Peace AirShed Zone Association

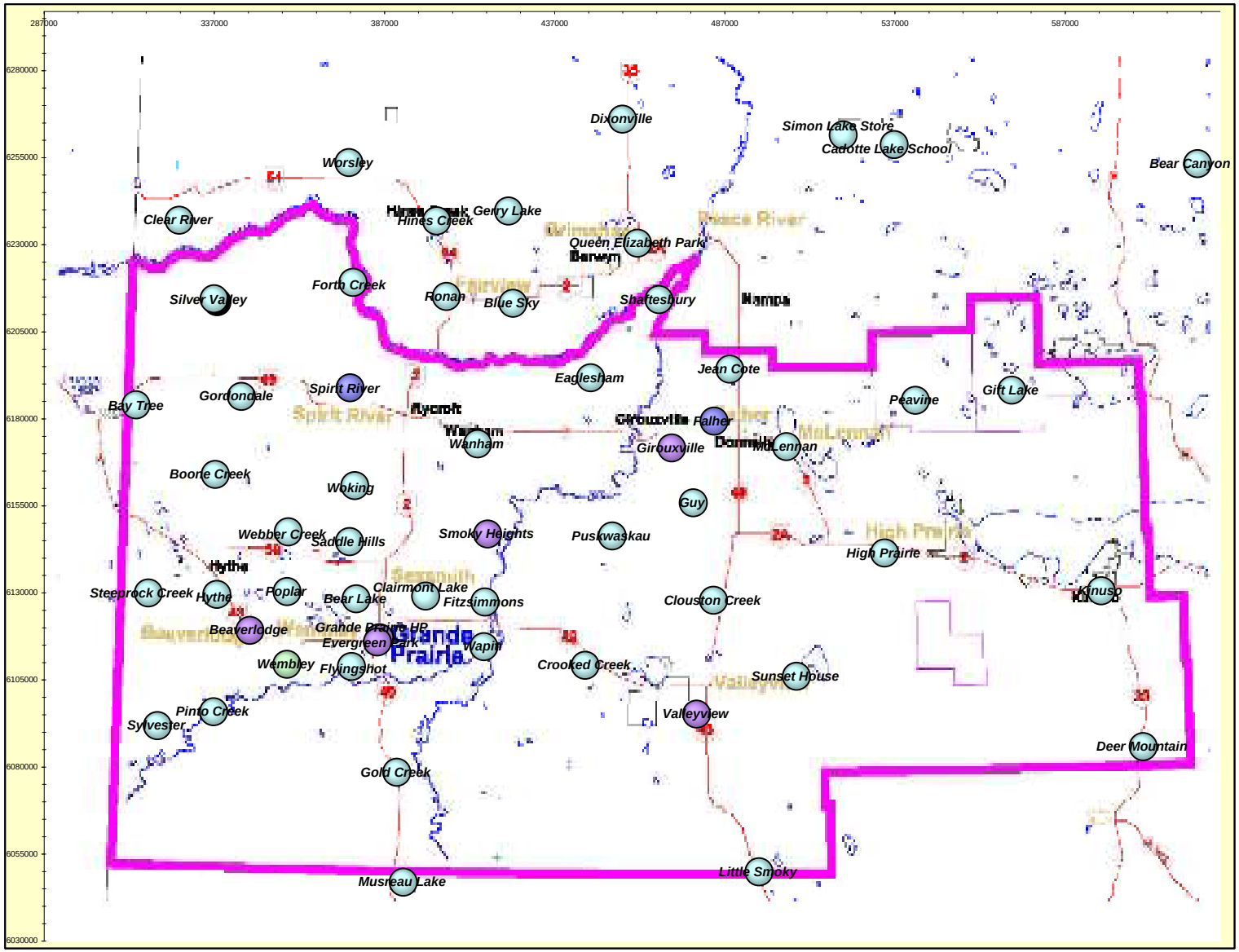
Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
September 2008

Operations and Reporting

FOCUS
AIR QUALITY MONITORING

Location of PASZA Continuous and Passive Monitoring Stations



PASZA
Peace AirShed Zone Association

P.O. Box 21135
Grande Prairie, AB
T8V 6W7
Phone: (780) 539-2298

October 21st, 2008

Alberta Environment
11th Floor, Oxbridge Place
9820-106 Street
Edmonton Alberta T6B 2X3

RE: Peace Airshed Zone Association (PASZA) – September 2008 Ambient Air Report

Enclosed is the PASZA Ambient Monitoring Network Report for the month of **September 2008**.

Continuous Monitoring: **Six (6) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Spirit River (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.

The measured ambient air quality was within the Provincial and Federal objectives for the Henry Pirker, Evergreen Park, Smoky Heights, Beaverlodge, Spirit River and Valleyview stations.

During the month of September the following events were noted:

Henry Pirker Station:

- CO span bottle ran out – there were no spans from September 19th to the end of the month.
- Flame went out on the THC analyzer and was not relit until September 5th – one hundred and seven (107) hours were flagged invalid resulting in less than 90% operational - Alberta Environment Reference # 207159.
- All analyzers / sensors at the Henry Pirker station had an operational uptime greater than 90% with the exception of the THC analyzer.

Evergreen Park Station:

- All analyzers / sensors at the Evergreen Park station had an operational uptime greater than 90%.

Smoky Heights Station:

- All analyzers / sensors at the Smoky Heights station had an operational uptime of 100%.

Beaverlodge Station:

- All analyzers / sensors at the Beaverlodge station had an operational uptime greater than 90%.

Portable – Spirit River Station:

- TRS analyzer spans were elevated from September 1st to the 8th due to a small leak in pump that was repaired September 8th.
- All analyzers / sensors at the Spirit River station had an operational uptime greater than 90%.

Valleyview Station:

- All analyzers / sensors at the Valleyview station had an operational uptime of 100%.

Passive Monitoring - 54 Stations throughout the PASZA zone:

There were seven duplicate sites sampled in the month of September: Gordondale, Spirit River, Sylvester, Wembley, Flyingshot, Cadotte Lake School and Grande Prairie HP. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.6 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.3 ppb to 3.5 ppb, with a mean of 1.2 ppb.
- Monthly average concentrations for O_3 passives ranged from 11.9 ppb to 27.5 ppb, with a mean of 20.5 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

PASZA Monthly Continuous Data Summary

Sep-2008	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
Pollutant (units)	**Objectives**		**Station**	**Monthly Average**	**Exceedence**		Conc	Day	Conc	Day	**Operational Time (%)**
	1-hr	24-hr			1-hr	24-hr					
SO_2 (ppb)	172	57	Henry Pirker	0.3	0	0	2.9	Sep-26 12:00	1.1	Sep-30	100.0%
SO_2 (ppb)	172	57	Evergreen Park	0.4	0	0	9.4	Sep-10 18:00	2.2	Sep-30	100.0%
SO_2 (ppb)	172	57	Smoky Heights	0.2	0	0	3.2	Sep-27 22:00	0.5	Sep-27	100.0%
SO_2 (ppb)	172	57	Beaverlodge	0.3	0	0	1.9	Sep-20 01:00	0.7	Sep-20	99.9%
SO_2 (ppb)	172	57	Portable-Spirit River	0.3	0	0	4.8	Sep-30 17:00	1.7	Sep-30	100.0%
SO_2 (ppb)	172	57	Valleyview	0.5	0	0	13.1	Sep-23 07:00	4.2	Sep-23	100.0%
NO (ppb)			Henry Pirker	3.3	-	-	95.3	Sep-07 08:00	28.5	Sep-30	100.0%
NO_2 (ppb)	212	106	Henry Pirker	6.5	0	0	31.7	Sep-30 20:00	15.4	Sep-30	100.0%
NO_X (ppb)			Henry Pirker	9.9	-	-	111.1	Sep-30 08:00	44.3	Sep-30	100.0%
NO (ppb)			Beaverlodge	0.5	-	-	16.6	Sep-20 08:00	2.7	Sep-30	99.9%
NO_2 (ppb)	212	106	Beaverlodge	2.5	0	0	12.6	Sep-20 07:00	4.8	Sep-30	99.9%
NO_X (ppb)			Beaverlodge	3.2	-	-	26.5	Sep-20 08:00	7.7	Sep-30	99.9%
NO (ppb)			Portable-Spirit River	0.7	-	-	29.9	Sep-05 07:00	2.5	Sep-26	100.0%
NO_2 (ppb)	212	106	Portable-Spirit River	2.8	0	0	12.6	Sep-05 07:00	5.3	Sep-30	100.0%
NO_X (ppb)			Portable-Spirit River	3.4	-	-	42.1	Sep-05 07:00	7.3	Sep-05	100.0%
O_3 (ppb)	82		Henry Pirker	19.1	0	-	41.1	Sep-20 18:00	25.2	Sep-18	100.0%
O_3 (ppb) - 8-hr	65		Henry Pirker		0				37.0	Sep-20	
O_3 (ppb)	82		Beaverlodge	18.6	0	-	38.7	Sep-20 16:00	26.5	Sep-18	99.9%
O_3 (ppb) - 8-hr	65		Beaverlodge		0				33.9	Sep-20	
O_3 (ppb)	82		Portable-Spirit River	16.0	0	-	32.6	Sep-28 18:00	24.0	Sep-28	100.0%
O_3 (ppb) - 8-hr	65		Portable-Spirit River		0				29.2	Sep-28	
CO (ppm)	13		Henry Pirker	0.05	0	-	1.1	Sep-30 20:00	0.3	Sep-30	99.9%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.4	Sep-30	
THC (ppm)			Henry Pirker	1.96	-	-	3.3	Sep-07 23:00	2.3	Sep-30	85.1%
TRS (ppb)			Henry Pirker	0.3	-	-	1.6	Sep-07 22:00	0.5	Sep-30	100.0%
TRS (ppb)			Evergreen Park	0.5	-	-	2.1	Sep-15 15:00	1.1	Sep-10	100.0%
TRS (ppb)			Smoky Heights	0.4	-	-	1.3	Sep-09 21:00	0.5	Sep-21	100.0%
TRS (ppb)			Portable-Spirit River	0.4	-	-	1.2	Sep-10 03:00	0.6	Sep-24	99.7%
H_2S (ppb)	10	3	Valleyview	0.1	0	0	0.7	Sep-19 06:00	0.3	Sep-30	100.0%
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Henry Pirker	2.7	0	0	31.3	Sep-30 20:00	10.5	Sep-30	98.1%
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Evergreen Park	4.0	0	0	39.3	Sep-10 18:00	10.0	Sep-30	96.4%
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Smoky Heights	2.5	0	0	50.5	Sep-17 20:00	8.6	Sep-20	100.0%
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Beaverlodge	2.4	0	0	14.8	Sep-18 19:00	6.9	Sep-20	99.6%

PASZA Monthly Continuous Data Summary - continued

Sep-2008	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
RH (%)			Henry Pirker	67.2	-	-	94.7	Sep-26 08:00	87.8	Sep-21	100.0%
RH (%)			Beaverlodge	65.1	-	-	96.6	Sep-27 07:00	88.7	Sep-21	99.9%
RH (%)			Portable-Spirit River	64.7	-	-	98.2	Sep-27 08:00	83.9	Sep-21	100.0%
RH (%)			Valleyview	73.2	-	-	98.2	Sep-27 07:00	91.5	Sep-25	100.0%
SR (W/m^2)			Henry Pirker	122.1	-	-	633.9	Sep-03 13:00	186.1	Sep-07	100.0%
Temp (°C)			Henry Pirker	11.6	-	-	25.6	Sep-15 16:00	18.0	Sep-15	100.0%
Temp (°C)			Evergreen Park	11.0	-	-	25.5	Sep-15 16:00	17.2	Sep-15	100.0%
Temp (°C)			Smoky Heights	10.8	-	-	25.4	Sep-15 15:00	16.7	Sep-15	100.0%
Temp (°C)			Beaverlodge	11.5	-	-	25.4	Sep-15 16:00	18.8	Sep-15	99.9%
Temp (°C)			Portable-Spirit River	12.1	-	-	25.2	Sep-15 16:00	19.3	Sep-15	100.0%
Temp (°C)			Valleyview	10.4	-	-	25.0	Sep-30 17:00	15.6	Sep-17	100.0%
WSPD s (km/hr)			Henry Pirker	9.6	-	-	35.0	Sep-11 12:00	17.3	Sep-22	100.0%
WSPD s (km/hr)			Evergreen Park	7.7	-	-	28.0	Sep-27 15:00	13.7	Sep-11	100.0%
WSPD s (km/hr)			Smoky Heights	12.4	-	-	44.0	Sep-11 12:00	27.4	Sep-11	100.0%
WSPD s (km/hr)			Beaverlodge	8.3	-	-	35.0	Sep-11 12:00	20.4	Sep-11	99.9%
WSPD s (km/hr)			Portable-Spirit River	6.9	-	-	25.0	Sep-29 04:00	13.3	Sep-11	100.0%
WSPD s (km/hr)			Valleyview	5.4	-	-	20.0	Sep-23 12:00	13.0	Sep-22	100.0%
WSPD v (km/hr)			Henry Pirker	5.6	-	-	34.0	Sep-11 12:00	17.0	Sep-22	100.0%
WSPD v (km/hr)			Evergreen Park	4.9	-	-	28.0	Sep-27 15:00	12.9	Sep-23	100.0%
WSPD v (km/hr)			Smoky Heights	7.9	-	-	43.0	Sep-11 12:00	25.2	Sep-11	100.0%
WSPD v (km/hr)			Beaverlodge	4.2	-	-	34.0	Sep-11 12:00	19.1	Sep-11	99.9%
WSPD v (km/hr)			Portable-Spirit River	3.3	-	-	25.0	Sep-29 04:00	13.0	Sep-11	100.0%
WSPD v (km/hr)			Valleyview	2.7	-	-	19.0	Sep-23 12:00	12.6	Sep-22	100.0%
WDIR (deg)			Henry Pirker	WSW	-	-	-	-	-	-	100.0%
WDIR (deg)			Evergreen Park	W	-	-	-	-	-	-	100.0%
WDIR (deg)			Smoky Heights	W	-	-	-	-	-	-	100.0%
WDIR (deg)			Beaverlodge	W	-	-	-	-	-	-	99.9%
WDIR (deg)			Portable-Spirit River	WSW	-	-	-	-	-	-	100.0%
WDIR (deg)			Valleyview	W	-	-	-	-	-	-	100.0%

Continuous Network Equipment Summary

PASZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on September 11th (SO_2, NO_X & O_3) and September 12th (CO, TRS & THC).

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	The THC analyzer had one hundred and seven (107) hours of invalid data in September due to flame going out – AE Reference # 207159.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	Fourteen (14) hours were flagged invalid due to excessive baseline drift.
RH	Met One	083D	No operational issues observed.
AT	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS/WD	Met One	010C/020C	No operational issues observed.

PASZA – Evergreen Park Station

General Station Issues

Routine monthly calibrations were performed on September 19th (SO_2 & TRS).

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
TRS	TEI	43C	Second calibration on September 26th to replace lamp and socket.
$PM_{2.5}$	R&P	1400AB	Twenty-six (26) hours were flagged invalid due to excessive baseline drift.
AT	Met One	083D	No operational issues observed.
WS	Met One	010C	No operational issues observed.
WD	Met One	020C	No operational issues observed.

PASZA – Smoky Heights Station

General Station Issues

Routine monthly calibrations were performed on September 25th (TRS & SO_2).

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	No operational issues observed.
AT	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 September 17th (SO_2, O_3 & NO_X). Power failure on September 8th resulted in one (1) hour of invalid data for all parameters except the TEOM (which had a total of three (3) hours flagged for power issues).

Parameter	Make	Model	Notes
SO_2	TEI	43CTL	No operational issues observed.
NOx/NO/NO_2	TEI	42C	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	Power bumps resulted in a total of three (3) hours of invalid data.
AT	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS	Blue Sky	857	No operational issues observed.
WD	Blue Sky	857	No operational issues observed.

PASZA – Spirit River (Portable) Station

General Station Issues

Routine monthly calibrations were performed on September 8th (TRS), September 9th (SO_2 & NO_X) and September 10th (O_3).

Parameter	Make	Model	Notes
SO_2	TEI	43C	No other operational issues observed.
NOx/NO/NO_2	TEI	42i	No other operational issues observed.
TRS	TEI	43C	TRS analyzer spans were elevated to September 8th due to a small leak in pump.
O_3	TEI	49C	No other operational issues observed.
AT	Gill	Met Pak 3	No other operational issues observed.
RH	Gill	Met Pak 3	No other operational issues observed.
WS	Met One		No other operational issues observed.
WD	Met One		No other operational issues observed.

PASZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on September 18th (SO_2 & H_2S).

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
H_2S	TEI	43A	No operational issues observed.
AT	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS	Gill	Met Pak 3	No operational issues observed.
WD	Gill	Met Pak 3	No operational issues observed.

PASZA
Henry Pirker Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.9 ppb on Sep 26 12:00
Maximum Daily Average: 1.1 ppb on Sep 30

Minimum Value: 0 ppb on Sep 1 14:00
Maximum Diurnal Average: 0.4 ppb at hour 12
Monthly Average: 0.25 ppb

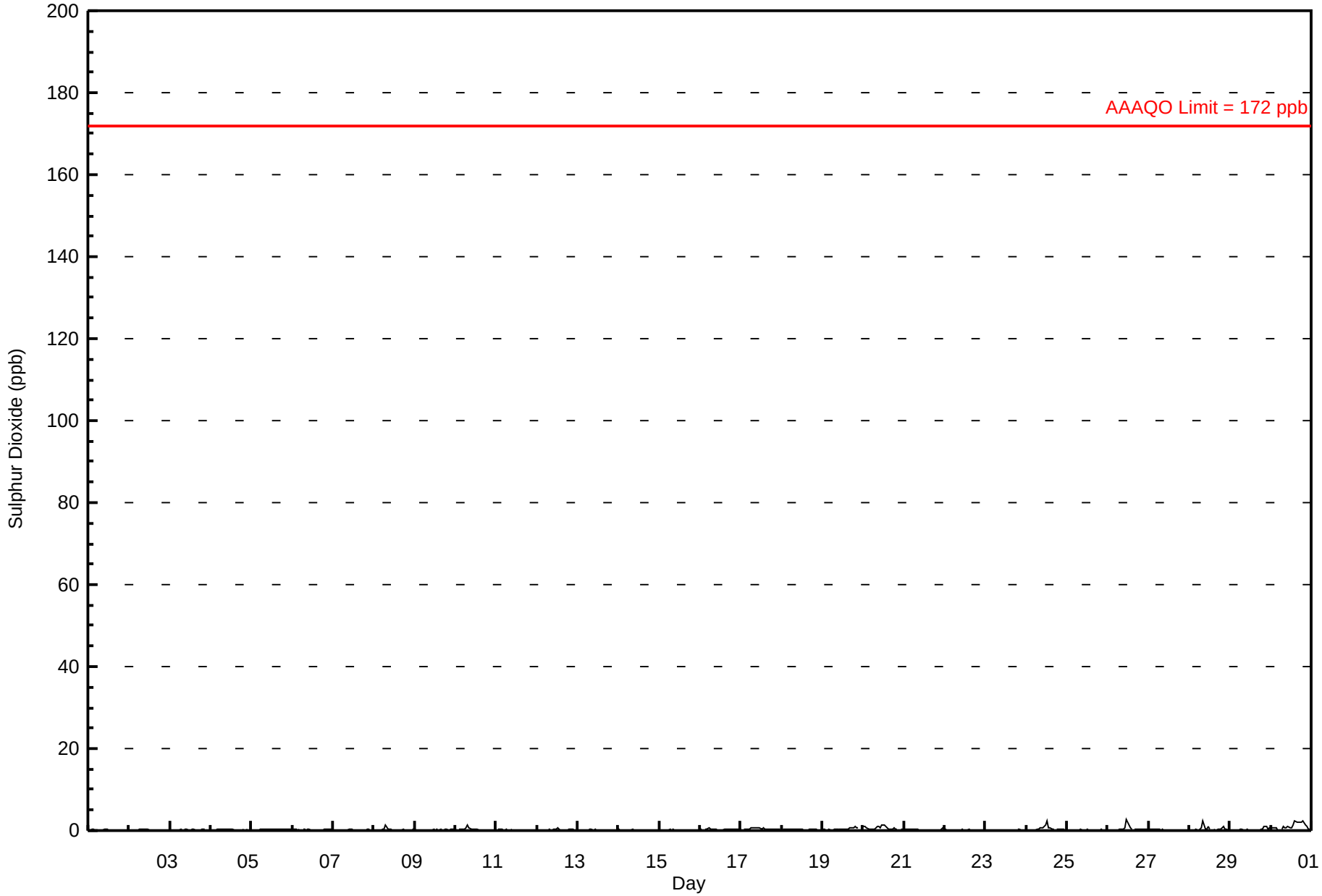
Minimum Daily Average: 0.0 ppb on Sep 14
Minimum Diurnal Average: 0.1 ppb at hour 2
Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 0.5 P_{99} = 2.0

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	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	0.4
2-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.5
3-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.3
4-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
5-Sep	0	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
6-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
7-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-Sep	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3
9-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
10-Sep	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
11-Sep	A	0	0	0	0	0	0	0	0	0	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
12-Sep	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
13-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-Sep	0	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
15-Sep	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	0.3
16-Sep	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
17-Sep	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.4	0.7
18-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.5
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	A	1	0.4	1.1
20-Sep	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	0	A	0	0	0.7	1.3
21-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.2	0.7
22-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.3
23-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
24-Sep	0	0	0	0	0	0	0	0	1	1	1	1	2	1	1	0	0	A	0	0	0	0	0	0	0.5	2.5
25-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.3
26-Sep	0	0	0	0	0	0	0	0	0	0	1	3	1	1	0	A	0	0	0	0	0	0	0	0	0.4	2.9
27-Sep	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	0.4
28-Sep	0	0	0	0	0	0	0	1	2	0	0	1	0	A	0	0	0	0	0	1	1	0	0	0	0.4	2.3
29-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.2	1.0
30-Sep	1	1	1	1	0	A	0	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	0	0	1.1	2.4
	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	Diurnal Average	
	1.1	0.9	0.7	0.7	0.5	0.6	0.8	1.3	2.3	1.1	0.9	2.9	2.5	1.3	2.2	2.0	1.9	2.1	2.0	2.4	1.2	0.9	0.5	1.1	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 SO_2 at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 17.9 ppb on Sep 28 12:00

Maximum Daily Average: 1.6 ppb on Sep 30

Minimum Value: 0 ppb on Sep 11 14:00

Minimum Daily Average: 0.3 ppb on Sep 13

Maximum Diurnal Average: 1.3 ppb at hour 12

Minimum Diurnal Average: 0.5 ppb at hour 5

Monthly Average: 0.64 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.3 Q_1 = 0.4 Median = 0.5 Q_3 = 0.5 P_{90} = 1.0 P_{99} = 3.4

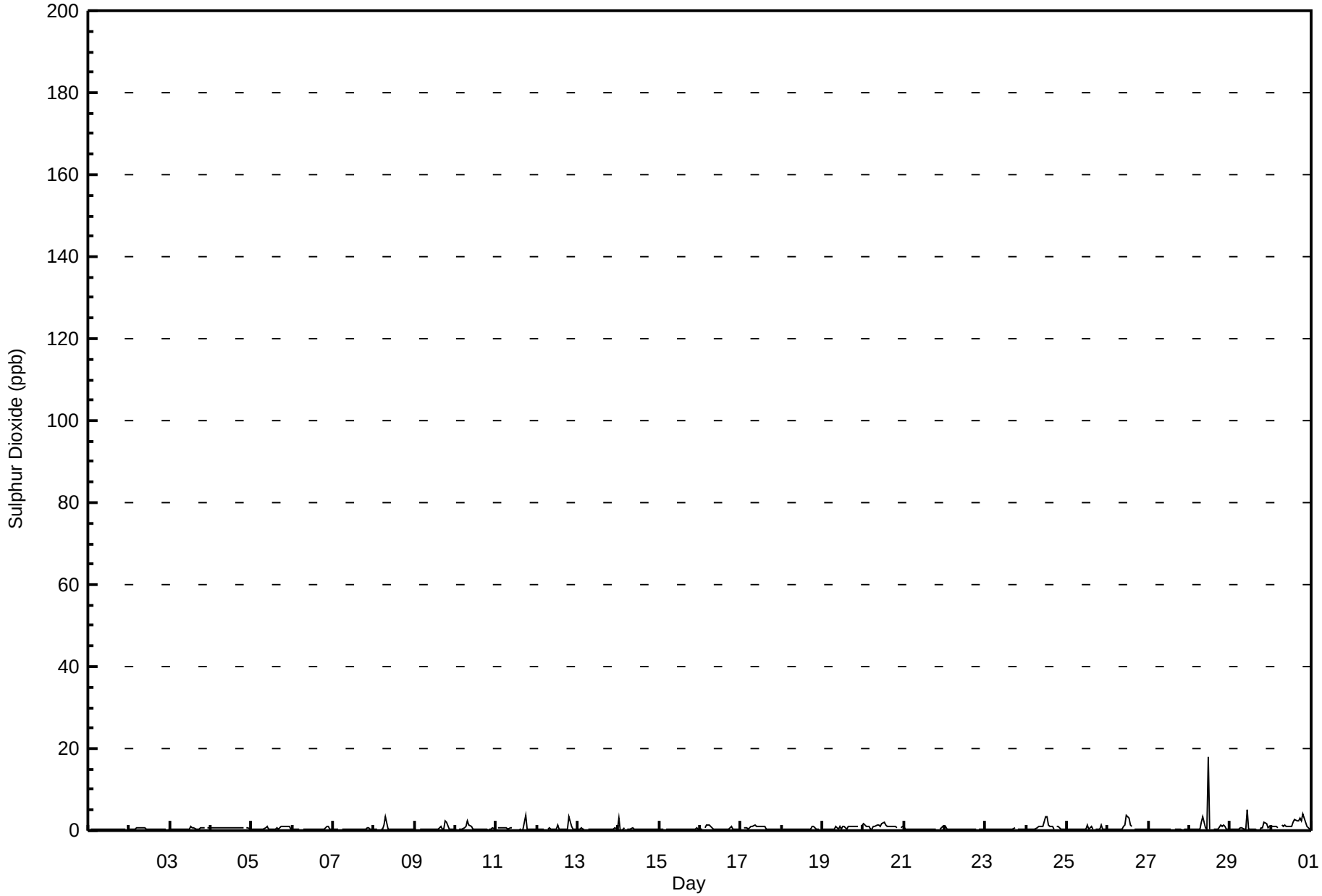
Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0.4	0.5
2-Sep	1	0	0	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	A	0	0.5	0.8
3-Sep	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.5	0.9
4-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0.5	0.5
5-Sep	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0.6	1.0
6-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.5	1.0
7-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.4	0.8
8-Sep	0	0	0	A	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.3
9-Sep	0	1	A	1	1	0	1	0	0	0	0	0	0	0	0	1	0	0	3	2	0	0	0	0	0.7	2.5
10-Sep	0	A	0	0	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.7	2.5
11-Sep	A	1	1	1	1	1	1	0	1	1	C	C	A	0	1	0	0	4	0	1	0	0	0	0	0.6	3.6
12-Sep	0	0	0	0	0	A	0	1	0	0	0	0	1	0	0	0	0	0	0	3	1	0	0	0	0.6	3.4
13-Sep	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.8
14-Sep	3	0	0	1	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.1
15-Sep	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.8
16-Sep	0	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.6	1.3
17-Sep	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0.7	1.5
18-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0.5	1.0
19-Sep	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	1	1	1	1	1	1	1	A	1	0.7	1.4
20-Sep	2	1	1	1	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	A	1	1	1.0	1.9
21-Sep	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0.4	0.9
22-Sep	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.5	0.9
23-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1	1	0	0	0	0.5	0.5
24-Sep	0	0	0	0	0	0	1	1	1	1	1	3	3	1	1	1	0	A	1	1	0	0	0	0	0.9	3.4
25-Sep	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	A	0	0	0	1	0	0	0	0.5	1.4
26-Sep	0	0	0	0	0	0	0	0	0	1	1	4	3	1	1	A	0	0	0	0	0	0	0	0	0.9	3.6
27-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.5
28-Sep	0	0	0	0	0	0	0	2	3	1	1	18	1	A	0	0	0	0	1	1	1	1	0	0	1.5	17.9
29-Sep	0	0	0	0	0	0	1	1	0	0	5	0	0	0	0	0	0	0	1	1	2	2	1	1	0.7	5.1
30-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	2	3	2	2	3	2	4	2	1	1	1	1.6	4.0
	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.7	0.6	0.7	1.3	0.8	0.6	0.6	0.6	0.5	0.7	0.7	0.8	0.7	0.6	0.5	0.5	Diurnal Average	
	3.1	1.4	1.0	1.0	1.3	1.3	1.5	3.3	3.5	1.4	5.1	17.9	3.4	2.0	2.8	2.5	2.5	3.6	2.5	4.0	2.0	1.6	0.9	1.4	Diurnal Maximum	

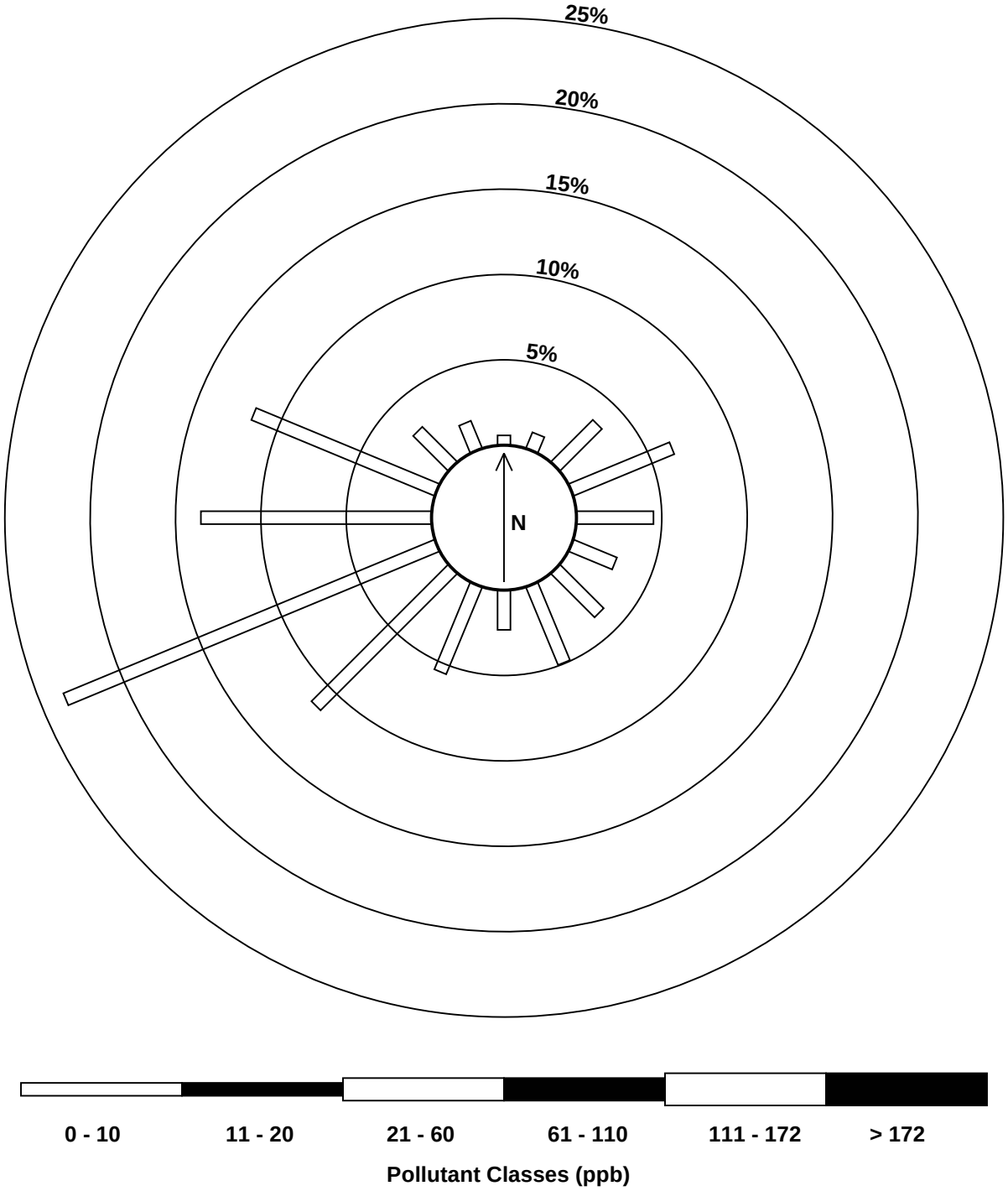
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for SO_2 at Henry Pirker
September 2008



Pollutant Rose for SO_2 at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Total Reduced Sulphur (TRS) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.6 ppb on Sep 7 22:00
Maximum Daily Average: 0.5 ppb on Sep 30

Minimum Value: 0 ppb on Sep 3 19:00
Maximum Diurnal Average: 0.4 ppb at hour 7
Monthly Average: 0.30 ppb

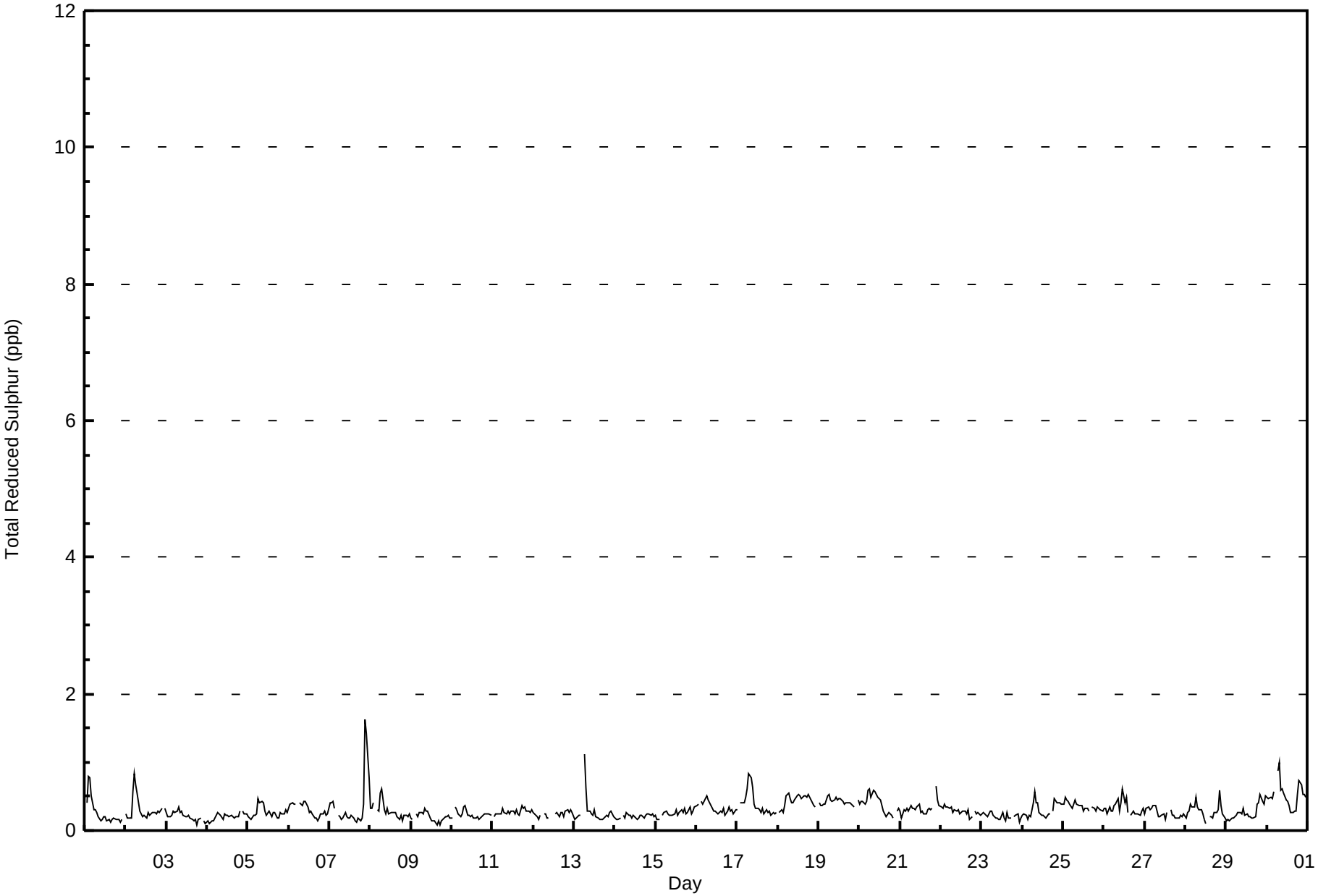
Minimum Daily Average: 0.2 ppb on Sep 9
Minimum Diurnal Average: 0.2 ppb at hour 17
Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.5$ $P_{99} = 0.8$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.8
2-Sep	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.8
3-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3
4-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.3
5-Sep	0	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
6-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
7-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0.4	1.6
8-Sep	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
9-Sep	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
10-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
12-Sep	0	0	0	0	0	A	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
13-Sep	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
14-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
15-Sep	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
16-Sep	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
17-Sep	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
18-Sep	A	0	0	0	0	1	1	0	0	0	0	1	1	1	0	1	1	0	1	0	0	0	0	A	0.4	0.6
19-Sep	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5
20-Sep	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.6
21-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0.3	0.7
22-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.4
23-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
24-Sep	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.6
25-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.5
26-Sep	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.6
27-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
28-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0.3	0.6
29-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.3	0.5
30-Sep	0	0	0	0	1	A	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0.5	1.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	0.5	0.5	0.8	0.8	0.6	0.8	1.1	1.0	0.8	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.7	1.6	1.4	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 Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Total Reduced Sulphur (TRS) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 2.6 ppb on Sep 7 22:00

Maximum Daily Average: 0.9 ppb on Sep 30

Minimum Value: 0 ppb on Sep 9 16:00

Maximum Diurnal Average: 0.8 ppb at hour 7

Monthly Average: 0.66 ppb

Minimum Daily Average: 0.5 ppb on Sep 4

Minimum Diurnal Average: 0.6 ppb at hour 16

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

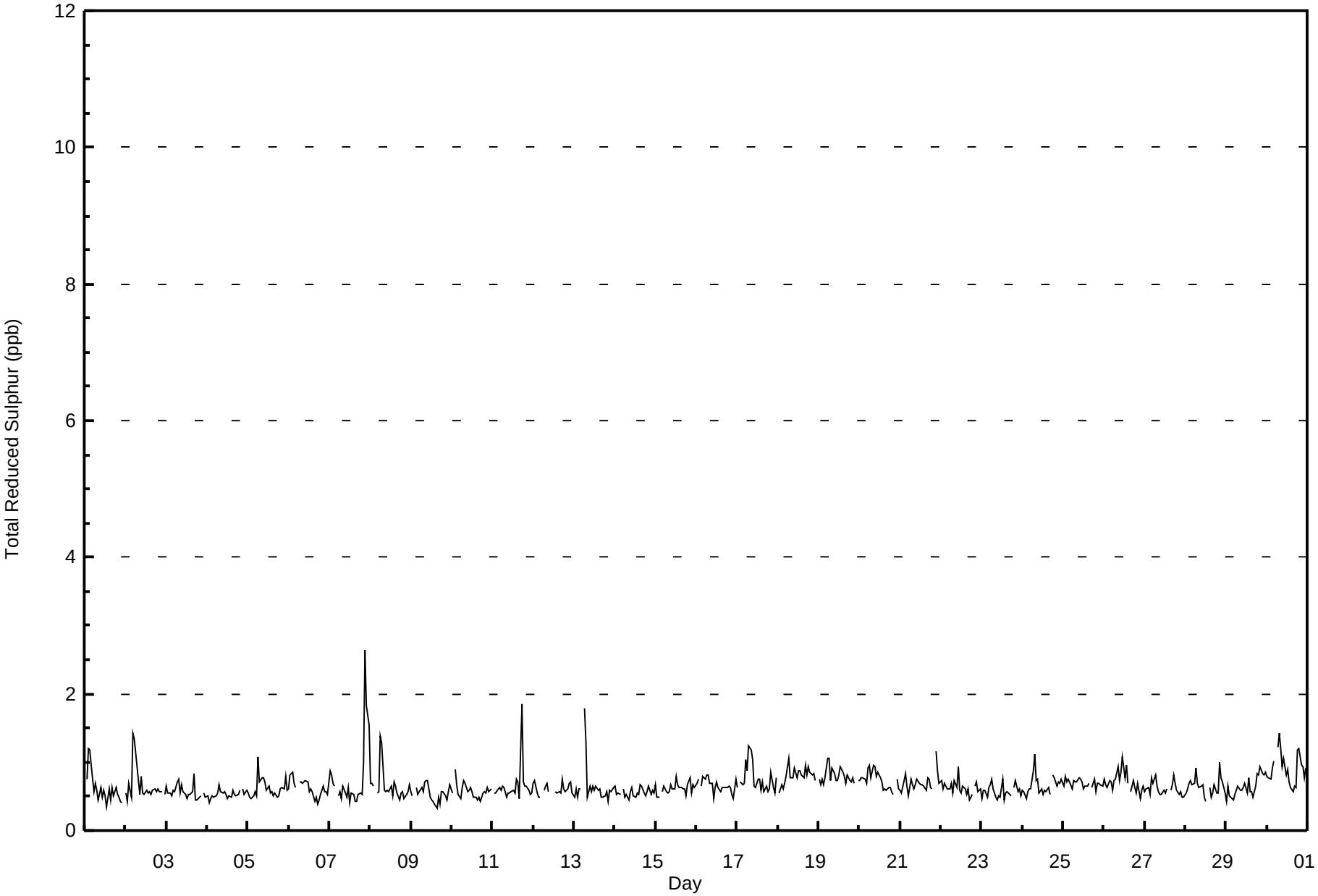
Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

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

C - Calibration

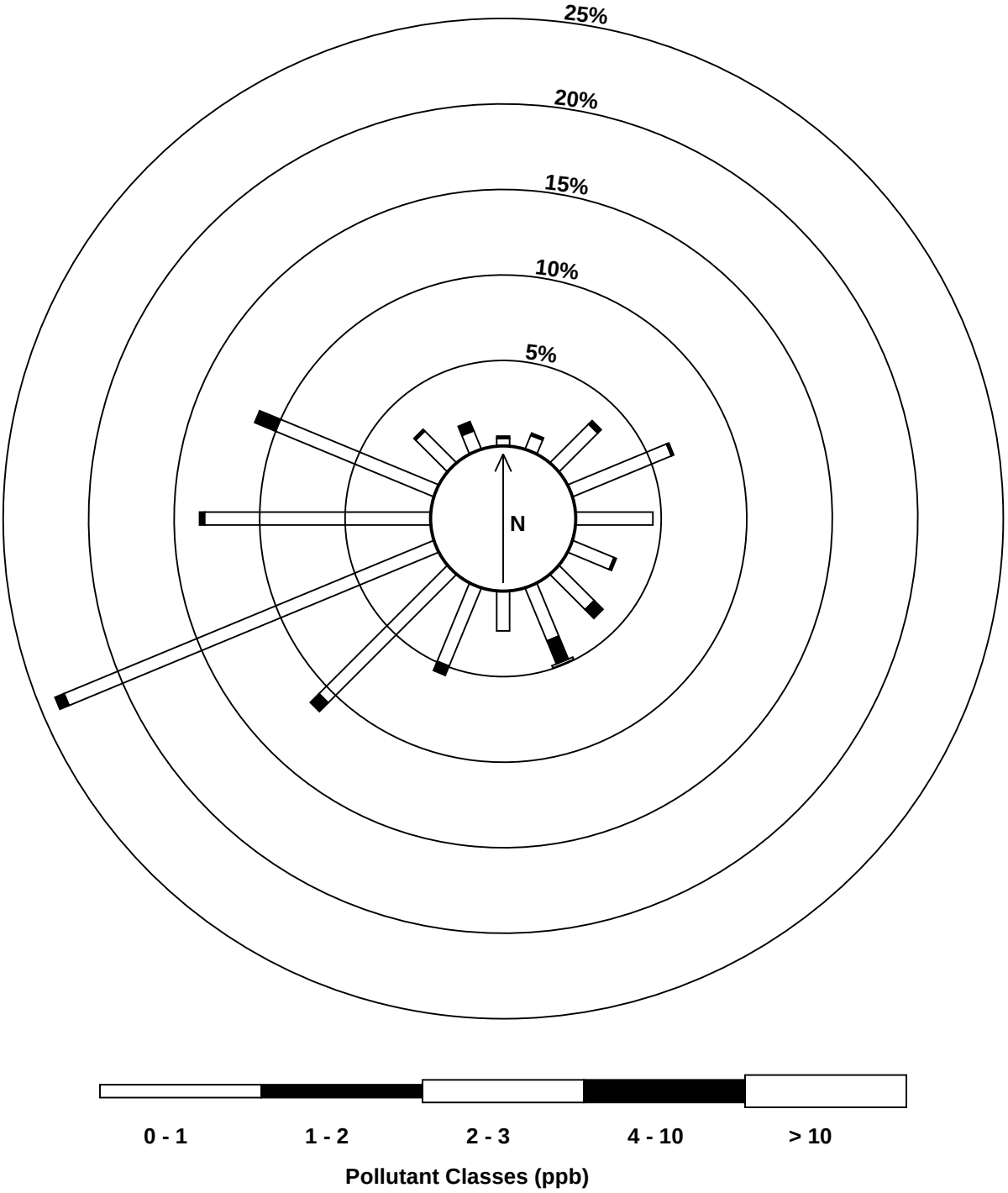
A - Automated Daily Zero Span

Hourly Maximums for TRS at Henry Pirker
September 2008



Pollutant Rose for TRS at Henry Pirker

September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Nitrogen Dioxide (NO_2) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 31.7 ppb on Sep 30 20:00 Maximum Daily Average: 15.4 ppb on Sep 30

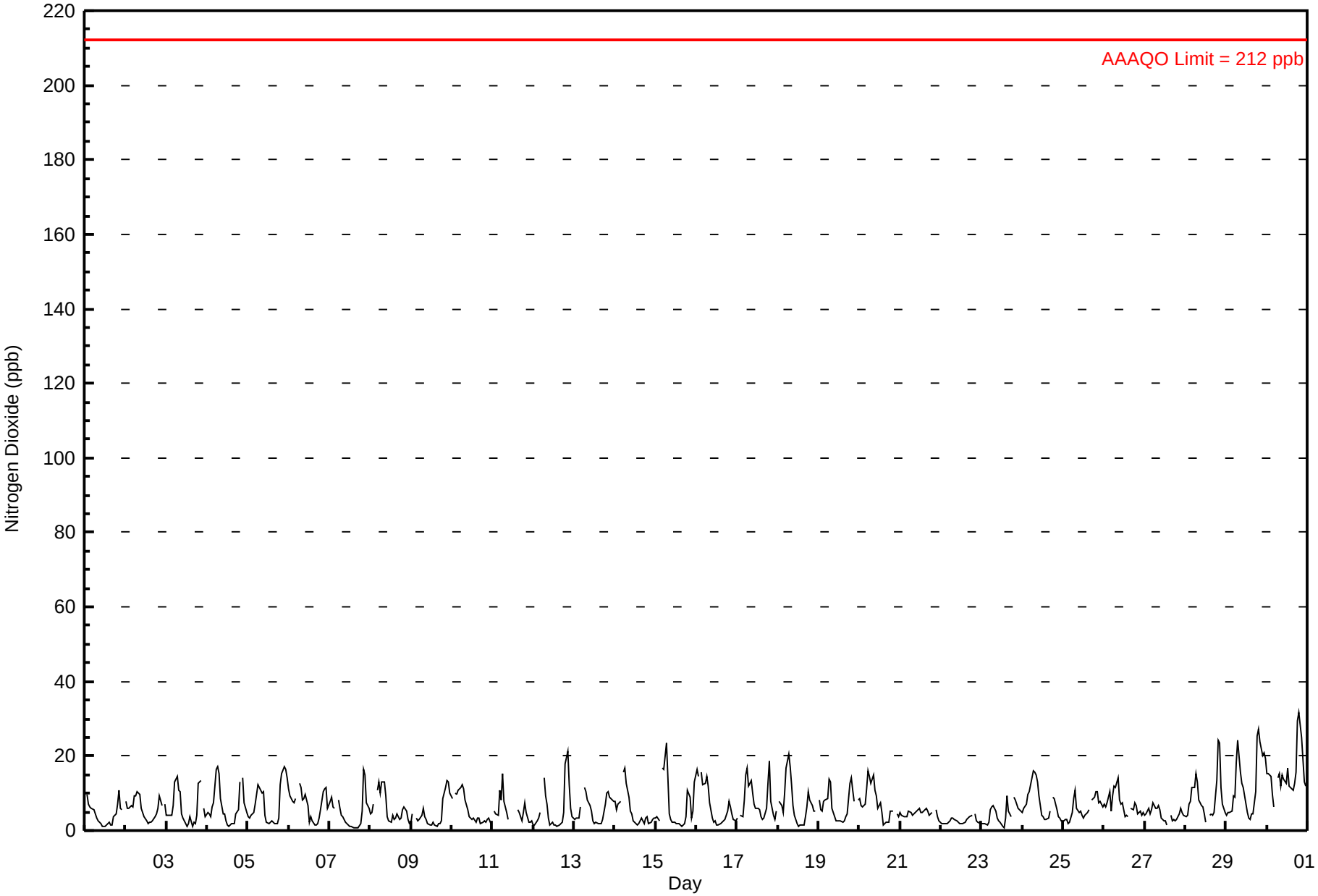
Minimum Value: 1 ppb on Sep 7 17:00 Minimum Daily Average: 2.6 ppb on Sep 22
Maximum Diurnal Average: 12.3 ppb at hour 7 Minimum Diurnal Average: 2.9 ppb at hour 14
Monthly Average: 6.54 ppb Percentiles: P_1 = 1.0 P_{10} = 1.9 Q_1 = 2.9 Median = 5.0 Q_3 = 8.8 P_{90} = 13.3 P_{99} = 24.0

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	10	7	6	6	6	4	3	2	2	1	1	1	1	2	1	2	4	4	7	11	6	6	A	4.3	11.0
2-Sep	8	6	6	7	6	9	9	10	10	6	5	4	3	2	2	2	3	4	4	6	9	7	A	7	5.9	10.4
3-Sep	4	4	4	4	7	13	15	11	10	5	3	2	1	2	4	1	2	2	4	13	13	A	6	4	5.8	14.7
4-Sep	5	5	4	6	8	16	17	15	9	4	4	3	2	1	2	2	2	4	6	13	A	14	7	5	6.7	17.2
5-Sep	4	3	4	5	7	10	12	11	10	10	4	2	2	2	3	2	2	2	3	12	15	17	16	14	7.2	17.0
6-Sep	11	9	8	7	9	A	13	11	8	9	10	7	2	4	3	2	2	2	3	6	10	11	12	6	7.1	12.6
7-Sep	8	9	6	6	A	8	6	4	4	2	2	1	1	1	1	1	1	1	2	5	16	15	8	6	4.9	16.4
8-Sep	4	5	7	A	11	13	10	13	13	9	4	3	2	4	3	3	4	3	3	6	6	5	3	2	6.0	13.0
9-Sep	2	4	A	3	3	3	4	6	4	3	2	1	2	2	2	1	2	2	3	9	12	13	13	10	4.6	13.3
10-Sep	8	A	10	10	11	11	12	11	8	6	4	3	3	3	2	4	4	2	2	2	2	3	3	1	5.5	12.2
11-Sep	A	5	5	4	11	8	15	8	5	3	C	C	C	C	A	6	5	3	5	8	5	2	2	3	5.7	15.4
12-Sep	2	2	2	3	5	A	14	9	7	3	2	2	1	1	1	2	2	2	5	18	21	12	6	4	5.5	21.3
13-Sep	3	3	3	3	6	A	12	11	8	7	5	3	2	2	2	2	2	3	7	10	11	9	9	8	5.6	11.6
14-Sep	8	6	7	8	A	16	17	13	9	5	4	2	2	2	2	3	3	2	3	4	2	2	3	3	5.4	16.7
15-Sep	4	4	3	A	17	16	23	14	5	3	2	2	2	2	2	1	2	2	4	11	9	3	5	13	6.5	23.5
16-Sep	17	14	A	16	12	13	15	12	7	3	2	3	2	1	2	2	2	3	5	8	6	4	3	3	6.8	16.5
17-Sep	3	A	4	4	8	15	17	12	14	10	7	6	6	6	4	3	4	6	13	19	8	4	3	5	7.8	18.7
18-Sep	A	8	7	5	10	17	20	17	12	7	4	2	1	1	2	1	4	6	10	8	7	5	5	A	7.3	20.5
19-Sep	8	6	5	8	8	9	14	13	6	4	3	3	3	3	2	2	4	5	13	14	11	8	A	8	6.9	14.2
20-Sep	9	7	6	7	11	16	15	13	15	11	9	6	8	5	2	2	2	2	5	5	5	A	4	4	7.3	15.9
21-Sep	5	4	4	4	4	5	5	4	5	5	5	6	5	5	5	6	5	4	5	5	A	5	4	3	4.6	6.1
22-Sep	2	2	2	2	2	3	3	4	3	3	2	2	2	2	2	3	3	4	4	A	4	3	2	2	2.6	4.3
23-Sep	2	2	2	2	2	6	6	7	5	4	2	2	1	1	4	9	5	4	A	9	8	6	6	5	4.3	9.2
24-Sep	5	6	7	10	10	12	16	16	15	13	9	4	4	3	3	3	5	A	9	8	5	4	3	3	7.6	16.1
25-Sep	3	3	3	2	2	5	8	11	6	5	5	4	3	4	5	5	A	8	9	11	10	8	8	6	5.9	10.8
26-Sep	7	6	7	10	5	9	12	12	14	8	7	7	4	4	4	A	6	5	7	7	5	5	4	5	7.1	14.0
27-Sep	4	5	6	5	6	7	6	6	7	6	3	3	3	1	A	4	3	3	3	3	5	6	5	4	4.4	7.4
28-Sep	4	4	7	8	12	12	15	13	8	7	6	5	2	A	4	4	4	5	13	24	23	11	7	5	8.8	24.1
29-Sep	4	5	5	5	9	9	18	24	16	13	12	9	5	3	3	4	4	11	25	27	24	20	21	19	12.3	27.3
30-Sep	15	15	15	10	6	A	14	15	12	15	14	13	17	12	12	11	13	16	29	32	25	19	13	12	15.4	31.7
	5.8	5.8	5.6	6.0	7.6	10.3	12.3	11.0	8.5	6.3	5.0	3.8	3.1	2.9	2.9	3.2	3.5	4.1	7.2	10.6	10.3	8.2	6.7	6.0	Diurnal Average	
	16.5	15.1	14.6	15.6	16.9	17.0	23.5	24.1	15.8	15.0	13.8	12.8	16.7	12.0	11.5	10.7	12.8	15.6	29.4	31.7	24.9	20.1	20.8	19.3	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 NO_2 at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Nitrogen Dioxide (NO_2) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 38.9 ppb on Sep 30 20:00

Maximum Daily Average: 19.2 ppb on Sep 30

Minimum Value: 2 ppb on Sep 1 13:00

Maximum Diurnal Average: 15.9 ppb at hour 7

Monthly Average: 9.72 ppb

Minimum Daily Average: 4.0 ppb on Sep 22

Minimum Diurnal Average: 5.4 ppb at hour 13

Percentiles: P_1 = 2.0 P_{10} = 3.5 Q_1 = 5.0 Median = 8.0 Q_3 = 13.1 P_{90} = 18.1 P_{99} = 29.4

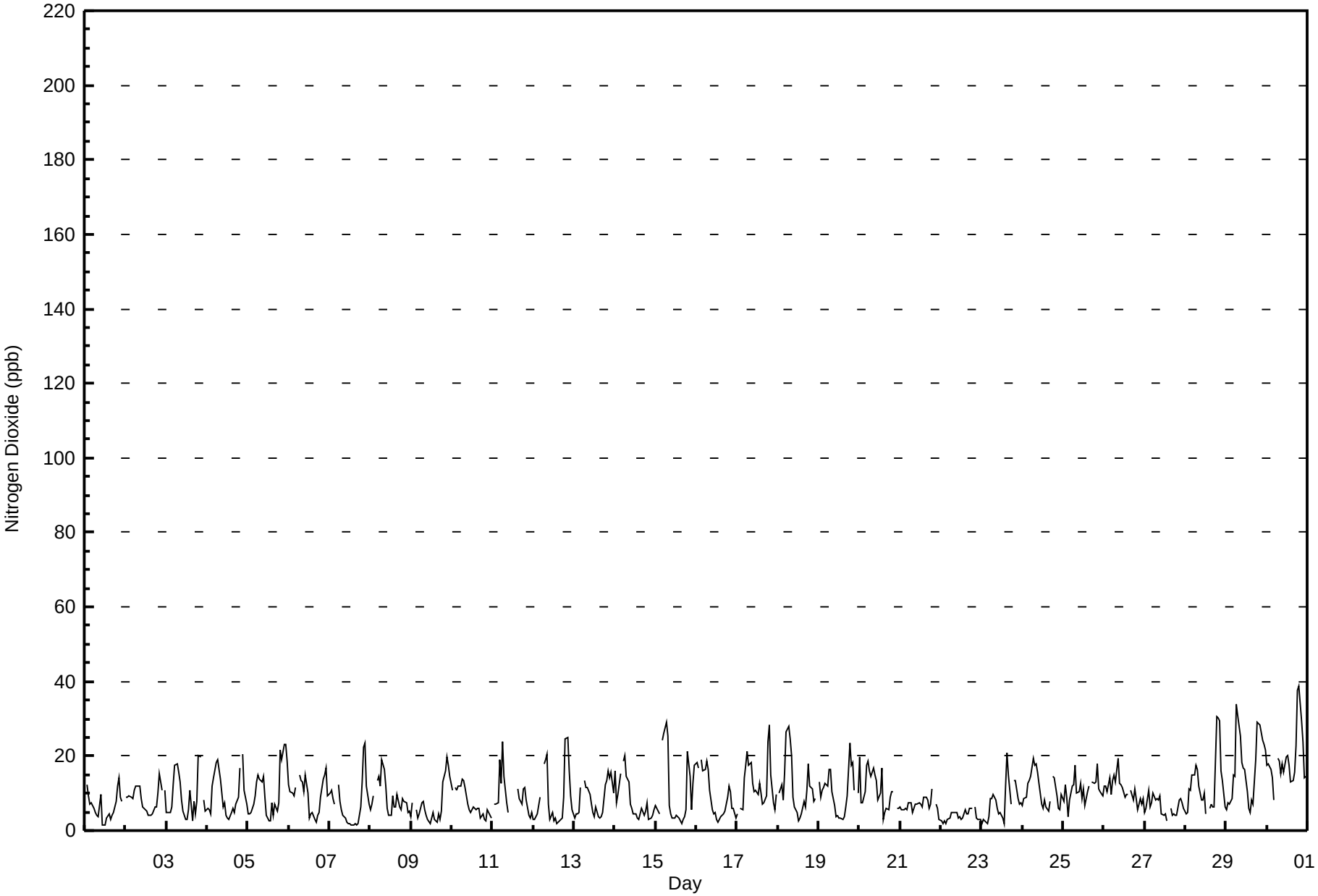
Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	12	9	7	7	6	5	4	4	10	2	2	2	3	4	3	4	5	8	12	14	9	8	A	6.3	14.3
2-Sep	9	9	9	9	8	11	12	12	12	8	6	6	5	4	4	4	4	6	6	10	15	11	A	11	8.4	15.4
3-Sep	5	5	5	6	12	17	18	16	13	8	5	3	3	6	11	2	8	4	8	20	20	A	8	5	9.1	20.0
4-Sep	6	5	4	12	14	18	19	16	14	6	7	4	3	3	5	6	5	7	9	17	A	20	11	7	9.6	20.5
5-Sep	4	4	5	7	9	13	15	14	13	14	9	4	2	3	7	4	7	5	7	21	19	23	23	18	10.6	22.9
6-Sep	12	10	10	9	11	A	15	13	13	10	15	10	3	4	5	3	2	4	5	9	14	15	17	9	9.7	17.0
7-Sep	10	11	8	7	A	12	8	5	4	3	2	2	2	2	2	2	2	2	6	13	22	23	12	7	7.3	23.4
8-Sep	5	7	9	A	13	14	12	19	16	12	6	4	4	9	6	6	10	6	5	8	8	7	5	5	8.7	18.9
9-Sep	4	7	A	5	3	4	8	8	5	4	3	2	3	5	3	2	4	3	5	13	16	20	17	14	7.0	19.9
10-Sep	11	A	11	11	12	12	14	13	11	7	5	5	5	6	5	6	6	3	4	3	2	5	5	3	7.4	14.0
11-Sep	A	7	7	7	19	13	24	15	7	5	C	C	C	C	A	11	8	7	11	12	8	4	3	5	9.7	23.8
12-Sep	3	3	4	7	9	A	18	19	20	7	3	5	3	3	2	3	3	4	9	25	25	16	9	6	8.9	25.1
13-Sep	4	5	5	5	12	A	14	12	12	10	7	5	4	7	4	3	4	5	12	14	16	14	16	10	8.5	16.1
14-Sep	16	8	10	15	A	19	20	15	13	7	6	4	5	3	3	5	6	4	5	7	3	4	4	6	8.1	20.1
15-Sep	7	6	5	A	24	26	29	25	7	5	4	3	4	4	4	2	3	4	6	21	15	5	13	18	10.3	29.1
16-Sep	18	17	A	19	16	17	19	17	11	6	5	5	3	2	4	4	5	5	9	12	11	6	6	4	9.5	19.1
17-Sep	5	A	6	5	14	18	21	18	18	13	11	11	10	13	10	7	8	9	24	28	15	8	6	10	12.4	28.5
18-Sep	A	10	12	8	16	27	28	25	20	9	7	5	3	4	5	8	6	11	18	12	11	8	9	A	11.8	28.1
19-Sep	13	9	11	12	13	12	17	17	11	7	4	4	4	4	3	4	7	10	23	18	18	11	A	10	10.3	23.4
20-Sep	20	8	7	10	18	19	16	15	17	15	14	8	10	17	3	5	6	6	9	11	11	A	6	6	11.0	19.6
21-Sep	7	5	6	6	6	8	7	5	6	7	7	8	7	7	9	9	8	6	7	11	A	7	6	3	6.8	11.0
22-Sep	3	2	3	2	3	4	5	5	5	5	4	4	3	3	6	5	5	6	6	A	7	4	3	3	4.0	6.5
23-Sep	2	3	3	2	4	9	8	10	8	6	5	5	3	2	12	21	15	7	A	13	14	9	7	8	7.5	20.9
24-Sep	7	9	9	13	14	15	20	18	18	16	13	7	6	8	7	5	8	A	14	14	9	6	6	10	10.8	19.5
25-Sep	8	12	9	4	8	12	12	18	10	10	13	9	11	7	11	12	A	13	13	13	18	11	10	9	11.0	18.1
26-Sep	12	12	11	14	10	14	15	13	19	13	12	12	9	10	10	A	11	8	11	9	6	9	7	8	11.0	19.2
27-Sep	5	6	11	6	8	10	8	9	8	9	5	4	5	3	A	6	4	4	4	4	8	9	8	6	6.4	11.0
28-Sep	5	5	11	11	15	15	18	17	12	8	8	10	4	A	6	7	7	7	31	30	30	16	14	7	12.7	30.6
29-Sep	6	8	7	9	15	15	34	31	25	18	17	16	11	6	5	8	7	19	29	29	28	24	23	22	17.1	33.8
30-Sep	18	18	17	14	8	A	19	19	15	18	16	20	20	18	13	14	16	23	38	39	30	24	14	15	19.2	38.9
	8.2	7.9	8.0	8.7	11.5	13.7	15.9	14.6	12.3	9.2	7.5	6.4	5.4	5.8	5.9	6.1	6.4	7.0	11.9	15.4	14.7	11.7	9.8	8.7	Diurnal Average	
	19.6	17.8	16.6	19.1	24.1	26.6	33.8	30.9	25.3	18.1	16.7	19.6	20.2	17.6	13.1	20.9	15.6	22.6	37.6	38.9	29.6	24.4	22.9	21.6	Diurnal Maximum	

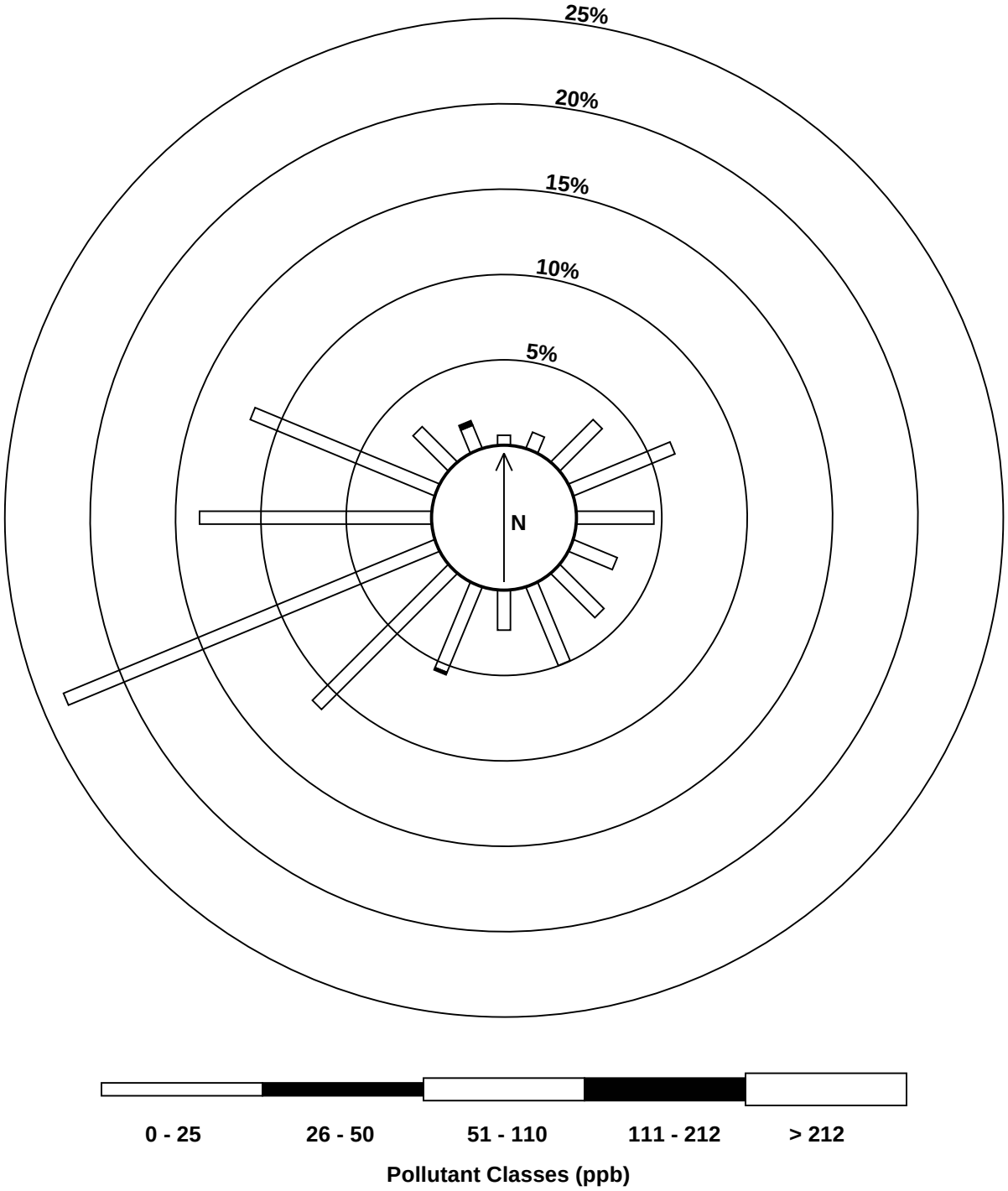
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for NO_2 at Henry Pirker
September 2008



Pollutant Rose for NO_2 at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Nitrogen Oxide (NO) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 95.3 ppb on Sep 30 08:00

Maximum Daily Average: 28.5 ppb on Sep 30

Minimum Value: 0 ppb on Sep 3 01:00

Minimum Daily Average: 0.4 ppb on Sep 21

Maximum Diurnal Average: 12.7 ppb at hour 8

Minimum Diurnal Average: 0.8 ppb at hour 18

Monthly Average: 3.30 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.4$ Median = 0.8 $Q_3 = 2.3$ $P_{90} = 7.0$ $P_{99} = 39.2$

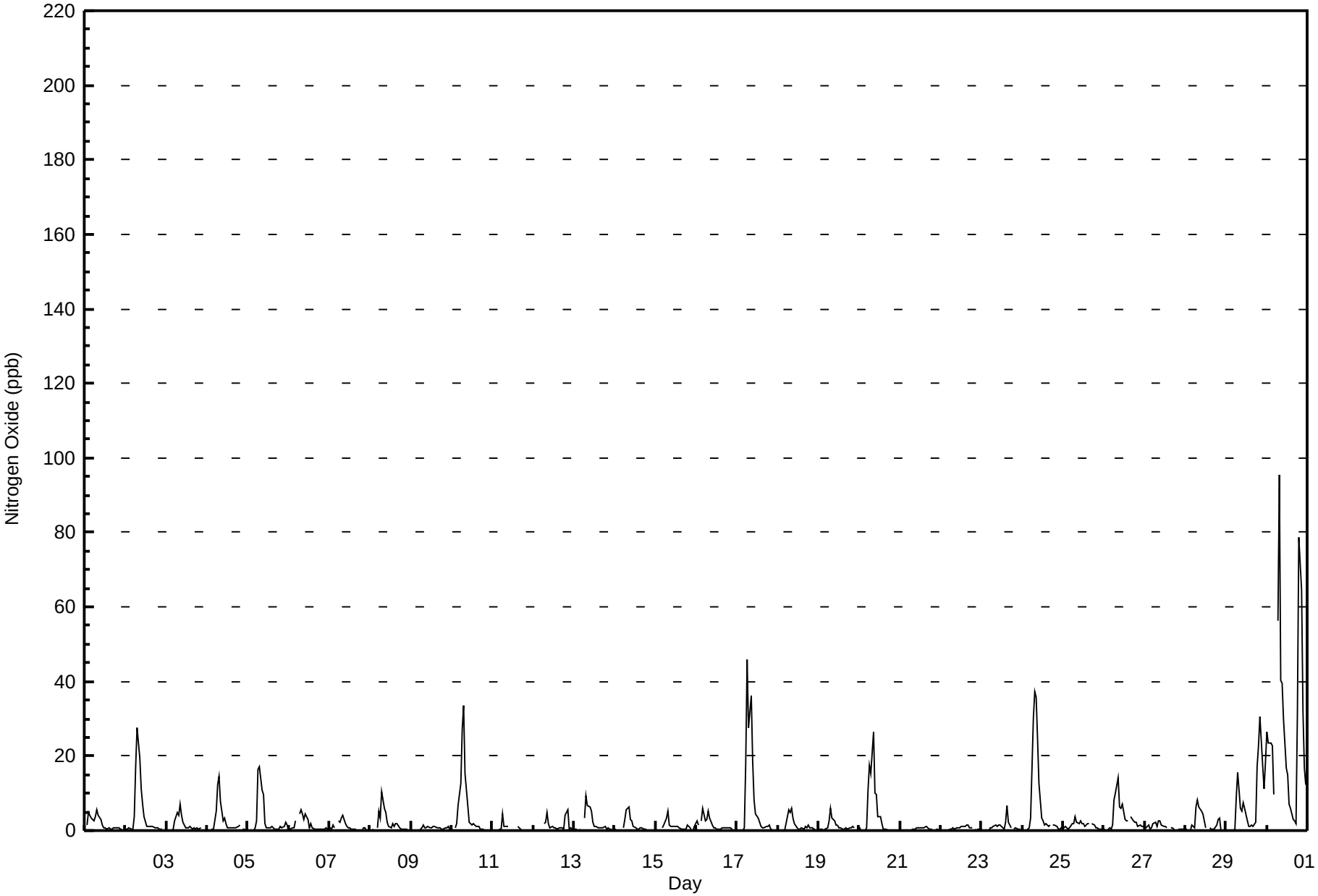
Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	2	5	4	3	3	4	6	4	3	1	1	1	0	1	1	0	1	1	1	1	0	0	A	1.9	5.7
2-Sep	0	0	1	0	0	4	17	27	20	11	7	4	1	1	1	1	1	1	1	1	1	0	A	0	4.4	27.5
3-Sep	0	0	0	0	0	3	5	4	7	4	2	1	1	1	1	0	1	1	1	1	1	A	0	0	1.4	7.0
4-Sep	0	0	0	0	1	5	12	15	8	3	3	2	1	1	1	1	1	1	1	1	A	0	0	0	2.5	14.7
5-Sep	0	0	0	0	1	2	17	17	11	10	2	1	1	1	1	1	1	0	1	1	1	1	2	1	3.0	17.0
6-Sep	0	0	1	1	3	A	5	6	5	3	4	3	1	2	1	1	0	0	0	0	1	0	1	0	1.6	5.7
7-Sep	1	0	1	1	A	3	2	3	4	2	1	1	1	0	0	0	0	0	0	0	1	1	0	0	1.0	4.2
8-Sep	0	0	0	A	1	5	3	11	6	5	2	1	1	2	1	2	2	1	0	0	0	0	0	0	1.9	10.5
9-Sep	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	0.6	1.5
10-Sep	0	A	1	2	7	13	27	34	15	7	2	2	2	2	1	1	1	1	0	0	0	0	0	0	5.1	33.7
11-Sep	A	0	0	0	0	0	4	1	1	1	C	C	C	C	A	1	1	0	0	0	0	0	0	0	0.6	4.4
12-Sep	0	0	0	0	0	A	2	2	5	2	1	1	1	1	0	1	1	1	1	4	5	0	1	0	1.2	5.4
13-Sep	0	0	0	0	0	A	3	9	7	6	5	2	1	1	1	1	1	1	1	1	1	0	0	0	1.9	9.2
14-Sep	0	0	0	0	A	1	3	6	7	3	3	1	1	1	1	1	1	0	0	0	0	0	0	0	1.2	6.5
15-Sep	0	0	0	A	1	2	3	5	2	1	1	1	1	1	1	0	1	0	0	1	1	0	0	1	1.0	5.3
16-Sep	3	1	A	3	6	2	3	5	3	2	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1.6	5.9
17-Sep	0	A	0	0	1	18	46	27	36	19	8	4	3	2	1	1	1	1	1	1	0	0	0	0	7.5	45.9
18-Sep	A	0	0	0	0	2	6	5	6	3	2	1	0	0	1	1	1	1	2	1	1	0	0	A	1.5	6.1
19-Sep	0	0	0	0	0	1	3	6	3	2	2	1	1	1	0	1	1	0	1	1	1	1	A	0	1.2	6.0
20-Sep	1	0	0	0	1	11	18	15	27	10	10	4	4	2	0	0	0	0	0	0	0	A	0	0	4.4	26.6
21-Sep	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	A	1	0	0	0.4	1.0
22-Sep	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	1	1	1	A	0	0	0	0	0.6	1.6
23-Sep	0	0	0	0	0	1	1	1	1	1	1	2	1	1	2	7	2	1	A	0	1	0	0	0	1.0	6.5
24-Sep	0	0	0	1	1	3	30	37	36	25	13	3	3	2	2	1	1	A	1	2	1	1	0	1	7.1	37.2
25-Sep	1	1	1	0	1	2	2	4	2	2	3	2	2	1	2	2	A	2	1	1	1	0	0	0	1.4	3.8
26-Sep	0	0	0	1	0	2	8	10	14	6	6	7	3	3	3	A	4	3	2	2	1	1	1	1	3.5	14.0
27-Sep	1	1	1	0	1	2	2	1	3	3	2	1	1	1	A	1	1	0	0	0	0	0	0	0	1.0	2.6
28-Sep	0	0	0	0	2	1	6	8	6	5	5	2	1	A	1	1	0	0	1	3	3	0	0	0	2.0	8.1
29-Sep	0	0	0	0	0	0	9	16	6	5	7	6	3	1	1	1	1	2	17	23	31	17	11	18	7.4	30.7
30-Sep	26	24	24	23	10	A	56	95	40	39	30	17	15	7	6	3	3	2	32	79	65	32	17	12	28.5	95.3
	1.3	1.1	1.3	1.3	1.4	3.3	10.0	12.7	9.5	6.2	4.4	2.6	1.7	1.3	1.2	1.1	1.0	0.8	2.4	4.3	4.2	2.2	1.3	1.4	Diurnal Average	
	26.5	23.6	23.6	22.8	9.8	18.0	56.5	95.3	40.1	39.4	29.9	16.9	14.9	7.1	5.8	6.5	3.6	2.7	31.8	78.7	64.6	31.9	17.0	18.4	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

Hourly Averages for NO at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Nitrogen Oxide (NO) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 138.8 ppb on Sep 30 20:00

Maximum Daily Average: 52.6 ppb on Sep 30

Minimum Value: 0 ppb on Sep 21 01:00

Minimum Daily Average: 0.8 ppb on Sep 21

Maximum Diurnal Average: 21.3 ppb at hour 9

Minimum Diurnal Average: 2.4 ppb at hour 18

Monthly Average: 7.32 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.5$ $Q_1 = 1.0$ Median = 2.3 $Q_3 = 7.0$ $P_{90} = 16.8$ $P_{99} = 76.9$

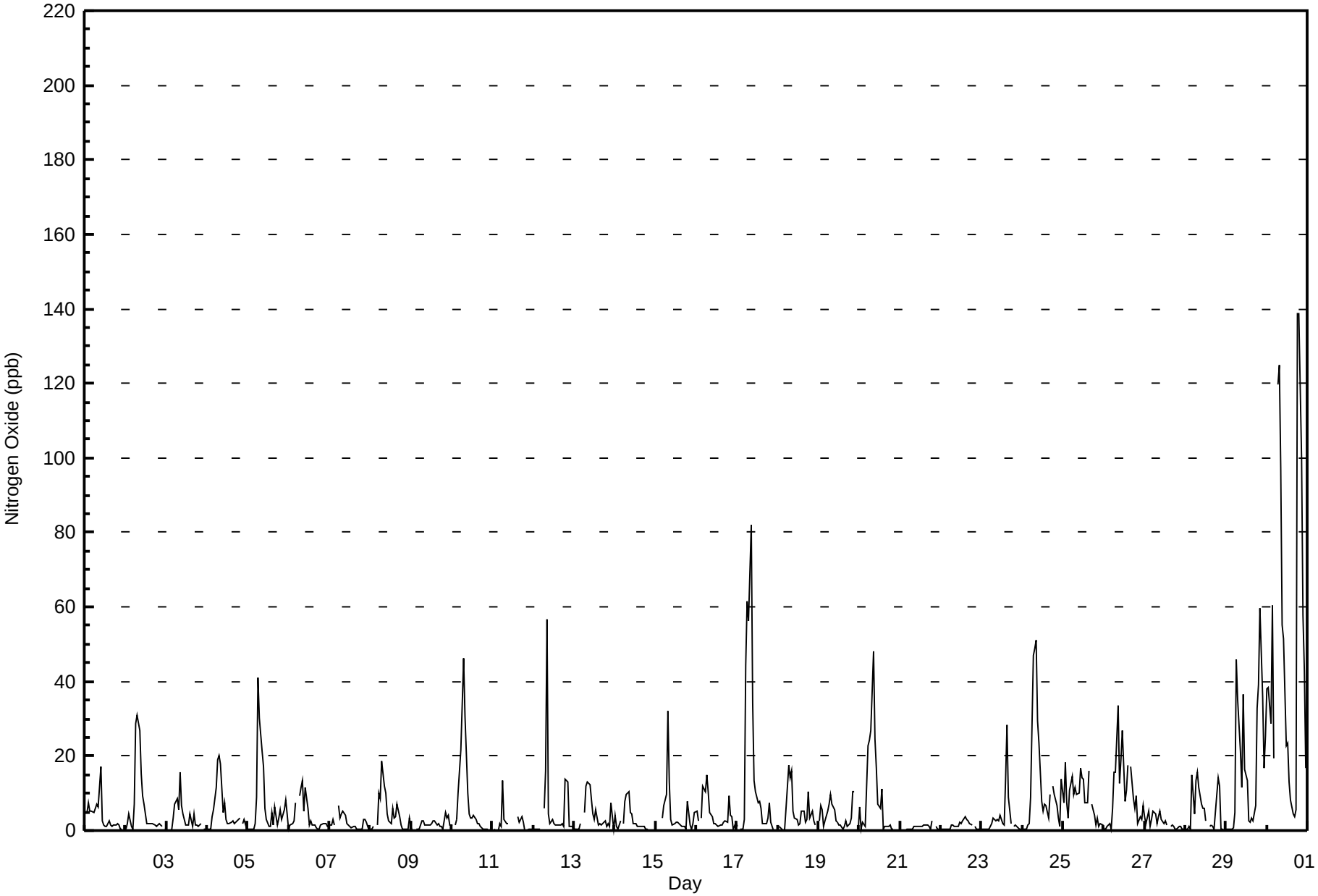
Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	5	7	5	5	5	6	7	6	17	2	1	1	1	2	1	1	1	1	2	1	1	1	A	3.7	17.1
2-Sep	1	2	4	1	1	7	29	31	27	15	9	7	2	2	2	2	2	2	1	1	2	1	A	1	6.6	31.0
3-Sep	0	0	0	0	4	7	9	6	16	7	5	2	2	2	4	1	5	1	1	1	2	A	1	1	3.2	15.6
4-Sep	1	1	1	4	6	11	19	20	18	5	7	3	2	2	2	3	2	2	3	3	A	2	3	1	5.2	20.3
5-Sep	1	1	1	1	2	9	41	30	21	17	6	3	1	1	5	2	6	1	3	6	3	6	8	5	7.4	41.0
6-Sep	1	2	2	3	8	A	9	11	14	5	12	6	2	3	1	2	1	1	1	1	2	2	2	1	3.8	13.6
7-Sep	2	2	3	2	A	7	4	5	5	4	2	1	1	1	1	1	1	1	1	0	3	3	2	0	2.1	6.7
8-Sep	0	1	1	A	2	10	9	19	12	10	4	3	2	6	3	4	7	4	1	1	1	1	1	3	4.4	18.5
9-Sep	1	0	A	0	0	1	2	3	2	2	2	1	2	2	3	1	2	1	1	1	5	4	4	2	1.8	4.7
10-Sep	1	A	2	3	10	21	34	46	31	10	5	4	3	4	3	2	2	1	1	1	1	1	0	1	8.0	46.3
11-Sep	A	0	0	0	2	1	13	3	2	2	C	C	C	C	A	4	2	4	2	0	0	0	0	0	2.0	13.4
12-Sep	0	0	0	0	0	A	6	16	57	5	2	3	2	2	1	1	2	2	1	14	13	1	1	1	5.7	56.8
13-Sep	1	1	1	0	2	A	5	12	13	12	8	5	3	5	2	2	2	2	3	1	2	1	7	1	3.9	13.1
14-Sep	4	1	0	3	A	2	8	10	11	5	5	2	2	1	1	1	1	1	1	1	0	0	0	0	2.5	10.6
15-Sep	0	0	0	A	3	7	10	32	13	3	2	2	2	2	2	1	1	1	1	8	2	1	2	5	4.3	32.0
16-Sep	5	3	A	4	12	11	15	11	5	4	2	2	2	1	2	2	2	3	2	9	4	4	1	2	4.6	14.9
17-Sep	1	A	1	1	3	44	61	56	82	34	13	11	8	8	6	2	2	2	4	7	2	0	0	0	15.1	82.2
18-Sep	A	1	1	0	1	6	18	14	16	5	3	3	1	2	5	5	2	3	10	3	5	3	2	A	5.0	17.6
19-Sep	2	7	6	1	3	5	7	10	7	5	3	2	1	1	1	1	3	1	2	3	11	10	A	1	4.0	10.6
20-Sep	6	1	2	1	12	23	24	27	48	25	17	7	6	11	1	1	1	1	1	1	0	A	0	0	9.4	48.0
21-Sep	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	3	A	1	1	1	0.8	2.5
22-Sep	1	1	0	1	1	1	1	2	1	1	1	2	2	3	4	3	3	2	1	A	1	1	1	1	1.4	3.7
23-Sep	1	1	1	1	1	1	2	3	3	3	3	4	2	1	14	28	9	2	A	1	2	1	1	1	3.6	28.4
24-Sep	1	1	1	2	2	9	47	49	51	30	24	8	5	7	7	3	10	A	12	10	7	3	1	14	13.1	50.9
25-Sep	7	18	7	3	11	15	10	11	10	10	17	14	14	7	8	16	A	7	4	2	3	1	2	2	8.6	18.1
26-Sep	1	1	1	2	1	6	16	16	34	13	19	27	8	11	18	A	17	9	6	9	2	4	3	7	9.9	33.6
27-Sep	4	2	5	1	3	5	5	2	4	5	3	2	3	1	A	1	2	1	1	1	1	1	1	1	2.3	5.2
28-Sep	1	0	1	1	15	5	14	16	12	7	6	6	3	A	1	1	1	0	10	14	12	0	0	0	5.4	15.8
29-Sep	0	0	0	0	1	5	46	35	21	11	37	16	13	3	2	3	3	7	33	39	60	36	17	25	17.3	59.6
30-Sep	38	38	29	60	19	A	120	125	98	55	52	23	24	13	8	5	4	6	139	139	100	58	43	17	52.6	138.8
	2.9	3.1	2.7	3.5	4.5	8.6	19.6	20.9	21.3	11.0	9.3	5.9	4.1	3.7	3.9	3.5	3.2	2.4	8.5	9.7	8.8	5.1	3.6	3.1	Diurnal Average	
	37.9	38.4	28.8	60.4	19.4	44.2	119.7	125.1	97.5	55.3	51.6	27.0	23.6	13.2	17.7	28.4	17.3	8.6	138.6	138.8	99.9	58.0	42.8	25.4	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for NO at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Oxides of Nitrogen (NO_X) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 111.1 ppb on Sep 30 08:00

Maximum Daily Average: 44.3 ppb on Sep 30

Minimum Value: 1 ppb on Sep 7 17:00

Maximum Diurnal Average: 23.7 ppb at hour 8

Monthly Average: 9.91 ppb

Minimum Daily Average: 3.2 ppb on Sep 22

Minimum Diurnal Average: 4.2 ppb at hour 15

Percentiles: P_1 = 1.5 P_{10} = 2.4 Q_1 = 3.7 Median = 6.0 Q_3 = 11.3 P_{90} = 20.1 P_{99} = 52.5

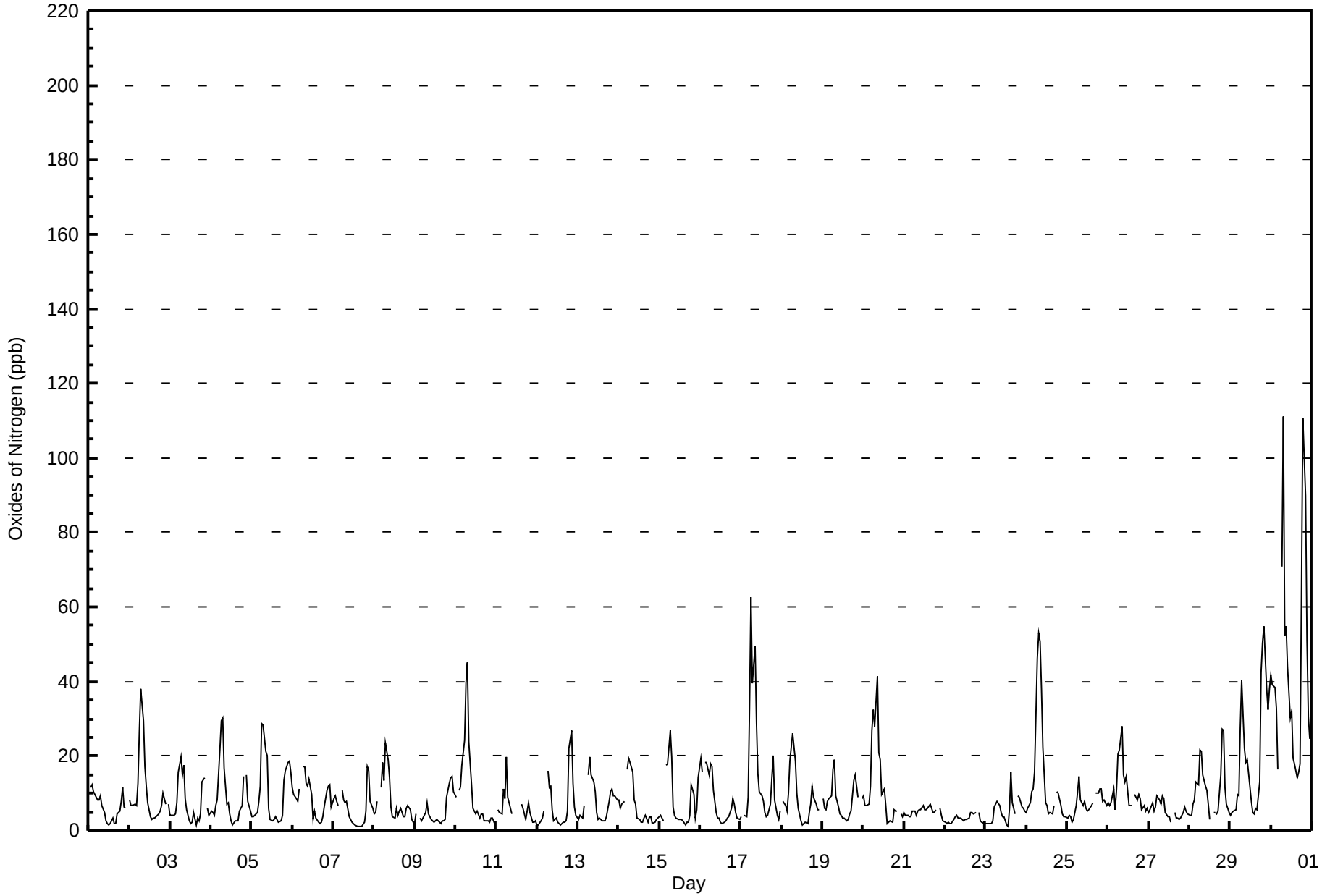
Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	11	12	10	10	8	8	9	7	5	3	2	2	2	3	2	2	5	5	8	12	6	6	A	6.3	12.2
2-Sep	8	7	7	7	7	13	27	38	29	17	12	8	4	3	3	3	4	5	5	7	10	7	A	7	10.3	37.9
3-Sep	4	4	4	4	7	16	20	15	17	9	6	3	2	2	5	1	3	3	5	13	14	A	6	4	7.3	19.7
4-Sep	5	5	4	7	8	22	30	30	17	7	8	4	3	2	3	3	3	5	7	14	A	15	8	5	9.2	30.0
5-Sep	4	4	4	5	8	12	29	28	21	20	6	3	3	3	4	3	2	3	4	14	16	18	19	16	10.3	28.7
6-Sep	11	10	9	8	11	A	17	17	13	12	14	10	3	5	3	2	2	2	4	6	11	12	12	6	8.7	17.2
7-Sep	8	9	8	7	A	11	8	7	8	4	3	2	2	1	1	1	1	1	2	5	17	16	8	6	6.0	17.1
8-Sep	4	5	8	A	11	18	14	24	19	14	6	4	3	6	4	5	6	4	4	6	7	6	3	2	7.9	23.6
9-Sep	2	4	A	3	3	3	5	7	4	4	3	2	2	3	3	2	2	3	3	9	13	14	14	11	5.2	14.4
10-Sep	9	A	11	12	18	24	40	45	24	12	6	5	5	5	3	5	5	2	3	3	2	3	3	2	10.7	45.0
11-Sep	A	5	5	4	11	9	20	9	6	4	C	C	C	C	A	7	6	3	5	8	5	2	2	3	6.4	19.9
12-Sep	2	2	2	3	5	A	16	12	12	5	3	3	2	2	2	2	2	3	5	22	27	13	6	4	6.8	26.8
13-Sep	3	4	4	3	7	A	15	20	15	13	10	5	3	3	3	3	3	4	8	11	11	10	9	8	7.6	19.9
14-Sep	8	6	7	8	A	16	19	18	15	8	7	4	3	2	2	3	4	2	4	4	2	2	3	3	6.6	19.5
15-Sep	4	4	3	A	18	18	27	20	6	4	3	3	3	3	3	2	2	2	4	12	10	3	5	14	7.5	26.9
16-Sep	19	16	A	18	18	15	18	17	11	5	3	3	2	2	2	3	3	4	6	9	7	5	3	3	8.4	19.3
17-Sep	4	A	4	4	9	33	63	40	50	29	15	10	9	8	5	4	4	7	14	20	8	4	3	5	15.3	62.8
18-Sep	A	8	7	5	10	19	26	22	19	10	6	3	2	2	2	2	5	7	12	9	7	5	6	A	8.8	26.3
19-Sep	9	6	6	8	8	9	16	19	9	6	4	4	3	3	3	3	5	5	14	15	12	9	A	9	8.1	19.0
20-Sep	9	7	7	7	12	27	32	28	41	21	19	10	11	7	2	2	3	2	6	5	5	A	4	4	11.8	41.4
21-Sep	5	4	4	4	4	5	5	4	5	5	6	7	6	6	6	7	6	5	5	5	A	6	4	3	5.1	7.0
22-Sep	2	2	2	2	2	3	4	4	4	3	3	3	3	3	4	5	5	4	5	A	5	3	2	2	3.2	4.9
23-Sep	2	2	2	2	2	6	7	8	7	5	4	4	2	1	6	16	7	4	A	9	9	6	6	5	5.3	15.7
24-Sep	5	6	7	10	11	16	46	53	51	38	22	8	7	4	5	5	7	A	11	10	7	4	4	4	14.8	52.8
25-Sep	3	4	4	2	3	7	10	15	8	7	8	6	5	5	7	8	A	10	10	11	11	8	8	7	7.3	14.6
26-Sep	8	7	8	11	6	11	20	22	28	15	13	15	7	7	7	A	10	8	10	9	6	7	5	6	10.5	28.0
27-Sep	5	6	7	5	6	9	8	7	9	8	5	4	4	2	A	5	3	3	3	3	5	6	5	4	5.4	9.2
28-Sep	4	4	7	8	13	12	22	21	15	12	11	7	3	A	5	5	5	5	15	27	27	12	7	5	10.9	27.1
29-Sep	4	5	5	5	10	9	27	40	22	18	19	15	8	5	4	6	6	13	43	50	55	38	32	38	20.0	54.9
30-Sep	42	39	39	33	17	A	71	111	52	55	44	30	32	20	18	14	16	18	62	111	90	51	31	25	44.3	111.1
	7.2	7.0	7.0	7.4	9.1	13.6	22.4	23.7	18.1	12.5	9.4	6.4	4.9	4.2	4.2	4.4	4.5	4.9	9.7	15.0	14.6	10.4	8.1	7.5	Diurnal Average	
	41.9	39.2	38.6	32.8	18.4	33.1	70.8	111.1	52.4	54.8	44.1	30.2	32.1	19.6	17.8	15.7	15.8	17.7	61.6	110.8	89.9	51.3	32.4	38.1	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

Hourly Averages for NO_X at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Oxides of Nitrogen (NO_X) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 175.1 ppb on Sep 30 19:00

Maximum Daily Average: 71.1 ppb on Sep 30

Minimum Value: 2 ppb on Sep 7 18:00

Minimum Daily Average: 5.2 ppb on Sep 22

Maximum Diurnal Average: 35.0 ppb at hour 7

Minimum Diurnal Average: 8.8 ppb at hour 18

Monthly Average: 16.71 ppb

Percentiles: P_1 = 2.5 P_{10} = 4.5 Q_1 = 6.5 Median = 10.5 Q_3 = 20.5 P_{90} = 33.6 P_{99} = 96.1

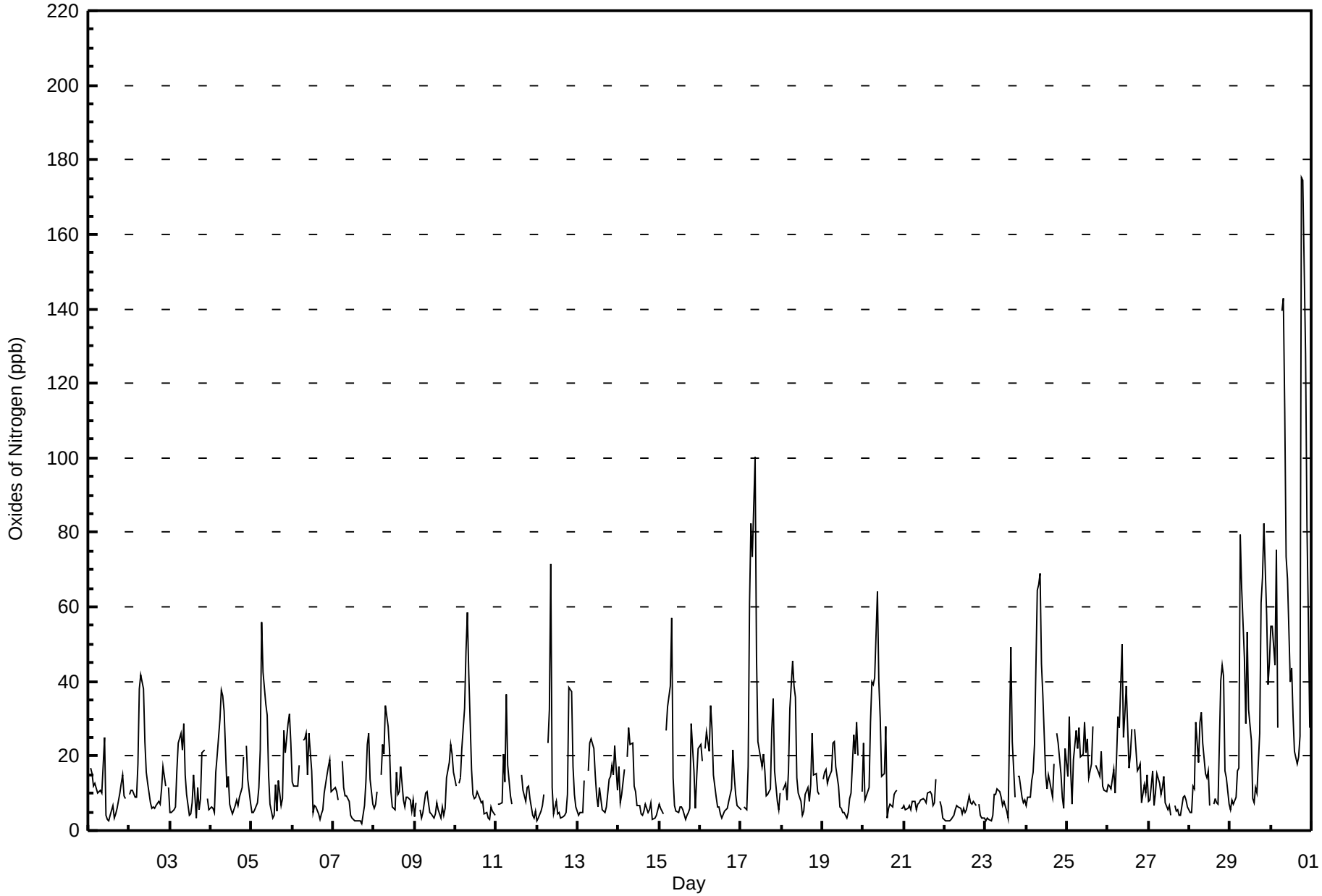
Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	17	15	12	13	10	11	11	10	25	4	3	2	4	7	3	4	6	10	13	15	9	9	A	9.7	24.8
2-Sep	10	11	11	9	9	18	38	42	38	24	16	13	8	6	6	6	7	8	7	11	17	12	A	12	14.6	41.6
3-Sep	5	5	5	7	16	24	26	21	29	15	10	4	5	8	15	3	11	5	9	21	22	A	9	5	12.1	28.6
4-Sep	7	6	5	16	20	30	38	36	32	12	14	7	5	5	7	8	7	9	12	20	A	23	14	8	14.7	37.6
5-Sep	5	5	5	8	12	22	56	43	34	31	15	7	3	4	12	5	13	7	9	27	21	29	31	24	17.8	56.0
6-Sep	13	12	12	12	18	A	24	25	26	15	26	16	5	7	7	4	3	5	6	10	15	17	19	10	13.3	26.3
7-Sep	11	12	10	8	A	19	12	9	9	8	4	3	3	2	3	3	2	2	7	13	23	26	14	7	9.1	26.1
8-Sep	6	7	11	A	15	23	20	33	28	22	11	6	6	15	10	10	17	8	6	9	9	8	5	8	12.8	33.5
9-Sep	4	8	A	6	3	5	10	10	8	5	5	3	5	7	6	3	6	4	6	14	18	23	21	16	8.5	23.1
10-Sep	12	A	13	14	22	33	48	59	42	17	10	9	9	11	8	8	8	5	5	4	3	6	5	4	15.3	58.7
11-Sep	A	7	7	8	21	13	36	18	9	7	C	C	C	C	A	15	11	8	12	12	9	4	3	5	11.3	36.5
12-Sep	3	3	5	7	10	A	24	32	72	11	5	8	5	5	3	4	4	5	10	38	37	17	10	7	14.0	71.6
13-Sep	4	5	5	5	14	A	16	24	25	22	15	9	6	11	5	5	5	6	14	15	18	15	23	11	12.1	24.5
14-Sep	17	8	10	17	A	20	28	23	24	12	11	7	7	4	4	5	7	5	6	8	3	4	4	6	10.2	27.6
15-Sep	7	6	5	A	27	33	39	57	14	7	5	5	6	6	5	3	4	5	6	29	16	6	14	22	14.3	57.2
16-Sep	23	19	A	22	27	21	34	27	15	9	7	6	5	3	5	6	6	8	11	22	15	10	7	6	13.5	33.6
17-Sep	6	A	6	6	17	61	82	74	100	47	24	22	17	20	16	9	10	11	27	35	16	8	6	10	27.4	100.5
18-Sep	A	11	13	8	16	33	45	39	36	14	10	8	4	5	10	12	8	12	26	15	15	10	10	A	16.4	45.3
19-Sep	14	16	16	13	14	16	24	24	17	12	6	6	5	5	4	5	8	10	26	21	29	20	A	11	13.9	29.0
20-Sep	24	8	9	11	29	40	39	41	64	40	30	14	15	28	4	6	7	6	10	11	11	A	6	6	20.0	64.3
21-Sep	7	6	6	7	6	8	8	6	7	8	8	9	8	8	10	11	10	7	8	14	A	8	6	4	7.6	13.9
22-Sep	3	3	3	3	3	4	6	7	6	6	5	6	5	6	9	8	7	8	7	A	7	4	4	4	5.2	9.2
23-Sep	3	4	3	3	4	10	10	11	10	9	7	8	5	3	26	49	24	9	A	14	15	9	8	8	10.9	49.3
24-Sep	7	9	9	14	16	23	65	66	69	45	36	15	11	15	13	9	18	A	26	24	15	9	6	22	23.5	68.9
25-Sep	14	31	16	7	19	27	22	27	20	20	29	21	25	14	18	28	A	17	16	15	21	12	11	11	19.2	30.5
26-Sep	12	12	11	17	10	19	31	28	50	25	31	39	17	20	27	A	27	16	17	18	7	12	10	15	20.5	50.0
27-Sep	8	8	16	7	10	15	13	10	12	15	7	6	7	4	A	7	5	6	4	4	9	9	8	7	8.5	16.1
28-Sep	5	5	12	11	29	18	29	32	24	15	14	16	7	A	7	9	8	7	40	44	42	16	14	7	17.8	44.3
29-Sep	6	8	7	9	16	17	80	65	46	29	53	32	24	9	8	12	10	26	61	68	82	58	39	45	33.7	82.5
30-Sep	55	55	44	75	28	A	139	143	113	74	67	40	44	31	21	18	20	26	175	175	128	82	57	27	71.1	175.1
	10.6	10.8	10.4	12.0	15.7	21.6	35.0	34.7	33.0	19.9	16.7	12.0	9.4	9.6	9.9	9.4	9.6	8.8	19.9	24.8	22.8	16.7	13.2	11.6	Diurnal Average	
	54.9	54.7	44.3	75.2	29.1	61.2	139.3	142.8	112.9	73.6	67.5	39.8	43.8	30.8	27.2	49.3	27.2	26.0	175.1	174.6	128.0	81.8	56.5	45.3	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for NO_X at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Ozone (O_3) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 41.1 ppb on Sep 20 18:00
Maximum Daily Average: 25.2 ppb on Sep 18

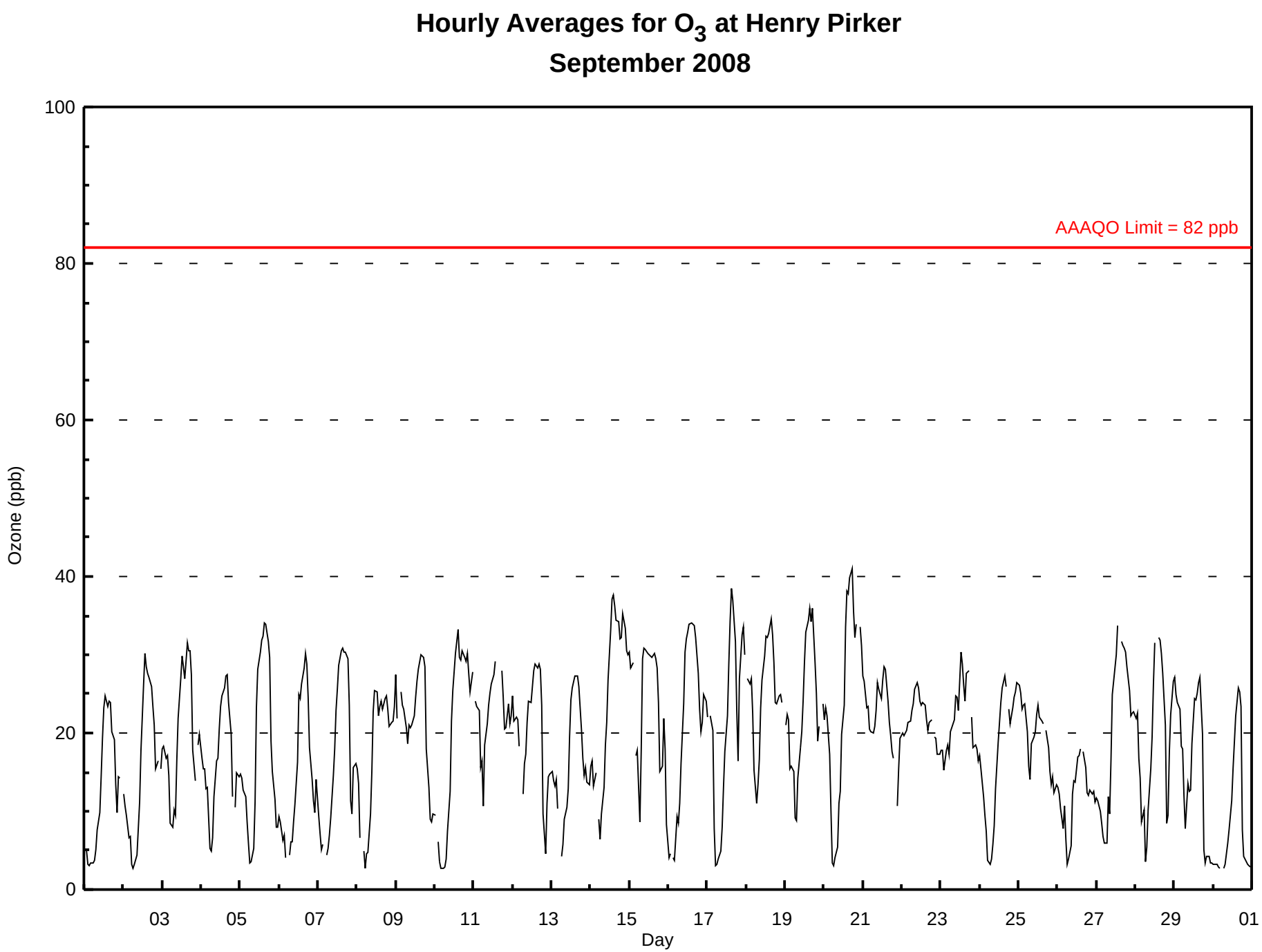
Minimum Value: 3 ppb on Sep 30 05:00
Maximum Diurnal Average: 29.4 ppb at hour 16
Monthly Average: 19.06 ppb

Minimum Daily Average: 9.0 ppb on Sep 30
Minimum Diurnal Average: 8.3 ppb at hour 7
Percentiles: P_1 = 2.8 P_{10} = 5.4 Q_1 = 12.0 Median = 20.2 Q_3 = 25.9 P_{90} = 30.4 P_{99} = 36.8

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	5	3	3	3	3	4	5	8	10	14	19	23	25	23	24	24	20	19	13	10	14	14	A	13.1	24.8
2-Sep	12	11	9	7	7	3	3	3	4	8	11	18	26	30	28	28	27	26	23	21	15	16	A	15	15.4	30.2
3-Sep	18	18	17	17	15	8	8	10	9	16	22	27	30	28	27	32	31	30	27	18	14	A	19	20	20.0	31.6
4-Sep	17	15	15	13	13	5	5	7	12	16	17	20	23	25	26	27	27	24	20	12	A	10	15	14	16.5	27.5
5-Sep	15	14	13	12	9	6	3	4	5	11	23	28	30	32	32	34	34	32	30	19	15	12	8	8	17.8	34.0
6-Sep	9	9	6	7	4	A	4	6	6	9	11	16	25	24	26	28	30	29	25	18	14	11	10	14	14.9	30.3
7-Sep	9	7	5	6	A	4	5	7	9	15	18	23	26	29	31	31	30	30	29	24	11	10	16	16	17.0	30.9
8-Sep	15	14	7	A	5	3	5	5	10	15	23	25	25	22	23	24	23	24	25	23	21	21	22	23	17.5	25.4
9-Sep	27	22	A	25	24	23	21	19	21	21	21	22	25	27	28	30	30	30	29	18	13	9	9	10	21.8	29.9
10-Sep	9	A	6	4	3	3	3	4	7	13	21	25	28	30	33	30	29	30	30	29	30	28	25	28	19.5	33.2
11-Sep	A	24	23	23	16	16	11	19	21	24	25	26	27	29	C	C	A	28	25	21	21	24	21	22	22.3	29.1
12-Sep	25	22	22	22	18	A	12	16	17	21	24	24	26	28	29	28	29	28	24	10	5	11	14	15	20.4	28.9
13-Sep	15	14	13	14	10	A	4	6	9	11	13	20	24	26	27	27	27	26	20	17	15	16	14	13	16.6	27.3
14-Sep	16	16	13	15	A	9	6	10	13	18	21	27	33	37	38	36	34	34	32	32	35	33	31	30	24.8	37.6
15-Sep	30	28	29	A	17	18	9	18	29	31	31	30	30	30	30	30	29	28	24	15	16	22	18	8	23.9	30.9
16-Sep	4	5	A	4	4	9	8	11	16	24	30	32	33	34	34	34	34	32	28	23	20	21	25	24	21.3	34.0
17-Sep	22	A	22	20	8	3	3	4	5	8	13	18	22	29	34	39	37	32	23	16	27	32	34	30	20.9	38.5
18-Sep	A	27	26	27	22	15	11	13	17	23	27	30	32	32	33	34	32	29	24	24	25	25	24	A	25.2	34.5
19-Sep	21	22	22	16	16	15	9	9	14	18	20	24	29	33	34	36	34	36	29	25	19	21	A	24	22.9	36.0
20-Sep	22	23	22	17	10	3	3	4	5	11	12	20	24	34	38	38	40	41	36	32	34	A	34	31	23.2	41.1
21-Sep	27	27	23	23	21	20	20	21	23	27	26	24	27	28	28	24	21	20	18	17	A	11	15	19	22.2	28.4
22-Sep	20	20	20	20	21	22	23	24	26	26	26	24	24	24	24	22	20	21	22	A	19	19	17	17	21.8	26.4
23-Sep	18	18	15	18	19	17	20	21	22	25	25	23	30	29	26	24	28	28	A	22	18	19	18	16	21.6	30.3
24-Sep	17	15	12	9	7	4	3	4	6	8	13	19	21	24	26	27	26	A	23	21	23	25	25	26	16.8	27.3
25-Sep	26	25	23	24	24	20	16	14	19	19	20	22	23	22	22	21	A	20	18	15	13	14	12	13	19.4	26.0
26-Sep	13	12	10	8	11	6	3	4	6	12	14	14	17	17	18	A	18	16	12	12	13	12	13	11	11.8	17.9
27-Sep	12	11	10	8	7	6	6	12	10	17	25	28	30	34	A	32	31	31	30	28	25	22	23	23	20.0	33.8
28-Sep	22	23	17	14	9	10	4	5	10	15	19	26	32	A	32	32	30	28	21	8	9	18	22	27	18.8	32.1
29-Sep	27	25	24	23	18	18	12	8	14	13	13	19	24	24	25	26	27	20	5	3	4	4	3	3	16.0	27.2
30-Sep	3	3	3	3	3	A	3	3	5	6	8	11	15	19	22	26	25	23	8	4	4	3	3	3	9.0	25.8
	17.5	17.0	15.5	14.4	12.2	10.5	8.3	9.8	12.6	16.3	19.5	22.9	26.2	27.7	28.5	29.4	28.9	27.5	23.3	18.7	17.4	17.3	17.9	18.1	Diurnal Average	
	30.4	28.4	29.0	27.0	23.7	23.1	22.9	23.8	29.4	30.9	30.6	32.1	33.2	37.0	38.2	38.5	39.8	41.1	35.6	32.3	35.2	33.4	33.6	31.1	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 O_3 at Henry Pirker
September 2008
AAAQO Limit = 82 ppb
Ozone (ppb)
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Ozone (O_3) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 44.3 ppb on Sep 20 17:00

Maximum Daily Average: 28.4 ppb on Sep 18

Minimum Value: 3 ppb on Sep 30 05:00

Minimum Daily Average: 11.3 ppb on Sep 30

Maximum Diurnal Average: 31.9 ppb at hour 16

Minimum Diurnal Average: 11.1 ppb at hour 7

Monthly Average: 21.82 ppb

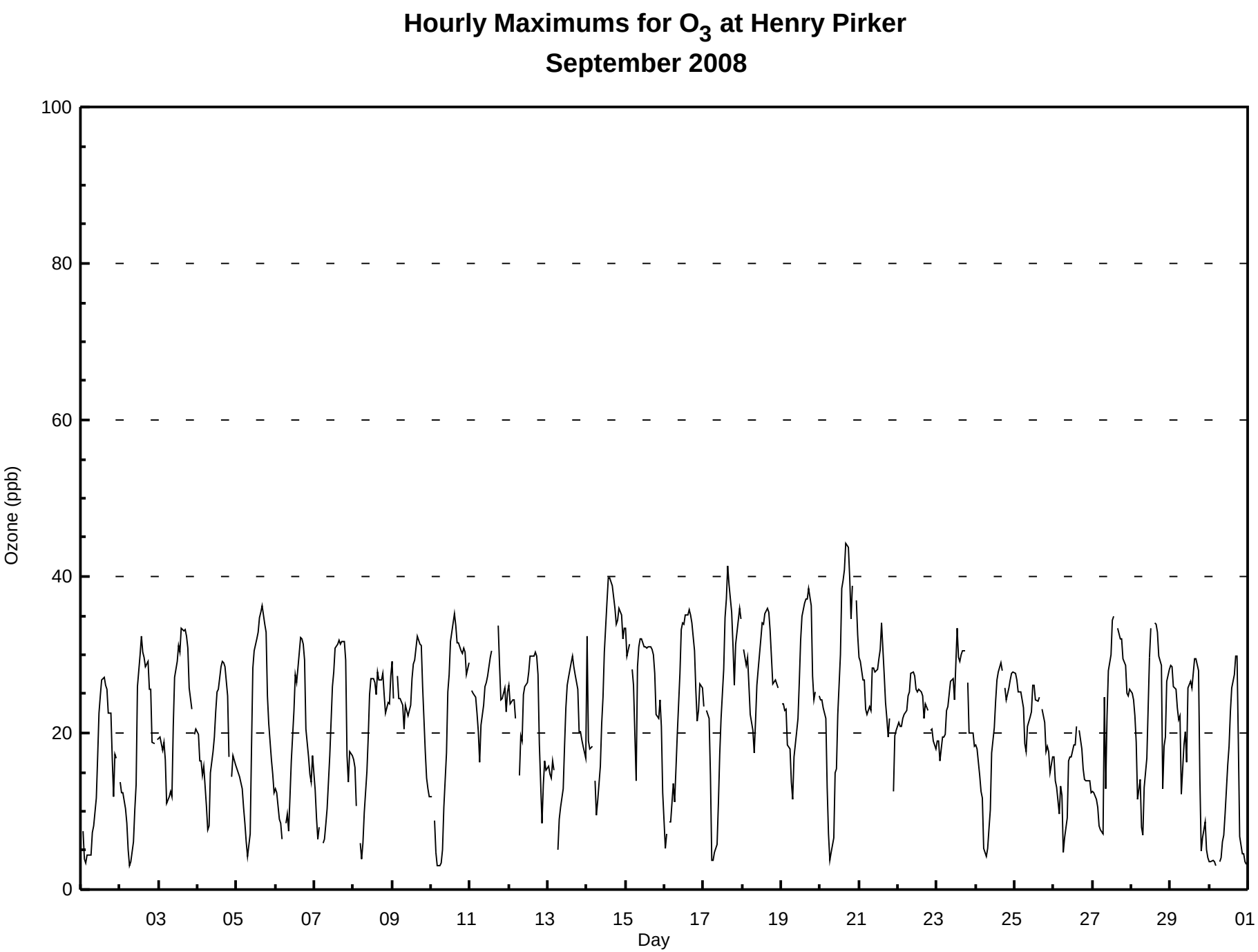
Percentiles: P_1 = 3.4 P_{10} = 8.1 Q_1 = 15.3 Median = 23.0 Q_3 = 28.5 P_{90} = 32.9 P_{99} = 39.7

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

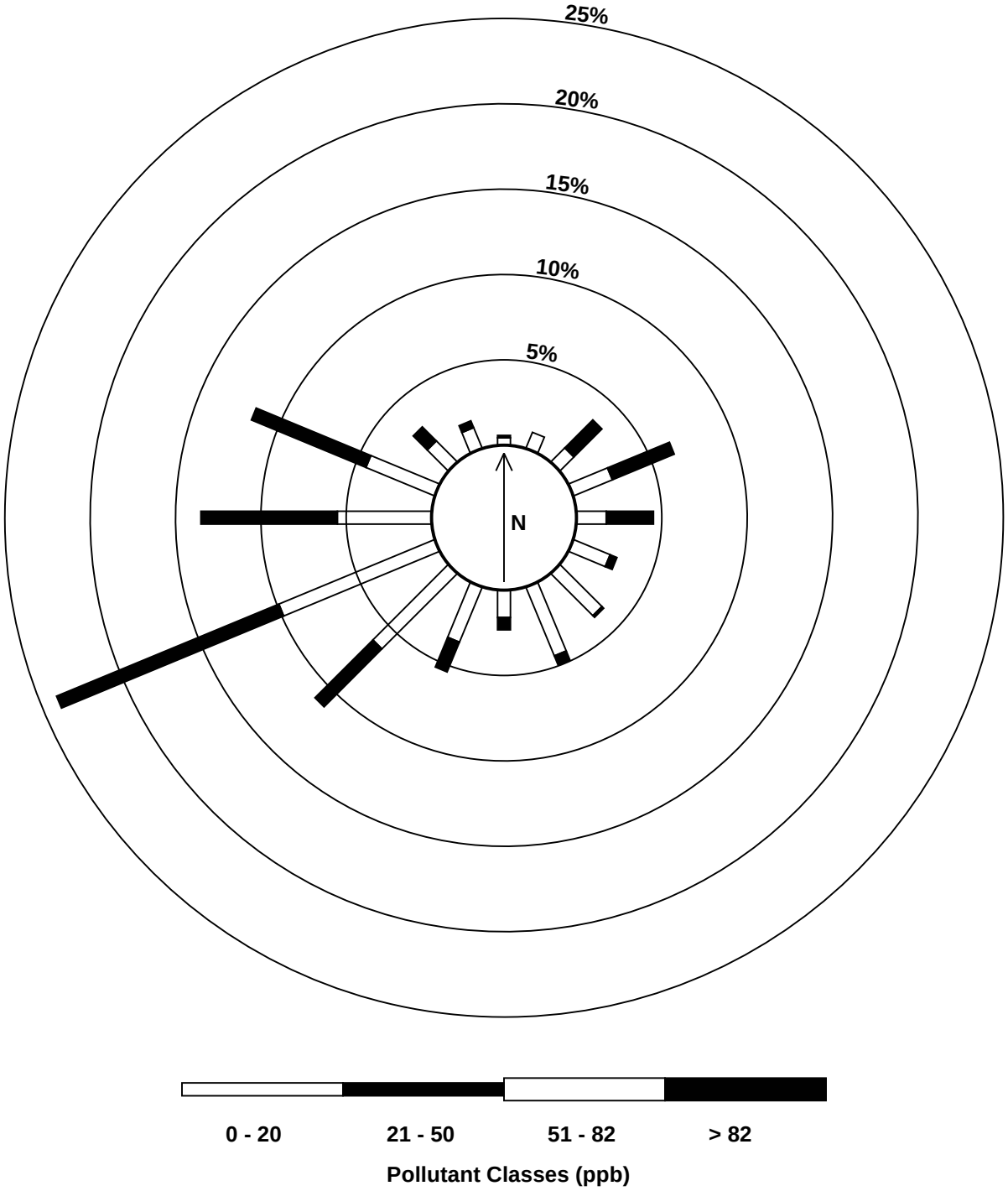
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	7	4	3	4	4	4	7	8	12	17	23	25	27	27	26	26	23	23	17	12	17	17	A	15.1	27.0
2-Sep	14	12	12	10	8	5	3	4	6	10	13	26	30	32	30	30	28	29	26	26	19	19	A	19	17.9	32.4
3-Sep	19	19	18	19	17	11	12	12	12	21	27	29	31	30	33	33	33	32	31	26	23	A	20	21	23.0	33.4
4-Sep	20	16	16	15	16	11	8	8	15	18	19	23	25	26	28	29	29	28	25	17	A	14	17	16	19.1	29.1
5-Sep	15	15	14	13	11	9	6	4	7	18	28	30	32	33	35	35	36	34	33	25	21	17	15	12	20.8	36.3
6-Sep	13	12	9	8	6	A	8	10	7	12	17	23	27	26	28	32	32	31	29	21	17	15	14	17	18.1	32.3
7-Sep	13	9	6	8	A	6	6	8	10	17	22	26	28	31	31	32	31	32	32	29	17	14	18	17	19.3	31.9
8-Sep	17	16	11	A	6	4	6	10	15	20	25	27	27	26	25	28	27	27	28	25	23	24	24	27	20.2	27.8
9-Sep	29	24	A	27	24	24	24	21	24	23	22	24	27	29	29	32	32	31	31	26	18	14	13	12	24.4	32.3
10-Sep	12	A	9	5	3	3	3	5	11	17	25	27	32	33	35	34	32	32	30	30	31	30	28	29	21.6	35.3
11-Sep	A	25	25	25	23	20	16	21	23	26	26	27	30	31	C	C	A	34	29	24	24	26	23	25	25.2	33.7
12-Sep	26	24	24	24	22	A	15	20	19	25	26	26	28	30	30	30	30	30	27	19	8	13	16	15	22.9	30.3
13-Sep	16	15	14	16	15	A	5	9	10	13	18	23	26	27	29	30	29	28	26	20	20	19	18	17	19.3	29.8
14-Sep	32	19	18	18	A	14	9	11	16	21	25	30	37	40	40	39	39	36	34	34	36	35	32	33	28.2	39.8
15-Sep	33	30	31	A	28	26	14	29	31	32	32	31	31	31	31	31	31	30	28	22	22	24	21	12	27.4	33.4
16-Sep	5	7	A	9	9	14	11	15	20	28	33	34	34	35	35	36	35	34	30	25	22	23	26	26	23.7	35.7
17-Sep	23	A	23	22	15	4	4	5	6	11	17	22	28	35	37	41	39	35	31	26	31	34	36	35	24.4	41.4
18-Sep	A	31	29	30	26	22	20	18	22	26	28	32	34	34	35	36	35	33	30	26	27	26	26	A	28.4	36.0
19-Sep	24	24	23	23	18	18	14	12	17	20	22	27	32	35	37	37	37	38	36	27	24	25	A	25	25.8	38.4
20-Sep	24	24	23	22	13	7	4	5	7	15	15	22	30	38	39	41	44	44	40	35	39	A	37	33	26.1	44.3
21-Sep	30	29	27	27	23	22	23	23	28	28	28	28	29	31	34	27	24	22	19	22	A	13	20	20	25.1	34.0
22-Sep	21	21	21	22	22	23	25	25	28	28	27	26	25	26	25	25	22	24	23	A	20	20	19	18	23.3	27.7
23-Sep	19	19	16	19	19	20	23	23	27	27	27	24	33	30	29	30	31	31	A	26	20	20	20	18	24.0	33.5
24-Sep	18	18	15	13	12	5	4	5	8	10	17	21	24	27	28	29	28	A	26	24	26	27	28	28	19.1	29.0
25-Sep	28	27	25	25	25	23	19	18	21	22	23	26	26	24	24	25	A	23	21	18	18	18	15	17	22.2	27.7
26-Sep	17	14	13	10	13	12	5	7	9	16	17	17	18	18	21	A	20	18	15	14	14	14	14	12	14.3	20.8
27-Sep	12	12	12	11	8	8	7	25	13	22	28	30	34	35	A	33	33	32	32	30	29	25	25	26	22.6	34.9
28-Sep	25	24	22	19	11	14	8	7	13	17	23	30	33	A	34	34	33	30	29	13	18	19	27	28	22.3	34.1
29-Sep	29	28	26	26	23	22	22	12	18	20	16	26	27	26	28	29	30	28	14	5	7	9	5	4	20.0	29.5
30-Sep	4	4	4	3	3	A	4	4	6	7	10	16	18	23	26	28	30	30	19	7	5	5	4	3	11.3	29.8
	20.0	18.8	17.5	16.8	15.2	13.5	11.1	12.7	15.2	19.4	22.5	25.9	28.8	29.9	30.9	31.9	31.2	30.3	27.4	22.7	21.1	20.0	20.5	20.2	Diurnal Average	
	33.4	30.6	31.3	29.6	28.1	26.1	24.8	28.5	31.0	32.0	33.2	34.0	36.8	39.7	39.8	41.4	44.3	43.8	39.9	34.5	38.8	35.1	37.0	34.5	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span


Hourly Maximums for O_3 at Henry Pirker
September 2008
Ozone (ppb)
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Pollutant Rose for O_3 at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Eight Hour Running Averages

Henry Pirker - Ozone (O_3) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 37.0 ppb on Sep 20 22:00

Minimum Value: 3.0 ppb on Sep 30 08:00

Percentiles: P_1 = 3.6 P_{10} = 8.7 Q_1 = 13.3 Median = 19.8 Q_3 = 24.2 P_{90} = 28.5 P_{99} = 34.5

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	13	10	8	6	5	5	4	4	4	5	6	8	11	14	16	18	20	22	22	22	20	19	17	16	22.3
2-Sep	15	13	12	11	11	9	7	7	6	6	6	7	10	13	16	19	22	24	26	26	25	23	22	21	26.3
3-Sep	19	18	17	17	17	15	15	14	13	13	13	14	16	19	21	24	27	28	29	28	26	26	24	23	29.0
4-Sep	21	19	17	16	16	15	13	11	11	11	11	12	13	16	18	21	23	24	24	23	23	21	19	18	24.1
5-Sep	16	14	13	13	13	12	11	9	8	8	9	11	14	17	21	25	28	31	31	30	28	26	23	20	31.5
6-Sep	17	14	11	9	8	7	7	7	6	6	7	8	11	13	15	18	21	24	26	26	24	23	21	19	25.7
7-Sep	16	14	11	10	9	8	7	6	6	7	9	12	13	16	20	23	25	27	29	29	27	25	23	21	28.7
8-Sep	19	17	14	13	12	11	9	8	7	7	9	11	14	16	19	21	23	24	24	24	23	23	23	23	24.1
9-Sep	23	23	23	23	23	24	24	23	22	22	22	21	21	22	23	24	25	26	27	27	25	23	21	18	27.4
10-Sep	16	14	11	8	7	6	5	4	4	5	7	10	13	16	20	23	26	28	29	30	30	30	29	29	30.2
11-Sep	29	28	27	26	24	22	20	19	19	19	19	20	21	23	24	25	N	N	N	N	N	N	23	23	28.6
12-Sep	23	22	22	22	22	22	20	20	18	18	19	19	20	21	23	25	26	27	27	25	22	20	19	17	27.0
13-Sep	15	13	12	13	13	14	12	11	10	10	10	10	12	14	17	20	22	24	25	24	23	22	20	18	24.7
14-Sep	17	16	15	15	15	14	13	12	12	12	13	15	17	21	25	28	31	33	34	35	35	34	34	33	34.9
15-Sep	32	32	31	31	28	26	23	21	21	22	22	23	24	26	29	30	30	30	29	27	25	24	23	20	32.3
16-Sep	17	14	13	11	9	7	6	6	8	11	13	17	20	24	27	30	32	33	33	31	30	28	27	26	32.9
17-Sep	24	23	23	22	20	18	15	12	9	9	8	8	9	13	17	21	25	28	29	29	30	30	30	29	30.1
18-Sep	28	27	28	29	28	26	23	20	20	19	19	20	21	23	26	29	31	31	31	30	29	28	27	26	31.2
19-Sep	24	24	23	22	21	19	17	16	15	15	15	16	17	20	23	26	29	31	32	32	31	29	29	27	32.0
20-Sep	25	23	22	21	20	17	16	13	11	10	8	9	10	14	19	23	27	31	34	35	37	37	36	35	37.0
21-Sep	34	31	30	28	27	26	24	23	22	22	23	23	23	24	25	26	26	25	24	23	22	20	18	17	33.6
22-Sep	17	17	17	18	18	20	21	21	22	23	23	24	24	25	25	24	24	23	23	22	22	21	20	20	24.6
23-Sep	19	19	18	18	18	17	18	18	19	20	21	21	23	24	25	25	26	27	27	27	25	23	22	21	26.8
24-Sep	20	18	17	16	14	12	11	9	8	7	7	8	10	12	15	18	21	22	24	24	24	24	24	24	24.5
25-Sep	24	24	24	25	25	24	23	21	21	20	19	19	19	20	20	21	21	22	21	20	19	18	16	15	24.7
26-Sep	15	14	13	12	12	11	10	8	8	8	8	9	9	11	13	14	16	16	16	16	15	14	14	13	16.1
27-Sep	13	12	12	11	11	10	9	9	9	9	11	14	17	20	22	25	28	30	31	31	30	29	28	27	30.9
28-Sep	26	25	23	21	19	17	15	13	11	11	11	12	15	16	20	24	27	28	29	26	23	22	21	20	28.6
29-Sep	20	20	20	22	23	23	22	19	18	16	15	14	15	16	17	20	21	22	21	19	17	14	12	9	23.0
30-Sep	6	4	4	3	3	3	3	3	3	4	4	5	7	9	11	14	17	19	19	18	16	14	12	9	18.8
Diurnal Maximums	33.6	31.5	31.2	31.0	28.4	26.2	24.1	22.9	22.2	22.7	23.5	23.9	24.4	25.9	28.6	30.1	31.8	32.9	33.9	35.3	36.5	37.0	36.3	35.3	

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
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.13 ppm on Sep 30 20:00 Maximum Daily Average: 0.31 ppm on Sep 30

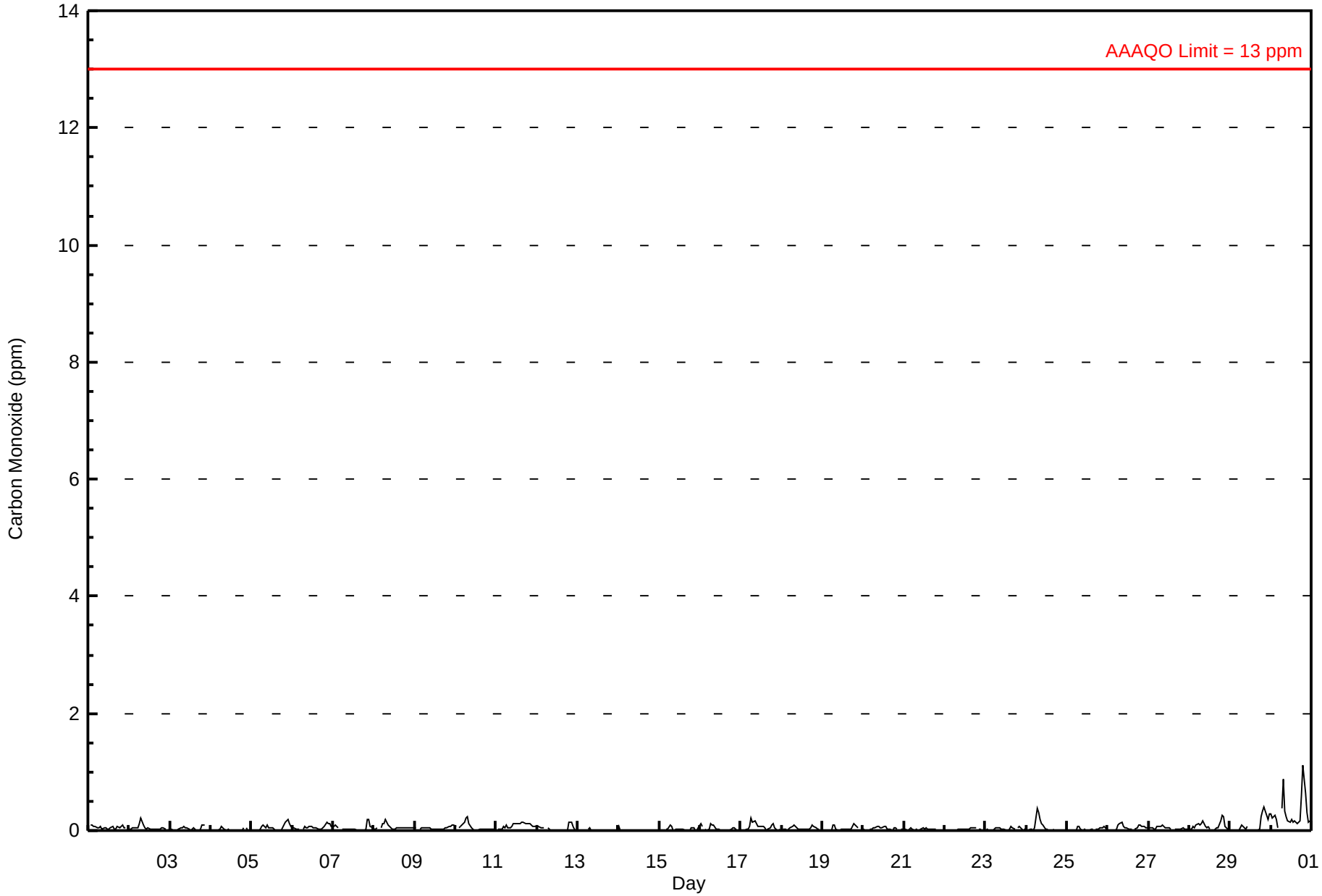
Minimum Value: 0.0 ppm on Sep 3 23:00 Minimum Daily Average: 0.00 ppm on Sep 13
Maximum Diurnal Average: 0.11 ppm at hour 8 Minimum Diurnal Average: 0.02 ppm at hour 16
Monthly Average: 0.051 ppm Percentiles: P_1 = 0.00 P_{10} = 0.00 Q_1 = 0.01 Median = 0.03 Q_3 = 0.06 P_{90} = 0.12 P_{99} = 0.38

