



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

**Continuous Ambient Air Quality Monitoring Program
Monthly Report
September 2014**

October 31st, 2014

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

RE: Peace Airshed Zone Association (PAZA) – September 2014 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **September 2014**.

This report is submitted by PAZA on behalf of the industrial member companies to satisfy the requirements of the following facility Operating Approvals:

Company	Facility	LSD	EPEA Approval Number
Advantage Oil & Gas Ltd.	Glacier	05-02-076-13-W6	262479-00-00
Alberta Power (2000) Ltd. (an ATCO company)	Sturgeon	SW-06-069-21-W5	10283-02-02
ATCO Power Canada	Poplar Hill	11-19-073-08-W6	67774-01-01
ATCO Power Canada	Valleyview	SW-06-069-21-W5	147709-01-01
AltaGas Ltd.	Pouce Coupe	03-03-081-13-W6	247673-00-00
	Ante Creek	02-26-068-25-W5	266694-00-00
	Gordondale	16-31-78-11-W6M	287474-00-00
Apache Canada Ltd.	House Mountain	01-08-070-10-W5	10137-02-02
Birchcliff Energy Ltd.	Pouce Coupe	03-22-078-12-W6	252529-00-00
Canadian Natural Resources Limited	Bonanza	11-25-081-11-W6	00000029-01-00
	Progress/Gordondale	01-01-077-10-W6	00010036-02-00
	Gold Creek	13-26-067-05-W6	00010446-02-00

Company	Facility	LSD	EPEA Approval Number
Canfor Forest Products	Teepee Creek	SE-2-074-04-W6	00001635-02-00
	Sturgeon/Valleyview	02-02-069-22-W5	1633-02-00
	Grande Prairie	SW-23-071-06-W6	152645-01-00
Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	00000212-01-00
Devon Canada	NW Belloy (Dunvegan)	16-36-079-03-W6	00009810-02-00
	Eaglesham (South)	02-14-077-25-W5	00047669-01-00
	North Normanville	03-36-079-23-W5	00047455-01-00
	West Culp	05-34-078-25-W6	00136284-00-00
	Cecil	08-15-084-08-W6	00010032-02-00
Encana Corporation	Sexsmith	04-08-075-07-W6	00010002-01-00
Enerplus Resources	Pouce Coupe	SW-06-069-21-W5	1464-02-03
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Long Run Exploration	Eaglesham	01-25-076-01-W6	00241532-00-00
	Kakut	14-12-075-03-W6	00248469-00-00
	Donnelly	06-01-077-21-W5	00000087-02-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
Longview Oil Corp.	Sunset House	06-22-070-20-W5	138884-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00
	Pouce Coupe	16-07-078-11-W6	00000614-01-00

Company	Facility	LSD	EPEA Approval Number
Petrus Resources	Rycroft	08-25-077-06-W6	11351-02-00
	Spirit River	08-34-077-06-W6	11096-02-00
Spectra Energy Midstream Corporation	Fourth Creek	16-11-082-09-W6	00000263-01-00
	Gordondale	11-26-079-09-W6	00011495-01-01
	Pouce Coupe/Bonanza	3-23-080-13-W6	00070203-01-01
Suncor Energy Inc.	Progress	07-22-078-09-W6	00011428-02-00
TAQA North Ltd.	Valhalla	13-21-076-09-W6	00017620-01-00
Veresen Energy	Hythe Brainard	11-18-074-12-W6	00010910-02-00
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	00000113-02-00

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

Continuous Monitoring: Seven(7) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Valleyview, Falher, and Portable-Clairmont.

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

Henry Pirker Station:

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

Evergreen Park Station:

- ◆ The measured ambient air quality was within the AAAQO for the Evergreen Park station with the exception of the PM_{2.5} analyzer, four (4) 1-hour exceedences of the guideline of 80 µg/m³:
 - o September 19 10:00 107.9 µg/m³ Alberta Environment Reference # 289720
 - o September 19 11:00 87.3 µg/m³ Alberta Environment Reference # 289720

- o September 19 12:00 89.5 $\mu\text{g}/\text{m}^3$ Alberta Environment Reference # 289720
- o September 19 13:00 81.7 $\mu\text{g}/\text{m}^3$ Alberta Environment Reference # 289720

- ◆ All analyzers and sensors at the Evergreen Park station had an operational uptime greater than 90% for the month of September.

Smoky Heights Station:

- ◆ The measured ambient air quality was within the AAAQO for the Smoky Heights station with the exception of the $\text{PM}_{2.5}$ analyzer, which recorded one (1) 1-hour exceedence of the guideline of 80 $\mu\text{g}/\text{m}^3$.
 - o September 19 14:00 127.3 $\mu\text{g}/\text{m}^3$ Alberta Environment Reference # 289721
- ◆ All analyzers and sensors at the Smoky Heights station had an operational uptime greater than 90% for the month of September.

Beaverlodge Station:

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

Valleyview Station:

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

Falher Station:

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

Clairmont Station:

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

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of September: Sylvester, Wanham, Shaftesbury, East Prairie, and Gift Lake. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO₂ passives ranged from 0.1 ppb to 0.2 ppb, with a mean of 0.1 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.2 ppb to 3.7 ppb, with a mean of 0.9 ppb.
- Monthly average concentrations for O₃ passives ranged from 14.1 ppb to 33.6 ppb, with a mean of 21.1 ppb.
- Monthly average concentrations for H₂S ranged from 0.1 ppb to 0.2 ppb, with a mean of 0.1 ppb.

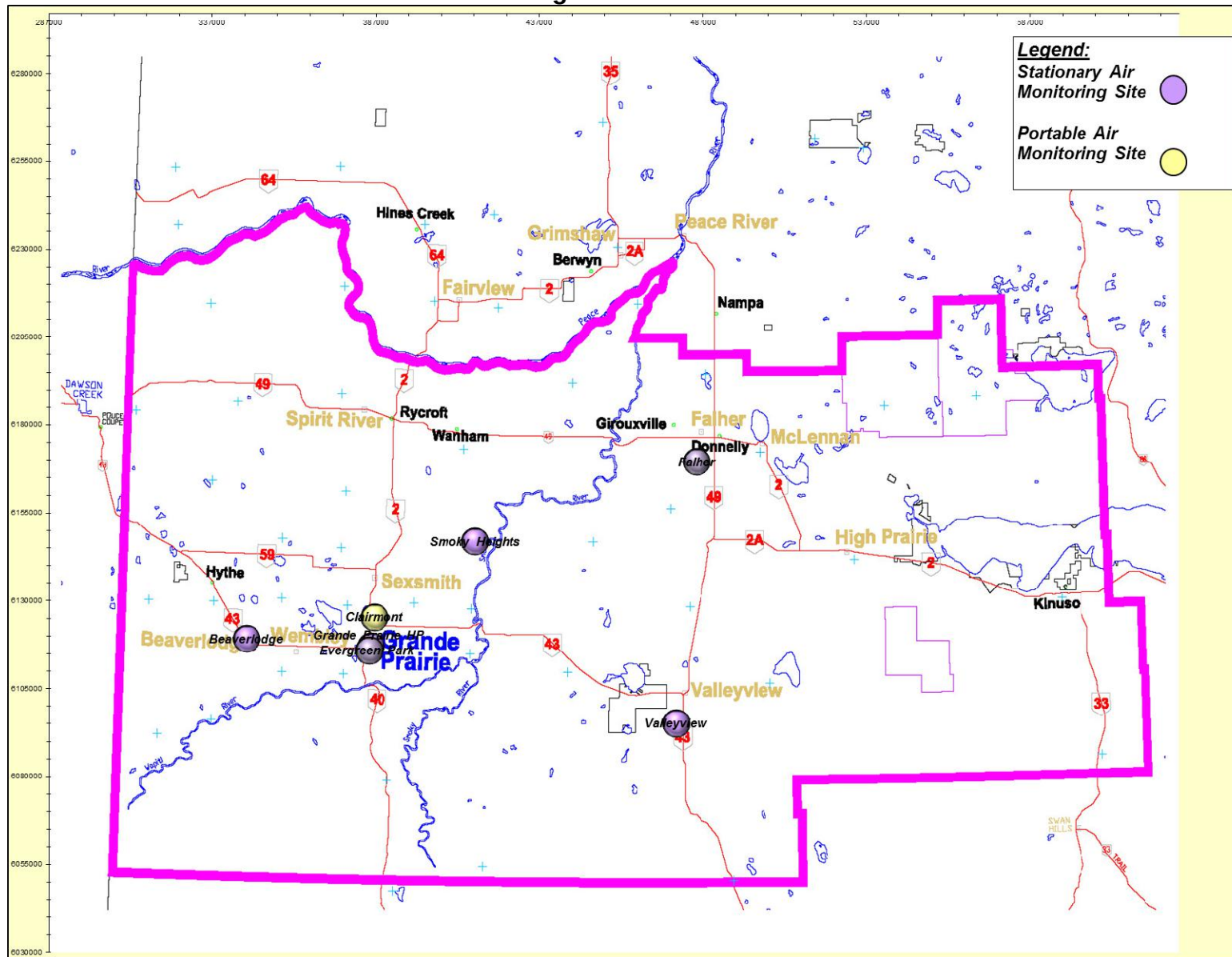
If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

On Behalf of the
Peace Airshed Zone Association



Patrick Andersen, B.Sc.
Program Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Sep-2014 Peace Airshed Zone Association							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	48	Henry Pirker	0.1	0	0	1.0	Sep-29 10:00	0.3	Sep-16	100%
SO ₂ (ppb)	172	48	Evergreen Park	0.3	0	0	3.0	Sep-11 11:00	1.1	Sep-13	98%
SO ₂ (ppb)	172	48	Smoky Heights	0.2	0	0	4.2	Sep-02 04:00	0.9	Sep-02	100%
SO ₂ (ppb)	172	48	Beaverlodge	0.2	0	0	2.5	Sep-23 06:00	0.5	Sep-23	100%
SO ₂ (ppb)	172	48	Valleyview	0.5	0	0	16.9	Sep-20 02:00	3.2	Sep-20	100%
SO ₂ (ppb)	172	48	Falher	0.2	0	0	1.5	Sep-27 11:00	0.3	Sep-16	100%
SO ₂ (ppb)	172	48	Clairmont	0.2	0	0	3.0	Sep-07 01:00	0.6	Sep-24	100%
NO (ppb)			Henry Pirker	3.0	0	0	63.4	Sep-16 08:00	10.0	Sep-16	99%
NO ₂ (ppb)	159	106	Henry Pirker	6.3	0	0	34.9	Sep-22 11:00	11.1	Sep-16	99%
NO _x (ppb)			Henry Pirker	9.3	0	0	81.7	Sep-22 11:00	21.2	Sep-16	99%
NO (ppb)			Beaverlodge	0.4	0	0	16.3	Sep-22 11:00	1.4	Sep-22	100%
NO ₂ (ppb)	159	106	Beaverlodge	2.4	0	0	16.4	Sep-22 11:00	4.0	Sep-16	100%
NO _x (ppb)			Beaverlodge	2.8	0	0	32.6	Sep-22 11:00	5.1	Sep-22	100%
NO (ppb)			Clairmont	2.5	0	0	46.6	Sep-18 08:00	8.1	Sep-17	100%
NO ₂ (ppb)	159	106	Clairmont	4.4	0	0	28.6	Sep-18 07:00	9.1	Sep-18	100%
NO _x (ppb)			Clairmont	7.0	0	0	75.1	Sep-18 07:00	16.8	Sep-18	100%
O ₃ (ppb)	82		Henry Pirker	17.5	0	-	40.4	Sep-23 15:00	27.0	Sep-23	100%
O ₃ (ppb) - 8-hr			Henry Pirker		0				37.3	Sep-23	
O ₃ (ppb)	82		Beaverlodge	22.1	0	-	47.8	Sep-21 18:00	32.9	Sep-23	100%
O ₃ (ppb) - 8-hr			Beaverlodge		0				41.6	Sep-21	
O ₃ (ppb)	82		Clairmont	18.1	0	-	39.6	Sep-23 16:00	28.4	Sep-19	100%
O ₃ (ppb) - 8-hr			Clairmont		0				38.4	Sep-23	
CO (ppm)	13		Henry Pirker	0.16	0	-	0.5	Sep-14 21:00	0.2	Sep-21	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.3	Sep-15	

PAZA Monthly Continuous Data Summary – continued

Sep-2014 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	1.9	-	-	4.1	Sep-15 04:00	2.2	Sep-15	100%
CH ₄ (ppm)			Henry Pirker	1.9	-	-	4.1	Sep-15 04:00	2.2	Sep-15	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Sep-08 19:00	0.0	Sep-08	100%
THC (ppm)			Clairmont	2.04	-	-	3.7	Sep-29 06:00	2.3	Sep-22	100%
TRS (ppb)			Henry Pirker	0.2	-	-	1.3	Sep-13 09:00	0.5	Sep-13	100%
TRS (ppb)			Evergreen Park	0.3	-	-	2.1	Sep-13 08:00	0.5	Sep-13	100%
TRS (ppb)			Smoky Heights	0.1	-	-	0.9	Sep-13 23:00	0.3	Sep-23	100%
TRS (ppb)			Clairmont	0.5	-	-	3.5	Sep-22 02:00	1.1	Sep-22	100%
H ₂ S (ppb)	10	3	Valleyview	0.2	0	0	2.1	Sep-30 21:00	0.3	Sep-30	100%
H ₂ S (ppb)	10	3	Falher	0.3	0	0	6.5	Sep-16 00:00	1.0	Sep-15	100%
PM _{2.5} (µg/m3)	80	30	Henry Pirker	5.9	0	0	34.2	Sep-13 12:00	16.4	Sep-22	100%
PM _{2.5} (µg/m3)	80	30	Evergreen Park	5.1	4	0	107.9	Sep-19 10:00	24.4	Sep-19	99%
PM _{2.5} (µg/m3)	80	30	Smoky Heights	4.3	1	0	127.3	Sep-19 14:00	14.1	Sep-17	94%
PM _{2.5} (µg/m3)	80	30	Beaverlodge	3.0	0	0	17.0	Sep-17 20:00	13.1	Sep-17	95%
PM _{2.5} (µg/m3)	80	30	Clairmont	4.2	0	0	37.9	Sep-21 21:00	15.9	Sep-17	100%
RH (%)			Henry Pirker	65.4	-	-	90.1	Sep-13 10:00	84.1	Sep-26	100%
RH (%)			Evergreen Park	70.4	-	-	97.1	Sep-13 12:00	91.0	Sep-26	100%
RH (%)			Beaverlodge	72.6	-	-	100.0	Sep-03 04:00	96.7	Sep-26	100%
RH (%)			Valleyview	74.7	-	-	100.0	Sep-25 10:00	99.1	Sep-25	100%
SR (W/m ²)			Henry Pirker	116.2	-	-	626.0	Sep-03 14:00	196.1	Sep-03	100%
Temp (°C)			Henry Pirker	11.1	-	-	28.5	Sep-21 17:00	18.7	Sep-06	100%
Temp (°C)			Evergreen Park	11.0	-	-	28.1	Sep-21 17:00	18.6	Sep-06	100%
Temp (°C)			Smoky Heights	10.3	-	-	28.1	Sep-21 17:00	16.9	Sep-06	100%
Temp (°C)			Beaverlodge	10.8	-	-	28.8	Sep-21 17:00	17.8	Sep-21	100%
Temp (°C)			Valleyview	11.1	-	-	28.2	Sep-21 18:00	17.5	Sep-21	100%
Temp (°C)			Falher	10.4	-	-	28.2	Sep-21 15:00	18.0	Sep-21	100%
Temp (°C)			Clairmont	10.6	-	-	26.8	Sep-21 18:00	17.4	Sep-06	100%

PAZA Monthly Continuous Data Summary – continued

Sep-2014 Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	7.7	-	-	44.0	Sep-19 13:00	23.3	Sep-19	100%
WSPD s (km/hr)			Evergreen Park	9.7	-	-	66.0	Sep-19 13:00	33.6	Sep-19	100%
WSPD s (km/hr)			Smoky Heights	14.5	-	-	52.0	Sep-19 16:00	30.2	Sep-19	100%
WSPD s (km/hr)			Beaverlodge	10.2	-	-	58.0	Sep-19 14:00	30.8	Sep-19	100%
WSPD s (km/hr)			Valleyview	4.0	-	-	25.0	19//14 17:	11.6	Sep-19	100%
WSPD s (km/hr)			Falher	13.0	-	-	42.0	Sep-19 12:00	26.1	Sep-19	100%
WSPD s (km/hr)			Clairmont	9.5	-	-	37.0	Sep-19 14:00	22.5	Sep-19	100%
WSPD v (km/hr)			Henry Pirker	2.9	-	-	44.0	Sep-19 13:00	22.3	Sep-19	100%
WSPD v (km/hr)			Evergreen Park	4.6	-	-	65.0	Sep-19 13:00	32.4	Sep-19	100%
WSPD v (km/hr)			Smoky Heights	7.5	-	-	52.0	Sep-19 16:00	29.4	Sep-19	100%
WSPD v (km/hr)			Beaverlodge	2.8	-	-	57.0	Sep-19 14:00	30.0	Sep-19	100%
WSPD v (km/hr)			Valleyview	1.3	-	-	25.0	Sep-19 17:00	10.6	Sep-19	100%
WSPD v (km/hr)			Falher	2.3	-	-	41.0	Sep-19 12:00	24.0	Sep-19	100%
WSPD v (km/hr)			Clairmont	2.1	-	-	37.0	Sep-19 14:00	21.1	Sep-19	100%
WDIR			Henry Pirker	W	-	-	-	-	-	-	100%
WDIR			Evergreen Park	W	-	-	-	-	-	-	100%
WDIR			Smoky Heights	WSW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	W	-	-	-	-	-	-	100%
WDIR			Valleyview	WNW	-	-	-	-	-	-	100%
WDIR			Falher	SSW	-	-	-	-	-	-	100%
WDIR			Clairmont	W	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on September 5th (SO₂, NO_x, O₃) and 8th (CO, THC, TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43C	Manifold cleaning on September 8 th during calibration period.
NOx/NO/NO ₂	TEI	42C	Fan replaced September 5 th . Manifold cleaning on September 8 th during calibration period. Channel taken offline on September 29 th during span gas replacement.
O ₃	TEI	49C	Manifold cleaning on September 8 th during calibration period.
CO	TEI	48C	Manifold cleaning on September 8 th during calibration period. Channel taken offline on September 29 th during span gas replacement.
THC/CH ₄ /NMHC	TEI	55I	No spans September 7 th and 8 th , span system adjusted during calibration on September 8 th . Channel taken offline on September 29 th during span gas replacement.
TRS	TEI	45C/43C	Manifold cleaning on September 8 th during calibration period.
PM _{2.5}	Sharp	5030	Analyzer maintenance performed September 4 th .
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Evergreen Park Station

General Station Issues

Routine monthly calibration performed on September 10th (SO₂, TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	Manifold blower motor seized on September 11 th and replaced. In addition, 3 hours invalidated due to invalid readings returned.
TRS	TEI	43C	No operational issues observed.
PM _{2.5}	R&P	1400AB	Eight hours flagged invalid due to negative readings. Four 1-hour exceedences recorded. AE Reference #289720.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Routine monthly calibration performed on September 12th (SO₂, TRS).

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	Sample head found dislodged on September 28 th , vandalism suspected. Four hours invalidated due to negative swings. One 1-hour exceedence recorded. AE Reference #289721
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on September 3rd (SO₂, NO_x, O₃).

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	No operational issues observed.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	Wind system changed out for calibration on September 17 th .

PAZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on September 26th (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	TEI	43A	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA – Falher Station

General Station Issues

Routine monthly calibrations were performed on September 24th (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	Thermo	450i	No operational issues observed.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

PAZA – Portable-Clairmont

General Station Issues

Routine monthly calibrations were performed on September 22nd (SO₂, NO_x, O₃) and 23rd (THC, TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
NO _x	TEI	42i	No operational issues observed.
O ₃	TEI	49C	No operational issues observed.
TRS	TEI	39C	No operational issues observed.
THC	TEI	51C	Span cylinder expired on September 6 th , swapped September 9 th . Analyzer recalibrated on September 25 th after baseline drift. Hydrogen cylinder pressure adjusted.
PM _{2.5}	R&P	1400AB	Sample filter changes September 9 th , glassware cleaned on September 23 rd .
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

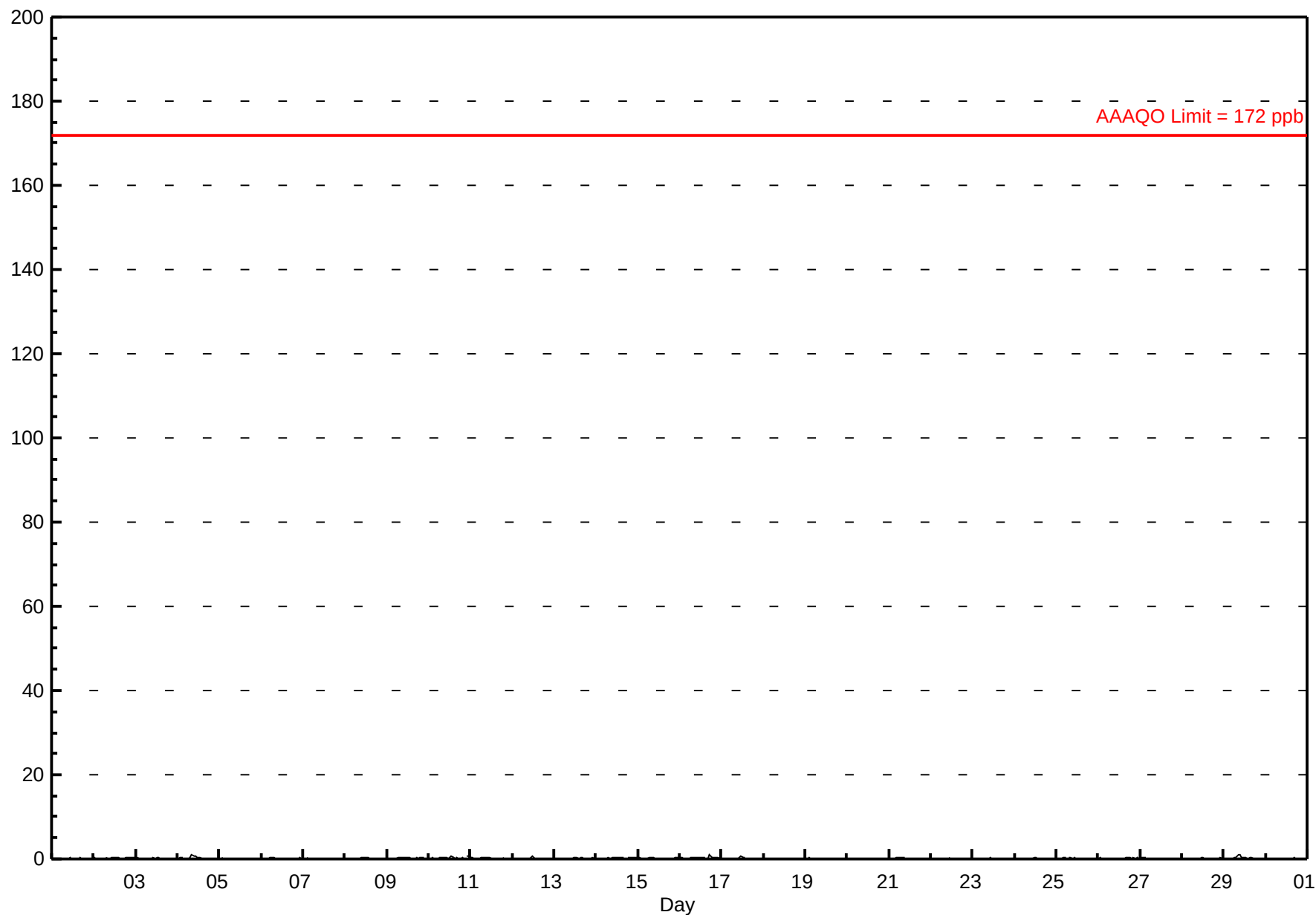
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.0 ppb on Sep 29 10:00 Maximum Daily Average: 0.3 ppb on Sep 16																				Hours in Service: 720 Hours of Data: 681 Hours of Missing Data: 39 Hours of Calibration: 36 Percent Operational Time: 99.6						
Minimum Value: 0 ppb on Sep 3 15:00 Maximum Diurnal Average: 0.2 ppb at hour 12 Monthly Average: 0.11 ppb																				Minimum Daily Average: 0.0 ppb on Sep 20 Minimum Diurnal Average: 0.0 ppb at hour 4 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.5						
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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
3-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	0.5
4-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	0.2	0.9
5-Sep	0	0	0	A	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
6-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	0.3
7-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	0.0	0.4
8-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M	M	M	0	0	0	0	0	A	0.1	0.4
9-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.2	0.4
10-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	1	1	0.2	0.6
11-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	0.4
12-Sep	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.5
13-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
14-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	0.2	0.5
15-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	0.4
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0.3	0.9
17-Sep	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.5
18-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	0.0	0.3
19-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	0.0	0.5
20-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
21-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	0.3
22-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	0.0	0.3
23-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	0.0	0.2
24-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	0.1	0.4
25-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
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	0.3
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	0.1	0.3
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	0.1	0.3
29-Sep	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
30-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	0.2
0.1 0.1 0.1 0.0 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1																								Diurnal Average		
0.4 0.3 0.5 0.2 0.2 0.2 0.4 0.5 0.9 1.0 0.7 0.5 0.5 0.6 0.4 0.3 0.3 0.9 0.3 0.3 0.3 0.3 0.3 0.5 0.5																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - September 2014



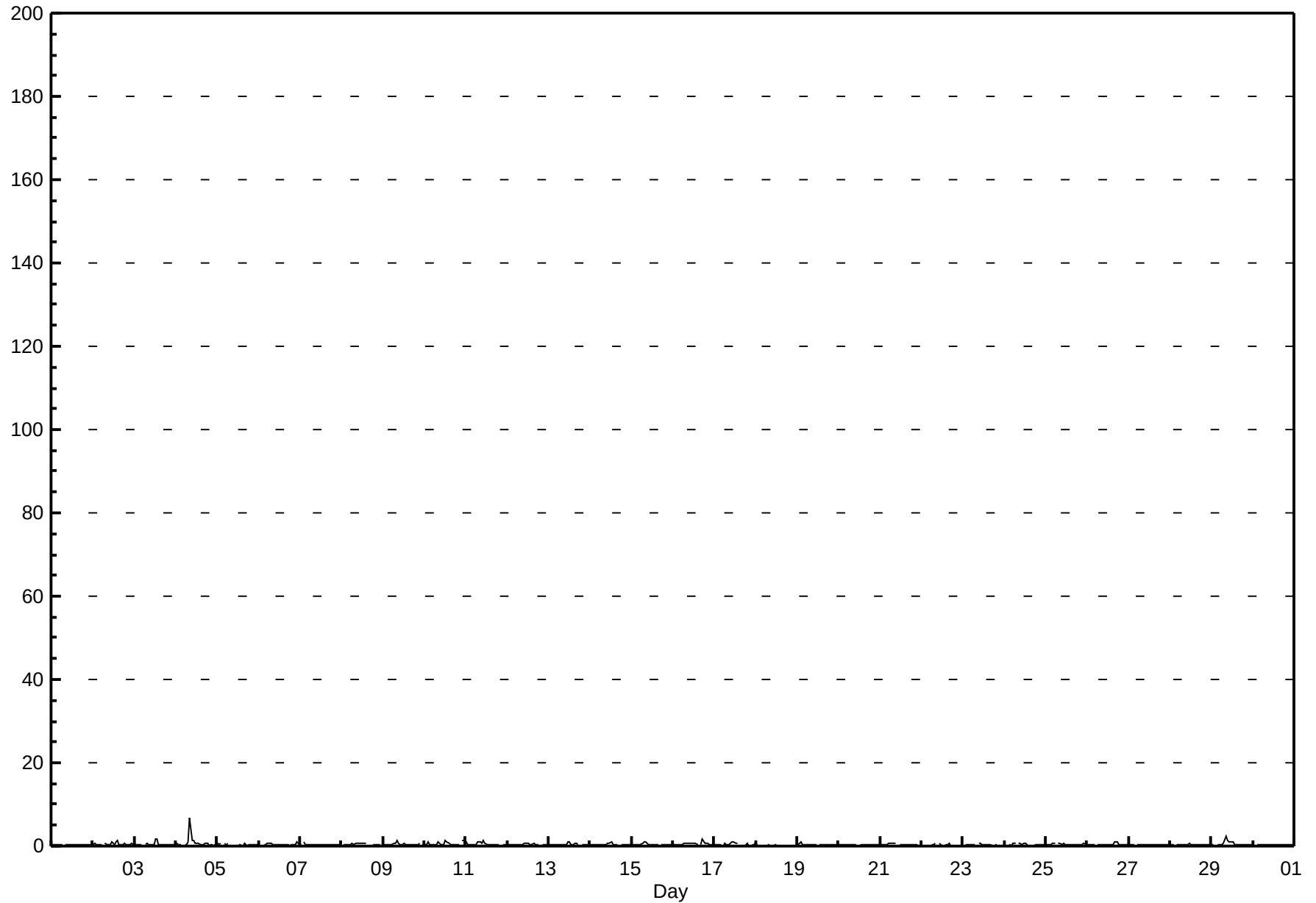
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - September 2014

Maximum Value: 6.8 ppb on Sep 4 09:00																				Maximum Daily Average: 0.8 ppb on Sep 4					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 5 15:00																				Minimum Daily Average: 0.1 ppb on Sep 18					Hours of Data: 681	
Maximum Diurnal Average: 0.8 ppb at hour 9																				Minimum Diurnal Average: 0.3 ppb at hour 4					Hours of Missing Data: 39	
Monthly Average: 0.43 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.4 P ₉₀ = 0.7 P ₉₉ = 1.4					Hours of Calibration: 36	
																				Percent Operational Time: 99.6						
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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4
2-Sep	0	1	0	0	0	0	A	1	0	0	0	1	0	1	1	0	0	0	1	0	0	0	1	0	0.5	1.3
3-Sep	1	0	0	0	0	A	0	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0.5	1.8
4-Sep	1	0	0	0	A	0	0	1	7	1	1	1	1	1	0	0	0	1	1	0	0	0	0	1	0.8	6.8
5-Sep	1	0	1	A	1	0	1	C	C	C	C	C	0	0	0	0	1	0	0	0	0	0	0	0	0.3	0.6
6-Sep	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	0.9
7-Sep	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9
8-Sep	A	0	0	0	0	0	1	0	1	1	1	1	1	1	1	M	M	M	0	0	0	0	0	A	0.5	0.8
9-Sep	0	0	0	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	A	0	0.5	1.4
10-Sep	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	A	1	1	0.6	1.4
11-Sep	1	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0.5	1.3
12-Sep	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	A	0	0	0	0	0.4	0.8
13-Sep	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	A	0	0	0	0	0	0.5	0.9
14-Sep	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0.5	0.9
15-Sep	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.5	1.0
16-Sep	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	A	0	2	1	1	1	0	0	0	0.6	1.8
17-Sep	0	0	0	0	0	0	1	0	0	1	1	1	1	1	A	0	0	0	0	0	1	0	0	0	0.3	1.1
18-Sep	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	1.0
19-Sep	0	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
20-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
21-Sep	0	0	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.8
22-Sep	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0.2	0.6
23-Sep	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
24-Sep	0	0	0	0	0	1	1	A	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
25-Sep	0	0	0	0	1	1	A	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.8
26-Sep	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0.4	0.9
27-Sep	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
28-Sep	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
29-Sep	0	0	A	0	0	0	0	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	2.4
30-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	0.4	0.5
0.4 0.4 0.4 0.3 0.4 0.4 0.4 0.5 0.8 0.5 0.6 0.6 0.6 0.5 0.4 0.3 0.4 0.4 0.3 0.4 0.4 0.3 0.4 0.4																									Diurnal Average	
1.0 0.8 1.2 0.4 0.6 0.8 0.8 1.0 6.8 1.4 1.3 0.9 1.8 1.6 1.3 0.8 0.9 1.8 0.8 0.6 0.7 0.6 1.4 1.2																									Diurnal Maximum	
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																		

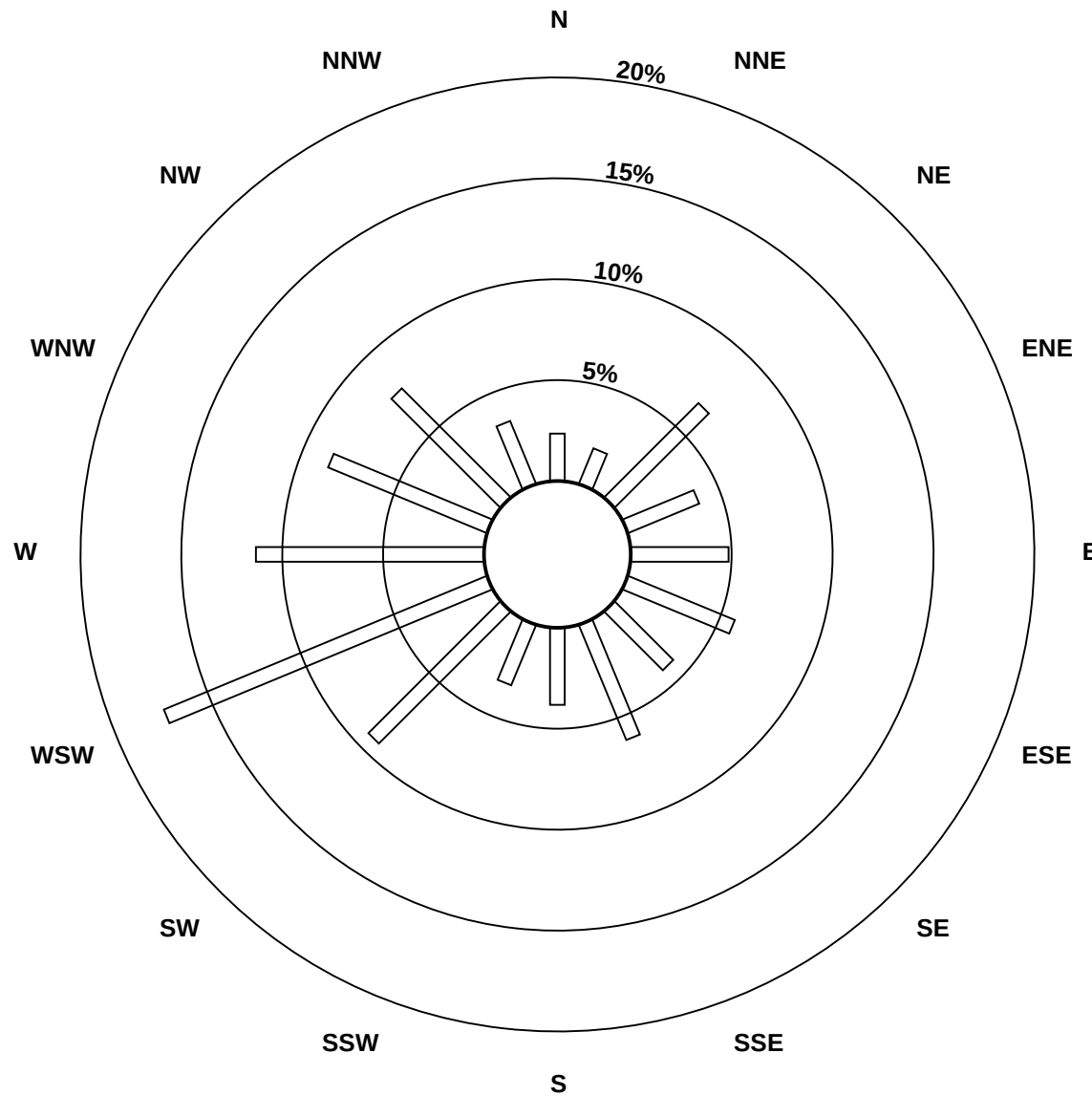
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - September 2014

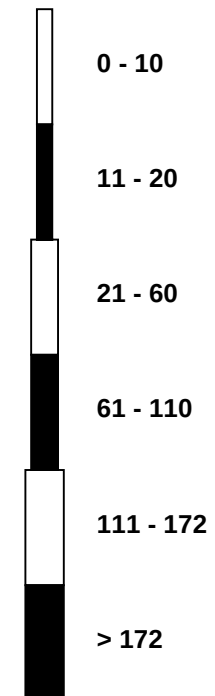


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Henry Pirker - September 2014

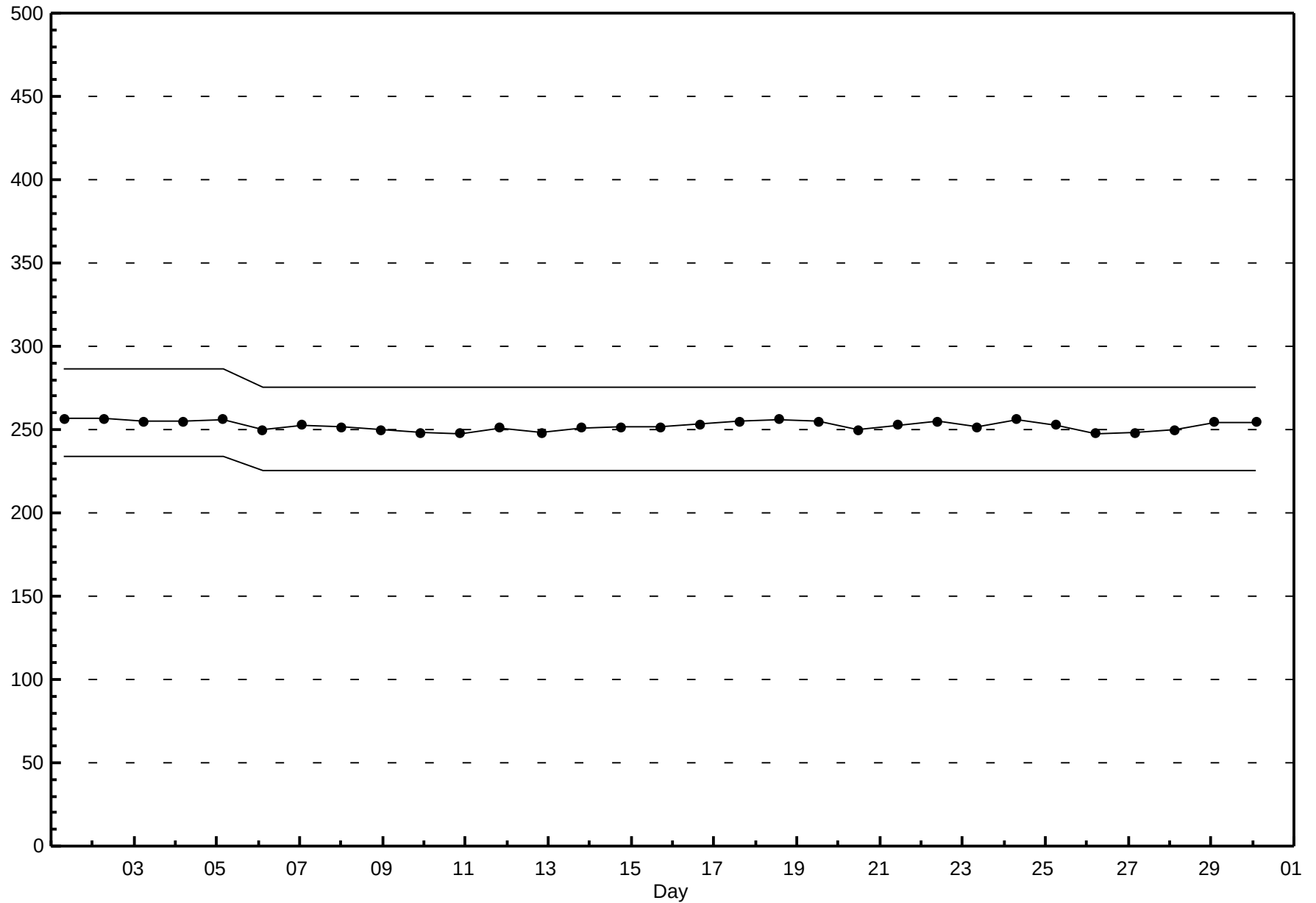


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - September 2014



Hourly Averages

Total Reduced Sulphur (TRS) - ppb

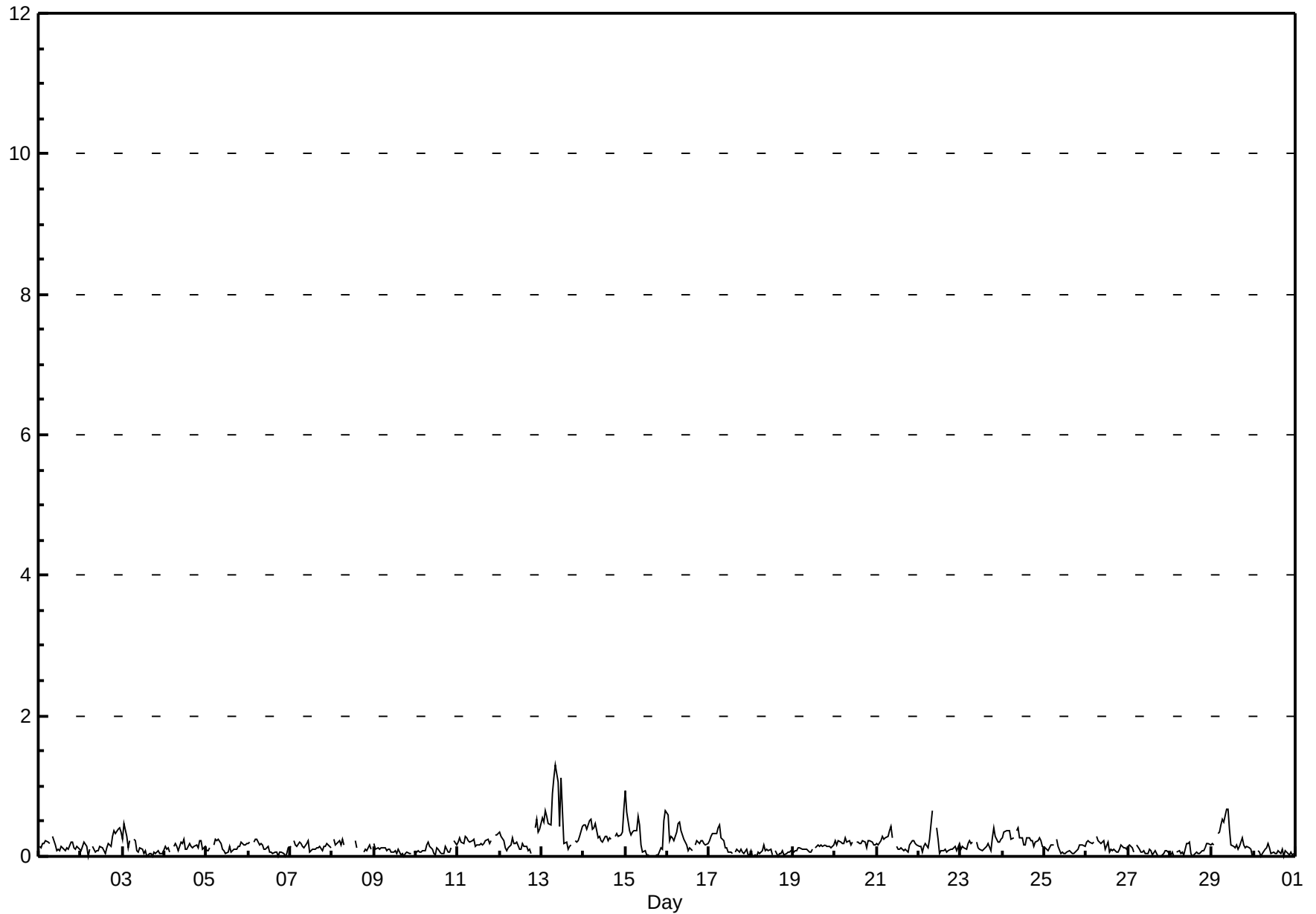
Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 720						
Maximum Value: 1.3 ppb on Sep 13 09:00																				Maximum Daily Average: 0.5 ppb on Sep 13		Hours of Data: 681				
Minimum Value: 0 ppb on Sep 3 15:00																				Minimum Daily Average: 0.1 ppb on Sep 18		Hours of Missing Data: 39				
Maximum Diurnal Average: 0.3 ppb at hour 8																				Minimum Diurnal Average: 0.1 ppb at hour 18		Hours of Calibration: 36				
Monthly Average: 0.17 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.6		Percent Operational Time: 99.6				
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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
3-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	0.5
4-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
5-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	0.1	0.2
6-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
7-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	0.2
8-Sep	A	0	0	0	0	0	0	0	C	C	C	C	C	0	0	M	M	M	0	0	0	0	0	A	--	0.2
9-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	0.2
10-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.1	0.2
11-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
12-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0.2	0.5
13-Sep	1	0	1	1	0	0	1	1	1	1	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0.5	1.3
14-Sep	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0.4	0.7
15-Sep	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0.3	0.9
16-Sep	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6
17-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	0.2	0.4
18-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	0.2
19-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
20-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
21-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	0.4
22-Sep	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
23-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	0.2	0.4
24-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	0.3	0.4
25-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
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	0.2	0.3
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	0.1	0.2
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	0.1	0.2
29-Sep	0	0	A	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
30-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	0.2
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - September 2014



Hourly Maximums

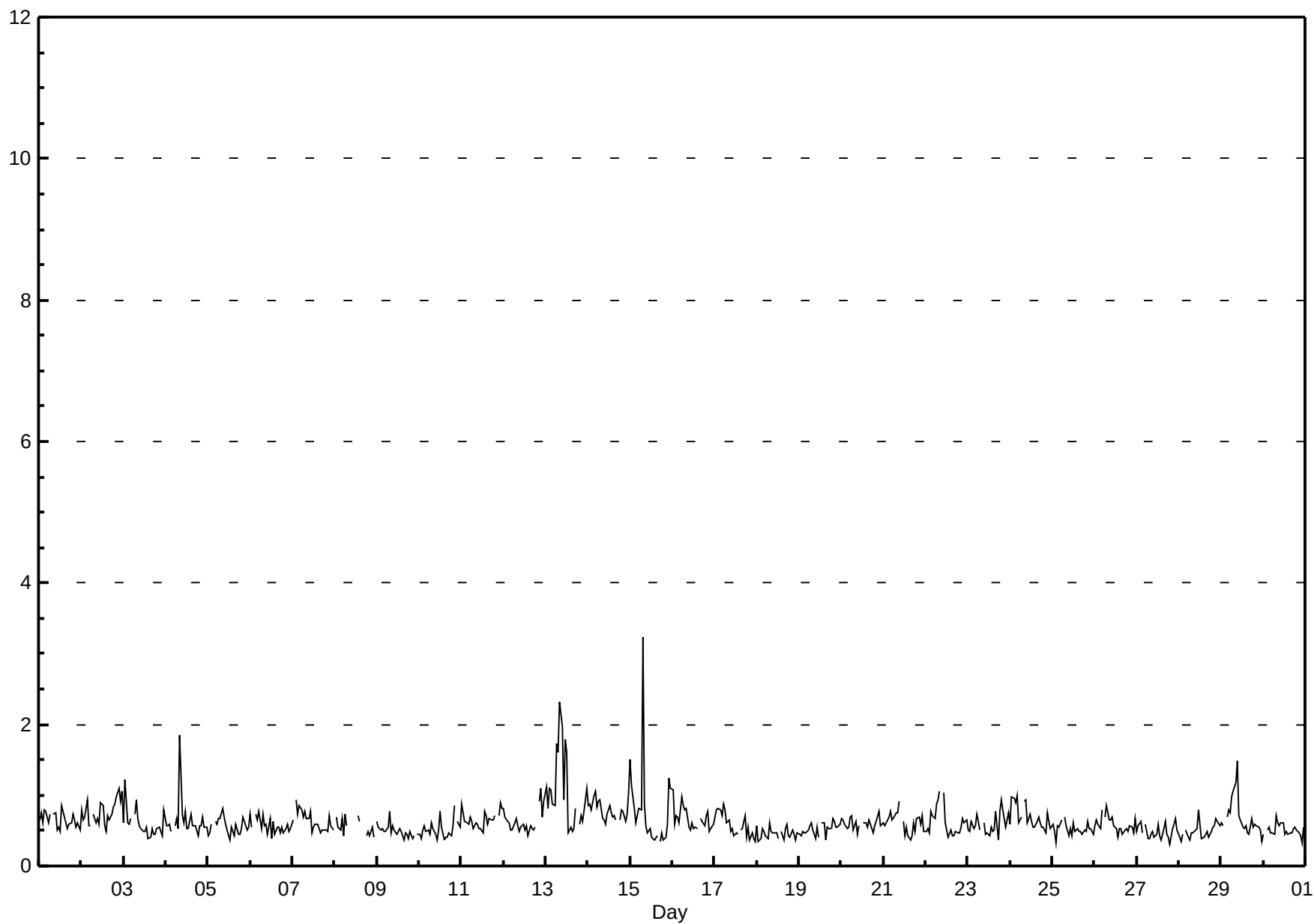
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - September 2014

Maximum Value: 3.2 ppb on Sep 15 08:00																				Maximum Daily Average: 1.1 ppb on Sep 13										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 27 20:00																				Minimum Daily Average: 0.5 ppb on Sep 18										Hours of Data: 681	
Maximum Diurnal Average: 0.8 ppb at hour 8																				Minimum Diurnal Average: 0.5 ppb at hour 16										Hours of Missing Data: 39	
Monthly Average: 0.62 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.7 P ₉₀ = 0.8 P ₉₉ = 1.6										Hours of Calibration: 36	
																														Percent Operational Time: 99.6	
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	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0.6	0.9					
2-Sep	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.8	1.1					
3-Sep	1	1	1	1	1	A	1	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	0	1	0.6	1.2					
4-Sep	1	1	1	0	A	1	1	1	2	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.6	1.8					
5-Sep	0	0	1	A	1	1	1	1	1	1	1	1	0	1	0	0	1	0	0	1	1	1	1	1	0.6	0.8					
6-Sep	1	1	A	1	1	1	1	1	1	1	0	1	0	1	0	1	1	0	1	0	1	1	0	1	0.6	0.8					
7-Sep	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	0	1	1	0	0.6	0.9					
8-Sep	A	1	1	1	1	0	1	1	C	C	C	C	C	1	1	M	M	M	0	0	0	1	0	A	--	0.7					
9-Sep	1	1	1	1	0	0	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	A	A	0	0.5	0.8				
10-Sep	0	0	1	1	0	1	0	1	1	0	0	1	1	1	0	0	0	0	0	0	1	1	A	1	1	0.5	0.9				
11-Sep	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9					
12-Sep	1	1	1	1	0	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	A	1	1	1	0.6	1.1					
13-Sep	1	1	1	1	1	1	2	2	2	2	1	2	2	0	1	0	1	1	A	1	1	1	1	1	1.1	2.3					
14-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	0.8	1.1					
15-Sep	2	1	1	1	1	1	1	3	1	1	0	1	0	0	0	0	A	0	0	0	0	0	1	1	0.8	3.2					
16-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					
17-Sep	1	1	1	1	1	1	1	1	1	0	1	0	0	0	A	1	1	1	1	0	1	0	0	0	0.6	0.9					
18-Sep	1	0	0	1	0	0	0	1	0	0	0	0	0	A	0	0	1	1	0	0	1	0	0	0	0.5	0.6					
19-Sep	0	0	0	0	0	0	1	1	1	0	1	0	A	1	1	0	1	1	1	1	1	1	1	1	0.5	0.7					
20-Sep	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	0	1	1	1	1	0.6	0.8					
21-Sep	1	1	1	1	1	1	1	1	1	1	A	1	0	1	0	0	0	1	0	1	1	1	1	0	0.6	0.9					
22-Sep	0	1	0	1	1	1	1	1	1	A	1	1	1	0	1	0	0	0	0	0	0	1	1	1	0.6	1.1					
23-Sep	1	0	1	1	1	1	1	1	A	1	0	0	0	1	0	1	1	0	1	1	1	1	1	1	0.6	0.9					
24-Sep	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	1.0					
25-Sep	1	0	0	1	1	1	A	1	1	0	1	0	1	0	1	0	0	0	1	0	1	1	1	0	0.5	0.7					
26-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	0	1	0.6	0.9					
27-Sep	0	1	1	0	A	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	1	0.5	0.7					
28-Sep	0	0	0	A	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	0.5	0.8					
29-Sep	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0.7	1.5					
30-Sep	0	A	1	1	0	0	0	1	1	1	1	1	0	0	0	0	0	1	1	1	0	0	0	1	0.5	0.7					
0.7 0.6 0.6 0.7 0.7 0.6 0.7 0.8 0.8 0.7 0.6 0.6 0.6 0.6 0.5 0.5 0.6 0.5 0.5 0.6 0.6 0.6 0.6 0.6																								Diurnal Average							
1.5 1.2 1.1 1.1 1.1 1.0 1.7 3.2 2.3 2.0 1.0 1.8 1.6 0.9 0.7 0.7 0.8 0.8 0.8 0.8 0.9 1.0 1.1 1.2 1.1																								Diurnal Maximum							
C - Calibration M - Maintenance A - Automated Daily Zero Span																															

Hourly Maximums

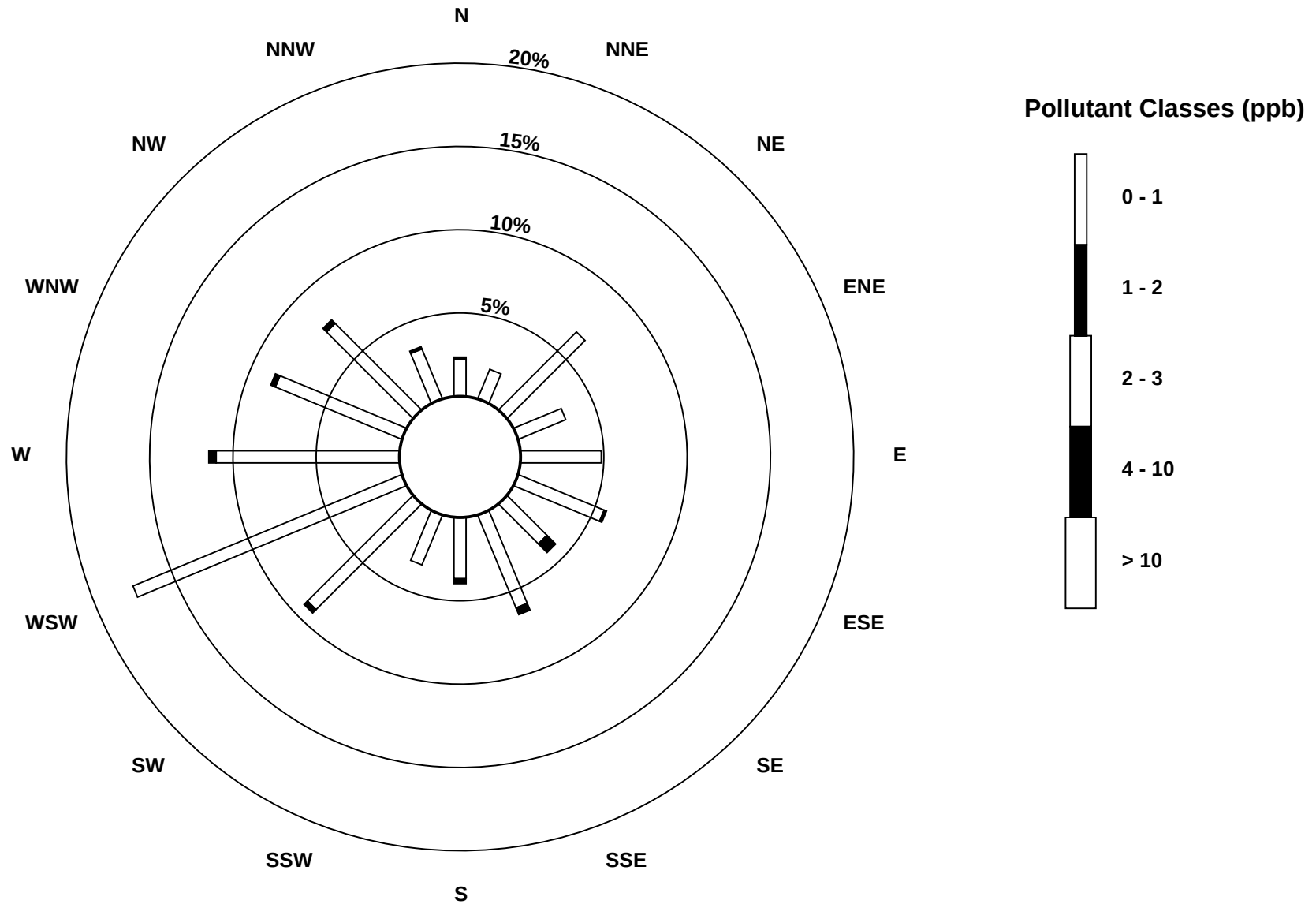
Total Reduced Sulphur (TRS) - ppb
Henry Pirker - September 2014



