



Peace AirShed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
April 2009

Operations and Reporting
FOCUS
AIR QUALITY MONITORING



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June 3, 2009

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RE: Peace Airshed Zone Association (PASZA) – April 2009 Ambient Air Report

Enclosed is the PASZA Ambient Monitoring Network Report for the month of **April 2009**.

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

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 Summary" and "Continuous Monitoring" pages of the report.

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 SO₂, NO_x, O₃, CO, TRS, THC, solar radiation, wind speed and wind direction analyzers and sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of April. The TEOM was less than 90% operational (failed motherboard) – **Alberta Environment reference #214770**.
- ◆ The temperature and relative humidity sensors have been out of service since November 6th - **Alberta Environment reference #209512**. The sensors were reinstalled on April 16th.

Evergreen Park Station:

- ◆ The measured ambient air quality was within the AAAQO for the Evergreen Park station.
- ◆ All analyzers / 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 / 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 / sensors at the Beaverlodge station had an operational uptime greater than 90% for the month of April.
- ◆ Two sets of calibrations for the were completed in April, however the April 8th set were to make up for the calibrations missed during the month of March.

Portable – Kinuso Station:

- ◆ Installation calibrations were performed at the new portable site, Kinuso, on April 2nd (SO_2 , NO_x and TRS) and April 25th (O_3).
- ◆ The measured ambient air quality was within the AAAQO for the Kinuso station.
- ◆ All analyzers / sensors at the Kinuso 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 / sensors at the Valleyview station had an operational uptime greater than 90% for the month of April.

Passive Monitoring - 43 Stations throughout the PASZA zone:

There were four duplicate sites sampled in the month of April: Silver Valley, Steeprock Creek, Poplar and Shaftesbury. There were two passive samples that were damaged, consequently there are no results for the following: NO_2 sample at Sylvester and SO_2 at Bear Lake. 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 0.5 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.4 ppb to 7.3 ppb, with a mean of 1.3 ppb.
- Monthly average concentrations for O_3 passives ranged from 37.6 ppb to 64.9 ppb, with a mean of 47.6 ppb.

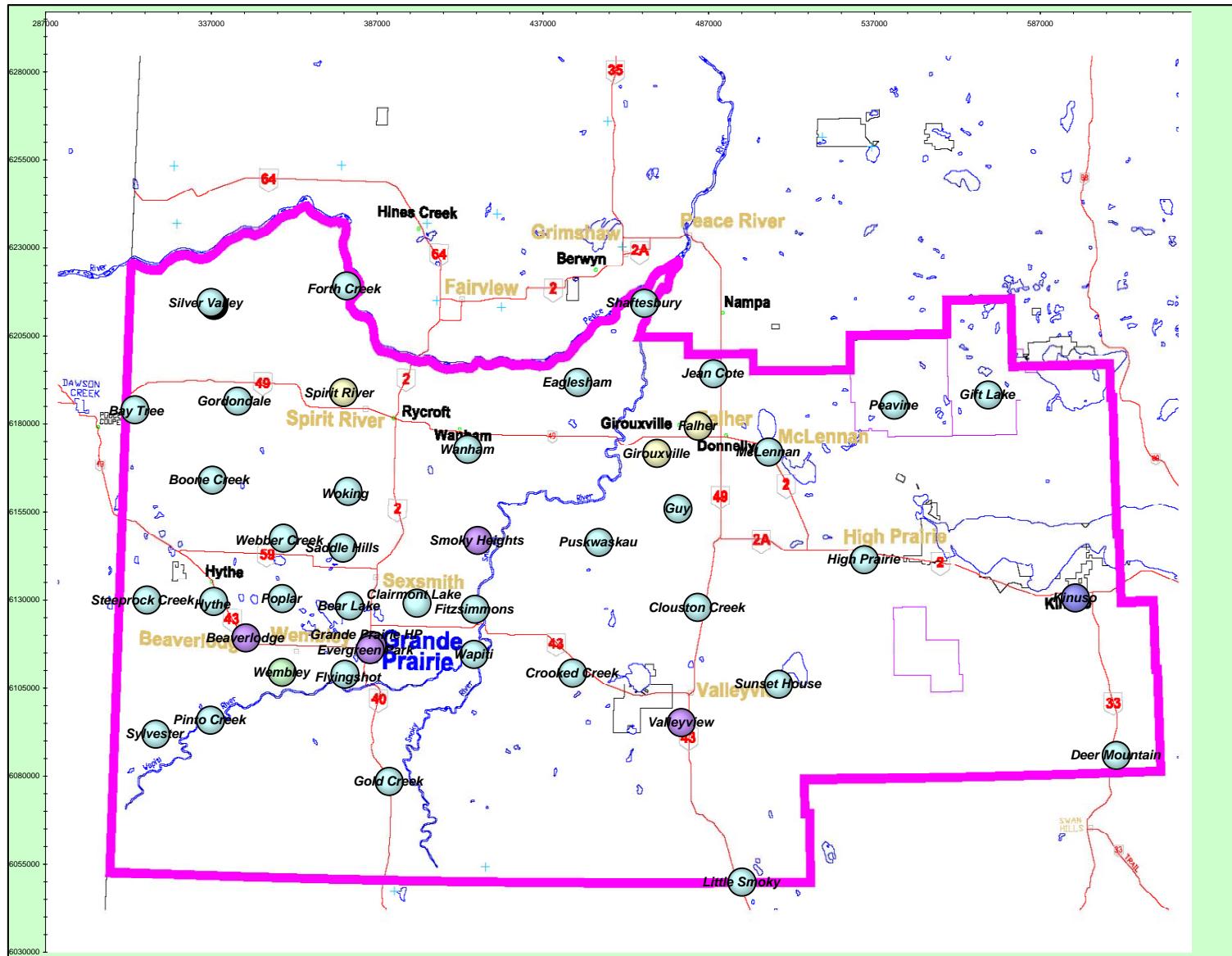
If you have any questions, please contact the Focus Intec office at 1.403.255.9440 (Kelly Baragar or Sharon Whiteley).

On Behalf of the,
Peace Airshed Zone Association

Michael Bisaga
PASZA Program Manager

Sharon Whiteley, B.Sc..
AQM Data Specialist

Location of PASZA Continuous and Passive Monitoring Stations



PASZA Monthly Continuous Data Summary

Pollutant (units)	Peace Airshed Zone Association						Maximum Recorded Values				Operational Time (%)	
	Objectives		Station	Monthly Average	Exceedence		Conc	Day	Conc	Day		
	1-hr	24-hr			1-hr	24-hr						
SO ₂ (ppb)	172	57	Henry Pirker	0.3	0	0	5.8	Apr-15 12:00	0.8	Apr-02	99.7%	
SO ₂ (ppb)	172	57	Evergreen Park	0.3	0	0	6.6	Apr-15 11:00	1.1	Apr-16	100.0%	
SO ₂ (ppb)	172	57	Smoky Heights	0.5	0	0	8.4	Apr-07 18:00	1.3	Apr-05	100.0%	
SO ₂ (ppb)	172	57	Beaverlodge	0.3	0	0	2.2	Apr-02 20:00	1.2	Apr-02	100.0%	
SO ₂ (ppb)	172	57	Portable-Kinuso	0.3	0	0	6.7	Apr-05 08:00	2.1	Apr-05	100.0%	
SO ₂ (ppb)	172	57	Valleyview	0.2	0	0	7.4	Apr-22 07:00	1.1	Apr-22	100.0%	
NO (ppb)			Henry Pirker	1.8	-	-	66.7	Apr-01 08:00	8.7	Apr-07	99.7%	
NO ₂ (ppb)	212	106	Henry Pirker	8.1	0	0	46.8	Apr-06 07:00	20.7	Apr-07	99.7%	
NO _x (ppb)			Henry Pirker	9.9	-	-	111.6	Apr-01 08:00	29.4	Apr-07	99.7%	
NO (ppb)			Beaverlodge	0.1	-	-	6.5	Apr-09 09:00	1.4	Apr-04	100.0%	
NO ₂ (ppb)	212	106	Beaverlodge	5.5	0	0	20.1	Apr-17 09:00	8.5	Apr-05	100.0%	
NO _x (ppb)			Beaverlodge	5.6	-	-	23.6	Apr-17 09:00	8.7	Apr-05	100.0%	
NO (ppb)			Portable-Kinuso	0.2	-	-	2.2	Apr-05 09:00	0.4	Apr-05	100.0%	
NO ₂ (ppb)	212	106	Portable-Kinuso	1.7	0	0	10.3	Apr-05 08:00	4.2	Apr-05	100.0%	
NO _x (ppb)			Portable-Kinuso	1.9	-	-	11.8	Apr-05 08:00	4.6	Apr-05	100.0%	
O ₃ (ppb)	82		Henry Pirker	34.3	0	-	54.9	Apr-02 23:00	44.3	Apr-02	99.7%	
O ₃ (ppb) - 8-hr		65	Henry Pirker		0				53.0	Apr-02		
O ₃ (ppb)	82		Beaverlodge	38.8	0	-	58.7	Apr-02 15:00	49.1	Apr-02	100.0%	
O ₃ (ppb) - 8-hr		65	Beaverlodge		0				54.6	Apr-02		
O ₃ (ppb)	82		Portable-Kinuso	30.5	0	-	50.2	Apr-25 18:00	35.5	Apr-26	100.0%	
O ₃ (ppb) - 8-hr		65	Portable-Kinuso		0				48.5	Apr-25		
CO (ppm)	13		Henry Pirker	0.26	0	-	0.9	Apr-06 07:00	0.3	Apr-06	99.7%	
CO (ppm) - 8-hr		5	Henry Pirker		0				0.5	Apr-06		
THC (ppm)			Henry Pirker	2.18	-	-	3.2	Apr-06 06:00	2.5	Apr-06	99.4%	
TRS (ppb)			Henry Pirker	0.2	-	-	0.7	Apr-05 21:00	0.3	Apr-30	99.7%	
TRS (ppb)			Evergreen Park	0.5	-	-	0.9	Apr-21 20:00	0.6	Apr-15	100.0%	
TRS (ppb)			Smoky Heights	0.3	-	-	0.7	Apr-09 23:00	0.4	Apr-09	100.0%	
TRS (ppb)			Portable-Kinuso	0.5	-	-	0.7	Apr-21 23:00	0.5	Apr-08	100.0%	
H ₂ S (ppb)	10	3	Valleyview	0.1	0	0	1.2	Apr-02 03:00	0.3	Apr-02	100.0%	
PM _{2.5} (µg/m ³)	80	30	Henry Pirker	4.2	0	0	33.2	May-01 00:00	7.5	Apr-30	69.3%	
PM _{2.5} (µg/m ³)	80	30	Evergreen Park	4.0	0	0	30.1	Apr-19 19:00	7.2	Apr-05	99.9%	
PM _{2.5} (µg/m ³)	80	30	Smoky Heights	3.8	0	0	66.1	Apr-27 23:00	8.2	Apr-09	99.0%	
PM _{2.5} (µg/m ³)	80	30	Beaverlodge	2.9	0	0	14.4	Apr-05 19:00	6.4	Apr-25	99.9%	

PASZA Monthly Continuous Data Summary - continued

Apr-2009		Peace Airshed Zone Association					Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
RH (%)		Henry Pirker	55	-	-	94	Apr-21 07:00	74	Apr-21	100.0%	
RH (%)		Beaverlodge	59.7	-	-	96.9	Apr-14 00:00	80.0	Apr-09	100.0%	
RH (%)		Valleyview	57.7	-	-	98.7	Apr-10 09:00	78.0	Apr-13	100.0%	
SR (W/m ²)		Henry Pirker	165.0	-	-	715.5	Apr-28 14:00	232.8	Apr-28	99.7%	
Temp (°C)		Henry Pirker	4	-	-	18	Apr-21 15:00	9	Apr-21	100.0%	
Temp (°C)		Evergreen Park	3.7	-	-	18.4	Apr-21 16:00	8.7	Apr-21	100.0%	
Temp (°C)		Smoky Heights	3.6	-	-	16.3	Apr-21 16:00	8.8	Apr-21	100.0%	
Temp (°C)		Beaverlodge	3.6	-	-	17.9	Apr-21 14:00	8.3	Apr-30	100.0%	
Temp (°C)		Portable-Kinuso	4.2	-	-	14.8	Apr-11 15:00	9.2	Apr-21	100.0%	
Temp (°C)		Valleyview	3.4	-	-	14.9	Apr-21 17:00	8.4	Apr-21	100.0%	
WSPD s (km/hr)		Henry Pirker	9.1	-	-	39.0	Apr-21 19:00	25.7	Apr-22	99.0%	
WSPD s (km/hr)		Evergreen Park	5.7	-	-	25.0	Apr-22 14:00	18.9	Apr-22	100.0%	
WSPD s (km/hr)		Smoky Heights	11.6	-	-	39.0	Apr-18 10:00	27.4	Apr-22	100.0%	
WSPD s (km/hr)		Beaverlodge	7.8	-	-	32.0	Apr-21 18:00	19.2	Apr-22	99.4%	
WSPD s (km/hr)		Portable-Kinuso	8.0	-	-	21.0	Apr-21 10:00	14.9	Apr-05	98.7%	
WSPD s (km/hr)		Valleyview	7.0	-	-	28.0	Apr-21 21:00	18.8	Apr-22	99.9%	
WSPD v (km/hr)		Henry Pirker	2.9	-	-	39.0	Apr-21 19:00	23.0	Apr-22	99.0%	
WSPD v (km/hr)		Evergreen Park	2.1	-	-	26.0	Apr-22 14:00	15.7	Apr-22	100.0%	
WSPD v (km/hr)		Smoky Heights	3.0	-	-	39.0	Apr-18 10:00	23.7	Apr-22	100.0%	
WSPD v (km/hr)		Beaverlodge	1.6	-	-	30.0	Apr-21 18:00	17.2	Apr-22	99.4%	
WSPD v (km/hr)		Portable-Kinuso	1.8	-	-	21.0	Apr-21 10:00	14.7	Apr-05	98.7%	
WSPD v (km/hr)		Valleyview	1.7	-	-	28.0	Apr-21 21:00	17.0	Apr-22	99.9%	
WDIR		Henry Pirker	NW	-	-	-	-	-	-	-	99.9%
WDIR		Evergreen Park	NW	-	-	-	-	-	-	-	99.7%
WDIR		Smoky Heights	WNW	-	-	-	-	-	-	-	100.0%
WDIR		Beaverlodge	NNW	-	-	-	-	-	-	-	99.4%
WDIR		Portable-Kinuso	SSE	-	-	-	-	-	-	-	98.7%
WDIR		Valleyview	NW	-	-	-	-	-	-	-	99.9%

Continuous Network Equipment Summary

PASZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on April 13th (SO₂, NO_x & O₃) and April 14th (CO, THC & TRS). A power bump on April 12th resulted in several hours of invalid data for all parameters.

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
NOx/NO/NO ₂	TEI	42C	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC	TEI	51-CLT	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	R&P	1400AB	A total of two hundred and twenty-two (222) hours were flagged invalid for the month of April. The TEOM failed after the power bump on April 12 th . Parts were ordered (motherboard) and the TEOM was repaired on April 21 st AE reference #214770 .
RH	Met One	083D	The relative humidity sensor has been out of service since November 6 th – AE reference #209512 . Sensor was installed on April 16 th .
ET	Met One	083D	The relative humidity sensor has been out of service since November 6 th – AE reference #209512 . Sensor was installed on April 16 th .
SR	Met One	096-1	No operational issues observed.
WS	Met One	010C	Six (6) hours were flagged invalid – due to instrument flatlining.
WD	Met One	020C	Six (6) hours were flagged invalid – due to instrument flatlining.

PASZA – Evergreen Park Station

General Station Issues

Routine monthly calibrations were performed on April 22nd (SO₂ & TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
TRS	TEI	43C	Spans on April 1, 7, 8, 19, 22 & 26 were less than target – reason under investigation.
PM _{2.5}	R&P	1400AB	One (1) hour was flagged invalid due to instrument error.
ET	Met One/Gill	083D	No operational issues observed.
WS	Met One/ Gill	010C	No operational issues observed.
WD	Met One/ Gill	020C	No operational issues observed.

PASZA – Smoky Heights Station

General Station Issues

Routine monthly calibrations were performed on April 24th (TRS & SO₂). TEOM calibration performed on April 24th.

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	R&P	1400AB	Seven (7) hours were flagged invalid due to baseline drift.
ET	Met One	083D	No operational issues observed.
WS	Met One	010C	No operational issues observed.
WD	Met One	020C	No operational issues observed.

PASZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations were performed on April 8 (SO₂, O₃ & NO_x) and April 23rd (SO₂, O₃ & NO_x).

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	A one (1) hour was flagged invalid due to baseline drift. No other operational issues observed.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS	Blue Sky	857	Four (4) hours were flagged invalid – due to instrument flatlining.
WD	Blue Sky	857	Four (4) hours were flagged invalid – due to instrument flatlining.

PASZA – Kinuso (Portable) Station

General Station Issues

The Portable station was moved and set-up at the Kinuso site on April 1st. Installation calibrations were performed on April 2nd (SO₂, TRS & NO_x) and April 25th (O₃).

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
NOx/NO/NO ₂	TEI	42i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
O ₃	TEI	49C	The installation calibration of the O ₃ analyzer was performed on April 25 th – it was waiting for parts (solenoids).
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS	Met One		Two hours were flagged for maintenance (set up of wind instruments). Seven (7) hours of data were flagged invalid – due to flatlining (possible freezing conditions).
WD	Met One		Two hours were flagged for maintenance (set up of wind instruments). Seven (7) hours of data were flagged invalid – due to flatlining (possible freezing conditions).

PASZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on April 12th (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	TEI	43A	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS	Gill	Met Pak 3	One (1) hour was flagged invalid due to intermittent spiking (possible fog&or snow).
WD	Gill	Met Pak 3	One (1) hour was flagged invalid due to intermittent spiking (possible fog&or snow).

PASZA

Henry Pirker Station

Monthly Summary Tables, Graphs and Roses

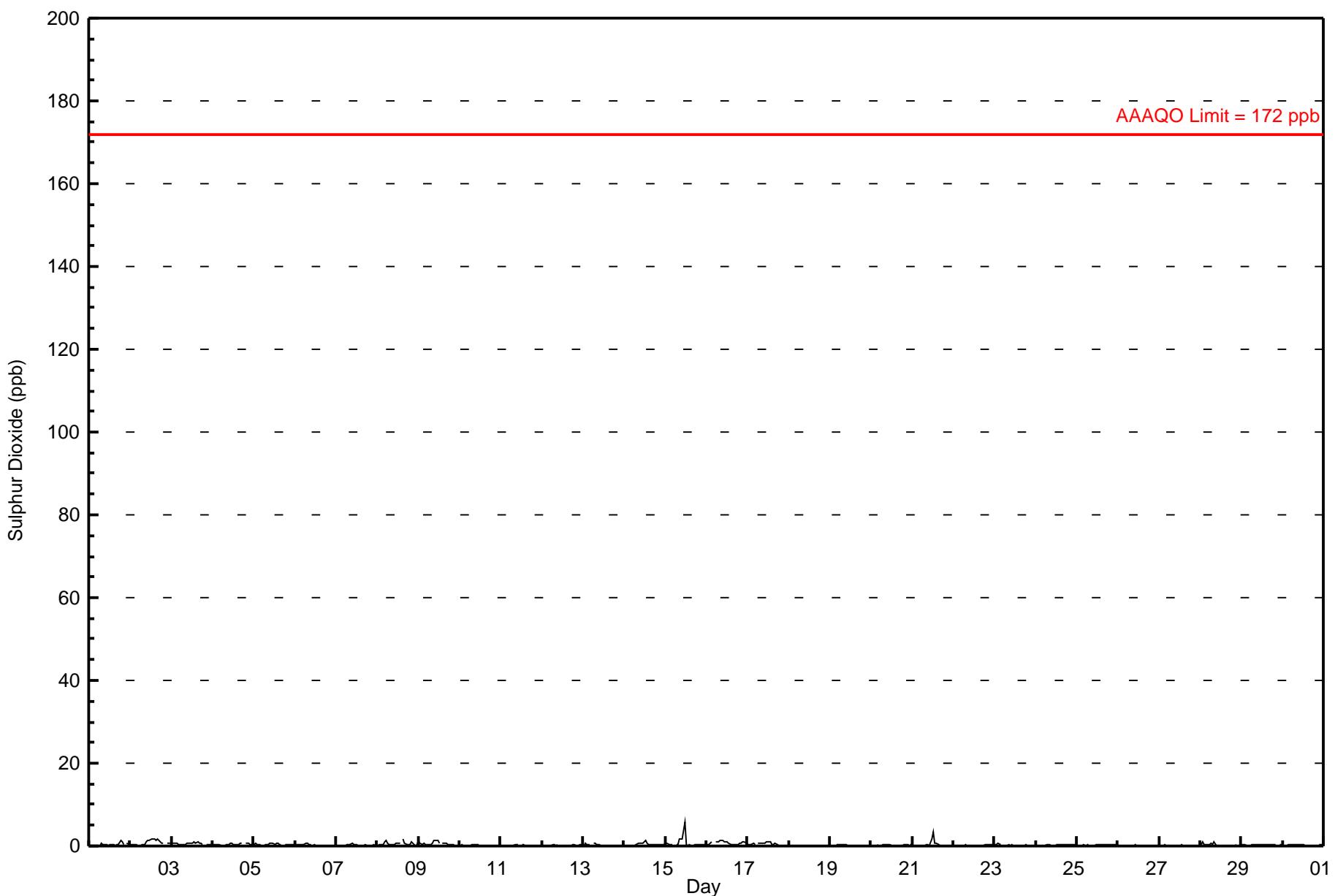
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Sulphur Dioxide (SO₂) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 5.8 ppb on Apr 15 12:00 Maximum Daily Average: 0.8 ppb on Apr 2																			Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 34 Percent Operational Time: 99.7				
Minimum Value: 0 ppb on Apr 1 02:00 Minimum Daily Average: 0.0 ppb on Apr 18 Maximum Diurnal Average: 0.7 ppb at hour 12 Minimum Diurnal Average: 0.2 ppb at hour 5 Monthly Average: 0.32 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.7 P ₉₉ = 1.6																							
Day																			Hourly Period Ending At (MST)		Daily Average		Daily Maximum
1-Apr																			1		0.3	1.2	
2-Apr																			1		0.8	1.8	
3-Apr																			0		0.6	0.9	
4-Apr																			1		0.4	0.6	
5-Apr																			0		0.4	0.7	
6-Apr																			0		0.2	0.7	
7-Apr																			0		0.2	0.6	
8-Apr																			1		0.5	1.6	
9-Apr																			0		0.6	1.4	
10-Apr																			0		0.1	0.4	
11-Apr																			0		0.1	0.5	
12-Apr																			0		0.2	0.4	
13-Apr																			0		0.2	0.7	
14-Apr																			0		0.4	1.3	
15-Apr																			0		0.8	5.8	
16-Apr																			1		0.7	1.3	
17-Apr																			0		0.5	1.1	
18-Apr																			0		0.0	0.1	
19-Apr																			0		0.1	0.5	
20-Apr																			0		0.1	0.5	
21-Apr																			0		0.3	3.5	
22-Apr																			0		0.1	0.4	
23-Apr																			0		0.2	0.8	
24-Apr																			0		0.3	0.5	
25-Apr																			0		0.3	0.5	
26-Apr																			0		0.1	0.2	
27-Apr																			0		0.1	0.4	
28-Apr																			0		0.3	1.0	
29-Apr																			0		0.3	0.5	
30-Apr																			0		0.2	0.5	
0.2 0.3 0.2 0.2 0.2 0.3 0.3 0.4 0.4 0.5 0.7 0.5 0.3 0.3 0.3 0.3 0.2 0.3 0.2 0.3 0.2 0.2																			Diurnal Average				
1.2 1.0 0.8 0.9 1.0 1.4 1.0 1.1 1.5 1.6 1.8 5.8 3.5 1.6 1.6 1.8 1.1 1.2 1.0 1.0 0.9 0.9 0.7																			Diurnal Maximum				
C - Calibration P - Power Failure A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 57 ppb																							

Hourly Averages for SO₂ at Henry Pirker

April 2009



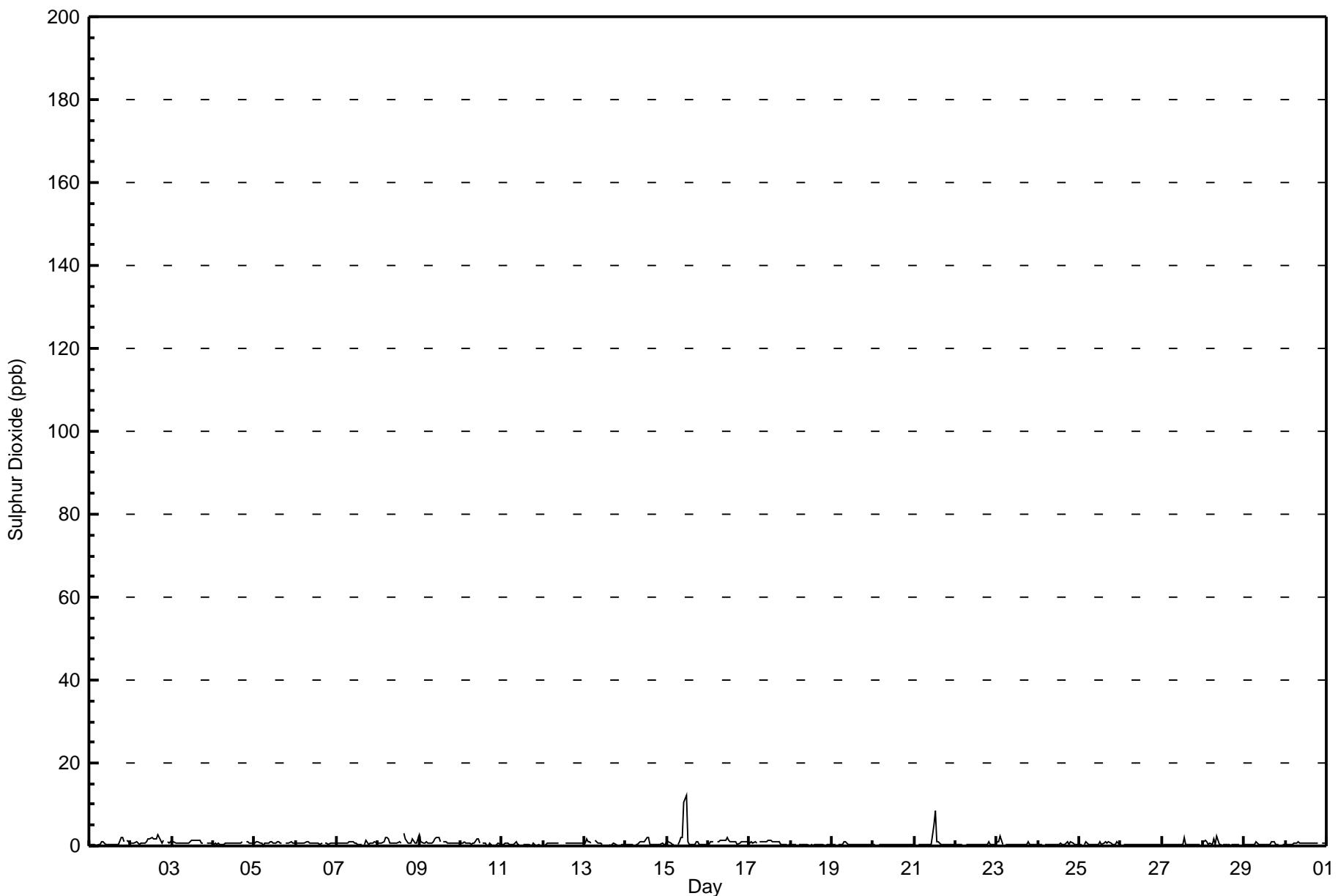
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Henry Pirker - Sulphur Dioxide (SO_2) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 12.1 ppb on Apr 15 12:00																				Maximum Daily Average: 1.7 ppb on Apr 15										Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 34 Percent Operational Time: 99.7												
Minimum Value: 0 ppb on Apr 18 21:00																				Minimum Daily Average: 0.4 ppb on Apr 18																						
Maximum Diurnal Average: 1.3 ppb at hour 12																				Minimum Diurnal Average: 0.5 ppb at hour 21																						
Monthly Average: 0.71 ppb																				Percentiles: $P_1 = 0.0$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.5 $Q_3 = 0.8$ $P_{90} = 1.1$ $P_{99} = 2.6$																						
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum																
1-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	2	1	A	1	1	1	0.7	2.0															
2-Apr	1	1	1	1	1	0	1	1	1	1	2	2	2	2	2	2	3	1	1	1	A	1	1	1	1.1	2.7																
3-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	1	0.9	1.3															
4-Apr	0	1	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	1.0															
5-Apr	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.1															
6-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	0.6	1.1															
7-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0	1	1	1	1	1	1	0.6	1.5														
8-Apr	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.0	3.1															
9-Apr	3	1	1	1	1	1	1	1	1	1	2	2	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.6										
10-Apr	1	1	1	1	1	1	0	1	1	2	2	1	A	1	1	0	0	0	1	0	0	0	0	0	0	0	0.5	1.5														
11-Apr	0	1	1	1	1	0	0	0	1	0	0	0	A	1	0	0	0	0	0	1	1	0	1	0	0	0	0.4	1.0														
12-Apr	0	0	1	1	1	1	1	1	1	1	1	A	P	P	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.6														
13-Apr	1	2	1	1	1	A	2	1	1	1	1	C	C	A	0	0	0	0	1	0	0	0	0	0	0	0	0.6	1.5														
14-Apr	0	0	0	0	0	A	0	0	1	1	1	1	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0.7	2.0														
15-Apr	1	1	1	0	0	A	0	1	2	2	11	12	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1.7	12.1														
16-Apr	0	1	1	1	A	1	1	1	2	1	1	2	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1.1	2.0														
17-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	0	0.9	1.5														
18-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	0.4	0.5														
19-Apr	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9														
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	0.5	0.5														
21-Apr	0	A	0	0	0	0	0	0	0	0	0	5	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	8.6										
22-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	0	0	0.5	1.0										
23-Apr	1	1	2	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.5										
24-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0.6	1.0										
25-Apr	0	0	0	A	0	1	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.6	1.0										
26-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	0	0	0	0.5	0.5										
27-Apr	A	1	1	1	1	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.0										
28-Apr	1	1	1	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	2.5										
29-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.6	1.0										
30-Apr	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.5	1.0															
																									Diurnal Average																	
																									Diurnal Maximum																	

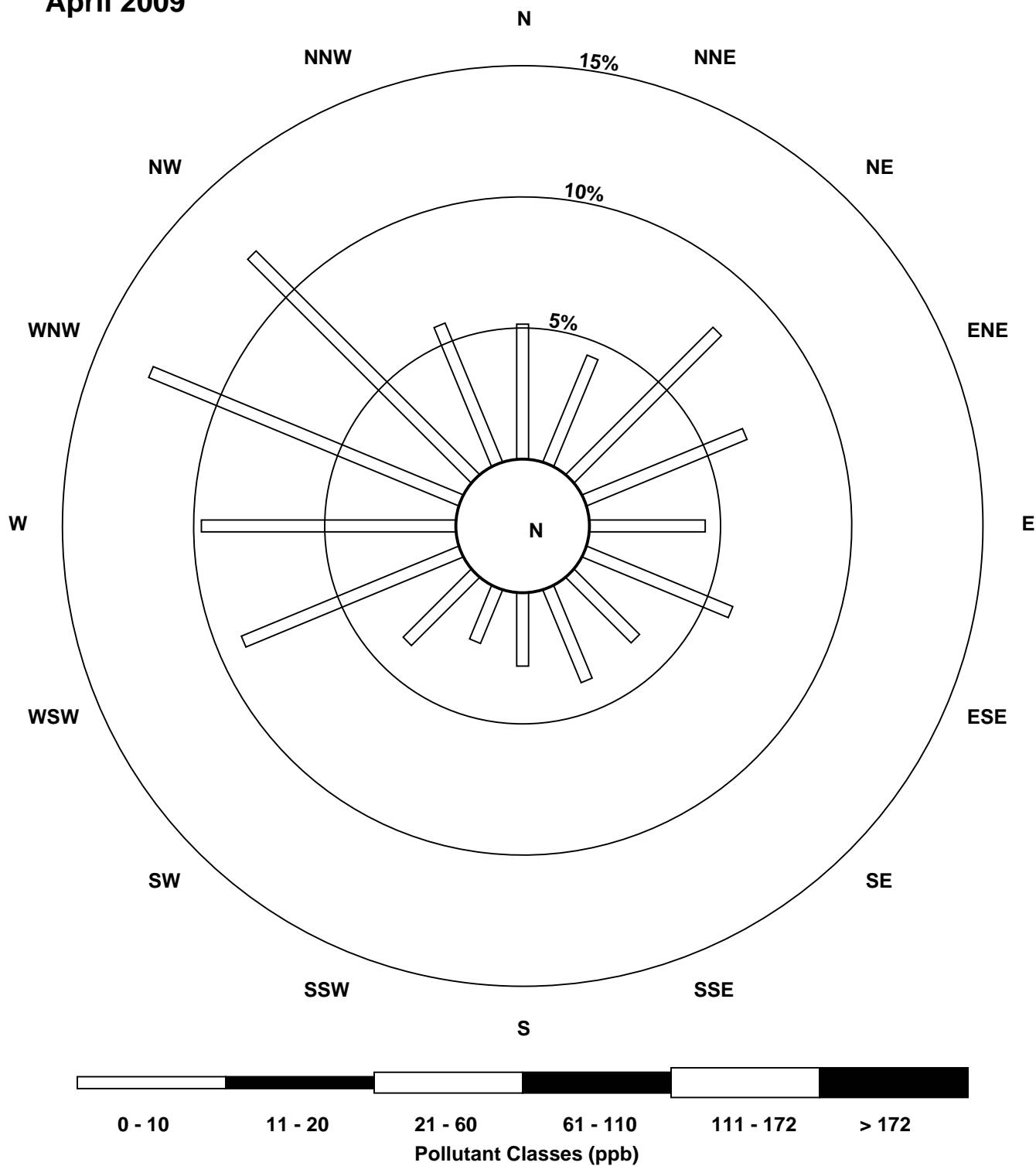
Hourly Maximums for SO₂ at Henry Pirker

April 2009



Pollutant Rose for SO₂ at Henry Pirker

April 2009



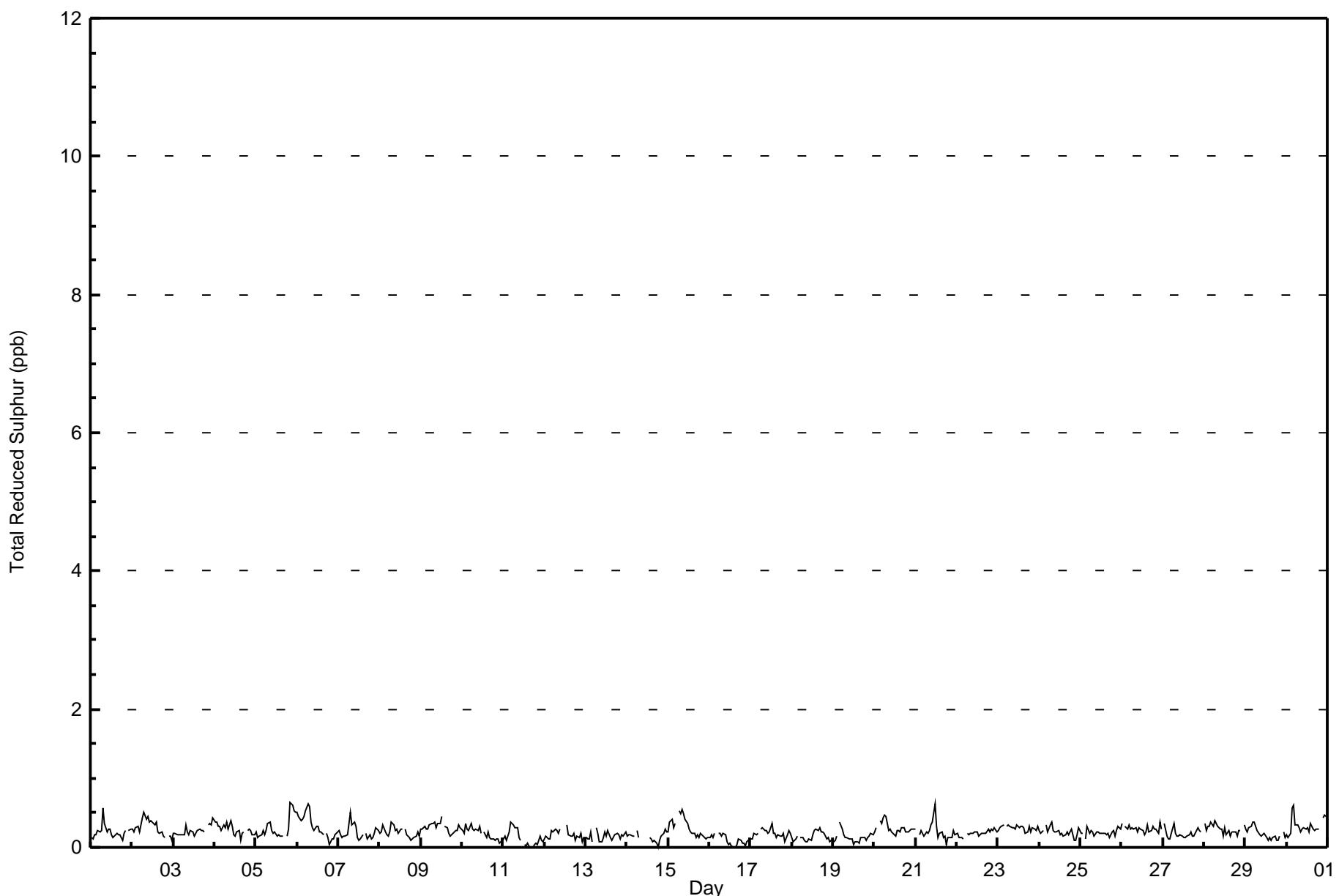
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Total Reduced Sulphur (TRS) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.7 ppb on Apr 5 21:00 Maximum Daily Average: 0.3 ppb on Apr 30																			Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 36 Percent Operational Time: 99.7						
Minimum Value: 0 ppb on Apr 11 17:00 Minimum Daily Average: 0.1 ppb on Apr 16 Maximum Diurnal Average: 0.3 ppb at hour 8 Minimum Diurnal Average: 0.2 ppb at hour 19 Monthly Average: 0.23 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 0.6$																									
Day																			Hourly Period Ending At (MST)						
1-Apr																									
1-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
2-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0.2	0.4
4-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	0.7
6-Apr	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	P	P	0	0	0	0	0	0	0	0.2	0.3
13-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
14-Apr	0	0	0	0	0	A	0	0	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
15-Apr	0	0	0	0	0	A	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
16-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
18-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
20-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
21-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.6
22-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
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	0.2	0.4
25-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
26-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
27-Apr	A	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
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.4
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4
30-Apr	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.6
Diurnal Average																									
Diurnal Maximum																									
C - Calibration P - Power Failure A - Automated Daily Zero Span																									
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																									

Hourly Averages for TRS at Henry Pirker

April 2009



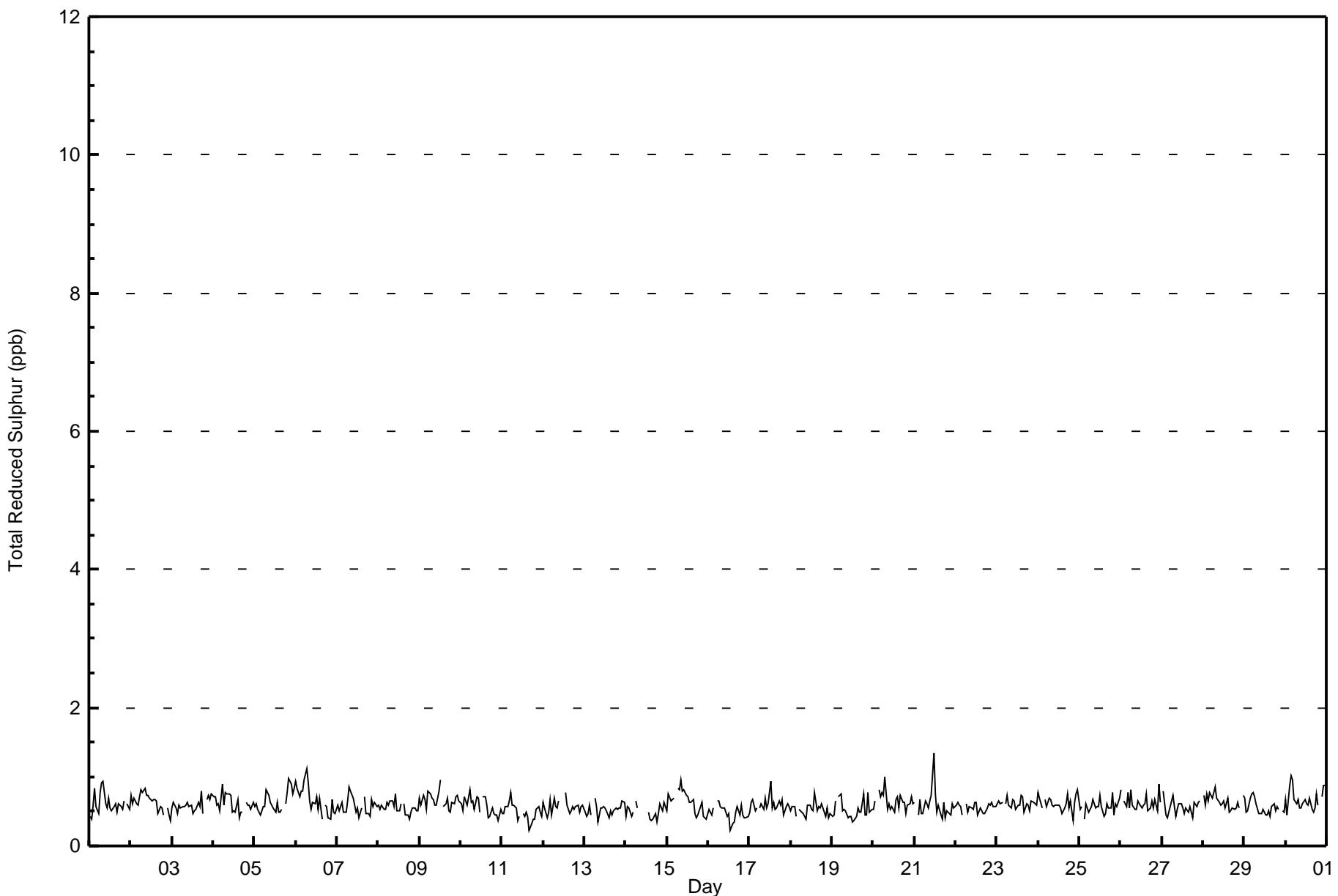
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Henry Pirker - Total Reduced Sulphur (TRS) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 1.3 ppb on Apr 21 12:00																				Maximum Daily Average: 0.7 ppb on Apr 30				Hours in Service: 720					
Minimum Value: 0 ppb on Apr 11 17:00																				Hours of Data: 682									
Maximum Diurnal Average: 0.7 ppb at hour 7																				Hours of Missing Data: 38									
Monthly Average: 0.59 ppb																				Hours of Calibration: 36									
Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 1.0$																				Percent Operational Time: 99.7									
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum			
1-Apr	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	0.6	0.9		
2-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	A	1	0	0	0	0.6	0.8			
3-Apr	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	0.6	0.8		
4-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	1	1	1	1	1	1	0.6	0.9		
5-Apr	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	A	1	1	1	1	1	0.6	1.0		
6-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	0	0	1	0	0	0.7	1.1		
7-Apr	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	1	1	1	1	0.6	0.9		
8-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	0	0.6	0.7		
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.7	1.0		
10-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	0	0	0	0	1	0.6	0.8		
11-Apr	0	0	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0.5	0.8			
12-Apr	1	1	0	0	1	0	1	1	1	1	A	P	P	1	1	0	1	1	1	1	1	1	0	1	1	0.6	0.8		
13-Apr	0	0	0	1	0	A	1	1	0	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0.5	0.7		
14-Apr	0	1	1	0	0	A	1	1	C	C	C	A	0	0	0	0	0	0	0	0	0	1	0	1	1	0.5	0.6		
15-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0.6	1.0		
16-Apr	1	0	0	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0.5	0.7		
17-Apr	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.6	0.9		
18-Apr	1	1	1	0	A	1	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	0	0.5	0.8		
19-Apr	0	0	1	A	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0.5	0.8		
20-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	0.6	1.0		
21-Apr	1	A	0	1	0	0	1	1	1	1	1	1	1	1	0	1	0	0	1	0	1	0	0	1	1	0.6	1.3		
22-Apr	1	1	1	1	0	A	1	0	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	0.6	0.6		
23-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.7		
24-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0.6	0.8		
25-Apr	1	1	A	0	1	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0.6	0.8			
26-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	1	0.6	0.9		
27-Apr	A	1	0	0	0	1	1	1	0	1	1	1	1	0	1	0	0	1	1	1	1	1	A	1	0.6	0.8			
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	A	1	0.6	0.9			
29-Apr	1	0	1	1	1	1	1	1	0	0	0	1	0	0	1	0	1	1	1	1	1	A	1	0	0.6	0.8			
30-Apr	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	0.7	1.0			
Diurnal Average																													
Diurnal Maximum																													
C - Calibration														P - Power Failure														A - Automated Daily Zero Span	

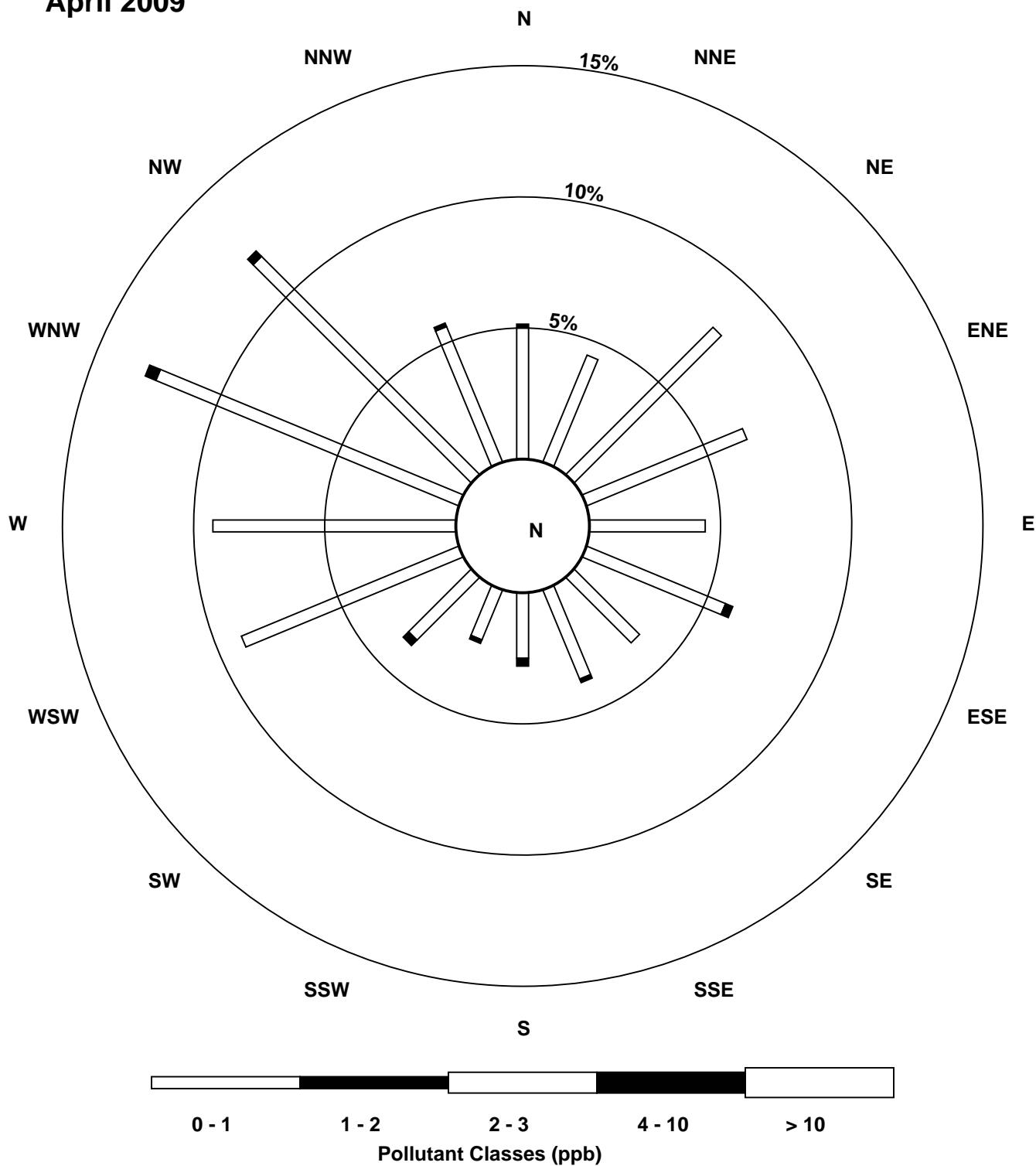
Hourly Maximums for TRS at Henry Pirker

April 2009



Pollutant Rose for TRS at Henry Pirker

April 2009



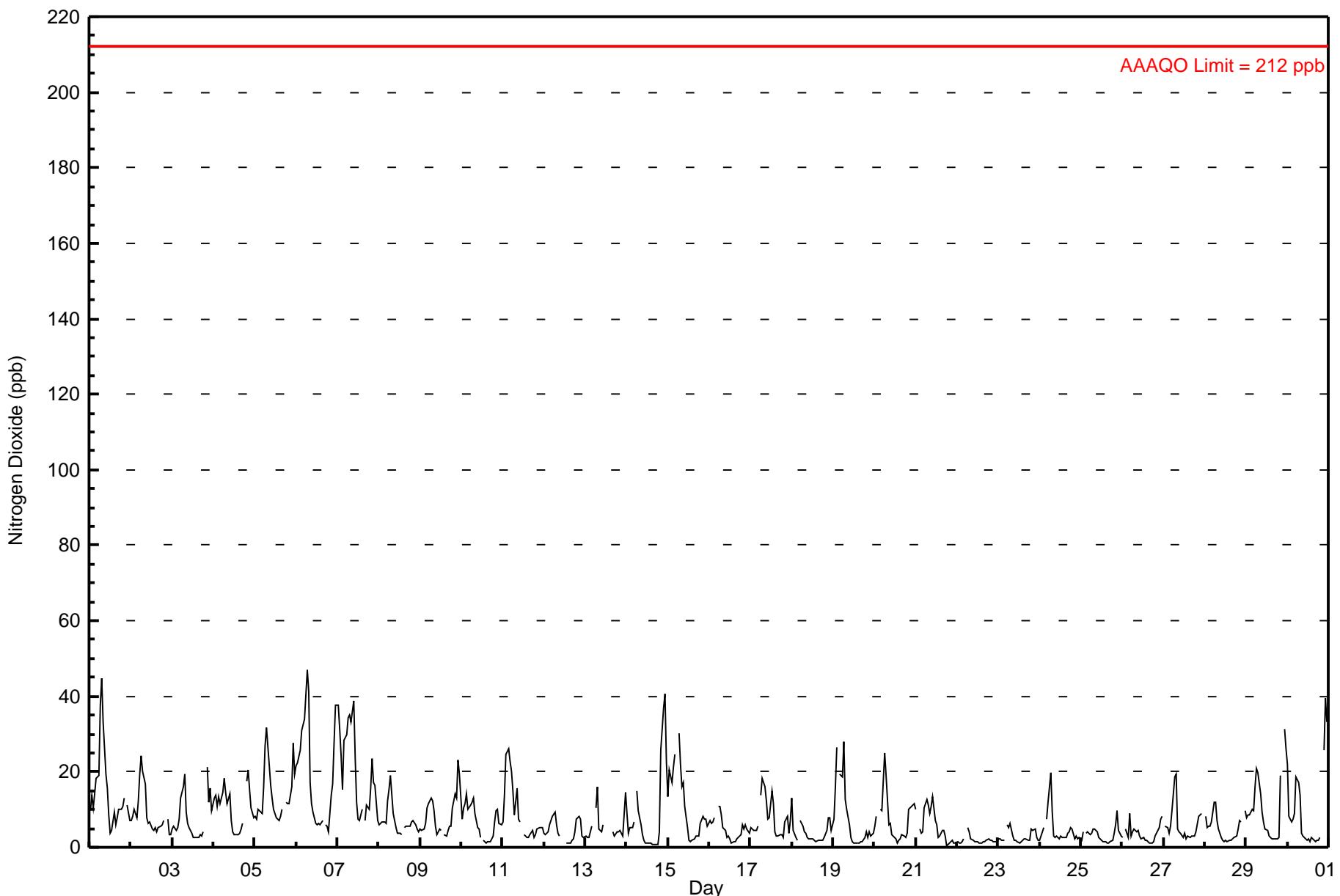
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Nitrogen Dioxide (NO₂) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 46.8 ppb on Apr 6 07:00 Maximum Daily Average: 20.7 ppb on Apr 7																				Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 36 Percent Operational Time: 99.7						
Minimum Value: 1 ppb on Apr 21 19:00 Minimum Daily Average: 1.9 ppb on Apr 22 Maximum Diurnal Average: 17.6 ppb at hour 7 Minimum Diurnal Average: 2.8 ppb at hour 16 Monthly Average: 8.10 ppb Percentiles: P ₁ = 0.9 P ₁₀ = 1.7 Q ₁ = 2.8 Median = 5.3 Q ₃ = 10.2 P ₉₀ = 18.9 P ₉₉ = 37.4																										
Day																				Hourly Period Ending At (MST)						
1																										
1-Apr	10	14	10	14	18	19	38	45	33	19	15	8	4	4	9	6	8	10	10	11	13	A	11	7	14.7	44.8
2-Apr	7	8	10	8	12	19	24	20	17	8	6	7	5	5	5	4	5	6	6	7	A	8	3	3	8.9	24.2
3-Apr	5	6	5	5	7	13	16	19	9	6	5	4	2	3	3	3	4	3	4	21	12	16	10	7.8	21.3	
4-Apr	13	14	11	13	12	15	18	15	12	14	7	4	3	3	3	4	5	6	6	17	21	15	10	8	20.7	
5-Apr	8	8	10	9	9	16	27	32	22	17	13	10	8	8	7	8	10	A	12	11	11	16	27	20	13.9	31.6
6-Apr	22	23	26	31	32	34	47	41	17	12	9	6	6	6	6	7	A	6	6	4	14	17	27	37	19.0	46.8
7-Apr	38	31	24	15	28	30	34	35	33	39	24	12	7	7	10	A	7	11	10	16	24	17	16	7	20.7	38.9
8-Apr	6	6	7	7	7	12	15	19	9	7	5	4	4	4	A	5	6	6	6	7	7	6	5	4	7.1	19.0
9-Apr	5	4	5	6	11	12	13	12	10	6	3	5	4	3	3	5	5	6	10	14	13	23	19	8.6	23.0	
10-Apr	8	10	12	14	10	11	12	13	9	5	5	3	A	2	1	2	1	2	3	7	10	10	6	6	7.0	14.3
11-Apr	7	14	25	26	23	20	15	9	15	7	7	A	3	3	2	3	3	4	3	3	5	5	5	5	9.3	26.2
12-Apr	4	3	4	6	7	8	9	6	4	3	A	P	P	1	1	1	2	2	4	7	8	8	3	3	4.5	9.4
13-Apr	3	3	2	4	6	A	10	16	5	4	6	C	C	C	A	4	3	4	4	4	4	4	3	14	5.6	16.0
14-Apr	9	4	5	5	7	A	15	10	6	4	2	1	1	1	1	1	1	1	4	26	37	41	23	8.9	40.8	
15-Apr	13	20	17	21	25	A	30	22	16	17	11	5	2	1	2	2	3	3	6	8	7	8	6	10.9	30.2	
16-Apr	7	6	7	8	A	11	11	8	5	4	3	3	2	1	1	2	2	3	3	6	5	6	5	4	4.9	10.8
17-Apr	5	5	4	4	6	A	14	18	16	12	7	8	15	12	4	3	3	3	3	7	8	4	7	7	7.5	18.4
18-Apr	13	5	3	2	A	7	5	4	4	2	2	2	2	2	2	2	2	2	2	3	5	8	8	5	3.9	13.2
19-Apr	7	16	26	A	19	19	28	13	10	6	3	2	1	1	1	1	1	2	3	4	3	4	3	4	7.7	28.1
20-Apr	6	8	A	10	10	18	25	19	6	6	3	3	2	1	2	2	3	3	4	10	11	11	12	7.7	24.9	
21-Apr	10	A	5	4	4	11	13	11	9	11	13	7	6	3	3	4	5	3	1	1	2	2	1	1	5.5	13.3
22-Apr	1	1	1	1	2	A	5	4	2	2	2	1	1	1	1	1	2	2	2	2	2	2	1	2	1.9	5.1
23-Apr	2	2	2	2	A	6	5	6	3	2	2	2	1	1	2	2	2	2	5	4	5	3	2	2	2.8	6.3
24-Apr	2	3	5	A	8	12	20	9	3	2	3	2	3	3	2	3	4	4	5	5	2	3	2	2	4.7	19.6
25-Apr	2	4	A	4	4	3	4	5	5	4	3	2	2	1	2	1	1	2	2	4	6	10	5	3	3.3	9.6
26-Apr	3	A	5	3	9	3	4	5	4	4	3	2	3	2	2	1	1	1	3	4	5	8	8	3.6	9.1	
27-Apr	A	5	5	4	6	10	19	20	5	4	4	3	4	2	3	2	3	3	4	8	9	9	A	6.1	19.5	
28-Apr	8	5	6	7	12	12	7	5	3	2	1	2	2	2	2	3	3	5	7	7	A	10	5.1	11.9		
29-Apr	8	9	8	10	10	16	21	20	14	9	7	5	5	3	3	2	2	2	3	19	A	31	26	10.2	31.3	
30-Apr	22	8	7	7	9	19	17	14	4	3	2	2	2	3	2	2	2	3	A	26	39	33	33	9.9	39.5	
8.7 8.8 9.2 9.0 11.3 14.2 17.6 15.9 10.4 8.1 6.1 4.2 3.7 3.0 3.1 2.8 3.4 3.6 3.9 5.8 9.6 9.9 11.6 10.0 Diurnal Average 37.6 31.5 26.5 31.0 32.4 34.1 46.8 44.8 33.1 38.9 23.7 11.9 15.0 11.6 10.1 8.1 10.2 11.2 12.1 17.4 25.6 36.9 40.8 37.5 Diurnal Maximum																										
C - Calibration P - Power Failure A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 212 ppb 24-hr 106 ppb																										

Hourly Averages for NO₂ at Henry Pirker

April 2009



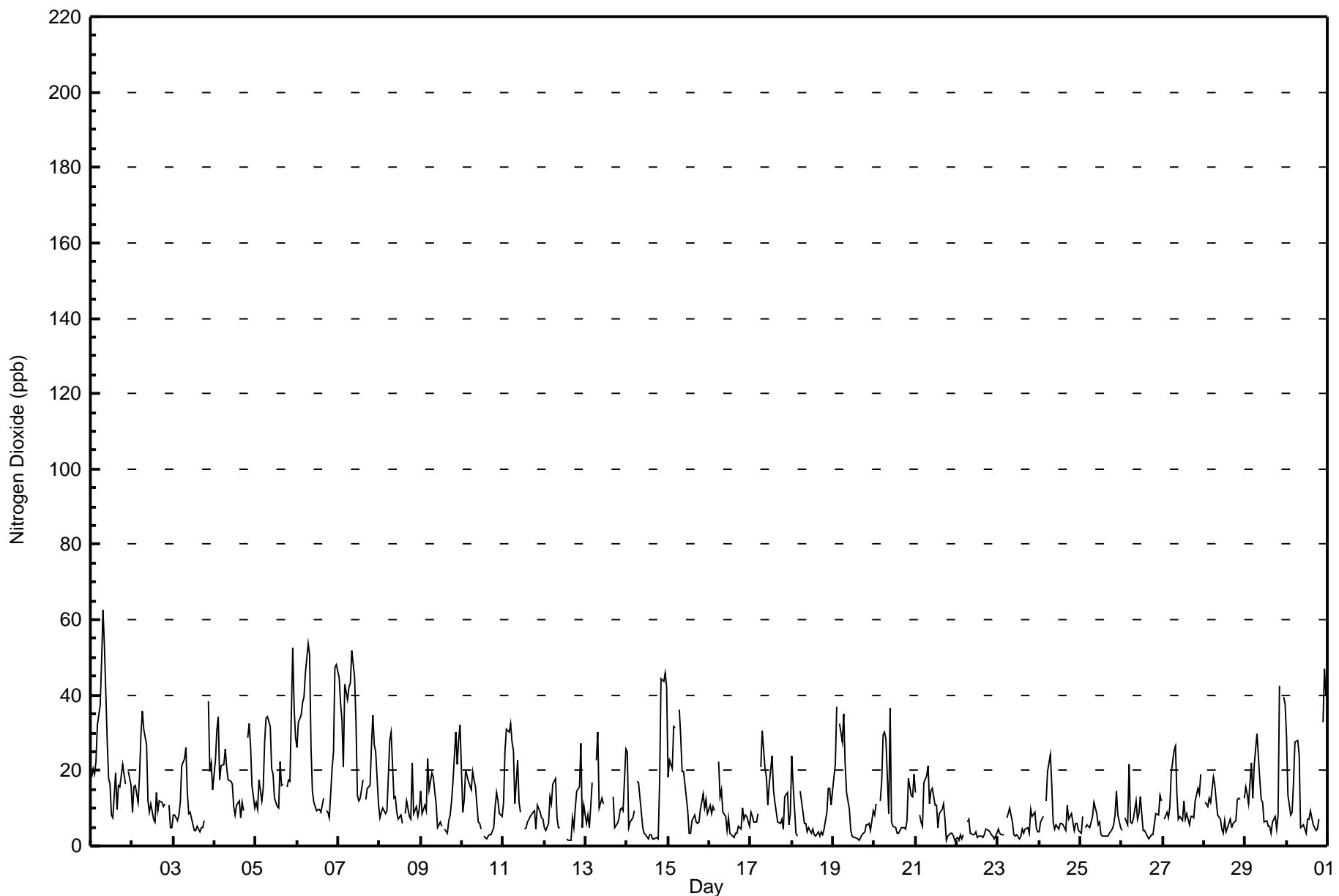
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Henry Pirker - Nitrogen Dioxide (NO₂) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 62.5 ppb on Apr 1 08:00																				Maximum Daily Average: 28.5 ppb on Apr 7										Hours in Service: 720			
Minimum Value: 2 ppb on Apr 12 16:00																				Minimum Daily Average: 3.2 ppb on Apr 22										Hours of Data: 682			
Maximum Diurnal Average: 24.1 ppb at hour 7																				Minimum Diurnal Average: 5.6 ppb at hour 14										Hours of Missing Data: 38			
Monthly Average: 12.93 ppb																				Percentiles: P ₁ = 1.8 P ₁₀ = 3.4 Q ₁ = 5.4 Median = 9.3 Q ₃ = 17.1 P ₉₀ = 28.4 P ₉₉ = 48.2										Hours of Calibration: 36			
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum							
1-Apr	18	20	19	22	32	37	49	62	53	28	18	16	8	8	20	10	16	16	21	19	16	A	20	16	23.7	62.5							
2-Apr	9	16	16	11	18	29	36	31	27	12	9	11	7	6	14	9	12	12	10	11	A	11	5	5	14.3	35.8							
3-Apr	8	8	7	8	12	21	23	26	14	9	9	6	4	4	5	4	5	5	7	11	A	38	20	22	15	38.3							
4-Apr	23	30	34	18	21	22	26	21	18	17	17	11	8	11	12	7	12	9	A	29	32	27	16	10	18.7	34.3							
5-Apr	12	10	17	12	15	27	34	34	32	21	19	13	11	10	22	16	17	A	16	18	17	53	37	29	21.3	52.6							
6-Apr	26	33	35	38	40	46	54	51	26	15	11	9	10	10	9	13	A	9	9	8	20	25	47	48	25.7	53.6							
7-Apr	45	38	34	21	43	39	42	43	52	45	33	14	12	13	18	A	12	15	16	26	35	27	25	11	28.5	51.9							
8-Apr	8	9	10	9	9	18	28	30	13	13	9	7	8	6	A	9	12	8	7	22	9	10	8	10	11.8	30.3							
9-Apr	14	9	11	9	23	15	19	18	14	11	5	7	5	5	4	7	8	12	17	30	22	28	32	14.1	32.2								
10-Apr	9	12	20	19	17	15	20	18	15	7	6	5	A	3	2	3	3	3	5	11	14	12	9	8	10.1	20.1							
11-Apr	12	25	31	30	32	28	25	11	23	12	9	A	5	5	6	7	8	9	9	4	11	9	7	7	14.1	32.4							
12-Apr	5	4	6	13	11	16	18	8	5	5	A	P	P	2	2	2	7	5	10	14	16	27	5	11	9.1	27.3							
13-Apr	6	8	5	10	17	A	23	30	10	13	11	C	C	C	C	A	13	5	6	7	10	10	9	26	12.2	30.1							
14-Apr	25	5	6	7	9	A	17	17	9	5	3	3	2	3	3	2	2	2	2	17	45	44	46	42	13.7	45.8							
15-Apr	18	23	20	32	31	A	36	29	20	20	16	9	3	3	7	8	6	6	6	10	14	10	12	8	15.2	36.2							
16-Apr	11	8	10	9	A	22	13	15	9	8	4	7	4	3	2	3	4	5	5	10	7	8	8	5	7.9	22.3							
17-Apr	9	8	6	6	9	A	21	31	20	18	11	17	24	15	12	9	6	6	7	5	13	14	5	9	12.2	30.6							
18-Apr	24	16	3	2	A	14	9	6	6	4	5	3	5	3	3	4	3	4	3	5	9	15	15	11	7.5	24.0							
19-Apr	18	22	37	A	32	28	35	22	14	10	4	3	2	2	2	2	2	3	4	5	6	6	4	9	11.8	37.1							
20-Apr	8	11	A	12	17	29	30	28	9	37	6	5	5	3	3	4	5	5	4	7	18	13	13	19	12.8	36.6							
21-Apr	14	A	8	6	5	17	19	21	11	15	15	11	11	5	9	10	11	7	2	3	3	3	2	9.1	21.1								
22-Apr	2	2	3	2	3	A	6	7	4	3	3	4	2	3	3	2	3	5	4	4	3	3	2	3	3.2	7.0							
23-Apr	4	3	3	3	3	A	8	8	10	6	3	2	3	2	3	4	3	5	5	3	10	8	9	5	4	5.0	9.9						
24-Apr	4	6	8	A	12	20	24	16	6	4	5	4	6	6	5	4	11	7	8	9	4	6	6	4	8.1	24.3							
25-Apr	3	8	A	5	5	5	6	8	12	9	6	6	3	2	2	2	3	3	4	5	8	14	8	5	5.9	14.4							
26-Apr	4	A	7	5	22	6	6	7	12	7	9	13	4	4	3	2	2	3	3	6	8	8	13	12	7.3	21.7							
27-Apr	A	7	9	8	10	19	25	27	14	7	8	7	12	7	8	6	8	8	7	12	15	14	19	A	11.7	26.6							
28-Apr	12	11	11	13	12	18	16	12	8	7	5	3	7	4	6	7	5	6	7	12	13	12	A	13	9.5	18.1							
29-Apr	16	14	11	22	13	21	26	30	17	12	11	6	7	5	5	3	6	8	5	8	42	A	39	38	15.9	42.4							
30-Apr	29	13	8	9	17	28	28	24	5	5	6	3	7	7	9	6	5	4	4	7	A	33	47	40	15.0	47.0							
Diurnal Average																									Diurnal Maximum								
C - Calibration												P - Power Failure												A - Automated Daily Zero Span									

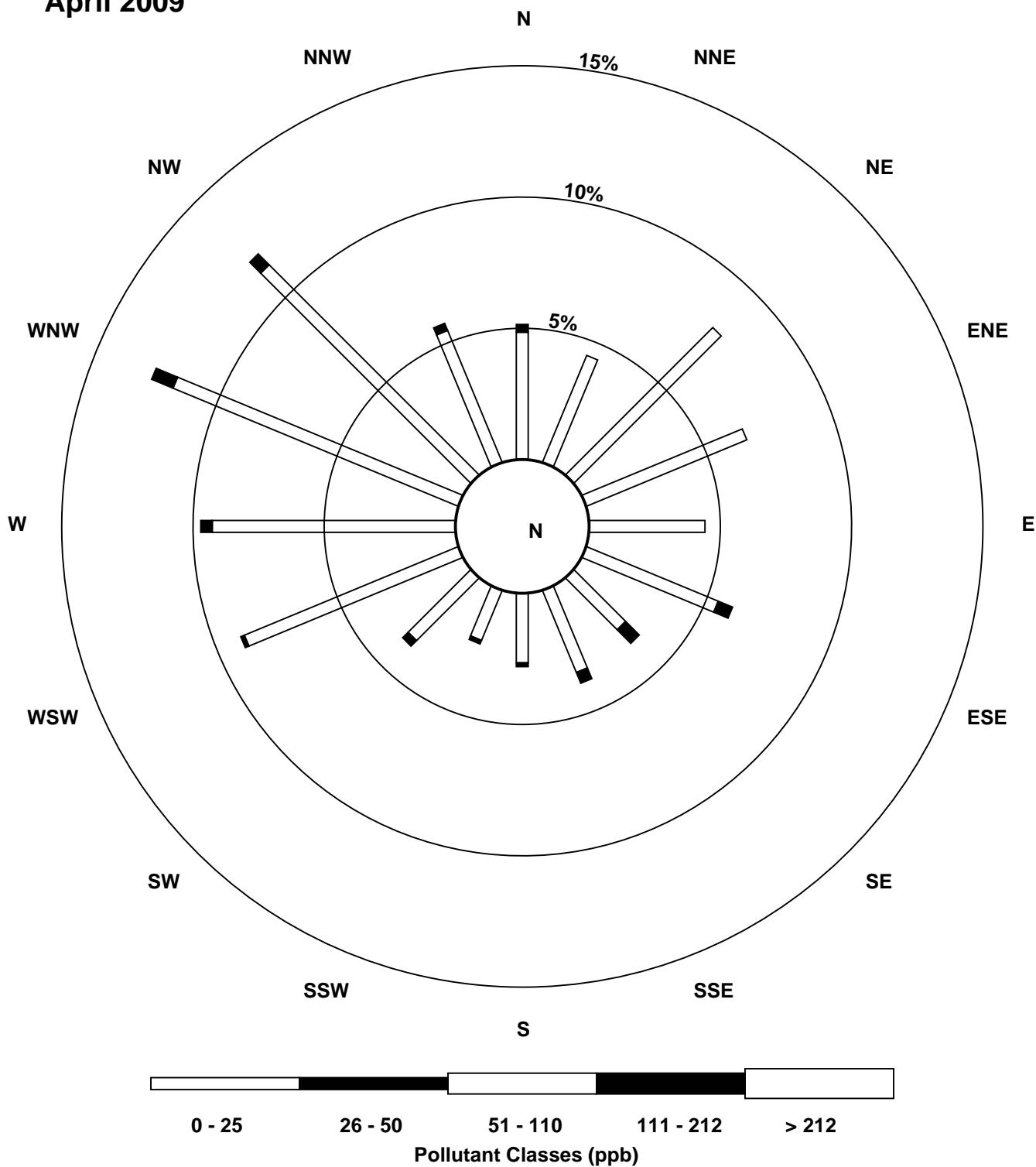
Hourly Maximums for NO₂ at Henry Pirker

April 2009



Pollutant Rose for NO₂ at Henry Pirker

April 2009



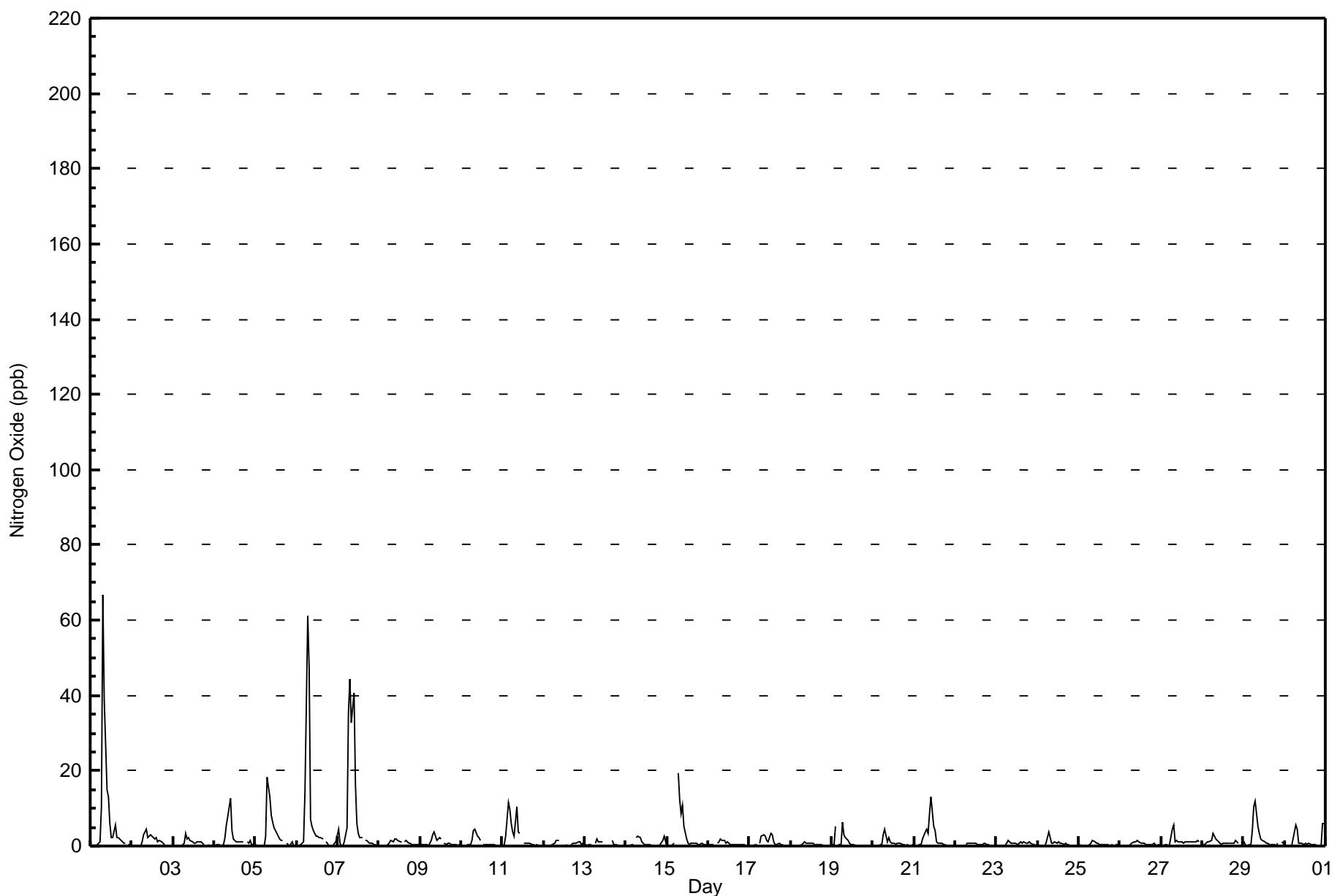
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Nitrogen Oxide (NO) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 66.7 ppb on Apr 1 08:00 Maximum Daily Average: 8.7 ppb on Apr 7																				Hours in Service:	720			
Minimum Value: 0 ppb on Apr 1 03:00 Minimum Daily Average: 0.4 ppb on Apr 18																				Hours of Data:	682			
Maximum Diurnal Average: 8.9 ppb at hour 8 Minimum Diurnal Average: 0.2 ppb at hour 2																				Hours of Missing Data:	38			
Monthly Average: 1.81 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.2$ Median = 0.6 $Q_3 = 1.3$ $P_{90} = 3.4$ $P_{99} = 34.3$																				Hours of Calibration:	36			
																				Percent Operational Time:	99.7			
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	1	11	67	39	15	13	6	2	2	5	2	2	2	1	1	1	A	0	0
2-Apr	0	0	0	0	0	0	1	3	5	2	3	3	2	2	2	1	1	1	1	0	A	0	0	
3-Apr	0	0	0	0	0	0	1	3	2	2	2	1	1	1	1	1	1	1	1	0	0	0	0.8	3.4
4-Apr	0	0	0	0	0	0	2	6	8	13	4	2	1	1	1	1	1	1	1	1	1	1	0	2.0
5-Apr	0	0	0	0	0	0	3	18	13	8	6	5	3	3	2	2	2	1	0	0	1	0	2.9	18.3
6-Apr	0	0	0	1	1	14	61	47	7	5	4	2	3	2	2	2	2	1	1	0	0	0	6.8	61.2
7-Apr	5	1	0	0	1	5	35	44	33	41	16	6	3	2	2	2	A	2	1	1	1	1	0	8.7
8-Apr	0	0	0	0	0	0	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	0	0.7	
9-Apr	1	0	0	0	1	0	1	3	4	3	1	2	2	A	1	0	1	1	0	0	0	0	1.0	
10-Apr	0	0	0	0	0	0	2	4	4	2	2	1	A	0	0	0	0	0	0	0	0	0	0.8	
11-Apr	0	0	2	11	10	6	4	3	11	4	3	A	1	1	1	1	1	0	0	0	0	0	2.6	
12-Apr	0	0	0	0	0	0	1	1	1	1	A	P	P	0	0	0	1	1	1	1	1	0	0.6	
13-Apr	0	0	0	0	0	A	1	2	1	1	C	C	C	C	A	1	0	0	0	0	0	0	0.5	
14-Apr	0	0	0	0	0	A	2	3	2	1	1	0	0	0	0	0	0	0	0	1	1	3	0.8	
15-Apr	0	0	0	1	1	A	19	12	9	11	5	2	1	0	1	1	1	0	1	1	1	0	2.9	
16-Apr	0	0	0	0	A	1	1	2	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0.6	
17-Apr	0	0	0	0	0	A	1	3	3	3	1	1	3	3	1	0	0	1	0	0	0	0	1.0	
18-Apr	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.4	
19-Apr	0	0	5	A	0	0	6	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	1.0	
20-Apr	0	0	A	0	0	1	3	4	1	2	1	1	1	0	1	1	1	0	0	0	0	0	0.8	
21-Apr	0	A	0	1	0	2	4	5	3	9	13	5	4	1	1	1	1	0	0	0	0	0	2.2	
22-Apr	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0.4	
23-Apr	0	0	0	0	A	0	1	2	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0.6	
24-Apr	0	0	0	0	A	0	1	4	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0.7	
25-Apr	0	0	A	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	
26-Apr	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0.5	
27-Apr	A	0	0	0	1	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	5.5	
28-Apr	0	1	1	1	1	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	A	0	1.1	
29-Apr	1	0	0	0	0	4	11	12	5	3	2	1	1	1	1	0	1	1	0	0	1	1	2.1	
30-Apr	0	0	0	0	0	2	6	4	1	1	1	1	1	1	1	0	0	0	A	0	6	6	5.9	
																							Diurnal Average	
																								Diurnal Maximum
C - Calibration P - Power Failure A - Automated Daily Zero Span																								

Hourly Averages for NO at Henry Pirker

April 2009



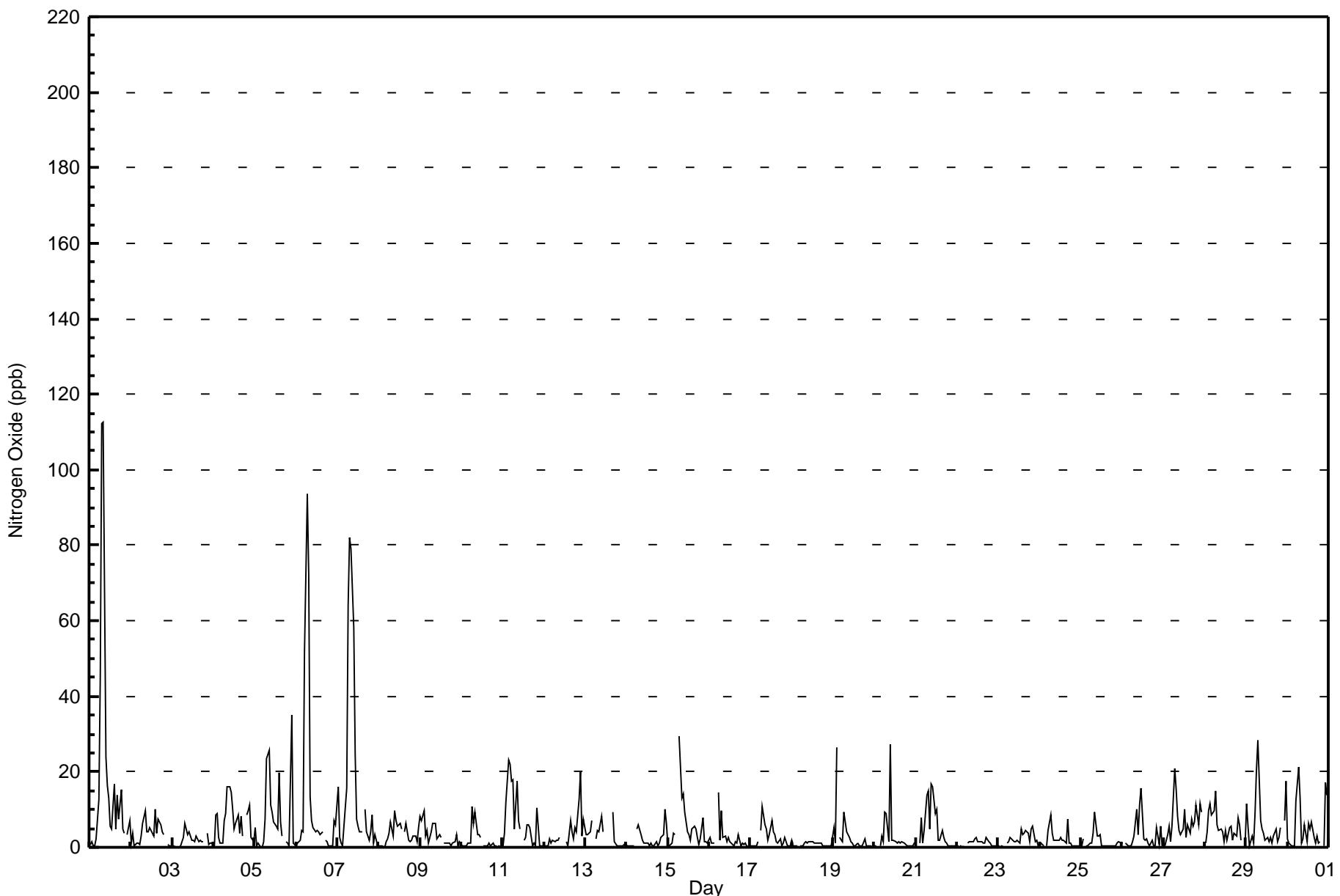
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Henry Pirker - Nitrogen Oxide (NO) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 112.6 ppb on Apr 1 09:00 Maximum Daily Average: 18.7 ppb on Apr 1 Minimum Value: 0 ppb on Apr 3 04:00 Minimum Daily Average: 0.9 ppb on Apr 18 Maximum Diurnal Average: 16.6 ppb at hour 8 Minimum Diurnal Average: 1.9 ppb at hour 2 Monthly Average: 5.06 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.5$ $Q_1 = 0.9$ Median = 2.0 $Q_3 = 5.4$ $P_{90} = 10.8$ $P_{99} = 61.7$																								Hours in Service:		720	
																									Hours of Data:		682
																									Hours of Missing Data:		38
																									Hours of Calibration:		36
																									Percent Operational Time:		99.7
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	1	1	0	0	2	13	46	112	113	24	17	13	6	5	17	5	14	7	15	5	4	A	3	7	18.7	112.6	
2-Apr	1	4	1	1	1	1	3	7	10	4	4	5	4	3	10	4	8	6	4	3	A	1	0	0	3.6	10.0	
3-Apr	0	1	0	0	0	1	3	7	5	4	4	2	2	2	3	2	2	2	1	1	A	1	1	1	1.9	6.5	
4-Apr	0	9	9	2	1	1	7	9	16	16	14	10	5	6	9	4	8	3	A	8	10	11	2	1	7.1	16.0	
5-Apr	5	0	1	0	0	1	7	24	26	11	9	7	5	5	20	7	3	A	1	1	0	35	1	1	7.5	35.1	
6-Apr	1	1	2	4	4	52	93	72	14	7	5	4	4	4	4	4	4	A	2	1	0	0	0	7	6	12.8	93.4
7-Apr	16	2	1	1	6	16	64	82	79	58	25	8	6	4	4	4	10	4	2	4	9	1	3	0	17.6	82.1	
8-Apr	0	0	0	0	1	2	4	7	3	10	7	5	6	5	4	6	2	1	2	3	3	1	5	3.5	9.9		
9-Apr	8	7	10	3	4	1	4	6	6	7	2	3	2	2	1	1	1	1	1	1	2	3	0	1	3.3	9.7	
10-Apr	0	0	0	1	1	1	11	7	9	3	3	2	A	1	1	1	1	1	1	1	0	0	0	0	2.0	10.8	
11-Apr	0	4	12	23	22	17	18	5	18	7	5	A	2	2	6	6	5	1	1	0	11	0	0	0	7.3	23.1	
12-Apr	0	0	1	2	1	2	1	2	2	3	A	P	P	2	1	7	4	2	5	4	12	20	3	8	3.9	20.0	
13-Apr	3	3	4	4	7	A	2	4	4	8	4	C	C	C	C	A	9	1	0	0	0	0	0	1	3.2	9.4	
14-Apr	0	0	0	0	1	A	5	6	3	2	1	1	1	1	0	1	1	0	1	2	3	10	6	2.2	10.1		
15-Apr	1	1	1	4	3	A	29	21	13	14	9	4	3	2	5	6	5	3	1	2	8	1	1	1	6.0	29.3	
16-Apr	3	1	1	1	1	A	15	2	10	2	3	1	2	1	1	1	1	3	1	1	1	1	0	0	2.3	14.6	
17-Apr	0	1	1	0	1	A	4	11	6	5	2	3	7	4	3	1	1	2	1	1	3	0	0	0	2.6	10.9	
18-Apr	2	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.9	2.0	
19-Apr	5	1	26	A	2	2	9	7	4	2	1	1	0	0	1	0	0	0	2	0	0	0	0	0	3.0	26.5	
20-Apr	0	0	A	0	3	1	9	9	1	27	2	2	1	1	1	1	1	1	0	0	0	0	0	1	3.0	27.2	
21-Apr	1	A	1	8	1	5	14	15	5	17	16	9	10	2	2	4	2	1	1	0	0	0	0	0	5.0	16.7	
22-Apr	0	0	0	0	0	A	1	1	1	2	2	1	1	1	1	1	3	1	1	1	1	0	1	1	1.1	2.7	
23-Apr	0	0	0	0	0	A	1	1	3	2	2	1	2	1	5	3	4	4	1	5	6	1	2	0	2.2	5.6	
24-Apr	0	1	0	A	0	4	8	4	2	2	2	2	2	2	1	8	1	1	0	0	0	0	0	0	2.0	8.4	
25-Apr	0	2	A	1	1	1	4	9	3	3	3	1	1	1	1	1	1	1	0	0	1	1	1	1.6	9.2		
26-Apr	1	A	1	0	0	0	1	3	10	4	11	16	2	2	2	1	1	2	1	1	5	1	6	1	3.1	15.7	
27-Apr	A	1	3	5	1	6	21	15	8	4	3	5	10	3	6	4	7	6	7	11	6	12	9	A	7.0	20.9	
28-Apr	1	4	10	11	8	10	15	6	5	5	4	1	5	2	5	5	2	4	3	8	6	2	A	1	5.3	15.0	
29-Apr	12	5	1	3	1	9	20	28	7	5	4	2	3	1	3	1	3	5	1	3	5	A	7	17	6.4	28.3	
30-Apr	2	1	0	0	0	12	21	13	1	2	6	1	6	5	7	3	1	3	1	2	A	0	17	14	5.3	21.4	
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																											

Hourly Maximums for NO at Henry Pirker

April 2009



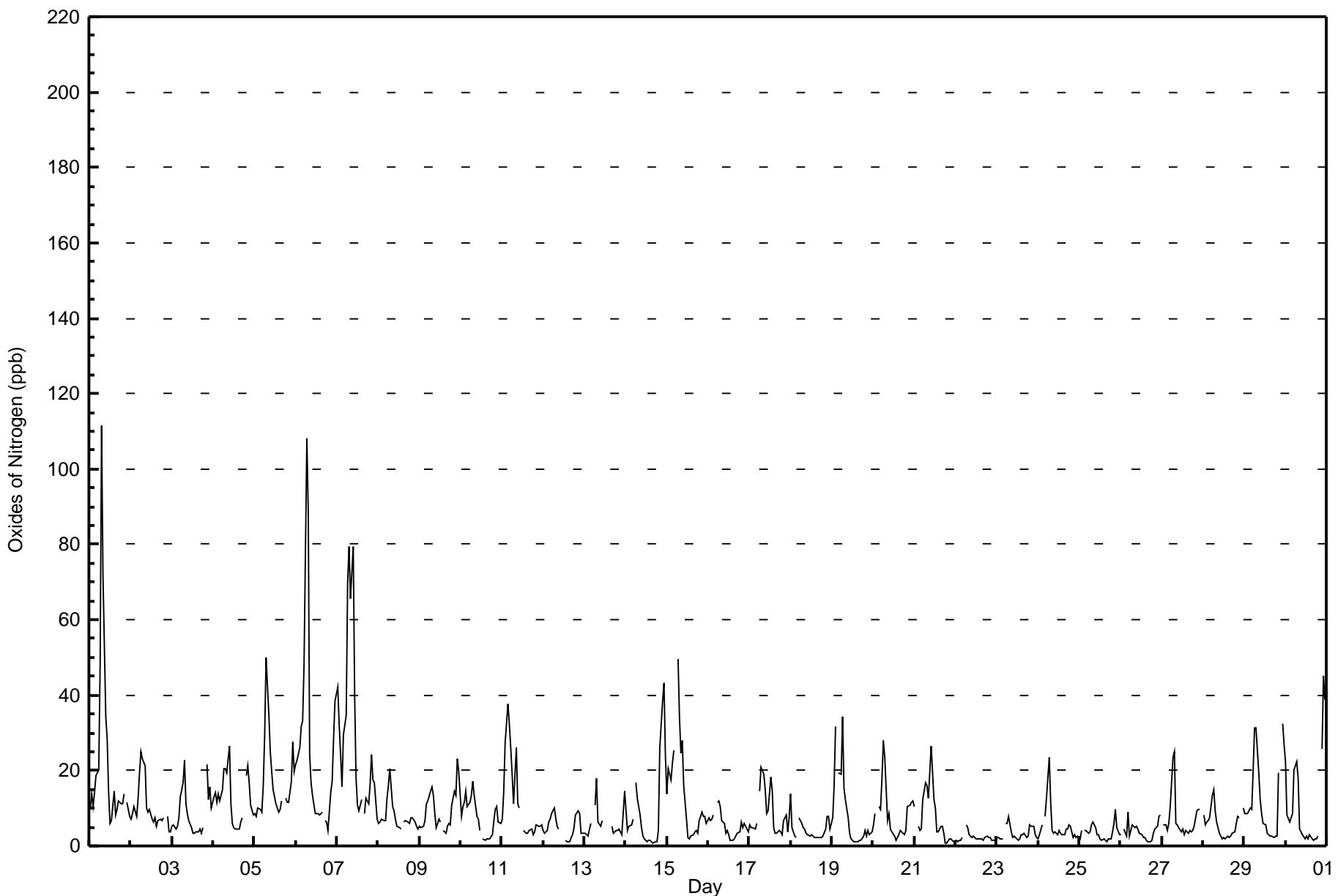
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Oxides of Nitrogen (NO_x) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 111.6 ppb on Apr 1 08:00											Maximum Daily Average: 29.4 ppb on Apr 7											Hours in Service: 720				
Minimum Value: 1 ppb on Apr 14 17:00											Minimum Daily Average: 2.2 ppb on Apr 22											Hours of Data: 682				
Maximum Diurnal Average: 24.8 ppb at hour 8											Minimum Diurnal Average: 3.5 ppb at hour 16											Hours of Missing Data: 38				
Monthly Average: 9.89 ppb											Percentiles: P ₁ = 1.1 P ₁₀ = 2.0 Q ₁ = 3.3 Median = 6.1 Q ₃ = 11.7 P ₉₀ = 21.7 P ₉₉ = 68.9											Hours of Calibration: 36				
																						Percent Operational Time: 99.7				
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	10	14	10	14	19	20	48	112	72	34	28	14	6	7	15	8	10	12	11	11	14	A	12	8	22.1	111.6
2-Apr	7	8	10	8	13	20	25	23	21	10	9	10	7	6	8	5	7	7	7	8	A	8	4	4	10.2	25.2
3-Apr	5	6	5	5	8	13	17	23	11	8	7	5	3	3	4	4	5	3	5	5	A	22	12	16	10	22.7
4-Apr	13	14	11	14	12	15	21	20	19	27	11	6	5	4	5	5	6	7	A	19	21	17	11	8	12.7	26.6
5-Apr	8	8	10	10	9	16	30	50	35	25	20	15	11	10	9	10	12	A	13	12	11	17	28	20	16.8	49.9
6-Apr	22	23	26	32	33	48	108	89	24	17	13	9	9	9	8	9	A	7	6	4	14	17	28	39	25.8	108.1
7-Apr	42	32	24	16	30	35	70	79	66	80	40	18	11	9	12	A	8	13	11	16	24	17	17	7	29.4	79.5
8-Apr	6	7	7	7	13	16	21	10	9	7	5	5	5	6	A	6	7	6	7	7	6	5	5	7.8	20.6	
9-Apr	5	5	5	7	11	12	14	16	13	8	5	7	6	4	3	5	6	6	11	14	14	23	20	9.6	23.2	
10-Apr	8	11	12	14	10	12	13	17	13	8	7	4	A	2	2	2	2	2	3	7	10	10	6	6	7.9	17.1
11-Apr	7	14	27	38	32	26	19	11	26	11	10	A	4	4	3	3	4	5	3	4	6	5	5	5	11.9	37.6
12-Apr	4	3	4	6	7	9	10	7	5	4	A	P	2	1	1	2	3	5	8	9	9	3	4	5.1	10.2	
13-Apr	3	3	3	5	6	A	11	18	6	5	7	C	C	C	A	5	3	4	4	5	4	3	15	6.1	17.9	
14-Apr	9	4	5	6	7	A	17	13	8	5	3	2	1	1	1	1	1	1	4	26	38	43	24	9.7	43.4	
15-Apr	14	21	18	22	25	A	50	34	25	28	16	7	2	2	3	3	4	3	7	9	8	8	6	13.8	49.5	
16-Apr	7	7	7	8	A	12	12	10	7	6	3	4	3	2	2	2	2	3	4	6	5	6	5	4	5.5	11.9
17-Apr	5	5	5	4	6	A	15	21	19	15	9	9	18	15	5	3	3	4	4	3	7	8	4	7	8.4	20.9
18-Apr	14	5	3	2	A	7	6	5	4	3	3	3	3	2	2	2	2	2	3	5	8	8	5	4.3	13.6	
19-Apr	8	16	32	A	20	19	34	15	12	7	3	2	1	1	1	1	1	2	3	4	3	4	3	4	8.5	34.2
20-Apr	6	8	A	10	10	18	28	23	7	9	4	4	3	2	2	3	4	3	3	4	10	11	12	12	8.5	27.9
21-Apr	10	A	5	4	5	12	17	16	13	20	27	12	10	4	4	5	5	3	1	1	2	2	1	1	7.8	26.7
22-Apr	1	1	1	2	2	A	6	5	3	2	3	2	2	2	2	2	2	3	2	2	2	1	2	2.2	5.6	
23-Apr	2	2	2	2	A	6	6	8	4	2	2	2	2	2	3	3	2	3	6	5	5	3	2	3.3	7.8	
24-Apr	2	3	5	A	8	13	24	12	4	3	4	3	4	3	3	4	4	5	5	2	3	2	2	5.3	23.5	
25-Apr	2	4	A	4	4	3	4	6	6	5	3	3	2	2	2	1	1	2	2	4	6	10	5	3	3.6	9.5
26-Apr	3	A	5	2	9	3	4	5	5	5	4	3	3	2	2	2	1	1	2	3	4	5	8	8	4.0	9.0
27-Apr	A	6	6	4	6	10	23	25	6	5	5	4	5	3	4	3	4	4	5	9	10	10	A	7.3	24.9	
28-Apr	8	6	6	7	8	13	15	9	6	4	2	2	2	2	2	3	3	4	6	8	7	A	10	5.9	14.9	
29-Apr	9	9	8	10	10	20	31	31	19	12	8	6	6	3	3	3	3	2	2	3	20	A	32	27	12.1	32.4
30-Apr	22	8	6	7	9	20	23	18	4	4	3	2	3	2	3	2	2	2	3	A	26	45	39	11.0	45.1	
																								Diurnal Average		
																									Diurnal Maximum	
C - Calibration																										
P - Power Failure																										
A - Automated Daily Zero Span																										

Hourly Averages for NO_X at Henry Pirker

April 2009



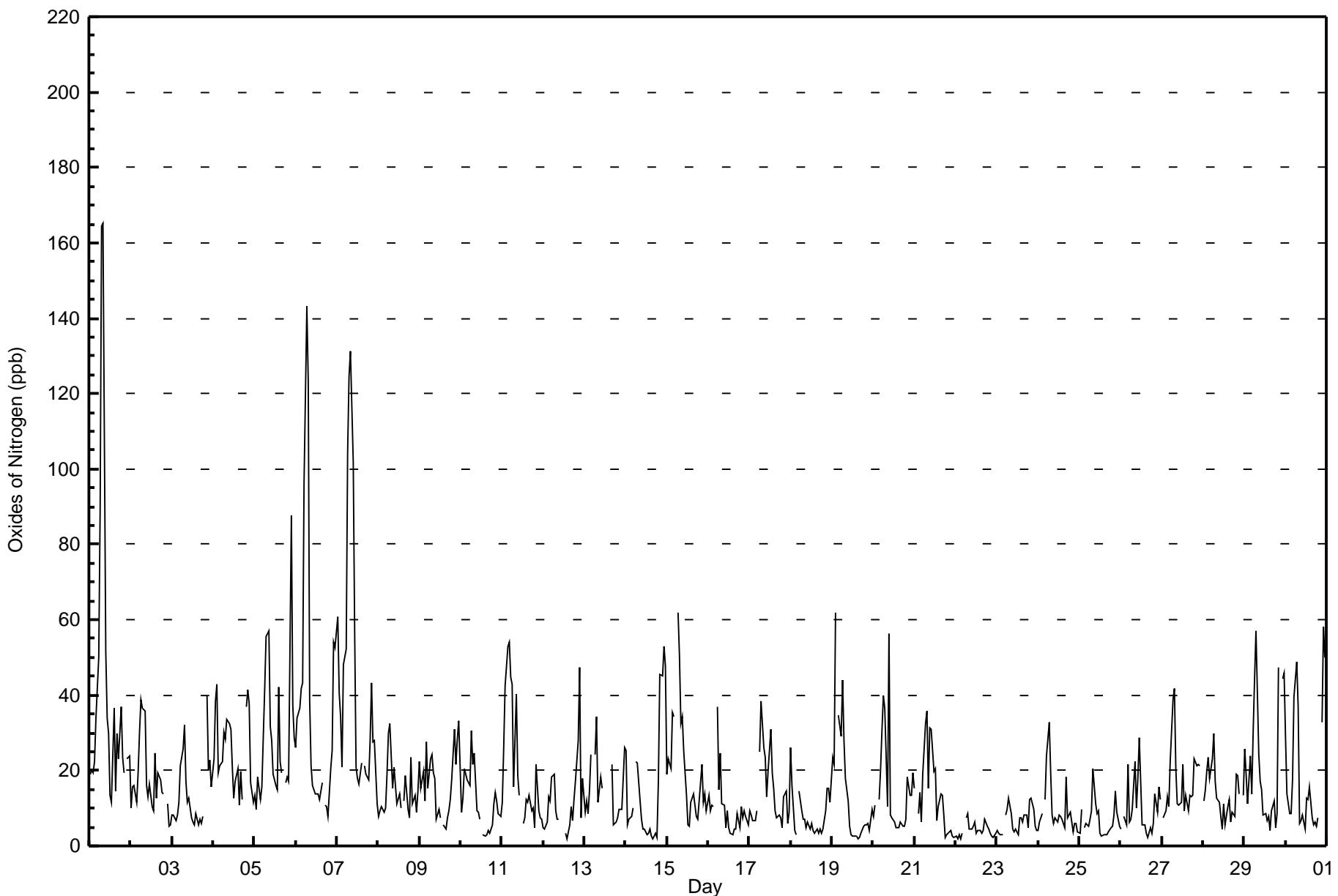
Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Oxides of Nitrogen (NO_x) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 165.3 ppb on Apr 1 09:00 Maximum Daily Average: 45.6 ppb on Apr 7 Minimum Value: 2 ppb on Apr 22 02:00 Minimum Daily Average: 4.2 ppb on Apr 22 Maximum Diurnal Average: 38.6 ppb at hour 8 Minimum Diurnal Average: 8.0 ppb at hour 14 Monthly Average: 17.49 ppb Percentiles: P ₁ = 2.3 P ₁₀ = 4.1 Q ₁ = 6.9 Median = 12.0 O ₃ = 21.6 P ₉₀ = 36.8 P ₉₉ = 98.3																								Hours in Service:		720	
																									Hours of Data:	682	
																									Hours of Missing Data:	38	
																									Hours of Calibration:	36	
																									Percent Operational Time:	99.7	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	19	20	19	22	34	50	89	165	165	51	34	30	13	12	36	15	30	23	37	24	19	A	23	24	41.5	165.3	
2-Apr	10	16	16	11	19	30	39	36	36	16	13	16	10	9	24	13	19	17	14	14	A	11	5	5	17.5	38.7	
3-Apr	8	8	7	8	12	21	26	32	17	12	13	8	6	6	9	5	7	6	8	40	37	20	23	15	13.7	40.0	
4-Apr	23	38	43	19	21	22	30	28	34	32	31	21	13	17	21	11	20	12	A	41	38	17	11	25.3	43.0		
5-Apr	13	10	18	12	16	29	41	56	57	32	28	19	16	15	42	22	19	A	17	18	88	37	29	28.3	87.8		
6-Apr	26	34	36	42	43	96	143	123	39	21	16	14	14	14	12	17	A	11	10	8	20	26	54	53	38.0	143.2	
7-Apr	61	41	34	21	48	52	104	125	131	102	57	21	18	17	22	A	21	19	18	28	43	28	28	11	45.6	131.2	
8-Apr	8	10	11	9	10	19	30	32	15	21	16	11	14	10	10	C	12	18	10	8	24	11	13	9	15	14.5	32.5
9-Apr	23	15	20	12	28	15	23	24	20	18	7	10	8	5	5	8	9	12	18	31	22	28	33	17.1	33.1		
10-Apr	9	13	20	19	18	16	30	22	25	9	9	7	A	3	2	3	4	3	5	11	14	12	9	8	11.8	30.4	
11-Apr	12	26	43	53	54	45	43	16	40	19	14	A	6	7	12	11	13	9	10	5	21	9	8	7	21.0	54.2	
12-Apr	5	4	6	13	12	18	19	9	7	7	A	P	3	2	6	11	7	12	17	28	47	8	18	12.4	47.4		
13-Apr	9	12	9	15	24	A	24	34	12	18	15	C	C	C	A	22	6	6	8	10	10	10	26	14.9	34.1		
14-Apr	25	5	7	8	10	A	23	22	12	7	4	4	3	3	4	2	2	3	2	17	46	45	53	48	15.5	52.9	
15-Apr	19	23	20	35	34	A	62	50	32	34	25	13	6	5	12	14	11	8	7	12	22	11	14	9	20.9	62.0	
16-Apr	14	9	11	10	A	37	15	24	11	11	5	9	5	3	3	4	4	9	5	10	7	9	8	5	10.0	36.9	
17-Apr	9	8	7	7	9	A	25	38	26	23	13	20	31	19	15	9	7	8	8	5	13	15	6	9	14.4	38.3	
18-Apr	26	16	4	3	A	15	9	7	7	5	6	4	6	4	3	4	3	4	3	4	9	15	15	11	8.1	26.0	
19-Apr	23	22	62	A	35	29	44	28	18	12	5	3	2	2	2	2	3	5	5	5	6	4	10	14.4	61.9		
20-Apr	8	11	A	12	20	31	40	37	10	56	8	7	6	5	5	6	5	5	7	18	13	13	19	15.2	56.2		
21-Apr	15	A	9	14	6	19	32	36	15	31	31	20	21	7	10	14	14	8	2	3	4	4	3	2	13.9	35.9	
22-Apr	3	2	3	2	3	A	7	8	4	4	5	6	4	4	4	3	4	7	5	4	3	3	2	3	4.2	8.4	
23-Apr	4	3	3	3	A	8	10	13	8	4	4	5	3	8	8	6	8	8	5	12	13	10	5	4	6.7	12.7	
24-Apr	4	6	8	A	12	24	33	19	8	6	7	6	8	8	7	5	18	8	8	9	4	6	6	4	9.8	32.7	
25-Apr	3	10	A	5	6	5	7	9	21	11	9	9	4	3	3	3	3	4	5	5	8	14	9	5	7.0	20.6	
26-Apr	5	A	8	6	22	6	7	10	22	10	18	29	6	6	6	3	2	5	3	6	14	9	16	12	10.0	28.8	
27-Apr	A	7	9	13	10	22	39	42	21	11	11	22	9	13	9	14	13	13	23	21	22	21	A	14	17.2	41.9	
28-Apr	12	15	20	24	18	23	30	17	12	12	8	5	11	6	10	12	6	9	8	19	19	14	A	14	14.0	29.7	
29-Apr	26	19	11	24	14	30	44	57	24	17	15	8	9	7	8	4	9	12	5	8	47	A	44	46	21.2	57.0	
30-Apr	29	14	9	9	17	40	49	37	6	7	8	5	13	12	16	8	5	6	5	7	A	33	58	50	19.2	58.3	
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																											

Hourly Maximums for NO_X at Henry Pirker

April 2009



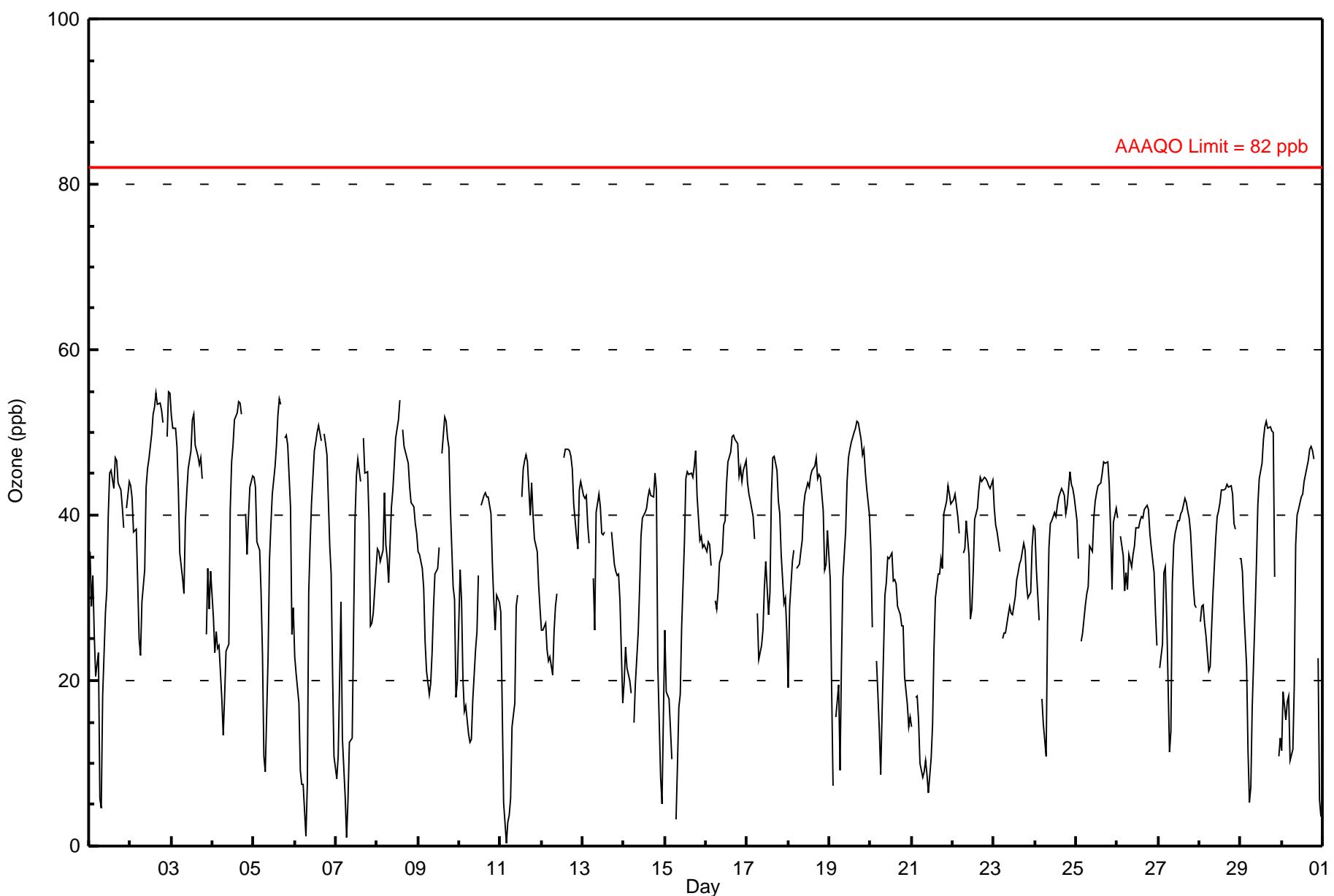
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Ozone (O_3) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 54.9 ppb on Apr 2 23:00 Maximum Daily Average: 44.3 ppb on Apr 2																			Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 34 Percent Operational Time: 99.7								
Minimum Value: 0 ppb on Apr 11 04:00 Minimum Daily Average: 23.5 ppb on Apr 21 Maximum Diurnal Average: 45.7 ppb at hour 16 Minimum Diurnal Average: 17.8 ppb at hour 7 Monthly Average: 34.25 ppb Percentiles: $P_1 = 4.2$ $P_{10} = 16.3$ $Q_1 = 26.9$ Median = 36.4 $Q_3 = 43.4$ $P_{90} = 48.0$ $P_{99} = 53.5$																											
Day																			Hourly Period Ending At (MST)								
1																											
1-Apr	36	29	33	26	20	23	6	5	18	28	31	40	45	45	43	47	47	44	43	41	38	A	41	44	33.6	46.9	
2-Apr	44	42	38	38	32	25	23	30	33	43	46	47	50	52	53	55	53	54	53	51	A	50	55	55	44.3	54.9	
3-Apr	52	51	50	48	43	35	32	30	39	43	46	48	51	52	49	47	46	47	44	40	35	26	34	29	33	42.4	52.2
4-Apr	28	23	26	24	24	18	13	18	24	24	41	46	48	52	52	54	54	52	52	40	35	40	43	45	35.8	53.8	
5-Apr	45	43	37	36	31	23	11	9	23	35	39	42	46	49	52	54	53	53	A	49	50	48	41	26	29	37.8	54.1
6-Apr	23	21	17	9	8	7	1	7	31	37	42	48	49	50	51	49	A	50	49	47	36	33	21	11	30.2	50.9	
7-Apr	8	11	20	30	13	6	1	6	12	13	27	39	45	47	44	A	49	45	45	40	27	27	28	33	26.8	49.4	
8-Apr	36	36	34	36	43	36	35	32	41	43	46	49	52	54	50	48	47	46	43	41	41	39	38	42.0	53.9		
9-Apr	36	35	34	31	25	21	18	20	23	29	33	33	36	A	48	52	51	49	48	41	31	30	18	20	33.2	51.9	
10-Apr	33	30	20	16	17	14	13	13	18	24	26	33	A	41	42	43	42	42	40	34	30	26	30	29	28.5	42.8	
11-Apr	28	17	5	0	3	4	6	14	17	29	30	A	42	46	47	47	46	40	44	40	37	36	31	29	27.8	47.3	
12-Apr	26	26	27	24	22	23	21	26	29	31	A	P	47	48	48	48	47	46	41	37	36	43	44	35.2	48.0		
13-Apr	42	42	42	39	37	A	32	26	40	43	41	38	38	38	C	C	A	38	34	33	33	30	17	35.8	42.6		
14-Apr	20	24	22	20	18	A	15	20	26	31	38	40	40	41	42	43	42	42	45	43	22	8	5	16	28.8	45.1	
15-Apr	26	19	18	14	10	A	3	10	17	18	27	37	44	45	45	45	45	46	48	42	37	37	36	36	30.7	47.7	
16-Apr	36	37	36	34	A	30	29	31	34	36	39	39	44	46	48	49	50	49	49	45	46	44	45	47	40.9	49.7	
17-Apr	44	43	42	40	37	A	28	23	24	26	31	34	28	31	42	47	47	45	42	40	35	29	30	26	35.4	47.2	
18-Apr	19	29	34	36	A	34	34	36	37	41	43	44	43	45	45	46	47	44	45	44	41	33	34	38	38.8	46.9	
19-Apr	32	19	7	A	16	19	9	22	32	38	44	47	48	49	50	51	51	49	47	48	45	43	40	37.4	51.4		
20-Apr	36	26	A	22	18	14	9	16	30	32	35	35	35	32	32	29	28	27	27	20	17	14	16	25.3	35.8		
21-Apr	14	A	18	18	15	10	8	9	10	9	6	11	15	24	30	33	33	35	34	40	42	44	43	41	23.5	43.5	
22-Apr	42	42	41	40	38	A	35	36	39	35	28	29	33	39	41	43	45	44	44	44	43	44	44	39.8	44.6		
23-Apr	41	39	38	36	A	25	26	26	28	29	28	28	30	32	33	34	35	37	36	32	30	31	36	39	32.5	40.8	
24-Apr	38	34	27	A	18	15	11	27	36	39	39	40	40	41	42	43	43	42	40	41	45	44	43	42	36.2	45.3	
25-Apr	39	35	A	25	26	29	31	36	36	40	42	43	44	44	45	46	46	46	44	38	31	39	41	38.1	46.4		
26-Apr	40	A	37	35	31	33	31	35	34	35	36	38	39	39	40	40	41	41	38	36	33	28	24	35.9	41.2		
27-Apr	A	22	24	33	34	28	11	14	32	37	38	39	39	40	41	42	42	41	40	38	31	29	A	32.8	42.1		
28-Apr	27	29	29	27	25	21	22	26	30	37	40	41	42	43	43	44	43	44	42	39	38	A	35	35.3	43.7		
29-Apr	35	33	29	22	12	5	7	17	28	34	41	44	46	49	51	51	51	50	50	33	A	11	13	33.1	51.3		
30-Apr	11	19	15	18	18	10	12	20	36	40	41	42	43	44	45	47	48	48	47	A	23	6	4	29.7	48.3		
32.3 30.5 28.7 27.7 23.4 20.4 17.8 21.1 28.7 32.4 35.8 39.1 41.2 43.3 44.4 45.7 45.5 44.5 43.7 41.6 36.0 34.1 31.7 32.0 Diurnal Average																											
52.0 50.5 50.5 48.3 43.0 36.4 35.4 36.0 40.9 43.4 46.1 49.3 51.6 53.9 53.1 54.8 53.6 53.6 52.7 51.1 48.5 49.5 54.9 54.7 Diurnal Maximum																											
C - Calibration P - Power Failure A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																											

Hourly Averages for O₃ at Henry Pirker

April 2009



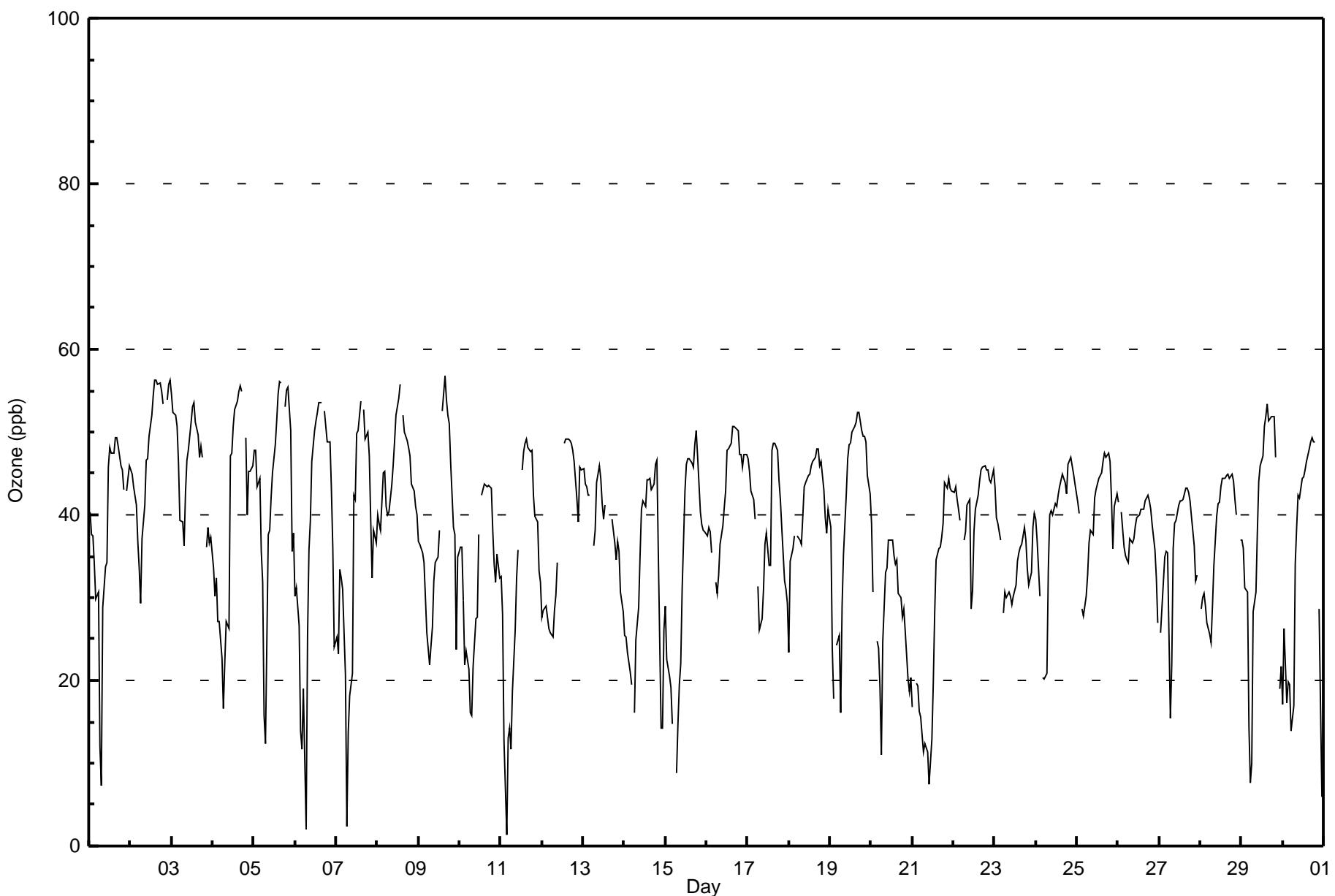
Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Ozone (O_3) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 56.8 ppb on Apr 9 16:00 Maximum Daily Average: 47.9 ppb on Apr 2																						Hours in Service:	720				
Minimum Value: 1 ppb on Apr 11 04:00												Minimum Daily Average: 26.2 ppb on Apr 21												Hours of Data:	684		
Maximum Diurnal Average: 47.5 ppb at hour 16												Minimum Diurnal Average: 21.8 ppb at hour 7												Hours of Missing Data:	36		
Monthly Average: 37.74 ppb												Percentiles: $P_1 = 8.0$ $P_{10} = 21.3$ $Q_1 = 31.0$ Median = 39.6 $Q_3 = 45.9$ $P_{90} = 50.1$ $P_{99} = 55.8$												Hours of Calibration:	34		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	40	38	37	34	30	31	12	7	29	34	34	46	48	47	47	49	49	48	46	46	43	A	43	46	38.5	49.3	
2-Apr	45	45	43	41	37	33	29	37	41	47	47	49	52	54	56	56	56	56	55	53	A	54	56	56	47.9	56.3	
3-Apr	55	52	52	51	46	39	39	36	43	47	48	51	53	54	51	50	47	48	47	47	46	A	36	38	37	37	46.0
4-Apr	34	30	32	27	27	23	17	22	27	26	47	47	51	53	54	55	56	55	55	A	49	40	45	45	46	39.5	55.6
5-Apr	48	48	43	44	36	32	16	12	38	38	42	45	48	51	55	56	56	56	53	53	55	55	50	36	38	43.3	56.0
6-Apr	30	31	27	14	12	19	2	25	36	39	46	50	51	52	54	53	A	53	51	49	49	43	36	24	36.8	53.6	
7-Apr	25	23	33	32	31	21	2	14	18	21	42	42	50	50	54	A	53	49	50	47	39	32	38	37	35.0	53.7	
8-Apr	40	39	38	45	45	41	40	40	43	46	49	52	54	56	A	52	50	49	48	47	44	43	41	40	45.3	55.7	
9-Apr	37	36	35	34	30	26	22	24	26	32	34	35	38	A	52	57	54	52	51	46	38	38	24	35	37.3	56.8	
10-Apr	36	36	30	22	24	21	16	16	22	27	28	38	A	42	44	44	43	43	43	38	34	32	35	32	32.4	43.7	
11-Apr	33	28	13	1	13	14	12	19	26	32	36	36	A	45	48	49	49	48	48	48	42	40	39	33	32	32.5	49.1
12-Apr	28	29	29	28	26	26	25	28	30	34	A	P	P	49	49	49	49	49	49	48	46	42	39	46	45	37.8	49.1
13-Apr	46	44	43	42	42	A	36	38	44	46	44	41	40	41	C	C	A	40	37	35	37	36	31	28	39.5	45.9	
14-Apr	25	25	23	21	19	A	16	25	29	35	41	42	41	44	44	43	44	46	47	35	14	14	26	32.4	46.7		
15-Apr	29	23	21	19	15	A	9	15	20	22	31	43	46	47	47	46	46	48	50	47	40	39	38	38	33.8	50.2	
16-Apr	37	38	38	35	A	32	31	33	36	39	41	43	48	48	49	51	51	51	50	47	47	46	47	47	42.8	50.7	
17-Apr	47	45	43	42	40	A	31	26	27	31	36	38	34	34	48	49	49	48	44	42	38	32	31	29	38.4	48.7	
18-Apr	23	34	36	37	A	37	37	36	40	43	44	45	45	46	46	47	48	48	46	46	43	40	38	41	41.2	47.9	
19-Apr	39	24	18	A	24	25	16	29	35	43	47	48	49	50	51	51	52	50	49	49	45	43	43	40.8	52.4		
20-Apr	39	31	A	25	24	19	11	25	33	34	37	37	37	35	34	35	30	30	28	29	26	20	19	20	28.5	39.0	
21-Apr	17	A	20	19	16	16	11	12	12	11	7	13	20	28	35	36	36	37	39	44	43	43	43	43	26.2	44.4	
22-Apr	43	43	42	41	39	A	37	38	41	42	29	31	38	41	42	44	45	46	45	45	44	44	45	41.4	45.9		
23-Apr	43	40	39	37	A	28	31	30	31	30	29	30	32	34	35	36	37	38	37	34	32	33	38	40	34.5	43.4	
24-Apr	39	37	30	A	20	20	21	33	40	40	41	41	42	43	45	44	44	42	46	47	46	45	44	44	38.8	46.9	
25-Apr	42	40	A	29	28	30	33	37	38	38	42	43	44	44	45	46	47	47	47	46	42	36	41	42	40.3	47.4	
26-Apr	41	A	40	36	35	35	34	37	37	39	40	40	41	41	41	42	42	42	41	39	36	32	27	38.0	42.3		
27-Apr	A	26	32	35	36	35	15	22	36	39	39	41	42	42	43	43	42	42	40	36	32	33	A	36.1	43.2		
28-Apr	29	30	30	29	27	26	25	29	34	40	41	42	43	44	44	45	45	44	44	42	40	A	37	37.2	44.9		
29-Apr	37	36	31	31	14	8	10	28	31	38	44	46	47	51	52	53	51	52	52	47	A	19	22	37.0	53.3		
30-Apr	17	26	17	20	19	14	17	34	39	42	42	44	45	45	46	48	49	49	49	A	29	17	6	33.2	49.3		
Diurnal Average																											
Diurnal Maximum																											
C - Calibration												P - Power Failure												A - Automated Daily Zero Span			

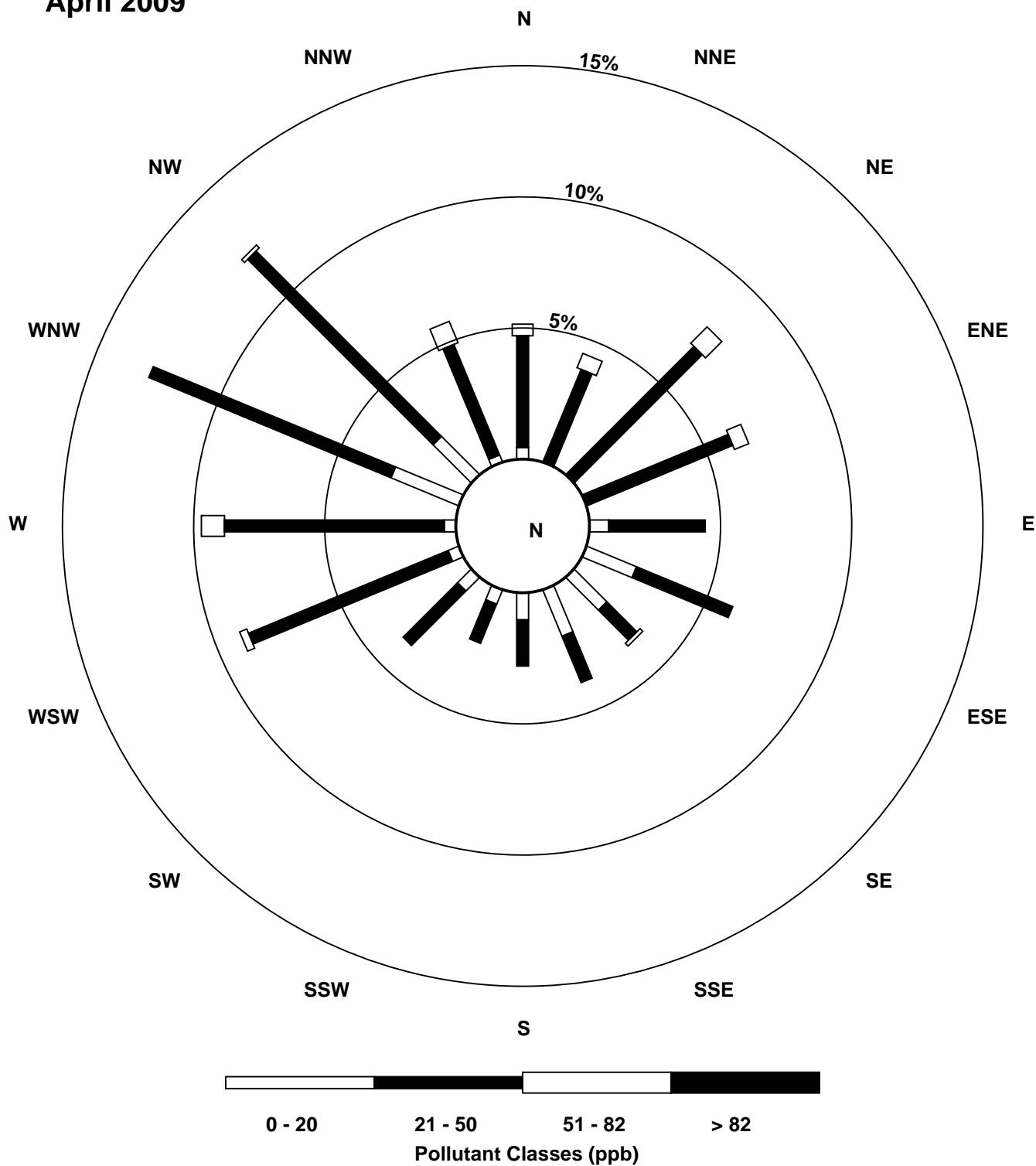
Hourly Maximums for O₃ at Henry Pirker

April 2009



Pollutant Rose for O₃ at Henry Pirker

April 2009



Peace Airshed Zone Association
Summary of Eight Hour Running Averages

Henry Pirker - Ozone (O_3) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 53.0 ppb on Apr 2 21:00 Minimum Value: 8.3 ppb on Apr 11 09:00 Percentiles: $P_1 = 11.5$ $P_{10} = 20.0$ $Q_1 = 27.7$ Median = 35.8 $Q_3 = 41.8$ $P_{90} = 45.8$ $P_{99} = 52.0$																					
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Daily Maximum
1-Apr	38	35	32	29	27	28	25	22	20	20	20	21	25	27	32	37	41	43	44	44	44.4
2-Apr	42	42	41	41	40	38	36	34	33	33	34	35	37	40	44	47	50	51	52	53	53.0
3-Apr	53	52	52	51	50	49	46	43	41	40	40	40	41	43	45	47	48	48	48	49	52.6
4-Apr	34	31	28	28	28	26	24	22	21	21	23	26	29	33	38	43	46	50	51	50	51.2
5-Apr	43	42	41	40	40	38	34	29	27	25	26	27	28	32	37	42	46	48	49	50	50.8
6-Apr	38	36	32	27	22	17	14	12	13	15	18	23	28	33	39	44	46	48	49	49	49.3
7-Apr	32	27	23	21	18	15	12	12	12	13	13	15	19	24	29	32	38	42	45	45	45.0
8-Apr	35	34	33	32	34	35	36	36	37	37	39	41	42	44	45	48	49	49	50	49	49.5
9-Apr	41	40	38	37	35	32	30	27	26	25	25	25	27	28	32	36	40	43	45	47	46.5
10-Apr	34	31	28	25	23	21	20	19	17	17	17	19	20	24	28	32	36	38	41	39	40.7
11-Apr	33	29	25	21	17	15	12	10	8	10	13	15	20	26	32	37	41	43	45	44	44.6
12-Apr	35	34	31	29	28	26	25	24	25	25	25	N	N	N	N	N	N	47	46	45	44
13-Apr	42	41	41	41	41	41	40	37	37	37	37	37	37	38	40	N	N	N	N	N	33
14-Apr	30	28	26	25	23	22	19	20	21	22	24	27	30	31	35	38	40	41	42	40	42.4
15-Apr	26	23	20	16	15	15	15	14	13	13	14	17	22	25	30	35	38	42	44	45	45.0
16-Apr	40	39	37	36	36	35	34	33	33	33	33	34	35	37	40	42	44	46	47	47	47.7
17-Apr	46	45	44	44	43	42	40	37	34	31	30	29	28	28	30	33	36	38	40	41	46.0
18-Apr	33	31	30	30	29	30	30	32	34	36	37	38	39	40	42	43	44	45	45	43	45.0
19-Apr	39	36	31	29	26	24	20	18	18	21	26	28	33	36	41	45	47	49	50	49	49.5
20-Apr	45	42	41	37	33	29	24	20	19	20	22	24	26	28	31	33	32	31	30	28	45.0
21-Apr	20	19	18	17	16	15	14	13	13	12	11	10	10	12	14	17	20	23	27	30	38.8
22-Apr	40	41	42	42	41	41	40	39	39	38	36	34	34	35	36	37	38	40	42	43	44.1
23-Apr	44	43	42	41	41	38	35	33	31	30	28	27	28	29	30	31	32	33	34	33	43.6
24-Apr	35	34	33	34	32	30	26	24	24	25	26	28	31	34	38	40	41	42	42	43	42.8
25-Apr	42	41	41	39	36	34	32	31	30	31	32	34	36	38	39	41	42	44	45	43	44.8
26-Apr	41	40	39	37	36	37	35	35	34	34	34	34	35	36	37	38	39	40	39	37	40.7
27-Apr	34	32	29	29	28	28	25	24	25	27	28	29	30	31	35	38	40	40	40	39	40.4
28-Apr	33	32	30	29	28	27	26	26	26	27	29	30	32	35	38	40	42	43	43	42	43.0
29-Apr	39	38	36	33	29	24	22	20	19	19	21	24	28	33	39	43	46	48	49	50	49.9
30-Apr	31	27	22	17	15	14	14	15	18	21	24	27	30	35	39	42	44	45	46	47	46.6
Diurnal Maximums																					
52.6 52.2 51.9 51.5 50.4 48.7 45.9 42.8 41.3 40.3 39.7 40.6 41.8 43.9 45.3 47.9 49.9 51.1 52.0 52.6 53.0 52.6 52.8 52.8																					
N - Not Valid																					
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 65 ppb																					