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	A	0.06	0.10
2-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.05	0.20
3-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	A	0.0	0.0	0.03	0.11
4-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.01	0.08
5-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.05	0.19
6-Sep	0.1	0.0	0.0	0.0	0.0	A	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.06	0.13
7-Sep	0.1	0.1	0.1	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.04	0.19
8-Sep	0.0	0.0	0.0	A	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	0.19
9-Sep	0.1	0.1	A	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.04	0.10
10-Sep	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	0.25
11-Sep	A	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.09	0.13
12-Sep	0.1	0.1	0.0	0.1	0.1	A	0.0	0.0	0.0	0.0	0.0	0.0	C	C	A	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.04	0.15
13-Sep	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.04
14-Sep	0.1	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.08
15-Sep	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.02	0.10
16-Sep	0.1	0.1	A	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04	0.13
17-Sep	0.0	A	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.06	0.20
18-Sep	A	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	A	0.04	0.09
19-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	A	0.0	0.03	0.13
20-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.03	0.08
21-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.02	0.05
22-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.02	0.05
23-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	A	0.1	0.1	0.0	0.0	0.0	0.03	0.08
24-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.06	0.39
25-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.02	0.06
26-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	A	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.05	0.14
27-Sep	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04	0.09
28-Sep	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	A	0.0	0.0	0.0	0.0	0.2	0.3	0.2	0.1	0.0	0.0	0.08	0.27
29-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	MS	C	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.3	0.2	0.3	0.09	0.40
30-Sep	0.3	0.2	0.3	0.2	0.0	A	0.4	0.9	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.6	1.1	0.6	0.3	0.2	0.2	0.31	1.13
	0.04	0.03	0.03	0.03	0.03	0.04	0.09	0.11	0.07	0.05	0.04	0.04	0.03	0.03	0.03	0.02	0.03	0.03	0.07	0.11	0.10	0.07	0.04	0.04	Diurnal Average	
	0.28	0.20	0.26	0.19	0.11	0.14	0.39	0.89	0.33	0.24	0.16	0.14	0.19	0.15	0.17	0.13	0.13	0.17	0.59	1.13	0.65	0.31	0.19	0.28	Diurnal Maximum	

C - Calibration MS - Missing 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
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Carbon Monoxide (CO) - ppm
September 1, 2008 to October 1, 2008

Maximum Value: 3.98 ppm on Sep 24 07:00

Maximum Daily Average: 0.66 ppm on Sep 30

Minimum Value: 0.0 ppm on Sep 4 01:00

Minimum Daily Average: 0.03 ppm on Sep 22

Maximum Diurnal Average: 0.33 ppm at hour 7

Minimum Diurnal Average: 0.06 ppm at hour 16

Monthly Average: 0.124 ppm

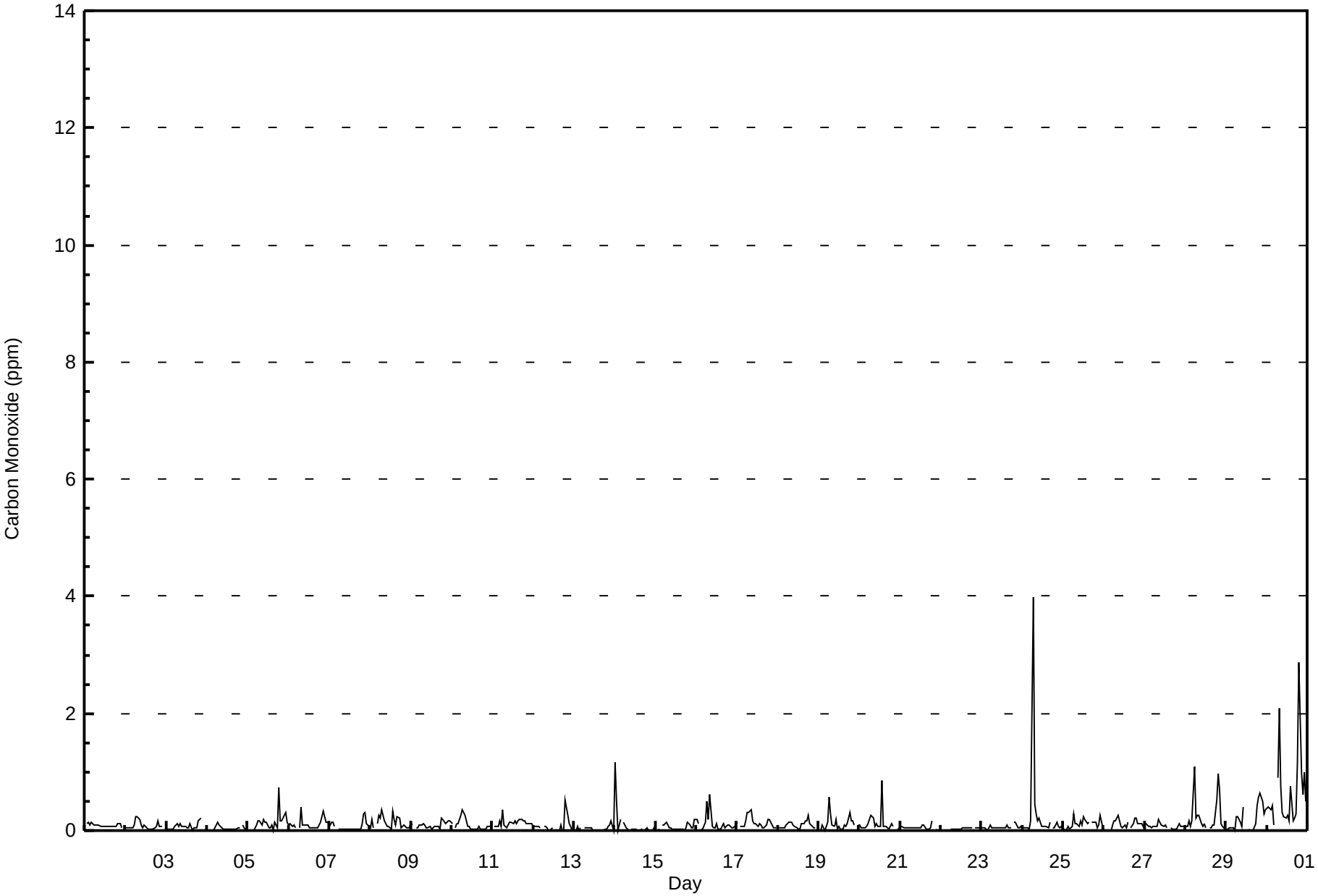
Percentiles: P_1 = 0.00 P_{10} = 0.01 Q_1 = 0.04 Median = 0.07 Q_3 = 0.13 P_{90} = 0.24 P_{99} = 0.97

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.09	0.15
2-Sep	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	A	0.0	0.08	0.24
3-Sep	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	A	0.0	0.0	0.06	0.21
4-Sep	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	A	0.1	0.1	0.0	0.04	0.14
5-Sep	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.7	0.2	0.2	0.3	0.3	0.1	0.14	0.74
6-Sep	0.1	0.1	0.1	0.1	0.1	A	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.2	0.1	0.1	0.11	0.39
7-Sep	0.1	0.1	0.1	0.1	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.1	0.1	0.07	0.31
8-Sep	0.1	0.2	0.1	A	0.1	0.3	0.2	0.4	0.2	0.1	0.1	0.1	0.0	0.3	0.2	0.1	0.2	0.2	0.0	0.1	0.1	0.0	0.0	0.1	0.14	0.37
9-Sep	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.2	0.2	0.1	0.2	0.2	0.2	0.10	0.22
10-Sep	0.1	A	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.09	0.35
11-Sep	A	0.1	0.1	0.1	0.2	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.14	0.36
12-Sep	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.0	0.0	0.0	0.0	C	C	A	0.0	0.1	0.0	0.0	0.5	0.3	0.1	0.1	0.0	0.08	0.52
13-Sep	0.0	0.0	0.1	0.0	0.1	A	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.03	0.16
14-Sep	1.2	0.5	0.0	0.2	A	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	1.17
15-Sep	0.0	0.0	0.0	A	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.06	0.18
16-Sep	0.2	0.1	A	0.0	0.0	0.1	0.5	0.2	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.12	0.61
17-Sep	0.2	A	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.13	0.36
18-Sep	A	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.1	A	0.09	0.26
19-Sep	0.0	0.0	0.1	0.0	0.0	0.1	0.6	0.3	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.3	0.2	0.2	0.1	A	0.1	0.12	0.57
20-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.9	0.1	0.1	0.1	0.0	0.1	0.1	0.1	A	0.0	0.0	0.12	0.86
21-Sep	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	A	0.0	0.0	0.0	0.05	0.17
22-Sep	0.0	0.0	0.0	0.0	0.0	0.0	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	A	0.1	0.1	0.1	0.0	0.03	0.06
23-Sep	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.0	0.0	0.1	0.07	0.15
24-Sep	0.0	0.0	0.0	0.0	0.0	0.2	4.0	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.0	0.1	0.1	0.0	0.1	0.27	3.98
25-Sep	0.0	0.0	0.0	0.1	0.0	0.1	0.3	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	A	0.2	0.2	0.1	0.1	0.1	0.3	0.1	0.12	0.28
26-Sep	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.2	A	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.10	0.26
27-Sep	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	A	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.08	0.18
28-Sep	0.1	0.1	0.2	0.1	0.2	1.1	0.2	0.3	0.3	0.1	0.1	0.1	0.1	A	0.1	0.0	0.1	0.1	0.5	1.0	0.7	0.1	0.1	0.0	0.23	1.08
29-Sep	0.0	0.0	0.1	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.4	MS	C	0.0	0.0	0.0	0.0	0.1	0.4	0.6	0.6	0.5	0.3	0.4	0.19	0.63
30-Sep	0.4	0.4	0.4	0.4	0.1	A	0.9	2.1	0.8	0.3	0.2	0.2	0.3	0.2	0.8	0.2	0.2	0.3	1.2	2.9	1.0	0.6	1.0	0.5	0.66	2.88
	0.11	0.09	0.07	0.07	0.06	0.14	0.33	0.23	0.16	0.09	0.09	0.07	0.07	0.09	0.09	0.06	0.08	0.07	0.18	0.27	0.19	0.13	0.12	0.09	Diurnal Average	
	1.17	0.52	0.36	0.43	0.17	1.08	3.98	2.08	0.75	0.30	0.41	0.20	0.25	0.86	0.77	0.18	0.23	0.30	1.17	2.88	0.97	0.61	1.00	0.51	Diurnal Maximum	

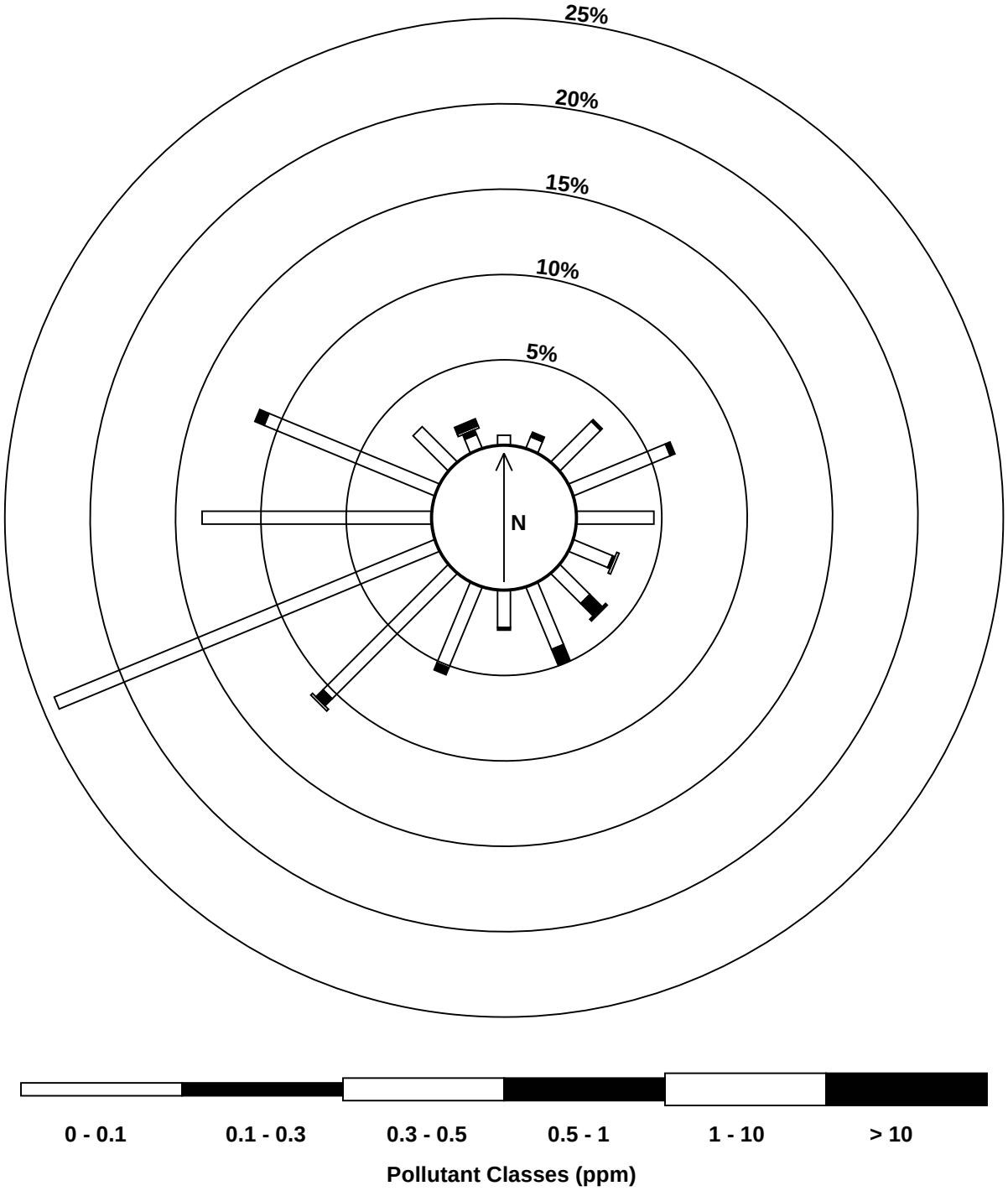
C - Calibration MS - Missing A - Automated Daily Zero Span

Hourly Maximums for CO at Henry Pirker
September 2008



Pollutant Rose for CO at Henry Pirker

September 2008



Peace Airshed Zone Association
Summary of Eight Hour Running Averages

Henry Pirker - Carbon Monoxide (CO) - ppm
September 1, 2008 to October 1, 2008

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.41 ppm on Oct 1 00:00

Minimum Value: 0.00 ppm on Sep 4 05:00

Percentiles: P_1 = 0.00 P_{10} = 0.00 Q_1 = 0.02 Median = 0.04 Q_3 = 0.06 P_{90} = 0.10 P_{99} = 0.33

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.17
2-Sep	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.08
3-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04
4-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03
5-Sep	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	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.08
6-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.09
7-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.09
8-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10
9-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.06
10-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.13
11-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
12-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N	N	N	N	N	N	0.0	0.0	0.0	0.0	0.10
13-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05
14-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
15-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04
16-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.07
17-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.12
18-Sep	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05
19-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.1	0.1	0.06
20-Sep	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06
21-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03
22-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04
23-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05
24-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.15
25-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04
26-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.07
27-Sep	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06
28-Sep	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.11
29-Sep	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.22
30-Sep	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	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.41
Diurnal Maximums	0.25	0.27	0.28	0.26	0.21	0.21	0.23	0.32	0.33	0.33	0.32	0.31	0.33	0.31	0.28	0.19	0.16	0.15	0.21	0.33	0.39	0.41	0.40	0.41	

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
September 1, 2008 to October 1, 2008

Maximum Value: 3.26 ppm on Sep 7 23:00

Maximum Daily Average: 2.31 ppm on Sep 30

Minimum Value: 1.7 ppm on Sep 5 17:00

Minimum Daily Average: 1.82 ppm on Sep 11

Maximum Diurnal Average: 2.10 ppm at hour 8

Minimum Diurnal Average: 1.86 ppm at hour 17

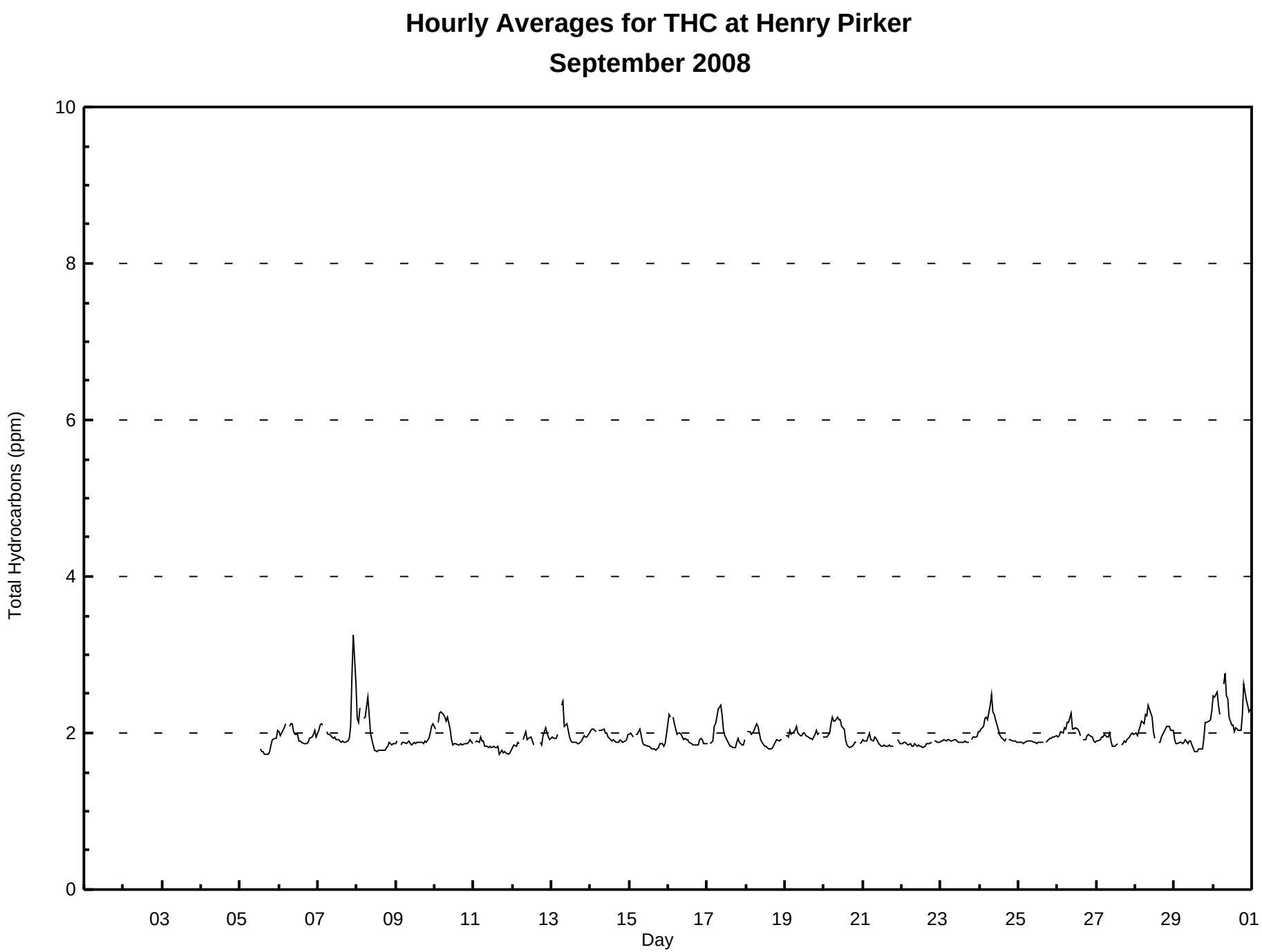
Monthly Average: 1.963 ppm

Percentiles: P_1 = 1.74 P_{10} = 1.83 Q_1 = 1.87 Median = 1.91 Q_3 = 2.02 P_{90} = 2.17 P_{99} = 2.62

Hours in Service:	720
Hours of Data:	584
Hours of Missing Data:	136
Hours of Calibration:	29
Percent Operational Time:	85.1

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
2-Sep	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-Sep	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-Sep	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-Sep	N	N	N	N	N	N	N	N	N	N	N	A	1.8	1.8	1.8	1.7	1.7	1.7	1.8	1.8	1.9	1.9	1.9	2.0	--	2.03
6-Sep	2.0	2.0	2.0	2.1	2.1	A	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.98	2.12
7-Sep	2.0	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.7	3.3	2.6	2.09	3.26
8-Sep	2.2	2.1	2.3	A	2.2	2.2	2.3	2.5	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.96	2.46
9-Sep	1.9	1.9	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	1.90	2.11
10-Sep	2.0	A	2.1	2.3	2.3	2.2	2.2	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.99	2.28
11-Sep	A	1.9	1.9	1.9	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.7	1.8	1.7	1.7	1.7	1.8	1.82	1.95
12-Sep	1.8	1.8	1.8	1.9	1.9	A	1.9	2.0	2.0	1.9	1.9	2.0	1.9	1.8	C	C	A	1.9	1.9	2.0	2.1	2.0	1.9	1.9	1.92	2.06
13-Sep	1.9	1.9	1.9	1.9	2.0	A	2.4	2.4	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	1.98	2.40
14-Sep	2.0	2.1	2.1	2.0	A	2.0	2.0	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.96	2.06
15-Sep	2.0	2.0	2.0	A	2.0	2.0	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.9	2.0	1.88	2.05
16-Sep	2.2	2.2	A	2.2	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.96	2.24
17-Sep	1.9	A	1.9	1.9	2.1	2.1	2.2	2.3	2.4	2.2	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.97	2.36
18-Sep	A	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	A	1.92	2.12
19-Sep	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	1.9	1.98	2.08
20-Sep	1.9	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	A	1.9	1.9	1.99	2.21
21-Sep	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.88	2.00
22-Sep	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.86	1.90
23-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	1.91	2.02
24-Sep	2.0	2.0	2.1	2.2	2.2	2.2	2.3	2.5	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.06	2.48
25-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.90	1.97
26-Sep	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.3	2.1	2.0	2.1	2.1	2.0	2.0	A	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	2.01	2.26
27-Sep	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.9	1.8	1.8	1.8	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.92	2.00
28-Sep	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.4	2.3	2.2	2.0	1.9	A	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.07	2.35
29-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	2.1	2.2	2.2	2.3	1.92	2.30
30-Sep	2.5	2.5	2.5	2.4	2.2	A	2.6	2.8	2.5	2.4	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.2	2.6	2.4	2.3	2.3	2.3	2.31	2.76
	1.99	1.99	2.00	2.01	2.03	2.02	2.08	2.10	2.06	2.00	1.96	1.92	1.89	1.87	1.87	1.86	1.86	1.86	1.89	1.95	1.96	1.98	2.00	2.00	Diurnal Average	
	2.47	2.45	2.53	2.36	2.28	2.24	2.62	2.76	2.48	2.43	2.21	2.11	2.10	2.02	2.06	2.03	2.03	2.03	2.22	2.62	2.42	2.73	3.26	2.64	Diurnal Maximum	

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


Hourly Averages for THC at Henry Pirker
September 2008
Total Hydrocarbons (ppm)
10
8
6
4
2
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Total Hydrocarbons (THC) - ppm
September 1, 2008 to October 1, 2008

Maximum Value: 3.59 ppm on Sep 7 23:00

Maximum Daily Average: 2.47 ppm on Sep 30

Minimum Value: 1.7 ppm on Sep 5 17:00

Maximum Diurnal Average: 2.21 ppm at hour 8

Monthly Average: 2.038 ppm

Minimum Daily Average: 1.87 ppm on Sep 11

Minimum Diurnal Average: 1.90 ppm at hour 17

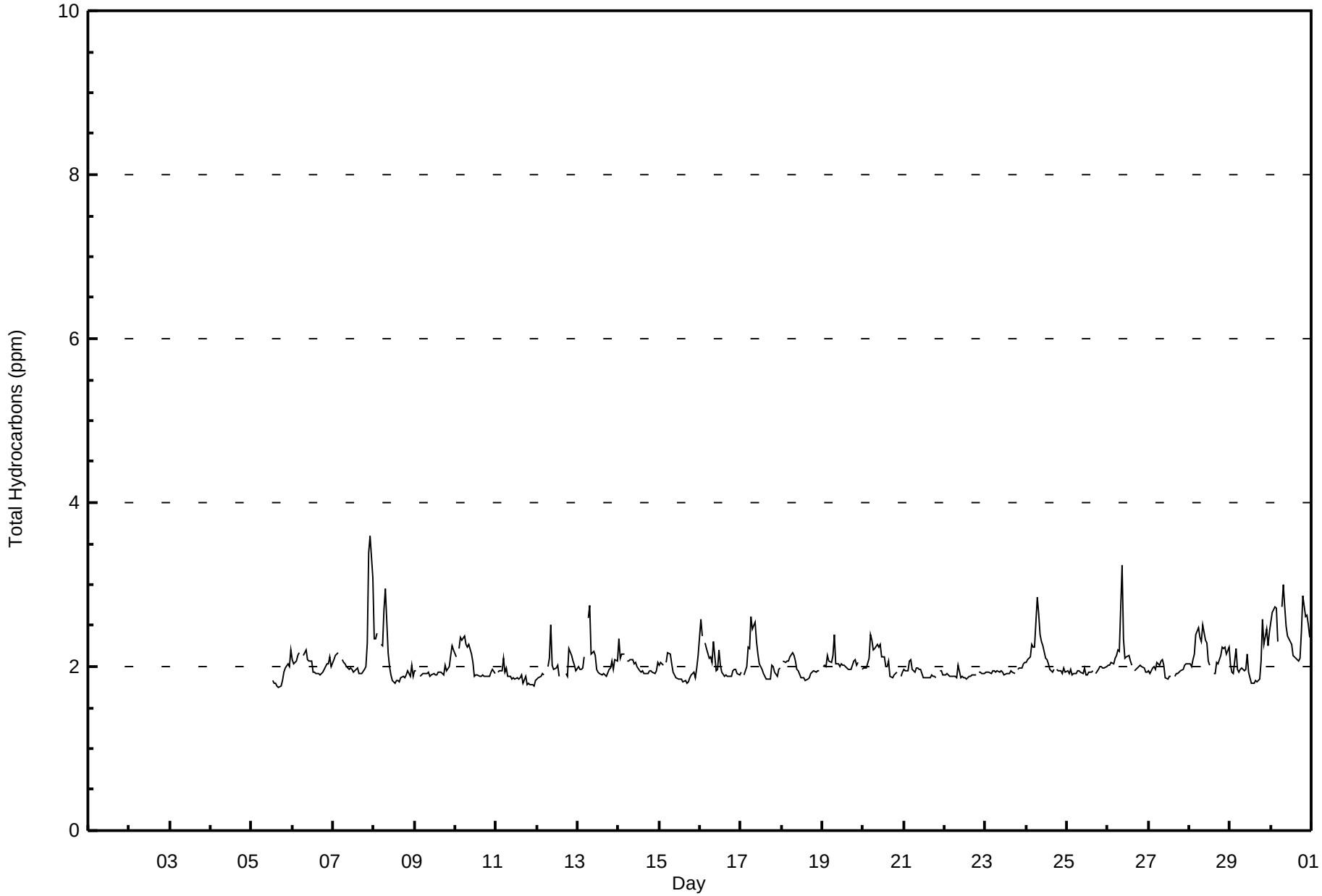
Percentiles: P_1 = 1.77 P_{10} = 1.87 Q_1 = 1.91 Median = 1.97 Q_3 = 2.09 P_{90} = 2.28 P_{99} = 2.93

Hours in Service:	720
Hours of Data:	584
Hours of Missing Data:	136
Hours of Calibration:	29
Percent Operational Time:	85.1

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
2-Sep	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-Sep	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-Sep	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-Sep	N	N	N	N	N	N	N	N	N	N	N	A	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.9	2.0	2.0	2.0	2.2	--	2.20
6-Sep	2.1	2.0	2.1	2.1	2.2	A	2.1	2.2	2.2	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.03	2.21
7-Sep	2.1	2.1	2.2	2.2	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.3	3.4	3.6	3.1	2.20	3.59
8-Sep	2.3	2.3	2.4	A	2.3	2.3	2.7	2.9	2.2	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.07	2.95
9-Sep	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.1	2.3	2.2	1.96	2.26
10-Sep	2.1	A	2.2	2.4	2.3	2.4	2.3	2.2	2.3	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.04	2.37
11-Sep	A	1.9	2.0	1.9	2.1	1.9	2.0	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.87	2.10
12-Sep	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.5	2.0	2.0	2.0	2.0	1.9	C	C	A	1.9	1.9	2.2	2.1	2.1	2.0	2.0	2.01	2.52
13-Sep	2.0	2.0	2.0	2.0	2.1	A	2.6	2.7	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.1	2.06	2.74
14-Sep	2.3	2.1	2.2	2.2	A	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.02	2.34
15-Sep	2.0	2.1	2.0	A	2.0	2.2	2.2	2.0	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.1	1.94	2.18
16-Sep	2.6	2.4	A	2.3	2.2	2.1	2.1	2.0	2.3	2.0	2.0	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	2.05	2.57
17-Sep	1.9	A	1.9	2.0	2.2	2.2	2.6	2.5	2.5	2.3	2.1	2.0	2.0	1.9	1.9	1.8	1.8	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.06	2.62
18-Sep	A	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.97	2.16
19-Sep	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	A	2.0	2.04	2.39
20-Sep	2.0	2.0	2.0	2.1	2.4	2.3	2.2	2.2	2.3	2.2	2.3	2.1	2.1	2.0	2.0	2.1	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.07	2.40
21-Sep	2.0	1.9	1.9	2.1	2.1	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	1.9	1.93	2.09
22-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.90	2.02
23-Sep	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	1.95	2.04
24-Sep	2.0	2.1	2.1	2.3	2.2	2.2	2.8	2.6	2.4	2.3	2.3	2.1	2.1	2.0	2.0	1.9	2.0	A	2.0	2.0	2.0	1.9	2.0	1.9	2.14	2.84
25-Sep	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.94	2.00
26-Sep	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	3.2	2.3	2.1	2.1	2.1	2.1	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.11	3.24
27-Sep	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	1.9	1.8	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.97	2.09
28-Sep	2.0	2.0	2.1	2.2	2.4	2.5	2.3	2.3	2.5	2.3	2.3	2.1	2.0	A	1.9	1.9	2.1	2.0	2.1	2.2	2.2	2.2	2.1	2.2	2.18	2.51
29-Sep	2.0	1.9	1.9	2.2	2.0	1.9	2.0	2.0	1.9	2.0	2.2	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.1	2.6	2.3	2.5	2.3	2.4	2.03	2.58
30-Sep	2.5	2.7	2.7	2.7	2.3	A	2.7	3.0	2.7	2.5	2.4	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.4	2.9	2.6	2.6	2.5	2.4	2.47	2.99
	2.07	2.05	2.06	2.10	2.11	2.11	2.20	2.21	2.21	2.07	2.04	1.98	1.95	1.92	1.91	1.90	1.90	1.91	1.96	2.03	2.03	2.08	2.09	2.07	Diurnal Average	
	2.57	2.67	2.72	2.71	2.40	2.48	2.84	2.99	3.24	2.50	2.37	2.30	2.28	2.13	2.12	2.08	2.07	2.10	2.43	2.87	2.61	3.40	3.59	3.08	Diurnal Maximum	

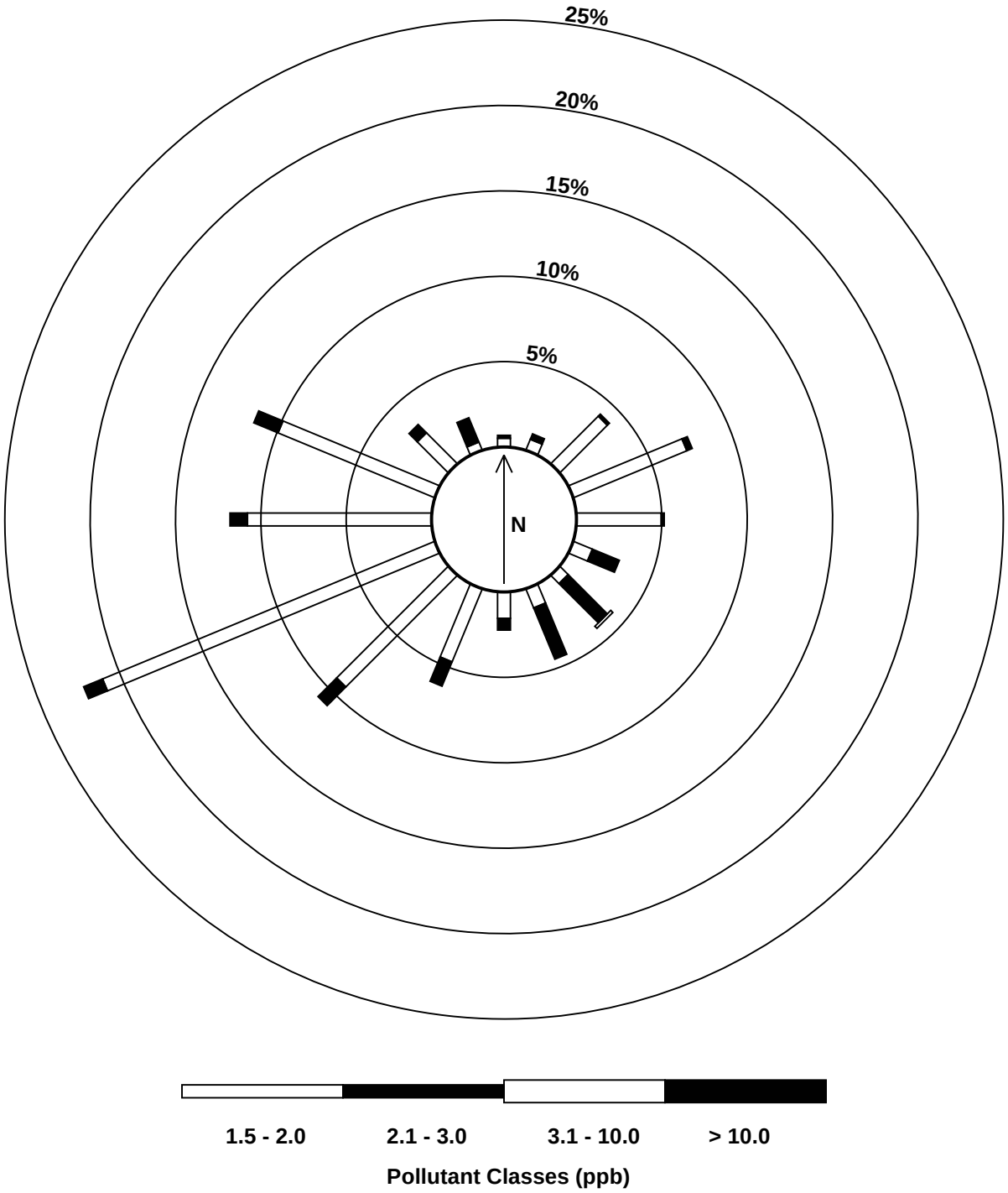
C - Calibration N - Not Valid A - Automated Daily Zero Span

Hourly Maximums for THC at Henry Pirker
September 2008



Pollutant Rose for THC at Henry Pirker

September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 31.3 $\mu g/m^3$ on Sep 30 20:00 Maximum Daily Average: 10.5 $\mu g/m^3$ on Sep 30

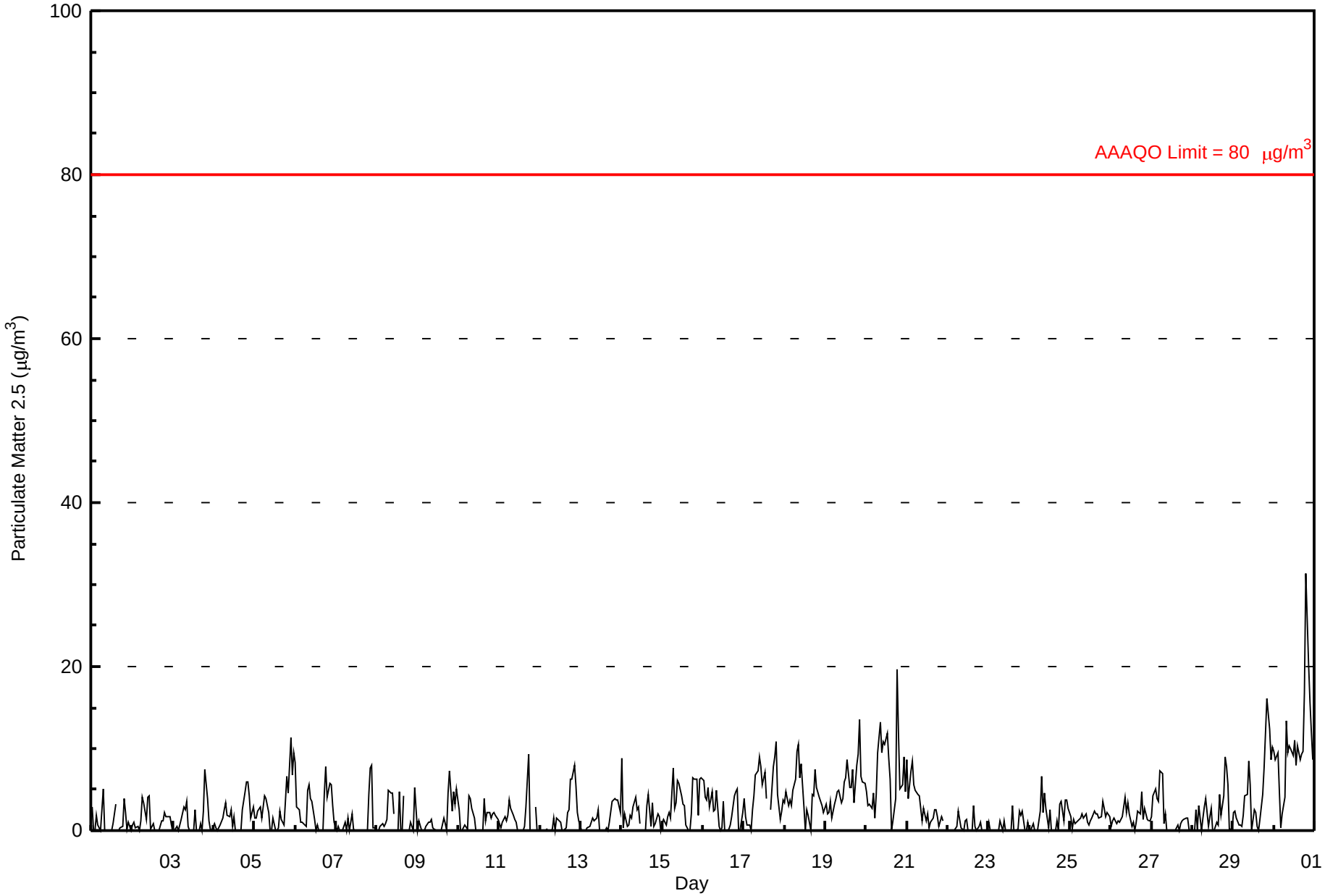
Minimum Value: 0 $\mu g/m^3$ on Sep 1 02:00 Minimum Daily Average: 0.5 $\mu g/m^3$ on Sep 22
Maximum Diurnal Average: 5.6 $\mu g/m^3$ at hour 20 Minimum Diurnal Average: 1.2 $\mu g/m^3$ at hour 16
Monthly Average: 2.66 $\mu g/m^3$ Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.2$ Median = 1.6 $Q_3 = 3.9$ $P_{90} = 7.1$ $P_{99} = 12.4$

Hours in Service:	720
Hours of Data:	706
Hours of Missing Data:	14
Hours of Calibration:	0
Percent Operational Time:	98.1

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	3	0	0	2	1	0	2	5	0	0	0	0	0	1	3	BD	0	0	0	4	2	0	1	0	1.1	5.1
2-Sep	1	1	0	1	0	1	4	3	1	4	4	0	1	0	0	0	0	1	1	2	2	2	2	1	1.3	4.2
3-Sep	0	0	1	0	1	1	3	3	4	0	0	0	0	2	0	0	1	0	2	7	4	1	0	0	1.3	7.4
4-Sep	1	0	0	0	1	2	3	3	2	2	3	0	2	0	0	0	0	2	5	6	6	4	2	3	1.9	6.0
5-Sep	2	2	2	3	2	3	4	4	2	0	0	2	0	0	0	2	1	1	4	7	5	11	7	9	3.0	11.4
6-Sep	8	3	3	1	1	1	1	5	6	4	3	1	0	1	0	0	0	5	8	4	6	6	3	1	2.9	8.4
7-Sep	0	1	0	0	0	1	0	1	0	2	0	0	0	0	BD	0	0	0	0	4	8	8	0	0	1.1	7.9
8-Sep	0	0	0	1	0	1	1	5	5	5	2	BD	0	5	0	0	4	BD	BD	0	1	0	5	3	1.8	5.3
9-Sep	0	1	0	0	0	1	1	1	1	0	0	0	BD	0	0	1	1	0	5	7	2	5	3	5	1.5	7.3
10-Sep	3	0	0	0	1	0	4	4	3	2	0	0	0	0	0	4	1	2	2	1	2	2	2	1	1.4	4.2
11-Sep	1	0	1	2	1	2	4	3	2	1	1	0	0	0	0	0	3	9	0	0	BD	3	0	BD	1.5	9.3
12-Sep	0	0	0	0	0	0	0	0	1	0	2	1	1	0	0	0	2	3	6	6	8	5	2	1	1.7	7.9
13-Sep	0	0	0	0	0	1	1	2	1	2	2	0	0	0	0	0	0	1	4	4	4	4	4	2	1.3	3.9
14-Sep	9	0	2	0	1	2	2	3	4	3	3	1	BD	0	0	3	4	1	3	1	1	2	2	0	2.0	8.8
15-Sep	1	1	1	2	2	2	8	3	3	6	6	4	3	3	1	0	0	2	6	6	6	2	6	7	3.4	7.7
16-Sep	6	4	4	5	3	5	2	3	5	1	0	0	3	0	0	0	1	2	4	5	5	0	0	2	2.5	6.1
17-Sep	4	2	1	1	0	3	4	7	7	9	8	6	7	4	BD	BD	3	8	9	11	4	1	2	4	4.7	10.9
18-Sep	3	5	3	4	3	5	6	10	10	6	8	3	0	2	2	0	4	4	8	5	4	4	3	2	4.4	10.5
19-Sep	3	2	2	3	1	3	4	5	5	3	4	6	6	9	5	5	7	3	8	9	14	7	6	6	5.3	13.6
20-Sep	5	3	3	3	5	2	4	9	13	9	11	10	12	9	6	0	1	4	20	12	5	6	9	5	6.9	19.7
21-Sep	9	4	7	9	6	5	4	4	3	1	3	1	2	0	1	2	2	3	2	1	2	1	BD	0	3.1	8.6
22-Sep	0	0	0	0	0	1	2	1	0	0	1	1	0	0	0	3	1	0	0	1	0	0	0	0	0.5	3.0
23-Sep	1	0	0	0	0	0	0	1	0	1	0	0	0	0	3	0	0	0	2	2	2	0	0	1	0.6	3.0
24-Sep	0	0	1	0	0	0	2	7	2	5	3	0	3	0	0	0	1	0	3	4	1	4	4	3	1.7	6.7
25-Sep	2	0	1	1	1	1	2	2	2	2	1	1	1	2	2	2	2	1	2	4	3	2	2	2	1.6	3.6
26-Sep	0	1	1	1	1	1	1	2	4	2	3	2	1	1	0	1	2	2	5	1	3	1	1	1	1.7	4.8
27-Sep	2	4	5	4	4	7	7	1	2	0	BD	0	BD	0	0	1	0	1	1	1	2	2	0	0	1.9	7.4
28-Sep	0	0	3	0	3	0	2	3	4	0	2	3	0	0	1	1	4	2	4	9	8	6	0	0	2.2	9.0
29-Sep	2	2	1	1	1	0	2	4	4	8	6	0	2	2	0	0	1	4	8	12	16	12	9	10	4.6	16.0
30-Sep	10	9	10	5	0	2	4	13	9	10	10	9	11	8	10	9	9	10	17	31	20	16	12	9	10.5	31.3
	2.5	1.5	1.8	1.6	1.3	1.7	2.8	3.9	3.5	3.0	2.9	1.8	2.1	1.6	1.3	1.2	1.9	2.4	4.8	5.6	5.0	3.8	3.0	2.7	Diurnal Average	
	9.6	8.7	9.6	8.5	5.6	7.4	7.7	13.4	13.3	10.4	10.9	10.5	11.9	8.9	10.4	8.6	9.3	9.7	19.7	31.3	20.3	15.8	12.0	10.2	Diurnal Maximum	

BD - Baseline Drift
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 $\mu g/m^3$ 24-hr 30 $\mu g/m^3$

Hourly Averages for $PM_{2.5}$ at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Henry Pirker - Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$
September 1, 2008 to October 1, 2008

Maximum Value: 56.0 $\mu g/m^3$ on Sep 30 20:00

Maximum Daily Average: 21.3 $\mu g/m^3$ on Sep 30

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

Maximum Diurnal Average: 14.9 $\mu g/m^3$ at hour 19

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

Minimum Daily Average: 3.8 $\mu g/m^3$ on Sep 22

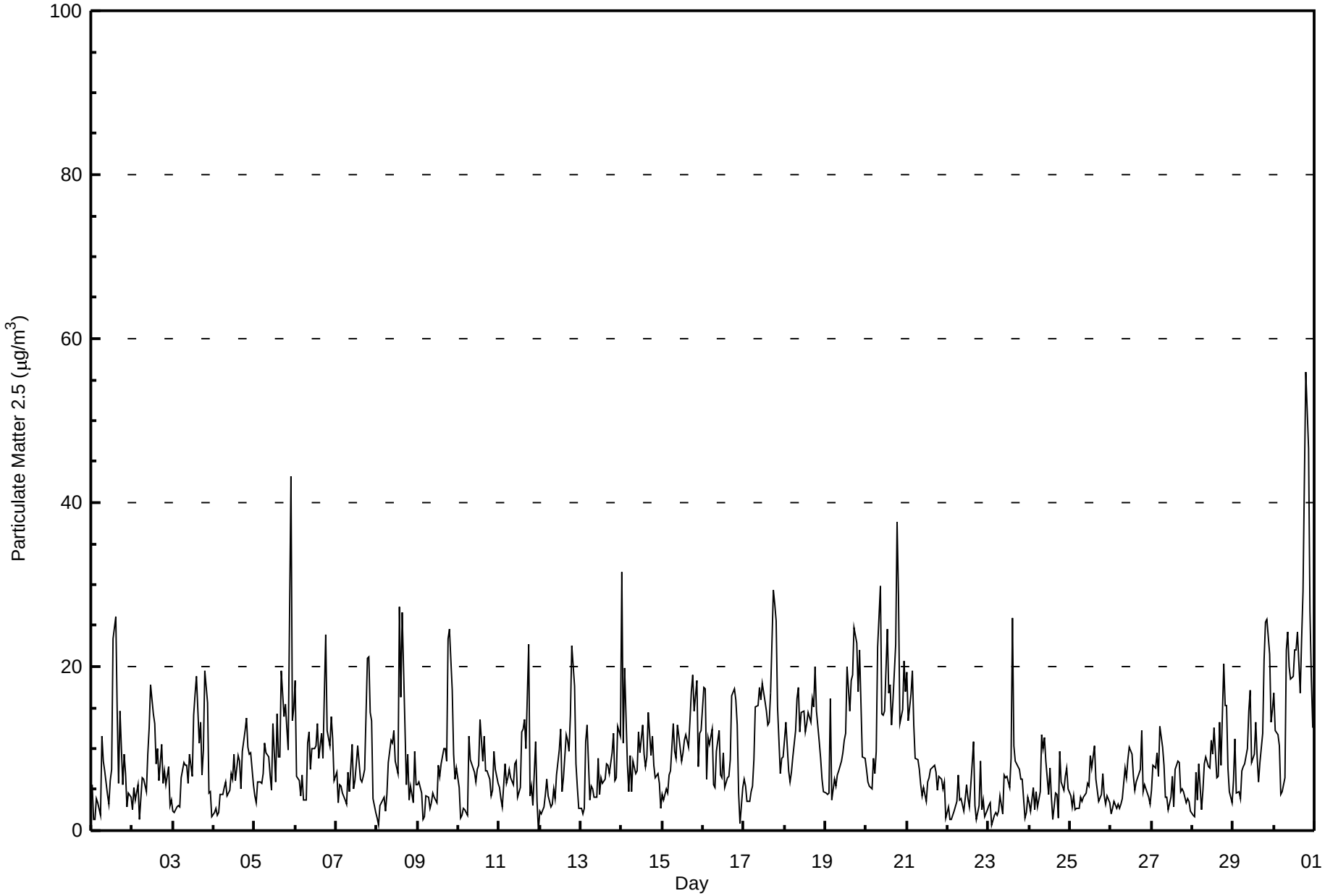
Minimum Diurnal Average: 5.3 $\mu g/m^3$ at hour 5

Percentiles: P_1 = 1.4 P_{10} = 2.9 Q_1 = 4.5 Median = 7.3 Q_3 = 11.7 P_{90} = 17.1 P_{99} = 28.7

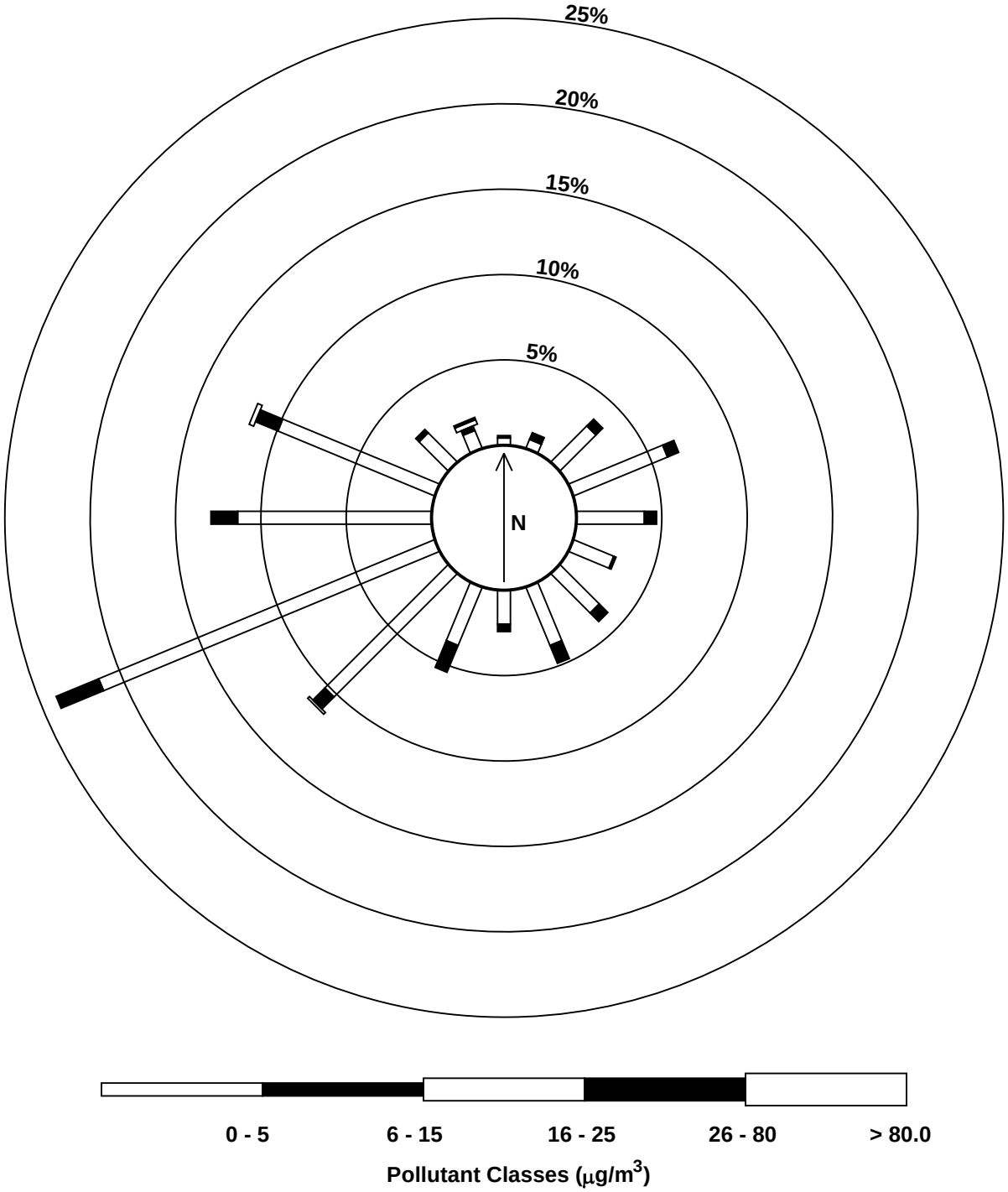
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	6	1	1	4	3	2	11	8	7	4	3	6	7	23	26	14	6	15	6	9	7	3	5	4	7.6	26.1
2-Sep	3	5	4	6	1	4	6	6	5	9	13	18	14	13	8	10	6	11	6	7	6	8	3	4	7.3	17.8
3-Sep	2	2	3	3	3	6	8	8	8	6	9	7	14	17	19	11	13	7	10	20	16	5	5	2	8.4	19.5
4-Sep	2	3	2	2	4	4	5	6	4	5	7	6	9	6	9	8	5	10	12	14	10	9	10	6	6.6	13.8
5-Sep	4	3	6	6	6	7	11	9	9	7	5	13	6	14	9	9	19	14	15	13	10	43	13	15	11.1	43.1
6-Sep	18	7	6	4	7	4	4	11	12	7	10	10	10	13	9	12	9	17	24	12	10	14	11	6	10.3	24.0
7-Sep	7	3	6	5	5	4	3	7	5	10	5	6	8	10	6	6	7	7	21	21	14	13	4	2	7.8	21.3
8-Sep	1	1	3	4	4	2	4	8	11	11	12	8	7	27	16	27	20	6	9	4	5	3	10	6	8.8	27.3
9-Sep	6	6	5	1	2	4	4	3	3	5	4	3	8	7	8	10	10	9	23	25	17	9	6	8	7.7	24.6
10-Sep	5	2	2	3	3	2	11	9	8	7	6	8	8	13	8	11	7	7	6	4	5	10	7	6	6.6	13.5
11-Sep	5	4	3	8	6	6	7	6	6	8	8	4	5	12	12	14	10	23	4	5	3	11	4	0	7.3	22.8
12-Sep	2	2	3	4	6	4	3	3	5	4	7	10	12	5	6	12	11	10	14	22	18	8	5	3	7.5	22.5
13-Sep	3	2	3	11	13	4	5	5	4	4	9	4	6	6	6	8	8	7	9	12	6	6	13	12	6.9	12.9
14-Sep	31	11	20	8	5	9	5	8	7	7	12	9	13	9	8	9	14	9	12	8	6	7	6	3	9.9	31.5
15-Sep	4	4	5	5	7	7	13	10	9	13	11	8	9	11	12	10	13	17	19	15	18	8	12	12	10.5	19.0
16-Sep	17	17	6	11	10	12	6	5	10	12	7	6	10	5	6	7	9	17	17	16	13	5	1	5	9.6	17.5
17-Sep	6	5	4	4	5	5	9	15	15	18	16	18	16	15	13	13	17	29	28	26	15	7	9	9	13.1	29.4
18-Sep	11	13	7	6	7	9	12	16	17	12	14	15	12	13	14	13	16	15	20	15	11	9	6	5	12.1	20.0
19-Sep	4	4	5	16	4	6	5	7	7	8	10	11	12	20	15	18	19	25	23	17	22	16	9	9	12.2	24.7
20-Sep	7	6	5	5	9	7	10	22	30	14	14	15	25	17	18	13	16	23	38	29	13	15	21	17	16.1	37.7
21-Sep	19	13	17	19	13	9	9	7	6	4	5	4	6	6	7	8	8	7	5	7	6	5	6	2	8.3	19.5
22-Sep	3	1	1	2	2	4	7	4	4	2	4	6	4	3	8	11	3	1	3	8	3	4	2	2	3.8	10.8
23-Sep	3	3	1	2	2	2	2	4	2	7	6	7	5	9	26	10	9	8	7	6	6	1	2	4	5.7	25.9
24-Sep	3	2	5	3	5	3	5	12	10	11	9	4	8	4	1	5	4	1	10	6	5	7	8	5	5.6	11.6
25-Sep	4	3	4	2	3	3	4	4	4	5	6	5	9	8	10	6	5	3	4	7	4	3	4	3	4.8	10.4
26-Sep	2	3	3	3	3	3	3	4	8	6	9	10	9	7	5	6	6	7	12	5	6	5	4	3	5.5	12.2
27-Sep	5	8	8	9	7	13	10	8	4	4	3	4	7	3	7	8	8	5	5	5	3	4	3	2	6.0	12.8
28-Sep	2	2	7	4	8	3	5	8	9	8	8	11	9	13	6	7	13	8	20	15	15	8	5	3	8.2	20.4
29-Sep	6	11	5	5	4	7	8	8	10	15	17	8	9	13	9	6	8	12	21	25	26	21	13	15	11.8	25.8
30-Sep	17	12	12	10	4	5	6	22	24	20	19	19	22	22	24	17	23	29	43	56	47	27	19	13	21.3	56.0
	7.1	5.4	5.3	5.8	5.3	5.3	6.8	8.5	8.8	8.5	8.9	8.8	10.0	11.5	11.2	10.6	10.8	11.9	14.9	14.4	11.6	9.8	7.5	6.1	Diurnal Average	
	31.5	17.2	19.8	19.5	12.9	12.8	13.1	22.4	29.8	20.0	18.6	18.9	24.6	27.3	26.1	26.6	23.5	29.4	42.8	56.0	46.6	43.1	20.6	17.0	Diurnal Maximum	

Hourly Maximums for $PM_{2.5}$ at Henry Pirker
September 2008



Pollutant Rose for $PM_{2.5}$ at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - External Temperature (ET) - ^{o}C
September 1, 2008 to October 1, 2008

Maximum Value: 25.6 ^{o}C on Sep 15 16:00

Maximum Daily Average: 18.0 ^{o}C on Sep 15

Minimum Value: -2 ^{o}C on Sep 24 06:00

Minimum Daily Average: 5.2 ^{o}C on Sep 24

Maximum Diurnal Average: 17.2 ^{o}C at hour 16

Minimum Diurnal Average: 6.5 ^{o}C at hour 7

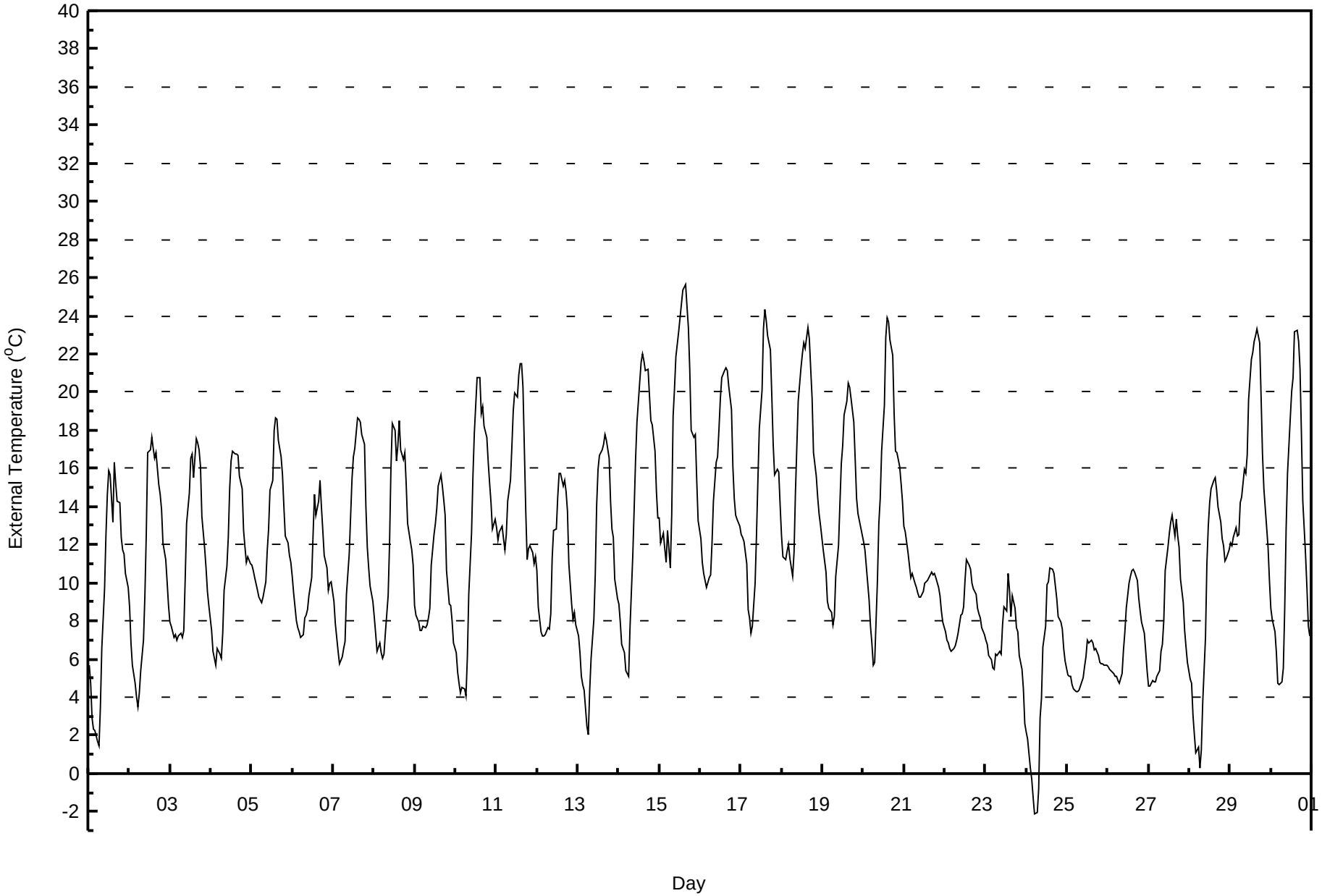
Monthly Average: 11.60 ^{o}C

Percentiles: P_1 = 1.0 P_{10} = 5.4 Q_1 = 7.4 Median = 11.0 Q_3 = 15.3 P_{90} = 19.3 P_{99} = 23.9

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	6	5	3	2	2	2	1	4	7	10	13	15	16	16	13	16	15	14	14	12	12	12	10	10	9.5	16.3
2-Sep	9	7	6	5	4	3	4	5	7	9	12	17	17	18	17	17	17	15	15	14	12	11	10	9	10.8	17.6
3-Sep	8	8	7	7	7	7	7	7	8	10	13	15	17	17	16	18	17	17	16	13	12	11	10	9	11.5	17.5
4-Sep	8	6	6	6	7	6	6	7	10	11	12	15	16	17	17	17	17	16	15	13	12	11	11	11	11.3	16.9
5-Sep	11	11	10	10	9	9	9	9	10	12	13	15	15	18	19	19	17	17	16	14	12	12	11	11	12.9	18.7
6-Sep	10	9	8	8	7	7	7	8	8	9	9	10	12	15	14	14	15	14	13	11	11	10	10	10	10.4	15.4
7-Sep	9	8	7	6	6	6	7	7	9	12	13	15	17	17	19	19	18	18	17	14	12	11	10	9	11.9	18.7
8-Sep	8	7	6	7	6	6	6	7	9	12	16	18	18	16	17	18	17	16	17	15	13	12	12	11	12.2	18.5
9-Sep	9	8	8	7	8	8	8	8	8	9	11	13	13	14	15	16	15	14	14	11	9	9	8	7	10.3	15.7
10-Sep	6	5	5	4	5	4	4	6	9	13	16	18	19	21	21	19	19	18	18	16	15	14	13	13	12.6	20.8
11-Sep	13	12	13	13	12	12	12	14	15	17	19	20	20	21	21	21	20	14	11	12	12	12	11	11	15.0	21.5
12-Sep	11	9	7	7	7	7	8	8	8	11	13	13	14	16	16	15	15	15	14	11	9	8	8	8	10.7	15.8
13-Sep	7	6	5	5	4	2	2	4	6	8	10	14	16	17	17	17	18	17	17	14	13	12	10	9	10.5	17.8
14-Sep	9	8	7	6	5	5	5	8	11	14	16	18	21	22	22	22	21	21	20	19	18	17	15	13	14.3	22.0
15-Sep	13	12	13	12	11	13	11	14	19	20	22	23	24	25	25	26	25	23	21	18	18	18	15	13	18.0	25.6
16-Sep	12	11	11	10	10	10	10	12	14	16	17	18	20	21	21	21	21	20	19	16	14	14	13	13	15.2	21.3
17-Sep	13	12	12	11	9	8	7	8	10	12	15	18	20	23	24	24	23	22	20	17	16	16	16	14	15.5	24.3
18-Sep	12	11	11	12	12	11	10	12	15	17	20	21	22	23	22	23	23	21	20	17	16	14	14	13	16.3	23.4
19-Sep	12	11	11	9	9	8	8	8	10	12	14	16	17	19	19	20	20	20	18	16	14	14	13	13	13.9	20.4
20-Sep	12	12	11	9	8	7	6	6	10	13	14	17	19	23	24	24	23	22	19	17	17	16	15	14	14.9	23.9
21-Sep	13	13	12	11	10	11	10	10	9	9	9	10	10	10	10	10	11	10	11	10	10	9	9	8	10.2	12.9
22-Sep	7	7	7	7	6	7	7	7	7	8	8	9	10	11	11	11	10	10	9	9	8	8	8	7	8.3	11.2
23-Sep	7	7	6	6	6	5	6	6	6	6	8	9	9	11	10	8	9	9	8	7	6	5	4	3	7.0	10.5
24-Sep	2	2	0	0	-1	-2	-2	-1	3	4	7	8	10	10	11	11	11	10	9	8	8	8	7	6	5.2	10.7
25-Sep	5	5	5	5	4	4	4	4	5	5	6	6	7	7	7	7	7	7	6	6	6	6	6	6	5.6	7.0
26-Sep	6	5	5	5	5	5	5	5	5	6	7	9	10	10	11	11	11	10	9	9	8	7	6	5	7.4	10.7
27-Sep	5	5	5	5	5	5	5	6	7	8	11	12	13	13	14	12	13	12	12	10	9	7	7	6	8.6	13.6
28-Sep	5	5	3	2	1	1	0	1	4	7	11	13	14	15	15	16	15	14	13	12	12	11	11	12	8.9	15.5
29-Sep	12	12	12	13	12	13	14	15	16	16	17	20	22	22	23	23	23	23	20	17	15	13	12	10	16.4	23.3
30-Sep	9	8	7	6	5	5	5	6	9	13	16	19	20	21	23	23	23	21	18	14	11	10	8	7	12.7	23.3
	8.9	8.3	7.6	7.2	6.7	6.6	6.5	7.4	9.2	11.0	12.9	14.7	15.9	16.9	17.1	17.2	17.0	16.0	14.9	13.1	12.0	11.2	10.4	9.7	Diurnal Average	
	13.4	12.7	12.7	13.0	12.4	12.7	14.2	14.5	18.8	20.2	21.8	23.1	23.9	24.6	25.4	25.6	24.5	23.4	21.1	18.5	18.3	17.8	15.8	14.3	Diurnal Maximum	

Hourly Averages for External Temperature at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Relative Humidity (RH) - %
September 1, 2008 to October 1, 2008

Maximum Value: 94.7 % on Sep 26 08:00

Maximum Daily Average: 87.8 % on Sep 21

Minimum Value: 24 % on Sep 14 15:00

Minimum Daily Average: 47.5 % on Sep 15

Maximum Diurnal Average: 83.5 % at hour 7

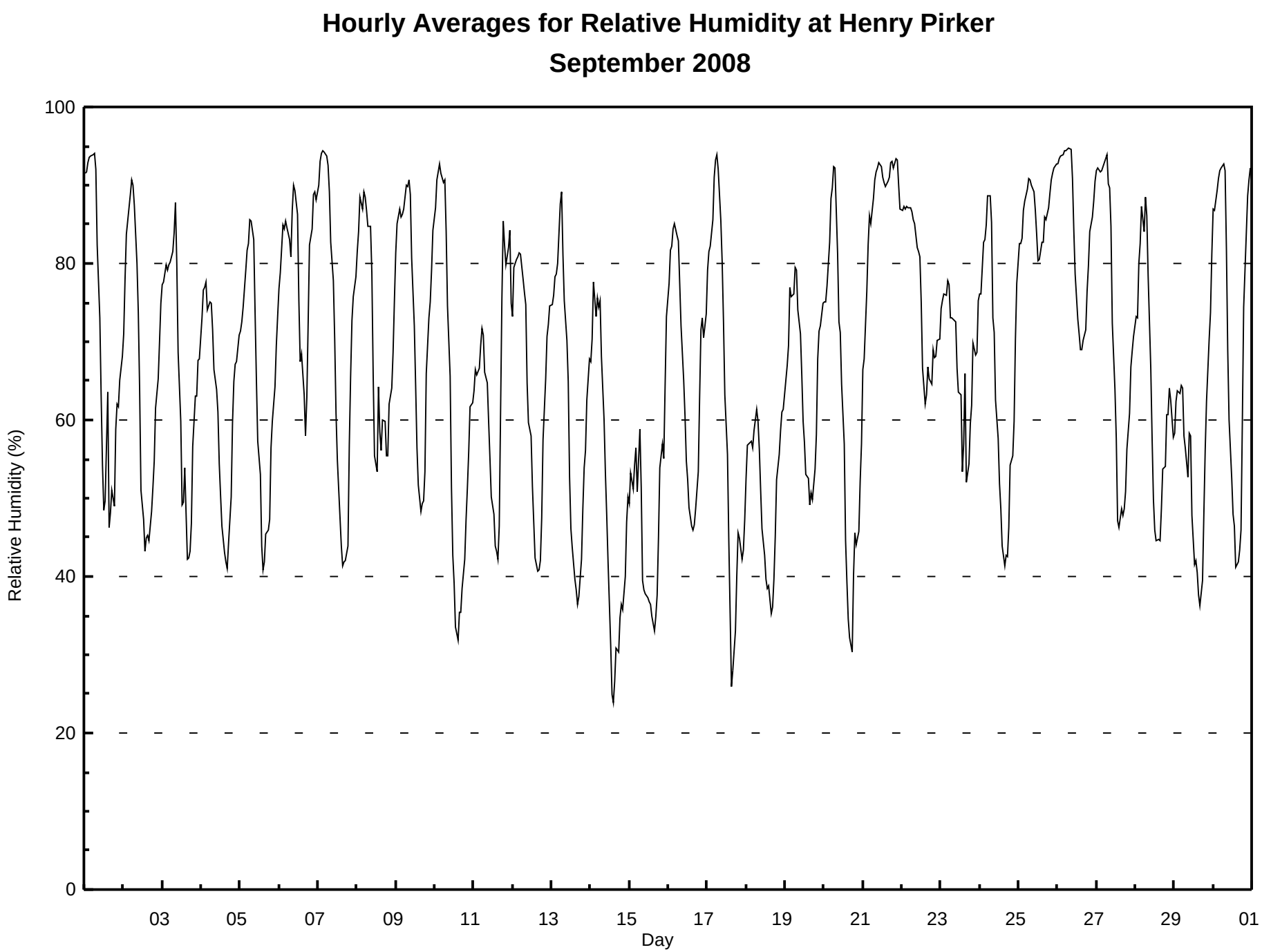
Minimum Diurnal Average: 47.3 % at hour 16

Monthly Average: 67.17 %

Percentiles: P_1 = 30.7 P_{10} = 42.4 Q_1 = 52.6 Median = 68.5 Q_3 = 82.8 P_{90} = 90.1 P_{99} = 94.2

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	92	92	93	94	94	94	94	92	82	73	63	54	49	50	64	46	48	51	49	59	62	62	65	68	70.3	94.1
2-Sep	71	78	84	87	89	91	90	87	80	74	64	51	47	43	45	45	45	48	51	55	62	65	70	75	66.5	90.7
3-Sep	77	78	80	79	80	80	81	84	88	80	69	60	49	49	54	42	42	43	47	57	63	63	68	68	65.9	87.7
4-Sep	73	77	77	78	74	75	75	71	66	64	61	54	50	46	43	42	41	44	50	60	65	67	67	71	62.2	77.6
5-Sep	71	73	74	79	82	83	86	85	83	74	65	57	53	44	41	42	45	46	47	56	60	64	69	73	64.7	85.5
6-Sep	77	79	85	84	85	85	83	81	87	90	89	86	75	68	69	63	58	63	72	82	84	89	89	88	79.7	90.0
7-Sep	90	93	94	94	94	94	93	89	83	78	70	61	55	51	44	41	42	42	44	57	66	73	76	78	70.9	94.4
8-Sep	81	84	88	87	89	89	87	85	85	79	66	55	53	64	58	56	60	60	55	55	62	64	69	75	71.2	89.2
9-Sep	81	85	87	86	86	87	90	90	91	89	81	72	64	57	52	48	49	50	53	66	73	75	79	84	74.0	90.6
10-Sep	87	91	92	93	92	90	91	84	75	66	51	43	39	34	32	35	35	38	42	47	51	56	62	62	62.0	92.8
11-Sep	64	66	66	67	69	72	71	66	65	60	55	50	48	44	43	42	46	75	85	82	80	82	84	75	64.9	85.4
12-Sep	73	80	80	81	81	81	78	76	75	65	60	58	52	47	42	41	41	42	48	57	65	71	72	75	64.2	81.3
13-Sep	75	76	78	79	80	88	89	81	75	70	65	53	46	44	40	38	36	38	42	49	54	56	63	68	61.7	89.1
14-Sep	67	70	78	73	76	74	75	68	60	53	48	42	31	25	24	27	31	30	35	36	36	40	47	50	49.9	77.6
15-Sep	49	53	51	54	56	51	59	51	39	38	38	37	37	36	35	33	35	38	45	54	57	55	64	73	47.5	73.2
16-Sep	77	82	82	84	85	84	83	77	72	65	61	55	52	49	46	46	47	49	53	63	72	73	71	74	66.7	85.0
17-Sep	79	82	82	86	91	93	94	92	85	80	73	63	56	45	35	26	28	33	40	46	45	42	43	47	61.9	93.8
18-Sep	53	57	57	57	56	59	61	60	56	51	46	43	40	39	39	35	36	40	45	52	56	59	61	61	50.7	61.4
19-Sep	65	67	70	77	76	76	80	79	74	71	66	60	57	53	53	49	51	50	54	58	68	71	72	75	65.4	79.5
20-Sep	75	75	77	83	88	90	92	92	81	73	71	65	57	45	39	35	32	30	40	46	44	46	52	57	61.9	92.3
21-Sep	66	68	76	82	86	85	88	91	92	92	93	92	91	90	90	91	91	93	93	92	93	93	90	87	87.8	93.4
22-Sep	87	87	87	87	87	87	87	86	85	82	82	81	75	67	62	63	67	65	65	69	68	68	70	70	76.4	87.3
23-Sep	74	75	76	76	78	77	73	73	73	73	67	64	63	53	57	66	52	54	59	62	70	68	69	75	67.8	77.8
24-Sep	76	76	83	83	85	89	89	85	73	71	63	58	52	49	44	41	43	43	46	54	55	60	70	77	65.2	88.7
25-Sep	83	82	83	87	88	90	91	91	90	89	87	84	80	81	83	83	86	86	87	89	91	91	92	93	86.9	92.7
26-Sep	93	93	94	94	94	94	95	95	95	91	84	79	73	71	69	69	70	71	76	80	84	86	88	91	84.5	94.7
27-Sep	92	92	92	92	92	93	94	90	90	85	72	64	58	47	46	49	48	49	51	56	61	67	69	71	71.6	94.0
28-Sep	73	73	80	82	87	84	88	86	78	67	58	50	46	45	45	44	49	54	54	61	61	64	62	58	64.5	88.4
29-Sep	58	62	64	63	64	64	58	56	53	58	58	48	41	42	41	38	36	39	48	56	62	70	74	81	55.7	81.2
30-Sep	87	87	89	91	92	92	93	92	82	69	60	53	48	46	41	42	43	46	60	74	84	89	91	92	72.6	92.7
	75.6	77.8	80.0	81.3	82.6	82.9	83.5	81.2	77.1	72.2	66.1	59.7	54.6	50.7	49.1	47.3	47.8	50.3	54.6	61.0	65.1	67.6	70.6	73.1	Diurnal Average	
	92.7	93.3	94.0	94.4	94.3	94.5	94.5	94.7	94.6	92.1	92.8	92.3	91.0	90.3	89.9	90.6	91.0	92.9	93.1	92.2	93.4	93.2	92.3	92.7	Diurnal Maximum	


Hourly Averages for Relative Humidity at Henry Pirker
September 2008
Relative Humidity (%)
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker - Solar Radiation (SR) - W/m^2
September 1, 2008 to October 1, 2008

Maximum Value: 633.9 W/m^2 on Sep 3 13:00

Maximum Daily Average: 186.1 W/m^2 on Sep 7

Minimum Value: 0 W/m^2 on Sep 1 02:00

Minimum Daily Average: 20.3 W/m^2 on Sep 21

Maximum Diurnal Average: 409.9 W/m^2 at hour 13

Minimum Diurnal Average: 0.0 W/m^2 at hour 5

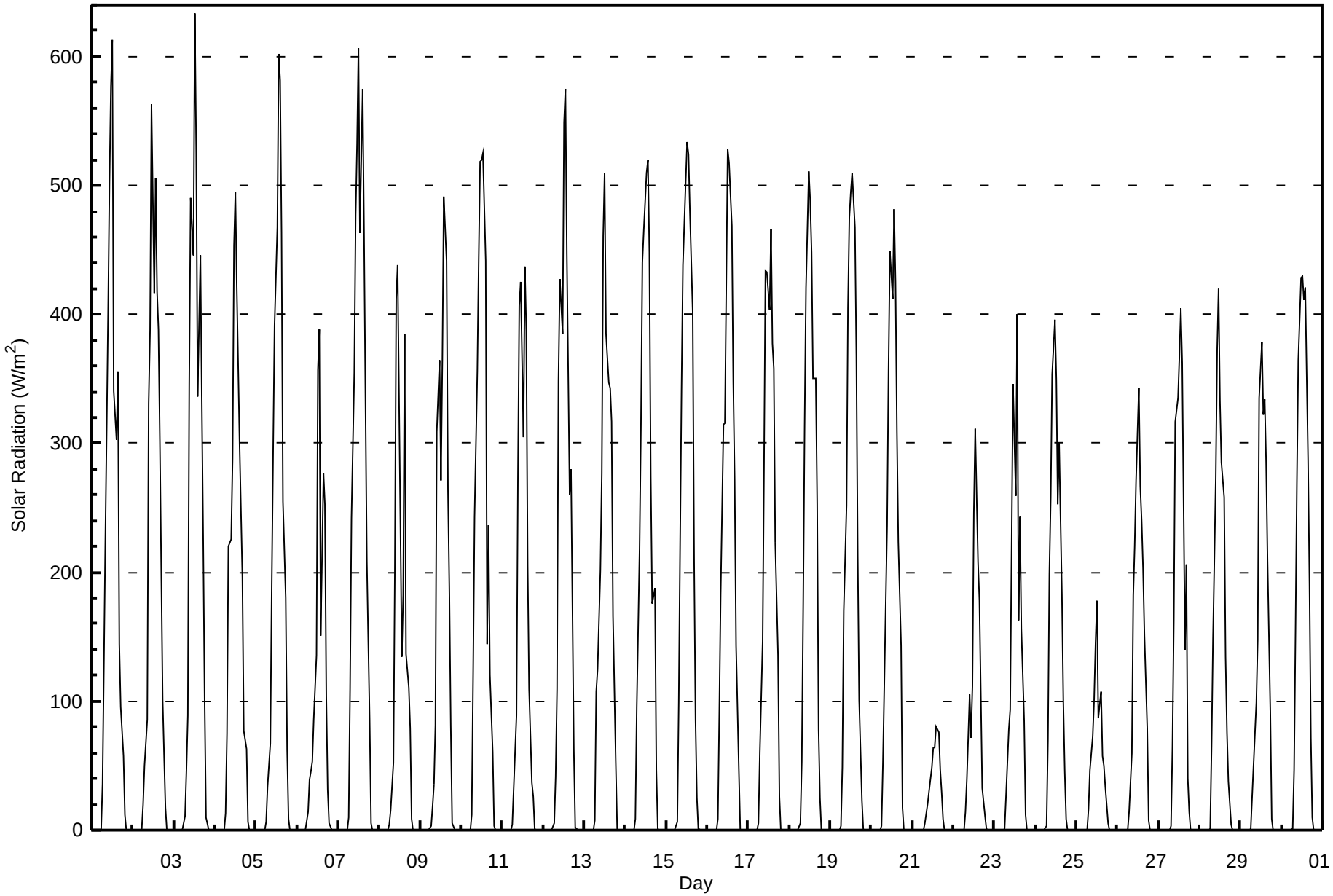
Monthly Average: 122.06 W/m^2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 9.1 Q_3 = 221.3 P_{90} = 416.5 P_{99} = 573.5

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	0	0	0	0	0	0	36	130	224	403	504	577	613	341	302	356	144	95	58	12	0	0	0	0	158.1	612.9
2-Sep	0	0	0	0	0	0	20	50	86	331	387	563	417	506	418	388	302	101	58	18	0	0	0	0	151.9	562.6
3-Sep	0	0	0	0	0	0	11	47	89	345	491	446	634	526	336	446	332	224	102	10	0	0	0	0	168.2	633.9
4-Sep	0	0	0	0	0	0	13	75	220	226	289	454	495	420	300	247	197	77	62	7	0	0	0	0	128.4	495.2
5-Sep	0	0	0	0	0	0	6	33	68	190	295	392	468	602	581	463	255	180	63	8	0	0	0	0	150.2	601.5
6-Sep	0	0	0	0	0	0	14	39	45	53	85	135	357	388	151	276	252	104	31	6	0	0	0	0	80.7	388.0
7-Sep	0	0	0	0	0	0	9	110	242	355	477	533	606	463	574	462	334	208	86	5	0	0	0	0	186.1	606.3
8-Sep	0	0	0	0	0	0	4	15	52	200	412	438	236	134	183	385	137	111	79	8	0	0	0	0	99.8	438.2
9-Sep	0	0	0	0	0	0	3	18	36	82	310	365	271	365	492	441	265	185	82	6	0	0	0	0	121.7	491.8
10-Sep	0	0	0	0	0	0	12	123	243	356	442	518	520	525	441	144	237	120	61	3	0	0	0	0	156.0	524.6
11-Sep	0	0	0	0	0	0	4	33	89	270	407	425	305	437	388	205	109	37	26	1	0	0	0	0	114.0	437.2
12-Sep	0	0	0	0	0	0	5	41	109	349	427	385	549	575	446	260	280	174	63	3	0	0	0	0	152.8	574.9
13-Sep	0	0	0	0	0	0	8	107	124	202	277	461	510	385	347	343	317	166	52	2	0	0	0	0	137.6	510.1
14-Sep	0	0	0	0	0	0	8	95	218	314	440	466	509	519	448	274	176	187	47	1	0	0	0	0	154.4	519.5
15-Sep	0	0	0	0	0	0	6	99	223	342	438	503	534	524	480	401	210	86	25	2	0	0	0	0	161.3	534.0
16-Sep	0	0	0	0	0	0	8	91	183	314	315	422	528	517	469	347	273	143	46	0	0	0	0	0	152.5	528.2
17-Sep	0	0	0	0	0	0	5	60	147	285	434	433	404	466	377	358	224	136	27	0	0	0	0	0	139.9	466.2
18-Sep	0	0	0	0	0	0	6	53	176	314	420	510	488	448	350	351	253	78	24	0	0	0	0	0	144.7	510.4
19-Sep	0	0	0	0	0	0	3	49	170	251	405	476	495	510	467	368	213	101	23	0	0	0	0	0	147.1	510.2
20-Sep	0	0	0	0	0	0	3	52	176	237	357	449	412	482	426	310	223	144	17	0	0	0	0	0	137.0	481.6
21-Sep	0	0	0	0	0	0	0	6	13	21	30	49	64	64	80	76	47	29	9	0	0	0	0	0	20.3	80.2
22-Sep	0	0	0	0	0	0	0	14	39	105	71	112	246	311	208	178	105	32	11	1	0	0	0	0	59.8	311.1
23-Sep	0	0	0	0	0	0	1	26	78	94	218	346	259	400	162	243	156	84	12	0	0	0	0	0	86.6	400.3
24-Sep	0	0	0	0	0	0	3	69	199	258	354	396	349	253	301	182	98	46	8	0	0	0	0	0	104.8	395.9
25-Sep	0	0	0	0	0	0	1	16	46	73	101	144	178	87	107	58	50	34	6	0	0	0	0	0	37.5	178.1
26-Sep	0	0	0	0	0	0	0	14	60	182	220	271	343	267	240	203	151	79	8	0	0	0	0	0	84.9	343.1
27-Sep	0	0	0	0	0	0	0	3	64	162	316	335	367	404	362	140	206	40	14	0	0	0	0	0	100.6	404.1
28-Sep	0	0	0	0	0	0	1	65	147	273	373	420	333	285	258	134	76	38	4	0	0	0	0	0	100.3	419.6
29-Sep	0	0	0	0	0	0	1	26	75	98	148	335	378	322	334	285	209	92	9	0	0	0	0	0	96.4	378.4
30-Sep	0	0	0	0	0	0	1	46	153	269	364	428	430	411	421	287	191	72	10	0	0	0	0	0	128.5	429.7
	0.0	0.0	0.0	0.0	0.0	0.1	6.4	53.5	126.6	231.7	327.0	392.9	409.9	397.9	348.3	287.0	200.7	106.8	37.4	3.1	0.0	0.0	0.0	0.0	Diurnal Average	
	0.4	0.4	0.4	0.4	0.4	0.5	35.6	130.3	243.1	402.8	503.5	576.8	633.9	601.5	581.2	463.5	334.0	224.3	101.7	17.9	0.5	0.5	0.5	0.4	Diurnal Maximum	

Hourly Averages for Solar Radiation at Henry Pirker
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	4	3	3	2	4	5	4	4	8	8	9	9	12	12	3	5	6	7	9	7	5	7	6	6	5.0	11.6
Dir	182	273	298	264	145	157	156	176	215	221	231	244	245	254	175	233	292	281	263	275	221	219	225	214	233.8	253.7
2 Spd	7	5	1	3	4	4	4	4	5	7	5	8	17	22	23	23	21	19	14	12	8	9	11	6	8.7	23.1
Dir	213	277	20	164	155	164	159	155	197	170	163	229	251	252	244	250	246	239	239	261	248	238	239	247	236.1	250.5
3 Spd	6	10	8	9	9	7	10	11	9	13	11	12	14	9	6	11	12	9	10	4	8	12	11	14	9.5	13.8
Dir	262	250	263	246	246	267	251	243	235	237	253	269	274	265	288	272	253	254	266	215	230	241	237	240	252.4	240.0
4 Spd	8	6	6	4	6	5	6	8	9	12	12	13	11	14	14	14	12	7	8	6	4	1	5	7	7.8	14.3
Dir	228	261	269	287	240	217	219	247	246	243	249	254	263	280	273	275	279	292	281	247	251	323	245	235	258.5	273.2
5 Spd	9	10	7	4	5	4	3	3	3	4	6	3	3	2	3	1	7	8	8	5	3	1	4	4	2.2	9.6
Dir	241	242	261	294	297	296	259	292	280	116	118	99	115	303	344	279	303	324	337	7	65	22	291	274	291.8	241.6
6 Spd	3	5	4	3	4	1	4	5	5	5	4	7	4	2	4	5	2	5	6	5	3	2	3	4	3.4	7.0
Dir	278	303	303	327	295	341	311	328	287	297	288	262	277	214	206	265	278	309	299	299	294	250	203	237	284.8	262.5
7 Spd	3	3	5	4	5	6	7	10	10	10	11	10	8	7	9	10	8	8	4	2	4	6	5	5	5.2	10.7
Dir	278	251	281	240	258	242	243	240	247	278	265	267	299	294	271	259	264	268	294	163	153	155	144	152	255.6	264.9
8 Spd	5	4	6	5	5	4	6	5	7	8	19	20	20	16	12	14	11	9	8	13	10	9	8	12	6.5	20.4
Dir	141	127	147	135	151	142	151	194	196	205	241	261	262	266	291	255	298	332	256	237	225	220	282	325	247.3	261.0
9 Spd	4	7	11	13	10	12	13	12	11	12	15	16	14	17	19	17	16	16	10	5	4	2	4	2	10.1	18.8
Dir	297	257	280	286	283	287	302	304	297	282	290	287	295	310	305	299	297	298	297	280	290	155	169	139	292.5	305.2
10 Spd	3	6	5	5	4	4	4	5	6	6	13	18	19	19	30	28	23	32	27	25	24	13	9	13	11.5	32.5
Dir	154	146	139	141	121	114	113	127	147	162	192	226	230	234	247	256	244	247	244	241	246	240	270	268	233.5	246.9
11 Spd	9	7	7	7	7	4	6	16	20	23	31	34	34	32	22	18	18	22	5	8	12	17	14	17	15.2	34.3
Dir	241	224	212	233	197	208	244	250	249	249	243	244	242	242	233	220	202	298	293	215	248	248	243	261	242.2	244.1
12 Spd	15	9	5	5	5	7	10	11	11	14	17	15	12	15	18	18	17	14	8	3	5	5	8	10	9.3	18.3
Dir	252	268	272	264	280	242	238	242	257	273	291	305	298	278	283	292	294	302	292	253	167	172	211	225	271.3	292.0
13 Spd	9	8	2	2	3	5	6	4	7	7	8	13	15	14	18	19	19	17	9	8	8	8	2	5	8.0	19.2
Dir	232	217	181	259	223	146	156	158	198	217	207	238	246	247	262	253	252	243	244	237	233	262	305	198	236.0	253.4
14 Spd	0	4	4	2	4	3	3	5	5	7	7	11	17	18	21	20	18	23	17	17	23	16	11	9	10.8	23.0
Dir	259	296	269	240	218	227	241	225	223	229	222	240	253	257	248	249	256	247	250	244	251	250	246	239	247.2	247.2
15 Spd	11	9	9	8	7	10	7	6	23	28	27	29	31	27	26	23	20	17	11	7	10	10	2	1	13.6	31.4
Dir	239	240	228	228	221	218	174	178	238	241	249	254	260	256	268	282	288	286	280	271	267	283	247	106	254.6	259.8
16 Spd	2	4	3	4	3	5	3	5	5	9	13	10	10	11	12	12	13	13	9	8	9	8	10	10	7.0	13.2
Dir	27	148	330	342	307	20	29	56	70	84	85	100	93	83	90	82	82	77	71	49	50	70	71	76	73.5	76.6
17 Spd	8	11	10	3	3	3	3	3	4	5	6	7	8	11	18	25	24	13	7	8	8	12	12	7	6.1	24.9
Dir	84	95	97	144	314	265	230	258	223	197	200	205	202	229	242	252	254	258	245	261	288	277	264	228	241.0	252.2
18 Spd	6	5	7	9	9	7	9	9	8	14	17	15	14	10	9	6	8	4	7	7	8	8	6	6	4.1	16.9
Dir	257	237	224	232	229	231	249	252	246	239	247	287	287	297	311	314	356	37	52	49	52	67	66	64	274.4	247.0
19 Spd	4	4	3	1	4	4	4	4	6	8	5	5	7	6	8	8	8	8	6	7	7	8	9	8	5.6	9.1
Dir	60	51	57	275	26	36	70	77	67	79	71	84	97	94	110	84	88	96	84	53	43	59	67	70	73.5	67.4
20 Spd	7	8	5	2	1	3	3	2	3	3	5	5	5	7	11	13	13	15	10	10	9	14	17	6	5.1	17.3
Dir	68	76	75	355	358	283	303	266	273	252	207	200	199	256	281	267	277	276	302	279	283	296	298	281	281.3	297.8
21 Spd	5	5	3	3	5	8	7	10	13	12	11	10	8	10	8	7	5	6	6	5	6	6	9	10	6.4	13.1
Dir	231	247	232	158	183	234	238	248	235	232	227	239	234	239	229	234	195	179	227	260	292	296	307	305	240.6	234.9
22 Spd	11	12	11	12	13	13	14	15	15	18	19	20	22	23	22	23	24	21	19	19	18	17	16	16	16.6	24.1
Dir	302	292	286	285	285	283	283	283	279	276	277	275	274	270	272	254	252	255	252	249	250	248	244	259	267.9	252.1

Peace Airshed Zone Association
Summary of Hourly Averages

Henry Pirker
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	14	14	15	13	12	12	17	17	21	22	21	21	21	20	16	11	21	12	13	12	9	9	8	5	14.5	21.9
Dir	250	255	245	250	241	247	244	244	249	253	263	263	276	279	254	237	243	271	252	241	224	235	244	262	252.6	252.7
24 Spd	6	5	3	3	1	4	4	4	3	3	4	7	6	8	10	11	10	10	8	6	8	9	10	8	4.2	11.2
Dir	235	261	259	233	192	132	124	137	139	153	80	106	97	76	77	78	72	61	46	37	57	78	75	62	81.2	78.5
25 Spd	7	6	6	7	7	6	5	6	7	7	7	6	6	5	6	5	6	5	5	4	3	3	2	4	5.2	7.5
Dir	67	54	56	66	62	49	49	49	52	69	68	68	52	48	46	54	39	61	67	91	108	92	79	99	61.3	65.9
26 Spd	3	4	3	3	4	3	4	4	3	5	6	6	6	6	8	9	12	11	8	10	11	11	9	8	6.1	12.4
Dir	108	142	126	124	151	120	116	141	117	115	116	123	129	104	90	101	94	99	86	80	88	81	76	77	100.5	93.9
27 Spd	5	7	6	3	2	5	9	9	9	10	15	16	21	31	29	26	25	23	22	20	14	11	10	11	12.0	31.0
Dir	63	75	94	294	310	207	248	211	187	197	225	237	238	251	246	251	251	255	244	242	238	233	238	230	239.5	251.0
28 Spd	10	6	3	1	3	2	4	4	5	5	5	8	8	8	10	7	6	5	4	4	5	7	8	6	4.8	10.0
Dir	224	214	248	322	229	162	125	140	147	151	178	178	199	216	194	218	176	157	129	130	139	166	176	193	182.2	224.0
29 Spd	8	5	7	9	7	8	11	11	10	5	4	11	18	21	21	20	16	8	6	4	2	3	2	2	8.1	21.3
Dir	203	199	230	227	241	259	232	225	238	319	309	232	236	246	252	245	255	246	226	203	234	18	75	147	240.5	246.0
30 Spd	2	2	2	3	4	2	2	3	4	2	3	2	3	2	1	3	2	4	1	1	3	3	4	3	0.7	3.7
Dir	328	343	129	299	256	291	333	140	152	197	232	226	175	209	53	195	149	65	343	333	332	286	297	303	267.0	297.0
Spd	3.3	2.9	2.5	3.0	3.0	2.9	3.4	4.3	5.7	6.3	7.4	9.0	9.7	10.3	9.7	10.0	8.6	7.4	5.8	4.9	4.2	3.8	3.5	3.3	Diurnal Average	
Dir	237.5	242.6	247.4	251.2	243.7	239.0	236.1	235.6	236.4	237.3	242.0	249.6	252.7	257.8	257.9	256.8	260.1	268.9	263.6	252.0	247.7	244.8	248.4	247.3		
Spd	15.4	13.8	14.7	13.4	12.6	13.4	17.2	17.3	22.6	28.0	30.5	34.3	33.7	31.6	29.5	27.9	24.7	32.5	27.5	24.9	23.5	16.9	17.3	17.1	Diurnal Maximum	
Dir	251.7	255.2	245.5	250.1	285.2	282.8	243.8	244.0	238.1	240.7	242.7	244.1	241.6	242.1	246.7	255.8	251.3	246.9	244.1	241.4	245.7	248.1	297.8	260.6		

Maximum Speed Value: 34 km/h on Sep 11 12:00
Maximum Daily Speed Average: 16.6 km/h on Sep 22
Maximum Diurnal Speed Average: 10.3 km/h at hour 14

Minimum Speed Value: 0 km/h on Sep 14 01:00
Minimum Daily Speed Average: 0.7 km/h on Sep 30
Minimum Diurnal Speed Average: 2.5 km/h at hour 3

Monthly Average Velocity: 5.55 km/h 250.56 deg

Speed Percentiles: $P_1 = 1.1$ $P_{10} = 3.0$ $Q_1 = 4.6$ Median = 7.6 $Q_3 = 11.9$ $P_{90} = 18.4$ $P_{99} = 30.2$

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

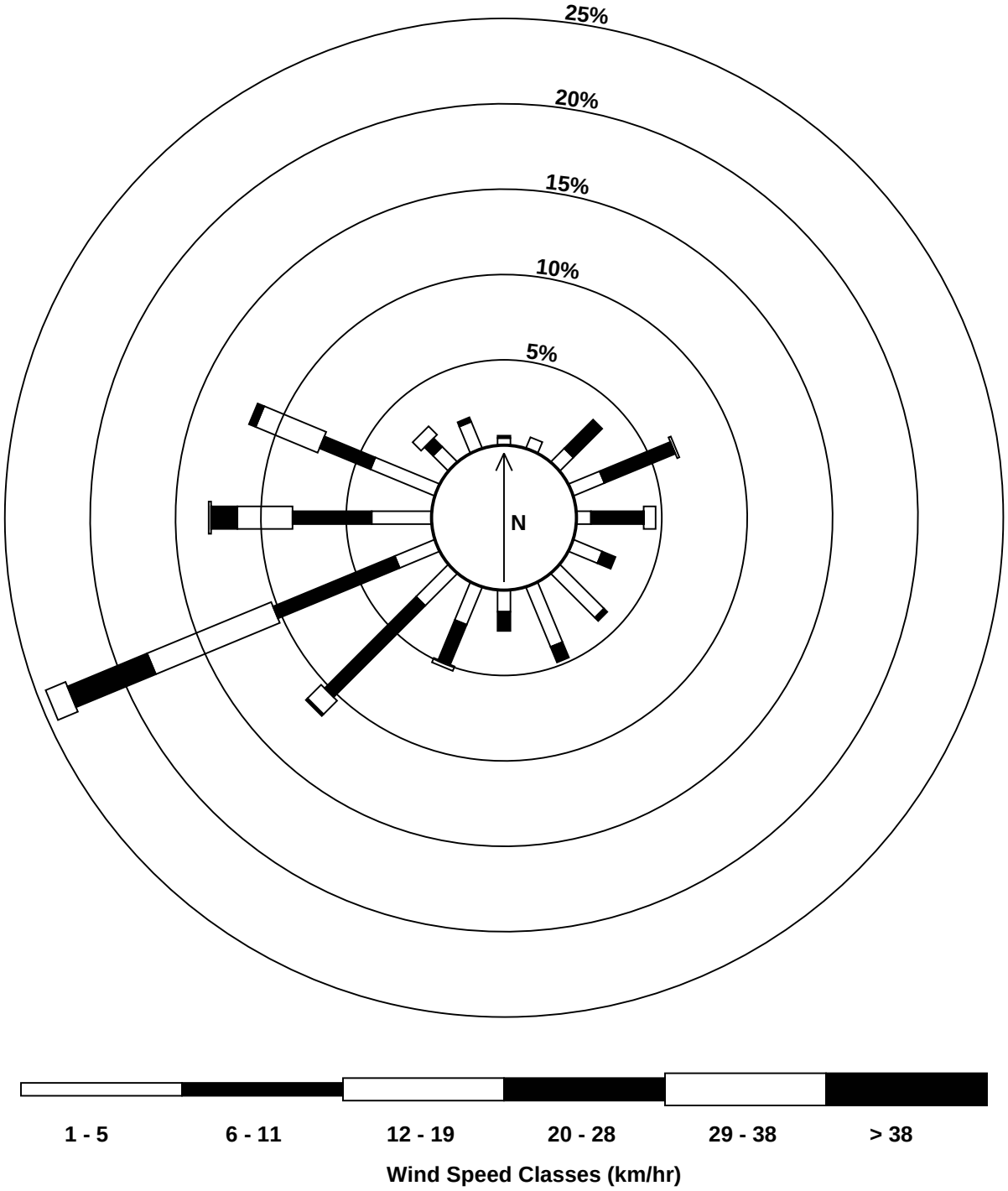
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Percentage Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	1.39	0.42	0.00	0.00	0.00	0.00	1.81
NorthEast	2.22	4.31	0.00	0.00	0.00	0.00	6.53
East	1.67	6.67	0.97	0.00	0.00	0.00	9.31
SouthEast	5.97	2.92	0.00	0.00	0.00	0.00	8.89
South	2.92	3.75	0.28	0.00	0.00	0.00	6.94
SouthWest	4.31	14.17	5.28	2.50	1.11	0.00	27.36
West	5.42	8.61	9.72	5.14	0.42	0.00	29.31
NorthWest	4.31	3.06	2.36	0.14	0.00	0.00	9.86
Total	28.19	43.89	18.61	7.78	1.53	0.00	100.00

Wind Rose for WS at Henry Pirker

September 2008



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

Henry Pirker - Wind Speed (WS) - km/h
September 1, 2008 to October 1, 2008

Maximum Speed: 35 km/h on Sep 11 12:00

Maximum Daily Speed Average: 17.3 km/h on Sep 22

Minimum Speed: 2 km/h on Sep 25 23:00

Minimum Daily Speed Average: 3.3 km/h on Sep 30

Maximum Diurnal Speed Average: 14.6 km/h at hour 15

Minimum Diurnal Speed Average: 5.8 km/h at hour 4

Monthly Average Speed: 9.62 km/h

Percentiles: $P_1 = 2.8$ $P_{10} = 3.7$ $Q_1 = 5.1$ Median = 8.0 $Q_3 = 12.2$ $P_{90} = 18.7$ $P_{99} = 30.4$

Hours in Service: 720
Hours of Data: 720
Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	4	4	4	2	4	5	4	5	8	8	9	9	12	14	5	9	7	8	10	7	5	7	6	6	6.8	13.8
2-Sep	7	5	2	4	4	4	4	5	5	7	6	9	18	22	23	24	21	19	14	12	8	10	11	6	10.4	23.6
3-Sep	6	10	9	9	9	7	10	11	9	13	12	13	14	12	8	12	13	10	10	5	9	12	11	14	10.3	14.3
4-Sep	8	6	6	4	7	5	6	8	10	13	12	14	12	15	15	14	12	7	8	6	7	3	5	7	8.7	14.7
5-Sep	9	10	7	5	5	4	3	3	4	5	7	5	5	5	6	5	7	8	8	6	4	3	4	5	5.5	9.6
6-Sep	4	5	5	4	5	3	4	5	5	6	5	7	5	4	5	5	5	6	7	5	4	3	3	5	4.8	7.2
7-Sep	3	3	5	4	6	6	7	10	10	11	11	10	9	8	10	11	9	8	4	3	4	6	5	5	7.1	11.2
8-Sep	5	4	6	5	5	4	6	6	8	9	19	21	21	16	13	15	16	9	9	13	10	9	10	12	10.4	20.7
9-Sep	5	7	11	13	10	12	13	12	11	12	15	16	15	17	19	17	16	16	10	5	4	3	4	3	11.2	19.3
10-Sep	4	6	5	5	4	4	4	5	6	7	13	18	20	20	30	28	24	33	28	25	24	13	10	14	14.5	32.6
11-Sep	9	7	7	7	8	5	9	16	20	23	31	35	34	32	22	18	18	25	8	8	13	17	15	17	16.9	34.5
12-Sep	16	10	5	6	6	8	10	12	11	15	17	15	13	16	18	18	17	14	8	4	5	5	9	10	11.1	18.4
13-Sep	9	8	3	4	5	5	6	4	7	8	9	13	16	14	18	20	20	17	10	8	8	8	4	5	9.6	19.6
14-Sep	3	4	4	3	4	3	3	5	5	7	8	12	17	19	22	20	18	23	17	17	23	17	11	10	11.5	23.1
15-Sep	11	9	10	8	7	11	7	8	23	28	28	29	32	28	26	23	20	17	11	8	10	10	4	3	15.5	31.7
16-Sep	3	4	4	4	4	5	3	5	6	9	13	11	11	11	13	12	13	13	9	8	9	9	10	10	8.3	13.3
17-Sep	8	11	10	4	4	3	4	5	4	5	6	7	9	11	19	25	24	13	8	9	8	12	12	7	9.5	25.1
18-Sep	7	6	8	9	9	8	9	9	9	14	17	16	15	11	10	8	9	4	7	7	8	8	7	7	9.2	17.0
19-Sep	5	4	3	3	4	4	4	5	7	8	6	6	8	7	9	8	8	8	7	7	7	8	9	8	6.4	9.1
20-Sep	7	8	6	4	3	3	4	3	4	3	6	6	5	8	11	14	13	15	10	10	10	14	17	6	8.0	17.4
21-Sep	5	6	5	5	6	9	7	11	13	12	11	10	8	10	8	7	5	6	7	7	6	6	9	10	8.0	13.2
22-Sep	12	12	12	12	13	13	14	15	15	19	19	20	22	23	22	23	24	21	19	19	18	17	16	16	17.3	24.2
23-Sep	14	14	15	13	12	12	17	17	21	22	21	21	21	20	17	12	21	13	13	12	9	9	8	6	15.1	22.4
24-Sep	6	6	4	4	3	4	4	4	4	4	6	7	7	8	11	12	10	10	8	6	8	9	10	8	6.7	11.5
25-Sep	7	6	6	8	7	7	5	6	7	7	7	6	6	5	6	6	6	6	5	4	3	3	2	4	5.6	7.6
26-Sep	4	4	3	3	4	3	4	4	4	5	7	6	7	7	8	9	13	11	8	10	11	11	9	8	6.8	12.6
27-Sep	5	7	6	4	3	7	10	9	9	10	15	16	22	31	29	26	25	23	22	20	14	11	10	11	14.4	31.3
28-Sep	10	7	4	3	4	3	4	4	6	6	6	8	8	9	10	8	7	6	5	4	6	7	8	7	6.2	10.1
29-Sep	8	6	7	10	8	9	11	11	10	6	5	11	19	22	21	20	16	8	6	4	4	5	3	3	9.7	21.5
30-Sep	3	3	2	3	4	3	3	3	4	3	3	3	4	4	3	4	3	4	3	3	4	3	4	3	3.3	4.1
	7.0	6.8	6.1	5.8	5.9	6.1	6.7	7.6	8.7	10.1	11.7	12.8	13.7	14.3	14.6	14.5	14.0	12.8	9.9	8.7	8.7	8.7	8.3	7.8	Diurnal Average	
	15.7	13.9	14.9	13.5	12.6	13.5	17.3	17.4	22.7	28.2	30.7	34.5	33.8	31.8	30.0	28.2	24.9	32.6	27.6	25.0	23.6	17.3	17.4	17.1	Diurnal Maximum	

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
September 1, 2008 to October 1, 2008

Maximum Value: 96.5 deg on Sep 14 01:00

Minimum Value: 3.7 deg on Sep 27 20:00

Percentiles: P_1 = 4.9 P_{10} = 6.9 Q_1 = 9.5 Median = 14.5 Q_3 = 25.6 P_{90} = 47.8 P_{99} = 83.7

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

Day	Hourly Period Ending At (MST)																								Daily 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-Sep	32	28	23	27	25	9	11	28	15	23	17	20	20	32	52	53	38	29	13	6	21	9	12	10	52.9
2-Sep	9	30	88	55	13	14	10	11	24	21	31	43	13	10	10	11	11	6	8	8	12	12	8	21	88.2
3-Sep	15	8	9	7	8	9	10	9	8	10	20	18	16	58	80	20	20	25	10	26	18	7	8	6	79.5
4-Sep	9	23	12	14	12	13	13	10	14	10	13	14	22	14	12	11	16	12	15	15	64	88	33	11	87.9
5-Sep	8	7	18	18	14	18	45	48	30	53	29	56	59	85	82	93	35	26	14	25	33	74	33	29	92.9
6-Sep	62	18	28	40	47	83	39	22	12	22	25	14	53	71	43	41	67	36	17	21	21	33	25	36	82.7
7-Sep	31	23	15	24	26	18	12	10	9	17	13	16	26	29	28	24	24	17	22	71	24	5	13	13	71.4
8-Sep	11	18	8	14	14	20	8	34	18	13	10	10	14	15	19	28	42	17	33	8	6	8	35	8	42.4
9-Sep	54	26	12	8	6	9	5	6	7	6	9	9	14	11	14	11	11	7	7	14	21	73	25	53	72.9
10-Sep	30	12	17	18	10	14	10	12	14	25	13	14	14	13	11	9	8	5	6	6	6	18	22	14	30.1
11-Sep	11	9	9	17	31	41	48	7	8	7	7	6	5	6	14	13	11	42	54	14	22	15	8	5	54.4
12-Sep	10	29	31	34	19	21	7	9	8	18	14	12	19	11	9	7	10	9	13	43	14	12	12	10	42.6
13-Sep	8	8	49	77	61	11	6	23	15	13	24	12	14	19	10	12	13	10	19	12	15	15	80	15	79.7
14-Sep	97	31	21	43	19	33	37	19	18	18	26	22	14	14	14	11	10	5	9	12	5	6	10	8	96.5
15-Sep	7	12	14	18	9	14	18	34	6	7	7	9	8	10	13	8	8	7	7	11	7	23	67	66	67.1
16-Sep	83	28	53	23	42	20	37	22	21	18	13	15	19	22	16	15	13	9	8	11	8	8	8	7	82.6
17-Sep	9	5	6	48	41	20	35	45	29	18	22	25	19	19	12	8	7	7	15	11	19	5	15	16	48.3
18-Sep	26	31	10	9	7	15	16	10	21	7	7	17	16	27	25	59	24	25	14	12	9	9	8	10	58.8
19-Sep	14	16	45	77	19	18	14	14	19	14	39	33	26	33	27	20	17	11	14	9	9	8	8	7	77.3
20-Sep	13	9	12	58	76	29	34	82	20	36	26	29	23	30	18	12	8	8	9	11	30	7	7	21	81.8
21-Sep	26	26	64	58	33	22	25	20	7	7	12	11	13	10	16	12	23	24	24	65	9	13	11	7	64.8
22-Sep	7	5	5	5	5	5	6	5	5	4	6	7	6	10	6	9	6	6	6	5	6	6	7	6	9.7
23-Sep	6	9	8	6	7	12	6	6	6	12	9	10	6	8	25	21	10	20	9	8	8	10	15	25	25.3
24-Sep	10	23	21	48	89	19	25	19	56	33	40	23	27	19	15	13	12	9	11	14	16	10	8	11	89.3
25-Sep	11	12	11	10	10	11	18	16	12	11	15	20	26	25	23	23	15	14	14	13	12	13	43	23	42.9
26-Sep	18	16	24	17	20	23	17	18	33	21	23	26	36	33	19	14	11	9	11	7	9	9	8	7	35.6
27-Sep	31	9	16	70	49	62	29	25	8	10	12	13	18	7	8	8	7	7	5	4	4	10	9	8	70.5
28-Sep	8	30	61	95	60	55	21	21	17	21	21	21	16	27	14	28	20	16	27	20	18	15	6	12	94.9
29-Sep	11	27	14	6	20	27	10	10	14	49	33	13	10	8	8	8	7	11	17	66	82	71	72	55	81.9
30-Sep	47	50	57	50	27	42	57	15	14	63	46	60	53	69	78	44	60	40	73	62	40	42	20	30	78.1
	96.5	50.5	88.2	94.9	89.3	82.7	57.3	81.8	56.1	62.9	45.7	60.1	59.1	85.4	81.8	92.9	67.4	42.3	73.3	71.4	81.9	87.9	79.7	66.4	

PASZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 9.4 ppb on Sep 10 18:00
Maximum Daily Average: 2.2 ppb on Sep 30

Minimum Value: 0 ppb on Sep 3 04:00
Maximum Diurnal Average: 1.2 ppb at hour 15
Monthly Average: 0.39 ppb

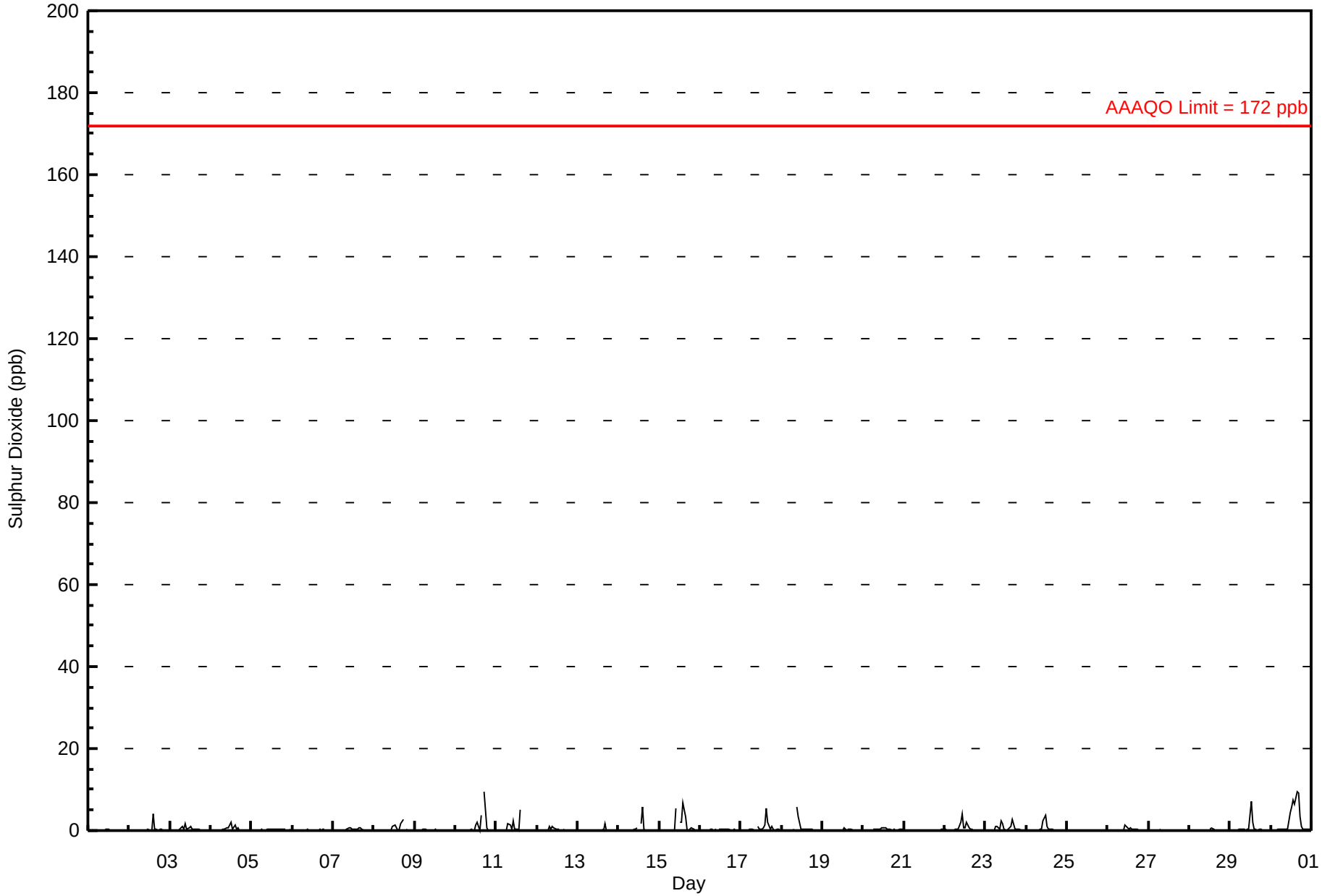
Minimum Daily Average: 0.0 ppb on Sep 25
Minimum Diurnal Average: 0.0 ppb at hour 3
Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.7 P_{99} = 6.5

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0.3	4.0
3-Sep	A	0	0	0	0	0	1	1	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0.3	1.8
4-Sep	0	0	0	0	0	0	0	0	0	1	1	1	2	0	1	0	1	0	0	0	0	0	A	0	0.4	2.1
5-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0.2	0.5
6-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
7-Sep	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	A	0	0	0	0	0.2	0.7
8-Sep	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	2	3	A	0	0	0	0	0	0.4	2.7
9-Sep	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
10-Sep	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	4	A	9	1	0	0	0	0	0	0.8	9.4
11-Sep	0	0	0	0	0	0	0	2	1	0	2	0	0	0	5	A	0	0	0	0	0	0	0	0	0.5	5.0
12-Sep	0	0	0	0	0	0	0	1	0	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	1.2
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	2	0	0	0	0	0	0	0	0.1	1.7
14-Sep	0	0	0	0	0	0	0	0	0	0	0	1	A	2	6	0	0	0	0	0	0	0	0	0	0.4	5.7
15-Sep	0	0	0	0	0	0	0	0	0	0	6	A	2	2	7	3	0	0	0	1	0	0	0	0	0.9	6.7
16-Sep	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
17-Sep	0	0	0	0	0	0	0	0	0	A	1	0	0	1	1	6	2	0	1	0	0	0	0	0	0.6	5.5
18-Sep	0	0	0	0	0	0	0	0	A	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	5.9
19-Sep	0	0	0	0	0	0	0	A	C	C	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	0.5
20-Sep	0	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.8
21-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Sep	0	0	0	A	0	0	0	0	0	2	4	1	1	2	1	0	0	0	0	0	0	0	0	0	0.6	4.2
23-Sep	0	0	A	0	0	0	1	1	0	2	2	0	0	0	1	1	3	0	0	0	0	0	0	0	0.5	2.6
24-Sep	0	A	0	0	0	0	0	0	0	0	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0.4	3.7
25-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
26-Sep	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0.2	1.2
27-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	0.5
29-Sep	0	0	0	A	0	0	0	0	0	0	0	0	7	2	0	0	0	0	0	0	0	0	0	0	0.6	7.1
30-Sep	0	0	A	0	0	0	0	0	0	0	0	4	6	7	7	9	9	3	1	0	0	0	0	0	2.2	9.4
	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.2	0.6	1.0	0.6	0.9	0.8	1.2	1.0	0.8	0.7	0.2	0.2	0.1	0.1	0.1	0.1	Diurnal Average	
	0.2	0.1	0.1	0.1	0.2	0.3	1.0	1.8	1.3	5.9	5.5	4.3	7.1	7.3	6.7	9.4	9.1	9.4	1.1	0.7	0.3	0.2	0.2	0.4	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 SO_2 at Evergreen Park
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Evergreen Park - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 20.2 ppb on Sep 14 15:00

Maximum Daily Average: 3.8 ppb on Sep 30

Minimum Value: 0 ppb on Sep 19 21:00

Maximum Diurnal Average: 3.6 ppb at hour 15

Monthly Average: 1.33 ppb

Minimum Daily Average: 0.3 ppb on Sep 25

Minimum Diurnal Average: 0.3 ppb at hour 3

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.5$ $P_{90} = 3.4$ $P_{99} = 15.4$

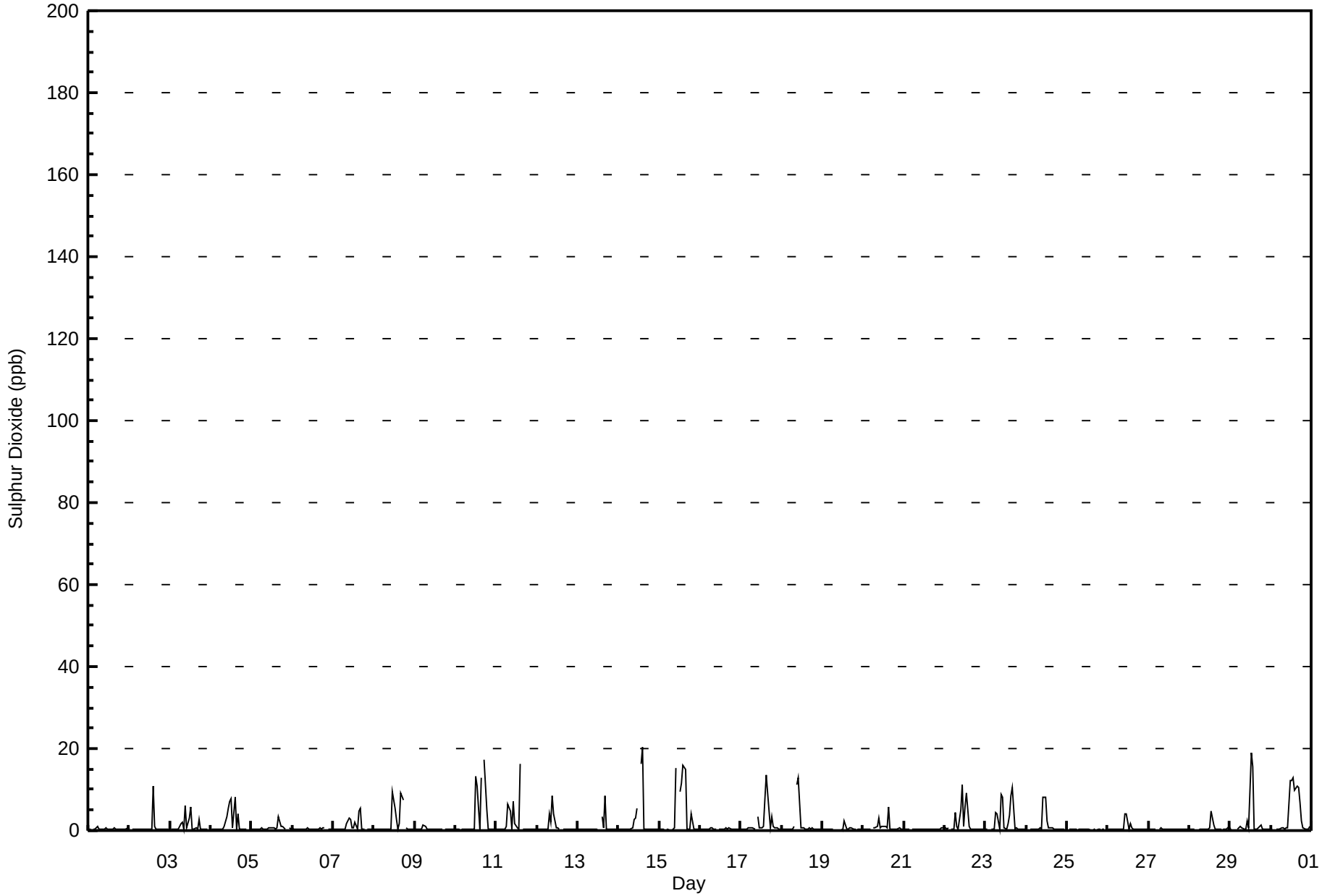
Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	A	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0.4	0.9
2-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	0	0	0	0.9	10.7
3-Sep	A	0	0	0	0	0	2	2	0	6	1	3	6	0	1	1	1	3	0	0	0	0	0	A	1.2	6.2
4-Sep	0	0	0	0	0	0	0	0	1	3	5	7	8	1	8	0	4	0	0	0	0	0	A	0	1.9	8.0
5-Sep	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	1	3	1	1	1	0	A	1	0	0.6	3.2
6-Sep	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	1	A	0	0	0	0.4	0.5
7-Sep	0	0	0	0	0	0	1	0	2	3	3	1	1	2	1	5	5	0	0	A	0	0	0	0	1.1	5.3
8-Sep	0	0	0	0	0	0	0	0	0	0	0	9	6	3	0	2	9	8	A	1	0	0	0	0	1.8	9.4
9-Sep	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	1.4
10-Sep	0	0	0	0	0	0	0	0	0	0	0	0	13	11	0	13	A	17	5	0	0	0	0	0	2.8	17.2
11-Sep	0	0	0	0	0	0	1	6	5	0	7	2	1	0	16	A	0	0	0	0	0	0	0	0	1.9	16.3
12-Sep	0	0	0	0	0	0	0	4	2	8	4	1	1	0	A	0	0	0	0	0	0	0	0	0	1.1	8.4
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	A	3	1	8	0	0	0	0	0	0	0	0.8	8.4
14-Sep	0	0	0	0	0	0	0	0	1	3	3	5	A	16	20	0	0	0	0	0	0	0	0	0	2.3	20.2
15-Sep	0	0	0	0	0	0	0	0	0	1	15	A	10	12	16	15	0	0	0	4	0	0	0	0	3.3	15.8
16-Sep	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	1	0	1	0	0	0	0	0	0	0.4	0.6
17-Sep	0	0	0	0	1	1	1	1	0	A	3	1	1	1	7	14	9	1	3	1	1	1	0	0	2.0	13.7
18-Sep	0	0	0	0	0	0	0	1	A	11	13	1	1	1	1	1	1	0	1	0	0	0	0	0	1.4	13.1
19-Sep	0	0	0	0	0	0	0	A	C	C	A	0	0	2	0	0	1	1	0	0	0	0	0	0	0.4	2.4
20-Sep	0	0	0	0	0	A	1	1	1	3	1	1	1	1	1	6	0	0	0	0	0	1	0	0	0.9	5.6
21-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.6
22-Sep	1	0	1	A	0	0	5	1	0	5	11	1	6	9	1	0	0	0	0	0	0	0	0	0	2.0	11.1
23-Sep	0	0	A	0	0	0	4	4	0	9	8	1	0	2	4	9	10	0	1	0	0	0	0	0	2.4	10.4
24-Sep	0	A	0	0	0	0	0	0	1	0	8	8	3	1	1	1	0	0	0	0	0	0	0	0	1.2	8.1
25-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4
26-Sep	0	0	0	0	0	0	0	0	0	0	4	4	0	2	1	0	0	0	0	0	0	0	0	0	0.8	4.1
27-Sep	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
28-Sep	0	0	0	0	A	0	0	0	0	0	0	0	1	5	1	0	0	0	0	0	0	0	0	1	0.6	4.6
29-Sep	0	0	0	A	0	1	1	1	0	0	2	1	19	15	0	0	0	1	1	0	0	0	0	0	2.1	18.9
30-Sep	0	0	A	0	0	0	1	1	0	1	1	12	12	13	10	11	10	7	2	1	0	0	0	1	3.8	12.9
	0.4	0.3	0.3	0.3	0.3	0.4	0.8	0.9	0.7	2.2	3.4	2.1	3.1	3.5	3.6	2.9	2.4	1.6	0.8	0.5	0.4	0.4	0.4	0.4	Diurnal Average	
	0.6	0.5	0.5	0.5	0.5	1.4	4.5	6.4	4.7	11.1	15.3	12.3	18.9	16.3	20.2	14.8	10.5	17.2	5.0	4.1	0.5	0.8	0.5	1.0	Diurnal Maximum	

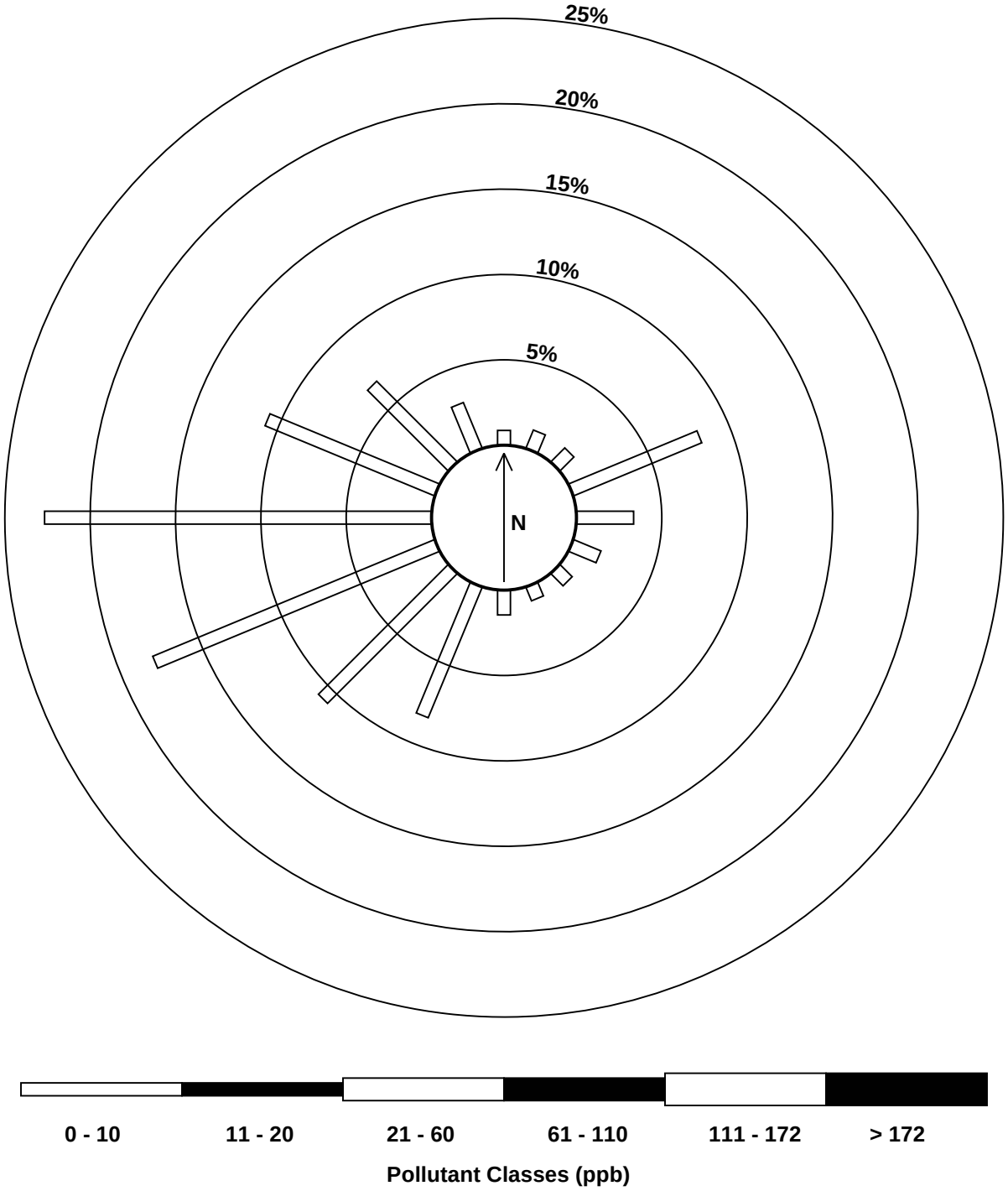
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for SO_2 at Evergreen Park
September 2008



Pollutant Rose for SO_2 at Evergreen Park
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park - Total Reduced Sulphur (TRS) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.1 ppb on Sep 15 15:00
Maximum Daily Average: 1.1 ppb on Sep 10

Minimum Value: 0 ppb on Sep 1 01:00
Maximum Diurnal Average: 0.6 ppb at hour 2
Monthly Average: 0.50 ppb

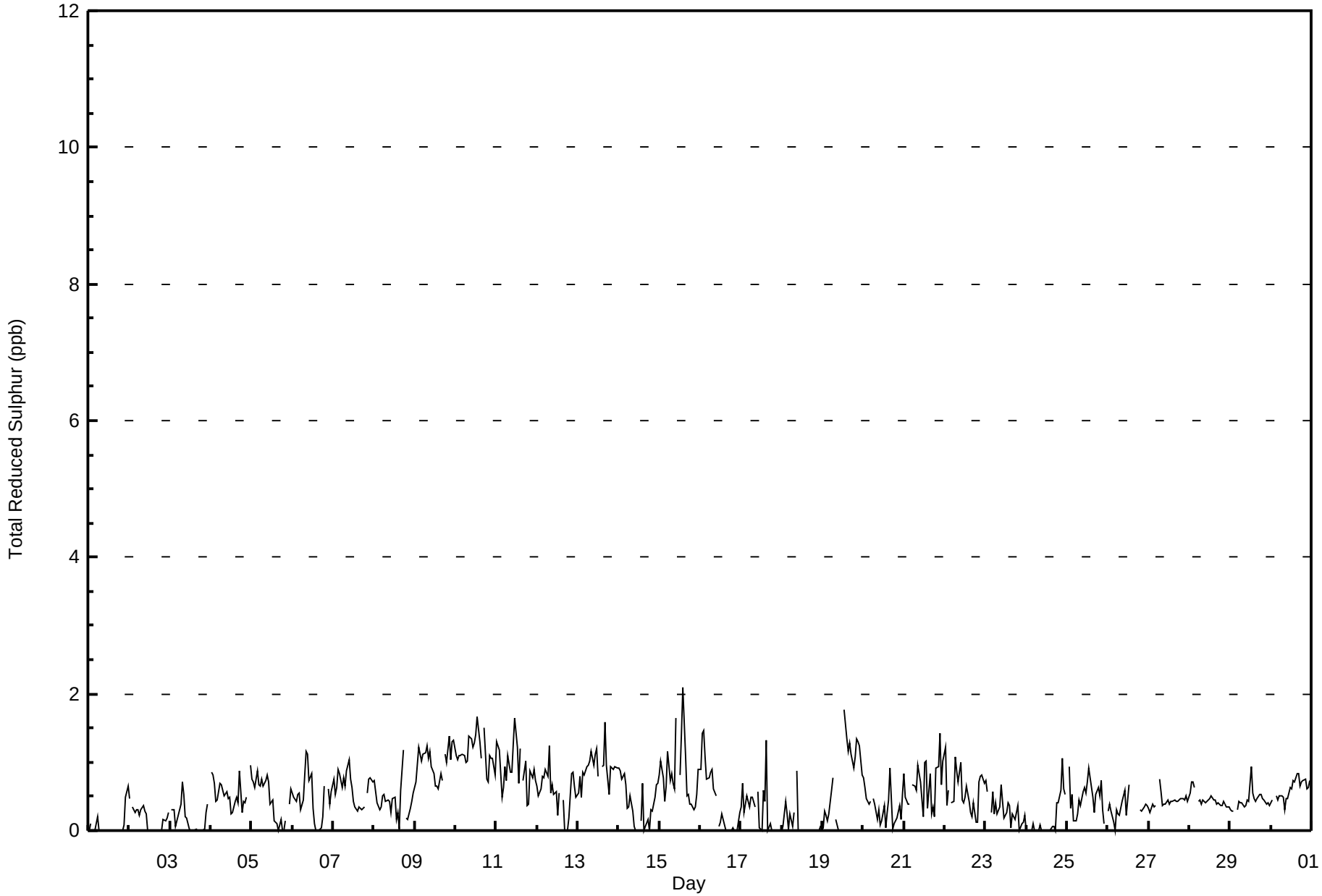
Minimum Daily Average: 0.1 ppb on Sep 1
Minimum Diurnal Average: 0.3 ppb at hour 19
Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.2$ Median = 0.4 $Q_3 = 0.7$ $P_{90} = 1.0$ $P_{99} = 1.5$