Pollutant Rose

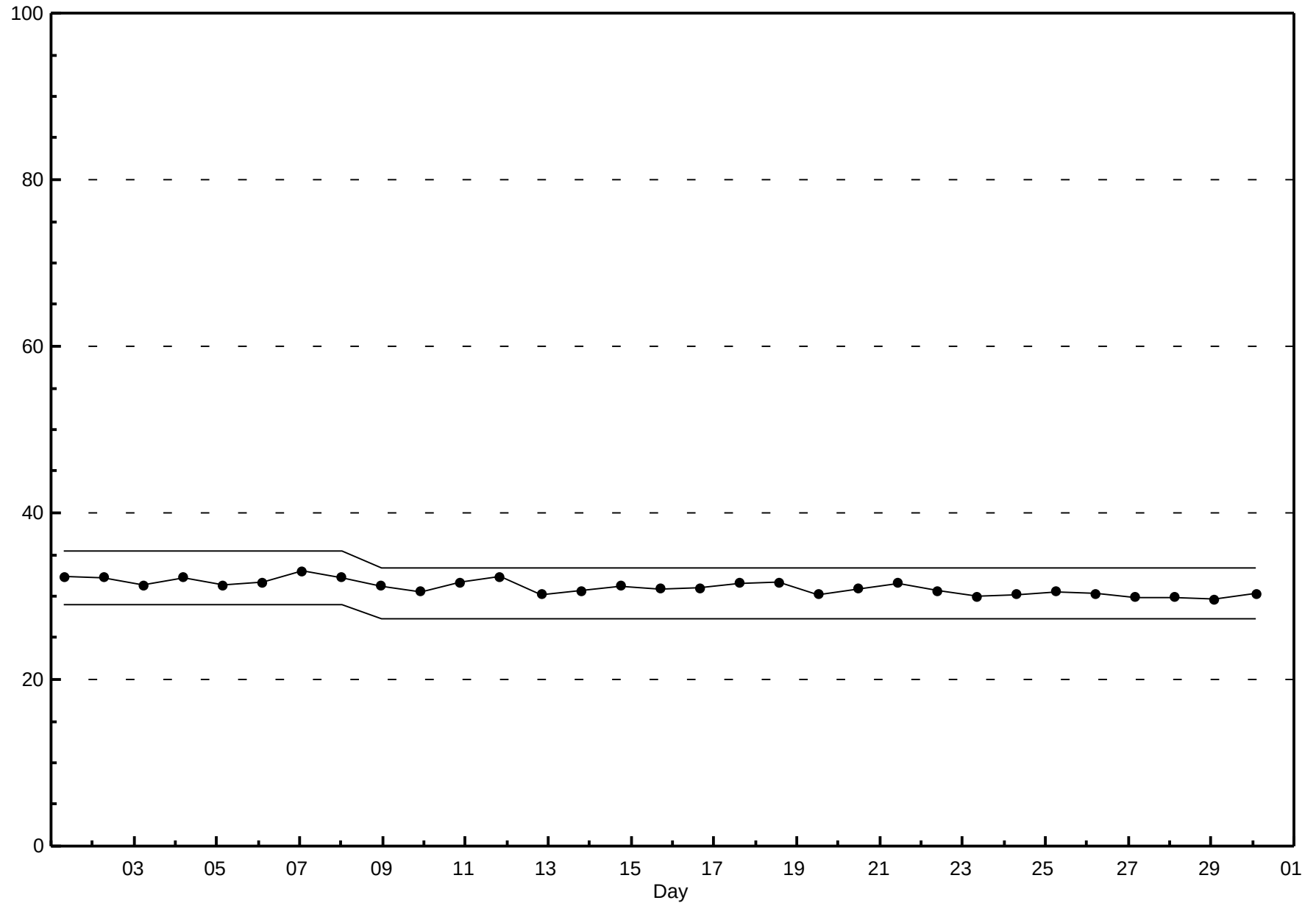
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - September 2014



Span Responses

Total Reduced Sulphur (TRS)
Henry Pirker - September 2014



Hourly Averages

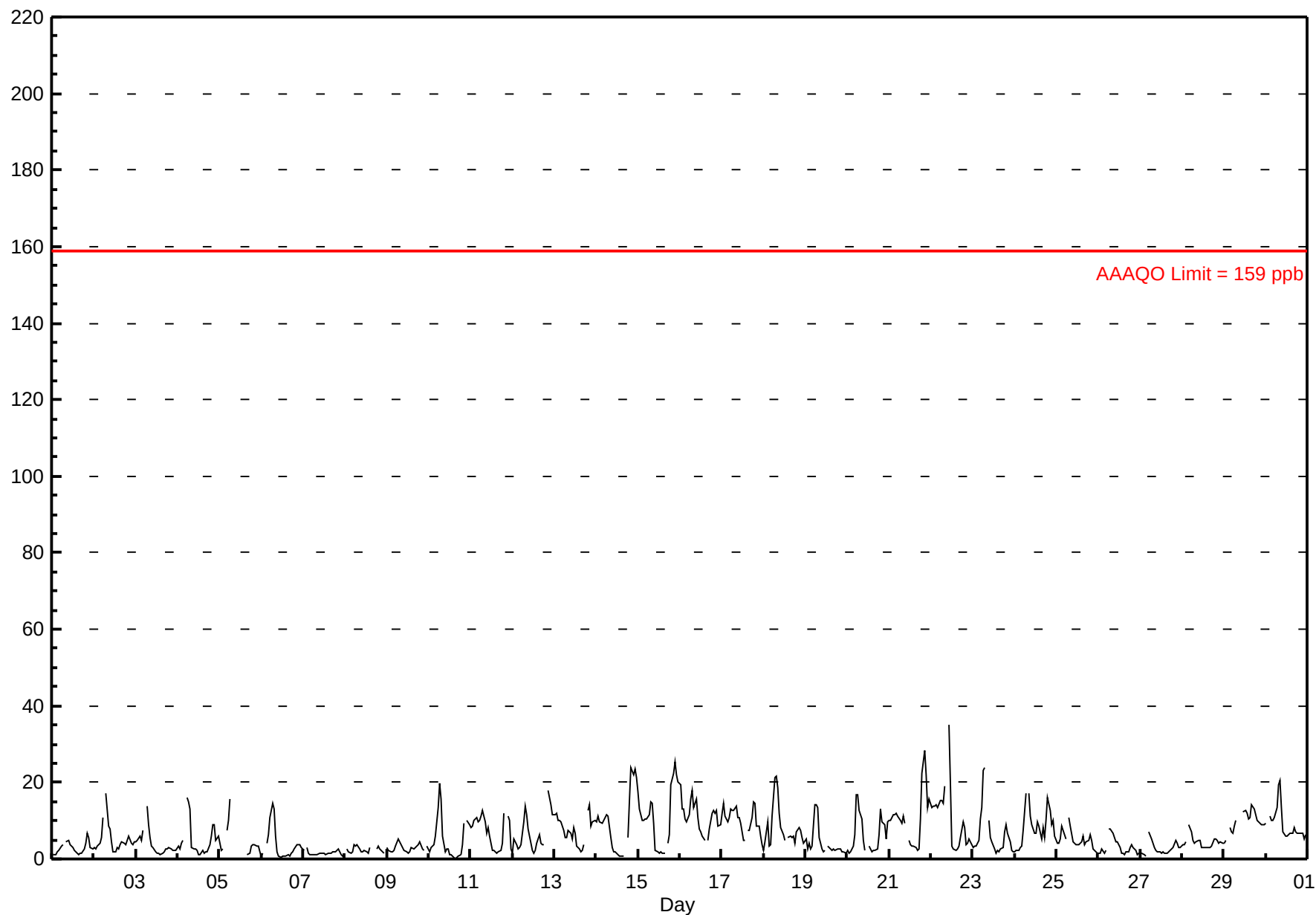
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 34.9 ppb on Sep 22 11:00 Maximum Daily Average: 11.1 ppb on Sep 16																				Hours in Service: 720 Hours of Data: 674						
Minimum Value: 0 ppb on Sep 10 16:00 Minimum Daily Average: 1.6 ppb on Sep 7 Maximum Diurnal Average: 11.8 ppb at hour 8 Minimum Diurnal Average: 3.0 ppb at hour 15 Monthly Average: 6.31 ppb Percentiles: P ₁ = 0.7 P ₁₀ = 1.6 Q ₁ = 2.4 Median = 4.4 Q ₃ = 9.6 P ₉₀ = 13.3 P ₉₉ = 23.0																				Hours of Missing Data: 46 Hours of Calibration: 40 Percent Operational Time: 99.2						
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	1	1	1	2	2	4	4	A	5	5	4	3	3	2	1	1	1	2	3	4	7	6	3	3	2.9	6.7
2-Sep	3	3	3	4	6	11	A	17	9	8	4	2	2	3	3	4	4	4	4	5	6	4	4	4	5.0	17.1
3-Sep	5	5	6	5	7	A	14	9	5	3	3	2	2	1	1	1	2	3	2	3	3	2	2	2	3.9	13.8
4-Sep	3	3	4	5	A	16	15	13	3	3	3	2	1	1	2	2	2	2	4	6	9	9	5	6	5.1	16.2
5-Sep	4	2	3	A	8	10	16	C	C	C	C	C	C	C	C	C	1	2	3	4	4	3	3	2	--	15.6
6-Sep	1	1	A	4	6	11	15	13	6	2	1	1	1	1	1	1	1	1	2	3	4	4	4	3	3.6	14.5
7-Sep	2	A	3	2	1	1	1	1	1	1	1	2	2	1	2	2	1	2	2	2	3	2	1	1	1.6	2.9
8-Sep	A	3	2	1	2	4	3	4	3	2	2	2	2	1	3	M	M	M	3	3	3	2	1	A	2.4	3.9
9-Sep	3	2	2	2	2	3	5	5	4	3	2	2	2	2	3	3	3	3	4	4	2	2	A	3	2.9	5.2
10-Sep	2	3	3	4	6	13	20	16	6	2	2	3	1	1	0	0	0	1	1	4	9	A	10	9	5.1	19.9
11-Sep	8	9	10	11	10	10	11	13	10	7	8	6	2	2	2	2	2	2	4	12	A	11	10	2	7.1	12.5
12-Sep	1	5	4	3	3	4	10	14	12	8	6	2	2	2	4	6	4	4	4	A	18	16	14	12	6.8	18.0
13-Sep	12	12	10	10	10	7	6	6	7	7	5	8	7	3	3	2	2	4	A	13	14	9	10	10	7.6	14.2
14-Sep	10	11	10	9	10	11	12	11	6	3	2	2	1	1	1	1	1	A	5	15	24	22	23	21	9.2	23.8
15-Sep	18	13	10	10	10	10	12	15	14	9	2	2	2	2	1	2	A	4	6	20	23	25	22	20	11.0	25.2
16-Sep	19	13	13	11	10	12	16	18	13	16	11	8	7	6	5	A	5	8	12	13	12	13	9	9	11.1	19.3
17-Sep	12	15	11	10	11	13	13	13	14	11	11	9	5	5	A	7	7	11	15	15	9	9	6	4	10.1	15.0
18-Sep	2	4	10	3	4	11	21	22	19	12	8	6	5	A	6	6	6	6	4	7	8	8	6	4	8.2	21.8
19-Sep	5	3	4	3	4	14	14	13	5	3	2	2	A	3	2	2	3	2	3	2	3	2	2	1	4.3	14.4
20-Sep	2	2	2	3	6	17	17	13	10	5	2	A	4	3	2	2	2	3	7	13	10	9	5	10	6.4	16.8
21-Sep	10	10	12	11	12	11	10	9	11	9	A	5	4	3	3	3	2	3	11	22	28	22	14	15	10.5	28.2
22-Sep	13	14	14	14	14	15	15	14	19	A	35	20	3	3	2	3	4	5	10	8	4	4	5	4	10.5	34.9
23-Sep	3	3	3	5	11	13	23	24	A	10	6	4	3	2	2	2	3	3	7	9	7	5	2	2	6.6	23.8
24-Sep	2	2	2	3	3	7	17	A	17	11	9	7	7	10	9	5	8	6	10	16	13	9	10	6	8.2	17.3
25-Sep	4	4	5	9	7	5	A	11	9	4	4	4	4	4	4	6	4	5	5	6	5	3	2	2	5.0	10.9
26-Sep	2	1	3	2	2	A	8	8	7	6	5	4	3	2	1	1	2	2	3	4	3	2	1	2	3.2	7.9
27-Sep	1	2	1	1	A	7	5	4	3	2	2	2	1	2	2	1	2	2	3	3	5	4	3	3	2.7	7.2
28-Sep	4	4	5	A	9	7	5	4	5	5	5	3	3	3	3	3	3	4	5	5	5	4	5	4	4.3	9.0
29-Sep	4	5	A	8	7	7	8	10	M	M	M	12	13	12	10	11	14	13	11	10	10	9	9	9	9.7	14.2
30-Sep	9	A	11	10	10	11	13	19	20	13	7	6	6	6	7	7	8	7	7	7	7	7	5	6	9.1	20.3
5.8 5.5 5.9 5.8 6.8 9.5 11.7 11.8 9.0 6.3 5.6 4.7 3.4 3.1 3.0 3.1 3.5 4.0 5.4 8.2 8.8 7.7 6.8 6.2																										Diurnal Average
19.3 14.5 13.9 14.0 13.6 16.7 23.0 23.8 20.3 15.6 34.9 19.7 12.8 11.9 10.5 11.0 14.2 13.1 15.0 22.5 28.2 25.2 23.3 21.3																										Diurnal Maximum
C - Calibration M - Maintenance A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - September 2014



Hourly Maximums

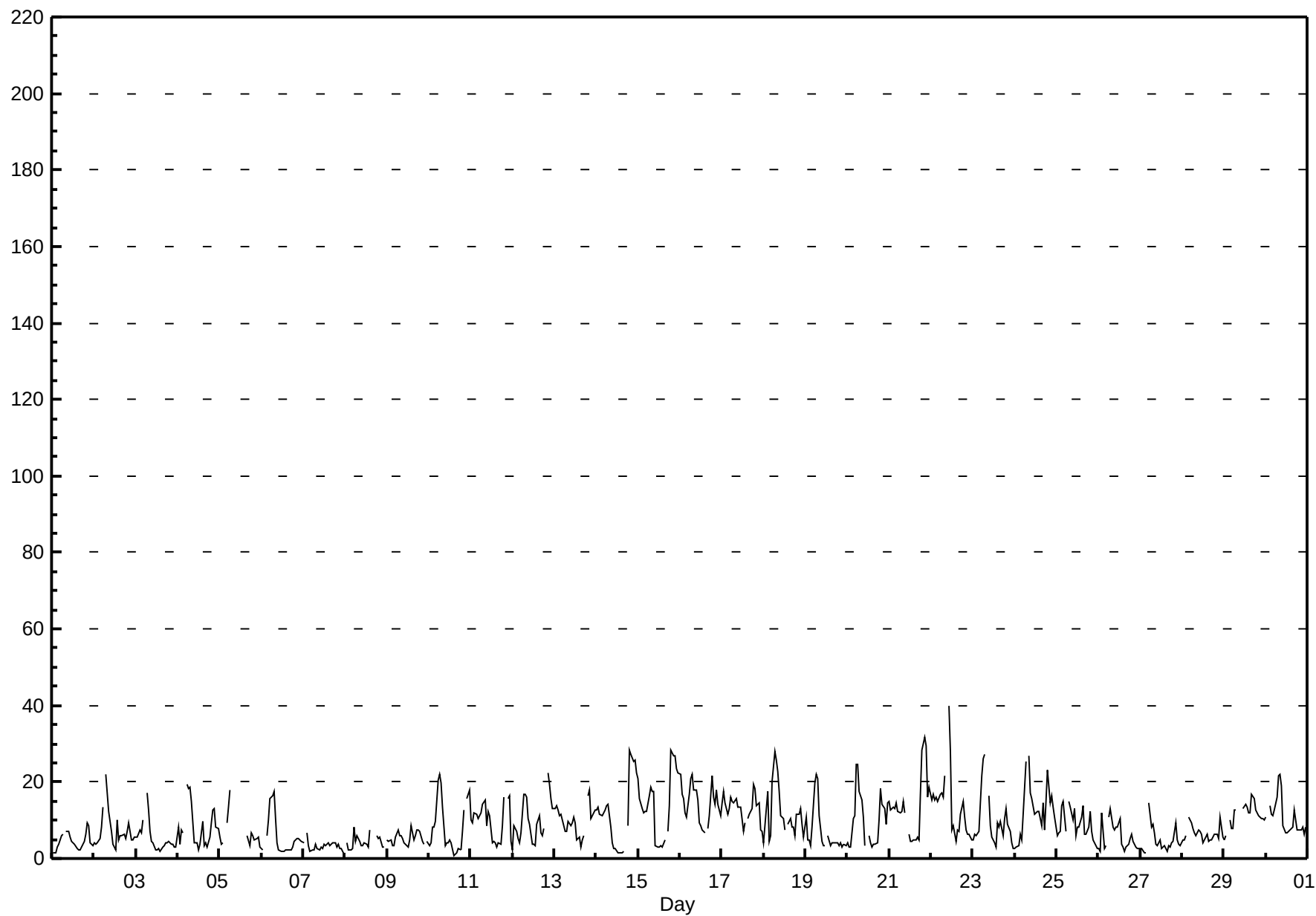
Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - September 2014

Maximum Value: 39.9 ppb on Sep 22 11:00																				Maximum Daily Average: 14.5 ppb on Sep 16					Hours in Service: 720		
Minimum Value: 1 ppb on Sep 10 15:00																				Minimum Daily Average: 3.3 ppb on Sep 7					Hours of Data: 674		
Maximum Diurnal Average: 15.3 ppb at hour 8																				Minimum Diurnal Average: 5.4 ppb at hour 14					Hours of Missing Data: 46		
Monthly Average: 8.98 ppb																				Percentiles: P ₁ = 1.6 P ₁₀ = 2.9 Q ₁ = 4.0 Median = 7.2 Q ₃ = 12.6 P ₉₀ = 17.0 P ₉₉ = 27.9					Hours of Calibration: 40		
																				Percent Operational Time: 99.2							
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	2	2	2	3	4	6	6	A	7	7	6	5	4	4	2	2	2	3	5	6	9	9	4	4	4.4	9.2	
2-Sep	4	4	4	5	8	14	A	22	12	10	7	4	2	10	5	6	6	6	5	7	9	5	5	6	7.2	22.1	
3-Sep	6	6	8	7	10	A	17	13	7	5	4	2	2	3	2	3	3	4	4	5	4	4	3	3	5.4	17.2	
4-Sep	8	4	7	7	A	20	18	19	15	4	4	4	2	4	10	3	4	3	6	9	13	13	8	8	8.4	19.5	
5-Sep	6	4	4	A	9	14	18	C	C	C	C	C	C	C	C	C	6	3	7	6	5	5	6	3	--	18.0	
6-Sep	3	2	A	6	10	16	16	17	11	4	2	2	2	2	2	2	2	2	3	4	5	5	5	5	5.6	17.5	
7-Sep	4	A	7	3	2	2	2	4	3	2	3	3	4	3	4	3	4	4	4	3	4	3	3	1	3.3	6.6	
8-Sep	A	4	2	2	3	8	5	6	5	3	3	4	4	3	8	M	M	M	6	5	5	3	3	A	4.3	8.2	
9-Sep	5	5	5	3	3	6	7	6	6	5	4	3	3	5	9	5	6	7	7	7	4	4	A	4	5.2	8.7	
10-Sep	3	4	8	8	10	21	22	20	13	3	4	4	5	4	1	1	2	3	2	7	13	A	16	18	8.3	21.9	
11-Sep	10	9	12	12	11	11	12	14	15	8	12	11	4	5	4	3	4	4	9	16	A	16	16	5	9.7	16.4	
12-Sep	2	9	7	5	4	7	17	17	16	10	9	4	4	3	9	11	7	6	8	A	22	20	16	13	9.8	22.5	
13-Sep	13	14	13	11	12	9	7	7	10	8	9	11	9	5	5	3	5	6	A	16	18	11	11	13	9.8	18.0	
14-Sep	13	14	12	11	12	13	14	14	8	4	3	3	2	2	2	2	2	A	9	28	27	25	26	23	11.5	28.2	
15-Sep	21	16	13	12	12	12	16	19	18	18	3	3	3	3	3	5	A	7	14	29	27	27	24	22	14.1	28.5	
16-Sep	22	17	16	12	11	17	21	22	18	18	15	9	8	7	7	A	8	11	22	16	14	18	14	11	14.5	21.9	
17-Sep	14	18	14	11	13	16	15	14	16	13	13	13	7	9	A	10	11	13	19	18	14	14	7	7	13.2	19.4	
18-Sep	4	9	17	4	6	20	28	26	23	18	11	10	7	A	9	10	8	8	6	11	11	13	9	6	12.0	27.9	
19-Sep	11	5	5	3	8	20	22	21	11	4	3	3	A	6	3	4	4	4	4	3	4	3	4	3	7.0	21.9	
20-Sep	4	3	3	10	11	24	24	18	15	11	3	A	6	4	3	4	4	4	4	10	18	14	13	9	14	10.1	24.4
21-Sep	15	13	13	13	14	12	12	12	15	12	A	7	5	4	5	5	6	5	17	28	32	30	16	19	13.5	31.8	
22-Sep	15	17	15	16	15	17	17	16	21	A	40	28	7	8	4	7	7	11	15	11	7	6	6	5	13.7	39.9	
23-Sep	5	6	6	7	14	22	26	27	A	16	8	6	4	3	9	8	10	6	10	13	9	7	4	3	10.0	27.3	
24-Sep	2	3	3	6	5	12	25	A	27	17	16	11	12	12	12	9	14	7	15	23	14	16	13	11	12.6	26.8	
25-Sep	6	7	7	14	15	7	A	15	13	10	13	6	8	8	11	14	6	6	8	12	7	5	4	2	9.0	15.0	
26-Sep	2	2	12	2	3	A	11	13	8	8	8	8	11	4	3	2	3	4	5	6	5	3	3	3	5.6	13.1	
27-Sep	3	2	2	2	A	14	8	9	7	4	3	5	3	3	3	2	3	3	4	4	9	5	4	4	4.6	14.5	
28-Sep	5	5	6	A	11	9	8	7	6	7	7	6	4	5	6	4	5	5	6	6	6	5	11	5	6.4	10.9	
29-Sep	5	6	A	10	8	8	13	13	M	M	M	13	14	14	12	12	17	16	13	12	11	10	11	10	11.3	16.6	
30-Sep	11	A	14	12	11	13	16	22	22	19	9	7	7	7	8	8	13	10	8	8	8	8	6	8	10.9	22.1	
7.7 7.4 8.5 7.8 9.1 13.1 15.2 15.3 12.9 9.3 8.4 7.0 5.4 5.4 5.7 5.6 6.1 6.2 8.6 11.8 11.5 10.5 9.2 8.2																									Diurnal Average		
21.9 17.6 17.4 16.0 15.0 24.4 27.9 27.3 26.8 19.0 39.9 27.9 14.3 13.6 12.4 14.0 16.6 15.6 21.7 28.5 31.8 29.6 25.7 22.5																									Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																											

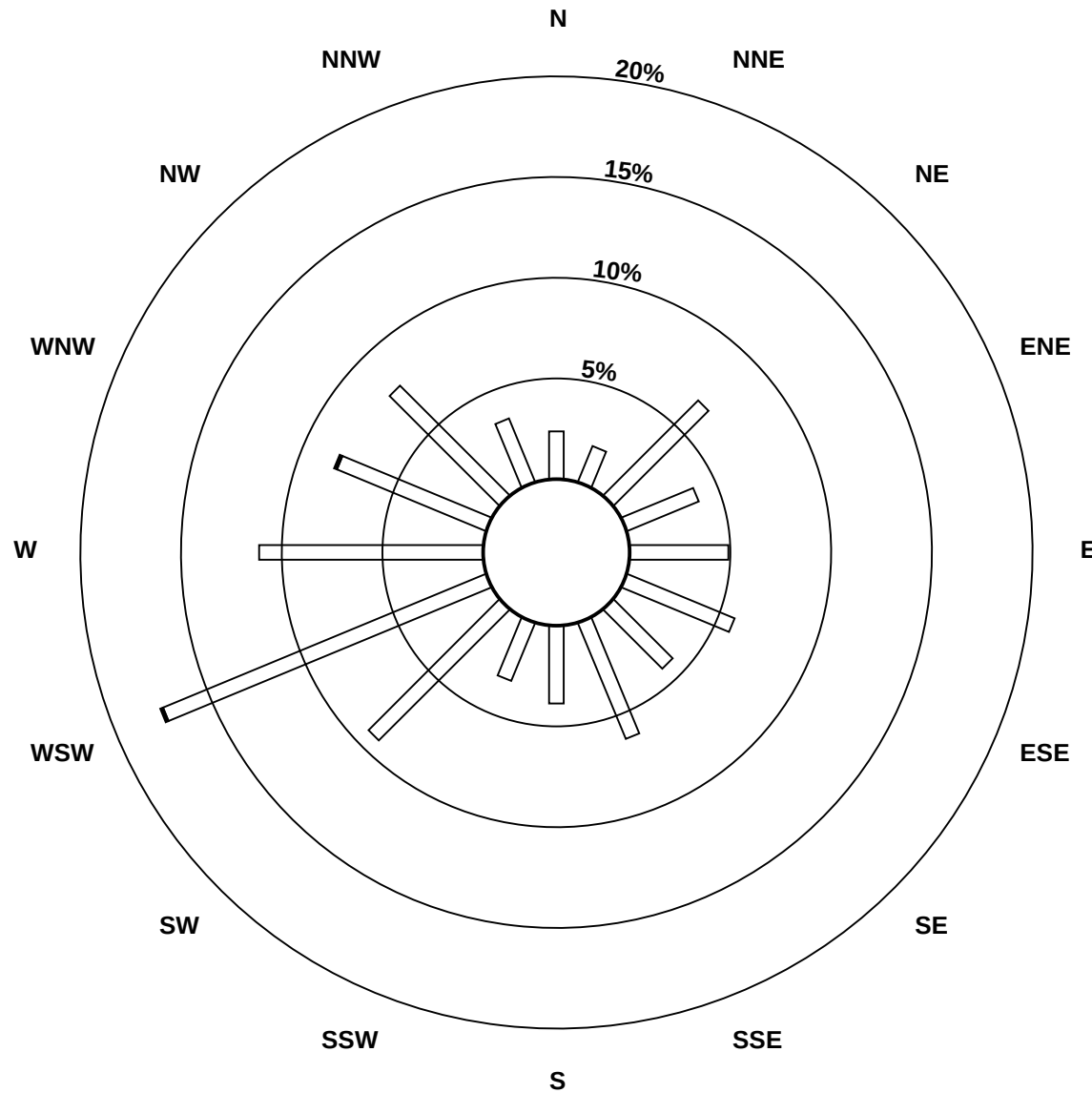
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - September 2014

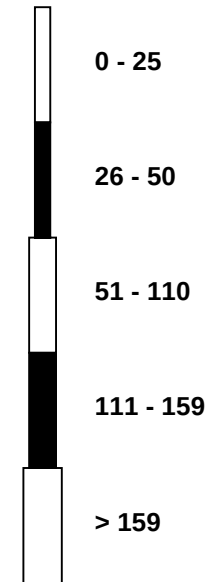


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Henry Pirker - September 2014

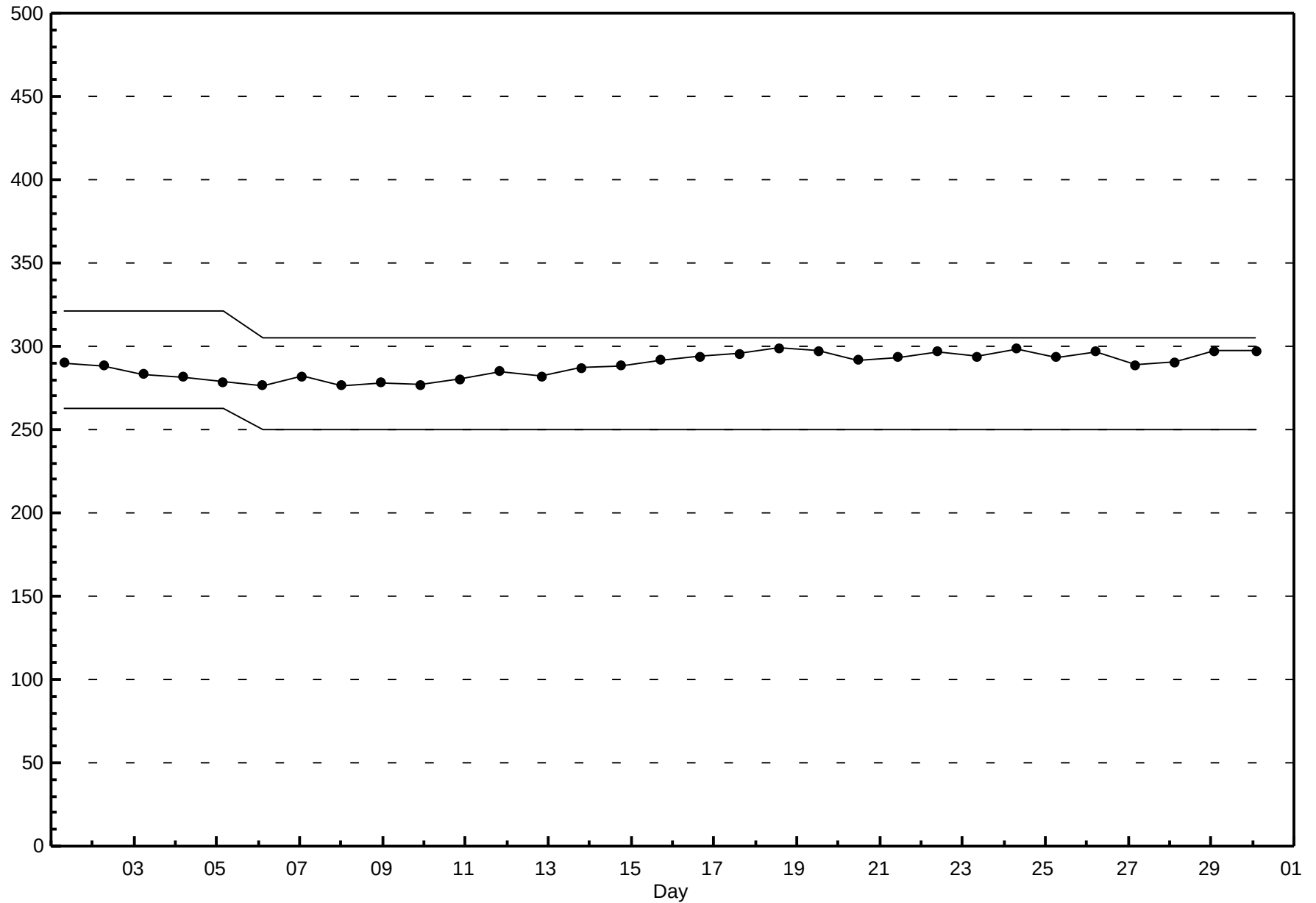


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - September 2014



Hourly Averages

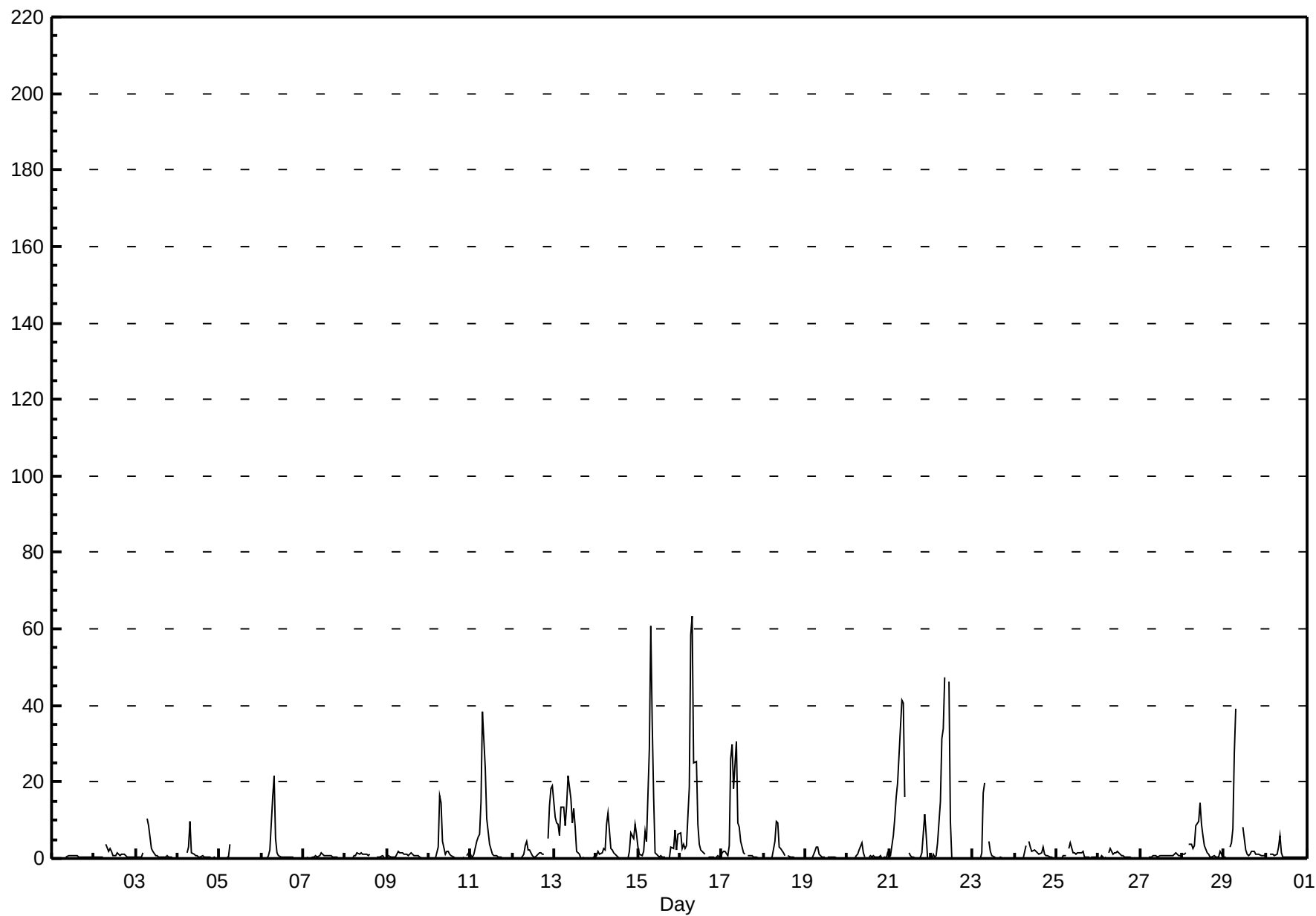
Nitrogen Oxide (NO) - ppb

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 63.4 ppb on Sep 16 08:00 Maximum Daily Average: 10.0 ppb on Sep 16																				Hours in Service: 720						
Minimum Value: 0 ppb on Sep 4 02:00 Minimum Daily Average: 0.4 ppb on Sep 1 Maximum Diurnal Average: 16.0 ppb at hour 8 Minimum Diurnal Average: 0.4 ppb at hour 19 Monthly Average: 2.98 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 0.6 Q ₃ = 1.7 P ₉₀ = 8.4 P ₉₉ = 40.5																				Hours of Data: 674						
																				Hours of Missing Data: 46						
																				Hours of Calibration: 40						
																				Percent Operational Time: 99.2						
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	0	0	0	0	0	0	0	A	0	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0	0.4	0.9
2-Sep	0	0	0	0	0	0	A	4	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0	0	1.0	3.9
3-Sep	0	0	0	1	2	A	10	9	5	3	2	1	1	0	0	0	0	1	1	0	0	0	0	0	1.6	10.5
4-Sep	0	0	0	0	A	1	3	10	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1.0	9.7
5-Sep	0	0	0	A	0	0	4	C	C	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	--	3.7
6-Sep	0	0	A	0	1	2	16	21	5	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2.2	21.5
7-Sep	0	A	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	1.4
8-Sep	A	0	0	0	0	1	1	2	1	1	1	1	1	1	1	M	M	M	0	1	0	1	0	A	0.7	1.6
9-Sep	0	1	0	0	0	0	2	2	1	1	1	1	1	1	2	1	1	1	1	0	0	0	A	0	0.8	1.9
10-Sep	0	0	0	0	0	3	17	15	4	1	2	2	1	1	0	0	0	0	0	0	0	A	1	2	2.1	16.6
11-Sep	1	0	1	4	5	6	15	38	23	11	7	4	1	1	1	1	0	0	0	0	A	0	0	0	5.3	38.3
12-Sep	0	0	0	0	0	0	1	3	4	2	2	1	0	1	1	2	2	1	1	A	5	14	18	19	3.4	19.0
13-Sep	11	9	9	6	14	13	9	14	22	16	10	13	8	2	1	0	0	0	A	0	0	0	0	1	6.8	21.8
14-Sep	1	2	1	1	3	2	9	12	3	2	1	1	0	0	0	0	0	A	0	2	7	5	9	6	2.9	11.8
15-Sep	3	1	1	2	7	4	29	61	36	16	1	1	0	1	0	0	A	0	0	3	3	8	2	6	8.0	60.7
16-Sep	7	3	4	2	3	18	59	63	25	25	9	4	2	2	1	A	0	0	0	0	0	1	1	0	10.0	63.4
17-Sep	1	2	2	1	4	26	30	18	30	9	8	5	1	1	A	1	1	1	1	1	0	0	0	0	6.2	30.4
18-Sep	0	0	0	0	0	0	5	10	9	3	2	1	1	A	1	0	0	0	0	0	0	0	0	0	1.5	9.7
19-Sep	0	0	0	0	0	2	3	3	1	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0.5	3.1
20-Sep	0	0	0	0	0	1	1	2	4	2	1	A	0	1	1	1	1	1	0	1	0	0	0	1	0.7	4.0
21-Sep	1	1	6	10	16	20	34	42	41	16	A	2	1	0	0	0	0	0	0	2	12	6	0	0	9.1	41.5
22-Sep	0	1	0	1	4	15	31	34	47	A	46	10	0	0	0	0	0	0	0	0	0	0	0	0	8.3	47.4
23-Sep	0	0	0	0	0	1	17	20	A	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	2.0	19.8
24-Sep	0	0	0	0	0	0	3	A	5	3	2	2	2	2	1	2	3	1	1	1	0	0	0	0	1.2	4.6
25-Sep	0	0	0	0	1	1	A	3	4	2	2	1	1	1	1	2	1	0	0	0	0	0	0	0	0.9	4.1
26-Sep	0	0	1	0	0	A	1	3	1	2	2	2	1	1	1	0	0	0	1	0	0	0	0	0	0.7	2.6
27-Sep	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.4
28-Sep	1	1	2	A	4	4	3	3	8	10	14	9	6	3	2	1	0	0	1	0	0	0	2	0	3.3	14.4
29-Sep	0	1	A	3	4	8	28	39	M	M	M	8	2	1	1	1	2	2	1	1	1	1	1	1	5.3	39.1
30-Sep	1	A	1	1	1	1	1	3	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	5.9
1.0 0.8 1.0 1.2 2.5 4.7 11.9 16.0 10.8 5.1 4.5 2.6 1.3 0.9 0.7 0.6 0.6 0.5 0.4 0.5 1.1 1.4 1.3 1.4																								Diurnal Average		
10.8 9.3 8.8 10.3 15.9 26.1 58.5 63.4 47.4 25.3 46.4 12.9 8.2 3.3 1.6 1.8 3.2 1.9 1.1 2.8 11.7 13.7 18.4 19.0																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - September 2014



Hourly Maximums

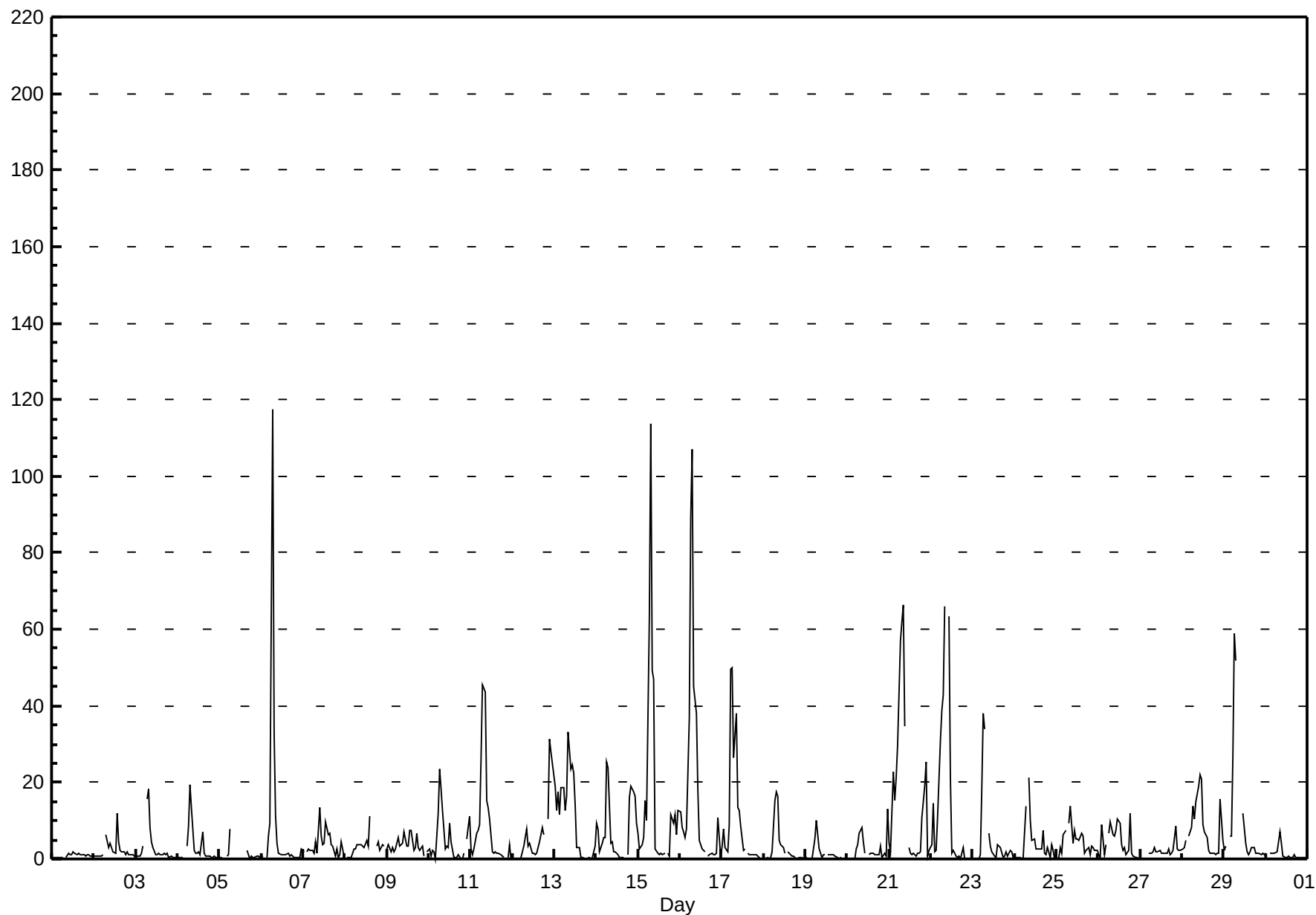
Nitrogen Oxide (NO) - ppb

Henry Pirker - September 2014

Maximum Value: 117.5 ppb on Sep 6 07:00																				Maximum Daily Average: 17.7 ppb on Sep 16					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 22 20:00																				Minimum Daily Average: 0.9 ppb on Sep 1					Hours of Data: 674	
Maximum Diurnal Average: 26.0 ppb at hour 8																				Minimum Diurnal Average: 1.7 ppb at hour 18					Hours of Missing Data: 46	
Monthly Average: 6.36 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.4 Q ₁ = 0.8 Median = 2.0 Q ₃ = 6.0 P ₉₀ = 16.0 P ₉₉ = 62.5					Hours of Calibration: 40	
																									Percent Operational Time: 99.2	
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	1	0	1	1	0	1	1	A	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0.9	2.0
2-Sep	1	1	1	1	1	1	A	6	3	4	3	2	1	12	4	2	2	2	1	2	1	1	1	1	2.3	12.1
3-Sep	1	1	1	1	3	A	16	18	8	4	3	1	1	1	1	1	1	1	1	1	1	0	0	0	3.0	18.1
4-Sep	1	0	1	1	A	3	8	20	13	2	2	2	2	1	7	1	1	1	1	1	1	1	0	1	2.9	19.5
5-Sep	1	0	0	A	1	1	8	C	C	C	C	C	C	C	C	C	2	0	1	0	0	1	1	0	--	7.8
6-Sep	1	0	A	0	6	9	117	33	11	4	1	1	1	1	1	1	1	1	1	0	1	0	0	3	8.6	117.5
7-Sep	2	A	2	3	2	2	1	5	1	13	6	4	4	10	7	7	4	3	1	2	0	1	5	1	3.7	13.3
8-Sep	A	0	0	0	1	2	3	4	4	4	3	3	5	3	11	M	M	M	3	4	2	4	3	A	3.2	11.2
9-Sep	3	4	2	3	2	3	6	3	4	4	7	3	3	7	7	2	3	7	3	2	3	1	A	3	3.6	7.4
10-Sep	3	1	2	2	0	12	24	18	13	3	4	3	9	4	1	1	1	1	0	0	1	A	5	11	5.1	23.6
11-Sep	3	1	3	7	8	9	26	46	44	15	13	10	2	2	2	1	1	1	1	1	A	1	4	0	8.6	45.6
12-Sep	0	0	0	0	0	0	3	6	8	4	4	1	2	1	2	4	6	8	6	A	11	31	28	25	6.6	31.4
13-Sep	19	13	18	12	19	19	13	17	33	24	25	22	14	3	3	1	1	1	A	1	1	0	1	3	11.2	33.1
14-Sep	9	8	2	4	5	6	25	24	4	4	2	2	1	1	0	1	0	A	1	16	19	18	16	9	7.7	25.3
15-Sep	7	3	4	6	15	10	63	114	49	47	3	2	1	2	1	1	A	2	1	12	9	12	6	13	16.5	113.9
16-Sep	12	8	7	6	8	37	89	107	45	38	18	5	4	3	2	A	1	1	2	1	1	1	11	1	17.7	106.9
17-Sep	3	8	3	2	9	49	50	26	38	14	13	9	2	3	A	2	1	1	1	1	1	0	0	0	10.2	50.0
18-Sep	0	0	1	0	0	2	15	18	17	5	4	3	2	A	2	1	1	1	1	0	0	0	0	0	3.1	17.5
19-Sep	1	0	0	0	0	5	10	7	3	1	1	1	A	1	1	1	1	1	1	0	0	0	0	1	1.5	10.0
20-Sep	0	0	0	0	0	3	4	7	8	5	1	A	1	1	1	2	1	1	1	4	1	2	1	13	2.4	13.2
21-Sep	4	2	23	15	21	30	57	62	66	35	A	3	1	1	1	1	1	1	2	11	19	25	1	2	16.8	66.4
22-Sep	4	15	2	2	11	31	39	43	66	A	63	21	1	2	1	0	1	0	3	0	0	0	0	0	13.3	66.2
23-Sep	0	0	0	0	1	18	38	34	A	7	3	2	1	0	4	3	3	0	1	2	1	2	2	0	5.3	37.9
24-Sep	0	0	0	0	0	1	14	A	21	10	5	5	3	3	3	3	8	2	1	3	1	4	2	0	3.8	21.2
25-Sep	0	0	3	1	6	7	A	9	14	4	7	5	5	5	7	6	2	2	3	1	3	3	2	2	4.4	14.0
26-Sep	1	1	9	1	4	A	7	10	6	6	7	10	9	4	2	3	1	2	12	2	1	1	1	0	4.3	12.1
27-Sep	0	0	0	0	A	2	2	2	3	2	2	2	2	2	2	2	2	1	2	2	8	3	2	2	1.9	8.4
28-Sep	3	3	5	A	6	8	14	10	15	19	22	21	9	7	6	2	2	2	1	1	2	1	16	5	7.7	22.0
29-Sep	2	3	A	6	6	27	59	52	M	M	M	12	4	2	1	2	3	3	2	1	1	1	1	1	9.5	59.0
30-Sep	1	A	2	2	1	2	2	5	7	4	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1.4	7.0
2.8 2.6 3.2 2.7 4.9 10.7 25.4 26.0 18.7 10.4 8.3 5.6 3.3 2.9 2.9 2.0 1.9 1.7 1.8 2.5 3.1 4.0 3.8 3.4																									Diurnal Average	
19.0 14.6 22.9 15.4 21.1 49.5 117.5 113.9 66.4 47.2 63.2 22.2 14.3 12.1 11.2 6.6 7.5 8.2 12.1 16.0 19.2 31.4 27.9 25.1																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Henry Pirker - September 2014



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

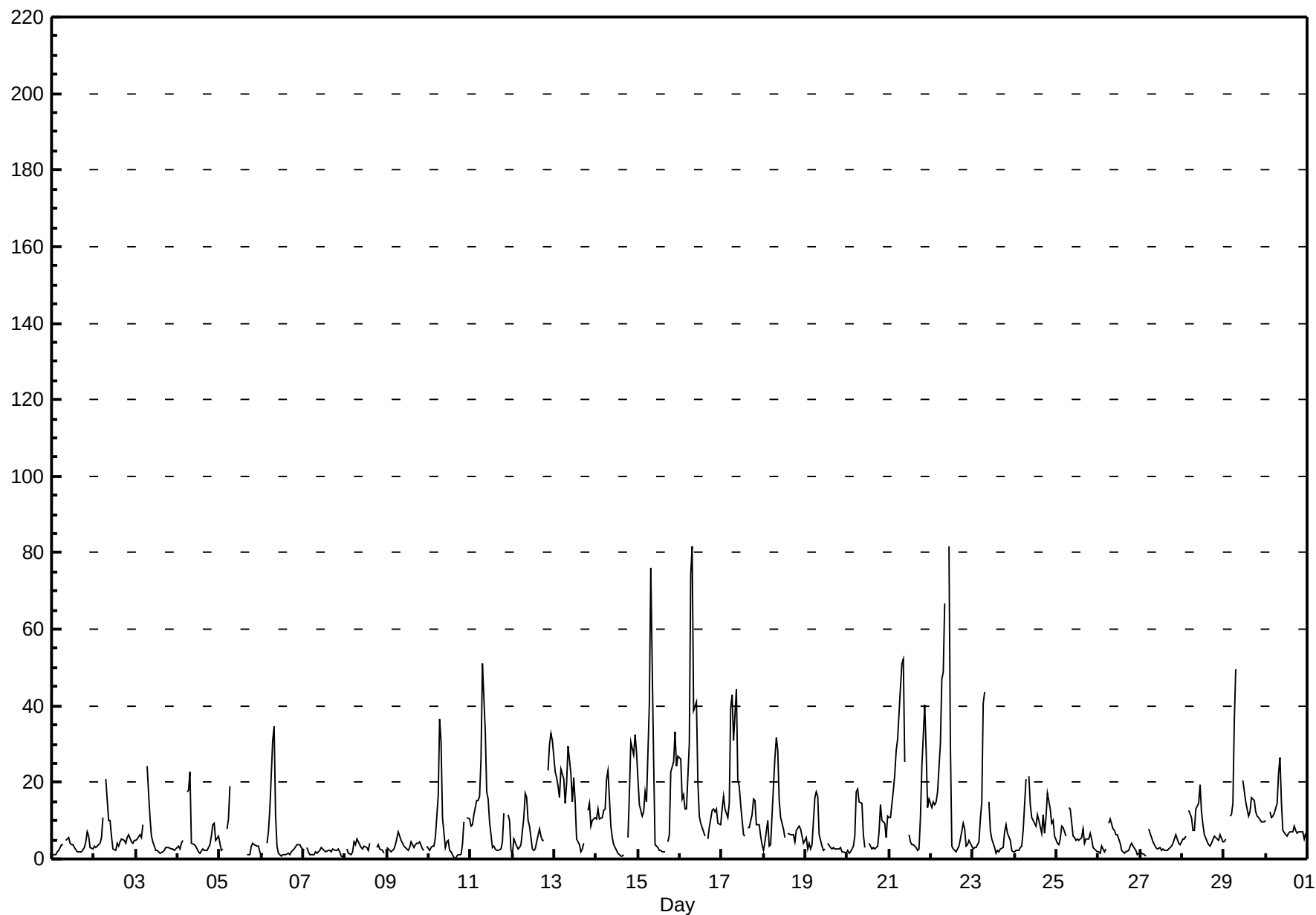
Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 81.7 ppb on Sep 22 11:00 Maximum Daily Average: 21.2 ppb on Sep 16																				Hours in Service: 720							
Minimum Value: 0 ppb on Sep 10 16:00 Minimum Daily Average: 1.9 ppb on Sep 7 Maximum Diurnal Average: 27.9 ppb at hour 8 Minimum Diurnal Average: 3.7 ppb at hour 15 Monthly Average: 9.31 ppb Percentiles: P ₁ = 0.9 P ₁₀ = 1.9 Q ₁ = 2.8 Median = 5.2 Q ₃ = 11.4 P ₉₀ = 21.7 P ₉₉ = 50.9																				Hours of Data: 674							
																				Hours of Missing Data: 46							
																				Hours of Calibration: 40							
																				Percent Operational Time: 99.2							
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	1	1	1	2	2	4	4	A	5	6	4	4	4	3	2	2	2	2	3	4	7	6	3	3	3.2	7.0	
2-Sep	3	3	3	4	6	11	A	21	10	10	6	3	2	4	3	5	5	5	4	5	6	5	4	5	5.8	20.7	
3-Sep	5	5	6	5	9	A	24	17	11	6	4	2	2	2	1	2	2	3	3	3	3	2	2	2	5.4	24.2	
4-Sep	3	3	4	5	A	17	18	23	4	4	3	3	2	2	3	2	2	2	4	6	9	9	5	6	6.0	22.7	
5-Sep	4	2	3	A	8	10	19	C	C	C	C	C	C	C	C	C	1	1	3	4	4	4	3	2	--	19.1	
6-Sep	1	1	A	4	7	13	31	35	11	3	1	1	1	1	1	1	1	2	2	3	4	4	4	3	5.9	34.6	
7-Sep	2	A	3	2	1	1	1	2	2	2	3	3	2	2	2	2	2	2	2	2	2	2	1	0	1.9	3.0	
8-Sep	A	2	1	1	2	4	4	5	4	3	3	3	3	2	4	M	M	M	3	4	3	2	1	A	2.9	5.3	
9-Sep	3	3	2	2	2	4	7	6	5	4	3	3	2	3	4	3	4	4	4	5	3	2	A	3	3.6	7.0	
10-Sep	2	3	3	4	6	17	37	31	11	3	4	5	2	2	0	0	1	1	1	4	10	A	11	11	7.2	36.6	
11-Sep	9	9	11	15	15	16	26	51	33	17	16	10	3	3	3	2	2	3	4	12	A	11	10	2	12.4	51.1	
12-Sep	1	5	3	2	3	4	11	17	16	10	8	3	2	3	5	8	6	5	5	A	23	30	33	31	10.1	32.8	
13-Sep	23	21	19	16	24	21	14	20	29	22	15	21	15	5	4	2	3	4	A	13	15	9	10	11	14.6	29.3	
14-Sep	10	13	11	11	13	13	21	23	9	6	4	3	2	1	1	1	1	A	6	17	31	27	33	28	12.3	32.5	
15-Sep	21	14	11	12	18	15	41	76	50	26	4	3	2	2	2	2	A	4	7	23	25	33	24	27	19.2	76.2	
16-Sep	26	16	17	13	13	30	74	82	39	41	20	11	9	8	6	A	5	8	13	13	12	13	9	9	21.2	81.7	
17-Sep	13	16	13	11	14	40	43	31	44	20	19	14	6	6	A	8	8	11	16	15	9	9	6	4	16.4	44.5	
18-Sep	2	4	10	3	4	12	26	32	28	15	11	8	6	A	7	6	6	6	4	7	8	8	6	4	9.8	31.8	
19-Sep	5	3	4	3	4	16	18	17	6	3	2	3	A	4	3	3	3	3	3	2	3	2	2	1	4.8	17.6	
20-Sep	2	2	2	3	6	18	18	15	14	6	3	A	4	3	2	3	3	3	7	14	10	9	6	11	7.2	18.3	
21-Sep	11	11	18	22	28	31	45	51	52	25	A	6	5	4	4	3	2	3	11	24	40	28	14	16	19.7	52.1	
22-Sep	13	15	14	15	18	30	47	49	67	A	82	30	3	3	2	2	3	5	9	8	3	4	5	3	18.7	81.7	
23-Sep	3	3	3	4	10	15	40	44	A	15	7	5	3	2	2	2	3	3	7	9	7	5	2	2	8.5	43.8	
24-Sep	2	2	2	3	3	7	21	A	22	14	11	9	8	11	10	7	11	7	11	17	13	9	10	6	9.5	21.8	
25-Sep	4	4	5	9	8	6	A	14	13	6	6	5	5	5	6	8	4	5	5	7	5	3	3	2	5.9	13.5	
26-Sep	2	2	3	2	3	A	9	11	8	7	6	6	4	2	2	2	2	2	3	4	3	2	1	2	3.9	10.6	
27-Sep	1	2	1	1	A	8	6	5	4	3	2	3	2	3	2	2	3	3	4	4	6	5	4	4	3.3	7.7	
28-Sep	5	5	6	A	13	11	7	7	13	15	19	12	9	6	4	4	3	4	6	6	5	5	6	5	7.7	19.4	
29-Sep	5	5	A	11	11	15	36	50	M	M	M	21	15	13	11	12	16	15	12	11	11	10	10	10	15.0	49.5	
30-Sep	10	A	12	11	11	12	15	22	26	15	8	6	6	7	7	7	9	8	7	7	7	7	5	7	10.0	26.4	
6.7 6.3 6.9 7.0 9.3 14.3 23.7 27.9 19.9 11.4 10.2 7.3 4.7 4.0 3.7 3.8 4.1 4.5 5.8 8.7 9.9 9.1 8.0 7.5																										Diurnal Average	
26.3 21.4 18.9 21.9 28.2 39.5 74.4 81.7 66.9 41.1 81.7 29.7 15.1 13.1 11.2 12.2 16.1 15.1 15.8 24.2 40.2 33.2 32.8 30.8																										Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																											