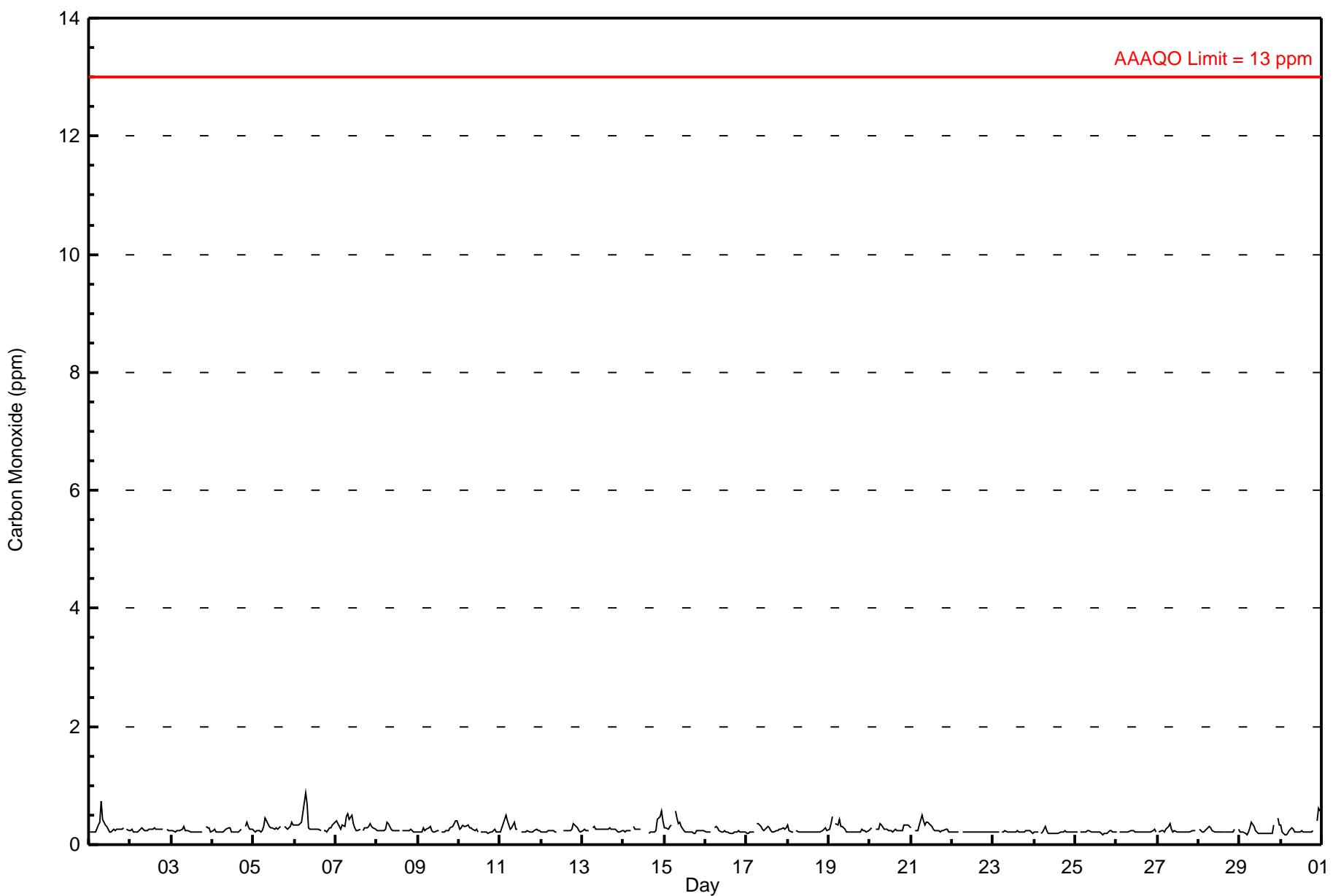
**Peace Airshed Zone Association
Summary of Hourly Averages**

**Henry Pirker - Carbon Monoxide (CO) - ppm
April 1, 2009 to May 1, 2009**

Number of Exceedances (AAAQO):		1-hr: 0	24-hr: 0																					Hours in Service:	720		
Maximum Value: 0.87 ppm on Apr 6 07:00		Maximum Daily Average: 0.34 ppm on Apr 6																					Hours of Data:	683			
Minimum Value: 0.2 ppm on Apr 30 04:00		Minimum Daily Average: 0.21 ppm on Apr 25																					Hours of Missing Data:	37			
Maximum Diurnal Average: 0.34 ppm at hour 8		Minimum Diurnal Average: 0.22 ppm at hour 16																					Hours of Calibration:	35			
Monthly Average: 0.255 ppm		Percentiles: $P_1 = 0.18$ $P_{10} = 0.21$ $Q_1 = 0.22$ Median = 0.23 $Q_3 = 0.27$ $P_{90} = 0.33$ $P_{99} = 0.57$																					Percent Operational Time:	99.7			
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.7	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	A	0.3	0.2	0.29	0.73	
2-Apr	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.2	0.2	0.25	0.29	
3-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	0.2	0.2	0.2	A	0.3	0.3	0.2	0.24	0.31	
4-Apr	0.2	0.3	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	0.2	0.3	0.4	A	0.3	0.3	0.3	0.25	0.38	
5-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.4	0.3	0.46	
6-Apr	0.3	0.3	0.3	0.4	0.4	0.5	0.9	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	0.4	
7-Apr	0.4	0.4	0.3	0.3	0.3	0.3	0.5	0.5	0.4	0.5	0.4	0.4	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	A	0.2	0.3	0.3	0.2	0.33	
8-Apr	0.2	0.2	0.2	0.2	0.2	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	A	0.2	0.2	0.2	0.2	0.39	
9-Apr	0.2	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	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.4	0.4	0.41	
10-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.34	
11-Apr	0.2	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.27	
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	A	P	0.2	0.2	0.2	0.2	0.2	P	0.2	0.2	0.3	0.2	0.24	
13-Apr	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.2	0.25	
14-Apr	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	C	C	C	A	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.6	0.4	0.29
15-Apr	0.3	0.3	0.3	0.3	0.3	A	0.6	0.5	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	A	0.2	0.2	0.2	0.28	
16-Apr	0.2	0.2	0.2	0.2	A	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	A	0.2	0.2	0.2	0.23	
17-Apr	0.2	0.2	0.2	0.2	0.2	A	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.3	0.3	0.3	0.26	
18-Apr	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	0.2	0.2	0.2	A	0.2	0.2	0.3	0.23	
19-Apr	0.3	0.4	0.5	0.5	A	0.4	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	0.2	0.2	A	0.2	0.2	0.2	0.27	
20-Apr	0.2	0.3	A	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	A	0.3	0.3	0.3	0.27	
21-Apr	0.3	A	0.2	0.2	0.2	0.3	0.5	0.4	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.29		
22-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	A	0.2	0.2	0.2	0.22	
23-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	A	0.2	0.2	0.2	0.24	
24-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	A	0.2	0.2	0.2	0.21	
25-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	A	0.2	0.2	0.2	0.24	
26-Apr	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	0.3	0.2	0.2	0.22		
27-Apr	A	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.24	
28-Apr	0.3	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	A	0.3	0.2	0.3	0.30	
29-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.4	0.3	0.23		
30-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	0.4	0.6	0.6	0.27		
0.25		0.25	0.25	0.24	0.25	0.27	0.33	0.34	0.27	0.26	0.25	0.23	0.23	0.23	0.23	0.22	0.23	0.23	0.22	0.23	0.24	0.27	0.27	0.29	0.27		
0.40		0.36	0.49	0.50	0.39	0.54	0.87	0.73	0.43	0.50	0.37	0.34	0.32	0.29	0.28	0.28	0.31	0.28	0.30	0.36	0.43	0.47	0.61	0.57	Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na																											

Hourly Averages for CO at Henry Pirker

April 2009



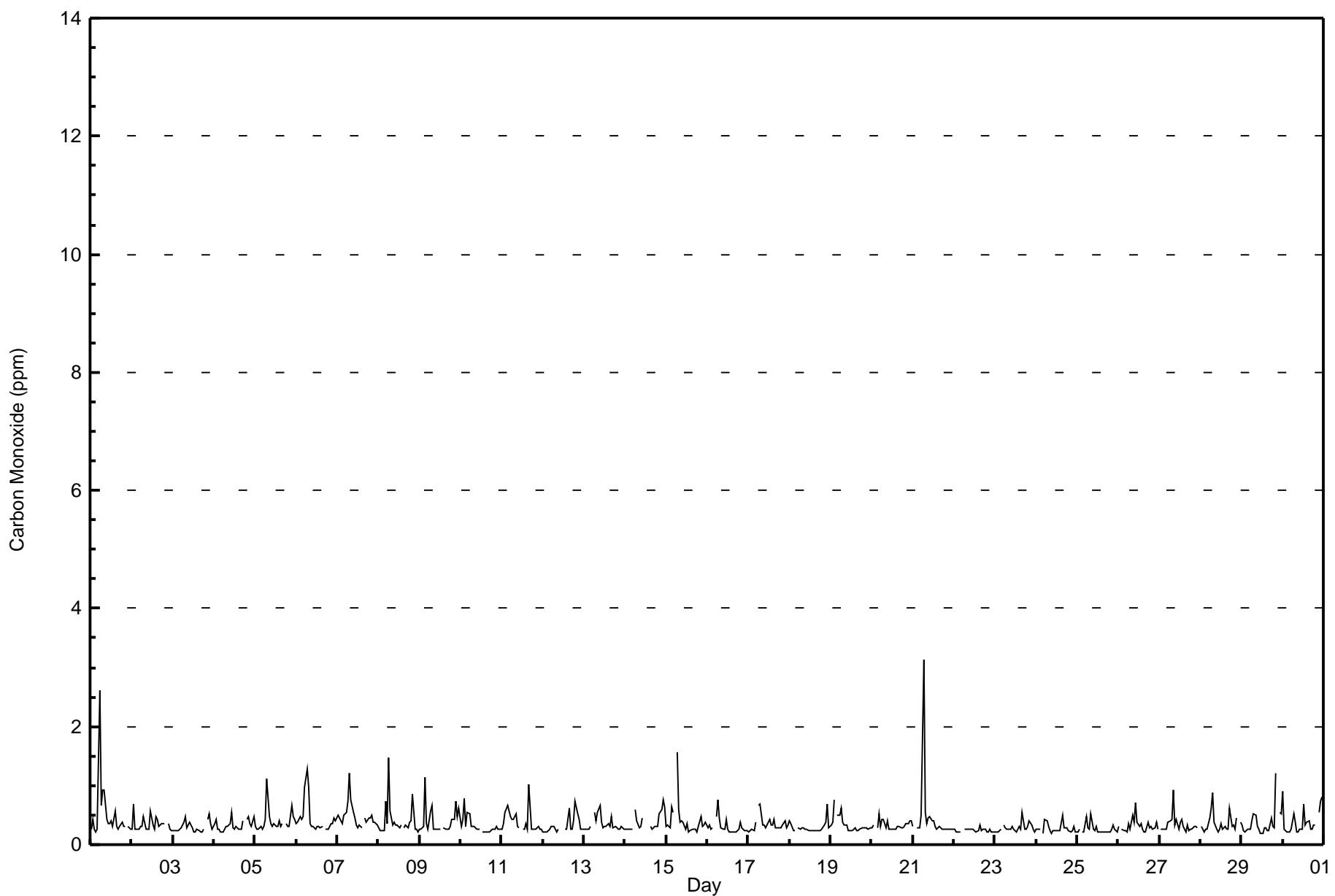
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Henry Pirker - Carbon Monoxide (CO) - ppm
April 1, 2009 to May 1, 2009**

Maximum Value: 3.13 ppm on Apr 21 07:00 Maximum Daily Average: 0.50 ppm on Apr 1 Minimum Value: 0.2 ppm on Apr 29 13:00 Minimum Daily Average: 0.25 ppm on Apr 22 Maximum Diurnal Average: 0.64 ppm at hour 7 Minimum Diurnal Average: 0.28 ppm at hour 14 Monthly Average: 0.355 ppm Percentiles: $P_1 = 0.21$ $P_{10} = 0.22$ $Q_1 = 0.26$ Median = 0.29 $Q_3 = 0.38$ $P_{90} = 0.53$ $P_{99} = 1.21$																								Hours in Service:	720		
																								Hours of Data:	683		
																								Hours of Missing Data:	37		
																								Hours of Calibration:	35		
																								Percent Operational Time:	99.7		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	0.3	0.4	0.3	0.2	0.3	2.6	0.7	0.9	0.9	0.4	0.4	0.4	0.3	0.6	0.3	0.3	0.3	0.3	0.4	0.3	0.3	A	0.3	0.3	0.3	0.50	2.62
2-Apr	0.3	0.7	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.6	0.3	0.3	0.5	0.4	0.3	0.4	0.4	0.4	0.4	A	0.4	0.2	0.2	0.34	0.69
3-Apr	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.4	0.5	0.4	0.30	0.51
4-Apr	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	A	0.4	0.5	0.4	0.33	0.55
5-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.4	1.1	0.5	0.4	0.3	0.4	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.3	A	0.4	0.3	0.3	0.39	1.11
6-Apr	0.4	0.4	0.5	0.4	0.5	1.0	1.3	1.0	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	A	0.3	0.3	0.3	0.44	1.29
7-Apr	0.5	0.5	0.4	0.3	0.5	0.5	0.7	1.2	0.8	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	A	0.4	0.4	0.4	0.48	1.21
8-Apr	0.3	0.2	0.2	0.2	0.7	0.3	1.5	0.6	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	A	0.3	0.3	0.3	0.41	1.48
9-Apr	0.3	0.3	0.3	1.1	0.3	0.3	0.6	0.7	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	A	0.3	0.3	0.3	0.40	1.14
10-Apr	0.3	0.4	0.8	0.3	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.32	0.79
11-Apr	0.3	0.3	0.6	0.7	0.6	0.5	0.4	0.4	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.3	0.39	1.02
12-Apr	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	A	P	P	0.3	0.3	0.6	0.3	0.3	0.3	0.4	0.7	0.5	0.4	0.3	0.32	0.73
13-Apr	0.3	0.3	0.3	0.3	0.3	0.3	A	0.5	0.4	0.6	0.7	0.4	0.3	0.3	0.3	0.4	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34	0.67
14-Apr	0.3	0.3	0.3	0.3	0.3	A	0.6	0.4	0.3	0.3	0.4	C	C	C	A	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.8	0.6	0.39	0.77
15-Apr	0.3	0.3	0.3	0.6	0.5	A	1.6	0.6	0.4	0.4	0.4	0.3	0.4	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.4	0.41	1.58	
16-Apr	0.3	0.3	0.3	0.3	A	0.5	0.8	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.31	0.75
17-Apr	0.2	0.2	0.3	0.2	0.4	A	0.7	0.7	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.35	0.69
18-Apr	0.4	0.4	0.2	0.2	A	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	0.3	0.3	0.4	0.7	0.3	0.29	0.68
19-Apr	0.3	0.4	0.8	A	0.5	0.5	0.6	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	0.3	0.3	0.3	0.3	0.3	0.34	0.76
20-Apr	0.3	0.3	A	0.3	0.5	0.3	0.4	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	0.4	0.4	0.4	0.4	0.4	0.52	
21-Apr	0.3	A	0.3	0.3	0.3	0.5	3.1	0.6	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.45	3.13
22-Apr	0.3	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.25	0.32
23-Apr	0.2	0.2	0.2	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.28	0.54	
24-Apr	0.3	0.3	0.3	0.3	A	0.2	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.27	0.50	
25-Apr	0.2	0.3	A	0.2	0.2	0.5	0.3	0.3	0.5	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.27	0.53	
26-Apr	0.3	A	0.3	0.2	0.2	0.2	0.4	0.3	0.5	0.4	0.7	0.4	0.3	0.4	0.3	0.2	0.2	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.32	0.70
27-Apr	A	0.3	0.3	0.3	0.4	0.4	0.4	0.9	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34	0.92
28-Apr	0.3	0.3	0.2	0.3	0.4	0.6	0.9	0.4	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.6	0.3	0.3	0.3	0.4	A	0.4	0.4	0.36	0.87
29-Apr	0.3	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.5	0.3	0.3	0.3	0.5	0.5	0.5	0.36	1.21	
30-Apr	0.9	0.3	0.2	0.2	0.3	0.5	0.4	0.2	0.2	0.3	0.3	0.7	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.7	0.8	0.8	0.39	0.91	
Diurnal Average																									Diurnal Maximum		
C - Calibration																											
P - Power Failure																											
A - Automated Daily Zero Span																											

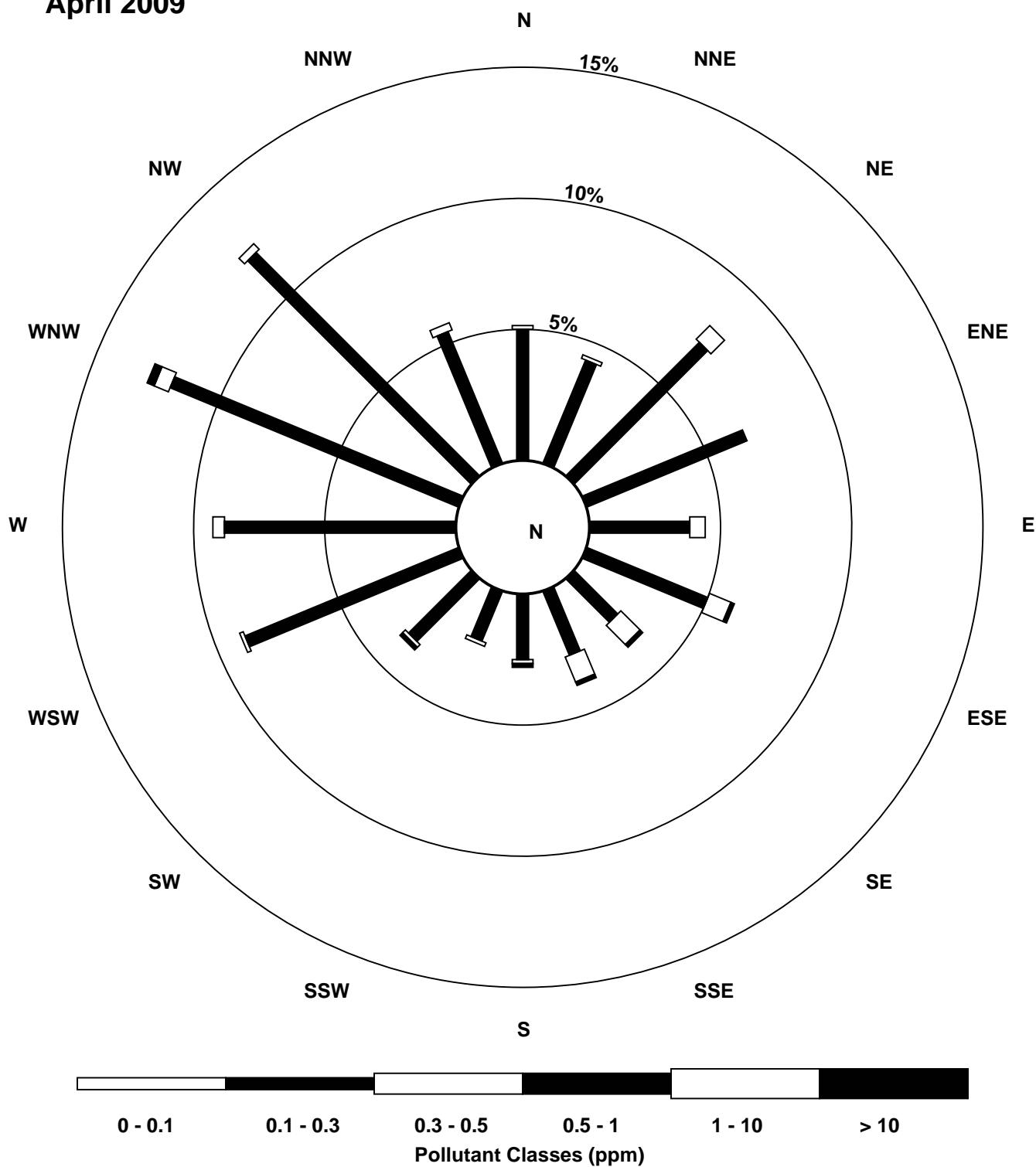
Hourly Maximums for CO at Henry Pirker

April 2009



Pollutant Rose for CO at Henry Pirker

April 2009



Peace Airshed Zone Association Summary of Eight Hour Running Averages

Henry Pirker - Carbon Monoxide (CO) - ppm

April 1, 2009 to May 1, 2009

Number of Exceedences (AAAQO): 8-hr: 0																			Hours in Service: 720					
Maximum Value: 0.48 ppm on Apr 6 08:00																			Hours of Data: 706					
Minimum Value: 0.18 ppm on Apr 29 20:00																			Hours of Missing Data: 14					
Percentiles: P ₁ = 0.20 P ₁₀ = 0.21 Q ₁ = 0.22 Median = 0.24 Q ₃ = 0.27 P ₉₀ = 0.32 P ₉₉ = 0.42																			Hours of Calibration: 14					
																			Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																				Daily Maximum			
1-Apr	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.37
2-Apr	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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.26
3-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	0.25
4-Apr	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	0.3	0.3	0.3	0.3	0.29
5-Apr	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.32
6-Apr	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.48
7-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.40
8-Apr	0.3	0.3	0.3	0.3	0.3	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	0.29
9-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	0.3	0.3	0.3	0.3	0.31
10-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.34
11-Apr	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.35
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	0.2	0.3	0.3	0.3	0.3	0.27
13-Apr	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.27
14-Apr	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	N	0.3	0.3	0.3	0.3	0.3	0.34
15-Apr	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.38
16-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	0.25
17-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.30
18-Apr	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	0.2	0.2	0.2	0.27
19-Apr	0.2	0.3	0.3	0.3	0.3	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	0.2	0.2	0.2	0.2	0.36
20-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.29
21-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.37
22-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	0.2	0.2	0.2	0.2	0.2	0.23
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	0.2	0.22
24-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	0.22
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	0.22
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	0.23
27-Apr	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
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	0.25
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	0.26
30-Apr	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	0.3	0.3	0.4	0.35
Diurnal Maximums																								

N - Not Valid

Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

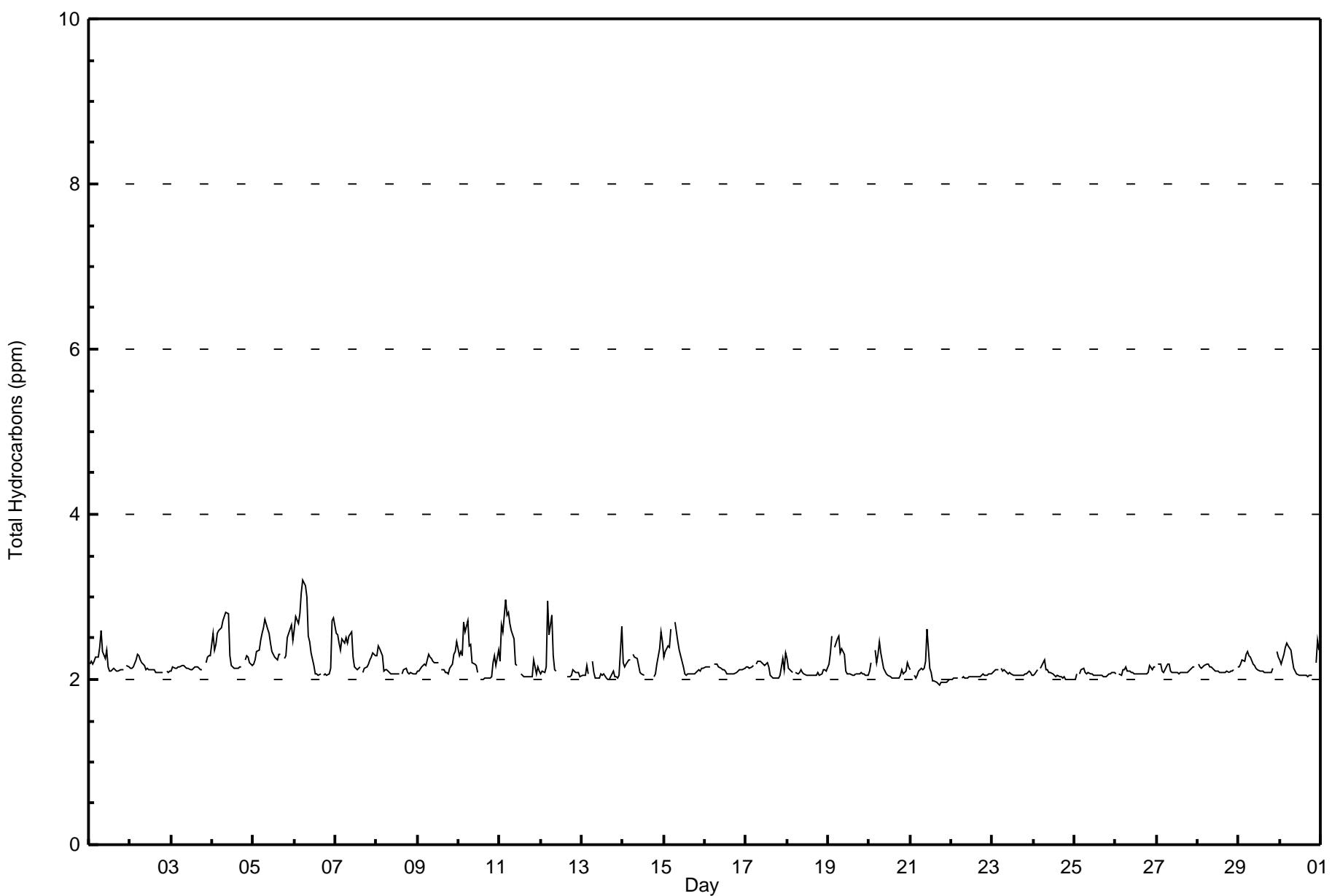
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Total Hydrocarbons (THC) - ppm
April 1, 2009 to May 1, 2009

Maximum Value: 3.20 ppm on Apr 6 06:00 Maximum Daily Average: 2.47 ppm on Apr 6 Minimum Value: 1.9 ppm on Apr 21 18:00 Minimum Daily Average: 2.03 ppm on Apr 22 Maximum Diurnal Average: 2.35 ppm at hour 7 Minimum Diurnal Average: 2.06 ppm at hour 18 Monthly Average: 2.179 ppm Percentiles: $P_1 = 1.98$ $P_{10} = 2.04$ $Q_1 = 2.07$ Median = 2.11 $Q_3 = 2.22$ $P_{90} = 2.45$ $P_{99} = 2.77$																								Hours in Service:	720		
																								Hours of Data:	680		
																								Hours of Missing Data:	40		
																								Hours of Calibration:	36		
																								Percent Operational Time:	99.4		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.6	2.3	2.3	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.1	2.21	2.60	
2-Apr	2.1	2.1	2.1	2.2	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.14	2.31	
3-Apr	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.3	2.3	2.16	2.29	
4-Apr	2.6	2.4	2.4	2.6	2.6	2.6	2.7	2.8	2.8	2.8	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.2	A	2.2	2.3	2.3	2.3	2.38	2.81		
5-Apr	2.2	2.2	2.3	2.4	2.5	2.6	2.6	2.7	2.6	2.6	2.4	2.3	2.3	2.3	2.2	2.3	2.3	2.3	A	2.3	2.5	2.6	2.7	2.5	2.42	2.73	
6-Apr	2.6	2.8	2.7	2.8	3.0	3.2	3.1	3.0	2.5	2.5	2.3	2.2	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.47	3.20	
7-Apr	2.6	2.5	2.4	2.3	2.5	2.4	2.5	2.4	2.5	2.6	2.3	2.1	2.1	2.1	2.2	A	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.32	2.58	
8-Apr	2.3	2.4	2.4	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	2.1	2.1	2.1	2.1	2.1	2.13	2.41	
9-Apr	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.5	2.19	2.46
10-Apr	2.3	2.3	2.3	2.7	2.6	2.7	2.4	2.4	2.2	2.2	2.2	2.1	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	2.24	2.71
11-Apr	2.2	2.7	2.6	3.0	2.8	2.8	2.7	2.6	2.5	2.2	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.1	2.30	2.97	
12-Apr	2.1	2.1	2.1	2.2	3.0	2.5	2.8	2.3	2.1	2.1	A	P	P	P	P	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.20	2.95
13-Apr	2.0	2.0	2.0	2.2	2.1	A	2.2	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.08	2.65	
14-Apr	2.2	2.1	2.2	2.2	2.2	A	2.3	2.3	2.2	2.2	2.1	2.1	2.0	C	C	C	C	A	2.0	2.1	2.2	2.4	2.6	2.5	2.21	2.57	
15-Apr	2.3	2.3	2.4	2.4	2.6	A	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.24	2.69	
16-Apr	2.2	2.1	2.2	2.2	A	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.12	2.19	
17-Apr	2.2	2.1	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.3	2.1	2.1	2.1	2.14	2.32	
18-Apr	2.2	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.09	2.25	
19-Apr	2.2	2.3	2.5	A	2.4	2.5	2.5	2.3	2.4	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	2.19	2.53	
20-Apr	2.1	2.2	A	2.4	2.2	2.3	2.5	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.13	2.46	
21-Apr	2.1	A	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.6	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.06	2.61	
22-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.03	2.06	
23-Apr	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	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.08	2.14	
24-Apr	2.1	2.1	2.1	A	2.1	2.2	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	2.0	2.0	2.0	2.0	2.06	2.24	
25-Apr	2.0	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.07	2.14	
26-Apr	2.1	A	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.09	2.16		
27-Apr	A	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.11	2.19		
28-Apr	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.13	2.19		
29-Apr	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.3	2.3	2.18	2.34	
30-Apr	2.2	2.2	2.3	2.4	2.4	2.4	2.4	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	A	2.2	2.5	2.3	2.19	2.48	
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration																											
P - Power Failure																											
A - Automated Daily Zero Span																											

Hourly Averages for THC at Henry Pirker

April 2009



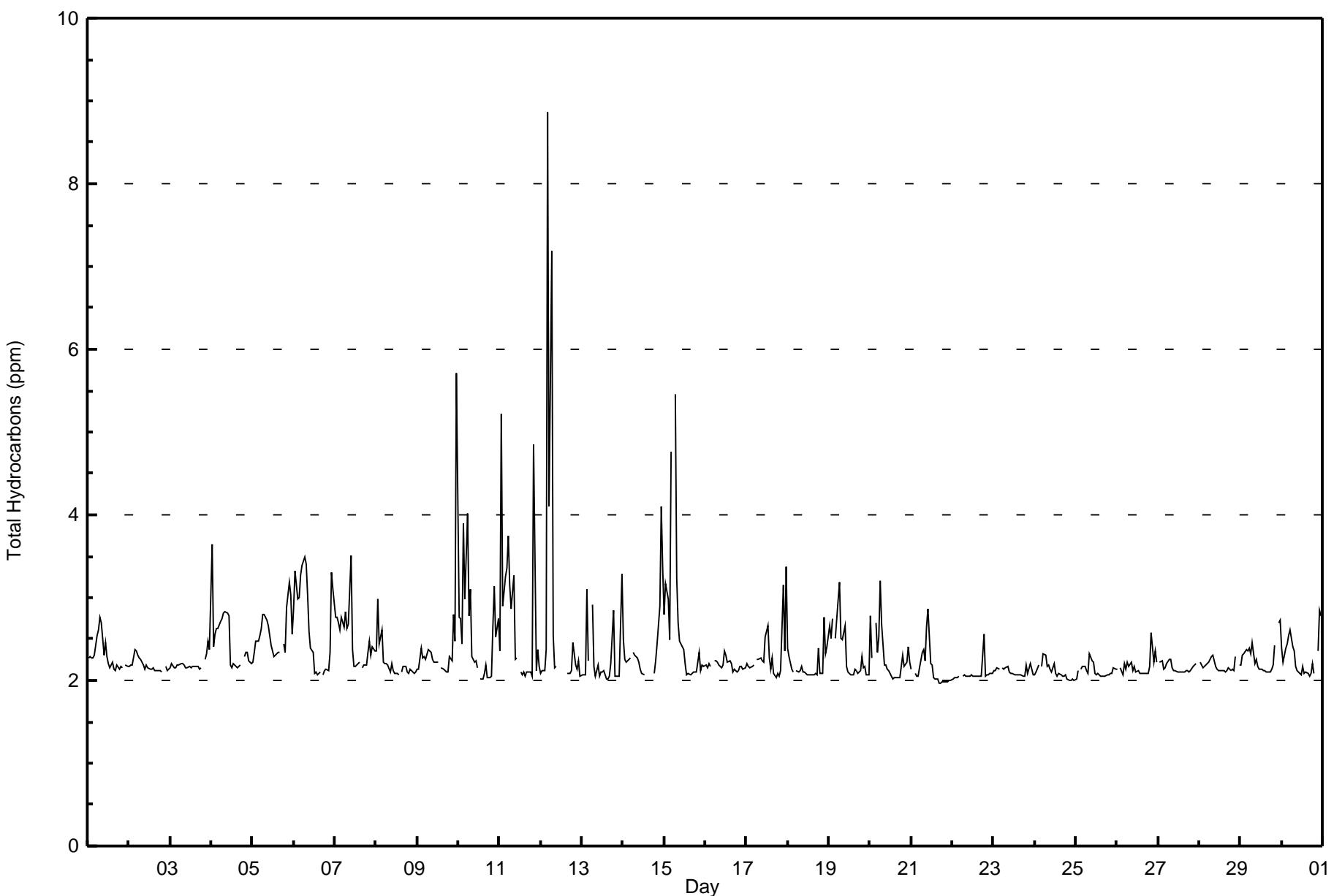
Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Total Hydrocarbons (THC) - ppm
April 1, 2009 to May 1, 2009

Maximum Value: 8.87 ppm on Apr 12 05:00 Maximum Daily Average: 2.90 ppm on Apr 12 Minimum Value: 2.0 ppm on Apr 21 18:00 Minimum Daily Average: 2.07 ppm on Apr 22 Maximum Diurnal Average: 2.76 ppm at hour 7 Minimum Diurnal Average: 2.10 ppm at hour 18 Monthly Average: 2.329 ppm Percentiles: P ₁ = 2.00 P ₁₀ = 2.06 Q ₁ = 2.10 Median = 2.17 Q ₃ = 2.35 P ₉₀ = 2.76 P ₉₉ = 4.73																								Hours in Service:		720		
																									Hours of Data:	680		
																									Hours of Missing Data:	40		
																									Hours of Calibration:	36		
																									Percent Operational Time:	99.4		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum		
1-Apr	2.3	2.3	2.3	2.3	2.3	2.5	2.6	2.8	2.7	2.3	2.5	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	A	2.2	2.2	2.2	2.30	2.76	
2-Apr	2.2	2.2	2.2	2.4	2.4	2.3	2.3	2.3	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	A	2.2	2.1	2.1	2.18	2.37	
3-Apr	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	A	2.3	2.3	2.5	2.48	2.48	
4-Apr	3.6	2.4	2.6	2.6	2.6	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	A	2.3	2.3	2.3	2.2	2.2	
5-Apr	2.2	2.3	2.5	2.5	2.5	2.6	2.8	2.8	2.7	2.7	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.9	A	2.4	2.3	3.2	3.0	3.19	
6-Apr	2.9	3.3	3.0	3.0	3.3	3.4	3.5	3.4	3.0	2.6	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.3	3.1	
7-Apr	2.8	2.8	2.7	2.6	2.8	2.6	2.8	2.6	2.7	3.5	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	A	2.1	2.2	2.2	2.5	3.50	
8-Apr	2.4	3.0	2.4	2.6	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	A	2.1	2.2	2.1	2.1	2.98	
9-Apr	2.1	2.1	2.4	2.3	2.3	2.3	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	A	2.2	2.1	2.1	2.5	5.7	
10-Apr	2.8	2.7	2.4	3.9	3.0	4.0	2.8	3.1	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	A	2.0	2.0	2.0	2.6	4.02	
11-Apr	2.4	5.2	2.9	3.3	3.4	3.7	3.1	2.9	3.3	2.3	2.3	A	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	4.8	A	2.1	2.4	2.2	2.73	5.21	
12-Apr	2.1	2.1	2.1	2.4	8.9	4.1	7.2	2.5	2.2	2.2	A	P	P	P	P	2.1	2.1	2.1	2.1	2.5	2.2	2.1	2.1	2.2	2.1	2.1	2.90	8.87
13-Apr	2.1	2.1	2.1	3.1	2.2	A	2.9	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.8	2.1	2.1	2.1	2.1	3.3	2.26	3.29	
14-Apr	2.5	2.2	2.2	2.3	2.3	A	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	C	C	C	C	A	2.1	2.2	2.4	2.9	4.1	3.4	2.44	4.11
15-Apr	2.8	3.2	3.0	2.5	4.8	A	5.5	3.2	2.7	2.5	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	2.1	2.2	2.2	2.63	5.46	
16-Apr	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.1	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.2	2.19	2.35	
17-Apr	2.2	2.2	2.2	2.2	2.2	A	2.3	2.3	2.3	2.2	2.2	2.5	2.7	2.3	2.1	2.3	2.1	2.0	2.1	2.0	3.2	2.4	3.4	2.32	3.38			
18-Apr	2.4	2.3	2.1	2.1	A	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.8	2.1	2.1	2.3	2.4	2.18	2.76	
19-Apr	2.7	2.5	2.7	A	2.5	3.0	3.2	2.5	2.5	2.7	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.34	3.18		
20-Apr	2.8	2.3	A	2.7	2.3	2.5	3.2	2.7	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.2	2.4	2.2	2.2	2.30	3.20		
21-Apr	2.1	A	2.1	2.1	2.1	2.2	2.3	2.4	2.2	2.7	2.9	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.14	2.86		
22-Apr	2.0	2.0	2.0	2.0	2.1	A	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.6	2.1	2.1	2.1	2.1	2.07	2.57		
23-Apr	2.1	2.1	2.1	2.1	2.1	A	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.11	2.21		
24-Apr	2.1	2.1	2.2	A	2.2	2.3	2.3	2.2	2.1	2.1	2.2	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	2.11	2.31		
25-Apr	2.0	2.1	A	2.1	2.2	2.2	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.12	2.33		
26-Apr	2.1	A	2.2	2.1	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.2	2.4	2.2	2.2	2.17	2.58		
27-Apr	A	2.2	2.2	2.1	2.1	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	A	2.1	2.2	2.26			
28-Apr	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	A	2.2	2.1	2.3	2.17	2.31		
29-Apr	2.2	2.3	2.3	2.4	2.4	2.4	2.3	2.5	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	A	2.7	2.7	2.7	2.27	2.72		
30-Apr	2.4	2.2	2.4	2.4	2.5	2.6	2.4	2.3	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	A	2.4	2.9	2.8	2.29	2.85	
																									Diurnal Average			
																									Diurnal Maximum			
C - Calibration P - Power Failure A - Automated Daily Zero Span																												

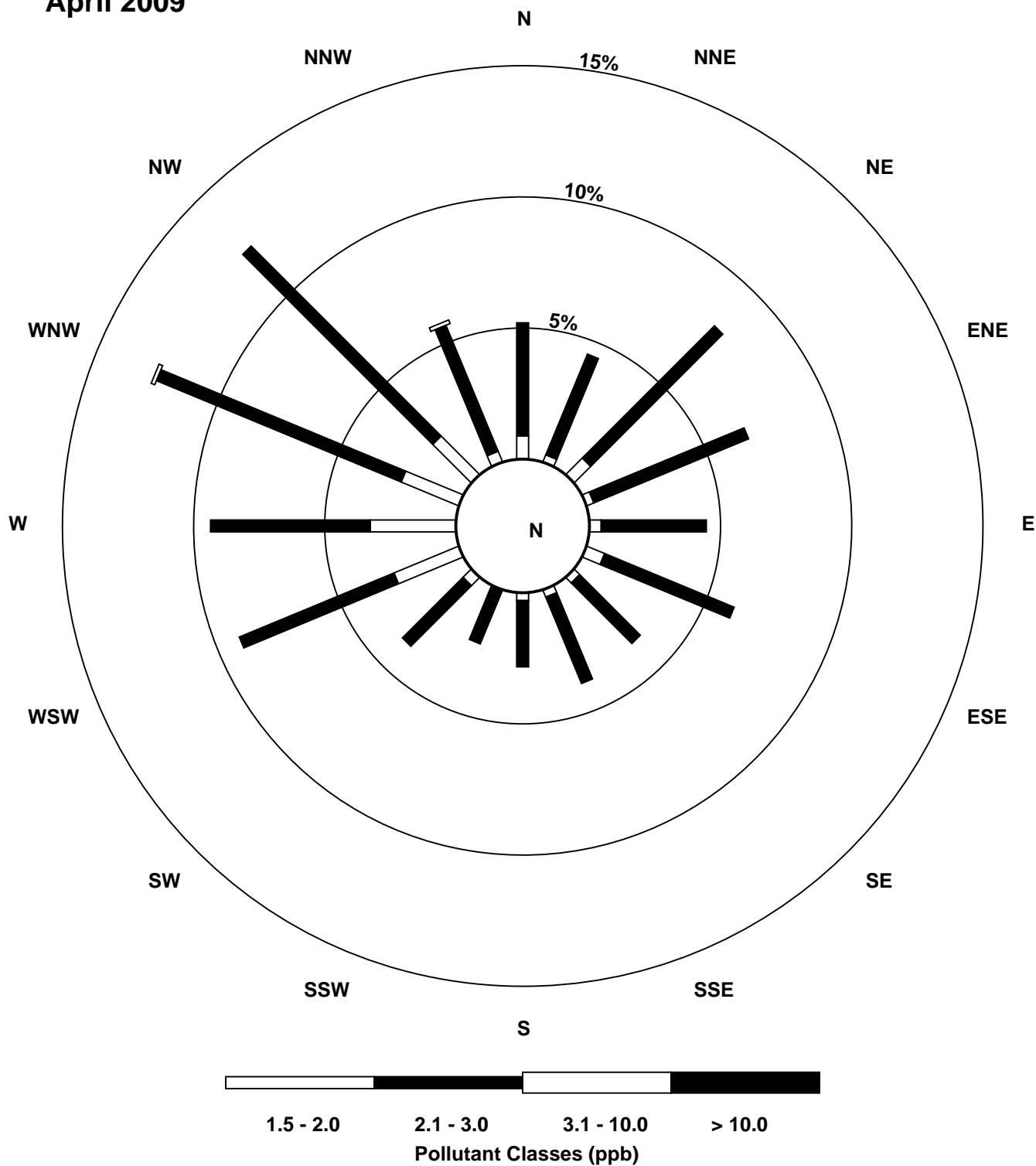
Hourly Maximums for THC at Henry Pirker

April 2009



Pollutant Rose for THC at Henry Pirker

April 2009



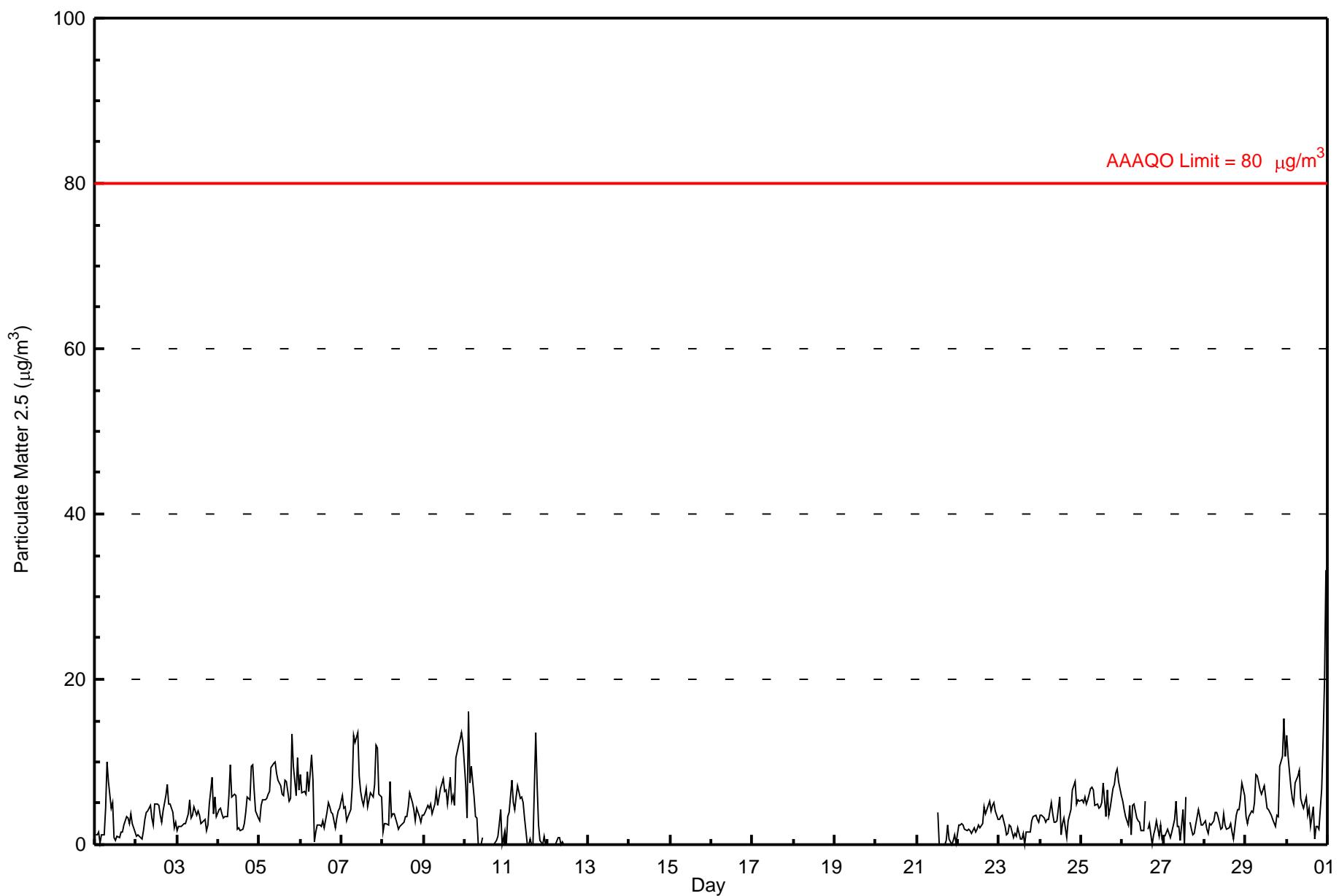
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Particulate Matter 2.5 (PM_{2.5}) - μg/m³
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 33.2 μg/m ³ on May 1 00:00 Maximum Daily Average: 7.5 μg/m ³ on Apr 30																			Hours in Service: 720 Hours of Data: 498 Hours of Missing Data: 222 Hours of Calibration: 1 Percent Operational Time: 69.3			
Minimum Value: 0 μg/m ³ on Apr 10 09:00 Minimum Daily Average: 2.0 μg/m ³ on Apr 23 Maximum Diurnal Average: 6.0 μg/m ³ at hour 8 Minimum Diurnal Average: 2.7 μg/m ³ at hour 15 Monthly Average: 4.15 μg/m ³ Percentiles: P ₁ = 0.0 P ₁₀ = 0.8 Q ₁ = 2.1 Median = 3.5 Q ₃ = 5.5 P ₉₀ = 7.8 P ₉₉ = 12.8																						
Day																			Daily Average Daily Maximum			
1-Apr																			2.7 10.0			
2-Apr																			3.5 7.3			
3-Apr																			3.5 8.2			
4-Apr																			3.5 9.7			
5-Apr																			7.2 13.3			
6-Apr																			4.6 10.9			
7-Apr																			7.0 13.5			
8-Apr																			3.5 7.7			
9-Apr																			6.9 13.6			
10-Apr																			3.2 16.1			
11-Apr																			3.4 13.6			
12-Apr																			-- 0.9			
13-Apr																			-- --			
14-Apr																			-- --			
15-Apr																			-- --			
16-Apr																			-- --			
17-Apr																			-- --			
18-Apr																			-- --			
19-Apr																			-- --			
20-Apr																			-- --			
21-Apr																			3.9			
22-Apr																			2.9 5.3			
23-Apr																			2.0 3.6			
24-Apr																			3.8 7.7			
25-Apr																			5.9 9.1			
26-Apr																			2.7 5.3			
27-Apr																			2.3 5.7			
28-Apr																			3.1 7.5			
29-Apr																			5.8 15.3			
30-Apr																			7.5 33.2			
3.7 3.4 4.0 3.4 3.9 3.6 5.0 6.0 4.2 4.1 3.7 4.1 3.0 3.3 2.7 3.1 3.2 3.7 3.9 4.7 5.7 5.5 5.8 5.5																			Diurnal Average			
13.2 10.7 16.1 7.8 9.4 7.5 10.9 13.2 12.4 13.5 8.6 8.0 7.1 7.5 6.8 8.2 7.6 13.6 7.3 13.3 12.0 12.7 19.8 33.2																			Diurnal Maximum			
C - Calibration P - Power Failure M - Maintenance N - Not Valid BD - Baseline Drift Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 μg/m ³ 24-hr 30 μg/m ³																						

Hourly Averages for PM_{2.5} at Henry Pirker

April 2009



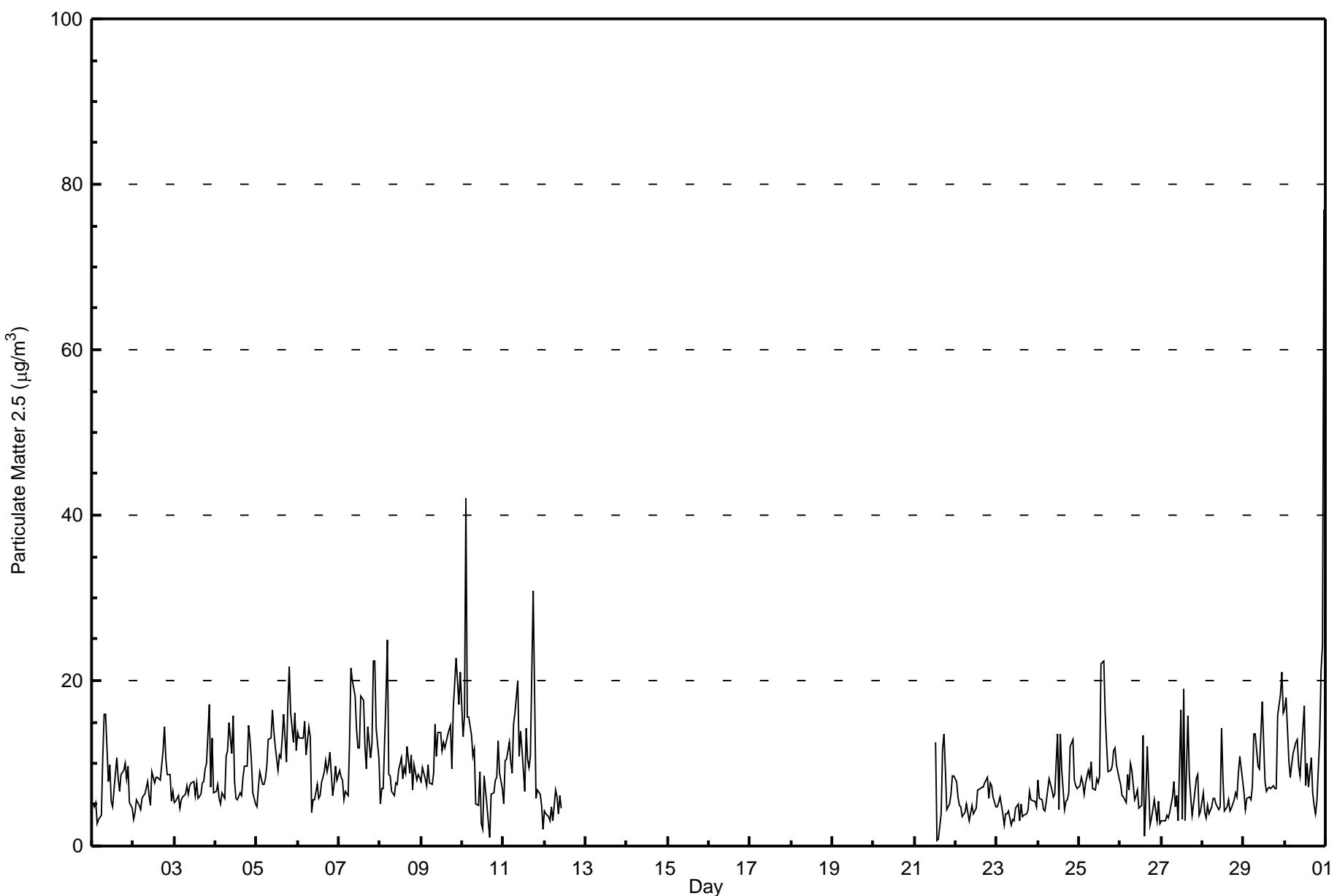
Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
April 1, 2009 to May 1, 2009

Maximum Value: 77.0 $\mu\text{g}/\text{m}^3$ on May 1 00:00 Maximum Daily Average: 14.1 $\mu\text{g}/\text{m}^3$ on Apr 30 Minimum Value: 1 $\mu\text{g}/\text{m}^3$ on Apr 21 14:00 Minimum Daily Average: 4.4 $\mu\text{g}/\text{m}^3$ on Apr 23 Maximum Diurnal Average: 11.0 $\mu\text{g}/\text{m}^3$ at hour 24 Minimum Diurnal Average: 6.9 $\mu\text{g}/\text{m}^3$ at hour 6 Monthly Average: 8.83 $\mu\text{g}/\text{m}^3$ Percentiles: $P_1 = 1.8$ $P_{10} = 4.1$ $Q_1 = 5.5$ Median = 7.6 $Q_3 = 10.9$ $P_{90} = 14.7$ $P_{99} = 24.0$																								Hours in Service: 720		
																									Hours of Data: 503	
																									Hours of Missing Data: 217	
																									Hours of Calibration: 1	
																									Percent Operational Time: 70.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	5	5	5	3	3	4	11	16	16	8	10	5	5	7	11	8	7	9	9	10	8	10	5	5	7.6	16.0
2-Apr	3	4	6	5	4	6	6	8	6	5	9	8	8	8	8	8	12	14	11	9	9	5	7	7.3	14.4	
3-Apr	5	5	6	5	6	6	6	7	6	7	8	8	6	8	6	6	8	8	9	10	17	7	13	6	7.5	17.1
4-Apr	7	7	6	5	6	6	11	12	15	11	16	8	6	6	6	6	8	10	10	15	13	10	6	5	8.7	15.8
5-Apr	5	7	9	7	8	8	10	13	13	17	14	12	9	11	11	13	16	10	17	22	16	13	16	11	12.0	21.8
6-Apr	14	13	13	13	15	11	14	13	4	6	6	8	6	6	8	9	10	9	10	11	6	7	10	8	9.6	15.0
7-Apr	9	8	8	6	7	6	12	22	20	18	14	12	12	18	18	12	9	14	11	12	22	22	14	11	13.2	22.5
8-Apr	5	7	7	18	25	9	8	7	6	8	7	9	11	8	9	9	12	9	11	7	10	8	9	8	9.4	24.9
9-Apr	8	10	8	7	10	8	8	9	15	11	14	14	12	13	12	13	14	15	9	17	23	20	17	21	12.7	22.6
10-Apr	13	16	42	16	16	13	11	12	5	5	9	3	2	8	5	3	1	6	6	8	8	13	9	7	9.9	42.0
11-Apr	5	10	11	13	10	9	15	16	20	11	14	12	7	14	10	10	11	31	18	6	7	6	5	2	11.3	30.8
12-Apr	4	4	3	3	5	3	7	6	4	6	5	P	P	N	N	N	N	N	N	N	N	N	N	--	6.8	
13-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
14-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
15-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
16-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
17-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
18-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
19-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--	
20-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	M	M	M	--	--	
21-Apr	M	M	M	M	M	M	M	M	M	M	C	12	1	1	4	12	14	9	4	5	6	8	8	--	13.5	
22-Apr	8	6	5	5	4	4	5	4	3	5	4	4	5	7	7	7	7	8	8	6	8	7	6	5	5.7	8.3
23-Apr	5	5	6	4	3	4	4	4	3	3	3	5	5	3	5	4	4	4	4	7	6	5	5	5	4.4	6.6
24-Apr	8	6	6	4	4	5	8	7	7	6	14	4	14	9	4	5	6	6	12	13	8	7	7	7.4	13.6	
25-Apr	7	8	8	6	8	9	8	10	7	7	8	8	9	22	22	16	12	9	9	10	12	12	10	8	10.2	22.3
26-Apr	8	6	6	5	9	7	10	9	6	6	7	5	5	13	1	6	12	3	3	4	6	3	5	3	6.1	13.4
27-Apr	3	3	3	4	3	4	6	8	5	6	3	16	3	19	3	16	8	6	4	5	8	9	4	4	6.4	19.1
28-Apr	7	4	3	5	4	5	6	6	5	4	5	14	8	4	5	6	4	5	6	6	9	11	8	6.0	14.3	
29-Apr	6	4	6	6	7	13	13	10	9	13	18	8	7	7	7	7	7	7	16	18	21	16	10.0	21.0		
30-Apr	17	18	10	8	10	11	12	13	10	8	11	17	7	10	7	11	6	5	4	5	13	21	24	77	14.1	77.0
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration P - Power Failure M - Maintenance N - Not Valid																										

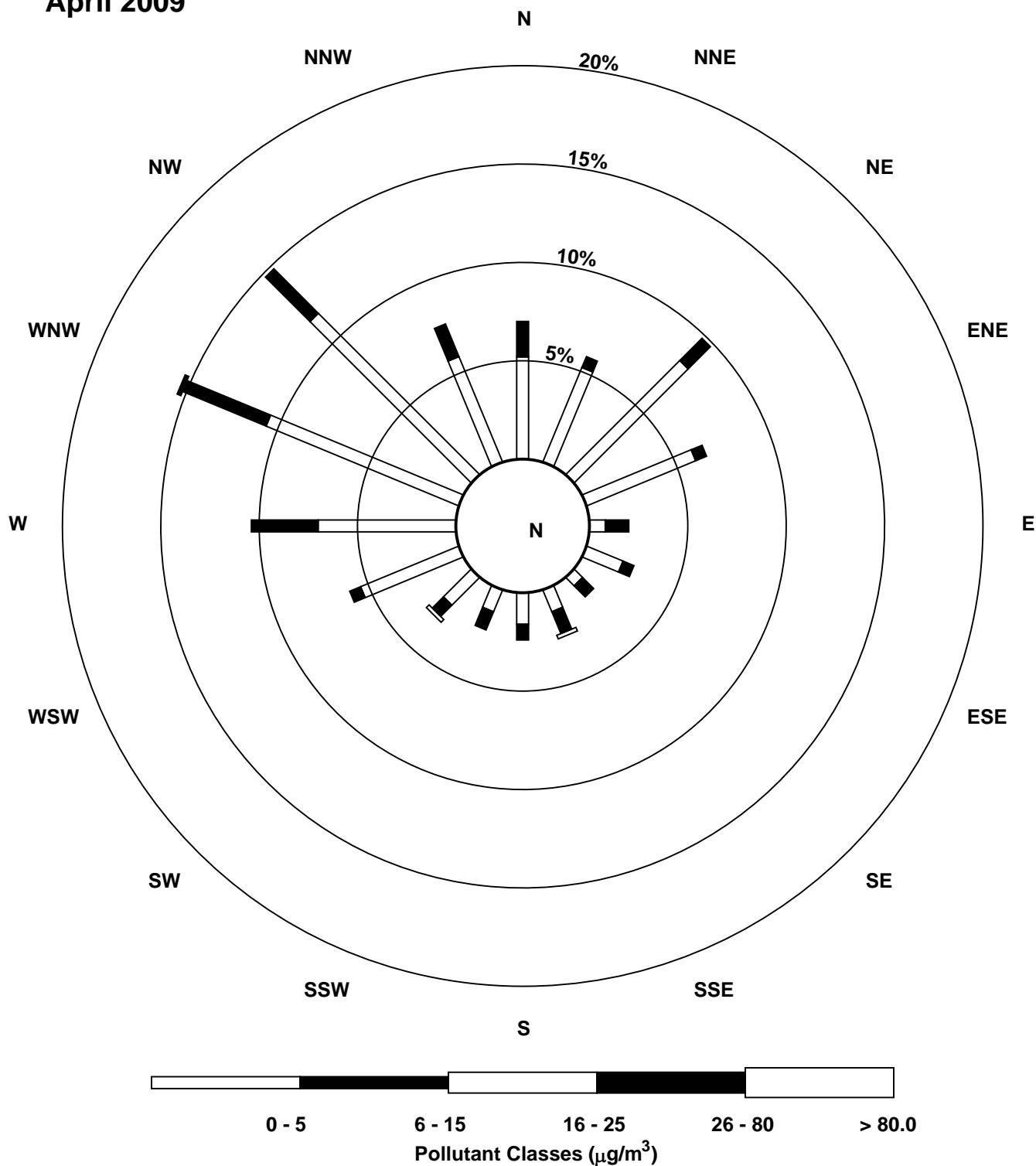
Hourly Maximums for PM_{2.5} at Henry Pirker

April 2009



Pollutant Rose for PM_{2.5} at Henry Pirker

April 2009



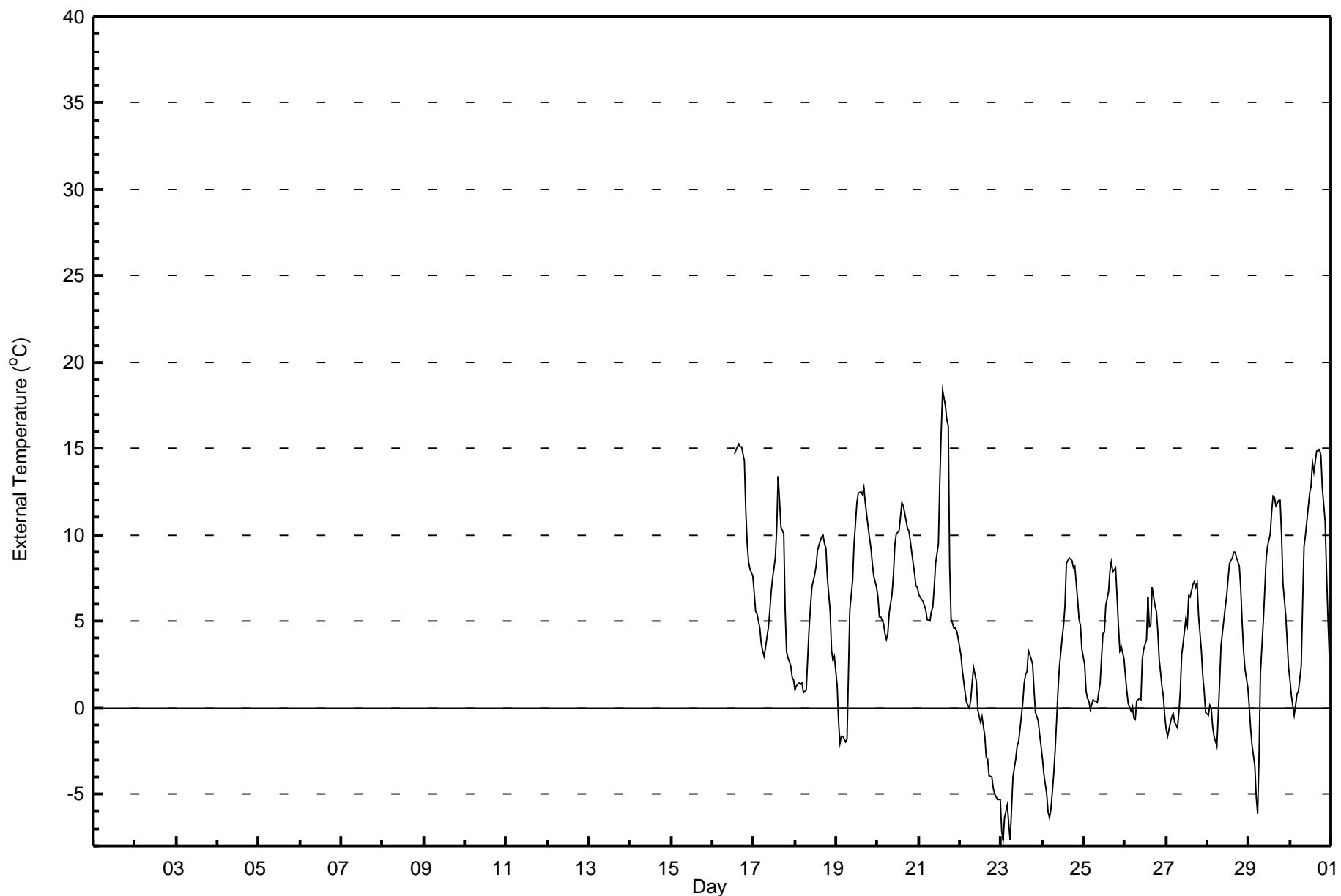
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - External Temperature (ET) - °C
April 1, 2009 to May 1, 2009

Maximum Value: 18.4 °C on Apr 21 15:00 Maximum Daily Average: 8.6 °C on Apr 21 Minimum Value: -8 °C on Apr 23 06:00 Minimum Daily Average: -2.0 °C on Apr 23 Maximum Diurnal Average: 9.6 °C at hour 17 Minimum Diurnal Average: -0.8 °C at hour 6 Monthly Average: 4.43 °C Percentiles: P ₁ = -6.7 P ₁₀ = -2.0 Q ₁ = 0.5 Median = 4.5 Q ₃ = 8.2 P ₉₀ = 11.7 P ₉₉ = 15.8																								Hours in Service: 347		
																									Hours of Data: 347	
																									Hours of Missing Data: 0	
																									Hours of Calibration: 0	
																									Percent Operational Time: 100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	NS	NS	--	--																						
2-Apr	NS	NS	--	--																						
3-Apr	NS	NS	--	--																						
4-Apr	NS	NS	--	--																						
5-Apr	NS	NS	--	--																						
6-Apr	NS	NS	--	--																						
7-Apr	NS	NS	--	--																						
8-Apr	NS	NS	--	--																						
9-Apr	NS	NS	--	--																						
10-Apr	NS	NS	--	--																						
11-Apr	NS	NS	--	--																						
12-Apr	NS	NS	--	--																						
13-Apr	NS	NS	--	--																						
14-Apr	NS	NS	--	--																						
15-Apr	NS	NS	--	--																						
16-Apr	NS	NS	--	15.3																						
17-Apr	7	6	5	5	4	3	3	3	5	6	7	7	9	10	13	12	10	10	6	3	2	2	2	5.9	13.4	
18-Apr	1	1	1	1	1	1	1	3	5	6	7	8	8	9	9	10	10	9	9	8	6	3	3	3	5.2	10.0
19-Apr	1	-1	-2	-2	-2	-2	-2	2	6	7	9	11	12	12	12	13	12	10	10	9	8	8	7	7	6.3	12.8
20-Apr	6	5	5	5	4	4	4	6	7	8	9	10	11	12	12	11	10	10	9	8	7	7	7	7.9	11.9	
21-Apr	7	6	6	6	5	5	6	6	7	8	9	13	16	18	18	17	16	8	5	5	5	4	4	8.6	18.4	
22-Apr	3	2	1	1	0	0	0	1	2	1	0	0	-1	-1	-2	-3	-3	-4	-4	-5	-5	-5	-5	-5	-1.2	3.1
23-Apr	-7	-8	-6	-6	-7	-8	-6	-4	-3	-2	-2	-1	0	1	2	2	3	3	2	1	0	-1	-2	-2	-2.0	3.3
24-Apr	-3	-4	-5	-6	-6	-6	-4	-2	-1	1	2	4	5	6	8	9	9	8	8	6	5	5	3	2.1	8.7	
25-Apr	3	1	1	0	0	0	0	0	1	3	4	4	6	7	8	8	8	8	6	5	3	4	3	3.5	8.4	
26-Apr	2	1	0	0	0	-1	-1	0	1	0	3	3	4	6	5	5	7	6	4	3	1	1	0	2.3	6.9	
27-Apr	-1	-2	-1	-1	0	-1	-1	0	1	3	4	5	5	6	6	7	7	5	3	2	1	0	2.6	7.3		
28-Apr	0	0	0	-1	-2	-2	0	2	4	5	6	6	7	8	9	9	8	7	5	3	2	1	4.0	9.0		
29-Apr	0	-1	-2	-3	-5	-6	-3	2	5	7	9	9	10	11	12	12	12	10	7	5	4	2	5.1	12.3		
30-Apr	2	1	0	0	1	1	2	6	9	10	11	12	13	14	15	15	15	13	11	8	5	3	8.1	14.9		
																								Diurnal Average		
																									Diurnal Maximum	
NS - Not in service																										

Hourly Averages for External Temperature at Henry Pirker

April 2009



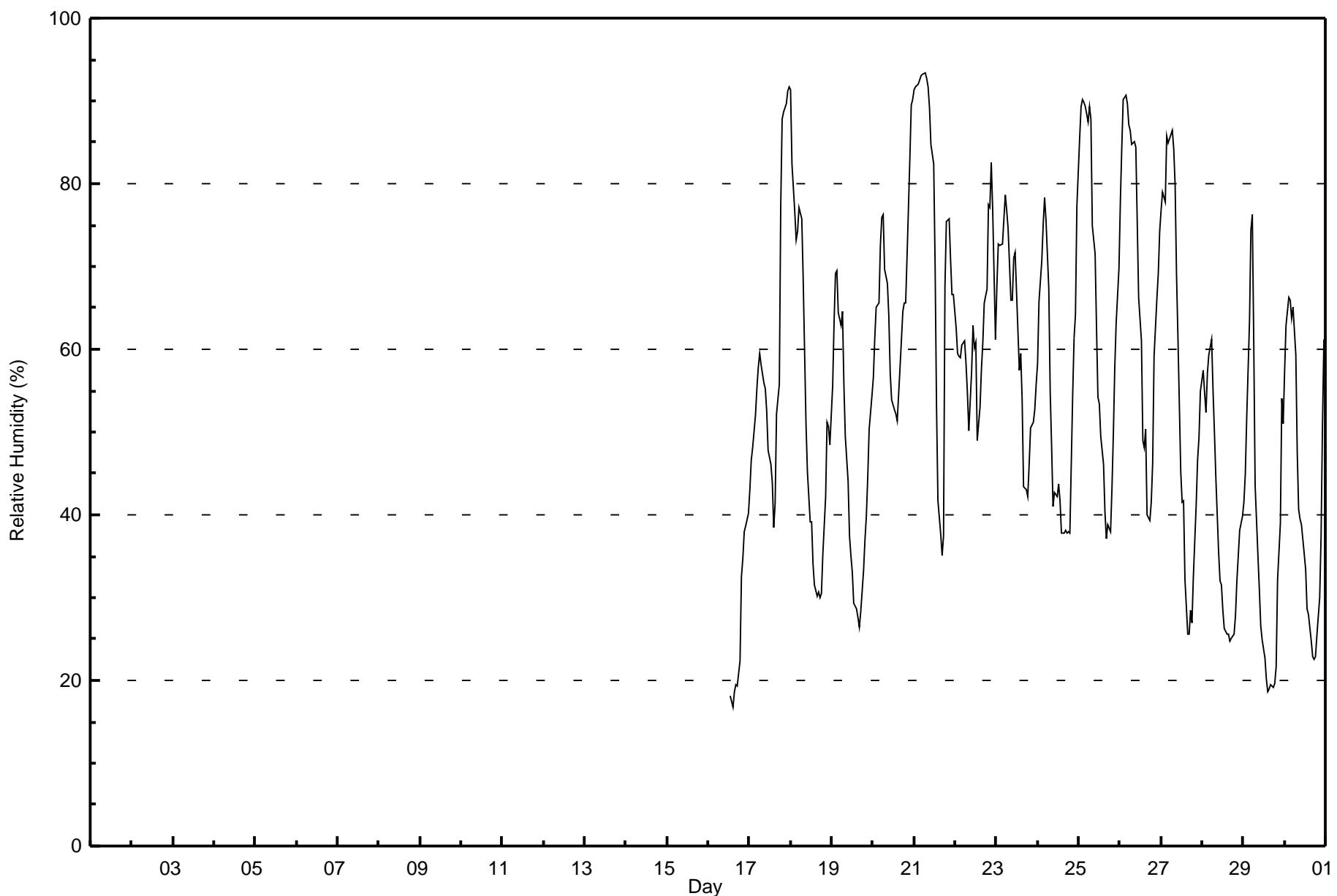
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Relative Humidity (RH) - %
April 1, 2009 to May 1, 2009

Maximum Value: 93.5 % on Apr 21 07:00 Maximum Daily Average: 74.4 % on Apr 21 Minimum Value: 17 % on Apr 16 15:00 Minimum Daily Average: 38.0 % on Apr 29 Maximum Diurnal Average: 74.6 % at hour 6 Minimum Diurnal Average: 35.6 % at hour 17 Monthly Average: 55.33 % Percentiles: P ₁ = 18.6 P ₁₀ = 28.5 Q ₁ = 39.0 Median = 54.9 Q ₃ = 69.9 P ₉₀ = 85.1 P ₉₉ = 93.0																								Hours in Service: 347 Hours of Data: 347 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	NS	--	--																							
2-Apr	NS	--	--																							
3-Apr	NS	--	--																							
4-Apr	NS	--	--																							
5-Apr	NS	--	--																							
6-Apr	NS	--	--																							
7-Apr	NS	--	--																							
8-Apr	NS	--	--																							
9-Apr	NS	--	--																							
10-Apr	NS	--	--																							
11-Apr	NS	--	--																							
12-Apr	NS	--	--																							
13-Apr	NS	--	--																							
14-Apr	NS	--	--																							
15-Apr	NS	--	--																							
16-Apr	NS	--	40.2																							
17-Apr	43	47	48	52	55	58	59	58	56	55	53	48	46	44	38	41	52	56	77	88	89	90	91	92	59.8	91.7
18-Apr	91	82	77	73	74	77	76	69	60	51	45	39	39	34	31	30	31	30	31	35	42	51	51	49	52.8	91.4
19-Apr	56	63	69	70	64	63	65	56	49	44	38	35	33	29	29	28	26	28	33	37	40	45	50	54	46.0	69.5
20-Apr	57	61	65	66	72	76	76	70	68	64	57	54	53	52	51	55	58	65	66	71	83	89	90	66.0	90.1	
21-Apr	91	92	92	92	93	93	93	92	89	85	82	70	53	42	38	35	38	67	75	76	71	67	67	74.4	93.5	
22-Apr	63	59	59	59	60	61	58	55	50	57	63	60	61	49	53	58	61	66	67	77	77	83	77	61	62.3	82.6
23-Apr	68	73	73	73	76	79	77	75	66	66	71	72	62	57	60	54	43	43	42	46	51	51	53	56	61.9	78.7
24-Apr	58	66	71	75	78	76	67	55	48	41	43	42	44	42	38	38	38	38	38	38	54	61	64	77	53.8	78.3
25-Apr	86	89	90	90	89	87	89	88	75	72	63	54	53	49	46	40	37	39	38	43	50	58	63	70	65.0	90.1
26-Apr	78	84	90	91	90	87	86	85	85	84	75	66	61	49	48	50	40	39	42	46	59	66	69	74	68.6	90.6
27-Apr	77	79	78	86	85	86	84	80	69	62	45	42	42	32	26	26	29	27	33	41	47	49	55	56.8	86.4	
28-Apr	58	55	52	57	59	61	55	50	45	35	32	31	28	26	26	25	25	26	28	32	35	38	40	39.4	61.2	
29-Apr	42	45	52	63	74	76	61	43	35	31	27	25	23	20	19	19	20	19	22	32	39	54	51	38.0	76.3	
30-Apr	57	63	66	66	64	65	59	48	41	40	39	35	33	29	28	25	23	22	23	25	30	38	51	61	42.9	66.2
66.0 68.5 70.1 72.3 74.0 74.6 72.1 66.2 60.7 57.1 53.6 49.3 46.3 39.6 37.2 36.3 35.6 37.0 41.2 46.1 51.9 57.0 60.4 62.4																								Diurnal Average		
91.4 91.7 92.0 92.5 93.1 93.2 93.5 92.7 91.7 89.2 84.7 82.3 70.1 57.4 59.6 57.6 60.9 65.7 77.3 87.7 88.7 89.7 91.2 91.7																								Diurnal Maximum		
NS - Not in service																										

Hourly Averages for Relative Humidity at Henry Pirker

April 2009



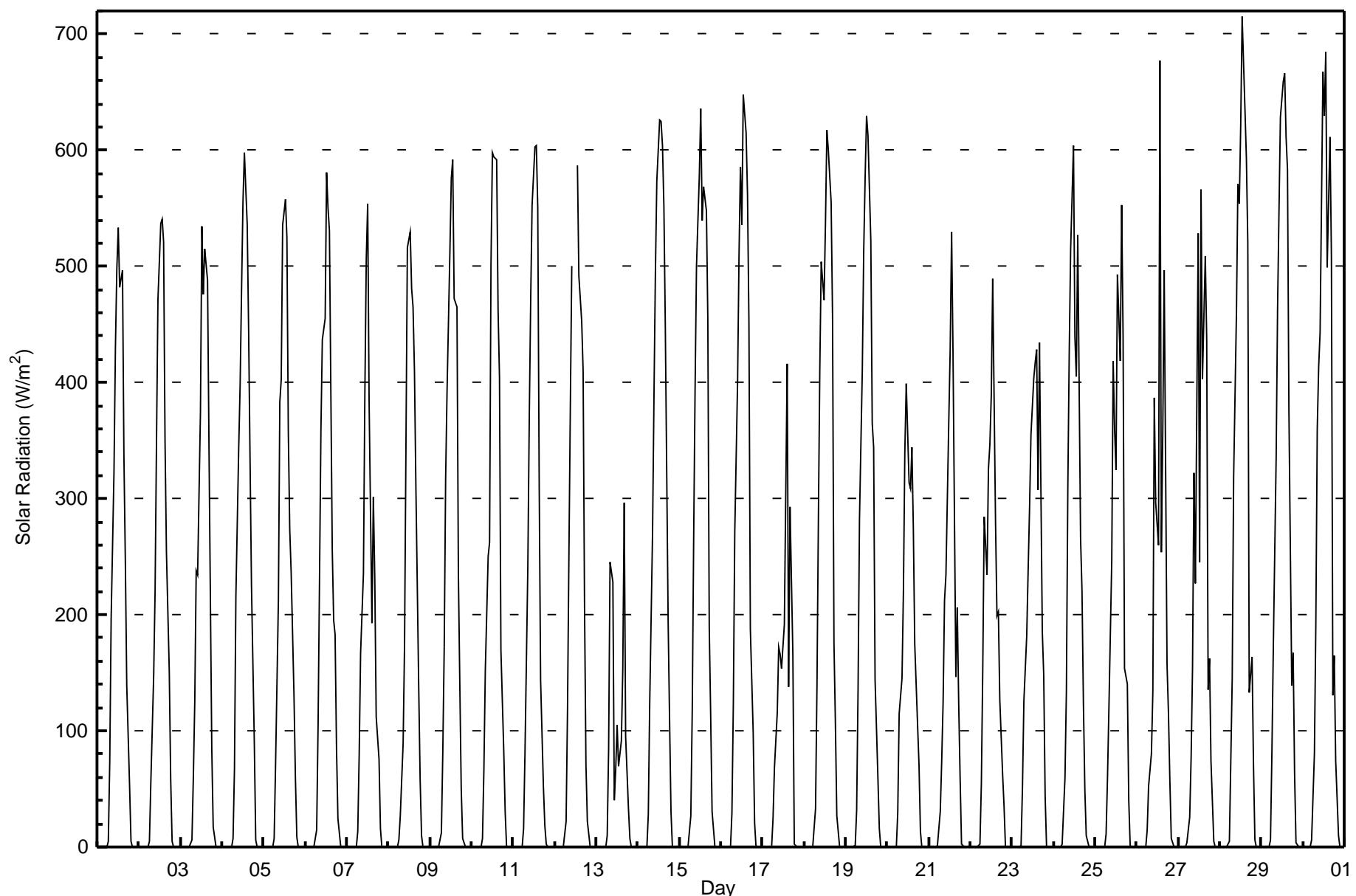
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Solar Radiation (SR) - W/m²
April 1, 2009 to May 1, 2009

Maximum Value: 715.5 W/m ² on Apr 28 14:00 Maximum Daily Average: 232.8 W/m ² on Apr 28 Minimum Value: 0 W/m ² on Apr 1 01:00 Minimum Daily Average: 63.7 W/m ² on Apr 13 Maximum Diurnal Average: 526.1 W/m ² at hour 14 Minimum Diurnal Average: 0.0 W/m ² at hour 1 Monthly Average: 165.03 W/m ² Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 51.5 Q ₃ = 318.5 P ₉₀ = 520.1 P ₉₉ = 641.3																								Hours in Service: 720	720		
																								Hours of Data: 718	718		
																								Hours of Missing Data: 2	2		
																								Hours of Calibration: 0	0		
																								Percent Operational Time: 99.7	99.7		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	0	0	0	0	0	0	5	73	198	323	429	498	534	482	497	337	246	140	52	5	0	0	0	0	159.2	533.8	
2-Apr	0	0	0	0	0	0	5	56	147	221	351	471	536	541	521	350	254	152	58	5	0	0	0	0	152.8	540.6	
3-Apr	0	0	0	0	0	0	6	60	125	238	234	374	534	476	515	488	349	214	84	17	0	0	0	0	154.8	533.9	
4-Apr	0	0	0	0	0	0	7	68	216	344	398	480	556	598	535	445	333	225	90	7	0	0	0	0	179.2	598.4	
5-Apr	0	0	0	0	0	0	7	71	212	383	403	535	558	524	358	273	237	131	60	9	0	0	0	0	156.8	558.2	
6-Apr	0	0	0	0	0	0	14	105	229	359	437	456	581	551	530	256	195	184	85	24	0	0	0	0	166.9	580.8	
7-Apr	0	0	0	0	0	0	13	80	167	236	390	506	554	383	193	302	231	112	75	16	0	0	0	0	135.8	554.3	
8-Apr	0	0	0	0	0	0	6	27	89	173	346	517	530	481	465	409	311	138	58	9	0	0	0	0	148.3	530.1	
9-Apr	0	0	0	0	0	0	13	82	172	317	392	513	576	592	473	465	235	141	50	7	0	0	0	0	167.8	592.0	
10-Apr	0	0	0	0	0	0	7	67	153	251	263	501	598	594	592	463	404	170	83	30	0	0	0	0	174.0	598.5	
11-Apr	0	0	0	0	0	0	16	82	241	368	469	553	602	604	551	317	144	51	19	2	0	0	0	0	167.4	603.6	
12-Apr	0	0	0	0	0	0	22	118	254	380	500	P	P	587	492	452	410	208	70	22	0	0	0	0	159.8	587.1	
13-Apr	0	0	0	0	0	0	9	85	246	228	40	67	105	70	92	154	296	96	33	8	0	0	0	0	63.7	296.0	
14-Apr	0	0	0	0	0	0	28	125	271	388	494	574	626	624	604	551	448	193	110	30	0	0	0	0	211.1	625.5	
15-Apr	0	0	0	0	0	0	26	117	264	394	500	579	636	539	569	548	454	189	113	31	0	0	0	0	206.7	635.5	
16-Apr	0	0	0	0	0	0	29	123	271	402	509	586	536	648	616	561	451	188	99	20	0	0	0	0	210.0	648.5	
17-Apr	0	0	0	0	0	0	24	68	116	173	166	154	192	307	416	138	292	166	2	1	0	0	0	0	92.3	415.9	
18-Apr	0	0	0	0	0	0	33	138	280	412	504	471	537	618	600	555	457	176	108	27	0	0	0	0	204.9	617.7	
19-Apr	0	0	0	0	0	1	32	136	282	411	513	578	629	613	523	365	345	143	60	15	0	0	0	0	193.6	629.3	
20-Apr	0	0	0	0	0	0	30	115	146	219	340	399	314	309	344	274	175	105	71	14	0	0	0	0	119.0	399.1	
21-Apr	0	0	0	0	0	1	30	73	125	212	234	366	428	530	424	147	206	124	60	2	0	0	0	0	123.4	529.9	
22-Apr	0	0	0	0	0	3	55	154	285	234	326	347	389	489	280	199	203	128	62	36	0	0	0	0	132.8	488.8	
23-Apr	0	0	0	0	0	2	52	126	182	238	292	355	404	417	429	308	435	186	148	44	0	0	0	0	150.7	434.7	
24-Apr	0	0	0	0	0	3	59	134	309	426	515	604	439	405	527	266	221	125	50	9	0	0	0	0	170.5	604.4	
25-Apr	0	0	0	0	0	0	11	59	119	246	419	360	324	493	419	553	440	154	140	40	1	0	0	0	157.4	552.6	
26-Apr	0	0	0	0	0	0	14	52	80	135	387	296	260	678	254	359	497	158	116	58	7	0	0	0	0	139.6	677.7
27-Apr	0	0	0	0	0	3	26	77	156	322	227	528	245	566	403	509	437	135	162	75	5	0	0	0	0	161.5	565.7
28-Apr	0	0	0	0	0	5	75	145	318	461	572	554	622	715	634	593	519	133	164	70	6	0	0	0	0	232.8	715.5
29-Apr	0	0	0	0	0	6	81	172	335	464	549	629	659	667	612	583	377	139	167	63	4	0	0	0	0	229.5	666.8
30-Apr	0	0	0	0	0	7	81	193	360	414	443	668	630	684	499	611	508	130	165	74	10	0	0	0	0	228.3	684.1
Diurnal Average																											
Diurnal Maximum																											
P - Power Failure																											

Hourly Averages for Solar Radiation at Henry Pirker

April 2009



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1 Spd	7	4	7	4	4	3	2	1	5	5	5	6	8	9	10	8	8	9	7	7	5	6	6	6	3.6	10.2			
	264	290	289	321	314	296	130	228	255	281	287	288	307	329	2	28	34	23	26	39	49	37	41	43	346.9	1.6			
2 Spd	6	4	4	5	5	4	4	5	5	7	7	7	8	7	10	8	9	10	9	9	8	8	10	9	5.5	9.9			
	38	30	1	310	304	307	296	291	281	282	300	322	326	328	333	355	32	37	38	29	1	348	326	320	342.1	332.6			
3 Spd	7	8	7	7	5	6	7	7	7	7	8	11	12	14	16	14	12	11	6	5	3	4	4	4	7.7	15.7			
	334	342	313	325	303	300	314	321	324	318	319	294	273	280	296	293	298	300	307	310	287	323	315	330	305.4	293.4			
4 Spd	1	4	5	4	3	5	4	5	4	5	7	9	12	11	11	7	6	7	5	5	6	7	8	3.9	11.8				
	186	307	312	356	315	294	306	298	273	286	68	59	68	58	62	49	48	15	35	45	49	61	75	77	37.1	68.4			
5 Spd	7	4	2	2	3	3	2	1	4	2	6	7	9	5	6	5	5	4	3	6	5	3	1	2	1.6	8.6			
	88	112	111	121	292	339	152	211	289	233	281	292	315	359	51	50	358	58	90	316	308	351	220	306	346.5	314.9			
6 Spd	3	3	1	2	4	0	2	5	9	13	13	16	13	16	17	11	12	10	12	13	8	5	3	2	6.6	16.7			
	199	222	355	166	137	340	297	176	229	239	243	254	250	275	278	300	301	313	309	284	267	264	310	302	268.5	277.7			
7 Spd	1	3	2	3	2	3	2	3	2	3	3	5	7	6	7	7	8	5	6	4	2	6	5	6	2.6	8.4			
	306	312	200	223	281	287	327	289	295	261	267	281	278	312	294	337	354	42	82	80	13	333	345	312	318.1	354.2			
8 Spd	7	5	4	3	5	4	3	5	5	7	10	9	11	14	12	13	11	11	9	7	7	7	7	7	7.2	13.7			
	329	315	311	344	348	354	49	39	44	59	60	50	60	61	49	41	35	32	30	31	28	23	22	37	33.6	61.1			
9 Spd	5	6	4	4	5	5	7	6	7	7	7	8	8	9	8	7	6	3	4	5	6	1	3	5	3.4	8.7			
	56	60	73	54	344	314	314	315	280	277	275	280	280	294	281	273	271	277	311	346	295	96	148	139	301.3	294.3			
10 Spd	3	3	1	3	4	2	4	3	3	6	9	10	10	9	10	6	5	7	9	13	8	5	5	6	5.3	12.7			
	188	227	221	199	187	193	188	236	247	243	243	231	245	289	280	278	224	237	269	273	204	220	226	194	239.8	269.5			
11 Spd	4	1	3	1	4	1	4	1	5	1	7	6	7	8	11	11	8	9	24	16	5	8	7	8	3.0	24.4			
	151	107	352	9	298	165	320	302	111	28	338	49	67	4	349	355	7	291	271	255	329	234	204	219	304.8	271.1			
12 Spd	9	10	8	4	3	2	3	4	7	8	11	10	10	9	10	6	6	8	8	7	6	6	10	11	1.6	10.8			
	237	250	253	283	196	254	185	213	254	230	247	254	P	P	268	282	294	53	45	50	40	58	66	62	59	277.3	59.3		
13 Spd	8	12	9	2	2	6	2	4	10	11	12	15	15	15	13	7	7	1	8	16	15	12	10	8	5.9	15.8			
	41	35	43	131	322	5	51	342	16	15	6	302	308	304	321	291	50	64	231	271	275	287	286	284	322.9	270.6			
14 Spd	8	6	N	N	N	N	N	N	N	N	N	314	305	274	274	279	274	295	292	267	307	257	134	110	112	128	109	285.4	279.4
	289	302	N	N	N	N	N	N	N	N	N	314	305	274	274	279	274	295	292	267	307	257	134	110	112	128	109	285.4	279.4
15 Spd	6	4	3	4	4	4	5	4	3	5	7	9	9	12	12	12	12	9	10	10	10	11	10	6.7	12.3				
	120	127	136	122	119	119	116	156	161	127	123	127	108	79	75	71	68	71	93	77	72	80	89	85	93.6	70.6			
16 Spd	10	11	11	12	12	10	13	12	11	11	10	10	9	6	7	9	12	13	15	15	16	15	16	15	11.3	16.2			
	93	92	94	90	92	97	94	103	112	116	127	123	138	155	115	106	109	108	98	85	94	102	115	125	105.8	94.1			
17 Spd	13	9	10	12	8	8	4	3	3	4	4	3	4	5	3	5	4	15	25	14	3	7	6	5	1.1	24.6			
	115	103	98	102	86	82	90	51	318	282	288	305	125	105	83	127	254	328	258	311	312	186	156	151	109.7	258.0			
18 Spd	2	12	15	20	13	9	12	17	20	23	23	27	26	27	25	24	26	24	20	19	12	8	4	6	17.1	27.2			
	138	262	250	245	253	240	237	244	244	253	250	253	241	253	253	251	264	257	251	248	257	251	249	240	250.4	253.4			
19 Spd	3	3	2	5	5	4	4	5	3	6	6	7	5	9	6	6	5	8	10	9	11	8	9	6	4.5	11.0			
	223	152	114	147	159	141	136	157	198	222	244	244	250	276	303	275	255	239	211	208	211	223	231	256	221.9	211.2			
20 Spd	4	1	2	0	4	3	4	7	10	12	11	14	18	16	11	13	14	11	6	8	6	4	4	5	5.4	17.9			
	257	312	349	139	309	229	173	175	172	178	206	246	277	280	251	244	229	230	184	162	152	145	150	108	222.8	276.7			
21 Spd	6	5	8	7	6	6	5	3	5	4	4	9	11	10	5	11	17	20	39	36	25	26	23	21	5.6	38.9			
	120	102	104	95	99	94	94	120	147	184	152	114	118	114	147	272	262	277	300	284	264	259	260	253	258.3	299.9			
22 Spd	19	22	23	20	20	23	25	33	30	29	30	36	38	36	34	31	22	19	16	18	15	15	15	15	23.0	37.7			
	252	255	255	252	248	250	249	258	268	298	308	306	304	301	296	303	299	316	324	314	318	303	302	324	289.5	296.0			

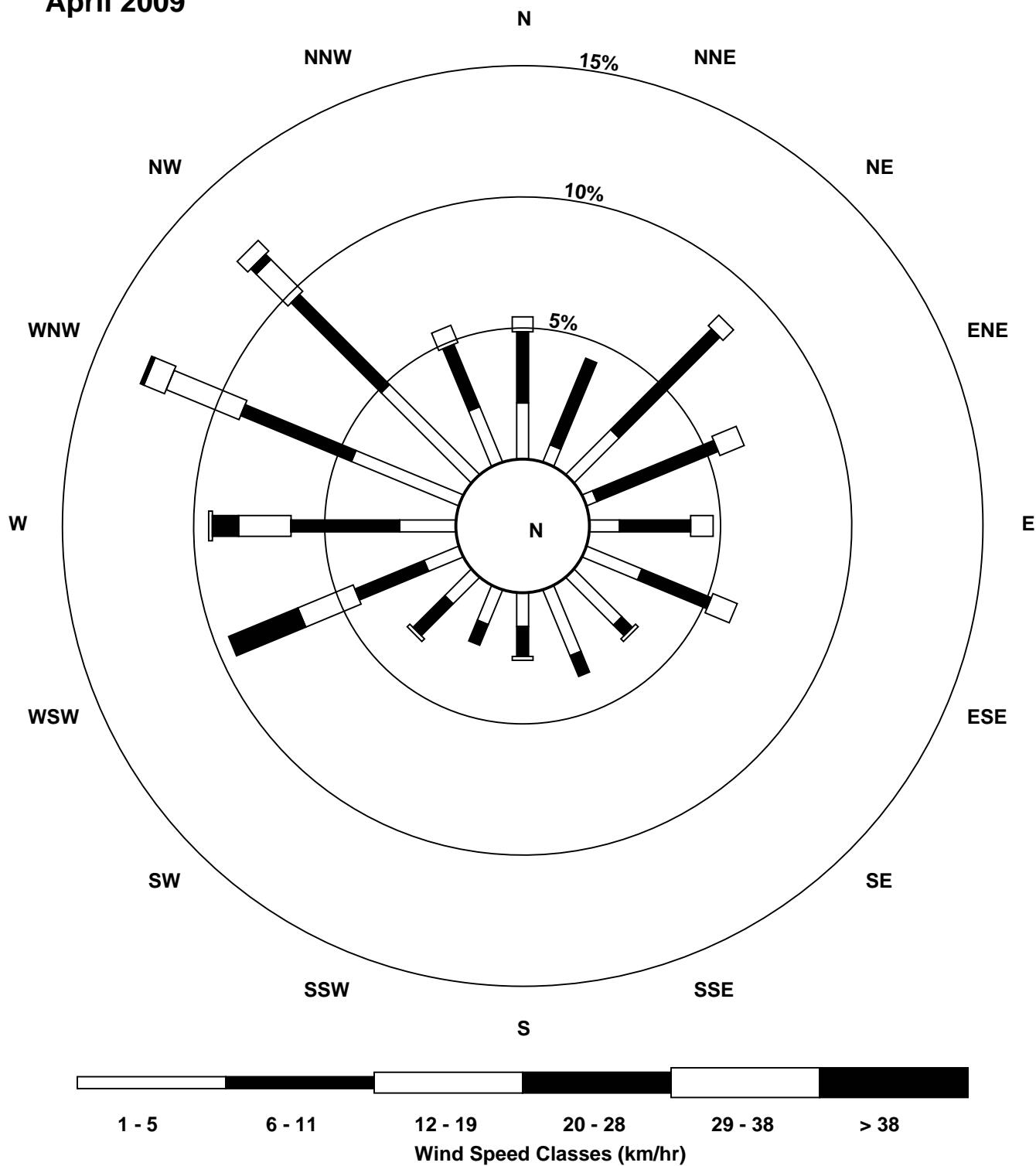
Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																																							
23 Spd	11	11	12	11	9	7	9	9	14	14	13	14	16	17	17	17	19	23	17	8	10	8	12	13	11.7	22.6																																					
	Dir	308	304	303	291	298	296	285	261	276	292	300	293	288	303	326	325	326	308	325	11	352	14	3	342	311.6	308.2																																				
24 Spd	9	7	5	4	4	2	1	5	7	6	7	9	6	6	6	8	10	4	16	27	16	12	10	3.3	27.3																																						
	Dir	318	330	327	318	302	312	233	174	165	161	180	180	178	172	133	117	114	103	155	253	277	275	272	253	238.0	276.7																																				
25 Spd	7	8	7	7	9	12	11	11	12	11	15	13	15	16	14	15	12	11	10	14	8	5	10	13	9.0	15.5																																					
	Dir	316	8	359	305	302	308	307	348	3	338	342	333	292	294	295	287	286	263	259	245	270	335	4	5	312.1	293.6																																				
26 Spd	10	8	2	5	6	9	8	5	5	6	7	7	7	10	7	11	13	10	11	10	9	1	3	7	5.3	12.8																																					
	Dir	12	12	349	293	265	289	321	11	330	49	58	14	27	24	357	274	277	309	310	311	15	264	263	328	333.6	277.1																																				
27 Spd	4	6	7	7	6	1	3	3	4	4	4	8	8	7	11	12	12	10	9	9	6	6	6	5	5.1	12.0																																					
	Dir	308	304	14	51	121	16	247	84	74	331	1	69	34	118	69	58	53	39	50	55	57	58	58	41	50.3	58.4																																				
28 Spd	6	7	7	7	7	5	8	9	8	11	11	8	10	10	8	10	10	11	11	10	9	9	9	7	8.3	11.1																																					
	Dir	33	40	47	45	44	43	45	39	46	44	69	70	56	65	54	70	79	59	65	60	67	78	86	84	59.3	43.6																																				
29 Spd	6	4	5	2	3	4	2	2	2	3	4	2	4	4	3	1	3	6	3	2	3	2	2	3	1.3	6.4																																					
	Dir	67	35	23	357	297	311	306	135	162	166	259	167	240	332	359	126	25	336	336	312	288	209	275	326	333.1	66.8																																				
30 Spd	3	5	6	6	2	4	4	6	6	8	9	8	9	8	7	5	6	3	4	6	4	1	2	3.4	8.8																																						
	Dir	297	313	289	295	188	286	299	308	295	341	3	4	358	19	32	355	332	351	50	82	107	143	163	302	343.4	2.6																																				
Spd	1.1	2.1	1.8	1.3	1.6	2.0	1.5	1.7	3.1	3.6	3.7	4.3	4.6	5.4	5.3	4.8	4.4	5.1	4.8	4.2	2.9	1.6	1.2	1.5	Diurnal Average																																						
Dir	332.0	330.4	326.4	296.2	284.7	296.9	281.5	268.6	271.4	282.2	293.9	289.4	292.7	307.2	319.1	316.7	318.9	323.4	305.6	304.6	311.1	303.6	322.4	340.2																																							
Spd	19.3	21.7	22.9	20.3	19.7	19.5	23.2	24.9	33.4	29.6	28.8	29.7	35.7	36.2	37.7	35.9	33.9	30.8	38.9	35.9	27.3	25.5	22.9	21.1	Diurnal Maximum																																						
Dir	251.6	255.1	255.3	245.2	248.5	250.2	249.1	257.9	268.5	298.4	307.8	306.4	304.2	301.0	296.0	303.4	298.9	315.5	299.9	284.1	276.7	259.1	259.9	253.4																																							
Maximum Speed Value: 39 km/h on Apr 21 19:00				Minimum Speed Value: 0 km/h on Apr 6 06:00												Hours in Service: 720																																															
Maximum Daily Speed Average: 23.0 km/h on Apr 22				Minimum Daily Speed Average: 1.1 km/h on Apr 29												Hours of Data: 713																																															
Maximum Diurnal Speed Average: 5.4 km/h at hour 14				Minimum Diurnal Speed Average: 1.1 km/h at hour 1												Hours of Missing Data: 7																																															
Monthly Average Velocity: 2.94 km/h 305.18 deg				Speed Percentiles: P ₁ = 0.9 P ₁₀ = 2.8 O ₁ = 4.4 Median = 6.9 O ₃ = 10.6 P ₉₀ = 15.3 P ₉₉ = 32.8												Percent Operational Time: 99.0																																															
All monthly, daily, and diurnal averages have been calculated using vector methods																																																															
P - Power Failure				N - Not Valid																																																											
Percentage Frequency Distribution																																																															
Speed Range (km/h)																																																															
Direction																																																															
0 to 5																																																															
5 to 11																																																															
11 to 19																																																															
19 to 28																																																															
28 to 38																																																															
> 38																																																															
Total																																																															

Wind Rose for WS at Henry Pirker

April 2009



Peace Airshed Zone Association

Summary of Hourly Averages - Wind Speed (Scalar)

Henry Pirker - Wind Speed (WS) - km/h

April 1, 2009 to May 1, 2009

Maximum Speed: 39 km/h on Apr 21 19:00 Maximum Daily Speed Average: 25.7 km/h on Apr 22 Minimum Speed: 2 km/h on Apr 30 23:00 Minimum Daily Speed Average: 4.5 km/h on Apr 29 Maximum Diurnal Speed Average: 12.2 km/h at hour 19 Minimum Diurnal Speed Average: 5.8 km/h at hour 6 Monthly Average Speed: 9.06 km/h Percentiles: $P_1 = 2.5$ $P_{10} = 3.8$ $Q_1 = 5.1$ Median = 7.6 $Q_3 = 11.0$ $P_{90} = 15.6$ $P_{99} = 32.9$																								Hours in Service: 720		
																									Hours of Data: 713	
																									Hours of Missing Data: 7	
																									Percent Operational Time: 99.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	8	4	7	4	4	3	3	3	5	5	5	6	8	10	11	9	9	9	8	7	5	6	6	6	6.2	10.8
2-Apr	6	5	4	5	5	4	4	5	5	7	7	7	8	8	10	9	9	9	9	9	8	8	10	9	7.2	10.3
3-Apr	7	8	7	7	5	6	7	7	7	8	11	12	14	16	14	12	11	11	11	6	5	4	4	4	8.2	15.7
4-Apr	3	4	5	4	4	5	4	5	4	5	8	10	12	12	11	7	7	7	5	5	5	6	7	8	6.3	12.2
5-Apr	7	6	5	3	3	3	4	4	4	6	7	9	6	6	6	6	6	5	6	5	5	5	4	3	5.1	8.8
6-Apr	4	5	3	4	4	3	3	5	10	13	13	16	13	16	17	11	13	11	12	13	8	7	3	3	8.7	16.7
7-Apr	3	3	3	3	3	3	3	3	2	3	4	5	7	7	7	9	6	6	4	4	6	6	6	6	4.7	8.8
8-Apr	7	5	4	4	6	5	4	5	5	7	10	9	11	14	12	13	12	11	11	9	7	8	7	8	8.3	13.9
9-Apr	6	6	5	4	5	6	7	6	7	8	7	8	8	9	9	7	7	4	5	5	6	4	4	6	6.2	9.1
10-Apr	4	4	3	4	4	4	5	3	6	9	10	11	10	10	7	6	8	9	13	8	6	6	7	6	6.7	13.0
11-Apr	4	4	3	2	4	3	4	2	5	6	8	7	8	9	12	12	8	10	25	16	8	9	7	9	7.7	25.3
12-Apr	9	10	9	5	5	4	4	4	8	9	11	11	P	8	9	6	8	8	7	6	6	11	11	11	7.7	11.0
13-Apr	8	12	10	5	5	6	5	5	10	11	13	15	15	15	13	7	7	4	10	16	15	12	10	8	9.9	16.0
14-Apr	8	6	N	N	N	N	N	N	10	8	8	10	12	11	10	8	7	7	6	4	4	5	3	6	7.3	11.8
15-Apr	6	4	4	4	4	4	4	5	4	4	6	8	10	10	14	14	13	10	10	10	10	11	10	10	8.0	13.9
16-Apr	10	11	11	12	12	10	13	12	11	12	11	11	11	9	9	10	13	14	15	15	16	15	16	16	12.2	16.3
17-Apr	13	9	10	12	8	8	5	3	4	5	4	5	6	6	6	7	10	15	25	17	6	7	5	5	8.6	25.4
18-Apr	4	12	15	20	13	9	12	17	20	24	23	27	27	28	26	25	26	25	20	19	12	9	5	6	17.7	27.5
19-Apr	4	4	3	5	6	4	5	5	4	6	7	8	7	10	9	8	7	9	11	9	11	8	9	6	6.8	11.3
20-Apr	5	3	3	3	5	4	4	8	10	12	12	16	18	16	12	14	15	11	6	8	7	4	4	5	8.5	18.3
21-Apr	6	5	8	7	6	6	5	4	5	5	4	10	11	11	8	12	17	21	39	36	26	26	23	21	13.4	39.4
22-Apr	20	22	23	20	20	20	23	25	34	32	29	30	36	37	38	36	34	31	22	19	16	19	15	15	25.7	38.0
23-Apr	11	11	12	11	10	7	9	10	15	14	14	15	17	17	18	18	20	23	18	9	10	9	12	13	13.4	23.1
24-Apr	9	7	5	4	4	3	2	7	8	7	8	8	10	7	8	6	9	10	10	16	28	17	13	11	9.0	27.9
25-Apr	8	8	8	8	9	12	11	12	11	16	13	15	16	15	16	13	12	11	14	10	5	10	14	11.5	16.0	
26-Apr	10	9	5	5	6	9	9	6	7	6	7	9	7	11	11	12	13	11	11	10	6	5	7	8.5	13.4	
27-Apr	5	6	8	7	3	4	3	5	6	5	9	10	10	13	13	11	10	9	6	6	6	5	5	7.5	12.9	
28-Apr	6	7	7	7	6	8	9	8	12	12	10	11	12	10	11	11	12	11	11	9	9	9	8	9.1	11.9	
29-Apr	7	4	6	3	3	4	3	3	3	4	5	6	7	6	5	6	7	7	5	4	3	3	3	4.5	6.8	
30-Apr	4	5	6	7	4	5	4	7	7	9	10	10	10	9	8	8	7	5	5	6	4	2	3	6.4	10.2	
																									Diurnal Average	
																									Diurnal Maximum	
P - Power Failure N - Not Valid All monthly, daily, and diurnal averages have been calculated using scalar methods																										

Peace Airshed Zone Association
Summary of Hourly Standard Deviations

Henry Pirker - Wind Direction (WD) - deg
April 1, 2009 to May 1, 2009

Maximum Value: 98.4 deg on Apr 29 16:00																								Hours in Service:	720
Minimum Value: 3.5 deg on Apr 6 20:00																								Hours of Data:	713
Percentiles: P ₁ = 4.3 P ₁₀ = 7.1 Q ₁ = 10.3 Median = 17.6 Q ₃ = 33.5 P ₉₀ = 57.3 P ₉₉ = 87.4																								Hours of Missing Data:	7
																								Hours of Calibration:	0
																								Percent Operational Time:	99.0
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Maximum
1-Apr	20	39	14	13	20	19	43	66	19	8	8	8	15	16	20	18	17	13	18	13	15	14	12	10	66.3
2-Apr	10	23	25	21	21	14	21	13	10	9	20	24	22	23	17	28	16	16	14	8	12	18	5	7	27.9
3-Apr	7	9	5	6	13	11	6	6	7	10	22	22	5	9	7	6	6	5	7	7	15	36	28	38	37.6
4-Apr	91	18	15	11	25	13	19	19	29	11	48	11	15	11	15	23	18	19	19	11	9	10	7	7	91.5
5-Apr	14	62	83	70	20	28	71	70	21	49	9	19	11	44	17	17	20	17	69	10	30	78	65	74	83.1
6-Apr	18	69	85	81	24	89	53	21	18	9	8	9	10	5	4	15	9	8	7	3	19	45	29	47	89.1
7-Apr	88	54	61	24	44	30	65	17	55	32	21	15	9	14	19	30	23	34	13	20	54	12	32	11	88.0
8-Apr	8	46	20	46	16	29	32	18	24	13	10	12	11	11	12	10	12	9	7	8	9	14	14	20	45.6
9-Apr	18	17	26	31	19	16	11	17	21	13	15	9	15	18	25	14	26	46	23	25	29	79	57	52	79.4
10-Apr	41	33	57	31	18	58	38	30	14	14	9	14	24	18	34	54	27	20	12	14	33	40	13	58.4	
11-Apr	24	87	29	89	37	84	16	77	32	76	39	23	43	35	22	17	19	26	16	7	67	27	10	9	89.0
12-Apr	7	6	36	53	59	85	44	54	23	23	13	22	P	30	31	39	67	17	14	13	12	15	10	8	84.9
13-Apr	15	11	15	81	70	23	79	35	17	18	11	7	5	4	9	26	26	87	30	9	8	6	5	9	87.0
14-Apr	7	17	N	N	N	N	N	N	8	17	17	19	22	26	45	76	69	44	35	59	15	8	26	5	76.0
15-Apr	11	17	30	12	16	10	9	11	23	46	38	35	36	38	27	29	16	23	19	8	6	7	4	4	46.4
16-Apr	5	4	4	4	5	6	5	8	12	16	21	19	33	67	51	26	23	21	10	5	5	6	8	6	66.8
17-Apr	7	5	5	5	9	6	48	32	56	49	35	67	58	36	85	49	71	9	17	40	63	18	14	8	85.0
18-Apr	78	13	7	4	19	13	9	5	7	9	10	9	15	10	11	12	9	11	6	5	7	22	50	24	78.2
19-Apr	41	41	25	10	14	19	29	20	41	23	35	33	62	42	65	51	55	29	9	10	14	14	11	21	65.1
20-Apr	42	64	76	84	36	33	18	25	9	10	24	24	12	13	18	15	11	16	22	10	33	13	15	12	84.0
21-Apr	9	17	13	20	14	15	22	36	22	38	43	16	14	16	60	44	7	14	9	8	11	9	6	8	59.7
22-Apr	9	7	7	6	5	6	5	7	8	22	7	7	8	7	7	7	9	9	9	9	5	5	10	22.2	
23-Apr	6	6	5	5	5	7	5	17	16	12	12	10	12	16	21	10	19	13	20	20	7	17	10	9	21.0
24-Apr	8	13	7	21	17	41	73	34	21	48	41	42	27	35	49	46	24	13	64	9	11	15	21	14	72.8
25-Apr	25	15	32	14	6	5	6	17	11	14	13	20	12	13	14	17	25	17	23	7	33	18	13	12	32.7
26-Apr	12	23	87	10	12	9	32	42	41	21	20	38	26	21	50	23	18	17	9	9	34	83	76	8	86.5
27-Apr	31	18	27	28	45	92	53	49	56	69	54	34	38	60	32	22	22	20	21	11	9	9	12	10	92.1
28-Apr	10	12	10	11	11	12	10	14	15	16	23	42	29	36	45	27	24	25	15	11	8	6	5	9	44.8
29-Apr	9	29	17	41	40	14	36	44	69	51	47	92	67	84	68	98	80	39	70	84	50	51	40	20	98.4
30-Apr	43	24	11	18	62	47	24	11	31	38	31	35	44	35	46	72	57	44	61	38	9	17	57	32	72.4
91.5 86.8 86.5 89.0 70.3 92.1 78.7 77.4 68.8 75.7 54.2 92.5 66.9 84.3 85.0 98.4 80.2 87.0 69.9 84.2 66.8 82.5 76.4 74.1																									
P - Power Failure N - Not Valid																									

PASZA
Evergreen Park Station
Monthly Summary Tables, Graphs and
Roses

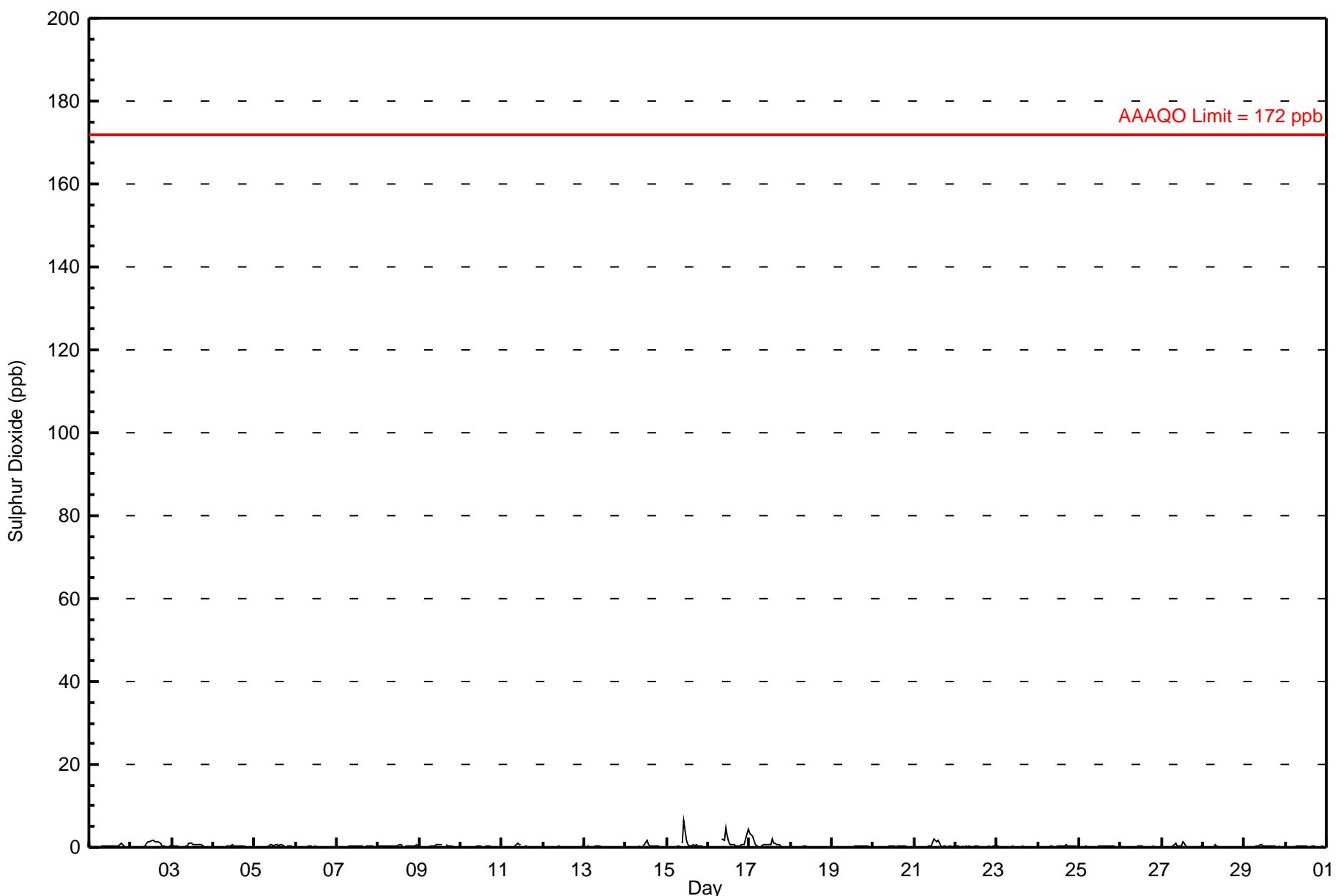
Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park - Sulphur Dioxide (SO₂) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 6.6 ppb on Apr 15 11:00 Maximum Daily Average: 1.1 ppb on Apr 16																			Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Apr 1 05:00 Minimum Daily Average: 0.1 ppb on Apr 12 Maximum Diurnal Average: 0.7 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 4																										
Monthly Average: 0.29 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.6 P ₉₉ = 2.8																										
Day	Hourly Period Ending At (MST)																						Daily Average	Daily Maximum		
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0.3	1.0	
2-Apr	0	0	0	0	0	0	0	0	1	1	1	2	2	1	1	1	1	0	0	0	0	A	0	0.6	1.9	
3-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0.4	0.9	
4-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.6	
5-Apr	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	0	0	0	0	0	0	A	0	0.3	0.8	
6-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3	
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4	
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	A	0	0.4	0.6	
9-Apr	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	A	0	0.3	0.8	
10-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4	
11-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0.2	1.1	
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2	
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.5	
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	A	0	0.3	1.7	
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	A	0	0.6	6.6	
16-Apr	0	0	0	0	0	0	0	0	A	2	2	5	3	1	1	1	1	0	0	0	1	1	2	4	1.1	4.6
17-Apr	3	3	3	1	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.9	3.4
18-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	0.1	0.2
19-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0.1	0.3
20-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	0.3
21-Apr	0	0	0	0	A	0	0	0	0	0	0	0	2	2	1	2	0	0	0	0	0	0	0	0	0.4	2.2
22-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
23-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
24-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.7
25-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.4
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3	
27-Apr	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0.3	1.5	
28-Apr	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.6	
29-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.6	
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4	
Diurnal Average 0.2 0.2 0.2 0.1 0.1 0.1 0.2 0.3 0.4 0.7 0.6 0.6 0.5 0.4 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.3 Diurnal Maximum 3.4 2.9 2.8 0.6 0.4 0.3 0.3 0.7 2.0 1.8 6.6 2.8 1.9 1.9 1.6 1.2 1.4 0.9 1.0 0.8 0.7 0.8 1.9 4.4																										
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 57 ppb																										

Hourly Averages for SO₂ at Evergreen Park

April 2009



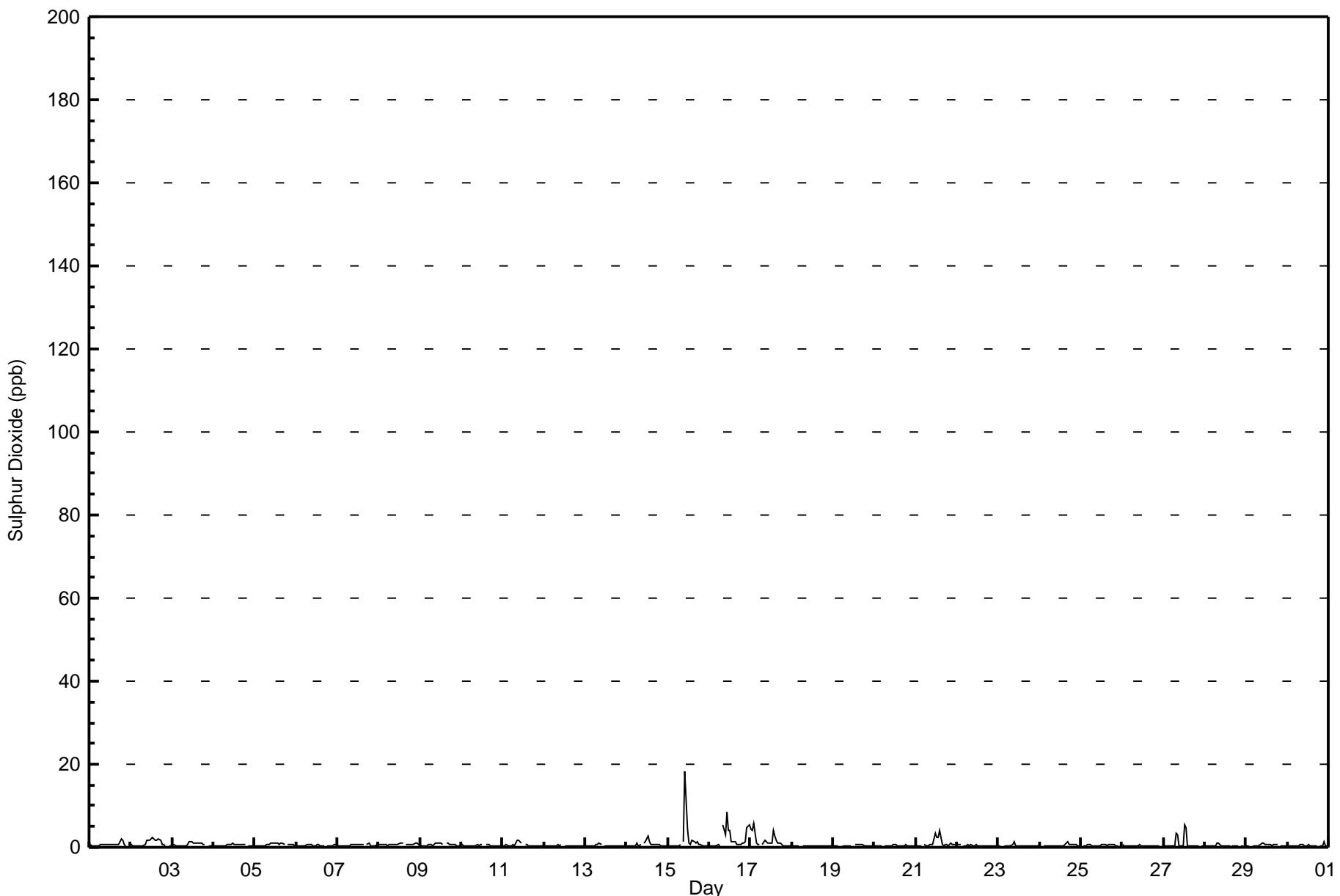
Peace Airshed Zone Association
Summary of Hourly Maximums

Evergreen Park - Sulphur Dioxide (SO_2) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 18.2 ppb on Apr 15 11:00 Maximum Daily Average: 2.0 ppb on Apr 16 Minimum Value: 0 ppb on Apr 29 00:00 Minimum Daily Average: 0.4 ppb on Apr 12 Maximum Diurnal Average: 1.6 ppb at hour 11 Minimum Diurnal Average: 0.4 ppb at hour 4 Monthly Average: 0.68 ppb Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.4 $Q_3 = 0.6$ $P_{90} = 1.0$ $P_{99} = 4.6$																								Hours in Service:	720	
																								Hours of Data:	687	
																								Hours of Missing Data:	33	
																								Hours of Calibration:	33	
																								Percent Operational Time:	100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	0	A	0	0.6	2.0
2-Apr	1	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	2	1	1	0	A	0	0	1.0	2.2
3-Apr	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0.7
4-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.5	1.0
5-Apr	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.2
6-Apr	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0.4
7-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0.5
8-Apr	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0
9-Apr	1	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6
10-Apr	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5
11-Apr	0	0	1	0	0	0	1	0	2	2	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0.6
12-Apr	0	0	0	0	0	0	0	0	1	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4
13-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	0.9
14-Apr	0	0	0	0	0	0	1	0	1	1	A	1	1	3	1	1	1	1	1	1	1	1	0	0	0	0.7
15-Apr	0	0	0	0	0	0	0	1	A	1	18	5	1	1	2	2	1	2	1	1	0	0	0	0	1.6	
16-Apr	0	0	0	0	0	1	0	A	5	3	8	4	4	1	1	1	1	1	1	1	1	1	5	5	2.0	
17-Apr	4	4	6	1	1	1	1	A	1	2	1	1	1	1	4	3	2	1	1	1	0	0	0	0	1.6	
18-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	
19-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	C	C	1	1	1	1	0	1	0	0	0	0.4	
20-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0.8	
21-Apr	0	0	0	0	0	A	1	0	0	1	1	1	4	2	2	4	1	0	1	1	0	1	1	1	1.0	
22-Apr	1	1	1	1	0	A	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	
23-Apr	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	
24-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0.5	
25-Apr	A	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	0	1	1	1	0	0	A	0.5		
26-Apr	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	
27-Apr	0	0	0	0	0	0	0	3	3	0	0	0	6	5	0	0	0	0	0	0	0	A	0	0	1.1	
28-Apr	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4		
29-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	A	0	0	0	0.5		
30-Apr	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0.5		
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

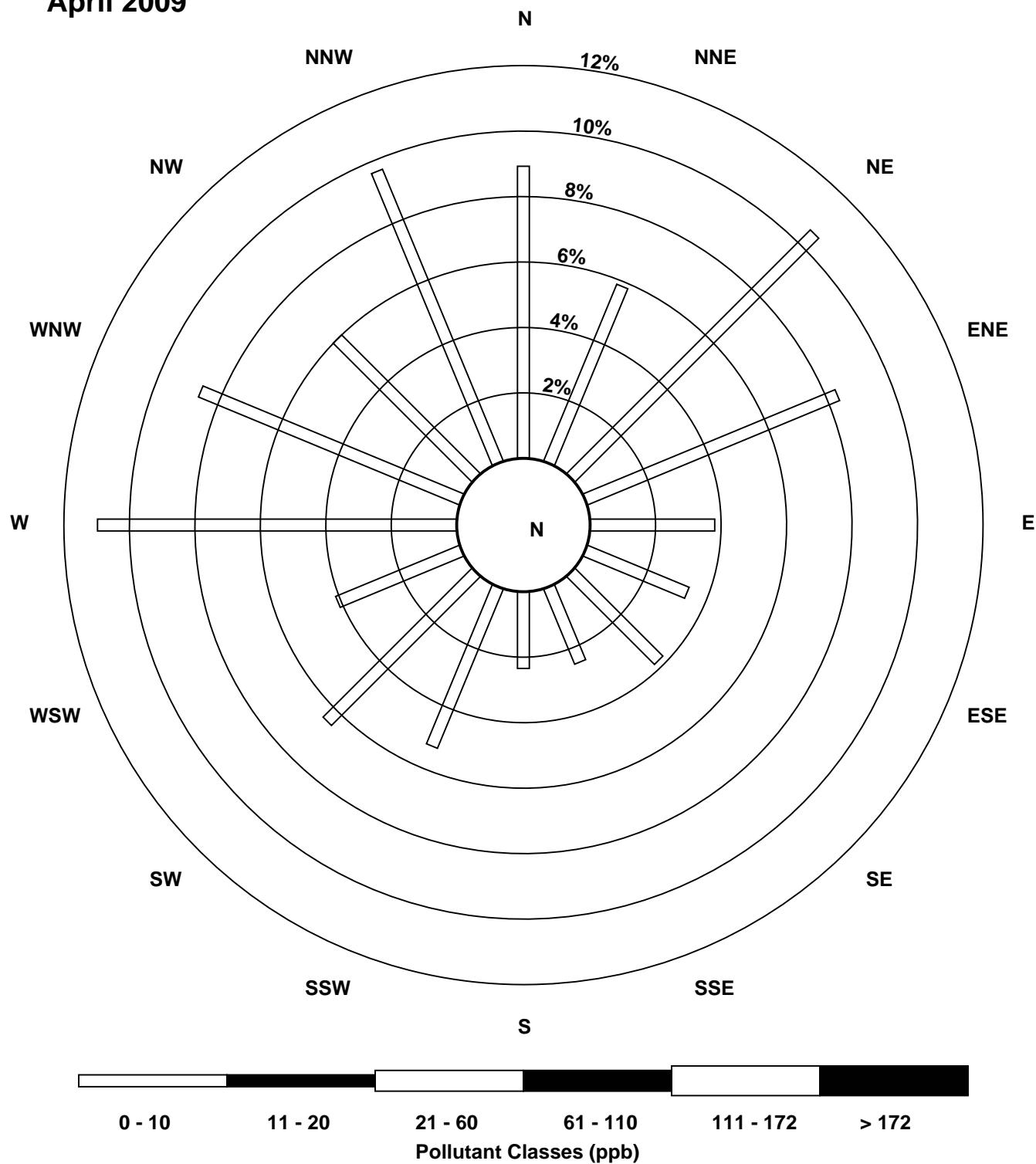
Hourly Maximums for SO₂ at Evergreen Park