Hours in Service:	720
Hours of Data:	680
Hours of Missing Data:	40
Hours of Calibration:	40
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.6
2-Sep	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
3-Sep	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	0.7
4-Sep	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	A	1	0.5	1.0
5-Sep	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	1	0.5	0.9
6-Sep	1	0	0	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	1	A	1	0	1	0.5	1.2
7-Sep	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	A	1	1	1	1	0.6	1.0
8-Sep	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	1	0.4	1.2
9-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.0	1.4
10-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1.1	1.7
11-Sep	1	1	1	0	1	1	1	1	1	1	1	2	1	1	1	A	1	1	0	0	1	1	1	1	0.9	1.7
12-Sep	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	0	0	0	0	0	1	1	1	0	0.6	1.2
13-Sep	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	0.9	1.6
14-Sep	1	1	1	1	1	0	0	1	0	0	0	0	A	0	1	0	0	0	0	0	0	0	1	1	0.4	0.9
15-Sep	1	1	1	0	1	1	1	1	1	1	2	A	1	1	2	1	1	1	0	0	0	0	1	1	0.8	2.1
16-Sep	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.5
17-Sep	0	1	0	1	0	0	0	0	0	A	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0.3	1.3
18-Sep	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
19-Sep	0	0	0	0	0	1	1	A	0	0	C	C	A	2	1	1	1	1	1	1	1	1	1	1	0.8	1.8
20-Sep	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.3	0.9
21-Sep	1	0	0	0	A	1	1	1	1	1	1	0	1	1	0	1	0	0	0	1	1	1	1	1	0.7	1.4
22-Sep	1	0	1	A	0	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	1	1	1	1	0.6	1.2
23-Sep	1	1	A	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
24-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.2	1.1
25-Sep	A	1	0	1	0	0	0	0	0	1	1	1	1	1	1	0	0	1	1	1	1	0	0	A	0.5	0.9
26-Sep	0	0	0	0	0	0	0	0	0	1	1	0	1	C	C	C	C	C	A	0	0	0	0	0	0.3	0.7
27-Sep	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
28-Sep	1	1	1	1	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5	0.7
29-Sep	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0.4	0.9
30-Sep	0	0	A	1	0	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.5	0.5	0.5	0.6	Diurnal Average	
	1.3	1.4	1.5	1.1	1.1	1.2	1.1	1.2	1.4	1.3	1.6	1.7	1.4	1.8	2.1	1.3	1.6	1.5	1.1	1.1	1.4	1.4	1.3	1.3	Diurnal Maximum	

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

Hourly Averages for TRS at Evergreen Park
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Evergreen Park - Total Reduced Sulphur (TRS) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 5.0 ppb on Sep 9 19:00

Maximum Daily Average: 2.0 ppb on Sep 10

Minimum Value: 0 ppb on Sep 1 19:00

Maximum Diurnal Average: 1.4 ppb at hour 14

Monthly Average: 1.18 ppb

Minimum Daily Average: 0.5 ppb on Sep 1

Minimum Diurnal Average: 1.0 ppb at hour 20

Percentiles: $P_1 = 0.2$ $P_{10} = 0.6$ $Q_1 = 0.8$ Median = 1.1 $Q_3 = 1.5$ $P_{90} = 1.8$ $P_{99} = 3.6$

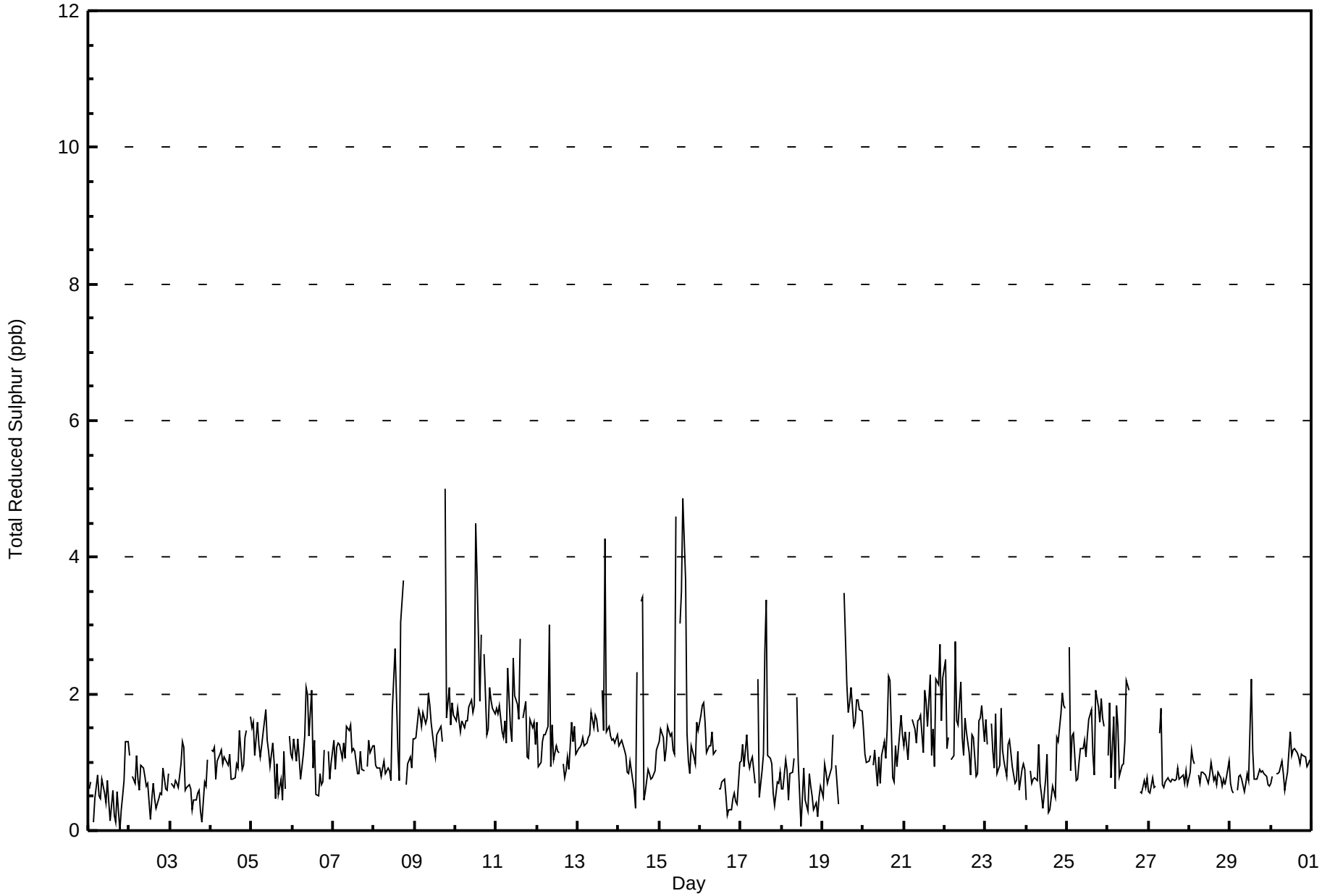
Hours in Service:	720
Hours of Data:	680
Hours of Missing Data:	40
Hours of Calibration:	40
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	1	1	A	0	0	1	1	0	1	1	0	1	0	0	1	0	0	1	0	0	1	1	1	1	0.5	1.3
2-Sep	1	A	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	1	1	1	1	1	1	0.7	1.1
3-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0	0	1	1	1	A	0.7	1.3
4-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1.1	1.7
5-Sep	2	2	1	2	1	1	1	1	2	1	1	1	1	1	0	1	1	1	0	1	1	A	1	1	1.1	1.8
6-Sep	1	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1.1	2.1
7-Sep	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1.2	1.6
8-Sep	1	1	1	1	1	1	1	1	1	1	1	2	3	2	1	1	3	4	A	1	1	1	1	1	1.3	3.7
9-Sep	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	2	1	A	5	2	2	2	2	2	1.7	5.0
10-Sep	2	2	2	1	2	2	2	2	2	2	2	2	4	4	2	3	A	3	1	1	2	2	2	2	2.0	4.5
11-Sep	2	2	2	1	1	2	1	2	1	1	3	2	2	2	3	A	2	2	1	1	2	1	2	1	1.7	2.8
12-Sep	2	1	1	1	1	1	2	3	1	2	1	1	1	1	A	1	1	1	1	1	2	1	2	1	1.3	3.0
13-Sep	1	1	1	1	1	1	1	1	2	2	2	2	1	A	2	1	4	1	2	1	1	1	1	1	1.6	4.3
14-Sep	1	1	1	1	1	1	1	1	1	1	0	2	A	3	3	0	1	1	1	1	1	1	1	1	1.2	3.4
15-Sep	1	1	1	1	1	2	1	1	1	1	5	A	3	4	5	4	1	1	1	1	1	1	2	1	1.8	4.9
16-Sep	2	2	2	2	1	1	1	1	1	1	A	1	1	1	1	1	0	0	0	0	1	0	0	1	0.9	1.9
17-Sep	1	1	1	1	1	1	1	1	1	A	2	0	1	1	3	3	1	1	1	1	0	1	1	1	1.1	3.4
18-Sep	1	1	1	1	0	1	1	1	A	2	1	0	0	1	0	0	1	1	1	0	0	0	0	1	0.7	2.0
19-Sep	0	1	1	1	1	1	1	A	1	0	C	C	A	3	2	2	2	2	2	2	2	2	2	2	1.5	3.5
20-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	2	1	1.2	2.2
21-Sep	1	1	1	1	A	2	1	1	2	2	2	1	2	2	2	2	1	1	1	2	2	3	2	2	1.6	2.7
22-Sep	2	1	1	A	1	1	3	2	2	2	1	1	2	1	1	1	1	1	1	1	2	2	2	1	1.5	2.8
23-Sep	2	1	A	2	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8
24-Sep	0	A	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	0	1	1	2	2	2	2	0.9	2.0
25-Sep	A	3	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	2	2	2	2	2	A	1.4	2.7
26-Sep	1	2	1	2	1	2	2	1	1	1	1	2	2	C	C	C	C	C	A	1	1	1	1	1	1.2	2.2
27-Sep	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.8
28-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
29-Sep	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0.8	2.2
30-Sep	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
	1.2	1.2	1.1	1.1	1.0	1.1	1.2	1.3	1.1	1.2	1.3	1.2	1.4	1.4	1.4	1.2	1.1	1.2	1.0	1.0	1.1	1.2	1.2	1.2	Diurnal Average	
	2.5	2.7	1.9	1.7	1.6	1.8	2.8	3.0	2.1	2.2	4.6	2.3	4.5	3.7	4.9	3.7	4.3	3.7	5.0	2.2	2.1	2.7	1.9	2.2	Diurnal Maximum	

C - Calibration

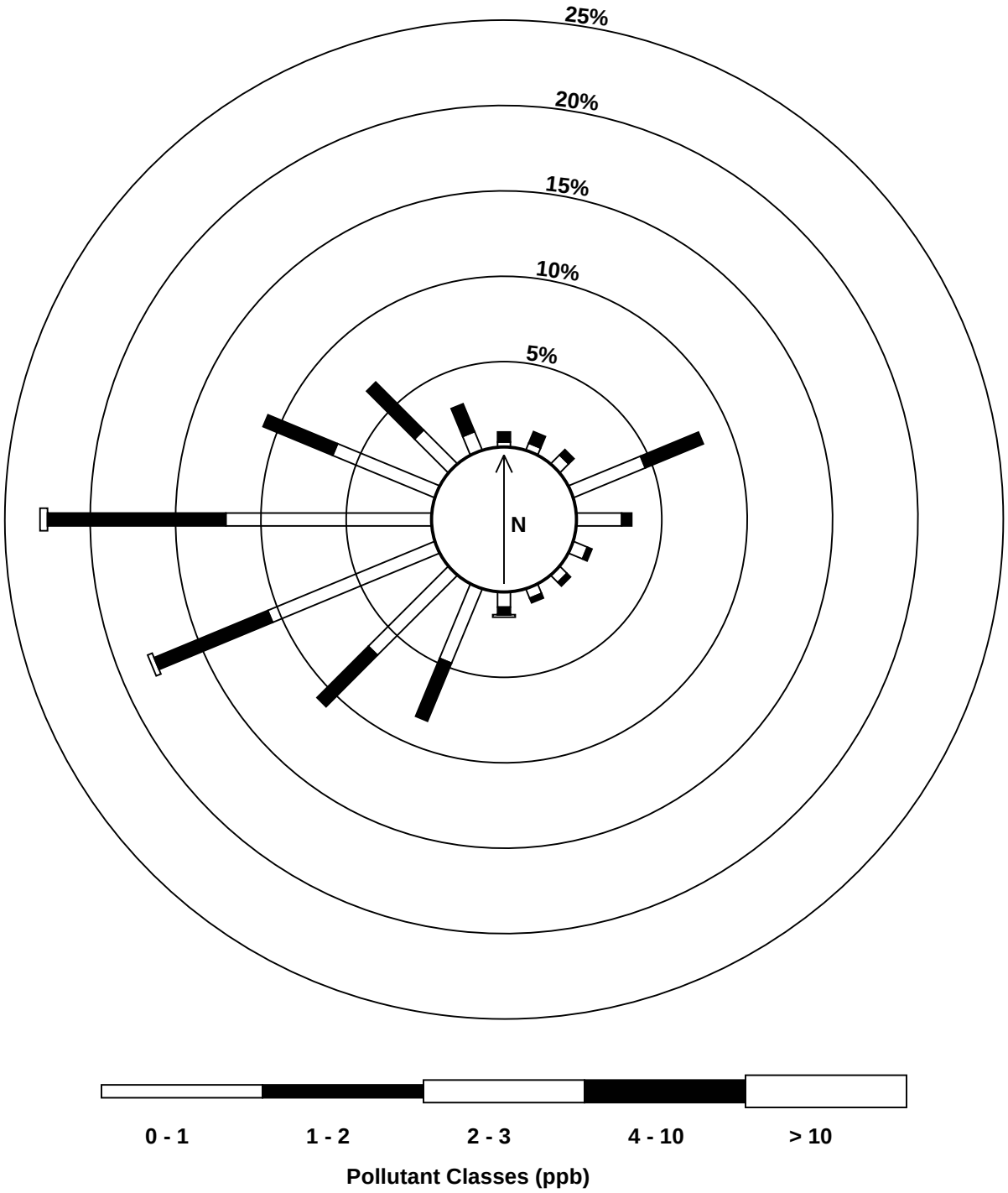
A - Automated Daily Zero Span

Hourly Maximums for TRS at Evergreen Park
September 2008



Pollutant Rose for TRS at Evergreen Park

September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park - Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 39.3 $\mu g/m^3$ on Sep 10 18:00 Maximum Daily Average: 10.0 $\mu g/m^3$ on Sep 30

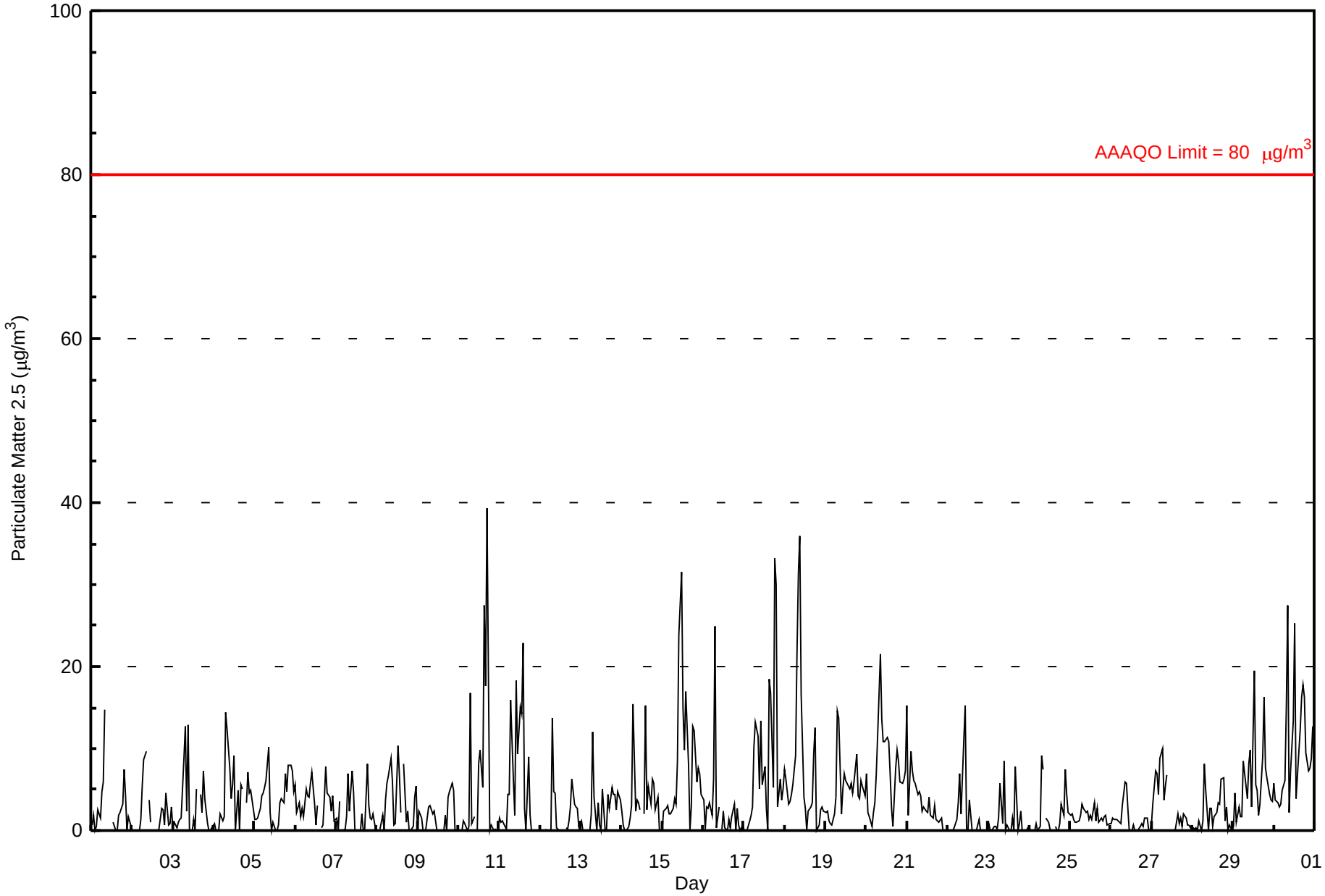
Minimum Value: 0 $\mu g/m^3$ on Sep 1 03:00 Minimum Daily Average: 1.3 $\mu g/m^3$ on Sep 26
Maximum Diurnal Average: 10.0 $\mu g/m^3$ at hour 8 Minimum Diurnal Average: 1.5 $\mu g/m^3$ at hour 2
Monthly Average: 3.97 $\mu g/m^3$ Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.5 Median = 2.3 Q_3 = 5.4 P_{90} = 9.7 P_{99} = 26.5

Hours in Service:	720
Hours of Data:	694
Hours of Missing Data:	26
Hours of Calibration:	0
Percent Operational Time:	96.4

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-Sep	1	2	0	0	3	2	5	6	15	BD	0	0	BD	1	0	0	2	2	3	7	4	0	2	1	2.5	14.7
2-Sep	0	0	0	0	0	1	5	9	10	BD	4	1	P	P	P	0	0	3	3	1	5	1	1	3	2.3	9.7
3-Sep	0	1	0	1	1	2	9	13	2	13	0	0	1	0	5	BD	4	2	7	4	1	0	0	0	2.9	13.0
4-Sep	1	0	0	0	2	1	2	14	12	8	4	6	9	0	5	0	6	5	P	3	7	5	5	3	4.2	14.4
5-Sep	1	1	2	3	4	5	5	6	10	2	0	1	0	0	1	3	4	3	7	5	8	8	7	5	3.8	10.1
6-Sep	6	2	3	2	3	2	5	4	4	6	7	3	1	3	BD	0	1	4	8	5	4	2	4	1	3.4	7.7
7-Sep	2	0	3	BD	0	0	2	7	2	7	5	0	BD	0	0	2	0	0	8	3	1	1	2	0	2.1	8.2
8-Sep	0	BD	0	2	0	4	6	7	9	6	1	1	10	7	2	BD	8	1	2	0	0	0	4	5	3.4	10.3
9-Sep	0	2	2	0	0	0	3	3	3	2	2	0	BD	0	0	0	2	0	4	5	6	5	0	0	1.7	5.7
10-Sep	0	0	0	1	1	0	0	17	1	2	BD	0	8	10	5	28	18	39	0	1	0	0	0	0	5.7	39.3
11-Sep	2	1	1	1	0	4	4	16	6	2	18	9	15	14	23	3	0	9	2	0	0	0	0	0	5.4	23.0
12-Sep	BD	BD	BD	0	0	0	0	14	5	5	0	0	0	0	BD	0	0	1	3	6	3	3	3	0	2.2	13.8
13-Sep	1	0	0	0	0	0	2	12	4	0	3	1	0	5	0	0	4	3	5	4	4	2	5	4	2.5	12.1
14-Sep	2	1	0	0	1	2	3	15	2	4	3	3	BD	2	15	3	5	3	6	6	3	4	0	0	3.6	15.5
15-Sep	0	2	3	3	2	2	3	4	3	8	24	32	15	10	17	8	0	3	13	12	6	8	7	4	7.9	31.5
16-Sep	4	0	3	3	3	2	6	25	0	3	BD	0	2	0	0	1	0	2	3	0	3	1	0	1	2.7	24.9
17-Sep	0	0	0	1	2	3	10	13	12	5	13	6	8	2	0	18	17	5	33	30	3	6	4	5	8.2	33.2
18-Sep	7	6	3	4	4	6	9	22	31	36	17	4	3	0	2	3	3	9	13	0	1	2	3	2	8.0	36.0
19-Sep	2	2	1	1	1	2	4	14	14	2	5	7	6	6	5	6	5	6	9	4	4	6	5	4	5.1	14.5
20-Sep	7	2	2	1	2	3	7	12	22	14	11	11	11	11	7	3	0	8	10	9	6	6	6	7	7.3	21.5
21-Sep	15	2	10	7	6	6	4	5	4	2	3	2	2	4	2	2	3	1	1	1	2	0	0	0	3.5	15.3
22-Sep	0	0	0	0	0	1	3	7	2	11	15	0	0	4	0	0	0	0	1	0	0	0	0	0	1.9	15.3
23-Sep	1	0	0	0	0	0	2	6	1	9	0	1	0	0	2	0	8	0	1	2	0	0	0	0	1.3	8.5
24-Sep	0	0	0	0	1	0	1	9	7	BD	2	1	0	0	BD	1	0	0	1	3	2	7	4	2	1.9	9.2
25-Sep	2	2	1	1	1	1	2	3	3	2	2	1	2	1	3	1	3	1	1	1	2	2	1	1	1.7	3.3
26-Sep	1	1	1	1	1	1	1	3	6	6	3	0	0	1	0	0	0	1	1	0	2	1	0	0	1.3	5.9
27-Sep	1	3	7	7	4	9	10	4	5	7	BD	BD	BD	0	0	2	1	2	1	2	2	1	1	0	3.2	10.1
28-Sep	0	0	0	0	1	0	1	8	5	0	3	3	1	2	2	3	3	6	7	1	3	0	1	0	2.1	8.1
29-Sep	1	5	1	3	2	2	8	7	4	8	10	3	20	6	5	2	3	9	16	8	6	4	4	4	5.8	19.5
30-Sep	6	4	3	3	3	5	6	15	27	2	7	13	25	4	7	12	16	18	16	9	7	8	9	13	10.0	27.4
	2.2	1.5	1.7	1.5	1.7	2.2	4.3	10.0	7.7	6.3	6.0	3.7	5.8	3.2	4.2	3.6	3.9	4.9	6.4	4.4	3.1	2.8	2.6	2.2	Diurnal Average	
	15.3	6.3	9.7	7.3	6.2	8.8	10.1	24.9	31.3	36.0	23.8	31.5	25.2	14.2	23.0	27.5	17.6	39.3	33.2	30.0	7.9	8.0	8.8	12.7	Diurnal Maximum	

P - Power Failure BD - Baseline Drift
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 $\mu g/m^3$ 24-hr 30 $\mu g/m^3$

Hourly Averages for $PM_{2.5}$ at Evergreen Park
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Evergreen Park - Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$
September 1, 2008 to October 1, 2008

Maximum Value: 66.8 $\mu g/m^3$ on Sep 10 16:00

Maximum Daily Average: 17.6 $\mu g/m^3$ on Sep 18

Minimum Value: 0 $\mu g/m^3$ on Sep 3 16:00

Maximum Diurnal Average: 19.0 $\mu g/m^3$ at hour 8

Monthly Average: 10.46 $\mu g/m^3$

Minimum Daily Average: 4.9 $\mu g/m^3$ on Sep 25

Minimum Diurnal Average: 3.8 $\mu g/m^3$ at hour 4

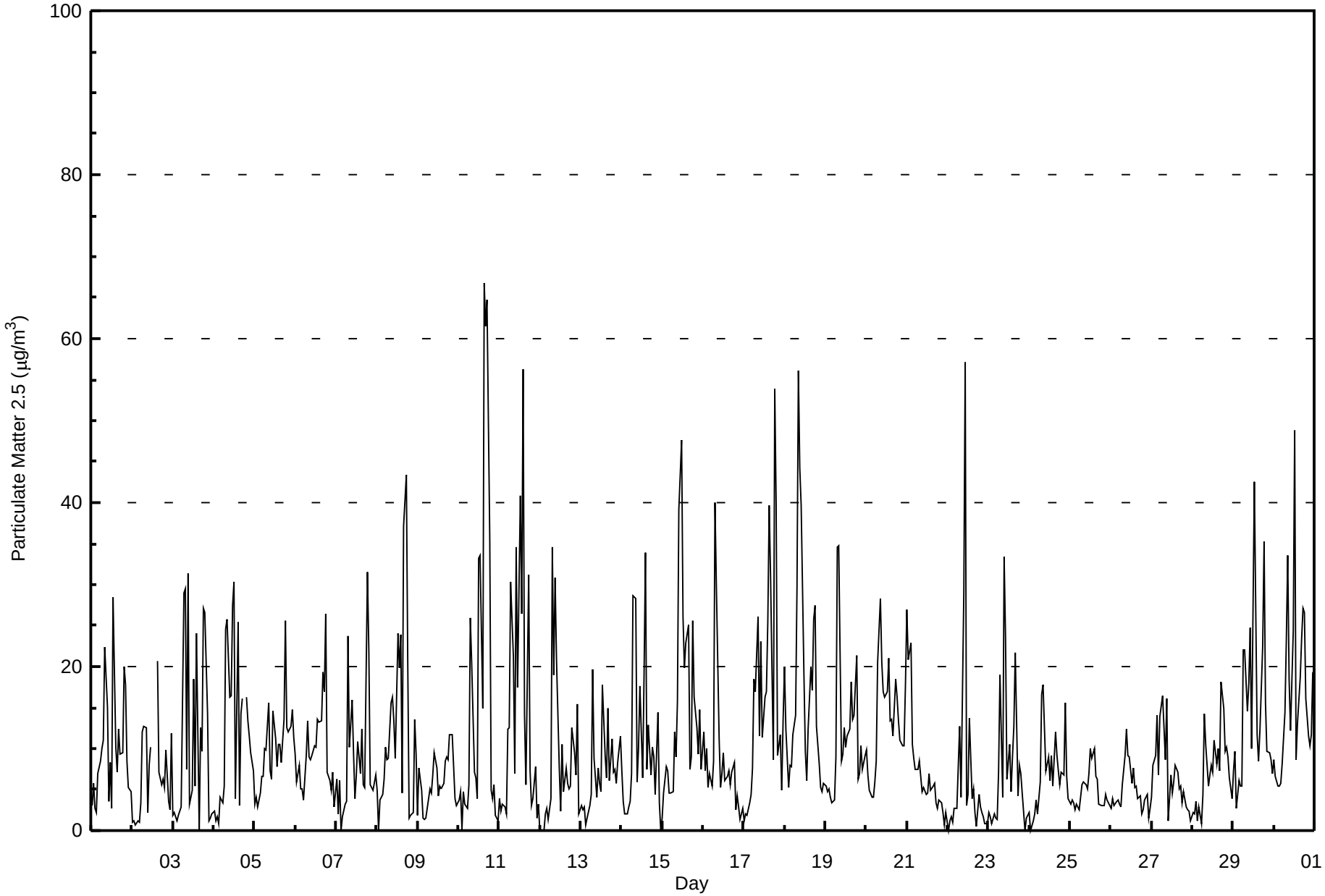
Percentiles: $P_1 = 0.0$ $P_{10} = 2.1$ $Q_1 = 3.9$ Median = 7.3 $Q_3 = 13.2$ $P_{90} = 23.8$ $P_{99} = 52.5$

Hours in Service:	720
Hours of Data:	716
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.4

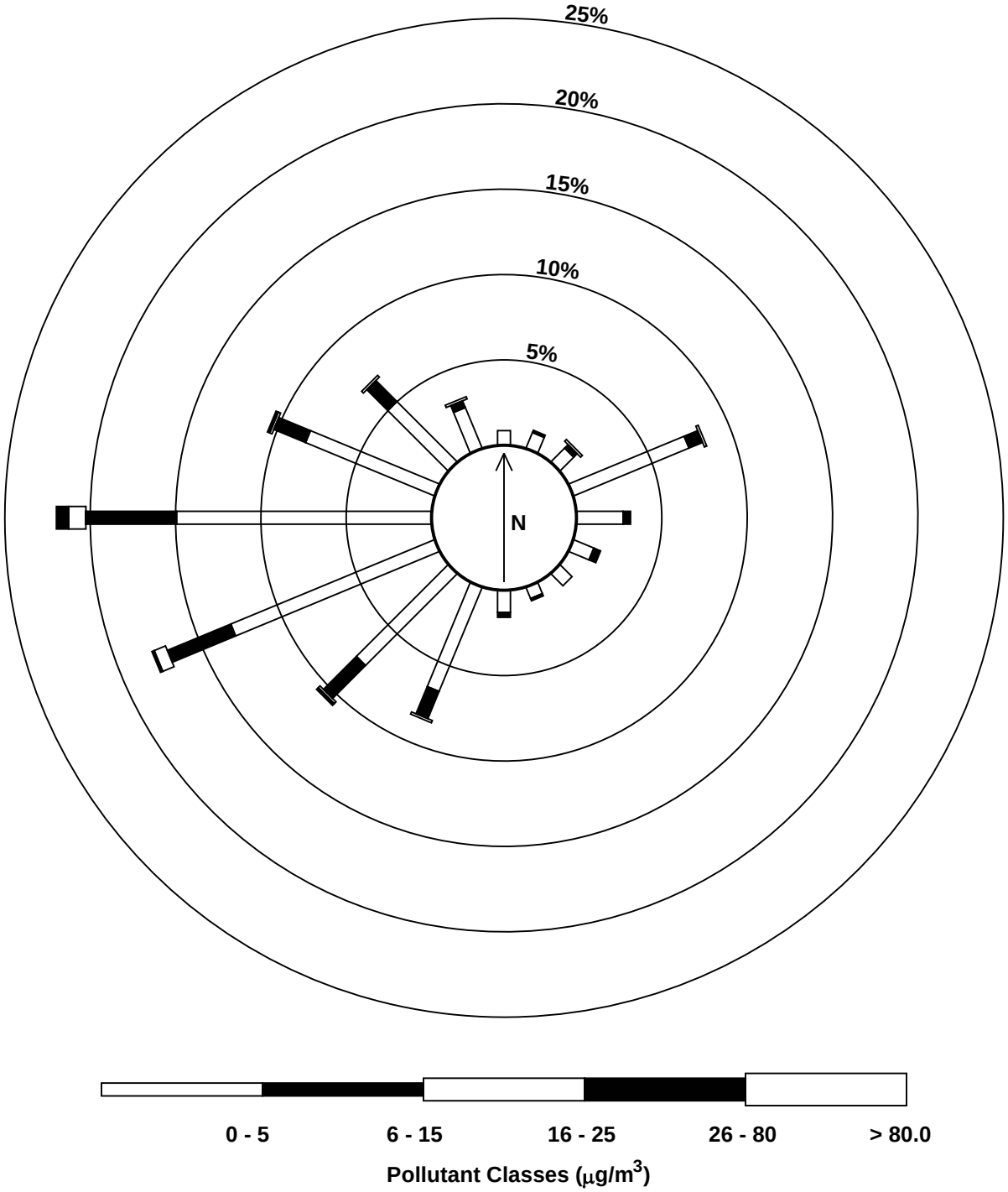
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Sep	3	6	3	2	7	9	10	11	22	15	4	8	3	29	10	7	12	9	9	20	18	9	5	5	9.8	28.5
2-Sep	1	1	1	1	1	3	12	13	13	2	8	10	P	P	P	21	7	6	6	5	10	4	2	12	6.6	20.7
3-Sep	2	2	1	2	2	3	29	29	7	31	3	5	19	5	24	0	12	10	27	27	14	1	1	2	10.9	31.3
4-Sep	2	1	2	1	4	3	5	25	26	16	17	27	30	4	25	3	14	16	P	16	13	12	10	7	12.2	30.3
5-Sep	3	4	3	5	7	7	10	10	16	7	6	15	11	8	11	10	8	14	26	13	12	13	15	11	10.1	25.6
6-Sep	9	6	8	5	5	4	9	13	9	9	9	10	10	14	13	13	19	17	26	7	6	5	7	3	9.9	26.5
7-Sep	6	2	6	0	2	3	4	24	10	16	9	4	7	11	7	12	6	5	32	22	6	5	5	7	8.7	31.5
8-Sep	5	0	4	4	6	10	9	9	16	16	13	9	24	20	24	5	37	43	20	2	2	2	14	9	12.6	43.4
9-Sep	2	8	5	1	1	2	4	5	5	7	10	8	4	5	5	6	9	9	9	12	12	8	4	3	5.9	11.7
10-Sep	4	5	0	5	3	3	6	26	20	7	6	4	33	34	15	67	62	65	36	5	4	6	2	1	17.4	66.8
11-Sep	4	2	3	3	2	12	13	30	21	7	35	18	41	26	56	14	6	31	7	3	4	8	1	3	14.6	56.3
12-Sep	0	0	0	2	3	1	4	34	19	31	21	8	2	11	5	8	6	5	5	13	10	7	15	2	8.8	34.5
13-Sep	3	3	3	1	2	3	4	20	9	4	8	6	5	18	9	6	15	6	11	7	7	6	8	12	7.3	19.7
14-Sep	7	4	2	2	3	4	7	29	28	6	10	18	6	19	34	7	13	7	10	9	4	14	3	0	10.3	33.8
15-Sep	1	5	8	7	4	5	5	12	9	16	39	48	26	20	23	25	7	9	26	16	13	9	15	7	14.8	47.6
16-Sep	12	7	10	5	7	5	9	40	30	11	5	7	9	6	7	7	6	7	8	3	4	3	1	3	8.9	39.9
17-Sep	1	2	2	3	4	8	18	17	26	12	23	11	16	17	25	40	31	9	54	40	9	12	5	13	16.6	53.9
18-Sep	20	12	5	8	8	12	14	30	56	44	40	19	10	6	12	20	17	26	27	13	8	5	5	6	17.6	56.0
19-Sep	5	5	5	4	3	4	9	35	35	8	9	13	10	11	12	18	14	14	21	6	7	10	7	9	11.5	34.7
20-Sep	10	7	5	4	4	6	9	21	28	21	17	16	17	21	13	14	12	18	16	13	11	10	10	18	13.4	28.3
21-Sep	27	21	23	10	9	7	7	8	7	5	5	4	5	7	5	5	6	3	3	4	3	2	1	2	7.5	27.0
22-Sep	0	1	2	1	3	3	8	13	4	29	57	3	4	14	4	5	2	0	4	3	2	2	1	1	6.9	57.2
23-Sep	2	2	1	2	2	1	7	19	4	33	24	6	10	5	9	13	22	4	8	7	5	0	2	2	7.9	33.3
24-Sep	2	0	1	2	4	2	6	17	18	13	7	9	6	9	5	12	9	7	6	7	7	16	7	4	7.3	17.8
25-Sep	3	4	3	3	3	3	4	6	6	6	5	7	10	9	10	7	6	3	3	3	3	4	4	3	4.9	10.1
26-Sep	3	4	3	4	4	3	3	6	9	12	9	9	6	8	5	5	4	4	2	3	4	4	2	3	4.9	12.4
27-Sep	4	8	9	14	7	14	16	13	9	16	1	7	5	6	8	7	5	5	3	5	3	3	2	1	7.1	16.4
28-Sep	2	2	3	1	3	1	4	14	11	5	7	8	7	11	8	10	7	18	15	10	10	9	6	4	7.4	18.2
29-Sep	7	10	3	6	5	5	22	22	15	18	25	10	43	27	12	9	12	23	35	16	10	10	9	7	14.9	42.6
30-Sep	9	7	6	5	6	8	14	23	34	19	12	24	49	9	13	19	23	27	27	16	11	10	12	19	16.7	48.9
	5.4	4.6	4.3	3.8	4.1	5.1	9.4	19.0	17.3	14.7	14.8	11.7	14.8	13.4	14.2	13.2	13.6	14.1	16.7	10.8	7.7	6.9	6.0	6.0	Diurnal Average	
	27.0	20.9	22.9	14.0	8.9	13.9	29.0	39.9	56.0	44.3	57.2	47.6	48.9	33.6	56.3	66.8	61.6	64.8	53.9	39.9	17.8	15.5	15.5	19.4	Diurnal Maximum	

P - Power Failure

Hourly Maximums for $PM_{2.5}$ at Evergreen Park
September 2008



Pollutant Rose for $PM_{2.5}$ at Evergreen Park
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park - External Temperature (ET) - ^{o}C
September 1, 2008 to October 1, 2008

Maximum Value: 25.5 ^{o}C on Sep 15 16:00

Maximum Daily Average: 17.2 ^{o}C on Sep 15

Minimum Value: -3 ^{o}C on Sep 24 07:00

Minimum Daily Average: 4.6 ^{o}C on Sep 24

Maximum Diurnal Average: 17.2 ^{o}C at hour 16

Minimum Diurnal Average: 5.3 ^{o}C at hour 6

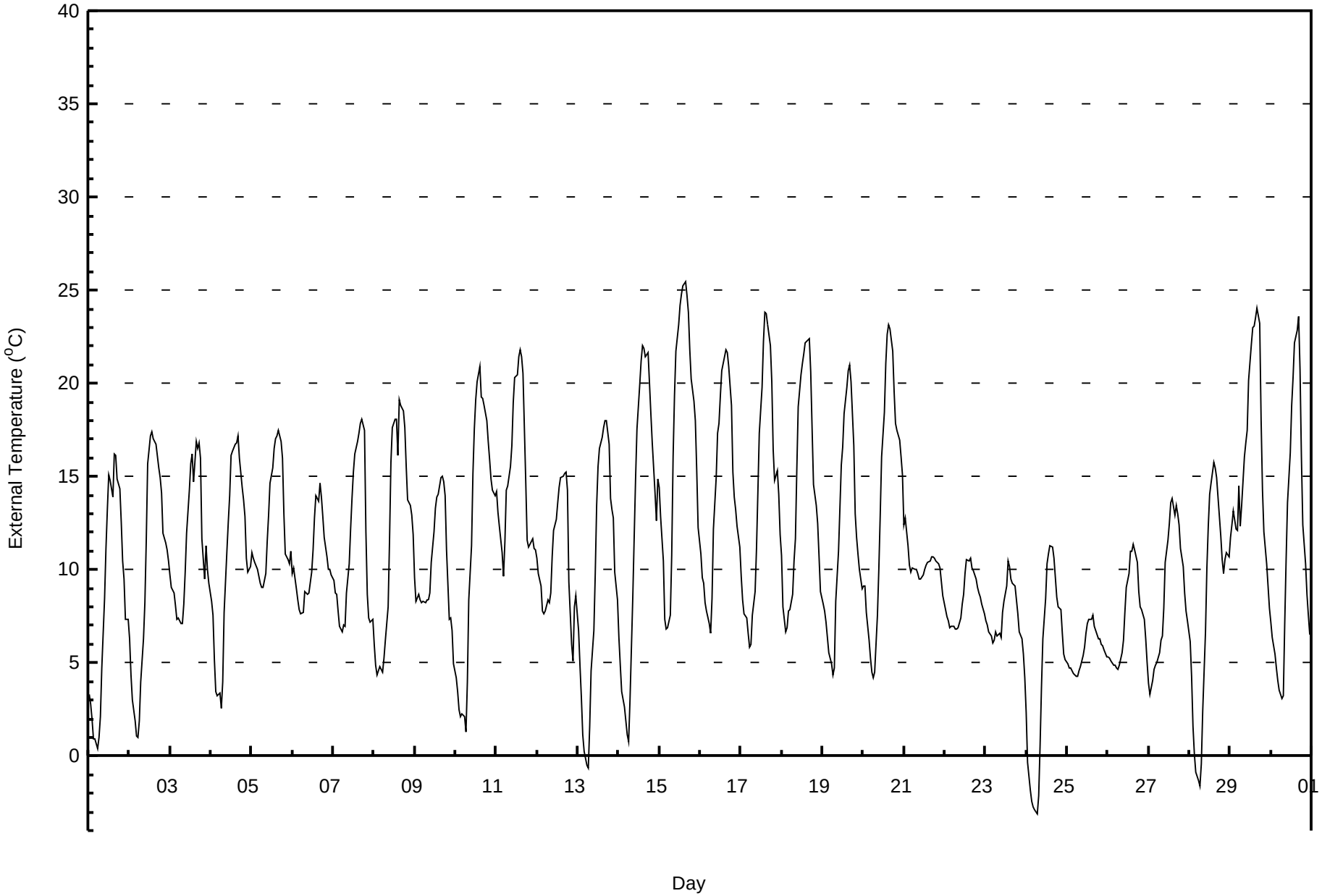
Monthly Average: 10.99 ^{o}C

Percentiles: P_1 = -1.5 P_{10} = 4.5 Q_1 = 7.1 Median = 10.3 Q_3 = 14.9 P_{90} = 19.1 P_{99} = 23.7

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	3	3	2	1	1	0	1	2	5	8	11	13	15	15	14	16	16	15	14	13	10	10	7	7	8.5	16.2
2-Sep	6	4	3	2	1	1	2	4	6	8	12	16	17	17	17	17	17	15	15	14	12	11	11	10	10.0	17.4
3-Sep	10	9	9	8	7	7	7	7	8	10	12	14	16	16	15	17	17	17	16	12	9	11	10	9	11.4	16.9
4-Sep	8	8	5	3	3	3	3	4	8	11	13	14	16	16	17	17	17	16	14	14	13	11	10	10	10.6	17.2
5-Sep	11	11	10	10	10	9	9	9	10	12	13	15	15	17	17	17	18	17	16	13	11	11	10	11	12.5	17.5
6-Sep	10	10	9	8	8	8	8	9	9	9	9	10	11	13	14	14	15	14	13	12	11	10	10	10	10.4	14.6
7-Sep	9	9	9	8	7	7	7	7	9	10	12	14	15	16	17	17	18	18	17	12	9	7	7	7	11.2	18.1
8-Sep	6	5	4	5	5	4	5	6	8	12	16	18	18	18	16	19	19	18	18	16	14	13	13	12	12.0	19.1
9-Sep	10	8	9	8	8	8	8	8	8	9	10	12	13	14	14	15	15	15	14	11	7	7	7	5	10.2	15.0
10-Sep	4	3	2	2	2	2	1	4	8	11	15	18	19	20	21	19	19	19	18	17	16	15	14	14	11.9	20.9
11-Sep	14	13	12	11	10	12	14	14	16	17	19	20	20	21	22	21	21	15	12	11	11	12	11	11	15.0	21.8
12-Sep	11	10	9	8	8	8	8	8	9	11	12	13	14	14	15	15	15	15	14	9	6	5	8	9	10.6	15.2
13-Sep	7	5	3	1	0	-1	-1	2	5	7	10	13	16	16	17	18	18	18	17	14	13	13	10	8	9.5	18.0
14-Sep	6	5	3	3	2	1	1	3	8	12	15	18	20	21	22	22	21	22	20	18	17	14	13	15	12.6	22.0
15-Sep	14	13	10	7	7	7	8	11	16	19	22	23	24	25	25	25	25	24	22	20	19	18	15	12	17.2	25.5
16-Sep	11	10	9	8	8	7	7	8	12	15	17	18	19	21	21	22	22	21	19	15	14	13	12	11	14.2	21.8
17-Sep	10	8	8	7	7	6	6	8	9	11	14	17	20	22	24	24	23	22	20	16	15	15	14	12	14.1	23.8
18-Sep	11	8	7	7	8	8	9	10	12	15	19	20	21	22	22	22	22	21	18	15	13	12	11	9	14.2	22.4
19-Sep	8	8	7	6	6	5	4	5	8	11	13	16	17	18	20	21	21	20	17	13	12	11	10	9	11.9	21.0
20-Sep	9	9	8	6	5	5	4	4	8	10	13	16	18	21	23	23	23	22	20	18	17	17	16	15	13.8	23.1
21-Sep	12	13	11	10	10	10	10	10	10	10	9	10	10	10	10	10	11	11	11	10	10	10	9	9	10.3	12.8
22-Sep	8	7	7	7	7	7	7	7	7	7	8	9	10	11	10	11	10	10	10	9	9	9	8	8	8.4	10.6
23-Sep	7	7	7	6	6	6	7	6	7	6	8	8	9	10	10	9	9	9	8	8	7	6	5	4	7.4	10.4
24-Sep	2	0	-2	-2	-3	-3	-3	-2	1	4	6	8	10	11	11	11	11	10	9	8	8	7	5	5	4.6	11.3
25-Sep	5	5	5	5	4	4	4	5	5	5	6	7	7	7	7	8	7	7	6	6	6	6	6	5	5.8	7.6
26-Sep	5	5	5	5	5	5	5	5	6	6	8	9	10	11	11	11	11	10	9	8	8	7	6	5	7.3	11.4
27-Sep	4	3	4	5	5	5	6	6	6	8	10	12	12	14	14	13	13	13	12	11	10	9	8	7	8.8	13.8
28-Sep	6	4	2	0	-1	-1	-2	0	2	7	10	12	14	15	16	15	15	14	12	11	10	11	11	11	8.0	15.7
29-Sep	12	12	13	12	12	15	12	13	16	17	17	20	22	23	23	24	24	23	18	14	12	10	9	8	16.0	24.0
30-Sep	7	6	5	5	4	4	3	3	7	11	14	16	19	20	22	23	24	21	16	12	10	9	8	6	11.5	23.6
	8.3	7.4	6.6	5.8	5.4	5.3	5.3	6.2	8.2	10.3	12.4	14.3	15.6	16.6	16.9	17.2	17.2	16.3	14.8	12.7	11.3	10.7	9.9	9.2	Diurnal Average	
	14.4	13.1	13.1	12.2	12.1	14.5	14.3	14.5	16.1	19.3	21.7	23.1	24.2	24.8	25.2	25.5	24.7	23.8	21.8	20.2	19.0	18.0	16.0	15.1	Diurnal Maximum	

Hourly Averages for External Temperature at Evergreen Park
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	2	2	3	3	3	5	6	4	3	7	10	9	10	12	5	9	7	6	7	5	4	5	3	5	5.0	11.5
Dir	303	265	213	201	228	212	210	213	217	253	259	255	255	258	287	245	294	300	255	242	218	225	207	207	246.5	258.4
2 Spd	3	3	0	2	2	2	2	1	4	5	4	10	15	18	18	15	15	13	9	9	5	9	9	7	7.1	17.9
Dir	217	180	130	235	250	254	254	243	215	210	226	262	263	271	274	274	266	268	259	256	251	260	258	268	259.6	273.6
3 Spd	8	8	11	7	7	8	9	10	10	11	13	10	11	11	3	6	10	8	6	3	5	11	9	9	8.0	12.6
Dir	265	257	265	274	284	276	270	268	268	266	271	291	284	300	57	288	270	234	227	258	251	265	262	258	269.4	271.0
4 Spd	9	7	3	1	2	3	2	2	5	10	10	12	10	10	9	9	11	6	4	8	5	2	1	5	5.6	11.8
Dir	256	257	301	288	236	234	252	278	263	254	274	275	264	313	292	308	289	291	271	257	265	1	290	248	275.1	275.2
5 Spd	5	5	5	5	4	4	4	3	3	2	5	2	1	3	1	4	5	7	4	4	2	3	2	4	1.9	6.9
Dir	256	251	281	302	293	285	276	298	301	120	153	136	158	81	174	291	298	350	18	40	340	220	273	257	290.0	350.1
6 Spd	1	4	5	1	2	1	2	4	4	5	4	5	3	4	7	2	4	5	2	2	4	3	4	4	2.5	6.7
Dir	342	303	259	347	244	252	212	316	312	283	285	291	299	207	221	292	201	207	313	313	222	218	215	209	255.9	221.2
7 Spd	2	4	6	6	6	6	6	8	9	9	9	9	8	7	9	8	6	5	4	1	3	3	4	5	5.4	9.5
Dir	285	246	276	271	274	273	269	273	283	278	278	277	271	313	274	278	289	293	282	222	198	195	208	203	271.0	274.3
8 Spd	5	1	1	0	2	1	2	4	5	8	18	18	15	12	8	16	12	13	14	11	9	10	8	9	7.3	18.1
Dir	196	221	343	284	202	222	251	204	213	228	256	261	257	290	319	269	279	274	258	253	236	239	284	348	262.3	261.2
9 Spd	1	4	7	7	8	10	10	11	8	8	10	11	12	14	15	15	14	13	8	4	3	3	5	2	7.5	14.9
Dir	271	274	292	294	313	313	326	330	321	304	306	314	324	335	330	335	334	338	318	311	213	206	202	196	317.0	335.4
10 Spd	1	3	2	1	1	1	1	3	5	7	10	16	16	16	18	17	12	19	21	21	16	11	9	11	9.3	21.0
Dir	213	183	228	12	261	247	360	199	198	201	218	243	250	251	266	268	255	265	260	260	259	256	265	253	252.3	260.2
11 Spd	16	8	7	6	5	9	7	9	12	16	23	25	26	26	20	18	17	15	4	8	8	11	11	9	12.4	26.2
Dir	251	246	241	217	206	245	274	258	258	245	256	257	261	259	256	242	228	316	294	220	243	268	252	260	253.8	258.5
12 Spd	11	10	8	6	5	6	9	9	9	11	13	13	10	11	12	12	12	11	6	3	4	4	9	10	7.6	12.6
Dir	267	275	288	305	283	272	278	270	277	283	321	331	331	316	325	321	308	304	300	214	200	204	232	253	291.3	320.9
13 Spd	6	5	4	2	3	2	5	5	4	5	7	12	16	14	17	15	14	14	8	7	8	5	3	3	6.7	17.5
Dir	251	216	191	68	222	215	205	204	213	206	222	257	261	268	256	281	277	264	233	240	256	288	265	312	252.6	255.9
14 Spd	2	2	2	1	1	2	2	2	5	6	6	10	13	17	16	17	14	15	12	12	8	2	6	12	7.3	17.3
Dir	8	359	98	239	212	268	238	233	247	248	264	260	260	261	271	258	262	276	255	257	241	265	248	244	259.1	261.1
15 Spd	12	9	5	3	6	8	6	7	13	19	21	22	21	20	19	15	10	8	7	6	7	6	2	3	9.4	22.3
Dir	235	235	236	216	218	215	197	190	231	254	265	271	276	282	272	280	295	299	266	266	273	266	286	24	260.8	271.3
16 Spd	1	3	3	1	1	1	1	3	5	5	7	8	7	7	8	8	8	8	5	5	6	5	6	4	4.0	8.5
Dir	1	206	221	37	12	278	317	56	67	67	94	88	101	92	76	102	95	94	79	68	69	82	83	75	84.9	93.7
17 Spd	3	2	2	2	1	2	4	5	6	7	7	6	6	10	14	16	13	9	7	3	5	6	5	4	5.2	15.8
Dir	18	65	60	275	246	240	250	243	244	249	249	213	221	252	259	265	283	292	257	292	258	260	258	291	260.7	265.3
18 Spd	4	2	4	4	5	5	5	7	8	10	12	11	10	10	7	2	3	3	1	4	5	5	3	3	2.7	12.0
Dir	258	284	231	226	237	233	252	260	269	264	277	296	315	323	341	45	63	89	118	59	69	74	62	69	290.5	276.6
19 Spd	3	2	3	2	1	2	1	2	2	4	2	3	4	5	5	5	6	5	4	4	5	5	4	5	2.3	5.7
Dir	75	45	259	324	347	230	275	278	44	60	38	46	57	170	132	100	97	95	78	76	70	71	70	74	79.0	96.8
20 Spd	4	4	1	2	2	2	2	4	5	4	5	5	6	9	10	10	9	8	7	6	11	12	14	5	4.8	13.8
Dir	69	73	330	323	257	311	246	212	243	251	222	246	267	275	308	295	305	306	321	305	322	321	321	296	298.1	321.0
21 Spd	3	6	2	2	3	3	4	10	11	11	10	7	8	7	7	7	4	4	6	4	3	5	6	5	5.1	11.1
Dir	223	239	210	202	204	255	259	259	263	260	255	257	253	255	245	248	195	199	231	260	282	303	320	312	254.2	260.0
22 Spd	7	7	7	7	8	7	7	9	9	12	13	12	15	19	17	18	18	16	16	15	14	15	16	11	11.9	18.9
Dir	309	299	307	308	311	295	277	276	276	271	272	283	276	272	275	272	272	271	269	269	267	264	261	274	276.3	272.2

Peace Airshed Zone Association
Summary of Hourly Averages

Evergreen Park
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	13	12	14	15	12	12	17	16	15	20	15	16	14	16	17	11	17	11	11	9	8	9	9	7	12.9	20.4
Dir	265	267	266	265	264	262	256	256	273	270	282	287	297	296	264	282	260	275	274	254	249	251	257	265	269.2	270.4
24 Spd	4	2	1	3	3	4	3	4	3	1	2	5	6	5	8	7	7	6	6	6	7	7	5	5	2.6	7.8
Dir	285	323	234	198	201	201	203	203	198	227	73	133	116	96	89	83	74	69	65	60	71	77	76	75	96.2	88.8
25 Spd	4	3	3	4	4	5	4	4	4	5	4	4	4	4	4	5	3	3	2	3	2	4	4	1	2.8	4.6
Dir	67	51	64	67	66	60	60	63	68	72	65	77	59	78	76	61	79	59	12	16	261	300	275	52	57.4	71.8
26 Spd	0	3	2	1	1	2	2	1	2	3	4	5	4	4	5	5	7	6	5	6	7	6	6	5	3.1	6.8
Dir	281	229	104	191	345	59	93	162	122	123	136	159	152	130	106	114	114	108	95	92	98	86	96	78	110.7	98.2
27 Spd	2	3	1	2	1	6	7	5	5	7	13	17	22	27	28	23	23	19	20	16	13	9	10	11	11.2	28.1
Dir	28	66	60	246	224	231	260	220	198	229	246	247	257	267	266	267	264	263	262	260	259	248	251	250	257.3	266.5
28 Spd	8	5	1	1	4	2	2	4	5	3	5	7	7	9	8	5	4	3	1	2	2	7	7	12	4.3	11.5
Dir	237	219	333	283	201	186	213	217	207	214	217	218	253	256	235	187	182	188	158	136	208	209	200	217	217.0	217.4
29 Spd	7	11	12	9	7	10	5	7	11	5	5	9	18	21	19	11	7	4	2	3	2	2	1	3	7.3	21.5
Dir	214	224	224	239	247	245	275	246	234	260	255	247	261	262	263	281	297	260	222	224	221	76	34	214	250.6	262.2
30 Spd	3	2	1	3	2	2	2	2	3	5	4	3	2	3	0	3	1	2	1	1	2	1	2	2	1.5	5.4
Dir	230	334	329	230	247	249	236	259	215	245	275	246	261	176	299	317	334	53	318	307	329	282	290	236	262.3	245.4
Spd	3.4	3.1	2.9	2.5	2.8	3.4	3.6	4.1	4.7	6.0	7.0	7.7	8.3	8.9	8.1	7.6	6.6	5.7	4.9	3.9	3.5	3.5	3.7	3.5	Diurnal Average	
Dir	257.3	254.2	260.5	264.5	257.5	255.0	259.1	254.2	254.0	255.3	261.9	266.0	269.2	274.7	274.4	276.2	274.9	283.4	267.8	262.2	255.0	259.3	258.7	258.5		
Spd	15.7	12.1	14.4	15.4	12.2	12.4	16.5	15.7	15.3	20.4	23.3	24.6	26.0	26.6	28.1	23.3	22.7	19.1	21.0	20.7	15.8	15.4	15.8	12.0	Diurnal Maximum	
Dir	251.1	267.0	265.8	264.6	263.5	261.6	256.4	256.3	272.7	270.4	256.4	257.4	260.5	267.1	266.5	267.4	264.1	263.4	260.2	259.8	258.8	264.2	260.9	244.4		

Maximum Speed Value: 28 km/h on Sep 27 15:00
Maximum Daily Speed Average: 12.9 km/h on Sep 23
Maximum Diurnal Speed Average: 8.9 km/h at hour 14

Minimum Speed Value: 0 km/h on Sep 30 15:00
Minimum Daily Speed Average: 1.5 km/h on Sep 30
Minimum Diurnal Speed Average: 2.5 km/h at hour 4

Monthly Average Velocity: 4.92 km/h 265.28 deg

Speed Percentiles: $P_1 = 0.6$ $P_{10} = 1.9$ $Q_1 = 3.3$ Median = 5.6 $Q_3 = 9.8$ $P_{90} = 14.7$ $P_{99} = 23.2$

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

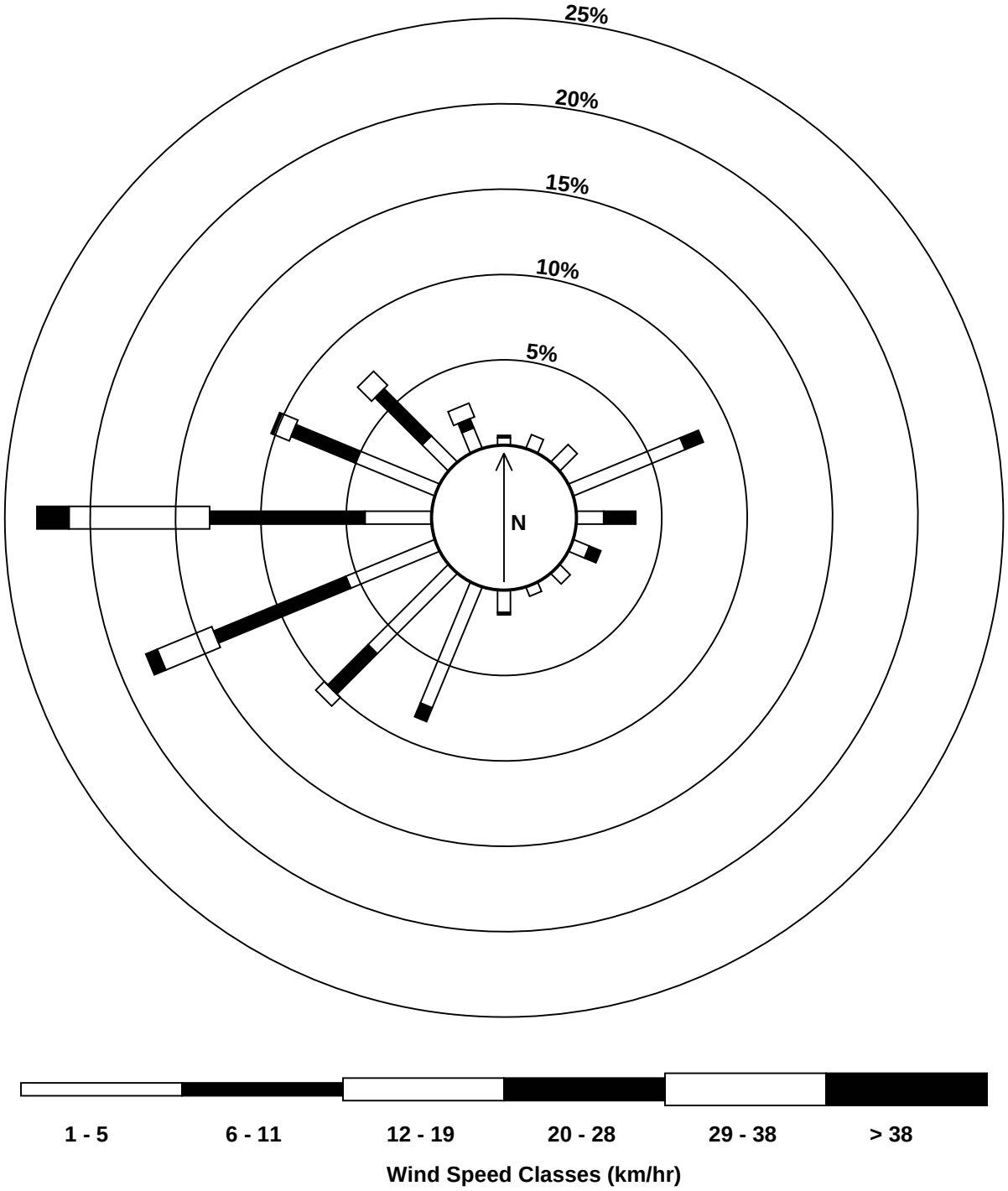
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Percentage Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	2.36	0.42	0.14	0.00	0.00	0.00	2.92
NorthEast	5.14	0.42	0.00	0.00	0.00	0.00	5.56
East	4.44	3.89	0.00	0.00	0.00	0.00	8.33
SouthEast	1.81	0.42	0.00	0.00	0.00	0.00	2.22
South	4.31	1.11	0.00	0.00	0.00	0.00	5.42
SouthWest	11.81	8.19	1.67	0.00	0.00	0.00	21.67
West	9.03	16.67	12.36	2.78	0.14	0.00	40.97
NorthWest	4.44	5.83	2.64	0.00	0.00	0.00	12.92
Total	43.33	36.94	16.81	2.78	0.14	0.00	100.00

Wind Rose for WS at Evergreen Park

September 2008



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

Evergreen Park - Wind Speed (WS) - km/h
September 1, 2008 to October 1, 2008

Maximum Speed: 28 km/h on Sep 27 15:00

Maximum Daily Speed Average: 13.7 km/h on Sep 11

Minimum Speed: 2 km/h on Sep 30 19:00

Minimum Daily Speed Average: 3.2 km/h on Sep 30

Maximum Diurnal Speed Average: 12.5 km/h at hour 14

Minimum Diurnal Speed Average: 4.5 km/h at hour 4

Monthly Average Speed: 7.69 km/h

Percentiles: $P_1 = 2.2$ $P_{10} = 3.0$ $Q_1 = 4.0$ Median = 6.1 $Q_3 = 10.1$ $P_{90} = 15.2$ $P_{99} = 23.5$

Hours in Service: 720
Hours of Data: 720
Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	3	3	3	4	3	6	6	4	4	7	11	10	11	12	7	10	9	7	7	5	4	5	4	5	6.1	12.1
2-Sep	3	4	3	3	2	3	3	3	4	5	5	11	15	18	18	15	16	13	10	9	5	9	9	7	8.1	18.3
3-Sep	8	8	11	7	7	8	9	10	10	11	13	12	12	13	5	7	11	9	6	4	6	11	9	9	9.0	13.1
4-Sep	9	7	3	2	2	3	3	3	6	10	10	12	11	11	10	10	11	7	5	9	7	3	3	5	6.7	12.3
5-Sep	5	5	6	5	4	4	4	4	3	3	6	5	4	6	7	7	7	8	4	4	3	3	4	4	4.8	7.8
6-Sep	4	5	5	3	4	3	3	4	4	6	5	5	4	5	8	4	6	5	4	3	4	3	4	4	4.4	7.5
7-Sep	4	4	6	6	6	6	6	8	10	9	10	10	10	8	10	9	7	6	5	3	3	4	5	5	6.5	10.2
8-Sep	5	3	2	2	3	3	3	5	5	8	18	19	16	15	8	17	15	14	14	11	9	10	10	9	9.3	18.7
9-Sep	5	5	8	8	8	10	10	11	9	8	11	12	13	14	15	15	15	13	8	4	3	3	5	3	9.0	15.3
10-Sep	3	4	3	2	2	3	3	4	5	7	11	17	16	17	19	17	13	19	21	21	16	12	10	11	10.6	21.2
11-Sep	16	8	7	6	5	10	8	10	12	16	24	25	26	27	20	19	17	20	6	8	9	12	11	10	13.7	26.5
12-Sep	11	10	8	7	6	7	9	9	10	12	14	13	11	11	13	13	13	11	6	4	4	4	9	10	9.4	13.9
13-Sep	6	5	4	3	3	3	5	5	4	5	7	12	16	14	18	15	15	14	8	7	8	5	3	4	7.9	17.9
14-Sep	3	3	3	3	3	3	3	3	6	6	7	10	14	18	16	17	14	15	12	12	9	4	6	12	8.4	17.8
15-Sep	12	9	6	4	7	8	6	7	13	19	21	23	22	21	19	16	10	9	8	7	7	6	3	4	11.1	22.9
16-Sep	4	4	5	3	3	3	2	3	5	6	8	9	8	8	8	8	8	9	5	5	6	5	6	4	5.7	8.8
17-Sep	3	3	3	2	2	3	5	5	6	7	8	6	6	10	15	16	13	9	7	5	5	6	6	5	6.6	16.1
18-Sep	4	3	4	4	6	5	6	7	8	10	12	13	11	10	8	4	4	4	3	4	5	5	3	3	6.1	12.9
19-Sep	4	3	4	3	3	3	2	3	4	5	4	5	5	6	6	6	6	5	4	5	5	5	5	5	4.2	6.2
20-Sep	4	4	3	2	3	3	4	4	6	5	6	5	7	9	11	11	10	8	7	7	11	13	14	6	6.8	14.4
21-Sep	3	7	5	3	4	5	5	10	11	11	10	7	8	7	7	7	4	4	6	6	4	5	6	5	6.3	11.2
22-Sep	7	8	7	7	9	7	7	9	9	12	13	12	15	19	17	18	18	16	16	15	14	15	16	11	12.4	19.2
23-Sep	13	12	14	15	12	12	17	16	16	21	16	17	15	16	18	13	17	11	12	9	8	9	9	7	13.5	20.8
24-Sep	5	3	3	4	5	5	4	5	4	3	4	6	6	6	8	7	7	7	6	7	7	7	5	5	5.3	8.3
25-Sep	4	3	3	4	5	5	4	4	5	5	5	5	5	5	4	5	4	3	3	3	3	4	5	3	4.1	5.1
26-Sep	2	3	3	3	3	3	3	3	3	4	5	6	5	6	5	6	7	6	5	6	7	6	6	5	4.6	7.2
27-Sep	3	3	3	3	3	7	7	6	5	7	13	17	23	27	28	24	23	19	20	16	13	9	10	11	12.6	28.5
28-Sep	8	5	2	2	4	3	3	4	5	4	5	7	8	9	8	6	4	3	3	3	3	7	7	12	5.2	11.6
29-Sep	7	11	12	9	7	10	6	8	11	8	6	10	18	22	20	12	8	5	5	5	4	4	3	3	8.8	21.7
30-Sep	3	3	3	3	3	2	3	2	3	6	5	4	4	5	3	4	4	4	2	3	3	2	2	2	3.2	5.5
	5.6	5.3	5.1	4.5	4.6	5.0	5.3	5.9	6.8	8.2	9.7	10.8	11.4	12.5	12.0	11.2	10.5	9.4	7.6	6.9	6.5	6.6	6.7	6.3	Diurnal Average	
	15.8	12.2	14.5	15.5	12.3	12.5	16.6	15.8	15.6	20.8	23.5	24.8	26.2	27.0	28.5	23.6	23.0	19.6	21.2	20.8	15.9	15.4	15.9	12.1	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
September 1, 2008 to October 1, 2008

Maximum Value: 95.8 deg on Sep 5 13:00

Minimum Value: 4.7 deg on Sep 29 03:00

Percentiles: P_1 = 5.7 P_{10} = 8.9 Q_1 = 12.7 Median = 20.0 Q_3 = 36.5 P_{90} = 63.5 P_{99} = 88.7

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

Day	Hourly Period Ending At (MST)																								Daily 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-Sep	40	67	14	16	20	9	10	13	41	25	15	19	22	20	42	25	42	24	10	17	11	13	27	17	66.7
2-Sep	34	55	89	29	27	28	39	66	22	17	45	35	17	14	13	16	13	12	12	10	12	8	8	13	89.3
3-Sep	11	8	7	16	16	13	9	9	11	14	15	32	27	29	50	47	21	18	12	37	29	7	7	8	50.4
4-Sep	6	9	27	56	18	21	35	44	33	9	19	17	23	23	25	22	19	20	17	9	53	65	78	21	77.9
5-Sep	13	10	16	19	21	21	14	23	41	89	43	75	96	68	96	68	48	29	33	11	27	19	61	21	95.8
6-Sep	72	19	23	86	68	87	65	30	17	20	45	26	53	58	31	62	43	22	77	47	31	34	16	22	86.5
7-Sep	46	15	16	12	15	18	11	13	14	18	20	24	32	33	23	24	32	26	44	69	25	15	27	7	68.6
8-Sep	7	84	55	95	50	86	52	40	23	14	10	14	12	35	20	21	45	22	9	8	6	8	40	20	94.9
9-Sep	74	37	21	18	14	13	12	12	14	12	19	20	18	12	15	15	15	11	16	20	9	25	8	60	74.3
10-Sep	92	40	69	75	79	77	70	45	12	12	20	10	16	12	15	10	14	8	8	7	6	23	21	11	92.4
11-Sep	6	8	18	20	21	27	33	19	23	9	8	8	8	8	11	12	8	47	54	11	22	16	13	7	53.9
12-Sep	8	14	15	33	27	16	12	10	19	18	26	17	19	23	20	20	23	15	13	23	9	8	10	7	32.5
13-Sep	8	20	38	67	43	60	14	12	14	18	17	21	13	19	13	17	15	11	7	10	6	26	36	41	67.0
14-Sep	36	51	59	71	78	51	44	50	15	19	26	16	18	14	14	8	9	12	8	10	12	71	13	6	78.2
15-Sep	7	6	25	21	18	18	9	10	15	10	10	12	15	14	13	15	18	16	12	15	12	15	48	61	61.4
16-Sep	87	49	67	77	90	62	65	31	25	24	29	26	32	37	27	23	22	17	18	13	16	26	14	34	90.3
17-Sep	33	53	55	19	75	34	12	21	21	13	21	27	29	19	14	12	15	15	11	47	25	25	24	33	74.6
18-Sep	24	74	29	24	11	12	31	15	9	9	15	27	22	20	27	64	52	29	65	18	12	12	15	14	73.6
19-Sep	11	28	45	58	74	58	82	37	47	42	76	64	39	40	45	39	27	21	10	12	9	16	13	8	82.3
20-Sep	16	26	60	29	42	49	70	19	18	27	29	31	25	25	23	21	16	14	16	17	23	11	20	24	70.5
21-Sep	21	30	66	63	45	44	29	10	8	8	6	10	9	17	16	12	23	28	8	66	33	16	18	14	66.2
22-Sep	12	11	15	13	14	17	15	13	11	9	8	14	12	10	11	10	10	9	7	6	7	6	7	11	16.6
23-Sep	8	8	7	6	8	6	6	7	12	13	13	14	22	18	14	32	8	13	13	10	10	5	6	18	32.1
24-Sep	27	56	77	62	79	11	55	18	62	89	63	43	36	44	23	27	21	17	15	16	20	16	12	15	89.4
25-Sep	18	17	17	17	18	14	19	24	30	21	27	31	29	28	39	29	32	34	18	32	55	25	55	73	73.0
26-Sep	93	49	50	69	72	36	61	80	52	43	37	36	51	54	30	32	24	19	18	16	19	26	15	20	92.9
27-Sep	49	18	84	59	89	38	17	35	23	17	10	10	12	10	10	9	8	7	7	7	5	8	7	5	88.6
28-Sep	8	20	79	74	35	65	49	24	14	32	20	23	25	18	20	25	24	29	72	54	54	10	10	6	79.4
29-Sep	15	13	5	12	18	11	43	30	13	63	30	18	8	8	12	13	23	44	80	73	74	61	89	37	89.2
30-Sep	23	57	68	35	30	48	36	43	16	14	43	59	71	51	89	40	73	73	38	64	56	57	21	28	89.2
	92.9	83.8	89.3	94.9	90.3	86.5	82.3	80.1	61.9	89.4	76.1	75.5	95.8	67.9	95.6	68.2	73.4	73.0	80.3	73.3	74.1	70.9	89.2	73.0	

PASZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.2 ppb on Sep 27 22:00
Maximum Daily Average: 0.5 ppb on Sep 27

Minimum Value: 0 ppb on Sep 26 00:00
Maximum Diurnal Average: 0.3 ppb at hour 22
Monthly Average: 0.20 ppb

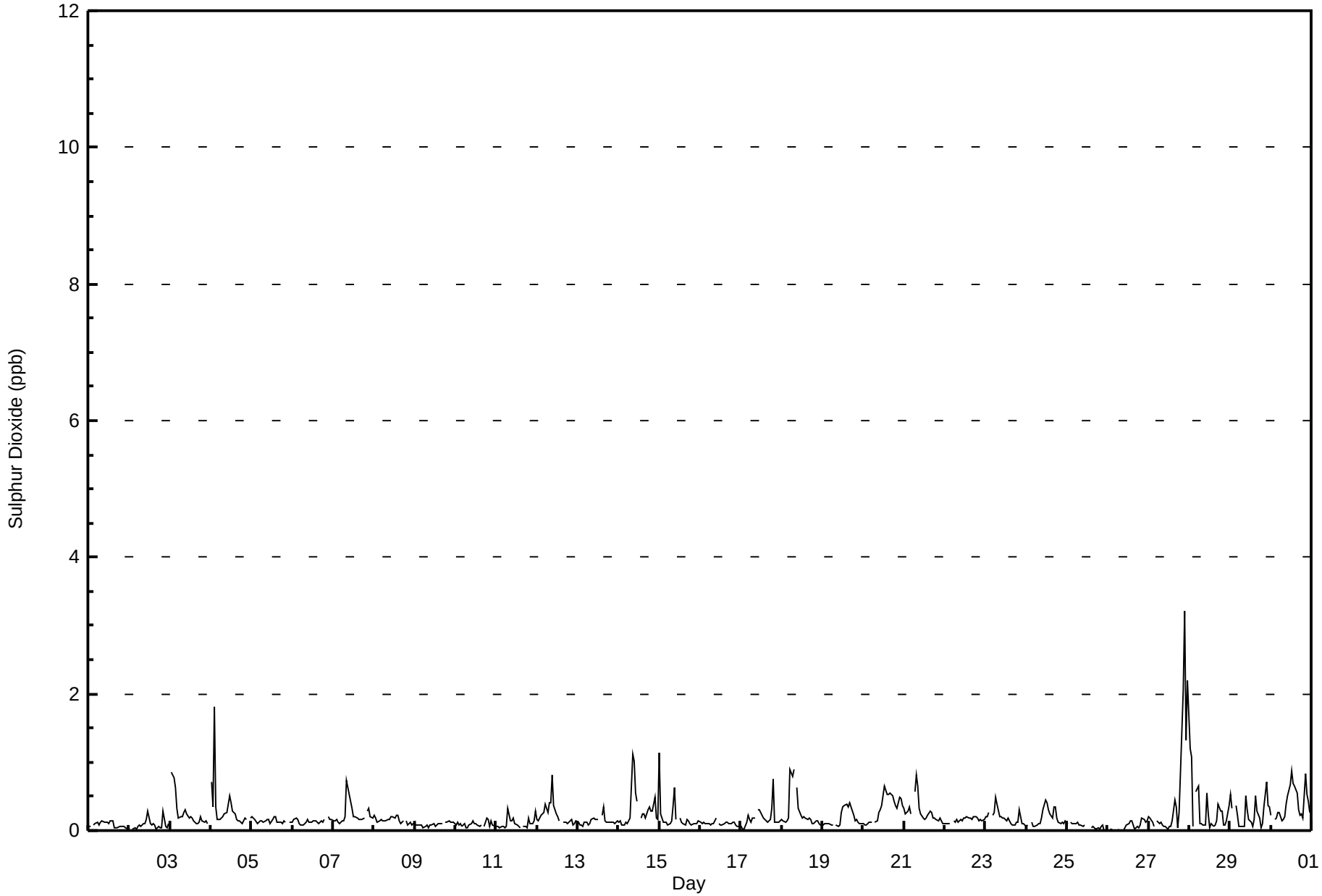
Minimum Daily Average: 0.1 ppb on Sep 25
Minimum Diurnal Average: 0.2 ppb at hour 4
Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 1.1

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
2-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
3-Sep	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.9
4-Sep	1	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0.3	1.8
5-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.2
6-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
7-Sep	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.7
8-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.2
9-Sep	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	0.1
10-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2
11-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
12-Sep	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.8
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
14-Sep	0	0	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
15-Sep	1	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
16-Sep	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.7
18-Sep	0	0	0	0	0	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
19-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
20-Sep	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0.3	0.6
21-Sep	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
22-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
23-Sep	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
24-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
25-Sep	0	A	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.1	0.1
26-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	2	0.5	3.2
28-Sep	1	1	0	A	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
29-Sep	1	0	A	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0.3	0.7
30-Sep	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	1	1	0	0	0.4	0.9
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	Diurnal Average	
	1.2	1.1	1.8	0.6	0.6	0.9	0.8	0.9	1.1	1.0	0.6	0.7	0.9	0.7	0.7	0.6	0.6	0.5	0.4	0.9	2.1	3.2	1.3	2.2	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 57 ppb

Hourly Averages for SO_2 at Smoky Heights
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Smoky Heights - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 11.8 ppb on Sep 28 00:00

Maximum Daily Average: 2.3 ppb on Sep 27

Minimum Value: 0 ppb on Sep 26 09:00

Minimum Daily Average: 0.3 ppb on Sep 25

Maximum Diurnal Average: 0.8 ppb at hour 24

Minimum Diurnal Average: 0.5 ppb at hour 18

Monthly Average: 0.58 ppb

Percentiles: P_1 = 0.3 P_{10} = 0.3 Q_1 = 0.4 Median = 0.4 Q_3 = 0.5 P_{90} = 0.8 P_{99} = 3.6

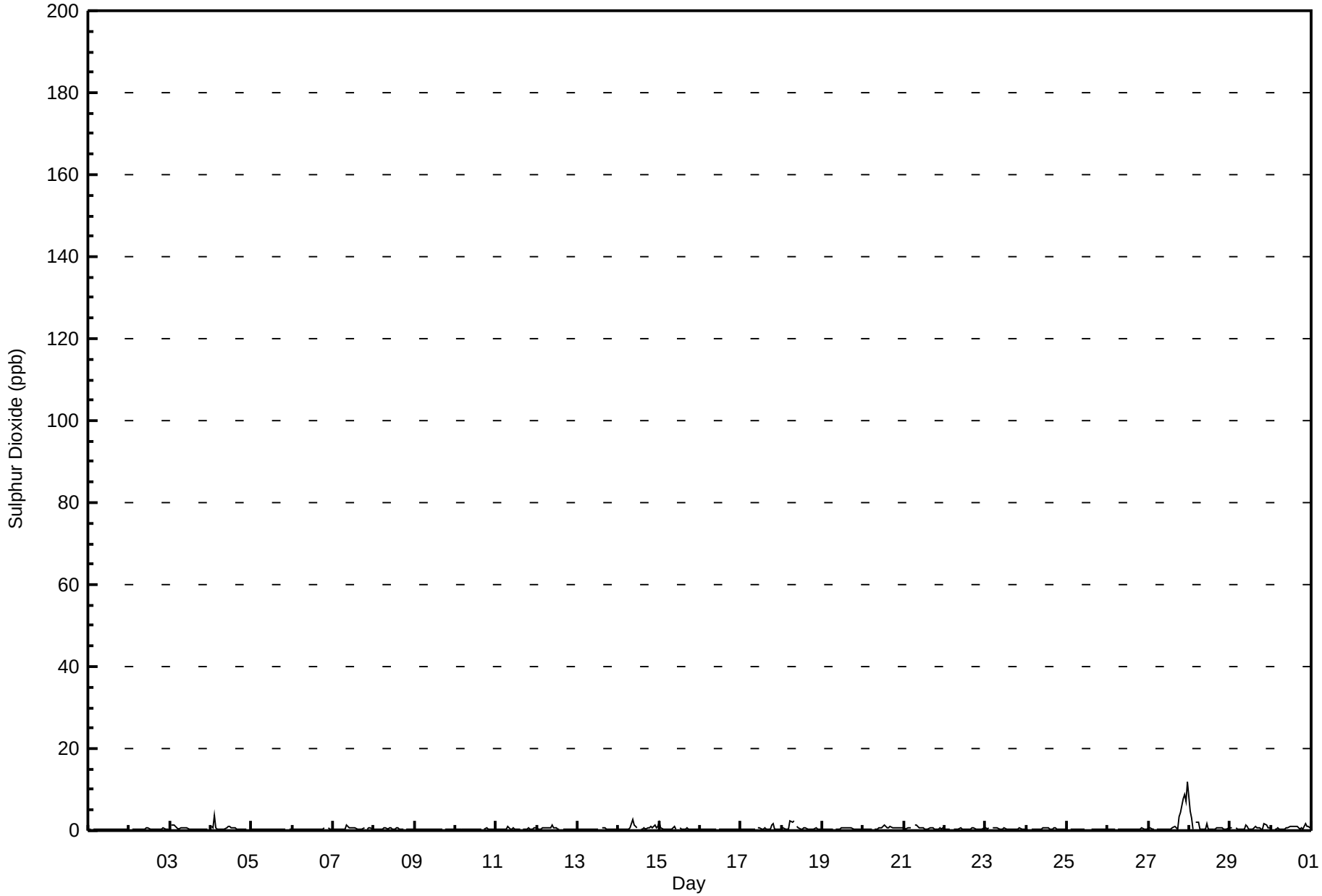
Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
2-Sep	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.7
3-Sep	A	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.6	1.4
4-Sep	1	1	4	1	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0.7	3.9
5-Sep	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0.4	0.5
6-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0.4	0.6
7-Sep	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	1	A	1	1	1	0	0.5	1.2
8-Sep	1	1	0	1	0	0	1	1	0	1	1	0	0	1	1	0	0	0	A	0	0	0	0	0	0.5	0.6
9-Sep	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.5
10-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0.4	0.7
11-Sep	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	A	0	0	0	1	0	0	1	1	0.4	0.9
12-Sep	1	0	0	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0.5	1.2
13-Sep	0	0	0	0	0	0	0	0	0	1	0	0	1	A	1	1	1	0	0	0	0	0	0	0	0.4	0.8
14-Sep	0	0	0	0	0	0	0	1	3	1	1	1	A	0	0	1	0	1	1	1	1	1	1	1	0.7	2.5
15-Sep	2	1	0	0	0	0	0	0	1	1	0	A	1	0	0	0	1	0	0	0	0	0	0	0	0.6	2.1
16-Sep	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
17-Sep	0	0	0	0	0	0	0	0	1	A	1	1	1	0	1	0	0	1	1	2	0	0	0	0	0.5	1.6
18-Sep	0	1	0	0	0	2	2	2	A	1	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0.7	2.3
19-Sep	0	0	0	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	0.7
20-Sep	0	0	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.2
21-Sep	1	0	1	1	1	A	1	1	1	1	1	1	0	0	0	1	1	1	0	0	0	1	0	1	0.6	1.4
22-Sep	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0.5	0.6
23-Sep	1	0	1	A	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0.5	0.8
24-Sep	0	0	A	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0.5	0.7
25-Sep	0	A	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.3	0.5
26-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.5
27-Sep	1	1	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	0	3	4	8	9	7	12	2.3	11.8
28-Sep	5	3	0	A	2	2	0	0	0	0	2	0	0	0	0	0	1	1	1	1	0	0	0	1	0.9	4.9
29-Sep	1	1	A	1	0	0	0	0	0	1	1	0	0	0	1	1	1	1	0	0	2	1	1	1	0.7	1.8
30-Sep	1	A	0	1	1	0	0	0	0	1	1	1	1	1	1	1	1	0	1	1	2	1	1	1	0.7	1.8
	0.7	0.6	0.6	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.7	0.8	Diurnal Average	
	4.9	3.0	3.9	1.2	2.2	2.3	2.1	2.2	2.5	1.5	1.7	1.0	1.2	1.0	1.0	1.2	1.0	0.8	3.5	4.5	7.7	9.0	7.2	11.8	Diurnal Maximum	

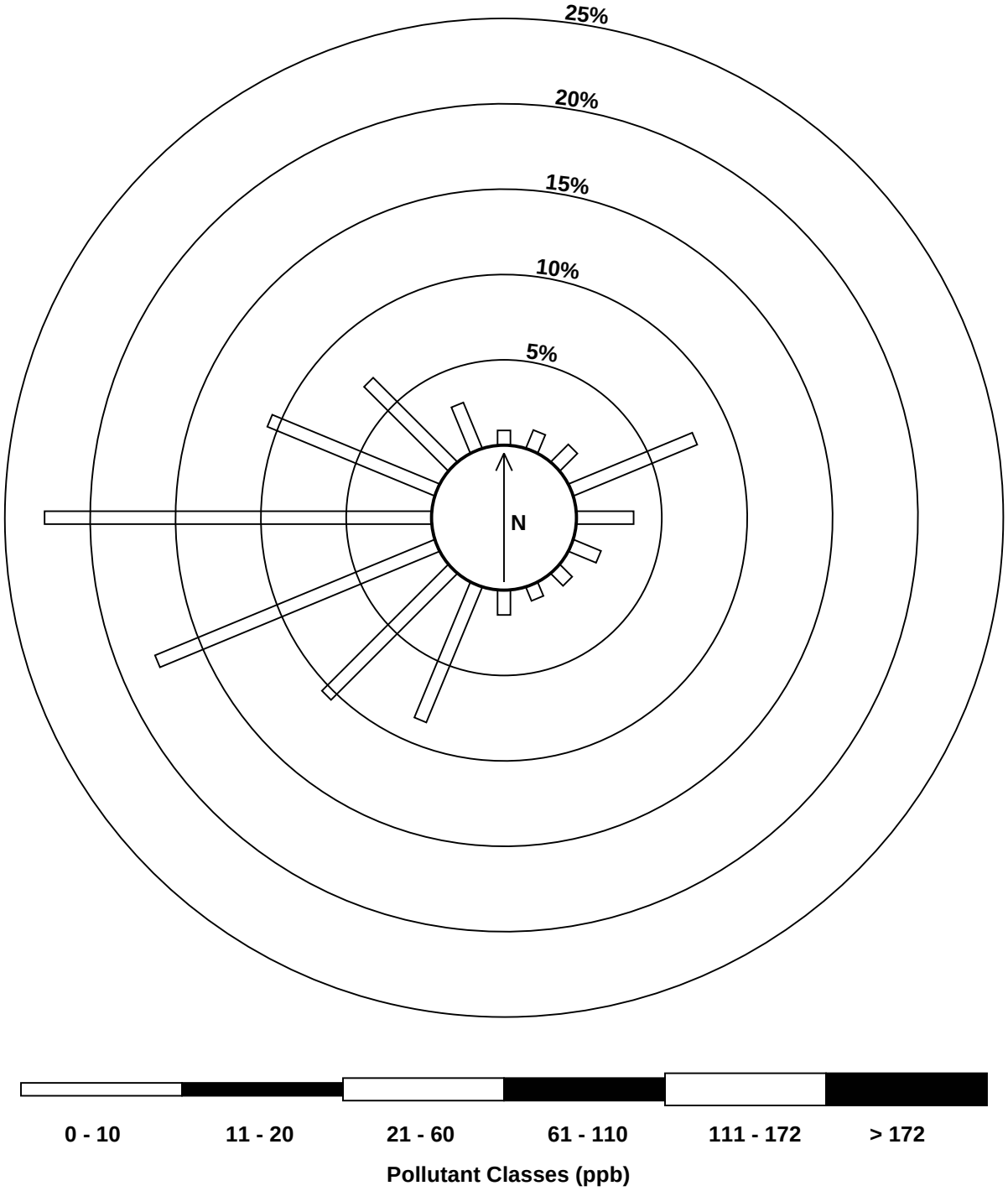
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for SO_2 at Smoky Heights
September 2008



Pollutant Rose for SO_2 at Smoky Heights
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights - Total Reduced Sulphur (TRS) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.3 ppb on Sep 9 21:00
Maximum Daily Average: 0.5 ppb on Sep 21

Minimum Value: 0 ppb on Sep 10 09:00
Maximum Diurnal Average: 0.5 ppb at hour 21
Monthly Average: 0.36 ppb

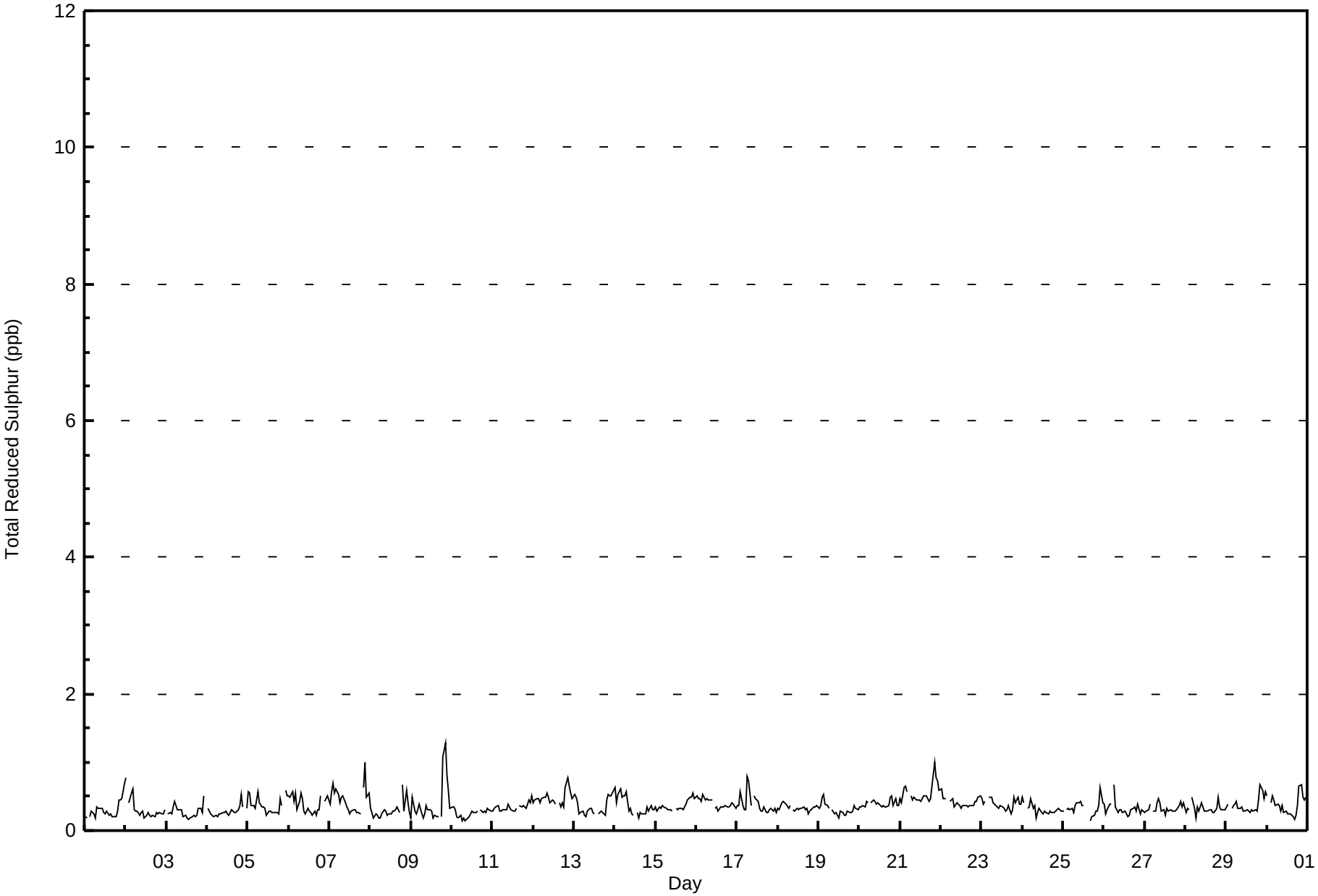
Minimum Daily Average: 0.3 ppb on Sep 10
Minimum Diurnal Average: 0.3 ppb at hour 15
Percentiles: $P_1 = 0.2$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.5$ $P_{99} = 0.8$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.7
2-Sep	1	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
3-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0.3	0.5
4-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0.3	0.5
5-Sep	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0.4	0.6
6-Sep	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	1	0.4	0.6
7-Sep	0	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	A	1	1	0	1	0.5	1.0
8-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	1	0	0	0.3	0.7
9-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0	0.4	1.3
10-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
11-Sep	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	0.5
12-Sep	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0.5	0.8
13-Sep	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	1	1	0.3	0.6
14-Sep	1	0	1	1	0	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
15-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.5
16-Sep	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
17-Sep	0	0	1	0	0	0	1	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
18-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
19-Sep	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
20-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.5
21-Sep	0	0	1	1	1	A	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1	0.5	1.0
22-Sep	1	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	0.6
23-Sep	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
24-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
25-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	C	C	A	0	0	0	0	0	0	1	0	0.3	0.6
26-Sep	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
27-Sep	0	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
28-Sep	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
29-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.4	0.7
30-Sep	1	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.4	0.7
	0.4	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	0.3	0.3	0.4	0.5	0.5	0.4	0.4	Diurnal Average	
	0.8	0.6	0.7	0.7	0.6	0.5	0.8	0.7	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.5	1.1	1.3	1.0	0.7	0.7	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
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Smoky Heights - Total Reduced Sulphur (TRS) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 3.8 ppb on Sep 9 20:00

Maximum Daily Average: 1.0 ppb on Sep 9

Minimum Value: 0 ppb on Sep 25 17:00

Maximum Diurnal Average: 0.9 ppb at hour 20

Monthly Average: 0.75 ppb

Minimum Daily Average: 0.6 ppb on Sep 10

Minimum Diurnal Average: 0.6 ppb at hour 18

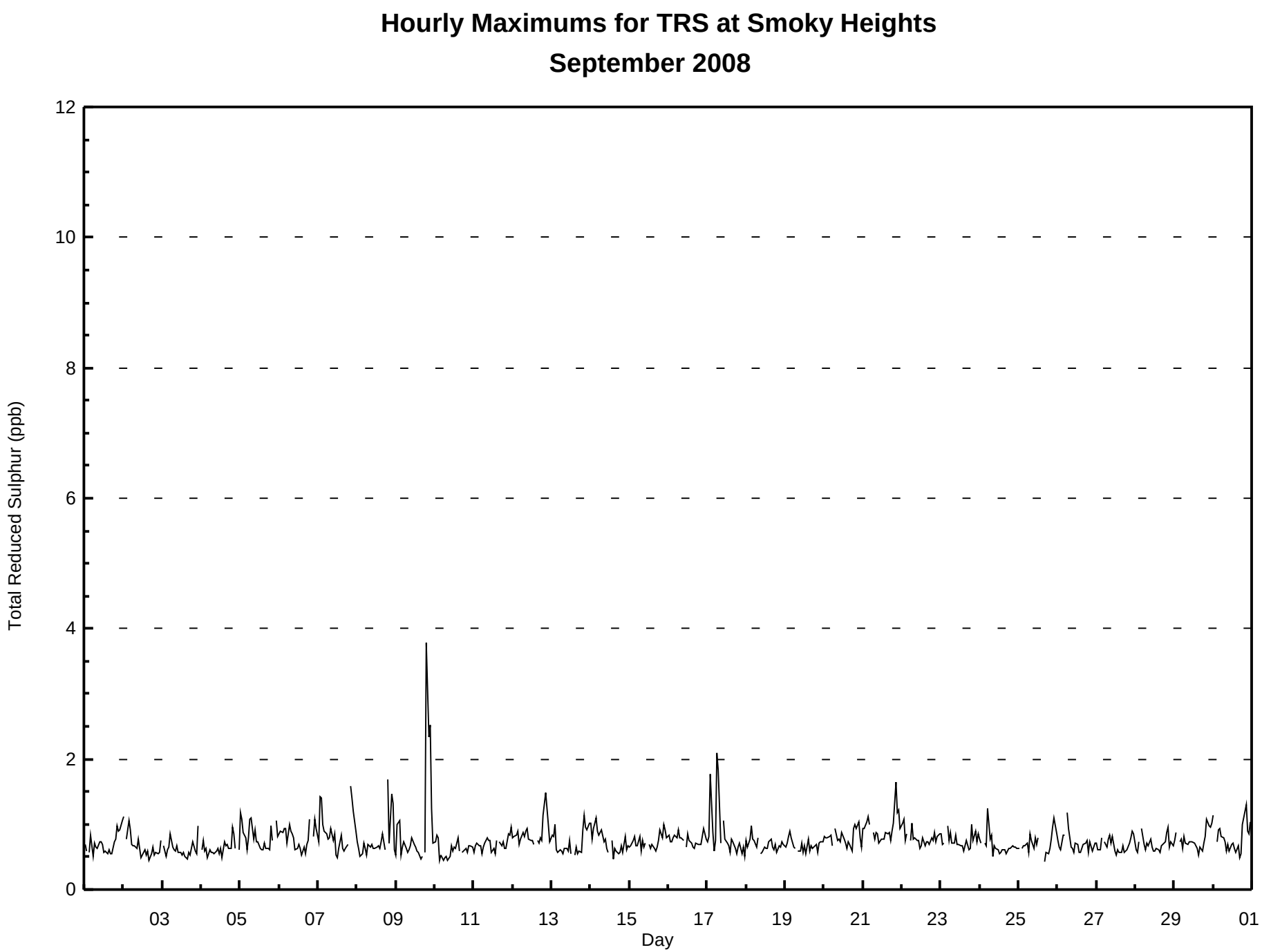
Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 1.0$ $P_{99} = 1.7$

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
2-Sep	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.1
3-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	0.6	1.0
4-Sep	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	0.6	1.0
5-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.2
6-Sep	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	1.1
7-Sep	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	2	1	1	1	0.9	1.6
8-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	0.8	1.7
9-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	4	2	3	1	1	1.0	3.8
10-Sep	1	1	1	0	1	0	0	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.6	0.8
11-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	0.9
12-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.5
13-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.1
14-Sep	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	0.7	1.1
15-Sep	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
16-Sep	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9
17-Sep	1	1	2	1	1	1	2	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1
18-Sep	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
19-Sep	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
20-Sep	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
21-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0.9	1.7
22-Sep	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	1.1
23-Sep	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
24-Sep	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
25-Sep	1	A	1	1	1	1	1	1	1	1	1	1	1	C	C	A	0	1	1	1	1	1	1	1	0.7	1.1
26-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
27-Sep	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
28-Sep	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
29-Sep	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
30-Sep	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.8	1.3
	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.9	0.9	0.9	0.9	0.8	Diurnal Average	
	1.2	1.4	1.8	1.1	1.0	1.2	2.1	1.8	0.9	0.9	1.1	0.9	0.9	0.8	0.9	0.8	0.9	0.8	1.0	3.8	2.3	2.5	1.3	1.1	Diurnal Maximum	

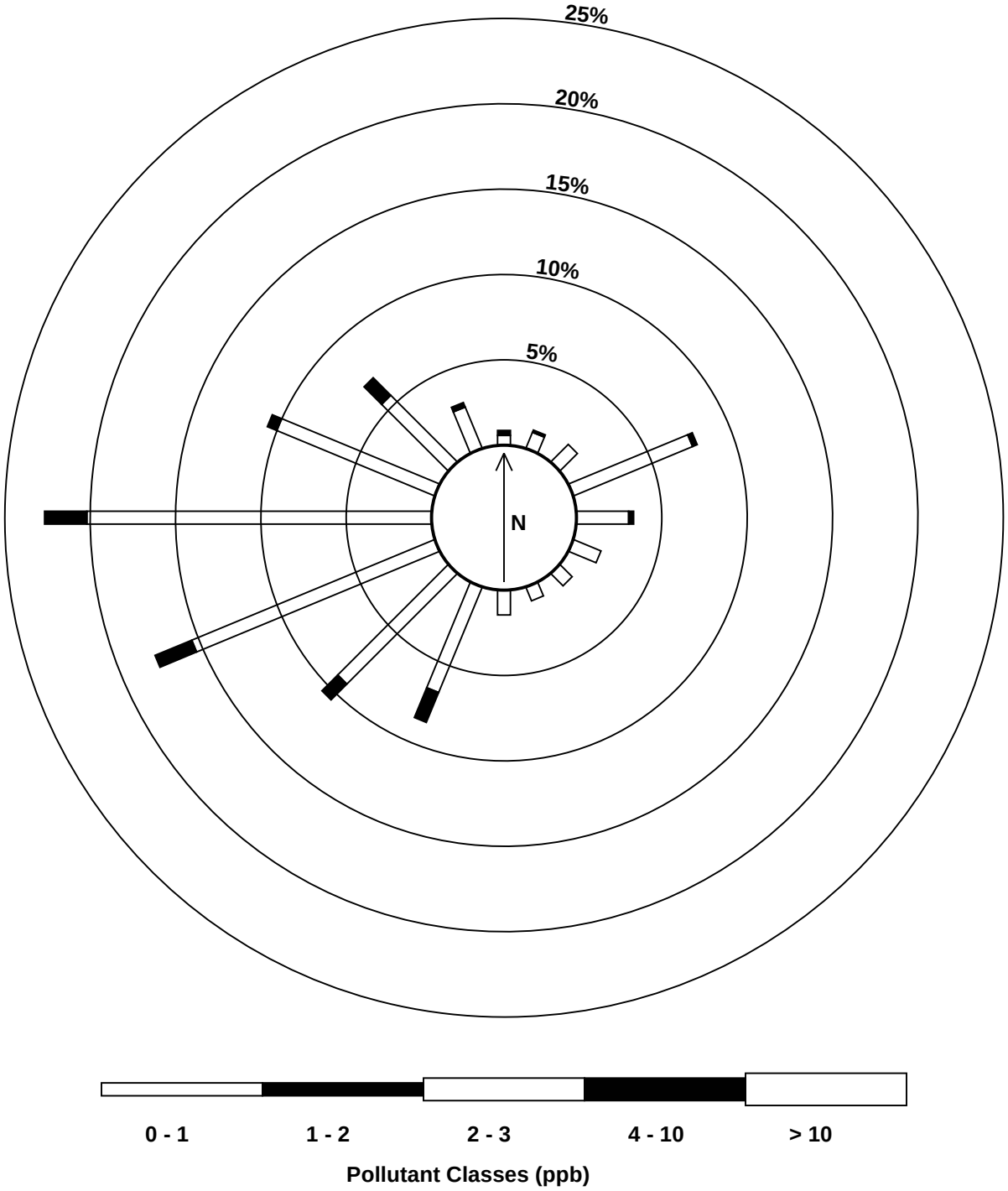
C - Calibration

A - Automated Daily Zero Span


Hourly Maximums for TRS at Smoky Heights
September 2008
Total Reduced Sulphur (ppb)
0
2
4
6
8
10
12
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Pollutant Rose for TRS at Smoky Heights

September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights - Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$
September 1, 2008 to October 1, 2008

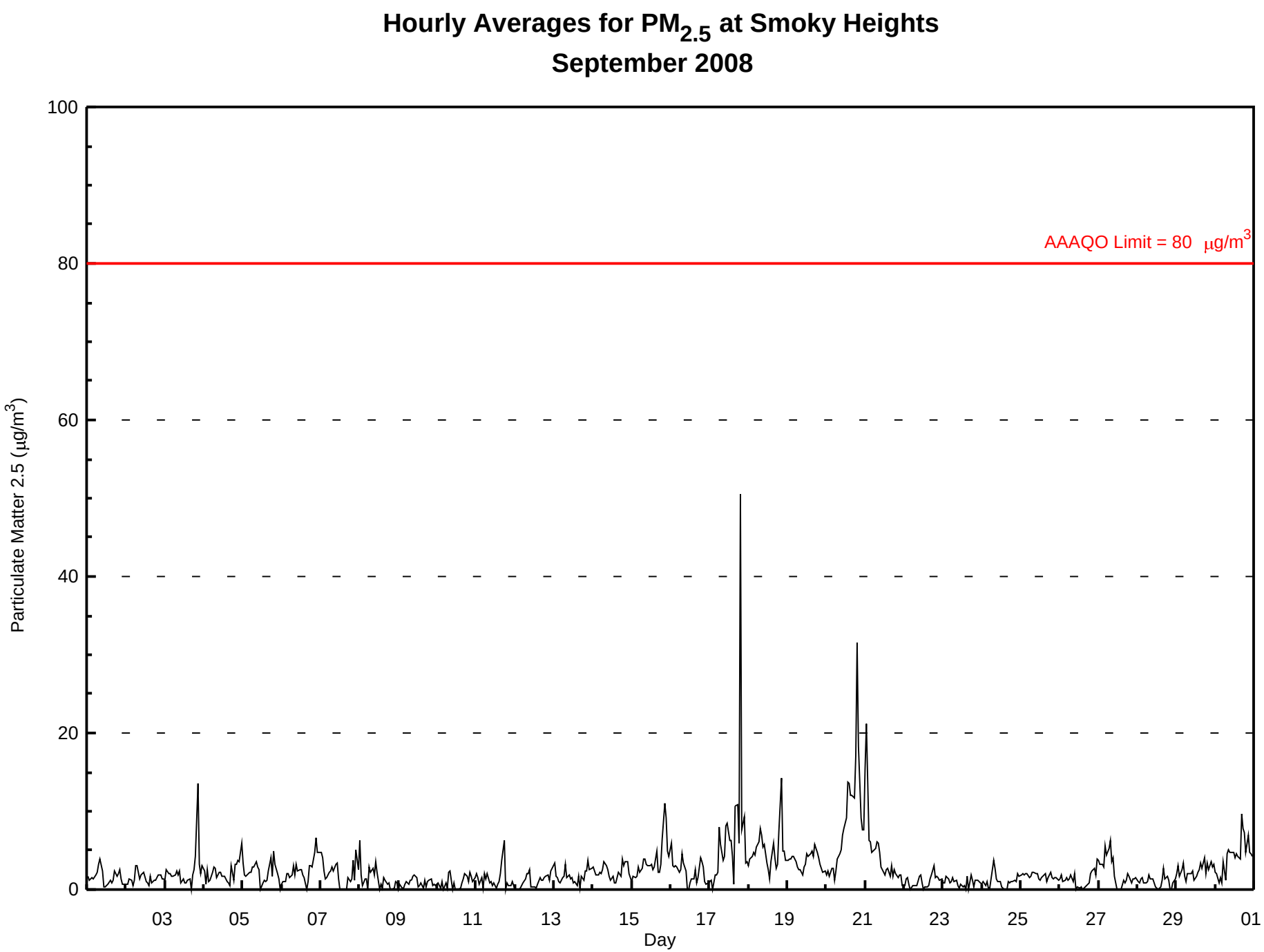
Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 50.5 $\mu g/m^3$ on Sep 17 20:00 Maximum Daily Average: 8.6 $\mu g/m^3$ on Sep 20

Minimum Value: 0 $\mu g/m^3$ on Sep 3 17:00 Minimum Daily Average: 0.8 $\mu g/m^3$ on Sep 9
Maximum Diurnal Average: 5.1 $\mu g/m^3$ at hour 20 Minimum Diurnal Average: 1.6 $\mu g/m^3$ at hour 13
Monthly Average: 2.49 $\mu g/m^3$ Percentiles: $P_1 = 0.0$ $P_{10} = 0.4$ $Q_1 = 1.0$ Median = 1.8 $Q_3 = 3.0$ $P_{90} = 4.8$ $P_{99} = 13.3$

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	2	1	1	2	1	2	2	3	4	2	0	0	0	1	1	1	1	2	2	2	3	1	1	1	1.5	3.9
2-Sep	1	1	1	1	1	1	3	3	1	2	2	2	1	1	0	2	1	1	1	2	2	2	1	1	1.4	3.1
3-Sep	1	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	0	2	3	4	14	3	2	3	2.3	13.6
4-Sep	2	1	3	1	1	2	3	3	2	2	2	2	2	2	1	1	0	3	1	3	3	4	4	6	2.2	6.0
5-Sep	3	2	2	2	2	2	3	3	4	3	3	0	1	1	1	1	2	4	2	5	3	2	1	0	2.2	4.9
6-Sep	1	1	1	2	2	1	2	3	2	3	2	3	3	2	1	0	1	3	3	3	5	7	5	5	2.5	6.6
7-Sep	5	4	2	1	2	2	2	3	2	3	3	1	0	0	0	0	0	2	1	1	4	1	5	3	2.0	5.1
8-Sep	6	2	1	1	1	0	3	2	3	2	4	2	0	1	0	2	1	1	1	0	0	0	1	1	1.4	6.3
9-Sep	0	1	0	0	1	1	1	1	1	2	2	2	0	0	1	0	1	0	1	1	1	1	1	0	0.8	1.8
10-Sep	1	1	0	1	0	1	0	2	2	0	1	0	0	0	0	1	1	2	2	1	2	2	1	2	0.9	2.3
11-Sep	2	2	1	2	0	2	1	2	1	1	1	1	0	1	1	2	4	6	0	1	1	0	1	1	1.3	6.2
12-Sep	0	0	0	0	1	1	1	2	2	3	0	0	0	0	1	2	1	1	2	2	2	1	2	3	1.1	2.7
13-Sep	3	2	2	1	1	1	2	3	1	2	1	2	1	1	1	2	0	2	1	2	2	4	3	3	1.7	3.7
14-Sep	3	2	2	2	2	2	2	4	3	3	2	1	2	1	1	2	2	2	4	3	4	3	2	2	2.3	3.9
15-Sep	1	2	2	2	3	2	3	4	4	3	3	3	3	2	3	5	2	2	3	7	11	9	5	4	3.6	11.0
16-Sep	6	3	3	3	3	2	3	5	3	2	0	0	1	1	1	3	1	2	4	4	3	1	1	1	2.3	5.9
17-Sep	1	1	0	2	2	2	8	6	4	4	8	8	6	6	4	1	11	11	6	51	8	9	3	4	6.9	50.5
18-Sep	3	4	4	5	4	5	6	8	7	5	6	3	3	1	4	6	4	3	3	8	14	5	5	4	5.0	14.2
19-Sep	4	4	4	4	4	3	3	3	3	2	3	3	5	4	5	5	4	6	5	4	3	3	2	2	3.6	5.8
20-Sep	2	2	2	3	3	1	2	4	5	5	7	8	9	14	13	12	12	12	17	32	18	9	8	8	8.6	31.5
21-Sep	15	21	6	6	5	5	5	6	6	5	3	2	2	3	3	2	3	2	3	2	2	2	2	0	4.6	21.2
22-Sep	0	1	2	1	0	0	1	1	1	2	2	1	0	0	0	1	1	2	3	2	2	1	1	1	1.1	3.0
23-Sep	1	1	2	1	1	1	1	1	1	1	0	1	0	0	0	2	0	2	1	0	1	1	1	1	0.9	1.9
24-Sep	1	1	0	1	0	0	2	4	3	1	1	1	0	0	0	0	1	1	1	1	1	1	2	2	1.1	3.8
25-Sep	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	1	2	2	2	1	2	1	1	1.7	2.1
26-Sep	1	2	1	1	1	1	1	2	1	2	0	0	0	0	0	0	0	1	1	2	2	3	2	4	1.3	3.8
27-Sep	4	3	3	3	6	4	5	6	4	4	2	0	0	0	0	1	1	1	2	2	1	1	1	2	2.3	6.3
28-Sep	1	1	1	1	1	1	1	2	1	1	1	0	0	0	0	1	3	1	2	1	0	0	1	1	1.0	2.7
29-Sep	2	3	2	3	3	2	1	2	2	2	2	1	2	2	3	3	3	4	2	3	3	4	3	3	2.5	4.0
30-Sep	2	2	1	2	1	4	1	5	5	5	5	5	4	5	4	4	10	8	7	5	7	5	4	4	4.3	9.7
	2.6	2.5	1.7	1.9	1.9	1.9	2.4	3.2	2.7	2.6	2.3	1.9	1.6	1.8	1.8	2.1	2.5	3.0	2.8	5.1	4.0	2.9	2.4	2.4	Diurnal Average	
	15.5	21.2	6.3	6.0	5.6	5.5	8.0	7.7	7.0	5.5	8.2	8.5	9.1	13.8	13.5	12.1	12.1	11.7	17.2	50.5	18.4	9.2	7.7	7.7	Diurnal Maximum	

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


Hourly Averages for PM2.5 at Smoky Heights
September 2008
AAAQO Limit = 80 µg/m3
Particulate Matter 2.5 (µg/m3)
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Maximums

Smoky Heights - Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$
September 1, 2008 to October 1, 2008

Maximum Value: 188.8 $\mu g/m^3$ on Sep 17 20:00

Maximum Daily Average: 17.3 $\mu g/m^3$ on Sep 17

Minimum Value: 0 $\mu g/m^3$ on Sep 9 01:00

Maximum Diurnal Average: 13.7 $\mu g/m^3$ at hour 20

Monthly Average: 5.39 $\mu g/m^3$

Minimum Daily Average: 2.6 $\mu g/m^3$ on Sep 9

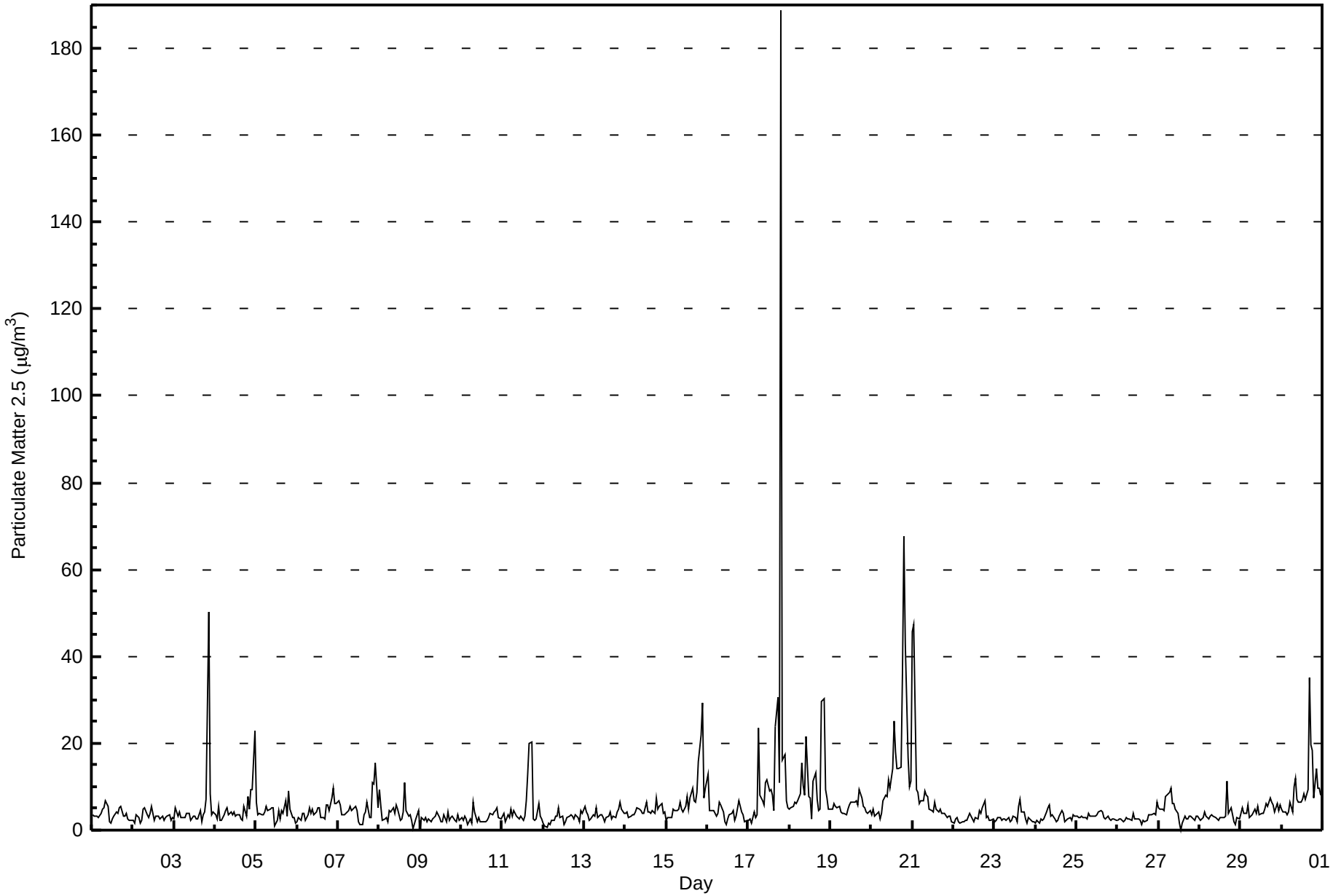
Minimum Diurnal Average: 3.5 $\mu g/m^3$ at hour 5

Percentiles: P_1 = 1.1 P_{10} = 2.1 Q_1 = 2.7 Median = 3.7 Q_3 = 5.3 P_{90} = 8.6 P_{99} = 32.5

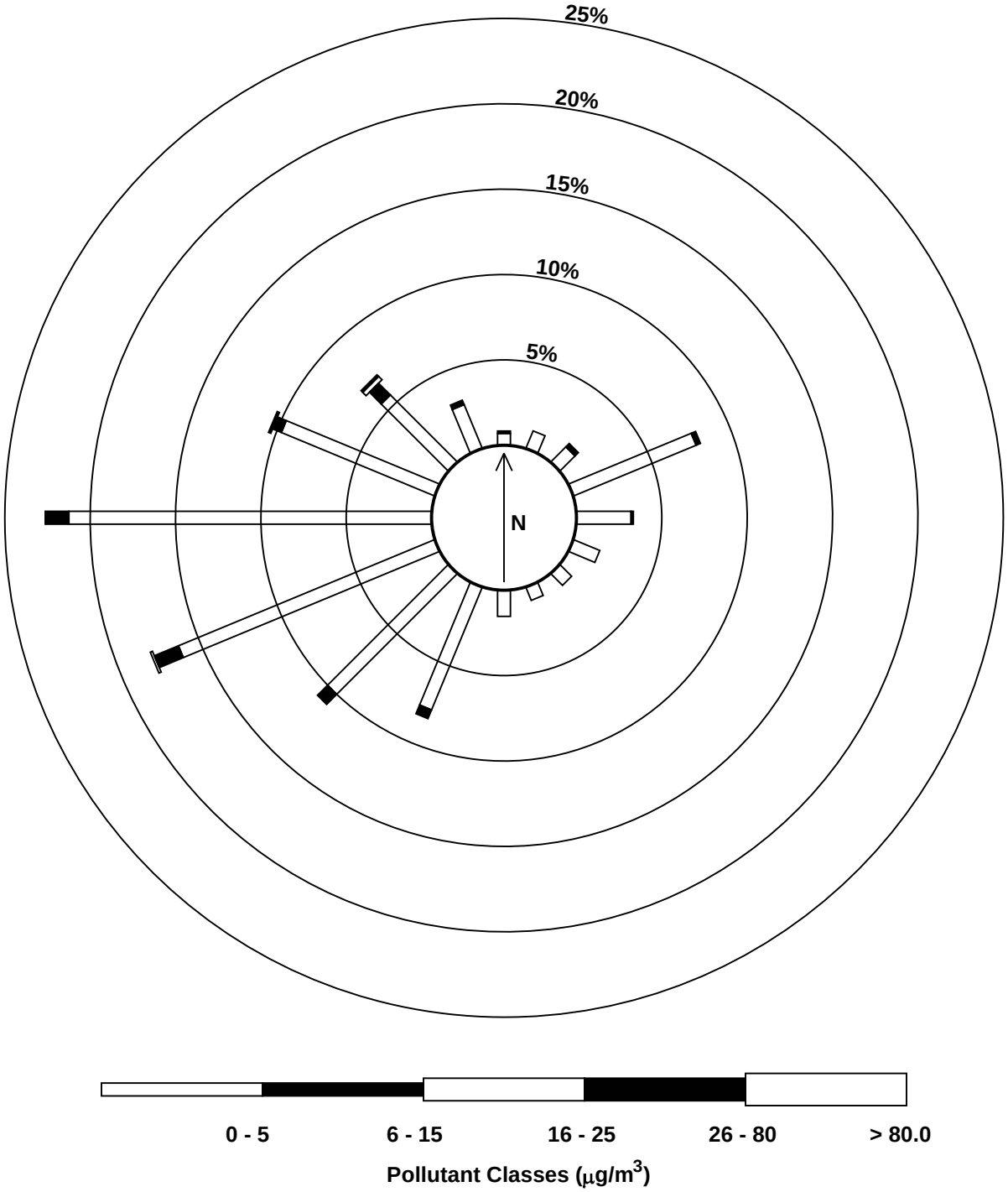
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily 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-Sep	4	3	3	3	3	4	5	5	7	5	2	2	2	3	4	4	5	6	3	3	4	3	2	2	3.7	6.6
2-Sep	2	2	4	3	2	2	5	5	4	3	4	5	2	3	3	3	2	3	2	3	3	3	2	3	3.1	5.4
3-Sep	3	5	3	4	3	3	3	4	4	4	2	3	3	3	3	4	2	4	4	7	50	8	3	4	5.7	50.4
4-Sep	4	2	6	2	2	3	4	5	4	4	3	4	3	4	4	3	2	5	3	8	5	9	9	23	5.1	23.0
5-Sep	7	3	4	4	4	4	5	5	5	5	5	1	2	5	2	5	4	7	3	9	5	3	3	1	4.2	9.1
6-Sep	2	3	2	4	4	2	4	5	4	5	4	4	5	5	3	3	3	6	6	4	7	10	6	6	4.4	9.8
7-Sep	7	6	4	3	4	4	4	5	5	5	6	5	2	1	1	4	4	6	3	3	11	11	16	5	5.2	15.5
8-Sep	9	5	2	3	3	2	5	4	5	4	6	5	2	3	4	11	4	3	3	2	0	3	4	4	4.0	10.9
9-Sep	0	3	2	3	2	2	2	3	3	3	4	3	2	2	4	2	4	2	3	3	2	2	3	2	2.6	4.1
10-Sep	3	2	3	2	1	3	2	6	4	2	3	2	2	2	2	2	3	4	3	4	4	5	3	3	3.0	6.5
11-Sep	3	4	2	3	3	5	3	4	3	3	3	3	2	3	7	13	20	20	3	2	3	6	3	2	5.2	20.2
12-Sep	2	1	1	2	1	2	2	3	3	5	3	3	1	2	3	3	3	3	3	4	3	2	4	4	2.7	5.2
13-Sep	5	4	4	2	3	3	3	5	3	3	4	3	2	3	3	4	2	3	3	4	5	6	5	4	3.7	6.4
14-Sep	4	4	3	3	3	3	4	5	5	5	4	4	6	4	4	4	5	4	7	5	5	6	4	4	4.4	7.4
15-Sep	2	3	3	3	5	5	5	5	6	5	4	6	8	5	8	10	7	6	9	16	22	29	8	10	7.8	29.3
16-Sep	13	5	5	5	5	3	4	7	6	4	2	1	3	3	4	4	2	3	7	5	4	4	2	2	4.3	12.8
17-Sep	2	3	1	4	3	4	23	8	7	6	11	11	9	9	8	5	24	31	11	189	16	17	7	5	17.3	188.8
18-Sep	5	5	5	6	6	7	8	15	10	8	22	8	7	2	11	13	7	4	5	30	30	9	8	5	9.9	30.2
19-Sep	5	5	6	5	5	6	4	4	4	3	5	6	6	6	6	7	6	9	7	5	5	4	4	4	5.4	9.4
20-Sep	4	5	3	4	4	2	4	7	8	8	11	10	14	25	18	14	14	14	37	68	43	17	10	11	14.8	67.7
21-Sep	46	47	9	9	6	7	7	9	8	8	5	5	4	7	5	4	5	4	4	4	3	3	3	2	8.8	47.3
22-Sep	2	3	3	2	2	2	2	2	2	4	3	3	2	3	2	5	4	5	7	3	3	2	2	2	2.9	6.9
23-Sep	2	2	3	3	2	2	3	2	3	2	2	3	3	2	5	7	4	4	3	2	3	2	2	2	2.9	6.9
24-Sep	2	2	2	3	2	3	4	5	6	3	3	2	2	2	3	5	4	2	2	2	3	2	4	3	3.0	5.7
25-Sep	3	3	3	3	3	3	3	4	3	3	3	3	3	4	4	4	3	3	3	3	2	2	2	2	3.1	4.4
26-Sep	2	3	2	2	2	3	2	3	2	4	3	3	3	2	1	2	2	2	4	3	4	4	4	7	2.9	6.6
27-Sep	5	5	5	5	8	8	9	10	6	6	5	4	2	0	2	3	3	2	3	3	2	2	3	3	4.3	9.8
28-Sep	2	2	3	4	3	3	3	4	3	3	3	2	3	3	3	3	11	4	5	4	2	1	3	3	3.3	11.4
29-Sep	4	5	4	4	6	3	3	4	5	4	6	3	4	4	5	6	5	7	7	6	4	6	4	6	4.8	7.4
30-Sep	5	4	4	4	4	6	4	10	12	7	6	6	7	8	7	9	35	20	18	7	14	10	10	8	9.5	35.2
	5.2	5.0	3.5	3.6	3.5	3.7	4.7	5.4	5.0	4.5	4.9	4.1	3.9	4.3	4.7	5.6	6.7	6.6	6.1	13.7	9.0	6.4	4.8	4.8	Diurnal Average	
	45.8	47.3	9.3	8.6	7.8	7.9	23.4	15.4	11.8	8.2	21.6	11.5	14.0	25.2	18.1	14.3	35.2	30.6	36.8	188.8	50.4	29.3	15.5	23.0	Diurnal Maximum	

Hourly Maximums for $PM_{2.5}$ at Smoky Heights
September 2008



Pollutant Rose for $PM_{2.5}$ at Smoky Heights
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights - External Temperature (ET) - ^{o}C
September 1, 2008 to October 1, 2008

Maximum Value: 25.4 ^{o}C on Sep 15 15:00

Maximum Daily Average: 16.7 ^{o}C on Sep 15

Minimum Value: -3 ^{o}C on Sep 24 06:00

Minimum Daily Average: 4.7 ^{o}C on Sep 24

Maximum Diurnal Average: 16.7 ^{o}C at hour 16

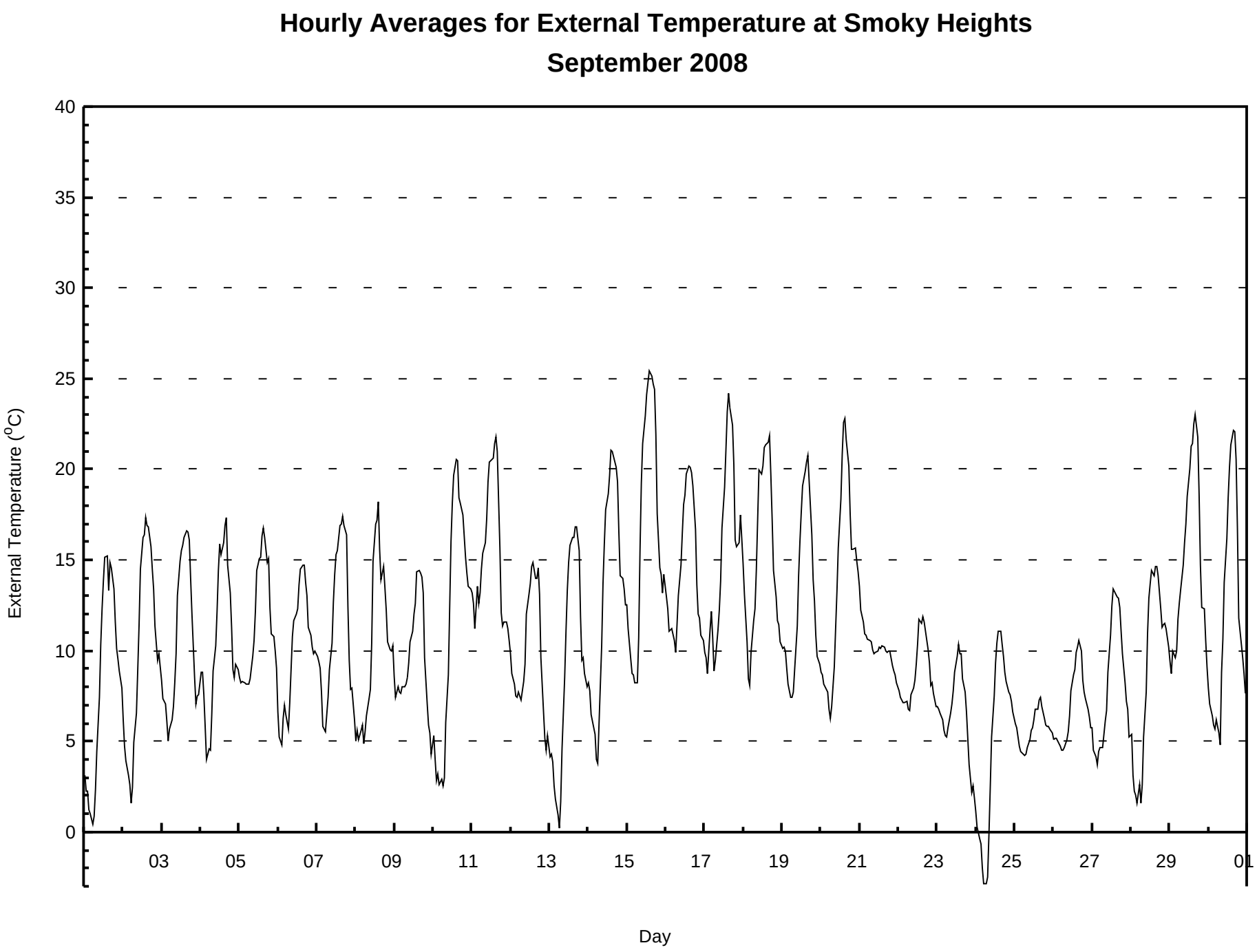
Minimum Diurnal Average: 6.0 ^{o}C at hour 7

Monthly Average: 10.85 ^{o}C

Percentiles: P_1 = 0.2 P_{10} = 4.7 Q_1 = 7.1 Median = 10.2 Q_3 = 14.4 P_{90} = 18.4 P_{99} = 24.1