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - September 2014



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

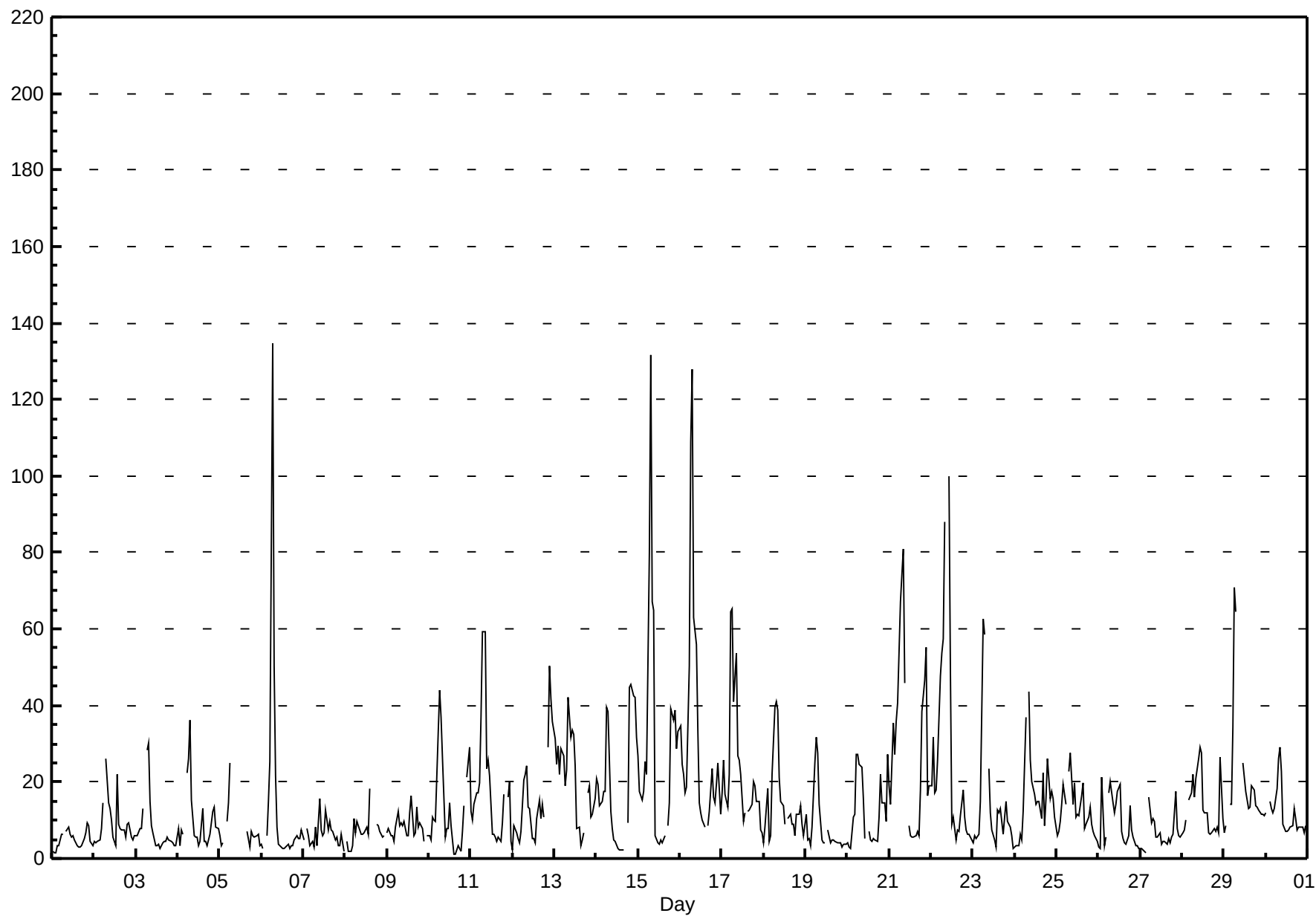
Henry Pirker - September 2014

Maximum Value: 134.6 ppb on Sep 6 07:00																				Maximum Daily Average: 31.8 ppb on Sep 16					Hours in Service: 720	
Minimum Value: 1 ppb on Sep 10 16:00																				Minimum Daily Average: 4.9 ppb on Sep 1					Hours of Data: 674	
Maximum Diurnal Average: 40.5 ppb at hour 8																				Minimum Diurnal Average: 7.3 ppb at hour 16					Hours of Missing Data: 46	
Monthly Average: 14.95 ppb																				Percentiles: P ₁ = 2.0 P ₁₀ = 3.5 Q ₁ = 5.6 Median = 9.1 Q ₃ = 17.7 P ₉₀ = 31.7 P ₉₉ = 79.0					Hours of Calibration: 40	
																				Percent Operational Time: 99.2						
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	2	2	2	3	4	6	6	A	7	8	6	5	6	5	3	3	3	4	5	7	9	8	4	4	4.9	9.5
2-Sep	5	4	4	5	8	14	A	26	14	13	10	6	4	22	9	8	8	8	6	9	9	6	5	6	9.0	26.2
3-Sep	6	6	8	8	13	A	28	30	15	8	7	3	3	4	3	4	4	5	5	5	4	4	4	3	7.9	30.4
4-Sep	8	4	8	7	A	22	26	36	15	6	6	5	3	4	13	4	5	4	6	9	12	13	8	8	10.2	36.2
5-Sep	6	4	4	A	10	15	25	C	C	C	C	C	C	C	C	C	7	3	7	6	6	6	6	3	--	25.1
6-Sep	4	2	A	6	15	25	135	50	22	8	4	3	2	3	3	4	3	3	3	5	6	5	5	7	14.1	134.6
7-Sep	5	A	8	6	3	4	3	8	3	15	7	6	7	13	8	10	8	7	5	5	3	3	6	2	6.3	15.5
8-Sep	A	5	2	2	3	10	7	10	7	6	6	7	8	6	18	M	M	M	9	9	7	6	6	A	7.1	18.3
9-Sep	7	8	6	6	5	8	12	8	9	9	10	6	6	12	16	6	7	13	8	9	8	4	A	6	8.2	16.2
10-Sep	6	5	11	10	10	33	44	37	26	6	8	8	14	9	1	1	2	3	2	7	14	A	21	29	13.3	43.9
11-Sep	12	10	14	17	17	20	37	59	59	24	26	22	6	6	6	5	6	5	9	17	A	16	20	5	18.2	59.4
12-Sep	2	9	7	5	4	7	20	22	24	13	13	5	5	4	10	15	10	14	11	A	29	50	42	36	15.6	50.2
13-Sep	31	25	29	22	29	27	19	23	42	32	33	32	24	8	8	4	5	7	A	17	19	11	12	15	20.6	42.3
14-Sep	21	20	14	15	18	18	39	38	12	8	5	5	3	2	2	2	2	A	9	45	45	42	42	32	19.1	45.4
15-Sep	27	17	15	17	25	22	80	131	67	65	6	4	4	5	4	6	A	9	14	39	36	39	29	33	30.2	131.5
16-Sep	35	25	22	17	19	50	109	128	63	56	33	14	12	10	8	A	8	12	23	16	15	19	25	12	31.8	128.1
17-Sep	17	26	17	13	22	64	65	41	54	27	26	22	10	12	A	12	13	14	20	19	15	15	8	7	23.4	65.2
18-Sep	4	8	18	5	6	22	40	41	39	21	15	14	9	A	10	11	9	9	6	12	12	14	9	6	14.8	41.2
19-Sep	12	5	5	4	8	25	32	28	14	5	4	4	A	7	4	5	5	5	4	4	4	3	4	4	8.4	31.7
20-Sep	4	3	3	11	11	27	27	24	24	15	5	A	7	5	5	5	5	5	11	22	15	15	10	27	12.4	27.4
21-Sep	19	14	35	27	36	40	67	74	81	46	A	9	6	5	5	6	7	6	18	39	47	55	16	19	29.5	80.7
22-Sep	19	32	17	18	26	48	54	57	88	A	100	49	9	11	5	8	7	11	18	11	8	6	6	5	26.6	100.0
23-Sep	4	6	5	6	15	39	63	59	A	23	12	7	5	3	13	12	13	6	11	15	10	8	6	3	14.9	62.6
24-Sep	3	3	4	7	5	12	37	A	44	26	20	17	14	15	15	10	22	9	16	26	16	18	16	11	15.8	43.5
25-Sep	6	7	10	14	19	14	A	23	28	14	20	11	12	11	16	20	8	9	11	13	9	7	6	5	12.7	27.6
26-Sep	3	3	21	4	6	A	17	20	14	12	14	18	19	7	5	4	4	6	14	8	5	3	3	3	9.3	21.1
27-Sep	3	3	2	2	A	16	9	11	10	6	5	7	4	5	5	4	5	4	5	6	18	8	6	6	6.4	17.6
28-Sep	7	8	10	A	15	17	22	16	21	26	29	28	13	12	12	7	6	7	8	7	8	7	27	10	14.0	29.3
29-Sep	7	9	A	14	14	34	71	65	M	M	M	25	18	15	13	13	19	18	14	13	12	11	12	11	20.4	70.9
30-Sep	12	A	15	13	12	13	18	26	29	23	9	7	7	8	8	9	13	10	8	8	8	8	7	9	12.1	29.0
10.2 9.6 11.3 10.1 13.5 23.4 39.7 40.5 30.8 19.3 16.3 12.5 8.6 8.2 8.2 7.3 7.6 7.6 9.9 14.1 14.1 14.2 12.7 11.2																									Diurnal Average	
34.5 31.8 35.4 27.2 35.9 64.4 134.6 131.5 88.0 64.8 100.0 49.2 24.1 22.1 18.3 19.9 22.5 18.0 23.4 44.6 46.6 55.0 42.1 35.7																									Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Maximums

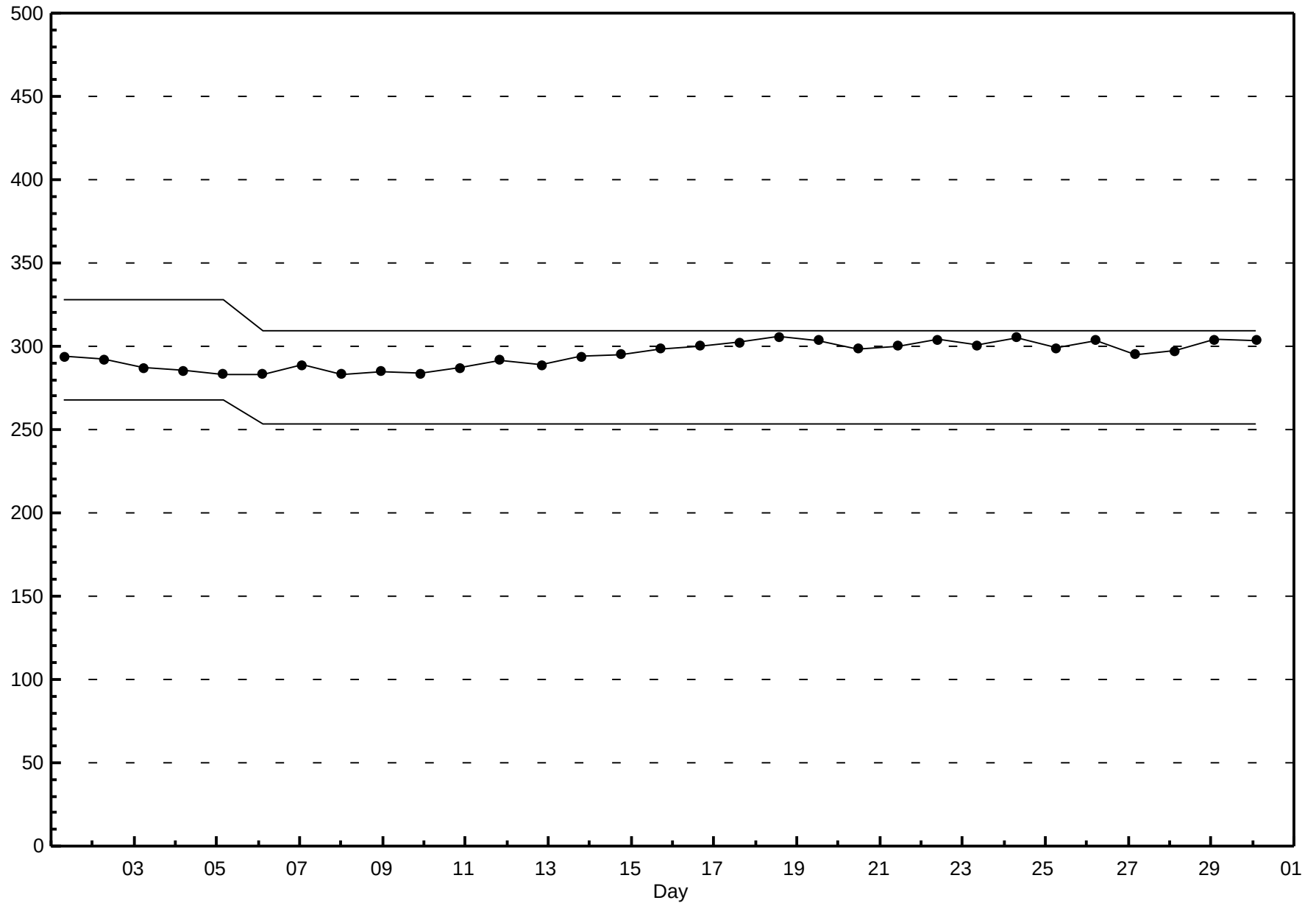
Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - September 2014



Span Responses

Oxides of Nitrogen (NO_x)
Henry Pirker - September 2014



Hourly Averages

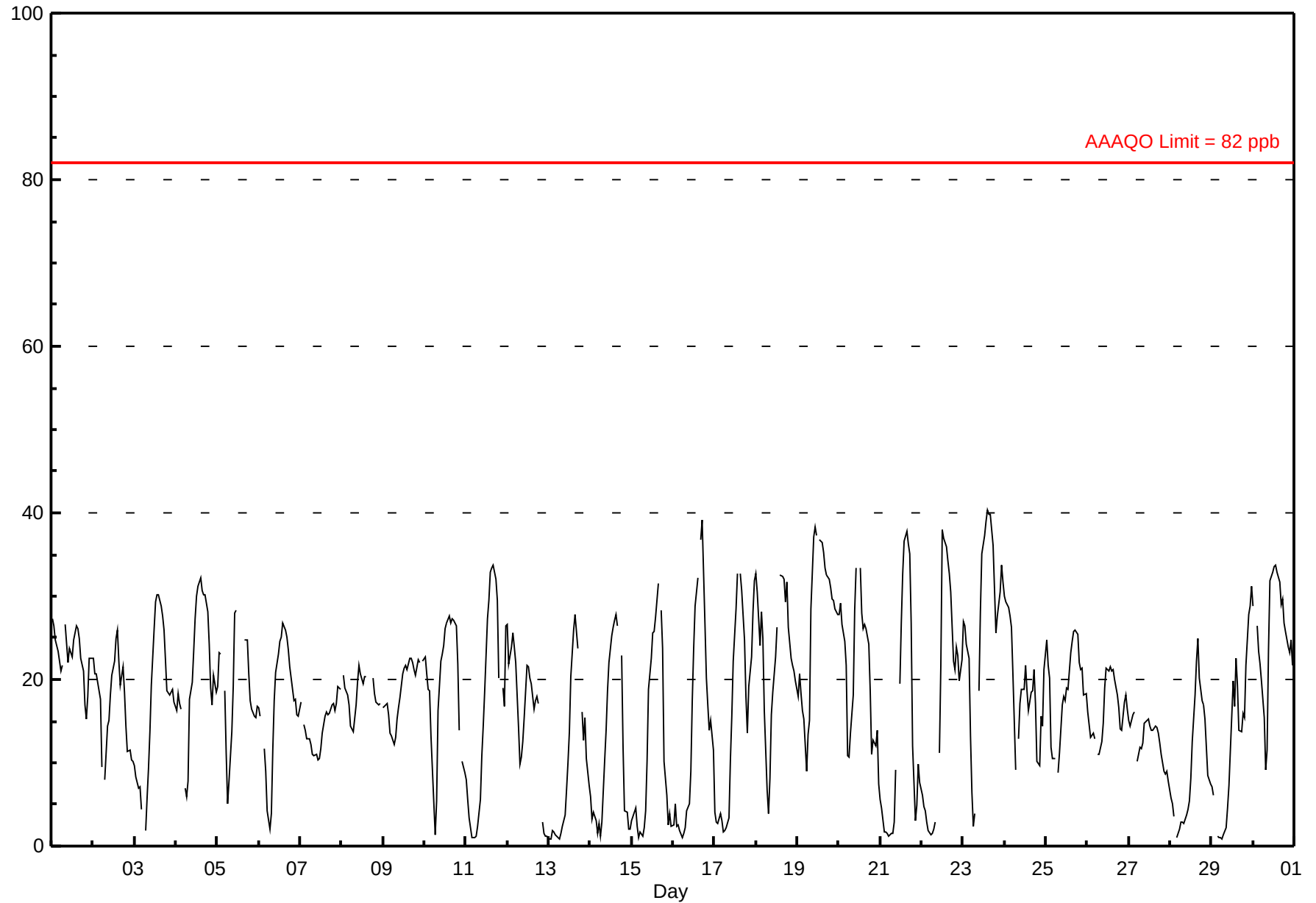
Ozone (O₃) - ppb

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 40.4 ppb on Sep 23 15:00 Maximum Daily Average: 27.0 ppb on Sep 23																								Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 35 Percent Operational Time: 99.6		
Minimum Value: 1 ppb on Sep 13 02:00 Minimum Daily Average: 9.7 ppb on Sep 28 Maximum Diurnal Average: 26.9 ppb at hour 16 Minimum Diurnal Average: 6.6 ppb at hour 8 Monthly Average: 17.45 ppb Percentiles: P ₁ = 1.0 P ₁₀ = 2.9 Q ₁ = 10.5 Median = 18.0 Q ₃ = 24.2 P ₉₀ = 29.9 P ₉₉ = 37.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	27	26	25	24	23	21	22	A	27	22	24	23	23	25	26	26	25	22	21	17	15	18	23	22	23.0	27.3
2-Sep	22	21	21	19	18	9	A	8	14	15	18	21	22	25	26	22	19	22	19	14	11	11	10	10	17.3	26.0
3-Sep	10	8	7	7	4	A	2	6	9	14	19	26	29	30	30	29	28	26	22	19	18	18	19	17	17.3	30.2
4-Sep	16	18	17	16	A	7	6	8	18	20	23	27	30	31	32	31	30	30	28	24	19	17	20	18	21.2	32.1
5-Sep	19	23	23	A	19	11	5	8	14	19	28	28	C	C	C	C	25	25	21	18	16	16	15	17	18.4	28.3
6-Sep	17	16	A	12	9	4	2	4	12	17	21	23	25	25	27	26	25	24	21	20	17	18	16	16	17.2	26.7
7-Sep	17	A	15	14	13	13	12	11	11	11	10	11	12	13	16	16	16	16	17	17	16	17	19	19	14.4	19.1
8-Sep	A	20	19	18	17	14	14	14	17	20	22	21	20	20	M	M	M	20	18	17	17	17	A	18.2	21.6	
9-Sep	17	17	17	16	14	13	12	13	15	17	18	21	21	22	21	23	23	22	21	21	22	22	A	22	18.6	22.6
10-Sep	23	21	19	19	13	5	1	5	16	22	23	24	26	27	28	27	27	27	26	22	14	A	10	9	18.9	27.6
11-Sep	8	6	3	1	1	1	1	2	6	11	14	18	27	29	33	33	34	32	30	20	A	19	17	26	16.3	33.8
12-Sep	27	22	24	26	24	22	14	10	11	13	15	22	21	20	20	16	17	18	17	A	3	2	1	1	15.9	26.7
13-Sep	1	1	2	2	1	1	1	2	2	4	7	10	14	20	26	28	26	24	A	16	13	15	11	7	10.1	27.8
14-Sep	6	3	4	3	1	3	1	3	10	14	19	22	25	26	27	28	27	A	23	12	4	4	2	2	11.7	27.9
15-Sep	3	4	5	2	1	2	1	2	4	10	19	23	26	26	27	32	A	28	24	10	6	3	4	2	11.4	31.5
16-Sep	3	5	2	2	2	1	1	2	4	5	9	17	24	29	32	A	37	39	27	20	17	14	15	12	13.9	39.1
17-Sep	4	3	3	4	3	2	2	2	3	10	16	22	29	33	A	33	31	25	18	14	19	23	28	32	15.5	32.7
18-Sep	33	30	24	28	25	16	7	4	8	16	18	23	26	A	33	32	32	29	32	26	23	22	21	20	23.0	32.6
19-Sep	18	21	18	16	15	9	13	15	29	37	38	37	A	37	37	35	33	33	32	31	30	29	28	28	27.0	38.2
20-Sep	28	29	27	25	22	11	11	14	18	28	33	A	33	28	26	27	26	24	19	11	13	12	14	7	21.1	33.4
21-Sep	6	5	2	2	1	1	2	2	3	9	A	19	27	33	37	38	36	35	27	12	3	5	10	8	14.0	37.8
22-Sep	6	5	4	3	2	1	1	2	3	A	11	22	38	37	36	34	33	31	22	21	24	23	20	22	17.4	38.0
23-Sep	27	26	24	23	13	6	2	4	A	19	28	35	37	39	40	40	40	36	31	26	28	31	34	32	27.0	40.4
24-Sep	30	29	29	28	26	21	9	A	13	17	19	19	22	19	16	18	19	21	17	10	10	16	14	21	19.2	30.0
25-Sep	25	22	20	12	11	10	A	9	11	17	18	17	19	19	23	25	26	26	25	22	21	21	18	18	18.9	26.0
26-Sep	16	15	13	14	13	A	11	11	12	15	19	21	21	21	21	21	20	18	17	14	14	17	18	17	16.5	21.5
27-Sep	15	14	16	16	A	10	12	12	12	15	15	15	14	14	14	14	14	14	12	11	9	9	9	8	12.8	16.0
28-Sep	6	5	4	A	1	2	3	3	3	4	4	5	8	12	18	22	25	20	17	17	15	12	9	7	9.7	24.9
29-Sep	7	6	A	1	1	1	1	1	2	5	7	12	20	17	23	19	14	14	16	15	22	28	29	31	12.7	31.3
30-Sep	29	A	26	23	22	20	15	9	12	24	32	33	34	34	33	32	29	30	27	26	24	23	25	22	25.3	33.7
16.0 15.0 14.7 13.4 11.3 8.5 6.7 6.6 11.0 15.4 18.9 21.3 24.0 25.4 26.7 26.9 26.3 25.3 22.4 18.1 16.0 16.6 16.4 16.4																								Diurnal Average		
32.6 30.5 28.7 28.2 26.2 22.0 21.7 15.1 28.5 37.1 38.2 37.3 38.0 39.1 40.4 39.8 39.9 39.1 32.0 31.1 29.7 30.6 33.7 31.8																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Henry Pirker - September 2014



Hourly Maximums

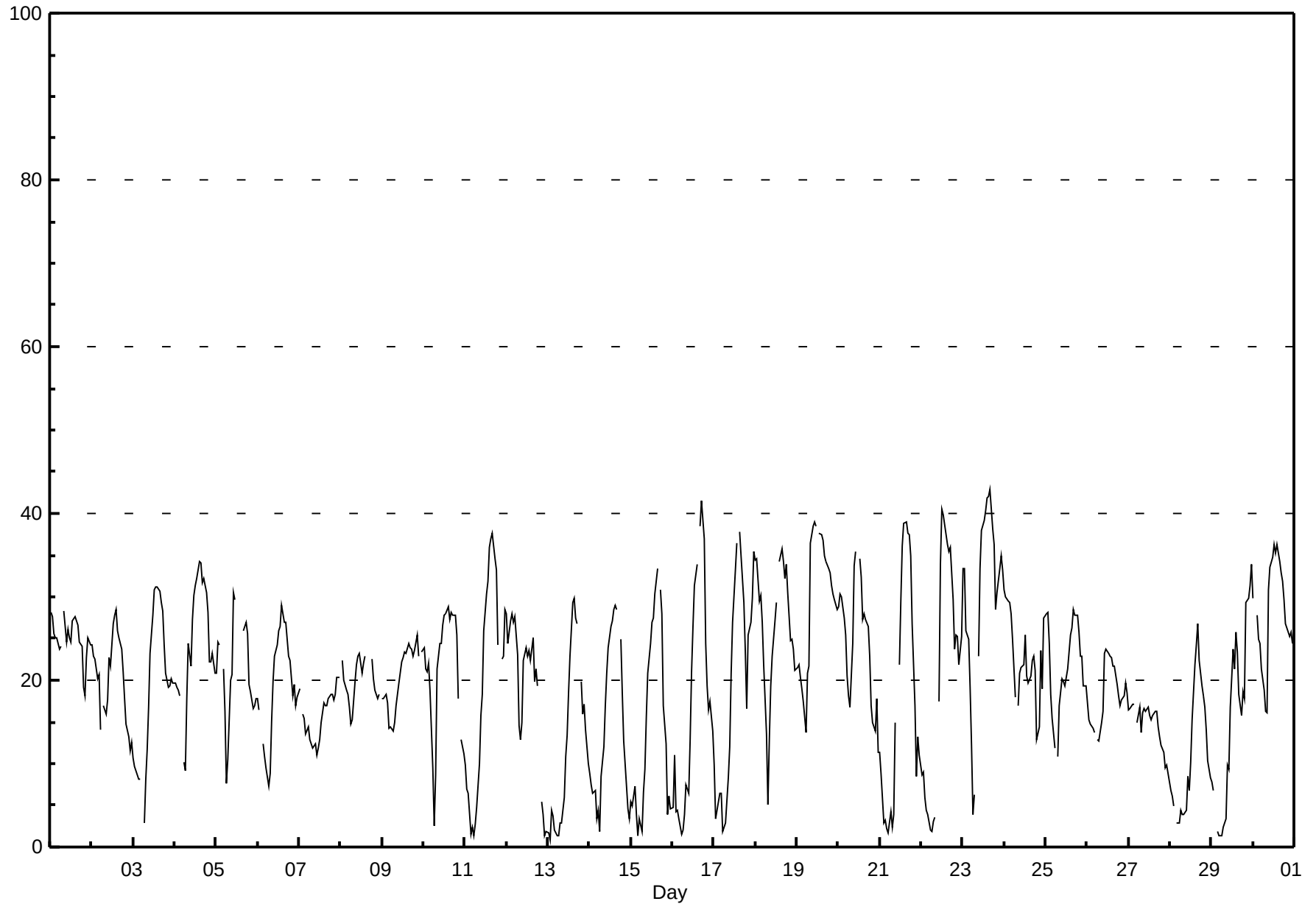
Ozone (O₃) - ppb

Henry Pirker - September 2014

Maximum Value: 42.9 ppb on Sep 23 17:00																				Maximum Daily Average: 30.2 ppb on Sep 23					Hours in Service: 720		
Minimum Value: 1 ppb on Sep 13 02:00																				Minimum Daily Average: 11.4 ppb on Sep 28					Hours of Data: 682		
Maximum Diurnal Average: 29.3 ppb at hour 16																				Minimum Diurnal Average: 9.5 ppb at hour 7					Hours of Missing Data: 38		
Monthly Average: 20.04 ppb																				Percentiles: P ₁ = 1.4 P ₁₀ = 4.8 Q ₁ = 13.7 Median = 20.8 Q ₃ = 26.9 P ₉₀ = 33.2 P ₉₉ = 39.6					Hours of Calibration: 35		
																				Percent Operational Time: 99.6							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Sep	28	28	26	25	25	24	24	A	28	25	26	25	27	28	27	27	25	24	19	18	23	25	24	25.0	28.3		
2-Sep	24	23	23	20	21	14	A	17	16	18	23	22	27	28	29	26	25	24	21	18	15	13	12	13	20.4	28.6	
3-Sep	11	10	9	8	8	A	3	8	12	17	23	28	31	31	31	31	29	28	24	21	19	19	20	20	19.2	31.3	
4-Sep	20	19	19	18	A	10	9	18	24	22	27	30	31	32	34	34	32	32	31	28	22	22	23	21	24.3	34.3	
5-Sep	21	25	24	A	21	16	8	10	20	21	31	30	C	C	C	C	26	27	26	19	19	17	17	18	20.8	30.5	
6-Sep	18	16	A	12	11	9	7	9	15	20	23	24	26	26	29	27	27	25	23	22	18	19	17	18	19.3	28.9	
7-Sep	19	A	16	15	14	14	13	12	12	12	11	12	13	15	17	17	17	18	18	18	18	18	20	20	15.7	20.3	
8-Sep	A	22	20	19	18	17	15	15	20	22	23	23	21	22	23	M	M	M	22	20	19	18	18	A	19.9	23.2	
9-Sep	18	18	18	17	14	14	14	15	17	18	20	22	23	23	23	24	24	24	23	24	25	23	A	23	20.2	25.4	
10-Sep	24	21	21	22	19	9	2	9	21	24	24	27	28	28	29	27	28	28	28	25	18	A	13	11	21.2	28.9	
11-Sep	10	7	6	2	2	1	3	5	10	16	18	26	30	32	36	37	38	35	33	24	A	23	28	19.3	37.6		
12-Sep	28	24	27	28	27	28	23	15	13	15	22	24	23	24	22	25	20	21	19	A	5	4	1	2	19.2	27.9	
13-Sep	2	1	4	4	2	1	1	3	3	6	11	13	18	23	29	30	27	27	A	20	16	17	14	10	12.3	29.9	
14-Sep	9	7	6	7	3	4	2	8	12	17	21	24	26	27	28	29	28	A	25	18	13	7	5	3	14.4	29.0	
15-Sep	5	5	7	4	1	3	2	7	9	16	21	24	27	27	30	33	A	31	28	17	12	4	6	5	14.2	33.4	
16-Sep	5	11	4	4	3	1	2	4	7	6	13	21	26	31	34	A	38	42	37	24	19	16	17	14	16.7	41.6	
17-Sep	10	3	4	6	6	2	2	3	8	12	21	27	33	36	A	38	35	29	24	17	25	27	30	35	18.9	37.9	
18-Sep	34	35	30	30	27	22	14	5	13	19	23	27	29	A	34	36	34	32	34	31	25	25	24	21	26.2	35.8	
19-Sep	22	22	20	19	17	14	21	22	36	38	39	38	A	38	37	37	35	34	33	33	31	30	30	28	29.4	38.9	
20-Sep	29	30	30	27	25	21	18	17	24	34	35	A	35	32	27	28	27	26	23	17	15	14	18	11	24.6	35.4	
21-Sep	11	9	3	3	2	2	4	2	4	15	A	22	29	36	39	39	38	37	35	27	17	8	13	11	17.7	38.9	
22-Sep	9	9	6	4	4	2	2	3	3	A	17	34	40	40	37	36	35	36	30	24	25	25	22	25	20.4	40.4	
23-Sep	33	33	26	25	19	12	4	6	A	23	33	38	39	40	42	42	43	38	36	28	30	33	35	33	30.2	42.9	
24-Sep	31	30	29	29	28	25	18	A	17	21	21	22	25	20	20	20	22	23	21	13	14	24	19	27	22.7	30.9	
25-Sep	28	28	24	18	15	12	A	11	17	20	20	19	20	21	25	26	28	28	28	26	23	23	19	19	21.8	28.4	
26-Sep	17	15	15	14	14	A	13	13	15	16	23	24	23	23	23	22	22	20	18	17	18	18	20	18	18.3	23.7	
27-Sep	16	17	17	17	A	15	17	14	16	17	16	17	16	15	16	16	16	14	13	12	11	9	10	9	14.7	17.2	
28-Sep	7	6	5	A	3	3	4	4	4	8	7	10	15	22	24	27	22	19	18	17	14	10	8	8	11.4	26.8	
29-Sep	8	7	A	2	1	1	1	2	3	10	9	17	24	21	26	23	18	16	19	18	29	30	31	34	15.3	33.8	
30-Sep	30	A	28	25	24	21	19	16	16	31	34	35	36	35	36	34	33	32	30	27	26	25	26	24	28.0	36.3	
18.1 17.2 16.7 15.3 13.5 11.4 9.5 9.7 14.4 18.4 22.0 24.2 26.3 27.6 28.8 29.3 28.6 27.6 25.7 21.6 19.4 19.0 18.6 18.5																								Diurnal Average			
34.4 34.5 29.9 30.2 27.9 27.7 24.1 21.7 36.4 38.4 38.9 38.4 40.4 40.4 41.9 42.1 42.9 41.6 37.0 32.8 31.4 33.4 34.9 35.4																								Diurnal Maximum			
C - Calibration																								M - Maintenance		A - Automated Daily Zero Span	

Hourly Maximums

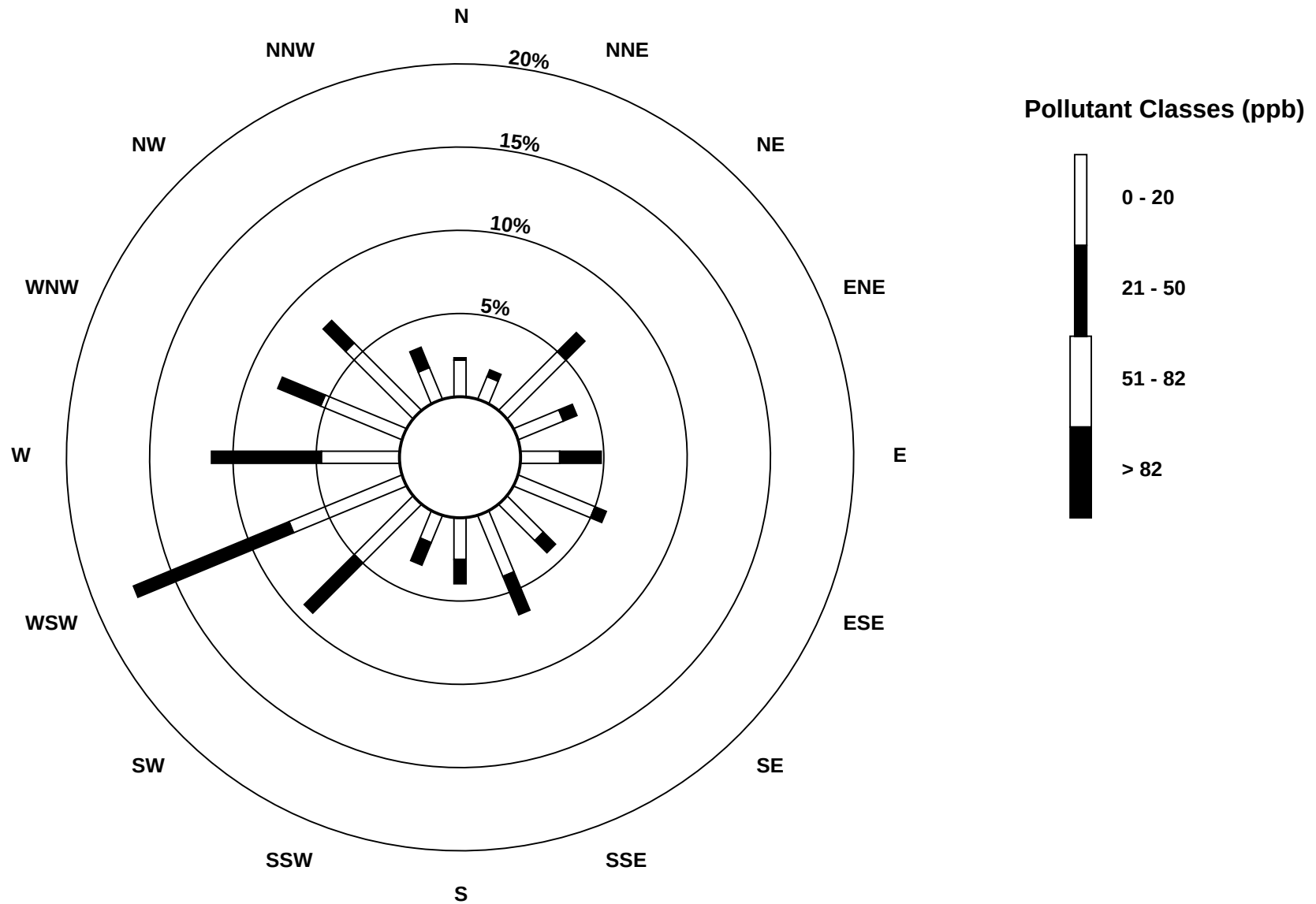
Ozone (O₃) - ppb
Henry Pirker - September 2014



Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - September 2014



Eight Hour Running Averages

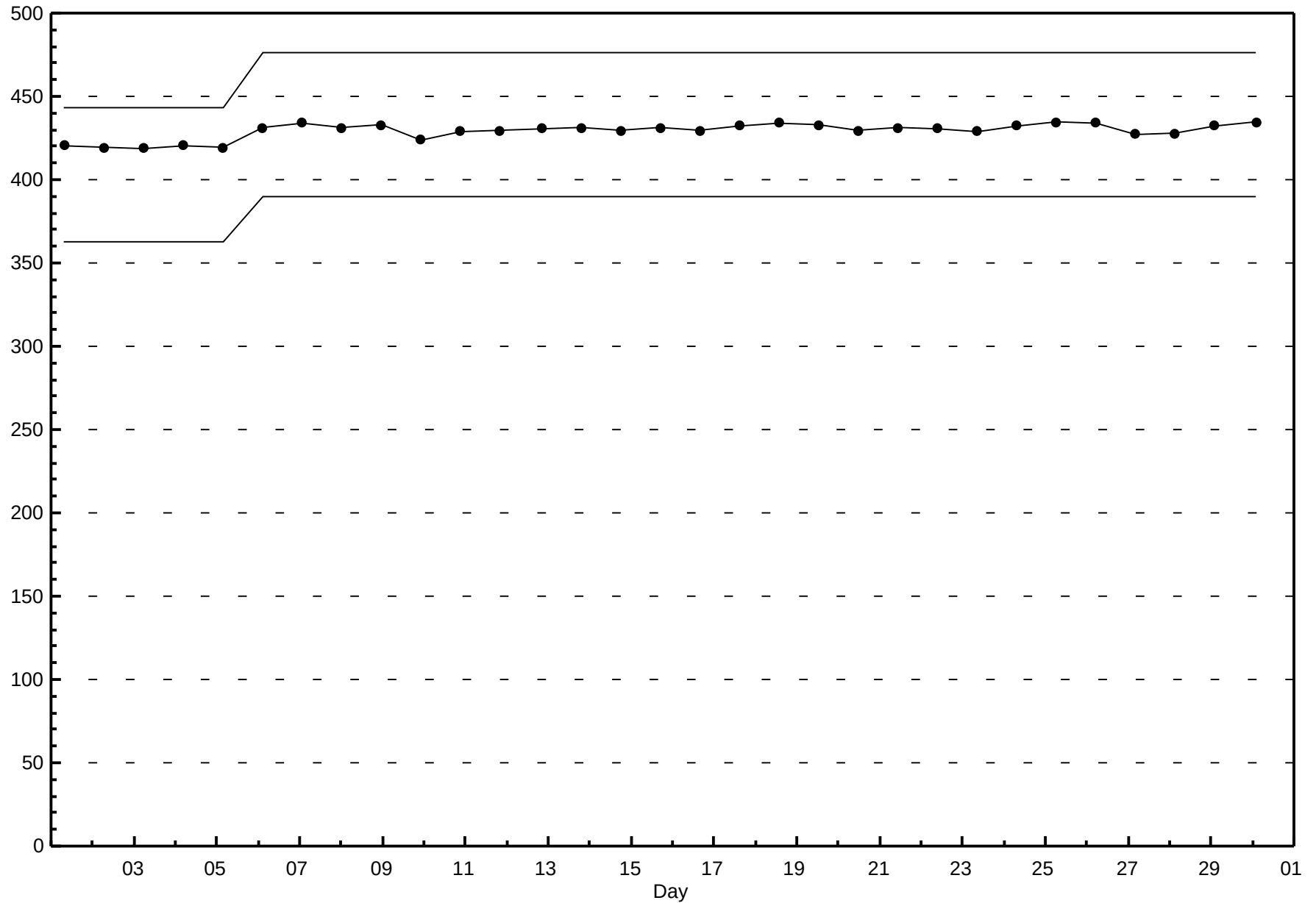
Ozone (O₃) - ppb

Henry Pirker - September 2014

Maximum Value: 37.3 ppb on Sep 23 19:00																								Hours in Service: 720	
Minimum Value: 1.2 ppb on Sep 13 07:00																								Hours of Data: 706	
Percentiles: P ₁ = 1.7 P ₁₀ = 5.2 Q ₁ = 13.1 Median = 17.6 Q ₃ = 23.2 P ₉₀ = 27.7 P ₉₉ = 34.5																								Hours of Missing Data: 14	
																								Hours of Calibration: 7	
																								Percent Operational Time: 99.0	
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	29	29	28	27	27	26	25	24	24	23	23	23	24	24	24	24	24	24	24	23	22	21	21	20	29.3
2-Sep	20	20	20	20	20	19	19	17	16	15	14	15	15	18	19	20	21	22	22	21	20	18	16	15	21.9
3-Sep	13	12	10	9	9	8	7	6	6	7	9	12	15	17	20	23	26	27	28	27	25	24	22	21	27.5
4-Sep	19	19	18	18	18	16	14	13	13	13	14	16	17	20	24	26	28	29	30	30	28	26	25	23	30.0
5-Sep	22	21	21	20	20	19	17	15	15	14	15	16	16	17	N	N	N	N	N	N	N	20	19	19	22.1
6-Sep	18	17	16	15	14	13	11	9	8	9	10	12	13	16	19	22	24	24	24	24	23	22	21	20	24.4
7-Sep	19	18	17	16	15	15	14	14	13	12	12	11	11	11	12	12	13	14	15	15	16	16	17	17	18.6
8-Sep	17	18	18	18	19	18	17	17	17	17	17	18	18	19	20	20	N	N	N	N	N	N	N	N	20.3
9-Sep	18	18	17	17	16	16	15	15	15	15	15	16	17	18	20	21	21	22	22	22	22	22	22	22	21.9
10-Sep	22	22	21	21	20	17	15	13	12	13	13	14	15	18	21	24	26	26	27	26	25	24	22	19	26.5
11-Sep	17	14	10	7	5	5	4	3	3	3	5	7	10	14	18	22	25	28	30	30	30	29	26	25	30.2
12-Sep	24	23	22	23	23	23	23	21	19	18	17	16	16	16	16	17	18	19	19	19	16	13	11	9	24.4
13-Sep	6	4	2	2	1	1	1	1	1	2	2	3	5	7	11	14	17	19	21	22	22	21	19	16	21.9
14-Sep	13	10	9	8	6	5	4	3	4	5	7	9	12	15	18	21	23	25	25	24	21	18	14	11	25.4
15-Sep	7	7	4	3	3	3	2	2	3	3	5	8	11	14	17	21	23	26	26	25	22	19	15	11	26.4
16-Sep	10	7	4	3	3	3	2	2	3	3	3	5	8	12	15	17	22	27	29	30	29	27	24	23	29.6
17-Sep	18	14	11	9	7	6	4	3	3	4	5	8	11	15	16	21	25	27	27	26	25	23	24	24	27.1
18-Sep	24	25	25	27	28	27	24	21	18	16	15	15	15	18	22	26	28	30	30	30	30	29	27	26	30.1
19-Sep	24	23	21	20	19	17	16	16	17	19	22	24	26	29	33	36	36	36	35	34	33	32	31	31	36.4
20-Sep	30	29	29	28	27	25	22	21	19	19	20	20	21	24	26	28	29	28	26	24	22	20	18	16	29.9
21-Sep	13	11	9	7	6	5	3	2	2	3	3	5	9	13	18	24	28	32	31	31	28	24	21	17	32.1
22-Sep	13	9	7	5	5	5	4	3	3	2	3	6	11	16	21	26	30	30	32	31	30	28	26	24	31.5
23-Sep	24	23	23	24	22	20	18	16	14	13	14	15	19	23	29	34	35	37	37	36	35	34	33	32	37.3
24-Sep	31	30	30	30	30	29	25	25	22	20	19	18	17	17	18	18	19	19	19	18	16	16	16	16	30.8
25-Sep	17	17	17	17	18	17	17	15	14	13	13	13	15	16	17	19	20	22	23	23	23	24	23	22	23.7
26-Sep	21	20	18	17	16	15	14	13	13	13	14	15	16	17	18	19	20	20	20	19	18	18	17	17	21.1
27-Sep	16	16	16	16	16	15	14	14	13	13	13	13	13	14	14	14	15	14	14	14	13	12	12	11	16.2
28-Sep	10	9	8	7	6	5	4	3	3	3	3	3	4	5	7	10	12	14	16	18	18	17	15	18.4	
29-Sep	13	11	10	8	6	5	4	3	2	2	2	4	6	8	11	13	15	16	17	17	17	19	20	21	21.1
30-Sep	23	24	26	27	27	26	24	21	18	19	20	21	22	24	26	29	31	32	31	30	29	28	27	26	31.9
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Henry Pirker - September 2014



Hourly Averages

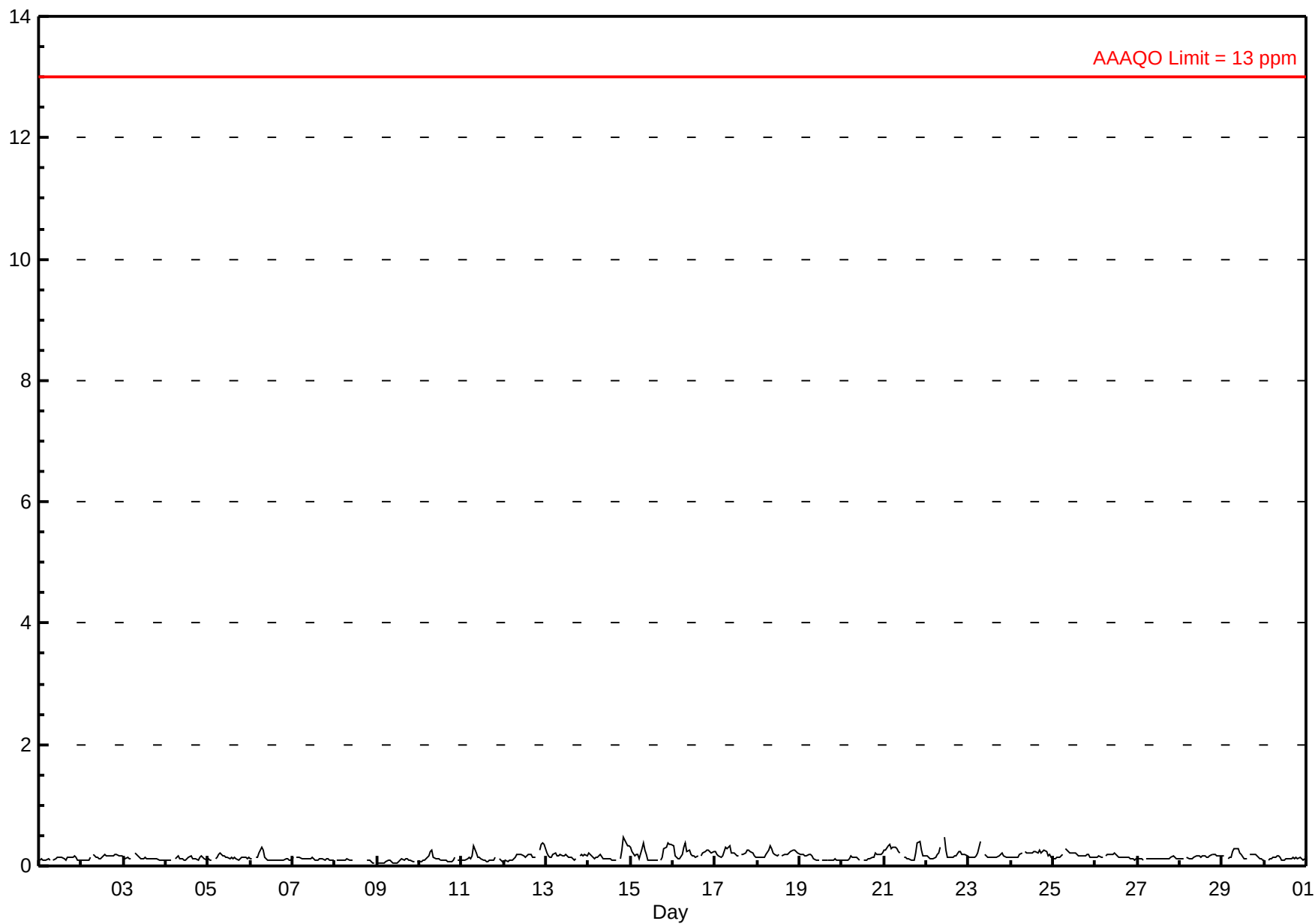
Carbon Monoxide (CO) - ppm

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.49 ppm on Sep 14 21:00 Maximum Daily Average: 0.23 ppm on Sep 21																								Hours in Service: 720 Hours of Data: 681 Hours of Missing Data: 39 Hours of Calibration: 36 Percent Operational Time: 99.6		
Minimum Value: 0.0 ppm on Sep 9 03:00 Maximum Diurnal Average: 0.22 ppm at hour 8 Monthly Average: 0.156 ppm												Minimum Daily Average: 0.08 ppm on Sep 9 Minimum Diurnal Average: 0.13 ppm at hour 16 Percentiles: P ₁ = 0.05 P ₁₀ = 0.10 Q ₁ = 0.11 Median = 0.14 Q ₃ = 0.18 P ₉₀ = 0.24 P ₉₉ = 0.38														
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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.12	0.17
2-Sep	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.15	0.20
3-Sep	0.1	0.1	0.2	0.1	0.1	A	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.21
4-Sep	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.12	0.17
5-Sep	0.1	0.1	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.22
6-Sep	0.1	0.1	A	0.1	0.1	0.2	0.3	0.3	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	0.31
7-Sep	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.14
8-Sep	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	C	C	C	C	C	M	M	0.1	0.1	0.1	0.1	0.1	A	--	0.12
9-Sep	0.0	0.0	0.0	0.0	0.1	0.1	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	A	0.1	0.08	0.13
10-Sep	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	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	0.11	0.26
11-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.12	0.33
12-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	A	0.3	0.3	0.4	0.3	0.18	0.37
13-Sep	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.16	0.21
14-Sep	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.3	0.5	0.4	0.3	0.3	0.18	0.49
15-Sep	0.3	0.2	0.2	0.2	0.2	0.1	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.3	0.3	0.4	0.3	0.4	0.21	0.38
16-Sep	0.3	0.2	0.1	0.1	0.1	0.2	0.3	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.22	0.39
17-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.21	0.34
18-Sep	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.21	0.32
19-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.20
20-Sep	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.14	0.22
21-Sep	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.3	0.2	0.2	0.23	0.40
22-Sep	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	A	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.47
23-Sep	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	A	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.18	0.40
24-Sep	0.1	0.1	0.1	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.20	0.26
25-Sep	0.1	0.1	0.1	0.1	0.1	0.2	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.18	0.28
26-Sep	0.1	0.1	0.2	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.20
27-Sep	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.12	0.16
28-Sep	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.15	0.20
29-Sep	0.2	0.2	A	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	M	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.18	0.29
30-Sep	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.18
0.15 0.14 0.13 0.13 0.14 0.16 0.19 0.22 0.18 0.16 0.15 0.15 0.14 0.13 0.13 0.13 0.14 0.14 0.15 0.18 0.20 0.17 0.16 0.16																								Diurnal Average		
0.33 0.27 0.33 0.36 0.29 0.31 0.32 0.40 0.34 0.29 0.47 0.25 0.22 0.24 0.24 0.22 0.26 0.21 0.25 0.38 0.49 0.38 0.37 0.35																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm 24-hr na																										

Hourly Averages

Carbon Monoxide (CO) - ppm
Henry Pirker - September 2014



Hourly Maximums

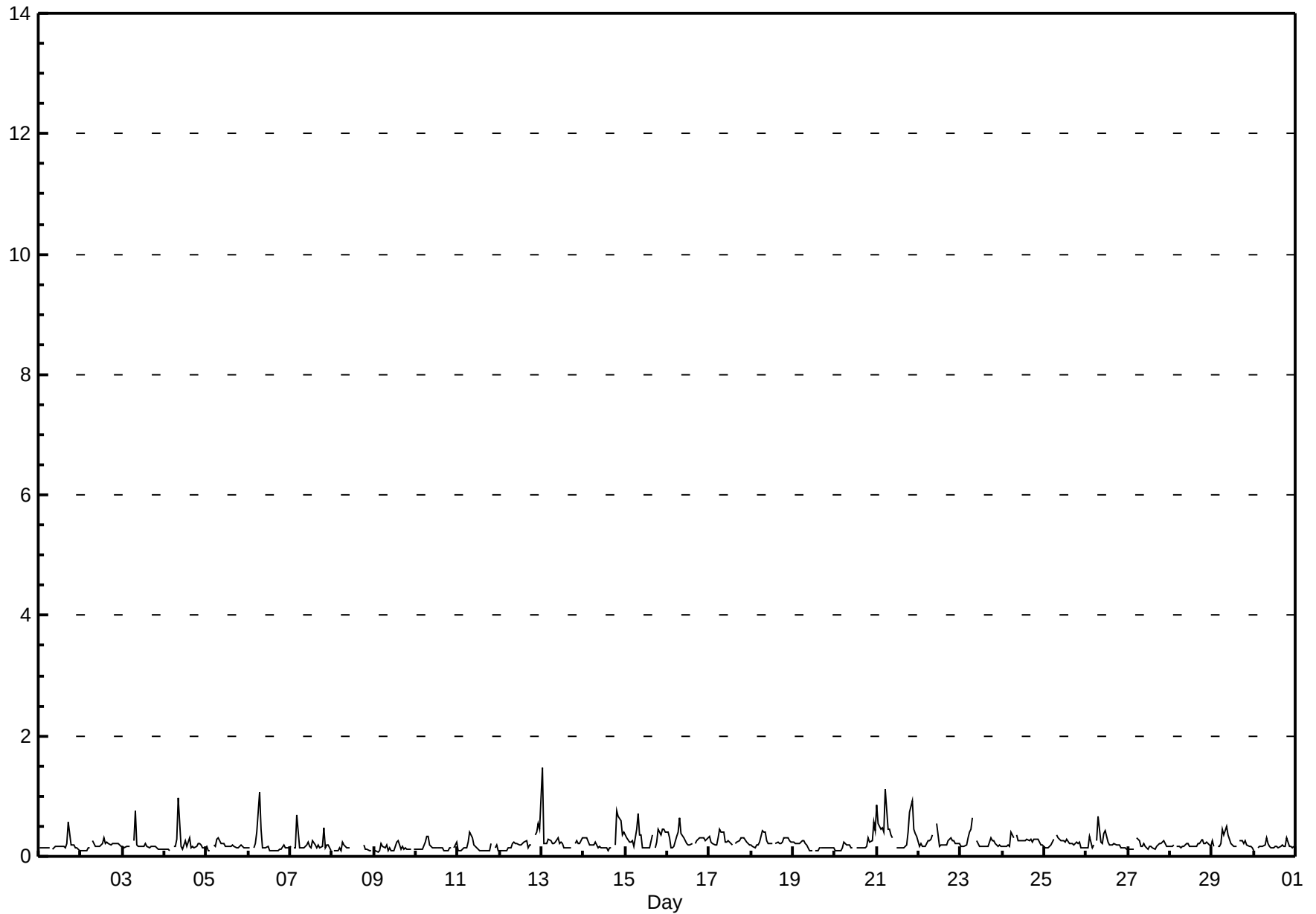
Carbon Monoxide (CO) - ppm

Henry Pirker - September 2014

Maximum Value: 1.46 ppm on Sep 13 01:00																					Maximum Daily Average: 0.42 ppm on Sep 21				Hours in Service: 720		
Minimum Value: 0.1 ppm on Sep 9 03:00																					Minimum Daily Average: 0.14 ppm on Sep 9				Hours of Data: 681		
Maximum Diurnal Average: 0.35 ppm at hour 8																					Minimum Diurnal Average: 0.17 ppm at hour 4				Hours of Missing Data: 39		
Monthly Average: 0.218 ppm																					Percentiles: P ₁ = 0.10 P ₁₀ = 0.11 Q ₁ = 0.15 Median = 0.18 Q ₃ = 0.25 P ₉₀ = 0.35 P ₉₉ = 0.72				Hours of Calibration: 36		
																					Percent Operational Time: 99.6						
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	0.1	0.1	0.1	0.1	0.1	0.2	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.17	0.57
2-Sep	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.31
3-Sep	0.2	0.2	0.2	0.2	0.2	A	0.3	0.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.19	0.75
4-Sep	0.1	0.1	0.1	0.1	A	0.2	0.2	0.3	1.0	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.20	0.97
5-Sep	0.2	0.1	0.1	A	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.18	0.31
6-Sep	0.2	0.1	A	0.2	0.2	0.4	1.1	0.4	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.20	1.07
7-Sep	0.2	A	0.2	0.2	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.5	0.1	0.2	0.2	0.1	0.1	0.20	0.70
8-Sep	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	C	C	C	C	C	M	M	0.2	0.1	0.1	0.1	0.1	0.1	A	--	0.24
9-Sep	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.14	0.27
10-Sep	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.1	0.2	0.16	0.33	
11-Sep	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.2	0.1	0.1	0.16	0.40
12-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	A	0.3	0.4	0.5	0.4	0.22	0.55	
13-Sep	1.5	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	A	0.2	0.3	0.2	0.2	0.3	0.27	1.46	
14-Sep	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.2	0.7	0.7	0.6	0.4	0.4	0.27	0.75	
15-Sep	0.4	0.3	0.2	0.2	0.3	0.2	0.4	0.7	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.4	A	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.30	0.71	
16-Sep	0.4	0.3	0.2	0.1	0.2	0.3	0.4	0.6	0.4	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.28	0.65	
17-Sep	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.27	0.45	
18-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.25	0.43	
19-Sep	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.17	0.25	
20-Sep	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.6	0.4	0.20	0.58	
21-Sep	0.9	0.5	0.4	0.5	0.4	1.1	0.4	0.4	0.3	0.3	A	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.7	0.9	0.5	0.4	0.3	0.42	1.12	
22-Sep	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	A	0.6	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.24	0.55	
23-Sep	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.23	0.65	
24-Sep	0.2	0.2	0.2	0.2	0.2	0.4	0.3	A	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.25	0.40	
25-Sep	0.1	0.1	0.1	0.2	0.2	0.3	A	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.35	
26-Sep	0.2	0.2	0.3	0.2	0.2	A	0.3	0.7	0.2	0.2	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.23	0.67	
27-Sep	0.1	0.1	0.1	0.1	A	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.18	0.32	
28-Sep	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.19	0.29	
29-Sep	0.3	0.2	A	0.2	0.2	0.2	0.5	0.4	0.5	0.4	0.3	0.2	0.2	0.2	0.2	M	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.24	0.50	
30-Sep	0.1	A	0.1	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	0.1	0.2	0.17	0.30	
0.24 0.18 0.17 0.17 0.21 0.26 0.31 0.35 0.27 0.21 0.20 0.19 0.18 0.18 0.17 0.18 0.18 0.20 0.21 0.27 0.26 0.23 0.22 0.21																										Diurnal Average	
1.46 0.54 0.45 0.47 0.70 1.12 1.07 0.75 0.97 0.36 0.55 0.42 0.27 0.31 0.30 0.36 0.29 0.57 0.40 0.75 0.93 0.60 0.58 0.45																										Diurnal Maximum	
C - Calibration M - Maintenance A - Automated Daily Zero Span																											