April 2009



Pollutant Rose for SO₂ at Evergreen Park

April 2009



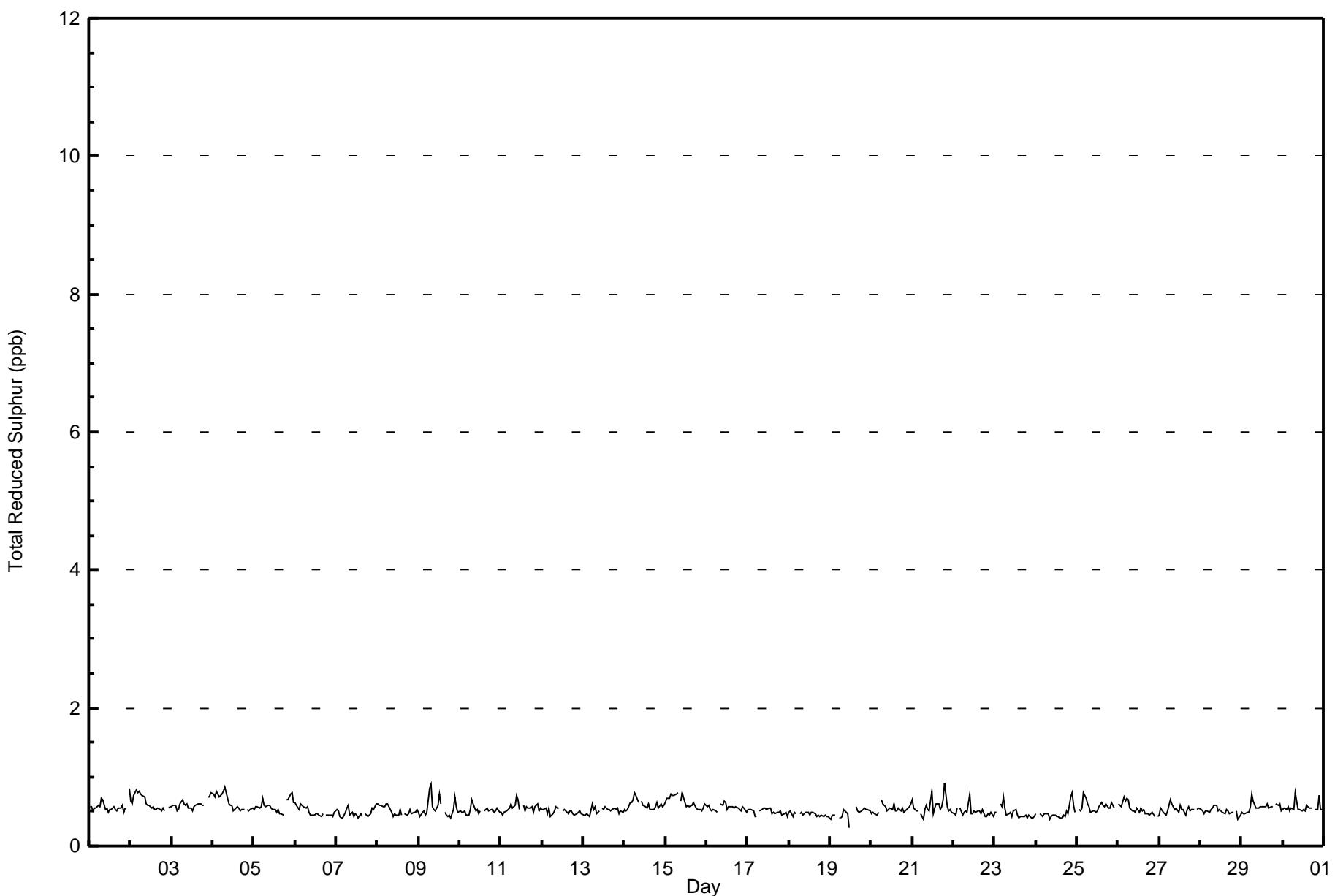
Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park - Total Reduced Sulphur (TRS) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.9 ppb on Apr 21 20:00 Maximum Daily Average: 0.6 ppb on Apr 15																			Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0				
Minimum Value: 0 ppb on Apr 19 12:00 Minimum Daily Average: 0.5 ppb on Apr 18 Maximum Diurnal Average: 0.6 ppb at hour 8 Minimum Diurnal Average: 0.5 ppb at hour 19 Monthly Average: 0.54 ppb Percentiles: $P_1 = 0.4$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.6$ $P_{99} = 0.8$																							
Day																			Hourly Period Ending At (MST)				
1																				Daily Average			
1-Apr																				Daily Maximum			
2-Apr																				0.6			
3-Apr																				0.6			
4-Apr																				0.6			
5-Apr																				0.6			
6-Apr																				0.6			
7-Apr																				0.6			
8-Apr																				0.6			
9-Apr																				0.9			
10-Apr																				0.5			
11-Apr																				0.7			
12-Apr																				0.6			
13-Apr																				0.5			
14-Apr																				0.8			
15-Apr																				0.8			
16-Apr																				0.6			
17-Apr																				0.6			
18-Apr																				0.5			
19-Apr																				0.6			
20-Apr																				0.7			
21-Apr																				0.9			
22-Apr																				0.8			
23-Apr																				0.7			
24-Apr																				0.8			
25-Apr																				0.6			
26-Apr																				0.7			
27-Apr																				0.7			
28-Apr																				0.6			
29-Apr																				0.8			
30-Apr																				0.6			
0.5 0.5 0.5 0.5 0.6 0.6 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.6 0.5 0.5 0.5																				Diurnal Average			
0.8 0.7 0.8 0.8 0.8 0.8 0.9 0.8 0.8 0.8 0.7 0.6 0.6 0.6 0.6 0.6 0.6 0.7 0.9 0.7 0.8 0.8 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																							

Hourly Averages for TRS at Evergreen Park

April 2009



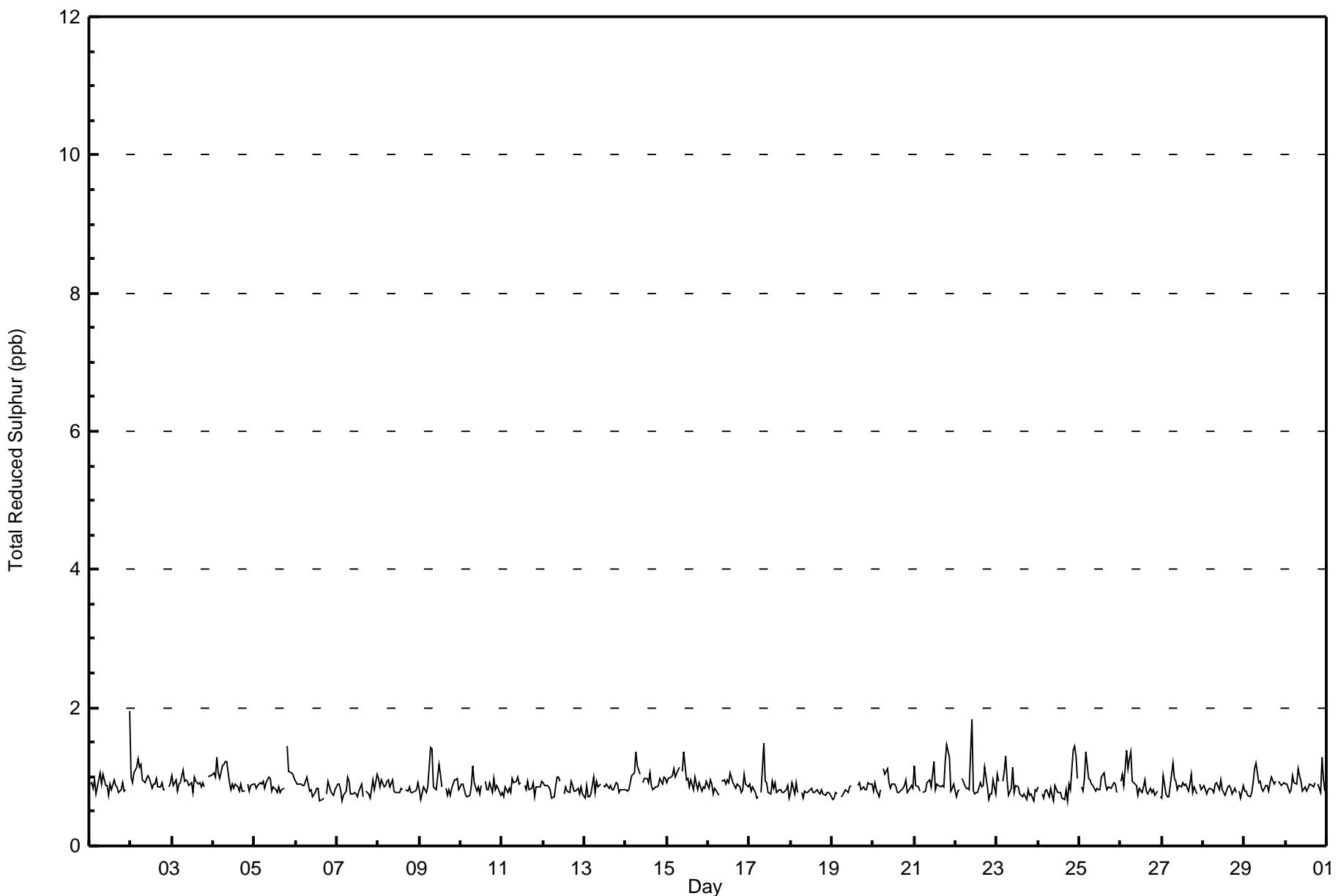
Peace Airshed Zone Association
Summary of Hourly Maximums

Evergreen Park - Total Reduced Sulphur (TRS) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 2.0 ppb on Apr 2 00:00 Maximum Daily Average: 1.0 ppb on Apr 15 Minimum Value: 1 ppb on Apr 7 04:00 Minimum Daily Average: 0.8 ppb on Apr 18 Maximum Diurnal Average: 1.0 ppb at hour 7 Minimum Diurnal Average: 0.8 ppb at hour 16 Monthly Average: 0.88 ppb Percentiles: $P_1 = 0.7$ $P_{10} = 0.7$ $Q_1 = 0.8$ Median = 0.9 $Q_3 = 0.9$ $P_{90} = 1.0$ $P_{99} = 1.4$																								Hours in Service:		720	
																									Hours of Data:		686
																									Hours of Missing Data:		34
																									Hours of Calibration:		34
																									Percent Operational Time:		100.0
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	0.9	2.0	
2-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	1.0	1.3	
3-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	1.1	
4-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	1.0	1.3	
5-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	1.4	
6-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	1.0	
7-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	1.0	
8-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	1.0	
9-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	0.9	1.4	
10-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	1.2	
11-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	0.9	1.0	
12-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	1.0	
13-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	1.0	
14-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	1.0	1.4	
15-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	1.0	1.4	
16-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	0.9	1.1	
17-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	1.5	
18-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	0.9	
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	A	1	1	1	1	1	1	0.8	0.9	
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	0.9	1.1	
21-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	0.9	1.5	
22-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	0.9	1.8	
23-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	0.9	1.3	
24-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	0.9	1.4	
25-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	0.9	1.4	
26-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	0.9	1.4	
27-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	0.9	1.2	
28-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	0.9	
29-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	0.9	1.2	
30-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	0.9	1.3	
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

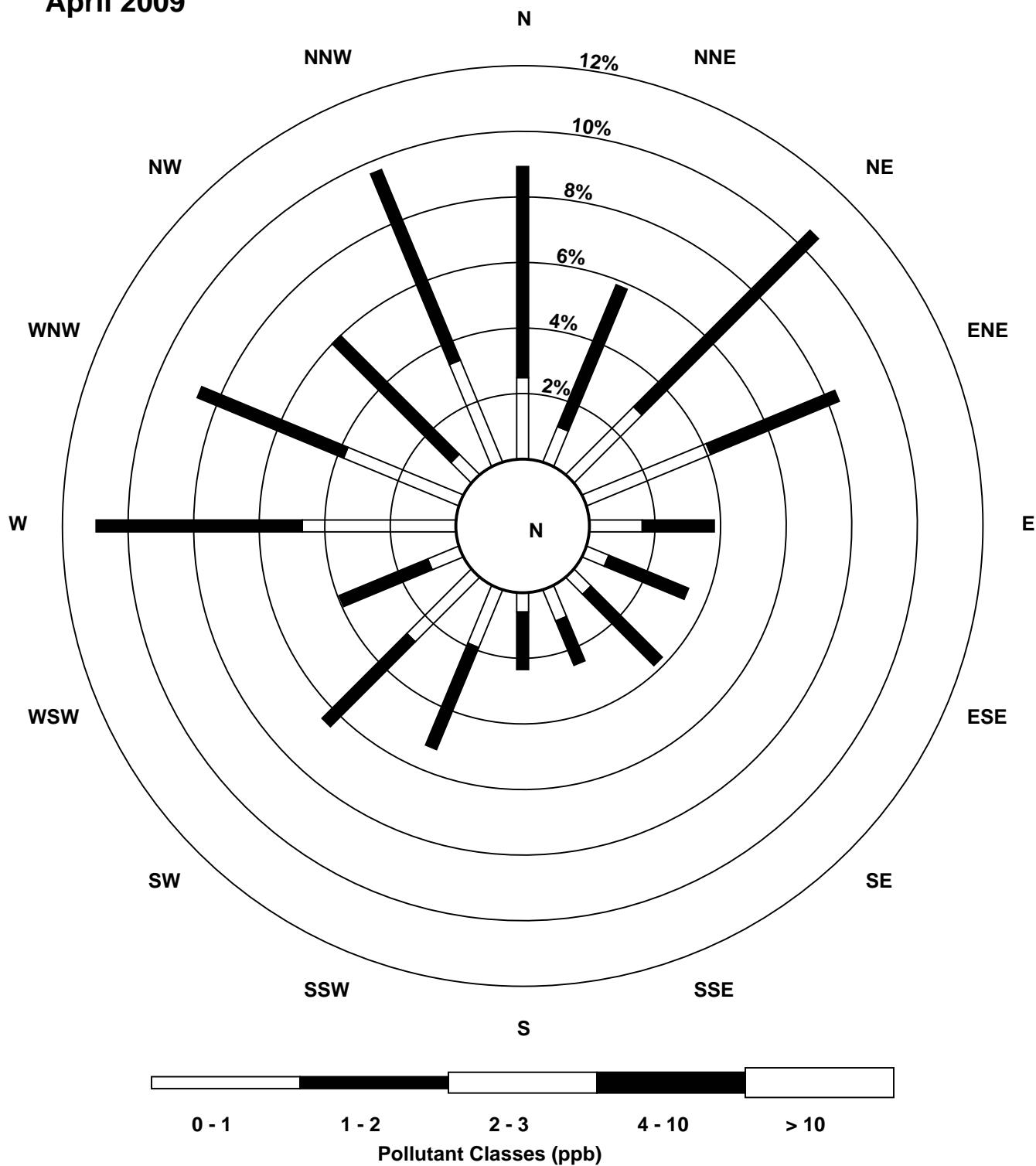
Hourly Maximums for TRS at Evergreen Park

April 2009



Pollutant Rose for TRS at Evergreen Park

April 2009



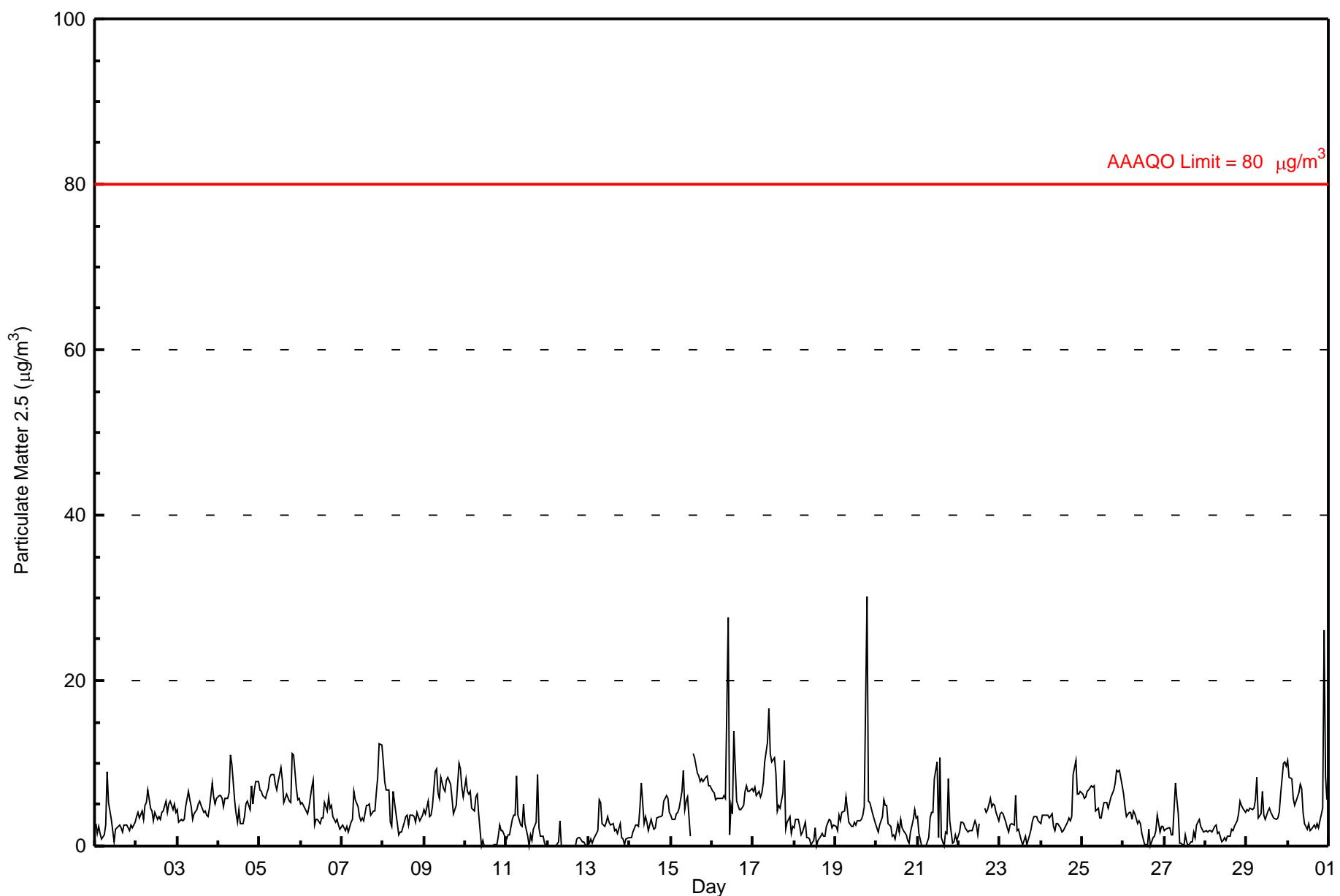
Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park - Particulate Matter 2.5 (PM_{2.5}) - μg/m³
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 30.1 μg/m ³ on Apr 19 19:00 Maximum Daily Average: 7.2 μg/m ³ on Apr 5																			Hours in Service: 720 Hours of Data: 717 Hours of Missing Data: 3 Hours of Calibration: 2 Percent Operational Time: 99.9			
Minimum Value: 0 μg/m ³ on Apr 10 10:00 Minimum Daily Average: 0.3 μg/m ³ on Apr 12 Maximum Diurnal Average: 5.6 μg/m ³ at hour 8 Minimum Diurnal Average: 3.0 μg/m ³ at hour 12 Monthly Average: 3.99 μg/m ³ Percentiles: P ₁ = 0.0 P ₁₀ = 0.8 Q ₁ = 2.0 Median = 3.5 Q ₃ = 5.4 P ₉₀ = 7.6 P ₉₉ = 12.2																						
Day																			Hourly Period Ending At (MST)			
1-Apr																						
1-Apr 3 2 2 1 1 1 2 9 5 3 2 1 2 2 2 2 2 3 3 2 2 3 2 3 2.5 9.0																						
2-Apr 4 4 3 4 3 5 5 7 5 4 3 4 3 4 3 4 5 4 4 5 5 4 5 5 4.3 6.8																						
3-Apr 4 3 3 3 3 5 7 6 5 3 4 4 5 5 5 4 4 4 4 4 4 4 4 4 4.6 7.7																						
4-Apr 6 6 6 5 6 6 11 10 5 4 3 4 3 3 3 4 4 5 5 4 4 4 4 4 5.7 10.9																						
5-Apr 7 7 6 6 7 8 9 9 7 7 8 10 8 5 6 6 5 5 11 11 7 6 6 7 7 11.1																						
6-Apr 5 5 5 4 4 5 7 8 2 3 3 3 3 3 5 4 6 5 5 4 3 3 2 2 4.2 8.0																						
7-Apr 3 2 2 2 3 3 7 6 5 3 3 3 3 5 5 4 4 4 4 4 4 4 4 4 4.7 12.4																						
8-Apr 10 8 7 7 3 2 7 5 3 1 2 2 3 4 4 2 4 4 4 4 3 3 3 4 4.0 10.2																						
9-Apr 4 4 6 4 4 5 9 9 6 6 8 7 7 8 8 8 6 4 4 5 10 9 7 6 6.4 9.9																						
10-Apr 8 7 6 7 5 4 6 6 4 0 1 0 0 0 0 0 0 0 0 1 3 2 2 1 2.6 8.2																						
11-Apr 1 1 1 3 4 4 9 4 3 2 5 3 1 0 1 1 2 3 9 2 1 0 0 2.5 8.6																						
12-Apr 0 0 0 0 0 0 3 0 0 0 0 0 0 0 0 0 1 1 1 1 0 0 0 0.3 3.1																						
13-Apr 0 1 0 1 1 2 6 5 3 2 3 4 3 3 2 2 2 2 3 1 1 0 1 2.0 5.6																						
14-Apr 1 1 2 3 3 2 5 8 3 4 3 2 3 3 2 2 3 4 4 4 5 6 6 4 3.3 7.6																						
15-Apr 4 3 3 4 4 5 7 9 4 5 6 1 N 11 11 9 8 8 8 8 7 7 6.5 11.2																						
16-Apr 7 6 6 6 6 6 6 28 1 5 4 14 5 5 4 4 5 7 7 7 7 7 6.8 27.6																						
17-Apr 7 7 6 7 6 6 8 10 13 17 11 10 11 9 4 5 5 6 10 2 3 4 2 2 7.1 16.6																						
18-Apr 2 3 3 2 1 2 3 1 1 0 1 2 0 1 1 2 1 1 2 3 3 2 3 3 1.8 3.3																						
19-Apr 2 2 4 3 4 4 6 4 3 2 2 3 3 3 3 3 4 5 30 5 5 5 4 3 4.7 30.1																						
20-Apr 2 2 3 4 6 5 5 3 2 1 1 3 2 3 2 2 1 1 0 2 3 4 3 2.5 5.6																						
21-Apr 4 2 0 0 0 1 3 4 4 8 10 1 11 1 0 2 1 8 3 0 0 1 1 2.7 10.7																						
22-Apr 2 3 3 2 2 2 2 3 3 1 3 C C 5 4 4 6 5 5 4 3 3 2.2 5.8																						
23-Apr 4 4 4 3 2 2 3 3 6 2 2 1 0 1 1 0 1 2 3 4 4 3 2.5 6.0																						
24-Apr 3 4 4 4 4 3 4 2 2 3 3 2 2 2 3 3 3 3 9 10 6 6 7 3.9 10.3																						
25-Apr 6 6 6 7 7 7 7 4 5 3 3 4 5 5 5 5 6 7 8 9 9 7 6.2 9.2																						
26-Apr 6 5 4 4 4 3 4 3 3 2 0 0 0 2 0 1 1 2 4 2 2 2 2.5 6.3																						
27-Apr 2 2 2 1 1 8 6 4 0 0 0 1 1 0 0 2 1 3 3 2 2 2 1.9 7.6																						
28-Apr 2 2 2 2 2 3 2 1 1 1 1 1 2 2 2 3 4 5 5 5 4 2.3 5.4																						
29-Apr 4 4 5 4 5 6 8 3 4 7 4 3 4 5 4 4 3 3 3 4 6 10 10 10 5.2 10.1																						
30-Apr 10 8 8 6 5 6 8 7 4 3 2 3 2 2 3 2 3 2 3 5 26 9 6 5.7 26.1																						
4.1 3.8 3.7 3.6 3.4 3.7 5.3 5.6 4.2 4.5 3.3 3.0 3.1 3.8 3.1 3.1 3.2 3.4 4.8 4.1 4.8 5.3 4.6 4.2 Diurnal Average																						
10.4 8.3 8.1 6.8 6.7 7.3 9.0 10.9 12.5 27.6 11.1 10.1 10.6 14.0 10.8 8.8 8.4 7.8 30.1 11.1 11.0 26.1 12.4 12.2 Diurnal Maximum																						
C - Calibration N - Not Valid Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 μg/m ³ 24-hr 30 μg/m ³																						

Hourly Averages for PM_{2.5} at Evergreen Park

April 2009



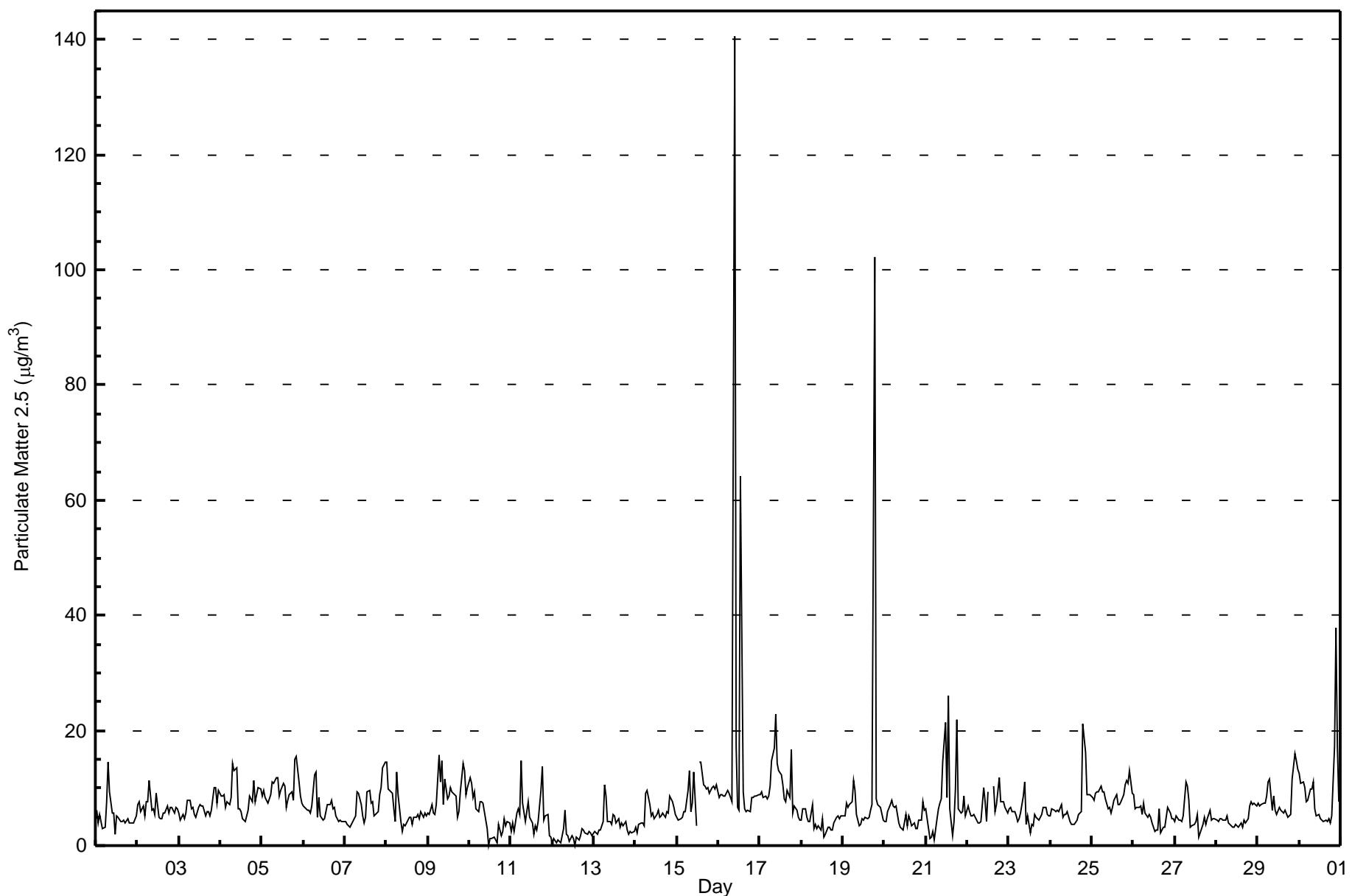
Peace Airshed Zone Association
Summary of Hourly Maximums

Evergreen Park - Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
April 1, 2009 to May 1, 2009

Maximum Value: 140.6 $\mu\text{g}/\text{m}^3$ on Apr 16 10:00 Maximum Daily Average: 16.2 $\mu\text{g}/\text{m}^3$ on Apr 16 Minimum Value: 0 $\mu\text{g}/\text{m}^3$ on Apr 10 12:00 Minimum Daily Average: 1.7 $\mu\text{g}/\text{m}^3$ on Apr 12 Maximum Diurnal Average: 11.2 $\mu\text{g}/\text{m}^3$ at hour 10 Minimum Diurnal Average: 5.2 $\mu\text{g}/\text{m}^3$ at hour 16 Monthly Average: 6.93 $\mu\text{g}/\text{m}^3$ Percentiles: P ₁ = 0.7 P ₁₀ = 3.0 O ₁ = 4.3 Median = 5.9 O ₃ = 8.3 P ₉₀ = 10.5 P ₉₉ = 21.2																									Hours in Service:		720	
																									Hours of Data:		717	
																									Hours of Missing Data:		3	
																									Hours of Calibration:		2	
																									Percent Operational Time:		99.9	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum		
1-Apr	6	4	5	4	3	3	8	15	9	6	6	2	5	5	4	4	4	4	5	4	4	4	4	5	5.1	14.5		
2-Apr	7	8	6	7	5	8	8	11	6	6	6	9	5	5	5	6	6	7	6	7	6	7	6	6	6.5	11.4		
3-Apr	6	4	5	5	6	8	8	6	7	5	5	7	7	7	5	6	6	5	6	10	10	7	9	6.6	10.1			
4-Apr	9	9	9	7	8	7	8	14	13	14	7	6	6	5	4	5	6	9	8	11	8	9	10	10	8.3	14.3		
5-Apr	9	10	8	7	8	9	11	11	12	12	9	9	11	10	7	8	9	9	8	15	16	11	9	7	9.7	15.6		
6-Apr	7	7	6	6	6	7	12	13	5	8	5	4	5	6	7	7	8	6	7	5	4	4	4	4	6.4	12.9		
7-Apr	4	4	4	3	4	5	5	9	9	7	5	4	5	9	10	7	8	5	6	6	9	10	14	14	6.9	14.5		
8-Apr	15	10	10	9	6	4	13	9	4	3	4	3	4	5	5	4	5	5	5	5	6	5	6	5	6.2	14.6		
9-Apr	6	6	7	6	5	7	16	11	15	7	11	8	8	10	9	9	9	5	6	9	14	13	9	10	9.0	15.8		
10-Apr	12	11	8	9	6	6	8	8	7	4	3	0	1	1	1	1	0	4	2	3	5	3	4	4	4.7	11.8		
11-Apr	2	4	3	6	6	5	15	7	4	6	8	5	4	2	3	3	4	10	14	5	5	5	2	1	5.4	14.6		
12-Apr	1	1	1	1	1	0	3	6	2	2	1	2	1	0	1	1	2	3	3	2	2	2	2	2	1.7	6.2		
13-Apr	2	2	2	3	3	4	11	9	4	4	4	4	5	5	4	5	3	4	3	2	2	2	2	2	3.9	10.6		
14-Apr	3	2	4	4	4	4	9	9	7	5	6	5	5	6	5	5	6	5	6	6	9	8	7	5	5.6	9.5		
15-Apr	5	4	5	5	6	6	10	13	6	7	13	3	N	14	14	11	10	10	9	10	10	10	11	11	8.8	14.4		
16-Apr	8	9	9	9	9	10	9	8	8	141	17	7	6	64	9	6	6	6	6	8	8	9	9	9	16.2	140.6		
17-Apr	9	9	8	9	8	9	10	15	17	23	14	13	12	10	8	8	10	8	17	6	7	6	5	5	5	10.2	22.8	
18-Apr	5	6	6	5	4	4	7	3	4	3	3	3	5	2	2	3	3	3	4	5	5	5	5	5	4.1	7.1		
19-Apr	5	5	7	7	7	8	11	10	5	4	4	5	4	5	5	5	6	7	102	8	7	7	4	10.2	102.1			
20-Apr	4	4	6	7	8	7	7	7	4	3	3	3	5	4	5	5	3	4	3	3	4	4	8	6	4.9	7.7		
21-Apr	6	5	1	2	3	1	5	6	7	8	15	21	8	26	6	2	4	10	22	6	6	9	5	7.9	26.1			
22-Apr	7	6	5	5	4	4	4	4	10	8	4	9	C	C	10	6	7	12	8	8	8	7	6	6	6.7	11.7		
23-Apr	6	7	6	6	5	4	5	6	9	11	4	5	2	4	3	6	5	4	5	5	7	7	5	5.5	11.1			
24-Apr	5	6	6	6	6	7	5	5	5	6	4	4	4	4	4	5	6	6	21	16	9	9	9	6.9	21.2			
25-Apr	8	8	9	9	9	10	9	9	8	6	7	6	7	8	9	7	7	8	9	11	11	11	13	9	8.7	12.9		
26-Apr	9	7	7	7	7	5	7	6	5	5	5	4	2	3	3	6	2	3	3	5	7	6	5	5	5.1	9.0		
27-Apr	4	5	4	4	4	5	11	10	8	3	4	4	4	5	1	3	4	5	4	5	6	5	5	5	4.9	11.2		
28-Apr	5	4	5	5	4	5	5	4	4	3	3	4	3	3	4	3	4	4	5	7	8	7	7	4.7	7.6			
29-Apr	7	7	7	7	7	7	9	11	12	6	9	6	5	7	6	6	6	5	5	5	12	16	15	13	8.1	16.0		
30-Apr	12	11	11	10	8	8	10	10	11	6	5	5	5	4	4	5	4	5	4	5	17	38	17	8	9.3	37.8		
																									Diurnal Average			
																									Diurnal Maximum			
C - Calibration N - Not Valid																												

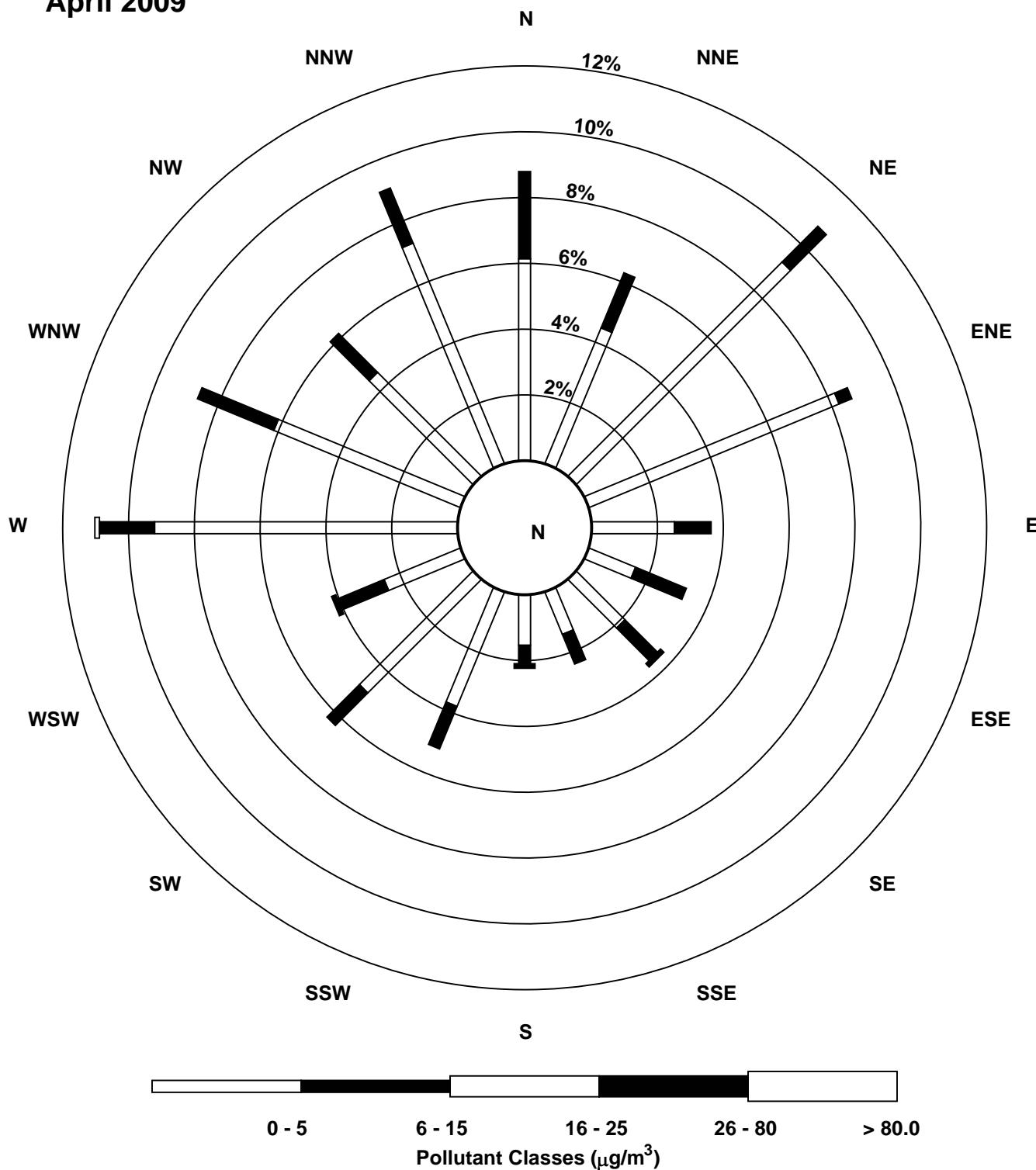
Hourly Maximums for PM_{2.5} at Evergreen Park

April 2009



Pollutant Rose for PM_{2.5} at Evergreen Park

April 2009



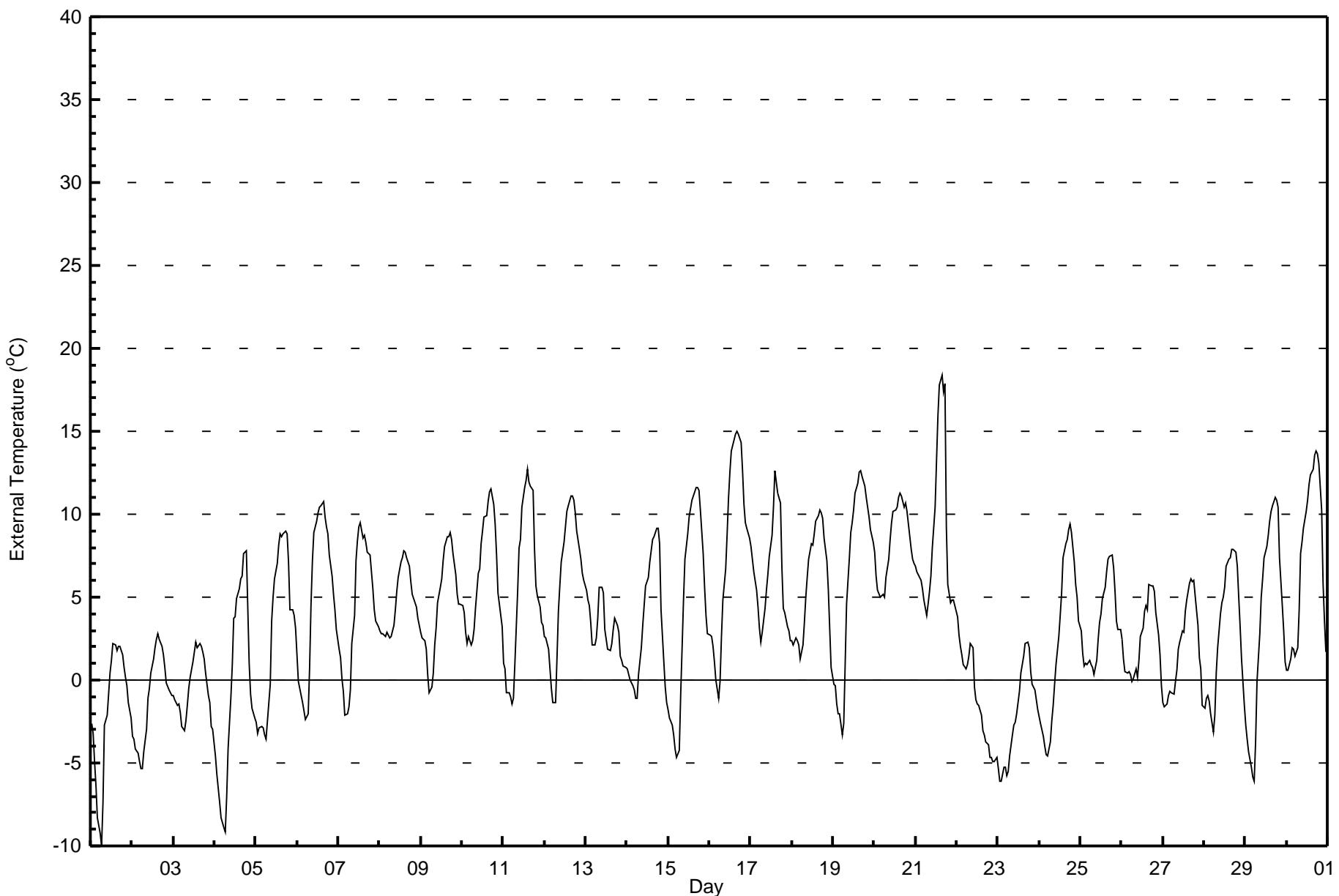
Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park - External Temperature (ET) - °C
April 1, 2009 to May 1, 2009

Maximum Value: 18.4 °C on Apr 21 16:00																				Hours in Service:	720			
Minimum Value: -10 °C on Apr 1 07:00																				Hours of Data:	720			
Maximum Diurnal Average: 8.3 °C at hour 17																				Hours of Missing Data:	0			
Monthly Average: 3.65 °C																				Hours of Calibration:	0			
Percentiles: P ₁ = -7.5 P ₁₀ = -2.8 Q ₁ = 0.1 Median = 3.3 Q ₃ = 7.4 P ₉₀ = 10.3 P ₉₉ = 14.7																				Percent Operational Time:	100.0			
Day	Hourly Period Ending At (MST)																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1-Apr	-3	-3	-5	-6	-8	-9	-10	-7	-3	-2	-1	0	1	2	2	2	2	2	2	1	0	0	-1	-2
2-Apr	-3	-4	-4	-4	-5	-5	-5	-4	-3	-1	-1	0	1	2	2	3	2	2	2	1	0	-1	-1	-1
3-Apr	-1	-1	-2	-1	-2	-3	-3	-2	-1	0	0	1	2	2	2	2	2	2	1	0	-1	-1	-3	-3
4-Apr	-5	-6	-7	-7	-8	-9	-9	-7	-4	-1	1	4	4	5	6	6	6	8	8	4	1	-1	-2	-2
5-Apr	-3	-3	-3	-3	-3	-3	-4	-2	0	4	5	6	7	8	9	9	9	9	7	4	4	4	3	3.0
6-Apr	2	0	-1	-1	-2	-2	-2	1	5	7	9	10	10	10	11	11	10	9	9	8	6	5	4	3
7-Apr	2	1	0	-1	-2	-2	-2	-1	2	4	7	8	9	9	9	8	8	8	7	5	4	4	3	4.2
8-Apr	3	3	3	3	3	3	3	3	3	4	5	6	7	7	8	8	7	7	6	5	5	4	4	3
9-Apr	3	3	2	2	0	-1	0	0	2	3	5	6	6	7	8	9	9	9	8	8	6	5	5	4.5
10-Apr	5	4	3	2	3	2	2	3	4	6	7	8	9	10	10	11	11	12	11	9	8	5	5	3
11-Apr	1	1	-1	-1	-1	-1	-1	1	5	8	9	10	12	12	13	12	12	11	8	6	5	4	3	3
12-Apr	3	3	2	1	-1	-1	-1	1	4	6	7	8	9	10	11	11	11	10	9	8	7	6	6	5.9
13-Apr	5	5	4	3	2	2	3	4	6	6	5	3	2	2	2	3	4	3	3	1	1	1	1	3.1
14-Apr	1	0	0	0	-1	-1	-1	0	2	3	5	6	6	7	8	9	9	9	8	4	1	0	-1	3.4
15-Apr	-2	-2	-3	-3	-4	-5	-4	-1	2	5	7	9	10	10	11	11	12	12	11	10	8	6	4	3
16-Apr	3	3	2	1	0	-1	0	3	5	7	9	11	13	14	15	15	15	15	14	13	11	9	9	9
17-Apr	8	7	6	5	4	3	2	3	4	5	6	7	9	10	13	12	11	11	7	4	4	3	3	6.4
18-Apr	2	2	3	2	2	1	2	3	5	6	7	8	8	9	10	10	10	10	9	7	6	3	1	5.7
19-Apr	0	0	-1	-2	-2	-3	-3	1	5	7	9	10	10	11	12	13	13	12	12	11	10	10	9	8
20-Apr	8	6	5	5	5	5	6	7	8	9	10	10	10	11	11	11	10	11	10	9	8	7	7	8.3
21-Apr	7	7	6	6	5	4	5	5	6	8	10	13	16	18	18	17	18	9	6	5	5	5	4	8.7
22-Apr	4	3	2	2	1	1	1	1	2	2	0	-1	-1	-2	-2	-3	-3	-4	-4	-5	-5	-5	-5	-1.1
23-Apr	-5	-6	-6	-5	-5	-6	-6	-5	-3	-3	-3	-2	-1	0	1	1	2	2	2	1	0	-1	-2	-2.1
24-Apr	-2	-3	-3	-4	-4	-5	-4	-2	-2	0	1	3	4	5	7	8	8	9	9	7	6	5	4	2.3
25-Apr	3	2	1	1	1	1	1	1	0	1	2	3	4	5	6	7	7	8	7	5	4	3	3	
26-Apr	2	1	0	0	0	0	0	0	1	0	1	3	3	4	4	4	6	6	6	5	4	3	1	0
27-Apr	-1	-2	-1	-1	-1	-1	-1	0	1	2	2	3	3	4	5	6	6	6	5	3	1	1	-2	1.9
28-Apr	-2	-1	-1	-1	-2	-3	-2	0	2	4	5	5	6	7	7	8	8	8	7	5	3	1	-2	2.9
29-Apr	-3	-4	-4	-5	-6	-6	-4	0	3	5	6	7	8	9	10	10	11	11	10	7	5	3	1	3.5
30-Apr	1	1	1	2	2	1	2	4	8	8	9	10	11	12	12	13	14	14	14	13	10	6	4	2
Diurnal Average																								
Diurnal Maximum																								

Hourly Averages for External Temperature at Evergreen Park

April 2009



Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1 Spd	5	1	1	1	0	1	1	0	1	4	6	5	7	6	7	7	6	5	4	3	4	4	2	2	2.2	6.8	
	Dir	263	290	10	48	100	197	147	304	278	292	323	298	357	36	39	41	39	49	48	50	56	55	28	9	15.3	39.4
2 Spd	1	1	1	1	2	2	1	2	3	3	5	6	7	6	7	7	9	9	7	6	4	4	5	6	3.8	9.3	
	Dir	350	340	326	325	341	268	277	308	337	12	36	38	45	23	23	38	48	52	53	49	37	27	357	356	26.8	47.9
3 Spd	3	4	3	3	2	1	3	3	4	6	7	5	6	6	10	10	10	11	8	4	2	1	1	1	1	4.4	11.4
	Dir	11	32	25	29	10	327	354	354	9	35	27	21	354	355	335	342	350	342	341	331	256	12	331	326	355.9	342.0
4 Spd	1	0	0	1	0	1	1	1	1	4	4	4	10	8	8	7	4	1	3	2	2	1	1	1	1	1.9	9.9
	Dir	245	255	46	48	245	5	11	308	286	351	358	105	59	55	52	10	25	242	172	37	49	45	39	29	38.8	58.5
5 Spd	0	1	1	0	1	0	2	2	3	2	3	5	6	5	5	7	5	4	2	3	3	1	2	1	1.5	6.8	
	Dir	41	318	147	336	252	168	224	184	360	279	358	8	359	18	40	52	46	55	79	325	300	329	204	227	15.7	52.1
6 Spd	1	0	2	2	1	1	2	3	4	10	15	14	10	15	13	9	11	9	7	6	7	5	3	1	5.3	15.0	
	Dir	207	38	210	196	211	266	219	213	231	277	278	288	289	289	285	307	338	345	337	285	291	264	271	284	289.5	289.1
7 Spd	1	1	0	1	0	1	1	3	2	2	1	3	5	4	6	5	6	5	3	2	1	2	1	1	1.3	6.2	
	Dir	46	236	149	237	113	224	170	218	248	272	344	4	351	349	330	6	56	61	64	68	13	7	325	334	1.7	329.8
8 Spd	2	4	1	2	2	1	1	1	2	5	6	8	11	10	12	12	8	9	9	7	6	6	4	3	5.3	11.7	
	Dir	340	352	346	4	17	6	16	15	50	61	66	52	59	60	62	63	56	54	59	59	52	59	47	40	51.9	62.5
9 Spd	2	1	1	1	1	1	2	2	5	5	4	8	7	6	5	5	5	2	1	2	1	2	5	2.1	7.8		
	Dir	50	49	259	20	267	245	308	280	279	280	279	295	298	352	4	284	278	318	333	63	331	300	180	200	298.6	294.6
10 Spd	3	0	0	2	1	2	2	2	2	3	7	6	7	7	7	6	5	6	7	7	2	1	2	1	3.2	7.4	
	Dir	202	357	94	214	229	196	12	239	267	273	278	268	298	308	305	279	261	290	283	278	303	152	216	199	275.8	283.0
11 Spd	1	2	1	0	1	0	1	1	0	1	4	5	7	7	7	7	5	3	14	11	3	4	5	7	1.3	13.7	
	Dir	192	220	6	345	198	18	200	10	130	34	18	58	33	39	44	47	51	331	289	272	9	237	219	232	340.6	288.6
12 Spd	6	7	4	2	1	1	1	2	6	9	6	6	4	4	7	4	8	7	6	4	2	3	6	6	1.4	8.6	
	Dir	235	265	264	250	107	149	150	214	271	274	311	298	293	321	310	331	52	66	65	70	73	83	70	71	329.8	274.0
13 Spd	5	5	4	1	1	3	2	3	7	9	7	8	11	10	11	5	2	1	6	9	9	8	7	7	3.7	10.8	
	Dir	62	60	71	220	317	43	223	4	50	43	37	337	342	337	349	345	359	68	247	294	292	284	302	296	341.0	348.8
14 Spd	4	4	3	3	3	2	2	3	4	6	8	7	10	8	3	6	7	3	2	1	1	1	1	1	3.3	10.0	
	Dir	305	304	306	310	312	317	325	321	321	277	272	293	279	287	9	327	335	293	299	103	187	197	209	181	300.5	278.8
15 Spd	0	0	0	1	0	1	0	1	1	1	3	5	4	4	5	6	4	4	5	5	4	4	2	3	2.1	6.0	
	Dir	196	102	91	82	194	76	43	230	273	244	165	172	134	146	121	169	168	126	123	101	82	83	105	84	131.7	169.1
16 Spd	4	4	4	3	3	2	3	4	6	7	6	6	4	4	6	7	10	9	8	8	9	8	8	7	5.3	9.8	
	Dir	106	102	104	94	69	76	99	124	143	146	161	170	133	146	145	153	128	127	114	106	111	120	143	157	128.0	126.9
17 Spd	7	5	3	3	3	2	1	1	2	4	3	1	2	3	2	5	4	10	19	7	1	5	2	3	0.8	18.7	
	Dir	163	174	112	110	103	60	2	21	295	267	341	127	95	124	124	203	318	354	283	339	237	209	188	194	260.2	283.2
18 Spd	2	4	11	13	6	2	7	14	16	16	20	19	19	21	20	19	15	17	14	13	7	1	1	1	11.3	20.9	
	Dir	228	275	265	265	270	283	264	262	263	272	268	269	274	274	286	285	288	285	285	271	260	268	177	90	273.3	274.0
19 Spd	1	4	0	1	1	0	1	2	2	3	3	4	4	6	2	4	5	8	8	6	7	9	8	4	3.2	8.5	
	Dir	75	204	127	175	212	233	29	228	231	219	277	296	311	289	241	217	229	235	240	234	233	246	258	246	244.5	246.3
20 Spd	0	0	0	1	1	2	2	4	7	8	9	12	13	9	11	10	12	8	5	3	1	0	1	2	4.4	12.7	
	Dir	226	124	180	8	256	234	223	213	216	218	231	271	276	283	277	269	246	239	219	194	136	196	177	141	248.2	276.4
21 Spd	1	1	3	2	2	1	1	0	2	3	2	4	6	5	7	12	10	24	21	16	12	15	13	4.1	23.8		
	Dir	140	85	105	105	76	80	37	74	195	222	196	126	132	147	195	243	290	280	330	308	282	276	279	280	281.4	329.7
22 Spd	19	15	19	17	16	15	19	21	23	19	21	22	24	25	24	21	20	19	15	13	12	13	12	12	15.7	24.7	
	Dir	268	281	272	271	271	276	272	275	283	316	345	342	337	340	334	329	325	343	352	347	349	339	340	353	315.7	339.6

Peace Airshed Zone Association Summary of Hourly Averages

Evergreen Park
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	7	5	4	6	6	3	4	8	11	10	9	8	10	11	15	11	11	16	12	6	4	5	7	7	6.5	16.0	
	Dir	336	330	280	317	317	298	278	272	287	292	327	315	306	336	342	356	355	345	355	58	47	51	47	21	334.8	345.2
24 Spd	7	4	2	1	0	0	1	3	4	5	5	5	6	5	3	2	5	1	14	13	15	9	9	5	5	3.1	15.1
	Dir	351	23	31	37	136	158	214	217	217	213	216	204	234	212	201	168	128	88	264	273	293	301	283	297	263.4	292.7
25 Spd	3	5	3	4	5	7	9	8	8	6	9	8	8	10	9	8	8	7	8	8	3	1	3	7	5.0	10.3	
	Dir	309	33	28	338	324	332	343	10	40	8	5	4	334	337	320	321	291	282	275	274	263	28	46	50	338.7	336.6
26 Spd	5	6	2	2	3	5	6	3	2	4	3	4	6	8	9	8	7	6	6	5	3	3	1	2	3.0	8.6	
	Dir	40	43	359	326	280	287	346	52	23	51	62	67	60	37	30	317	299	345	348	348	10	122	254	253	7.3	30.0
27 Spd	0	1	1	2	4	0	2	2	0	1	2	3	7	3	7	8	8	8	7	6	2	3	2	1	2.4	8.5	
	Dir	292	10	59	83	119	298	238	126	82	46	132	168	204	9	86	81	74	72	75	66	67	68	85	42	85.5	72.0
28 Spd	1	2	2	3	1	1	4	5	7	8	8	6	6	8	6	8	9	7	7	4	3	2	1	4.9	8.7		
	Dir	60	61	81	72	55	21	58	66	65	78	75	79	76	70	81	70	67	65	74	77	74	78	92	59	71.4	65.0
29 Spd	1	0	1	1	1	0	1	1	1	3	2	2	6	2	3	5	5	3	3	2	1	1	1	0	1.3	5.5	
	Dir	41	327	5	232	230	360	28	31	242	313	313	315	345	357	337	327	16	33	27	37	238	226	216	320	347.6	345.1
30 Spd	1	1	2	3	1	3	2	2	1	5	6	7	6	6	6	5	3	2	2	1	1	1	0	2.0	7.0		
	Dir	226	255	269	286	274	277	296	347	14	352	22	25	45	16	359	54	36	31	29	89	132	187	196	212	10.7	25.1
Spd	0.9	1.0	0.9	1.2	1.1	1.2	1.4	1.6	2.1	2.7	2.9	3.1	3.7	4.3	4.2	3.5	3.4	3.4	3.6	2.6	1.8	0.8	1.0	1.0	Diurnal Average		
Dir	296.0	330.2	297.8	292.0	291.3	296.5	296.1	279.5	288.0	300.0	323.8	321.6	333.9	342.3	346.8	338.8	349.4	352.6	327.8	325.6	321.9	322.0	303.8	326.0			
Spd	19.3	14.8	18.9	16.9	15.6	14.7	18.6	20.8	23.4	18.8	20.8	21.5	24.1	24.7	23.7	21.0	20.5	21.3	23.8	21.3	15.7	11.9	14.8	12.8	Diurnal Maximum		
Dir	268.5	281.0	272.4	270.9	271.1	275.9	271.5	274.8	283.1	315.9	345.5	342.4	337.1	339.6	333.9	328.7	325.5	343.1	329.7	308.4	282.5	276.2	279.5	279.5			

Maximum Speed Value: 25 km/h on Apr 22 14:00

Minimum Speed Value: 0 km/h on Apr 24 05:00

Maximum Daily Speed Average: 15.7 km/h on Apr 22

Minimum Daily Speed Average: 0.8 km/h on Apr 29

Maximum Diurnal Speed Average: 4.3 km/h at hour 14

Minimum Diurnal Speed Average: 0.8 km/h at hour 22

Monthly Average Velocity: 2.08 km/h 324.85 deg

Speed Percentiles: $P_1 = 0.2$ $P_{10} = 0.8$ $Q_1 = 1.6$ Median = 4.1 $Q_3 = 7.0$ $P_{90} = 10.8$ $P_{99} = 21.2$

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

Hours in Service: 720

Hours of Data: 720

Hours of Missing Data: 0

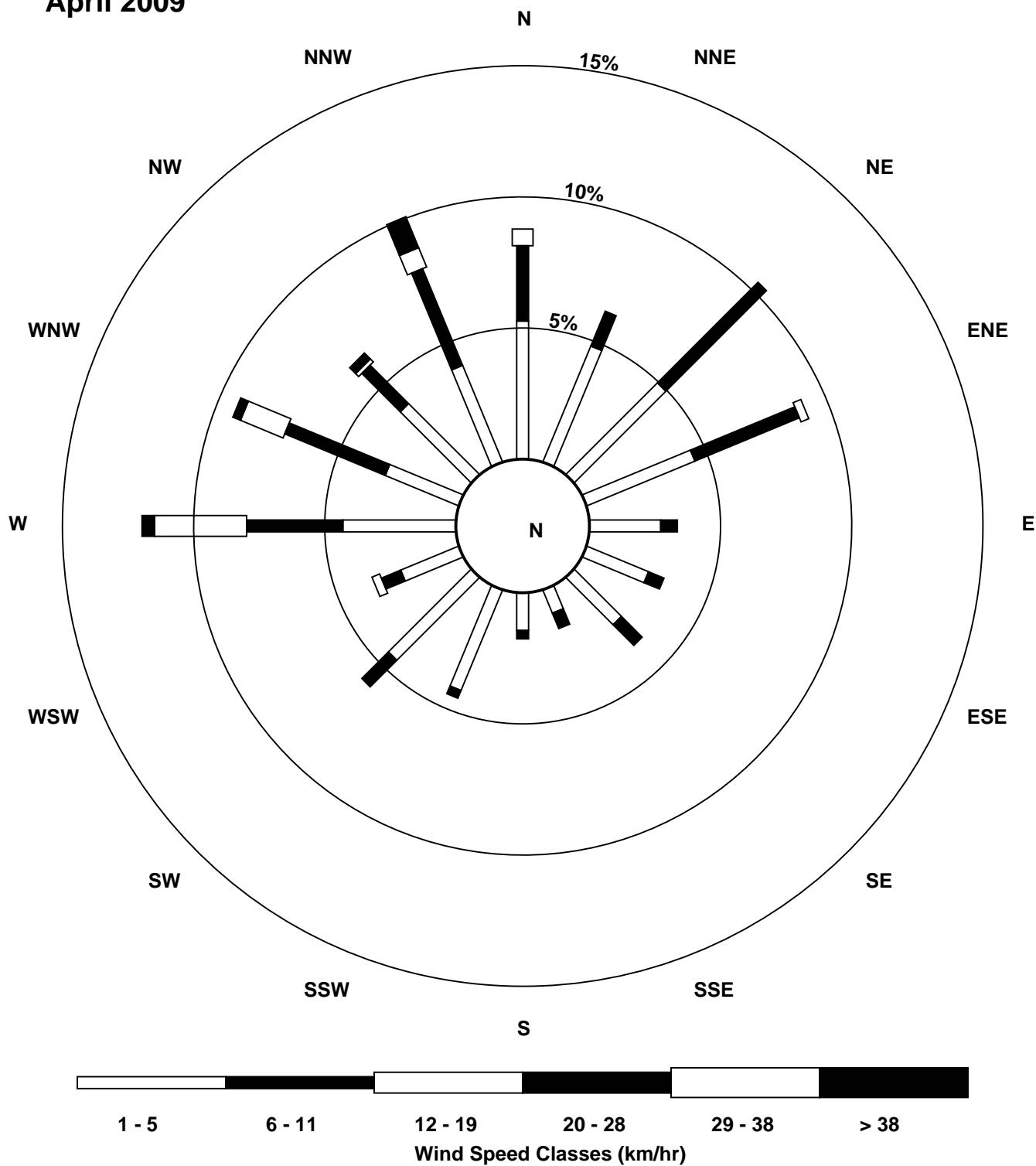
Percent Operational Time: 100.0

Frequency Distribution

Direction	Speed Range (km/h)						Total
	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	
North	64	35	12	4	0	0	115
NorthEast	74	61	2	0	0	0	137
East	51	18	0	0	0	0	69
SouthEast	30	14	0	0	0	0	44
South	38	6	0	0	0	0	44
SouthWest	64	16	2	0	0	0	82
West	48	39	31	8	0	0	126
NorthWest	57	37	3	6	0	0	103
Total	426	226	50	18	0	0	720

Wind Rose for WS at Evergreen Park

April 2009



Peace Airshed Zone Association

Summary of Hourly Averages - Wind Speed (Scalar)

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

April 1, 2009 to May 1, 2009

Maximum Speed: 25 km/h on Apr 22 14:00 Maximum Daily Speed Average: 18.9 km/h on Apr 22 Minimum Speed: 1 km/h on Apr 15 01:00 Minimum Daily Speed Average: 2.9 km/h on Apr 29 Maximum Diurnal Speed Average: 9.2 km/h at hour 15 Minimum Diurnal Speed Average: 2.6 km/h at hour 6 Monthly Average Speed: 5.73 km/h Percentiles: $P_1 = 0.9$ $P_{10} = 1.4$ $Q_1 = 2.3$ Median = 4.8 $Q_3 = 7.6$ $P_{90} = 10.9$ $P_{99} = 21.8$																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								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	5	2	2	1	1	2	3	1	1	4	7	6	7	6	7	7	6	5	4	3	4	4	2	2	3.8	7.2	
2-Apr	1	1	2	1	2	2	2	2	3	4	6	6	7	7	8	8	10	9	7	6	4	4	5	6	4.7	9.5	
3-Apr	3	4	3	3	2	1	3	3	5	6	7	6	7	7	10	11	11	12	8	4	2	1	1	2	5.1	11.7	
4-Apr	1	1	1	1	1	1	1	1	2	4	6	6	10	9	9	7	4	4	4	2	2	1	1	1	3.4	10.1	
5-Apr	1	1	1	1	1	1	2	3	4	2	3	5	6	5	5	7	5	4	3	3	3	3	2	3	3.1	6.9	
6-Apr	1	2	2	3	2	2	3	4	5	11	15	14	10	15	13	9	11	9	8	6	7	5	3	2	6.7	15.2	
7-Apr	1	1	1	2	1	2	2	3	2	2	4	5	5	7	6	6	5	3	2	2	2	2	2	2	3.0	6.9	
8-Apr	3	4	2	2	2	1	1	2	6	6	9	11	11	12	12	9	9	9	7	6	6	4	3	5.7	11.9		
9-Apr	2	1	2	1	1	1	2	2	5	5	5	8	8	7	5	5	6	3	2	2	3	2	3	5	3.7	8.5	
10-Apr	4	1	1	2	2	2	2	2	3	8	7	8	8	7	6	7	6	8	7	2	1	2	2	4.4	8.2		
11-Apr	1	2	1	1	2	1	2	2	2	4	5	6	7	8	7	8	5	4	14	11	4	5	5	7	4.7	13.9	
12-Apr	6	7	4	3	2	1	2	3	6	9	6	7	5	6	8	6	8	8	7	4	3	4	6	6	5.3	9.0	
13-Apr	5	5	4	3	2	3	3	3	8	9	8	9	11	10	11	5	4	3	7	9	10	8	7	7	6.4	10.9	
14-Apr	5	4	3	3	3	2	2	3	5	6	8	8	11	10	6	7	7	4	3	2	1	1	1	1	4.5	10.8	
15-Apr	1	1	1	1	1	1	1	2	2	2	4	7	6	7	7	8	6	6	5	4	4	2	3	3.6	7.6		
16-Apr	4	4	4	3	3	2	3	4	6	7	7	8	5	7	7	8	10	10	8	9	8	8	7	6.3	10.2		
17-Apr	7	6	3	3	3	2	1	2	3	4	3	2	3	4	4	7	7	7	10	9	4	5	2	3	4.8	19.6	
18-Apr	2	4	11	13	6	3	7	14	16	17	20	20	19	21	20	19	16	18	14	13	7	2	2	2	12.0	21.2	
19-Apr	2	4	1	1	2	1	1	2	2	4	4	6	6	7	6	5	7	9	8	6	7	9	8	4	4.7	8.6	
20-Apr	2	1	1	1	2	2	2	4	8	9	9	13	13	10	12	11	12	8	5	4	1	1	2	2	5.6	13.1	
21-Apr	2	2	3	2	2	2	1	1	2	3	3	4	6	6	8	12	10	10	25	22	16	12	15	13	7.7	24.9	
22-Apr	20	15	19	17	16	15	19	21	24	21	21	22	25	25	25	22	21	22	19	15	13	12	13	12	18.9	25.4	
23-Apr	7	5	4	6	6	3	4	8	12	10	10	9	11	12	15	12	13	16	13	6	4	5	7	8	8.6	16.4	
24-Apr	7	4	2	1	1	1	2	4	5	6	6	6	7	6	6	4	5	4	14	13	16	10	10	5	6.1	15.9	
25-Apr	3	5	4	4	5	7	9	9	7	9	10	9	11	10	10	9	8	8	8	3	1	3	7	7.1	11.0		
26-Apr	5	6	3	2	3	5	7	3	2	4	3	5	7	8	10	9	8	7	6	6	4	5	2	2	5.2	9.6	
27-Apr	1	1	2	2	4	3	2	2	4	4	6	8	8	9	9	9	8	6	2	3	2	1	1	4.5	9.3		
28-Apr	1	2	3	3	2	1	4	5	7	9	8	7	9	8	9	9	8	7	4	3	2	1	1	5.4	9.3		
29-Apr	1	1	1	1	1	1	1	2	2	3	5	6	7	5	6	7	6	4	4	2	1	1	1	2.9	6.9		
30-Apr	1	2	2	4	3	4	2	2	3	6	7	8	7	8	8	7	6	5	4	2	2	1	1	3.9	8.1		
3.5 3.4 3.1 3.1 2.7 2.6 3.3 4.0 5.2 6.5 7.2 8.0 8.7 8.8 9.2 8.7 8.4 8.0 8.6 6.7 5.1 4.3 4.1 4.0																								Diurnal Average			
19.6 15.0 19.1 17.0 15.8 14.9 18.7 21.0 23.7 20.9 21.2 21.9 24.7 25.4 24.6 22.0 21.1 22.3 24.9 21.9 16.4 12.2 15.0 13.2																								Diurnal Maximum			
All monthly, daily, and diurnal averages have been calculated using scalar methods																											

Peace Airshed Zone Association
Summary of Hourly Standard Deviations

Evergreen Park - Wind Direction (WD) - deg
April 1, 2009 to May 1, 2009

Maximum Value: 95.9 deg on Apr 15 07:00																								Hours in Service:	720
Minimum Value: 5.4 deg on Apr 1 22:00																								Hours of Data:	720
Percentiles: P ₁ = 6.6 P ₁₀ = 10.8 Q ₁ = 15.9 Median = 28.3 Q ₃ = 53.4 P ₉₀ = 73.5 P ₉₉ = 93.4																								Hours of Missing Data:	0
																								Hours of Calibration:	0
																								Percent Operational Time:	100.0
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Maximum
1-Apr	7	81	50	70	74	77	81	66	75	18	33	34	23	23	21	18	14	14	13	12	6	5	18	20	81.4
2-Apr	24	25	28	33	20	30	50	32	27	33	27	24	19	22	24	19	13	12	14	10	11	18	11	12	50.0
3-Apr	19	12	18	17	20	40	12	13	24	19	19	27	37	28	21	23	15	13	11	20	23	66	74	92	91.8
4-Apr	73	73	89	65	85	60	40	77	32	22	66	56	12	23	18	26	24	83	48	23	23	33	23	30	89.1
5-Apr	85	66	56	92	70	83	52	45	48	47	31	19	15	22	18	9	19	17	37	17	53	82	49	77	91.9
6-Apr	69	92	61	75	64	76	73	48	31	20	10	11	13	11	9	23	13	11	21	17	13	11	17	53	91.8
7-Apr	74	69	90	72	89	69	70	15	36	22	53	31	30	35	27	26	16	16	15	17	48	13	45	43	90.5
8-Apr	34	14	36	21	17	25	30	28	20	17	30	23	16	11	12	11	15	12	9	11	11	10	12	16	36.1
9-Apr	16	76	70	66	68	58	31	49	30	25	31	23	29	24	34	35	39	55	32	57	65	89	49	21	89.2
10-Apr	62	84	86	65	49	45	38	39	36	57	14	29	31	32	34	32	28	28	17	14	38	75	47	44	86.3
11-Apr	53	61	79	75	74	89	75	70	90	84	28	36	18	18	19	15	13	48	10	11	53	42	9	9	90.0
12-Apr	8	8	12	69	64	67	61	51	52	17	27	26	61	53	39	54	27	18	17	31	32	25	12	10	68.7
13-Apr	8	10	32	83	60	27	66	36	22	19	17	29	10	11	8	31	66	92	17	11	18	13	13	12	91.6
14-Apr	43	35	24	8	8	14	8	13	21	28	17	37	24	36	72	54	32	61	68	37	54	54	38	53	71.9
15-Apr	59	68	94	44	81	79	96	73	73	69	55	48	61	61	48	45	54	53	30	14	7	7	15	7	95.9
16-Apr	12	8	7	9	13	14	10	18	26	23	31	34	40	70	64	49	33	19	15	13	10	14	15	13	70.5
17-Apr	13	13	24	10	20	19	73	34	39	18	43	76	62	49	66	54	65	16	20	43	94	9	52	32	93.8
18-Apr	28	20	6	5	25	41	15	6	7	10	9	11	13	10	12	14	16	11	12	10	9	55	49	74	73.7
19-Apr	57	16	75	66	51	94	90	69	27	35	74	50	65	48	88	59	55	26	13	7	15	8	7	28	93.5
20-Apr	95	86	96	55	66	41	35	20	10	15	16	20	14	29	19	20	14	12	19	21	50	74	70	28	95.8
21-Apr	34	35	25	57	37	55	61	81	42	53	57	32	20	39	37	15	15	22	17	13	18	13	11	12	81.1
22-Apr	10	9	8	8	7	8	6	8	9	27	12	11	13	14	15	17	14	18	12	10	11	12	10	11	26.6
23-Apr	22	15	13	18	16	18	21	15	20	20	26	22	26	21	22	25	31	14	28	15	16	14	13	21	30.6
24-Apr	13	23	22	56	93	65	58	35	35	41	53	57	47	37	64	67	24	78	10	10	18	24	15	18	92.9
25-Apr	32	26	29	23	12	10	8	25	14	32	21	33	31	22	26	35	26	31	19	10	31	58	68	8	68.1
26-Apr	18	14	80	53	23	22	30	34	41	18	34	26	23	25	26	26	29	31	20	19	43	56	48	73	80.0
27-Apr	88	70	70	35	17	82	84	45	94	74	63	60	23	79	36	30	27	22	22	13	10	10	17	34	94.0
28-Apr	47	12	22	9	29	26	10	11	20	23	30	52	42	35	44	23	30	22	22	15	10	6	44	84	84.2
29-Apr	50	75	62	33	51	72	49	36	75	48	77	84	57	84	67	59	46	67	56	35	62	68	57	80	84.3
30-Apr	65	53	46	28	76	38	36	16	84	29	27	30	35	40	50	42	50	65	58	47	65	71	44	82	83.9
94.8 91.8 95.8 91.9 92.9 93.5 95.9 81.1 94.0 84.2 76.8 83.7 64.7 84.3 87.7 67.3 66.0 91.6 68.1 57.1 93.8 89.2 74.2 91.8																									

PASZA

Smoky Heights Station

Monthly Summary Tables, Graphs and Roses

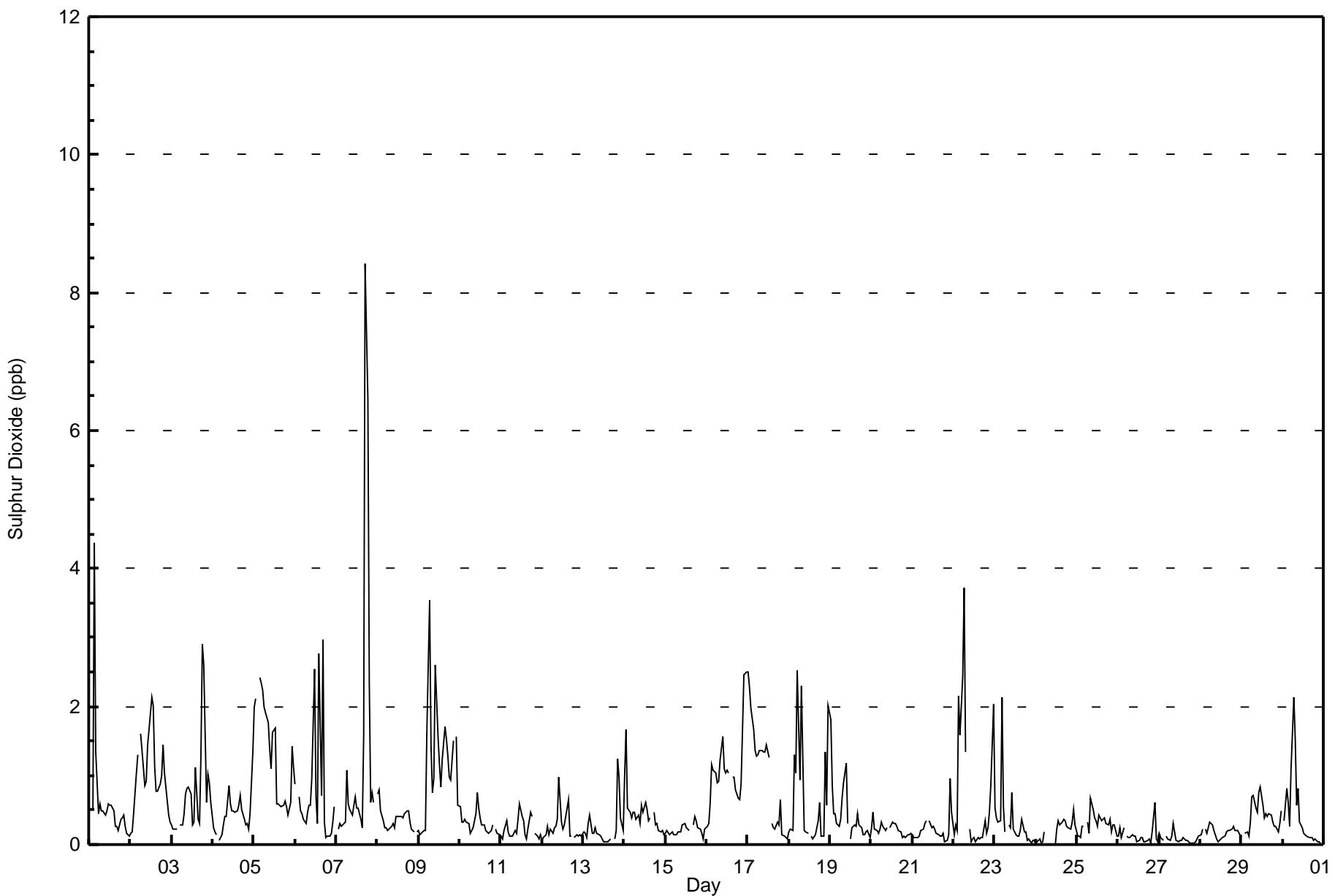
Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights - Sulphur Dioxide (SO₂) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 8.4 ppb on Apr 7 18:00 Maximum Daily Average: 1.3 ppb on Apr 5																			Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0								
Minimum Value: 0 ppb on Apr 24 12:00 Minimum Daily Average: 0.1 ppb on Apr 27 Maximum Diurnal Average: 0.8 ppb at hour 7 Minimum Diurnal Average: 0.3 ppb at hour 3 Monthly Average: 0.53 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.6 P ₉₀ = 1.3 P ₉₉ = 2.9																											
Day																			Hourly Period Ending At (MST)								
1-Apr																				Daily Average	Daily Maximum						
1-Apr	0	0	A	1	4	1	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0.6	4.4			
2-Apr	0	0	0	1	1	1	A	2	1	1	1	1	2	2	2	1	1	1	1	1	1	1	0	0	1.0	2.1	
3-Apr	0	0	0	0	0	A	0	0	0	1	1	1	1	0	0	1	0	0	1	3	3	1	1	1	0.8	2.9	
4-Apr	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0.4	1.4		
5-Apr	2	2	A	2	2	2	2	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1.3	2.4		
6-Apr	1	0	A	1	0	0	0	0	0	1	1	1	3	1	0	3	1	3	0	0	0	0	0	1	0.8	3.0	
7-Apr	A	0	0	0	0	0	1	1	1	0	1	1	1	0	0	0	2	8	6	2	1	1	1	A	1.3	8.4	
8-Apr	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8	
9-Apr	0	0	0	0	0	2	4	1	1	1	3	2	1	1	1	2	2	1	1	1	2	A	2	1	1.2	3.5	
10-Apr	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.7	
11-Apr	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
12-Apr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	1.0	
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.2	1.2	
14-Apr	1	2	1	0	0	0	0	0	0	0	1	0	1	1	0	0	A	0	0	0	0	0	0	0	0.5	1.7	
15-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	
16-Apr	0	0	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	2	2	3	1.1	2.5		
17-Apr	3	2	2	2	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	1	0	0	0	0	1.0	2.5
18-Apr	0	0	0	1	1	3	1	2	1	0	0	0	A	0	0	0	0	0	1	0	0	1	1	2	0.7	2.5	
19-Apr	2	1	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8	
20-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	0.5	
21-Apr	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	0.2	
22-Apr	0	0	0	2	2	2	4	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.7	3.7	
23-Apr	1	0	0	0	2	1	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.1	
24-Apr	0	0	0	0	0	0	A	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.5	
25-Apr	0	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7	
26-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.6	
27-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	0.3	
28-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	
29-Apr	0	A	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8	
30-Apr	A	0	1	1	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	2.1		
Diurnal Average																											
2.5 2.3 2.0 4.4 2.3 2.5 3.7 2.3 1.8 1.6 2.6 2.5 2.1 2.0 2.8 1.7 3.0 8.4 6.4 2.6 1.5 1.6 2.5 2.5 Diurnal Maximum																											
C - Calibration A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 57 ppb																											

Hourly Averages for SO₂ at Smoky Heights

April 2009



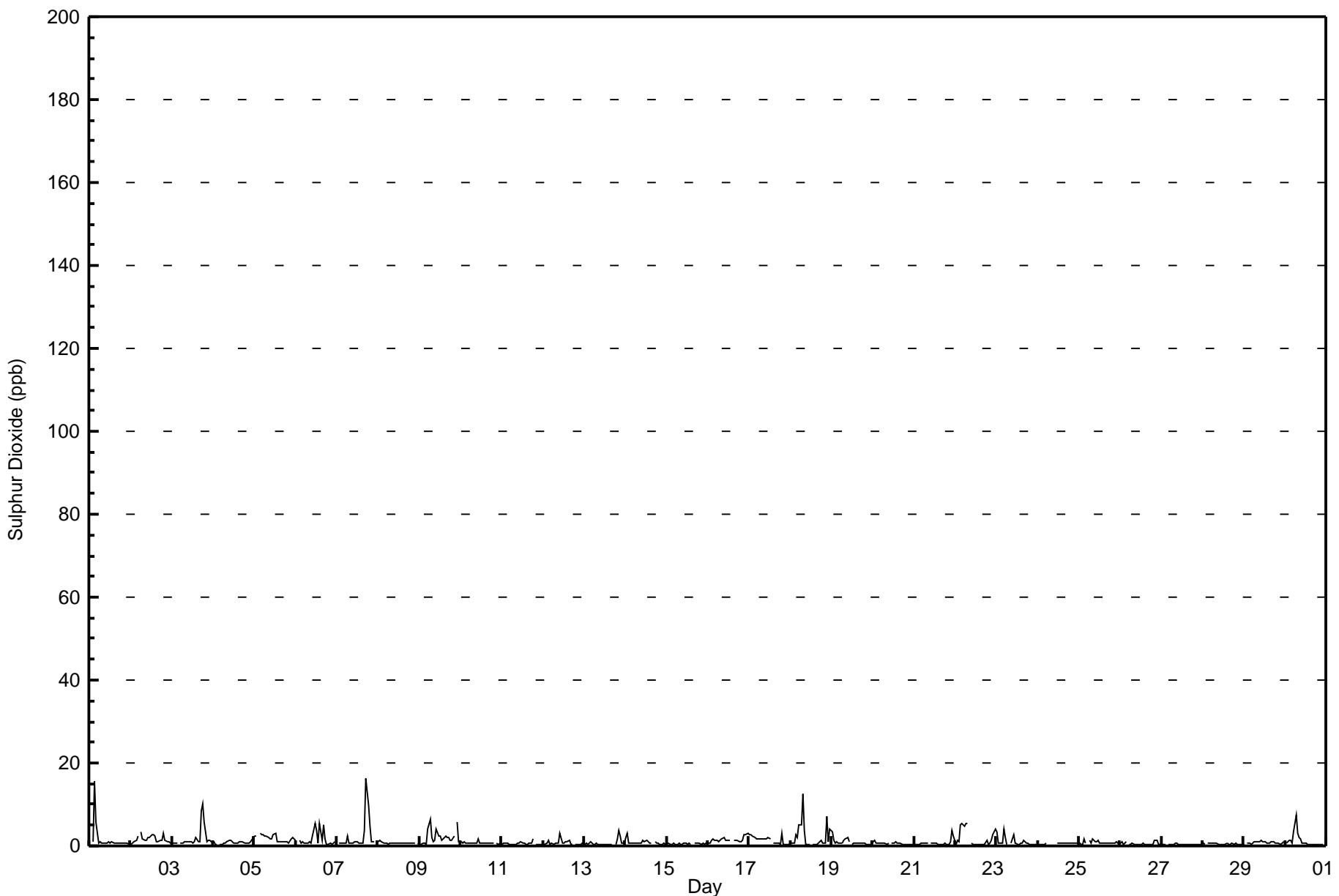
Peace Airshed Zone Association
Summary of Hourly Maximums

Smoky Heights - Sulphur Dioxide (SO_2) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 16.2 ppb on Apr 7 18:00 Maximum Daily Average: 2.3 ppb on Apr 7 Minimum Value: 0 ppb on Apr 30 23:00 Minimum Daily Average: 0.4 ppb on Apr 27 Maximum Diurnal Average: 1.7 ppb at hour 4 Minimum Diurnal Average: 0.7 ppb at hour 3 Monthly Average: 1.13 ppb Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.7 $Q_3 = 1.1$ $P_{90} = 2.2$ $P_{99} = 7.2$																								Hours in Service: 720			
																									Hours of Data: 685		
																									Hours of Missing Data: 35		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	1	A	1	16	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1.6	15.6
2-Apr	0	1	1	1	2	A	3	2	1	1	2	2	3	3	2	1	1	1	1	1	3	1	1	1	1	1.6	3.3
3-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	8	10	6	1	1	1	1.9	10.2
4-Apr	1	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.8	1.9
5-Apr	2	2	A	3	3	3	2	2	2	2	2	3	3	1	1	1	1	1	1	1	1	1	2	2	2	1.8	3.1
6-Apr	1	A	1	1	1	1	1	1	1	1	2	5	4	1	5	1	5	2	0	0	1	0	1	1	1	1.6	5.5
7-Apr	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	4	16	10	5	1	1	1	A	2.3	16.2
8-Apr	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
9-Apr	0	0	1	1	0	4	6	2	1	1	4	2	2	1	2	2	2	2	1	1	2	A	6	1	1	2.1	6.3
10-Apr	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	0	1	1	0.7	1.7
11-Apr	0	1	1	1	0	0	0	0	1	1	1	1	1	1	0	0	1	1	2	A	0	0	0	1	0.6	1.6	
12-Apr	0	0	1	1	0	1	0	1	1	1	3	1	1	1	1	1	0	0	0	A	0	0	0	1	0.7	3.1	
13-Apr	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	A	0	2	4	2	1	0.8	3.8
14-Apr	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	0.9	3.1
15-Apr	1	1	0	0	1	0	0	1	0	0	1	1	1	1	0	A	1	1	1	1	0	1	0	1	0.5	0.7	
16-Apr	1	1	1	2	1	1	1	1	2	2	2	1	1	1	1	A	1	1	1	1	1	3	3	3	1.5	3.1	
17-Apr	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	A	1	1	1	1	1	3	0	0	0	1.5	3.0
18-Apr	1	1	1	3	2	5	5	13	4	0	0	0	A	0	0	0	1	1	1	1	1	7	1	4	2.3	12.6	
19-Apr	3	1	1	1	1	1	1	1	2	2	1	A	0	1	1	1	1	1	1	1	0	0	0	0	0.9	3.4	
20-Apr	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.6	1.3
21-Apr	0	0	0	0	1	1	1	1	1	A	1	1	1	1	0	0	0	0	1	0	0	0	1	4	2	0.8	3.9
22-Apr	0	2	1	5	5	5	5	5	A	1	0	0	0	0	0	0	0	0	1	0	1	1	3	4	1.9	5.5	
23-Apr	3	1	1	1	4	2	0	A	1	2	3	1	0	0	1	1	1	1	0	0	0	0	0	0	0	1.0	3.9
24-Apr	0	0	0	0	0	1	C	A	1	C	C	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
25-Apr	1	0	0	2	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.8	1.7
26-Apr	1	1	0	1	A	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0	0.5	1.3
27-Apr	1	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
28-Apr	1	0	A	1	1	1	1	1	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0.5	0.7	
29-Apr	0	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.8	1.2
30-Apr	A	1	1	1	1	3	7	3	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	A	1.2	7.5	
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

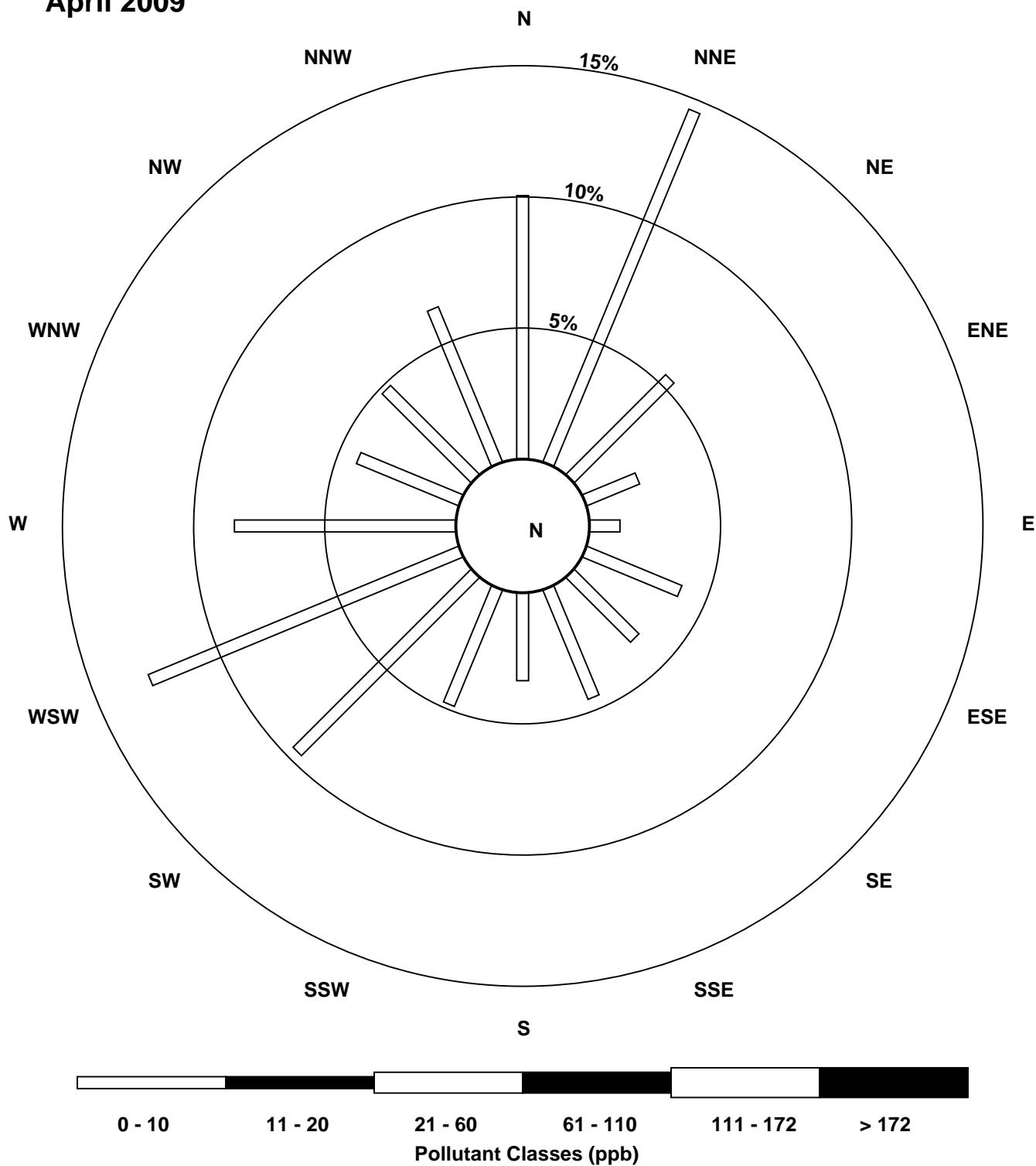
Hourly Maximums for SO₂ at Smoky Heights

April 2009



Pollutant Rose for SO₂ at Smoky Heights

April 2009



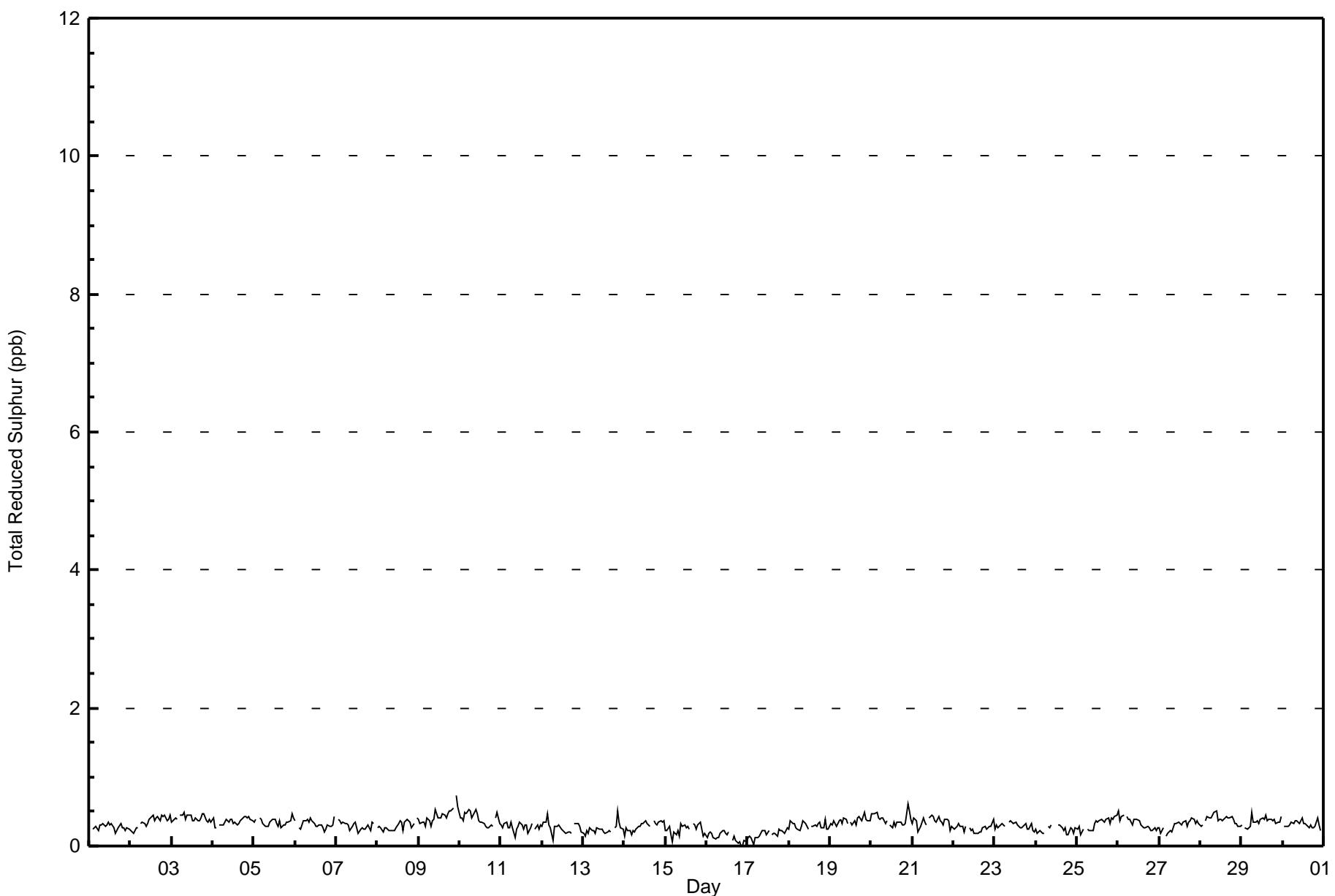
Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights - Total Reduced Sulphur (TRS) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.7 ppb on Apr 9 23:00 Maximum Daily Average: 0.4 ppb on Apr 9																			Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0				
Minimum Value: 0 ppb on Apr 16 21:00 Minimum Daily Average: 0.1 ppb on Apr 16 Maximum Diurnal Average: 0.3 ppb at hour 12 Minimum Diurnal Average: 0.3 ppb at hour 5 Monthly Average: 0.31 ppb Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.4$ $P_{99} = 0.5$																							
Day																			Hourly Period Ending At (MST)				
1-Apr																				Daily Average			
2-Apr																				Daily Maximum			
3-Apr																				0.3			
4-Apr																				0.4			
5-Apr																				0.5			
6-Apr																				0.3			
7-Apr																				0.4			
8-Apr																				0.3			
9-Apr																				0.4			
10-Apr																				0.5			
11-Apr																				0.3			
12-Apr																				0.3			
13-Apr																				0.2			
14-Apr																				0.5			
15-Apr																				0.3			
16-Apr																				0.1			
17-Apr																				0.2			
18-Apr																				0.3			
19-Apr																				0.4			
20-Apr																				0.6			
21-Apr																				0.3			
22-Apr																				0.3			
23-Apr																				0.3			
24-Apr																				0.2			
25-Apr																				0.5			
26-Apr																				0.3			
27-Apr																				0.4			
28-Apr																				0.5			
29-Apr																				0.4			
30-Apr																				0.4			
																				Diurnal Average			
																				Diurnal Maximum			
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																							

Hourly Averages for TRS at Smoky Heights

April 2009



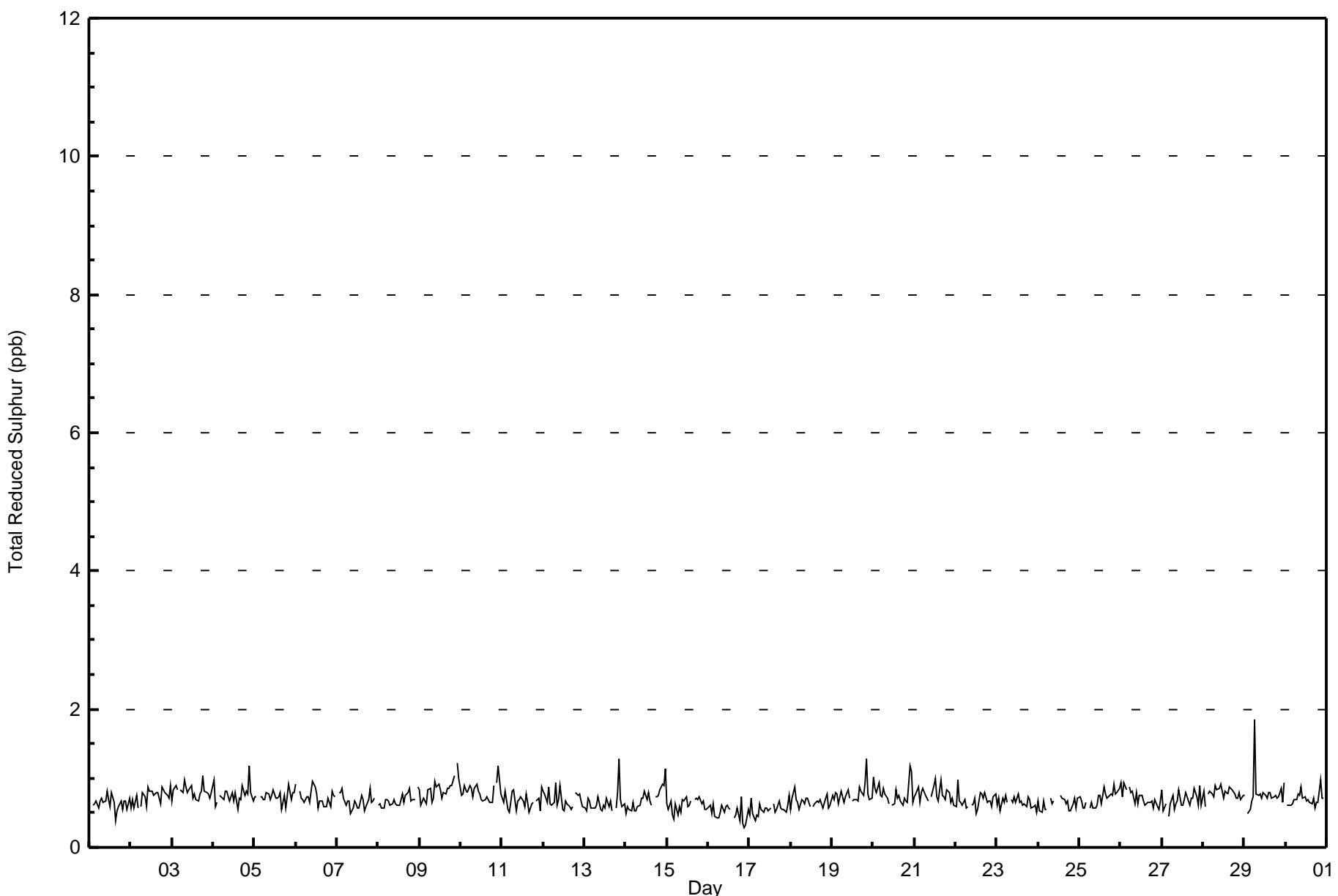
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Smoky Heights - Total Reduced Sulphur (TRS) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 1.8 ppb on Apr 29 07:00 Maximum Daily Average: 0.8 ppb on Apr 9 Minimum Value: 0 ppb on Apr 16 22:00 Minimum Daily Average: 0.5 ppb on Apr 16 Maximum Diurnal Average: 0.8 ppb at hour 21 Minimum Diurnal Average: 0.6 ppb at hour 5 Monthly Average: 0.70 ppb Percentiles: $P_1 = 0.4$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 0.9$ $P_{99} = 1.2$																								Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8
2-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	0.9
3-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
4-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
5-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
6-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
7-Apr	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	0.8
8-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
10-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	1.2
11-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
13-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.3
14-Apr	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.1
15-Apr	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.6	0.7
16-Apr	1	1	0	1	0	0	0	0	1	1	1	1	1	1	1	0	0	1	0	1	0	0	1	0	0.5	0.7
17-Apr	0	1	0	0	0	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	0.8
18-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
19-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	1.3
20-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	0.8	1.2
21-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	0.8	1.0
22-Apr	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.0
23-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	0.8
24-Apr	1	1	1	1	1	1	A	1	1	1	C	C	A	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
25-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	0.9
26-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
27-Apr	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
28-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	0.8	0.9
29-Apr	1	A	0	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.8
30-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
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

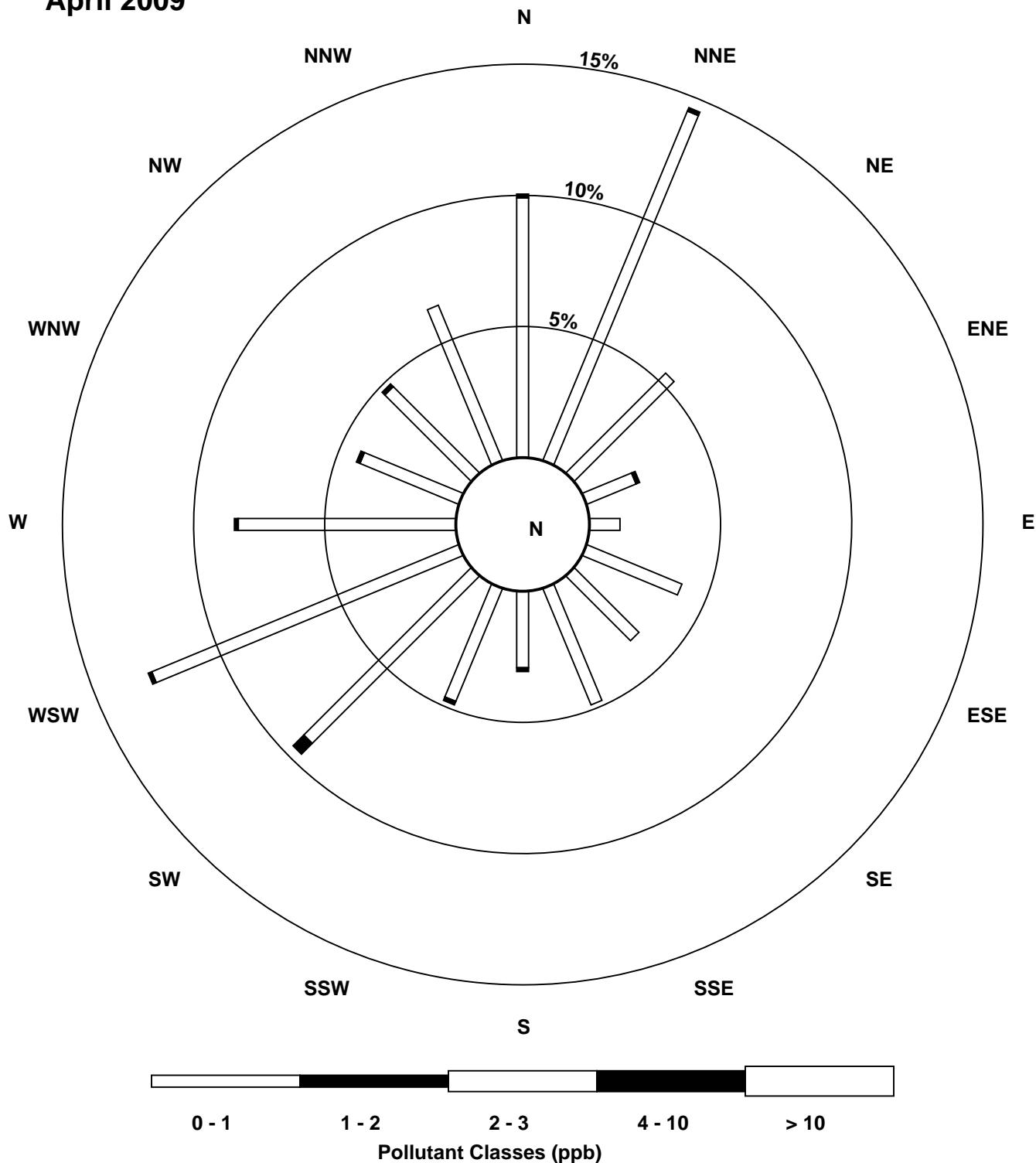
Hourly Maximums for TRS at Smoky Heights

April 2009



Pollutant Rose for TRS at Smoky Heights

April 2009

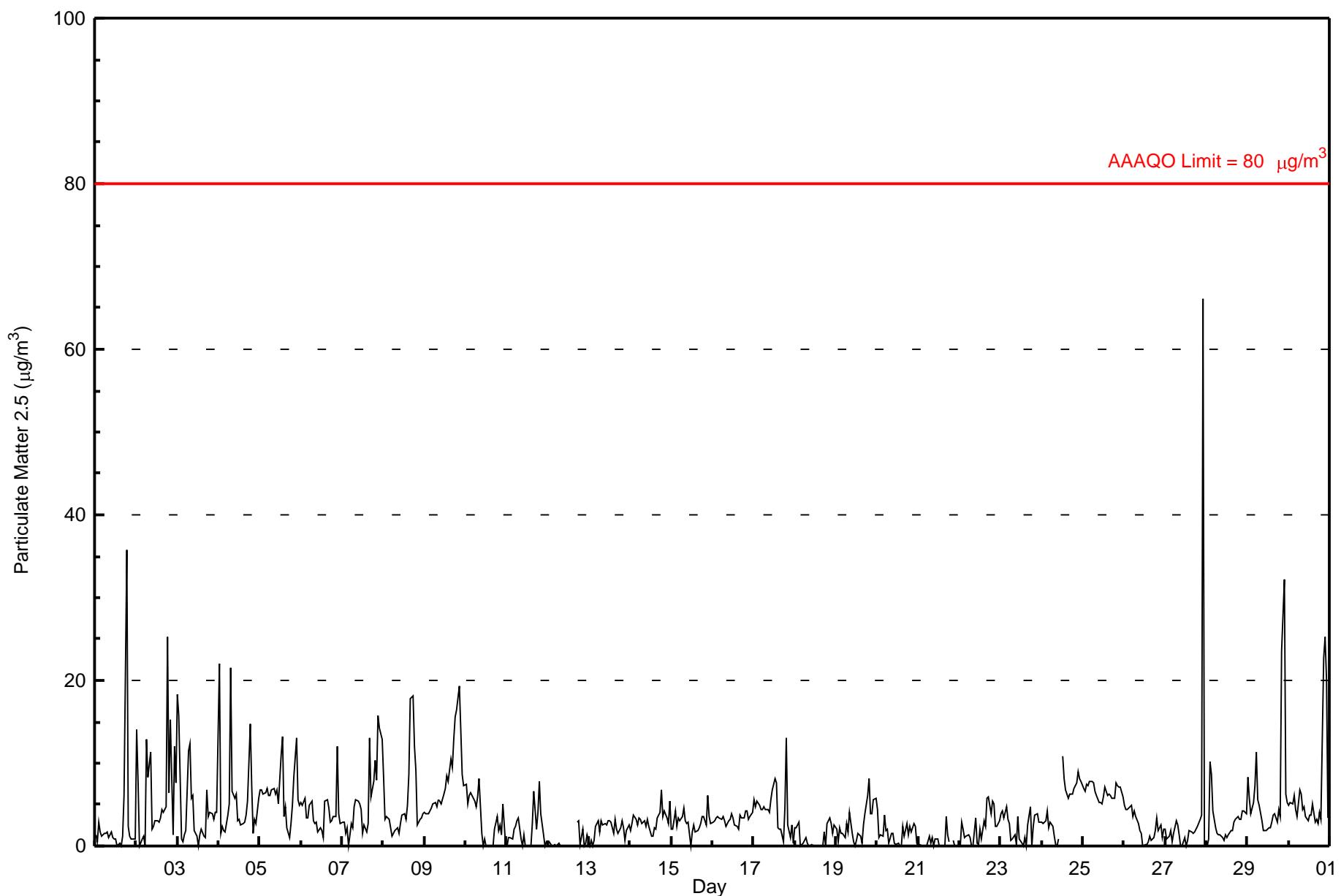


Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights - Particulate Matter 2.5 (PM_{2.5}) - μg/m³
April 1, 2009 to May 1, 2009

Number of Exceedances (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 66.1 μg/m ³ on Apr 27 23:00 Maximum Daily Average: 8.2 μg/m ³ on Apr 9																			Hours in Service: 720 Hours of Data: 712 Hours of Missing Data: 8 Hours of Calibration: 1 Percent Operational Time: 99.0			
Minimum Value: 0 μg/m ³ on Apr 1 14:00 Minimum Daily Average: 0.5 μg/m ³ on Apr 21 Maximum Diurnal Average: 6.8 μg/m ³ at hour 23 Minimum Diurnal Average: 2.1 μg/m ³ at hour 12 Monthly Average: 3.84 μg/m ³ Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 1.3 Median = 2.9 Q ₃ = 5.0 P ₉₀ = 7.5 P ₉₉ = 22.1																						
Day																			Daily Average			
1-Apr 1 0 3 2 1 2 2 2 1 2 1 1 0 0 0 1 6 36 2 1 1 1 1 2.8 35.8 2-Apr 14 8 0 1 1 0 13 8 11 2 2 3 3 3 3 4 4 5 25 7 15 1 12 8 6.4 25.2 3-Apr 18 16 1 1 1 2 12 12 6 6 2 1 0 1 2 1 1 7 4 4 4 3 4 4 4.7 18.4 4-Apr 22 2 2 2 4 5 22 7 6 6 3 3 3 3 3 4 5 15 7 1 3 3 3 6 5.7 22.0 5-Apr 7 7 6 6 7 6 6 7 7 6 7 5 11 13 4 5 2 1 3 5 8 13 6 5 6.4 13.2 6-Apr 5 5 6 3 3 5 5 3 3 3 2 2 2 1 5 6 5 3 3 4 4 12 4 3 4.0 12.1 7-Apr 3 3 2 2 0 3 2 5 6 5 5 4 1 3 2 3 13 6 8 10 8 16 14 13 5.7 15.7 8-Apr 8 3 4 3 2 1 2 2 1 3 4 4 3 5 9 18 18 12 9 2 3 3 4 4 5.2 18.1 9-Apr 4 4 4 4 5 5 5 6 5 5 6 7 8 8 11 9 13 16 16 19 14 9 7 8.2 19.3 10-Apr 7 5 6 6 5 5 6 8 2 0 1 0 0 0 0 0 0 2 4 2 3 1 5 0 3.1 8.2 11-Apr 0 1 1 1 2 2 3 3 1 0 1 0 0 BD 0 3 7 2 4 8 4 1 0 1 2.0 7.9 12-Apr 0 1 0 0 0 0 0 0 0 0 0 0 BD 0 BD 3 3 0 2 0 0 0 1 0 0 0 0 0.5 3.1 13-Apr 0 1 0 1 2 3 2 3 3 3 3 3 3 3 2 3 2 2 2 3 2 1 2 3 2 0 2.0 3.2 14-Apr 2 3 4 3 3 3 3 3 3 2 3 2 1 1 2 2 3 4 7 4 4 3 3 5 3 1 3.1 6.7 15-Apr 2 2 4 2 3 3 4 5 3 3 3 0 2 3 2 2 2 3 4 4 2 6 3 3 3 3 2.8 6.0 16-Apr 3 3 3 4 3 3 4 3 2 3 3 4 3 3 2 2 2 4 3 3 4 4 3 3 4 3.3 4.3 17-Apr 6 5 5 5 4 4 5 4 4 4 6 7 8 8 2 2 2 1 5 13 3 1 3 0 0 4.4 13.0 18-Apr 2 2 3 0 0 0 1 0 0 0 0 0 0 0 0 0 0 2 0 3 3 3 2 3 1 0 1.0 3.3 19-Apr 2 1 2 1 1 1 3 2 4 2 1 0 1 2 1 0 3 4 6 8 4 4 6 6 2.6 8.2 20-Apr 4 1 1 1 4 2 2 0 2 1 0 0 0 0 0 0 2 1 3 1 2 2 3 2 0 1.5 4.4 21-Apr 0 0 0 0 0 1 0 1 0 1 1 0 BD BD 0 4 1 0 0 BD 1 0 0 0 0 0.5 3.5 22-Apr 0 3 2 1 1 1 1 0 0 3 0 0 2 1 3 2 6 6 4 5 5 2 2 3 2 3 2.3 6.0 23-Apr 4 4 3 5 3 3 1 1 1 0 4 1 0 0 1 0 2 5 0 2 4 4 3 3 2 2.2 4.8 24-Apr 3 3 3 4 2 3 2 1 0 0 1 11 8 7 6 6 6 6 7 8 9 8 8 8 4.9 10.9 25-Apr 7 7 7 7 8 8 8 7 6 5 5 5 6 7 6 6 6 6 6 8 7 7 7 6 6.6 7.8 26-Apr 5 4 4 5 5 4 4 4 3 2 1 0 0 0 1 1 1 1 2 3 2 2 1 2 2.4 5.0 27-Apr 2 1 1 2 0 2 3 3 1 0 0 1 0 1 2 2 2 2 2 2 3 4 66 0 4.2 66.1 28-Apr 0 1 10 9 4 2 1 1 1 1 1 1 1 1 2 2 3 3 4 3 3 4 4 4 2.8 10.1 29-Apr 8 6 4 5 7 11 6 5 3 2 2 2 2 3 4 4 3 4 4 4 24 32 6 5 6.4 32.1 30-Apr 5 5 5 6 4 4 7 6 4 5 4 3 4 4 5 3 3 3 4 3 23 25 20 3 6.6 25.3																			Daily Maximum			
4.9 3.5 3.3 3.1 2.9 3.1 3.9 4.1 3.3 2.5 2.4 2.1 2.6 2.9 2.5 2.9 4.0 4.2 6.4 5.3 5.8 6.1 6.8 3.7 22.0 15.7 10.1 8.6 7.7 11.3 12.9 21.5 11.4 6.3 6.8 6.9 11.0 13.2 7.8 10.6 17.9 18.1 35.8 16.4 23.5 32.1 66.1 12.9																			Diurnal Average			
C - Calibration BD - Baseline Drift Alberta Ambient Air Quality Objectives (AAQO): 1-hr 80 μg/m ³ 24-hr 30 μg/m ³																			Diurnal Maximum			

Hourly Averages for PM_{2.5} at Smoky Heights April 2009

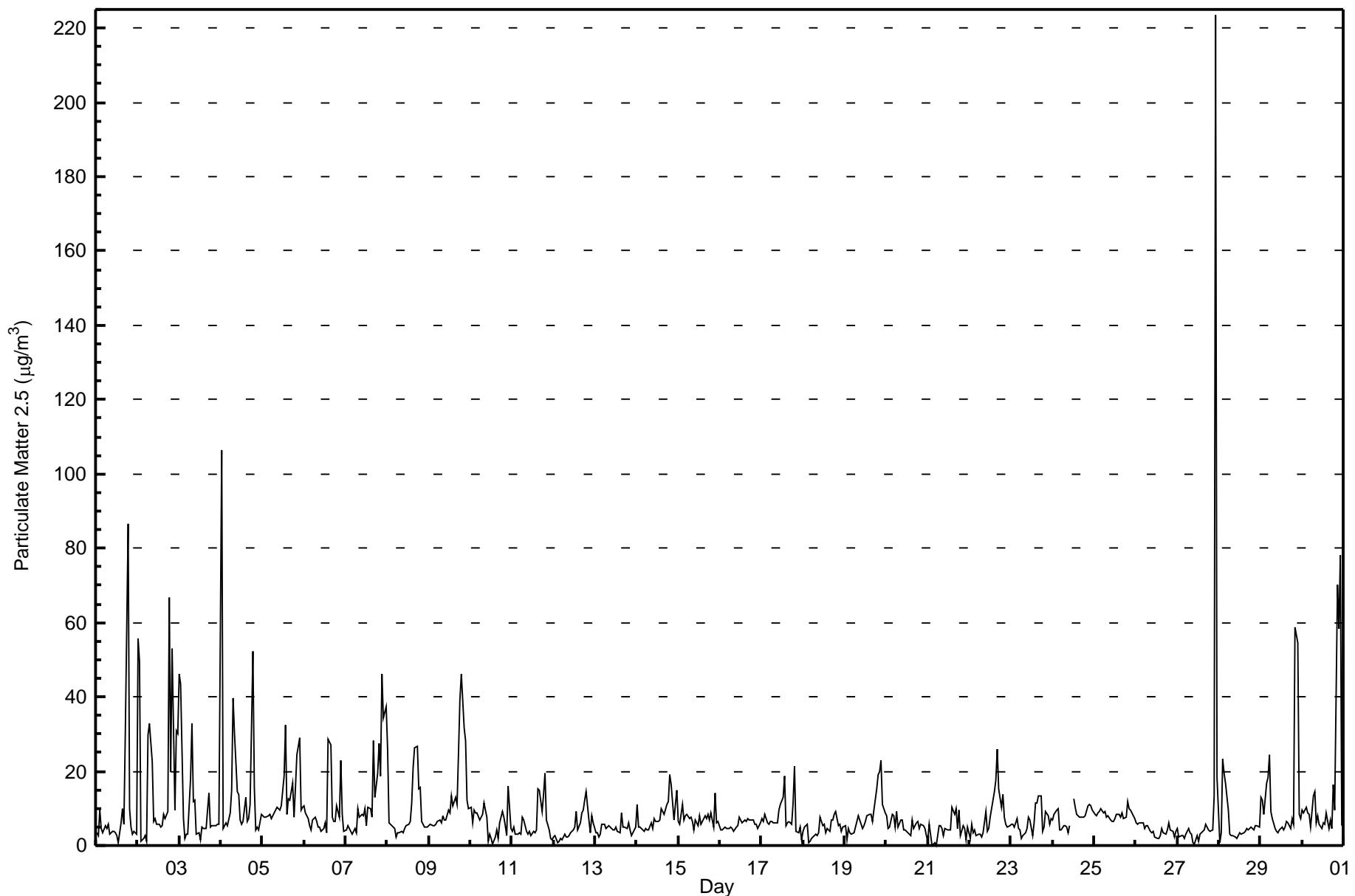


Peace Airshed Zone Association
Summary of Hourly Maximums

Smoky Heights - Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
April 1, 2009 to May 1, 2009

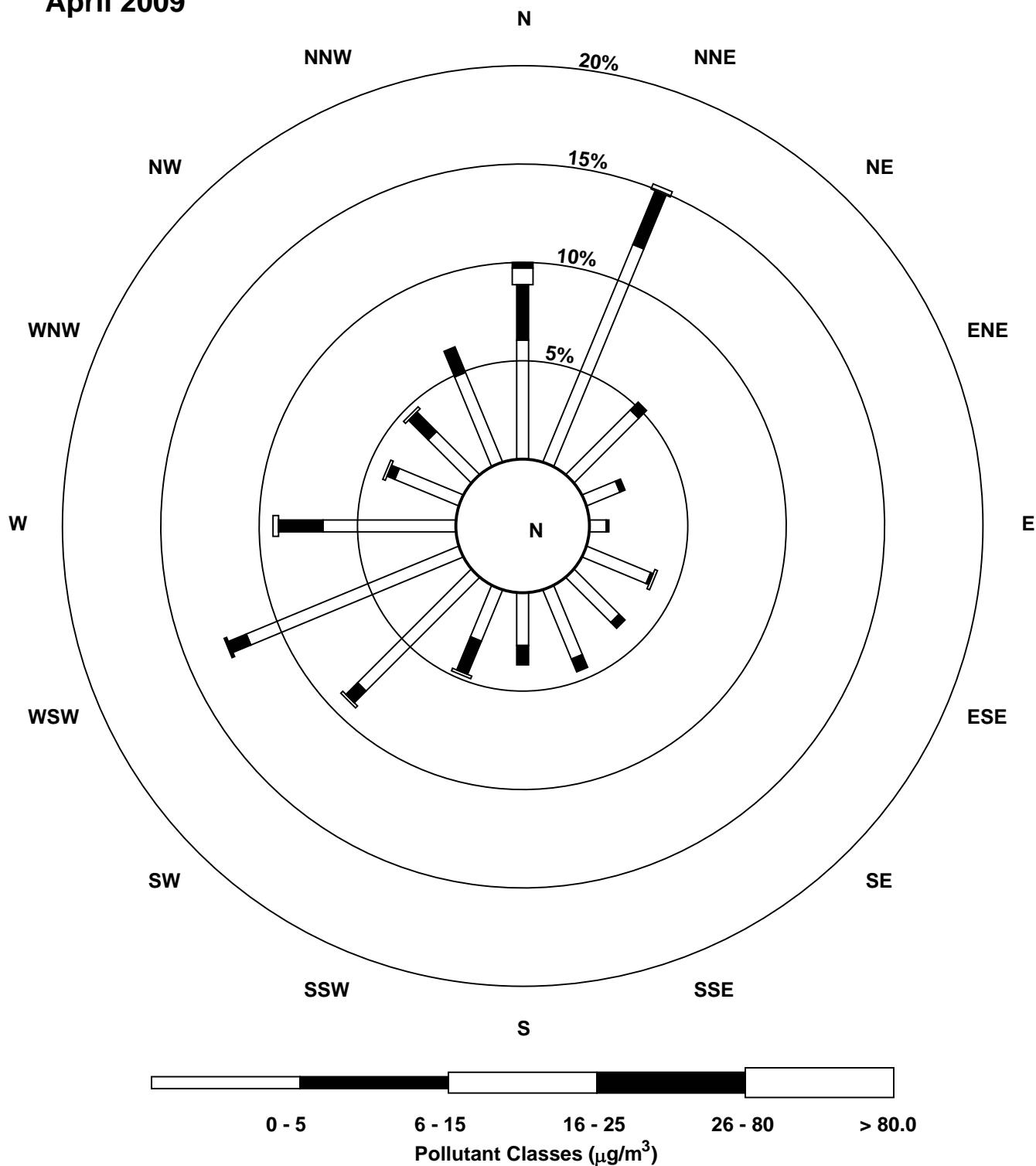
Maximum Value: 223.5 $\mu\text{g}/\text{m}^3$ on Apr 27 23:00 Maximum Daily Average: 19.5 $\mu\text{g}/\text{m}^3$ on Apr 2 Minimum Value: 0 $\mu\text{g}/\text{m}^3$ on Apr 21 06:00 Minimum Daily Average: 4.2 $\mu\text{g}/\text{m}^3$ on Apr 26 Maximum Diurnal Average: 18.0 $\mu\text{g}/\text{m}^3$ at hour 23 Minimum Diurnal Average: 5.4 $\mu\text{g}/\text{m}^3$ at hour 11 Monthly Average: 9.01 $\mu\text{g}/\text{m}^3$ Percentiles: P ₁ = 0.7 P ₁₀ = 2.9 O ₁ = 4.3 Median = 6.0 O ₃ = 8.9 P ₉₀ = 15.6 P ₉₉ = 53.5																									Hours in Service:		720
																									Hours of Data:		719
																									Hours of Missing Data:		1
																									Hours of Calibration:		1
																									Percent Operational Time:		100.0
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	3	3	10	5	3	5	5	6	3	4	4	4	3	1	6	10	6	30	87	10	5	3	4	3	9.2	86.6	
2-Apr	56	50	1	2	3	1	30	33	23	6	7	6	6	5	5	9	7	9	67	20	53	9	31	30	19.5	66.7	
3-Apr	46	43	7	2	3	3	18	33	12	12	3	4	2	5	4	5	9	14	5	5	5	6	6	6	10.8	46.2	
4-Apr	106	5	5	6	5	9	15	40	30	15	14	7	6	6	13	6	7	11	52	16	4	5	4	8	16.5	106.3	
5-Apr	8	7	8	8	7	8	9	10	10	9	11	19	32	8	13	12	17	8	16	24	29	10	10	10	12.6	32.4	
6-Apr	11	9	7	5	4	7	8	6	5	5	4	5	6	4	29	27	8	6	6	11	8	23	8	4	9.0	28.6	
7-Apr	4	5	4	4	3	5	4	10	8	8	8	10	5	10	10	7	28	13	19	27	19	46	34	38	13.7	46.2	
8-Apr	26	6	6	5	5	2	3	3	4	3	5	6	6	12	21	26	27	15	16	7	5	5	5	5	9.3	26.6	
9-Apr	5	6	6	5	6	7	7	6	8	7	7	10	9	13	11	13	11	25	39	46	32	28	12	10	13.7	46.2	
10-Apr	10	6	10	9	9	7	7	8	11	8	1	3	2	0	2	4	2	6	9	7	5	2	16	4	6.3	15.9	
11-Apr	4	5	3	3	3	3	8	7	4	3	4	3	4	3	4	15	15	9	14	19	7	4	2	2	6.2	19.4	
12-Apr	2	3	1	1	2	1	3	2	2	3	3	4	5	9	4	6	9	10	12	15	7	3	8	6	5.1	14.5	
13-Apr	4	3	2	3	6	6	5	5	5	5	4	4	5	4	4	9	5	5	6	4	3	3	5	4.5	8.8		
14-Apr	11	5	5	4	4	4	4	4	6	5	7	6	6	7	10	9	8	11	12	19	17	7	11	15	8.3	18.9	
15-Apr	7	6	11	7	8	8	7	8	7	4	7	5	8	6	7	8	7	8	7	9	5	14	6	6	7.3	14.0	
16-Apr	4	4	4	5	5	5	5	5	4	5	5	8	7	6	7	6	7	7	7	7	6	5	6	5.6	7.7		
17-Apr	7	7	8	6	6	6	6	6	6	10	11	13	19	5	6	6	6	11	21	4	4	5	2	2	7.8	21.4	
18-Apr	4	5	6	1	1	2	3	3	3	4	8	5	6	3	5	4	7	7	8	9	5	6	4	5	4.7	9.1	
19-Apr	5	2	5	4	3	3	5	6	8	6	5	5	7	8	9	8	6	9	15	19	20	23	11	9	8.4	22.7	
20-Apr	8	5	5	8	8	5	9	5	7	7	4	4	3	3	3	7	4	6	7	4	6	5	5	3	5.5	9.1	
21-Apr	1	6	0	1	1	0	5	5	5	3	5	4	4	4	10	9	10	5	10	3	5	5	2	5	4.4	10.2	
22-Apr	2	6	4	4	3	3	2	3	9	4	5	7	10	14	18	26	15	10	14	8	6	5	5	5	7.8	25.9	
23-Apr	6	6	5	7	4	4	2	3	4	5	8	7	3	6	11	12	14	13	4	5	9	8	6	7	6.5	13.5	
24-Apr	7	9	9	10	4	4	5	5	4	5	C	13	10	9	8	8	8	8	8	11	11	11	10	7.8	12.7		
25-Apr	8	8	9	9	10	9	9	8	8	7	6	7	7	8	8	8	9	7	8	12	10	9	9	7	8.3	11.8	
26-Apr	6	6	6	6	6	5	5	5	4	3	4	2	2	2	3	5	3	3	4	6	4	4	2	4	4.2	6.2	
27-Apr	5	2	3	3	2	3	5	3	3	1	1	2	1	3	4	4	6	5	4	4	4	13	224	18	13.4	223.5	
28-Apr	1	4	23	19	17	10	3	3	3	2	2	3	3	3	4	4	5	4	5	4	6	5	5	5	5.9	23.2	
29-Apr	13	12	8	17	18	24	9	7	5	4	3	4	5	4	5	6	6	5	7	6	59	55	8	7	12.4	58.9	
30-Apr	9	9	10	9	8	5	13	15	6	8	6	5	6	6	9	4	7	5	16	9	70	58	78	5	15.7	78.3	
																									Diurnal Average		
																									Diurnal Maximum		
C - Calibration																											