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	3	2	2	1	1	0	1	2	4	7	10	12	14	15	15	13	15	15	13	12	10	10	9	8	8.2	15.2
2-Sep	6	5	4	3	3	2	2	5	7	9	11	15	16	16	17	17	17	16	14	13	11	9	10	9	9.9	17.3
3-Sep	8	7	7	6	5	6	6	7	8	10	13	15	16	16	16	17	17	16	14	12	9	7	7	8	10.5	16.6
4-Sep	9	9	8	6	4	5	5	6	9	10	12	14	16	15	16	17	17	15	13	11	9	9	9	9	10.5	17.3
5-Sep	9	8	8	8	8	8	8	8	10	11	12	14	15	15	16	17	16	15	15	12	11	11	10	9	11.5	16.7
6-Sep	7	5	5	6	7	6	6	7	9	11	12	12	12	14	14	15	15	14	13	11	11	10	10	10	10.1	14.7
7-Sep	10	9	9	8	6	6	6	7	9	10	13	14	15	16	17	17	17	17	16	12	9	8	8	6	11.1	17.4
8-Sep	5	6	5	6	6	5	6	6	7	8	10	15	17	17	18	16	14	15	13	12	10	10	10	10	10.3	18.2
9-Sep	9	7	8	8	8	8	8	8	9	9	11	11	12	13	14	14	14	14	13	10	7	6	5	4	9.6	14.4
10-Sep	5	4	3	3	3	3	3	3	6	9	12	16	18	20	21	20	18	18	17	16	15	14	14	13	11.5	20.5
11-Sep	13	13	11	14	13	13	15	15	16	17	19	20	21	21	21	22	21	16	12	11	12	12	11	11	15.3	21.7
12-Sep	10	9	8	8	7	8	7	8	8	9	12	13	14	15	15	14	14	15	13	10	7	5	5	5	9.9	14.9
13-Sep	4	4	4	3	2	1	0	2	5	8	11	13	15	16	16	16	17	17	15	12	9	10	9	8	9.0	16.8
14-Sep	8	8	6	6	5	4	4	6	10	14	16	18	19	20	21	21	21	20	19	17	14	14	13	12	13.2	21.0
15-Sep	13	11	10	9	9	8	8	11	15	19	21	23	24	25	25	25	25	24	22	18	15	14	13	14	16.7	25.4
16-Sep	13	12	11	11	11	11	10	11	13	15	16	18	19	20	20	20	20	19	17	14	12	12	11	11	14.4	20.1
17-Sep	10	10	9	11	12	11	9	9	11	12	14	17	19	21	23	24	23	22	20	16	16	16	17	16	15.4	24.2
18-Sep	15	13	10	8	8	10	12	12	14	17	20	20	20	21	21	21	22	20	17	14	13	12	11	11	15.2	21.8
19-Sep	10	10	10	9	8	7	7	8	9	11	14	16	18	19	20	20	21	19	16	14	13	11	10	9	12.9	20.8
20-Sep	9	9	8	8	8	7	6	7	9	11	13	16	18	21	23	23	22	20	18	16	16	16	15	14	13.8	22.8
21-Sep	14	12	12	11	11	11	11	10	10	10	10	10	10	10	10	10	10	10	10	10	9	9	9	8	10.3	13.6
22-Sep	8	7	7	7	7	7	7	7	8	8	8	9	10	12	12	12	12	11	10	9	8	8	8	7	8.7	11.9
23-Sep	7	7	7	6	6	5	5	6	7	7	8	9	10	10	10	10	8	8	7	5	4	2	3	2	6.5	10.3
24-Sep	1	0	0	-1	-2	-3	-3	-2	0	2	5	8	9	10	11	11	10	10	9	8	8	8	7	7	4.7	11.1
25-Sep	6	6	5	5	4	4	4	4	5	5	6	6	6	7	7	7	7	7	6	6	6	6	6	5	5.7	7.4
26-Sep	5	5	5	5	5	5	5	5	5	6	6	8	9	9	10	10	11	10	8	8	7	7	6	6	6.8	10.5
27-Sep	6	4	4	4	4	5	5	5	6	7	9	11	12	13	13	13	13	12	11	10	8	7	7	5	8.1	13.4
28-Sep	5	3	2	2	2	3	2	3	5	8	11	13	14	14	14	15	15	14	12	11	11	11	11	10	8.8	14.7
29-Sep	9	9	10	10	10	12	13	13	15	16	17	19	20	21	21	23	23	22	19	15	12	12	11	9	15.0	23.0
30-Sep	8	7	6	6	6	6	5	5	9	11	14	16	18	20	21	22	22	21	17	12	10	10	9	8	12.0	22.1
	8.1	7.4	6.8	6.5	6.2	6.1	6.0	6.9	8.6	10.3	12.3	14.0	15.2	16.0	16.7	16.7	16.5	15.7	14.1	11.9	10.4	9.8	9.4	8.8	Diurnal Average	
	14.7	13.1	11.5	13.6	12.6	13.2	14.5	15.4	15.9	19.2	21.4	23.0	24.1	24.8	25.4	25.1	24.7	24.4	22.0	17.5	15.8	16.0	17.4	16.2	Diurnal Maximum	


Hourly Averages for External Temperature at Smoky Heights
September 2008
External Temperature (°C)
40
35
30
25
20
15
10
5
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	6	5	4	6	7	8	8	10	11	13	13	15	17	15	15	20	12	8	10	9	5	7	7	11	8.9	20.3
Dir	303	265	213	201	228	212	210	213	217	253	259	255	255	258	287	245	294	300	255	242	218	225	207	207	246.5	244.7
2 Spd	12	11	11	9	8	9	9	10	9	10	11	15	19	18	22	23	26	20	17	15	14	13	13	14	12.5	26.4
Dir	217	180	130	235	250	254	254	243	215	210	226	262	263	271	274	274	266	268	259	256	251	260	258	268	252.6	265.6
3 Spd	17	16	16	12	11	11	9	9	11	7	8	3	6	10	10	15	16	14	9	7	8	10	15	14	9.8	16.8
Dir	265	257	265	274	284	276	270	268	268	266	271	291	284	300	57	288	270	234	227	258	251	265	262	258	267.8	265.2
4 Spd	14	16	10	9	8	10	10	11	16	16	16	13	15	5	1	10	12	11	7	2	6	8	8	3	9.0	16.4
Dir	256	257	301	288	236	234	252	278	263	254	274	275	264	313	292	308	289	291	271	257	265	1	290	248	272.7	273.6
5 Spd	2	3	4	5	6	6	3	2	4	5	6	6	4	2	7	3	6	9	4	2	5	4	5	5	1.6	8.7
Dir	256	251	281	302	293	285	276	298	301	120	153	136	158	81	174	291	298	350	18	40	340	220	273	257	277.2	350.1
6 Spd	4	3	2	4	5	3	1	5	4	2	2	1	2	7	8	4	3	6	5	5	7	5	5	3	2.6	7.6
Dir	342	303	259	347	244	252	212	316	312	283	285	291	299	207	221	292	201	207	313	313	222	218	215	209	257.9	221.2
7 Spd	4	1	8	7	9	5	7	11	10	8	4	2	6	5	9	6	5	6	5	3	2	4	5	5	5.1	10.6
Dir	285	246	276	271	274	273	269	273	283	278	278	277	271	313	274	278	289	293	282	222	198	195	208	203	269.9	273.2
8 Spd	7	8	8	9	9	10	8	10	7	8	11	15	19	12	10	15	8	7	4	4	8	2	7	11	7.1	18.9
Dir	196	221	343	284	202	222	251	204	213	228	256	261	257	290	319	269	279	274	258	253	236	239	284	348	258.5	256.6
9 Spd	2	10	10	10	12	10	17	16	16	15	15	14	14	15	18	19	15	12	5	3	6	6	6	4	9.6	19.2
Dir	271	274	292	294	313	313	326	330	321	304	306	314	324	335	330	335	334	338	318	311	213	206	202	196	313.6	335.4
10 Spd	5	8	7	7	10	9	6	7	11	12	12	22	24	30	31	35	32	31	26	25	20	23	25	27	16.7	35.3
Dir	213	183	228	12	261	247	360	199	198	201	218	243	250	251	266	268	255	265	260	260	259	256	265	253	253.0	267.8
11 Spd	29	20	13	21	17	16	26	28	37	36	39	43	42	41	38	37	30	30	13	13	18	22	16	20	25.2	43.4
Dir	251	246	241	217	206	245	274	258	258	245	256	257	261	259	256	242	228	316	294	220	243	268	252	260	253.6	257.4
12 Spd	20	20	19	16	16	14	14	13	11	11	9	9	13	14	22	20	19	16	11	7	9	11	12	11	11.7	21.7
Dir	267	275	288	305	283	272	278	270	277	283	321	331	331	316	325	321	308	304	300	214	200	204	232	253	287.3	324.9
13 Spd	11	14	11	8	12	10	11	10	10	15	19	22	22	25	21	16	19	13	8	8	8	10	11	12	11.3	24.8
Dir	251	216	191	68	222	215	205	204	213	206	222	257	261	268	256	281	277	264	233	240	256	288	265	312	247.0	268.0
14 Spd	14	15	16	16	15	12	9	12	12	14	18	20	18	20	24	24	20	18	15	13	11	14	18	18	12.9	24.3
Dir	8	359	98	239	212	268	238	233	247	248	264	260	260	261	271	258	262	276	255	257	241	265	248	244	258.5	258.0
15 Spd	21	19	14	13	11	14	15	14	16	30	35	30	27	24	22	23	16	14	10	8	10	9	11	8	14.8	34.9
Dir	235	235	236	216	218	215	197	190	231	254	265	271	276	282	272	280	295	299	266	266	273	266	286	24	257.7	264.8
16 Spd	7	7	7	8	9	9	8	9	10	10	12	11	13	11	13	14	15	15	11	9	9	8	8	8	7.0	15.2
Dir	1	206	221	37	12	278	317	56	67	67	94	88	101	92	76	102	95	94	79	68	69	82	83	75	77.1	95.3
17 Spd	7	6	7	10	15	5	3	5	7	10	11	10	13	18	17	31	28	28	18	13	14	15	18	17	11.4	31.3
Dir	18	65	60	275	246	240	250	243	244	249	249	213	221	252	259	265	283	292	257	292	258	260	258	291	264.9	265.3
18 Spd	17	16	15	13	14	16	20	18	15	19	20	18	16	12	12	9	6	10	9	6	6	5	6	6	6.3	19.7
Dir	258	284	231	226	237	233	252	260	269	264	277	296	315	323	341	45	63	89	118	59	69	74	62	69	274.6	252.4
19 Spd	7	7	9	12	10	8	9	10	11	10	7	7	9	9	8	7	8	10	10	9	7	8	8	7	3.9	12.0
Dir	75	45	259	324	347	230	275	278	44	60	38	46	57	170	132	100	97	95	78	76	70	71	70	74	60.2	323.5
20 Spd	8	8	8	7	8	7	7	7	5	3	6	8	11	7	3	4	7	6	3	6	11	9	6	1	4.2	10.9
Dir	69	73	330	323	257	311	246	212	243	251	222	246	267	275	308	295	305	306	321	305	322	321	321	296	292.0	322.2
21 Spd	3	6	8	7	12	13	13	13	21	21	18	18	13	11	14	13	9	8	6	5	6	10	9	11	9.7	21.5
Dir	223	239	210	202	204	255	259	259	263	260	255	257	253	255	245	248	195	199	231	260	282	303	320	312	252.7	262.9
22 Spd	9	9	14	13	15	14	10	12	16	18	22	23	25	24	26	26	24	18	22	23	21	21	21	19	18.1	26.0
Dir	309	299	307	308	311	295	277	276	276	271	272	283	276	272	275	272	272	271	269	269	267	264	261	274	277.3	272.3

Peace Airshed Zone Association
Summary of Hourly Averages

Smoky Heights
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	16	15	18	19	16	17	17	18	21	26	27	25	24	22	24	20	17	16	11	14	14	14	14	16	17.8	27.4
Dir	265	267	266	265	264	262	256	256	273	270	282	287	297	296	264	282	260	275	274	254	249	251	257	265	270.0	282.1
24 Spd	16	14	8	6	5	3	5	5	6	5	6	6	7	5	7	8	14	12	10	9	9	10	6	10	2.9	16.1
Dir	285	323	234	198	201	201	203	203	198	227	73	133	116	96	89	83	74	69	65	60	71	77	76	75	89.5	284.6
25 Spd	10	9	8	7	9	7	8	8	8	8	7	7	7	9	10	10	8	7	5	3	4	1	2	2	6.1	10.0
Dir	67	51	64	67	66	60	60	63	68	72	65	77	59	78	76	61	79	59	12	16	261	300	275	52	62.3	67.4
26 Spd	4	4	4	2	2	2	1	3	4	4	6	5	5	6	5	6	8	11	10	10	8	7	7	10	4.4	10.6
Dir	281	229	104	191	345	59	93	162	122	123	136	159	152	130	106	114	114	108	95	92	98	86	96	78	110.9	107.8
27 Spd	9	6	6	5	7	2	6	17	9	14	16	24	28	33	33	31	30	29	15	15	19	21	22	18	15.1	33.3
Dir	28	66	60	246	224	231	260	220	198	229	246	247	257	267	266	267	264	263	262	260	259	248	251	250	255.7	266.5
28 Spd	18	14	16	15	16	13	15	9	13	15	14	19	22	22	16	14	8	12	6	4	11	16	16	15	11.8	21.9
Dir	237	219	333	283	201	186	213	217	207	214	217	218	253	256	235	187	182	188	158	136	208	209	200	217	220.2	252.5
29 Spd	13	10	17	16	16	18	18	16	17	23	19	24	26	21	19	24	24	14	12	5	6	9	6	3	13.4	26.2
Dir	214	224	224	239	247	245	275	246	234	260	255	247	261	262	263	281	297	260	222	224	221	76	34	214	253.0	261.1
30 Spd	4	8	7	6	3	5	6	5	7	8	8	8	8	8	8	8	8	5	5	5	8	6	4	4	4.3	8.4
Dir	230	334	329	230	247	249	236	259	215	245	275	246	261	176	299	317	334	53	318	307	329	282	290	236	277.4	317.0
Spd	6.3	5.6	4.9	6.4	7.3	7.8	7.7	7.9	8.2	9.8	10.3	11.2	12.2	11.5	10.7	11.6	9.6	7.6	5.5	4.7	6.0	5.8	6.9	5.8	Diurnal Average	
Dir	263.8	259.1	262.9	266.3	249.3	250.8	258.8	248.8	251.0	250.4	258.8	260.9	266.8	269.4	273.3	273.9	274.1	282.5	265.2	261.6	252.8	257.2	256.5	263.6		
Spd	28.6	20.2	18.6	21.4	17.3	17.8	25.9	28.2	36.6	35.7	39.4	43.4	42.0	41.2	37.5	36.7	31.8	30.6	26.5	25.0	20.9	23.1	25.4	27.2	Diurnal Maximum	
Dir	251.1	246.2	287.5	217.1	206.5	245.1	273.8	258.4	257.7	244.9	256.4	257.4	260.5	258.5	256.2	242.4	254.5	265.1	260.2	259.8	267.0	256.1	264.8	253.0		

Maximum Speed Value: 43 km/h on Sep 11 12:00
Maximum Daily Speed Average: 25.2 km/h on Sep 11
Maximum Diurnal Speed Average: 12.2 km/h at hour 13

Minimum Speed Value: 1 km/h on Sep 7 02:00
Minimum Daily Speed Average: 1.6 km/h on Sep 6
Minimum Diurnal Speed Average: 4.7 km/h at hour 20

Monthly Average Velocity: 7.88 km/h 262.23 deg

Speed Percentiles: $P_1 = 1.6$ $P_{10} = 4.4$ $Q_1 = 6.8$ Median = 10.2 $Q_3 = 15.8$ $P_{90} = 21.9$ $P_{99} = 36.5$

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

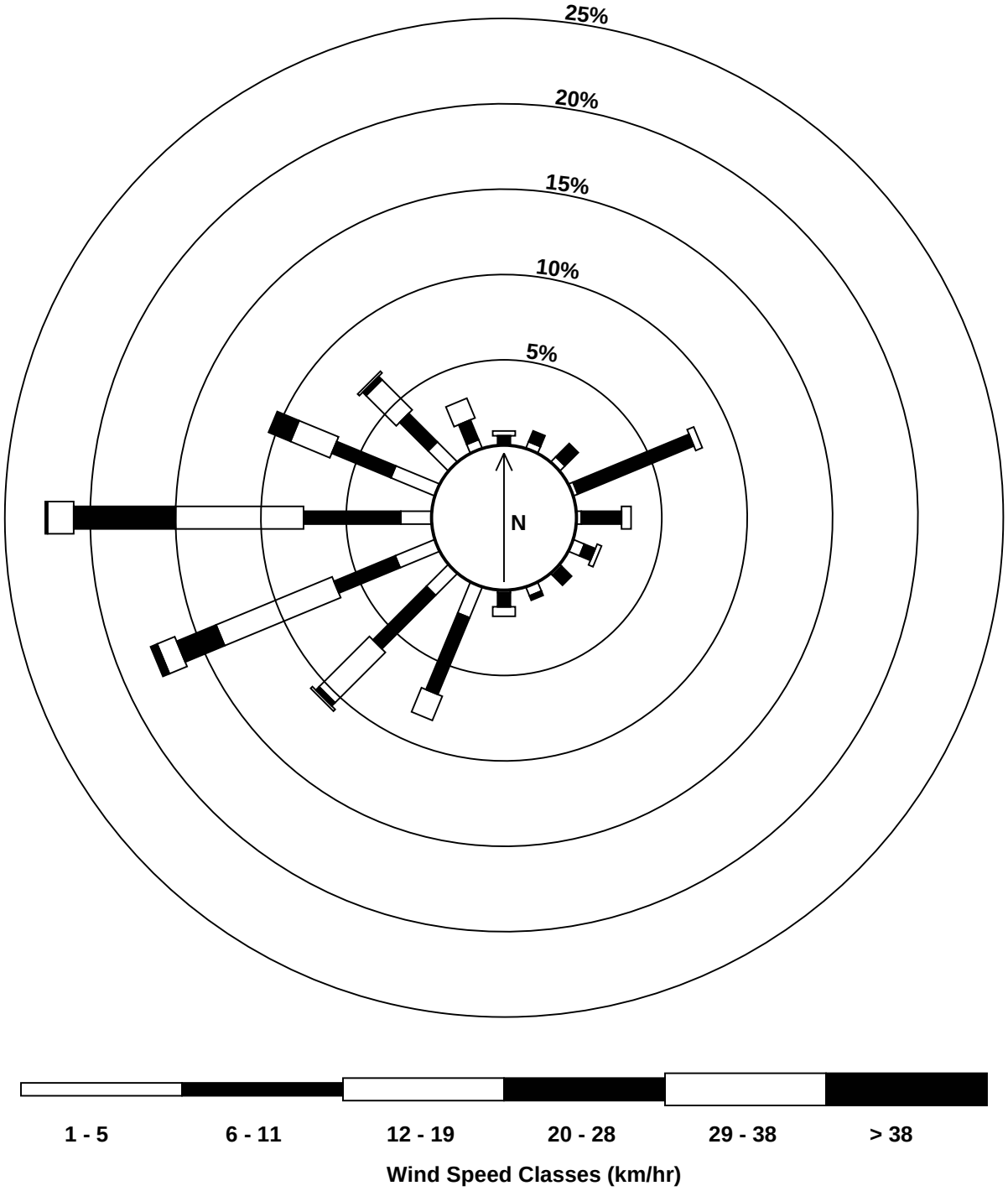
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Percentage Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	0.83	1.53	0.56	0.00	0.00	0.00	2.92
NorthEast	0.42	5.14	0.00	0.00	0.00	0.00	5.56
East	0.56	6.25	1.53	0.00	0.00	0.00	8.33
SouthEast	0.42	1.81	0.00	0.00	0.00	0.00	2.22
South	1.25	2.64	1.53	0.00	0.00	0.00	5.42
SouthWest	3.06	9.44	7.64	1.11	0.42	0.00	21.67
West	4.86	9.31	14.58	8.75	2.92	0.56	40.97
NorthWest	2.36	5.28	4.31	0.83	0.14	0.00	12.92
Total	13.75	41.39	30.14	10.69	3.47	0.56	100.00

Wind Rose for WS at Smoky Heights

September 2008



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

Smoky Heights - Wind Speed (WS) - km/h
September 1, 2008 to October 1, 2008

Maximum Speed: 44 km/h on Sep 11 12:00

Maximum Daily Speed Average: 27.4 km/h on Sep 11

Minimum Speed: 2 km/h on Sep 25 22:00

Minimum Daily Speed Average: 4.8 km/h on Sep 6

Maximum Diurnal Speed Average: 17.3 km/h at hour 16

Minimum Diurnal Speed Average: 9.1 km/h at hour 20

Monthly Average Speed: 12.39 km/h

Percentiles: $P_1 = 2.6$ $P_{10} = 5.1$ $Q_1 = 7.2$ Median = 10.5 $Q_3 = 16.0$ $P_{90} = 22.1$ $P_{99} = 36.5$

Hours in Service: 720
Hours of Data: 720
Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	6	6	5	6	7	8	8	10	11	13	14	15	18	16	16	21	13	9	10	9	5	7	7	11	10.4	20.8
2-Sep	12	11	11	9	8	9	9	10	9	10	11	16	20	18	23	24	27	20	17	15	14	13	14	14	14.4	26.7
3-Sep	17	16	16	12	11	11	10	10	11	7	8	6	8	11	12	16	16	14	9	7	8	10	15	14	11.5	16.8
4-Sep	14	16	11	9	8	10	10	11	16	16	17	13	16	7	4	11	13	11	7	2	6	9	8	4	10.4	16.5
5-Sep	3	5	5	5	6	7	4	4	5	6	6	7	7	5	9	6	6	9	4	5	5	5	5	5	5.6	8.8
6-Sep	4	3	3	4	5	3	4	5	4	4	4	3	5	8	8	6	4	6	5	5	7	6	5	4	4.8	8.4
7-Sep	5	3	8	7	10	5	7	11	10	9	5	5	8	7	10	7	8	7	5	3	3	4	5	5	6.5	10.7
8-Sep	7	9	8	9	9	10	8	10	7	8	11	17	19	13	11	17	11	8	6	6	9	4	8	11	9.8	19.4
9-Sep	7	11	11	12	12	10	18	16	16	15	15	14	14	15	18	20	15	12	5	4	6	6	7	5	11.8	19.9
10-Sep	6	8	7	7	10	9	7	7	12	12	12	23	25	31	31	36	32	31	27	25	20	23	25	27	18.8	36.1
11-Sep	29	20	14	21	18	17	26	28	37	36	40	44	42	41	38	37	31	34	15	13	19	22	16	20	27.4	43.6
12-Sep	20	20	19	16	17	14	14	13	11	11	10	10	14	15	22	20	19	16	11	8	10	12	12	11	14.3	22.1
13-Sep	12	14	12	8	12	10	11	10	11	15	19	22	23	25	21	17	20	13	8	8	9	10	11	12	14.0	25.4
14-Sep	14	15	16	16	15	12	9	12	12	14	18	21	19	20	25	25	20	19	15	13	11	14	18	18	16.3	24.6
15-Sep	22	19	15	13	11	14	15	14	17	30	35	31	28	25	23	24	17	14	10	8	10	9	12	8	17.7	35.0
16-Sep	7	7	7	8	9	10	8	9	10	10	12	12	13	12	13	14	15	15	11	9	9	8	8	8	10.2	15.4
17-Sep	7	6	7	10	15	6	3	5	7	10	11	11	14	18	18	32	28	28	18	13	15	15	18	17	13.9	31.7
18-Sep	17	17	15	13	14	16	20	18	15	19	21	19	17	12	13	10	8	11	9	6	6	5	6	6	13.0	21.4
19-Sep	7	7	9	12	11	9	9	10	11	10	7	8	9	10	9	8	8	10	10	9	8	9	8	8	8.9	12.0
20-Sep	8	8	8	7	8	7	7	7	6	5	7	9	11	8	5	5	7	6	3	7	11	10	6	4	7.1	11.1
21-Sep	4	7	8	7	12	13	13	13	22	21	18	18	13	11	14	13	9	8	6	6	6	10	9	11	11.4	21.6
22-Sep	9	10	14	13	15	14	10	13	16	18	22	24	25	25	26	26	24	18	22	23	21	21	21	19	18.8	26.3
23-Sep	16	15	18	19	16	17	17	18	21	26	28	25	25	22	25	21	18	16	11	14	14	14	14	16	18.5	27.6
24-Sep	16	14	9	6	6	4	5	5	6	5	6	7	8	6	8	9	15	12	10	10	10	10	8	10	8.5	16.2
25-Sep	10	9	8	7	9	7	8	8	8	8	8	7	8	9	10	10	9	7	5	3	4	2	2	2	7.0	10.2
26-Sep	4	4	4	3	3	2	2	3	5	4	7	5	7	7	6	7	8	11	10	10	8	7	7	11	6.0	11.1
27-Sep	10	6	6	6	7	5	7	18	9	14	16	24	28	33	34	31	30	29	15	15	19	21	22	18	17.7	33.6
28-Sep	18	15	16	15	16	13	15	9	13	15	15	19	22	22	17	14	9	12	8	5	11	17	16	15	14.4	22.2
29-Sep	13	10	17	16	16	18	18	16	17	23	19	24	26	21	20	24	24	14	12	6	6	10	7	5	16.0	26.3
30-Sep	5	8	7	7	4	5	6	5	7	8	8	8	9	8	8	9	8	5	5	5	8	7	5	4	6.7	8.7
	11.1	10.6	10.3	10.2	10.6	9.9	10.3	10.9	12.1	13.4	14.4	15.6	16.7	16.1	16.5	17.3	15.7	14.2	10.4	9.1	9.9	10.6	10.9	10.8	Diurnal Average	
	28.7	20.3	18.6	21.4	18.1	17.9	26.0	28.3	36.7	35.8	39.6	43.6	42.2	41.4	37.8	37.1	31.9	34.2	26.7	25.3	20.9	23.2	25.4	27.3	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
September 1, 2008 to October 1, 2008

Maximum Value: 91.7 deg on Sep 9 01:00

Minimum Value: 2.1 deg on Sep 15 02:00

Percentiles: P_1 = 2.8 P_{10} = 4.7 Q_1 = 6.9 Median = 10.9 Q_3 = 19.0 P_{90} = 37.5 P_{99} = 79.2

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	10	34	39	17	14	10	8	7	10	13	15	14	12	18	20	12	12	13	8	9	12	13	5	10	38.9
2-Sep	12	6	10	7	7	6	7	6	8	10	18	26	14	14	9	14	8	6	3	7	3	6	11	4	26.2
3-Sep	3	5	4	4	9	5	10	11	6	39	30	67	60	25	33	18	16	13	10	15	9	9	4	3	67.0
4-Sep	13	4	27	12	7	7	9	9	9	8	9	14	13	49	88	19	15	23	12	60	10	8	17	45	88.0
5-Sep	52	48	38	23	12	20	44	57	56	16	19	41	82	65	41	61	22	10	23	73	11	24	26	13	82.3
6-Sep	16	49	49	55	34	32	72	28	18	70	68	75	67	33	28	51	50	27	22	18	4	40	20	63	74.6
7-Sep	17	83	7	14	24	16	5	7	15	16	61	81	49	52	44	29	60	27	33	29	41	23	11	12	83.1
8-Sep	10	15	7	8	3	3	10	8	20	11	19	31	12	15	22	33	48	16	56	64	16	85	22	12	84.7
9-Sep	92	24	14	31	6	8	4	8	6	6	10	12	15	13	16	16	17	14	20	31	12	22	27	23	91.7
10-Sep	28	6	8	3	6	6	16	13	13	6	17	12	10	12	8	12	6	5	7	9	8	5	4	5	28.2
11-Sep	3	5	9	3	17	21	4	4	4	5	6	5	6	6	7	8	12	31	34	11	16	11	5	4	33.8
12-Sep	2	8	3	8	5	7	8	5	6	12	24	26	27	26	12	8	8	13	11	9	8	5	7	11	26.6
13-Sep	22	5	14	16	7	6	9	7	14	12	7	10	12	12	14	12	12	9	11	17	24	11	15	6	23.7
14-Sep	3	5	5	4	3	6	5	4	5	11	8	15	12	12	11	9	6	10	15	8	5	7	4	5	14.7
15-Sep	6	2	12	12	10	8	9	7	18	4	6	8	11	16	17	19	10	8	6	21	17	17	30	20	29.9
16-Sep	10	11	13	9	9	7	7	7	6	10	12	11	14	23	16	12	9	8	6	6	13	11	9	8	23.3
17-Sep	7	12	29	16	6	30	35	19	14	10	11	20	23	8	12	9	8	7	3	5	5	6	10	3	35.4
18-Sep	7	6	7	7	5	6	4	5	10	10	24	14	12	23	22	25	46	9	10	16	11	11	6	8	45.7
19-Sep	8	6	5	5	9	13	8	10	7	14	39	27	27	23	31	23	18	11	6	8	16	8	7	12	39.4
20-Sep	9	11	9	10	8	8	8	8	24	48	24	18	17	44	61	40	19	14	39	33	9	33	20	85	84.5
21-Sep	46	32	10	19	6	3	4	8	6	5	5	5	11	8	9	7	9	14	20	42	11	5	15	7	45.7
22-Sep	10	9	7	5	5	5	11	10	7	6	6	7	7	7	11	8	10	10	6	3	2	3	3	3	11.1
23-Sep	4	7	3	3	4	4	4	3	4	4	7	9	12	11	15	19	20	7	9	5	4	5	6	2	19.5
24-Sep	3	4	20	14	13	40	25	24	19	27	23	21	24	51	38	25	11	8	7	8	10	18	51	9	50.9
25-Sep	11	9	11	14	6	8	6	10	9	11	13	13	15	12	11	9	11	13	8	13	14	54	35	30	53.7
26-Sep	9	13	13	24	31	29	68	24	23	41	21	26	42	24	30	18	16	7	8	9	15	15	18	31	67.9
27-Sep	18	13	10	42	16	73	53	8	14	5	7	11	6	11	7	6	8	6	8	4	6	3	2	3	72.8
28-Sep	3	12	5	6	3	5	7	7	6	8	11	10	8	8	11	8	25	6	41	31	7	8	5	6	41.1
29-Sep	6	19	9	8	8	5	4	6	7	5	10	4	6	9	13	9	5	13	11	25	16	15	46	52	51.8
30-Sep	31	16	17	21	41	23	10	22	8	9	12	17	17	19	19	15	15	11	17	19	11	20	41	48	47.6
	91.7	83.1	49.4	54.8	40.5	72.8	71.8	56.9	56.1	70.5	68.3	80.5	82.3	65.1	88.0	60.8	60.2	31.3	55.9	73.2	41.4	84.7	50.9	84.5	

PASZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.9 ppb on Sep 20 01:00
Maximum Daily Average: 0.7 ppb on Sep 20

Minimum Value: 0 ppb on Sep 11 16:00
Maximum Diurnal Average: 0.3 ppb at hour 11
Monthly Average: 0.25 ppb

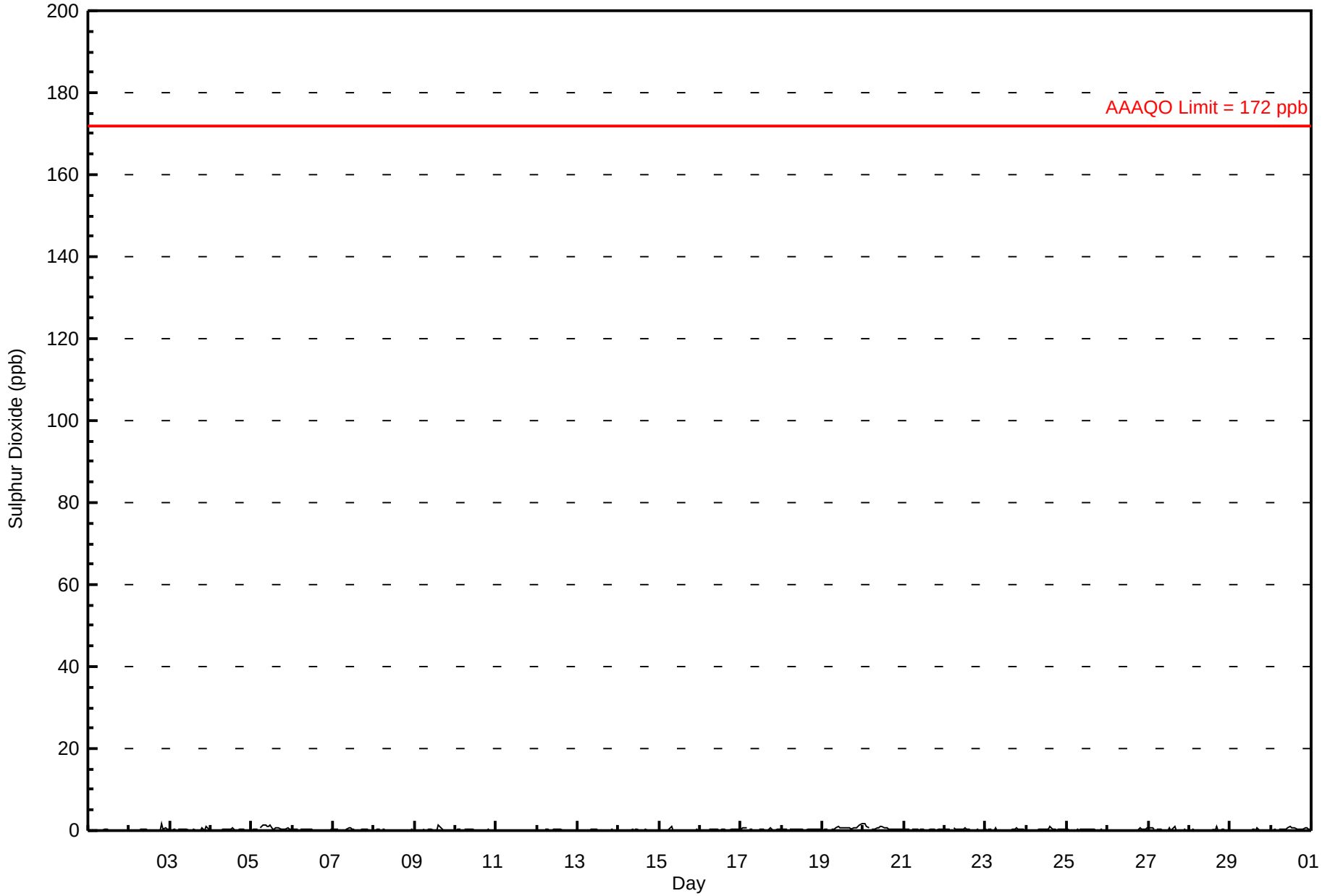
Minimum Daily Average: 0.1 ppb on Sep 11
Minimum Diurnal Average: 0.2 ppb at hour 19
Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.5$ $P_{99} = 1.5$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	33
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0.2	1.8
3-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0.3	1.1
4-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6
5-Sep	0	0	0	0	A	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	1	0	0	0.7	1.5
6-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
7-Sep	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
8-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	P	0	0	0	0	0	0	0	0	0	0.1	0.2
9-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.2	1.5
10-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
11-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
12-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
13-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
15-Sep	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
16-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
17-Sep	0	1	1	1	A	0	0	0	C	C	C	0	0	0	0	0	0	1	0	0	0	0	0	0	0.3	0.8
18-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
19-Sep	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	2	0.6	1.7
20-Sep	2	2	1	1	A	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.7	1.9
21-Sep	0	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
22-Sep	0	0	0	0	A	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
23-Sep	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.2	0.6
24-Sep	0	0	0	0	A	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0.3	1.0
25-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
26-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.2	0.5
27-Sep	1	1	1	0	A	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0.3	0.9
28-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	1.0
29-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	0.6
30-Sep	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0.4	0.9
	0.2	0.2	0.2	0.2	--	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	Diurnal Average	
	1.9	1.8	1.0	0.7	--	0.8	0.9	1.5	1.4	1.0	1.2	1.3	0.8	0.7	1.5	0.9	1.0	0.8	0.5	1.8	0.8	1.1	1.5	1.7	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 SO_2 at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Beaverlodge - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 7.8 ppb on Sep 27 16:00

Maximum Daily Average: 1.0 ppb on Sep 5

Minimum Value: 0 ppb on Sep 11 16:00

Minimum Daily Average: 0.2 ppb on Sep 11

Maximum Diurnal Average: 0.8 ppb at hour 20

Minimum Diurnal Average: 0.3 ppb at hour 4

Monthly Average: 0.45 ppb

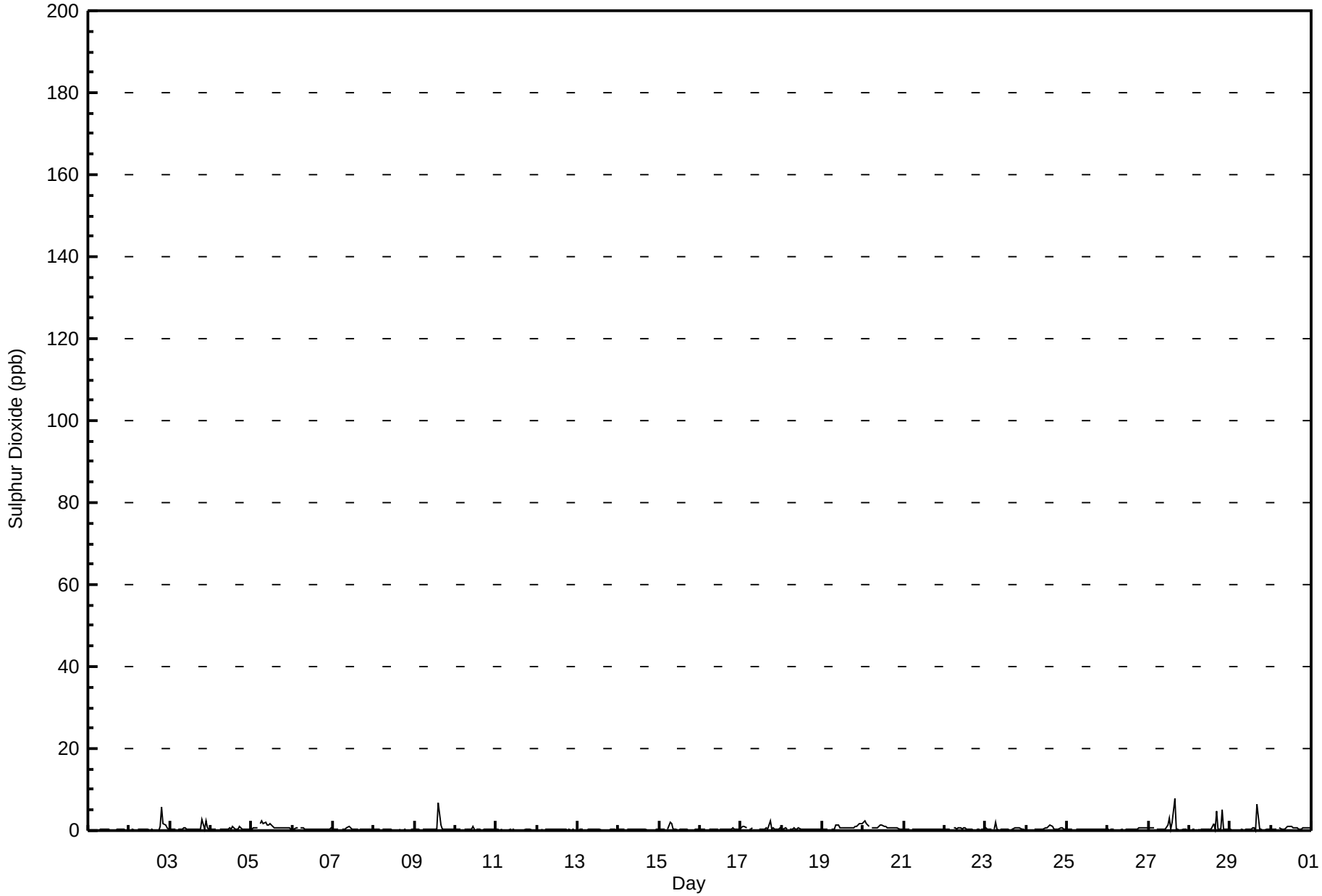
Percentiles: P_1 = 0.1 P_{10} = 0.2 Q_1 = 0.2 Median = 0.3 Q_3 = 0.5 P_{90} = 0.8 P_{99} = 2.3

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	33
Percent Operational Time:	99.9

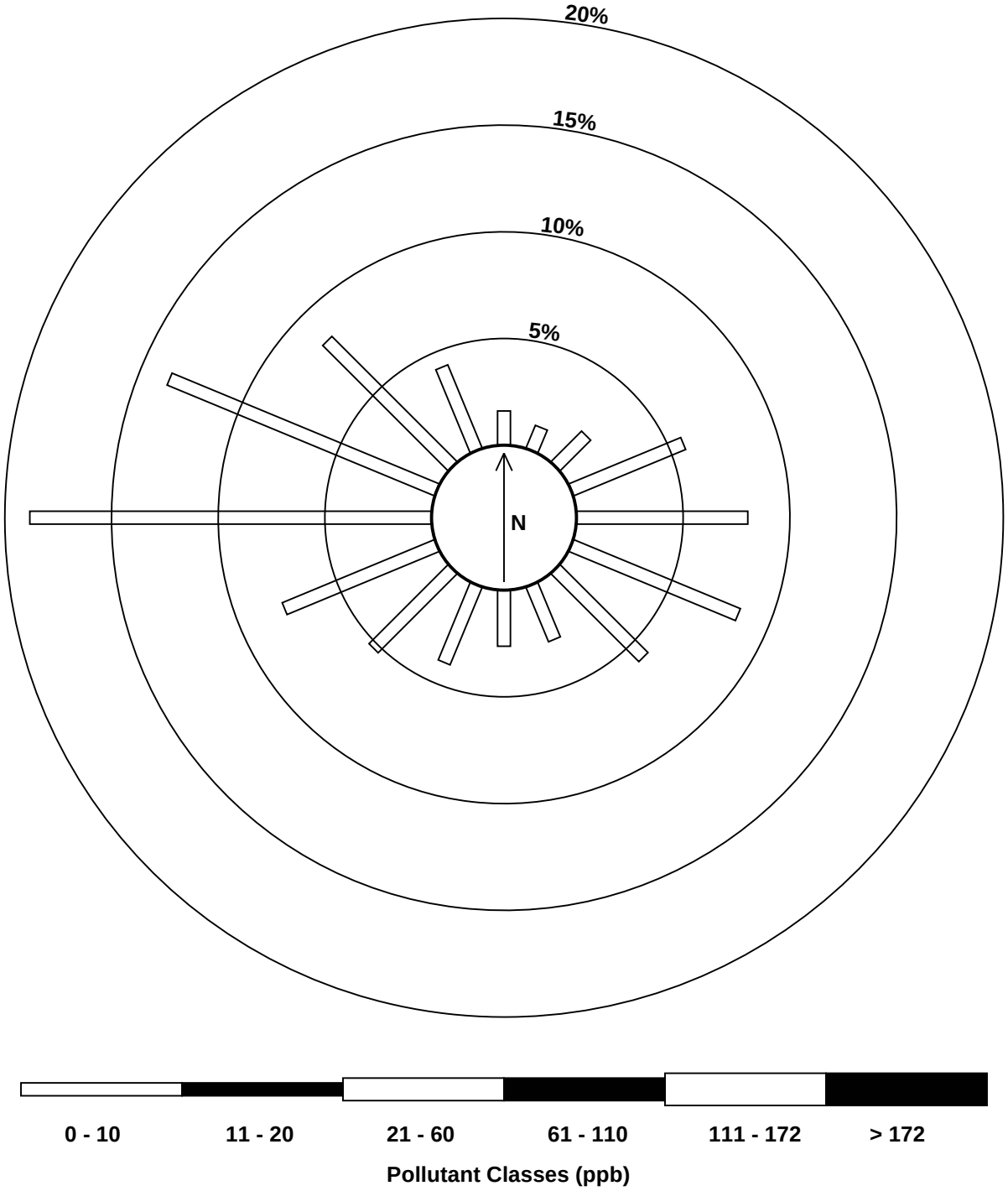
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
2-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	2	1	1	0	0.6	5.7
3-Sep	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3	0	2	1	0	0.5	2.6
4-Sep	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0.3	0.9
5-Sep	0	1	1	1	A	2	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1.0	2.3
6-Sep	1	0	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.8
7-Sep	0	0	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.0
8-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	P	0	0	0	0	0	0	0	0	0	0.2	0.4
9-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	0	0	0	0.6	6.9
10-Sep	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
11-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
12-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
13-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
14-Sep	0	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
15-Sep	0	0	0	0	A	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9
16-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	0.6
17-Sep	1	1	1	1	A	0	0	1	C	C	C	0	0	0	0	1	0	2	0	1	0	0	0	1	0.6	2.3
18-Sep	0	0	1	0	A	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
19-Sep	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	0.8	1.8
20-Sep	2	2	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.9	2.4
21-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.5
22-Sep	0	0	0	0	A	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
23-Sep	1	0	0	0	A	0	2	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0.4	1.9
24-Sep	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	1	1	0	0	0.4	1.3
25-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
26-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.3	0.8
27-Sep	1	1	1	1	A	0	0	0	0	0	0	1	3	0	2	8	0	0	0	0	0	0	0	0	0.9	7.8
28-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	2	1	5	0	0	5	0	0	0	0	0.7	5.0
29-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	6	0	0	0	0	0	0	0	0.5	6.4
30-Sep	0	0	0	0	A	1	0	0	0	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0.6	1.1
	0.3	0.4	0.4	0.3	--	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.7	0.6	0.7	0.4	0.3	0.8	0.4	0.4	0.4	0.4	Diurnal Average	
	2.1	2.4	1.6	1.0	--	1.6	2.3	1.9	1.9	1.3	1.5	1.7	3.0	1.2	6.9	7.8	6.4	2.3	0.9	5.7	1.7	2.3	1.7	1.8	Diurnal Maximum	

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

Hourly Maximums for SO_2 at Beaverlodge
September 2008



Pollutant Rose for SO_2 at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Nitrogen Dioxide (NO_2) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 12.6 ppb on Sep 20 07:00
Maximum Daily Average: 4.8 ppb on Sep 30

Minimum Value: 0 ppb on Sep 13 16:00
Maximum Diurnal Average: 5.1 ppb at hour 7
Monthly Average: 2.54 ppb

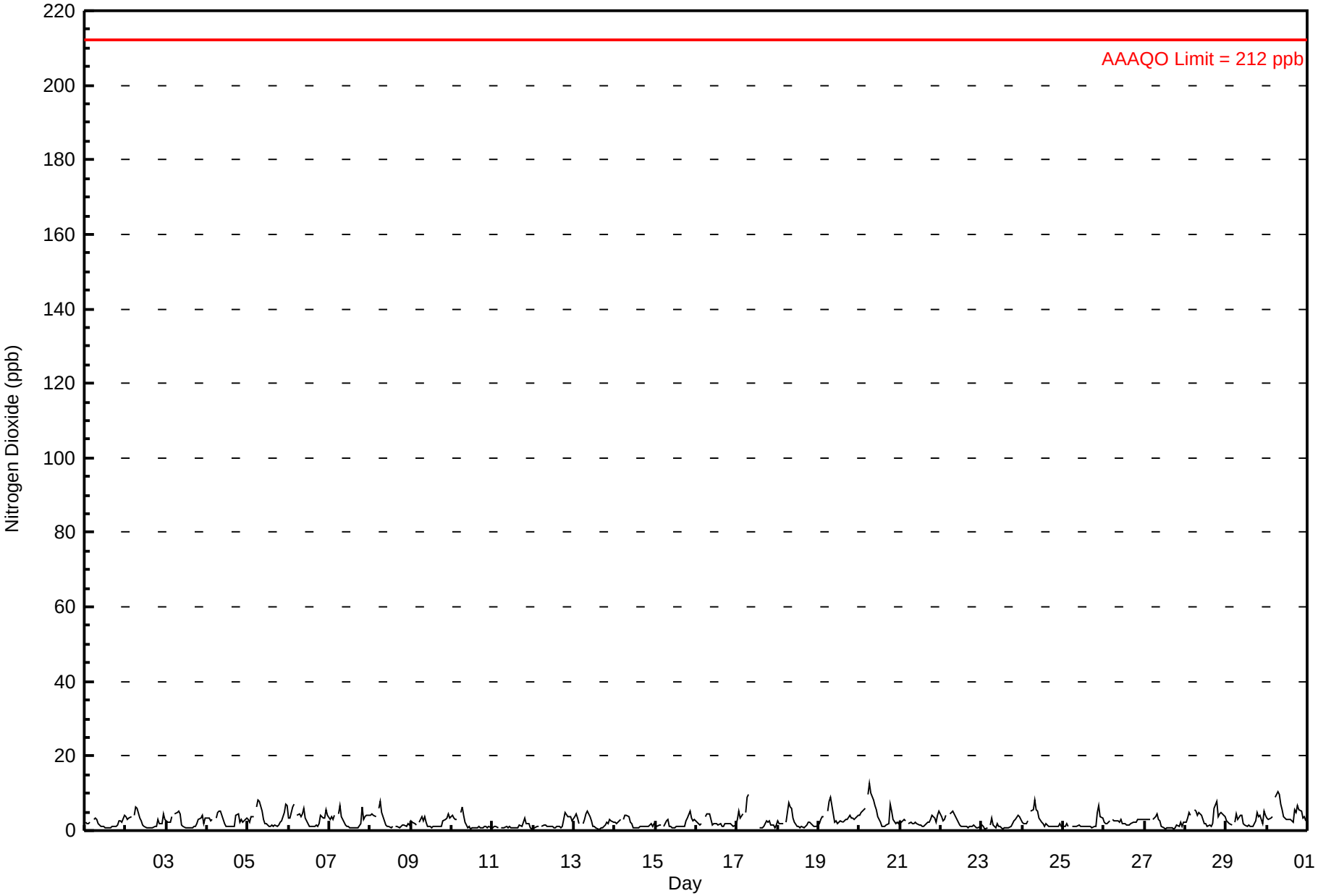
Minimum Daily Average: 1.1 ppb on Sep 11
Minimum Diurnal Average: 1.0 ppb at hour 14
Percentiles: P_1 = 0.5 P_{10} = 0.9 Q_1 = 1.1 Median = 2.0 Q_3 = 3.5 P_{90} = 5.0 P_{99} = 8.9

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	2	2	2	2	A	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	3	3	2	4	1.8	4.2
2-Sep	4	3	3	4	A	4	6	6	3	3	2	1	1	1	1	1	1	1	1	3	2	2	4	3	2.5	6.3
3-Sep	3	2	2	4	A	4	5	5	5	2	1	1	1	1	1	1	1	1	2	3	3	4	2	3	2.4	5.2
4-Sep	3	4	3	3	A	3	5	5	5	3	2	1	1	1	1	1	1	4	4	2	3	2	3	3	2.8	5.3
5-Sep	3	2	4	4	A	6	8	8	5	3	2	2	1	1	2	1	1	1	2	2	3	5	7	7	3.4	8.1
6-Sep	4	3	6	7	A	4	5	4	4	6	3	2	1	1	1	1	1	1	2	4	4	3	6	4	3.4	7.2
7-Sep	3	4	3	4	A	4	7	4	3	2	1	1	1	1	1	1	1	1	2	6	3	4	4	4	2.7	6.8
8-Sep	4	4	4	4	A	6	8	5	2	1	1	1	1	1	P	1	1	1	1	1	1	1	2	2	2.5	8.0
9-Sep	3	2	2	2	A	2	4	3	4	2	1	1	1	1	1	1	1	1	1	3	3	3	4	3	2.1	4.4
10-Sep	4	3	3	3	A	5	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	6.4
11-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	2	1	0	1.1	3.2
12-Sep	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	3	5	4	4	4	3	1.7	4.9
13-Sep	4	4	3	2	A	2	3	4	5	4	2	1	1	1	0	0	1	1	1	2	2	3	3	2	2.3	5.3
14-Sep	2	2	2	3	A	3	4	4	4	2	2	1	1	1	1	1	1	1	1	1	1	2	1	2	1.8	4.2
15-Sep	1	1	1	2	A	1	3	3	1	1	1	1	1	1	1	1	1	1	3	4	5	4	3	3	1.9	5.2
16-Sep	2	2	2	2	A	4	5	4	4	2	2	2	2	1	2	1	1	2	2	2	2	2	1	1	2.1	4.7
17-Sep	3	5	3	4	A	5	9	10	C	C	C	C	C	1	1	1	1	3	2	3	1	1	1	1	3.1	9.5
18-Sep	2	2	2	2	A	2	7	6	6	3	2	1	1	1	1	1	1	1	2	2	2	1	1	1	2.3	7.5
19-Sep	2	3	4	4	A	5	8	9	7	2	3	2	2	2	2	3	3	3	4	4	3	3	3	4	3.7	8.8
20-Sep	4	5	5	6	A	10	13	10	8	7	5	4	2	1	1	1	1	2	7	5	3	2	2	2	4.6	12.6
21-Sep	2	2	3	3	A	2	2	2	2	2	2	2	1	1	1	2	2	2	3	4	3	2	4	5	2.4	5.2
22-Sep	4	2	3	4	A	4	5	5	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2.2	5.1
23-Sep	2	1	0	1	A	1	3	2	1	2	1	1	1	1	1	1	1	1	2	3	3	4	4	3	1.6	4.3
24-Sep	2	2	2	3	A	5	6	8	6	5	4	2	2	1	2	1	1	1	1	1	1	1	2	1	2.6	8.2
25-Sep	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	7	4	3	1.7	6.7
26-Sep	2	2	2	3	A	3	3	3	3	2	3	2	2	1	2	2	2	2	2	2	3	3	3	3	2.3	2.9
27-Sep	3	3	3	3	A	3	4	4	3	3	1	1	1	1	1	1	1	0	1	1	1	2	1	2	1.9	4.3
28-Sep	2	3	5	4	A	6	5	4	5	4	3	2	2	1	1	1	2	6	8	4	5	5	4	4	3.7	7.7
29-Sep	3	2	2	2	A	2	5	3	4	4	2	2	1	1	1	1	1	3	5	4	4	2	5	4	2.7	5.3
30-Sep	3	3	3	4	A	9	10	10	7	6	4	3	3	3	3	2	6	5	7	6	5	4	4	3	4.8	10.3
	2.6	2.6	2.7	2.9	--	3.7	5.1	4.7	3.8	2.7	2.0	1.4	1.2	1.0	1.1	1.1	1.4	1.7	2.5	2.8	2.7	2.7	2.9	2.8	Diurnal Average	
	4.3	5.4	6.4	7.2	--	9.8	12.6	9.9	8.2	6.8	5.5	3.9	2.9	2.9	2.9	2.7	5.7	6.1	7.7	6.4	5.3	6.7	7.2	6.9	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 NO_2 at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Beaverlodge - Nitrogen Dioxide (NO_2) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 22.2 ppb on Sep 5 15:00

Maximum Daily Average: 7.0 ppb on Sep 30

Minimum Value: 1 ppb on Sep 11 06:00

Minimum Daily Average: 2.5 ppb on Sep 11

Maximum Diurnal Average: 8.1 ppb at hour 7

Minimum Diurnal Average: 1.7 ppb at hour 14

Monthly Average: 4.13 ppb

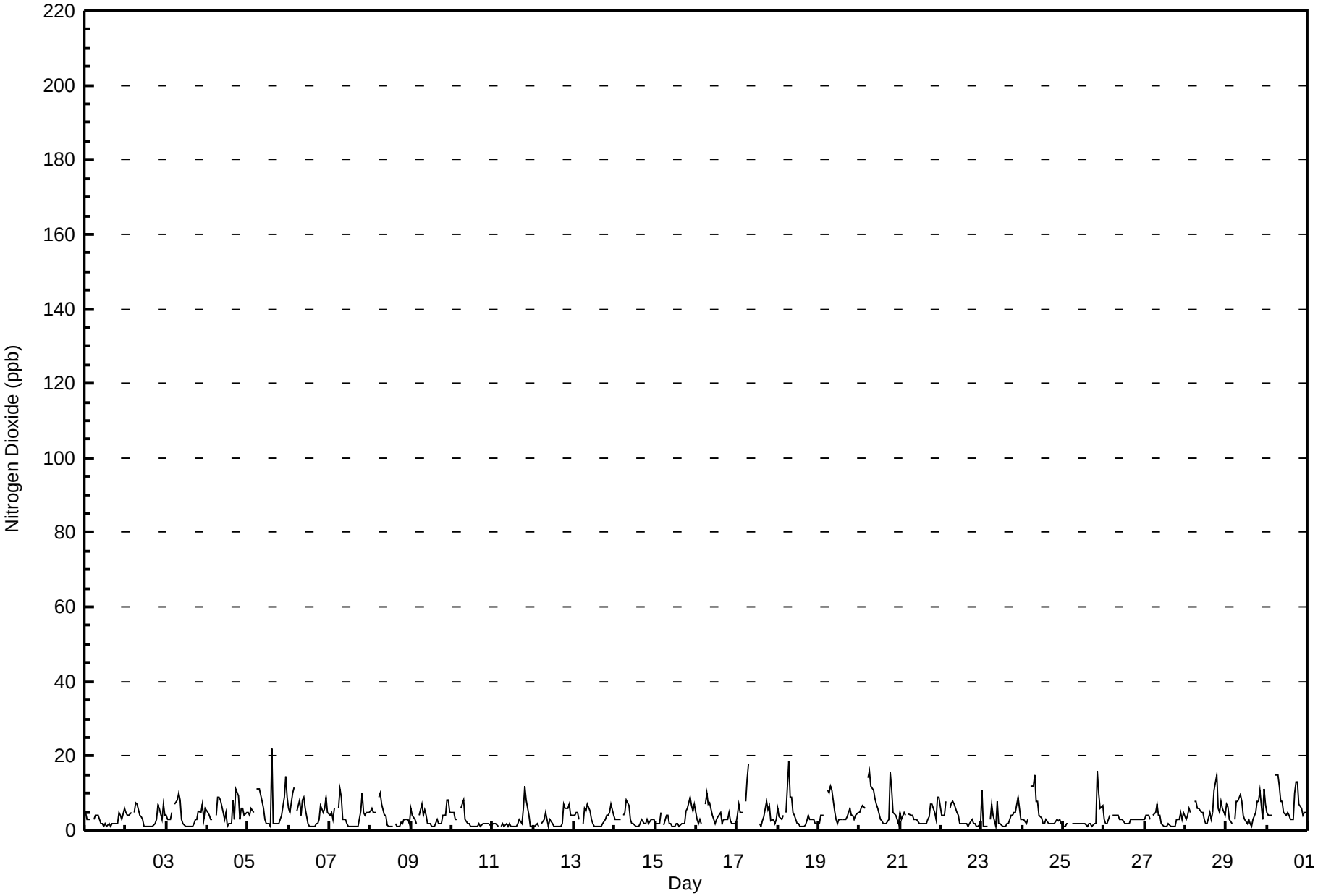
Percentiles: P_1 = 1.0 P_{10} = 1.0 Q_1 = 2.0 Median = 3.0 Q_3 = 5.0 P_{90} = 8.0 P_{99} = 14.8

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

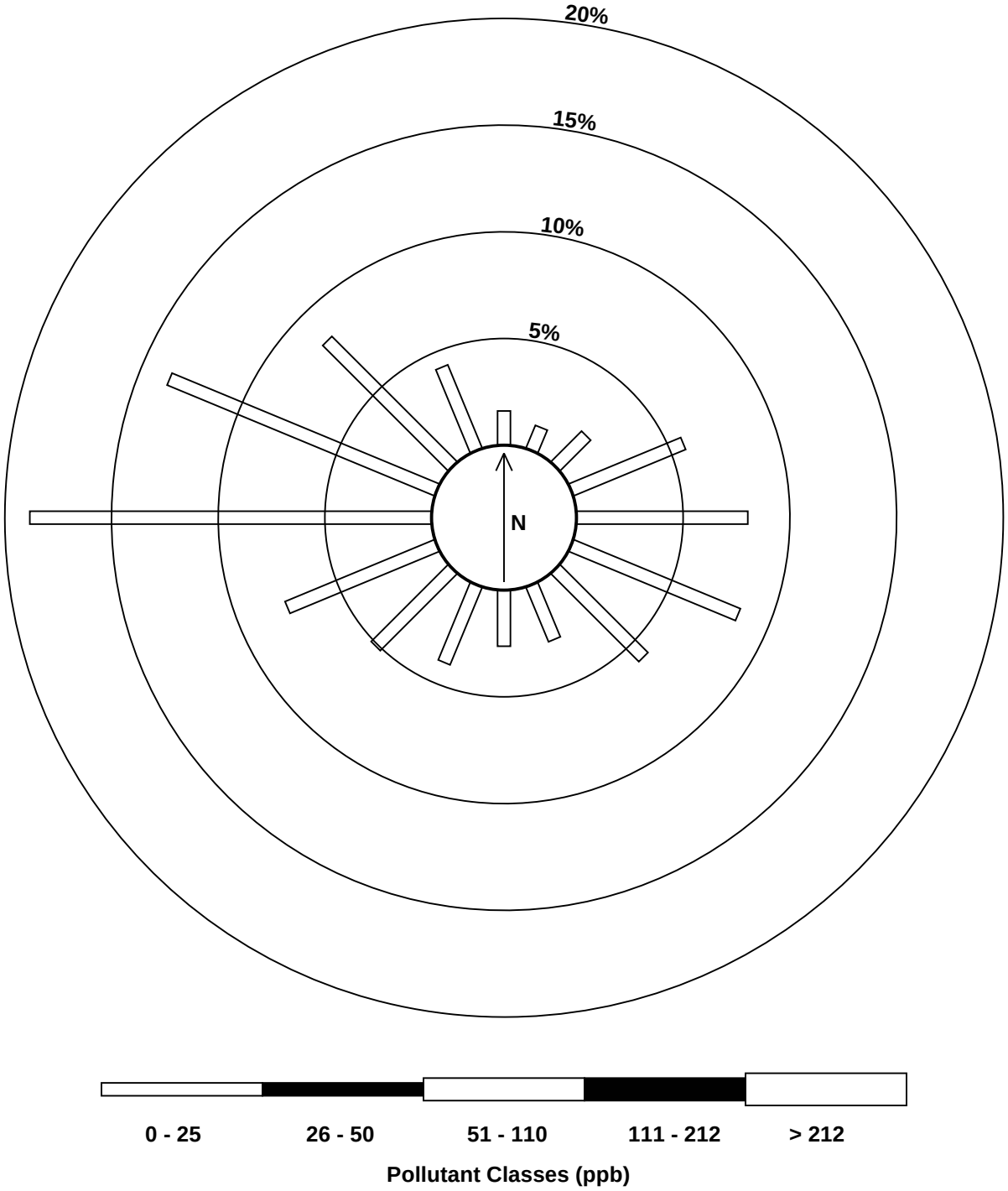
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	5	3	3	3	A	3	4	4	4	2	2	1	2	1	2	1	2	2	2	2	5	4	3	6	2.8	6.0
2-Sep	5	4	4	5	A	5	7	7	4	4	3	1	1	1	1	1	1	2	3	7	6	3	7	4	3.7	7.4
3-Sep	4	3	3	5	A	7	8	10	8	3	2	1	1	1	1	1	2	3	3	5	5	7	3	6	4.0	10.2
4-Sep	5	4	3	3	A	4	9	9	8	5	3	5	1	2	2	8	3	11	9	3	6	6	4	5	5.2	11.1
5-Sep	5	4	6	5	A	11	11	11	8	6	3	2	2	1	22	2	2	2	2	3	4	9	14	9	6.3	22.2
6-Sep	6	5	10	11	A	5	8	4	8	9	6	2	1	1	1	1	2	2	3	7	5	6	9	5	5.1	11.4
7-Sep	4	5	3	6	A	6	11	9	3	3	2	1	1	1	1	1	1	1	5	10	5	4	5	5	4.1	11.3
8-Sep	5	6	5	5	A	9	10	7	4	4	1	1	1	1	P	2	1	1	2	2	3	3	3	2	3.6	10.1
9-Sep	6	4	3	2	A	4	7	4	6	4	2	2	1	1	1	3	2	2	2	4	4	8	8	5	3.7	8.0
10-Sep	5	5	3	3	A	6	7	8	3	2	2	1	1	1	1	1	2	1	2	2	2	2	2	1	2.7	8.0
11-Sep	2	2	2	1	A	1	2	1	2	1	2	1	1	1	1	2	3	2	6	12	8	4	1	1	2.5	12.1
12-Sep	1	1	2	1	A	2	3	5	3	1	3	2	1	1	1	1	1	2	7	6	6	7	4	4	2.8	7.1
13-Sep	4	5	5	3	A	2	6	5	7	5	3	2	1	1	1	1	1	2	3	4	4	5	7	4	3.5	7.0
14-Sep	3	3	3	3	A	4	5	8	7	3	2	2	1	1	1	2	3	2	2	3	2	3	3	3	3.0	8.0
15-Sep	2	2	2	5	A	2	4	4	2	2	1	1	2	2	1	2	2	2	5	6	9	7	5	7	3.3	9.1
16-Sep	3	2	3	2	A	7	10	7	8	4	3	2	3	4	5	2	3	3	3	5	3	2	2	2	3.8	10.0
17-Sep	4	7	5	5	A	8	14	18	C	C	C	C	C	2	1	3	4	8	6	7	3	3	2	3	5.6	17.8
18-Sep	6	4	3	4	A	5	19	9	9	5	4	2	2	1	1	1	2	3	4	3	3	3	2	2	4.1	18.6
19-Sep	2	4	4	4	A	11	10	12	11	5	3	2	3	3	3	3	3	4	6	4	4	3	4	5	4.9	11.9
20-Sep	5	6	7	6	A	14	16	12	11	9	7	6	3	3	2	2	2	3	16	11	5	4	3	2	6.6	16.0
21-Sep	5	3	5	4	A	4	4	4	3	3	3	2	2	2	2	2	3	4	7	7	5	3	9	9	4.1	9.0
22-Sep	4	4	4	8	A	6	8	8	7	5	4	2	2	2	2	2	1	2	3	2	2	1	1	2	3.5	8.0
23-Sep	11	1	1	1	A	3	7	4	1	8	2	2	1	1	1	2	2	4	4	5	5	9	6	3	3.6	11.0
24-Sep	3	3	2	3	A	12	12	15	8	8	4	3	2	2	3	2	2	2	2	2	3	3	3	2	4.3	14.7
25-Sep	1	1	2	2	A	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	16	10	6	7	3.1	16.0
26-Sep	3	2	2	4	A	4	4	4	4	3	3	3	2	2	2	2	3	3	3	3	3	3	3	3	2.9	4.0
27-Sep	3	4	4	3	A	4	5	7	4	4	2	1	1	1	2	1	1	1	1	3	3	5	3	5	2.9	7.0
28-Sep	3	4	6	5	A	8	8	6	6	5	5	3	2	2	5	3	5	11	15	6	5	8	6	4	5.7	15.0
29-Sep	7	6	3	2	A	3	8	8	10	8	4	3	2	3	2	1	3	5	8	8	11	3	11	7	5.4	11.0
30-Sep	5	4	4	4	A	15	15	12	8	8	5	4	5	4	3	3	10	13	13	7	6	4	5	5	7.0	15.0
	4.2	3.7	3.7	3.9	--	5.9	8.1	7.5	5.8	4.5	3.0	2.1	1.7	1.7	2.5	2.0	2.4	3.4	5.0	5.0	5.0	4.7	4.8	4.2	Diurnal Average	
	11.0	7.0	10.0	11.4	--	15.0	18.6	17.8	11.0	9.0	7.0	6.0	5.0	4.0	22.2	8.1	10.0	13.0	15.6	12.1	16.0	9.9	14.5	9.0	Diurnal Maximum	

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

Hourly Maximums for NO_2 at Beaverlodge
September 2008



Pollutant Rose for NO_2 at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Nitrogen Oxide (NO) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 16.6 ppb on Sep 30 08:00

Maximum Daily Average: 2.7 ppb on Sep 30

Minimum Value: 0 ppb on Sep 1 02:00

Maximum Diurnal Average: 2.8 ppb at hour 8

Monthly Average: 0.49 ppb

Minimum Daily Average: 0.0 ppb on Sep 25

Minimum Diurnal Average: 0.0 ppb at hour 2

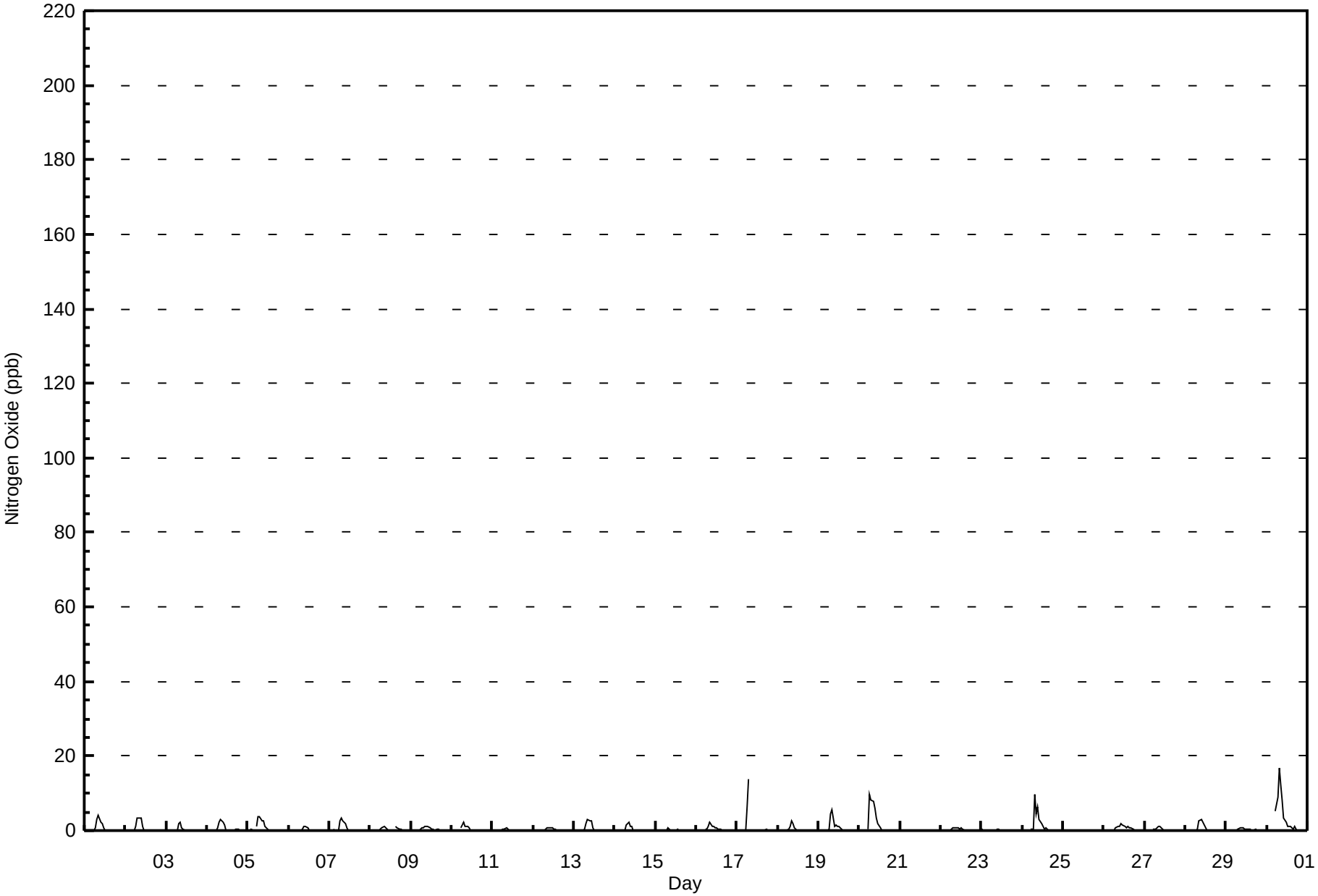
Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.3$ $P_{90} = 1.1$ $P_{99} = 8.2$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	0	0	A	0	1	3	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.1
2-Sep	0	0	0	0	A	0	1	4	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.5
3-Sep	0	0	0	0	A	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.2
4-Sep	0	0	0	0	A	0	1	2	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.1
5-Sep	0	0	0	0	A	1	4	4	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	3.8
6-Sep	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
7-Sep	0	0	0	0	A	0	3	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.3
8-Sep	0	0	0	0	A	0	0	1	1	1	0	0	0	0	P	1	1	0	0	0	0	0	0	0	0.3	1.0
9-Sep	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
10-Sep	0	0	0	0	A	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.2
11-Sep	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
12-Sep	0	0	0	0	A	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
13-Sep	0	0	0	0	A	0	0	2	3	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.9
14-Sep	0	0	0	0	A	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.3
15-Sep	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
16-Sep	0	0	0	0	A	0	0	1	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	2.2
17-Sep	0	0	0	0	A	0	6	14	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	1.2	14.0
18-Sep	0	0	0	0	A	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.5
19-Sep	0	0	0	0	A	0	0	4	6	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0.7	5.6
20-Sep	0	0	0	0	A	0	10	8	8	6	3	2	1	0	0	0	0	0	0	0	0	0	0	0	1.7	9.9
21-Sep	0	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
22-Sep	0	0	0	0	A	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.9
23-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
24-Sep	0	0	0	0	A	0	0	10	4	6	3	2	1	0	1	0	0	0	0	0	0	0	0	0	1.2	9.9
25-Sep	0	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
26-Sep	0	0	0	0	A	0	0	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.7
27-Sep	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
28-Sep	0	0	0	0	A	0	0	0	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	3.1
29-Sep	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
30-Sep	0	0	0	0	A	5	9	17	12	8	3	2	1	1	1	1	1	0	0	0	0	0	0	0	2.7	16.6
	0.0	0.0	0.0	0.0	--	0.3	1.3	2.8	2.4	1.9	1.2	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.3	0.0	0.3	0.2	--	5.4	9.9	16.6	12.2	8.3	3.5	2.1	1.1	1.1	1.0	1.0	1.2	0.5	0.3	0.1	0.0	0.1	0.1	0.0	Diurnal Maximum	

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

Hourly Averages for NO at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Beaverlodge - Nitrogen Oxide (NO) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 46.6 ppb on Sep 17 08:00

Maximum Daily Average: 6.2 ppb on Sep 30

Minimum Value: 0 ppb on Sep 1 21:00

Minimum Daily Average: 0.1 ppb on Sep 25

Maximum Diurnal Average: 6.9 ppb at hour 8

Minimum Diurnal Average: 0.1 ppb at hour 2

Monthly Average: 1.40 ppb

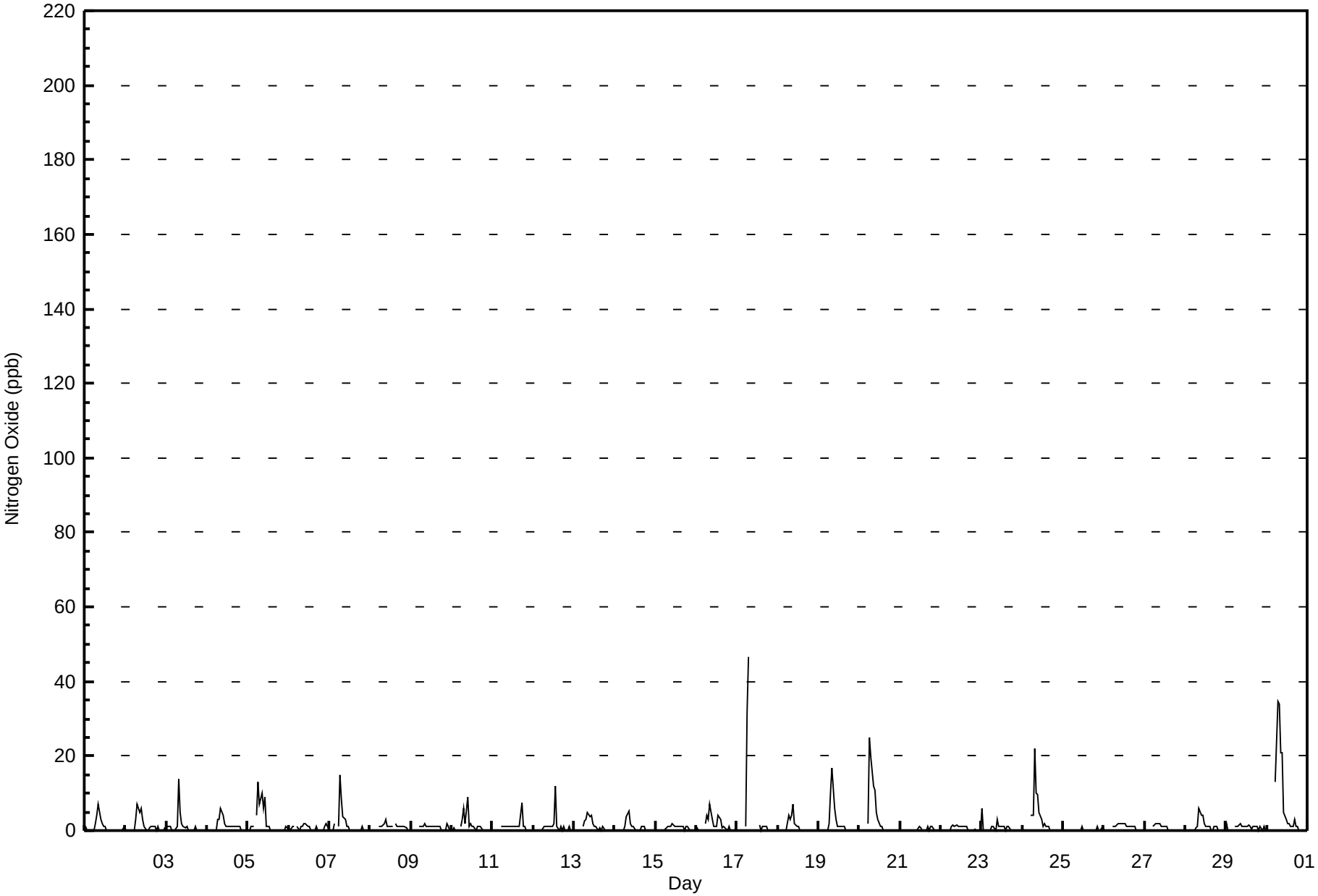
Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 1.0$ $P_{90} = 3.0$ $P_{99} = 20.5$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	1	0	0	0	A	0	2	4	7	3	2	1	1	0	0	0	0	0	0	0	0	0	0	1	1.0	6.9
2-Sep	0	0	0	0	A	0	3	7	5	6	3	1	0	0	1	1	1	1	0	1	0	0	0	1	1.3	6.9
3-Sep	1	1	1	0	A	0	1	14	5	2	1	1	1	0	0	0	0	1	0	0	0	0	0	0	1.2	13.9
4-Sep	0	0	0	0	A	0	3	3	6	4	2	1	1	1	1	1	1	1	1	1	0	0	0	0	1.2	5.9
5-Sep	0	0	1	1	A	4	13	7	10	6	9	1	1	0	0	0	0	0	0	0	0	0	1	1	2.4	12.9
6-Sep	1	0	1	1	A	1	0	1	1	2	2	1	1	0	0	0	1	0	0	0	0	1	2	1	0.7	2.0
7-Sep	0	0	0	2	A	1	15	9	4	3	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1.6	14.9
8-Sep	0	0	0	0	A	1	1	1	2	3	1	1	1	1	P	2	1	1	1	1	1	1	0	0	0.9	3.0
9-Sep	0	0	0	0	A	1	1	1	2	1	1	1	1	1	1	1	1	1	0	0	0	2	1	0	0.7	1.9
10-Sep	0	1	0	0	A	1	3	6	2	9	1	2	1	1	0	1	1	1	0	0	0	0	0	0	1.3	8.9
11-Sep	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	7	1	1	0	0	0	0	0.9	7.3
12-Sep	0	0	0	0	A	0	1	1	1	1	1	1	2	12	1	0	1	0	1	0	0	1	0	0	1.0	11.9
13-Sep	0	0	0	0	A	1	3	3	5	4	4	2	1	1	0	1	0	1	0	0	0	0	0	0	1.1	4.9
14-Sep	0	0	0	0	A	0	1	4	5	2	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0.7	5.3
15-Sep	0	0	0	0	A	0	1	1	1	1	2	1	1	1	1	1	1	0	1	1	0	0	0	0	0.6	2.0
16-Sep	1	0	0	0	A	2	4	3	7	3	1	1	1	4	3	1	1	1	0	1	0	0	0	0	1.4	6.9
17-Sep	0	0	0	0	A	1	32	47	C	C	C	C	C	1	0	1	1	1	0	0	0	0	0	0	4.7	46.6
18-Sep	0	0	0	0	A	0	4	3	4	7	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1.0	7.0
19-Sep	0	0	0	0	A	0	2	10	17	6	3	1	1	1	1	1	0	0	0	0	0	0	0	0	1.9	16.9
20-Sep	0	0	0	0	A	2	25	20	12	11	5	3	1	1	0	0	0	0	0	0	0	0	0	0	3.5	24.9
21-Sep	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	1	0	1	1	0	0	0	0	0.2	1.0
22-Sep	0	0	0	0	A	0	1	2	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0	0.5	1.7
23-Sep	6	0	0	0	A	0	1	1	0	3	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0.7	5.9
24-Sep	0	0	0	0	A	4	4	22	10	10	5	3	1	2	1	1	0	0	0	0	0	0	0	0	2.7	21.9
25-Sep	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0.1	1.0
26-Sep	0	0	0	0	A	1	1	1	2	2	2	2	2	1	1	1	1	1	1	0	0	0	0	0	0.8	2.0
27-Sep	0	0	0	0	A	1	2	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.6	2.0
28-Sep	0	0	0	0	A	0	1	1	6	4	4	2	1	1	1	0	0	1	1	0	0	0	0	0	1.0	5.9
29-Sep	2	0	0	0	A	1	1	1	2	1	1	1	1	2	1	1	1	1	1	0	1	0	1	0	0.8	1.9
30-Sep	0	0	0	0	A	13	35	34	21	21	5	3	2	2	1	1	3	1	1	0	0	0	0	0	6.2	34.7
	0.4	0.1	0.1	0.1	--	1.2	5.3	6.9	4.8	4.1	2.1	1.3	0.9	1.2	0.5	0.6	0.6	0.7	0.3	0.3	0.1	0.2	0.2	0.2	Diurnal Average	
	5.9	1.0	1.0	1.9	--	12.9	34.7	46.6	20.9	20.8	9.0	3.0	2.0	11.9	2.9	2.0	3.0	7.3	1.0	1.0	1.0	1.9	1.9	1.0	Diurnal Maximum	

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

Hourly Maximums for NO at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Oxides of Nitrogen (NO_X) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 26.5 ppb on Sep 30 08:00

Maximum Daily Average: 7.7 ppb on Sep 30

Minimum Value: 1 ppb on Sep 27 18:00

Maximum Diurnal Average: 7.6 ppb at hour 8

Monthly Average: 3.16 ppb

Minimum Daily Average: 1.3 ppb on Sep 11

Minimum Diurnal Average: 1.3 ppb at hour 16

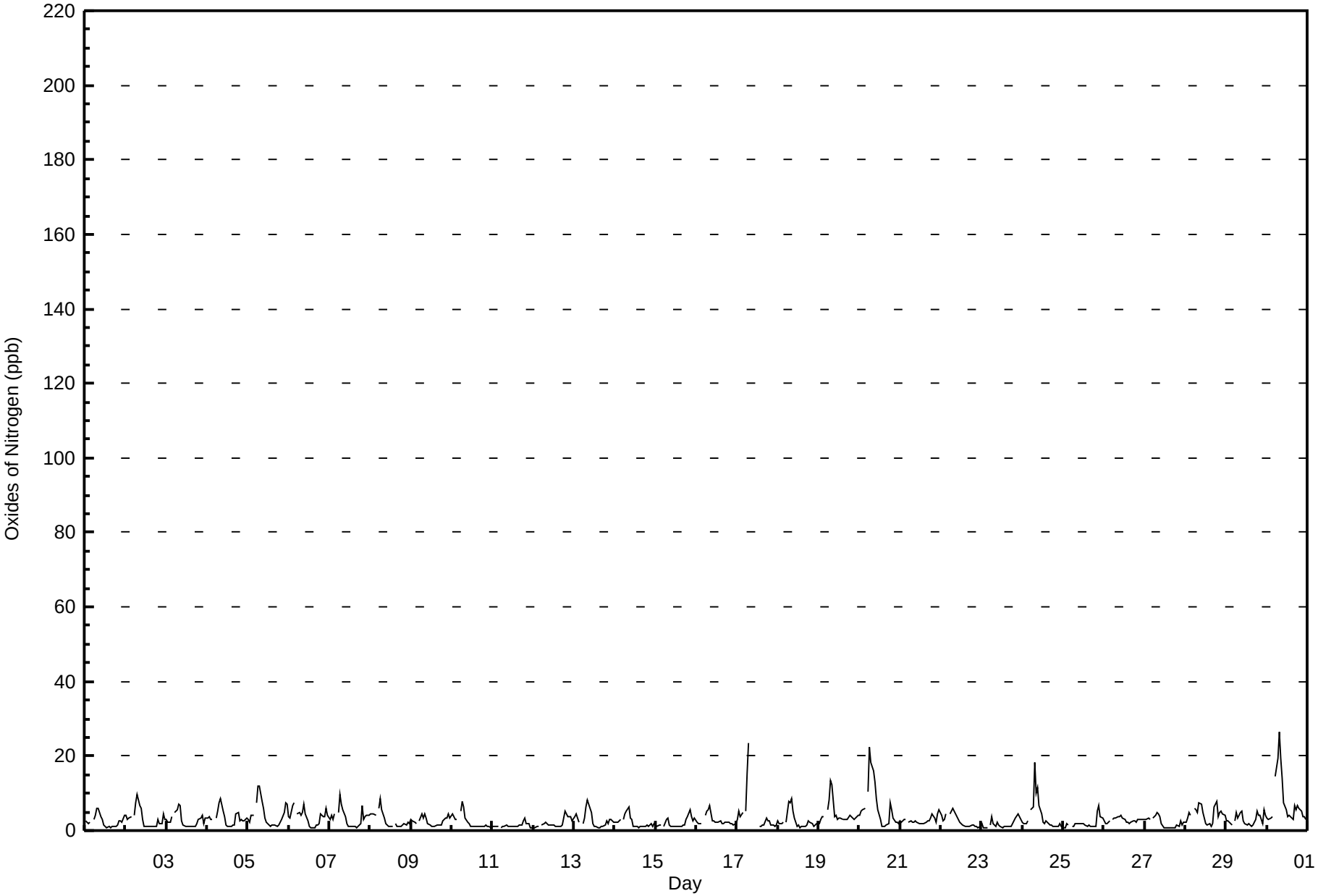
Percentiles: P_1 = 0.9 P_{10} = 1.0 Q_1 = 1.3 Median = 2.4 Q_3 = 3.9 P_{90} = 5.8 P_{99} = 18.2

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	3	2	2	2	A	3	4	6	6	4	3	2	1	1	1	1	1	1	1	2	3	3	2	4	2.5	6.1
2-Sep	4	3	3	4	A	4	8	10	7	6	3	1	1	1	1	1	1	1	1	3	2	2	4	3	3.2	9.6
3-Sep	3	2	2	4	A	5	5	7	7	2	1	1	1	1	1	1	1	1	2	3	4	4	2	3	2.8	7.1
4-Sep	3	4	3	3	A	3	5	7	9	5	4	1	1	1	1	1	2	5	5	3	3	2	3	3	3.4	8.5
5-Sep	3	2	4	4	A	8	12	12	8	6	3	2	1	1	2	1	2	1	2	2	3	5	7	7	4.3	11.9
6-Sep	4	4	7	7	A	4	5	4	5	7	5	3	1	1	1	1	2	1	2	4	4	4	6	4	3.7	7.4
7-Sep	3	4	3	5	A	5	10	7	6	4	2	1	1	1	1	1	1	1	2	7	3	4	4	4	3.3	9.6
8-Sep	4	4	5	4	A	6	9	5	3	2	1	1	1	1	P	2	1	1	1	1	2	1	2	2	2.8	8.6
9-Sep	3	3	2	2	A	3	5	3	5	3	2	2	1	1	1	1	2	1	1	3	3	3	5	3	2.5	4.6
10-Sep	4	4	3	3	A	5	8	6	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2.4	7.7
11-Sep	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	2	2	3	3	2	2	1	1	1.3	3.4
12-Sep	1	1	1	1	A	1	2	2	2	1	1	1	1	1	1	1	1	1	3	5	4	4	4	3	2.0	5.1
13-Sep	4	5	4	2	A	2	3	6	8	6	5	2	1	1	1	1	1	1	2	2	2	3	3	2	2.9	8.3
14-Sep	2	2	2	3	A	3	4	5	6	3	3	1	1	1	1	1	1	1	1	1	1	2	1	2	2.2	6.2
15-Sep	2	1	1	2	A	1	3	3	1	1	1	1	1	1	1	1	1	2	3	4	5	4	3	3	2.1	5.5
16-Sep	2	2	2	2	A	4	5	5	7	3	3	2	2	2	3	2	2	2	2	2	2	2	1	2	2.7	6.6
17-Sep	3	5	4	5	A	5	15	24	C	C	C	C	C	1	1	1	2	3	3	3	2	2	1	2	4.5	23.6
18-Sep	3	2	2	2	A	2	8	8	9	5	3	1	1	1	1	1	1	2	2	2	2	1	1	2	2.7	8.7
19-Sep	2	3	4	4	A	5	8	13	12	4	4	3	3	3	3	3	3	3	4	4	3	3	3	4	4.5	13.4
20-Sep	4	5	5	6	A	10	23	18	16	13	9	6	3	1	1	1	2	2	7	5	3	2	2	2	6.4	22.5
21-Sep	3	2	3	3	A	2	3	2	2	3	2	2	2	2	2	2	3	2	3	4	3	2	4	5	2.7	5.4
22-Sep	4	3	3	4	A	5	5	6	5	4	3	2	2	2	1	1	1	1	1	1	1	1	1	1	2.5	5.9
23-Sep	2	1	1	1	A	2	4	2	1	2	1	1	1	1	1	1	1	1	2	3	3	4	4	3	1.8	4.3
24-Sep	2	2	2	3	A	5	6	18	10	11	7	4	2	2	3	2	1	1	1	1	1	1	2	1	3.9	18.3
25-Sep	1	1	2	1	A	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	5	7	4	4	2.0	6.8
26-Sep	3	2	2	3	A	3	3	3	4	4	4	3	3	2	2	2	2	3	3	2	3	3	3	3	2.8	4.1
27-Sep	3	3	3	3	A	3	4	5	4	4	2	1	1	1	1	1	1	1	1	1	1	2	1	2	2.2	5.0
28-Sep	2	3	5	4	A	6	6	5	7	7	5	3	2	1	2	1	2	6	8	4	5	5	4	4	4.3	7.9
29-Sep	3	3	2	2	A	3	5	3	5	5	3	2	2	2	2	1	1	3	5	4	4	2	6	4	3.0	5.5
30-Sep	3	3	3	4	A	15	19	27	19	14	7	6	4	4	4	3	7	6	7	6	5	4	4	3	7.7	26.5
	2.8	2.7	2.9	3.1	--	4.2	6.6	7.6	6.2	4.7	3.2	2.1	1.6	1.4	1.4	1.3	1.6	2.0	2.7	3.0	2.9	2.8	3.0	2.9	Diurnal Average	
	4.5	5.4	6.7	7.4	--	14.6	22.5	26.5	19.3	14.1	8.6	5.7	3.9	4.0	3.6	3.0	6.9	6.4	7.9	6.6	5.5	6.8	7.4	7.0	Diurnal Maximum	

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

Hourly Averages for NO_X at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Beaverlodge - Oxides of Nitrogen (NO_X) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 64.0 ppb on Sep 17 08:00

Maximum Daily Average: 13.2 ppb on Sep 30

Minimum Value: 1 ppb on Sep 27 12:00

Maximum Diurnal Average: 14.0 ppb at hour 8

Monthly Average: 5.42 ppb

Minimum Daily Average: 3.0 ppb on Sep 11

Minimum Diurnal Average: 2.4 ppb at hour 14

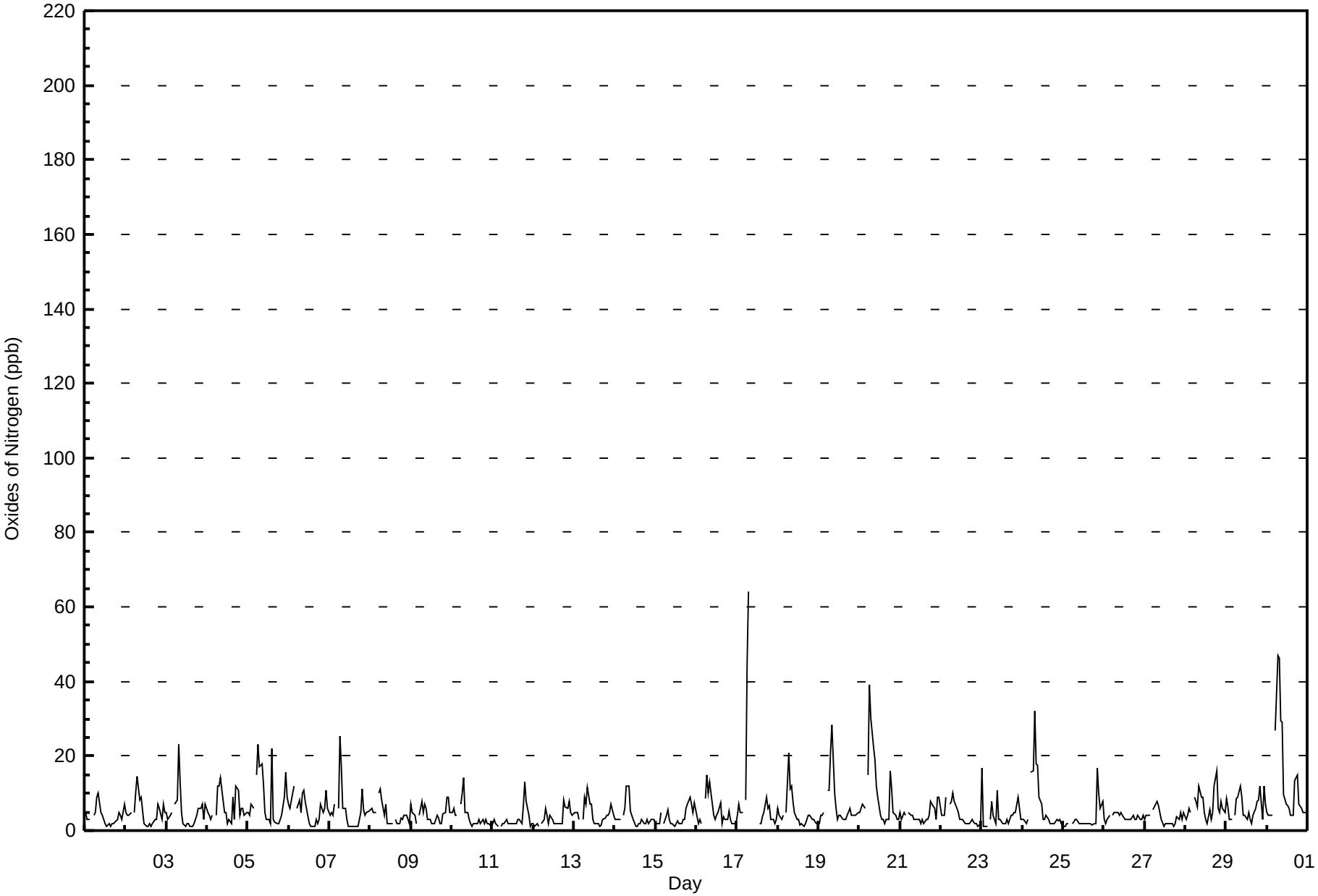
Percentiles: P_1 = 1.0 P_{10} = 1.9 Q_1 = 2.0 Median = 4.0 Q_3 = 6.0 P_{90} = 10.6 P_{99} = 29.3

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	5	3	3	3	A	4	5	9	10	5	4	3	2	1	2	1	2	2	3	3	5	4	3	7	3.8	10.0
2-Sep	5	4	4	5	A	5	10	14	8	9	5	2	1	1	2	1	2	3	3	7	6	3	7	5	4.9	14.5
3-Sep	5	3	4	5	A	7	8	23	13	5	2	1	2	2	1	1	2	3	4	6	6	7	3	7	5.2	23.1
4-Sep	5	4	3	4	A	4	12	12	14	8	5	5	2	3	2	9	3	12	11	4	6	6	4	5	6.2	14.0
5-Sep	5	4	7	6	A	15	23	17	18	12	5	3	3	2	22	3	2	2	2	3	4	9	16	9	8.4	23.1
6-Sep	7	6	10	12	A	6	8	5	10	11	8	4	2	1	1	1	3	2	3	7	5	6	11	6	5.8	12.0
7-Sep	4	5	4	7	A	6	26	17	6	6	3	1	1	1	1	1	1	1	5	11	5	4	5	5	5.5	25.5
8-Sep	6	6	5	5	A	10	11	8	4	7	2	2	2	2	P	3	2	2	3	3	4	4	3	2	4.4	11.0
9-Sep	7	5	4	2	A	4	8	5	7	6	3	3	2	2	2	4	3	2	2	5	5	9	9	5	4.5	9.0
10-Sep	5	6	4	4	A	7	10	14	5	5	3	2	1	2	2	2	3	2	3	2	3	2	2	1	3.9	14.0
11-Sep	2	3	2	1	A	1	2	2	3	2	2	2	2	2	2	3	3	2	7	13	8	4	1	2	3.0	13.1
12-Sep	2	1	2	1	A	2	3	6	4	2	4	3	2	2	2	2	2	2	8	6	6	8	5	4	3.4	8.0
13-Sep	5	5	5	3	A	3	9	7	12	7	7	3	2	2	2	1	1	3	3	4	4	5	7	4	4.5	11.6
14-Sep	3	3	3	3	A	4	6	12	12	5	4	3	1	1	2	2	3	2	2	3	2	3	3	3	3.7	12.0
15-Sep	2	2	2	5	A	2	4	6	3	2	2	1	2	3	2	2	3	3	6	7	9	7	5	7	3.8	9.0
16-Sep	4	2	3	2	A	8	15	10	13	7	4	3	4	5	7	2	4	3	3	5	3	2	2	2	4.9	14.7
17-Sep	4	7	5	5	A	8	45	64	C	C	C	C	C	2	2	4	5	9	6	7	3	3	2	3	10.2	64.0
18-Sep	6	4	3	4	A	5	21	11	12	8	5	3	3	2	2	1	2	3	4	4	3	3	2	2	4.9	20.9
19-Sep	2	4	4	5	A	11	11	21	28	10	6	3	4	4	3	3	3	4	6	4	4	4	4	5	6.6	28.4
20-Sep	5	6	7	6	A	15	39	30	22	19	12	9	4	3	3	2	3	3	16	11	5	4	3	3	10.0	39.0
21-Sep	5	3	5	4	A	5	4	4	3	3	3	3	2	3	2	3	3	4	8	7	6	3	9	9	4.4	9.0
22-Sep	4	4	4	9	A	7	8	10	8	6	5	3	3	3	2	2	2	2	3	2	2	2	1	2	4.1	10.0
23-Sep	17	1	1	1	A	3	8	4	2	11	3	3	2	2	2	3	2	4	4	5	5	9	6	3	4.3	16.9
24-Sep	3	3	2	3	A	16	16	32	18	17	9	7	3	3	4	3	2	2	2	2	3	3	3	2	6.8	32.0
25-Sep	1	1	2	2	A	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2	17	10	6	8	3.4	16.9
26-Sep	3	2	3	4	A	4	5	5	5	4	5	4	3	3	3	3	3	4	3	3	4	3	3	4	3.6	5.0
27-Sep	3	4	4	4	A	6	7	8	7	5	3	1	2	2	2	2	2	1	2	4	3	5	3	5	3.6	8.0
28-Sep	3	4	6	5	A	9	8	6	12	9	9	5	3	2	6	3	5	12	16	6	5	8	6	5	6.6	16.0
29-Sep	9	6	3	3	A	4	9	9	12	9	4	4	3	5	3	2	4	6	8	8	12	3	12	7	6.3	12.0
30-Sep	5	4	4	4	A	27	47	46	29	29	10	7	7	6	4	4	13	14	15	7	6	5	5	5	13.2	47.1
	4.7	3.8	3.9	4.2	--	7.0	13.0	14.0	10.4	8.0	4.7	3.2	2.4	2.4	3.1	2.4	3.0	3.8	5.4	5.4	5.3	4.9	5.0	4.6	Diurnal Average	
	16.9	7.0	10.0	12.0	--	26.7	47.1	64.0	29.4	29.0	12.0	8.9	6.9	6.0	22.1	9.0	13.5	14.0	16.0	13.1	16.9	10.0	15.6	9.0	Diurnal Maximum	

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

Hourly Maximums for NO_X at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Ozone (O_3) - ppb
September 1, 2008 to October 1, 2008

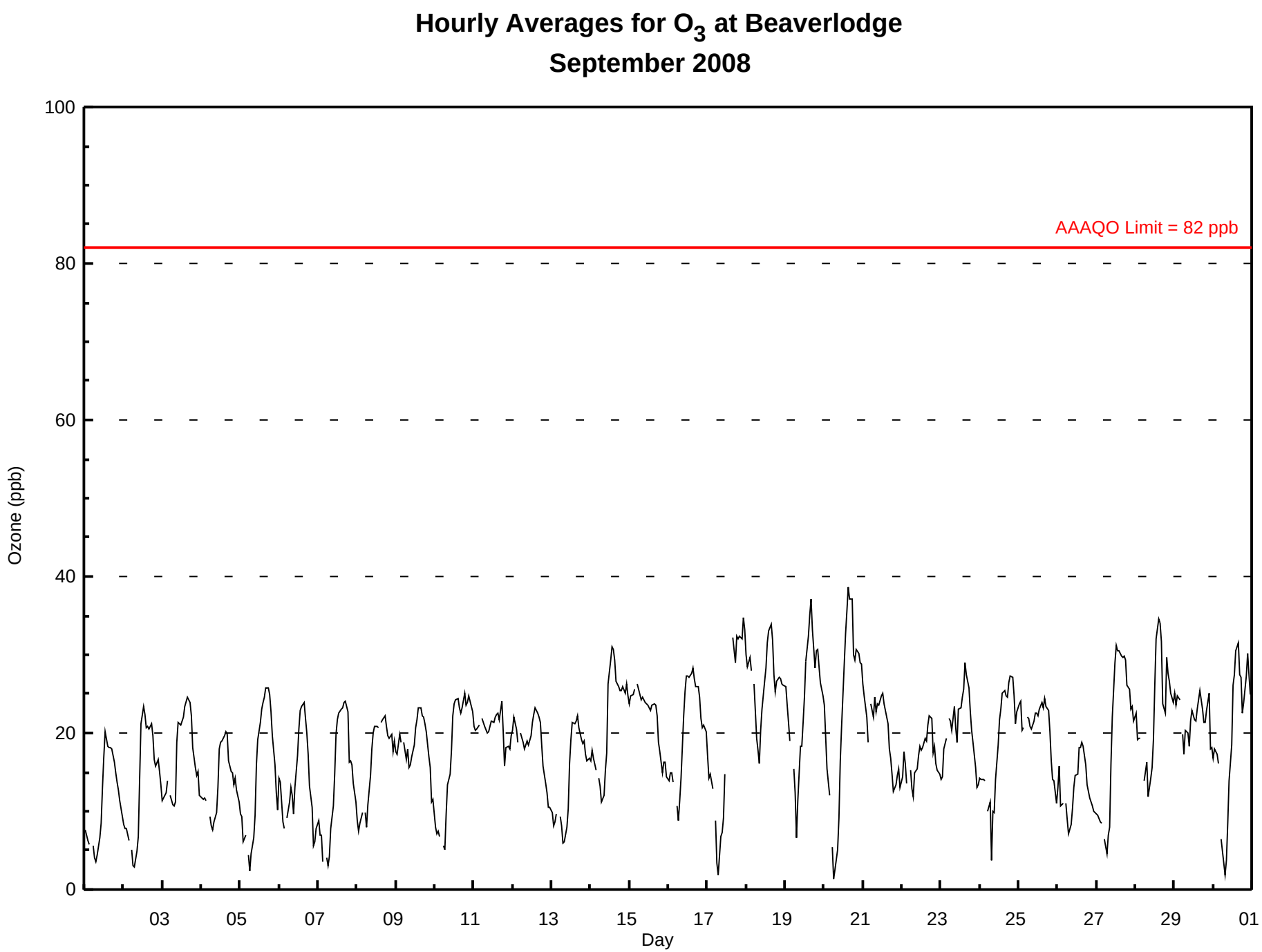
Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 38.7 ppb on Sep 20 16:00 Maximum Daily Average: 26.5 ppb on Sep 18

Minimum Value: 1 ppb on Sep 20 07:00 Minimum Daily Average: 11.3 ppb on Sep 1
Maximum Diurnal Average: 25.4 ppb at hour 16 Minimum Diurnal Average: 11.3 ppb at hour 8
Monthly Average: 18.55 ppb Percentiles: P_1 = 3.0 P_{10} = 8.3 Q_1 = 13.4 Median = 19.2 Q_3 = 23.5 P_{90} = 27.4 P_{99} = 34.5

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	8	7	6	6	A	6	4	4	4	7	8	13	17	20	18	18	18	18	16	15	14	13	11	9	11.3	20.2
2-Sep	8	8	8	6	A	5	3	3	5	7	14	21	23	22	21	21	21	21	20	17	16	17	15	13	13.7	23.4
3-Sep	11	12	12	14	A	12	11	11	11	19	21	21	22	22	23	25	24	24	22	18	16	15	15	12	17.1	24.5
4-Sep	12	12	12	11	A	9	8	8	9	10	13	18	19	19	20	20	20	16	15	15	13	14	13	11	13.8	20.2
5-Sep	10	9	6	7	A	4	2	5	7	9	16	19	21	23	24	25	26	26	25	23	20	16	12	10	15.0	25.8
6-Sep	14	14	9	8	A	9	11	13	12	10	13	17	21	23	23	24	22	20	17	13	11	6	6	8	14.0	23.9
7-Sep	9	7	7	4	A	4	3	4	8	11	15	20	22	23	23	23	24	24	23	16	16	16	14	11	14.2	24.0
8-Sep	9	8	9	10	A	10	8	11	15	18	20	21	21	21	P	21	22	22	21	20	19	20	18	19	16.4	22.2
9-Sep	18	17	20	19	A	19	17	18	16	16	17	18	21	22	23	23	22	22	21	20	17	16	11	11	18.4	23.2
10-Sep	8	7	7	7	A	6	5	10	13	15	18	22	24	24	24	23	23	23	25	24	24	25	24	23	17.5	25.1
11-Sep	21	20	20	21	A	22	21	21	20	20	21	22	21	22	22	22	22	24	20	16	18	18	18	20	20.6	24.1
12-Sep	20	22	21	19	A	20	19	18	18	19	19	20	21	22	23	23	22	21	18	16	14	12	11	11	18.6	23.3
13-Sep	10	8	9	10	A	9	8	6	6	8	10	16	19	21	21	22	22	21	19	19	19	17	16	17	14.5	22.2
14-Sep	16	18	17	15	A	14	13	11	12	15	17	26	29	31	31	29	27	26	25	25	26	25	26	25	21.8	31.0
15-Sep	24	25	25	26	A	26	25	24	25	24	24	24	23	23	24	24	24	22	19	18	15	16	16	14	22.1	26.2
16-Sep	14	15	15	14	A	11	9	11	14	22	25	27	27	27	28	28	27	26	26	25	22	21	21	20	20.6	28.4
17-Sep	17	14	15	13	A	9	3	2	7	7	9	15	C	C	C	A	32	29	32	32	32	32	35	33	19.4	34.7
18-Sep	30	29	30	28	A	26	19	18	16	20	23	27	28	32	33	34	32	28	25	27	27	27	26	26	26.5	34.0
19-Sep	26	24	21	19	A	15	12	7	11	18	18	21	25	29	32	35	37	33	28	31	31	29	26	25	24.1	37.1
20-Sep	24	19	15	12	A	5	1	3	5	9	16	21	29	33	36	39	37	37	30	29	31	30	29	29	22.6	38.7
21-Sep	26	25	22	19	A	24	22	25	23	24	23	25	25	24	23	21	18	17	15	13	13	15	16	13	20.4	26.3
22-Sep	14	18	16	14	A	15	13	12	15	15	17	18	18	18	19	19	21	22	22	17	18	16	15	15	16.9	22.2
23-Sep	14	14	18	19	A	22	22	20	23	21	19	23	23	25	26	29	27	26	23	20	19	16	13	13	20.7	29.0
24-Sep	14	14	14	14	A	10	11	4	10	10	14	18	22	23	25	25	25	25	26	27	27	25	21	23	18.6	27.4
25-Sep	24	24	20	21	A	22	22	21	21	22	23	23	22	23	24	23	24	23	23	20	16	14	14	11	20.8	24.4
26-Sep	13	16	11	11	A	11	9	7	8	10	13	15	15	18	18	19	18	16	13	12	12	11	10	10	12.9	18.9
27-Sep	10	9	9	8	A	6	5	7	8	16	22	29	31	31	31	30	30	30	29	26	26	23	23	22	20.0	31.2
28-Sep	23	19	19	19	A	14	15	16	12	14	16	19	26	32	35	34	32	24	23	30	28	27	25	24	22.8	34.7
29-Sep	25	24	25	24	A	20	17	20	20	18	22	23	22	22	23	24	25	23	21	21	23	25	18	18	21.9	25.4
30-Sep	17	18	17	16	A	7	3	2	4	8	14	18	26	27	30	32	27	27	23	24	27	30	28	25	19.6	31.6
	16.3	15.8	15.1	14.4	--	13.1	11.4	11.3	12.6	14.8	17.4	20.7	22.9	24.2	25.1	25.4	25.0	23.9	22.2	20.9	20.3	19.5	18.2	17.4	Diurnal Average	
	30.1	28.5	29.6	28.0	--	26.3	24.9	24.6	24.6	24.2	25.2	28.9	31.2	32.7	35.6	38.7	37.1	37.1	32.4	32.1	32.3	32.1	34.7	33.2	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 O_3 at Beaverlodge
September 2008
AAAQO Limit = 82 ppb
Ozone (ppb)
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Maximums

Beaverlodge - Ozone (O_3) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 40.3 ppb on Sep 20 16:00

Maximum Daily Average: 28.8 ppb on Sep 18

Minimum Value: 3 ppb on Sep 17 08:00

Minimum Daily Average: 12.8 ppb on Sep 1

Maximum Diurnal Average: 26.9 ppb at hour 16

Minimum Diurnal Average: 14.2 ppb at hour 8

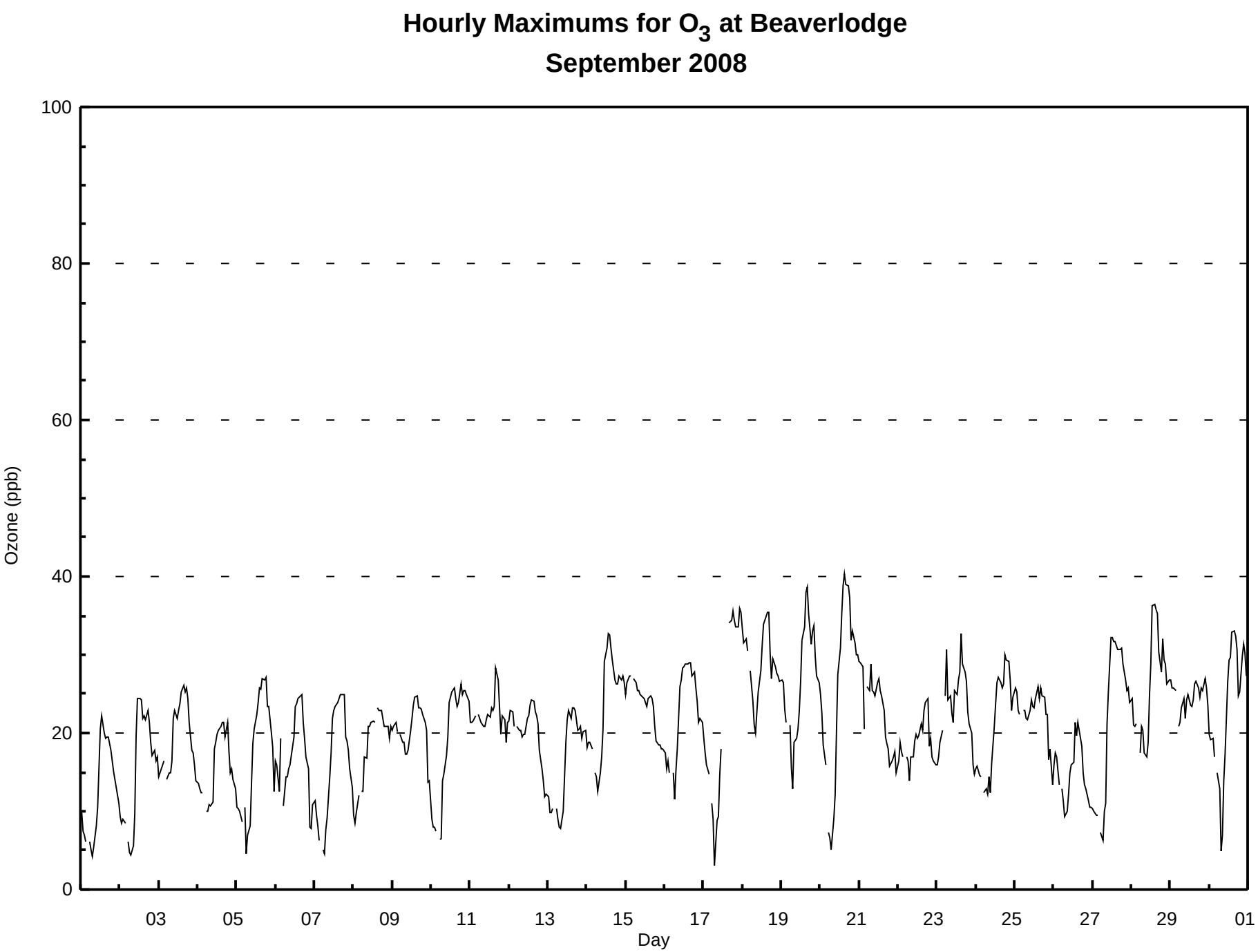
Monthly Average: 20.70 ppb

Percentiles: P_1 = 5.1 P_{10} = 10.4 Q_1 = 15.9 Median = 21.3 Q_3 = 25.4 P_{90} = 29.4 P_{99} = 37.1

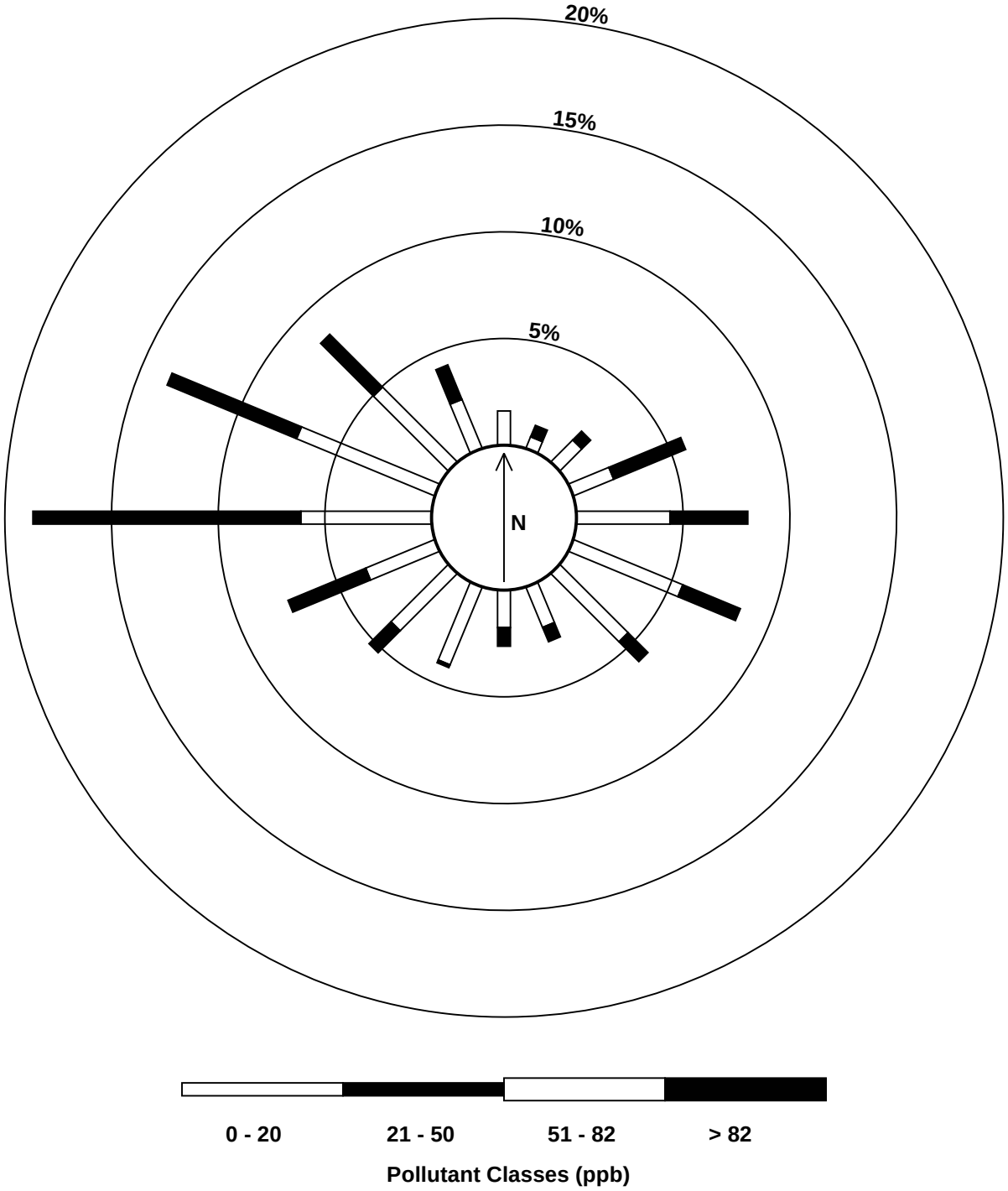
Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	10	7	7	6	A	6	5	4	5	8	11	16	20	22	20	19	19	19	18	16	15	14	13	11	12.8	22.3
2-Sep	9	9	9	9	A	6	5	4	6	10	20	24	24	24	22	22	22	23	21	19	17	18	16	17	15.5	24.4
3-Sep	14	15	16	16	A	14	15	15	16	22	23	22	23	24	25	26	25	26	24	21	18	17	16	14	19.5	26.1
4-Sep	14	13	12	12	A	10	10	11	11	11	18	19	20	20	21	21	21	19	21	18	15	16	14	13	15.7	21.4
5-Sep	11	10	10	9	A	11	5	7	8	14	19	20	22	24	26	26	27	27	27	23	23	20	18	12	17.3	27.1
6-Sep	16	16	12	19	A	11	14	14	15	16	17	19	23	24	24	25	25	21	19	17	15	8	8	11	17.1	24.9
7-Sep	11	10	8	6	A	5	5	8	9	14	17	22	23	23	24	24	25	25	25	19	19	18	15	13	16.1	24.9
8-Sep	10	8	10	12	A	12	12	17	17	21	21	21	22	21	P	23	23	23	22	21	21	21	19	21	18.1	23.3
9-Sep	20	21	21	20	A	20	19	19	17	17	18	20	22	24	25	25	23	23	23	22	21	20	14	14	20.4	24.8
10-Sep	9	8	8	7	A	6	6	14	15	17	20	24	25	25	26	24	23	24	26	25	25	25	25	24	18.8	26.3
11-Sep	21	21	22	22	A	22	22	21	21	21	22	22	22	23	23	23	28	27	23	20	22	22	19	21	22.3	28.3
12-Sep	22	23	23	21	A	21	20	20	20	20	20	22	22	24	24	24	23	22	21	18	15	14	12	12	20.1	24.3
13-Sep	12	10	10	10	A	10	9	8	8	10	14	19	22	23	22	23	23	23	20	21	21	19	20	20	16.4	23.3
14-Sep	18	19	19	18	A	15	14	12	15	17	21	29	31	33	33	31	29	27	26	26	27	27	27	26	23.5	32.8
15-Sep	25	26	27	27	A	27	26	25	25	25	25	24	24	23	24	25	24	23	21	19	18	18	18	18	23.5	27.4
16-Sep	17	15	16	15	A	15	11	15	18	26	27	28	29	29	29	29	29	27	28	26	24	21	22	21	22.5	29.1
17-Sep	19	17	16	15	A	11	9	3	9	9	15	18	C	C	C	A	34	34	36	34	33	33	36	35	22.0	35.9
18-Sep	33	31	32	30	A	28	24	21	20	23	25	28	31	34	34	35	35	30	27	29	28	28	27	27	28.8	35.4
19-Sep	27	26	23	21	A	21	16	13	19	19	20	23	27	32	34	38	39	35	31	33	34	30	27	26	26.7	38.7
20-Sep	25	23	18	16	A	7	7	5	9	12	20	27	31	35	39	40	39	39	37	32	33	32	30	30	25.5	40.3
21-Sep	29	29	28	21	A	26	25	29	25	25	25	26	27	25	25	23	19	19	18	16	16	17	18	15	22.9	29.1
22-Sep	16	19	18	17	A	17	16	14	17	17	19	20	19	20	21	20	23	24	24	18	19	17	17	16	18.6	24.5
23-Sep	16	17	19	20	A	25	31	24	25	22	21	25	25	27	28	33	29	28	27	23	21	20	16	15	23.3	32.7
24-Sep	15	16	15	14	A	12	13	12	14	12	16	21	24	26	27	26	26	26	30	29	29	27	23	25	20.9	30.0
25-Sep	26	25	23	22	A	23	23	22	22	23	24	23	23	24	26	24	26	25	25	22	22	17	18	13	22.7	26.0
26-Sep	16	17	17	13	A	13	11	9	10	12	15	16	16	21	20	21	20	18	15	13	13	11	10	10	14.8	21.3
27-Sep	10	10	9	9	A	7	6	10	11	21	25	32	32	32	32	31	31	31	31	29	27	25	26	24	21.8	32.2
28-Sep	24	21	21	21	A	17	21	20	17	17	19	25	29	36	36	36	35	30	28	32	29	29	26	27	26.0	36.5
29-Sep	27	26	26	25	A	21	21	23	24	22	24	25	24	23	24	26	27	26	25	26	25	27	26	24	24.6	27.0
30-Sep	20	19	19	17	A	15	13	5	7	14	17	27	29	30	33	33	32	31	25	25	30	31	30	27	23.0	33.1
	18.1	17.6	17.2	16.5	--	15.2	14.5	14.2	15.2	17.3	19.9	23.0	24.5	25.9	26.6	26.9	26.9	25.9	24.8	23.1	22.7	21.4	20.2	19.4	Diurnal Average	
	33.5	31.5	32.0	30.5	--	28.0	30.7	28.9	25.5	26.0	26.8	32.2	32.2	36.2	38.9	40.3	39.0	38.8	37.3	34.5	33.8	33.5	35.9	35.4	Diurnal Maximum	

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


Hourly Maximums for O_3 at Beaverlodge
September 2008
Ozone (ppb)
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Pollutant Rose for O_3 at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Eight Hour Running Averages

Beaverlodge - Ozone (O_3) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 33.9 ppb on Sep 20 21:00

Minimum Value: 5.2 ppb on Sep 1 10:00

Percentiles: P_1 = 5.7 P_{10} = 9.6 Q_1 = 13.8 Median = 18.8 Q_3 = 22.7 P_{90} = 26.3 P_{99} = 32.0

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	12	11	10	9	8	8	7	6	5	5	6	7	8	10	11	13	15	16	17	18	17	16	15	14	17.6
2-Sep	13	12	11	10	9	8	7	6	5	5	6	8	10	12	15	17	19	21	21	21	20	19	18	17	21.2
3-Sep	16	15	14	14	13	13	12	12	12	13	14	15	16	17	19	20	22	23	23	23	22	21	20	18	22.9
4-Sep	17	15	14	13	13	12	11	10	10	10	10	11	12	13	14	16	17	18	18	18	17	17	16	15	18.4
5-Sep	13	13	11	10	10	9	7	6	6	6	7	9	10	13	15	18	20	22	24	24	24	23	21	20	24.0
6-Sep	18	17	15	13	12	11	11	11	11	10	11	12	13	15	16	18	19	20	21	20	19	17	15	13	20.9
7-Sep	11	10	8	7	7	6	6	5	5	6	7	9	11	13	16	18	20	22	23	22	22	21	20	18	22.6
8-Sep	16	14	12	11	11	10	9	9	10	11	13	15	15	17	18	19	20	21	21	21	21	21	20	20	21.2
9-Sep	20	19	19	19	19	18	18	18	18	18	17	17	18	18	19	19	20	21	22	22	21	21	19	18	21.8
10-Sep	16	14	12	11	10	8	7	7	8	9	10	13	14	16	19	20	22	23	24	24	24	24	24	24	23.8
11-Sep	24	23	23	22	22	22	21	21	21	21	21	21	21	21	21	21	22	22	22	21	21	20	20	19	23.5
12-Sep	19	19	19	19	20	20	20	20	20	19	19	19	19	20	20	21	21	21	21	21	20	19	17	16	21.4
13-Sep	14	12	11	10	10	10	9	9	8	8	8	9	10	12	14	15	17	19	20	21	20	20	19	19	20.5
14-Sep	18	18	17	17	17	16	16	15	14	14	14	16	17	19	22	24	26	27	28	28	28	27	26	26	28.1
15-Sep	25	25	25	25	25	25	25	25	25	25	25	25	24	24	24	24	24	23	23	22	21	20	19	18	25.3
16-Sep	17	16	15	15	15	14	13	13	13	14	15	17	18	20	23	25	27	27	27	27	26	25	24	23	27.1
17-Sep	22	21	19	18	17	16	13	10	9	8	7	7	7	7	N	N	N	N	N	N	N	32	32	32	32.2
18-Sep	32	32	32	31	31	30	28	26	24	22	22	21	22	23	25	27	29	30	30	30	30	29	28	27	32.0
19-Sep	26	26	25	25	24	23	21	18	16	15	14	15	16	18	20	24	27	29	30	31	32	32	31	30	32.1
20-Sep	28	27	25	23	21	18	15	11	9	7	7	9	11	15	19	23	27	31	33	34	34	34	33	32	33.9
21-Sep	30	29	28	26	26	25	24	23	23	23	23	24	24	24	24	23	23	22	21	19	18	17	16	15	30.2
22-Sep	14	15	15	15	15	15	15	15	15	14	14	15	15	16	17	18	18	19	20	20	20	19	19	18	19.7
23-Sep	17	17	16	16	16	17	18	19	20	21	21	21	22	22	22	24	24	25	25	25	24	23	22	20	25.2
24-Sep	18	17	15	15	14	13	13	12	11	10	10	11	12	14	16	18	20	22	24	25	25	26	25	25	25.7
25-Sep	25	25	24	23	22	22	22	22	21	21	21	22	22	22	22	22	23	23	23	23	22	21	20	18	24.7
26-Sep	17	16	14	13	13	12	12	11	10	10	10	10	11	12	13	15	16	16	17	16	16	15	14	13	16.9
27-Sep	12	11	10	10	10	9	8	8	7	8	10	13	16	19	22	25	27	29	30	30	29	28	27	26	30.0
28-Sep	25	24	23	22	21	20	19	18	16	16	15	15	17	19	21	23	26	27	28	29	29	29	28	26	29.5
29-Sep	26	26	26	25	25	24	23	22	21	21	20	20	20	20	21	22	22	23	23	23	23	23	23	22	25.8
30-Sep	21	20	20	19	19	16	14	11	10	8	8	8	10	13	16	20	23	25	26	27	27	28	27	26	27.6
Diurnal Maximums	32.0	31.9	31.6	31.1	30.9	30.1	27.9	25.6	25.0	24.9	24.8	24.5	24.3	23.9	24.6	26.6	28.6	30.9	32.6	33.7	33.9	33.6	32.8	32.2	

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 ($PM_{2.5}$) - $\mu g/m^3$
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 14.8 $\mu g/m^3$ on Sep 18 19:00
Maximum Daily Average: 6.9 $\mu g/m^3$ on Sep 20

Minimum Value: 0 $\mu g/m^3$ on Sep 1 01:00
Maximum Diurnal Average: 4.0 $\mu g/m^3$ at hour 9
Monthly Average: 2.42 $\mu g/m^3$

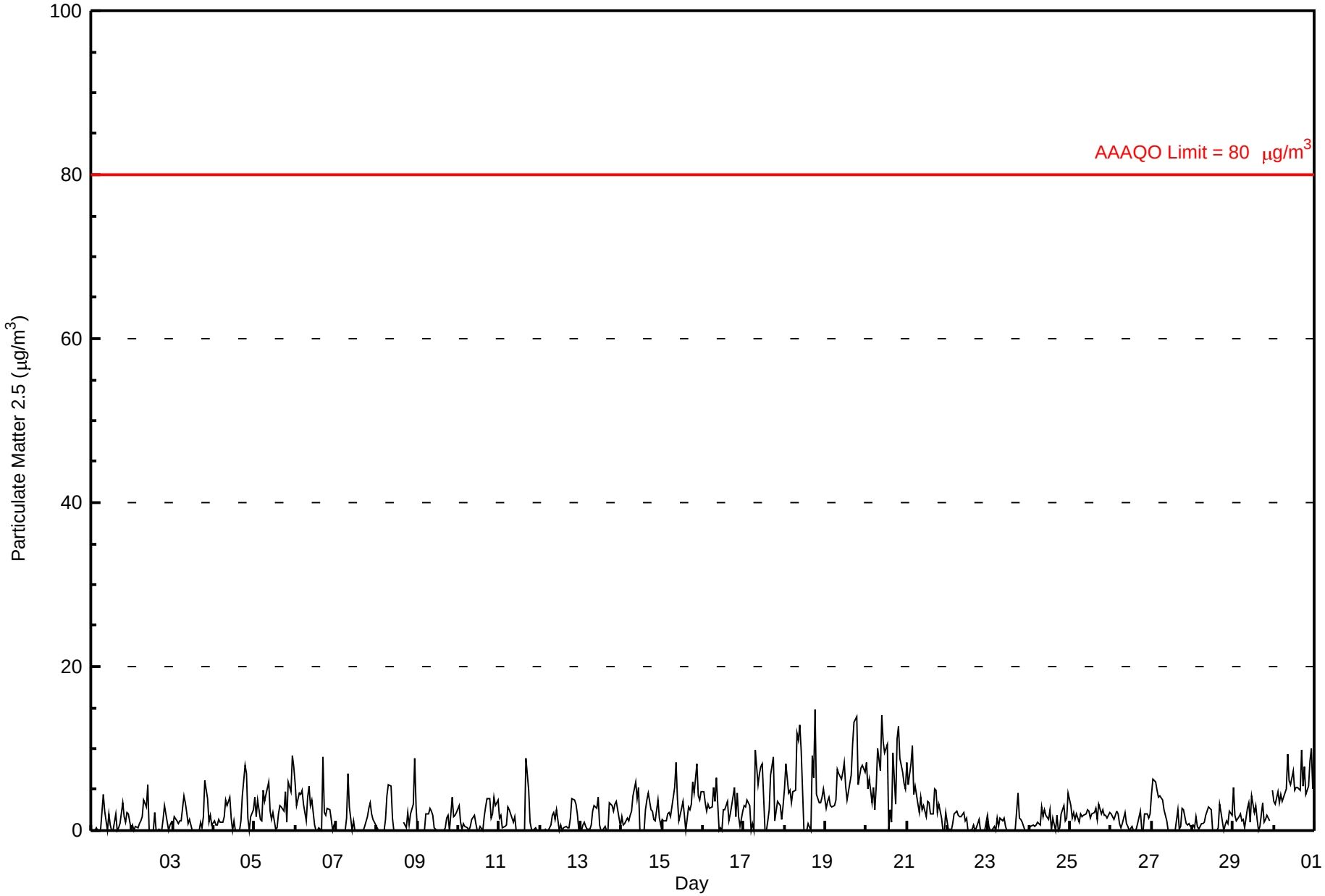
Minimum Daily Average: 0.7 $\mu g/m^3$ on Sep 23
Minimum Diurnal Average: 0.8 $\mu g/m^3$ at hour 14
Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.4$ Median = 1.7 $Q_3 = 3.4$ $P_{90} = 5.7$ $P_{99} = 11.3$

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	0	0	0	0	0	0	2	4	2	0	2	1	0	0	2	0	0	1	3	2	1	2	2	0	1.1	4.5
2-Sep	1	0	0	0	1	1	2	4	3	6	0	0	0	2	0	0	0	0	1	3	2	0	1	1	1.2	5.5
3-Sep	1	2	1	1	1	1	4	3	2	1	1	0	0	0	0	0	1	0	2	6	4	1	2	1	1.5	6.0
4-Sep	1	1	1	1	1	1	2	4	3	4	2	0	1	0	0	0	1	4	8	7	2	0	2	3	2.0	8.0
5-Sep	4	2	4	1	1	5	4	4	6	2	1	2	0	0	2	3	3	2	5	1	6	5	9	8	3.4	9.2
6-Sep	6	3	5	4	5	3	1	4	5	3	4	1	0	0	0	0	9	2	2	3	3	1	0	1	2.7	8.9
7-Sep	0	0	0	0	0	0	1	7	3	0	1	0	0	0	0	0	0	1	2	3	3	2	1	1	1.0	6.9
8-Sep	0	0	0	0	0	1	4	6	5	2	0	0	0	0	P	P	1	0	2	1	2	3	9	3	1.8	8.8
9-Sep	0	0	0	0	0	2	2	3	2	2	0	0	0	0	0	0	0	2	2	0	4	2	2	2	1.0	4.0
10-Sep	3	1	0	1	1	0	0	1	1	2	1	0	0	0	0	2	3	4	4	2	2	4	3	4	1.6	4.1
11-Sep	2	2	0	1	1	3	3	2	1	2	0	0	0	0	0	0	9	5	1	0	0	0	0	0	1.3	8.8
12-Sep	0	0	0	0	0	0	1	2	2	1	3	0	1	0	0	1	0	0	1	4	4	3	2	0	1.1	3.9
13-Sep	0	1	1	0	0	0	1	2	3	3	4	1	0	0	1	0	0	3	3	2	3	4	2	1	1.5	4.1
14-Sep	2	1	1	2	1	2	2	4	6	4	5	0	0	0	3	4	4	3	2	1	1	4	1	1	2.2	5.9
15-Sep	1	1	1	2	2	2	4	5	8	4	1	3	4	2	0	3	2	3	6	5	8	4	4	5	3.3	8.3
16-Sep	5	3	2	3	3	3	5	4	6	0	0	0	3	3	4	1	2	3	5	2	5	2	1	2	2.8	6.5
17-Sep	3	3	4	3	0	1	0	10	6	7	8	8	0	0	1	3	7	9	1	2	4	3	1	3	3.6	9.8
18-Sep	5	8	5	5	3	5	5	12	11	13	10	0	0	0	1	0	9	6	15	4	3	3	4	5	5.5	14.8
19-Sep	3	4	4	3	3	3	4	7	7	6	7	8	5	4	6	7	11	13	14	6	7	8	8	7	6.4	13.9
20-Sep	8	5	6	3	5	3	5	10	7	14	11	9	10	0	3	1	10	3	11	13	9	7	6	5	6.9	14.1
21-Sep	8	6	8	10	4	5	3	2	4	3	3	2	4	3	2	2	5	5	2	3	1	0	0	2	3.7	10.4
22-Sep	0	0	0	1	2	2	2	2	2	2	1	1	0	0	0	1	0	0	1	0	0	0	0	2	0.8	2.3
23-Sep	1	0	0	1	0	2	1	2	1	1	1	0	0	0	0	0	0	5	2	1	1	0	0	0	0.7	4.6
24-Sep	0	1	1	1	1	1	1	3	2	3	2	1	2	0	1	0	2	0	0	2	3	1	2	5	1.4	4.6
25-Sep	3	1	2	1	2	1	2	2	2	2	3	2	2	2	2	3	1	3	2	3	2	2	2	2	2.0	3.2
26-Sep	2	2	1	2	2	1	0	1	2	1	0	0	1	0	0	0	1	2	0	0	2	2	2	2	1.1	2.4
27-Sep	4	6	6	5	4	4	4	3	2	1	0	0	0	0	0	3	0	1	3	3	1	1	1	1	2.1	6.3
28-Sep	1	0	2	1	0	1	1	1	2	3	3	3	0	0	0	0	3	2	0	1	1	1	2	2	1.2	3.2
29-Sep	5	2	1	2	2	1	1	0	3	3	1	4	2	3	1	0	0	3	1	1	2	1	P	5	2.0	5.2
30-Sep	4	3	5	3	4	4	5	5	9	6	6	7	5	5	5	5	10	5	8	4	5	8	10	5	5.7	9.9
	2.4	1.9	2.0	1.9	1.7	1.9	2.4	3.9	4.0	3.3	2.7	1.8	1.3	0.8	1.2	1.3	3.2	3.1	3.7	2.8	3.0	2.5	2.7	2.6	Diurnal Average	
	8.3	8.1	8.2	10.4	5.2	5.5	5.5	11.9	11.0	14.1	10.8	9.4	10.5	5.3	5.7	6.7	10.5	13.3	14.8	12.8	8.9	8.5	9.9	7.8	Diurnal Maximum	