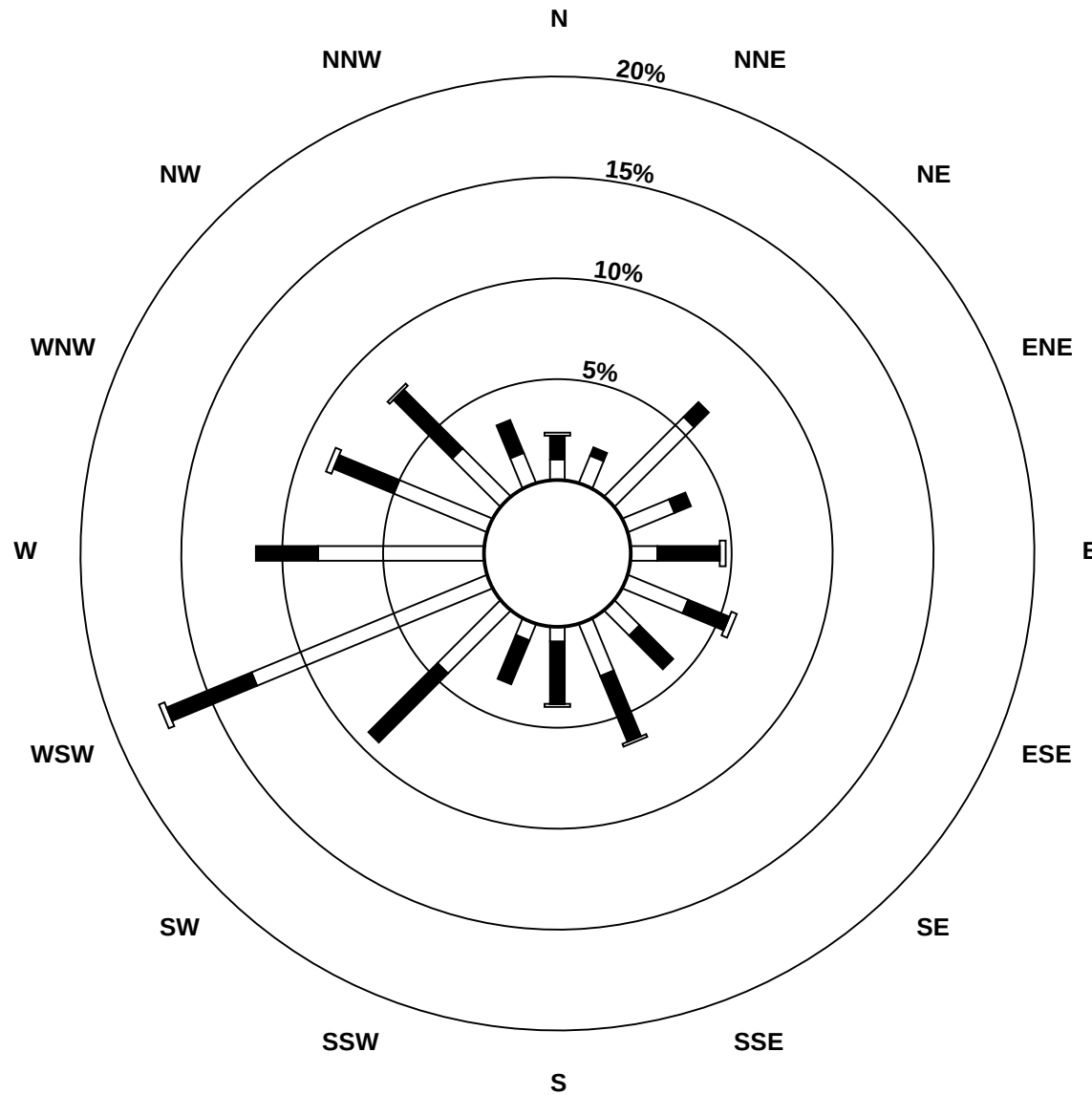
Hourly Maximums

Carbon Monoxide (CO) - ppm
Henry Pirker - September 2014

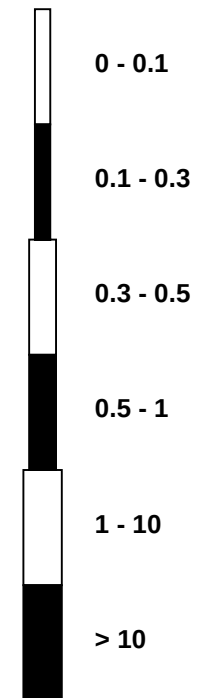


Pollutant Rose

Carbon Monoxide (CO) - ppm
Henry Pirker - September 2014



Pollutant Classes (ppm)



Eight Hour Running Averages

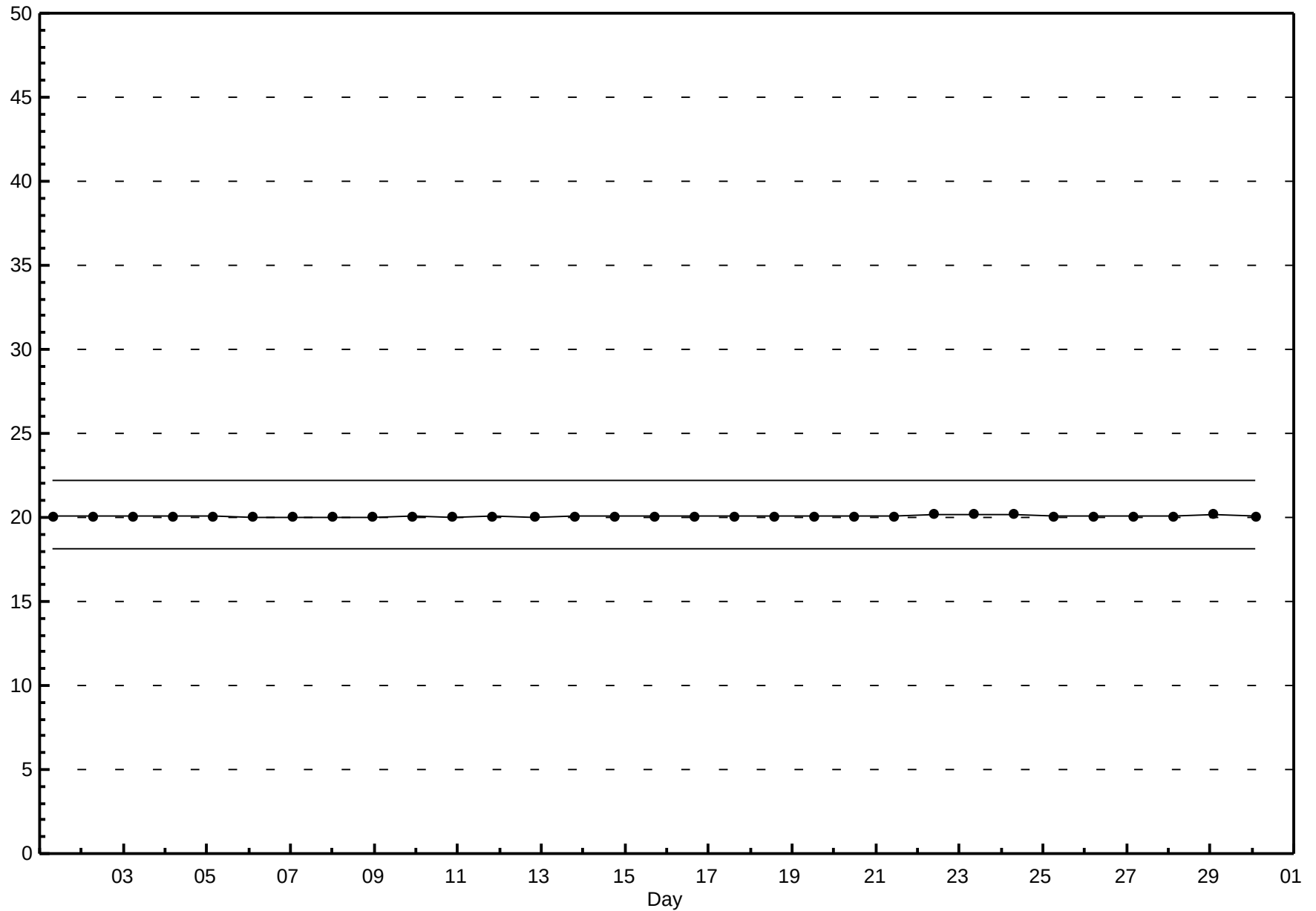
Carbon Monoxide (CO) - ppm

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.32 ppm on Sep 15 01:00																								Hours in Service: 720 Hours of Data: 709		
Minimum Value: 0.05 ppm on Sep 9 05:00																								Hours of Missing Data: 11 Hours of Calibration: 10		
Percentiles: P ₁ = 0.07 P ₁₀ = 0.10 Q ₁ = 0.12 Median = 0.15 Q ₃ = 0.19 P ₉₀ = 0.23 P ₉₉ = 0.29																								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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	
2-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
3-Sep	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17
4-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
5-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17
6-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
7-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
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	N	N	N	N	N	N	N	N	N	N	N	N	0.10
9-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.10
10-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
11-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17
12-Sep	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.25
13-Sep	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.27
14-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.29
15-Sep	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.32
16-Sep	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
17-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
18-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
19-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.23
20-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.18
21-Sep	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.30
22-Sep	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
23-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
24-Sep	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
25-Sep	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
26-Sep	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.18
27-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
28-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
29-Sep	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
30-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
0.32 0.31 0.31 0.30 0.27 0.28 0.29 0.30 0.30 0.29 0.28 0.25 0.25 0.25 0.25 0.25 0.24 0.23 0.23 0.23 0.24 0.24 0.23 0.26 0.29																										
Diurnal Maximums																										
N - Not Valid																										
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																										

Span Responses

Carbon Monoxide (CO)
Henry Pirker - September 2014



Hourly Averages

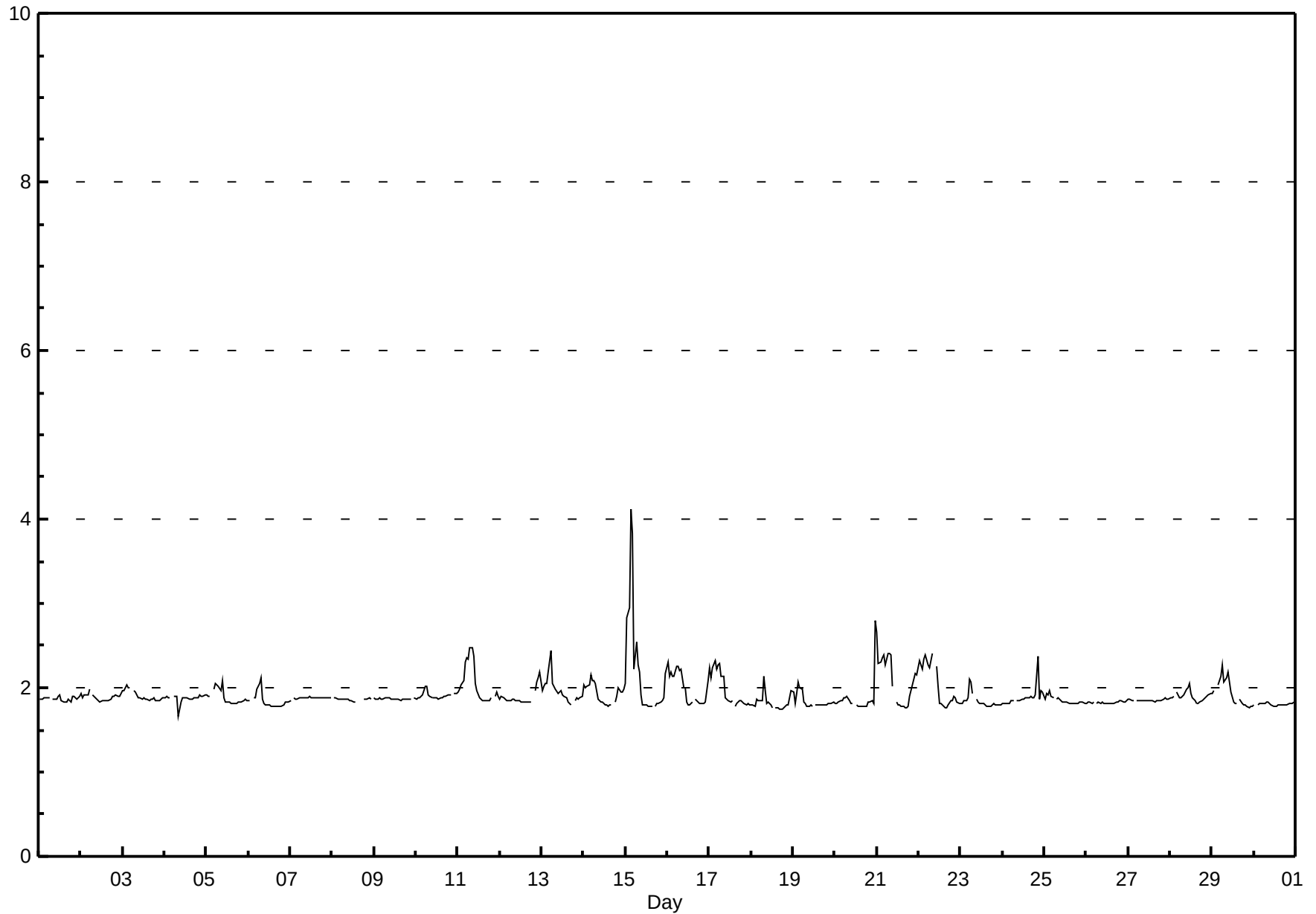
Total Hydrocarbons (THC) - ppm

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.11 ppm on Sep 15 04:00 Maximum Daily Average: 2.21 ppm on Sep 15																								Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 35 Percent Operational Time: 99.9		
Minimum Value: 1.7 ppm on Sep 4 09:00 Minimum Daily Average: 1.80 ppm on Sep 30 Maximum Diurnal Average: 2.06 ppm at hour 5 Minimum Diurnal Average: 1.82 ppm at hour 16 Monthly Average: 1.913 ppm Percentiles: P ₁ = 1.77 P ₁₀ = 1.79 Q ₁ = 1.82 Median = 1.86 Q ₃ = 1.91 P ₉₀ = 2.09 P ₉₉ = 2.51																										
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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.87	1.92
2-Sep	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.98
3-Sep	2.0	2.0	2.0	2.0	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.90	2.03
4-Sep	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.7	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	1.87	1.92
5-Sep	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.89	2.09
6-Sep	1.8	1.9	A	1.9	1.9	2.0	2.1	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	2.12
7-Sep	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.89
8-Sep	A	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	C	C	C	C	1.9	1.9	1.9	1.9	1.9	A	1.86	1.88
9-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	1.9	1.9	1.9	1.9	A	1.9	1.87	1.88
10-Sep	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.91	2.02
11-Sep	1.9	2.0	2.0	2.1	2.3	2.4	2.3	2.5	2.5	2.4	2.1	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	A	1.9	1.9	1.9	2.04	2.48
12-Sep	1.9	1.9	1.9	1.9	1.8	1.8	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	A	2.0	2.1	2.1	2.2	1.89	2.18
13-Sep	2.0	2.0	2.0	2.0	2.2	2.4	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.8	1.8	1.8	A	1.8	1.9	1.9	1.9	1.9	1.96	2.43
14-Sep	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	2.0	1.9	2.0	2.0	1.93	2.16
15-Sep	2.1	2.8	2.9	4.1	3.8	2.2	2.5	2.3	2.2	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	2.2	2.21	4.11
16-Sep	2.3	2.1	2.2	2.1	2.1	2.3	2.3	2.2	2.2	2.0	2.0	1.8	1.8	1.8	1.8	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.1	2.00	2.31
17-Sep	2.2	2.1	2.2	2.3	2.2	2.3	2.3	2.1	2.1	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.98	2.31
18-Sep	1.8	1.8	1.8	1.9	1.8	1.8	1.8	2.1	2.0	1.8	1.8	1.8	1.8	A	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.83	2.14
19-Sep	1.9	1.8	1.9	2.1	2.0	2.0	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	2.07
20-Sep	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.8	1.86	2.79
21-Sep	2.7	2.3	2.3	2.4	2.4	2.3	2.4	2.4	2.4	2.0	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.2	2.1	2.09	2.66
22-Sep	2.3	2.3	2.2	2.3	2.4	2.3	2.2	2.3	2.4	A	2.2	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.8	1.8	2.04	2.41
23-Sep	1.8	1.8	1.8	1.9	1.9	2.1	2.1	1.9	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	2.10
24-Sep	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	1.9	2.0	2.0	1.89	2.37
25-Sep	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	1.96
26-Sep	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.84
27-Sep	1.9	1.9	1.8	1.8	A	1.9	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.85	1.88
28-Sep	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	2.0	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	1.90	2.04
29-Sep	1.9	2.0	A	2.0	2.1	2.1	2.3	2.1	2.1	2.2	2.1	1.9	1.8	1.8	1.8	M	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.94	2.28
30-Sep	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.80	1.83
1.96 1.97 1.98 2.05 2.06 2.02 2.02 2.01 1.97 1.91 1.89 1.86 1.84 1.83 1.82 1.82 1.82 1.83 1.83 1.85 1.88 1.87 1.88 1.95																								Diurnal Average		
2.66 2.83 2.95 4.11 3.83 2.43 2.55 2.48 2.48 2.37 2.25 2.04 1.93 1.90 1.88 1.88 1.90 1.90 1.91 1.92 2.37 2.10 2.16 2.79																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

Total Hydrocarbons (THC) - ppm
Henry Pirker - September 2014



Hourly Maximums

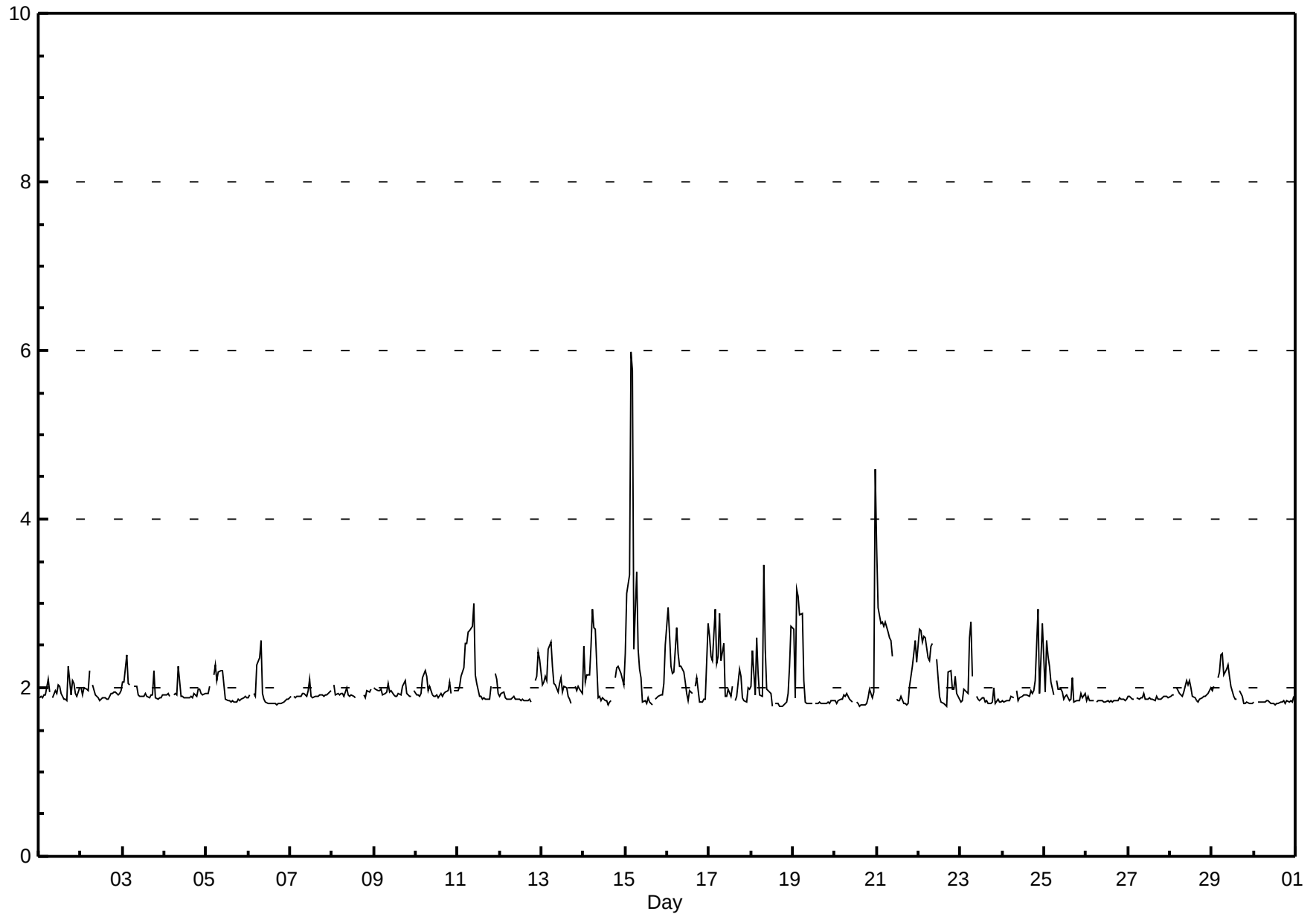
Total Hydrocarbons (THC) - ppm

Henry Pirker - September 2014

Maximum Value: 5.99 ppm on Sep 15 04:00																				Maximum Daily Average: 2.54 ppm on Sep 15					Hours in Service: 720	
Minimum Value: 1.8 ppm on Sep 18 19:00																				Minimum Daily Average: 1.83 ppm on Sep 30					Hours of Data: 684	
Maximum Diurnal Average: 2.27 ppm at hour 4																				Minimum Diurnal Average: 1.85 ppm at hour 16					Hours of Missing Data: 36	
Monthly Average: 2.027 ppm																				Percentiles: P ₁ = 1.80 P ₁₀ = 1.82 Q ₁ = 1.86 Median = 1.91 Q ₃ = 2.03 P ₉₀ = 2.40 P ₉₉ = 3.32					Hours of Calibration: 35	
																				Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Sep	1.9	1.9	1.9	1.9	1.9	2.1	1.9	A	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.3	1.9	2.1	2.0	1.9	1.9	2.0	1.96	2.26
2-Sep	2.0	1.9	2.0	2.0	2.0	2.2	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.94	2.20
3-Sep	2.1	2.1	2.4	2.0	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	1.9	1.9	1.9	1.9	1.9	1.97	2.39
4-Sep	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.93	2.26
5-Sep	1.9	1.9	2.0	A	2.2	2.3	2.1	2.2	2.2	2.2	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.27
6-Sep	1.9	1.9	A	1.9	1.9	2.3	2.4	2.6	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.92	2.55
7-Sep	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.92	2.10
8-Sep	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	C	C	C	C	1.9	1.9	2.0	1.9	2.0	A	1.93	2.03
9-Sep	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	1.9	1.9	1.9	A	2.0	1.96	2.09
10-Sep	1.9	1.9	1.9	1.9	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	1.9	A	2.0	2.0	1.97	2.21
11-Sep	2.0	2.0	2.1	2.2	2.5	2.5	2.7	2.7	2.7	3.0	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.2	2.1	1.9	2.17	3.00
12-Sep	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.9	1.8	A	2.1	2.1	2.4	2.3	1.94	2.43
13-Sep	2.0	2.1	2.1	2.1	2.5	2.5	2.3	2.1	2.0	2.0	2.1	2.1	1.9	2.0	2.0	1.9	1.9	1.8	A	2.0	2.0	2.0	2.0	1.9	2.05	2.54
14-Sep	2.5	2.1	2.2	2.1	2.5	2.9	2.7	2.7	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	A	2.1	2.2	2.3	2.2	2.1	2.0	2.14	2.93
15-Sep	2.4	3.1	3.3	6.0	5.8	2.5	3.4	2.5	2.2	2.1	1.8	1.8	1.8	1.9	1.8	1.8	A	1.9	1.9	1.9	1.9	1.9	2.1	2.5	2.54	5.99
16-Sep	3.0	2.6	2.3	2.2	2.2	2.7	2.4	2.3	2.3	2.2	2.1	1.9	1.8	2.0	1.9	A	2.0	2.1	1.8	1.8	1.8	1.9	1.9	2.8	2.17	2.95
17-Sep	2.6	2.4	2.3	2.9	2.3	2.4	2.9	2.3	2.5	1.9	1.9	2.0	1.9	2.0	A	1.8	1.9	2.2	2.1	1.9	1.8	1.8	2.0	2.0	2.17	2.93
18-Sep	2.0	2.4	1.9	2.6	2.2	1.9	1.9	3.5	2.5	2.0	2.0	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.3	2.7	2.09	3.46
19-Sep	2.7	1.9	3.2	3.1	2.9	2.9	2.1	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.08	3.16
20-Sep	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.9	2.0	4.6	1.98	4.60
21-Sep	3.7	3.0	2.8	2.8	2.7	2.8	2.7	2.6	2.6	2.4	A	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.8	2.0	2.3	2.4	2.6	2.3	2.35	3.66
22-Sep	2.7	2.7	2.5	2.6	2.6	2.4	2.3	2.5	2.5	A	2.3	2.1	1.9	1.8	1.8	1.8	1.8	2.2	2.2	2.0	2.0	2.1	1.9	1.9	2.20	2.69
23-Sep	1.8	1.8	2.0	2.0	1.9	2.6	2.8	2.1	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	2.0	1.8	1.9	1.8	1.8	1.95	2.77
24-Sep	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.1	2.9	1.9	2.3	2.8	2.01	2.93
25-Sep	2.0	2.6	2.4	2.3	2.1	1.9	A	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.1	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.99	2.55
26-Sep	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.85	1.89
27-Sep	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.93
28-Sep	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	2.0	2.1	2.0	2.1	2.0	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.93	2.08
29-Sep	2.0	2.0	A	2.1	2.2	2.4	2.4	2.1	2.2	2.3	2.1	2.0	1.9	1.9	1.9	M	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.01	2.40
30-Sep	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.83	1.89
2.13 2.12 2.15 2.27 2.26 2.23 2.21 2.18 2.09 2.00 1.94 1.92 1.88 1.88 1.86 1.85 1.88 1.91 1.91 1.93 1.96 1.95 1.99 2.15																								Diurnal Average		
3.66 3.12 3.33 5.99 5.77 2.93 3.37 3.46 2.72 3.00 2.34 2.12 2.02 2.02 1.99 1.91 2.11 2.26 2.21 2.23 2.93 2.41 2.57 4.60																								Diurnal Maximum		
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																		

Hourly Maximums

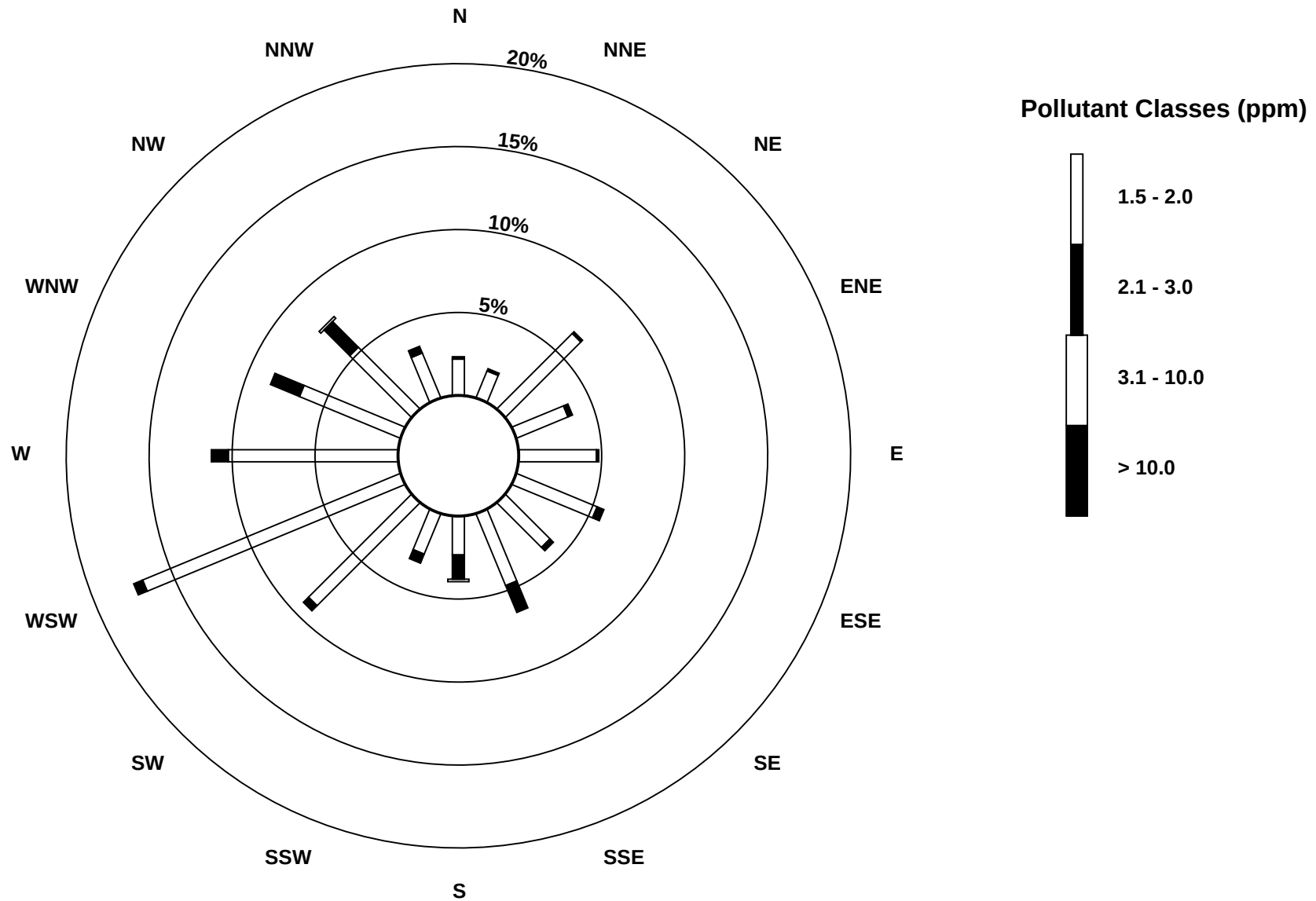
Total Hydrocarbons (THC) - ppm
Henry Pirker - September 2014



Pollutant Rose

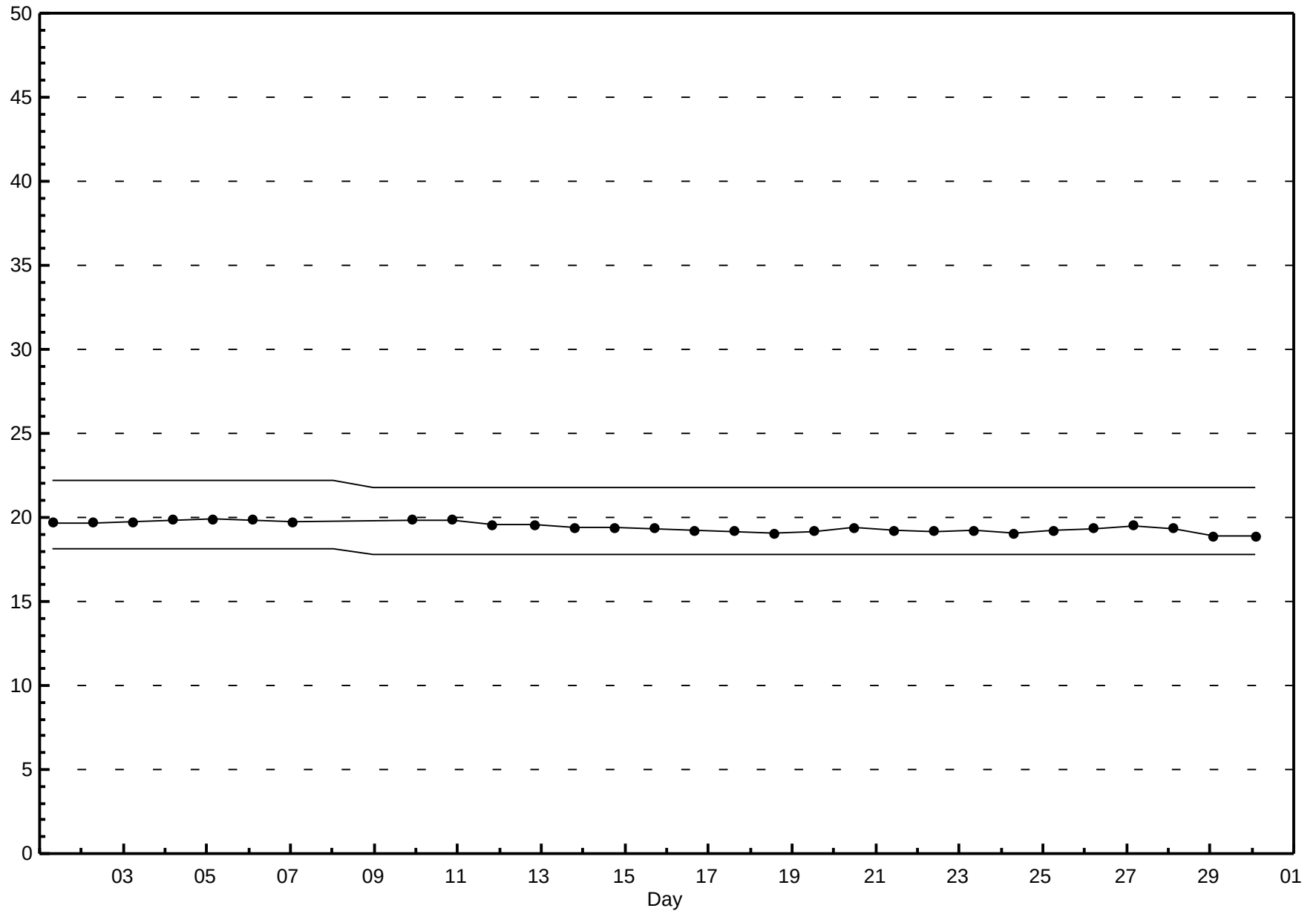
Total Hydrocarbons (THC) - ppm

Henry Pirker - September 2014



Span Responses

Total Hydrocarbons (THC)
Henry Pirker - September 2014



Hourly Averages

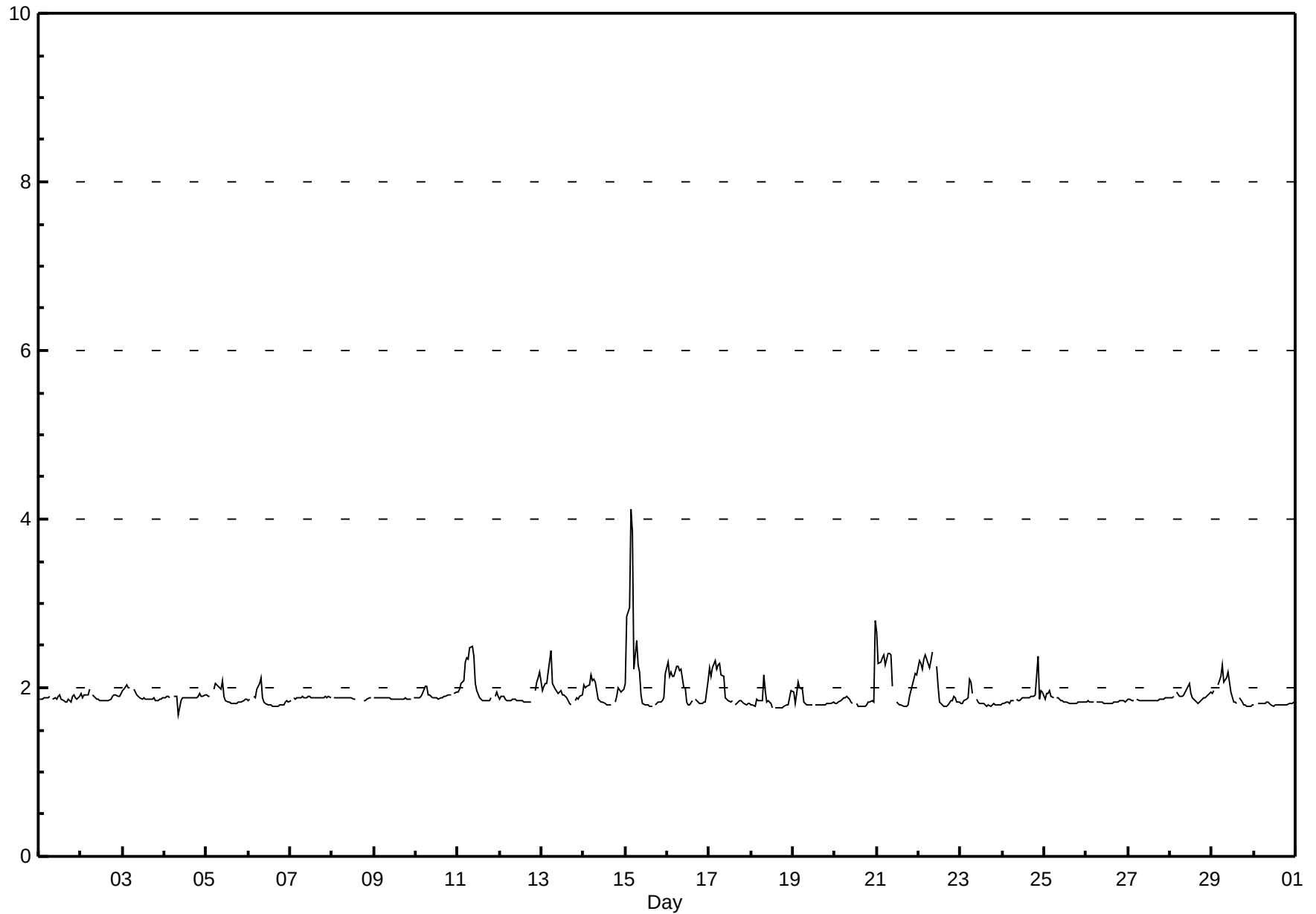
Methane (CH₄) - ppm

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.12 ppm on Sep 15 04:00 Maximum Daily Average: 2.21 ppm on Sep 15																								Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 35 Percent Operational Time: 99.9		
Minimum Value: 1.7 ppm on Sep 4 09:00 Maximum Diurnal Average: 2.06 ppm at hour 5 Monthly Average: 1.917 ppm												Minimum Daily Average: 1.81 ppm on Sep 30 Minimum Diurnal Average: 1.82 ppm at hour 16 Percentiles: P ₁ = 1.77 P ₁₀ = 1.80 Q ₁ = 1.83 Median = 1.87 Q ₃ = 1.91 P ₉₀ = 2.10 P ₉₉ = 2.51														
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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.87	1.92
2-Sep	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.98
3-Sep	2.0	2.0	2.0	2.0	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.91	2.03
4-Sep	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.7	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	1.88	1.93
5-Sep	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.90	2.09
6-Sep	1.8	1.9	A	1.9	1.9	2.0	2.1	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	2.12
7-Sep	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.89
8-Sep	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	C	C	C	C	1.9	1.9	1.9	1.9	1.9	A	1.88	1.89
9-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	1.9	1.9	1.9	1.9	A	1.9	1.87	1.89
10-Sep	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.91	2.02
11-Sep	2.0	2.0	2.0	2.1	2.3	2.4	2.3	2.5	2.5	2.4	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.05	2.48
12-Sep	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	2.0	2.1	2.1	2.2	1.89	2.19
13-Sep	2.0	2.0	2.0	2.1	2.2	2.4	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.8	1.8	1.8	A	1.8	1.9	1.9	1.9	1.9	1.96	2.44
14-Sep	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	2.0	1.9	2.0	2.0	1.93	2.16
15-Sep	2.1	2.8	3.0	4.1	3.8	2.2	2.6	2.3	2.2	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.9	1.9	2.2	2.21	4.12
16-Sep	2.3	2.1	2.2	2.1	2.1	2.3	2.3	2.2	2.2	2.0	2.0	1.8	1.8	1.8	1.8	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	2.1	2.00	2.31
17-Sep	2.2	2.1	2.2	2.3	2.2	2.3	2.3	2.1	2.1	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.99	2.32
18-Sep	1.8	1.8	1.8	1.9	1.9	1.8	1.8	2.1	2.0	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.83	2.15
19-Sep	1.9	1.8	1.9	2.1	2.0	2.0	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	2.07
20-Sep	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.8	1.87	2.80
21-Sep	2.7	2.3	2.3	2.4	2.4	2.3	2.4	2.4	2.4	2.0	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.2	2.1	2.10	2.67
22-Sep	2.3	2.3	2.2	2.3	2.4	2.3	2.2	2.3	2.4	A	2.3	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.8	2.04	2.42
23-Sep	1.8	1.8	1.8	1.9	1.9	2.1	2.1	1.9	A	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	2.10
24-Sep	1.8	1.8	1.8	1.8	1.8	1.8	1.9	A	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	1.9	2.0	2.0	1.89	2.38
25-Sep	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	1.96
26-Sep	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.83	1.85
27-Sep	1.9	1.9	1.8	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.86	1.88
28-Sep	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.04
29-Sep	1.9	2.0	A	2.0	2.1	2.1	2.3	2.1	2.1	2.2	2.1	1.9	1.8	1.8	1.8	M	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.94	2.28
30-Sep	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.81	1.84
1.96 1.97 1.98 2.05 2.06 2.03 2.03 2.01 1.97 1.91 1.89 1.87 1.84 1.84 1.83 1.82 1.83 1.83 1.84 1.85 1.89 1.87 1.89 1.95																								Diurnal Average		
2.67 2.84 2.95 4.12 3.84 2.44 2.55 2.48 2.48 2.38 2.25 2.04 1.94 1.91 1.88 1.89 1.90 1.91 1.92 1.92 2.38 2.10 2.17 2.80																								Diurnal Maximum		
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																		

Hourly Averages

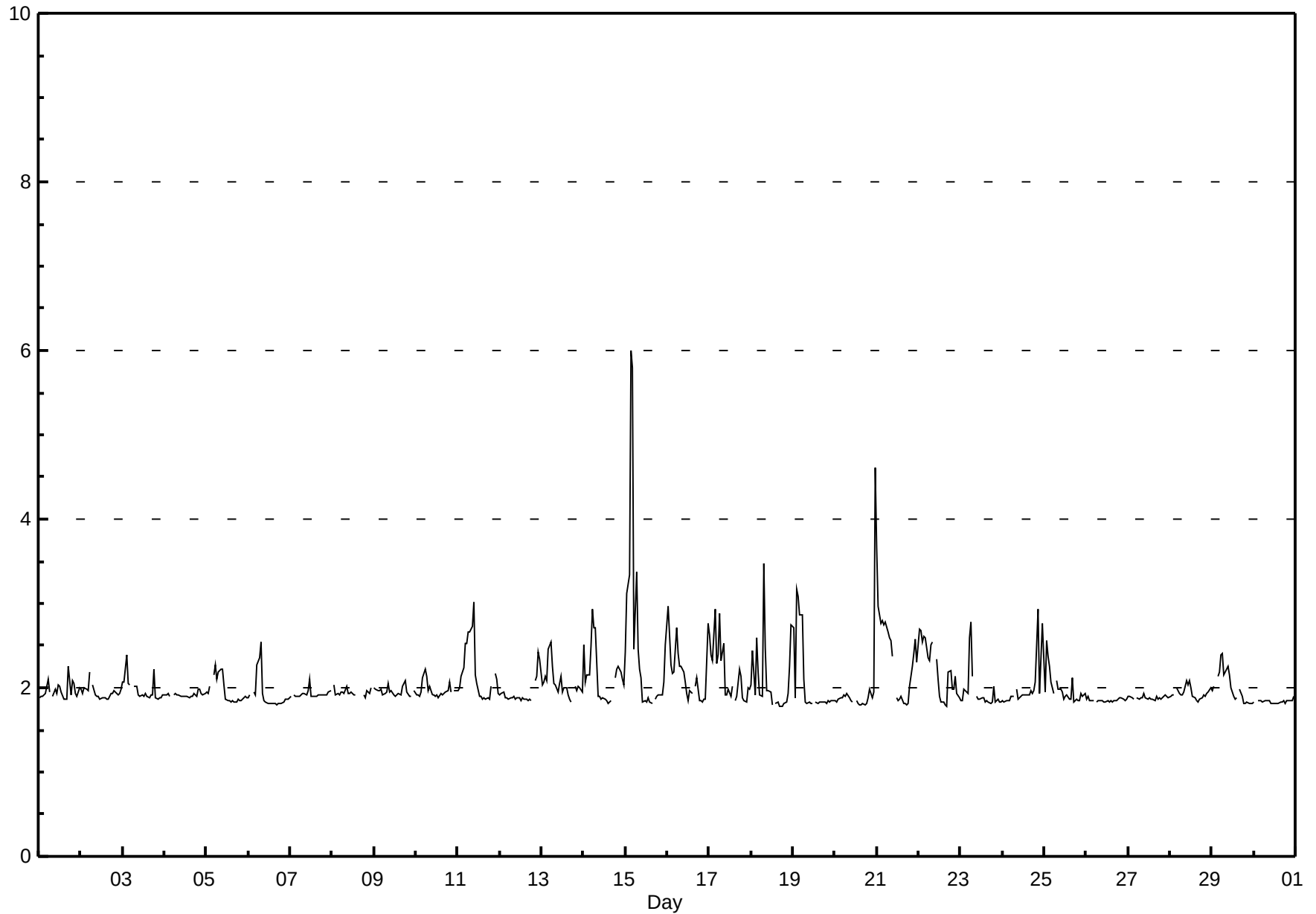
Methane (CH₄) - ppm
Henry Pirker - September 2014



Maximum Value: 6.01 ppm on Sep 15 04:00																				Maximum Daily Average: 2.54 ppm on Sep 15					Hours in Service: 720	
Minimum Value: 1.8 ppm on Sep 18 19:00																				Minimum Daily Average: 1.84 ppm on Sep 30					Hours of Data: 684	
Maximum Diurnal Average: 2.28 ppm at hour 4																				Minimum Diurnal Average: 1.86 ppm at hour 16					Hours of Missing Data: 36	
Monthly Average: 2.030 ppm																				Percentiles: P ₁ = 1.80 P ₁₀ = 1.83 Q ₁ = 1.86 Median = 1.91 Q ₃ = 2.03 P ₉₀ = 2.40 P ₉₉ = 3.33					Hours of Calibration: 35	
																									Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Sep	1.9	1.9	1.9	1.9	1.9	2.1	2.0	A	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.3	1.9	2.1	2.0	1.9	1.9	2.0	1.96	2.25
2-Sep	2.0	1.9	2.0	2.0	2.0	2.2	A	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	1.9	1.9	2.0	1.94	2.19
3-Sep	2.1	2.1	2.4	2.0	2.0	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	1.9	1.9	1.9	1.9	1.9	1.98	2.39
4-Sep	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.92	1.99
5-Sep	1.9	1.9	2.0	A	2.2	2.3	2.1	2.2	2.2	2.2	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.27
6-Sep	1.9	1.9	A	1.9	1.9	2.3	2.4	2.5	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.92	2.55
7-Sep	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.92	2.10
8-Sep	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	C	C	C	C	1.9	1.9	2.0	1.9	2.0	A	1.94	2.03
9-Sep	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	1.9	1.9	1.9	A	2.0	1.96	2.09
10-Sep	1.9	1.9	1.9	1.9	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	1.9	A	2.0	2.0	1.97	2.22
11-Sep	2.0	2.0	2.1	2.2	2.5	2.5	2.7	2.7	2.7	3.0	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.2	2.1	1.9	2.18	3.01
12-Sep	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	A	2.1	2.1	2.4	2.3	1.94	2.43
13-Sep	2.0	2.1	2.1	2.1	2.5	2.5	2.2	2.1	2.0	2.0	2.1	2.1	1.9	2.0	2.0	1.9	1.9	1.8	A	2.0	2.0	2.0	2.0	1.9	2.06	2.55
14-Sep	2.5	2.1	2.2	2.2	2.5	2.9	2.7	2.7	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	A	2.1	2.2	2.3	2.2	2.1	2.0	2.15	2.94
15-Sep	2.4	3.1	3.3	6.0	5.8	2.5	3.4	2.5	2.2	2.1	1.8	1.8	1.8	1.9	1.8	1.8	A	1.9	1.9	1.9	1.9	1.9	2.1	2.5	2.54	6.01
16-Sep	3.0	2.6	2.3	2.2	2.2	2.7	2.4	2.3	2.3	2.2	2.1	1.9	1.8	2.0	1.9	A	2.0	2.1	1.8	1.8	1.8	1.9	1.9	2.8	2.17	2.96
17-Sep	2.6	2.4	2.3	2.9	2.3	2.4	2.9	2.3	2.5	1.9	1.9	2.0	1.9	2.0	A	1.9	1.9	2.2	2.1	1.9	1.9	1.8	2.0	2.0	2.18	2.94
18-Sep	2.0	2.4	1.9	2.6	2.2	1.9	1.9	3.5	2.5	2.0	2.0	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.3	2.7	2.09	3.47
19-Sep	2.7	1.9	3.2	3.1	2.9	2.9	2.1	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.08	3.16
20-Sep	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.9	1.9	4.6	1.98	4.60
21-Sep	3.7	3.0	2.8	2.8	2.7	2.8	2.7	2.6	2.6	2.4	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	2.0	2.3	2.4	2.6	2.3	2.36	3.66
22-Sep	2.7	2.7	2.5	2.6	2.6	2.4	2.3	2.5	2.5	A	2.3	2.1	1.9	1.8	1.8	1.8	1.8	2.2	2.2	2.0	2.0	2.1	1.9	1.9	2.21	2.70
23-Sep	1.8	1.8	2.0	2.0	1.9	2.6	2.8	2.1	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	2.0	1.8	1.9	1.8	1.8	1.96	2.78
24-Sep	1.8	1.8	1.8	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.1	2.9	1.9	2.3	2.8	2.01	2.94
25-Sep	2.0	2.6	2.4	2.3	2.1	1.9	A	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.99	2.56
26-Sep	1.9	1.9	1.8	1.9	1.8	A	1.8	1.9	1.8	1.9	1.8	1.8	1.9	1.8	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.85	1.89
27-Sep	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.93
28-Sep	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	2.1	2.0	2.1	2.0	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.94	2.08
29-Sep	2.0	2.0	A	2.1	2.2	2.4	2.4	2.2	2.2	2.3	2.1	2.0	1.9	1.9	1.9	M	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.01	2.40
30-Sep	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.9	1.84	1.89
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration				M - Maintenance				A - Automated Daily Zero Span																		

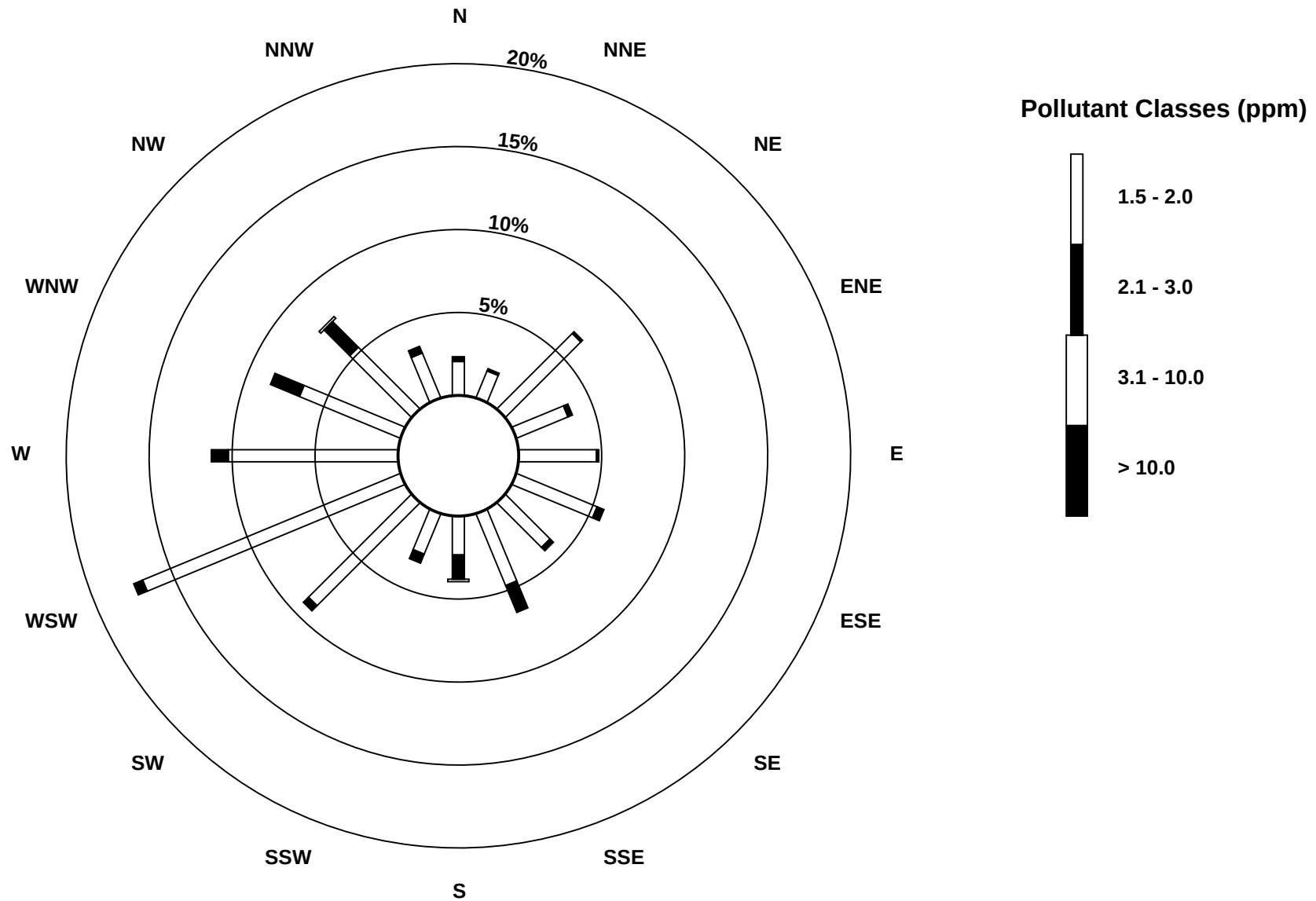
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - September 2014



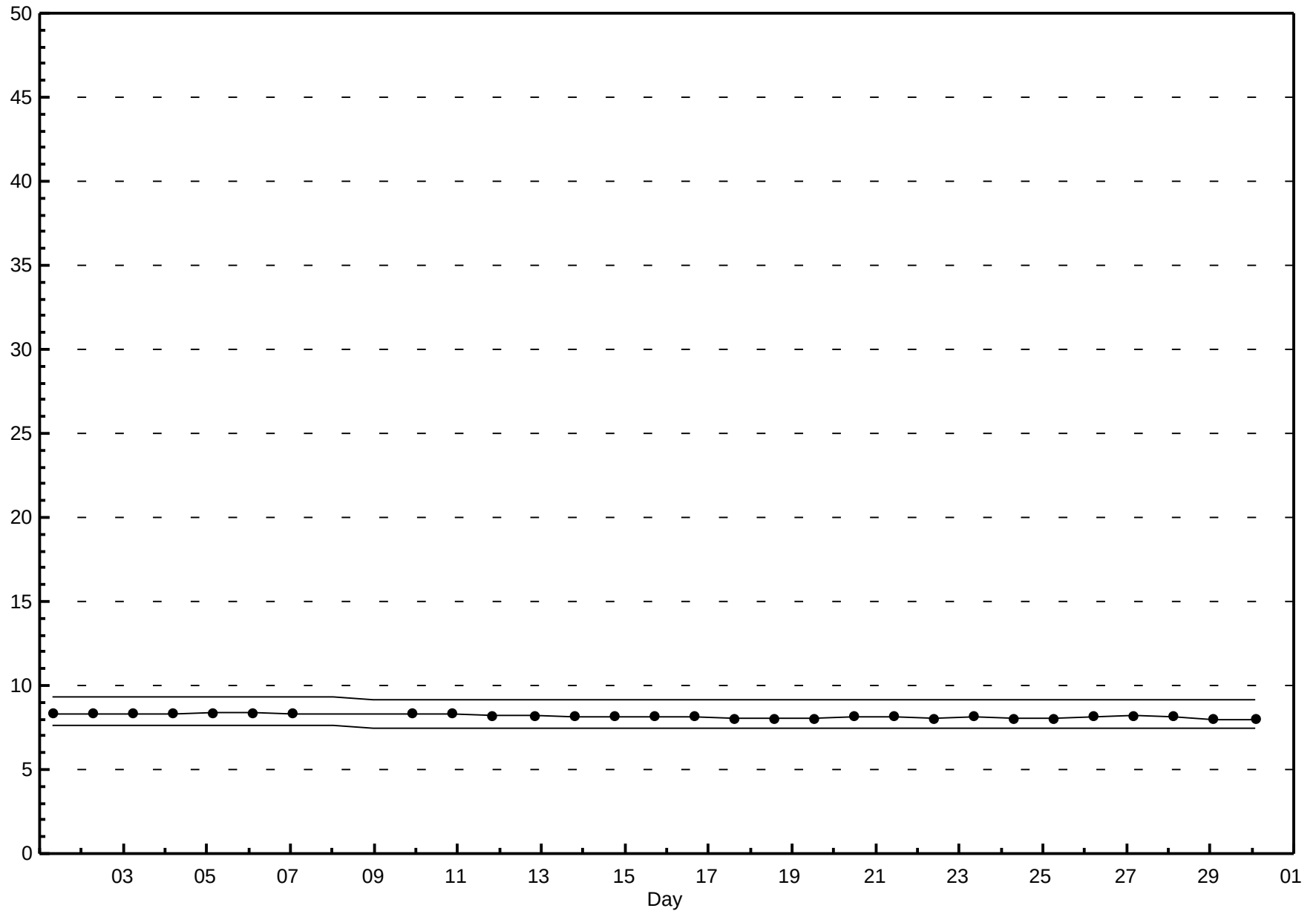
Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - September 2014