Hourly Maximums for PM_{2.5} at Smoky Heights April 2009



Pollutant Rose for PM_{2.5} at Smoky Heights

April 2009



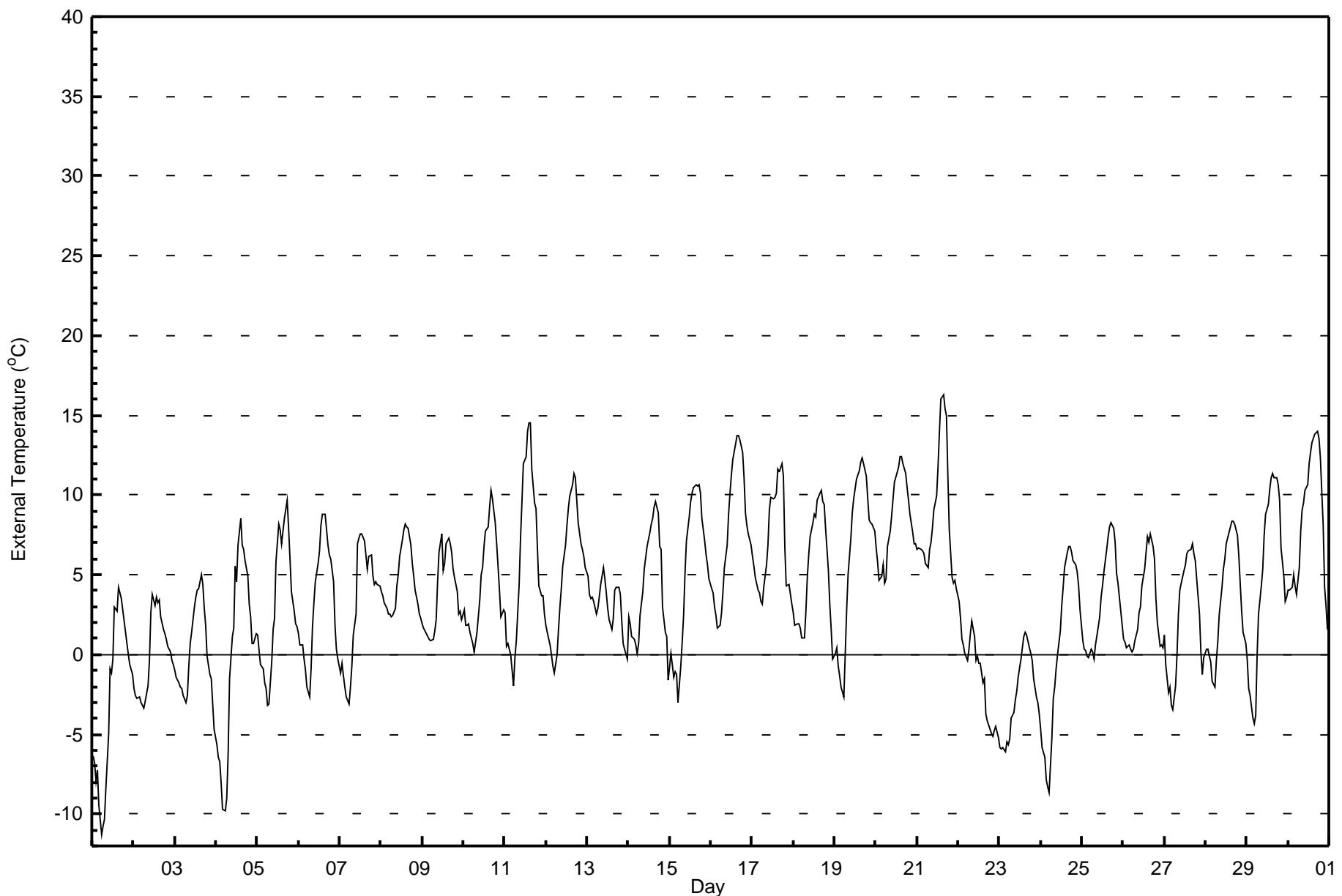
Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights - External Temperature (ET) - °C
April 1, 2009 to May 1, 2009

Maximum Value: 16.3 °C on Apr 21 16:00																				Hours in Service:	720			
Minimum Value: -11 °C on Apr 1 06:00																				Hours of Data:	720			
Maximum Diurnal Average: 8.4 °C at hour 16																				Hours of Missing Data:	0			
Monthly Average: 3.61 °C																				Hours of Calibration:	0			
Percentiles: P ₁ = -8.7 P ₁₀ = -2.4 Q ₁ = 0.4 Median = 3.6 Q ₃ = 7.0 P ₉₀ = 10.0 P ₉₉ = 13.6																				Percent Operational Time:	100.0			
Day	Hourly Period Ending At (MST)																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1-Apr	-6	-7	-8	-7	-9	-11	-11	-10	-8	-5	-1	-1	0	3	3	4	4	4	2	1	1	0	-1	-1
2-Apr	-2	-3	-3	-3	-3	-3	-3	-3	-2	0	3	4	3	3	3	2	2	1	1	1	0	0	0	-1
3-Apr	-1	-1	-2	-2	-2	-3	-3	-3	-1	1	1	3	4	4	4	5	4	3	2	0	-1	-1	-3	-5
4-Apr	-6	-6	-7	-8	-10	-10	-9	-6	-2	1	2	6	5	7	9	7	7	6	5	3	2	1	1	1
5-Apr	1	0	-1	-1	-2	-2	-3	-3	0	2	2	6	8	8	7	8	8	10	8	6	4	3	2	2
6-Apr	1	1	1	0	-1	-2	-3	-1	2	3	5	6	6	8	9	9	8	7	6	6	5	2	0	0
7-Apr	-1	-1	-1	-2	-3	-3	-2	-1	1	3	7	7	8	8	7	6	5	6	6	5	4	5	4	4
8-Apr	4	4	3	3	3	3	2	2	3	4	5	6	7	8	8	8	7	6	5	4	3	3	2	4.6
9-Apr	2	2	1	1	1	1	1	2	2	5	6	8	5	6	7	7	7	6	5	5	4	3	3	2
10-Apr	3	2	2	2	1	1	0	1	1	3	5	5	7	8	8	9	10	10	8	7	6	4	2	3
11-Apr	3	1	1	0	-1	-2	0	1	4	7	10	12	12	14	15	15	12	9	9	7	4	4	4	3
12-Apr	2	1	1	0	-1	-1	0	2	3	4	6	7	8	9	10	11	11	11	10	8	7	7	6	5
13-Apr	5	4	3	4	3	3	3	4	4	4	5	5	4	3	2	2	4	4	4	2	1	0	0	3.1
14-Apr	2	2	1	1	1	0	1	2	4	5	6	7	8	8	9	9	10	9	7	7	3	1	1	-2
15-Apr	-1	0	-1	-1	-1	-3	-1	1	2	5	7	9	10	10	10	11	11	11	10	9	7	6	6	5
16-Apr	4	4	3	2	2	2	3	4	5	7	9	10	11	12	13	14	14	13	13	11	9	8	8	7
17-Apr	6	6	5	4	4	3	3	4	6	7	9	10	10	10	10	12	11	12	11	7	4	4	4	3
18-Apr	3	2	2	2	2	1	1	3	5	6	7	8	9	9	10	10	10	10	9	8	5	3	2	0
19-Apr	0	0	-1	-1	-2	-3	0	3	5	7	9	10	10	11	12	12	12	12	11	10	8	8	8	6.3
20-Apr	7	6	5	5	6	5	5	7	8	9	10	11	11	12	12	12	12	11	10	10	9	8	7	8.4
21-Apr	7	7	7	7	6	6	5	7	7	8	9	10	12	14	16	16	15	15	11	8	5	4	5	4
22-Apr	3	2	1	1	0	0	0	1	2	1	0	0	-1	-1	-2	-2	-4	-4	-5	-5	-5	-5	-5	-1.3
23-Apr	-6	-6	-6	-6	-6	-6	-5	-4	-4	-4	-3	-2	-1	0	0	1	1	0	0	0	-2	-3	-3	-4
24-Apr	-5	-6	-6	-8	-8	-9	-5	-3	-2	-1	0	1	3	4	5	6	7	7	6	6	6	5	4	3
25-Apr	1	0	0	0	0	0	0	0	1	2	2	4	4	5	7	7	8	8	8	7	5	4	4	2
26-Apr	1	1	0	1	0	0	0	1	2	3	3	4	5	6	7	7	8	7	6	4	2	1	1	0
27-Apr	1	-1	-2	-2	-3	-3	-2	0	3	4	4	5	6	6	6	7	6	6	5	3	0	-1	0	2.3
28-Apr	0	0	0	-2	-2	-2	0	1	2	4	5	6	7	7	8	8	8	7	6	4	3	1	1	3.5
29-Apr	0	-2	-3	-4	-4	-4	0	3	4	5	7	9	9	10	11	11	11	11	10	7	5	3	4	4.8
30-Apr	4	4	4	5	4	4	5	8	9	9	10	11	12	13	13	14	14	14	12	8	4	3	2	8.4
1.1 0.5 0.0 -0.3 -0.9 -1.3 -0.6 0.7 2.2 3.7 5.0 6.2 6.8 7.5 8.0 8.4 8.2 7.8 7.0 5.7 4.0 2.9 2.3 1.6																							Diurnal Average	
6.7 6.7 6.6 6.5 6.3 5.7 5.5 7.7 9.1 9.5 10.3 12.0 12.4 14.0 16.0 16.3 15.4 15.0 13.5 12.3 8.9 8.2 8.2 7.7																							Diurnal Maximum	

Hourly Averages for External Temperature at Smoky Heights

April 2009



Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	13	15	6	11	9	10	10	9	9	10	7	11	10	5	5	4	6	7	9	7	11	9	8	9	3.8	15.4
	264	269	245	266	238	201	244	256	240	230	245	266	290	302	298	306	356	33	11	30	85	40	38	33	283.1	269.1
2 Spd	9	8	9	9	8	9	9	10	10	9	5	6	11	12	11	13	13	11	7	8	7	9	9	10	8.8	13.2
	34	2	0	4	6	358	8	3	19	17	3	348	350	351	348	26	47	46	356	358	359	350	5	7	8.0	47.1
3 Spd	11	11	11	10	10	11	11	9	7	8	9	10	12	11	10	8	7	10	10	9	12	9	2	3	8.6	12.2
	5	14	17	17	16	12	4	4	2	3	336	352	355	344	347	9	359	344	340	341	325	329	138	225	355.8	325.2
4 Spd	3	7	6	6	4	4	2	1	5	0	2	1	4	1	5	8	10	10	10	9	7	5	6	14	1.1	13.7
	269	280	290	279	274	320	339	9	33	351	271	147	272	270	123	122	121	55	24	20	70	41	140	152	58.2	151.7
5 Spd	17	8	5	8	10	9	10	10	10	8	9	3	4	6	6	5	2	5	1	4	7	14	9	10	4.9	17.0
	152	137	176	178	201	195	186	195	194	198	262	261	277	274	287	287	310	110	149	298	281	258	249	242	216.1	151.7
6 Spd	8	9	10	8	8	8	7	9	14	14	16	17	15	14	12	12	15	15	15	16	11	9	11	14	10.8	17.4
	214	201	200	221	217	219	229	211	219	226	238	238	230	247	261	264	260	263	269	288	295	261	265	270	244.9	237.7
7 Spd	14	15	16	14	7	11	7	5	7	7	2	5	9	9	10	12	8	3	4	5	7	8	6	9	5.4	15.9
	266	272	265	263	251	258	215	190	188	181	197	252	248	243	233	244	263	200	341	360	9	358	22	19	260.4	265.4
8 Spd	10	12	12	12	10	12	11	11	12	12	12	12	15	16	15	14	14	13	15	16	18	19	17	15	13.5	19.2
	11	12	10	17	17	21	19	23	25	26	21	19	20	21	16	5	10	12	11	16	17	20	18	17	16.8	20.2
9 Spd	14	15	12	12	10	10	9	8	7	7	4	2	10	12	6	6	8	6	7	6	4	5	7	6	4.4	14.5
	18	17	17	14	11	6	352	359	18	40	67	251	261	269	247	232	253	290	284	304	354	275	281	181	335.7	17.3
10 Spd	7	7	6	8	6	7	8	7	9	12	15	20	16	15	13	11	9	8	9	12	8	4	4	5	8.9	19.9
	207	255	232	194	210	225	227	231	222	224	235	234	228	235	224	222	259	208	181	179	188	223	187	205	220.7	234.0
11 Spd	7	7	9	7	5	4	4	3	3	4	2	2	4	2	3	6	13	12	8	23	20	12	6	9	4.4	22.6
	255	246	264	262	231	216	253	227	233	115	203	208	157	98	309	357	16	9	346	277	259	278	289	242	275.1	277.5
12 Spd	9	15	17	15	10	12	7	8	10	13	16	15	13	13	10	7	5	5	6	11	13	11	13	9	5.5	17.1
	229	257	263	264	265	228	236	238	229	227	226	231	232	256	240	235	260	26	26	43	52	34	34	13	256.0	262.8
13 Spd	13	14	14	13	17	14	14	17	17	23	21	19	20	17	17	21	18	15	6	3	10	7	6	1	12.0	23.3
	18	24	23	11	17	21	18	28	30	27	21	18	18	15	13	30	39	19	359	219	241	242	229	22	18.7	26.7
14 Spd	14	12	12	14	15	13	12	12	9	9	11	10	9	8	9	8	8	2	3	2	2	2	5	7.2	14.6	
	332	332	322	319	320	323	321	330	340	350	350	11	1	348	346	19	12	24	15	172	167	218	220	211	339.0	320.1
15 Spd	4	5	3	5	6	6	8	9	7	6	8	12	11	12	14	15	15	13	12	8	8	12	15	11	7.2	15.5
	211	225	200	245	217	196	191	191	188	172	147	160	141	154	143	130	146	130	123	104	85	76	88	115	144.2	87.9
16 Spd	11	12	11	12	11	11	13	13	17	22	23	22	21	19	17	19	21	19	16	12	13	24	26	16.5	26.2	
	145	148	146	150	143	144	146	149	147	142	130	129	123	120	124	116	122	120	114	112	105	111	143	148	131.6	148.2
17 Spd	24	22	19	11	7	10	8	13	12	8	5	6	5	9	11	10	7	1	6	29	20	6	10	10	6.3	28.9
	149	153	162	134	126	140	166	160	162	206	198	216	250	178	121	90	125	253	14	269	271	36	208	230	174.8	269.0
18 Spd	11	12	18	22	23	15	20	20	26	39	37	36	33	31	35	34	33	31	25	18	16	13	11	10	23.5	38.9
	222	246	250	255	252	235	257	249	247	247	247	242	247	249	244	253	253	257	251	232	240	258	249	235	247.6	247.5
19 Spd	9	14	7	9	11	11	10	9	11	15	19	17	19	16	13	14	11	9	8	0	0	7	11	14	10.9	19.4
	254	242	228	247	233	240	259	248	233	246	249	252	249	243	238	261	257	257	261	209	171	237	234	249	246.4	249.1
20 Spd	13	7	6	6	3	6	7	11	16	19	22	25	23	23	21	21	21	20	19	13	7	3	4	9	12.7	25.4
	261	270	278	291	262	246	222	212	224	232	243	238	256	251	257	246	235	232	227	231	197	226	198	169	239.3	237.9
21 Spd	8	7	12	9	5	7	5	8	11	12	10	11	12	16	14	16	14	6	29	33	28	16	26	26	8.3	33.3
	152	157	149	165	170	172	189	178	186	184	185	166	162	154	151	138	144	161	161	303	282	268	219	245	251	206.2
22 Spd	30	28	23	23	24	27	24	30	30	33	33	31	32	34	37	35	30	27	23	21	19	17	18	23.7	37.1	
	261	256	256	249	251	252	254	257	277	303	305	299	302	299	297	308	321	341	328	326	336	333	339	292.1	297.1	

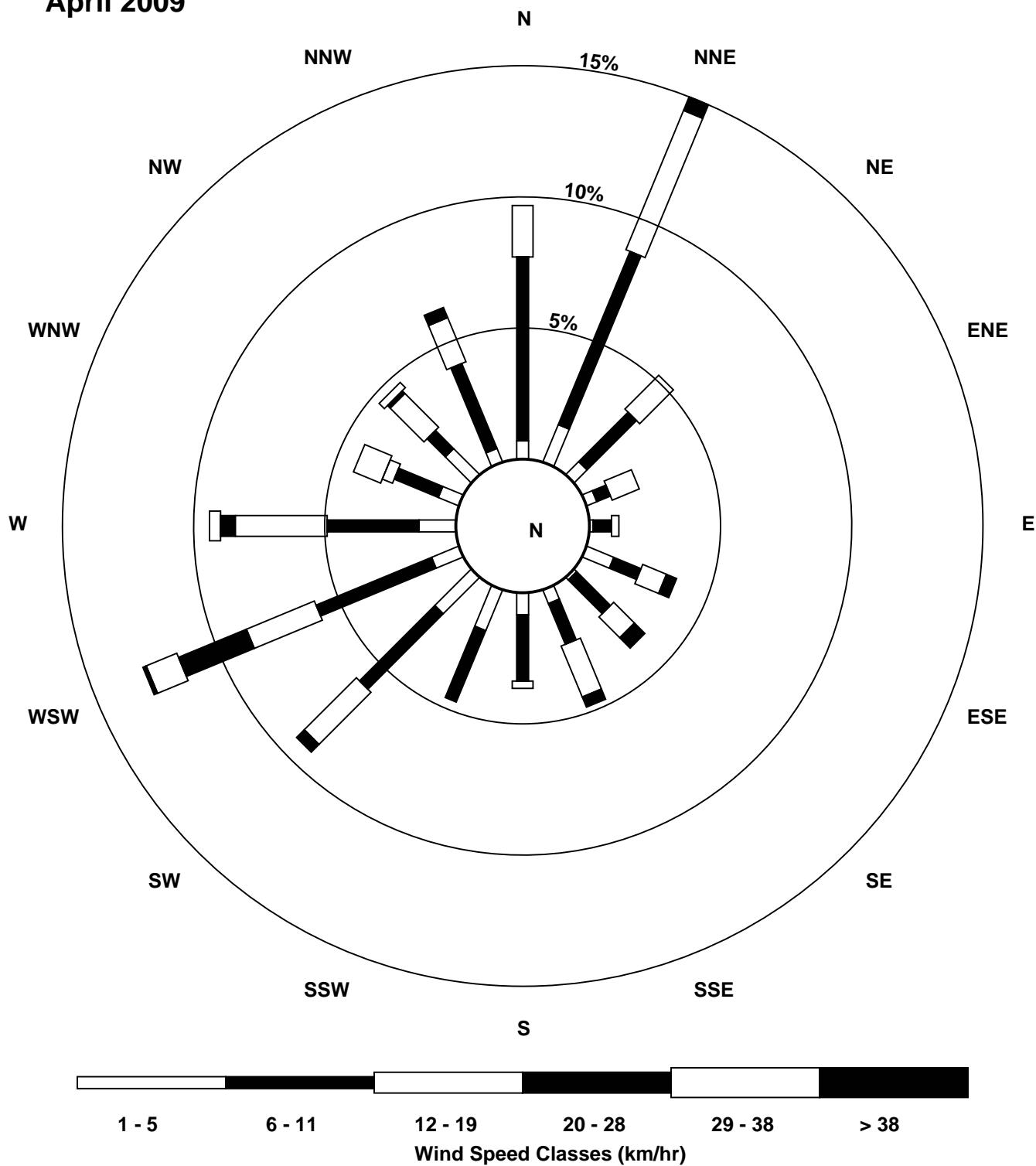
Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
23 Spd	14	11	10	10	14	14	11	14	13	12	14	14	12	18	16	16	17	17	13	13	13	8	7	6	10.4	18.0			
	Dir	331	319	328	257	254	268	286	288	273	280	274	301	320	311	306	306	358	338	317	9	13	12	355	44	312.1	311.0		
24 Spd	4	4	6	5	5	5	5	7	10	11	11	9	10	10	10	8	7	8	9	8	5	6	10	3	3.0	11.0			
	Dir	39	0	310	302	282	236	257	200	161	164	169	174	182	207	163	136	153	134	110	90	62	301	305	314	177.0	163.5		
25 Spd	10	5	4	1	4	13	15	14	13	17	14	13	13	12	10	11	9	9	6	5	6	7	8	6	8.6	17.0			
	Dir	40	18	11	321	325	328	352	358	345	341	329	336	316	308	308	315	344	341	335	329	43	291	350	45	339.8	341.1		
26 Spd	7	8	5	9	8	6	6	9	10	10	9	13	14	13	14	10	10	10	10	12	7	9	7	4	7.9	14.1			
	Dir	31	328	314	335	7	16	14	21	22	39	13	350	6	38	42	12	338	12	339	20	325	288	295	18	4.2	38.0		
27 Spd	9	3	7	7	5	0	4	3	2	10	15	16	15	14	17	13	14	16	14	9	9	5	6	8	7.0	16.9			
	Dir	38	204	272	271	222	22	24	324	244	40	51	66	71	46	43	38	49	58	60	27	42	15	6	5	41.4	43.3		
28 Spd	10	10	9	9	9	9	12	15	13	11	14	13	9	8	11	10	12	13	12	14	10	8	6	4	9.3	15.1			
	Dir	29	28	13	20	18	3	13	31	33	49	54	61	64	77	54	74	52	59	63	83	84	105	122	109	50.8	31.0		
29 Spd	7	7	6	4	5	6	6	3	3	4	3	2	4	2	6	7	9	8	6	3	5	7	9	12	2.9	12.2			
	Dir	32	22	16	16	28	21	31	57	109	124	108	307	338	50	20	1	13	21	23	119	211	254	269	271	6.0	270.8		
30 Spd	10	13	11	9	6	10	10	11	13	13	11	11	8	6	8	7	5	4	4	1	5	10	12	6.4	13.4				
	Dir	274	273	337	11	21	344	340	348	4	352	350	353	360	9	8	22	349	48	27	39	116	234	262	260	341.3	350.1		
Spd	2.2	3.8	3.7	4.1	3.4	3.3	3.4	2.8	2.8	2.9	4.0	4.2	4.4	4.3	3.4	2.9	2.8	3.2	4.1	4.0	3.0	3.0	2.3	2.1	Diurnal Average				
Dir	288.6	282.3	286.2	282.2	276.9	275.2	287.5	275.1	255.6	269.1	276.3	271.3	285.8	284.4	290.4	315.7	334.0	359.6	338.8	322.1	323.4	315.7	284.1	258.9					
Spd	29.7	28.3	22.5	22.9	24.2	27.1	24.3	29.8	29.7	38.9	37.4	36.0	32.6	33.6	37.1	34.5	32.6	30.7	28.6	33.3	28.3	19.2	26.1	26.2	Diurnal Maximum				
Dir	260.8	256.1	256.0	248.7	251.1	251.5	253.9	256.9	276.7	247.5	246.7	242.4	247.2	298.8	297.1	297.1	252.9	256.5	303.0	281.9	268.1	20.2	244.7	148.2					
Maximum Speed Value: 39 km/h on Apr 18 10:00 Minimum Speed Value: 0 km/h on Apr 19 20:00																													
Maximum Daily Speed Average: 23.7 km/h on Apr 22 Minimum Daily Speed Average: 1.1 km/h on Apr 4																													
Maximum Diurnal Speed Average: 4.4 km/h at hour 13 Minimum Diurnal Speed Average: 2.1 km/h at hour 24																													
Monthly Average Velocity: 3.02 km/h 292.87 deg Speed Percentiles: P ₁ = 1.1 P ₁₀ = 4.2 O ₁ = 6.8 Median = 10.0 O ₃ = 13.7 P ₉₀ = 19.1 P ₉₉ = 33.1																													
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																													
Speed Range (km/h)																													
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																						
North	14	103	53	5	0	0	175																						
NorthEast	9	34	32	2	0	0	77																						
East	4	11	8	0	0	0	23																						
SouthEast	9	16	27	11	0	0	63																						
South	10	40	9	0	0	0	59																						
SouthWest	18	59	32	9	4	1	123																						
West	16	50	38	18	11	0	133																						
NorthWest	12	17	26	3	9	0	67																						
Total	92	330	225	48	24	1	720																						

Wind Rose for WS at Smoky Heights

April 2009



Peace Airshed Zone Association
Summary of Hourly Averages - Wind Speed (Scalar)

Smoky Heights - Wind Speed (WS) - km/h
April 1, 2009 to May 1, 2009

Maximum Speed: 39 km/h on Apr 18 10:00 Maximum Daily Speed Average: 27.4 km/h on Apr 22 Minimum Speed: 1 km/h on Apr 25 04:00 Minimum Daily Speed Average: 6.2 km/h on Apr 4 Maximum Diurnal Speed Average: 13.9 km/h at hour 14 Minimum Diurnal Speed Average: 9.4 km/h at hour 22 Monthly Average Speed: 11.60 km/h Percentiles: $P_1 = 2.9$ $P_{10} = 5.1$ $Q_1 = 7.5$ Median = 10.4 $Q_3 = 13.9$ $P_{90} = 19.4$ $P_{99} = 34.4$																								Hours in Service: 720		
																									Hours of Data: 720	
																									Hours of Missing Data: 0	
																									Percent Operational Time: 100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	13	16	11	11	9	10	10	9	9	10	7	11	10	5	5	4	7	8	9	9	12	9	8	9	9.1	15.5
2-Apr	9	8	9	9	8	9	9	10	10	9	6	7	11	12	11	13	14	11	7	8	7	9	9	10	9.5	13.8
3-Apr	11	11	11	10	10	11	11	9	7	9	9	10	12	11	10	9	8	10	10	9	12	9	4	4	9.5	12.3
4-Apr	4	7	6	6	4	4	4	3	5	2	3	3	4	3	5	9	10	11	10	9	8	6	9	14	6.2	13.7
5-Apr	17	10	5	9	11	9	10	10	10	8	9	4	4	6	6	5	3	6	3	4	8	14	9	11	7.9	17.0
6-Apr	9	9	11	8	8	8	7	10	14	14	16	17	15	14	12	12	15	15	15	16	11	9	12	15	12.2	17.5
7-Apr	14	15	16	15	8	11	8	5	7	7	3	5	9	9	10	12	9	4	4	5	8	8	6	10	8.7	16.0
8-Apr	10	12	12	12	10	12	11	11	12	12	12	15	16	15	14	14	13	15	15	16	18	19	17	15	13.6	19.2
9-Apr	14	15	12	12	10	10	10	8	7	8	5	4	10	12	7	6	8	6	7	7	4	6	9	7	8.4	14.5
10-Apr	7	8	6	8	6	7	9	7	9	13	15	20	16	16	14	11	9	8	9	12	9	5	5	6	9.7	20.1
11-Apr	7	8	9	8	5	5	4	4	5	5	3	3	5	4	5	7	13	12	10	24	20	14	11	9	8.4	24.3
12-Apr	9	15	17	15	11	12	8	8	11	14	16	15	13	13	11	8	6	6	6	11	13	12	13	10	11.3	17.1
13-Apr	13	14	14	14	17	14	14	17	17	23	21	19	20	17	17	22	18	15	6	5	10	7	6	5	14.4	23.5
14-Apr	14	12	12	14	15	13	12	12	10	9	10	12	11	10	10	9	9	7	4	3	2	3	5	5	9.4	14.6
15-Apr	5	5	3	6	7	6	8	9	7	6	9	12	12	13	15	15	14	12	8	8	12	16	12	12	9.8	15.6
16-Apr	11	12	11	12	11	11	13	13	17	22	23	24	22	21	19	18	19	21	19	16	12	14	24	26	17.2	26.2
17-Apr	24	22	19	12	8	10	8	13	12	8	6	8	5	10	12	11	8	5	7	31	21	9	10	10	12.0	31.0
18-Apr	11	12	18	22	23	15	20	20	27	39	38	36	33	31	36	34	33	31	25	18	16	13	11	11	23.9	39.1
19-Apr	10	14	7	9	11	11	10	9	11	15	20	17	19	17	14	15	12	10	8	3	3	8	11	14	11.6	19.7
20-Apr	13	7	6	7	6	6	7	11	16	20	22	26	24	24	21	22	21	20	19	13	7	4	4	9	13.9	25.7
21-Apr	8	8	12	9	5	7	5	8	11	12	10	11	13	16	15	16	15	7	30	34	29	17	26	26	14.6	33.9
22-Apr	30	28	23	23	24	27	24	30	31	33	34	32	33	35	37	35	30	27	24	23	21	19	18	18	27.4	37.4
23-Apr	14	11	11	11	14	14	11	15	14	13	15	14	13	18	18	19	18	20	14	14	13	8	7	6	13.5	19.6
24-Apr	4	4	6	6	6	5	5	7	11	12	12	11	12	11	9	7	8	9	8	7	8	10	6	6	8.0	11.8
25-Apr	10	5	4	1	4	14	16	14	17	15	14	14	14	12	12	10	10	7	8	6	8	10	7	10.3	17.5	
26-Apr	8	8	5	9	8	7	6	10	10	11	11	14	15	14	16	11	11	13	7	9	8	4	4	9.8	15.9	
27-Apr	9	5	7	7	6	5	5	4	5	11	16	16	15	16	17	14	15	16	9	10	6	6	8	10.1	17.3	
28-Apr	10	10	9	9	9	12	15	13	12	15	14	12	11	14	12	13	14	14	14	10	8	6	4	11.2	15.2	
29-Apr	7	7	6	5	5	6	6	4	4	5	5	7	7	6	9	9	10	8	6	4	6	8	9	12	6.7	12.2
30-Apr	10	13	14	9	7	10	10	10	11	14	14	13	12	11	10	10	9	7	6	4	2	5	10	12	9.8	14.2
11.2 11.0 10.4 10.2 9.6 9.9 9.8 10.6 11.5 13.0 13.2 13.6 13.8 13.9 13.8 13.7 13.0 12.1 11.4 11.9 10.6 9.4 10.3 10.5																									Diurnal Average	
29.8 28.4 22.7 23.0 24.3 27.2 24.4 30.0 30.7 39.1 37.8 36.3 33.1 34.6 37.4 34.9 33.1 30.9 30.0 33.9 28.6 19.2 26.3 26.3																									Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																										

Peace Airshed Zone Association
Summary of Hourly Standard Deviations

Smoky Heights - Wind Direction (WD) - deg
April 1, 2009 to May 1, 2009

Maximum Value: 92.2 deg on Apr 29 14:00																								Hours in Service:	720	
Minimum Value: 2.7 deg on Apr 8 22:00																								Hours of Data:	720	
Percentiles: P ₁ = 3.2 P ₁₀ = 4.8 Q ₁ = 7.0 Median = 12.1 Q ₃ = 22.8 P ₉₀ = 37.8 P ₉₉ = 83.7																								Hours of Missing Data:	0	
																								Hours of Calibration:	0	
																								Percent Operational Time:	100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Maximum	
1-Apr	5	6	66	21	22	9	9	5	7	6	9	5	10	12	8	21	26	16	13	31	22	8	10	8	65.6	
2-Apr	11	8	7	6	8	7	10	7	6	9	20	20	11	11	14	20	17	16	14	12	12	7	6	7	20.3	
3-Apr	12	8	5	5	4	4	7	7	10	14	10	12	11	12	13	18	30	20	5	7	5	6	59	34	59.2	
4-Apr	64	7	11	4	21	15	55	85	18	90	70	77	20	71	31	12	9	25	4	7	20	21	51	4	90.4	
5-Apr	3	44	34	9	9	14	7	6	6	25	5	66	24	7	8	10	36	22	89	65	10	5	16	29	89.1	
6-Apr	24	18	19	18	12	10	11	12	10	7	5	3	6	10	7	5	5	6	13	6	8	15	14	7	24.3	
7-Apr	7	3	5	33	37	11	23	15	6	11	45	29	5	11	7	10	31	53	23	23	23	13	25	11	53.2	
8-Apr	9	6	5	4	4	4	12	7	4	4	3	5	4	5	10	7	5	6	4	3	3	3	4	4	12.4	
9-Apr	5	4	5	5	4	8	10	11	16	7	35	76	6	13	15	8	5	18	12	25	19	36	55	31	75.9	
10-Apr	18	15	20	16	8	12	25	13	16	9	5	6	6	6	4	10	6	22	11	6	23	39	34	32	39.1	
11-Apr	11	17	5	33	24	38	22	39	48	22	49	67	24	55	79	40	8	17	41	23	7	36	54	9	78.6	
12-Apr	12	5	3	5	14	10	10	6	5	6	4	10	9	11	19	16	43	30	15	13	9	13	11	19	42.9	
13-Apr	7	5	7	6	4	3	7	4	4	7	6	9	7	8	8	10	9	11	17	85	6	22	17	92	91.6	
14-Apr	4	7	5	5	3	3	3	7	14	16	21	22	25	32	36	26	35	19	78	34	61	30	44	27	78.4	
15-Apr	23	13	23	15	18	14	6	5	14	24	25	17	21	21	24	17	18	16	10	9	4	14	6	18	25.5	
16-Apr	9	6	5	4	6	4	3	4	6	9	9	10	10	10	14	17	12	9	6	6	9	14	5	4	16.9	
17-Apr	3	3	6	17	14	10	11	5	11	18	42	37	46	30	22	20	39	87	35	32	17	56	14	5	87.1	
18-Apr	6	5	3	4	4	9	3	4	6	6	8	8	8	9	8	11	10	7	6	3	6	9	15	16	16.5	
19-Apr	13	5	26	11	3	10	4	9	12	14	9	15	16	16	23	15	21	25	8	89	82	22	9	7	88.9	
20-Apr	4	14	10	19	63	15	22	5	5	10	10	9	8	10	12	16	9	7	8	8	10	38	29	7	62.6	
21-Apr	7	25	6	8	21	11	15	7	5	7	11	13	9	9	19	12	6	22	33	11	8	12	8	11	32.6	
22-Apr	4	3	6	5	4	4	4	5	15	9	9	9	12	14	8	9	9	11	9	8	7	9	8	7	15.2	
23-Apr	6	7	14	18	7	5	7	10	13	18	23	17	20	14	27	35	21	27	18	12	9	14	21	13	34.9	
24-Apr	20	19	14	19	17	16	15	19	18	20	26	34	30	26	29	30	31	19	11	13	51	45	16	62	62.0	
25-Apr	7	11	23	32	18	6	12	9	10	13	14	21	17	26	33	27	28	29	27	46	14	29	41	36	45.7	
26-Apr	22	14	19	18	14	13	17	15	11	21	22	38	18	24	29	29	33	26	24	23	12	9	32	26	38.2	
27-Apr	14	77	11	11	30	84	35	33	78	42	12	16	20	32	14	30	18	12	18	10	9	13	7	18	83.8	
28-Apr	4	7	6	7	6	8	8	6	8	19	21	24	53	53	36	35	22	21	27	10	5	13	9	26	53.4	
29-Apr	20	10	14	23	7	8	9	45	49	54	63	81	69	92	46	42	31	23	27	45	25	17	7	6	92.2	
30-Apr	8	11	37	8	24	4	7	12	18	17	17	37	34	54	58	49	64	65	46	28	79	12	6	3	79.2	
64.2 77.5 65.6 32.7 62.6 83.8 55.3 84.6 77.9 90.4 69.6 81.1 69.3 92.2 78.6 48.5 63.9 87.1 89.1 88.9 81.5 55.6 59.2 91.6																										

PASZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

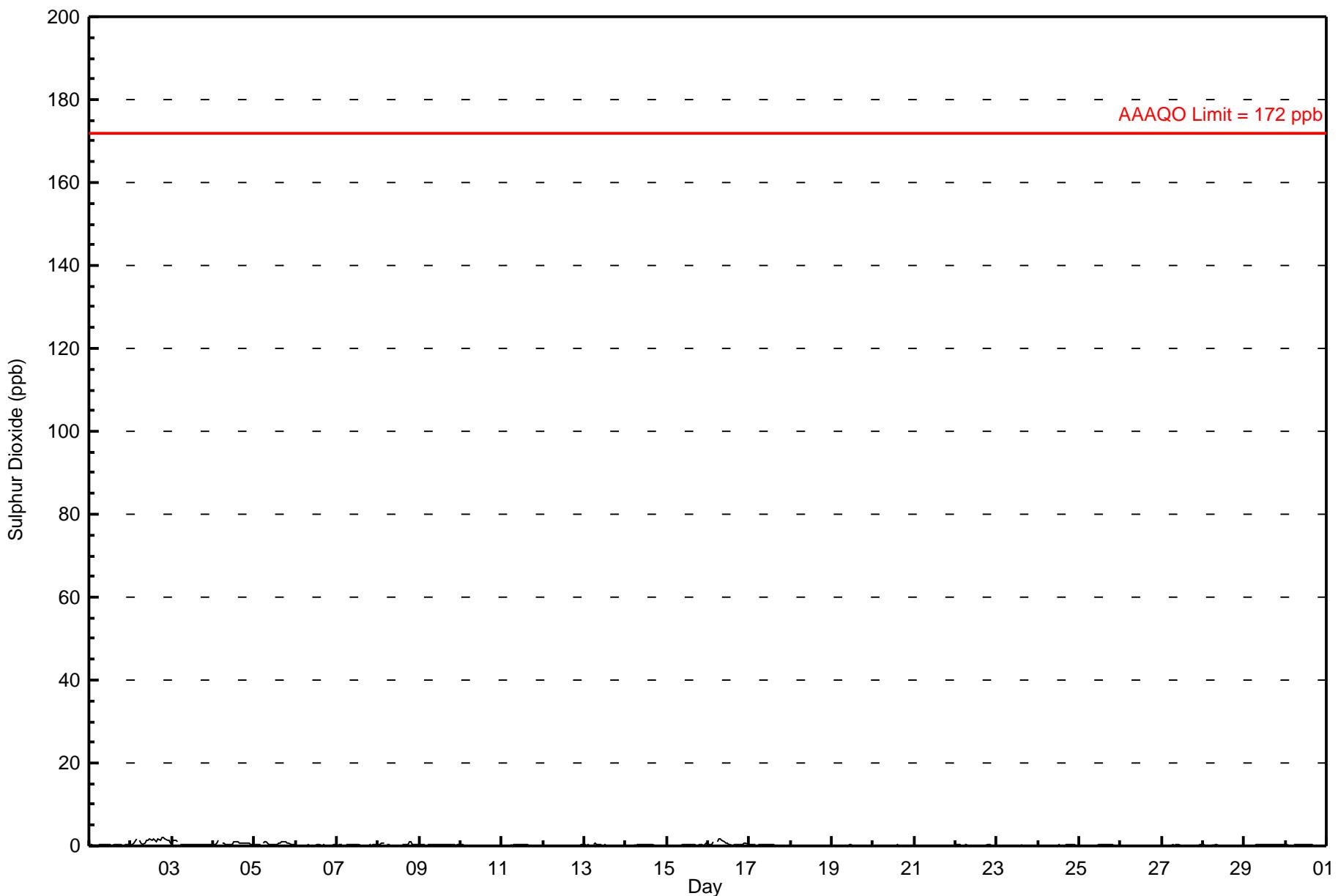
Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Sulphur Dioxide (SO₂) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.2 ppb on Apr 2 20:00 Maximum Daily Average: 1.2 ppb on Apr 2																			Hours in Service: 720 Hours of Data: 678 Hours of Missing Data: 42 Hours of Calibration: 42 Percent Operational Time: 100.0									
Minimum Value: 0 ppb on Apr 18 19:00 Minimum Daily Average: 0.1 ppb on Apr 18 Maximum Diurnal Average: 0.3 ppb at hour 4 Minimum Diurnal Average: 0.2 ppb at hour 1																												
Monthly Average: 0.26 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 = 1.6																												
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum		
1-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		
2-Apr	0	0	1	2	A	1	1	0	1	1	1	2	1	2	2	1	2	1	2	2	2	2	1	1	1.2	2.2		
3-Apr	1	1	1	1	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.5		
4-Apr	0	0	1	2	A	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	1.5	
5-Apr	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0.6	1.2	
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	0.2	0.2	
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	0.2	0.3	
8-Apr	0	0	1	1	A	0	0	0	C	C	C	C	C	C	0	0	0	0	0	1	1	0	0	0	0	--	1.0	
9-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	0.3	0.5	
10-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	0.1	0.2	
11-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	0.2	0.5	
12-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	0.1	0.3	
13-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	0.2	0.8	
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	0.2	0.2	
15-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	1	0.2	0.7	
16-Apr	0	0	0	1	A	1	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.6	
17-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	0.2	0.4	
18-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	0.1	0.2	
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	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	0.1	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	0.1	0.2	
22-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	0.1	0.2	
23-Apr	0	0	0	0	A	0	0	0	C	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	--	0.2	
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	0.2	0.5	
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	0	0.2	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	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	0.1	0.2	
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	0.1	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	0.2	0.3	
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	0.2	0.4	
Diurnal Average																												
Diurnal Maximum																												
C - Calibration A - Automated Daily Zero Span																												
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 57 ppb																												

Hourly Averages for SO₂ at Beaverlodge

April 2009



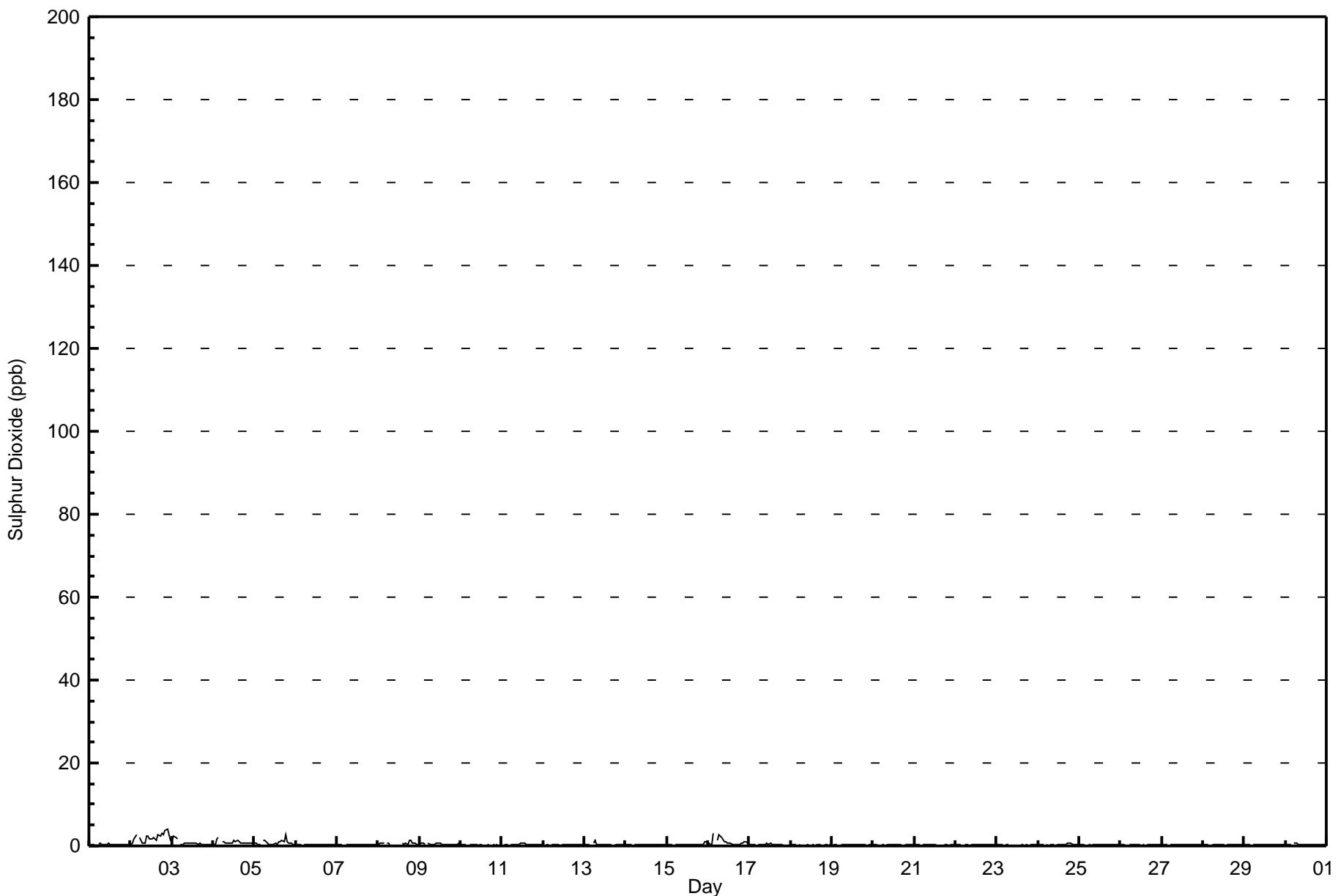
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Beaverlodge - Sulphur Dioxide (SO_2) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 4.1 ppb on Apr 2 22:00																				Maximum Daily Average: 2.0 ppb on Apr 2				Hours in Service: 720			
Minimum Value: 0 ppb on Apr 18 19:00																				Hours of Data: 678							
Maximum Diurnal Average: 0.6 ppb at hour 4																				Hours of Missing Data: 42							
Monthly Average: 0.42 ppb																				Hours of Calibration: 42							
Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.7$ $P_{99} = 2.7$																				Percent Operational Time: 100.0							
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	0	0	0	0	A	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
2-Apr	0	1	2	3	A	2	1	1	1	2	2	2	2	2	2	1	3	2	3	3	4	4	3	1	2.0	4.1	
3-Apr	1	2	2	2	A	0	0	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0.7	2.5
4-Apr	0	0	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1
5-Apr	1	1	0	1	A	1	1	1	0	0	0	1	1	1	1	1	1	1	3	1	1	1	0	0	0	0.8	2.7
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	0.3	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	0.3	0.4
8-Apr	0	1	1	1	A	1	1	0	C	C	C	C	C	C	1	1	1	0	1	1	1	1	0	0	--	1.5	
9-Apr	0	1	1	0	A	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7
10-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	0.2	0.4
11-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
12-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	1	0.2	0.5
13-Apr	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
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	0.3	0.3
15-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	1	0.4	1.0
16-Apr	1	0	0	3	A	1	3	2	2	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1.0	3.1
17-Apr	0	0	0	0	A	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
18-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	0.2	0.3
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	0.2	0.3
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	0.2	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	0.2	0.3
22-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	0.2	0.4
23-Apr	0	0	0	0	A	0	0	0	C	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0	--	0.3	
24-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0.3	0.6
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	0.3	0.4
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	0.2	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	0.2	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	0.3	0.4
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	0.3	0.4
30-Apr	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
Diurnal Average																											
Diurnal Maximum																											
C - Calibration A - Automated Daily Zero Span																											

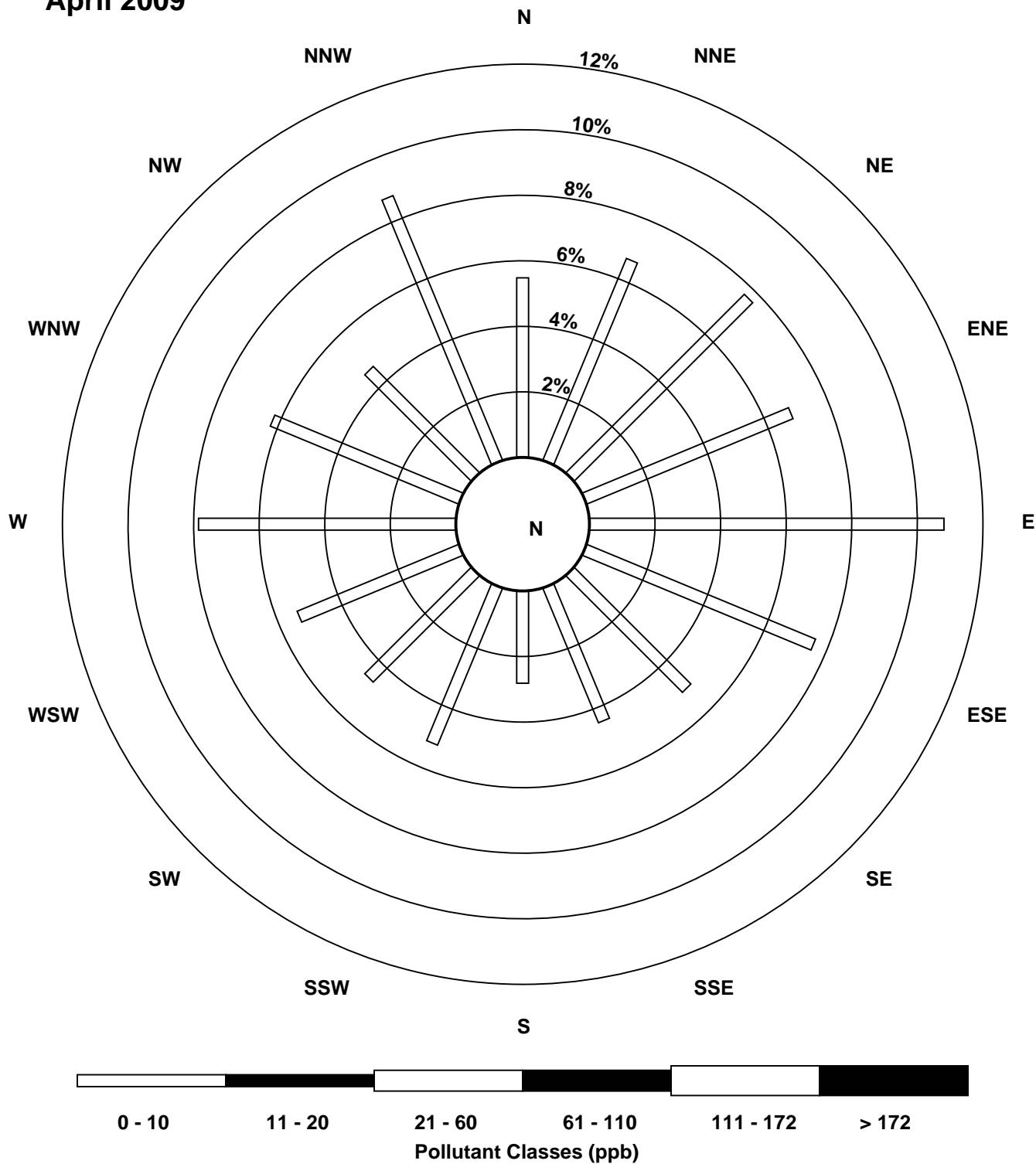
Hourly Maximums for SO₂ at Beaverlodge

April 2009



Pollutant Rose for SO₂ at Beaverlodge

April 2009



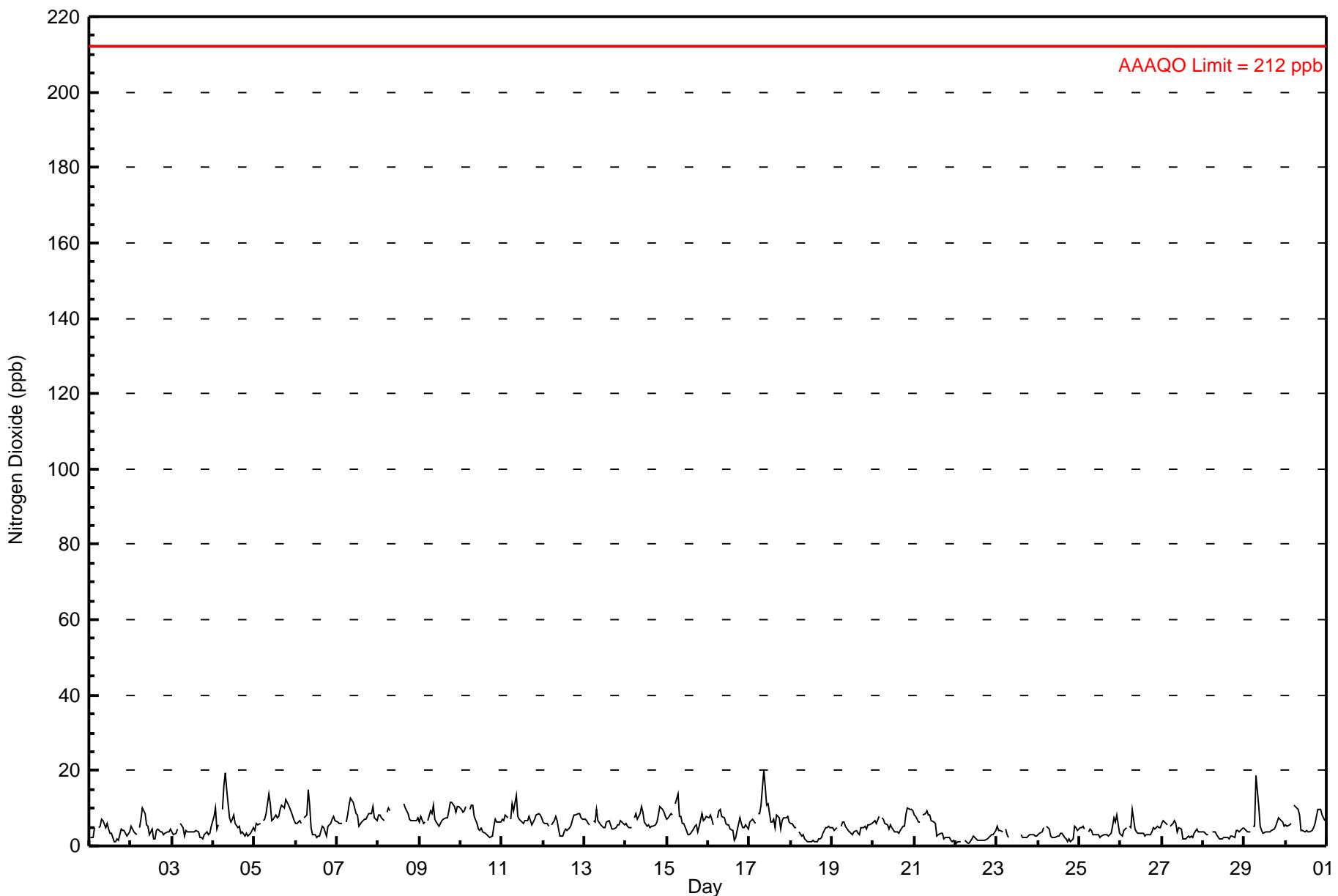
Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Nitrogen Dioxide (NO₂) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 20.1 ppb on Apr 17 09:00 Maximum Daily Average: 8.5 ppb on Apr 5																			Hours in Service: 720 Hours of Data: 677 Hours of Missing Data: 43 Hours of Calibration: 43 Percent Operational Time: 100.0								
Minimum Value: 1 ppb on Apr 22 08:00 Minimum Daily Average: 1.8 ppb on Apr 22 Maximum Diurnal Average: 8.2 ppb at hour 8 Minimum Diurnal Average: 3.9 ppb at hour 15 Monthly Average: 5.51 ppb Percentiles: P ₁ = 1.1 P ₁₀ = 2.2 Q ₁ = 3.5 Median = 5.1 Q ₃ = 7.2 P ₉₀ = 9.2 P ₉₉ = 14.7																											
Day																			Hourly Period Ending At (MST)								
1-Apr																				Daily Average							
2-Apr																				Daily Maximum							
3-Apr																				3.7							
4-Apr																				7.0							
5-Apr																				4.5							
6-Apr																				9.9							
7-Apr																				5.8							
8-Apr																				19.2							
9-Apr																				6.9							
10-Apr																				13.7							
11-Apr																				14.9							
12-Apr																				8.0							
13-Apr																				12.8							
14-Apr																				--							
15-Apr																				11.2							
16-Apr																				11.6							
17-Apr																				10.9							
18-Apr																				10.4							
19-Apr																				13.7							
20-Apr																				9.8							
21-Apr																				20.1							
22-Apr																				3.1							
23-Apr																				6.0							
24-Apr																				4.6							
25-Apr																				6.2							
26-Apr																				4.1							
27-Apr																				8.1							
28-Apr																				9.7							
29-Apr																				6.7							
30-Apr																				3.1							
5.6																				5.7							
9.7																				Diurnal Maximum							
C - Calibration A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 212 ppb 24-hr 106 ppb																											

Hourly Averages for NO₂ at Beaverlodge

April 2009



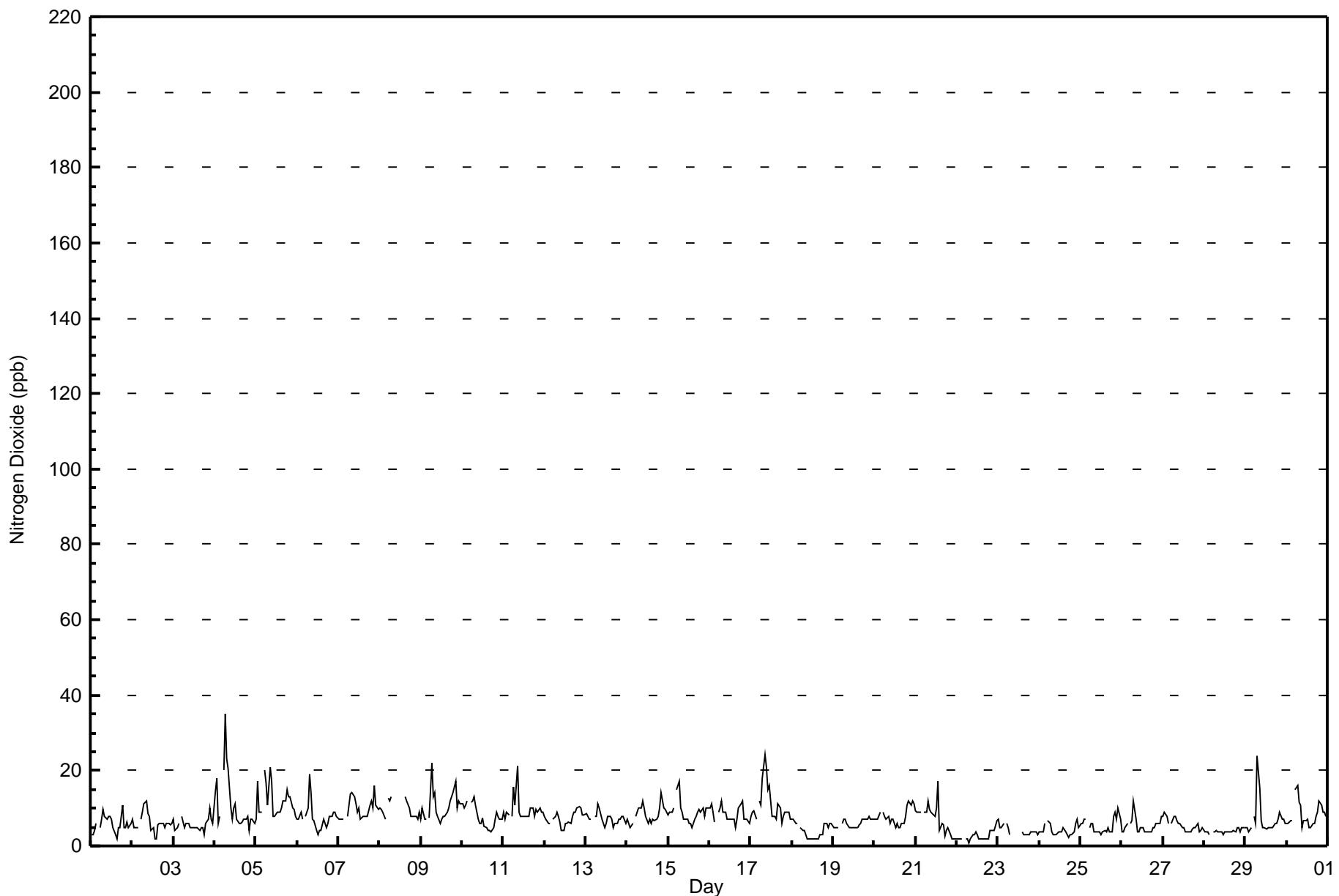
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Beaverlodge - Nitrogen Dioxide (NO₂) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 35.2 ppb on Apr 4 07:00																				Maximum Daily Average: 11.9 ppb on Apr 5										Hours in Service: 720 Hours of Data: 677 Hours of Missing Data: 43 Hours of Calibration: 43 Percent Operational Time: 100.0												
Minimum Value: 1 ppb on Apr 22 08:00																				Minimum Daily Average: 2.6 ppb on Apr 22																						
Maximum Diurnal Average: 10.6 ppb at hour 8																				Minimum Diurnal Average: 5.2 ppb at hour 15																						
Monthly Average: 7.29 ppb																				Percentiles: P ₁ = 1.9 P ₁₀ = 3.9 Q ₁ = 4.9 Median = 7.0 Q ₃ = 9.0 P ₉₀ = 11.0 P ₉₉ = 21.1																						
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum																
1-Apr	3	3	4	6	A	5	7	10	8	7	8	8	7	5	3	2	5	5	11	5	5	6	5	6	5.8	11.0																
2-Apr	7	5	5	5	A	7	9	11	12	9	8	4	5	2	2	6	6	6	6	5	6	6	6	6	6.2	12.0																
3-Apr	7	4	5	6	A	8	5	6	6	5	5	5	5	5	4	5	5	3	6	7	10	7	6	6	5.6	9.9																
4-Apr	14	18	6	8	A	20	35	23	21	10	7	10	11	7	6	6	6	7	7	8	4	7	7	6	11.1	35.2																
5-Apr	7	17	9	9	A	20	17	11	21	17	8	8	9	9	9	10	12	12	15	13	13	10	10	8	11.9	21.1																
6-Apr	7	7	9	7	A	8	10	19	14	7	7	4	3	4	4	7	6	5	6	8	8	9	9	8	7.6	19.0																
7-Apr	7	7	7	7	A	8	11	14	14	13	11	9	10	7	8	8	8	8	11	12	10	16	11	10	9.8	16.0																
8-Apr	10	10	9	7	A	13	12	13	C	C	C	C	C	A	13	12	10	8	8	8	8	7	9	--	13.1																	
9-Apr	7	10	7	7	A	7	22	13	14	9	8	6	7	8	8	9	10	12	13	14	17	10	12	11	10.5	22.1																
10-Apr	11	10	11	12	A	12	12	13	11	7	6	6	8	5	5	4	4	4	5	7	9	8	7	7	8.0	13.0																
11-Apr	9	7	9	8	A	8	16	11	21	9	8	8	8	8	8	10	10	8	10	9	10	9	9	9	9.6	21.1																
12-Apr	8	7	6	6	A	7	8	9	8	6	4	4	6	6	6	6	8	9	9	10	10	10	8	8	7.4	10.3																
13-Apr	8	8	7	7	A	8	8	11	10	7	6	5	6	8	8	7	5	6	7	7	8	8	6	7.3	11.0																	
14-Apr	7	6	5	6	A	8	9	10	10	12	10	8	6	7	7	7	7	8	10	14	10	10	9	8.3	14.0																	
15-Apr	8	9	9	10	A	15	17	10	9	7	7	7	6	6	5	7	8	9	10	9	10	8	10	10	8.9	17.1																
16-Apr	10	11	9	6	A	9	10	12	9	9	7	7	7	7	5	7	10	11	12	7	7	7	6	8.3	12.0																	
17-Apr	8	9	9	7	A	12	11	18	24	21	15	16	8	8	8	7	11	10	6	8	9	9	9	7	10.9	24.1																
18-Apr	7	7	6	6	A	5	4	4	3	2	2	2	2	2	2	2	3	3	3	6	6	5	6	4.0	7.0																	
19-Apr	5	5	5	5	A	6	7	7	6	5	5	5	5	5	6	7	7	7	8	7	7	7	7	6.0	8.0																	
20-Apr	7	7	7	9	A	9	8	7	8	6	7	7	5	6	5	6	6	8	11	12	11	12	11	7.8	12.0																	
21-Apr	9	9	9	9	A	9	9	12	10	9	9	8	10	17	4	6	6	2	4	5	3	2	2	2	7.1	17.0																
22-Apr	2	2	2	2	A	2	2	1	2	3	3	4	3	2	2	2	2	2	4	4	4	4	4	7	2.6	6.6																
23-Apr	7	5	5	6	A	6	5	3	C	C	C	C	C	A	4	3	3	3	3	4	4	4	4	3	--	7.0																
24-Apr	4	4	4	6	A	7	6	4	3	3	4	4	4	4	5	4	3	2	3	3	4	6	7	5	4.2	6.9																
25-Apr	6	6	7	7	A	5	6	6	4	4	4	4	3	4	4	4	5	4	4	8	9	7	10	7	5.5	9.9																
26-Apr	4	4	5	6	A	6	7	12	7	4	4	5	5	4	4	4	4	4	5	5	6	6	8	5.3	11.9																	
27-Apr	8	9	8	6	A	6	8	8	7	6	5	5	4	4	4	4	4	5	5	6	4	4	5	5.6	8.9																	
28-Apr	4	4	4	3	A	4	4	4	4	4	4	3	4	4	4	4	4	4	5	5	4	5	5	4.0	4.9																	
29-Apr	5	5	4	5	A	8	6	24	15	7	5	5	5	5	5	5	5	6	6	7	9	7	6	6.9	23.9																	
30-Apr	6	6	7	7	A	15	16	12	11	5	7	7	7	5	5	6	6	8	9	12	11	9	9	8	8.3	15.9																
																									Diurnal Average																	
																									Diurnal Maximum																	
C - Calibration																																										
A - Automated Daily Zero Span																																										

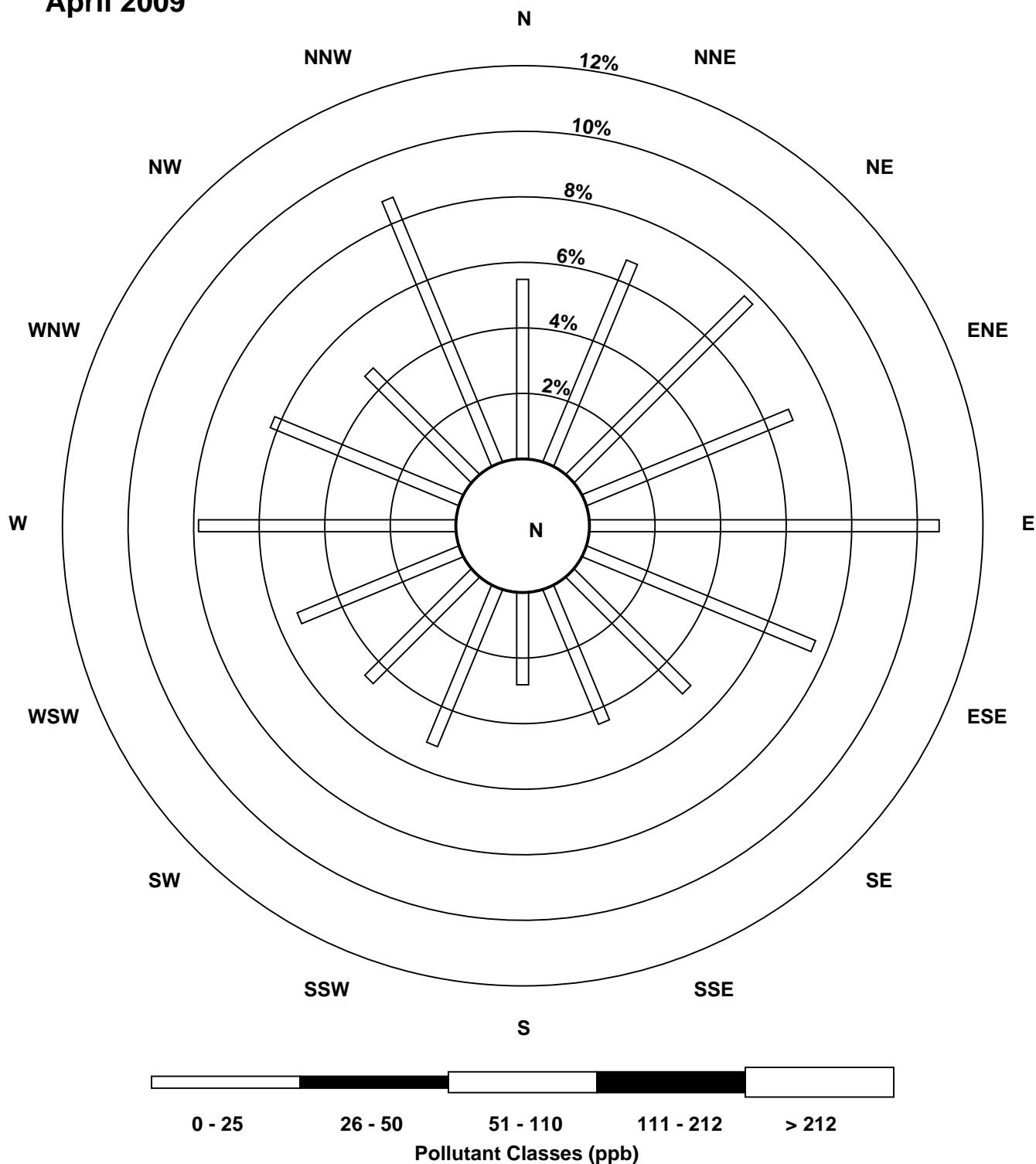
Hourly Maximums for NO₂ at Beaverlodge

April 2009



Pollutant Rose for NO₂ at Beaverlodge

April 2009



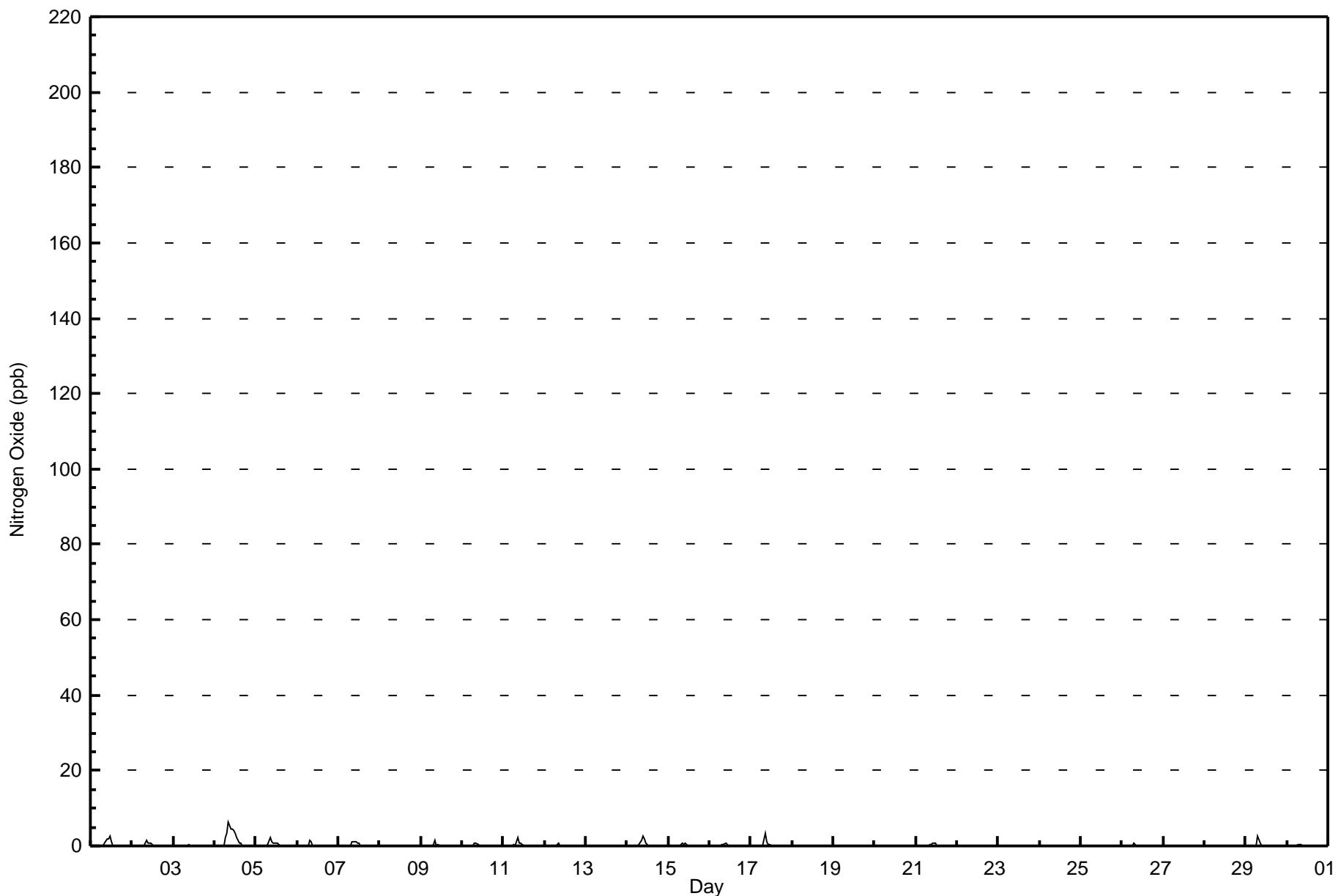
Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Nitrogen Oxide (NO) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 6.5 ppb on Apr 4 09:00																				Maximum Daily Average: 1.4 ppb on Apr 4										Hours in Service: 720			
Minimum Value: 0 ppb on Apr 1 01:00																				Minimum Daily Average: 0.0 ppb on Apr 13										Hours of Data: 677			
Maximum Diurnal Average: 0.9 ppb at hour 9																				Minimum Diurnal Average: 0.0 ppb at hour 1										Hours of Missing Data: 43			
Monthly Average: 0.14 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.0 P ₉₀ = 0.3 P ₉₉ = 3.1										Hours of Calibration: 43			
Daily																				Hourly Period Ending At (MST)										Percent Operational Time: 100.0			
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum							
1-Apr	0	0	0	0	A	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.4						
2-Apr	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.4					
3-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	0.5					
4-Apr	0	0	0	0	A	0	2	3	6	5	4	4	3	2	1	1	0	0	0	0	0	0	0	0	0	0	1.4	6.5					
5-Apr	0	0	0	0	A	0	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.2					
6-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	0	0.1	1.3					
7-Apr	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1					
8-Apr	0	0	0	0	A	0	0	0	C	C	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	--	0.0				
9-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	0	0.1	1.3					
10-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	0	0.1	0.9					
11-Apr	0	0	0	0	A	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.2					
12-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	0	0.0	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	0.0					
14-Apr	0	0	0	0	A	0	0	1	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.7					
15-Apr	0	0	0	0	A	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9					
16-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	0	0.1	0.8					
17-Apr	0	0	0	0	A	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	3.5					
18-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	0.0					
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	0	0.0	0.0					
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	0.0	0.0					
21-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	0	0.1	0.9					
22-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	0.0					
23-Apr	0	0	0	0	A	0	0	0	C	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	--	0.0					
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	0	0.0	0.0					
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	0	0.0	0.0					
26-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.7					
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	0.0	0.0					
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	0	0.0	0.0					
29-Apr	0	0	0	0	A	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	2.6					
30-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.5					
Diurnal Average																				Diurnal Maximum													
C - Calibration																				A - Automated Daily Zero Span													

Hourly Averages for NO at Beaverlodge

April 2009



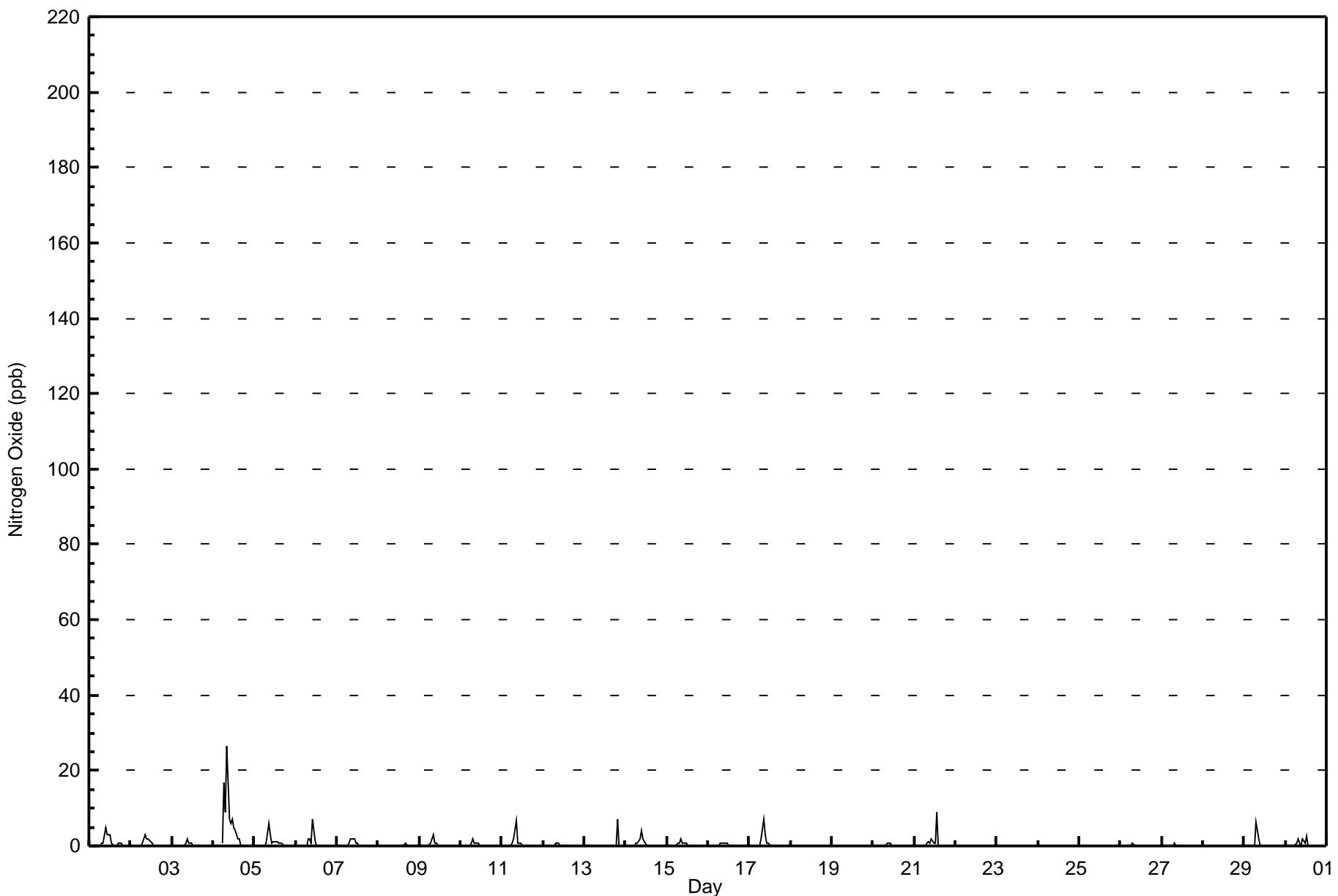
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Beaverlodge - Nitrogen Oxide (NO) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 26.5 ppb on Apr 4 09:00																				Maximum Daily Average: 3.7 ppb on Apr 4										Hours in Service: 720			
Minimum Value: 0 ppb on Apr 1 01:00																				Minimum Daily Average: 0.0 ppb on Apr 18										Hours of Data: 677			
Maximum Diurnal Average: 2.4 ppb at hour 9																				Minimum Diurnal Average: 0.0 ppb at hour 1										Hours of Missing Data: 43			
Monthly Average: 0.39 ppb																				Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.0$ $P_{90} = 0.9$ $P_{99} = 6.9$										Hours of Calibration: 43			
																														Percent Operational Time: 100.0			
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum							
1-Apr	0	0	0	0	A	0	0	1	1	5	3	3	3	1	0	0	0	0	1	1	0	0	0	0	0	0.8	4.9						
2-Apr	0	0	0	0	A	0	0	1	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.9						
3-Apr	0	0	0	0	A	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.9						
4-Apr	0	0	0	0	A	1	17	9	27	7	6	7	5	4	2	2	0	0	0	0	0	0	0	0	0	3.7	26.5						
5-Apr	0	0	0	0	A	0	0	1	6	3	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.7	5.9						
6-Apr	0	0	0	0	A	0	0	2	2	1	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	6.9						
7-Apr	0	0	0	0	A	0	0	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9						
8-Apr	0	0	0	0	A	0	0	0	C	C	C	C	C	C	A	0	1	0	0	0	0	0	0	0	0	0	--	0.9					
9-Apr	0	0	0	0	A	0	1	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.9						
10-Apr	0	0	0	0	A	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.9						
11-Apr	0	0	0	0	A	0	1	2	7	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	6.9						
12-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9						
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	0.3	6.9						
14-Apr	0	0	0	0	A	0	1	1	2	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.9						
15-Apr	0	0	0	0	A	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9						
16-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	0.2	0.9						
17-Apr	0	0	0	0	A	0	0	2	7	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	6.9						
18-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	0.0						
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	0.0	0.0						
20-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	0.1	0.9						
21-Apr	0	0	0	0	A	0	0	1	1	1	2	1	1	9	0	0	0	0	0	0	0	0	0	0	0	0.7	8.9						
22-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	0.0						
23-Apr	0	0	0	0	A	0	0	0	C	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	--	0.0					
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	0.0	0.0						
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	0.0	0.0						
26-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.9						
27-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.9						
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	0.0	0.0						
29-Apr	0	0	0	0	A	0	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	6.4						
30-Apr	0	0	0	0	A	0	1	2	1	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8						
																				Diurnal Average													
																				Diurnal Maximum													
C - Calibration																				A - Automated Daily Zero Span													

Hourly Maximums for NO at Beaverlodge

April 2009



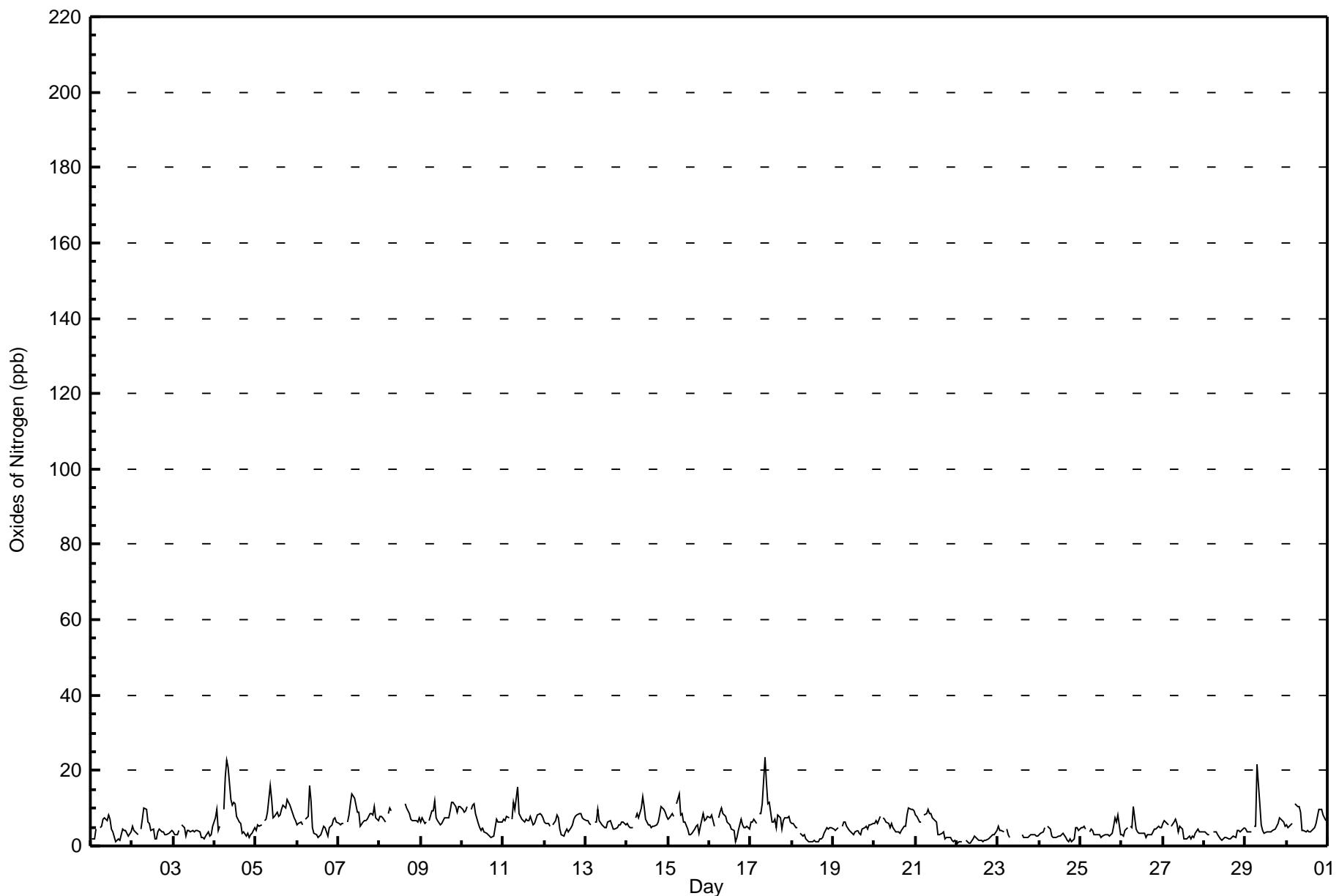
**Peace Airshed Zone Association
Summary of Hourly Averages**

**Beaverlodge - Oxides of Nitrogen (NO_x) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 23.6 ppb on Apr 17 09:00																				Maximum Daily Average: 8.7 ppb on Apr 5										Hours in Service: 720	
Minimum Value: 1 ppb on Apr 22 08:00																				Minimum Daily Average: 1.8 ppb on Apr 22										Hours of Data: 677	
Maximum Diurnal Average: 8.8 ppb at hour 9																				Minimum Diurnal Average: 4.0 ppb at hour 15										Hours of Missing Data: 43	
Monthly Average: 5.63 ppb																				Percentiles: P ₁ = 1.0 P ₁₀ = 2.3 Q ₁ = 3.5 Median = 5.2 Q ₃ = 7.3 P ₉₀ = 9.5 P ₉₉ = 15.9										Hours of Calibration: 43	
																														Percent Operational Time: 100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum					
1-Apr	2	2	2	5	A	5	5	7	7	7	8	7	5	4	1	1	2	1	4	4	4	3	3	4	4.0	8.1					
2-Apr	5	4	4	3	A	5	7	10	10	6	6	4	5	2	2	4	4	4	4	3	3	3	4	4	4.5	10.0					
3-Apr	4	3	3	4	A	6	5	2	4	4	4	4	4	4	4	4	2	2	2	3	4	3	3	5	3.6	5.6					
4-Apr	8	10	4	5	A	10	18	23	21	12	11	11	11	8	6	6	3	4	2	3	3	3	3	5	8.3	22.6					
5-Apr	4	6	5	6	A	7	7	9	16	12	7	8	9	8	8	10	11	10	12	11	11	9	8	7	8.7	15.9					
6-Apr	6	6	6	6	A	7	8	16	12	5	3	3	2	3	3	5	5	4	3	5	6	7	8	6	5.8	16.1					
7-Apr	6	6	6	6	A	6	8	11	14	13	11	9	9	5	6	7	7	7	8	9	8	10	7	7	8.1	13.8					
8-Apr	8	8	7	6	A	9	10	9	C	C	C	C	C	C	A	11	10	8	7	7	7	7	8	--	11.2						
9-Apr	6	8	6	6	A	7	9	9	12	7	7	6	6	7	7	7	8	9	12	11	10	9	11	10	8.3	12.1					
10-Apr	10	9	9	10	A	10	11	11	9	6	5	4	5	4	3	3	3	2	3	5	7	6	6	6	6.4	11.4					
11-Apr	7	7	8	8	A	7	12	10	16	9	8	7	6	7	7	7	8	6	6	7	8	9	8	7	7.9	15.8					
12-Apr	6	6	6	5	A	6	7	8	7	5	3	3	4	4	4	5	6	7	8	8	8	8	7	7	6.0	8.5					
13-Apr	7	7	6	6	A	6	6	10	7	5	5	5	5	6	7	6	5	4	5	5	5	7	6	6	5.9	9.8					
14-Apr	6	5	5	5	A	8	9	8	10	13	11	7	5	6	5	5	5	6	8	10	10	9	8	8	7.3	12.9					
15-Apr	7	7	8	8	A	11	14	8	9	6	6	4	3	3	4	5	4	5	5	9	7	7	8	6.6	13.8						
16-Apr	7	8	7	5	A	8	9	10	8	8	6	6	6	5	4	1	2	4	7	6	5	5	5	4	6.0	10.2					
17-Apr	6	6	7	6	A	9	9	11	24	17	11	12	6	6	7	5	8	7	4	7	7	7	8	6	8.6	23.6					
18-Apr	6	6	5	5	A	4	3	3	2	1	1	1	1	1	1	2	2	2	3	5	5	5	5	5	3.0	6.0					
19-Apr	5	4	4	5	A	5	6	6	5	4	4	3	3	4	4	3	3	5	5	5	4	5	6	6	4.6	6.4					
20-Apr	6	7	6	8	A	7	7	6	6	5	6	5	4	4	4	3	4	5	5	8	10	10	9	6.3	10.1						
21-Apr	8	8	6	6	A	8	9	10	9	9	8	7	6	3	3	4	4	2	2	2	2	1	1	1	5.2	9.6					
22-Apr	1	1	1	1	A	1	1	1	1	2	3	2	2	2	2	1	1	2	2	2	3	3	3	4	1.8	4.1					
23-Apr	5	4	4	4	A	4	3	2	C	C	C	C	C	A	3	2	2	2	3	3	3	3	3	3	--	5.1					
24-Apr	3	3	4	5	A	5	4	3	2	2	3	3	3	3	3	2	2	1	2	1	2	5	5	4	3.0	5.3					
25-Apr	5	5	5	4	A	4	4	4	3	3	3	3	2	3	3	3	3	3	3	5	7	6	8	3	4.1	8.1					
26-Apr	3	3	4	5	A	5	5	10	5	4	4	3	4	3	2	3	3	3	4	5	5	5	5	5	4.2	10.3					
27-Apr	6	7	6	5	A	5	6	7	6	4	5	5	2	2	2	3	2	3	4	4	4	4	4	4	4.2	7.1					
28-Apr	4	3	3	3	A	4	4	4	3	2	2	2	2	2	2	2	2	2	4	4	4	4	4	5	3.0	4.9					
29-Apr	4	4	4	4	A	5	5	22	11	6	4	3	4	4	4	4	4	5	5	6	8	7	6	5	5.8	21.7					
30-Apr	6	5	6	6	A	11	11	10	9	4	4	4	4	4	4	4	5	6	8	10	10	8	7	7	6.5	11.1					
																				Diurnal Average											
																				Diurnal Maximum											
C - Calibration																				A - Automated Daily Zero Span											

Hourly Averages for NO_X at Beaverlodge

April 2009



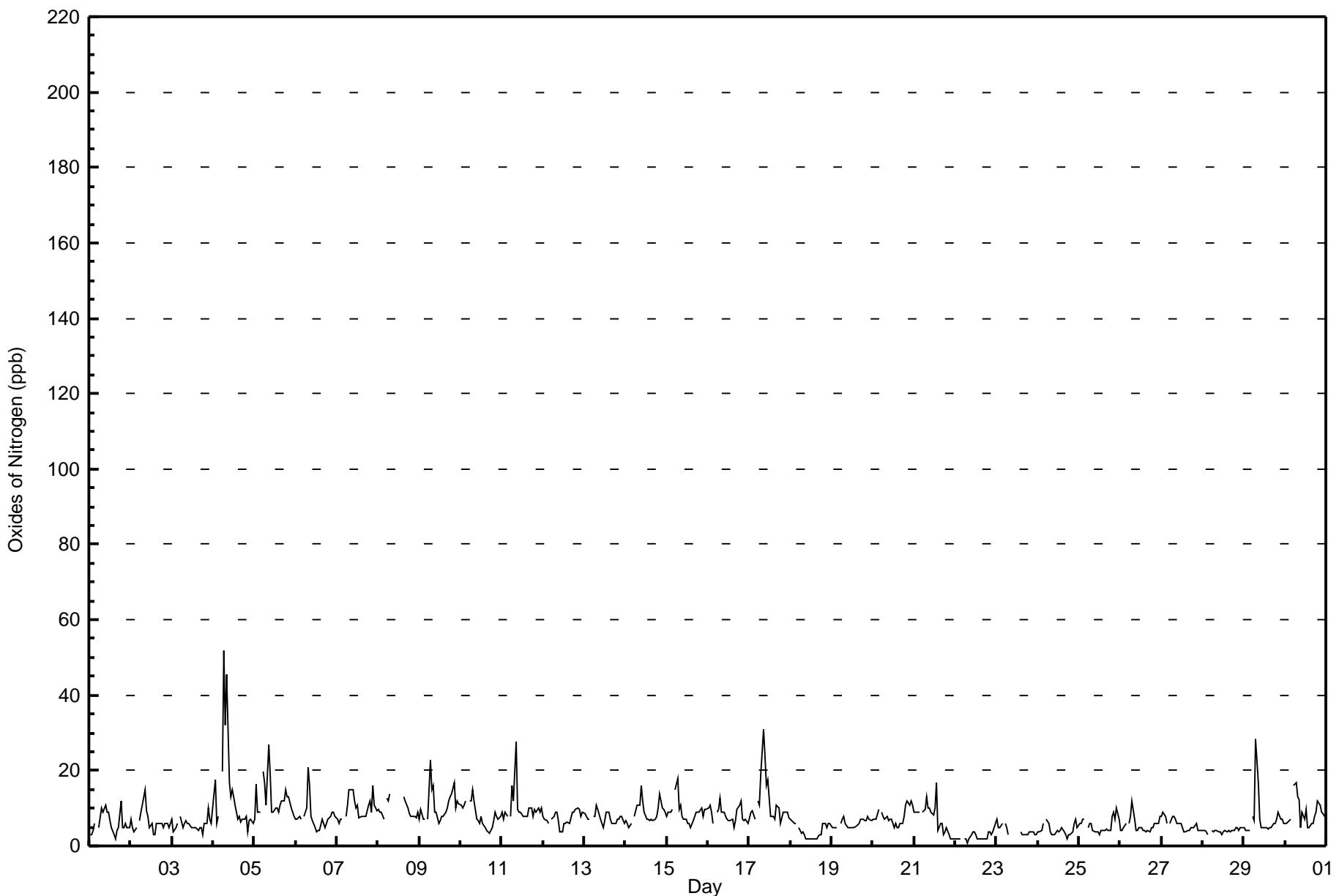
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Beaverlodge - Oxides of Nitrogen (NO_x) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 51.9 ppb on Apr 4 07:00																				Maximum Daily Average: 14.3 ppb on Apr 4																				Hours in Service: 720	
Minimum Value: 1 ppb on Apr 22 08:00																				Minimum Daily Average: 2.6 ppb on Apr 22																				Hours of Data: 677	
Maximum Diurnal Average: 12.6 ppb at hour 9																				Minimum Diurnal Average: 5.3 ppb at hour 15																				Hours of Missing Data: 43	
Monthly Average: 7.52 ppb																				Percentiles: P ₁ = 1.9 P ₁₀ = 3.9 Q ₁ = 4.9 Median = 6.9 Q ₃ = 8.9 P ₉₀ = 11.9 P ₉₉ = 26.7																				Hours of Calibration: 43	
																																								Percent Operational Time: 100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum															
1-Apr	3	3	4	6	A	5	7	10	9	11	9	9	7	5	3	2	4	5	12	5	5	6	5	5	5	6.0	11.8														
2-Apr	7	5	4	5	A	7	9	11	15	9	8	5	6	3	3	6	6	6	6	5	6	6	5	6	6.4	14.9															
3-Apr	7	4	5	6	A	8	5	6	7	6	6	5	5	5	5	4	5	5	3	6	6	6	7	6	5.6	9.9															
4-Apr	14	18	6	8	A	20	52	32	45	17	13	15	13	11	7	8	6	7	7	8	4	7	7	6	14.3	51.9															
5-Apr	7	16	9	9	A	20	17	11	27	19	9	9	10	10	9	11	12	12	15	13	13	10	9	8	12.3	26.9															
6-Apr	7	7	8	7	A	8	10	21	16	8	7	5	4	4	4	7	6	5	6	7	8	9	9	8	7.8	20.9															
7-Apr	7	6	7	7	A	8	11	15	15	12	10	11	8	8	8	8	8	8	11	12	9	16	11	9	10.0	15.9															
8-Apr	10	9	9	7	A	13	12	14	C	C	C	C	C	A	13	12	10	8	8	8	8	7	9	--	13.9																
9-Apr	7	10	7	7	A	7	23	15	16	9	9	6	7	8	8	9	10	12	13	14	17	10	12	11	10.7	22.8															
10-Apr	11	10	11	12	A	12	12	15	12	7	7	6	8	6	5	4	4	3	5	7	9	8	7	8	8.1	14.9															
11-Apr	9	7	9	8	A	8	16	12	28	10	9	9	8	8	8	8	10	10	8	10	9	10	9	10	10.0	27.7															
12-Apr	8	7	7	6	A	7	8	9	9	7	4	4	6	6	6	6	8	9	9	10	10	10	8	9	7.4	10.2															
13-Apr	8	8	7	7	A	8	8	11	10	7	6	5	7	9	9	7	6	6	7	7	8	8	6	7.4	10.9																
14-Apr	7	6	5	6	A	8	9	11	11	16	12	9	7	7	7	7	7	8	10	14	10	10	9	8.7	15.9																
15-Apr	8	9	9	10	A	15	18	10	11	8	7	7	6	6	5	7	8	9	9	10	8	10	10	9.0	17.8																
16-Apr	10	11	9	6	A	9	10	13	9	9	8	7	7	7	5	7	10	11	12	7	7	6	8.3	12.9																	
17-Apr	8	9	9	7	A	12	11	19	31	24	16	18	8	8	8	7	11	10	6	7	9	9	7	7	11.4	30.9															
18-Apr	7	7	6	6	A	5	4	4	3	2	2	2	2	2	2	2	3	3	3	6	6	5	6	4.0	6.9																
19-Apr	5	5	5	5	A	6	7	8	6	5	5	5	5	5	6	7	7	7	7	7	8	7	7	5.9	7.9																
20-Apr	7	7	7	10	A	9	8	7	8	7	7	5	6	5	5	6	6	8	11	12	11	12	11	7.8	11.9																
21-Apr	9	9	9	9	A	9	10	13	10	10	9	8	10	17	4	6	6	3	4	5	3	2	2	2	7.3	16.9															
22-Apr	2	2	2	2	A	2	2	1	2	3	4	4	3	2	2	2	2	2	2	4	4	3	4	2.6	5.9																
23-Apr	7	5	5	6	A	6	5	3	C	C	C	C	A	4	3	3	3	3	4	4	4	3	3	--	6.9																
24-Apr	4	4	4	6	A	7	6	4	3	3	4	4	4	4	5	4	3	2	3	3	4	6	7	4.2	6.9																
25-Apr	6	6	7	7	A	5	6	6	4	4	4	4	3	4	4	4	5	4	4	4	8	9	7	10	5.5	9.9															
26-Apr	4	4	5	6	A	6	8	12	7	4	4	5	5	4	4	4	4	4	5	5	6	6	8	5.4	11.9																
27-Apr	8	9	8	6	A	6	8	8	7	6	6	5	4	4	4	4	5	5	5	6	4	4	4	5.7	8.9																
28-Apr	4	4	4	3	A	4	4	4	4	4	4	3	4	4	4	4	4	4	5	5	4	5	5	4.0	4.9																
29-Apr	5	4	4	4	A	8	7	28	17	7	5	5	5	4	5	5	5	6	7	9	7	7	6	7.2	28.4																
30-Apr	6	6	7	7	A	16	17	13	12	5	9	7	10	5	5	6	6	8	9	12	11	9	9	8.7	16.9																
7.0 7.1 6.5 6.6 -- 8.7 10.9 11.4 12.6 8.5 7.2 6.7 6.4 6.1 5.3 5.7 6.1 6.3 6.8 7.6 7.8 7.5 7.3 7.0 Diurnal Average																				13.9 17.6 10.9 11.9 -- 19.9 51.9 31.9 45.5 23.8 15.9 17.5 12.9 16.9 8.9 12.9 11.9 14.9 13.9 16.9 15.9 11.9 11.3 Diurnal Maximum																					
C - Calibration A - Automated Daily Zero Span																																									

Hourly Maximums for NO_X at Beaverlodge

April 2009



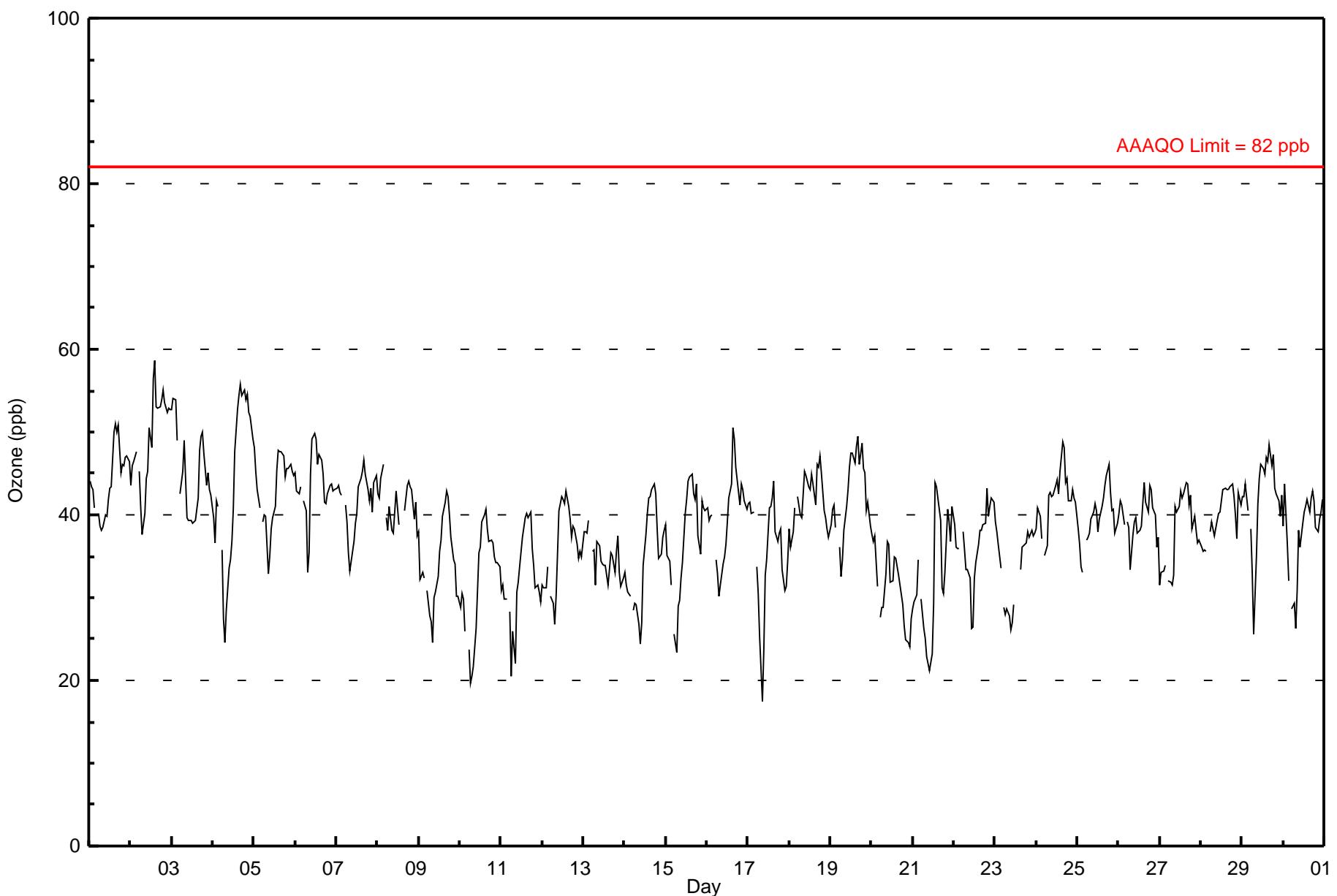
Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Ozone (O_3) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 58.7 ppb on Apr 2 15:00 Maximum Daily Average: 49.1 ppb on Apr 2																			Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 17 ppb on Apr 17 09:00 Minimum Daily Average: 31.4 ppb on Apr 20 Maximum Diurnal Average: 43.6 ppb at hour 17 Minimum Diurnal Average: 32.3 ppb at hour 8 Monthly Average: 38.83 ppb Percentiles: $P_1 = 21.5$ $P_{10} = 30.0$ $Q_1 = 34.6$ Median = 39.6 $O_3 = 43.0$ $P_{90} = 46.3$ $P_{99} = 54.4$																										
Day		Hourly Period Ending At (MST)																			Daily Average	Daily Maximum				
1-Apr	44	43	43	41	A	40	39	38	38	40	40	42	43	43	50	51	50	51	45	46	46	47	46	44.1	50.9	
2-Apr	43	46	46	48	A	45	41	38	40	44	45	50	48	56	59	53	53	54	55	54	52	53	53	49.1	58.7	
3-Apr	53	54	54	49	A	43	45	49	44	40	39	39	39	39	42	48	49	50	47	44	45	43	42	45.1	54.1	
4-Apr	40	37	42	41	A	36	27	25	28	34	35	37	41	48	53	54	56	54	55	55	52	52	49	43.6	55.7	
5-Apr	48	45	43	41	A	39	40	40	33	35	38	40	41	45	48	48	48	47	45	46	46	45	45	43.1	48.2	
6-Apr	45	43	43	43	A	42	41	33	35	45	49	50	49	46	47	47	45	41	41	43	44	43	43	43.5	49.9	
7-Apr	43	44	43	42	A	41	39	35	33	36	37	39	40	43	44	45	47	45	43	42	43	40	44	45	41.5	46.6
8-Apr	42	42	44	46	A	40	38	41	38	38	40	43	39	C	C	C	41	44	44	43	43	39	41	38	41.2	46.1
9-Apr	38	32	33	32	A	31	28	27	25	30	31	33	36	37	40	41	43	42	40	37	35	34	30	30	34.1	42.9
10-Apr	29	31	30	26	A	24	20	21	22	26	31	35	36	39	40	41	38	37	37	35	34	34	34	32.0	40.6	
11-Apr	31	32	30	30	A	28	20	26	22	31	32	34	37	38	40	40	40	40	36	34	31	32	31	30	32.3	40.3
12-Apr	31	31	31	34	A	30	29	27	30	35	41	42	42	41	43	41	39	37	39	38	36	35	36	35	35.8	42.8
13-Apr	38	38	38	39	A	36	36	32	37	36	34	34	34	34	32	33	35	35	33	36	38	33	32	32	34.9	39.3
14-Apr	33	31	31	30	A	29	29	29	27	24	34	38	40	42	42	43	44	42	38	35	37	38	35	37	34.8	43.7
15-Apr	39	35	34	32	A	26	23	29	30	32	34	40	42	44	45	45	43	42	44	38	35	42	41	41	37.1	44.9
16-Apr	41	39	40	40	A	35	33	30	32	34	35	36	39	42	44	51	49	46	43	41	44	43	42	41	39.9	50.6
17-Apr	41	41	40	40	A	34	30	25	17	24	33	35	41	41	42	44	38	37	38	33	31	31	34	35.2	44.1	
18-Apr	38	36	38	41	A	42	40	40	42	45	45	43	43	45	44	41	46	46	47	45	40	38	37	41.9	47.1	
19-Apr	39	41	41	39	A	36	32	35	38	41	43	46	47	48	46	48	49	46	45	41	41	39	41	42.4	49.4	
20-Apr	38	37	37	31	A	28	29	29	33	37	37	32	32	35	35	34	33	30	29	27	25	24	27	31.4	37.6	
21-Apr	29	29	30	35	A	30	26	25	23	22	21	23	29	44	43	41	39	31	31	33	41	39	37	41	32.3	43.9
22-Apr	39	36	36	36	A	38	36	33	33	32	26	27	32	34	36	38	38	39	43	40	41	42	42	42	36.4	43.3
23-Apr	39	38	36	34	A	29	28	29	28	26	27	29	C	C	A	33	36	36	37	38	37	38	37	33.7	39.1	
24-Apr	38	41	40	37	A	35	36	42	43	42	42	44	44	43	45	49	48	44	44	42	43	42	42	42.1	48.8	
25-Apr	38	36	34	33	A	37	37	38	39	40	41	40	38	40	41	42	44	45	46	43	41	38	39	39.6	46.2	
26-Apr	40	42	41	39	A	39	39	33	38	39	40	38	38	39	41	44	42	40	44	43	41	40	37	39.7	44.0	
27-Apr	32	33	33	34	A	32	32	32	33	41	40	41	43	42	43	44	44	41	42	38	40	38	37	37.9	43.9	
28-Apr	36	36	36	36	A	38	39	38	37	39	40	40	42	43	43	43	43	44	42	40	37	43	41	40.0	43.8	
29-Apr	42	42	44	40	A	38	33	26	35	41	44	46	46	45	47	46	48	46	47	43	42	40	42	42.1	48.4	
30-Apr	39	44	36	32	A	29	29	26	31	38	36	39	40	41	42	40	42	43	42	38	38	40	40	42	37.7	43.8
		38.9	38.5	38.3	37.3	--	34.9	33.2	32.3	32.8	35.6	36.8	38.4	40.0	42.0	43.3	43.5	43.6	42.5	42.3	41.1	40.2	39.6	39.2	39.3	Diurnal Average
		52.8	54.1	54.0	49.0	--	45.2	45.2	49.0	44.4	45.3	49.1	50.4	49.1	56.4	58.7	54.5	55.7	54.4	55.0	55.0	54.6	52.4	52.8	52.7	Diurnal Maximum
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages for O₃ at Beaverlodge

April 2009



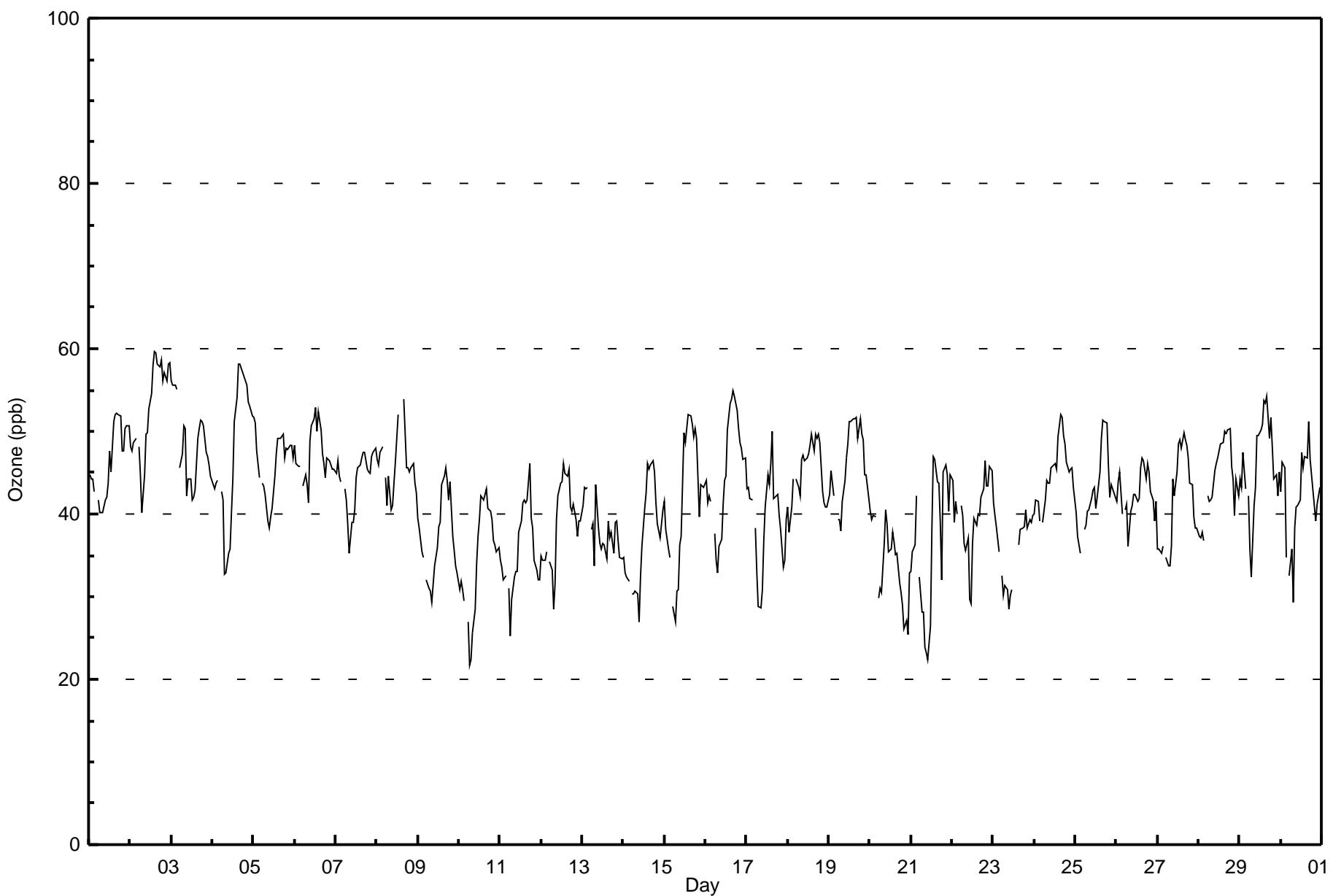
Peace Airshed Zone Association
Summary of Hourly Maximums

Beaverlodge - Ozone (O_3) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 59.6 ppb on Apr 2 15:00																				Maximum Daily Average: 52.9 ppb on Apr 2				Hours in Service: 720							
Minimum Value: 22 ppb on Apr 10 07:00												Minimum Daily Average: 34.1 ppb on Apr 20												Hours of Data: 684							
Maximum Diurnal Average: 47.8 ppb at hour 17												Minimum Diurnal Average: 35.5 ppb at hour 8												Hours of Missing Data: 36							
Monthly Average: 42.22 ppb												Percentiles: $P_1 = 25.2$ $P_{10} = 32.8$ $Q_1 = 38.2$ Median = 42.5 $O_3 = 46.7$ $P_{90} = 50.6$ $P_{99} = 58.1$																Hours of Calibration: 36			
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum					
1-Apr	45	44	44	43	A	42	40	40	40	42	42	44	48	45	51	52	52	52	52	48	48	50	51	51	46.3	52.2					
2-Apr	48	48	49	49	A	48	45	40	45	50	50	53	55	58	60	59	58	58	59	56	57	56	58	58	52.9	59.6					
3-Apr	56	56	56	55	A	46	47	51	50	42	44	44	42	42	43	49	50	51	51	51	48	47	46	45	48.3	56.1					
4-Apr	44	43	44	44	A	43	42	33	33	35	36	40	44	51	54	58	58	58	57	56	56	54	53	52	47.2	58.1					
5-Apr	52	51	48	44	A	44	43	42	39	38	40	41	45	47	49	49	49	50	47	48	48	48	47	45.9	51.6						
6-Apr	48	46	46	46	A	43	45	43	41	49	51	52	53	50	52	50	47	46	44	47	46	46	45	45	47.1	52.8					
7-Apr	45	46	45	44	A	43	42	39	35	39	39	40	44	46	46	47	47	47	45	45	45	47	47	48	44.0	47.9					
8-Apr	47	46	47	48	A	44	41	45	41	41	44	46	52	C	C	C	54	46	46	45	46	46	44	43	45.5	53.9					
9-Apr	40	38	35	35	A	32	31	31	29	31	34	36	38	39	44	45	46	44	42	44	37	36	34	33	37.1	45.6					
10-Apr	31	32	31	29	A	27	22	22	26	29	34	37	39	42	42	42	43	41	40	39	37	36	35	36	34.5	43.0					
11-Apr	34	34	32	33	A	31	25	30	32	33	33	38	39	41	42	41	42	46	39	38	34	33	32	32	35.5	46.2					
12-Apr	35	34	34	35	A	34	33	29	31	39	42	44	44	46	45	45	45	41	40	41	39	37	39	39	38.9	46.1					
13-Apr	41	43	43	43	A	38	39	34	44	38	37	36	37	36	35	39	37	38	35	39	39	37	35	35	38.1	43.5					
14-Apr	35	33	32	32	A	30	30	31	30	27	32	36	41	43	46	45	46	46	45	41	39	37	39	41	37.3	46.5					
15-Apr	42	38	36	35	A	29	27	31	31	36	37	50	49	50	52	52	51	49	50	49	40	44	43	43	41.9	52.1					
16-Apr	44	41	42	42	A	38	34	33	36	37	41	44	45	50	53	54	55	54	53	50	49	48	47	47	45.1	55.0					
17-Apr	43	43	42	42	A	38	33	29	29	31	37	41	45	44	46	50	42	42	40	38	33	34	39	39	39.3	49.9					
18-Apr	41	38	41	44	A	44	43	42	47	47	46	47	47	48	50	48	50	49	49	43	41	41	41	41	45.0	49.6					
19-Apr	42	45	44	42	A	39	39	38	42	44	47	48	51	51	52	52	49	51	50	49	45	45	42	42	46.0	51.8					
20-Apr	40	39	40	40	A	30	31	31	36	40	39	35	36	38	37	35	35	32	31	29	27	25	33	34.1	40.5						
21-Apr	33	35	36	42	A	32	28	28	24	23	22	26	38	47	47	44	44	39	32	45	46	45	40	45	36.6	46.9					
22-Apr	44	39	42	40	A	41	40	36	36	37	30	29	36	39	39	40	40	42	43	47	43	43	46	45	39.9	46.5					
23-Apr	41	40	38	35	A	33	30	31	31	29	30	31	C	C	A	36	38	38	39	40	38	39	40	39	35.9	41.3					
24-Apr	40	42	42	39	A	39	42	44	44	44	46	46	46	45	49	52	52	50	48	46	45	46	43	45.0	52.1						
25-Apr	40	37	36	35	A	38	39	40	41	42	43	43	41	42	45	49	51	51	51	46	42	44	43	42	42.7	51.3					
26-Apr	42	44	45	40	A	41	41	36	40	41	42	42	42	46	46	47	46	44	46	45	43	42	39	42	42.5	46.8					
27-Apr	36	36	35	36	A	35	34	34	36	44	42	45	48	49	48	50	49	48	47	44	40	38	38	41.5	49.8						
28-Apr	37	37	38	37	A	42	42	42	42	45	46	47	48	49	49	50	50	50	46	44	40	44	42	44.1	50.4						
29-Apr	44	43	47	43	A	42	36	32	41	43	50	49	50	51	54	53	54	49	52	48	44	45	42	45	46.0	54.3					
30-Apr	43	46	46	35	A	33	36	29	38	41	41	42	48	46	47	47	51	47	45	43	39	41	42	43	42.0	51.1					
Diurnal Average																															
Diurnal Maximum																															
C - Calibration A - Automated Daily Zero Span																															

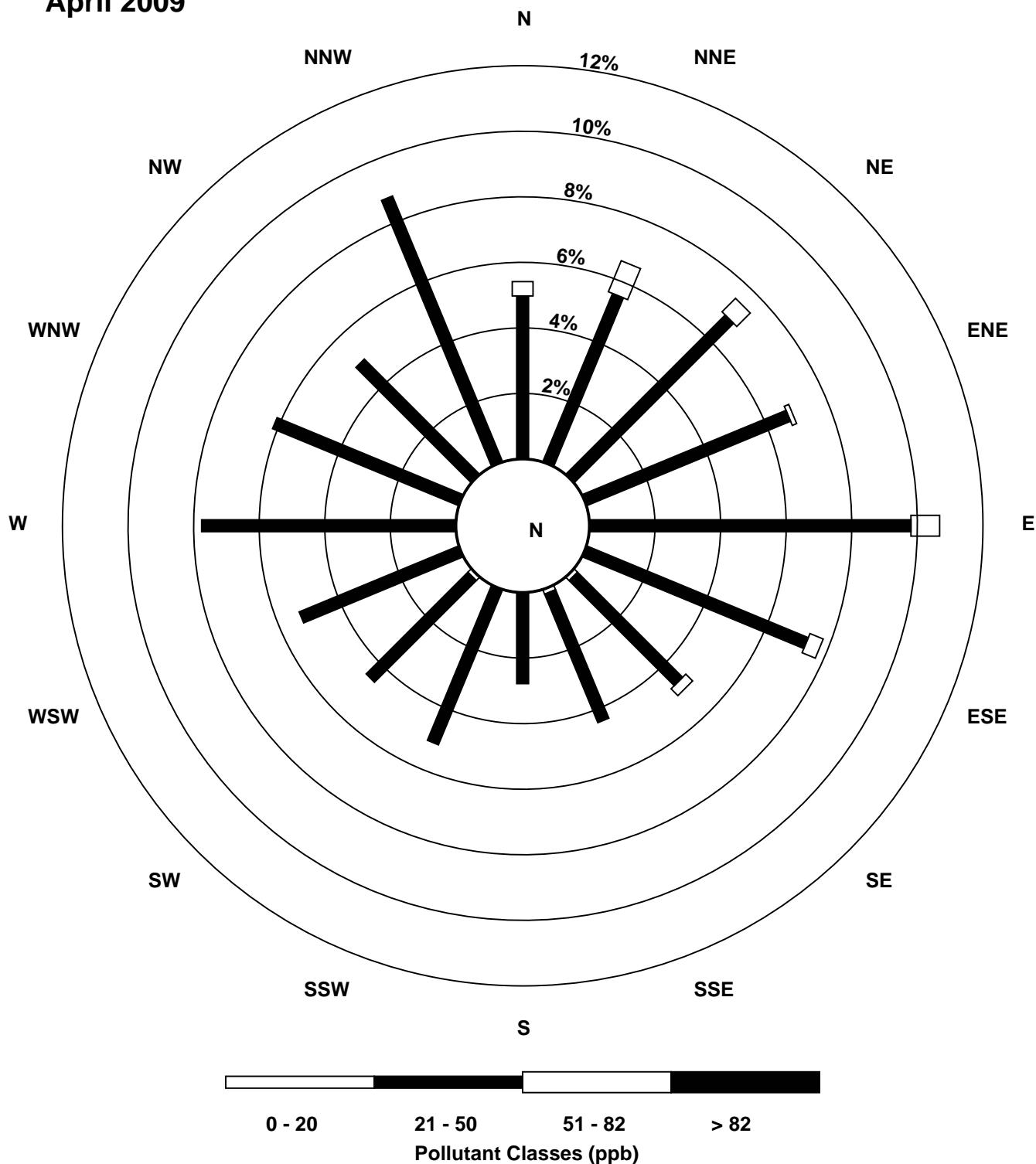
Hourly Maximums for O₃ at Beaverlodge

April 2009



Pollutant Rose for O₃ at Beaverlodge

April 2009



Peace Airshed Zone Association
Summary of Eight Hour Running Averages

Beaverlodge - Ozone (O_3) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 54.6 ppb on Apr 2 21:00																				Hours in Service: 720	
Minimum Value: 24.0 ppb on Apr 10 10:00																				Hours of Data: 708	
Percentiles: $P_1 = 25.7$ $P_{10} = 31.1$ $Q_1 = 35.0$ Median = 39.1 $Q_3 = 42.5$ $P_{90} = 45.4$ $P_{99} = 53.3$																				Hours of Missing Data: 12	
																				Hours of Calibration: 12	
																				Percent Operational Time: 100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Daily Maximum
1-Apr	44	43	43	43	43	42	42	41	40	40	39	40	40	40	42	43	45	46	47	47	48.2
2-Apr	46	46	46	46	46	45	44	43	43	43	43	43	44	45	48	50	51	52	53	54	54.6
3-Apr	53	53	53	53	53	51	50	50	48	46	44	43	42	42	41	40	41	42	43	44	53.4
4-Apr	45	43	42	42	41	40	38	35	34	33	32	32	33	34	37	41	45	47	50	52	54
5-Apr	52	51	50	48	47	45	44	42	40	39	38	38	38	39	40	41	43	44	45	46	52.5
6-Apr	46	45	45	44	44	44	43	41	40	40	41	42	43	44	44	46	47	47	46	45	47.3
7-Apr	43	43	43	43	43	42	41	40	39	38	37	38	38	38	40	41	43	43	44	44	44.1
8-Apr	43	43	43	43	43	42	42	41	41	40	40	40	40	40	40	N	N	N	N	N	43.4
9-Apr	41	40	39	37	36	35	33	32	30	29	29	29	30	31	32	34	36	38	39	39	41.3
10-Apr	35	33	32	31	30	28	27	26	25	24	24	25	27	29	31	34	36	37	38	37	38.1
11-Apr	35	34	33	32	32	31	29	28	27	27	27	28	29	30	32	34	36	38	38	37	38.2
12-Apr	33	32	31	31	31	31	31	30	30	31	32	33	35	36	38	39	41	41	40	39	40.8
13-Apr	37	37	37	37	37	37	37	37	36	36	36	35	35	35	34	34	34	34	34	34	37.0
14-Apr	34	33	33	32	32	31	31	30	29	28	28	28	30	31	33	34	36	39	41	40	41.2
15-Apr	39	38	36	36	36	34	32	31	30	29	29	31	32	34	37	39	41	42	43	41	43.0
16-Apr	40	40	39	40	40	39	38	37	35	35	34	34	34	35	37	39	41	43	44	45	45.0
17-Apr	43	42	42	42	41	40	38	36	33	30	29	28	30	31	32	35	37	39	40	39	42.5
18-Apr	35	35	35	35	36	37	39	39	40	41	42	43	43	43	44	44	44	45	44	43	44.6
19-Apr	42	41	40	39	39	39	38	37	37	37	38	39	40	41	43	45	46	47	47	46	47.4
20-Apr	43	42	40	39	38	36	34	33	32	32	32	32	32	33	34	34	33	32	31	30	42.9
21-Apr	27	27	27	28	28	29	30	29	28	27	26	24	25	27	29	31	33	34	35	36	37.9
22-Apr	36	37	38	38	38	38	37	36	35	35	34	32	32	32	32	33	34	35	38	38	40.5
23-Apr	41	40	40	39	39	37	35	33	32	30	29	28	28	28	N	N	N	N	N	36	37
24-Apr	38	38	38	38	39	38	38	39	39	39	40	41	41	42	43	44	45	45	45	45	45.1
25-Apr	42	41	40	39	38	37	37	36	36	37	38	39	39	39	40	40	41	42	43	42	42.7
26-Apr	41	41	40	40	40	40	40	39	39	38	38	38	38	38	38	40	40	41	42	41	41.8
27-Apr	39	38	37	36	35	34	33	32	33	34	35	36	37	38	39	41	42	42	42	41	42.5
28-Apr	39	38	37	37	36	36	37	37	38	38	39	39	39	40	40	41	42	43	43	42	42.9
29-Apr	42	41	41	41	41	42	40	38	37	37	38	38	39	39	41	44	46	46	46	45	46.5
30-Apr	43	42	41	40	39	37	36	34	32	32	33	34	35	37	38	40	40	41	41	40	42.7
Diurnal Maximums																					
N - Not Valid																					
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 65 ppb																					