P - Power Failure
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 $\mu g/m^3$ 24-hr 30 $\mu g/m^3$

Hourly Averages for $PM_{2.5}$ at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Beaverlodge - Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$
September 1, 2008 to October 1, 2008

Maximum Value: 27.7 $\mu g/m^3$ on Sep 6 17:00

Maximum Daily Average: 12.8 $\mu g/m^3$ on Sep 20

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

Maximum Diurnal Average: 10.3 $\mu g/m^3$ at hour 17

Monthly Average: 7.25 $\mu g/m^3$

Minimum Daily Average: 4.6 $\mu g/m^3$ on Sep 22

Minimum Diurnal Average: 4.5 $\mu g/m^3$ at hour 5

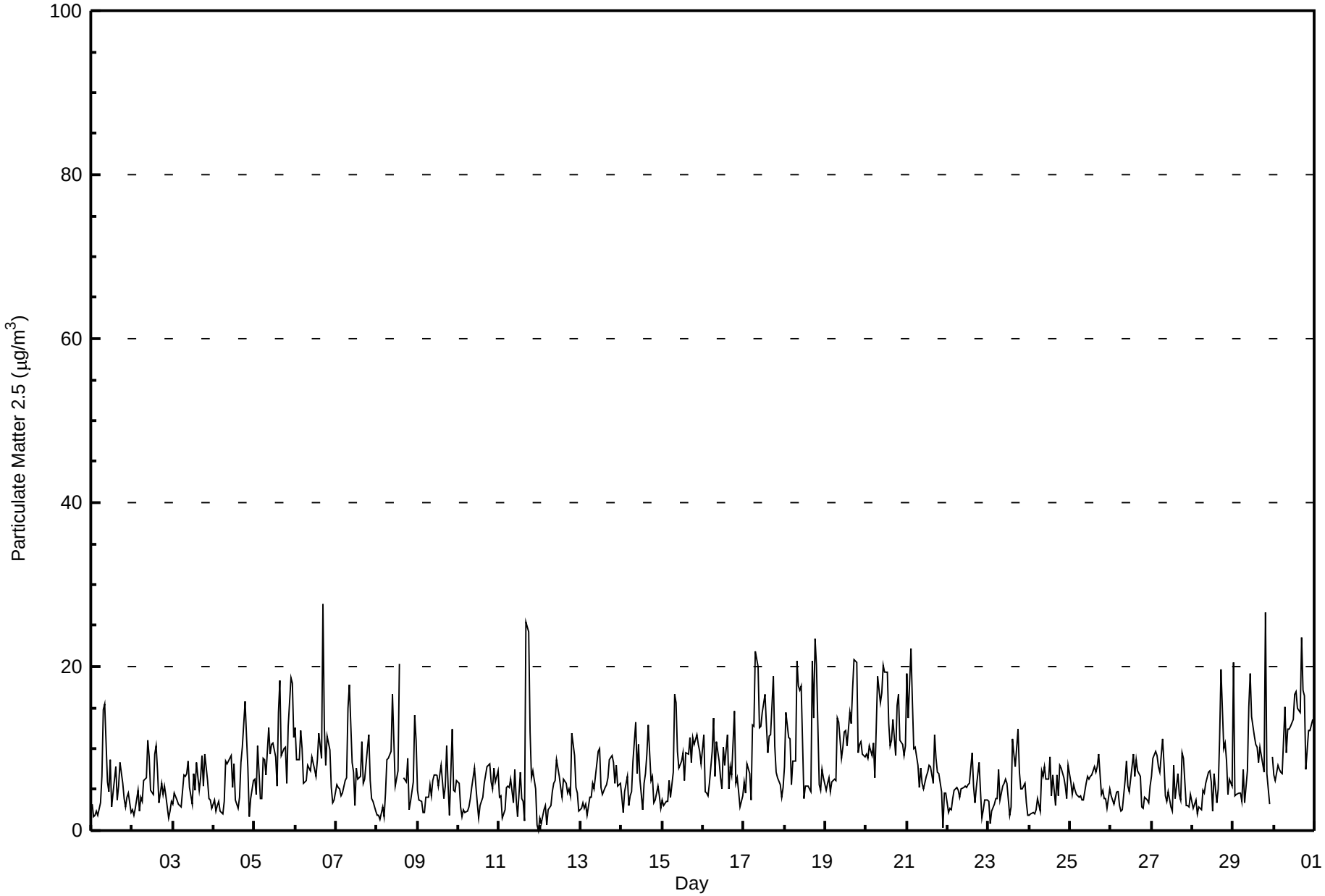
Percentiles: P_1 = 1.4 P_{10} = 2.7 Q_1 = 4.1 Median = 6.1 Q_3 = 9.2 P_{90} = 12.9 P_{99} = 21.5

Hours in Service:	720
Hours of Data:	717
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

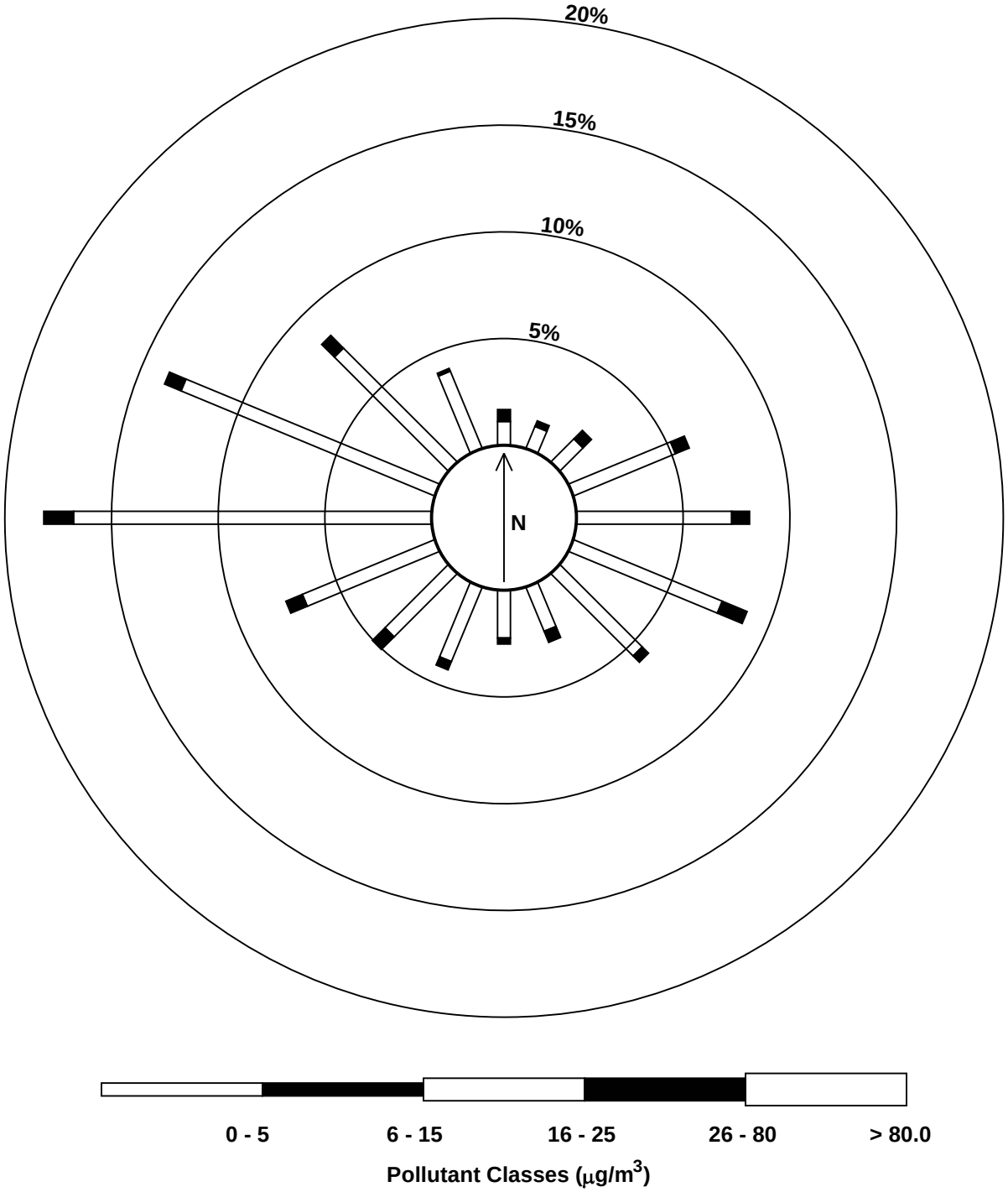
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	3	2	2	2	2	3	7	15	15	6	5	9	3	5	8	4	5	8	6	4	3	4	4	2	5.3	15.4
2-Sep	2	2	3	5	2	4	4	6	7	11	9	5	4	9	10	7	3	6	4	5	4	2	2	4	5.1	11.1
3-Sep	3	5	4	3	3	3	7	7	7	8	5	3	7	5	8	5	6	9	5	9	6	4	4	3	5.4	9.4
4-Sep	4	2	3	4	2	2	4	8	8	9	9	5	8	4	3	4	8	10	16	12	8	2	4	6	6.0	15.8
5-Sep	6	4	10	4	4	9	9	7	12	9	10	11	9	5	14	18	9	10	10	6	13	19	18	11	9.9	18.6
6-Sep	13	9	9	12	10	6	6	8	8	7	9	7	7	9	12	9	28	13	8	12	10	5	3	4	9.2	27.7
7-Sep	6	5	5	4	5	6	7	15	18	8	7	3	8	6	7	11	6	6	10	12	6	4	4	2	7.1	17.8
8-Sep	2	2	1	3	2	5	9	9	10	17	11	5	7	20	P	P	6	6	9	2	4	6	14	11	7.3	20.4
9-Sep	5	4	4	2	2	4	4	6	4	6	7	7	5	7	8	4	5	10	6	2	12	5	5	6	5.4	12.4
10-Sep	6	3	2	3	2	2	3	4	5	8	5	3	2	3	4	6	7	8	8	6	5	8	6	7	4.8	8.2
11-Sep	4	4	1	3	5	5	5	6	3	7	4	2	7	4	4	1	26	24	12	6	7	5	1	0	6.2	25.5
12-Sep	1	1	3	3	1	3	3	5	6	6	9	7	5	4	6	6	5	5	4	12	9	5	5	2	4.8	11.9
13-Sep	3	3	3	3	2	4	4	6	5	8	10	10	5	4	5	6	6	9	9	8	6	8	5	6	5.8	10.1
14-Sep	4	2	5	7	3	4	5	8	13	7	10	6	3	6	7	9	13	6	7	3	4	6	4	3	6.0	13.2
15-Sep	4	3	4	4	6	4	7	17	16	10	8	8	9	6	10	9	11	8	11	11	12	11	10	8	8.6	16.6
16-Sep	12	5	5	4	6	10	14	7	11	8	6	5	10	8	12	5	8	7	15	6	6	5	3	4	7.5	14.5
17-Sep	6	5	8	7	4	13	13	22	20	12	13	14	17	13	9	12	12	19	10	7	6	6	4	5	10.7	21.8
18-Sep	8	14	11	11	6	9	9	21	18	17	18	4	5	5	5	5	21	14	23	20	6	5	7	6	11.2	23.4
19-Sep	5	6	6	5	6	6	6	14	13	9	10	12	12	10	14	13	17	21	20	10	11	11	9	9	10.7	20.8
20-Sep	9	9	10	9	11	6	12	19	16	17	20	19	19	13	10	11	13	9	15	17	11	10	9	10	12.8	20.2
21-Sep	19	14	22	16	10	10	8	5	8	6	5	7	7	8	8	6	12	9	7	7	5	0	5	5	8.6	22.2
22-Sep	2	3	3	4	5	5	5	4	5	5	5	5	6	6	10	5	3	5	8	5	1	3	4	4	4.6	9.6
23-Sep	4	1	2	3	4	4	7	4	5	6	6	6	2	3	11	9	8	12	7	5	5	6	3	2	5.2	12.4
24-Sep	2	2	2	2	3	4	2	7	7	8	6	6	9	4	7	3	7	4	8	8	6	5	4	8	5.2	8.9
25-Sep	6	4	6	5	4	4	4	4	4	6	7	6	7	7	8	7	8	9	4	5	4	4	3	5	5.4	9.3
26-Sep	4	4	3	5	5	3	2	3	6	8	5	5	8	9	7	9	7	7	3	3	4	4	3	5	5.1	9.3
27-Sep	7	9	10	9	8	7	11	8	4	4	5	3	2	8	4	7	4	4	10	9	3	3	3	4	6.0	11.2
28-Sep	3	3	4	2	3	3	5	5	6	7	7	6	2	7	3	5	11	20	10	11	8	4	6	5	6.1	19.6
29-Sep	20	4	4	5	5	4	8	3	7	15	19	14	12	11	10	8	10	8	7	27	7	3	P	9	9.6	26.5
30-Sep	7	6	8	8	7	7	15	9	12	12	13	14	17	17	15	14	23	17	16	8	12	12	13	14	12.3	23.5
	6.0	4.6	5.4	5.2	4.5	5.3	6.8	8.7	9.3	8.9	8.8	7.3	7.5	7.5	8.2	7.5	10.3	10.1	9.7	8.5	6.8	5.8	5.7	5.7	Diurnal Average	
	20.4	14.4	22.2	15.8	10.6	12.9	15.2	21.8	20.0	17.0	20.2	19.3	19.3	20.4	14.9	18.3	27.7	24.2	23.4	26.5	12.7	18.6	18.0	13.6	Diurnal Maximum	

P - Power Failure

Hourly Maximums for $PM_{2.5}$ at Beaverlodge
September 2008



Pollutant Rose for $PM_{2.5}$ at Beaverlodge
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - External Temperature (ET) - ^{o}C
September 1, 2008 to October 1, 2008

Maximum Value: 25.4 ^{o}C on Sep 15 16:00

Maximum Daily Average: 18.8 ^{o}C on Sep 15

Minimum Value: -2 ^{o}C on Sep 24 06:00

Maximum Diurnal Average: 17.0 ^{o}C at hour 16

Monthly Average: 11.47 ^{o}C

Minimum Daily Average: 4.7 ^{o}C on Sep 24

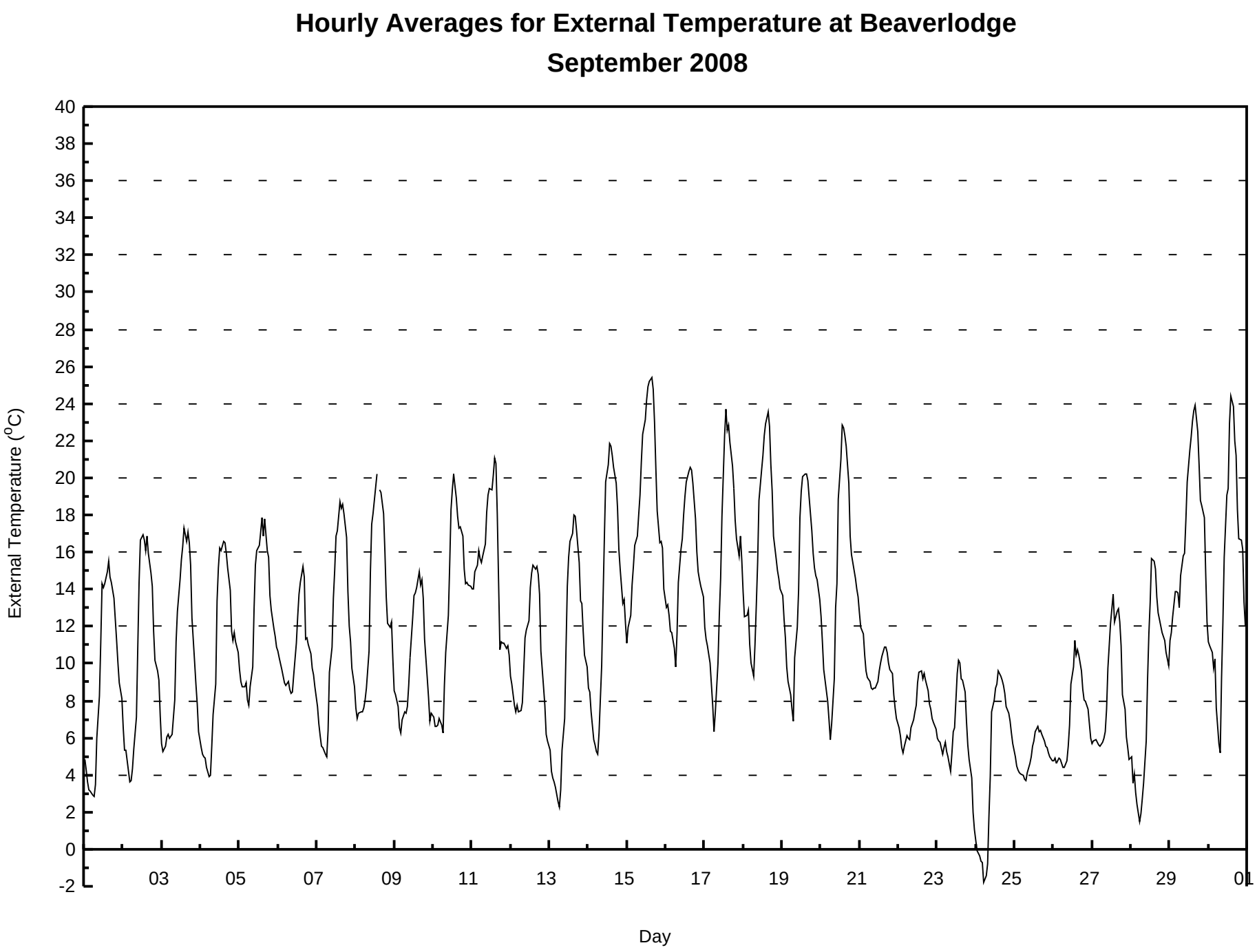
Minimum Diurnal Average: 6.7 ^{o}C at hour 7

Percentiles: P_1 = 0.4 P_{10} = 5.0 Q_1 = 7.1 Median = 10.9 Q_3 = 15.4 P_{90} = 19.3 P_{99} = 23.8

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	5	4	4	3	3	3	3	3	6	8	11	14	14	14	15	16	15	14	14	12	11	10	9	8	9.2	15.5
2-Sep	7	5	5	4	4	4	4	5	7	11	14	17	17	17	16	17	16	15	14	12	10	10	9	7	10.3	17.0
3-Sep	6	5	6	6	6	6	6	7	8	11	13	15	16	16	17	17	17	17	15	12	10	9	8	6	10.6	17.3
4-Sep	5	5	5	5	4	4	4	6	7	9	13	15	16	16	17	17	16	15	14	12	11	12	11	11	10.4	16.6
5-Sep	10	9	9	9	9	8	8	9	10	13	15	16	16	17	18	17	18	16	16	14	13	12	11	11	12.6	17.9
6-Sep	11	10	10	9	9	9	9	9	8	8	9	11	13	14	14	15	15	11	11	11	11	10	9	9	10.6	15.2
7-Sep	8	7	6	6	5	5	5	6	10	11	13	15	17	17	19	18	19	18	17	14	12	11	10	9	11.5	18.7
8-Sep	8	7	7	7	7	8	8	9	11	15	18	18	20	20	P	19	19	18	16	14	12	12	12	10	12.8	20.2
9-Sep	9	8	8	7	6	7	7	7	8	9	10	12	14	14	14	15	14	15	14	11	9	8	7	7	10.0	14.9
10-Sep	7	7	7	7	7	7	6	9	11	13	15	18	19	20	19	18	17	17	17	15	14	14	14	14	13.0	20.2
11-Sep	14	14	15	15	16	16	15	16	16	18	19	19	19	20	21	21	18	11	11	11	11	11	11	10	15.4	21.0
12-Sep	9	9	8	7	8	7	7	8	10	11	12	12	14	15	15	15	15	15	14	11	9	8	6	6	10.5	15.3
13-Sep	5	4	4	4	3	3	2	3	5	7	11	14	16	17	17	18	18	17	15	13	13	12	10	10	10.1	18.0
14-Sep	9	8	7	6	6	5	5	6	10	13	17	20	21	22	22	21	21	20	18	16	15	13	13	12	13.6	21.9
15-Sep	11	12	13	14	15	16	17	18	19	21	22	23	24	25	25	25	25	23	21	18	16	17	16	14	18.8	25.4
16-Sep	13	13	13	12	12	11	10	12	14	16	17	18	19	20	20	21	20	20	18	16	15	15	14	14	15.4	20.6
17-Sep	12	11	11	10	9	8	6	7	10	13	15	18	22	24	23	23	22	21	19	18	17	16	17	16	15.2	23.7
18-Sep	14	13	13	13	11	10	9	11	13	15	19	20	21	22	23	24	23	21	19	17	16	15	15	14	16.2	23.5
19-Sep	14	12	11	10	9	8	8	7	10	12	14	18	19	20	20	20	20	19	17	16	15	15	15	13	14.3	20.2
20-Sep	13	11	10	9	8	7	6	7	9	13	14	19	21	23	23	22	22	20	17	16	15	15	14	14	14.4	22.9
21-Sep	13	12	12	10	10	9	9	9	9	9	9	9	10	10	10	11	11	11	10	10	9	8	8	7	9.7	12.8
22-Sep	7	6	6	5	6	6	6	6	7	7	7	8	9	10	10	9	9	9	9	8	8	7	7	6	7.3	9.6
23-Sep	6	6	6	5	6	6	5	5	4	5	6	7	9	10	10	9	9	8	7	6	5	4	2	1	6.1	10.2
24-Sep	1	0	0	-1	-1	-2	-1	-1	2	4	7	8	9	9	10	9	9	9	8	8	7	7	6	6	4.7	9.6
25-Sep	5	4	4	4	4	4	4	4	4	5	5	6	6	6	7	6	6	6	6	6	5	5	5	5	5.1	6.6
26-Sep	5	5	5	5	5	5	4	4	5	6	7	9	10	11	10	11	10	10	9	8	8	8	7	6	7.1	11.2
27-Sep	6	6	6	6	6	6	6	6	6	8	10	12	13	14	12	13	13	12	11	8	8	6	5	5	8.4	13.7
28-Sep	5	4	4	3	2	2	2	3	4	6	9	12	13	16	15	15	14	13	12	12	11	11	11	10	8.6	15.6
29-Sep	11	12	13	14	14	14	13	15	16	16	18	20	21	22	23	24	24	23	21	19	18	18	15	12	17.2	23.9
30-Sep	11	11	11	10	10	8	6	5	9	12	16	19	19	23	24	24	22	21	18	17	17	16	13	12	14.8	24.4
	8.5	8.0	7.8	7.4	7.3	6.9	6.7	7.3	8.9	10.8	12.9	14.7	15.9	16.8	16.9	17.0	16.6	15.4	14.2	12.6	11.8	11.1	10.4	9.5	Diurnal Average	
	14.0	14.0	14.9	15.3	16.1	16.4	16.8	18.0	19.1	20.9	22.3	23.1	24.2	24.9	25.2	25.4	24.8	23.0	20.7	18.8	18.5	17.9	16.9	15.6	Diurnal Maximum	

P - Power Failure


Hourly Averages for External Temperature at Beaverlodge
September 2008
External Temperature (°C)
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
-2
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge - Relative Humidity (RH) - %
September 1, 2008 to October 1, 2008

Maximum Value: 96.6 % on Sep 27 07:00

Maximum Daily Average: 88.7 % on Sep 21

Minimum Value: 20 % on Sep 14 14:00

Minimum Daily Average: 41.9 % on Sep 15

Maximum Diurnal Average: 82.4 % at hour 7

Minimum Diurnal Average: 43.0 % at hour 16

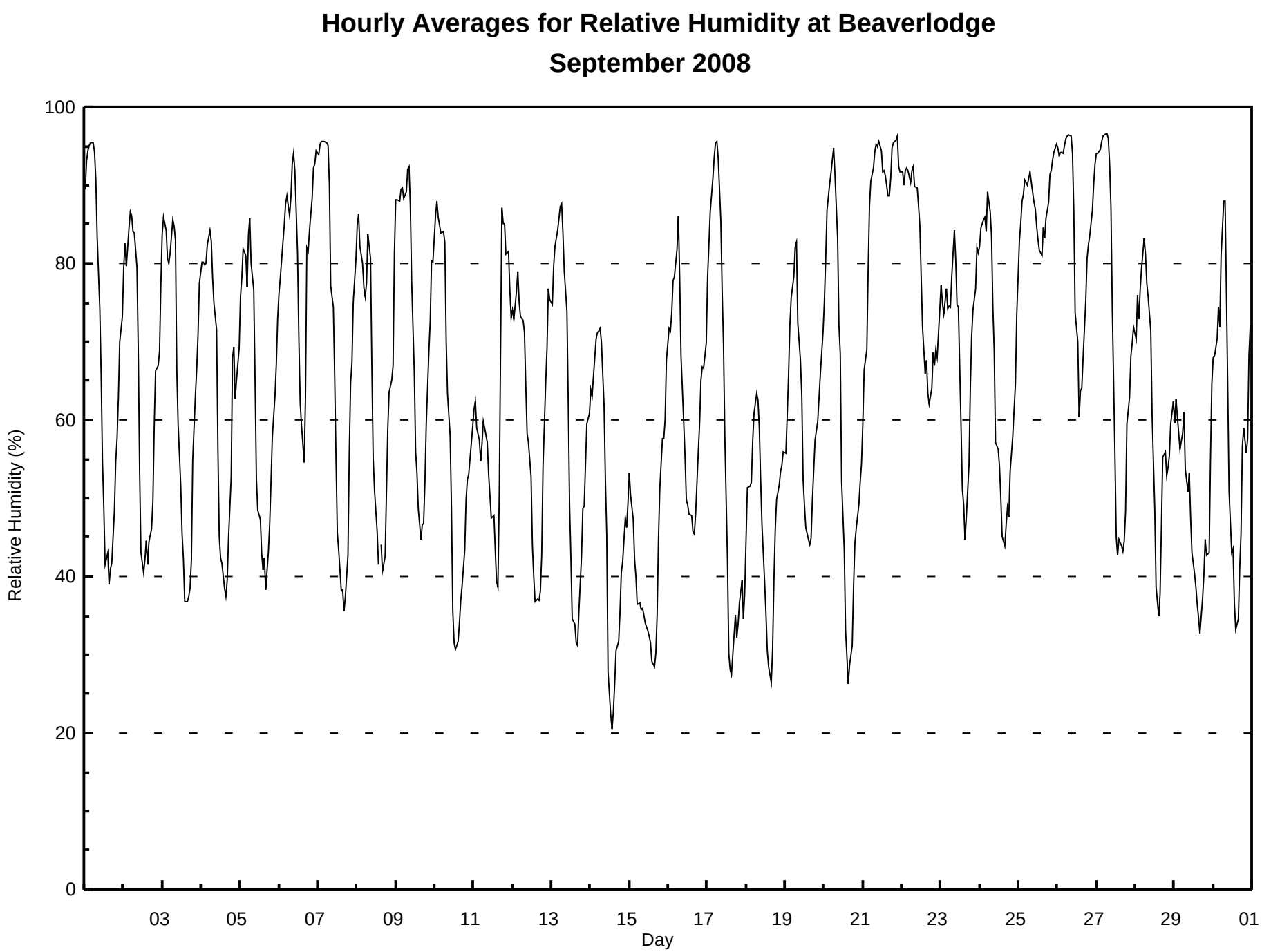
Monthly Average: 65.09 %

Percentiles: P_1 = 27.7 P_{10} = 38.2 Q_1 = 48.2 Median = 65.9 Q_3 = 82.6 P_{90} = 91.7 P_{99} = 96.2

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	90	93	94	95	95	95	94	91	83	74	66	55	49	42	43	39	41	42	48	55	58	63	70	73	68.7	95.4
2-Sep	80	82	80	85	87	86	84	84	79	69	53	43	40	42	45	41	44	46	50	59	66	67	69	77	65.0	86.6
3-Sep	84	86	84	81	80	81	86	85	83	66	59	52	45	42	37	37	37	38	42	55	63	66	71	77	64.1	85.9
4-Sep	80	80	80	80	82	84	83	78	75	72	56	45	42	42	38	37	40	45	53	68	69	63	65	69	63.6	84.2
5-Sep	76	78	82	81	77	84	86	80	77	65	53	48	47	43	41	42	38	43	47	52	58	63	67	73	62.5	85.7
6-Sep	76	78	83	85	88	89	86	88	93	94	92	81	71	62	59	55	63	82	81	84	88	92	93	94	81.6	94.4
7-Sep	94	95	96	96	96	95	95	90	77	74	65	55	46	43	38	38	36	37	43	56	65	67	75	81	68.9	95.6
8-Sep	85	86	82	80	77	76	77	84	81	67	55	51	46	42	P	44	41	43	51	59	64	65	67	81	65.3	86.3
9-Sep	88	88	88	89	90	88	89	92	92	87	78	66	56	53	49	45	47	47	52	59	69	73	80	80	72.7	92.4
10-Sep	86	88	86	85	84	84	83	70	63	58	49	36	32	31	32	34	37	39	43	50	52	53	55	59	57.8	88.0
11-Sep	61	62	59	57	55	57	60	59	57	53	50	48	48	43	39	39	50	87	85	85	81	82	77	73	61.2	87.1
12-Sep	74	73	76	79	75	73	73	71	64	58	57	53	44	40	37	37	37	38	43	54	65	69	77	75	60.1	79.0
13-Sep	75	80	82	83	84	87	88	84	79	74	62	49	42	35	34	31	31	35	43	49	49	54	60	61	60.5	87.6
14-Sep	64	63	66	70	71	71	72	70	62	52	45	28	22	20	23	26	30	32	35	40	42	47	46	49	47.9	71.7
15-Sep	53	50	47	42	40	36	37	36	36	35	34	33	32	32	29	28	30	35	45	51	58	58	60	68	41.9	67.6
16-Sep	72	71	74	78	78	82	86	78	68	60	55	50	49	48	48	46	45	48	56	59	65	67	67	70	63.4	86.1
17-Sep	78	82	87	91	94	95	96	93	85	76	70	58	42	30	28	28	30	35	32	34	37	39	35	38	58.9	95.6
18-Sep	45	51	52	52	57	61	63	63	59	52	47	39	35	31	28	26	31	39	46	50	52	53	54	56	47.6	63.4
19-Sep	56	60	66	72	76	78	82	83	72	68	63	52	49	46	45	44	45	50	58	59	60	63	66	71	61.8	82.8
20-Sep	75	81	87	90	92	93	95	91	83	72	69	52	43	33	30	26	29	31	39	44	46	49	52	54	60.7	94.7
21-Sep	60	66	69	79	87	90	92	94	95	95	96	94	92	92	91	89	89	91	95	96	96	96	92	92	88.7	96.3
22-Sep	92	90	92	92	92	90	92	92	90	90	87	85	78	72	66	68	63	62	64	69	67	69	68	74	79.3	92.3
23-Sep	77	75	74	77	74	75	74	78	84	81	75	74	59	51	49	45	48	54	64	71	74	77	82	81	69.7	84.2
24-Sep	82	85	86	86	84	89	87	83	74	69	57	56	54	50	45	44	47	49	48	53	58	61	65	74	66.0	89.1
25-Sep	83	85	88	89	91	90	91	92	90	88	87	85	83	82	81	85	83	86	88	91	92	93	94	95	87.9	95.2
26-Sep	95	94	94	94	95	96	96	96	96	94	87	74	70	60	64	64	68	75	81	82	83	87	90	93	84.6	96.4
27-Sep	94	94	95	96	96	96	97	96	93	87	74	55	45	43	45	44	43	45	48	59	63	68	70	72	71.6	96.6
28-Sep	70	76	73	77	79	83	81	77	76	71	61	55	49	39	35	38	46	55	56	53	54	55	60	62	61.7	83.2
29-Sep	60	63	60	56	57	58	61	54	51	53	48	43	40	39	37	35	33	37	40	45	43	43	55	65	48.9	64.5
30-Sep	68	68	70	74	72	81	88	88	76	64	51	43	44	37	33	35	41	45	57	59	56	58	68	72	60.3	88.0
	75.7	77.5	78.3	79.7	80.2	81.6	82.4	80.7	76.5	70.7	63.3	55.3	49.9	45.4	43.7	43.0	44.8	49.7	54.3	60.0	63.0	65.4	68.3	72.0	Diurnal Average	
	94.8	95.2	95.6	95.7	96.3	96.5	96.6	96.4	96.4	94.9	95.6	94.5	91.7	91.9	91.2	88.7	88.6	90.9	94.7	95.5	95.8	96.3	94.3	95.2	Diurnal Maximum	

P - Power Failure


Hourly Averages for Relative Humidity at Beaverlodge
September 2008
Relative Humidity (%)
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	2	2	2	1	2	2	1	1	4	5	6	6	10	12	10	13	13	11	11	8	6	2	3	3	4.1	13.0
Dir	97	94	130	86	76	81	110	113	199	207	215	242	255	245	294	288	280	272	273	275	275	239	231	205	259.2	280.0
2 Spd	1	2	5	3	2	3	2	3	4	6	11	19	21	21	22	19	20	18	14	11	9	7	5	1	7.8	21.6
Dir	87	101	193	116	102	102	113	169	193	207	236	265	262	265	259	261	253	259	269	275	286	287	275	219	256.6	258.9
3 Spd	2	0	2	4	5	6	5	4	7	10	12	10	8	9	9	10	11	7	7	8	9	4	1	2	5.9	12.4
Dir	208	184	260	288	296	310	311	296	271	305	312	303	302	304	289	287	274	296	285	261	271	276	95	207	289.8	312.2
4 Spd	1	2	2	2	2	2	2	2	3	6	3	12	11	10	11	9	8	4	8	8	5	8	4	0	3.4	11.7
Dir	145	132	104	125	116	101	113	131	198	220	286	305	308	308	309	306	294	296	273	265	276	303	299	119	290.7	305.1
5 Spd	4	4	1	1	2	2	3	5	3	2	1	2	5	1	3	3	2	7	5	5	5	0	2	2	1.3	6.6
Dir	249	264	306	44	15	272	299	318	357	92	153	220	91	13	337	35	322	58	51	30	46	324	197	38	11.4	58.0
6 Spd	5	3	2	3	3	2	5	8	5	1	3	4	4	3	5	4	4	8	3	1	1	0	3	4	1.0	8.4
Dir	352	327	358	289	324	6	9	35	338	204	194	207	186	171	166	174	35	57	37	258	16	175	272	318	359.3	56.8
7 Spd	3	5	0	2	0	0	3	2	2	6	5	7	6	8	6	5	5	4	2	3	4	3	2	2	2.3	8.4
Dir	342	311	6	244	79	349	298	268	299	307	305	318	310	302	310	329	319	310	225	141	102	107	106	144	309.8	302.0
8 Spd	4	2	3	3	3	2	3	3	8	13	18	21	23	21	P	18	19	20	18	12	12	10	9	9	8.5	22.6
Dir	129	89	110	116	110	141	214	219	224	254	275	282	280	279	P	271	271	270	255	259	261	261	2	17	269.9	279.5
9 Spd	4	10	9	6	7	7	9	9	7	11	13	11	13	12	13	13	10	9	5	3	2	3	2	2	7.2	13.4
Dir	285	301	330	310	317	327	332	330	312	316	326	334	333	336	329	310	322	330	331	335	72	62	104	137	325.6	329.4
10 Spd	3	4	3	3	4	2	2	5	10	10	12	23	25	25	28	26	26	22	25	16	14	19	18	19	12.5	27.5
Dir	187	98	107	108	122	110	126	220	219	214	239	257	255	257	264	259	262	264	278	268	268	271	272	264	257.2	263.7
11 Spd	14	12	14	15	28	27	26	28	19	23	31	34	31	28	27	23	15	12	3	4	16	15	13	17	19.1	34.5
Dir	268	260	272	260	269	270	276	278	277	265	264	260	259	260	258	259	274	345	330	247	301	277	294	292	271.0	260.3
12 Spd	13	12	3	2	4	8	10	8	9	15	14	12	9	11	14	13	9	9	5	0	3	1	2	3	6.8	14.9
Dir	291	294	246	320	303	281	274	265	278	304	320	328	335	321	309	318	327	315	308	41	97	124	89	198	305.2	304.2
13 Spd	3	2	3	3	3	2	2	3	2	4	5	12	13	21	19	17	19	13	10	9	8	6	1	1	5.4	21.1
Dir	144	128	107	112	86	97	88	79	101	209	213	245	255	275	282	273	282	269	266	274	276	261	22	154	264.9	275.0
14 Spd	2	2	2	1	2	2	2	2	1	3	4	17	20	19	20	18	14	18	14	13	5	4	9	6	6.8	20.3
Dir	117	127	211	80	83	113	134	85	106	196	218	281	289	287	283	287	266	256	257	264	271	250	264	240	269.8	289.4
15 Spd	11	12	5	6	8	15	19	22	16	20	27	31	26	24	23	21	17	14	9	8	3	4	6	1	14.0	30.8
Dir	254	273	283	295	292	284	274	268	265	276	279	278	275	273	296	305	306	298	291	288	257	258	280	129	281.0	278.0
16 Spd	2	4	3	3	0	6	0	1	4	11	15	15	12	12	13	15	15	13	13	13	12	13	11	7	8.3	14.8
Dir	81	72	74	81	43	43	216	288	154	121	114	116	115	114	105	98	107	106	88	84	87	96	93	115	101.3	116.4
17 Spd	2	4	4	1	0	1	3	2	4	3	4	7	15	23	21	19	16	9	11	11	10	9	13	9	7.0	23.0
Dir	207	124	99	268	196	317	348	358	324	270	200	235	249	256	262	262	268	284	293	296	293	296	283	272	270.8	255.8
18 Spd	6	2	0	3	0	2	2	2	1	4	8	16	13	11	10	8	7	7	2	9	10	10	11	9	1.7	16.0
Dir	258	318	31	263	143	140	216	241	191	228	268	295	301	299	319	329	30	55	81	62	71	86	100	98	347.4	295.3
19 Spd	8	3	2	1	2	1	3	2	4	8	6	3	4	5	8	10	11	10	6	9	9	7	8	7	4.6	11.3
Dir	118	233	250	72	68	244	258	57	104	135	132	145	131	123	119	107	96	102	95	74	66	72	96	108	104.7	96.2
20 Spd	6	1	6	5	3	6	5	2	2	1	4	4	7	15	16	18	13	13	5	5	6	6	8	8	5.6	18.3
Dir	96	130	308	328	359	1	326	32	329	122	223	251	254	289	289	301	307	298	295	294	295	306	321	319	302.9	301.3
21 Spd	4	4	3	6	7	5	3	6	6	7	7	8	7	6	5	3	3	2	3	4	5	6	6	5	3.6	7.6
Dir	272	294	247	214	300	276	259	256	233	220	230	226	211	217	250	318	287	253	216	284	304	360	340	336	261.2	226.4
22 Spd	6	7	6	5	5	7	6	7	8	12	14	15	18	17	19	18	18	18	15	15	14	14	15	12	11.9	19.0
Dir	330	325	314	308	305	310	291	293	295	296	295	296	294	294	287	284	286	282	279	280	284	285	286	296	291.7	286.6

Peace Airshed Zone Association
Summary of Hourly Averages

Beaverlodge
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	9	10	14	10	10	10	11	11	19	10	14	14	14	15	19	20	14	12	8	6	3	2	1	2	10.2	20.5
Dir	284	284	289	297	287	279	269	293	277	280	289	301	296	289	266	267	277	298	284	276	282	208	102	104	282.9	266.5
24 Spd	2	2	2	2	1	2	2	1	1	2	1	7	10	10	13	14	12	10	9	10	10	10	10	10	5.8	13.8
Dir	102	107	87	57	123	60	55	80	72	148	125	138	129	121	110	100	87	72	88	85	101	68	57	81	93.7	100.0
25 Spd	9	6	5	6	7	7	8	8	6	6	6	6	6	4	5	6	6	4	3	3	1	2	1	3	4.8	9.1
Dir	82	64	48	56	65	77	62	58	65	70	75	84	66	70	78	63	73	70	103	110	146	213	70	59	71.3	81.8
26 Spd	3	1	2	1	2	3	3	2	3	4	5	5	5	5	9	8	11	10	9	10	13	12	11	8	5.2	12.9
Dir	55	80	90	128	137	148	166	181	153	179	182	181	193	136	150	137	129	126	110	101	105	99	100	109	125.9	104.7
27 Spd	8	6	1	3	4	5	6	6	6	7	15	26	28	30	27	24	25	25	19	12	11	4	4	7	11.0	29.5
Dir	113	122	218	101	195	214	235	234	217	217	241	259	272	266	269	275	274	273	272	262	275	268	256	262	260.6	265.9
28 Spd	3	1	2	1	1	4	3	2	3	5	3	6	7	11	17	10	7	2	3	3	3	2	4	2	3.0	16.7
Dir	253	161	239	98	159	224	248	255	147	152	175	211	218	263	268	267	265	183	148	164	121	131	191	150	227.8	267.6
29 Spd	3	9	1	3	12	15	6	12	12	3	5	6	10	8	12	10	10	6	4	5	7	8	6	0	6.4	14.7
Dir	235	246	126	255	248	256	211	241	256	192	244	222	267	267	260	251	277	270	295	305	305	327	311	302	261.1	256.1
30 Spd	3	5	3	3	2	1	0	2	2	2	2	2	5	3	3	4	2	4	5	6	6	2	0	3	2.3	5.9
Dir	131	112	136	75	28	186	149	66	90	168	170	166	117	125	140	176	154	133	120	84	75	74	239	79	113.6	84.2
Spd	0.9	1.5	1.1	1.0	1.8	2.5	2.9	3.2	3.5	4.0	5.8	8.6	8.9	9.8	9.7	8.7	7.3	5.5	4.4	3.0	2.4	2.0	1.8	0.9	Diurnal Average	
Dir	249.8	284.0	287.2	296.1	291.0	285.3	280.3	278.8	261.2	251.5	263.6	269.8	271.3	273.7	276.2	279.2	282.0	287.3	278.3	281.4	297.5	295.0	304.3	287.9		
Spd	14.2	12.2	14.0	15.4	28.2	26.9	26.1	28.0	19.4	22.7	30.8	34.5	31.4	29.5	27.5	26.0	26.2	25.3	24.5	15.9	16.4	19.5	18.0	19.4	Diurnal Maximum	
Dir	268.4	294.2	288.8	260.4	268.9	270.2	275.7	278.5	277.1	264.9	264.5	260.3	259.3	265.9	263.7	259.4	262.0	272.6	277.8	267.6	300.8	271.2	271.7	263.7		

Maximum Speed Value: 34 km/h on Sep 11 12:00
Maximum Daily Speed Average: 19.1 km/h on Sep 11
Maximum Diurnal Speed Average: 9.8 km/h at hour 14

Minimum Speed Value: 0 km/h on Sep 17 05:00
Minimum Daily Speed Average: 1.0 km/h on Sep 30
Minimum Diurnal Speed Average: 0.9 km/h at hour 24

Monthly Average Velocity: 4.15 km/h 276.64 deg

Speed Percentiles: $P_1 = 0.3$ $P_{10} = 1.7$ $Q_1 = 2.8$ Median = 6.1 $Q_3 = 11.2$ $P_{90} = 17.7$ $P_{99} = 27.9$

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

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

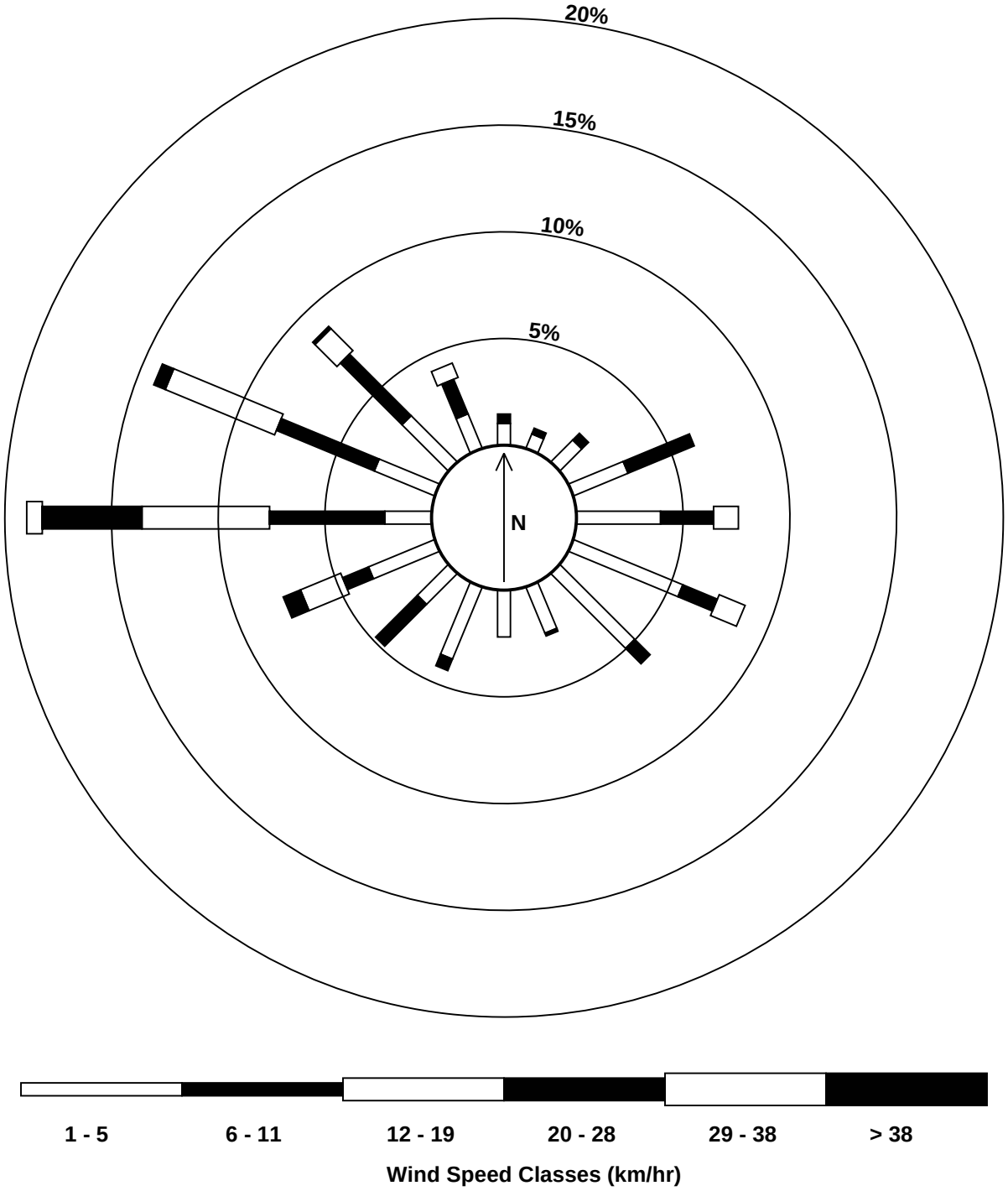
P - Power Failure

Percentage Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	2.09	0.83	0.14	0.00	0.00	0.00	3.06
NorthEast	2.78	2.64	0.00	0.00	0.00	0.00	5.42
East	9.74	4.31	2.23	0.00	0.00	0.00	16.27
SouthEast	8.48	2.09	0.83	0.00	0.00	0.00	11.40
South	5.15	0.14	0.00	0.00	0.00	0.00	5.29
SouthWest	5.15	4.03	0.70	0.00	0.00	0.00	9.87
West	4.87	8.21	8.76	7.09	0.83	0.00	29.76
NorthWest	4.59	9.18	4.87	0.28	0.00	0.00	18.92
Total	42.84	31.43	17.52	7.37	0.83	0.00	100.00

Wind Rose for WS at Beaverlodge

September 2008



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

Beaverlodge - Wind Speed (WS) - km/h
September 1, 2008 to October 1, 2008

Maximum Speed: 35 km/h on Sep 11 12:00

Maximum Daily Speed Average: 20.4 km/h on Sep 11

Minimum Speed: 0 km/h on Sep 17 05:00

Minimum Daily Speed Average: 3.4 km/h on Sep 30

Maximum Diurnal Speed Average: 14.3 km/h at hour 15

Minimum Diurnal Speed Average: 4.1 km/h at hour 4

Monthly Average Speed: 8.32 km/h

Percentiles: P_1 = 1.0 P_{10} = 2.3 Q_1 = 3.4 Median = 6.4 Q_3 = 11.4 P_{90} = 17.7 P_{99} = 27.9

Hours in Service: 720
Hours of Data: 719
Hours of Missing Data: 1

Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	3	2	2	1	2	2	1	2	4	5	6	7	10	12	11	13	13	11	11	8	6	3	3	4	5.8	13.1
2-Sep	2	2	5	3	2	3	2	3	4	6	11	19	21	21	22	20	21	18	14	11	9	7	5	2	9.8	22.0
3-Sep	3	2	2	4	5	6	6	5	8	11	13	11	8	10	9	10	11	8	7	8	9	6	1	3	6.9	12.8
4-Sep	2	2	2	2	2	2	2	3	3	6	5	12	12	11	11	9	8	4	8	8	5	8	4	1	5.5	12.1
5-Sep	4	4	1	2	3	2	3	5	5	2	3	4	6	4	5	5	4	7	5	5	5	2	2	2	3.8	6.8
6-Sep	5	4	3	6	4	3	6	8	6	6	3	4	5	3	5	5	7	8	4	2	2	1	4	4	4.5	8.5
7-Sep	4	5	1	2	1	1	3	2	2	7	6	7	7	9	6	6	6	5	3	3	4	3	2	3	4.1	8.8
8-Sep	4	2	3	3	3	2	3	4	8	14	18	22	23	22	P	18	19	20	18	12	12	10	10	9	11.3	22.8
9-Sep	5	10	9	6	7	8	9	9	7	11	13	11	14	12	14	13	10	9	6	3	3	4	3	3	8.3	13.8
10-Sep	4	4	3	3	4	3	3	7	11	10	12	23	25	25	28	26	26	23	25	16	14	20	18	19	14.6	27.7
11-Sep	14	12	14	16	28	27	26	28	19	23	31	35	31	28	28	23	20	13	7	5	17	15	13	17	20.4	34.6
12-Sep	13	12	4	2	5	8	10	8	9	15	15	12	10	12	14	13	10	9	5	1	3	2	3	4	8.3	15.1
13-Sep	4	2	3	3	3	2	2	3	3	4	6	12	13	21	19	18	20	13	10	9	9	7	3	4	8.1	21.3
14-Sep	3	2	2	1	3	2	2	2	3	3	5	18	21	20	20	18	15	18	14	13	6	5	9	6	8.7	20.5
15-Sep	11	12	6	6	9	15	19	22	16	20	27	31	26	24	24	21	17	14	9	8	4	5	7	3	14.9	31.0
16-Sep	3	4	3	3	1	7	3	3	4	11	15	15	12	12	14	15	15	13	13	14	12	13	11	7	9.3	15.0
17-Sep	3	4	4	1	0	2	5	4	4	4	4	7	16	23	21	20	16	9	11	11	10	9	13	9	8.7	23.4
18-Sep	6	4	3	4	1	2	2	3	3	4	9	16	13	12	10	8	9	7	3	9	10	10	11	9	7.0	16.2
19-Sep	8	4	3	2	2	1	3	2	5	9	6	3	5	5	8	10	12	10	7	9	9	7	8	7	6.0	11.5
20-Sep	7	4	6	5	3	7	6	3	3	2	5	5	7	15	16	18	13	13	5	5	6	6	8	9	7.4	18.4
21-Sep	5	4	4	6	7	5	4	7	7	7	7	8	7	6	5	3	3	3	4	4	7	6	6	5	5.4	7.7
22-Sep	6	7	6	5	5	7	7	7	8	12	14	15	18	17	19	19	18	18	15	15	14	14	15	12	12.2	19.2
23-Sep	9	11	14	10	10	11	11	11	19	11	14	14	14	16	19	21	14	13	8	6	3	2	2	3	11.0	20.7
24-Sep	2	2	2	2	1	2	2	2	2	2	2	7	10	11	13	14	12	10	10	10	11	10	10	10	6.6	13.9
25-Sep	9	7	5	6	7	7	8	8	6	6	6	6	6	4	5	7	6	4	3	3	2	2	1	3	5.3	9.2
26-Sep	3	1	2	1	2	3	3	2	3	5	5	5	5	6	9	8	11	10	9	10	13	13	11	8	6.2	12.9
27-Sep	8	6	3	4	5	5	7	7	6	7	15	26	28	30	28	24	25	25	19	12	11	5	5	7	13.3	29.7
28-Sep	3	2	2	1	2	4	4	3	4	5	3	7	7	12	17	11	7	3	4	4	3	3	4	4	5.0	16.7
29-Sep	6	9	4	7	12	15	7	12	12	4	5	7	11	8	12	10	10	6	5	6	8	8	7	5	8.2	14.7
30-Sep	4	5	4	4	3	2	2	3	2	2	2	3	5	4	3	4	3	4	5	6	6	2	1	3	3.4	6.0
	5.4	5.0	4.2	4.1	4.7	5.6	5.7	6.2	6.5	7.7	9.5	12.4	13.1	13.8	14.3	13.7	12.7	11.0	8.8	7.8	7.6	6.9	6.8	6.2	Diurnal Average	
	14.2	12.2	14.0	15.6	28.2	26.9	26.2	28.0	19.4	22.8	30.9	34.6	31.5	29.7	27.7	26.1	26.2	25.4	24.7	16.0	17.1	19.6	18.1	19.5	Diurnal Maximum	

P - Power Failure
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
September 1, 2008 to October 1, 2008

Maximum Value: 93.4 deg on Sep 30 07:00

Minimum Value: 2.9 deg on Sep 22 20:00

Percentiles: P_1 = 3.3 P_{10} = 5.6 Q_1 = 8.4 Median = 14.5 Q_3 = 32.8 P_{90} = 57.6 P_{99} = 87.0

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

Day	Hourly Period Ending At (MST)																								Daily 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-Sep	47	22	38	65	7	11	43	73	15	17	17	30	17	13	25	8	6	6	4	4	11	48	29	36	73.1
2-Sep	40	41	12	29	15	14	15	19	9	20	15	16	9	10	10	9	7	7	5	5	3	6	15	81	81.2
3-Sep	60	91	57	10	8	5	9	40	27	10	14	20	22	24	20	17	13	26	9	7	5	63	56	47	90.8
4-Sep	43	39	21	12	16	12	21	42	15	11	58	14	16	15	15	14	13	11	13	7	11	9	17	92	91.7
5-Sep	8	11	52	43	37	23	43	7	48	39	76	66	34	84	70	50	78	14	17	7	6	87	39	48	87.5
6-Sep	24	34	61	54	41	38	22	24	35	89	24	24	29	57	40	41	78	8	22	75	60	84	32	11	89.1
7-Sep	50	12	71	67	83	67	17	14	29	16	18	20	44	20	33	51	45	24	43	39	14	12	15	33	82.7
8-Sep	10	21	12	13	28	29	61	52	12	23	7	9	9	14	P	8	5	5	3	3	3	9	27	10	61.3
9-Sep	49	11	13	6	6	10	7	8	12	8	9	18	14	15	14	16	12	17	9	14	64	64	29	40	64.3
10-Sep	23	16	12	9	11	38	28	57	9	9	13	7	7	6	7	4	4	7	6	5	8	6	8	5	57.0
11-Sep	6	8	8	9	4	4	5	3	4	6	6	4	4	7	6	5	38	21	69	32	25	9	7	3	69.0
12-Sep	4	3	48	47	30	8	8	20	8	10	9	15	18	17	14	15	19	8	12	71	15	57	49	43	70.7
13-Sep	27	26	17	22	14	44	21	17	38	21	21	14	14	8	10	15	14	11	5	6	19	18	77	85	84.7
14-Sep	35	45	58	71	22	23	29	16	65	16	37	10	8	14	9	6	9	4	3	5	55	21	11	13	71.1
15-Sep	7	15	39	18	30	14	4	3	6	6	5	6	7	8	16	9	8	9	9	3	43	31	30	77	76.5
16-Sep	58	11	16	15	50	21	74	88	33	12	10	10	14	14	14	9	11	6	7	4	6	4	7	10	88.1
17-Sep	35	15	31	68	65	86	68	54	19	32	31	12	17	10	6	8	9	9	6	6	12	4	7	13	86.1
18-Sep	23	60	91	75	68	41	71	79	68	25	21	9	13	23	17	19	33	10	12	9	6	7	4	4	90.7
19-Sep	13	42	40	75	28	28	33	65	24	19	20	54	58	26	17	9	12	7	13	4	5	13	7	7	74.5
20-Sep	9	80	12	28	46	38	45	54	53	85	21	20	16	14	12	7	8	8	6	9	14	8	6	11	84.6
21-Sep	37	36	47	14	13	31	19	15	14	11	6	5	7	10	16	30	33	19	48	20	40	17	8	9	48.5
22-Sep	6	7	4	7	6	9	10	7	6	5	5	6	5	6	7	6	4	5	5	3	5	3	4	4	9.6
23-Sep	6	7	3	8	11	12	14	11	8	15	8	8	9	17	15	8	12	13	10	9	29	46	59	25	59.0
24-Sep	22	24	29	27	47	25	14	84	62	29	71	19	12	12	9	8	11	8	13	13	19	15	7	6	84.3
25-Sep	5	12	13	9	10	7	3	4	7	14	14	15	17	26	20	7	12	13	7	9	40	20	86	7	86.2
26-Sep	8	12	14	26	12	22	20	20	21	19	16	25	29	34	13	15	7	8	7	4	5	6	6	13	34.4
27-Sep	7	20	79	52	29	13	46	18	15	10	10	11	9	7	9	6	5	4	4	3	6	32	50	22	79.1
28-Sep	51	79	57	83	53	25	72	78	29	14	34	21	13	33	6	10	12	32	37	33	22	49	10	58	83.1
29-Sep	73	6	66	85	6	4	37	10	14	57	36	27	15	13	13	13	11	18	22	50	18	8	40	85	84.9
30-Sep	43	12	38	13	47	83	93	59	41	25	33	47	13	41	50	23	35	12	13	10	7	40	77	14	93.4
	73.4	90.8	90.7	84.9	82.7	86.1	93.4	88.1	68.1	89.1	76.3	65.7	57.7	84.0	69.7	50.9	78.0	32.5	69.0	75.2	64.3	87.5	86.2	91.7	

P - Power Failure

PASZA
Portable – Spirit River Station

Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.8 ppb on Sep 30 17:00
Maximum Daily Average: 1.7 ppb on Sep 30

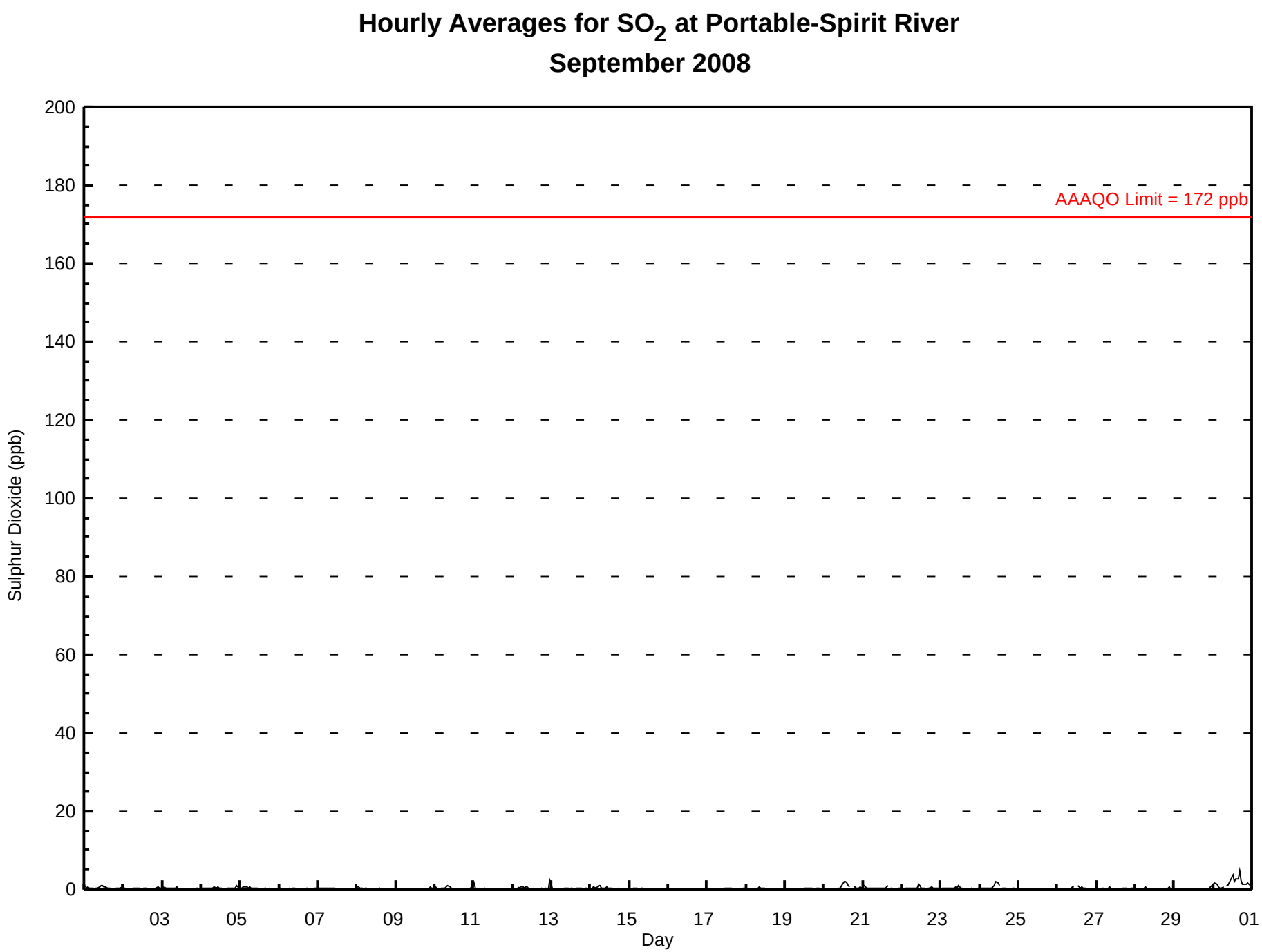
Minimum Value: 0 ppb on Sep 5 23:00
Maximum Diurnal Average: 0.5 ppb at hour 12
Monthly Average: 0.29 ppb

Minimum Daily Average: 0.0 ppb on Sep 16
Minimum Diurnal Average: 0.2 ppb at hour 21
Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.2 Q_3 = 0.3 P_{90} = 0.6 P_{99} = 2.2

Hours in Service:	720
Hours of Data:	676
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	1	0	1	0	0	0	0	0	1	1	1	1	1	1	0	0	0	A	A	0	0	0	0	1	0.5	1.1
2-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	1	0	0	0.2	0.5
3-Sep	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0.3	0.5
4-Sep	0	0	0	0	0	0	0	0	1	0	1	0	0	0	A	A	0	0	0	0	0	0	1	0	0.4	1.2
5-Sep	0	0	1	1	1	0	1	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0.3	0.7
6-Sep	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
7-Sep	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
8-Sep	1	1	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
9-Sep	0	0	0	A	0	0	0	0	0	0	C	C	C	C	A	0	0	0	0	0	0	1	0	0	0.1	0.5
10-Sep	1	0	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.9
11-Sep	2	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	1.8
12-Sep	0	0	A	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	2.4
13-Sep	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
14-Sep	A	0	1	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.0
15-Sep	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.5
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.1
17-Sep	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	0.4
18-Sep	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.7
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
20-Sep	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	1	A	1	1	0	0	1	0	0.5	2.1
21-Sep	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0.3	1.0
22-Sep	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	1	0	0	0	0	0	0.4	1.4
23-Sep	0	0	0	0	0	0	0	0	0	1	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.9
24-Sep	0	0	0	0	0	0	0	0	1	1	2	2	1	A	0	0	0	0	0	0	0	0	0	0	0.5	1.9
25-Sep	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
26-Sep	0	0	0	0	0	0	0	0	0	1	1	A	1	1	0	1	0	0	0	0	0	0	0	0	0.2	0.9
27-Sep	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
28-Sep	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.6
29-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.9
30-Sep	1	2	1	1	0	0	1	A	1	1	2	3	4	2	3	3	5	2	1	2	1	2	1	1	1.7	4.8
	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	Diurnal Average	
	1.8	1.6	1.4	0.6	0.8	1.0	0.9	0.8	1.0	1.1	1.9	3.1	3.6	2.1	2.7	2.8	4.8	2.3	1.3	1.5	1.3	1.8	1.2	2.4	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 SO_2 at Portable-Spirit River
September 2008
AAAQO Limit = 172 ppb
Sulphur Dioxide (ppb)
200
180
160
140
120
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Maximums

Portable-Spirit River - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 5.8 ppb on Sep 30 17:00

Maximum Daily Average: 2.5 ppb on Sep 30

Minimum Value: 0 ppb on Sep 16 16:00

Minimum Daily Average: 0.2 ppb on Sep 16

Maximum Diurnal Average: 0.9 ppb at hour 12

Minimum Diurnal Average: 0.5 ppb at hour 20

Monthly Average: 0.64 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.8$ $P_{90} = 1.2$ $P_{99} = 3.1$

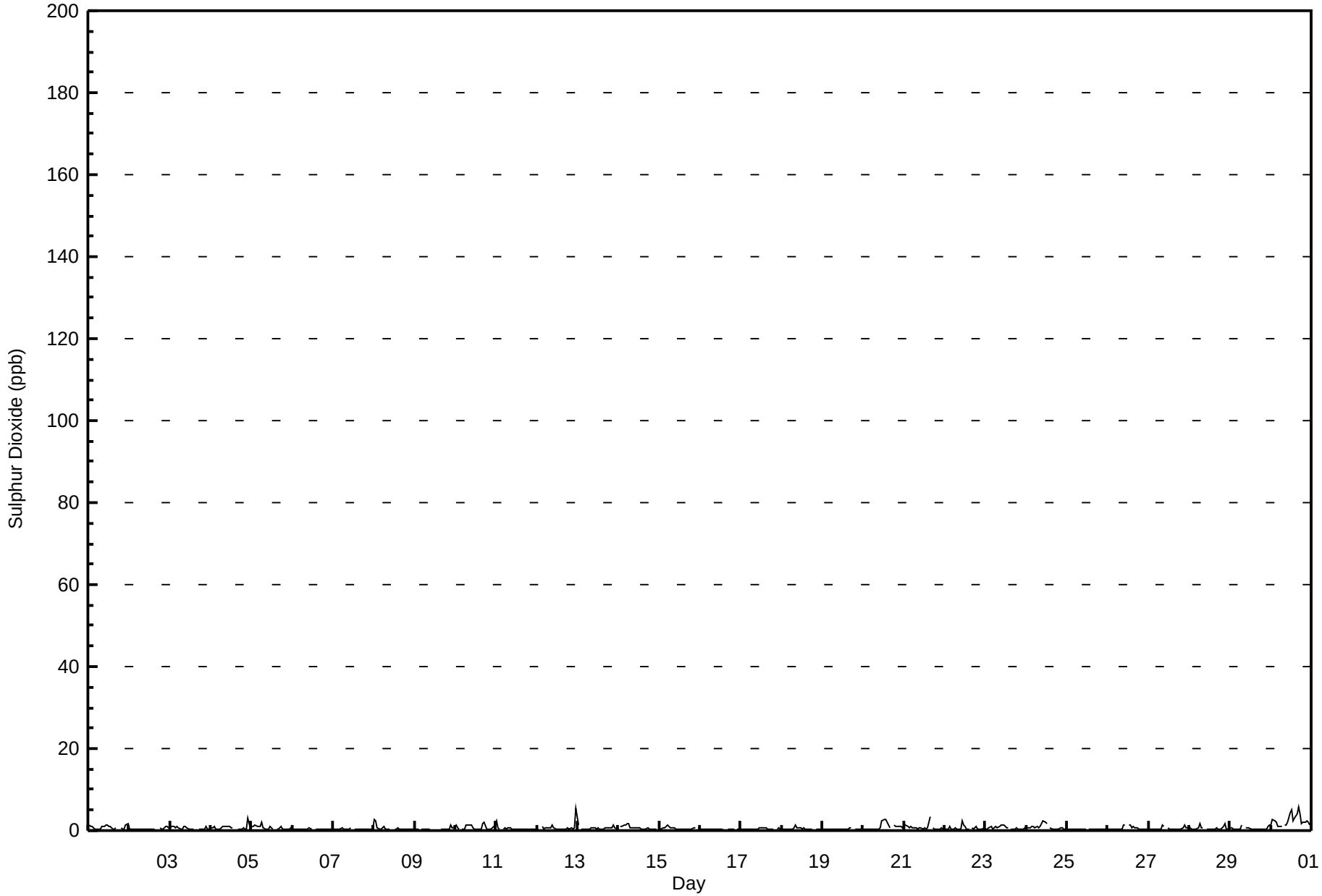
Hours in Service:	720
Hours of Data:	676
Hours of Missing Data:	44
Hours of Calibration:	44
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	A	A	1	0	0	1	2	0.9	1.8
2-Sep	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	A	1	0	0	1	1	1	0.5	1.0
3-Sep	1	1	1	1	1	1	0	0	1	1	1	0	0	0	0	A	A	0	0	0	0	1	0	0	0.6	0.9
4-Sep	1	1	1	0	0	0	1	1	1	1	1	1	1	1	A	A	0	0	0	1	0	0	3	0	0.8	3.2
5-Sep	1	1	1	1	1	1	2	1	0	0	0	1	0	A	A	0	0	1	0	0	0	0	0	1	0.7	1.9
6-Sep	0	0	0	0	0	0	0	0	0	0	1	0	A	A	0	0	0	0	0	0	0	0	0	0	0.3	0.8
7-Sep	1	0	0	0	0	1	0	0	0	1	1	A	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
8-Sep	3	2	1	0	0	1	1	0	0	0	A	A	0	0	1	0	0	0	0	0	0	0	0	0	0.6	2.8
9-Sep	0	0	0	A	0	0	0	0	0	0	C	C	C	C	A	0	0	0	0	0	0	1	1	1	0.4	1.2
10-Sep	1	1	0	A	0	0	1	1	1	1	1	0	0	0	0	0	2	2	0	0	0	0	1	1	0.7	2.2
11-Sep	2	1	0	A	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.3
12-Sep	0	0	A	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0	1	0	1	5	0.8	5.3
13-Sep	1	A	0	0	0	0	0	0	1	1	1	0	1	0	0	0	1	1	1	1	1	1	1	0	0.5	1.3
14-Sep	A	1	1	1	1	2	2	1	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	A	0.7	1.7
15-Sep	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	A	1	0.5	1.2
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.4
17-Sep	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	A	0	1	0	0.4	0.8
18-Sep	0	0	0	0	0	0	0	1	1	1	1	1	0	1	0	0	0	0	0	A	0	0	0	0	0.4	1.3
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0.3	0.8
20-Sep	0	0	0	0	0	0	1	0	0	0	1	2	3	3	2	1	1	A	1	1	1	1	1	1	1.0	2.8
21-Sep	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	3	A	1	0	0	0	0	1	1	0.8	3.3
22-Sep	0	0	0	1	0	0	1	0	0	0	2	1	1	1	0	A	1	1	1	0	0	0	0	1	0.6	2.4
23-Sep	0	0	1	1	0	1	1	1	1	1	1	1	1	1	A	0	0	0	1	0	0	0	0	1	0.7	1.4
24-Sep	1	1	1	1	1	1	1	1	1	2	2	2	2	A	1	0	0	0	0	0	1	1	0	0	0.8	2.4
25-Sep	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
26-Sep	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0.6	1.3
27-Sep	0	0	0	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	1	1	1	1	0.6	1.5
28-Sep	1	0	0	0	0	1	2	1	1	A	0	0	0	0	0	0	1	0	0	1	1	2	0	0	0.5	1.7
29-Sep	1	1	0	0	0	0	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0.5	1.4
30-Sep	1	3	2	2	1	1	1	A	1	2	2	4	5	2	3	4	6	4	2	2	2	2	2	1	2.5	5.8
	0.8	0.7	0.6	0.6	0.5	0.6	0.7	0.6	0.7	0.7	0.8	0.9	0.8	0.6	0.6	0.6	0.7	0.6	0.5	0.5	0.5	0.6	0.7	0.8	Diurnal Average	
	2.8	2.9	2.4	1.9	1.2	1.5	1.9	1.2	1.5	1.6	2.4	4.5	5.0	2.8	3.0	4.0	5.8	4.0	1.5	2.0	2.0	2.5	3.2	5.3	Diurnal Maximum	

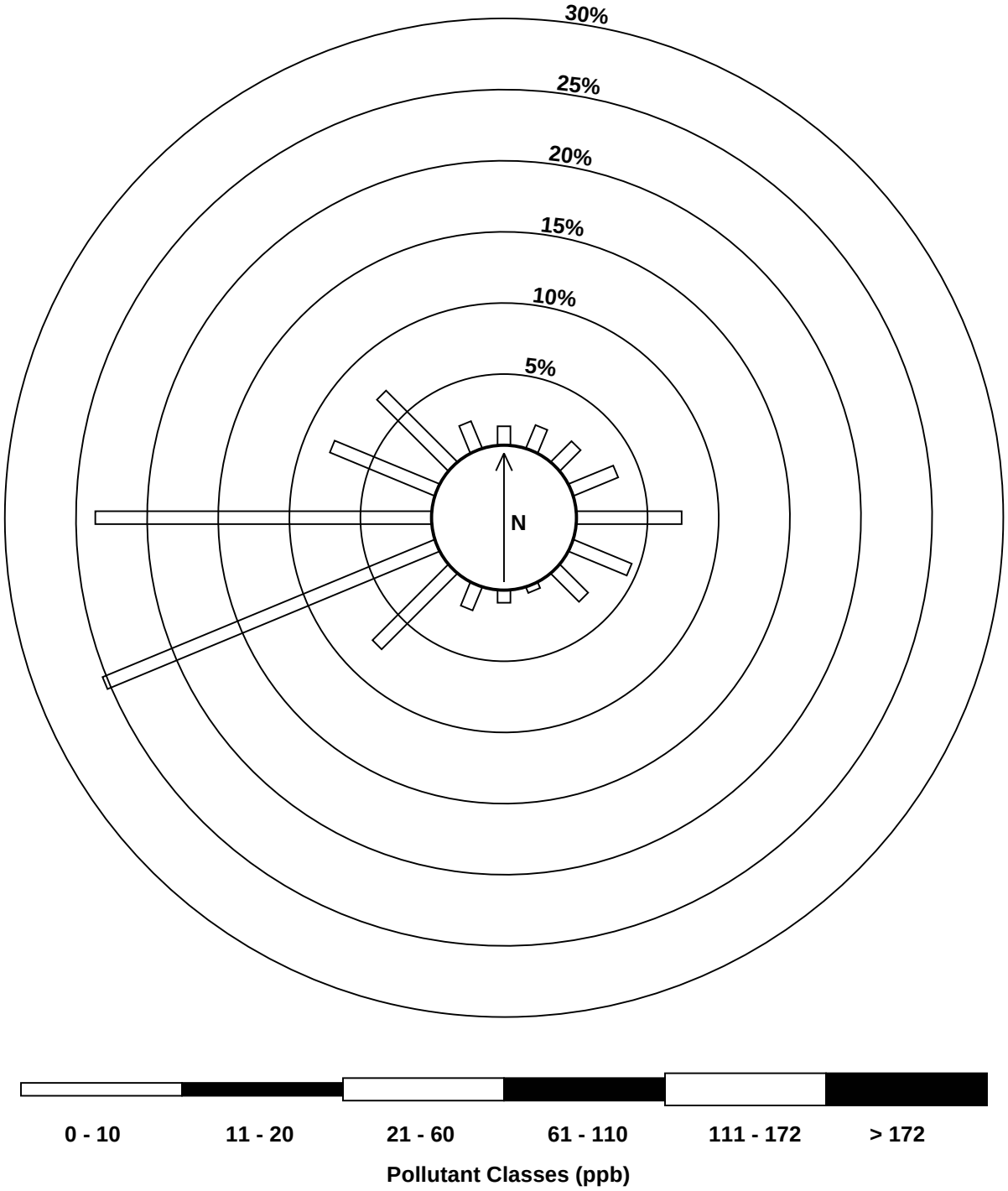
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for SO_2 at Portable-Spirit River
September 2008



Pollutant Rose for SO_2 at Portable-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River - Total Reduced Sulphur (TRS) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.2 ppb on Sep 10 03:00
Maximum Daily Average: 0.6 ppb on Sep 24

Minimum Value: 0 ppb on Sep 6 12:00
Maximum Diurnal Average: 0.5 ppb at hour 7
Monthly Average: 0.40 ppb

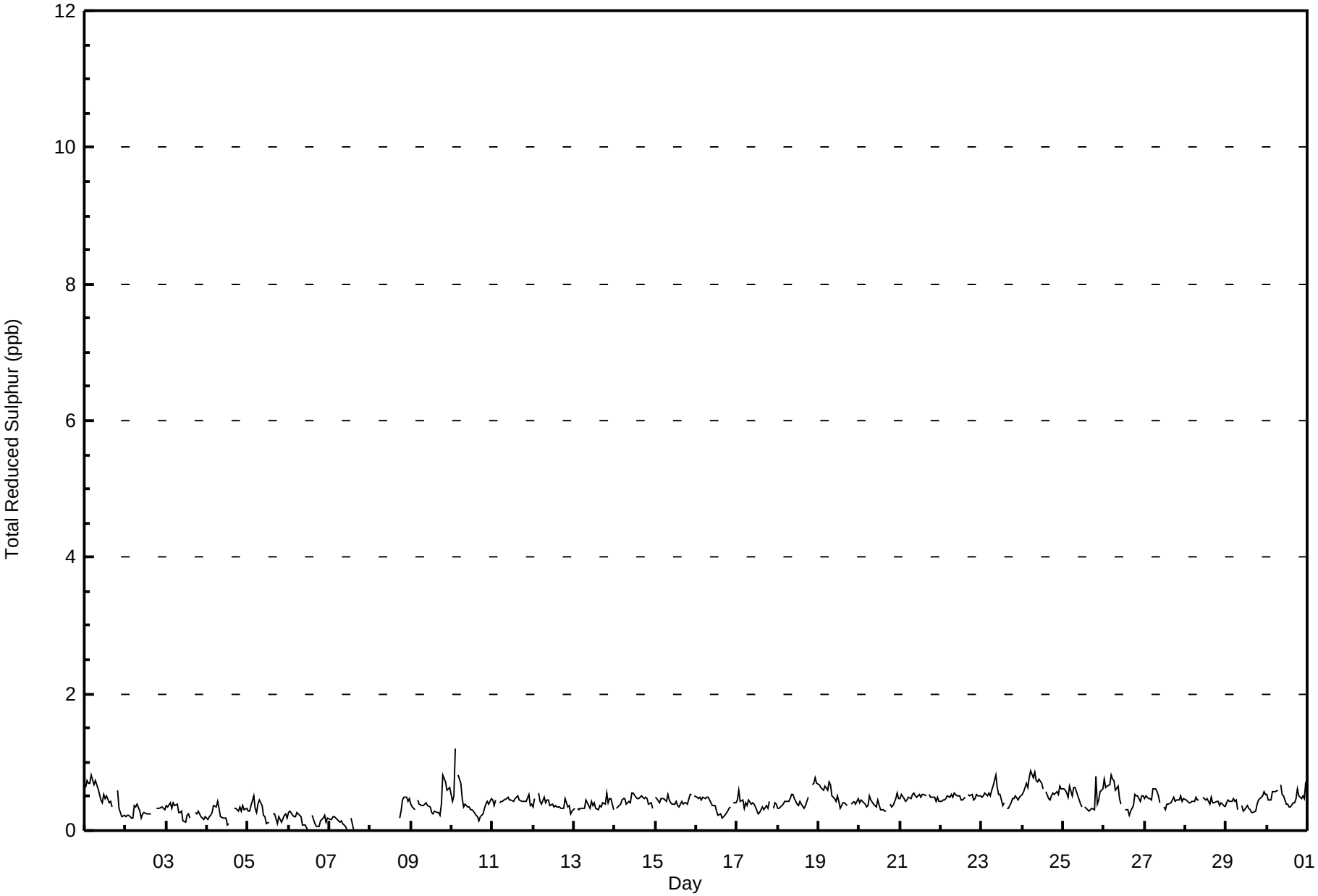
Minimum Daily Average: 0.1 ppb on Sep 7
Minimum Diurnal Average: 0.3 ppb at hour 17
Percentiles: $P_1 = 0.0$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.5$ $P_{90} = 0.6$ $P_{99} = 0.8$

Hours in Service:	720
Hours of Data:	676
Hours of Missing Data:	44
Hours of Calibration:	42
Percent Operational Time:	99.7

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

C - Calibration P - Power Failure M - Maintenance 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-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Portable-Spirit River - Total Reduced Sulphur (TRS) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 3.9 ppb on Sep 26 09:00

Maximum Daily Average: 1.0 ppb on Sep 26

Minimum Value: 0 ppb on Sep 8 09:00

Minimum Daily Average: 0.3 ppb on Sep 7

Maximum Diurnal Average: 0.9 ppb at hour 9

Minimum Diurnal Average: 0.6 ppb at hour 17

Monthly Average: 0.71 ppb

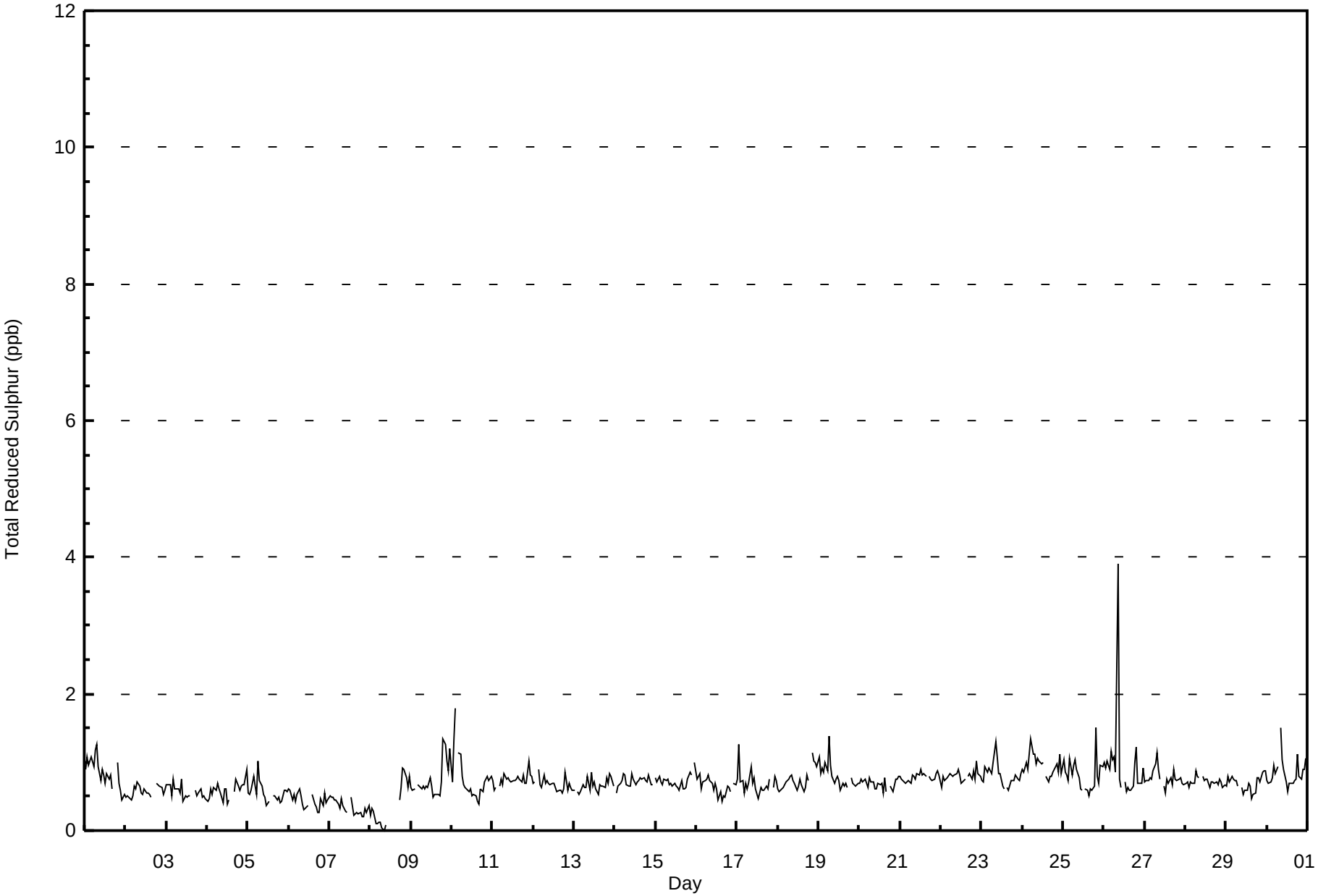
Percentiles: $P_1 = 0.2$ $P_{10} = 0.5$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 0.9$ $P_{99} = 1.3$

Hours in Service:	720
Hours of Data:	676
Hours of Missing Data:	44
Hours of Calibration:	42
Percent Operational Time:	99.7

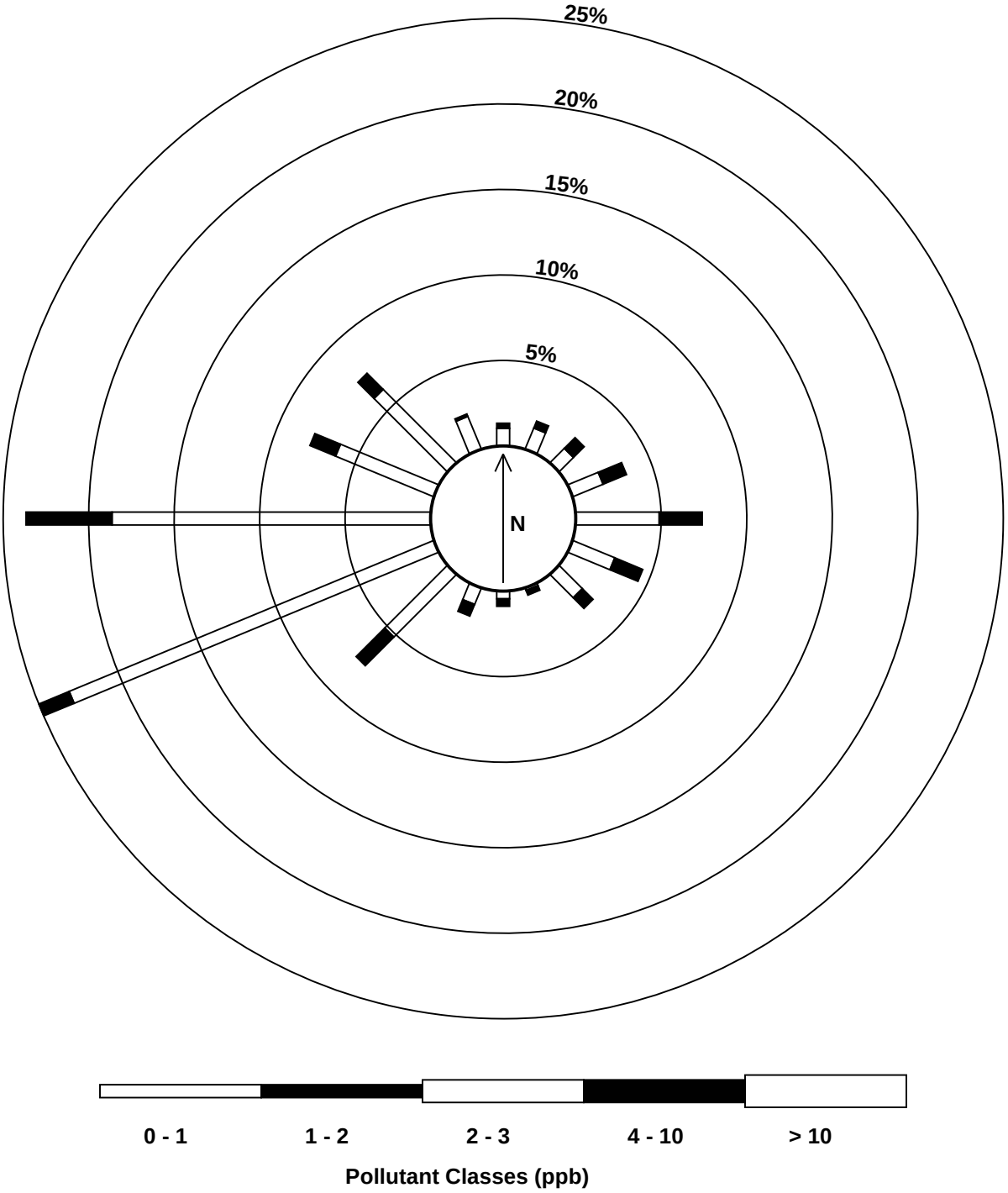
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	A	1	1	1	0	1	0.9	1.3
2-Sep	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	A	A	1	1	1	1	1	1	0.6	0.7
3-Sep	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	A	A	1	1	1	1	0	1	0	0.6	0.8
4-Sep	0	0	1	1	1	1	1	1	1	0	1	1	0	0	A	A	1	1	1	1	1	1	1	1	0.6	0.9
5-Sep	1	1	1	1	1	1	1	1	1	1	0	0	0	A	A	1	1	0	0	0	0	1	1	1	0.6	1.0
6-Sep	1	1	0	1	0	1	1	1	0	0	0	0	A	A	1	0	0	0	0	0	0	1	0	0	0.4	0.6
7-Sep	1	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
8-Sep	0	0	0	0	0	0	0	0	0	0	A	A	P	M	C	C	A	0	1	1	1	1	1	1	--	0.9
9-Sep	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.3
10-Sep	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0.8	1.8
11-Sep	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
12-Sep	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
13-Sep	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
14-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	0.8
15-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.0
16-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	A	1	1	0.7	0.8
17-Sep	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	A	1	1	1	0.7	1.3
18-Sep	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	1.1
19-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.4
20-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	0.8
21-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	0.9
22-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.0
23-Sep	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
24-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.3
25-Sep	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	0.8	1.5
26-Sep	1	1	1	1	1	1	1	1	4	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	3.9
27-Sep	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
28-Sep	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
29-Sep	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	0.9
30-Sep	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5
	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.8	Diurnal Average	
	1.1	1.3	1.8	1.0	1.2	1.3	1.4	1.3	3.9	1.1	1.0	1.0	1.0	0.8	0.8	0.8	0.8	0.9	1.1	1.5	1.3	1.0	1.1	1.2	Diurnal Maximum	

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

Hourly Maximums for TRS at Portable-Spirit River
September 2008



Pollutant Rose for TRS at Portable-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River - Nitrogen Dioxide (NO_2) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 12.6 ppb on Sep 5 07:00
Maximum Daily Average: 5.3 ppb on Sep 30

Minimum Value: 0 ppb on Sep 10 15:00
Maximum Diurnal Average: 4.6 ppb at hour 20
Monthly Average: 2.75 ppb

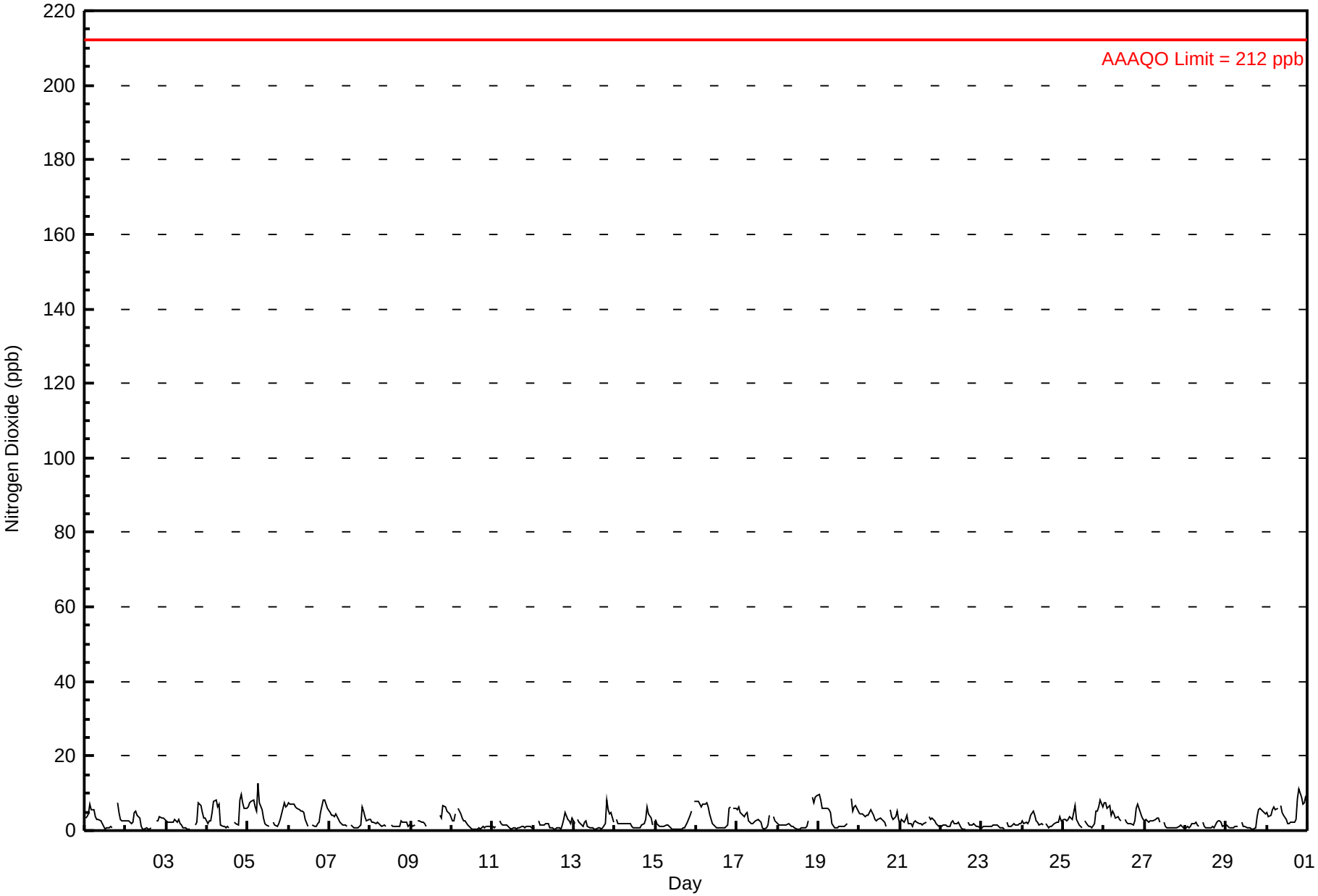
Minimum Daily Average: 1.1 ppb on Sep 11
Minimum Diurnal Average: 1.0 ppb at hour 15
Percentiles: $P_1 = 0.5$ $P_{10} = 0.7$ $Q_1 = 1.1$ Median = 2.0 $Q_3 = 3.8$ $P_{90} = 6.3$ $P_{99} = 9.0$

Hours in Service:	720
Hours of Data:	674
Hours of Missing Data:	46
Hours of Calibration:	46
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-Sep	3	4	5	7	6	5	4	3	3	3	2	1	1	1	1	1	1	A	A	7	5	3	3	3	3.1	7.5
2-Sep	3	2	2	2	2	5	5	4	3	1	1	0	1	1	1	1	A	A	3	3	4	3	3	3	2.4	5.1
3-Sep	3	2	2	2	2	3	2	3	2	1	1	1	1	0	1	A	A	2	2	7	7	5	3	3	2.5	7.3
4-Sep	2	3	3	5	8	8	7	7	1	1	1	1	1	1	A	A	2	2	2	8	10	8	6	6	4.2	9.6
5-Sep	6	8	8	8	6	5	13	8	6	3	2	1	1	A	A	2	1	1	2	3	5	7	6	7	5.0	12.6
6-Sep	7	7	7	7	7	6	6	5	5	5	3	1	A	A	1	1	1	2	2	5	8	8	7	6	5.0	8.3
7-Sep	5	4	4	4	4	3	2	2	2	2	1	A	A	1	1	1	1	1	1	6	5	4	2	3	2.7	6.3
8-Sep	3	2	2	2	2	2	2	1	1	1	A	A	1	1	1	1	1	1	3	2	2	2	1	1	1.7	3.0
9-Sep	2	1	2	A	3	2	2	2	2	1	C	C	C	C	C	C	A	4	3	7	6	5	5	4	--	6.6
10-Sep	3	3	4	A	6	5	3	3	3	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1.8	5.9
11-Sep	1	1	1	A	3	2	2	2	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1.1	2.6
12-Sep	1	1	A	3	2	1	1	2	2	2	1	1	1	1	1	1	1	1	3	5	3	3	2	3	1.7	4.7
13-Sep	2	A	3	2	2	1	2	3	1	1	1	1	1	0	1	1	0	1	2	8	6	4	5	2	2.1	8.3
14-Sep	A	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	2	3	6	5	3	2	A	2.1	6.4
15-Sep	3	2	1	1	1	1	1	2	1	1	0	1	0	0	0	0	1	1	2	2	4	5	A	8	1.7	7.8
16-Sep	8	8	7	6	7	7	8	6	4	2	1	1	1	1	1	1	1	1	2	6	6	A	6	6	4.2	8.0
17-Sep	5	7	5	4	4	5	5	3	2	2	2	3	3	3	2	1	1	1	2	4	A	4	3	2	3.0	6.5
18-Sep	2	2	1	1	1	1	2	1	1	1	1	1	0	1	1	1	1	1	3	A	9	7	9	9	2.5	9.1
19-Sep	10	8	6	6	6	6	6	5	2	1	1	1	1	1	1	1	1	2	A	8	5	6	7	5	4.2	9.5
20-Sep	4	5	4	4	4	4	5	5	4	3	3	3	3	3	3	2	1	A	6	4	3	4	5	3	3.7	5.6
21-Sep	2	3	2	3	4	2	2	1	2	3	2	2	2	2	2	2	A	4	3	3	3	2	1	1	2.3	4.0
22-Sep	1	2	1	1	1	1	2	3	2	2	2	1	1	1	0	A	2	1	1	2	1	1	1	1	1.4	2.7
23-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	2	1	1	1	2	2	1	2	2	1.3	2.3
24-Sep	3	2	2	2	3	4	5	4	3	2	2	2	1	A	2	1	1	1	2	2	2	2	4	3	2.3	5.1
25-Sep	3	3	3	3	4	3	5	7	3	1	1	1	A	2	2	1	1	1	2	5	5	6	8	6	3.3	8.2
26-Sep	7	8	6	7	4	5	5	3	4	3	3	A	3	2	2	2	2	2	2	6	7	5	4	3	4.0	7.6
27-Sep	3	3	2	2	2	3	3	3	3	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1.8	3.4
28-Sep	1	1	1	1	2	2	2	2	1	A	2	1	1	1	1	1	1	1	2	3	3	2	1	1	1.5	2.7
29-Sep	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	4	6	6	5	5	5	2.0	6.1
30-Sep	5	4	4	6	6	6	6	A	7	5	4	3	2	2	2	2	2	3	8	11	9	7	7	9	5.3	11.4
	3.4	3.4	3.2	3.4	3.5	3.4	3.7	3.2	2.6	1.9	1.5	1.2	1.1	1.1	1.0	1.1	1.1	1.4	2.4	4.6	4.6	4.1	3.9	3.8	Diurnal Average	
	9.5	8.3	7.9	8.2	7.9	8.3	12.6	7.5	6.8	5.0	4.0	3.0	3.2	2.8	2.6	2.4	2.3	3.9	8.4	11.4	9.6	8.3	9.0	9.5	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 NO_2 at Portable-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Portable-Spirit River - Nitrogen Dioxide (NO_2) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 71.3 ppb on Sep 5 07:00

Maximum Daily Average: 10.8 ppb on Sep 5

Minimum Value: 1 ppb on Sep 15 11:00

Minimum Daily Average: 2.1 ppb on Sep 28

Maximum Diurnal Average: 8.3 ppb at hour 20

Minimum Diurnal Average: 1.7 ppb at hour 15

Monthly Average: 4.39 ppb

Percentiles: P_1 = 0.7 P_{10} = 1.1 Q_1 = 1.7 Median = 3.1 Q_3 = 5.7 P_{90} = 8.8 P_{99} = 20.1

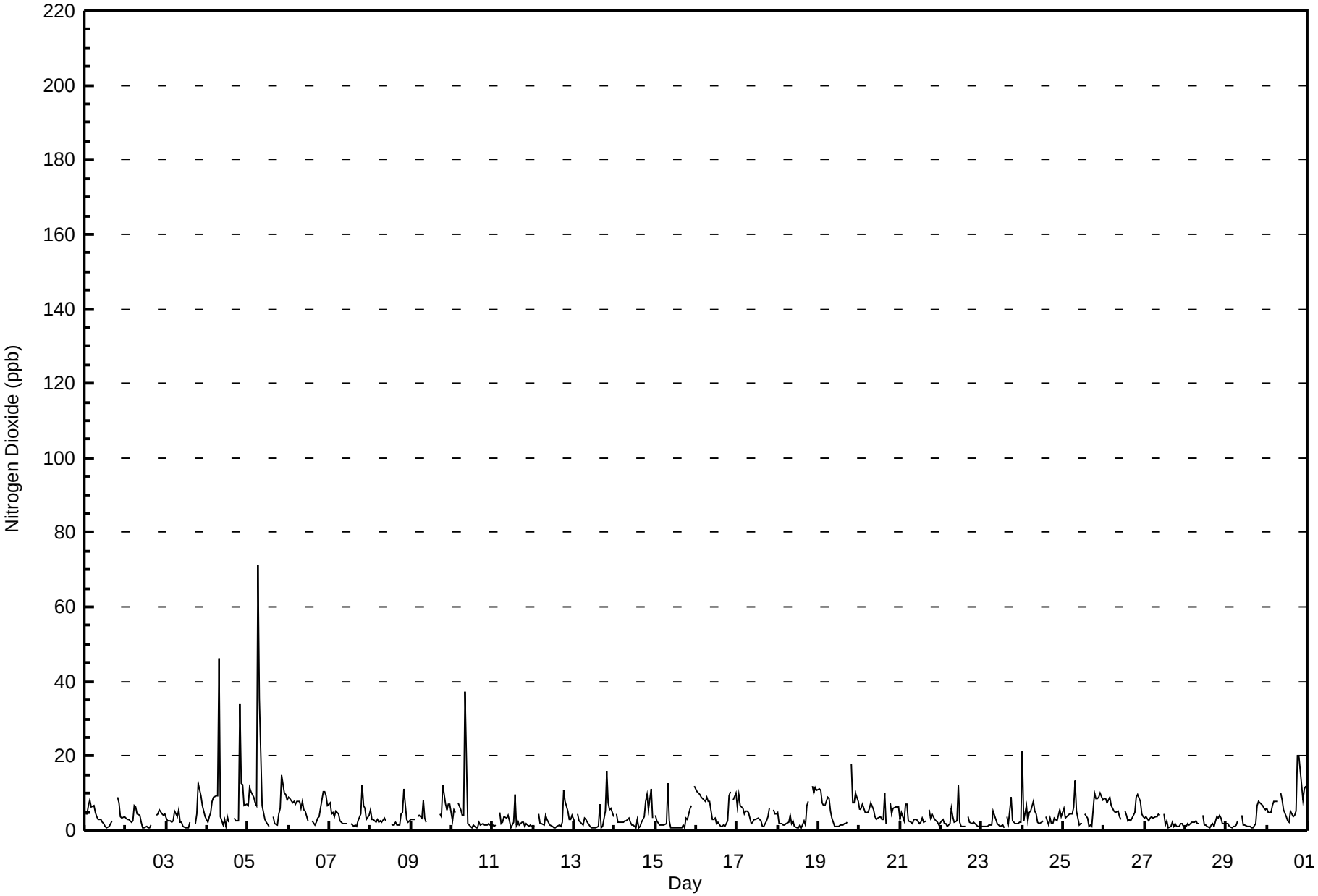
Hours in Service:	720
Hours of Data:	674
Hours of Missing Data:	46
Hours of Calibration:	46
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	4	4	7	8	6	7	5	4	3	3	2	2	1	1	1	2	3	A	A	9	8	4	3	4	4.1	9.1
2-Sep	3	3	3	2	3	7	6	5	4	2	1	1	1	1	1	2	A	A	4	5	6	5	4	4	3.2	6.5
3-Sep	3	3	3	2	3	5	4	6	2	2	1	1	1	1	2	A	A	2	4	13	9	7	5	4	3.7	12.8
4-Sep	2	4	5	8	9	9	9	46	4	1	3	1	4	2	A	A	4	3	2	34	13	12	7	7	8.6	46.1
5-Sep	7	12	10	9	7	7	71	36	7	5	3	2	1	A	A	4	2	2	4	6	15	10	10	8	10.8	71.3
6-Sep	9	9	8	8	7	8	8	6	8	6	5	3	A	A	3	2	2	3	4	6	11	11	9	7	6.4	10.5
7-Sep	7	4	5	4	5	4	2	2	2	2	2	A	A	2	1	1	1	3	4	12	7	6	3	4	3.9	12.3
8-Sep	6	3	3	2	3	2	3	2	3	3	A	A	2	2	2	2	2	1	4	5	11	3	2	3	3.1	11.1
9-Sep	3	3	3	A	4	4	3	8	3	2	C	C	C	C	C	C	A	5	4	12	7	6	7	7	--	12.2
10-Sep	3	6	5	A	8	6	4	4	37	2	2	1	1	1	1	1	2	2	2	2	2	1	2	1	4.1	37.4
11-Sep	1	1	2	A	5	2	2	4	3	4	3	1	2	10	2	3	1	2	2	1	2	1	1	1	2.5	9.6
12-Sep	1	1	A	4	2	2	2	4	3	2	2	1	1	1	1	1	1	2	11	8	5	3	3	4	2.8	10.9
13-Sep	2	A	5	3	2	1	3	3	2	1	1	1	1	1	1	7	1	1	5	16	7	6	6	4	3.5	15.9
14-Sep	A	5	2	2	2	2	2	3	3	2	2	2	1	3	1	1	2	4	8	10	6	11	3	A	3.5	11.3
15-Sep	4	2	2	1	1	2	2	13	3	1	1	1	1	1	1	1	2	1	3	3	6	7	A	12	3.0	12.7
16-Sep	10	10	10	9	9	8	9	8	8	3	3	3	2	2	1	1	2	1	3	9	10	A	8	10	6.0	10.4
17-Sep	6	10	7	6	4	5	5	5	2	2	3	3	3	3	3	1	1	3	4	6	A	6	4	5	4.2	9.5
18-Sep	5	2	2	2	2	2	2	4	2	2	1	1	1	1	1	3	2	7	8	A	12	10	11	11	4.0	11.9
19-Sep	11	11	8	7	7	9	9	5	3	1	1	1	1	1	1	2	2	2	A	18	7	7	10	8	5.8	17.8
20-Sep	6	6	7	5	5	5	6	7	6	4	3	3	4	3	3	10	2	A	7	5	6	7	6	6	5.2	10.2
21-Sep	3	5	3	7	7	3	2	2	3	3	3	2	2	3	2	3	A	6	3	5	3	3	2	1	3.3	7.2
22-Sep	3	3	2	2	1	2	6	4	2	3	12	2	1	1	1	A	4	2	2	2	2	2	1	1	2.6	12.2
23-Sep	1	1	1	1	2	1	2	5	3	2	1	1	1	1	A	4	2	9	3	2	2	2	2	2	2.3	9.1
24-Sep	21	3	7	2	5	5	8	5	4	2	2	2	3	A	4	2	3	2	2	3	3	4	6	4	4.4	21.3
25-Sep	6	3	4	4	4	5	6	13	5	2	2	2	A	4	3	1	1	1	10	8	9	9	10	8	5.3	13.3
26-Sep	9	8	8	9	7	6	5	5	5	4	3	A	5	4	2	3	2	4	5	9	10	8	4	4	5.6	9.9
27-Sep	3	4	2	3	4	3	4	4	4	4	A	4	1	2	1	1	2	1	2	1	1	2	2	1	2.5	4.5
28-Sep	1	2	1	2	2	2	3	2	2	A	4	1	1	1	1	1	2	1	4	3	4	3	2	2	2.1	4.2
29-Sep	2	2	1	1	1	1	2	3	A	4	2	1	1	1	1	1	1	2	7	8	8	7	6	6	2.9	8.0
30-Sep	6	5	5	7	8	8	8	A	10	8	5	4	3	2	5	4	4	5	20	20	12	8	11	12	7.8	20.3
	5.2	4.6	4.4	4.4	4.5	4.4	6.8	7.4	5.1	2.8	2.6	1.8	1.7	2.1	1.7	2.4	2.0	2.8	5.1	8.3	7.0	5.8	5.3	5.2	Diurnal Average	
	21.3	11.7	10.3	9.0	9.0	9.3	71.3	46.1	37.4	8.2	12.2	4.3	5.2	9.6	5.0	10.2	4.0	9.1	20.2	34.1	14.8	12.3	11.4	12.0	Diurnal Maximum	

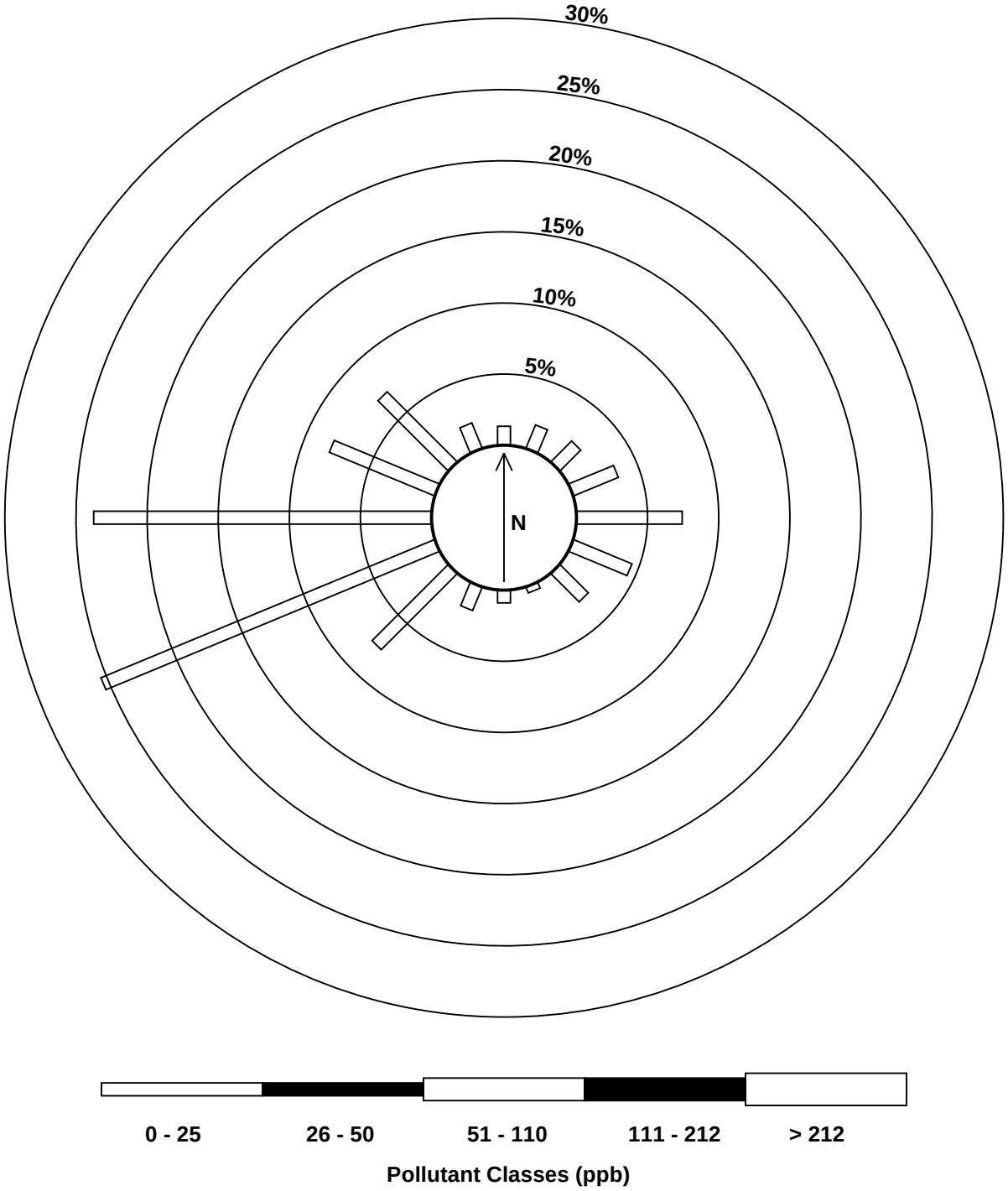
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for NO_2 at Portable-Spirit River
September 2008



Pollutant Rose for NO_2 at Portable-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River - Nitrogen Oxide (NO) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 29.5 ppb on Sep 5 07:00

Maximum Daily Average: 2.5 ppb on Sep 26

Minimum Value: 0 ppb on Sep 7 16:00

Minimum Daily Average: 0.1 ppb on Sep 28

Maximum Diurnal Average: 2.0 ppb at hour 7

Minimum Diurnal Average: 0.1 ppb at hour 17

Monthly Average: 0.70 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.6$ $P_{90} = 1.7$ $P_{99} = 7.0$

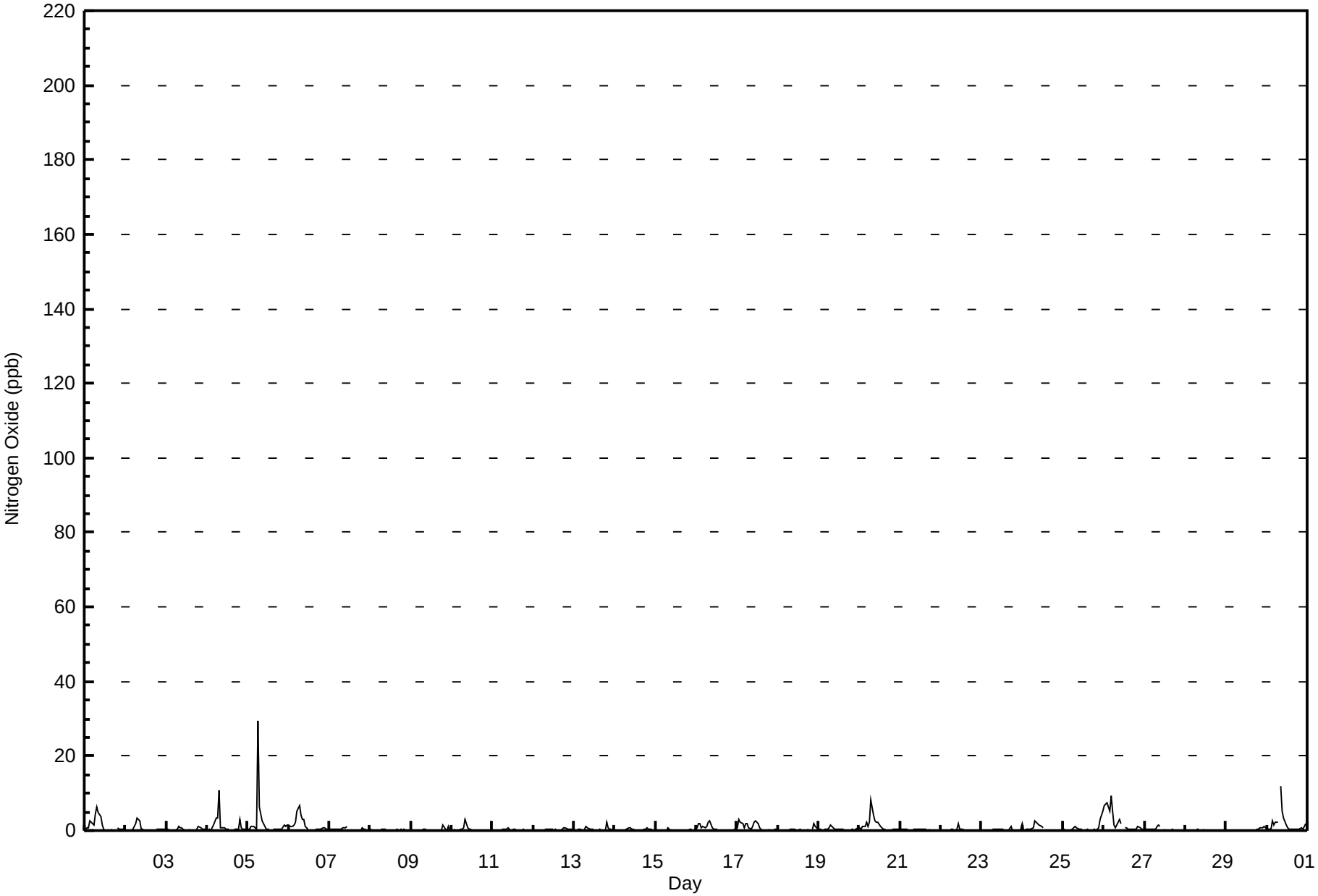
Hours in Service:	720
Hours of Data:	674
Hours of Missing Data:	46
Hours of Calibration:	46
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	0	1	1	3	2	1	4	6	5	4	2	0	0	0	0	0	0	A	A	1	0	0	0	0	1.4	6.2
2-Sep	0	0	0	0	0	1	2	3	3	1	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0.6	3.2
3-Sep	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	A	0	0	1	1	0	0	0	0.4	1.2
4-Sep	0	0	0	1	2	3	3	11	1	1	1	0	1	0	A	A	0	0	0	3	1	0	0	0	1.3	10.7
5-Sep	0	0	1	1	1	0	30	6	3	2	1	1	0	A	A	0	0	0	0	0	0	1	1	1	2.4	29.5
6-Sep	1	1	1	2	2	5	7	4	3	3	1	0	A	A	0	0	0	0	0	0	1	1	1	0	1.6	6.6
7-Sep	0	0	0	0	1	0	0	1	1	1	1	A	A	0	0	0	0	0	0	1	0	0	0	0	0.3	1.0
8-Sep	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
9-Sep	0	0	0	A	0	0	0	0	0	0	C	C	C	C	C	C	A	0	0	2	1	0	1	0	--	1.6
10-Sep	0	0	0	A	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.9
11-Sep	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
12-Sep	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0.3	0.9
13-Sep	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0.4	2.4
14-Sep	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1	0	A	0.3	0.8
15-Sep	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.8
16-Sep	1	2	2	1	1	1	1	2	3	1	1	0	0	0	0	0	0	0	0	0	0	A	0	1	0.7	2.6
17-Sep	1	3	2	2	1	2	2	1	0	1	2	3	2	1	0	0	0	0	0	0	A	0	0	0	1.0	2.9
18-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	2	1	1	0.3	1.9
19-Sep	1	0	0	0	0	1	1	2	1	0	1	1	0	0	0	0	0	0	A	0	0	0	0	1	0.4	1.5
20-Sep	1	1	1	1	2	1	2	8	4	3	2	2	1	1	0	0	0	A	0	0	0	0	0	0	1.4	8.2
21-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.5
22-Sep	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	A	0	0	0	0	0	0	0	0	0.2	2.0
23-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0.2	1.1
24-Sep	2	0	0	0	0	1	1	3	2	2	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0.7	2.5
25-Sep	0	0	0	0	0	0	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	1	3	5	0.7	5.2
26-Sep	7	7	7	5	9	5	1	1	2	3	2	A	1	1	0	1	0	0	0	0	1	1	0	0	2.5	9.2
27-Sep	0	0	0	0	0	0	0	1	2	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
28-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Sep	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.3	1.2
30-Sep	1	0	0	2	2	2	2	A	12	5	3	2	1	0	0	0	0	0	0	0	1	0	1	2	1.7	11.9
	0.6	0.6	0.7	0.7	0.9	0.9	2.0	1.9	1.7	1.1	0.9	0.5	0.4	0.2	0.2	0.2	0.1	0.2	0.2	0.5	0.4	0.4	0.5	0.6	Diurnal Average	
	6.9	7.1	7.5	5.2	9.2	5.4	29.5	10.7	11.9	5.1	3.5	2.7	1.9	0.8	0.5	0.5	0.3	1.1	0.6	3.1	1.0	1.9	3.1	5.2	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

Hourly Averages for NO at Portable-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Portable-Spirit River - Nitrogen Oxide (NO) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 281.4 ppb on Sep 5 07:00

Maximum Daily Average: 18.3 ppb on Sep 5

Minimum Value: 0 ppb on Sep 9 19:00

Minimum Daily Average: 0.4 ppb on Sep 21

Maximum Diurnal Average: 12.1 ppb at hour 7

Minimum Diurnal Average: 0.7 ppb at hour 15

Monthly Average: 2.94 ppb

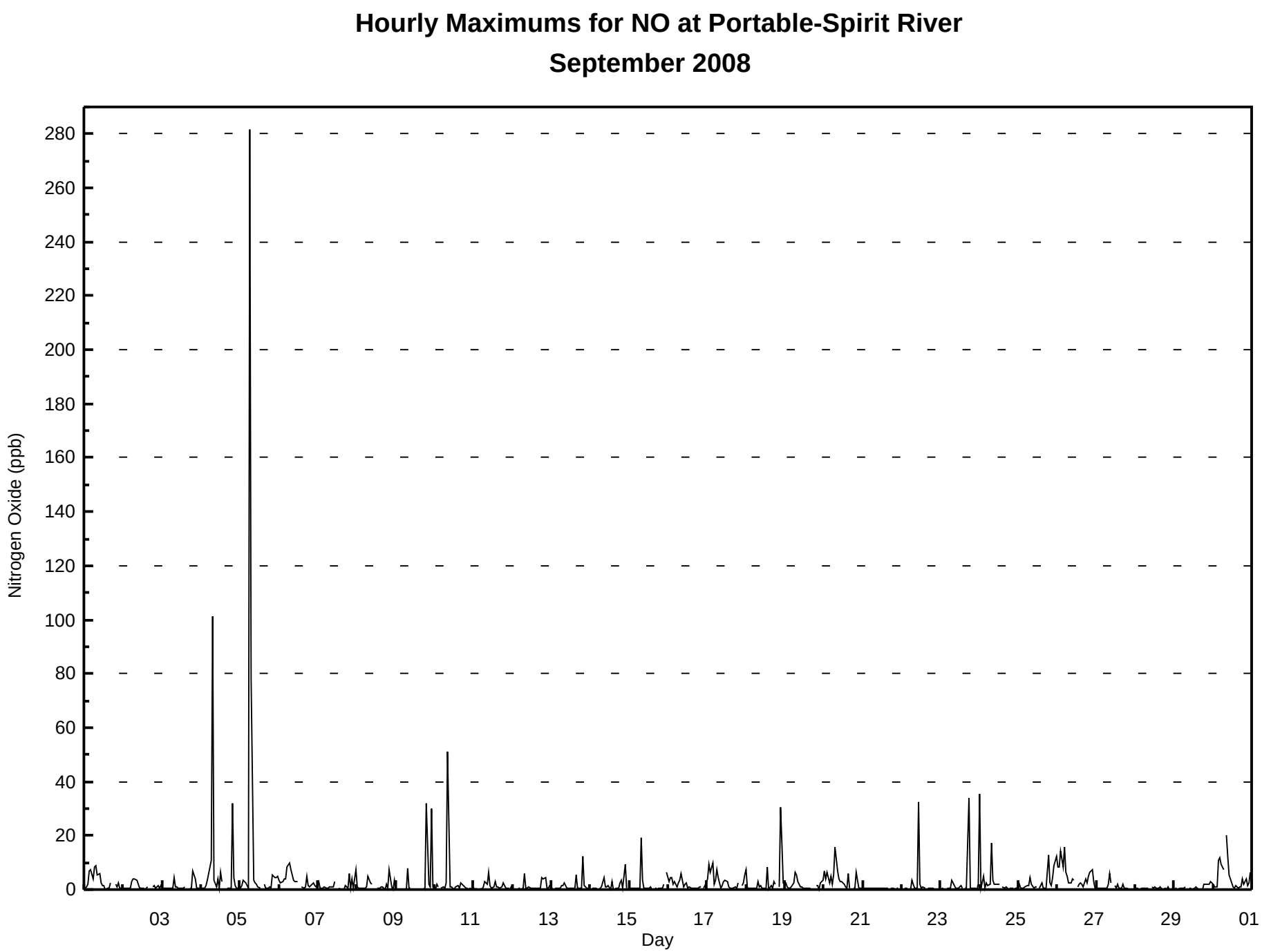
Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.7 $Q_3 = 2.5$ $P_{90} = 5.8$ $P_{99} = 32.2$

Hours in Service:	720
Hours of Data:	674
Hours of Missing Data:	46
Hours of Calibration:	46
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	1	1	2	7	8	4	8	9	6	6	2	1	1	0	0	0	2	A	A	2	1	2	0	0	2.9	8.7
2-Sep	0	0	0	0	0	3	4	4	3	2	0	0	0	0	0	1	A	A	1	1	0	2	1	2	1.2	4.0
3-Sep	0	0	0	0	0	0	1	5	1	1	1	0	0	0	1	A	A	0	1	7	4	1	1	0	1.1	6.8
4-Sep	0	1	0	2	3	9	11	101	4	1	4	0	7	3	A	A	1	0	0	32	4	1	1	1	8.4	101.3
5-Sep	1	2	3	3	1	1	281	78	4	2	2	1	1	A	A	2	0	0	1	1	5	4	4	5	18.3	281.4
6-Sep	4	2	3	4	4	8	10	7	5	3	3	3	A	A	1	0	1	5	1	1	2	2	1	1	3.4	10.1
7-Sep	3	0	1	1	1	1	0	1	1	1	3	A	A	0	0	0	0	2	0	6	1	4	0	7	1.5	7.5
8-Sep	1	0	0	0	0	0	1	5	3	2	A	A	0	0	0	1	1	0	2	1	7	1	0	3	1.4	7.2
9-Sep	0	0	0	A	0	0	0	8	0	1	C	C	C	C	C	C	A	1	0	32	2	1	30	1	--	32.2
10-Sep	0	2	1	A	1	1	1	2	51	1	1	1	0	1	1	1	2	2	1	0	0	0	1	0	3.1	51.3
11-Sep	1	0	0	A	0	0	1	3	2	6	2	0	1	3	1	1	1	1	3	1	1	0	0	1	1.3	6.3
12-Sep	0	0	A	0	0	0	0	6	1	1	1	0	0	0	0	0	0	1	5	4	4	1	0	2	1.2	6.0
13-Sep	0	A	0	0	0	0	1	2	3	1	0	0	0	0	0	5	0	0	0	12	2	1	1	0	1.4	12.4
14-Sep	A	0	0	0	0	0	0	1	5	1	1	2	0	3	0	0	0	0	3	4	1	10	0	A	1.4	9.6
15-Sep	0	0	0	0	0	0	0	19	3	0	0	0	0	1	0	0	0	0	0	0	1	2	A	6	1.6	19.0
16-Sep	3	4	4	2	3	1	2	3	6	1	2	3	1	1	0	0	1	0	1	1	1	A	0	3	1.9	5.9
17-Sep	4	9	6	10	2	3	7	4	1	2	3	3	3	1	1	0	1	1	1	3	A	1	3	5	3.2	9.6
18-Sep	7	0	0	0	0	0	1	3	1	1	0	0	0	8	0	2	0	3	2	A	1	30	17	2	3.5	30.3
19-Sep	2	1	0	0	1	2	7	6	3	1	1	1	1	0	0	0	0	0	A	2	2	0	2	4	1.6	6.6
20-Sep	7	4	7	3	5	2	5	16	7	4	3	3	2	1	1	6	0	A	0	0	6	1	0	0	3.6	15.5
21-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1	0	0	0	0	0	0	0.4	0.7
22-Sep	0	0	0	0	0	0	4	2	0	0	33	2	0	1	0	A	0	0	0	0	0	0	0	0	2.0	32.5
23-Sep	0	0	0	0	0	0	0	3	2	1	1	1	1	0	A	0	0	34	1	1	0	0	0	2	2.1	33.9
24-Sep	36	0	5	1	3	2	2	17	3	2	2	2	2	A	1	0	1	0	0	0	0	0	0	0	3.5	35.5
25-Sep	2	0	0	0	1	2	2	5	2	0	1	1	A	0	2	0	0	0	13	2	2	4	9	12	2.7	12.8
26-Sep	8	8	14	8	16	6	5	2	3	4	3	A	1	2	2	2	1	4	3	5	6	7	3	0	5.0	15.6
27-Sep	0	1	0	1	1	0	0	2	6	2	A	2	0	2	0	0	2	0	1	0	0	0	0	0	1.0	5.7
28-Sep	0	0	0	0	0	0	0	0	0	A	1	0	1	0	0	1	0	0	0	0	1	0	0	0	0.4	1.0
29-Sep	0	0	0	0	0	0	0	1	A	1	0	0	0	1	0	0	0	0	2	2	2	2	3	2	0.8	3.2
30-Sep	2	1	1	11	12	9	7	A	20	12	5	3	1	1	2	1	1	1	4	2	4	1	2	6	4.8	20.3
	2.9	1.4	1.8	2.0	2.2	1.9	12.1	10.9	5.0	2.1	2.8	1.1	1.0	1.3	0.7	1.1	0.7	2.2	1.6	4.2	2.1	2.8	2.8	2.4	Diurnal Average	
	35.5	9.4	14.2	11.0	15.6	9.2	281.4	101.3	51.3	12.2	32.5	3.2	6.6	8.4	2.5	6.0	2.3	33.9	12.8	32.2	7.2	30.3	30.2	12.5	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span


Hourly Maximums for NO at Portable-Spirit River
September 2008
Nitrogen Oxide (ppb)
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River - Oxides of Nitrogen (NO_X) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 42.1 ppb on Sep 5 07:00

Maximum Daily Average: 7.3 ppb on Sep 5

Minimum Value: 0 ppb on Sep 10 16:00

Minimum Daily Average: 1.2 ppb on Sep 11

Maximum Diurnal Average: 5.7 ppb at hour 7

Minimum Diurnal Average: 1.2 ppb at hour 15

Monthly Average: 3.41 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.8$ $Q_1 = 1.3$ Median = 2.3 $Q_3 = 4.6$ $P_{90} = 7.9$ $P_{99} = 13.6$

