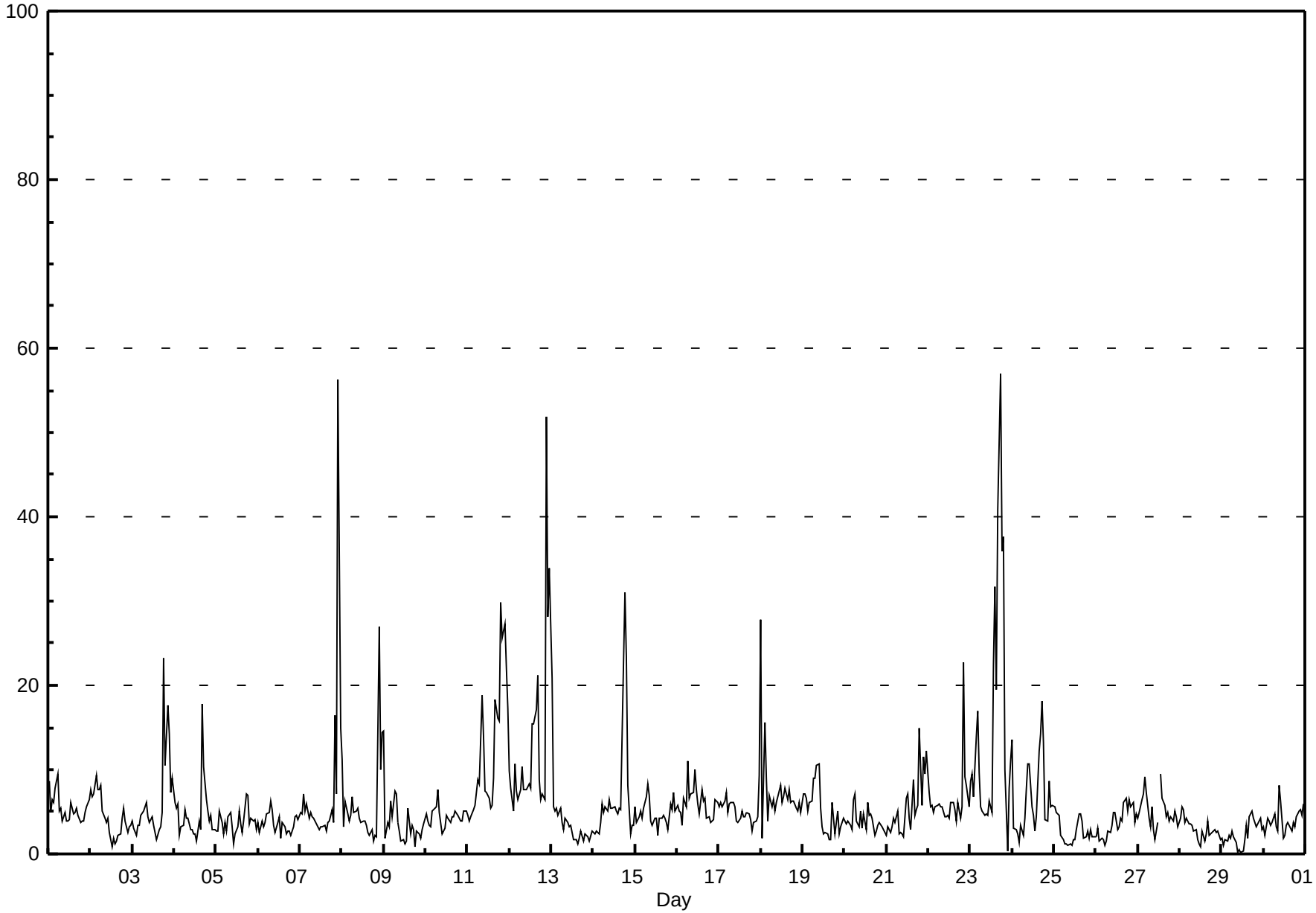
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - April 2012

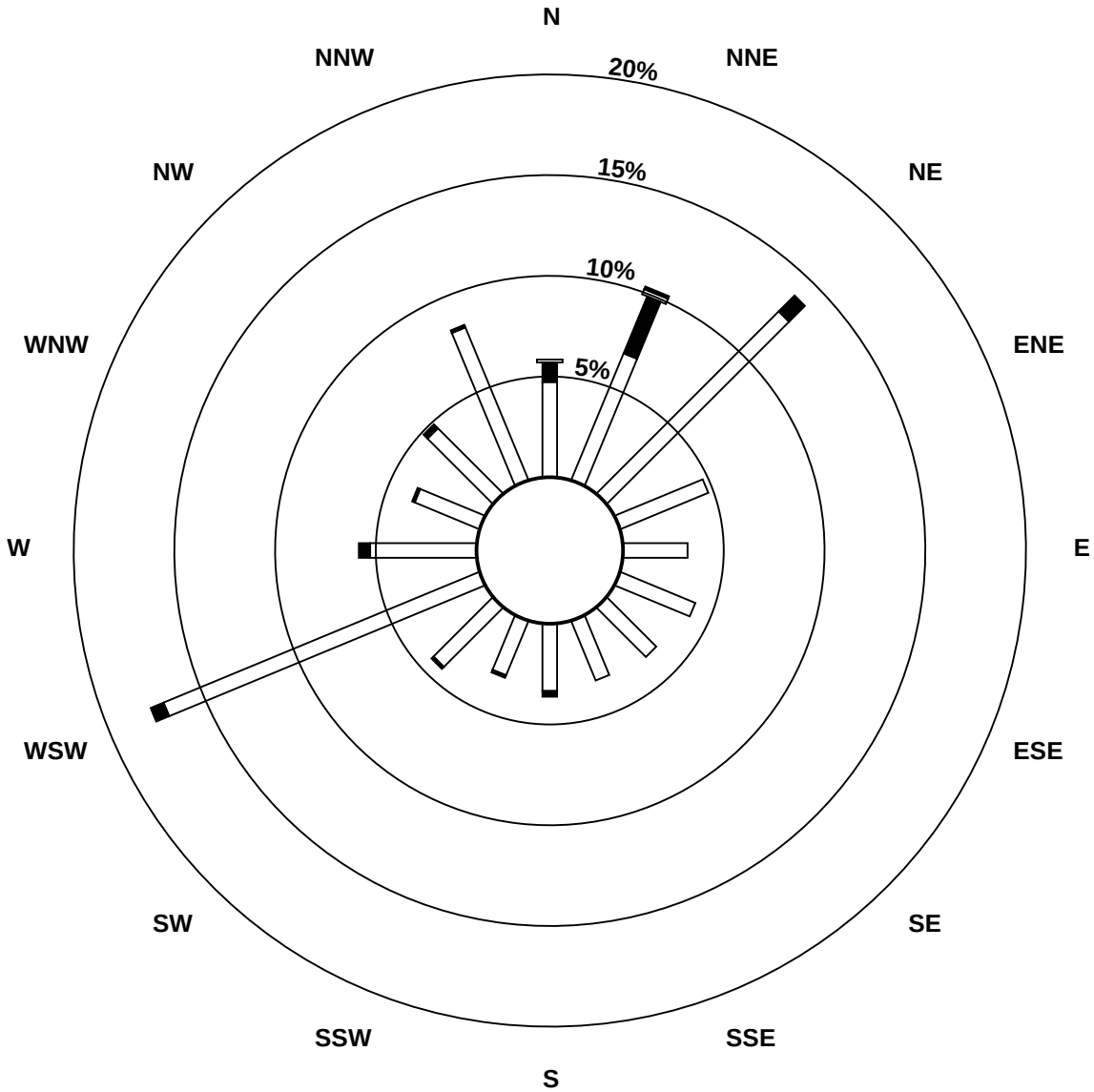


Peace Airshed Zone Association

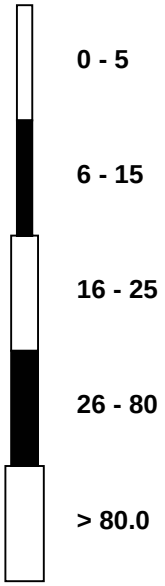
Pollutant Rose

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

Smoky Heights - April 2012



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



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - April 2012

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

Maximum Value: 15.1 ^{o}C on Apr 30 17:00

Maximum Daily Average: 8.7 ^{o}C on Apr 30

Minimum Value: -10 ^{o}C on Apr 15 05:00

Minimum Daily Average: -3.0 ^{o}C on Apr 14

Maximum Diurnal Average: 9.1 ^{o}C at hour 16

Minimum Diurnal Average: -0.9 ^{o}C at hour 6

Monthly Average: 4.15 ^{o}C

Percentiles: P_1 = -7.4 P_{10} = -2.8 Q_1 = 0.3 Median = 3.8 Q_3 = 8.2 P_{90} = 11.6 P_{99} = 14.5

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

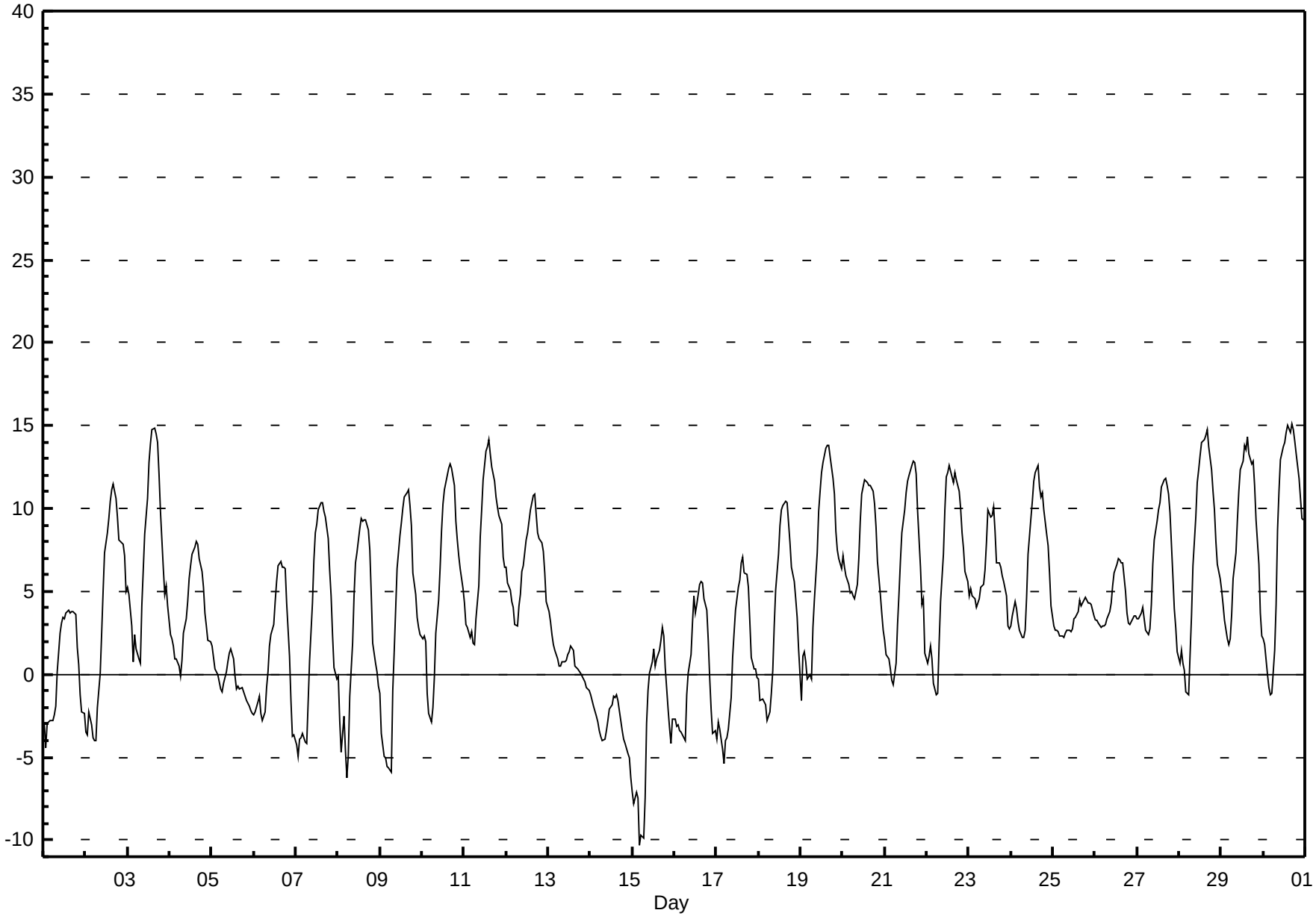
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	-3	-4	-3	-3	-3	-3	-2	-2	0	3	3	3	3	4	4	4	4	4	4	2	1	-1	-2	-2	0.3	3.9
2-Apr	-3	-4	-2	-3	-4	-4	-4	-2	0	2	5	7	9	9	10	11	11	11	9	8	8	8	7	5	4.0	11.5
3-Apr	5	5	3	1	2	2	1	1	4	6	8	11	13	14	15	15	14	14	12	10	6	5	5	4	7.3	14.8
4-Apr	2	2	2	1	1	1	0	1	3	3	4	6	7	7	8	8	8	7	6	5	4	3	2	2	3.8	8.0
5-Apr	2	1	0	0	0	-1	-1	-1	0	1	1	2	1	0	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-0.4	1.7
6-Apr	-2	-2	-2	-1	-2	-3	-2	-1	0	2	2	3	4	6	7	7	6	6	6	4	1	-2	-4	-4	1.3	6.8
7-Apr	-4	-5	-4	-4	-4	-4	-4	-2	1	4	7	9	9	10	10	10	10	10	8	6	5	2	0	0	3.0	10.4
8-Apr	0	-3	-5	-3	-5	-6	-5	-1	2	5	7	7	9	9	9	9	9	9	8	5	2	1	0	-1	2.6	9.4
9-Apr	-1	-4	-5	-5	-6	-6	-6	-1	1	4	6	8	9	10	11	11	11	10	9	6	5	3	3	2	3.2	11.2
10-Apr	2	2	2	-1	-2	-3	-2	0	3	4	6	9	10	11	12	12	13	12	11	9	8	7	6	5	5.8	12.7
11-Apr	4	3	3	2	3	2	2	3	5	8	10	12	13	14	14	13	12	12	11	10	10	9	7	6	7.9	14.2
12-Apr	6	5	5	4	4	3	3	4	5	6	7	8	8	9	10	11	11	10	9	8	8	7	6	4	6.8	10.9
13-Apr	4	3	2	2	1	1	0	1	1	1	1	1	1	2	1	1	0	0	0	0	0	0	-1	-1	0.9	3.8
14-Apr	-1	-2	-2	-3	-3	-3	-4	-4	-4	-3	-3	-2	-2	-1	-1	-1	-2	-3	-3	-4	-4	-5	-5	-6	-3.0	-1.2
15-Apr	-7	-8	-7	-7	-10	-10	-10	-7	-3	-1	0	1	2	0	1	1	2	3	2	0	-2	-3	-4	-3	-2.9	2.8
16-Apr	-3	-3	-3	-3	-4	-4	-4	-1	0	1	3	5	4	4	5	6	6	5	4	2	0	-2	-4	-3	0.4	5.6
17-Apr	-4	-3	-3	-4	-5	-4	-4	-3	-1	1	3	4	5	6	7	7	6	6	5	3	1	0	0	0	0.9	7.1
18-Apr	0	-2	-2	-2	-2	-3	-2	-1	0	3	5	7	9	10	10	10	10	9	8	6	6	5	3	2	3.8	10.5
19-Apr	-2	1	1	1	0	0	0	3	4	7	10	11	12	13	14	14	14	13	12	11	9	8	7	6	7.0	13.8
20-Apr	7	6	6	5	5	5	5	5	5	7	9	11	12	12	12	11	11	11	10	9	7	5	4	3	7.6	11.7
21-Apr	2	1	1	0	0	-1	1	3	5	7	9	10	11	12	12	13	13	13	12	10	6	4	5	1	6.2	12.9
22-Apr	1	1	2	1	-1	-1	-1	2	4	7	10	12	12	13	12	12	12	12	11	10	9	8	6	6	6.6	12.6
23-Apr	5	5	5	5	4	4	5	5	5	6	8	10	9	10	10	9	7	7	6	6	6	5	3	3	6.1	10.1
24-Apr	3	3	4	4	3	3	2	2	3	5	7	9	10	12	12	13	11	11	11	10	8	8	6	4	6.9	12.6
25-Apr	3	3	3	3	2	2	2	2	3	3	3	3	3	3	4	4	4	4	5	4	4	4	4	3	3.3	4.7
26-Apr	3	3	3	3	3	3	3	3	4	4	5	6	7	7	7	7	7	5	4	3	3	3	4	4	4.3	6.9
27-Apr	3	3	4	4	3	3	2	3	4	7	8	9	10	10	11	12	12	11	11	10	6	4	3	1	6.4	11.8
28-Apr	1	1	1	0	-1	-1	1	4	7	10	12	12	13	14	14	14	15	14	12	11	10	8	7	6	7.6	14.8
29-Apr	5	4	3	2	2	2	4	6	7	9	11	12	13	14	14	14	13	13	13	11	9	7	4	2	8.1	14.3
30-Apr	2	2	0	-1	-1	-1	1	4	9	11	13	14	14	15	15	15	15	15	14	13	12	11	9	9	8.7	15.1
	1.0	0.6	0.4	-0.1	-0.6	-0.9	-0.7	0.8	2.6	4.4	6.0	7.3	8.0	8.6	8.9	9.1	8.9	8.4	7.6	6.3	4.8	3.6	2.7	1.9	Diurnal Average	
	7.1	6.5	5.9	5.4	4.9	5.0	4.7	5.8	8.7	11.0	12.9	13.7	14.0	14.6	15.0	14.8	15.1	14.8	14.0	13.3	11.8	10.6	9.4	9.4	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - April 2012



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - April 2012

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	6	1	4	1	4	5	6	13	13	12	14	18	24	24	22	21	17	15	14	13	9	11	11	12	11.0	24.3
Dir	297	341	40	18	18	243	216	263	265	248	236	235	254	252	254	247	240	236	267	261	237	248	255	255	251.8	251.9
2 Spd	10	10	16	12	11	11	9	9	9	9	11	12	19	18	17	17	14	13	9	9	12	12	18	13	10.3	18.9
Dir	238	209	243	248	222	192	202	192	205	179	171	167	149	154	141	149	150	121	133	148	175	173	159	143	172.8	149.1
3 Spd	11	10	7	7	6	5	2	7	9	6	8	12	13	12	16	14	10	4	4	10	14	17	26	40	7.0	39.7
Dir	173	155	168	170	153	164	185	185	186	178	175	178	160	156	132	132	120	73	313	262	263	256	247	253	197.0	253.0
4 Spd	34	25	22	21	30	27	20	22	26	30	30	33	33	31	28	23	9	12	13	10	9	11	12	15	18.0	33.9
Dir	258	246	235	238	236	233	224	216	222	236	252	257	254	253	247	247	281	347	342	340	342	337	337	333	254.3	258.2
5 Spd	16	17	14	12	12	12	11	14	13	17	20	19	19	17	16	13	15	11	10	7	12	13	9	15	13.5	19.7
Dir	336	342	335	329	318	314	320	306	309	323	333	332	342	359	340	331	329	339	342	328	320	325	316	306	329.2	333.3
6 Spd	14	15	15	21	18	13	13	17	20	21	21	20	18	19	21	19	15	14	11	9	6	3	6	9	13.0	21.4
Dir	265	251	260	261	258	261	256	277	282	294	311	299	296	302	299	313	347	340	340	346	346	306	272	269	291.1	310.8
7 Spd	4	7	13	15	16	15	9	9	8	5	3	6	10	7	14	17	16	19	15	12	10	13	4	8	6.9	18.8
Dir	256	254	259	262	264	266	251	227	210	183	109	342	2	359	304	297	331	337	327	293	336	46	0	1	300.8	337.0
8 Spd	7	5	4	7	5	3	4	4	3	3	3	6	10	10	10	11	12	13	12	9	10	6	6	7	5.2	12.9
Dir	3	339	300	291	303	303	49	50	91	64	100	209	360	17	10	41	39	37	55	63	49	37	45	27	27.2	36.7
9 Spd	7	4	3	4	4	5	2	4	6	7	9	12	11	11	12	11	12	18	17	15	16	13	12	11	7.6	18.5
Dir	28	355	339	326	31	22	331	154	149	125	105	88	112	104	87	108	80	48	50	53	59	59	75	95	72.9	47.8
10 Spd	13	15	11	9	10	9	8	9	5	13	15	10	14	16	16	18	20	21	17	13	11	12	10	9	9.8	21.0
Dir	111	117	93	27	28	24	21	20	56	132	129	105	119	130	137	138	133	132	118	105	77	61	55	35	101.7	132.2
11 Spd	10	12	12	12	9	10	11	12	12	9	7	9	12	14	14	17	17	19	13	12	16	15	15	14	12.4	18.8
Dir	27	44	26	24	9	11	8	13	22	40	12	39	41	24	37	40	39	29	34	24	21	29	23	23	27.4	28.8
12 Spd	13	14	16	14	15	12	15	17	19	18	15	16	20	19	17	15	14	14	16	16	20	10	11	8	14.1	20.3
Dir	8	8	8	9	8	6	11	22	26	31	30	25	29	24	38	34	359	351	338	325	327	1	47	34	12.6	326.7
13 Spd	9	10	15	16	17	15	12	12	11	13	13	12	11	12	12	9	9	11	16	15	13	11	15	17	12.1	16.8
Dir	4	347	338	342	342	346	350	344	332	331	329	328	327	322	311	301	297	295	295	295	304	314	321	317	325.0	316.7
14 Spd	19	17	19	19	20	20	22	22	21	20	21	20	20	18	18	15	16	17	14	8	1	6	8	8	14.8	21.8
Dir	319	328	325	320	320	323	322	323	325	327	332	334	347	344	349	343	355	11	12	7	5	251	233	265	331.6	322.5
15 Spd	9	10	10	6	4	4	1	5	3	4	5	7	8	11	9	8	7	6	6	7	4	4	2	3	2.7	11.2
Dir	264	263	273	289	258	238	206	179	182	123	114	125	123	143	179	140	134	112	110	114	88	34	166	185	163.0	143.1
16 Spd	4	5	3	8	2	6	4	5	7	11	9	8	11	13	9	12	10	13	12	11	8	3	5	7	5.3	12.8
Dir	202	200	232	231	339	52	355	7	2	13	16	17	7	16	18	24	34	28	43	59	57	34	266	314	18.0	28.3
17 Spd	7	9	9	7	5	9	9	7	6	4	9	12	9	9	5	5	11	13	13	11	10	9	9	7	6.4	13.0
Dir	346	5	12	18	18	10	20	27	27	62	129	133	131	131	111	63	83	56	48	42	45	57	54	69	54.7	56.0
18 Spd	7	6	7	8	10	10	10	11	12	11	12	11	12	13	15	17	17	18	15	13	13	7	5	6	10.7	18.0
Dir	20	356	10	13	16	19	19	25	24	32	24	23	35	44	49	50	48	51	47	46	52	40	42	17	34.5	50.8
19 Spd	1	3	3	3	2	0	6	8	9	7	6	8	6	7	3	10	12	13	14	12	13	12	14	11	4.2	14.3
Dir	24	157	212	174	155	291	213	202	189	204	173	178	206	220	181	111	138	83	70	70	67	76	62	83	121.2	70.1
20 Spd	19	18	16	11	12	17	25	20	21	20	35	38	43	44	44	43	40	40	37	32	23	19	18	18	24.2	43.5
Dir	147	163	169	170	190	232	250	248	255	248	258	256	254	253	257	252	257	251	246	248	245	239	250	244	243.9	256.7
21 Spd	19	18	19	18	17	17	18	22	26	31	28	29	29	28	27	25	24	21	21	15	10	11	14	8	20.2	30.8
Dir	245	247	249	249	259	255	251	250	249	250	249	249	252	244	248	245	245	252	259	269	278	280	301	254	252.7	249.8
22 Spd	7	6	8	7	9	6	5	5	3	4	4	5	7	8	6	2	6	8	7	9	1	4	5	1	0.9	8.7
Dir	226	249	243	176	203	235	232	160	155	109	37	57	18	22	46	263	57	19	29	20	337	21	36	308	26.4	19.5

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - April 2012

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	4	6	8	2	3	2	2	6	9	10	13	13	14	11	12	15	18	13	8	7	5	3	4	3	5.5	17.5
Dir	220	228	219	260	189	310	20	51	48	43	52	48	38	31	26	352	18	25	15	3	353	296	344	332	20.7	17.9
24 Spd	2	5	12	15	12	12	11	5	4	3	3	4	5	4	6	5	12	14	17	14	12	15	17	22	3.3	21.9
Dir	332	239	246	250	234	228	243	245	257	30	57	49	36	355	14	6	41	29	49	64	64	45	45	47	24.6	47.2
25 Spd	23	24	21	20	19	18	16	17	19	19	18	18	19	20	21	18	17	17	16	12	12	13	14	17	17.7	23.7
Dir	49	48	48	47	44	43	38	40	46	48	48	48	49	48	46	49	33	38	46	45	59	71	57	51	47.0	48.0
26 Spd	15	14	17	18	19	17	17	18	19	17	14	20	21	20	26	25	25	29	19	11	11	10	11	9	15.0	29.5
Dir	46	54	54	53	51	51	55	53	57	56	86	109	115	110	121	118	119	126	117	83	49	56	52	42	82.6	125.6
27 Spd	9	7	4	11	19	16	16	13	16	30	43	42	46	42	41	43	41	42	33	20	10	12	9	11	22.2	46.0
Dir	45	57	130	223	244	248	240	229	227	248	248	242	242	245	241	248	249	253	252	256	242	251	240	237	245.1	242.3
28 Spd	13	15	14	14	12	11	10	11	16	16	23	29	28	32	35	31	35	29	27	30	21	14	15	14	19.6	34.6
Dir	242	238	225	204	207	191	211	198	221	233	240	238	241	247	245	234	259	262	261	263	250	245	249	268	241.7	258.8
29 Spd	13	12	12	13	16	18	15	19	26	26	20	23	23	23	17	20	14	14	18	12	10	9	12	14	16.2	25.6
Dir	270	261	253	243	254	254	252	243	245	249	248	240	257	258	289	282	293	273	269	265	248	260	250	263	258.2	245.3
30 Spd	15	7	6	4	5	5	5	5	3	6	8	14	15	17	18	18	19	19	19	16	17	15	10	9	7.2	19.5
Dir	260	263	241	203	243	307	215	261	134	67	57	99	92	75	92	90	87	85	84	76	68	80	83	85	86.1	85.0
Spd	3.4	2.6	3.7	4.1	4.3	4.4	4.1	3.5	3.7	3.5	3.9	3.9	3.6	3.6	3.2	2.7	2.4	4.1	4.1	3.7	3.5	2.9	2.5	3.4	Diurnal Average	
Dir	297.9	287.5	283.5	281.9	282.5	287.6	283.9	280.1	275.2	279.8	277.6	260.2	278.5	279.1	280.0	273.9	338.4	359.0	352.2	342.9	357.6	2.1	342.7	320.4		
Spd	33.9	25.1	21.9	21.1	29.6	27.0	25.0	22.5	26.1	30.8	43.2	41.9	46.0	43.5	43.5	43.2	40.5	41.6	37.0	31.7	22.6	18.6	26.4	39.7	Diurnal Maximum	
Dir	258.2	246.2	234.7	238.4	236.4	233.1	250.0	249.5	248.7	249.8	248.4	241.8	242.3	252.9	256.7	247.9	249.5	253.2	245.9	248.0	245.1	239.4	246.8	253.0		

Maximum Speed Value: 46 km/h on Apr 27 13:00
Maximum Daily Speed Average: 24.2 km/h on Apr 20
Maximum Diurnal Speed Average: 4.4 km/h at hour 6

Minimum Speed Value: 0 km/h on Apr 19 06:00
Minimum Daily Speed Average: 0.9 km/h on Apr 22
Minimum Diurnal Speed Average: 2.4 km/h at hour 17

Monthly Average Velocity: 2.99 km/h 299.88 deg

Speed Percentiles: P_1 = 1.4 P_{10} = 4.5 Q_1 = 8.3 Median = 12.3 Q_3 = 17.2 P_{90} = 21.8 P_{99} = 42.6

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

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

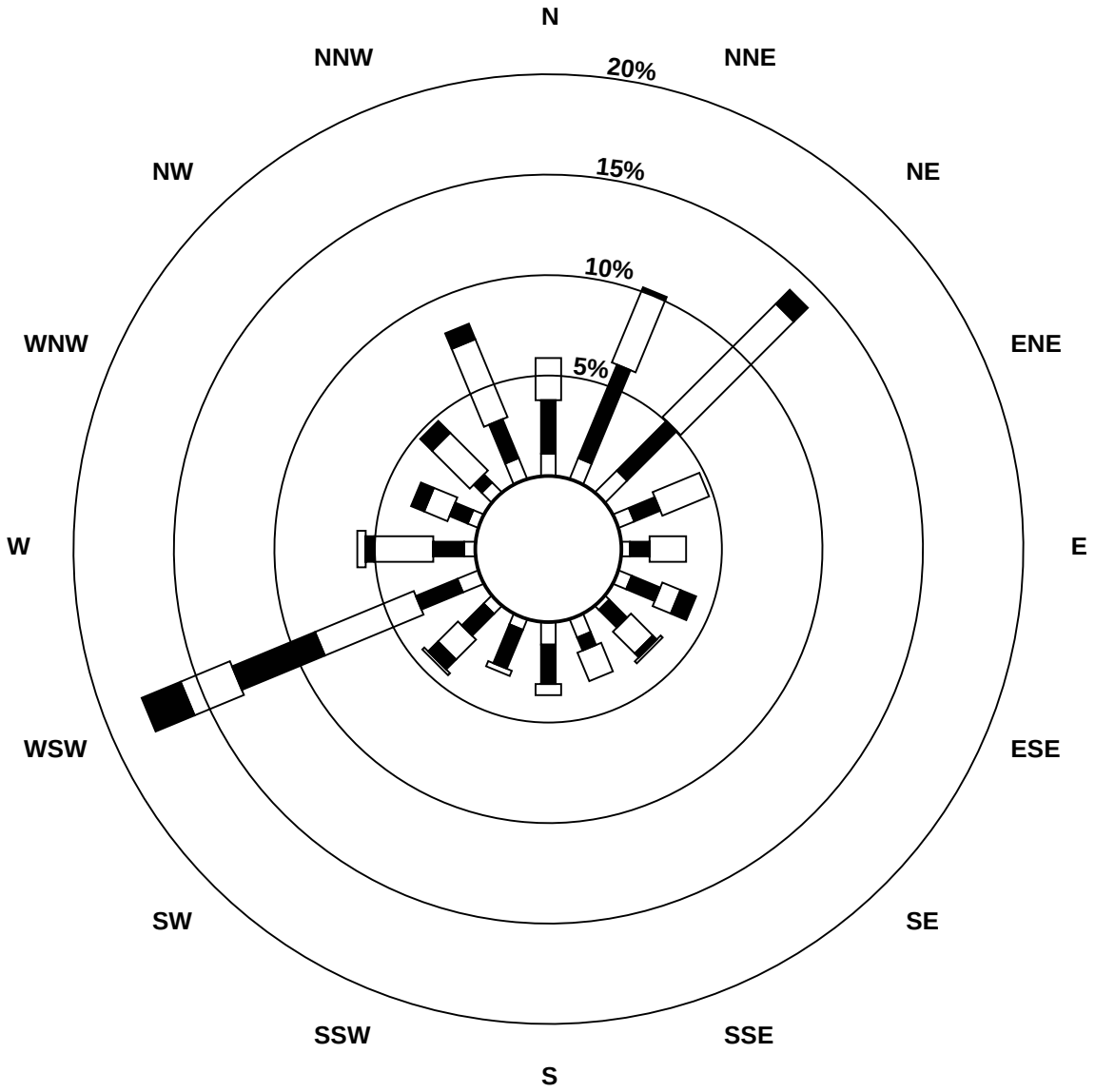
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	17	52	38	2	0	0	109
NorthEast	14	45	90	12	0	0	161
East	6	15	25	3	0	0	49
SouthEast	8	15	22	7	1	0	53
South	11	19	13	0	0	0	43
SouthWest	9	30	27	19	8	4	97
West	7	22	46	22	17	11	125
NorthWest	13	10	42	18	0	0	83
Total	85	208	303	83	26	15	720

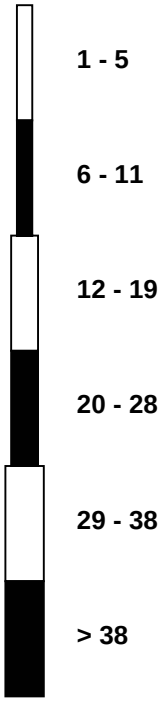
Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - April 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - April 2012

Maximum Speed: 46 km/h on Apr 27 13:00

Maximum Daily Speed Average: 27.3 km/h on Apr 20

Minimum Speed: 2 km/h on Apr 19 06:00

Minimum Daily Speed Average: 6.4 km/h on Apr 15

Maximum Diurnal Speed Average: 18.5 km/h at hour 14

Minimum Diurnal Speed Average: 10.8 km/h at hour 22

Monthly Average Speed: 13.90 km/h

Percentiles: P_1 = 2.8 P_{10} = 5.4 Q_1 = 8.7 Median = 12.6 Q_3 = 17.4 P_{90} = 21.9 P_{99} = 43.1

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	6	5	6	2	4	8	8	13	13	12	14	18	24	24	22	21	17	15	14	13	9	11	11	12	12.6	24.5
2-Apr	10	10	16	12	11	11	9	10	9	9	11	13	19	19	17	17	15	13	9	9	12	13	18	13	12.8	19.2
3-Apr	11	10	7	7	6	5	3	7	9	7	9	13	14	13	16	15	10	4	5	11	14	17	27	40	11.6	40.2
4-Apr	34	25	22	21	30	27	21	22	26	30	30	34	33	32	28	24	16	12	13	10	9	11	12	16	22.4	34.0
5-Apr	16	17	14	12	12	12	11	14	13	17	20	20	20	17	16	13	16	12	10	7	12	13	9	15	14.1	20.0
6-Apr	14	15	16	21	18	13	13	17	20	21	22	21	18	20	21	20	16	14	12	9	6	4	6	9	15.3	21.9
7-Apr	5	8	13	15	16	15	9	9	8	7	8	8	11	9	15	18	17	19	15	13	12	13	7	9	11.6	19.1
8-Apr	8	5	4	7	5	4	4	4	3	4	5	8	12	11	11	12	12	13	13	9	10	6	6	7	7.6	13.4
9-Apr	7	4	4	4	4	5	3	6	6	7	10	13	13	13	14	12	13	19	17	15	16	14	12	11	10.0	18.9
10-Apr	13	15	13	9	10	9	8	9	7	13	15	11	14	17	17	19	20	21	17	13	11	12	10	9	13.1	21.3
11-Apr	10	13	12	12	9	11	11	12	12	9	9	11	13	15	14	17	17	19	13	12	16	15	15	15	12.9	19.0
12-Apr	13	14	16	14	15	12	15	17	19	18	16	16	20	20	18	16	14	15	16	16	20	11	11	8	15.4	20.4
13-Apr	9	11	16	17	17	16	12	13	11	13	13	12	11	12	12	9	9	11	16	15	13	11	16	17	12.9	16.9
14-Apr	19	18	19	19	20	20	22	22	21	21	21	20	20	19	18	15	17	17	14	8	3	6	8	8	16.5	21.9
15-Apr	10	10	10	6	5	5	4	5	3	4	5	7	8	12	9	9	7	6	6	7	4	4	3	4	6.4	11.7
16-Apr	4	5	4	8	5	7	5	5	8	11	9	9	12	13	9	12	11	13	12	12	8	5	6	7	8.2	13.0
17-Apr	7	9	10	7	5	9	9	7	6	5	9	13	9	9	7	7	11	13	13	11	11	10	9	7	9.0	13.2
18-Apr	7	7	7	8	10	10	10	11	12	11	12	11	12	13	16	17	18	18	15	13	13	7	6	6	11.3	18.0
19-Apr	3	3	3	3	4	2	6	9	9	8	8	10	9	9	7	11	13	14	14	12	13	13	14	13	8.8	14.5
20-Apr	19	18	16	11	12	17	25	20	21	20	36	38	43	44	44	43	40	41	37	32	23	19	18	18	27.3	43.9
21-Apr	19	18	19	19	17	17	18	23	26	31	29	30	29	28	28	25	24	22	21	15	10	11	14	9	21.0	31.0
22-Apr	8	7	8	8	9	6	5	5	4	4	4	6	8	9	9	8	9	9	8	9	4	5	5	6	6.8	9.2
23-Apr	5	6	8	3	3	3	3	6	9	10	13	14	14	11	12	16	18	13	8	8	5	4	5	5	8.4	17.7
24-Apr	4	6	12	15	13	12	12	7	4	4	5	5	6	6	8	8	13	14	17	15	12	15	17	22	10.5	21.9
25-Apr	23	24	21	20	19	18	16	17	19	19	18	18	19	20	21	19	18	17	17	13	12	13	14	17	17.9	23.7
26-Apr	15	14	17	18	19	17	17	18	20	18	15	20	21	21	27	25	25	30	19	12	12	10	11	9	17.9	29.8
27-Apr	9	8	5	11	19	16	17	13	16	31	43	42	46	42	42	44	41	42	33	20	10	12	9	11	24.2	46.3
28-Apr	13	15	15	14	12	11	11	12	16	17	23	29	29	33	35	31	35	29	27	30	21	14	16	15	21.1	35.4
29-Apr	14	12	12	13	16	18	15	19	26	26	21	24	23	24	19	21	16	15	18	12	10	9	12	15	17.1	25.8
30-Apr	15	9	7	4	5	6	6	5	4	8	9	15	17	19	18	19	19	20	19	16	17	15	10	9	12.3	20.2
	11.7	11.3	11.7	11.4	11.7	11.5	10.9	11.8	12.6	13.8	15.3	16.9	18.3	18.5	18.4	18.1	17.6	17.4	15.7	13.2	11.6	10.8	11.2	12.0	Diurnal Average	
	34.0	25.2	22.0	21.2	29.8	27.1	25.1	22.5	26.2	31.0	43.4	42.3	46.3	43.9	43.9	43.7	41.0	41.9	37.1	31.8	22.7	18.7	26.6	40.2	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - April 2012

Maximum Value: 93.3 deg on Apr 22 21:00

Minimum Value: 2.4 deg on Apr 3 22:00

Percentiles: P_1 = 3.7 P_{10} = 5.2 Q_1 = 6.9 Median = 10.4 Q_3 = 17.5 P_{90} = 34.6 P_{99} = 81.7

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

Day	Hourly Period Ending At (MST)																								Daily
	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-Apr	37	79	40	74	25	53	39	11	3	7	8	10	6	6	5	8	5	4	9	7	6	10	5	5	78.8
2-Apr	12	12	6	6	12	8	7	9	12	13	14	16	11	14	18	16	14	7	15	20	4	4	6	9	20.3
3-Apr	9	9	28	17	15	13	27	8	9	15	17	18	16	32	15	16	13	29	49	17	5	2	8	9	48.7
4-Apr	5	5	5	6	5	4	6	4	6	8	7	6	7	8	10	8	60	14	12	9	5	5	5	7	60.3
5-Apr	6	6	7	6	4	5	6	6	13	10	11	14	13	14	9	13	12	15	10	13	9	11	15	12	15.4
6-Apr	11	15	13	8	5	4	6	9	6	10	12	13	13	18	16	16	20	16	18	10	11	48	24	7	48.5
7-Apr	45	18	3	4	4	3	22	5	6	41	85	48	35	48	31	21	19	9	20	8	33	5	52	25	85.0
8-Apr	14	17	23	13	17	25	17	10	31	40	72	40	31	29	28	25	20	16	10	7	7	16	14	4	71.7
9-Apr	6	22	25	26	8	21	70	71	26	21	26	21	35	31	35	35	25	16	6	6	6	7	10	11	70.8
10-Apr	10	10	36	7	5	4	6	6	38	18	17	27	17	15	17	11	12	10	10	10	15	5	8	9	38.3
11-Apr	6	5	7	5	10	16	10	8	6	21	34	33	19	15	17	10	9	9	16	10	6	10	4	6	33.7
12-Apr	8	8	7	8	8	9	7	7	5	9	9	10	9	14	13	15	16	13	8	8	6	27	14	14	27.4
13-Apr	11	10	10	7	7	8	8	7	9	8	8	8	8	9	11	14	5	7	5	5	10	13	7	6	13.6
14-Apr	5	8	6	6	5	5	6	6	6	7	7	8	12	9	11	13	16	11	11	11	83	21	16	12	83.1
15-Apr	9	9	22	10	36	29	87	8	25	11	12	11	10	17	18	22	26	14	8	5	31	9	62	33	87.1
16-Apr	8	29	46	16	67	36	60	19	12	10	10	13	16	12	12	10	17	11	14	9	9	59	14	10	67.1
17-Apr	11	8	7	11	16	5	7	5	8	45	11	15	19	24	49	54	20	10	6	5	9	8	8	27	53.6
18-Apr	5	13	9	8	5	5	6	6	6	9	14	16	18	16	15	11	9	6	5	5	5	22	21	14	21.9
19-Apr	87	26	20	22	74	87	11	16	19	23	37	37	52	49	73	25	31	28	10	7	8	11	13	33	86.8
20-Apr	5	7	4	5	14	16	5	4	7	8	9	8	9	8	8	8	9	6	5	5	6	6	5	6	15.6
21-Apr	6	4	5	8	7	6	5	5	6	7	11	11	12	15	13	12	13	12	8	4	14	9	9	30	30.3
22-Apr	32	29	19	22	21	13	19	14	25	29	36	40	28	19	62	82	65	24	33	5	93	33	13	85	93.3
23-Apr	34	13	9	63	32	43	65	9	6	10	8	11	11	11	10	12	8	7	16	17	20	19	44	73	73.0
24-Apr	65	23	11	6	13	15	11	52	31	48	67	63	49	63	56	74	15	6	11	10	8	10	5	4	73.9
25-Apr	4	5	4	6	6	5	6	6	6	6	5	4	6	6	5	7	5	6	6	9	8	11	7	4	10.9
26-Apr	6	4	5	5	4	5	6	8	7	6	23	10	9	10	13	7	8	9	9	22	8	10	8	8	23.0
27-Apr	8	15	48	16	8	6	4	6	8	7	6	7	6	8	8	9	8	7	7	5	9	6	8	6	48.0
28-Apr	9	11	23	11	6	13	16	11	12	13	13	10	10	8	7	8	12	8	4	5	13	11	9	22	23.2
29-Apr	17	10	13	7	7	4	9	4	6	8	10	12	15	11	26	16	33	36	14	10	7	8	7	5	35.6
30-Apr	4	48	23	32	33	46	28	24	66	34	31	25	23	21	16	14	12	16	13	9	8	9	9	16	65.6
	86.8	78.8	48.0	74.0	74.5	86.8	87.1	70.8	65.6	48.0	85.0	62.6	52.1	63.1	72.9	81.8	64.5	35.6	48.7	22.1	93.3	59.3	62.5	85.3	

FOCUS AIR QUALITY MONITORING

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.9 ppb on Apr 12 06:00
Maximum Daily Average: 1.4 ppb on Apr 12

Minimum Value: 0 ppb on Apr 21 04:00
Maximum Diurnal Average: 0.6 ppb at hour 10
Monthly Average: 0.31 ppb

Minimum Daily Average: 0.0 ppb on Apr 27
Minimum Diurnal Average: 0.2 ppb at hour 20
Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.3$ $P_{90} = 0.9$ $P_{99} = 2.3$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
2-Apr	0	0	0	0	A	0	0	0	1	2	2	0	0	1	0	0	0	0	0	0	2	0	1	1	0.6	2.5
3-Apr	2	1	1	1	A	1	1	1	2	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.7	2.0
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.1	0.8
5-Apr	0	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-Apr	0	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
7-Apr	0	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
8-Apr	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.3	0.9
9-Apr	1	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0.4	0.9
10-Apr	1	1	1	1	A	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8
11-Apr	1	1	1	1	A	1	1	1	2	1	2	2	2	1	1	1	1	1	1	1	1	1	2	2	1.1	2.1
12-Apr	1	1	1	3	A	3	1	3	3	2	2	2	C	C	C	C	1	1	1	1	0	0	0	0	1.4	2.9
13-Apr	0	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-Apr	0	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
15-Apr	0	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.1
16-Apr	1	1	1	1	A	0	0	1	0	3	2	2	2	0	0	0	1	0	0	0	0	0	0	0	0.6	2.6
17-Apr	0	1	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
18-Apr	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
19-Apr	0	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-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
21-Apr	0	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
22-Apr	1	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.6
24-Apr	0	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
25-Apr	0	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-Apr	0	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
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
30-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
	0.3	0.3	0.2	0.3	--	0.3	0.3	0.4	0.5	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	Diurnal Average	
	2.0	1.4	1.1	2.6	--	2.9	1.6	2.6	2.8	2.6	2.2	2.1	2.0	1.4	1.4	1.1	1.1	1.3	1.0	0.9	2.3	1.4	1.5	1.6	Diurnal Maximum	

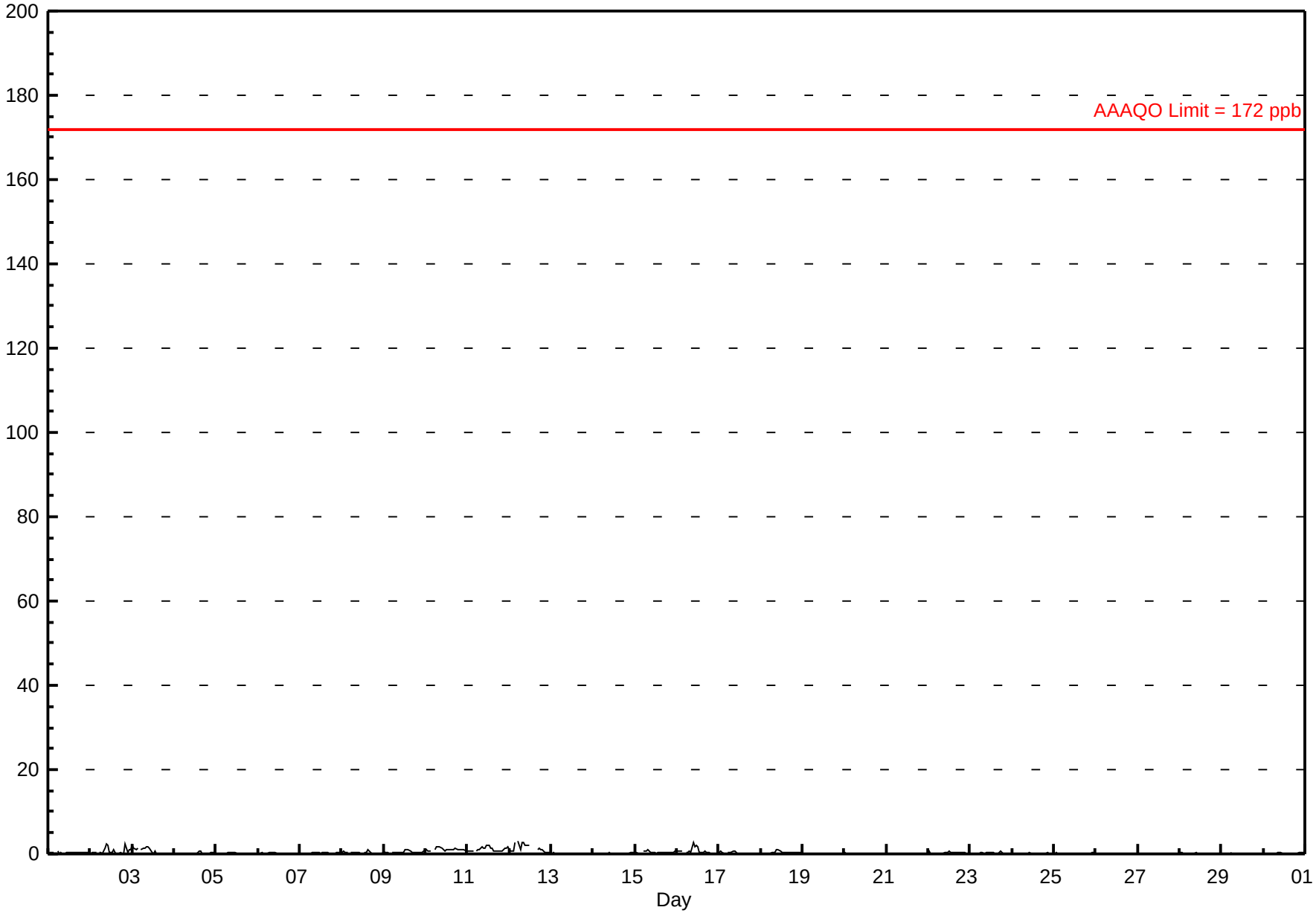
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2012

Maximum Value: 9.0 ppb on Apr 2 21:00

Maximum Daily Average: 2.1 ppb on Apr 12

Minimum Value: 0 ppb on Apr 4 18:00

Minimum Daily Average: 0.1 ppb on Apr 27

Maximum Diurnal Average: 1.0 ppb at hour 10

Minimum Diurnal Average: 0.3 ppb at hour 20

Monthly Average: 0.52 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.5$ $P_{90} = 1.2$ $P_{99} = 4.3$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	0	1	0	A	3	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0.6	3.4
2-Apr	0	0	0	1	A	0	0	0	4	6	3	2	1	1	1	0	0	0	0	1	9	1	4	1	1.6	9.0
3-Apr	3	2	2	2	A	2	2	2	3	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	1.2	3.2
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0.3	1.4
5-Apr	0	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-Apr	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
7-Apr	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
8-Apr	0	1	0	1	A	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.4	1.2
9-Apr	1	1	0	0	A	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	0	0	1	1	0.6	1.2
10-Apr	1	1	1	1	A	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1
11-Apr	1	1	1	1	A	1	2	2	2	1	2	3	3	2	2	1	1	1	1	1	1	3	3	2	1.6	3.0
12-Apr	2	1	1	4	A	4	3	5	4	3	3	2	C	C	C	C	2	2	1	1	1	1	1	0	2.1	5.1
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
14-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.2	0.5
15-Apr	0	0	0	0	A	1	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0.5	1.7
16-Apr	1	1	1	1	A	0	0	1	1	7	4	4	3	1	0	0	1	1	0	0	0	0	0	0	1.2	7.2
17-Apr	1	1	1	1	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
18-Apr	0	0	0	0	A	0	0	0	1	1	1	1	0	1	1	1	0	0	0	0	0	0	1	1	0.5	1.3
19-Apr	0	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
20-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
21-Apr	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	0.5
22-Apr	1	1	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.3	0.7
24-Apr	0	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
25-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.8
26-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
27-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
29-Apr	0	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-Apr	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0.3	0.7
	0.5	0.4	0.4	0.5	--	0.6	0.5	0.7	0.8	1.0	0.8	0.7	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.6	0.4	0.5	0.4	Diurnal Average	
	3.0	2.3	1.7	3.6	--	4.4	2.6	5.1	3.9	7.2	4.3	4.3	3.5	2.2	2.4	1.4	1.5	1.6	1.3	1.3	9.0	2.7	4.2	2.3	Diurnal Maximum	

C - Calibration

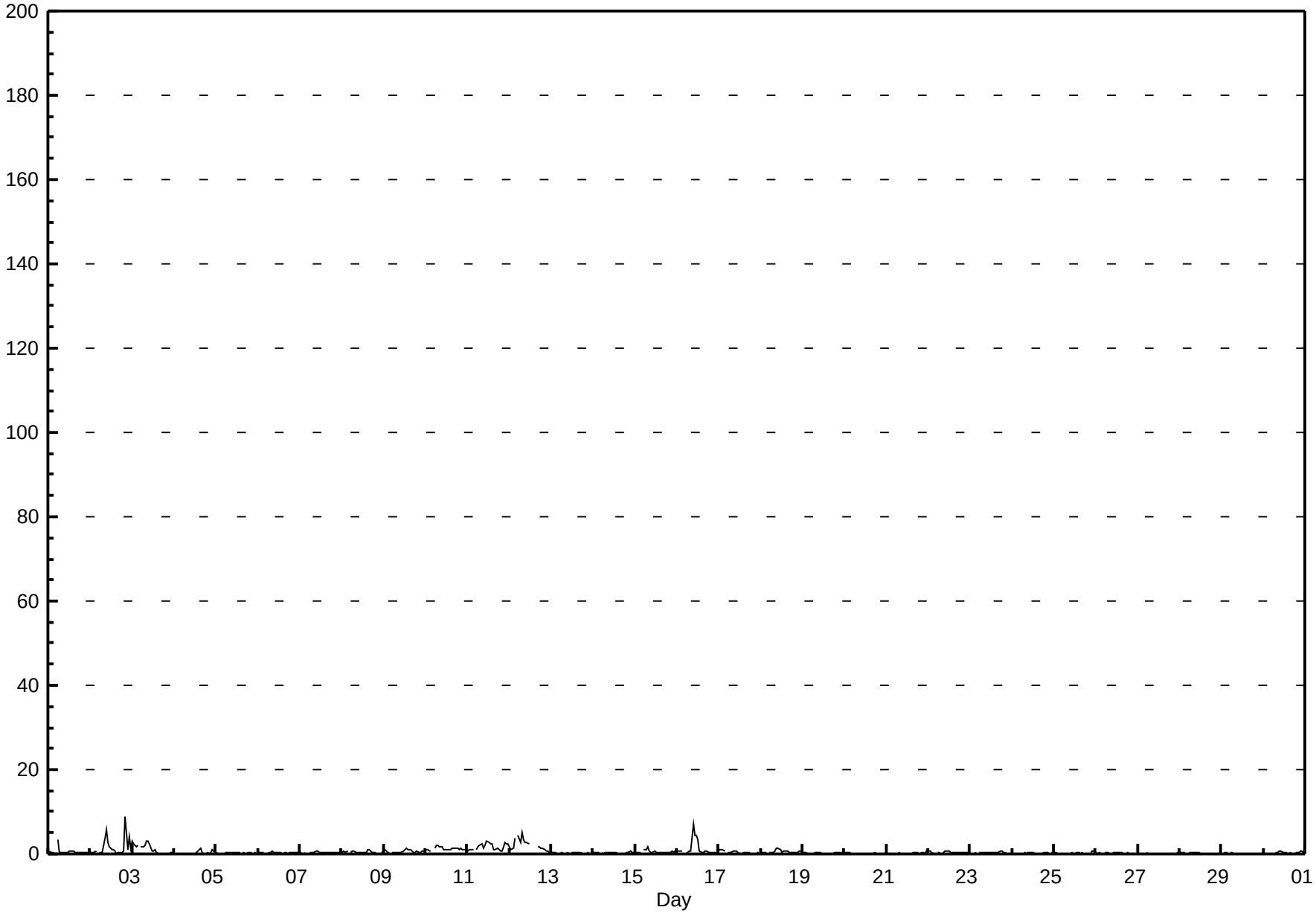
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

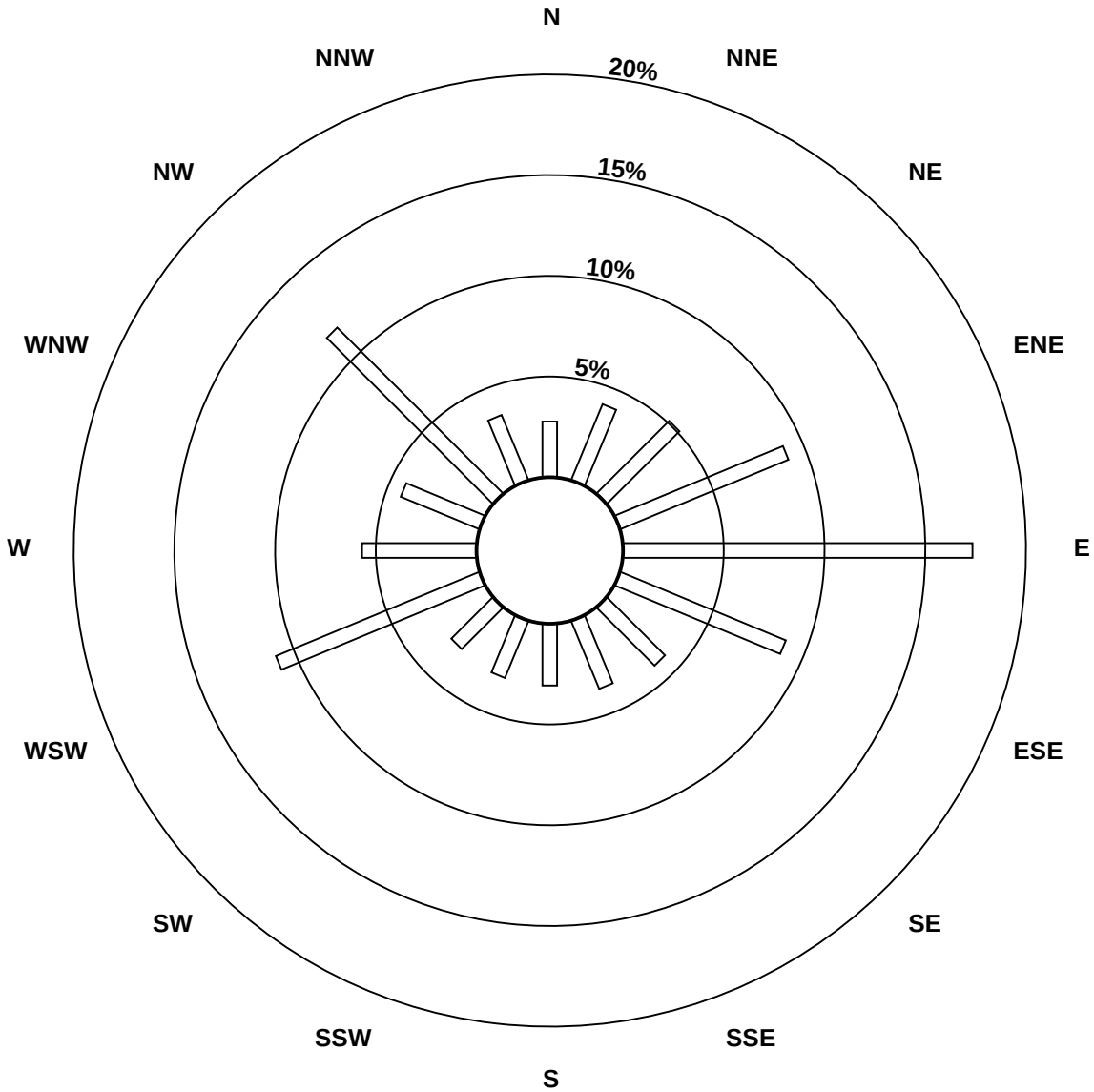
Beaverlodge - April 2012



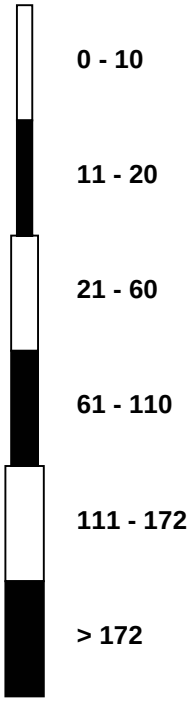
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2012



Pollutant Classes (ppb)

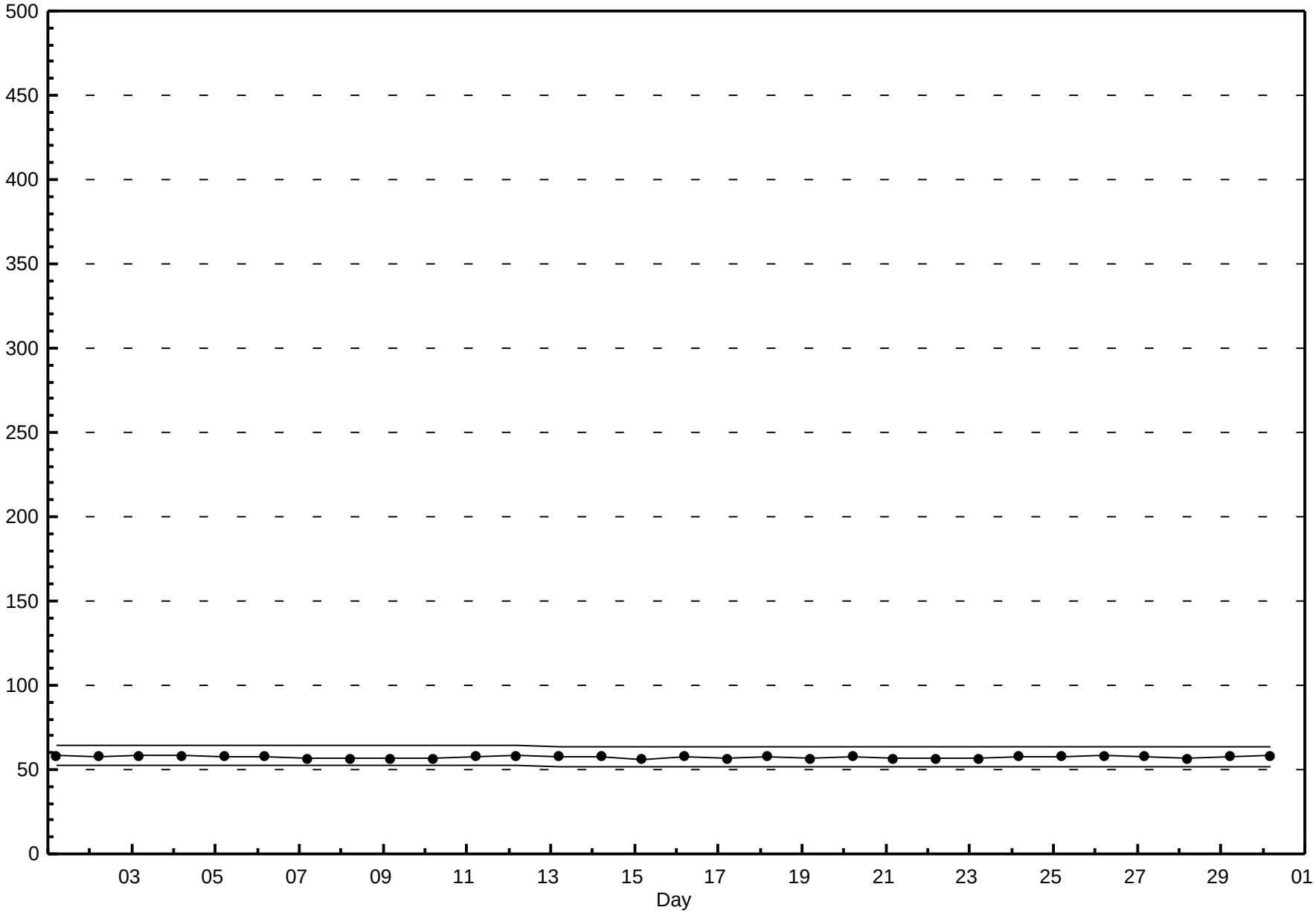


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Beaverlodge - April 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 11.7 ppb on Apr 5 07:00 Maximum Daily Average: 3.1 ppb on Apr 10

Minimum Value: 0 ppb on Apr 29 11:00 Minimum Daily Average: 0.8 ppb on Apr 29
Maximum Diurnal Average: 3.7 ppb at hour 7 Minimum Diurnal Average: 1.0 ppb at hour 16
Monthly Average: 1.91 ppb Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 0.9$ Median = 1.5 $Q_3 = 2.5$ $P_{90} = 3.7$ $P_{99} = 7.8$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	4	4	4	6	A	7	4	6	5	3	3	2	1	1	1	1	1	1	1	4	3	2	2	2	2.9	6.9
2-Apr	2	3	3	2	A	4	4	3	4	4	3	1	1	1	1	1	2	3	2	2	2	1	1	4	2.3	4.4
3-Apr	2	3	3	3	A	3	3	4	6	5	3	1	1	1	1	1	1	2	1	2	3	1	1	1	2.1	6.0
4-Apr	1	1	0	1	A	2	1	2	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	4	1.0	3.5
5-Apr	2	4	3	2	A	5	12	5	2	2	1	1	1	1	1	1	1	1	1	3	3	4	4	2	2.6	11.7
6-Apr	4	3	2	5	A	3	2	2	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1.5	4.6
7-Apr	1	1	1	1	A	2	1	2	2	1	1	1	0	1	1	0	1	1	1	4	4	6	3	2	1.7	6.2
8-Apr	2	1	1	1	A	2	2	3	7	4	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1.6	6.7
9-Apr	3	3	2	1	A	3	3	7	4	3	1	1	1	1	2	1	1	1	1	1	1	1	1	2	1.9	7.0
10-Apr	3	3	2	2	A	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	4	4	3	3	3.1	4.0
11-Apr	2	3	3	3	A	6	6	8	4	4	3	2	2	2	2	2	2	2	2	2	2	3	2	2	3.0	7.9
12-Apr	2	2	2	2	A	4	9	C	C	C	C	C	C	2	1	1	2	2	1	2	2	2	1	1	--	9.1
13-Apr	1	2	2	1	A	3	3	2	3	2	2	2	2	2	2	2	2	2	2	2	1	2	1	1	1.8	3.4
14-Apr	1	1	1	1	A	2	2	3	2	2	1	1	1	1	1	2	2	1	1	1	1	1	1	2	1.4	3.0
15-Apr	1	2	1	1	A	3	3	5	3	2	2	2	1	1	1	1	1	1	1	1	2	2	1	3	1.8	5.3
16-Apr	3	3	4	5	A	8	7	8	6	6	3	3	2	1	1	1	1	1	1	1	1	1	1	1	3.1	8.1
17-Apr	1	2	1	2	A	3	2	2	3	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	4.3
18-Apr	1	1	1	1	A	3	6	7	3	3	2	2	2	1	1	1	1	1	1	1	2	2	2	4	2.2	6.9
19-Apr	3	2	3	2	A	4	5	5	4	3	2	1	1	1	1	1	1	1	1	1	2	1	1	2	2.0	4.8
20-Apr	2	2	3	3	A	3	3	3	1	1	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1.8	3.4
21-Apr	1	1	1	1	A	2	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0.8	2.0
22-Apr	1	1	2	2	A	4	8	5	5	2	3	2	1	1	1	1	1	1	1	1	1	2	3	2	2.2	8.1
23-Apr	2	2	2	2	A	3	3	3	3	2	2	1	2	2	1	1	1	1	2	1	2	1	2	3	1.9	3.2
24-Apr	2	3	2	2	A	4	3	4	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1.8	3.9
25-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	2.1
26-Apr	2	3	2	2	A	3	2	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2.2	3.2
27-Apr	2	2	2	2	A	5	2	1	1	2	4	2	2	2	1	1	1	1	0	1	1	2	1	1	1.7	4.7
28-Apr	1	1	2	3	A	5	3	2	2	1	1	0	0	0	0	1	0	1	1	1	1	0	1	1	1.2	4.6
29-Apr	1	1	1	1	A	2	2	1	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	0.8	2.2
30-Apr	1	2	1	3	A	6	5	6	10	1	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2.1	10.4
	1.9	2.0	2.0	2.1	--	3.6	3.7	3.7	3.3	2.4	1.9	1.3	1.1	1.1	1.0	1.0	1.1	1.1	1.2	1.5	1.6	1.7	1.6	1.9	Diurnal Average	
	3.6	3.9	4.2	6.3	--	8.1	11.7	8.0	10.4	6.2	3.9	3.2	3.1	3.1	3.0	2.9	2.7	2.7	2.9	3.8	3.8	6.2	4.0	4.0	Diurnal Maximum	

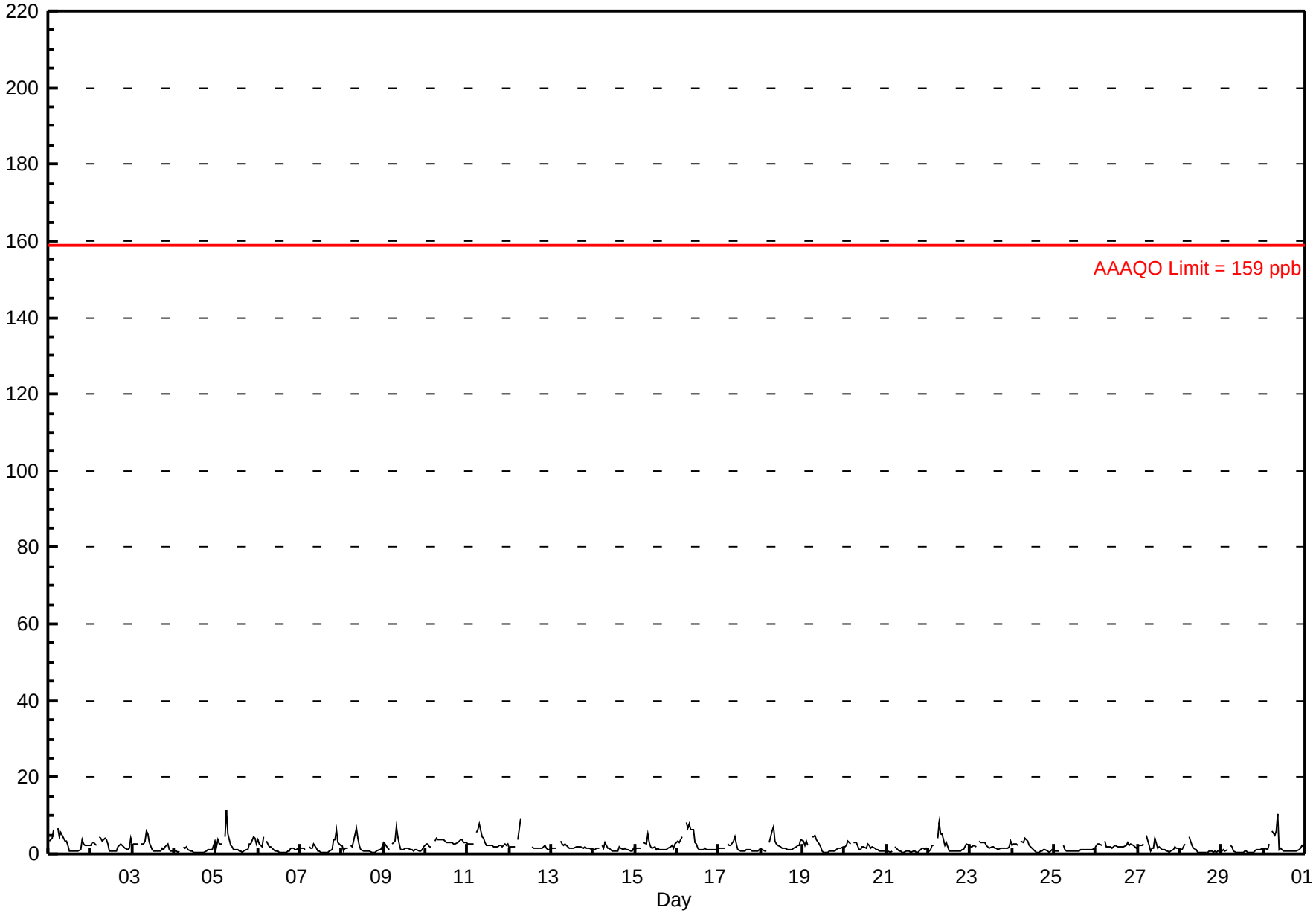
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2012

Maximum Value: 22.7 ppb on Apr 5 07:00

Maximum Daily Average: 5.0 ppb on Apr 16

Minimum Value: 1 ppb on Apr 29 11:00

Minimum Daily Average: 1.4 ppb on Apr 25

Maximum Diurnal Average: 6.8 ppb at hour 6

Minimum Diurnal Average: 1.6 ppb at hour 15

Monthly Average: 3.15 ppb

Percentiles: $P_1 = 0.7$ $P_{10} = 1.0$ $Q_1 = 1.5$ Median = 2.3 $Q_3 = 3.9$ $P_{90} = 6.2$ $P_{99} = 14.8$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	13	6	8	11	A	11	6	7	8	4	4	4	2	1	1	1	1	1	3	7	4	3	4	3	5.0	13.2
2-Apr	3	4	4	3	A	6	6	7	7	6	4	2	1	1	2	1	6	5	3	3	5	2	3	6	3.9	7.3
3-Apr	4	5	4	3	A	4	3	6	8	7	5	2	1	2	1	1	2	3	3	4	5	3	2	2	3.5	7.8
4-Apr	2	1	1	2	A	5	2	3	2	1	1	1	1	1	1	1	1	1	1	3	3	2	1	8	1.9	7.9
5-Apr	3	7	4	3	A	6	23	8	4	4	1	1	1	1	1	1	2	1	3	5	6	7	6	5	4.5	22.7
6-Apr	9	8	4	7	A	7	3	3	2	1	1	1	1	1	1	1	1	1	2	3	4	3	2	3	2.9	8.6
7-Apr	2	2	2	2	A	3	2	3	5	2	1	1	1	1	1	1	1	1	2	6	7	9	5	4	2.8	9.1
8-Apr	4	1	5	2	A	4	3	10	9	7	3	2	1	1	1	1	1	1	1	1	1	1	2	2	2.7	9.6
9-Apr	3	3	2	2	A	4	4	13	10	4	1	1	2	2	2	2	1	1	2	2	2	1	1	2	2.9	12.8
10-Apr	3	3	2	2	A	5	5	4	4	4	4	3	3	3	3	3	4	3	4	5	4	5	4	3	3.7	5.4
11-Apr	3	4	3	5	A	13	10	15	7	6	4	3	2	2	2	3	2	3	3	3	3	4	3	3	4.7	15.5
12-Apr	2	2	2	3	A	6	15	C	C	C	C	C	C	3	2	2	3	2	2	2	4	2	2	2	--	14.8
13-Apr	2	2	2	2	A	5	3	3	4	3	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2.4	5.3
14-Apr	2	2	2	2	A	4	3	5	3	3	2	1	1	1	2	3	3	2	2	3	3	4	2	4	2.5	5.2
15-Apr	2	3	2	2	A	5	4	7	5	2	2	2	2	2	1	2	2	1	2	2	2	3	2	3	2.6	7.4
16-Apr	4	3	4	5	A	23	11	14	8	8	5	5	4	2	1	3	2	2	3	2	1	2	2	2	5.0	22.6
17-Apr	2	2	2	2	A	4	3	4	4	5	4	1	1	3	1	1	1	1	1	1	1	1	1	1	2.2	4.8
18-Apr	1	2	2	1	A	6	10	12	7	3	3	2	2	2	2	2	1	2	1	5	3	3	5	10	3.8	11.9
19-Apr	6	3	5	3	A	11	7	7	5	3	2	1	1	1	1	2	1	2	2	2	3	3	2	3	3.3	11.2
20-Apr	2	3	6	5	A	4	6	5	4	3	5	5	7	7	7	5	6	6	5	2	2	2	2	2	4.3	7.2
21-Apr	2	2	1	2	A	4	2	2	2	1	1	1	4	1	1	1	1	1	1	2	2	3	1	3	1.7	4.0
22-Apr	1	2	3	3	A	10	15	8	7	4	6	2	1	1	1	1	1	1	1	2	2	4	5	3	3.7	14.9
23-Apr	3	2	3	2	A	5	4	4	4	3	2	2	4	3	2	2	1	2	2	2	3	2	3	6	2.7	5.8
24-Apr	3	4	4	4	A	8	6	6	6	4	3	2	1	1	1	1	1	1	2	2	1	1	1	2	2.7	8.3
25-Apr	1	1	1	1	A	4	2	1	1	1	1	1	1	2	1	2	1	1	1	2	2	2	1	2	1.4	3.6
26-Apr	3	3	3	2	A	5	2	3	2	2	2	3	2	2	2	2	3	3	3	3	3	3	2	2	2.6	5.0
27-Apr	2	3	4	4	A	7	5	2	2	8	12	6	8	5	2	2	2	2	1	2	4	4	3	2	4.0	11.8
28-Apr	1	1	3	5	A	6	5	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.9	5.9
29-Apr	2	2	1	2	A	4	3	2	1	1	1	1	1	1	1	1	1	1	1	2	3	2	3	2	1.7	4.0
30-Apr	3	3	2	6	A	15	7	15	20	2	3	1	1	1	1	1	1	1	2	1	2	3	3	3	4.2	19.9
	3.1	2.9	3.0	3.3	--	6.8	6.0	6.3	5.3	3.6	2.9	2.1	2.1	1.8	1.6	1.7	1.8	1.8	2.1	2.7	3.0	2.9	2.6	3.2	Diurnal Average	
	13.2	8.0	8.5	10.6	--	22.6	22.7	15.5	19.9	8.0	11.8	6.1	8.2	7.0	7.2	4.7	5.7	5.7	5.0	7.0	7.0	9.1	6.4	10.4	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

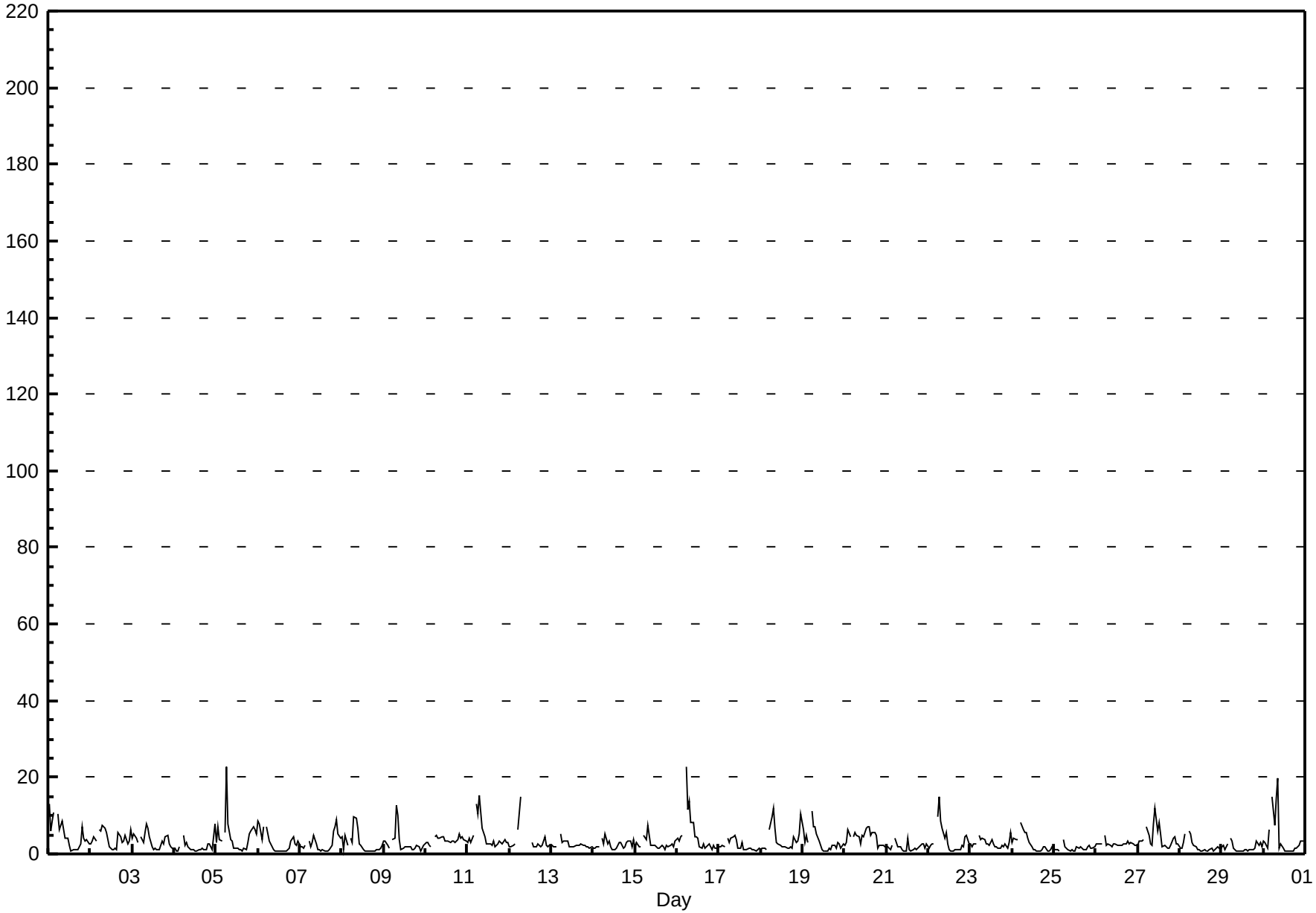
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2012

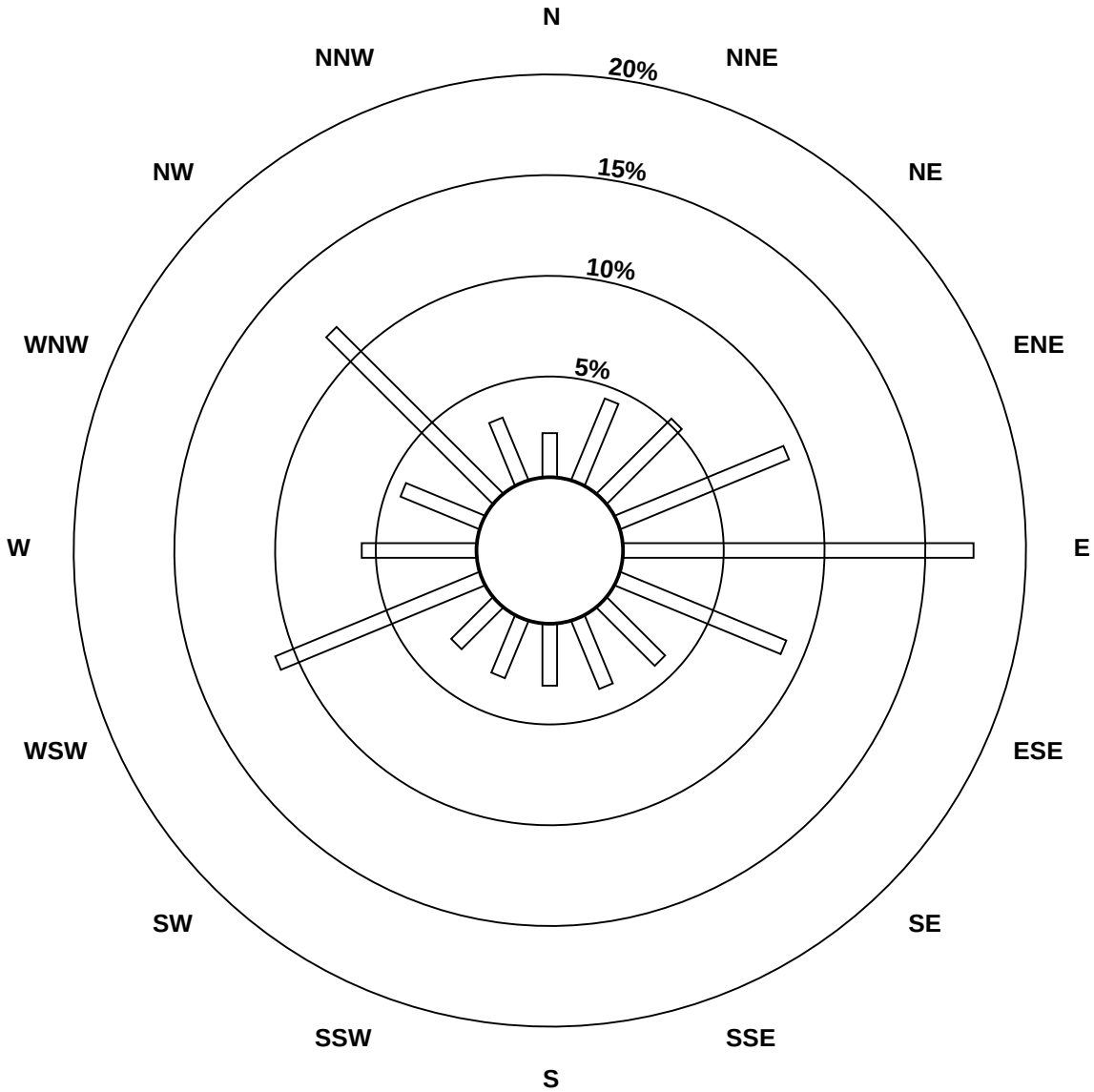


FOCUS AIR QUALITY MONITORING

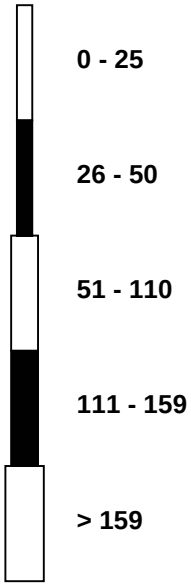
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2012



Pollutant Classes (ppb)

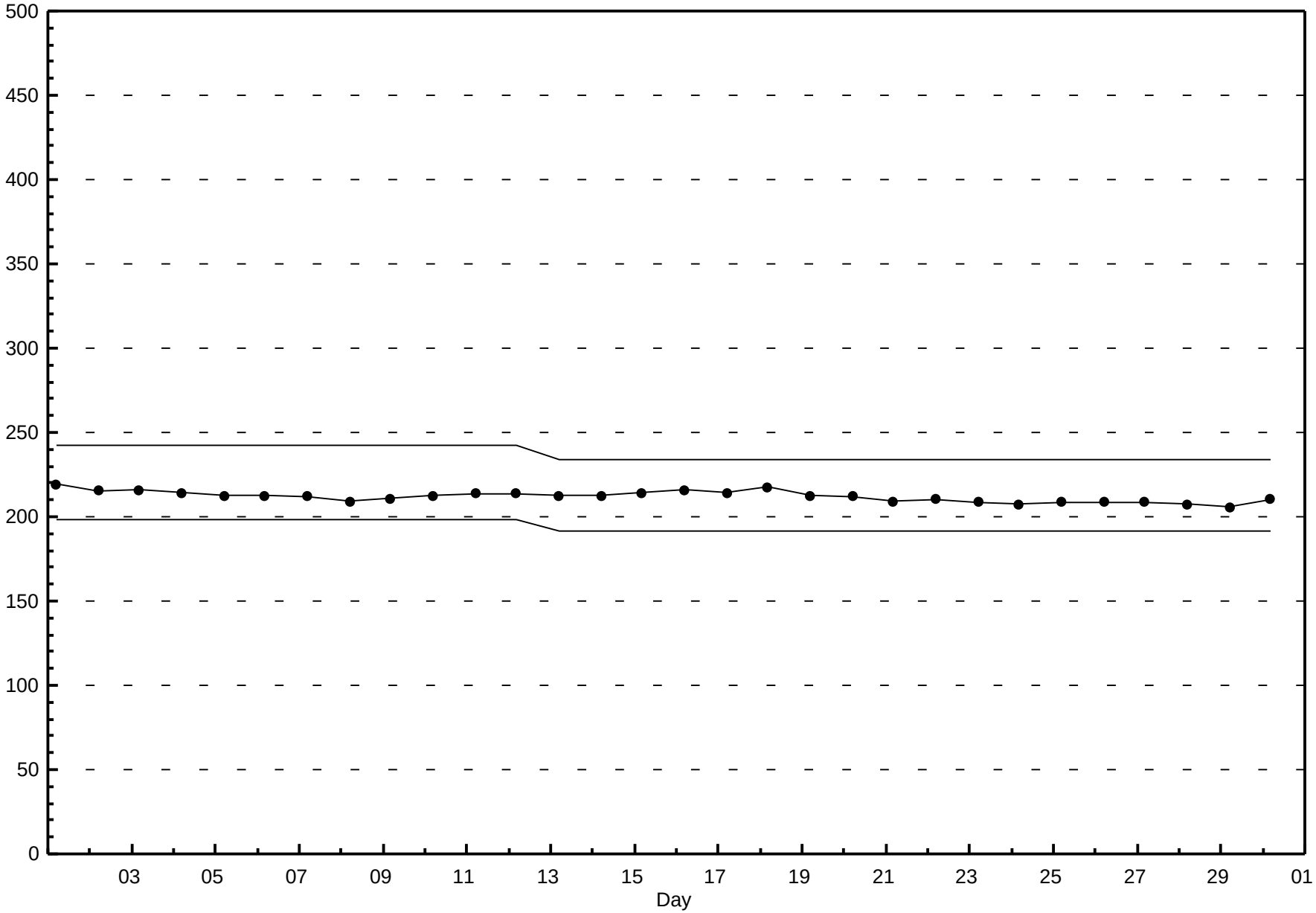


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Beaverlodge - April 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2012

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

Maximum Value: 7.3 ppb on Apr 30 09:00

Maximum Daily Average: 0.8 ppb on Apr 16

Minimum Value: 0 ppb on Apr 9 04:00

Minimum Daily Average: 0.0 ppb on Apr 29

Maximum Diurnal Average: 1.1 ppb at hour 9

Minimum Diurnal Average: 0.0 ppb at hour 23

Monthly Average: 0.23 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.5$ $P_{99} = 2.8$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
2-Apr	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
3-Apr	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
5-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
6-Apr	0	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
7-Apr	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	0.7
8-Apr	0	0	0	0	A	0	0	1	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.5
9-Apr	0	0	0	0	A	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5
10-Apr	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.1
11-Apr	0	0	0	0	A	0	0	3	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.9
12-Apr	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
13-Apr	0	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
14-Apr	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	0.8
15-Apr	0	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
16-Apr	0	0	0	0	A	0	1	3	4	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.8	5.0
17-Apr	0	0	0	0	A	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.8
18-Apr	0	0	0	0	A	0	0	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.4
19-Apr	0	0	0	0	A	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.3
20-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
21-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-Apr	0	0	0	0	A	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
23-Apr	0	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
24-Apr	0	0	0	0	A	0	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.0
25-Apr	0	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-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0.2	0.6
27-Apr	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
28-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
29-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
30-Apr	0	0	0	0	A	0	1	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	7.3
	0.0	0.0	0.0	0.0	--	0.1	0.2	0.9	1.1	0.8	0.5	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.1	0.1	0.1	--	0.5	0.9	3.1	7.3	5.0	1.9	1.1	0.8	0.7	0.6	0.8	0.5	0.4	0.2	0.1	0.0	0.1	0.1	0.1	Diurnal Maximum	