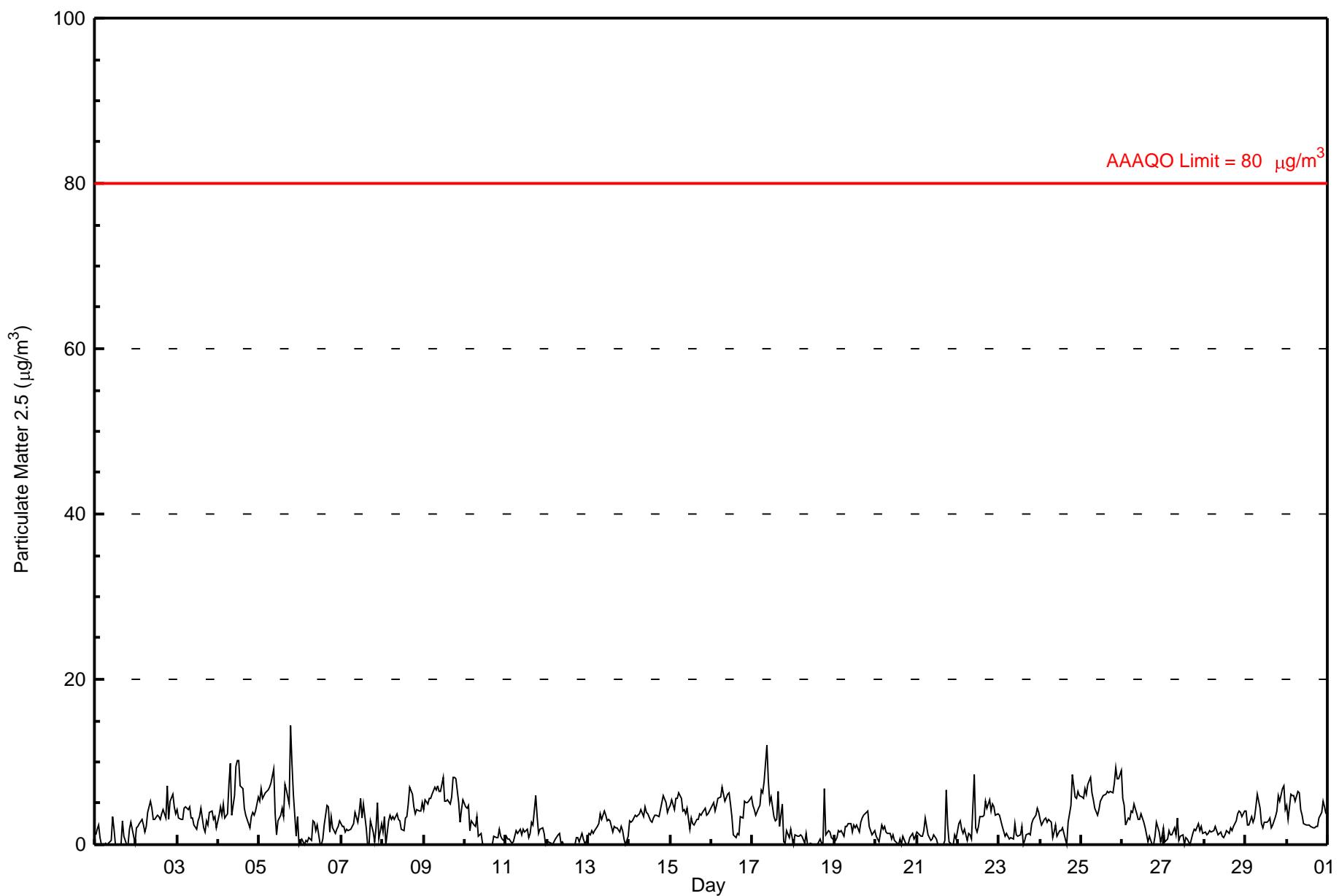
Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Particulate Matter 2.5 (PM_{2.5}) - μg/m³
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 14.4 μg/m ³ on Apr 5 19:00 Maximum Daily Average: 6.4 μg/m ³ on Apr 25																			Hours in Service: 720 Hours of Data: 719 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9				
Minimum Value: 0 μg/m ³ on Apr 1 05:00 Minimum Daily Average: 0.4 μg/m ³ on Apr 12 Maximum Diurnal Average: 3.6 μg/m ³ at hour 8 Minimum Diurnal Average: 2.2 μg/m ³ at hour 15 Monthly Average: 2.91 μg/m ³ Percentiles: P ₁ = 0.0 P ₁₀ = 0.3 Q ₁ = 1.2 Median = 2.6 Q ₃ = 4.2 P ₉₀ = 6.0 P ₉₉ = 9.2																							
Day																			Daily Average Daily Maximum				
1-Apr 1 2 2 1 0 0 0 0 1 3 2 0 0 0 0 3 1 0 0 2 3 2 0 2-Apr 2 2 3 3 2 2 4 5 4 3 3 4 3 3 4 4 3 7 3 5 6 5 4 3.6 3-Apr 4 3 3 3 4 5 4 5 3 3 2 2 3 3 4 2 1 3 2 3 3 3 2 3.3 4-Apr 4 5 4 5 3 4 7 10 4 6 9 10 10 7 7 4 4 3 2 3 4 4 6 5.3 5-Apr 5 7 6 6 6 7 8 9 4 1 3 4 4 3 7 7 5 14 10 6 1 3 0 5.5 6-Apr 0 1 0 1 0 1 1 3 3 2 2 0 0 1 2 5 5 1 3 2 1 2 2 3 1.7 4.8 7-Apr 2 2 2 2 2 2 3 4 3 4 6 3 5 2 0 0 3 2 0 2 5 1 3 2.4 5.5 8-Apr 1 3 0 3 3 3 3 3 4 3 3 2 2 3 3 5 7 6 5 4 4 4 4 5 3.5 6.9 9-Apr 4 5 5 6 6 6 7 7 6 6 8 5 5 5 5 6 8 8 8 5 3 4 5 5.9 8.2 10-Apr 5 4 5 2 3 2 2 3 1 1 0 0 0 0 0 0 0 1 1 1 2 1 1 0 1.5 4.7 11-Apr 1 1 1 0 0 1 2 1 2 1 2 1 1 3 2 6 3 1 2 2 1 0 0 1.6 5.9 12-Apr 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 1 1 0 1 0 0 0 0 0.4 1.4 13-Apr 1 1 2 1 2 2 3 4 3 4 4 3 3 3 2 2 2 1 2 2 1 0 1 0 1 2.1 4.1 14-Apr 3 3 3 4 3 4 4 4 3 5 4 4 3 3 3 4 4 3 4 5 6 5 4 4 3.8 5.9 15-Apr 5 5 4 6 6 6 4 4 4 4 2 3 3 3 2 3 4 4 4 4 4 4 4 4 4.0 6.2 16-Apr 5 5 4 5 6 6 7 6 5 6 6 5 3 1 1 1 1 3 3 5 5 5 5 6 4.4 7.0 17-Apr 5 4 4 4 5 7 6 8 12 8 5 6 3 3 3 6 2 5 0 0 2 1 2 1 4.2 12.1 18-Apr 0 1 1 1 1 0 1 0 0 0 0 0 0 0 0 1 0 0 7 1 2 1 1 1 0.9 6.8 19-Apr 0 1 2 2 2 1 2 2 3 3 2 2 2 2 1 3 3 3 4 4 2 2 1 2 2.1 4.1 20-Apr 1 1 0 2 2 2 1 1 1 1 1 0 0 1 0 1 0 0 0 1 1 1 1 1 0.9 2.4 21-Apr 2 1 1 1 2 3 1 1 0 1 1 1 0 BD 0 0 1 7 2 0 0 0 1 1 1 1.2 6.7 22-Apr 3 3 2 1 2 1 1 1 1 9 2 2 2 3 3 4 5 4 5 4 5 5 3 4 3.1 8.5 23-Apr 4 3 2 1 1 1 1 1 1 3 1 1 1 2 0 1 1 1 1 3 3 3 4 4 4 1.8 4.5 24-Apr 3 2 3 3 3 3 1 1 2 1 2 2 2 1 0 3 4 5 8 6 6 6 6 6 3.2 8.4 25-Apr 6 6 7 6 7 8 6 5 4 4 4 5 6 6 6 6 6 6 7 9 8 8 9 6.4 9.4 26-Apr 6 5 2 3 3 4 4 5 4 3 3 4 3 2 1 0 1 0 0 1 3 2 0 1 2.5 5.6 27-Apr 2 0 1 2 1 1 2 1 3 1 1 1 0 1 1 0 1 1 2 2 2 2 2 1 1.3 3.2 28-Apr 1 1 1 2 1 2 2 2 1 2 1 1 1 2 1 2 2 2 3 4 4 4 3 4 2.1 4.1 29-Apr 4 2 2 3 3 3 5 6 4 3 2 3 3 3 2 2 2 3 4 6 5 7 7 4 3.8 7.1 30-Apr 5 3 6 6 5 6 6 4 3 2 2 2 2 2 2 2 2 3 4 5 5 4 3.8 6.4																							
2.8 2.8 2.5 2.8 2.9 3.1 3.3 3.6 3.3 3.1 2.7 2.7 2.3 2.5 2.2 2.4 2.6 3.2 3.4 3.2 3.5 3.2 3.0 2.8 5.7 6.7 6.9 6.2 7.3 8.2 7.2 9.9 12.1 8.5 9.5 10.2 10.1 7.0 6.8 7.3 6.9 8.2 14.4 9.8 9.4 8.0 7.9 8.9																			Diurnal Average Diurnal Maximum				
BD - Baseline Drift Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 μg/m ³ 24-hr 30 μg/m ³																							

Hourly Averages for PM_{2.5} at Beaverlodge

April 2009



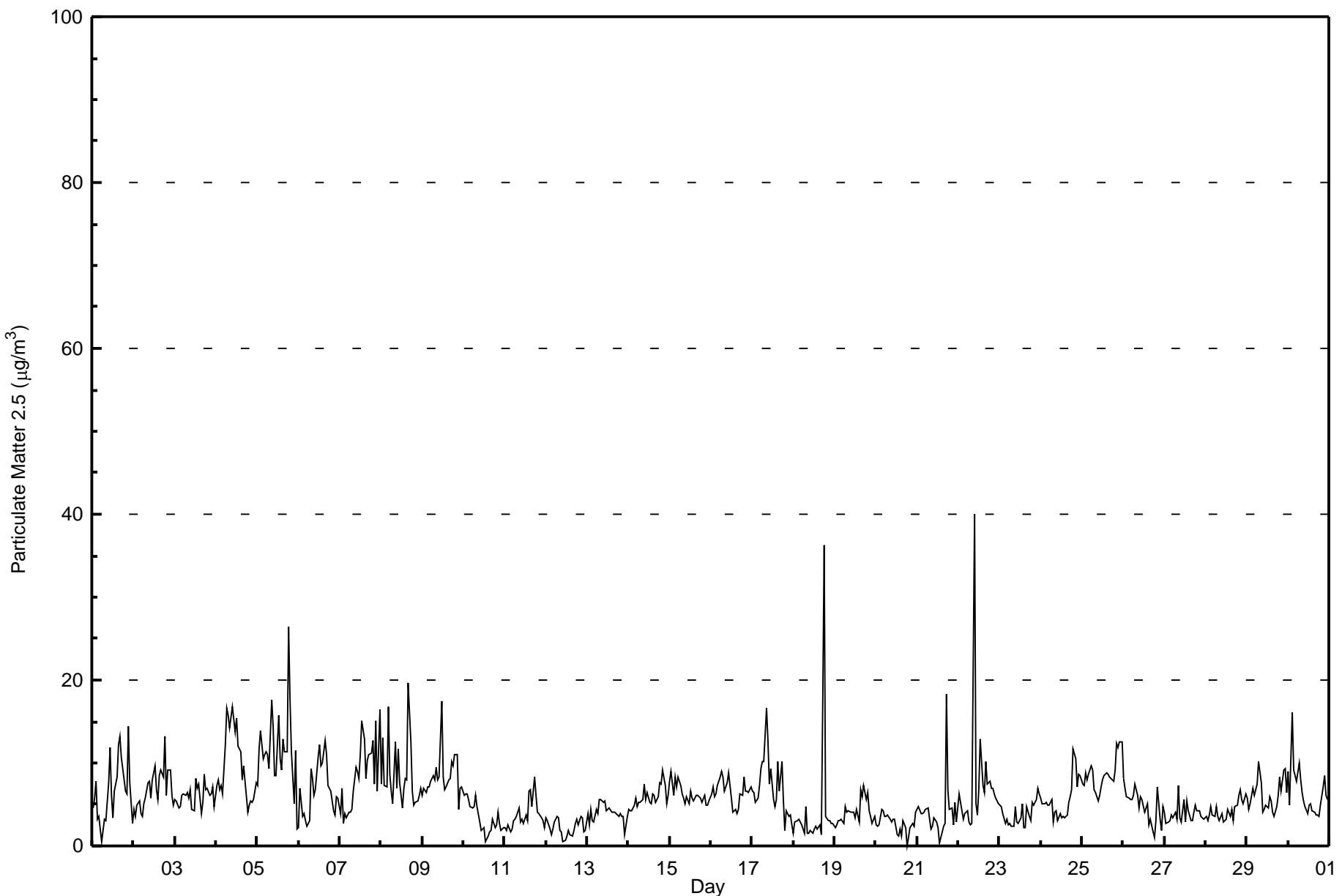
Peace Airshed Zone Association
Summary of Hourly Maximums

Beaverlodge - Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
April 1, 2009 to May 1, 2009

Maximum Value: 40.0 $\mu\text{g}/\text{m}^3$ on Apr 22 10:00																				Maximum Daily Average: 11.7 $\mu\text{g}/\text{m}^3$ on Apr 5				Hours in Service: 720							
Minimum Value: 0 $\mu\text{g}/\text{m}^3$ on Apr 20 19:00												Minimum Daily Average: 2.2 $\mu\text{g}/\text{m}^3$ on Apr 12												Hours of Data: 720							
Maximum Diurnal Average: 7.6 $\mu\text{g}/\text{m}^3$ at hour 19												Minimum Diurnal Average: 5.1 $\mu\text{g}/\text{m}^3$ at hour 4												Hours of Missing Data: 0							
Monthly Average: 5.96 $\mu\text{g}/\text{m}^3$												Percentiles: P ₁ = 1.0 P ₁₀ = 2.5 Q ₁ = 3.5 Median = 5.3 O ₃ = 7.4 P ₉₀ = 10.1 P ₉₉ = 17.6												Hours of Calibration: 0							
																									Percent Operational Time: 100.0						
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum					
1-Apr	5	6	8	3	4	1	2	3	3	8	12	6	3	7	8	12	13	11	8	7	6	14	8	3	6.6	14.4					
2-Apr	4	4	5	6	4	4	5	6	8	8	6	8	10	7	6	8	9	8	13	6	9	9	6	5	6.8	13.2					
3-Apr	6	5	5	5	6	6	6	7	6	7	4	4	8	7	7	4	5	9	7	7	6	7	5	5	6.0	8.6					
4-Apr	7	8	7	7	6	12	17	16	14	17	15	14	15	12	11	8	10	8	4	5	5	5	6	8	9.9	16.9					
5-Apr	7	12	14	11	11	11	9	18	14	8	9	16	11	9	13	11	11	26	18	11	5	12	2	11.7	26.5						
6-Apr	2	7	4	4	3	2	3	9	8	6	7	11	12	10	10	13	11	7	7	7	4	4	6	6	6.8	12.7					
7-Apr	4	7	3	4	3	4	4	4	7	9	9	8	11	15	13	8	10	11	11	13	8	15	7	16	8.5	16.4					
8-Apr	7	13	7	7	17	9	7	5	13	7	12	8	5	7	8	8	20	13	7	5	5	5	6	7	8.6	19.6					
9-Apr	6	7	6	7	7	8	9	8	10	8	8	17	8	7	7	8	8	10	10	11	11	4	7	7	8.3	17.5					
10-Apr	6	6	6	6	5	5	5	6	5	3	2	2	2	0	1	2	2	3	2	2	4	3	2	2	3.4	6.3					
11-Apr	2	2	3	2	2	3	3	4	5	3	3	3	4	3	7	7	5	8	6	4	4	3	2	2	3.7	8.2					
12-Apr	3	3	2	1	2	3	4	3	2	2	1	1	1	2	1	1	2	3	3	2	4	3	2	2	2.2	3.6					
13-Apr	4	2	4	3	3	4	4	6	6	5	5	4	4	5	4	4	4	4	4	4	4	4	1	4	4.0	5.6					
14-Apr	4	4	4	5	6	5	5	6	7	6	6	5	5	6	6	5	6	8	7	9	7	5	6	5.8	9.1						
15-Apr	8	9	6	8	7	8	7	6	6	5	6	5	7	6	5	6	6	6	5	6	5	5	5	5	6.3	9.0					
16-Apr	6	7	6	6	7	8	9	8	7	8	9	7	6	4	4	4	4	6	6	8	7	7	7	6.6	9.0						
17-Apr	7	6	5	6	7	9	10	10	17	13	7	9	6	5	6	10	7	10	5	2	4	3	4	3	7.1	16.7					
18-Apr	1	3	3	3	3	3	2	5	1	2	2	2	2	2	2	2	1	17	36	4	3	3	3	3	4.5	36.3					
19-Apr	2	3	3	3	3	3	5	4	4	4	4	4	3	4	3	7	6	7	6	4	4	3	4	4	4.1	7.2					
20-Apr	3	2	2	4	4	4	4	4	3	3	3	1	1	2	1	3	2	0	1	2	3	2	4	2.6	4.4						
21-Apr	4	5	4	4	4	5	3	2	2	3	3	2	0	1	2	3	18	7	4	5	2	5	3	4.1	18.3						
22-Apr	6	5	4	3	4	4	3	2	3	40	5	4	7	13	7	7	10	7	8	7	7	6	5	7.2	40.0						
23-Apr	5	5	4	3	3	3	2	2	5	3	3	3	5	2	2	5	4	3	5	5	6	7	6	3.9	7.0						
24-Apr	6	5	5	5	5	6	3	4	4	3	4	3	4	3	4	5	6	7	12	10	7	9	9	5.5	11.7						
25-Apr	7	7	9	8	9	10	9	7	6	5	6	7	8	9	9	8	8	8	9	12	12	13	13	8.6	12.6						
26-Apr	8	7	6	6	6	6	7	6	5	6	6	4	5	5	2	3	2	1	3	7	3	2	5	4.8	8.1						
27-Apr	4	3	3	3	4	3	4	3	7	3	3	6	3	5	4	3	3	4	5	4	4	3	3	3	3.9	7.3					
28-Apr	4	3	4	5	4	4	5	4	3	4	3	3	4	3	4	3	5	5	6	7	6	5	6	4.2	6.9						
29-Apr	6	4	5	7	6	7	7	10	8	4	4	5	5	6	5	4	3	5	6	8	7	9	9	6	6.2	10.2					
30-Apr	9	5	16	9	8	8	10	8	6	5	5	4	5	5	4	4	4	4	5	7	8	6	6	6.5	16.1						
																									Diurnal Average						
																									Diurnal Maximum						

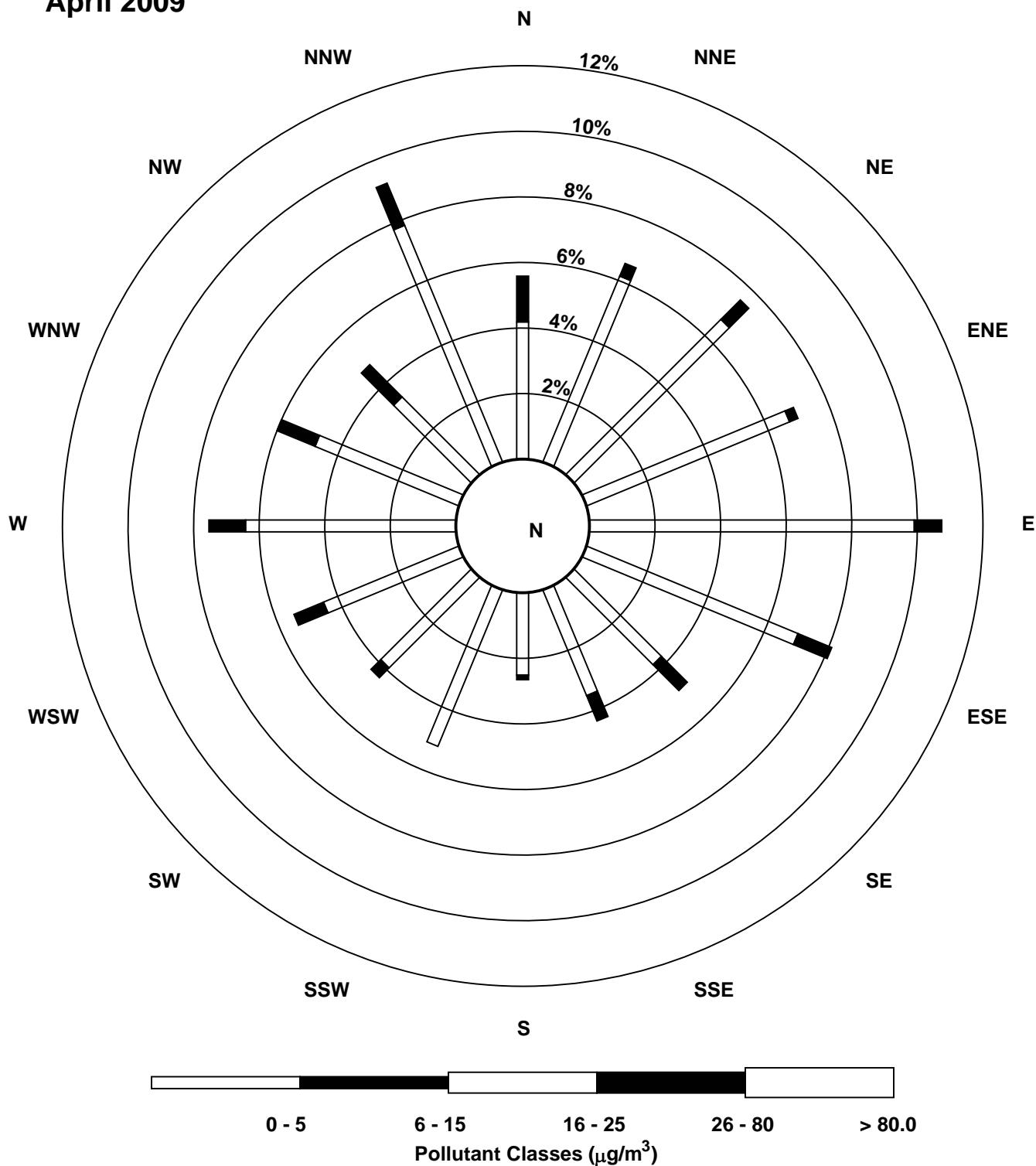
Hourly Maximums for PM_{2.5} at Beaverlodge

April 2009



Pollutant Rose for PM_{2.5} at Beaverlodge

April 2009



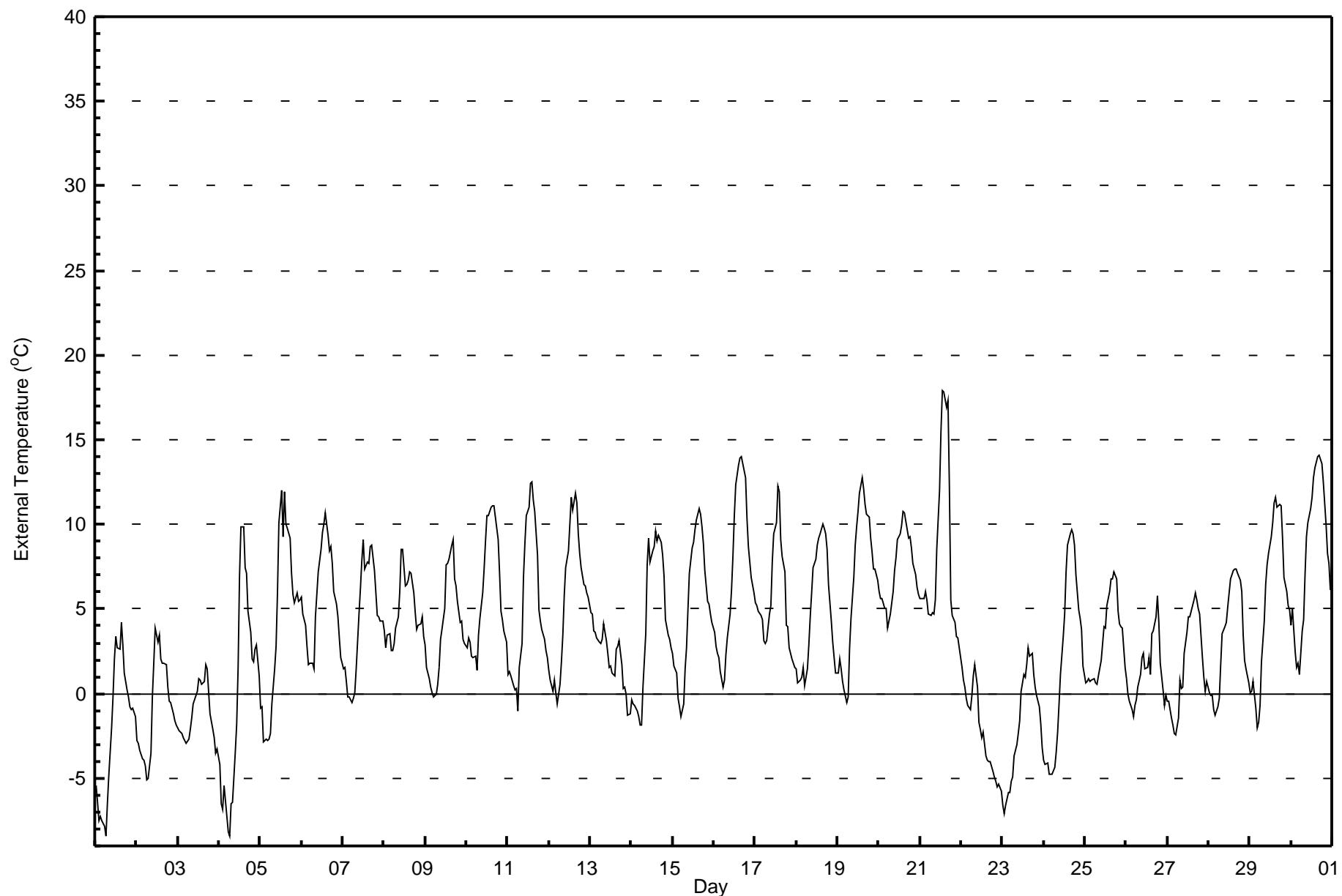
Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - External Temperature (ET) - °C
April 1, 2009 to May 1, 2009

Maximum Value: 17.9 °C on Apr 21 14:00																				Maximum Daily Average: 8.3 °C on Apr 30				Hours in Service: 720							
Minimum Value: -8 °C on Apr 1 07:00												Minimum Daily Average: -2.2 °C on Apr 22												Hours of Data: 720							
Maximum Diurnal Average: 8.1 °C at hour 16												Minimum Diurnal Average: -0.8 °C at hour 6												Hours of Missing Data: 0							
Monthly Average: 3.60 °C												Percentiles: P ₁ = -7.2 P ₁₀ = -2.3 Q ₁ = 0.4 Median = 3.3 Q ₃ = 7.1 P ₉₀ = 9.9 P ₉₉ = 13.9												Hours of Calibration: 0							
Day	Hourly Period Ending At (MST)																							Daily Average	Daily Maximum						
1-Apr	-5	-6	-7	-7	-8	-8	-8	-7	-5	-2	0	2	3	3	3	4	3	1	0	0	-1	-1	-1	-1	-2.0	4.2					
2-Apr	-3	-3	-3	-4	-4	-4	-5	-5	-3	0	2	4	3	3	2	2	2	2	0	0	-1	-1	-2	-2	-0.9	3.9					
3-Apr	-2	-2	-2	-3	-3	-3	-3	-2	-1	-1	0	0	1	1	1	1	2	1	0	-1	-2	-3	-4	-3	-1.2	1.7					
4-Apr	-4	-7	-7	-5	-6	-8	-8	-6	-6	-3	-2	2	7	10	10	7	7	5	4	2	2	3	3	1	-0.1	9.8					
5-Apr	-1	-1	-3	-3	-3	-3	-2	-1	1	3	6	10	12	9	12	10	10	9	7	6	5	6	5	6	4.3	12.1					
6-Apr	6	5	4	3	2	2	2	1	4	6	7	8	10	10	11	9	8	9	8	6	5	5	3	2	5.7	10.7					
7-Apr	1	2	1	0	0	0	0	0	1	5	6	8	9	7	8	8	9	9	7	6	5	5	4	4	4.3	9.1					
8-Apr	4	3	3	4	3	3	3	4	5	6	9	9	6	6	7	7	7	6	5	4	4	4	5	3	4.9	8.6					
9-Apr	3	2	1	0	0	0	0	1	2	3	4	5	8	8	8	9	9	7	6	5	4	4	3	3	3.9	9.1					
10-Apr	3	3	3	2	2	2	1	3	4	6	7	9	11	11	11	11	11	10	9	7	5	4	4	3	6.0	11.1					
11-Apr	1	1	1	0	0	0	-1	2	3	7	9	11	11	12	13	11	11	8	5	4	4	3	3	2	5.1	12.5					
12-Apr	1	1	0	1	0	-1	1	2	3	6	7	8	10	12	11	12	11	9	8	7	6	6	6	6	5.6	11.8					
13-Apr	5	5	4	4	3	3	3	3	4	3	2	2	2	1	1	3	3	2	0	0	0	-1	-1	-1	2.2	4.8					
14-Apr	0	-1	-1	-1	-1	-2	-2	0	4	8	9	8	8	9	10	9	9	9	8	7	4	3	3	3	4.3	9.6					
15-Apr	2	2	1	0	-1	-1	-1	1	3	5	7	9	9	10	10	11	11	10	9	7	5	5	5	4	5.1	10.9					
16-Apr	4	3	2	2	1	0	1	2	3	5	6	8	11	12	14	14	14	13	10	9	8	7	6	7.0	14.0						
17-Apr	5	5	5	5	4	3	3	3	5	5	8	9	10	12	12	9	8	7	4	3	2	2	2	5.6	12.3						
18-Apr	1	1	1	1	2	0	1	3	5	6	7	8	9	9	10	10	9	9	6	4	3	2	1	4.9	10.1						
19-Apr	1	2	1	1	0	-1	0	3	4	7	9	10	11	12	13	12	11	11	10	9	8	7	7	7	6.5	12.7					
20-Apr	6	6	6	5	5	4	4	5	6	7	8	9	9	10	11	11	10	9	9	8	7	6	6	7.3	10.8						
21-Apr	6	6	6	6	5	5	5	5	6	9	12	16	18	18	17	17	12	6	5	4	3	3	3	8.1	17.9						
22-Apr	2	1	0	0	-1	-1	0	1	2	0	-2	-2	-3	-2	-4	-4	-4	-4	-5	-5	-5	-6	-5	-6	-2.2	1.7					
23-Apr	-7	-7	-7	-6	-6	-5	-5	-4	-3	-2	-2	0	1	1	2	3	2	2	1	0	0	-1	-2	-3	-1.9	2.7					
24-Apr	-4	-4	-4	-5	-5	-5	-4	-3	-2	-1	1	3	5	7	9	9	10	9	9	7	5	4	4	2	2.0	9.7					
25-Apr	1	1	1	1	1	1	1	1	2	3	4	4	5	6	7	7	7	5	4	4	4	4	2	3.2	7.2						
26-Apr	1	0	0	-1	-1	-1	0	0	1	2	2	1	2	2	1	4	4	5	6	4	2	0	-1	0	1.3	5.8					
27-Apr	0	0	-1	-2	-2	-1	1	0	0	2	4	5	5	6	6	6	5	5	2	1	0	1	1	1.7	5.9						
28-Apr	0	0	0	-1	-1	-1	0	2	4	4	4	5	6	7	7	7	6	3	2	1	1	1	1	3.2	7.4						
29-Apr	0	0	1	-1	-2	-2	-1	2	4	6	8	8	9	10	11	12	11	11	9	7	6	5	5	5.5	11.6						
30-Apr	4	5	2	2	2	1	4	4	7	9	10	11	12	13	13	14	14	14	12	10	8	8	6	8.3	14.1						
Diurnal Average																															
Diurnal Maximum																															

Hourly Averages for External Temperature at Beaverlodge

April 2009



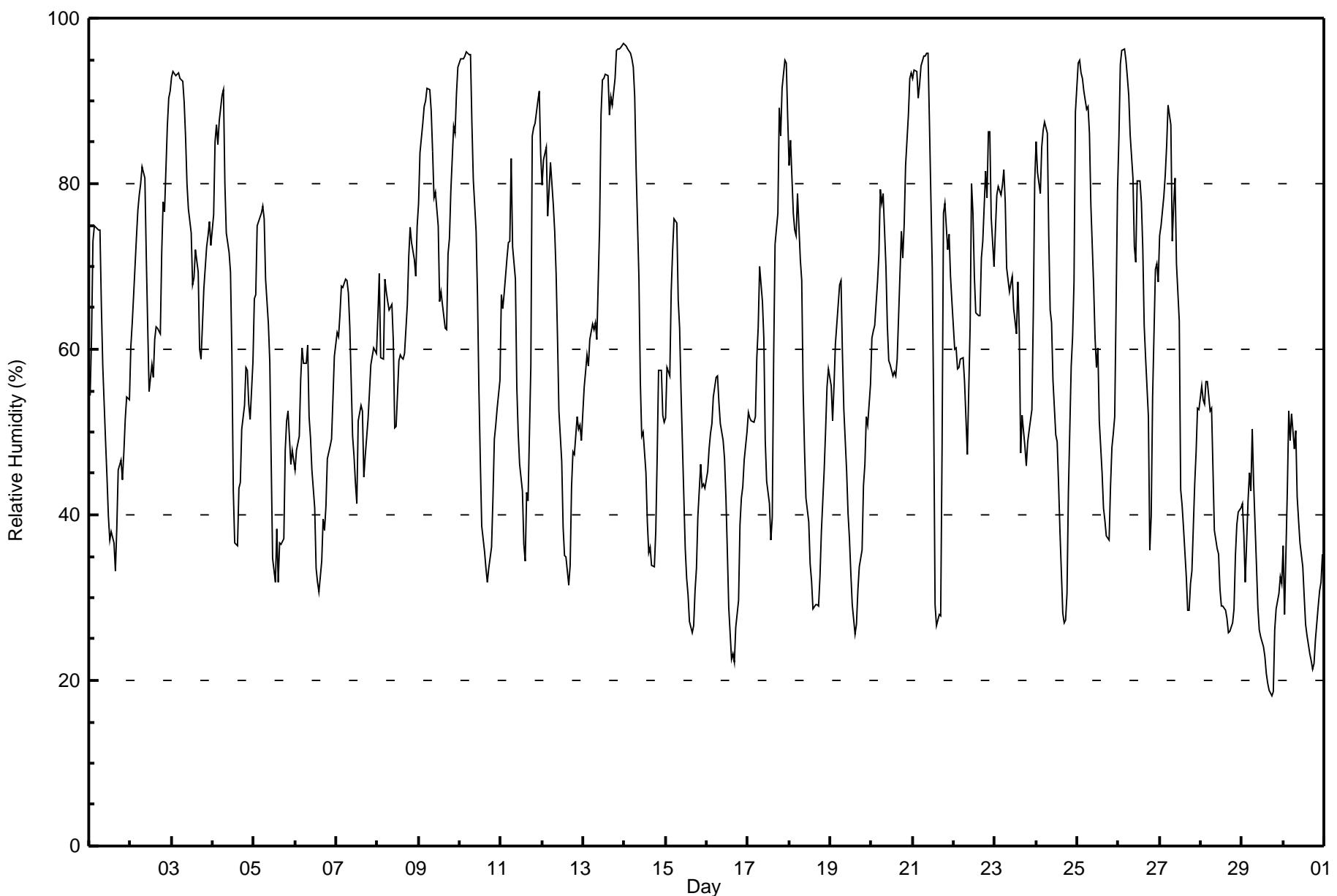
**Peace Airshed Zone Association
Summary of Hourly Averages**

**Beaverlodge - Relative Humidity (RH) - %
April 1, 2009 to May 1, 2009**

Maximum Value: 96.9 % on Apr 14 00:00 Maximum Daily Average: 80.0 % on Apr 9																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0			
Minimum Value: 18 % on Apr 29 18:00																											
Maximum Diurnal Average: 75.5 % at hour 6																											
Monthly Average: 59.69 %																											
Percentiles: P ₁ = 22.1 P ₁₀ = 31.9 Q ₁ = 43.8 Median = 58.7 Q ₃ = 75.0 P ₉₀ = 89.4 P ₉₉ = 96.3																											
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	54	62	73	75	75	74	74	65	58	49	45	40	37	38	37	33	38	45	47	44	47	52	54	54	52.9	75.0	
2-Apr	60	63	67	74	77	79	80	82	81	71	63	55	58	57	61	63	63	62	72	78	77	87	90	91	71.2	91.2	
3-Apr	93	94	93	93	93	93	92	90	86	80	77	74	68	69	72	69	60	59	63	67	72	74	75	73	78.3	93.6	
4-Apr	76	85	87	85	88	91	91	80	74	72	69	59	43	37	36	43	44	50	53	58	53	52	58	64.3	91.4		
5-Apr	66	67	75	76	76	77	76	68	63	59	46	35	32	38	32	37	36	37	48	51	53	46	48	47	53.7	77.4	
6-Apr	45	48	50	56	60	58	58	61	52	49	45	41	34	32	31	34	39	38	41	47	48	49	54	59	47.1	60.6	
7-Apr	62	61	64	68	68	69	68	67	63	50	47	44	41	51	53	53	45	47	52	55	58	59	60	60	56.8	68.5	
8-Apr	64	69	59	59	68	67	66	65	65	61	50	51	59	59	59	60	65	71	75	73	71	69	75	64.1	75.0		
9-Apr	78	84	87	89	90	92	91	89	84	78	79	75	66	67	65	63	62	72	73	79	87	86	91	94	80.0	94.1	
10-Apr	95	95	95	95	96	96	96	87	81	74	66	55	47	39	36	34	32	34	36	42	49	51	53	56	64.1	95.9	
11-Apr	67	65	67	71	73	73	83	72	68	55	50	46	43	36	34	43	42	58	86	87	87	90	91	84	65.5	91.2	
12-Apr	80	83	84	76	79	83	77	74	69	61	53	47	39	35	35	32	34	43	48	47	52	50	51	49	57.5	84.4	
13-Apr	55	57	59	58	61	63	62	63	61	75	88	92	93	93	93	88	91	90	93	96	96	96	96	97	80.0	96.9	
14-Apr	97	97	96	96	95	94	90	82	69	56	50	50	45	39	35	36	34	34	38	47	57	57	52	51	62.4	96.8	
15-Apr	52	58	57	67	72	76	75	66	63	55	48	36	32	30	27	26	27	31	34	40	46	43	44	43	47.8	75.7	
16-Apr	45	48	50	51	54	57	57	54	51	49	47	42	36	29	23	23	22	26	30	39	42	43	47	50	42.2	56.7	
17-Apr	52	52	51	51	52	59	63	70	66	61	49	44	41	37	40	59	73	77	89	86	92	95	95	88	64.2	94.9	
18-Apr	82	85	76	74	74	79	71	68	55	48	42	39	34	32	29	29	29	33	38	45	50	55	58	52.3	85.2		
19-Apr	56	51	56	61	63	68	68	59	53	45	40	37	33	29	26	27	31	34	36	44	46	52	51	56	46.7	68.4	
20-Apr	61	62	63	68	72	79	78	79	70	63	59	58	57	57	59	64	74	71	75	82	88	93	93	70.1	93.3		
21-Apr	93	94	94	90	92	94	95	95	96	96	87	70	53	29	27	28	28	48	76	78	72	74	69	66	72.6	95.8	
22-Apr	60	60	58	58	59	59	56	52	47	63	80	76	69	64	64	71	73	81	78	86	86	76	70	67.1	86.3		
23-Apr	74	79	80	79	80	82	78	70	67	68	69	65	62	68	62	47	52	48	46	49	50	53	64	80	65.5	81.7	
24-Apr	85	81	79	84	86	87	86	74	65	63	56	50	49	44	38	28	27	27	30	43	58	62	68	89	60.8	88.7	
25-Apr	95	95	93	93	91	89	89	86	77	68	61	58	60	51	45	41	39	37	43	48	50	52	79	65.8	94.8		
26-Apr	86	94	96	96	95	93	91	86	81	72	70	80	80	78	72	63	59	52	36	40	54	70	70	68	74.3	96.3	
27-Apr	74	75	79	81	85	89	87	73	77	81	70	63	43	41	39	33	28	28	32	33	44	48	53	53	58.7	89.5	
28-Apr	56	54	53	56	56	53	53	46	38	36	35	31	29	29	28	27	26	26	27	29	35	39	40	41	39.3	56.1	
29-Apr	41	38	32	42	45	43	50	44	34	29	26	25	24	23	21	20	19	18	19	26	29	31	33	32	30.9	50.3	
30-Apr	36	28	43	53	49	52	48	50	42	39	37	34	30	27	25	23	22	21	22	25	29	31	32	35	34.7	52.6	
Diurnal Average																											
Diurnal Maximum																											

Hourly Averages for Relative Humidity at Beaverlodge

April 2009



Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	2	2	1	1	2	2	1	2	2	2	2	4	6	6	3	5	7	5	3	5	4	3	5	2.6	7.0
Dir	92	86	159	87	115	76	81	99	88	231	86	90	105	119	121	106	43	61	43	42	55	42	41	16	75.4	60.9
2 Spd	8	9	10	10	9	7	8	8	7	4	4	4	7	8	7	8	8	7	7	6	5	5	7	9	6.7	9.9
Dir	352	30	31	32	30	17	344	327	345	16	17	354	22	32	32	36	40	42	36	30	29	350	27	30	20.4	31.5
3 Spd	8	7	8	9	9	10	8	7	7	9	11	11	13	13	12	11	7	6	5	5	6	6	4	5	7.6	12.8
Dir	17	10	352	341	339	343	351	2	0	342	336	334	333	327	328	326	336	4	40	18	40	43	21	43	350.5	333.3
4 Spd	2	2	3	4	1	1	1	2	1	1	3	0	2	1	1	3	3	5	7	8	7	7	6	2	1.9	7.8
Dir	47	123	83	83	101	248	257	267	349	244	264	161	262	258	127	139	97	88	100	105	100	95	96	303	99.9	104.7
5 Spd	3	1	1	1	1	1	2	1	1	3	3	2	1	2	1	3	4	2	6	4	1	0	1	4	0.4	6.4
Dir	20	0	82	231	250	123	82	139	7	91	92	140	165	200	152	108	116	138	315	320	91	78	249	260	86.3	314.7
6 Spd	4	2	1	1	2	1	1	4	2	10	17	16	20	17	16	10	14	17	18	12	9	8	5	3	7.9	19.8
Dir	265	277	209	199	102	207	87	226	224	250	261	261	276	282	278	297	313	293	289	287	294	290	272	264	278.2	275.7
7 Spd	2	4	4	4	3	4	2	2	2	1	2	3	2	10	4	5	4	2	2	2	4	7	5	1.9	9.8	
Dir	75	249	77	71	76	74	105	138	145	138	105	84	326	311	36	50	52	91	88	354	58	317	1	19	40.9	311.0
8 Spd	8	2	7	8	2	1	2	1	2	3	2	1	5	16	17	16	13	12	11	13	12	10	5	3	6.5	16.9
Dir	351	7	15	34	85	268	332	58	62	111	107	92	85	87	83	80	62	50	40	45	48	61	59	5	59.0	86.6
9 Spd	5	6	8	5	9	6	6	6	8	4	8	8	5	5	5	5	3	4	1	1	5	4	3	2	2.4	8.6
Dir	33	314	336	2	38	29	18	333	324	329	299	303	19	63	71	75	138	131	92	177	179	81	192	165	7.2	38.0
10 Spd	4	2	1	2	2	2	1	2	4	5	7	8	6	13	16	20	18	18	16	11	5	7	5	4	5.6	19.6
Dir	86	96	121	159	70	68	148	83	190	205	199	213	223	258	255	264	272	276	276	274	253	256	268	245	254.1	264.2
11 Spd	2	2	2	2	2	3	3	2	7	2	2	5	6	6	6	8	6	11	8	1	2	3	4	3	0.6	10.6
Dir	129	124	71	82	58	58	144	86	327	139	147	118	116	87	43	34	33	258	278	92	227	200	233	292	65.8	257.6
12 Spd	3	2	0	6	2	3	2	1	5	9	13	12	7	4	6	5	7	7	6	6	2	1	8	11	1.8	13.1
Dir	223	216	58	267	251	219	170	116	223	243	240	231	219	206	195	147	125	118	67	59	8	46	67	72	187.2	239.9
13 Spd	6	7	1	2	4	6	8	7	8	11	11	11	11	7	4	8	9	8	8	6	4	N	N	N	5.0	11.4
Dir	60	69	223	203	355	340	333	322	335	316	305	319	320	337	346	278	241	231	291	294	276	N	N	N	313.1	319.1
14 Spd	N	7	10	11	10	10	6	11	2	2	1	3	3	2	2	4	4	4	5	5	5	4	4	1.4	10.7	
Dir	N	337	333	334	337	339	352	335	342	283	334	135	121	96	194	151	198	208	167	155	117	107	104	117	353.8	333.6
15 Spd	2	4	4	3	4	4	2	2	3	2	4	7	10	11	9	7	9	13	16	14	12	11	11	6.6	15.8	
Dir	133	137	165	134	155	150	121	154	156	140	148	143	136	131	134	125	105	91	81	77	82	102	110	113	113.9	81.1
16 Spd	11	10	10	11	8	4	5	8	9	8	9	9	9	10	10	14	14	14	16	19	17	14	13	10.8	18.8	
Dir	110	109	108	112	118	137	106	132	138	150	142	128	117	115	119	124	120	96	97	92	106	116	116	121	115.4	105.8
17 Spd	10	8	7	7	5	2	3	2	1	5	2	3	3	3	1	10	2	2	9	7	6	2	2	2	0.5	10.4
Dir	113	112	109	118	110	290	325	39	236	313	8	223	197	111	252	250	330	296	321	44	235	133	187	184	135.6	113.2
18 Spd	4	1	7	5	10	10	14	11	22	26	29	27	25	24	22	21	18	15	7	6	5	1	14.8	28.7		
Dir	218	170	274	257	257	251	269	250	265	261	262	267	271	265	270	277	261	261	259	260	269	251	230	281	263.1	262.0
19 Spd	1	3	3	1	3	1	3	2	4	4	4	6	8	6	4	7	11	8	8	9	10	9	5	4	4.4	11.5
Dir	219	253	224	188	192	179	115	189	221	195	208	205	236	246	260	212	202	163	237	228	230	248	266	317	222.5	201.9
20 Spd	4	5	5	3	3	2	2	6	9	10	8	9	11	9	9	13	13	9	8	5	2	2	3	4	3.4	12.9
Dir	26	46	47	357	259	200	151	214	214	224	229	295	296	259	237	243	247	231	186	168	81	73	68	73	239.5	242.6
21 Spd	5	7	8	5	5	5	1	3	4	3	5	7	8	27	30	25	24	30	25	21	18	22	22	23	9.7	30.5
Dir	156	135	143	161	131	120	123	214	191	164	174	184	211	242	255	257	263	303	309	288	276	281	285	278	262.7	302.9
22 Spd	22	19	20	19	17	21	21	24	26	17	16	19	23	25	25	24	25	22	18	12	12	10	8	7	17.2	25.7
Dir	286	288	287	285	286	278	283	289	293	325	344	335	340	331	332	328	323	330	328	342	340	313.4	293.5			

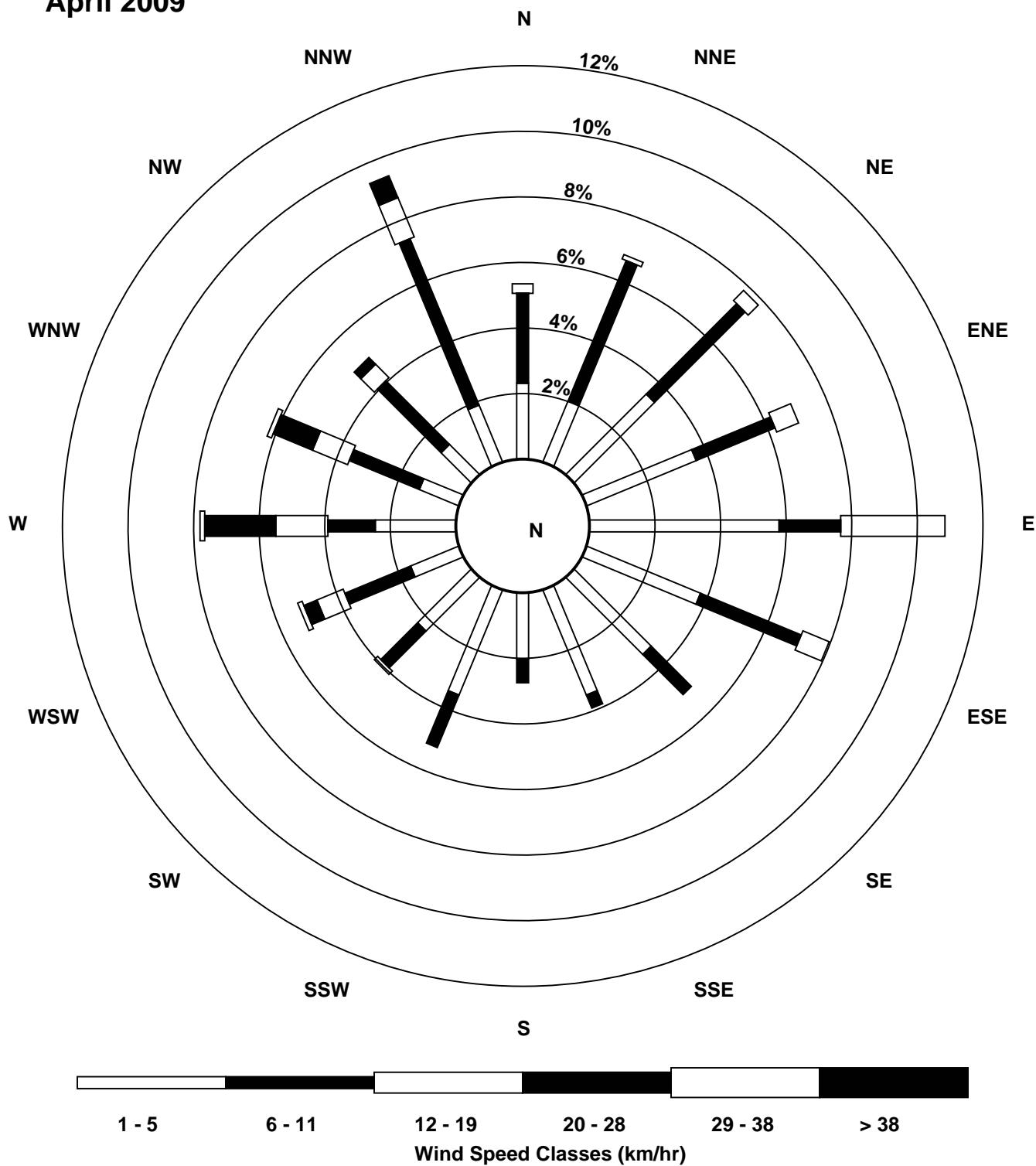
Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
23 Spd	5	5	6	6	3	7	9	10	12	10	9	7	7	8	10	13	14	11	12	9	8	7	10	10	7.0	13.6																						
	323	319	335	354	339	298	287	291	306	326	309	332	2	20	36	7	25	13	344	29	27	23	40	44	353.0	24.8																						
24 Spd	8	3	3	2	3	2	4	7	8	8	6	7	6	6	15	21	21	18	26	16	4	6	6	6	5.8	26.1																						
	52	24	346	286	259	206	217	203	190	189	184	197	202	163	203	250	253	274	270	286	299	327	264	326	255.6	285.8																						
25 Spd	4	6	7	9	10	10	9	10	11	10	9	10	12	12	9	9	9	10	8	7	3	4	5	17	7.2	16.9																						
	350	10	350	327	327	333	351	358	21	15	8	348	319	327	326	309	297	281	273	284	332	357	355	50	339.5	49.6																						
26 Spd	11	11	1	5	5	3	5	6	6	7	6	9	8	8	11	7	6	8	4	5	7	5	5	3	4.2	11.0																						
	34	45	287	333	348	353	333	342	20	38	32	331	307	302	72	255	296	305	330	28	2	37	90	40	359.5	71.8																						
27 Spd	9	7	4	7	3	2	2	2	5	9	3	2	15	14	15	9	14	13	14	10	8	7	7	7	6.0	14.9																						
	330	321	35	46	201	86	98	100	42	23	204	196	80	63	70	98	89	86	91	79	87	60	72	52	69.2	70.1																						
28 Spd	7	10	10	10	8	7	5	6	10	14	14	13	11	11	13	14	12	13	13	12	10	11	9	7	9.8	14.2																						
	56	59	49	42	42	68	50	62	88	80	77	90	90	115	101	87	93	95	101	95	90	87	100	99	82.7	76.7																						
29 Spd	6	5	6	6	1	1	0	3	3	2	3	3	2	2	1	3	3	4	2	5	2	1	2	3	1.1	6.2																						
	107	82	75	60	11	357	116	277	279	196	171	201	149	297	208	89	161	48	60	164	175	161	65	292	106.9	74.8																						
30 Spd	2	5	1	1	8	4	6	8	7	10	8	9	7	7	8	6	6	5	4	4	3	2	3	0	4.1	9.7																						
	12	316	89	254	330	34	21	330	344	30	28	6	34	17	23	38	61	43	70	81	98	135	74	161	23.6	30.0																						
Spd	2.3	2.1	1.9	2.0	1.7	1.7	2.1	2.2	2.2	2.0	2.1	2.3	1.9	2.2	1.5	2.2	1.9	2.6	2.9	1.9	1.3	1.4	1.6	2.2	Diurnal Average																							
Dir	27.5	24.5	17.3	10.0	348.8	332.8	330.4	306.7	303.2	303.4	280.5	287.1	317.8	308.2	324.9	294.1	297.8	316.0	327.3	356.8	17.2	35.8	47.5	32.1																								
Spd	22.0	19.2	19.9	19.3	17.4	21.2	20.7	24.2	25.7	25.9	28.7	27.2	27.0	27.2	29.6	25.4	25.1	30.5	25.3	26.1	18.8	22.4	21.6	23.3	Diurnal Maximum																							
Dir	285.6	287.9	287.3	285.3	285.8	278.3	283.1	288.5	293.5	260.6	262.0	267.4	271.2	241.9	255.2	257.2	323.3	302.9	308.8	285.8	105.8	281.3	285.0	278.2																								
Maximum Speed Value: 30 km/h on Apr 21 18:00				Minimum Speed Value: 0 km/h on Apr 29 07:00												Hours in Service:			720																													
Maximum Daily Speed Average: 17.2 km/h on Apr 22				Minimum Daily Speed Average: 0.4 km/h on Apr 5												Hours of Data:			716																													
Maximum Diurnal Speed Average: 2.9 km/h at hour 19				Minimum Diurnal Speed Average: 1.3 km/h at hour 21												Hours of Missing Data:			4																													
Monthly Average Velocity: 1.60 km/h 334.19 deg				Speed Percentiles: P ₁ = 0.6 P ₁₀ = 1.6 O ₁ = 3.0 Median = 6.1 O ₃ = 9.7 P ₉₀ = 14.5 P ₉₉ = 25.5												Percent Operational Time:			99.4																													
All monthly, daily, and diurnal averages have been calculated using vector methods																																																
N - Not Valid																																																
Frequency Distribution																																																
Direction																																																
0 to 5																																																
5 to 11																																																
11 to 19																																																
19 to 28																																																
28 to 38																																																
> 38																																																
Total																																																

Wind Rose for WS at Beaverlodge

April 2009



Peace Airshed Zone Association
Summary of Hourly Averages - Wind Speed (Scalar)

Beaverlodge - Wind Speed (WS) - km/h
April 1, 2009 to May 1, 2009

Maximum Speed: 32 km/h on Apr 21 18:00 Maximum Daily Speed Average: 19.2 km/h on Apr 22 Minimum Speed: 0 km/h on Apr 29 07:00 Minimum Daily Speed Average: 2.6 km/h on Apr 5 Maximum Diurnal Speed Average: 11.1 km/h at hour 18 Minimum Diurnal Speed Average: 5.2 km/h at hour 6 Monthly Average Speed: 7.79 km/h Percentiles: $P_1 = 1.1$ $P_{10} = 2.4$ $Q_1 = 3.7$ Median = 6.7 $Q_3 = 10.0$ $P_{90} = 14.8$ $P_{99} = 25.6$																								Hours in Service:	720	
																								Hours of Data:	716	
																								Hours of Missing Data:	4	
																								Percent Operational Time:	99.4	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	3	2	2	2	2	2	2	2	3	2	2	4	6	6	3	5	8	5	3	5	5	4	5	3.6	7.7	
2-Apr	8	9	10	10	9	7	8	8	7	5	4	4	8	8	7	8	8	7	7	6	5	5	7	9	7.3	9.9
3-Apr	8	8	8	9	9	10	8	7	7	9	11	12	13	13	12	11	8	6	5	5	6	6	5	5	8.4	12.9
4-Apr	3	2	3	4	1	1	2	3	3	2	3	2	2	2	3	3	5	7	8	7	7	6	4	3.6	7.8	
5-Apr	5	2	1	1	1	2	3	1	3	3	3	2	1	2	1	3	4	3	6	5	3	0	4	5	2.6	6.4
6-Apr	5	4	3	2	2	1	3	5	2	10	17	16	20	17	16	10	14	17	18	12	9	8	6	3	9.1	19.9
7-Apr	2	4	4	4	3	4	2	2	2	2	2	3	5	10	5	5	4	2	3	2	3	4	8	6	3.9	9.9
8-Apr	8	3	7	8	3	2	2	2	3	2	2	5	16	17	16	13	12	11	11	13	12	10	6	4	7.8	17.0
9-Apr	5	6	9	6	9	6	6	7	9	5	8	8	6	6	5	4	4	2	1	6	4	4	2	5.5	8.7	
10-Apr	4	2	2	2	2	3	2	3	4	6	7	8	7	14	16	20	18	18	16	11	6	7	5	4	7.8	19.7
11-Apr	2	2	2	3	2	3	3	3	7	3	3	5	6	6	7	8	6	13	9	8	3	3	5	3	4.7	12.8
12-Apr	4	3	1	6	2	5	3	3	5	9	13	12	7	7	6	7	7	7	6	4	2	8	11	6.1	13.3	
13-Apr	7	10	7	4	5	7	9	7	8	11	11	11	11	7	6	8	9	8	10	6	4	N	N	N	7.9	11.5
14-Apr	N	8	10	11	10	10	7	11	3	2	1	3	3	4	5	5	5	5	6	5	5	4	4	5.7	10.7	
15-Apr	2	4	4	3	4	4	2	2	3	3	4	7	11	12	10	8	10	13	16	14	12	11	11	7.6	15.9	
16-Apr	11	10	10	11	8	4	5	8	9	8	9	9	9	11	11	14	14	14	14	16	19	17	14	13	11.2	18.8
17-Apr	10	8	8	7	5	5	4	3	2	5	4	3	4	4	4	4	11	5	9	13	7	6	3	3	5.7	12.8
18-Apr	4	3	8	6	10	10	15	12	22	26	29	28	27	26	24	22	21	21	18	15	8	7	5	2	15.3	29.0
19-Apr	1	4	3	2	3	2	3	2	4	5	5	6	9	8	6	9	13	8	8	9	10	9	5	5	5.8	12.6
20-Apr	5	5	5	4	4	3	3	6	9	11	8	10	11	10	10	13	13	9	8	5	2	2	3	4	6.7	13.2
21-Apr	5	7	8	8	6	5	2	3	4	3	5	7	8	28	30	26	24	32	25	21	19	22	22	23	14.3	32.0
22-Apr	22	19	20	19	17	21	21	24	26	20	17	20	23	25	25	24	25	22	18	12	12	10	9	7	19.2	25.7
23-Apr	5	5	6	6	3	7	9	10	12	11	9	7	8	9	10	15	14	12	12	9	8	7	10	10	9.1	14.7
24-Apr	8	3	3	2	3	2	4	8	8	8	9	7	8	7	7	16	22	21	18	26	16	4	6	7	9.3	26.3
25-Apr	4	7	7	9	10	10	9	10	11	11	9	12	13	12	10	10	9	10	8	7	4	4	6	17	9.1	17.0
26-Apr	11	11	3	5	5	4	6	6	7	8	8	10	9	9	12	7	9	8	5	5	7	6	5	5	7.0	11.8
27-Apr	10	7	4	8	3	2	3	3	6	9	4	5	15	16	17	11	15	13	15	10	8	7	7	7	8.5	16.6
28-Apr	7	10	10	10	9	7	5	7	11	14	15	14	12	11	14	15	13	13	13	12	10	11	9	7	10.7	14.7
29-Apr	6	6	7	6	2	2	0	3	3	3	4	5	5	6	4	5	5	5	5	3	2	2	3	4.0	6.6	
30-Apr	4	5	2	2	8	5	7	8	8	10	9	9	8	9	8	9	8	8	6	5	4	3	3	1	6.1	9.9
																								Diurnal Average		
																								Diurnal Maximum		
N - Not Valid																										
All monthly, daily, and diurnal averages have been calculated using scalar methods																										

Peace Airshed Zone Association
Summary of Hourly Standard Deviations

Beaverlodge - Wind Direction (WD) - deg
April 1, 2009 to May 1, 2009

Maximum Value: 92.5 deg on Apr 4 07:00																								Hours in Service:	720
Minimum Value: 1.8 deg on Apr 16 00:00																								Hours of Data:	716
Percentiles: P ₁ = 2.5 P ₁₀ = 5.2 Q ₁ = 9.0 Median = 17.6 Q ₃ = 35.2 P ₉₀ = 60.5 P ₉₉ = 87.3																								Hours of Missing Data:	4
																								Hours of Calibration:	0
																								Percent Operational Time:	99.4
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Maximum
1-Apr	31	29	39	47	66	17	14	54	15	62	18	12	4	10	12	14	31	24	18	27	11	64	54	14	66.3
2-Apr	11	6	3	3	13	21	3	14	18	20	30	25	11	6	8	8	9	10	6	9	13	5	4	4	29.5
3-Apr	9	9	12	4	5	6	9	9	10	8	6	10	8	8	8	8	17	22	9	16	7	4	36	4	35.8
4-Apr	64	35	18	8	20	79	92	62	78	65	19	81	43	80	23	9	13	16	5	4	5	4	6	82	92.5
5-Apr	50	65	59	58	81	39	31	28	67	11	15	22	43	17	35	7	8	64	8	59	73	83	88	41	88.1
6-Apr	20	75	65	64	49	48	74	33	76	9	3	7	5	4	7	18	7	5	3	3	5	4	61	54	75.6
7-Apr	42	51	12	10	15	14	53	20	18	49	18	13	70	8	44	6	8	45	33	57	17	74	24	46	74.1
8-Apr	11	59	15	7	40	67	34	54	18	30	70	37	4	5	4	5	7	5	3	3	7	12	28	52	69.5
9-Apr	18	22	5	31	10	14	28	26	20	19	9	11	31	21	15	45	69	10	29	49	43	23	33	35	68.7
10-Apr	14	12	31	20	22	63	45	38	30	25	13	24	38	13	10	8	8	6	4	5	32	14	12	25	63.1
11-Apr	41	31	20	38	39	20	38	71	7	42	45	16	12	18	14	5	8	74	21	90	47	12	16	22	90.3
12-Apr	60	64	70	18	76	63	58	66	15	9	10	12	41	72	31	29	18	16	21	15	69	63	9	5	75.9
13-Apr	35	51	80	71	39	20	10	15	16	12	7	6	6	17	40	12	9	12	38	40	42	N	N	N	80.4
14-Apr	N	13	2	2	3	2	20	9	69	53	61	22	45	75	75	44	50	36	19	17	11	6	11	28	75.4
15-Apr	29	29	22	27	8	7	27	36	31	34	24	20	14	19	23	31	25	12	5	4	4	5	2	2	36.2
16-Apr	3	3	3	3	23	17	16	6	7	14	12	9	8	11	13	9	12	12	8	7	3	3	2	3	23.4
17-Apr	5	4	5	6	30	68	42	55	89	21	65	28	43	34	81	24	55	79	50	39	15	34	44	48	89.1
18-Apr	30	66	28	43	12	12	7	16	5	5	8	10	8	10	11	9	10	12	5	8	9	12	12	57	66.4
19-Apr	44	54	30	62	20	34	35	36	22	33	37	35	32	38	62	33	25	17	14	7	10	14	18	56	62.4
20-Apr	35	8	5	46	52	25	33	15	10	12	9	35	16	16	19	11	11	10	10	21	24	25	22	16	51.9
21-Apr	14	8	20	47	12	8	70	27	16	32	23	14	24	10	7	9	8	18	8	10	6	4	3	3	70.2
22-Apr	3	2	4	4	3	6	4	2	5	33	17	21	14	13	8	7	8	7	8	22	8	7	19	17	33.3
23-Apr	7	10	7	13	21	11	8	7	9	15	15	20	31	34	19	23	17	21	12	8	9	13	11	10	33.6
24-Apr	4	20	17	33	9	15	18	11	12	18	26	45	30	27	36	24	11	10	7	7	15	16	33	11	44.7
25-Apr	13	22	17	5	5	7	14	17	18	18	22	27	13	13	25	21	22	20	15	9	26	28	24	8	28.1
26-Apr	6	7	88	8	16	25	18	12	24	18	44	30	41	15	39	32	48	19	53	14	22	34	10	50	87.6
27-Apr	8	10	44	31	26	28	43	51	48	9	60	55	17	29	26	39	21	19	14	14	9	5	9	11	60.3
28-Apr	9	5	13	6	5	15	20	27	10	16	18	20	17	25	18	16	15	16	5	4	3	3	5	5	27.0
29-Apr	6	15	19	10	82	72	67	28	23	65	78	65	89	85	92	67	62	49	64	10	29	62	12	24	91.9
30-Apr	52	11	54	79	49	65	33	7	35	12	29	19	45	34	35	55	49	46	41	15	10	46	12	52	78.9
64.4 74.8 87.6 78.9 81.6 78.8 92.5 70.8 89.1 65.2 78.0 80.6 89.1 84.7 91.9 67.3 68.7 78.8 63.9 90.3 73.0 82.7 88.1 81.9																									
N - Not Valid																									

PASZA

Portable – Kinuso Station

Monthly Summary Tables, Graphs and Roses

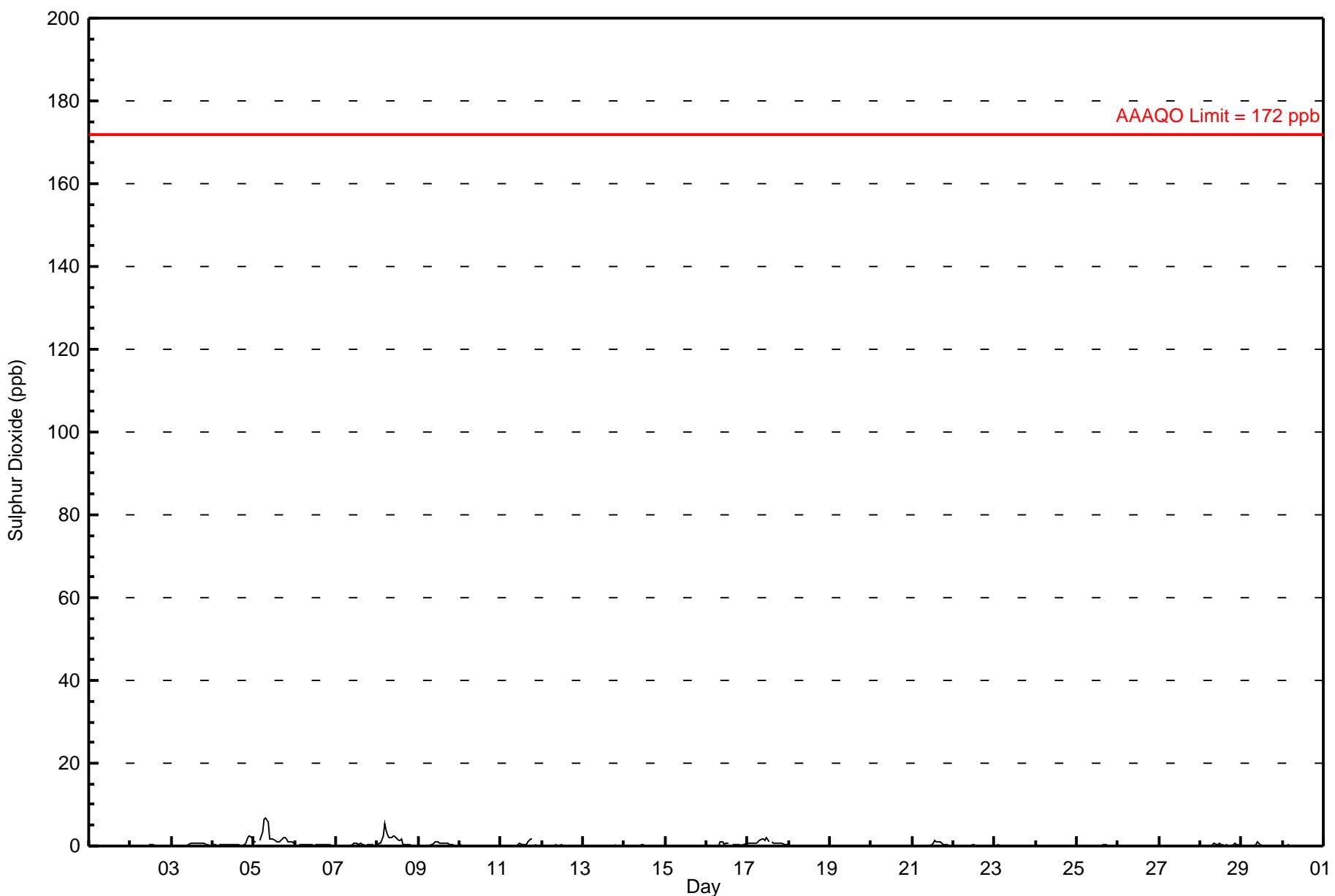
Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Kinuso - Sulphur Dioxide (SO₂) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 6.7 ppb on Apr 5 08:00 Maximum Daily Average: 2.1 ppb on Apr 5 Minimum Value: 0 ppb on Apr 10 17:00 Minimum Daily Average: 0.0 ppb on Apr 27 Maximum Diurnal Average: 0.5 ppb at hour 9 Minimum Diurnal Average: 0.1 ppb at hour 3 Monthly Average: 0.30 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 = 2.6																								Hours in Service: 687 Hours of Data: 655 Hours of Missing Data: 32 Hours of Calibration: 32 Percent Operational Time: 100.0			
 																									Daily Average	Daily Maximum	
 																									--	--	
 																									0.3	0.3	
 																									0.7	0.7	
 																									2.4	2.4	
 																									2.1	6.7	
 																									0.3	0.6	
 																									0.3	0.7	
 																									0.7	5.3	
 																									0.4	1.1	
 																									0.0	0.2	
 																									0.3	1.8	
 																									0.1	0.2	
 																									0.1	0.3	
 																									0.1	0.2	
 																									0.0	0.1	
 																									0.3	1.1	
 																									0.9	2.0	
 																									0.1	0.2	
 																									0.0	0.1	
 																									0.0	0.1	
 																									0.3	1.3	
 																									0.1	0.2	
 																									0.1	0.2	
 																									0.0	0.1	
 																									0.0	0.1	
 																									0.2	0.7	
 																									0.2	1.0	
 																									0.1	0.3	
0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	Diurnal Average		
1.0	0.9	0.8	2.3	5.3	3.6	6.4	6.7	5.6	2.5	2.4	2.0	1.5	1.4	1.8	1.2	1.3	2.2	1.9	1.6	1.8	2.2	2.4	1.6	Diurnal Maximum			
C - Calibration NS - Not in service A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 57 ppb																											

Hourly Averages for SO₂ at Portable-Kinuso

April 2009



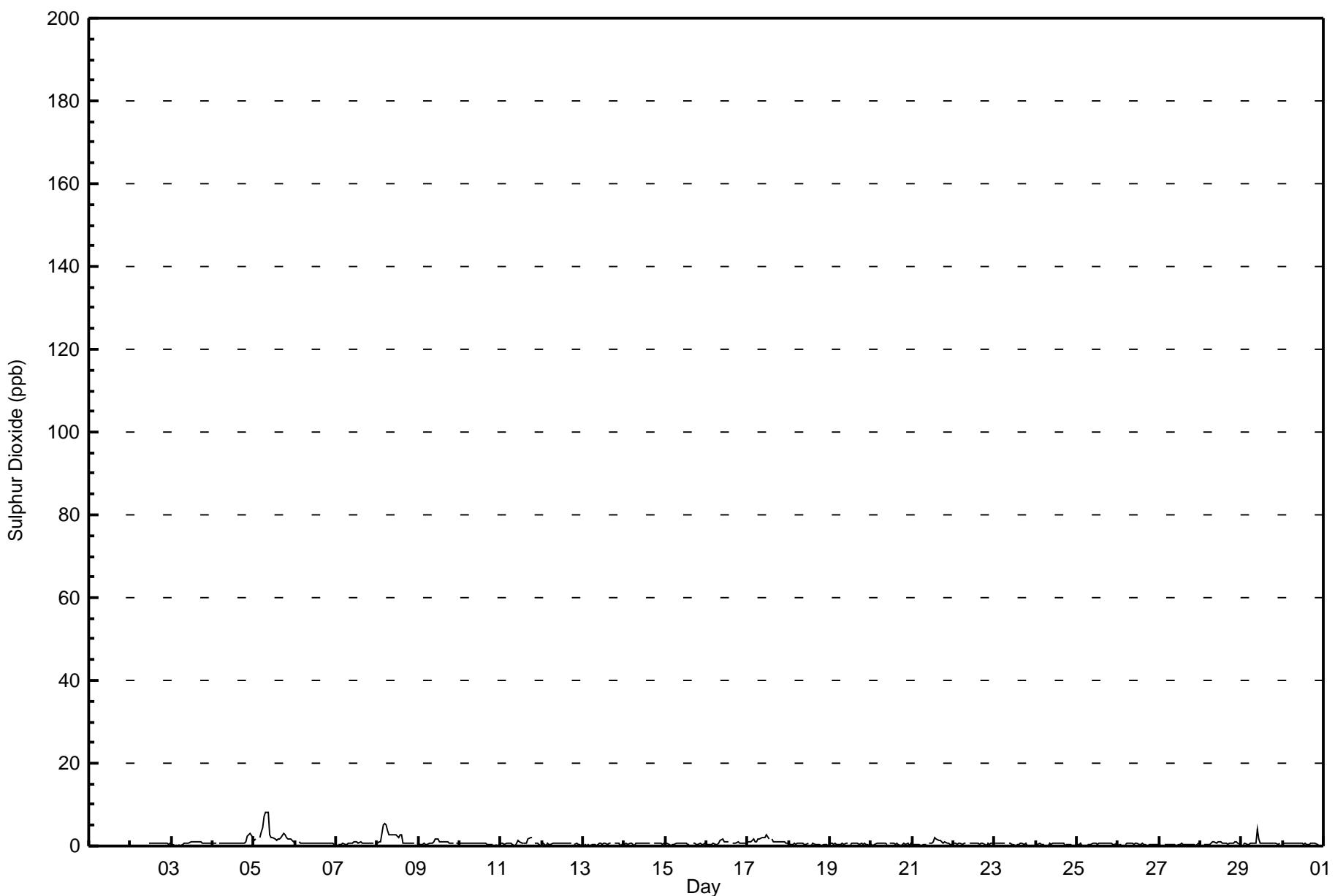
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Portable-Kinuso - Sulphur Dioxide (SO_2) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 8.1 ppb on Apr 5 09:00 Maximum Daily Average: 2.8 ppb on Apr 5 Minimum Value: 0 ppb on Apr 27 11:00 Minimum Daily Average: 0.4 ppb on Apr 27 Maximum Diurnal Average: 1.0 ppb at hour 9 Minimum Diurnal Average: 0.5 ppb at hour 3 Monthly Average: 0.71 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.2$ $Q_1 = 0.5$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 1.1$ $P_{99} = 4.4$																								Hours in Service: 687		
																									Hours of Data: 655	
																									Hours of Missing Data: 32	
																									Hours of Calibration: 32	
																									Percent Operational Time: 100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	NS	--	--																							
2-Apr	NS	C	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.1									
3-Apr	0	0	0	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
4-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	1.0	3.0
5-Apr	1	2	A	2	3	4	7	8	8	3	2	2	1	2	2	2	3	3	2	2	2	1	1	1	2.8	8.1
6-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	0.6	1.0
7-Apr	A	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.6	1.1
8-Apr	1	1	1	5	6	5	4	3	3	3	3	3	2	3	3	1	1	1	1	1	1	1	A	1	2.0	5.6
9-Apr	1	0	0	1	0	0	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.6
10-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0.4	0.6
11-Apr	1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	2	2	2	A	1	1	1	0	0	0.7	2.1
12-Apr	0	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0.5	0.6
13-Apr	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	A	1	1	1	1	0	0.4	0.6
14-Apr	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0.5	0.6
15-Apr	1	1	0	0	0	0	1	1	1	1	1	1	1	0	0	A	1	1	0	0	1	0	0	1	0.5	0.6
16-Apr	0	0	0	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.5
17-Apr	1	1	1	2	1	1	2	2	2	2	3	2	2	A	2	1	1	1	1	1	1	1	1	1	1.3	2.6
18-Apr	1	0	0	1	0	1	1	1	0	0	1	A	0	1	0	0	0	0	0	0	0	1	0	0	0.4	0.6
19-Apr	1	1	0	1	0	0	0	1	0	1	1	A	0	1	1	1	1	1	1	1	1	1	0	0	0.4	0.5
20-Apr	0	0	0	1	1	1	1	1	0	A	1	1	1	0	1	1	1	0	0	1	0	1	0	1	0.4	0.5
21-Apr	0	0	0	0	0	0	1	0	1	A	1	1	1	2	2	2	2	1	1	1	1	1	0	0	0.7	2.0
22-Apr	1	1	0	1	1	0	1	1	A	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	0.5	0.6
23-Apr	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0.4	0.6
24-Apr	0	0	1	0	0	0	0	A	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	0.6
25-Apr	0	0	1	0	0	0	A	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0.4	0.6
26-Apr	0	0	0	0	A	0	1	1	1	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0.4	0.6
27-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0.4	0.5
28-Apr	1	A	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.0
29-Apr	A	0	1	0	0	1	1	1	1	4	2	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	4.0
30-Apr	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	A	0	0.5	0.6
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration NS - Not in service A - Automated Daily Zero Span																										

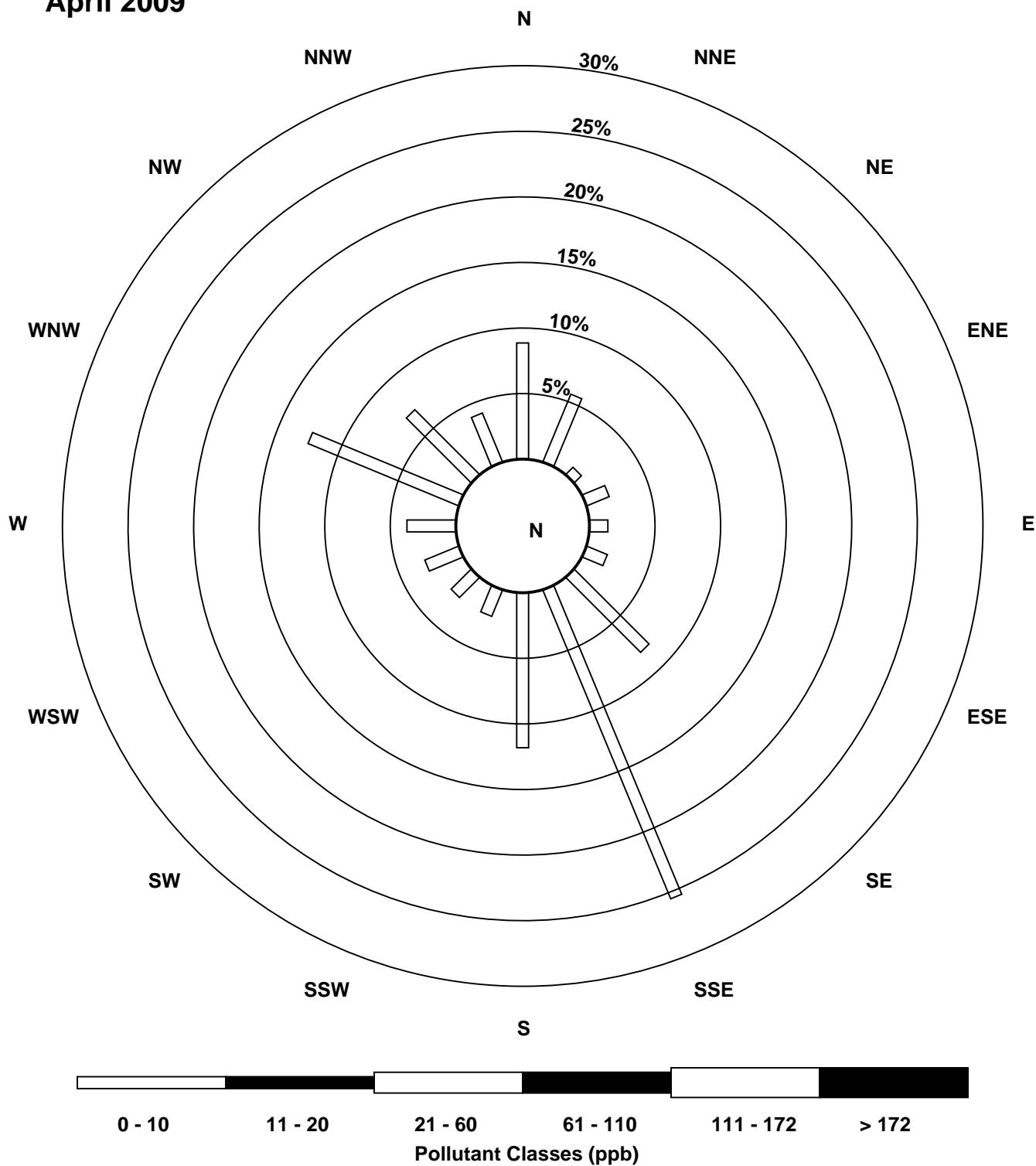
Hourly Maximums for SO₂ at Portable-Kinuso

April 2009



Pollutant Rose for SO₂ at Portable-Kinuso

April 2009



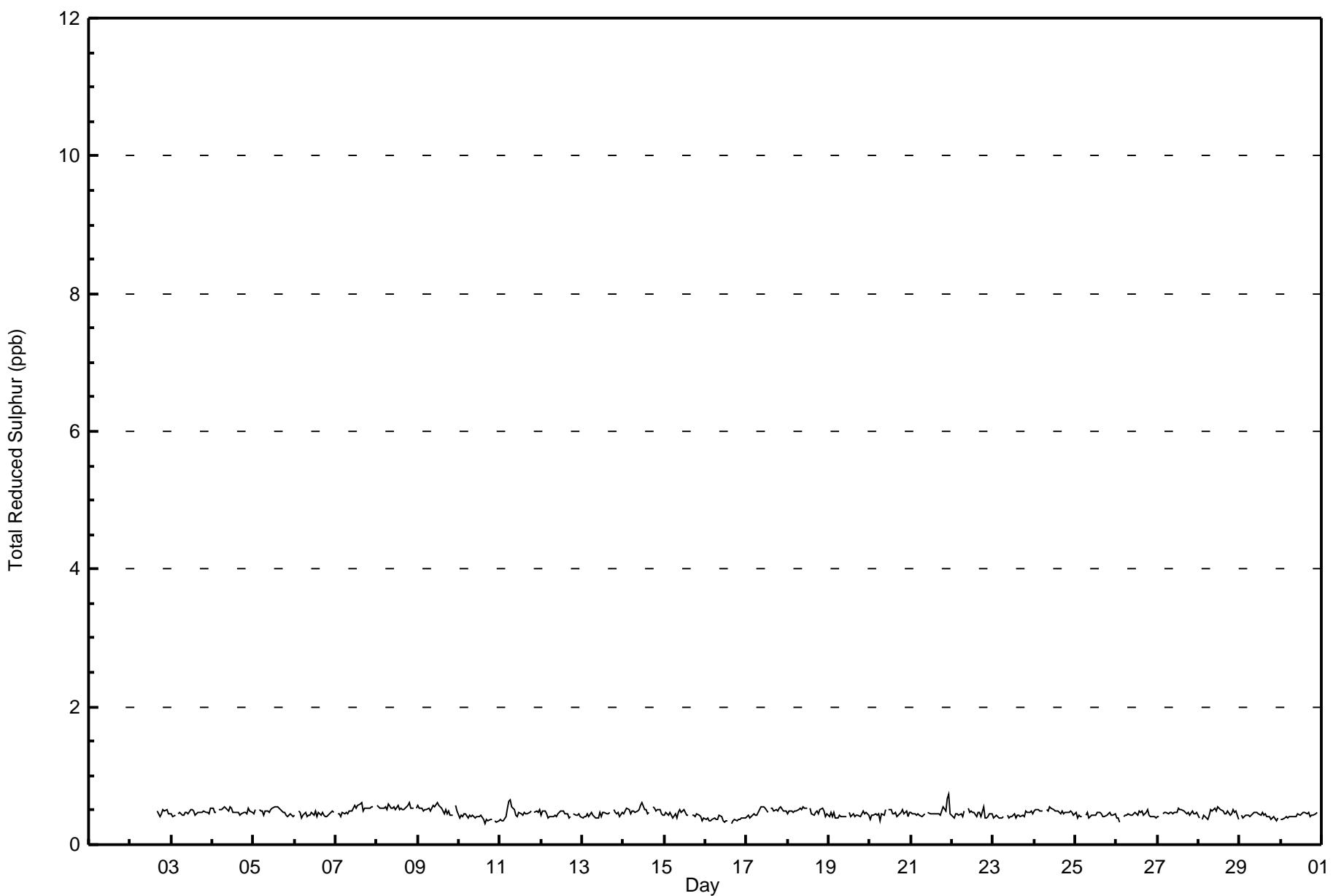
Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Kinuso - Total Reduced Sulphur (TRS) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.7 ppb on Apr 21 23:00 Maximum Daily Average: 0.5 ppb on Apr 8																				Hours in Service: 682 Hours of Data: 650 Hours of Missing Data: 32 Hours of Calibration: 32 Percent Operational Time: 100.0			
Minimum Value: 0 ppb on Apr 10 16:00 Minimum Daily Average: 0.4 ppb on Apr 16 Maximum Diurnal Average: 0.5 ppb at hour 12 Minimum Diurnal Average: 0.4 ppb at hour 1 Monthly Average: 0.46 ppb Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.5$ $P_{90} = 0.5$ $P_{99} = 0.6$																							
Day																				Hourly Period Ending At (MST)			
1-Apr																				Daily Average			
2-Apr																				Daily Maximum			
3-Apr																				--			
4-Apr																				0.5			
5-Apr																				0.5			
6-Apr																				0.5			
7-Apr																				0.6			
8-Apr																				0.6			
9-Apr																				0.6			
10-Apr																				0.4			
11-Apr																				0.5			
12-Apr																				0.5			
13-Apr																				0.4			
14-Apr																				0.5			
15-Apr																				0.5			
16-Apr																				0.4			
17-Apr																				0.6			
18-Apr																				0.5			
19-Apr																				0.5			
20-Apr																				0.5			
21-Apr																				0.7			
22-Apr																				0.6			
23-Apr																				0.5			
24-Apr																				0.5			
25-Apr																				0.5			
26-Apr																				0.5			
27-Apr																				0.5			
28-Apr																				0.5			
29-Apr																				0.5			
30-Apr																				0.5			
0.4																				Diurnal Average			
0.6																				Diurnal Maximum			
C - Calibration NS - Not in service A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																							

Hourly Averages for TRS at Portable-Kinuso

April 2009



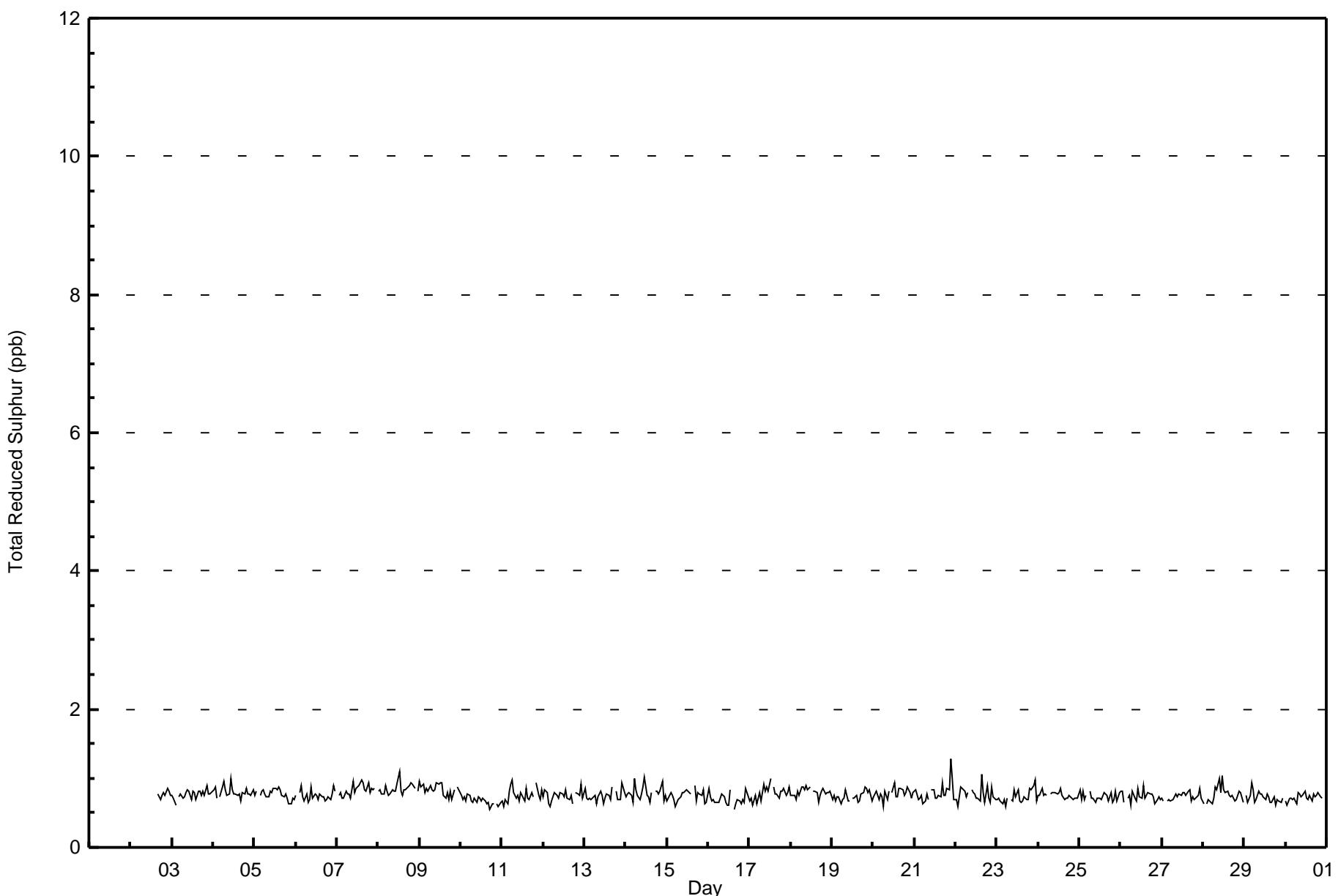
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Portable-Kinuso - Total Reduced Sulphur (TRS) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 1.3 ppb on Apr 21 22:00 Maximum Daily Average: 0.8 ppb on Apr 8																								Hours in Service: 682 Hours of Data: 650 Hours of Missing Data: 32 Hours of Calibration: 32 Percent Operational Time: 100.0			
Minimum Value: 1 ppb on Apr 16 16:00 Minimum Daily Average: 0.7 ppb on Apr 10 Maximum Diurnal Average: 0.8 ppb at hour 12 Minimum Diurnal Average: 0.7 ppb at hour 4 Monthly Average: 0.76 ppb Percentiles: P ₁ = 0.6 P ₁₀ = 0.7 Q ₁ = 0.7 Median = 0.8 Q ₃ = 0.8 P ₉₀ = 0.9 P ₉₉ = 1.0																											
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	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	NS	--	--								
2-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	0.9	
3-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	0.9	
4-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	1.0	
5-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	0.8	0.9	
6-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	0.8	0.9	
7-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	0.8	1.0	
8-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.1	
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	0.9	
10-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	0.7	0.8	
11-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	1.0	
12-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	0.7	0.9	
13-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	0.7	0.9	
14-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	1.0	
15-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	0.7	0.9	
16-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	0.7	0.9	
17-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	1.0	
18-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	0.9	
19-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	0.7	0.9	
20-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	0.9	
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	1	A	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	1	1	A	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	1	1	1	A	1	1	1	1	0.8	0.9	
25-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	0.7	0.8	
26-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	0.7	0.9	
27-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	0.9	
28-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.0	
29-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	0.9	
30-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	0.7	0.8	
0.8 0.7 0.7 0.7 0.7 0.7 0.7 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.7 0.8 0.8 0.8 0.8 0.8 0.7 0.7																								Diurnal Average			
0.9 0.9 0.9 0.9 0.9 1.0 1.0 0.9 0.9 1.0 1.0 1.0 1.1 0.9 1.0 1.1 0.9 0.9 0.9 0.9 0.9 0.9 0.9 1.3 1.0 0.9																								Diurnal Maximum			
C - Calibration NS - Not in service A - Automated Daily Zero Span																											

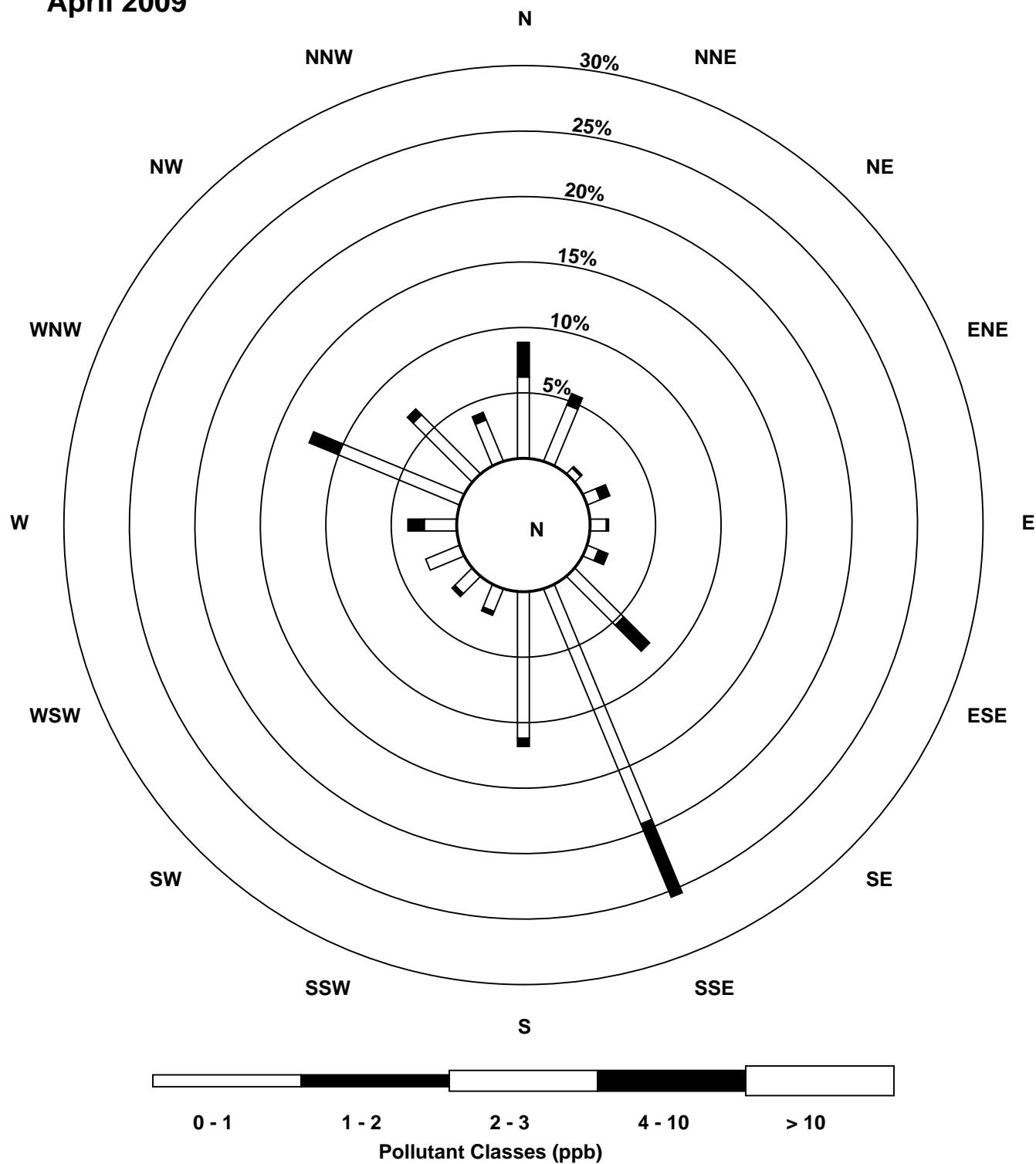
Hourly Maximums for TRS at Portable-Kinuso

April 2009



Pollutant Rose for TRS at Portable-Kinuso

April 2009



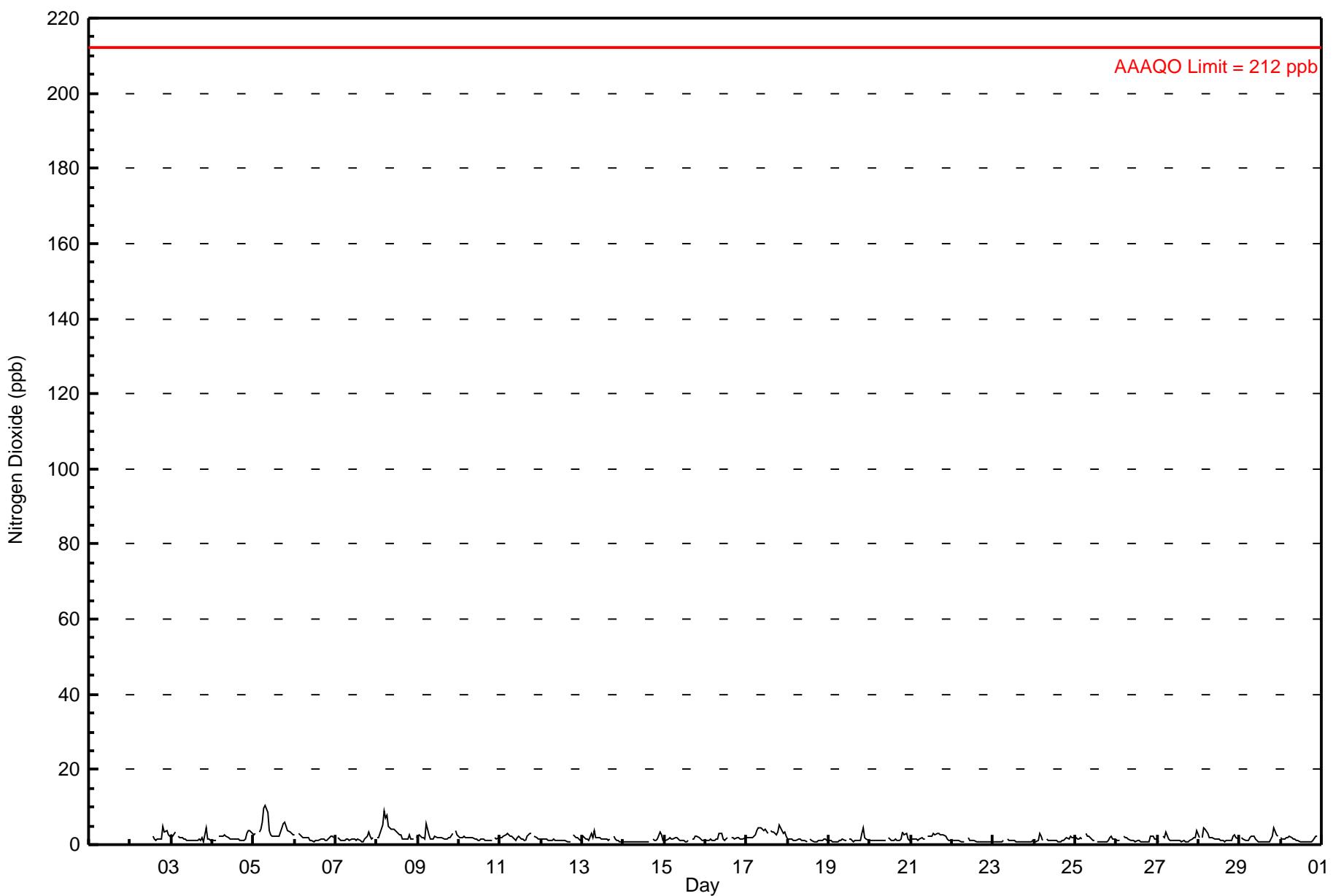
Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Kinuso - Nitrogen Dioxide (NO₂) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.3 ppb on Apr 5 08:00 Maximum Daily Average: 4.2 ppb on Apr 5																								Hours in Service: 688 Hours of Data: 652 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0					
Minimum Value: 1 ppb on Apr 30 15:00 Minimum Daily Average: 0.9 ppb on Apr 23 Maximum Diurnal Average: 2.4 ppb at hour 21 Minimum Diurnal Average: 1.3 ppb at hour 16 Monthly Average: 1.74 ppb Percentiles: P ₁ = 0.7 P ₁₀ = 0.8 Q ₁ = 1.0 Median = 1.4 Q ₃ = 2.0 P ₉₀ = 2.9 P ₉₉ = 5.9																								Daily Average		Daily Maximum			
Day	Hourly Period Ending At (MST)																												
1-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	4.7	
2-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	NS	C	NS	A	NS	NS	NS	NS	NS	NS								
3-Apr	3	2	3	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.7	4.6	
4-Apr	1	1	1	A	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	
5-Apr	3	3	A	3	4	6	10	10	9	4	3	2	2	2	2	2	2	3	6	6	5	4	3	3	3	3	4.2	10.3	
6-Apr	3	A	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.7	2.8	
7-Apr	A	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	2	3	2	1	2	A	1.5	3.4		
8-Apr	2	2	3	5	9	7	8	5	4	4	4	4	3	3	3	2	2	1	1	3	2	1	1	3	2	1	3.4	8.8	
9-Apr	2	2	2	2	2	5	3	2	1	2	2	2	2	2	2	2	2	2	2	3	A	4	2	2	2.2	5.4			
10-Apr	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	A	2	1	1	2	1	1.5	2.2		
11-Apr	2	2	2	2	3	3	2	2	2	1	2	2	2	1	1	1	2	3	3	A	2	2	2	2	2	2	2.0	3.1	
12-Apr	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	A	2	2	1	1	1	1.3	2.7		
13-Apr	2	2	1	1	1	3	2	4	2	2	2	2	1	2	1	1	1	1	2	A	2	1	1	1	1	1	1.6	3.6	
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1.1	3.3	
15-Apr	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	1	1	2	2	2	1	1	1	1.4	2.4	
16-Apr	1	1	1	1	1	1	1	2	3	3	1	1	1	1	2	A	2	2	2	2	2	2	2	2	2	1.6	3.1		
17-Apr	2	2	2	2	2	3	4	4	5	4	4	4	3	A	4	3	3	3	3	5	5	3	3	2	3	2	3.2	5.1	
18-Apr	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6	
19-Apr	1	1	1	1	1	1	1	1	2	1	1	A	2	1	1	1	1	1	1	1	3	4	2	1	1	1	1.4	4.4	
20-Apr	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	2	1	1	2	3	3	3	1	1	1	1.5	3.2	
21-Apr	1	1	2	2	1	2	2	1	1	A	2	2	2	2	3	3	3	3	3	2	2	1	1	1	1	1	2.0	3.0	
22-Apr	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8	
23-Apr	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6	
24-Apr	1	1	1	3	2	1	A	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1.4	3.2	
25-Apr	2	2	1	2	1	1	A	3	2	2	2	1	1	C	1	1	1	1	1	1	1	1	1	2	2	1	1	1.5	3.1
26-Apr	1	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1.3	2.3
27-Apr	1	1	A	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	1.4	3.9			
28-Apr	2	A	2	5	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	1	1.8	4.7		
29-Apr	A	2	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	4	3	2	A	1.5	4.4		
30-Apr	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	1	1.4	2.3			
Diurnal Average																													
Diurnal Maximum																													
C - Calibration NS - Not in service A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 212 ppb 24-hr 106 ppb																													

Hourly Averages for NO₂ at Portable-Kinuso

April 2009



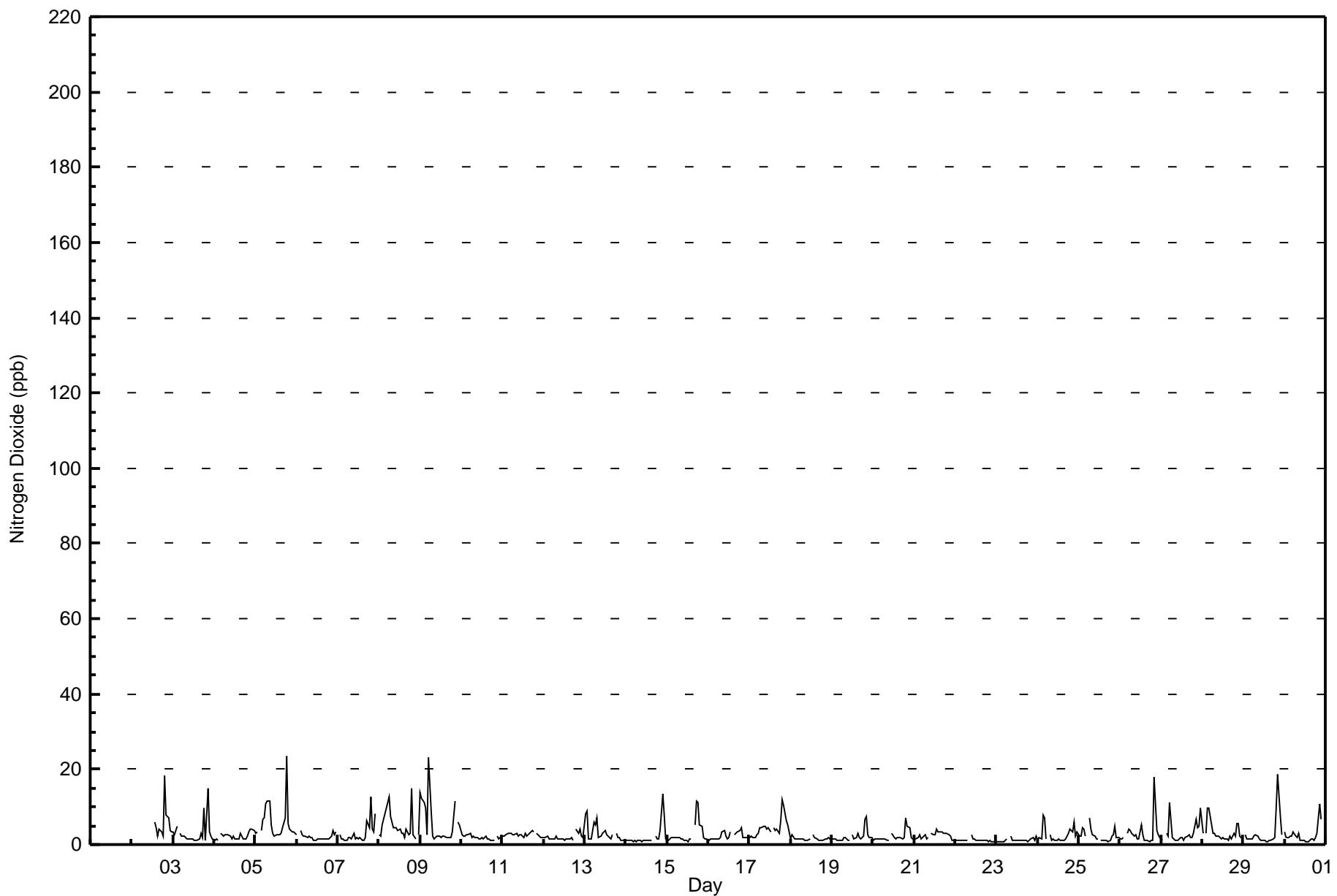
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Portable-Kinuso - Nitrogen Dioxide (NO₂) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 23.4 ppb on Apr 5 19:00 Maximum Daily Average: 5.8 ppb on Apr 5 Minimum Value: 1 ppb on Apr 23 03:00 Minimum Daily Average: 1.2 ppb on Apr 22 Maximum Diurnal Average: 5.9 ppb at hour 21 Minimum Diurnal Average: 1.8 ppb at hour 16 Monthly Average: 2.86 ppb Percentiles: P ₁ = 0.8 P ₁₀ = 1.1 Q ₁ = 1.4 Median = 1.9 Q ₃ = 3.0 P ₉₀ = 5.1 P ₉₉ = 14.9																											
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	NS	--	--																								
2-Apr	NS	C	C	A	6	5	2	4	3	2	18	8	7	4	3	3	18.2	14.9									
3-Apr	3	3	5	A	3	2	2	2	2	2	1	2	1	1	1	2	3	2	10	1	15	3	2	1	3.0	14.9	
4-Apr	1	1	1	A	3	2	3	3	3	2	2	2	2	2	2	3	2	1	1	2	3	4	4	4	2.3	3.9	
5-Apr	3	3	A	4	7	7	11	12	12	5	3	2	3	3	3	3	5	7	23	6	4	4	3	3	5.8	23.4	
6-Apr	3	A	4	3	2	2	2	2	2	1	1	1	1	1	2	1	2	2	1	2	2	4	3	3	2.1	3.9	
7-Apr	A	3	2	1	1	1	2	2	1	3	2	2	2	1	1	2	6	4	13	4	3	8	A	3.0	12.7		
8-Apr	2	2	5	8	10	11	13	7	4	4	4	4	3	3	2	4	3	3	15	3	2	A	3	5.2	15.1		
9-Apr	14	12	11	10	3	23	9	2	2	2	2	2	2	2	2	2	2	2	3	12	A	6	5	5.7	23.2		
10-Apr	3	2	2	2	2	3	2	2	2	2	1	2	2	2	1	1	1	1	1	A	2	2	2	2	1.9	2.9	
11-Apr	2	2	2	3	3	3	3	3	2	2	3	2	3	2	3	4	4	4	A	3	2	2	2	2	2.6	3.6	
12-Apr	2	2	2	2	1	1	1	2	1	1	1	1	1	1	1	2	1	A	4	3	4	2	2	2	1.8	4.0	
13-Apr	8	9	2	2	2	6	5	7	2	2	3	4	4	2	2	3	2	2	1	1	1	1	1	1	3.2	8.9	
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	14	8	1	1	2.1	13.6	
15-Apr	1	1	2	2	2	2	2	2	1	1	1	1	1	2	A	5	12	11	5	5	2	2	1	2.9	11.7		
16-Apr	1	1	1	1	1	1	2	2	4	4	2	1	2	3	A	3	3	3	4	4	2	2	2	2	2.3	4.4	
17-Apr	2	2	2	3	3	4	5	5	5	4	5	3	A	4	4	4	3	7	12	10	6	5	3	4.5	11.9		
18-Apr	2	3	2	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.6	2.7		
19-Apr	2	2	1	1	1	1	1	2	2	1	1	1	A	2	2	2	3	2	2	7	7	2	2	2	2.2	7.5	
20-Apr	1	1	2	1	1	2	2	2	1	1	A	3	2	2	2	2	2	2	2	7	5	5	2	2	2.2	7.2	
21-Apr	2	2	2	3	2	2	3	2	2	A	3	2	3	4	3	3	3	3	3	3	2	1	1	2.4	4.1		
22-Apr	1	1	1	1	1	1	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.7	
23-Apr	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.2	2.4	
24-Apr	1	2	1	8	7	2	A	3	1	1	1	1	2	1	1	1	1	1	2	3	4	3	6	2	3	2.5	7.8
25-Apr	2	2	5	4	2	A	7	4	3	2	2	1	C	1	1	1	1	1	1	2	3	5	2	2	2.4	7.0	
26-Apr	2	2	2	A	3	4	4	3	2	3	2	2	5	3	1	1	1	1	1	18	4	2	2	2	2.9	17.8	
27-Apr	1	1	A	3	2	11	2	2	1	1	1	2	2	1	2	2	3	2	2	3	7	4	5	10	3.0	11.2	
28-Apr	3	A	3	10	10	5	3	3	2	2	2	2	2	1	1	2	2	3	2	6	6	2	2	3.2	9.8		
29-Apr	A	3	2	1	1	1	2	3	2	2	1	1	1	1	1	1	1	1	2	10	19	8	3	A	3.0	18.7	
30-Apr	3	2	2	2	2	3	2	2	3	1	1	1	1	1	1	1	1	1	2	3	11	7	A	3	2.5	10.7	
2.6 2.5 2.5 3.1 2.8 3.9 3.4 2.9 2.5 2.2 1.8 1.9 2.0 2.0 1.9 1.8 2.3 2.5 3.6 4.8 5.9 4.0 2.9 2.5																									Diurnal Average		
13.7 12.1 11.3 9.9 9.8 23.2 12.7 11.6 11.6 5.2 4.3 4.7 5.2 5.8 4.6 3.6 5.1 11.7 23.4 18.2 18.7 13.6 8.3 9.9																									Diurnal Maximum		
C - Calibration NS - Not in service A - Automated Daily Zero Span																											

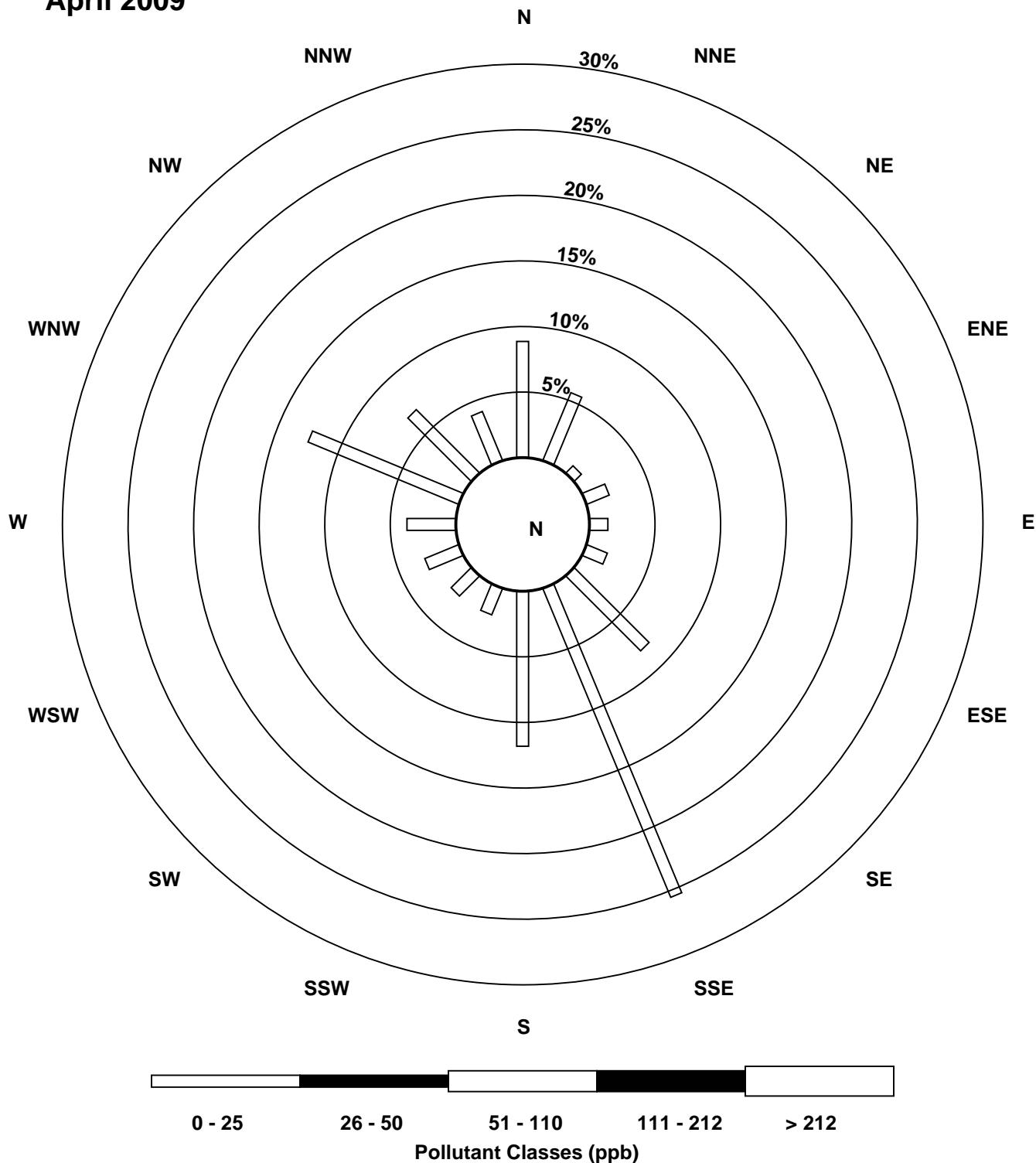
Hourly Maximums for NO₂ at Portable-Kinuso

April 2009



Pollutant Rose for NO₂ at Portable-Kinuso

April 2009



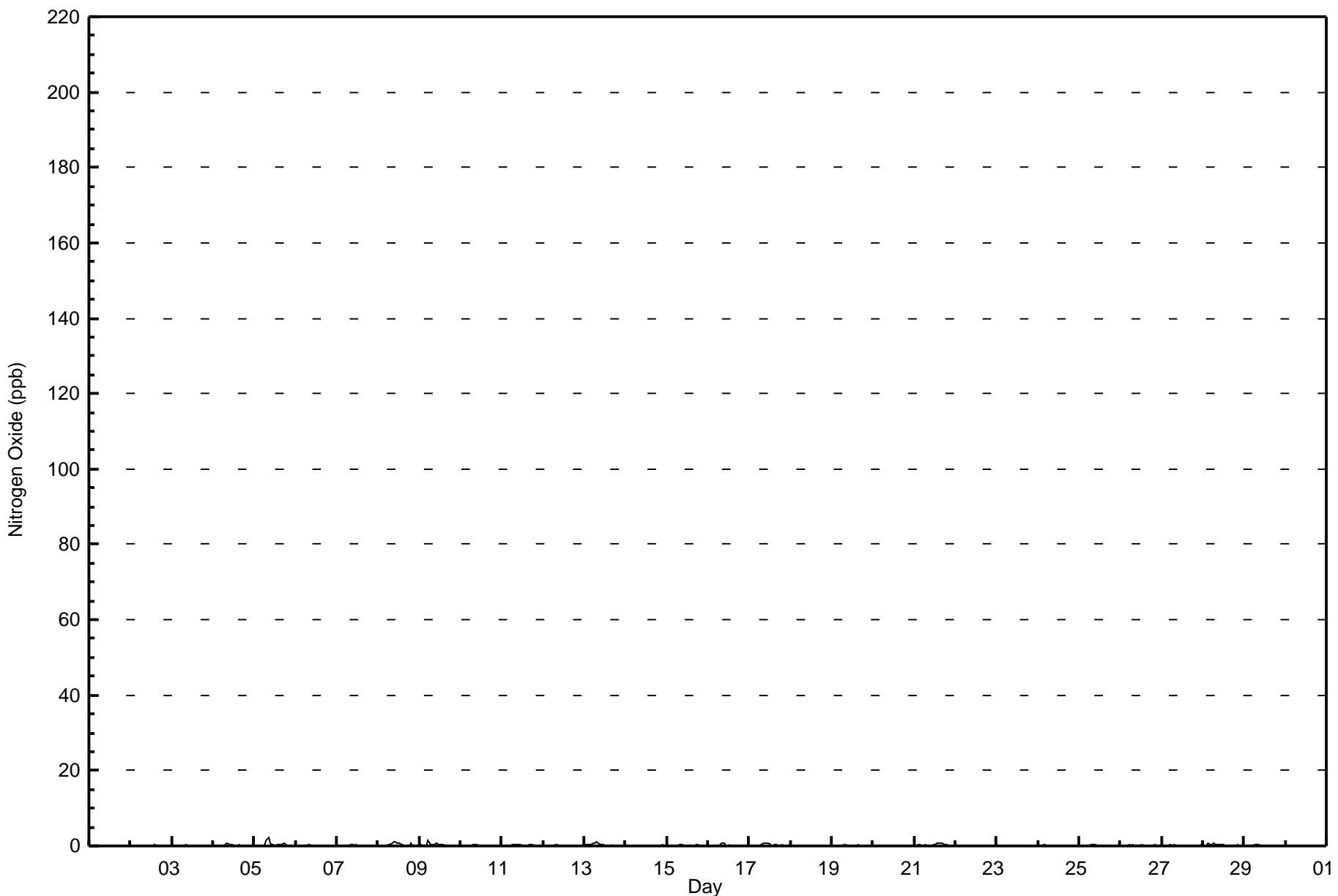
**Peace Airshed Zone Association
Summary of Hourly Averages**

**Portable-Kinuso - Nitrogen Oxide (NO) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 2.2 ppb on Apr 5 09:00 Maximum Daily Average: 0.4 ppb on Apr 5 Minimum Value: 0 ppb on Apr 2 19:00 Minimum Daily Average: 0.1 ppb on Apr 25 Maximum Diurnal Average: 0.4 ppb at hour 9 Minimum Diurnal Average: 0.1 ppb at hour 22 Monthly Average: 0.16 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.3$ $P_{99} = 0.9$																								Hours in Service: 688 Hours of Data: 652 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0					
																									Daily Average	Daily Maximum			
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Apr	NS	--	--																										
2-Apr	NS	0.4	0.4																										
3-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			
4-Apr	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7			
5-Apr	0	0	0	A	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0.4	2.2			
6-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			
7-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	0.3			
8-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.3	1.3			
9-Apr	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5			
10-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			
11-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4			
12-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3			
13-Apr	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3			
14-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			
15-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			
16-Apr	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8			
17-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0.3	0.9			
18-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	0.1			
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3			
20-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			
21-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0.3	0.7			
22-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	0.1			
23-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	0.2			
24-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	0.1	0.2			
25-Apr	0	0	0	0	0	A	0	0	0	0	0	0	C	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3			
26-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	0.3			
27-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			
28-Apr	0	A	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7			
29-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.5				
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2				
																									Diurnal Average				
																									Diurnal Maximum				
C - Calibration NS - Not in service A - Automated Daily Zero Span																													

Hourly Averages for NO at Portable-Kinuso

April 2009



Peace Airshed Zone Association Summary of Hourly Maximums

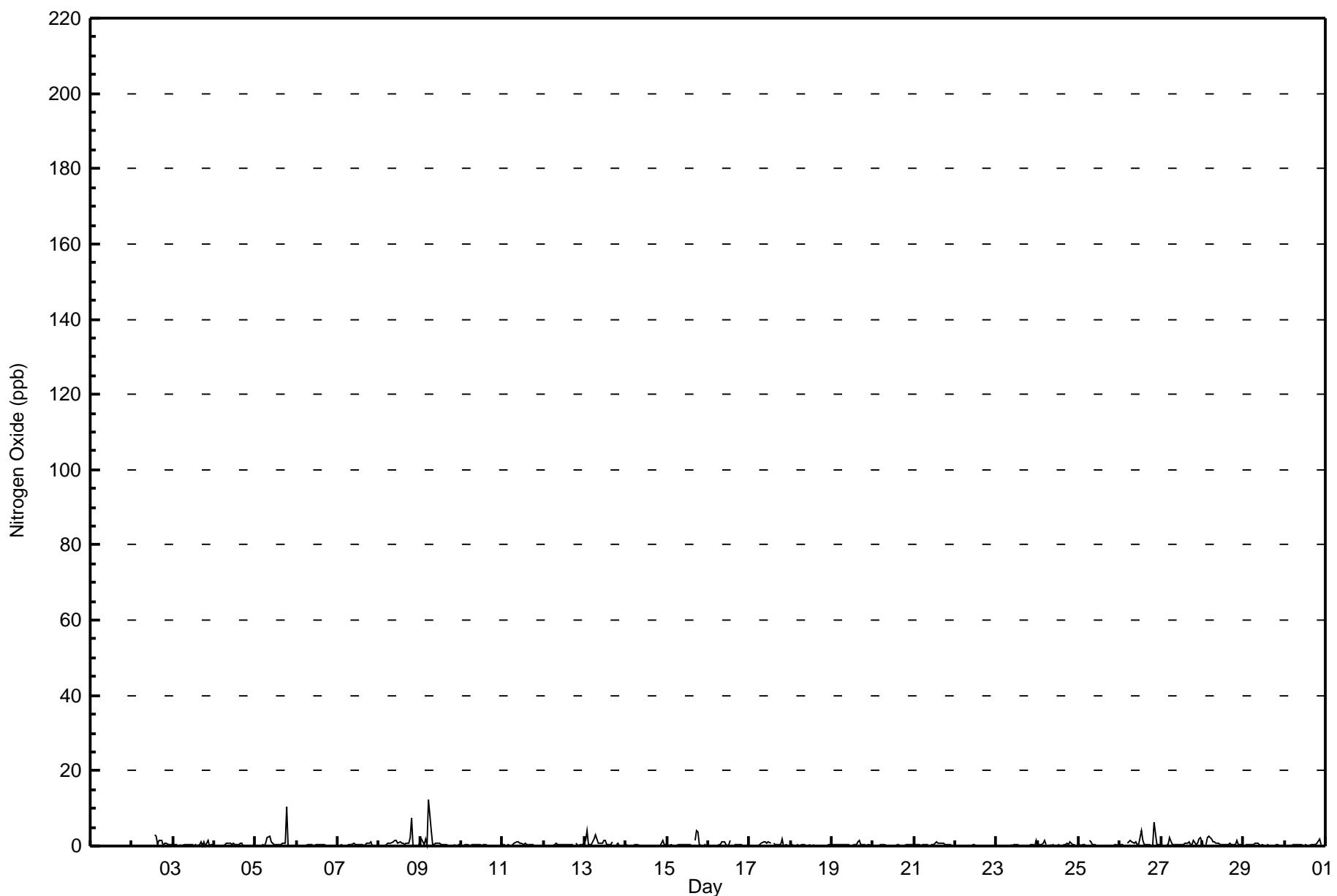
Portable-Kinuso - Nitrogen Oxide (NO) - ppb

April 1, 2009 to May 1, 2009

Maximum Value: 12.1 ppb on Apr 9 06:00		Maximum Daily Average: 1.2 ppb on Apr 9		Hours in Service: 688																							
Minimum Value: 0 ppb on Apr 25 14:00		Minimum Daily Average: 0.2 ppb on Apr 18		Hours of Data: 652																							
Maximum Diurnal Average: 0.9 ppb at hour 6		Minimum Diurnal Average: 0.2 ppb at hour 3		Hours of Missing Data: 36																							
Monthly Average: 0.48 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 1.0 P ₉₉ = 3.9		Hours of Calibration: 36																							
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
2-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	C	A	3	2	1	2	1	0	1	1	0	0	--	3.0	
3-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0.4	1.5	
4-Apr	0	0	0	A	0	0	0	1	1	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0.3	0.9	
5-Apr	0	0	A	0	0	0	1	2	3	1	1	0	0	0	0	0	0	1	1	10	0	0	0	0	1.0	10.3	
6-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	0.5	
7-Apr	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	A	0.3	1.2	
8-Apr	0	0	0	0	0	1	1	1	1	2	1	1	1	1	1	0	1	1	2	8	0	0	A	0	1.0	7.5	
9-Apr	1	2	0	2	0	12	4	0	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	1	1.2	12.1	
10-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	0.4	
11-Apr	0	0	0	0	0	0	0	1	1	1	1	1	0	1	0	0	0	1	0	A	0	0	0	0	0.4	1.0	
12-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0.3	0.9	
13-Apr	1	4	0	0	0	2	3	2	1	1	1	2	2	0	0	0	1	A	0	1	0	0	0	0	1.0	4.0	
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	2	0	0	0.3	1.7	
15-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	4	4	0	0	0	0	0.6	3.9	
16-Apr	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0.4	1.4	
17-Apr	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	A	1	0	0	0	2	0	0	0.5	1.9	
18-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	
19-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	1.3	
20-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	
21-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0.4	1.1	
22-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	
23-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	1.4	
24-Apr	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0.4	1.5	
25-Apr	0	0	0	0	0	A	1	1	1	1	0	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5
26-Apr	0	0	0	0	A	1	1	1	1	1	0	0	4	1	0	0	0	0	0	6	0	0	0	0	0.9	6.3	
27-Apr	0	0	0	A	0	0	2	0	0	0	0	0	0	0	0	1	1	1	0	0	2	0	1	2	0.7	2.3	
28-Apr	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0.7	2.5	
29-Apr	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.6	
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	A	0	0.4	1.8	

Hourly Maximums for NO at Portable-Kinuso

April 2009



Peace Airshed Zone Association Summary of Hourly Averages

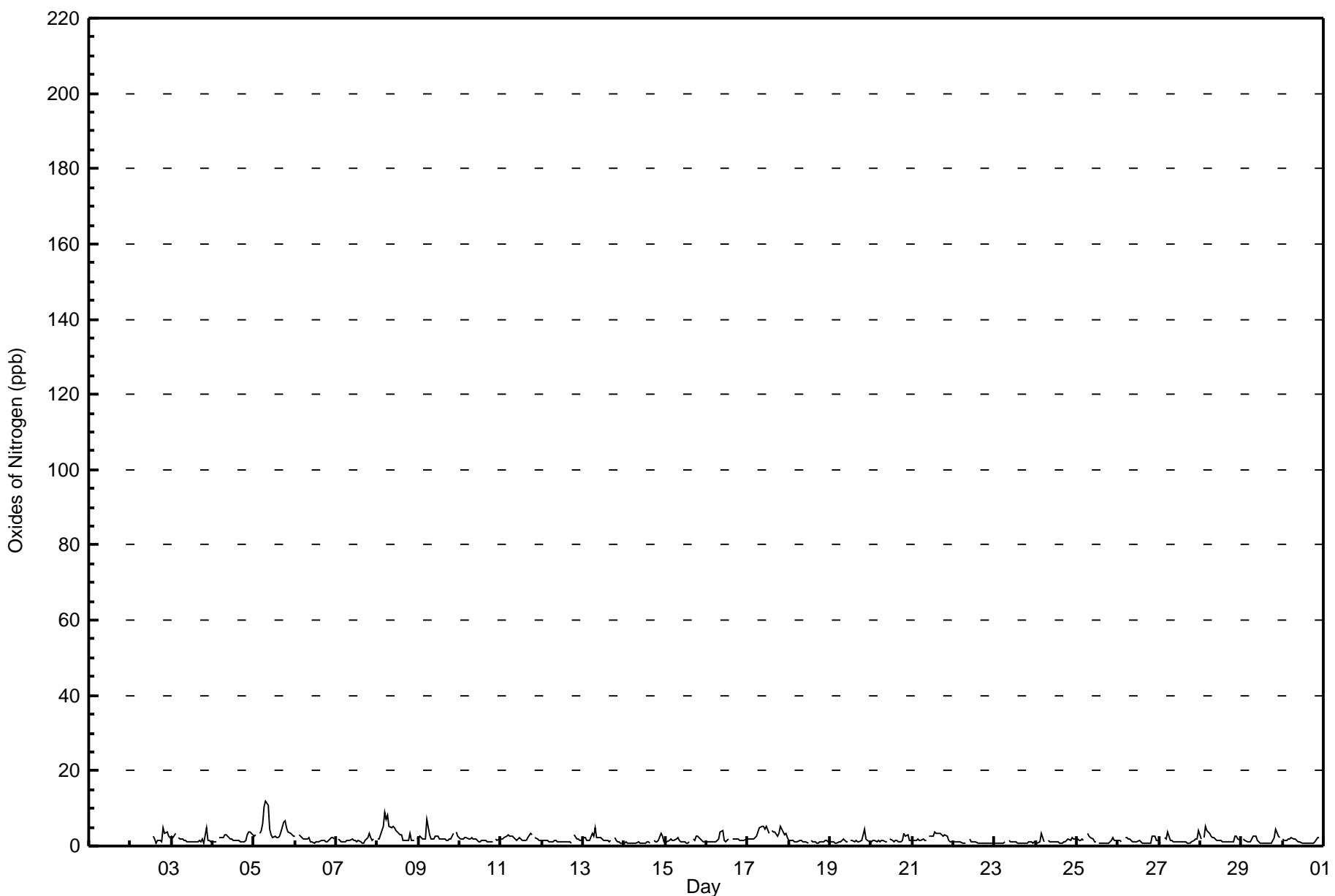
Portable-Kinuso - Oxides of Nitrogen (NO_x) - ppb