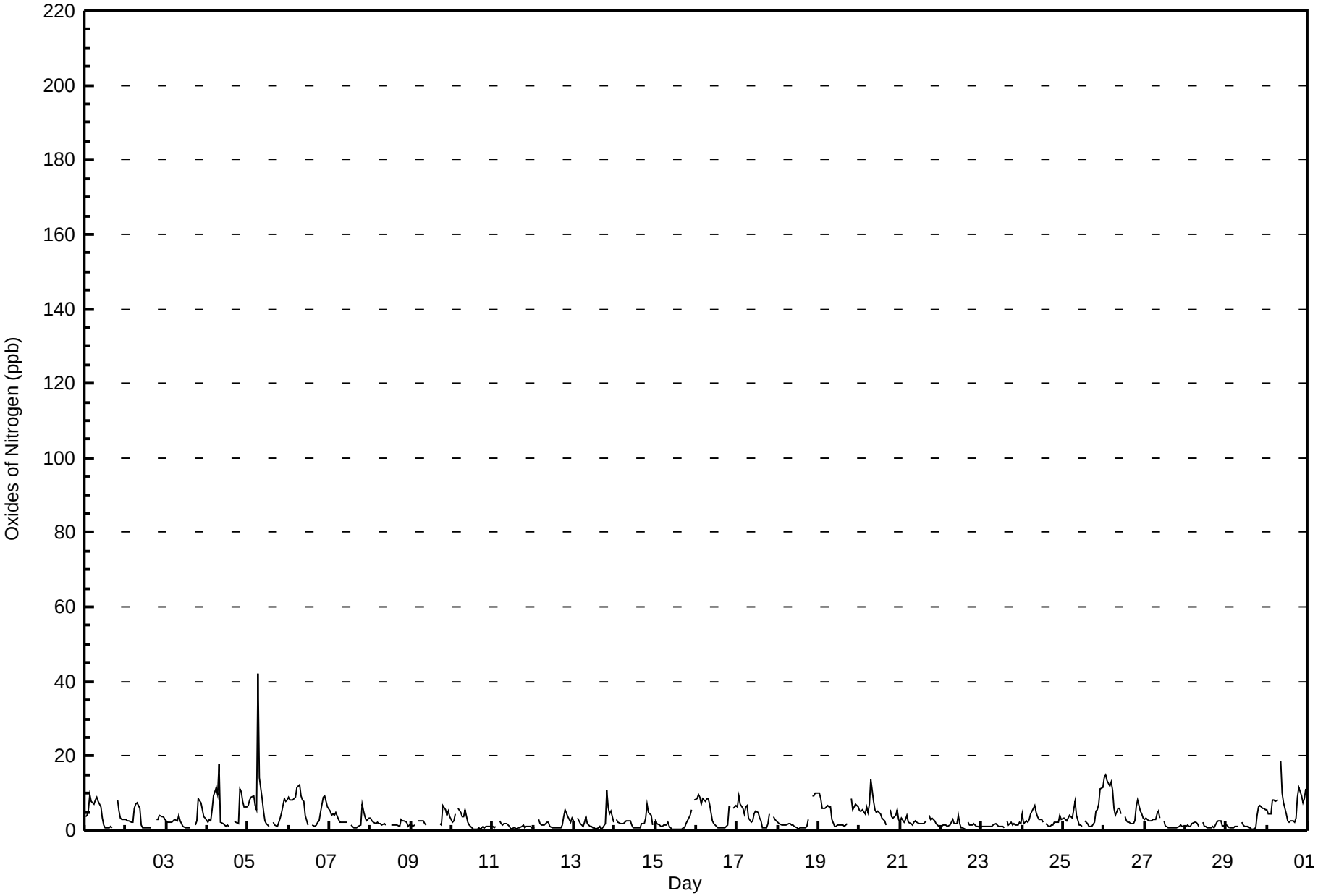
Hours in Service:	720
Hours of Data:	674
Hours of Missing Data:	46
Hours of Calibration:	46
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	4	4	5	10	8	7	8	9	8	6	3	2	1	1	1	1	1	A	A	8	5	3	3	3	4.6	9.7
2-Sep	3	3	3	2	2	6	7	7	6	2	1	1	1	1	1	1	A	A	3	3	4	4	4	3	3.0	7.3
3-Sep	3	2	2	2	2	3	3	4	3	2	1	1	1	1	1	A	A	2	2	8	8	5	4	3	2.9	8.5
4-Sep	2	3	3	6	9	12	10	18	2	2	2	1	1	1	A	A	3	2	2	11	10	8	6	7	5.5	17.8
5-Sep	7	8	9	9	7	6	42	14	8	5	3	2	1	A	A	2	2	1	2	3	5	9	8	8	7.3	42.1
6-Sep	9	8	8	9	9	11	12	9	8	8	4	2	A	A	2	1	1	2	3	5	9	9	8	6	6.5	12.2
7-Sep	5	4	4	4	5	3	2	2	2	2	2	A	A	1	1	1	1	1	2	7	5	4	3	3	3.0	7.0
8-Sep	3	3	2	2	2	2	2	1	2	2	A	A	2	1	1	1	1	1	3	3	3	2	1	1	1.9	3.2
9-Sep	2	1	2	A	3	2	2	3	2	2	C	C	C	C	C	C	A	2	2	7	6	4	5	4	--	6.7
10-Sep	2	2	5	A	6	5	4	4	6	2	1	1	1	1	0	0	1	1	1	1	1	1	1	1	2.0	6.0
11-Sep	1	1	1	A	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.8
12-Sep	1	1	A	3	2	1	1	2	2	2	1	1	1	1	1	1	1	2	4	6	4	3	2	4	1.9	5.6
13-Sep	2	A	3	3	2	1	2	4	2	1	1	1	1	1	1	1	1	1	2	11	6	5	5	2	2.5	10.7
14-Sep	A	3	2	2	2	2	2	3	2	2	1	1	1	1	1	1	2	2	3	7	5	4	2	A	2.3	7.1
15-Sep	3	2	1	1	1	1	1	2	1	1	1	1	0	0	0	0	1	1	2	2	4	5	A	8	1.8	8.2
16-Sep	9	10	9	7	8	8	9	8	7	3	2	1	1	1	1	1	1	1	2	6	6	A	6	7	4.9	9.8
17-Sep	6	9	7	6	4	6	7	3	2	3	5	5	5	3	2	1	1	1	2	4	A	4	3	3	4.0	9.4
18-Sep	2	2	2	1	1	1	2	2	1	2	1	1	0	1	1	1	1	1	3	A	9	9	10	10	2.8	10.2
19-Sep	10	8	6	6	6	7	6	6	3	1	1	1	1	1	1	1	1	2	A	9	6	6	7	6	4.6	10.0
20-Sep	5	5	6	5	6	5	7	14	8	6	5	5	4	3	3	3	1	A	6	4	3	4	5	3	5.1	13.7
21-Sep	2	3	2	3	4	2	2	1	2	3	2	2	2	2	2	3	A	4	3	3	3	2	1	1	2.4	4.2
22-Sep	1	2	1	1	1	1	2	3	2	2	4	2	1	1	1	A	2	2	2	2	1	1	1	1	1.6	4.1
23-Sep	1	1	1	1	1	1	1	2	2	2	1	1	1	1	A	3	1	2	1	2	2	1	2	2	1.5	2.5
24-Sep	5	2	2	2	3	5	6	7	5	4	3	3	2	A	2	1	1	1	2	2	2	2	4	3	3.0	6.5
25-Sep	3	3	3	3	4	3	6	8	4	2	2	1	A	3	2	1	1	1	2	5	6	7	11	12	4.0	11.6
26-Sep	14	15	13	12	13	11	6	4	6	6	4	A	4	3	2	2	2	2	3	6	8	5	4	3	6.5	14.7
27-Sep	3	3	2	3	3	3	3	4	5	3	A	3	1	1	1	1	1	1	1	1	1	1	1	1	2.1	5.0
28-Sep	1	1	1	1	2	2	2	2	1	A	2	1	1	1	1	1	1	1	2	3	3	2	1	1	1.6	2.8
29-Sep	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	4	6	7	6	6	6	2.3	6.9
30-Sep	6	4	5	8	8	8	8	A	19	10	7	4	3	2	3	2	2	3	9	12	9	7	9	11	7.0	18.8
	4.0	4.0	3.9	4.2	4.3	4.3	5.7	5.1	4.3	3.0	2.3	1.7	1.4	1.2	1.2	1.2	1.2	1.5	2.6	5.1	4.9	4.4	4.3	4.3	Diurnal Average	
	14.3	14.7	13.3	11.8	13.2	11.7	42.1	17.8	18.8	10.1	7.4	5.3	4.8	3.5	3.0	2.8	2.7	4.2	8.9	11.7	10.4	9.2	11.3	11.6	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

Hourly Averages for NO_X at Portable-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Portable-Spirit River - Oxides of Nitrogen (NO_X) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 352.4 ppb on Sep 5 07:00

Maximum Daily Average: 28.6 ppb on Sep 5

Minimum Value: 1 ppb on Sep 11 12:00

Minimum Daily Average: 2.3 ppb on Sep 28

Maximum Diurnal Average: 18.3 ppb at hour 7

Minimum Diurnal Average: 2.2 ppb at hour 15

Monthly Average: 6.93 ppb

Percentiles: P_1 = 0.8 P_{10} = 1.3 Q_1 = 2.1 Median = 4.0 Q_3 = 7.7 P_{90} = 12.9 P_{99} = 40.8

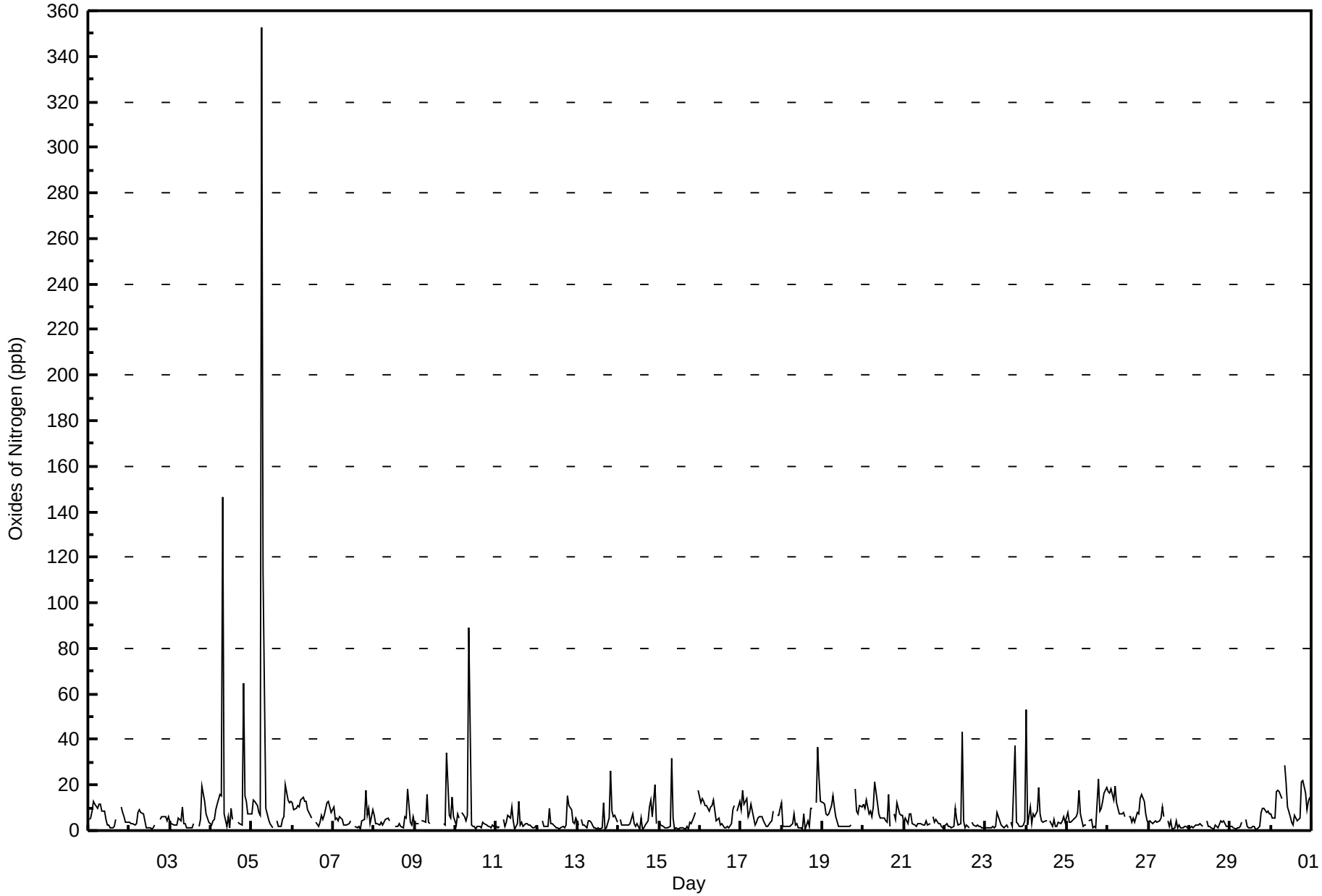
Hours in Service:	720
Hours of Data:	674
Hours of Missing Data:	46
Hours of Calibration:	46
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	5	5	9	13	12	10	11	12	9	9	5	3	3	1	1	2	5	A	A	11	8	6	4	4	6.6	12.9
2-Sep	4	3	3	2	3	8	9	8	7	4	1	1	1	1	1	2	A	A	5	6	6	6	5	6	4.2	9.2
3-Sep	3	3	3	2	3	5	4	10	3	3	1	1	1	1	3	A	A	2	5	19	13	7	5	4	4.7	19.4
4-Sep	3	4	5	9	12	16	16	147	7	2	6	1	10	5	A	A	4	3	3	65	15	13	7	8	16.4	146.7
5-Sep	7	13	13	11	8	7	352	113	10	7	5	3	2	A	A	4	2	2	5	6	20	14	12	13	28.6	352.4
6-Sep	12	9	10	11	11	14	15	13	13	9	8	5	A	A	3	2	3	7	5	7	12	13	10	8	9.1	14.9
7-Sep	10	5	5	4	6	5	3	3	3	3	4	A	A	2	1	2	1	4	5	18	7	10	3	9	5.1	17.9
8-Sep	7	3	3	2	3	2	4	5	6	4	A	A	2	2	2	3	2	1	6	5	18	4	2	6	4.2	18.2
9-Sep	3	3	3	A	4	4	3	16	4	3	C	C	C	C	C	C	A	3	2	34	7	5	15	6	--	34.4
10-Sep	2	8	6	A	8	6	5	7	89	3	2	2	1	2	2	1	4	3	3	2	2	1	2	1	7.0	89.2
11-Sep	2	1	2	A	5	2	4	7	5	10	4	1	3	13	2	3	2	3	3	2	2	1	1	2	3.5	12.5
12-Sep	1	1	A	4	2	2	2	10	3	3	2	1	1	1	1	2	1	3	15	11	9	4	3	5	3.8	15.4
13-Sep	3	A	5	3	3	1	4	4	4	1	1	1	1	1	1	12	1	1	5	27	9	6	6	4	4.5	26.5
14-Sep	A	5	2	2	2	2	3	3	7	3	2	3	1	6	1	1	3	4	11	13	6	20	3	A	4.8	20.4
15-Sep	5	3	2	1	1	1	2	32	6	1	1	1	1	1	1	1	2	1	4	3	6	8	A	18	4.4	31.7
16-Sep	12	14	13	11	11	9	10	11	14	4	5	6	2	3	1	1	2	1	3	9	11	A	8	13	7.6	13.9
17-Sep	9	18	12	14	6	8	12	8	3	4	6	6	6	4	3	2	2	4	4	9	A	7	7	10	7.0	17.5
18-Sep	12	2	2	2	2	2	3	7	3	3	1	1	1	7	1	4	2	10	10	A	12	36	23	13	6.9	36.5
19-Sep	12	12	8	7	7	11	15	10	6	2	2	2	2	2	2	2	2	2	A	18	9	7	11	10	6.9	18.3
20-Sep	12	10	13	7	9	6	10	22	12	7	5	6	6	4	3	16	2	A	8	5	12	7	7	7	8.5	21.6
21-Sep	3	5	3	7	8	3	3	2	3	3	3	2	2	4	3	3	A	6	4	5	3	3	2	1	3.5	7.6
22-Sep	3	3	2	2	1	2	10	5	2	3	43	4	1	2	1	A	4	2	2	2	2	2	1	1	4.4	43.2
23-Sep	1	1	1	1	2	1	2	8	4	2	2	1	3	1	A	4	2	37	3	3	2	2	2	4	4.0	37.4
24-Sep	53	3	11	3	7	6	8	19	8	4	4	4	4	A	4	2	5	2	2	4	3	4	6	4	7.4	53.3
25-Sep	8	4	4	5	5	6	8	18	7	2	3	2	A	5	5	1	2	1	23	9	10	13	17	19	7.6	22.5
26-Sep	17	17	18	13	19	12	10	8	8	8	6	A	6	6	3	5	3	8	7	14	16	13	7	4	9.9	19.4
27-Sep	4	4	3	3	4	4	4	5	10	6	A	4	2	4	1	1	4	1	2	1	1	2	2	1	3.3	10.2
28-Sep	1	2	1	2	3	3	3	2	2	A	4	2	2	1	1	2	2	1	4	3	4	3	2	2	2.3	4.4
29-Sep	2	2	1	1	1	1	2	4	A	5	2	1	1	2	2	1	1	2	8	10	9	8	9	8	3.5	9.8
30-Sep	7	6	6	17	18	17	14	A	29	21	11	6	4	3	7	4	5	6	22	22	16	9	13	15	11.9	28.7
	7.7	5.7	5.8	6.0	6.2	5.9	18.3	17.8	9.9	4.8	5.2	2.7	2.6	3.2	2.2	3.3	2.6	4.5	6.3	11.8	8.7	8.1	6.8	7.1	Diurnal Average	
	53.3	17.5	18.0	16.9	19.4	17.0	352.4	146.7	89.2	20.5	43.2	6.3	9.5	12.5	6.6	16.0	5.1	37.4	22.5	65.0	20.0	36.5	22.6	19.2	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for NO_X at Portable-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River - Ozone (O_3) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 32.6 ppb on Sep 28 18:00
Maximum Daily Average: 24.0 ppb on Sep 28

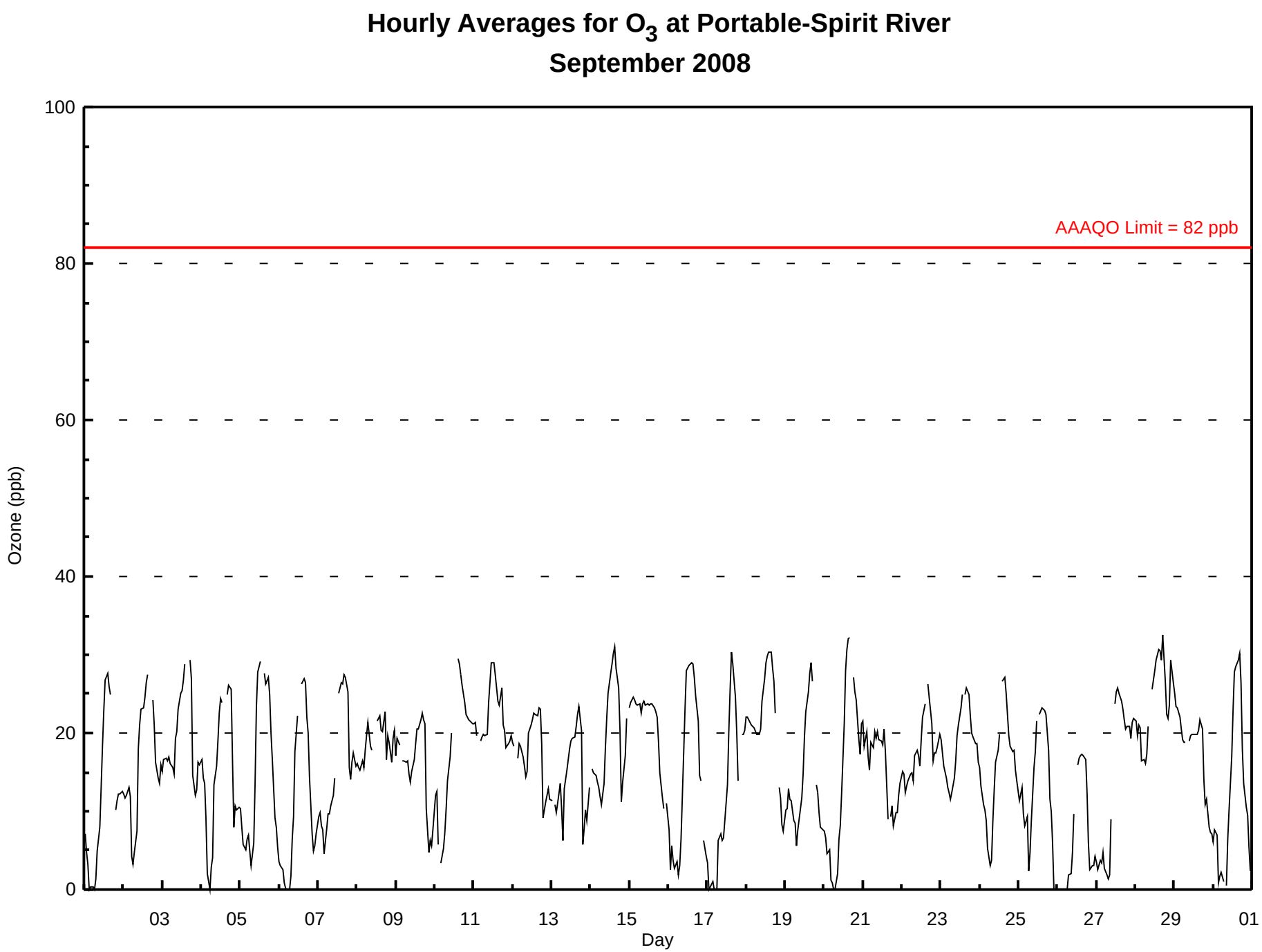
Minimum Value: 0 ppb on Sep 1 04:00
Maximum Diurnal Average: 25.4 ppb at hour 17
Monthly Average: 15.99 ppb

Minimum Daily Average: 6.5 ppb on Sep 26
Minimum Diurnal Average: 9.3 ppb at hour 7
Percentiles: P_1 = 0.0 P_{10} = 3.5 Q_1 = 9.9 Median = 17.0 Q_3 = 22.1 P_{90} = 26.4 P_{99} = 30.5

Hours in Service:	720
Hours of Data:	678
Hours of Missing Data:	42
Hours of Calibration:	42
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	7	5	3	0	0	0	0	1	5	8	13	18	23	27	28	26	25	A	A	10	11	12	12	13	11.3	27.7
2-Sep	12	12	12	13	12	4	3	5	7	18	21	23	23	25	26	27	A	A	24	21	16	14	14	16	15.9	27.5
3-Sep	15	17	17	16	17	16	16	15	19	20	23	25	25	27	29	A	A	29	27	15	12	13	16	16	19.3	29.4
4-Sep	17	14	14	9	2	0	3	4	13	16	19	23	24	24	A	A	25	26	26	16	8	11	10	11	14.3	26.1
5-Sep	10	8	6	5	6	7	5	3	6	14	23	28	29	A	A	28	26	27	25	20	17	9	8	5	14.3	29.1
6-Sep	4	3	3	1	0	0	0	2	6	9	18	22	A	A	26	27	26	22	20	14	7	5	6	7	10.4	27.0
7-Sep	9	10	8	8	5	8	10	10	11	12	14	A	A	25	26	26	27	27	25	16	14	16	17	16	15.5	27.5
8-Sep	16	16	15	16	16	18	20	21	18	18	A	A	22	22	22	20	20	23	17	20	19	16	19	20	18.8	22.6
9-Sep	17	19	18	A	17	16	16	16	15	14	15	17	19	21	20	22	23	22	21	10	5	6	6	8	15.7	22.5
10-Sep	12	13	6	A	3	5	7	10	14	17	20	C	C	A	30	29	28	26	24	22	22	22	22	21	17.6	29.5
11-Sep	21	21	20	A	19	20	20	20	20	24	27	29	29	27	26	24	23	26	21	20	18	19	19	20	22.2	28.9
12-Sep	19	18	A	17	19	18	17	16	14	15	20	21	22	23	22	22	23	23	19	9	11	12	13	12	17.6	23.3
13-Sep	11	A	11	10	11	14	10	6	13	15	17	18	19	19	19	21	22	23	20	6	8	10	9	13	14.2	23.4
14-Sep	A	15	15	15	14	13	12	11	13	18	22	25	28	29	30	31	28	26	20	11	14	17	22	A	19.5	31.0
15-Sep	23	24	25	24	24	24	24	23	24	24	24	24	24	24	24	23	23	22	19	15	12	10	A	11	21.3	24.5
16-Sep	8	3	6	4	3	4	2	3	6	17	23	28	28	29	29	29	27	25	22	14	14	A	6	4	14.5	28.9
17-Sep	3	0	0	1	0	0	0	6	7	6	7	9	13	20	26	30	29	24	20	14	A	20	20	20	12.0	30.3
18-Sep	22	22	21	21	21	21	20	20	20	21	24	27	29	30	30	30	28	27	23	A	13	12	8	7	21.6	30.4
19-Sep	10	10	13	11	11	9	8	6	8	10	12	15	20	23	25	28	29	27	A	13	12	10	8	8	14.2	28.9
20-Sep	7	7	5	5	1	1	0	0	2	7	8	12	21	28	31	32	32	A	27	25	24	19	17	21	14.5	32.1
21-Sep	22	18	20	17	15	19	18	20	19	20	19	19	18	21	18	9	A	9	11	8	10	10	12	13	15.9	21.6
22-Sep	15	15	12	13	14	15	15	14	17	18	17	16	19	22	24	A	26	24	21	16	18	17	18	20	17.7	26.3
23-Sep	19	17	16	14	13	12	12	12	14	16	20	21	23	25	A	25	26	25	22	20	19	19	19	16	18.5	25.8
24-Sep	16	13	11	10	9	5	3	4	9	13	16	18	20	A	27	27	25	22	20	18	18	18	15	14	15.2	27.2
25-Sep	11	12	13	10	8	9	2	5	9	16	18	22	A	22	23	23	23	22	18	11	10	6	0	0	12.8	23.3
26-Sep	0	0	0	0	0	0	0	2	2	5	10	A	16	17	17	17	17	17	12	6	3	3	3	4	6.5	17.3
27-Sep	4	3	4	3	5	3	2	1	2	9	A	24	25	26	25	24	23	22	20	21	21	19	21	22	14.3	25.8
28-Sep	21	20	21	21	16	17	16	17	21	A	26	27	28	29	31	31	29	33	26	22	22	23	29	26	24.0	32.6
29-Sep	25	23	23	22	20	19	19	19	A	19	20	20	20	20	20	20	22	21	14	11	11	8	7	7	17.8	25.1
30-Sep	6	8	7	1	2	2	1	A	0	7	10	17	23	28	28	29	30	26	18	13	11	9	5	2	12.4	30.2
	13.2	12.6	11.8	10.7	10.1	9.9	9.3	10.0	11.6	14.7	18.0	21.0	22.7	24.2	25.3	25.2	25.4	23.9	20.8	15.2	13.7	13.3	13.2	12.9	Diurnal Average	
	25.1	23.9	24.5	24.2	23.7	23.6	23.7	22.6	23.8	24.1	26.5	28.9	29.1	29.8	30.6	32.0	32.1	32.6	27.2	25.3	24.3	23.5	29.3	26.4	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 O_3 at Portable-Spirit River
September 2008
AAAQO Limit = 82 ppb
Ozone (ppb)
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Maximums

Portable-Spirit River - Ozone (O_3) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 35.3 ppb on Sep 28 18:00

Maximum Daily Average: 26.2 ppb on Sep 28

Minimum Value: 0 ppb on Sep 17 06:00

Minimum Daily Average: 8.1 ppb on Sep 26

Maximum Diurnal Average: 27.2 ppb at hour 17

Minimum Diurnal Average: 11.6 ppb at hour 7

Monthly Average: 18.34 ppb

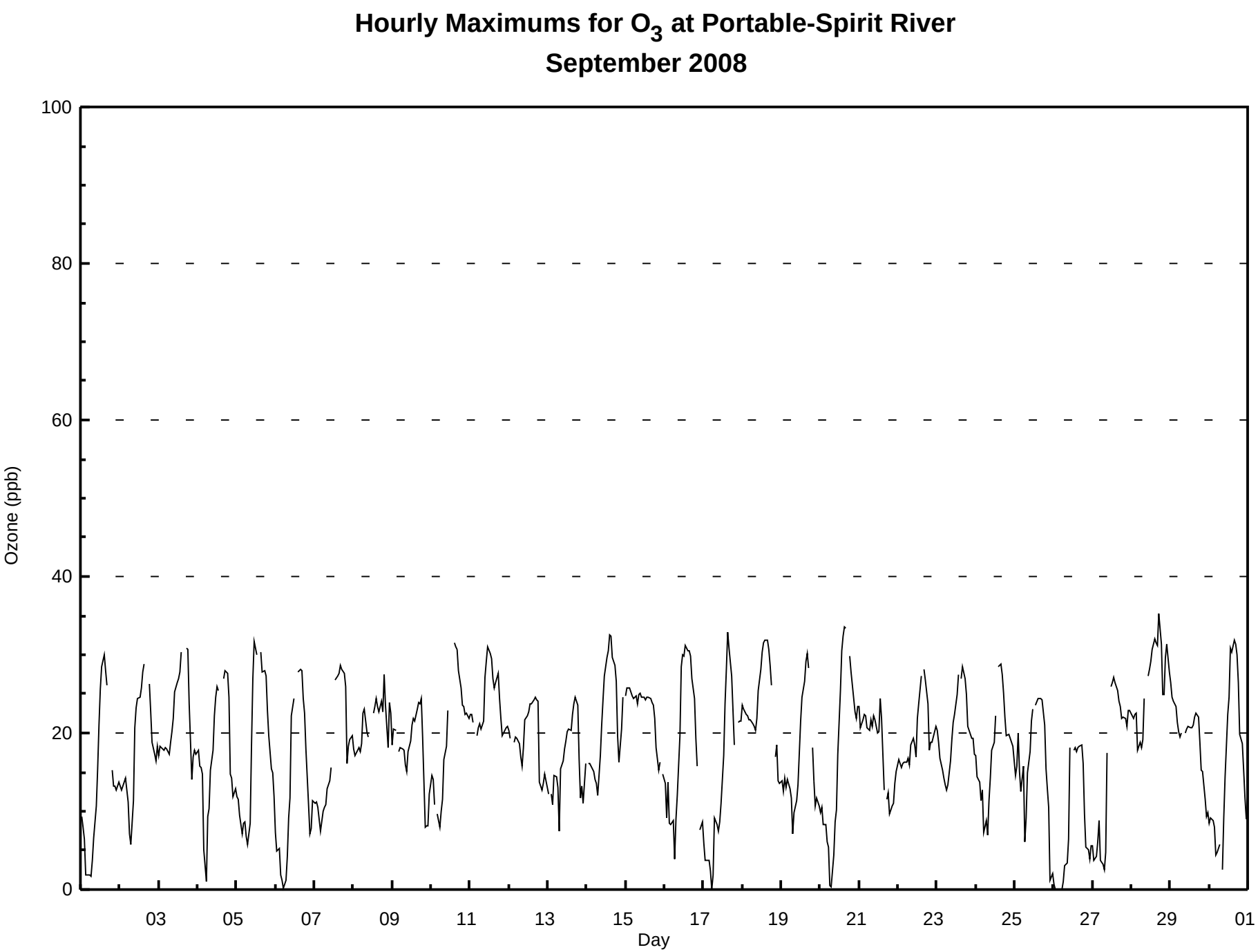
Percentiles: $P_1 = 0.2$ $P_{10} = 7.4$ $Q_1 = 12.9$ Median = 19.2 $Q_3 = 24.3$ $P_{90} = 28.1$ $P_{99} = 32.4$

Hours in Service:	720
Hours of Data:	678
Hours of Missing Data:	42
Hours of Calibration:	42
Percent Operational Time:	100.0

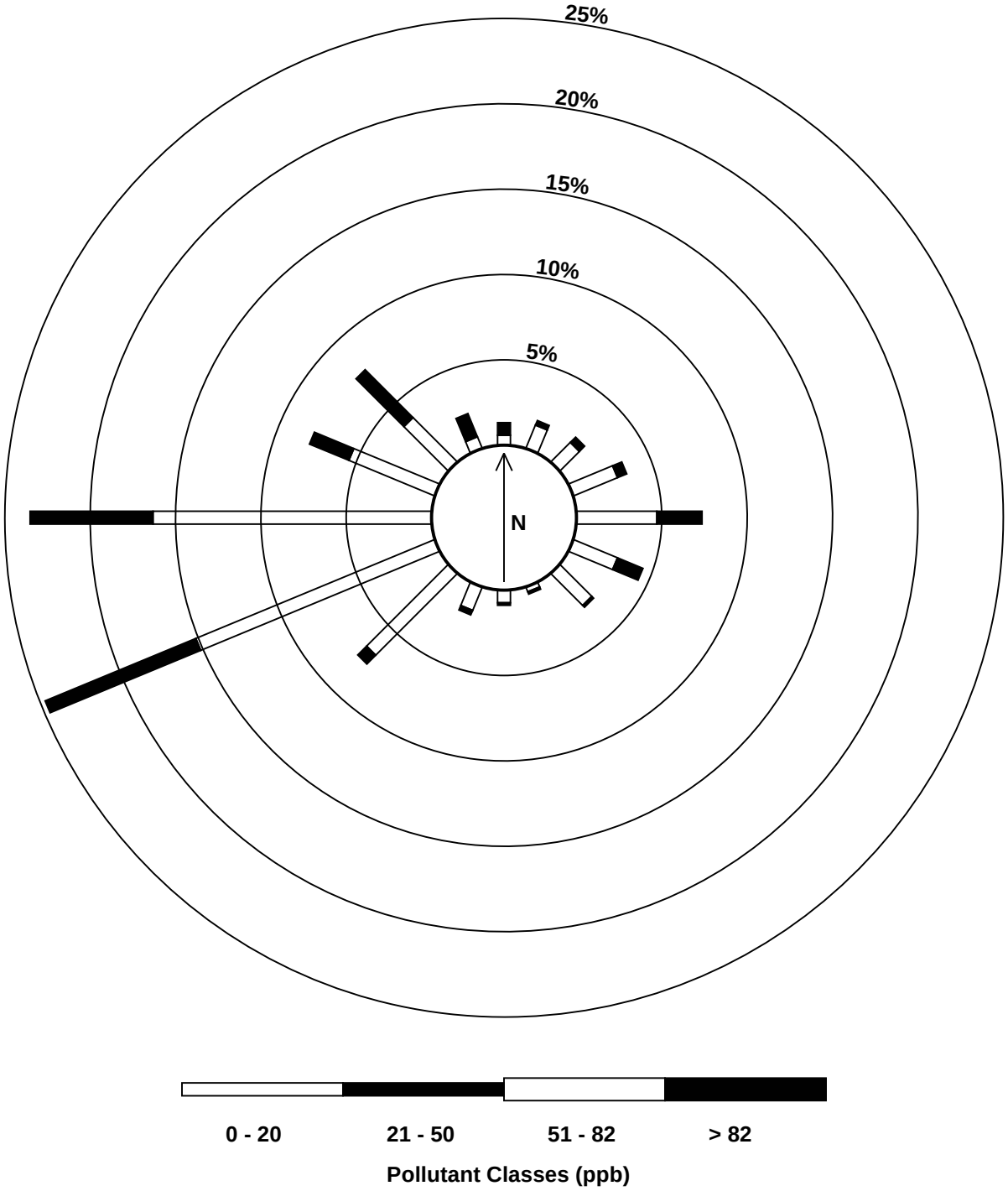
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	9	8	7	2	2	2	2	4	7	11	15	21	26	28	30	28	26	A	A	15	13	13	13	14	13.4	30.0
2-Sep	13	13	13	14	13	11	7	6	11	21	23	24	25	26	28	29	A	A	26	23	19	17	16	18	18.0	28.7
3-Sep	17	18	18	18	18	18	17	19	20	22	25	26	27	28	30	A	A	31	31	24	14	17	18	17	21.5	30.8
4-Sep	18	16	16	15	5	1	9	10	15	18	22	25	26	25	A	A	27	28	28	25	15	14	12	13	17.3	28.0
5-Sep	12	11	10	7	8	9	7	6	8	19	27	32	30	A	A	30	28	28	27	23	20	15	15	12	17.4	31.6
6-Sep	7	5	5	2	1	0	1	4	9	12	22	24	A	A	28	28	28	24	22	18	11	7	8	11	12.7	28.1
7-Sep	11	11	10	9	7	10	10	11	13	14	16	A	A	27	27	28	29	28	28	26	16	18	19	20	17.6	28.6
8-Sep	18	17	17	18	18	19	23	23	20	20	A	A	23	23	24	23	23	24	23	28	24	18	24	22	21.4	27.5
9-Sep	18	20	20	A	18	18	18	18	16	15	18	19	21	22	22	23	24	24	24	20	8	8	8	12	18.0	24.4
10-Sep	15	14	11	A	10	8	10	12	17	18	23	C	C	A	31	31	31	28	26	24	23	22	22	22	19.9	31.5
11-Sep	22	22	21	A	20	21	21	21	22	27	29	31	30	29	27	26	27	28	24	22	20	20	21	21	24.0	31.0
12-Sep	20	19	A	19	20	19	19	17	16	18	22	22	23	24	24	24	24	24	24	14	13	14	15	14	19.4	24.5
13-Sep	12	A	12	11	15	14	13	7	15	16	18	19	20	20	20	22	24	25	24	17	12	13	11	16	16.4	24.6
14-Sep	A	16	16	15	15	14	14	12	17	21	24	27	30	30	33	32	30	29	27	20	16	21	25	A	22.0	32.6
15-Sep	25	26	26	25	25	24	25	24	25	25	25	25	24	25	25	24	24	24	22	18	15	16	A	15	23.0	25.8
16-Sep	14	9	14	8	8	9	4	9	12	20	28	30	30	31	30	31	30	27	24	19	16	A	8	9	18.2	31.1
17-Sep	6	4	4	4	2	0	2	9	8	7	9	11	17	24	28	33	31	27	23	18	A	21	21	21	14.4	32.9
18-Sep	24	23	22	22	22	22	21	21	20	22	26	28	30	32	32	32	31	29	26	A	17	18	14	14	23.8	31.9
19-Sep	14	12	14	13	14	13	12	7	10	11	13	17	22	25	27	29	30	28	A	18	14	11	12	11	16.4	30.2
20-Sep	10	10	8	8	6	5	0	0	4	9	10	17	25	31	32	34	33	A	30	28	26	23	22	23	17.2	33.6
21-Sep	23	21	22	22	22	21	20	22	21	22	22	20	20	24	22	13	A	11	12	10	11	11	14	15	18.3	24.4
22-Sep	17	16	16	16	16	16	17	16	18	19	19	17	22	24	27	A	28	27	24	18	19	19	19	21	19.6	28.1
23-Sep	20	19	17	15	14	13	13	13	16	19	21	22	25	28	A	27	28	27	25	21	20	19	19	17	20.1	28.5
24-Sep	17	14	14	11	13	7	9	7	11	14	18	19	22	A	28	29	27	25	22	20	20	19	19	18	17.6	28.7
25-Sep	15	16	20	15	12	16	6	9	15	18	22	23	A	24	24	24	24	24	21	15	13	10	1	2	16.1	24.5
26-Sep	1	0	0	0	0	0	1	3	3	7	18	A	18	18	18	18	18	18	16	10	5	5	4	6	8.1	18.4
27-Sep	6	4	4	6	9	4	3	2	5	17	A	26	26	27	26	25	24	23	22	22	22	21	23	23	16.1	27.1
28-Sep	22	22	22	22	18	19	18	19	24	A	27	28	29	31	32	32	31	35	31	25	25	30	31	28	26.2	35.3
29-Sep	26	25	24	23	21	20	19	20	A	20	20	21	21	21	21	22	23	22	19	15	15	12	9	10	19.5	26.4
30-Sep	9	9	9	8	4	5	6	A	3	9	14	22	25	31	30	32	31	30	26	20	19	15	12	9	16.4	31.9
	15.2	14.5	14.2	13.0	12.5	11.9	11.6	12.1	13.9	16.9	20.6	23.0	24.5	26.0	27.0	27.0	27.2	25.9	24.2	19.7	16.5	16.2	15.7	15.6	Diurnal Average	
	26.4	25.7	25.8	25.3	24.8	24.4	24.8	23.8	25.0	27.1	29.1	31.6	30.4	31.6	32.6	33.6	33.4	35.3	31.3	27.8	26.1	29.7	31.4	27.8	Diurnal Maximum	

C - Calibration

A - Automated Daily Zero Span


Hourly Maximums for O_3 at Portable-Spirit River
September 2008
Ozone (ppb)
100
80
60
40
20
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Pollutant Rose for O_3 at Portable-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Eight Hour Running Averages

Portable-Spirit River - Ozone (O_3) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 29.2 ppb on Sep 28 19:00

Minimum Value: 0.0 ppb on Sep 26 05:00

Percentiles: P_1 = 0.6 P_{10} = 6.2 Q_1 = 11.0 Median = 17.5 Q_3 = 21.2 P_{90} = 23.8 P_{99} = 28.1

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	10	8	7	6	5	4	3	2	2	2	3	6	9	12	15	18	21	23	24	23	21	19	16	14	24.4
2-Sep	12	12	12	12	12	11	10	9	9	9	10	12	13	16	19	21	23	24	25	24	23	22	19	18	24.8
3-Sep	17	17	16	16	16	16	16	16	17	17	18	19	20	21	23	24	25	26	27	25	23	21	19	18	27.0
4-Sep	18	16	14	14	13	11	9	8	7	8	8	10	13	16	18	20	22	23	25	24	21	19	17	17	24.6
5-Sep	15	12	10	9	8	8	7	6	6	6	9	11	14	15	17	21	25	27	27	26	24	22	20	17	27.1
6-Sep	14	11	9	6	4	3	2	1	2	3	4	7	8	10	14	18	22	24	24	23	20	19	16	13	24.0
7-Sep	11	10	8	7	7	8	8	8	9	9	10	10	11	14	16	19	22	24	26	25	23	22	21	20	26.3
8-Sep	18	17	16	16	16	16	17	17	17	18	18	18	19	20	21	20	21	21	21	21	20	20	19	19	21.5
9-Sep	19	18	19	19	18	18	18	17	17	16	16	16	16	17	17	18	19	20	20	20	18	16	14	13	20.4
10-Sep	11	10	8	8	8	7	8	8	8	9	11	11	12	N	N	N	N	N	N	26	26	25	24	23	26.4
11-Sep	22	22	21	21	21	20	20	20	20	20	21	22	23	24	25	26	26	26	26	25	23	22	21	21	26.4
12-Sep	20	19	19	18	19	18	18	18	17	17	17	18	18	18	19	20	21	22	22	20	19	18	17	15	22.0
13-Sep	14	12	11	11	11	12	11	10	11	11	12	13	14	15	16	18	19	20	20	19	17	16	15	14	20.4
14-Sep	13	12	11	12	13	13	14	14	14	14	15	16	18	20	22	25	26	27	27	25	24	22	21	20	27.3
15-Sep	19	19	19	21	23	24	24	24	24	24	24	24	24	24	24	24	24	23	23	22	20	18	18	16	23.8
16-Sep	14	11	9	8	6	5	5	4	4	6	8	11	14	17	20	24	26	27	27	25	24	23	20	16	27.2
17-Sep	13	9	6	4	2	2	1	1	1	2	3	4	6	8	12	15	18	20	21	22	23	23	22	21	23.3
18-Sep	20	20	20	21	21	21	21	21	21	20	21	22	23	24	25	26	27	28	28	28	26	23	20	17	28.2
19-Sep	14	12	11	11	10	10	10	10	10	10	9	10	11	13	15	17	20	22	24	23	22	21	18	15	23.6
20-Sep	12	9	9	8	6	5	4	3	2	2	3	4	6	10	13	18	21	23	26	28	28	27	25	24	28.5
21-Sep	22	22	21	20	19	19	19	19	18	19	18	19	19	19	19	18	18	16	15	13	12	11	10	10	22.3
22-Sep	11	12	12	13	13	14	14	14	14	15	15	16	16	17	18	19	20	21	22	22	22	21	20	20	21.9
23-Sep	19	18	18	17	17	16	15	14	14	14	14	15	16	18	19	21	22	23	24	24	23	22	22	21	23.8
24-Sep	19	18	17	15	14	12	10	9	8	8	9	10	11	12	15	18	21	22	23	23	22	22	20	19	22.7
25-Sep	17	16	15	14	13	12	10	9	9	9	10	11	11	13	16	19	21	22	22	20	19	17	14	11	21.9
26-Sep	8	5	2	1	0	0	0	0	0	0	1	2	4	7	10	12	14	16	16	15	13	11	10	8	16.1
27-Sep	6	5	4	3	4	3	3	3	3	4	4	6	9	13	16	19	22	24	24	23	23	22	21	21	24.1
28-Sep	21	21	21	21	20	20	19	19	19	18	19	20	22	23	26	27	29	29	29	29	28	27	27	26	29.2
29-Sep	26	25	24	24	24	24	22	21	21	20	20	19	19	19	20	20	20	20	19	18	17	16	14	13	26.0
30-Sep	11	9	8	7	6	5	4	4	3	3	3	6	9	12	16	18	22	24	25	25	23	21	18	14	25.0
Diurnal Maximums	26.0	24.8	24.4	24.4	24.2	23.6	23.8	23.7	23.8	23.8	23.7	23.6	23.6	24.4	25.5	27.4	28.6	29.1	29.2	28.7	28.5	27.2	27.0	26.5	

N - Not Valid
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 65 ppb

Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River - External Temperature (ET) - ^{o}C
September 1, 2008 to October 1, 2008

Maximum Value: 25.2 ^{o}C on Sep 15 16:00

Maximum Daily Average: 19.3 ^{o}C on Sep 15

Minimum Value: 0 ^{o}C on Sep 24 06:00

Minimum Daily Average: 5.6 ^{o}C on Sep 24

Maximum Diurnal Average: 16.9 ^{o}C at hour 16

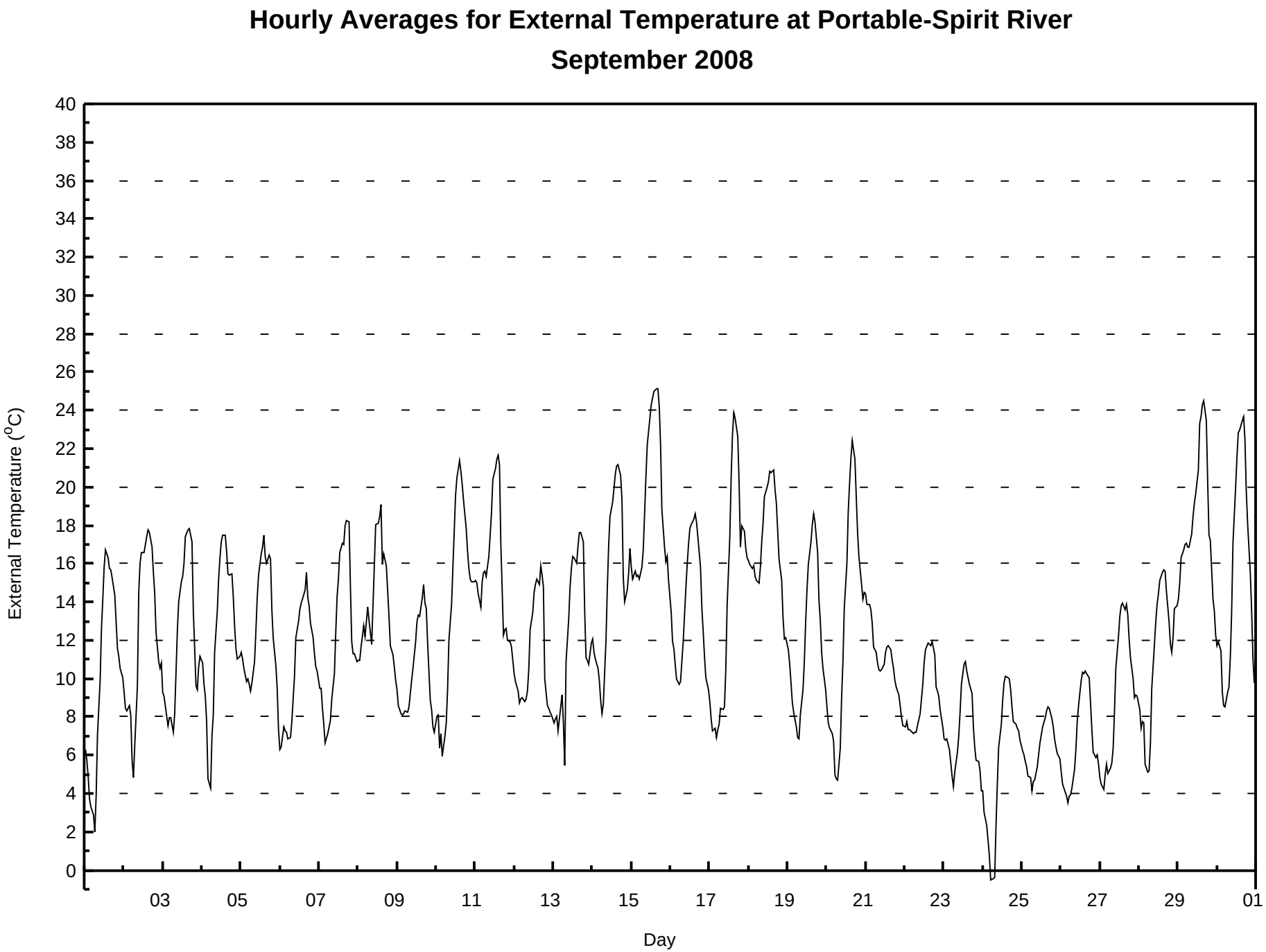
Minimum Diurnal Average: 8.1 ^{o}C at hour 7

Monthly Average: 12.13 ^{o}C

Percentiles: P_1 = 2.1 P_{10} = 6.3 Q_1 = 8.3 Median = 11.5 Q_3 = 15.8 P_{90} = 18.4 P_{99} = 24.2

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	6	6	5	4	3	3	2	4	7	10	13	14	16	17	16	16	16	15	14	13	12	11	11	10	10.1	16.7
2-Sep	9	8	8	9	8	6	5	6	10	14	16	17	17	17	17	18	18	17	16	14	12	11	11	11	12.3	17.8
3-Sep	9	9	8	8	8	8	7	8	10	12	14	15	15	16	17	18	18	17	17	14	10	9	11	11	12.1	17.9
4-Sep	11	10	9	8	5	4	7	8	11	14	15	16	17	18	17	17	15	15	15	14	13	12	11	11	12.2	17.5
5-Sep	11	11	11	10	10	10	9	10	11	12	14	15	17	17	17	16	16	16	16	14	12	11	9	7	12.7	17.5
6-Sep	6	6	7	7	7	7	7	8	9	10	12	13	14	14	14	15	16	14	14	13	12	11	11	10	10.7	15.5
7-Sep	10	10	8	8	7	7	7	8	9	10	12	14	15	17	17	17	18	18	18	15	12	11	11	11	12.1	18.2
8-Sep	11	11	12	13	12	13	14	13	12	14	16	18	18	18	19	16	16	16	15	13	12	11	11	10	13.9	19.1
9-Sep	9	9	8	8	8	8	8	9	9	10	11	12	13	13	13	14	15	14	14	12	9	8	7	7	10.4	14.9
10-Sep	8	8	6	7	6	7	8	9	12	14	16	18	20	20	21	21	20	19	18	17	16	15	15	15	14.0	21.4
11-Sep	15	15	14	14	15	16	16	15	16	17	19	20	21	21	22	21	17	12	13	13	12	12	12	11	15.8	21.6
12-Sep	10	10	9	9	9	9	9	9	9	10	13	13	14	15	15	15	16	15	15	10	9	8	8	8	11.2	15.9
13-Sep	8	8	8	7	8	9	8	5	11	13	15	16	16	16	16	17	18	18	17	14	11	11	11	12	12.2	17.7
14-Sep	12	11	11	11	10	9	8	9	12	15	17	18	19	20	21	21	21	21	19	15	14	15	15	17	15.0	21.2
15-Sep	16	15	16	15	15	15	16	17	19	21	22	24	24	25	25	25	25	24	22	19	17	16	16	15	19.3	25.2
16-Sep	13	12	12	11	10	10	10	11	12	15	16	17	18	18	18	19	18	17	16	14	13	11	10	9	13.7	18.6
17-Sep	9	8	7	7	7	7	8	8	8	9	10	14	17	20	23	24	24	23	20	17	18	18	17	16	14.1	23.9
18-Sep	16	16	16	16	15	15	15	16	17	18	19	20	20	21	21	21	20	19	18	16	15	13	12	12	17.0	20.9
19-Sep	12	11	10	9	8	7	7	7	8	9	11	13	15	16	17	18	19	18	17	14	13	11	11	9	12.0	18.6
20-Sep	9	8	7	7	7	5	5	5	6	9	11	14	16	19	20	22	22	21	20	18	16	15	14	14	12.9	22.4
21-Sep	14	14	14	14	13	12	11	11	10	10	11	11	11	12	12	11	11	11	10	10	9	9	8	8	11.0	14.4
22-Sep	8	8	7	7	7	7	7	7	8	8	9	10	11	11	12	12	12	12	11	10	9	9	8	7	9.1	11.9
23-Sep	7	7	7	6	6	5	4	5	6	7	8	10	11	11	10	10	10	9	7	6	6	6	5	4	7.2	10.9
24-Sep	4	3	2	2	1	0	0	0	2	5	6	8	9	10	10	10	10	9	9	8	8	7	7	7	5.6	10.1
25-Sep	6	6	6	5	5	5	4	5	5	5	6	7	7	7	8	8	8	8	8	7	7	6	6	6	6.4	8.5
26-Sep	5	4	4	4	4	4	4	4	5	6	8	9	10	10	10	10	10	10	9	7	6	6	6	6	6.8	10.4
27-Sep	5	4	4	5	6	5	5	6	6	8	11	12	13	14	14	14	14	13	12	11	10	9	9	9	9.1	13.9
28-Sep	8	7	8	8	6	5	5	7	9	12	13	14	14	15	16	16	16	15	13	12	11	12	14	14	11.2	15.7
29-Sep	14	15	16	17	17	17	17	17	18	18	19	20	21	23	24	24	24	23	20	17	17	14	14	12	18.3	24.5
30-Sep	12	12	11	9	9	8	9	10	11	13	17	20	22	23	23	23	24	22	20	18	16	14	11	10	15.3	23.7
	9.8	9.4	9.1	8.8	8.3	8.1	8.1	8.5	10.0	11.7	13.3	14.7	15.7	16.5	16.9	16.9	16.9	16.2	15.0	13.1	11.8	11.1	10.7	10.4	Diurnal Average	
	16.1	15.9	16.3	16.7	17.0	17.1	16.9	16.9	18.6	20.6	22.2	23.6	24.3	24.6	25.0	25.2	25.1	24.2	22.2	18.8	17.9	17.7	16.8	16.8	Diurnal Maximum	


Hourly Averages for External Temperature at Portable-Spirit River
September 2008
External Temperature (°C)
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River - Relative Humidity (RH) - %
September 1, 2008 to October 1, 2008

Maximum Value: 98.2 % on Sep 27 08:00

Maximum Daily Average: 83.9 % on Sep 21

Minimum Value: 29 % on Sep 14 15:00

Minimum Daily Average: 44.4 % on Sep 15

Maximum Diurnal Average: 80.7 % at hour 8

Minimum Diurnal Average: 45.3 % at hour 16

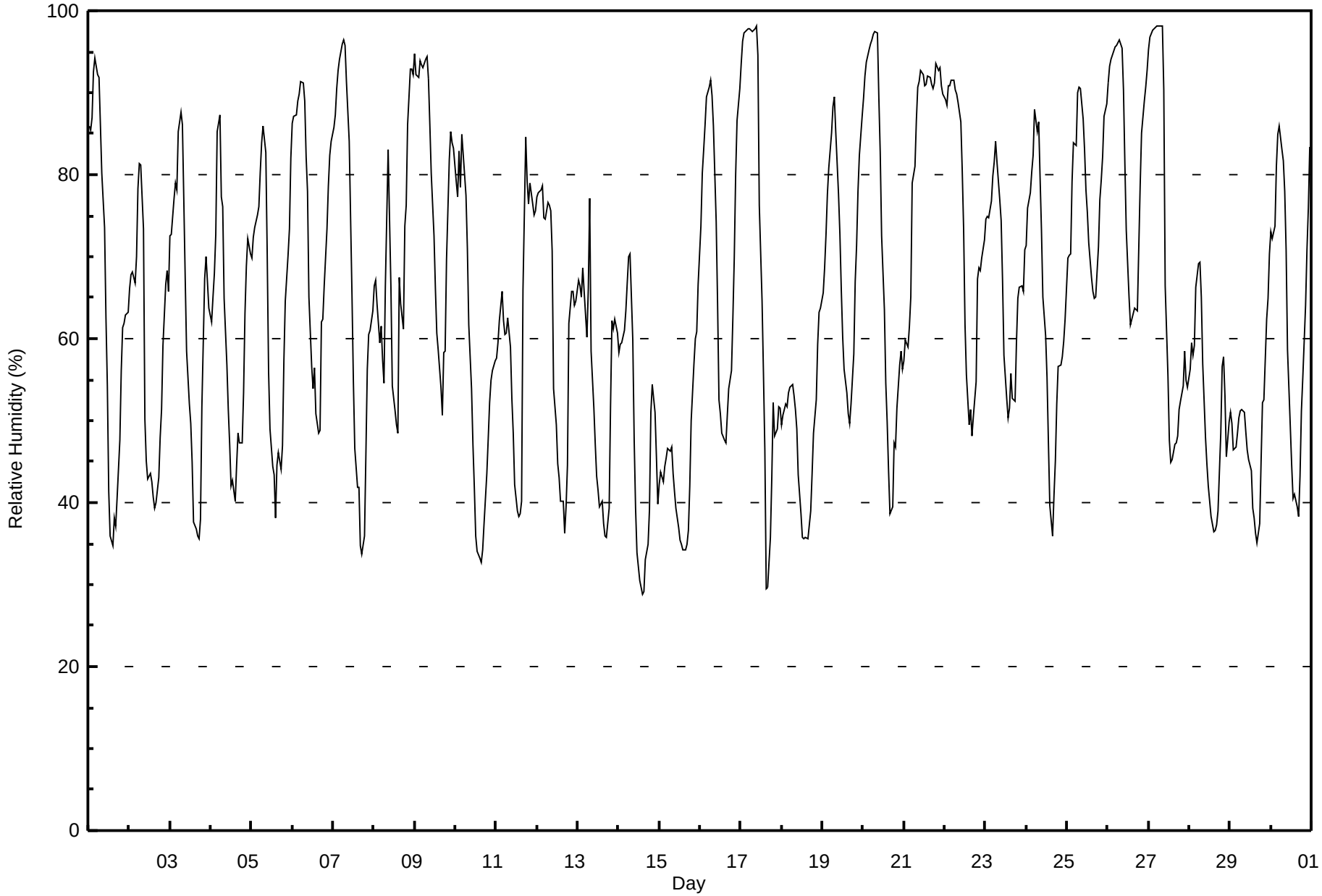
Monthly Average: 64.66 %

Percentiles: P_1 = 33.1 P_{10} = 39.6 Q_1 = 49.5 Median = 63.8 Q_3 = 80.2 P_{90} = 91.2 P_{99} = 97.8

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	86	85	87	93	94	92	92	86	80	74	63	54	41	36	35	38	37	40	48	56	61	62	63	63	65.3	94.3
2-Sep	66	68	68	67	70	78	81	81	73	50	45	43	44	43	41	39	40	43	48	51	59	67	68	66	58.3	81.3
3-Sep	73	73	77	79	78	85	88	86	77	68	58	52	50	45	38	37	36	36	38	52	67	70	67	64	62.2	87.6
4-Sep	62	65	68	73	85	87	77	76	65	57	51	47	42	43	40	45	49	47	47	53	63	69	72	70	60.6	87.2
5-Sep	70	72	74	75	76	80	84	86	83	70	56	49	44	43	38	45	46	44	47	57	65	70	73	82	63.8	86.0
6-Sep	86	87	87	89	90	91	91	89	82	78	65	57	54	56	51	49	49	62	62	66	73	79	82	84	73.4	91.4
7-Sep	86	87	91	93	94	96	96	96	91	84	75	65	55	47	42	42	35	34	36	46	56	61	61	63	67.9	96.4
8-Sep	66	67	64	59	62	57	55	66	83	75	66	54	51	49	48	67	64	61	74	76	86	93	93	92	68.0	92.9
9-Sep	95	92	92	94	93	93	94	94	92	86	80	73	66	61	59	54	51	58	58	70	82	85	84	83	78.7	94.7
10-Sep	79	77	83	78	85	80	77	71	62	54	47	42	36	34	33	33	34	38	44	48	52	55	56	57	56.4	84.9
11-Sep	58	59	62	66	62	60	61	63	59	53	48	42	39	38	39	40	66	85	79	76	79	77	75	76	60.9	84.5
12-Sep	77	78	78	79	75	75	77	76	76	71	54	50	45	43	40	40	36	40	45	62	66	66	64	65	61.4	78.7
13-Sep	67	66	65	69	66	60	66	77	58	51	47	43	42	39	40	37	36	36	39	52	62	61	62	61	54.3	77.1
14-Sep	58	59	60	61	63	67	70	70	60	48	39	34	31	30	29	29	33	35	39	51	54	51	46	40	48.2	70.3
15-Sep	42	44	43	44	45	47	46	47	44	41	39	37	35	35	34	34	35	37	42	50	57	60	61	67	44.4	66.5
16-Sep	74	80	83	86	90	91	91	90	86	74	64	53	51	48	48	47	51	54	56	63	70	80	87	90	71.1	91.5
17-Sep	94	96	97	98	98	98	98	97	98	98	95	76	65	56	47	29	30	36	43	52	48	49	52	51	70.8	98.1
18-Sep	49	51	52	52	53	54	54	53	51	49	43	39	36	36	36	36	37	39	44	48	53	59	63	64	47.9	63.8
19-Sep	66	69	73	78	81	85	88	90	85	78	73	66	60	56	53	51	50	52	58	67	71	78	82	87	70.7	89.5
20-Sep	89	92	94	95	96	96	97	97	97	90	83	73	64	55	50	44	39	40	47	47	52	57	58	56	71.1	97.4
21-Sep	57	60	59	61	65	79	81	87	91	91	93	92	91	91	92	92	91	90	91	94	93	93	91	90	83.9	93.5
22-Sep	89	88	91	91	91	91	90	90	89	86	80	73	62	56	49	51	48	51	55	67	69	68	70	72	73.7	91.5
23-Sep	75	75	75	77	80	82	84	82	77	74	67	58	53	50	52	56	53	52	60	65	66	66	66	71	67.2	84.1
24-Sep	71	76	78	80	82	88	85	87	80	73	65	60	55	47	40	36	41	45	52	57	57	58	60	62	64.0	88.0
25-Sep	70	70	70	79	84	84	90	91	91	87	83	78	75	72	67	66	65	65	71	77	79	82	87	89	78.0	90.6
26-Sep	91	93	94	95	96	96	96	97	95	90	81	73	65	62	62	63	64	63	71	79	85	89	91	93	82.7	96.5
27-Sep	95	97	98	98	98	98	98	98	98	90	66	55	48	45	45	47	47	48	51	52	54	58	55	54	70.7	98.2
28-Sep	56	59	58	59	66	69	69	65	57	48	45	42	40	38	36	37	37	39	48	57	58	53	46	50	51.4	69.2
29-Sep	51	50	46	47	49	50	51	51	51	49	46	45	44	39	38	36	35	37	45	52	53	62	65	70	48.5	70.4
30-Sep	73	72	74	81	85	86	83	82	78	71	59	49	45	41	41	39	38	43	51	55	64	71	76	83	64.2	85.9
	72.4	73.6	74.7	76.5	78.4	79.9	80.4	80.7	76.9	70.3	62.6	55.8	50.9	47.8	45.4	45.3	45.7	48.3	53.0	59.9	65.2	68.3	69.2	70.5	Diurnal Average	
	95.3	96.8	97.6	97.8	98.0	98.1	98.1	98.2	98.2	98.1	94.6	92.1	90.9	91.0	92.1	91.9	91.1	90.5	91.2	93.5	92.8	93.0	92.9	92.6	Diurnal Maximum	

Hourly Averages for Relative Humidity at Portable-Spirit River
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	9	5	2	1	1	5	1	1	2	3	1	3	8	6	4	5	10	8	2	4	6	8	8	9	3.8	9.5
Dir	236	240	289	310	248	290	311	99	42	20	24	234	259	295	315	241	221	248	257	228	223	233	234	241	249.1	220.8
2 Spd	9	9	9	13	8	3	2	2	3	17	9	6	7	6	6	7	8	9	11	7	9	9	7	5	6.6	16.7
Dir	253	254	251	242	251	16	19	46	58	266	264	263	291	283	269	259	245	241	242	253	245	251	254	258	257.7	265.9
3 Spd	1	2	2	2	4	2	1	1	4	7	9	9	13	3	6	5	6	6	2	5	8	8	6	5	4.3	13.3
Dir	263	261	268	268	261	276	259	279	305	309	315	318	308	291	272	301	316	320	277	239	229	237	261	260	284.6	308.1
4 Spd	6	8	2	2	4	0	2	0	2	4	5	6	9	6	4	6	10	5	2	3	2	3	5	4	2.6	9.9
Dir	257	249	273	47	71	93	249	313	279	287	290	298	320	272	301	294	21	15	343	222	187	228	245	255	291.0	20.8
5 Spd	3	1	2	4	1	1	3	2	1	2	2	3	2	4	4	7	15	9	2	4	2	5	5	6	2.4	15.2
Dir	260	279	262	255	267	271	254	94	272	286	291	261	227	243	282	338	337	337	306	80	82	228	241	291	293.6	336.8
6 Spd	6	7	2	3	1	3	2	2	2	3	9	13	15	13	11	6	3	10	6	3	1	3	2	5	2.0	14.7
Dir	261	253	282	283	286	253	305	273	359	133	143	134	118	103	112	103	202	245	245	251	255	254	260	245	174.6	118.2
7 Spd	4	3	2	3	2	3	2	3	2	3	5	4	6	4	5	4	5	4	1	4	7	8	9	0	2.8	8.7
Dir	258	263	263	260	272	263	265	268	285	306	322	309	331	263	311	320	253	270	286	214	206	208	208	218	262.5	207.8
8 Spd	4	10	6	7	6	14	14	12	8	6	4	5	10	6	6	12	6	4	9	5	2	5	8	5	5.0	13.9
Dir	224	240	250	246	249	239	243	254	251	260	275	296	317	305	258	246	285	9	134	36	67	1	329	231	262.1	239.4
9 Spd	2	3	2	7	5	2	3	2	2	7	11	6	6	7	11	10	7	5	7	4	6	5	3	5	4.2	11.2
Dir	302	293	282	318	314	286	264	268	291	317	335	318	314	310	325	343	326	260	338	240	226	226	204	215	302.3	335.3
10 Spd	7	2	3	0	4	3	3	6	13	19	15	14	12	13	11	18	14	11	12	15	11	11	11	13	9.4	18.9
Dir	218	204	49	51	325	304	266	254	232	231	238	248	252	250	254	252	257	259	247	248	254	255	258	255	249.8	231.1
11 Spd	14	12	13	8	9	22	21	14	17	22	16	16	23	17	17	15	8	9	12	6	5	5	9	7	13.0	22.8
Dir	256	255	246	223	256	244	248	259	256	253	257	258	253	255	253	250	270	252	238	265	263	263	259	264	253.0	253.4
12 Spd	9	8	8	8	7	6	2	3	3	3	6	9	9	10	7	6	7	4	2	8	9	10	11	11	5.6	11.1
Dir	261	263	261	261	262	263	278	269	270	295	314	317	319	321	307	311	312	304	254	233	226	229	228	228	271.2	227.8
13 Spd	11	10	12	11	9	12	7	2	5	5	4	5	7	6	4	6	4	3	1	5	5	7	7	7	6.0	12.0
Dir	231	235	246	252	251	251	250	59	255	268	282	279	267	269	286	265	280	299	284	227	234	251	244	256	253.6	251.0
14 Spd	8	8	8	8	5	4	2	1	2	3	3	4	5	5	4	2	2	3	5	6	8	6	11	15	5.1	14.9
Dir	258	256	256	256	264	269	273	275	291	285	278	283	298	264	266	279	273	261	249	238	250	254	253	250	260.4	249.9
15 Spd	11	7	12	11	7	8	5	4	9	8	7	7	6	7	7	6	4	4	3	7	7	7	6	5	5.7	11.6
Dir	249	259	258	256	258	258	264	267	262	265	269	277	280	294	288	290	277	268	256	251	248	287	50	77	267.7	257.8
16 Spd	4	2	2	4	5	5	5	3	3	2	8	11	10	14	14	15	18	17	12	5	2	2	3	1	4.5	17.5
Dir	136	315	249	283	262	271	258	262	339	44	71	77	84	91	97	98	95	90	83	83	100	93	57	138	87.8	94.7
17 Spd	1	0	3	2	4	3	2	1	2	3	1	2	3	3	3	15	17	12	7	9	14	15	12	14	4.9	16.9
Dir	117	276	341	324	269	275	285	275	247	226	220	100	107	88	0	254	250	251	249	242	245	241	227	233	247.0	250.3
18 Spd	15	14	12	13	10	7	9	8	5	5	4	6	8	6	7	7	13	13	6	2	2	1	1	1	3.5	14.8
Dir	242	246	250	252	256	262	259	262	263	304	290	313	336	350	6	60	38	37	48	189	202	216	271	354	286.7	242.3
19 Spd	2	3	3	2	3	1	4	2	8	14	13	11	10	11	10	10	12	12	9	6	6	3	1	1	6.3	13.7
Dir	157	63	99	99	102	60	123	123	97	92	95	100	105	97	98	94	88	87	90	103	100	87	72	19	95.4	91.8
20 Spd	2	2	1	2	2	6	5	4	2	2	2	3	2	3	6	3	5	6	1	3	4	5	3	4	2.4	6.0
Dir	59	66	238	237	282	289	272	260	281	241	317	323	336	336	337	311	322	339	351	259	263	253	210	260	293.6	289.1
21 Spd	2	2	3	1	1	4	4	5	7	6	6	7	2	2	2	2	3	2	1	1	1	1	2	2	2.7	7.2
Dir	257	254	256	281	206	260	261	261	244	232	220	215	236	287	277	296	294	285	294	267	269	264	273	290	252.3	244.2
22 Spd	4	3	2	2	2	2	2	3	3	3	3	3	5	7	12	9	7	4	3	3	5	9	8	6	4.3	11.8
Dir	304	307	275	288	283	281	283	273	278	276	283	280	299	304	318	317	308	296	280	265	263	261	263	264	288.7	318.2

Peace Airshed Zone Association
Summary of Hourly Averages

Portable-Spirit River
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	7	7	6	6	7	6	3	5	6	4	3	4	5	6	11	5	12	9	7	8	7	8	5	6	6.3	11.8
Dir	263	262	264	262	262	263	268	263	262	275	279	276	270	302	257	264	254	257	256	255	256	259	264	260	262.7	253.5
24 Spd	4	3	4	5	2	3	0	2	2	2	2	6	9	11	14	12	11	9	7	6	4	4	2	4	3.3	13.7
Dir	265	264	259	259	308	183	225	138	84	74	102	93	80	88	114	123	95	79	61	50	43	124	142	68	95.2	114.4
25 Spd	2	2	4	1	1	2	3	1	5	8	8	10	10	11	10	9	7	7	6	1	1	2	1	0	3.6	11.3
Dir	86	45	58	87	115	317	227	89	27	31	51	96	97	98	104	110	94	109	132	162	31	190	202	121	90.6	98.1
26 Spd	1	1	1	1	1	1	4	5	5	6	6	8	10	10	13	16	18	16	9	5	5	6	6	8	6.1	18.3
Dir	61	48	322	29	342	75	95	121	91	100	115	169	141	136	136	132	124	141	139	128	105	109	90	98	124.3	124.3
27 Spd	4	7	4	1	2	4	1	4	4	7	19	20	17	7	6	12	9	8	7	9	10	8	9	7	5.5	20.0
Dir	105	101	118	248	61	64	181	141	107	238	243	251	254	266	268	263	262	261	262	257	254	256	257	262	249.4	250.9
28 Spd	9	10	9	5	7	6	10	8	8	11	7	9	11	11	12	11	12	14	5	8	7	4	10	18	8.7	17.7
Dir	257	251	253	261	246	234	235	242	250	253	260	257	252	250	252	247	235	248	228	171	155	197	239	237	242.0	237.5
29 Spd	12	13	22	25	15	17	17	12	16	19	14	11	8	15	15	9	5	3	3	8	13	18	9	8	12.5	25.0
Dir	239	236	242	247	254	252	252	256	257	256	259	261	265	264	265	271	277	278	251	249	213	226	232	234	249.7	247.0
30 Spd	5	6	4	1	1	6	5	5	2	18	18	7	14	11	14	9	7	7	9	3	5	7	3	4	3.2	18.5
Dir	219	231	237	4	25	249	264	247	115	90	81	100	108	101	116	108	84	65	124	190	262	257	231	240	119.4	81.0
Spd	4.8	4.6	4.5	4.5	3.7	4.5	4.1	2.8	2.9	3.4	2.6	2.8	2.7	1.9	2.0	2.6	1.9	1.7	1.5	3.2	4.0	4.9	4.5	4.8	Diurnal Average	
Dir	245.9	251.0	254.0	257.1	262.4	258.4	254.0	252.7	260.1	262.9	272.0	261.8	277.9	277.7	271.3	259.4	283.9	273.8	226.4	233.7	232.6	240.3	244.6	246.3		
Spd	14.8	14.3	22.4	25.0	15.2	22.4	20.8	13.8	16.8	21.7	19.5	20.0	22.8	17.2	16.7	18.0	18.3	17.2	12.0	14.8	14.1	17.7	12.0	17.7	Diurnal Maximum	
Dir	242.3	246.2	241.6	247.0	253.6	243.7	248.3	258.6	255.9	253.4	243.4	250.9	253.4	255.5	253.4	252.0	124.3	89.7	237.8	248.0	245.3	226.3	227.4	237.5		

Maximum Speed Value: 25 km/h on Sep 29 04:00
Maximum Daily Speed Average: 13.0 km/h on Sep 11
Maximum Diurnal Speed Average: 4.9 km/h at hour 22

Minimum Speed Value: 0 km/h on Sep 4 08:00
Minimum Daily Speed Average: 2.0 km/h on Sep 21
Minimum Diurnal Speed Average: 1.5 km/h at hour 19

Monthly Average Velocity: 3.29 km/h 254.38 deg

Speed Percentiles: $P_1 = 0.5$ $P_{10} = 1.7$ $Q_1 = 2.9$ Median = 5.6 $Q_3 = 8.8$ $P_{90} = 12.9$ $P_{99} = 19.4$

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

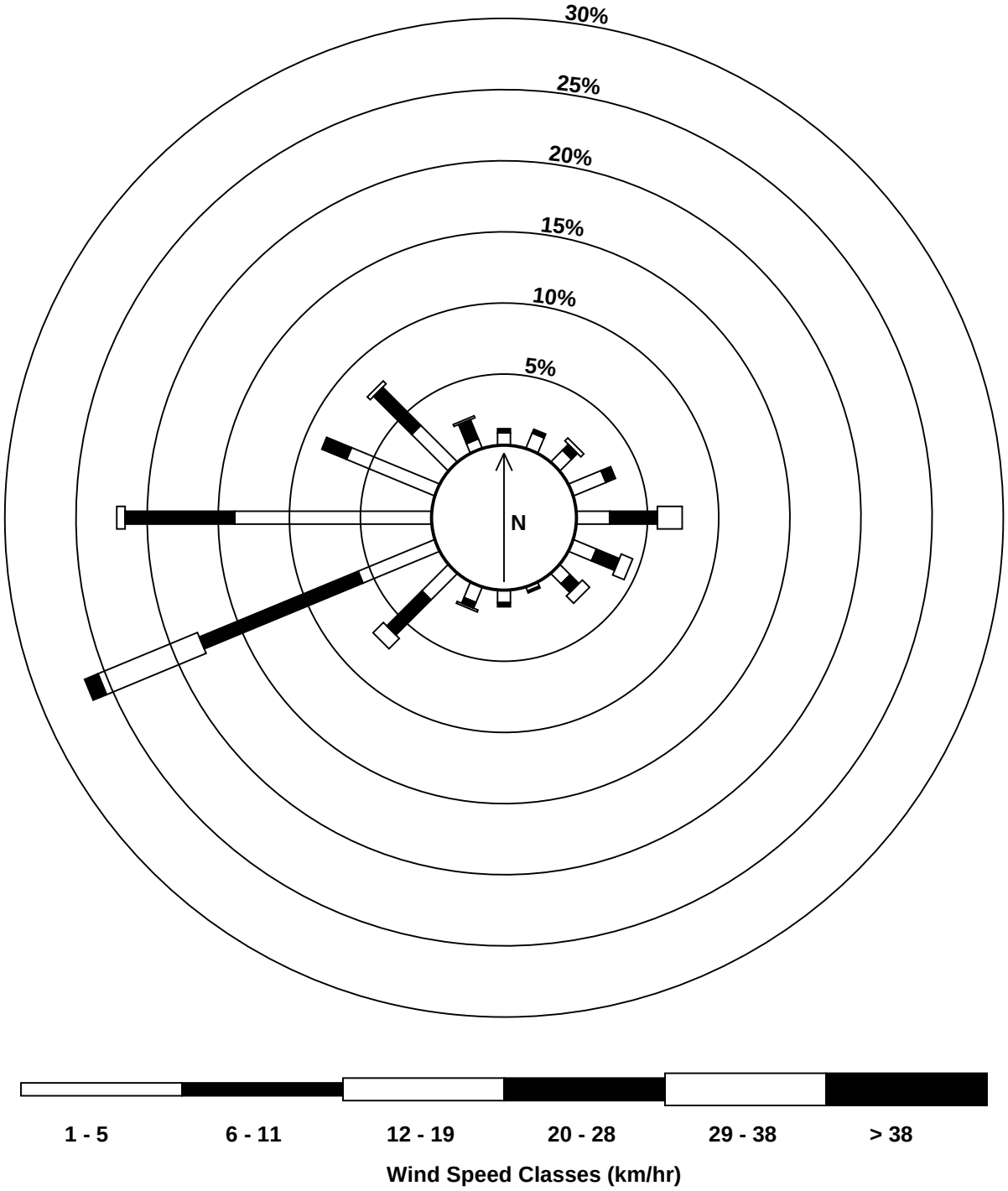
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Percentage Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	1.94	1.25	0.00	0.00	0.00	0.00	3.19
NorthEast	3.75	1.11	0.28	0.00	0.00	0.00	5.14
East	4.17	4.44	2.50	0.00	0.00	0.00	11.11
SouthEast	2.22	1.39	1.25	0.00	0.00	0.00	4.86
South	1.53	0.28	0.00	0.00	0.00	0.00	1.81
SouthWest	4.31	7.50	3.61	0.56	0.00	0.00	15.97
West	20.56	18.33	6.81	0.69	0.00	0.00	46.39
NorthWest	5.28	5.69	0.56	0.00	0.00	0.00	11.53
Total	43.75	40.00	15.00	1.25	0.00	0.00	100.00

Wind Rose for WS at Portable-Spirit River

September 2008



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

Portable-Spirit River - Wind Speed (WS) - km/h
September 1, 2008 to October 1, 2008

Maximum Speed: 25 km/h on Sep 29 04:00

Maximum Daily Speed Average: 13.3 km/h on Sep 11

Minimum Speed: 1 km/h on Sep 26 03:00

Minimum Daily Speed Average: 3.3 km/h on Sep 21

Maximum Diurnal Speed Average: 9.4 km/h at hour 13

Minimum Diurnal Speed Average: 4.4 km/h at hour 8

Monthly Average Speed: 6.87 km/h

Percentiles: P_1 = 1.1 P_{10} = 2.2 Q_1 = 3.4 Median = 6.0 Q_3 = 9.0 P_{90} = 12.8 P_{99} = 19.5

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	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	9	5	4	2	2	5	2	1	2	6	3	5	10	7	4	6	10	8	2	4	6	8	8	9	5.4	9.9
2-Sep	9	9	9	13	8	3	3	3	3	19	9	7	8	6	7	7	9	9	11	7	9	9	7	5	7.8	19.1
3-Sep	1	3	3	2	4	2	2	1	4	8	10	10	15	4	7	6	7	6	3	5	8	9	6	6	5.5	15.3
4-Sep	6	8	3	3	4	1	2	1	3	4	6	7	10	7	5	8	11	6	2	3	3	4	5	4	4.8	10.5
5-Sep	3	2	3	4	1	2	3	2	2	2	3	5	4	5	6	8	15	9	2	5	2	5	5	7	4.4	15.4
6-Sep	7	7	3	3	2	3	2	2	2	3	9	13	15	14	11	7	5	10	6	3	1	3	2	5	5.9	15.3
7-Sep	4	3	3	4	2	3	3	3	3	4	5	5	7	5	6	5	6	4	1	4	7	8	9	2	4.3	8.7
8-Sep	5	10	6	7	6	14	14	13	9	6	4	6	10	6	6	13	8	6	9	10	7	9	8	5	8.2	14.0
9-Sep	3	3	3	7	6	3	3	2	3	8	11	6	6	7	11	11	7	6	7	5	6	5	4	6	5.8	11.4
10-Sep	7	3	3	2	5	3	4	6	13	19	15	14	13	13	11	18	14	11	12	15	11	11	11	13	10.3	19.0
11-Sep	14	12	13	9	9	22	21	14	17	22	16	16	23	17	17	15	8	9	12	6	5	5	9	7	13.3	22.9
12-Sep	9	8	8	8	7	6	3	3	3	3	7	9	9	11	7	7	7	4	3	8	9	10	11	11	7.0	11.1
13-Sep	11	11	12	11	9	12	10	3	6	5	4	6	7	7	4	6	4	3	1	5	5	7	7	7	6.8	12.0
14-Sep	8	8	8	8	5	4	2	1	2	3	4	4	5	5	5	3	3	3	5	6	8	6	11	15	5.5	15.0
15-Sep	11	7	12	11	7	8	5	4	9	8	7	7	6	7	8	7	5	4	4	7	7	15	10	9	7.7	15.4
16-Sep	8	3	3	4	6	5	5	5	3	3	9	11	11	14	14	16	18	17	12	5	3	3	3	1	7.6	17.8
17-Sep	1	2	3	3	4	3	2	1	3	3	2	3	4	5	6	15	17	12	7	9	14	15	12	14	6.7	17.0
18-Sep	15	14	12	13	10	7	9	9	5	5	5	7	8	8	9	8	13	13	6	4	3	2	1	1	7.8	14.9
19-Sep	2	3	3	2	3	1	4	2	8	14	13	12	10	12	10	11	12	12	9	6	6	3	1	1	6.7	14.0
20-Sep	2	2	1	2	2	6	5	4	2	3	4	4	3	4	6	3	6	6	2	4	4	5	4	4	3.7	6.3
21-Sep	3	2	3	2	3	4	4	5	7	6	6	7	3	3	2	3	3	2	2	1	1	1	2	2	3.3	7.3
22-Sep	4	4	2	2	2	3	3	4	3	3	4	4	6	7	12	9	7	4	3	3	5	9	8	6	4.9	12.0
23-Sep	7	7	6	6	7	6	3	5	6	4	4	4	6	7	11	6	12	9	7	8	7	8	5	6	6.6	11.9
24-Sep	4	3	4	5	5	4	3	2	2	2	3	6	9	11	15	13	12	9	7	6	5	4	2	5	5.9	14.8
25-Sep	3	2	4	1	1	2	3	2	5	8	8	10	11	11	11	9	7	8	6	2	2	2	1	1	5.0	11.5
26-Sep	1	1	1	1	2	1	4	5	5	6	6	8	12	11	14	16	18	16	9	6	5	6	6	8	7.0	18.5
27-Sep	5	7	5	2	3	4	2	4	4	7	20	20	17	8	7	12	9	8	7	9	10	8	9	8	8.0	20.1
28-Sep	9	10	9	5	7	6	10	8	8	11	7	9	12	11	12	11	12	15	5	8	7	5	10	18	9.5	17.7
29-Sep	12	13	22	25	15	17	17	13	16	19	14	12	8	16	16	11	5	3	3	8	13	18	9	8	13.1	25.1
30-Sep	6	6	4	3	2	6	6	5	2	19	19	8	15	11	15	9	8	7	12	4	5	7	7	4	7.8	19.5
	6.3	5.9	5.8	5.7	5.0	5.5	5.2	4.4	5.4	7.9	8.0	8.1	9.4	8.7	9.1	9.2	9.2	8.0	5.9	5.8	6.2	7.0	6.5	6.6	Diurnal Average	
	14.9	14.3	22.5	25.1	15.2	22.4	21.0	13.9	16.9	21.8	19.6	20.1	22.9	17.4	16.9	18.2	18.5	17.4	12.3	14.8	14.1	18.3	12.0	17.7	Diurnal Maximum	

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

Peace Airshed Zone Association
Summary of Hourly Standard Deviations

Portable-Spirit River - Wind Direction (WD) - deg
September 1, 2008 to October 1, 2008

Maximum Value: 95.4 deg on Sep 24 07:00

Minimum Value: 2.2 deg on Sep 13 01:00

Percentiles: P_1 = 3.1 P_{10} = 5.4 Q_1 = 9.0 Median = 21.6 Q_3 = 40.5 P_{90} = 56.6 P_{99} = 83.9

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

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	5	24	69	74	62	18	39	53	44	51	84	69	35	39	39	42	15	10	42	13	7	3	4	5	84.3
2-Sep	4	4	7	3	7	35	38	20	16	36	26	32	44	32	33	28	31	12	12	5	5	4	5	40	44.5
3-Sep	55	42	28	44	31	57	62	76	35	27	24	27	31	44	30	36	30	18	38	14	3	12	6	7	75.6
4-Sep	8	5	59	45	17	85	71	93	54	33	41	35	36	31	32	44	21	27	34	11	58	28	21	16	93.0
5-Sep	23	53	39	5	72	56	17	56	74	53	46	58	76	44	51	36	12	20	48	74	64	14	18	27	75.6
6-Sep	31	12	41	28	39	15	23	33	37	45	11	12	18	19	24	22	64	9	8	9	25	8	47	5	63.8
7-Sep	36	33	7	8	13	24	44	49	61	35	35	40	39	49	43	35	32	38	45	28	4	5	3	84	84.2
8-Sep	66	10	5	9	7	3	9	5	16	18	52	42	12	24	33	12	42	56	8	69	89	82	36	42	88.9
9-Sep	66	41	53	10	19	42	51	49	56	11	12	27	27	23	14	30	32	38	20	25	11	5	40	19	65.9
10-Sep	7	72	42	84	10	23	21	6	11	3	10	9	12	16	17	8	9	7	11	5	5	5	9	6	84.5
11-Sep	5	5	3	12	17	6	6	7	5	4	6	9	6	8	10	8	31	26	14	29	29	21	7	13	31.0
12-Sep	8	6	9	6	9	14	46	42	45	52	23	16	19	19	22	16	20	35	51	5	3	3	3	3	52.0
13-Sep	2	6	5	4	8	5	58	40	27	42	41	32	29	25	38	40	41	31	44	11	19	7	8	5	58.2
14-Sep	6	5	4	5	8	9	39	62	44	46	42	36	35	28	35	53	41	39	8	14	7	5	5	6	62.5
15-Sep	9	9	6	5	8	13	28	37	13	25	27	27	33	36	27	39	39	43	37	6	7	66	70	70	70.1
16-Sep	63	47	69	30	20	12	22	49	36	73	22	23	24	18	18	12	11	8	7	6	11	32	9	59	72.8
17-Sep	34	81	21	50	26	17	14	61	53	26	71	51	53	58	69	10	7	8	8	7	2	2	5	3	81.0
18-Sep	6	3	3	3	5	11	6	8	32	40	47	33	28	53	51	48	9	5	12	65	54	68	57	79	79.1
19-Sep	36	12	20	13	19	62	15	28	22	10	12	19	20	16	16	15	10	7	5	11	13	15	52	28	62.1
20-Sep	41	35	62	44	25	8	6	22	55	46	61	57	55	55	18	50	25	24	57	27	18	7	41	27	62.4
21-Sep	43	57	28	84	65	31	17	15	10	7	7	7	43	51	64	53	40	51	57	65	56	55	52	50	83.8
22-Sep	24	27	47	51	49	47	49	39	39	44	46	57	34	20	11	10	17	36	44	34	24	7	7	17	56.6
23-Sep	12	8	14	22	9	10	22	19	9	35	56	45	34	33	26	19	9	8	6	5	6	5	26	8	56.4
24-Sep	16	8	7	5	74	53	95	40	28	35	64	23	17	18	22	17	13	5	7	6	34	31	38	35	95.4
25-Sep	44	20	23	61	73	41	22	58	8	8	18	15	12	11	15	11	15	15	11	72	48	36	20	65	72.6
26-Sep	22	49	48	63	68	30	11	10	19	17	24	14	33	25	12	9	7	6	12	23	12	15	8	17	68.0
27-Sep	32	5	35	55	62	37	35	15	28	52	6	8	8	24	37	11	16	11	12	6	4	5	6	7	62.1
28-Sep	6	4	4	8	10	27	10	8	9	8	25	15	16	13	9	9	6	8	17	10	12	39	34	4	39.0
29-Sep	5	6	4	4	5	6	4	5	4	4	5	8	14	15	18	43	34	44	22	12	11	15	7	6	44.3
30-Sep	30	12	11	68	86	16	12	10	70	26	18	19	13	16	10	14	12	6	38	40	10	12	89	32	89.0
	65.9	81.0	69.3	84.5	86.1	85.3	95.4	93.0	73.6	72.8	84.3	69.4	75.6	58.3	69.1	52.8	63.8	55.9	57.1	74.4	88.9	82.2	89.0	84.2	

PASZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 13.1 ppb on Sep 23 07:00 Maximum Daily Average: 4.2 ppb on Sep 23

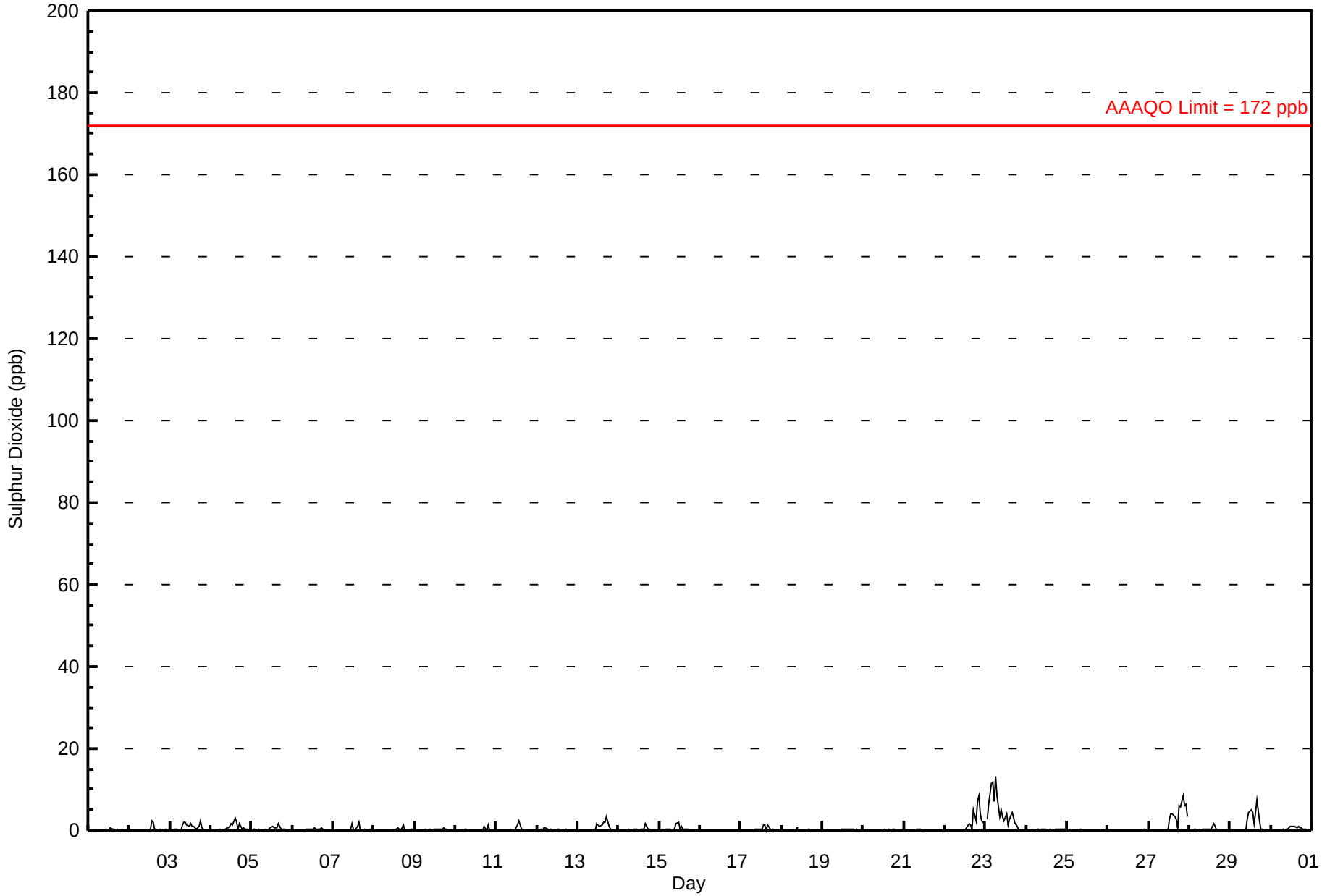
Minimum Value: 0 ppb on Sep 1 03:00 Minimum Daily Average: 0.0 ppb on Sep 16
Maximum Diurnal Average: 0.9 ppb at hour 15 Minimum Diurnal Average: 0.1 ppb at hour 2
Monthly Average: 0.54 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 1.4 P_{99} = 7.0

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0.1	0.7
2-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0.3	2.4
3-Sep	A	0	0	0	0	0	0	1	2	2	1	1	2	1	1	0	1	1	2	1	0	0	0	0	0.8	2.5
4-Sep	A	0	0	0	0	0	0	0	0	1	1	1	2	1	3	2	0	2	0	1	0	0	0	0	0.7	2.9
5-Sep	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	0	0	0	0	0	0	0	0.3	1.6
6-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0.2	0.6
7-Sep	A	0	0	0	0	0	0	0	0	0	1	2	0	0	1	2	0	0	0	0	0	0	0	0	0.3	1.9
8-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0.2	1.4
9-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.6
10-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0.2	1.4
11-Sep	A	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0.3	2.4
12-Sep	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
13-Sep	A	0	0	0	0	0	0	0	0	0	0	2	1	1	1	2	2	3	1	0	0	0	0	0	0.6	3.3
14-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0.2	1.8
15-Sep	A	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0.4	2.0
16-Sep	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
17-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0.3	1.5
18-Sep	A	0	0	0	0	0	0	0	0	1	1	C	C	C	C	0	0	0	0	0	0	0	0	0	0.1	0.7
19-Sep	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-Sep	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
21-Sep	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
22-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	5	2	7	8	4	2	2	1.6	8.5
23-Sep	A	3	7	12	12	7	13	9	3	5	4	2	4	1	3	4	5	2	1	1	0	0	0	0	4.2	13.1
24-Sep	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
25-Sep	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
26-Sep	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
27-Sep	A	0	0	0	0	0	0	0	0	0	0	0	3	4	4	3	3	1	6	6	8	6	6	4	2.4	8.4
28-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0.2	1.6
29-Sep	A	0	0	0	0	0	0	0	0	0	3	4	5	4	2	5	7	2	0	0	0	0	0	0	1.4	7.4
30-Sep	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0.4	1.0
	--	0.1	0.3	0.5	0.5	0.3	0.5	0.4	0.3	0.4	0.5	0.6	0.8	0.9	0.9	0.9	0.9	0.8	0.6	0.6	0.7	0.4	0.3	0.2	Diurnal Average	
	--	2.8	6.5	11.7	11.9	7.2	13.1	8.6	3.4	5.2	3.5	4.5	5.2	4.4	4.0	4.6	7.4	5.1	6.2	7.0	8.5	6.3	6.3	3.5	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 SO_2 at Valleyview
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Valleyview - Sulphur Dioxide (SO_2) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 23.8 ppb on Sep 23 17:00

Maximum Daily Average: 10.3 ppb on Sep 23

Minimum Value: 0 ppb on Sep 22 08:00

Minimum Daily Average: 0.9 ppb on Sep 26

Maximum Diurnal Average: 3.9 ppb at hour 15

Minimum Diurnal Average: 1.2 ppb at hour 2

Monthly Average: 2.17 ppb

Percentiles: P_1 = 0.5 P_{10} = 0.9 Q_1 = 1.0 Median = 1.0 Q_3 = 1.1 P_{90} = 5.9 P_{99} = 17.4

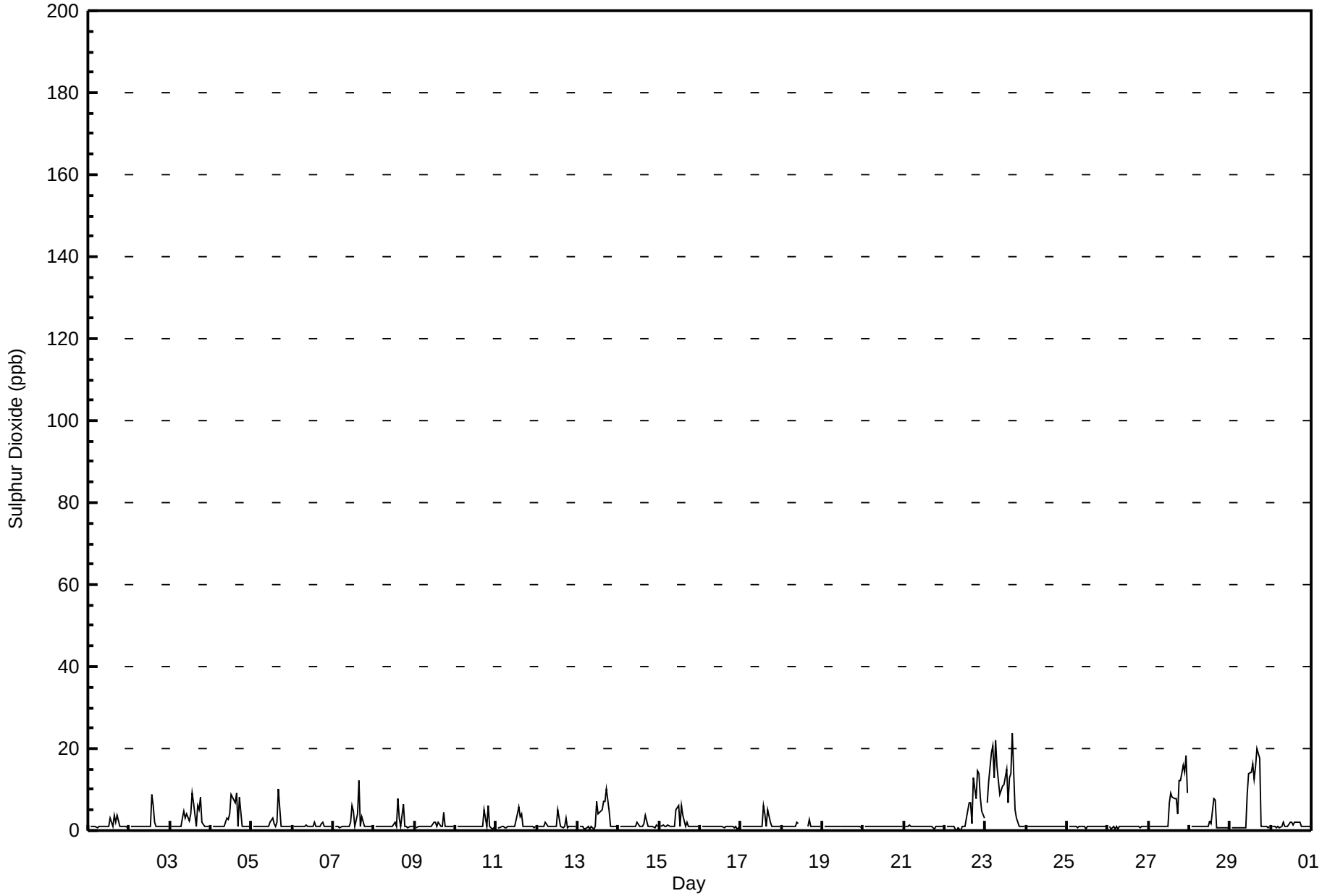
Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	3	1	4	2	4	1	1	1	1	1	1	1.3	3.7
2-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	9	6	2	1	1	1	1	1	1	1	1	1.6	8.8
3-Sep	A	1	1	1	1	1	1	3	5	3	4	2	4	9	7	1	6	5	8	2	1	1	1	1	3.1	9.1
4-Sep	A	1	1	1	1	1	1	1	1	3	3	4	9	8	7	9	1	8	1	1	1	1	1	1	2.9	9.0
5-Sep	A	1	1	1	1	1	1	1	1	1	1	2	3	2	1	2	10	1	1	1	1	1	1	1	1.6	10.0
6-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	1	1	1	1	1	1.1	2.0
7-Sep	A	1	1	1	1	1	1	1	1	1	2	6	5	1	4	12	1	3	1	1	1	1	1	1	2.1	12.3
8-Sep	A	1	1	1	1	1	1	1	1	1	1	1	2	1	8	3	1	6	1	1	1	1	1	1	1.7	7.7
9-Sep	A	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1	1	4	1	1	1	1	1	1	1.4	4.5
10-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	6	1	1	1	1	1.4	6.1
11-Sep	A	1	1	1	1	1	1	1	1	1	1	1	4	6	4	4	1	1	1	1	1	1	1	1	1.6	5.9
12-Sep	A	1	1	1	1	2	1	1	1	1	1	1	5	3	1	1	1	3	1	1	1	1	1	1	1.4	5.0
13-Sep	A	1	1	1	0	1	1	0	1	1	1	7	4	4	5	7	7	10	5	1	1	1	1	1	2.7	10.0
14-Sep	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	4	1	1	1	1	1	1	1	1.3	3.8
15-Sep	A	1	1	1	1	1	1	1	1	1	5	6	1	6	4	1	2	1	1	1	1	1	1	1	1.9	6.1
16-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.9	1.0
17-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	6	4	1	5	2	1	1	1	1	1	1	1.6	6.0
18-Sep	A	1	1	1	1	1	1	1	1	2	2	C	C	C	C	1	3	1	1	1	1	1	1	1	1.1	2.8
19-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0
20-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0
21-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.9	1.2
22-Sep	A	1	1	1	1	1	0	0	1	0	1	1	1	3	7	7	2	13	8	15	14	8	5	3	4.0	14.6
23-Sep	A	7	12	19	21	13	22	16	9	10	11	11	15	7	13	14	24	5	3	2	1	1	1	1	10.3	23.8
24-Sep	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.1
25-Sep	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.1
26-Sep	A	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0
27-Sep	A	1	1	1	1	1	1	1	1	1	1	1	7	9	8	8	8	4	12	12	16	14	18	9	5.9	18.3
28-Sep	A	1	1	1	1	1	1	1	1	1	1	1	2	2	8	8	1	1	1	1	1	1	1	1	1.6	7.8
29-Sep	A	1	1	1	1	1	1	1	1	1	9	14	14	16	12	16	20	18	1	1	1	1	1	1	5.7	19.9
30-Sep	A	1	1	1	1	1	1	2	1	1	1	2	2	1	2	2	2	2	1	1	1	1	1	1	1.3	2.0
	--	1.2	1.3	1.6	1.6	1.4	1.6	1.5	1.4	1.4	1.9	2.6	3.2	3.8	3.9	3.8	3.7	3.6	2.0	2.1	1.9	1.6	1.6	1.3	Diurnal Average	
	--	6.9	11.9	19.0	20.7	13.0	22.0	15.6	9.0	10.0	10.7	13.9	15.0	16.4	12.8	15.8	23.8	17.6	12.1	14.6	16.1	14.1	18.3	9.0	Diurnal Maximum	

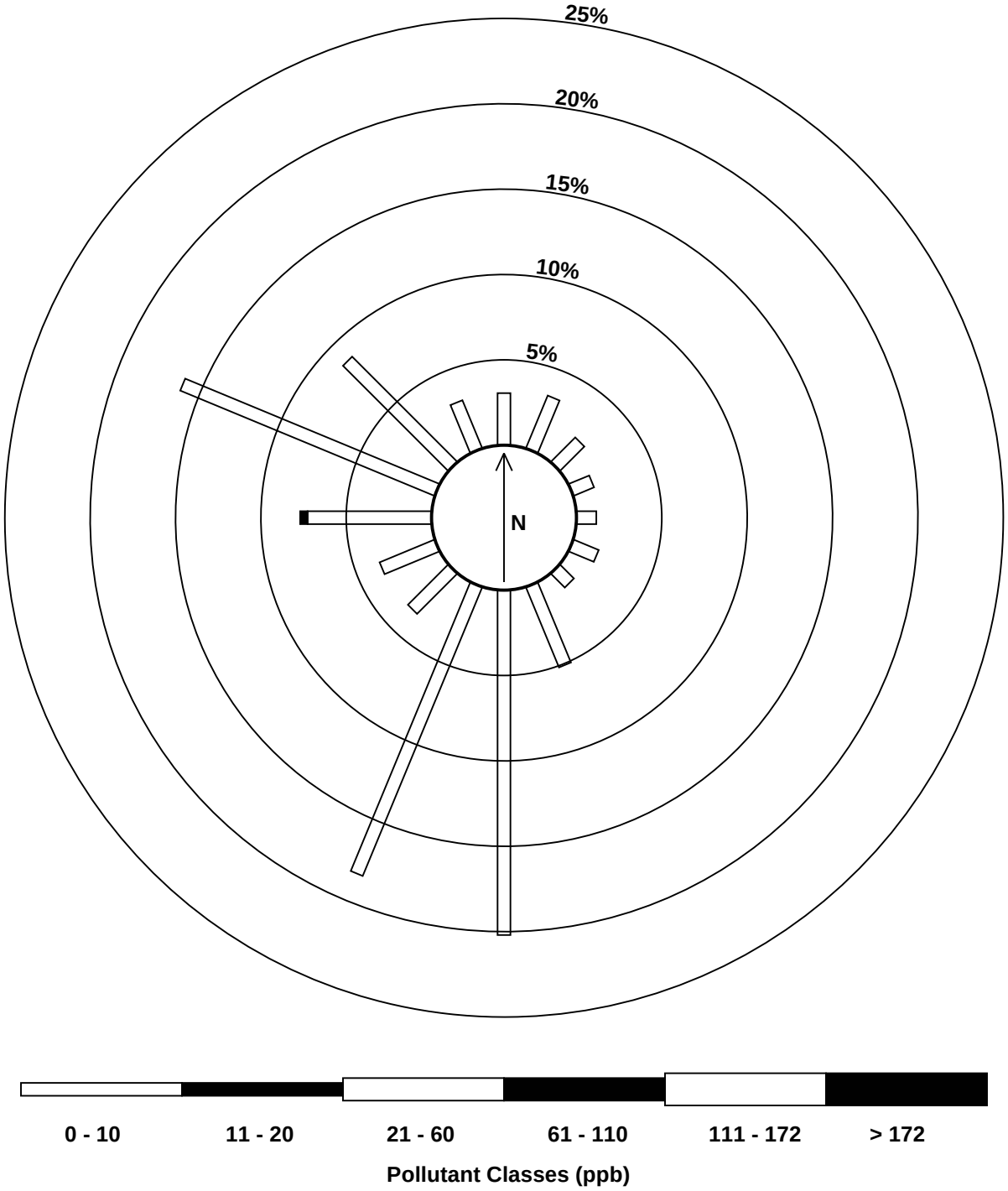
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for SO_2 at Valleyview
September 2008



Pollutant Rose for SO_2 at Valleyview
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview - Hydrogen Sulphide (H_2S) - ppb
September 1, 2008 to October 1, 2008

Number of Exceedances (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.7 ppb on Sep 19 06:00
Maximum Daily Average: 0.3 ppb on Sep 30

Minimum Value: 0 ppb on Sep 4 02:00
Maximum Diurnal Average: 0.1 ppb at hour 21
Monthly Average: 0.10 ppb

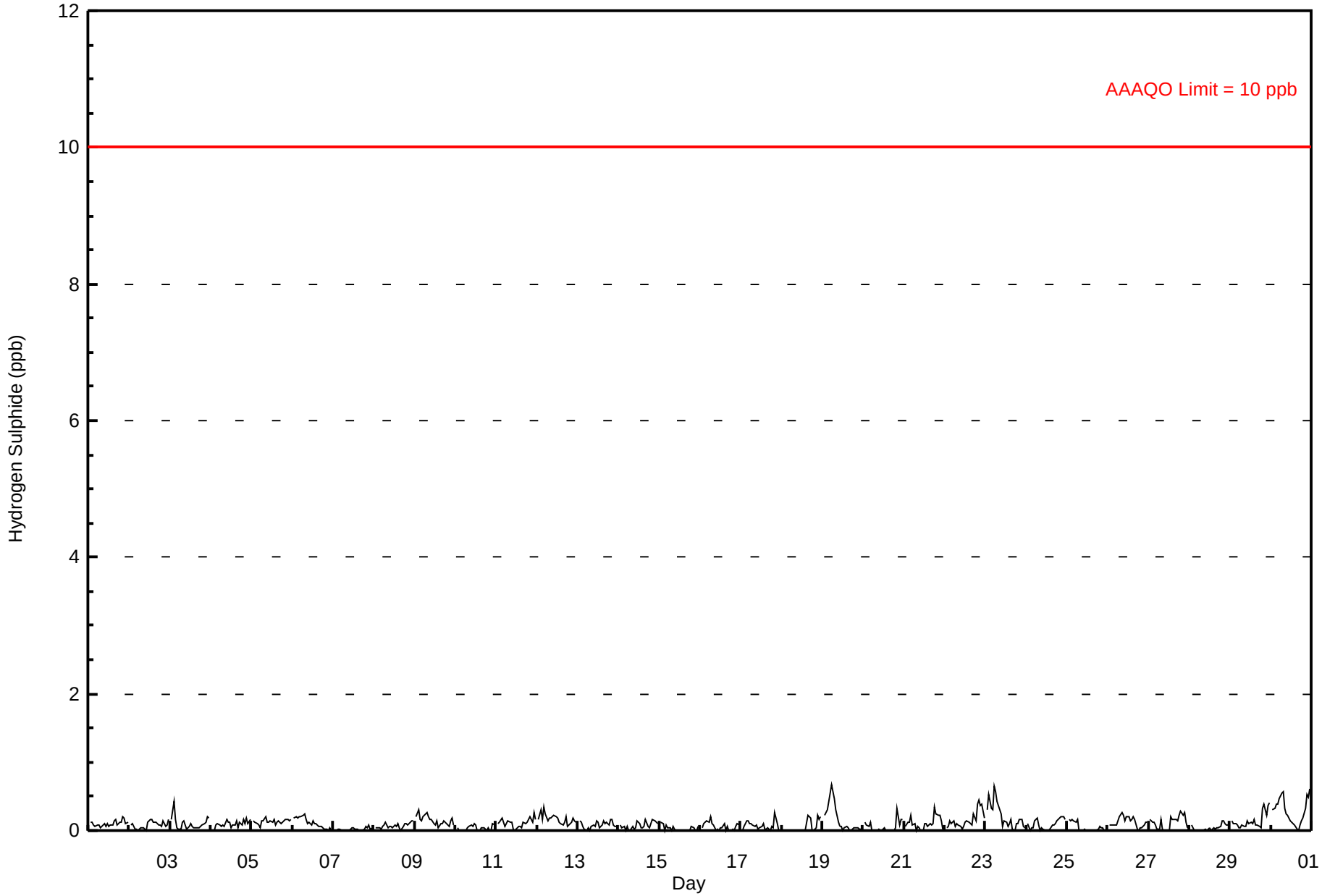
Minimum Daily Average: 0.0 ppb on Sep 7
Minimum Diurnal Average: 0.1 ppb at hour 11
Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.5

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

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

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

Hourly Averages for H_2S at Valleyview
September 2008



Peace Airshed Zone Association
Summary of Hourly Maximums

Valleyview - Hydrogen Sulphide (H_2S) - ppb
September 1, 2008 to October 1, 2008

Maximum Value: 1.6 ppb on Sep 19 03:00

Maximum Daily Average: 0.7 ppb on Sep 30

Minimum Value: 0 ppb on Sep 18 03:00

Minimum Daily Average: 0.4 ppb on Sep 7

Maximum Diurnal Average: 0.6 ppb at hour 3

Minimum Diurnal Average: 0.4 ppb at hour 11

Monthly Average: 0.48 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.4$ Median = 0.4 $Q_3 = 0.5$ $P_{90} = 0.7$ $P_{99} = 1.2$

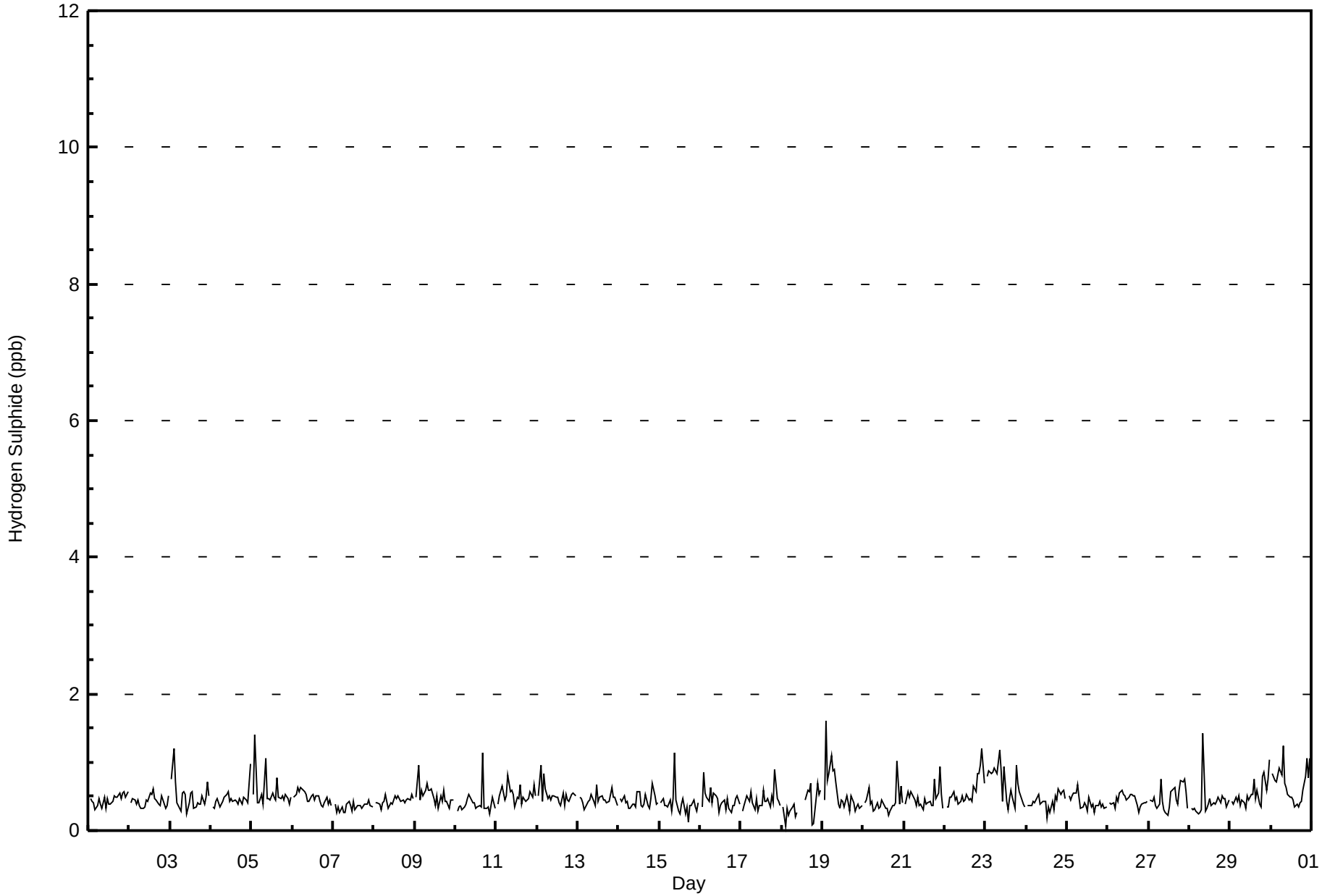
Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

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

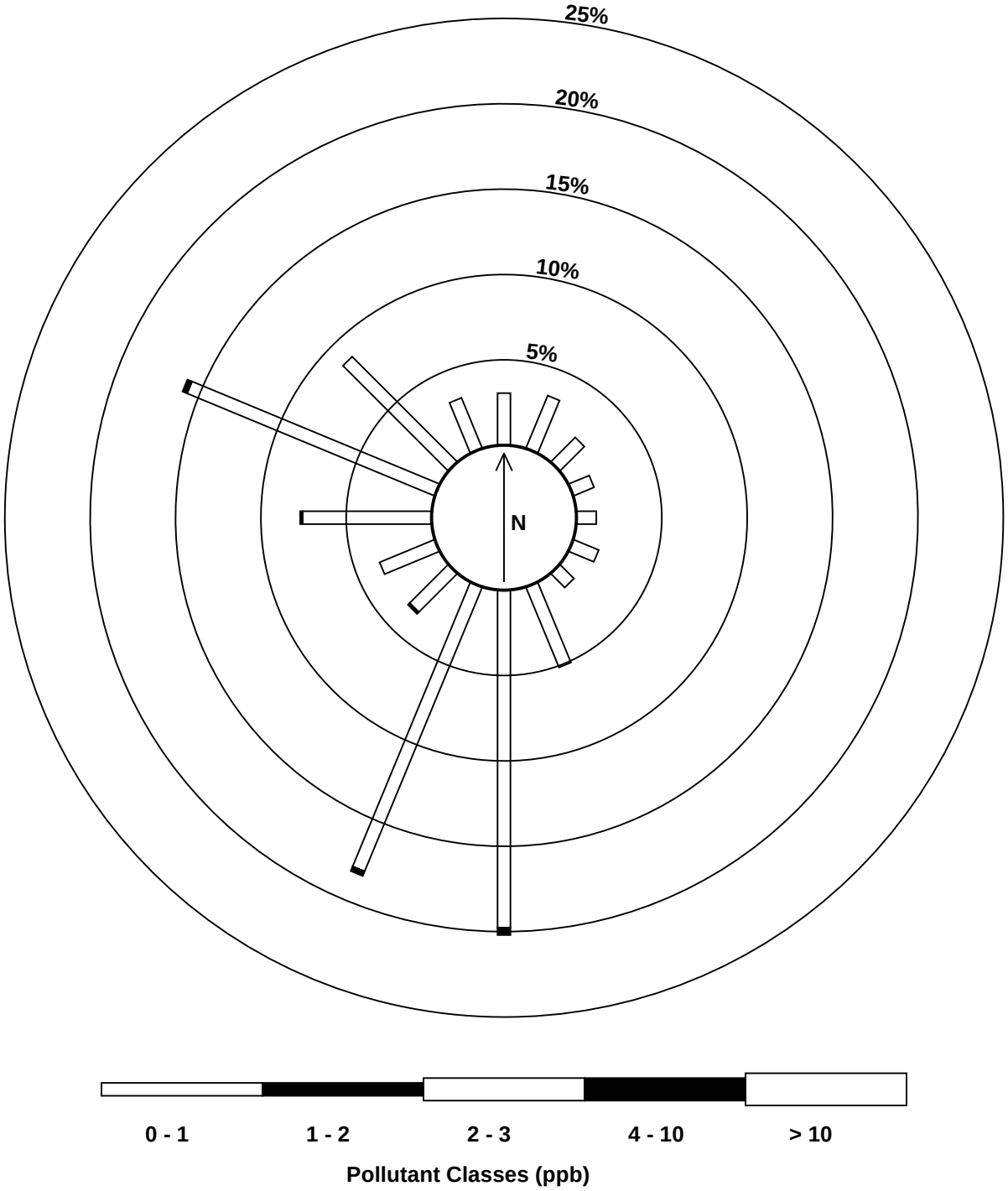
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums for H_2S at Valleyview
September 2008



Pollutant Rose for H_2S at Valleyview
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview - External Temperature (ET) - ^{o}C
September 1, 2008 to October 1, 2008

Maximum Value: 25.0 ^{o}C on Sep 30 17:00

Maximum Daily Average: 15.6 ^{o}C on Sep 17

Minimum Value: -3 ^{o}C on Sep 24 07:00

Minimum Daily Average: 5.0 ^{o}C on Sep 24

Maximum Diurnal Average: 16.1 ^{o}C at hour 16

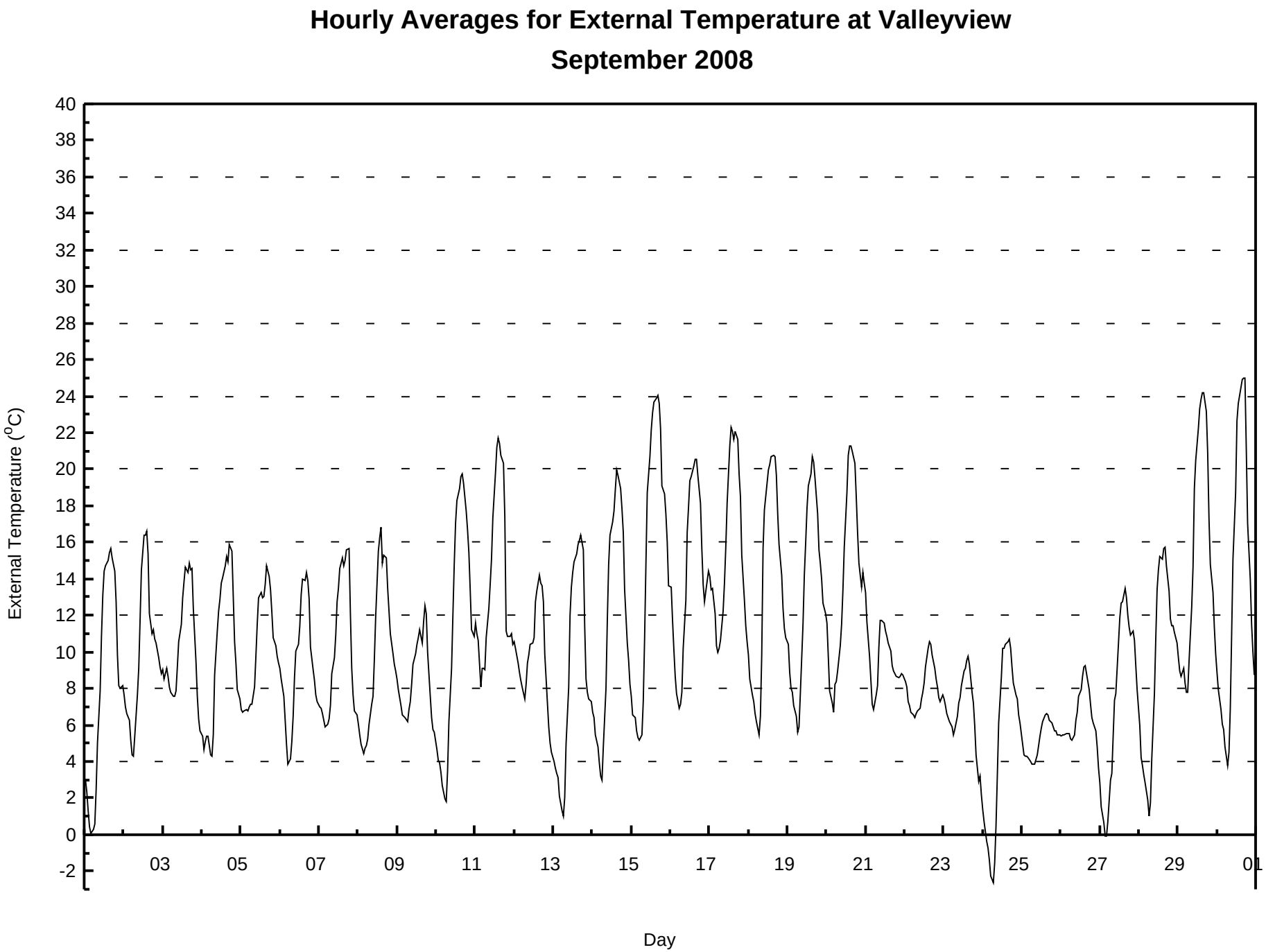
Minimum Diurnal Average: 5.1 ^{o}C at hour 7

Monthly Average: 10.43 ^{o}C

Percentiles: P_1 = -0.1 P_{10} = 4.3 Q_1 = 6.6 Median = 9.5 Q_3 = 13.8 P_{90} = 18.7 P_{99} = 24.0

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	3	2	1	0	0	0	1	2	5	8	11	13	14	15	15	15	16	15	14	13	10	8	8	8	8.3	15.7
2-Sep	8	7	7	6	5	4	4	5	8	9	12	15	16	16	17	15	12	11	11	11	10	10	9	9	9.9	16.6
3-Sep	9	8	9	9	8	8	8	8	8	9	11	12	13	14	15	14	15	14	15	12	9	8	6	6	10.3	14.9
4-Sep	5	5	5	5	5	4	4	5	9	11	12	13	14	14	15	15	15	16	15	13	11	9	8	7	9.9	15.8
5-Sep	7	7	7	7	7	7	7	7	8	10	12	13	13	13	13	14	15	14	13	12	11	10	10	9	10.2	14.7
6-Sep	9	8	8	6	5	4	4	5	6	9	10	10	11	13	14	14	14	14	13	10	9	8	8	7	9.2	14.4
7-Sep	7	7	7	6	6	6	6	7	9	10	11	13	13	15	15	15	15	16	16	12	9	8	7	7	10.0	15.7
8-Sep	6	5	5	4	5	5	5	6	7	8	10	12	16	16	17	15	15	15	13	12	11	10	9	9	9.9	16.8
9-Sep	9	8	7	7	6	6	6	7	7	8	9	10	10	11	11	11	12	13	12	10	8	6	6	6	8.5	12.5
10-Sep	5	4	4	3	3	2	2	3	6	9	12	15	17	18	19	20	20	19	18	17	15	13	11	11	11.1	19.7
11-Sep	12	11	11	8	9	9	9	11	12	14	15	17	20	21	22	21	21	20	17	11	11	11	11	10	13.9	21.7
12-Sep	11	10	9	9	8	8	7	8	9	10	10	11	11	13	13	14	14	14	13	10	7	6	5	5	9.8	14.2
13-Sep	4	4	3	3	2	1	1	2	5	8	12	14	14	15	15	16	16	16	16	11	9	8	7	7	8.7	16.4
14-Sep	7	6	5	5	4	3	3	5	8	12	15	16	17	18	19	20	20	19	18	17	13	10	10	8	11.6	20.0
15-Sep	8	7	6	6	5	5	5	7	11	15	19	21	22	23	24	24	24	24	22	19	19	18	16	14	15.1	24.0
16-Sep	14	12	10	9	8	7	7	8	10	13	17	18	19	20	20	21	21	20	18	16	14	13	13	14	14.1	20.6
17-Sep	14	13	13	12	10	10	10	11	12	14	16	18	21	22	22	22	22	22	20	19	15	13	11	11	15.6	22.3
18-Sep	10	9	8	7	7	6	5	6	10	16	18	19	20	20	21	21	21	20	18	16	14	12	11	11	13.5	20.8
19-Sep	10	9	8	8	7	6	6	6	8	12	14	16	18	19	20	21	20	19	18	16	15	14	13	12	13.1	20.7
20-Sep	12	10	8	7	7	8	8	9	10	11	13	16	19	21	21	21	21	20	19	17	15	14	14	14	13.9	21.3
21-Sep	13	12	10	8	7	7	8	8	10	12	12	12	11	11	11	10	9	9	9	9	9	9	9	9	9.6	13.3
22-Sep	8	8	7	7	7	7	6	7	7	7	7	8	8	9	10	11	10	10	9	9	8	7	7	8	8.0	10.5
23-Sep	7	7	7	6	6	6	5	6	7	7	8	8	9	9	10	10	9	8	7	6	4	3	3	2	6.7	9.8
24-Sep	1	1	0	-1	-1	-2	-3	-2	0	3	6	9	10	10	10	11	11	10	9	8	8	7	7	6	5.0	10.7
25-Sep	5	4	4	4	4	4	4	4	4	4	5	5	6	6	7	7	7	6	6	6	6	6	5	5	5.2	6.6
26-Sep	5	5	5	6	6	6	5	5	5	6	7	8	8	9	9	9	9	8	7	6	6	6	5	4	6.4	9.3
27-Sep	3	2	1	0	0	1	3	3	5	7	8	10	12	13	13	13	13	12	11	11	11	11	9	8	7.5	13.5
28-Sep	6	4	4	3	3	2	1	2	4	8	11	13	14	15	15	16	16	15	13	12	11	11	11	10	9.2	15.7
29-Sep	10	9	9	9	8	8	8	9	12	15	19	20	22	23	24	24	24	23	21	17	15	13	11	10	15.2	24.2
30-Sep	9	8	7	6	6	5	4	5	7	11	15	19	23	24	24	25	25	25	21	17	14	12	10	9	13.7	25.0
	7.8	7.1	6.5	5.9	5.4	5.1	5.1	5.9	7.7	9.8	11.8	13.4	14.8	15.5	16.0	16.1	16.0	15.5	14.4	12.4	10.9	9.8	9.1	8.5	Diurnal Average	
	14.1	13.4	13.4	12.1	10.3	10.0	10.2	10.8	12.4	15.6	18.9	20.7	22.6	23.6	24.0	24.9	25.0	25.0	22.2	19.1	18.6	17.5	16.0	14.4	Diurnal Maximum	


Hourly Averages for External Temperature at Valleyview
September 2008
External Temperature (°C)
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
-2
03
05
07
09
11
13
15
17
19
21
23
25
27
29
01
Day

Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview - Relative Humidity (RH) - %
September 1, 2008 to October 1, 2008

Maximum Value: 98.2 % on Sep 27 07:00

Maximum Daily Average: 91.5 % on Sep 25

Minimum Value: 32 % on Sep 14 16:00

Minimum Daily Average: 58.7 % on Sep 29

Maximum Diurnal Average: 91.0 % at hour 6

Minimum Diurnal Average: 49.5 % at hour 15

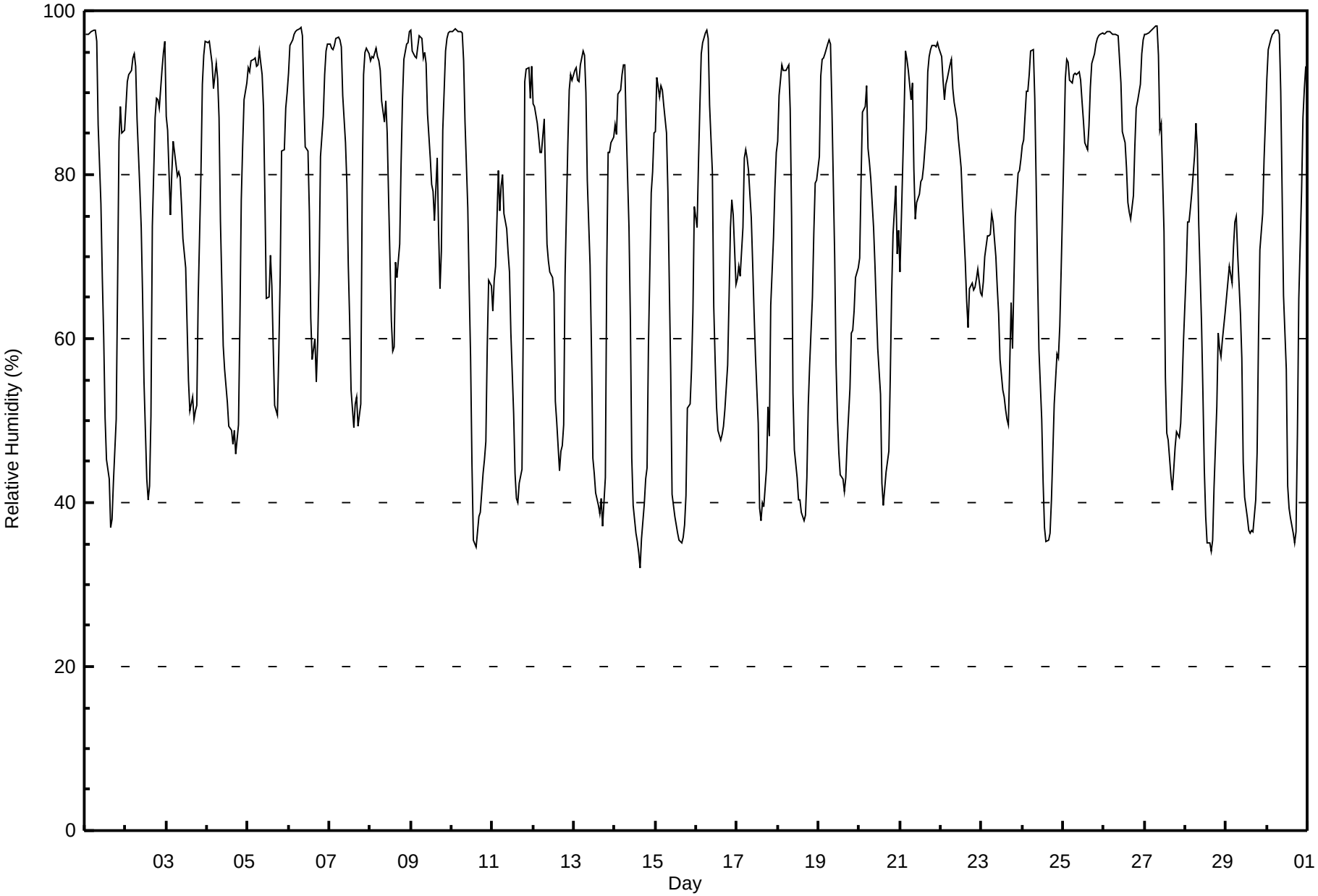
Monthly Average: 73.18 %

Percentiles: P_1 = 35.1 P_{10} = 42.4 Q_1 = 56.8 Median = 77.5 Q_3 = 91.8 P_{90} = 95.9 P_{99} = 97.7

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	97	97	97	97	97	98	98	96	86	76	67	60	50	45	43	37	38	43	50	67	84	88	85	85	74.3	97.7
2-Sep	88	91	92	93	94	95	93	87	78	74	65	55	43	40	42	51	74	87	89	89	88	93	95	96	78.8	96.3
3-Sep	87	85	75	80	84	83	80	80	80	76	72	69	62	55	51	53	50	51	52	65	80	91	95	96	73.0	96.3
4-Sep	96	96	95	94	91	94	92	87	74	59	56	54	52	49	49	47	49	46	50	62	77	84	89	91	72.2	96.3
5-Sep	93	93	94	94	94	93	93	95	92	88	77	65	65	70	66	59	52	51	58	68	83	83	88	90	79.4	95.0
6-Sep	92	96	97	97	97	98	98	98	97	90	83	83	75	62	58	60	55	60	68	82	87	92	95	96	84.0	97.9
7-Sep	96	95	95	96	97	97	96	96	90	84	79	69	62	54	49	52	53	49	52	78	92	95	95	95	79.8	96.9
8-Sep	94	94	94	95	94	94	93	89	86	89	85	77	62	59	59	69	67	72	81	89	94	96	96	97	84.5	97.4
9-Sep	98	95	94	94	96	97	97	94	95	94	87	82	79	78	74	82	73	66	71	85	95	97	97	97	88.2	97.6
10-Sep	97	98	98	98	97	97	97	94	86	76	66	58	45	35	35	36	38	39	44	45	47	59	67	66	67.5	97.8
11-Sep	63	67	69	81	76	79	80	75	73	70	68	61	51	44	41	40	42	44	63	91	93	93	89	93	68.6	93.2
12-Sep	89	88	86	85	83	83	87	79	72	69	68	67	66	52	50	44	46	47	50	68	84	90	92	91	72.3	92.3
13-Sep	93	93	92	91	93	95	95	90	79	69	59	45	44	41	40	39	41	37	43	69	83	83	84	85	70.0	95.1
14-Sep	86	85	90	90	92	93	93	86	74	62	45	40	36	35	34	32	36	40	43	44	59	78	80	85	64.1	93.4
15-Sep	85	92	90	91	90	89	85	78	67	56	41	38	37	36	35	35	36	37	41	51	52	56	63	76	60.8	91.9
16-Sep	74	81	88	95	96	97	98	97	88	80	64	57	52	49	48	48	49	51	57	65	73	77	75	67	71.9	97.7
17-Sep	67	69	68	74	82	83	82	80	75	69	63	58	50	39	38	40	39	44	52	48	64	72	78	83	63.3	83.0
18-Sep	84	90	93	93	93	93	93	88	75	53	46	43	40	40	39	38	38	43	52	57	65	73	79	79	66.2	93.4
19-Sep	82	92	94	94	95	96	97	96	89	70	57	50	46	43	43	41	43	47	54	61	61	63	67	69	68.8	96.5
20-Sep	70	79	88	88	91	83	81	80	74	69	64	59	53	42	40	42	44	46	55	66	73	79	70	73	67.0	90.8
21-Sep	68	75	88	95	94	93	89	91	81	75	77	78	79	80	81	86	93	94	95	96	96	96	96	95	87.0	96.0
22-Sep	94	92	89	91	92	93	94	90	89	87	84	83	81	77	69	65	61	66	67	66	66	67	69	66	79.1	94.5
23-Sep	65	67	70	73	72	73	75	74	70	66	63	57	54	53	51	50	50	64	59	67	75	80	81	82	66.3	81.8
24-Sep	84	84	90	90	92	95	95	89	79	68	59	50	43	37	35	35	36	40	46	52	58	58	62	68	64.4	95.3
25-Sep	83	92	94	94	91	91	92	92	92	93	92	89	87	84	83	86	91	94	95	96	97	97	97	97	91.5	97.2
26-Sep	97	97	98	98	97	97	97	97	97	94	91	85	84	81	77	75	75	78	83	88	89	91	95	96	89.9	97.5
27-Sep	97	97	97	97	98	98	98	98	95	85	86	73	55	49	48	43	42	44	47	49	48	50	54	60	71.1	98.2
28-Sep	68	74	74	76	78	82	86	83	74	62	53	44	38	35	35	34	35	42	52	61	59	58	60	63	59.5	86.4
29-Sep	65	67	69	67	71	74	75	70	63	58	45	41	38	37	36	37	36	40	46	60	71	75	82	87	58.7	86.6
30-Sep	92	95	97	97	97	98	98	97	90	78	65	56	42	39	38	36	35	36	48	65	78	87	91	93	72.9	97.7
	84.9	87.3	88.5	89.9	90.5	91.0	90.9	88.3	82.0	74.7	67.7	61.6	55.7	51.4	49.5	49.7	50.6	53.3	58.7	68.3	75.7	80.0	82.2	84.0	Diurnal Average	
	97.6	97.7	97.8	97.7	97.6	97.8	98.2	98.1	97.0	94.1	91.5	88.9	86.7	83.8	83.0	85.9	92.6	94.4	95.3	95.9	96.6	97.0	97.2	97.4	Diurnal Maximum	