Span Responses

Methane (CH₄)
Henry Pirker - September 2014

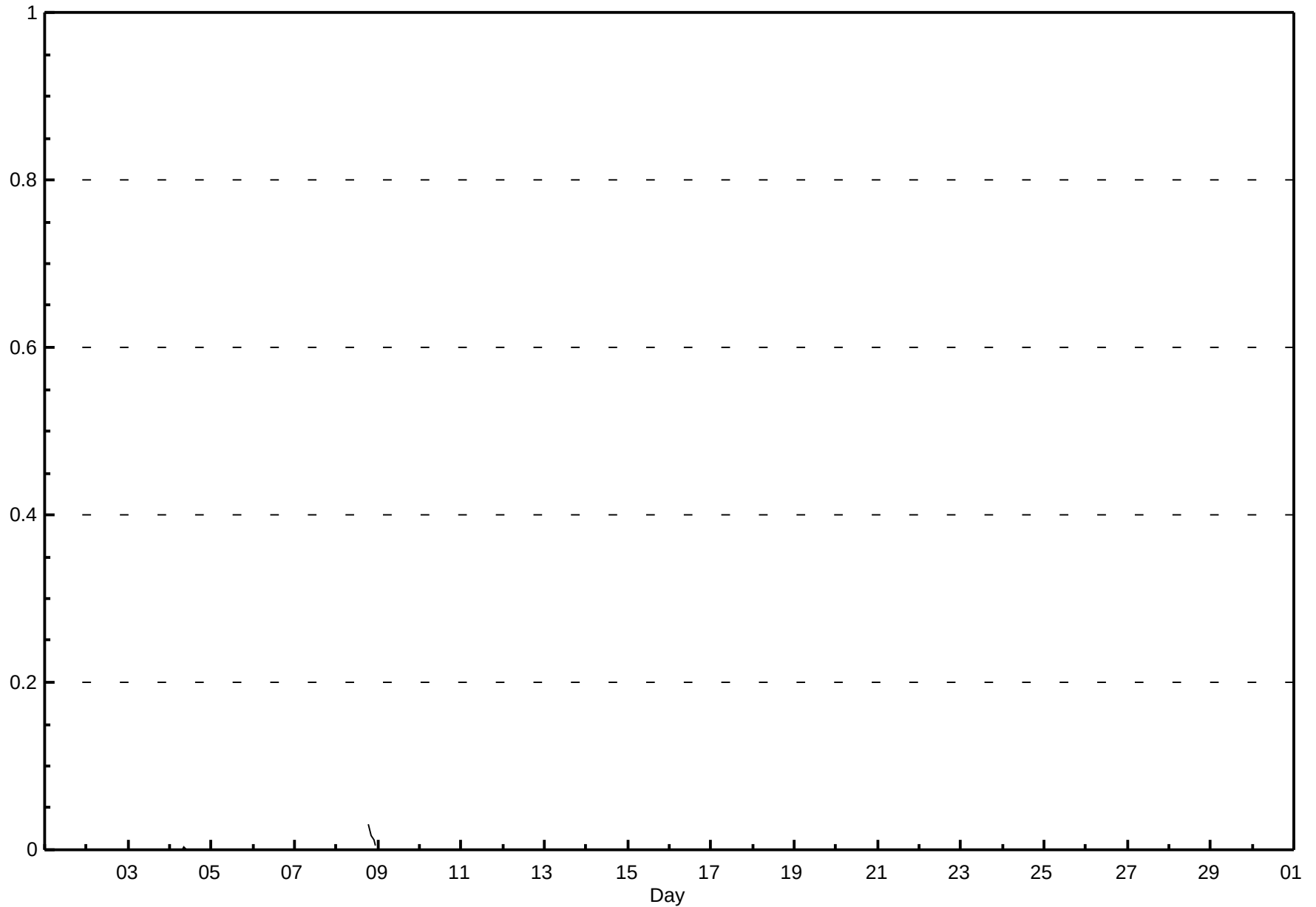


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.03 ppm on Sep 8 19:00 Maximum Daily Average: 0.00 ppm on Sep 8																				Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 35 Percent Operational Time: 99.9						
Minimum Value: 0.0 ppm on Sep 1 01:00 Minimum Daily Average: 0.00 ppm on Sep 6 Maximum Diurnal Average: 0.00 ppm at hour 19 Minimum Diurnal Average: 0.00 ppm at hour 17 Monthly Average: 0.000 ppm Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00																										
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-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	0.00
4-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5-Sep	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
7-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	A	0.00	0.03
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	A	0.0	0.00	0.00
10-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	A	0.0	0.0	0.00	0.00
11-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	0.00	0.00
12-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	0.00	0.00
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	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
20-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
22-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
23-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-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	0.00
27-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
28-Sep	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
29-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	0.0	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
30-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
0.00 0.00																								Diurnal Average		
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.03 0.02 0.02 0.01 0.00 0.00																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										



Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

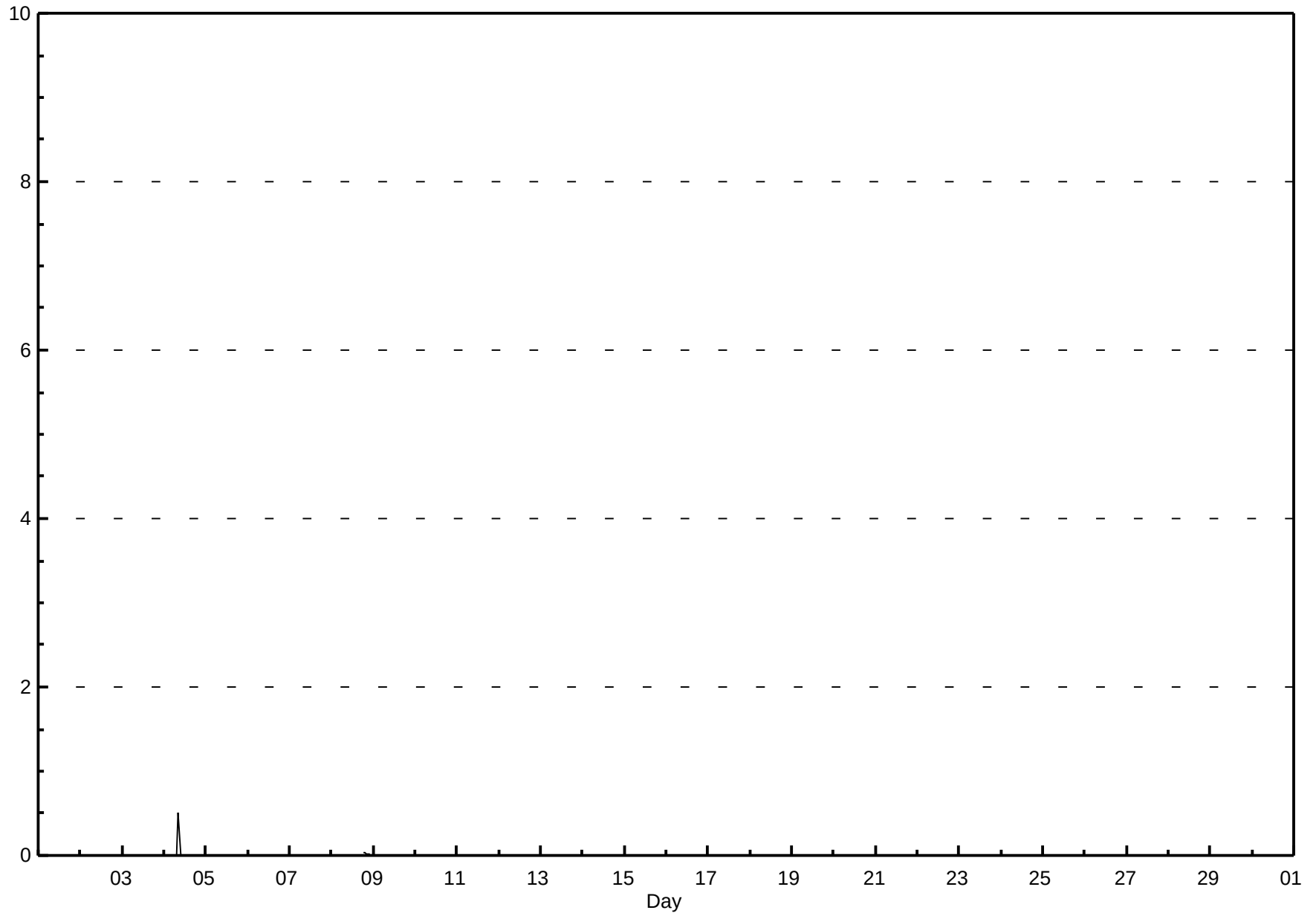
Henry Pirker - September 2014

Maximum Value: 0.50 ppm on Sep 4 09:00																				Maximum Daily Average: 0.02 ppm on Sep 4					Hours in Service: 720	
Minimum Value: 0.0 ppm on Sep 1 23:00																				Minimum Daily Average: 0.00 ppm on Sep 18					Hours of Data: 684	
Maximum Diurnal Average: 0.02 ppm at hour 9																				Minimum Diurnal Average: 0.00 ppm at hour 8					Hours of Missing Data: 36	
Monthly Average: 0.002 ppm																				Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00					Hours of Calibration: 35	
																				Percent Operational Time: 99.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-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	0.00
4-Sep	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.50
5-Sep	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
7-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	A	0.01	0.03
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	A	0.0	0.00	0.00
10-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	A	0.0	0.0	0.00	0.00
11-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	0.00	0.00
12-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	0.00	0.00
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	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
20-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
22-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
23-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-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	0.00
27-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
28-Sep	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
29-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	0.0	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
30-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
0.00																									Diurnal Average	
0.00																									Diurnal Maximum	
C - Calibration																									M - Maintenance	
A - Automated Daily Zero Span																										

Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

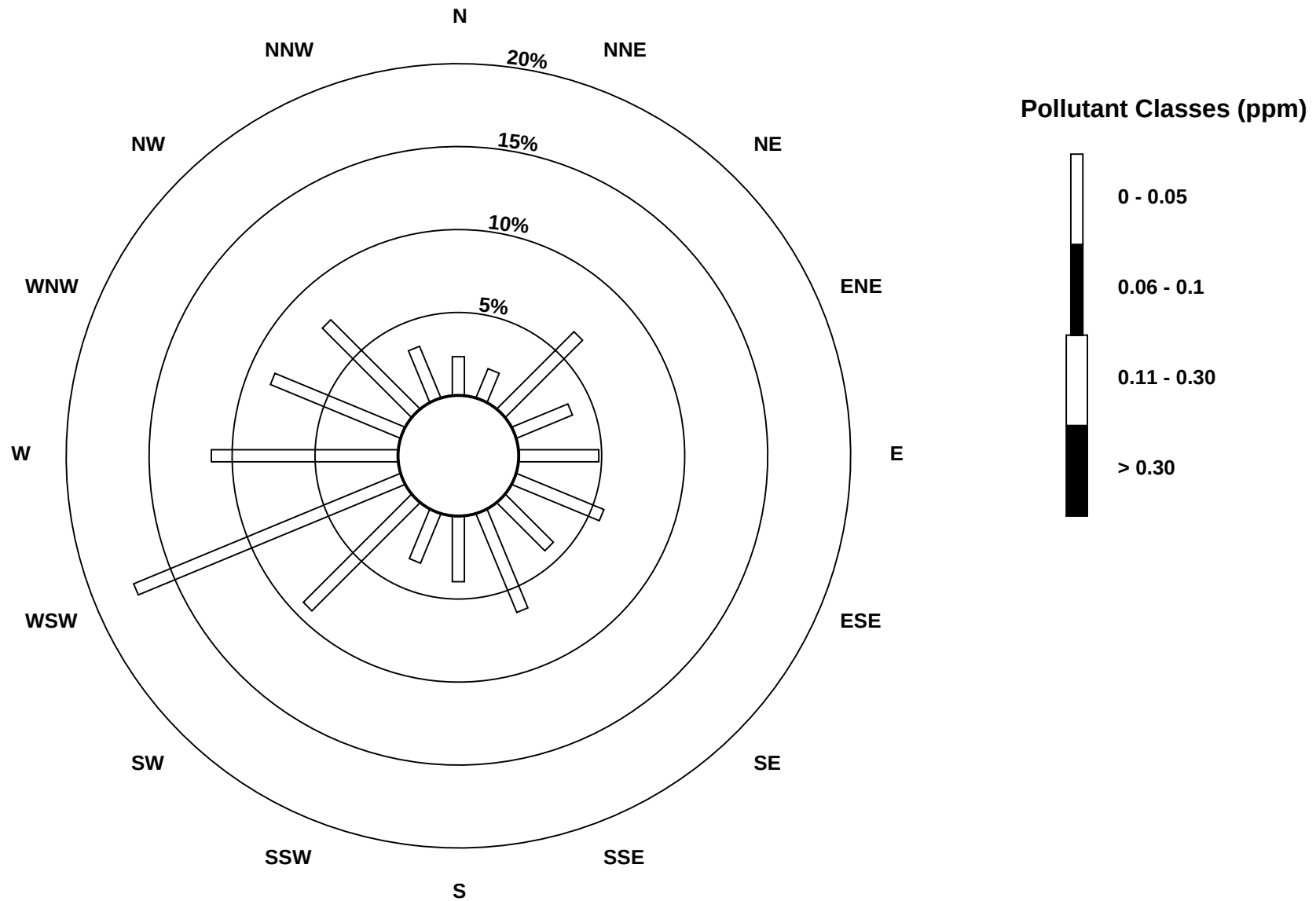
Henry Pirker - September 2014

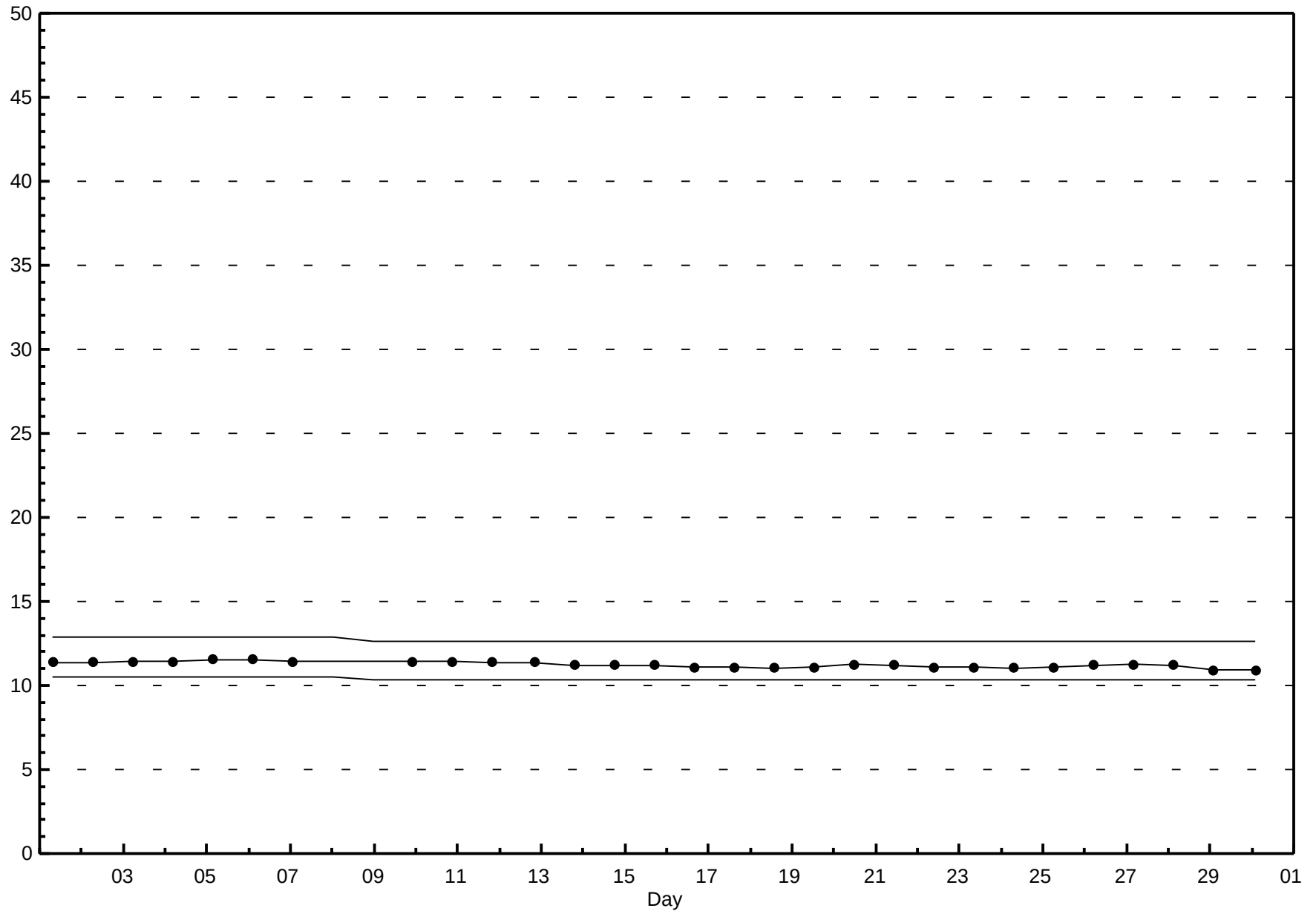


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - September 2014



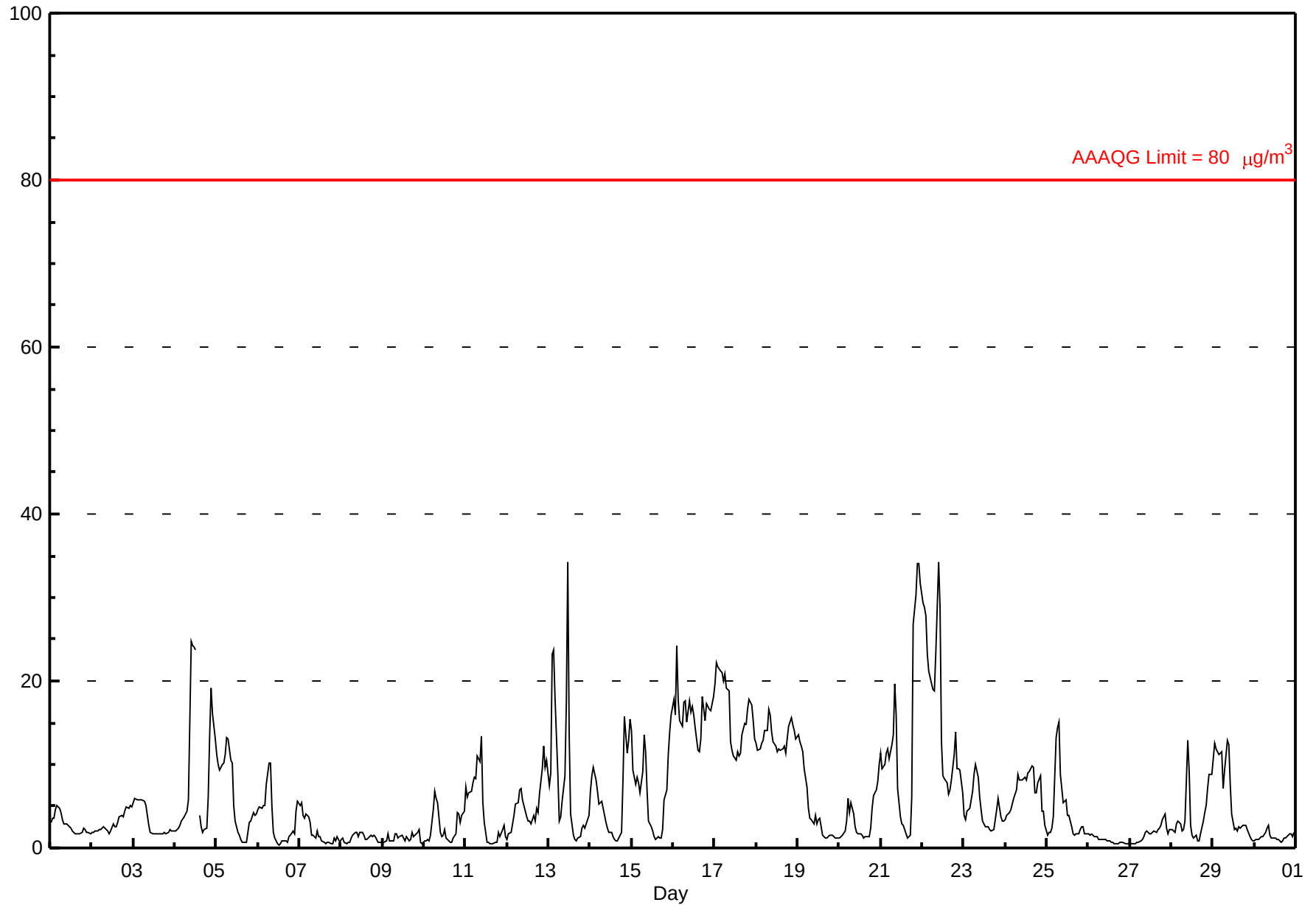


Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Henry Pirker - September 2014

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 34.2 µg/m³ on Sep 13 12:00 Minimum Value: 0 µg/m³ on Sep 6 13:00 Maximum Diurnal Average: 7.9 µg/m³ at hour 10 Monthly Average: 5.92 µg/m³																								Hours in Service: 720 Hours of Data: 719 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9			
Maximum Daily Average: 16.4 µg/m³ on Sep 22 Minimum Daily Average: 0.9 µg/m³ on Sep 26 Minimum Diurnal Average: 2.9 µg/m³ at hour 16 Percentiles: P ₁ = 0.5 P ₁₀ = 0.9 Q ₁ = 1.5 Median = 3.2 Q ₃ = 8.8 P ₉₀ = 14.5 P ₉₉ = 28.6																											
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	3	3	5	5	5	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2.8	5.0	
2-Sep	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	3.0	5.0	
3-Sep	5	6	6	6	6	6	6	5	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3.2	5.9	
4-Sep	2	2	2	3	3	4	4	4	6	25	24	24	24	M	4	3	2	2	2	6	13	19	16	13	9.0	24.7	
5-Sep	11	10	9	10	10	11	13	13	11	10	5	3	2	1	1	1	1	1	2	3	3	4	4	4	6.0	13.1	
6-Sep	5	5	5	5	5	8	10	10	5	2	1	1	0	1	1	1	1	1	1	2	2	2	4	6	3.4	10.2	
7-Sep	5	5	4	4	4	4	3	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	5.4	
8-Sep	1	1	1	1	1	1	1	2	2	2	1	2	2	1	1	1	1	2	1	2	1	1	1	1	1.2	1.9	
9-Sep	1	1	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	2	1	1	2	2	1	1	1.2	2.3	
10-Sep	1	1	1	1	2	5	7	6	5	2	1	2	2	1	1	1	1	1	2	4	4	3	4	4	2.5	6.8	
11-Sep	7	6	7	7	8	9	8	11	10	13	5	3	1	1	1	1	1	1	1	2	1	2	3	1	4.5	13.4	
12-Sep	1	2	2	3	4	5	5	7	7	6	5	4	3	3	3	4	3	5	4	6	10	12	10	11	5.2	12.2	
13-Sep	7	9	23	24	18	9	3	4	6	9	17	34	14	4	1	1	1	1	1	2	3	2	3	4	8.3	34.2	
14-Sep	7	9	10	8	7	5	5	6	4	3	2	2	2	1	1	1	1	2	2	8	16	11	13	15	5.8	15.8	
15-Sep	14	9	8	8	8	7	9	14	11	7	3	2	2	1	1	1	1	1	2	6	7	11	14	16	6.9	15.9	
16-Sep	18	16	24	18	15	15	17	18	15	18	16	17	16	14	12	11	13	18	15	17	17	17	16	18	16.3	24.3	
17-Sep	20	22	22	21	21	20	21	19	19	13	12	11	11	12	11	11	14	15	15	17	18	17	15	13	16.1	22.3	
18-Sep	12	12	12	13	13	14	14	17	16	14	13	12	11	12	12	12	12	11	13	15	16	15	14	13	13.2	16.6	
19-Sep	14	13	12	11	10	7	5	4	3	3	4	3	3	4	2	1	1	1	2	1	2	1	1	1	4.5	13.5	
20-Sep	1	1	1	2	3	6	4	6	4	3	2	2	2	1	1	1	1	1	2	5	6	7	8	10	3.4	10.0	
21-Sep	11	9	10	11	12	11	12	14	20	16	7	4	3	3	2	1	1	2	6	27	30	34	34	32	13.0	34.1	
22-Sep	29	29	28	23	21	20	19	19	23	34	29	13	9	8	8	7	7	8	11	14	10	9	9	7	16.4	34.2	
23-Sep	4	3	4	5	6	7	9	10	9	6	5	3	3	2	3	2	2	2	3	4	6	4	3	3	4.5	10.1	
24-Sep	3	4	4	5	5	6	7	9	8	8	8	8	8	9	9	10	10	7	7	8	9	4	4	3	6.8	9.8	
25-Sep	2	2	2	2	4	13	14	15	9	5	6	6	4	4	3	2	1	2	2	2	2	2	2	2	4.5	15.1	
26-Sep	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7	
27-Sep	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	4	2	2	2	1.7	4.1	
28-Sep	2	2	2	3	3	3	2	2	3	13	9	3	1	1	1	1	1	2	3	4	5	7	9	9	3.9	12.9	
29-Sep	11	13	12	11	11	12	7	9	13	12	8	4	2	2	2	3	2	3	3	3	2	1	1	1	6.2	12.8	
30-Sep	1	1	1	1	1	1	2	2	3	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1.4	2.8	
6.8 6.7 7.3 7.2 7.0 7.2 7.3 7.8 7.5 7.9 6.6 5.8 4.6 3.4 3.0 2.9 3.0 3.4 3.8 5.8 6.7 6.8 6.8 6.7																								Diurnal Average			
29.3 28.7 27.8 23.7 21.2 19.9 20.9 19.1 23.4 34.2 28.8 34.2 23.7 14.4 11.7 11.8 13.5 18.1 15.2 26.8 30.3 34.1 34.1 31.7																								Diurnal Maximum			
M - Maintenance																											
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																											



Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

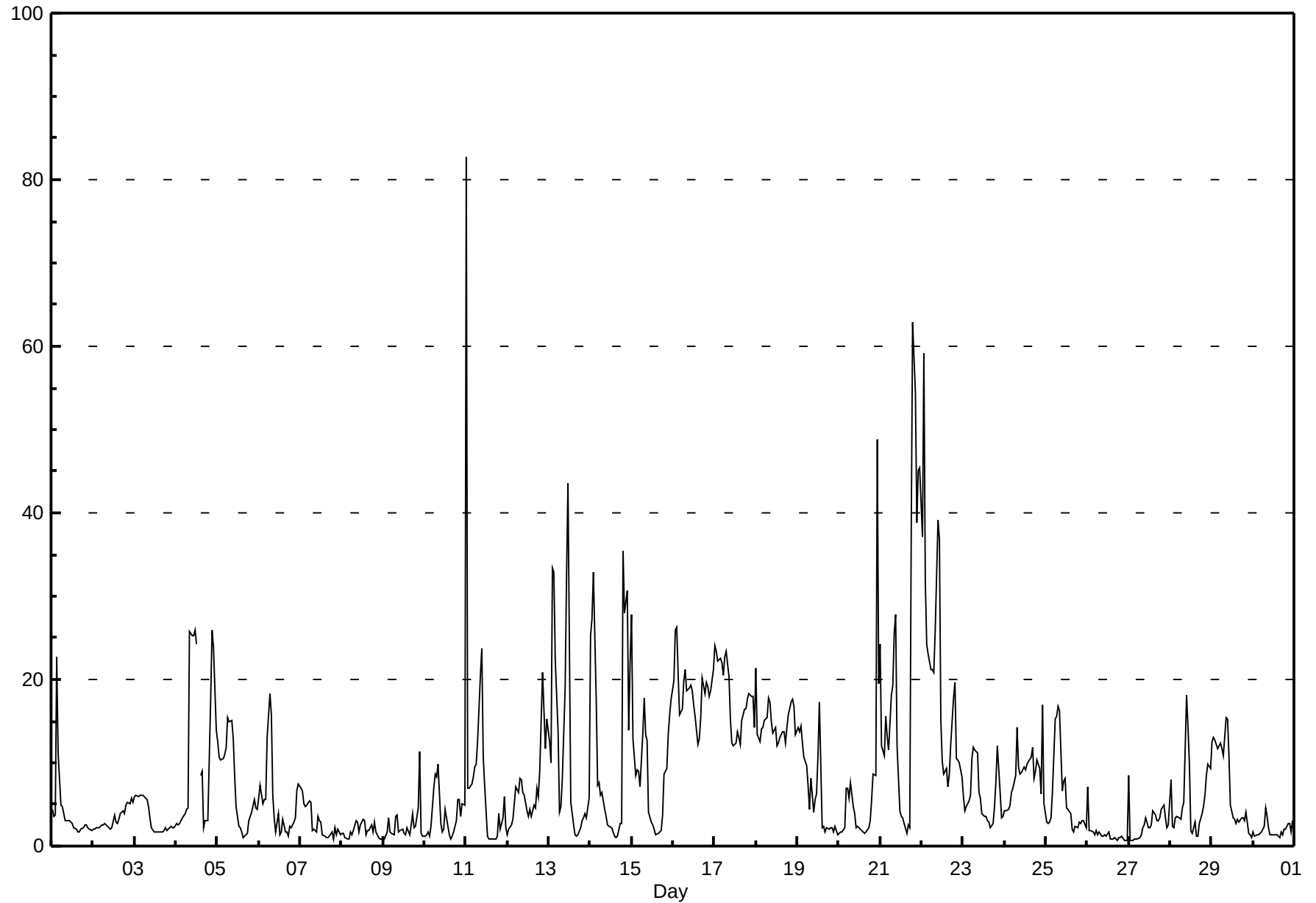
Henry Pirker - September 2014

Maximum Value: 82.7 μg/m ³ on Sep 11 01:00																				Maximum Daily Average: 20.6 μg/m ³ on Sep 21										Hours in Service: 720	
Minimum Value: 1 μg/m ³ on Sep 9 01:00																				Minimum Daily Average: 1.5 μg/m ³ on Sep 26										Hours of Data: 719	
Maximum Diurnal Average: 12.9 μg/m ³ at hour 1																				Minimum Diurnal Average: 3.7 μg/m ³ at hour 16										Hours of Missing Data: 1	
Monthly Average: 8.01 μg/m ³																				Percentiles: P ₁ = 0.8 P ₁₀ = 1.4 Q ₁ = 2.1 Median = 4.3 Q ₃ = 11.9 P ₉₀ = 19.0 P ₉₉ = 44.9										Hours of Calibration: 0	
																				Percent Operational Time: 99.9											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Sep	4	4	4	23	11	5	5	4	3	3	3	3	2	2	2	2	2	2	2	3	3	2	2	2	4.0	22.7					
2-Sep	2	2	2	2	2	3	3	3	2	2	2	2	4	3	3	3	4	4	4	5	5	5	6	5	3.3	5.8					
3-Sep	6	6	6	6	6	6	6	6	5	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3.5	6.1					
4-Sep	3	2	3	3	3	4	4	5	26	25	25	26	24	M	8	9	2	3	3	10	17	26	24	14	11.8	26.0					
5-Sep	12	11	10	11	11	12	15	15	15	13	8	5	2	2	2	1	1	2	3	4	4	6	5	4	7.2	15.4					
6-Sep	6	7	5	6	6	13	18	16	6	3	2	4	1	2	3	2	2	1	2	2	3	3	7	7	5.3	18.3					
7-Sep	7	7	5	5	5	5	5	2	2	2	4	3	3	1	1	1	1	1	2	1	2	1	2	1	2.9	7.0					
8-Sep	2	2	1	1	1	2	1	2	3	3	2	3	3	3	1	2	2	2	2	3	2	1	1	1	1.8	3.3					
9-Sep	1	1	2	3	2	2	1	4	4	2	2	2	2	1	2	1	3	4	2	2	5	11	2	1	2.5	11.4					
10-Sep	1	1	2	1	2	7	9	8	10	3	2	2	4	3	1	1	1	2	3	6	6	4	5	5	3.7	9.8					
11-Sep	83	7	7	7	8	9	10	12	21	24	11	7	1	1	1	1	1	1	1	4	2	3	6	2	9.6	82.7					
12-Sep	1	2	2	3	5	7	6	8	8	6	6	4	4	4	4	5	5	7	6	9	21	16	12	15	7.0	20.9					
13-Sep	13	10	33	33	22	14	4	5	8	19	33	44	24	5	2	1	1	1	2	3	3	4	3	6	12.3	43.6					
14-Sep	25	27	33	18	7	8	6	7	4	4	3	2	2	2	1	1	1	3	3	36	28	31	14	22	11.9	35.5					
15-Sep	28	13	8	9	9	7	14	18	13	13	4	3	3	2	1	2	2	2	4	9	9	13	16	18	9.1	27.8					
16-Sep	20	26	26	21	16	16	20	21	19	19	19	19	17	16	12	13	15	20	18	20	19	18	19	21	18.7	26.3					
17-Sep	24	23	22	22	22	21	23	23	20	15	12	12	12	14	13	12	15	16	17	18	18	18	18	14	17.8	24.0					
18-Sep	21	13	12	14	14	15	15	18	17	15	14	14	12	12	13	14	14	12	14	16	17	18	17	13	14.8	21.4					
19-Sep	14	14	14	12	11	10	7	4	8	4	6	6	11	17	2	2	2	2	2	2	2	2	2	1	6.6	17.2					
20-Sep	2	2	2	2	7	7	6	8	5	4	2	2	2	2	2	2	2	2	3	6	9	8	49	19	6.4	48.8					
21-Sep	24	12	11	16	13	12	18	19	26	28	12	4	4	3	3	2	3	2	36	63	54	39	45	45	20.6	62.9					
22-Sep	37	59	32	24	23	21	21	21	26	39	37	15	10	9	9	7	9	12	18	20	11	10	10	8	20.4	59.2					
23-Sep	6	4	5	5	6	11	12	12	11	6	6	4	4	4	3	3	2	3	5	8	12	6	3	3	6.0	12.1					
24-Sep	4	4	4	5	7	7	8	14	10	9	9	9	9	10	10	11	12	8	9	10	9	6	17	5	8.6	17.0					
25-Sep	3	3	3	3	7	15	16	17	16	7	8	8	5	4	4	2	2	2	2	3	3	3	3	2	5.8	16.9					
26-Sep	7	2	2	2	1	2	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.5	7.1					
27-Sep	8	1	1	1	1	1	1	1	2	3	3	2	2	2	4	4	3	3	3	4	5	3	2	3	2.7	8.5					
28-Sep	8	2	2	3	4	3	3	5	5	18	14	10	2	2	3	1	1	3	4	5	6	8	10	9	5.5	18.2					
29-Sep	12	13	13	12	12	12	12	11	15	15	11	5	3	3	3	3	3	3	3	3	4	2	1	1	7.4	15.4					
30-Sep	2	1	1	1	2	2	2	5	4	2	1	1	1	1	1	1	2	1	2	2	3	3	2	3	1.9	4.6					
12.9 9.4 9.2 9.2 8.2 8.6 9.1 9.8 10.5 10.3 8.8 7.5 5.9 4.6 4.0 3.7 3.8 4.3 6.0 9.2 9.5 9.2 10.1 8.6																									Diurnal Average						
82.7 59.2 33.4 32.9 23.1 21.2 22.7 23.3 25.8 39.2 36.8 43.6 24.3 17.2 13.1 13.7 15.4 20.1 36.5 62.9 54.5 38.8 48.8 45.5																									Diurnal Maximum						
M - Maintenance																															

Hourly Maximums

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

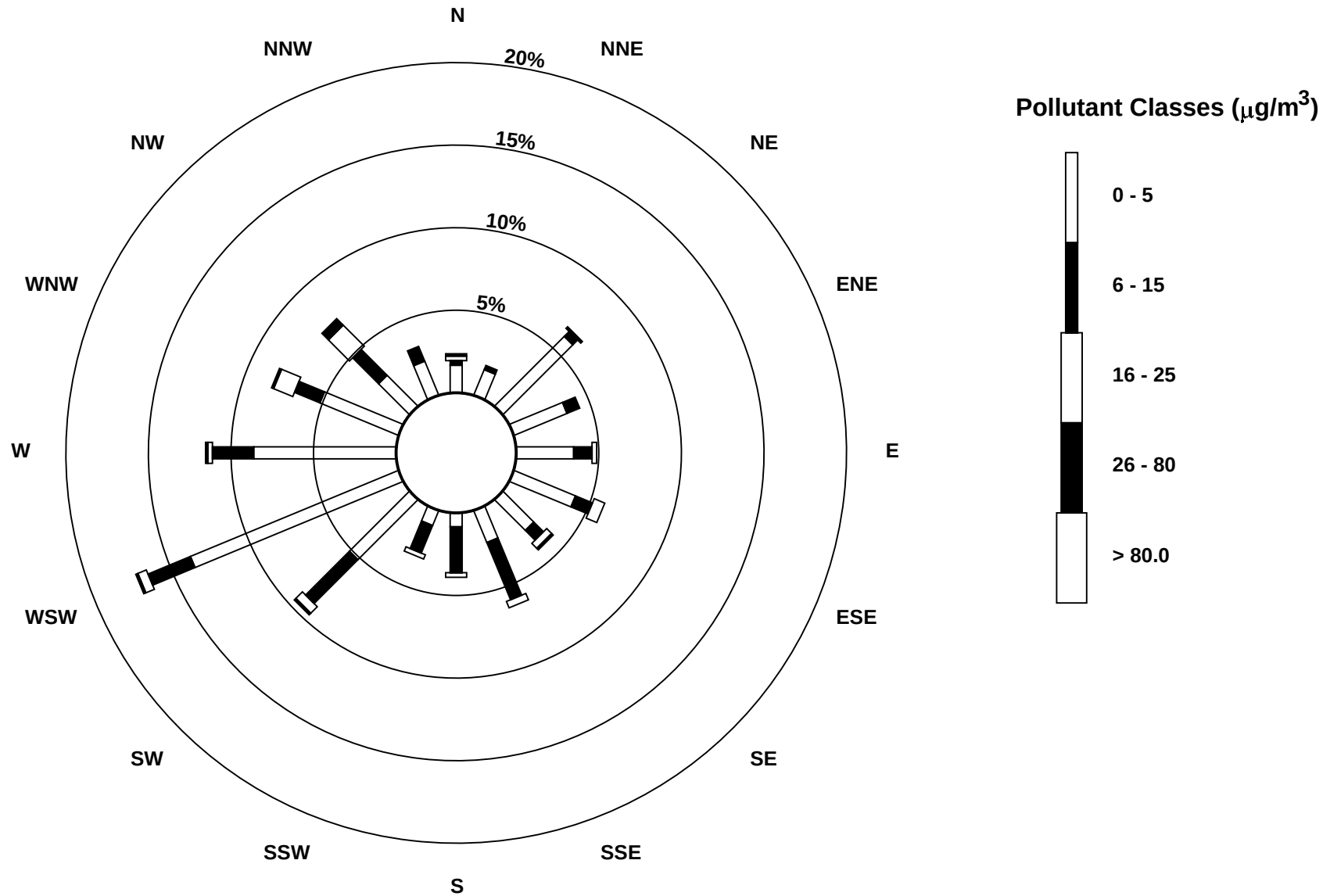
Henry Pirker - September 2014



Pollutant Rose

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

Henry Pirker - September 2014



Hourly Averages

External Temperature (ET) - °C

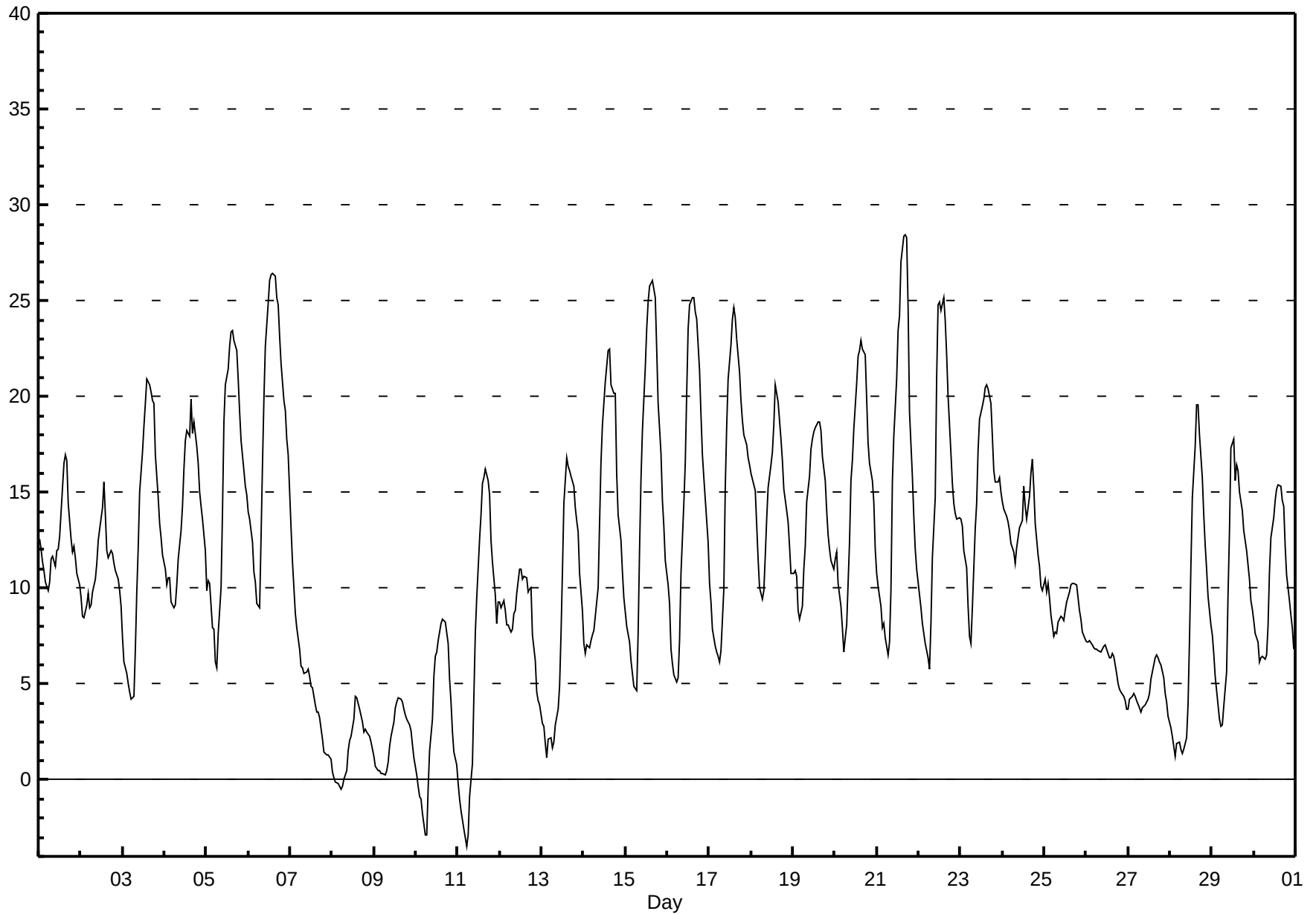
Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.5 °C on Sep 21 17:00 Maximum Daily Average: 18.7 °C on Sep 6																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -3 °C on Sep 11 06:00 Maximum Diurnal Average: 16.8 °C at hour 16 Monthly Average: 11.05 °C												Minimum Daily Average: 1.7 °C on Sep 8 Minimum Diurnal Average: 5.6 °C at hour 7 Percentiles: P ₁ = -1.8 P ₁₀ = 2.5 Q ₁ = 6.4 Median = 10.4 Q ₃ = 15.6 P ₉₀ = 20.4 P ₉₉ = 26.2														
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	13	12	11	11	10	10	10	12	12	11	12	12	13	14	17	17	17	14	13	12	12	12	11	10	12.3	17.0
2-Sep	10	9	8	9	10	9	9	10	10	11	12	13	14	16	14	12	12	12	11	11	10	10	9	11.0	15.6	
3-Sep	7	6	6	5	5	4	4	7	10	12	15	17	18	20	21	21	20	20	20	17	15	13	13	12	12.8	20.9
4-Sep	11	10	11	11	9	9	9	10	12	13	14	16	18	18	18	20	18	19	17	17	15	14	14	12	13.9	19.9
5-Sep	10	10	10	8	8	6	6	8	10	14	19	21	21	23	23	23	23	22	21	19	18	16	15	15	15.4	23.5
6-Sep	14	14	12	11	10	9	9	13	16	20	23	25	26	26	26	26	25	25	23	22	20	19	18	17	18.7	26.4
7-Sep	13	11	10	9	8	7	6	6	6	6	6	5	5	5	4	4	4	3	2	1	1	1	1	1	5.2	13.1
8-Sep	0	0	0	0	0	0	0	0	0	2	2	2	3	4	4	4	4	3	3	3	3	2	2	2	1.7	4.3
9-Sep	1	1	0	0	0	0	0	0	1	2	2	3	4	4	4	4	4	3	3	3	3	3	2	1	2.1	4.3
10-Sep	0	0	-1	-1	-2	-3	-3	0	1	3	5	6	7	7	8	8	8	8	7	5	4	3	1	1	3.1	8.4
11-Sep	0	-1	-2	-3	-3	-3	-3	-1	1	4	8	10	13	14	15	16	16	16	15	13	11	10	8	9	6.7	16.2
12-Sep	9	9	9	9	8	8	8	8	9	9	10	11	11	10	11	11	10	10	10	8	6	5	4	4	8.6	11.0
13-Sep	3	3	2	1	2	2	2	2	3	4	5	8	11	14	17	16	16	16	15	14	14	13	11	9	8.4	16.8
14-Sep	7	7	7	7	7	8	8	9	10	13	17	19	21	22	22	23	21	20	20	16	14	12	11	10	13.7	22.5
15-Sep	9	8	7	6	6	5	5	8	12	16	18	21	24	25	26	26	26	25	22	20	17	15	13	11	15.4	26.1
16-Sep	10	9	7	6	6	5	5	7	11	14	17	20	23	25	25	25	24	24	21	19	17	16	15	12	15.2	25.2
17-Sep	10	9	8	7	7	6	6	7	10	15	18	21	23	24	25	24	23	21	20	19	18	18	17	16	15.5	24.6
18-Sep	16	16	15	13	11	10	9	10	12	14	15	16	17	18	21	20	19	18	17	15	14	13	12	11	14.7	20.6
19-Sep	11	11	11	9	8	9	11	12	15	16	17	18	18	18	19	19	18	17	16	14	13	12	11	11	13.9	18.7
20-Sep	12	12	10	9	8	7	7	8	12	16	17	18	21	22	22	23	23	22	20	18	17	16	15	12	15.2	22.9
21-Sep	11	10	9	8	8	7	7	7	10	16	18	21	23	24	27	28	28	28	25	19	16	14	12	11	16.2	28.5
22-Sep	10	9	8	8	7	6	6	8	12	15	21	25	25	25	25	24	22	20	17	15	14	14	14	14	15.1	25.2
23-Sep	14	13	12	11	9	7	7	9	13	14	17	19	19	20	20	21	20	20	18	16	16	16	16	15	15.1	20.6
24-Sep	15	14	14	13	13	12	12	11	12	13	13	14	15	14	14	15	16	17	15	13	12	11	10	10	13.2	16.7
25-Sep	11	10	10	10	9	8	8	8	8	9	8	8	9	9	10	10	10	10	10	10	9	8	8	7	9.0	10.5
26-Sep	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	7	6	6	5	5	5	4	4	4	6.2	7.2
27-Sep	4	4	4	4	4	4	4	4	4	4	4	4	5	5	6	6	7	6	6	6	5	5	4	3	4.7	6.5
28-Sep	3	2	2	1	2	2	2	1	2	2	4	7	11	15	17	20	20	18	16	14	12	11	10	8	8.4	19.6
29-Sep	8	7	5	4	3	3	3	4	6	10	13	17	18	16	16	16	15	14	13	12	12	10	9	9	10.1	17.8
30-Sep	8	8	7	6	6	6	6	7	8	11	13	14	15	15	15	15	15	14	12	11	9	9	8	7	10.2	15.4
8.5 8.0 7.4 6.6 6.2 5.7 5.6 6.6 8.4 10.4 12.3 13.9 15.2 16.0 16.6 16.8 16.3 15.7 14.5 12.9 11.7 10.8 9.9 9.1																								Diurnal Average		
16.0 15.7 15.1 13.4 13.0 12.3 11.9 12.6 16.4 19.9 22.6 24.8 26.0 26.4 27.0 28.4 28.5 28.3 24.7 21.7 19.8 19.3 17.8 16.9																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - September 2014



Hourly Averages

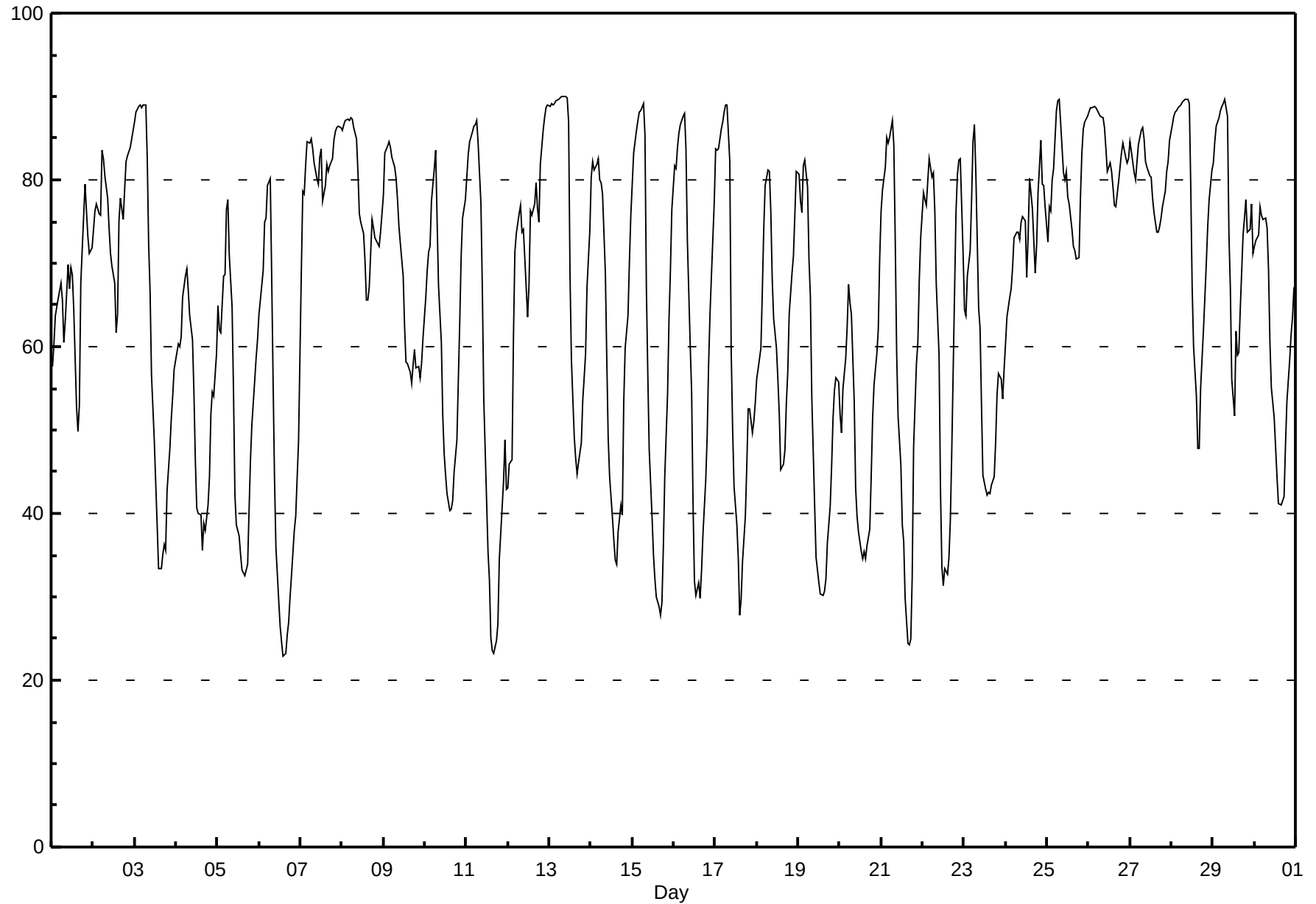
Relative Humidity (RH) - %

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 90.1 % on Sep 13 10:00 Maximum Daily Average: 84.1 % on Sep 26																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 23 % on Sep 6 15:00 Maximum Diurnal Average: 82.1 % at hour 7 Monthly Average: 65.43 %												Minimum Daily Average: 46.9 % on Sep 6 Minimum Diurnal Average: 47.5 % at hour 16 Percentiles: P ₁ = 24.6 P ₁₀ = 37.2 Q ₁ = 51.8 Median = 69.5 Q ₃ = 81.0 P ₉₀ = 86.7 P ₉₉ = 89.6														
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	58	60	64	65	66	68	66	60	63	70	67	69	69	65	53	50	53	68	76	80	76	73	71	72	65.8	79.5
2-Sep	74	76	77	76	76	84	82	80	78	74	71	70	68	62	64	75	78	75	79	82	83	84	85	86	76.6	85.9
3-Sep	87	88	89	89	89	89	89	82	72	67	57	49	44	39	33	33	35	36	36	43	48	51	54	57	60.6	89.0
4-Sep	59	60	60	61	66	69	69	67	64	61	55	46	41	40	40	36	39	38	41	44	52	55	54	59	53.1	69.3
5-Sep	65	62	62	68	69	76	78	71	65	55	42	39	37	35	33	33	33	34	40	46	51	56	59	61	52.8	77.6
6-Sep	64	66	69	75	75	79	80	69	56	44	36	29	26	25	23	23	25	27	30	33	38	40	44	49	46.9	80.1
7-Sep	69	79	78	82	85	84	85	84	82	80	80	83	84	77	79	82	81	82	83	85	86	86	86	86	82.0	86.4
8-Sep	86	87	87	87	87	87	87	86	85	81	76	75	74	70	66	66	67	75	74	73	73	72	74	76	78.0	87.5
9-Sep	78	83	84	85	84	83	82	80	78	74	72	68	62	58	58	57	56	58	60	58	58	56	58	61	68.8	84.7
10-Sep	66	69	71	72	77	81	83	75	67	60	52	47	45	42	40	40	42	45	49	56	63	71	75	78	61.2	83.5
11-Sep	80	83	85	86	86	87	87	84	77	67	54	48	35	32	25	24	23	25	27	35	38	44	49	43	55.1	87.0
12-Sep	43	46	47	61	71	74	76	77	74	74	71	64	67	76	76	77	80	77	75	82	86	88	89	89	72.4	88.9
13-Sep	89	89	89	89	90	90	90	90	90	90	90	87	68	58	49	47	45	46	48	54	56	59	67	74	72.6	90.1
14-Sep	80	82	81	82	83	80	80	78	69	58	49	44	40	37	34	34	38	41	40	53	60	64	70	76	60.5	82.5
15-Sep	80	83	86	87	88	88	89	85	67	57	48	40	35	32	30	29	28	29	36	44	54	63	69	76	59.4	89.1
16-Sep	82	81	84	86	87	88	88	84	73	60	55	41	32	30	32	30	33	38	44	49	58	64	68	77	60.9	88.0
17-Sep	84	83	84	86	87	88	89	89	82	59	50	43	39	35	28	30	34	40	46	53	53	50	51	53	59.8	89.1
18-Sep	56	57	60	67	74	79	81	81	76	68	63	60	56	52	45	46	48	53	57	64	69	71	76	81	64.2	81.2
19-Sep	81	77	76	82	82	79	71	66	54	41	35	33	32	30	30	31	32	36	41	46	51	55	56	56	53.0	82.3
20-Sep	52	50	55	59	62	67	65	64	53	43	40	38	35	35	35	35	36	38	44	51	55	59	62	71	50.2	70.6
21-Sep	76	79	81	85	84	85	87	84	73	59	52	46	39	37	30	24	24	25	32	48	58	61	68	73	58.8	87.2
22-Sep	79	78	77	80	82	80	81	76	68	59	43	33	31	33	33	35	39	48	67	76	81	82	83	71	63.1	82.6
23-Sep	64	64	68	71	78	85	87	81	65	62	53	45	43	42	42	42	43	44	48	54	57	56	54	57	58.6	86.6
24-Sep	60	64	66	67	70	73	74	74	73	75	76	75	68	73	80	77	73	69	72	79	85	80	79	77	73.2	84.7
25-Sep	72	77	76	80	81	88	89	90	87	81	80	81	78	77	74	72	71	70	71	78	83	86	87	88	80.0	89.7
26-Sep	88	89	89	89	89	88	88	88	87	86	84	81	82	81	79	77	77	80	82	83	84	83	82	83	84.1	88.7
27-Sep	85	83	81	80	82	84	86	86	85	82	82	81	80	78	76	74	74	74	75	77	79	81	82	85	80.5	86.3
28-Sep	87	88	88	88	89	89	89	90	90	90	89	79	67	60	54	48	48	55	62	66	70	74	78	81	75.7	89.7
29-Sep	82	85	86	87	88	89	89	90	88	74	67	56	52	62	59	59	64	73	76	78	74	74	77	71	75.0	89.7
30-Sep	72	73	73	77	76	75	75	74	69	60	55	52	48	44	41	41	42	42	48	53	59	61	64	67	60.1	76.8
73.2 74.7 75.8 78.3 80.1 81.9 82.1 79.5 73.6 67.1 61.3 56.7 52.6 50.6 48.1 47.5 48.7 51.4 55.3 60.7 64.5 66.6 69.1 71.1																								Diurnal Average		
88.8 89.2 88.9 89.1 89.5 89.6 89.8 90.0 90.0 90.1 89.9 86.9 83.7 81.0 80.2 81.8 81.1 81.6 82.6 84.7 86.0 87.5 88.7 88.9																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %
Henry Pirker - September 2014