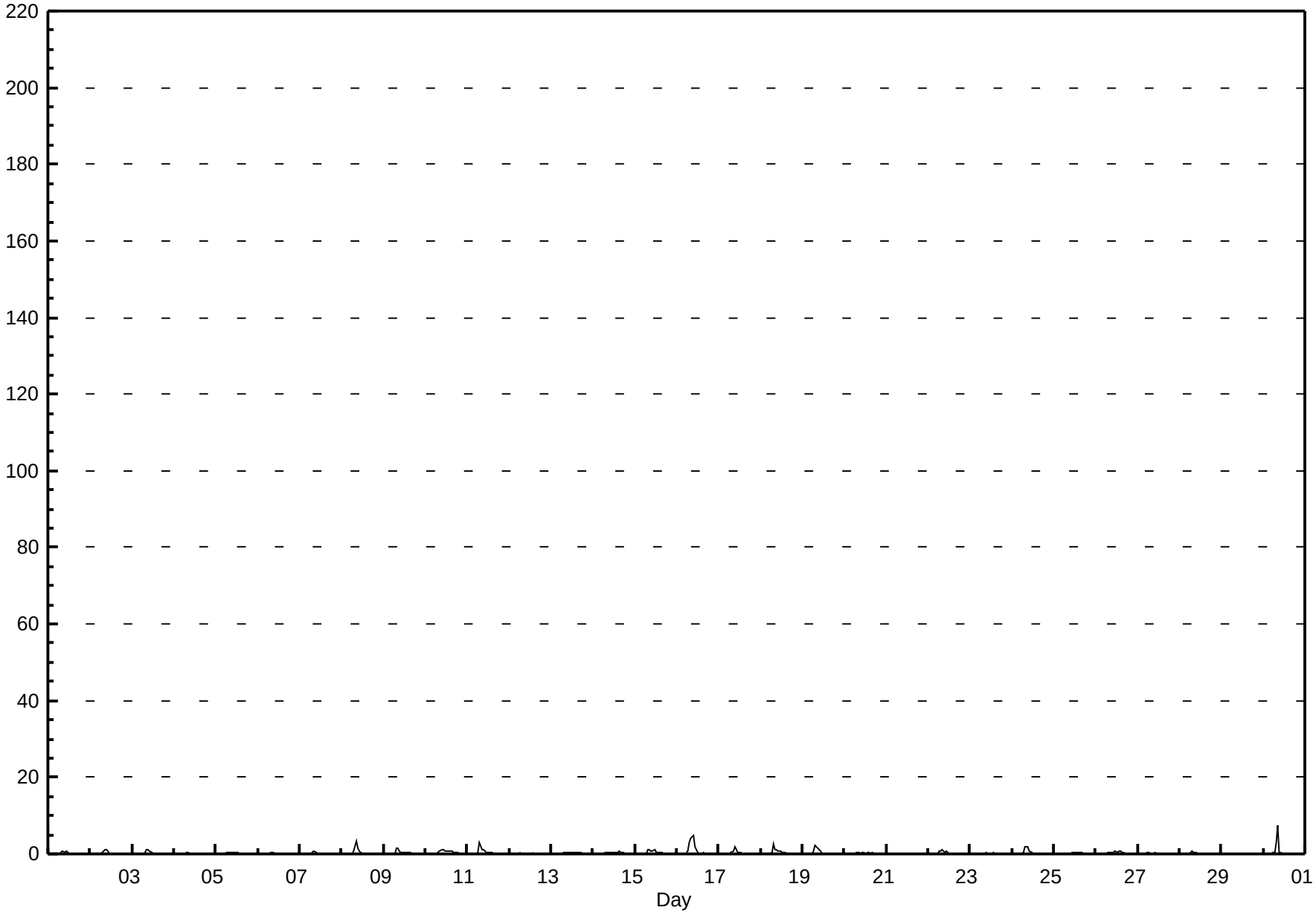
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2012

Maximum Value: 23.2 ppb on Apr 30 09:00

Maximum Daily Average: 2.0 ppb on Apr 30

Minimum Value: 0 ppb on Apr 20 03:00

Minimum Daily Average: 0.2 ppb on Apr 29

Maximum Diurnal Average: 2.5 ppb at hour 8

Minimum Diurnal Average: 0.1 ppb at hour 3

Monthly Average: 0.54 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.5$ $P_{90} = 1.0$ $P_{99} = 5.6$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	A	0	0	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7
2-Apr	0	0	0	0	A	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.2
3-Apr	0	0	0	0	A	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.6
4-Apr	0	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
5-Apr	0	0	0	0	A	0	2	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	2.0
6-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
7-Apr	0	0	0	0	A	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
8-Apr	0	0	0	0	A	0	0	3	5	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.1
9-Apr	0	0	0	0	A	0	0	4	3	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.6	3.8
10-Apr	0	0	0	0	A	0	0	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.5
11-Apr	0	0	0	0	A	0	1	12	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1.0	12.1
12-Apr	0	0	0	0	A	0	1	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	--	0.5
13-Apr	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0.3	0.7
14-Apr	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.5
15-Apr	0	0	0	0	A	0	0	2	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0.5	2.1
16-Apr	0	0	0	0	A	2	2	6	7	7	3	3	1	1	1	1	0	0	0	0	0	0	0	0	1.6	7.3
17-Apr	0	0	0	0	A	0	0	1	2	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5	2.2
18-Apr	0	0	0	0	A	0	1	6	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.7	5.8
19-Apr	0	0	0	0	A	0	5	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	5.0
20-Apr	0	0	0	0	A	0	0	0	1	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0.4	0.9
21-Apr	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
22-Apr	0	0	0	0	A	0	1	1	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6
24-Apr	0	0	0	0	A	1	1	4	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.0
25-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	1	0	0	0	0.4	0.8
26-Apr	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.0
27-Apr	0	0	0	0	A	2	2	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0.5	1.8
28-Apr	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
29-Apr	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
30-Apr	0	0	0	0	A	1	1	18	23	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	23.2
	0.1	0.1	0.1	0.1	--	0.3	0.8	2.5	2.4	1.3	0.9	0.6	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.2	0.3	0.3	--	1.8	5.0	18.1	23.2	7.0	3.3	3.2	1.2	1.2	1.3	1.5	1.0	0.5	0.9	0.6	0.7	0.3	0.3	0.2	Diurnal Maximum	

C - Calibration

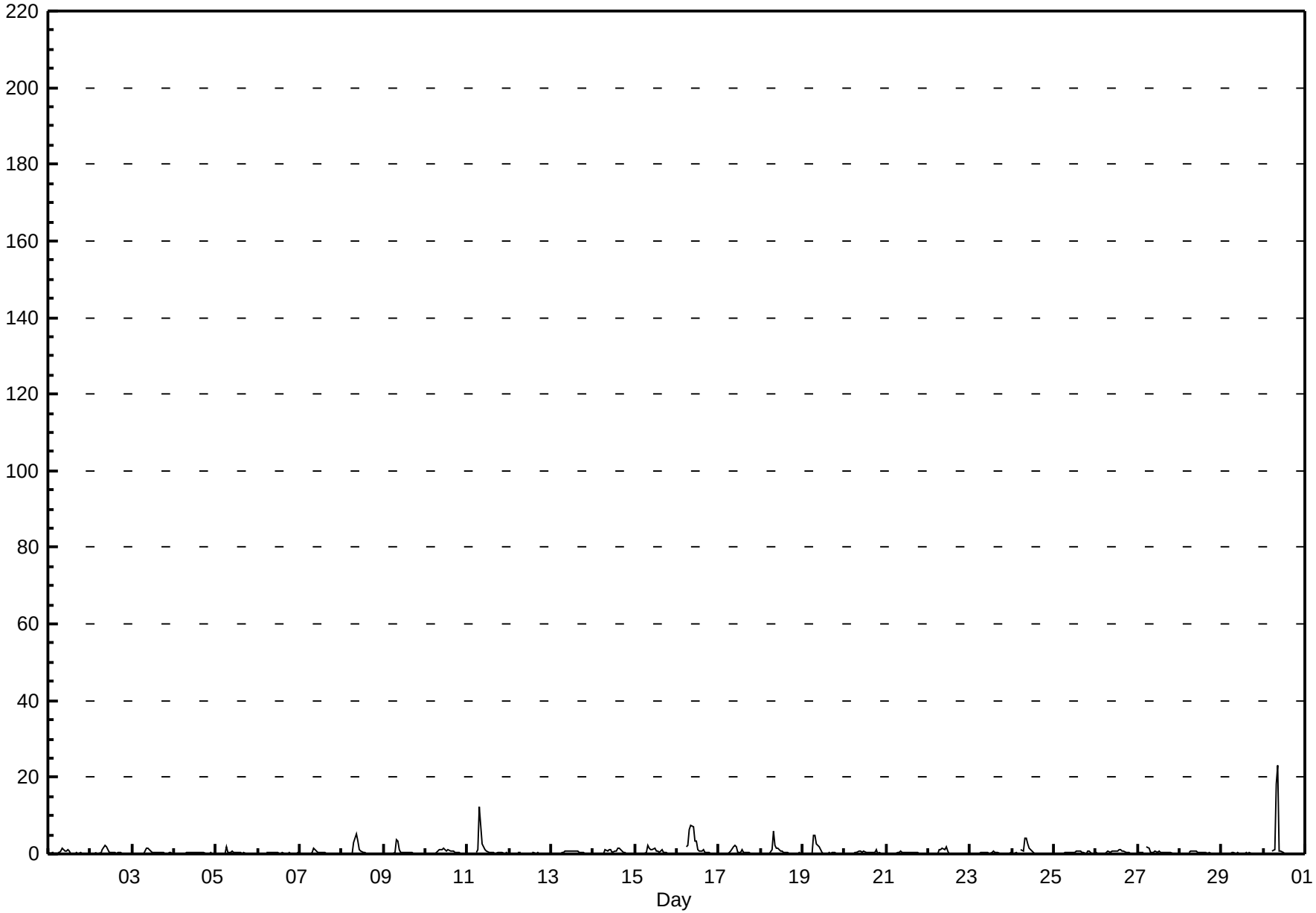
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2012

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

Maximum Value: 17.8 ppb on Apr 30 09:00

Maximum Daily Average: 3.9 ppb on Apr 16

Minimum Value: 0 ppb on Apr 29 11:00

Minimum Daily Average: 0.9 ppb on Apr 21

Maximum Diurnal Average: 4.6 ppb at hour 8

Minimum Diurnal Average: 1.2 ppb at hour 16

Monthly Average: 2.18 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.7$ $Q_1 = 1.0$ Median = 1.7 $Q_3 = 2.7$ $P_{90} = 4.1$ $P_{99} = 10.2$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	4	4	4	6	A	7	5	6	6	4	4	3	1	1	1	1	1	1	1	4	3	2	2	2	3.1	7.1
2-Apr	2	3	3	2	A	4	4	4	5	5	4	1	1	1	1	1	2	3	2	2	2	1	1	4	2.5	5.2
3-Apr	2	3	3	3	A	3	3	4	7	6	4	2	1	1	1	1	1	2	1	2	3	1	1	1	2.3	7.1
4-Apr	1	1	0	1	A	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1.1	3.6
5-Apr	2	4	3	3	A	5	12	6	3	2	1	1	1	1	1	1	1	1	1	3	3	5	4	3	2.8	12.1
6-Apr	4	3	2	5	A	3	2	2	2	1	1	1	1	0	1	1	1	1	1	1	2	1	1	2	1.6	4.6
7-Apr	1	1	1	1	A	2	1	2	3	2	1	1	1	1	1	1	1	1	1	4	4	6	3	2	1.8	6.3
8-Apr	2	1	1	1	A	2	2	4	10	6	3	1	1	1	1	1	1	1	1	1	1	1	1	2	2.0	10.3
9-Apr	3	3	2	1	A	3	3	9	6	3	1	1	2	2	2	2	1	1	1	1	1	1	1	2	2.2	8.5
10-Apr	3	3	2	2	A	3	4	4	4	5	5	4	4	4	4	4	3	3	3	3	4	4	3	3	3.5	4.8
11-Apr	3	3	3	3	A	6	7	11	6	6	4	3	3	3	2	2	2	2	2	2	2	3	2	2	3.5	10.8
12-Apr	2	2	2	2	A	4	9	C	C	C	C	C	C	3	2	2	2	2	2	2	3	2	1	1	--	9.4
13-Apr	2	2	2	2	A	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2.1	3.5
14-Apr	1	1	1	2	A	2	2	3	2	2	2	1	1	1	1	3	2	2	2	1	1	1	1	2	1.6	3.5
15-Apr	1	2	2	2	A	3	3	7	4	3	3	3	2	2	1	1	1	1	1	2	2	2	1	3	2.2	6.5
16-Apr	4	3	4	5	A	8	8	11	11	11	5	4	2	1	1	1	2	1	1	1	1	1	1	1	3.9	11.2
17-Apr	1	2	2	2	A	3	2	3	4	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1.8	6.2
18-Apr	1	1	1	1	A	3	6	9	4	4	3	3	2	2	2	2	1	1	1	2	2	2	2	4	2.6	9.5
19-Apr	3	2	3	2	A	5	5	7	6	4	3	1	1	1	1	1	1	1	1	1	2	2	1	2	2.4	7.3
20-Apr	2	2	3	3	A	3	3	3	2	2	2	2	2	3	3	2	2	2	1	1	1	1	1	1	2.0	3.5
21-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1
22-Apr	1	1	2	2	A	4	9	6	6	3	4	2	1	1	1	1	1	1	1	1	1	2	3	2	2.5	8.9
23-Apr	2	2	2	2	A	3	3	3	3	2	2	2	2	2	1	2	1	1	2	1	2	1	2	3	2.1	3.3
24-Apr	2	3	3	2	A	4	4	6	6	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2.2	6.0
25-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.1	2.2
26-Apr	2	3	3	2	A	3	2	2	2	2	2	3	2	2	3	3	2	3	3	3	3	2	2	2	2.4	3.3
27-Apr	2	2	2	3	A	5	3	1	2	2	4	2	2	2	1	1	1	1	1	1	1	2	1	1	1.9	5.3
28-Apr	1	1	2	3	A	5	4	3	2	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1.4	4.8
29-Apr	1	1	1	1	A	2	2	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.3
30-Apr	1	2	1	3	A	6	6	9	18	1	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2.7	17.8
	1.9	2.0	2.0	2.2	--	3.7	4.0	4.6	4.5	3.3	2.4	1.7	1.4	1.4	1.3	1.2	1.3	1.3	1.3	1.6	1.7	1.8	1.6	2.0	Diurnal Average	
	3.7	3.9	4.4	6.4	--	8.4	12.1	11.2	17.8	11.2	5.1	4.1	3.9	3.9	3.7	3.6	3.2	3.1	3.2	3.9	3.9	6.3	4.0	4.1	Diurnal Maximum	

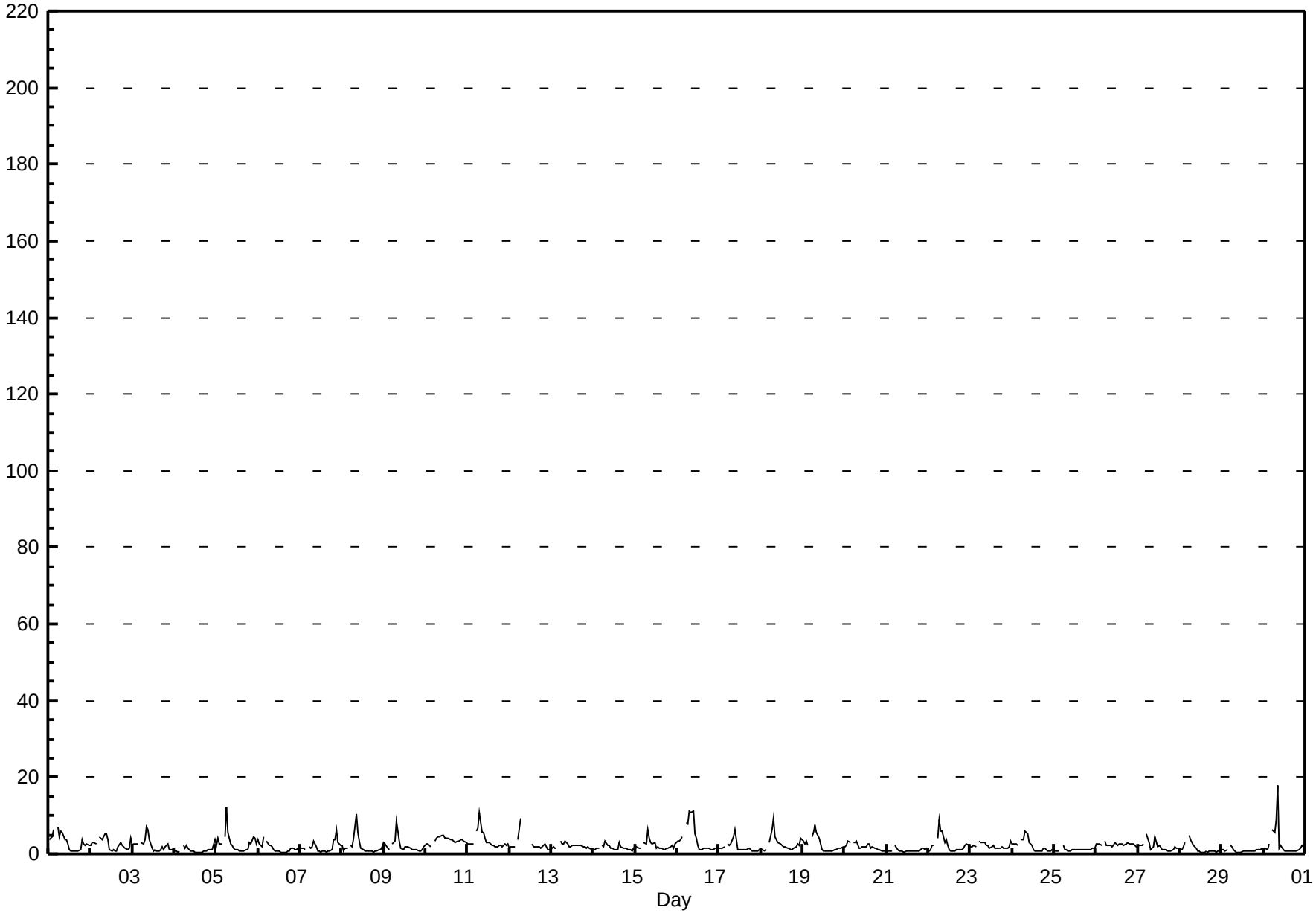
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2012

Maximum Value: 42.9 ppb on Apr 30 09:00

Maximum Daily Average: 6.5 ppb on Apr 16

Minimum Value: 1 ppb on Apr 24 22:00

Minimum Daily Average: 1.8 ppb on Apr 25

Maximum Diurnal Average: 8.7 ppb at hour 8

Minimum Diurnal Average: 2.0 ppb at hour 15

Monthly Average: 3.66 ppb

Percentiles: P_1 = 0.7 P_{10} = 1.2 Q_1 = 1.7 Median = 2.7 Q_3 = 4.3 P_{90} = 6.9 P_{99} = 17.1

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	13	6	9	11	A	11	7	8	10	5	5	5	3	1	1	1	1	1	3	7	4	3	4	3	5.3	13.3
2-Apr	3	4	5	3	A	6	6	8	9	8	5	2	1	1	2	1	6	5	3	4	5	3	3	6	4.3	8.9
3-Apr	4	5	4	3	A	4	3	6	9	8	6	2	2	2	2	1	2	4	3	4	5	3	2	2	3.8	9.5
4-Apr	2	1	1	2	A	5	2	3	3	2	2	1	1	1	1	1	2	1	1	3	3	2	1	8	2.1	8.1
5-Apr	3	7	4	3	A	6	25	8	4	4	2	2	2	1	1	1	2	1	3	5	6	7	6	5	4.8	24.9
6-Apr	9	8	4	7	A	7	4	3	2	2	1	1	1	1	1	1	1	1	2	3	4	3	2	4	3.1	8.7
7-Apr	2	2	2	2	A	3	2	3	6	3	2	1	1	1	1	1	1	1	2	6	7	9	5	4	3.0	9.2
8-Apr	4	1	5	2	A	4	3	13	14	10	4	3	1	1	1	1	1	1	1	1	1	1	2	2	3.3	14.4
9-Apr	4	3	2	1	A	4	4	16	13	5	2	2	2	2	2	2	2	1	2	2	2	1	2	2	3.4	16.2
10-Apr	3	3	2	2	A	5	5	5	5	6	6	4	4	4	4	4	4	3	4	6	4	5	4	3	4.2	5.9
11-Apr	3	4	3	5	A	14	11	28	10	8	6	3	3	3	3	4	2	3	3	3	3	4	3	3	5.7	27.7
12-Apr	2	2	2	3	A	6	15	C	C	C	C	C	C	4	2	2	3	3	2	3	5	2	2	2	--	15.2
13-Apr	2	2	2	2	A	5	3	4	4	4	3	2	3	3	3	3	3	3	3	2	2	2	2	2	2.8	5.4
14-Apr	2	2	2	2	A	4	3	6	3	5	3	2	2	2	4	5	4	2	2	3	3	4	2	4	3.0	6.2
15-Apr	2	3	2	2	A	5	4	10	6	4	3	4	2	2	2	3	2	2	3	2	2	3	2	3	3.1	9.5
16-Apr	4	3	4	5	A	24	13	20	16	15	8	7	5	2	2	4	2	2	3	2	1	2	2	2	6.5	24.0
17-Apr	2	2	2	2	A	4	3	5	6	7	6	2	2	4	2	1	2	2	2	1	1	1	1	1	2.7	7.1
18-Apr	1	2	2	1	A	7	11	18	9	4	4	3	3	3	2	2	2	2	1	5	3	4	6	11	4.5	17.9
19-Apr	6	3	5	3	A	11	12	11	7	5	3	2	1	1	1	2	1	3	2	2	3	3	2	3	4.0	12.4
20-Apr	2	3	6	5	A	4	6	5	5	4	5	5	7	7	8	5	6	6	5	2	3	2	2	2	4.6	7.8
21-Apr	2	2	1	2	A	4	2	2	3	1	1	1	4	1	1	1	2	1	2	2	3	3	1	3	2.0	4.3
22-Apr	1	2	3	3	A	10	16	10	8	5	8	3	1	1	1	1	1	1	1	2	2	4	5	3	4.1	16.2
23-Apr	3	2	3	3	A	5	4	4	4	3	3	2	4	3	2	2	2	2	3	2	3	2	3	6	2.9	5.8
24-Apr	3	4	4	4	A	9	7	9	10	7	4	3	1	1	1	1	1	1	2	2	1	1	1	2	3.5	9.9
25-Apr	1	1	1	1	A	4	2	2	1	1	1	1	1	2	2	3	2	1	1	3	3	2	1	2	1.8	3.6
26-Apr	3	3	3	3	A	5	3	4	3	3	3	4	3	3	3	3	4	3	4	3	3	3	3	2	3.1	5.1
27-Apr	2	3	4	4	A	8	6	3	3	9	12	7	9	6	2	3	2	2	2	3	4	4	3	2	4.4	12.4
28-Apr	1	1	3	5	A	6	5	4	3	3	1	1	1	1	1	1	1	1	2	1	1	2	2	1	2.2	6.0
29-Apr	2	2	1	2	A	4	4	2	1	1	1	1	1	1	1	1	1	1	1	2	3	2	3	2	1.8	4.0
30-Apr	3	3	2	6	A	16	8	32	43	2	4	2	1	1	1	1	1	1	2	2	2	3	3	3	6.2	42.9
	3.1	3.0	3.0	3.3	--	7.0	6.7	8.7	7.7	4.9	3.8	2.7	2.5	2.3	2.0	2.1	2.2	2.1	2.3	2.9	3.1	3.0	2.7	3.3	Diurnal Average	
	13.3	8.0	8.7	10.7	--	24.0	24.9	32.4	42.9	15.1	12.4	6.9	8.7	7.4	7.8	5.1	6.1	6.1	5.2	7.2	7.1	9.2	6.4	10.6	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

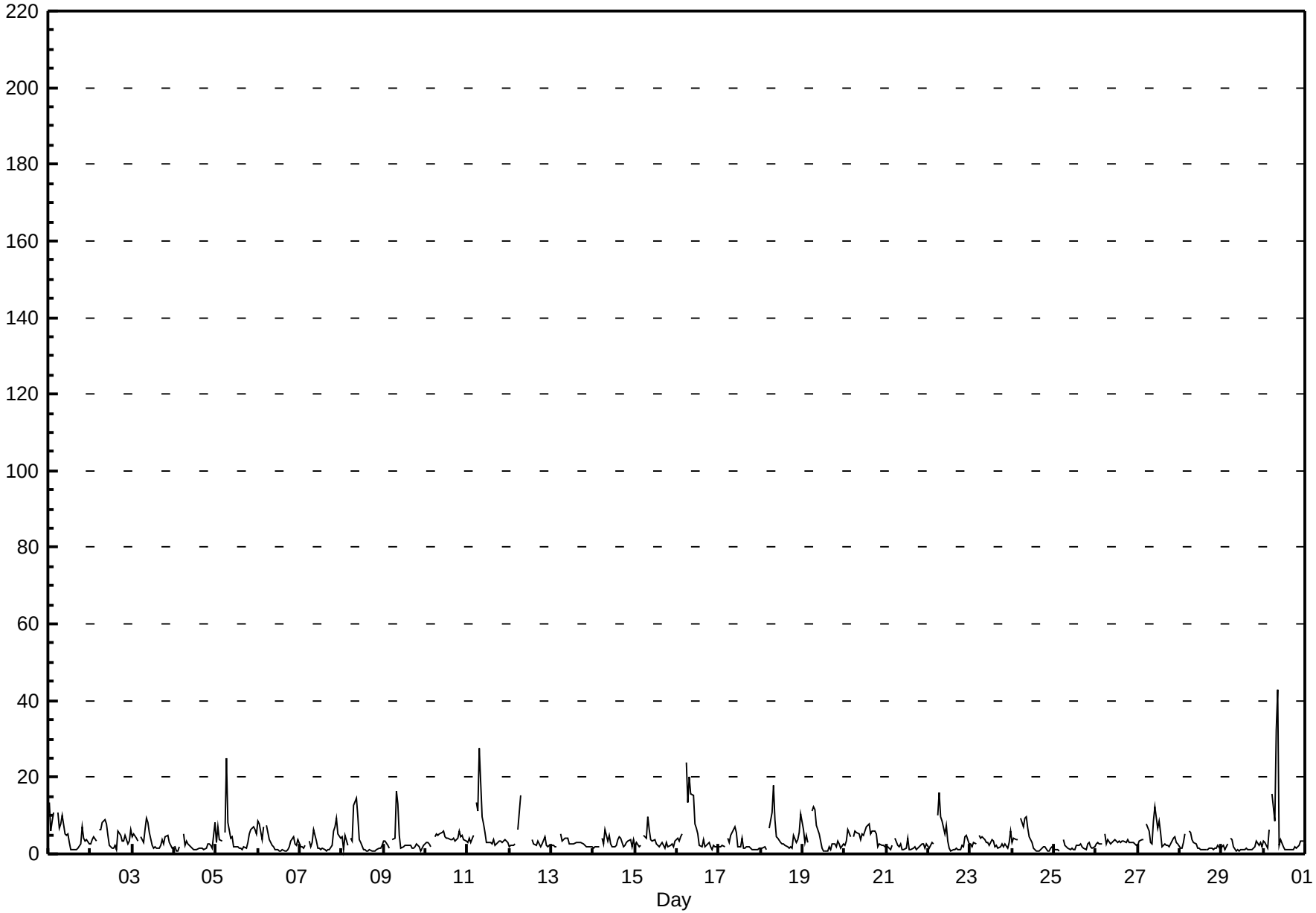
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2012



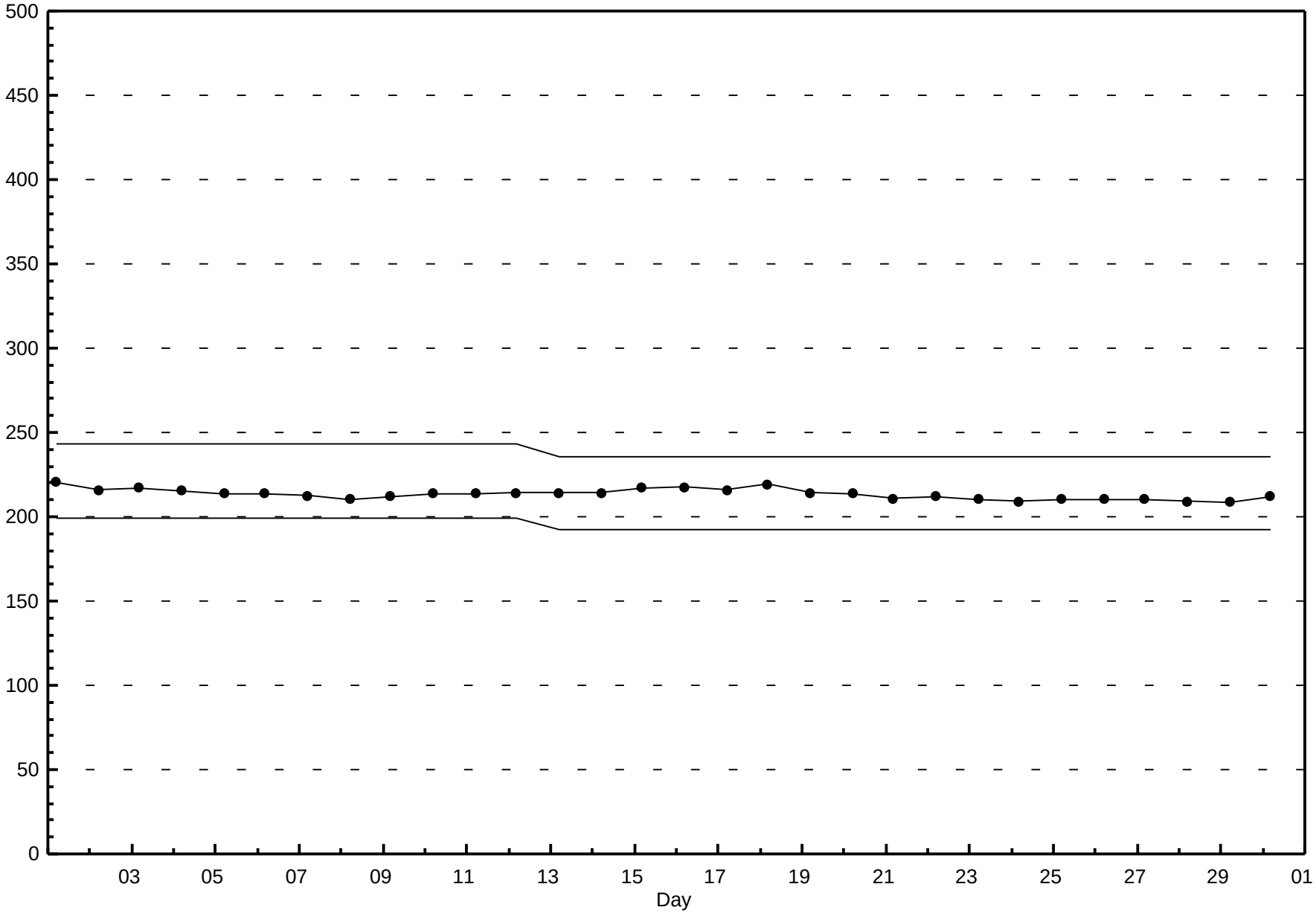
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Beaverlodge - April 2012



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - April 2012

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

Maximum Value: 55.8 ppb on Apr 15 16:00

Maximum Daily Average: 48.5 ppb on Apr 15

Minimum Value: 6 ppb on Apr 27 06:00

Minimum Daily Average: 16.2 ppb on Apr 26

Maximum Diurnal Average: 45.3 ppb at hour 16

Minimum Diurnal Average: 30.2 ppb at hour 7

Monthly Average: 38.89 ppb

Percentiles: P_1 = 13.3 P_{10} = 23.6 Q_1 = 34.2 Median = 40.6 Q_3 = 45.8 P_{90} = 48.9 P_{99} = 54.1

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	37	33	37	22	A	21	24	24	25	30	38	43	45	47	47	47	47	47	45	42	41	40	39	38	37.3	47.2
2-Apr	35	35	36	36	A	34	34	36	35	39	41	48	50	50	53	53	49	46	45	47	48	47	48	44	43.0	53.4
3-Apr	46	44	45	44	A	45	46	45	42	44	48	52	54	55	55	55	54	51	50	47	46	46	46	44	47.9	55.3
4-Apr	44	49	47	45	A	41	41	42	44	46	46	46	46	46	46	46	46	47	46	45	44	43	43	36	44.6	49.0
5-Apr	37	32	33	34	A	31	21	30	34	35	38	38	40	41	40	41	40	39	37	34	34	32	31	34	35.1	40.9
6-Apr	34	33	31	30	A	31	33	32	33	38	39	40	41	44	44	46	47	46	45	40	39	39	38	34	38.0	46.5
7-Apr	33	33	33	33	A	34	34	34	32	40	45	46	47	48	49	49	49	48	47	43	43	40	44	43	41.2	49.5
8-Apr	38	38	36	38	A	36	36	30	20	33	38	45	47	48	49	50	50	49	46	44	43	41	40	39	40.7	50.4
9-Apr	39	41	43	43	A	40	39	31	30	38	47	46	46	47	48	50	51	52	52	51	46	45	44	42	43.9	52.2
10-Apr	40	40	41	42	A	39	38	38	38	39	39	41	43	42	42	43	44	44	42	39	37	36	37	37	40.2	44.5
11-Apr	39	38	37	37	A	30	25	19	29	35	40	43	45	48	47	45	45	47	47	45	45	43	40	37	39.4	47.9
12-Apr	37	37	37	36	A	35	26	33	37	39	39	C	C	C	47	47	47	46	47	46	39	39	42	42	39.9	46.8
13-Apr	35	34	34	34	A	31	30	31	31	32	33	33	34	35	35	36	36	37	38	38	37	36	36	37	34.4	37.9
14-Apr	37	38	38	40	A	40	40	39	39	40	41	43	45	49	52	50	49	49	49	49	49	50	51	49	44.7	51.6
15-Apr	49	49	48	48	A	46	45	42	44	47	49	49	52	54	55	56	55	54	52	50	47	43	42	40	48.5	55.8
16-Apr	38	38	36	33	A	27	28	28	30	31	39	44	49	50	51	52	52	51	49	47	47	46	45	45	41.6	52.3
17-Apr	44	43	44	42	A	44	43	43	42	40	43	49	50	50	51	51	51	49	48	48	47	46	45	44	45.9	51.0
18-Apr	44	44	45	43	A	39	35	32	37	37	38	39	42	45	46	47	48	48	48	45	42	40	45	41	42.2	47.9
19-Apr	30	33	31	26	A	20	18	15	19	27	31	44	48	48	49	50	50	50	47	46	44	43	41	39	37.0	50.2
20-Apr	38	39	32	31	A	41	32	33	39	47	47	45	44	42	41	42	40	40	41	42	42	41	39	37	39.8	47.2
21-Apr	37	39	37	36	A	35	36	38	40	44	45	46	48	50	49	49	50	49	49	46	46	46	46	44	43.7	49.8
22-Apr	46	38	38	39	A	35	27	23	25	38	38	42	45	49	50	51	51	51	51	49	46	43	41	40	41.6	51.5
23-Apr	41	42	38	39	A	36	32	35	40	43	42	42	41	42	42	39	43	41	37	32	30	28	29	25	37.3	43.0
24-Apr	25	24	19	21	A	22	19	18	22	26	34	41	45	47	48	48	49	48	47	44	41	40	37	35	34.8	49.0
25-Apr	30	29	25	26	A	23	22	23	23	21	19	18	19	19	18	18	18	19	19	19	19	19	18	16	20.9	30.1
26-Apr	14	12	11	11	A	12	14	14	15	15	17	18	18	18	18	18	18	18	18	18	18	19	21	21	16.2	21.4
27-Apr	20	17	15	13	A	6	14	35	42	42	40	43	42	43	45	44	45	46	45	43	40	38	38	38	34.5	45.7
28-Apr	34	34	31	29	A	26	25	28	32	38	42	43	44	43	42	42	41	40	40	39	38	37	34	35	36.5	44.2
29-Apr	33	32	32	31	A	30	29	28	33	35	37	43	46	48	47	45	44	43	44	42	37	35	35	34	37.6	47.9
30-Apr	34	32	32	28	A	24	18	22	22	38	39	44	45	47	48	48	47	47	47	46	48	47	43	40	38.6	48.4
	36.3	35.6	34.8	33.8	--	31.9	30.2	30.8	32.6	36.5	39.1	41.8	43.5	44.6	45.0	45.3	45.2	44.8	43.9	42.2	40.7	39.6	39.2	37.6	Diurnal Average	
	48.9	49.0	48.4	48.1	--	46.1	45.5	44.6	44.5	47.2	48.7	51.6	54.3	54.7	55.3	55.8	54.9	53.9	52.2	50.8	49.2	50.4	50.8	49.4	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

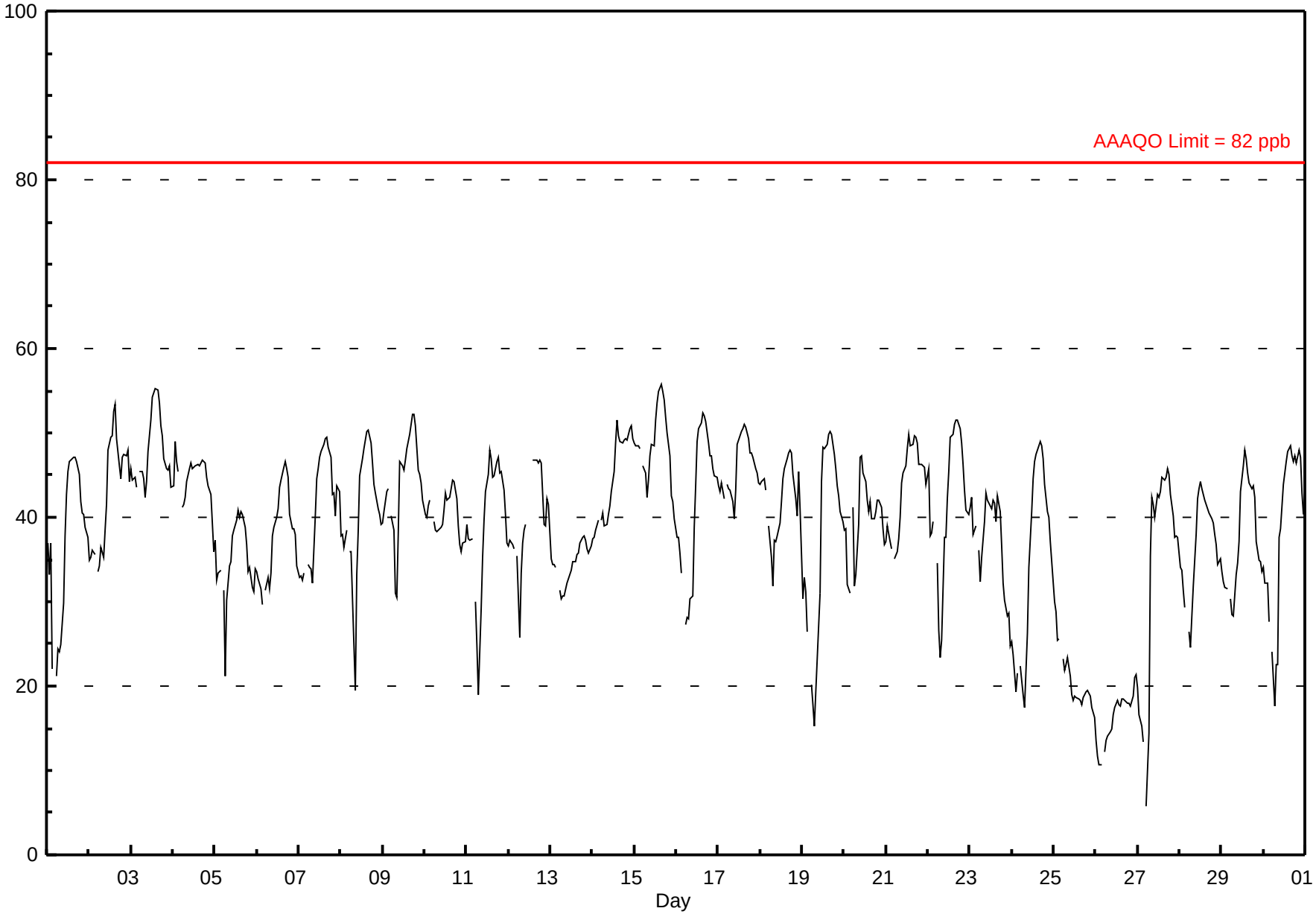
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - April 2012



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - April 2012

Maximum Value: 56.6 ppb on Apr 15 16:00

Maximum Daily Average: 49.9 ppb on Apr 3

Minimum Value: 9 ppb on Apr 27 06:00

Minimum Daily Average: 17.2 ppb on Apr 26

Maximum Diurnal Average: 46.7 ppb at hour 16

Minimum Diurnal Average: 33.8 ppb at hour 7

Monthly Average: 41.16 ppb

Percentiles: P_1 = 14.8 P_{10} = 29.0 Q_1 = 37.2 Median = 43.1 Q_3 = 47.7 P_{90} = 50.4 P_{99} = 55.6

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	45	39	43	29	A	38	30	29	29	36	42	45	46	48	48	48	48	48	47	44	44	44	41	40	41.3	48.2
2-Apr	37	38	38	39	A	35	38	40	38	41	45	50	51	51	55	55	53	50	49	49	49	51	51	47	45.6	54.7
3-Apr	48	46	46	45	A	47	46	47	45	46	51	55	56	56	56	57	55	54	52	49	49	48	48	46	49.9	56.6
4-Apr	50	50	48	47	A	44	43	45	46	47	48	47	47	47	48	47	48	48	48	46	45	45	43	43	46.5	50.3
5-Apr	39	35	35	35	A	33	30	33	37	37	39	41	41	43	41	43	42	40	39	36	36	34	33	37	37.3	42.6
6-Apr	36	35	33	32	A	34	35	33	37	40	40	41	44	45	46	47	47	47	47	43	40	40	40	36	39.8	47.4
7-Apr	34	34	34	35	A	36	36	37	40	44	47	47	49	49	50	50	50	49	49	46	47	43	45	45	43.3	50.5
8-Apr	40	40	39	40	A	40	40	39	27	39	41	48	49	50	50	51	52	51	50	46	45	42	41	41	43.4	51.7
9-Apr	40	42	45	44	A	42	40	39	34	47	49	49	47	49	50	52	53	53	53	53	47	46	46	44	46.2	53.3
10-Apr	42	42	43	43	A	41	40	40	40	40	42	43	45	43	44	45	46	45	45	41	39	37	38	38	41.7	45.6
11-Apr	41	42	40	39	A	39	31	26	34	40	44	44	47	50	49	47	47	48	49	48	47	46	43	38	42.5	49.6
12-Apr	38	39	38	37	A	37	37	36	38	39	40	C	C	C	48	49	48	48	48	48	41	40	45	45	42.0	48.7
13-Apr	38	36	36	35	A	32	31	32	32	34	34	35	35	36	36	37	37	38	39	38	38	38	36	38	35.6	38.7
14-Apr	38	38	40	40	A	41	41	41	40	42	43	44	47	52	53	51	50	49	50	51	50	52	52	51	45.8	52.6
15-Apr	50	49	49	49	A	47	46	44	46	49	50	50	53	55	56	57	56	55	54	51	49	45	43	41	49.6	56.6
16-Apr	39	39	38	35	A	33	33	32	33	35	42	47	51	51	53	54	53	53	51	48	48	47	46	45	43.8	53.5
17-Apr	45	44	45	44	A	45	44	44	44	42	48	50	51	51	52	52	52	51	49	48	48	47	46	45	47.4	52.5
18-Apr	45	45	46	45	A	41	38	39	39	39	39	41	44	46	47	49	49	49	49	47	49	44	50	50	44.8	50.3
19-Apr	36	37	37	31	A	22	21	18	23	33	39	49	50	49	50	51	52	52	50	50	45	45	44	41	40.2	51.9
20-Apr	41	41	38	36	A	48	38	41	44	50	49	47	46	45	44	44	42	41	42	43	43	43	42	38	42.8	49.8
21-Apr	39	41	41	39	A	37	38	39	42	46	47	48	51	52	51	50	51	51	50	49	48	47	47	45	45.5	51.6
22-Apr	48	43	39	41	A	43	35	30	30	43	43	44	51	51	51	53	53	53	52	51	50	48	45	45	45.2	52.5
23-Apr	43	44	44	41	A	40	35	39	43	45	44	44	43	43	44	42	44	43	42	35	33	31	32	27	40.0	45.0
24-Apr	27	26	24	25	A	27	22	21	30	31	41	44	46	48	49	50	50	50	49	46	43	41	41	36	37.7	50.1
25-Apr	34	31	26	27	A	25	23	24	24	23	20	19	19	19	19	19	19	20	20	20	20	20	18	17	22.1	34.2
26-Apr	15	13	12	11	A	14	14	15	15	16	18	18	19	19	18	19	19	19	19	19	18	21	22	22	17.2	22.4
27-Apr	21	19	17	15	A	9	25	40	44	43	45	45	44	46	46	46	46	47	47	45	42	40	39	40	37.0	46.9
28-Apr	36	36	33	32	A	28	27	32	35	41	44	45	45	45	44	43	42	42	41	40	40	38	36	37	38.2	45.3
29-Apr	36	34	33	33	A	32	31	32	34	36	41	46	49	50	49	47	46	46	46	45	40	37	37	38	39.8	49.6
30-Apr	36	37	34	36	A	33	27	29	39	39	42	47	47	49	50	50	49	49	49	49	50	50	48	44	42.7	50.3
	38.6	37.7	37.1	35.9	--	35.3	33.8	34.5	36.1	39.4	41.8	43.9	45.2	46.1	46.5	46.7	46.6	46.2	45.8	44.2	42.8	41.6	41.2	40.0	Diurnal Average	
	50.4	50.3	49.1	49.0	--	48.0	46.4	47.1	45.7	49.8	50.7	54.7	55.7	55.8	56.5	56.6	55.9	54.6	53.6	52.8	50.3	51.6	52.0	50.6	Diurnal Maximum	

C - Calibration

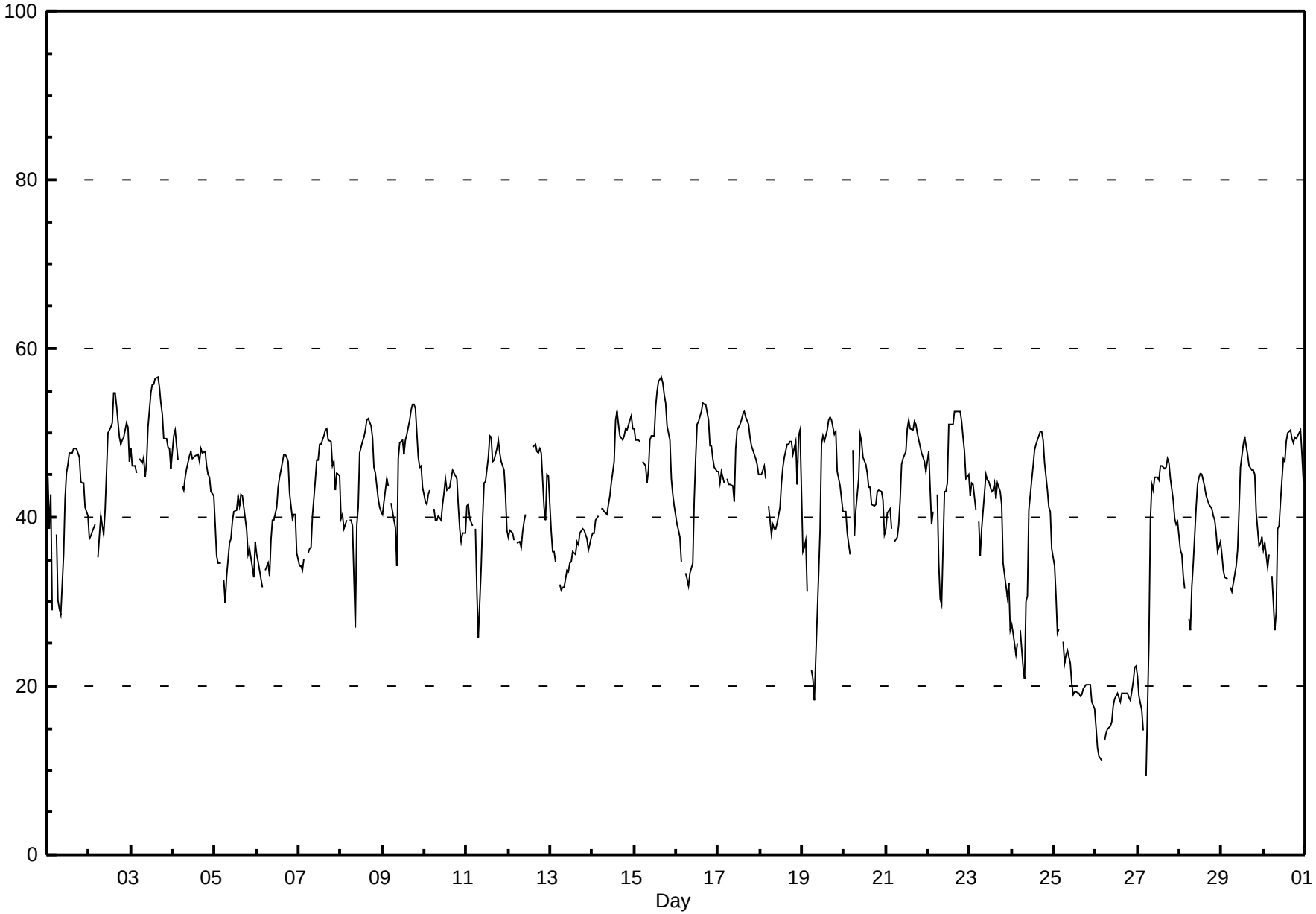
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

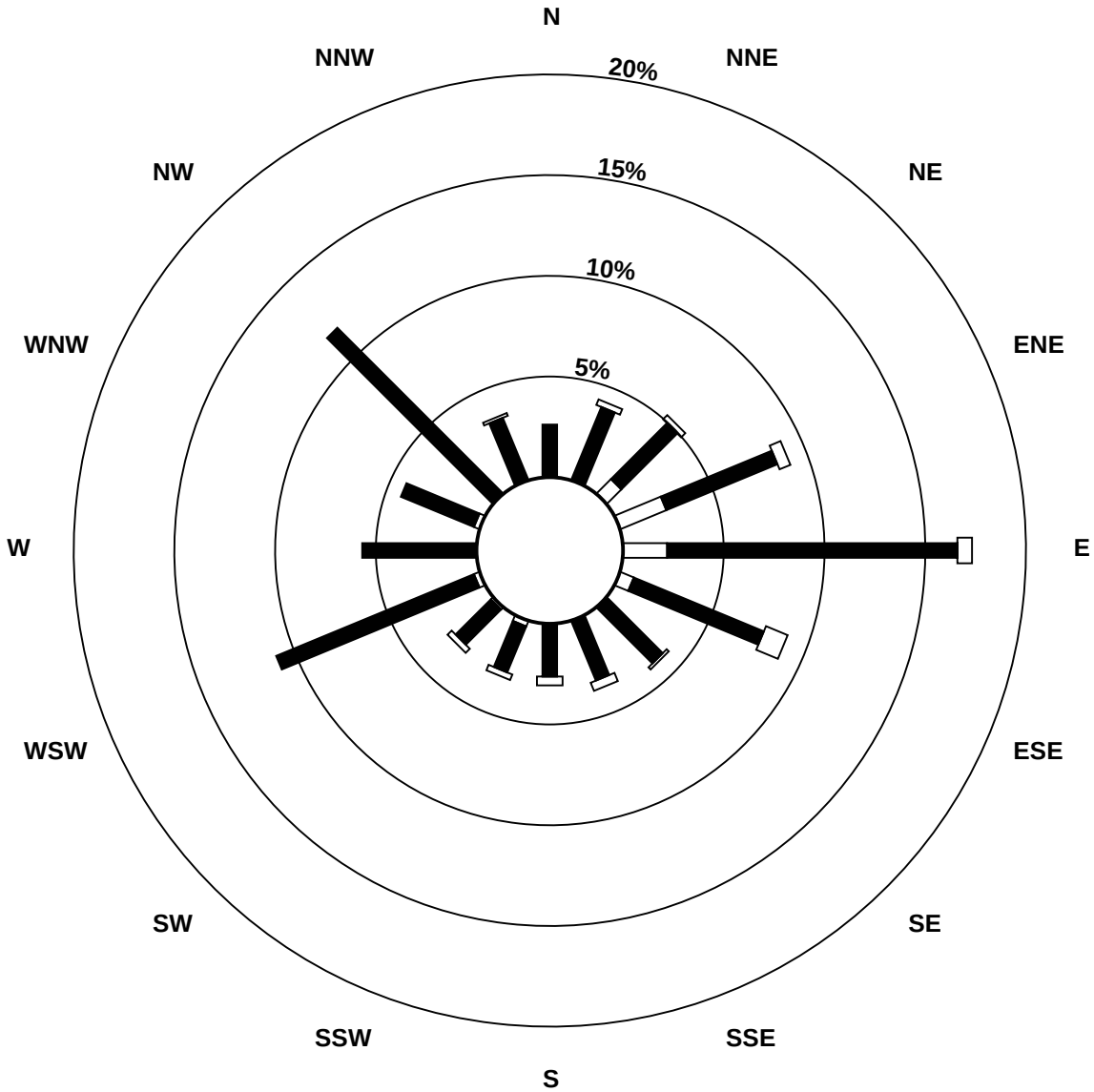
Beaverlodge - April 2012



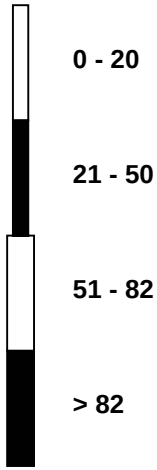
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - April 2012



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - April 2012

Maximum Value: 53.3 ppb on Apr 15 20:00

Minimum Value: 12.4 ppb on Apr 26 08:00

Percentiles: P_1 = 14.8 P_{10} = 27.1 Q_1 = 34.7 Median = 40.0 Q_3 = 45.0 P_{90} = 47.9 P_{99} = 52.5

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	43	41	40	37	36	33	31	28	27	26	26	29	31	34	37	40	43	45	46	46	45	44	43	42	45.9
2-Apr	41	39	38	37	37	36	35	35	35	36	36	38	40	42	44	46	48	49	49	49	49	48	48	47	49.1
3-Apr	46	46	46	46	45	45	45	45	44	44	45	46	47	48	49	51	52	53	53	53	52	50	49	48	53.1
4-Apr	47	46	46	46	46	45	44	44	44	44	44	44	44	45	45	46	46	46	46	46	46	45	45	44	46.6
5-Apr	43	41	39	38	37	35	32	31	31	31	32	33	33	35	37	38	39	40	39	39	38	37	36	35	42.6
6-Apr	34	33	33	32	32	32	32	32	32	33	34	35	36	37	39	41	42	43	44	44	44	43	42	41	44.0
7-Apr	39	38	36	35	35	34	34	33	33	34	36	38	39	41	43	44	47	48	48	48	47	46	45	45	47.9
8-Apr	43	42	41	40	40	39	38	36	33	33	33	34	36	37	39	41	45	47	48	48	47	47	45	44	48.1
9-Apr	43	42	41	41	41	41	41	39	38	38	38	39	40	40	42	44	47	48	49	50	50	49	49	48	49.6
10-Apr	47	45	44	43	42	41	40	40	40	40	39	39	40	40	40	41	42	42	43	43	42	41	40	40	46.5
11-Apr	39	38	37	37	37	36	35	32	31	30	31	32	33	35	38	41	43	45	46	46	46	46	45	44	46.1
12-Apr	43	42	40	39	38	37	35	35	35	35	35	35	35	N	N	N	N	N	N	47	46	45	44	44	46.7
13-Apr	42	41	39	38	37	36	35	33	32	32	32	32	32	32	33	33	34	35	35	36	36	37	37	37	42.1
14-Apr	37	37	37	37	37	38	39	39	39	40	40	40	41	42	44	45	46	47	48	49	49	50	50	50	49.6
15-Apr	49	49	49	49	49	49	48	47	46	46	46	46	47	48	49	51	52	53	53	53	53	51	50	48	53.3
16-Apr	46	44	42	39	38	36	34	33	32	31	31	32	35	37	40	43	46	49	50	50	50	50	49	48	50.3
17-Apr	47	46	45	44	44	44	44	43	43	43	43	43	44	45	46	47	48	49	50	50	49	49	48	47	49.7
18-Apr	46	46	45	45	44	43	42	40	39	38	37	37	37	38	39	41	43	44	45	46	46	45	45	45	46.3
19-Apr	42	41	39	36	35	32	29	25	23	22	22	25	28	31	35	40	43	46	48	49	48	47	46	45	48.5
20-Apr	43	42	40	38	38	37	36	35	35	36	39	41	41	41	42	43	44	43	42	41	41	41	41	40	43.5
21-Apr	40	40	39	39	38	37	37	37	37	38	39	41	42	43	45	46	48	48	49	49	48	48	48	47	48.7
22-Apr	47	45	44	43	42	41	38	35	32	32	32	33	34	36	39	42	46	47	49	50	50	49	48	47	49.9
23-Apr	45	44	43	41	41	40	38	38	38	38	38	39	39	40	41	41	42	41	41	40	38	36	35	33	45.3
24-Apr	31	29	27	25	25	24	22	21	21	21	23	26	28	31	35	39	42	45	47	47	46	46	44	43	46.9
25-Apr	40	38	35	33	32	29	27	25	24	23	22	21	21	20	20	20	19	19	19	19	19	19	19	18	40.2
26-Apr	18	17	16	15	14	13	13	12	12	13	14	15	15	16	16	17	17	18	18	18	18	18	19	19	18.9
27-Apr	19	19	19	18	18	16	15	17	20	24	28	32	33	38	42	43	43	43	44	44	44	43	42	41	44.1
28-Apr	40	39	37	35	35	33	31	30	29	30	31	34	35	37	39	41	42	42	42	41	41	40	39	38	42.3
29-Apr	37	36	35	34	34	33	32	31	31	31	32	34	35	37	40	42	43	44	45	45	44	42	41	39	45.1
30-Apr	38	37	35	33	33	31	29	27	26	26	27	30	32	34	38	41	44	46	47	47	47	47	47	46	47.4
	49.5	49.5	49.4	49.2	49.2	48.6	47.8	46.8	46.2	46.0	46.0	46.1	47.0	48.1	49.4	50.7	52.1	52.9	53.1	53.3	52.8	51.4	49.8	49.5	
	Diurnal Maximums																								

N - Not Valid

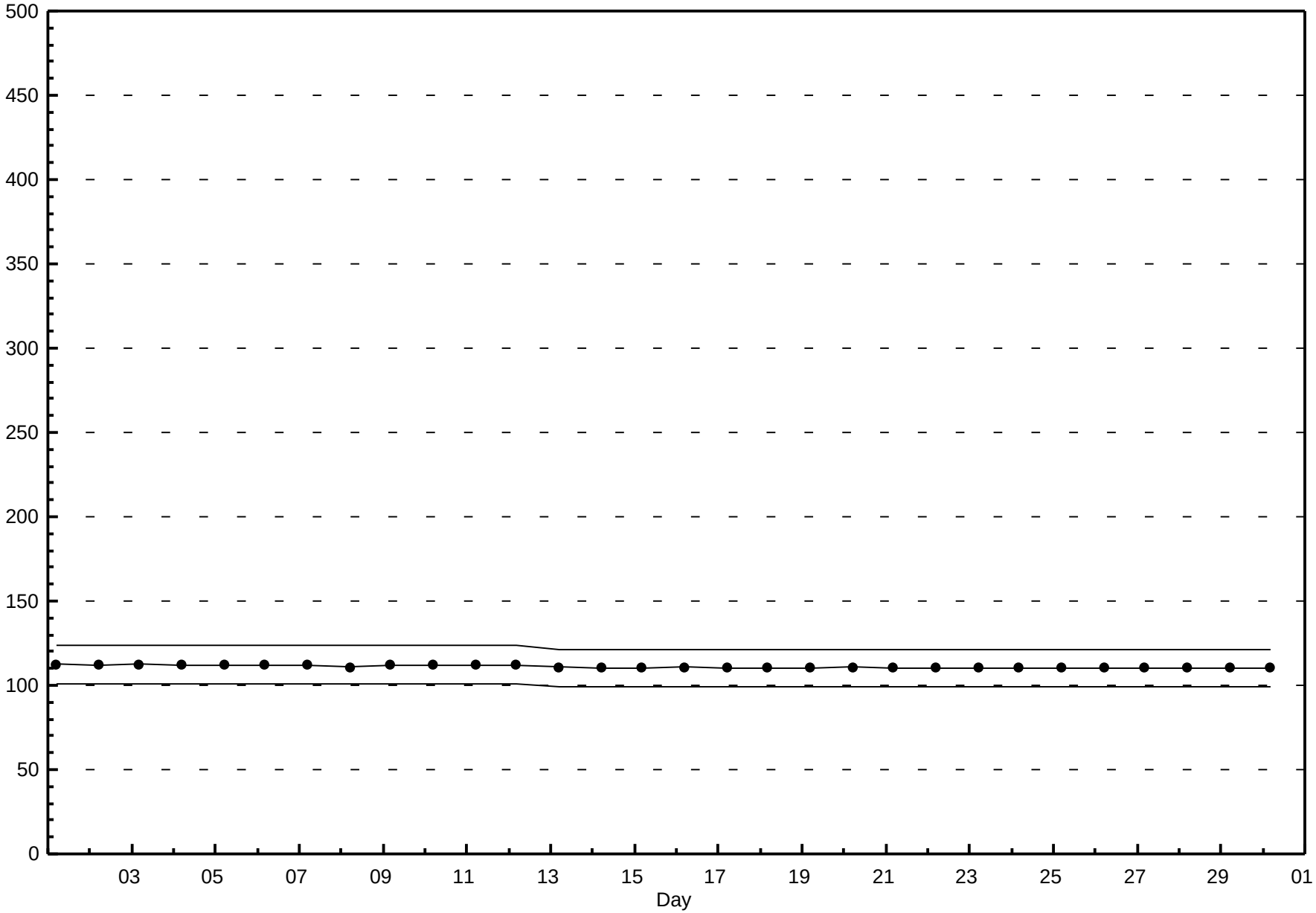
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Beaverlodge - April 2012



Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - April 2012

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

Maximum Value: 20.5 $\mu g/m^3$ on Apr 12 18:00

Maximum Daily Average: 11.8 $\mu g/m^3$ on Apr 12

Minimum Value: 1 $\mu g/m^3$ on Apr 29 03:00

Maximum Diurnal Average: 7.1 $\mu g/m^3$ at hour 18

Monthly Average: 6.45 $\mu g/m^3$

Minimum Daily Average: 4.2 $\mu g/m^3$ on Apr 29

Minimum Diurnal Average: 5.7 $\mu g/m^3$ at hour 5

Percentiles: P_1 = 2.0 P_{10} = 3.9 Q_1 = 4.9 Median = 6.2 Q_3 = 7.6 P_{90} = 9.3 P_{99} = 12.9

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	3	4	4	4	4	4	6	6	6	6	4	6	6	6	6	5	8	7	5	9	8	7	7	10	5.8	10.2
2-Apr	8	8	6	5	6	6	5	8	10	7	5	4	4	7	6	5	6	7	8	6	1	5	4	6	6.1	9.8
3-Apr	7	8	6	7	7	7	7	7	7	9	10	10	6	9	9	6	6	6	7	8	6	6	5	6	7.2	9.7
4-Apr	7	3	2	6	7	7	7	7	7	5	3	3	5	4	6	6	3	5	5	4	5	6	8	6	5.2	7.6
5-Apr	7	7	6	5	5	7	7	8	7	7	7	7	7	7	7	5	4	6	6	8	8	6	6	6	6.4	8.0
6-Apr	6	5	5	6	6	5	7	6	5	5	4	5	5	6	5	6	7	8	7	6	7	7	6	6	5.9	7.5
7-Apr	5	6	6	5	4	5	5	5	5	7	7	6	5	4	4	6	5	5	5	7	8	8	7	8	5.8	8.3
8-Apr	8	5	6	6	6	5	5	5	7	8	9	8	7	6	5	7	7	5	5	6	7	5	6	5	6.2	9.0
9-Apr	6	8	7	6	5	5	7	6	8	8	5	5	7	7	6	6	8	8	7	9	7	6	6	7	6.7	8.8
10-Apr	8	9	8	9	9	9	8	10	8	8	11	11	11	10	11	12	9	10	11	9	10	9	10	8	9.5	11.8
11-Apr	7	8	9	9	9	9	8	9	11	10	12	9	9	12	14	13	11	12	13	11	11	11	12	9	10.3	13.5
12-Apr	9	12	14	12	10	9	11	11	13	12	10	11	12	11	M	M	13	21	17	11	10	9	10	10	11.8	20.5
13-Apr	9	8	7	5	7	6	5	5	5	5	5	6	7	7	7	7	6	5	5	4	6	5	4	5	5.8	8.8
14-Apr	5	4	4	5	4	4	4	4	5	5	5	6	5	6	6	5	6	6	7	6	5	5	4	5	5.0	6.7
15-Apr	5	3	5	6	5	6	6	6	5	5	6	4	6	7	7	5	9	9	7	8	7	7	8	7	6.2	9.0
16-Apr	8	9	9	10	10	10	11	13	11	10	9	7	6	5	7	7	8	8	6	7	6	7	6	6	8.2	12.5
17-Apr	6	6	7	7	6	6	6	7	7	7	8	7	8	6	7	5	5	6	6	7	7	6	6	6	6.5	8.2
18-Apr	5	6	5	4	5	5	5	7	7	7	6	7	6	7	9	8	9	9	8	8	8	7	9	7	6.8	9.1
19-Apr	11	10	9	8	6	6	7	8	7	6	5	5	5	4	4	3	4	4	6	5	6	7	8	7	6.3	11.5
20-Apr	8	8	5	5	4	9	4	4	5	5	5	3	3	5	4	3	3	4	2	2	2	4	4	5	4.4	9.3
21-Apr	2	4	3	2	4	5	2	3	4	5	5	3	5	5	3	5	6	5	4	4	6	7	6	6	4.4	6.5
22-Apr	5	7	7	5	4	7	5	5	6	6	6	6	7	5	5	4	7	6	6	7	7	7	9	6	6.1	9.0
23-Apr	7	8	6	8	6	6	8	10	8	9	9	7	8	9	10	8	9	8	6	7	7	8	8	8	7.9	10.3
24-Apr	8	5	5	4	5	2	1	3	4	4	6	4	5	5	7	7	6	6	7	7	6	4	5	5	5.0	7.6
25-Apr	5	7	7	9	5	7	5	6	5	4	2	2	4	4	6	6	6	7	8	8	6	6	9	7	5.9	8.9
26-Apr	7	9	8	7	8	9	9	9	9	12	7	9	7	8	9	9	8	9	11	10	8	10	13	12	9.1	13.5
27-Apr	11	10	11	9	6	4	3	4	3	3	4	2	3	4	4	6	3	3	5	6	5	5	3	4	5.1	11.3
28-Apr	5	4	4	3	3	5	5	5	6	7	5	4	3	4	7	4	5	5	4	5	4	3	4	4	4.5	6.7
29-Apr	3	3	1	2	3	3	3	3	3	4	3	4	6	7	6	5	5	6	5	6	5	5	5	4	4.2	7.5
30-Apr	3	3	2	4	4	5	6	6	7	5	5	5	5	6	5	5	5	7	5	5	7	7	8	9	5.4	9.1
	6.6	6.7	6.2	6.1	5.7	6.1	6.0	6.5	6.8	6.6	6.2	5.9	6.1	6.5	6.5	6.2	6.5	7.1	6.8	6.9	6.5	6.5	6.9	6.7	Diurnal Average	
	11.5	11.7	14.3	12.1	10.2	10.1	11.4	12.5	13.4	11.6	11.8	11.3	11.8	11.9	13.5	12.8	12.9	20.5	17.0	11.5	11.3	11.0	13.5	12.0	Diurnal Maximum	

M - Maintenance

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

Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - April 2012

FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - April 2012

Maximum Value: 21.9 $\mu g/m^3$ on Apr 12 18:00

Maximum Daily Average: 13.7 $\mu g/m^3$ on Apr 12

Minimum Value: 2 $\mu g/m^3$ on Apr 29 04:00

Maximum Diurnal Average: 8.1 $\mu g/m^3$ at hour 18

Monthly Average: 7.47 $\mu g/m^3$

Minimum Daily Average: 5.0 $\mu g/m^3$ on Apr 29

Minimum Diurnal Average: 6.8 $\mu g/m^3$ at hour 12

Percentiles: P_1 = 3.0 P_{10} = 4.7 Q_1 = 5.8 Median = 7.2 Q_3 = 8.7 P_{90} = 10.4 P_{99} = 14.9

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	4	5	5	5	5	4	7	6	7	7	6	7	7	7	7	5	9	9	8	10	9	8	10	11	7.0	10.7
2-Apr	9	9	7	6	8	8	6	10	10	9	6	5	6	7	8	7	7	9	10	9	2	8	7	7	7.6	10.5
3-Apr	8	9	7	7	8	8	8	8	8	9	10	10	8	11	11	7	7	7	7	8	7	7	7	9	8.2	10.7
4-Apr	9	4	4	7	9	9	8	7	8	7	4	4	6	5	8	8	5	6	6	5	6	7	8	7	6.5	8.9
5-Apr	8	8	6	7	7	8	7	9	7	7	7	7	8	8	8	6	6	6	6	9	8	7	7	6	7.3	8.9
6-Apr	7	6	6	6	6	6	8	7	6	6	5	6	6	7	7	7	7	8	8	8	9	9	6	7	6.7	9.2
7-Apr	7	7	7	6	5	6	6	6	6	8	7	7	6	6	5	7	6	6	6	8	8	8	8	9	6.6	8.7
8-Apr	9	7	7	6	6	6	6	6	8	9	9	9	7	7	6	8	9	6	6	8	8	6	6	6	7.1	9.4
9-Apr	7	8	8	6	6	6	7	7	9	8	6	6	8	8	7	8	9	9	8	9	9	8	8	8	7.7	9.2
10-Apr	9	10	9	10	10	10	9	11	9	10	12	12	12	10	12	12	10	11	12	10	10	10	11	10	10.5	12.2
11-Apr	8	9	10	10	10	10	9	12	12	12	12	11	11	13	14	14	11	14	14	13	13	13	12	10	11.6	14.3
12-Apr	11	16	17	15	13	10	12	12	16	15	13	12	13	12	M	M	20	22	18	14	11	9	11	10	13.7	21.9
13-Apr	10	9	9	6	8	7	5	5	6	6	6	7	8	8	7	8	7	6	6	5	6	6	5	5	6.7	10.1
14-Apr	5	5	5	5	5	4	5	5	6	6	6	6	6	6	7	6	6	6	7	7	6	6	5	6	5.6	7.0
15-Apr	6	4	6	7	6	7	7	6	6	7	7	5	7	8	8	7	10	11	9	9	7	8	8	7	7.3	10.8
16-Apr	8	10	10	11	11	12	12	14	13	11	10	8	7	6	8	7	10	10	7	8	7	7	7	6	9.1	13.9
17-Apr	6	6	7	7	6	7	7	8	8	8	8	8	9	7	8	5	6	7	7	8	8	6	7	7	7.2	8.7
18-Apr	6	6	5	5	6	6	7	7	7	8	7	8	7	9	9	9	9	9	9	8	9	8	9	9	7.7	9.5
19-Apr	13	12	10	9	8	7	7	9	8	7	5	5	5	5	4	4	4	5	7	6	7	8	8	8	7.1	12.6
20-Apr	8	8	8	5	6	12	6	4	6	7	7	4	4	5	4	4	4	4	3	3	3	6	5	5	5.5	11.9
21-Apr	4	4	4	4	6	6	3	4	5	6	6	4	7	6	5	7	7	6	5	5	6	7	7	7	5.4	7.4
22-Apr	8	10	10	6	6	8	6	6	7	7	7	7	8	6	6	5	8	8	7	9	8	9	10	8	7.4	9.9
23-Apr	8	9	8	9	7	7	10	12	9	9	9	8	9	10	11	8	10	10	7	8	8	8	9	8	8.8	11.7
24-Apr	8	7	6	5	5	4	3	4	5	5	7	6	6	6	7	8	8	6	7	7	8	5	5	6	5.9	8.0
25-Apr	6	8	9	9	7	8	6	7	6	5	3	3	5	5	7	7	7	8	9	9	8	9	9	7	7.0	9.4
26-Apr	8	10	9	7	8	10	10	10	10	12	10	10	8	9	10	9	9	10	12	11	9	12	15	13	10.1	14.6
27-Apr	12	11	13	12	6	6	5	5	4	4	6	3	4	5	6	7	5	4	6	7	6	6	4	6	6.4	12.9
28-Apr	7	5	5	4	3	6	6	5	7	7	6	5	3	5	7	6	7	7	5	5	6	5	5	5	5.4	7.2
29-Apr	4	4	2	2	4	4	4	4	4	4	4	6	7	9	7	5	5	6	6	6	6	6	6	5	5.0	8.7
30-Apr	4	4	3	5	6	5	7	7	8	7	6	5	6	7	6	7	6	7	6	5	8	8	9	9	6.3	9.5
	7.6	7.7	7.4	7.0	6.9	7.2	7.0	7.4	7.7	7.7	7.2	6.8	7.1	7.4	7.6	7.2	7.8	8.1	7.8	7.9	7.6	7.6	7.8	7.6	Diurnal Average	
	12.6	16.2	17.2	14.6	13.1	11.9	12.3	13.9	15.7	15.2	12.6	12.1	12.8	13.3	14.3	14.1	19.6	21.9	18.2	14.5	13.3	12.6	14.6	12.9	Diurnal Maximum	

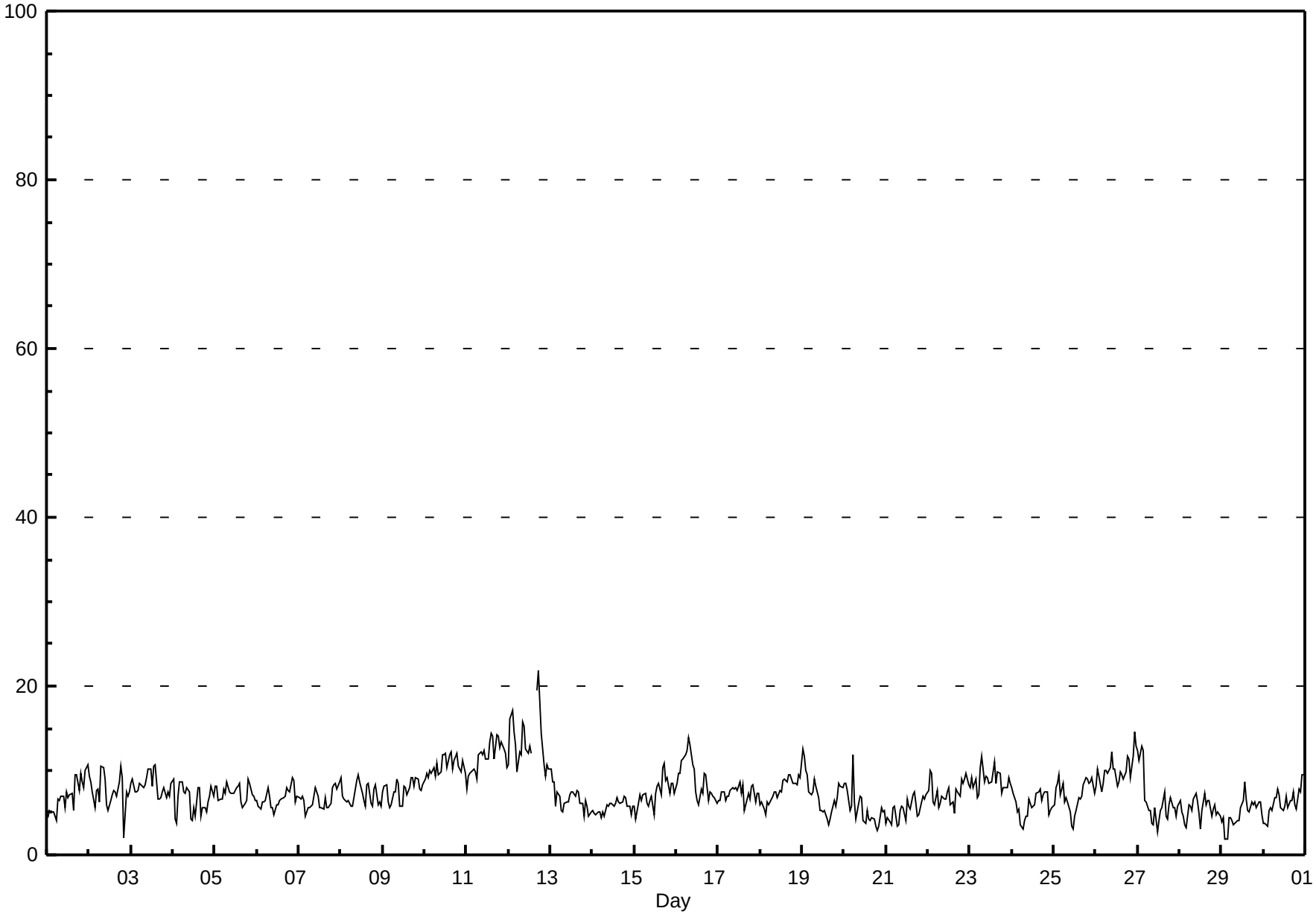
M - Maintenance

Peace Airshed Zone Association

Hourly Maximums

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

Beaverlodge - April 2012

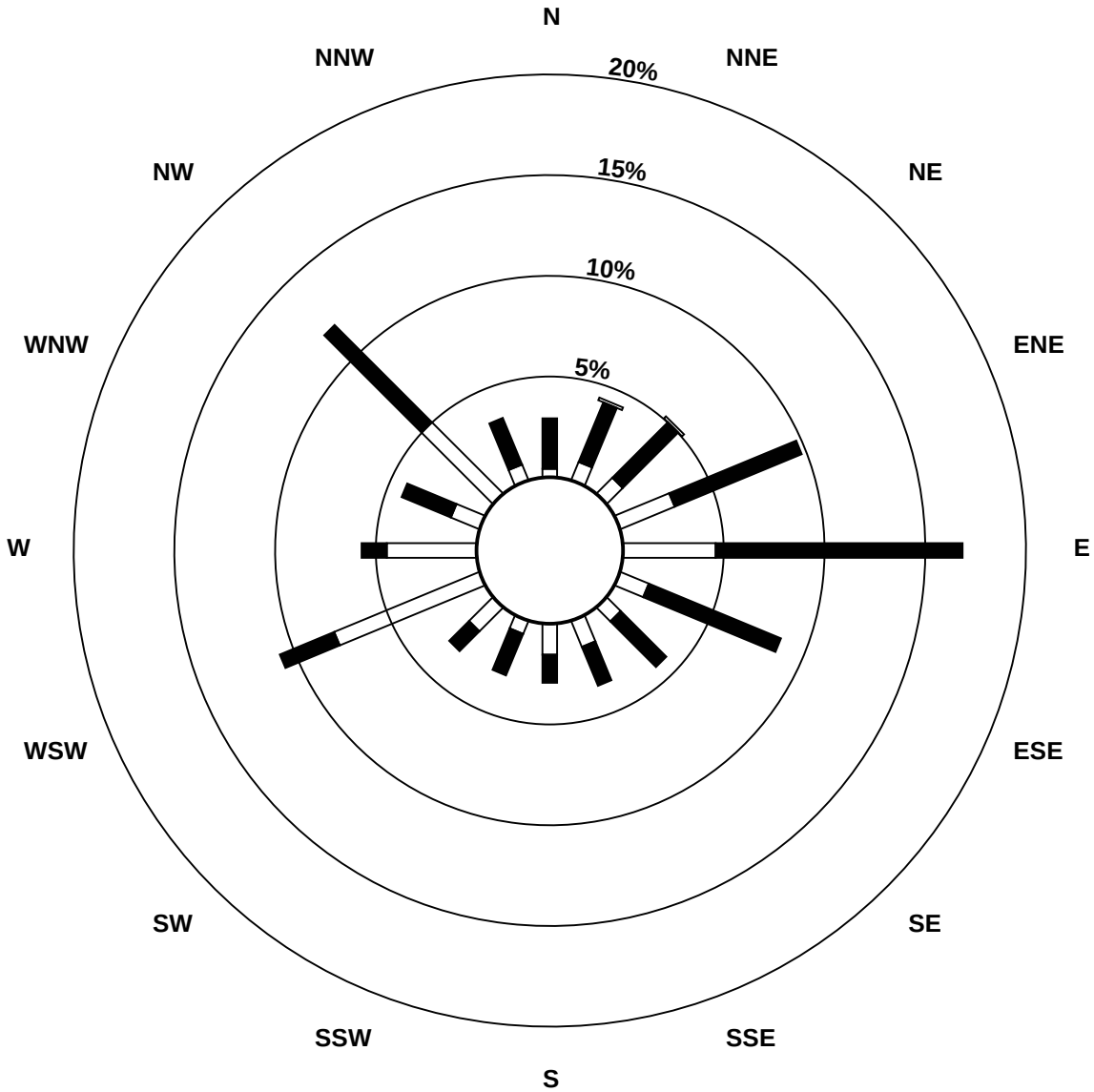


Peace Airshed Zone Association

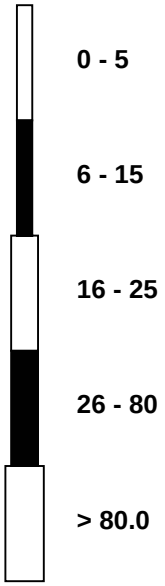
Pollutant Rose

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

Beaverlodge - April 2012



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



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - April 2012

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

Maximum Value: 15.2 ^{o}C on Apr 30 16:00

Maximum Daily Average: 8.7 ^{o}C on Apr 30

Minimum Value: -7 ^{o}C on Apr 15 07:00

Maximum Diurnal Average: 8.8 ^{o}C at hour 16

Monthly Average: 4.28 ^{o}C

Minimum Daily Average: -3.6 ^{o}C on Apr 14

Minimum Diurnal Average: -0.3 ^{o}C at hour 6

Percentiles: P_1 = -6.6 P_{10} = -1.9 Q_1 = 0.5 Median = 4.2 Q_3 = 8.0 P_{90} = 10.8 P_{99} = 13.9

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

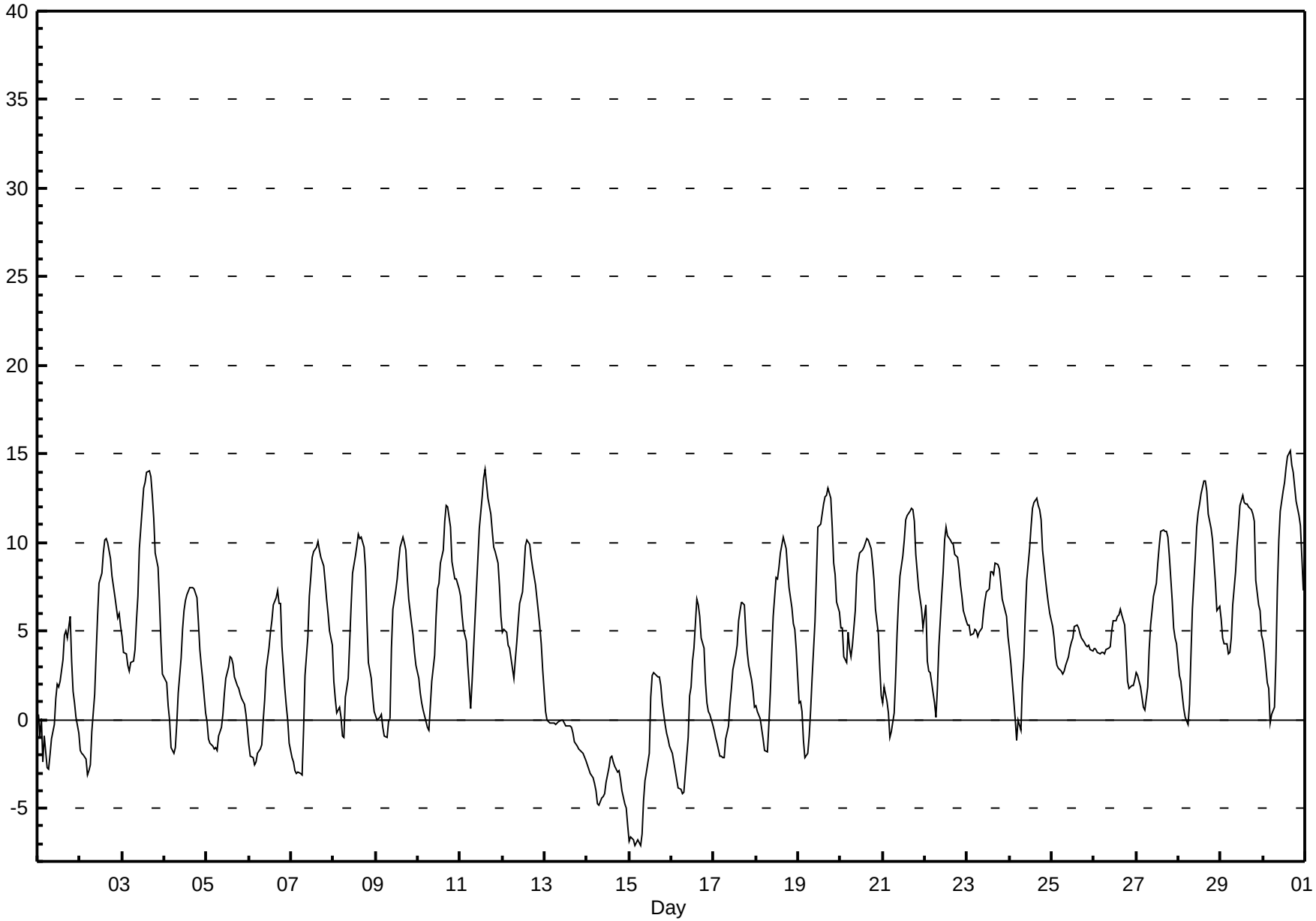
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	0	-1	0	-2	-1	-3	-3	-2	-1	0	1	2	2	2	3	5	5	5	6	3	2	1	0	-1	1.0	5.8
2-Apr	-2	-2	-2	-2	-3	-3	-3	-1	1	4	6	8	8	9	10	10	10	9	8	8	7	6	6	5	4.1	10.2
3-Apr	5	4	4	3	3	3	3	4	6	7	10	12	13	13	14	14	14	13	11	9	9	7	4	3	7.8	14.1
4-Apr	2	2	1	0	-2	-2	-2	0	2	3	5	6	7	7	7	7	7	7	7	6	4	3	2	0	3.4	7.5
5-Apr	0	-1	-1	-1	-2	-2	-2	-1	0	0	1	2	3	4	3	3	2	2	2	1	1	1	0	0	0.7	3.5
6-Apr	-1	-2	-2	-3	-2	-2	-2	-1	0	1	3	4	5	6	7	7	7	7	7	4	2	1	0	-1	1.8	7.3
7-Apr	-2	-2	-3	-3	-3	-3	-3	-1	2	5	7	8	9	9	10	10	10	9	9	8	7	6	5	4	4.1	10.0
8-Apr	2	1	0	1	0	-1	-1	1	2	4	6	8	9	10	10	10	10	10	9	6	3	2	1	1	4.4	10.5
9-Apr	0	0	0	0	0	-1	-1	0	0	4	6	7	8	9	10	10	10	10	8	7	5	5	4	3	4.3	10.3
10-Apr	2	1	1	1	0	0	-1	1	2	4	6	7	8	9	10	11	12	12	11	9	8	8	8	7	5.7	12.1
11-Apr	7	6	5	4	3	2	1	2	6	7	9	11	13	14	14	13	12	12	11	10	9	9	8	6	8.0	14.1
12-Apr	5	5	5	4	4	3	2	3	4	6	7	7	8	10	10	10	9	9	8	8	6	5	4	3	6.1	10.1
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-2	-2	-2	-2	-2	-2	-0.6	0.5
14-Apr	-3	-3	-3	-3	-4	-4	-5	-5	-4	-4	-4	-4	-3	-2	-2	-2	-3	-3	-3	-3	-4	-5	-5	-6	-3.6	-2.1
15-Apr	-7	-7	-7	-7	-7	-7	-7	-6	-5	-3	-3	-2	1	2	3	3	2	2	2	1	0	-1	-1	-1	-2.3	2.6
16-Apr	-2	-2	-3	-3	-4	-4	-4	-4	-3	-1	1	2	3	4	7	6	6	5	4	2	1	1	0	0	0.5	6.8
17-Apr	-1	-1	-1	-2	-2	-2	-2	-1	0	1	2	3	4	4	6	6	7	7	5	4	3	2	2	1	1.7	6.7
18-Apr	1	0	0	0	-1	-2	-2	0	2	4	6	8	8	9	9	10	10	10	9	7	6	5	5	4	4.5	10.3
19-Apr	1	1	0	-1	-2	-2	-1	1	2	6	8	11	11	11	12	13	13	13	13	11	9	8	7	6	6.2	13.1
20-Apr	5	5	4	3	5	4	4	4	6	8	9	9	10	10	10	10	10	10	9	8	6	5	3	1	6.6	10.2
21-Apr	1	2	1	0	-1	-1	0	2	5	7	8	9	10	11	12	12	12	12	11	9	7	7	6	5	6.2	12.0
22-Apr	6	3	3	3	2	1	0	2	4	7	8	10	11	10	10	10	10	9	9	9	8	7	6	6	6.4	10.8
23-Apr	5	5	5	5	5	5	5	5	5	6	7	7	7	8	8	8	9	9	8	8	7	6	6	5	6.4	8.8
24-Apr	4	3	1	0	-1	0	-1	2	4	6	8	10	11	12	12	12	12	12	11	10	8	7	7	6	6.5	12.5
25-Apr	5	5	4	3	3	3	3	3	3	4	4	4	5	5	5	5	5	5	4	4	4	4	4	4	4.0	5.3
26-Apr	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	6	6	5	4	2	2	2	2	2	4.1	6.2
27-Apr	3	3	2	1	1	1	2	4	5	6	7	8	9	10	11	11	11	11	10	9	7	5	5	4	6.0	10.7
28-Apr	2	2	1	1	0	0	1	4	6	9	11	12	12	13	14	13	13	12	11	10	9	8	6	6	7.3	13.5
29-Apr	6	5	4	4	4	4	5	7	8	10	11	12	13	12	12	12	12	12	12	11	8	6	6	5	8.3	12.7
30-Apr	4	4	2	2	0	0	1	3	7	10	12	13	13	14	15	15	14	14	13	12	12	11	9	7	8.7	15.2
	1.8	1.3	0.8	0.3	-0.1	-0.3	-0.3	1.0	2.5	4.1	5.6	6.7	7.4	8.0	8.6	8.8	8.6	8.1	7.5	6.3	5.1	4.4	3.6	2.7	Diurnal Average	
	6.9	5.9	5.1	4.8	5.1	5.0	4.7	6.5	8.3	10.2	11.8	12.9	13.4	14.2	14.9	15.2	14.4	14.0	13.1	12.3	11.5	11.0	9.1	7.3	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - April 2012