Hourly Averages for Relative Humidity at Valleyview
September 2008



Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	2	1	1	1	1	2	2	3	3	3	3	4	4	6	8	8	6	7	5	2	1	2	3	3	1.8	8.1
Dir	182	214	195	268	213	193	200	186	179	181	191	206	241	276	292	299	313	340	342	183	220	194	195	192	251.6	298.5
2 Spd	4	4	3	4	4	4	4	4	3	3	3	2	3	10	8	9	3	3	3	3	3	2	2	2	2.6	9.5
Dir	188	186	195	189	192	190	189	184	178	193	191	163	253	288	292	313	203	177	179	204	195	189	196	196	215.2	288.0
3 Spd	2	3	9	4	2	3	3	4	4	4	6	8	10	11	9	7	12	8	5	3	2	2	1	2	4.5	11.6
Dir	249	247	286	269	219	244	269	279	280	293	298	294	293	301	318	325	294	296	271	263	208	193	128	197	286.4	294.3
4 Spd	3	3	3	2	3	3	3	3	3	9	9	9	8	10	11	11	7	6	2	2	1	1	1	1	3.2	11.1
Dir	180	177	168	155	188	198	193	177	202	291	292	299	294	288	279	295	305	297	310	331	352	210	183	97	274.9	294.7
5 Spd	1	2	1	2	1	1	1	2	1	2	2	3	3	2	2	4	10	8	3	1	1	1	1	1	1.1	10.1
Dir	213	176	166	185	157	147	183	179	311	185	233	288	241	254	254	284	341	313	307	330	204	193	161	182	268.2	340.6
6 Spd	0	1	1	1	0	1	1	1	2	1	1	3	2	1	3	1	2	1	4	3	2	2	2	2	0.3	3.6
Dir	203	172	178	180	175	355	14	305	162	181	96	33	357	323	15	322	301	189	260	212	189	188	170	174	211.7	260.1
7 Spd	3	3	4	2	2	3	3	3	4	7	7	7	8	11	9	10	5	5	2	2	2	2	2	4	2.4	10.7
Dir	175	176	192	194	196	189	180	186	298	309	308	286	316	306	336	337	311	332	320	178	195	195	195	194	287.7	305.5
8 Spd	4	4	3	3	4	4	4	5	3	4	3	4	6	8	7	13	6	9	2	2	2	2	1	2	1.6	12.8
Dir	190	190	191	196	191	191	191	191	197	186	177	183	293	322	323	326	317	352	359	197	180	202	192	210	250.0	325.6
9 Spd	1	1	4	6	3	1	2	6	8	10	12	11	11	10	10	7	9	7	3	1	2	2	2	2	4.1	12.4
Dir	337	229	281	314	274	228	280	288	297	320	350	351	337	321	350	17	8	1	22	218	196	191	196	197	330.2	349.9
10 Spd	2	3	3	3	3	3	4	4	5	6	6	7	7	6	6	6	5	9	7	9	5	3	4	7	4.1	9.4
Dir	198	188	194	195	196	199	192	187	186	188	186	185	189	232	242	249	240	272	270	278	263	201	227	259	225.1	277.9
11 Spd	6	6	5	2	4	4	5	3	3	2	3	7	16	19	14	13	10	7	6	3	3	3	7	3	5.1	18.8
Dir	262	261	262	215	205	194	198	189	168	163	234	261	280	289	290	266	269	249	317	336	193	199	278	241	262.9	288.8
12 Spd	6	6	10	14	15	7	2	5	9	12	11	11	10	10	10	12	12	11	6	3	3	3	4	4	6.7	14.6
Dir	266	272	294	293	293	302	71	330	322	317	314	319	328	328	317	311	314	316	294	250	188	181	182	181	303.8	292.7
13 Spd	3	3	4	3	2	3	3	5	5	4	4	9	10	10	11	11	7	9	2	2	3	3	4	3	3.3	10.7
Dir	174	170	180	176	172	185	197	189	187	187	188	278	283	287	286	292	294	284	259	183	191	198	195	194	244.5	292.0
14 Spd	2	3	2	3	2	2	3	4	3	2	9	11	13	11	9	11	6	4	3	3	3	3	2	3	3.3	12.9
Dir	197	195	192	202	200	201	193	188	189	218	307	300	304	307	304	295	285	269	244	250	209	179	177	177	267.1	303.7
15 Spd	2	2	4	3	4	3	5	4	4	3	7	14	18	16	15	15	12	10	4	2	3	4	3	2	4.8	17.5
Dir	199	183	196	198	195	196	194	186	186	205	270	292	296	299	304	305	305	321	295	276	269	278	262	162	280.5	296.1
16 Spd	2	3	0	0	2	1	2	0	1	3	3	4	3	6	5	5	6	6	4	4	1	1	4	7	2.0	7.1
Dir	255	122	198	72	355	24	0	104	37	33	60	57	51	48	55	55	61	55	45	28	7	17	167	179	59.2	178.9
17 Spd	5	4	5	3	1	6	9	9	8	6	6	5	3	9	8	6	5	3	3	4	2	3	4	3	3.7	8.6
Dir	184	180	169	184	211	190	186	188	190	192	191	193	201	288	294	299	282	243	250	264	218	207	197	199	215.1	287.7
18 Spd	4	4	4	5	5	4	3	4	4	10	13	15	11	10	8	11	8	5	3	4	1	1	0	1	3.0	15.2
Dir	197	199	194	194	196	195	205	197	190	287	296	312	317	337	331	352	351	8	30	21	274	344	8	326	306.5	312.1
19 Spd	1	2	1	0	1	1	1	1	1	2	8	10	10	9	7	6	6	6	6	5	7	3	3	5	3.8	9.8
Dir	4	200	27	254	289	206	194	199	279	146	180	179	180	187	175	180	173	165	147	158	175	188	182	177	177.0	179.4
20 Spd	5	1	2	2	1	6	5	3	7	7	5	4	1	8	10	9	7	5	3	1	1	1	2	2	1.7	10.4
Dir	180	225	293	292	201	189	190	189	190	190	189	192	183	315	310	322	328	336	35	98	274	293	253	231	250.4	310.4
21 Spd	1	2	2	1	2	2	2	2	2	11	11	10	9	9	9	8	8	8	6	5	6	4	4	5	4.5	11.0
Dir	3	206	180	193	210	198	167	166	283	317	312	299	306	308	310	306	302	297	287	289	298	279	294	317	297.7	317.1
22 Spd	7	8	8	9	12	12	12	11	11	11	13	13	17	17	18	16	16	15	16	14	14	13	13	15	12.6	17.7
Dir	322	328	329	314	308	311	310	310	311	311	303	302	294	292	289	294	298	287	291	286	289	290	290	291	299.2	288.9

Peace Airshed Zone Association
Summary of Hourly Averages

Valleyview
September 1, 2008 to October 1, 2008
WS (km/h), WD (deg)

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	14	13	11	11	13	13	11	11	12	12	19	19	18	18	17	15	14	10	7	6	5	2	3	4	11.0	19.5
Dir	288	290	283	278	278	287	281	286	291	289	289	291	289	301	293	286	278	342	287	288	254	232	215	203	286.9	291.4
24 Spd	3	4	3	3	1	1	1	1	3	3	3	4	3	5	3	5	4	4	4	4	4	3	5	2	1.8	4.8
Dir	182	176	170	166	183	183	194	187	179	174	154	178	149	153	114	102	110	83	80	60	53	41	9	22	124.1	8.6
25 Spd	2	2	2	3	4	4	3	3	4	3	3	3	4	3	3	2	2	3	2	3	3	2	2	2	2.1	4.2
Dir	42	32	51	55	118	104	97	100	113	115	114	126	134	132	127	94	57	35	27	18	20	31	28	31	82.5	103.9
26 Spd	2	2	1	1	1	1	1	1	1	2	3	3	4	3	4	7	9	7	3	2	2	1	1	1	2.0	8.9
Dir	26	22	349	260	238	200	219	206	194	166	165	159	168	171	155	142	140	147	171	155	157	109	63	44	153.6	140.5
27 Spd	1	1	1	2	2	1	3	3	8	4	4	7	15	16	15	15	18	13	10	9	11	14	11	7	7.3	17.6
Dir	351	156	62	8	339	168	197	301	289	293	196	253	288	278	284	280	288	293	282	283	285	289	278	269	282.0	287.9
28 Spd	3	3	3	3	4	4	4	4	5	4	4	4	5	8	7	5	1	2	2	2	4	6	6	4	3.0	7.6
Dir	228	204	210	211	184	193	194	190	186	186	186	181	260	271	292	305	206	143	178	170	189	192	195	196	210.2	271.2
29 Spd	3	4	4	5	3	3	4	4	4	5	8	17	15	15	14	11	9	5	2	2	2	1	1	2	4.5	16.8
Dir	205	204	206	195	206	206	198	201	208	177	279	287	281	287	292	283	276	315	303	218	169	162	228	199	260.5	287.1
30 Spd	1	1	0	1	1	1	1	1	1	3	2	0	6	8	7	6	5	2	1	0	1	2	1	1	2.0	8.2
Dir	189	12	260	240	209	185	190	181	175	176	157	17	182	188	189	188	170	172	355	166	216	188	219	220	186.5	188.5
Spd	1.8	1.8	1.8	1.9	2.0	2.0	2.2	2.1	2.2	2.4	3.4	4.7	6.1	7.4	6.8	6.4	5.0	4.0	2.4	1.8	1.8	1.8	1.9	2.1	Diurnal Average	
Dir	227.8	221.4	237.8	242.4	238.7	220.0	212.1	219.6	236.7	261.9	274.8	282.3	286.4	292.7	298.2	301.3	298.8	309.1	294.3	273.2	239.9	234.2	234.8	222.0		
Spd	13.9	13.4	10.7	14.3	14.6	12.9	11.6	11.3	12.4	12.1	18.8	19.5	18.2	18.8	17.7	15.6	17.6	15.5	16.1	14.2	13.5	14.4	13.2	15.1	Diurnal Maximum	
Dir	287.6	289.8	282.8	293.4	292.7	286.9	310.3	309.7	290.8	317.2	289.0	291.4	289.1	288.8	288.9	294.2	287.9	286.8	290.7	285.9	288.7	288.6	289.9	291.4		

Maximum Speed Value: 19 km/h on Sep 23 12:00
Maximum Daily Speed Average: 12.6 km/h on Sep 22
Maximum Diurnal Speed Average: 7.4 km/h at hour 14

Minimum Speed Value: 0 km/h on Sep 30 20:00
Minimum Daily Speed Average: 0.3 km/h on Sep 6
Minimum Diurnal Speed Average: 1.8 km/h at hour 20

Hours in Service: 720
Hours of Data: 720
Hours of Missing Data: 0

Monthly Average Velocity: 2.70 km/h 271.67 deg

Speed Percentiles: $P_1 = 0.4$ $P_{10} = 1.2$ $Q_1 = 2.3$ Median = 3.6 $Q_3 = 7.1$ $P_{90} = 11.1$ $P_{99} = 17.5$

Percent Operational Time: 100.0

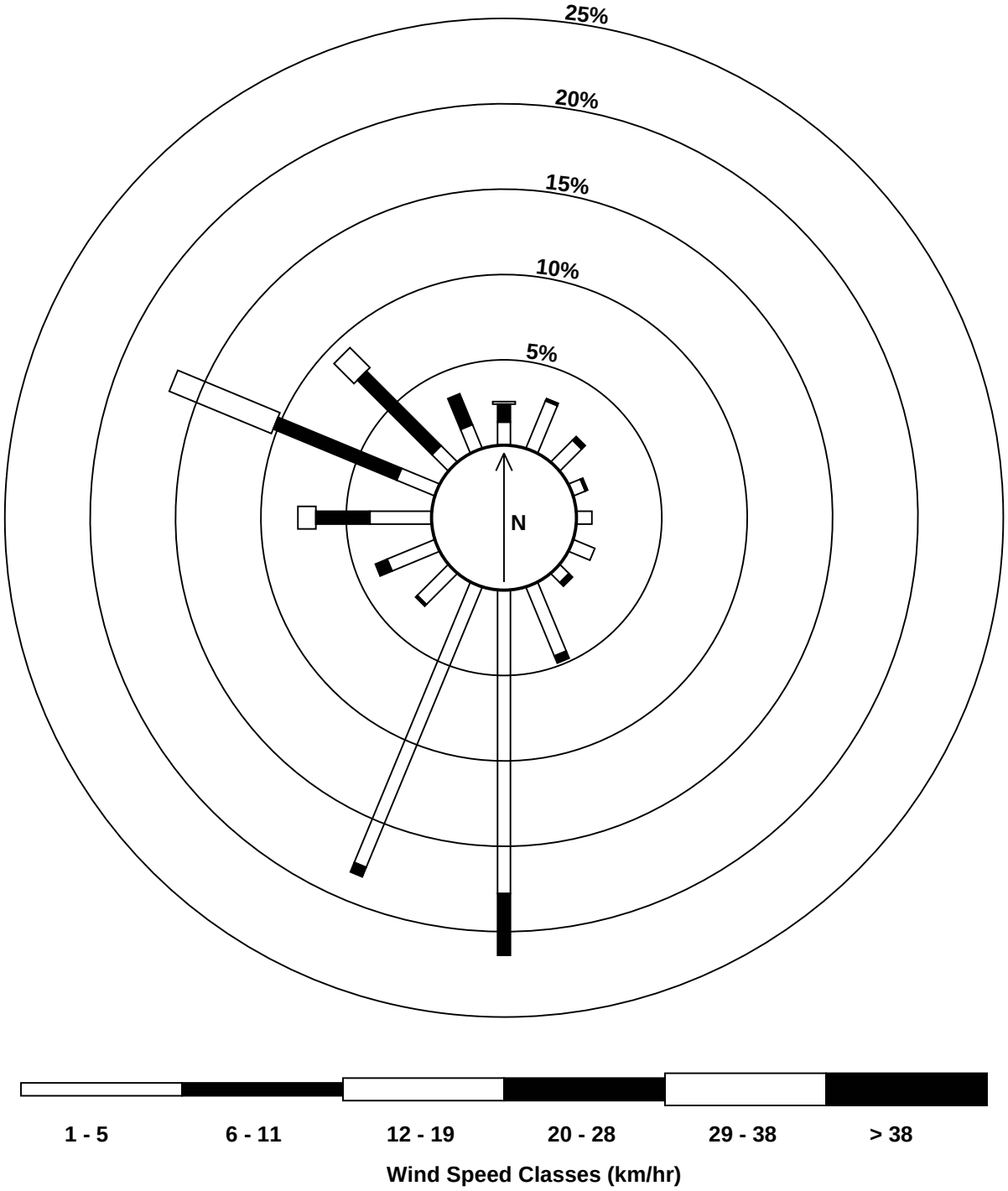
All monthly, daily, and diurnal averages have been calculated using vector methods

Percentage Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	4.03	1.67	0.14	0.00	0.00	0.00	5.83
NorthEast	4.03	0.69	0.00	0.00	0.00	0.00	4.72
East	2.08	0.00	0.00	0.00	0.00	0.00	2.08
SouthEast	3.33	0.56	0.00	0.00	0.00	0.00	3.89
South	32.50	5.00	0.00	0.00	0.00	0.00	37.50
SouthWest	9.03	0.42	0.00	0.00	0.00	0.00	9.44
West	5.97	7.08	5.42	0.14	0.00	0.00	18.61
NorthWest	3.61	9.72	4.58	0.00	0.00	0.00	17.92
Total	64.58	25.14	10.14	0.14	0.00	0.00	100.00

Wind Rose for WS at Valleyview

September 2008



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

Valleyview - Wind Speed (WS) - km/h
September 1, 2008 to October 1, 2008

Maximum Speed: 20 km/h on Sep 23 12:00

Maximum Daily Speed Average: 13.0 km/h on Sep 22

Minimum Speed: 1 km/h on Sep 19 07:00

Minimum Daily Speed Average: 2.2 km/h on Sep 6

Maximum Diurnal Speed Average: 10.0 km/h at hour 14

Minimum Diurnal Speed Average: 3.4 km/h at hour 2

Monthly Average Speed: 5.42 km/h

Percentiles: $P_1 = 1.0$ $P_{10} = 1.7$ $Q_1 = 2.6$ Median = 3.9 $Q_3 = 7.4$ $P_{90} = 11.4$ $P_{99} = 17.9$

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	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Sep	2	1	1	2	1	2	2	3	3	3	3	5	5	7	9	9	6	7	5	2	2	2	3	3	3.7	8.7
2-Sep	4	4	3	4	4	4	4	4	4	3	3	3	5	10	9	10	5	3	3	3	4	2	2	2	4.2	9.7
3-Sep	2	4	9	5	3	3	3	4	5	4	7	8	11	12	10	7	12	8	5	3	2	2	1	2	5.6	11.8
4-Sep	3	3	3	2	3	3	3	4	3	9	9	10	8	11	11	11	7	7	3	3	2	1	2	2	5.2	11.5
5-Sep	1	2	2	2	2	1	2	2	2	3	3	4	4	5	4	5	11	8	3	2	2	2	2	1	3.1	10.7
6-Sep	1	1	2	2	1	1	1	1	3	2	2	4	2	3	4	3	2	2	4	3	2	2	2	2	2.2	4.4
7-Sep	3	3	4	2	2	3	3	3	5	7	7	7	9	11	10	11	6	5	2	2	2	2	2	4	4.8	11.1
8-Sep	4	4	3	3	4	4	4	5	3	4	3	5	8	8	7	13	6	10	3	2	2	2	1	3	4.7	13.1
9-Sep	3	2	4	6	3	2	3	6	9	10	13	11	12	11	11	8	9	8	3	1	2	2	2	2	5.9	12.9
10-Sep	2	3	3	3	3	3	4	4	5	6	6	7	7	7	7	7	6	9	7	10	6	3	4	7	5.2	9.5
11-Sep	6	6	5	2	4	4	5	3	3	4	4	8	16	19	14	13	10	7	11	5	3	4	8	3	6.9	19.1
12-Sep	6	6	10	14	15	7	3	5	9	12	11	11	10	10	10	12	12	11	6	3	3	3	4	4	8.3	14.7
13-Sep	3	3	4	3	2	3	3	5	5	4	4	10	11	11	11	11	8	9	3	2	3	3	4	3	5.3	11.2
14-Sep	2	3	2	3	2	2	3	4	3	4	10	12	13	11	9	11	6	4	3	4	3	3	3	3	5.2	13.4
15-Sep	2	2	4	3	4	3	5	4	4	4	8	15	18	17	16	16	12	10	4	3	3	4	4	2	6.9	17.8
16-Sep	2	3	2	2	2	2	2	1	2	3	4	6	4	7	6	6	6	6	4	4	1	2	4	7	3.7	7.2
17-Sep	5	4	5	3	2	6	9	9	8	6	6	5	4	9	8	7	6	3	4	4	2	3	4	4	5.2	9.0
18-Sep	4	4	4	5	5	4	3	4	4	11	13	16	12	11	9	11	8	6	3	4	1	2	1	2	6.0	15.5
19-Sep	2	2	2	1	2	1	1	1	2	2	8	10	10	9	7	6	7	7	6	5	7	3	3	5	4.5	10.1
20-Sep	5	1	2	2	1	6	6	3	7	7	5	4	4	9	11	9	7	5	3	2	2	3	3	3	4.6	10.7
21-Sep	2	2	2	2	2	2	2	3	4	11	11	10	9	9	10	8	8	8	7	5	6	4	4	5	5.7	11.4
22-Sep	7	8	8	9	12	12	12	11	11	12	13	13	17	17	18	16	16	16	16	14	14	13	13	15	13.0	18.0
23-Sep	14	13	11	11	13	13	11	11	13	12	19	20	18	18	17	15	15	10	7	7	5	3	3	4	11.8	19.8
24-Sep	3	4	3	3	1	1	1	2	3	3	3	4	4	5	4	5	5	4	4	5	4	4	5	3	3.5	5.2
25-Sep	3	2	2	3	4	4	3	3	4	3	4	3	4	4	3	2	2	3	2	3	3	2	2	2	3.0	4.4
26-Sep	2	2	1	1	1	1	1	1	1	3	4	3	4	4	5	7	9	7	4	2	2	1	2	1	2.9	9.1
27-Sep	1	1	1	2	3	3	3	4	9	5	4	8	15	17	16	15	18	13	10	9	11	14	11	7	8.4	17.9
28-Sep	3	3	3	3	4	4	4	4	5	4	4	4	6	8	7	5	2	2	2	2	4	6	6	4	4.2	8.1
29-Sep	3	4	4	5	3	3	4	4	4	6	9	17	15	15	15	11	9	5	3	2	3	3	2	2	6.4	17.0
30-Sep	2	2	1	1	1	2	1	1	1	3	2	2	6	8	7	6	5	2	1	1	1	2	1	1	2.6	8.4
	3.5	3.4	3.7	3.6	3.6	3.7	3.7	3.9	4.7	5.6	6.8	8.1	9.1	10.0	9.5	9.2	8.1	6.8	4.7	3.9	3.6	3.4	3.6	3.7	Diurnal Average	
	14.0	13.5	10.9	14.4	14.7	13.0	11.7	11.5	12.5	12.3	19.0	19.8	18.4	19.1	18.0	16.1	17.9	15.6	16.2	14.3	13.7	14.5	13.4	15.2	Diurnal Maximum	

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
September 1, 2008 to October 1, 2008

Maximum Value: 96.4 deg on Sep 30 20:00

Minimum Value: 4.3 deg on Sep 8 00:00

Percentiles: P_1 = 4.9 P_{10} = 7.8 Q_1 = 10.6 Median = 17.7 Q_3 = 33.8 P_{90} = 59.4 P_{99} = 86.6

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

Day	Hourly Period Ending At (MST)																								Daily 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-Sep	12	59	26	59	67	22	10	12	19	34	31	36	39	36	25	26	29	14	27	35	82	19	6	6	82.1
2-Sep	5	7	15	8	6	7	8	10	16	13	28	39	62	14	19	26	63	22	20	39	23	7	11	14	62.7
3-Sep	43	44	11	41	32	23	27	30	25	29	24	26	19	17	21	18	14	13	16	43	10	14	49	29	49.1
4-Sep	13	15	19	16	11	13	9	11	34	18	17	18	21	23	15	14	15	34	48	50	81	74	34	73	81.0
5-Sep	39	32	49	42	48	45	61	51	87	21	40	63	41	69	59	48	23	18	38	59	34	42	31	49	86.8
6-Sep	89	40	56	40	95	76	80	70	43	77	52	22	53	82	64	86	59	78	21	27	40	23	12	18	94.6
7-Sep	11	10	7	12	14	13	19	13	49	17	20	27	26	17	23	18	26	22	71	28	14	18	7	4	71.5
8-Sep	7	5	6	6	7	7	7	6	11	15	38	20	62	15	23	13	21	15	51	40	31	13	71	54	70.5
9-Sep	81	56	26	9	41	70	63	19	10	13	16	17	13	15	26	12	13	17	26	47	16	8	10	17	80.5
10-Sep	9	10	5	5	7	5	8	10	9	10	12	12	17	34	34	31	21	14	7	9	21	21	27	8	34.4
11-Sep	9	9	13	11	8	6	7	28	30	58	32	26	11	11	15	14	11	24	65	85	20	24	33	27	85.3
12-Sep	13	9	10	7	6	31	61	49	14	11	15	12	20	18	20	18	16	17	17	32	14	9	8	7	61.2
13-Sep	8	9	7	15	16	8	8	8	12	17	21	19	24	21	23	15	18	18	40	15	9	9	9	7	39.6
14-Sep	10	5	5	8	7	5	5	6	12	51	17	17	16	16	19	17	10	10	16	16	32	18	18	13	51.2
15-Sep	15	36	6	8	8	16	5	12	10	44	17	13	12	16	15	16	14	10	16	51	9	25	48	37	51.1
16-Sep	66	39	89	89	35	77	57	69	65	25	53	47	52	28	33	33	21	18	17	13	59	59	14	9	89.0
17-Sep	14	17	15	10	13	6	9	7	7	10	12	16	42	18	17	17	25	28	25	12	10	10	5	6	42.0
18-Sep	5	6	8	5	15	12	9	11	20	50	13	12	17	19	22	19	16	38	32	20	68	58	86	44	86.5
19-Sep	85	13	84	87	64	55	56	61	34	43	37	15	12	16	17	22	16	17	12	13	10	25	23	10	87.1
20-Sep	10	33	33	66	71	5	7	10	8	9	14	18	81	19	15	18	16	12	29	76	70	65	43	48	81.2
21-Sep	70	40	21	44	29	15	18	31	71	14	18	13	18	13	12	13	9	12	10	12	13	18	20	13	70.5
22-Sep	9	11	11	12	10	10	9	10	10	10	10	11	9	10	10	11	9	9	7	7	8	8	8	7	11.8
23-Sep	7	7	9	8	9	8	7	10	10	13	8	11	9	12	13	14	16	17	12	21	11	30	22	10	30.5
24-Sep	19	14	22	19	52	31	21	21	33	35	47	28	63	27	36	27	22	21	18	17	19	65	42	81	81.1
25-Sep	47	19	21	27	23	15	18	20	20	24	24	20	18	20	24	31	32	15	15	8	16	37	13	20	47.1
26-Sep	22	18	28	43	41	22	52	43	37	30	19	42	19	27	22	12	11	13	18	32	20	75	65	61	75.2
27-Sep	77	41	63	32	32	73	22	69	40	50	10	41	12	10	12	12	12	10	9	9	8	7	9	8	77.0
28-Sep	17	8	9	10	8	5	5	9	8	10	17	29	41	26	24	36	62	11	25	21	5	5	5	6	61.7
29-Sep	9	6	9	7	9	8	12	14	13	20	43	9	12	11	14	17	10	12	67	58	47	66	46	42	67.5
30-Sep	54	69	72	35	29	21	18	33	38	22	51	79	29	14	10	16	17	23	84	96	79	9	30	18	96.4
	89.2	69.2	89.0	88.7	94.6	77.3	80.1	69.8	86.8	77.3	52.7	79.4	81.2	82.1	63.9	85.8	62.7	78.3	84.3	96.4	82.1	75.2	86.5	81.1	

PASZA

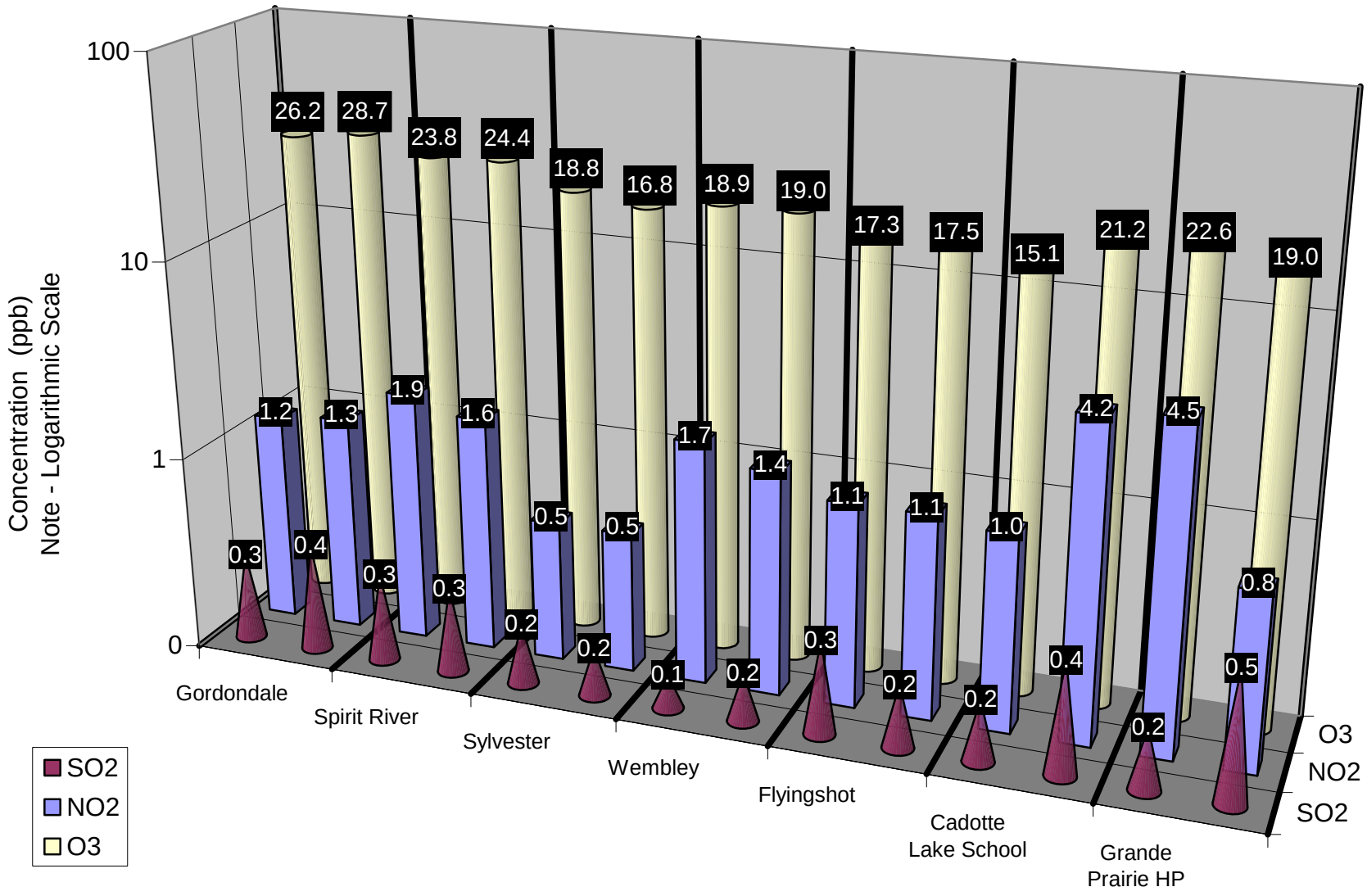
Monthly Passive Data Summary

PASZA Passive Results for September 2008

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
Duplicates					
4a	Gordondale	**0.3**	**26.2**	**1.2**	
4b	Gordondale	**0.4**	**28.7**	**1.3**	
9a	Spirit River	**0.3**	**23.8**	**1.9**	
9b	Spirit River	**0.3**	**24.4**	**1.6**	
14a	Sylvester	**0.2**	**18.8**	**0.5**	
14b	Sylvester	**0.2**	**16.8**	**0.5**	
24a	Wembley	**0.1**	**18.9**	**1.7**	
24b	Wembley	**0.2**	**19.0**	**1.4**	
26a	Flyingshot	**0.3**	**17.3**	**1.1**	
26b	Flyingshot	**0.2**	**17.5**	**1.1**	
55a	Cadotte Lake School	**0.2**	**15.1**	**1.0**	
55b	Cadotte Lake School	**0.4**	**21.2**	**4.2**	
49a	Grande Prairie HP	**0.2**	**22.6**	**4.5**	
49b	Grande Prairie HP	**0.5**	**19.0**	**0.8**	
1	Silver Valley	**0.4**	**22.4**	**1.3**	08-27-081-11 W6M
2	Bay Tree	**0.3**	**24.2**	**0.8**	13-16-078-13 W6M
3	Forth Creek	**0.3**	**25.6**	**1.0**	04-13-082-07 W6M
4	Gordondale	**0.3**	**27.5**	**1.2**	04-34-078-10 W6M
5	Boone Creek	**0.3**	**20.3**	**1.1**	01-23-076-11 W6M
7	Steeprock Creek	**0.4**	**22.3**	**0.7**	09-35-072-13 W6M
9	Spirit River	**0.3**	**24.1**	**1.8**	08-12-079-07 W6M
10	Woking	**0.3**	**19.5**	**0.9**	01-13-076-07 W6M
11	Webber Creek	**0.3**	**20.6**	**1.3**	09-36-074-09 W6M
12	Hythe	**0.3**	**20.5**	**1.3**	14-36-072-11 W6M
14	Sylvester	**0.2**	**17.8**	**0.5**	08-06-069-12 W6M
16	Beaverlodge	**0.3**	**24.1**	**1.5**	15-36-071-10 W6M
17	Poplar	**0.3**	**19.8**	**1.4**	13-06-073-08 W6M
18	Saddle Hills	**0.3**	**22.6**	**0.7**	04-25-074-07 W6M
19	Wanham	**0.4**	**27.2**	**0.8**	16-22-077-03 W6M
20	Shaftesbury	**0.2**	**17.9**	**0.6**	04-03-082-23 W5M
21	Eaglesham	**0.2**	**17.2**	**0.9**	16-21-079-25 W5M
23	Bear Lake	**0.3**	**21.0**	**1.8**	15-31-072-06 W6M

PASZA Passive Results for September 2008 (Continued)

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
24	Wembley	**0.2**	**18.9**	**1.6**	12-31-070-08 W6M
25	Pinto Creek	**0.2**	**19.3**	**1.0**	04-24-069-11 W6M
26	Flyingshot	**0.3**	**17.4**	**1.1**	15-36-070-07 W6M
27	Grande Prairie I	**0.2**	**19.7**	**3.5**	08-15-071-06 W6M
28	Clairmont Lake	**0.3**	**22.5**	**1.4**	09-06-073-04 W6M
29	Smoky Heights	**0.6**	**22.3**	**1.7**	04-06-075-02 W6M
30	Fitzsimmons	**0.2**	**16.0**	**1.1**	15-36-072-03 W6M
32	Gold Creek	**0.2**	**11.9**	**1.1**	06-33-067-05 W6M
33	Wapiti	**0.3**	**20.4**	**1.2**	02-25-071-03 W6M
34	Puskwaskau	**0.1**	**15.6**	**0.4**	15-35-074-25 W5M
35	Jean Cote	**0.3**	**22.8**	**1.2**	12-35-079-21 W5M
36	Guy	**0.2**	**22.9**	**1.2**	03-04-076-22 W5M
37	Crooked Creek	**0.3**	**19.2**	**1.1**	16-01-071-26 W5M
39	Clouston Creek	**0.2**	**18.5**	**0.7**	12-01-073-22 W5M
40	McLennan	**0.5**	**22.3**	**1.6**	03-29-077-19 W5M
41	Valleyview	**0.3**	**21.7**	**1.1**	09-30-069-22 W5M
42	Sunset House	**0.3**	**23.0**	**0.8**	05-32-070-19 W5M
43	High Prairie	**0.3**	**21.8**	**1.5**	16-13-074-17 W5M
44	Peavine	**0.2**	**18.1**	**0.4**	03-05-079-15 W5M
45	Gift Lake	**0.1**	**17.2**	**0.5**	10-07-079-12 W5M
46	Little Smoky	**0.3**	**18.9**	**1.6**	12-01-065-21 W5M
47	Kinuso	**0.3**	**18.2**	**0.3**	12-10-073-10 W5M
48	Deer Mountain	**0.2**	**18.4**	**0.6**	15-22-068-09 W5M
49	Grande Prairie HP	**0.3**	**20.8**	**2.7**	17-26-071-06 W6M
50	Clear River	**0.4**	**20.6**	**1.6**	SE-03-084-12 W6M
51	Bear Canyon	**0.5**	**23.4**	**0.8**	SE-28-085-12 W6M
52	Worsley	**0.3**	**21.3**	**1.6**	NE-34-085-07 W6M
53	Hines Creek	**0.2**	**21.3**	**1.2**	SW-09-084-04 W6M
54	Ronan	**0.2**	**20.3**	**3.1**	SE-03-082-04 W6M
55	Cadotte Lake School	**0.3**	**18.2**	**2.6**	NE-23-086-16 W5M
56	Simon Lake Store	**0.5**	**18.7**	**0.7**	SE-32-086-17 W5M
57	Dixonville	**0.2**	**19.9**	**0.9**	SE-14-087-24 W5M
58	Queen Elizabeth Park	**0.3**	**22.6**	**1.0**	NW-19-083-23 W5M
59	Blue Sky	**0.2**	**21.4**	**1.7**	SW-35-081-02 W6M
60	Gerry Lake	**0.2**	**19.6**	**0.4**	SW-22-084-02 W6M
61	Musreau Lake	**0.4**	**18.9**	**0.5**	NE-22-064-05 W6M



Duplicate Summary Chart

Passive Summary for September 2008

Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2
	ppb	ppb	ppb
	Passive Summary for September 2008 (PASZA Zone)		
Mean	**0.3**	**20.5**	**1.2**
Standard Deviation	**0.1**	**2.8**	**0.6**
Minimum	**0.1**	**11.9**	**0.3**
Minimum At	**Gift Lake (#45)**	**Gold Creek (#32)**	**Kinuso (#47)**
Maximum	**0.6**	**27.5**	**3.5**
Maximum At	**Smoky Heights (#29)**	**Gordondale (#4)**	**Grande Prairie I (#27)**

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

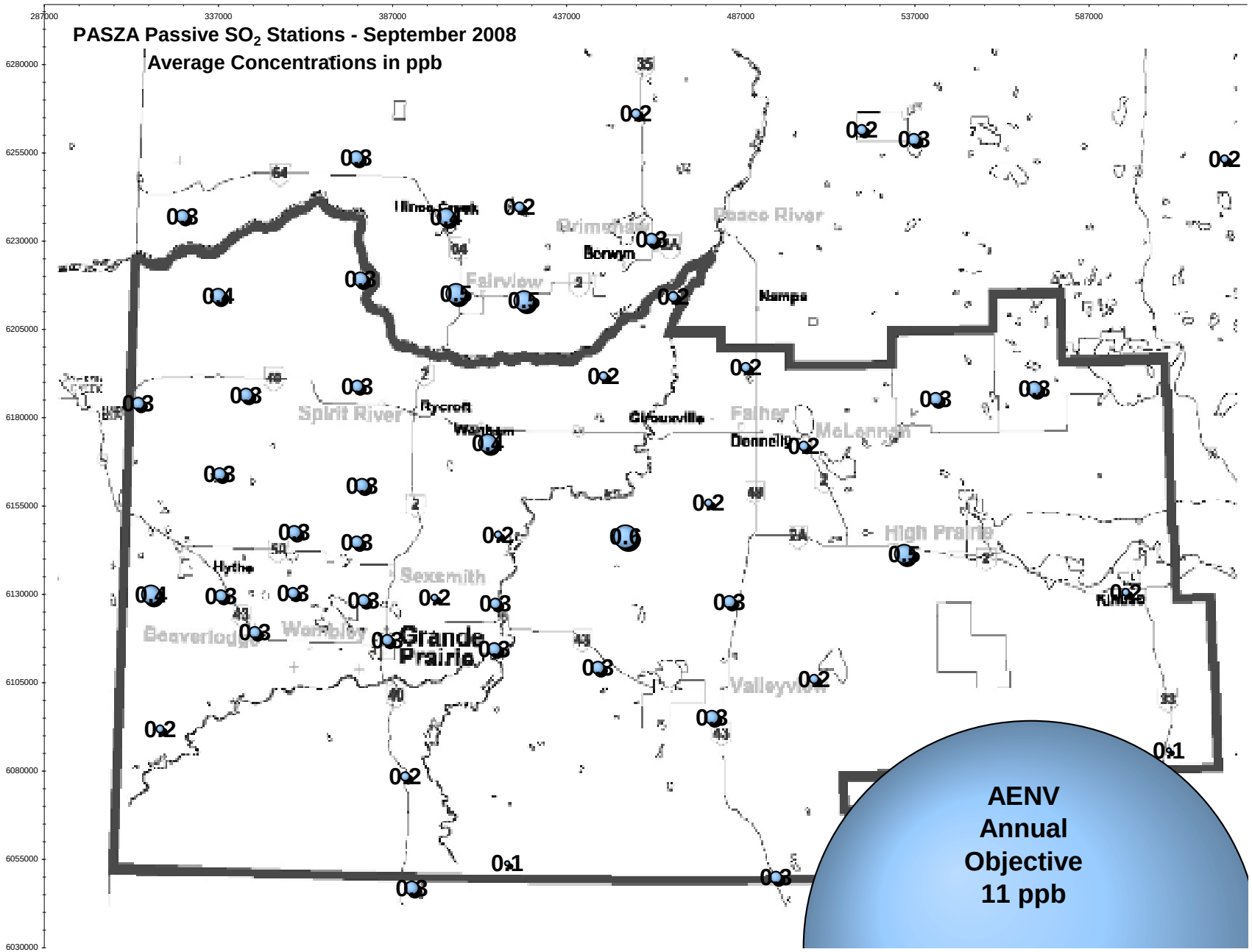
	SO_2	O_3	NO_2
PASZA Beaverlodge station	**0.3**	**18.6**	**2.5**
PASZA Beaverlodge passive	**0.3**	**24.1**	**1.5**

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

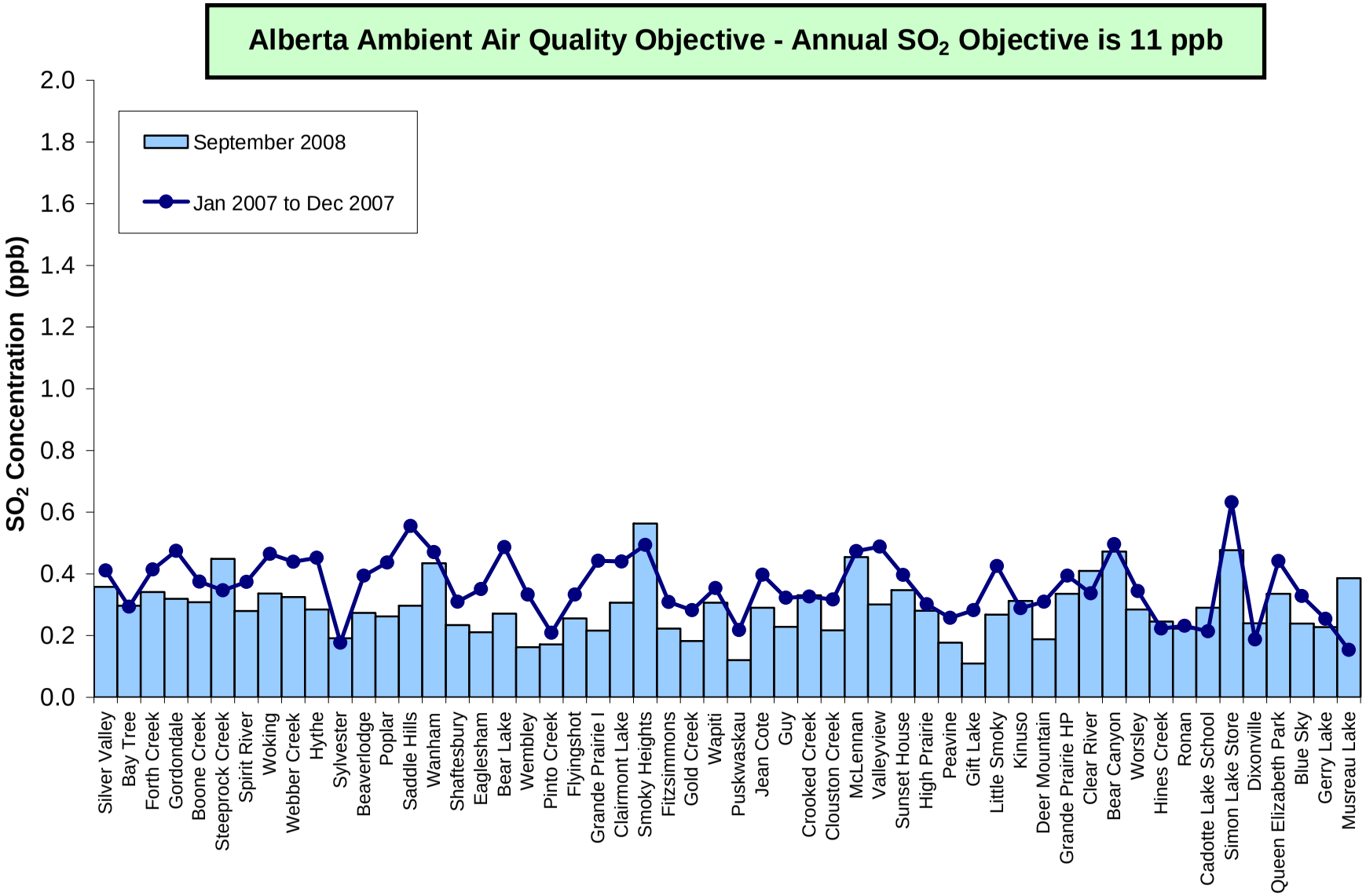
	SO_2	O_3	NO_2
PASZA Henry Pirker station	**0.3**	**19.1**	**6.5**
PASZA Grande Prairie passive	**0.3**	**20.8**	**2.7**

Comparison between Continuous and Passive monitoring at Spirit River (passive #9 Spirit River)

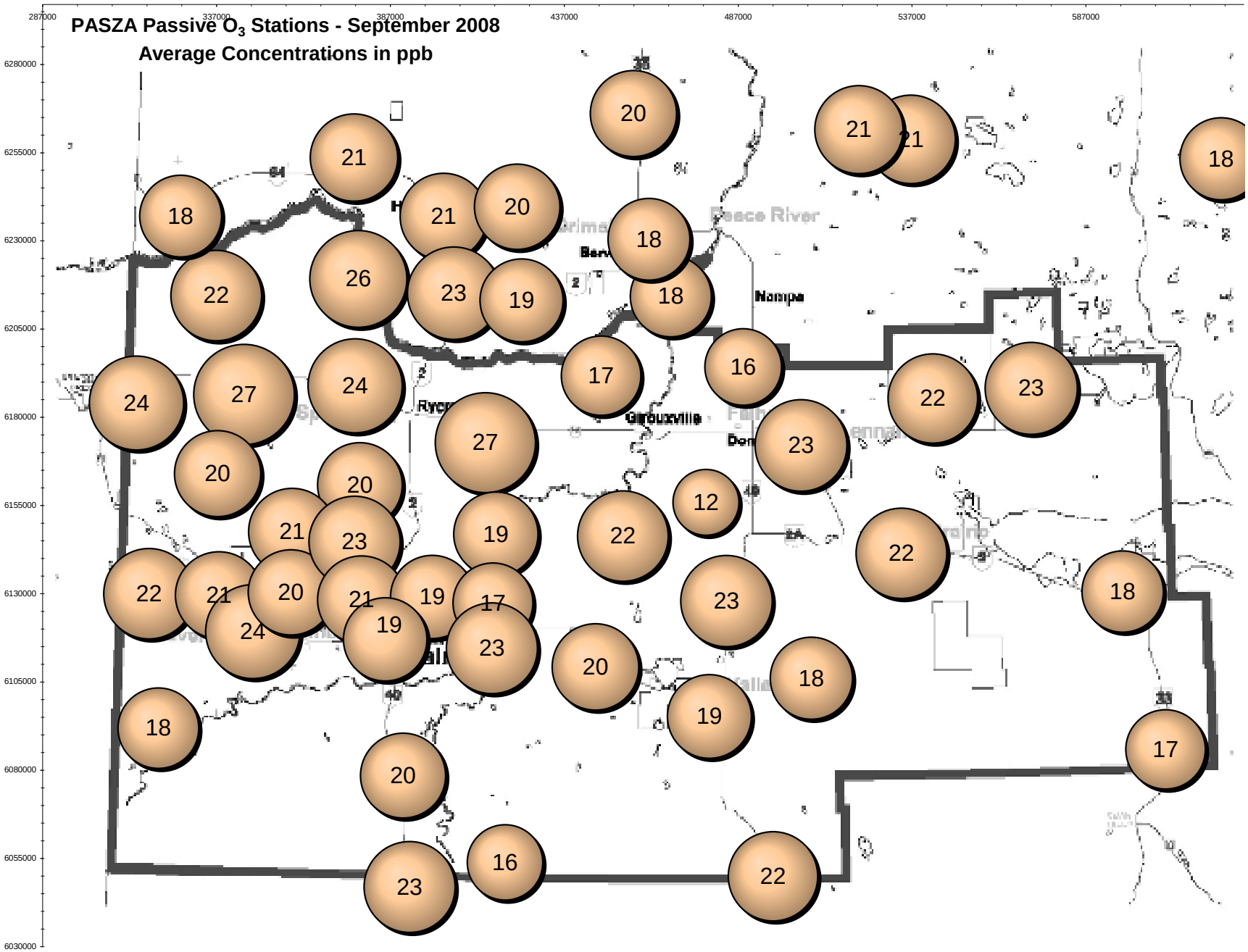
	SO_2	O_3	NO_2
PASZA Portable Spirit River station	**0.3**	**16.0**	**2.8**
PASZA Spirit River passive	**0.3**	**24.1**	**1.8**



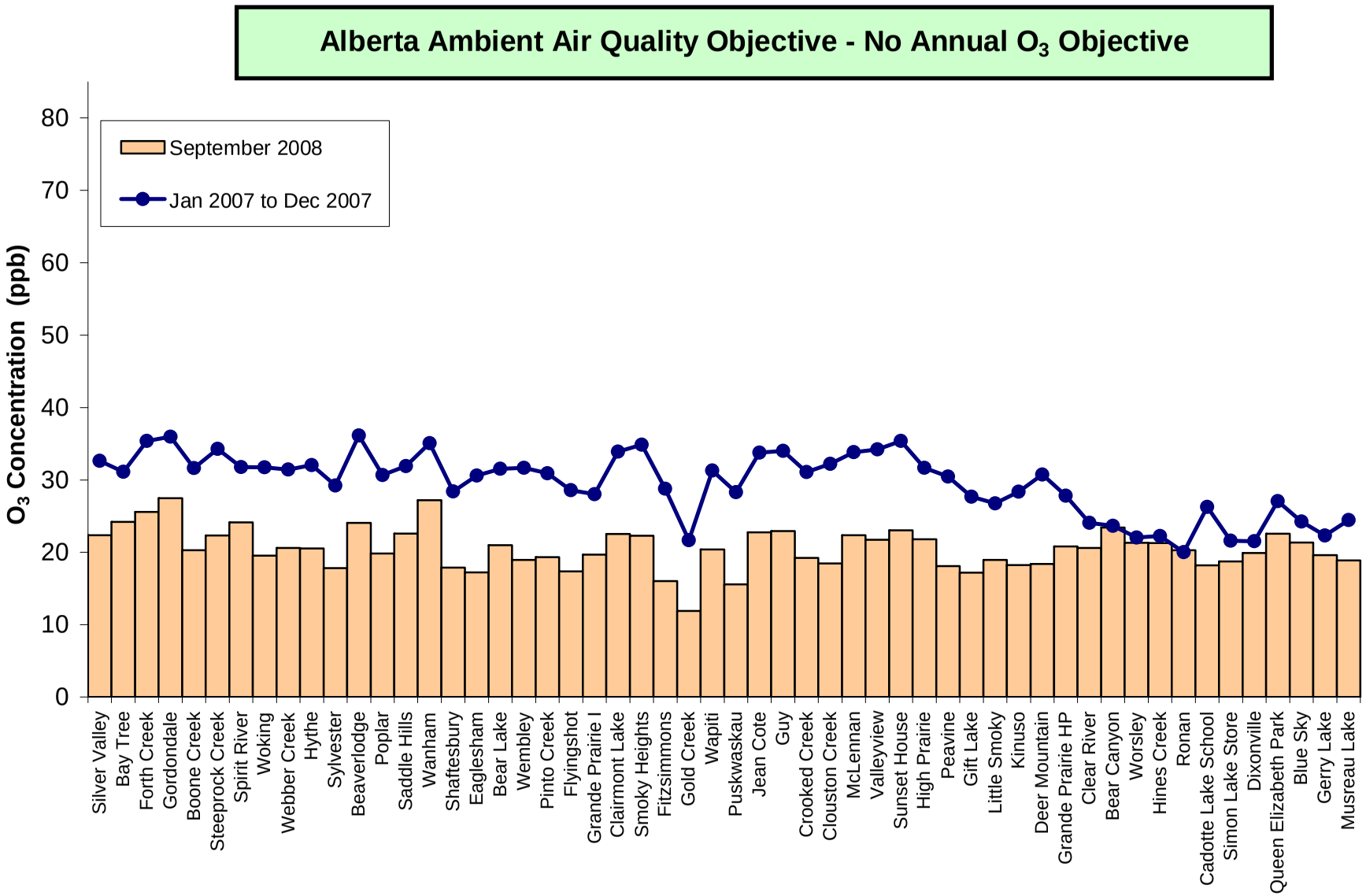
SO_2 Bubble Chart



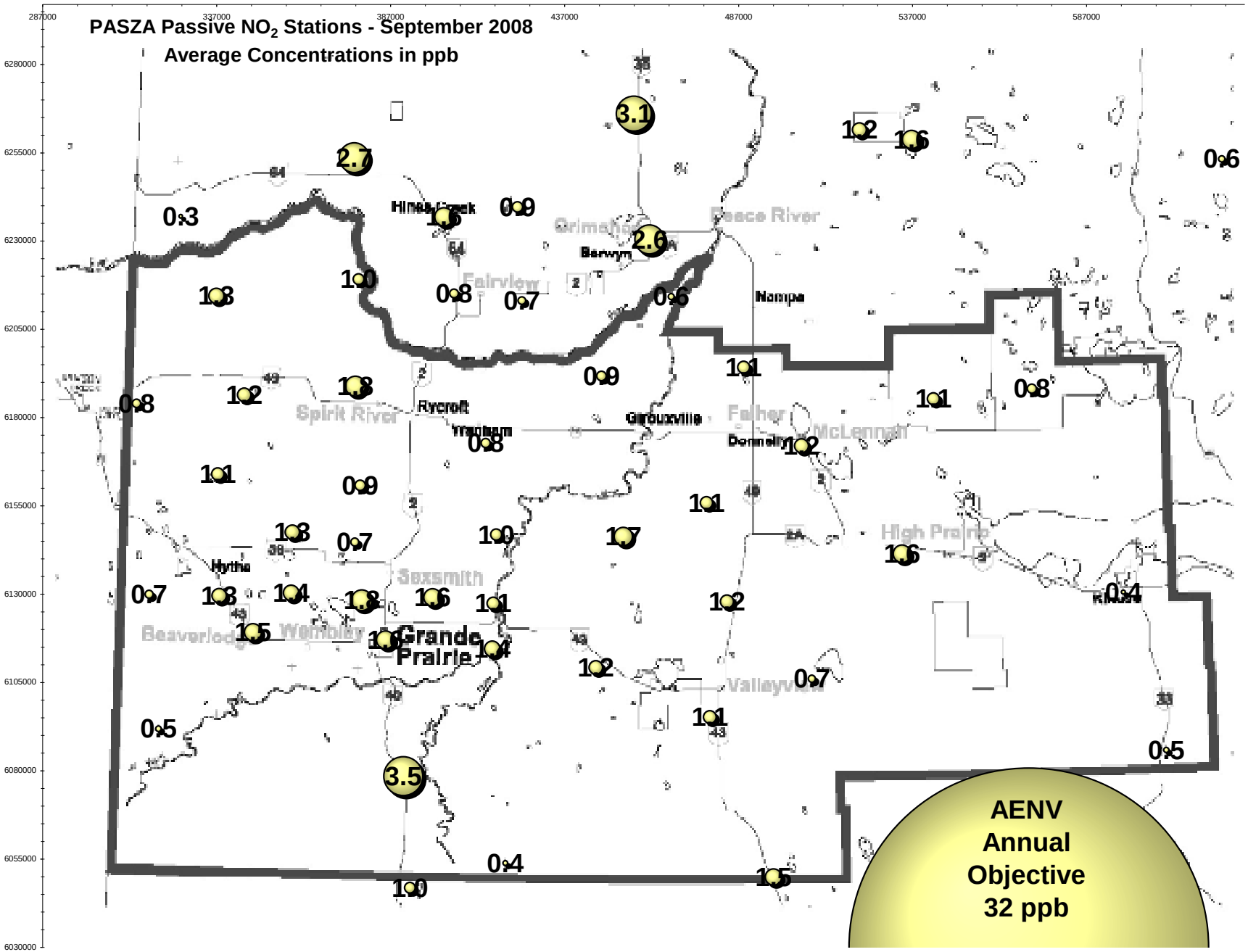
SO_2 Summary Chart



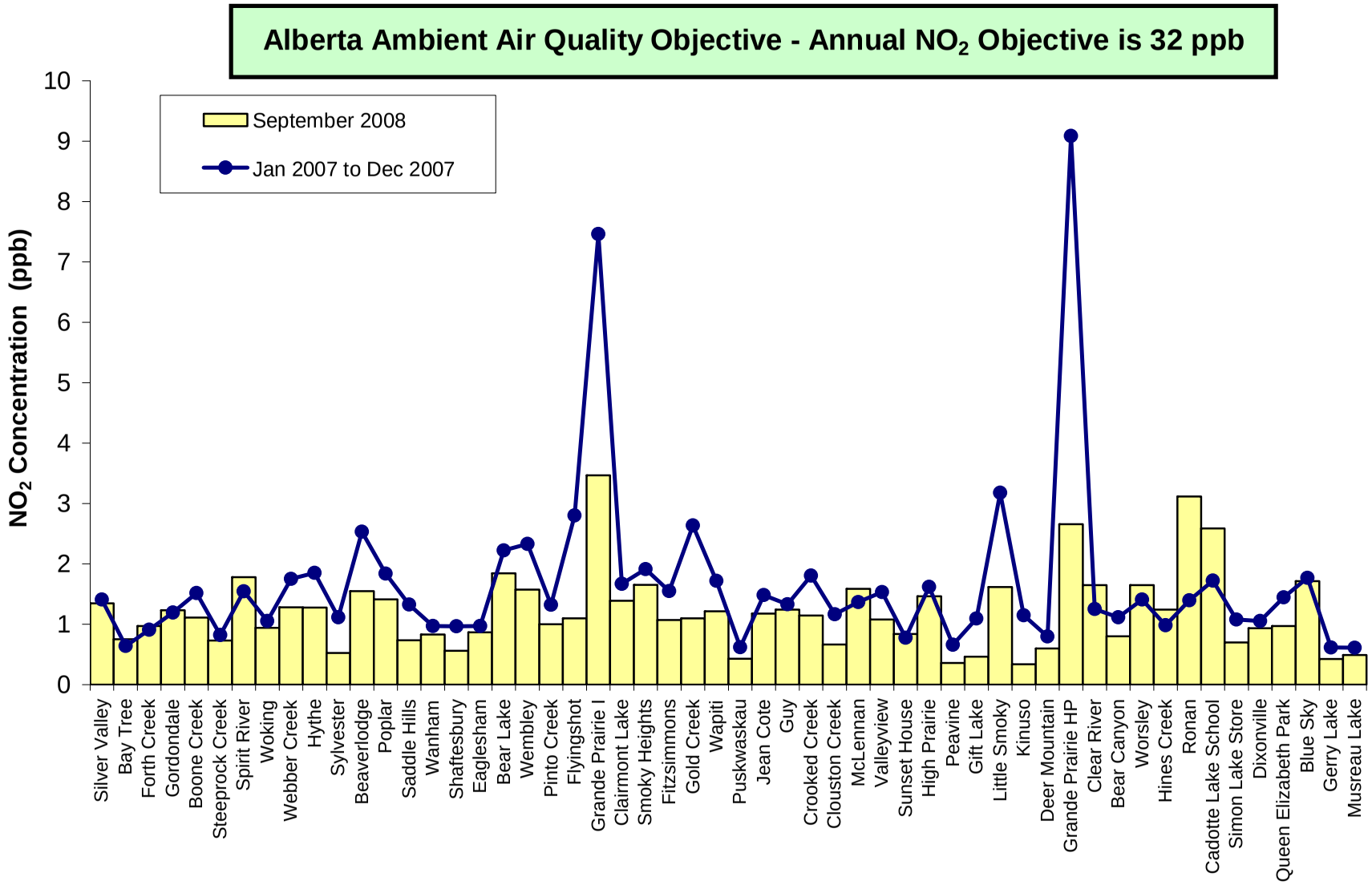
O_3 Bubble Chart



O_3 Summary Chart



NO_2 Bubble Chart



NO_2 Summary Chart

September 2008 Calibration Reports

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

PASZA – Evergreen Park Station with the following calibrations:
SO_2 & TRS

PASZA – Smoky Heights Station with the following calibrations:
SO_2 & TRS

PASZA – Beaverlodge Station with the following calibrations:
SO_2, NO, NO_2, NO_x & O_3

PASZA – Spirit River (Portable) Station with the following calibrations:
SO_2, TRS, NO, NO_2, NO_x & O_3,

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

Calibration Report

Parameter	SO2
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 11, 2008	Previous Calibration	August 21, 2008
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:15	End Time (MST)	12:45
Barometric Pressure	0.916 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	49.6 ppb	Cal Gas Cert Date	6/8/2008
		Cal Gas Cylinder #	AAL 15377
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.000813	Calculated slope	1.001440
Calculated intercept	-1.746861	Calculated intercept	-0.366619

Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	7.4		7.6	
Coefficient	.800		.800	
Pressure	657.9	mm Hg	637.6	mm Hg
Flow	0.524	lpm	0.481	lpm
Lamp Voltage	44051	Hz	44657	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4988	0.00	0.0	0.3	N/A
4991	39.84	392.8	392.9	0.9998
4988	19.89	197.0	196.1	1.0044
4988	9.95	98.7	99.8	0.9898
4988	0.00	0.0	0.3	As Found Zero
4991	39.84	392.8	392.9	As Found Span
			Average Correction Factor	0.9980

Calculated value of As Found Response: 391.2 ppb Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	-1.2	ppb	0.2	ppb
Auto span	333.6	ppb	350.6	ppb

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	SO2
Air Monitoring Network	PASZA

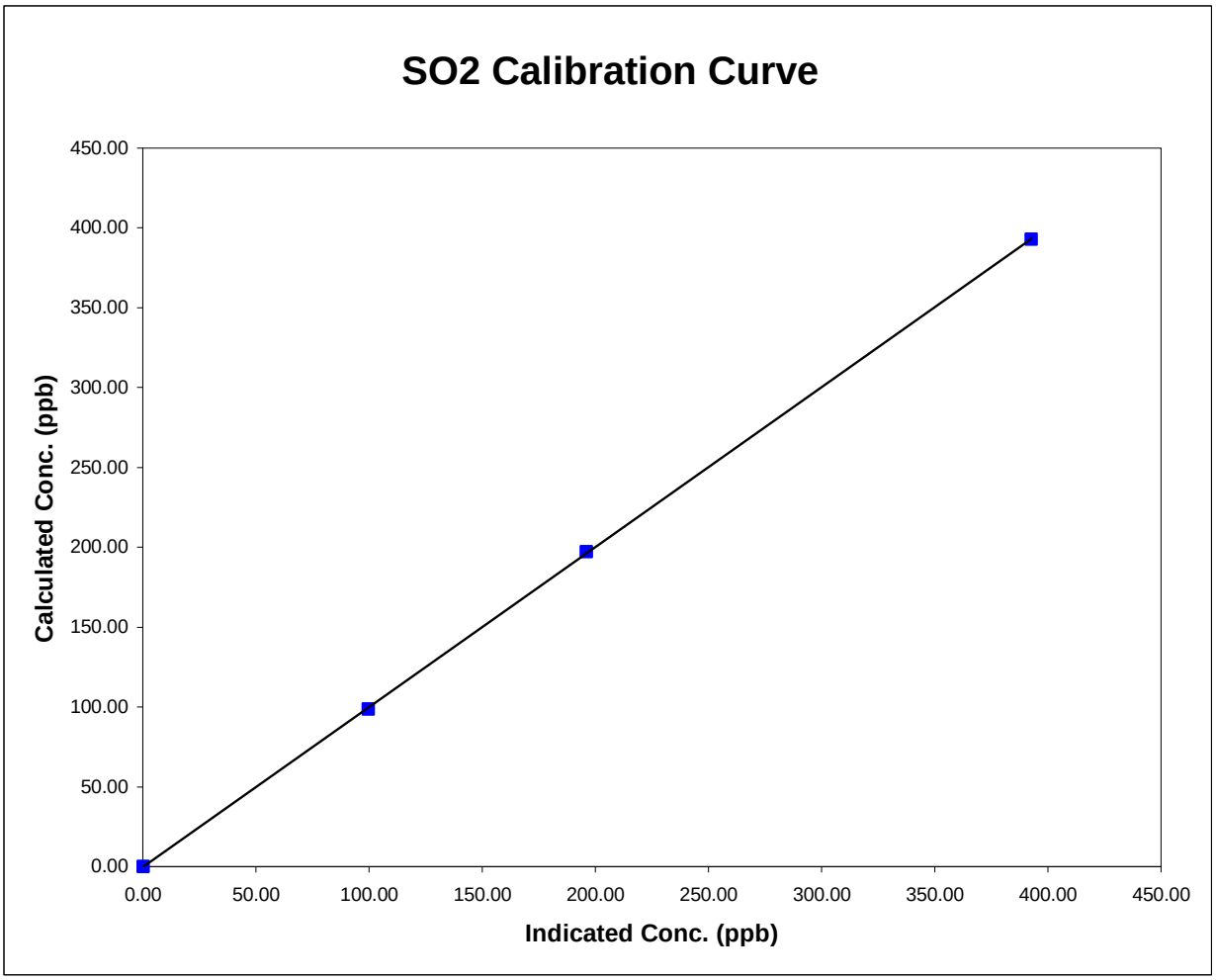
FOCUS AIR QUALITY MONITORING

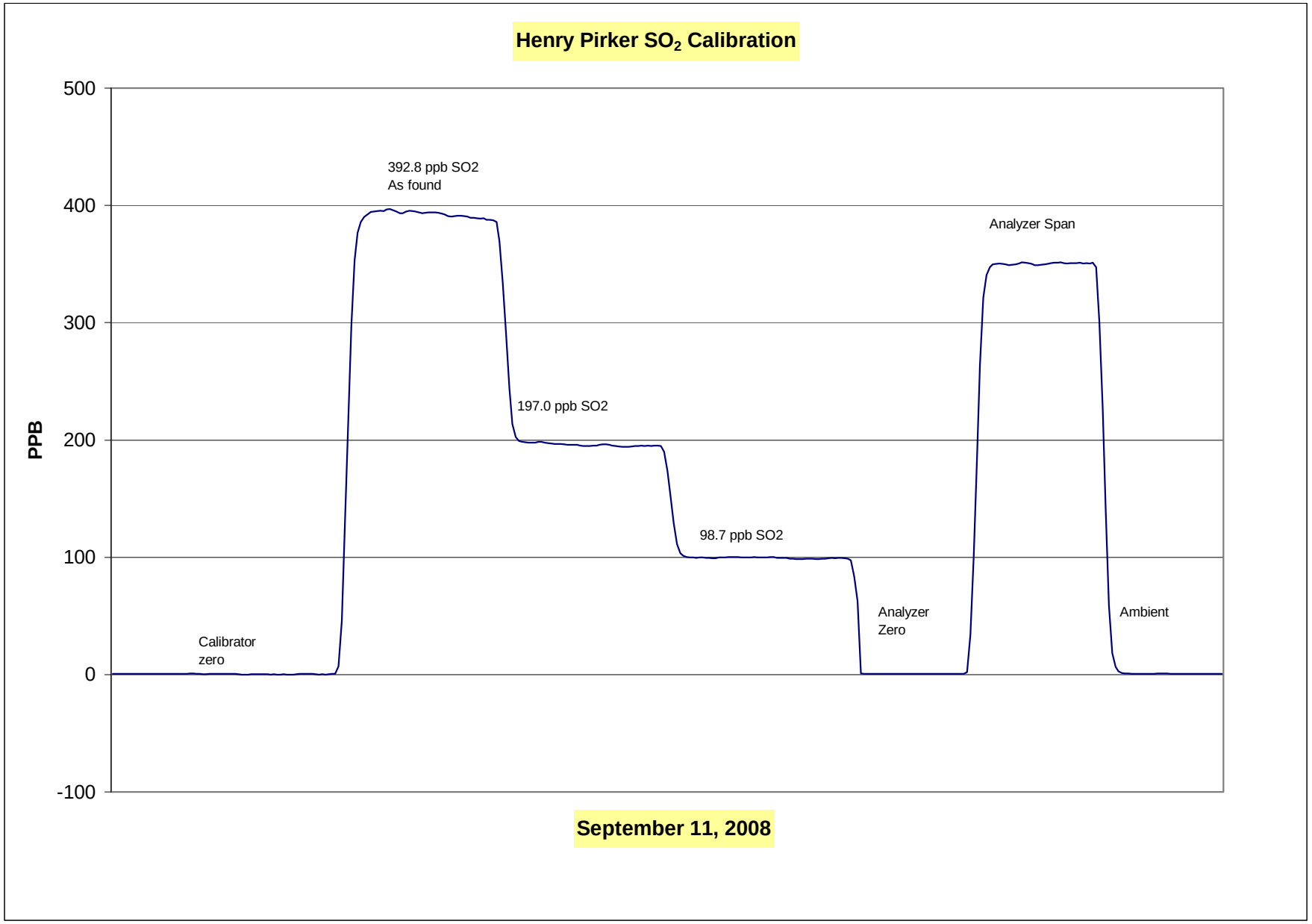
Station Information

Calibration Date	September 11, 2008	Previous Calibration	August 21, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:15	End Time (MST)	12:45
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	0.3	N/A		
392.8	392.9	0.9998	Correlation Coefficient	0.999981
197.0	196.1	1.0044		
98.7	99.8	0.9898	Slope	1.001440
			Intercept	-0.366619




Henry Pirker SO_2 Calibration
500
400
300
200
100
0
-100
PPB
392.8 ppb SO2
As found
197.0 ppb SO2
98.7 ppb SO2
Analyzer Span
Calibrator
zero
Analyzer
Zero
Ambient
September 11, 2008

Calibration Report

Parameter	**NOx-NO-NO_2**
Air Monitoring Network	**PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 11, 2008	Previous Calibration	August 7, 2008
Station Number	1	Station Location	Henry Pirker

Reason: Routine Installation Removal Other:

Start Time (MST)	10:15		End Time (MST)	14:15	
Barometric Pressure	0.916	Atm	Station Temperature	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	Data Slope	1.020236	1.022163	1.018904
	Data Offset	0.046222	-3.148134	-2.590341
After	Data Slope	1.006499	1.009012	1.010002
	Data Offset	0.039018	-3.330907	-3.210623
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	7.9	ppb	8.4	mV
NOx background	8.3	ppb	8.9	mV
NO coefficient	0.684		0.738	
NOx coefficient	0.997		1.003	
Chamber Temp	50.0	Deg C	49.5	Deg C
Cooler Temp	-2.4	Deg C	-2.5	Deg C
Converter Temp	318.0	Deg C	319.0	Deg C
Vacuum	168.8	mm Hg	179.0	mm Hg

Notes: Nox adjustment made

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: September 11, 2008 Station Location: Henry Pirker

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4990	0.00	0.0	0.0	0.0	0.5	0.5	0.0	N/A	N/A
1	4991	39.84	392.8	392.8	0.0	391.1	390.6	0.5	1.0044	1.0057
2	4990	19.89	196.9	196.9	0.0	200.0	199.7	0.3	0.9845	0.9860
3	4990	9.95	98.7	98.7	0.0	103.9	103.5	0.2	0.9504	0.9533
AFZ	4990	0.00	0.0	0.0	0.0	0.5	0.5	0.0	0.0000	0.0000
AFS	4990	39.85	393.0	393.0	0.0	391.1	390.6	0.5	1.0049	1.0061
							Average Correction Factor		0.9798	0.9816

As Found Concentrations: NO_X= 387.4 NO= 387.5 As Found Percent Change NO_X= -1.4% NO= -1.4%

GPT Calibration Data

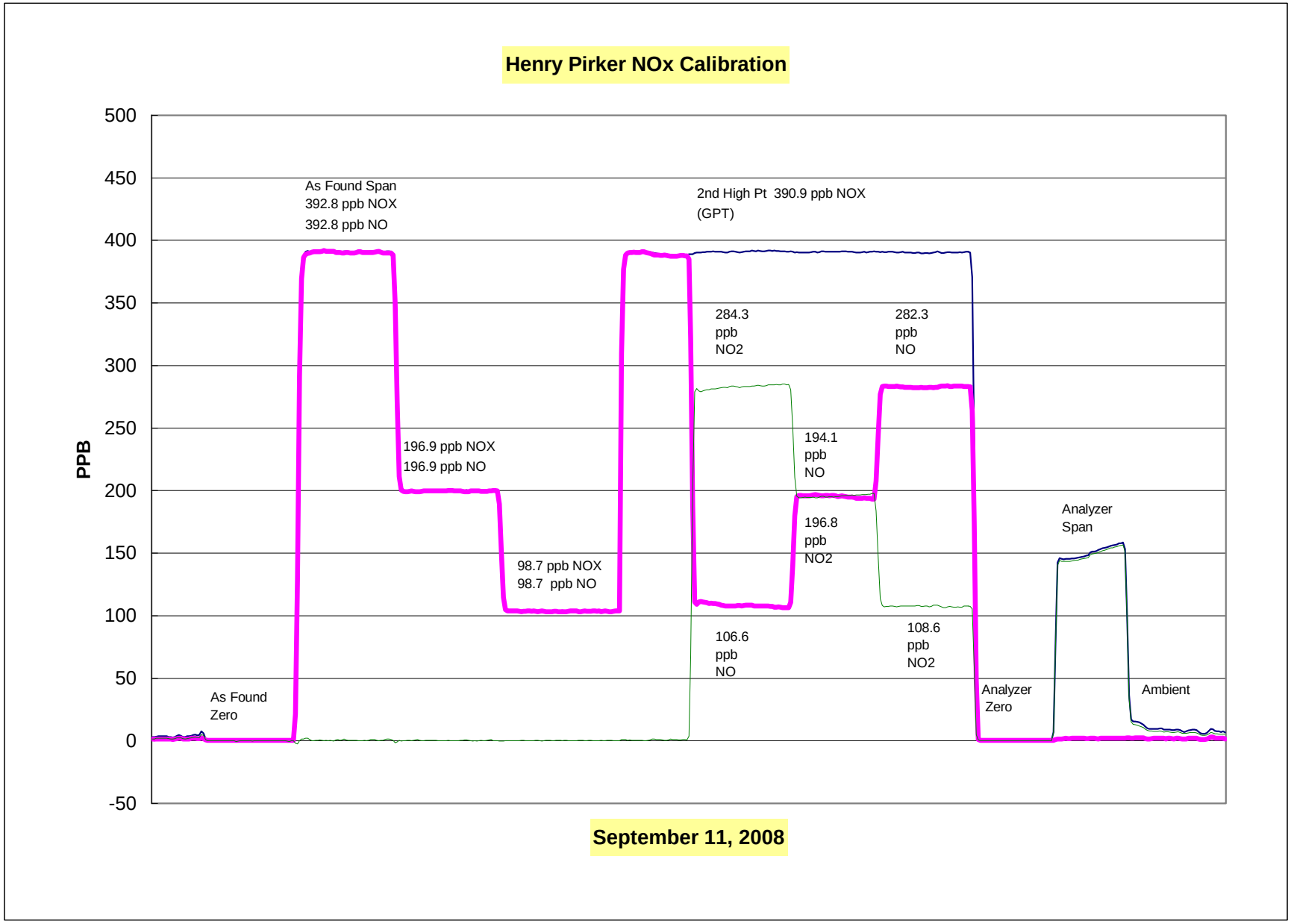
Dilution Flow 4990 ccm Source Gas Flow 39.88 ccm

O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated 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	390.9	390.0	0.9	390.0	389.3	0.7	1.0022	1.0018	N/A	N/A
300	390.9	106.6	284.3	390.9	108.7	282.3	0.9999	0.9805	1.0070	99.3%
200	390.9	194.1	196.8	390.9	195.3	195.7	1.0000	0.9936	1.0057	99.4%
100	390.9	282.3	108.6	390.3	282.6	107.8	1.0016	0.9986	1.0079	99.2%
					Average Correction Factor		1.0005	0.9909	1.0068	99.3%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-2.3	1.0	-0.3	ppb	-0.7	1.0	-0.2	ppb
Auto span	155.1	156.5	-1.1	ppb	152.5	153.6	-1.3	ppb

Calibration Performed By: Conor Whiteley


Henry Pirker NOx Calibration
PPB
500
450
400
350
300
250
200
150
100
50
0
-50
As Found Span
392.8 ppb NOX
392.8 ppb NO
2nd High Pt 390.9 ppb NOX
(GPT)
284.3
ppb
NO2
282.3
ppb
NO
196.9 ppb NOX
196.9 ppb NO
194.1
ppb
NO
196.8
ppb
NO2
Analyzer
Span
98.7 ppb NOX
98.7 ppb NO
106.6
ppb
NO
108.6
ppb
NO2
As Found
Zero
Analyzer
Zero
Ambient
September 11, 2008

Calibration Summary

Parameter	NO_2
Air Monitoring Network	PASZA

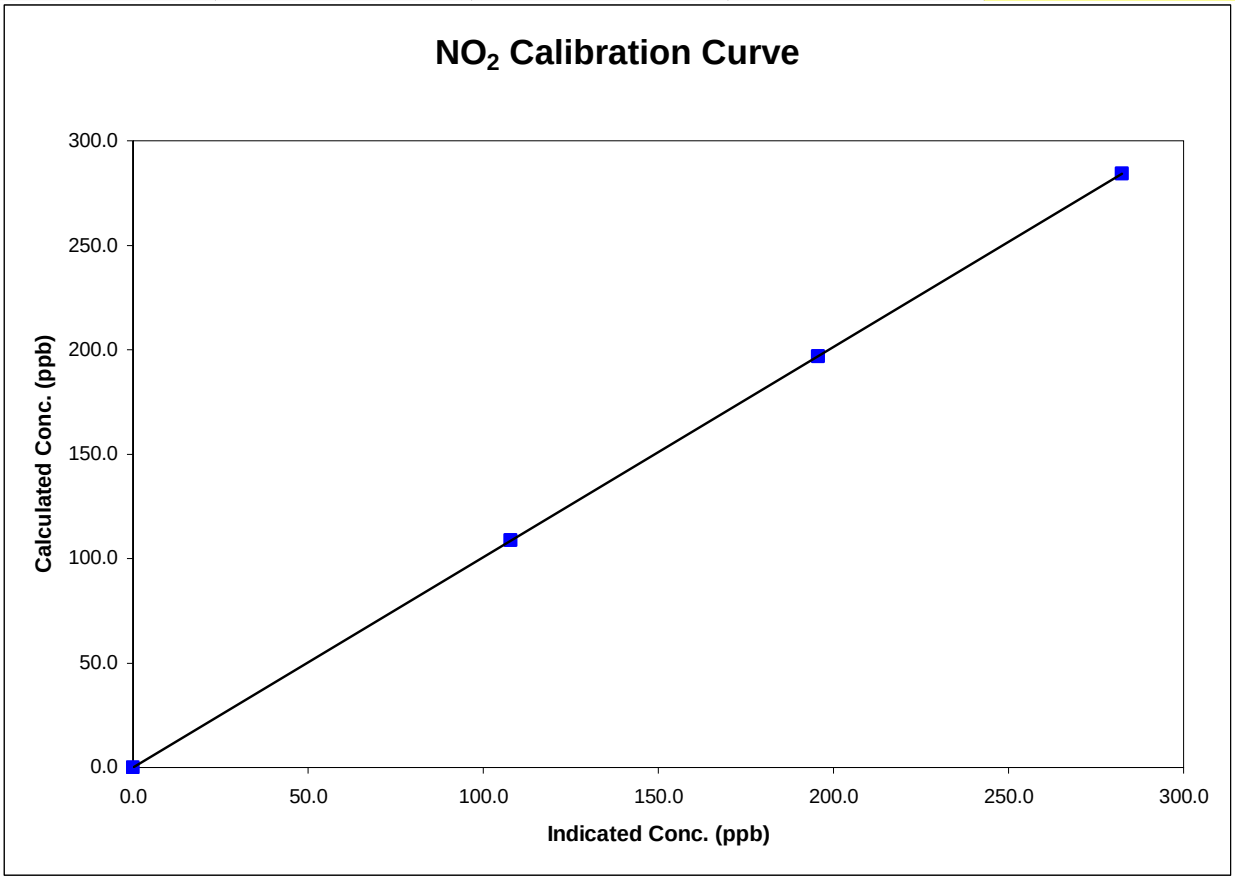
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 11, 2008	Previous Calibration	August 7, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:15	End Time (MST)	14:15
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	0.0	0.0000		
284.3	282.3	1.0070	Correlation Coefficient	0.999999
196.8	195.7	1.0057		
108.6	107.8	1.0079	Slope	1.006499
			Intercept	0.039018



Calibration Summary

Parameter	NO_x
Air Monitoring Network	PASZA

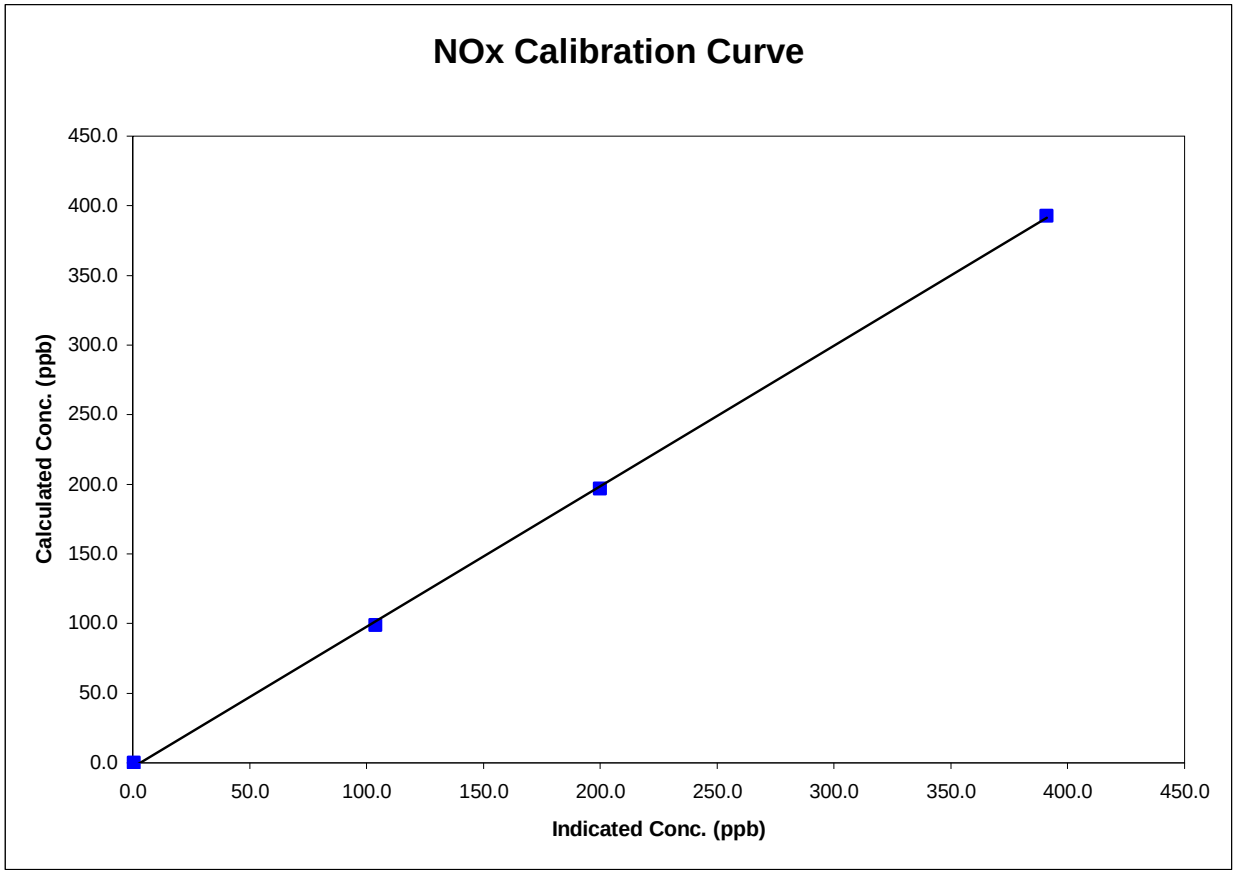
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 11, 2008	Previous Calibration	August 7, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:15	End Time (MST)	14:15
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	0.0000		
392.8	391.1	1.0044	Correlation Coefficient	0.999761
196.9	200.0	0.9845		
98.7	103.9	0.9504	Slope	1.009012
			Intercept	-3.330907



Calibration Summary

Parameter	**NO**
Air Monitoring Network	**PASZA**

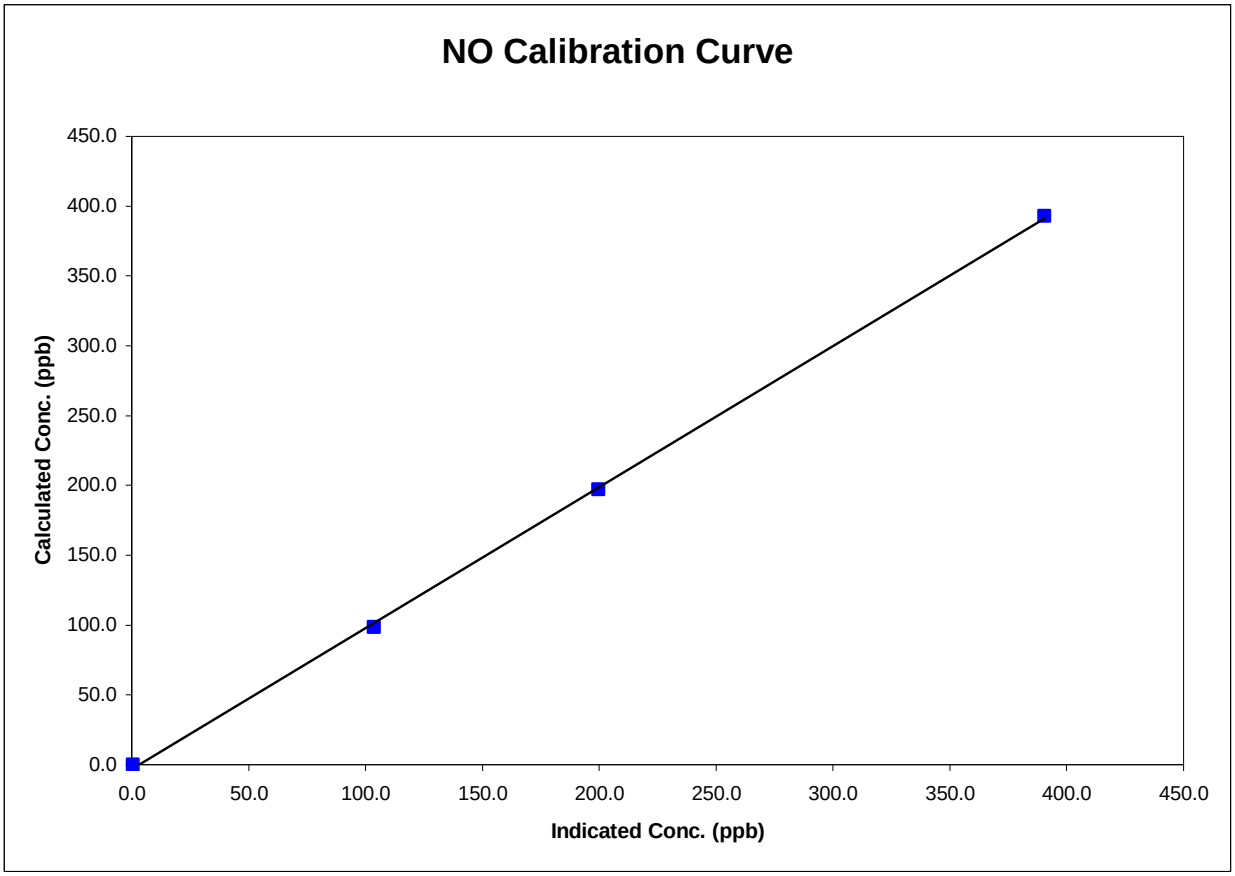
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 11, 2008	Previous Calibration	August 7, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:15	End Time (MST)	14:15
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		
392.8	390.6	1.0057	Correlation Coefficient	0.999770
196.9	199.7	0.9860		
98.7	103.5	0.9533	Slope	1.010002
			Intercept	-3.210623



Calibration Report

Parameter	O3
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 11, 2008	Previous Calibration	August 7, 2008
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	14:15	End Time (MST)	16:40
Barometric Pressure	0.916 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	0.975233	Calculated slope	0.977155
Calculated intercept	1.816523	Calculated intercept	1.066296
Analyzer make	TECO 49C	Analyzer serial #	607415761

	before		after	
Concentration range	500	ppb	500	ppb
offset	-0.6	ppb	-0.6	ppb
slope	1.023		1.023	
O3 Lamp temp	71	Deg C	71	Deg C
Intensities	100819/81123	mV	100819/81123	mV
Pressure	708.9	inches Hg	708.9	inches Hg
Flow A	683	ccm	683	ccm
Flow B	695	Deg C	695	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	4990	0.0	0.2	N/A
300	4990	284.3	290.9	0.9774
200	4990	196.8	199.8	0.9851
100	4990	108.6	108.3	1.0030
0	4990	0.0	0.2	As found zero
300	4990	284.3	290.9	As found span
			Average Correction Factor	0.9885

Calculated value of As Found Response: 285.3 ppm Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	-0.3	ppb	-0.8	ppb
Auto span	156.2	ppb	151.1	ppb

Notes:

Calibration Performed By:

Calibration Summary

Parameter	O3
Air Monitoring Network	PASZA

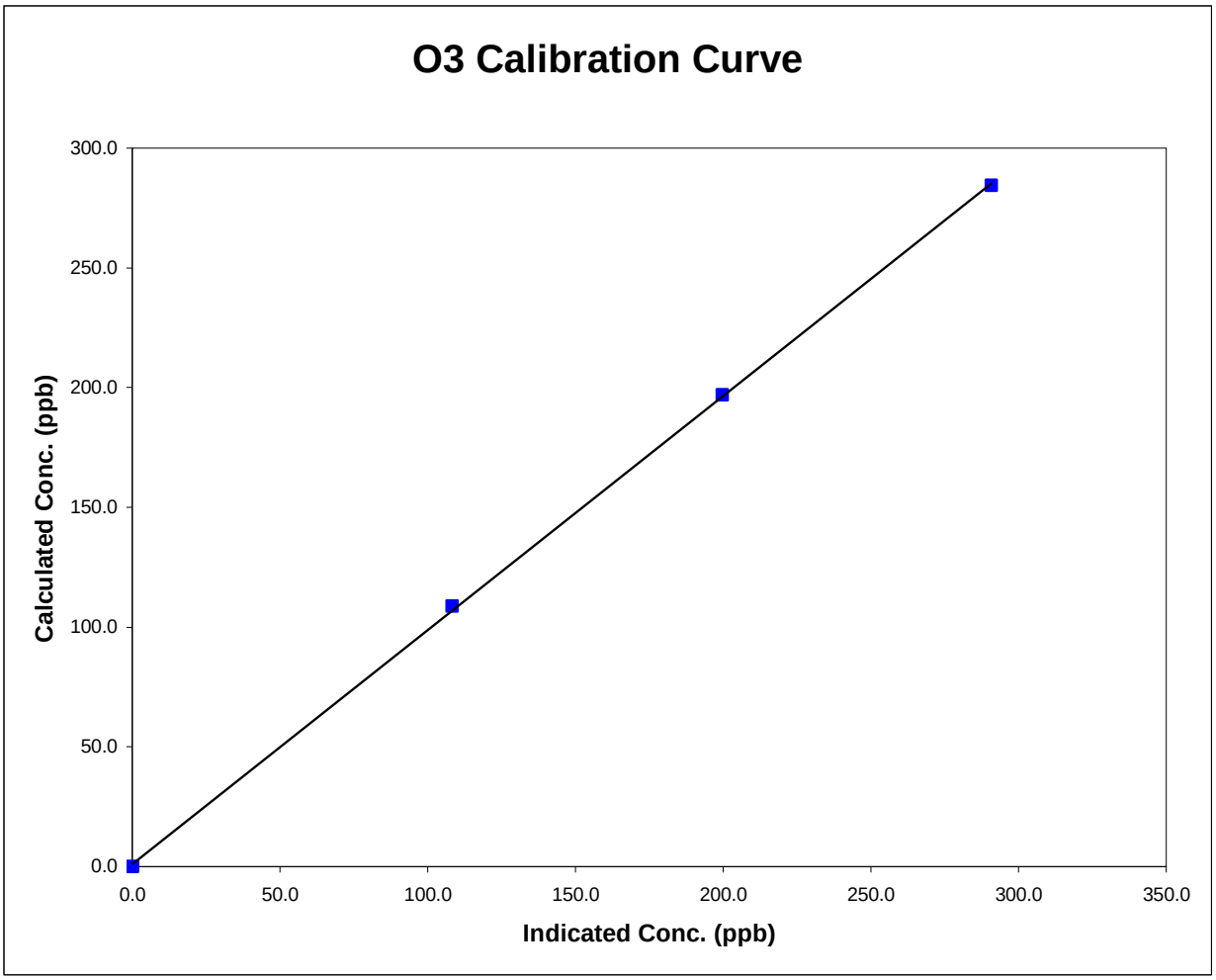
FOCUS AIR QUALITY MONITORING

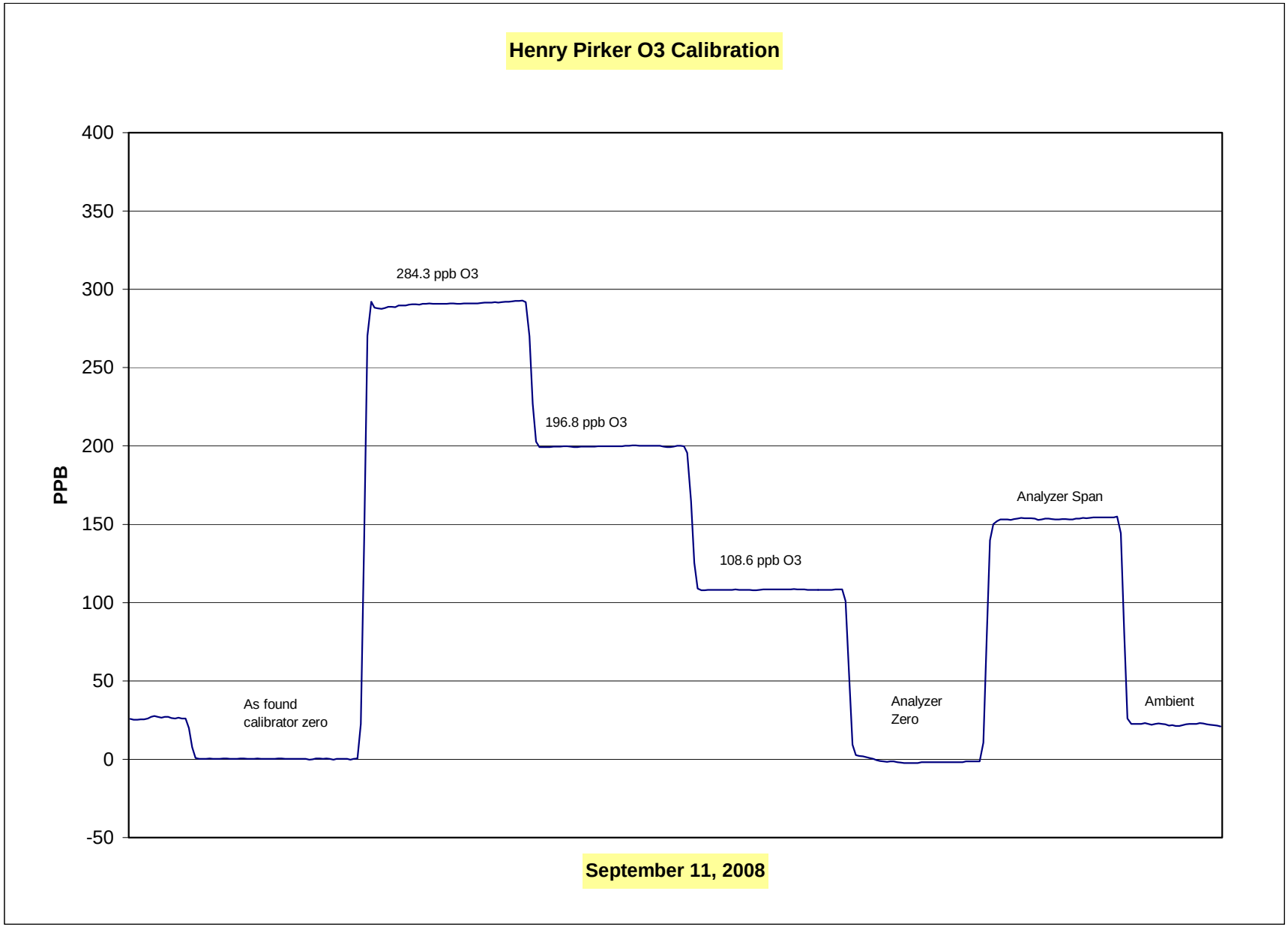
Station Information

Calibration Date	September 11, 2008	Previous Calibration	August 7, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:15	End Time (MST)	16:40
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA		
284.3	290.9	0.9774	Correlation Coefficient	0.999869
196.8	199.8	0.9851		
108.6	108.3	1.0030	Slope	0.977155
			Intercept	1.066296




Henry Pirker O3 Calibration
400
350
300
250
200
150
100
50
0
-50
PPB
284.3 ppb O3
196.8 ppb O3
108.6 ppb O3
Analyzer Span
As found
calibrator zero
Analyzer
Zero
Ambient
September 11, 2008

Calibration Report

Parameter	CO
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	August 8, 2008	Previous Calibration	August 8, 2008
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:

Start Time (MST)	12:10	End Time (MST)	14:20
Barometric Pressure	0.922 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.014189	Calculated slope	1.001383
Calculated intercept	-0.103583	Calculated intercept	-0.555621

Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	2.206		1.017	
CO zero setting	1.017		.808	
Sample pressure	694.7	mm Hg	679.1	mm Hg
Sample Flow	1.148	LPM	1.12	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)
4990	0.00	0.00	0.44	N/A
4990	39.93	23.82	24.28	0.9809
4990	19.91	11.92	12.51	0.9532
4990	9.92	5.95	6.63	0.8979
4990	0.00	0.00	0.44	As Found Zero
4990	39.86	23.77	24.28	As Found Span
			Average Correction Factor	0.9440

Calculated value of As Found Response: 24.079 ppm Percent Change of As Found: -1.3%

	before calibration		after calibration	
Auto zero	0.17	ppm	0.13	ppm
Auto span	17.62	ppm	NA	ppm

Notes: Span failure due to dry CO bottle, spare has been ordered a few weeks ago

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	CO
Air Monitoring Network	PASZA

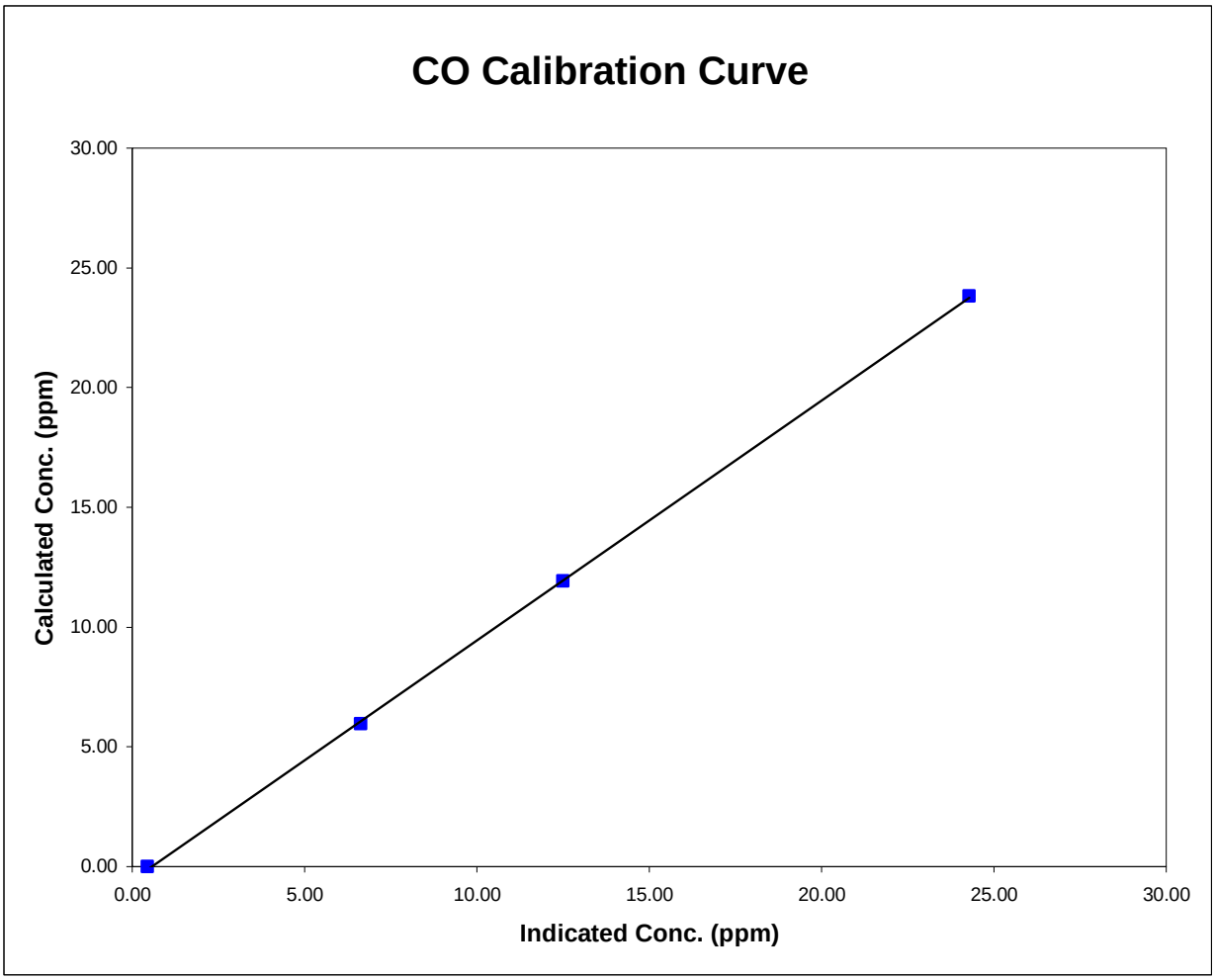
FOCUS AIR QUALITY MONITORING

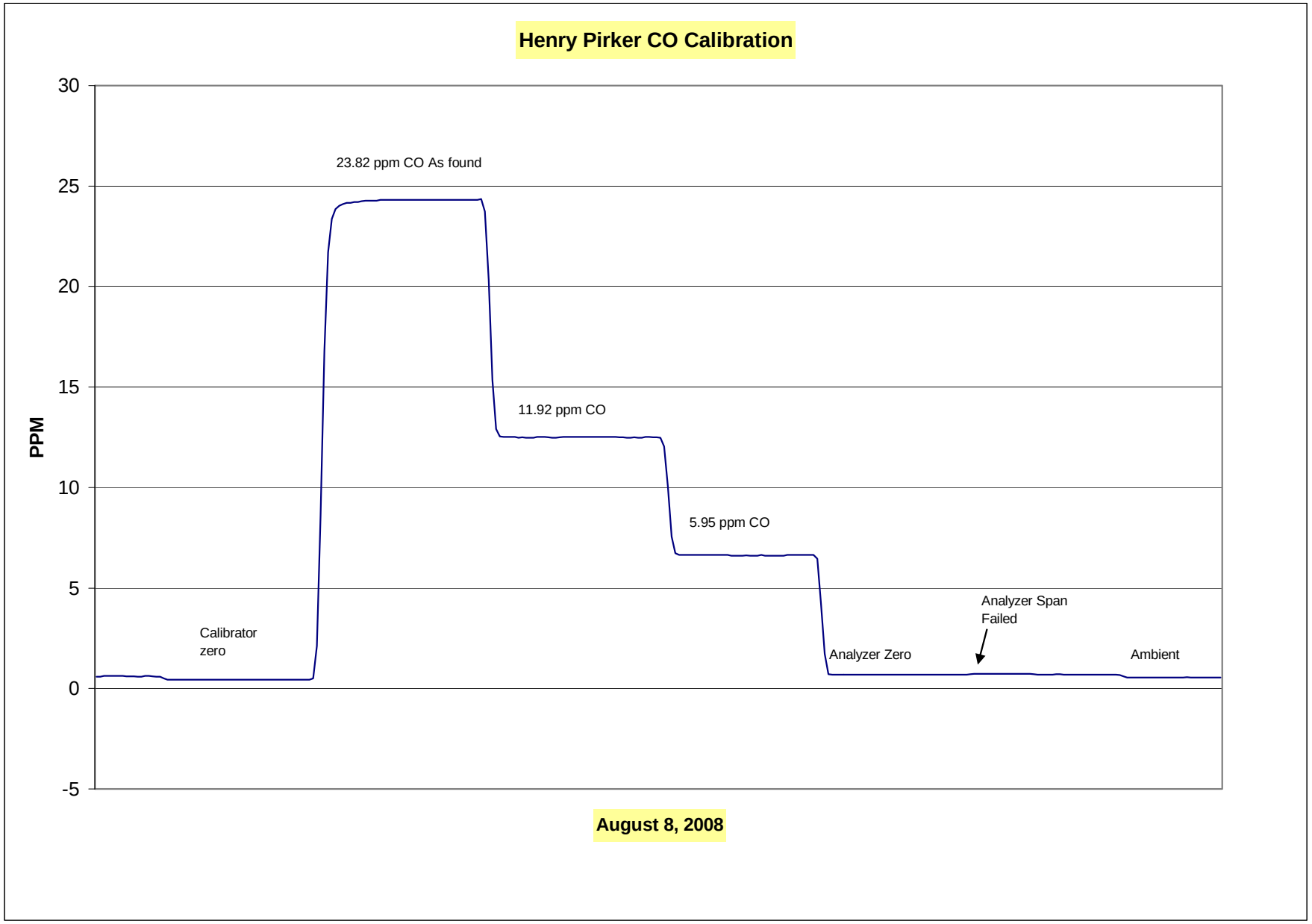
Station Information

Calibration Date	August 8, 2008	Previous Calibration	August 8, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:10	End Time (MST)	14:20
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	0.435	N/A		
23.815	24.280	0.9809	Correlation Coefficient	0.999881
11.922	12.508	0.9532		
5.952	6.629	0.8979	Slope	1.001383
			Intercept	-0.555621




Henry Pirker CO Calibration
30
25
20
15
10
5
0
-5
PPM
23.82 ppm CO As found
11.92 ppm CO
5.95 ppm CO
Calibrator zero
Analyzer Zero
Analyzer Span Failed
Ambient
August 8, 2008

Calibration Report

Parameter	THC
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 12, 2008	Previous Calibration	August 11, 2008
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:

Start Time (MST)	13:50	End Time (MST)	16:20
Barometric Pressure	0.922 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	701 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	12/10/2005
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
	Before		After
Calculated slope	1.001410	Calculated slope	0.999493
Calculated intercept	-0.046405	Calculated intercept	-0.102661

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

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.12	psi	6.11	psi
THC span counts	7217	capture	7170	capture
THC zero counts	1626	capture	1121	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	0.03	N/A
4988	69.88	21.05	21.15	0.9952
4988	29.90	9.08	9.18	0.9891
4988	9.92	3.02	3.22	0.9386
4988	0.00	0.00	0.03	As Found Zero
4988	69.82	21.03	21.15	As Found Span
			Average Correction Factor	0.9743

Calculated value of As Found Response: 21.104 ppm Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	-0.03	ppm	-0.04	ppm
Auto span	21.18	ppm	21.06	ppm

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	THC
Air Monitoring Network	PASZA

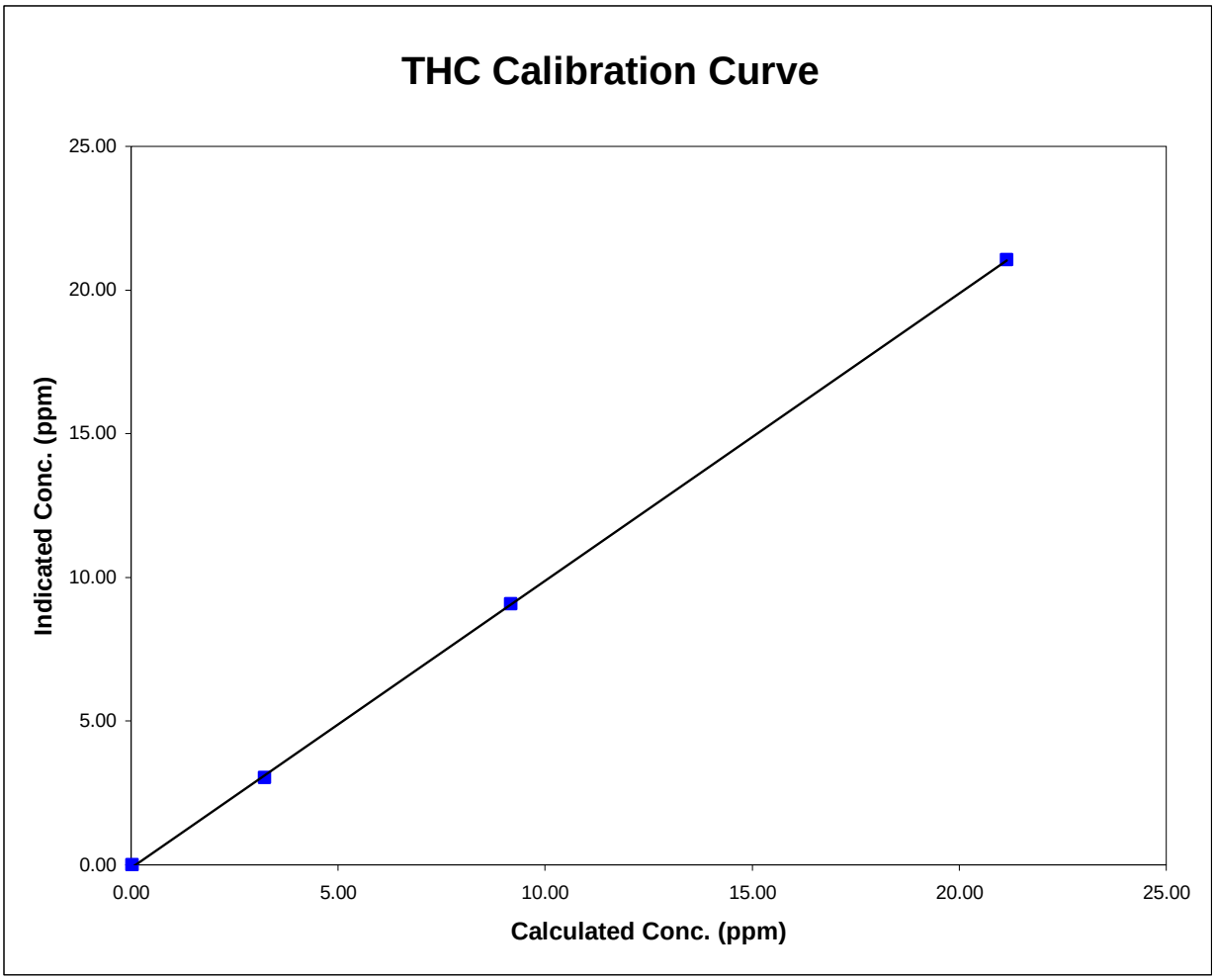
FOCUS AIR QUALITY MONITORING

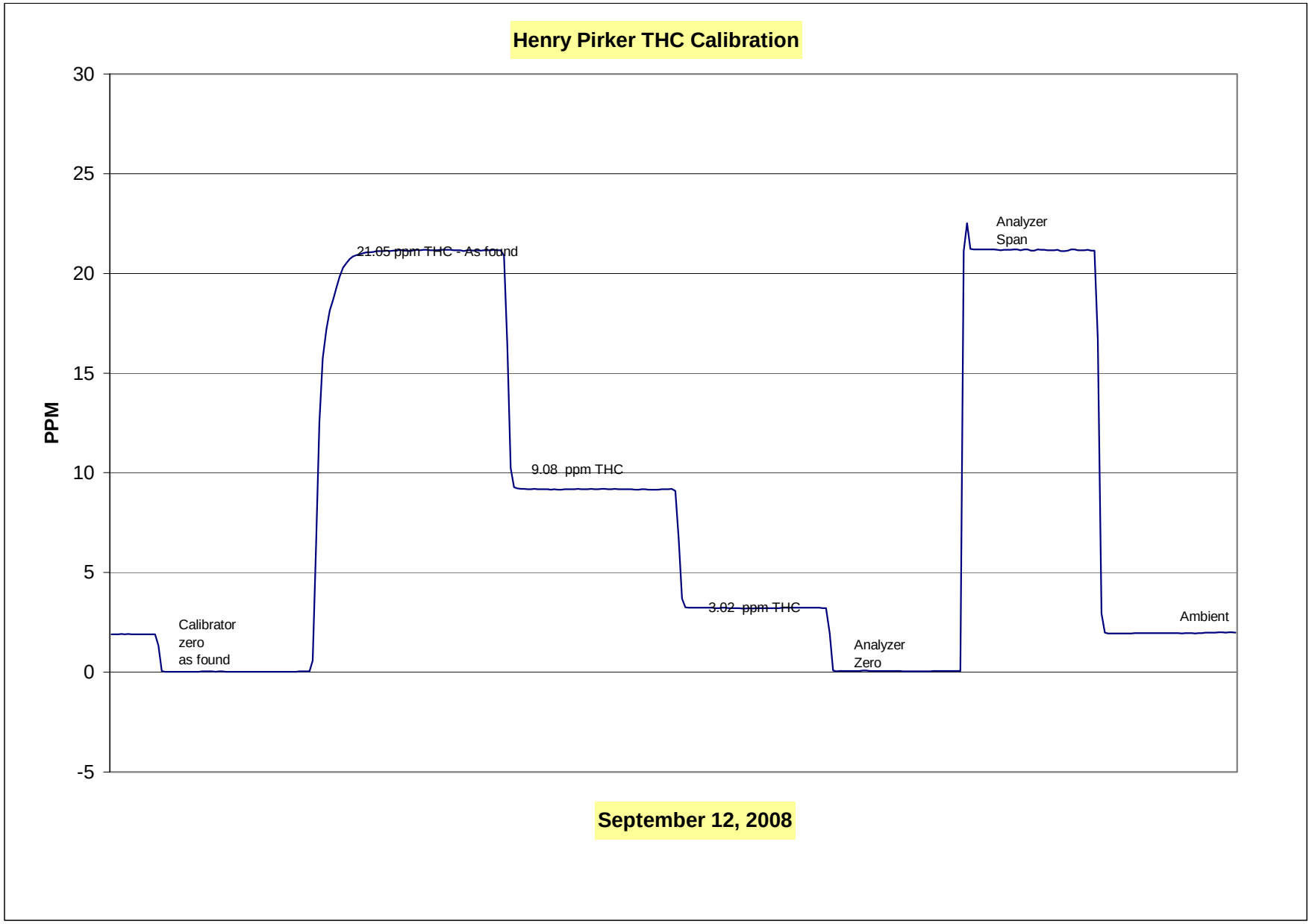
Station Information

Calibration Date	September 12, 2008	Previous Calibration	August 11, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:50	End Time (MST)	16:20
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	0.027	N/A		
21.045	21.148	0.9952	Correlation Coefficient	0.999944
9.077	9.176	0.9891		
3.023	3.221	0.9386	Slope	0.999493
			Intercept	-0.102661




Henry Pirker THC Calibration
30
25
20
15
10
5
0
-5
PPM
Calibrator
zero
as found
21.05 ppm THC - As found
9.08 ppm THC
3.02 ppm THC
Analyzer
Zero
Analyzer
Span
Ambient
September 12, 2008

Calibration Report

Parameter	TRS
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 12, 2008	Previous Calibration	August 8, 2008
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:15	End Time (MST)	12:50
Barometric Pressure	0.922 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.1 ppb	Cal Gas Expiry Date	7/31/2008
		Cal Gas Cylinder #	ALM013295
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.990564	Calculated slope	1.003406
Calculated intercept	-0.170199	Calculated intercept	-0.067503

Analyzer make	TEI 45C		Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	.850		0.871	
Background	16.4		18.0	
Pressure	655	mm Hg	653	mm Hg
Flow	464	ccm	462	ccm
Lamp Voltage	846	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)
4990	0.00	0.00	-0.21	N/A
4990	79.77	80.25	79.95	1.0036
4990	39.93	40.49	40.52	0.9992
4990	9.92	10.12	10.41	0.9722
4990	0.00	0.00	-0.21	As Found Zero
4990	79.77	80.25	79.95	As Found Span
			Average Correction Factor	0.9917

Calculated value of As Found Response: 79.2 ppb Percent Change of As Found: 1.3%

	before calibration		after calibration	
Auto zero	-0.29	ppb	-0.20	ppb
Auto span	35.13	ppb	34.54	ppb

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	TRS
Air Monitoring Network	PASZA

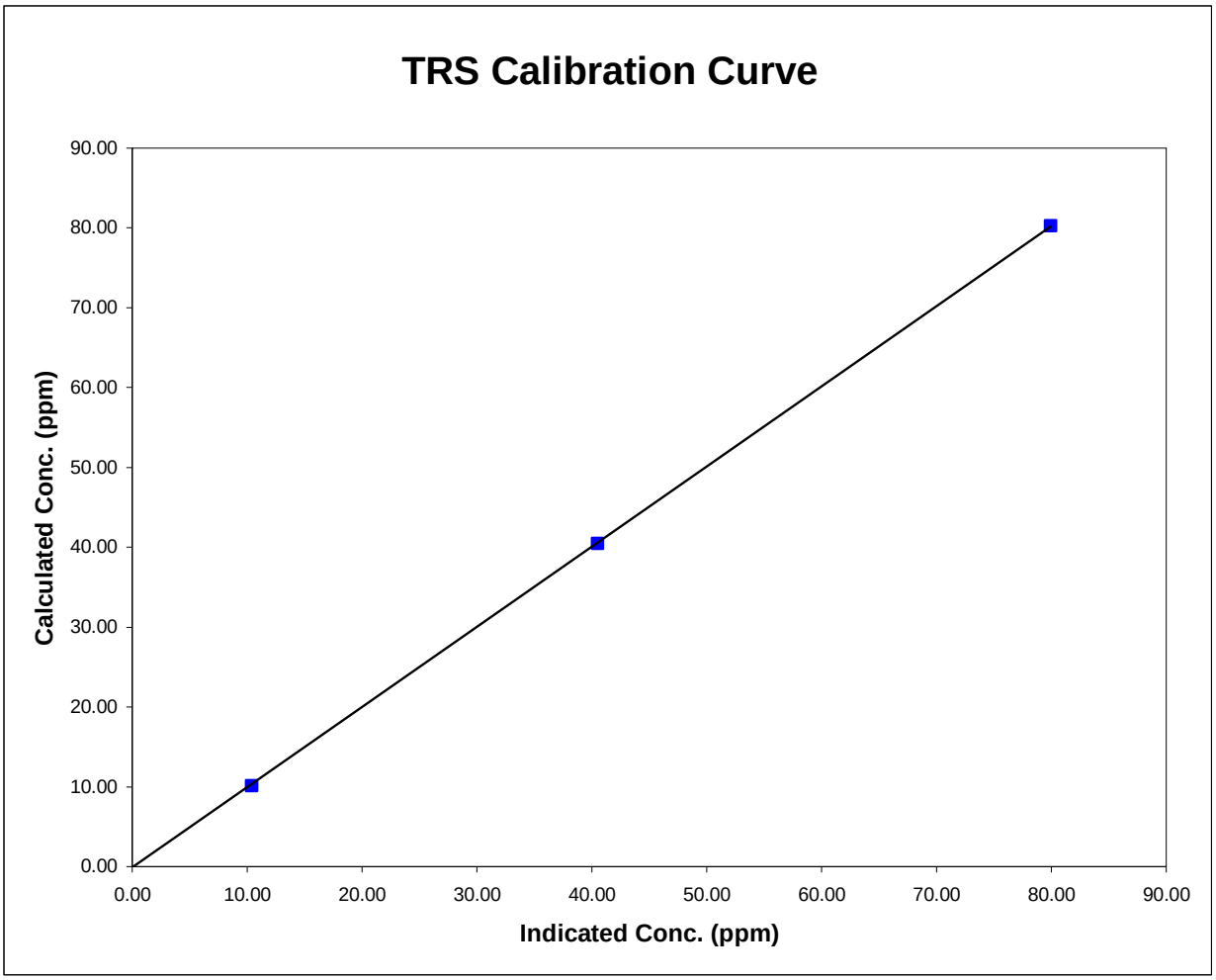
FOCUS AIR QUALITY MONITORING

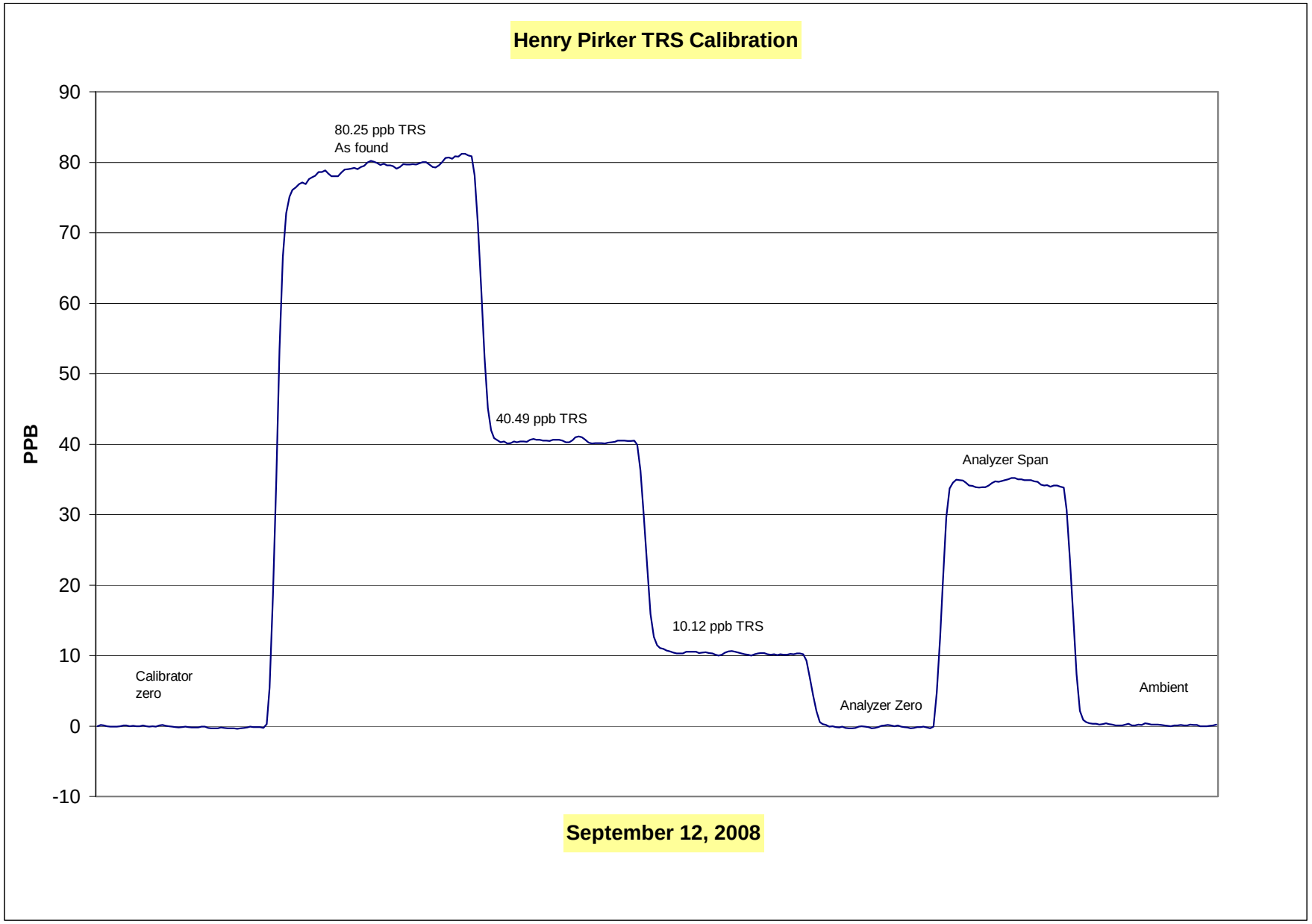
Station Information

Calibration Date	September 12, 2008	Previous Calibration	August 8, 2008
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:15	End Time (MST)	12:50
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.206	N/A		
80.246	79.954	1.0036	Correlation Coefficient	0.999959
40.486	40.519	0.9992		
10.119	10.408	0.9722	Slope	1.003406
			Intercept	-0.067503




Henry Pirker TRS Calibration
PPB
90
80
70
60
50
40
30
20
10
0
-10
80.25 ppb TRS
As found
40.49 ppb TRS
10.12 ppb TRS
Analyzer Span
Calibrator
zero
Analyzer Zero
Ambient
September 12, 2008

Calibration Report

Parameter	SO_2
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 19, 2008	Previous Calibration	August 28, 2008
Station Number	2	Station Location	Evergreen Park
Reason:	Routine / Install	Removal	Other:

Start Time (MST)	8:10	End Time (MST)	
Barometric Pressure	0.924 ATM	Station Temperature	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	0.031409	Cal Gas Cylinder #	LL16161
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	6
	Before		After
Calculated slope	1.011948	Calculated slope	1.018244
Calculated intercept	-1.515956	Calculated intercept	-1.819956

Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	9.3		9.3	
coefficient	0.945		0.945	
Lamp Voltage	827	volts	827	volts
Chamber Temp	45.3	Deg C	45.3	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	660	mm Hg	660	mm Hg
Sample Flow	441	ccm	441	ccm
Lamp Intensity	89	%	89	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.0	0.00	1.0	N/A
4988	39.82	398.37	392.7	1.0144
4990	19.80	198.80	197.1	1.0087
4990	9.91	99.70	100.7	0.9898
4990	0.0	0.00	1.0	As Found Zero
4988	39.82	398.37	392.7	As Found Span
			Average Correction Factor	1.0043

Calculated value of As Found Response: 394.902 ppm Percent Change of As Found: 0.9%

	before calibration		after calibration	
Auto zero	-0.5	ppm	-0.9	ppm
Auto span	273.0	ppm	268.9	ppm

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	SO2
Air Monitoring Network	PASZA

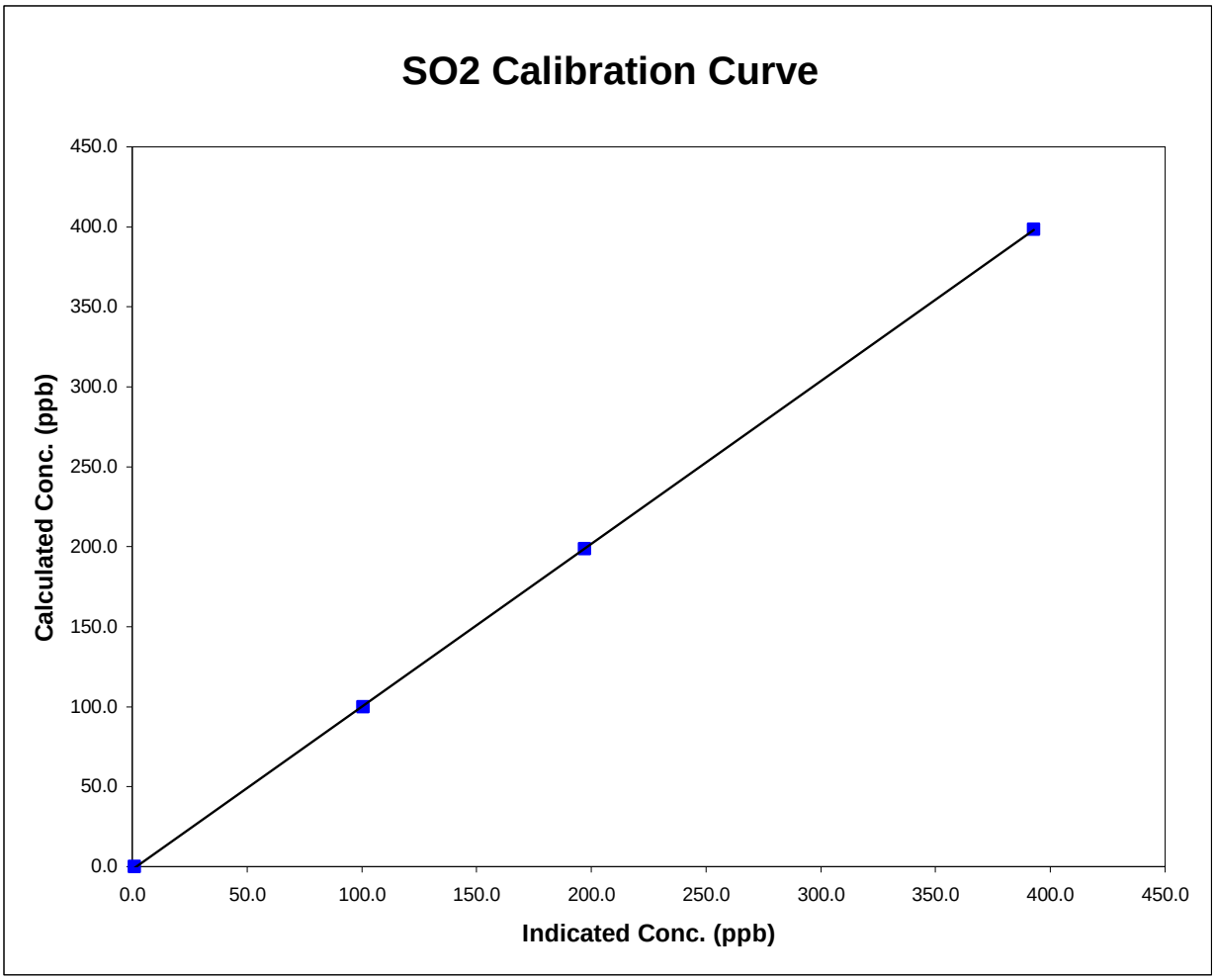
FOCUS AIR QUALITY MONITORING

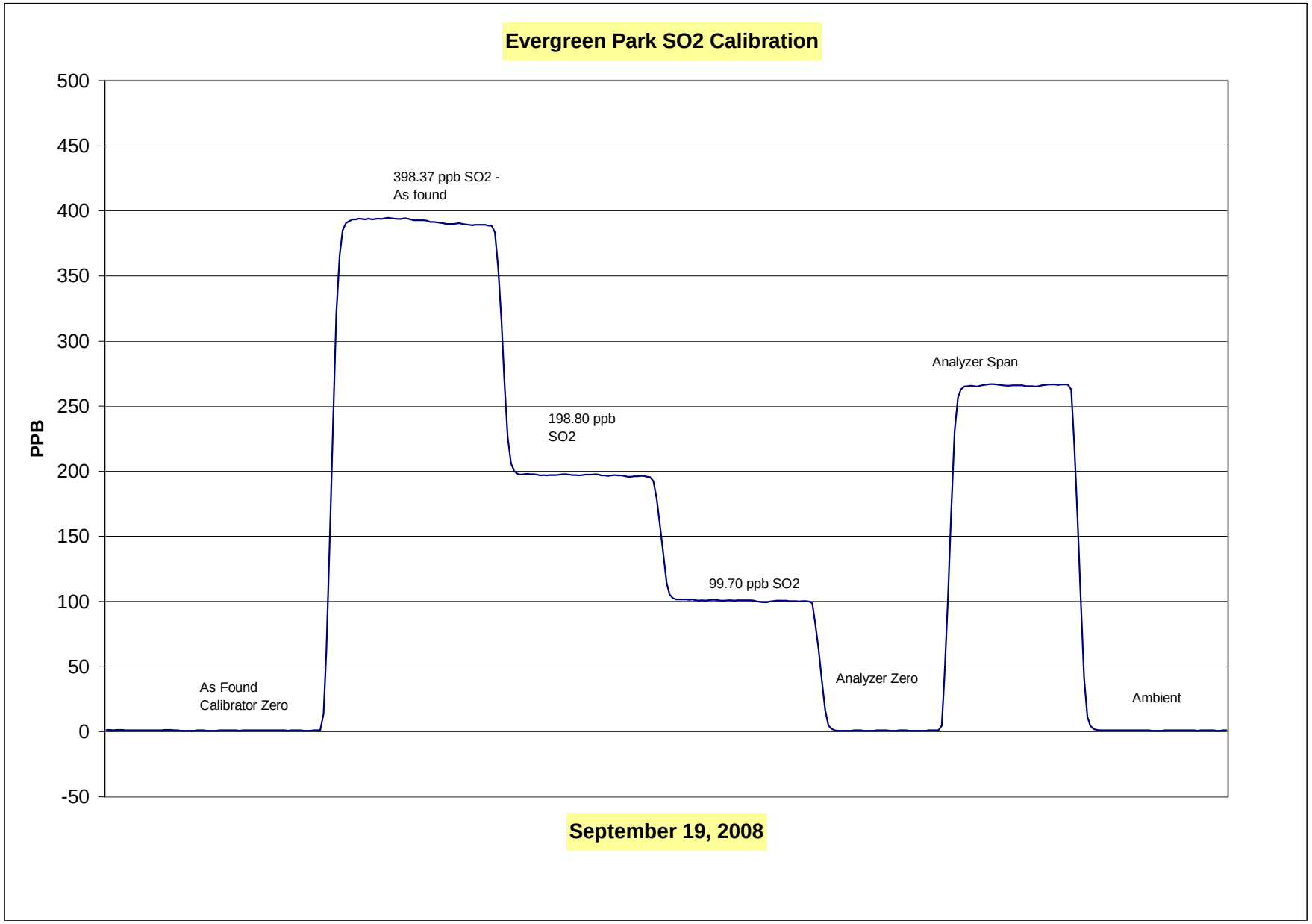
Station Information

Calibration Date	September 19, 2008	Previous Calibration	August 28, 2008
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:10	End Time (MST)	0:00
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	1.0	N/A		
398.4	392.7	1.0144	Correlation Coefficient	0.999979
198.8	197.1	1.0087		
99.7	100.7	0.9898	Slope	1.018244
			Intercept	-1.819956