April 1, 2009 to May 1, 2009

Maximum Value: 11.8 ppb on Apr 5 08:00		Maximum Daily Average: 4.6 ppb on Apr 5		Hours in Service: 688																						
Minimum Value: 1 ppb on Apr 30 15:00		Minimum Daily Average: 0.9 ppb on Apr 23		Hours of Data: 652																						
Maximum Diurnal Average: 2.5 ppb at hour 8		Minimum Diurnal Average: 1.3 ppb at hour 16		Hours of Missing Data: 36																						
Monthly Average: 1.85 ppb		Percentiles: P ₁ = 0.6 P ₁₀ = 0.9 Q ₁ = 1.1 Median = 1.5 Q ₃ = 2.2 P ₉₀ = 3.3 P ₉₉ = 7.0		Hours of Calibration: 36																						
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	C	A	3	2	1	2	1	1	2	1	5	3	2	--	4.8
3-Apr	3	2	3	A	2	2	2	2	2	1	1	1	1	1	1	1	1	2	1	1	5	2	2	1	1.8	4.7
4-Apr	1	1	1	A	2	2	2	3	3	2	2	1	2	1	2	1	2	1	1	1	3	4	4	3	2.0	3.8
5-Apr	3	3	A	3	4	6	10	12	11	5	3	2	2	2	2	3	4	6	7	5	4	3	3	4.6	11.8	
6-Apr	3	A	3	2	2	2	2	2	1	1	1	1	1	1	1	1	2	1	1	1	2	2	2	2	1.7	2.9
7-Apr	A	2	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	2	2	3	2	2	2	A	1.6	3.5
8-Apr	2	2	3	5	9	7	8	5	5	5	4	3	3	3	3	2	2	1	2	3	2	1	A	2	3.7	8.9
9-Apr	2	3	2	2	2	7	3	2	2	2	3	2	2	2	2	2	2	2	2	3	A	4	3	3	2.4	7.0
10-Apr	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	A	2	1	2	1	1.6	2.3
11-Apr	2	2	2	3	3	3	3	2	2	2	2	2	1	1	1	1	2	3	A	2	2	2	2	2	2.1	3.4
12-Apr	1	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	3	2	2	2	2	1	1.4	2.8
13-Apr	2	2	1	2	2	4	3	5	2	2	2	2	2	1	1	2	A	2	1	1	1	1	1	1	1.9	4.8
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	4	3	1	1.1	3.5
15-Apr	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	A	2	2	3	2	2	1	1	1	1.5	2.7
16-Apr	1	1	1	1	1	1	1	2	4	4	2	1	1	2	A	2	2	2	2	2	2	1	2	1.7	3.9	
17-Apr	2	2	2	2	2	3	4	5	5	5	4	5	3	A	4	4	4	3	3	5	5	3	3	2	3.5	5.4
18-Apr	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6
19-Apr	1	1	1	1	1	1	1	1	2	1	1	A	2	1	1	1	1	1	1	3	4	2	1	1	1.4	4.4
20-Apr	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	2	1	1	2	3	3	1	1	1.6	3.3
21-Apr	1	2	2	2	1	2	2	1	2	A	2	3	3	4	3	3	4	3	3	3	2	2	1	1	2.2	3.7
22-Apr	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9
23-Apr	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7
24-Apr	1	1	1	3	2	1	A	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1.4	3.3
25-Apr	2	2	1	2	2	A	3	2	2	2	1	1	C	1	1	1	1	1	1	1	2	2	1	1	1.5	3.4
26-Apr	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1.4	2.5
27-Apr	1	1	A	2	2	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	4	1.5	4.0
28-Apr	2	A	2	5	4	3	2	2	2	2	2	2	2	1	1	1	1	1	1	1	3	3	2	1	2.0	5.3
29-Apr	A	2	1	1	1	1	2	3	3	1	1	1	1	1	1	1	1	1	1	2	4	2	2	A	1.6	4.4
30-Apr	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	A	2	1	1.4	2.4	
																									Diurnal Average	
																									Diurnal Maximum	

Hourly Averages for NO_X at Portable-Kinuso

April 2009



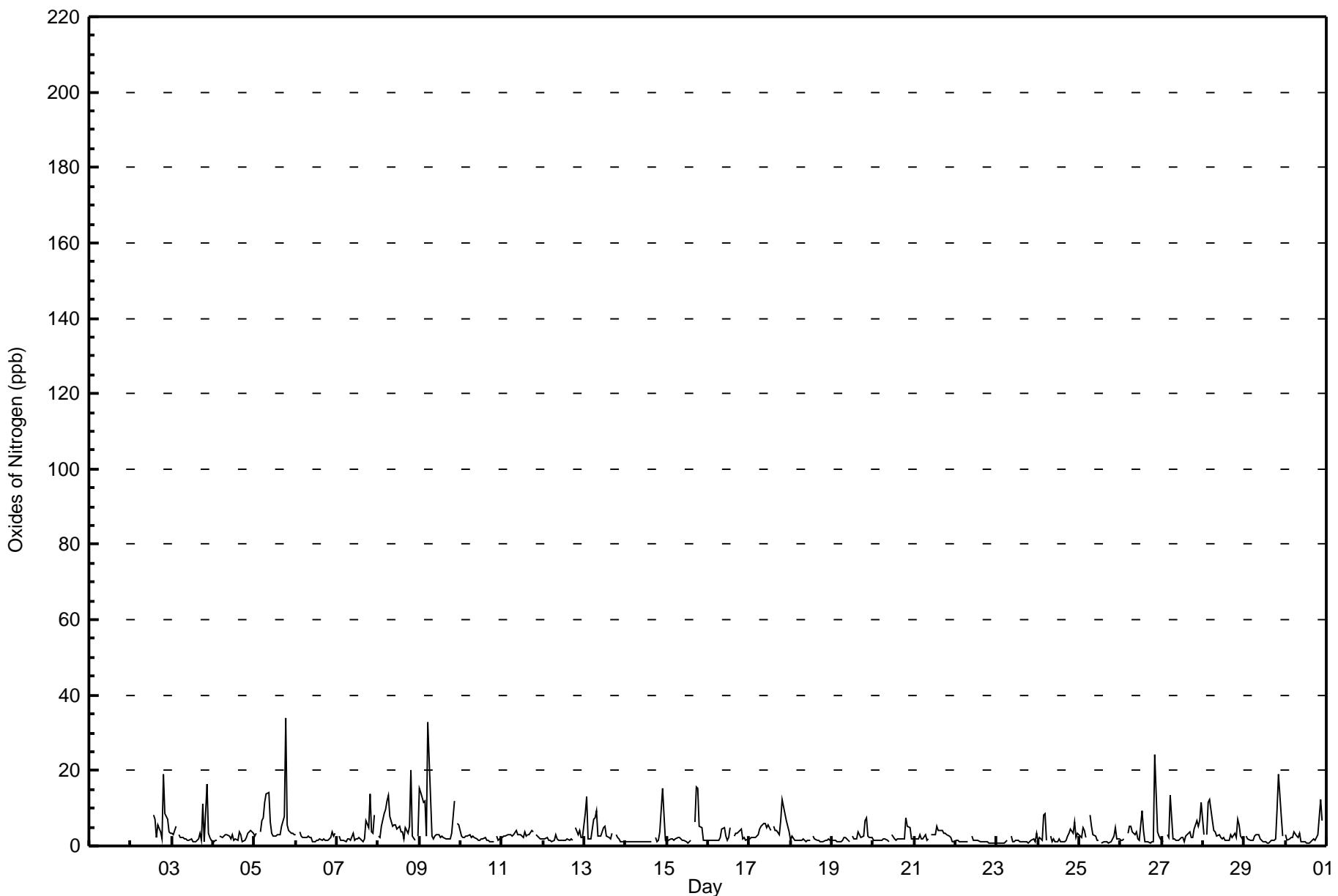
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Portable-Kinuso - Oxides of Nitrogen (NO_x) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 33.9 ppb on Apr 5 19:00																								Maximum Daily Average: 6.7 ppb on Apr 9																								Hours in Service: 688	
Minimum Value: 1 ppb on Apr 30 15:00																								Minimum Daily Average: 1.2 ppb on Apr 22																								Hours of Data: 652	
Maximum Diurnal Average: 6.3 ppb at hour 21																								Minimum Diurnal Average: 2.1 ppb at hour 16																								Hours of Missing Data: 36	
Monthly Average: 3.19 ppb																								Percentiles: P ₁ = 0.8 P ₁₀ = 1.1 Q ₁ = 1.5 Median = 2.1 Q ₃ = 3.4 P ₉₀ = 6.4 P ₉₉ = 16.5																								Hours of Calibration: 36	
																																																Percent Operational Time: 100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum																							
1-Apr	NS	NS	NS	--	--																																												
2-Apr	NS	C	C	A	8	7	2	5	4	2	19	9	7	4	3	--	19.2																																
3-Apr	3	3	5	A	3	2	2	2	2	1	1	1	2	3	2	11	1	17	3	2	1	3.2	16.5																										
4-Apr	1	1	1	A	3	2	3	3	3	2	2	2	4	3	1	1	2	3	4	4	4	4	4	2.5	4.0																								
5-Apr	3	3	A	4	7	7	12	14	14	6	3	3	3	3	3	5	8	34	6	4	3	3	3	6.7	33.9																								
6-Apr	3	A	4	3	2	2	2	3	2	2	1	1	1	2	2	2	2	1	1	2	4	3	3	2.2	3.9																								
7-Apr	A	3	2	1	1	1	2	2	2	3	2	2	2	1	1	2	7	5	14	4	3	8	A	3.2	13.8																								
8-Apr	3	2	5	9	10	12	13	8	5	6	5	5	5	4	4	2	5	3	20	3	2	A	3	6.0	20.0																								
9-Apr	15	14	12	12	3	33	13	3	2	2	3	3	2	3	2	2	2	2	3	12	A	6	5	6.7	32.7																								
10-Apr	3	2	2	3	2	3	2	2	2	2	2	2	2	2	2	1	1	1	A	3	2	2	2	2.0	2.8																								
11-Apr	2	3	3	3	3	3	3	3	4	3	3	3	2	4	3	3	4	4	A	3	2	2	2	2.8	4.0																								
12-Apr	2	2	2	2	1	1	1	3	2	1	1	2	1	2	2	2	2	2	A	5	3	4	2	2	2.0	4.8																							
13-Apr	9	13	2	2	2	7	8	9	3	3	4	5	5	3	2	2	3	A	3	2	2	1	1	1	3.9	13.0																							
14-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	15	8	2	2	2.2	15.4																									
15-Apr	1	1	2	2	2	2	2	2	1	1	1	1	1	2	A	6	16	15	5	5	2	1	1	3.3	15.6																								
16-Apr	1	1	1	1	1	1	2	2	4	5	3	2	2	5	A	3	3	4	4	5	2	2	2	2.5	4.8																								
17-Apr	2	2	2	2	3	3	5	5	6	6	5	6	4	A	5	4	4	3	7	12	10	7	5	4	4.8	12.3																							
18-Apr	2	3	2	1	1	1	2	2	1	1	1	2	A	3	2	1	1	1	1	1	1	2	2	1.6	2.6																								
19-Apr	2	2	1	1	1	1	1	2	2	1	1	1	1	A	3	2	2	4	3	2	2	7	3	2	2.4	7.5																							
20-Apr	1	1	2	1	2	2	2	2	1	1	A	3	2	2	2	2	2	2	7	5	5	2	2	2.3	7.4																								
21-Apr	2	2	2	3	2	2	3	2	2	A	3	3	3	5	4	4	4	4	3	3	2	1	1	2.7	5.1																								
22-Apr	1	1	1	1	1	1	1	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.8																								
23-Apr	1	1	1	1	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	2	1	3	1	1.3	3.3																								
24-Apr	1	2	1	8	8	2	A	3	1	2	1	1	2	1	1	1	2	3	3	5	3	6	2	3	2.8	8.4																							
25-Apr	2	2	5	4	2	A	8	5	3	3	2	1	C	1	1	1	1	1	2	3	5	2	2	2	2.6	8.2																							
26-Apr	2	2	2	A	4	5	5	4	3	4	2	2	9	4	1	1	1	1	1	1	24	4	3	2	3.7	24.1																							
27-Apr	1	1	A	3	2	13	2	2	1	1	2	2	2	1	3	3	4	2	2	4	7	5	7	12	3.6	13.5																							
28-Apr	3	A	3	11	12	7	4	4	3	3	2	2	2	2	1	3	2	3	2	7	6	2	2	3.8	12.2																								
29-Apr	A	3	2	2	1	1	3	3	3	2	1	1	1	1	1	1	1	2	10	19	8	3	A	3.2	19.2																								
30-Apr	3	2	2	2	2	4	3	2	3	1	1	1	1	1	2	2	1	2	3	12	7	A	3	2.6	12.5																								
2.7 2.8 2.6 3.3 3.0 4.5 3.9 3.4 3.0 2.6 2.1 2.2 2.4 2.3 2.1 2.1 2.7 2.9 4.3 5.2 6.3 4.2 3.0 2.7																								Diurnal Average																									
15.4 14.1 11.6 11.8 12.2 32.7 13.2 13.9 14.0 6.4 5.4 5.7 9.2 8.3 7.0 4.1 6.4 15.6 33.9 20.0 24.1 15.4 8.4 11.6																								Diurnal Maximum																									
C - Calibration NS - Not in service A - Automated Daily Zero Span																																																	

Hourly Maximums for NO_X at Portable-Kinuso

April 2009



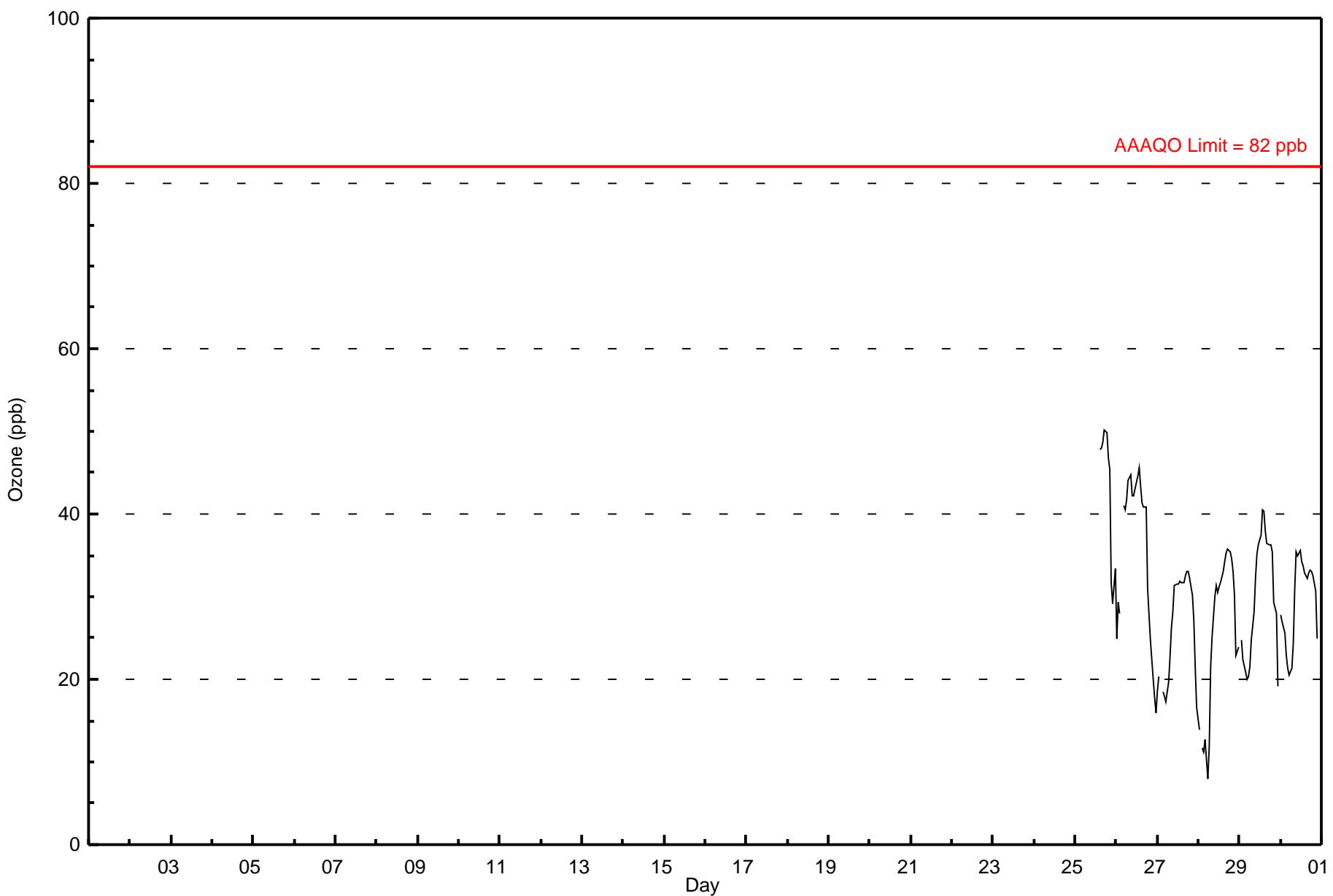
Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Kinuso - Ozone (O_3) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 50.2 ppb on Apr 25 18:00 Maximum Daily Average: 35.5 ppb on Apr 26 Minimum Value: 8 ppb on Apr 28 06:00 Minimum Daily Average: 25.6 ppb on Apr 28 Maximum Diurnal Average: 38.3 ppb at hour 18 Minimum Diurnal Average: 18.3 ppb at hour 4 Monthly Average: 30.45 ppb Percentiles: $P_1 = 11.1$ $P_{10} = 18.6$ $Q_1 = 24.4$ Median = 31.5 $Q_3 = 35.5$ $P_{90} = 42.7$ $P_{99} = 50.2$																								Hours in Service: 132 Hours of Data: 124 Hours of Missing Data: 8 Hours of Calibration: 8 Percent Operational Time: 100.0				
 																									Daily Average	Daily Maximum		
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	--	--		
1-Apr	NS	--	--																									
2-Apr	NS	--	--																									
3-Apr	NS	--	--																									
4-Apr	NS	--	--																									
5-Apr	NS	--	--																									
6-Apr	NS	--	--																									
7-Apr	NS	--	--																									
8-Apr	NS	--	--																									
9-Apr	NS	--	--																									
10-Apr	NS	--	--																									
11-Apr	NS	--	--																									
12-Apr	NS	--	--																									
13-Apr	NS	--	--																									
14-Apr	NS	--	--																									
15-Apr	NS	--	--																									
16-Apr	NS	--	--																									
17-Apr	NS	--	--																									
18-Apr	NS	--	--																									
19-Apr	NS	--	--																									
20-Apr	NS	--	--																									
21-Apr	NS	--	--																									
22-Apr	NS	--	--																									
23-Apr	NS	--	--																									
24-Apr	NS	--	--																									
25-Apr	NS	C	A	48	48	49	50	50	47	46	32	29	33	--	50.2													
26-Apr	25	29	28	A	41	40	42	44	45	42	43	45	46	43	41	41	41	31	28	25	20	18	16	35.5	45.6			
27-Apr	19	20	A	18	18	17	20	23	26	28	31	32	32	32	32	33	33	33	32	30	27	21	17	26.3	33.1			
28-Apr	14	A	12	11	13	8	12	22	25	30	31	31	32	33	34	35	36	35	35	33	30	23	24	25.6	35.8			
29-Apr	A	25	22	21	20	20	22	25	28	32	35	36	37	41	40	38	36	36	35	29	28	19	A	30.1	40.5			
30-Apr	28	27	26	23	21	20	21	24	31	35	35	36	34	34	33	32	33	33	32	31	25	A	24	29.2	35.6			
21.3 25.4 21.9 18.3 22.6 21.3 23.3 27.5 31.0 33.6 34.9 35.4 35.8 36.7 38.1 37.6 37.8 38.3 36.4 34.9 32.2 27.0 22.0 22.8																									Diurnal Average			
27.8 29.3 28.0 22.8 40.9 40.4 41.6 44.0 44.8 42.2 42.2 43.0 44.6 45.6 47.7 48.0 48.7 50.2 49.9 46.8 45.5 31.7 29.1 33.3																									Diurnal Maximum			
C - Calibration NS - Not in service A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																												

Hourly Averages for O₃ at Portable-Kinuso

April 2009



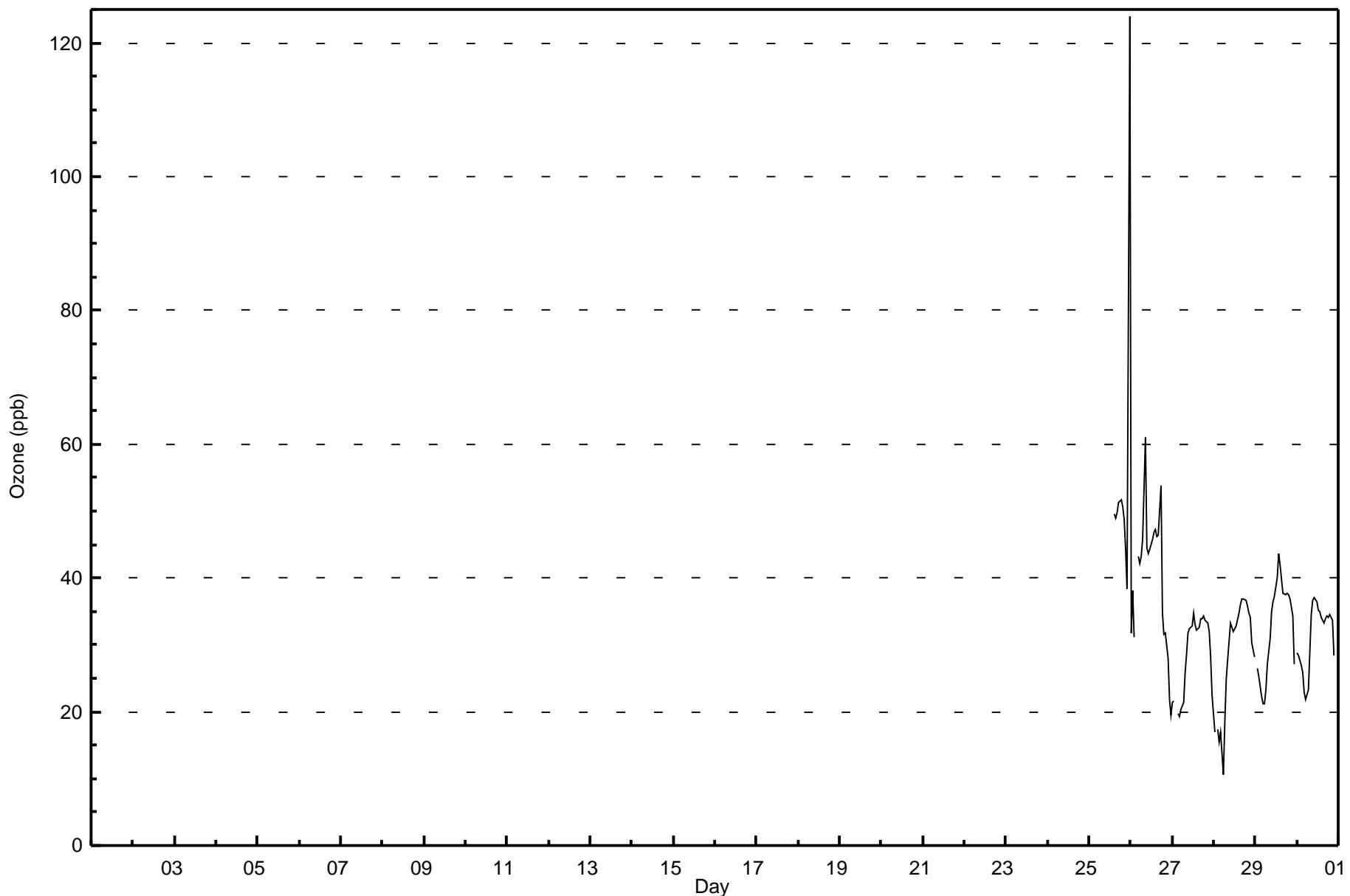
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Portable-Kinuso - Ozone (O_3) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 124.0 ppb on Apr 26 00:00 Maximum Daily Average: 40.1 ppb on Apr 26																								Hours in Service: 132 Hours of Data: 124 Hours of Missing Data: 8 Hours of Calibration: 8 Percent Operational Time: 100.0			
Minimum Value: 11 ppb on Apr 28 06:00												Minimum Daily Average: 28.5 ppb on Apr 28															
Maximum Diurnal Average: 44.1 ppb at hour 24												Minimum Diurnal Average: 20.8 ppb at hour 4															
Monthly Average: 34.11 ppb												Percentiles: $P_1 = 15.2$ $P_{10} = 21.4$ $Q_1 = 27.8$ Median = 33.8 $Q_3 = 37.5$ $P_{90} = 46.3$ $P_{99} = 124.0$															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
2-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
3-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
4-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
5-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
6-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
7-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
8-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
9-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
10-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
11-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
12-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
13-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
14-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
15-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
16-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
17-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
18-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
19-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
20-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
21-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
22-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
23-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
24-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	
25-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	C	A	49	49	50	51	52	51	49	44	38	124	--	124.0	
26-Apr	32	38	31	A	43	42	43	46	61	44	44	44	46	47	47	46	46	54	35	32	32	28	22	20	40.1	61.0	
27-Apr	21	22	A	20	19	20	21	26	29	32	33	35	33	32	33	34	34	34	34	33	32	28	22	28.7	34.7		
28-Apr	17	A	17	16	17	11	18	25	28	33	33	32	33	33	35	36	37	37	37	36	35	34	30	28	28.5	36.9	
29-Apr	A	26	25	22	21	23	27	31	35	36	37	40	44	42	40	38	37	38	38	37	34	27	A	32.7	43.6		
30-Apr	29	28	27	26	23	22	23	29	34	37	37	36	35	35	34	33	34	34	35	34	35	28	A	26	31.0	37.1	
24.8 28.6 25.2 20.8 24.7 23.2 25.9 30.5 36.6 36.2 36.5 36.6 37.7 38.2 40.0 39.5 39.7 41.3 38.2 37.3 36.5 33.5 29.1 44.1																									Diurnal Average		
31.8 38.2 31.2 25.8 43.1 42.2 43.2 45.8 61.0 44.5 43.7 44.3 45.8 46.8 49.5 49.0 49.8 53.8 51.7 50.6 48.7 44.2 38.3 124.0																									Diurnal Maximum		
C - Calibration												NS - Not in service												A - Automated Daily Zero Span			

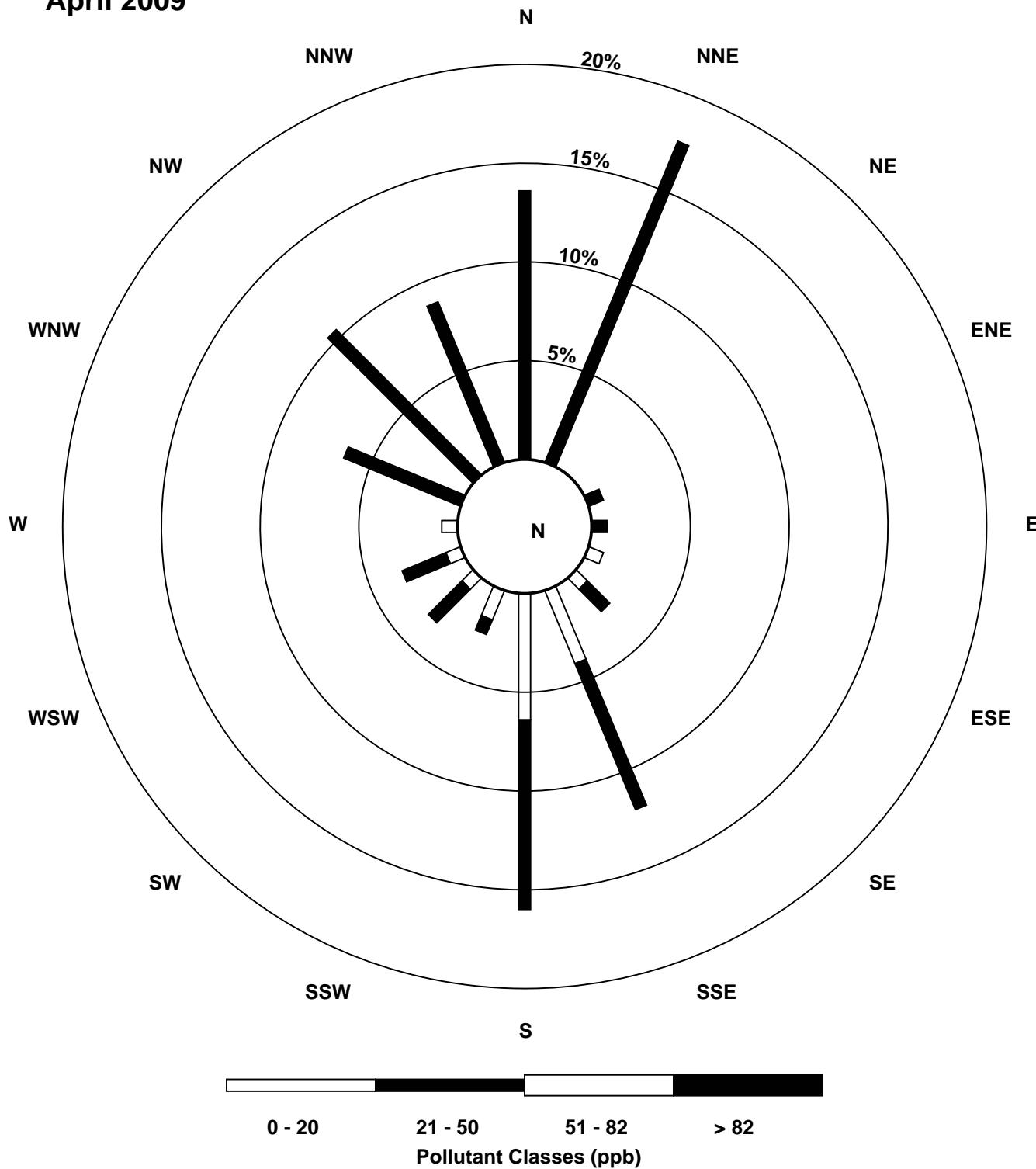
Hourly Maximums for O₃ at Portable-Kinuso

April 2009



Pollutant Rose for O₃ at Portable-Kinuso

April 2009



Peace Airshed Zone Association
Summary of Eight Hour Running Averages

Portable-Kinuso - Ozone (O_3) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 48.5 ppb on Apr 25 20:00 Minimum Value: 12.3 ppb on Apr 28 07:00 Percentiles: $P_1 = 12.9$ $P_{10} = 19.4$ $O_1 = 24.3$ Median = 30.9 $Q_3 = 34.0$ $P_{90} = 41.9$ $P_{99} = 48.5$																								Hours in Service: 132	
																									Hours of Data: 125
																									Hours of Missing Data: 7
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Maximum
1-Apr	MS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--						
2-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
3-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
4-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
5-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
6-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
7-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
8-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
9-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
10-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
11-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
12-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
13-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
14-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
15-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
16-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
17-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
18-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
19-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
20-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
21-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
22-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
23-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
24-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--
25-Apr	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	49	48	46	44	42
	38.9	36.3	33.6	31.7	31.0	32.3	34.1	35.6	38.4	40.3	42.3	42.4	42.9	43.5	43.7	43.4	42.9	42.7	41.3	48.5	48.1	46.1	43.7	41.9	48.5
Diurnal Maximums																									
N - Not Valid MS - Missing																									
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 65 ppb																									

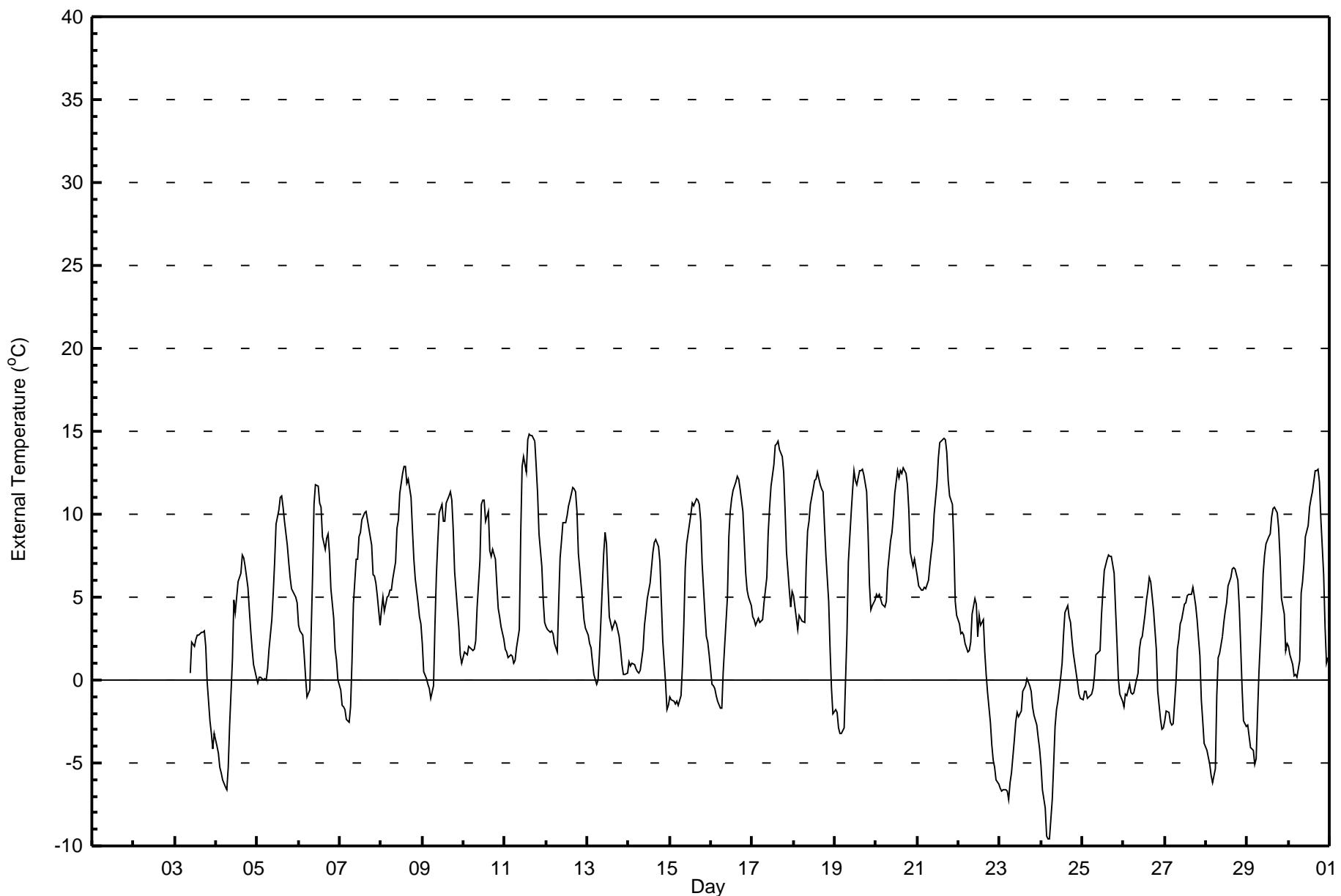
Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Kinuso - External Temperature (ET) - °C
April 1, 2009 to May 1, 2009

Maximum Value: 14.8 °C on Apr 11 15:00 Maximum Daily Average: 9.2 °C on Apr 21 Minimum Value: -10 °C on Apr 24 05:00 Minimum Daily Average: -3.4 °C on Apr 23 Maximum Diurnal Average: 9.0 °C at hour 16 Minimum Diurnal Average: -0.7 °C at hour 6 Monthly Average: 4.16 °C Percentiles: $P_1 = -6.7$ $P_{10} = -2.5$ $Q_1 = 0.4$ Median = 3.9 $Q_3 = 8.2$ $P_{90} = 11.4$ $P_{99} = 14.4$																								Hours in Service:	663	
																								Hours of Data:	663	
																								Hours of Missing Data:	0	
																								Hours of Calibration:	0	
																								Percent Operational Time:	100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
3-Apr	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	2	2	3	3	3	3	3	2	0	-2	-3	-4	-3	3.0	
4-Apr	-4	-4	-5	-6	-6	-6	-7	-5	-3	1	5	4	5	6	8	7	7	6	4	3	2	1	0	0.8	7.5	
5-Apr	0	0	0	0	0	0	1	2	4	5	7	9	10	11	10	10	8	7	6	5	5	5	5	5.1	11.1	
6-Apr	3	3	3	2	0	-1	-1	3	6	11	12	12	11	10	9	8	9	9	8	6	4	2	1	0	5.3	11.8
7-Apr	-1	-1	-2	-2	-2	-3	-2	1	5	7	7	9	9	10	10	10	10	9	8	6	6	6	5	3	4.6	10.1
8-Apr	4	5	4	5	5	5	5	6	7	9	10	11	12	13	13	12	12	11	9	7	6	5	4	3	7.7	12.9
9-Apr	2	1	0	0	-1	-1	0	3	6	8	10	11	10	10	11	11	11	9	6	4	3	2	1	0	5.3	11.4
10-Apr	2	2	2	2	2	2	2	2	4	7	11	11	11	10	10	8	7	7	6	4	4	3	2	0	5.4	10.9
11-Apr	2	2	1	2	1	1	1	2	3	9	13	13	13	14	15	15	15	14	13	11	9	7	5	3	7.7	14.8
12-Apr	3	3	3	3	3	2	2	5	7	8	9	9	10	10	11	12	11	11	10	8	6	5	4	3	6.6	11.6
13-Apr	3	2	2	1	0	0	0	2	4	8	9	8	6	4	3	3	4	3	2	1	0	0	0	0	2.8	8.9
14-Apr	1	1	1	1	1	0	0	1	2	3	4	5	6	7	8	8	8	7	5	2	0	-2	-2	-2	3.2	8.5
15-Apr	-1	-1	-1	-1	-1	-2	-1	1	3	7	8	9	10	11	10	11	11	10	7	4	3	2	2	0	4.6	10.9
16-Apr	0	0	0	-1	-1	-2	-2	1	2	5	9	10	11	11	12	12	12	12	10	8	6	5	5	4	5.4	12.3
17-Apr	4	4	3	4	3	4	4	5	6	9	10	12	13	14	14	14	14	13	10	8	5	4	5	4	8.2	14.4
18-Apr	5	4	3	4	4	4	3	7	9	10	11	12	12	13	12	12	11	9	8	5	2	0	-2	0	7.0	12.5
19-Apr	-2	-2	-3	-3	-3	-3	0	3	7	10	11	13	12	13	13	13	13	12	11	9	6	4	4	5	5.9	12.7
20-Apr	5	5	5	5	4	5	7	8	9	10	11	13	12	13	12	13	12	12	10	8	7	7	7	7	8.5	12.8
21-Apr	6	6	5	5	6	6	6	7	8	8	10	12	13	14	14	15	15	14	12	11	11	8	5	4	9.2	14.6
22-Apr	3	3	3	3	2	2	2	2	4	5	5	3	4	3	4	2	0	-1	-3	-4	-5	-5	-6	-6	0.8	4.9
23-Apr	-7	-7	-7	-7	-7	-6	-6	-4	-3	-2	-2	-2	-1	0	0	0	0	-1	-2	-3	-3	-4	-4	-3.4	0.1	
24-Apr	-5	-7	-8	-9	-10	-10	-7	-5	-3	-2	-1	0	1	3	4	5	4	3	2	2	0	0	-1	-1	-1.8	4.5
25-Apr	-1	-1	-1	-1	-1	-1	-1	0	1	2	2	4	5	7	7	8	7	7	6	4	2	0	-1	-1	2.3	7.5
26-Apr	-2	-1	-1	0	-1	-1	-1	0	0	2	2	3	4	5	5	6	6	4	3	2	-1	-2	-3	-3	1.2	6.2
27-Apr	-2	-2	-3	-3	-3	0	2	2	3	4	5	5	5	5	6	5	5	4	1	-1	-2	-4	-4	1.4	5.6	
28-Apr	-4	-5	-5	-6	-6	-5	-1	1	2	3	3	4	5	6	7	7	6	4	2	-1	-2	-3	-3	1.0	6.8	
29-Apr	-3	-3	-4	-4	-5	-5	-2	1	4	6	8	8	9	9	10	10	10	9	7	5	4	2	2	3.7	10.4	
30-Apr	2	2	1	0	0	0	1	5	6	7	9	9	10	11	11	13	13	12	10	6	3	1	1	6.1	12.7	
																								Diurnal Average		
																								Diurnal Maximum		
NS - Not in service																										

Hourly Averages for External Temperature at Portable-Kinuso

April 2009



Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Kinuso
 April 1, 2009 to May 1, 2009
 WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
2 Spd	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	M	M	4	3	1	1	1	N	N	--	4.0
Dir	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	M	M	287	247	221	217	163	N	N	--	286.5
3 Spd	N	N	N	N	6	6	5	6	N	4	1	6	7	8	11	11	10	6	1	1	2	3	9	2.5	10.8	
Dir	N	N	N	N	3	12	9	154	N	156	314	342	316	317	355	358	359	3	288	215	126	184	186	170	351.1	357.9
4 Spd	9	8	10	14	15	15	15	11	9	6	1	6	8	9	7	5	9	10	12	14	13	13	12	12	7.3	14.9
Dir	171	173	165	160	162	161	159	168	166	165	78	356	344	359	325	91	116	167	156	142	147	148	147	144	152.7	162.4
5 Spd	13	14	14	15	16	15	17	17	15	14	14	12	13	16	18	18	18	17	12	15	17	15	14	8	14.7	17.9
Dir	146	143	141	142	139	143	143	144	150	150	151	155	149	142	142	144	145	145	145	147	148	147	152	158	145.8	144.7
6 Spd	3	6	9	5	6	7	6	7	7	6	9	7	8	12	9	4	2	3	4	3	3	4	3	3	3.1	11.7
Dir	198	171	165	174	180	180	182	182	173	253	256	261	298	291	309	307	314	317	279	189	178	185	184	182	226.6	308.8
7 Spd	4	5	6	6	4	5	10	8	5	3	5	4	10	9	7	8	7	5	5	4	4	6	2	4	0.8	10.2
Dir	178	181	184	181	180	180	173	168	176	22	1	350	1	5	344	357	350	1	15	30	131	126	75	90	65.1	173.4
8 Spd	4	7	3	7	6	5	7	5	7	10	9	4	3	3	12	15	13	14	14	12	14	11	7	5	7.6	14.5
Dir	159	161	145	141	147	124	125	148	165	161	167	179	52	162	162	149	125	115	116	126	136	150	158	161	142.2	148.7
9 Spd	3	3	1	1	1	1	2	5	6	5	5	4	9	11	6	6	6	6	4	1	4	2	2	5	0.6	10.5
Dir	108	66	81	89	75	74	138	158	166	163	166	4	351	355	306	303	303	303	282	312	67	187	153	100	357.5	355.2
10 Spd	6	5	3	3	4	4	6	7	10	7	1	4	4	5	2	10	11	9	5	8	9	10	11	12	5.3	12.0
Dir	174	187	192	147	155	171	174	172	160	163	321	359	351	312	177	172	158	161	169	154	161	161	165	166.0	165.0	
11 Spd	10	14	13	12	12	11	12	9	5	1	4	7	9	9	11	12	12	13	12	10	5	3	6	7	8.1	14.4
Dir	167	159	165	163	165	163	164	163	104	191	180	150	74	95	119	133	143	144	137	153	233	182	181	144	149.7	158.9
12 Spd	8	10	7	4	4	3	3	5	3	6	6	8	9	8	6	7	10	9	9	6	2	2	2	3	1.1	10.0
Dir	160	158	157	182	188	186	194	165	238	282	289	319	334	333	355	2	11	12	13	29	17	217	227	213	330.1	11.2
13 Spd	2	3	1	1	1	1	1	1	1	3	10	14	16	9	6	7	10	15	14	14	6	3	3	3	3.7	16.3
Dir	188	79	29	176	208	190	157	167	205	32	65	89	89	45	327	341	358	2	359	4	344	302	307	314	23.7	89.3
14 Spd	7	4	5	4	4	4	4	4	6	8	9	10	9	9	9	8	8	6	3	1	3	3	7	4.8	9.5	
Dir	336	287	294	293	300	309	295	302	305	318	303	299	297	294	297	296	292	294	290	290	104	126	156	168	296.3	298.5
15 Spd	10	12	13	14	13	14	14	10	9	3	6	2	6	5	9	9	9	11	11	8	3	5	9	10	3.6	14.2
Dir	167	163	160	159	159	164	161	167	161	161	353	340	346	335	12	19	34	17	29	48	67	184	161	169	134.7	161.3
16 Spd	10	12	14	14	13	13	12	9	7	7	15	16	19	19	18	17	16	17	14	13	12	14	14	13	13.3	19.2
Dir	167	158	160	166	164	167	169	164	165	168	157	154	138	134	129	136	133	135	134	138	142	145	145	149	148.4	134.4
17 Spd	13	15	15	16	12	15	17	18	16	17	17	20	20	18	16	15	12	7	2	1	1	3	6	11.6	20.1	
Dir	150	156	154	151	158	154	152	157	161	161	158	156	155	151	150	163	170	190	210	346	221	105	196	267	158.5	155.2
18 Spd	6	2	3	5	2	3	4	5	9	10	9	11	10	10	10	9	8	7	4	2	2	4	5	5.5	10.5	
Dir	261	179	236	238	237	254	273	277	272	278	295	284	281	282	275	276	271	285	294	266	206	187	178	167	270.3	281.3
19 Spd	5	3	4	5	5	7	10	9	7	4	5	7	6	7	7	6	6	9	8	2	2	4	5	10	1.5	10.5
Dir	156	158	148	177	164	173	164	158	149	234	250	253	298	317	318	339	360	11	3	37	148	191	163	166	190.1	163.6
20 Spd	9	9	7	7	8	5	3	1	3	5	6	6	8	6	7	5	5	3	2	1	3	6	8	2.3	9.4	
Dir	154	152	153	163	159	165	179	298	274	270	274	261	265	308	302	303	297	304	283	106	143	164	165	162	211.6	154.1
21 Spd	9	8	7	6	7	8	10	19	20	21	18	16	15	15	16	15	16	15	14	16	16	10	10	6	11.3	21.3
Dir	151	149	149	143	132	128	139	150	150	153	152	161	150	154	149	147	155	151	150	155	147	264	285	264	154.4	153.1
22 Spd	5	7	5	7	7	6	7	11	11	12	12	11	12	13	11	10	11	11	10	9	10	11	10	9	8.8	13.3
Dir	237	175	226	260	265	253	249	256	268	273	271	290	286	294	282	286	288	282	281	292	294	293	301	276.9	285.9	

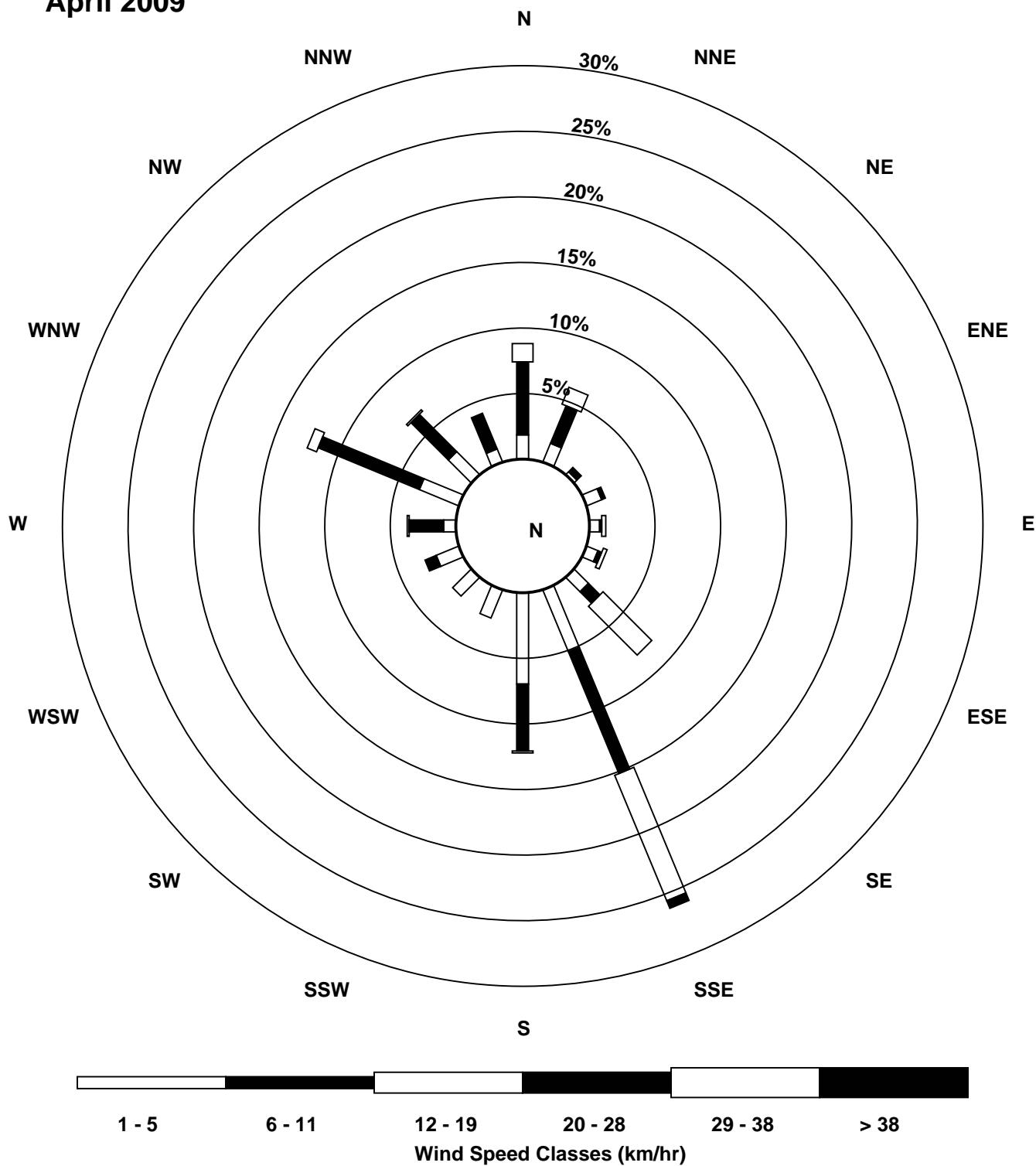
Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Kinuso
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																				
23 Spd	9	9	10	9	8	7	6	6	7	7	8	9	9	10	9	10	8	7	7	6	8	8	8	5	7.4	9.9																		
	299	302	307	305	301	300	289	289	295	292	283	298	293	289	306	307	303	303	300	319	350	352	356	4	306.9	306.8																		
24 Spd	3	2	2	2	2	3	6	7	3	7	6	2	3	3	3	3	11	11	10	7	2	1	1	1	1.2	11.3																		
	324	302	207	125	175	177	170	159	125	314	354	303	353	214	244	287	355	9	31	25	67	296	213	168	358.2	355.0																		
25 Spd	1	8	4	0	2	1	2	4	6	11	7	4	7	7	7	8	9	8	5	3	0	1	1	4	2.8	10.6																		
	121	178	68	269	291	167	332	323	353	4	324	291	312	303	292	282	282	294	289	331	351	132	319	189	305.5	3.6																		
26 Spd	1	1	2	8	6	4	3	6	5	6	10	13	12	11	9	6	6	8	6	2	1	2	3	3	4.1	12.6																		
	248	191	231	13	29	26	356	7	356	340	1	15	17	2	15	348	335	312	335	244	160	178	180	191	359.1	15.1																		
27 Spd	4	8	6	6	7	5	6	2	4	6	13	14	12	10	12	12	9	8	11	11	5	1	2	1	3.3	13.7																		
	164	176	172	172	167	135	175	244	309	341	24	23	5	360	8	12	18	356	12	22	30	173	219	260	20.2	23.0																		
28 Spd	2	2	2	2	1	2	0	2	4	11	8	13	12	12	13	13	14	15	13	10	7	1	2	7	5.3	15.4																		
	249	234	216	118	172	211	185	24	22	17	24	14	4	353	355	7	16	17	25	24	18	93	175	176	12.9	16.7																		
29 Spd	8	6	7	12	8	7	7	8	4	3	5	6	7	7	5	5	6	1	2	1	4	3	9	1.8	11.6																			
	176	161	168	163	156	154	157	171	139	299	305	305	324	343	346	358	9	340	61	158	156	192	190	169	174.2	163.2																		
30 Spd	11	10	8	5	5	4	5	1	8	6	4	4	5	5	6	7	7	6	4	2	2	4	4	9	1.5	10.8																		
	167	170	167	180	180	165	177	228	360	310	311	325	283	308	321	308	322	338	332	295	160	178	192	170	237.6	167.1																		
Spd	4.5	5.9	5.1	5.0	4.4	4.6	5.3	5.0	3.2	1.6	0.8	1.1	2.4	2.6	1.9	1.2	1.5	1.6	1.4	1.6	2.4	2.9	3.3	4.5	Diurnal Average																			
Dir	171.1	165.4	166.5	165.6	164.2	163.6	165.7	168.0	172.5	217.1	260.5	311.2	346.5	334.7	331.0	335.0	13.4	2.3	33.4	99.4	137.9	169.7	174.4	169.3																				
Spd	13.1	15.3	15.3	15.5	15.9	15.4	17.1	19.1	19.8	21.3	18.0	19.7	20.1	19.2	18.3	17.8	17.9	16.8	14.5	15.7	16.8	14.6	14.3	13.5	Diurnal Maximum																			
Dir	149.7	155.9	153.5	150.7	138.7	154.4	152.1	150.0	150.3	153.1	152.3	156.1	155.2	134.4	129.5	143.6	144.7	144.9	115.6	154.5	148.1	147.2	145.3	148.8																				
Maximum Speed Value: 21 km/h on Apr 21 10:00				Minimum Speed Value: 0 km/h on Apr 25 04:00												Hours in Service: 681																												
Maximum Daily Speed Average: 14.7 km/h on Apr 5				Minimum Daily Speed Average: 0.6 km/h on Apr 9												Hours of Data: 672																												
Maximum Diurnal Speed Average: 5.9 km/h at hour 2				Minimum Diurnal Speed Average: 0.8 km/h at hour 11												Hours of Missing Data: 9																												
Monthly Average Velocity: 1.83 km/h 166.48 deg				Speed Percentiles: P ₁ = 0.6 P ₁₀ = 1.9 O ₁ = 4.1 Median = 6.8 O ₃ = 10.3 P ₉₀ = 14.2 P ₉₉ = 18.8												Percent Operational Time: 98.7																												
All monthly, daily, and diurnal averages have been calculated using vector methods																																												
M - Maintenance				N - Not Valid				NS - Not in service																																				
Frequency Distribution																																												
Speed Range (km/h)																																												
Direction																																												
0 to 5																																												
5 to 11																																												
11 to 19																																												
19 to 28																																												
28 to 38																																												
> 38																																												
Total																																												

Wind Rose for WS at Portable-Kinuso

April 2009



Peace Airshed Zone Association

Summary of Hourly Averages - Wind Speed (Scalar)

Portable-Kinuso - Wind Speed (WS) - km/h

April 1, 2009 to May 1, 2009

Maximum Speed: 21 km/h on Apr 21 10:00 Maximum Daily Speed Average: 14.9 km/h on Apr 5 Minimum Speed: 1 km/h on Apr 2 20:00 Minimum Daily Speed Average: 4.4 km/h on Apr 9 Maximum Diurnal Speed Average: 10.4 km/h at hour 16 Minimum Diurnal Speed Average: 5.9 km/h at hour 23 Monthly Average Speed: 8.01 km/h Percentiles: $P_1 = 1.4$ $P_{10} = 2.9$ $Q_1 = 4.8$ Median = 7.4 $Q_3 = 10.6$ $P_{90} = 14.3$ $P_{99} = 19.1$																								Hours in Service: 681						
																									Hours of Data: 672					
																									Hours of Missing Data: 9					
																									Percent Operational Time: 98.7					
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum				
1-Apr	NS	--	--																											
2-Apr	NS	NS	NS	NS	N	NS	NS	6	7	5	7	7	4	2	7	7	8	11	11	10	6	1	1	1	9	5.8	11.1			
3-Apr	N	N	N	N	N	N	N	11	9	15	11	15	6	2	6	9	9	7	7	9	10	12	14	13	13	12	12	10.3	14.9	
4-Apr	9	9	10	14	15	15	15	17	15	15	15	15	15	15	15	13	13	16	18	18	18	17	12	15	17	15	14	14.9	18.0	
5-Apr	13	14	14	15	16	15	17	17	15	15	15	15	15	15	15	13	13	16	18	18	18	17	12	15	17	15	14	9	14.9	18.0
6-Apr	3	7	9	5	6	7	7	7	7	6	6	9	7	8	12	9	5	3	3	3	4	3	4	3	4	3	3	5.9	11.7	
7-Apr	4	5	6	6	4	5	10	8	5	3	5	4	10	9	8	8	8	6	5	5	5	7	3	4	3	4	6.0	10.3		
8-Apr	4	7	3	7	6	5	7	6	7	10	9	5	4	7	12	15	14	14	15	12	14	11	7	5	5	5	8.6	14.9		
9-Apr	4	3	1	1	1	1	2	5	6	6	5	5	9	11	6	6	6	6	4	3	4	3	3	5	5	4.4	10.8			
10-Apr	6	5	3	4	5	4	6	7	10	7	4	6	6	5	4	11	11	9	5	8	9	10	11	12	7.0	12.0				
11-Apr	10	14	13	12	12	11	12	10	6	3	4	7	10	10	12	12	13	13	12	11	7	7	6	8	9.8	14.5				
12-Apr	8	10	7	4	4	3	3	5	5	6	7	8	10	9	7	8	10	9	9	7	3	4	2	3	6.3	10.3				
13-Apr	2	3	3	3	2	3	3	1	2	4	11	15	17	10	6	7	10	15	14	14	6	3	3	4	6.7	16.7				
14-Apr	8	4	5	4	4	4	4	5	6	8	9	10	9	9	9	8	8	7	4	3	4	4	7	6.3	9.8					
15-Apr	10	12	13	14	13	14	14	10	9	5	7	5	7	8	10	10	11	11	8	5	5	9	10	9.7	14.3					
16-Apr	10	12	14	14	13	13	12	9	7	7	16	17	19	20	19	18	17	17	14	14	12	14	14	14	13.9	19.9				
17-Apr	13	15	15	16	12	16	17	18	16	17	18	20	20	19	16	15	12	7	3	3	2	3	3	6	6	12.6	20.3			
18-Apr	6	3	4	5	3	3	4	5	9	11	10	10	11	11	11	10	9	9	7	4	2	2	3	4	6.5	11.0				
19-Apr	5	4	4	5	5	8	11	9	7	6	7	7	8	7	7	7	9	8	3	3	4	6	10	6	6.5	10.6				
20-Apr	10	9	7	7	8	5	3	2	4	5	6	6	7	8	6	7	6	6	3	3	2	4	7	8	5.9	9.7				
21-Apr	9	8	7	6	7	8	10	19	20	21	18	16	15	15	16	15	16	15	14	16	16	15	10	6	13.4	21.4				
22-Apr	5	8	6	7	7	7	6	7	11	11	12	12	11	13	12	14	13	11	11	11	10	9	10	10	9.8	13.6				
23-Apr	10	10	10	9	8	7	6	6	8	7	8	9	10	10	10	10	9	7	7	8	9	8	6	8.2	10.1					
24-Apr	4	3	2	3	2	3	6	7	5	8	8	6	7	7	6	7	12	11	10	8	6	4	2	3	5.8	11.7				
25-Apr	3	8	4	3	2	2	4	4	6	11	8	5	8	8	8	9	9	9	5	4	2	3	4	4	5.6	11.2				
26-Apr	3	4	3	8	6	5	4	7	6	6	10	13	12	12	10	8	7	8	6	2	3	4	4	4	6.4	13.2				
27-Apr	4	9	6	6	8	5	6	5	7	14	15	13	11	13	13	10	9	11	11	5	3	3	2	8.0	14.6					
28-Apr	2	3	3	2	1	2	1	4	5	11	10	14	13	13	14	14	15	16	13	10	7	4	3	7	7.8	15.7				
29-Apr	8	6	7	12	8	8	8	9	5	5	7	7	9	8	7	8	8	6	3	2	2	5	3	9	6.6	11.6				
30-Apr	11	10	9	5	5	5	3	8	7	6	6	6	8	8	8	9	7	5	3	2	5	5	9	6.4	11.0					
6.8 7.5 7.0 7.3 6.9 6.8 7.5 7.6 7.7 8.0 8.6 9.4 10.3 10.3 10.3 10.4 10.4 9.7 8.1 7.0 5.9 5.9 5.9 6.8																									Diurnal Average					
13.2 15.4 15.3 15.6 16.0 15.5 17.1 19.2 20.0 21.4 18.2 19.9 20.3 19.9 19.1 17.9 18.0 17.1 14.6 15.8 16.9 14.9 14.3 13.6																									Diurnal Maximum					
M - Maintenance N - Not Valid NS - Not in service All monthly, daily, and diurnal averages have been calculated using scalar methods																														

Peace Airshed Zone Association
Summary of Hourly Standard Deviations

Portable-Kinuso - Wind Direction (WD) - deg
April 1, 2009 to May 1, 2009

Maximum Value: 96.9 deg on Apr 10 11:00																								Hours in Service:	681	
Minimum Value: 3.5 deg on Apr 16 04:00																								Hours of Data:	672	
Percentiles: P ₁ = 4.0 P ₁₀ = 6.7 Q ₁ = 10.8 Median = 16.9 Q ₃ = 32.7 P ₉₀ = 58.3 P ₉₉ = 89.8																								Hours of Missing Data:	9	
																								Hours of Calibration:	0	
																								Percent Operational Time:	98.7	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Maximum	
1-Apr	NS	--																								
2-Apr	NS	NS	N	NS	N	27	29	15	47	N	13	90	29	16	15	18	12	17	26	60	16	65	23	14	53.1	
3-Apr	N	N	N	N	N	27	29	15	47	N	13	10	69	19	15	20	30	58	22	8	10	6	6	5	5	89.8
4-Apr	8	8	10	4	4	4	4	7	8	10	69	19	15	20	30	58	22	8	10	6	6	5	5	5	68.6	
5-Apr	5	5	5	5	4	4	4	4	6	7	8	13	8	8	7	6	6	7	7	5	7	5	46	45.8		
6-Apr	26	18	7	17	10	10	13	11	10	27	18	15	24	20	7	6	16	55	43	15	8	20	20	29	55.5	
7-Apr	18	22	20	22	22	15	5	13	12	60	33	31	7	13	24	20	19	18	18	38	44	37	59	65	65.1	
8-Apr	30	12	41	10	11	13	10	23	11	12	10	24	63	91	13	13	17	10	8	9	7	9	8	16	90.5	
9-Apr	23	21	18	60	62	22	29	12	16	21	27	80	16	17	15	12	14	11	12	83	35	36	53	21	82.6	
10-Apr	17	17	34	26	30	27	11	18	6	8	97	76	73	34	75	11	11	13	12	7	5	6	6	6	96.9	
11-Apr	5	5	6	5	8	7	9	36	26	76	46	26	28	23	22	13	15	12	8	22	43	69	27	22	76.3	
12-Apr	12	17	12	16	16	17	21	16	53	23	29	16	22	26	42	39	14	14	13	16	68	60	37	29	68.2	
13-Apr	16	35	95	82	60	73	64	42	56	79	23	11	13	33	16	21	20	9	10	7	22	9	14	25	95.3	
14-Apr	22	14	14	14	17	22	11	11	19	11	12	16	16	15	17	15	13	13	23	91	35	38	16	90.7		
15-Apr	6	6	4	4	7	6	6	11	10	62	44	79	55	58	32	38	36	20	8	11	43	17	10	5	79.1	
16-Apr	5	4	4	4	5	4	10	10	12	13	13	15	15	17	17	15	11	12	8	5	4	5	5	17.0		
17-Apr	5	5	5	4	7	6	5	6	8	9	8	8	9	12	11	12	14	31	41	68	50	70	24	24	69.9	
18-Apr	19	52	25	13	33	31	19	20	14	14	17	17	16	18	16	17	18	17	18	26	13	19	16	52.2		
19-Apr	19	25	26	26	24	14	8	8	12	44	36	24	42	30	39	43	42	20	10	69	35	8	20	15	69.4	
20-Apr	14	10	12	12	7	14	19	80	32	23	19	23	35	25	30	17	25	22	39	60	41	40	10	9	80.2	
21-Apr	7	7	7	14	25	12	9	6	6	9	11	12	11	13	11	10	10	11	8	7	51	13	21	51.4		
22-Apr	27	12	26	11	13	19	22	19	13	12	12	16	15	14	11	12	10	11	10	10	11	11	10	27.5		
23-Apr	10	12	8	8	9	12	11	14	16	16	14	13	14	15	15	15	17	20	17	20	14	13	14	33	32.8	
24-Apr	17	56	19	37	25	16	9	15	53	34	58	83	85	74	76	72	17	14	6	19	80	81	52	64	85.2	
25-Apr	59	16	25	90	63	53	76	42	33	22	31	62	37	34	25	22	16	16	13	50	91	59	84	38	91.3	
26-Apr	69	75	58	29	8	21	43	25	18	26	21	18	21	27	42	50	33	18	44	37	49	44	18	24	74.5	
27-Apr	12	8	23	12	17	32	12	70	48	45	25	21	29	36	27	26	41	31	12	11	34	72	45	73	73.4	
28-Apr	21	23	62	40	38	12	75	81	52	25	51	25	29	25	24	19	10	8	4	7	83	57	7	83.1		
29-Apr	5	8	5	5	24	9	9	9	43	72	41	45	46	35	58	59	49	32	61	17	47	23	16	8	71.7	
30-Apr	12	10	30	17	30	23	21	71	23	27	51	63	44	60	39	33	35	28	38	59	39	37	23	8	70.7	
69.5 74.5 95.3 90.0 62.7 72.5 75.7 81.1 55.5 78.8 96.9 82.6 85.2 90.5 75.8 71.7 49.1 55.5 60.5 82.6 91.3 83.1 84.1 73.4																										
M - Maintenance N - Not Valid NS - Not in service																										

PASZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

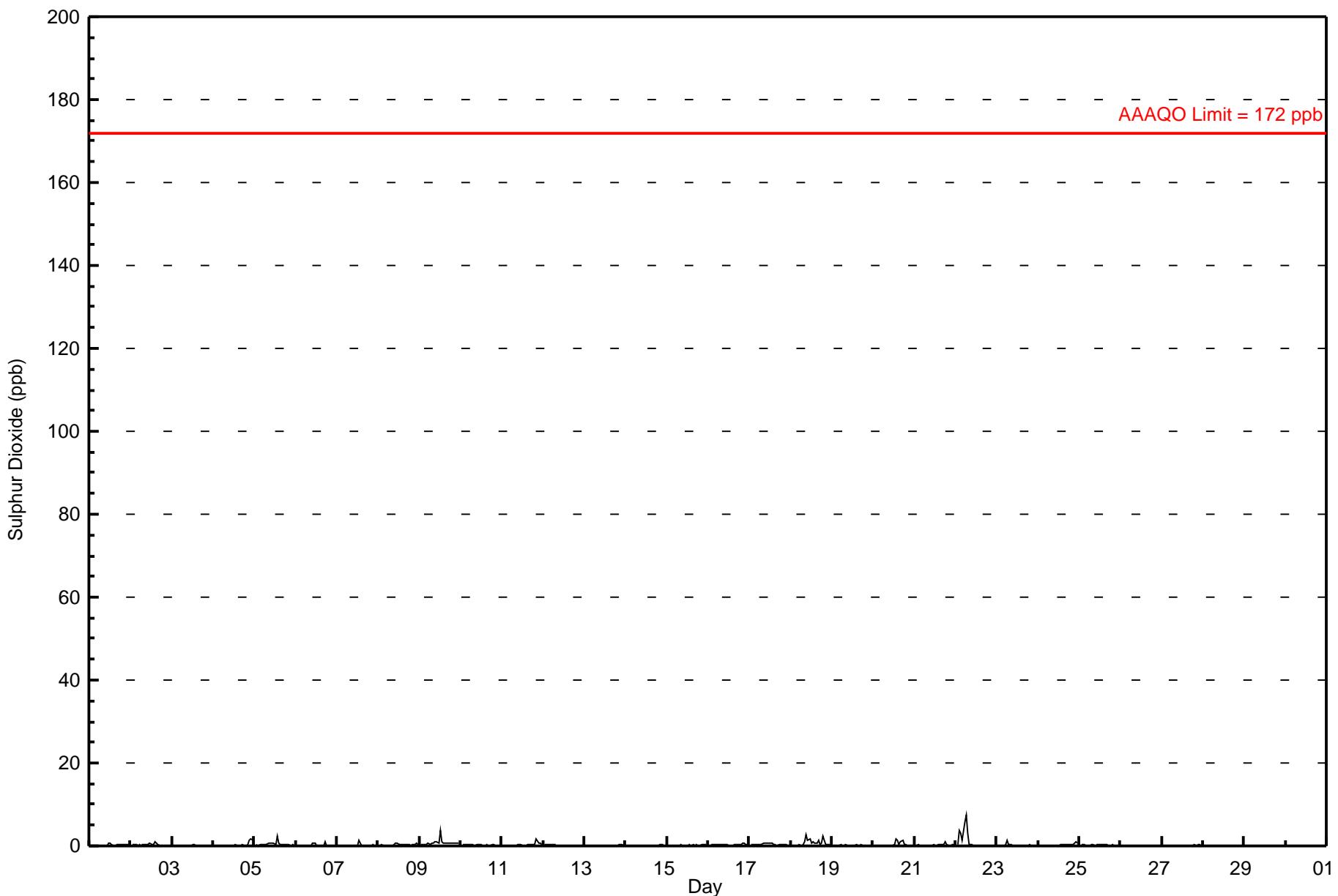
Peace Airshed Zone Association Summary of Hourly Averages

Valleyview - Sulphur Dioxide (SO_2) - ppb

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7.4 ppb on Apr 22 07:00 Maximum Daily Average: 1.1 ppb on Apr 22																		Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0									
Minimum Value: 0 ppb on Apr 1 02:00 Minimum Daily Average: 0.0 ppb on Apr 29												Maximum Diurnal Average: 0.4 ppb at hour 7 Minimum Diurnal Average: 0.1 ppb at hour 2 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 2.7															
Monthly Average: 0.23 ppb																											
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	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	
2-Apr	A	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	1.0	
3-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3	
4-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.2	1.7	
5-Apr	A	0	0	0	0	0	0	1	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0.4	2.3	
6-Apr	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	0.9	
7-Apr	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	1.2	
8-Apr	A	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0.3	0.7
9-Apr	A	0	0	0	0	1	0	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	3.9	
10-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	1	0	0.3	1.8	
12-Apr	A	0	0	0	0	0	0	0	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
13-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
14-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
15-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
16-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.3	0.6	
17-Apr	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7	
18-Apr	A	0	0	0	0	0	0	1	3	1	2	1	1	1	1	1	0	1	2	0	0	0	0	0	0.7	2.8	
19-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
20-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	1	0	0	0	0	0	0	0.3	1.7	
21-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.9	
22-Apr	A	0	4	3	1	6	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	7.4	
23-Apr	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.2	
24-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.2	1.0	
25-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
26-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
27-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
28-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
29-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
30-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
--	0.1	0.2	0.2	0.1	0.3	0.4	0.2	0.2	0.3	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	Diurnal Average		
--	0.4	3.9	3.1	1.5	5.9	7.4	3.0	0.9	2.8	1.4	1.9	3.9	2.3	1.5	0.7	1.3	1.4	0.9	2.4	1.8	1.2	1.7	1.3	Diurnal Maximum			

Hourly Averages for SO₂ at Valleyview

April 2009



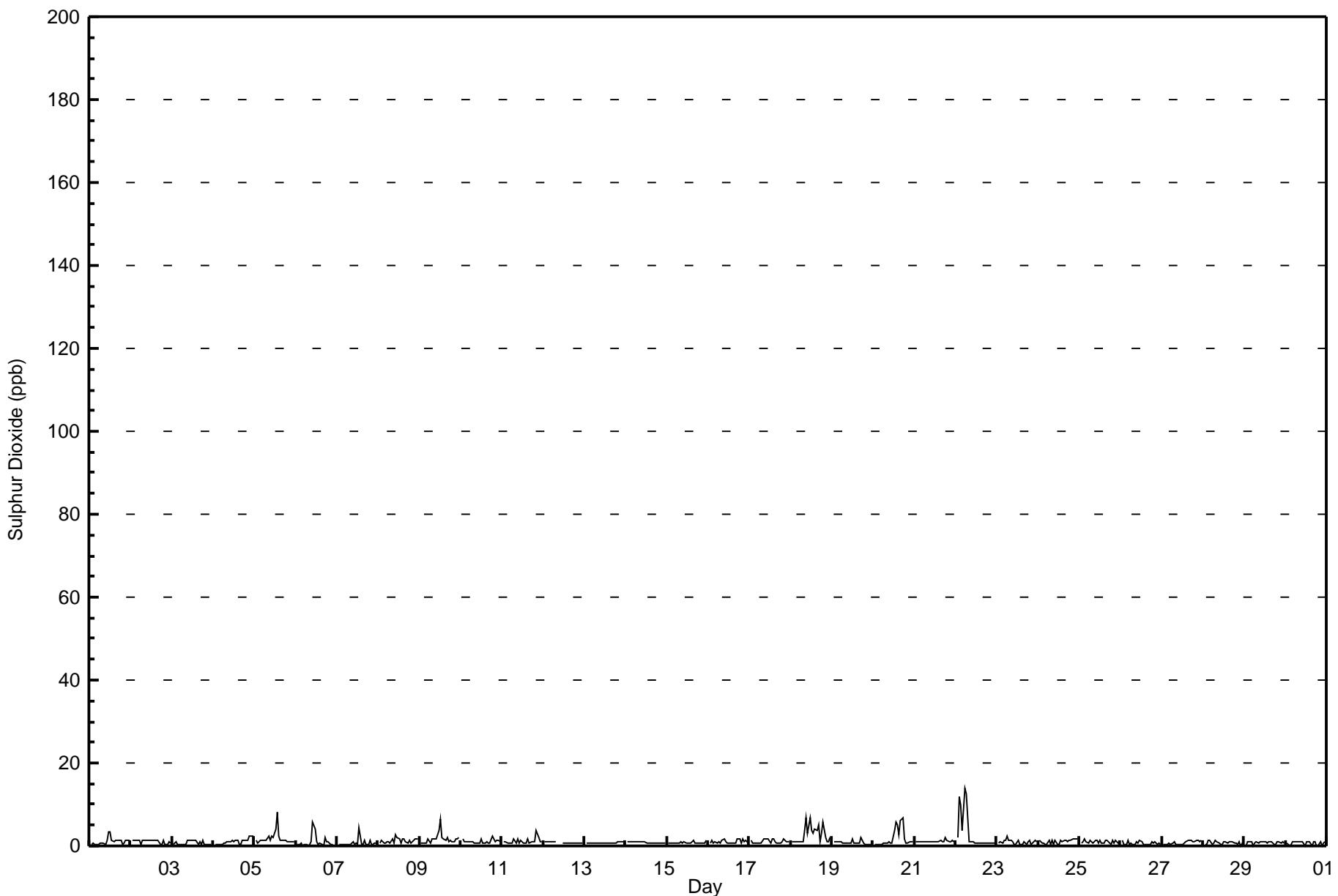
**Peace Airshed Zone Association
Summary of Hourly Maximums**

**Valleyview - Sulphur Dioxide (SO_2) - ppb
April 1, 2009 to May 1, 2009**

Maximum Value: 13.8 ppb on Apr 22 06:00																				Maximum Daily Average: 3.2 ppb on Apr 22				Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0											
Minimum Value: 0 ppb on Apr 29 02:00												Minimum Daily Average: 0.6 ppb on Apr 26																							
Maximum Diurnal Average: 1.5 ppb at hour 13												Minimum Diurnal Average: 0.8 ppb at hour 2																							
Monthly Average: 1.13 ppb												Percentiles: $P_1 = 0.1$ $P_{10} = 0.4$ $Q_1 = 0.6$ Median = 0.9 $Q_3 = 1.3$ $P_{90} = 1.7$ $P_{99} = 6.9$																							
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum									
1-Apr	A	0	1	0	0	0	1	1	1	0	1	3	3	1	1	1	1	1	1	0	1	1	1	1	1	1.1	3.3								
2-Apr	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	1	1.1	1.4								
3-Apr	A	0	1	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0.7	1.3								
4-Apr	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	2	2	2	2	1.0	2.3								
5-Apr	A	1	1	1	1	1	1	2	1	2	2	4	8	2	1	1	1	1	1	1	1	1	1	1	1	1.8	8.2								
6-Apr	A	1	0	1	0	0	0	0	0	1	6	4	1	0	1	0	0	0	2	1	1	0	0	0	0	1.0	5.6								
7-Apr	A	0	0	0	0	0	0	0	0	1	0	1	0	4	0	0	0	1	0	0	1	0	0	1	1	0.7	4.3								
8-Apr	A	1	1	1	1	1	1	1	2	1	3	2	2	1	2	2	1	1	1	1	2	2	2	2	2	1.2	2.6								
9-Apr	A	1	1	1	1	2	1	2	2	2	2	4	7	2	2	1	2	1	1	1	1	2	2	2	2	1.7	6.5								
10-Apr	A	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	2	2	1	1	1	1	1	1.1	2.5								
11-Apr	A	1	1	1	1	1	1	2	1	2	1	1	1	1	1	2	1	1	1	4	2	1	1	1	1	1.1	3.9								
12-Apr	A	1	1	1	1	1	1	1	C	C	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0								
13-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9								
14-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9								
15-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4								
16-Apr	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1.0	1.7								
17-Apr	A	1	1	1	1	1	1	1	2	2	2	2	1	2	2	1	1	1	1	1	2	1	1	1	1	1.1	1.8								
18-Apr	A	1	1	1	1	1	1	1	4	7	3	7	4	3	4	4	5	1	3	6	2	1	1	2	2	2.7	6.9								
19-Apr	A	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	0	0	0	0	0	0	0.8	2.1								
20-Apr	A	0	0	0	0	0	1	1	1	1	1	1	4	6	5	3	6	7	2	1	1	1	1	1	1	1.8	6.7								
21-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1.0	1.9								
22-Apr	A	2	12	10	4	14	13	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3.2	13.8								
23-Apr	A	1	1	1	1	2	3	1	1	0	0	1	0	0	0	1	0	1	1	0	1	1	1	1	1	1.0	2.5								
24-Apr	A	1	1	1	0	0	1	0	1	0	1	0	0	1	1	2	1	1	1	1	2	2	2	2	1.1	1.7									
25-Apr	A	1	1	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	1	1	1	1	0	1.0	1.6									
26-Apr	A	1	0	0	1	0	1	0	0	1	1	1	1	0	0	0	0	0	1	1	1	0	1	0	0	0.6	1.3								
27-Apr	A	0	0	0	1	0	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4								
28-Apr	A	0	0	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	0	1	1	0.8	1.3									
29-Apr	A	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0.8	1.0								
30-Apr	A	1	0	0	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	0	0	1	1	0	0.7	1.1									
--	0.8	1.1	1.0	0.9	1.2	1.2	1.0	1.1	1.2	1.3	1.4	1.5	1.5	1.2	1.1	1.2	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Diurnal Average									
--	1.9	11.8	9.8	3.8	13.8	12.6	6.6	3.9	6.9	5.6	6.9	6.5	8.2	5.2	3.9	6.2	6.7	3.0	5.7	3.9	2.3	2.3	2.3	2.3	2.3	Diurnal Maximum									
C - Calibration A - Automated Daily Zero Span																																			

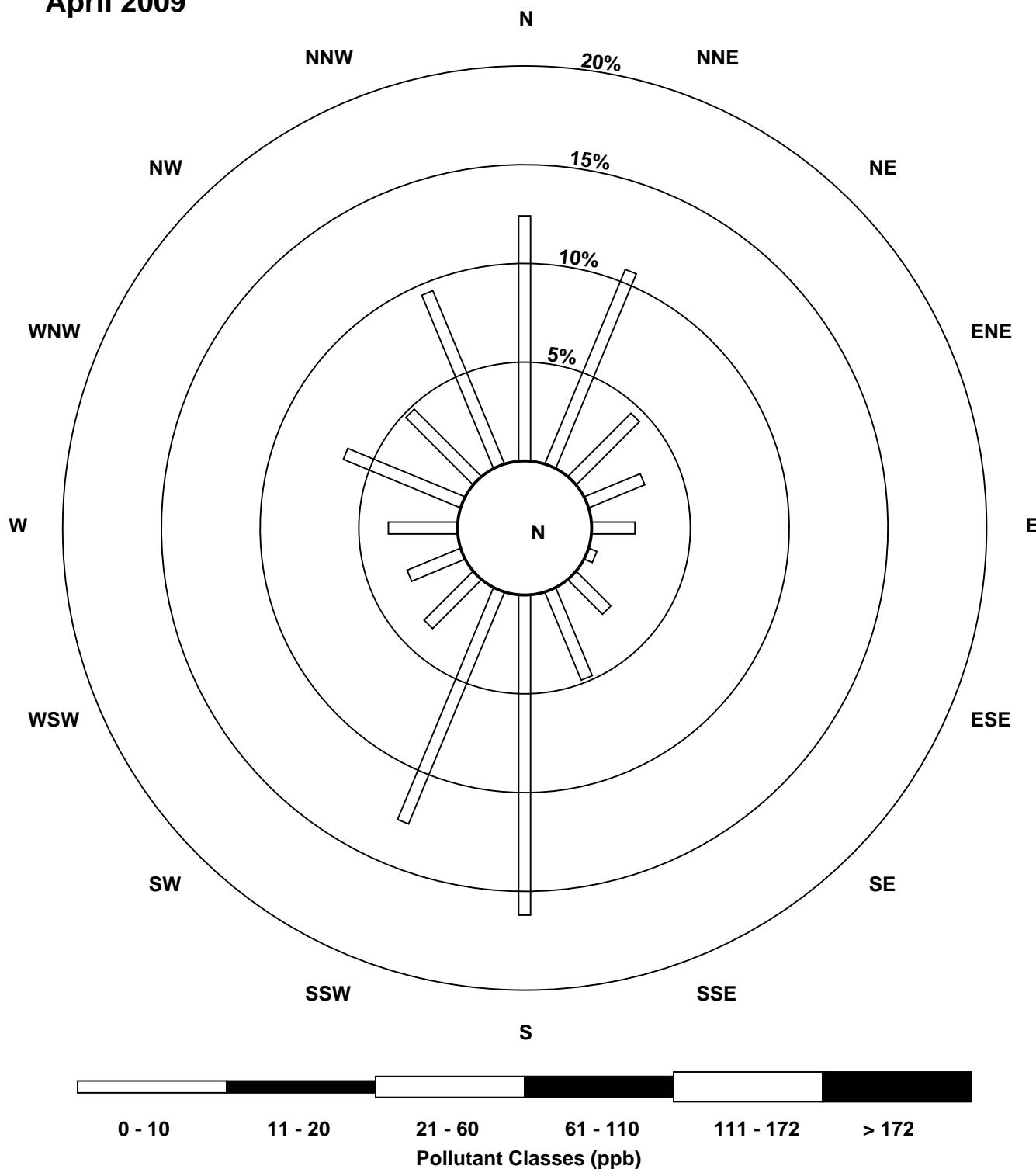
Hourly Maximums for SO₂ at Valleyview

April 2009



Pollutant Rose for SO₂ at Valleyview

April 2009



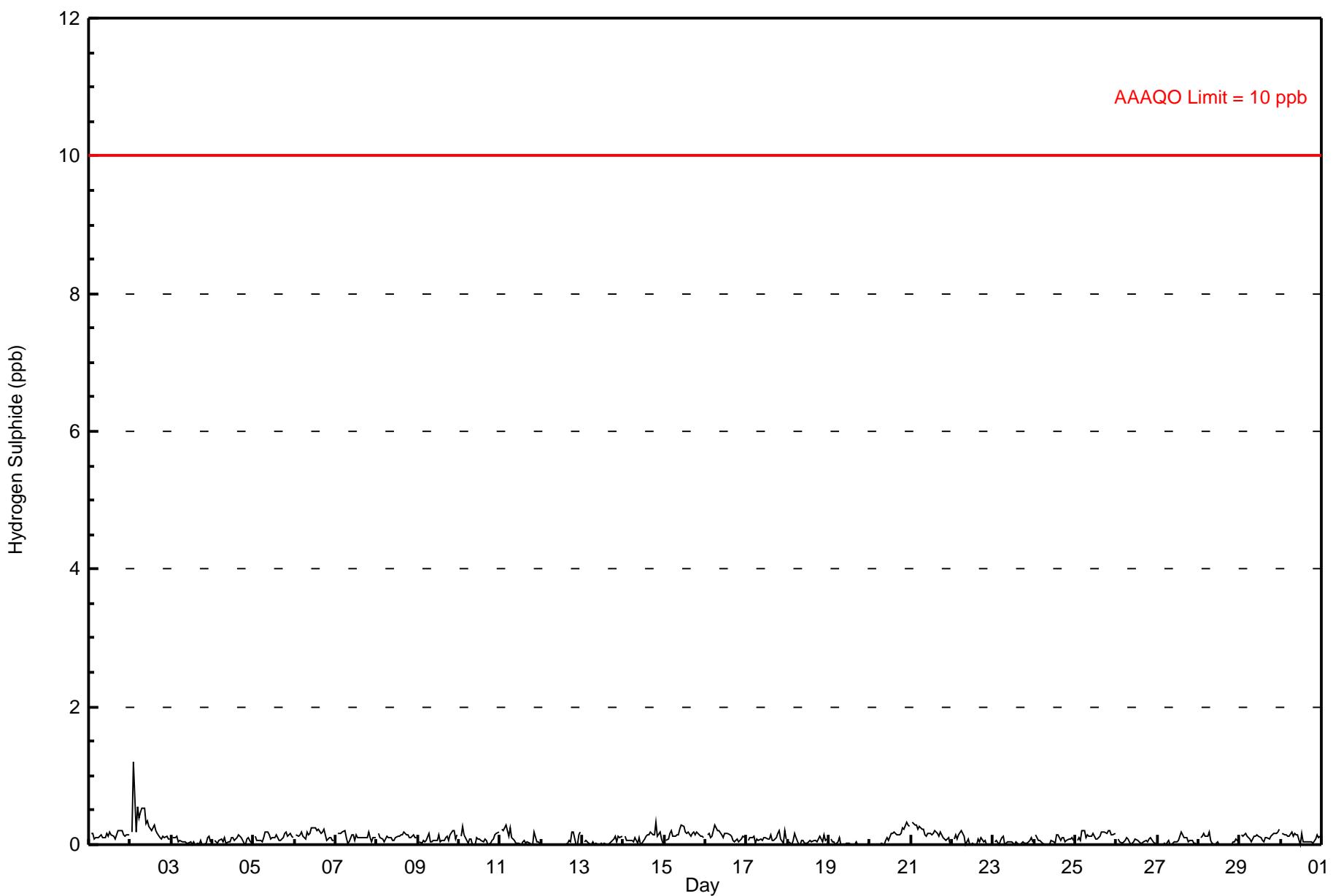
Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview - Hydrogen Sulphide (H₂S) - ppb
April 1, 2009 to May 1, 2009

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.2 ppb on Apr 2 03:00 Maximum Daily Average: 0.3 ppb on Apr 2																			Hours in Service: 720 Hours of Data: 688 Hours of Missing Data: 32 Hours of Calibration: 32 Percent Operational Time: 100.0			
Minimum Value: 0 ppb on Apr 3 15:00 Minimum Daily Average: 0.0 ppb on Apr 19 Maximum Diurnal Average: 0.1 ppb at hour 3 Minimum Diurnal Average: 0.1 ppb at hour 9 Monthly Average: 0.10 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.3																						
Day																			Hourly Period Ending At (MST)			
1-Apr																				Daily Average	Daily Maximum	
1-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
2-Apr	A	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
3-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
4-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	
5-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
6-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	
7-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
9-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
10-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
12-Apr	A	0	0	0	0	0	0	0	0	C	C	0	0	0	0	0	0	0	0	0.0	0.2	
13-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
14-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
15-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
16-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
17-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
18-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
19-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
20-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
21-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
22-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
23-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
24-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
25-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
26-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
27-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2	
28-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
29-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
30-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
--	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
--	0.3	1.2	0.3	0.5	0.4	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																						

Hourly Averages for H₂S at Valleyview

April 2009



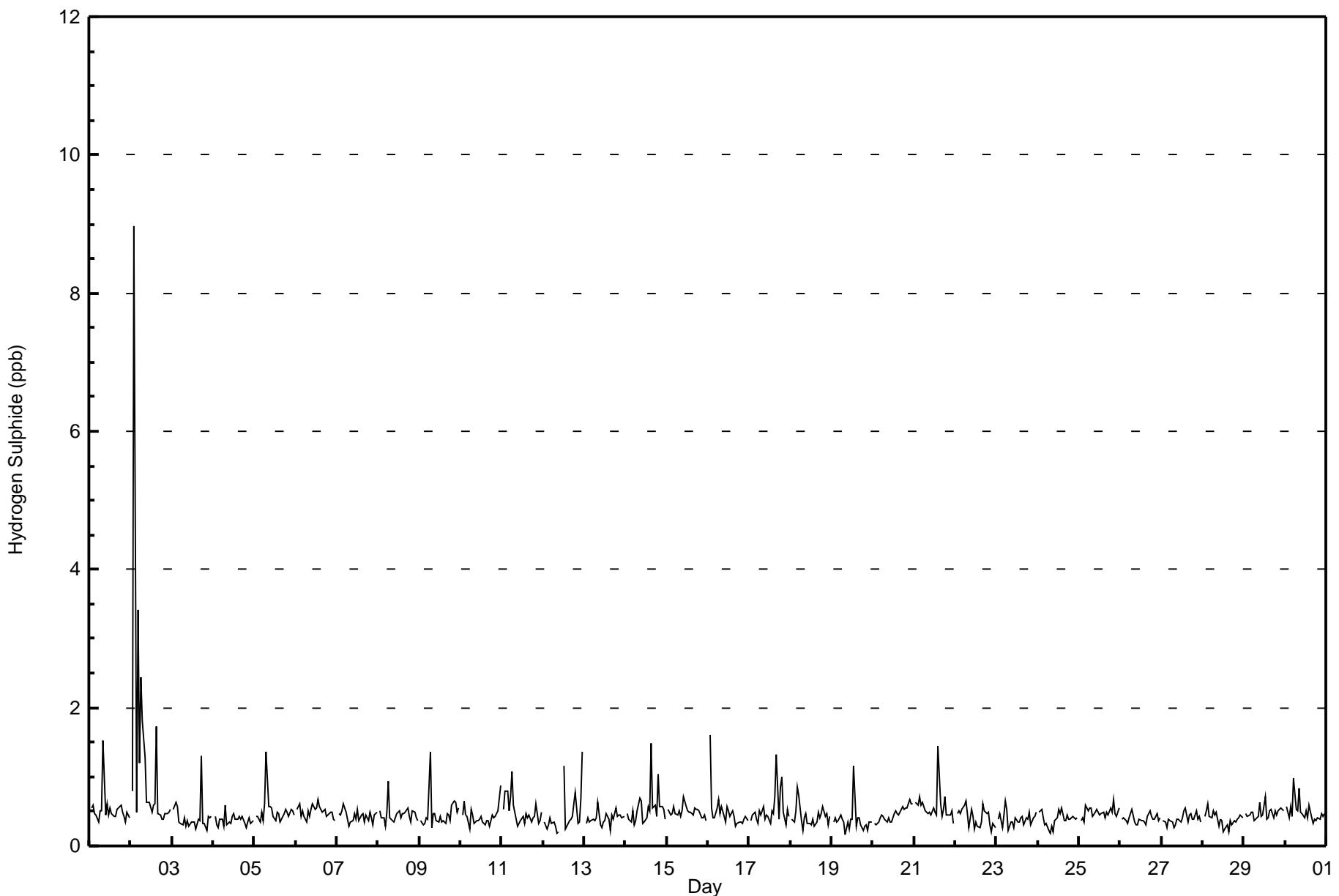
Peace Airshed Zone Association
Summary of Hourly Maximums

Valleyview - Hydrogen Sulphide (H₂S) - ppb
April 1, 2009 to May 1, 2009

Maximum Value: 9.0 ppb on Apr 2 03:00																				Maximum Daily Average: 1.3 ppb on Apr 2				Hours in Service: 720							
Minimum Value: 0 ppb on Apr 19 09:00												Minimum Daily Average: 0.4 ppb on Apr 19												Hours of Data: 688							
Maximum Diurnal Average: 0.7 ppb at hour 3												Minimum Diurnal Average: 0.4 ppb at hour 11												Hours of Missing Data: 32							
Monthly Average: 0.48 ppb												Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.4 Q ₃ = 0.5 P ₉₀ = 0.6 P ₉₉ = 1.5												Hours of Calibration: 32							
																								Percent Operational Time: 100.0							
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum					
1-Apr	A	1	1	0	0	0	1	1	2	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0.5	1.5					
2-Apr	A	1	9	0	3	1	2	2	1	1	1	0	1	1	2	0	0	0	0	0	0	0	0	0	1	1.3	9.0				
3-Apr	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3				
4-Apr	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6				
5-Apr	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0.5	1.4					
6-Apr	A	1	1	0	1	0	0	1	0	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0.5	0.7				
7-Apr	A	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6				
8-Apr	A	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0.5	0.9				
9-Apr	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0.5	1.4				
10-Apr	A	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.9				
11-Apr	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.5	1.1				
12-Apr	A	0	0	0	0	0	0	0	0	0	C	C	1	0	0	0	0	0	1	1	0	0	1	1	0	0.5	1.4				
13-Apr	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	0.6				
14-Apr	A	0	0	0	0	0	0	1	1	1	0	0	0	1	1	1	1	1	0	1	1	1	1	0	0	0.5	1.5				
15-Apr	A	1	0	0	1	0	0	1	0	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0.5	0.7				
16-Apr	A	2	1	0	0	1	1	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.5	1.6				
17-Apr	A	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	1	0	1	1	0	0	1	0	0	0.5	1.3				
18-Apr	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	0.9				
19-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2				
20-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	0.5	0.7				
21-Apr	A	1	1	1	1	1	1	0	0	0	0	1	0	0	1	1	1	0	1	1	0	0	0	1	0	0.6	1.4				
22-Apr	A	0	1	0	1	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	0.6				
23-Apr	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6				
24-Apr	A	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6				
25-Apr	A	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0.5	0.7					
26-Apr	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	0.5				
27-Apr	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0.4	0.6				
28-Apr	A	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6				
29-Apr	A	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	1	1	1	1	1	0.5	0.7				
30-Apr	A	1	0	1	0	1	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.5	1.0				
--	0.5	0.7	0.4	0.6	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	Diurnal Average							
--	1.6	9.0	0.8	3.4	1.2	2.4	1.8	1.5	0.6	0.7	0.6	1.2	1.2	1.4	1.7	1.3	1.3	0.8	1.0	0.7	0.7	0.7	1.4	Diurnal Maximum							
C - Calibration A - Automated Daily Zero Span																															

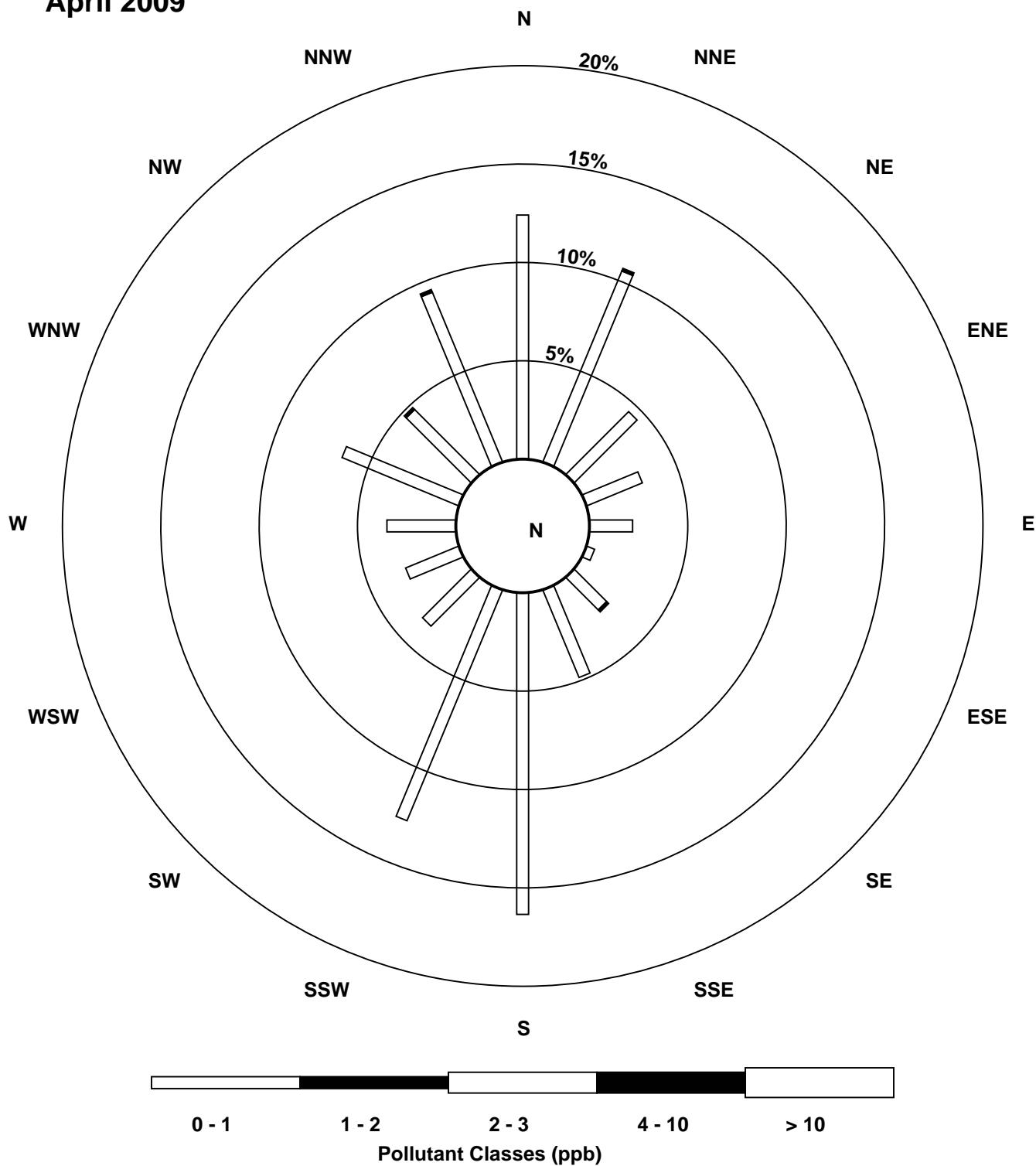
Hourly Maximums for H₂S at Valleyview

April 2009



Pollutant Rose for H₂S at Valleyview

April 2009



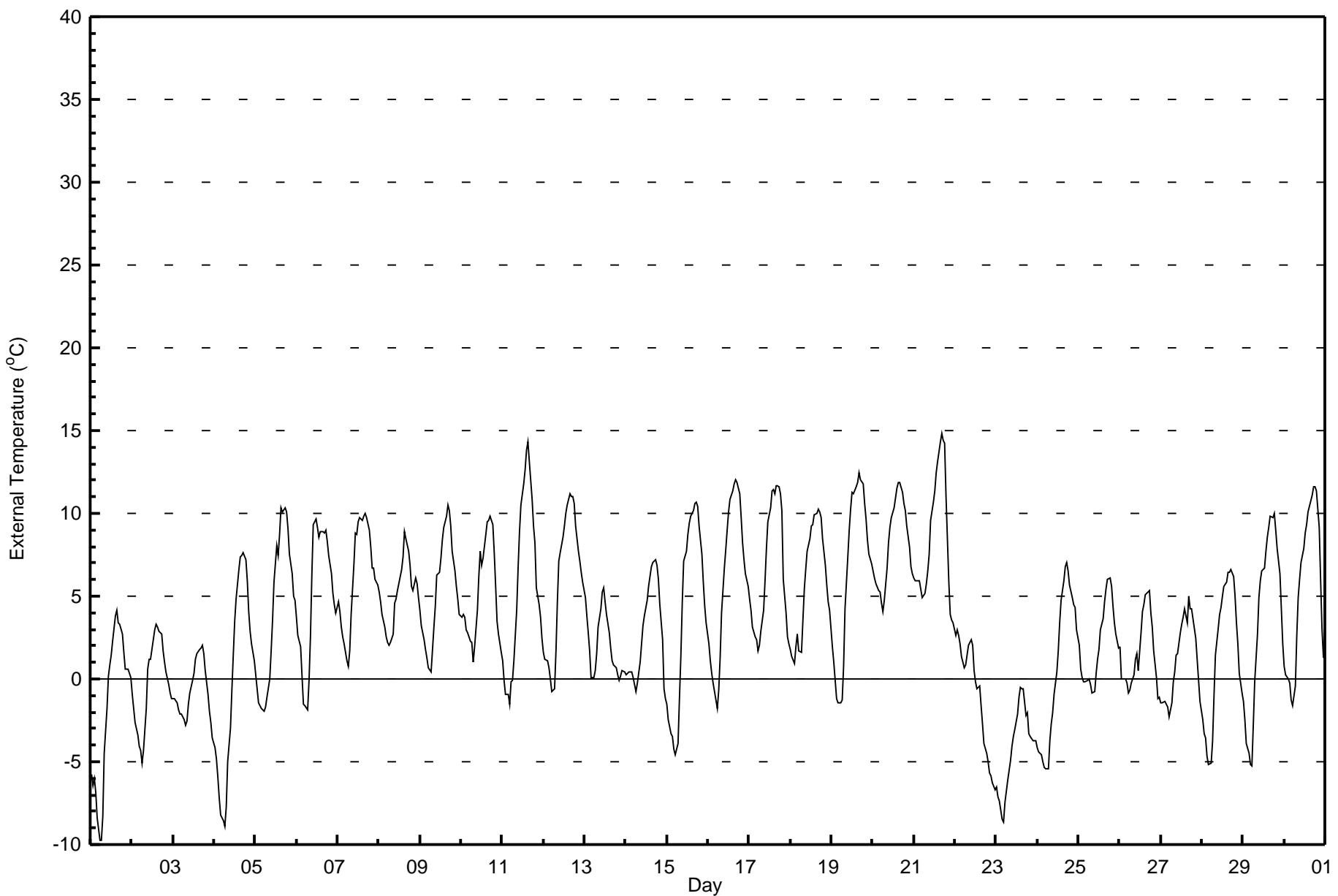
Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview - External Temperature (ET) - °C
April 1, 2009 to May 1, 2009

Maximum Value: 14.9 °C on Apr 21 17:00																				Hours in Service:	720						
Minimum Value: -10 °C on Apr 1 06:00																				Hours of Data:	720						
Maximum Diurnal Average: 7.9 °C at hour 17																				Hours of Missing Data:	0						
Monthly Average: 3.37 °C																				Hours of Calibration:	0						
Percentiles: P ₁ = -8.3 P ₁₀ = -2.8 Q ₁ = -0.1 Median = 3.2 Q ₃ = 7.0 P ₉₀ = 10.0 P ₉₉ = 12.7																				Percent Operational Time:	100.0						
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	-6	-6	-6	-7	-8	-10	-10	-8	-5	-2	0	1	1	2	4	4	3	3	3	2	1	1	1	0	-1.7	4.1	
2-Apr	-1	-2	-3	-3	-4	-4	-5	-4	-2	1	1	1	2	3	3	3	3	3	2	1	0	0	-1	-1	-0.3	3.3	
3-Apr	-1	-1	-1	-2	-2	-2	-2	-3	-3	-2	-1	0	0	1	2	2	2	2	2	0	-1	-2	-3	-4	-0.8	2.0	
4-Apr	-4	-5	-6	-7	-8	-9	-9	-8	-5	-3	-1	1	4	5	7	7	7	8	7	6	4	3	2	1	-0.1	7.6	
5-Apr	0	-1	-1	-2	-2	-2	-2	-1	0	2	4	6	8	7	9	10	10	10	10	9	8	6	5	5	4.1	10.3	
6-Apr	4	3	2	0	-1	-2	-2	0	3	6	9	10	9	9	9	9	9	9	8	7	6	5	4	4	5.0	9.6	
7-Apr	5	4	3	3	2	1	1	2	4	7	9	9	10	10	10	10	10	10	9	8	7	7	6	6	6.2	10.0	
8-Apr	5	5	4	3	3	2	2	2	3	5	5	5	6	7	7	9	8	8	7	6	5	6	6	5	5.1	8.9	
9-Apr	4	3	2	2	1	1	0	2	3	4	6	6	7	8	9	10	11	10	9	8	7	6	5	4	5.4	10.5	
10-Apr	4	4	4	3	3	2	2	1	2	4	6	8	7	7	9	10	10	10	9	8	6	4	3	2	5.2	9.9	
11-Apr	1	0	-1	-1	-1	0	0	1	4	7	9	11	12	13	14	14	13	11	9	8	5	4	4	2	5.8	14.3	
12-Apr	2	1	1	1	0	-1	-1	2	5	7	8	9	9	10	11	11	11	11	11	9	8	7	6	6	6	5.9	11.2
13-Apr	5	4	3	2	0	0	1	2	3	4	5	6	5	4	3	2	1	1	1	0	0	0	0	0	0	2.1	5.5
14-Apr	0	0	0	0	0	0	-1	0	1	2	3	4	5	6	6	7	7	7	6	5	2	-1	-1	-1	2.7	7.2	
15-Apr	-2	-2	-3	-3	-4	-5	-4	-1	1	5	7	8	9	9	10	10	11	10	9	8	6	4	3	4.0	10.7		
16-Apr	2	1	0	0	-1	-2	-1	1	4	7	8	9	10	11	11	12	12	12	11	10	8	7	6	6	6.0	12.0	
17-Apr	5	4	3	3	2	2	2	3	4	6	8	9	10	11	11	11	12	12	11	10	6	4	3	2	6.4	11.7	
18-Apr	2	1	1	2	3	2	2	4	5	7	8	9	9	9	10	10	10	10	10	8	7	6	5	4	5.9	10.3	
19-Apr	2	1	0	-1	-1	-1	-1	1	4	7	9	10	11	11	12	12	12	12	12	11	10	8	8	7	6.4	12.5	
20-Apr	7	6	6	5	5	5	4	5	7	8	9	10	10	11	12	12	12	11	11	10	9	8	7	6	8.1	11.9	
21-Apr	6	6	6	5	5	5	6	6	8	10	11	11	12	13	14	15	14	14	11	6	4	4	3	3	8.4	14.9	
22-Apr	3	3	3	2	1	1	1	1	2	2	2	0	0	-1	0	-2	-3	-4	-4	-5	-6	-6	-7	-7	-0.9	3.0	
23-Apr	-6	-7	-7	-8	-9	-7	-7	-6	-5	-4	-3	-3	-2	-1	0	-1	-1	-2	-2	-3	-4	-4	-4	-4	-4.2	-0.5	
24-Apr	-4	-4	-5	-5	-5	-5	-5	-4	-3	-2	-1	0	2	3	5	6	7	7	6	5	4	4	3	3	0.6	7.0	
25-Apr	2	1	0	0	0	0	0	-1	-1	0	1	2	3	4	5	5	6	6	6	4	3	3	2	2.1	6.1		
26-Apr	2	0	0	0	0	-1	-1	0	0	1	2	0	3	4	5	5	5	4	3	2	0	-1	-1	1.5	5.3		
27-Apr	-1	-1	-2	-2	-2	-1	0	0	1	2	3	3	4	4	3	5	4	4	4	2	1	0	-1	1.2	5.0		
28-Apr	-2	-3	-4	-5	-5	-5	-4	-1	1	3	4	4	5	6	6	6	7	6	5	3	2	0	-1	1.5	6.7		
29-Apr	-1	-2	-4	-4	-5	-5	-3	0	3	5	6	7	7	8	9	9	10	10	9	8	6	4	2	3.6	10.0		
30-Apr	1	0	0	0	-1	-2	0	3	5	6	7	8	9	9	10	11	12	12	11	9	6	3	1	5.4	11.6		
Diurnal Average																											
Diurnal Maximum																											

Hourly Averages for External Temperature at Valleyview

April 2009



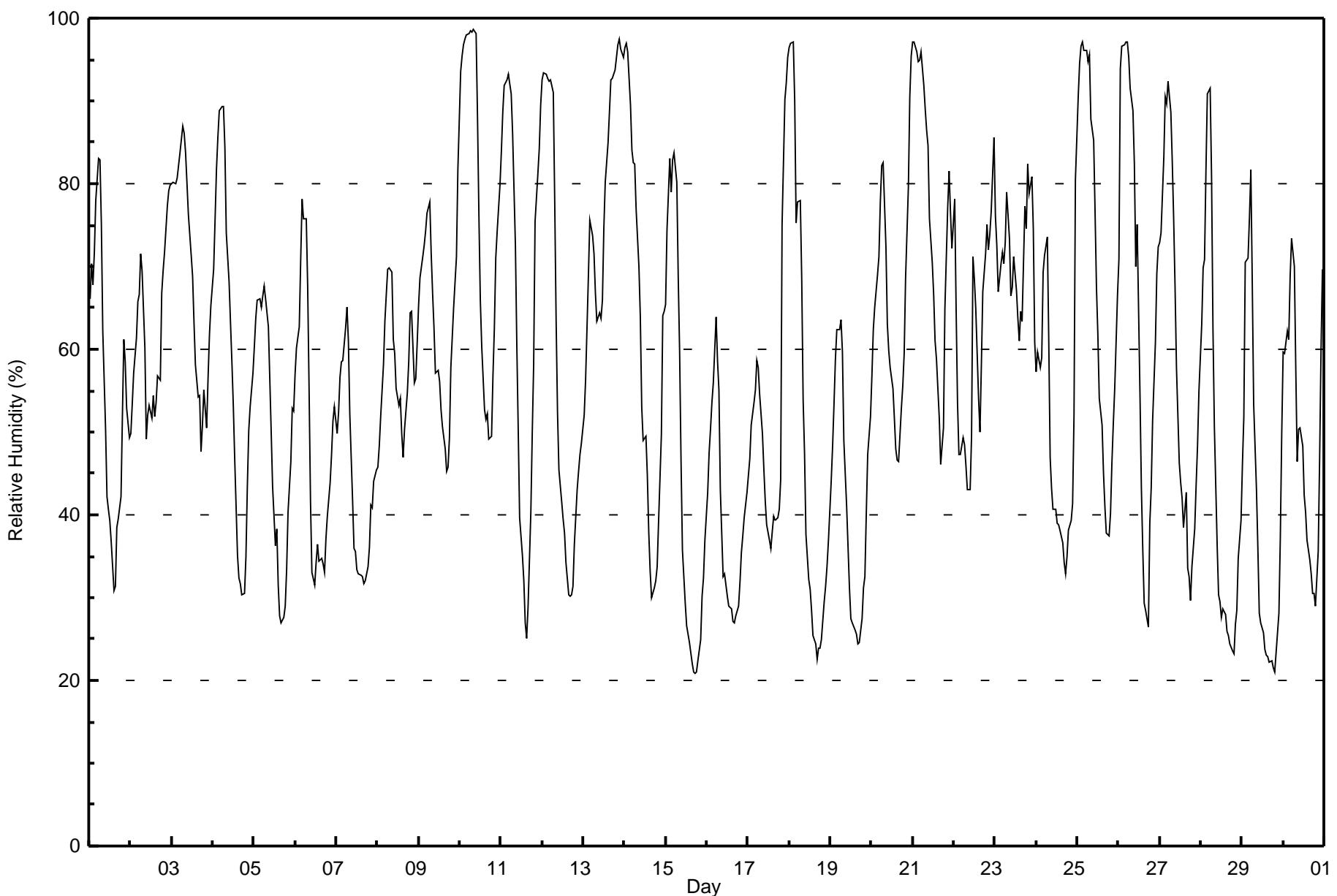
**Peace Airshed Zone Association
Summary of Hourly Averages**

**Valleyview - Relative Humidity (RH) - %
April 1, 2009 to May 1, 2009**

Maximum Value: 98.7 % on Apr 10 09:00																				Maximum Daily Average: 78.0 % on Apr 13																				Hours in Service: 720	
Minimum Value: 21 % on Apr 15 18:00																				Minimum Daily Average: 39.7 % on Apr 16																				Hours of Data: 720	
Maximum Diurnal Average: 78.4 % at hour 6																				Minimum Diurnal Average: 39.0 % at hour 17																				Hours of Missing Data: 0	
Monthly Average: 57.71 %																				Percentiles: P ₁ = 22.4 P ₁₀ = 30.3 Q ₁ = 40.2 Median = 56.6 Q ₃ = 72.8 P ₉₀ = 89.3 P ₉₉ = 97.3																				Hours of Calibration: 0	
																																								Percent Operational Time: 100.0	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum															
1-Apr	66	70	68	72	78	83	83	75	62	50	42	41	39	37	31	31	39	40	42	52	61	58	53	49	55.1	83.1															
2-Apr	50	53	57	61	66	67	71	70	60	49	52	53	52	54	52	53	57	56	67	69	72	77	79	80	61.6	79.8															
3-Apr	80	80	80	81	82	84	87	86	84	80	76	71	69	63	58	54	54	51	55	50	56	62	65	69.1	86.9																
4-Apr	70	76	82	86	89	89	89	84	74	68	63	58	53	47	35	32	32	30	31	35	43	50	53	57	59.4	89.4															
5-Apr	60	64	66	66	65	66	68	66	63	56	50	43	36	38	31	28	27	28	29	33	40	46	53	52	49.0	67.6															
6-Apr	57	60	63	71	78	76	76	67	55	42	33	31	34	36	34	35	34	33	37	40	44	47	51	53	49.5	78.1															
7-Apr	50	52	57	59	59	62	65	61	52	42	36	36	33	33	33	33	32	32	34	36	41	41	44	45	44.5	65.1															
8-Apr	46	48	52	58	63	67	70	70	69	61	60	55	53	54	50	47	50	55	58	64	65	56	61	57.8	69.9																
9-Apr	65	69	71	73	74	76	78	72	67	63	57	57	56	53	51	48	45	46	49	58	65	68	71	82	63.0	81.7															
10-Apr	94	96	97	97	98	98	98	99	98	98	88	76	66	60	53	51	52	49	49	57	63	71	74	80	77.6	98.7															
11-Apr	84	89	92	93	93	92	91	86	73	60	50	40	35	32	27	25	29	40	50	58	75	81	84	89	65.4	93.2															
12-Apr	92	93	93	93	92	93	91	78	64	52	46	42	39	38	34	30	30	30	31	37	43	45	47	49	57.6	93.4															
13-Apr	52	56	63	69	76	74	72	67	63	64	64	66	75	80	85	89	93	93	94	95	97	98	96	95	78.0	97.5															
14-Apr	96	97	96	89	84	83	82	77	70	64	53	49	50	45	38	33	30	31	32	34	39	50	64	65	60.4	96.9															
15-Apr	65	74	83	79	83	84	80	69	60	47	36	29	27	26	25	22	21	21	22	25	30	32	37	45.7	83.8																
16-Apr	43	48	50	54	56	64	59	55	43	33	31	30	29	29	27	27	28	29	32	35	37	40	43	39.7	63.8																
17-Apr	45	47	51	54	55	59	58	55	50	46	42	39	37	36	38	40	39	40	41	44	75	90	92	95	52.7	95.3															
18-Apr	96	97	97	90	75	78	78	68	54	47	38	32	31	28	26	24	23	24	25	30	31	34	37	49.5	97.2																
19-Apr	44	48	53	59	62	62	64	60	49	41	36	31	27	27	26	26	24	25	27	31	33	40	47	52	41.5	63.6															
20-Apr	57	62	65	69	71	78	82	83	72	63	60	58	55	52	48	47	46	53	56	59	69	80	90	95	65.4	95.4															
21-Apr	97	97	96	95	95	96	92	89	86	85	76	71	67	61	59	52	46	48	50	65	77	81	76	72	76.2	97.2															
22-Apr	78	65	54	47	47	49	48	46	43	43	50	71	68	65	54	50	58	67	71	75	72	74	77	86	60.8	85.6															
23-Apr	76	73	67	70	72	70	73	79	73	66	67	71	67	64	61	65	63	77	75	82	79	81	75	61	71.1	82.4															
24-Apr	57	60	58	59	69	71	74	61	47	43	41	41	39	39	38	37	34	33	35	38	39	41	52	80	49.5	80.5															
25-Apr	90	95	97	97	96	96	95	96	88	85	77	68	62	54	51	45	41	38	38	40	46	51	55	67	69.4	97.1															
26-Apr	71	94	97	97	97	95	92	89	82	70	75	55	43	36	29	28	27	39	43	51	61	69	72	67.1	97.1																
27-Apr	73	74	83	90	90	92	89	83	76	67	58	46	44	42	38	43	34	33	30	34	38	44	48	55	58.5	92.4															
28-Apr	63	70	71	82	91	92	81	63	51	36	30	28	29	28	26	25	24	24	23	27	28	35	39	45.6	91.5																
29-Apr	46	52	71	71	76	82	68	53	43	36	28	27	26	24	23	23	22	22	21	21	23	28	37	50	40.6	81.7															
30-Apr	60	59	62	61	69	73	70	58	46	50	51	48	42	40	37	35	33	31	30	29	36	47	60	70	49.9	73.4															
67.5 70.6 73.0 74.7 76.7 78.4 77.5 72.2 64.2 57.4 52.0 49.6 46.5 44.3 40.9 39.3 39.0 40.0 42.2 46.3 51.8 56.4 60.3 64.4 Diurnal Average																																								Diurnal Maximum	

Hourly Averages for Relative Humidity at Valleyview

April 2009



Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	2	4	5	3	2	2	2	3	4	3	1	4	7	8	1	7	9	6	4	6	7	7	3	3	2.4	8.7
	204	192	200	183	211	202	226	208	191	161	165	350	357	357	154	181	176	152	119	168	152	139	156	138	168.0	175.5
2 Spd	4	0	2	2	3	2	3	1	1	1	4	8	7	7	7	7	7	5	4	5	5	5	5	5	3.1	8.5
	136	270	17	4	344	31	359	319	146	43	353	355	19	86	93	94	82	73	83	86	24	18	22	20	50.0	355.4
3 Spd	4	5	6	6	5	5	5	6	7	8	10	12	12	10	11	11	11	9	8	4	3	2	1	0	6.6	12.5
	21	12	16	15	24	28	16	14	7	17	347	347	348	346	345	355	1	13	17	358	343	311	287	49	1.2	347.4
4 Spd	2	1	1	2	1	1	0	2	2	3	5	6	7	6	7	9	8	7	5	5	8	12	9	5	2.0	11.7
	330	173	202	209	165	352	306	21	347	345	346	349	337	348	187	177	169	166	158	157	158	170	176	180	175.4	169.8
5 Spd	3	4	6	6	9	8	8	10	11	11	9	4	2	6	6	4	7	3	4	5	5	6	2	4	3.7	11.5
	183	190	184	190	183	187	186	187	186	182	174	171	209	344	6	9	355	42	161	137	178	201	226	173	182.5	185.5
6 Spd	3	5	3	1	4	2	4	2	4	4	6	11	11	15	14	14	13	12	9	6	3	3	4	3	3.7	15.0
	221	197	198	241	189	245	208	241	193	199	266	297	343	354	358	356	352	333	325	297	271	230	247	246	312.9	354.3
7 Spd	6	7	5	3	2	3	2	2	5	4	2	3	4	5	7	8	5	3	4	5	5	5	4	3	1.0	7.9
	265	257	249	225	195	176	213	181	200	202	201	2	9	6	6	28	48	79	43	60	14	27	21	44	5.1	27.9
8 Spd	4	4	5	5	4	4	4	3	5	4	6	7	10	10	13	10	10	9	8	8	3	4	8	9	4.7	13.3
	31	33	21	18	13	6	20	22	4	337	318	349	353	349	355	13	14	10	11	16	49	145	172	172	9.0	355.1
9 Spd	5	4	5	6	5	2	2	4	5	5	4	5	5	5	5	5	5	3	5	3	4	3	6	0.7	6.1	
	190	195	197	182	179	169	139	181	209	205	217	292	356	358	2	1	2	0	16	11	61	23	334	284	296.6	283.9
10 Spd	5	3	1	3	2	3	1	2	3	3	3	2	4	14	6	2	2	5	2	2	3	2	1	3	1.0	13.6
	253	156	198	206	201	171	203	236	198	189	348	15	342	334	24	132	161	207	247	220	175	228	293	166	232.7	342.3
11 Spd	2	1	3	1	3	2	1	3	6	7	6	6	2	5	7	8	7	8	5	15	7	3	4	2.0	14.7	
	203	206	338	279	171	181	205	192	187	177	175	187	8	34	73	74	193	266	194	168	285	286	233	220	207.9	285.5
12 Spd	3	5	4	4	4	3	3	3	3	4	8	5	6	5	5	4	7	6	6	6	8	9	5	4	1.5	9.1
	231	183	201	181	212	175	180	196	182	319	320	322	348	15	7	3	357	30	60	68	71	83	80	45	37.8	82.6
13 Spd	4	4	3	4	2	2	4	6	8	11	14	15	19	20	21	17	17	15	16	N	15	13	9	10.6	21.0	
	29	20	2	327	266	271	267	308	315	344	344	347	345	344	348	357	4	4	5	9	N	351	344	343	348.9	347.8
14 Spd	6	5	7	10	12	11	9	13	14	15	17	12	11	10	11	10	8	8	7	4	0	1	3	4	7.5	16.5
	351	332	315	343	343	345	345	354	352	348	355	8	340	337	355	23	27	40	35	54	244	231	183	202	354.5	354.5
15 Spd	4	1	2	1	1	2	3	4	4	4	5	9	6	6	5	6	5	5	4	4	6	6	4	3	4.0	9.0
	203	195	177	224	197	212	197	185	166	176	179	192	179	185	177	174	180	164	170	145	132	154	177	157	174.9	192.0
16 Spd	4	4	4	2	2	1	2	1	9	13	17	16	12	14	15	14	14	14	15	12	12	11	12	11	9.3	16.8
	174	178	195	205	205	190	196	198	175	179	171	182	167	169	152	156	150	152	142	145	155	169	170	175	164.8	170.7
17 Spd	10	7	6	6	5	4	5	9	13	11	9	7	4	1	2	2	3	3	4	4	18	16	3	4	3.4	18.5
	175	187	202	197	197	205	193	187	186	184	186	182	202	215	292	33	115	99	77	86	313	300	281	200	204.0	312.6
18 Spd	5	5	5	6	13	4	3	3	17	18	19	21	16	18	18	19	19	14	13	9	3	3	5	5	9.9	21.5
	189	190	182	266	286	242	215	243	289	286	285	286	274	284	283	286	288	301	291	284	309	255	251	252	278.9	286.2
19 Spd	5	5	3	3	5	5	4	3	3	2	4	4	7	5	4	5	2	4	2	2	3	4	4	5	2.9	6.7
	206	202	201	207	192	213	211	198	191	189	211	209	242	276	286	345	10	292	274	189	204	218	218	194	222.7	242.3
20 Spd	4	4	4	2	2	2	3	5	5	6	7	8	10	11	12	11	10	8	3	2	3	3	3	4.6	12.2	
	205	192	190	182	194	184	201	203	235	253	257	249	269	279	285	294	272	294	259	202	193	197	180	254.6	285.2	
21 Spd	3	4	5	3	5	4	8	10	12	8	11	12	11	11	10	11	14	12	14	13	28	11	12	6	6.0	27.7
	164	149	141	178	192	201	192	188	186	177	184	180	184	183	175	179	181	179	184	295	321	312	278	225	202.9	321.4
22 Spd	4	7	10	14	17	18	17	20	25	22	23	20	20	21	24	23	21	21	20	22	18	19	15	17.0	25.3	
	214	290	276	291	291	286	285	288	295	303	308	323	320	318	320	321	314	322	326	335	348	349	359	352	314.9	294.6

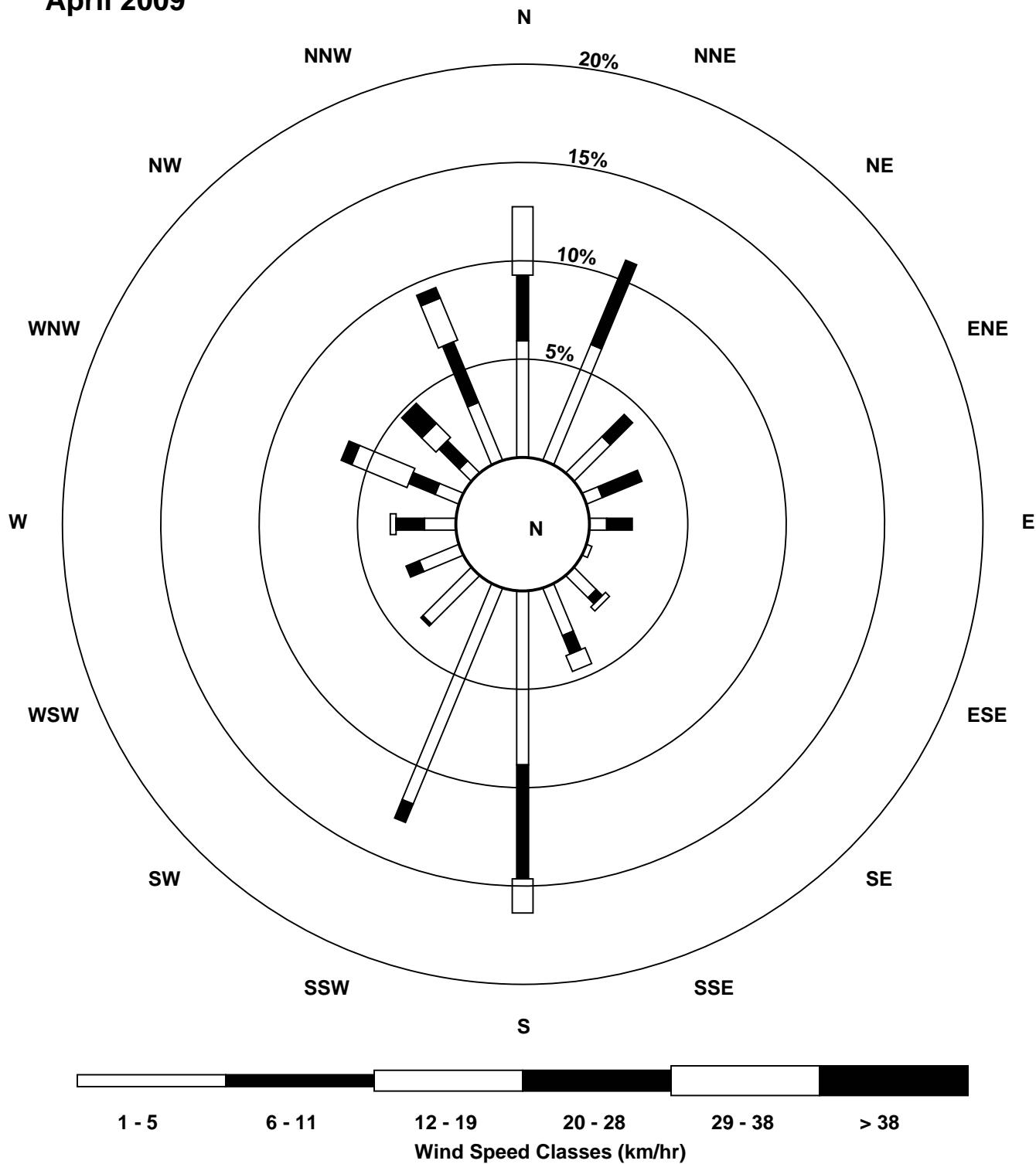
Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview
April 1, 2009 to May 1, 2009
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																								
23 Spd	17	13	12	9	9	12	7	8	12	14	13	13	13	15	16	13	13	11	10	8	5	4	7	8	9.4	17.3																						
	349	347	330	306	304	293	279	276	295	298	309	319	305	318	317	320	350	11	51	26	356	334	354	19	326.8	349.3																						
24 Spd	7	4	3	1	0	1	2	4	4	4	4	4	5	5	4	1	2	5	5	7	1	5	5	5	1.2	7.1																						
	Dir	18	31	31	8	221	181	180	184	196	184	185	197	220	242	214	271	166	150	124	137	138	304	303	307	194.2	17.9																					
25 Spd	4	3	4	7	7	5	9	12	19	19	16	15	11	12	13	12	10	10	7	6	2	3	1	6	8.4	19.3																						
	Dir	297	43	15	24	9	342	337	357	0	5	8	340	334	341	344	341	337	330	311	289	329	34	295	347	348.1	5.4																					
26 Spd	11	8	3	1	4	5	5	5	5	5	6	8	6	6	10	9	10	8	7	1	3	2	2	1	4.6	10.8																						
	Dir	7	10	349	330	340	352	14	19	3	32	57	17	33	30	32	40	29	354	54	20	263	213	182	134	19.1	7.3																					
27 Spd	1	1	5	4	1	3	0	2	5	5	8	4	7	9	8	9	4	6	7	8	6	2	4	3	4.2	8.9																						
	Dir	216	352	11	55	118	269	330	34	30	48	22	54	49	59	58	30	56	24	66	45	62	57	5	2	40.6	58.9																					
28 Spd	3	1	3	0	1	0	2	3	3	5	7	7	6	5	7	6	6	6	8	9	7	5	2	3	3.9	9.3																						
	Dir	356	342	7	137	178	185	35	33	28	68	79	54	95	96	76	86	53	67	66	61	54	44	6	347	59.4	61.1																					
29 Spd	0	1	1	1	2	1	1	3	2	2	3	3	5	2	1	3	5	5	5	5	2	1	1	3	0.7	5.2																						
	Dir	104	348	195	200	178	172	186	174	172	209	219	328	352	72	254	7	355	0	32	36	27	292	194	175	1.9	354.9																					
30 Spd	2	2	3	1	1	1	2	8	5	10	10	9	7	6	7	5	6	5	2	2	1	3	3	3	2.5	10.1																						
	Dir	178	205	191	183	200	230	149	356	357	25	21	25	37	24	19	358	18	19	45	9	235	182	186	190	21.5	24.8																					
Spd	0.7	0.6	1.0	1.2	1.6	1.6	1.5	2.2	1.9	2.7	3.8	4.6	4.8	4.3	3.9	3.2	3.0	2.3	1.9	1.7	1.0	1.1	0.7	Diurnal Average																								
Dir	262.6	239.4	260.3	276.3	265.4	265.1	258.2	260.9	273.5	289.8	309.5	321.6	332.3	338.3	345.6	353.9	354.3	356.9	32.4	24.1	340.0	319.5	283.9	241.4																								
Spd	17.3	13.3	11.7	13.8	16.9	18.4	17.1	20.0	25.3	22.2	23.3	21.5	19.9	21.5	21.2	23.9	23.5	20.8	21.0	19.6	27.7	18.3	19.3	15.4	Diurnal Maximum																							
Dir	349.3	346.9	330.4	291.5	291.3	286.4	284.9	288.4	294.6	303.2	307.9	286.2	319.8	317.9	320.1	320.7	313.7	321.8	325.7	335.1	321.4	349.0	359.1	351.7																								
Maximum Speed Value: 28 km/h on Apr 21 21:00				Minimum Speed Value: 0 km/h on Apr 4 07:00												Hours in Service: 720																																
Maximum Daily Speed Average: 17.0 km/h on Apr 22				Minimum Daily Speed Average: 0.7 km/h on Apr 29												Hours of Data: 719																																
Maximum Diurnal Speed Average: 4.8 km/h at hour 14				Minimum Diurnal Speed Average: 0.6 km/h at hour 2												Hours of Missing Data: 1																																
Monthly Average Velocity: 1.72 km/h 323.33 deg				Speed Percentiles: P ₁ = 0.5 P ₁₀ = 1.6 O ₁ = 3.2 Median = 5.0 O ₃ = 8.5 P ₉₀ = 13.4 P ₉₉ = 22.1												Percent Operational Time: 99.9																																
All monthly, daily, and diurnal averages have been calculated using vector methods																																																
N - Not Valid																																																
Frequency Distribution																																																
Direction																																																
Speed Range (km/h)																																																
0 to 5																																																
5 to 11																																																
11 to 19																																																
19 to 28																																																
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South																																																
SouthWest																																																
West																																																
NorthWest																																																
Total																																																