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - April 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 100.0 % on Apr 13 02:00 Maximum Daily Average: 99.3 % on Apr 13

Minimum Value: 21 % on Apr 21 14:00 Minimum Daily Average: 38.2 % on Apr 21
Maximum Diurnal Average: 81.3 % at hour 7 Minimum Diurnal Average: 46.2 % at hour 16
Monthly Average: 63.28 % Percentiles: P_1 = 24.8 P_{10} = 32.4 Q_1 = 43.2 Median = 61.5 Q_3 = 84.7 P_{90} = 98.1 P_{99} = 100.0

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

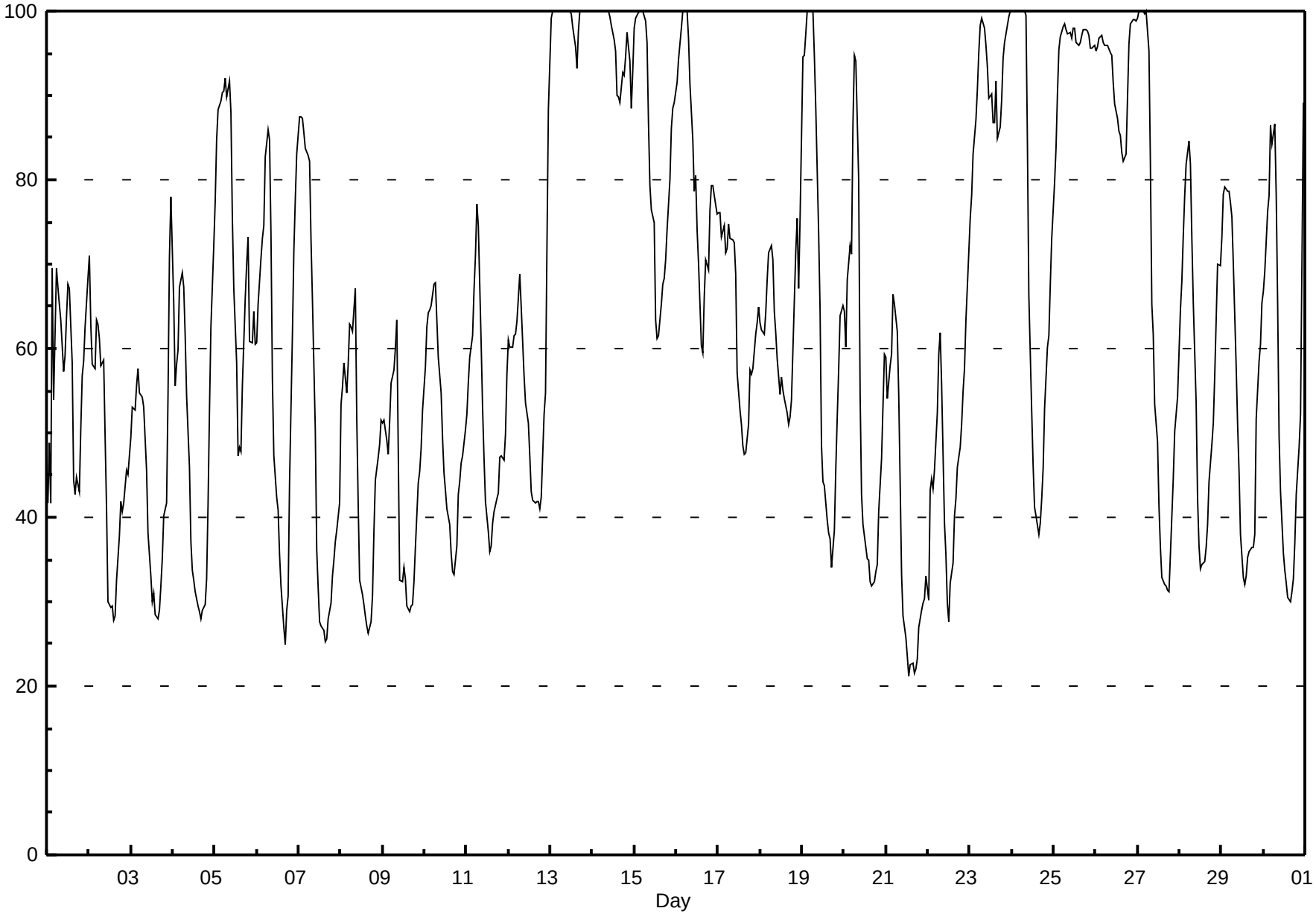
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	42	49	42	69	54	69	67	65	63	57	59	64	68	67	58	44	43	45	43	51	57	58	63	68	56.9	69.4
2-Apr	71	63	58	58	63	63	61	58	59	50	41	30	29	29	28	28	33	38	42	41	42	46	45	47	46.8	71.0
3-Apr	49	53	53	56	58	55	54	53	49	46	38	33	30	31	28	28	29	32	35	40	42	54	71	78	45.6	77.9
4-Apr	65	56	58	60	67	69	67	62	54	46	37	34	32	31	29	29	28	29	30	33	41	53	63	72	47.7	72.1
5-Apr	77	85	88	89	90	91	92	90	92	88	75	67	58	47	48	48	56	66	70	73	61	61	64	60	72.4	92.1
6-Apr	61	65	71	73	75	83	86	85	73	56	47	42	41	36	32	27	25	29	31	44	62	71	78	83	57.3	85.9
7-Apr	87	88	87	86	84	83	82	73	66	50	36	32	28	27	27	25	26	28	30	33	35	37	38	42	51.2	87.5
8-Apr	53	55	58	55	58	63	63	62	67	52	42	33	31	30	28	27	26	28	31	38	44	47	49	51	45.4	67.1
9-Apr	51	51	49	48	51	56	58	60	63	48	33	32	34	33	30	29	30	30	32	36	44	45	48	53	43.5	63.4
10-Apr	58	63	64	65	65	68	68	63	59	55	49	45	43	41	39	36	34	33	37	43	44	46	47	50	50.6	67.9
11-Apr	52	56	59	62	67	71	77	75	61	53	47	42	38	36	37	39	41	42	43	47	47	47	50	57	51.8	77.1
12-Apr	61	60	60	62	62	63	69	65	61	57	54	51	47	43	42	42	42	42	41	42	52	55	72	88	55.5	88.3
13-Apr	99	100	100	100	100	100	100	100	100	100	100	100	100	98	96	93	98	100	100	100	100	100	100	100	99.3	100.0
14-Apr	100	100	100	100	100	100	100	100	100	100	99	98	97	95	90	90	89	93	92	95	97	94	89	93	96.3	100.0
15-Apr	98	99	100	100	100	100	99	96	87	79	76	75	63	61	61	65	68	68	71	74	80	86	89	89	82.7	100.0
16-Apr	91	94	96	98	100	100	100	97	91	85	79	80	74	70	60	60	66	71	69	76	79	79	78	76	82.1	100.0
17-Apr	76	76	73	75	71	72	75	73	73	73	69	57	53	51	48	47	48	51	57	57	58	62	63	65	63.4	76.1
18-Apr	63	62	62	64	68	71	72	71	64	62	59	55	57	55	54	52	51	52	54	60	72	75	67	75	62.4	75.4
19-Apr	95	95	97	100	100	100	100	95	89	74	65	49	44	44	40	38	37	34	39	46	52	57	64	65	67.3	100.0
20-Apr	64	60	68	72	71	87	95	94	80	55	43	39	36	35	35	32	32	32	34	34	41	47	53	59	54.1	94.7
21-Apr	59	54	58	59	66	65	62	55	44	33	28	26	24	21	23	23	21	22	23	27	29	30	30	33	38.2	66.5
22-Apr	30	43	45	43	46	52	59	62	56	39	36	30	28	32	35	40	42	46	48	51	55	58	63	71	46.3	71.4
23-Apr	75	78	83	87	91	95	98	99	98	96	93	90	90	87	87	92	85	86	90	94	96	98	99	100	91.2	100.0
24-Apr	100	100	100	100	100	100	100	100	99	84	66	53	46	41	40	38	39	42	46	53	60	62	68	73	71.3	100.0
25-Apr	80	84	90	95	97	98	98	98	97	98	97	98	98	96	96	96	97	98	98	98	97	96	96	96	95.4	98.4
26-Apr	95	96	97	97	96	96	96	96	95	95	92	89	87	86	85	83	82	83	90	96	99	99	99	99	92.8	99.0
27-Apr	99	100	100	100	100	100	95	82	65	62	53	49	41	36	33	32	32	31	31	36	45	50	52	54	61.6	100.0
28-Apr	65	68	73	78	82	85	82	73	65	54	42	37	34	34	35	37	39	44	49	51	57	63	70	70	57.8	84.6
29-Apr	73	78	79	79	79	77	76	70	58	51	45	38	33	32	33	35	36	36	36	38	52	59	61	65	55.0	79.2
30-Apr	67	69	76	78	87	84	87	78	65	50	43	36	34	32	31	30	31	33	37	43	48	52	70	89	56.2	89.1
	72.0	73.4	74.8	76.9	78.2	80.5	81.3	78.3	73.2	64.8	58.1	53.4	50.6	48.6	46.9	46.2	46.8	48.8	50.9	55.0	59.6	62.9	66.6	70.8	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	99.6	98.1	96.0	96.2	97.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - April 2012

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	3	6	12	3	6	5	2	2	3	6	14	18	19	15	13	9	9	6	3	6	6	3	2	2	4.4	19.2
Dir	6	315	342	16	12	211	286	41	194	247	240	229	211	210	210	187	167	201	228	222	185	151	131	164	220	211
2 Spd	2	7	7	5	4	4	5	5	7	11	14	14	15	15	13	13	10	11	11	13	16	15	14	15	9.1	16.1
Dir	157	211	216	191	144	84	71	71	121	133	149	165	162	137	185	183	142	147	154	163	158	176	154	143	156	158
3 Spd	14	14	14	10	9	8	9	8	10	9	8	12	19	22	23	24	14	9	18	11	11	28	33	21	8.6	32.6
Dir	133	119	121	113	93	96	92	99	122	125	148	164	176	154	193	210	232	221	206	191	208	253	268	262	185	268
4 Spd	19	30	24	21	10	12	11	7	8	16	18	26	23	25	20	18	15	11	10	9	11	13	14	9	12.5	30.2
Dir	248	251	248	246	231	233	237	196	208	246	276	282	270	272	281	300	306	316	335	337	350	360	358	321	275	251
5 Spd	10	10	8	6	6	6	6	11	13	14	18	18	19	20	17	19	17	16	15	10	6	3	6	9	11.3	20.5
Dir	322	308	307	311	306	320	292	302	335	324	317	312	308	335	343	344	330	314	289	292	333	317	339	338	320	335
6 Spd	5	8	9	8	7	11	11	9	12	15	15	16	14	15	14	16	15	11	8	11	11	10	2	4	9.8	16.2
Dir	308	254	276	283	281	270	294	295	299	305	308	305	308	313	316	310	293	325	304	256	256	257	244	54	295	305
7 Spd	3	3	3	2	3	3	4	3	1	7	13	14	14	15	16	17	16	14	11	8	9	9	7	7	6.9	16.8
Dir	84	66	69	124	66	62	59	82	125	282	309	317	312	319	318	321	324	325	323	341	347	321	310	329	328	321
8 Spd	7	8	2	2	3	3	5	5	3	4	5	6	7	7	5	9	12	17	18	16	16	16	14	12	6.5	17.8
Dir	67	88	51	18	315	352	19	26	192	267	287	358	43	26	85	67	71	96	92	86	90	96	100	98	76	92
9 Spd	10	9	9	9	8	6	4	2	5	5	21	21	22	21	17	19	21	25	23	20	22	23	26	27	14.7	26.6
Dir	109	85	75	55	78	88	95	172	255	133	98	92	86	87	104	82	79	68	69	69	69	80	85	90	84	90
10 Spd	23	19	15	12	11	10	8	9	11	7	3	8	13	13	13	14	17	18	15	16	16	14	15	14	12.7	22.8
Dir	91	85	84	76	89	80	66	86	102	119	73	100	113	95	85	85	81	77	72	67	69	61	80	76	83	91
11 Spd	10	1	0	8	7	4	3	0	2	3	6	9	7	8	14	16	16	18	13	13	20	15	19	19	8.2	19.8
Dir	55	93	147	14	10	9	339	115	183	252	321	25	22	43	79	85	85	46	55	53	38	31	25	24	43	38
12 Spd	17	17	17	17	15	10	10	9	11	9	8	11	10	11	11	13	16	19	15	12	15	14	12	11	11.7	18.8
Dir	24	24	22	17	11	1	318	346	357	7	357	3	7	14	16	35	46	44	25	355	322	318	8	318	8	44
13 Spd	16	16	16	16	15	14	13	13	14	15	16	18	19	18	18	20	18	19	19	18	18	18	16	19	16.7	19.7
Dir	315	317	318	317	320	317	316	312	307	313	310	309	310	311	309	311	309	308	304	302	302	304	300	305	310	311
14 Spd	18	19	17	17	19	17	14	15	14	16	17	17	18	15	17	14	14	12	9	7	6	10	6	4	12.3	19.1
Dir	299	304	307	307	309	314	322	327	315	317	310	318	322	331	334	324	323	316	316	358	57	56	58	191	321	304
15 Spd	2	4	2	4	5	5	5	4	5	9	10	9	7	7	10	11	12	11	9	7	10	10	10	6	6.8	11.5
Dir	110	48	83	54	52	52	101	96	91	107	116	123	104	104	103	103	106	108	98	76	81	82	87	101	95	106
16 Spd	5	3	3	1	1	2	4	4	6	9	13	11	6	9	3	6	7	11	10	16	15	10	11	14	4.0	15.5
Dir	179	218	211	191	307	314	337	337	324	328	6	12	22	27	31	31	132	102	120	94	84	90	93	103	65	94
17 Spd	8	6	6	9	8	9	10	13	15	14	16	18	16	18	14	14	14	15	15	14	14	20	21	22	13.4	22.0
Dir	106	97	86	86	78	70	86	106	111	110	116	112	113	103	95	96	83	86	83	77	81	89	93	99	96	99
18 Spd	21	15	12	9	6	3	3	3	3	3	4	6	14	18	17	17	17	19	16	5	6	3	7	5	7.4	20.5
Dir	99	98	87	78	53	69	299	239	265	140	50	106	104	92	81	84	67	70	75	115	221	334	6	300	82	99
19 Spd	1	5	0	4	3	4	2	4	4	4	4	4	4	3	2	10	10	7	14	15	16	20	16	14	5.5	20.0
Dir	246	43	130	57	65	40	66	55	205	182	176	177	170	176	137	136	140	159	118	99	84	88	93	110	110	88
20 Spd	6	4	6	7	9	9	1	5	17	37	41	41	41	45	46	43	44	43	40	38	28	20	15	13	23.8	46.5
Dir	106	145	173	226	255	242	234	211	260	263	260	250	256	249	252	261	254	255	255	257	250	249	245	244	252	252
21 Spd	12	10	9	9	4	12	12	19	25	26	27	28	30	30	25	27	22	21	23	17	9	11	12	7	16.8	30.2
Dir	244	254	238	217	229	241	250	243	238	251	260	259	266	270	244	234	251	242	245	245	281	315	317	310	254	266
22 Spd	8	4	2	2	1	2	2	1	1	3	4	3	4	6	7	5	3	4	7	6	6	4	4	2	1.2	8.5
Dir	292	132	86	234	280	313	206	209	135	354	295	117	139	114	104	159	53	120	52	22	32	141	190	89	94	292

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - April 2012

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	3	5	6	7	12	14	13	15	16	17	15	10	4	3	5	7	3	3	6	7	7	8	3	4	7.0	16.7
Dir	79	52	81	82	104	106	100	104	97	99	107	117	141	333	358	31	41	46	126	112	113	108	105	172	97	99
24 Spd	2	1	1	2	3	1	4	2	3	1	4	0	7	6	8	7	10	12	17	19	20	23	27	20	6.9	27.0
Dir	271	15	63	25	65	51	63	120	205	301	17	105	138	155	168	156	125	114	108	84	78	81	88	87	97	88
25 Spd	19	20	21	23	26	28	26	26	26	26	24	24	22	20	23	20	20	18	17	17	20	18	16	18	21.2	28.2
Dir	80	74	73	71	75	74	71	68	77	76	79	79	76	67	64	57	44	46	46	50	60	67	64	67	68	74
26 Spd	17	21	19	20	18	20	18	20	21	19	19	22	24	26	28	24	27	23	28	28	26	26	21	14	21.6	28.0
Dir	81	81	74	72	76	75	77	81	73	67	81	88	82	90	99	90	95	109	98	97	97	102	96	91	87	97
27 Spd	4	7	9	9	7	6	13	25	42	38	43	41	44	42	40	40	37	30	27	22	14	10	11	6	23.0	44.3
Dir	112	251	282	284	240	226	242	247	258	254	243	247	254	247	260	256	256	260	255	242	246	234	232	253	252	254
28 Spd	3	2	5	6	5	4	3	3	4	13	19	20	23	26	27	31	29	33	31	31	26	21	12	13	14.3	33.4
Dir	235	219	171	127	137	149	82	148	168	236	243	240	238	236	258	258	269	269	269	261	265	249	249	268	251	269
29 Spd	9	6	9	8	4	2	7	16	27	24	22	22	24	25	25	26	26	16	17	15	11	9	5	2	14.5	26.9
Dir	268	245	258	270	293	308	253	257	267	273	272	269	278	277	267	261	267	283	268	253	243	254	252	56	267	267
30 Spd	5	3	2	2	3	1	2	2	5	23	23	25	25	24	25	28	27	27	21	23	18	16	13	17	14.2	27.9
Dir	39	60	83	41	61	35	38	33	129	103	100	99	90	97	98	86	85	91	110	95	126	124	150	105	98	86
Spd	2.2	1.4	1.3	2.1	2.7	1.9	1.8	0.7	1.9	2.8	3.4	2.9	2.9	1.8	2.1	1.6	1.3	1.7	0.9	1.6	2.9	2.9	3.7	3.5	Diurnal Average	
Dir	66	51	28	30	41	42	25	22	255	267	273	264	257	269	263	282	340	21	67	72	69	75	71	74		
Spd	22.8	30.2	24.3	23.0	26.2	28.2	26.3	25.6	42.1	38.4	43.4	40.6	44.3	45.2	46.5	42.9	43.6	43.5	39.9	37.7	27.9	28.4	32.6	26.6	Diurnal Maximum	
Dir	91	251	248	71	75	74	71	68	258	254	243	250	254	249	252	261	254	255	255	257	250	253	268	90		

Maximum Speed Value: 46 km/h on Apr 20 15:00
Maximum Daily Speed Average: 23.8 km/h on Apr 20
Maximum Diurnal Speed Average: 3.7 km/h at hour 23

Minimum Speed Value: 0 km/h on Apr 24 12:00
Minimum Daily Speed Average: 1.2 km/h on Apr 22
Minimum Diurnal Speed Average: 0.7 km/h at hour 8

Monthly Average Velocity: 0.73 km/h 15.4 deg

Speed Percentiles: $P_1 = 0.8$ $P_{10} = 3.1$ $Q_1 = 6.0$ Median = 12.1 $Q_3 = 17.9$ $P_{90} = 24.6$ $P_{99} = 42.5$

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

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

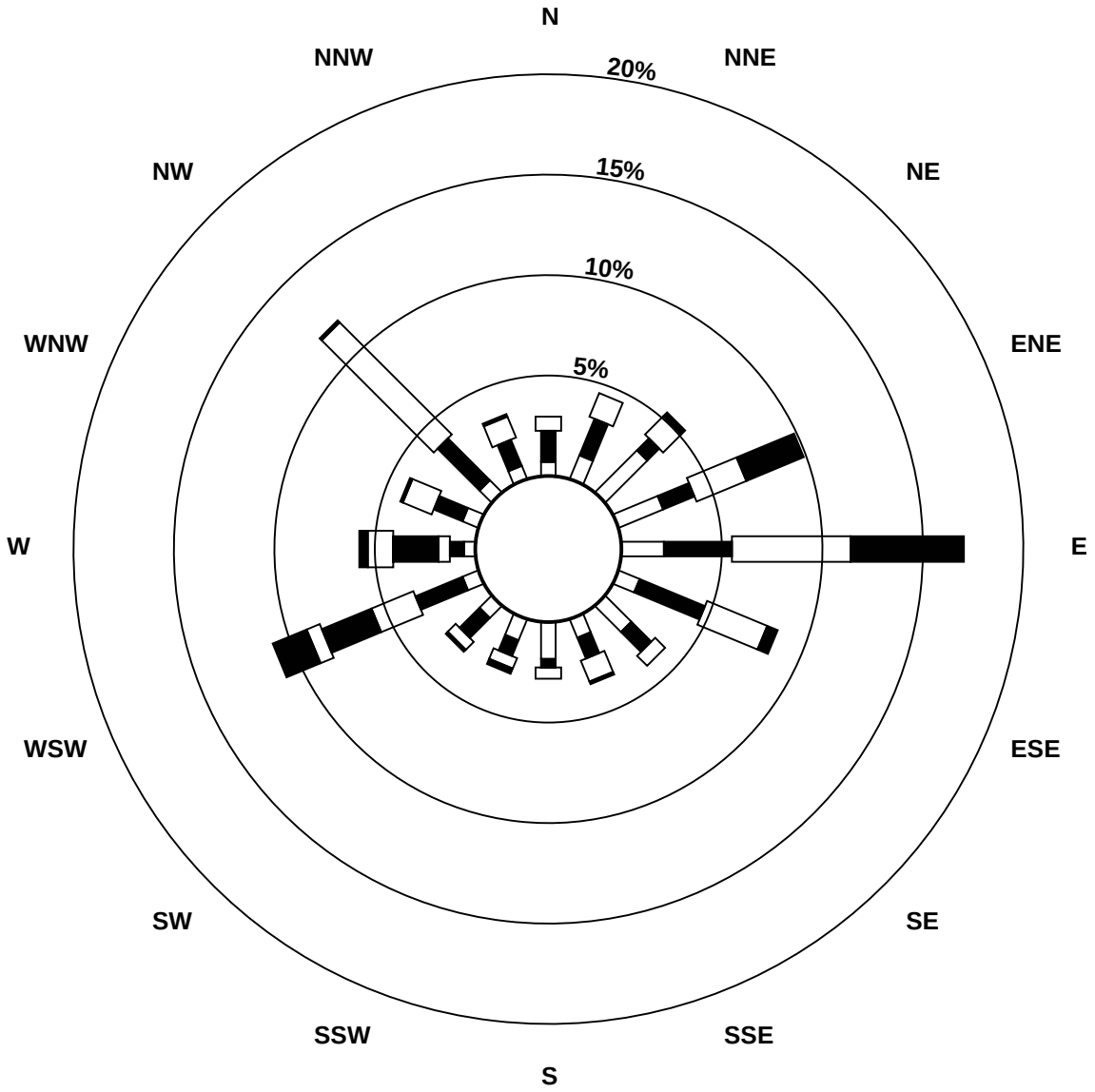
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	9	21	16	0	0	0	46
NorthEast	36	19	20	8	0	0	83
East	24	43	68	64	2	0	201
SouthEast	23	26	17	1	0	0	67
South	17	11	8	2	0	0	38
SouthWest	17	18	18	15	0	3	71
West	8	25	10	26	14	14	97
NorthWest	15	26	70	6	0	0	117
Total	149	189	227	122	16	17	720

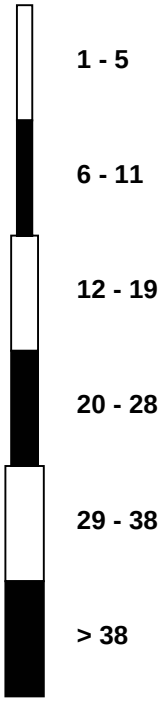
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - April 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - April 2012

Maximum Speed: 47 km/h on Apr 20 15:00

Maximum Daily Speed Average: 25.4 km/h on Apr 20

Minimum Speed: 1 km/h on Apr 22 09:00

Minimum Daily Speed Average: 5.3 km/h on Apr 22

Maximum Diurnal Speed Average: 18.6 km/h at hour 16

Minimum Diurnal Speed Average: 8.2 km/h at hour 7

Monthly Average Speed: 13.55 km/h

Percentiles: P_1 = 1.8 P_{10} = 4.1 Q_1 = 6.6 Median = 12.3 Q_3 = 18.0 P_{90} = 25.0 P_{99} = 43.2

Hours in Service: 720

Hours of Data: 720

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	6	7	12	4	7	8	5	4	4	7	14	18	19	16	13	10	10	8	4	6	6	4	3	3	8.3	19.5
2-Apr	4	7	7	7	4	4	5	5	7	11	14	14	16	16	16	13	10	12	12	13	16	15	15	15	10.7	16.2
3-Apr	15	14	14	10	9	8	9	8	10	9	8	12	20	22	24	25	15	9	18	11	11	30	33	21	15.4	33.3
4-Apr	19	30	24	22	11	12	11	8	10	16	20	26	23	26	21	19	16	12	11	9	11	14	14	10	16.5	30.3
5-Apr	10	10	8	6	6	6	6	11	13	14	18	18	20	21	18	19	18	16	15	10	7	3	6	9	12.0	21.3
6-Apr	6	8	9	8	7	11	11	10	12	15	16	17	15	15	16	16	16	11	8	11	11	10	5	4	11.2	16.8
7-Apr	3	3	3	2	3	4	4	3	2	8	13	15	15	16	16	18	17	15	11	8	9	9	8	8	8.9	17.7
8-Apr	8	9	6	2	3	4	6	5	4	5	6	7	9	9	8	11	14	17	18	16	16	16	14	12	9.4	17.9
9-Apr	10	9	9	9	8	6	5	4	6	7	21	22	23	21	17	20	22	25	23	20	22	23	26	27	16.0	26.6
10-Apr	23	19	15	12	11	10	8	9	11	8	5	9	13	13	14	14	17	18	15	16	16	14	15	14	13.3	22.8
11-Apr	10	6	2	8	9	6	4	3	4	4	7	9	8	9	15	16	17	18	14	13	20	15	19	19	10.7	20.4
12-Apr	17	17	17	17	15	11	10	9	12	10	8	12	10	12	12	13	16	19	15	13	15	14	13	11	13.2	18.9
13-Apr	16	16	16	16	15	14	13	13	14	15	16	18	19	18	18	20	18	19	19	18	18	18	17	19	16.8	19.8
14-Apr	18	19	18	17	19	17	15	15	14	16	17	17	18	16	18	14	14	12	9	8	6	10	6	4	14.0	19.2
15-Apr	3	4	3	4	5	5	5	4	5	9	10	9	7	7	10	11	12	11	9	8	10	10	10	6	7.3	11.6
16-Apr	5	4	3	2	1	3	5	5	7	9	13	11	7	9	4	7	8	11	11	16	15	10	11	14	7.9	15.6
17-Apr	9	6	6	9	8	9	10	13	15	14	16	18	17	18	14	14	14	15	15	14	14	20	21	22	13.8	22.0
18-Apr	21	15	12	9	6	4	4	4	3	5	5	7	14	19	17	17	17	19	16	11	6	4	8	6	10.4	20.5
19-Apr	3	5	2	4	4	5	2	4	5	5	5	5	6	5	6	10	12	10	14	16	16	20	16	14	8.1	20.1
20-Apr	6	5	6	7	10	9	4	6	17	37	41	41	42	46	47	43	44	44	40	38	28	20	15	13	25.4	46.8
21-Apr	12	11	11	10	7	12	12	19	25	26	28	28	31	30	26	28	23	21	23	17	10	11	12	7	18.4	30.7
22-Apr	9	5	3	2	2	5	3	2	1	4	6	5	6	9	11	9	7	6	8	6	6	5	4	4	5.3	10.6
23-Apr	3	5	6	7	12	14	13	15	16	17	16	11	5	4	6	8	4	3	7	7	7	8	4	4	8.4	16.9
24-Apr	3	2	3	4	5	2	4	2	4	3	5	5	7	7	10	9	11	13	18	20	20	23	27	20	9.4	27.1
25-Apr	19	20	21	23	26	28	26	26	26	26	24	24	22	20	23	20	20	18	17	17	20	18	16	18	21.6	28.2
26-Apr	17	21	20	20	18	20	18	20	21	19	20	22	24	26	28	24	27	23	28	28	26	26	21	14	22.1	28.1
27-Apr	5	7	9	9	7	6	13	25	42	39	44	41	45	42	40	41	37	31	27	23	14	10	11	6	23.9	44.9
28-Apr	6	3	5	6	5	4	4	4	5	14	20	21	24	26	28	31	29	34	31	31	26	22	13	14	16.9	33.6
29-Apr	9	6	9	8	7	4	7	17	27	24	23	23	24	26	25	27	26	16	17	15	11	9	6	3	15.4	27.2
30-Apr	5	4	2	6	4	3	2	2	6	23	24	26	25	25	26	28	27	27	23	24	19	17	13	18	15.8	28.3
	10.0	9.8	9.4	9.0	8.5	8.5	8.2	9.1	11.6	13.9	16.1	17.1	17.8	18.4	18.2	18.6	17.9	17.1	16.6	15.4	14.4	14.3	13.4	12.0	Diurnal Average	
	22.8	30.3	24.3	23.0	26.2	28.2	26.4	25.6	42.3	38.6	43.7	41.1	44.9	45.8	46.8	43.4	43.8	43.9	40.1	37.8	27.9	30.2	33.3	26.6	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - April 2012

Maximum Value: 97.1 deg on Apr 11 08:00

Minimum Value: 1.9 deg on Apr 21 00:00

Percentiles: P_1 = 2.6 P_{10} = 4.1 Q_1 = 6.2 Median = 11.2 Q_3 = 22.4 P_{90} = 50.1 P_{99} = 88.0

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	75	49	16	75	39	62	81	52	24	20	9	8	9	10	11	22	22	57	88	15	8	40	23	48	88.0
2-Apr	63	15	7	40	19	22	10	12	10	9	12	20	21	11	34	14	14	19	15	13	7	7	13	4	62.9
3-Apr	7	5	5	8	6	10	7	13	10	7	16	20	16	8	19	12	17	23	3	10	7	23	12	11	23.2
4-Apr	6	4	4	6	16	10	11	35	32	11	23	10	15	18	19	15	14	17	15	6	5	5	5	10	35.5
5-Apr	7	5	9	6	7	11	9	5	17	13	8	11	10	16	13	16	17	10	6	8	16	15	14	9	17.2
6-Apr	21	10	10	6	8	19	6	4	6	9	12	16	20	17	24	14	17	13	12	19	14	6	89	17	89.0
7-Apr	30	9	19	34	19	22	15	27	65	17	18	14	19	21	17	19	13	9	12	7	6	10	9	23	64.5
8-Apr	36	15	67	39	37	36	29	11	50	33	36	41	42	50	66	37	28	16	6	5	8	5	4	3	67.2
9-Apr	9	4	6	3	9	21	34	50	24	54	7	10	13	17	18	14	13	7	4	4	4	3	3	3	54.3
10-Apr	4	3	4	9	11	8	6	12	10	23	78	35	12	15	17	15	12	10	8	6	4	6	4	5	78.3
11-Apr	13	89	88	11	39	84	66	97	70	54	34	20	33	37	18	12	14	8	9	6	14	8	4	2	97.1
12-Apr	2	5	3	3	10	18	19	8	10	14	20	16	19	22	25	19	8	6	10	15	6	8	22	15	25.1
13-Apr	5	4	4	4	5	4	6	5	4	7	5	5	6	5	7	5	5	5	4	4	4	4	4	5	7.2
14-Apr	4	4	4	4	4	5	6	6	5	7	4	6	6	11	10	8	7	5	6	31	15	6	12	29	31.1
15-Apr	50	10	38	5	5	8	10	14	12	5	8	8	10	9	5	3	4	3	8	5	7	4	8	24	50.0
16-Apr	15	14	9	88	61	59	40	40	34	15	13	6	15	9	32	45	22	19	12	6	3	8	7	3	88.1
17-Apr	6	9	14	7	6	3	9	3	5	7	6	4	7	8	13	12	7	6	5	4	4	3	3	2	14.4
18-Apr	3	11	39	6	21	52	39	38	44	69	48	49	12	12	12	11	13	9	4	59	29	56	11	43	68.5
19-Apr	83	11	82	10	68	16	43	16	48	25	31	52	51	65	89	24	28	50	16	14	3	4	6	6	88.9
20-Apr	25	41	16	20	23	8	87	55	17	6	9	9	14	9	7	9	6	8	6	4	4	4	6	2	87.2
21-Apr	7	12	44	22	84	31	6	4	5	10	14	12	11	9	15	12	17	11	6	4	29	9	7	11	84.4
22-Apr	20	45	42	61	60	87	72	84	58	59	70	50	62	57	58	76	70	72	21	12	18	44	19	60	86.8
23-Apr	10	13	6	8	9	3	3	5	5	7	10	13	48	47	24	22	40	32	27	13	13	13	52	46	51.9
24-Apr	35	63	84	80	60	81	16	45	66	87	46	91	28	47	39	44	25	12	11	12	3	3	5	6	91.0
25-Apr	5	4	3	4	4	3	3	4	5	5	7	7	6	8	6	6	5	5	6	5	5	6	6	5	7.9
26-Apr	6	4	6	5	4	5	4	5	4	4	10	8	6	6	6	9	7	5	4	4	4	2	5	6	9.7
27-Apr	43	12	13	10	17	14	4	3	5	6	7	8	10	9	11	8	9	13	8	4	4	9	7	20	42.7
28-Apr	78	45	26	24	20	24	25	48	23	32	13	13	11	14	15	11	7	7	5	7	5	8	14	26	77.6
29-Apr	23	19	9	10	50	49	24	16	9	10	14	14	14	12	10	15	10	13	8	8	3	6	55	71	70.8
30-Apr	14	46	48	84	43	88	39	76	59	9	9	11	15	17	14	10	9	8	20	13	18	11	15	15	87.7
	83.3	89.0	88.1	88.1	84.4	87.7	87.2	97.1	70.4	87.1	78.3	91.0	61.9	64.5	88.9	75.9	70.1	72.2	88.0	58.5	29.3	56.4	89.0	70.8	

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2012

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

Maximum Value: 10.3 ppb on Apr 20 23:00

Maximum Daily Average: 1.9 ppb on Apr 21

Minimum Value: 0 ppb on Apr 1 02:00

Minimum Daily Average: 0.0 ppb on Apr 14

Maximum Diurnal Average: 1.0 ppb at hour 9

Minimum Diurnal Average: 0.2 ppb at hour 1

Monthly Average: 0.45 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.4$ $P_{90} = 1.1$ $P_{99} = 5.5$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0.1	0.6
2-Apr	0	0	0	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
3-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	2	0.3	1.5
4-Apr	0	7	3	0	2	1	0	0	3	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.8	7.3
5-Apr	0	0	0	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
6-Apr	0	0	3	5	0	1	4	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.8	5.0
7-Apr	0	0	0	0	0	0	0	0	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.9
8-Apr	0	0	0	0	0	0	0	0	1	A	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.2
9-Apr	0	0	0	0	0	0	0	0	A	0	1	1	1	2	1	0	0	0	1	1	1	1	3	1	0.6	2.6
10-Apr	0	1	1	1	1	1	1	A	1	2	2	C	C	C	1	1	1	1	1	1	1	1	1	0	1.0	1.7
11-Apr	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
12-Apr	1	1	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0.5	1.2
13-Apr	0	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
14-Apr	0	0	0	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
15-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
16-Apr	0	A	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	5.3
17-Apr	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
18-Apr	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	1	0	0	0	A	1	0.3	0.7
19-Apr	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	1	0.3	0.9
20-Apr	1	1	1	1	1	0	0	0	4	1	0	0	0	0	1	0	0	0	1	1	A	3	10	2	1.2	10.3
21-Apr	1	0	6	0	0	1	0	8	5	5	4	4	3	0	2	2	2	0	0	A	0	0	0	0	1.9	7.7
22-Apr	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	A	0	0	0	0	0	0.3	1.3
23-Apr	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	0.3
24-Apr	0	0	0	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
25-Apr	0	0	0	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
26-Apr	0	0	0	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
27-Apr	0	0	0	0	0	0	1	0	9	10	0	2	3	A	6	4	2	1	0	0	0	0	0	0	1.8	10.3
28-Apr	0	0	0	0	0	0	0	0	0	0	2	1	A	0	0	2	2	1	0	0	0	0	0	0	0.5	2.4
29-Apr	0	0	0	0	0	0	0	3	2	1	2	A	2	0	0	0	0	1	0	0	0	0	0	0	0.6	2.9
30-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0.3	0.8
	0.2	0.4	0.6	0.3	0.2	0.2	0.3	0.5	1.0	0.9	0.9	0.5	0.5	0.3	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.3	0.6	0.3	Diurnal Average	
	1.4	7.3	5.7	5.0	1.8	1.3	4.1	7.7	9.2	10.3	5.3	4.5	3.1	2.0	5.6	3.8	2.4	1.5	1.2	1.4	1.2	2.6	10.3	1.7	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

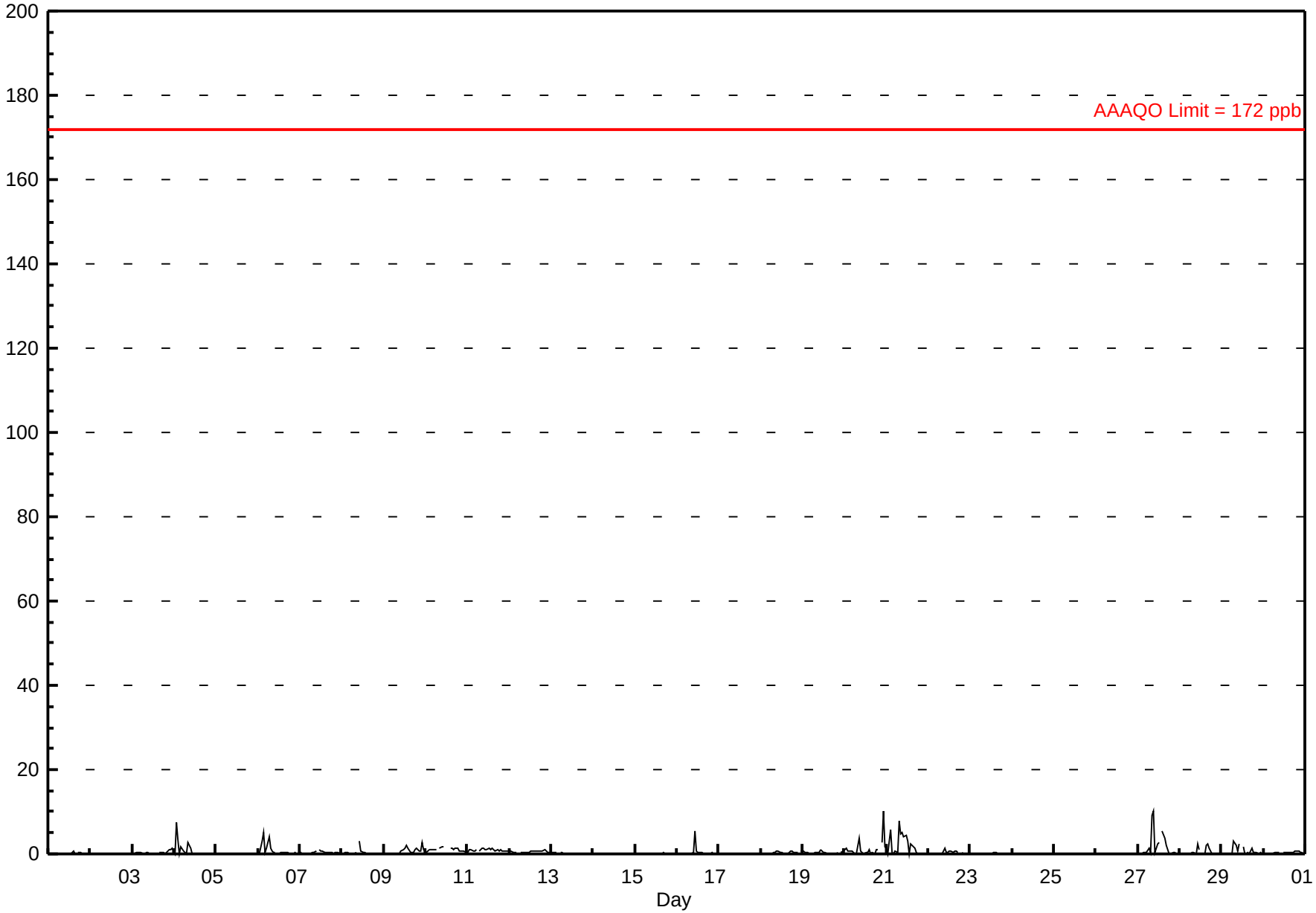
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2012

Maximum Value: 40.8 ppb on Apr 27 09:00

Maximum Daily Average: 9.4 ppb on Apr 21

Minimum Value: 0 ppb on Apr 17 23:00

Minimum Daily Average: 0.6 ppb on Apr 14

Maximum Diurnal Average: 4.3 ppb at hour 9

Minimum Diurnal Average: 1.0 ppb at hour 21

Monthly Average: 2.16 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 0.7$ Median = 0.9 $Q_3 = 1.3$ $P_{90} = 3.3$ $P_{99} = 21.1$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	2	13	1	A	1	1	1	1	1	1	1	1.4	13.0
2-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.1
3-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	2	2	12	1.6	12.0
4-Apr	1	22	17	2	7	2	3	1	19	7	1	1	1	A	1	1	1	1	1	1	1	1	1	1	4.0	21.6
5-Apr	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	1.1
6-Apr	1	1	9	12	2	10	11	4	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2.8	11.9
7-Apr	1	1	1	1	1	1	1	2	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.7
8-Apr	1	1	1	1	1	1	1	1	3	A	12	2	1	1	1	1	1	1	1	1	1	1	1	1	1.6	11.6
9-Apr	1	1	1	1	1	1	0	1	A	1	2	2	5	14	10	2	1	1	3	2	2	2	4	2	2.5	13.7
10-Apr	1	1	2	2	2	2	2	A	2	2	2	C	C	C	2	2	2	2	2	2	1	1	1	1	1.8	2.5
11-Apr	1	2	2	2	2	2	A	2	2	2	2	2	2	2	2	2	1	2	1	2	1	1	1	1	1.7	2.1
12-Apr	2	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	2	2	1	1	1	1.3	2.2
13-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.0
14-Apr	1	1	0	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
15-Apr	1	1	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
16-Apr	1	A	1	0	1	1	1	1	1	1	24	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	24.4
17-Apr	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	0	1	0	A	0.7	0.9
18-Apr	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	A	1	1.0	1.6
19-Apr	1	1	1	1	1	1	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	A	1	2	1.1	1.8
20-Apr	2	2	2	2	2	1	1	1	15	6	2	5	11	7	14	4	13	0	11	9	A	12	18	14	6.7	18.1
21-Apr	8	1	16	4	1	8	3	17	17	23	23	21	19	3	16	10	20	5	1	A	1	1	1	1	9.4	23.3
22-Apr	1	1	1	0	1	1	1	1	1	3	1	1	1	2	1	3	2	1	A	1	1	1	1	1	1.1	3.3
23-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	0.7	0.9
24-Apr	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	0.7	1.1
25-Apr	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	0.9
26-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	1	1	1	1	1	1	1	0.8	0.9
27-Apr	1	1	1	1	1	1	9	2	41	32	1	18	15	A	20	16	13	9	1	1	1	1	1	1	8.1	40.8
28-Apr	1	1	1	1	1	1	1	1	1	1	13	6	A	1	1	20	11	13	1	1	1	1	1	1	3.4	20.0
29-Apr	1	1	1	1	1	1	2	9	7	5	15	A	24	1	1	7	1	9	3	2	2	1	1	1	4.0	23.9
30-Apr	1	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	1.3
	1.1	1.6	2.2	1.4	1.1	1.5	1.7	1.9	4.3	3.4	4.0	2.8	3.6	1.8	3.4	2.9	2.8	2.1	1.4	1.3	1.0	1.3	1.6	1.8	Diurnal Average	
	7.5	21.6	17.0	11.9	7.2	9.8	11.2	16.9	40.8	32.0	24.4	21.3	23.9	13.7	19.6	20.0	19.9	12.8	11.4	9.3	2.2	12.4	18.1	14.5	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

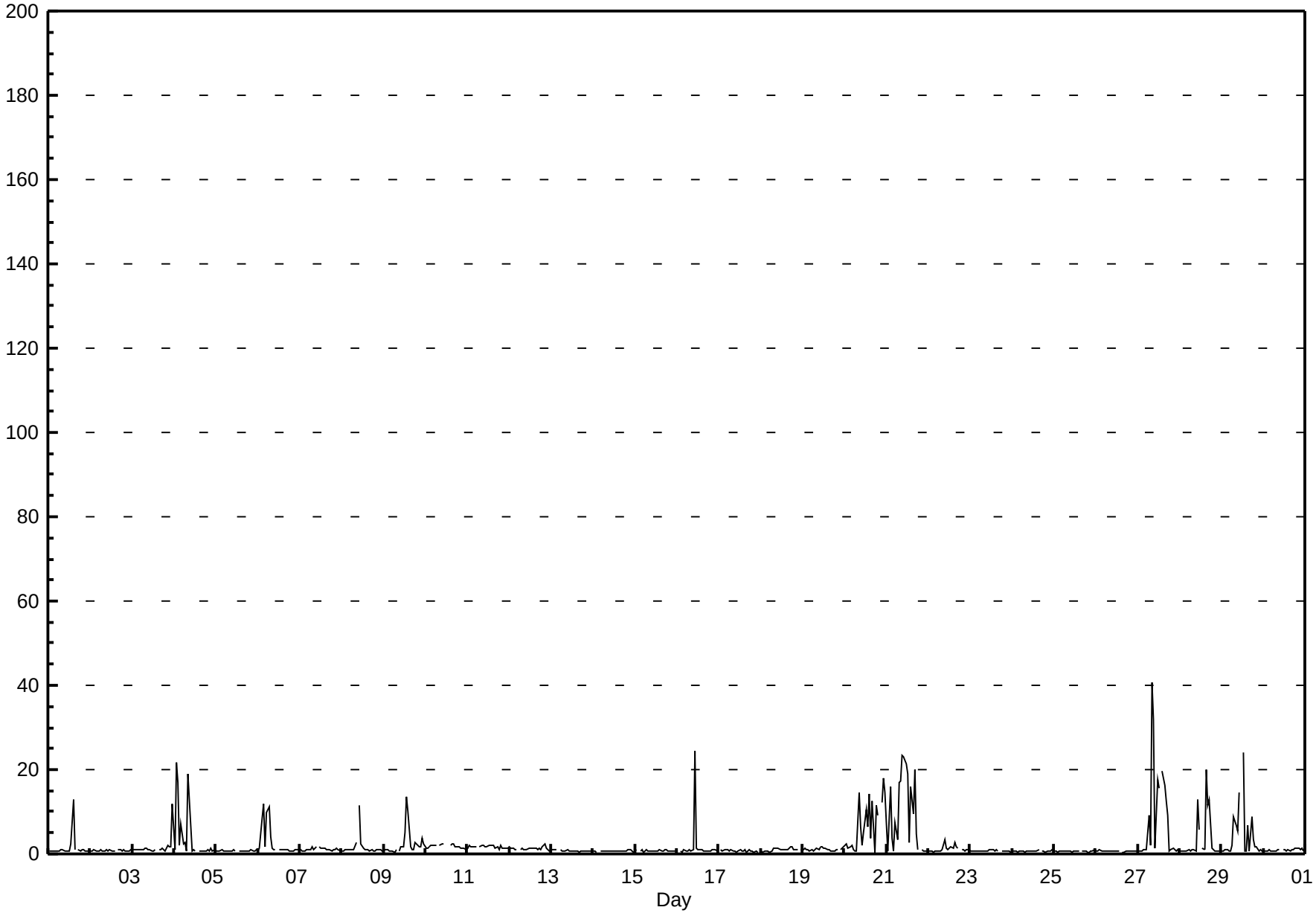
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2012

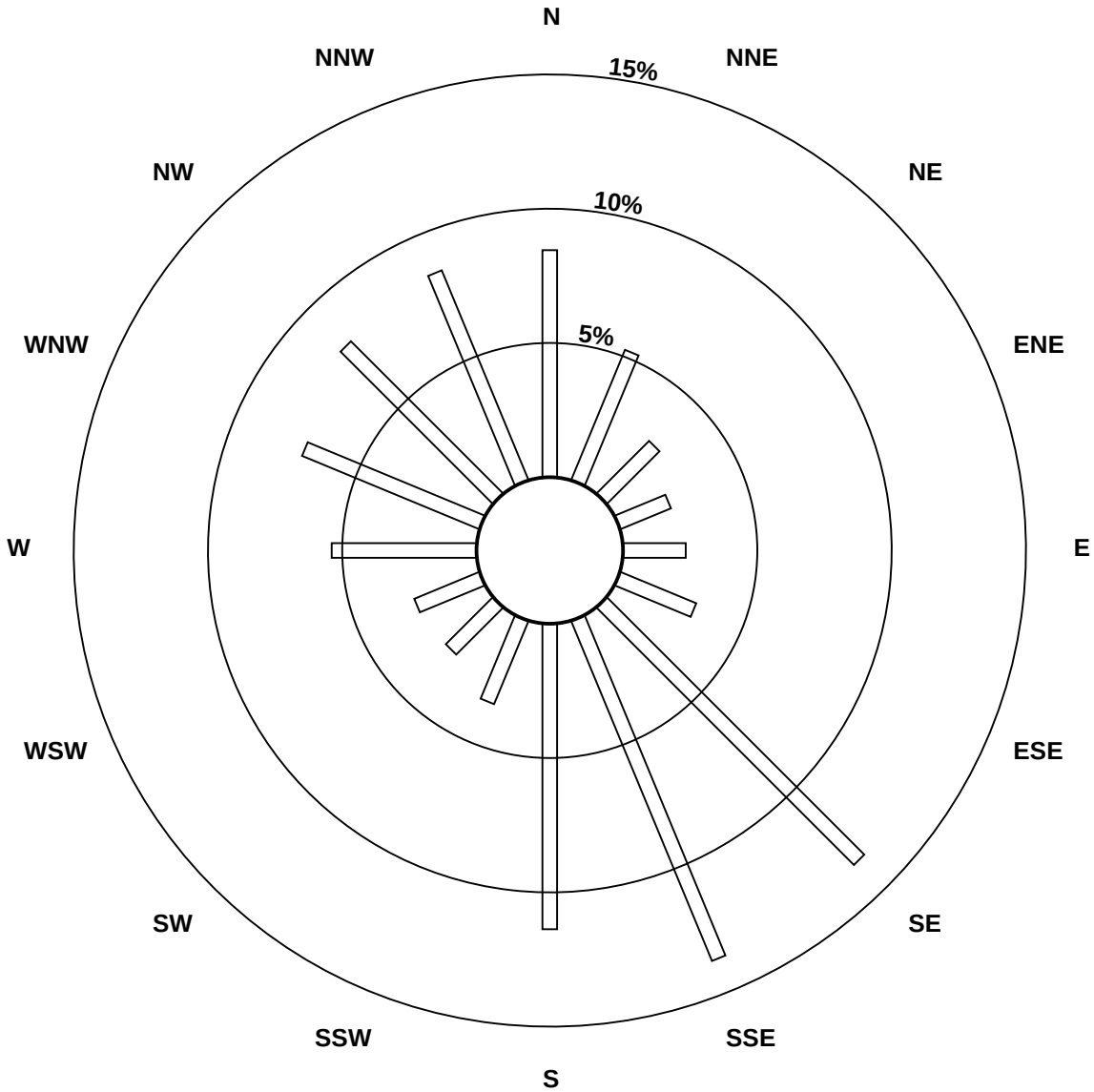


FOCUS AIR QUALITY MONITORING

Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2012



Pollutant Classes (ppb)

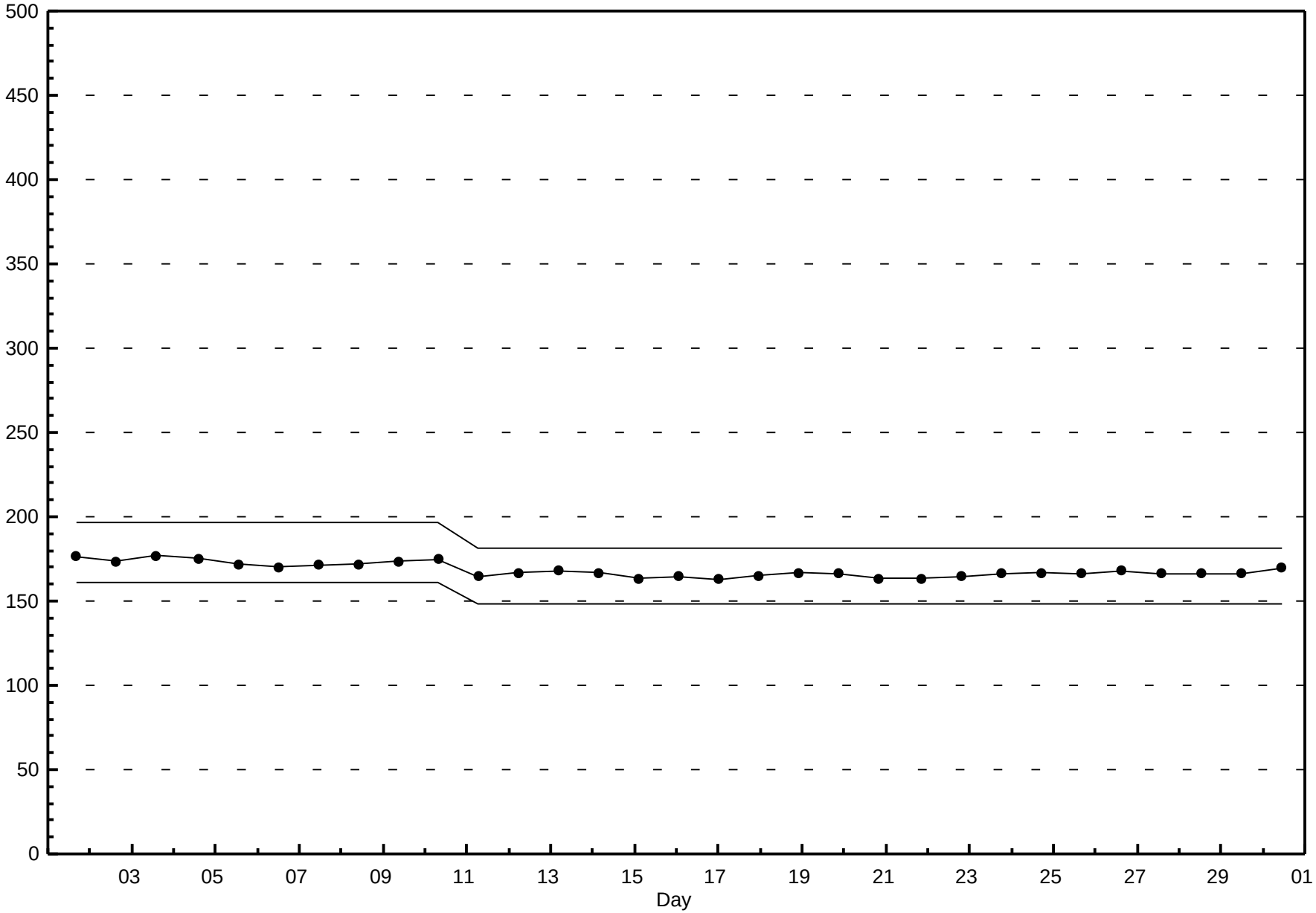
- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Valleyview - April 2012



Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2012

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

Maximum Value: 0.9 ppb on Apr 4 01:00 Maximum Daily Average: 0.2 ppb on Apr 4

Minimum Value: 0 ppb on Apr 1 04:00 Minimum Daily Average: 0.0 ppb on Apr 2

Maximum Diurnal Average: 0.1 ppb at hour 1 Minimum Diurnal Average: 0.0 ppb at hour 12

Monthly Average: 0.02 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.5

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

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

C - Calibration A - Automated Daily Zero Span

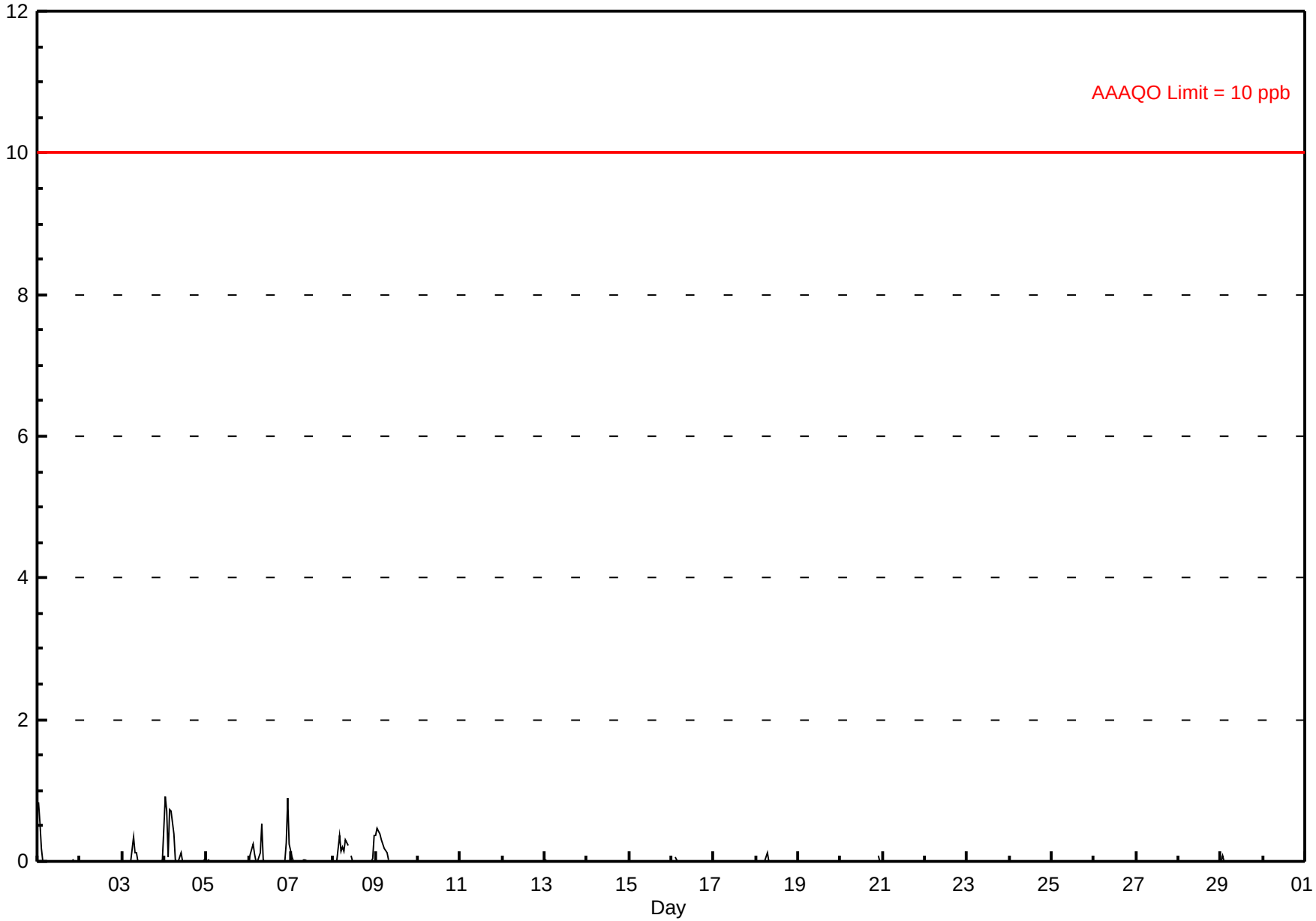
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2012



Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2012

Maximum Value: 9.7 ppb on Apr 4 01:00

Maximum Daily Average: 1.1 ppb on Apr 4

Minimum Value: 0 ppb on Apr 10 22:00

Minimum Daily Average: 0.0 ppb on Apr 23

Maximum Diurnal Average: 0.7 ppb at hour 1

Minimum Diurnal Average: 0.1 ppb at hour 13

Monthly Average: 0.17 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 1.7

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0.4	2.2
2-Apr	0	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
3-Apr	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	1.1
4-Apr	10	5	1	2	2	2	1	0	0	1	0	1	0	A	0	0	0	0	0	0	0	0	0	0	1.1	9.7
5-Apr	0	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
6-Apr	0	1	1	1	0	0	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	1	2	1	0.4	1.5
7-Apr	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
8-Apr	0	0	0	2	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	1.7
9-Apr	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
10-Apr	0	0	0	0	0	0	0	A	0	C	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0.2	0.9
11-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
12-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
13-Apr	4	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	3.5
14-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
15-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
16-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
17-Apr	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	0.2
18-Apr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.7
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.3
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0.1	0.6
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.5
22-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.7
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.0
24-Apr	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	1.3
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.0
26-Apr	0	0	0	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
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	2	0	0	0	0.1	1.8
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0	1	0	0	0.2	1.3
29-Apr	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	2	0	0	0	0.2	1.6
30-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
	0.7	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	Diurnal Average	
	9.7	5.0	0.8	1.7	1.6	1.9	1.1	1.2	0.7	0.7	0.6	0.6	0.3	0.3	0.5	0.6	0.4	0.9	0.7	1.1	1.8	1.3	1.5	1.0	Diurnal Maximum	

C - Calibration

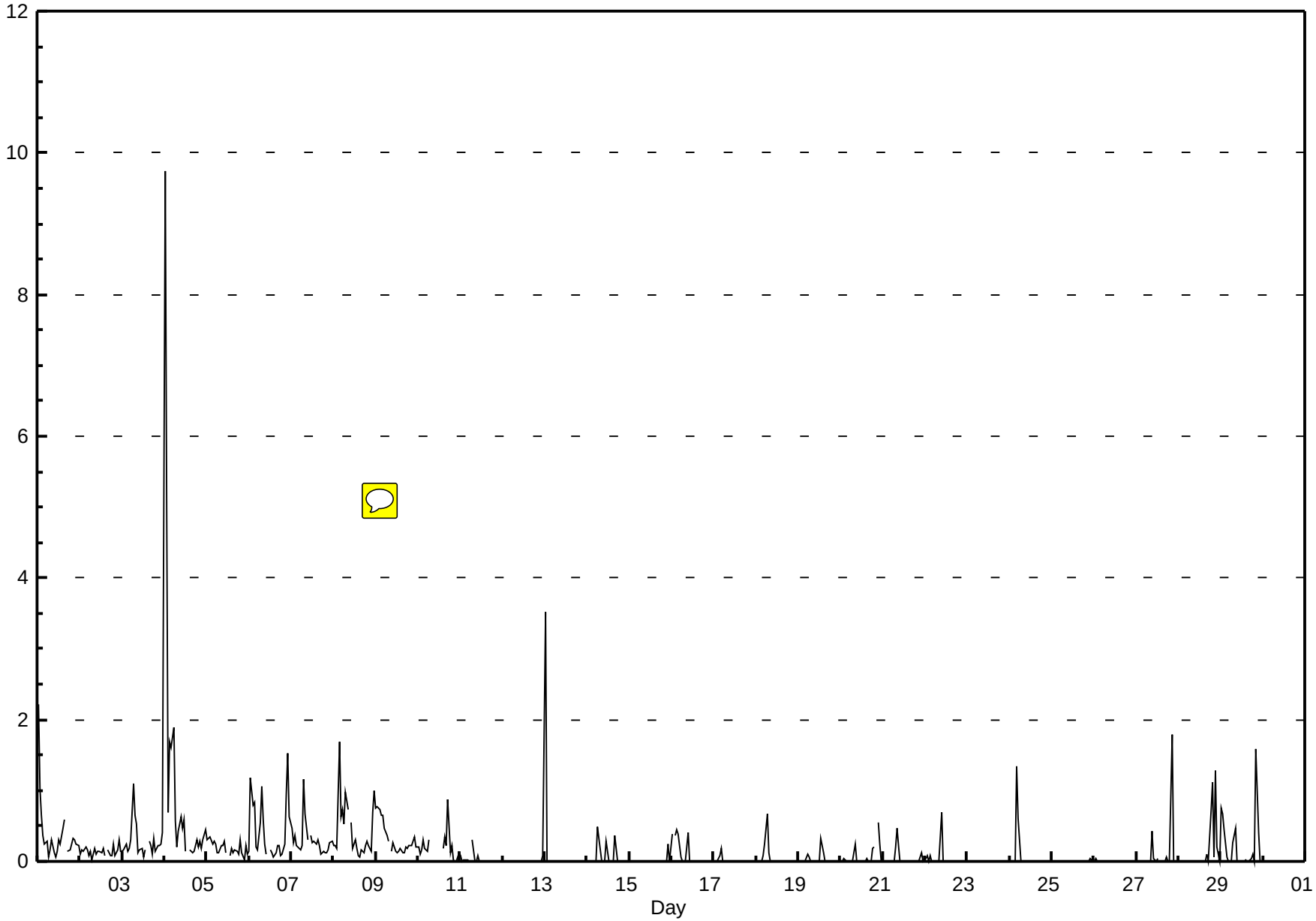
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

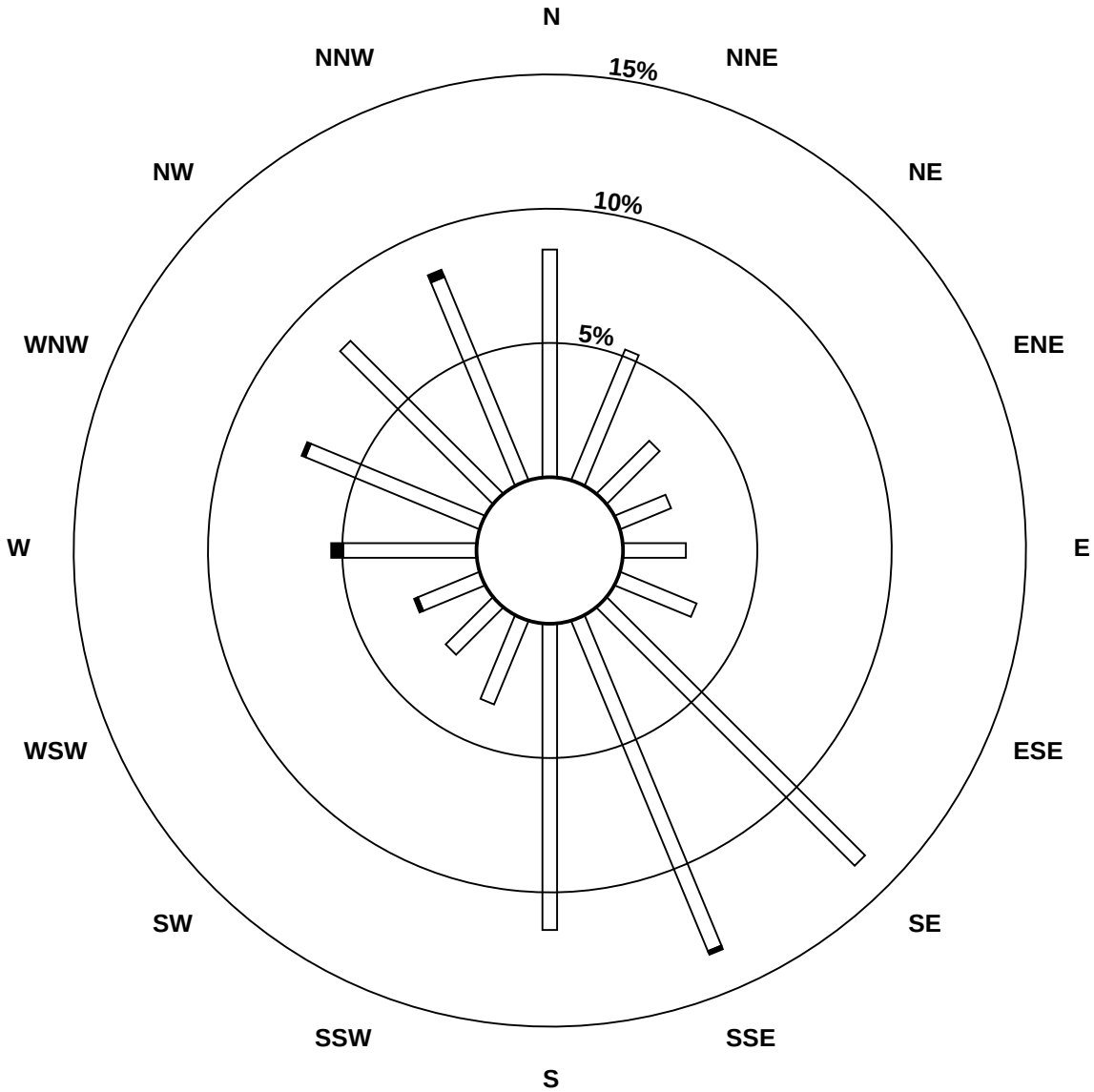
Valleyview - April 2012



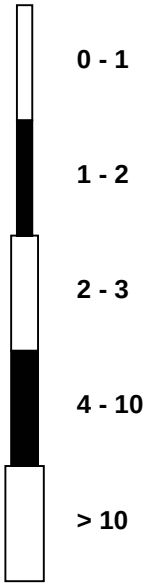
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2012



Pollutant Classes (ppb)

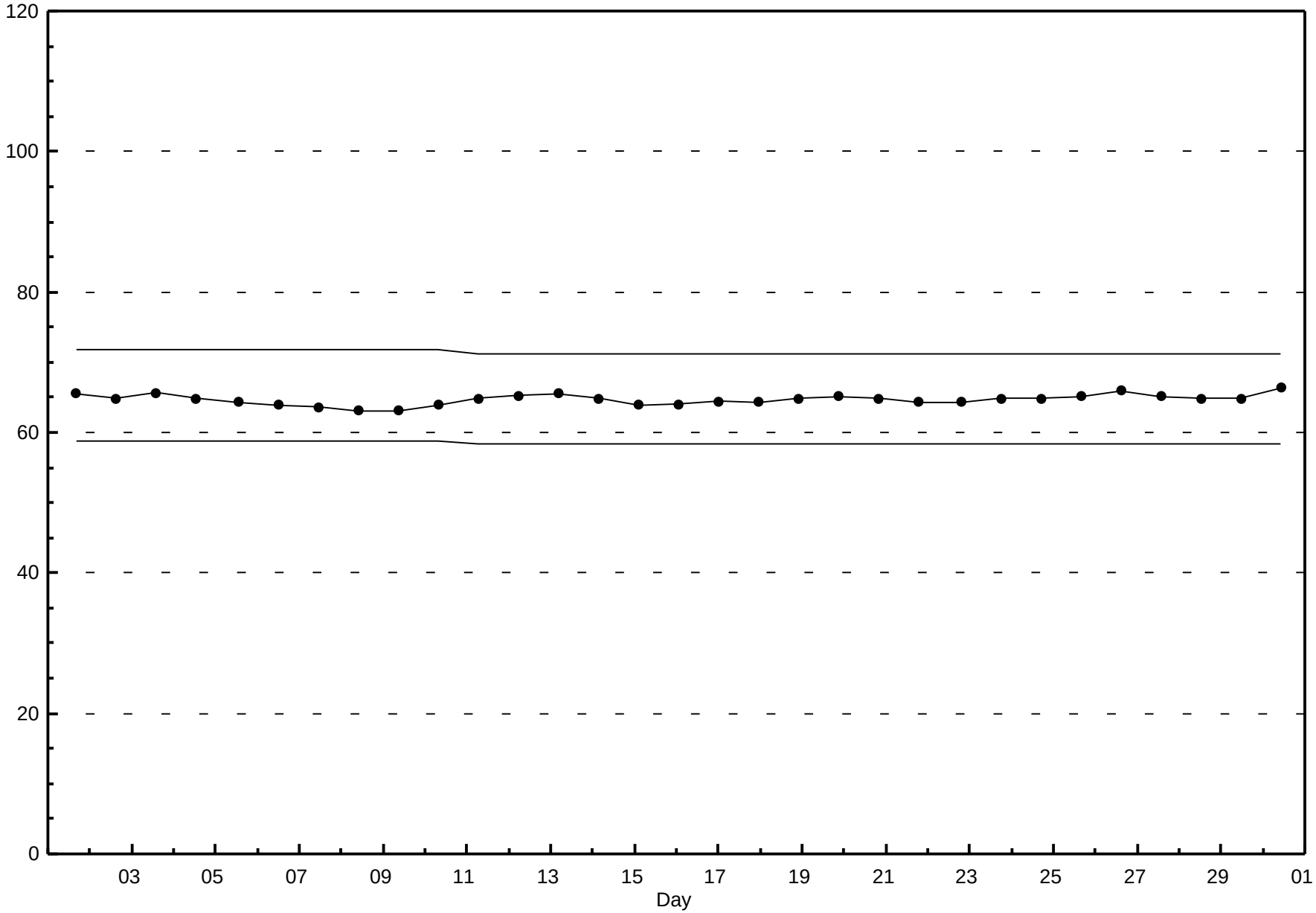


Peace Airshed Zone Association

Span Responses

Hydrogen Sulphide (H_2S)

Valleyview - April 2012



Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - April 2012

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

Maximum Value: 17.5 ^{o}C on Apr 28 16:00

Maximum Daily Average: 10.3 ^{o}C on Apr 3

Minimum Value: -6 ^{o}C on Apr 15 07:00

Minimum Daily Average: -2.9 ^{o}C on Apr 14

Maximum Diurnal Average: 9.2 ^{o}C at hour 16

Minimum Diurnal Average: 0.8 ^{o}C at hour 7

Monthly Average: 5.18 ^{o}C

Percentiles: P_1 = -5.1 P_{10} = -1.9 Q_1 = 1.2 Median = 5.4 Q_3 = 9.0 P_{90} = 12.1 P_{99} = 15.8

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

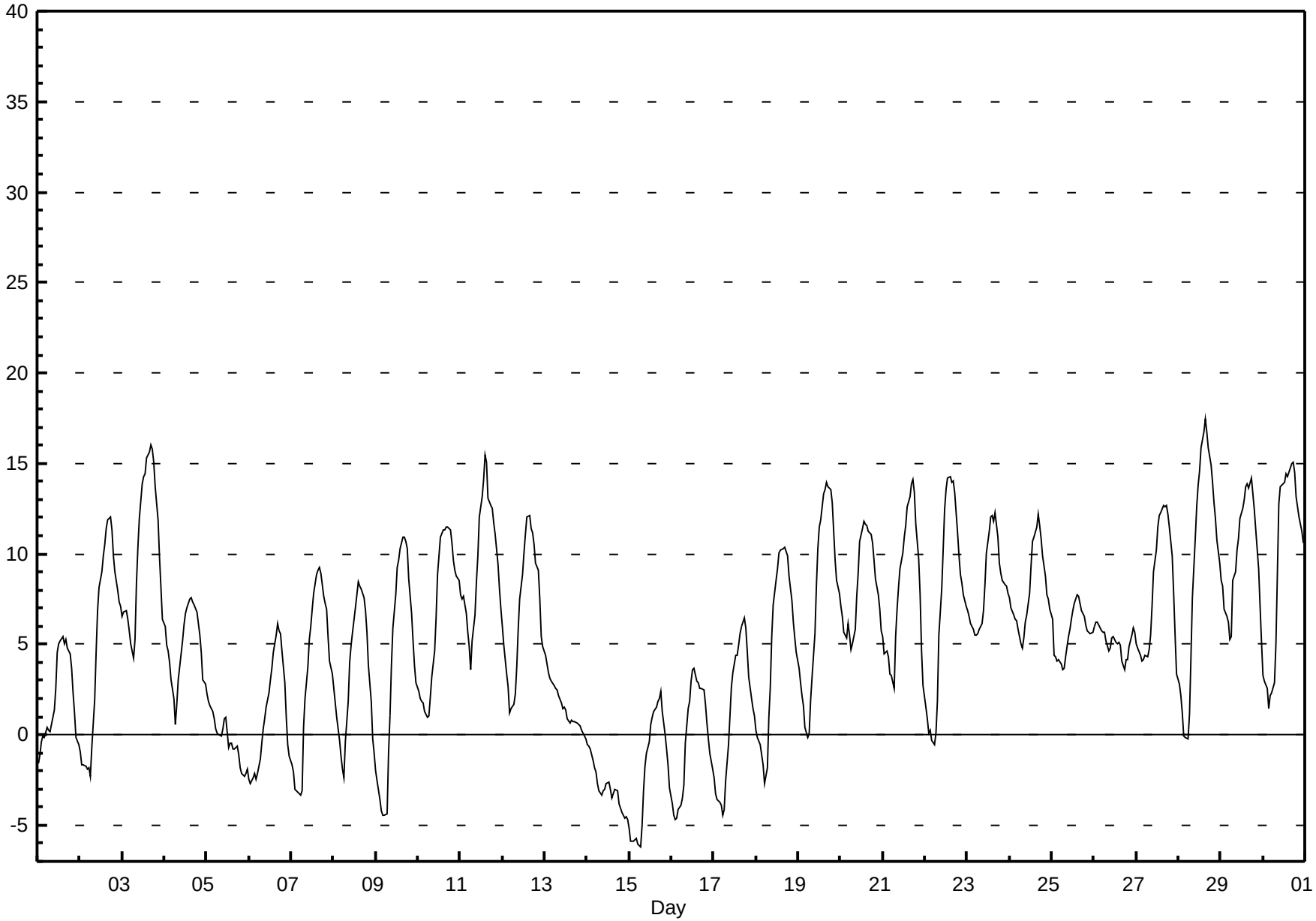
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	-2	-1	0	0	0	0	0	0	1	1	3	5	5	5	5	5	5	5	4	4	2	1	0	-1	2.0	5.4
2-Apr	-1	-2	-2	-2	-2	-2	-2	-1	2	5	7	8	9	10	11	11	12	12	11	10	9	8	7	7	5.3	12.0
3-Apr	7	7	7	6	6	5	4	5	8	10	12	14	14	14	15	16	16	16	15	14	12	10	8	6	10.3	16.0
4-Apr	6	5	5	4	3	2	1	2	3	5	5	6	7	7	7	8	7	7	7	6	5	5	3	3	4.9	7.6
5-Apr	2	2	2	1	1	0	0	0	0	0	1	1	-1	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	-0.2	2.3
6-Apr	-2	-3	-2	-2	-2	-2	-1	0	0	1	2	2	3	4	5	5	6	6	6	5	3	1	-1	-1	1.2	6.1
7-Apr	-2	-2	-3	-3	-3	-3	-3	0	2	4	5	6	7	8	9	9	9	9	8	7	7	5	4	3	3.5	9.2
8-Apr	3	2	1	0	-1	-2	-2	0	2	4	5	6	7	8	8	8	8	8	7	6	4	2	0	-1	3.3	8.4
9-Apr	-2	-3	-4	-4	-4	-4	-4	-1	1	4	6	8	9	10	10	11	11	11	10	9	7	5	4	3	3.8	11.0
10-Apr	2	2	2	2	1	1	1	2	3	5	6	9	10	11	11	11	11	11	11	11	10	9	9	9	6.7	11.5
11-Apr	8	7	8	7	6	5	4	5	7	8	10	12	13	14	15	15	13	13	12	12	11	9	8	7	9.6	15.4
12-Apr	6	5	3	3	1	1	2	2	4	6	7	9	10	11	12	12	11	11	11	9	9	7	5	5	6.8	12.2
13-Apr	4	4	3	3	3	3	3	3	2	2	1	2	1	1	1	1	1	1	1	1	0	0	0	0	1.6	4.4
14-Apr	-1	-1	-1	-1	-2	-2	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-4	-4	-4	-5	-5	-5	-2.9	-0.5
15-Apr	-5	-6	-6	-6	-6	-6	-6	-5	-3	-2	-1	0	1	1	1	2	2	2	2	1	0	-1	-2	-3	-1.9	2.4
16-Apr	-4	-4	-5	-5	-4	-4	-3	-3	-1	1	2	3	4	4	3	3	3	3	2	2	1	0	-1	-2	-0.3	3.7
17-Apr	-2	-3	-4	-4	-4	-4	-4	-3	-1	1	3	3	4	4	5	6	6	6	6	5	3	2	1	1	1.2	6.5
18-Apr	0	0	-1	-1	-2	-3	-2	1	3	5	7	9	9	10	10	10	10	10	10	9	7	6	5	5	5.0	10.4
19-Apr	4	3	2	2	0	0	0	2	3	6	8	10	11	12	13	14	14	14	14	13	11	10	9	8	7.6	14.0
20-Apr	7	7	6	5	6	5	5	5	6	8	9	11	11	12	12	12	11	11	11	10	9	8	7	6	8.2	11.8
21-Apr	5	4	5	4	3	3	3	5	7	8	9	10	11	12	13	13	14	14	13	12	10	8	5	3	8.1	14.1
22-Apr	2	1	0	0	0	-1	0	2	6	8	10	12	14	14	14	14	14	13	11	10	9	8	8	7	7.3	14.3
23-Apr	7	7	6	6	6	6	6	6	6	7	8	10	11	12	12	12	12	11	10	9	9	8	8	8	8.4	12.2
24-Apr	8	7	7	6	6	6	5	5	5	6	7	8	9	11	11	11	12	12	11	10	9	8	7	7	8.1	12.2
25-Apr	6	4	4	4	4	4	4	4	4	5	6	6	7	7	8	8	7	7	7	6	6	6	6	6	5.6	7.7
26-Apr	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	4	4	4	4	5	6	6	6	5.2	6.2
27-Apr	5	5	4	4	4	4	4	5	6	7	9	10	11	12	12	13	13	13	12	12	10	8	6	3	8.0	12.7
28-Apr	3	2	1	0	0	0	1	4	8	11	13	14	15	16	17	17	17	16	15	14	13	12	11	10	9.5	17.5
29-Apr	9	8	7	7	6	5	5	9	9	10	11	12	12	13	14	14	14	14	13	12	11	9	7	5	9.9	14.2
30-Apr	3	3	3	1	2	2	3	5	9	13	14	14	14	14	14	15	15	15	15	13	12	12	11	11	9.7	15.0
	2.7	2.2	1.8	1.5	1.1	0.9	0.8	2.0	3.4	5.0	6.2	7.4	8.1	8.6	9.0	9.2	9.2	9.0	8.5	7.5	6.6	5.5	4.5	3.7	Diurnal Average	
	8.5	8.2	7.6	6.7	6.3	5.8	5.7	8.5	9.0	12.8	13.7	13.9	14.6	15.9	16.7	17.5	16.7	15.8	15.1	13.9	12.9	12.0	11.3	10.6	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - April 2012



Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - April 2012

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

Maximum Value: 99.9 % on Apr 24 06:00 Maximum Daily Average: 95.5 % on Apr 13

Minimum Value: 16 % on Apr 21 15:00 Minimum Daily Average: 30.7 % on Apr 21

Maximum Diurnal Average: 78.3 % at hour 7 Minimum Diurnal Average: 42.6 % at hour 17

Monthly Average: 58.90 % Percentiles: P_1 = 21.1 P_{10} = 28.9 Q_1 = 37.6 Median = 57.3 Q_3 = 79.0 P_{90} = 91.8 P_{99} = 98.6