Hourly Averages

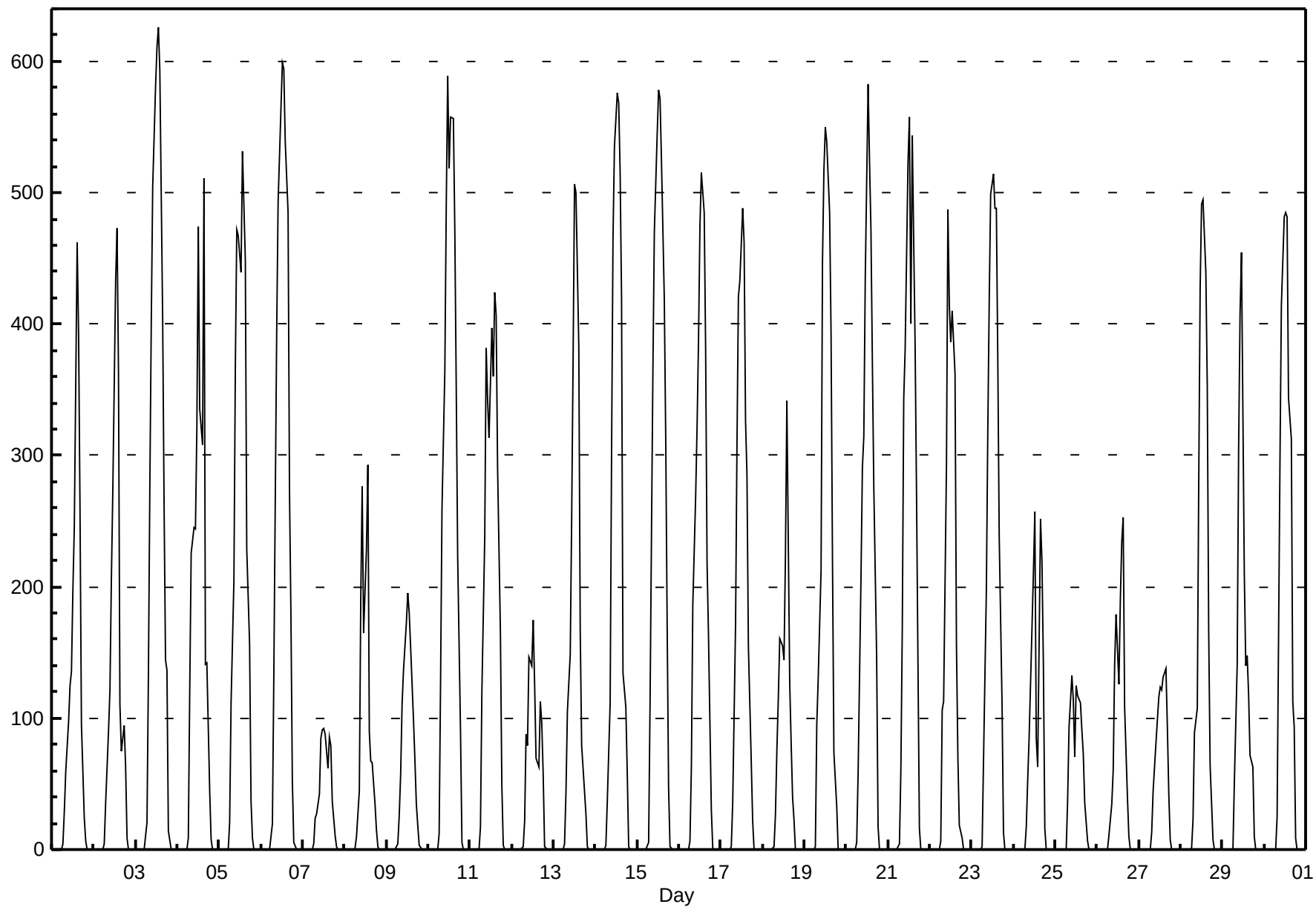
Solar Radiation (SR) - W/m²

Henry Pirker - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 626.0 W/m ² on Sep 3 14:00 Maximum Daily Average: 196.1 W/m ² on Sep 3																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 0 W/m ² on Sep 1 01:00 Minimum Daily Average: 30.4 W/m ² on Sep 7 Maximum Diurnal Average: 384.5 W/m ² at hour 13 Minimum Diurnal Average: 0.0 W/m ² at hour 1 Monthly Average: 116.18 W/m ² Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 9.8 Q ₃ = 167.9 P ₉₀ = 422.7 P ₉₉ = 577.8																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	0	0	0	0	0	0	4	29	60	97	124	136	198	245	462	392	258	96	23	6	0	0	0	0	88.8	461.7
2-Sep	0	0	0	0	0	0	4	36	90	122	206	272	433	473	364	111	75	95	63	9	0	0	0	0	98.0	472.9
3-Sep	0	0	0	0	0	0	21	134	276	400	504	581	611	626	594	404	261	145	137	14	0	0	0	0	196.1	626.0
4-Sep	0	0	0	0	0	0	9	122	226	245	244	321	475	336	308	511	141	142	45	7	0	0	0	0	130.4	510.9
5-Sep	0	0	0	0	0	0	21	111	206	368	472	467	439	531	490	449	229	156	37	8	0	0	0	0	166.0	531.2
6-Sep	0	0	0	0	0	0	20	133	265	393	493	564	599	594	539	485	273	179	52	5	0	0	0	0	191.4	598.6
7-Sep	0	0	0	0	0	0	5	24	27	43	84	91	92	88	61	86	80	37	11	2	0	0	0	0	30.4	91.8
8-Sep	0	0	0	0	0	0	1	10	44	190	276	165	228	293	91	68	66	35	15	2	0	0	0	0	61.8	293.2
9-Sep	0	0	0	0	0	0	4	26	57	111	136	172	195	181	154	99	69	35	19	3	0	0	0	0	52.5	195.2
10-Sep	0	0	0	0	0	0	12	127	259	364	490	589	519	558	557	471	351	223	90	5	0	0	0	0	192.4	589.4
11-Sep	0	0	0	0	0	0	18	120	237	381	343	314	397	360	424	407	292	165	49	3	0	0	0	0	146.3	424.3
12-Sep	0	0	0	0	0	0	2	21	87	79	146	140	175	125	69	63	112	97	58	2	0	0	0	0	49.1	174.6
13-Sep	0	0	0	0	0	0	5	43	105	149	253	373	507	500	383	167	79	62	27	2	0	0	0	0	110.6	506.6
14-Sep	0	0	0	0	0	0	3	37	111	303	466	534	576	568	515	419	134	108	58	2	0	0	0	0	159.8	576.0
15-Sep	0	0	0	0	0	0	5	111	240	364	470	544	579	571	526	419	312	172	48	3	0	0	0	0	181.8	578.5
16-Sep	0	0	0	0	0	0	6	63	187	270	322	388	474	515	485	380	218	164	30	1	0	0	0	0	145.9	515.0
17-Sep	0	0	0	0	0	0	2	35	172	309	421	432	488	462	326	285	155	67	21	0	0	0	0	0	132.4	488.3
18-Sep	0	0	0	0	0	0	3	28	76	114	161	155	144	224	341	127	82	40	22	0	0	0	0	0	63.2	341.4
19-Sep	0	0	0	0	0	0	3	95	130	213	448	517	550	538	485	394	223	73	33	0	0	0	0	0	154.3	550.1
20-Sep	0	0	0	0	0	0	6	59	206	291	315	434	583	524	472	371	276	146	17	0	0	0	0	0	154.1	582.6
21-Sep	0	0	0	0	0	0	4	61	169	343	381	523	557	400	543	383	269	141	16	0	0	0	0	0	158.0	557.4
22-Sep	0	0	0	0	0	0	6	106	112	293	487	414	386	410	362	156	71	18	9	0	0	0	0	0	118.0	487.4
23-Sep	0	0	0	0	0	0	2	68	199	319	419	499	515	488	488	375	238	110	13	0	0	0	0	0	155.5	514.5
24-Sep	0	0	0	0	0	0	0	17	53	86	127	211	258	85	62	252	219	140	16	0	0	0	0	0	63.6	257.5
25-Sep	0	0	0	0	0	0	0	37	93	132	114	70	125	118	112	91	73	36	6	0	0	0	0	0	42.0	132.4
26-Sep	0	0	0	0	0	0	0	11	34	61	141	179	125	190	234	253	109	39	9	0	0	0	0	0	57.7	252.5
27-Sep	0	0	0	0	0	0	0	12	45	63	82	117	124	122	131	138	93	42	7	0	0	0	0	0	40.7	137.8
28-Sep	0	0	0	0	0	0	1	23	89	108	278	427	492	495	440	353	166	64	8	0	0	0	0	0	122.6	494.7
29-Sep	0	0	0	0	0	0	0	51	141	305	408	455	210	139	147	119	72	63	10	0	0	0	0	0	88.3	454.5
30-Sep	0	0	0	0	0	0	0	25	158	294	414	481	485	481	343	313	113	93	9	0	0	0	0	0	133.8	485.3
0.0 0.0 0.0 0.0 0.0 0.0 5.6 59.2 138.5 227.0 307.5 352.2 384.5 374.7 350.3 284.6 170.4 99.5 32.0 2.6 0.0 0.0 0.0 0.0																								Diurnal Average		
0.0 0.0 0.0 0.0 0.0 0.0 20.7 133.7 276.2 400.1 504.0 589.4 610.8 626.0 593.6 510.9 351.5 223.1 136.8 14.4 0.0 0.0 0.0 0.0																								Diurnal Maximum		

Hourly Averages

Solar Radiation (SR) - W/m²
Henry Pirker - September 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	10	7	6	7	8	6	6	11	12	7	6	5	7	10	13	17	11	5	8	3	5	5	6	7	6.8	16.6
Dir	249	250	226	245	239	253	258	254	270	222	227	189	187	250	260	264	322	303	307	282	240	230	255	274	255.5	264.0
2 Spd	7	5	3	5	5	2	2	3	5	8	8	11	10	9	14	10	8	6	5	4	4	6	7	6	5.5	13.6
Dir	283	304	293	285	273	207	226	227	253	262	278	309	308	345	340	342	328	309	293	321	315	322	316	311	305.5	340.5
3 Spd	5	4	3	4	3	3	4	7	7	8	7	7	6	6	8	8	7	6	16	18	17	14	14	8	7.5	18.1
Dir	298	299	289	252	276	257	245	260	255	248	239	220	216	211	235	252	221	244	264	261	257	253	256	237	251.2	261.3
4 Spd	7	6	7	9	6	6	6	8	15	14	14	10	12	10	9	10	7	3	4	4	4	7	8	6	7.1	15.5
Dir	248	284	275	259	271	263	254	290	313	315	304	299	308	283	331	252	256	239	252	225	231	242	248	269	279.8	313.0
5 Spd	3	7	7	3	4	4	5	4	5	5	14	27	25	25	25	24	20	16	16	14	11	10	8	11	10.1	26.6
Dir	317	267	266	185	223	156	158	162	164	173	252	280	288	290	291	281	291	291	267	247	243	237	224	235	267.2	280.0
6 Spd	7	6	4	2	3	1	1	2	4	12	13	13	14	19	22	24	26	23	18	18	10	9	10	5	10.3	26.0
Dir	265	283	285	295	316	226	169	181	240	276	292	293	275	268	258	254	255	254	253	255	239	230	242	3	262.3	255.3
7 Spd	8	8	8	7	6	7	8	7	8	7	6	8	9	10	12	9	9	9	10	8	6	7	8	9	7.8	11.6
Dir	54	67	53	51	57	62	46	50	41	20	46	34	19	8	7	17	23	35	38	42	30	27	42	47	36.9	7.4
8 Spd	10	7	0	0	0	0	0	1	7	9	10	9	7	7	7	7	7	8	7	5	8	7	8	9	5.7	10.2
Dir	46	43	41	216	222	223	229	50	62	71	71	74	78	90	73	59	96	94	91	91	84	74	72	78	73.9	71.2
9 Spd	8	8	8	5	5	5	6	7	6	6	7	7	7	7	7	8	8	7	4	6	6	7	6	4	6.4	8.2
Dir	73	68	69	60	55	52	54	57	59	61	51	49	51	56	48	46	49	47	60	38	28	32	45	47	52.6	45.6
10 Spd	6	4	1	1	2	2	2	3	6	4	3	3	3	7	8	11	11	11	9	7	7	9	5	5	4.1	11.0
Dir	51	42	356	342	166	193	183	159	196	227	288	167	156	152	166	167	178	164	171	161	129	126	137	121	157.6	164.4
11 Spd	4	5	3	3	4	4	3	2	5	5	4	6	13	12	15	19	16	15	12	6	11	6	2	5	5.8	19.1
Dir	128	153	155	164	164	158	159	154	173	159	202	222	245	243	257	254	259	255	262	240	254	269	242	295	236.2	254.0
12 Spd	6	5	9	12	13	15	11	9	8	8	10	12	13	7	6	8	9	6	3	3	2	1	1	2	6.3	15.3
Dir	289	277	265	255	253	257	256	274	261	251	265	299	306	297	287	294	3	17	349	298	319	279	174	287	280.0	257.2
13 Spd	1	1	3	2	2	4	4	2	3	3	5	4	6	7	6	7	6	7	5	3	4	4	3	3	2.3	7.4
Dir	329	313	310	354	129	121	128	131	130	139	149	128	147	171	228	221	227	238	224	204	228	231	241	288	195.1	171.0
14 Spd	3	2	2	2	2	1	1	3	5	5	5	3	5	7	6	4	3	2	2	1	3	3	2	1	2.1	6.8
Dir	293	316	303	320	227	245	283	242	250	244	231	240	258	240	254	242	280	226	157	182	88	123	152	163	244.7	239.8
15 Spd	3	4	1	1	1	2	0	1	2	4	8	6	5	6	7	5	5	5	3	4	4	3	3	2	2.4	7.5
Dir	160	170	162	185	315	275	29	297	293	253	245	245	242	217	233	244	217	199	161	122	124	154	161	110	210.8	245.0
16 Spd	4	3	3	3	2	2	2	2	2	2	3	4	2	2	4	5	6	7	6	7	6	5	3	1	1.2	6.8
Dir	178	286	323	311	317	305	292	314	311	293	318	255	215	197	156	159	170	131	129	115	121	115	95	108	155.8	115.3
17 Spd	2	1	3	2	2	1	3	4	1	3	3	3	6	7	9	10	6	4	3	6	8	6	2	5	3.4	9.5
Dir	296	7	316	286	319	281	166	157	196	251	242	222	195	189	234	231	264	214	219	226	236	230	209	239	230.1	231.0
18 Spd	5	6	6	3	3	1	2	3	3	3	5	5	8	7	9	10	15	13	17	9	7	8	7	5	6.1	17.0
Dir	224	233	219	206	175	257	201	181	193	236	225	213	241	228	220	233	259	244	262	255	237	219	193	189	231.5	261.9
19 Spd	6	8	5	5	6	6	10	10	22	32	38	41	44	43	40	37	34	32	30	28	23	20	17	18	22.3	43.7
Dir	222	218	209	185	190	215	231	228	253	263	260	259	263	264	257	258	266	266	257	257	250	247	245	255	254.9	262.6
20 Spd	18	20	10	8	7	3	6	5	6	13	16	15	19	26	28	20	18	13	8	6	5	5	2	3	11.1	27.8
Dir	261	269	248	266	253	265	288	302	263	264	258	244	243	263	276	268	244	249	241	236	222	237	221	342	258.7	275.9
21 Spd	1	2	0	1	3	0	1	1	2	2	4	5	6	5	4	2	2	3	4	2	2	2	2	2	1.1	5.8
Dir	152	165	59	90	127	71	336	275	315	130	112	114	148	149	131	126	100	66	104	351	302	309	312	323	116.7	148.2
22 Spd	1	2	0	1	1	1	3	1	1	1	2	2	7	11	12	15	10	9	5	5	9	6	5	7	2.6	14.8
Dir	222	314	45	292	300	295	326	308	279	265	238	242	340	330	323	316	319	276	158	168	172	189	220	236	285.3	315.9

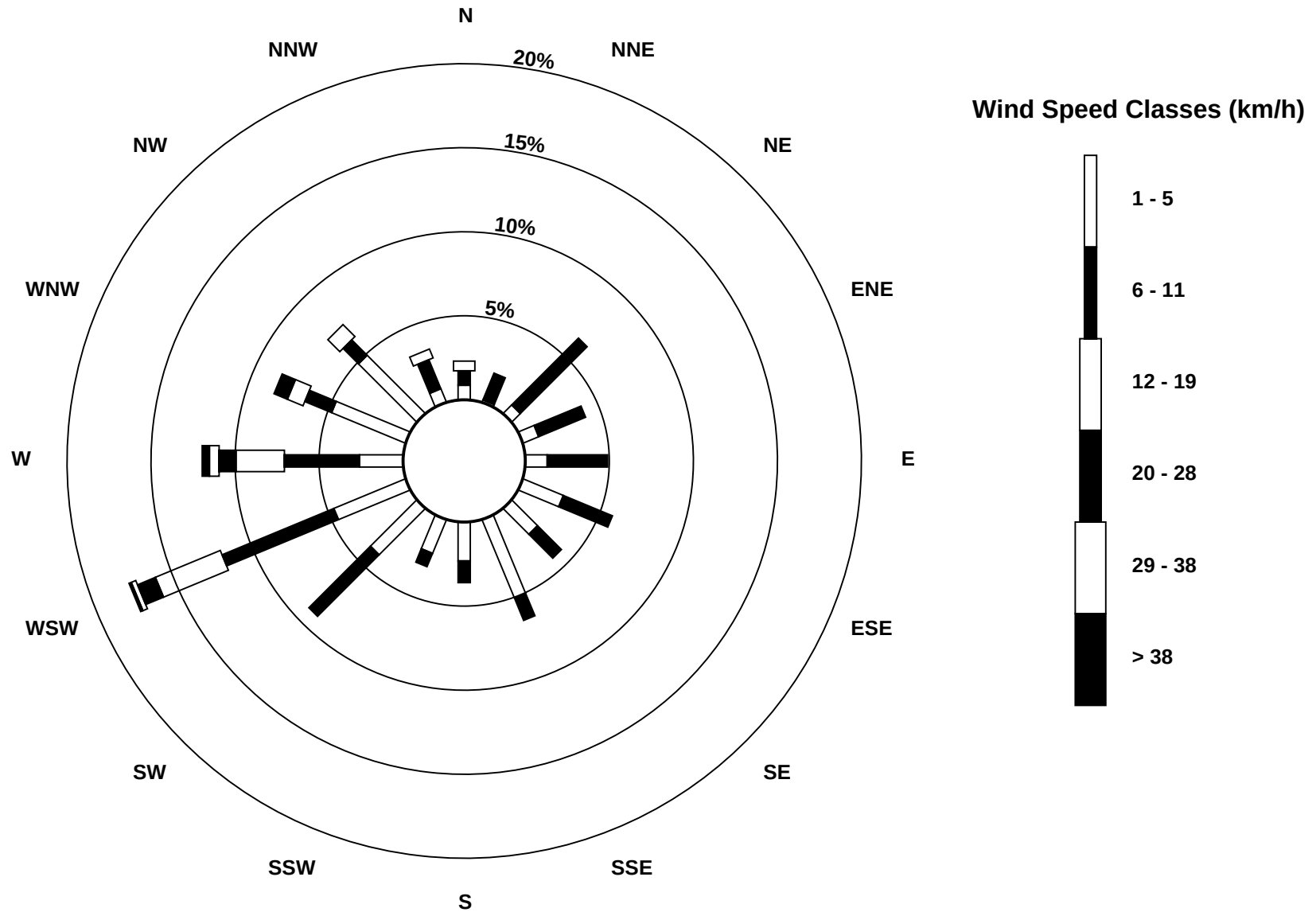
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24														
23 Spd	8	6	4	3	2	2	3	1	3	4	4	5	6	8	9	7	7	7	7	6	8	8	11	10	2.5	10.5												
Dir	266	242	253	274	304	213	255	256	259	254	232	183	157	163	148	140	128	109	91	86	89	76	85	92	140.9	85.2												
24 Spd	10	9	9	7	3	0	2	1	3	3	4	7	3	5	6	4	6	7	6	3	4	5	1	4	0.9	10.5												
Dir	92	97	96	95	105	111	22	75	100	88	284	329	274	267	250	306	193	213	215	191	183	290	226	217	167.1	92.2												
25 Spd	2	0	1	2	6	4	3	2	5	6	6	7	7	6	7	10	8	6	6	4	6	6	7	8	4.6	9.6												
Dir	265	325	290	2	40	70	115	64	47	52	56	51	48	56	96	97	88	79	88	94	86	72	49	49	67.9	96.8												
26 Spd	10	9	10	11	11	10	10	12	10	10	12	10	12	13	12	12	11	9	8	6	7	7	7	5	9.0	13.5												
Dir	44	47	36	36	32	21	7	1	7	4	6	12	357	344	337	334	334	352	346	341	348	338	343	326	2.4	343.8												
27 Spd	5	4	3	2	4	4	7	7	7	7	8	9	10	9	10	9	9	11	11	9	8	8	8	8	6.2	10.8												
Dir	308	322	319	309	110	125	129	121	110	104	130	119	116	127	118	107	100	105	106	107	98	95	101	107	109.0	105.6												
28 Spd	7	6	3	0	0	4	4	5	4	3	4	6	7	7	9	9	9	9	9	9	9	9	9	4	5.9	9.5												
Dir	113	111	119	70	105	123	123	119	141	152	117	132	139	130	133	132	122	109	108	107	110	101	92	80	116.9	92.1												
29 Spd	5	3	2	3	2	2	2	3	2	3	4	4	11	8	6	12	11	10	9	10	10	8	11	17	5.5	16.7												
Dir	84	73	352	325	330	301	286	263	265	234	213	239	264	279	288	273	262	240	239	250	269	253	255	253	260.7	252.9												
30 Spd	16	9	8	7	10	11	10	7	9	16	22	23	17	15	14	18	16	24	19	19	15	14	14	8	13.4	23.9												
Dir	252	266	268	275	258	264	268	275	256	276	291	293	300	296	286	266	265	259	260	260	251	239	240	224	268.0	258.8												
Spd	1.4	1.4	1.4	1.4	1.1	1.0	1.1	1.2	2.1	3.3	4.3	4.3	4.9	5.4	5.9	6.4	5.1	4.2	3.8	3.2	2.7	2.2	1.8	1.5	Diurnal Average													
Dir	271.6	280.5	282.0	280.1	259.6	244.9	247.0	256.9	264.3	265.6	267.9	272.8	270.5	266.5	269.2	263.5	265.5	252.3	247.5	241.7	229.5	232.3	230.3	256.0	Diurnal Maximum													
Spd	18.3	19.8	10.3	12.2	13.0	15.3	10.7	12.3	21.9	32.4	37.9	40.6	43.7	42.6	39.6	37.1	33.7	31.6	29.9	28.4	22.7	20.1	16.6	17.9														
Dir	260.9	269.0	35.7	254.6	252.7	257.2	256.0	1.5	253.3	263.0	260.0	258.9	262.6	263.7	257.2	258.4	266.4	265.7	257.0	257.4	249.9	247.2	245.2	254.6														
Maximum Speed Value: 44 km/h on Sep 19 13:00																								Minimum Speed Value: 0 km/h on Sep 8 07:00												Hours in Service:		720
Maximum Daily Speed Average: 22.3 km/h on Sep 19																								Minimum Daily Speed Average: 0.9 km/h on Sep 21												Hours of Data:		720
Maximum Diurnal Speed Average: 6.4 km/h at hour 16																								Minimum Diurnal Speed Average: 1.0 km/h at hour 6												Hours of Missing Data:		0
Monthly Average Velocity: 2.88 km/h 260.66 deg																								Speed Percentiles: P ₁ = 0.4 P ₁₀ = 1.9 Q ₁ = 3.5 Median = 6.2 Q ₃ = 9.1 P ₉₀ = 13.9 P ₉₉ = 31.3												Percent Operational Time:		100.0
All monthly, daily, and diurnal averages have been calculated using vector methods																																						
Frequency Distribution																																						
		Speed Range (km/h)																																				
Direction		0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																														
North		10	21	6	0	0	0	37																														
NorthEast		12	55	0	0	0	0	67																														
East		21	54	0	0	0	0	75																														
SouthEast		35	33	0	0	0	0	68																														
South		38	25	2	0	0	0	65																														
SouthWest		51	68	11	1	0	0	131																														
West		44	69	45	19	7	4	188																														
NorthWest		56	16	16	1	0	0	89																														
Total		267	341	80	21	7	4	720																														

Wind Rose

Wind Speed (WS) (km/h)
Henry Pirker - September 2014



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - September 2014

Maximum Speed: 44 km/h on Sep 19 13:00																				Maximum Daily Speed Average: 23.3 km/h on Sep 19										Hours in Service: 720	
Minimum Speed: 0 km/h on Sep 8 04:00																				Minimum Daily Speed Average: 3.0 km/h on Sep 21										Hours of Data: 720	
Maximum Diurnal Speed Average: 12.3 km/h at hour 16																				Minimum Diurnal Speed Average: 4.1 km/h at hour 6										Hours of Missing Data: 0	
Monthly Average Speed: 7.74 km/h																				Percentiles: P ₁ = 0.8 P ₁₀ = 2.3 Q ₁ = 3.7 Median = 6.5 Q ₃ = 9.4 P ₉₀ = 13.9 P ₉₉ = 31.9										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	10	8	6	8	8	6	6	11	13	7	6	5	7	11	14	17	14	6	9	4	5	5	6	7	8.3	17.4					
2-Sep	7	5	3	5	5	2	2	4	5	8	8	11	11	10	14	10	8	7	5	4	4	6	7	6	6.6	14.1					
3-Sep	5	4	3	4	4	3	4	7	8	8	7	8	7	8	8	10	8	7	17	18	18	14	14	8	8.4	18.3					
4-Sep	8	6	8	9	6	6	6	9	16	15	14	10	12	10	10	11	8	4	5	4	4	7	9	6	8.5	15.6					
5-Sep	4	8	7	3	5	4	5	4	5	5	14	27	26	25	25	25	21	16	16	14	11	10	8	11	12.5	27.1					
6-Sep	9	7	4	3	3	2	1	2	5	12	14	14	15	19	23	25	27	23	18	18	10	9	11	6	11.6	26.6					
7-Sep	9	8	8	9	7	7	8	7	8	7	7	9	9	10	12	9	9	9	11	9	6	8	8	9	8.5	11.9					
8-Sep	10	8	0	0	0	0	0	1	8	9	10	9	7	8	7	7	8	8	7	6	8	8	8	9	6.1	10.5					
9-Sep	8	8	8	6	5	5	6	7	7	6	8	8	7	8	8	9	8	8	5	6	6	8	6	4	6.8	8.5					
10-Sep	6	4	2	2	2	2	2	3	7	5	4	5	5	8	9	12	12	12	9	7	7	9	5	6	6.0	11.8					
11-Sep	5	5	3	3	4	4	3	2	5	6	5	7	14	12	16	20	17	16	12	6	11	6	3	5	7.9	19.6					
12-Sep	6	5	9	13	13	15	11	9	8	9	11	12	13	8	6	10	10	6	4	3	3	1	2	2	7.7	15.4					
13-Sep	2	1	3	2	2	4	4	2	4	4	6	4	7	8	7	7	6	8	5	3	4	4	3	3	4.3	7.7					
14-Sep	3	3	3	3	2	2	2	3	5	5	5	4	6	8	7	6	4	3	2	2	3	3	2	1	3.6	7.8					
15-Sep	3	4	1	1	2	2	2	1	2	4	8	6	6	7	8	6	6	6	3	4	4	3	4	2	4.0	8.0					
16-Sep	4	4	3	3	3	2	2	3	2	2	3	4	3	3	5	6	6	7	7	7	6	5	4	2	3.9	6.9					
17-Sep	3	2	3	2	3	2	3	4	1	3	3	3	6	8	10	10	6	4	4	6	8	6	3	6	4.6	10.1					
18-Sep	5	7	6	3	3	2	2	3	3	4	5	6	8	7	9	10	15	14	17	9	7	8	7	6	6.9	17.2					
19-Sep	6	8	6	5	6	6	10	10	22	33	38	41	44	43	40	37	34	32	30	29	23	20	17	18	23.3	44.3					
20-Sep	18	20	10	8	7	3	6	5	6	13	17	15	19	26	28	20	18	14	8	6	5	5	3	3	11.9	28.2					
21-Sep	2	2	1	1	3	1	2	1	2	2	4	6	7	5	5	3	4	3	4	3	3	3	3	3	3.0	6.5					
22-Sep	2	2	1	2	2	2	3	2	2	2	3	3	7	12	12	15	11	10	5	5	9	6	5	7	5.4	15.3					
23-Sep	9	6	4	3	2	2	3	2	4	5	5	6	7	9	10	8	7	7	7	6	8	8	11	11	6.2	10.7					
24-Sep	11	9	9	7	3	1	2	2	3	4	4	7	4	6	7	5	6	8	6	4	5	6	2	4	5.1	10.5					
25-Sep	3	2	2	2	6	4	4	2	5	6	7	7	8	7	8	10	8	6	6	4	6	6	7	8	5.6	9.9					
26-Sep	10	9	11	11	11	10	10	12	10	10	12	11	12	14	12	12	11	9	8	6	7	7	7	5	9.9	13.6					
27-Sep	5	4	3	2	5	4	7	7	7	7	8	10	11	10	11	10	10	11	11	9	8	8	9	8	7.6	11.0					
28-Sep	7	6	3	1	1	4	4	5	4	4	4	6	8	8	9	9	9	9	9	9	9	10	10	4	6.5	9.6					
29-Sep	6	3	3	3	3	3	2	4	3	3	4	5	11	9	6	12	12	10	9	10	11	9	12	17	6.9	16.9					
30-Sep	16	9	8	7	10	11	10	7	9	16	23	23	18	15	15	18	17	24	19	19	15	14	14	9	14.4	24.2					
																									Diurnal Average						
																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - September 2014

Maximum Value: 91.8 deg on Sep 25 02:00																				Hours in Service: 720					
Minimum Value: 5.6 deg on Sep 15 02:00																				Hours of Data: 720					
																				Hours of Missing Data: 0					
Percentiles: P ₁ = 6.5 P ₁₀ = 8.9 Q ₁ = 12.0 Median = 16.5 Q ₃ = 26.7 P ₉₀ = 44.5 P ₉₉ = 80.7																				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	14	14	14	15	15	21	10	12	15	21	22	22	23	14	18	36	40	25	47	13	11	22	10	46.6
2-Sep	9	17	12	16	11	20	18	17	13	12	23	12	19	34	15	11	14	15	13	27	10	10	7	9	33.9
3-Sep	9	9	34	16	27	26	21	18	13	19	26	26	40	47	24	36	29	31	13	8	8	10	7	10	46.8
4-Sep	29	23	26	12	26	11	13	18	8	10	11	12	17	21	27	27	18	38	32	12	9	13	12	17	37.7
5-Sep	37	18	20	34	29	14	6	14	13	23	19	11	11	9	9	12	11	8	16	10	12	10	9	8	37.2
6-Sep	38	32	16	25	23	77	45	42	17	17	14	15	16	16	14	12	13	9	9	7	10	9	23	30	77.0
7-Sep	13	14	22	30	28	21	18	23	18	22	23	15	18	13	14	13	16	16	13	14	20	18	22	14	30.5
8-Sep	13	15	16	14	15	14	14	14	13	13	13	15	16	18	23	19	28	15	11	15	11	12	13	9	27.7
9-Sep	13	14	13	19	16	16	15	14	16	19	18	20	21	22	22	17	16	17	26	21	19	15	19	36	35.6
10-Sep	16	23	57	55	14	26	35	16	19	35	52	66	78	51	34	19	21	18	13	11	9	8	11	9	78.0
11-Sep	11	7	15	11	12	8	10	16	12	19	33	26	15	14	18	13	14	15	12	14	8	23	68	10	67.8
12-Sep	7	9	12	14	10	8	8	10	12	11	19	13	9	13	11	35	22	19	27	10	31	55	54	32	54.9
13-Sep	42	83	20	31	22	9	17	27	22	32	26	43	20	19	28	21	26	16	12	18	8	11	17	15	82.8
14-Sep	11	27	37	36	37	60	54	22	16	15	21	55	50	37	34	68	47	46	8	54	16	12	12	28	68.2
15-Sep	12	6	37	27	59	36	91	24	23	25	17	23	30	34	33	45	39	21	16	9	9	10	14	43	91.3
16-Sep	21	42	16	17	27	29	25	22	46	27	37	25	44	62	45	20	18	18	12	6	8	6	24	68	67.8
17-Sep	81	70	23	32	19	47	23	15	68	21	31	36	26	25	22	19	16	14	18	10	8	11	71	32	81.2
18-Sep	19	23	10	27	13	82	38	14	25	25	32	36	13	19	20	20	8	9	8	13	9	13	13	15	81.7
19-Sep	14	11	23	20	14	15	12	12	11	7	8	8	9	9	8	8	9	10	7	6	8	7	8	7	22.7
20-Sep	7	7	14	15	20	36	21	15	22	14	14	13	14	16	9	13	12	9	12	9	13	15	65	55	64.6
21-Sep	37	28	71	43	26	79	56	67	32	65	29	32	29	26	38	67	65	18	16	60	82	31	52	36	82.1
22-Sep	68	53	73	87	82	70	26	70	45	52	38	31	27	14	15	15	13	44	28	16	8	21	15	14	86.7
23-Sep	16	17	23	31	35	40	27	51	25	23	26	43	37	28	26	27	22	16	10	10	9	10	10	8	50.6
24-Sep	7	7	7	8	13	83	23	48	31	24	51	21	36	26	24	55	16	15	14	41	19	26	89	33	88.9
25-Sep	62	92	86	69	23	35	23	56	24	23	22	15	20	26	19	15	14	13	12	11	9	16	15	14	91.8
26-Sep	12	13	11	11	11	11	11	10	10	9	9	14	14	8	10	12	13	12	9	11	11	10	9	19	19.5
27-Sep	12	10	17	16	56	14	13	14	22	19	21	15	15	15	14	16	18	11	9	9	7	7	9	9	56.0
28-Sep	7	9	13	67	87	21	24	24	32	31	28	23	23	26	17	17	14	7	8	6	7	9	8	19	87.4
29-Sep	36	36	39	27	38	49	43	22	44	27	28	30	12	29	18	11	12	10	9	12	12	51	12	9	51.0
30-Sep	7	12	14	21	9	11	19	19	11	17	7	8	15	14	20	13	13	10	8	7	9	8	7	16	21.0
81.2 91.8 86.2 86.7 87.4 82.9 91.3 69.6 67.8 64.6 52.0 65.8 78.0 61.9 44.6 68.2 64.7 46.1 31.7 59.5 82.1 54.9 88.9 67.8																									

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and
Roses

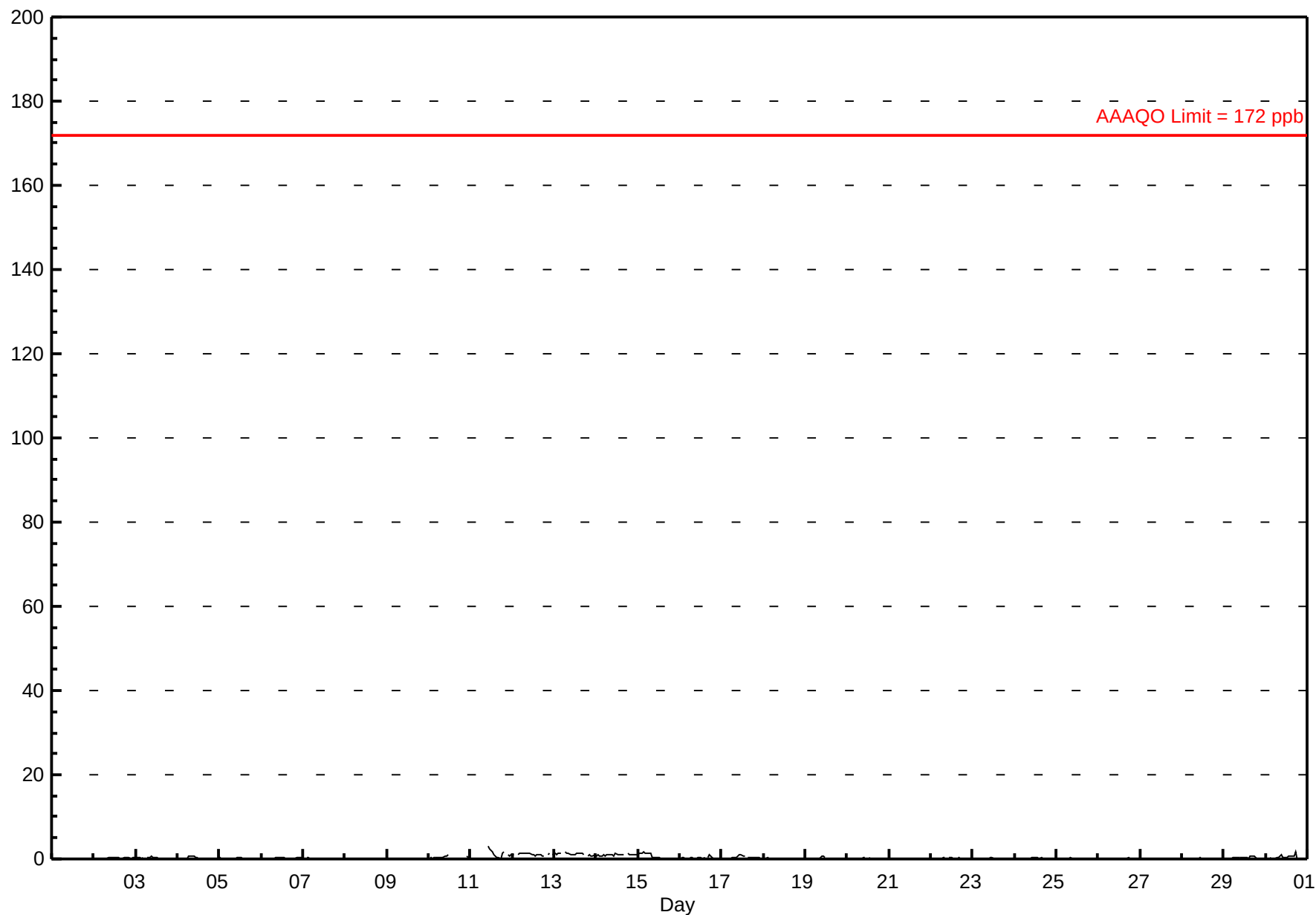
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Evergreen Park - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.0 ppb on Sep 11 11:00 Maximum Daily Average: 1.1 ppb on Sep 13																				Hours in Service: 720 Hours of Data: 673 Hours of Missing Data: 47 Hours of Calibration: 34 Percent Operational Time: 98.2						
Minimum Value: 0 ppb on Sep 1 12:00 Maximum Diurnal Average: 0.4 ppb at hour 11 Monthly Average: 0.26 ppb																				Minimum Daily Average: 0.0 ppb on Sep 8 Minimum Diurnal Average: 0.2 ppb at hour 21 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.9 P ₉₉ = 1.5						
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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
2-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
3-Sep	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
4-Sep	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
5-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	0.1	0.4
6-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
7-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	0.2
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	A	0.0	0.1
9-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	0.1
10-Sep	0	0	0	0	0	0	0	0	0	1	1	1	C	C	C	0	0	0	0	0	0	A	1	0	0.3	0.9
11-Sep	N	N	N	N	N	N	N	N	N	N	3	2	2	1	1	0	0	0	1	2	A	1	1	1	--	3.0
12-Sep	1	1	N	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	N	1	1.1	1.4
13-Sep	1	1	1	1	1	N	2	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.1	1.6
14-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	1.0	1.5
15-Sep	1	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.6	1.5
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0.2	1.0
17-Sep	0	0	0	0	0	0	0	0	0	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0.3	1.1
18-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	0.2
19-Sep	0	0	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
20-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
21-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	0.2
22-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	0.3
23-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	0.0	0.2
24-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	0.1	0.3
25-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
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	0.3
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	0.0	0.1
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	0.1	0.2
29-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0.3	0.7
30-Sep	0	A	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	2	0	0	0	0	0	0	0.4	1.6
0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.4 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2																								Diurnal Average		
1.2 1.2 1.3 1.5 1.4 1.4 1.6 1.5 1.4 1.2 3.0 2.2 1.6 1.3 1.2 1.3 1.2 1.6 1.5 1.6 0.9 1.3 1.1 1.1																								Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - September 2014



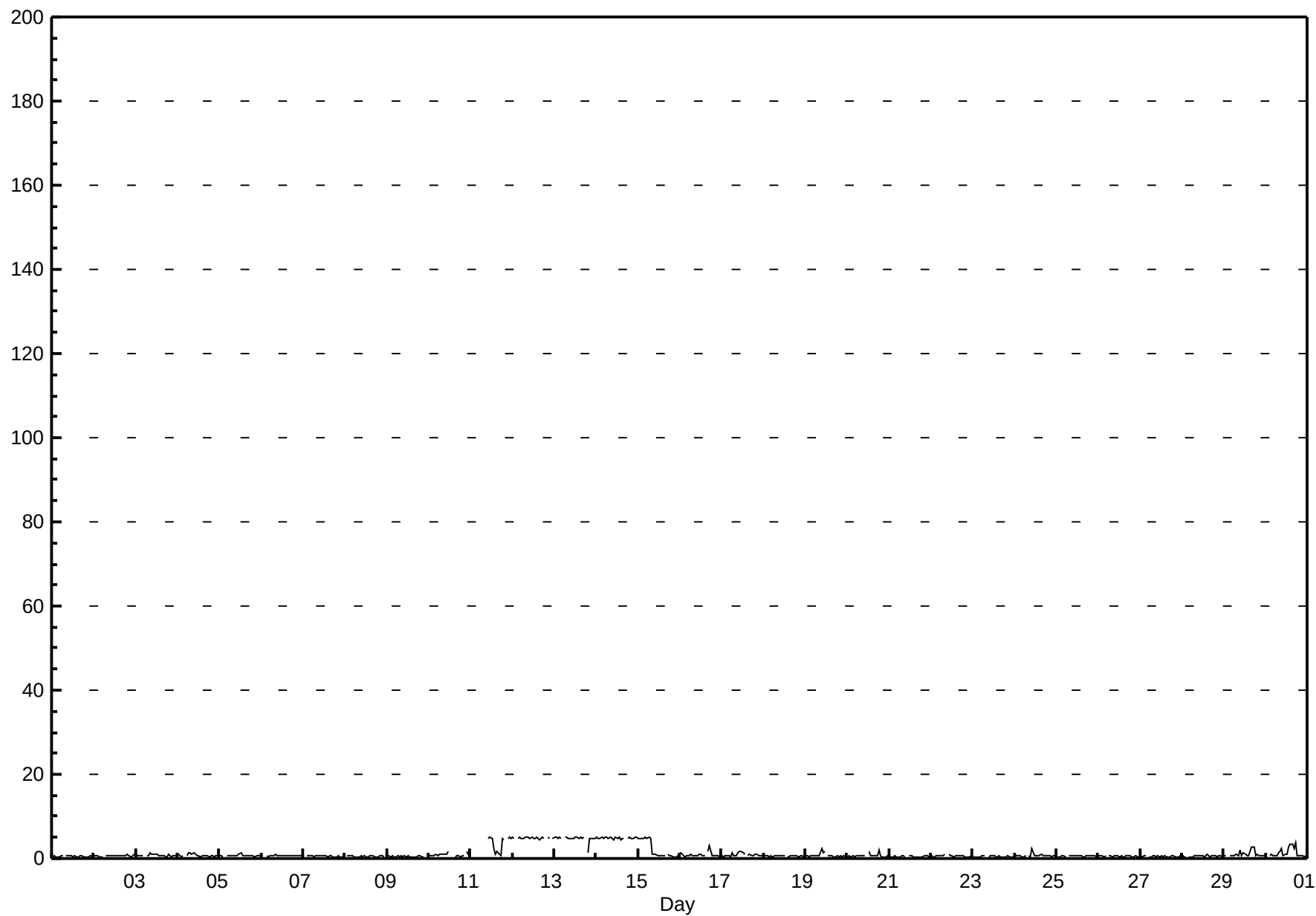
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Evergreen Park - September 2014

Maximum Value: 5.0 ppb on Sep 14 14:00																				Maximum Daily Average: 4.8 ppb on Sep 14										Hours in Service: 720									
Minimum Value: 0 ppb on Sep 10 16:00																				Minimum Daily Average: 0.5 ppb on Sep 8										Hours of Data: 673									
Maximum Diurnal Average: 1.4 ppb at hour 12																				Minimum Diurnal Average: 0.9 ppb at hour 20										Hours of Missing Data: 47									
Monthly Average: 1.19 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 4.7 P ₉₉ = 5.0										Hours of Calibration: 34									
																				Percent Operational Time: 98.2																			
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	0	1	0	0	0	1	1	A	1	1	1	1	0	1	0	0	1	1	0	0	0	0	1	0	0.5	0.7													
2-Sep	1	1	1	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	0.9													
3-Sep	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	0.7	1.3													
4-Sep	1	1	0	1	A	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	1	0.7	1.5													
5-Sep	1	1	0	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0.7	1.5													
6-Sep	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9													
7-Sep	1	A	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	0	0	0	1	0	0	0	0.5	0.7													
8-Sep	A	1	1	1	1	0	0	0	0	1	0	1	0	1	1	1	1	0	0	0	1	1	0	A	0.5	0.7													
9-Sep	1	1	0	1	0	0	1	1	1	0	1	0	1	0	1	0	0	0	1	1	0	0	A	1	0.5	0.7													
10-Sep	1	1	1	1	1	1	1	1	1	1	1	2	C	C	C	0	1	1	0	1	1	A	2	0	0.8	1.8													
11-Sep	N	N	N	N	N	N	N	N	N	N	5	5	5	2	1	2	1	1	5	5	A	5	5	5	--	4.9													
12-Sep	5	5	N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	A	5	5	N	5	4.8	5.0													
13-Sep	5	5	5	5	5	N	5	5	5	5	5	5	5	5	5	5	5	5	A	5	5	5	5	5	4.7	5.0													
14-Sep	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	A	5	5	5	5	5	5	4.8	5.0													
15-Sep	5	5	5	5	5	5	5	5	1	1	1	1	1	1	1	1	A	1	1	1	0	0	0	1	2.1	5.0													
16-Sep	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	2	3	1	1	1	1	1	0	0.9	3.1													
17-Sep	1	0	1	1	1	0	1	1	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	0.9	1.7													
18-Sep	1	1	1	0	1	0	1	1	1	1	1	1	1	A	0	1	1	1	1	1	0	1	1	0	0.6	0.8													
19-Sep	1	1	0	1	1	1	1	1	1	2	1	2	A	1	1	1	0	1	1	0	1	0	1	0	0.7	2.3													
20-Sep	0	1	1	1	0	1	1	1	1	1	1	A	2	1	1	1	1	1	2	1	0	0	1	1	0.7	1.9													
21-Sep	1	1	0	1	0	0	1	1	1	0	A	1	1	1	1	0	0	0	0	0	1	1	1	0	0.5	0.6													
22-Sep	1	0	0	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	0	0	0	0	1	0.6	1.0													
23-Sep	0	0	0	0	0	1	1	1	A	1	1	1	1	0	0	1	0	0	0	0	1	1	0	0	0.5	0.8													
24-Sep	1	1	1	1	0	1	1	A	1	0	3	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	2.5													
25-Sep	0	0	0	1	1	0	A	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0.6	0.8													
26-Sep	1	1	1	0	1	A	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	0	0	0.6	0.8													
27-Sep	1	1	1	1	A	0	0	1	1	0	1	0	1	0	1	0	0	0	1	1	0	0	0	1	0.5	0.7													
28-Sep	1	0	0	A	0	0	1	1	1	1	1	1	1	0	1	1	0	1	1	1	0	1	1	0	0.6	0.9													
29-Sep	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	2	3	3	1	1	1	1	1	1	1.0	2.8													
30-Sep	1	A	1	1	1	1	1	1	2	2	1	1	1	3	3	3	2	4	1	1	1	1	0	1	1.4	3.8													
1.2		1.2	1.0	1.2	1.2	1.0	1.3	1.3	1.2	1.3	1.4	1.4	1.4	1.2	1.2	1.2	1.2	1.2	1.0	0.9	1.0	1.1	1.0	1.1	Diurnal Average														
5.0		5.0	4.9	5.0	5.0	4.9	5.0	5.0	5.0	5.0	4.9	5.0	5.0	5.0	4.9	4.9	4.8	5.0	4.9	5.0	4.9	4.9	4.9	5.0	Diurnal Maximum														
C - Calibration		N - Not Valid						A - Automated Daily Zero Span																															

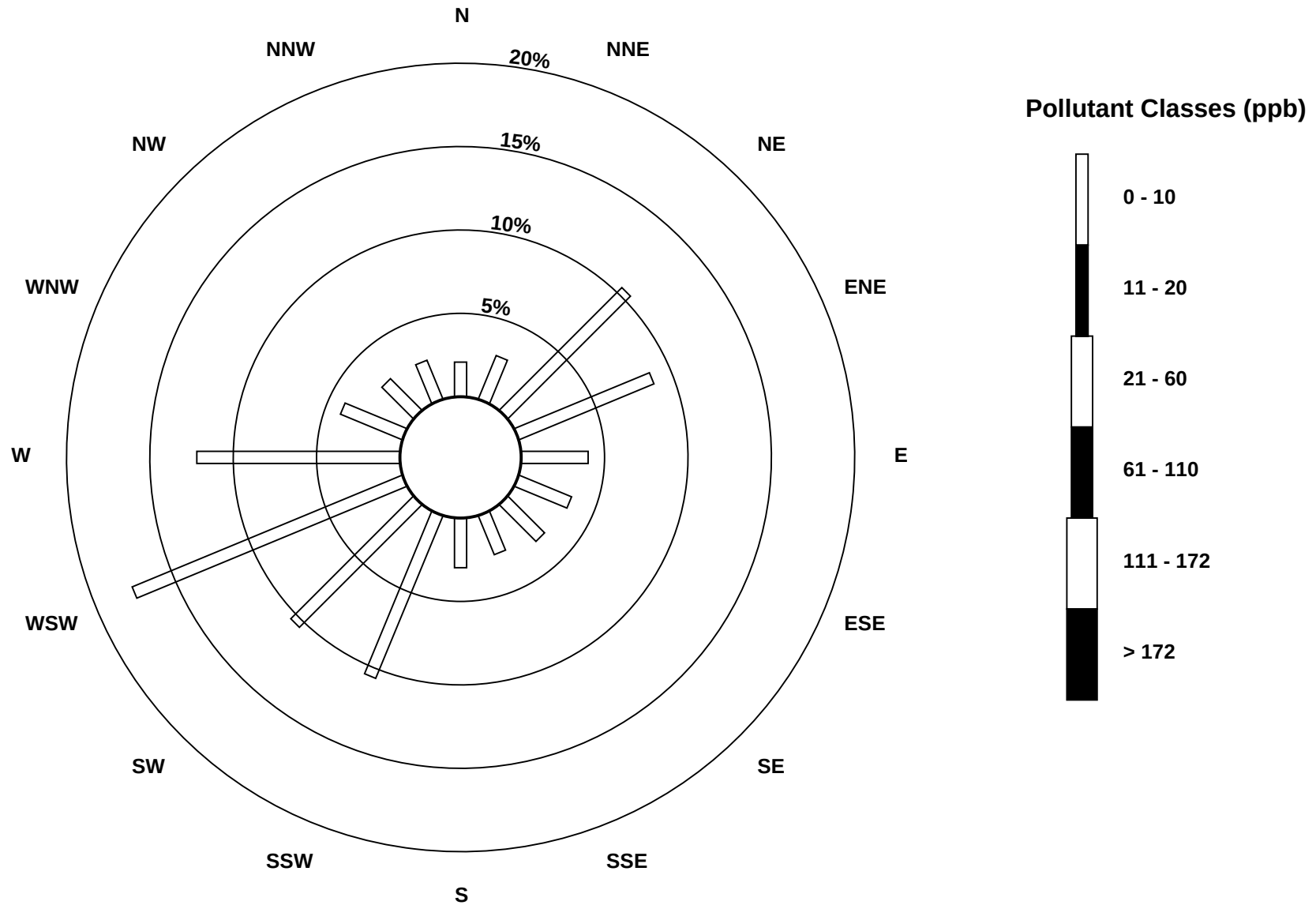
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - September 2014



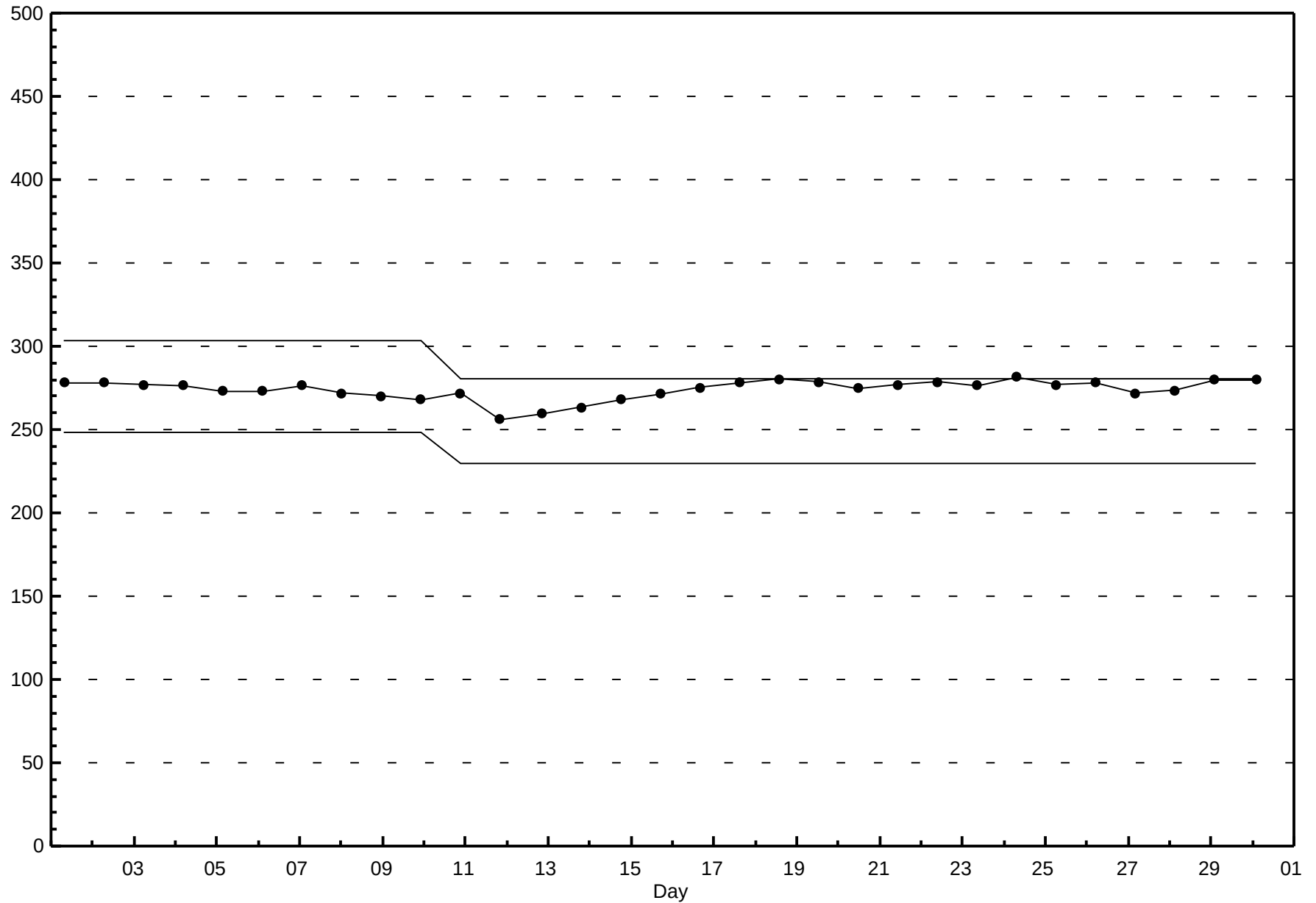
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - September 2014



Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - September 2014



Hourly Averages

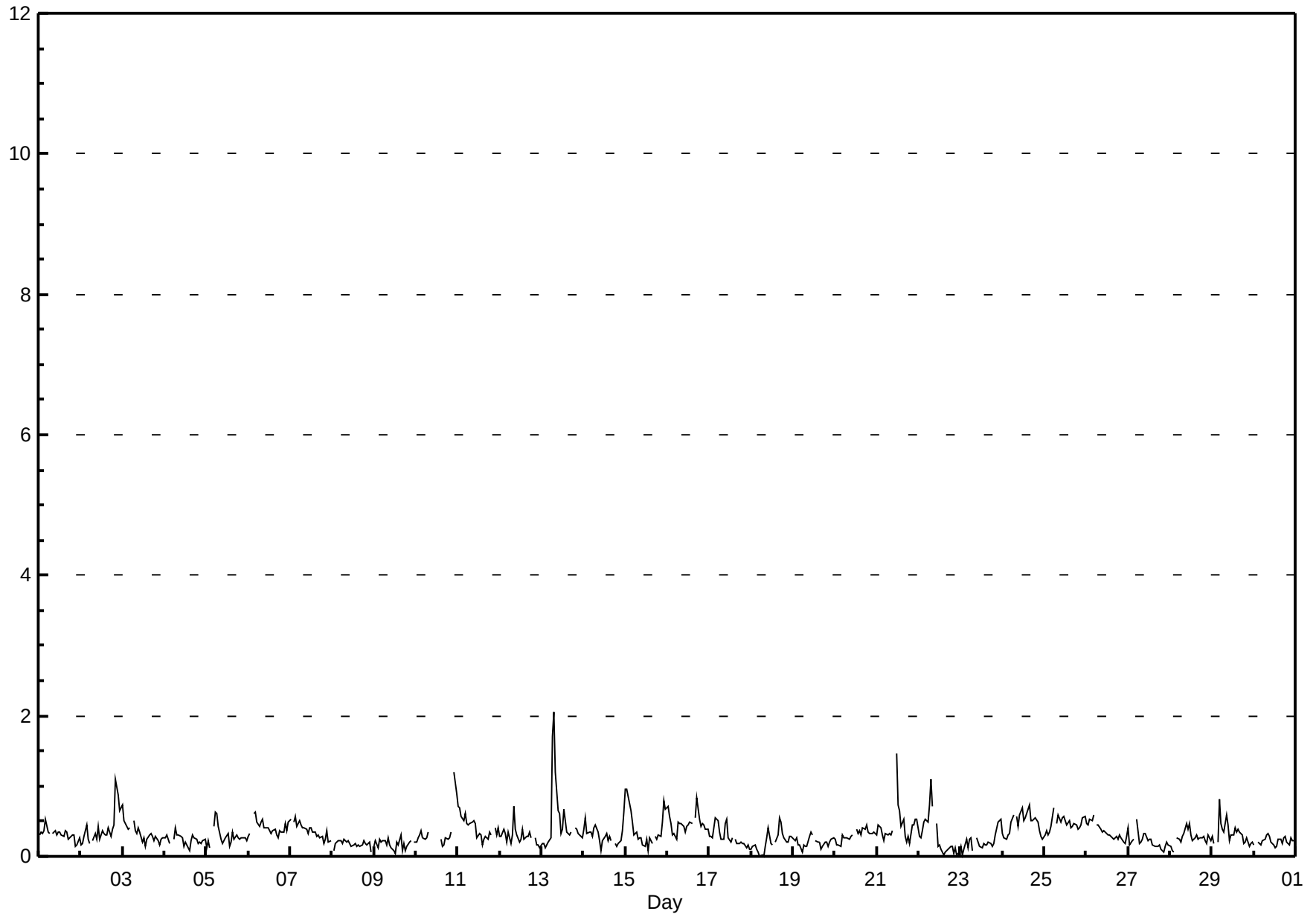
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.1 ppb on Sep 13 08:00 Maximum Daily Average: 0.5 ppb on Sep 13																				Hours in Service: 720						
Minimum Value: 0 ppb on Sep 18 06:00 Minimum Daily Average: 0.2 ppb on Sep 9 Maximum Diurnal Average: 0.4 ppb at hour 9 Minimum Diurnal Average: 0.3 ppb at hour 20 Monthly Average: 0.32 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.5 P ₉₉ = 1.1																				Hours of Data: 683						
																				Hours of Missing Data: 37						
																				Hours of Calibration: 37						
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Sep	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
2-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.4	1.1
3-Sep	1	1	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
4-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
5-Sep	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
6-Sep	0	0	A	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
7-Sep	1	A	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
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	A	0.2	0.2
9-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	0.2	0.3
10-Sep	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	A	1	1	--	1.2
11-Sep	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.7
12-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	0.3	0.7
13-Sep	0	0	0	0	0	0	2	2	1	1	1	0	0	1	0	0	0	0	A	0	0	0	0	0	0.5	2.1
14-Sep	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0.3	0.6
15-Sep	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0.4	1.0
16-Sep	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0.5	0.8
17-Sep	0	0	0	1	1	1	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.5
18-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0.2	0.6
19-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	0.2	0.3
20-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
21-Sep	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	1	0	0	0	0	0	0	1	1	0.4	1.5
22-Sep	0	0	0	0	1	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
23-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	0.5
24-Sep	0	0	0	0	0	0	1	A	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.5	0.7
25-Sep	0	0	0	0	0	1	A	0	1	0	1	1	1	0	1	0	0	0	0	0	0	0	1	1	0.5	0.7
26-Sep	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
27-Sep	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	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	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
30-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	0.3
0.3 0.3 0.3 0.3 0.4 0.3 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 0.3 0.3 0.3																								Diurnal Average		
1.0 1.0 0.7 0.6 0.8 0.7 1.7 2.1 1.2 0.6 0.6 1.5 0.7 0.7 0.6 0.7 0.6 0.8 0.5 0.5 1.1 0.9 1.2 0.9																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - September 2014



Hourly Maximums

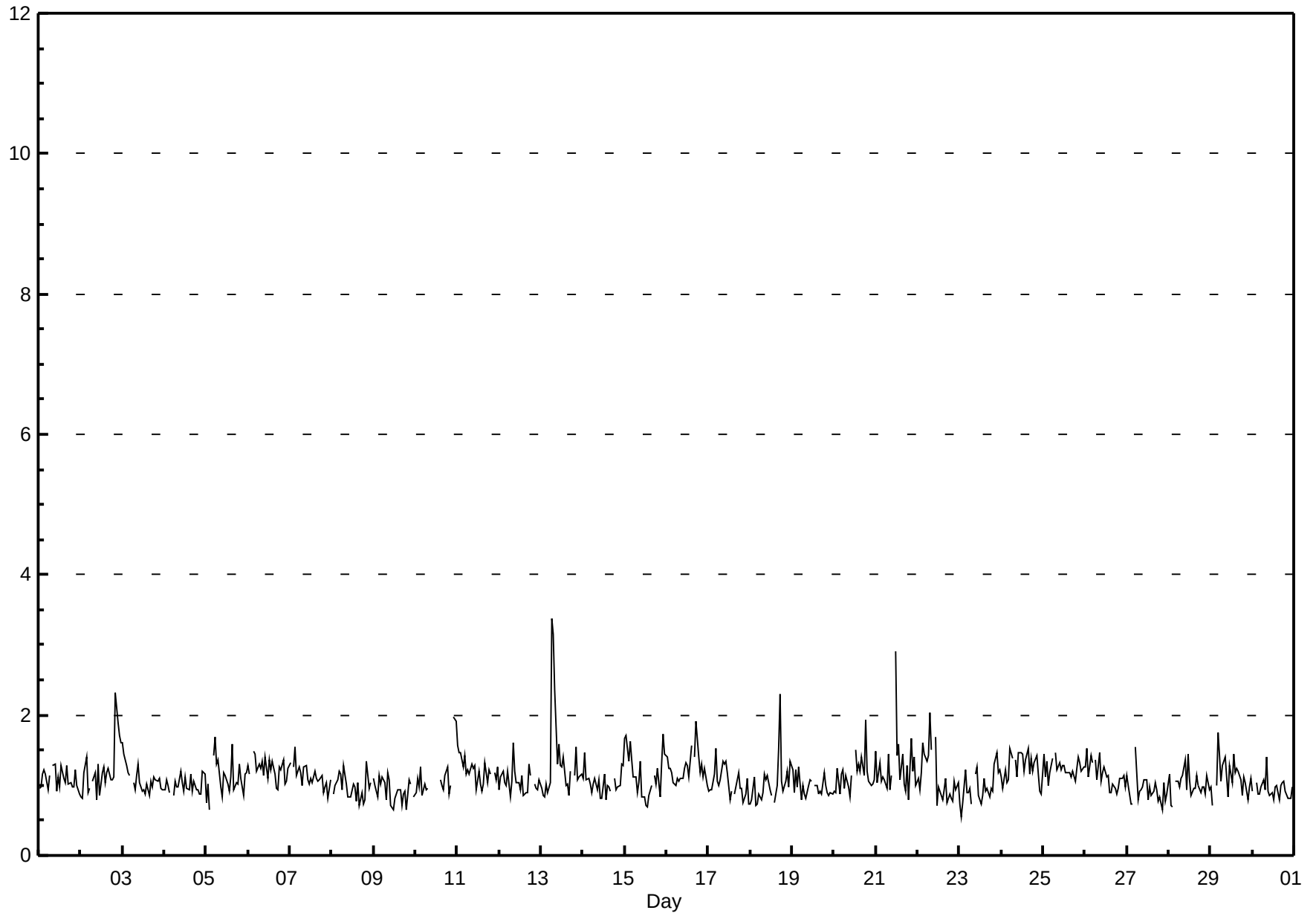
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - September 2014

Maximum Value: 3.4 ppb on Sep 13 07:00																			Maximum Daily Average: 1.4 ppb on Sep 13										Hours in Service: 720	
Minimum Value: 1 ppb on Sep 23 02:00																			Minimum Daily Average: 0.9 ppb on Sep 9										Hours of Data: 683	
Maximum Diurnal Average: 1.2 ppb at hour 9																			Minimum Diurnal Average: 1.0 ppb at hour 20										Hours of Missing Data: 37	
Monthly Average: 1.11 ppb																			Percentiles: P ₁ = 0.7 P ₁₀ = 0.8 Q ₁ = 0.9 Median = 1.1 Q ₃ = 1.2 P ₉₀ = 1.4 P ₉₉ = 1.9										Hours of Calibration: 37	
																													Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-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	1.1	1.3				
2-Sep	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.2	2.3				
3-Sep	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6				
4-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	1.0	1.2				
5-Sep	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.1	1.7				
6-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	1.2	1.5				
7-Sep	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6				
8-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	1.0	1.3				
9-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	0.9	1.2				
10-Sep	1	1	1	1	1	1	1	1	C	C	C	C	C	C	1	1	1	1	1	1	1	A	2	2	--	2.0				
11-Sep	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.2	1.6				
12-Sep	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	1.6				
13-Sep	1	1	1	1	1	1	3	3	2	1	2	1	1	1	1	1	1	1	A	1	2	1	1	1	1.4	3.4				
14-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	1.5				
15-Sep	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	1	1.2	1.7				
16-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	2	1	1	1	1	1	1	1.2	1.9				
17-Sep	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.5				
18-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	2	1	1	1	1	1	1	1.0	2.3				
19-Sep	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3				
20-Sep	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	2	1	1	1	1	1	1.1	1.9				
21-Sep	1	1	1	1	1	1	1	1	1	1	A	3	1	2	1	1	1	1	1	1	2	1	1	1	1.3	2.9				
22-Sep	1	1	1	2	1	1	1	2	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.0				
23-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	1.0	1.5				
24-Sep	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.2	1.5				
25-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	1.2	1.5				
26-Sep	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5				
27-Sep	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5				
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	1.0	1.4				
29-Sep	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.7				
30-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	0.9	1.4				
1.1		1.0	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	Diurnal Average					
1.7		1.7	1.5	1.6	1.7	1.7	3.4	3.1	2.4	1.4	1.7	2.9	1.5	1.6	1.6	1.6	1.5	2.3	1.9	1.3	2.3	1.9	2.0	1.9	Diurnal Maximum					
C - Calibration				A - Automated Daily Zero Span																										

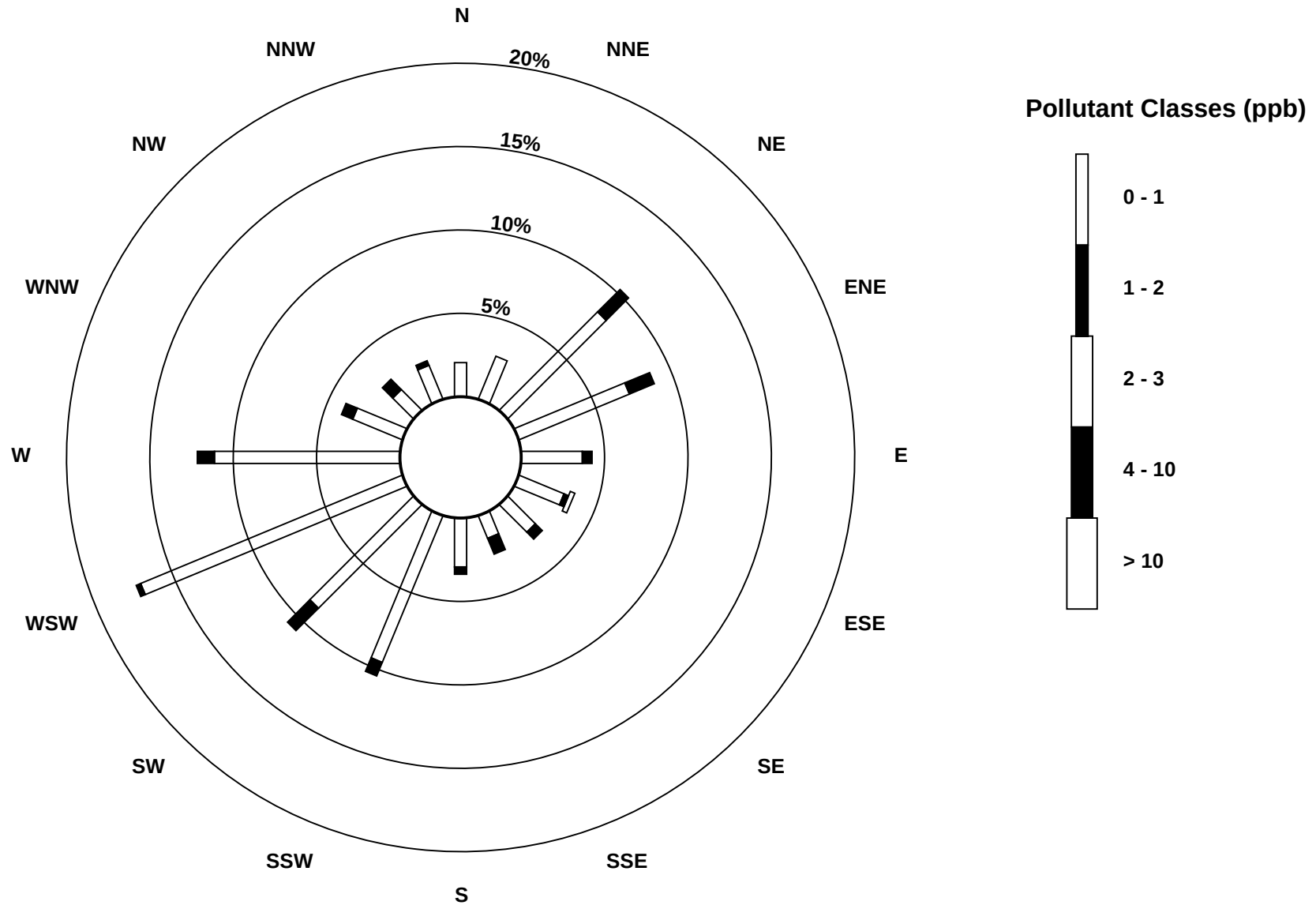
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - September 2014



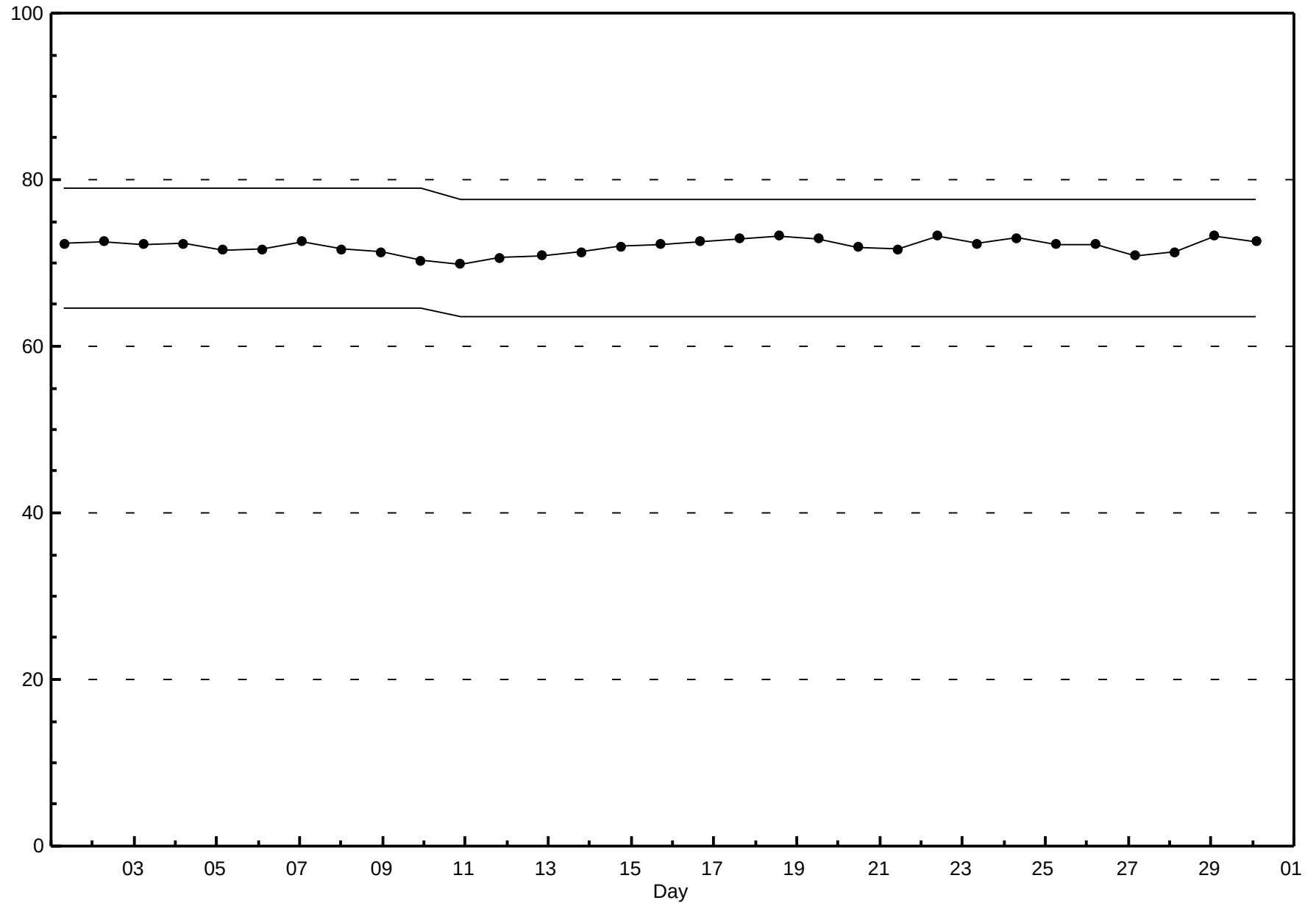
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - September 2014



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - September 2014



Hourly Averages

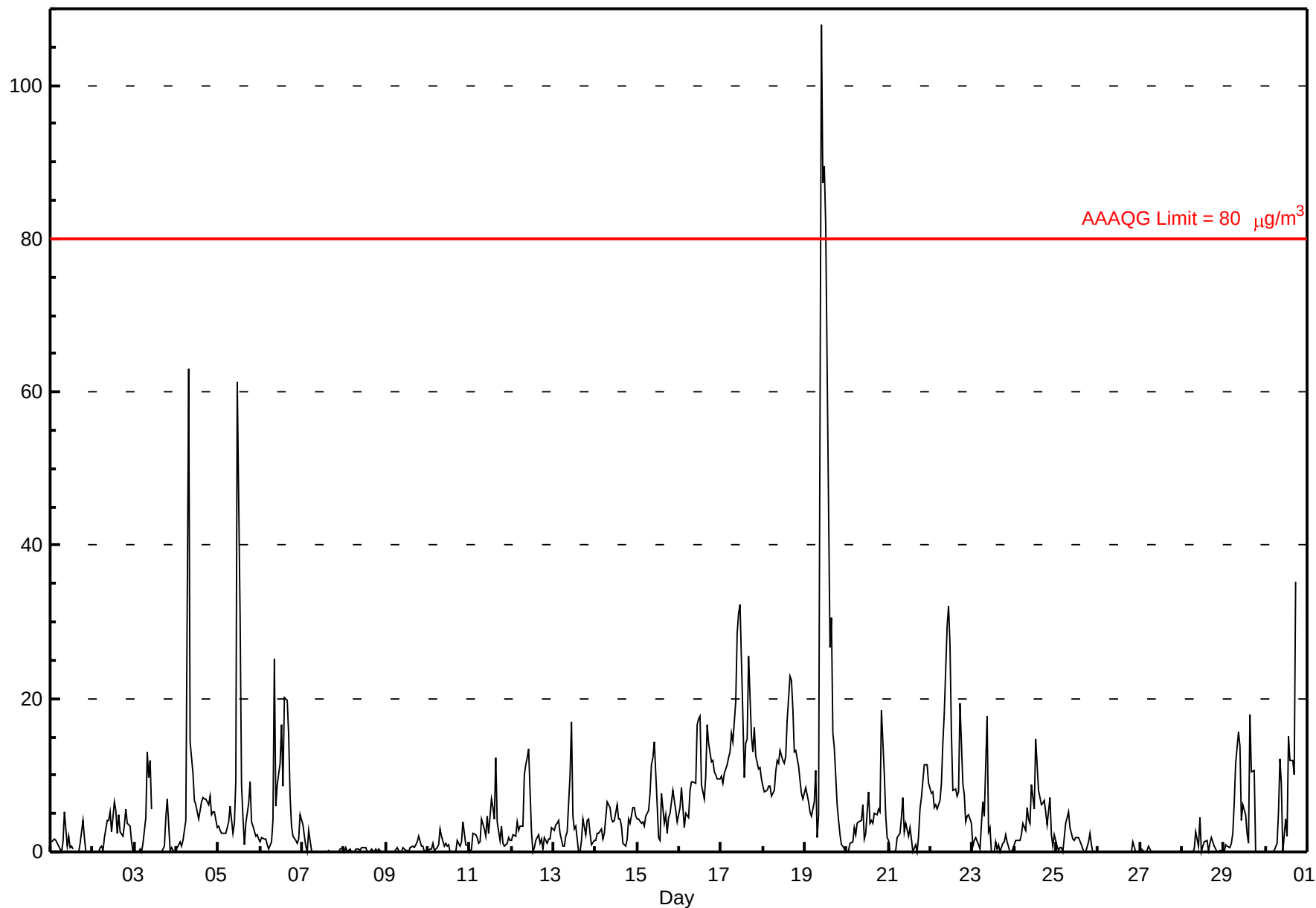
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - September 2014

Number of Exceedences: 1-hr: 4 24-hr: 0 Maximum Value: 107.9 µg/m ³ on Sep 19 10:00 Minimum Value: 0 µg/m ³ on Sep 1 07:00 Maximum Diurnal Average: 10.5 µg/m ³ at hour 12 Monthly Average: 5.09 µg/m ³																								Hours in Service: 720 Hours of Data: 711 Hours of Missing Data: 9 Hours of Calibration: 1 Percent Operational Time: 98.9		
Maximum Daily Average: 24.4 µg/m ³ on Sep 19 Minimum Daily Average: 0.1 µg/m ³ on Sep 26 Minimum Diurnal Average: 2.2 µg/m ³ at hour 1 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.3 Median = 2.2 Q ₃ = 6.2 P ₉₀ = 12.1 P ₉₉ = 60.4																										
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	1	1	2	2	1	0	0	1	5	1	2	0	1	0	N	0	0	1	4	2	0	N	N	0	1.2	5.1
2-Sep	0	0	0	0	1	1	0	2	4	4	5	3	7	5	2	5	3	2	4	6	4	3	1	0	2.5	6.6
3-Sep	0	0	0	0	0	1	4	13	10	12	6	N	N	0	0	0	0	1	5	7	0	1	0	0	2.7	13.1
4-Sep	1	1	1	1	2	4	33	63	14	10	7	6	5	4	6	7	7	7	6	7	5	5	5	3	8.8	63.0
5-Sep	3	3	3	2	2	3	4	6	3	4	9	61	31	9	4	1	4	6	9	4	3	2	2	2	7.5	61.4
6-Sep	1	2	2	2	1	0	1	4	25	6	9	12	17	9	20	20	15	7	3	2	2	1	2	5	7.0	25.2
7-Sep	3	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.5
8-Sep	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
9-Sep	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	2	1	1	0	0	0.4	2.1
10-Sep	0	0	0	1	0	1	1	3	2	1	1	1	1	0	C	0	0	1	1	1	4	2	1	1	1.1	3.9
11-Sep	0	0	2	2	2	1	1	4	3	2	5	2	7	6	4	12	4	2	3	1	1	1	2	1	2.9	12.2
12-Sep	1	2	2	4	3	3	3	10	11	12	13	3	0	1	1	2	1	2	0	2	1	2	2	3	3.6	13.4
13-Sep	3	4	4	4	2	1	1	2	3	10	17	5	3	3	0	0	1	4	2	4	4	2	1	1	3.4	16.9
14-Sep	2	2	2	3	2	3	4	6	6	4	4	4	6	4	4	3	1	1	2	4	4	6	6	5	3.7	6.4
15-Sep	4	4	4	4	3	5	5	8	11	12	14	6	2	2	8	4	5	2	4	5	8	7	5	4	5.7	14.4
16-Sep	6	8	6	3	5	5	8	9	9	9	17	17	18	9	7	10	17	14	12	12	10	10	10	10	10.0	17.6
17-Sep	10	9	10	11	12	13	16	14	20	29	31	32	18	10	14	15	26	15	13	16	13	11	11	10	15.7	32.3
18-Sep	9	8	8	9	9	7	8	11	12	11	13	12	12	12	17	23	22	19	13	13	11	9	8	7	11.8	22.9
19-Sep	8	7	7	5	5	6	11	2	5	108	87	90	82	63	27	31	15	14	6	4	2	1	1	0	24.4	107.9
20-Sep	0	0	1	1	3	2	4	4	4	6	2	2	8	4	4	4	5	5	6	5	19	10	5	2	4.4	18.5
21-Sep	2	0	0	0	0	2	2	5	7	3	4	2	3	2	0	1	0	2	6	7	11	11	11	9	3.8	11.4
22-Sep	8	8	6	6	6	7	9	14	18	29	32	27	15	8	8	7	8	19	9	7	4	5	5	4	11.2	32.0
23-Sep	1	2	2	1	0	3	7	5	18	3	3	0	0	1	0	1	0	1	1	2	1	0	0	0	2.2	17.7
24-Sep	1	1	2	1	2	4	3	6	4	4	9	6	15	11	8	6	6	7	5	4	7	2	1	2	4.9	14.7
25-Sep	1	0	0	1	0	4	5	5	3	2	2	2	2	2	1	0	0	0	1	3	1	0	0	0	1.4	5.2
26-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	1.4
27-Sep	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
28-Sep	0	0	0	0	0	0	0	0	3	1	5	0	1	1	1	0	1	2	1	0	0	0	0	0	0.7	4.5
29-Sep	0	1	1	0	1	2	6	12	16	14	4	6	5	2	1	18	11	11	0	0	0	N	0	N	5.0	18.0
30-Sep	0	0	0	0	0	0	1	5	12	9	0	4	2	15	12	12	10	35	N	0	0	0	0	0	5.1	35.2
2.2 2.3 2.2 2.2 2.2 2.6 4.6 7.2 7.6 10.2 10.0 10.5 8.9 6.1 5.5 6.1 5.4 6.0 4.1 4.0 3.9 3.3 2.7 2.4																								Diurnal Average		
9.9 8.9 10.2 11.4 12.4 13.1 32.9 63.0 25.2 107.9 87.3 89.5 81.7 63.1 26.6 30.6 25.6 35.2 13.1 16.1 18.5 11.3 11.3 9.6																								Diurnal Maximum		
C - Calibration N - Not Valid																										
Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m ³																										

Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - September 2014



Hourly Maximums

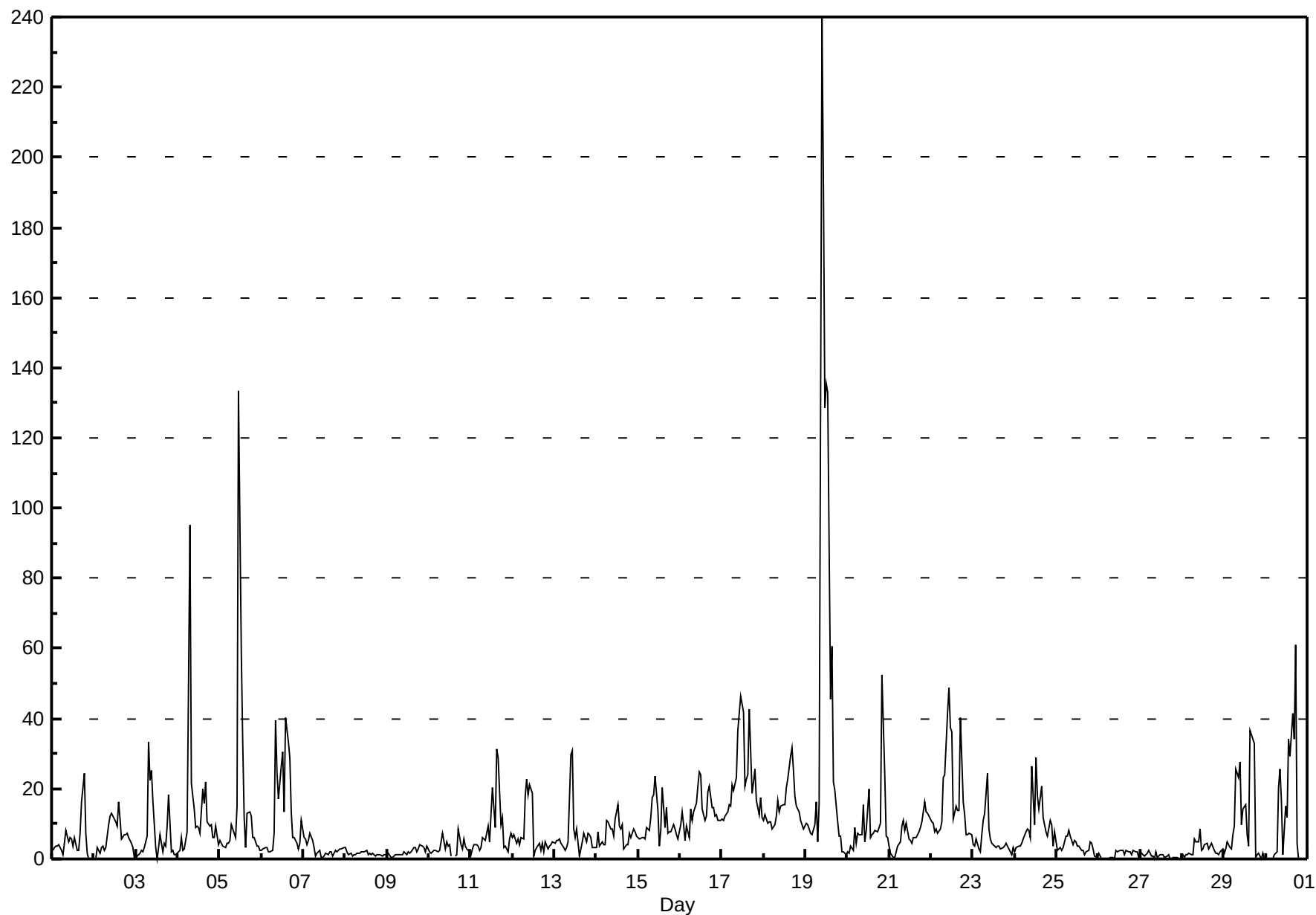
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Evergreen Park - September 2014

Maximum Value: 239.7 μg/m ³ on Sep 19 10:00																								Maximum Daily Average: 45.6 μg/m ³ on Sep 19						Hours in Service: 720	
Minimum Value: 0 μg/m ³ on Sep 1 22:00																								Minimum Daily Average: 0.9 μg/m ³ on Sep 27						Hours of Data: 719	
Maximum Diurnal Average: 20.6 μg/m ³ at hour 10																								Minimum Diurnal Average: 3.8 μg/m ³ at hour 4						Hours of Missing Data: 1	
Monthly Average: 9.74 μg/m ³																								Percentiles: P ₁ = 0.0 P ₁₀ = 1.1 Q ₁ = 2.3 Median = 5.3 Q ₃ = 10.8 P ₉₀ = 21.2 P ₉₉ = 72.4						Hours of Calibration: 1	
																														Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Sep	3	3	4	4	4	2	1	4	8	5	6	6	4	6	2	3	7	16	24	7	2	0	0	0	5.1	24.3					
2-Sep	0	0	3	2	3	4	3	3	10	12	13	12	10	9	16	11	6	7	7	7	6	4	3	0	6.4	16.3					
3-Sep	0	1	2	2	2	3	7	33	22	25	17	3	0	3	7	2	4	4	9	18	2	2	1	1	7.2	33.3					
4-Sep	2	3	6	2	3	8	50	95	21	14	9	9	9	7	20	16	22	11	9	10	6	6	9	4	14.7	95.3					
5-Sep	5	5	4	3	4	5	5	10	7	6	15	134	59	33	12	3	13	13	12	6	6	4	4	3	15.4	133.6					
6-Sep	3	3	3	3	2	2	2	7	39	25	17	26	31	14	40	34	29	14	6	6	5	3	4	11	13.7	40.1					
7-Sep	6	6	4	5	7	5	3	1	2	2	0	0	1	2	1	2	2	1	2	2	3	3	3	3	2.8	7.5					
8-Sep	3	2	1	2	1	1	1	2	2	2	2	2	2	1	2	1	2	1	1	1	1	1	1	1	1.5	3.3					
9-Sep	1	2	1	1	1	1	1	1	1	1	2	1	2	2	2	3	3	2	3	4	4	3	2	4	2.0	4.2					
10-Sep	2	2	2	2	2	2	2	5	7	3	5	4	4	1	C	1	1	9	4	3	6	4	3	2	3.3	8.7					
11-Sep	1	3	4	4	4	2	3	6	5	7	9	5	20	15	9	31	29	10	12	3	4	2	6	7	8.4	31.4					
12-Sep	6	7	4	6	4	6	6	18	23	18	21	19	1	2	3	5	2	5	2	5	3	4	4	5	7.4	22.8					
13-Sep	4	5	5	6	4	3	3	3	5	30	31	9	6	8	1	3	5	7	5	7	7	6	3	3	7.1	30.9					
14-Sep	3	8	4	5	4	4	11	11	9	9	7	11	15	9	8	10	3	4	4	7	6	9	8	7	7.3	15.3					
15-Sep	6	6	6	6	6	9	8	12	17	18	24	14	4	8	20	9	15	7	8	8	10	9	7	6	10.1	23.6					
16-Sep	10	13	10	5	9	6	14	11	13	16	21	25	24	14	11	12	19	21	15	15	12	13	11	11	13.8	24.8					
17-Sep	11	11	12	14	15	15	21	20	23	37	41	47	42	21	23	24	43	19	22	26	17	13	17	12	22.7	46.5					
18-Sep	11	13	10	10	11	9	10	12	17	13	15	16	15	20	23	29	32	25	18	15	14	11	10	8	15.3	31.6					
19-Sep	10	10	9	7	7	10	16	5	16	240	192	129	135	133	46	61	22	20	10	7	7	2	2	1	45.6	239.7					
20-Sep	2	2	3	2	9	4	7	7	7	16	5	8	20	6	7	7	8	8	9	10	53	24	7	6	9.9	52.6					
21-Sep	4	2	0	0	2	4	5	9	11	8	10	6	5	4	6	6	7	8	9	11	16	14	13	12	7.2	16.3					
22-Sep	11	10	8	8	7	9	11	23	24	42	49	37	36	11	15	14	14	40	16	13	7	7	7	7	17.7	48.7					
23-Sep	4	4	6	3	2	7	11	13	25	9	6	4	4	3	4	3	3	3	4	4	4	2	1	3	5.4	24.6					
24-Sep	2	3	4	4	4	6	8	8	8	6	26	10	29	18	14	21	12	10	8	6	11	10	4	8	9.9	28.7					
25-Sep	3	3	3	2	3	7	7	8	7	4	5	5	4	4	2	2	1	2	3	5	4	3	1	0	3.6	8.2					
26-Sep	2	1	0	0	0	0	0	0	0	0	3	2	2	2	2	1	3	2	2	1	2	2	2	0	1.3	2.6					
27-Sep	2	2	1	1	2	2	1	1	0	2	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0.9	2.3					
28-Sep	1	0	1	1	2	1	1	6	5	5	8	2	3	4	4	3	3	4	3	2	2	1	2	3	2.8	8.5					
29-Sep	2	3	5	3	3	7	9	26	23	28	10	14	16	7	4	37	36	33	0	1	2	0	2	0	11.2	36.8					
30-Sep	0	0	0	0	0	1	2	20	26	17	1	15	12	34	29	42	34	61	4	0	0	0	0	0	12.4	60.9					
4.0 4.3 4.2 3.8 4.3 4.8 7.7 12.7 12.8 20.6 19.0 19.2 17.2 13.4 11.5 13.2 12.7 12.2 7.7 7.1 7.3 5.4 4.5 4.3																								Diurnal Average							
11.4 13.3 12.4 13.6 15.3 15.0 49.7 95.3 39.5 239.7 192.2 133.6 135.3 132.9 45.5 60.7 42.9 60.9 24.3 25.5 52.6 24.0 17.5 12.1																								Diurnal Maximum							
C - Calibration																															

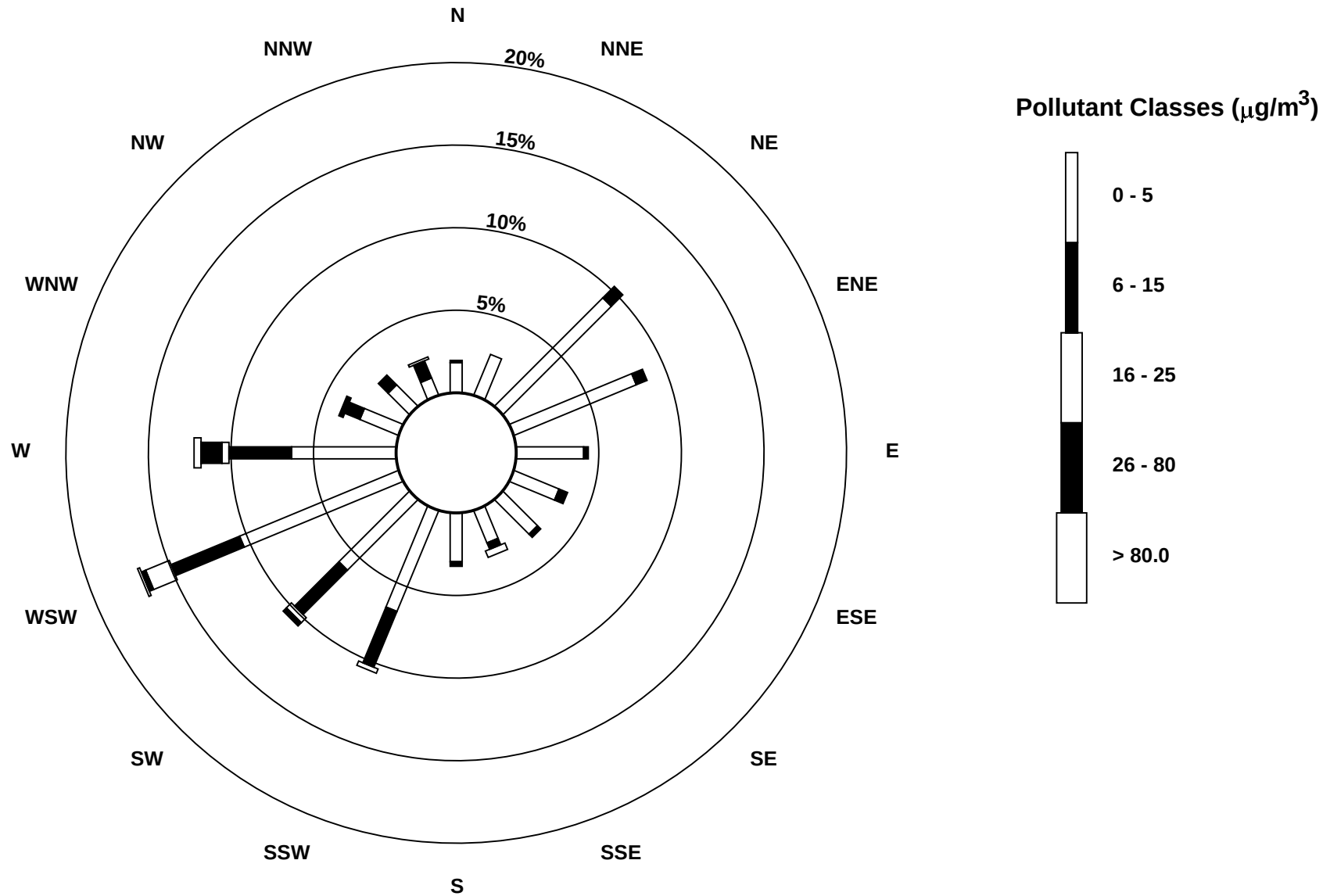
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - September 2014



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - September 2014



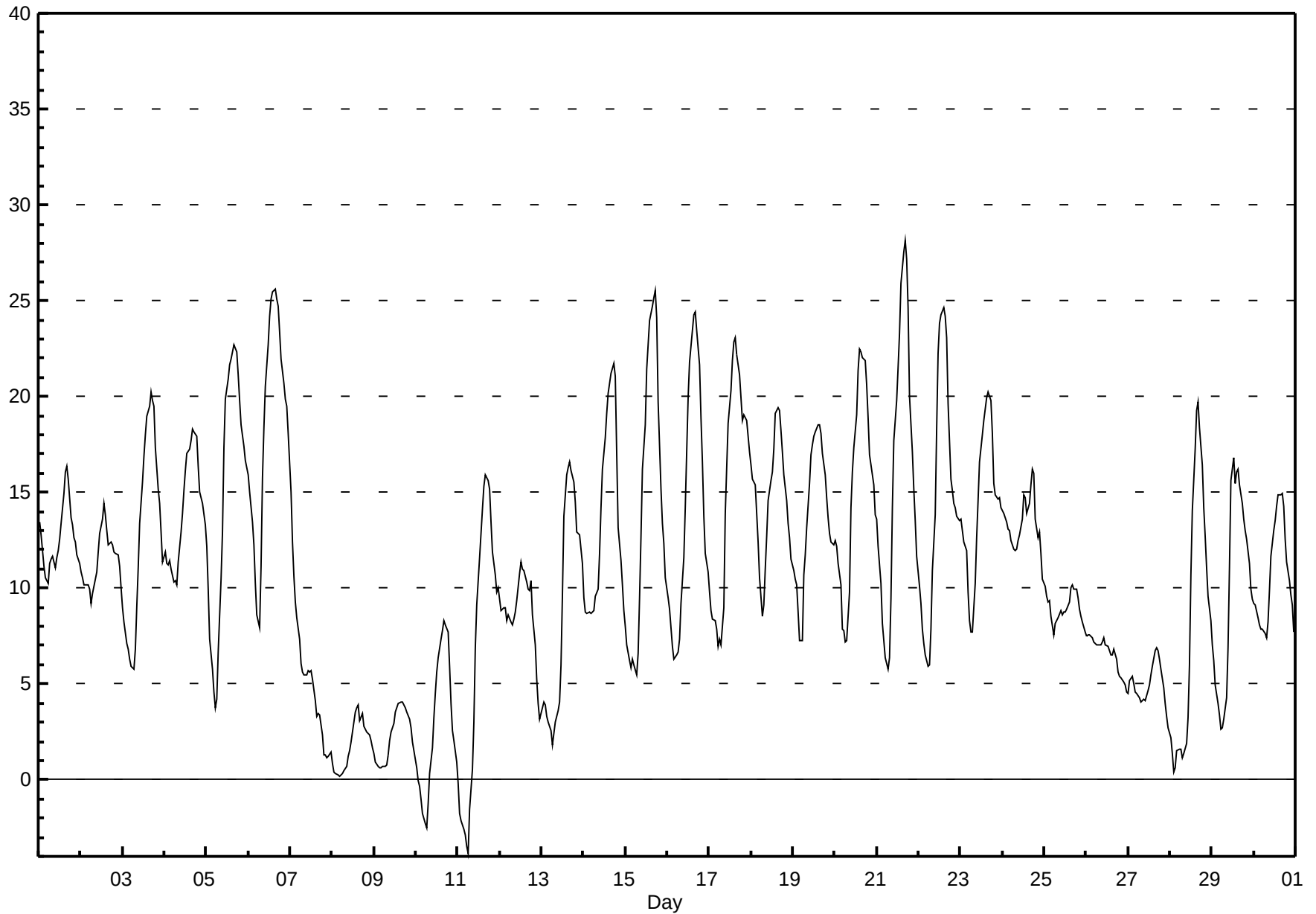
Hourly Averages

External Temperature (ET) - °C
Evergreen Park - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.1 °C on Sep 21 17:00 Maximum Daily Average: 18.6 °C on Sep 6																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -4 °C on Sep 11 07:00 Minimum Daily Average: 1.8 °C on Sep 8 Maximum Diurnal Average: 16.3 °C at hour 17 Minimum Diurnal Average: 5.9 °C at hour 7 Monthly Average: 10.99 °C Percentiles: P ₁ = -1.7 P ₁₀ = 2.7 Q ₁ = 6.6 Median = 10.6 Q ₃ = 15.3 P ₉₀ = 19.8 P ₉₉ = 25.4																										
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	13	13	12	11	11	10	11	11	12	11	12	12	13	13	15	16	16	16	14	13	13	12	12	11	12.6	16.4
2-Sep	11	11	10	10	10	10	9	10	10	11	12	13	14	14	14	13	12	12	12	12	12	11	10	11.5	14.4	
3-Sep	9	8	7	7	6	6	6	7	9	11	13	16	17	18	19	19	20	20	20	17	15	14	13	11	12.9	20.3
4-Sep	12	11	11	11	11	10	10	10	11	13	14	15	16	17	17	18	18	18	18	16	15	15	14	13	14.0	18.3
5-Sep	12	10	7	6	5	4	4	7	10	13	17	20	21	22	22	22	23	22	21	20	19	17	17	16	14.9	22.7
6-Sep	16	15	13	12	10	9	8	11	16	18	21	23	24	25	25	26	25	25	23	22	21	20	19	18	18.6	25.6
7-Sep	15	12	11	9	8	7	6	6	5	5	6	6	6	5	4	3	3	3	2	1	1	1	1	1	5.5	15.0
8-Sep	1	0	0	0	0	0	0	0	1	1	2	2	3	4	4	4	3	3	3	3	2	2	2	2	1.8	3.9
9-Sep	1	1	1	1	1	1	1	1	1	2	2	3	3	4	4	4	4	4	4	4	3	3	2	2	2.3	4.1
10-Sep	1	0	0	-1	-2	-2	-3	-1	0	2	3	5	6	6	7	8	8	8	8	6	4	3	2	1	2.8	8.3
11-Sep	0	-2	-2	-3	-3	-3	-4	-2	1	3	7	9	12	13	14	15	16	16	15	13	12	11	10	10	6.6	15.9
12-Sep	9	9	9	9	8	9	8	8	8	9	9	11	11	11	11	10	10	10	10	9	7	5	4	3	8.7	11.4
13-Sep	4	4	4	3	3	3	2	2	3	4	4	6	10	14	16	16	17	16	16	14	13	13	13	11	8.7	16.6
14-Sep	9	9	9	9	9	9	9	10	10	12	14	16	18	19	20	21	21	22	21	17	13	11	10	9	13.6	21.7
15-Sep	8	7	6	6	6	6	5	7	10	13	16	19	21	23	24	25	25	26	24	20	15	13	12	11	14.5	25.5
16-Sep	10	9	8	7	6	7	7	7	9	12	14	17	20	22	23	24	24	23	22	19	17	14	12	11	14.3	24.4
17-Sep	10	9	8	8	8	7	7	7	9	14	16	19	20	22	23	23	22	21	20	19	19	19	18	17	15.2	23.1
18-Sep	16	16	15	14	12	11	9	9	11	13	15	16	16	17	19	19	19	18	17	16	15	13	13	12	14.6	19.4
19-Sep	11	10	10	9	7	7	11	12	13	15	17	18	18	18	19	19	18	17	16	15	14	13	12	12	13.8	18.6
20-Sep	12	12	11	10	8	8	7	7	10	14	16	17	19	21	22	22	22	22	21	19	17	16	15	14	15.2	22.5
21-Sep	14	12	10	8	7	6	6	6	9	14	18	20	22	23	26	28	28	27	25	20	17	15	14	12	16.1	28.1
22-Sep	10	9	8	7	7	6	6	8	11	14	18	22	24	24	25	24	23	20	16	15	14	14	14	14	14.7	24.6
23-Sep	14	13	12	12	10	8	8	8	10	13	15	17	18	19	19	20	20	20	18	15	15	15	15	14	14.4	20.3
24-Sep	14	14	13	13	13	12	12	12	12	12	13	14	15	15	14	14	15	16	16	14	13	13	12	10	13.4	16.2
25-Sep	10	10	9	9	8	8	8	8	8	9	9	9	9	9	9	10	10	10	10	9	9	9	8	8	9.0	10.2
26-Sep	7	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	5	5	5	5	5	6.6	7.6
27-Sep	5	5	5	5	5	4	4	4	4	4	4	5	5	5	6	7	7	7	6	6	5	4	3	3	4.9	6.9
28-Sep	2	1	0	1	1	2	2	1	1	2	3	6	11	14	17	19	20	18	16	14	13	11	10	8	8.1	19.7
29-Sep	7	6	5	4	3	3	3	3	4	7	11	16	17	15	16	16	15	14	14	13	13	11	10	9	9.8	16.8
30-Sep	9	9	8	8	8	8	8	7	8	10	12	13	14	14	15	15	15	14	13	11	10	10	9	8	10.7	14.9
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C
Evergreen Park - September 2014