Wind Rose for WS at Valleyview

April 2009



Peace Airshed Zone Association

Summary of Hourly Averages - Wind Speed (Scalar)

Valleyview - Wind Speed (WS) - km/h

April 1, 2009 to May 1, 2009

Maximum Speed: 28 km/h on Apr 21 21:00 Maximum Daily Speed Average: 18.8 km/h on Apr 22 Minimum Speed: 1 km/h on Apr 28 04:00 Minimum Daily Speed Average: 3.4 km/h on Apr 29 Maximum Diurnal Speed Average: 10.0 km/h at hour 15 Minimum Diurnal Speed Average: 4.3 km/h at hour 4 Monthly Average Speed: 6.99 km/h Percentiles: $P_1 = 1.2$ $P_{10} = 2.3$ $Q_1 = 3.5$ Median = 5.4 $Q_3 = 9.0$ $P_{90} = 13.9$ $P_{99} = 22.1$																								Hours in Service: 720 Hours of Data: 719 Hours of Missing Data: 1 Percent Operational Time: 99.9			
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum	
1-Apr	2	4	5	3	2	2	2	3	4	4	3	5	7	9	5	8	9	7	5	6	7	8	4	3	4.8	9.1	
2-Apr	4	1	2	2	3	2	3	1	2	3	5	9	8	8	7	7	7	7	7	5	4	5	5	5	4.6	8.5	
3-Apr	4	5	6	6	5	5	5	6	7	8	10	13	12	10	11	11	9	8	8	4	3	3	2	1	7.0	12.5	
4-Apr	3	2	2	2	1	2	2	2	2	3	5	6	7	7	9	9	8	8	5	5	5	8	9	5	5.2	11.8	
5-Apr	3	4	6	6	9	8	8	10	12	11	9	5	3	6	6	5	7	4	4	5	5	7	4	5	6.3	11.6	
6-Apr	3	5	3	2	4	4	4	2	4	4	7	11	11	15	14	14	14	12	9	6	4	3	4	3	6.8	15.1	
7-Apr	6	7	5	3	2	4	2	2	5	4	3	3	4	5	7	8	6	4	4	5	7	7	5	3	4.6	8.0	
8-Apr	4	5	5	5	4	4	4	3	5	4	6	7	10	10	13	10	11	10	8	8	3	4	8	9	6.7	13.3	
9-Apr	5	4	5	6	5	3	2	4	5	5	4	6	5	5	5	5	5	3	6	3	5	4	7	7	4.7	7.5	
10-Apr	5	4	2	3	2	3	2	2	3	3	3	4	14	7	2	3	5	5	3	2	3	3	3	3	3.7	13.9	
11-Apr	2	2	3	2	3	4	2	3	7	7	6	6	4	7	7	8	8	8	11	11	15	7	4	4	5.9	14.9	
12-Apr	3	5	4	4	4	3	3	3	4	5	9	5	7	5	6	5	7	6	6	8	9	5	4	5	5.3	9.2	
13-Apr	4	4	3	4	3	3	4	6	9	12	14	16	19	20	21	18	17	17	15	16	N	15	13	9	11.4	21.0	
14-Apr	6	5	8	10	12	12	9	13	14	15	17	13	11	10	12	10	9	8	8	5	2	2	3	4	9.0	16.7	
15-Apr	4	2	2	1	2	2	3	4	4	4	5	10	7	7	6	7	6	6	5	5	6	6	4	3	4.6	9.5	
16-Apr	4	4	4	2	2	1	2	2	9	13	17	16	13	14	15	15	15	15	16	12	13	11	12	11	9.9	17.3	
17-Apr	10	7	6	6	5	4	5	9	13	12	9	7	4	3	7	5	4	4	4	4	19	16	5	4	7.1	18.7	
18-Apr	5	5	5	7	14	5	4	6	17	19	19	22	16	18	18	19	19	14	13	9	4	4	5	6	11.3	21.8	
19-Apr	5	5	4	3	5	5	4	4	3	4	6	6	7	7	5	6	4	5	3	2	3	4	4	5	4.5	7.3	
20-Apr	4	4	4	2	2	2	3	5	6	6	8	8	10	12	13	11	11	10	8	3	2	3	3	3	6.0	12.7	
21-Apr	4	4	5	4	5	4	8	10	12	8	11	12	11	11	10	11	14	12	21	28	12	13	6	10.5	27.9		
22-Apr	4	7	10	14	17	19	17	20	26	23	24	21	20	22	22	24	24	21	21	20	22	18	20	16	18.8	25.6	
23-Apr	17	14	12	10	9	12	8	9	12	14	13	13	14	16	17	14	17	11	11	9	5	4	8	9	11.4	17.4	
24-Apr	7	4	3	2	1	2	2	4	6	6	6	6	6	6	5	3	3	6	5	7	4	6	5	4.6	7.2		
25-Apr	4	3	4	7	7	5	10	13	19	20	17	15	12	12	13	12	11	11	8	6	4	3	2	7	9.4	19.6	
26-Apr	11	8	3	2	4	5	6	5	5	5	6	8	8	8	11	10	10	8	11	3	4	2	2	2	6.1	10.9	
27-Apr	2	2	5	3	3	1	3	5	6	8	6	9	10	10	13	6	7	8	8	6	2	4	3	5.6	13.0		
28-Apr	3	2	3	1	1	1	2	3	3	7	8	8	7	9	7	8	7	8	9	8	5	3	3	5.2	9.4		
29-Apr	2	2	1	1	2	1	1	3	2	3	4	5	6	4	6	6	7	6	6	5	2	2	1	3	3.4	7.2	
30-Apr	2	2	4	3	2	2	2	3	8	7	10	11	10	8	7	9	6	7	5	2	2	1	3	3	5.0	10.9	
																								Diurnal Average			
																								Diurnal Maximum			
N - Not Valid																											
All monthly, daily, and diurnal averages have been calculated using scalar methods																											

Peace Airshed Zone Association
Summary of Hourly Standard Deviations

Valleyview - Wind Direction (WD) - deg
April 1, 2009 to May 1, 2009

Maximum Value: 94.5 deg on Apr 4 00:00																								Hours in Service:	720
Minimum Value: 3.3 deg on Apr 8 15:00																								Hours of Data:	719
Percentiles: P ₁ = 4.5 P ₁₀ = 7.2 Q ₁ = 10.2 Median = 17.4 O ₃ = 35.8 P ₉₀ = 57.8 P ₉₉ = 87.5																								Hours of Missing Data:	1
																								Hours of Calibration:	0
																								Percent Operational Time:	99.9
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Maximum
1-Apr	17	16	8	18	69	52	17	12	12	17	93	67	11	21	84	26	18	19	22	33	21	10	29	14	92.8
2-Apr	7	67	20	30	28	18	25	67	76	83	52	7	40	18	18	19	14	15	13	20	16	7	7	7	83.0
3-Apr	8	6	4	6	9	7	13	13	7	15	5	5	6	7	9	8	8	7	6	22	11	44	64	95	94.5
4-Apr	62	75	70	36	46	88	89	46	29	10	8	6	10	17	57	14	15	18	11	10	11	8	8	8	88.9
5-Apr	28	11	6	7	8	12	9	8	8	9	11	73	55	19	8	19	8	32	29	11	22	38	51	16	72.7
6-Apr	14	5	33	55	16	63	7	44	18	12	36	13	16	8	5	5	5	6	7	6	31	10	14	19	62.5
7-Apr	8	12	15	17	41	24	7	19	8	23	62	44	37	9	15	10	23	38	14	15	43	53	58	40	62.4
8-Apr	6	9	28	11	16	18	16	27	23	29	11	7	4	6	3	12	10	13	5	7	43	28	7	8	43.4
9-Apr	10	10	7	10	10	25	54	16	14	12	25	27	11	12	10	9	11	13	27	34	43	31	64	50	63.7
10-Apr	30	36	51	9	17	16	49	38	18	18	60	23	12	31	37	59	28	17	37	18	11	40	73	34	73.4
11-Apr	43	52	45	84	33	64	89	31	38	13	13	15	80	37	18	20	31	25	43	62	10	27	28	15	88.7
12-Apr	12	17	15	18	5	24	17	13	20	67	12	33	43	28	24	61	24	20	11	20	37	11	13	14	67.3
13-Apr	8	9	22	11	40	44	40	8	17	14	8	7	5	4	4	7	6	5	5	4	N	4	6	7	43.9
14-Apr	6	16	12	6	7	6	7	4	6	6	9	17	18	18	20	17	22	16	11	18	81	27	12	8	81.1
15-Apr	8	36	25	56	72	11	12	15	17	18	38	21	36	33	37	44	46	27	24	13	6	14	10	16	72.4
16-Apr	8	8	6	13	26	61	38	50	23	13	14	15	19	18	17	19	19	15	9	9	9	9	8	8	60.5
17-Apr	8	8	9	9	14	30	10	8	7	11	13	17	15	65	84	63	57	34	23	16	9	8	80	23	84.4
18-Apr	10	9	13	32	7	35	20	58	9	10	14	11	18	14	13	16	10	12	16	11	45	18	9	22	57.9
19-Apr	5	5	11	9	8	5	8	23	17	68	64	58	26	54	53	40	74	31	52	45	20	11	11	16	74.4
20-Apr	7	10	17	32	28	22	8	8	29	22	26	22	22	16	16	16	18	10	15	26	18	13	13	9	32.3
21-Apr	14	20	17	41	11	10	6	6	7	17	14	11	11	12	14	9	8	8	8	62	7	49	16	23	62.3
22-Apr	20	25	12	10	8	8	8	9	9	11	13	12	11	11	14	11	10	11	8	11	6	7	15	10	25.0
23-Apr	7	14	7	9	8	6	13	14	12	14	14	15	15	15	20	19	41	15	18	14	13	12	16	10	41.1
24-Apr	10	14	30	60	84	35	26	26	46	53	60	58	57	49	38	52	84	35	29	13	12	81	61	15	84.1
25-Apr	25	24	13	9	8	15	7	14	9	9	10	15	17	19	16	18	21	21	19	11	58	22	84	20	83.7
26-Apr	9	12	26	24	5	11	16	10	10	23	28	28	39	50	30	25	19	27	49	77	41	35	28	67	77.2
27-Apr	79	58	26	20	78	13	76	39	27	31	23	53	47	35	36	77	77	19	27	9	7	19	11	38	78.9
28-Apr	12	76	26	85	29	89	26	21	43	46	34	39	44	48	57	40	45	28	19	8	6	11	32	49	88.9
29-Apr	88	52	51	57	12	53	62	21	54	81	50	76	57	73	77	61	53	42	39	8	25	48	44	18	87.6
30-Apr	17	14	64	74	83	53	86	57	12	38	26	24	27	39	41	54	43	39	20	67	26	37	8	6	86.2
87.6 76.4 70.1 84.8 83.7 88.9 88.9 66.7 76.4 83.0 92.8 75.6 80.0 73.3 84.4 76.8 84.1 42.1 52.1 77.2 81.1 81.4 83.7 94.5																									
N - Not Valid																									

PASZA

Monthly Passive Data Summary

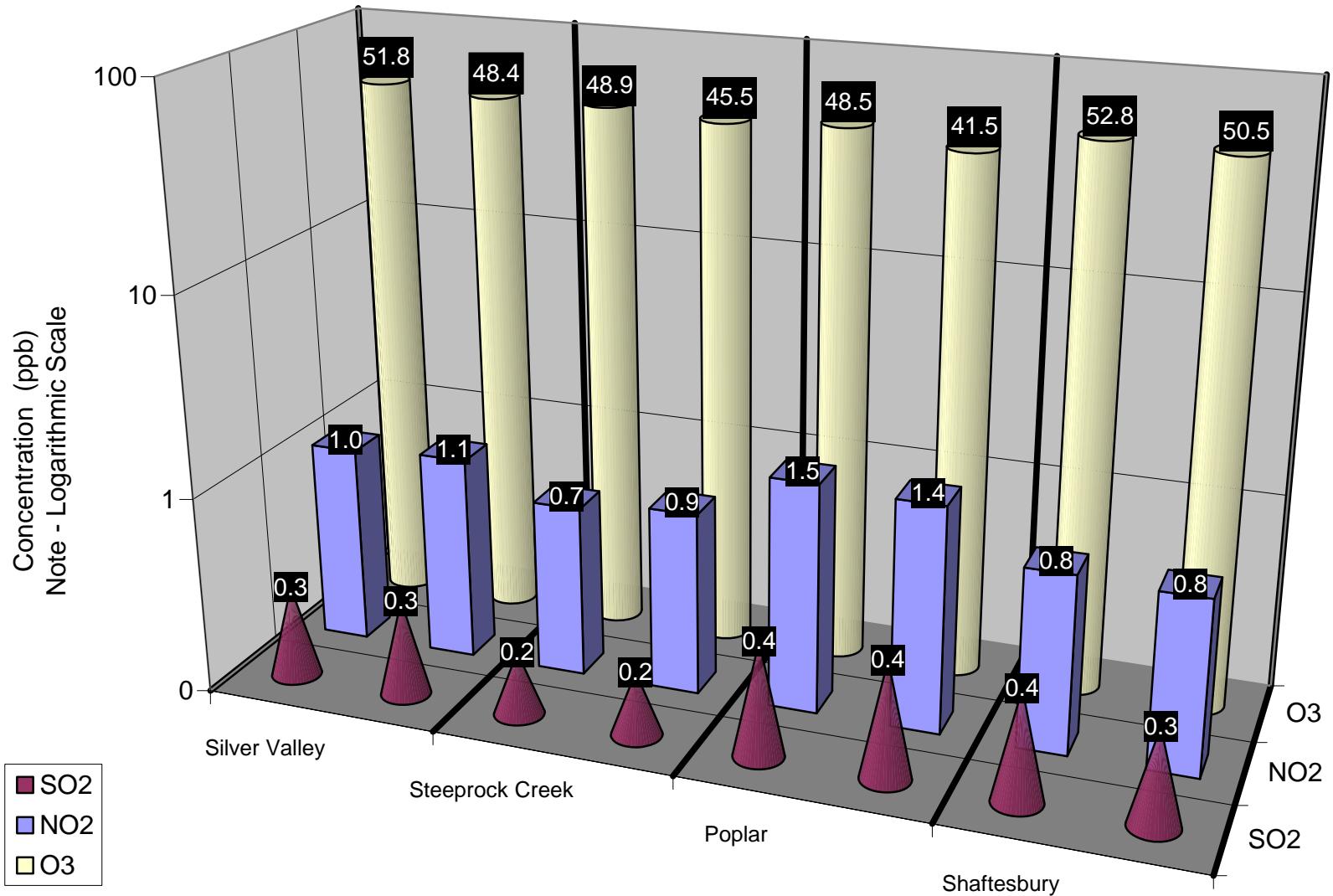
PASZA Passive Results for April 2009

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
Duplicates					
1a	Silver Valley	0.3	51.8	1.0	
1b	Silver Valley	0.3	48.4	1.1	
7a	Steeprock Creek	0.2	48.9	0.7	
7b	Steeprock Creek	0.2	45.5	0.9	
17a	Poplar	0.4	48.5	1.5	
17b	Poplar	0.4	41.5	1.4	
20a	Shaftesbury	0.4	52.8	0.8	
20b	Shaftesbury	0.3	50.5	0.8	
1	Silver Valley	0.3	50.1	1.1	08-27-081-11 W6M
2	Bay Tree	0.3	48.5	1.1	13-16-078-13 W6M
3	Forth Creek	0.4	52.3	0.6	04-13-082-07 W6M
4	Gordondale	0.4	51.8	1.1	04-34-078-10 W6M
5	Boone Creek	0.3	41.7	1.3	01-23-076-11 W6M
7	Steeprock Creek	0.2	47.2	0.8	09-35-072-13 W6M
9	Spirit River	0.4	48.4	1.3	08-12-079-07 W6M
10	Woking	0.3	50.9	1.0	01-13-076-07 W6M
11	Webber Creek	0.4	48.3	1.2	09-36-074-09 W6M
12	Hythe	0.3	47.4	1.4	14-36-072-11 W6M
14	Sylvester	0.2	38.5	N/A	08-06-069-12 W6M
16	Beaverlodge	0.2	56.2	2.0	15-36-071-10 W6M
17	Poplar	0.4	45.0	1.4	13-06-073-08 W6M
18	Saddle Hills	0.4	48.7	0.7	04-25-074-07 W6M
19	Wanham	0.5	50.0	0.8	16-22-077-03 W6M
20	Shaftesbury	0.3	51.6	0.8	04-03-082-23 W5M
21	Eaglesham	0.3	50.0	0.4	16-21-079-25 W5M
23	Bear Lake	N/A	37.8	1.4	15-31-072-06 W6M

PASZA Passive Results for April 2009 (Continued)

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
24	Wembley	0.2	50.7	2.1	12-31-070-08 W6M
25	Pinto Creek	0.1	37.6	1.1	04-24-069-11 W6M
26	Flyingshot	0.2	49.9	1.7	15-36-070-07 W6M
27	Grande Prairie I	0.3	42.5	7.3	08-15-071-06 W6M
28	Clairmont Lake	0.4	47.3	1.0	09-06-073-04 W6M
29	Smoky Heights	0.5	44.5	1.2	04-06-075-02 W6M
30	Fitzsimmons	0.3	45.8	0.8	15-36-072-03 W6M
32	Gold Creek	0.3	37.8	1.5	06-33-067-05 W6M
33	Wapiti	0.3	54.1	0.9	02-25-071-03 W6M
34	Puskwaskau	0.3	45.2	0.4	15-35-074-25 W5M
35	Jean Cote	0.2	50.6	0.9	12-35-079-21 W5M
36	Guy	0.3	50.3	0.7	03-04-076-22 W5M
37	Crooked Creek	0.3	49.7	1.0	16-01-071-26 W5M
38	Karr Creek	0.1	42.5	0.8	10-16-065-02 W6M
39	Clouston Creek	0.3	41.3	0.7	12-01-073-22 W5M
40	McLennan	0.4	64.9	1.2	03-29-077-19 W5M
41	Valleyview	0.4	55.7	0.7	09-30-069-22 W5M
42	Sunset House	0.4	48.5	0.4	05-32-070-19 W5M
43	High Prairie	0.2	57.7	1.4	16-13-074-17 W5M
44	Peavine	0.2	43.1	0.5	03-05-079-15 W5M
45	Gift Lake	0.2	40.3	0.7	10-07-079-12 W5M
46	Little Smoky	0.4	46.1	2.3	12-01-065-21 W5M
47	Kinuso	0.2	45.4	0.6	12-10-073-10 W5M
48	Deer Mountain	0.3	49.7	0.5	15-22-068-09 W5M
49	Grande Prairie HP	0.4	41.7	6.9	17-26-071-06 W6M

*BDL = Below Detection Level



Duplicate Summary Chart

Passive Summary for April 2009

Stats	Sulphur Dioxide SO ₂		Ozone O ₃	Nitrogen Dioxide NO ₂
	ppb	ppb	ppb	ppb
Passive Summary for April 2009 (PASZA Zone)				
Mean	0.3	47.6	1.3	
Standard Deviation	0.1	5.7	1.4	
Minimum	0.1	37.6	0.4	
Minimum At	Karr Creek (#38)	Pinto Creek (#25)	Puskwaskau (#34)	
Maximum	0.5	64.9	7.3	
Maximum At	Wanham (#19)	McLennan (#40)	Grande Prairie I (#27)	

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

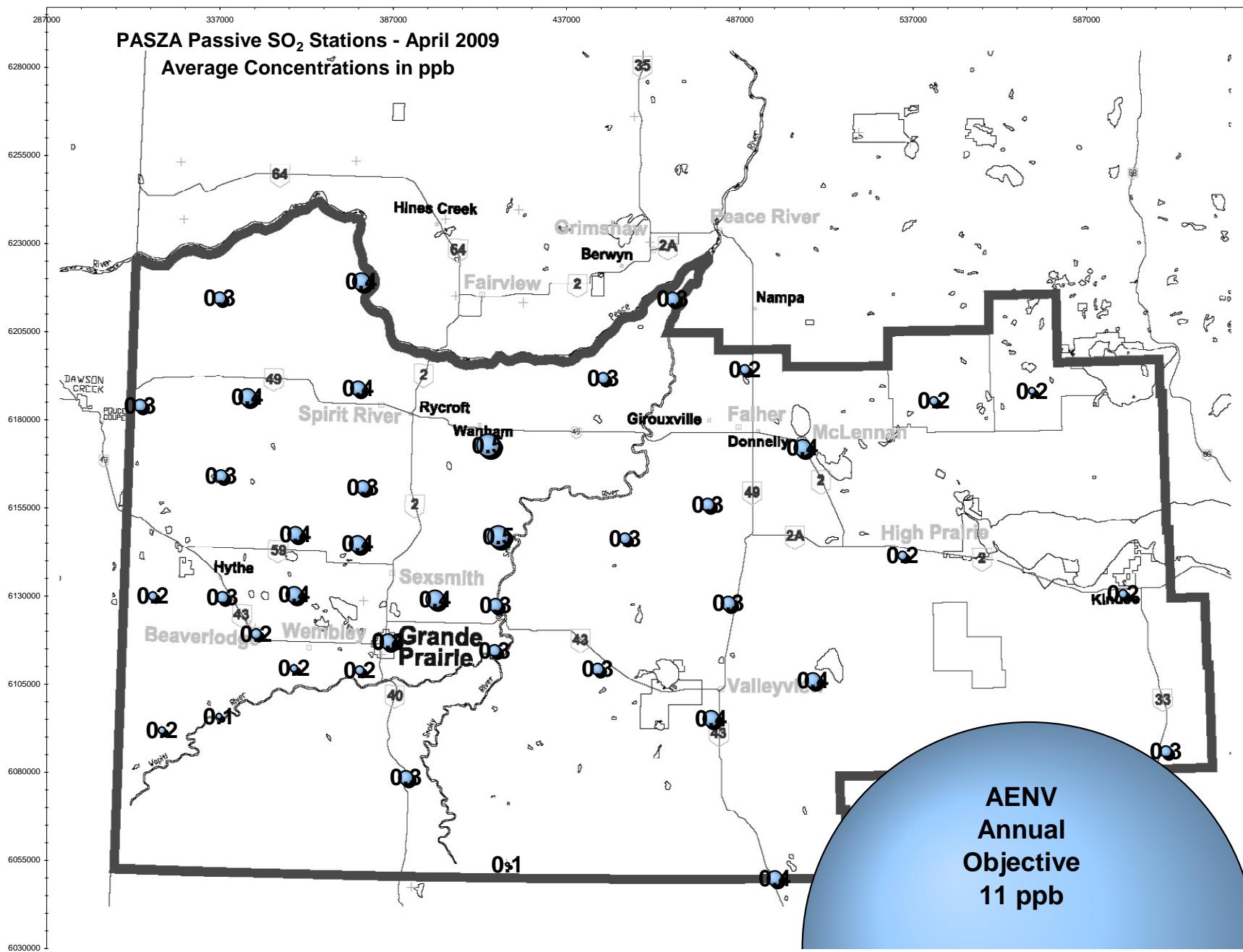
	SO ₂	O ₃	NO ₂
PASZA Beaverlodge station	0.3	38.8	5.5
PASZA Beaverlodge passive	0.2	56.2	2.0

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

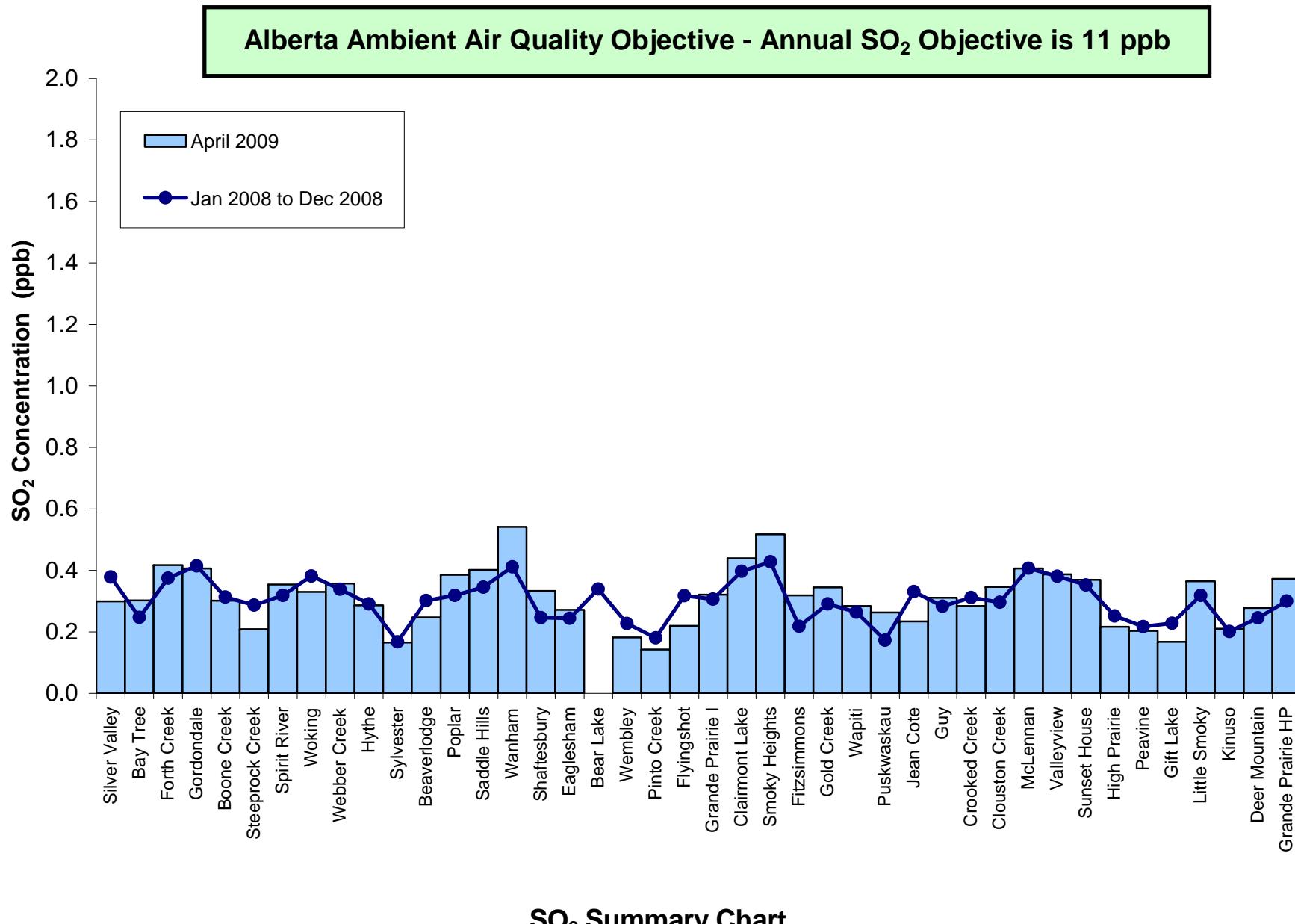
	SO ₂	O ₃	NO ₂
PASZA Henry Pirker station	0.3	34.3	8.1
PASZA Grande Prairie passive	0.4	41.7	6.9

Comparison between Continuous and Passive monitoring at Kinuso (passive #47 Kinuso)

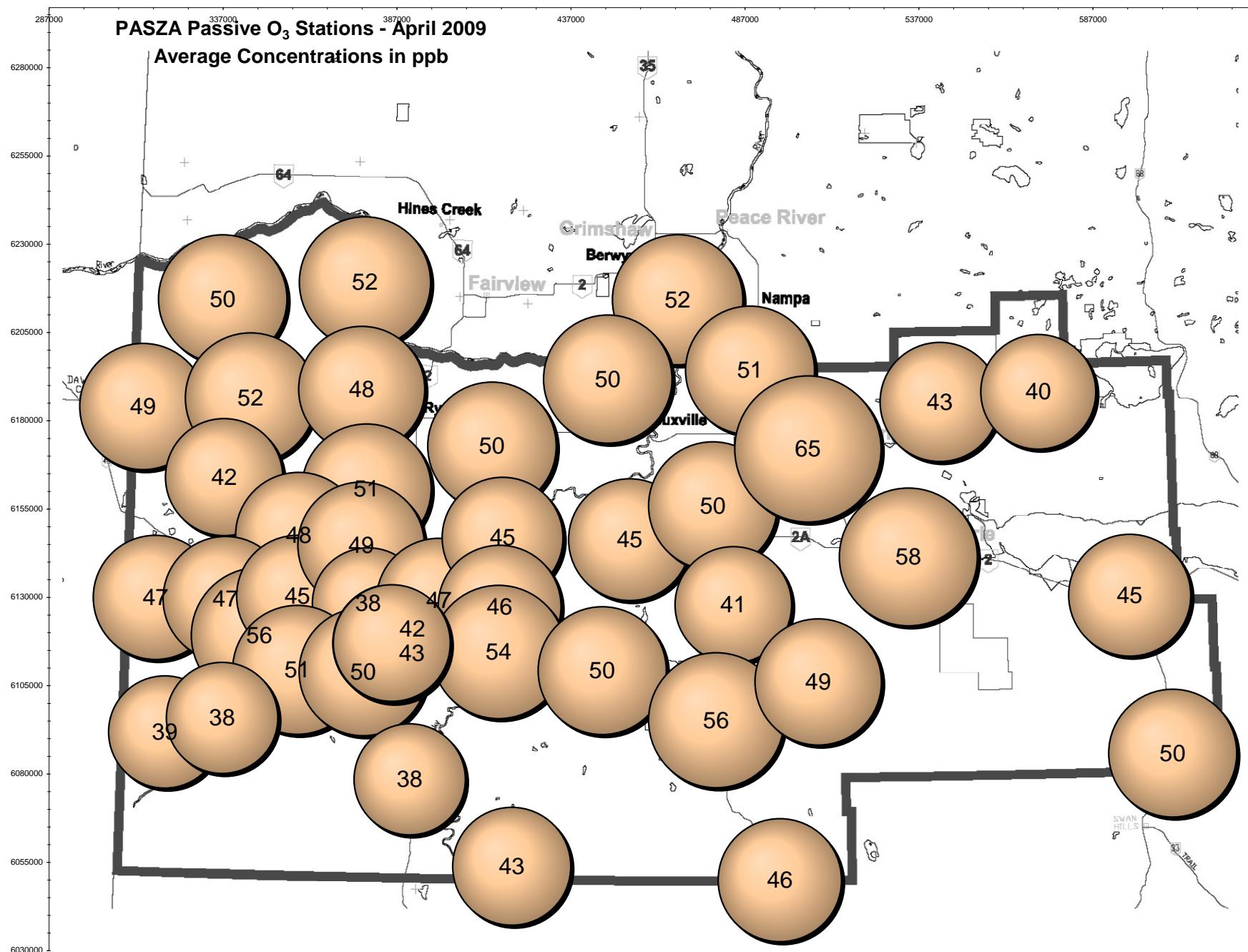
	SO ₂	O ₃	NO ₂
PASZA Portable Spirit River station	0.3	30.5	1.7
PASZA Spirit River passive	0.2	45.4	0.6



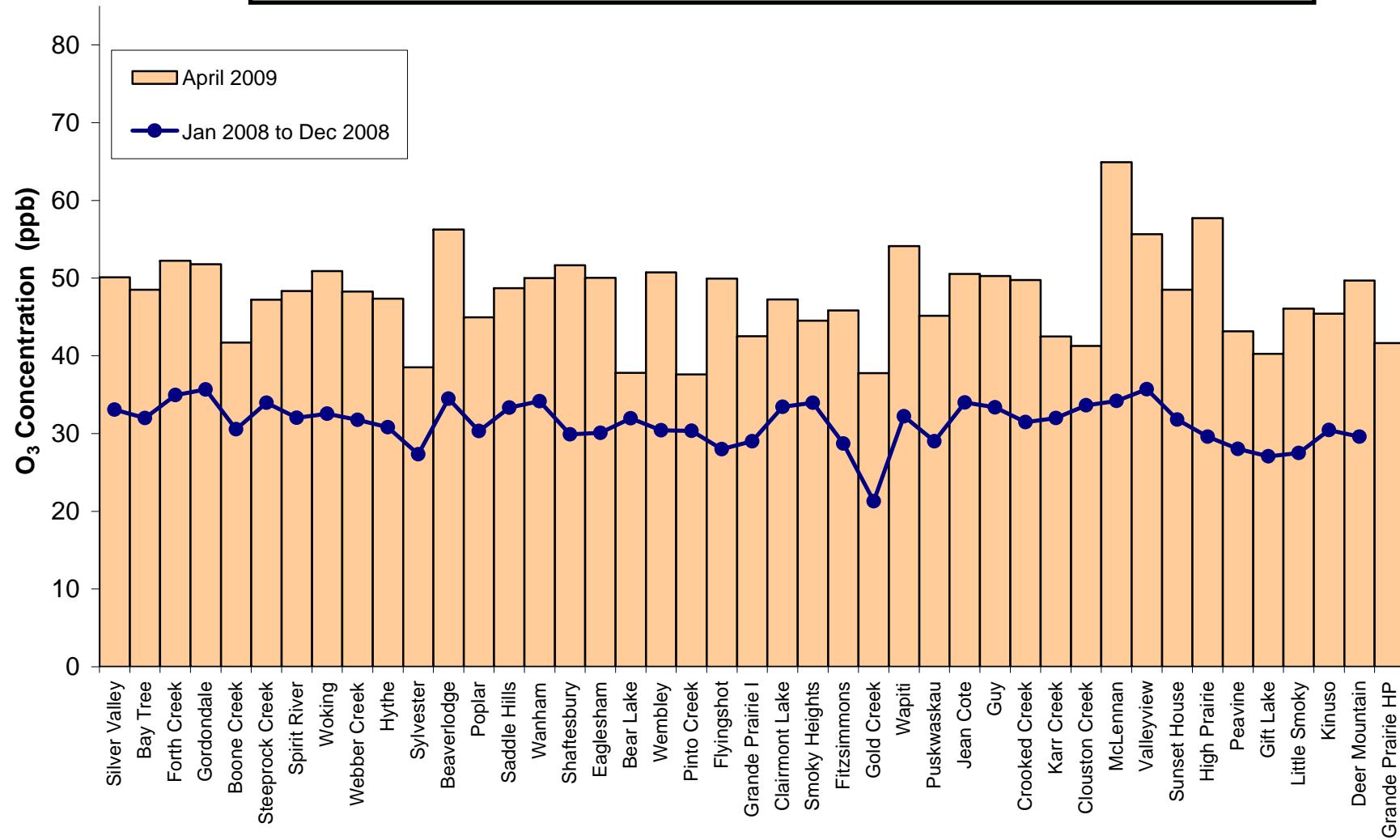
SO₂ Bubble Chart



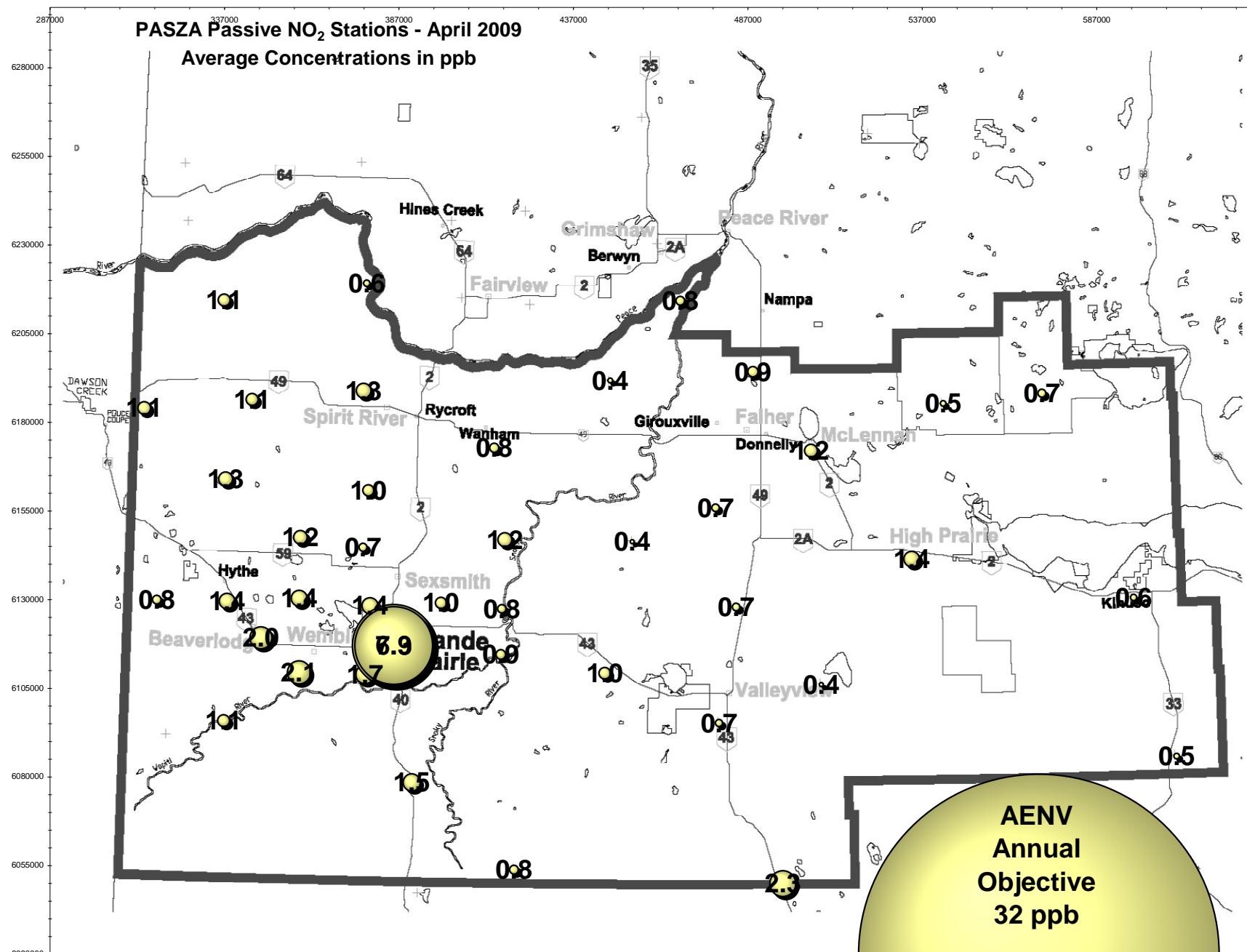
SO₂ Summary Chart



Alberta Ambient Air Quality Objective - No Annual O₃ Objective

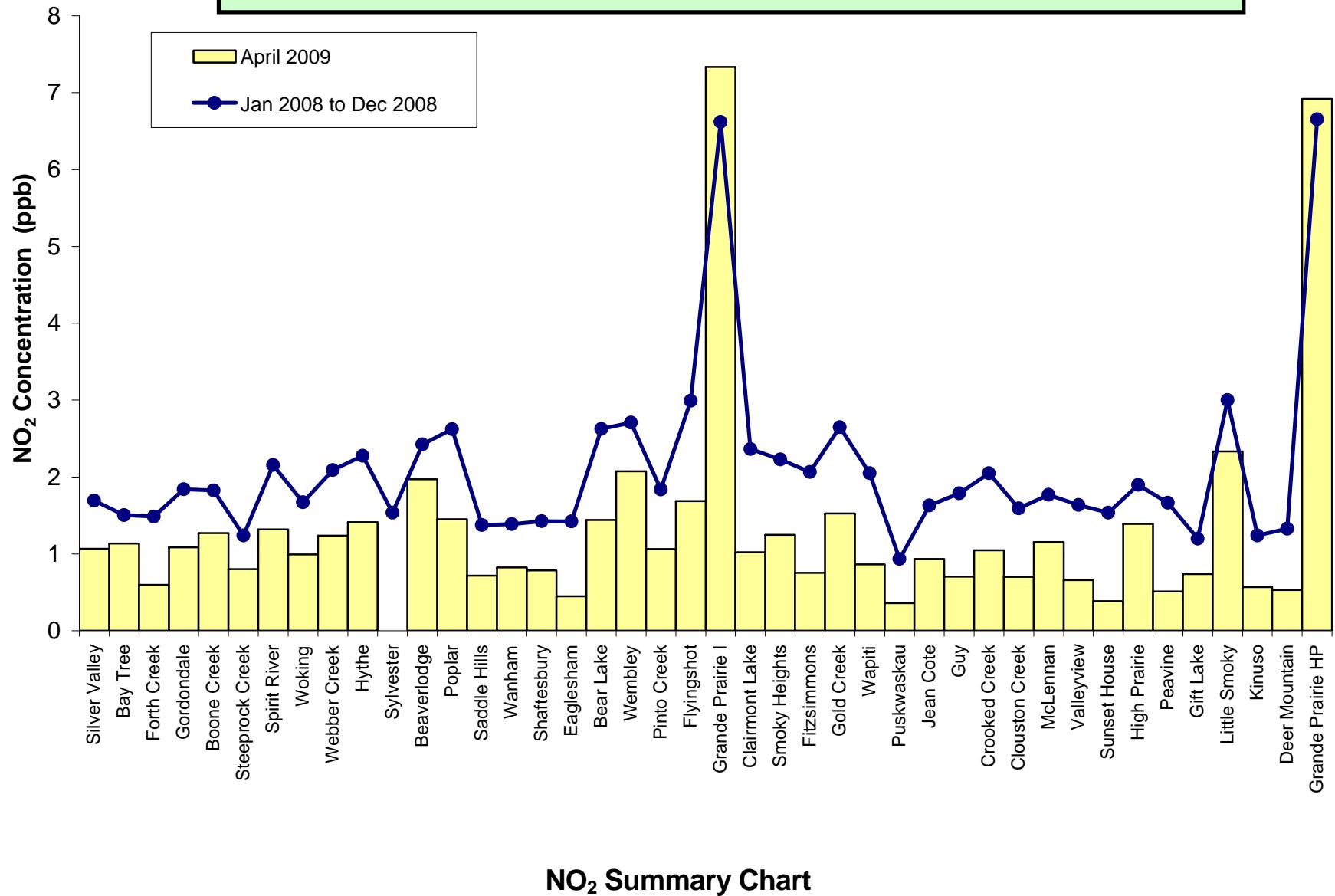


O₃ Summary Chart



NO₂ Bubble Chart

Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 32 ppb



NO₂ Summary Chart

April 2009 Calibration Reports

PASZA - Henry Pirker Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃, CO, THC, TRS & TEOM

PASZA – Evergreen Park Station with the following calibrations:
SO₂, TRS & TEOM

PASZA – Smoky Heights Station with the following calibrations:
SO₂, TRS & TEOM

PASZA – Beaverlodge Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃ & TEOM

PASZA – Spirit River (Portable) Station with the following calibrations:
SO₂, TRS, NO, NO₂, NO_x & O₃,

PASZA – Valleyview Station with the following calibrations:
SO₂ & H₂S

Calibration Report

Parameter

SO2

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 13, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	11:15	End Time (MST)	14:00
Barometric Pressure	0.933	ATM	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	49.1 ppb	Cal Gas Cert Date	13/3/2009
DACS make	Focus AP1000	DACS serial No.	AAL 15377
DACS voltage range	0 - 1 volt	DACS channel #	1
	Before		10
			After
Calculated slope	0.993606	Calculated slope	1.006500
Calculated intercept	-1.604067	Calculated intercept	-2.264536
Analyzer make	TEI 43C	Analyzer serial #	610816292
Concentration range	before		after
	0 - 500	ppb	0 - 500
	8.1		8.1
	.799		.826
	645.1	mm Hg	649.1
	0.526	lpm	0.542
Lamp Voltage	43551	Hz	44644

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)
4988	0.00	0.0	0.6	N/A
4988	39.87	389.4	388.1	1.0032
4989	19.91	195.2	197.3	0.9892
4989	9.95	97.7	100.8	0.9693
4988	0.00	0.0	0.1	As Found Zero
4989	39.87	389.3	393.5	As Found Span
Average Correction Factor				0.9872

Calculated value of As Found Response: 389.3 ppb Percent Change of As Found: 0.0%

Auto zero	before calibration		after calibration	
	0.1	ppb	0.1	ppb
	275.2	ppb	269.5	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

SO₂

Air Monitoring Network

PASZA



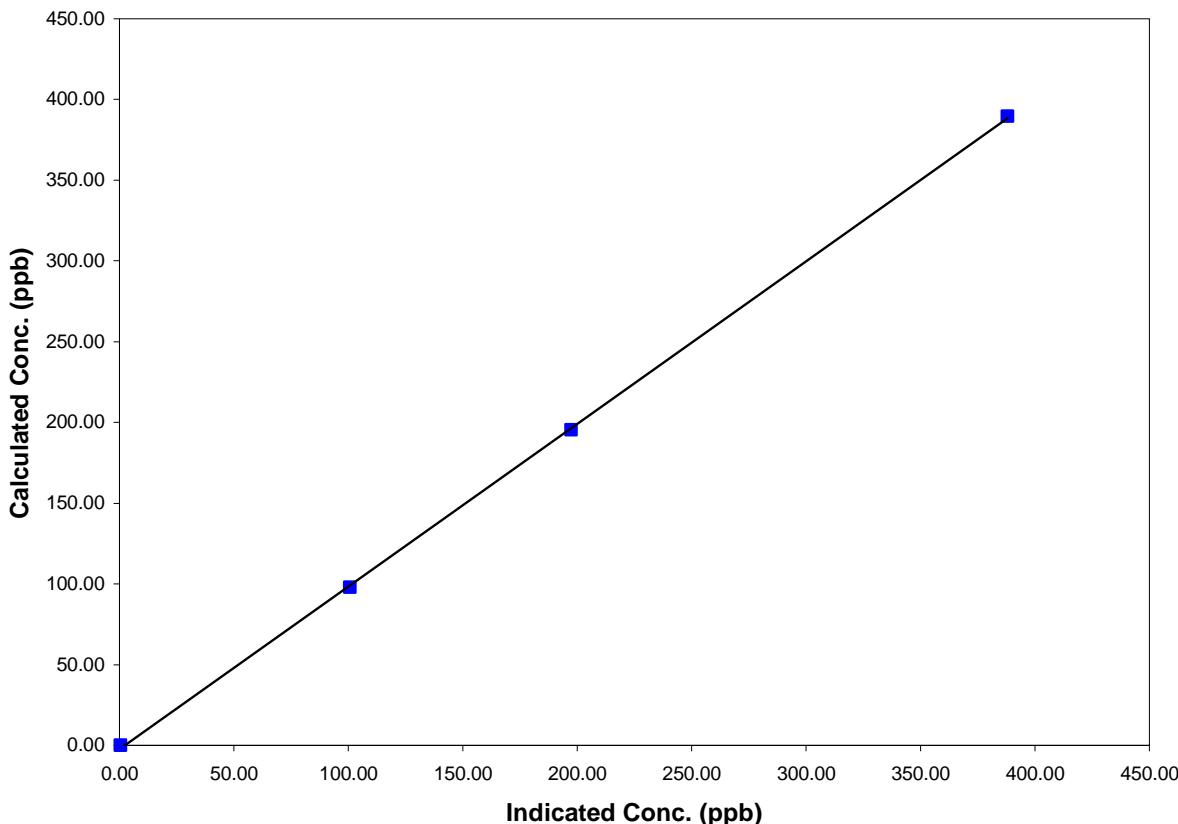
Station Information

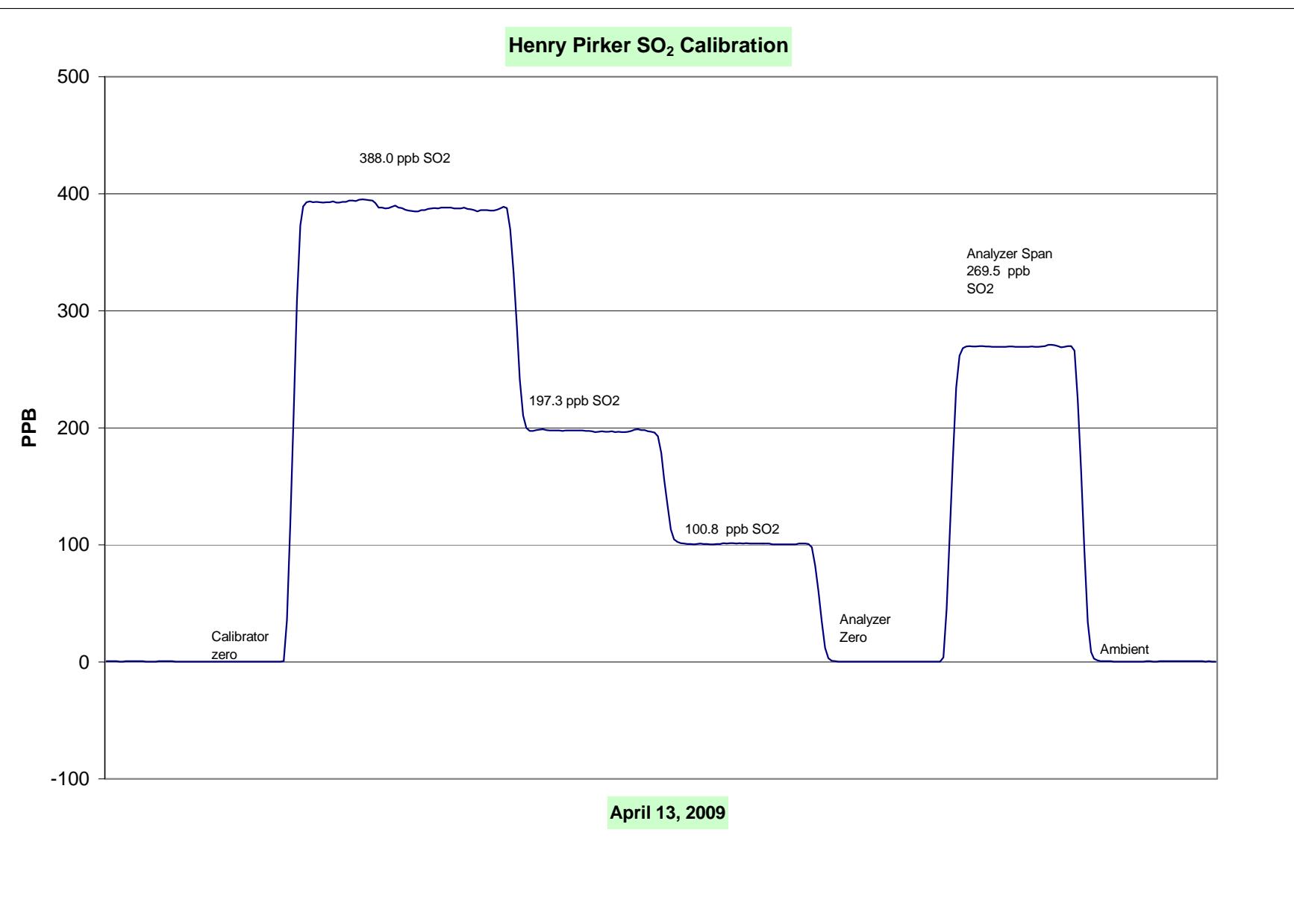
Calibration Date	April 13, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:15	End Time (MST)	14:00:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A		
389.4	388.1	1.0032	Correlation Coefficient	0.999912
195.2	197.3	0.9892		
97.7	100.8	0.9693	Slope	1.006500
			Intercept	-2.264536

SO₂ Calibration Curve





Calibration Report

Parameter
Air Monitoring Network

NOx-NO-NO₂
PASZA



Station Information

Calibration Date	April 13, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Installation	Removal
Start Time (MST)	11:15	End Time (MST)	15:10
Barometric Pressure	0.927	Atm	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
NO Cal Gas Conc	49.6 ppm	Cal Gas Cert Date	6/8/2008
NOx Cal Gas Conc	49.6 ppm	Cal Gas Cylinder #	AAL 15377

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269
Parameter	NO2	NOx	NO
Before	0.992861	0.999875	0.999855
Data Offset	-0.235868	0.994352	0.995262
After	0.992861	0.994352	0.995262
Data Offset	-0.235868	-2.782363	-2.646376
Channel #	8	6	7
Voltage Range	0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model Teco 42C Analyzer serial # 508011073

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	9.7	ppb	9.8	mV
NOx background	10.3	ppb	10.4	mV
NO coefficient	0.785		0.792	
NOx coefficient	0.999		1.001	
Chamber Temp	49.6	Deg C	49.6	Deg C
Cooler Temp	-2.5	Deg C	-2.4	Deg C
Converter Temp	318.0	Deg C	318.0	Deg C
Vacuum	188.2	mm Hg	188.4	mm Hg

Notes:

Calibration Report



Parameter NOx-NO-NO₂
Air Monitoring Network PASZA

Station Information

Calibration Date: April 13, 2009 Station Location: Henry Pirker

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NOx Correction factor	NO Correction factor
zero	4990	0.00	0.0	0.0	0.0	0.8	0.5	0.1	N/A	N/A
	4989	39.85	393.0	393.0	0.0	397.0	396.4	0.6	0.9901	0.9915
	4989	19.91	197.2	197.2	0.0	202.2	201.9	0.3	0.9750	0.9763
	4989	9.92	98.4	98.4	0.0	103.8	103.7	0.1	0.9483	0.9488
AFZ	4990	0.00	0.0	0.0	0.0	0.1	0.1	0.1	0.0000	0.0000
	4990	39.85	393.0	393.0	0.0	385.5	385.4	0.2	1.0195	1.0197
								Average Correction Factor	0.9711	0.9722

As Found Concentrations: NO_x= 386.4 NO= 386.3 As Found Percent Change NO_x= -1.7% NO= -1.7%

GPT Calibration Data

Dilution Flow 4990 ccm Source Gas Flow 39.88 ccm

O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NOx Correction factor	NO Correction factor	NO ₂ Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	393.1	391.4	1.7	396.2	395.9	0.2	0.9921	0.9886	N/A	N/A
300	393.1	93.9	299.2	398.2	97.0	301.5	0.9871	0.9680	0.9922	100.8%
200	393.1	188.2	204.9	398.0	191.8	206.6	0.9876	0.9815	0.9919	100.8%
100	393.1	281.3	111.8	398.1	285.3	113.1	0.9873	0.9860	0.9889	101.1%
								Average Correction Factor	0.9874	0.9785
									0.9910	100.9%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO ₂	NO	ppb	NOx	NO ₂	NO	ppb
Auto zero	1.1	1.0	1.0	ppb	1.1	1.0	1.0	ppb
Auto span	169.2	170.6	-1.6	ppb	169.2	170.6	-1.6	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter NO₂

Air Monitoring Network

PASZA

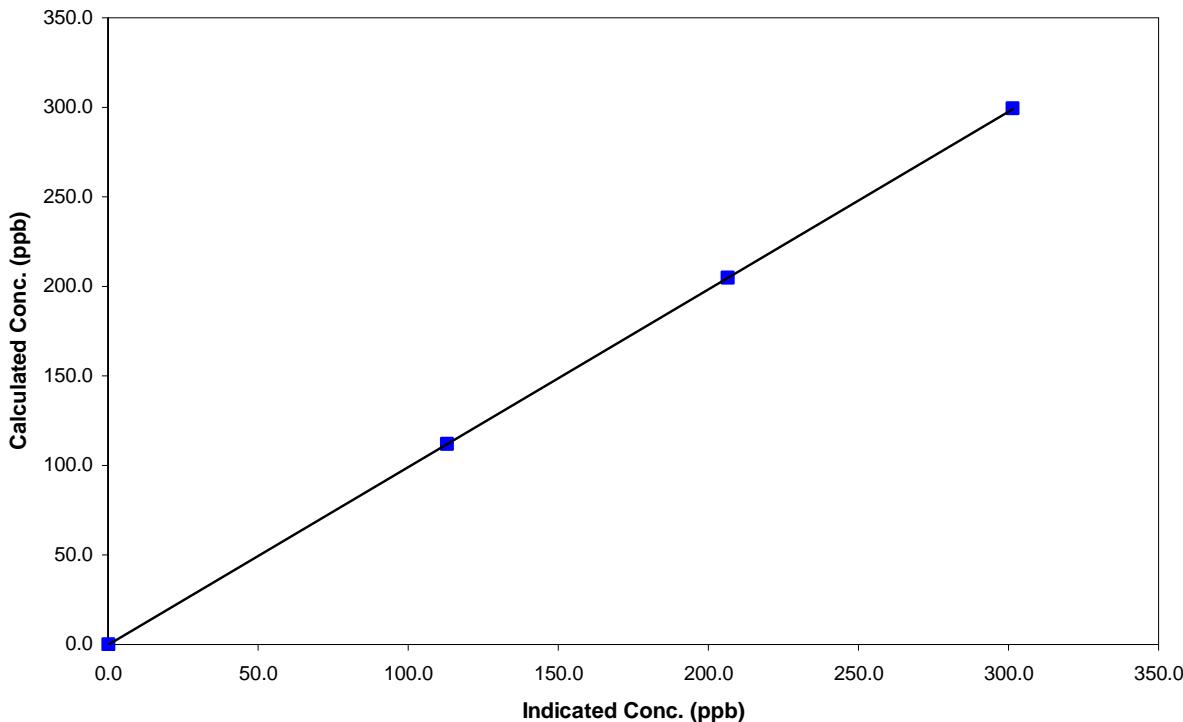
Station Information

Calibration Date	April 13, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:15	End Time (MST)	15:10
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	0.0000	Correlation Coefficient	0.999999
299.2	301.5	0.9922		
204.9	206.6	0.9919		
111.8	113.1	0.9889		
			Slope	0.992861
			Intercept	-0.235868

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network

PASZA

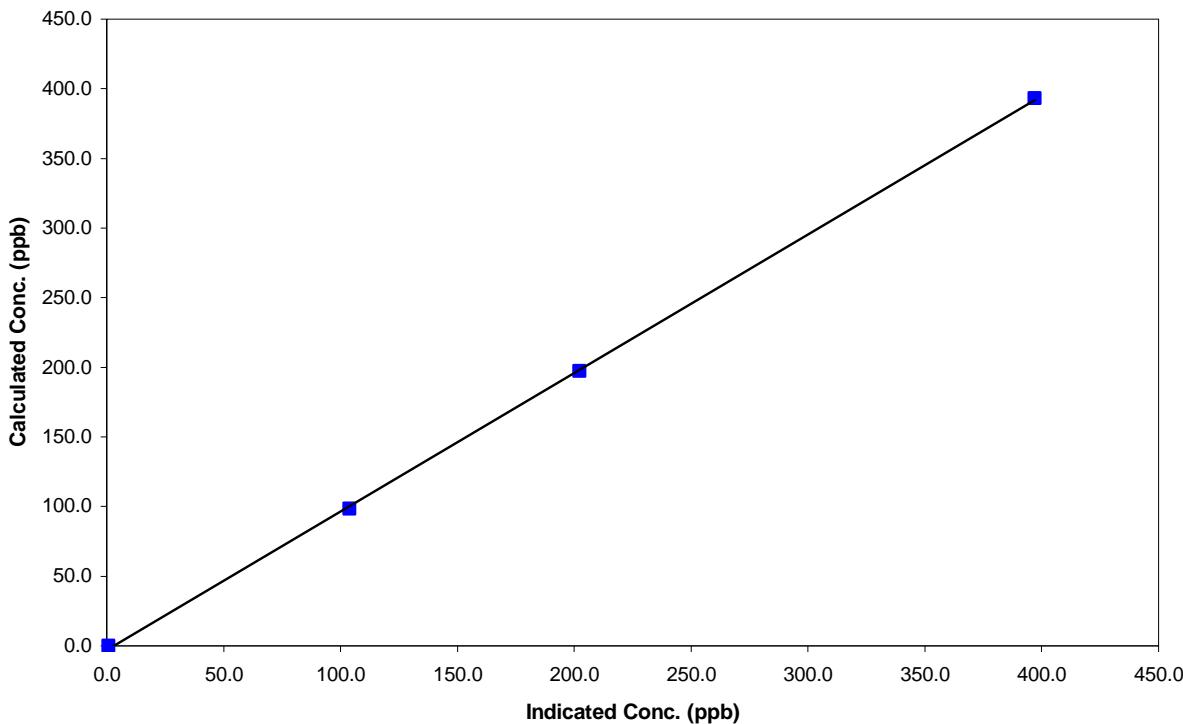
Station Information

Calibration Date	April 13, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:15	End Time (MST)	15:10
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	0.0000	Correlation Coefficient	0.999875
393.0	397.0	0.9901		
197.2	202.2	0.9750		
98.4	103.8	0.9483		
			Slope	0.994352
			Intercept	-2.782363

NOx Calibration Curve



Calibration Summary

Parameter NOAir Monitoring Network PASZA

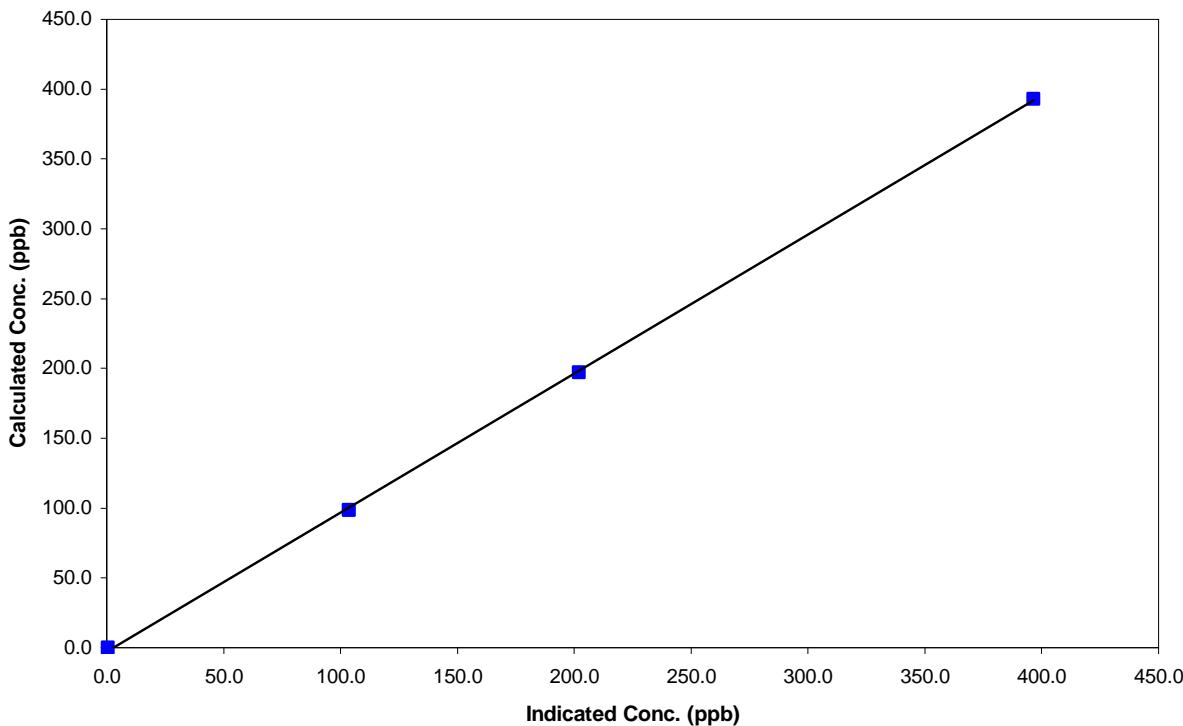
Station Information

Calibration Date	April 13, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:15	End Time (MST)	15:10
Analyzer make	Teco 42C	Analyzer serial #	508011073

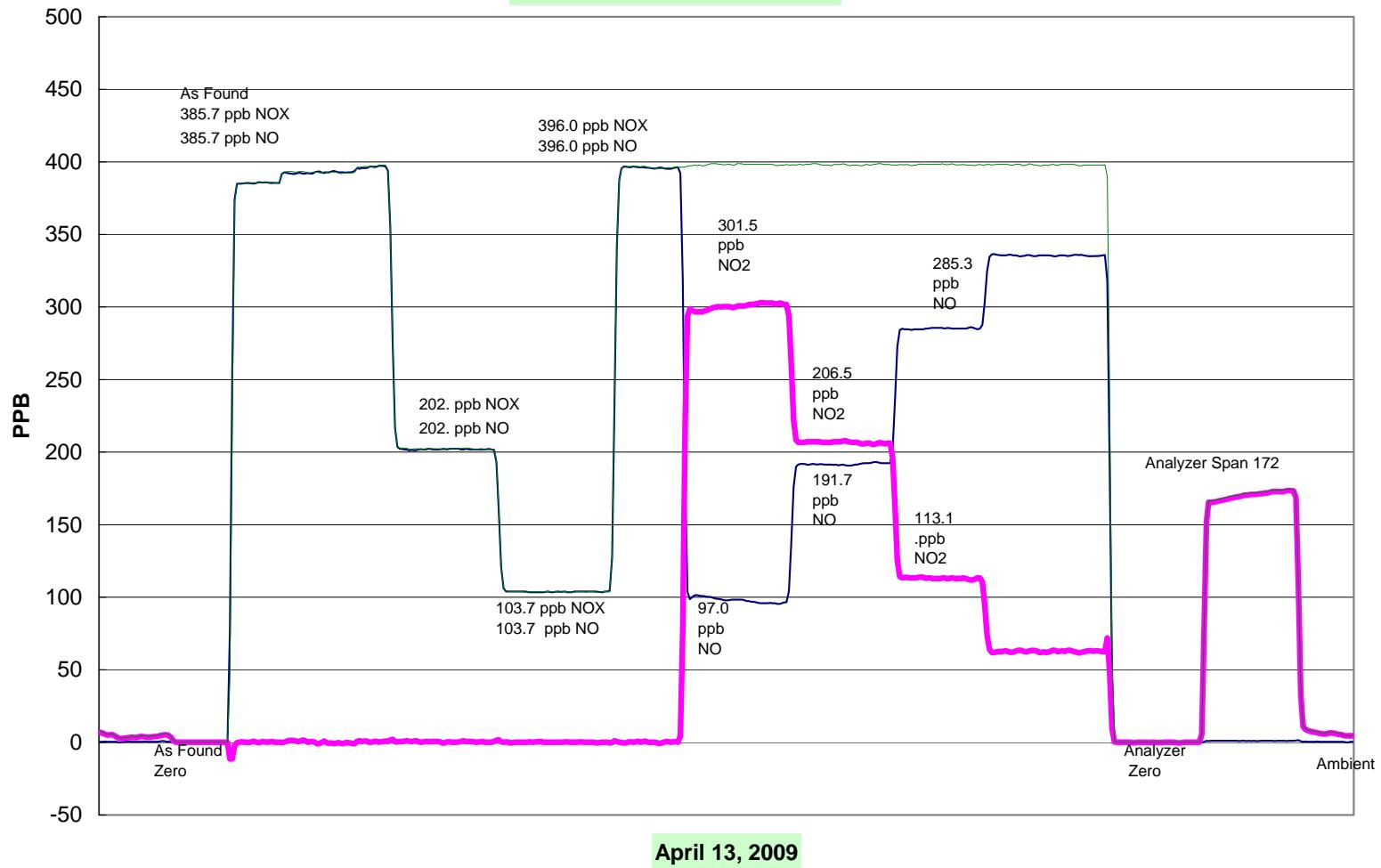
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999855
393.0	396.4	0.9915		
197.2	201.9	0.9763		
98.4	103.7	0.9488		
			Slope	0.995262
			Intercept	-2.646376

NO Calibration Curve



Henry Pirker NO_x Calibration



Calibration Report

Parameter

O3

Air Monitoring Network

PASZA



Station Information			
Calibration Date	April 13, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
Start Time (MST)	13:09:00 PM	End Time (MST)	16:42
Barometric Pressure	0.933 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	2844
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	0.955901	Calculated slope	0.985812
Calculated intercept	-0.136062	Calculated intercept	-0.169660
Analyzer make	TECO 49C	Analyzer serial #	607415761
Concentration range offset slope O3 Lamp temp Intensities Pressure Flow A Flow B	before	after	
	500	ppb	500 ppb
	-0.6	ppb	-0.6 ppb
	1.064		1.064
	71	Deg C	71 Deg C
	92389/76182	mV	92523/75701 mV
	694.6	inches Hg	695.1 inches Hg
	0.717	ccm	0.724 ccm
	0.730	Deg C	0.735 Deg C

Calibration Data

Referenced concentration (ppb)	Dilution air flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
0	4988	0.0	0.1	N/A
300	4989	302.5	307.1	0.9851
200	4989	206.5	209.4	0.9860
100	4989	112.2	114.2	0.9824
0	4988	0.0	0.6	As found zero
300	4988	302.7	307.1	As found span
Average Correction Factor				0.9845

Calculated value of As Found Response:

292.8 ppm

Percent Change of As Found: -3.2%

Auto zero Auto span	before calibration		after calibration	
	0.3	ppb	0.3	ppb
	130.4	ppb	161.4	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O₃**

Air Monitoring Network

PASZA

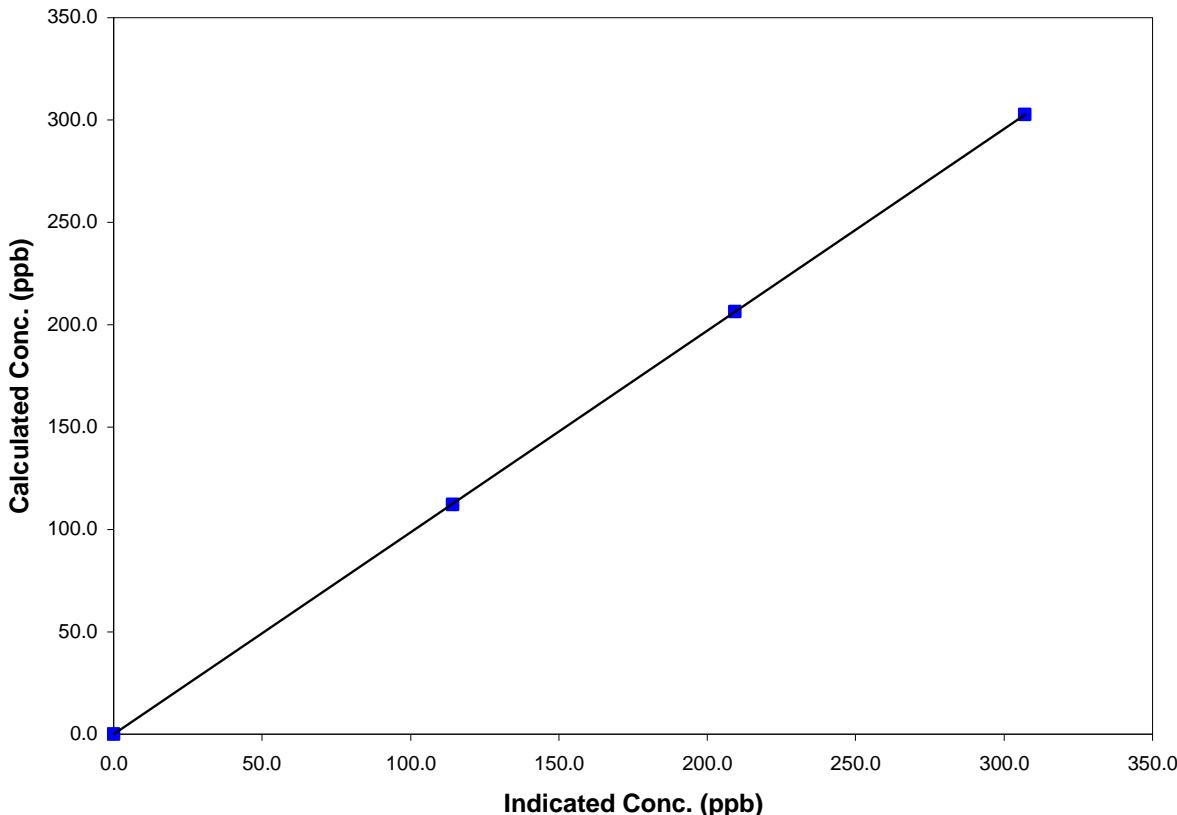
Station Information

Calibration Date	April 13, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:09:00 PM	End Time (MST)	16:17
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

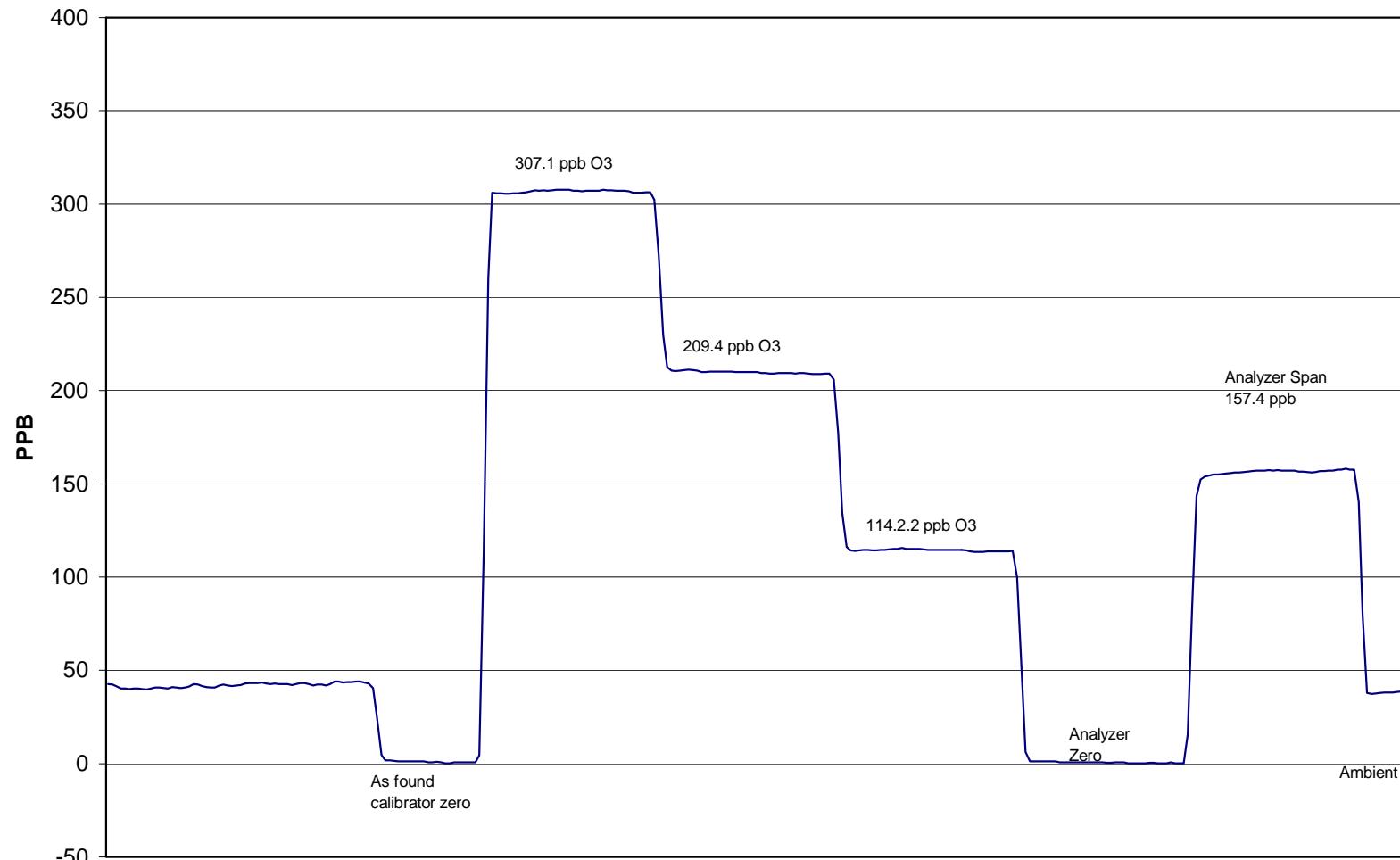
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA		
302.5	307.1	0.9851	Correlation Coefficient	0.999998
206.5	209.4	0.9860	Slope	0.985812
112.2	114.2	0.9824	Intercept	-0.169660

O₃ Calibration Curve



Henry Pirker O₃ Calibration



Calibration Report

Parameter

CO

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 14, 2009	Previous Calibration	March 24, 2009
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:00	End Time (MST)	15:17
Barometric Pressure	0.931	ATM	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	3000	ppm	Cal Gas Expiry Date AUG 28/05
DACS make	Focus AP1000	DACS serial No.	AAL20565
DACS voltage range	0 - 1 volt	DACS channel #	1
	Before		9
			After
Calculated slope	1.037583	Calculated slope	1.006629
Calculated intercept	-0.421316	Calculated intercept	-0.245419
Analyzer make	TEI Model 48C	Analyzer serial #	508011062
Concentration range		before	after
CO span setting	0 - 50	ppm	0 - 50
CO zero setting	1.029		1.029
Sample pressure	5.198		5.198
Sample Flow	677.1	mm Hg	679.1 mm Hg
	1.145	LPM	1.145 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)
4991	0.00	0.00	0.06	N/A
4991	39.82	23.74	23.73	1.0006
4991	19.88	11.90	12.17	0.9780
4991	9.94	5.96	6.35	0.9384
4990	0.00	0.00	0.25	As Found Zero
4990	39.86	23.77	23.73	As Found Span
Average Correction Factor				0.9724

Calculated value of As Found Response:

23.938 ppm

Percent Change of As Found: -0.7%

Auto zero	before calibration		after calibration	
	0.03	ppm	0.03	ppm
	18.98	ppm	18.98	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter CO

Air Monitoring Network PASZA



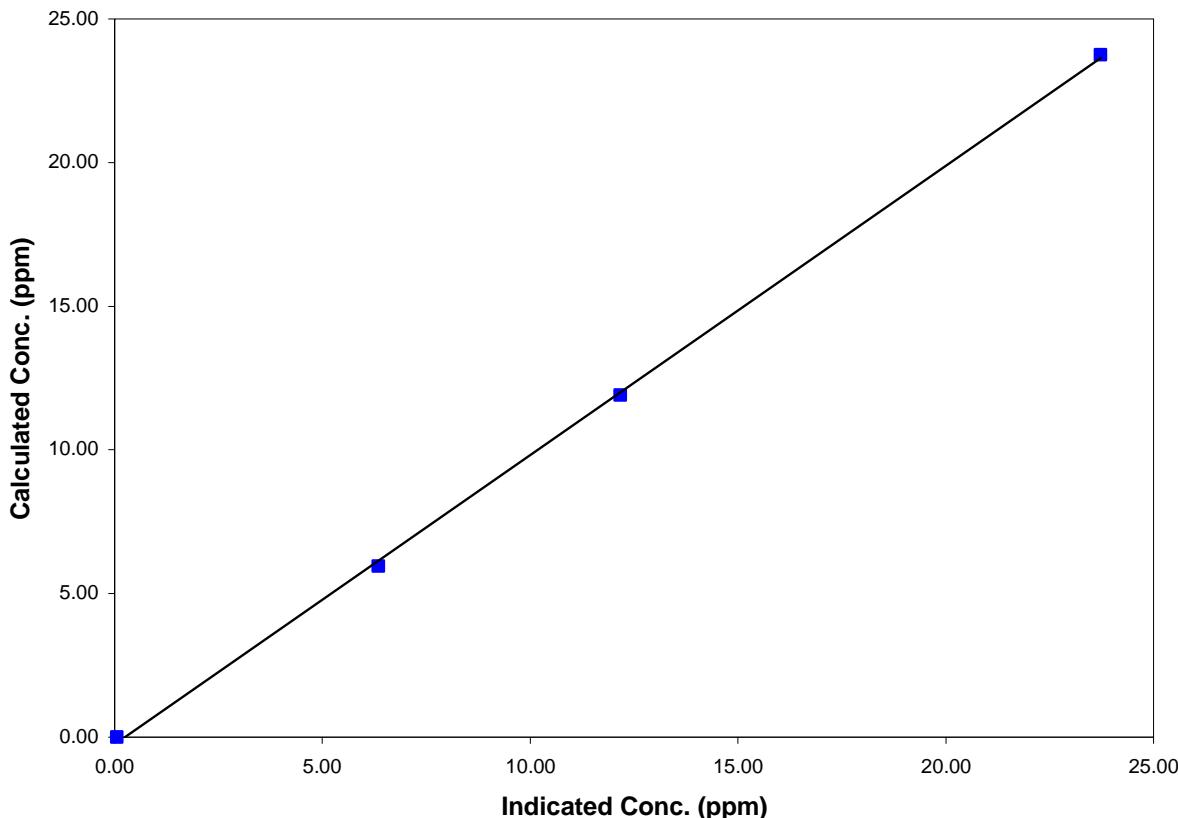
Station Information

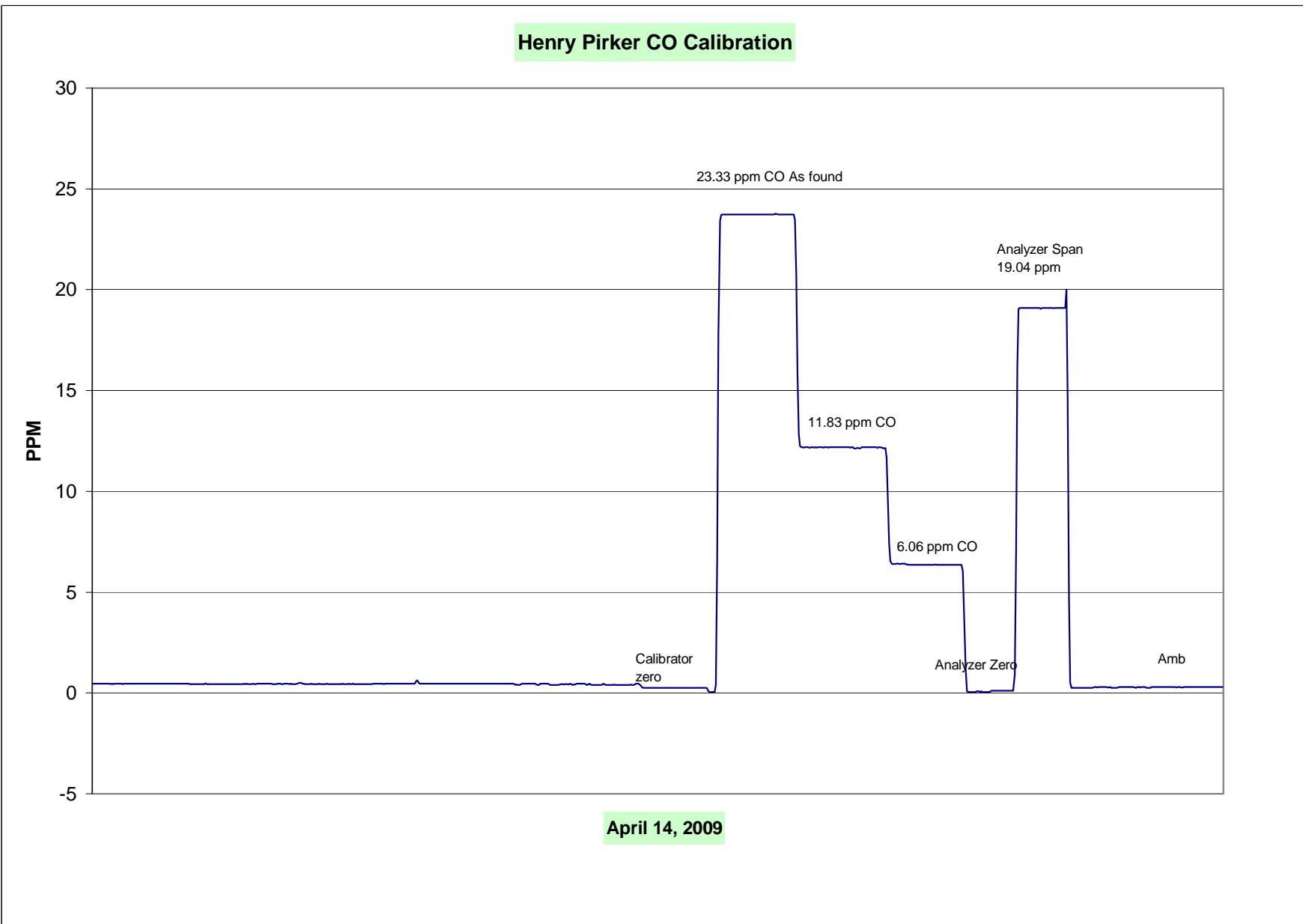
Calibration Date	April 14, 2009	Previous Calibration	March 24, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:00	End Time (MST)	10:48
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.057	N/A		
23.744	23.730	1.0006	Correlation Coefficient	0.999703
11.902	12.169	0.9780	Slope	1.006629
5.960	6.351	0.9384	Intercept	-0.245419

CO Calibration Curve





Calibration Report

Parameter

THC

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 14, 2009	Previous Calibration	March 24, 2009
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	13:44:00 PM	End Time (MST)	17:30
Barometric Pressure	0.931	ATM	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	701 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	2/4/2010
Cal Gas CH4 equiv	1523.25 ppm	Cal Gas Cylinder #	ALM 005412
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
Calculated slope	1.011384	Calculated slope	1.012373
Calculated intercept	-0.023425	Calculated intercept	-0.057904
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390
Concentration range	0 - 25 ppm	before	after
THC sample pressure	7 psi	0 - 25 ppm	0 - 25 ppm
THC span counts	7170 capture	6.50 capture	7205 capture
THC zero counts	1121 capture	1166 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)
4988	0.00	0.00	0.07	N/A
4990	69.80	21.01	20.84	1.0082
4989	29.88	9.07	8.94	1.0147
4988	9.92	3.02	3.08	0.9826
4988	0.00	0.00	0.04	As Found Zero
4988	69.82	21.03	20.87	As Found Span
Average Correction Factor				1.0018

Calculated value of As Found Response: 21.043 ppm Percent Change of As Found: -0.1%

Auto zero	before calibration		after calibration	
	-0.03	ppm	-0.02	ppm
	25.26	ppm	25.25	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

THC

Air Monitoring Network

PASZA



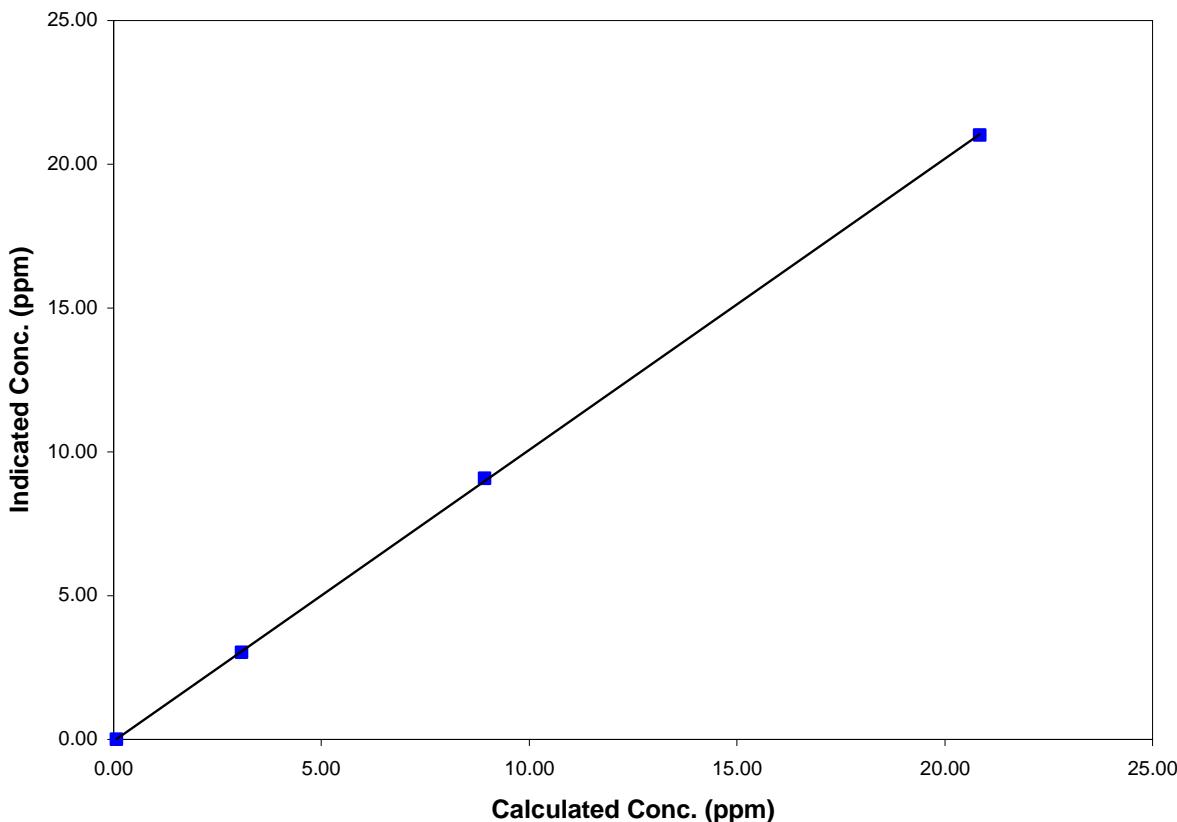
Station Information

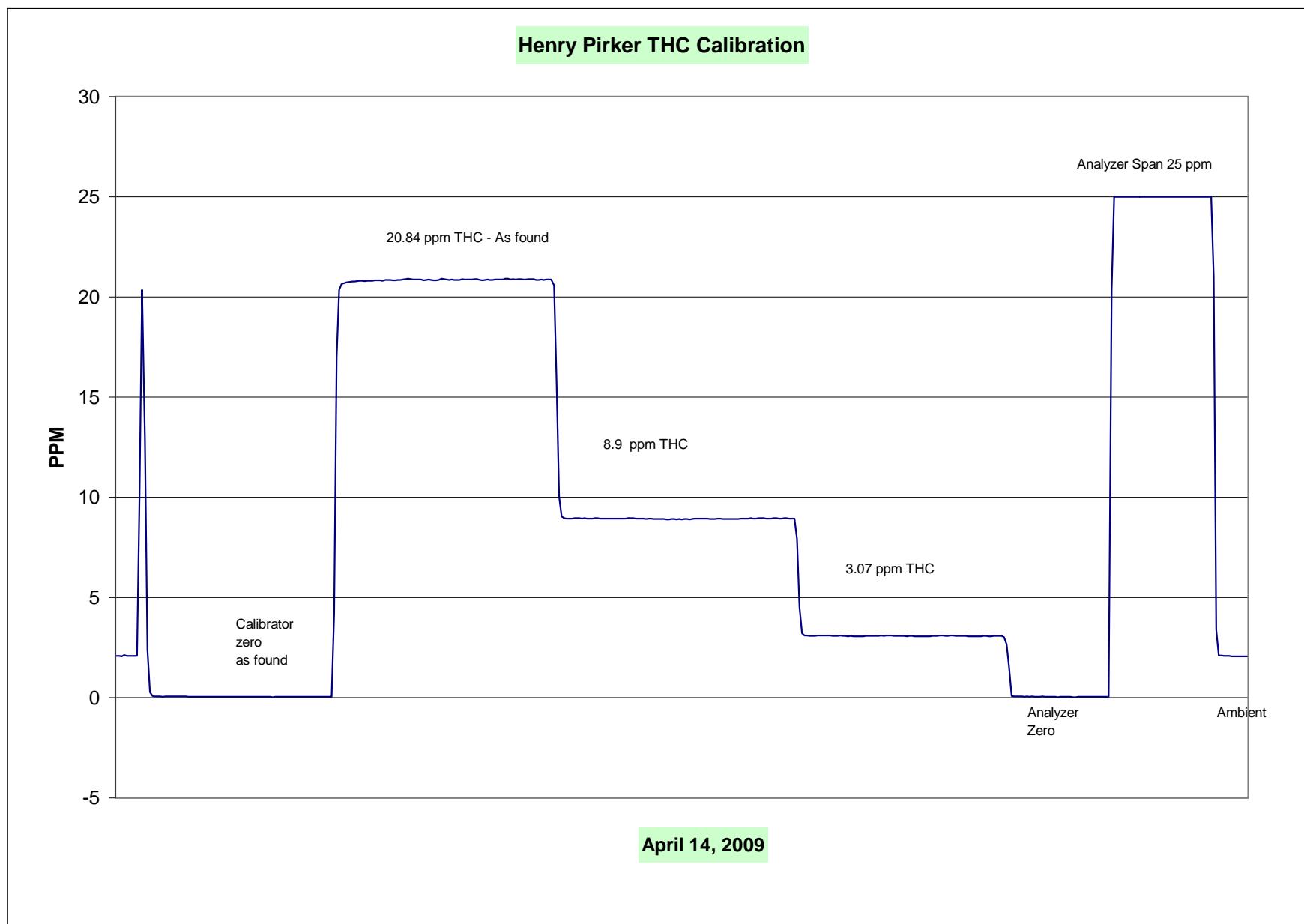
Calibration Date	April 14, 2009	Previous Calibration	March 24, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:44:00 PM	End Time (MST)	17:30
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.073	N/A		
21.013	20.842	1.0082	Correlation Coefficient	0.999967
9.069	8.937	1.0147		
3.023	3.077	0.9826	Slope	1.012373
			Intercept	-0.057904

THC Calibration Curve





Calibration Report

Parameter

TRS

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 14, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:15	End Time (MST)	12:39
Barometric Pressure	0.933	ATM	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.1 ppb	Cal Gas Expiry Date	7/31/2008
DACS make	Focus AP1000	DACS serial No.	ALM013295
DACS voltage range	0 - 1 volt	DACS channel #	1
	Before		After
Calculated slope	1.006681	Calculated slope	1.001489
Calculated intercept	-0.131413	Calculated intercept	-0.202173
Analyzer make	TEI 45C	Analyzer serial #	630718528
Concentration range	0 - 100 ppb	before	after
Coefficient	0.847		.847
Background	17.1		17.1
Pressure	659.5 mm Hg		659 mm Hg
Flow	465 ccm		465 ccm
Lamp Voltage	847 V		848 V

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)
4988	0.00	0.00	-0.03	N/A
4988	79.83	80.34	80.02	1.0039
4988	39.81	40.38	41.33	0.9770
4988	9.92	10.12	10.12	0.9999
4988	0.00	0.00	0.00	As Found Zero
4988	79.77	80.28	80.17	As Found Span
Average Correction Factor				0.9936

Calculated value of As Found Response:

80.6 ppb

Percent Change of As Found: -0.4%

Auto zero	before calibration		after calibration	
	0.06	ppb	-0.29	ppb
	27.76	ppb	27.12	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

TRS

Air Monitoring Network

PASZA



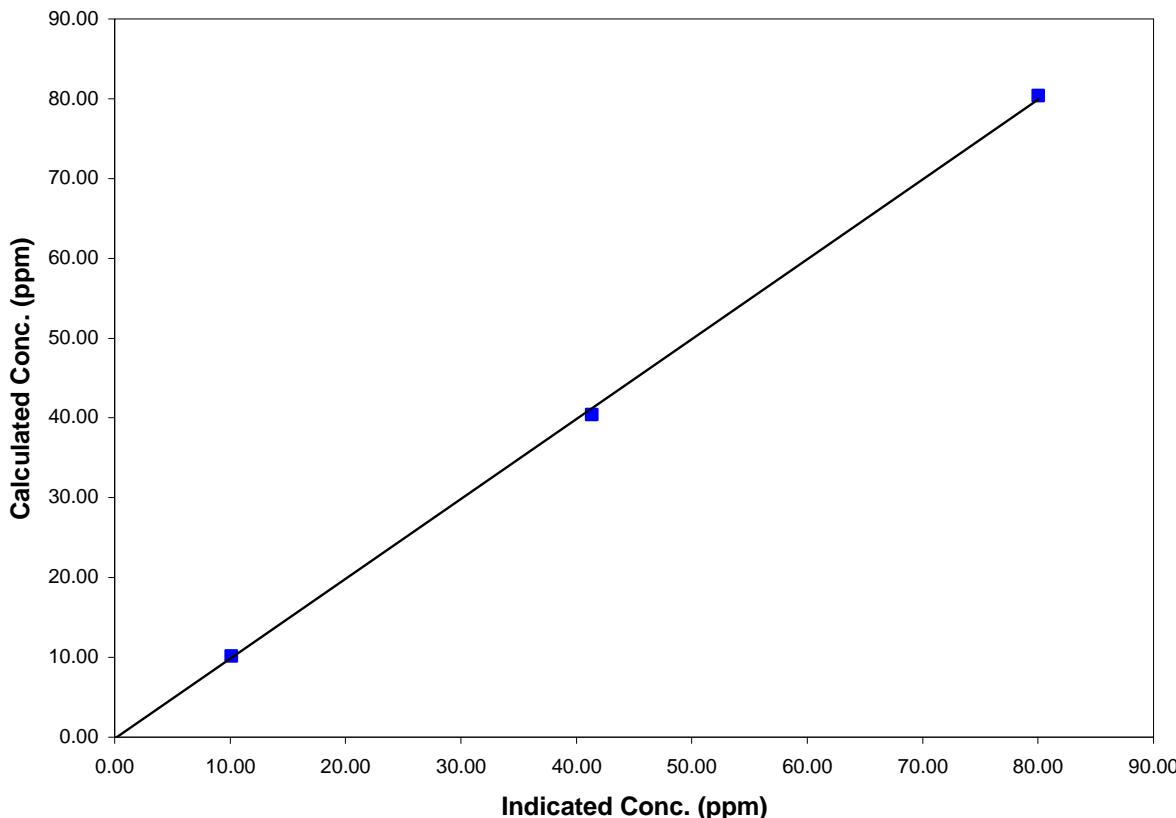
Station Information

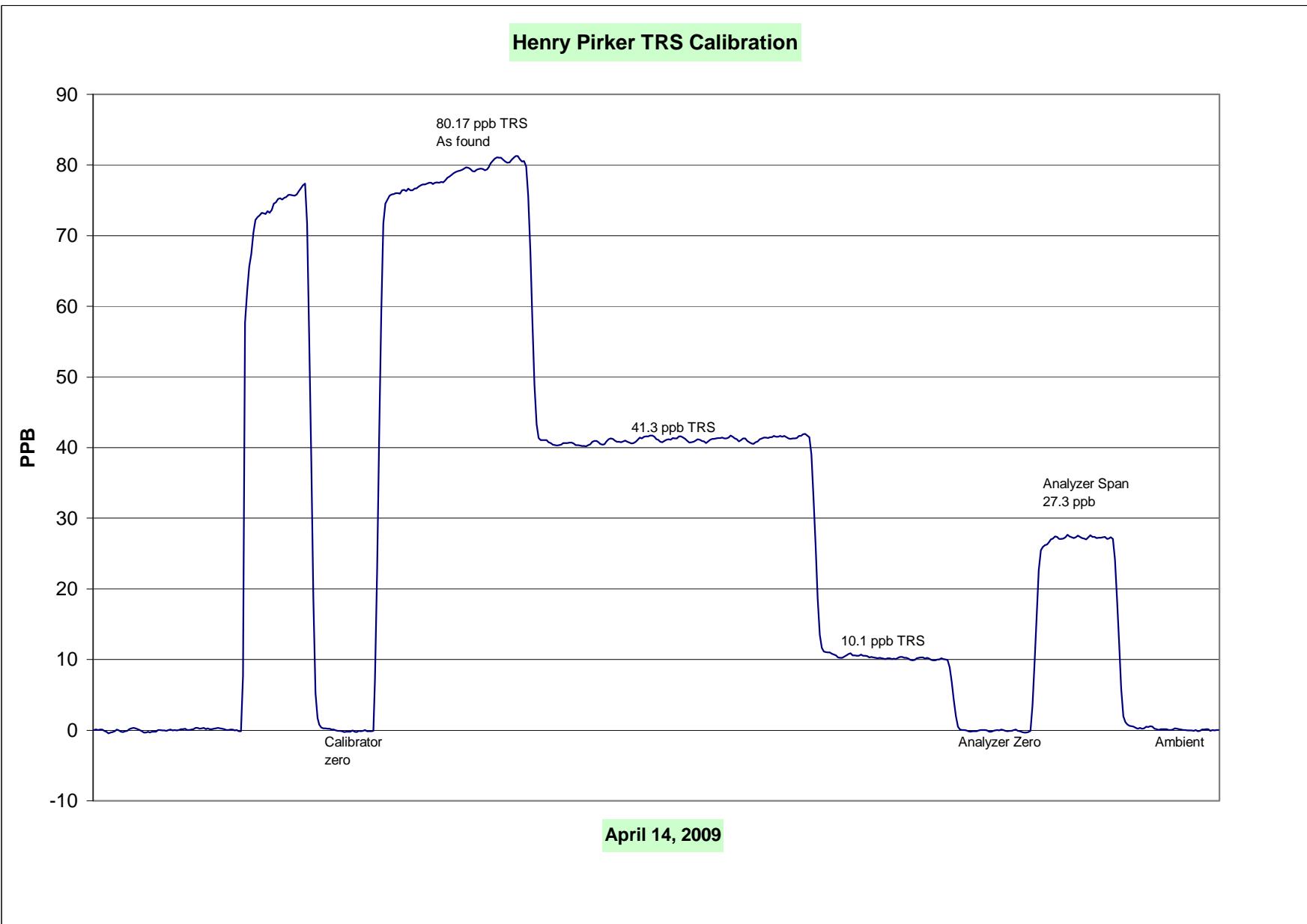
Calibration Date	April 14, 2009	Previous Calibration	March 18, 2009
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:15	End Time (MST)	12:39
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.027	N/A		
80.337	80.025	1.0039	Correlation Coefficient	0.999770
40.382	41.333	0.9770	Slope	1.001489
10.123	10.124	0.9999	Intercept	-0.202173

TRS Calibration Curve





Calibration Report



Parameter **SO₂**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 19, 2009	Previous Calibration	March 25, 2009
Station Number	2	Station Location	
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	11:00	End Time (MST)	13:23
Barometric Pressure	0.939	ATM	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	50.3 ppm	Cal Gas Expiry Date	1/2/2009
Correction factor	0.031919	Cal Gas Cylinder #	LL16161
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.002691	Calculated slope	1.002980
Calculated intercept	-2.181184	Calculated intercept	-2.051121

Analyzer make Teco 43i Analyzer serial # 701120008

Concentration range	before		after	
	0 - 1000	ppb	0 - 1000	ppb
Background coefficient	10.1		10.2	
Lamp Voltage	1		1	
Chamber Temp	834	volts	836	volts
Perm Gas Temp	45	Deg C	45.3	Deg C
Pressure	45	Deg C	44.99	Deg C
Sample Flow	672.2	mm Hg	673.7	mm Hg
Lamp Intensity	451	ccm	453	ccm
	90	%	90	%

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)
4990	0.0	0.00	0.0	N/A
4989	39.83	398.39	398.1	1.0007
4989	19.88	199.64	202.4	0.9863
4989	9.93	99.92	103.5	0.9653
4990	0.0	0.00	0.8	As Found Zero
4988	39.82	398.37	398.1	As Found Span
Average Correction Factor				0.9841

Calculated value of As Found Response: 396.202 ppm Percent Change of As Found: 0.5%

Auto zero	before calibration		after calibration	
	0.9	ppm	-1.4	ppm
	267.0	ppm	269.0	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

SO₂

Air Monitoring Network

PASZA



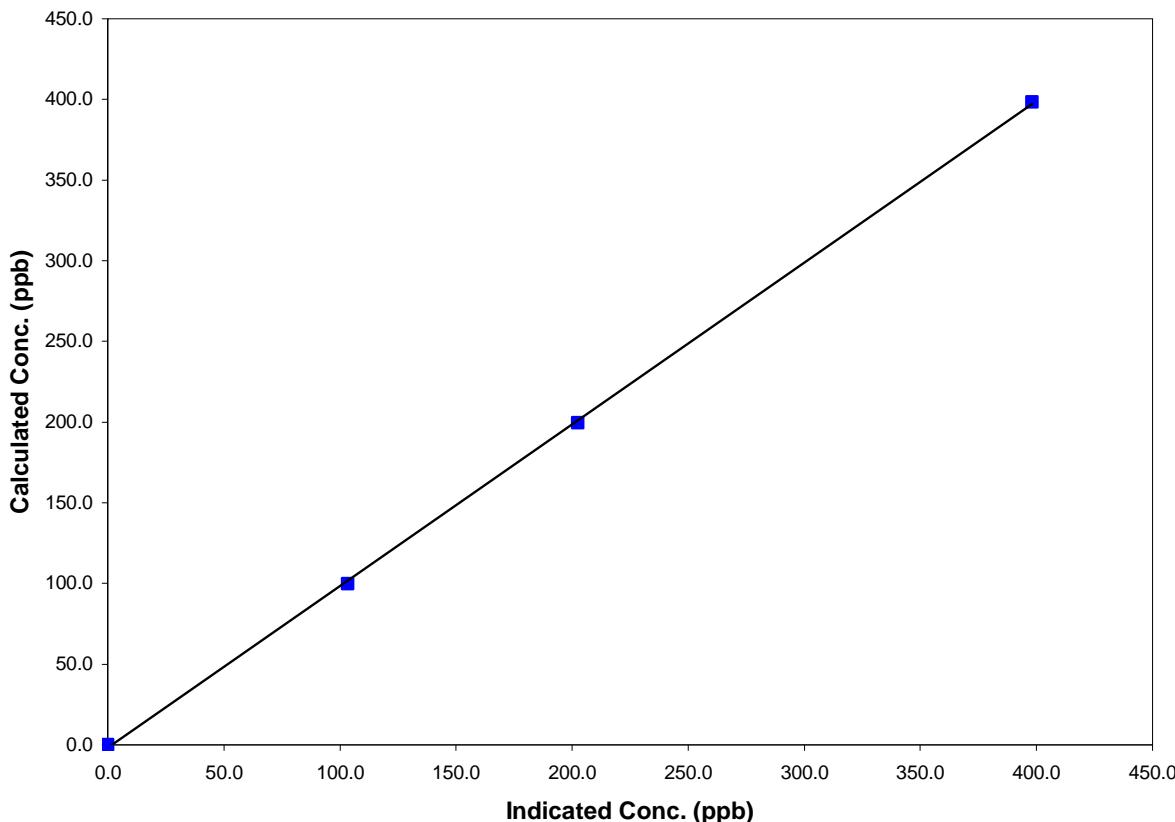
Station Information

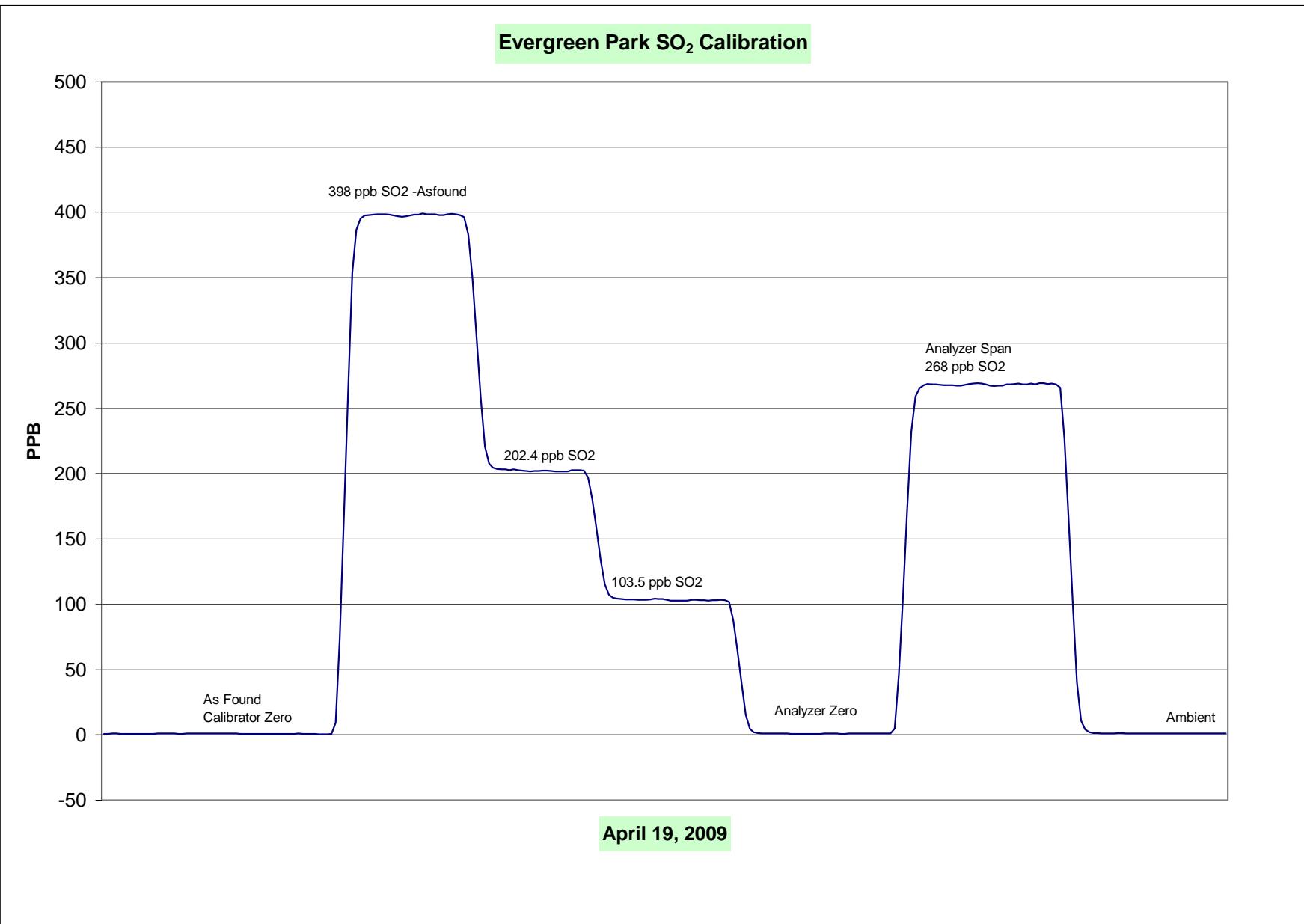
Calibration Date	April 19, 2009	Previous Calibration	March 25, 2009
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:00	End Time (MST)	13:23:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
398.4	398.1	1.0007	Correlation Coefficient	0.999878
199.6	202.4	0.9863		
99.9	103.5	0.9653	Slope	1.002980
			Intercept	-2.051121

SO₂ Calibration Curve





Calibration Report



Parameter

TRS

Air Monitoring Network

PASZA

Station Information

Calibration Date	April 19, 2009	Previous Calibration	March 25, 2009
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	12:20	End Time (MST)	14:52
Barometric Pressure	0.939 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.1 ppm	Cal Gas Expiry Date	4/2/2009
Correction factor	0.031919	Cal Gas Cylinder #	ALM 013295
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
Calculated slope	1.005167	Calculated slope	1.008052
Calculated intercept	-0.239009	Calculated intercept	-0.279249

Analyzer make	TEI Model 43C	Analyzer serial #	0436610005
before			after
Concentration range	0 - 100	ppb	0 - 100
Background	14.3	ppb	14.6
coefficient	0.586		0.586
Lamp Voltage	820	volts	821
Chamber Temp	44.4	Deg C	44.1
Perm Gas Temp	45	Deg C	45
Pressure	637.6	mm Hg	638
Sample Flow	0.462	ccm	0.462
Lamp Intensity	45,409	mv	45,455

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)
4990	0.00	0.00	0.2	N/A
4989	79.74	80.23	79.9	1.0042
4989	39.84	40.40	40.2	1.0041
4990	9.89	10.09	10.5	0.9611
4990	0.00	0.00	0.4	As Found Zero
4987	79.91	80.43	80.0	As Found Span
Average Correction Factor				0.9898

Calculated value of As Found Response: 79.79 ppm Percent Change of As Found: 0.8%

Auto zero	before calibration		after calibration	
	0.0	ppm	0.1	ppm
	60.3	ppm	99.9	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

TRS

Air Monitoring Network

PASZA



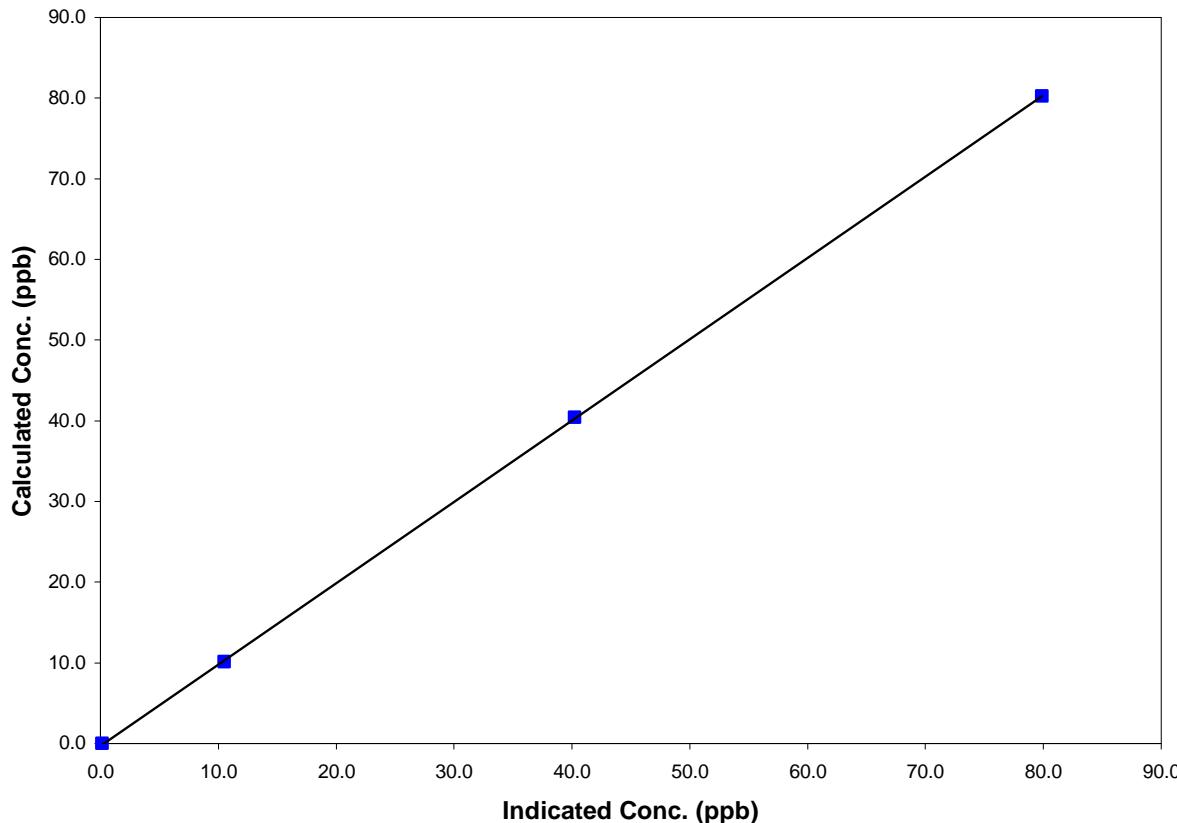
Station Information

Calibration Date	April 19, 2009	Previous Calibration	March 25, 2009
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	12:20	End Time (MST)	14:52
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

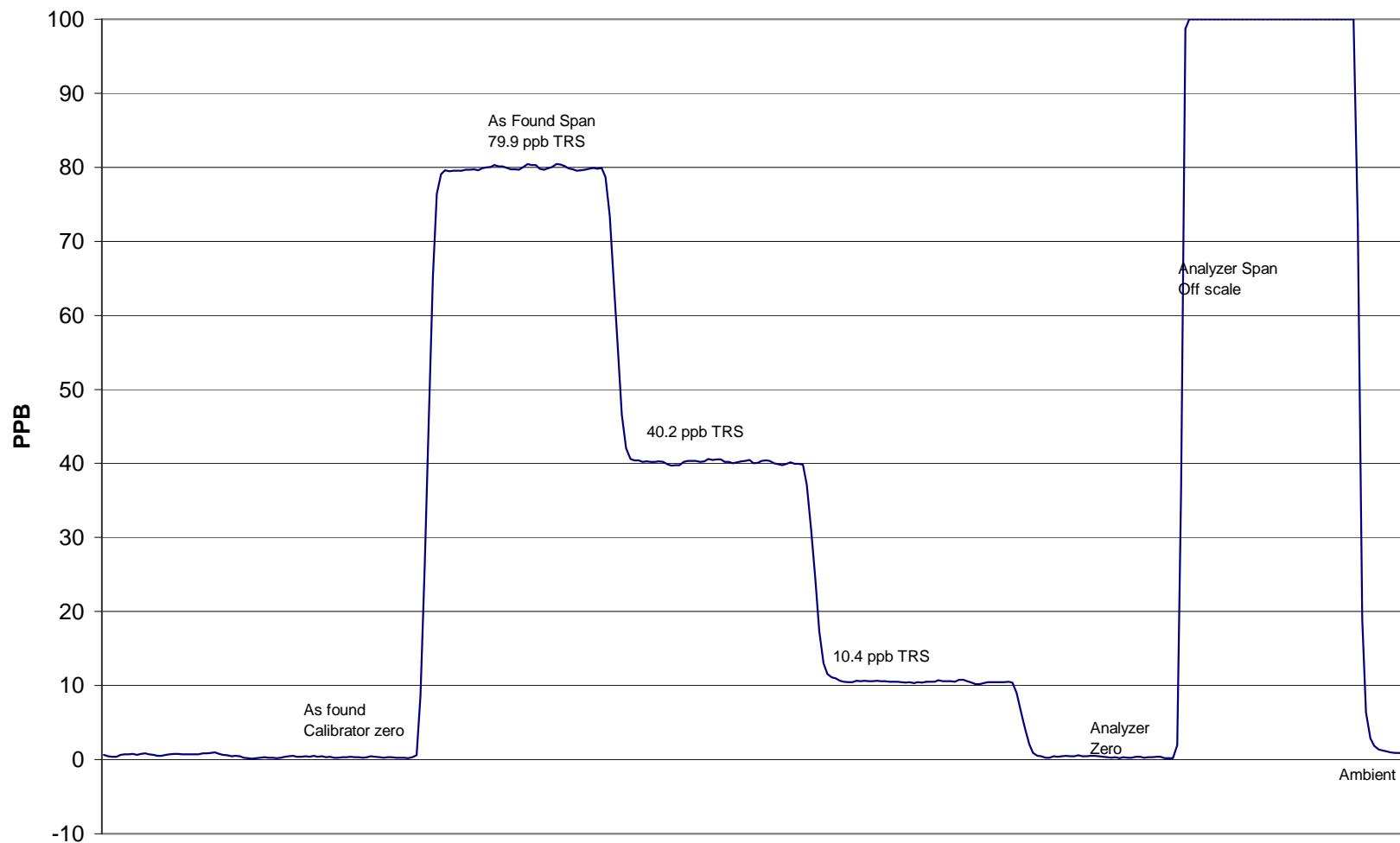
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
80.2	79.9	1.0042	Correlation Coefficient	0.999980
40.4	40.2	1.0041		
10.1	10.5	0.9611	Slope	1.008052
			Intercept	-0.279249

TRS Calibration Curve



Evergreen Park TRS Calibration



Calibration Report



Parameter **SO₂**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 24, 2009	Previous Calibration	March 27, 2009
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:30	End Time (MST)	11:21
Barometric Pressure	0.938	ATM	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Cert Date	6/8/2008
Correction factor	0.031885	Cal Gas Cylinder #	AAL 15377
DACS make	Focus AP1000	DACS serial No.	45272
DACS voltage range	0 - 10 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.006235	Calculated slope	1.003865
Calculated intercept	-2.359390	Calculated intercept	-1.517391

Analyzer make **Teco 43i** Analyzer serial # **701120009**

Concentration range	before		after	
	0 - 500	ppb	0 - 500	ppb
Background coefficient	7.3		7.2	
Lamp Voltage	0.724		0.708	
Chamber Temp	928	volts	926	volts
Perm Gas Temp	45.2	Deg C	45.2	Deg C
Pressure	45.01	Deg C	45	Deg C
Sample Flow	669.6	mm Hg	660.5	mm Hg
Lamp Intensity	443	ccm	442	ccm
	88	%	88	%

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)
4988	0.0	0.00	0.2	N/A
4988	39.80	400.55	399.9	1.0016
4988	19.92	201.27	202.5	0.9939
4988	9.92	100.43	103.0	0.9752
4988	0.0	0.00	0.6	As Found Zero
4988	39.81	400.65	405.7	As Found Span
Average Correction Factor				0.9902

Calculated value of As Found Response: **405.254 ppm** Percent Change of As Found: **-1.1%**

Auto zero	before calibration		after calibration	
	-1.9	ppm	-0.9	ppm
	314.0	ppm	310.0	ppm

Notes: _____

Calibration Performed By: **Grover Christiansen**

Calibration Summary

Parameter

SO₂

Air Monitoring Network

PASZA



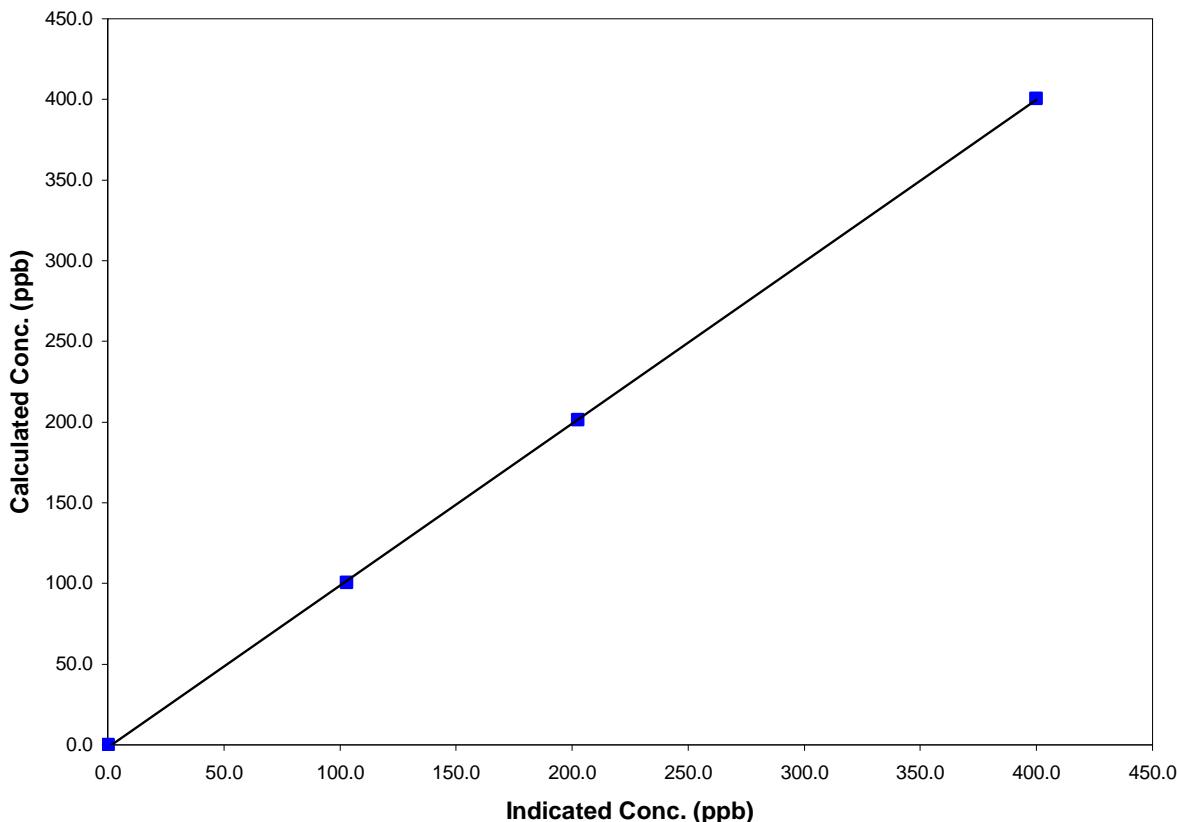
Station Information

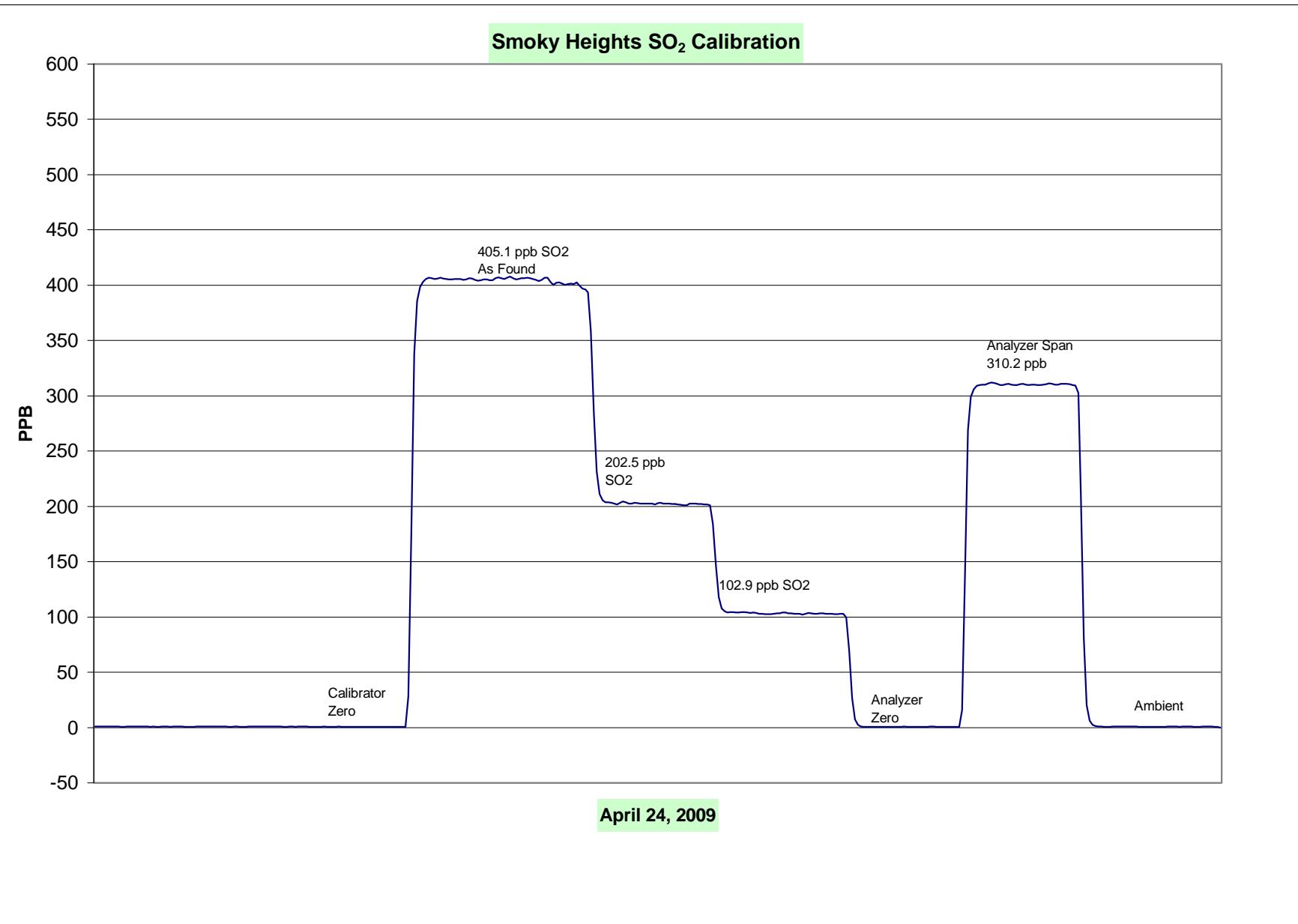
Calibration Date	April 24, 2009	Previous Calibration	March 27, 2009
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	8:30	End Time (MST)	11:21
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
400.5	399.9	1.0016	Correlation Coefficient	0.999949
201.3	202.5	0.9939		
100.4	103.0	0.9752	Slope	1.003865
			Intercept	-1.517391

SO₂ Calibration Curve





Calibration Report



Parameter

TRS

Air Monitoring Network

PASZA

Station Information

Calibration Date	April 24, 2009	Previous Calibration	March 27, 2009
Station Number	3	Station Location	Smoky Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	10:00	End Time (MST)	12:20
Barometric Pressure	0.923	ATM	20.0
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.1	ppm	Cal Gas Expiry Date 4/2/2009
Correction factor	0.031375	Cal Gas Cylinder #	ALM013295
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	5
Calculated slope	Before 1.003472	Calculated slope After	1.006714
Calculated intercept	-0.363852	Calculated intercept	-0.573713