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

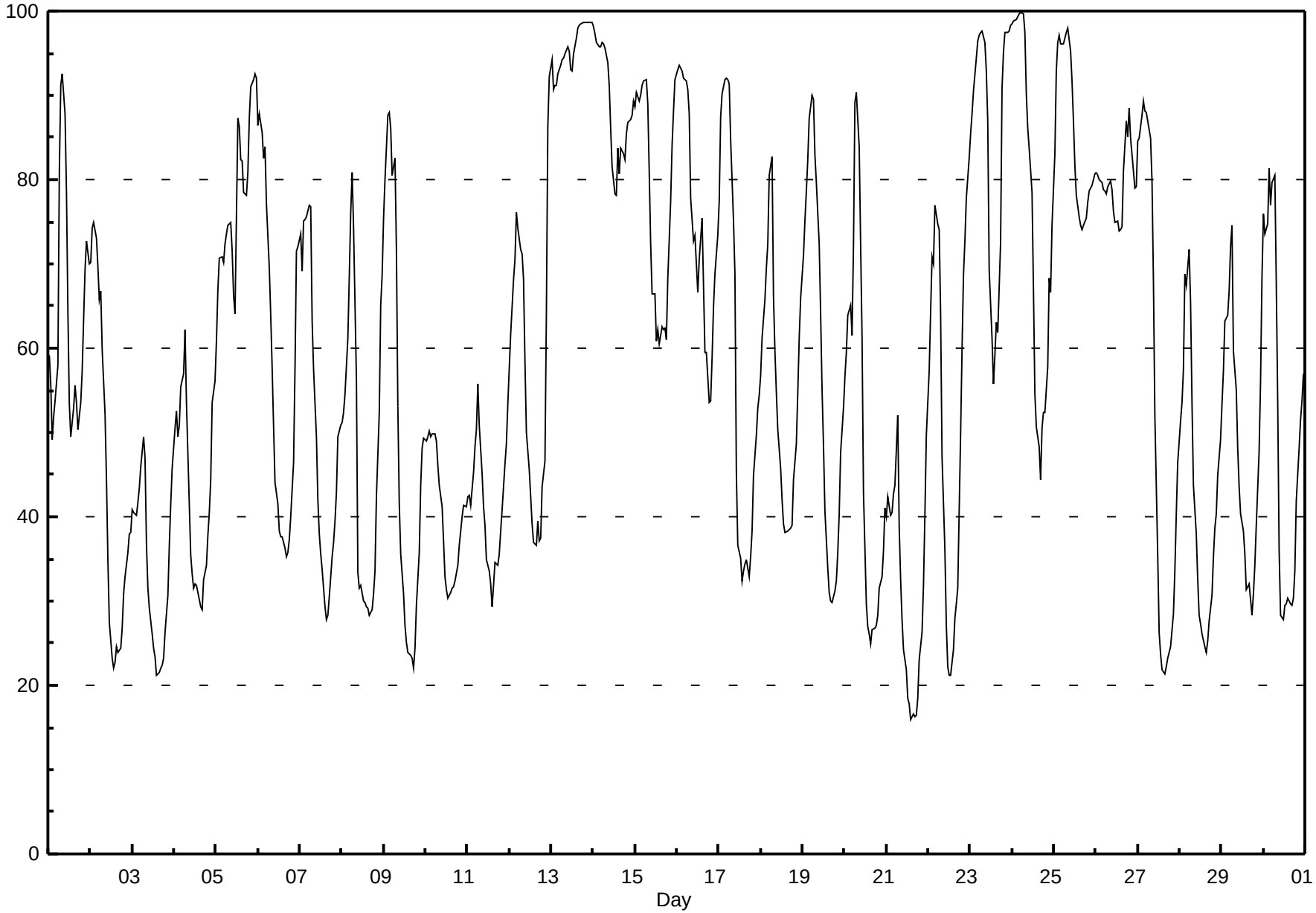
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	59	56	49	52	54	58	81	91	93	88	79	64	53	49	53	56	53	50	54	57	63	69	73	70	63.5	92.5
2-Apr	70	74	75	73	70	66	67	60	52	44	35	28	23	22	23	25	24	24	27	31	33	36	38	38	44.0	75.0
3-Apr	41	41	40	42	43	46	49	47	37	31	29	26	24	23	21	21	22	22	23	26	31	37	42	46	33.8	49.5
4-Apr	50	52	50	51	55	57	62	54	47	35	33	32	32	32	30	29	29	32	34	38	41	44	53	56	42.9	62.3
5-Apr	61	67	71	71	70	72	74	75	75	72	66	64	87	86	82	82	79	78	81	87	91	92	93	92	77.8	92.5
6-Apr	86	88	86	83	84	77	69	64	58	51	44	41	38	38	38	36	35	36	37	40	46	58	72	72	57.3	87.8
7-Apr	74	69	75	75	76	77	77	63	57	50	42	38	36	34	29	28	28	31	35	37	39	43	50	51	50.5	77.0
8-Apr	51	52	55	61	69	76	81	74	56	33	32	32	30	30	29	29	28	29	31	34	42	52	65	69	47.5	80.8
9-Apr	75	80	88	88	86	81	82	72	53	41	36	31	27	25	24	24	23	22	24	29	36	44	48	49	49.5	88.0
10-Apr	49	49	50	49	50	50	49	46	44	41	37	33	31	30	31	32	32	32	34	37	38	40	41	41	40.3	50.2
11-Apr	42	43	41	45	48	50	56	51	45	41	39	35	33	32	29	32	35	34	36	38	41	46	49	53	41.5	55.7
12-Apr	58	62	68	70	76	74	72	71	68	58	50	46	42	39	37	37	39	37	37	44	47	64	86	92	57.3	92.2
13-Apr	94	91	91	91	93	94	94	94	95	96	95	93	93	95	97	98	98	99	99	99	99	99	99	99	95.5	98.7
14-Apr	98	97	96	96	96	96	96	96	94	91	86	82	78	78	84	81	84	83	82	85	87	87	88	89	88.8	98.2
15-Apr	89	90	89	90	91	92	92	89	81	72	66	66	61	62	60	63	62	62	61	68	78	84	88	92	77.1	91.8
16-Apr	93	93	93	93	92	92	91	88	78	73	73	70	67	70	75	68	60	59	54	54	59	65	69	73	75.0	93.5
17-Apr	77	88	90	92	92	92	91	85	75	69	45	37	35	32	34	34	35	33	35	38	45	50	53	54	58.8	92.1
18-Apr	57	61	66	69	72	81	83	66	60	55	50	46	42	39	38	38	38	39	39	44	49	55	61	66	54.8	82.8
19-Apr	71	75	79	82	87	90	89	83	80	72	64	55	49	41	34	31	30	30	31	32	36	40	48	53	57.6	90.0
20-Apr	57	60	64	65	62	72	89	90	84	72	61	43	30	27	26	25	27	27	27	28	31	33	36	41	49.0	90.4
21-Apr	40	42	40	40	43	44	52	39	33	28	24	22	19	18	16	17	16	16	19	23	26	32	40	50	30.7	52.1
22-Apr	57	64	71	70	77	75	74	64	47	36	27	22	21	21	24	28	30	32	50	60	69	73	78	83	52.2	82.5
23-Apr	85	88	91	94	96	97	98	98	96	93	87	69	61	56	59	63	62	72	91	95	97	97	98	98	85.1	98.2
24-Apr	99	99	99	99	100	100	100	97	90	86	84	78	67	55	51	48	44	50	52	52	58	68	67	75	75.8	99.9
25-Apr	83	93	96	97	96	96	97	97	98	95	92	87	82	78	76	75	74	75	75	77	79	79	79	81	85.7	98.0
26-Apr	81	80	80	80	79	79	78	79	80	79	76	75	75	74	74	74	81	87	85	89	85	81	79	79	79.5	88.5
27-Apr	85	85	88	89	88	88	86	85	80	68	52	35	26	24	22	21	22	23	24	25	29	34	40	46	52.7	89.3
28-Apr	51	54	57	69	68	72	65	54	44	38	33	28	27	26	25	24	25	28	31	35	39	40	45	49	42.7	71.6
29-Apr	53	57	63	64	67	72	75	60	55	48	44	40	38	36	31	32	32	28	31	34	39	48	56	69	48.8	74.6
30-Apr	76	74	75	81	77	80	81	68	54	36	28	28	29	30	30	30	29	30	34	42	48	52	54	57	50.9	81.3
	68.8	70.8	72.5	74.1	75.2	76.5	78.3	73.3	66.9	59.8	53.7	48.2	45.3	43.4	42.8	42.6	42.6	43.4	45.8	49.3	53.3	58.0	62.9	66.1	Diurnal Average	
	98.6	98.9	99.1	99.4	99.7	99.9	99.7	97.6	98.0	95.8	95.2	93.1	92.9	94.9	96.8	97.9	98.3	98.5	98.6	98.7	98.7	98.7	98.7	98.6	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

Relative Humidity (RH) - %

Valleyview - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - April 2012

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	5	3	1	1	4	2	1	3	5	5	4	6	5	8	10	9	11	8	5	1	2	2	3	2.2	10.7
Dir	338	348	359	243	143	180	178	176	176	179	182	200	248	286	292	295	311	321	317	329	175	189	184	175	276	321
2 Spd	3	3	3	3	4	3	4	4	5	5	6	8	9	10	11	11	12	13	11	10	9	9	8	10	7.3	12.7
Dir	178	164	176	180	165	166	158	159	164	157	165	156	160	159	163	160	159	163	164	163	168	169	167	167	163	163
3 Spd	9	8	5	2	1	1	2	2	4	7	6	6	6	5	7	9	10	10	6	7	11	5	1	5	5.1	11.4
Dir	168	169	173	160	118	107	342	145	169	167	178	184	171	161	138	148	164	159	175	168	165	174	171	261	167	165
4 Spd	21	15	7	8	1	3	2	3	11	14	16	17	18	17	13	13	13	11	5	3	4	1	4	2	8.1	21.1
Dir	284	267	262	281	243	265	201	211	255	288	300	311	320	313	313	326	332	333	316	330	18	6	327	346	302	284
5 Spd	2	2	7	10	12	13	12	10	10	11	12	12	10	13	17	18	18	14	13	6	2	2	1	4	9.0	17.7
Dir	334	346	336	345	354	342	339	335	319	319	321	342	359	323	331	330	327	330	340	9	87	156	76	306	335	327
6 Spd	6	6	7	7	4	6	11	11	14	15	15	16	16	16	15	14	15	12	9	2	1	1	1	1	8.1	16.4
Dir	299	280	266	264	240	247	268	278	288	295	305	309	312	311	313	308	330	330	352	28	114	204	162	122	301	312
7 Spd	1	1	2	2	2	2	3	4	8	8	11	10	11	12	15	18	15	14	8	7	7	5	4	4	5.6	17.8
Dir	172	192	195	166	160	144	118	282	297	303	307	322	323	314	306	324	320	350	36	5	326	10	356	357	325	324
8 Spd	4	4	3	1	1	0	0	0	1	2	1	4	2	3	5	10	10	10	9	6	4	1	0	1	3.0	10.3
Dir	25	30	319	320	344	310	134	118	23	143	334	360	72	56	5	356	23	14	16	13	4	344	187	297	13	14
9 Spd	0	1	0	0	0	1	0	1	2	2	3	6	4	6	7	6	7	9	7	8	8	7	7	5	3.9	8.9
Dir	103	355	255	205	206	311	158	169	165	174	126	124	120	113	124	150	127	122	129	126	132	151	161	158	135	122
10 Spd	5	5	4	5	5	4	6	6	10	12	8	7	9	9	10	11	12	13	10	7	8	7	6	3	7.4	12.9
Dir	140	130	138	129	137	152	158	162	163	159	156	161	166	157	152	158	147	149	150	129	130	133	146	158	150	149
11 Spd	3	5	4	1	1	2	1	2	6	6	6	2	4	5	5	10	13	11	8	5	2	4	4	6	2.5	13.2
Dir	143	150	148	145	166	150	7	163	169	158	155	199	8	22	50	32	32	50	65	56	91	356	18	355	68	32
12 Spd	5	4	0	1	1	4	2	1	1	3	4	7	12	13	13	14	16	10	8	7	3	4	5	3	5.7	16.4
Dir	358	345	62	340	102	4	4	342	5	351	10	342	346	348	351	351	338	4	15	345	10	29	342	312	352	338
13 Spd	4	8	7	8	8	5	7	8	8	9	7	9	10	9	8	6	7	8	7	7	9	8	7	10	7.6	10.0
Dir	294	338	320	324	329	316	316	333	309	326	322	320	312	314	325	318	317	313	324	323	298	324	335	339	321	312
14 Spd	9	8	9	13	11	13	16	19	19	18	18	16	17	17	17	16	15	14	15	12	11	8	4	3	13.0	18.9
Dir	327	321	323	332	331	339	344	342	342	345	352	353	358	1	359	358	351	3	2	353	355	345	335	300	347	342
15 Spd	3	1	1	1	1	1	1	1	2	2	3	4	4	4	4	4	4	4	2	2	1	1	0	1	1.8	4.2
Dir	254	245	304	103	137	137	160	183	168	152	149	149	156	145	168	164	172	173	147	130	131	149	185	219	162	168
16 Spd	0	0	0	1	0	1	1	2	4	1	4	6	10	14	13	15	14	13	11	11	6	3	3	4	5.1	15.1
Dir	11	156	92	45	53	257	173	29	169	284	7	358	347	359	7	8	20	11	356	0	5	1	328	353	3	8
17 Spd	0	1	0	0	0	1	0	1	1	3	4	5	3	5	6	5	7	5	6	7	5	4	3	3	2.9	7.2
Dir	25	177	85	289	36	52	79	358	60	10	49	81	30	349	22	7	12	64	61	51	54	49	38	20	38	51
18 Spd	2	1	1	1	1	0	0	1	2	5	10	8	9	8	9	7	7	8	9	6	6	6	5	3	4.3	9.9
Dir	39	159	145	243	228	93	357	186	174	153	162	158	129	153	127	121	106	116	125	145	161	162	163	174	142	162
19 Spd	4	5	5	2	1	0	1	3	3	3	4	2	1	2	2	4	5	6	6	6	6	8	8	8	3.6	8.2
Dir	179	173	173	173	136	192	185	173	163	151	134	127	181	222	125	92	130	136	139	125	122	128	140	144	143	128
20 Spd	6	4	2	6	5	4	4	5	10	13	15	20	24	22	22	24	24	21	21	21	15	12	10	8	11.6	24.2
Dir	149	170	196	181	188	188	188	231	270	290	288	290	287	286	282	283	289	289	282	280	278	275	269	254	276	287
21 Spd	10	5	9	8	3	6	2	10	14	15	14	13	15	13	13	10	7	7	9	8	2	0	1	1	7.2	15.5
Dir	257	242	264	250	221	248	198	269	274	271	268	267	288	296	276	286	284	318	355	343	332	162	184	191	277	271
22 Spd	1	0	1	1	0	1	0	2	1	1	3	3	4	2	5	3	2	3	6	5	3	2	2	4	1.4	6.1
Dir	180	216	224	193	161	186	220	180	179	349	67	72	46	69	181	209	179	77	176	185	188	177	166	169	159	176

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - April 2012

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	2	1	1	0	1	0	1	2	3	3	3	7	7	7	3	7	8	10	4	1	2	3	1	2	1.2	9.7
Dir	178	163	26	332	64	79	13	10	33	35	87	128	143	149	99	9	13	352	29	165	176	226	204	159	69	352
24 Spd	1	2	1	1	2	3	6	5	4	2	3	4	4	3	3	4	2	4	4	5	2	3	7	6	1.2	6.6
Dir	192	199	308	314	312	307	314	289	341	21	62	90	93	136	147	173	137	87	132	129	92	112	126	124	113	126
25 Spd	4	4	4	7	5	6	7	4	3	4	7	8	9	9	10	10	11	11	11	10	9	10	11	9	5.4	11.5
Dir	46	23	13	14	19	26	18	33	11	111	125	139	138	133	133	129	135	139	128	131	136	131	129	129	114	139
26 Spd	7	9	10	11	10	9	10	11	13	12	11	13	12	14	12	12	11	9	5	4	3	5	9	9	9.4	13.6
Dir	136	137	144	143	144	144	129	134	129	133	136	136	141	135	136	142	143	128	119	66	91	133	138	146	135	135
27 Spd	7	8	8	8	5	6	6	2	4	8	14	19	21	19	21	19	20	16	14	11	4	1	2	2	7.7	21.2
Dir	141	157	164	168	185	232	248	227	249	276	290	278	278	285	271	280	281	283	293	289	265	146	187	199	267	278
28 Spd	3	2	1	2	2	1	4	4	5	3	8	9	10	6	8	12	17	13	8	7	10	10	4	0	4.9	17.0
Dir	168	187	207	189	200	173	172	174	168	193	262	262	255	230	233	261	286	272	295	292	290	283	279	199	258	286
29 Spd	2	1	2	2	2	2	2	10	14	14	13	12	13	14	14	14	14	14	10	8	4	1	2	1	6.7	14.5
Dir	341	299	219	217	226	176	212	274	278	287	274	293	298	332	303	317	326	288	287	285	267	233	176	173	292	278
30 Spd	2	3	1	1	1	1	1	1	2	5	7	8	10	10	12	10	11	10	10	12	9	8	6	6	5.7	12.0
Dir	146	162	177	172	183	26	348	141	40	104	117	127	128	135	122	127	126	128	131	157	152	140	132	128	132	157
Spd	0.9	0.9	1.0	0.8	0.2	0.6	0.8	1.5	2.2	2.3	2.2	2.3	3.0	2.9	2.6	3.6	3.7	2.6	1.8	1.0	0.5	1.0	1.3	1.1	Diurnal Average	
Dir	235	213	233	259	229	281	295	278	267	280	285	293	305	313	308	320	332	346	6	359	158	151	150	164		
Spd	21.1	15.5	10.2	13.0	11.9	13.4	15.7	18.7	18.9	18.3	17.9	20.0	24.2	22.5	21.6	23.8	24.0	20.5	21.0	21.3	15.4	12.2	11.0	10.1	Diurnal Maximum	
Dir	284	267	144	332	354	342	344	342	342	345	352	290	287	286	282	283	289	289	282	280	278	275	129	167		

Maximum Speed Value: 24 km/h on Apr 20 13:00
Maximum Daily Speed Average: 13.0 km/h on Apr 14
Maximum Diurnal Speed Average: 3.7 km/h at hour 17

Minimum Speed Value: 0 km/h on Apr 16 03:00
Minimum Daily Speed Average: 1.2 km/h on Apr 15
Minimum Diurnal Speed Average: 0.2 km/h at hour 5

Monthly Average Velocity: 1.15 km/h 299.5 deg

Speed Percentiles: $P_1 = 0.3$ $P_{10} = 0.9$ $Q_1 = 2.5$ Median = 5.5 $Q_3 = 9.7$ $P_{90} = 13.6$ $P_{99} = 21.1$

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

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

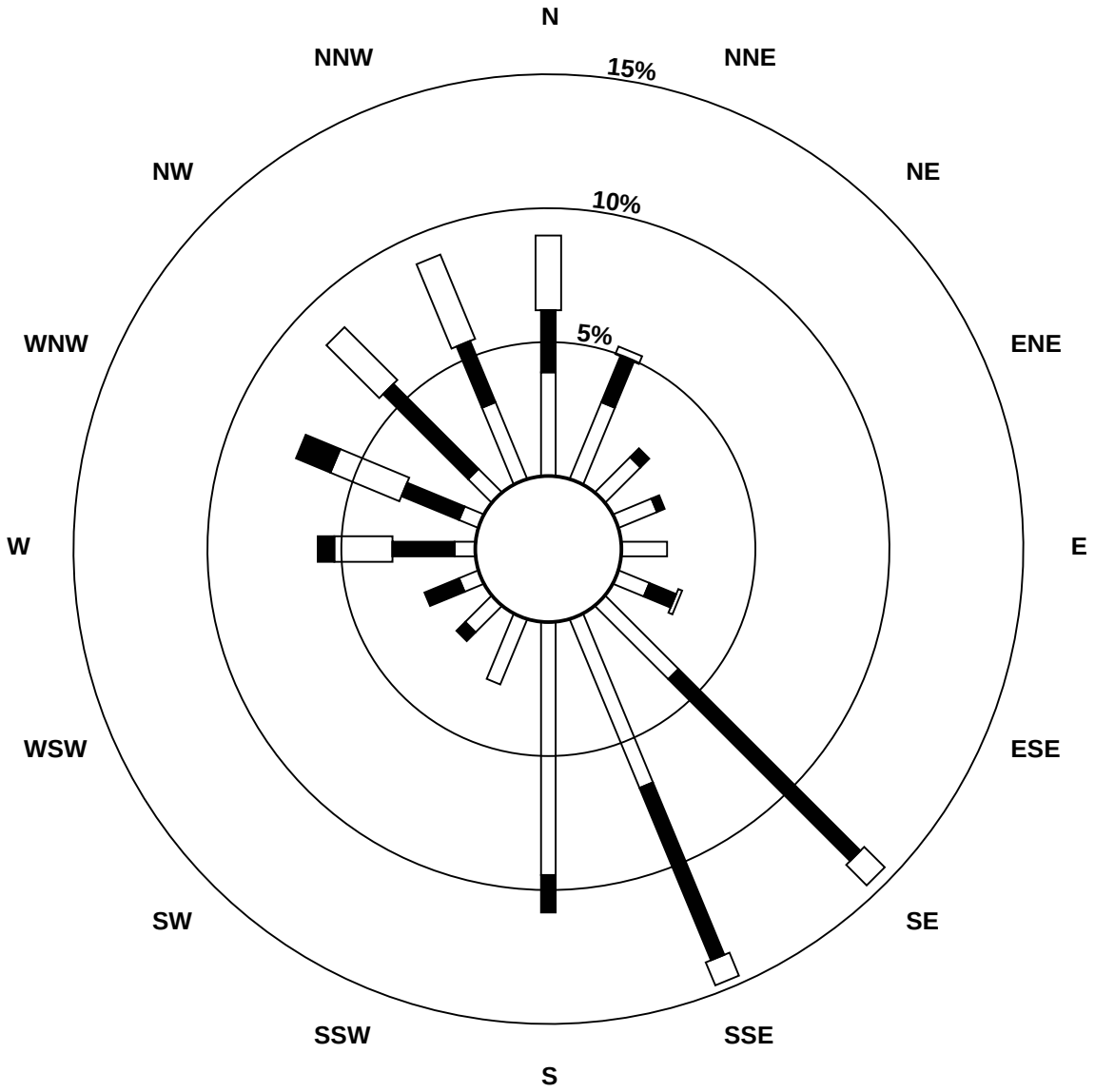
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	47	38	31	0	0	0	116
NorthEast	35	10	1	0	0	0	46
East	27	2	0	0	0	0	29
SouthEast	48	85	16	0	0	0	149
South	108	45	7	0	0	0	160
SouthWest	27	5	0	0	0	0	32
West	12	32	24	16	0	0	84
NorthWest	24	43	37	0	0	0	104
Total	328	260	116	16	0	0	720

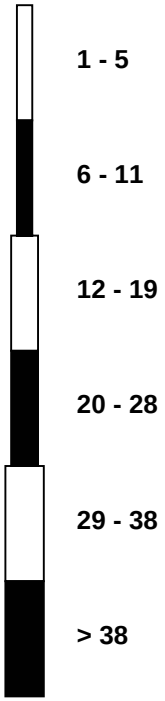
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - April 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - April 2012

Maximum Speed: 25 km/h on Apr 20 13:00

Maximum Daily Speed Average: 13.5 km/h on Apr 20

Minimum Speed: 1 km/h on Apr 18 06:00

Minimum Daily Speed Average: 2.3 km/h on Apr 15

Maximum Diurnal Speed Average: 11.6 km/h at hour 17

Minimum Diurnal Speed Average: 3.4 km/h at hour 5

Monthly Average Speed: 6.97 km/h

Percentiles: $P_1 = 0.7$ $P_{10} = 1.4$ $Q_1 = 3.0$ Median = 5.9 $Q_3 = 10.1$ $P_{90} = 14.1$ $P_{99} = 21.4$

Hours in Service: 720

Hours of Data: 720

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST) 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-Apr	3	5	3	2	3	4	2	2	3	5	6	5	6	6	9	10	9	11	8	5	2	2	2	3	4.8	10.8
2-Apr	3	3	3	3	4	3	4	4	5	5	7	8	10	11	11	11	12	13	12	10	9	9	8	10	7.4	12.8
3-Apr	9	8	5	3	2	2	2	2	4	7	6	6	6	5	8	10	10	10	6	7	11	5	1	6	5.9	11.4
4-Apr	21	16	8	8	2	4	4	4	11	15	17	17	18	17	14	14	13	11	5	4	4	2	4	2	9.7	21.4
5-Apr	3	3	7	10	12	13	12	10	10	12	13	13	10	13	17	18	18	14	13	6	3	3	3	5	10.0	18.0
6-Apr	6	6	7	8	4	6	11	11	14	15	16	16	17	16	16	14	15	12	10	2	1	1	1	1	9.4	16.9
7-Apr	1	1	2	2	2	2	3	5	8	9	11	10	11	13	15	18	16	15	8	7	8	6	4	4	7.6	18.4
8-Apr	4	4	3	1	1	1	1	1	1	3	3	5	5	6	8	11	11	11	10	6	5	3	1	1	4.3	10.8
9-Apr	1	1	1	1	1	1	1	1	2	3	4	7	6	7	8	7	7	9	7	8	8	7	7	5	4.6	9.2
10-Apr	5	6	5	5	5	4	6	6	10	12	9	8	9	10	11	12	12	13	10	7	8	7	6	3	7.8	13.2
11-Apr	3	6	5	2	1	2	1	3	6	7	6	4	5	6	6	10	13	11	8	5	2	4	4	6	5.3	13.4
12-Apr	5	4	2	2	2	4	2	2	2	4	4	7	13	14	13	15	17	10	9	7	5	5	6	3	6.6	16.5
13-Apr	4	8	7	8	8	6	7	8	8	10	7	9	10	9	8	6	7	8	7	7	9	8	7	10	7.8	10.1
14-Apr	9	9	9	13	11	13	16	19	19	18	18	16	18	17	17	17	15	14	15	13	11	8	4	3	13.4	19.0
15-Apr	3	1	1	1	1	1	1	1	2	3	3	4	4	4	4	4	4	4	2	2	1	1	1	1	2.3	4.4
16-Apr	1	1	1	2	1	1	2	2	4	2	5	6	10	14	13	15	14	13	11	11	6	3	3	4	6.1	15.5
17-Apr	1	1	1	1	1	1	1	1	2	3	6	6	5	6	6	6	8	6	6	7	5	4	3	3	3.7	7.5
18-Apr	2	2	1	1	1	1	1	1	2	5	10	9	9	9	9	7	7	9	9	6	7	6	5	4	5.0	10.1
19-Apr	4	5	5	2	1	1	1	3	3	3	4	4	4	4	5	5	6	7	7	6	6	8	8	8	4.6	8.2
20-Apr	6	4	3	6	5	4	4	5	10	14	15	20	25	23	22	24	24	21	21	22	16	12	10	8	13.5	24.6
21-Apr	10	6	9	8	3	6	3	10	15	16	15	14	16	14	14	11	8	8	9	9	3	2	2	1	8.8	16.1
22-Apr	1	1	1	1	1	1	1	2	2	2	4	5	6	5	7	6	3	5	6	5	3	2	3	4	3.1	6.7
23-Apr	2	1	2	1	2	1	1	3	3	3	3	7	8	7	4	8	8	10	4	2	3	3	1	2	3.8	9.8
24-Apr	1	2	2	2	2	4	6	6	5	4	4	5	5	4	4	4	3	5	5	6	3	3	7	6	4.0	6.6
25-Apr	5	5	4	7	6	6	7	4	3	4	7	9	10	10	10	10	11	12	11	10	9	10	11	9	7.8	11.7
26-Apr	8	9	10	11	10	10	10	11	13	12	11	13	12	14	12	12	12	9	5	4	3	5	9	9	9.8	13.9
27-Apr	7	8	8	8	6	6	6	2	4	8	14	20	22	20	21	20	20	17	14	11	4	1	2	2	10.5	21.7
28-Apr	3	2	1	2	2	2	4	4	5	4	9	10	11	8	9	13	18	14	8	8	10	10	4	1	6.7	17.5
29-Apr	3	1	2	2	2	2	3	10	15	14	14	14	14	15	15	15	15	15	11	9	5	2	2	1	8.3	15.3
30-Apr	2	3	2	2	2	1	1	1	3	5	7	8	10	10	12	11	11	10	11	12	9	8	6	7	6.4	12.4
	4.5	4.3	3.9	4.1	3.4	3.7	4.0	4.9	6.5	7.5	8.6	9.5	10.5	10.5	10.9	11.5	11.6	10.8	8.9	7.5	5.9	5.0	4.6	4.4	Diurnal Average	
	21.4	15.8	10.3	13.2	12.2	13.4	15.9	18.8	19.0	18.4	18.0	20.5	24.6	22.9	22.1	24.1	24.4	20.7	21.4	21.5	15.5	12.3	11.1	10.1	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - April 2012

Maximum Value: 96.8 deg on Apr 16 01:00

Minimum Value: 4.4 deg on Apr 2 22:00

Percentiles: P_1 = 5.7 P_{10} = 8.3 Q_1 = 10.6 Median = 16.3 Q_3 = 33.2 P_{90} = 63.0 P_{99} = 90.1

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	36	20	45	82	87	18	19	18	9	11	12	22	23	42	17	11	11	8	12	20	59	11	9	13	86.8
2-Apr	11	7	6	8	8	6	6	8	8	10	9	15	16	15	14	11	12	9	7	6	6	4	5	5	16.0
3-Apr	6	6	10	48	63	55	55	49	13	7	9	15	19	19	20	15	10	10	9	12	5	8	52	46	63.2
4-Apr	9	14	31	13	64	63	42	26	15	15	15	12	10	14	18	15	11	9	14	31	12	54	11	24	64.4
5-Apr	19	24	7	12	16	6	7	11	14	11	11	34	21	13	11	11	8	11	9	15	39	51	69	68	69.3
6-Apr	11	14	12	11	22	21	7	8	9	10	11	12	13	16	14	14	12	10	13	21	72	78	72	50	77.9
7-Apr	21	19	19	22	22	26	37	56	15	17	15	15	16	14	14	15	11	25	18	26	24	22	17	19	56.2
8-Apr	18	12	15	57	79	87	94	69	57	47	76	48	78	81	68	24	22	19	9	8	15	90	78	69	93.8
9-Apr	86	69	80	57	53	54	78	89	26	33	55	24	49	39	31	27	18	15	11	7	10	12	9	12	89.4
10-Apr	14	8	10	8	11	10	9	9	9	12	18	26	20	22	17	17	16	12	13	10	9	9	10	56	55.8
11-Apr	12	15	19	42	32	29	51	68	11	17	20	63	66	52	44	21	10	15	13	28	61	14	10	18	67.7
12-Apr	10	16	84	80	56	23	55	76	86	39	37	24	16	16	15	14	8	22	13	7	72	40	25	25	85.7
13-Apr	22	12	8	10	8	10	9	9	9	6	9	9	8	9	8	13	10	8	8	13	10	14	14	12	22.0
14-Apr	7	7	7	11	6	8	7	6	7	8	8	10	11	11	10	10	9	9	9	11	9	11	20	16	20.5
15-Apr	21	55	65	36	29	22	23	24	32	37	40	22	31	31	21	22	26	26	33	10	10	28	89	55	89.1
16-Apr	97	90	91	83	89	79	91	46	19	75	29	26	17	13	11	14	9	15	9	8	8	21	9	16	96.8
17-Apr	86	19	63	78	71	33	49	37	59	31	46	30	61	30	24	41	21	27	16	10	10	11	13	10	86.1
18-Apr	33	49	62	49	29	84	62	47	54	24	13	22	19	18	24	14	19	10	8	13	9	7	8	12	84.0
19-Apr	11	9	8	33	47	59	53	10	27	34	31	71	90	67	71	59	50	22	19	6	7	6	9	9	90.0
20-Apr	10	12	9	21	15	10	13	22	15	16	13	13	11	12	12	10	10	8	11	9	7	8	8	8	22.5
21-Apr	7	13	8	12	15	9	26	24	12	13	20	17	19	28	19	26	56	38	18	9	33	84	32	18	84.1
22-Apr	20	72	58	75	66	53	90	14	61	45	46	63	59	83	43	64	60	70	17	10	14	22	15	11	90.2
23-Apr	29	27	64	90	69	86	86	27	31	37	36	14	25	20	49	23	18	10	36	65	40	33	32	18	90.1
24-Apr	27	29	81	85	57	32	14	20	43	67	60	53	37	39	32	25	49	44	35	13	28	15	6	8	84.6
25-Apr	44	15	10	12	9	12	13	22	19	13	12	13	14	11	11	9	9	11	8	9	9	9	8	8	44.3
26-Apr	12	10	10	10	10	11	8	9	8	10	12	11	14	11	12	12	13	8	15	13	19	13	11	12	18.6
27-Apr	11	11	11	11	30	26	8	27	24	18	15	12	13	13	10	15	13	15	10	10	30	48	19	11	48.0
28-Apr	16	9	18	21	20	49	8	13	12	52	44	32	34	45	32	30	14	19	16	15	10	8	46	75	75.2
29-Apr	71	58	17	14	23	15	40	16	10	15	15	29	28	22	21	22	23	20	23	29	28	41	10	15	70.5
30-Apr	39	11	20	43	91	65	40	64	52	36	26	19	16	17	9	14	11	12	10	14	10	13	11	8	90.6
	96.8	89.8	91.2	90.1	90.6	87.3	93.8	89.4	85.7	75.4	76.0	70.6	90.0	82.6	71.0	63.8	60.3	70.1	36.4	65.5	72.4	89.9	89.1	75.2	

PAZA
Portable – Sunset House Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Sunset House - April 2012

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.5 ppb on Apr 11 11:00 Maximum Daily Average: 1.2 ppb on Apr 11

Minimum Value: 0 ppb on Apr 1 01:00 Minimum Daily Average: 0.0 ppb on Apr 5
Maximum Diurnal Average: 0.2 ppb at hour 24 Minimum Diurnal Average: 0.1 ppb at hour 7
Monthly Average: 0.14 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} = 1.7

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	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
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0.1	0.8
3-Apr	0	0	0	0	0	0	0	1	0	1	1	0	0	0	A	0	0	0	0	0	1	1	1	1	0.3	1.1
4-Apr	0	0	0	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
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
6-Apr	0	0	0	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
7-Apr	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
8-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
9-Apr	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	0	0	0	2	2	1	1	0	0	0.5	2.1
10-Apr	1	1	0	0	0	0	1	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
11-Apr	0	0	0	0	0	C	C	C	C	C	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1.2	2.5
12-Apr	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
14-Apr	0	0	0	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
15-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
16-Apr	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
17-Apr	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	0.0
18-Apr	0	1	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1	0.6	1.6
19-Apr	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	2	0.4	2.2
20-Apr	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.7
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.0
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
23-Apr	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
24-Apr	0	0	0	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
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.0
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.0
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.0
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
29-Apr	0	0	0	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
30-Apr	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	Diurnal Average	
	0.8	0.7	1.1	1.6	1.5	1.4	0.9	0.8	0.8	1.1	2.5	2.3	2.1	1.8	1.5	1.5	1.5	1.5	2.1	2.0	1.2	1.2	1.3	2.2	Diurnal Maximum	

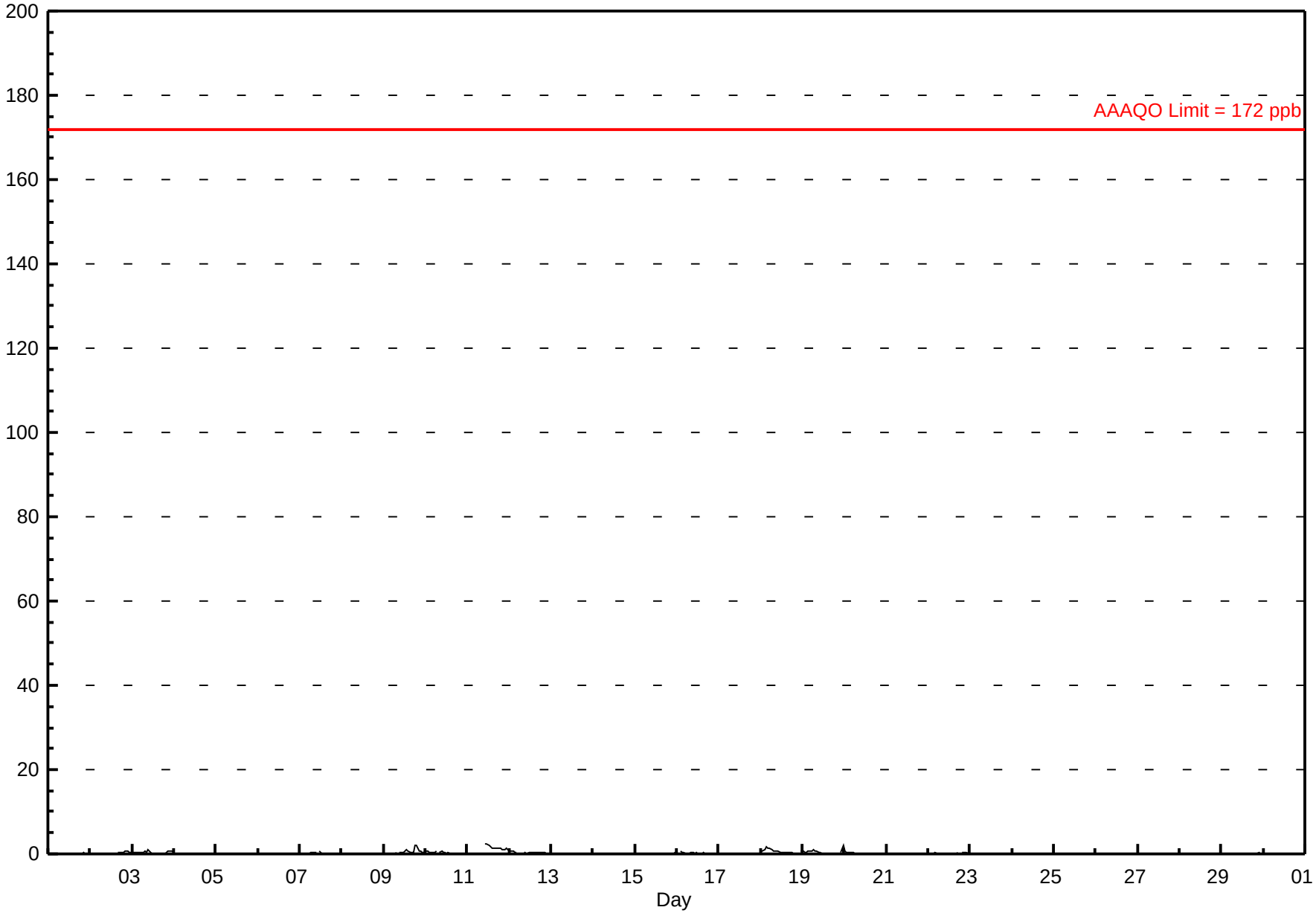
C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb

Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Sunset House - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Sunset House - April 2012

Maximum Value: 3.1 ppb on Apr 11 11:00

Maximum Daily Average: 1.6 ppb on Apr 11

Minimum Value: 0 ppb on Apr 1 02:00

Minimum Daily Average: 0.2 ppb on Apr 26

Maximum Diurnal Average: 0.6 ppb at hour 24

Minimum Diurnal Average: 0.4 ppb at hour 9

Monthly Average: 0.51 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.5$ $P_{90} = 1.0$ $P_{99} = 2.5$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	1	1	0	1	0.4	0.9
2-Apr	1	0	0	0	0	0	0	0	0	1	1	0	1	1	1	A	1	1	1	1	3	3	1	1	0.7	2.5
3-Apr	1	1	1	1	1	1	1	1	1	2	1	0	0	0	A	0	0	0	0	0	1	1	1	1	0.8	1.5
4-Apr	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.7
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
6-Apr	0	0	0	0	0	0	0	1	1	0	0	A	1	0	0	0	1	0	0	1	0	1	0	1	0.4	0.7
7-Apr	0	0	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	0	1	0	0	0	0	0	0.5	1.1
8-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	0.6
9-Apr	0	1	0	0	0	0	1	1	A	1	1	1	1	1	1	1	1	2	3	3	2	1	1	1	1.0	2.6
10-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.6	1.2
11-Apr	1	0	0	0	0	C	C	C	C	C	3	3	2	2	2	2	2	2	2	2	2	2	2	2	1.6	3.1
12-Apr	1	1	1	1	1	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0.8	1.3
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
14-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
15-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	0.5	0.9
16-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	0	0.6	1.4
17-Apr	A	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0.3	0.5
18-Apr	1	1	1	2	2	2	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	A	1	1.0	2.0
19-Apr	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	A	2	3	0.8	2.9
20-Apr	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0.6	1.8
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.4
22-Apr	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	1	0	1	0	0.5	1.0
23-Apr	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0.3	0.6
24-Apr	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	A	1	1	0	0	0	0	0	0.5	0.5
25-Apr	0	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
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0.2	0.7
27-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.8
28-Apr	0	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
29-Apr	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.9
30-Apr	0	0	0	0	0	0	0	0	1	1	A	0	1	0	0	1	0	0	1	1	1	1	1	1	0.4	0.7
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.6	Diurnal Average	
	1.8	1.2	1.5	2.0	2.0	1.9	1.4	1.3	1.3	1.5	3.1	2.9	2.5	2.4	1.9	2.1	1.9	1.7	2.6	2.6	2.5	2.5	1.9	2.9	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

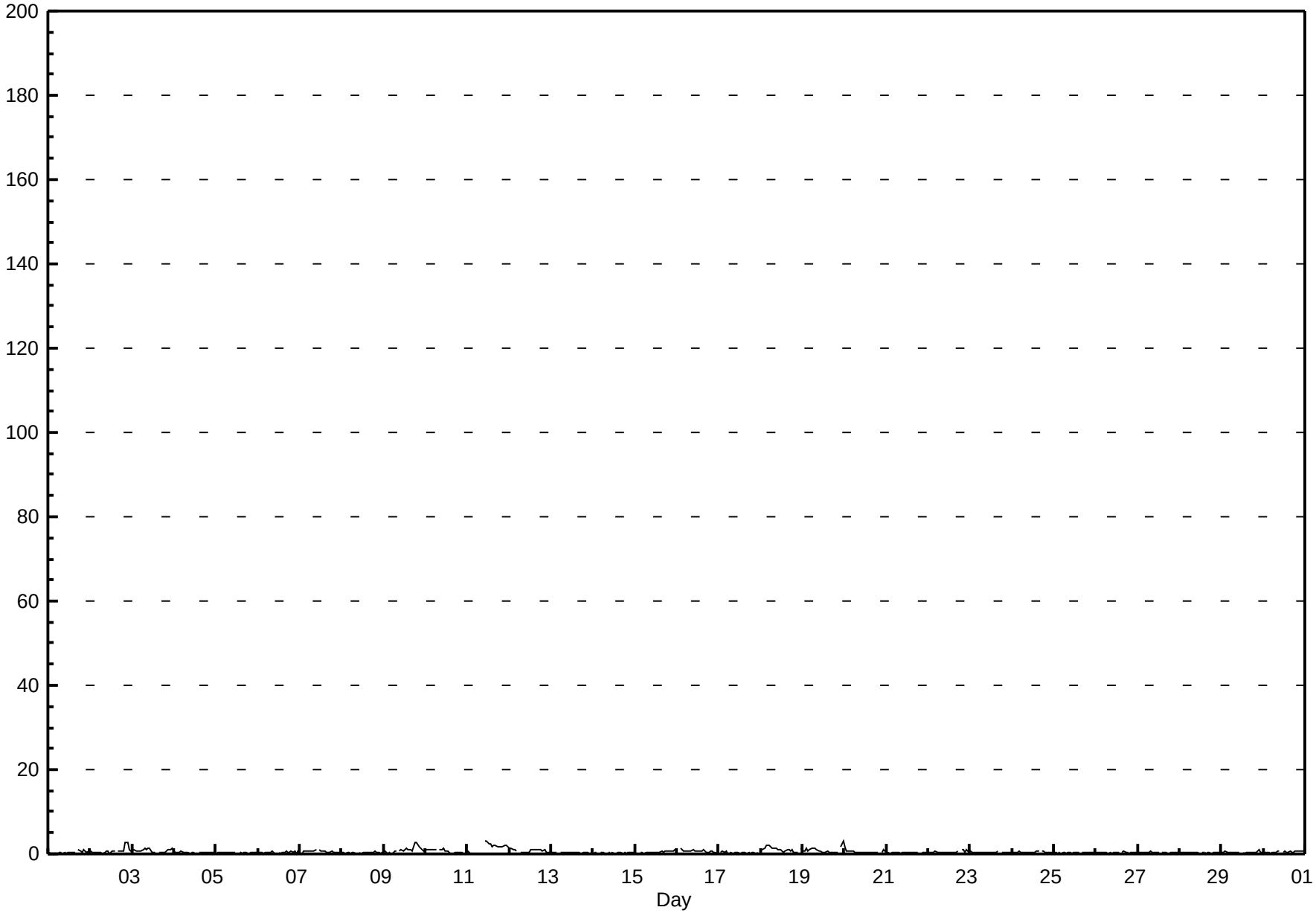
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

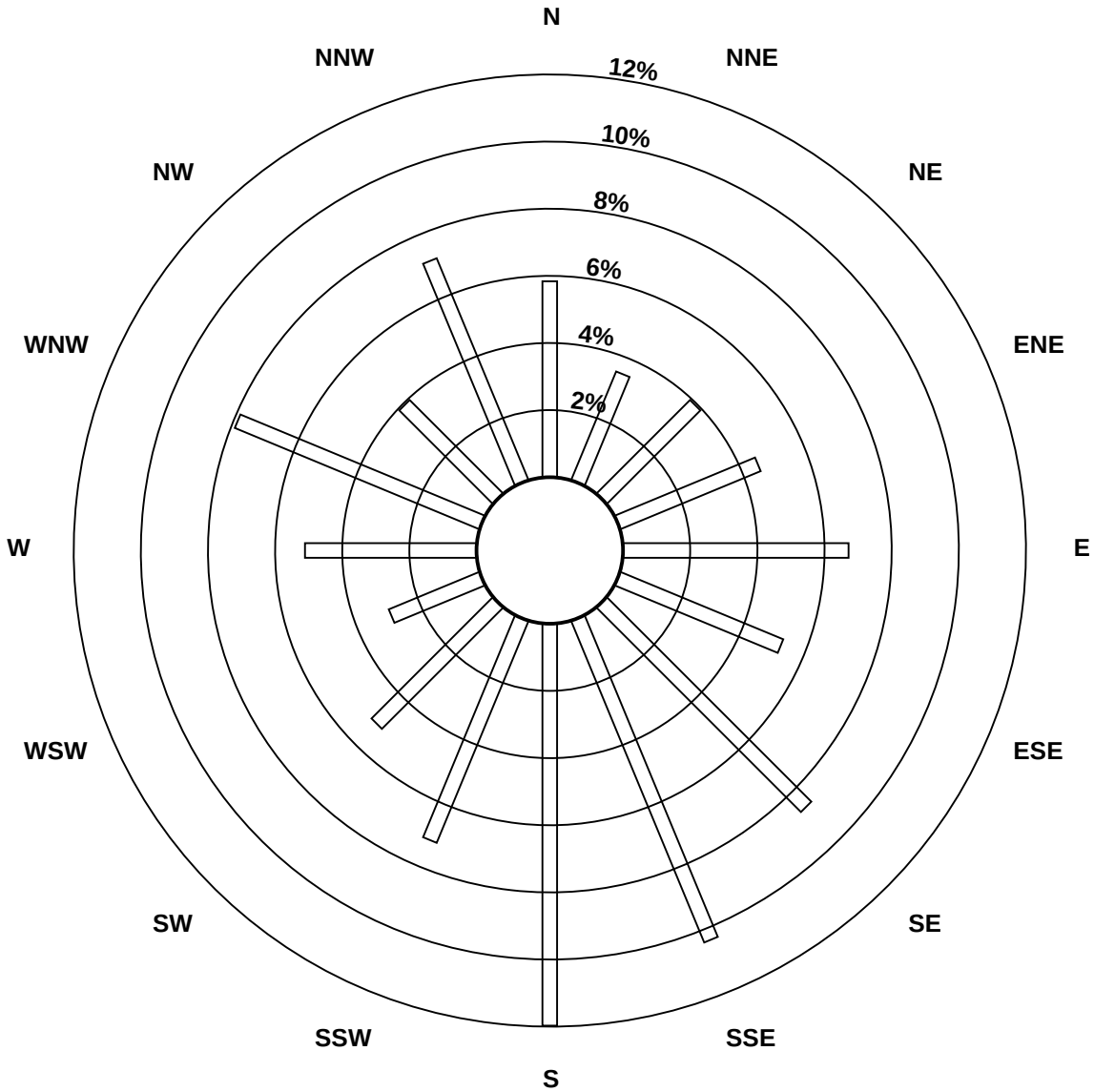
Sunset House - April 2012



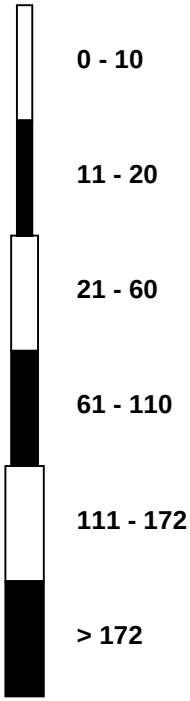
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Sunset House - April 2012



Pollutant Classes (ppb)

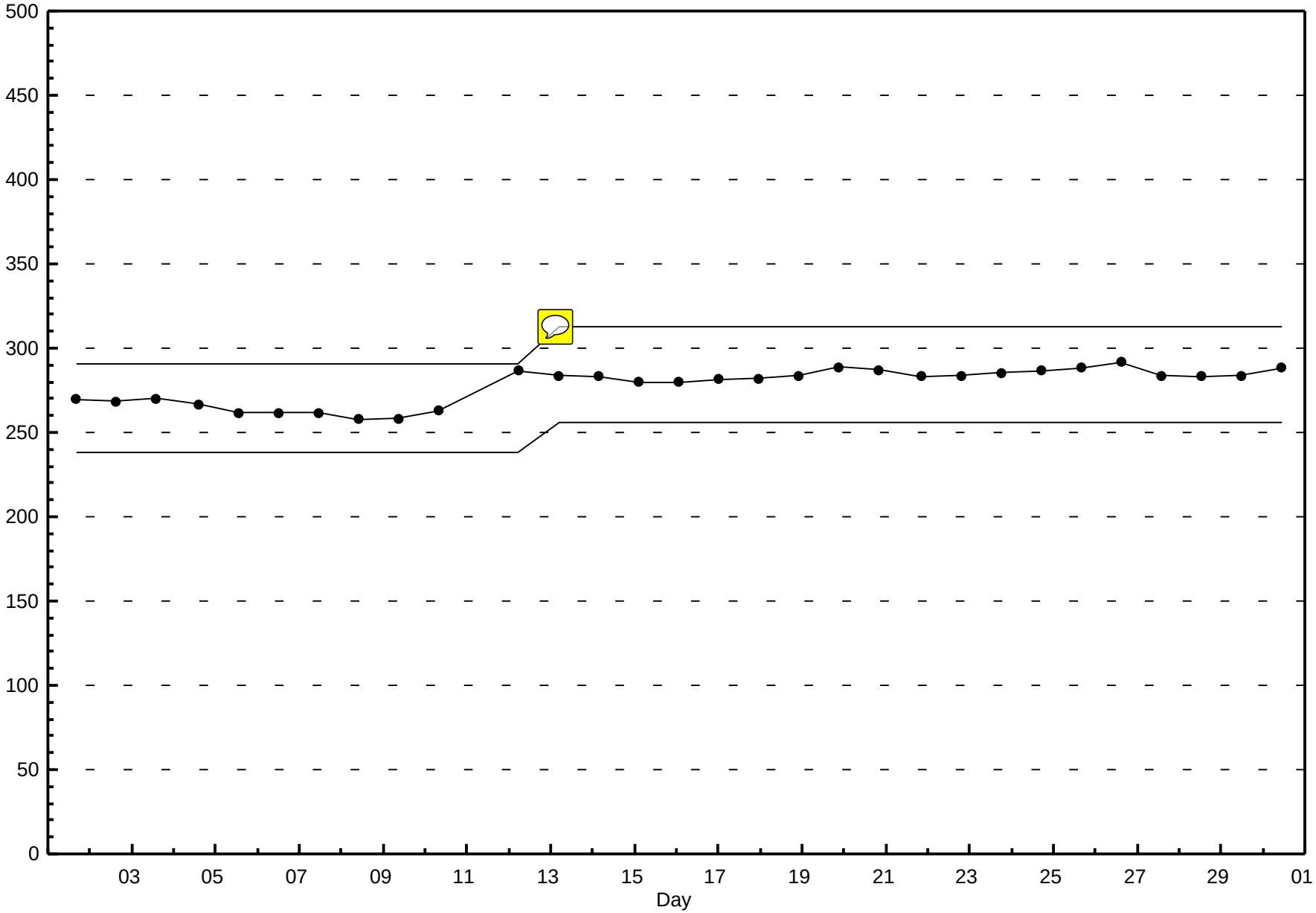


Peace Airshed Zone Association

Span Responses

Sulphur Dioxide (SO_2)

Sunset House - April 2012



Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Sunset House - April 2012

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

Maximum Value: 0.6 ppb on Apr 27 02:00

Maximum Daily Average: 0.4 ppb on Apr 26

Minimum Value: 0 ppb on Apr 16 14:00

Minimum Daily Average: 0.2 ppb on Apr 30

Maximum Diurnal Average: 0.3 ppb at hour 24

Minimum Diurnal Average: 0.3 ppb at hour 15

Monthly Average: 0.30 ppb

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

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

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

C - Calibration A - Automated Daily Zero Span

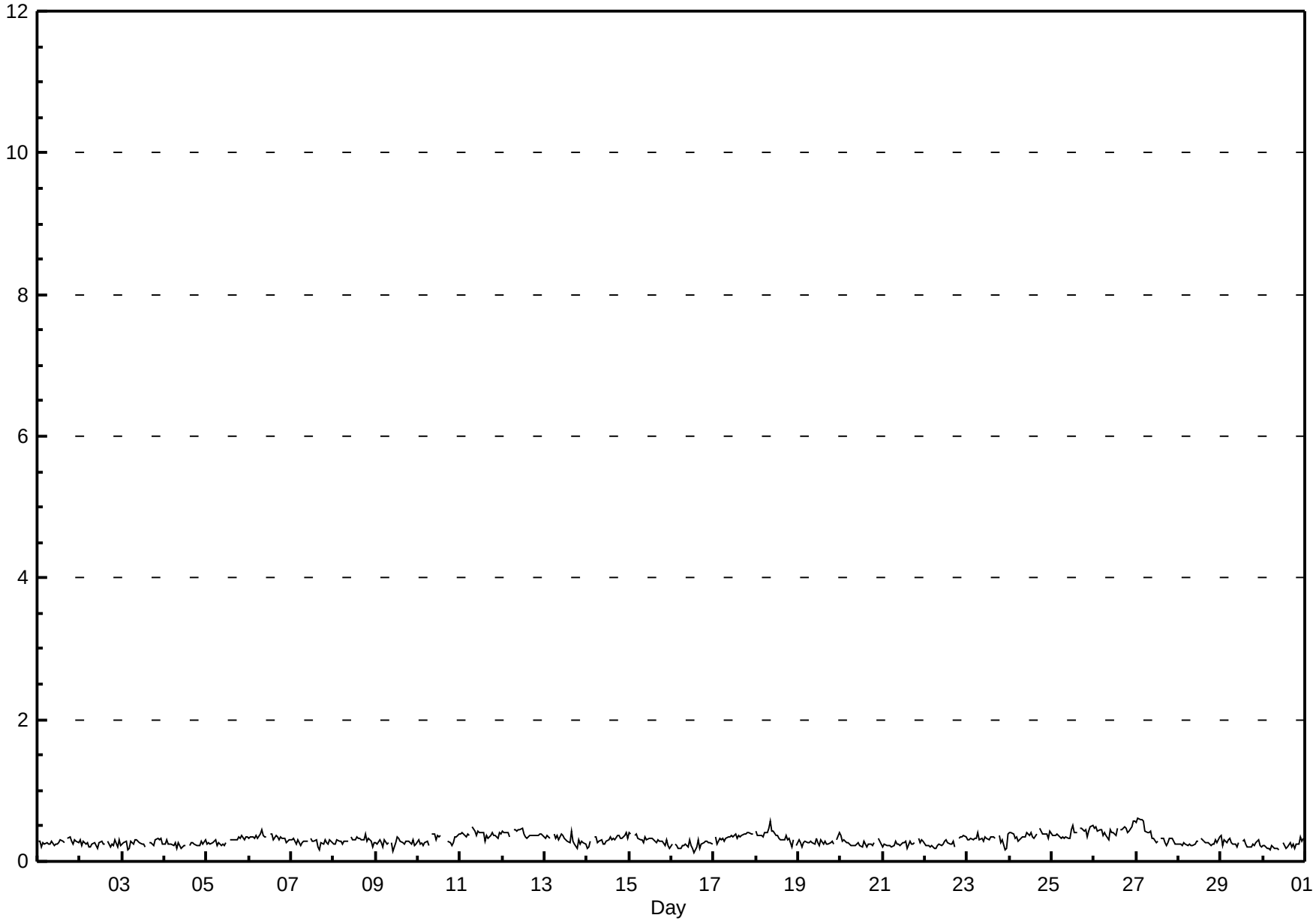
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Sunset House - April 2012



Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Sunset House - April 2012

Maximum Value: 1.2 ppb on Apr 25 17:00

Maximum Daily Average: 0.8 ppb on Apr 25

Minimum Value: 0 ppb on Apr 21 15:00

Maximum Diurnal Average: 0.7 ppb at hour 23

Monthly Average: 0.67 ppb

Minimum Daily Average: 0.6 ppb on Apr 28

Minimum Diurnal Average: 0.6 ppb at hour 4

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

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

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

C - Calibration

A - Automated Daily Zero Span

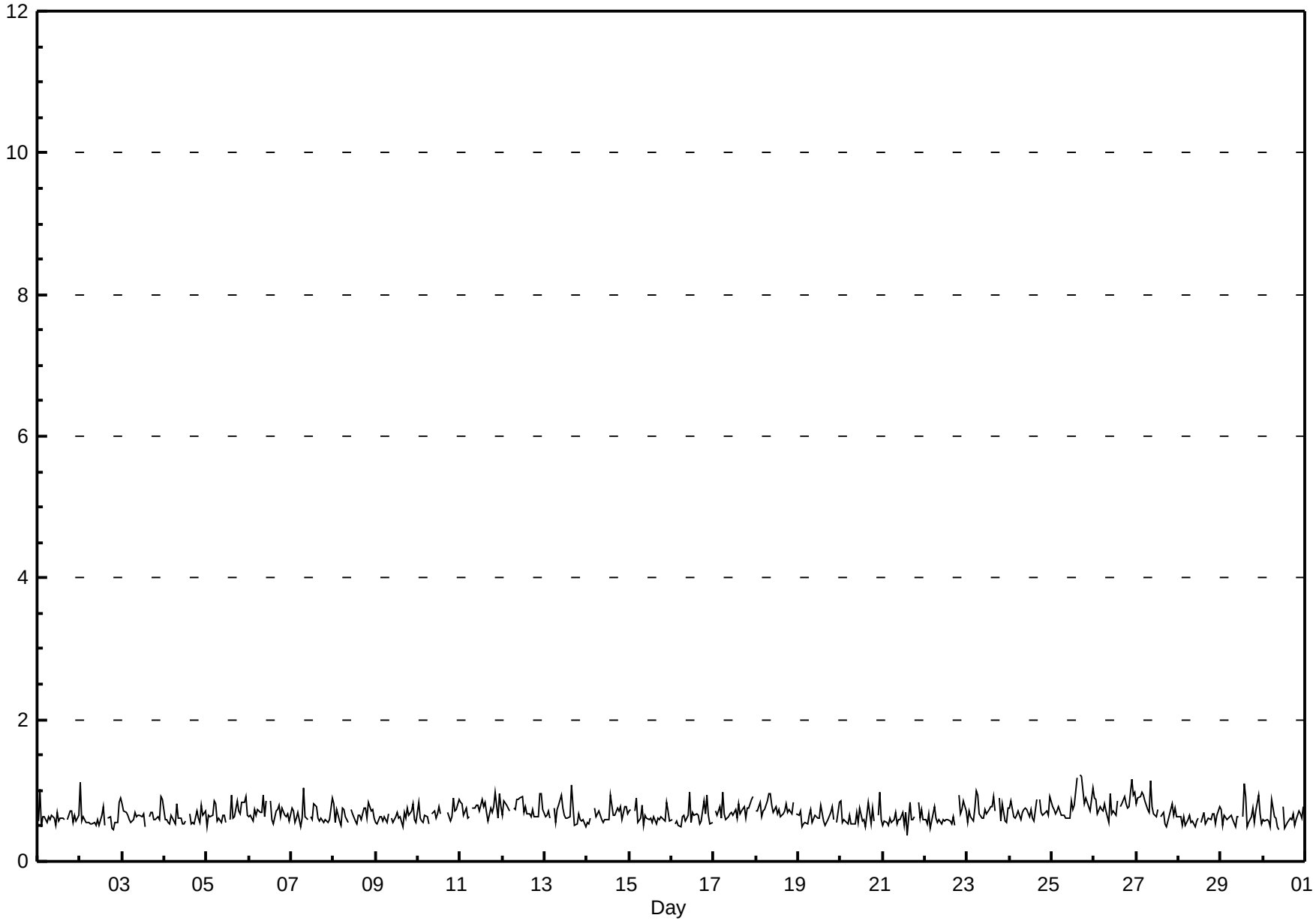
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

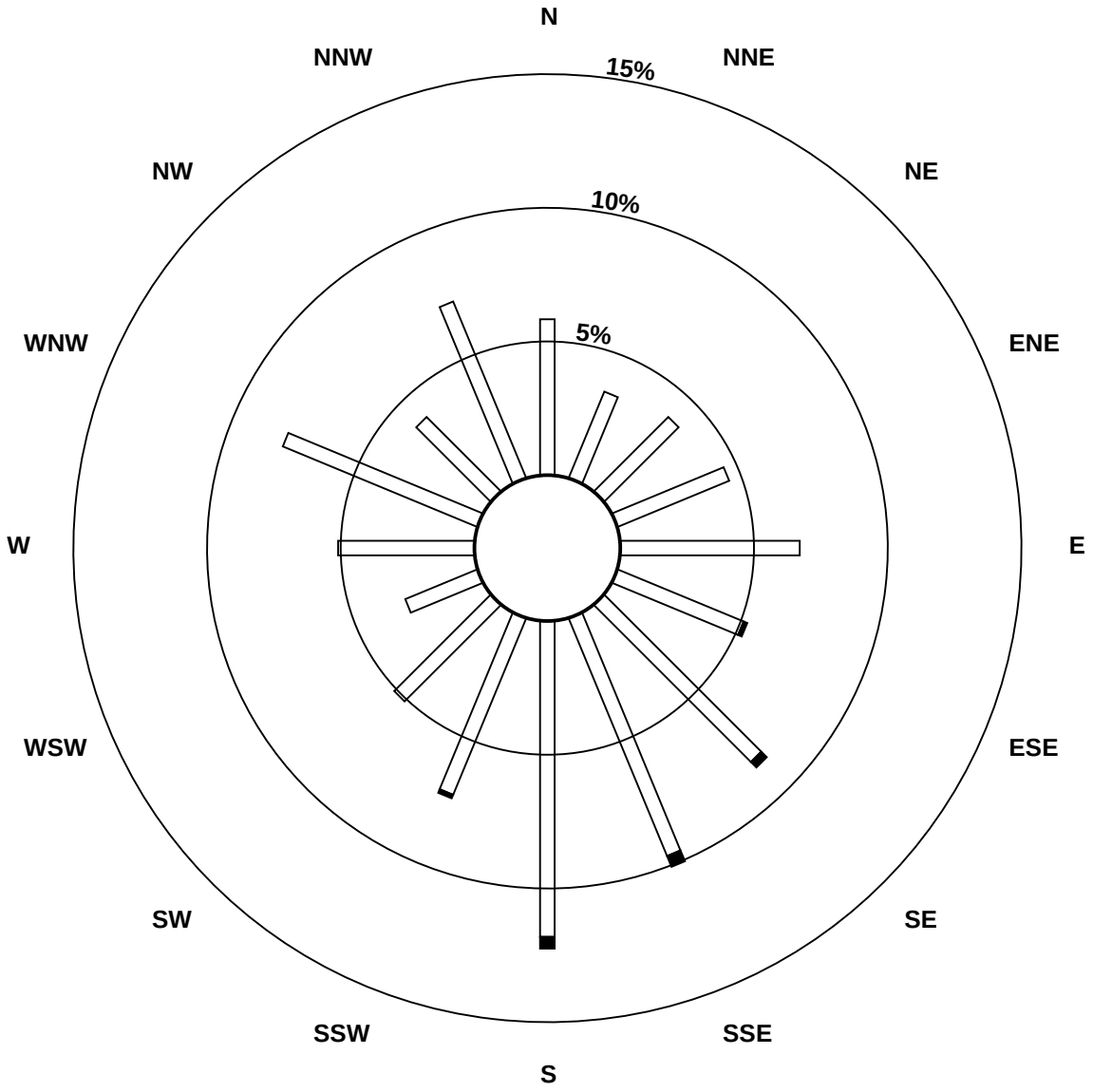
Sunset House - April 2012



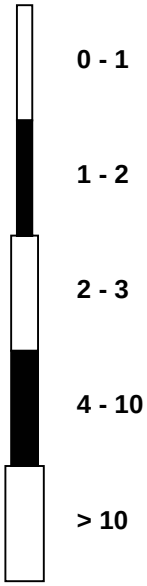
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Sunset House - April 2012



Pollutant Classes (ppb)

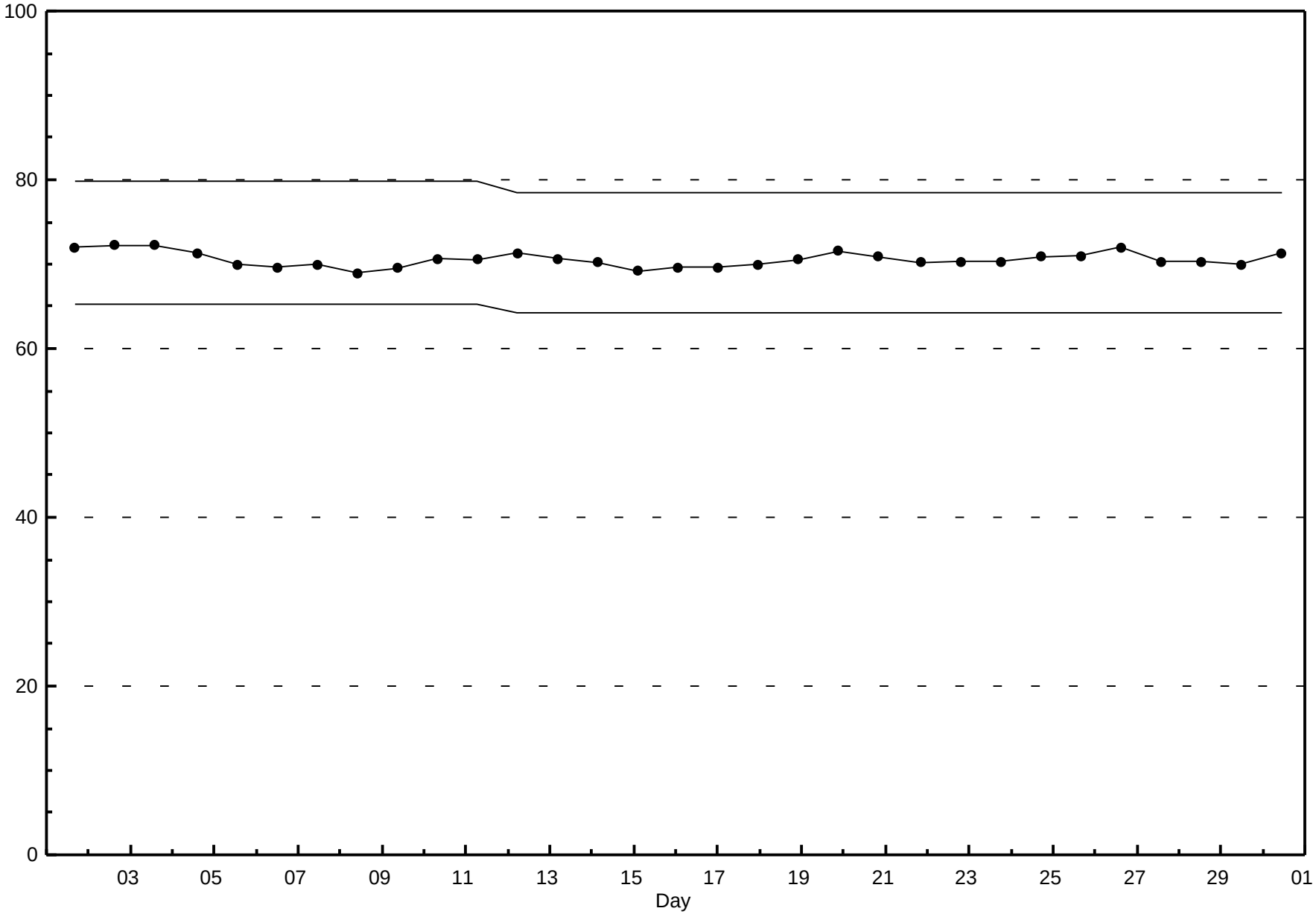


Peace Airshed Zone Association

Span Responses

Total Reduced Sulphur (TRS)

Sunset House - April 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Sunset House - April 2012

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

Maximum Value: 4.0 ppb on Apr 20 00:00

Maximum Daily Average: 2.3 ppb on Apr 19

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.5 ppb on Apr 17

Maximum Diurnal Average: 1.3 ppb at hour 24

Minimum Diurnal Average: 0.8 ppb at hour 16

Monthly Average: 1.05 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.8 $Q_3 = 1.4$ $P_{90} = 1.9$ $P_{99} = 3.3$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	2	2	2	4	2	1	1	1.0	3.8
2-Apr	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	A	1	1	1	1	1	1	1	1	0.9	1.4
3-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	2	2	2	1.2	2.2
4-Apr	1	1	1	2	2	1	1	1	1	0	0	0	0	A	1	0	1	1	1	1	1	1	1	1	0.8	1.8
5-Apr	1	1	1	1	1	1	1	1	1	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
6-Apr	1	2	1	1	2	1	1	1	1	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0.7	2.1
7-Apr	0	0	0	1	2	2	2	2	2	2	A	1	1	1	1	1	0	1	0	1	1	0	1	1	0.9	2.0
8-Apr	0	0	0	0	0	0	0	3	1	A	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0.5	2.9
9-Apr	1	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	3	3	2	3	2	2	1.1	3.2
10-Apr	2	2	1	1	1	1	2	A	2	2	2	2	1	2	1	1	1	2	2	2	2	2	2	2	1.7	2.4
11-Apr	2	2	2	2	2	C	C	C	C	C	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	2.5
12-Apr	2	2	2	2	2	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	1.7	2.1
13-Apr	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
14-Apr	1	1	1	A	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
15-Apr	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8
16-Apr	1	A	2	2	2	2	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	0	1	1	1.3	2.3
17-Apr	A	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	A	0.5	0.8
18-Apr	1	2	2	3	3	2	2	2	2	2	2	2	1	1	1	2	1	1	1	1	1	2	A	4	1.8	3.7
19-Apr	3	3	3	3	3	3	3	3	3	3	3	2	2	2	1	1	1	1	1	1	1	A	2	4	2.3	4.0
20-Apr	2	2	2	2	2	2	2	1	1	1	1	1	1	1	0	0	0	0	0	1	A	2	2	1	1.3	2.4
21-Apr	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0.5	0.8
22-Apr	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.4
23-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	2	1.1	1.6
24-Apr	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	1.5
25-Apr	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	A	2	2	2	2	2	2	2	2	1.1	1.9
26-Apr	2	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	1.7
27-Apr	1	1	1	1	1	2	2	2	2	2	1	1	0	A	1	1	0	0	0	0	0	0	0	0	1.0	2.3
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	1	1	1	2	2	0.8	1.7
29-Apr	1	1	1	1	1	1	1	1	1	1	0	A	1	0	0	0	0	0	0	1	1	2	1	1	0.8	2.4
30-Apr	1	1	1	1	1	1	1	1	0	0	A	1	0	0	0	0	0	1	1	1	1	1	1	1	0.6	0.9
	1.1	1.1	1.1	1.2	1.2	1.1	1.2	1.2	1.1	1.1	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	1.0	1.0	1.1	1.2	1.2	1.3	Diurnal Average	
	3.3	2.9	3.2	3.3	3.3	3.3	3.4	3.3	3.2	3.0	2.6	2.5	2.3	2.0	2.0	2.0	1.9	1.8	3.1	3.2	3.8	2.7	2.5	4.0	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

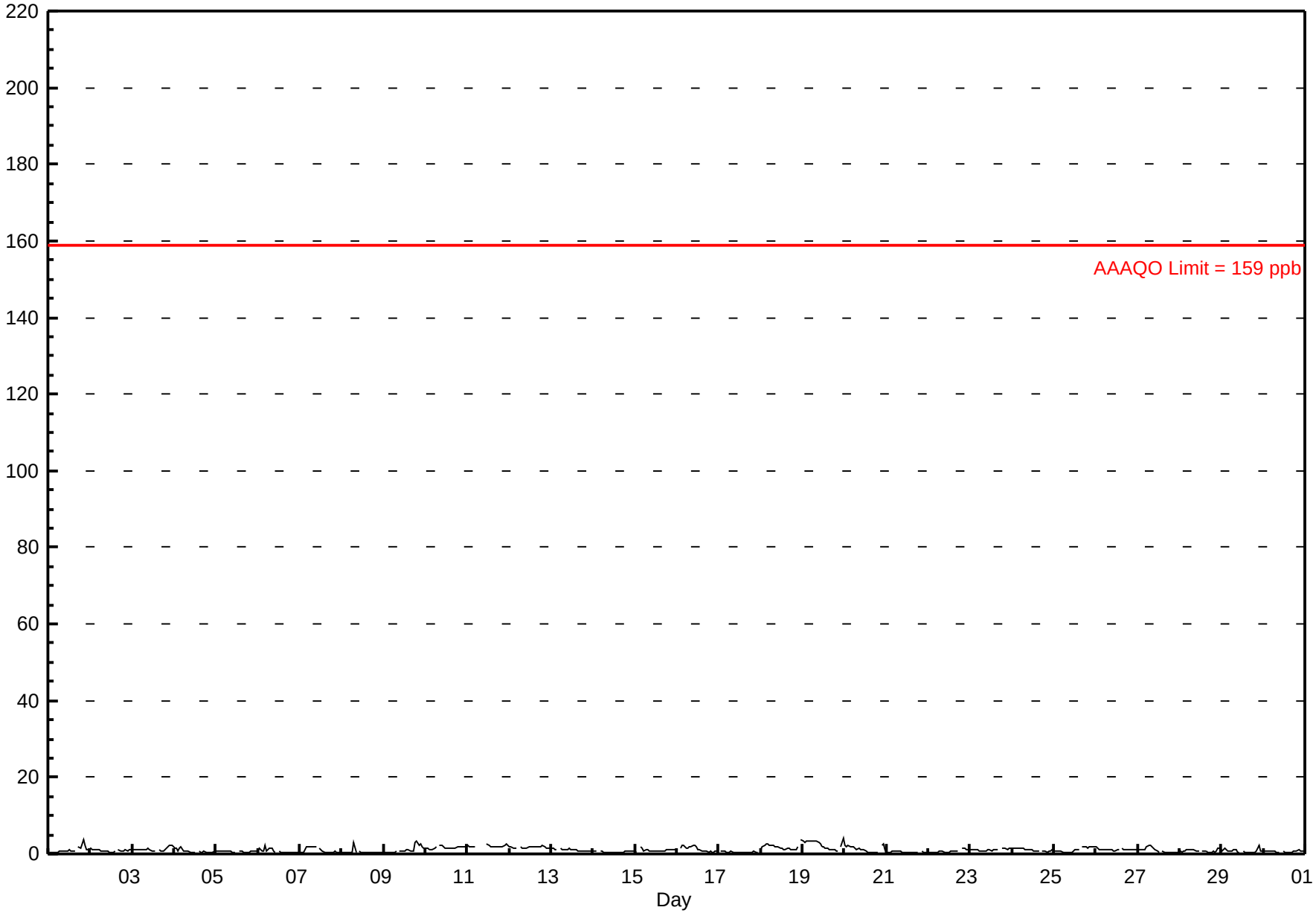
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb

Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Sunset House - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Sunset House - April 2012

Maximum Value: 7.0 ppb on Apr 1 21:00

Maximum Daily Average: 2.7 ppb on Apr 19

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.8 ppb on Apr 17

Maximum Diurnal Average: 1.9 ppb at hour 8

Minimum Diurnal Average: 1.1 ppb at hour 16

Monthly Average: 1.44 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.8$ Median = 1.2 $Q_3 = 1.8$ $P_{90} = 2.5$ $P_{99} = 5.0$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	A	3	4	4	7	6	2	1	1.9	7.0
2-Apr	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1.1	2.1
3-Apr	1	1	1	1	1	1	1	1	1	2	2	1	1	1	A	1	1	1	1	2	2	2	2	2	1.5	2.4
4-Apr	3	2	1	4	5	4	1	1	1	1	1	1	1	A	1	1	1	5	1	1	1	1	1	1	1.6	5.5
5-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1	0.9	1.9
6-Apr	1	5	1	1	4	1	3	3	3	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.4	4.7
7-Apr	1	1	1	2	2	2	3	2	3	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1.3	2.9
8-Apr	1	1	1	1	1	0	1	7	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.9	6.6
9-Apr	2	1	0	0	1	0	1	1	A	1	1	1	1	1	1	1	1	2	4	4	3	3	2	2	1.5	4.1
10-Apr	2	2	1	1	1	2	2	A	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	2.7
11-Apr	2	2	2	2	2	C	C	C	C	C	C	3	2	2	2	2	2	2	2	2	2	3	3	2	2.3	2.9
12-Apr	2	2	2	2	2	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.0	2.7
13-Apr	2	2	2	1	A	2	1	1	1	2	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1.4	3.3
14-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
15-Apr	1	1	A	4	3	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.5
16-Apr	1	A	2	3	2	2	2	7	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.8	6.7
17-Apr	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.9
18-Apr	2	2	2	3	3	3	3	2	2	2	2	2	2	1	1	2	2	1	1	1	1	3	A	4	2.1	4.1
19-Apr	4	3	4	4	4	4	4	4	4	3	3	2	2	2	2	2	1	1	1	1	1	A	3	5	2.7	4.7
20-Apr	3	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	A	5	5	5	2.0	5.0
21-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.3
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	2	2	1	0.9	2.2
23-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	2	2	3	2	1.4	3.1
24-Apr	2	2	2	2	2	3	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.3	2.6
25-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	2	2	2	2	2	2	2	1.3	2.4
26-Apr	2	2	1	1	2	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	2	1	1.4	2.1
27-Apr	1	1	1	1	2	2	3	3	2	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.3	3.1
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	4	2	1.2	4.4
29-Apr	1	4	3	2	1	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	2	6	1	1	1.5	6.1
30-Apr	1	2	1	1	1	3	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	3.1
	1.5	1.6	1.4	1.6	1.7	1.5	1.6	1.9	1.5	1.4	1.2	1.3	1.3	1.1	1.1	1.1	1.1	1.3	1.3	1.3	1.5	1.8	1.6	1.7	Diurnal Average	
	3.9	4.7	3.5	4.2	5.5	3.7	3.6	6.7	3.6	3.3	3.3	2.9	4.2	2.3	2.2	2.2	2.4	5.1	3.8	4.5	7.0	6.1	5.0	4.9	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

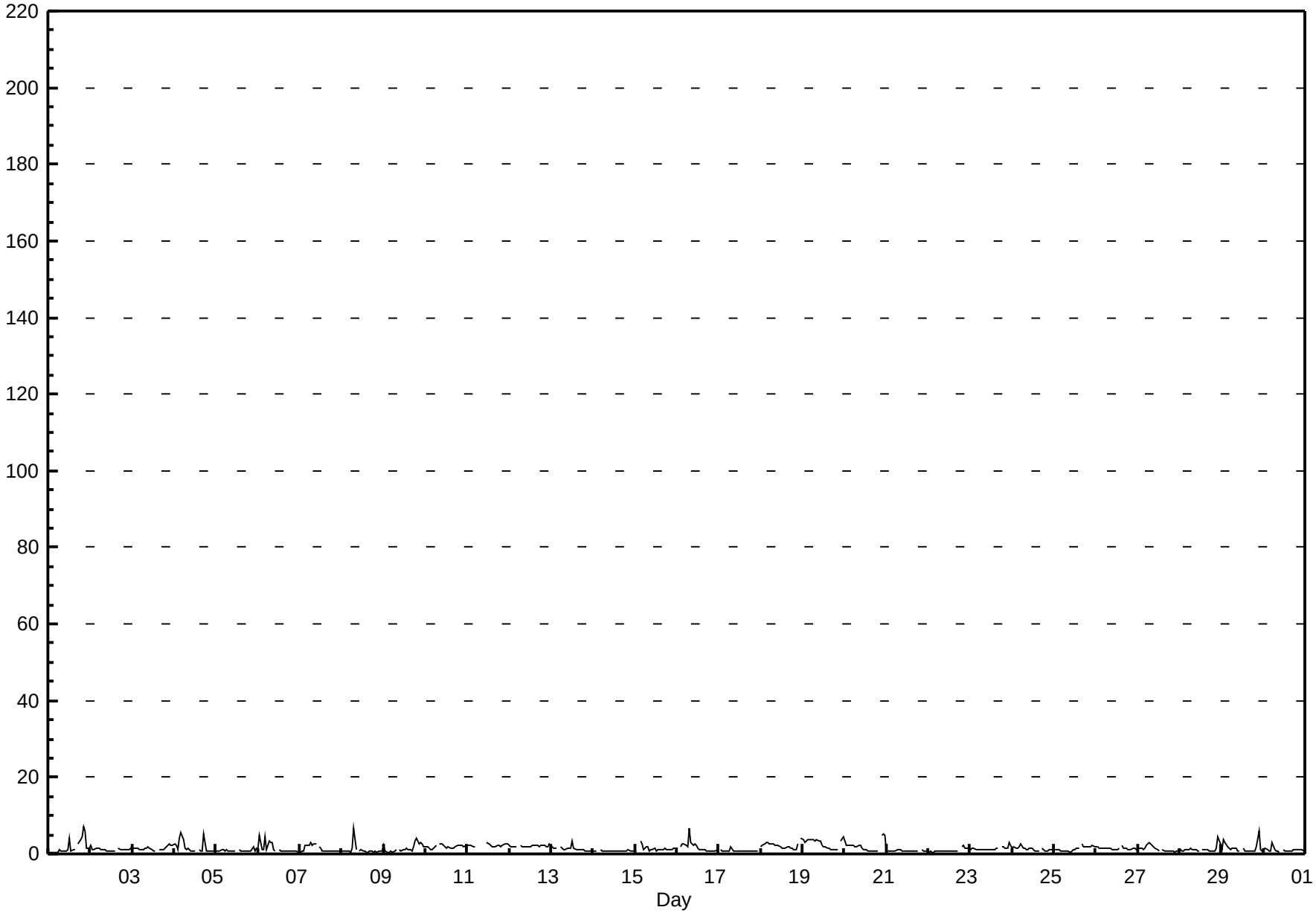
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Sunset House - April 2012

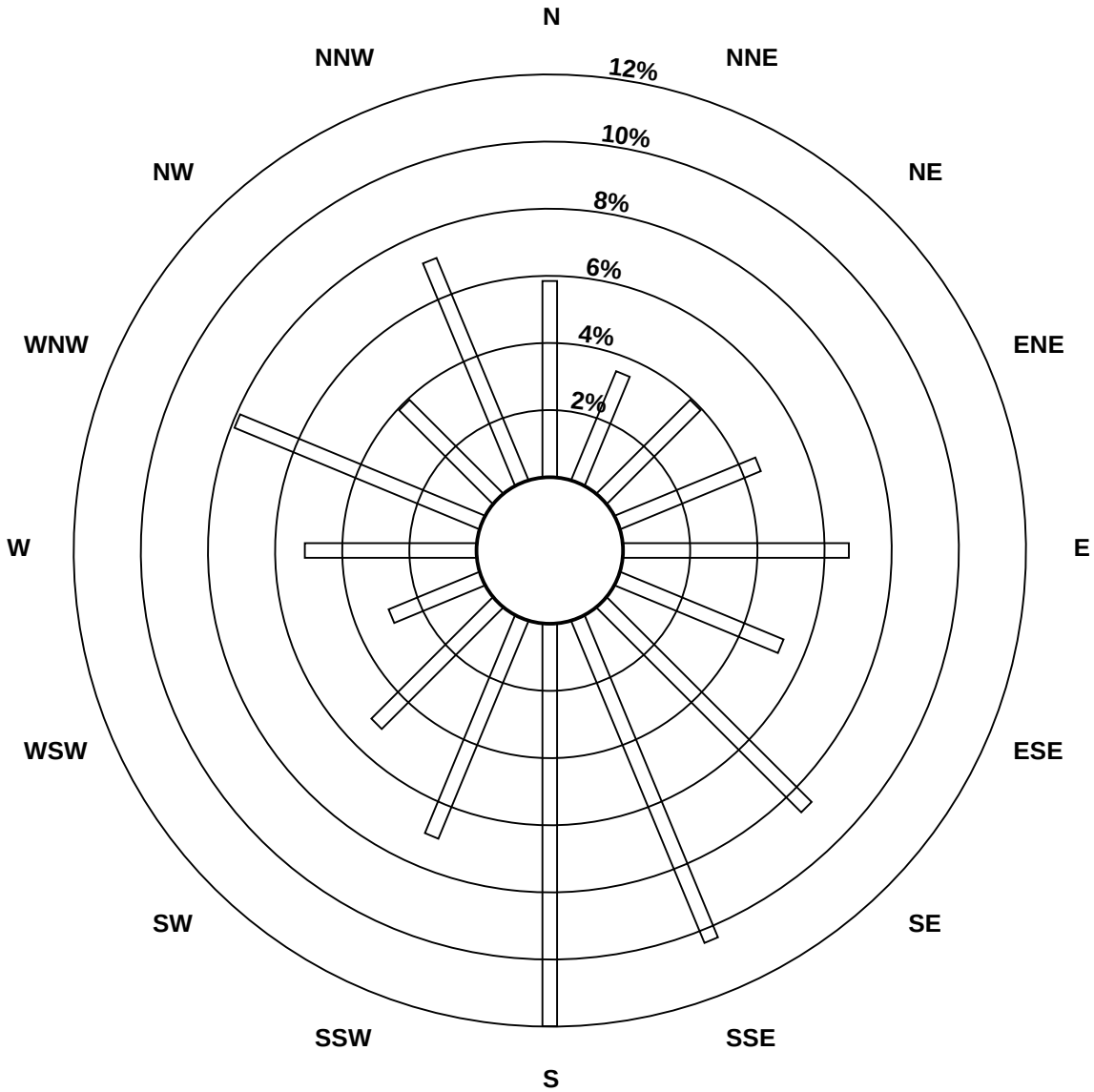


FOCUS AIR QUALITY MONITORING

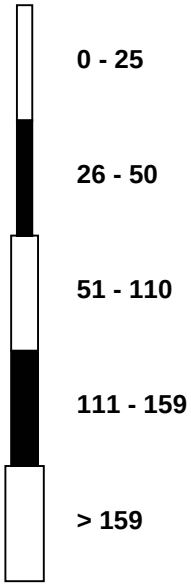
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Sunset House - April 2012



Pollutant Classes (ppb)

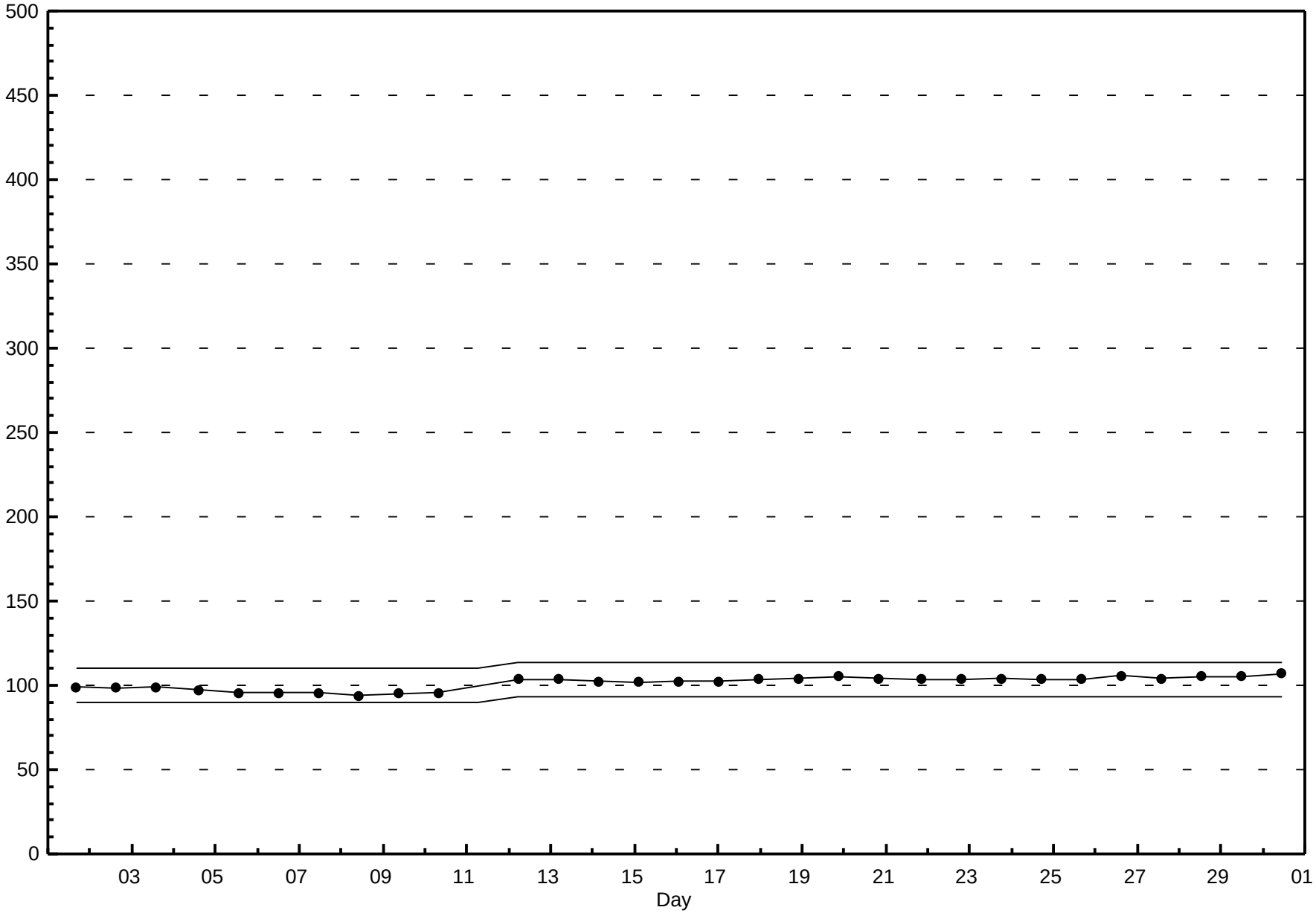


Peace Airshed Zone Association

Span Responses

Nitrogen Dioxide (NO_2)

Sunset House - April 2012



Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Sunset House - April 2012

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

Maximum Value: 1.7 ppb on Apr 11 12:00

Maximum Daily Average: 0.6 ppb on Apr 11

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.0 ppb on Apr 20

Maximum Diurnal Average: 0.2 ppb at hour 10

Minimum Diurnal Average: 0.0 ppb at hour 6

Monthly Average: 0.08 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:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	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
2-Apr	0	0	0	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
3-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Apr	0	0	0	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
5-Apr	0	0	0	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
6-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
7-Apr	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
8-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
9-Apr	0	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
10-Apr	0	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	0.5
11-Apr	0	0	0	0	0	C	C	C	C	C	C	2	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.7
12-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
13-Apr	0	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-Apr	0	0	0	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
15-Apr	0	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
16-Apr	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.4
17-Apr	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
18-Apr	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.6
19-Apr	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	1.1
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.0
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1
22-Apr	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
23-Apr	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
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.1
25-Apr	0	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
26-Apr	0	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
27-Apr	0	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	0.5
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
29-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Apr	0	0	0	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
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	Diurnal Average	
	0.4	0.3	0.2	0.1	0.1	0.1	0.3	0.8	1.1	1.1	1.4	1.7	1.4	1.2	1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.5	0.4	Diurnal Maximum	