Evergreen Park SO2 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
398.37 ppb SO2 -
As found
198.80 ppb
SO2
99.70 ppb SO2
Analyzer Span
As Found
Calibrator Zero
Analyzer Zero
Ambient
September 19, 2008

Calibration Report

Parameter	**TRS**
Air Monitoring Network	**PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 19, 2008	Previous Calibration	August 28, 2008
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	9:50	End Time (MST)	12:50
Barometric Pressure	0.924 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	0.031409	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	0.970104	Calculated slope	1.036399
Calculated intercept	0.843362	Calculated intercept	2.345216

Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	15.8	ppb	15.8	ppb
coefficient	0.645		0.645	
Lamp Voltage	821	volts	821	volts
Chamber Temp	44.1	Deg C	44.1	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	631.5	mm Hg	631.5	mm Hg
Sample Flow	0.463	ccm	0.463	ccm
Lamp Intensity	41,003	mv	41,003	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.00	-1.8	N/A
4988	79.82	80.33	75.6	1.0627
4991	39.91	40.46	36.1	1.1212
4990	9.91	10.11	7.4	1.3653
4990	0.00	0.00	-1.8	As Found Zero
4988	79.72	80.23	75.6	As Found Span
			Average Correction Factor	1.1830

Calculated value of As Found Response: 75.95 ppm Percent Change of As Found: 5.3%

	before calibration		after calibration	
Auto zero	-0.1	ppm	0.3	ppm
Auto span	68.1	ppm	67.5	ppm

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	TRS
Air Monitoring Network	PASZA

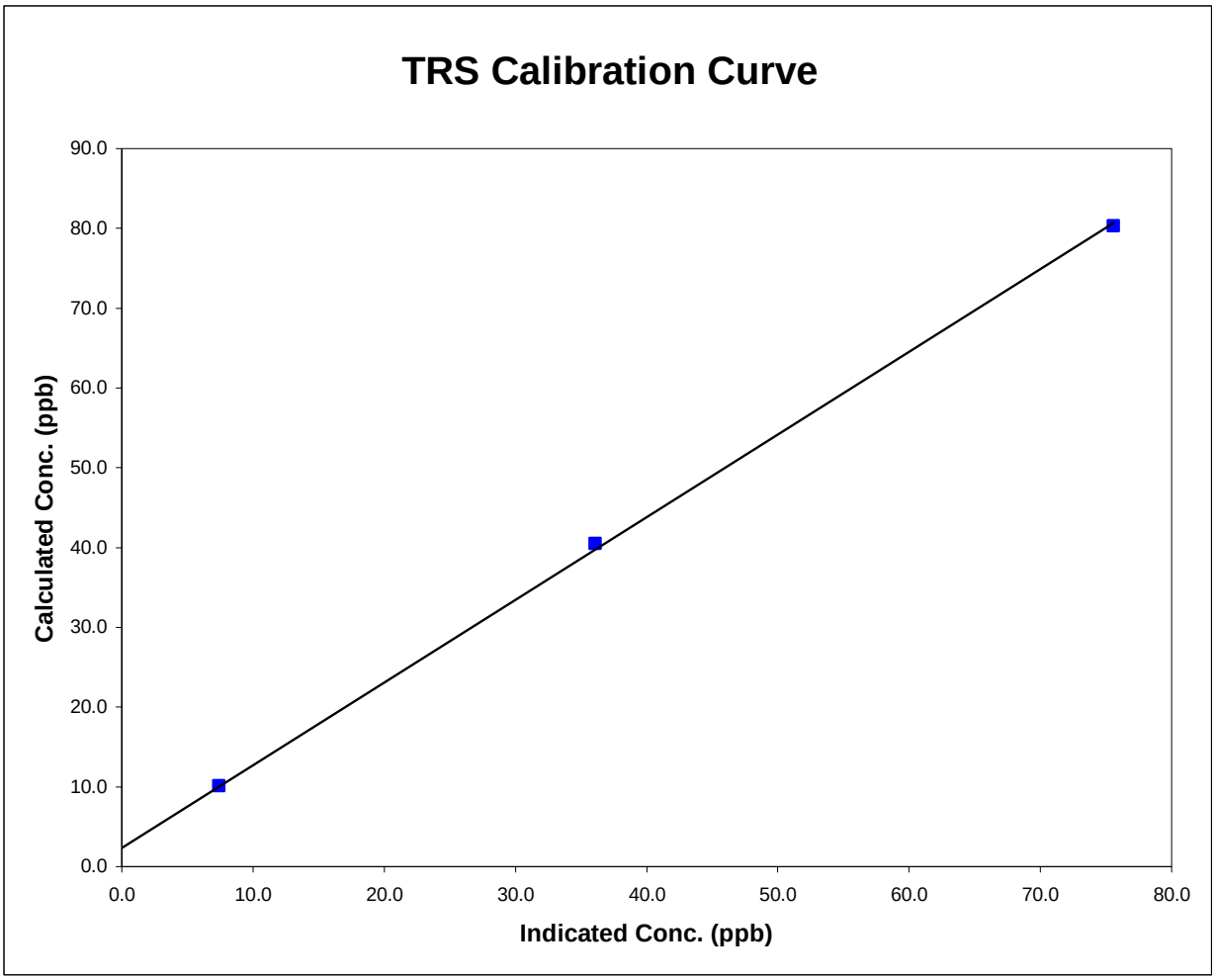
FOCUS AIR QUALITY MONITORING

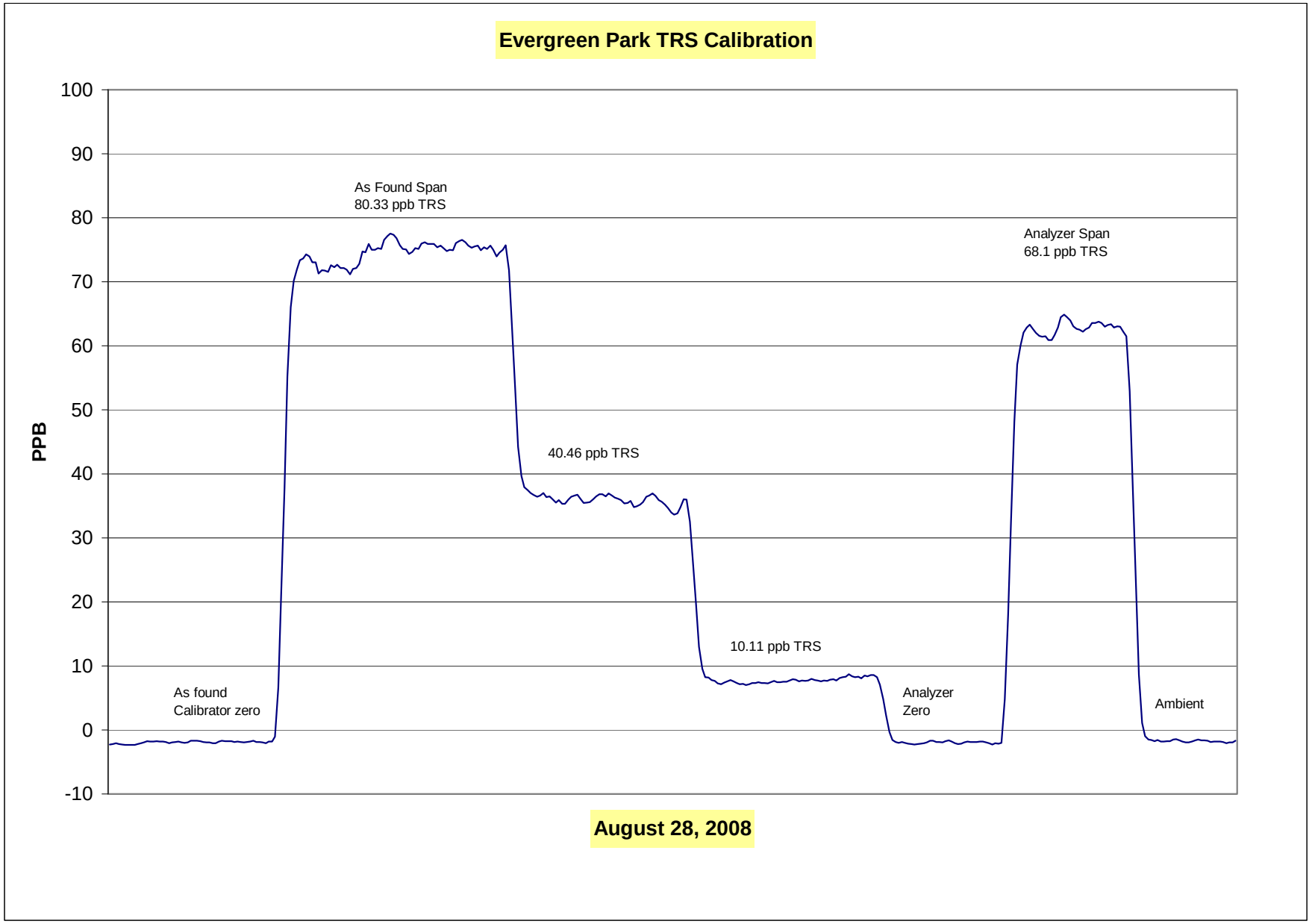
Station Information

Calibration Date	September 19, 2008	Previous Calibration	August 28, 2008
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:50	End Time (MST)	12:50
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	-1.8	N/A		
80.3	75.6	1.0627	Correlation Coefficient	0.999784
40.5	36.1	1.1212		
10.1	7.4	1.3653	Slope	1.036399
			Intercept	2.345216




Evergreen Park TRS Calibration
PPB
100
90
80
70
60
50
40
30
20
10
0
-10
As Found Span
80.33 ppb TRS
40.46 ppb TRS
10.11 ppb TRS
Analyzer Span
68.1 ppb TRS
As found
Calibrator zero
Analyzer
Zero
Ambient
August 28, 2008

Calibration Report

Parameter	SO_2
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 25, 2008	Previous Calibration	August 28, 2008
Station Number	3	Station Location	Smokey Heights

Reason: Routine | Install | Removal | Other:

Start Time (MST)	11:20	End Time (MST)	13:50
Barometric Pressure	0.924 ATM	Station Temperature	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	0.031409	Cal Gas Cylinder #	AAL 15377
DACS make	Focus AP1000	DACS serial No.	45272
DACS voltage range	0 - 10 volt	DACS channel #	6
	Before		After
Calculated slope	1.008851	Calculated slope	1.000562
Calculated intercept	-1.144474	Calculated intercept	-2.145971
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.3		6.3	
coefficient	0.712		0.712	
Lamp Voltage	921	volts	927	volts
Chamber Temp	44.9	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	44.98	Deg C
Pressure	664.8	mm Hg	667.4	mm Hg
Sample Flow	442	ccm	442	ccm
Lamp Intensity	87	%	89	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4988	0.0	0.00	0.9	N/A
4986	39.84	401.11	402.5	0.9965
4989	19.89	200.93	203.2	0.9889
4988	9.93	100.53	104.2	0.9649
4988	0.0	0.00	0.9	As Found Zero
4988	39.81	400.65	402.5	As Found Span
			Average Correction Factor	0.9834

Calculated value of As Found Response: 404.054 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	-0.4	ppm	-1.3	ppm
Auto span	317.7	ppm	309.2	ppm

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	SO2
Air Monitoring Network	PASZA

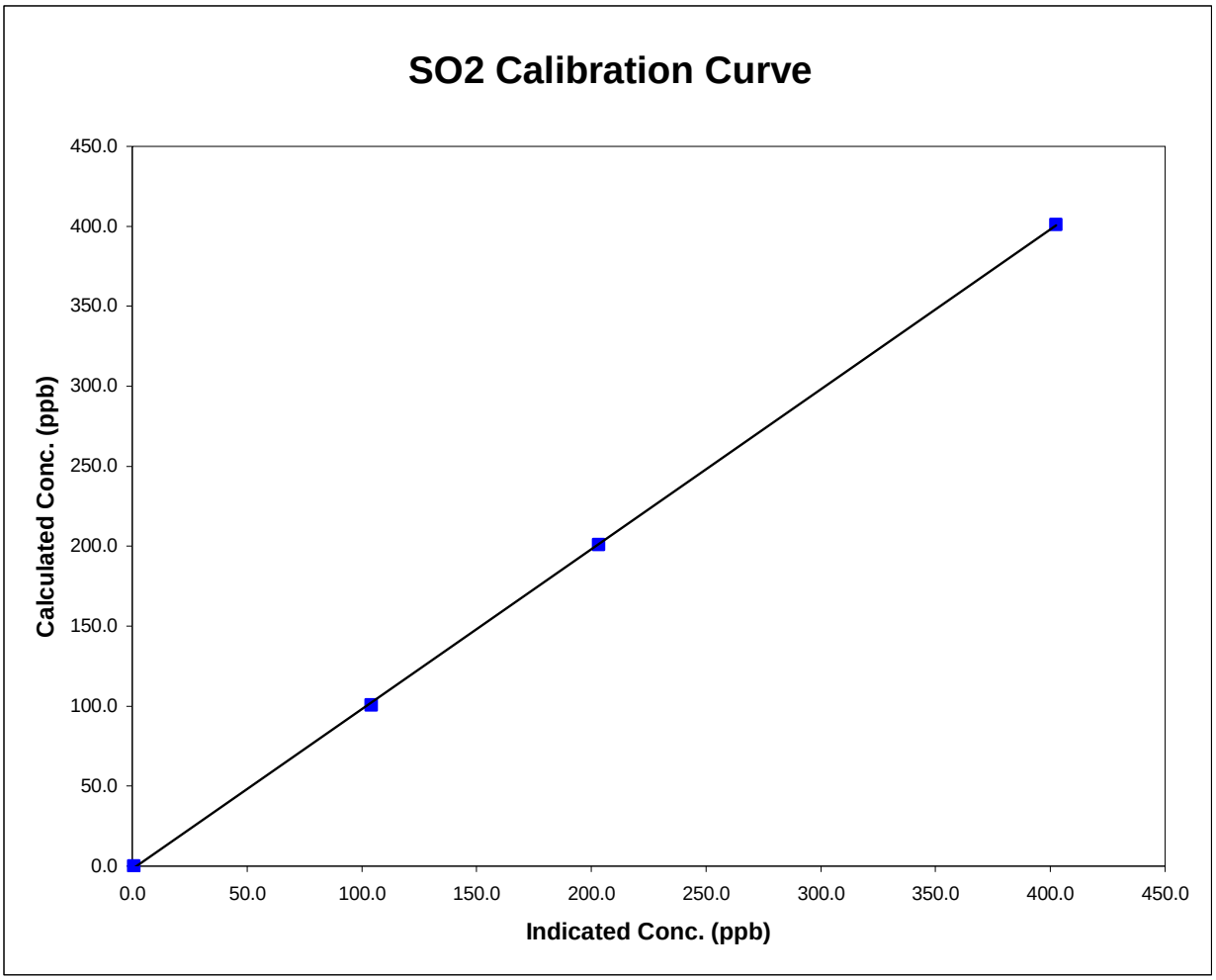
FOCUS AIR QUALITY MONITORING

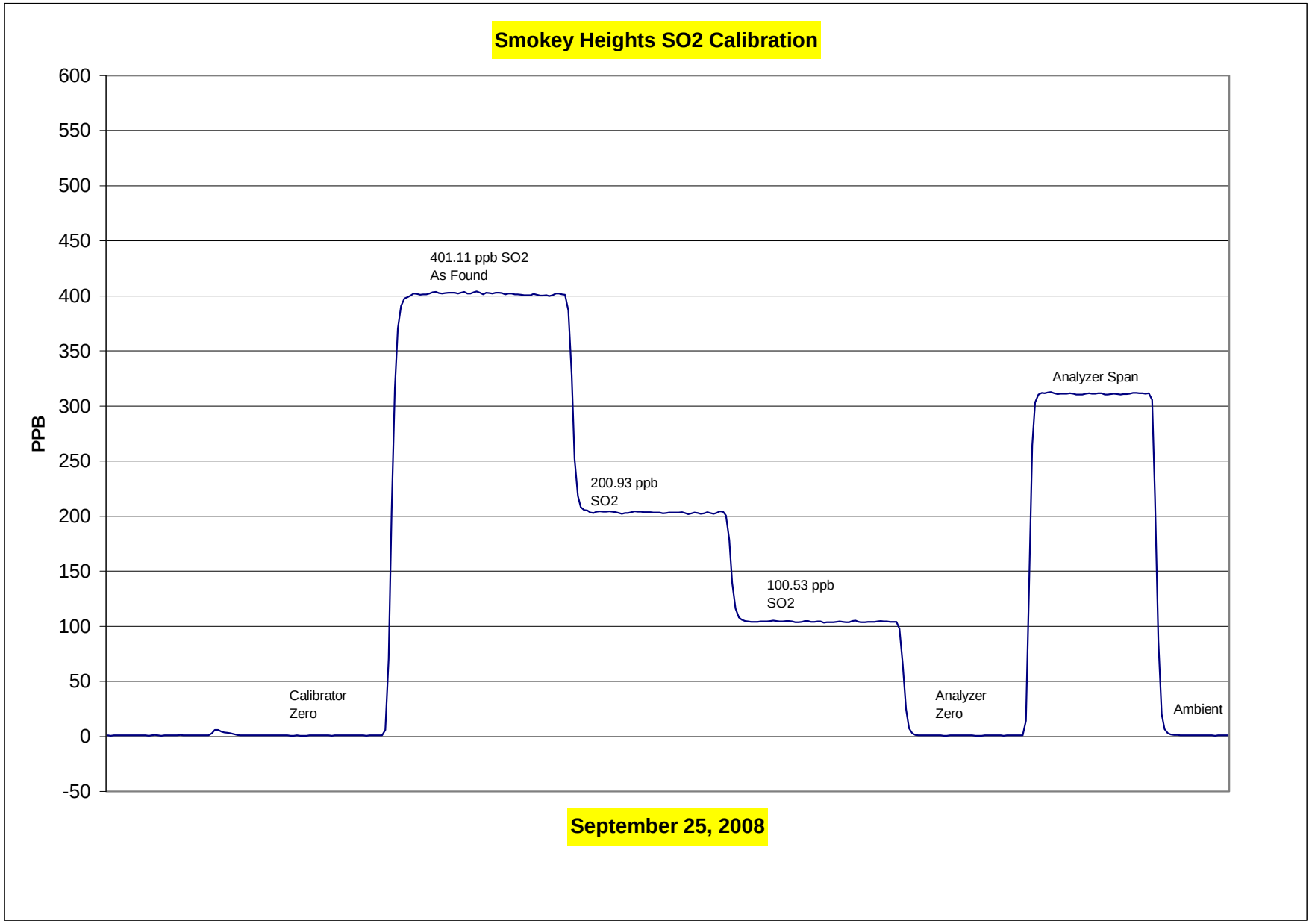
Station Information

Calibration Date	September 25, 2008	Previous Calibration	August 28, 2008
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:20	End Time (MST)	13:50
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	0.9	N/A		
401.1	402.5	0.9965	Correlation Coefficient	0.999950
200.9	203.2	0.9889		
100.5	104.2	0.9649	Slope	1.000562
			Intercept	-2.145971




Smokey Heights SO2 Calibration
PPB
600
550
500
450
400
350
300
250
200
150
100
50
0
-50
401.11 ppb SO2
As Found
200.93 ppb
SO2
100.53 ppb
SO2
Analyzer Span
Calibrator
Zero
Analyzer
Zero
Ambient
September 25, 2008

Calibration Report

Parameter	**TRS**
Air Monitoring Network	**PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 25, 2008	Previous Calibration	August 25, 2008
Station Number	3	Station Location	Smokey Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	1:05	End Time (MST)	
Barometric Pressure	0.924 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	0.031409	Cal Gas Cylinder #	ALM013295
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
Calculated slope	0.992948	Calculated slope	1.008921
Calculated intercept	0.153784	Calculated intercept	-0.129077

Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	13	ppb	12.5	ppb
coefficient	1.004		1.004	
Lamp Voltage	764	volts	763	volts
Chamber Temp	44.2	Deg C	44.1	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	472.6	mm Hg	508.1	mm Hg
Sample Flow	739	ccm	772	ccm
Lamp Intensity	32,430	mv	32,400	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.0	0.00	0.0	N/A
4990	79.71	80.19	79.6	1.0074
4990	39.72	40.28	40.0	1.0063
4990	9.89	10.09	10.3	0.9807
4990	0.0	0.00	0.0	As Found Zero
4990	79.71	80.19	79.6	As Found Span
			Average Correction Factor	0.9981

Calculated value of As Found Response: 79.19 ppm Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.3	ppm
Auto span	43.1	ppm	42.3	ppm

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	TRS
Air Monitoring Network	PASZA

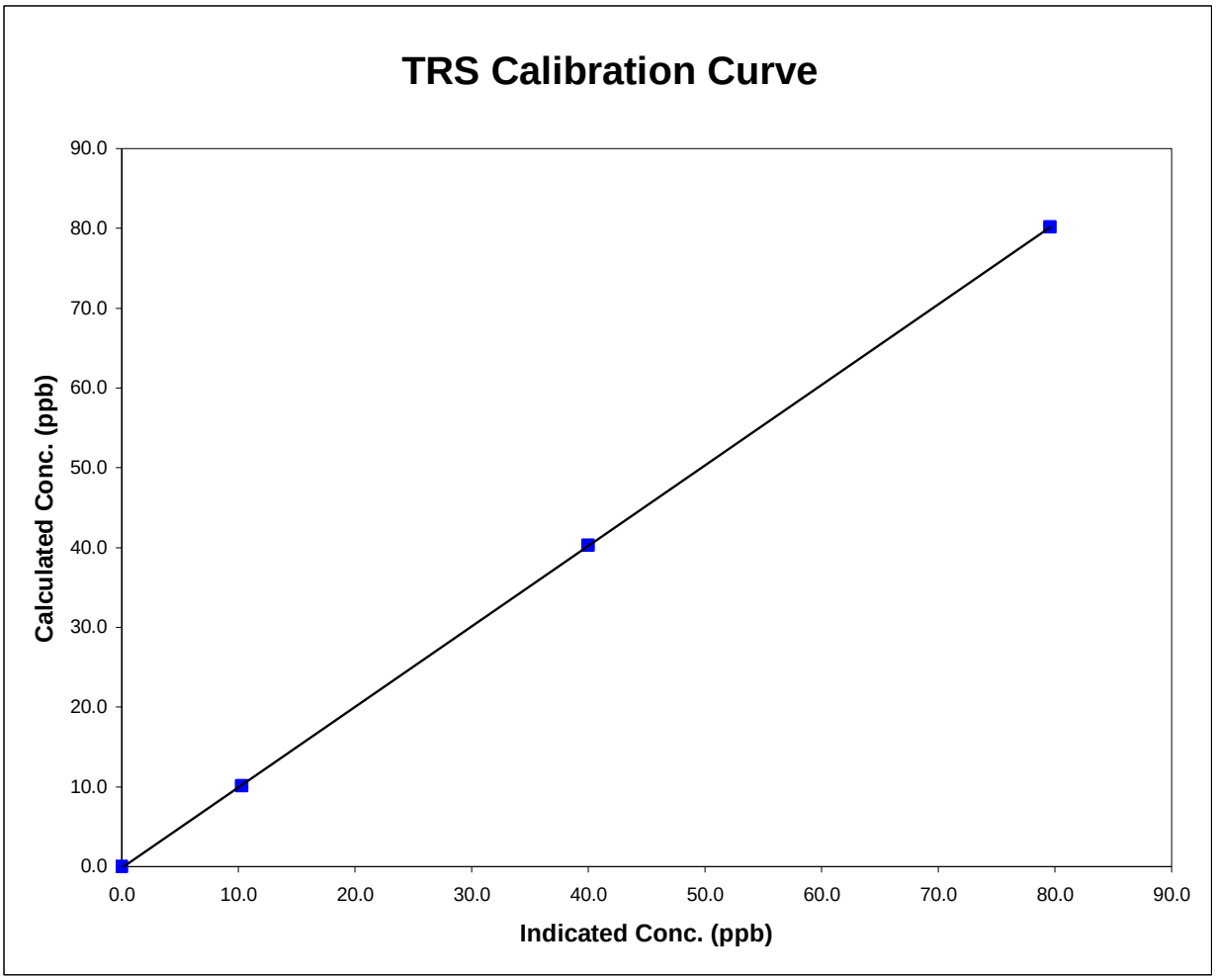
FOCUS AIR QUALITY MONITORING

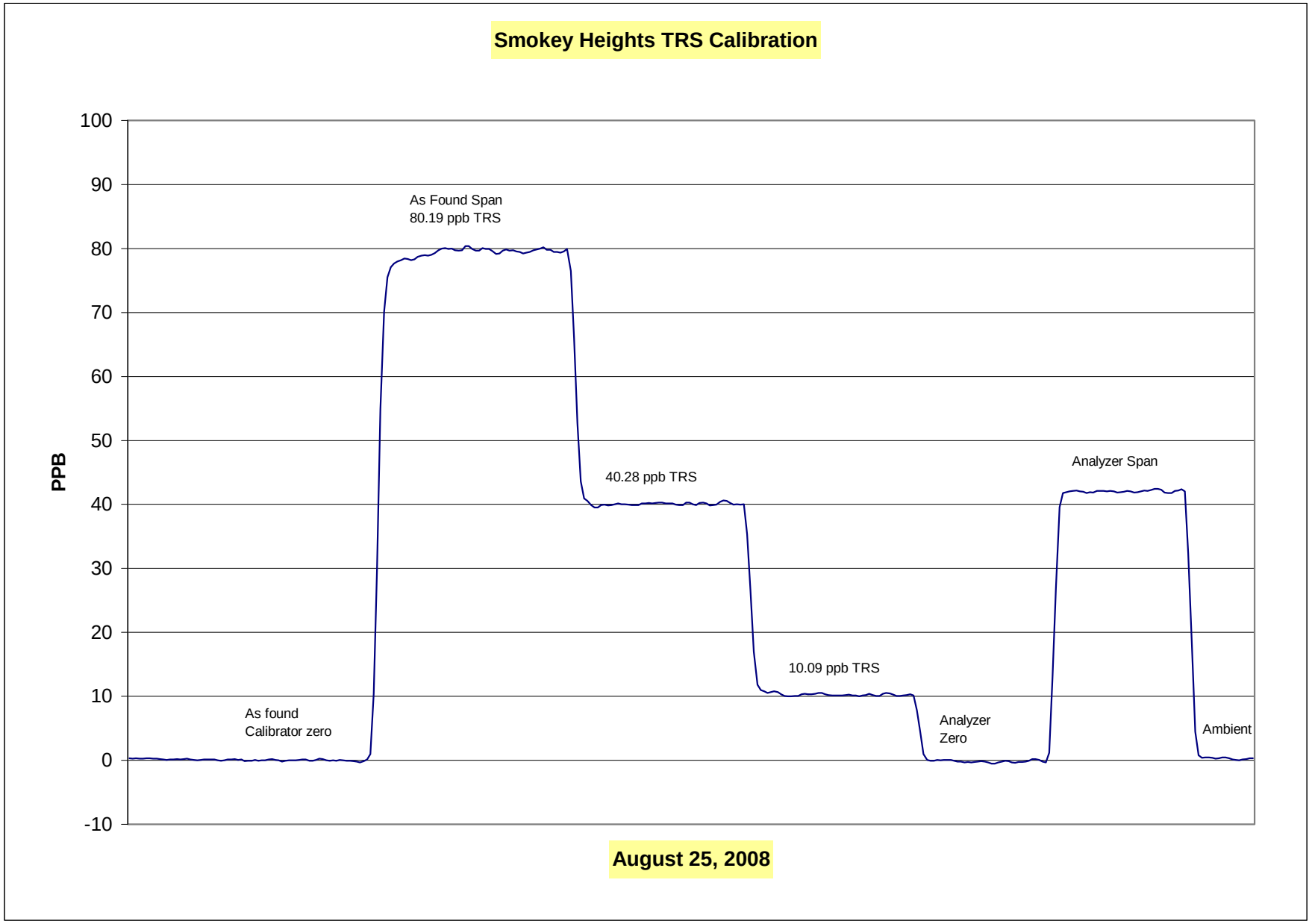
Station Information

Calibration Date	September 25, 2008	Previous Calibration	August 25, 2008
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	1:05	End Time (MST)	0:00
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
80.2	79.6	1.0074	Correlation Coefficient	0.999989
40.3	40.0	1.0063		
10.1	10.3	0.9807	Slope	1.008921
			Intercept	-0.129077




Smokey Heights TRS Calibration
PPB
100
90
80
70
60
50
40
30
20
10
0
-10
As Found Span
80.19 ppb TRS
40.28 ppb TRS
10.09 ppb TRS
Analyzer Span
As found
Calibrator zero
Analyzer
Zero
Ambient
August 25, 2008

Calibration Report

Parameter	SO2
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 17, 2008	Previous Calibration	August 12, 2008
Station Number	4	Station Location	Beaver Lodge

Reason: Routine | Install | Removal | Other:

Start Time (MST)	8:30	End Time (MST)	11:05
Barometric Pressure	0.911 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	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
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.986627	Calculated slope	0.973548
Calculated intercept	-0.286127	Calculated intercept	-0.336055

Analyzer make	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.55		2.53	
Coefficient	0.95		0.95	
PMT	-813	V	-812	V
UV Lamp Voltage	1043	V	1046	V
Chamber Temp	45	Deg C	44.8	Deg C
Pressure	660.4	mm Hg	664.9	mm Hg
Sample Flow	0.47	LPM	0.467	LPM
Lamp Intesity	85%	%	85%	%

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	-0.2	N/A
4989	39.84	79.7	81.9	0.9731
4988	19.90	40.0	41.7	0.9579
4992	9.90	19.9	21.3	0.9329
4988	0.00	0.0	-0.2	As found zero
4989	39.84	79.7	81.9	As found span
			Average Correction Factor	0.9546

Calculated value of As Found Response: 80.732 ppm Percent Change of As Found: -1.3%

	before calibration		after calibration	
Auto zero	-0.5	ppm	-0.5	ppm
Auto span	55.5	ppm	55.4	ppm

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	SO2
Air Monitoring Network	PASZA

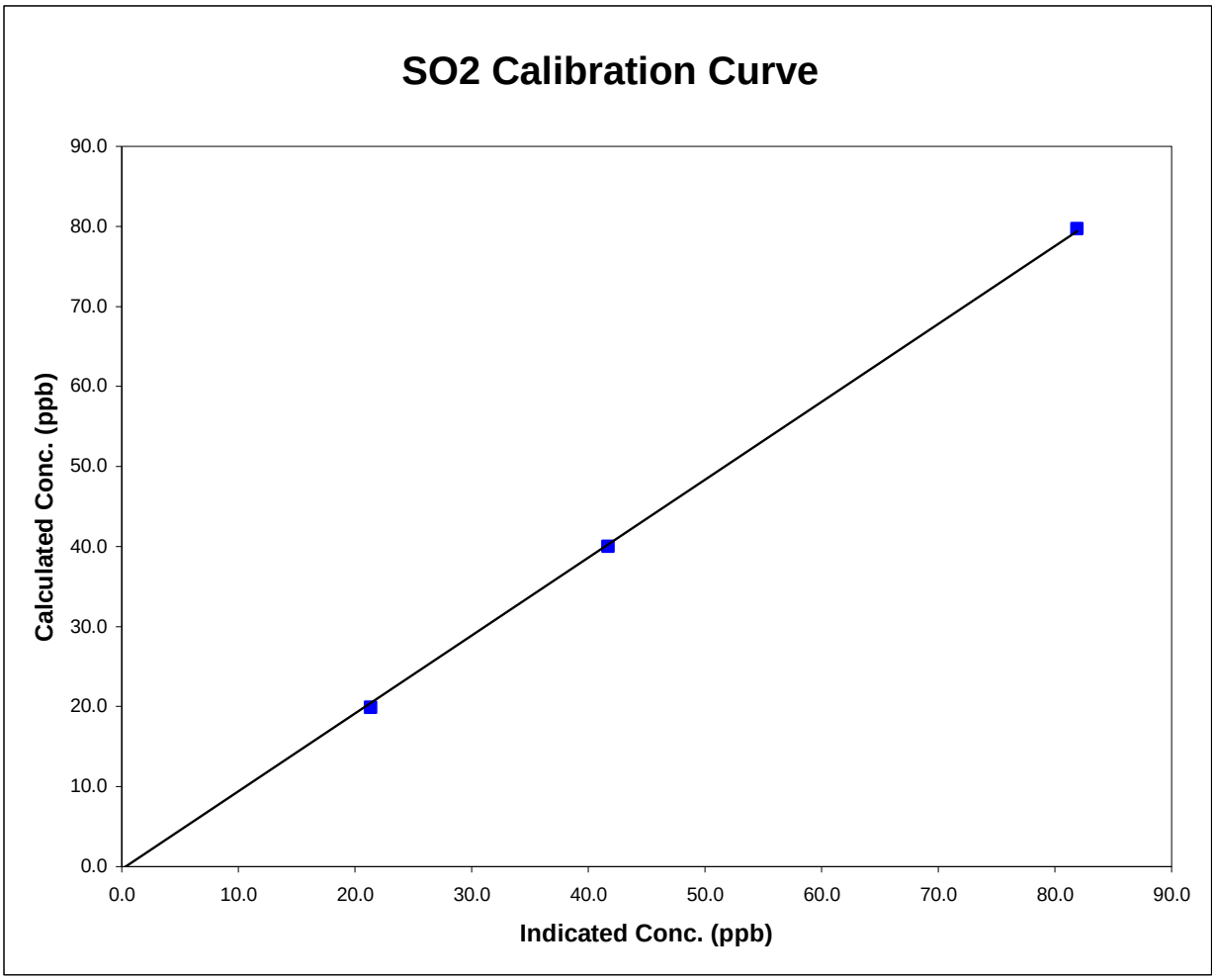
FOCUS AIR QUALITY MONITORING

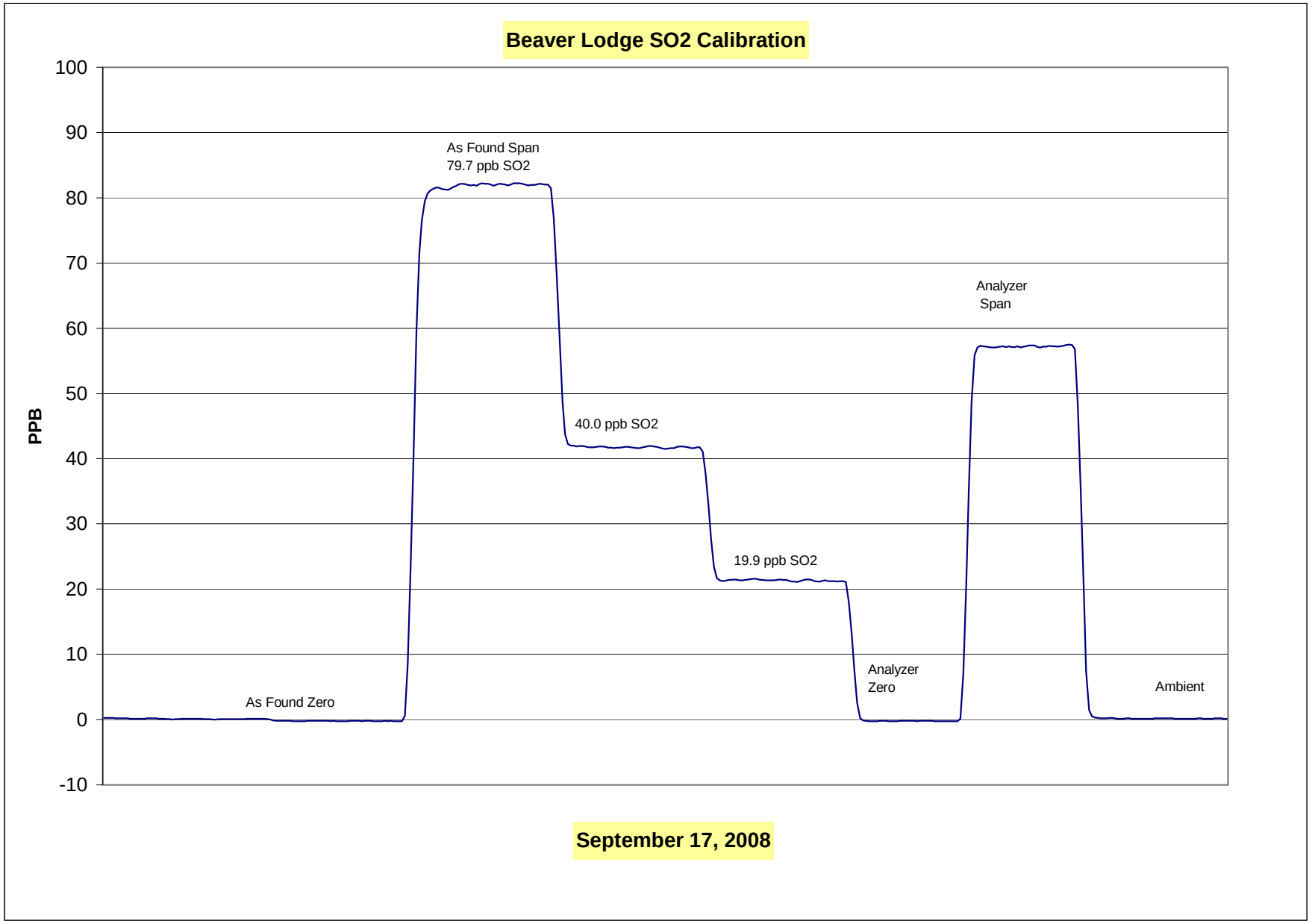
Station Information

Calibration Date	September 17, 2008	Previous Calibration	August 12, 2008
Station Number	4	Station Location	Beaver Lodge
Start Time (MST)	8:30	End Time (MST)	11:05
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	-0.2	N/A		
79.7	81.9	0.9731	Correlation Coefficient	0.999777
40.0	41.7	0.9579		
19.9	21.3	0.9329	Slope	0.973548
			Intercept	-0.336055




Beaver Lodge SO2 Calibration
PPB
100
90
80
70
60
50
40
30
20
10
0
-10
As Found Span
79.7 ppb SO2
40.0 ppb SO2
19.9 ppb SO2
Analyzer
Span
Analyzer
Zero
Ambient
As Found Zero
September 17, 2008

Calibration Report

Parameter	**NOx-NO-NO_2**
Air Monitoring Network	**PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 17, 2008	Previous Calibration	August 12, 2008
Station Number	4	Station Location	Beaver Lodge

Reason: Routine Installation Removal Other: _____

Start Time (MST)	8:30:00		End Time (MST)	13:20:00	
Barometric Pressure	0.911	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics 6100		Serial Number	3474	
NO Cal Gas Conc	50.1	ppm	Cal Gas Cert. Date	2-Jan-07	
NOx Cal Gas Conc	50.2	ppm	Cal Gas Serial #	CC 114395	

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269

Parameter		NO2	NOx	NO
Before	Data Slope	1.011232	1.007801	0.997820
	Data Offset	1.259161	-1.944636	-1.600050
After	Data Slope	1.004042	1.002195	0.997603
	Data Offset	0.865753	-2.093167	-1.946761
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model	TEI Model 42	Analyzer serial #	42-28486-231

Test Point	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
NO background	1.4	ppb	1.4	mV
NOx background	1.4	ppb	1.4	mV
NO coefficient	1.116		1.116	
NOx coefficient	0.999		0.999	
PMT Voltage	-635	V	-635	V
Chamber Temp	49.4	Deg C	49.4	Deg C
Cooler Temp	-2.1	Deg C	-1.9	Deg C
Converter Temp	324.0	Deg C	322.0	Deg C
Sample Flow	0.771	LPM	0.758	LPM
Ozonator Flow	0.083	LPM	0.083	LPM
Pressure	175.3	mm Hg	182.4	mm Hg

Notes: _____

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: September 17, 2008 Station Location: Beaver Lodge

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	-0.2	-0.3	-0.3	N/A	N/A
1	4989	39.84	397.7	396.9	0.8	397.8	398.7	-1.4	0.9997	0.9955
2	4988	19.90	199.5	199.1	0.4	202.0	202.4	-0.5	0.9877	0.9835
3	4992	9.90	99.4	99.2	0.2	103.8	103.8	-0.3	0.9572	0.9551
AFZ	4988	0.00	0.0	0.0	0.0	-0.2	-0.3	-0.3	0.0000	0.0000
AFS	4989	39.84	397.7	396.9	0.8	397.8	398.7	-1.4	0.9997	0.9955
							Average Correction Factor		0.9815	0.9780

As Found Concentrations: NO_X= 396.1 NO= 397.4 As Found Percent Change NO_X= -0.4% NO= 0.1%

GPT Calibration Data

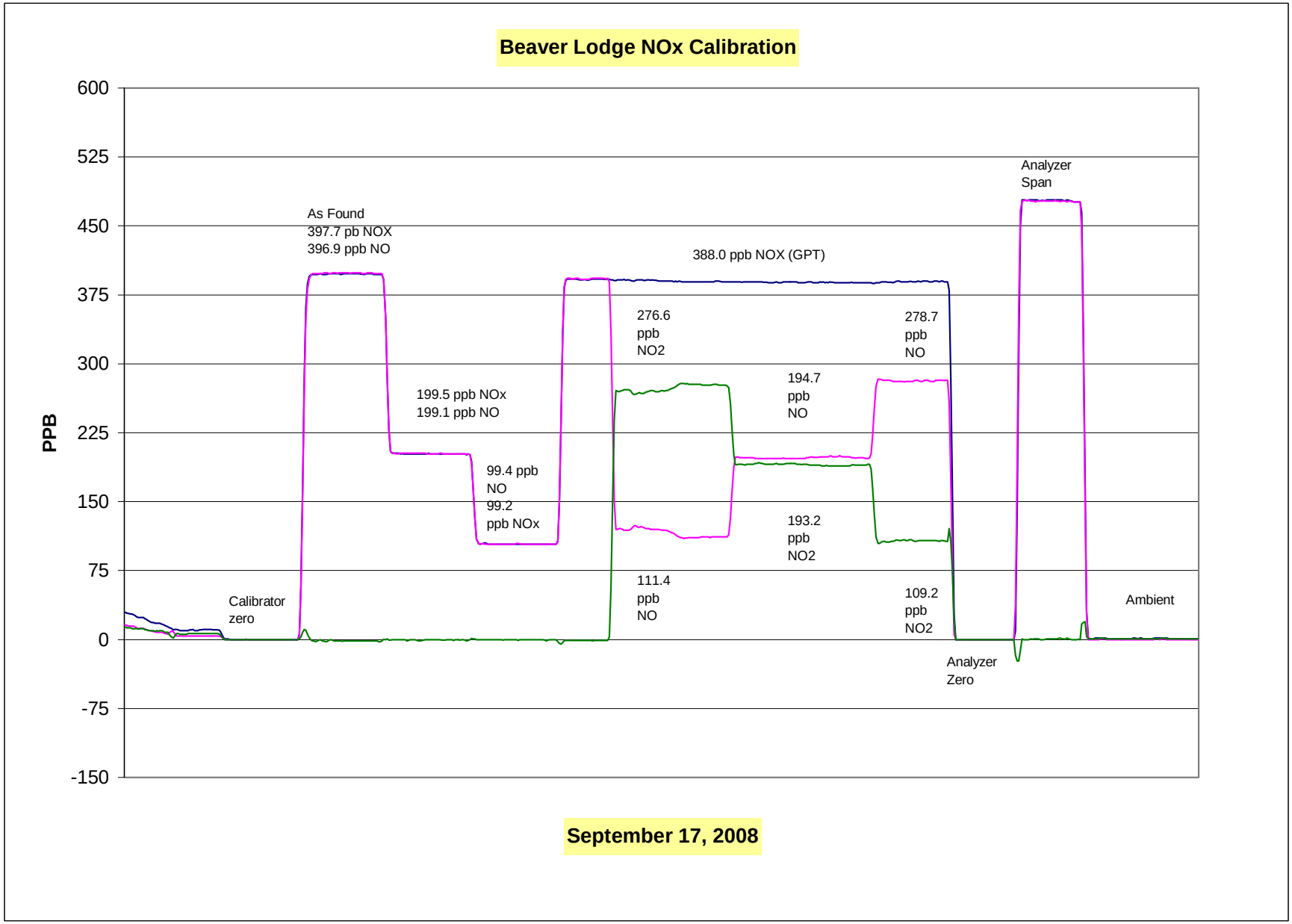
Dilution Flow 4990 ccm Source Gas Flow 39.82 ccm

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	388.0	389.7	-1.7	391.7	392.5	-1.3	0.9904	0.9926	N/A	N/A
300	388.0	111.4	276.6	389.6	113.6	275.4	0.9957	0.9805	1.0044	99.6%
200	388.0	194.7	193.2	388.6	197.1	190.8	0.9983	0.9877	1.0128	98.7%
100	388.0	278.7	109.2	389.4	281.3	107.5	0.9964	0.9907	1.0167	98.4%
					Average Correction Factor		0.9968	0.9863	1.0113	98.9%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-2.0	181.0	214.2	ppb	-2.3	0.6	-2.2	ppb
Auto span	0.4	-20.7	62.4	ppb	476.6	1.3	473.7	ppb

Calibration Performed By: Conor Whiteley


Beaver Lodge NOx Calibration
PPB
600
525
450
375
300
225
150
75
0
-75
-150
Calibrator zero
As Found
397.7 pb NOX
396.9 ppb NO
199.5 ppb NOx
199.1 ppb NO
99.4 ppb NO
99.2 ppb NOx
276.6 ppb NO2
111.4 ppb NO
388.0 ppb NOX (GPT)
194.7 ppb NO
193.2 ppb NO2
278.7 ppb NO
109.2 ppb NO2
Analyzer Zero
Analyzer Span
Ambient
September 17, 2008

Calibration Summary

Parameter	NO_2
Air Monitoring Network	PASZA

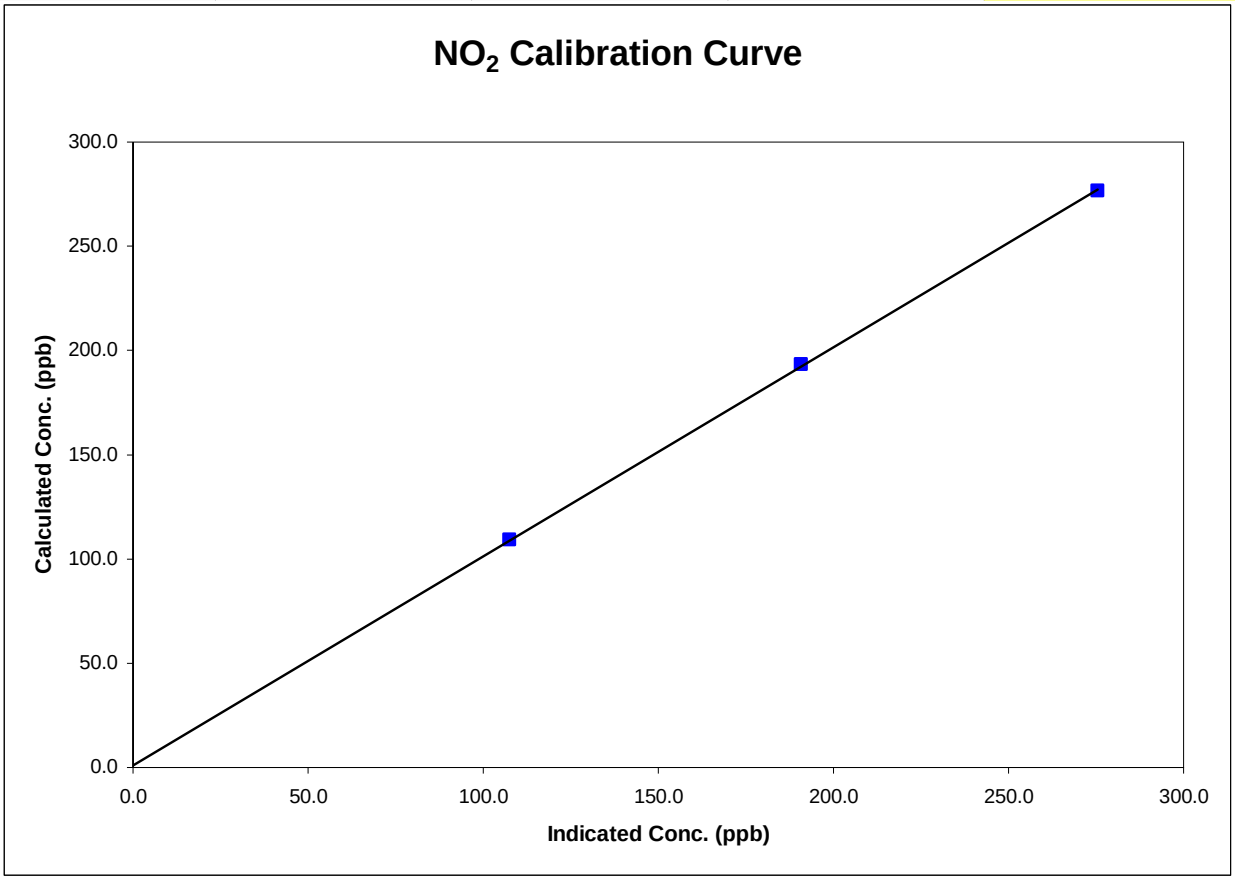
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 17, 2008	Previous Calibration	August 12, 2008
Station Number	4	Station Location	Beaver Lodge
Start Time (MST)	8:30	End Time (MST)	13:20
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	0.0000		
276.6	275.4	1.0044	Correlation Coefficient	0.999958
193.2	190.8	1.0128		
109.2	107.5	1.0167	Slope	1.004042
			Intercept	0.865753



Calibration Summary

Parameter	NO_x
Air Monitoring Network	PASZA

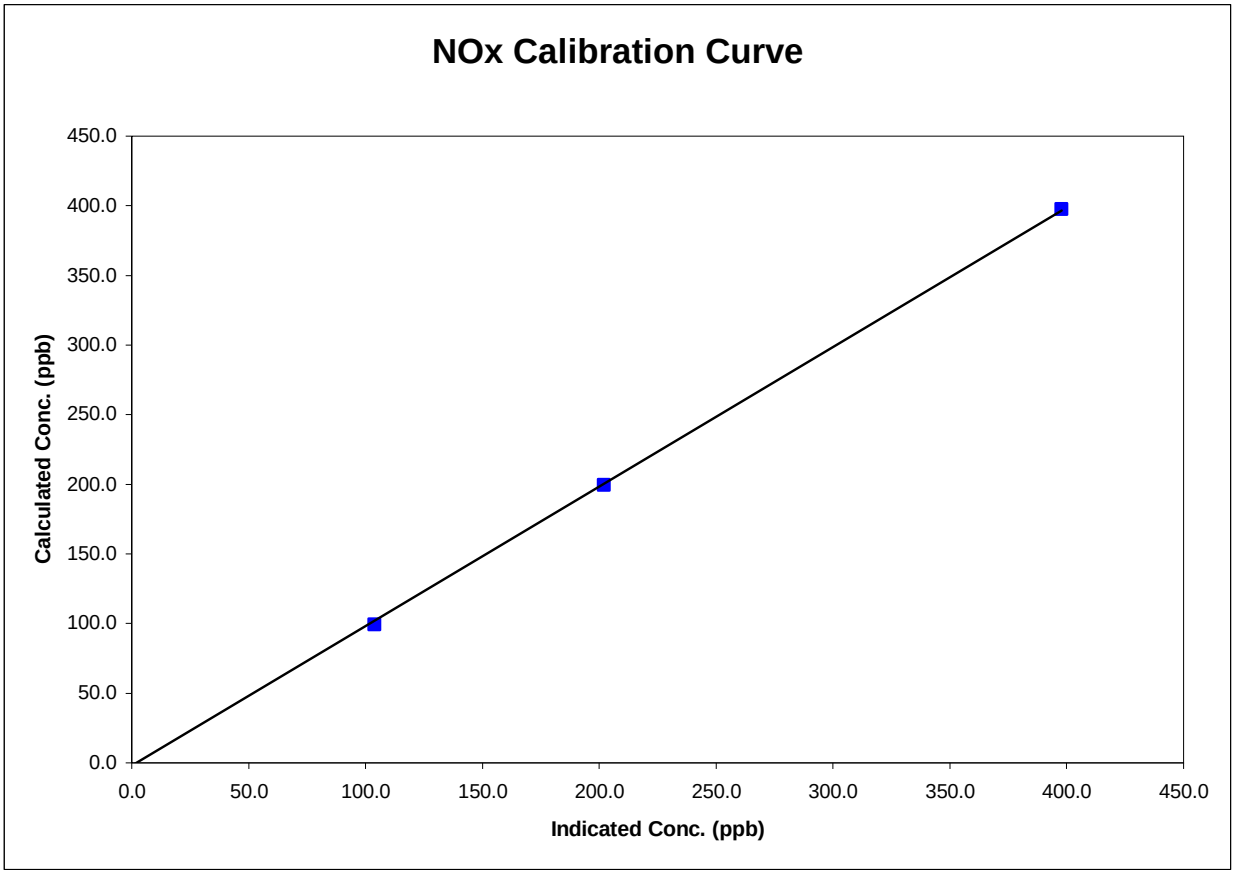
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 17, 2008	Previous Calibration	August 12, 2008
Station Number	4	Station Location	Beaver Lodge
Start Time (MST)	8:30	End Time (MST)	13:20
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	0.0000		
397.7	397.8	0.9997	Correlation Coefficient	0.999839
199.5	202.0	0.9877		
99.4	103.8	0.9572	Slope	1.002195
			Intercept	-2.093167



Calibration Summary

Parameter	**NO**
Air Monitoring Network	**PASZA**

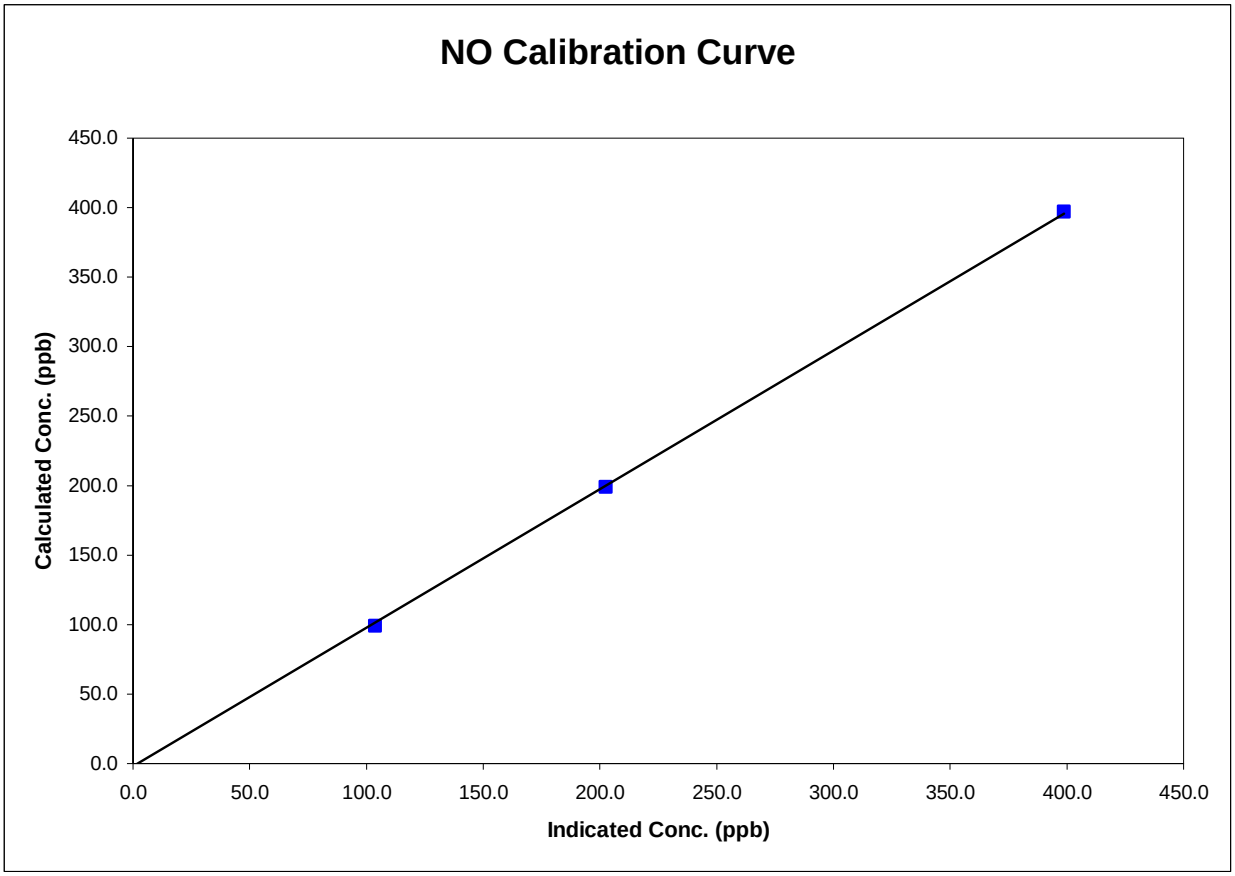
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 17, 2008	Previous Calibration	August 12, 2008
Station Number	4	Station Location	Beaver Lodge
Start Time (MST)	8:30	End Time (MST)	13:20
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A		
396.9	398.7	0.9955	Correlation Coefficient	0.999846
199.1	202.4	0.9835		
99.2	103.8	0.9551	Slope	0.997603
			Intercept	-1.946761



Calibration Report

Parameter	O3
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 17, 2008	Previous Calibration	August 18, 2008
Station Number	4	Station Location	Beaver Lodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:30	End Time (MST)	15:30
Barometric Pressure	0.909 atm	Station Temperature	20.0 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	0.990669	Calculated slope	1.002787
Calculated intercept	3.507958	Calculated intercept	1.068484
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.20	ppb	-0.20	ppb
slope	0.831		0.956	
Lamp temp	56.4	mV	56.4	mV
Lamp Intensity A/B	75724/73770	mV	75465/73989	mV
Pressure	642.2	mm Hg	647	mm Hg
Flow A	723	ccm	724	ccm
Flow B	675	ccm	675	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	-0.3	N/A
4990	0.00	276.6	275.5	1.0040
4990	0.00	193.2	191.1	1.0110
4990	0.00	109.2	106.9	1.0222
4990	0.00	0.0	-0.3	As found zero
4990	0.00	276.6	233.9	As found span
			Average Correction Factor	1.0124

Calculated value of As Found Response: 235.5 ppm Percent Change of As Found: -14.8%

	before calibration		after calibration	
Auto zero	3.3	ppb	0.8	ppb
Auto span	90.9	ppb	103.7	ppb

Notes: O3 Adjustment Made

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	O3
Air Monitoring Network	PASZA

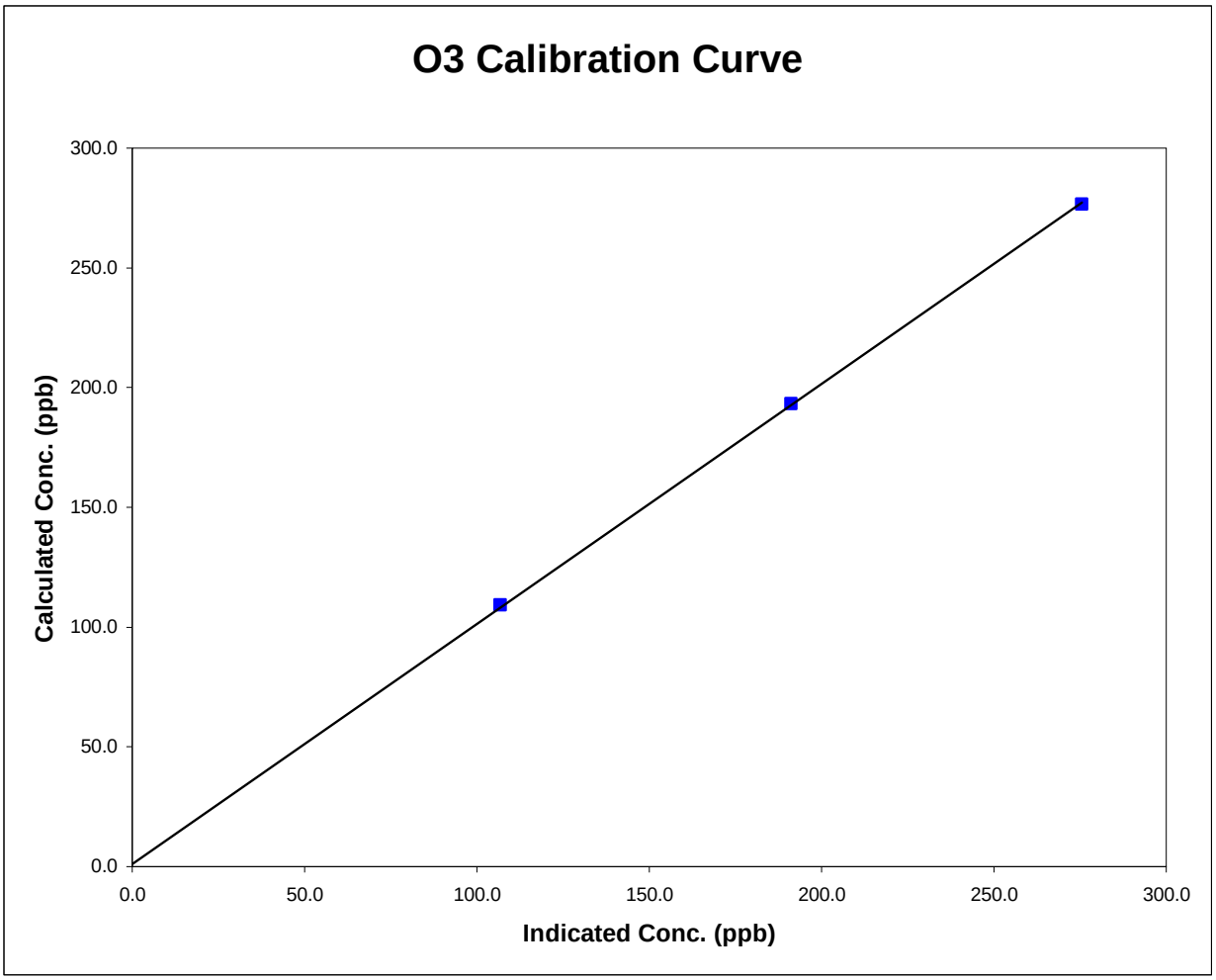
FOCUS AIR QUALITY MONITORING

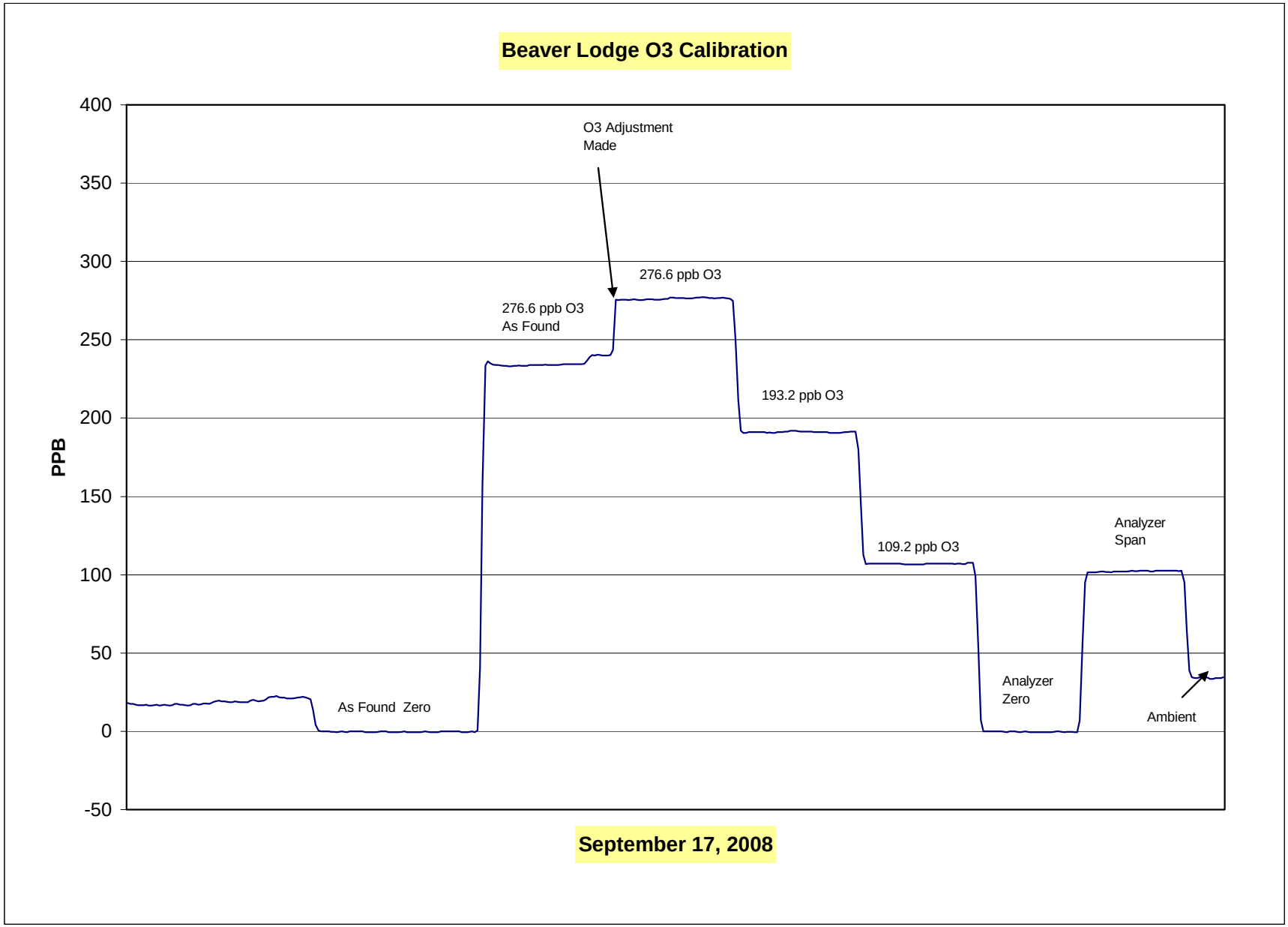
Station Information

Calibration Date	September 17, 2008	Previous Calibration	August 18, 2008
Station Number	4	Station Location	Beaver Lodge
Start Time (MST)	12:30	End Time (MST)	15:30
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	-0.3	NA		
276.6	275.5	1.0040	Correlation Coefficient	0.999943
193.2	191.1	1.0110		
109.2	106.9	1.0222	Slope	1.002787
			Intercept	1.068484




Beaver Lodge O3 Calibration
PPB
400
350
300
250
200
150
100
50
0
-50
O3 Adjustment Made
276.6 ppb O3
276.6 ppb O3 As Found
193.2 ppb O3
109.2 ppb O3
Analyzer Span
Analyzer Zero
As Found Zero
Ambient
September 17, 2008

Calibration Report

Parameter	SO2
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 9, 2008	Previous Calibration	August 22, 2008
Station Number	8	Station Location	Rover - Spirit River

Reason: Routine | Install | Removal | Other:

Start Time (MST)	10:20	End Time (MST)	15:00
Barometric Pressure	27.72 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	50.3 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
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.001455	Calculated slope	0.993569
Calculated intercept	-2.882843	Calculated intercept	1.251493

Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	8.1		9.1	
Coefficient	1.168		1.313	
UV Lamp Voltage	723	V	723	V
Chamber Temp	44.6	C	44.3	C
Perm Gas Temp	45	C	45	C
Pressure	677	mm Hg	676.3	mm Hg
Sample Flow	488	LPM	488	LPM
Lamp Intesity	34245	Hz	34206	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
4990	39.89	398.9	400.3	0.9966
4990	19.90	199.8	201.1	0.9936
4990	9.92	99.8	96.5	1.0346
4988	0.00	0.0	0.2	As found zero
4990	39.89	398.9	418.1	As found span
			Average Correction Factor	1.0083

Calculated value of As Found Response: 415.598 ppm Percent Change of As Found: -4.2%

	before calibration		after calibration	
Auto zero	-2.4	ppm	1.4	ppm
Auto span	255.9	ppm	293.2	ppm

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	SO2
Air Monitoring Network	PASZA

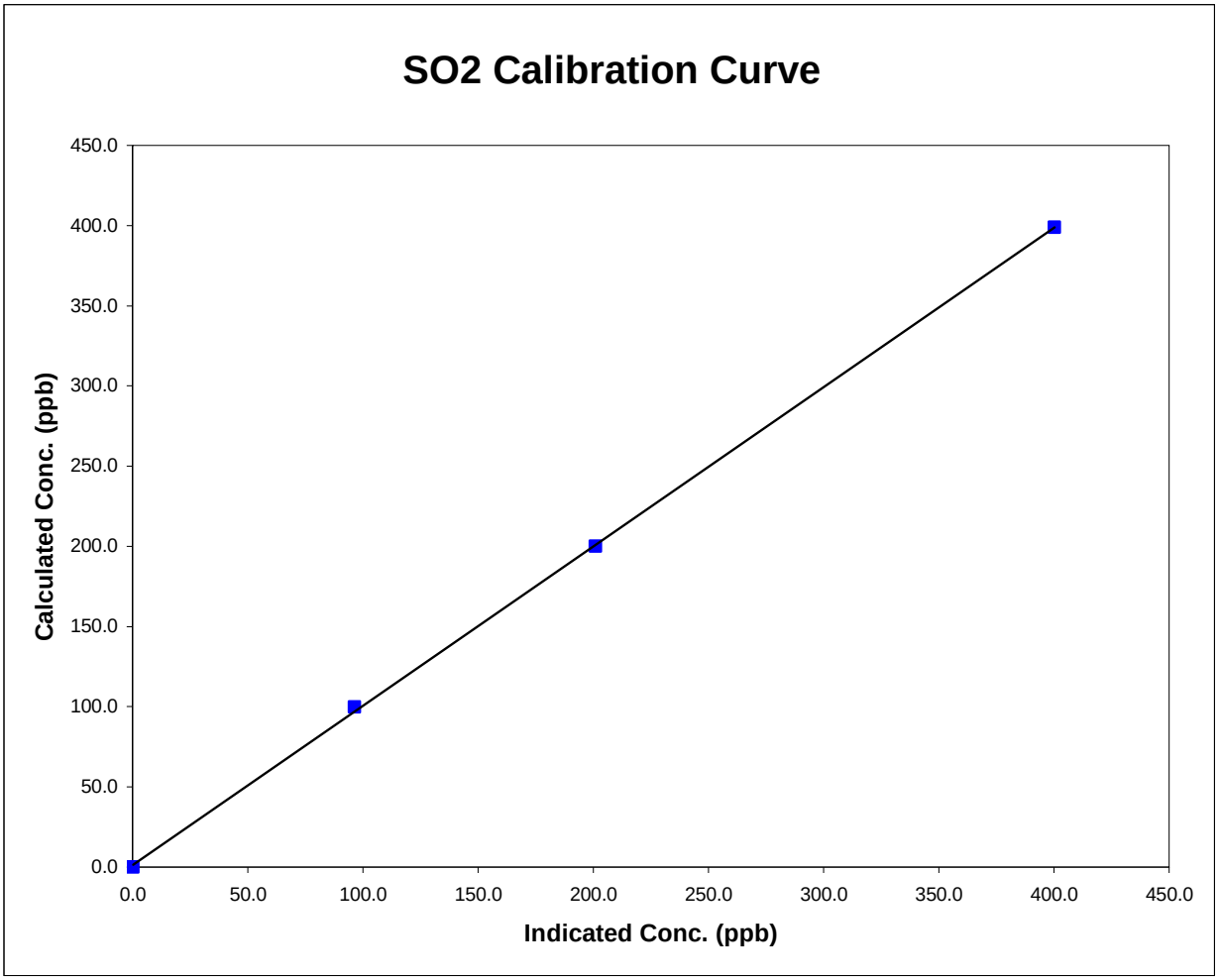
FOCUS AIR QUALITY MONITORING

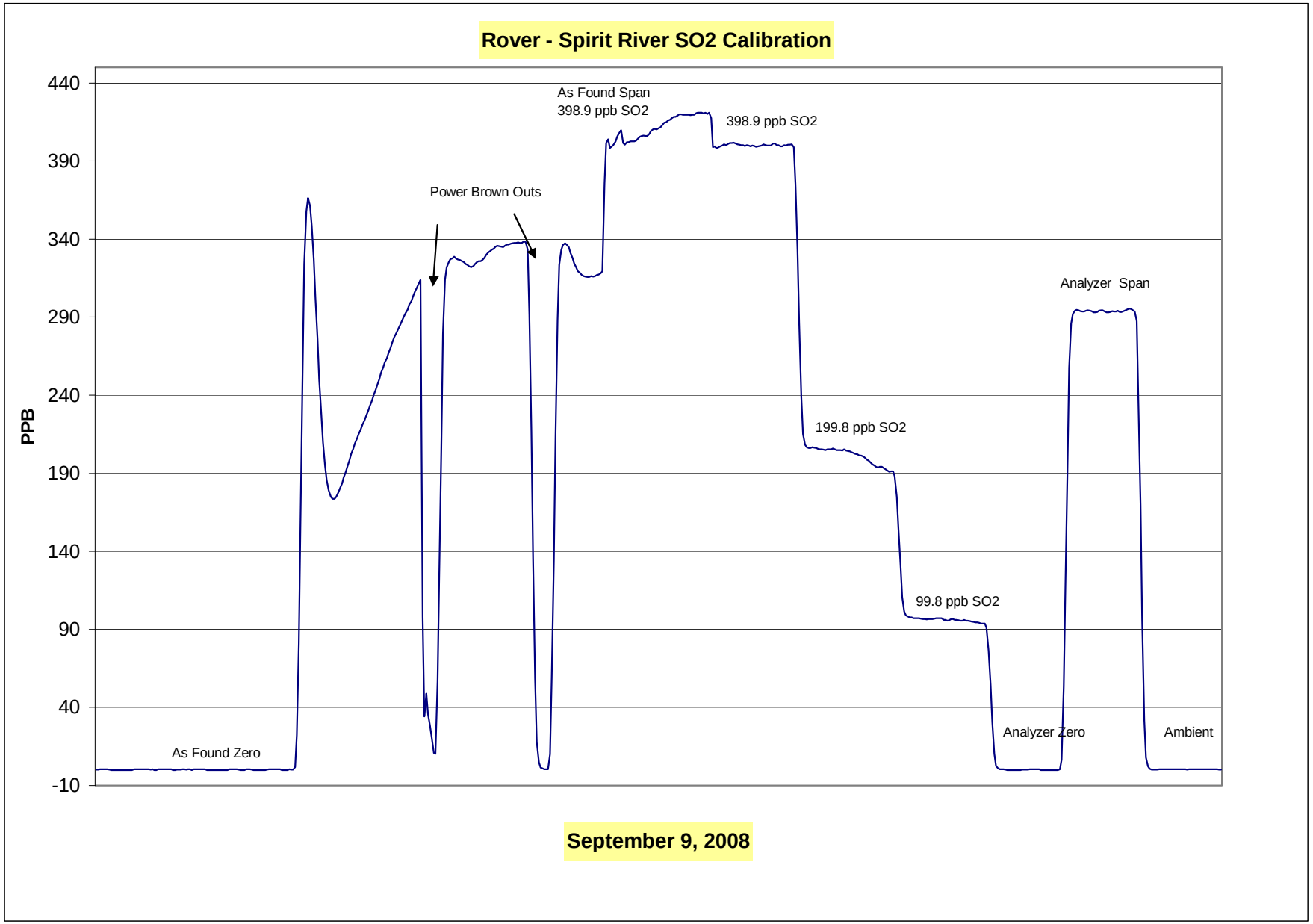
Station Information

Calibration Date	September 9, 2008	Previous Calibration	August 22, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	10:20	End Time (MST)	15:00
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	0.2	N/A		
398.9	400.3	0.9966	Correlation Coefficient	0.999874
199.8	201.1	0.9936		
99.8	96.5	1.0346	Slope	0.993569
			Intercept	1.251493




Rover - Spirit River SO2 Calibration
PPB
440
390
340
290
240
190
140
90
40
-10
As Found Span
398.9 ppb SO2
398.9 ppb SO2
Power Brown Outs
Analyzer Span
199.8 ppb SO2
99.8 ppb SO2
Analyzer Zero
Ambient
As Found Zero
September 9, 2008

Calibration Report

Parameter	TRS
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 8, 2008	Previous Calibration	August 20, 2008
Station Number	6	Station Location	Rover
Reason:	Routine / Install	Removal	Other:

Start Time (MST)	14:20	End Time (MST)	16:55
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 make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0 - 5 volt	DACS channel #	8
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.028413	Calculated slope	0.989576
Calculated intercept	0.288887	Calculated intercept	-0.217657

Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	9.0	ppb	9.0	ppb
Coefficient	1.454		1.454	
Lamp Voltage	804	V	799	V
Chamber Temp	43.8	C	43.7	C
Perm gas Temp	44.90	C	45	C
Pressure	700	mmHg	662	mmHg
Sample Flow	0	ccm	423	ccm
Lamp Intensity	38844.0	Hz	38187.0	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	0.1	N/A
4988	79.74	80.2	81.3	0.9875
4988	39.90	40.5	41.2	0.9824
4988	9.91	10.1	10.5	0.9627
4988	0.00	0.0	0.1	As found zero
4988	79.71	80.2	81.3	As found span
			Average Correction Factor	0.9775

Calculated value of As Found Response: 83.74 ppm Percent Change of As Found: -4.4%

	before calibration		after calibration	
Auto zero	0.3	ppm	-0.1	ppm
Auto span	75.3	ppm	71.1	ppm

Notes: Unable to do a as found point as there was zero flow on the calibrator and I didn't want to saturate the chamber unecisarilly, rebuilt internal pump and calibrated after

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	TRS
Air Monitoring Network	PASZA

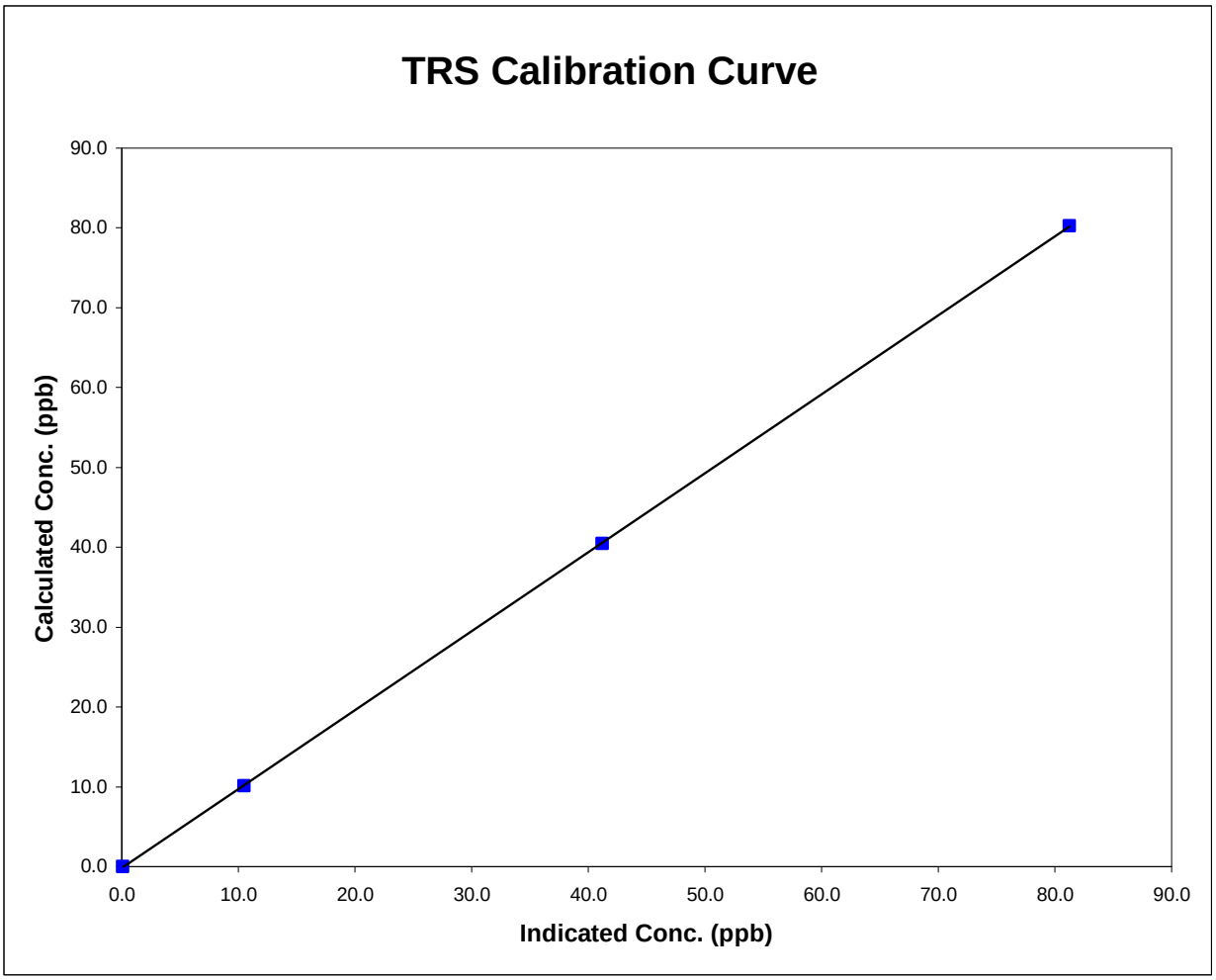
FOCUS AIR QUALITY MONITORING

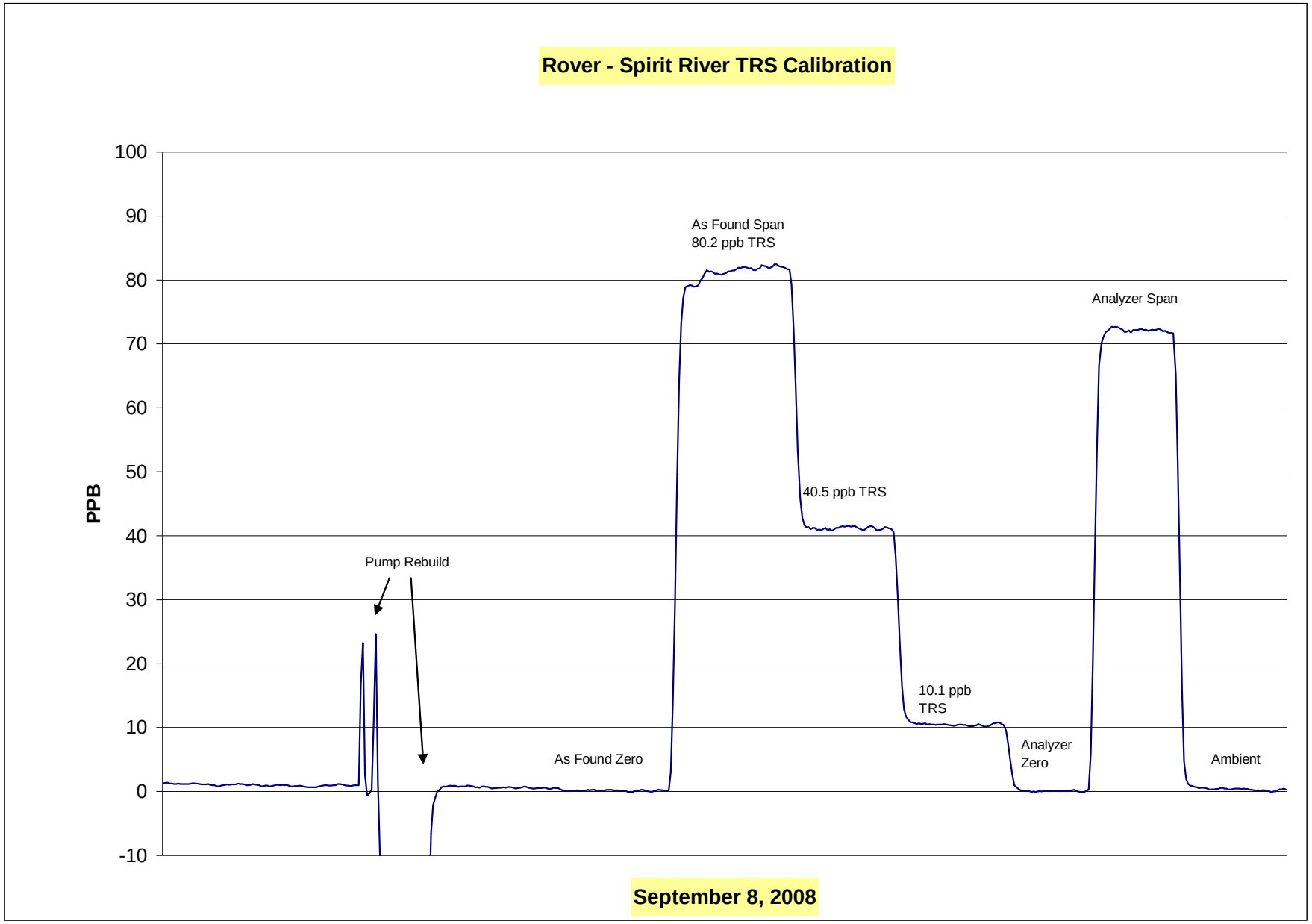
Station Information

Calibration Date	September 8, 2008	Previous Calibration	August 20, 2008
Station Number	6	Station Location	Rover
Start Time (MST)	14:20	End Time (MST)	16:55
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
80.2	81.3	0.9875	Correlation Coefficient	0.999995
40.5	41.2	0.9824		
10.1	10.5	0.9627	Slope	0.989576
			Intercept	-0.217657




Rover - Spirit River TRS Calibration
PPB
100
90
80
70
60
50
40
30
20
10
0
-10
As Found Span
80.2 ppb TRS
Analyzer Span
40.5 ppb TRS
Pump Rebuild
10.1 ppb
TRS
Analyzer
Zero
As Found Zero
Ambient
September 8, 2008

Calibration Report

Parameter	O3
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 10, 2008	Previous Calibration	August 22, 2008
Station Number	8	Station Location	Rover - Spirit River
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:25	End Time (MST)	13:45
Barometric Pressure	0.924 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	0.994278	Calculated slope	1.010564
Calculated intercept	1.258050	Calculated intercept	1.539054
Analyzer make	TEI Model 49C	Analyzer serial #	609-716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	1.209		1.24	
Cell A	75919	Hz	67172	Hz
Cell B	71953	Hz	64678	Hz
Pressure	691	in Hg	695	in Hg
CellA Flow	668	ccm	673	ccm
Cell B Flow	668	cmm	671	cmm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.0	-0.1	N/A
4990	0.00	273.4	270.3	1.0116
4990	0.00	188.6	184.2	1.0235
4990	0.00	103.6	99.1	1.0450
4990	0.00	0.0	-0.1	As found zero
4990	0.00	273.4	270.3	As found span
			Average Correction Factor	1.0267

Calculated value of As Found Response: 270.1 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	2.4	ppb	2.9	ppb
Auto span	207.5	ppb	196.9	ppb

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	O3
Air Monitoring Network	PASZA

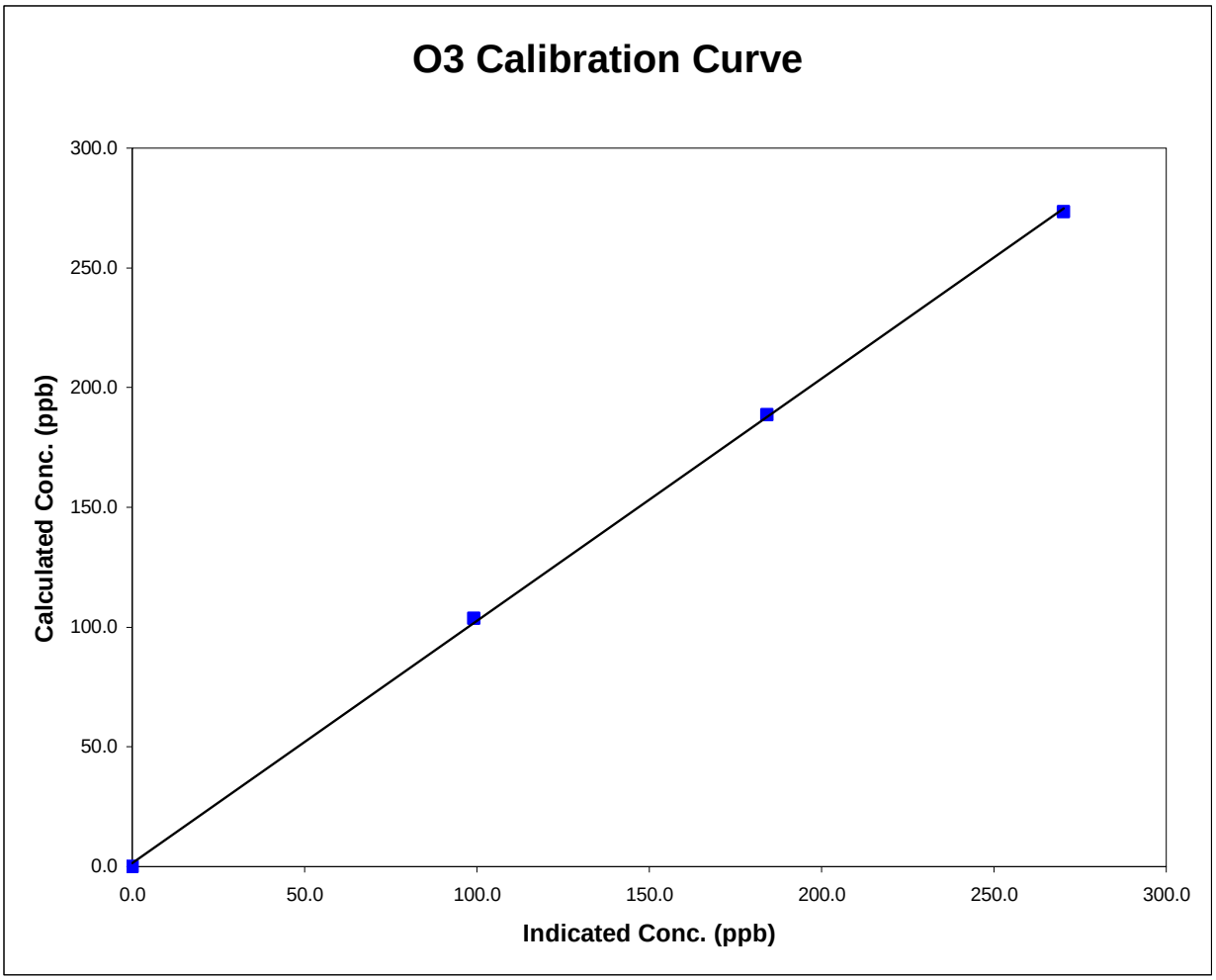
FOCUS AIR QUALITY MONITORING

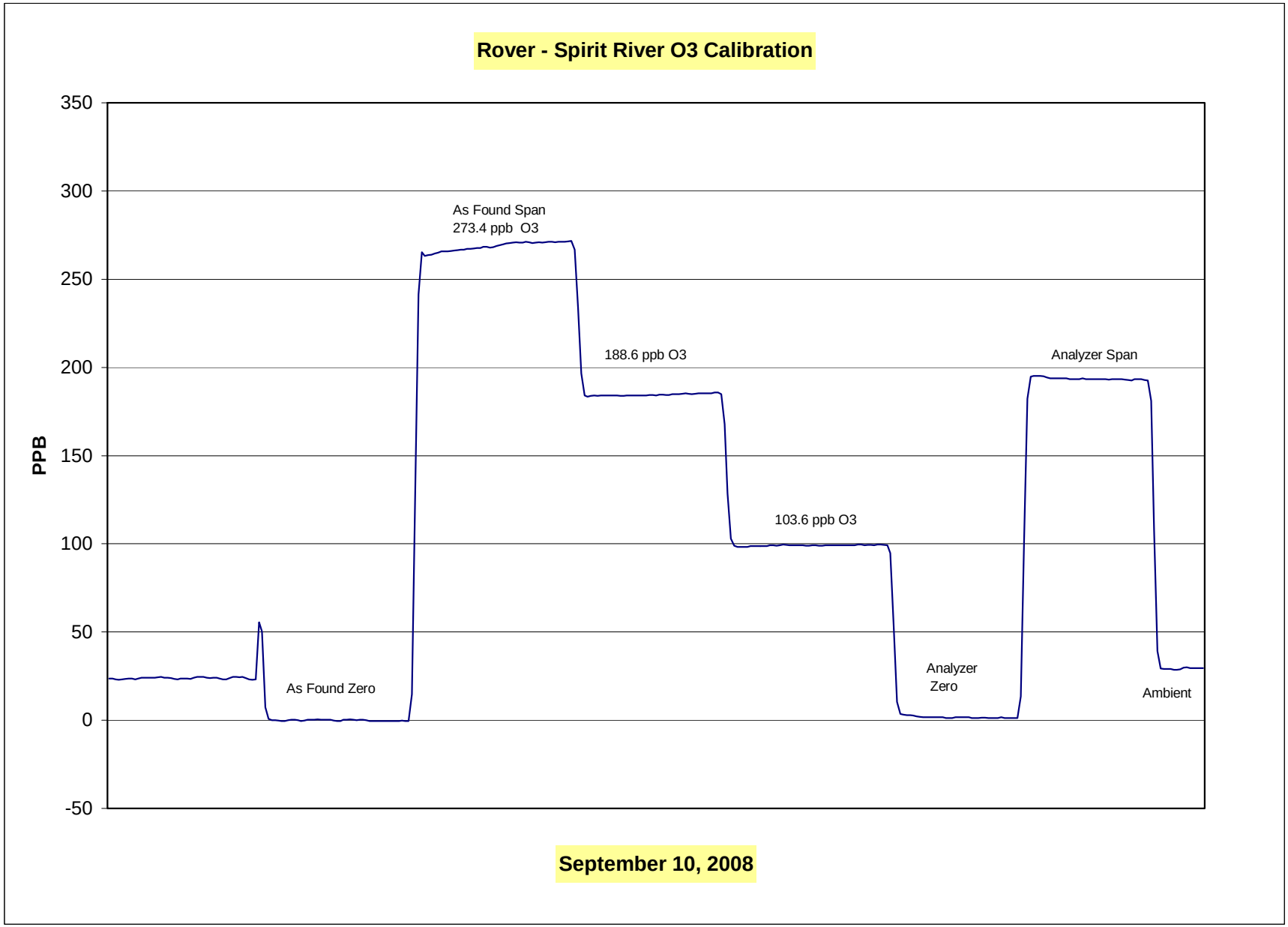
Station Information

Calibration Date	September 10, 2008	Previous Calibration	August 22, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	11:25	End Time (MST)	13:45
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	-0.1	NA		
273.4	270.3	1.0116	Correlation Coefficient	0.999805
188.6	184.2	1.0235		
103.6	99.1	1.0450	Slope	1.010564
			Intercept	1.539054




Rover - Spirit River O3 Calibration
350
300
250
200
150
100
50
0
-50
PPB
As Found Span
273.4 ppb O3
188.6 ppb O3
Analyzer Span
103.6 ppb O3
As Found Zero
Analyzer
Zero
Ambient
September 10, 2008

Calibration Report

Parameter	**NOx-NO-NO_2**
Air Monitoring Network	**PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 9, 2008	Previous Calibration	August 22, 2008
Station Number	8	Station Location	Rover - Spirit River

Reason: Routine Installation Removal Other:

Start Time (MST)	10:20		End Time (MST)	16:25	
Barometric Pressure	27.72	Inches Hg	Station Temperature	22.0	Deg C
Calibrator	Environics 6100		Serial Number	3474	
NO Cal Gas Conc	48.9	ppm	Cal Gas Expiry Date	2-Jan-09	
NOx Cal Gas Conc	48.9	ppm	Cal Gas Serial #	LL-16161	

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	52662

Parameter		NO2	NOx	NO
Before	Data Slope	1.017308	1.019240	1.019138
	Data Offset	-0.223788	-3.976515	-4.113110
After	Data Slope	1.011014	1.013550	1.000512
	Data Offset	1.770688	-4.453803	-4.462700
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	5.7	ppb	5.7	mV
NOx background	6.0	ppb	6.0	mV
NO coefficient	0.980		0.980	
NOx coefficient	1.001		1.001	
Chamber Temp	49.8	Deg C	49.8	Deg C
Cooler Temp	-2.7	Deg C	-2.7	Deg C
NO2 Converter Temp	323.7	Deg C	323.7	Deg C
Sample Flow	0.5	ccm	0.5	ccm
Ozonator Flow	OK	LPM	OK	LPM
Preasure	185.0	mm Hg	185.0	mm Hg

Notes:

Calibration Performed By: Conor Whiteley

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: September 9, 2008 Station Location: Rover - Spirit River

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	0.3	0.0	0.5	N/A	N/A
1	4990	39.89	387.8	387.8	0.0	383.8	388.6	-3.9	1.0105	0.9980
2	4990	19.90	194.2	194.2	0.0	201.1	203.9	-2.0	0.9660	0.9526
3	4990	9.92	97.0	97.0	0.0	102.4	104.1	-0.9	0.9473	0.9320
AFZ	4988	0.00	0.0	0.0	0.0	0.3	0.0	0.5	0.0000	0.0000
AFS	4990	39.89	387.8	387.8	0.0	377.6	371.1	7.4	1.0270	1.0450
							Average Correction Factor		0.9746	0.9609

As Found Concentrations: NO_X= 373.3 NO= 367.0 As Found Percent Change NO_X= -3.7% NO= -5.4%

GPT Calibration Data

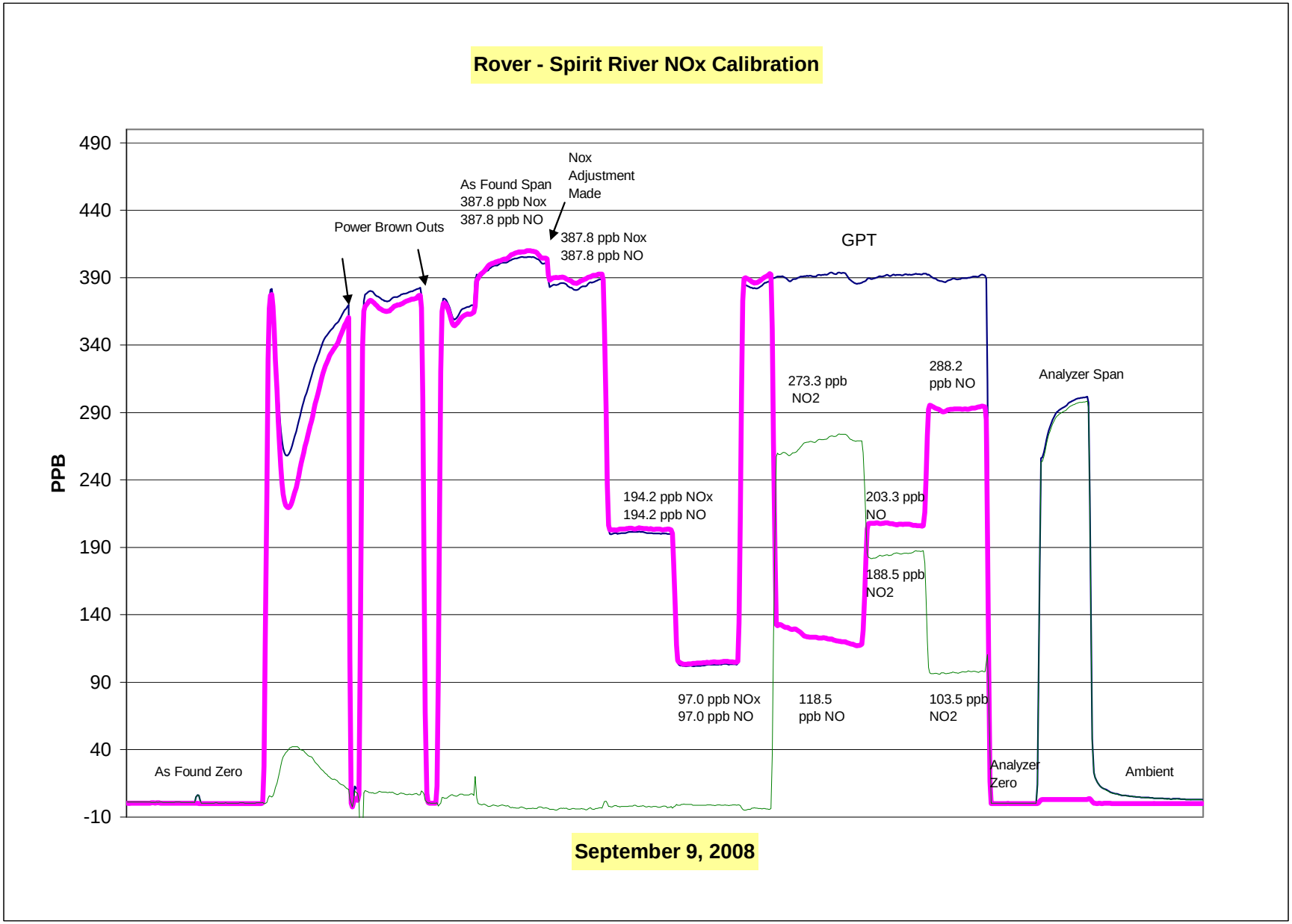
Dilution Flow 4988 ccm Source Gas Flow 39.82 ccm

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	391.7	384.2	7.5	383.7	388.5	-3.8	1.0208	0.9890	N/A	N/A
300	391.7	118.5	273.3	392.1	122.9	269.9	0.9990	0.9642	1.0123	98.8%
200	391.7	203.3	188.5	391.3	207.6	184.3	1.0010	0.9790	1.0225	97.8%
100	391.7	288.2	103.5	389.2	292.5	97.4	1.0065	0.9853	1.0631	94.1%
					Average Correction Factor		1.0022	0.9762	1.0326	96.9%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.2	0.9	0.9	ppb	0.0	0.9	0.8	ppb
Auto span	281.8	281.8	-0.8	ppb	298.1	300.2	-1.3	ppb

Calibration Performed By: Conor Whiteley


Rover - Spirit River NOx Calibration
PPB
490
440
390
340
290
240
190
140
90
40
-10
As Found Span
387.8 ppb Nox
387.8 ppb NO
Nox
Adjustment
Made
Power Brown Outs
387.8 ppb Nox
387.8 ppb NO
GPT
273.3 ppb
NO2
288.2
ppb NO
Analyzer Span
194.2 ppb NOx
194.2 ppb NO
203.3 ppb
NO
188.5 ppb
NO2
97.0 ppb NOx
97.0 ppb NO
118.5
ppb NO
103.5 ppb
NO2
As Found Zero
Analyzer
Zero
Ambient
September 9, 2008

Calibration Summary

Parameter	NO_x
Air Monitoring Network	PASZA

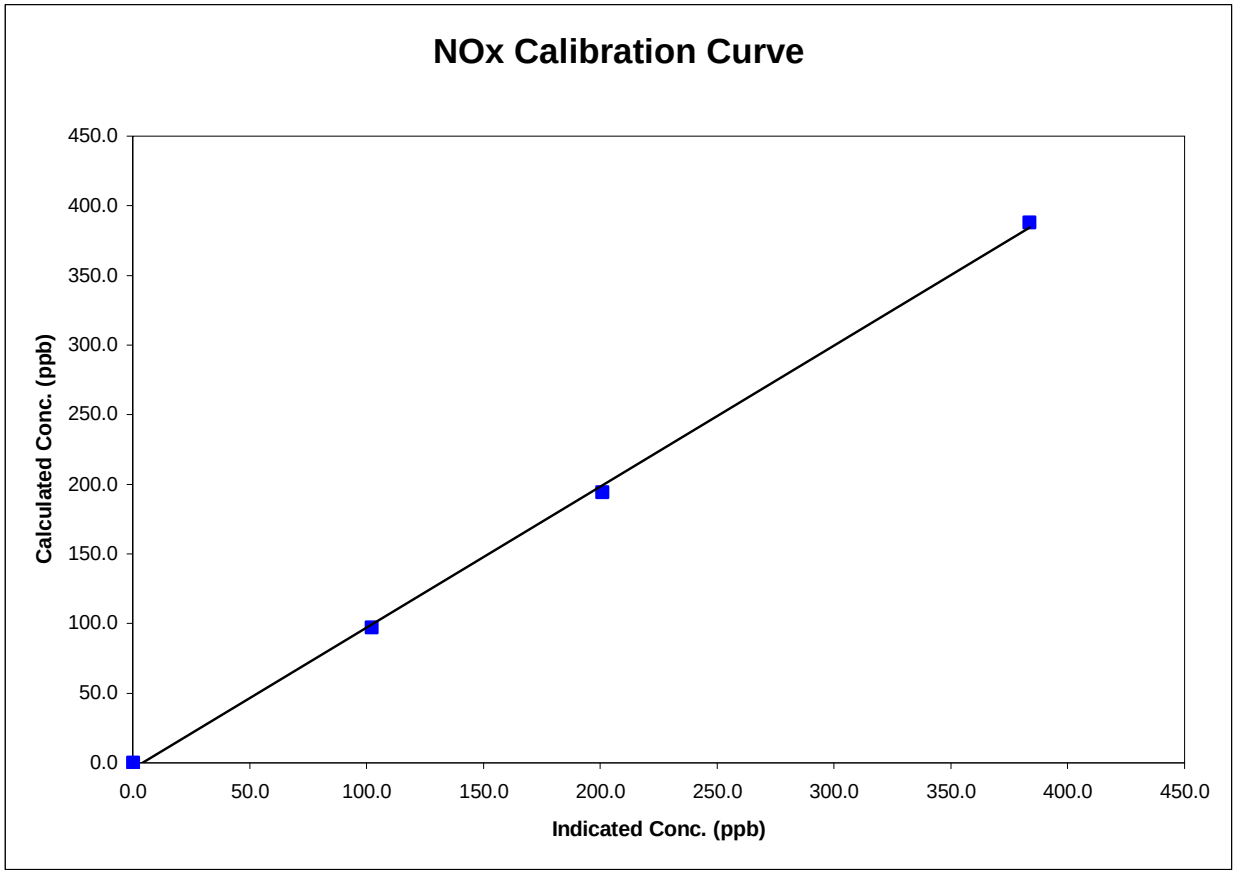
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 9, 2008	Previous Calibration	August 22, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	10:20	End Time (MST)	16:25
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	0.3	0.0000		
387.8	383.8	1.0105	Correlation Coefficient	0.999276
194.2	201.1	0.9660		
97.0	102.4	0.9473	Slope	1.013550
			Intercept	-4.453803



Calibration Summary

Parameter	NO_2
Air Monitoring Network	PASZA

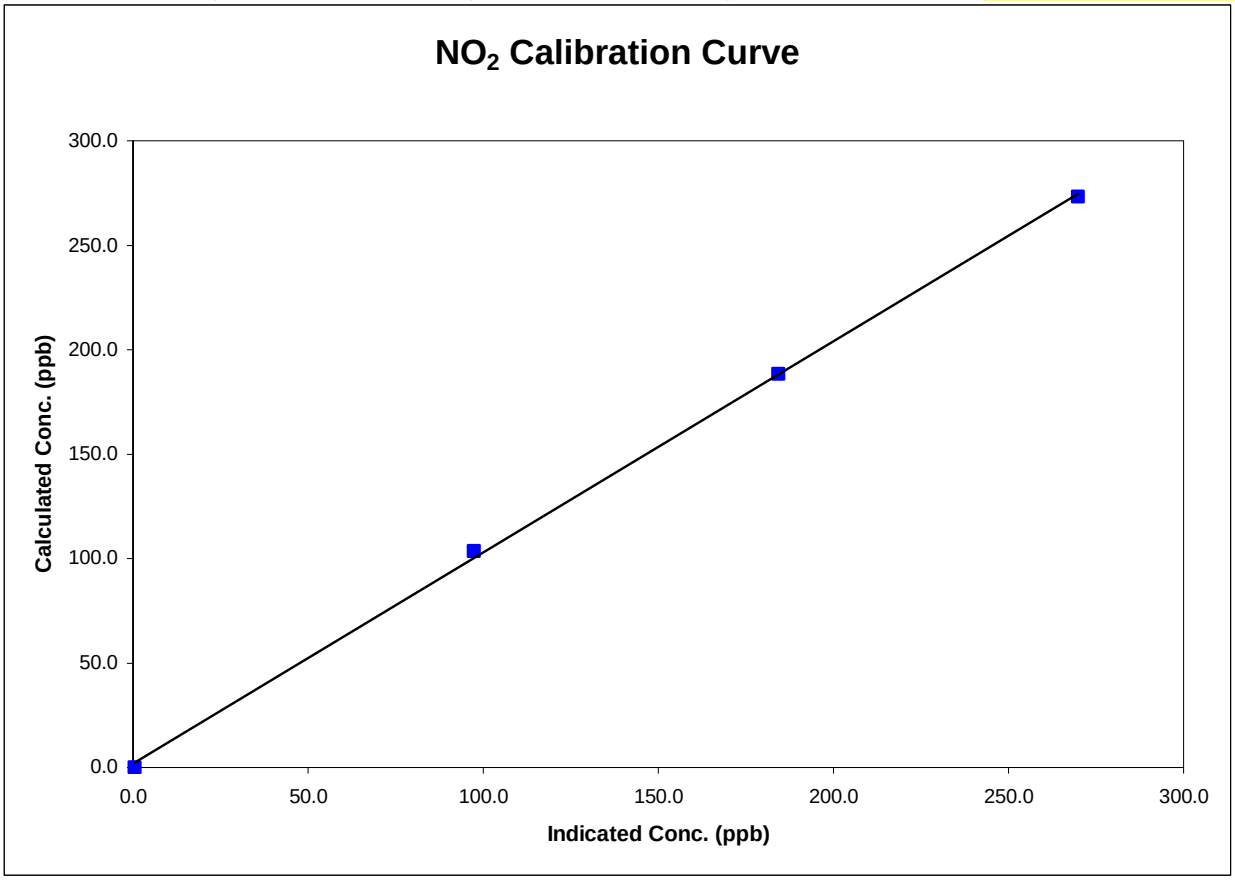
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 9, 2008	Previous Calibration	August 22, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	10:20	End Time (MST)	16:25
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	0.5	0.0000		
273.3	269.9	1.0123	Correlation Coefficient	0.999560
188.5	184.3	1.0225		
103.5	97.4	1.0631	Slope	1.011014
			Intercept	1.770688



Calibration Summary

Parameter	**NO**
Air Monitoring Network	**PASZA**

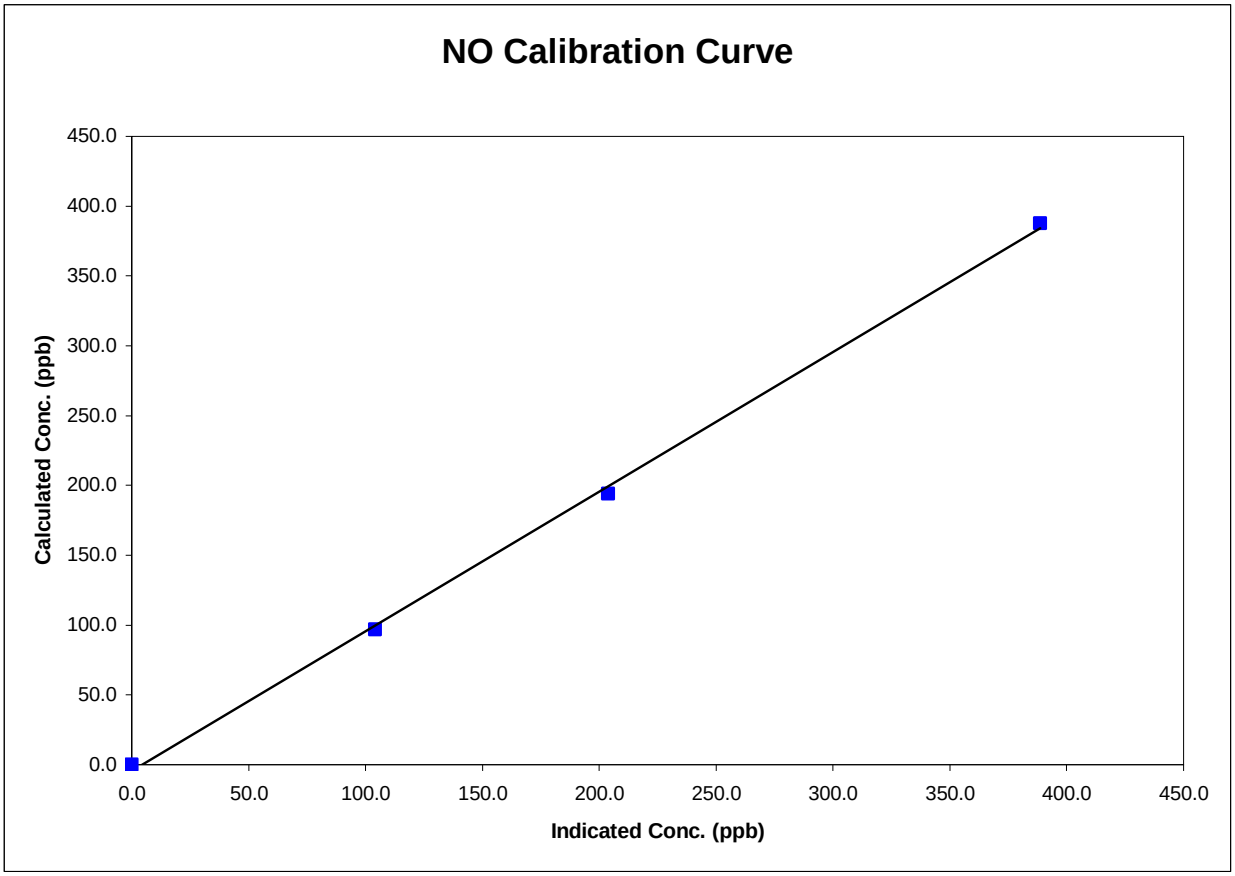
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 9, 2008	Previous Calibration	August 22, 2008
Station Number	8	Station Location	Rover - Spirit River
Start Time (MST)	10:20	End Time (MST)	16:25
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	0.0	N/A		
387.8	388.6	0.9980	Correlation Coefficient	0.999176
194.2	203.9	0.9526		
97.0	104.1	0.9320	Slope	1.000512
			Intercept	-4.462700



Calibration Report

Parameter	SO2
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 18, 2008	Previous Calibration	August 19, 2008
Station Number	6	Station Location	Valleyview
Reason:	Routine / Install	Removal	Other:

Start Time (MST)	11:40	End Time (MST)	14:40
Barometric Pressure	27.55 inches Hg	Station Temperature	23.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	50.6 ppm	Cal Gas Cert Date	8/6/2008
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	0.999058	Calculated slope	1.000698
Calculated intercept	-1.761548	Calculated intercept	-1.916230

Analyzer make	TEI 43i	Analyzer serial #	43C-57351-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	28		27.6	
Coefficient	0.74		0.726	
UV Lamp Voltage	695	LPM	695	LPM
Chamber Temp	44.2	V	44.3	V
Perm Gas Temp	26.1	C	26.8	C
Pressure	626.3	in Hg	621.7	in Hg
Sample Flow	0.47	LPM	0.468	LPM
Lamp Intesity	45785	Hz	45759	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
4988	39.82	400.7	401.2	0.9990
4988	19.91	201.2	204.4	0.9842
4988	9.92	100.4	104.2	0.9643
4988	0.00	0.0	-0.2	As found zero
4988	39.77	400.2	411.4	As found span
			Average Correction Factor	0.9825

Calculated value of As Found Response: 409.469 ppm Percent Change of As Found: -2.3%

	before calibration		after calibration	
Auto zero	-2.4	ppm	-2.1	ppm
Auto span	168.0	ppm	162.6	ppm

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	SO2
Air Monitoring Network	PASZA

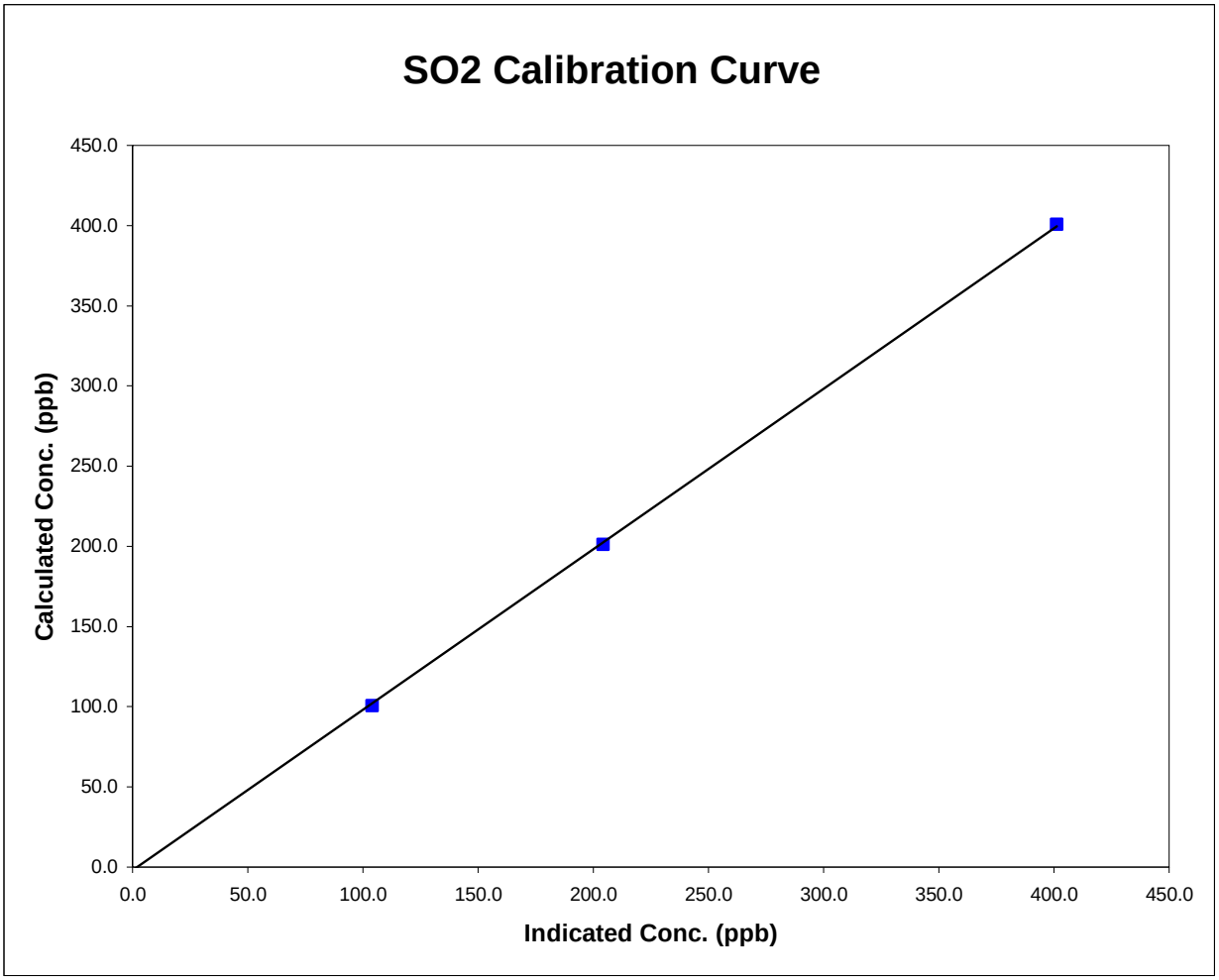
FOCUS AIR QUALITY MONITORING

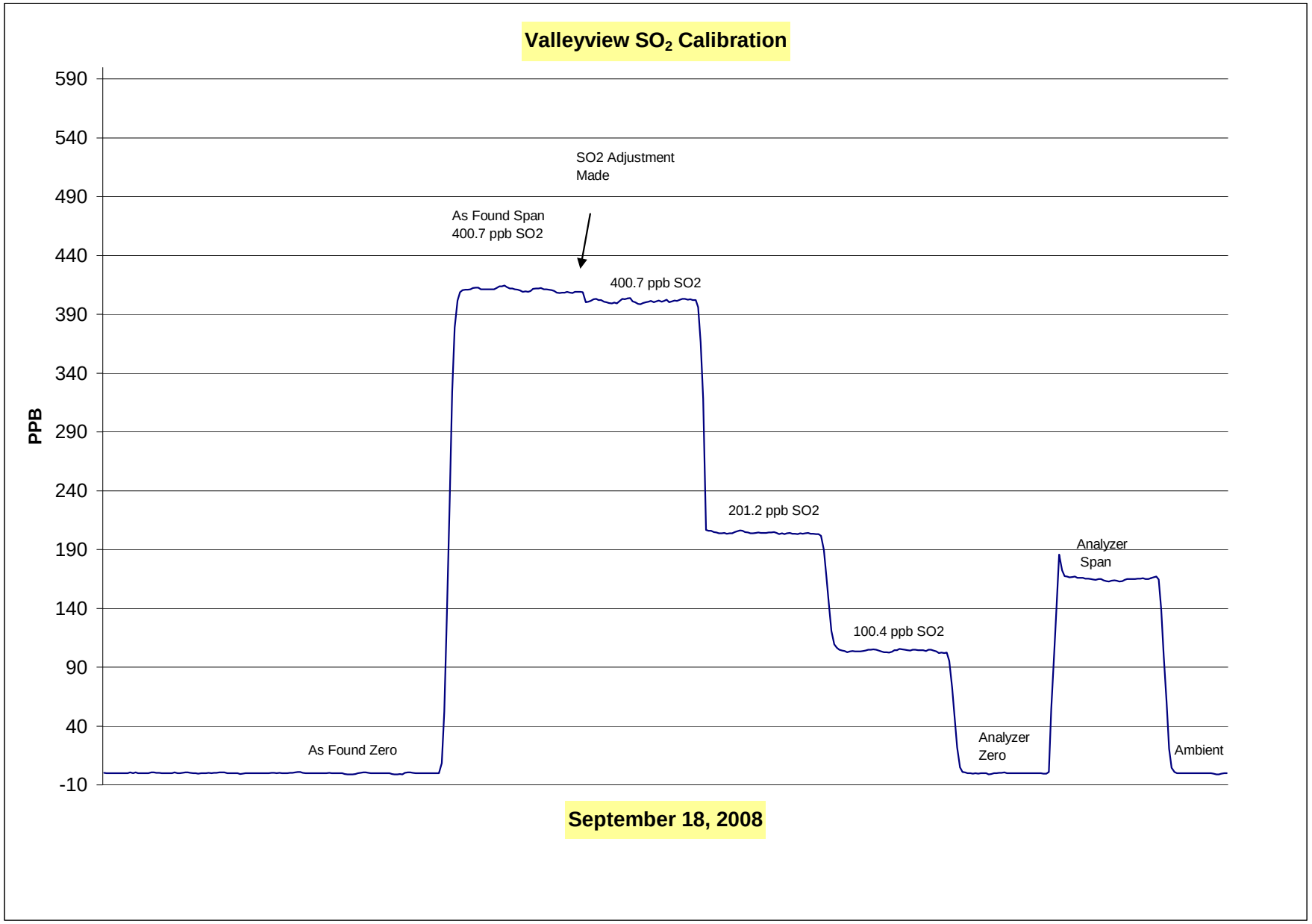
Station Information

Calibration Date	September 18, 2008	Previous Calibration	August 19, 2008
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:40	End Time (MST)	14:40
Analyzer make/model	TEI 43i	Analyzer serial #	43C-57351-313

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
400.7	401.2	0.9990	Correlation Coefficient	0.999868
201.2	204.4	0.9842		
100.4	104.2	0.9643	Slope	1.000698
			Intercept	-1.916230




Valleyview SO2 Calibration
590
540
490
440
390
340
290
240
190
140
90
40
-10
PPB
SO2 Adjustment
Made
As Found Span
400.7 ppb SO2
400.7 ppb SO2
201.2 ppb SO2
100.4 ppb SO2
Analyzer
Span
As Found Zero
Analyzer
Zero
Ambient
September 18, 2008

Calibration Report

Parameter	H2S
Air Monitoring Network	PASZA

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	September 18, 2008	Previous Calibration	August 19, 2008
Station Number	5	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:

Start Time (MST)	9:55	End Time (MST)	12:40
Barometric Pressure	27.55 inches Hg	Station Temperature	23.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	5.1 ppm	Cal Gas Expiry Date	4/4/2009
Gas Cert Reference	ALM013295		
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.030959	Calculated slope	1.015098
Calculated intercept	-0.014795	Calculated intercept	0.271768

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

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	4.6	ppb	4.7	ppb
Coefficient	1.026		1.026	
Lamp Voltage	798	V	793	V
Chamber Temp	45	c	45	c
Perm Oven Temp	45.01	c	45.01	c
Pressure	645	mm Hg	640	mm Hg
Sample Flow	429	ccm	.444	ccm
Lamp Intensity	91.0	%	90.0	%

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	-0.3	N/A
4988	79.76	80.3	78.8	1.0184
4988	39.85	40.4	39.5	1.0231
4988	9.92	10.1	9.8	1.0369
4988	0.00	0.0	-0.3	As found zero
4988	79.79	80.3	78.8	As found span
			Average Correction Factor	1.0261

Calculated value of As Found Response: 81.55 ppm Percent Change of As Found: -1.6%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.4	ppm
Auto span	65.7	ppm	63.9	ppm

Notes:

Calibration Performed By: Conor Whiteley

Calibration Summary

Parameter	H2S
Air Monitoring Network	PASZA

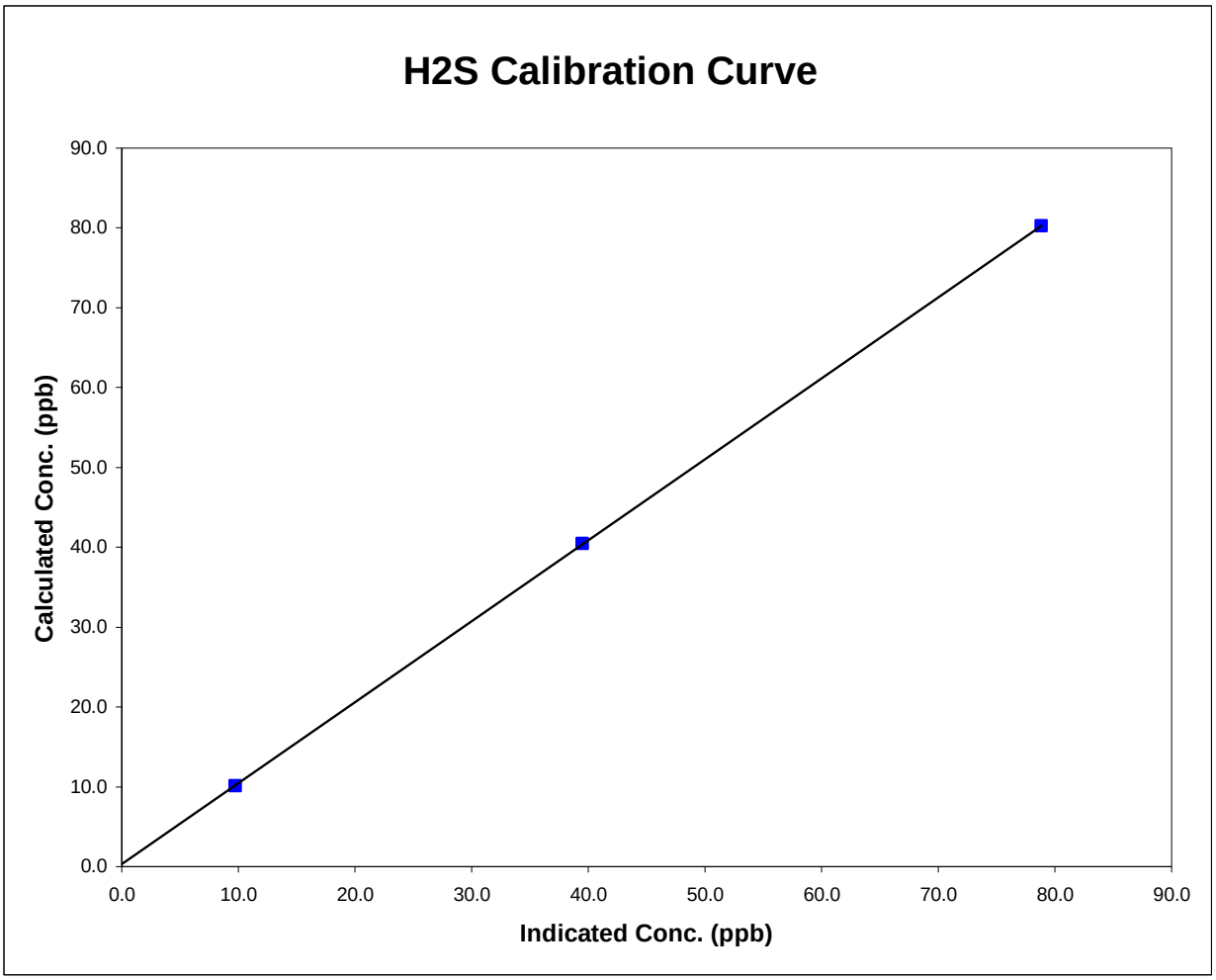
FOCUS AIR QUALITY MONITORING

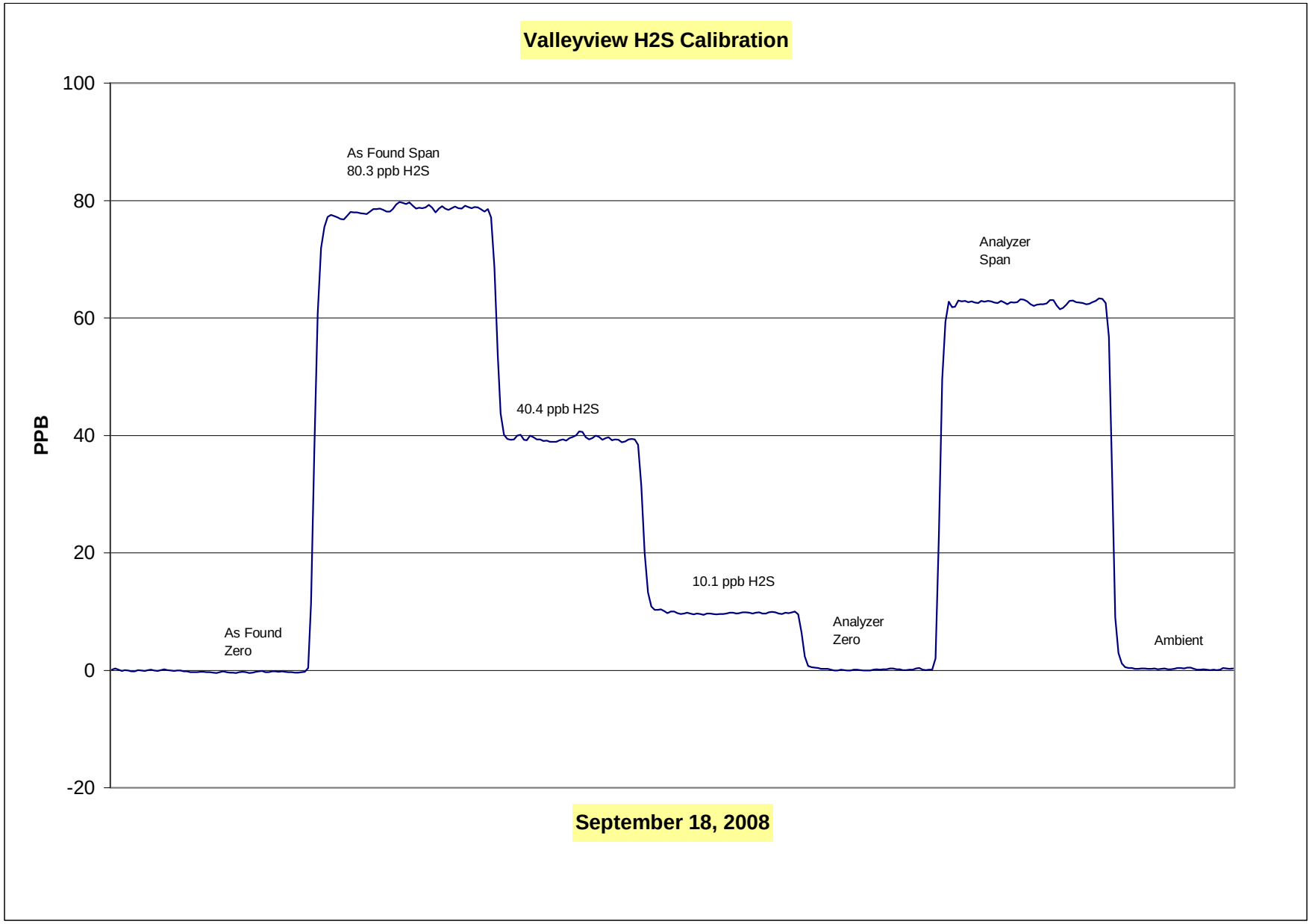
Station Information

Calibration Date	September 18, 2008	Previous Calibration	August 19, 2008
Station Number	5	Station Location	Valleyview
Start Time (MST)	9:55	End Time (MST)	12:40
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	-0.3	N/A		
80.3	78.8	1.0184	Correlation Coefficient	0.999998
40.4	39.5	1.0231		
10.1	9.8	1.0369	Slope	1.015098
			Intercept	0.271768




Valleyview H2S Calibration
100
80
60
40
20
0
-20
PPB
As Found Span
80.3 ppb H2S
40.4 ppb H2S
10.1 ppb H2S
As Found
Zero
Analyzer
Zero
Analyzer
Span
Ambient
September 18, 2008