Analyzer make	TEI Model 43C	Analyzer serial #	0436610005
before			after
Concentration range	100	ppb	100
Background	13.4	ppb	12.8
coefficient	1.027		1.027
Lamp Voltage	768	volts	770
Chamber Temp	43.9	Deg C	44
Perm Gas Temp	45	Deg C	44.9
Pressure	467.2	mm Hg	496
Sample Flow	0.724	ccm	756
Lamp Intensity	32,312	mv	32,341

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)
4990	0.0	0.00	0.3	N/A
4988	79.76	80.27	80.2	1.0009
4988	39.85	40.42	40.9	0.9891
4988	9.93	10.13	10.9	0.9323
4990	0.0	0.00	0.6	As Found Zero
4990	79.71	80.19	80.2	As Found Span
Average Correction Factor				0.9741

Calculated value of As Found Response: 79.52 ppm Percent Change of As Found: 0.8%

Auto zero	before calibration		after calibration	
	0.0	ppm	0.1	ppm
	42.6	ppm	43.1	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

TRS

Air Monitoring Network

PASZA



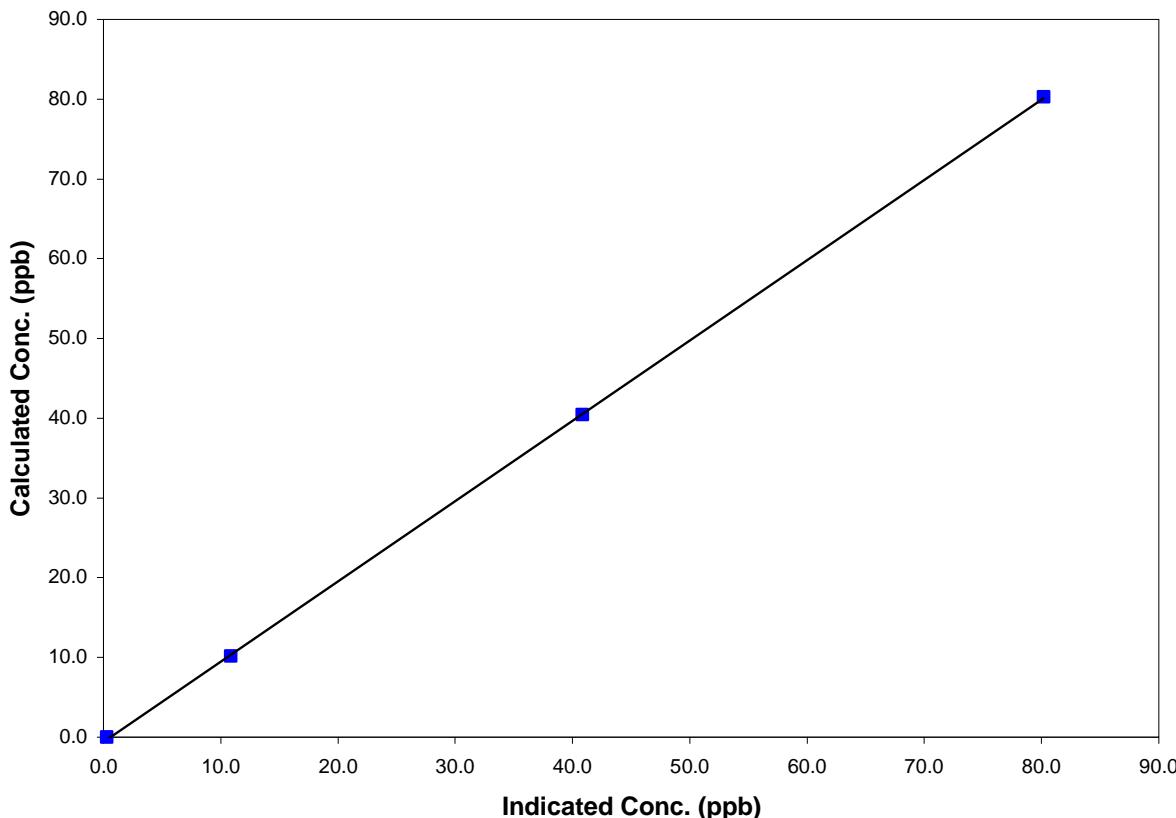
Station Information

Calibration Date	April 24, 2009	Previous Calibration	March 27, 2009
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	10:00	End Time (MST)	12:20
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

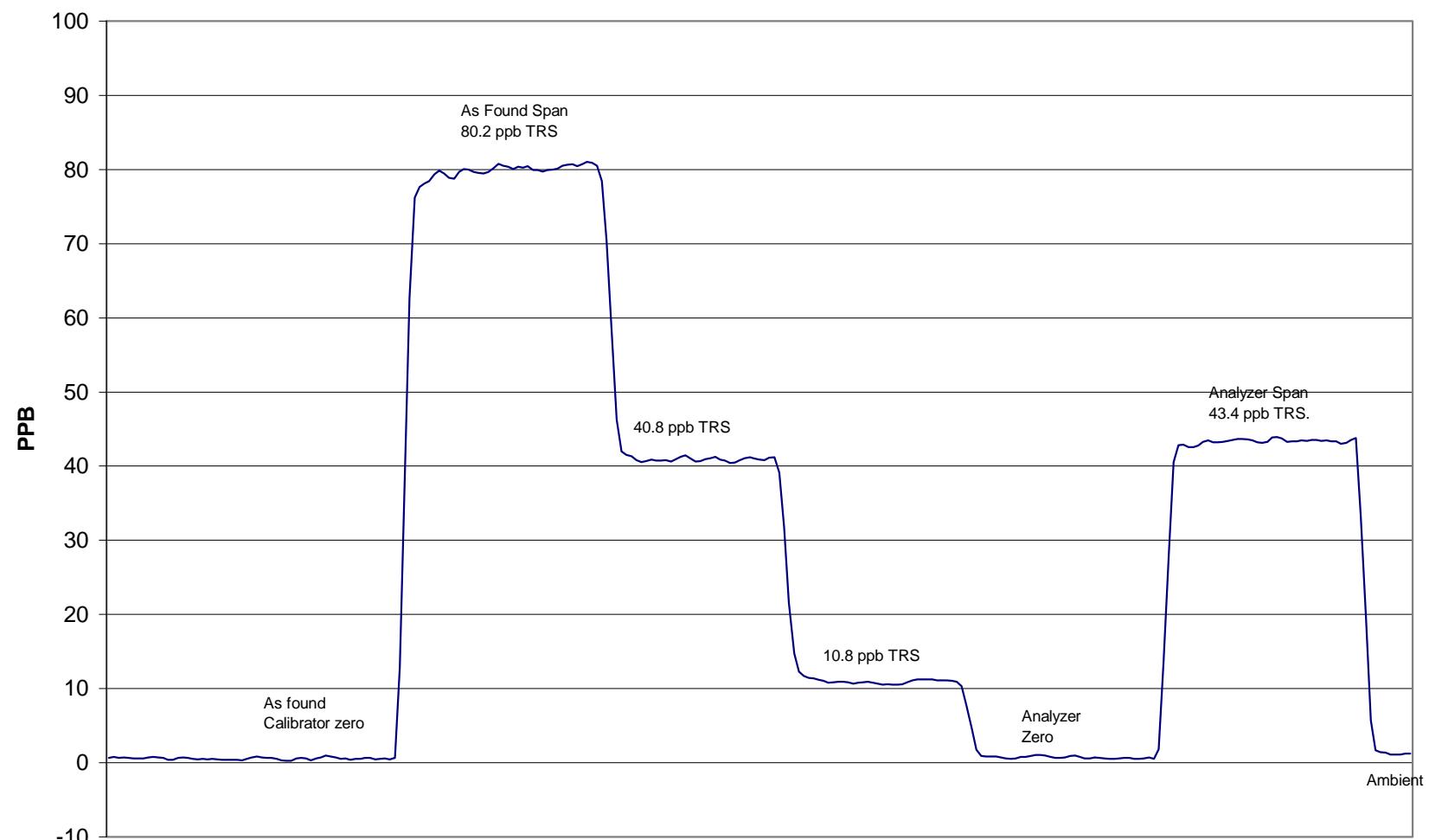
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
80.3	80.2	1.0009	Correlation Coefficient	0.999958
40.4	40.9	0.9891		
10.1	10.9	0.9323	Slope	1.006714
			Intercept	-0.573713

TRS Calibration Curve



Smoky Heights TRS Calibration



April 24, 2009

Calibration Report

Parameter

SO2

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 8, 2009	Previous Calibration	February 13, 2009
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
Other:			
Start Time (MST)	8:30	End Time (MST)	14:02
Barometric Pressure	0.906 atm	Station Temperature	25.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	10.06 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	CC 114395		
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 10 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.999683	Calculated slope	0.999880
Calculated intercept	-0.394699	Calculated intercept	-0.385046
Analyzer make	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376
	before	after	
Concentration range	0 - 100 ppb	0 - 100	ppb
Background	2.44	2.44	
Coefficient	0.913	0.913	
PMT	-813.3 V	-813	V
UV Lamp Voltage	1060 V	1060	V
Chamber Temp	45.2 Deg C	45.1	Deg C
Pressure	662.8 mm Hg	665.1	mm Hg
Sample Flow	0.478 LPM	0.475	LPM
Lamp Intesity	83%	83%	%

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)
4988	0.00	0.0	0.0	N/A
4988	39.84	79.7	79.8	0.9984
4988	19.87	39.9	40.6	0.9820
4988	9.91	19.9	20.7	0.9645
4988	0.00	0.0	0.0	As found zero
4988	39.90	79.8	80.7	As found span
		Average Correction Factor		0.9816

Calculated value of As Found Response: 80.286 ppm Percent Change of As Found: -0.6%

Auto zero	before calibration		after calibration	
	-0.3	ppm	-0.4	ppm
	54.6	ppm	56.8	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

SO₂

Air Monitoring Network

PASZA



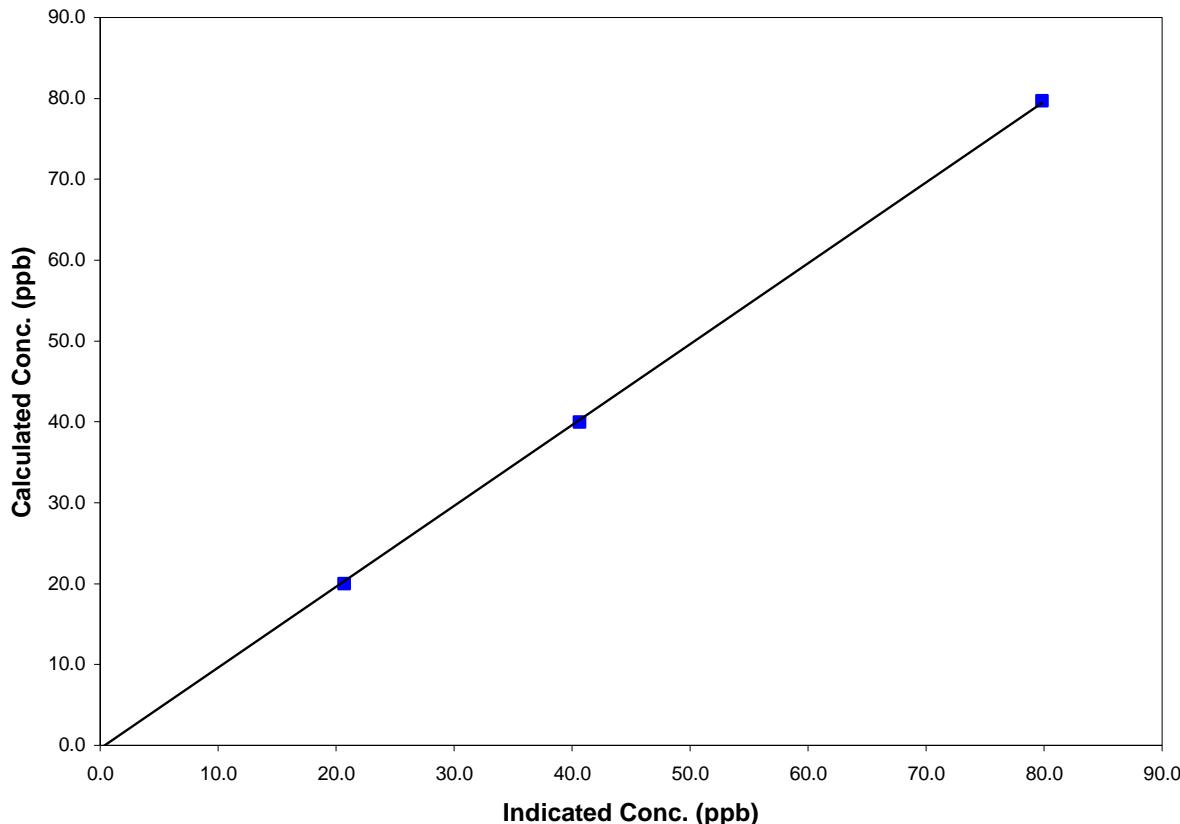
Station Information

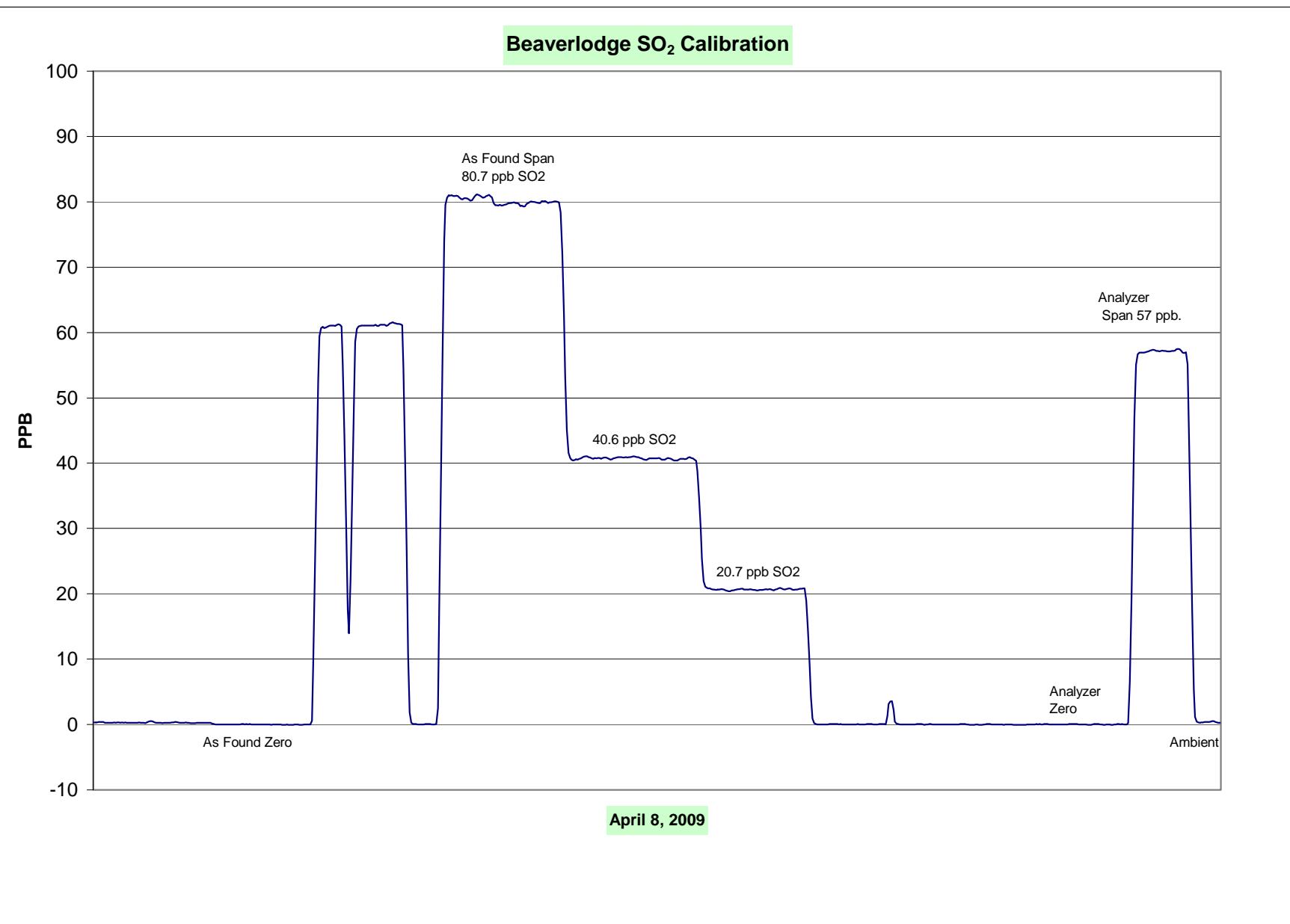
Calibration Date	April 8, 2009	Previous Calibration	February 13, 2009
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:30	End Time (MST)	14:02
Analyzer make/model	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
79.7	79.8	0.9984	Correlation Coefficient	0.999859
39.9	40.6	0.9820	Slope	0.999880
19.9	20.7	0.9645	Intercept	-0.385046

SO₂ Calibration Curve





Calibration Report

Parameter

SO2

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 23, 2009	Previous Calibration	April 8, 2009
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:45	End Time (MST)	13:11
Barometric Pressure	0.916 atm	Station Temperature	25.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	10.06 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	CC 114395		
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 10 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.999880	Calculated slope	0.993980
Calculated intercept	-0.385046	Calculated intercept	-0.366749
Analyzer make	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376
	before		after
Concentration range	0 - 100	ppb	0 - 100
Background	2.4		2.4
Coefficient	0.901		0.901
PMT	-813.3	V	-813
UV Lamp Voltage	1062	V	1062
Chamber Temp	45.3	Deg C	45.1
Pressure	670.1	mm Hg	670.1
Sample Flow	0.484	LPM	0.482
Lamp Intesity	84%	%	84%

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)
4988	0.00	0.0	0.0	N/A
4988	39.84	79.7	80.3	0.9922
4988	19.87	39.9	40.8	0.9789
4988	9.91	19.9	20.8	0.9580
4988	0.00	0.0	0.1	As found zero
4988	39.90	79.8	80.3	As found span
Average Correction Factor				0.9764

Calculated value of As Found Response: 79.869 ppm Percent Change of As Found: 0.0%

Auto zero	before calibration		after calibration	
	-0.4	ppm	-0.3	ppm
	56.8	ppm	55.5	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

SO₂

Air Monitoring Network

PASZA



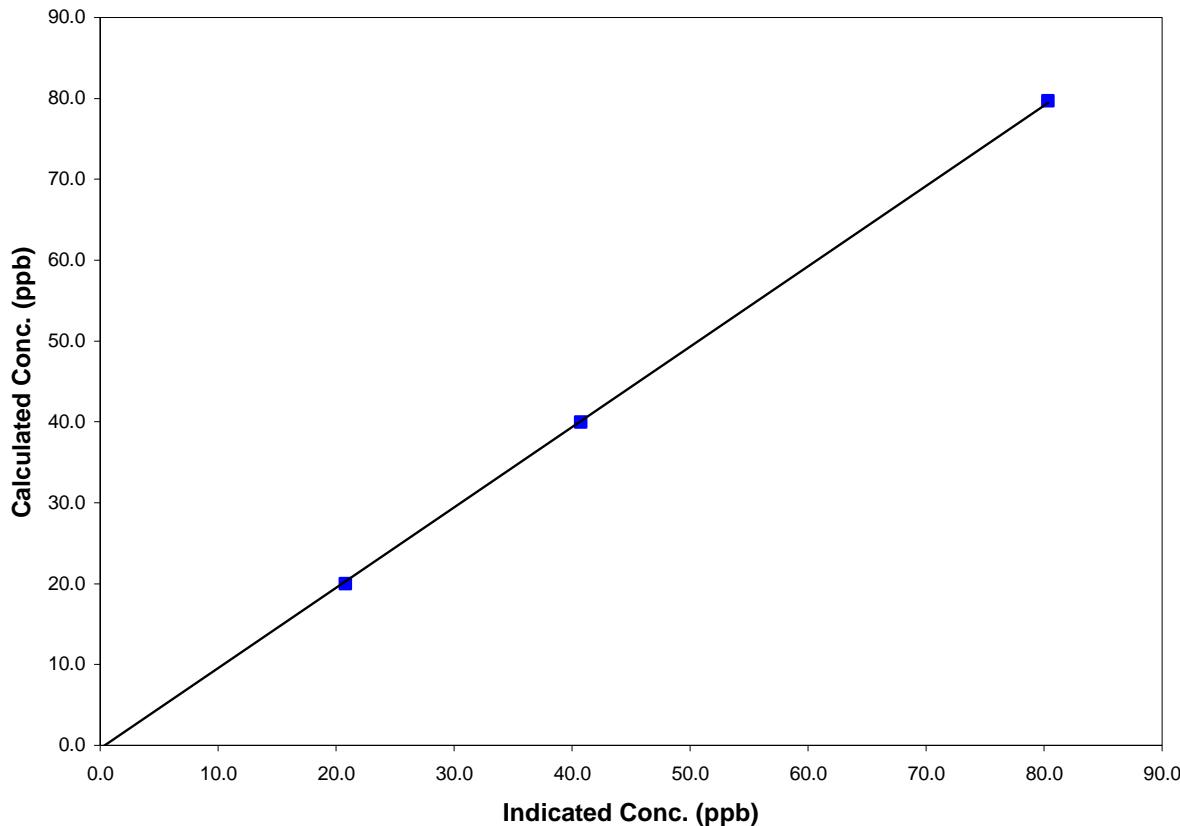
Station Information

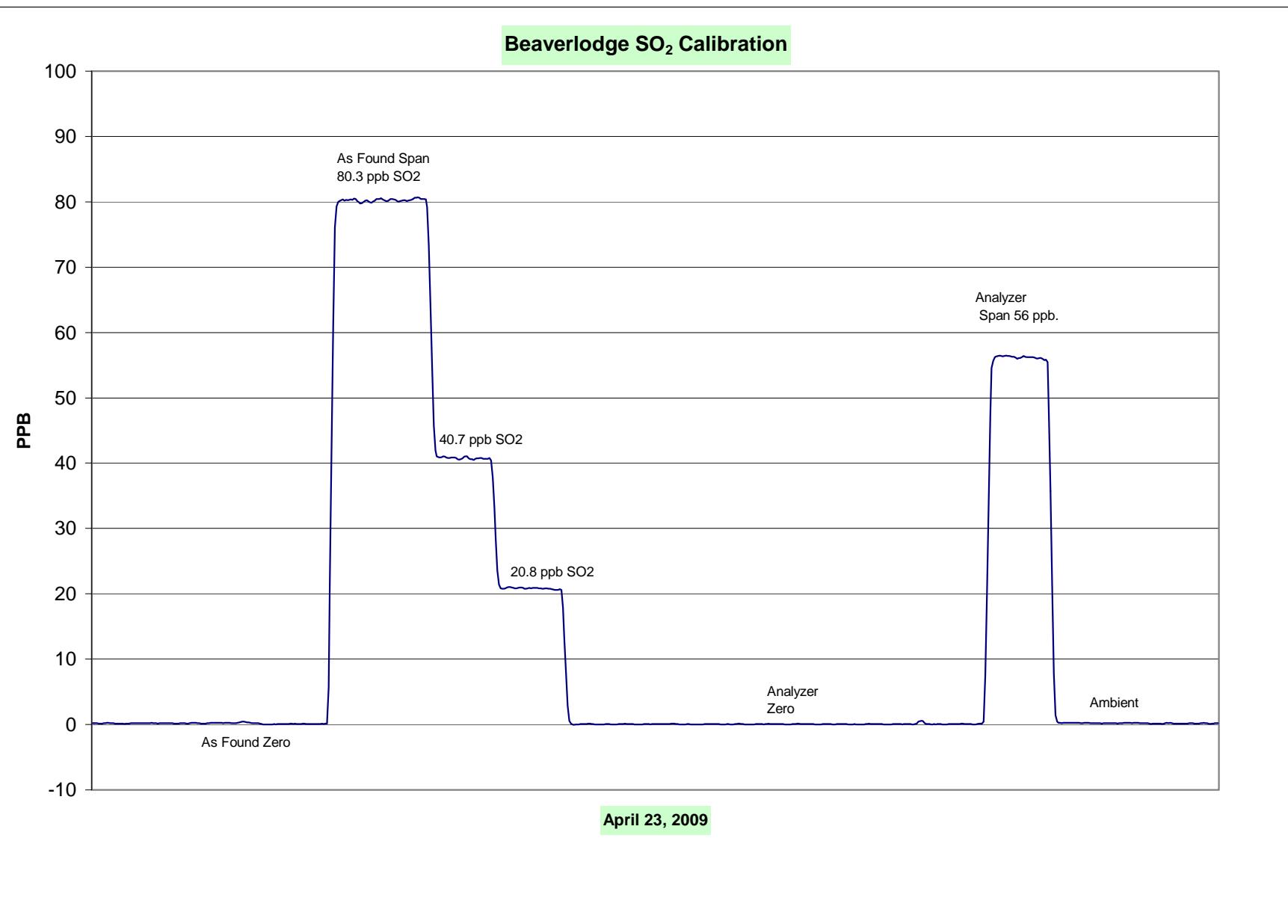
Calibration Date	April 23, 2009	Previous Calibration	April 8, 2009
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:45	End Time (MST)	13:11
Analyzer make/model	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
79.7	80.3	0.9922	Correlation Coefficient	0.999878
39.9	40.8	0.9789		
19.9	20.8	0.9580	Slope	0.993980
			Intercept	-0.366749

SO₂ Calibration Curve





Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 08,2009	Previous Calibration	February 13, 2009
Station Number	4	Station Location	BeaverLodge
Reason:	Routine	Installation	Removal
Start Time (MST)	8:30	End Time (MST)	14:41
Barometric Pressure	0.906	Station Temperature	25.0 Deg C
Calibrator	Environics	Serial Number	2844
NO Cal Gas Conc	50.1 ppm	Cal Gas Expiry Date	
NOx Cal Gas Conc	50.1 ppm	Cal Gas Serial #	

DACS Information

DACS make _____ DACS serial No. _____

Parameter		NO2	NOx	NO
Before	Data Slope	1.008666	0.999840	1.001273
	Data Offset	-0.837985	-1.782807	-1.534863
After	Data Slope	1.010368	0.998496	1.001727
	Data Offset	0.852963	-2.254658	-1.906189
Channel #				
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model TEI 42C Analyzer serial #

Test Point	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
NO offset	1.5	mV	1.3	mV
NOx bkgnd	1.5	mV	1.3	mV
NO coefficient	1.215		1.200	
NOx coefficient	0.996		1.006	
NO2 conv temp	323.0	Deg C	323.0	Deg C
PMT Temp	-2.2	Deg C	-2.2	Deg C
PMT Volt	-636.0	mV	-636.0	mV
R Cell Press	195.2	in Hg	193.1	in Hg
Sample Flow	0.724	ccm	0.724	ccm

Notes:

Calibration Report



Parameter NOx-NO-NO₂
 Air Monitoring Network PASZA

Station Information

Calibration Date: April 8, 2009 Station Location: BeaverLodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NOx Correction factor	NO Correction factor
zero	4988	0.00	0.0	0.0	0.0	-0.1	-0.2	-0.2	N/A	N/A
	4988	39.84	397.0	397.0	0.0	398.5	397.0	1.0	0.9963	0.9999
	4988	19.87	198.8	198.8	0.0	202.9	201.7	0.9	0.9797	0.9857
	4988	9.91	99.3	99.3	0.0	103.9	103.1	0.6	0.9560	0.9640
AFZ	4988	0.00	0.0	0.0	0.0	-0.1	-0.2	-0.2	0.0000	0.0000
	4988	39.84	397.0	397.0	0.0	394.0	400.2	-6.5	1.0077	0.9920
								Average Correction Factor	0.9773	0.9832

As Found Concentrations: NO_x= 392.3 NO= 398.9 As Found Percent Change NO_x= -1.2% NO= 0.5%

GPT Calibration Data

Dilution Flow	4988	ccm	Source Gas Flow	39.84	ccm	O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NOx Correction factor	NO Correction factor	NO ₂ Correction factor	Converter Efficiency
0	-0.2	-0.2	0.0	-0.1	-0.2	-0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NO point	396.6	396.6	0.0	396.5	396.6	0.0	1.0002	1.0000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
400	396.6	128.4	268.2	393.8	128.4	265.1	1.0070	1.0000	1.0000	1.0000	1.0000	1.0000	1.0117	98.8%	1.0117	98.8%
200	396.6	212.8	183.7	393.9	212.8	180.8	1.0066	1.0000	1.0000	1.0000	1.0000	1.0000	1.0163	98.4%	1.0163	98.4%
100	396.6	296.9	99.6	394.2	296.9	96.9	1.0061	1.0000	1.0000	1.0000	1.0000	1.0000	1.0287	97.2%	1.0287	97.2%
								Average Correction Factor	1.0066	1.0000	1.0000	1.0000	1.0189	1.0189	1.0189	98.1%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO ₂	NO	ppb	NOx	NO ₂	NO	ppb
Auto zero	-1.8	-0.9	-1.7	ppb	0.6	0.5	-0.2	ppb
Auto span	480.5	0.6	479.1	ppb	477.0	2.5	474.1	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter NO₂

Air Monitoring Network

PASZA

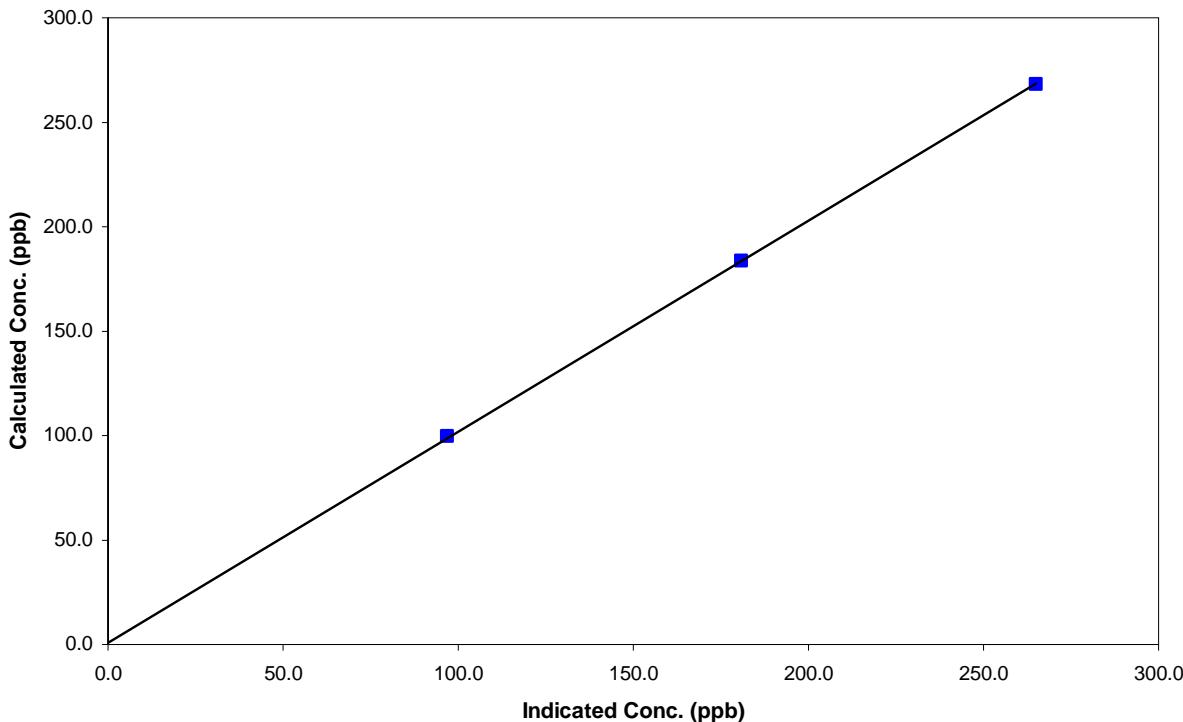
Station Information

Calibration Date	April 08,2009	Previous Calibration	February 13, 2009
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	8:30	End Time (MST)	14:41
Analyzer make	TEI 42C	Analyzer serial #	60475-327

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999960
268.2	265.1	1.0117		
183.7	180.8	1.0163		
99.6	96.9	1.0287		
			Slope	1.010368
			Intercept	0.852963

NO₂ Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**



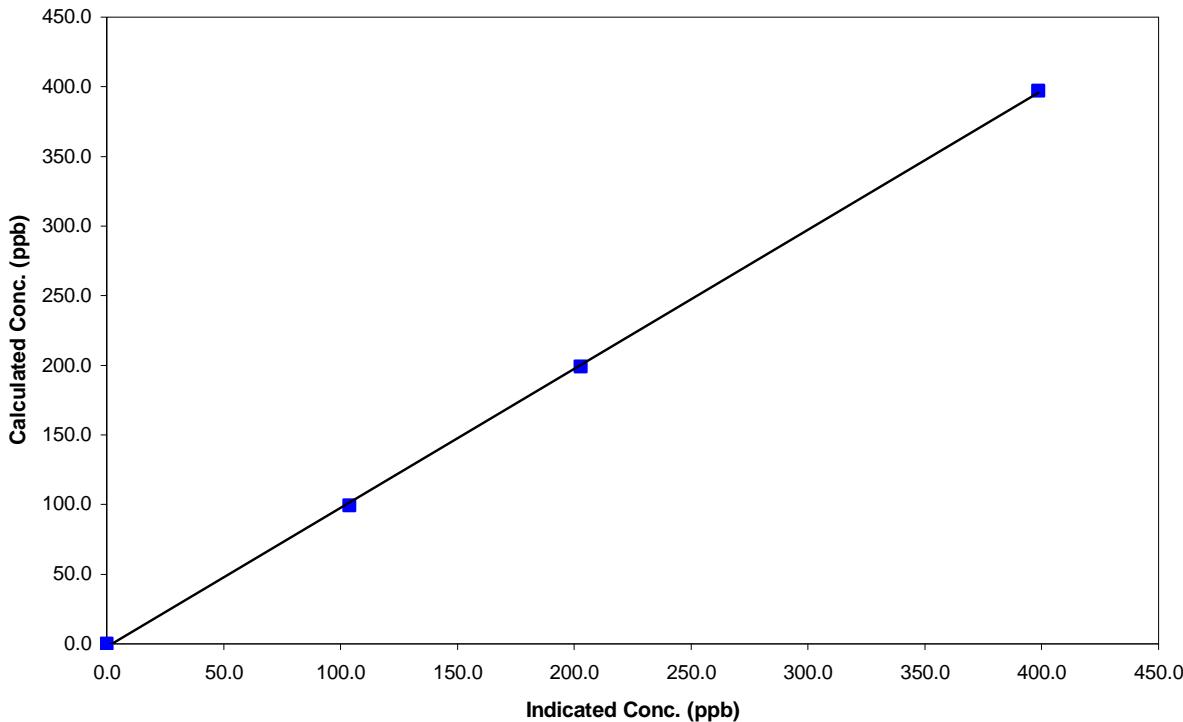
Station Information

Calibration Date	April 08,2009	Previous Calibration	February 13, 2009
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	8:30	End Time (MST)	14:41
Analyzer make	TEI 42C	Analyzer serial #	0

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999830
397.0	398.5	0.9963		
198.8	202.9	0.9797		
99.3	103.9	0.9560		
			Slope	0.998496
			Intercept	-2.254658

NOx Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network

PASZA

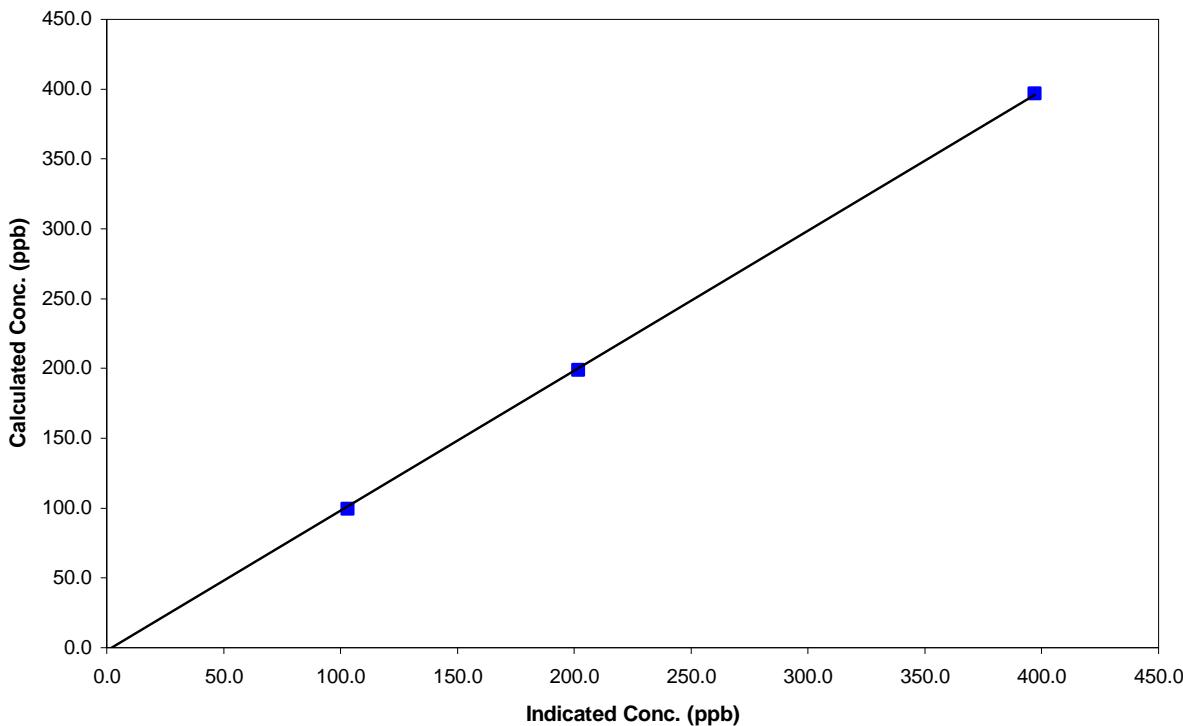
Station Information

Calibration Date	April 08,2009	Previous Calibration	February 13, 2009
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	8:30	End Time (MST)	14:41
Analyzer make	TEI 42C	Analyzer serial #	60475-327

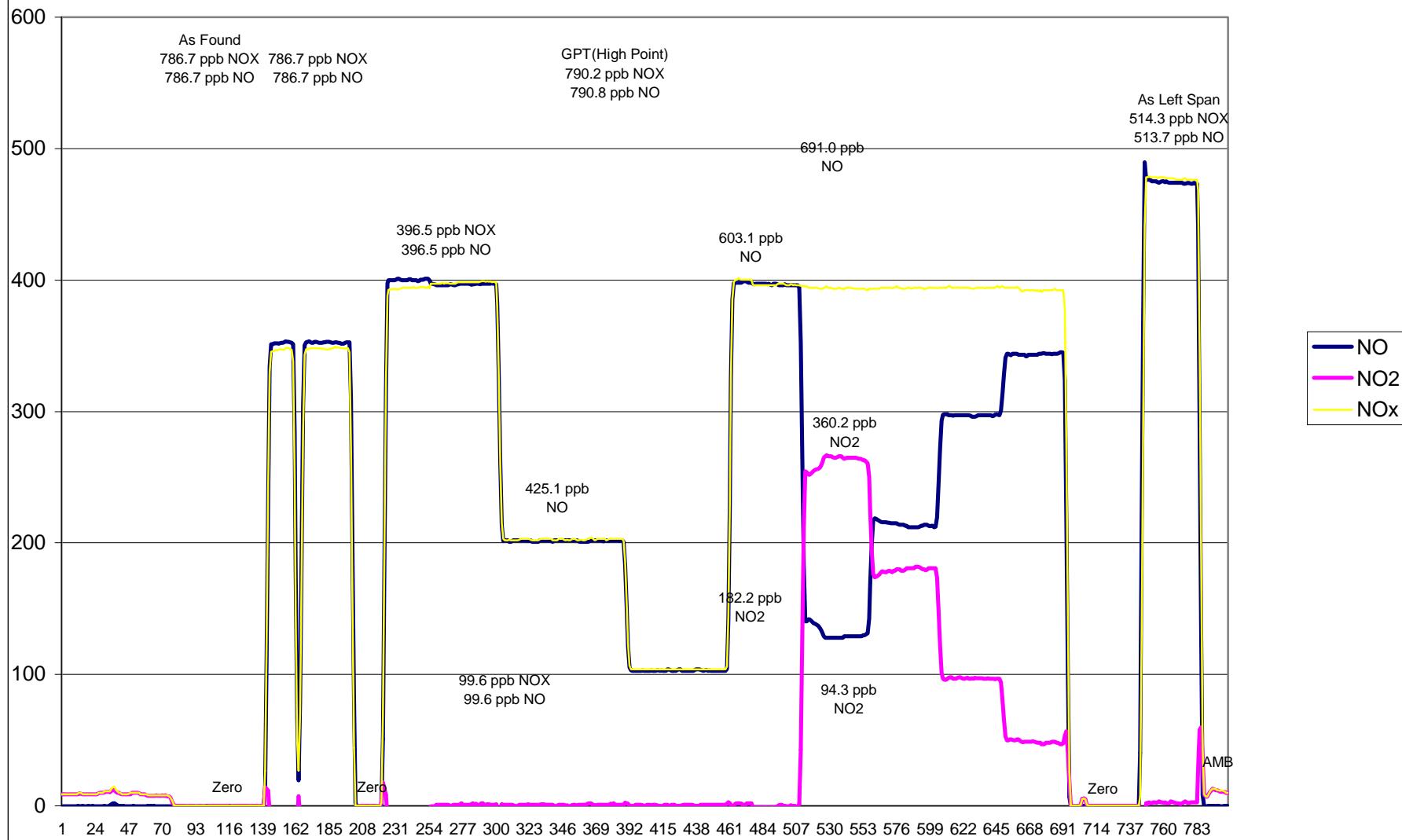
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999865
397.0	397.0	0.9999		
198.8	201.7	0.9857		
99.3	103.1	0.9640		
			Slope	1.001727
			Intercept	-1.906189

NO Calibration Curve



Beaverlodge NO_x Calibration



Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 23,2009	Previous Calibration	April 08,2009
Station Number	4	Station Location	BeaverLodge
Reason:	Routine	Installation	Removal
			Other: _____
Start Time (MST)	8:45	End Time (MST)	13:16
Barometric Pressure	0.916	Station Temperature	25.0 Deg C
Calibrator	Environics	Serial Number	2844
NO Cal Gas Conc	50.1 ppm	Cal Gas Expiry Date	July 2, 2007
NOx Cal Gas Conc	50.1 ppm	Cal Gas Serial #	CC114395

DACS Information

DACS make	DACS serial No.		
	Parameter	NO2	NOx
Before	Data Slope	1.010368	0.998496
	Data Offset	0.852963	-2.254658
After	Data Slope	1.000108	1.001243
	Data Offset	-2.367020	-2.314984
	Channel #		
	Voltage Range	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model TEI 42C Analyzer serial #

Test Point	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
NO offset	1.3	mV	1.3	mV
NOx bkgnd	1.3	mV	1.3	mV
NO coefficient	1.200		1.200	
NOx coefficient	1.006		1.006	
NO2 conv temp	322.0	Deg C	323.0	Deg C
PMT Temp	-2.0	Deg C	-2.2	Deg C
PMT Volt	-636.0	mV	-636.0	mV
R Cell Press	202.6	in Hg	193.1	in Hg
Sample Flow	0.714	ccm	0.724	ccm

Notes:

Calibration Report



Parameter	NOx-NO-NO ₂
Air Monitoring Network	PASZA

Station Information

Calibration Date: April 23, 2009 Station Location: BeaverLodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NOx Correction factor	NO Correction factor
zero	4988	0.00	0.0	0.0	0.0	-0.1	-0.2	-0.2	N/A	N/A
	4988	39.84	397.0	397.0	0.0	397.4	397.3	-0.4	0.9990	0.9992
	4988	19.87	198.8	198.8	0.0	202.5	202.4	-0.3	0.9816	0.9822
	4988	9.91	99.3	99.3	0.0	103.7	103.7	-0.2	0.9578	0.9580
AFZ	4988	0.00	0.0	0.0	0.0	-0.1	-0.2	-0.2	0.0000	0.0000
	4988	39.84	397.0	397.0	0.0	386.3	385.7	1.9	1.0275	1.0292
								Average Correction Factor	0.9795	0.9798

As Found Concentrations: NO_x= 384.2 NO= 384.0 As Found Percent Change NO_x= -3.2% NO= -3.3%

GPT Calibration Data

Dilution Flow	4988	ccm	Source Gas Flow	39.84	ccm	O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NOx Correction factor	NO Correction factor	NO ₂ Correction factor	Converter Efficiency
0	-0.2	-0.2	0.0	-0.1	-0.2	-0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NO point	397.3	397.3	0.0	397.4	397.3	-0.5	0.9999	1.0000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
400	397.3	112.0	285.3	397.8	112.0	285.2	0.9989	1.0000	1.0002	100.0%	1.0000	1.0000	1.0002	100.0%	1.0000	1.0000
200	397.3	202.0	195.3	401.6	202.0	199.3	0.9892	1.0000	0.9804	102.0%	1.0000	0.9892	0.9804	102.0%	1.0000	0.9892
100	397.3	293.4	103.9	403.5	293.4	109.6	0.9848	1.0000	0.9476	105.5%	1.0000	0.9848	0.9476	105.5%	1.0000	0.9848
								Average Correction Factor	0.9910	1.0000	0.9761	102.5%				

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO ₂	NO	ppb	NOx	NO ₂	NO	ppb
Auto zero	0.6	0.5	-0.2	ppb	-0.1	-0.1	-0.2	ppb
Auto span	477.0	2.5	474.1	ppb	492.4	2.0	489.8	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO₂**

Air Monitoring Network



PASZA

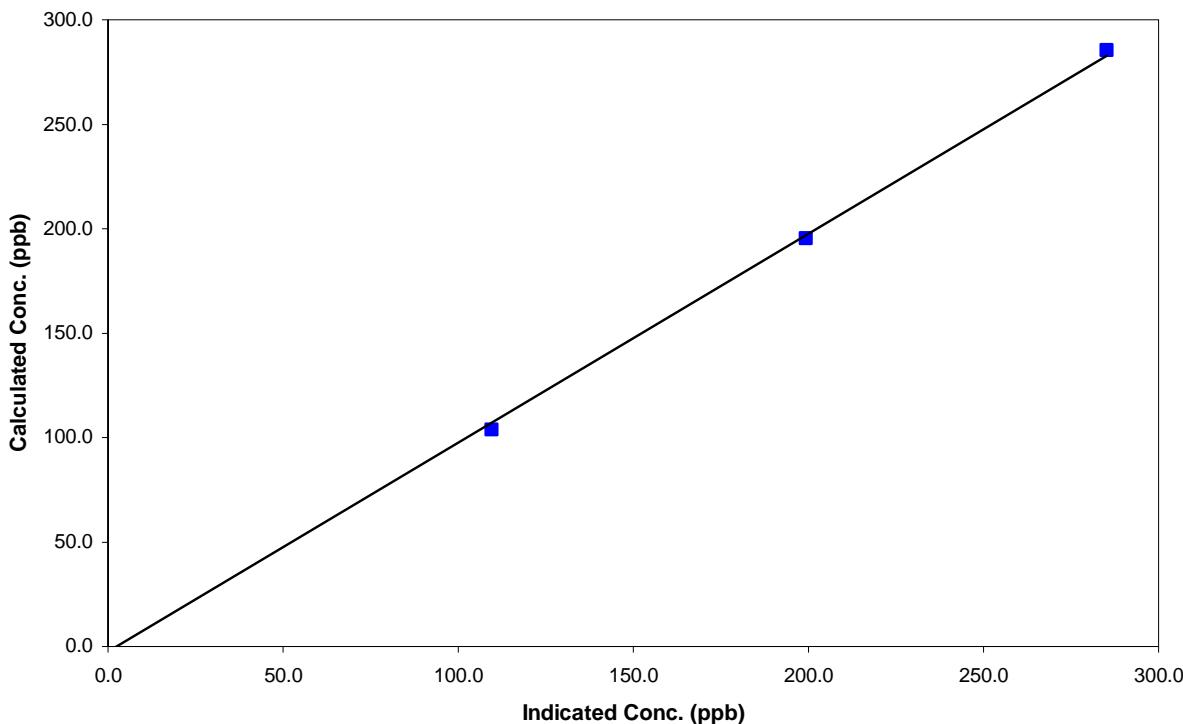
Station Information

Calibration Date	April 23,2009	Previous Calibration	April 08,2009
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	8:45	End Time (MST)	13:16
Analyzer make	TEI 42C	Analyzer serial #	60475-327

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A	Correlation Coefficient	0.999416
285.3	285.2	1.0002		
195.3	199.3	0.9804		
103.9	109.6	0.9476		
			Slope	1.000108
			Intercept	-2.367020

NO₂ Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network



PASZA

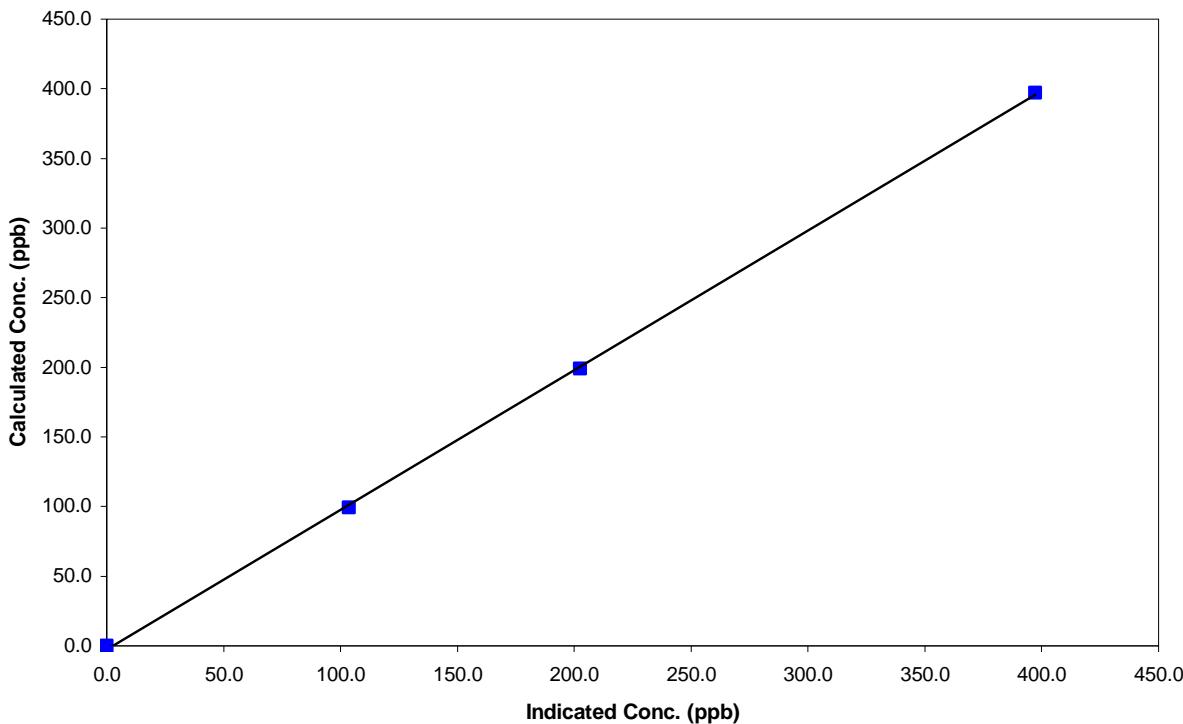
Station Information

Calibration Date	April 23,2009	Previous Calibration	April 08,2009
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	8:45	End Time (MST)	13:16
Analyzer make	TEI 42C	Analyzer serial #	0

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999820
397.0	397.4	0.9990		
198.8	202.5	0.9816		
99.3	103.7	0.9578		
			Slope	1.001243
			Intercept	-2.314984

NOx Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network

PASZA



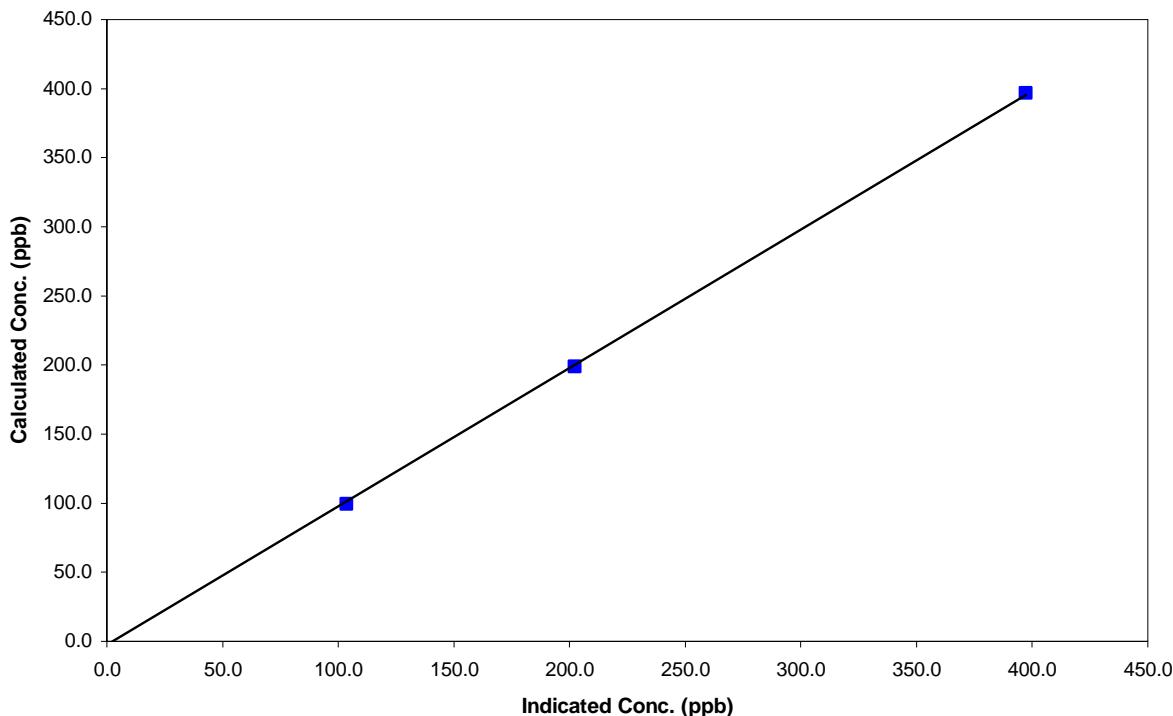
Station Information

Calibration Date	April 23,2009	Previous Calibration	April 08,2009
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	8:45	End Time (MST)	13:16
Analyzer make	TEI 42C	Analyzer serial #	60475-327

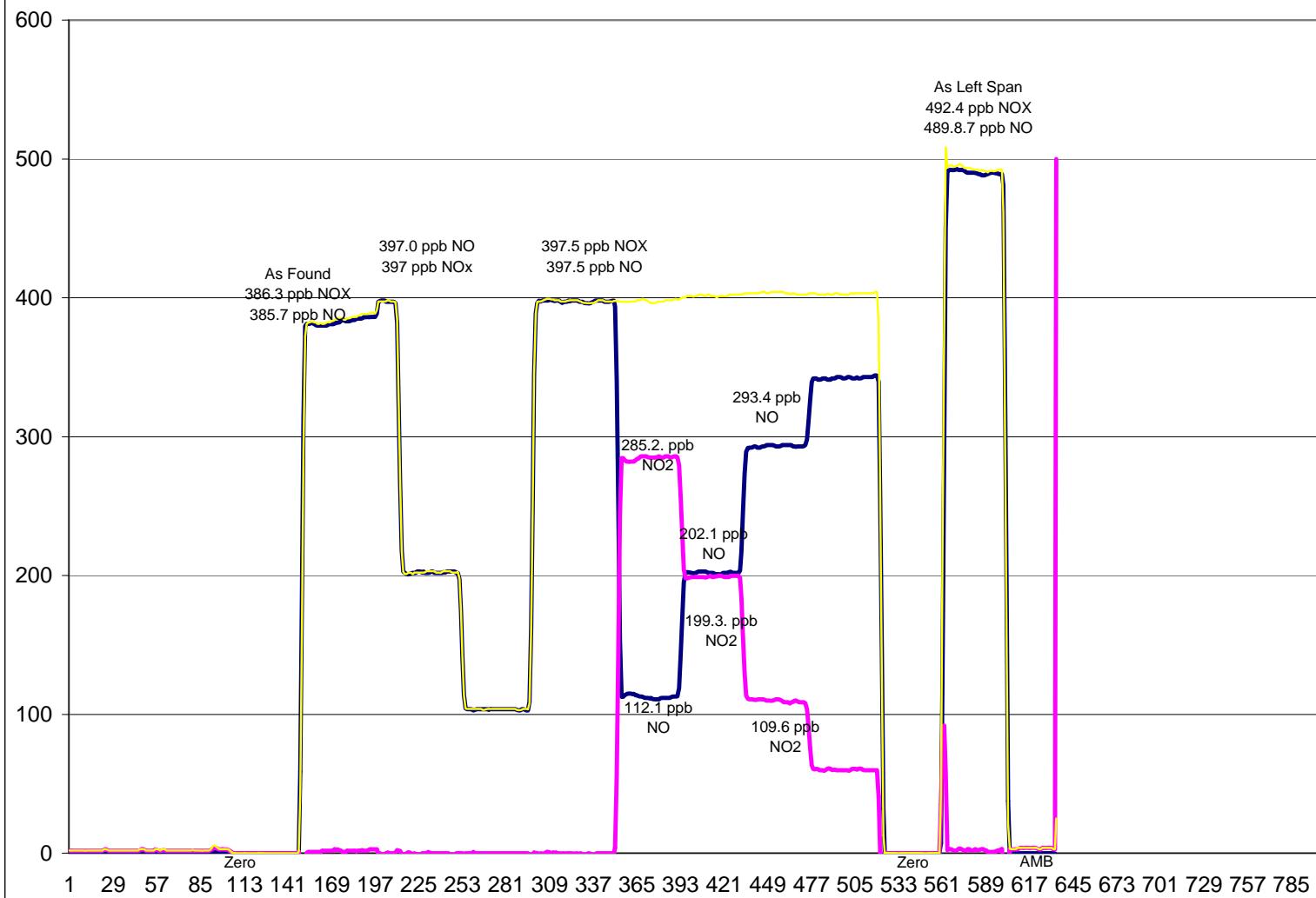
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
397.0	397.3	0.9992	Correlation Coefficient	0.999818
198.8	202.4	0.9822	Slope	1.001324
99.3	103.7	0.9580	Intercept	-2.248080

NO Calibration Curve



Beaverlodge NO_x Calibration



Calibration Report

Parameter O3

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 8, 2009	Previous Calibration	February 13, 2009
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
Start Time (MST)	13:31:00 PM	End Time (MST)	16:08
Barometric Pressure	0.904 atm	Station Temperature	25.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
Calculated slope	Before	Calculated slope	After
Calculated intercept	1.289453	Calculated intercept	0.977669
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383
Concentration range offset slope Lamp temp Lamp Intensity A/B Pressure Flow A Flow B	before	after	
	0 - 500	ppb	0 - 500 ppb
	-0.20	ppb	-0.20 ppb
	1.020		1.020
	56.4	mV	56.2 mV
	73083/72600	mV	73083/72600 mV
	686.2	mm Hg	686 mm Hg
	744	ccm	744 ccm
	695	ccm	695 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)
4990	0.00	0.0	-0.4	N/A
4990	0.00	264.0	269.8	0.9784
4990	0.00	181.0	181.8	0.9956
4990	0.00	97.0	96.3	1.0074
4990	0.00	0.0	-0.3	As found zero
4990	0.00	264.4	269.8	As found span
Average Correction Factor				0.9938

Calculated value of As Found Response: 269.8 ppm Percent Change of As Found: 2.0%

Auto zero Auto span	before calibration		after calibration	
	-0.2	ppb	-0.2	ppb
	113.7	ppb	116.7	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O₃**

Air Monitoring Network

PASZA

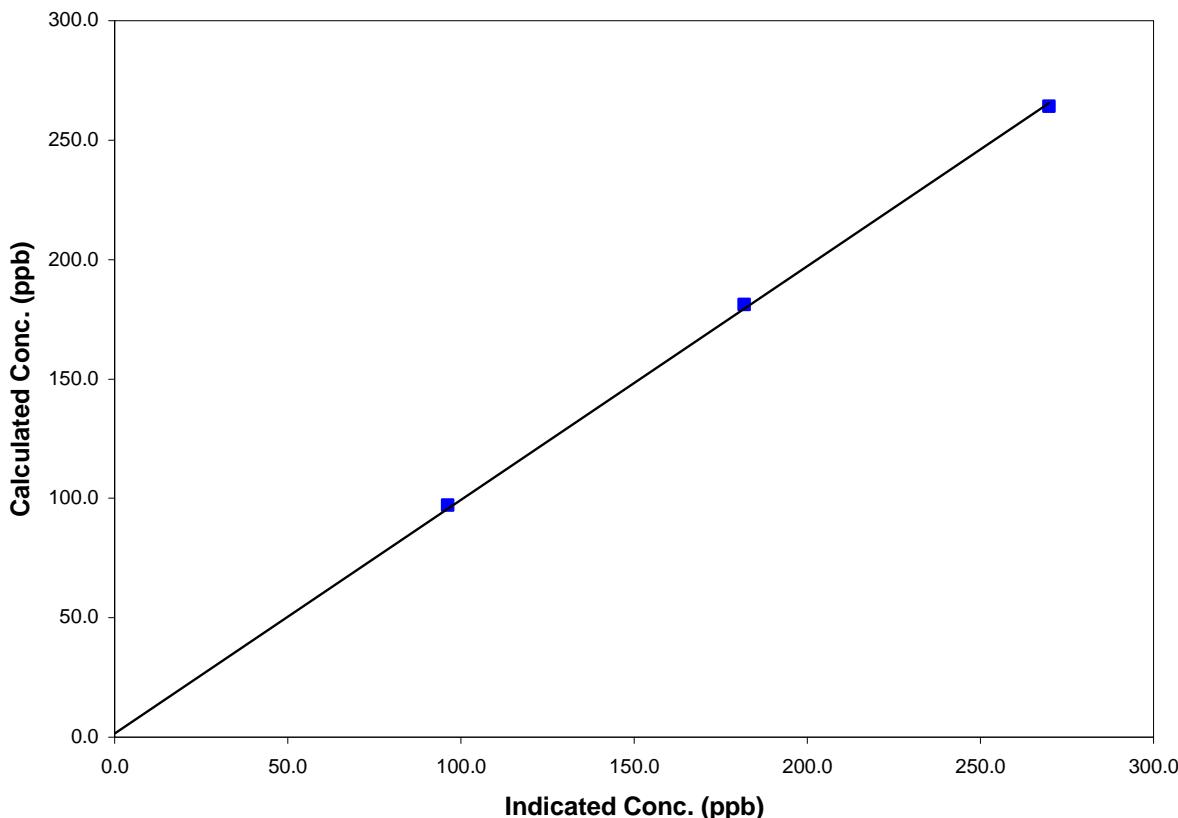
Station Information

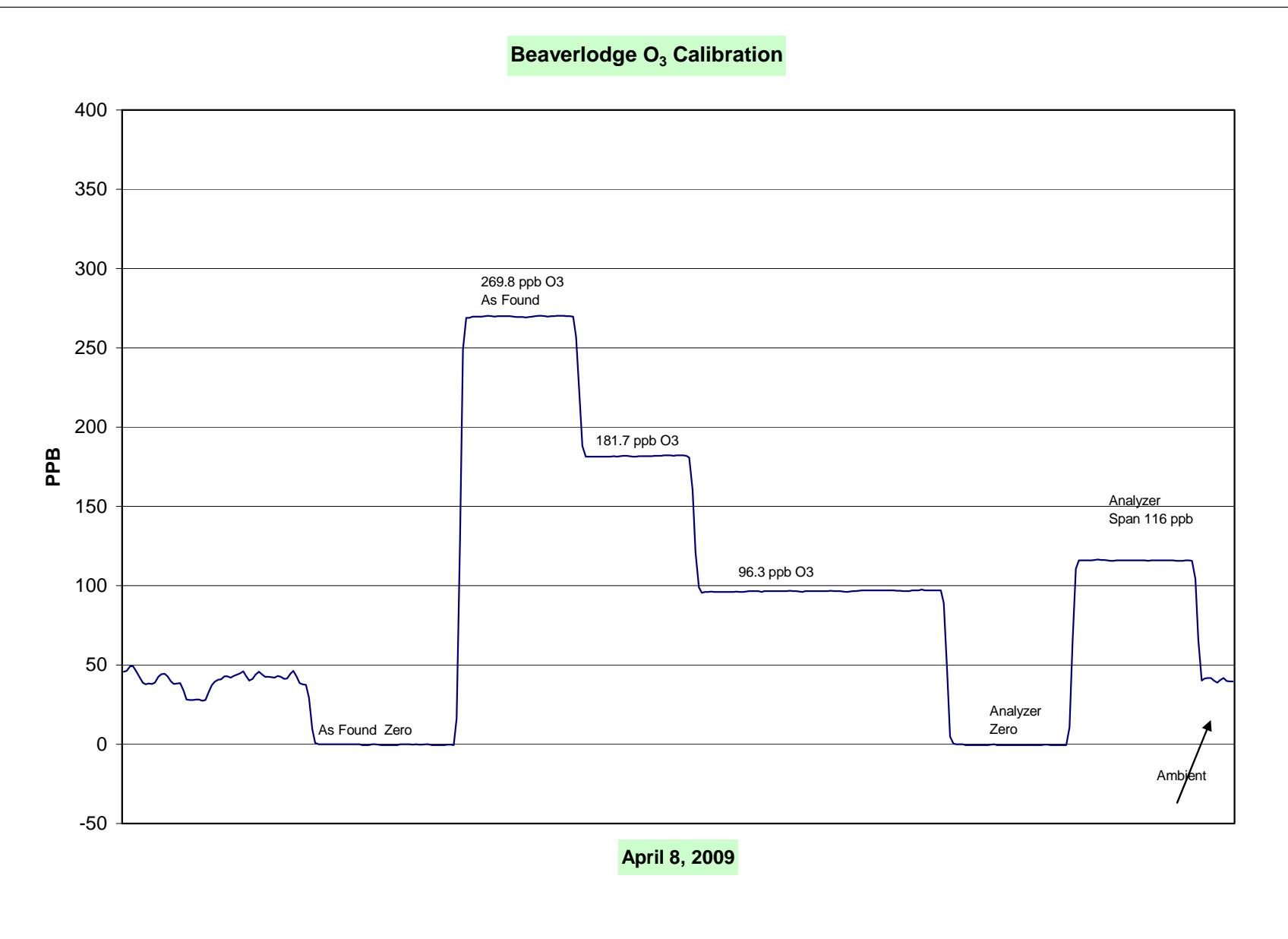
Calibration Date	April 8, 2009	Previous Calibration	February 13, 2009
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	13:31:00 PM	End Time (MST)	18:00
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA		
264.0	269.8	0.9784	Correlation Coefficient	0.999798
181.0	181.8	0.9956	Slope	0.977669
97.0	96.3	1.0074	Intercept	1.678569

O₃ Calibration Curve





Calibration Report

Parameter

O3

Air Monitoring Network

PASZA



Station Information				
Calibration Date	April 23, 2009	Previous Calibration	April 8, 2009	
Station Number	4	Station Location	Beaverlodge	
Reason:	Routine	Install	Removal	Other:
Start Time (MST)	12:14	End Time (MST)	14:46	
Barometric Pressure	0.904 atm	Station Temperature	25.0 Deg C	
Calibrator	Environics 6100	Serial Number	3474	
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA	
DACS make	Focus AP1000	DACS serial No.	45269	
DACS voltage range	0 - 1 volt	DACS channel #	5	
	Before		After	
Calculated slope	0.977669	Calculated slope	0.994125	
Calculated intercept	1.678569	Calculated intercept	0.582210	
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383	
Concentration range offset slope Lamp temp Lamp Intensity A/B Pressure Flow A Flow B	before		after	
	0 - 500	ppb	0 - 500	ppb
	-0.80	ppb	-0.20	ppb
	1.020		1.020	
	71	mV	56.2	mV
	71455/70790	mV	71405/70750	mV
	693.7	mm Hg	692	mm Hg
	744	ccm	744	ccm
	698	ccm	695	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)
4990	0.00	0.0	-0.4	N/A
4990	0.00	285.0	287.8	0.9903
4990	0.00	200.0	197.4	1.0133
4990	0.00	108.0	109.4	0.9872
4990	0.00	0.0	-0.4	As found zero
4990	0.00	285.4	287.9	As found span
		Average Correction Factor	0.9969	

Calculated value of As Found Response:

287.8 ppm

Percent Change of As Found: 0.8%

Auto zero Auto span	before calibration		after calibration	
	-0.2	ppb	-0.2	ppb
	116.7	ppb	116.7	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O₃**

Air Monitoring Network

PASZA

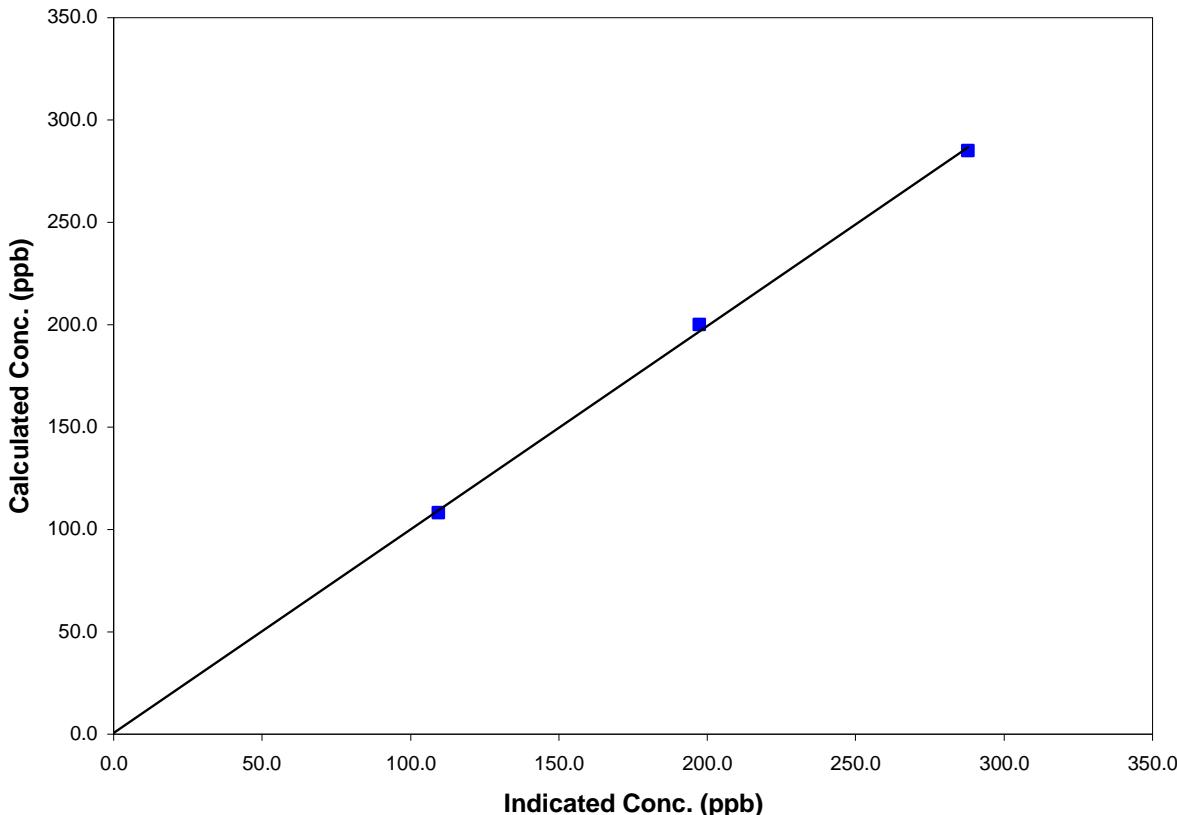
Station Information

Calibration Date	April 23, 2009	Previous Calibration	April 8, 2009
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:14	End Time (MST)	18:00
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

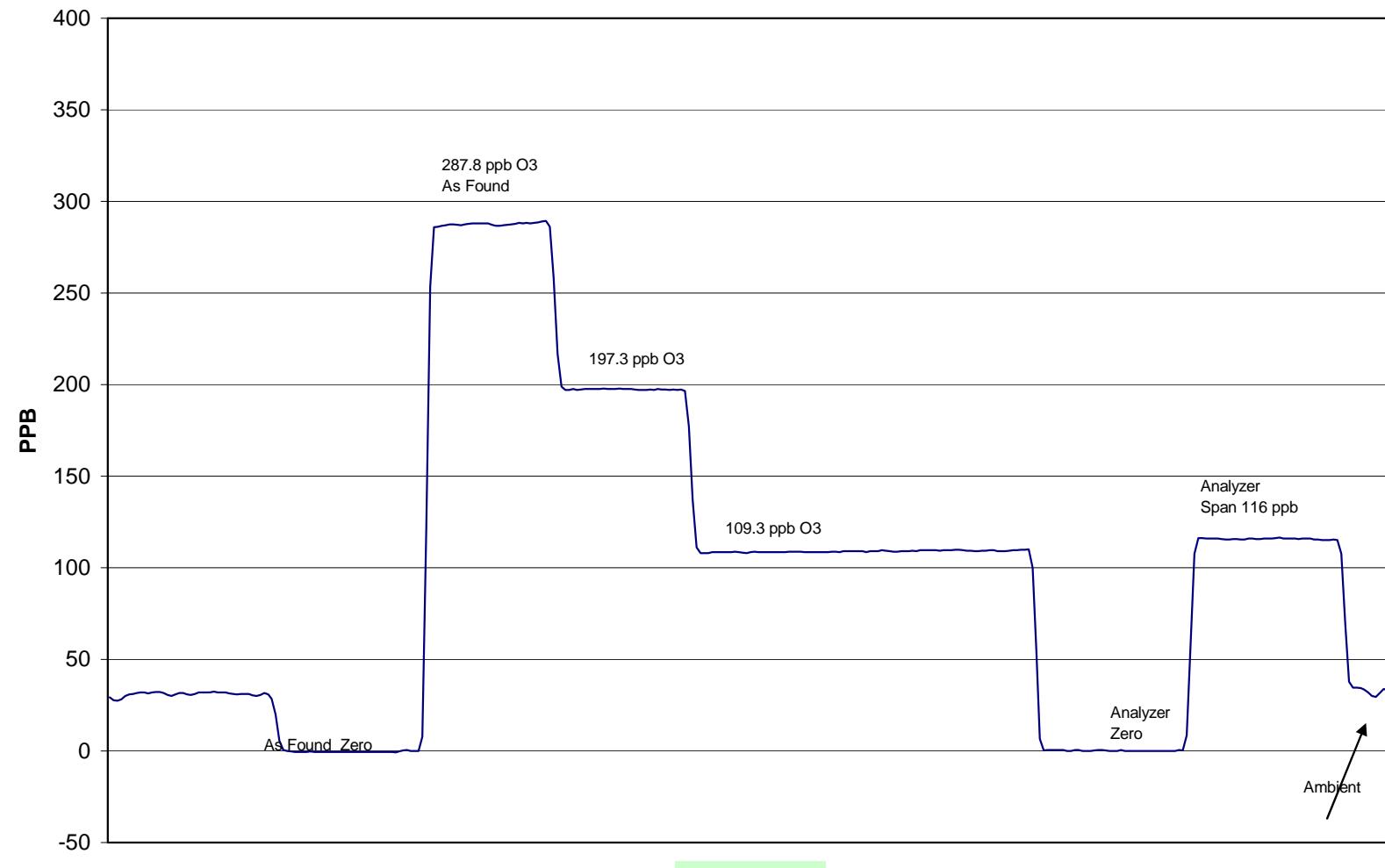
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA	Correlation Coefficient	0.999670
285.0	287.8	0.9903		
200.0	197.4	1.0133		
108.0	109.4	0.9872		
			Slope	0.994125
			Intercept	0.582210

O₃ Calibration Curve



Beaverlodge O₃ Calibration



Calibration Report

Parameter SO2

Air Monitoring Network PASZA



Station Information

Calibration Date	April 2, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover - Kinuso
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
Start Time (MST)	9:20	End Time (MST)	11:02
Barometric Pressure	27.66 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	LL 16161		
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0 - 10 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.001258	Calculated slope	1.001685
Calculated intercept	-2.345361	Calculated intercept	-2.056175
Analyzer make	TEI 43C	Analyzer serial #	609716238
before		after	
Concentration range	0-500 ppb	0-500 ppb	ppb
Background	8.6	8.6	
Coefficient	1.19	1.19	
UV Lamp Voltage	726 V	728 V	V
Chamber Temp	44.5 C	44.6 C	C
Perm Gas Temp	45 C	45 C	C
Pressure	673.4 mm Hg	671.1 mm Hg	mm Hg
Sample Flow	0.487 LPM	0.486 LPM	LPM
Lamp Intesity	34108 Hz	34696 Hz	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)
4988	0.00	0.0	0.4	N/A
4989	39.83	400.8	401.3	0.9988
4989	19.88	200.8	203.4	0.9873
4989	9.92	100.4	104.0	0.9655
4988	0.00	0.0	-0.1	As found zero
4990	39.89	401.3	398.4	As found span
Average Correction Factor				0.9839

Calculated value of As Found Response: 396.603 ppm Percent Change of As Found: 1.2%

Auto zero	before calibration		after calibration	
	0.3	ppm	0.3	ppm
	266.7	ppm	265.5	ppm

Notes: Internal Pump Replaced

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO₂

Air Monitoring Network PASZA



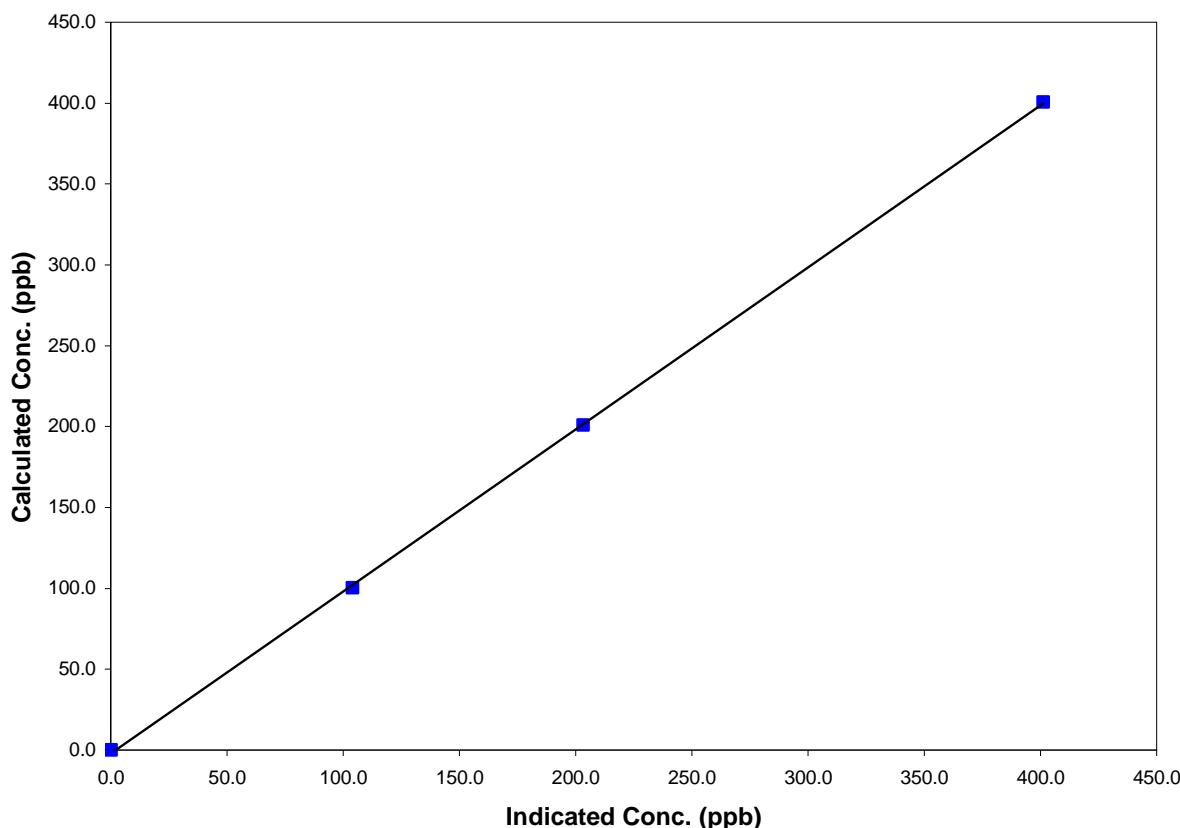
Station Information

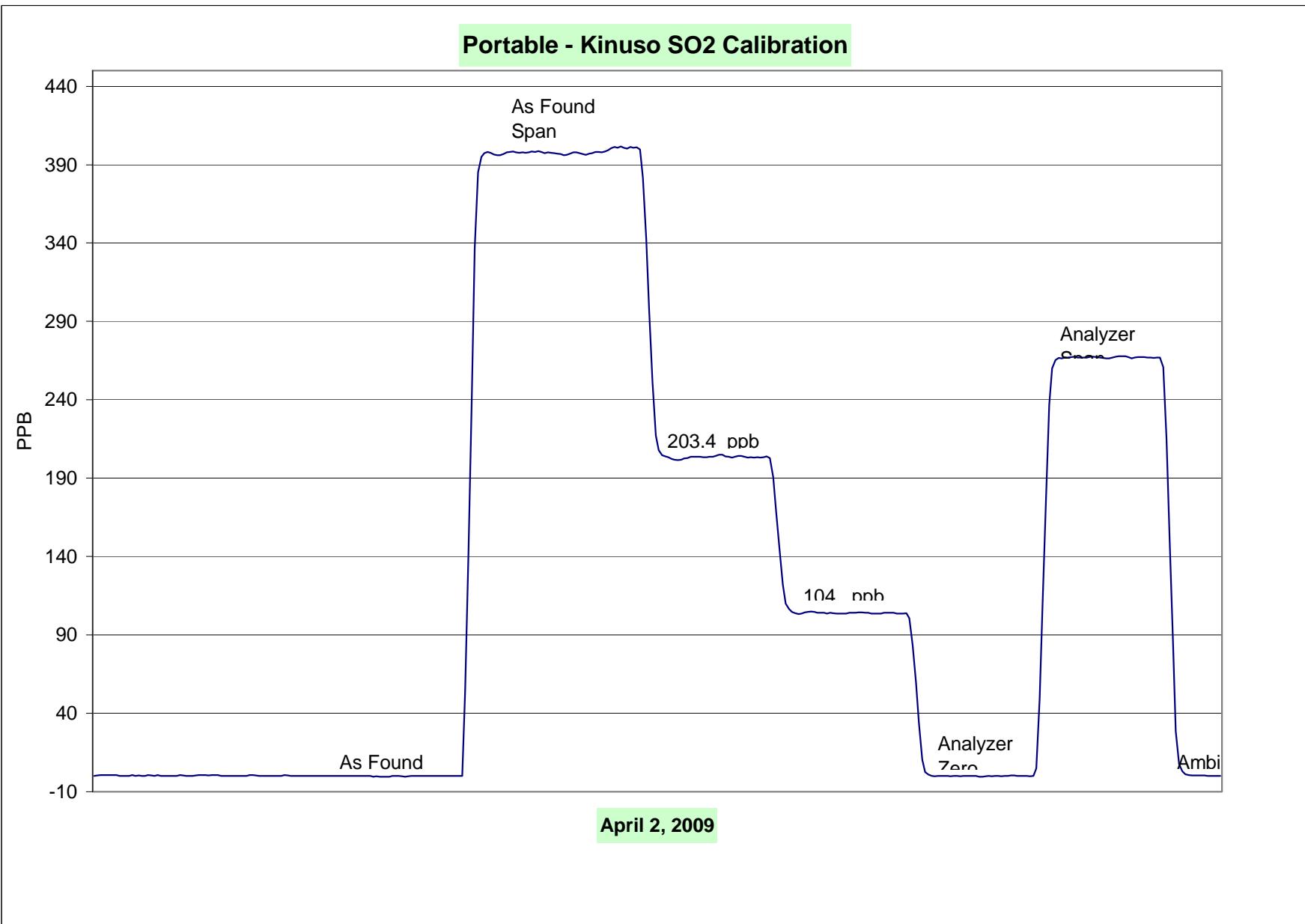
Calibration Date	April 2, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover - Kinuso
Start Time (MST)	9:20	End Time (MST)	11:02
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A		
400.8	401.3	0.9988	Correlation Coefficient	0.999917
200.8	203.4	0.9873		
100.4	104.0	0.9655	Slope	1.001685
			Intercept	-2.056175

SO₂ Calibration Curve





Calibration Report

Parameter

TRS

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 2, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover-Kinuso
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	13:55:00 PM	End Time (MST)	16:02
Barometric Pressure	27.5 inches Hg	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	5.1 ppm	Cal Gas Expiry Date	11/15/2005
Gas Cert Reference	ALM013295	DACS serial No.	52662
DACS make	Focus AP1000	DACS channel #	8
DACS voltage range	0 - 5 volt		After
	Before		
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.995989	Calculated slope	0.997692
Calculated intercept	0.012412	Calculated intercept	-0.098419
Analyzer make	TEI 43C	Analyzer serial #	609716238
Concentration range	before	after	
	0 - 100 ppb	0 - 100 ppb	
Background	10.4 ppb	10.7 ppb	
Coefficient	1.454	1.454	
Lamp Voltage	797 V	798 V	
Chamber Temp	43.8 C	44.0 C	
Perm gas Temp	45. C	45 C	
Pressure	659 mmHg	660 mmHg	
Sample Flow	435 ccm	436 ccm	
Lamp Intensity	39049.0 Hz	38687.0 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)
4988	0.0	0.0	0.3	N/A
4988	79.88	80.4	80.8	0.9953
4988	39.85	40.4	40.4	0.9993
4988	9.92	10.1	10.1	1.0008
4988	0.00	0.0	-0.3	As found zero
4988	79.88	80.4	80.9	As found span
Average Correction Factor				0.9985

Calculated value of As Found Response:

80.88 ppm

Percent Change of As Found: -0.6%

Auto zero	before calibration		after calibration	
	-0.4	ppm	-0.6	ppm
	72.0	ppm	68.0	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

TRS

Air Monitoring Network

PASZA



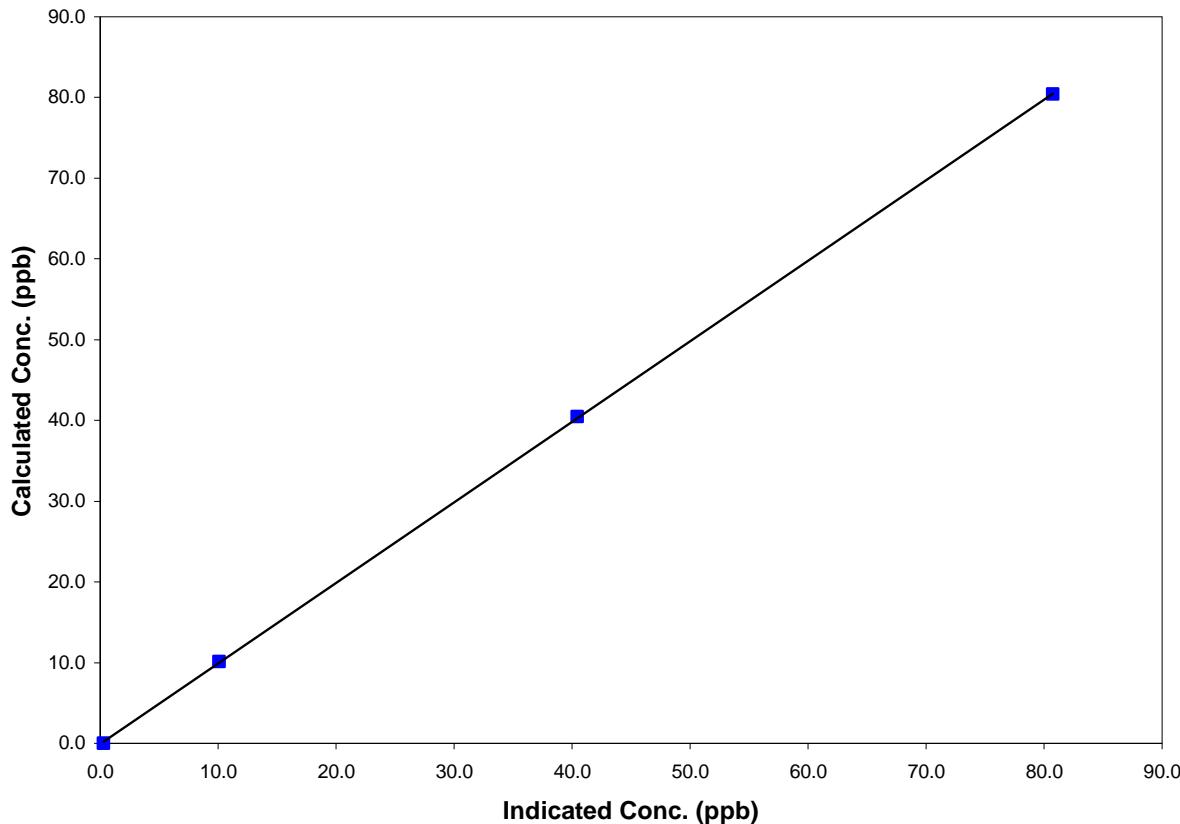
Station Information

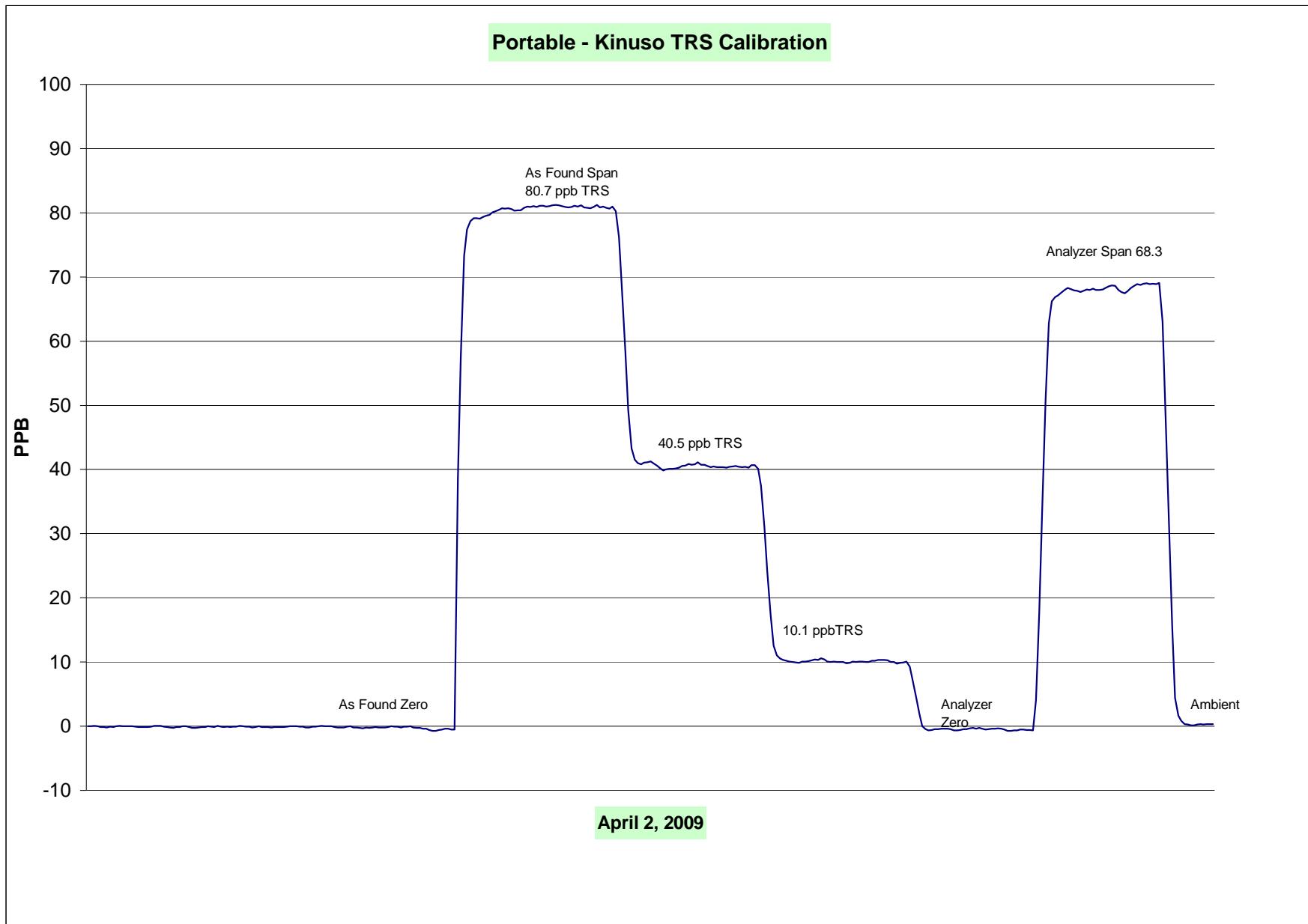
Calibration Date	April 2, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover-Kinuso
Start Time (MST)	13:55:00 PM	End Time (MST)	16:02
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
80.4	80.8	0.9953	Correlation Coefficient	0.999977
40.4	40.4	0.9993	Slope	0.997692
10.1	10.1	1.0008	Intercept	-0.098419

TRS Calibration Curve





Calibration Report



Parameter O3

Air Monitoring Network PASZA

Station Information

Calibration Date	April 25, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover - Kinuso
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	13:00	End Time (MST)	17:16
Barometric Pressure	0.935 atm	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0-5	DACS channel #	7
	Before		After
Calculated slope	0.940385	Calculated slope	0.973993
Calculated intercept	-0.046267	Calculated intercept	-1.984598
Analyzer make	TEI Model 49C	Analyzer serial #	609-716240
Concentration range	before		after
Offset	0-500	ppb	0-500
	0	ppb	0
Span	1.518		1.487
Cell A	85741	Hz	87621
Cell B	106714	Hz	107126
Pressure	689	in Hg	694
Cell A Flow	719	ccm	710
Cell B Flow	687	cmm	691

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)
4990	0.00	0.0	0.0	N/A
4990	0.00	267.3	273.8	0.9761
4990	0.00	176.1	185.9	0.9476
4990	0.00	92.1	98.3	0.9375
4990	0.00	0.0	1.0	As found zero
4990	0.00	282.3	273.8	As found span
		Average Correction Factor	0.9537	

Calculated value of As Found Response: 256.6 ppm Percent Change of As Found: -9.1%

Auto zero	before calibration		after calibration	
	0.8	ppb	-1.1	ppb
	245.3	ppb	234.0	ppb

Notes: _____

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

Air Monitoring Network

PASZA

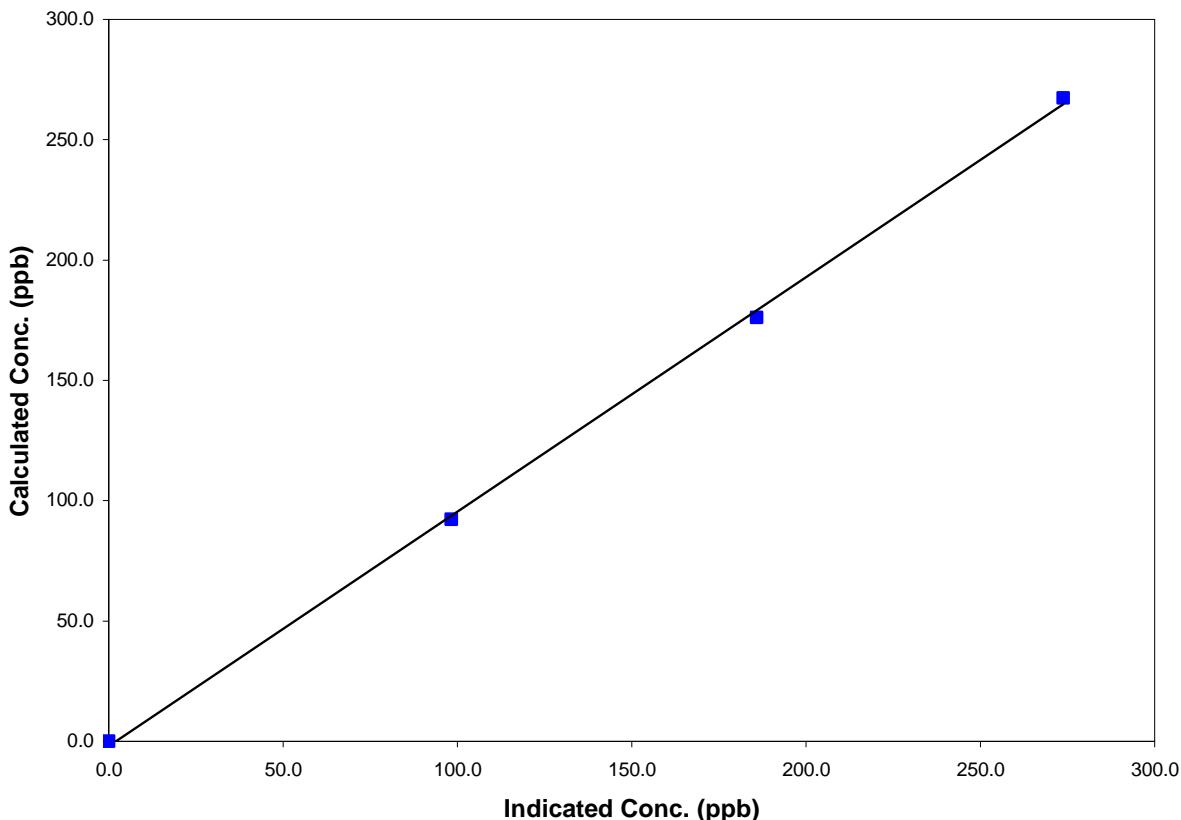
Station Information

Calibration Date	April 25, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover - Kinuso
Start Time (MST)	13:00	End Time (MST)	17:16
Analyzer make/model	TEI Model 49C	Analyzer serial #	609-716240

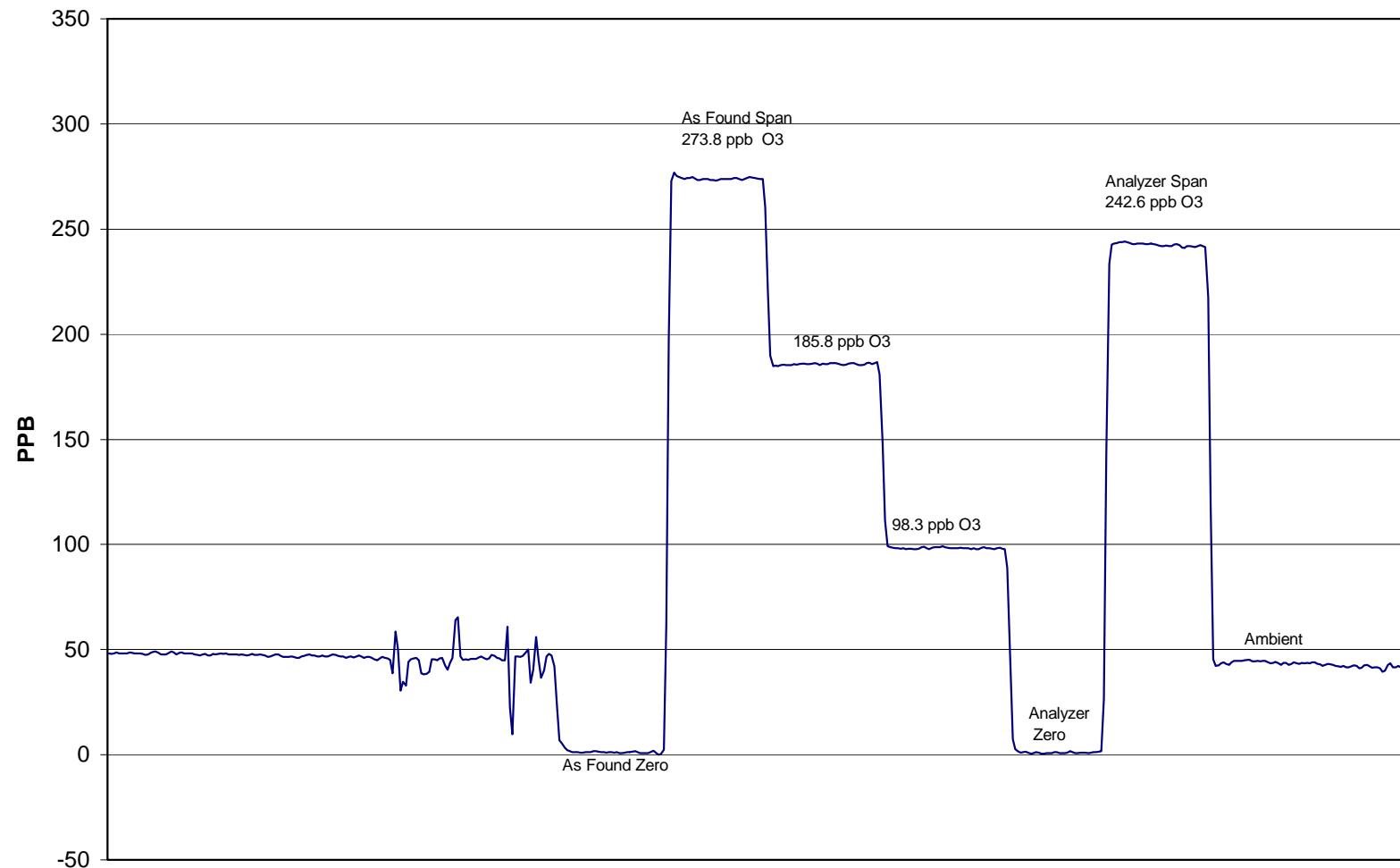
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	NA		
267.3	273.8	0.9761	Correlation Coefficient	0.999454
176.1	185.9	0.9476	Slope	0.973993
92.1	98.3	0.9375	Intercept	-1.984598

O₃ Calibration Curve



Portable - Kinuso O₃ Calibration



April 25, 2009

Calibration Report

Parameter NOx-NO-NO₂
 Air Monitoring Network PASZA



Station Information

Calibration Date	April 2, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover - Kinuso
Reason:	Routine Installation Removal Other: _____		
Start Time (MST)	9:20	End Time (MST)	12:57
Barometric Pressure	27.66	Inches Hg	22.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
NO Cal Gas Conc	49.6	Cal Gas Expiry Date	2-Jan-09
NOx Cal Gas Conc	49.6	Cal Gas Serial #	LL-16161

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	52662
Parameter	NO2	NOx	NO
Before	Data Slope 0.985124	0.977982	0.982068
	Data Offset 0.003243	-2.777913	-2.868974
After	Data Slope 1.004911	1.000794	1.002357
	Data Offset 0.729972	-2.916922	-2.796092
Channel #	8	6	7
Voltage Range	0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model TECO 42i Analyzer serial # 701120011

Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO background	4.6	ppb	4.6	mV
NOx background	4.7	ppb	4.8	mV
NO coefficient	0.848		0.853	
NOx coefficient	1.001		0.998	
Chamber Temp	50.1	Deg C	50.0	Deg C
Cooler Temp	-3.1	Deg C	-3.0	Deg C
NO2 Converter Temp	324.2	Deg C	325.6	Deg C
Sample Flow	0.519	ccm	0.521	ccm
Ozonator Flow	OK	LPM	OK	LPM
Pressure	152.7	mm Hg	152.1	mm Hg

Notes:

Calibration Performed By: Grover Christiansen

Calibration Report

Parameter NOx-NO-NO₂
Air Monitoring Network PASZA



Station Information

Calibration Date: April 2, 2009 Station Location: Rover - Kinuso

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	4988	0.00	0.0	0.0	0.0	0.1	-0.1	0.4	N/A	N/A
1	4989	39.84	392.9	392.9	0.0	393.9	393.3	-0.1	0.9975	0.9991
2	4989	19.89	197.0	197.0	0.0	201.6	200.7	-0.8	0.9770	0.9815
3	4989	9.90	98.2	98.2	0.0	103.6	103.9	-0.8	0.9481	0.9458
AFZ	4988	0.00	0.0	0.0	0.0	0.1	0.7	-0.9	0.0000	0.0000
AFS	4990	39.84	392.9	392.9	0.0	393.8	393.1	-0.1	0.9976	0.9994
								Average Correction Factor	0.9742	0.9755

As Found Concentrations: NO_x= 390.9 NO= 389.6 As Found Percent Change NO_x= -0.5% NO= -0.8%

GPT Calibration Data

Dilution Flow 4988 ccm Source Gas Flow 39.82 ccm

O3 Setpoint (ppb)	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	NO2 Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
NO point	392.0	389.5	2.5	393.1	391.3	-1.1	0.9972	0.9952	N/A	N/A
300	392.0	123.3	268.7	395.0	125.8	267.4	0.9922	0.9801	1.0046	99.5%
200	392.0	214.0	178.0	394.6	216.2	175.8	0.9932	0.9894	1.0125	98.8%
100	392.0	301.8	90.1	394.0	303.9	87.7	0.9948	0.9932	1.0281	97.3%
					Average Correction Factor	0.9934	0.9876	1.0150	98.5%	

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO	ppb	NOx	NO2	NO	ppb
Auto zero	0.9	1.0	-0.6	ppb	0.3	1.0	-1.3	ppb
Auto span	325.8	326.4	0.2	ppb	318.6	316.2	0.9	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

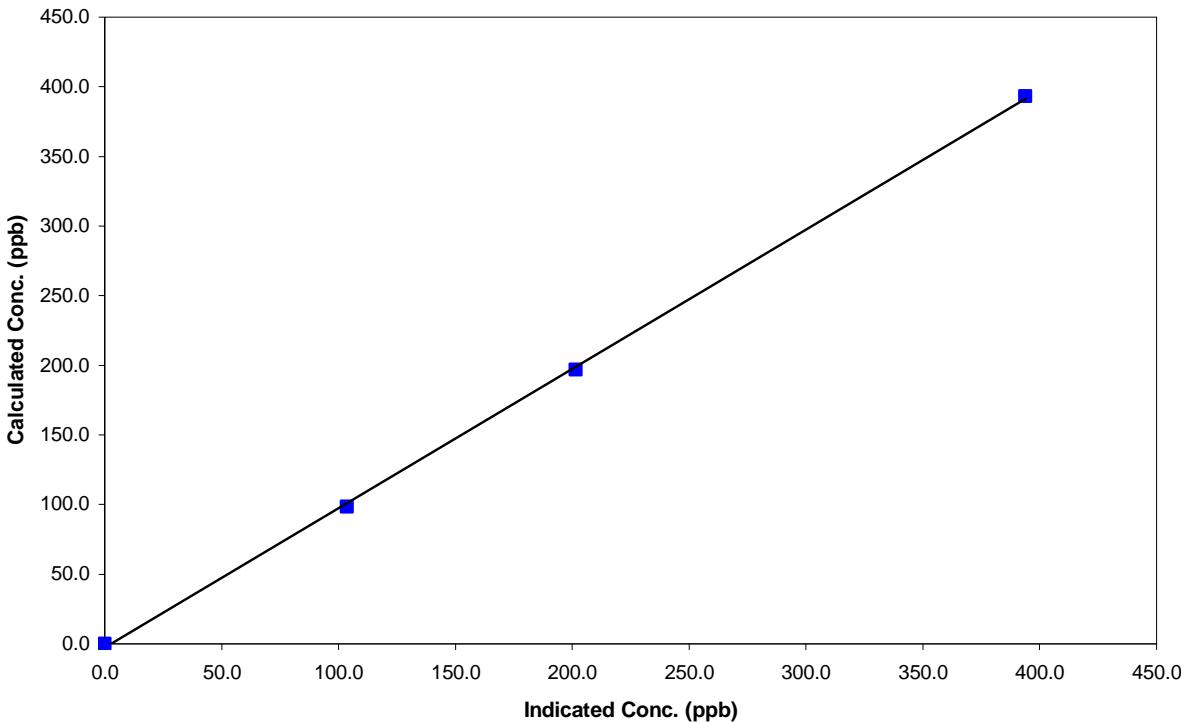


Parameter NO_x
Air Monitoring Network PASZA

Station Information			
Calibration Date	April 2, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover - Kinuso
Start Time (MST)	9:20	End Time (MST)	12:57
Analyzer make	TECO 42i	Analyzer serial #	701120011

Calibration Data			
Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation
0.0	0.1	0.0000	Correlation Coefficient 0.999758
392.9	393.9	0.9975	
197.0	201.6	0.9770	
98.2	103.6	0.9481	
			Slope 1.000794
			Intercept -2.916922

NOx Calibration Curve



Calibration Summary

Parameter **NO₂**

Air Monitoring Network



PASZA

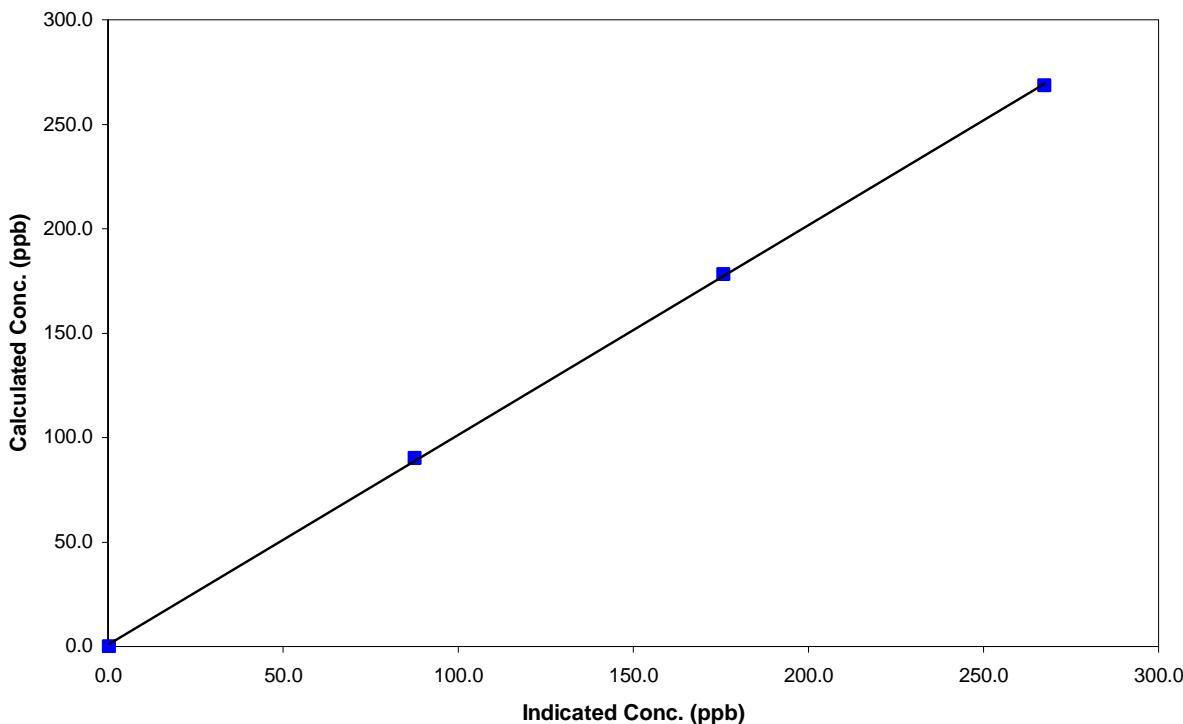
Station Information

Calibration Date	April 2, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover - Kinuso
Start Time (MST)	9:20	End Time (MST)	12:57
Analyzer make	TECO 42i	Analyzer serial #	701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	0.0000	Correlation Coefficient	0.999902
268.7	267.4	1.0046		
178.0	175.8	1.0125		
90.1	87.7	1.0281		
			Slope	1.004911
			Intercept	0.729972

NO₂ Calibration Curve



Calibration Summary

Parameter

NO

Air Monitoring Network

PASZA



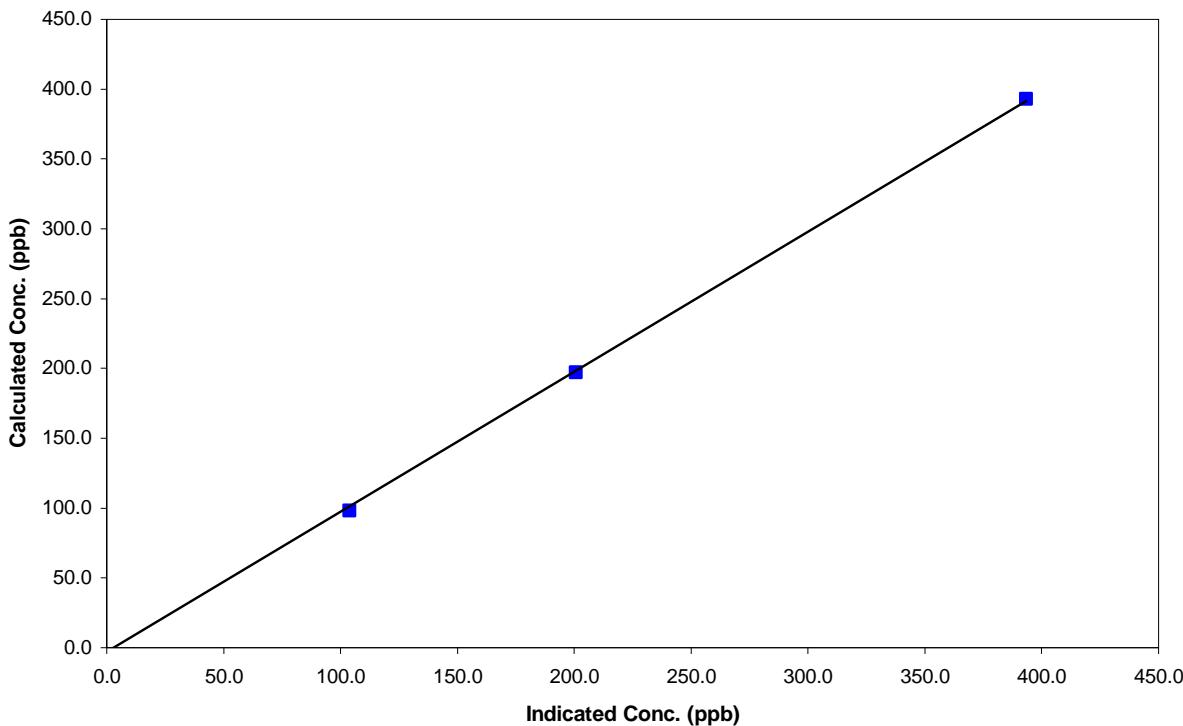
Station Information

Calibration Date	April 2, 2009	Previous Calibration	March 30, 2009
Station Number	9	Station Location	Rover - Kinuso
Start Time (MST)	9:20	End Time (MST)	12:57
Analyzer make	TECO 42i	Analyzer serial #	701120011

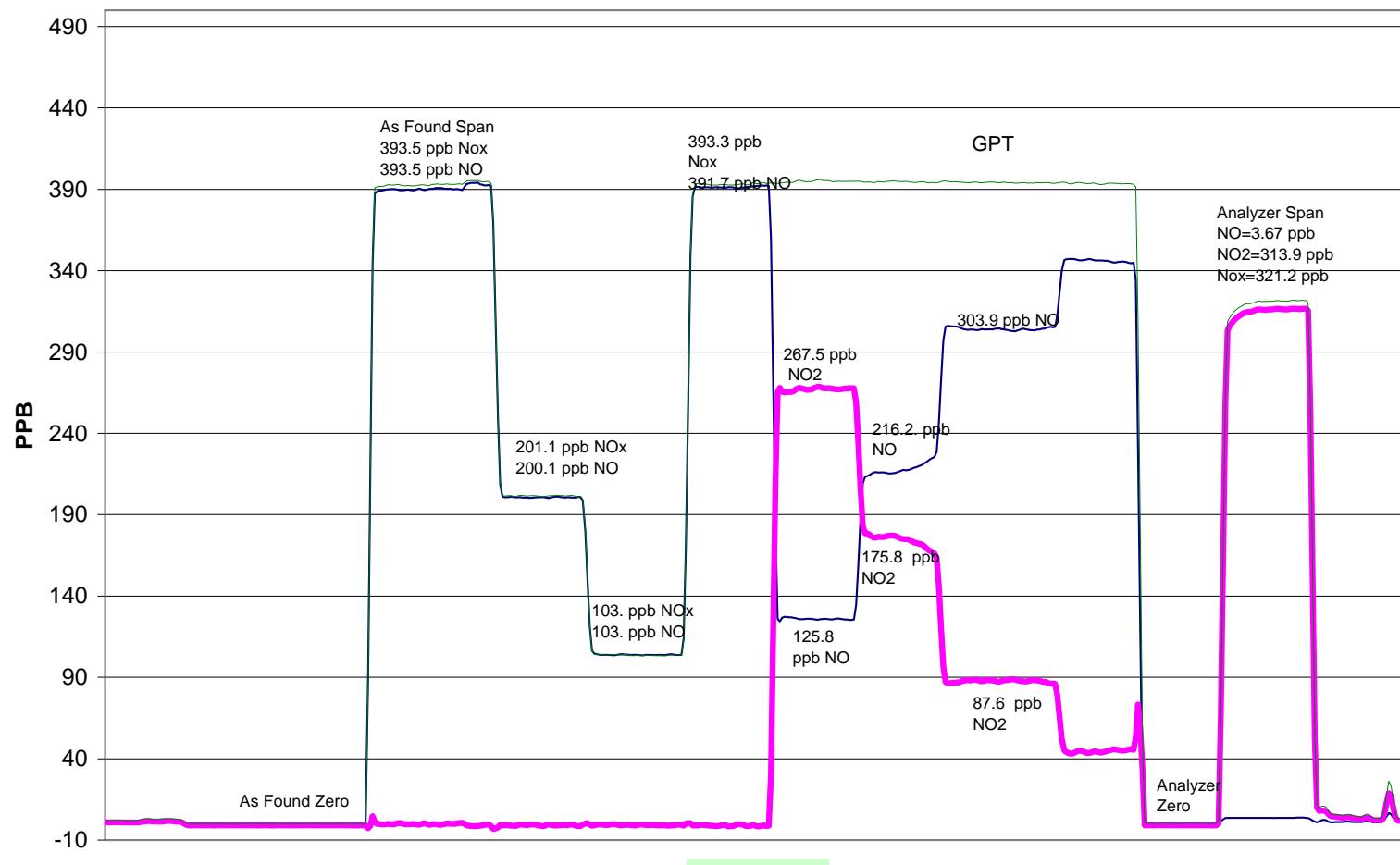
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999735
392.9	393.3	0.9991		
197.0	200.7	0.9815		
98.2	103.9	0.9458		
			Slope	1.002357
			Intercept	-2.796092

NO Calibration Curve



Portable - Kinuso NO_x Calibration



Calibration Report

Parameter

SO₂

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 12, 2009	Previous Calibration	March 19, 2009
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Other:			
Start Time (MST)	8:50	End Time (MST)	10:50
Barometric Pressure	29.90 inches Hg	Station Temperature	25.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Cert Date	12/3/2009
Gas Cert Reference	AAL 56996		
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.999172	Calculated slope	0.997150
Calculated intercept	-1.450613	Calculated intercept	-1.302840
Analyzer make	TEI 45C	Analyzer serial #	43C-57531-313
before		after	
Concentration range	0 - 1000 ppb	0 - 1000 ppb	
Background	29.3	29.2	
Coefficient	0.729	0.729	
UV Lamp Voltage	695 LPM	698 LPM	
Chamber Temp	44.2 V	44.2 V	
Perm Gas Temp	35 C	35.1 C	
Pressure	620.5 in Hg	624.9 in Hg	
Sample Flow	0.468 LPM	0.471 LPM	
Lamp Intesity	45324 Hz	45247 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)
4988	0.00	0.0	0.2	N/A
4989	39.84	400.9	402.8	0.9952
4988	19.92	201.3	203.5	0.9891
4988	9.90	100.2	103.1	0.9718
4988	0.00	0.0	-0.7	As found zero
4988	39.88	401.3	402.8	As found span
Average Correction Factor				0.9854

Calculated value of As Found Response: 401.760 ppm Percent Change of As Found: -0.1%

Auto zero	before calibration		after calibration	
	0.0	ppm	0.0	ppm
	166.4	ppm	165.9	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter SO₂

Air Monitoring Network PASZA



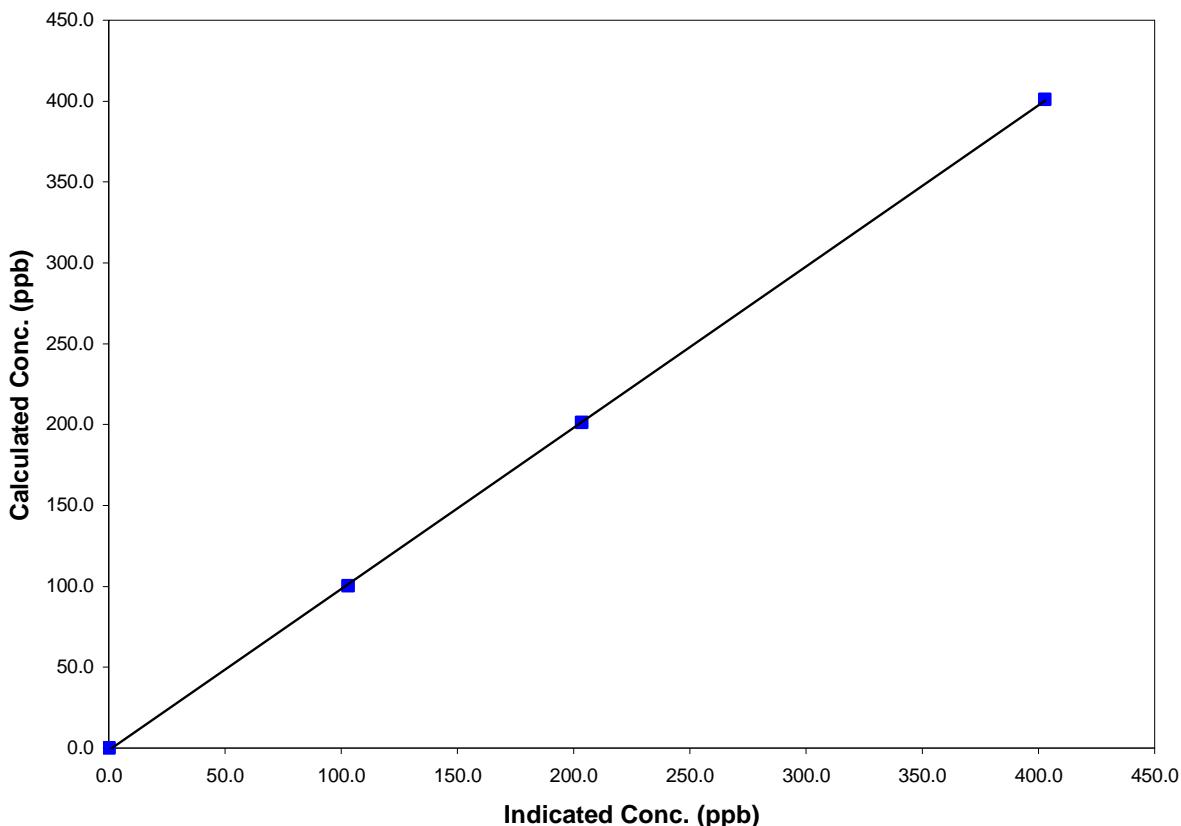
Station Information

Calibration Date	April 12, 2009	Previous Calibration	March 19, 2009
Station Number	6	Station Location	Valleyview
Start Time (MST)	8:50	End Time (MST)	10:50
Analyzer make/model	TEI 45C	Analyzer serial #	43C-57531-313

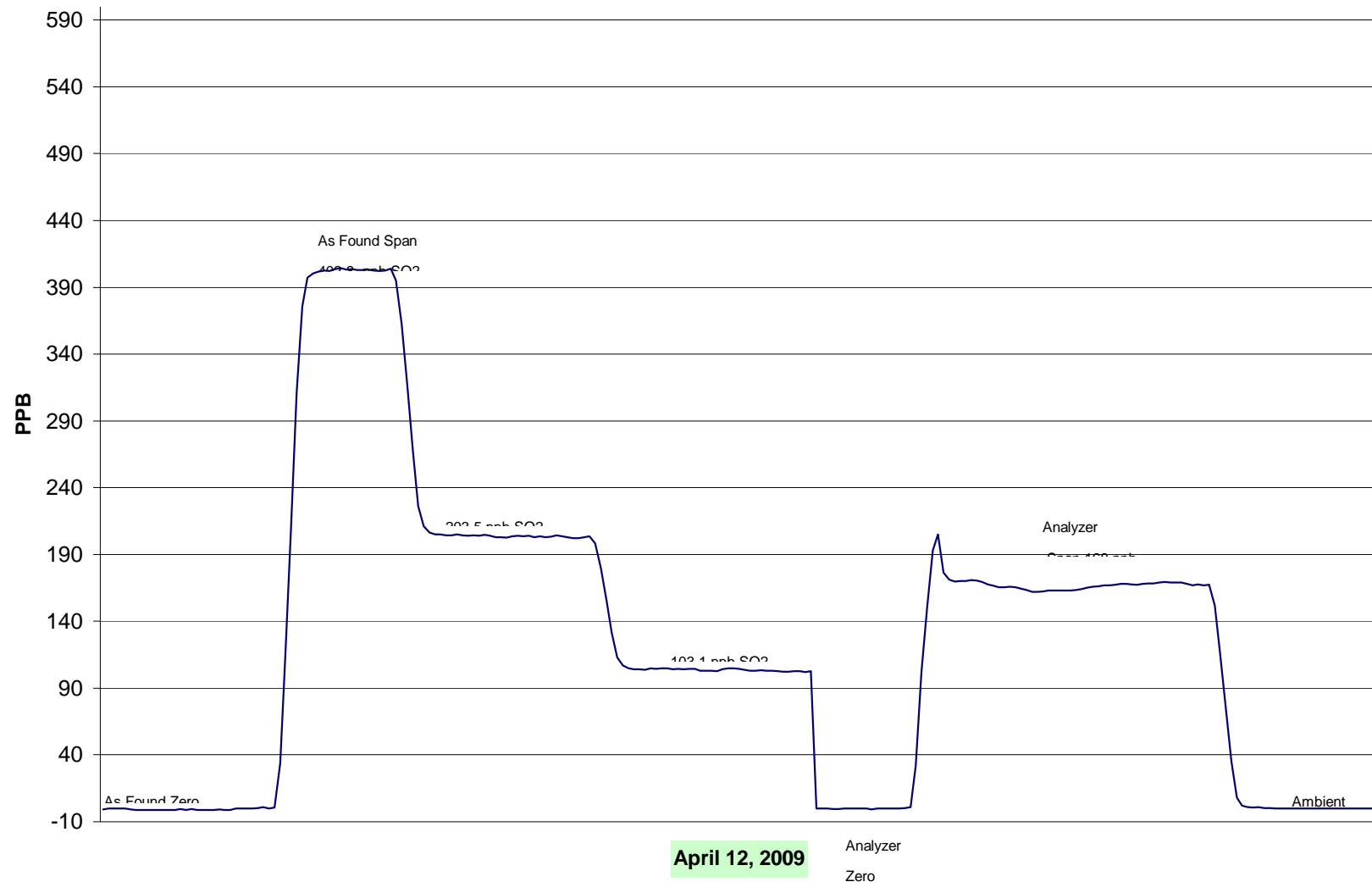
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
400.9	402.8	0.9952	Correlation Coefficient	0.999961
201.3	203.5	0.9891		
100.2	103.1	0.9718	Slope	0.997150
			Intercept	-1.302840

SO₂ Calibration Curve



Valleyview SO₂ Calibration



Calibration Report

Parameter

H2S

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 12, 2009	Previous Calibration	March 19, 2009
Station Number	5	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	10:00	End Time (MST)	12:15
Barometric Pressure	27.16 inches Hg	Station Temperature	23.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	5.1 ppm	Cal Gas Expiry Date	4/4/2009
Gas Cert Reference	ALM013295	DACS serial No.	1
DACS make	Focus AP1000	DACS channel #	9
DACS voltage range	0 - 10 volt		
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.998385	Calculated slope	0.997897
Calculated intercept	-0.038386	Calculated intercept	0.072880

Analyzer make	TEI Model 43A	Analyzer serial #	43A-25575-221
---------------	---------------	-------------------	---------------

Concentration range	before		after	
	0 - 100	ppb	0 - 100	ppb
Back Ground	4.9	ppb	4.9	ppb
Coefficient	1.070		1.070	
Lamp Voltage	792	V	798	V
Chamber Temp	45.1	c	45	c
Perm Oven Temp	44.30	c	45	c
Pressure	639	mm Hg	641	mm Hg
Sample Flow	459	ccm	446	ccm
Lamp Intensity	92.0	%	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)
4988	0.00	0.0	0.2	N/A
4989	79.74	80.2	80.6	0.9956
4988	39.88	40.5	39.9	1.0128
4988	9.93	10.1	10.1	1.0079
4988	0.00	0.0	-0.1	As found zero
4988	79.81	80.3	79.2	As found span
Average Correction Factor				1.0054

Calculated value of As Found Response: 79.08 ppm Percent Change of As Found: 1.5%

Auto zero	before calibration		after calibration	
	-0.1	ppm	0.2	ppm
	63.0	ppm	63.1	ppm

Notes: _____

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter

H₂S

Air Monitoring Network

PASZA



Station Information

Calibration Date	April 12, 2009	Previous Calibration	March 19, 2009
Station Number	5	Station Location	Valleyview
Start Time (MST)	10:00	End Time (MST)	12:15
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-25575-221

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
80.2	80.6	0.9956	Correlation Coefficient	0.999891
40.5	39.9	1.0128		
10.1	10.1	1.0079	Slope	0.997897
			Intercept	0.072880

H₂S Calibration Curve