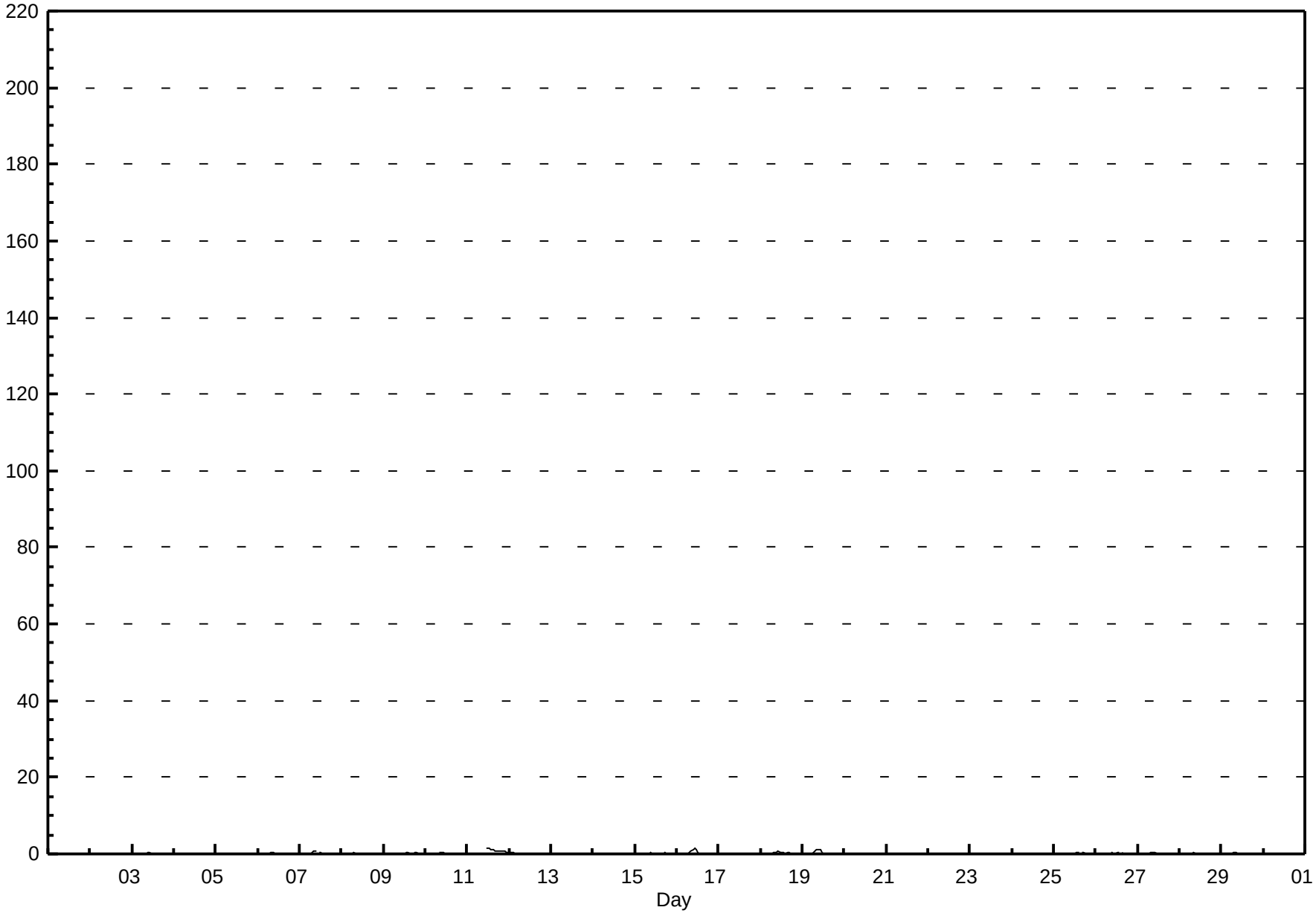
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Sunset House - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Sunset House - April 2012

Maximum Value: 7.5 ppb on Apr 4 18:00

Maximum Daily Average: 0.8 ppb on Apr 11

Minimum Value: 0 ppb on Apr 10 15:00

Minimum Daily Average: 0.1 ppb on Apr 14

Maximum Diurnal Average: 0.6 ppb at hour 13

Minimum Diurnal Average: 0.2 ppb at hour 4

Monthly Average: 0.29 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.5$ $P_{99} = 1.5$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	A	2	1	1	0	0	0	0	0.4	4.5
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.5
3-Apr	0	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
4-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	7	0	0	0	0	0	0	0.6	7.5
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	1	0.2	0.7
6-Apr	0	2	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.6
7-Apr	0	0	0	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
8-Apr	0	0	0	0	0	0	0	1	0	A	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5
9-Apr	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	0.7
10-Apr	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
11-Apr	0	0	0	0	0	C	C	C	C	C	C	2	2	1	1	1	1	1	1	1	1	1	1	1	0.8	1.9
12-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0.4	4.1
14-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Apr	0	0	A	0	0	0	0	0	0	0	0	3	0	1	1	0	0	1	0	0	0	0	0	0	0.4	3.4
16-Apr	0	A	0	0	0	0	0	3	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	3.3
17-Apr	A	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	3.0
18-Apr	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.8
19-Apr	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	1.5
20-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0.2	1.1
24-Apr	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.7
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.4
26-Apr	0	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
27-Apr	0	0	0	0	0	0	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	1.5
28-Apr	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	1	1	0	0.3	0.8
29-Apr	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
30-Apr	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.5	0.5	0.4	0.4	0.5	0.6	0.3	0.3	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.7	1.6	3.0	0.6	0.6	0.8	1.0	3.3	1.7	1.6	1.8	3.4	4.5	1.4	1.3	1.1	1.0	7.5	1.0	0.9	0.8	0.7	1.1	0.6	Diurnal Maximum	

C - Calibration

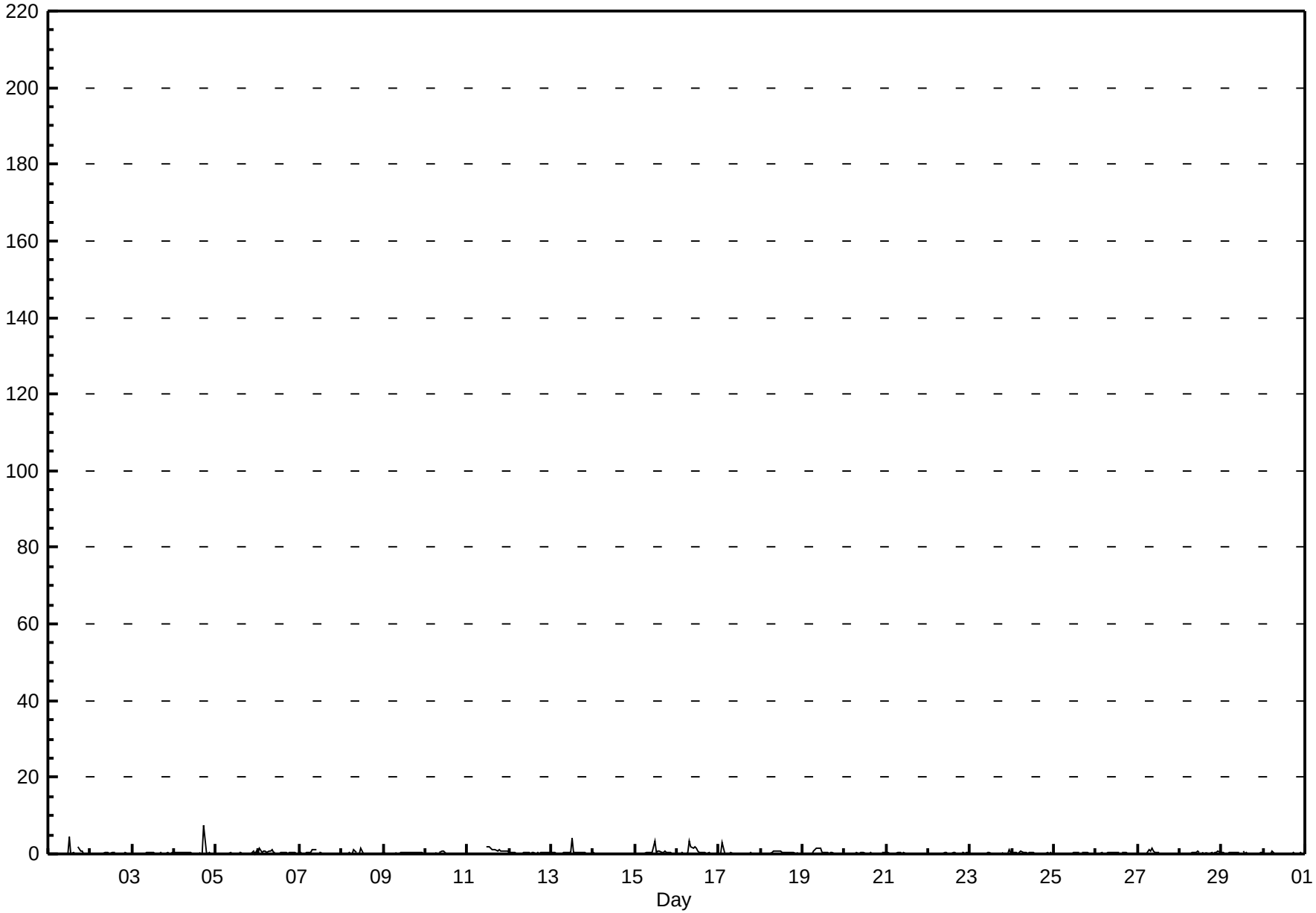
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Sunset House - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Sunset House - April 2012

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

Maximum Value: 4.4 ppb on Apr 19 09:00

Maximum Daily Average: 2.5 ppb on Apr 19

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.5 ppb on Apr 21

Maximum Diurnal Average: 1.4 ppb at hour 8

Minimum Diurnal Average: 0.9 ppb at hour 16

Monthly Average: 1.12 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.9 $Q_3 = 1.5$ $P_{90} = 2.2$ $P_{99} = 3.7$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	2	2	2	4	2	1	1	1.0	3.8
2-Apr	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	A	1	1	1	1	1	1	1	1	0.9	1.4
3-Apr	1	1	1	1	1	1	1	1	1	2	2	1	1	1	A	1	1	1	1	1	2	2	2	2	1.3	2.3
4-Apr	1	2	1	2	2	1	1	1	1	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.9
5-Apr	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
6-Apr	1	2	1	1	2	1	2	2	2	1	1	A	1	0	0	0	0	0	1	0	0	0	0	0	0.8	2.2
7-Apr	0	0	0	1	2	2	2	2	2	3	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.6
8-Apr	0	0	0	0	0	0	0	3	1	A	1	1	1	0	1	0	0	0	0	0	0	0	1	0	0.6	3.4
9-Apr	1	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	3	3	2	3	2	2	1.3	3.5
10-Apr	2	2	1	1	1	2	2	A	3	3	2	2	2	2	1	1	1	1	2	1	1	1	1	1	1.6	2.8
11-Apr	1	1	1	1	1	C	C	C	C	C	C	4	4	3	3	3	2	3	3	2	2	3	3	3	2.3	4.0
12-Apr	2	2	2	2	2	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	2.2
13-Apr	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6
14-Apr	1	1	1	A	1	1	0	0	0	0	1	0	1	0	0	1	0	0	1	1	1	1	1	1	0.5	0.8
15-Apr	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8
16-Apr	1	A	2	2	2	2	2	2	3	3	4	3	1	1	1	1	1	1	1	1	1	0	1	1	1.5	3.6
17-Apr	A	1	1	1	0	0	0	1	0	1	0	0	0	0	1	0	1	1	1	1	1	0	0	A	0.5	0.8
18-Apr	1	2	2	3	3	2	2	2	2	2	2	2	2	2	1	2	2	1	1	1	1	2	A	4	2.0	3.7
19-Apr	3	3	3	3	3	3	4	4	4	4	4	2	2	2	2	1	1	1	1	1	1	A	2	4	2.5	4.4
20-Apr	2	2	2	2	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	1	A	2	2	1	1.3	2.5
21-Apr	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0.5	0.9
22-Apr	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.5
23-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	1	1	1	2	1.1	1.7
24-Apr	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.1	1.6
25-Apr	1	1	1	1	1	0	0	0	0	0	0	1	1	1	2	A	2	2	2	2	2	2	2	2	1.2	2.2
26-Apr	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1.2	1.7
27-Apr	1	1	1	1	1	2	2	3	2	2	1	1	0	A	1	1	0	0	0	0	1	0	0	0	1.0	2.7
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	2	2	0.9	1.8
29-Apr	1	1	2	1	1	1	1	1	1	1	0	A	1	1	0	0	0	1	1	1	1	3	1	1	0.9	2.5
30-Apr	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
	1.1	1.1	1.1	1.2	1.2	1.1	1.2	1.4	1.3	1.3	1.1	1.1	1.0	1.0	0.9	0.9	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.3	Diurnal Average	
	3.3	2.9	3.2	3.3	3.3	3.3	3.6	4.1	4.4	4.1	3.6	4.0	3.5	3.0	2.7	2.5	2.5	2.5	3.5	3.5	3.8	2.8	3.0	4.0	Diurnal Maximum	

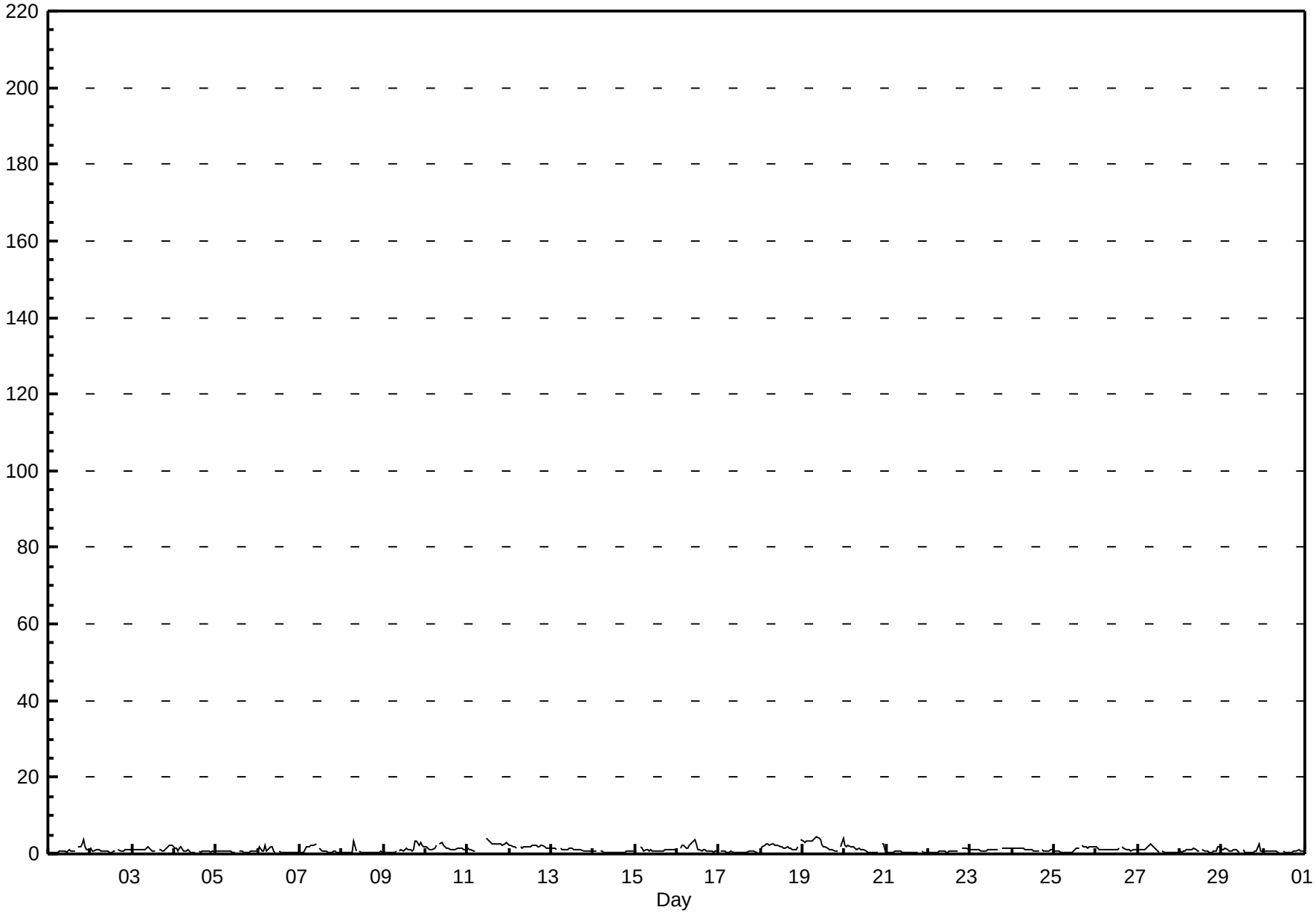
C - Calibration A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Sunset House - April 2012



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Sunset House - April 2012

Maximum Value: 12.8 ppb on Apr 4 18:00

Maximum Daily Average: 2.9 ppb on Apr 19

Minimum Value: 0 ppb on Apr 1 01:00

Maximum Diurnal Average: 2.2 ppb at hour 8

Monthly Average: 1.56 ppb

Minimum Daily Average: 0.7 ppb on Apr 14

Minimum Diurnal Average: 1.2 ppb at hour 16

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 0.8$ Median = 1.2 $Q_3 = 1.9$ $P_{90} = 2.9$ $P_{99} = 6.1$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	1	1	1	1	1	1	9	1	2	1	A	3	4	5	7	6	1	1	2.1	8.6
2-Apr	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1.1	2.1
3-Apr	1	1	1	1	1	1	1	1	2	2	2	1	1	1	A	1	1	1	1	2	2	2	2	2	1.5	2.5
4-Apr	3	3	1	4	6	4	2	1	2	1	1	1	1	A	1	1	1	13	1	1	1	1	1	1	2.1	12.8
5-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	3	1	2	1.0	2.7
6-Apr	2	5	2	2	5	2	4	3	4	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.6	5.4
7-Apr	1	1	1	3	2	2	3	3	4	3	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1.5	3.7
8-Apr	1	0	1	1	1	0	1	8	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1.1	7.6
9-Apr	3	1	1	0	1	1	1	1	A	1	1	1	1	2	1	1	1	2	4	4	3	3	3	2	1.7	4.4
10-Apr	2	2	1	1	1	2	2	A	3	3	3	2	2	2	2	1	1	2	2	2	2	2	1	1	1.8	3.0
11-Apr	2	1	1	1	1	C	C	C	C	C	C	4	4	3	3	3	3	3	3	3	3	3	3	3	2.6	4.4
12-Apr	2	2	2	2	2	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.1	3.1
13-Apr	2	2	2	1	A	2	2	1	2	2	2	2	7	1	2	1	1	1	1	1	1	1	1	1	1.6	7.4
14-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
15-Apr	1	1	A	4	3	1	2	2	1	1	2	4	1	1	2	2	1	2	1	1	1	1	1	1	1.6	3.7
16-Apr	1	A	2	3	2	2	2	9	4	4	4	3	2	1	1	1	1	1	1	1	1	1	1	1	2.2	8.5
17-Apr	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	2.4
18-Apr	2	2	2	3	3	2	3	3	3	3	3	3	2	2	2	2	2	2	1	1	1	3	A	4	2.3	4.1
19-Apr	4	3	3	4	4	4	4	5	5	5	4	2	2	2	2	2	1	1	1	1	1	A	4	5	2.9	4.7
20-Apr	3	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	A	5	5	5	2.0	5.4
21-Apr	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.5
22-Apr	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	2	2	1	0.9	2.3
23-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	2	2	4	2	1.5	4.0
24-Apr	2	2	2	2	2	3	2	2	1	1	2	2	1	1	1	1	A	1	1	1	1	1	1	1	1.4	3.2
25-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	A	3	2	2	2	2	2	2	2	1.4	2.7
26-Apr	2	2	1	1	1	1	1	1	1	1	1	1	1	2	A	2	2	1	1	1	1	1	1	1	1.4	2.3
27-Apr	1	1	1	1	1	2	4	4	3	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1.4	3.9
28-Apr	1	1	1	1	1	1	1	1	2	1	2	1	A	2	1	1	1	1	1	1	1	2	4	3	1.4	4.4
29-Apr	1	4	3	2	2	1	2	2	2	1	1	A	2	1	1	1	1	1	1	1	2	6	1	1	1.6	6.4
30-Apr	1	2	1	1	1	4	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.9
	1.5	1.6	1.3	1.6	1.7	1.6	1.7	2.2	1.8	1.6	1.5	1.6	1.8	1.2	1.2	1.2	1.2	1.7	1.3	1.4	1.5	1.9	1.7	1.7	Diurnal Average	
	3.9	5.4	3.5	4.5	5.7	3.9	4.0	8.5	4.6	4.5	4.4	4.4	8.6	3.3	2.8	2.9	2.7	12.8	4.4	4.6	7.1	6.4	5.4	4.7	Diurnal Maximum	

C - Calibration

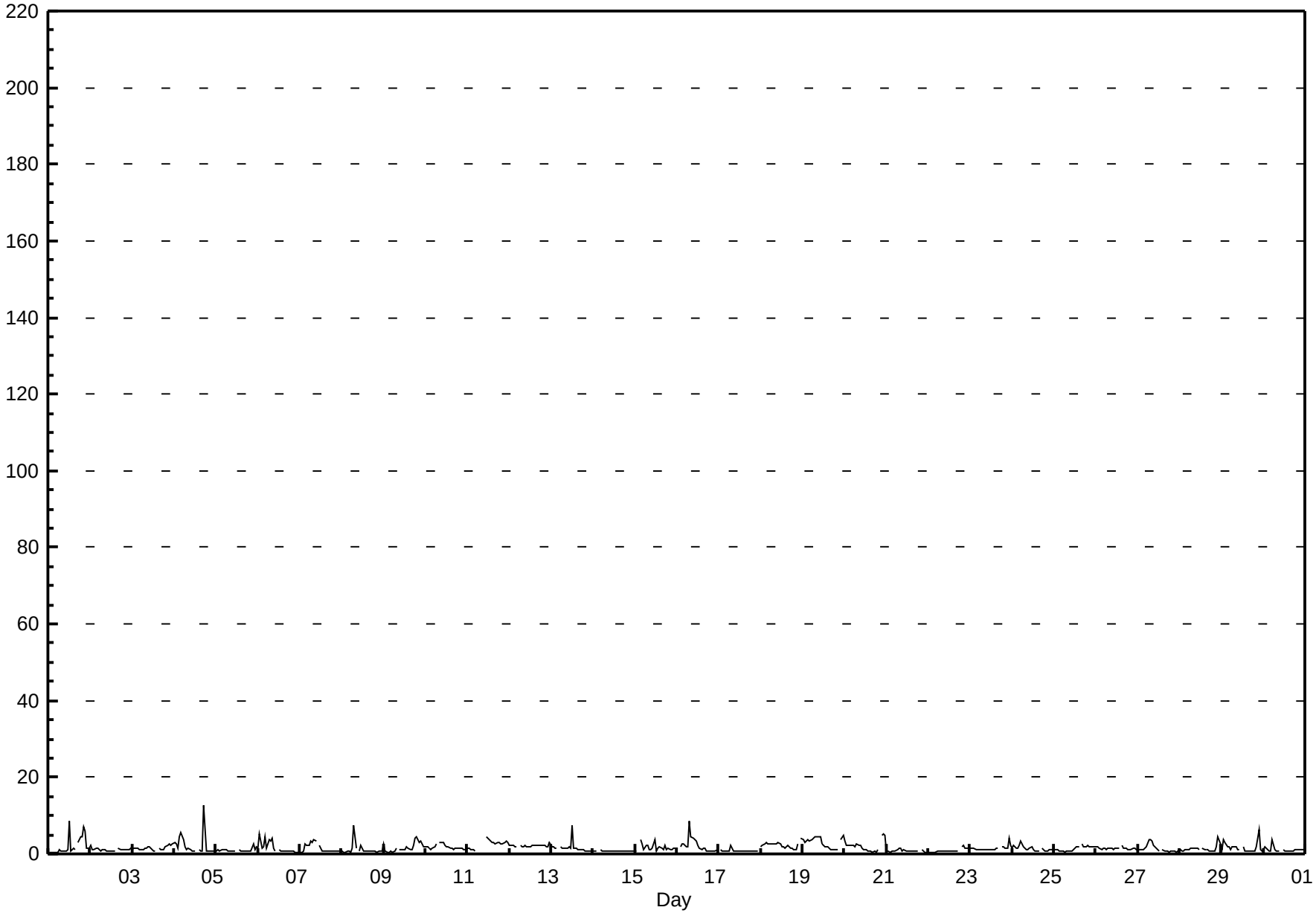
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Sunset House - April 2012



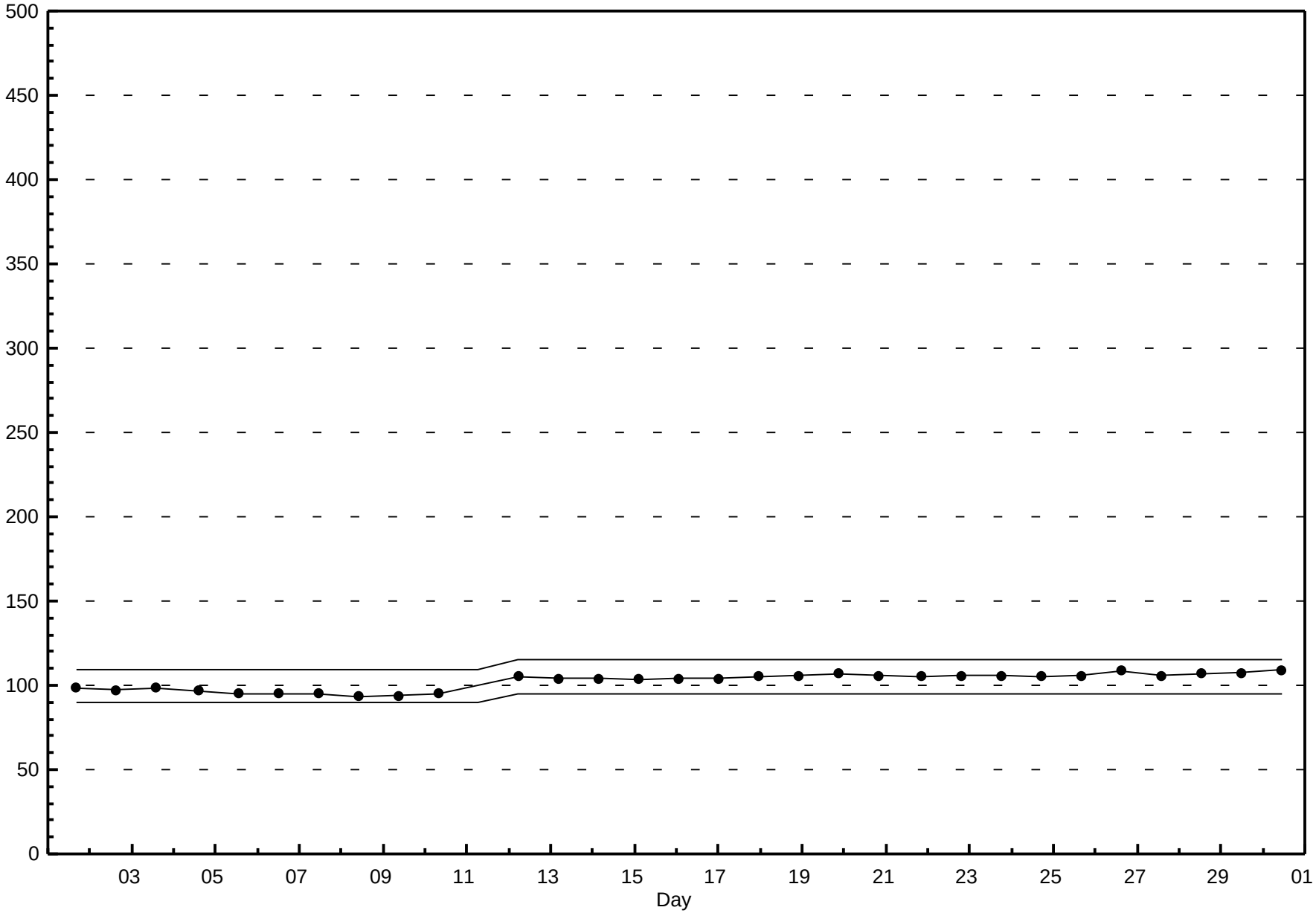
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Oxides of Nitrogen (NO_X)

Sunset House - April 2012



Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Sunset House - April 2012

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

Maximum Value: 62.7 ppb on Apr 3 17:00 Maximum Daily Average: 55.7 ppb on Apr 3

Minimum Value: 0 ppb on Apr 27 09:00 Minimum Daily Average: 19.1 ppb on Apr 25

Maximum Diurnal Average: 48.6 ppb at hour 16 Minimum Diurnal Average: 36.0 ppb at hour 9

Monthly Average: 42.20 ppb Percentiles: P_1 = 10.4 P_{10} = 27.5 Q_1 = 36.3 Median = 44.7 Q_3 = 49.4 P_{90} = 52.9 P_{99} = 60.3

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	48	46	46	45	46	46	46	47	47	49	49	49	48	48	50	50	A	45	43	42	41	43	44	45	46.3	50.0
2-Apr	44	44	44	43	42	42	42	43	44	43	43	46	48	43	34	A	55	55	56	54	54	53	52	53	46.7	55.6
3-Apr	53	53	53	54	54	55	56	56	56	54	55	56	57	58	A	62	63	62	60	59	55	52	51	49	55.7	62.7
4-Apr	47	46	47	48	48	49	49	48	47	49	49	49	48	A	48	48	48	47	45	44	44	45	42	42	46.8	48.9
5-Apr	41	40	37	34	32	31	31	32	33	33	33	32	A	33	33	35	35	33	34	34	34	32	31	31	33.7	40.8
6-Apr	31	28	30	35	36	37	35	34	37	40	43	A	43	43	44	46	43	43	42	43	38	28	37	39	37.9	45.7
7-Apr	40	41	40	40	37	37	37	37	36	37	A	40	42	46	48	47	47	46	48	47	45	45	36	22	40.9	48.0
8-Apr	10	31	43	42	46	45	43	39	47	A	47	47	44	44	42	44	46	44	41	38	47	46	47	40	41.9	47.3
9-Apr	32	43	48	42	35	42	39	43	A	51	51	52	54	55	57	58	59	56	53	51	53	52	52	51	49.1	58.7
10-Apr	50	50	50	50	49	48	45	A	44	43	44	48	47	49	50	50	50	49	49	49	49	48	48	47	48.1	50.4
11-Apr	45	44	43	42	42	41	A	40	40	C	C	C	48	49	51	52	52	51	48	47	46	45	43	45	45.7	52.4
12-Apr	46	46	46	44	43	A	42	43	43	45	46	48	51	52	52	53	53	53	51	50	51	48	43	42	47.4	53.0
13-Apr	39	37	37	36	A	36	35	35	34	32	29	30	30	31	32	31	31	32	36	36	36	36	35	36	34.1	39.3
14-Apr	35	35	34	A	35	38	40	42	44	46	47	48	50	51	52	53	52	53	53	53	52	52	52	51	46.3	53.2
15-Apr	49	46	A	46	47	47	47	48	49	50	49	49	50	49	48	49	50	49	49	48	47	44	44	47	47.8	50.0
16-Apr	45	A	43	40	40	38	35	33	37	35	37	42	48	51	53	56	58	55	54	52	52	52	50	49	45.8	57.5
17-Apr	A	48	48	44	46	44	45	48	50	51	54	54	53	52	51	51	51	52	53	52	51	50	52	A	49.9	53.8
18-Apr	50	46	46	44	43	43	43	43	44	43	43	47	51	52	52	53	52	52	51	50	48	44	A	37	46.9	52.6
19-Apr	35	33	31	30	28	30	29	30	30	34	36	46	48	52	53	55	55	54	53	52	53	A	51	46	41.9	55.4
20-Apr	48	47	46	46	46	43	44	44	45	47	47	50	52	52	50	50	49	46	44	42	A	41	42	44	46.2	51.6
21-Apr	44	42	43	35	34	34	37	39	38	41	45	47	52	56	55	55	57	56	55	A	52	51	48	41	46.0	56.6
22-Apr	41	44	40	33	44	40	40	42	39	43	49	51	54	54	55	56	58	58	A	55	56	52	53	53	48.3	58.3
23-Apr	55	53	50	43	35	51	49	49	47	45	43	45	45	46	48	43	45	A	45	43	40	39	33	29	44.5	55.3
24-Apr	30	30	31	28	24	24	20	18	11	16	22	36	41	42	47	48	A	42	39	45	44	42	29	24	31.8	47.6
25-Apr	19	16	19	20	22	20	19	19	17	8	2	11	24	24	26	A	27	26	25	22	21	20	17	13	19.1	26.7
26-Apr	7	12	18	19	21	17	19	21	22	23	24	26	27	26	A	27	28	30	28	23	16	21	28	35	22.5	34.6
27-Apr	34	32	26	28	28	23	17	11	0	2	34	41	49	A	51	51	51	52	51	49	46	48	47	37	35.1	52.0
28-Apr	47	47	41	21	18	18	11	9	6	12	48	47	A	26	49	47	50	49	48	46	45	43	40	39	35.1	49.6
29-Apr	39	39	35	36	36	32	34	34	32	33	33	A	40	40	43	42	45	49	50	46	48	48	48	47	40.4	50.2
30-Apr	46	46	28	34	40	46	41	25	22	23	A	44	42	43	42	49	51	60	62	61	61	58	57	51	44.9	61.5
	39.7	40.2	39.4	38.0	37.8	37.8	36.9	36.3	36.0	36.7	40.9	43.7	45.9	45.2	47.0	48.6	48.5	48.2	47.1	46.0	45.6	44.1	43.2	40.8	Diurnal Average	
	55.3	53.2	53.0	53.5	54.1	54.7	55.5	56.0	56.3	54.4	54.6	56.1	57.2	58.0	57.3	61.6	62.7	62.1	61.5	61.1	60.6	57.8	57.4	53.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

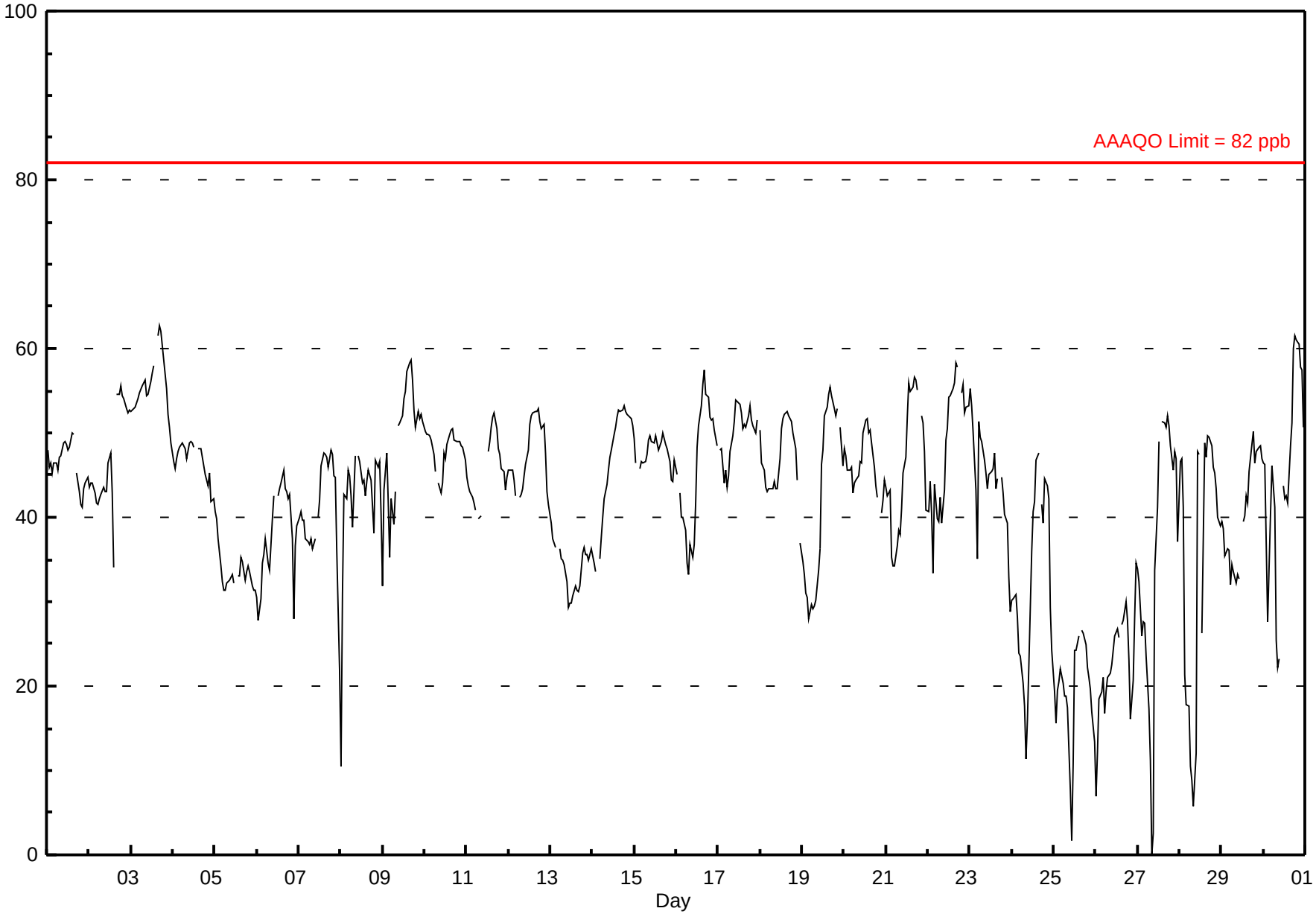
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Sunset House - April 2012



Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Sunset House - April 2012

Maximum Value: 70.8 ppb on Apr 17 03:00

Maximum Daily Average: 56.8 ppb on Apr 3

Minimum Value: 9 ppb on Apr 28 09:00

Minimum Daily Average: 23.1 ppb on Apr 25

Maximum Diurnal Average: 50.9 ppb at hour 16

Minimum Diurnal Average: 39.1 ppb at hour 8

Monthly Average: 45.16 ppb

Percentiles: P_1 = 15.7 P_{10} = 31.2 Q_1 = 40.5 Median = 47.6 Q_3 = 51.7 P_{90} = 55.0 P_{99} = 62.8

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	49	49	47	47	48	49	49	50	49	50	50	49	50	51	52	51	A	48	45	44	44	46	46	46	48.2	51.6
2-Apr	45	46	45	44	42	42	43	44	45	45	44	48	51	51	53	A	56	56	57	55	55	54	53	53	49.0	56.6
3-Apr	53	53	54	54	55	56	56	57	57	57	57	57	58	59	A	63	64	63	62	60	58	53	51	50	56.8	63.7
4-Apr	49	47	48	50	51	50	50	49	48	50	49	49	49	A	49	49	49	49	47	45	45	47	44	44	48.2	50.8
5-Apr	42	41	40	35	34	32	32	34	34	34	34	33	A	36	37	36	37	34	34	35	34	34	32	33	35.2	42.4
6-Apr	32	30	32	37	38	38	38	38	39	42	44	A	44	45	46	47	44	45	44	46	43	38	43	41	40.7	47.4
7-Apr	44	44	43	42	39	38	38	38	37	41	A	44	46	48	48	48	48	47	50	49	46	46	43	35	43.7	50.1
8-Apr	32	46	46	47	48	48	47	47	48	A	49	57	47	47	46	49	49	47	48	48	50	50	48	48	47.4	56.8
9-Apr	44	49	49	47	46	47	47	48	A	52	52	54	55	57	58	59	59	60	55	52	54	52	53	53	52.4	60.0
10-Apr	51	50	51	51	50	49	47	A	45	45	46	50	49	50	51	51	52	50	50	50	50	49	49	48	49.2	51.9
11-Apr	46	45	44	43	42	42	A	40	55	C	C	C	50	50	52	53	53	52	49	49	48	47	44	46	47.5	54.7
12-Apr	47	46	46	46	45	A	44	43	45	46	48	50	52	53	53	53	53	54	53	52	53	50	45	44	48.7	54.1
13-Apr	42	41	40	39	A	38	38	36	37	35	30	31	31	32	33	32	33	33	37	37	36	36	36	37	35.8	41.9
14-Apr	36	36	35	A	36	39	41	43	45	47	48	49	51	52	53	53	53	53	54	53	53	52	52	52	47.2	53.7
15-Apr	51	49	A	47	48	49	48	49	50	51	50	50	50	51	51	51	51	50	49	49	48	47	47	48	49.2	51.2
16-Apr	46	A	44	42	41	42	43	37	38	36	40	46	54	53	55	59	59	56	56	54	52	52	52	50	48.0	59.2
17-Apr	A	50	71	48	49	48	49	49	51	55	56	55	55	55	53	53	55	55	56	54	52	51	53	A	53.2	70.8
18-Apr	53	47	46	45	44	44	44	44	45	45	46	49	52	53	53	54	54	53	52	51	49	48	A	39	48.3	53.9
19-Apr	36	35	32	32	30	31	30	30	33	37	43	51	50	54	54	56	56	55	54	54	55	A	52	47	43.8	56.2
20-Apr	49	49	47	48	49	44	45	46	49	48	49	52	54	54	53	53	50	48	46	44	A	42	43	46	48.2	53.9
21-Apr	45	45	44	43	38	37	40	42	44	46	49	51	58	58	56	57	58	58	57	A	55	55	55	51	49.5	58.0
22-Apr	49	52	50	46	50	46	47	46	46	47	53	54	57	56	57	57	60	61	A	59	57	55	55	57	53.0	61.2
23-Apr	57	55	54	54	49	54	52	50	49	47	45	48	47	52	54	50	49	A	48	47	44	42	38	32	48.5	56.8
24-Apr	31	32	33	31	28	27	24	21	18	20	33	40	47	47	48	49	A	45	44	45	45	46	36	26	35.6	49.1
25-Apr	24	24	23	25	25	22	20	20	19	18	16	26	28	27	28	A	29	28	27	24	22	21	19	17	23.1	28.8
26-Apr	12	22	22	23	23	20	21	22	23	24	25	28	28	27	A	28	30	31	30	31	20	25	35	36	25.5	36.4
27-Apr	36	34	33	30	29	26	22	14	15	29	39	45	54	A	53	53	51	54	54	51	49	49	52	47	39.9	54.3
28-Apr	50	50	47	45	43	41	12	12	9	47	50	53	A	49	55	55	53	51	51	48	47	45	43	41	43.3	55.2
29-Apr	40	40	38	37	37	35	36	37	36	35	37	A	41	42	44	43	48	51	53	49	51	51	51	52	42.8	53.0
30-Apr	51	50	44	49	50	51	49	48	32	34	A	55	49	62	49	64	61	64	65	64	62	61	60	59	53.7	65.0
	42.9	43.4	43.0	42.2	41.7	40.9	39.7	39.1	39.4	41.5	43.7	47.2	48.5	48.9	49.8	50.9	50.5	50.0	49.1	48.3	47.5	46.4	45.9	44.1	Diurnal Average	
	56.8	55.0	70.8	54.3	54.8	55.8	56.3	56.8	56.9	56.8	56.8	57.3	58.2	62.0	58.3	63.8	63.7	64.1	65.0	64.3	62.3	60.8	60.2	59.3	Diurnal Maximum	

C - Calibration

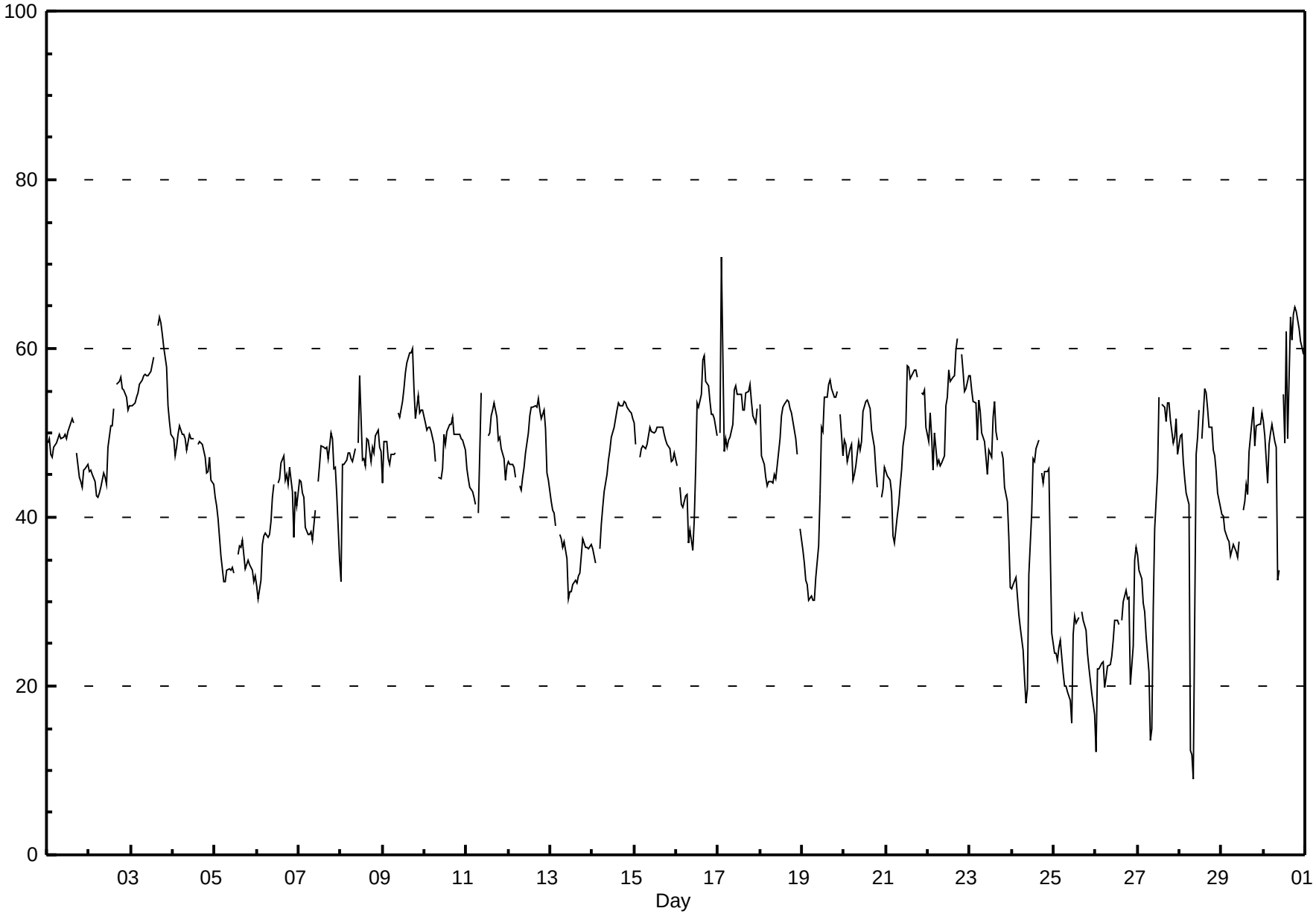
A - Automated Daily Zero Span

Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

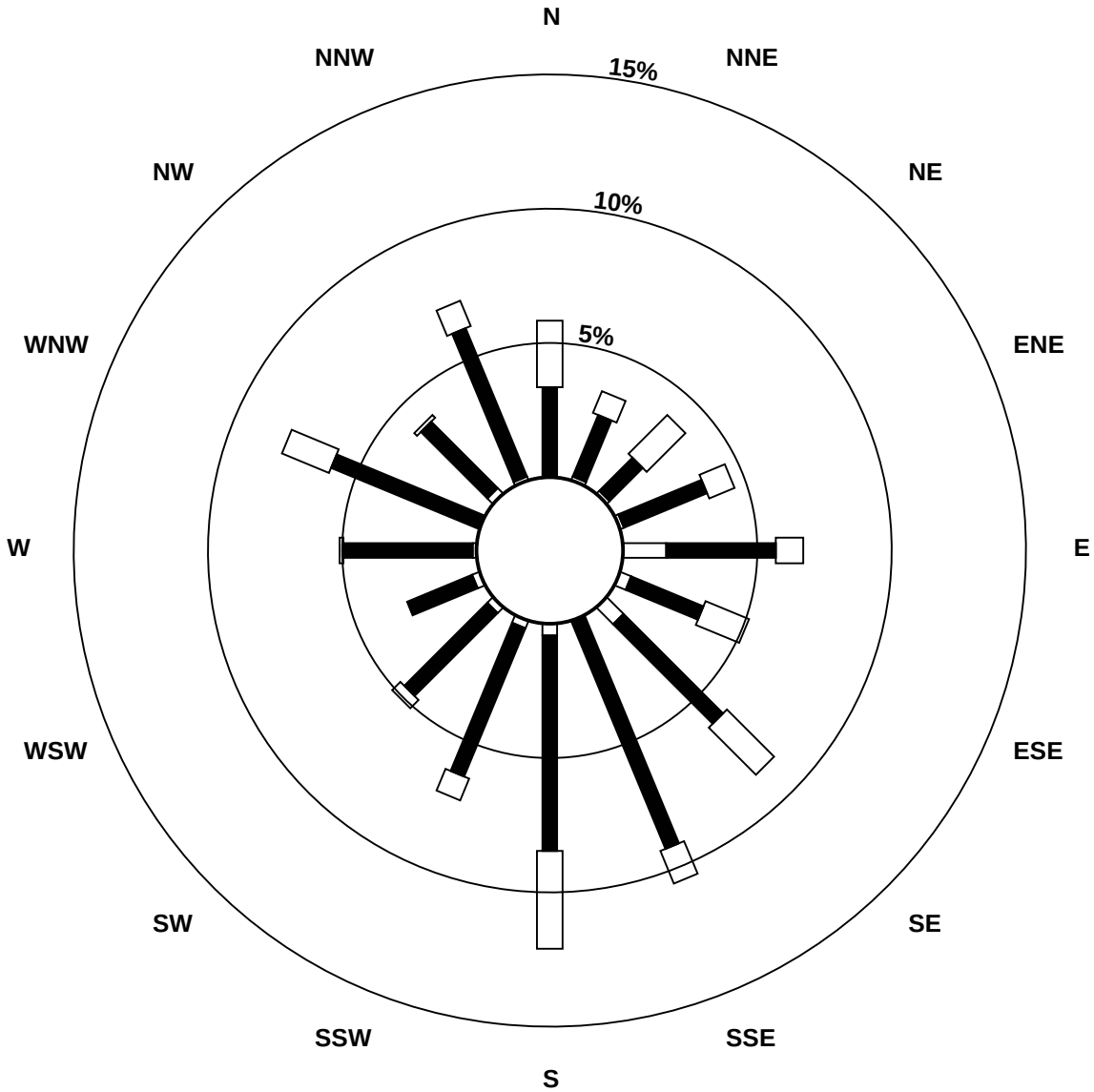
Sunset House - April 2012



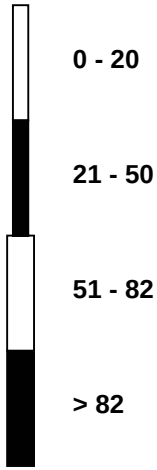
Pollutant Rose

Ozone (O_3) - ppb

Sunset House - April 2012



Pollutant Classes (ppb)



Peace Airshed Zone Association

Eight Hour Running Averages

Ozone (O_3) - ppb

Sunset House - April 2012

Maximum Value: 60.1 ppb on Apr 3 20:00

Minimum Value: 14.7 ppb on Apr 25 12:00

Percentiles: P_1 = 16.0 P_{10} = 27.3 Q_1 = 37.0 Median = 44.5 Q_3 = 48.7 P_{90} = 52.1 P_{99} = 57.7

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	47	47	47	46	47	47	46	46	46	47	47	47	48	48	48	49	49	48	48	47	46	45	44	43	48.9
2-Apr	43	43	43	44	44	43	43	43	43	43	43	43	44	44	43	43	45	46	48	49	50	51	54	54	54.1
3-Apr	54	53	53	53	53	53	54	54	54	55	55	55	56	56	56	57	58	59	60	60	60	59	58	56	60.1
4-Apr	54	52	51	49	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	47	46	46	45	45	54.3
5-Apr	44	43	42	41	39	37	36	35	34	33	33	32	32	33	33	33	33	33	34	34	34	34	33	33	43.8
6-Apr	32	32	31	31	32	32	33	33	34	35	37	37	38	39	40	42	43	44	43	43	43	41	40	39	43.5
7-Apr	39	38	38	38	38	39	39	39	38	38	37	38	38	39	41	42	44	45	46	46	47	47	45	42	46.8
8-Apr	37	36	35	34	34	34	35	37	42	43	44	45	45	44	44	45	45	45	44	43	43	44	44	44	45.2
9-Apr	42	42	43	43	42	41	40	41	42	43	43	45	48	49	52	54	55	55	56	55	55	55	54	53	55.5
10-Apr	52	51	51	51	50	50	49	49	48	47	46	46	45	46	46	47	48	48	49	49	49	49	49	49	52.2
11-Apr	48	47	47	46	45	44	43	42	42	41	N	N	N	N	N	N	N	50	50	50	49	49	48	47	50.4
12-Apr	46	46	45	45	45	45	44	44	44	44	44	44	46	46	48	49	50	51	52	52	52	51	50	49	51.9
13-Apr	47	45	43	42	40	39	38	37	36	35	34	33	33	32	32	31	31	31	32	32	33	34	34	35	47.2
14-Apr	35	36	35	35	35	35	36	37	38	40	42	42	44	46	47	49	50	51	51	52	52	52	52	52	52.4
15-Apr	52	51	51	50	49	48	47	47	47	47	48	48	48	49	49	49	49	49	49	49	49	48	48	47	51.8
16-Apr	47	46	45	44	43	42	41	39	38	38	37	37	38	40	42	45	47	50	52	53	54	54	53	53	53.8
17-Apr	52	51	50	49	48	47	46	46	46	47	48	49	50	51	52	52	52	52	52	52	52	51	51	51	52.2
18-Apr	51	51	49	48	47	46	45	45	44	44	44	44	45	46	47	48	49	50	51	52	51	50	50	48	51.5
19-Apr	45	43	40	37	34	32	32	31	30	30	31	33	35	38	41	44	47	50	52	53	53	54	53	52	53.6
20-Apr	51	50	49	48	47	47	46	45	45	45	45	46	46	47	48	49	49	49	49	48	48	46	45	44	51.0
21-Apr	43	43	43	42	41	40	39	39	38	38	38	39	42	44	47	49	51	53	54	55	55	54	53	51	55.2
22-Apr	49	47	45	44	43	41	40	41	40	40	41	43	45	47	49	50	53	54	55	56	56	56	55	55	56.1
23-Apr	55	54	53	52	49	49	49	48	47	46	45	46	47	46	46	45	45	45	45	45	44	43	41	39	54.6
24-Apr	37	36	34	33	31	29	27	26	23	21	20	21	23	26	29	33	36	40	42	43	44	44	41	38	43.7
25-Apr	36	32	30	27	24	21	20	19	19	18	16	15	15	15	16	16	17	20	23	25	24	24	23	21	35.5
26-Apr	19	17	16	16	16	16	16	17	19	20	21	22	22	23	24	25	26	27	27	27	25	25	25	26	27.4
27-Apr	27	27	27	27	29	29	28	25	20	16	17	19	21	21	26	32	40	47	49	51	50	50	49	47	50.5
28-Apr	47	46	45	42	38	34	30	26	21	17	18	21	21	23	28	34	40	45	45	45	45	47	46	45	47.2
29-Apr	44	43	41	40	39	37	36	36	35	34	34	33	34	35	36	37	39	42	44	44	45	46	47	48	47.8
30-Apr	48	48	45	43	42	42	41	38	35	33	33	35	35	34	34	38	42	47	49	51	53	55	57	58	57.5
	54.6	54.0	53.5	53.0	53.0	53.2	53.6	54.0	54.5	54.7	54.9	55.2	55.6	56.0	56.1	56.9	57.8	58.9	59.7	60.1	59.8	59.0	58.0	57.5	
	Diurnal Maximums																								

N - Not Valid

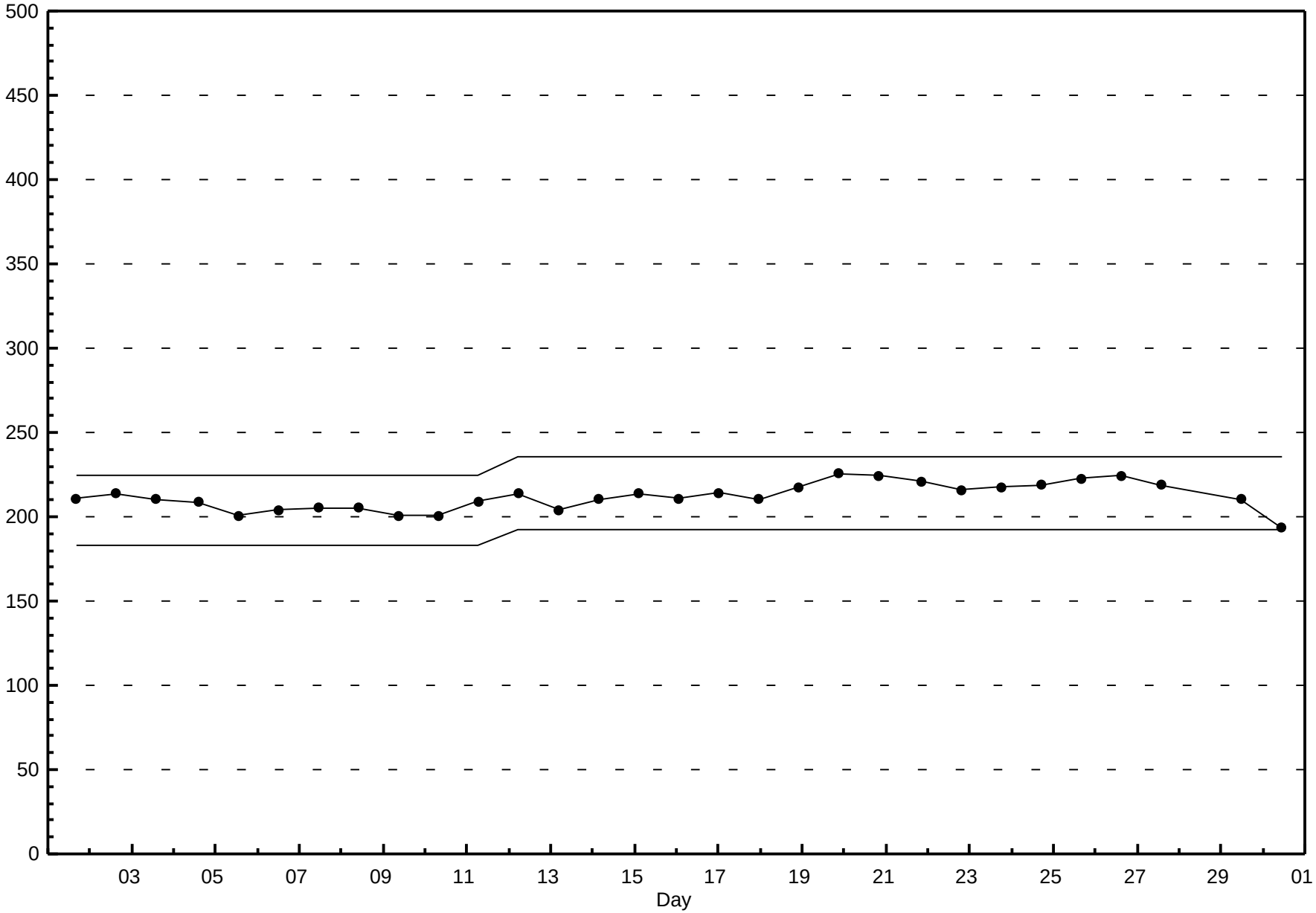
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Span Responses

Ozone (O_3)

Sunset House - April 2012



Peace Airshed Zone Association

Hourly Averages

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

Sunset House - April 2012

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

Maximum Value: 21.0 $\mu g/m^3$ on Apr 12 14:00

Maximum Daily Average: 9.2 $\mu g/m^3$ on Apr 12

Minimum Value: 0 $\mu g/m^3$ on Apr 1 03:00

Maximum Diurnal Average: 2.5 $\mu g/m^3$ at hour 20

Monthly Average: 1.86 $\mu g/m^3$

Minimum Daily Average: 0.1 $\mu g/m^3$ on Apr 29

Minimum Diurnal Average: 1.0 $\mu g/m^3$ at hour 11

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 1.0 Q_3 = 3.0 P_{90} = 4.0 P_{99} = 12.4

Hours in Service:	720
Hours of Data:	711
Hours of Missing Data:	9
Hours of Calibration:	5
Percent Operational Time:	99.4

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	1	1	0	2	2	3	7	3	2	1	0	2	1	0	3	3	1	2	3	4	2	2	3	2	2.1	7.0
2-Apr	2	1	2	3	2	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	1	1	1	1	0.8	3.0
3-Apr	2	1	1	1	1	1	1	1	1	1	2	1	0	0	0	0	1	1	1	2	3	3	4	4	1.4	4.0
4-Apr	7	4	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	2	2	1	1	1	2	1.1	7.0
5-Apr	2	4	4	3	2	2	2	2	2	0	1	2	1	1	1	0	0	0	1	1	1	0	1	1	1.4	4.0
6-Apr	1	1	0	1	1	0	0	2	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0.6	2.0
7-Apr	0	0	0	1	2	2	1	2	2	2	1	0	0	0	1	1	1	2	2	2	1	2	2	2	1.2	2.0
8-Apr	1	0	1	1	0	1	2	2	0	1	1	1	0	0	0	0	0	0	0	1	1	1	0	1	0.6	2.0
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	4	4	2	1	0.7	4.0
10-Apr	1	1	0	0	1	2	1	2	2	1	1	1	2	3	2	3	3	4	3	3	3	1	2	3	1.9	4.0
11-Apr	3	2	3	3	3	3	3	C	C	C	C	C	9	10	4	7	8	17	2	10	0	6	5	5	5.4	17.0
12-Apr	5	6	5	5	7	6	7	7	9	7	2	7	9	21	18	14	15	13	13	12	14	6	6	7	9.2	21.0
13-Apr	6	6	4	4	4	3	3	1	1	0	1	1	0	0	0	0	1	N	0	0	0	0	0	0	1.5	6.0
14-Apr	0	0	0	0	1	N	0	0	2	2	0	1	2	1	1	2	1	2	1	1	2	1	0	0	0.9	2.0
15-Apr	2	3	0	4	N	0	1	2	2	1	0	0	1	0	1	1	3	3	5	6	2	3	4	3	2.0	6.0
16-Apr	3	3	2	3	2	2	3	3	3	2	4	3	3	4	3	3	2	2	0	2	1	1	2	2	2.4	4.0
17-Apr	2	2	2	1	1	1	3	1	2	0	0	0	1	0	1	1	1	0	1	2	2	2	1	1	1.2	3.0
18-Apr	3	4	4	4	5	5	6	6	5	5	4	3	3	4	3	3	3	2	3	3	4	5	5	7	4.1	7.0
19-Apr	7	8	8	7	6	6	6	6	5	4	4	2	2	1	2	0	0	0	0	0	0	2	2	2	3.3	8.0
20-Apr	3	3	3	2	3	3	5	4	2	2	1	0	0	0	0	0	1	0	0	0	0	1	1	1	1.5	5.0
21-Apr	1	0	0	1	1	0	1	0	0	0	0	0	0	1	1	0	1	0	1	1	2	2	2	1	0.7	2.0
22-Apr	2	0	1	2	1	1	2	1	1	1	0	1	1	3	2	2	3	4	3	8	7	6	6	4	2.6	8.0
23-Apr	4	3	3	4	4	2	3	2	3	3	2	2	3	2	2	5	4	4	4	3	3	3	3	1	3.0	5.0
24-Apr	1	2	0	0	0	0	0	0	1	1	2	2	0	0	0	0	2	0	0	0	1	2	4	3	0.9	4.0
25-Apr	4	2	1	1	0	0	0	0	0	1	1	1	0	2	2	2	3	1	1	0	1	0	0	0	1.0	4.0
26-Apr	2	1	2	2	4	3	1	2	2	0	1	1	2	3	2	2	5	4	3	3	3	3	1	2	2.3	5.0
27-Apr	2	2	2	2	2	4	5	4	2	1	0	0	N	0	0	0	0	0	0	0	0	0	0	0	1.1	5.0
28-Apr	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	1	0	1	1	1	1	0	0	0.3	1.0
29-Apr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1	1.0
30-Apr	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	2	3	4	5	4	4	3	1.3	5.0
	2.3	2.0	1.6	1.9	1.9	1.8	2.3	1.9	1.8	1.3	1.0	1.1	1.4	1.9	1.7	1.7	2.1	2.3	1.8	2.5	2.2	2.1	2.1	2.0	Diurnal Average	
	7.0	8.0	8.0	7.0	7.0	6.0	7.0	7.0	9.0	7.0	4.0	7.0	9.0	21.0	18.0	14.0	15.0	17.0	13.0	12.0	14.0	6.0	6.0	7.0	Diurnal Maximum	

C - Calibration N - Not Valid

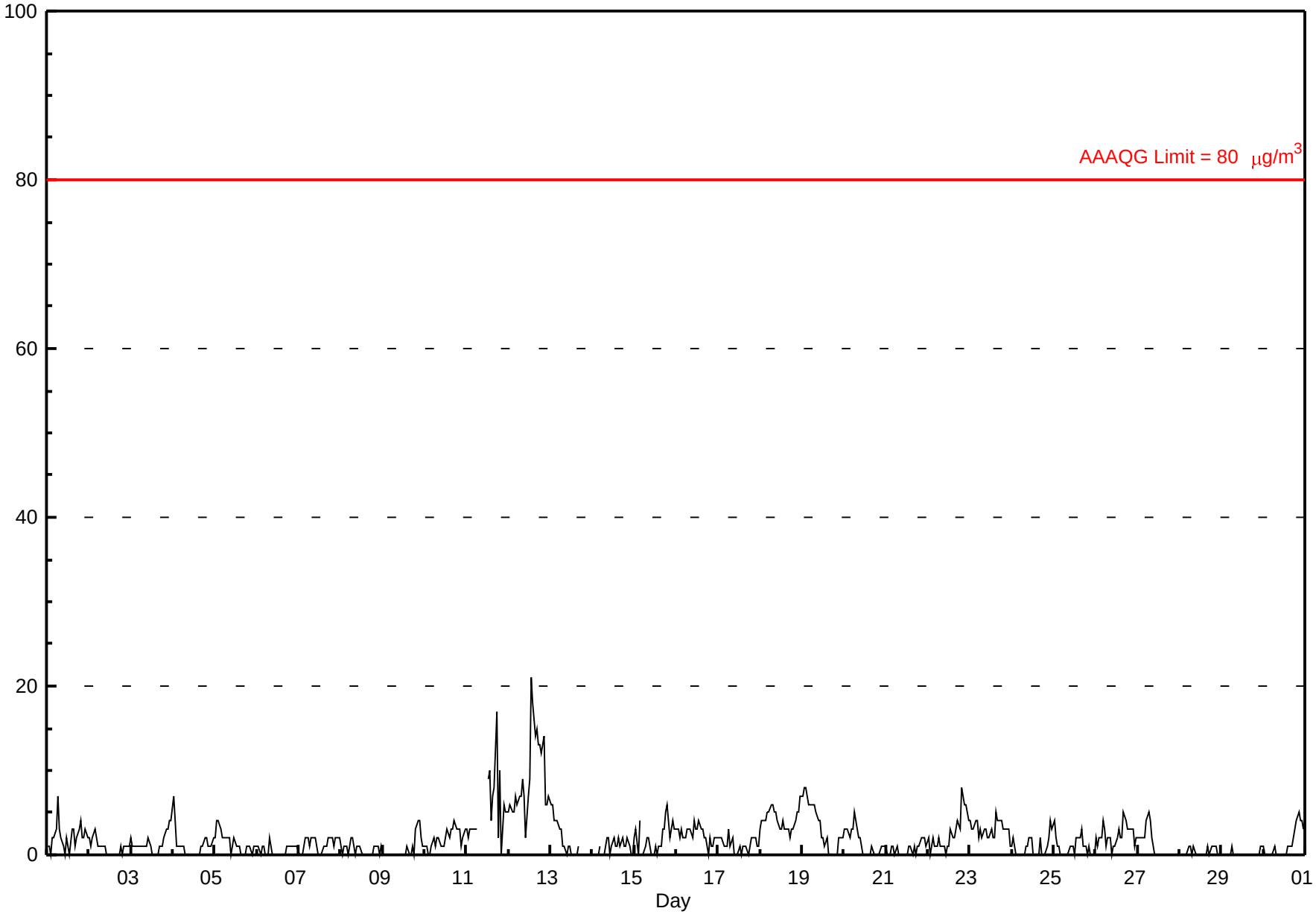
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Peace Airshed Zone Association

Hourly Averages

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

Sunset House - April 2012



Peace Airshed Zone Association

Hourly Maximums

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

Sunset House - April 2012

Maximum Value: 82.7 $\mu g/m^3$ on Apr 11 18:00

Maximum Daily Average: 18.2 $\mu g/m^3$ on Apr 12

Minimum Value: 0 $\mu g/m^3$ on Apr 2 14:00

Maximum Diurnal Average: 9.4 $\mu g/m^3$ at hour 18

Monthly Average: 5.23 $\mu g/m^3$

Minimum Daily Average: 2.3 $\mu g/m^3$ on Apr 6

Minimum Diurnal Average: 4.1 $\mu g/m^3$ at hour 23

Percentiles: P_1 = 0.7 P_{10} = 1.9 Q_1 = 2.6 Median = 3.9 Q_3 = 6.0 P_{90} = 8.4 P_{99} = 37.7

Hours in Service:	720
Hours of Data:	715
Hours of Missing Data:	5
Hours of Calibration:	5
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-Apr	5	8	2	6	7	8	11	6	3	2	2	11	8	2	5	11	3	5	5	5	6	3	5	4	5.6	11.5
2-Apr	4	3	3	5	4	3	3	3	3	3	2	1	2	0	5	2	3	2	3	2	3	3	2	3	2.7	4.8
3-Apr	4	2	3	2	3	3	3	3	3	3	4	4	2	3	1	3	3	2	3	3	7	4	5	10	3.4	10.5
4-Apr	12	7	5	4	3	3	3	1	2	2	0	1	2	2	3	2	3	3	4	4	3	4	3	3	3.3	12.3
5-Apr	5	7	5	5	3	3	4	4	5	2	2	3	3	2	3	2	3	2	2	2	2	2	2	2	3.1	6.6
6-Apr	2	2	2	3	2	2	2	5	5	2	2	1	2	2	2	3	2	2	3	2	2	2	3	3	2.3	4.6
7-Apr	2	1	2	3	4	3	3	3	3	4	3	2	3	4	3	3	4	3	3	5	3	3	3	3	3.1	4.5
8-Apr	2	2	4	3	2	5	4	7	1	3	3	3	3	3	3	2	2	2	3	4	3	2	2	2	3.0	7.0
9-Apr	3	2	0	1	1	1	1	2	1	2	2	2	2	3	3	3	3	4	2	4	5	6	4	2	2.4	5.6
10-Apr	3	2	1	2	2	3	3	4	3	3	2	3	4	4	3	4	4	6	4	5	4	3	4	4	3.4	5.5
11-Apr	4	4	4	4	4	5	4	C	C	C	C	C	19	51	10	10	22	83	22	46	8	10	8	8	17.0	82.7
12-Apr	10	11	7	10	10	9	11	9	15	27	39	11	15	40	68	20	21	18	18	15	23	11	9	10	18.2	68.3
13-Apr	9	9	8	6	6	7	7	5	6	1	4	4	3	2	3	2	9	69	0	3	1	1	1	1	7.0	69.2
14-Apr	2	3	4	7	10	32	6	5	4	7	9	5	5	4	4	4	4	4	5	6	5	3	3	3	5.9	32.0
15-Apr	6	30	11	11	2	3	6	5	6	5	5	3	4	5	6	5	7	9	12	10	16	6	7	7	7.7	30.2
16-Apr	6	6	7	6	6	6	6	8	7	5	7	6	7	7	6	7	6	7	10	7	3	3	4	5	6.1	10.4
17-Apr	4	5	5	3	4	5	7	6	4	8	3	5	5	4	6	4	4	4	4	4	3	4	3	3	4.4	8.4
18-Apr	5	6	6	7	6	6	7	9	7	7	8	5	10	11	9	7	6	5	7	6	6	7	7	9	7.0	10.5
19-Apr	9	10	10	9	8	8	8	8	7	8	9	6	7	7	8	6	7	3	5	3	2	5	5	4	6.7	10.1
20-Apr	4	5	6	5	5	5	7	7	4	4	4	5	6	2	5	3	4	2	3	3	4	3	2	4	4.3	7.4
21-Apr	3	3	1	3	2	3	3	2	3	2	4	3	8	6	6	5	6	4	6	4	5	5	4	8	4.1	7.8
22-Apr	6	2	7	7	4	3	9	8	4	5	5	5	4	5	6	7	9	8	8	17	10	8	8	7	6.7	16.9
23-Apr	7	6	5	7	6	5	7	4	6	5	4	5	6	7	9	10	9	9	8	8	6	5	6	4	6.4	10.2
24-Apr	3	4	2	2	3	3	1	2	3	4	4	5	4	5	3	6	7	3	3	6	4	5	5	6	4.0	6.8
25-Apr	5	4	3	2	2	1	0	3	3	3	2	3	2	4	4	4	6	5	3	3	3	2	2	2	2.9	5.5
26-Apr	5	3	4	5	5	5	4	7	4	2	4	5	4	4	5	5	8	7	6	5	5	8	4	4	5.0	8.2
27-Apr	5	5	4	4	5	6	7	7	5	4	3	2	2	3	1	4	3	2	2	4	4	1	1	3	3.6	6.8
28-Apr	1	1	3	2	2	3	4	2	4	4	4	4	3	3	4	7	8	4	3	3	4	3	2	2	3.4	7.7
29-Apr	3	1	2	2	1	2	3	4	1	2	2	3	2	1	5	5	5	1	4	4	5	2	3	3	2.7	4.7
30-Apr	3	2	2	3	3	3	4	2	2	3	4	6	3	4	5	4	4	4	6	7	8	6	7	6	4.2	8.0
	4.8	5.2	4.3	4.6	4.2	5.1	4.9	4.8	4.3	4.6	5.1	4.2	4.9	6.6	6.8	5.2	6.0	9.4	5.6	6.6	5.4	4.3	4.1	4.5	Diurnal Average	
	12.3	30.2	10.6	11.0	10.5	32.0	11.5	9.1	14.7	27.1	38.7	11.3	18.5	50.8	68.3	19.9	21.7	82.7	21.9	45.8	22.9	11.3	8.6	10.5	Diurnal Maximum	

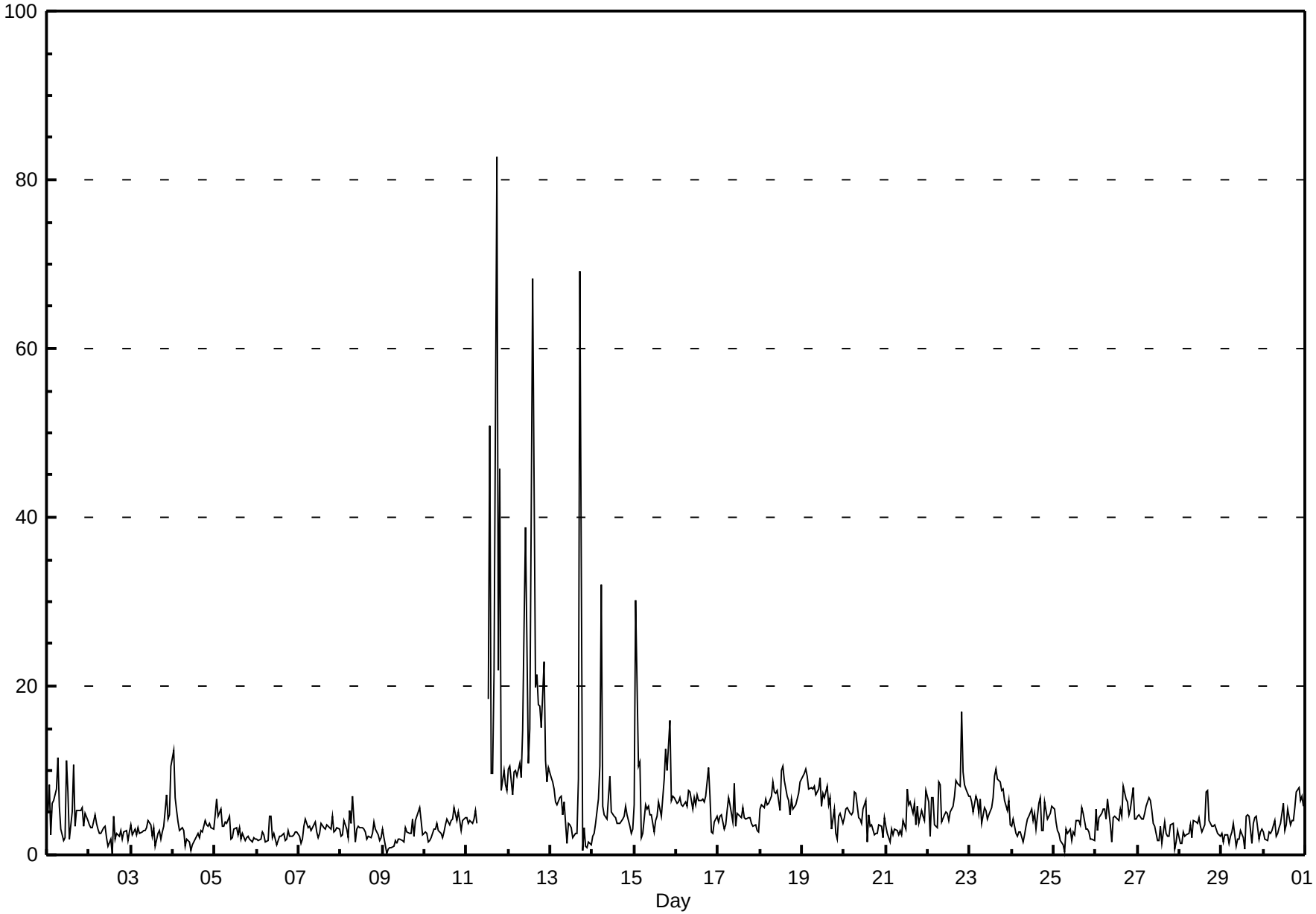
C - Calibration

Peace Airshed Zone Association

Hourly Maximums

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

Sunset House - April 2012



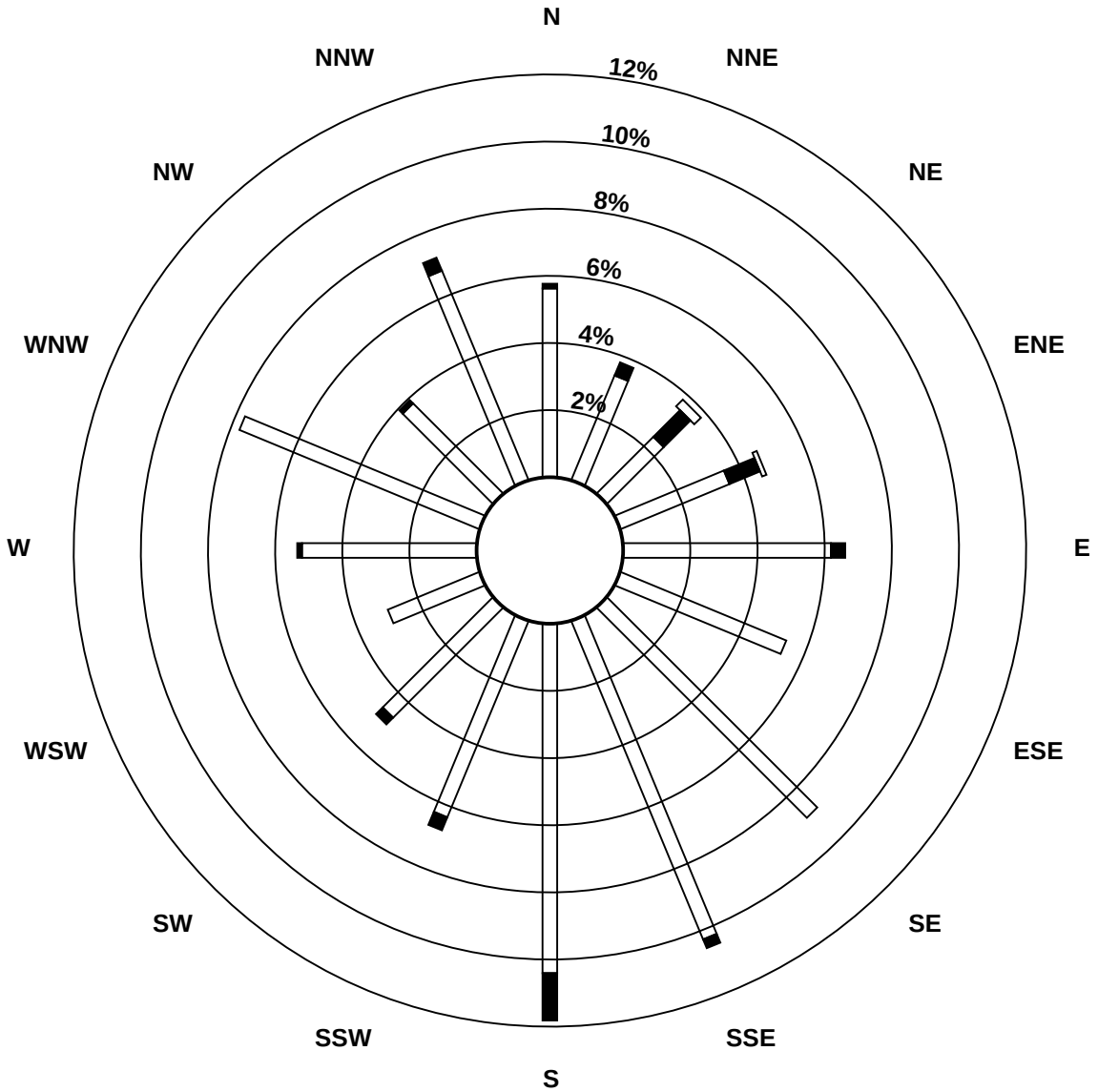
FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

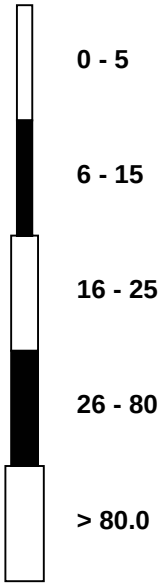
Pollutant Rose

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

Sunset House - April 2012



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



FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Sunset House - April 2012

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

Maximum Value: 15.5 ^{o}C on Apr 28 16:00

Maximum Daily Average: 9.8 ^{o}C on Apr 3

Minimum Value: -10 ^{o}C on Apr 15 06:00

Maximum Diurnal Average: 7.8 ^{o}C at hour 15

Monthly Average: 4.16 ^{o}C

Minimum Daily Average: -4.7 ^{o}C on Apr 14

Minimum Diurnal Average: 0.6 ^{o}C at hour 6

Percentiles: P_1 = -7.2 P_{10} = -2.6 Q_1 = 0.7 Median = 4.2 Q_3 = 7.9 P_{90} = 10.9 P_{99} = 14.4

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

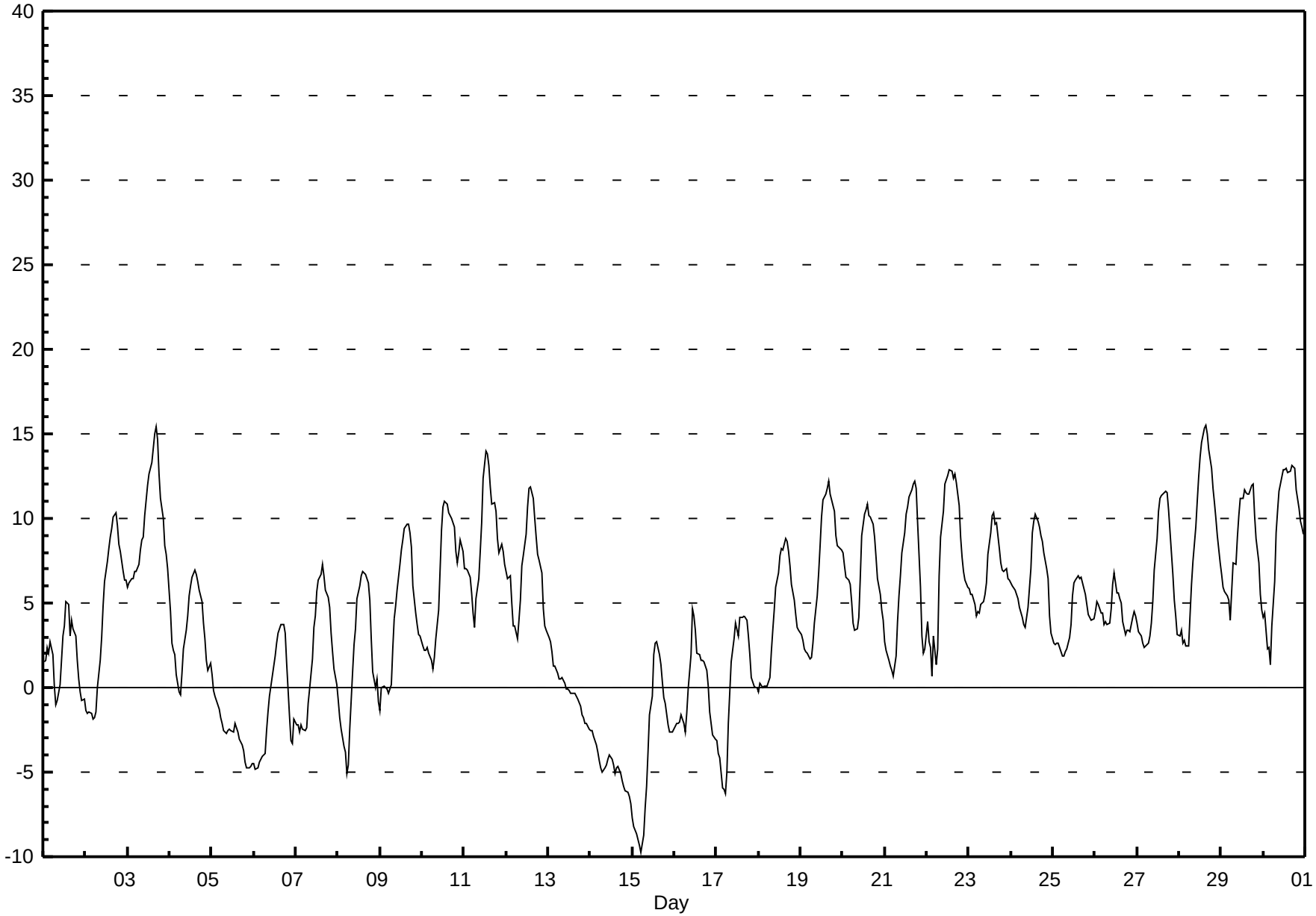
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	1	2	2	2	3	2	0	-1	-1	0	2	3	4	5	5	3	4	3	3	2	0	0	-1	-1	1.8	5.0
2-Apr	-1	-2	-1	-2	-2	-2	-1	0	2	3	5	6	7	8	9	9	10	10	10	9	8	7	6	6	4.4	10.4
3-Apr	6	6	6	6	7	7	7	8	9	9	10	12	13	13	13	15	15	15	13	11	10	8	8	7	9.8	15.4
4-Apr	4	3	2	2	1	0	0	1	2	3	4	5	6	7	7	7	6	6	5	4	3	2	1	1	3.4	6.9
5-Apr	1	0	-1	-1	-1	-2	-2	-3	-3	-3	-2	-3	-3	-2	-2	-3	-3	-3	-4	-4	-5	-5	-5	-5	-2.6	0.7
6-Apr	-5	-5	-5	-4	-4	-4	-4	-3	-1	-1	0	1	2	3	3	4	4	4	3	1	-2	-3	-3	-2	-0.8	3.8
7-Apr	-2	-2	-3	-2	-2	-3	-2	-1	0	2	4	4	6	6	7	7	7	6	5	5	3	2	1	0	2.0	7.3
8-Apr	-1	-2	-2	-4	-4	-5	-5	-2	1	3	3	5	6	7	7	7	7	6	5	3	1	0	0	-1	1.5	6.9
9-Apr	-1	0	0	0	0	0	0	2	4	5	6	7	8	9	9	10	10	9	8	6	4	4	3	3	4.4	9.6
10-Apr	2	2	2	2	2	2	1	2	3	5	7	9	11	11	11	10	10	10	10	8	7	8	9	8	6.3	11.0
11-Apr	7	7	7	7	6	4	4	5	6	8	10	12	14	14	13	12	11	11	10	9	8	8	8	7	8.7	14.0
12-Apr	7	6	7	5	4	4	3	4	5	7	8	9	11	12	12	11	10	9	8	8	7	5	4	3	6.9	11.9
13-Apr	3	3	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	-1	-1	-2	-2	-2	-2	-2	0.0	3.0
14-Apr	-3	-3	-3	-3	-4	-4	-5	-5	-5	-5	-4	-4	-4	-5	-5	-5	-5	-5	-6	-6	-6	-6	-6	-7	-4.7	-2.5
15-Apr	-8	-8	-9	-9	-9	-10	-9	-7	-6	-4	-2	-1	2	3	3	2	1	0	-1	-1	-2	-3	-3	-3	-3.4	2.7
16-Apr	-2	-2	-2	-2	-2	-2	-3	-2	0	2	5	4	3	2	2	2	2	2	1	0	-1	-2	-3	-3	-0.1	4.7
17-Apr	-3	-4	-4	-6	-6	-6	-5	-2	2	2	3	4	3	4	4	4	4	4	3	2	1	0	0	0	0.1	4.2
18-Apr	0	0	0	0	0	0	1	2	3	5	6	7	8	8	8	9	9	8	7	6	5	4	4	3	4.3	8.8
19-Apr	3	3	2	2	2	2	2	3	4	5	7	8	10	11	11	12	12	11	11	10	9	8	8	8	6.9	12.2
20-Apr	8	7	7	6	6	5	4	3	3	4	6	9	10	10	11	10	10	10	9	8	6	6	5	4	7.0	10.8
21-Apr	3	2	2	1	1	1	2	4	5	7	8	9	10	11	11	12	12	12	12	10	6	3	2	2	6.1	12.2
22-Apr	4	3	2	1	3	1	2	7	9	10	12	12	13	13	13	12	13	12	11	9	8	7	6	6	7.9	12.9
23-Apr	6	5	6	5	4	4	4	5	5	6	6	8	9	10	10	10	10	8	7	7	7	7	6	6	6.8	10.4
24-Apr	6	6	6	6	5	5	4	4	4	4	5	7	9	10	10	10	9	9	9	8	7	6	4	3	6.5	10.3
25-Apr	3	3	3	3	2	2	2	2	2	3	4	5	6	6	7	6	7	6	6	5	4	4	4	4	4.1	6.6
26-Apr	4	5	5	4	4	4	4	4	4	5	6	7	6	6	5	5	4	3	3	3	3	4	4	4	4.5	6.8
27-Apr	4	3	3	3	2	2	3	3	4	5	7	9	10	11	11	12	12	11	10	9	7	5	4	3	6.4	11.6
28-Apr	3	3	3	3	2	2	4	6	7	10	11	12	14	15	15	15	15	14	13	12	11	10	9	7	9.1	15.5
29-Apr	7	6	6	5	5	4	6	7	7	9	10	11	11	12	12	11	11	12	12	10	9	7	6	5	8.4	12.1
30-Apr	4	4	2	2	1	4	6	9	10	12	12	13	13	13	13	13	13	13	13	12	11	10	9	9	9.2	13.1
	2.0	1.8	1.5	1.1	0.9	0.6	0.8	1.9	2.9	4.0	5.3	6.5	7.2	7.7	7.8	7.7	7.6	7.2	6.5	5.4	4.2	3.5	3.0	2.6	Diurnal Average	
	8.0	7.2	6.9	6.5	6.9	6.9	7.3	9.2	10.4	11.6	12.0	12.9	14.0	14.5	15.3	15.5	15.4	14.7	13.0	11.7	10.9	10.0	9.5	9.1	Diurnal Maximum	

Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Sunset House - April 2012



Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Sunset House - April 2012

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	11	14	12	10	8	12	14	13	14	12	6	12	10	11	7	9	9	7	5	5	6	8	9	3.7	14.3
Dir	108	91	104	95	95	109	192	203	196	181	197	234	300	289	298	280	278	285	304	256	217	200	197	200	197.8	181.4
2 Spd	11	10	13	13	13	12	12	13	12	14	13	15	14	16	19	21	19	20	18	17	19	22	23	25	15.9	24.6
Dir	186	187	186	193	190	186	183	181	195	191	188	183	181	179	182	180	177	170	183	175	177	168	174	176	180.7	175.9
3 Spd	21	21	23	21	21	20	19	19	20	19	18	14	15	12	13	20	22	22	14	19	18	18	16	14	17.6	22.6
Dir	173	174	174	174	173	170	172	175	182	190	197	215	200	196	162	160	170	168	156	146	168	176	189	196	176.2	174.4
4 Spd	15	14	10	11	10	7	8	11	12	18	20	23	20	19	17	13	11	8	8	8	6	7	6	8	8.9	22.6
Dir	268	261	234	266	270	237	223	257	265	288	295	297	299	308	298	298	293	297	16	55	63	28	26	27	291.1	296.6
5 Spd	7	9	10	11	12	11	11	14	16	14	15	14	15	13	14	16	17	14	11	10	4	2	6	6	10.3	17.2
Dir	4	14	10	2	346	349	334	337	338	337	332	345	340	329	331	333	339	342	336	340	308	241	205	231	338.9	338.9
6 Spd	5	6	9	9	10	9	8	10	11	20	20	21	23	24	22	19	17	13	9	4	7	7	5	8	8.2	24.2
Dir	295	245	240	245	261	235	250	277	283	299	302	305	304	307	314	328	352	3	13	83	128	129	159	189	298.7	306.6
7 Spd	9	9	8	9	8	8	7	8	8	7	8	11	11	17	18	17	16	13	13	10	10	9	10	11	3.8	17.6
Dir	186	185	193	201	203	208	223	227	248	262	289	308	326	330	338	350	0	33	2	326	60	52	41	45	329.4	338.3
8 Spd	10	10	4	1	3	4	3	6	8	2	6	4	6	6	10	11	12	12	11	7	6	7	9	9	4.4	12.1
Dir	45	61	102	222	143	134	113	73	68	59	275	302	329	358	344	347	10	4	8	30	67	78	99	100	35.6	10.4
9 Spd	6	13	13	15	14	16	14	12	11	12	12	7	8	9	11	11	11	11	12	13	17	20	25	25	12.5	25.5
Dir	193	176	164	162	158	150	145	139	129	100	96	113	147	125	148	115	128	109	134	126	131	137	136	140	137.8	140.4
10 Spd	23	19	18	18	16	20	19	17	16	16	16	18	19	19	21	20	21	22	21	15	13	19	25	20	18.5	25.2
Dir	134	136	135	140	142	157	161	163	162	152	152	152	148	159	165	159	160	160	149	147	124	138	150	156	150.6	150.3
11 Spd	16	19	17	19	15	9	3	10	10	12	9	2	9	17	20	22	22	13	9	8	8	11	16	17	7.4	22.1
Dir	165	159	161	166	153	156	112	193	186	191	205	110	40	34	35	50	52	62	83	61	78	84	90	89	107.1	52.1
12 Spd	19	20	16	13	8	12	12	12	7	11	13	17	16	16	16	17	14	12	9	9	8	8	7	2	11.0	19.7
Dir	90	89	93	58	63	72	63	57	61	69	31	23	25	36	44	40	43	42	27	7	84	53	334	320	51.9	89.0
13 Spd	4	8	10	10	11	8	7	8	9	8	9	10	10	11	13	12	10	6	9	10	10	11	10	11	8.4	13.1
Dir	333	327	15	30	26	46	4	354	343	334	333	327	313	306	309	310	322	317	315	328	319	330	331	319	334.8	309.2
14 Spd	12	12	13	13	14	17	18	20	18	17	19	21	19	19	19	17	18	19	15	15	16	12	7	2	15.2	20.8
Dir	325	321	328	331	334	341	342	342	344	338	339	346	346	346	349	345	347	349	346	354	3	14	7	1	344.1	346.1
15 Spd	3	4	5	5	5	5	3	7	8	8	7	7	7	5	8	9	9	8	8	8	6	8	12	11	3.8	11.7
Dir	2	1	1	1	1	1	191	196	196	191	221	244	282	292	245	239	234	233	200	184	151	167	179	173	216.6	178.6
16 Spd	13	16	15	14	12	4	3	2	7	3	4	7	16	16	17	20	17	17	15	11	10	9	6	6	3.0	20.3
Dir	174	180	184	188	181	134	57	223	205	278	286	322	352	356	360	355	353	353	354	39	49	52	64	77	7.3	355.4
17 Spd	6	6	5	4	1	4	4	6	3	3	8	8	13	10	12	13	11	12	14	14	16	16	15	14	6.5	16.5
Dir	83	90	103	109	188	135	155	178	168	296	42	55	359	357	352	16	28	50	61	78	72	79	93	105	62.1	78.9
18 Spd	12	18	15	15	15	13	14	14	15	18	16	15	12	11	11	10	9	10	12	12	15	18	19	20	13.4	19.6
Dir	135	164	167	165	169	179	177	178	177	180	161	155	154	139	114	105	137	132	158	155	164	166	166	166	160.1	166.5
19 Spd	19	18	18	17	14	14	14	16	12	10	10	10	9	8	9	7	5	13	11	11	12	21	27	28	11.7	27.6
Dir	168	175	176	178	180	186	184	188	195	198	218	185	194	172	210	185	116	77	105	108	95	133	146	147	163.7	147.2
20 Spd	28	27	22	20	16	13	12	11	11	12	16	21	25	29	27	29	27	26	24	17	16	13	12	9	12.3	29.2
Dir	153	156	154	160	184	199	205	212	248	276	279	283	285	285	285	287	289	285	281	277	270	271	267	255	253.7	286.9
21 Spd	7	9	8	9	9	8	9	10	17	19	18	18	18	20	19	17	13	9	9	7	4	4	7	7	8.2	20.0
Dir	219	229	219	214	209	207	229	250	274	282	280	281	281	289	291	290	302	291	308	358	66	127	133	139	269.5	288.6
22 Spd	6	5	4	4	5	6	4	6	9	9	11	11	16	17	13	12	5	7	11	7	7	6	8	10	2.4	16.8
Dir	156	146	153	147	152	145	137	51	26	22	31	5	5	5	336	359	13	61	336	199	218	217	192	186	25.3	4.5

FOCUS AIR QUALITY MONITORING

Peace Airshed Zone Association

Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Sunset House - April 2012

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	11	7	5	4	7	11	13	15	16	18	18	12	12	11	10	11	16	15	9	9	8	11	6	7	7.5	18.0
Dir	189	186	178	90	64	87	99	102	93	87	91	103	108	129	135	40	55	33	80	125	170	185	216	220	105.7	91.4
24 Spd	7	7	8	6	5	6	5	5	3	4	3	4	4	9	6	5	11	12	12	11	11	7	12	15	2.5	15.5
Dir	217	216	204	207	235	287	305	317	337	19	260	276	33	20	9	82	32	53	88	100	113	71	63	77	63.4	77.2
25 Spd	17	17	19	21	23	23	23	23	21	12	11	13	15	18	16	19	17	15	14	12	14	14	11	9	14.7	23.4
Dir	76	82	91	91	91	88	92	97	87	91	90	133	137	147	147	143	163	165	146	120	114	118	125	113	111.5	91.5
26 Spd	9	14	12	12	14	6	10	18	16	19	15	18	20	19	22	19	21	16	11	11	9	16	18	17	14.2	22.4
Dir	135	141	134	137	133	86	108	128	137	130	136	166	146	144	140	135	146	130	79	81	83	129	143	152	133.5	140.4
27 Spd	22	23	17	17	14	15	11	8	10	14	21	22	25	25	24	24	21	22	20	14	6	3	4	6	10.4	25.1
Dir	149	159	174	184	198	206	224	248	253	279	283	288	286	288	286	288	288	287	287	294	287	192	164	192	256.4	285.8
28 Spd	9	8	8	10	10	12	13	13	12	11	12	13	12	12	13	10	16	24	15	7	9	7	5	5	8.4	23.6
Dir	193	189	188	189	188	180	182	194	203	218	231	266	246	267	228	260	286	293	292	277	281	277	245	272	238.3	293.2
29 Spd	6	4	6	6	7	6	7	11	15	14	16	17	16	14	14	15	12	9	14	8	4	4	5	5	7.9	16.8
Dir	282	240	212	214	221	222	249	269	274	279	285	277	292	293	311	350	314	297	303	311	267	198	191	198	279.7	276.7
30 Spd	5	4	7	7	7	5	1	6	13	11	12	12	13	13	15	17	16	15	15	16	15	11	16	14	9.8	16.8
Dir	195	216	182	170	156	167	118	74	108	113	111	121	118	103	106	84	86	116	118	136	140	114	126	123	120.0	84.2
Spd	6.4	7.0	7.1	6.3	5.5	4.9	4.4	3.9	3.3	2.5	2.8	3.7	4.1	4.1	3.7	3.4	2.9	2.2	1.9	2.5	4.1	5.7	6.9	7.1	Diurnal Average	
Dir	155.1	159.4	159.3	163.3	164.9	160.9	169.6	179.7	194.4	220.8	261.7	277.9	302.7	313.5	310.6	345.2	353.6	12.8	21.4	96.0	120.8	131.5	144.3	149.6		
Spd	27.6	26.6	22.6	21.3	23.0	23.0	23.4	23.1	20.5	19.6	20.6	22.6	25.1	28.9	26.7	29.2	27.2	26.0	23.9	18.9	19.5	22.1	27.2	27.6	Diurnal Maximum	
Dir	152.7	155.8	174.4	174.2	91.5	88.1	91.5	96.6	87.4	298.9	283.4	296.6	285.8	284.5	284.6	286.9	288.5	285.1	280.9	145.6	176.8	167.8	145.6	147.2		

Maximum Speed Value: 29 km/h on Apr 20 16:00
Maximum Daily Speed Average: 18.5 km/h on Apr 20
Maximum Diurnal Speed Average: 7.1 km/h at hour 3

Minimum Speed Value: 1 km/h on Apr 30 07:00
Minimum Daily Speed Average: 2.4 km/h on Apr 15
Minimum Diurnal Speed Average: 1.9 km/h at hour 19

Monthly Average Velocity: 2.10 km/h 164.84 deg

Speed Percentiles: $P_1 = 2.4$ $P_{10} = 5.5$ $Q_1 = 8.2$ Median = 11.9 $Q_3 = 16.1$ $P_{90} = 19.9$ $P_{99} = 26.3$

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

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

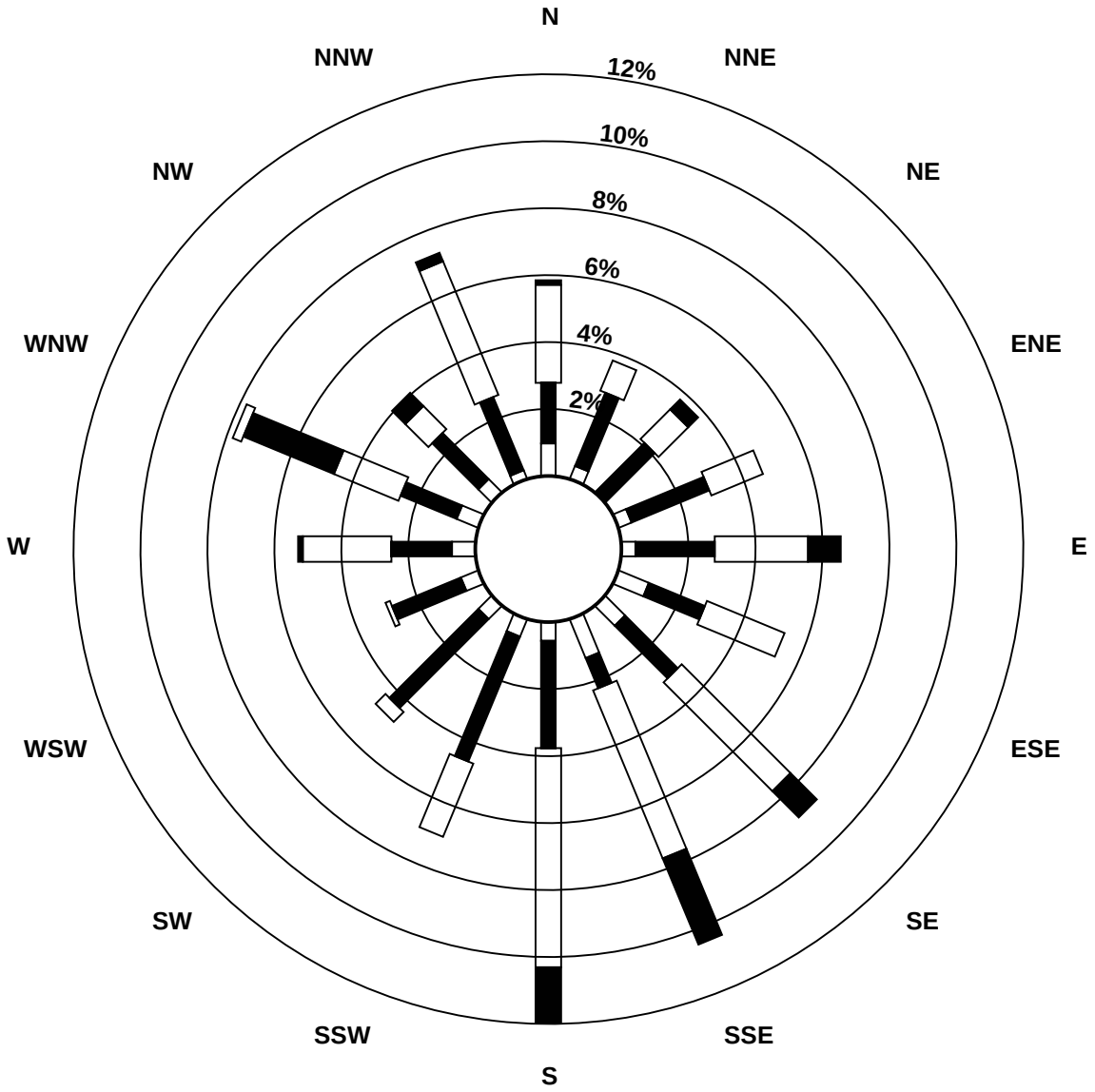
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	6	23	45	4	0	0	78
NorthEast	4	31	25	3	0	0	63
East	6	26	42	8	0	0	82
SouthEast	11	26	58	21	0	0	116
South	9	41	81	29	0	0	160
SouthWest	7	47	8	0	0	0	62
West	7	30	29	16	2	0	84
NorthWest	8	26	30	11	0	0	75
Total	58	250	318	92	2	0	720

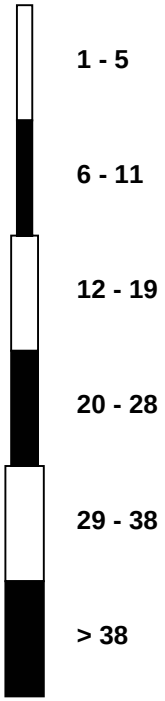
Wind Rose

Wind Speed (WS) (km/h)

Sunset House - April 2012



Wind Speed Classes (km/h)



Peace Airshed Zone Association

Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Sunset House - April 2012

Maximum Speed: 29 km/h on Apr 20 16:00

Maximum Daily Speed Average: 19.5 km/h on Apr 20

Minimum Speed: 2 km/h on Apr 15 00:00

Minimum Daily Speed Average: 7.4 km/h on Apr 15

Maximum Diurnal Speed Average: 16.1 km/h at hour 16

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

Monthly Average Speed: 12.86 km/h

Percentiles: P_1 = 3.1 P_{10} = 6.0 Q_1 = 8.7 Median = 12.4 Q_3 = 16.7 P_{90} = 20.3 P_{99} = 26.8

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	14	11	14	12	11	9	13	14	13	15	13	9	12	10	12	13	10	9	8	5	5	6	9	9	10.7	14.5
2-Apr	11	10	13	13	13	12	12	14	13	14	13	15	15	17	19	21	20	21	18	17	20	22	24	25	16.3	24.8
3-Apr	21	21	23	21	21	20	19	19	20	19	18	15	15	13	14	21	22	22	15	19	19	18	16	14	18.5	22.6
4-Apr	16	14	10	11	10	7	9	11	12	18	20	23	21	20	17	14	11	8	9	8	6	7	6	8	12.3	22.9
5-Apr	8	9	10	11	12	11	11	15	16	14	15	14	15	14	15	17	18	14	11	10	5	3	6	7	11.8	17.6
6-Apr	6	7	9	10	10	9	8	11	12	20	21	21	24	25	22	19	17	13	9	5	7	7	6	8	12.6	24.5
7-Apr	9	9	8	9	8	8	8	8	8	8	8	12	12	18	18	18	17	13	14	13	10	9	10	11	11.1	18.2
8-Apr	10	10	6	2	3	4	3	6	8	6	7	6	8	9	12	12	13	13	12	8	6	7	10	10	8.0	13.2
9-Apr	8	13	13	15	14	16	14	12	12	13	13	10	10	12	13	12	13	12	13	13	17	21	25	26	14.1	25.6
10-Apr	23	19	19	19	16	21	19	17	16	16	17	19	19	21	22	21	22	22	21	15	13	20	25	20	19.2	25.4
11-Apr	16	19	17	19	16	9	5	10	11	12	10	8	11	17	21	22	22	14	10	8	9	11	16	17	13.7	22.2
12-Apr	19	20	16	14	10	12	12	12	8	12	14	17	17	17	17	17	14	12	9	9	10	9	7	3	12.8	19.8
13-Apr	5	8	11	10	11	8	8	8	9	8	10	10	10	11	13	12	10	6	10	11	10	11	11	11	9.6	13.1
14-Apr	12	12	13	13	14	17	18	20	19	17	19	21	19	19	19	17	18	19	15	15	16	12	7	2	15.6	21.0
15-Apr	3	4	5	5	5	5	7	7	8	9	7	8	8	7	8	10	10	9	8	8	6	8	12	11	7.4	11.7
16-Apr	13	16	15	14	12	7	6	5	8	5	4	10	16	16	17	20	18	17	15	12	10	9	6	6	11.6	20.5
17-Apr	7	6	5	4	2	4	4	6	3	5	10	10	14	11	13	13	12	13	14	15	16	17	16	14	9.6	16.7
18-Apr	14	18	15	16	15	13	14	14	15	18	16	16	13	12	11	11	9	10	12	12	15	18	19	20	14.4	19.7
19-Apr	19	19	18	17	14	14	14	16	13	11	10	11	10	9	10	9	9	13	11	11	12	21	27	28	14.5	27.7
20-Apr	28	27	22	20	16	13	12	11	11	13	16	22	25	29	27	29	28	26	24	18	16	13	12	10	19.5	29.5
21-Apr	7	9	8	9	9	8	9	10	17	19	18	19	19	20	19	17	14	10	9	7	5	4	7	7	11.7	20.4
22-Apr	6	6	4	4	6	6	4	7	9	9	12	12	17	17	15	12	9	9	11	9	7	7	8	10	9.0	17.4
23-Apr	11	8	5	6	7	11	13	15	16	18	18	13	13	12	11	11	16	15	9	10	8	12	7	7	11.4	18.3
24-Apr	7	7	8	6	5	6	5	6	5	5	4	5	6	10	8	7	12	12	13	11	11	9	12	16	8.2	15.7
25-Apr	17	17	19	21	23	23	24	23	21	12	11	13	15	18	16	19	17	15	14	13	14	14	11	10	16.8	23.6
26-Apr	9	15	13	13	14	7	10	19	17	19	15	19	21	20	23	19	22	17	11	11	9	17	18	17	15.6	22.7
27-Apr	22	24	17	18	15	15	11	8	10	14	21	23	26	25	25	24	21	22	20	14	6	4	5	6	16.5	25.5
28-Apr	9	8	8	10	11	12	13	13	12	11	13	15	13	14	15	11	16	24	15	7	9	8	5	6	11.6	23.8
29-Apr	7	5	6	6	7	7	8	12	15	14	16	17	17	14	16	15	13	10	14	8	5	4	6	5	10.3	17.3
30-Apr	5	4	7	7	7	5	3	7	13	13	13	14	14	14	15	17	17	16	15	16	15	11	16	15	11.7	17.3
	12.0	12.5	11.9	11.7	11.3	10.7	10.6	11.9	12.4	12.9	13.4	14.2	15.1	15.7	16.0	16.1	15.6	14.6	13.1	11.2	10.5	11.2	12.1	11.9	Diurnal Average	
	27.7	26.8	22.6	21.4	23.1	23.1	23.6	23.3	20.7	19.8	20.8	22.9	25.5	29.4	27.1	29.5	27.6	26.4	24.2	19.1	19.6	22.3	27.4	27.7	Diurnal Maximum	

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

Peace Airshed Zone Association

Hourly Standard Deviations

Wind Direction (WD) - deg

Sunset House - April 2012

Maximum Value: 92.1 deg on Apr 30 07:00

Minimum Value: 0.0 deg on Apr 15 03:00

Percentiles: P_1 = 3.5 P_{10} = 5.8 Q_1 = 8.1 Median = 12.0 Q_3 = 17.8 P_{90} = 30.0 P_{99} = 71.0

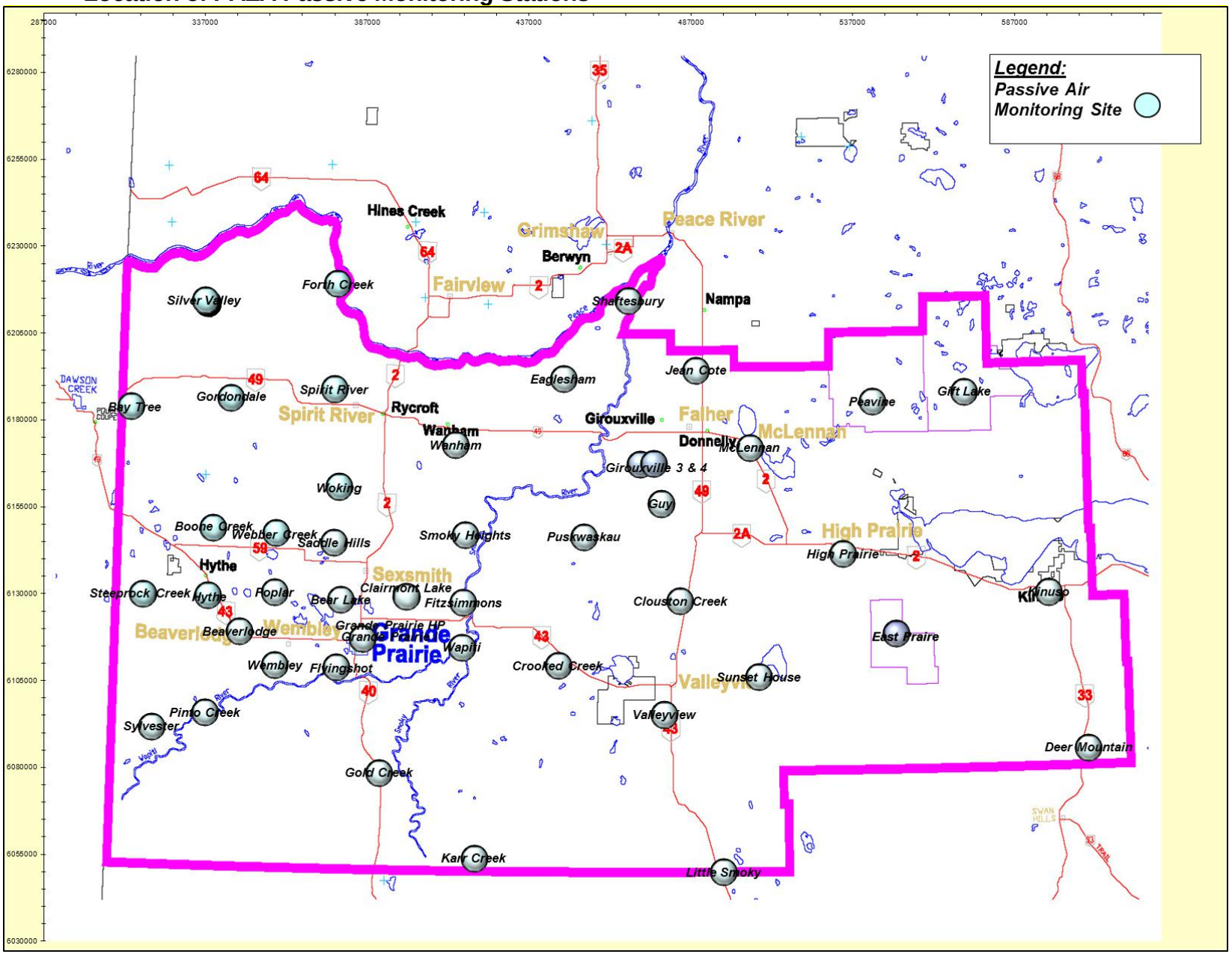
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	5	13	8	18	16	30	30	9	12	9	10	45	14	18	15	61	37	17	34	21	12	9	7	12	61.5
2-Apr	6	7	7	7	6	5	6	5	10	9	14	15	20	17	14	11	10	11	8	5	6	7	6	7	19.9
3-Apr	8	6	5	5	5	6	5	6	7	7	11	13	14	15	13	14	11	11	11	7	16	5	7	13	15.7
4-Apr	11	15	17	14	12	19	19	12	15	9	10	10	13	13	12	13	10	10	34	8	10	9	25	6	33.7
5-Apr	14	7	9	9	8	8	12	11	11	11	12	12	10	16	18	14	11	12	11	11	28	39	20	30	38.9
6-Apr	37	14	12	12	14	10	16	12	12	8	7	7	10	10	12	15	14	12	13	29	8	6	25	4	37.2
7-Apr	4	6	7	6	14	12	10	12	18	26	21	16	21	18	14	14	10	12	22	42	6	6	4	4	42.2
8-Apr	4	11	43	67	22	9	11	8	12	73	31	55	46	52	31	30	25	20	11	24	11	11	17	24	72.7
9-Apr	36	12	4	4	3	4	4	6	13	18	27	55	45	47	29	32	30	28	14	9	11	8	5	6	55.1
10-Apr	5	6	7	8	9	7	7	8	9	13	16	18	14	21	14	13	14	13	9	9	12	11	7	8	21.2
11-Apr	9	7	8	5	9	12	45	9	17	13	20	85	54	12	8	9	7	29	16	17	12	6	5	6	85.4
12-Apr	5	5	6	16	39	13	11	9	31	15	28	8	14	14	15	11	9	8	5	15	45	28	9	45	44.8
13-Apr	46	17	14	6	7	8	15	9	16	16	13	10	7	6	6	8	10	9	7	10	9	11	9	8	45.9
14-Apr	9	8	10	9	9	9	8	7	8	8	8	8	8	10	8	9	8	7	8	7	6	8	12	2	12.4
15-Apr	0	0	0	0	0	0	80	9	10	18	20	26	31	47	21	15	17	17	18	17	14	15	4	5	80.1
16-Apr	5	4	7	5	6	58	70	88	32	51	43	46	11	8	7	7	9	8	6	23	7	8	10	10	88.3
17-Apr	12	11	5	7	45	15	19	4	20	65	35	38	22	24	17	16	15	14	12	7	7	10	8	16	65.5
18-Apr	36	4	5	5	6	6	6	8	8	10	15	18	23	25	23	28	24	18	8	6	5	6	5	4	35.6
19-Apr	5	5	4	5	5	6	5	5	16	23	16	18	26	28	32	49	56	20	12	7	13	11	6	5	56.5
20-Apr	5	6	5	6	14	9	9	14	21	12	11	11	10	11	10	8	9	10	9	9	10	10	10	17	20.9
21-Apr	12	10	11	8	10	9	11	16	11	10	13	15	14	12	15	18	18	27	15	15	35	17	7	6	35.4
22-Apr	8	11	20	15	8	13	29	20	12	18	17	26	14	15	25	17	72	51	41	48	14	16	8	7	71.8
23-Apr	8	8	28	42	16	5	7	6	9	9	10	18	20	22	29	18	9	6	15	23	13	25	26	14	42.5
24-Apr	11	16	8	13	31	16	25	27	65	69	46	41	71	36	51	47	28	18	15	14	7	33	21	9	71.3
25-Apr	11	11	5	5	7	6	7	7	8	11	9	18	12	9	15	15	14	16	16	18	10	11	15	17	18.1
26-Apr	19	13	26	22	21	27	14	18	15	12	16	17	21	14	10	13	13	14	11	7	8	25	14	14	26.7
27-Apr	10	10	11	10	18	9	19	17	20	12	9	8	10	11	11	10	12	10	7	8	13	37	19	8	37.3
28-Apr	6	9	6	11	12	8	5	9	13	18	26	29	25	26	27	26	13	6	8	14	10	12	16	28	29.1
29-Apr	13	29	12	14	10	13	15	16	11	14	14	14	18	15	26	15	19	18	15	10	28	10	8	11	29.4
30-Apr	27	25	7	21	23	30	92	38	18	27	30	41	22	17	17	14	13	19	13	10	8	8	9	10	92.1
	45.9	29.4	42.5	66.7	45.3	58.0	92.1	88.3	64.9	72.7	46.5	85.4	71.3	52.2	50.6	61.5	71.8	51.5	40.6	47.7	44.7	38.9	25.9	44.8	

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for April 2012

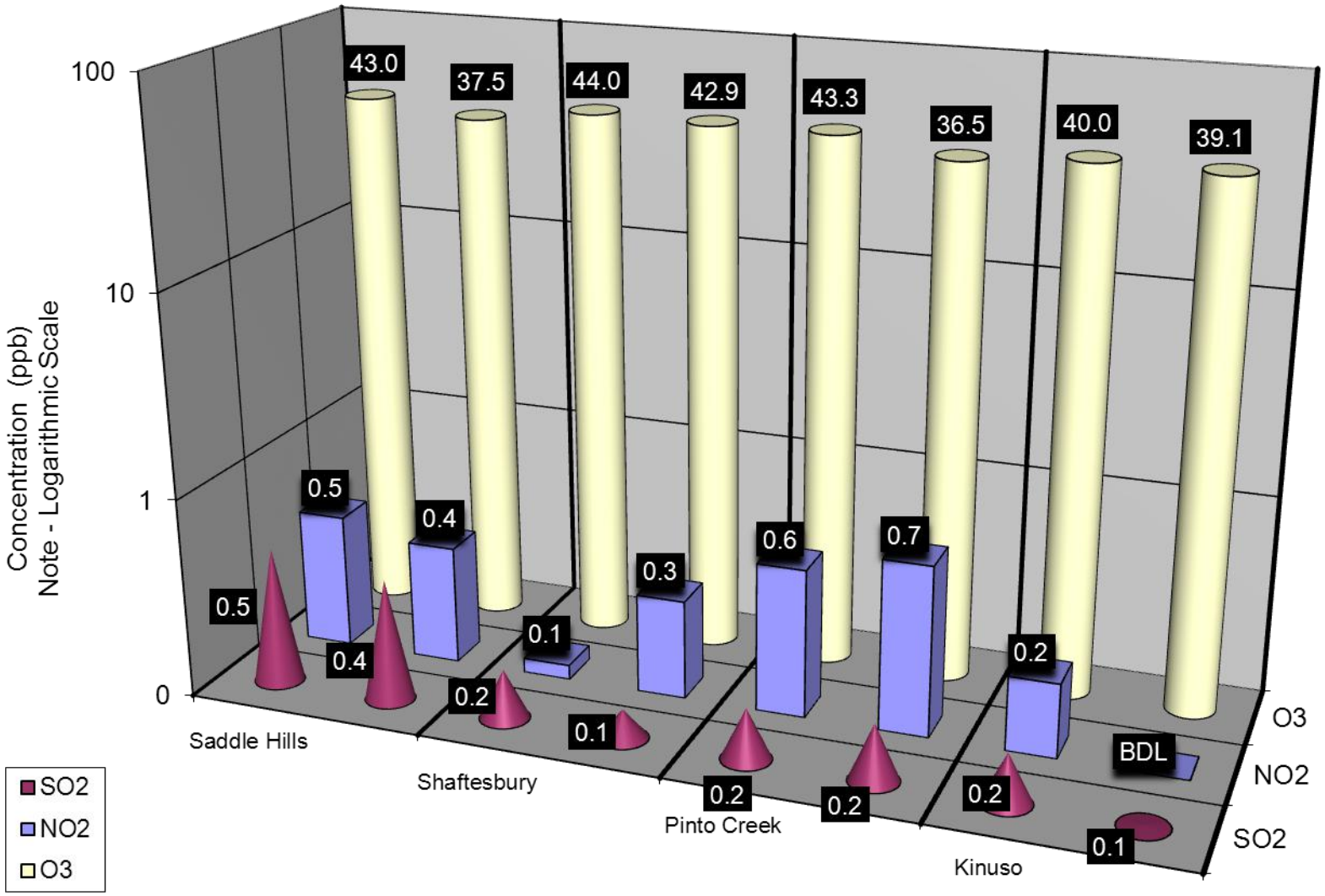
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
18a	Saddle Hills	**0.5**	**43.0**	**0.5**		
18b	Saddle Hills	**0.4**	**37.5**	**0.4**		
20a	Shaftesbury	**0.2**	**44.0**	**0.1**		
20b	Shaftesbury	**0.1**	**42.9**	**0.3**		
25a	Pinto Creek	**0.2**	**43.3**	**0.6**		
25b	Pinto Creek	**0.2**	**36.5**	**0.7**		
47a	Kinuso	**0.2**	**40.0**	**0.2**		
47b	Kinuso	**0.1**	**39.1**	**BDL**		
64a	Girouxville 4				**0.1**	
64b	Girouxville 4				**0.1**	
1	Silver Valley	**Missing**	**Missing**	**Damaged**		08-27-081-11 W6M
2	Bay Tree	**0.2**	**37.2**	**0.4**		13-16-078-13 W6M
3	Fourth Creek	**0.2**	**42.3**	**0.3**		04-13-082-07 W6M
4	Gordondale	**0.3**	**49.0**	**0.4**		04-34-078-10 W6M
5	Boone Creek	**0.3**	**35.0**	**0.7**		16-36-074-11 W6M
7	Steeprock Creek	**0.2**	**40.0**	**0.3**		09-35-072-13 W6M
9	Spirit River	**0.2**	**39.2**	**0.3**		08-12-079-07 W6M
10	Woking	**0.3**	**41.1**	**0.3**		01-13-076-07 W6M
11	Webber Creek	**0.7**	**35.0**	**0.6**		09-36-074-09 W6M
12	Hythe	**0.2**	**42.4**	**0.6**		14-36-072-11 W6M
14	Sylvester	**0.1**	**36.3**	**0.7**		08-06-069-12 W6M
16	Beaverlodge	**0.4**	**50.2**	**0.9**		15-36-071-10 W6M
17	Poplar	**0.3**	**34.3**	**0.7**		13-06-073-08 W6M
18	Saddle Hills	**0.4**	**40.3**	**0.4**		04-25-074-07 W6M
19	Wanham	**0.2**	**42.1**	**0.2**		16-22-077-03 W6M
20	Shaftesbury	**0.2**	**43.5**	**0.2**		04-03-082-23 W5M
21	Eaglesham	**BDL**	**44.8**	**0.3**		16-21-079-25 W5M
23	Bear Lake	**0.3**	**38.4**	**0.9**		15-31-072-06 W6M

PAZA Passive Results for April 2012 (Continued)

24	Wembley	**0.2**	**36.4**	**1.0**		12-31-070-08 W6M
25	Pinto Creek	**0.2**	**39.9**	**0.6**		04-24-069-11 W6M
26	Flyingshot	**0.2**	**42.4**	**0.9**		15-36-070-07 W6M
27	Grande Prairie I	**0.3**	**40.4**	**2.1**		08-15-071-06 W6M
28	Clairmont Lake	**0.2**	**40.6**	**0.5**		09-06-073-04 W6M
29	Smoky Heights	**0.4**	**42.2**	**0.3**		04-06-075-02 W6M
30	Fitzsimmons	**0.2**	**37.8**	**0.3**		15-36-072-03 W6M
32	Gold Creek	**0.3**	**30.0**	**0.9**		06-33-067-05 W6M
33	Wapiti	**0.1**	**40.5**	**0.2**		02-25-071-03 W6M
34	Puskwaskau	**0.1**	**38.6**	**BDL**		15-35-074-25 W5M
35	Jean Cote	**0.2**	**40.0**	**0.2**		12-35-079-21 W5M
36	Guy	**0.2**	**45.2**	**0.2**		03-04-076-22 W5M
37	Crooked Creek	**0.1**	**44.0**	**0.4**		16-01-071-26 W5M
38	Karr Creek	**0.1**	**33.3**	**0.5**		10-16-065-02 W6M
39	Clouston Creek	**0.3**	**42.0**	**0.2**		12-01-073-22 W5M
40	McLennan	**0.2**	**44.0**	**0.2**		03-29-077-19 W5M
41	Valleyview	**0.2**	**38.7**	**0.3**		09-30-069-22 W5M
42	Sunset House	**0.2**	**45.2**	**0.2**		05-32-070-19 W5M
43	High Prairie	**BDL**	**46.4**	**0.3**		16-13-074-17 W5M
44	Peavine	**0.2**	**41.6**	**0.2**		03-05-079-15 W5M
45	Gift Lake	**0.1**	**35.4**	**0.2**	**0.1**	10-07-079-12 W5M
46	Little Smoky	**0.2**	**37.9**	**0.9**		12-01-065-21 W5M
47	Kinuso	**0.1**	**39.6**	**0.2**		12-10-073-10 W5M
48	Deer Mountain	**0.2**	**38.3**	**0.4**		15-22-068-09 W5M
49	Grande Prairie HP	**0.3**	**38.7**	**2.8**		17-26-071-06 W6M
62	East Prairie	**0.1**	**39.1**	**0.2**		13-02-072-15 W5M
63	Girouxville 3				**0.2**	14-02-077-23 W5M
64	Girouxville 4				**0.1**	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample



Duplicate Summary Chart

Passive Summary for April 2012

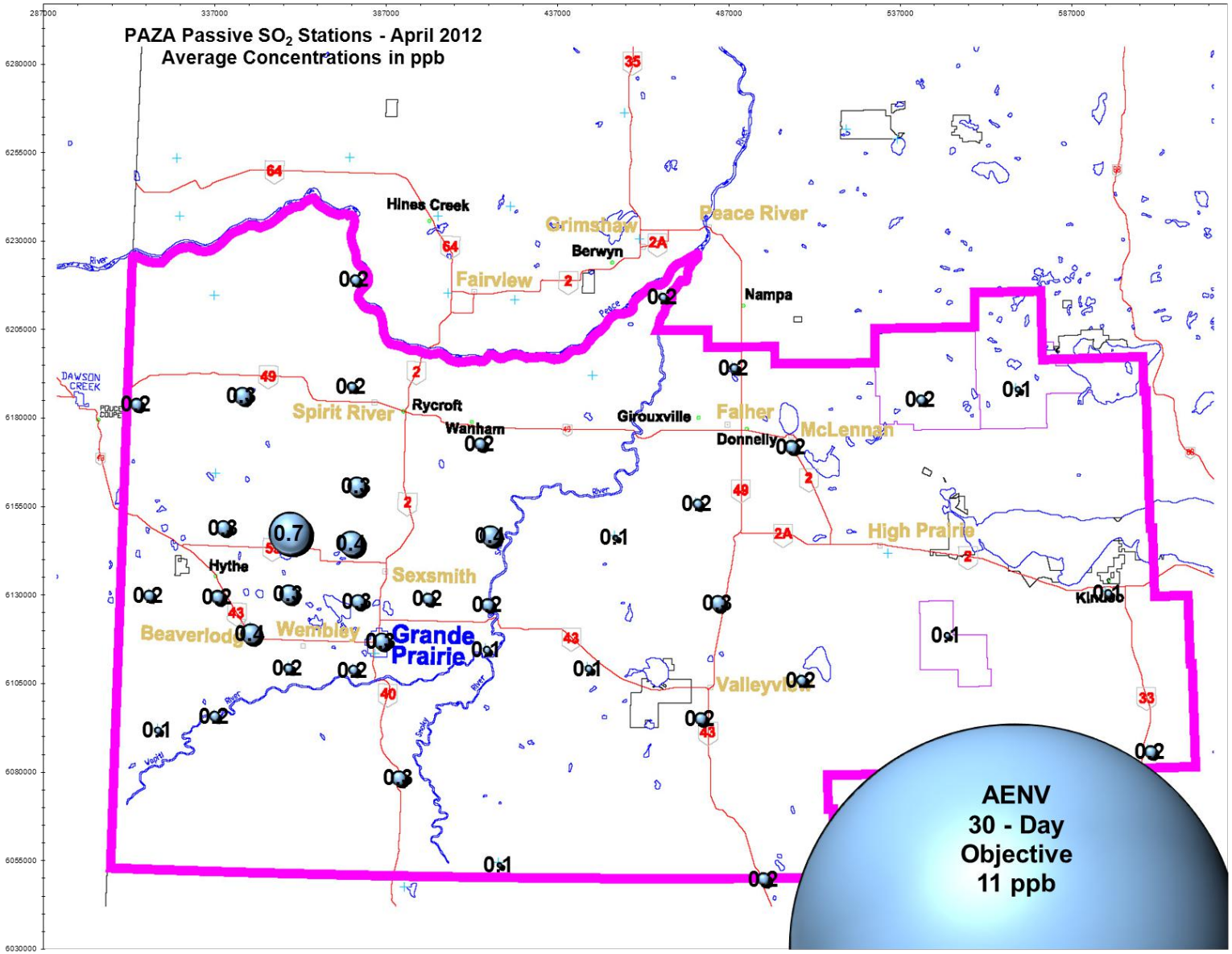
Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2	Hydrogen Sulphide H_2S
	ppb	ppb	ppb	ppb
	Passive Summary for April 2012 (PAZA Zone)			
Mean	**0.2**	**40.2**	**0.5**	**0.1**
Standard Deviation	**0.1**	**4.0**	**0.5**	**0.0**
Minimum	**0.1**	**30.0**	**0.2**	**0.1**
Minimum At	**Karr Creek (#38)**	**Gold Creek (#32)**	**Clouston Creek (#39)**	**Gift Lake (#45)**
Maximum	**0.7**	**50.2**	**2.8**	**0.2**
Maximum At	**Webber Creek (#11)**	**Beaverlodge (#16)**	**Grande Prairie HP**	**Girouxville 3**

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

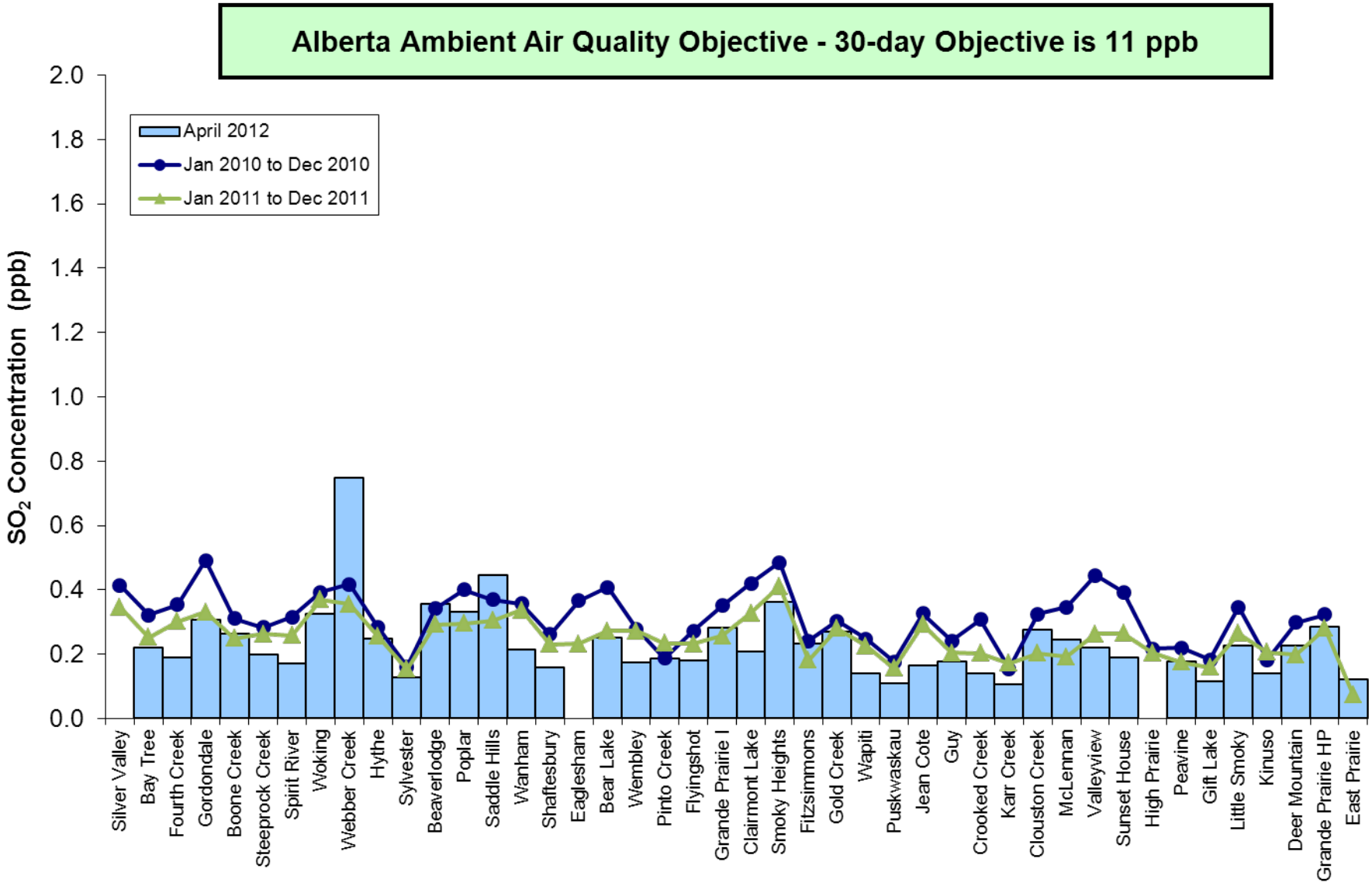
	SO_2	O_3	NO_2
PAZA Beaverlodge station	**0.3**	**38.9**	**2.0**
PAZA Beaverlodge passive	**0.4**	**50.2**	**0.9**

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

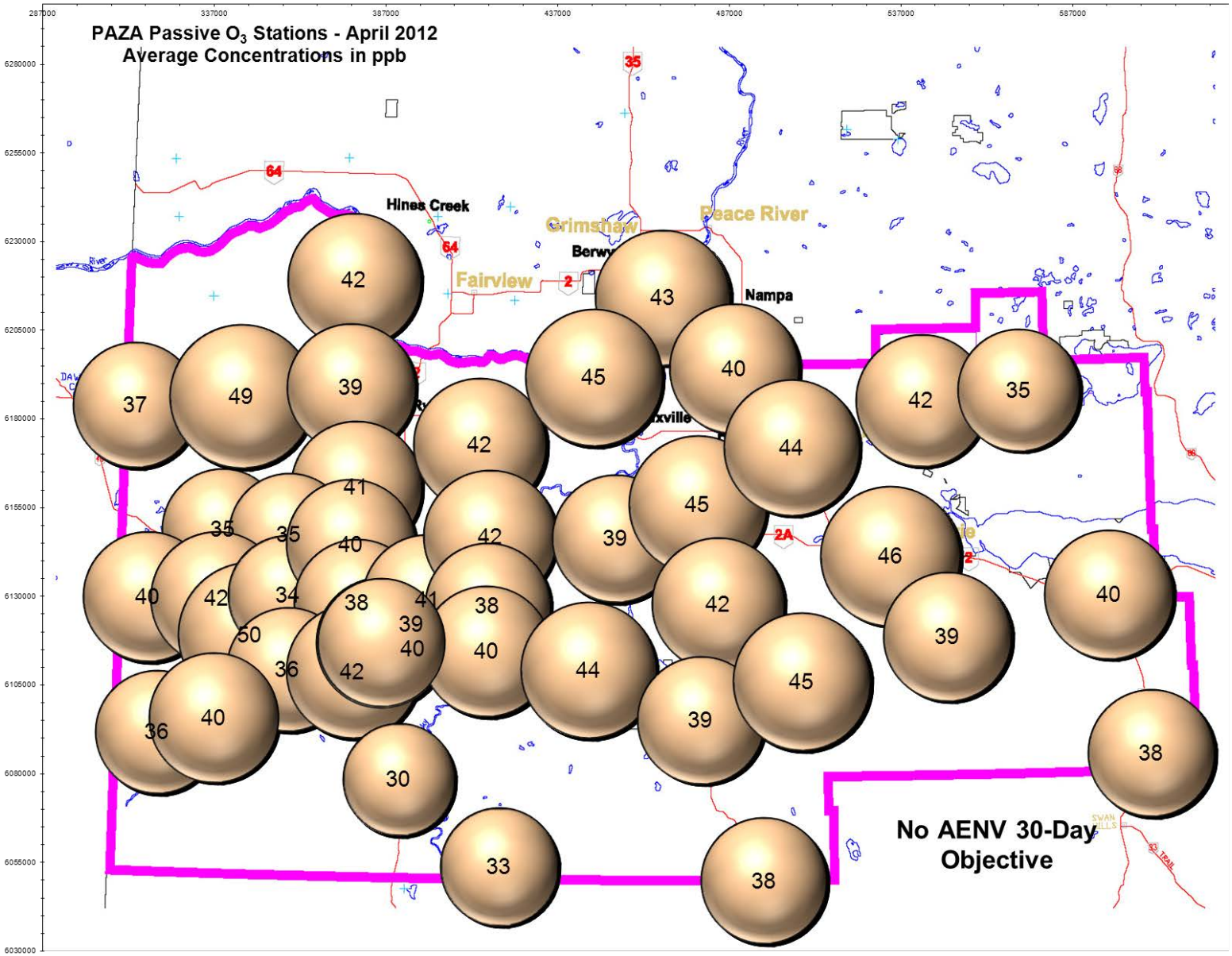
	SO_2	O_3	NO_2
PAZA Henry Pirker station	**0.3**	**33.6**	**5.4**
PAZA Grande Prairie passive	**0.3**	**38.7**	**2.8**



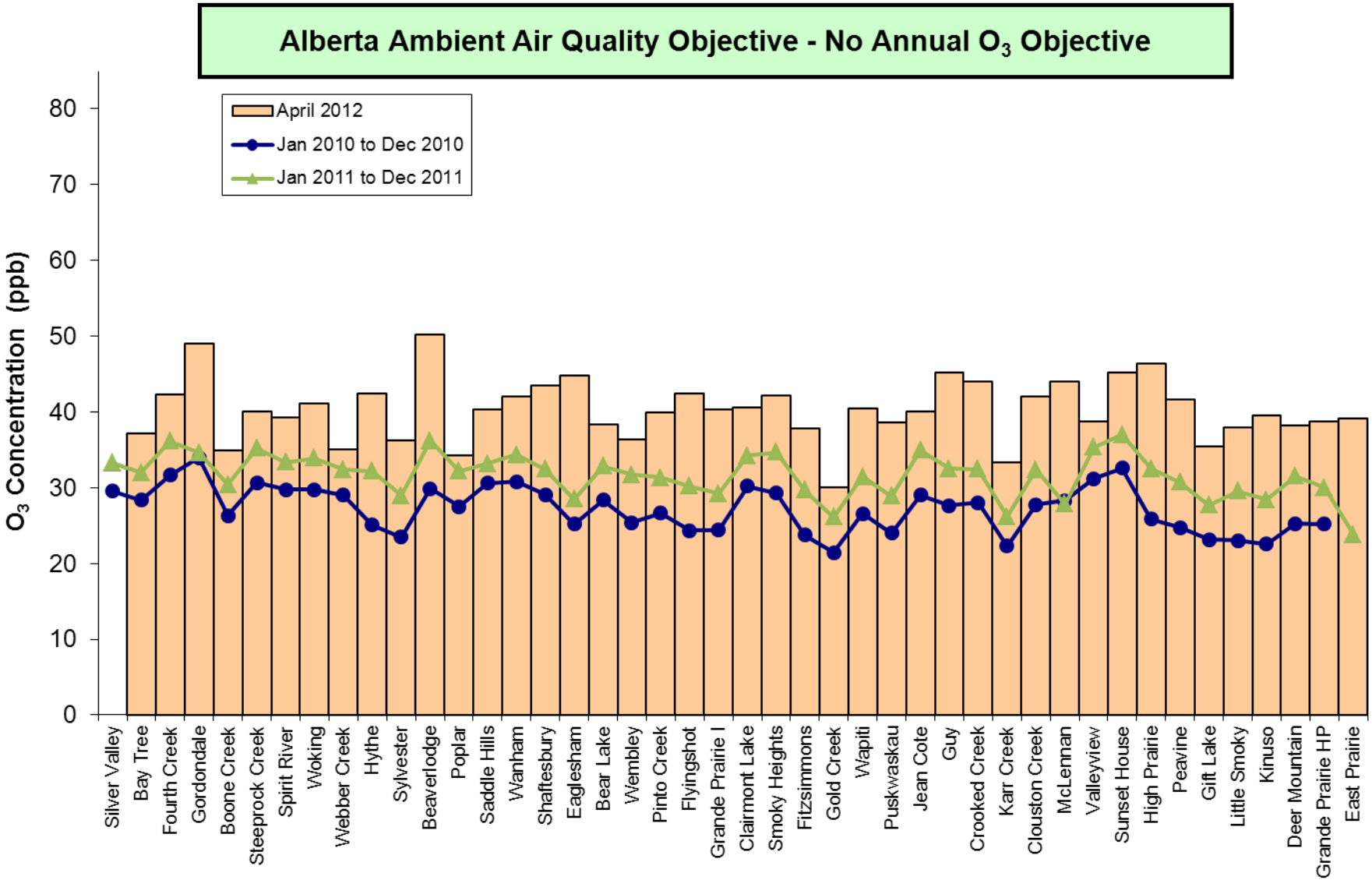
SO_2 Bubble Chart



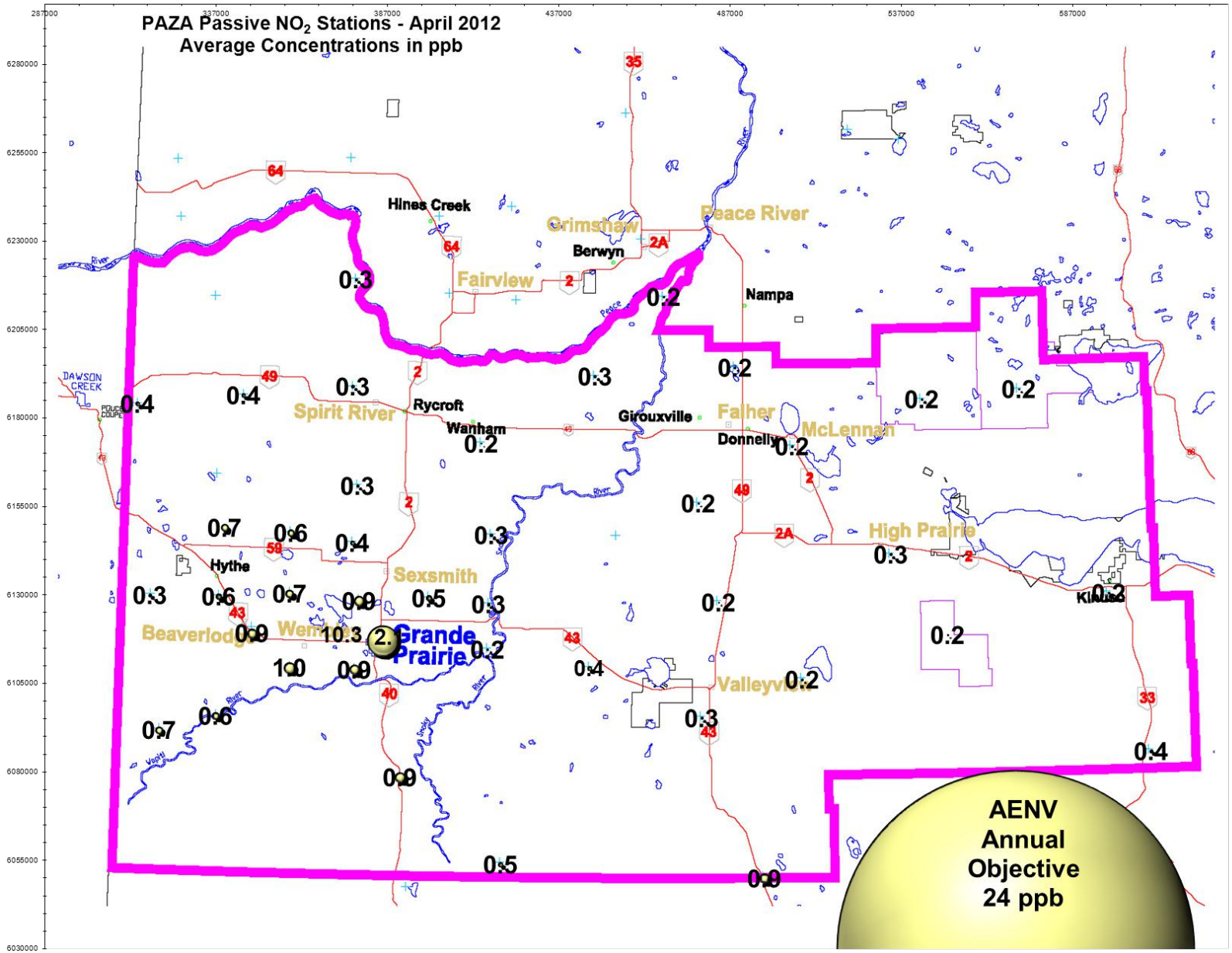
SO_2 Summary Chart



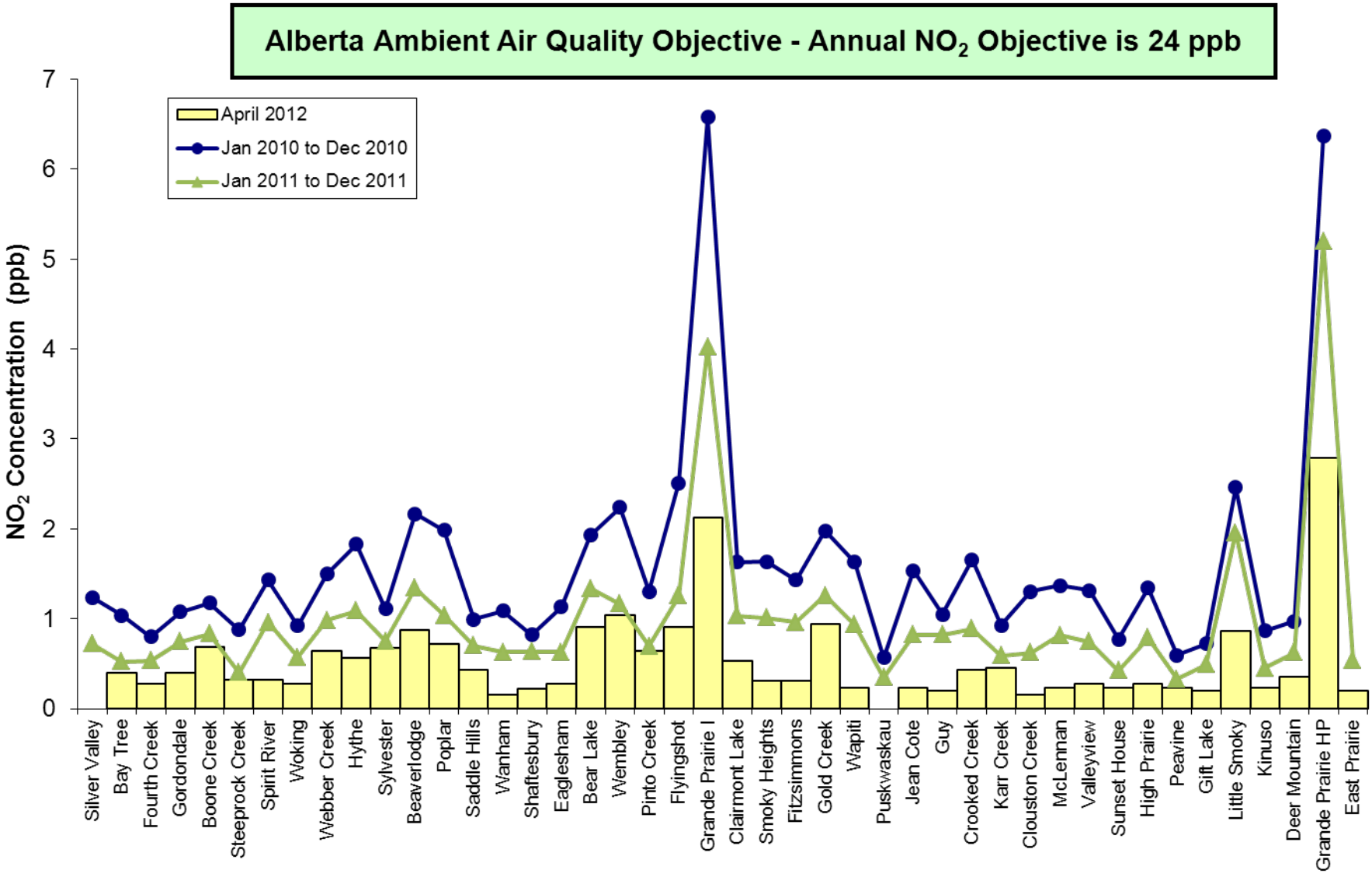
O_3 Bubble Chart



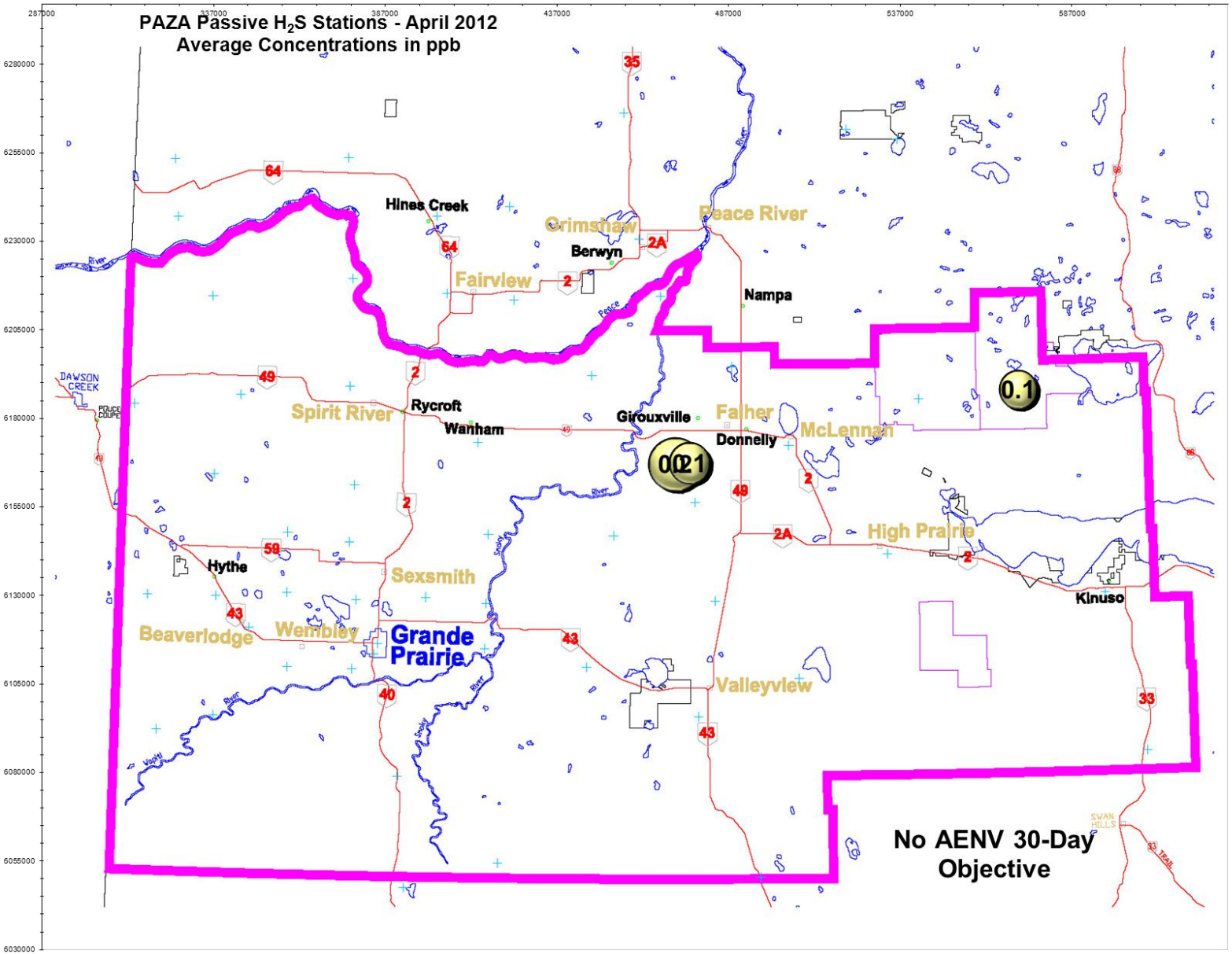
O_3 Summary Chart



NO_2 Bubble Chart



NO_2 Summary Chart



H_2S Bubble Chart

April 2012 Calibration Reports

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

PAZA – Evergreen Park Station with the following calibrations:
SO_2, TRS, $PM_{2.5}$

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

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

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

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 16, 2012	Previous Calibration	March 7, 2012
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	7:45	End Time (MST)	11:50
Barometric Pressure	0.908 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	1.005024	Calculated slope	0.999839
Calculated intercept	-2.022829	Calculated intercept	-1.634408
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.9		8.9	
Coefficient	0.772		0.772	
Pressure	641.9	mm Hg	641.4	mm Hg
Flow	0.512	lpm	0.508	lpm
Lamp Voltage	44383	Hz	44285	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	395.5	0.9976
4989	19.91	198.0	200.3	0.9884
4989	9.94	99.0	102.4	0.9673
4989	0.00	0.0	0.0	As Found Zero
4989	39.84	394.5	395.5	As Found Span
			Average Correction Factor	0.9845

Calculated value of As Found Response: 395.5 ppb Percent Change of As Found: -0.2%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	235.4	ppb	234.5	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

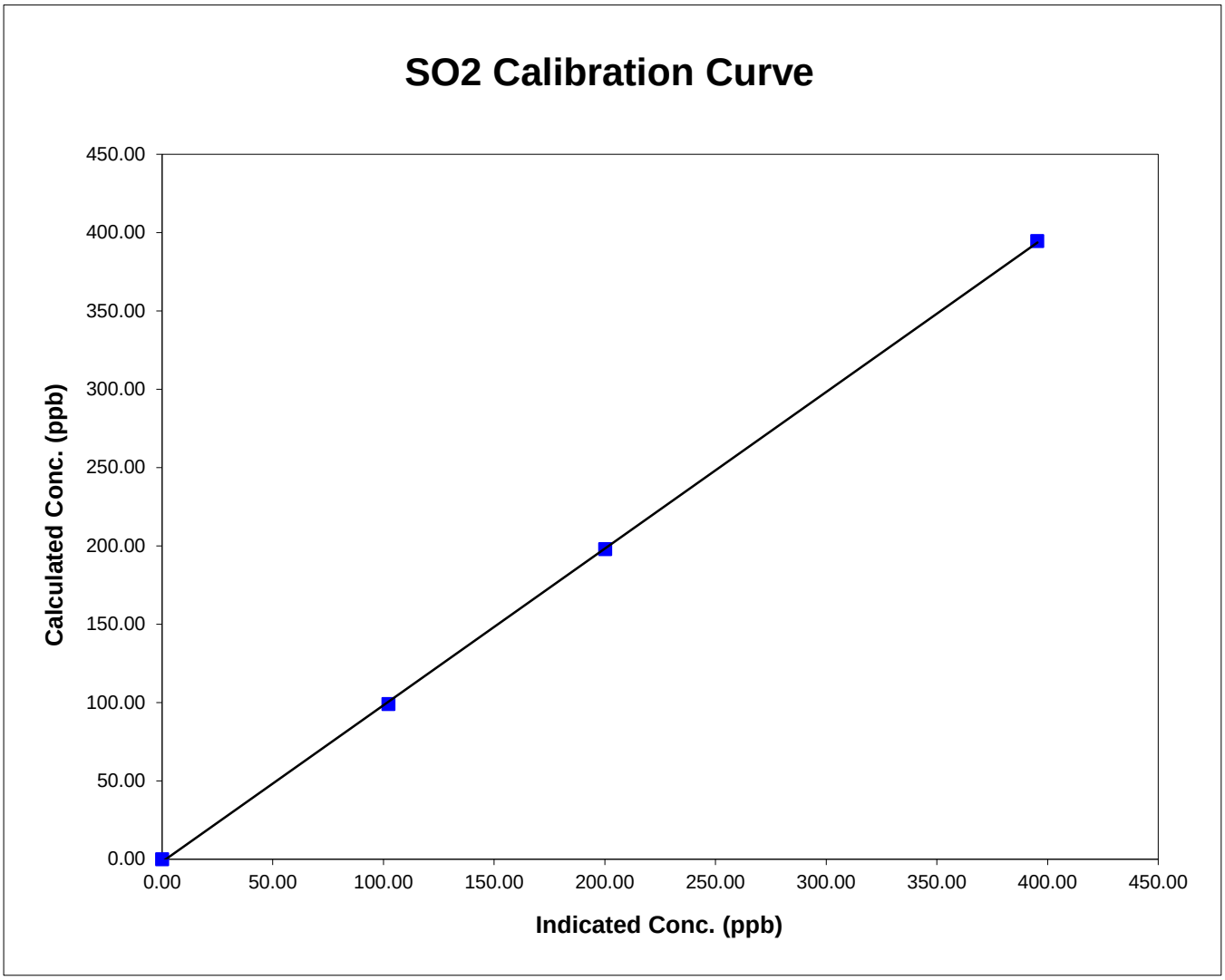
Air Monitoring Network **PAZA**

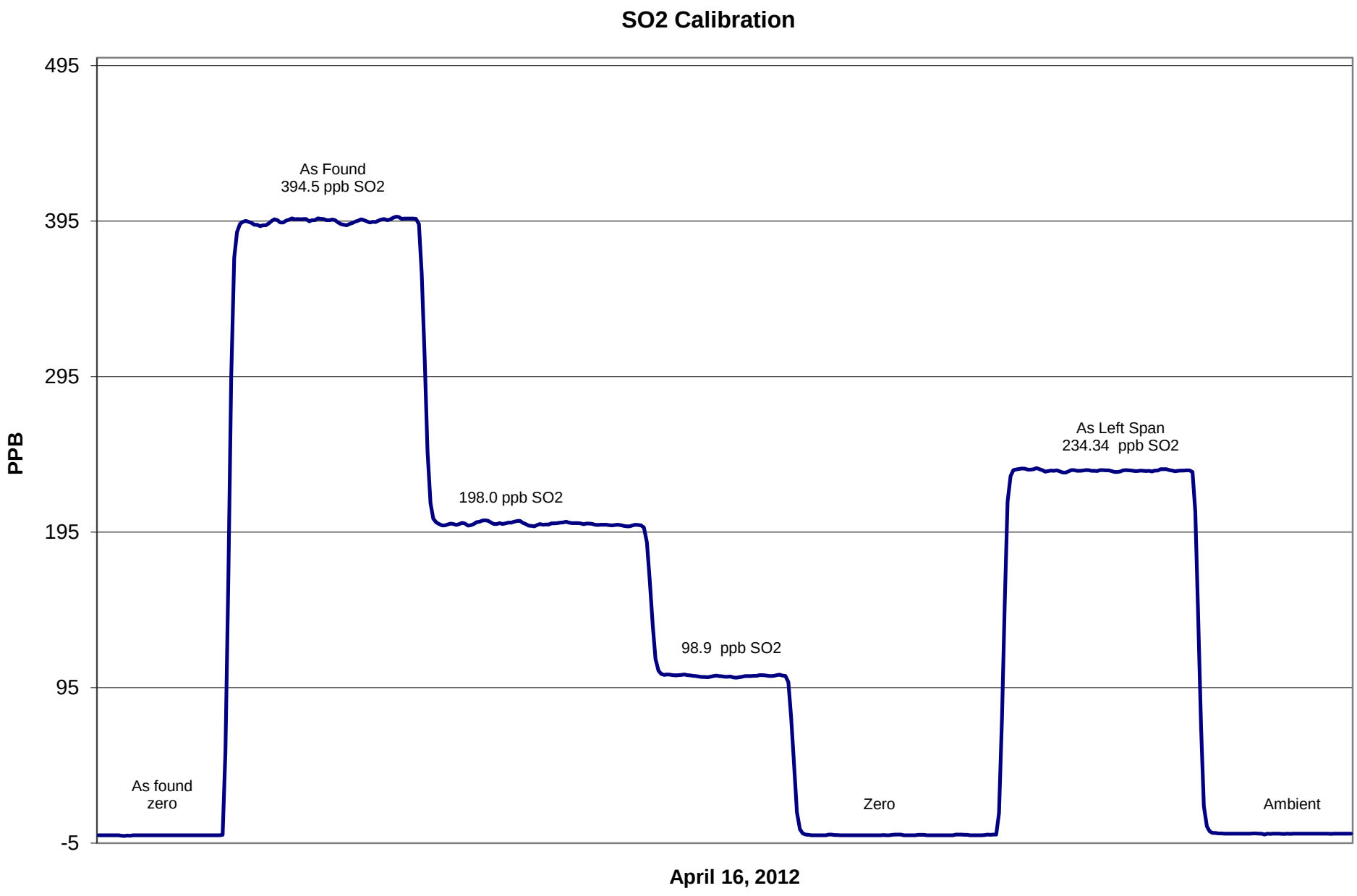
Station Information

Calibration Date	April 16, 2012	Previous Calibration	March 7, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:45	End Time (MST)	11:50
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	395.5	0.9976	Correlation Coefficient	0.999925
198.0	200.3	0.9884		
99.0	102.4	0.9673	Slope	0.999839
			Intercept	-1.634408




SO2 Calibration
495
395
295
195
95
-5
PPB
As Found
394.5 ppb SO2
198.0 ppb SO2
98.9 ppb SO2
As Left Span
234.34 ppb SO2
As found
zero
Zero
Ambient
April 16, 2012

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 16, 2012	Previous Calibration	March 7, 2012
Station Number	1	Station Location	Henry Pirker

Reason: Routine Installation Removal Other:

Start Time (MST)	7:45		End Time (MST)	13:30	
Barometric Pressure	0.908	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	0.998671	0.996737	0.995497
	Data Offset	-0.937001	-1.690517	-1.306321
After	Data Slope	1.007822	1.001801	1.002029
	Data Offset	0.588813	-2.376591	-2.264507
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	10.7	mV	10.8	mV
NOx bkgnd	11.0	mV	11.1	mV
NO coefficient	0.786		0.792	
NOx coefficient	1.001		0.999	
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	174.6	in Hg	175.7	in Hg

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Calibration Date: April 16, 2012 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	0.1	0.0	0.0	N/A	N/A
1	4989	39.82	415.7	415.7	0.0	416.2	415.9	0.2	0.9988	0.9995
2	4989	19.91	208.7	208.7	0.0	211.7	211.7	-0.1	0.9859	0.9856
3	4989	9.94	104.4	104.4	0.0	109.0	108.7	0.2	0.9576	0.9604
AFZ	4989	0.00	0.0	0.0	0.0	0.1	0.0	0.0	0.0000	0.0000
AFS	4989	39.83	415.8	415.8	0.0	414.9	413.9	1.0	1.0022	1.0047
							Average Correction Factor		0.9808	0.9819

As Found Concentrations: NO_X= 413.1 NO= 412.6 As Found Percent Change NO_X= -0.6% 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	0.1	0.0	0.0	N/A	N/A	N/A	N/A
NO point	415.9	415.9	0.0	415.6	415.9	-0.3	1.0007	1.0000	N/A	N/A
300	415.9	130.9	285.0	414.6	130.9	284.0	1.0030	1.0000	1.0036	99.6%
200	415.9	215.9	200.0	410.8	215.9	195.0	1.0123	1.0000	1.0254	97.5%
100	415.9	306.2	109.7	414.8	306.2	108.6	1.0026	1.0000	1.0093	99.1%
					Average Correction Factor		1.0060	1.0000	1.0128	98.7%

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	0.0	0.0	ppb	0.1	0.0	0.1	ppb
Auto span	168.4	169.5	1.2	ppb	161.9	161.0	1.0	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

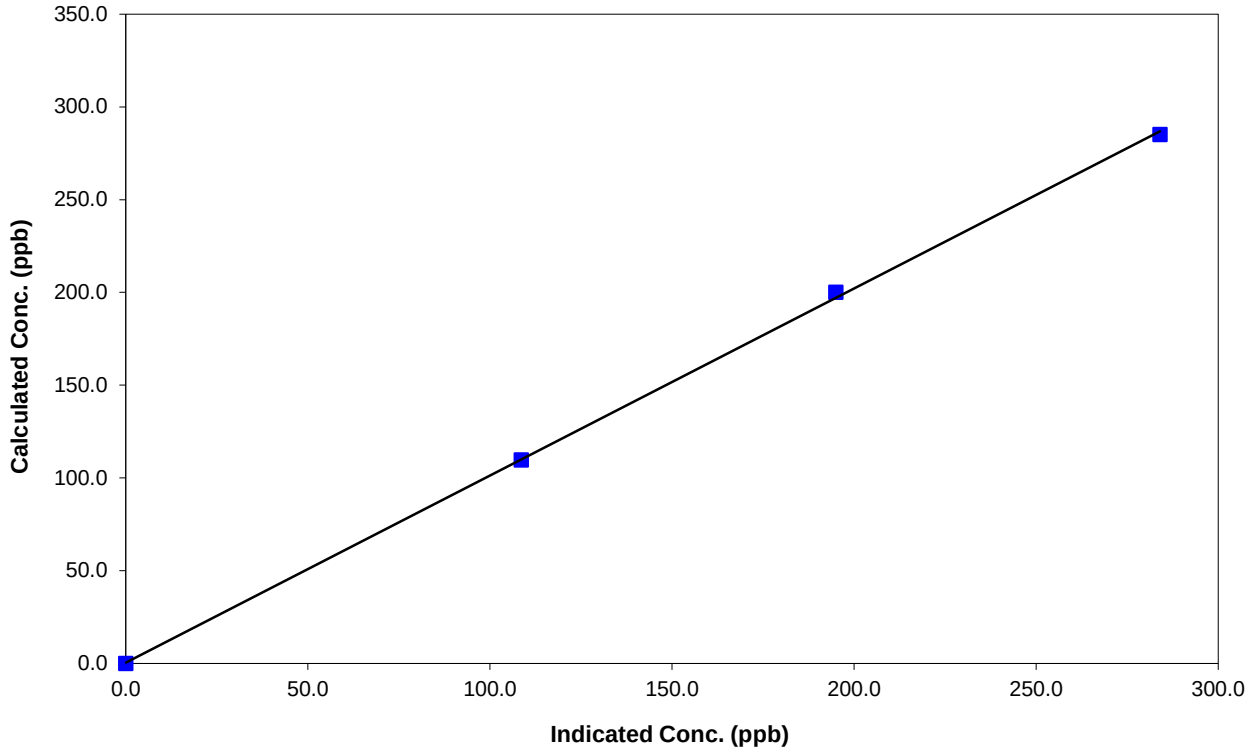
Station Information

Calibration Date	April 16, 2012	Previous Calibration	March 7, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:45	End Time (MST)	13:30
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		
285.0	284.0	1.0036	Correlation Coefficient	0.999735
200.0	195.0	1.0254		
109.7	108.6	1.0093	Slope	1.007822
			Intercept	0.588813

NO_2 Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

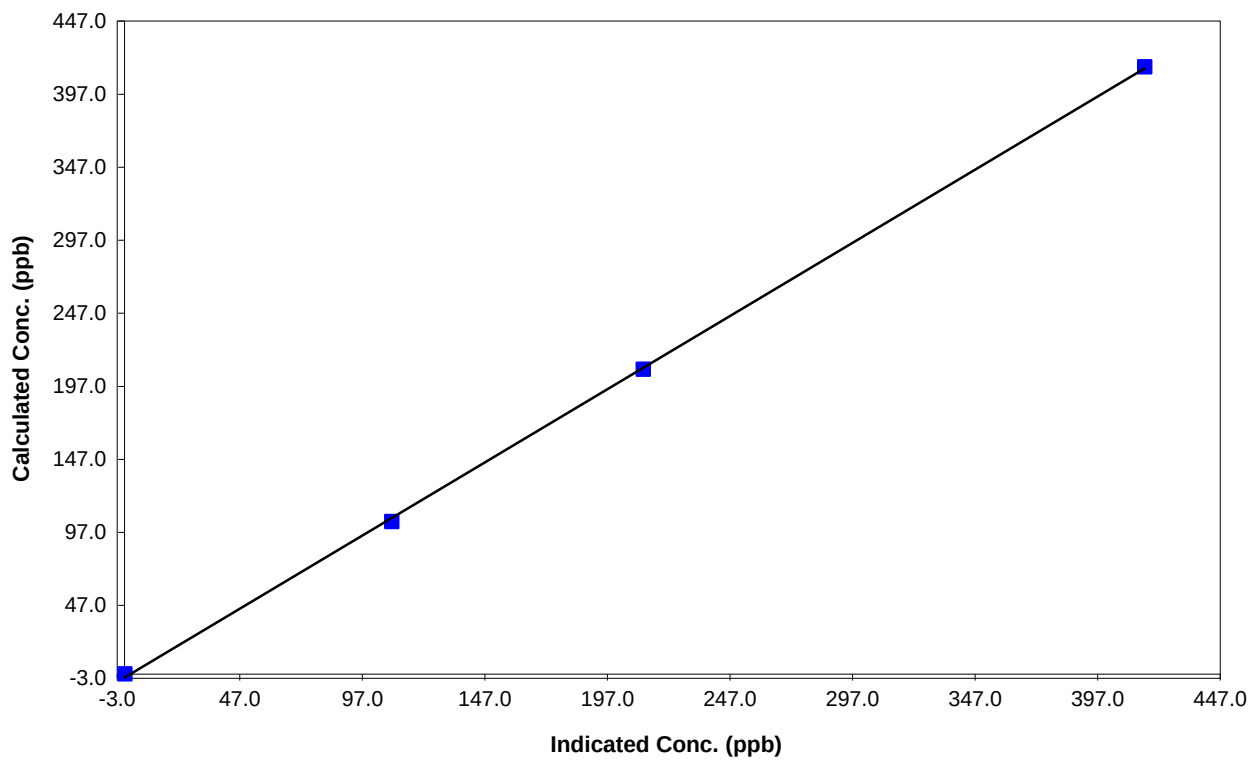
Station Information

Calibration Date	April 16, 2012	Previous Calibration	March 7, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:45	End Time (MST)	13:30
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	0.1	N/A		
415.7	416.2	0.9988	Correlation Coefficient	0.999858
208.7	211.7	0.9859		
104.4	109.0	0.9576	Slope	1.001801
			Intercept	-2.376591

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

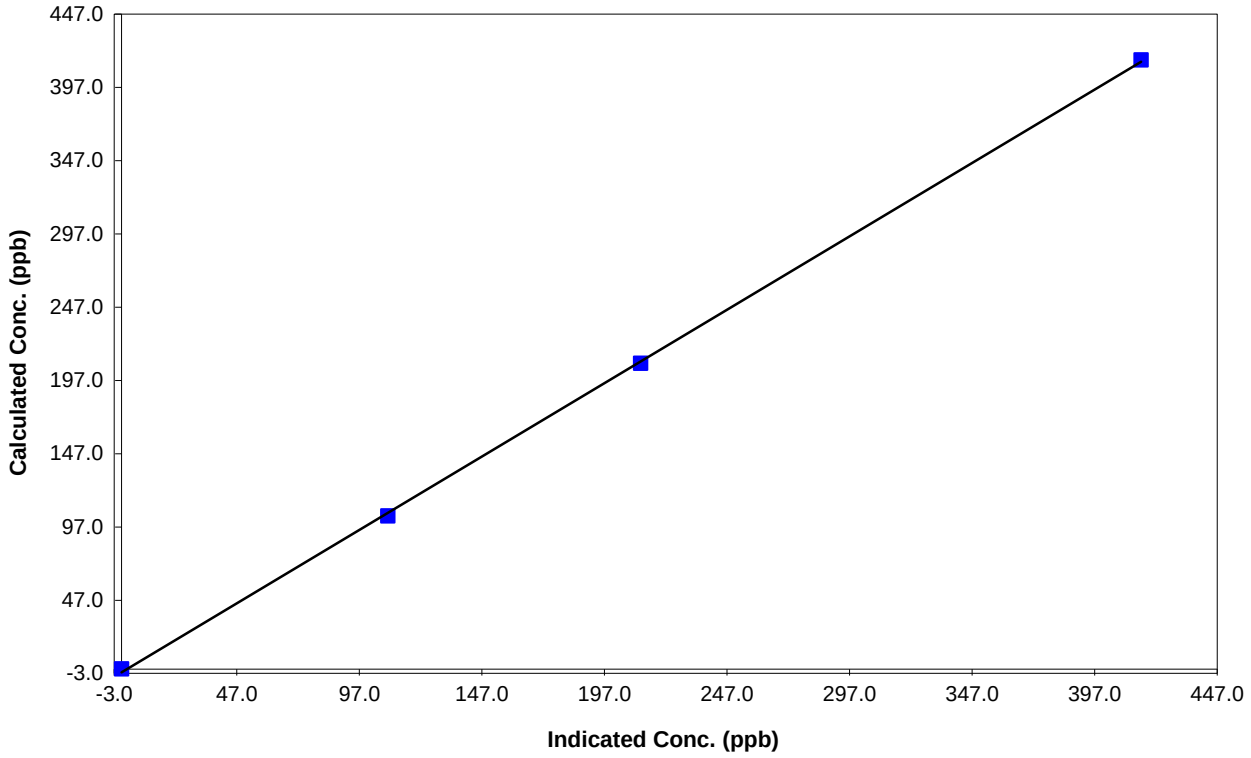
Station Information

Calibration Date	April 16, 2012	Previous Calibration	March 7, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:45	End Time (MST)	13:30
Analyzer make	TEI 42C	Analyzer serial #	508011073

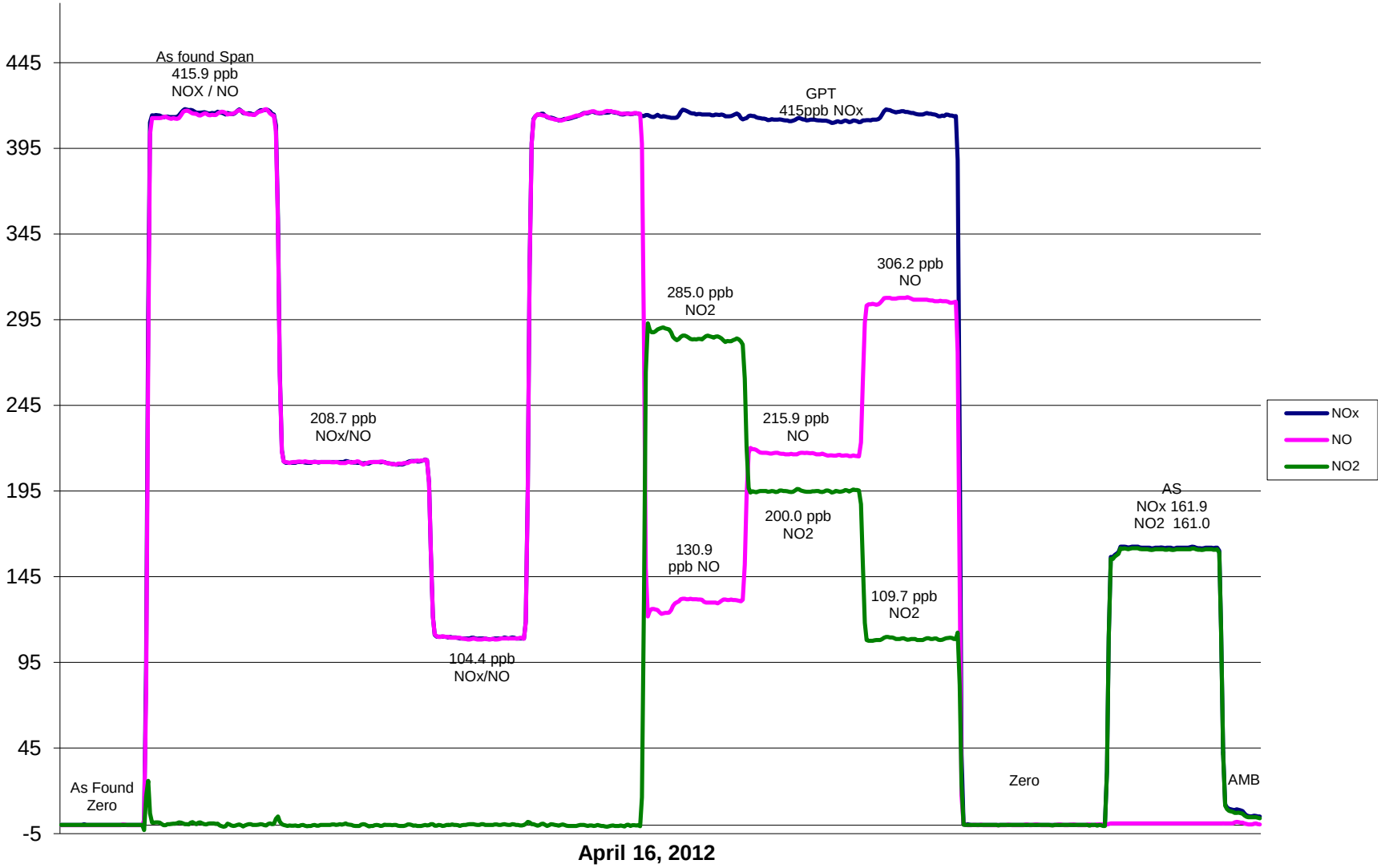
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
415.7	415.9	0.9995	Correlation Coefficient	0.999862
208.7	211.7	0.9856		
104.4	108.7	0.9604	Slope	1.002029
			Intercept	-2.264507

NO Calibration Curve



PASZA
NO_X Calibration



Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 16, 2012	Previous Calibration	March 7, 2012
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:30	End Time (MST)	15:30
Barometric Pressure	0.908 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	1.045328	Calculated slope	1.012513
Calculated intercept	-0.903123	Calculated intercept	0.971830
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		1.069	
O3 Lamp temp	71.1	Deg C	71.1	Deg C
Intensities	79405/69544	mV	79005/69666	mV
Pressure	698.6	inches Hg	698.3	inches Hg
Flow A	0.726	ccm	0.726	ccm
Flow B	0.744	ccm	0.743	ccm

Calibration Data

Dilution air flow rate (cc/min)	Referenced concentration (ppb)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0	0.0	0.4	N/A
4989	300	285.0	282.8	1.0079
4989	200	200.0	193.7	1.0328
4989	100	109.7	106.7	1.0282
4989	0	0.0	0.4	As found zero
4989	300	285.0	267.1	As found span
			Average Correction Factor	1.0230

Calculated value of As Found Response: 277.9 ppm Percent Change of As Found: -2.5%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	161.8	ppb	157.0	ppb

Notes: Span adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

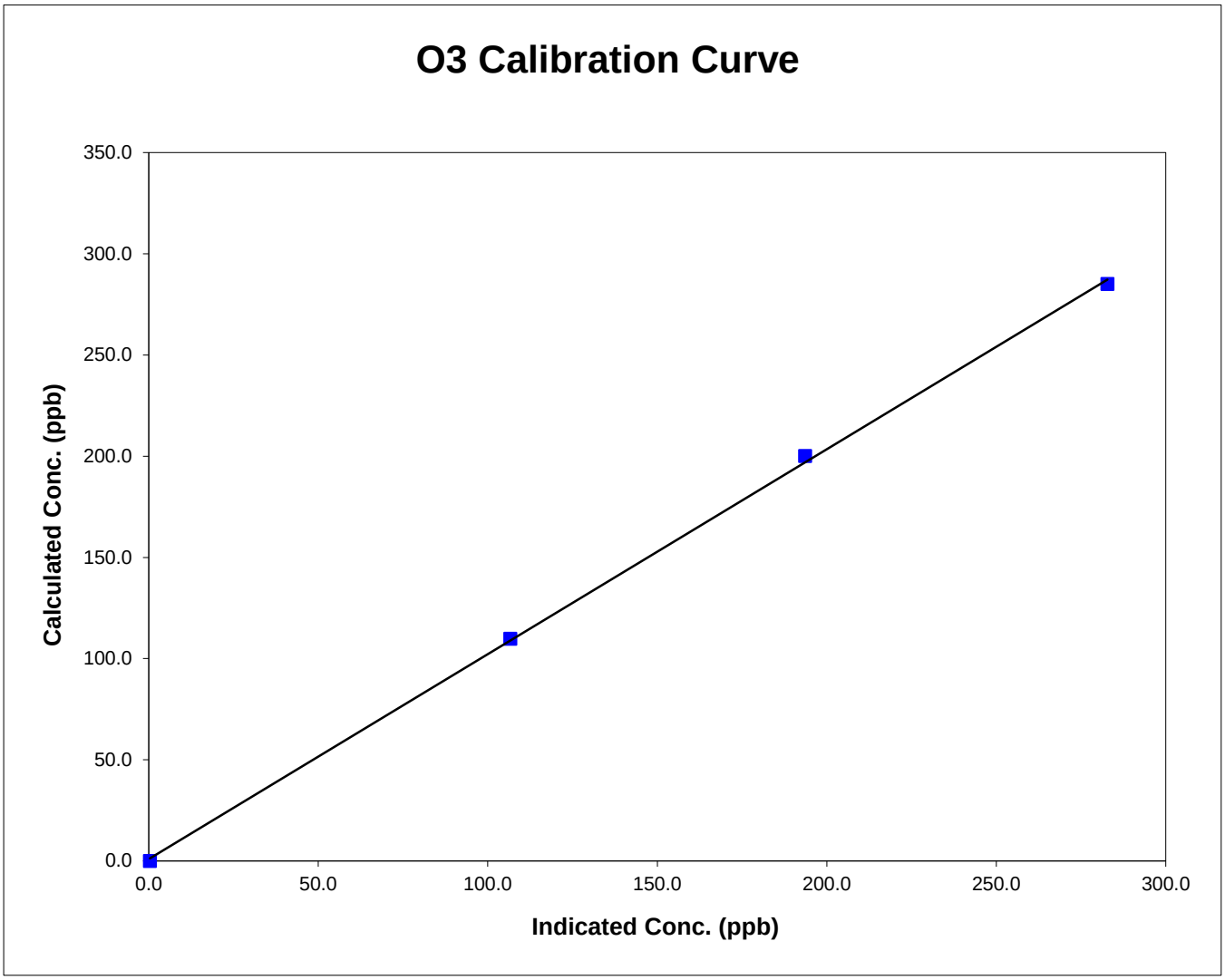
FOCUS AIR QUALITY MONITORING

Station Information

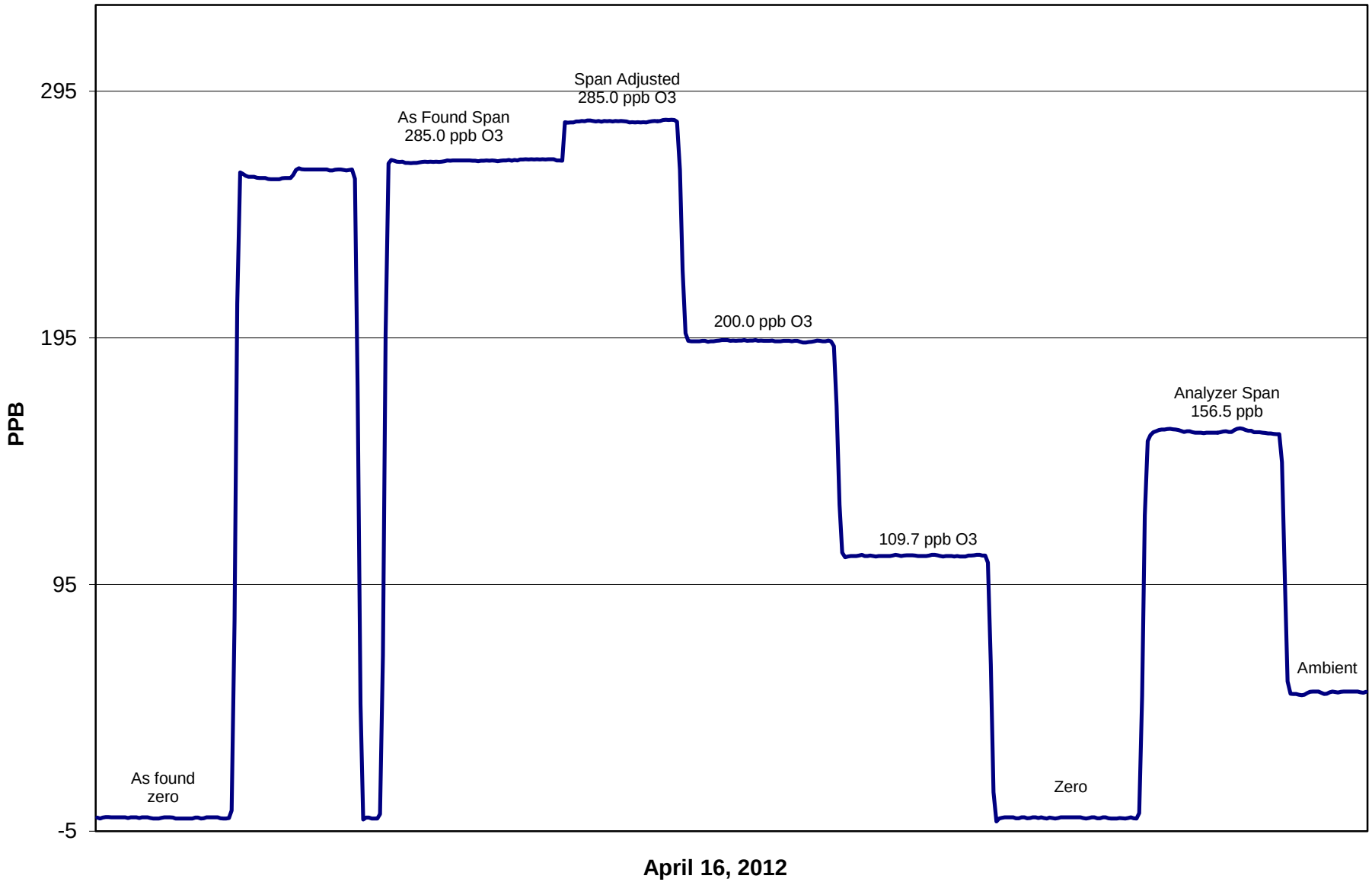
Calibration Date	April 16, 2012	Previous Calibration	March 7, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:30	End Time (MST)	15:30
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	NA		
285.0	282.8	1.0079	Correlation Coefficient	0.999636
200.0	193.7	1.0328		
109.7	106.7	1.0282	Slope	1.012513
			Intercept	0.971830



O3 Calibration



April 16, 2012

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **CO**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 17, 2012	Previous Calibration	March 6, 2012
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:10	End Time (MST)	13:00
Barometric Pressure	0.918 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	1.008923	Calculated slope	1.004032
Calculated intercept	-0.496863	Calculated intercept	-0.555700
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	2.459		3.035	
Sample pressure	680.7	mm Hg	680.6	mm Hg
Sample Flow	1.140	LPM	1.140	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)
4988	0.00	0.00	0.37	N/A
4988	39.83	23.77	24.12	0.9852
4988	19.90	11.92	12.53	0.9517
4988	9.93	5.96	6.68	0.8924
4988	0.00	0.00	0.37	As Found Zero
4988	39.85	23.78	24.12	As Found Span
			Average Correction Factor	0.9431

Calculated value of As Found Response: 23.472 ppm Percent Change of As Found: 1.3%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.56	ppm	19.46	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **CO**

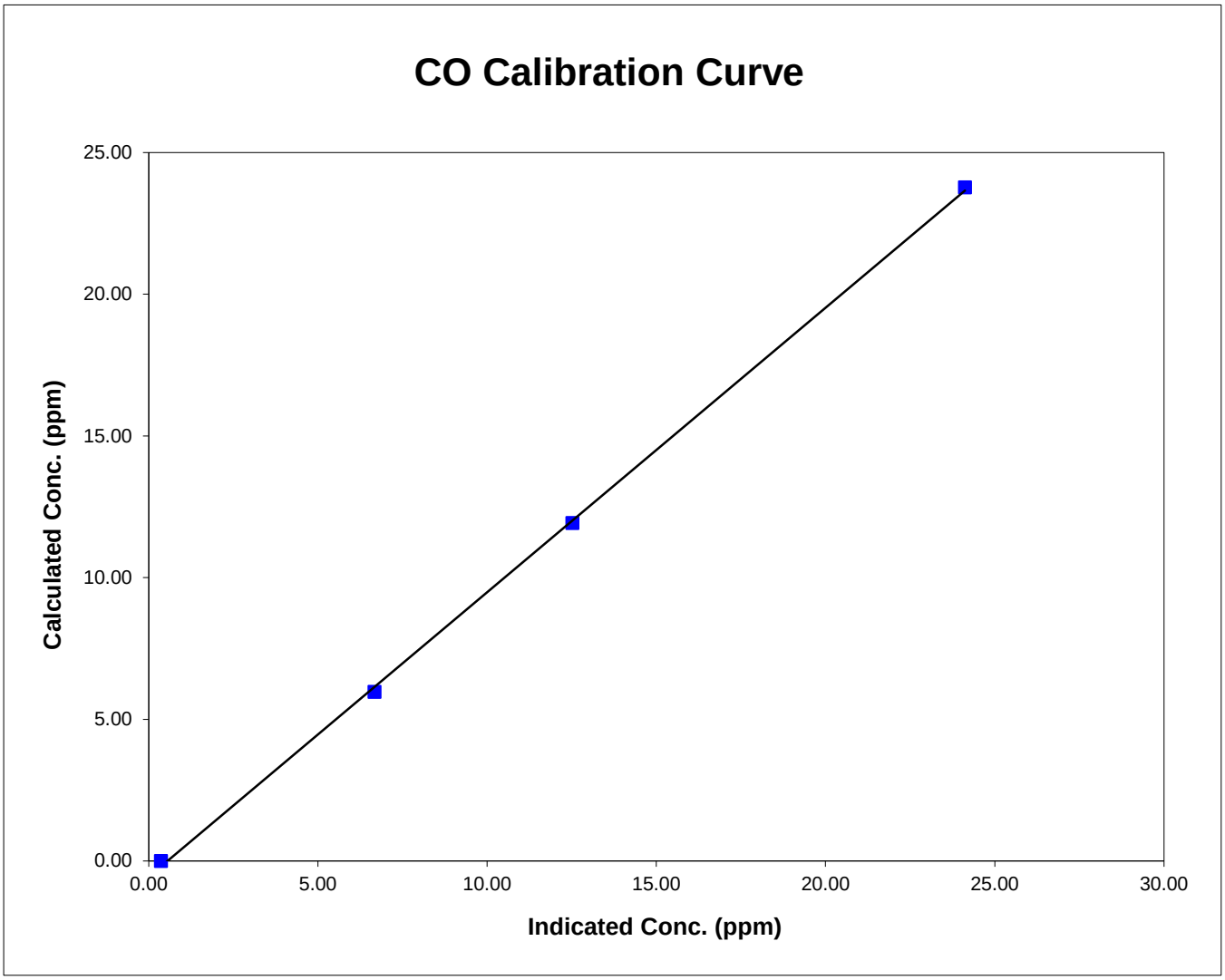
Air Monitoring Network **PAZA**

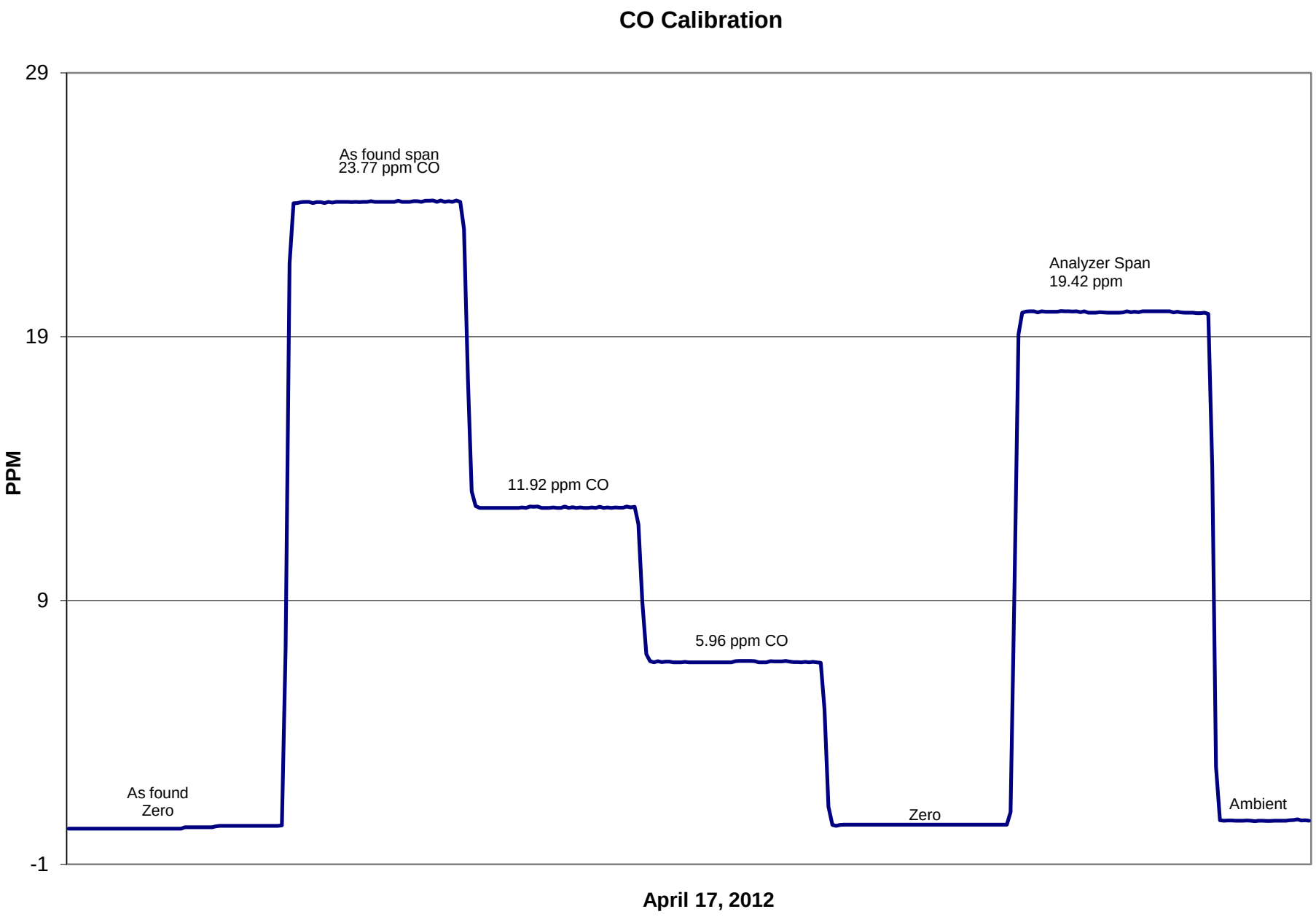
Station Information

Calibration Date	April 17, 2012	Previous Calibration	March 6, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:10	End Time (MST)	13:00
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	0.366	N/A		
23.766	24.123	0.9852	Correlation Coefficient	0.999703
11.921	12.526	0.9517		
5.960	6.679	0.8924	Slope	1.004032
			Intercept	-0.555700




CO Calibration
29
19
9
-1
PPM
As found span
23.77 ppm CO
11.92 ppm CO
5.96 ppm CO
Analyzer Span
19.42 ppm
As found
Zero
Zero
Ambient
April 17, 2012

Calibration Report

Parameter **THC**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 17, 2012	Previous Calibration	March 6, 2012
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	11:57	End Time (MST)	14:45
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	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	1.056003	Calculated slope	1.044968
Calculated intercept	-0.220889	Calculated intercept	-0.320932
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	0.29	N/A
4989	69.79	21.01	20.44	1.0283
4989	29.87	9.07	8.92	1.0165
4989	9.92	3.02	3.26	0.9281
4989	0.00	0.00	0.30	As Found Zero
4989	69.79	21.01	20.44	As Found Span
			Average Correction Factor	0.9909

Calculated value of As Found Response: 21.042 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.10	ppm	-0.02	ppm
Auto span	21.83	ppm	22.81	ppm

Notes: No adjust.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **THC**

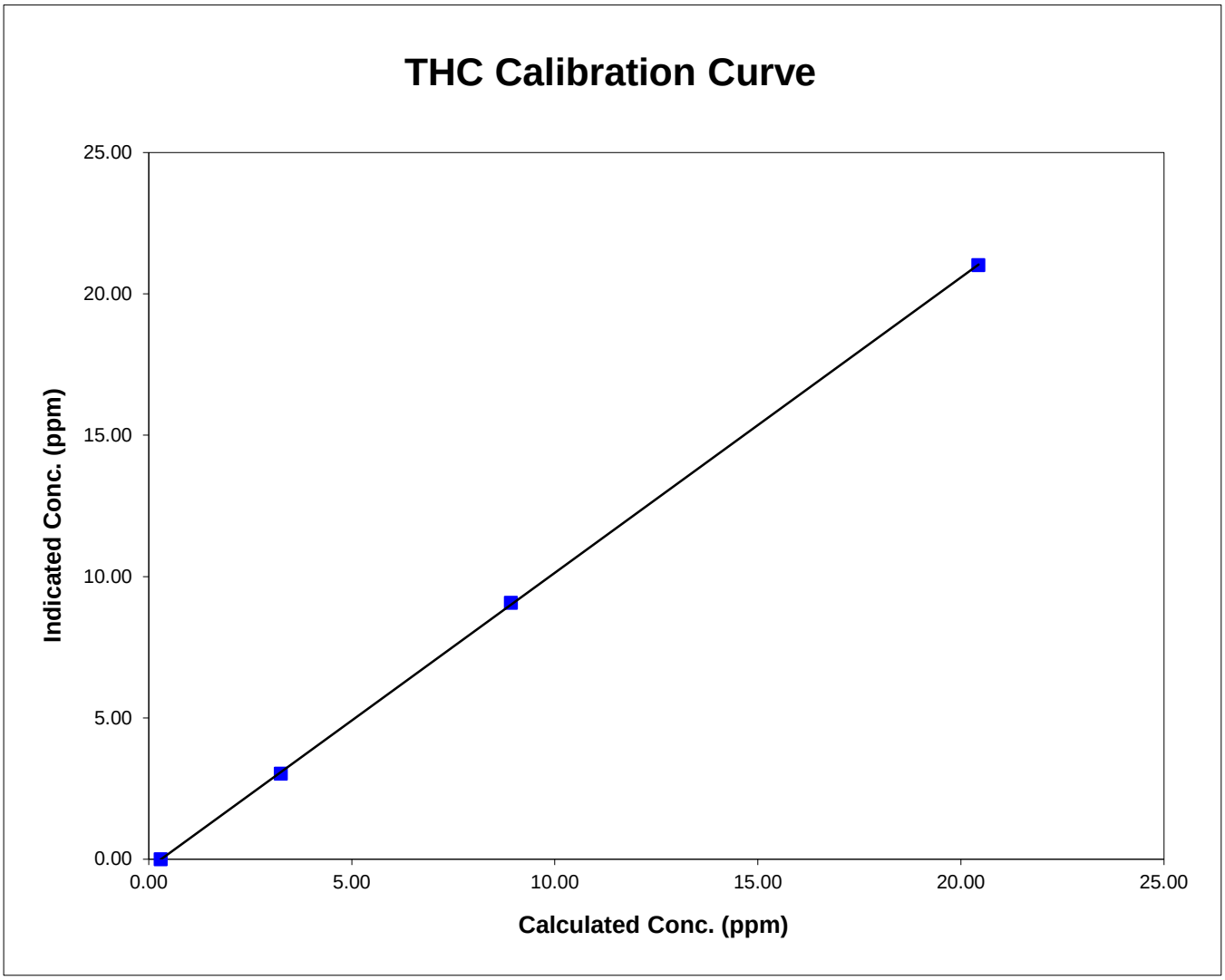
Air Monitoring Network **PAZA**

Station Information

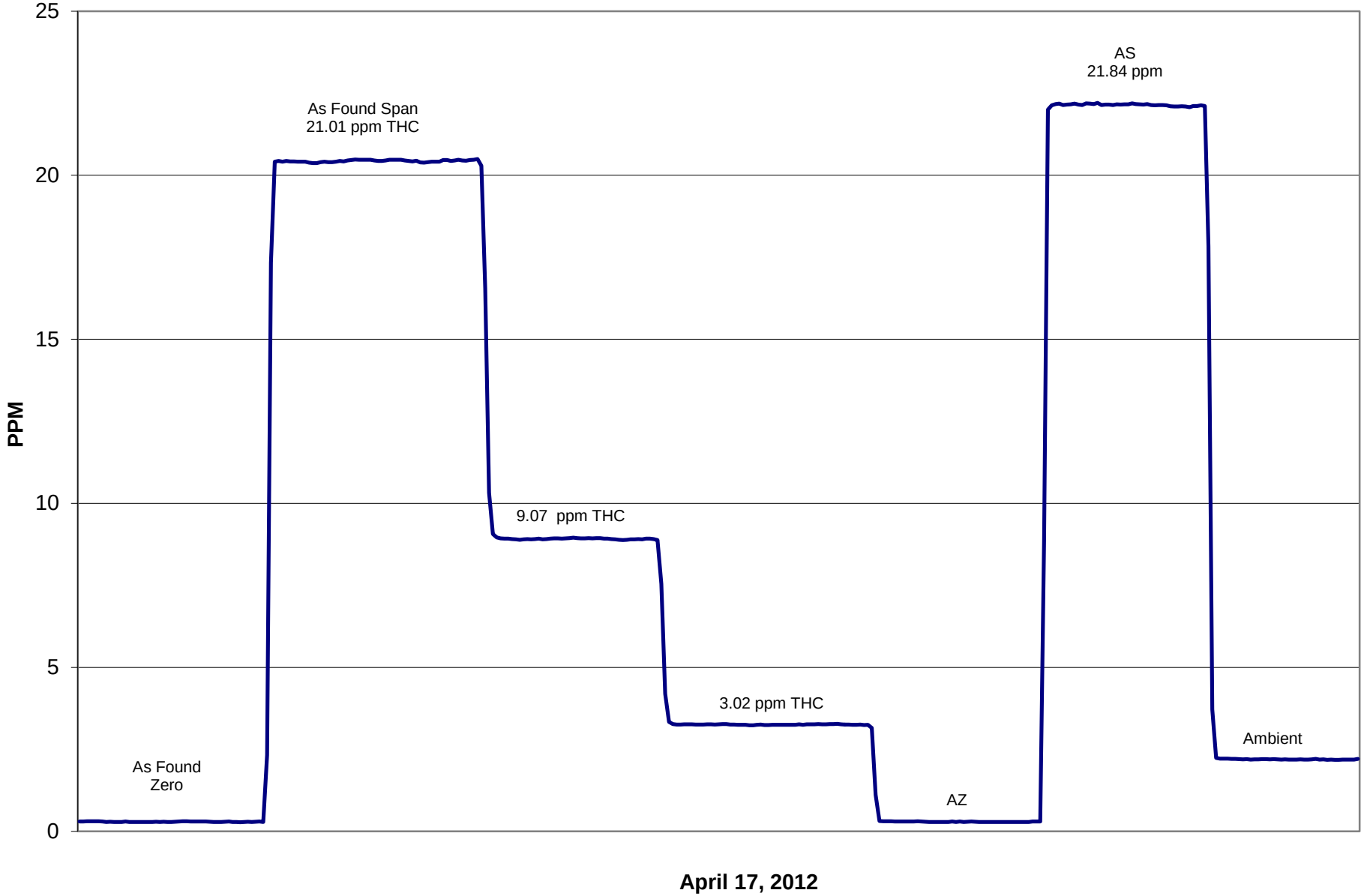
Calibration Date	April 17, 2012	Previous Calibration	March 6, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:57	End Time (MST)	14:45
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.295	N/A		
21.014	20.436	1.0283	Correlation Coefficient	0.999967
9.066	8.919	1.0165		
3.023	3.257	0.9281	Slope	1.044968
			Intercept	-0.320932



THC Calibration



Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 17, 2012	Previous Calibration	March 8, 2012
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	8:00	End Time (MST)	11:30
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.77 ppb	Cal Gas Expiry Date	9/3/2011
		Cal Gas Cylinder #	BLM001434
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.028945	Calculated slope	1.017809
Calculated intercept	-0.210201	Calculated intercept	-0.045360
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	1.066		1.066	
Background	10.8		10.8	
Pressure	660.6	mm Hg	660.6	mm Hg
Flow	0.458	ccm	0.457	ccm
Lamp Voltage	822	V	822	V

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)		Correction factor (Cc/Ic)
4989	0.00	0.00	0.07	N/A
4989	69.78	79.59	78.28	1.0168
4989	34.88	40.06	39.33	1.0186
4989	8.96	10.34	10.22	1.0120
4989	0.00	0.00	0.11	As Found Zero
4989	69.78	79.59	78.28	As Found Span
			Average Correction Factor	1.0158

Calculated value of As Found Response: 80.2 ppb Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	-0.29	ppb	0.28	ppb
Auto span	33.10	ppb	33.08	ppb

Notes: No span adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PAZA**

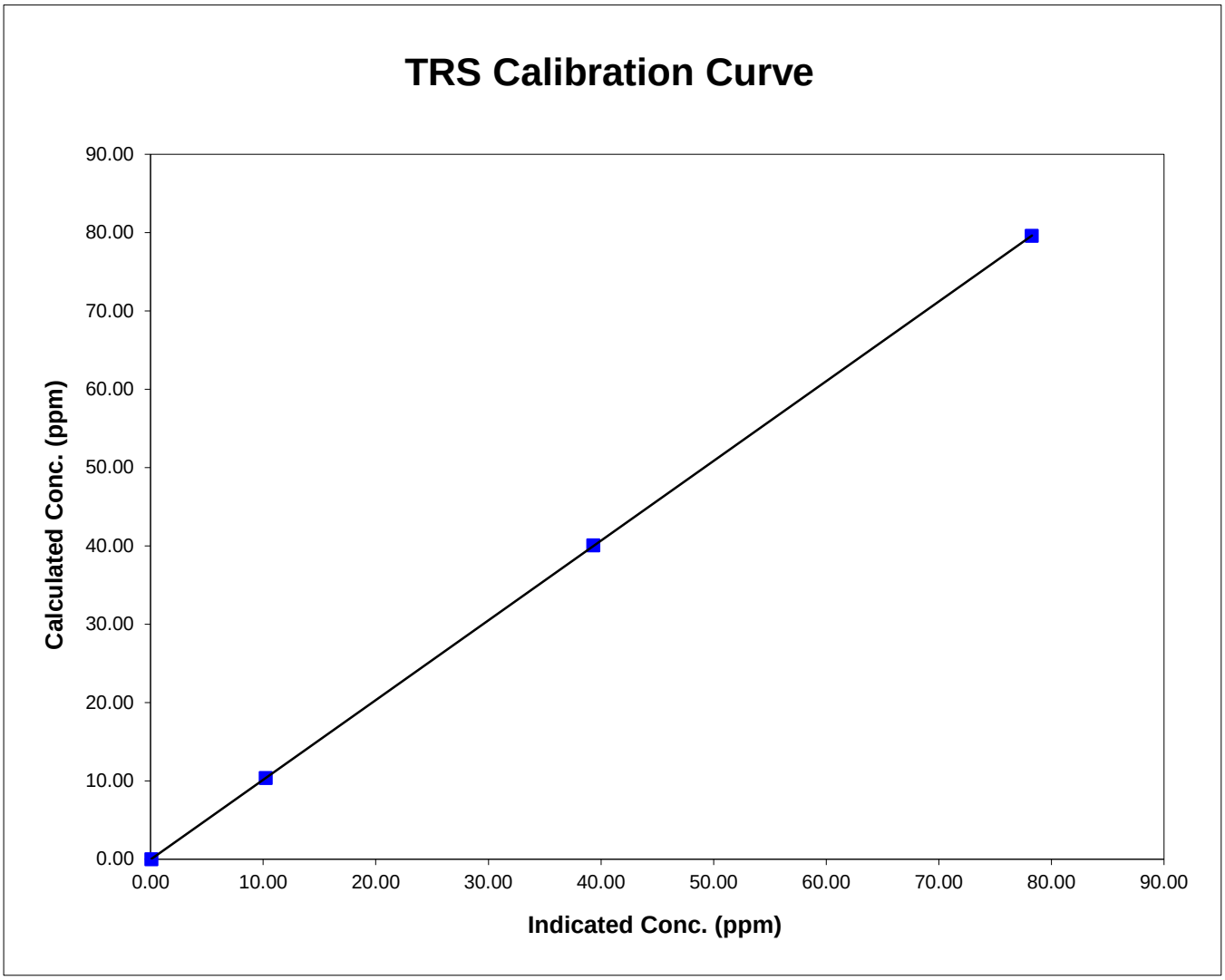
FOCUS AIR QUALITY MONITORING

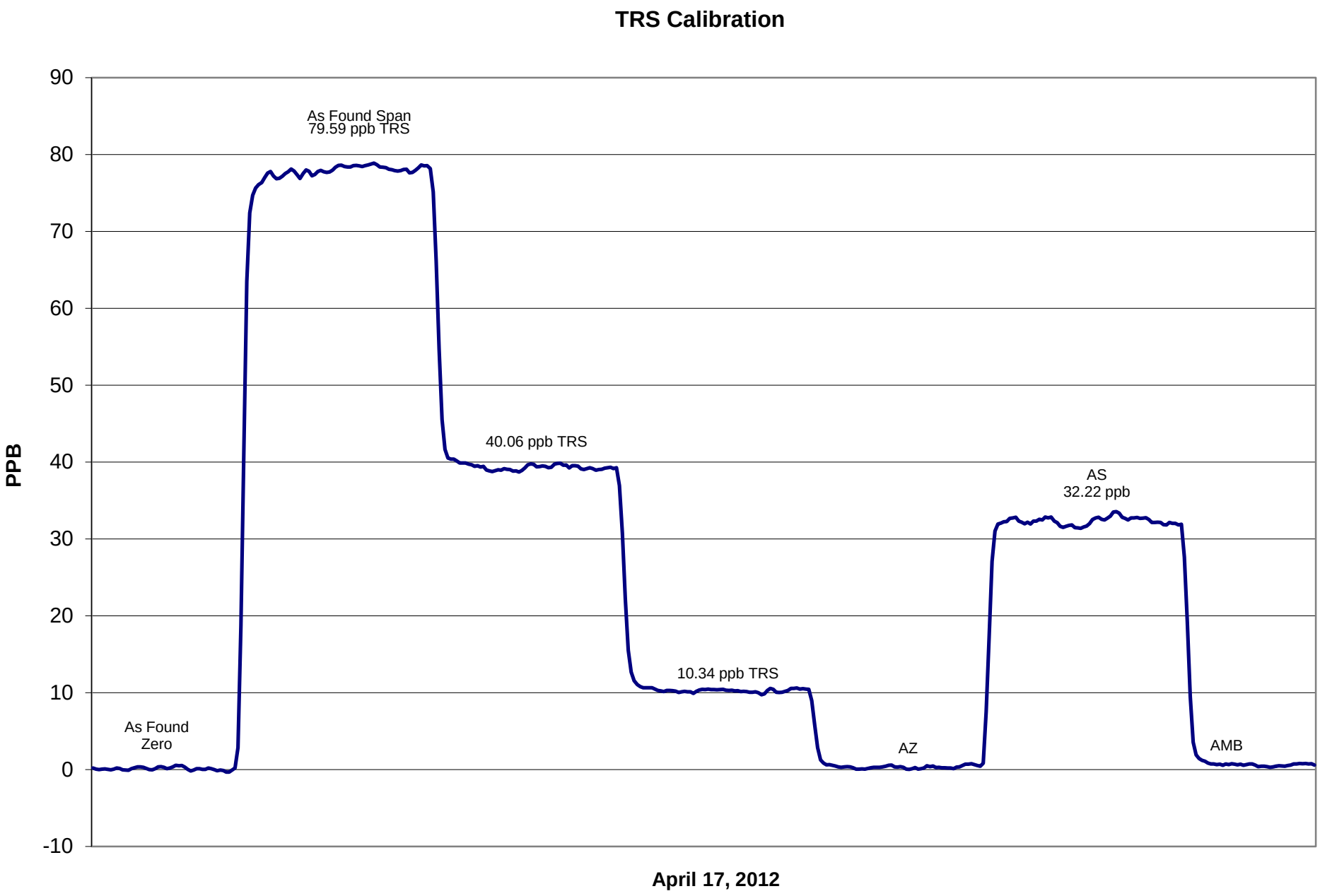
Station Information

Calibration Date	April 17, 2012	Previous Calibration	March 8, 2012
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	11:30
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	0.071	N/A		
79.590	78.279	1.0168	Correlation Coefficient	0.999998
40.060	39.327	1.0186		
10.344	10.222	1.0120	Slope	1.017809
			Intercept	-0.045360




TRS Calibration
90
80
70
60
50
40
30
20
10
0
-10
PPB
As Found Span
79.59 ppb TRS
40.06 ppb TRS
10.34 ppb TRS
AS
32.22 ppb
As Found
Zero
AZ
AMB
April 17, 2012

FDMS AB TEOM PM2.5 AUDIT

FOCUS
AIR QUALITY MONITORING

STATION: **Henry Pirker**

LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 4/10/2012

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	AMU 1693
Site Number	1
Inlet Type	PM 10 / VSCC
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	2/13/2012
Previous Calibration	NA

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	0.011	0.040
PUMP OFF	0.000	0.000
NET	0.011	0.040
LIMITS	*<0.15*	*<0.60*

]

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	15818	13.67	3.000
	INDICATED (I)	3.5	0.924		13.68	3.000
As Found Data	MEASURED (AF)	3.4	0.924		13.68	3.010
Adjusted Data	MEASURED (M)	3.4	0.924	15792	13.68	3.010
	DIFFERENCE (M-I)	-0.1	0.000	-0.2%	0.07	0.33
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

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

COMMENTS: Removal cal.

Leak check was performed on both reference & Base valves 8500C FDMS - OK.

Leak Check; Reference: Main: 0.04 Auxillery: 0.20

Base: Main: 0.07 Auxillery: 0.25

Remove 8500C FDMS TEOM.

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

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 26, 2012	Previous Calibration	March 24, 2012
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	11:30	End Time (MST)	14:56
Barometric Pressure	0.913 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	0.031035	Cal Gas Cylinder #	SGAL3245
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.006711	Calculated slope	0.994227
Calculated intercept	-2.167942	Calculated intercept	1.233820

Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.6		11.3	
coefficient	1.193		1.193	
Lamp Voltage	828	volts	828	volts
Chamber Temp	45.2	Deg C	45.2	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	662.2	mm Hg	660.4	mm Hg
Sample Flow	0.448	ccm	0.448	ccm
Lamp Intensity	91	%	91	%

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	-2.4	N/A
4989	39.84	394.5	395.3	0.9980
4989	20.15	200.3	199.8	1.0027
4989	10.10	100.6	101.8	0.9880
4989	0.0	0.0	-2.4	As Found Zero
4989	39.84	394.5	395.3	As Found Span
			Average Correction Factor	0.9962

Calculated value of As Found Response: 398.225 ppm Percent Change of As Found: -0.9%

	before calibration		after calibration	
Auto zero	0.6	ppm	0.3	ppm
Auto span	292.7	ppm	287.8	ppm

Notes: Slight adj zero.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

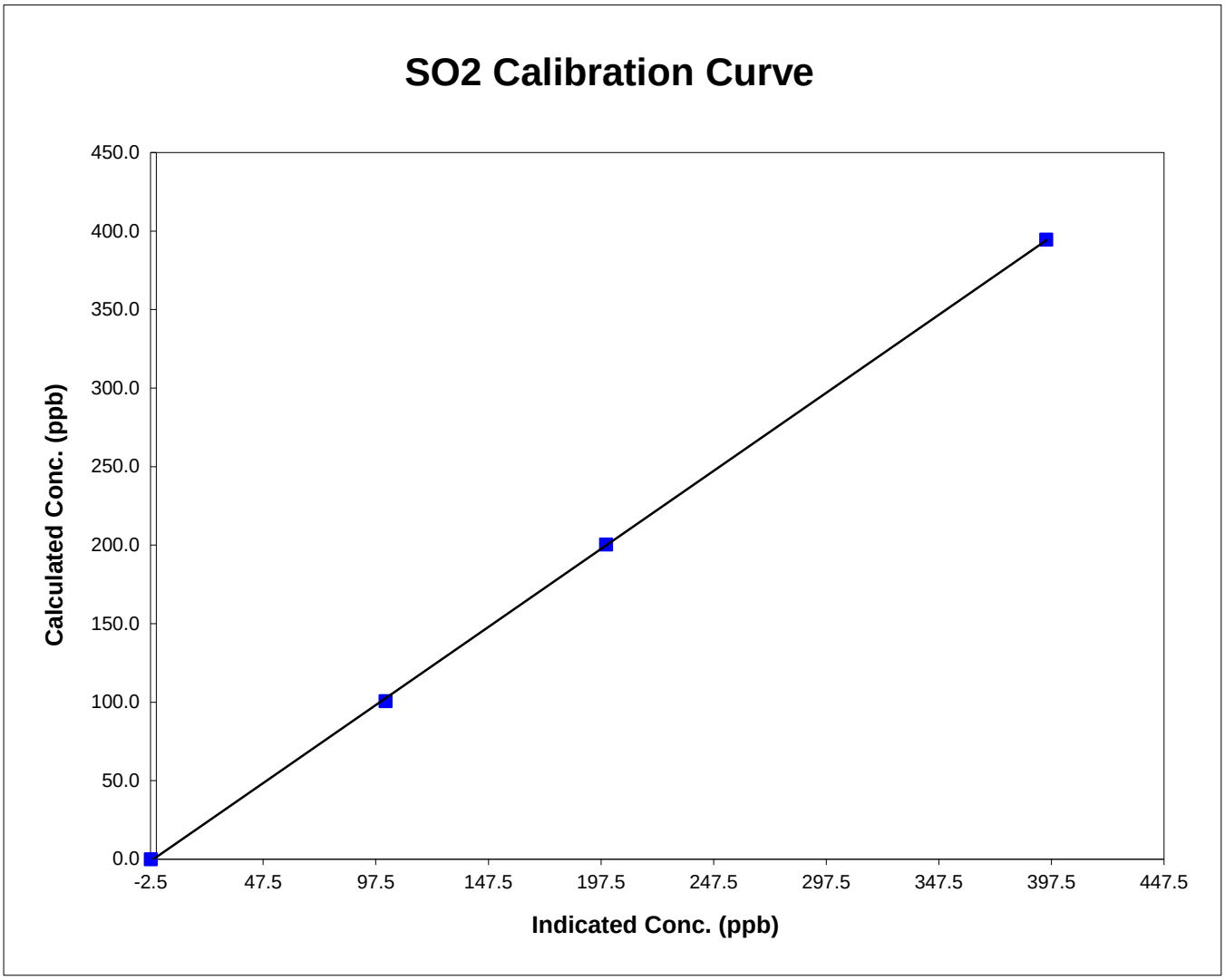
Air Monitoring Network **PAZA**

Station Information

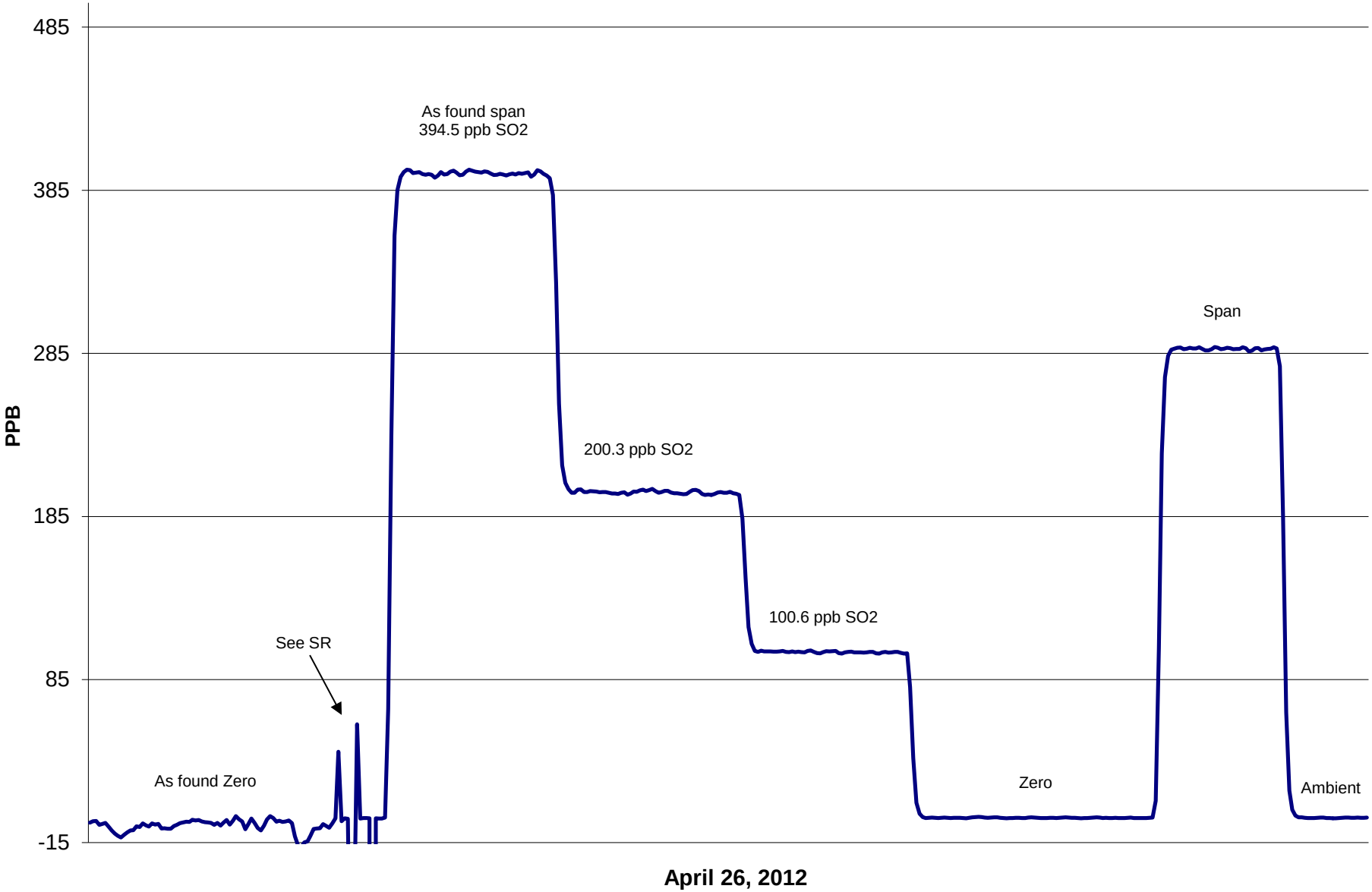
Calibration Date	April 26, 2012	Previous Calibration	March 24, 2012
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:30	End Time (MST)	14:56
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-2.4	N/A		
394.5	395.3	0.9980	Correlation Coefficient	0.999940
200.3	199.8	1.0027		
100.6	101.8	0.9880	Slope	0.994227
			Intercept	1.233820



SO2 Calibration



Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 30, 2012	Previous Calibration	March 21, 2012
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	14:00	End Time (MST)	19:00
Barometric Pressure	0.908 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	0.030865	Cal Gas Cylinder #	BLM1715
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.000745	Calculated slope	0.994463
Calculated intercept	-0.210469	Calculated intercept	-0.040060

Analyzer make	TEI Model 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	19.7	ppb	20	ppb
coefficient	0.922		0.922	
Lamp Voltage	822	volts	823	volts
Chamber Temp	44.3	Deg C	44.3	Deg C
Perm Gas Temp	44.97	Deg C	44.97	Deg C
Pressure	634.4	mm Hg	634.5	mm Hg
Sample Flow	0.473	ccm	0.471	ccm
Lamp Intensity	45,499	mv	45,558	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	0.3	N/A
4989	69.81	79.62	80.3	0.9918
4989	34.88	40.06	40.0	1.0016
4989	8.96	10.34	10.3	1.0028
4989	0.00	0.00	0.3	As Found Zero
4989	69.81	79.62	80.3	As Found Span
			Average Correction Factor	0.9987

Calculated value of As Found Response: 79.82 ppm Percent Change of As Found: -0.2%

	before calibration		after calibration	
Auto zero	0.2	ppm	-0.2	ppm
Auto span	71.9	ppm	71.4	ppm

Notes: No adjustments made. Analyzer started drifting about 5,000 Hz during after cal span.
Install new flash lamp board & allow stabilize over night.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

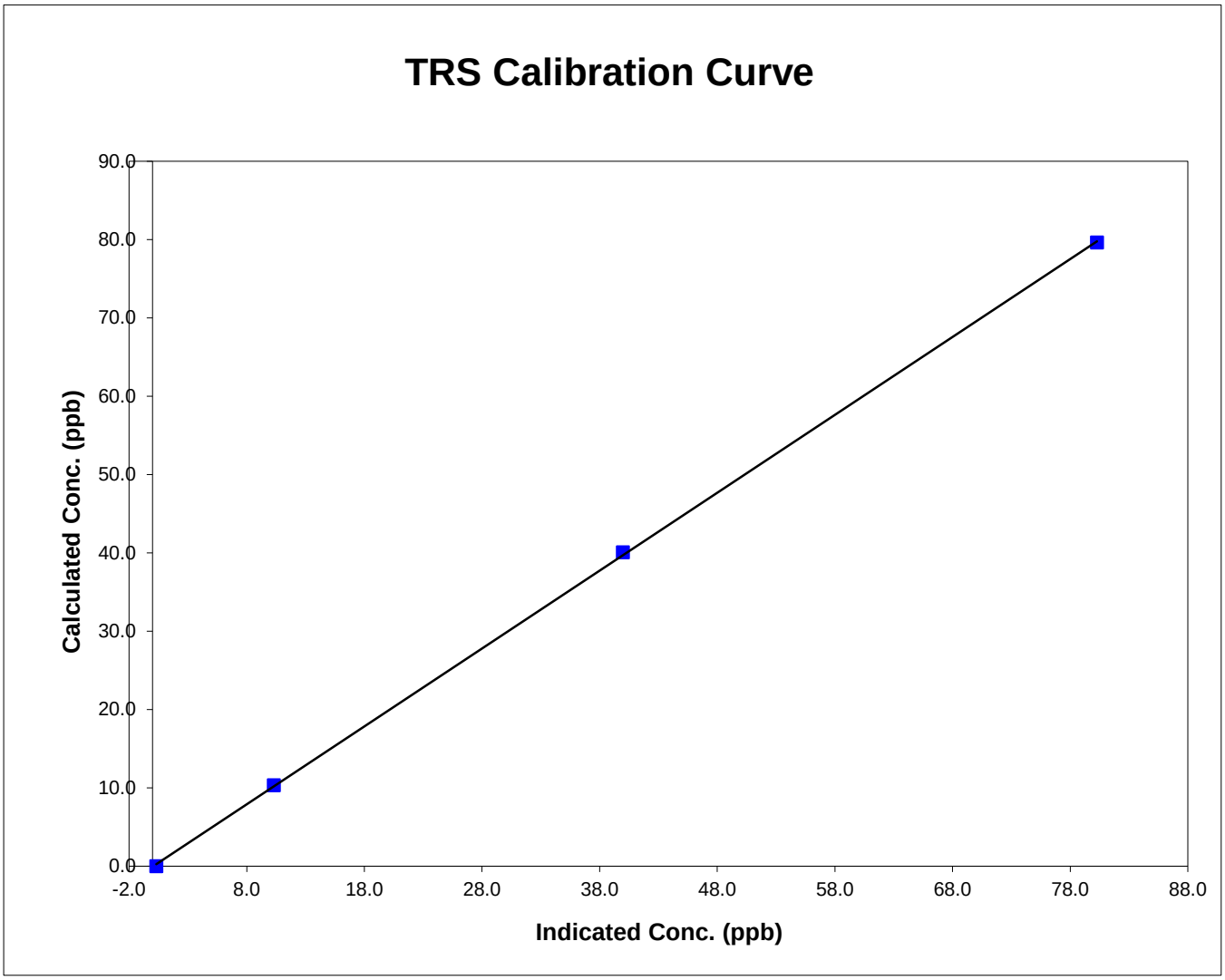
Air Monitoring Network **PAZA**

Station Information

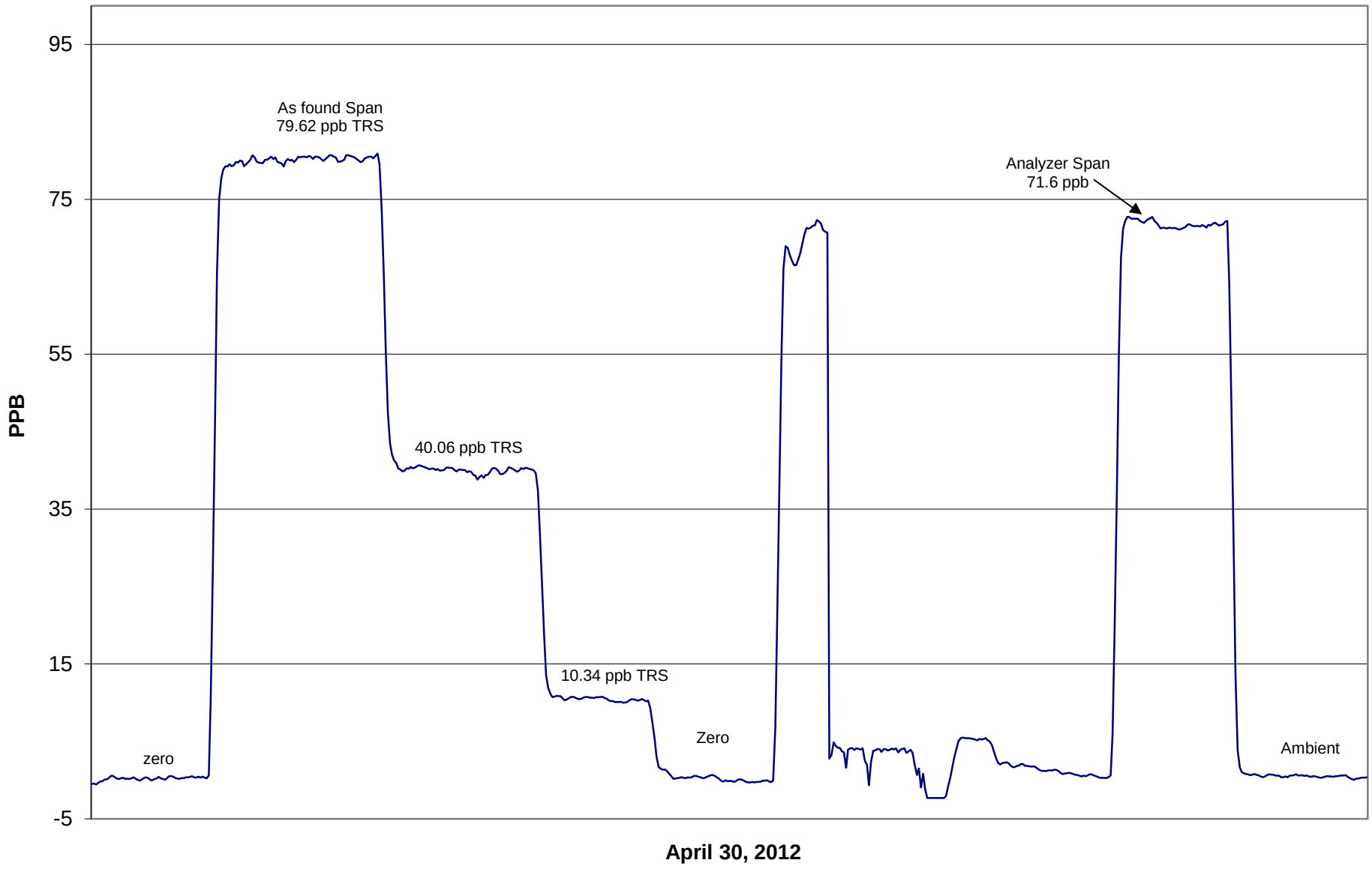
Calibration Date	April 30, 2012	Previous Calibration	March 21, 2012
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	14:00	End Time (MST)	19:00
Analyzer make/model	TEI Model 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
79.6	80.3	0.9918	Correlation Coefficient	0.999940
40.1	40.0	1.0016		
10.3	10.3	1.0028	Slope	0.994463
			Intercept	-0.040060



TRS Calibration



AB TEOM PM2.5 Calibration

FOCUS
AIR QUALITY MONITORING

STATION: **Evergreen Park**

LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 26/4/2012

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21554
Site Number	2
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	26/1/2012
Previous Calibration	NA

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	0.030	0.200
PUMP OFF	0.000	0.000
NET	0.030	0.200
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	16147	13.67	3.000
	INDICATED (I)	7.5	0.913		13.65	2.999
As Found Data	MEASURED (AF)	6.6	0.912		13.69	2.998
Adjusted Data	MEASURED (M)	6.6	0.912	16178	13.69	2.998
	DIFFERENCE (M-I)	-0.9	-0.001	0.2%	0.15	-0.07
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

Ko Audit Filter data *Weight:* 0.11014 *Serial #:* *CVK 2123*

COMMENTS: Pass.

Replaced sample filter. Filter loaded @ 18%.

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

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 27, 2012	Previous Calibration	March 28, 2012
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:05	End Time (MST)	14:05
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	0.994084	Calculated slope	1.002612
Calculated intercept	-2.518770	Calculated intercept	-2.362859

Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.9		9.8	
coefficient	0.978		0.963	
Lamp Voltage	921	volts	920	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	664.2	mm Hg	667.5	mm Hg
Sample Flow	0.438	ccm	0.440	ccm
Lamp Intensity	89	%	89	%

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	0.7	N/A
4989	39.84	394.53	395.1	0.9986
4989	19.91	197.95	200.4	0.9878
4989	9.94	99.02	102.9	0.9619
4989	0.0	0.00	0.7	As Found Zero
4989	39.84	394.53	400.0	As Found Span
			Average Correction Factor	0.9828

Calculated value of As Found Response: 394.441 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.6	ppb
Auto span	304.5	ppb	268.5	ppb

Notes: Slight span adjust

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

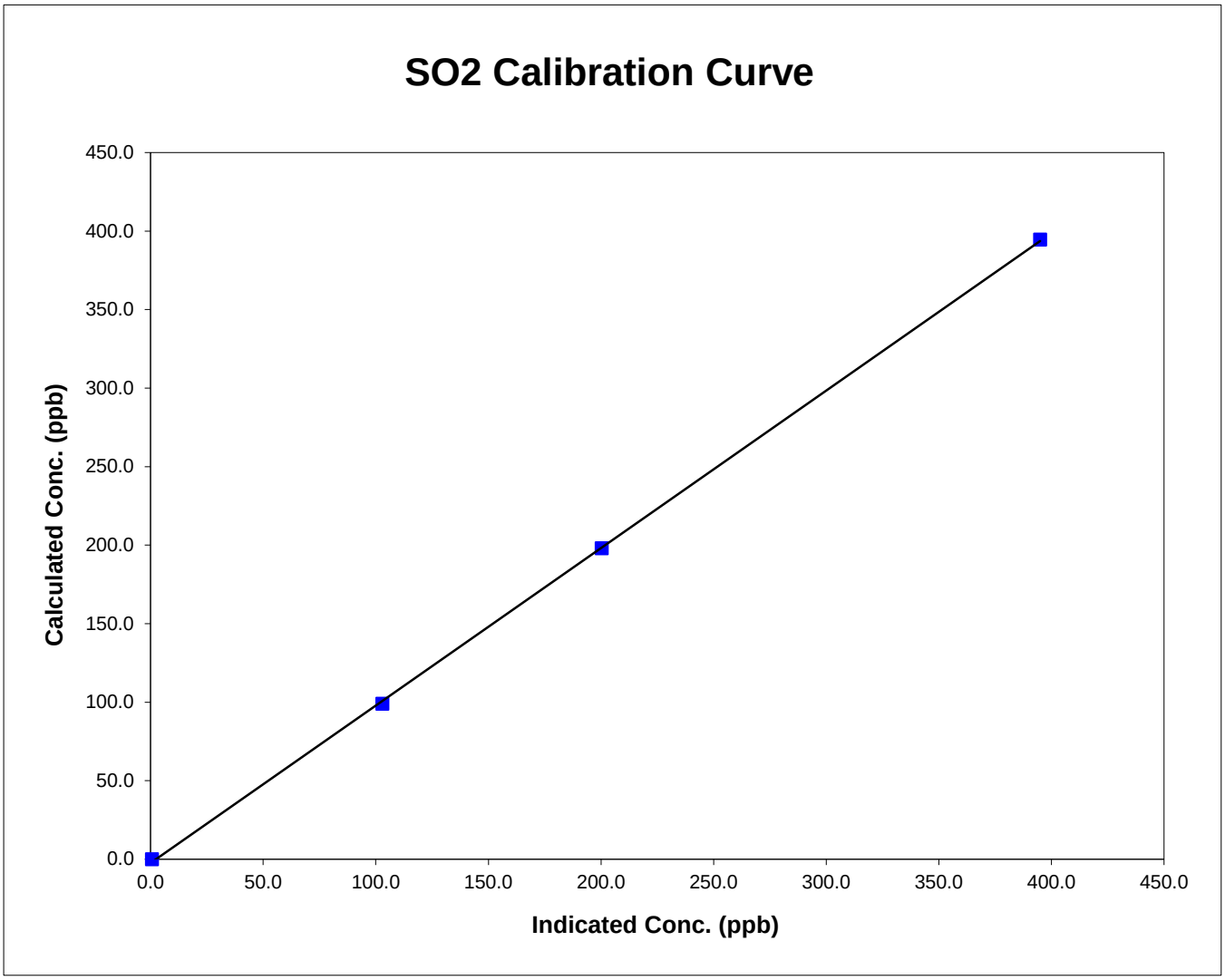
Air Monitoring Network **PAZA**

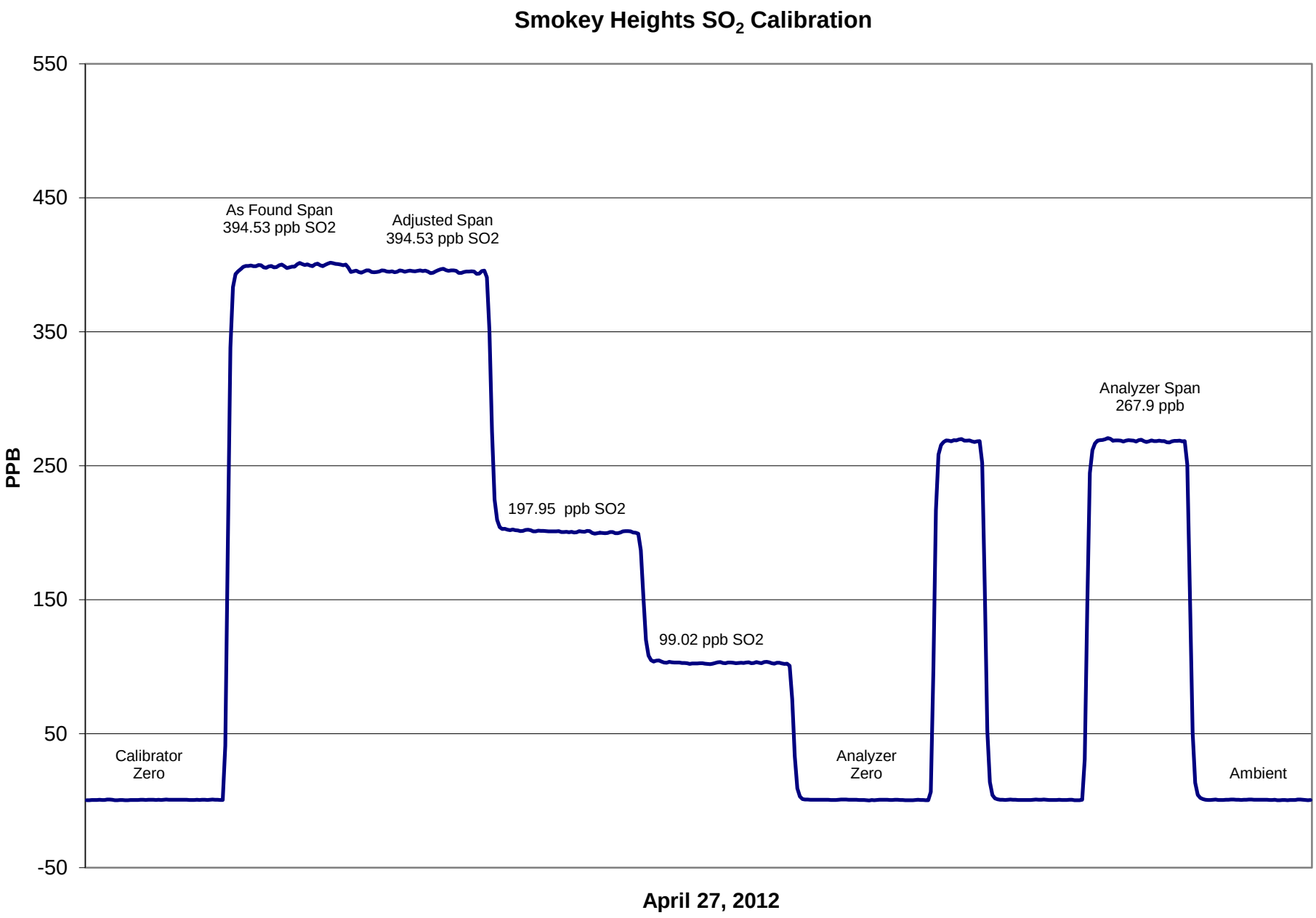
Station Information

Calibration Date	April 27, 2012	Previous Calibration	March 28, 2012
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:05	End Time (MST)	14:05
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	0.7	N/A		
394.5	395.1	0.9986	Correlation Coefficient	0.999917
198.0	200.4	0.9878		
99.0	102.9	0.9619	Slope	1.002612
			Intercept	-2.362859




Smokey Heights SO_2 Calibration
550
450
350
250
150
50
-50
PPB
As Found Span
394.53 ppb SO2
Adjusted Span
394.53 ppb SO2
197.95 ppb SO2
99.02 ppb SO2
Analyzer Span
267.9 ppb
Calibrator
Zero
Analyzer
Zero
Ambient
April 27, 2012

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 27, 2012	Previous Calibration	March 28, 2012
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	8:25	End Time (MST)	11:26
Barometric Pressure	0.919 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	0.031239	Cal Gas Cylinder #	BLM001434
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.009694	Calculated slope	1.010686
Calculated intercept	-0.330838	Calculated intercept	-0.216225

Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	18.1	ppb	18.1	ppb
coefficient	0.946		0.946	
Lamp Voltage	805	volts	805	volts
Chamber Temp	44.99	Deg C	44.99	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	547	mm Hg	547.9	mm Hg
Sample Flow	0.591	ccm	0.589	ccm
Lamp Intensity	35,380	mv	35,220	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	0.0	N/A
4989	69.80	79.61	78.9	1.0093
4989	34.88	40.06	40.0	1.0010
4989	8.96	10.34	10.6	0.9777
4989	0.0	0.00	-0.2	As Found Zero
4989	69.80	79.61	78.9	As Found Span
			Average Correction Factor	0.9960

Calculated value of As Found Response: 79.47 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.2	ppm
Auto span	52.9	ppm	53.9	ppm

Notes: No span adjust

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

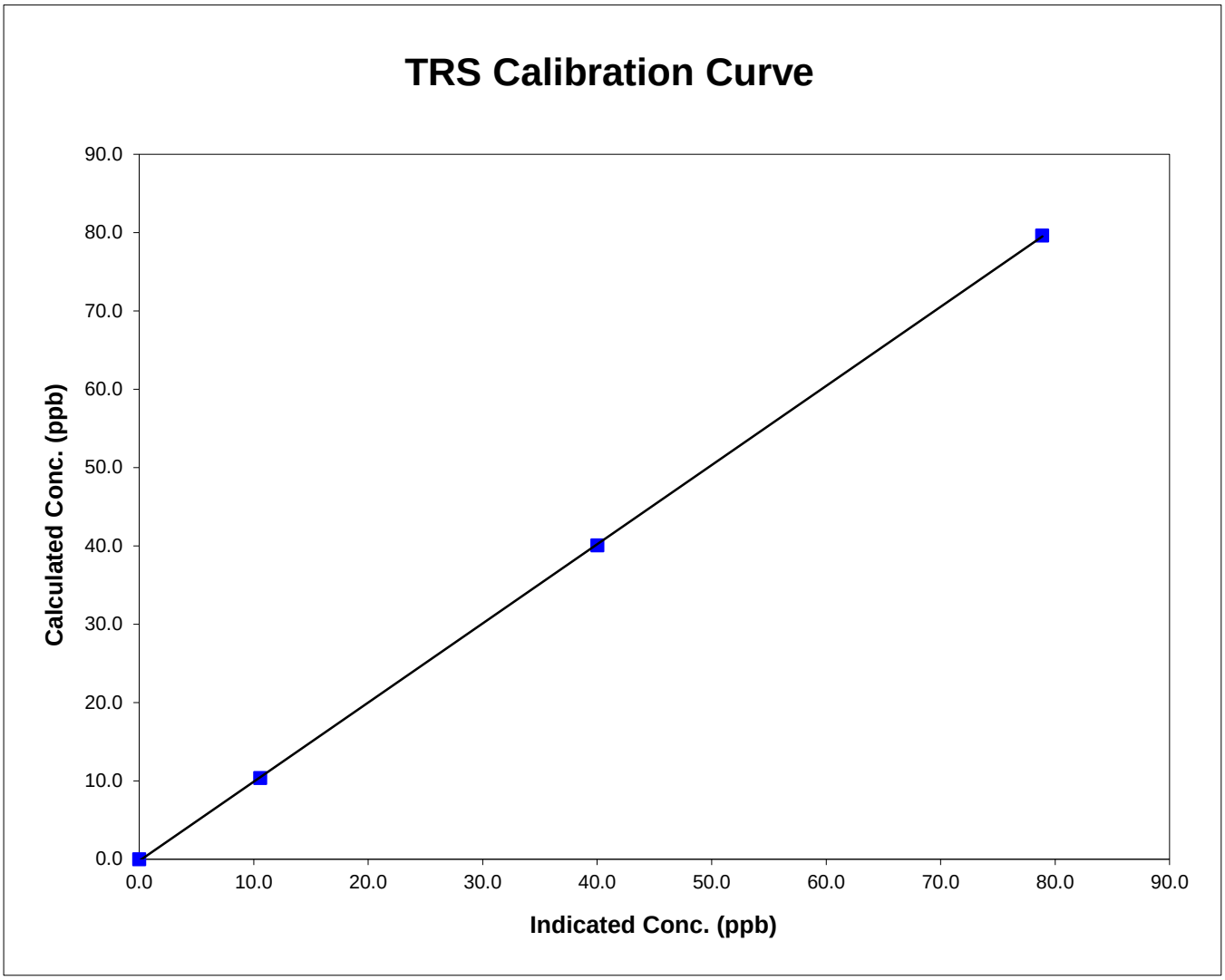
Air Monitoring Network **PAZA**

Station Information

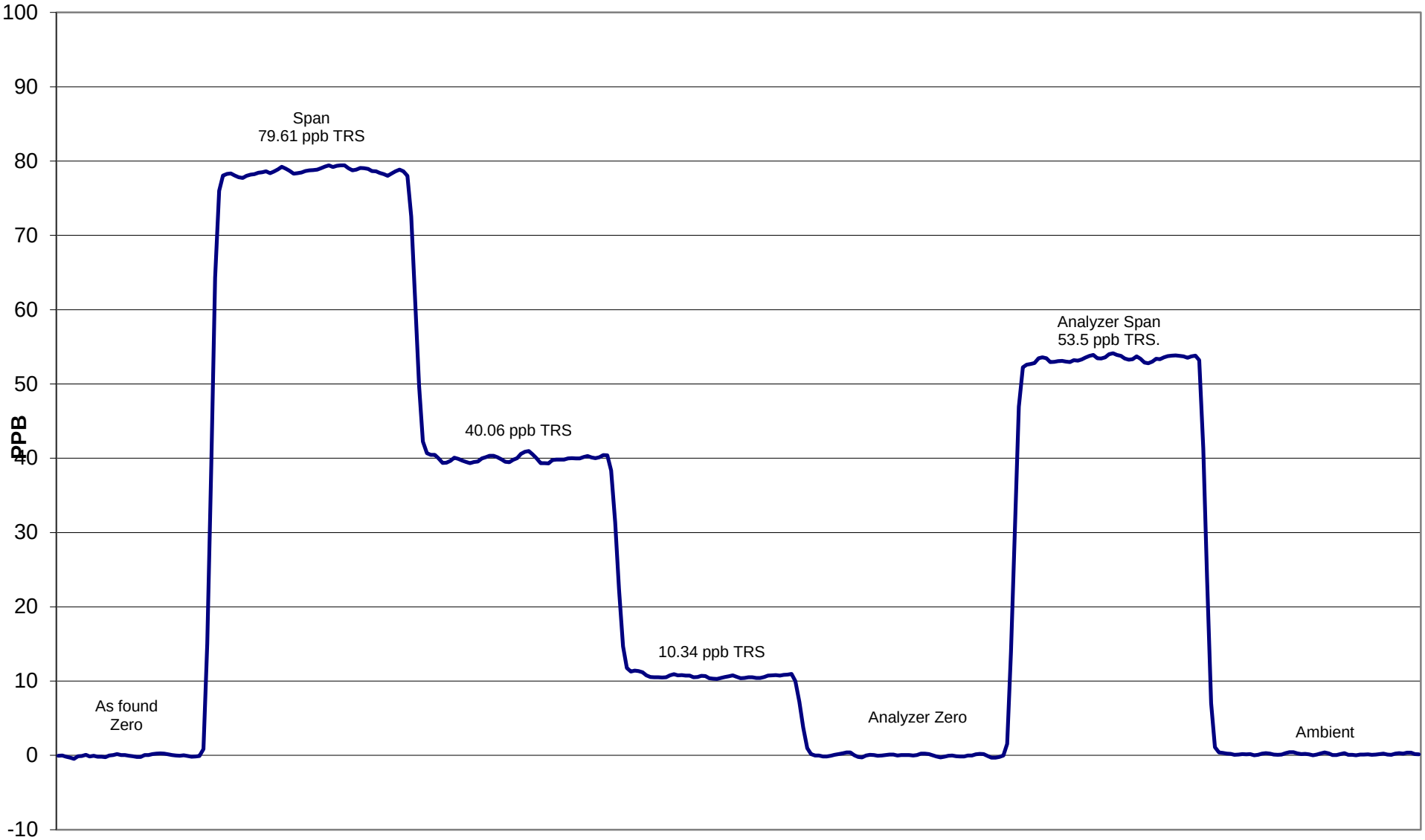
Calibration Date	April 27, 2012	Previous Calibration	March 28, 2012
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	8:25	End Time (MST)	11:26
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
79.6	78.9	1.0093	Correlation Coefficient	0.999974
40.1	40.0	1.0010		
10.3	10.6	0.9777	Slope	1.010686
			Intercept	-0.216225



Smokey Heights TRS Calibration



April 27, 2012

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 12, 2012	Previous Calibration	March 14, 2012
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:30	End Time (MST)	15:30
Barometric Pressure	0.904 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	1.002765	Calculated slope	0.993364
Calculated intercept	-0.860842	Calculated intercept	-0.787545
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.37		2.37	
Coefficient	1.071		1.071	
PMT	-767.6	V	-767.6	V
UV Lamp Voltage	1052	V	1052	V
Chamber Temp	45.2	Deg C	45.2	Deg C
Pressure	658.3	mm Hg	658.5	mm Hg
Sample Flow	0.485	LPM	0.486	LPM
Lamp Intesity	96%	%	96%	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.00	0.0	0.2	N/A
4989	39.83	80.0	81.0	0.9876
4989	19.90	40.1	41.5	0.9661
4989	9.93	20.1	21.5	0.9319
4989	0.00	0.0	0.2	As found zero
4989	39.83	80.0	81.0	As found span
			Average Correction Factor	0.9619

Calculated value of As Found Response: 80.148 ppm Percent Change of As Found: -0.2%

	before calibration		after calibration	
Auto zero	-0.3	ppb	-0.6	ppb
Auto span	58.2	ppb	57.7	ppb

Notes: No adjustments made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

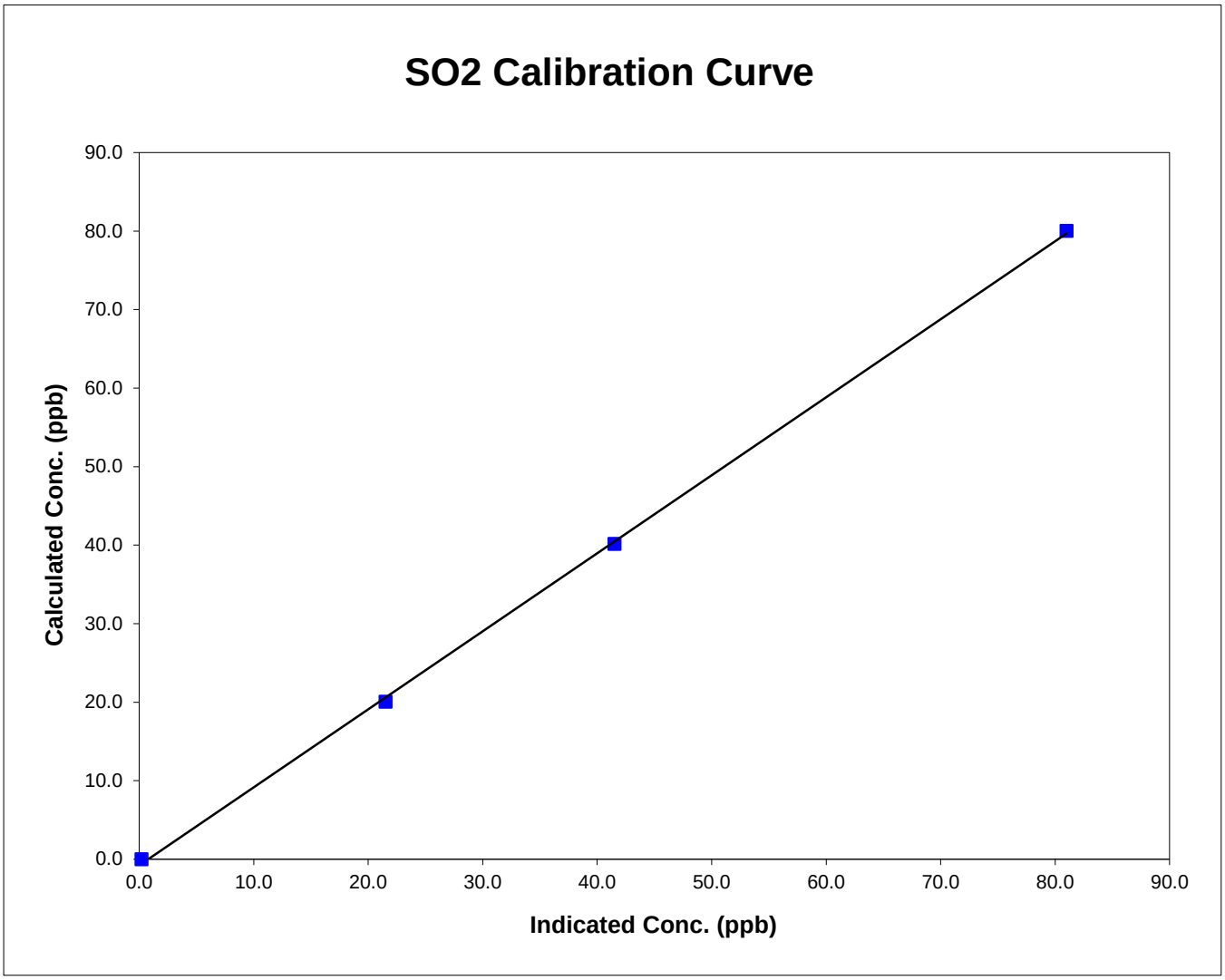
Air Monitoring Network **PAZA**

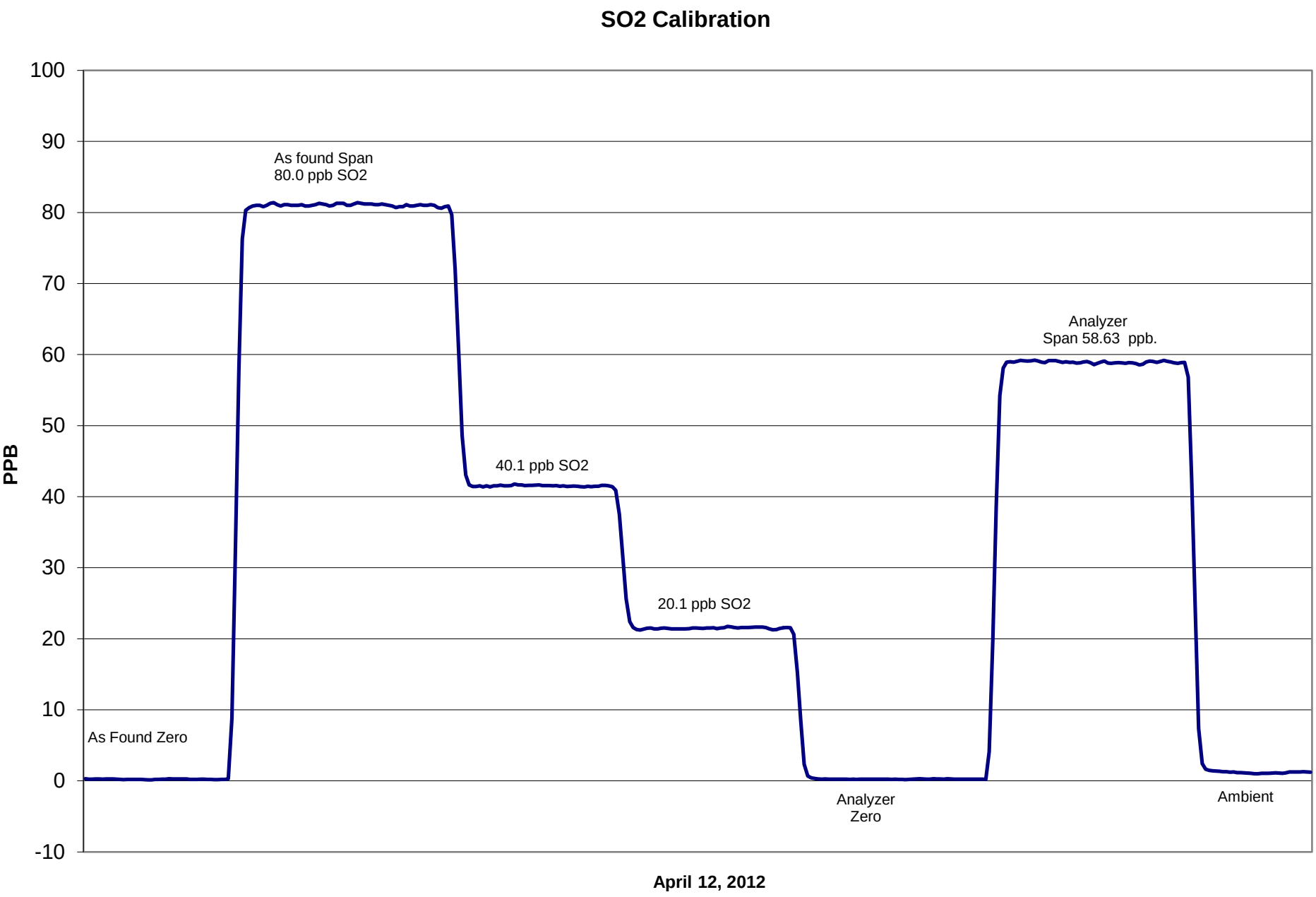
Station Information

Calibration Date	April 12, 2012	Previous Calibration	March 14, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:30	End Time (MST)	15:30
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	0.2	N/A		
80.0	81.0	0.9876	Correlation Coefficient	0.999765
40.1	41.5	0.9661		
20.1	21.5	0.9319	Slope	0.993364
			Intercept	-0.787545




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 58.63 ppb.
As Found Zero
Analyzer
Zero
Ambient
April 12, 2012

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 12, 2012	Previous Calibration	March 14, 2012
Station Number	4	Station Location	Beaverlodge

Reason: Routine Installation Removal Other:

Start Time (MST)	7:30		End Time (MST)	13:07	
Barometric Pressure	0.904	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	0.999841	1.007735	1.008115
	Data Offset	0.375366	-2.378101	-2.020992
After	Data Slope	0.998605	1.009758	1.010909
	Data Offset	-0.034756	-2.329480	-1.987655
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	2.1	mV	2.1	mV
NOx bkgnd	2.3	mV	2.3	mV
NO coefficient	1.366		1.366	
NOx coefficient	0.999		0.999	
NO2 conv temp	326.8	Deg C	326.8	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-671.6	mV	-671.2	mV
R Cell Press	167.5	in Hg	167.9	in Hg
Sample Flow	0.767	ccm	0.799	ccm

Notes: No adjustments made.

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: April 12, 2012 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	0.0	-0.1	N/A	N/A
1	4989	39.84	415.9	415.9	0.0	412.9	412.4	0.3	1.0073	1.0086
2	4989	19.91	208.7	208.7	0.0	210.5	209.4	0.3	0.9914	0.9966
3	4989	9.93	104.3	104.3	0.0	107.6	107.2	0.2	0.9690	0.9730
AFZ	4989	0.00	0.0	0.0	0.0	0.1	-0.1	0.0	0.0000	0.0000
AFS	4989	39.84	415.9	415.9	0.8	412.9	412.3	0.3	1.0074	1.0088
							Average Correction Factor		0.9892	0.9927

As Found Concentrations: NO_X= 410.4 NO= 410.3 As Found Percent Change NO_X= -1.3% NO= -1.3%

GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 39.84 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.1	-0.1	0.0	0.1	0.0	-0.1	N/A	N/A	N/A	N/A
NO point	413.1	413.1	0.0	413.4	413.1	0.2	0.9993	1.0000	N/A	N/A
300	413.1	136.1	277.0	414.1	136.1	277.4	0.9976	1.0000	0.9985	100.1%
200	413.1	223.7	189.4	413.9	223.7	189.6	0.9980	1.0000	0.9989	100.1%
100	413.1	310.2	103.0	413.7	310.2	103.3	0.9985	1.0000	0.9962	100.4%
					Average Correction Factor		0.9980	1.0000	0.9979	100.2%

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	0.0	ppb
Auto span	238.0	235.5	1.6	ppb	219.5	217.6	1.2	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

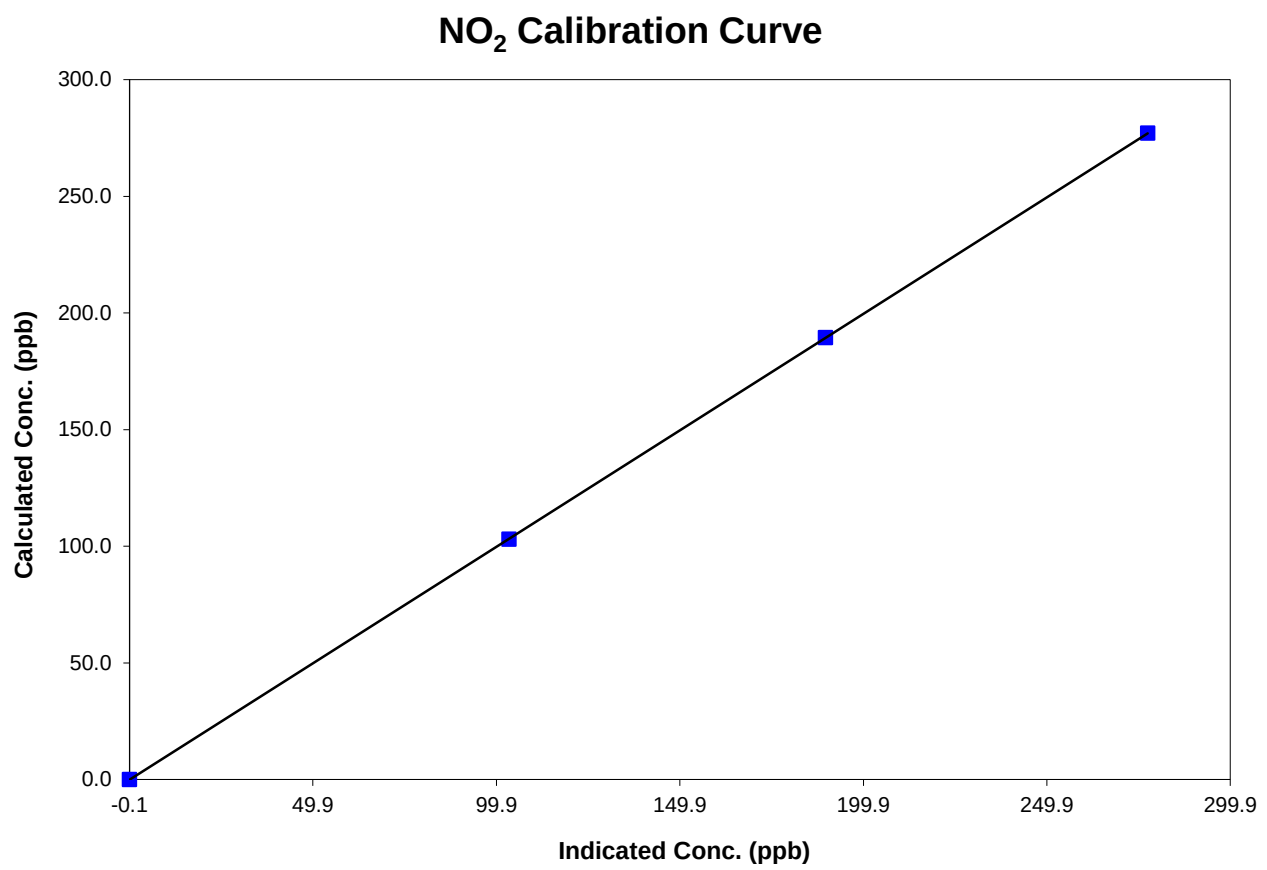
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 12, 2012	Previous Calibration	March 14, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:30	End Time (MST)	13:07
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		
277.0	277.4	0.9985	Correlation Coefficient	0.999998
189.4	189.6	0.9989		
103.0	103.3	0.9962	Slope	0.998605
			Intercept	-0.034756



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

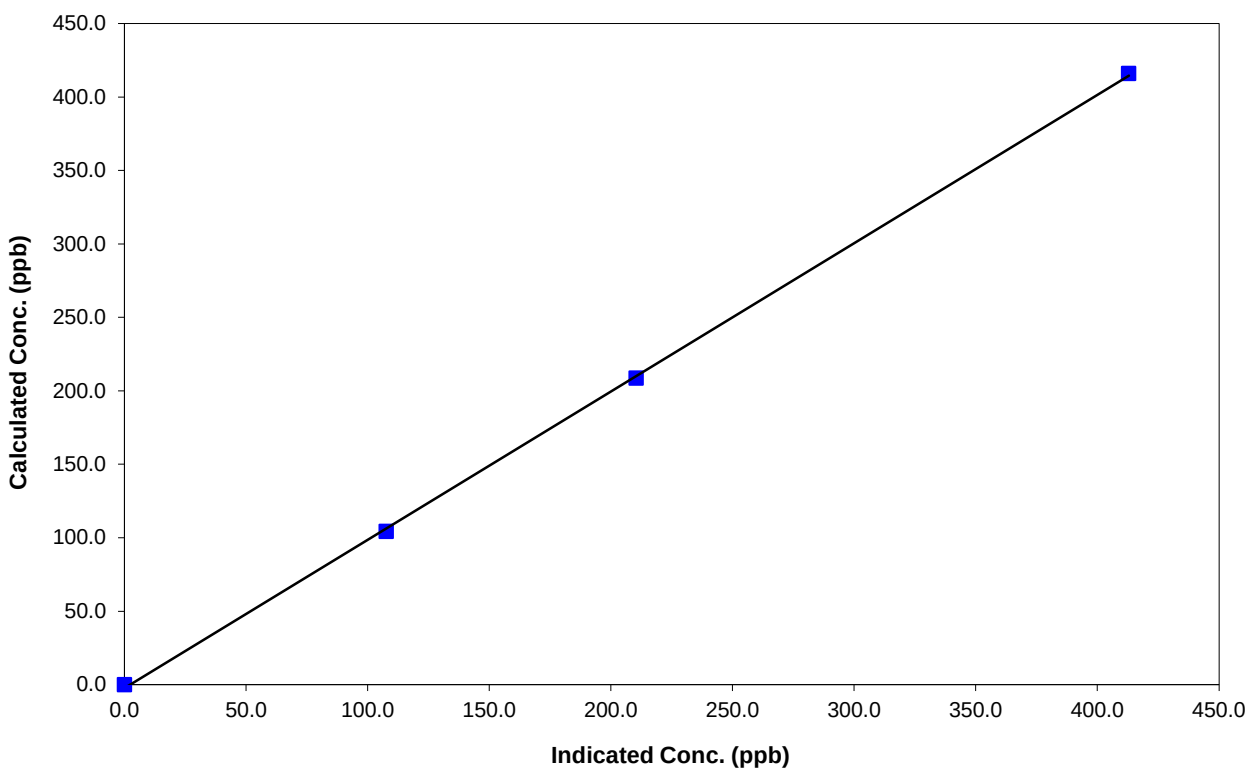
Station Information

Calibration Date	April 12, 2012	Previous Calibration	March 14, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:30	End Time (MST)	13:07
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		
415.9	412.9	1.0073	Correlation Coefficient	0.999858
208.7	210.5	0.9914		
104.3	107.6	0.9690	Slope	1.009758
			Intercept	-2.329480

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

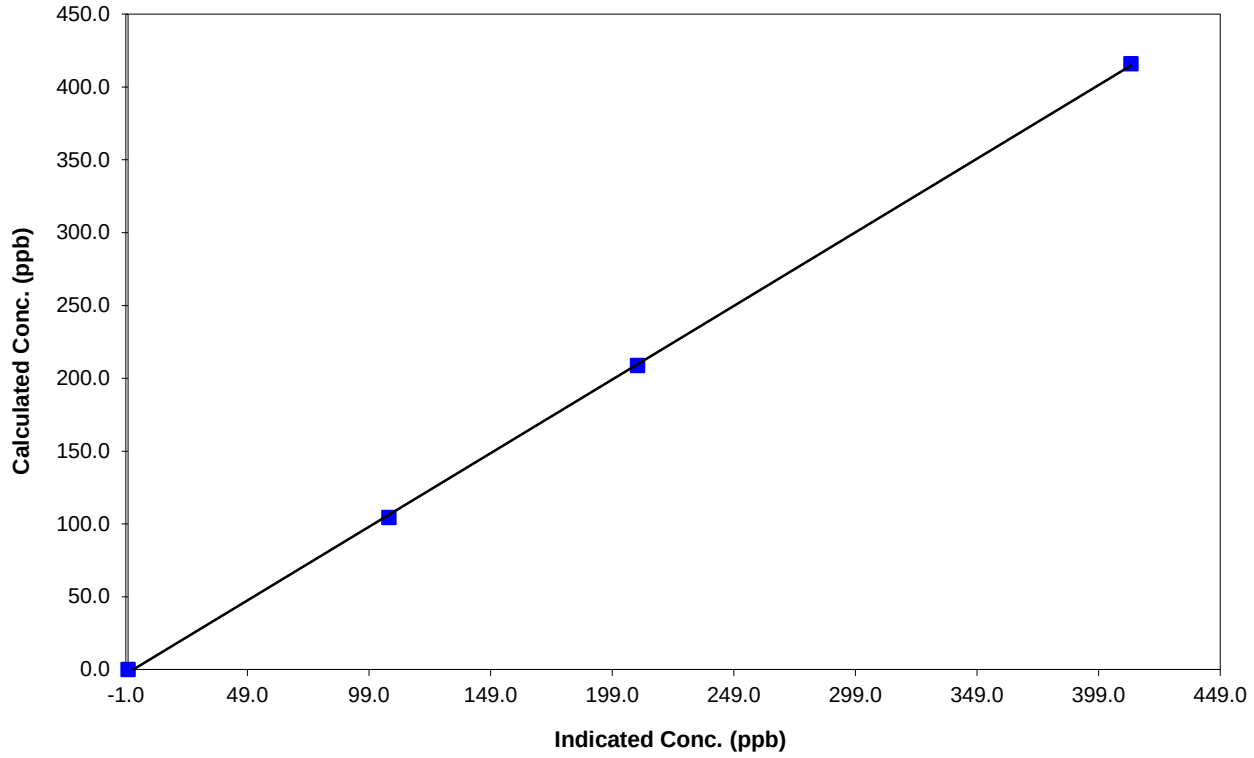
Station Information

Calibration Date	April 12, 2012	Previous Calibration	March 14, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:30	End Time (MST)	13:07
Analyzer make	TEI 42i	Analyzer serial #	906535068

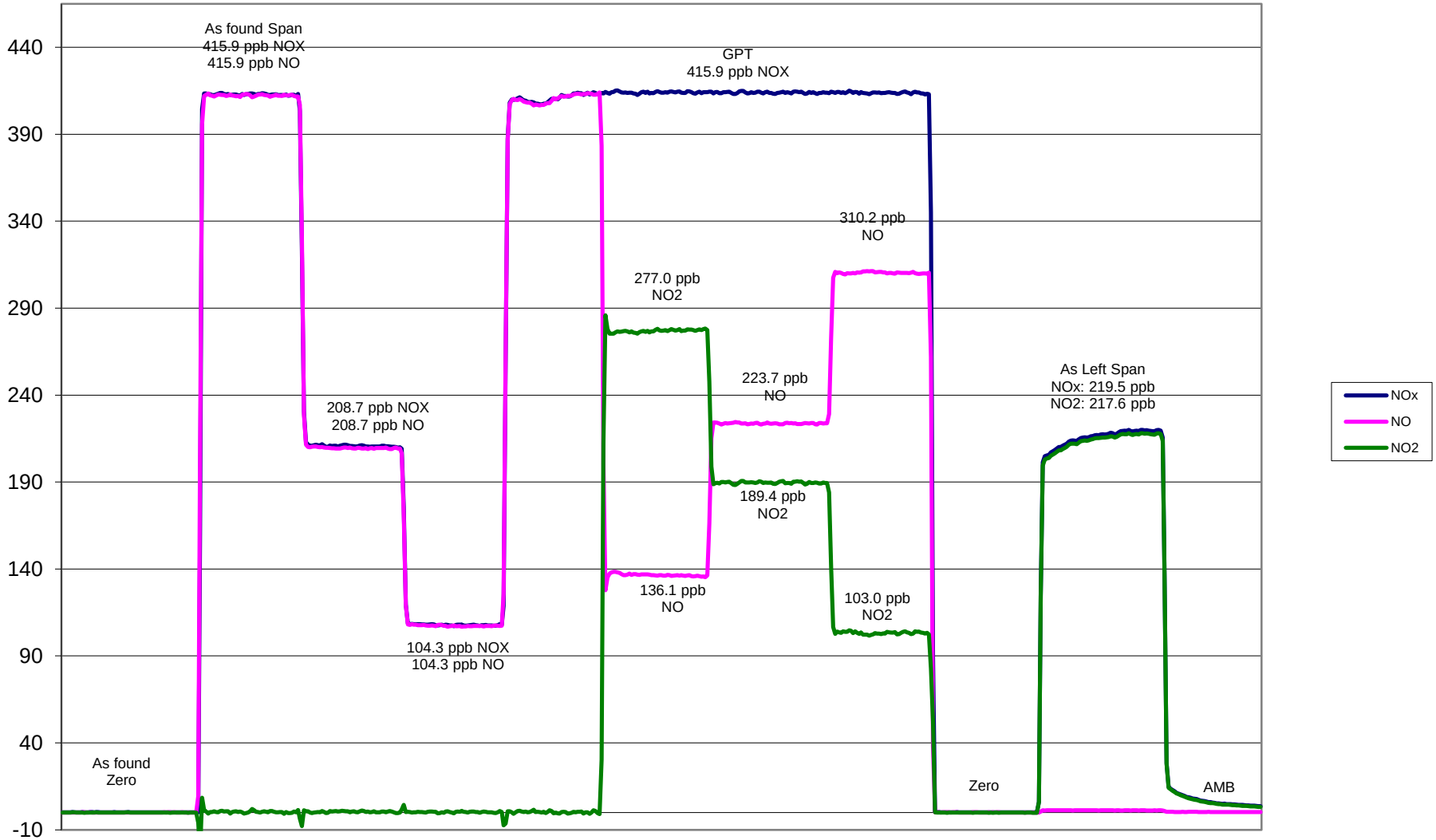
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
415.9	412.4	1.0086	Correlation Coefficient	0.999888
208.7	209.4	0.9966		
104.3	107.2	0.9730	Slope	1.010909
			Intercept	-1.987655

NO Calibration Curve



PASZA Beaverlodge NO_X Calibration



April 12, 2012

Calibration Report

Parameter **O3**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 12, 2012	Previous Calibration	March 14, 2012
Station Number	4	Station Location	Beaverlodge
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	11:00	End Time (MST)	13:40
Barometric Pressure	0.904 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	0.996949	Calculated slope	0.993547
Calculated intercept	-0.574433	Calculated intercept	0.676322
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.90	ppb	-0.90	ppb
slope	1.000		1.000	
Lamp temp	56.3	mV	56.3	mV
Lamp Intensity A/B	54683/60752	mV	54668/60773	mV
Pressure	686.5	mm Hg	685.7	mm Hg
Flow A	0.757	ccm	0.756	ccm
Flow B	0.710	ccm	0.708	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	-0.4	N/A
4989	0.3	277.0	278.8	0.9936
4989	0.2	189.4	189.0	1.0023
4989	0.1	103.0	103.0	1.0001
4989	0.0	0.0	-0.3	As found zero
4989	0.3	277.0	278.8	As found span
			Average Correction Factor	0.9987

Calculated value of As Found Response: 277.6 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.3	ppb
Auto span	114.3	ppb	112.2	ppb

Notes: No span adjustment made.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

Air Monitoring Network **PAZA**

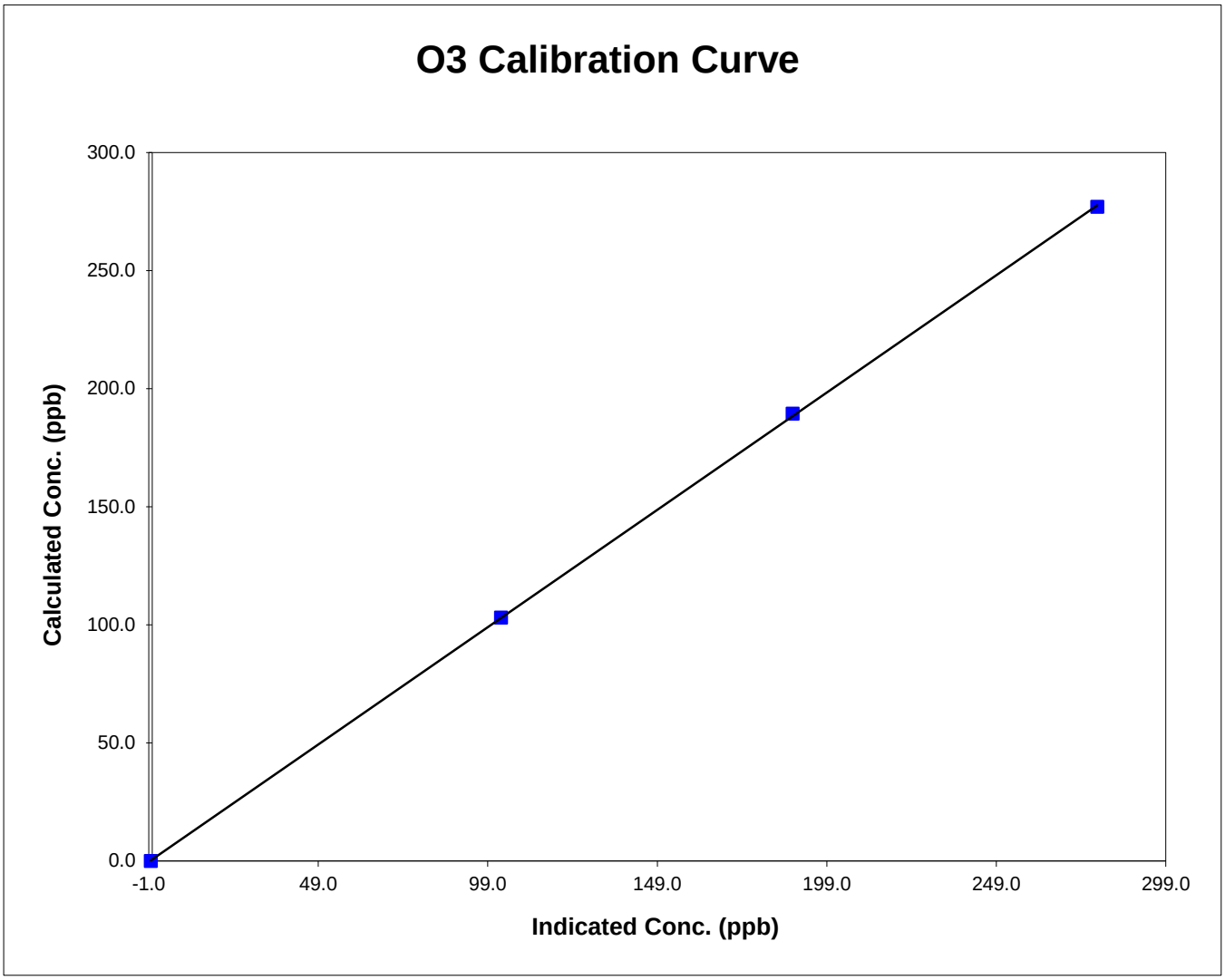
FOCUS AIR QUALITY MONITORING

Station Information

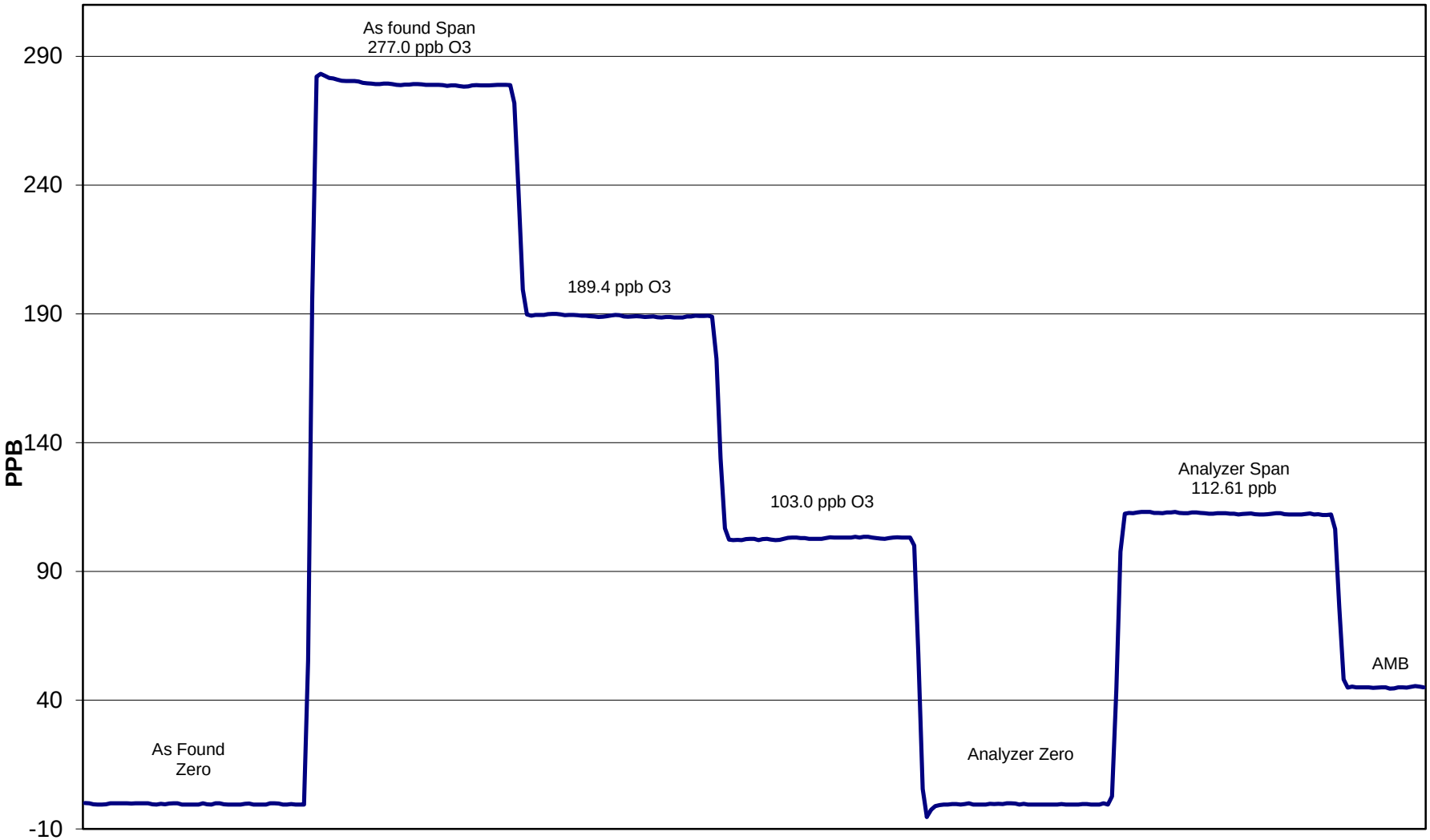
Calibration Date	April 12, 2012	Previous Calibration	March 14, 2012
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	11:00	End Time (MST)	13:40
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA		
277.0	278.8	0.9936	Correlation Coefficient	0.999965
189.4	189.0	1.0023		
103.0	103.0	1.0001	Slope	0.993547
			Intercept	0.676322



O3 Calibration



April 12, 2012

Calibration Report

Parameter **SO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 10, 2012	Previous Calibration	March 12, 2012
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:55	End Time (MST)	14:00
Barometric Pressure	702.00 mmHg	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	50.58 ppm	Cal Gas Cert Date	11/29/2011
Gas Cylinder Num.	LL158102	Cal gas Exp. Date	11/29/2013
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.992272	Calculated slope	0.999594
Calculated intercept	1.492818	Calculated intercept	1.114424
Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	35.3		32.7	
Coefficient	0.977		0.919	
UV Lamp Voltage	966	LPM	967	LPM
Chamber Temp	44.2	V	44.2	V
Perm Gas Temp	25.7	C	26.8	C
Pressure	597	in Hg	611.1	in Hg
Sample Flow	0.554	LPM	0.562	LPM
Lamp Intensity	48167	Hz	48386	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)
4997	0.00	0.0	0.5	N/A
4997	39.93	401.0	401.0	0.9998
4997	19.97	201.3	198.8	1.0129
4997	9.94	100.4	98.2	1.0221
4997	0.00	0.0	0.5	As found zero
4997	39.93	401.0	424.8	As found span
			Average Correction Factor	1.0116

Calculated value of As Found Response: 422.5 ppm Percent Change of As Found: -5.4%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	155.5	ppm	154.5	ppm

Notes: Cal went well, adjustment made to span only…

Calibration Performed By: Virginia McKergow

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PAZA**

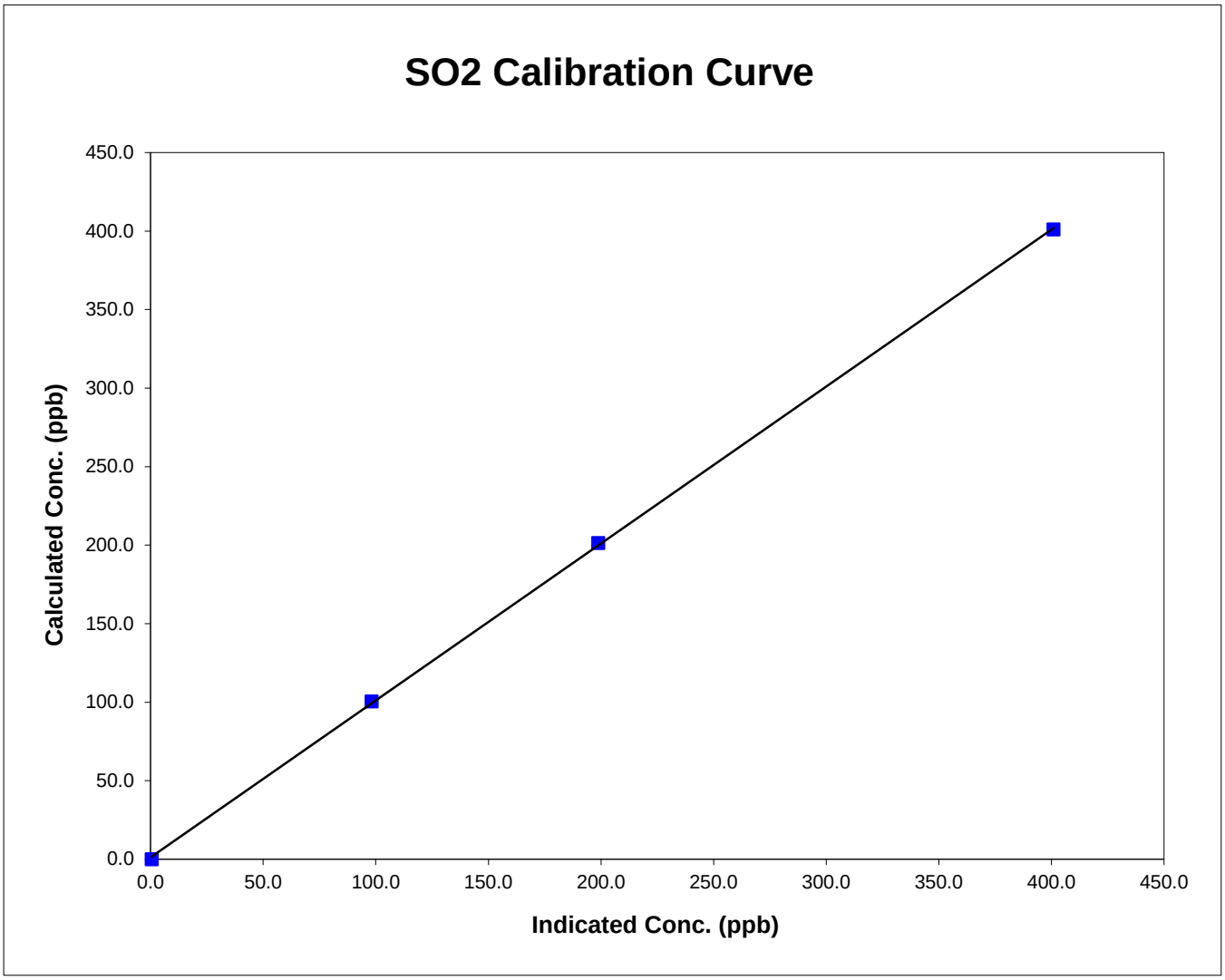
FOCUS AIR QUALITY MONITORING

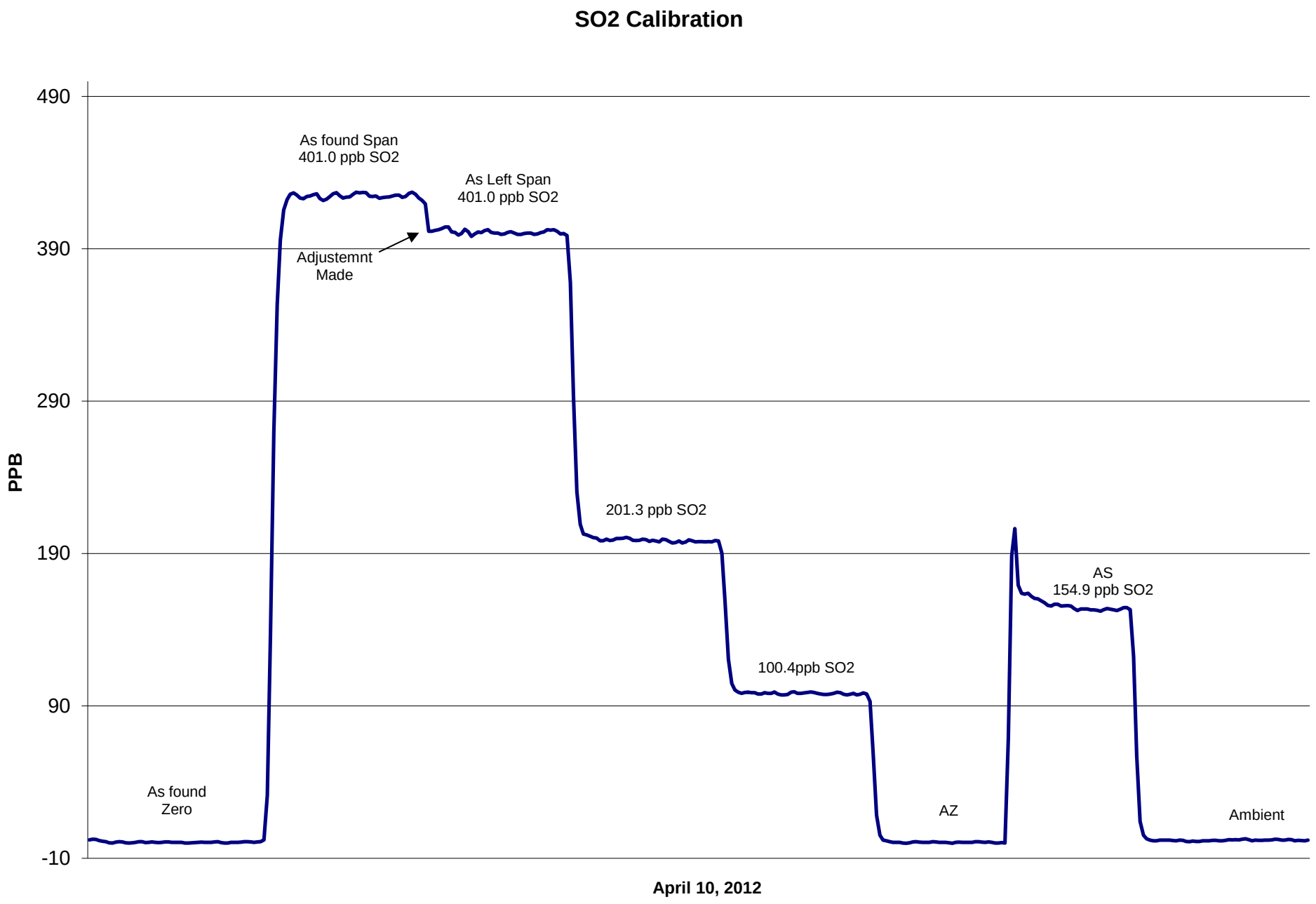
Station Information

Calibration Date	April 10, 2012	Previous Calibration	March 12, 2012
Station Number	6	Station Location	Valleyview
Start Time (MST)	10:55	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	0.5	N/A		
401.0	401.0	0.9998	Correlation Coefficient	0.999919
201.3	198.8	1.0129		
100.4	98.2	1.0221	Slope	0.999594
			Intercept	1.114424




SO2 Calibration
490
390
290
190
90
-10
PPB
As found Span
401.0 ppb SO2
As Left Span
401.0 ppb SO2
Adjustemnt
Made
201.3 ppb SO2
100.4ppb SO2
AS
154.9 ppb SO2
As found
Zero
AZ
Ambient
April 10, 2012

Calibration Report

Parameter **H2S**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 10, 2012	Previous Calibration	March 12, 2012
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:15	End Time (MST)	12:05
Barometric Pressure	702.00 mm	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentratior	5.02 ppm	Cal Gas Expiry Date	7/22/2011
Gas Cert Reference	BLM001715		
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	0.991380	Calculated slope	0.996026
Calculated intercept	0.360495	Calculated intercept	0.452918
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	6.4	ppb	6.2	ppb
Coefficient	1.2		1.2	
Lamp Voltage	788	V	788	V
Chamber Temp	45.0	c	45.1	c
Perm Oven Temp	44.33	c	44.33	c
Pressure	607.60	mm Hg	625.20	mm Hg
Sample Flow	0.413	ccm	0.424	ccm
Lamp Intensity	91.0	%	92.0	%

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)
4996	0.00	0.0	0.1	N/A
4996	79.93	79.0	79.1	0.9992
4996	39.95	39.8	39.3	1.0132
4996	14.96	15.0	14.1	1.0643
4996	0.00	0.0	0.1	As found zero
4996	79.93	79.0	79.1	As found span
			Average Correction Factor	1.0256

Calculated value of As Found Response: 78.71 ppm Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.7	ppm
Auto span	70.6	ppm	64.8	ppm

Notes: Cal went well, no adjustments required

Calibration Performed By: Virginia McKergow

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PAZA**

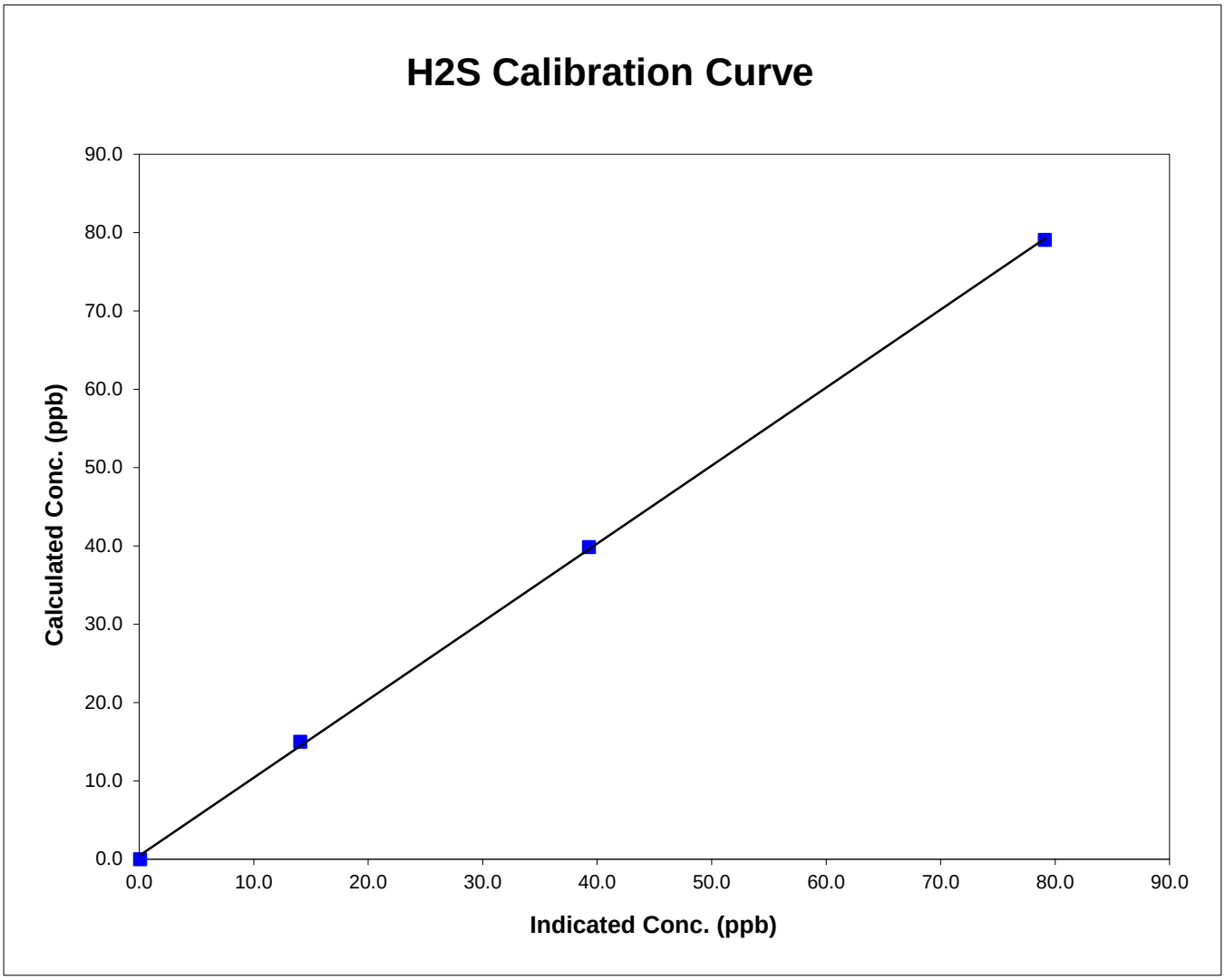
FOCUS AIR QUALITY MONITORING

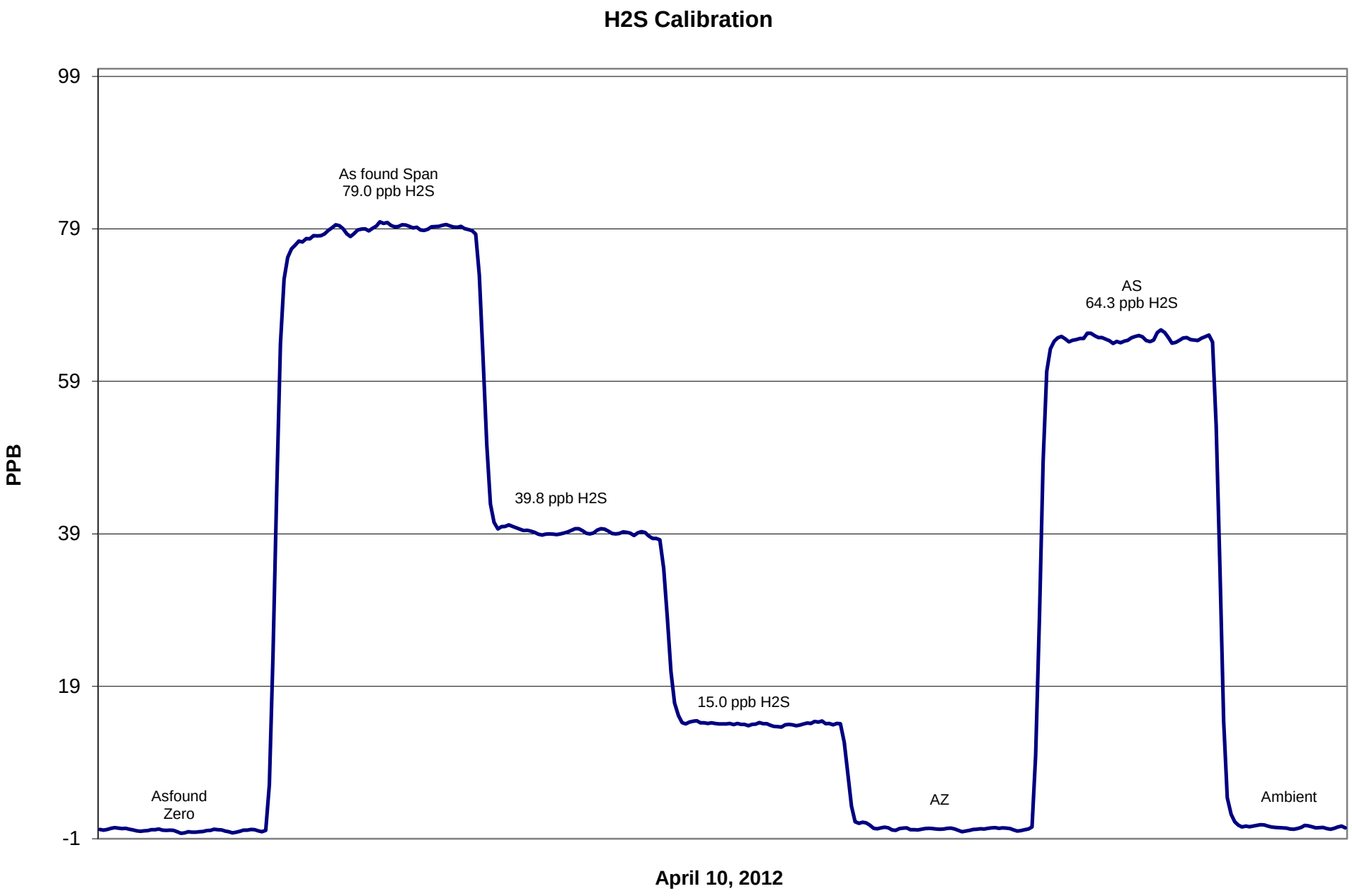
Station Information

Calibration Date	April 10, 2012	Previous Calibration	March 12, 2012
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:15	End Time (MST)	12:05
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
79.0	79.1	0.9992	Correlation Coefficient	0.999824
39.8	39.3	1.0132		
15.0	14.1	1.0643	Slope	0.996026
			Intercept	0.452918




H2S Calibration
99
79
59
39
19
-1
PPB
As found Span
79.0 ppb H2S
39.8 ppb H2S
15.0 ppb H2S
AS
64.3 ppb H2S
Asfound
Zero
AZ
Ambient
April 10, 2012

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO2**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 11, 2011	Previous Calibration	March 12, 2012
Station Number	9	Station Location	Sunset House
Reason: Routine	Install	Removal	Other:
Start Time (MST)	5:41	End Time (MST)	8:57
Barometric Pressure	31.70 inches Hg	Station Temperature	19.7 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentratior	50.58 ppm	Cal Gas Expiry Date	11/29/2013
Gas Cert Reference	LL158102		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.002264	Calculated slope	0.996817
Calculated intercept	-2.008437	Calculated intercept	0.637854
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	16.6		17.3	
Coefficient	0.972		1.030	
UV Lamp Voltage	824	V	832	V
Chamber Temp	44.6	C	44.7	C
Perm Gas Temp	45	C	45	C
Pressure	643.3	mm Hg	660.8	mm Hg
Sample Flow	0.471	LPM	0.481	LPM
Lamp Intesity	37742	Hz	37156	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.6	N/A
4995	39.94	401.2	402.5	0.9967
4995	19.97	201.4	200.6	1.0040
4995	9.93	100.4	98.9	1.0143
4995	0.00	0.0	0.6	As found zero
4995	39.94	401.2	372.8	As found span
			Average Correction Factor	1.0050

Calculated value of As Found Response: 371.0 ppm Percent Change of As Found: 7.5%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	264.0	ppm	284.8	ppm

Notes: Adjusted span

Calibration Performed By: Virginia McKergow

Calibration Summary

Parameter **SO2**

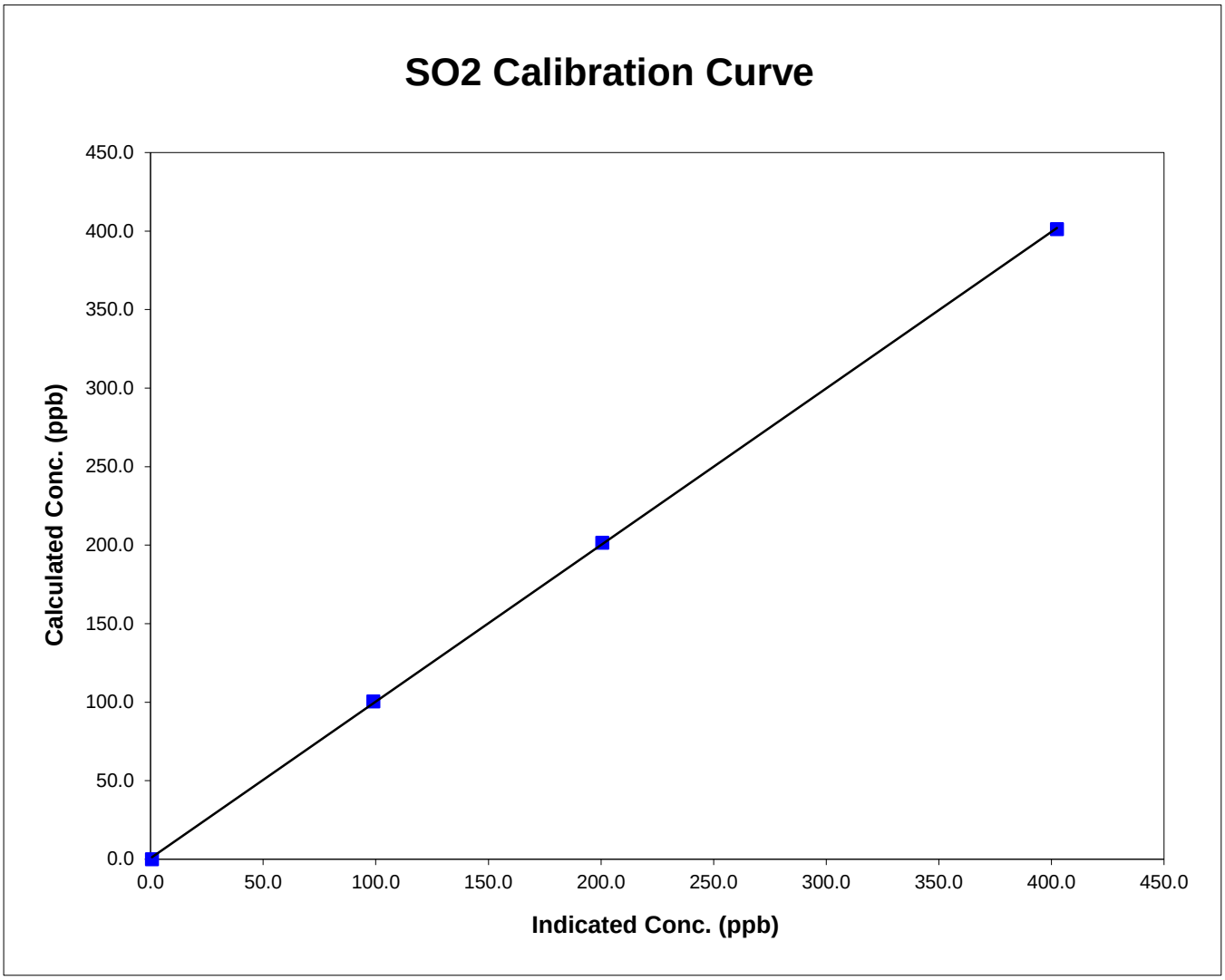
Air Monitoring Network **PAZA**

Station Information

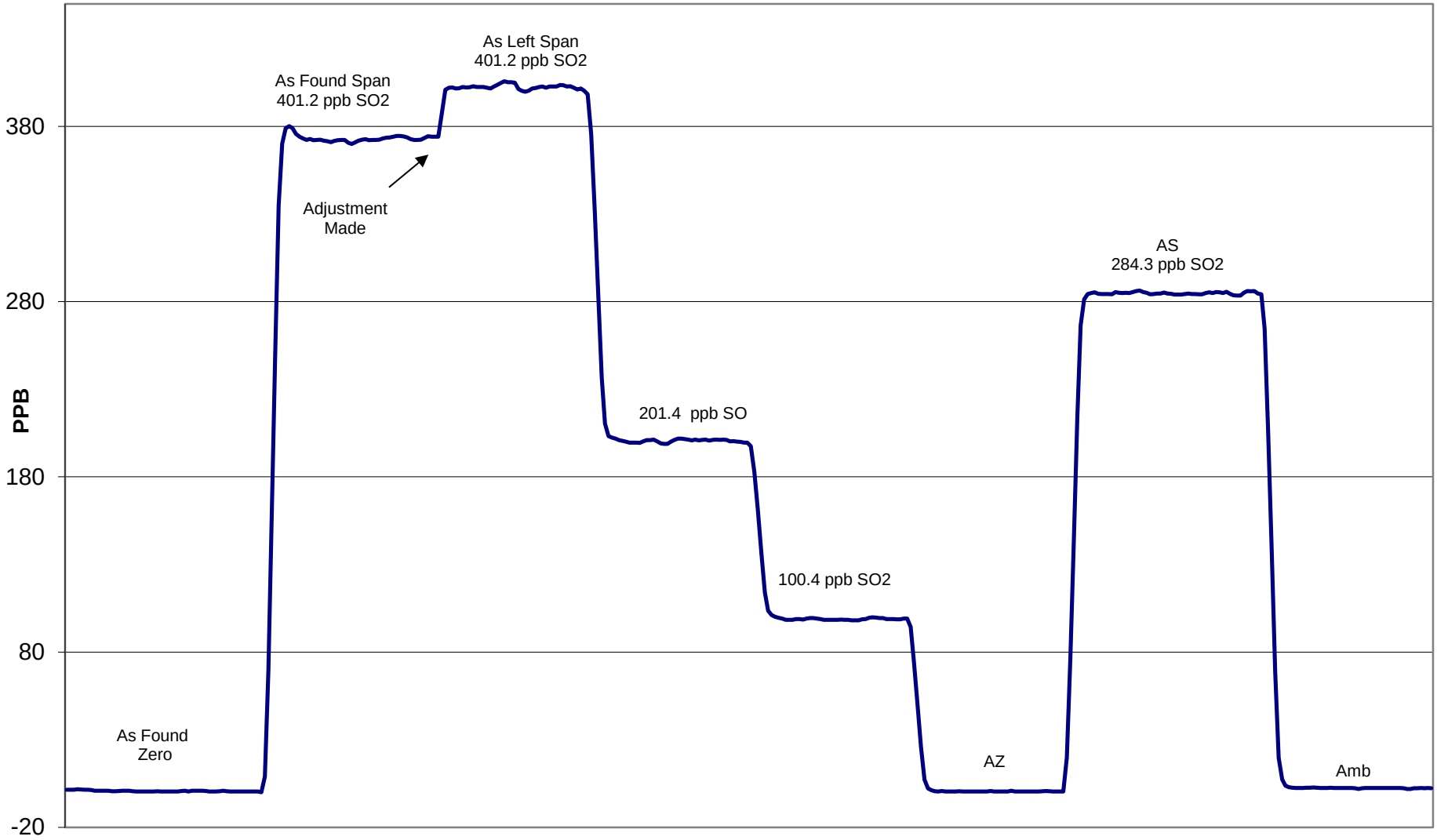
Calibration Date	April 11, 2011	Previous Calibration	March 12, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	5:41	End Time (MST)	8:57
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A		
401.2	402.5	0.9967	Correlation Coefficient	0.999957
201.4	200.6	1.0040		
100.4	98.9	1.0143	Slope	0.996817
			Intercept	0.637854



SO2 Calibration



April 11, 2011

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 11, 2011	Previous Calibration	March 12, 2012
Station Number	9	Station Location	Sunset House

Reason: Routine Install Removal Other:

Start Time (MST)	5:40		End Time (MST)	10:31	
Barometric Pressure	0.907	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	3016	
NO Cal Gas Conc	51.22	ppm	Cal Gas Expiry Date	November 29, 2013	
NOx Cal Gas Conc	51.23	ppm	Cal Gas Serial #	LL158102	

DACS Information

DACS make	CR3000	DACS serial No.	5407

Parameter		NO2	NOx	NO
Before	Data Slope	0.998250	0.999517	1.003974
	Data Offset	-0.697557	-3.182108	-3.216075
After	Data Slope	0.999514	0.998246	1.001807
	Data Offset	-0.191206	-0.269952	-0.381540
Channel #		5	3	4
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	4.4	mV	4.6	mV
NOx bkgnd	4.6	mV	4.8	mV
NO coefficient	1.166		1.240	
NOx coefficient	1.000		1.000	
NO2 conv temp	324.7	Deg C	323.9	Deg C
PMT Temp	-3.1	Deg C	-2.7	Deg C
PMT Volt	-773.3	mV	-773.3	mV
R Cell Press	151.5	in Hg	153.6	in Hg
Sample Flow	0.847	ccm	0.850	ccm

NOTES: Cal went great, minor adjustment made to span only

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: April 11, 2011 Station Location: Sunset House

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.9	0.8	0.3	N/A	N/A
1	4995	39.94	406.4	406.3	0.1	407.8	406.3	-0.1	0.9965	0.9999
2	4995	19.97	204.0	204.0	0.0	203.9	203.2	-0.1	1.0006	1.0037
3	4995	9.93	101.6	101.6	0.0	101.8	101.8	0.1	0.9989	0.9984
AFZ	4995	0.00	0.0	0.0	0.0	0.9	0.8	0.3	0.0000	0.0000
AFS	4995	39.94	406.4	406.3	0.1	384.8	382.6	0.7	1.0560	1.0621
							Average Correction Factor		0.9987	1.0007

As Found Concentrations: NO_X= 380.8 NO= 378.6 As Found Percent Change NO_X= -6.3% NO= -6.8%

GPT Calibration Data

Dilution Flow 4996 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.8	0.8	0.0	0.9	0.8	0.3	N/A	N/A	N/A	N/A
NO point	405.9	405.9	0.0	407.3	405.9	-0.6	0.9967	1.0000	N/A	N/A
300	405.9	110.1	295.8	407.9	110.1	296.2	0.9951	1.0000	0.9984	100.2%
200	405.9	201.6	204.3	408.0	201.6	204.4	0.9950	1.0000	0.9995	100.1%
100	405.9	293.9	112.0	408.1	293.9	112.2	0.9947	1.0000	0.9982	100.2%
					Average Correction Factor		0.9949	1.0000	0.9987	100.1%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.3	-0.2	ppb	0.9	0.2	0.8	ppb
Auto span	200.0	197.1	1.6	ppb	104.9	102.9	1.6	ppb

Calibration Performed By: Virginia McKergow

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

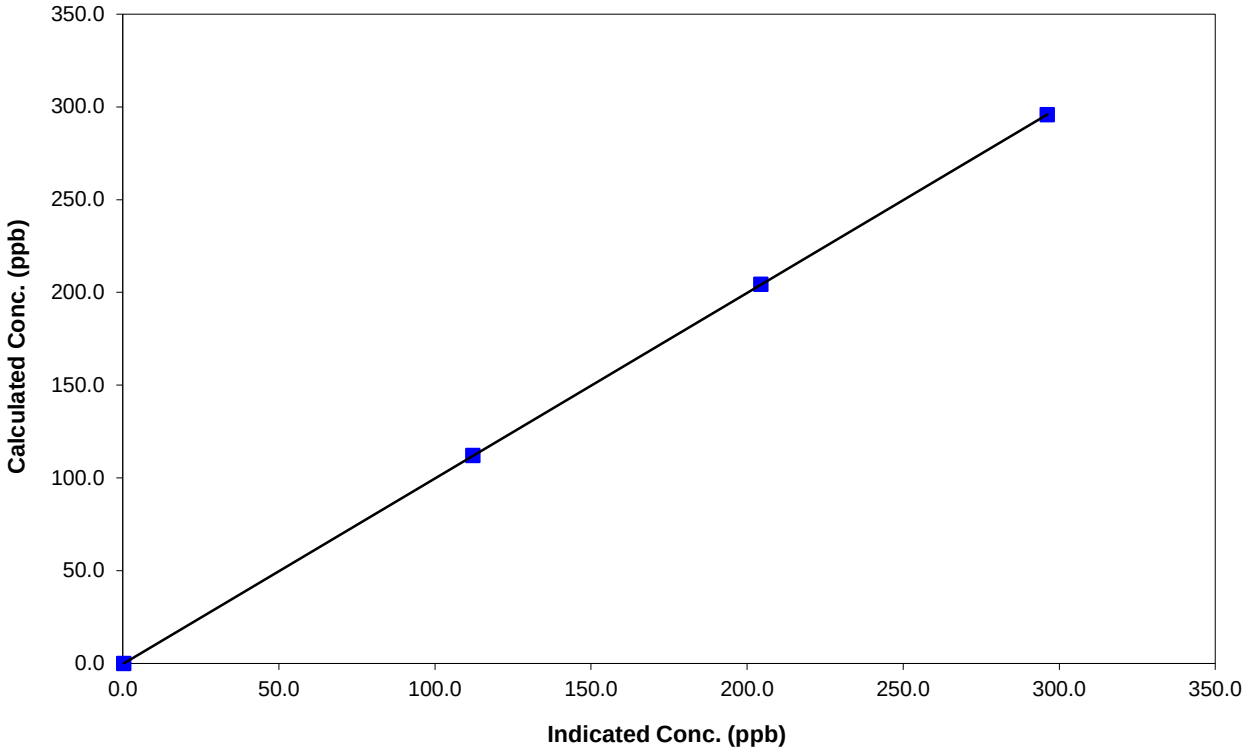
Station Information

Calibration Date	April 11, 2011	Previous Calibration	March 12, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	5:40	End Time (MST)	10:31
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
295.8	296.2	0.9984	Correlation Coefficient	0.999999
204.3	204.4	0.9995		
112.0	112.2	0.9982	Slope	0.999514
			Intercept	-0.191206

NO_2 Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

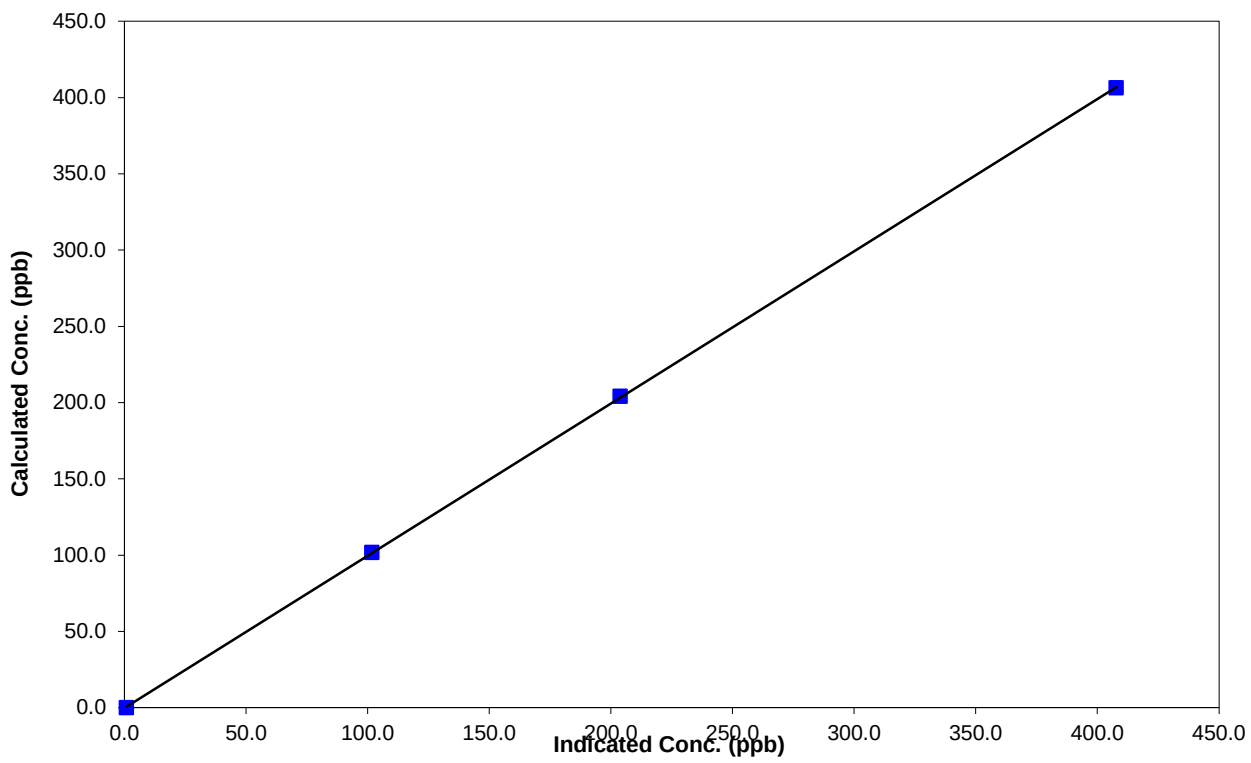
Station Information

Calibration Date	April 11, 2011	Previous Calibration	March 12, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	5:40	End Time (MST)	10:31
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.9	N/A		
406.4	407.8	0.9965	Correlation Coefficient	0.999986
204.0	203.9	1.0006		
101.6	101.8	0.9989	Slope	0.998246
			Intercept	-0.269952

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

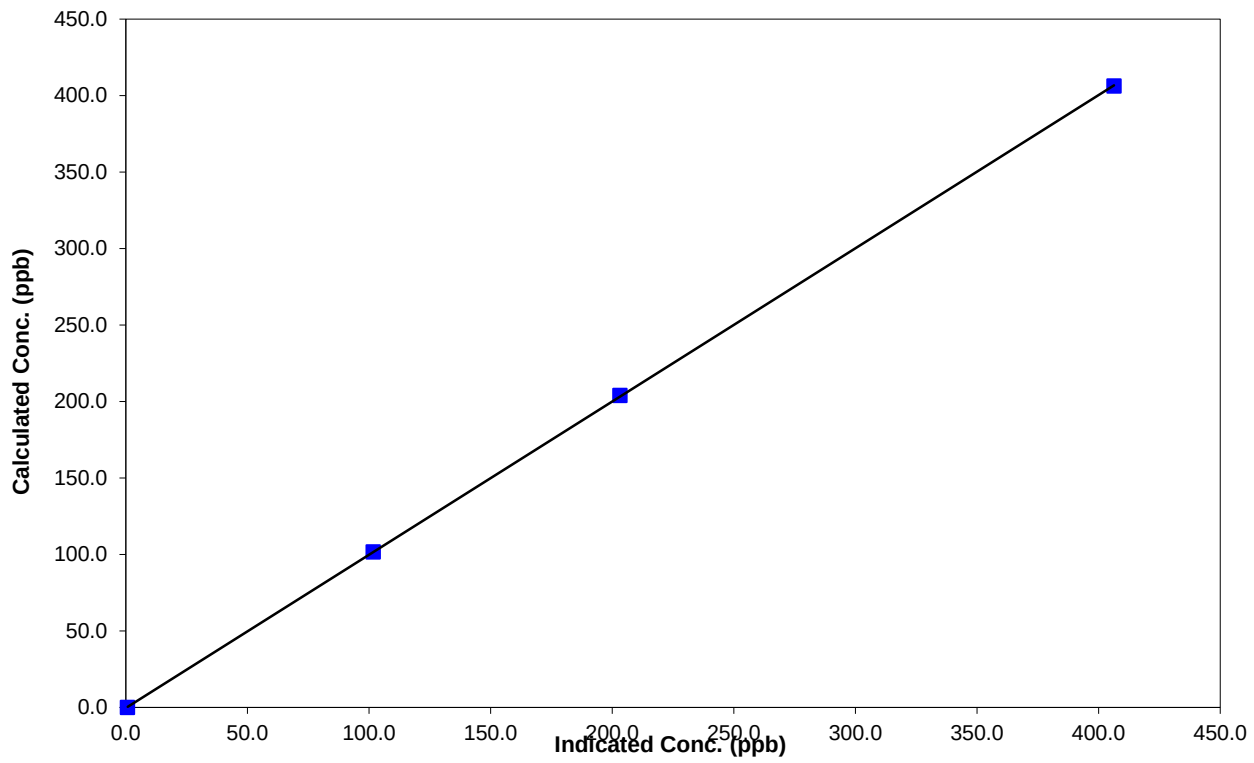
Station Information

Calibration Date	April 11, 2011	Previous Calibration	March 12, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	5:40	End Time (MST)	10:31
Analyzer make	TEI 42i	Analyzer serial #	0701120011

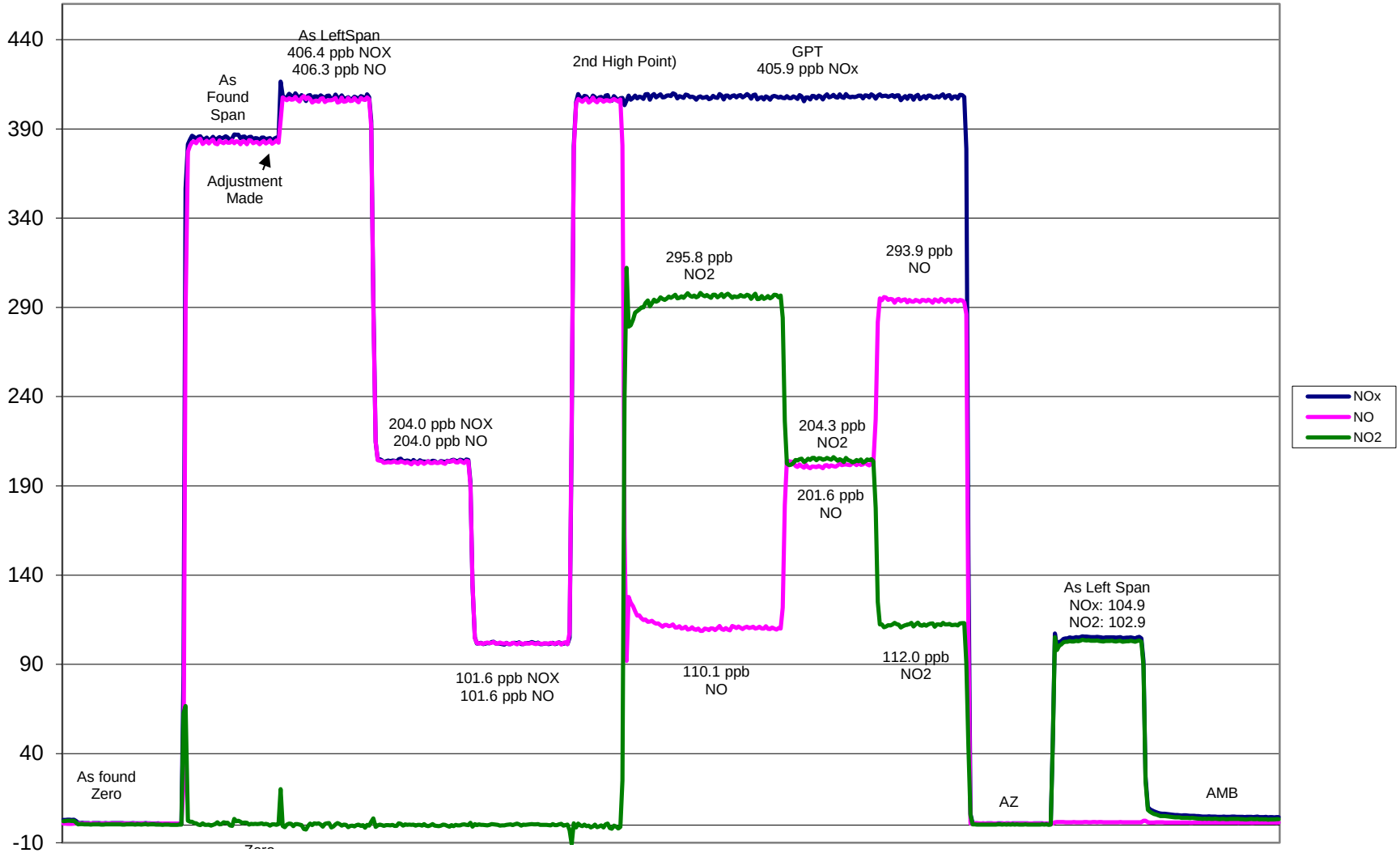
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	N/A		
406.3	406.3	0.9999	Correlation Coefficient	0.999990
204.0	203.2	1.0037		
101.6	101.8	0.9984	Slope	1.001807
			Intercept	-0.381540

NO Calibration Curve



PASZA Sunset House NO_X Calibration



April 11, 2011

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **O3**

Air Monitoring Network **PAZA**

Station Information

Calibration Date	April 11, 2012	Previous Calibration	March 12, 2012
Station Number	9	Station Location	Sunset House
Reason: Routine	Install	Removal remove	Other:
Start Time (MST)	9:21	End Time (MST)	12:26
Barometric Pressure	0.894 atm	Station Temperature	15.7 Deg C
Calibrator	Environics 6100	Serial Number	3474
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	0.997642	Calculated slope	1.002475
Calculated intercept	-1.135493	Calculated intercept	-0.591726
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0.4	ppb	0.4	ppb
Span	1.454		1.486	
Cell A intensity	67630	Hz	64809	Hz
Cell B intensity	98007	Hz	91664	Hz
Pressure	664.30	in Hg	690.40	in Hg
CellA Flow	0.931	ccm	0.952	ccm
Cell B Flow	0.714	cmm	0.727	cmm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (ppb)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4997	0.00	0.0	-0.2	N/A
4997	300.00	295.8	295.4	1.0014
4997	200.00	204.3	203.9	1.0020
4997	100.00	112.0	113.9	0.9835
4997	0.00	0.0	-0.2	As found zero
4997	300.00	295.8	287.1	As found span
			Average Correction Factor	0.9956

Calculated value of As Found Response: 285.5 ppm Percent Change of As Found: -3.5%

	before calibration		after calibration	
Auto zero	0.6	ppb	-0.4	ppb
Auto span	137.7	ppb	209.6	ppb

Notes: Cal went well, minor adjustment made to high point

Calibration Performed By: Virginia McKergow

Calibration Summary

Parameter **O3**

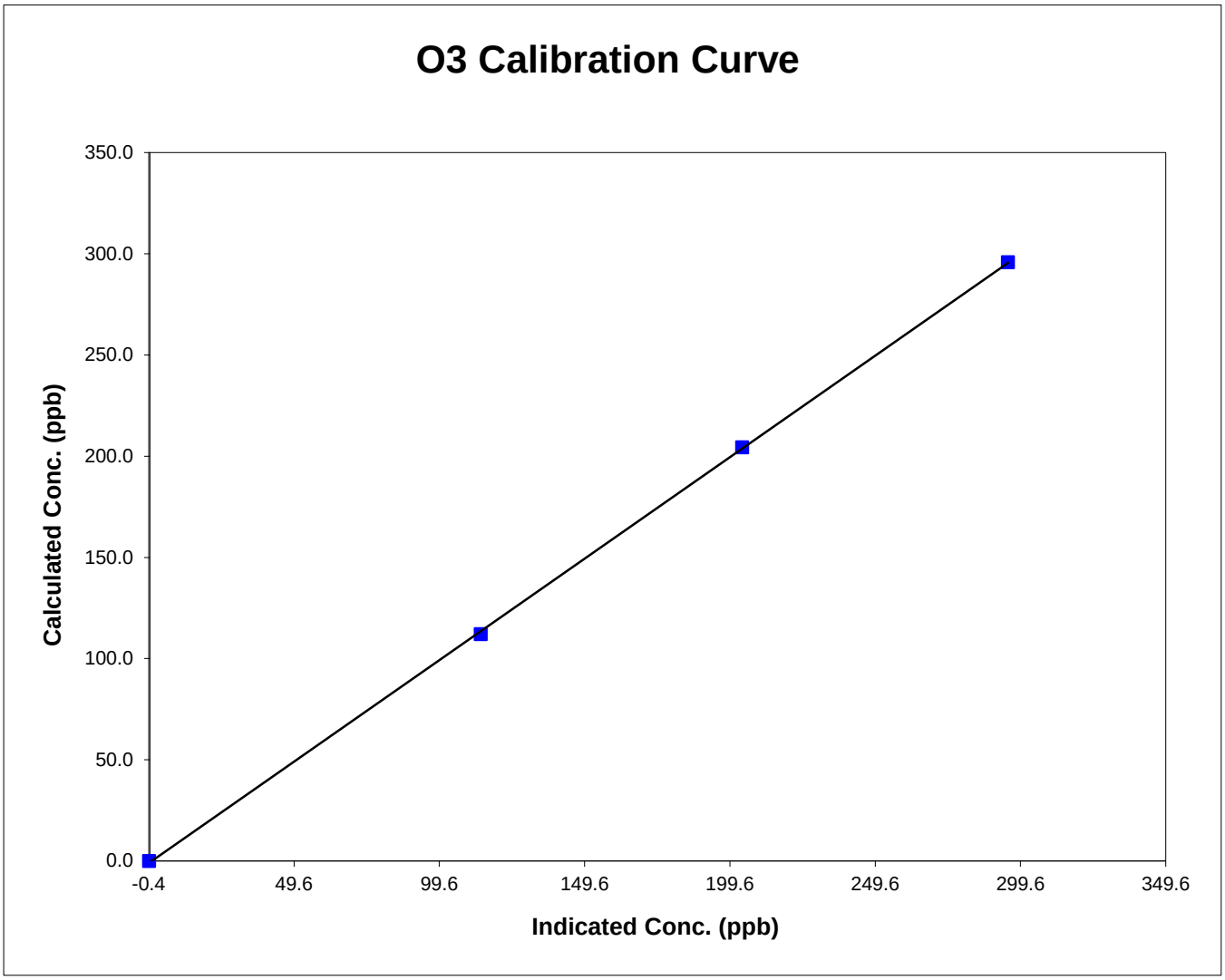
Air Monitoring Network **PAZA**

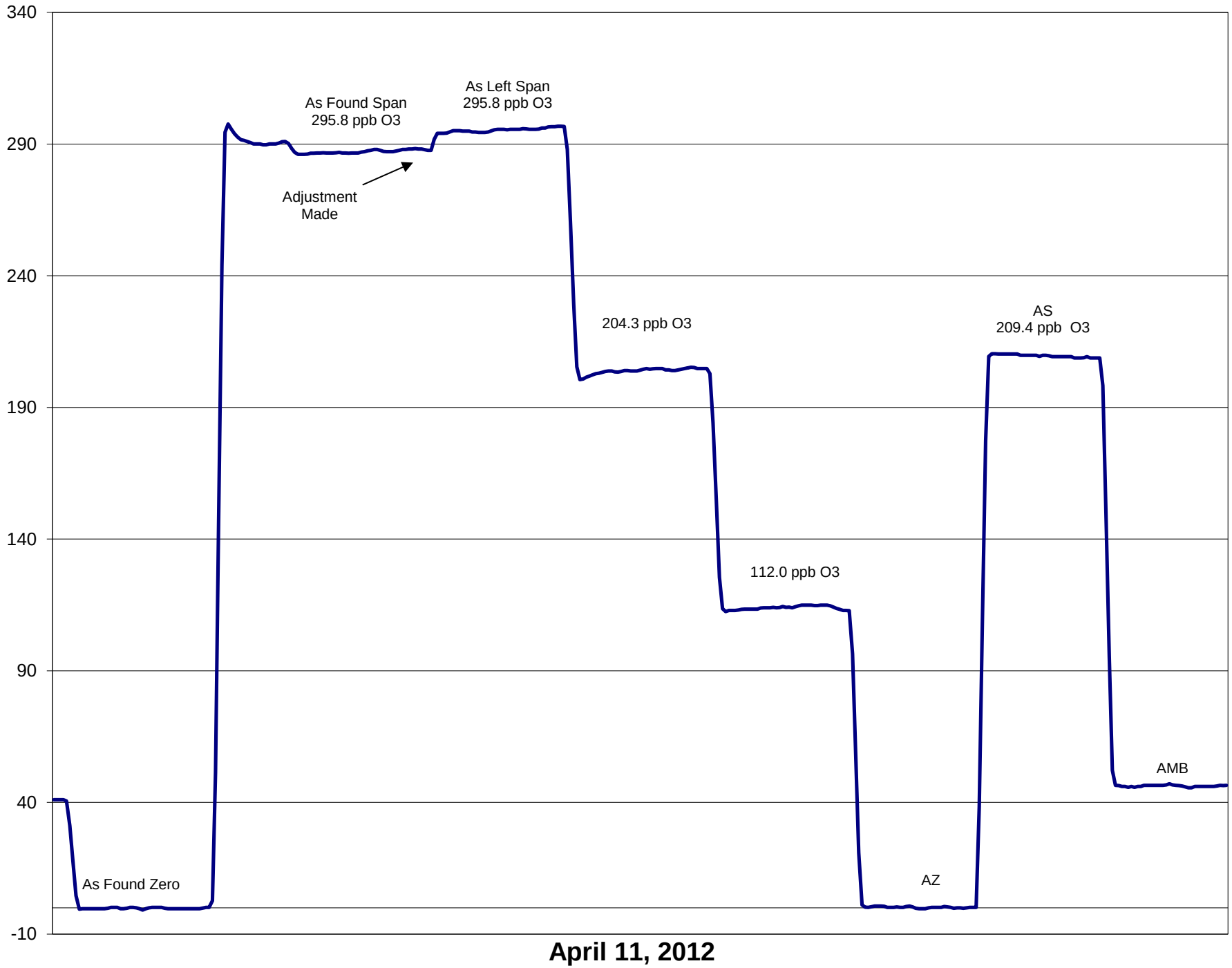
Station Information

Calibration Date	April 11, 2012	Previous Calibration	March 12, 2012
Station Number	9	Station Location	Sunset House
Start Time (MST)	9:21	End Time (MST)	12:26
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	NA		
295.8	295.4	1.0014	Correlation Coefficient	0.999928
204.3	203.9	1.0020		
112.0	113.9	0.9835	Slope	1.002475
			Intercept	-0.591726





April 11, 2012

Calibration Report

Parameter **TRS**

Air Monitoring Network **PAZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 10, 2012	Previous Calibration	March 13, 2012
Station Name	PAZA Rover	Station Location	Sunset House
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	14:26	End Time (MST)	17:31
Barometric Pressure	27.5 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	5.02 ppm	Cal Gas Expiry Date	6/11/2011
Gas Cert Reference	BLM001715		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.994912	Calculated slope	0.989101
Calculated intercept	1.037080	Calculated intercept	0.779524
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	14.4	ppb	13.9	ppb
Coefficient	1.412		1.412	
Lamp Voltage	796	V	796	V
Chamber Temp	44.0	C	44.1	C
Perm gas Temp	45.0	C	45.0	C
Pressure	629.5	mmHg	661.7	mmHg
Sample Flow	0.416	ccm	0.426	ccm
Lamp Intensity	39254.0	Hz	38973.0	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)
4997	0.0	0.0	-0.5	N/A
4997	79.93	79.0	79.2	0.9976
4997	39.93	39.8	39.3	1.0117
4997	14.93	15.0	14.1	1.0635
4997	0.00	0.0	-0.5	As found zero
4997	79.93	79.0	79.2	As found span
			Average Correction Factor	1.0243

Calculated value of As Found Response: 80.36 ppm Percent Change of As Found: -1.7%

	before calibration		after calibration	
Auto zero	-0.6	ppm	0.5	ppm
Auto span	69.6	ppm	71.2	ppm

Notes: Cal went well, no adjustments required.
Sox material was tested, and is showing good scrubbing abilities still.

Calibration Performed By: Virginia McKergow

Calibration Summary

Parameter **TRS**

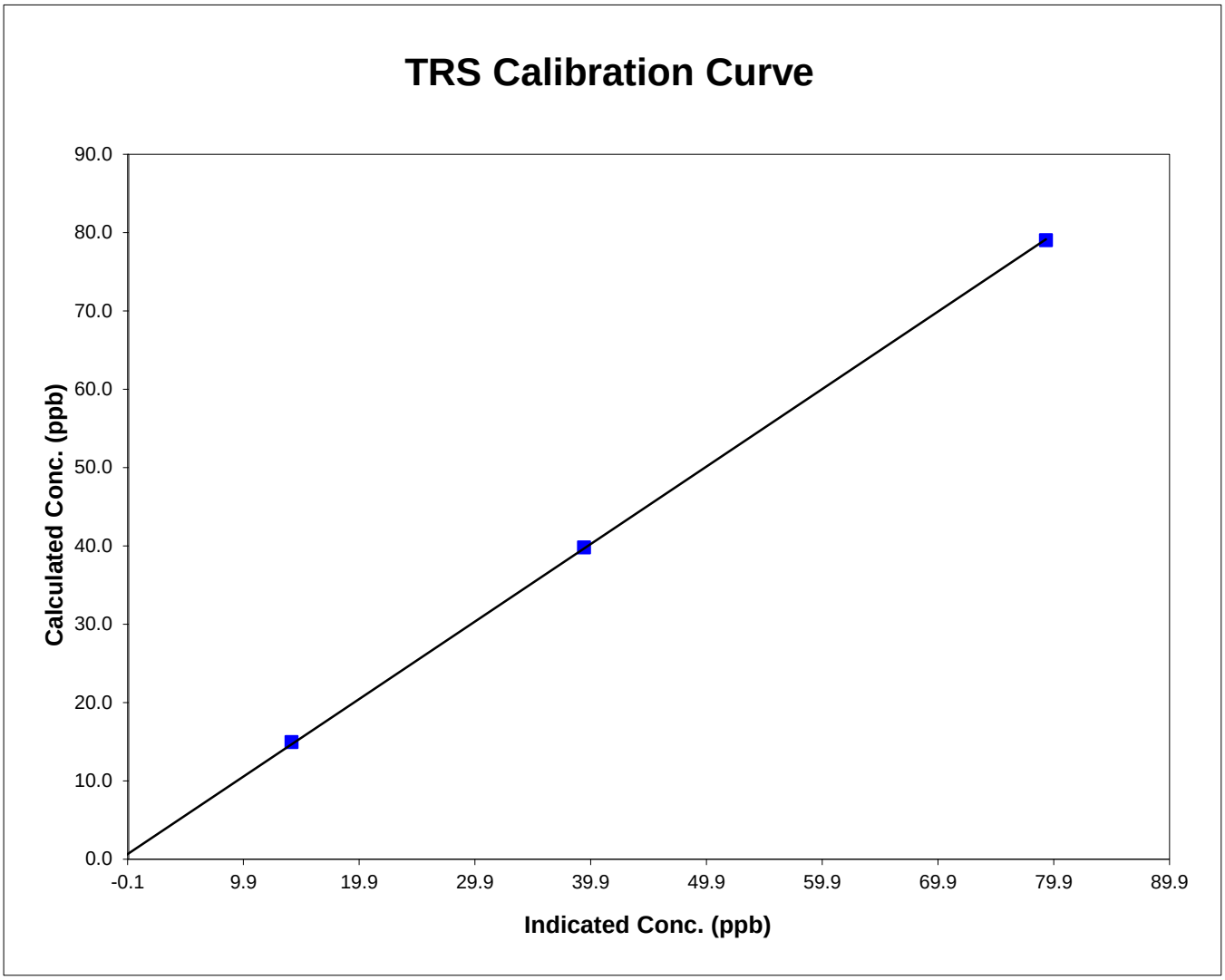
Air Monitoring Network **PAZA**

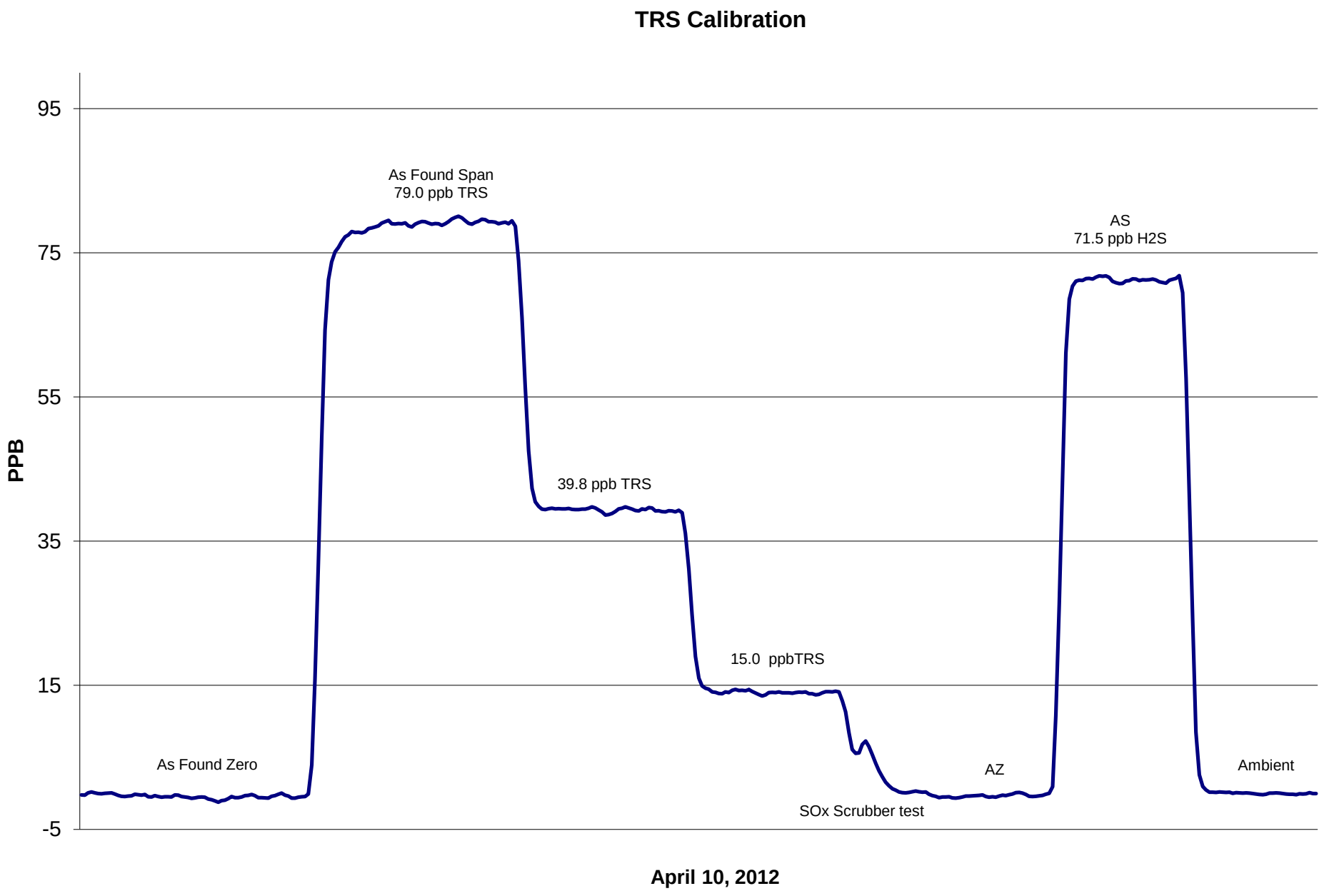
Station Information

Calibration Date	April 10, 2012	Previous Calibration	March 13, 2012
Station Number	PAZA Rover	Station Location	Sunset House
Start Time (MST)	14:26	End Time (MST)	17:31
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.5	N/A		
79.0	79.2	0.9976	Correlation Coefficient	0.999953
39.8	39.3	1.0117		
15.0	14.1	1.0635	Slope	0.989101
			Intercept	0.779524




TRS Calibration
95
75
55
35
15
-5
PPB
As Found Span
79.0 ppb TRS
39.8 ppb TRS
15.0 ppbTRS
SOx Scrubber test
AZ
AS
71.5 ppb H2S
As Found Zero
Ambient
April 10, 2012

AB TEOM PM2.5 Calibration

FOCUS AIR QUALITY MONITORING

STATION: **Rover-Sunset House**

LOCATION: PASA - Grande Prairie

OPERATOR: Virginia McKergow

DATE: 11-Apr-12

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21551
Site Number	2
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	2-Oct-11
Previous Calibration	15-Feb-12

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	0.160	0.150
PUMP OFF	0.140	0.120
NET	0.020	0.030
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na		13.67	3.000
	INDICATED (I)	6.4	0.907		13.67	2.990
As Found Data	MEASURED (AF)	6.9	0.903		14.51	3.100
Adjusted Data	MEASURED (M)	6.9	0.903		14.51	3.100
	DIFFERENCE (M-I)	0.5	-0.004	#DIV/0!	0.84	0.10
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

Ko Audit Filter data *Weight:* 0.11014 *Serial #:* *CVK 2123*

COMMENTS:

I was gettinga 4.5% on the Ko audit.The filter I found and it is 4 years old and appears to be slightly damaged I will bring out a new one for next month's cals.

All other checks were good so analyzer passes

TEOM control unit S/N: 140AB215519705

TEOM sensor unit S/N: 1200B137649705

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