Hourly Averages

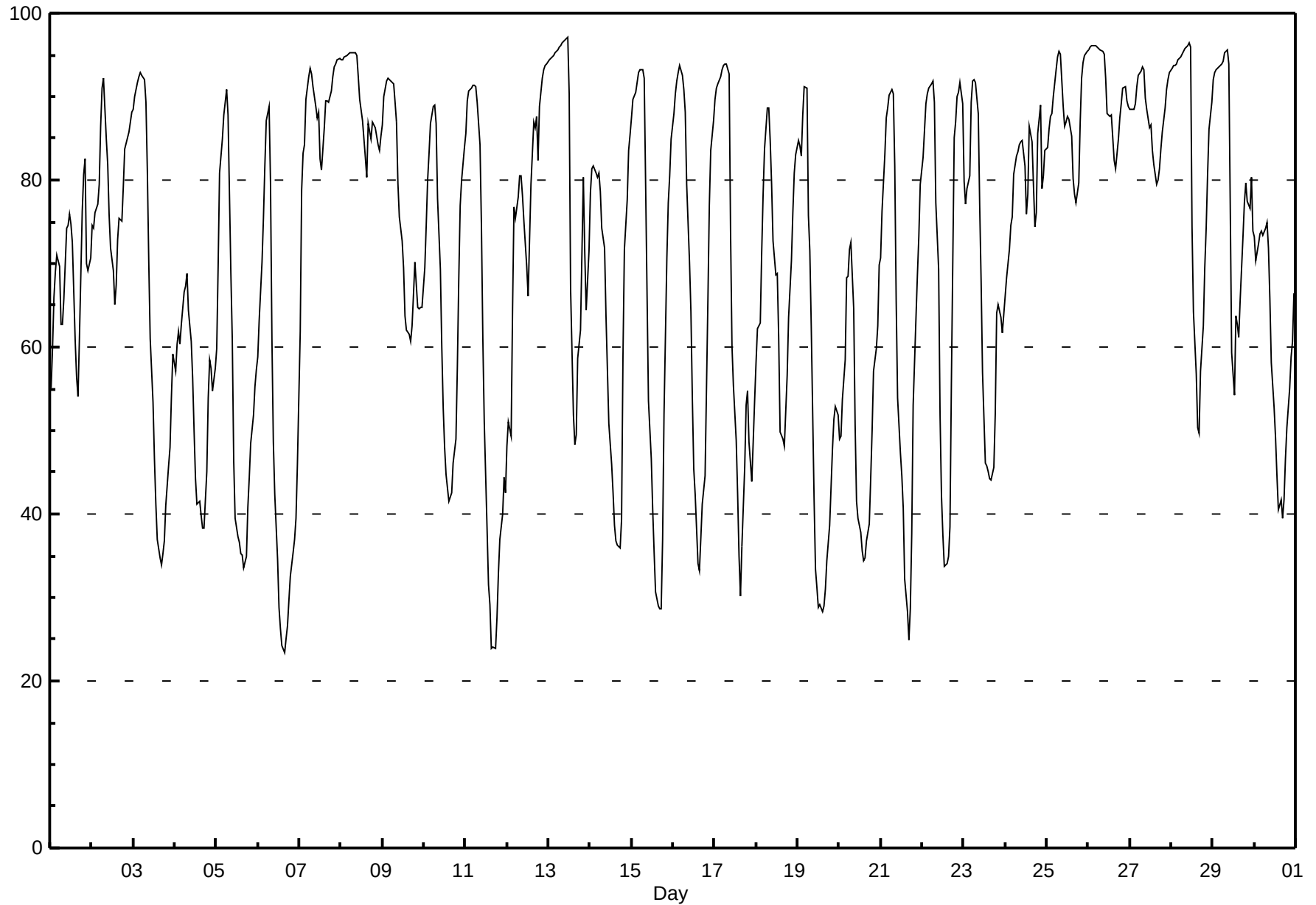
Relative Humidity (RH) - %

Evergreen Park - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 97.1 % on Sep 13 12:00 Maximum Daily Average: 91.0 % on Sep 26																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 23 % on Sep 6 16:00 Maximum Diurnal Average: 87.5 % at hour 6 Monthly Average: 70.44 %												Minimum Daily Average: 48.6 % on Sep 6 Minimum Diurnal Average: 50.8 % at hour 16 Percentiles: P ₁ = 26.2 P ₁₀ = 38.6 Q ₁ = 54.1 Median = 75.4 Q ₃ = 88.5 P ₉₀ = 93.2 P ₉₉ = 96.1														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Sep	55	60	66	69	71	70	63	63	66	74	75	76	75	73	61	56	54	61	76	81	82	70	69	71	68.1	82.5
2-Sep	75	74	76	77	80	86	91	92	85	82	76	72	69	65	67	73	75	75	79	84	84	86	87	88	79.1	92.1
3-Sep	89	90	92	92	93	93	92	89	81	70	61	53	47	41	37	35	34	35	37	41	46	48	54	59	62.8	92.8
4-Sep	57	60	62	60	63	67	67	69	64	61	56	50	44	41	42	40	38	38	45	54	58	57	55	58	54.5	68.9
5-Sep	60	70	81	85	88	89	91	88	69	61	46	40	37	37	35	35	34	35	41	44	48	52	55	57	57.4	90.8
6-Sep	59	63	70	75	82	87	89	80	61	49	42	35	29	26	24	23	25	27	30	32	35	37	39	46	48.6	88.8
7-Sep	62	79	83	84	90	92	93	93	91	89	88	88	83	81	86	89	90	89	91	92	94	94	94	95	87.9	94.6
8-Sep	94	94	95	95	95	95	95	95	95	95	92	90	87	85	83	80	87	85	87	87	86	84	83	85	89.6	95.2
9-Sep	87	90	92	92	92	92	91	89	87	80	76	73	69	64	62	62	61	62	66	70	65	65	65	65	75.6	92.2
10-Sep	69	75	80	83	87	89	89	87	78	69	60	53	48	45	41	42	43	46	49	58	68	77	80	84	66.6	89.0
11-Sep	86	89	91	91	91	91	91	89	84	75	61	51	38	31	29	24	24	24	28	33	37	40	44	43	57.7	91.4
12-Sep	48	51	49	65	77	75	78	80	80	78	75	70	66	73	79	87	86	88	82	89	92	93	94	94	77.1	94.0
13-Sep	94	95	95	95	95	96	96	96	96	97	97	97	90	67	52	48	50	59	62	71	80	71	64	72	80.6	97.1
14-Sep	78	81	82	81	80	81	79	74	72	64	57	51	46	42	39	37	36	36	39	59	72	78	84	85	63.9	85.4
15-Sep	88	90	90	92	93	93	93	92	80	66	54	47	41	35	31	29	29	29	37	52	71	77	81	85	65.5	93.3
16-Sep	88	90	92	93	94	93	91	88	80	70	64	54	45	42	34	33	37	41	45	55	66	77	84	87	68.4	93.7
17-Sep	90	91	92	92	93	94	94	94	93	74	60	55	49	42	35	30	36	46	53	55	49	44	49	54	65.1	94.0
18-Sep	58	62	63	71	78	84	89	89	85	79	73	69	69	61	50	49	48	52	57	64	70	76	81	83	69.1	88.7
19-Sep	85	84	83	88	91	91	76	72	62	42	33	31	29	29	28	29	31	34	39	43	48	51	53	52	54.3	91.2
20-Sep	49	49	54	58	68	69	72	72	65	51	42	39	38	36	34	35	37	39	44	50	57	60	63	70	52.1	72.5
21-Sep	71	76	83	87	89	90	91	90	82	66	54	47	45	41	32	28	25	29	38	53	64	69	73	80	62.6	90.9
22-Sep	83	86	89	90	91	92	92	89	77	69	52	42	38	34	34	35	38	56	85	87	90	91	92	89	71.7	91.8
23-Sep	80	77	79	81	89	92	92	92	88	77	68	57	46	46	45	44	44	46	52	64	65	64	62	64	67.2	92.0
24-Sep	66	68	72	75	76	81	83	83	84	85	85	82	76	78	86	85	79	74	76	86	89	79	81	84	79.6	89.0
25-Sep	84	86	88	88	90	93	95	95	95	89	86	87	88	87	85	80	78	77	80	87	92	94	95	95	88.1	95.4
26-Sep	96	96	96	96	96	96	96	96	95	95	92	88	88	88	85	82	81	85	88	89	91	91	89	89	91.0	96.1
27-Sep	88	89	88	89	91	92	93	94	93	90	88	86	87	84	82	79	80	81	84	86	89	91	92	93	87.9	93.5
28-Sep	93	94	94	94	94	95	95	95	96	96	96	96	74	64	57	50	50	57	63	70	74	81	86	89	81.4	96.4
29-Sep	92	93	93	94	94	94	94	95	96	94	77	59	54	64	63	61	66	73	77	80	77	77	80	74	80.0	95.6
30-Sep	73	70	72	74	74	73	74	75	72	66	58	53	49	45	41	42	39	42	47	50	55	59	61	66	59.6	75.0
76.5 79.1 81.4 83.6 86.2 87.5 87.5 86.5 81.7 75.0 68.2 63.0 58.1 54.9 52.0 50.8 51.2 54.0 59.1 65.5 69.8 71.0 72.9 75.1																								Diurnal Average		
95.7 95.9 96.1 96.1 96.1 96.0 95.9 96.2 96.5 96.8 97.0 97.1 90.4 87.7 86.5 89.5 89.5 89.4 90.7 92.4 93.5 94.0 94.9 95.4																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - September 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	19	11	5	7	5	9	19	13	12	10	8	6	9	12	15	22	13	3	4	1	5	11	12	10	9.2	22.3
Dir	252	241	196	217	219	226	237	242	252	213	208	188	204	236	258	248	283	356	319	238	214	234	234	245	239.1	248.4
2 Spd	5	8	5	6	6	1	1	2	8	10	11	11	14	12	13	13	13	9	8	5	5	4	8	8	6.2	14.0
Dir	268	262	318	268	272	264	107	204	246	241	268	289	332	339	353	1	340	328	297	292	306	295	302	310	305.1	331.8
3 Spd	9	6	8	7	8	6	5	8	10	15	12	12	13	12	13	10	10	13	15	17	24	19	11	10	10.5	24.0
Dir	308	285	266	257	264	260	256	251	271	255	275	221	210	206	217	242	247	248	263	267	266	257	232	220	251.1	266.1
4 Spd	13	8	5	14	12	9	13	12	21	19	17	15	13	12	12	12	6	10	4	6	1	6	7	9	9.1	21.2
Dir	246	262	275	255	261	272	267	278	326	328	313	303	308	300	318	290	288	243	220	210	206	245	252	240	282.9	326.4
5 Spd	6	1	0	0	0	0	3	1	3	8	22	37	33	30	29	27	21	21	27	25	17	17	16	18	13.7	37.0
Dir	255	55	160	96	192	224	198	224	169	205	251	262	283	288	290	302	296	274	259	254	242	235	239	242	266.3	262.5
6 Spd	21	9	3	2	1	0	0	0	3	14	14	21	29	30	37	38	35	32	22	19	15	17	15	3	15.2	37.7
Dir	253	271	314	307	81	180	81	29	267	263	250	250	251	258	255	253	255	254	255	250	233	224	229	358	252.4	253.2
7 Spd	6	10	14	9	6	8	12	10	11	10	9	13	12	11	13	11	10	11	14	10	7	7	9	10	10.0	13.9
Dir	55	59	47	53	42	57	40	56	48	35	40	31	37	29	29	37	37	35	36	37	38	29	43	46	40.7	46.5
8 Spd	13	9	9	10	11	10	7	8	8	9	10	9	8	7	6	6	5	5	3	4	4	6	7	9	7.2	12.6
Dir	48	45	40	44	44	49	53	53	57	61	75	77	68	91	115	94	95	83	100	73	74	68	66	73	64.2	48.1
9 Spd	9	8	8	8	6	4	6	7	5	7	8	8	9	11	10	10	10	8	3	2	7	5	6	7	7.0	10.8
Dir	69	65	64	63	69	63	53	52	64	69	52	72	61	42	47	51	47	46	74	26	31	46	48	43	55.0	41.9
10 Spd	8	3	1	2	0	2	1	3	8	5	4	6	5	9	10	17	13	14	8	4	3	5	3	3	4.5	17.4
Dir	43	38	19	212	171	208	188	201	200	206	198	140	155	161	183	207	173	177	177	159	124	139	160	150	174.5	207.0
11 Spd	1	1	1	0	1	1	1	1	3	8	3	6	16	23	21	24	21	20	14	9	11	7	3	6	7.9	24.0
Dir	68	88	87	184	220	194	186	204	206	216	204	250	259	252	245	271	252	268	250	231	249	255	237	280	251.5	270.7
12 Spd	3	6	10	21	22	20	17	13	15	15	17	15	15	13	11	10	11	6	2	1	0	1	1	0	8.7	21.8
Dir	225	232	265	260	254	263	268	269	275	269	267	280	312	314	278	260	359	35	47	217	211	202	217	71	274.4	253.6
13 Spd	0	1	1	1	1	3	3	1	3	4	6	3	6	9	13	8	2	1	3	1	3	5	5	2	2.6	12.6
Dir	236	142	204	151	130	108	113	107	130	157	150	130	143	185	213	217	186	111	155	213	205	211	255	283	181.6	213.4
14 Spd	1	1	1	2	5	1	4	7	8	12	9	9	11	13	11	9	7	4	2	1	1	1	0	1	4.6	13.1
Dir	274	234	244	304	221	238	286	267	247	249	251	248	253	245	250	249	219	202	166	200	68	218	241	38	245.9	244.8
15 Spd	1	0	0	3	4	5	1	4	10	11	14	13	4	14	15	11	9	5	1	1	0	1	1	1	5.0	14.9
Dir	219	197	57	216	203	207	212	209	245	247	255	247	225	252	249	247	259	233	174	161	218	215	220	54	241.8	248.8
16 Spd	2	2	1	3	4	6	5	6	8	10	6	6	6	7	5	6	6	7	3	1	1	2	2	0	3.2	9.7
Dir	223	214	212	203	209	205	208	211	231	241	244	239	238	220	205	200	166	128	115	110	102	53	50	44	208.8	240.8
17 Spd	0	1	1	2	1	3	4	0	1	1	1	5	6	7	12	16	9	2	2	10	10	13	7	10	4.7	16.1
Dir	322	74	237	214	224	205	205	163	158	253	297	259	236	232	233	248	236	206	193	222	239	230	228	223	232.0	248.3
18 Spd	8	4	5	4	2	0	1	0	2	1	2	7	7	11	15	15	14	20	21	12	8	9	4	5	6.8	21.4
Dir	232	212	226	201	203	136	63	81	201	89	201	225	217	242	249	245	265	256	265	247	224	214	206	203	239.5	265.1
19 Spd	2	5	4	1	2	4	14	14	27	48	53	60	65	62	55	53	50	48	45	44	39	37	34	29	32.4	64.7
Dir	230	206	201	49	211	209	232	218	241	258	261	263	261	264	264	266	264	261	260	259	254	253	254	261	258.0	260.7
20 Spd	25	23	11	3	2	2	1	1	2	9	16	19	29	34	32	33	26	19	11	9	3	7	5	1	12.9	34.4
Dir	263	259	241	269	281	264	26	134	63	245	252	249	247	253	259	249	252	257	253	246	214	212	198	169	251.3	252.5
21 Spd	7	3	0	1	2	1	1	0	2	1	5	7	6	5	4	3	5	7	2	1	1	3	0	1	1.5	7.1
Dir	196	210	224	44	44	41	44	48	44	110	137	145	156	152	159	123	68	47	63	336	206	229	36	72	129.5	46.8
22 Spd	2	0	1	1	0	0	1	1	1	1	2	4	2	11	10	14	9	7	7	6	8	3	8	6	1.8	14.2
Dir	214	109	51	337	78	40	346	306	334	228	241	272	283	344	3	320	326	241	170	187	185	203	222	215	274.9	320.3

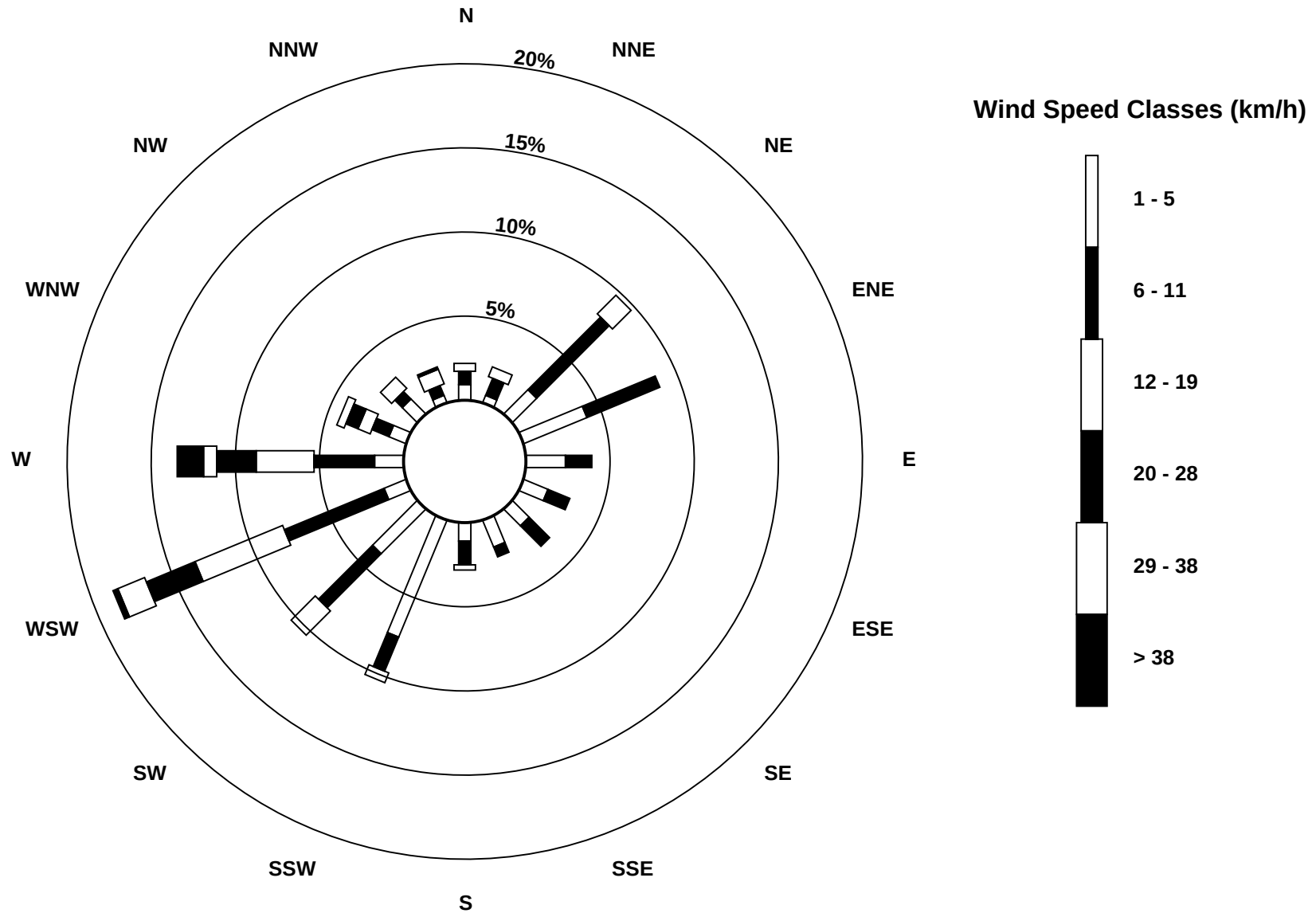
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - September 2014

Day		Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd		5	4	4	1	1	4	1	1	4	6	7	7	11	9	11	9	9	5	5	3	4	8	8	9	2.2	10.9
	Dir	242	242	229	281	27	212	213	35	228	276	236	204	220	172	171	135	123	101	85	64	64	64	74	69	161.2	220.1
24 Spd		6	5	4	3	2	2	1	0	1	2	7	8	6	8	6	5	8	10	3	3	6	11	0	3	1.9	11.1
	Dir	73	78	73	71	99	285	35	163	82	92	293	319	268	262	275	276	209	221	224	178	208	224	215	191	240.7	224.4
25 Spd		1	0	1	2	3	4	2	3	9	9	7	7	9	8	8	8	8	9	2	0	3	7	9	9	5.0	9.1
	Dir	99	118	85	34	71	69	91	62	51	62	63	59	50	68	76	98	73	74	141	202	76	57	50	48	65.9	47.6
26 Spd		12	12	12	11	14	12	11	9	9	10	15	14	11	13	17	15	11	10	8	3	2	4	5	6	9.4	17.1
	Dir	45	42	39	43	41	41	29	34	25	19	22	24	0	354	344	339	344	352	355	7	349	16	355	322	15.1	344.3
27 Spd		3	1	1	2	3	1	3	6	5	5	8	8	11	10	11	9	8	8	7	6	4	5	4	2	4.7	11.0
	Dir	315	352	342	130	188	140	107	128	113	113	137	123	114	120	106	98	84	85	87	86	77	78	70	77	103.6	105.6
28 Spd		1	1	0	0	0	2	1	2	3	4	3	7	7	8	9	9	9	8	7	6	5	4	5	2	3.8	9.5
	Dir	104	65	249	232	13	88	89	153	192	173	149	133	142	134	123	129	116	108	101	87	92	76	78	38	117.1	128.6
29 Spd		2	1	0	0	0	2	3	7	7	8	6	11	17	13	8	17	18	17	11	17	20	15	15	21	9.2	21.1
	Dir	51	340	281	46	197	215	217	262	238	252	227	247	275	300	287	271	265	253	243	251	262	253	253	256	259.2	256.2
30 Spd		22	20	13	11	17	20	17	18	16	23	27	26	21	25	24	19	21	35	29	24	21	22	19	17	20.3	35.0
	Dir	256	254	256	264	260	255	265	264	267	271	285	290	302	273	281	279	277	261	259	263	244	244	244	223	265.1	261.3
Spd		3.0	1.9	1.0	1.4	1.5	1.5	1.8	2.0	3.2	5.3	6.2	7.1	7.7	8.7	8.8	9.5	6.9	6.6	5.5	5.6	4.9	5.1	3.8	3.1	Diurnal Average	
Dir		264.9	267.1	294.5	270.2	260.5	248.7	261.1	253.5	263.4	259.1	263.0	261.5	264.9	264.0	264.1	264.0	267.7	259.2	255.1	250.2	245.8	239.0	245.0	251.4	Diurnal Maximum	
Spd		25.2	22.6	13.9	21.1	21.8	20.5	18.8	17.7	27.4	48.0	53.4	60.3	64.7	61.7	54.9	53.3	49.7	48.2	44.7	44.0	39.1	36.9	34.0	28.8	Diurnal Maximum	
Dir		263.1	259.3	46.5	259.9	253.6	263.0	236.7	264.3	241.3	258.5	261.4	262.8	260.7	264.0	264.1	265.9	263.9	261.0	260.5	258.8	253.6	253.1	253.6	260.7		
Maximum Speed Value: 65 km/h on Sep 19 13:00																								Hours in Service: 720			
Maximum Daily Speed Average: 32.4 km/h on Sep 19																								Hours of Data: 720			
Maximum Diurnal Speed Average: 9.5 km/h at hour 16																								Hours of Missing Data: 0			
Minimum Speed Value: 0 km/h on Sep 6 06:00																											
Minimum Daily Speed Average: 1.5 km/h on Sep 21																											
Minimum Diurnal Speed Average: 1.0 km/h at hour 3																											
Monthly Average Velocity: 4.62 km/h 259.44 deg																								Percent Operational Time: 100.0			
Speed Percentiles: P ₁ = 0.2 P ₁₀ = 0.9 Q ₁ = 2.7 Median = 7.2 Q ₃ = 11.7 P ₉₀ = 19.6 P ₉₉ = 47.1																											
All monthly, daily, and diurnal averages have been calculated using vector methods																											
Frequency Distribution																											
Speed Range (km/h)																											
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	12	7	9	0	0	0	28																				
NorthEast	37	57	17	0	0	0	111																				
East	47	33	1	0	0	0	81																				
SouthEast	21	25	0	0	0	0	46																				
South	41	14	2	0	0	0	57																				
SouthWest	80	67	31	5	1	0	184																				
West	18	42	49	36	18	12	175																				
NorthWest	12	11	11	4	0	0	38																				
Total	268	256	120	45	19	12	720																				

Wind Rose

Wind Speed (WS) (km/h)
Evergreen Park - September 2014



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - September 2014

Maximum Speed: 66 km/h on Sep 19 13:00																				Maximum Daily Speed Average: 33.6 km/h on Sep 19										Hours in Service: 720																				
Minimum Speed: 0 km/h on Sep 5 04:00																				Minimum Daily Speed Average: 3.8 km/h on Sep 21										Hours of Data: 720																				
Maximum Diurnal Speed Average: 16.5 km/h at hour 16																				Minimum Diurnal Speed Average: 4.8 km/h at hour 3										Hours of Missing Data: 0																				
Monthly Average Speed: 9.69 km/h																				Percentiles: P ₁ = 0.4 P ₁₀ = 1.5 Q ₁ = 3.3 Median = 7.8 Q ₃ = 12.5 P ₉₀ = 20.0 P ₉₉ = 47.9										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	19	12	5	7	6	10	19	13	12	10	9	6	9	13	16	23	17	4	5	3	5	11	12	10	10.7	23.0																								
2-Sep	6	8	5	7	7	2	1	2	9	10	12	13	15	14	15	14	13	9	9	5	6	4	8	8	8.4	15.3																								
3-Sep	9	7	8	7	9	6	5	8	11	15	13	13	14	14	15	13	12	14	16	18	24	19	11	11	12.2	24.3																								
4-Sep	14	8	6	14	13	9	13	12	22	19	18	16	15	14	14	14	8	10	4	6	1	6	8	9	11.5	22.2																								
5-Sep	7	1	0	0	0	0	3	1	3	8	23	38	35	31	31	29	23	22	28	25	17	17	16	18	15.8	38.4																								
6-Sep	21	10	4	2	2	1	1	0	4	14	15	22	29	31	38	39	35	32	22	19	15	17	15	6	16.5	38.5																								
7-Sep	8	10	14	11	8	10	13	10	12	11	9	13	13	12	14	12	11	12	14	10	8	7	9	11	10.8	14.4																								
8-Sep	13	10	10	10	11	10	8	8	9	10	11	10	9	8	7	7	6	6	4	4	5	6	7	9	8.2	13.0																								
9-Sep	9	9	8	8	7	5	6	7	6	8	9	9	9	12	11	11	10	8	3	2	8	5	7	7	7.6	11.6																								
10-Sep	8	3	1	2	1	2	1	3	8	8	6	8	9	12	13	19	14	15	9	4	3	5	3	3	6.7	18.9																								
11-Sep	2	1	1	1	1	2	1	1	3	8	5	6	17	24	21	25	22	20	14	9	11	7	3	6	8.9	25.1																								
12-Sep	3	6	10	21	22	21	17	13	16	15	17	16	16	14	13	11	12	6	2	1	0	2	1	1	10.7	22.0																								
13-Sep	1	1	1	1	1	3	4	1	4	5	7	5	7	11	13	9	3	1	3	1	3	5	6	2	4.2	13.4																								
14-Sep	2	1	2	3	5	2	6	7	8	12	9	10	12	15	13	11	9	6	3	1	2	1	1	1	5.9	14.5																								
15-Sep	1	1	0	3	4	6	2	4	10	11	15	13	6	15	16	12	10	5	1	1	0	1	1	2	5.8	15.8																								
16-Sep	2	2	1	3	4	6	5	6	8	10	6	7	6	7	6	7	7	7	4	1	1	2	2	0	4.6	9.8																								
17-Sep	2	2	2	2	2	3	4	0	1	2	3	6	7	8	12	16	10	3	2	10	10	13	8	10	5.6	16.4																								
18-Sep	8	8	7	4	2	1	1	1	2	2	3	7	8	12	16	15	15	20	22	12	8	9	4	5	8.0	21.8																								
19-Sep	2	5	4	2	2	4	14	15	28	48	54	61	66	63	55	54	51	49	45	44	39	37	34	29	33.6	65.6																								
20-Sep	25	23	11	5	4	3	2	2	2	10	17	20	29	35	33	33	26	19	11	9	3	8	5	2	14.0	34.9																								
21-Sep	7	3	1	1	2	1	1	0	2	3	6	8	7	7	7	5	6	7	3	3	2	4	1	2	3.8	7.8																								
22-Sep	3	1	2	1	1	3	2	2	2	1	3	5	5	12	12	15	10	11	8	7	8	4	8	6	5.5	15.3																								
23-Sep	5	5	6	2	2	4	2	1	4	7	8	9	12	11	13	10	10	5	5	3	4	8	8	9	6.3	12.7																								
24-Sep	7	5	4	4	2	3	2	1	1	2	7	9	7	9	8	7	9	10	3	4	7	11	3	4	5.4	11.2																								
25-Sep	2	3	3	3	3	4	2	3	9	10	8	8	9	9	8	9	9	9	4	1	3	8	9	9	6.1	9.6																								
26-Sep	12	12	12	11	15	13	12	10	9	11	16	14	12	14	18	16	11	10	8	3	2	5	5	6	10.7	17.7																								
27-Sep	3	2	2	3	3	3	3	6	6	6	9	9	11	10	12	10	9	8	8	6	5	6	4	2	6.0	11.6																								
28-Sep	1	2	0	0	1	2	1	4	4	5	5	7	8	9	10	10	10	8	7	6	5	5	5	3	4.9	10.2																								
29-Sep	3	1	1	1	1	2	3	7	8	8	7	11	17	14	8	18	18	17	11	17	20	16	16	21	10.3	21.4																								
30-Sep	22	20	13	12	18	20	18	18	17	23	27	27	23	26	27	20	22	35	29	24	22	22	20	17	21.8	35.3																								
																									7.6	6.1	4.8	5.1	5.3	5.3	5.7	5.7	8.1	10.4	11.9	13.6	14.8	16.1	16.5	16.5	14.2	13.1	10.2	8.7	8.3	9.0	8.0	7.7	Diurnal Average	
																									25.5	22.7	14.4	21.5	22.0	20.7	19.2	17.9	28.3	48.4	54.3	61.0	65.6	62.8	55.5	54.4	50.5	48.7	45.0	44.3	39.4	37.1	34.2	29.0	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																		

Hourly Standard Deviations

Wind Direction (WD) - deg
Evergreen Park - September 2014

Maximum Value: 99.8 deg on Sep 6 06:00																			Hours in Service: 720						
Minimum Value: 3.8 deg on Oct 1 00:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 6.0 P ₁₀ = 10.5 Q ₁ = 15.3 Median = 24.9 Q ₃ = 48.5 P ₉₀ = 74.3 P ₉₉ = 92.7																			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	8	16	15	8	27	16	12	12	11	13	19	30	21	20	27	15	51	54	49	80	13	11	9	14	79.8
2-Sep	23	24	17	27	18	78	43	80	15	13	25	34	24	29	33	22	13	23	17	17	13	16	19	13	80.0
3-Sep	16	26	10	14	11	15	15	15	19	12	29	31	32	32	33	46	49	19	19	11	9	9	17	5	48.8
4-Sep	12	21	45	8	20	21	12	14	18	17	16	23	34	35	34	30	39	15	68	10	67	22	11	11	68.1
5-Sep	55	84	78	77	84	85	26	85	48	23	18	16	20	14	21	17	21	18	8	7	12	8	11	8	85.5
6-Sep	6	24	38	34	71	100	86	92	90	20	21	15	11	14	12	12	9	8	7	7	11	5	7	64	99.8
7-Sep	56	29	17	42	49	37	25	26	21	19	23	20	23	24	17	25	19	23	16	15	12	20	17	15	56.3
8-Sep	16	17	17	17	16	18	19	18	29	23	26	23	31	32	56	33	31	29	44	20	29	22	22	23	56.1
9-Sep	20	19	22	20	20	27	20	20	34	31	28	27	25	22	26	22	25	30	30	26	27	24	14	20	33.8
10-Sep	18	31	71	32	74	25	37	11	17	62	68	58	64	49	44	25	27	24	20	24	18	21	66	21	74.3
11-Sep	60	81	55	67	56	74	49	83	30	19	65	40	22	14	14	17	17	13	10	9	8	12	46	20	83.0
12-Sep	31	20	13	11	7	9	12	14	13	11	12	19	23	21	28	26	25	22	71	34	97	66	65	74	97.4
13-Sep	87	89	75	57	57	21	35	92	56	41	34	61	45	35	22	19	34	89	46	68	35	24	10	49	91.8
14-Sep	40	90	66	70	56	67	55	17	14	14	25	33	33	27	33	42	44	58	27	22	66	53	86	70	90.4
15-Sep	63	89	88	12	38	9	86	49	16	10	13	18	59	25	22	23	33	29	72	80	89	54	46	79	89.3
16-Sep	70	63	58	48	19	9	10	7	14	10	21	30	27	28	60	43	30	19	24	43	60	85	24	96	96.2
17-Sep	87	89	85	49	68	45	15	96	82	84	80	59	43	36	16	12	18	79	59	16	10	9	70	10	96.1
18-Sep	25	69	39	11	33	70	82	93	53	74	71	20	15	26	11	10	16	7	11	12	9	6	39	15	93.0
19-Sep	45	29	70	94	71	39	17	12	19	8	11	9	9	11	8	12	11	9	7	7	6	6	5	7	94.2
20-Sep	8	7	11	65	71	35	59	76	30	58	17	14	12	10	15	11	12	12	9	12	37	14	14	72	75.5
21-Sep	9	48	81	43	36	49	43	88	39	84	51	35	40	48	72	72	42	17	42	88	93	75	91	89	92.5
22-Sep	86	91	75	73	83	91	72	81	74	87	64	45	76	36	36	26	27	73	31	32	19	49	24	19	90.7
23-Sep	41	68	72	61	80	43	66	60	45	37	35	45	23	37	44	41	25	32	14	11	15	14	26	15	80.5
24-Sep	17	22	21	30	65	65	45	91	88	56	34	36	31	31	51	59	25	13	79	31	21	11	93	62	93.3
25-Sep	57	85	87	62	32	33	51	45	28	27	37	30	24	28	22	28	24	23	51	88	36	25	15	14	88.3
26-Sep	11	13	12	15	13	17	14	17	18	17	15	17	23	21	17	17	20	21	21	33	24	32	25	21	32.6
27-Sep	24	67	44	59	37	56	30	21	20	30	26	23	21	24	20	31	32	23	18	15	17	11	16	27	66.9
28-Sep	55	54	70	98	80	32	35	51	62	43	66	34	41	42	28	24	20	13	13	10	12	15	16	38	97.9
29-Sep	44	68	79	79	88	42	38	25	19	16	36	26	17	23	22	12	15	7	10	9	9	23	13	9	88.3
30-Sep	7	7	9	31	23	6	15	7	12	11	14	20	24	17	25	22	18	7	7	7	12	7	10	4	30.9
86.9 90.7 87.6 97.9 88.3 99.8 86.3 96.1 89.5 86.7 80.0 61.3 76.4 49.4 71.7 72.2 50.8 89.5 79.1 88.3 97.4 85.0 93.3 96.2																									

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

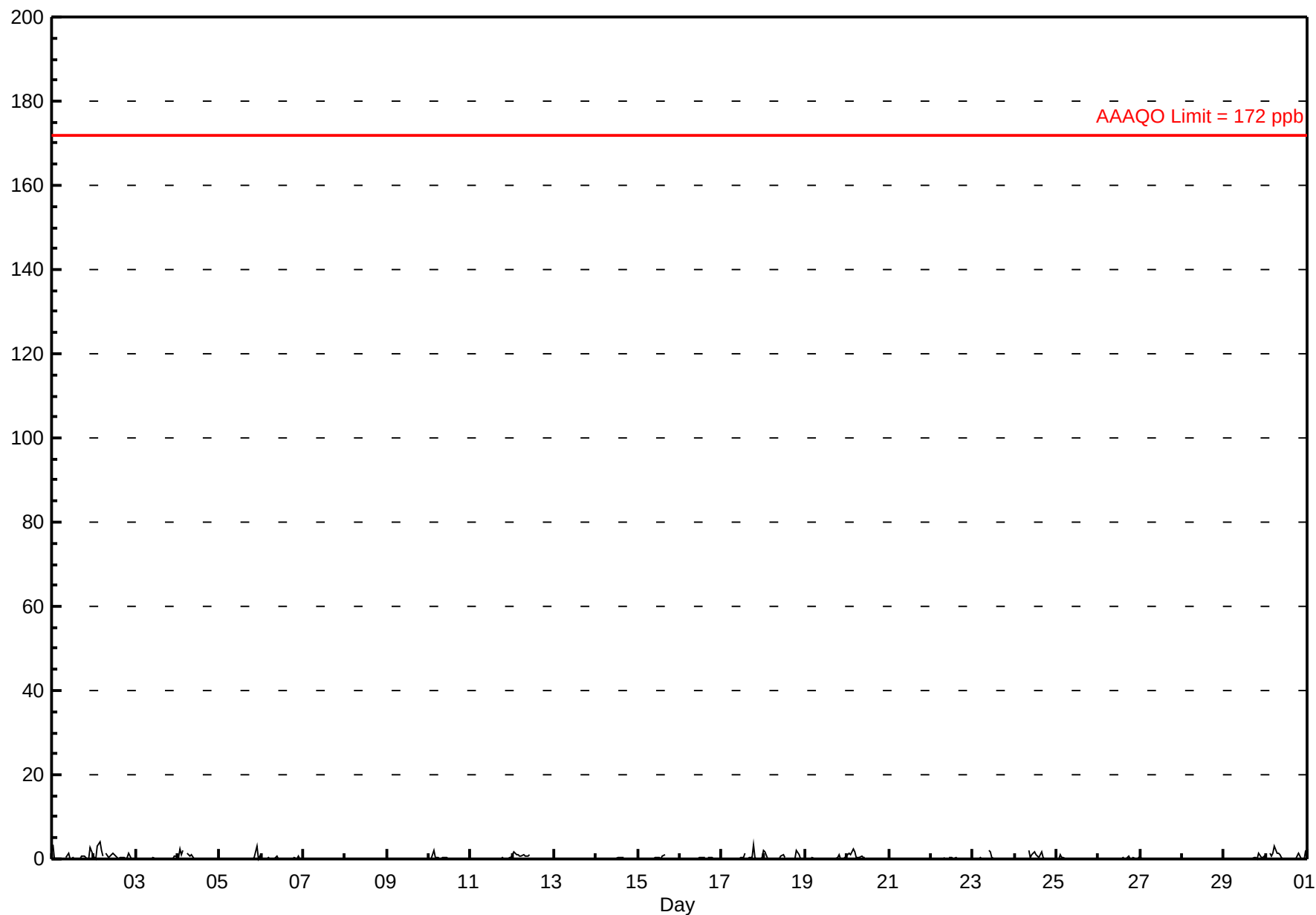
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Smoky Heights - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.2 ppb on Sep 2 04:00 Maximum Daily Average: 0.9 ppb on Sep 2																			Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Sep 7 04:00 Maximum Diurnal Average: 0.5 ppb at hour 4 Monthly Average: 0.23 ppb																			Minimum Daily Average: 0.0 ppb on Sep 7 Minimum Diurnal Average: 0.1 ppb at hour 17 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.7 P ₉₉ = 2.7							
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	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	1	1	0	0	0	3	1	0.5	3.3
2-Sep	0	0	3	4	2	1	A	1	0	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0.9	4.2
3-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1	0.8
4-Sep	0	2	1	2	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.3
5-Sep	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0.2	3.1
6-Sep	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.8
7-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	0.0	0.0
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	A	0.0	0.0
9-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	0.0	0.0
10-Sep	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	2.2
11-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
12-Sep	1	2	1	1	1	1	1	1	1	1	C	C	C	0	0	0	0	0	0	A	0	0	0	0	0.5	1.7
13-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	0.0	0.0
14-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	0.5
15-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0.1	0.9
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0.1	0.5
17-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	3	0	0	0	0	0	0.3	3.5
18-Sep	2	2	0	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	2	1	0	0	0	0.4	1.9
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	1	0.1	0.9
20-Sep	1	1	1	2	2	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.4
21-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	0.1
22-Sep	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
23-Sep	0	0	0	0	0	0	0	0	A	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
24-Sep	0	0	0	0	0	0	0	A	2	0	1	2	1	1	0	2	0	0	0	0	0	0	0	0	0.4	2.0
25-Sep	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.2
26-Sep	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	0.6
27-Sep	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.6
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	0.0	0.1
29-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.2	1.2
30-Sep	0	A	1	1	2	3	1	1	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	0.7	3.1
0.3 0.3 0.4 0.5 0.3 0.3 0.2 0.2 0.3 0.3 0.3 0.2 0.2 0.2 0.1 0.2 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.3																								Diurnal Average		
3.3 2.3 3.2 4.2 2.1 3.1 1.5 1.4 2.0 2.0 1.6 1.7 1.1 1.3 0.7 1.6 0.5 0.7 3.5 1.9 1.5 3.1 2.8 1.9																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

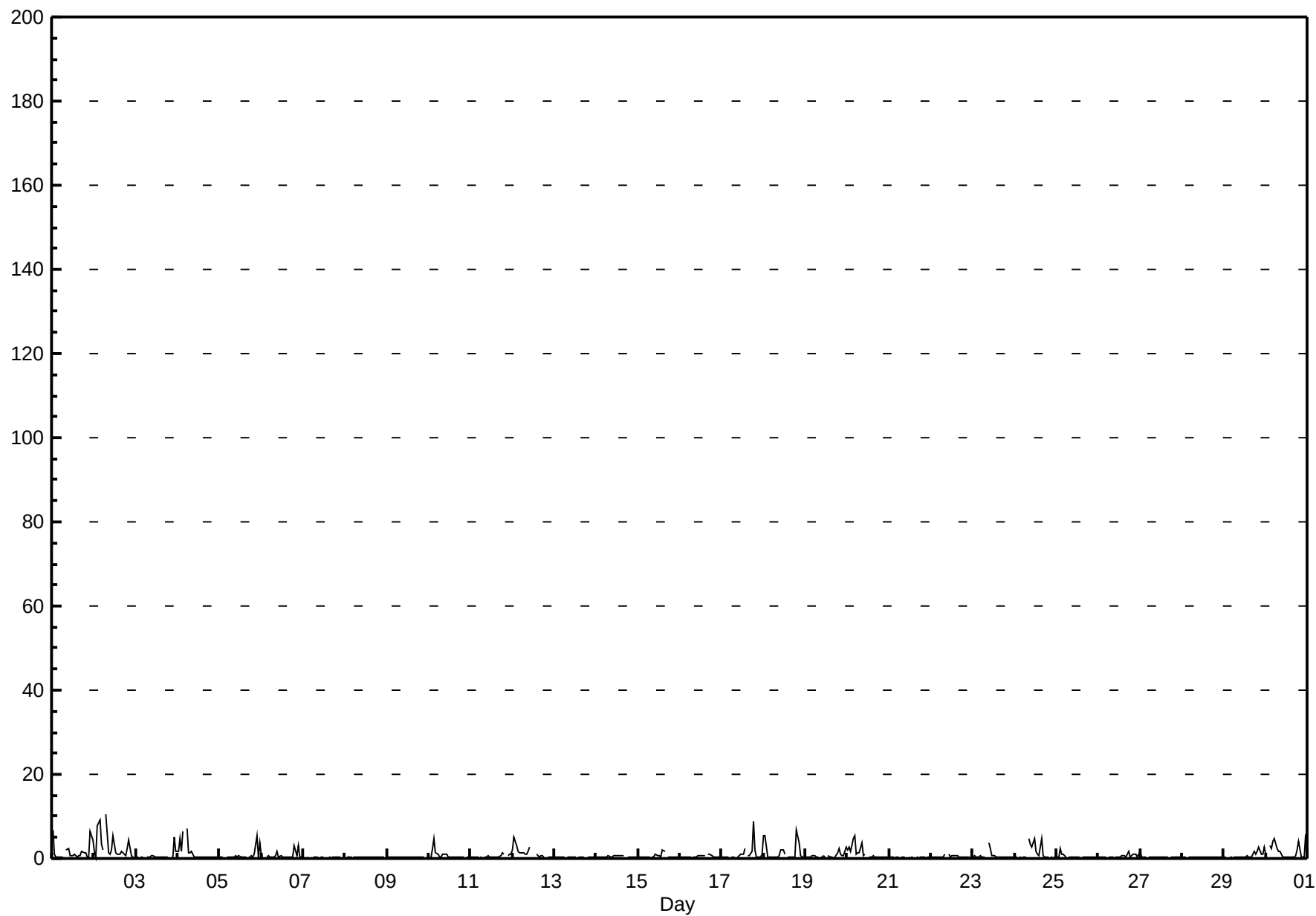
Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - September 2014



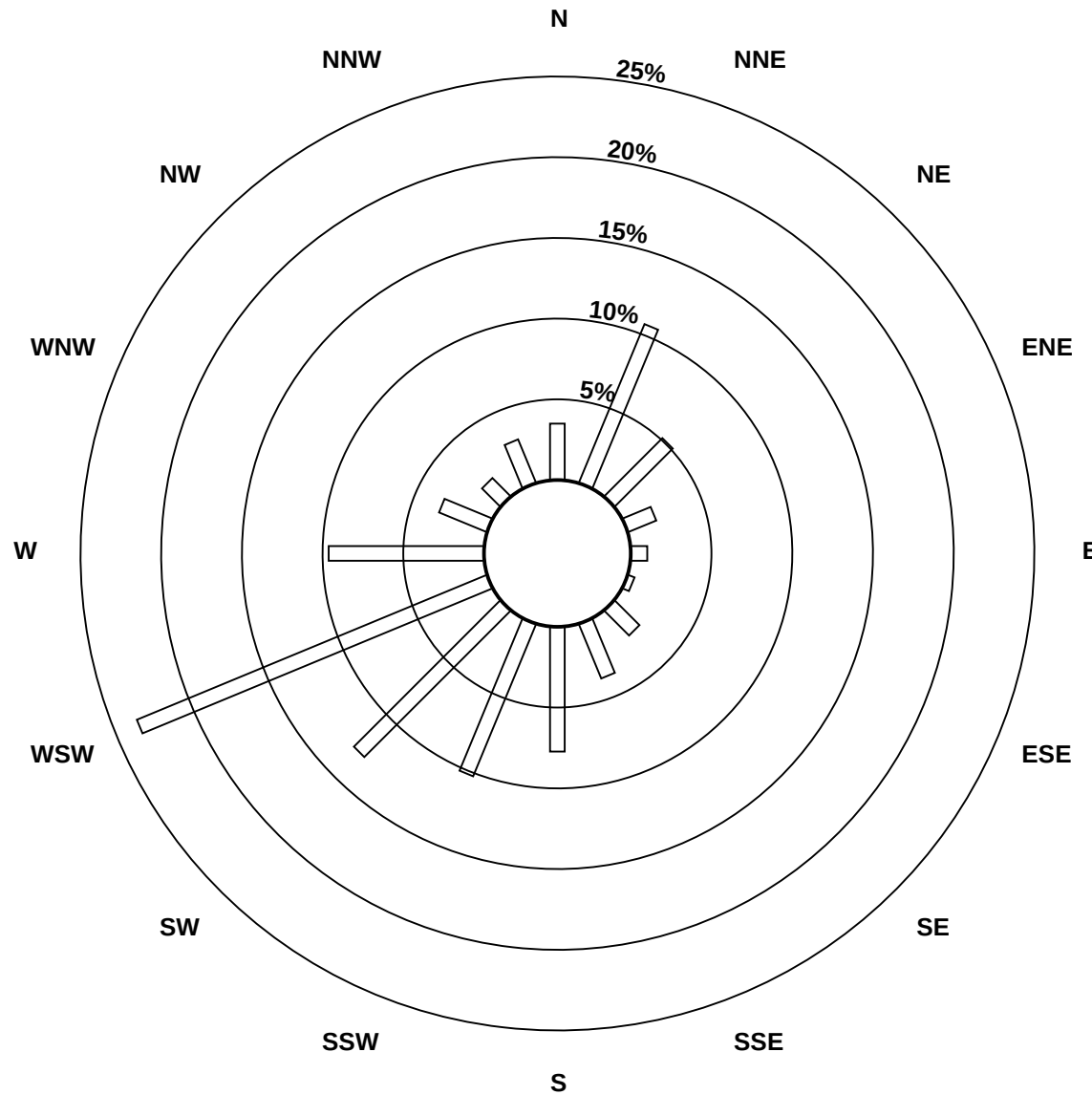
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - September 2014

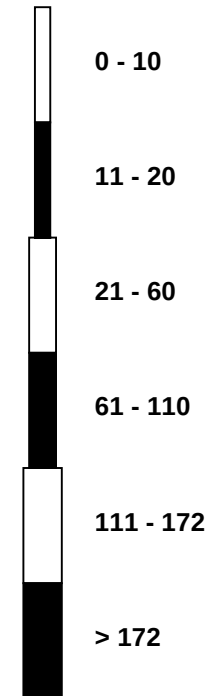


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - September 2014

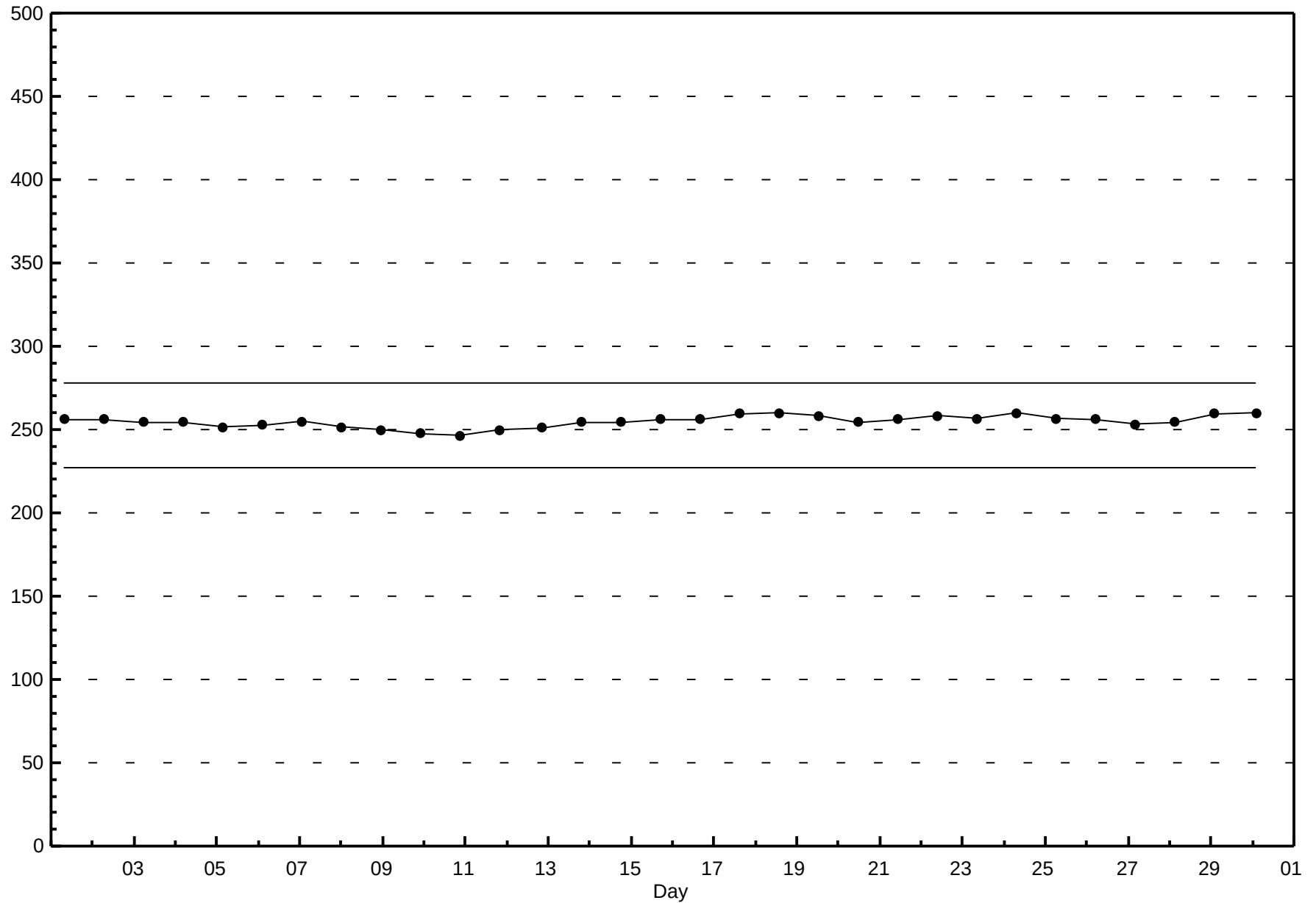


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - September 2014



Hourly Averages

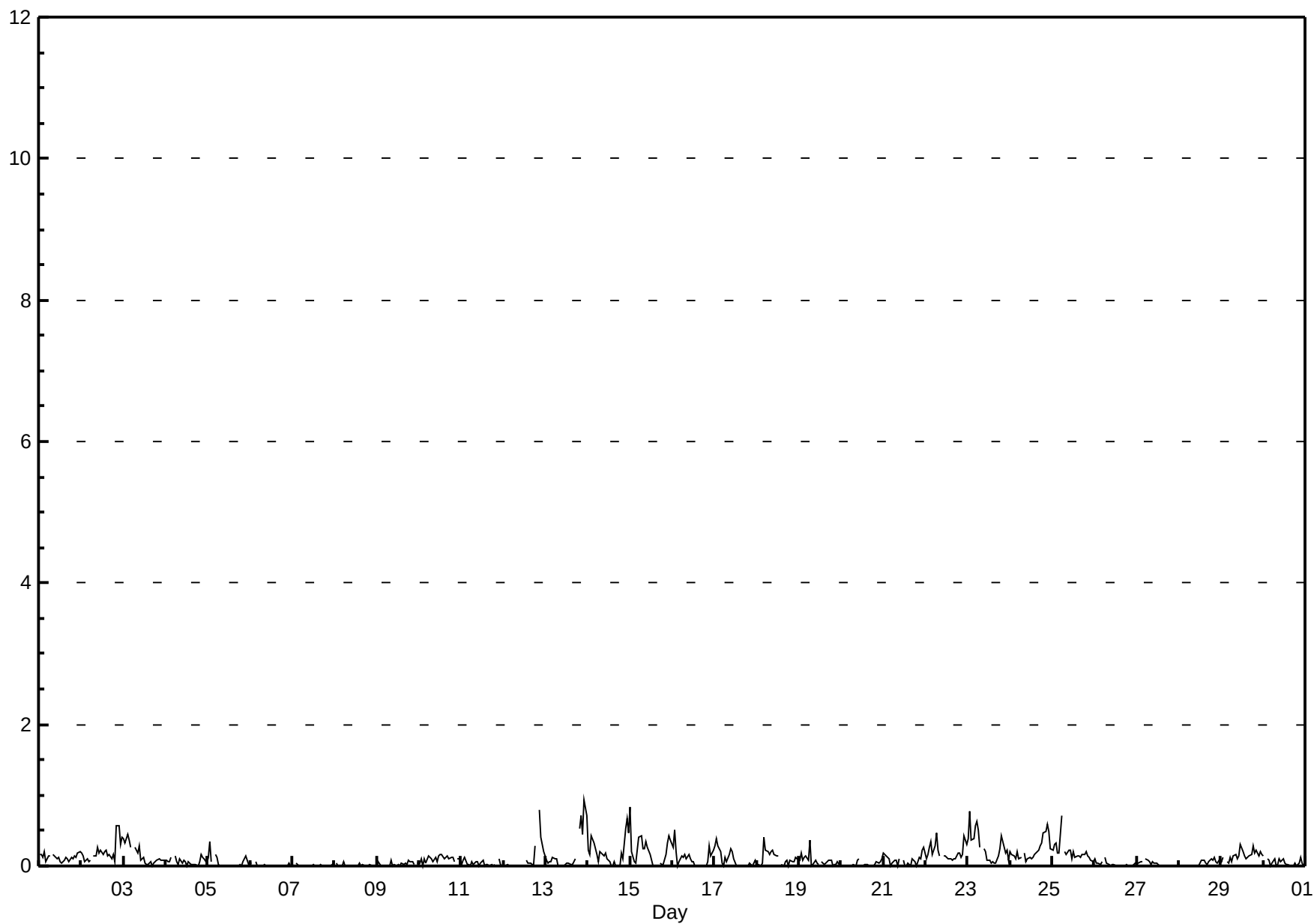
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.9 ppb on Sep 13 23:00 Maximum Daily Average: 0.3 ppb on Sep 23																				Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 4 13:00 Minimum Daily Average: 0.0 ppb on Sep 7 Maximum Diurnal Average: 0.2 ppb at hour 23 Minimum Diurnal Average: 0.0 ppb at hour 16 Monthly Average: 0.11 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.1 P ₉₀ = 0.3 P ₉₉ = 0.7																										
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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.2	0.6
3-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
4-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
5-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	0.1	0.4
6-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	0.0	0.1
7-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	0.0	0.0
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	A	0.0	0.1
9-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	0.0	0.1
10-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
11-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	0.0	0.1
12-Sep	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	A	1	0	0	0	0.1	0.8
13-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0	1	1	0.2	0.9
14-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0.2	0.7
15-Sep	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.8
16-Sep	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.5
17-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
18-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	0.4
19-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	0.4
20-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	0.1
21-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	0.3
22-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	0.2	0.5
23-Sep	0	1	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
24-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
25-Sep	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
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	0.0	0.1
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	0.0	0.1
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	0.0	0.1
29-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	0.3
30-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	0.0	0.1
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - September 2014



Hourly Maximums

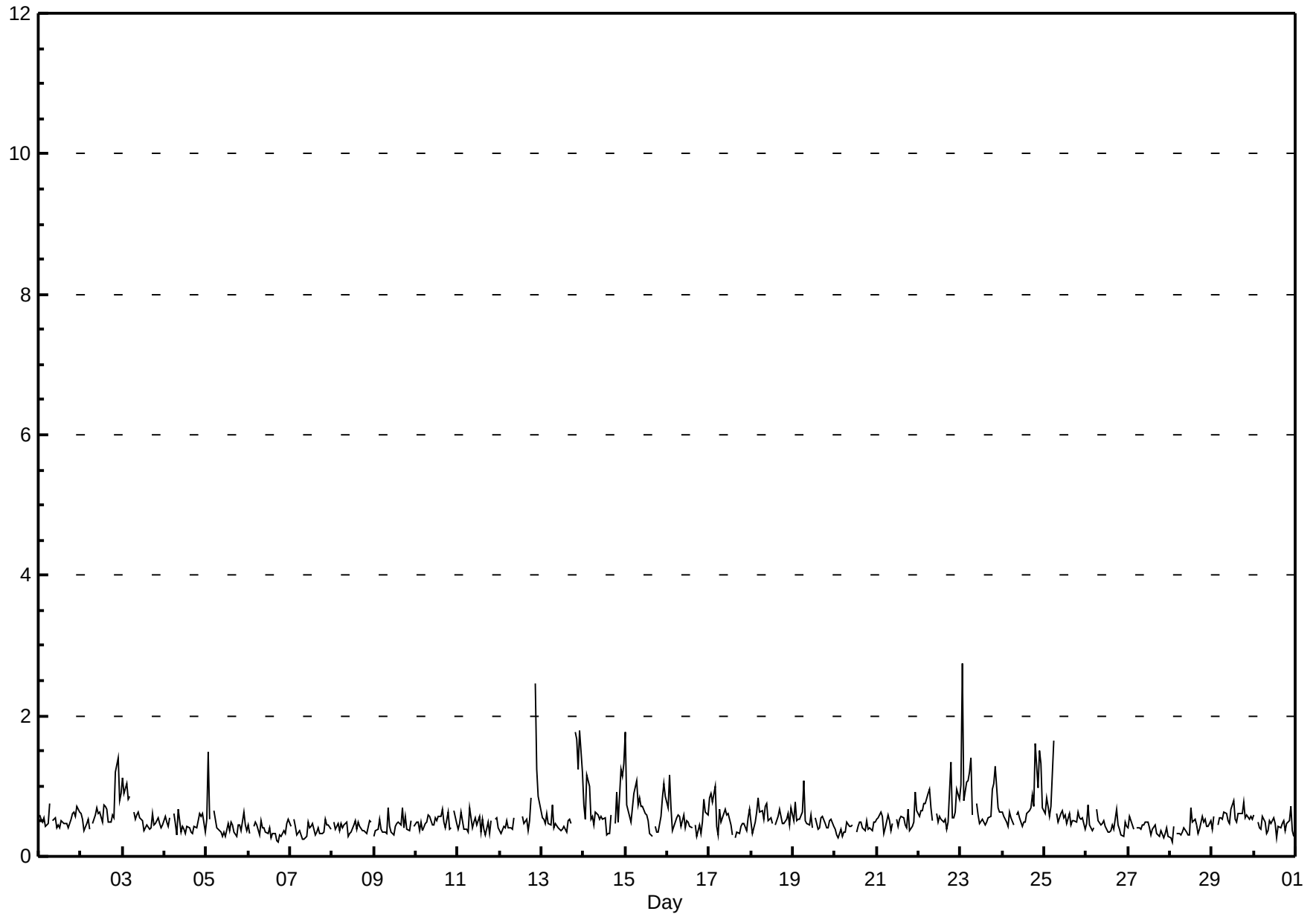
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - September 2014

Maximum Value: 2.7 ppb on Sep 23 02:00																				Maximum Daily Average: 0.9 ppb on Sep 23										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 6 18:00																				Minimum Daily Average: 0.4 ppb on Sep 6										Hours of Data: 685	
Maximum Diurnal Average: 0.7 ppb at hour 2																				Minimum Diurnal Average: 0.4 ppb at hour 14										Hours of Missing Data: 35	
Monthly Average: 0.54 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.8 P ₉₉ = 1.6										Hours of Calibration: 35	
																				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	1	1	0	1	0	0	1	A	1	1	0	0	0	1	0	0	0	0	1	1	1	1	1	1	0.5	0.7					
2-Sep	1	1	0	0	1	0	A	0	1	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	0.6	1.4					
3-Sep	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0.6	1.1					
4-Sep	1	0	0	1	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0.5	0.7					
5-Sep	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.5	1.5					
6-Sep	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.5					
7-Sep	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.5					
8-Sep	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	A	0.4	0.5					
9-Sep	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	1	A	0	0.4	0.7					
10-Sep	0	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	0	0	1	0	0	A	1	0	0.5	0.7					
11-Sep	0	0	1	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	1	A	1	1	0	0.5	0.7					
12-Sep	0	0	0	0	1	0	0	0	1	C	C	C	C	1	0	1	0	1	1	A	2	1	1	1	0.7	2.5					
13-Sep	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	A	2	2	1	2	1	0.7	1.8					
14-Sep	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	1	A	0	1	0	1	1	1	0.7	1.3					
15-Sep	2	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	1	1	1	1	0.7	1.8					
16-Sep	1	1	1	0	0	1	1	1	0	1	0	1	0	0	0	A	0	0	0	0	0	1	1	1	0.5	1.2					
17-Sep	1	1	1	1	0	0	1	0	1	1	1	1	0	0	A	0	0	0	0	0	0	0	1	1	0.5	1.0					
18-Sep	0	0	0	1	1	1	1	1	1	1	1	1	0	A	0	1	1	1	0	0	1	1	0	1	0.6	0.8					
19-Sep	1	1	1	1	1	1	1	1	0	0	1	0	A	1	0	0	1	1	1	0	0	0	1	0	0.5	1.1					
20-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.5					
21-Sep	1	1	1	1	0	0	1	1	0	0	A	1	0	1	1	1	0	0	1	0	0	0	1	1	0.5	0.9					
22-Sep	1	1	1	1	1	1	1	1	0	A	1	0	1	1	0	1	0	0	1	1	1	1	1	1	0.7	1.4					
23-Sep	1	3	1	1	1	1	1	1	A	1	1	0	1	0	0	0	1	1	1	1	1	1	1	1	0.9	2.7					
24-Sep	1	1	0	0	1	1	0	A	1	1	1	0	0	0	1	1	1	1	1	2	1	1	1	1	0.7	1.6					
25-Sep	1	1	1	1	1	2	A	1	0	1	1	1	1	0	1	0	1	1	0	1	1	1	1	0	0.6	1.7					
26-Sep	0	1	0	0	0	A	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	0.7					
27-Sep	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6					
28-Sep	0	0	0	A	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	1	0.4	0.7					
29-Sep	0	1	A	0	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0.6	0.8					
30-Sep	1	A	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	1	0	0	1	1	0	0	0.5	0.7					
0.6 0.7 0.6 0.6 0.5 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.6 0.7 0.7 0.7 0.6																									Diurnal Average						
1.8 2.7 1.2 1.0 1.1 1.7 1.4 0.7 0.8 0.7 0.7 0.7 0.8 0.7 0.7 0.7 0.7 0.7 0.9 1.4 1.8 2.5 1.5 1.8 1.3																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

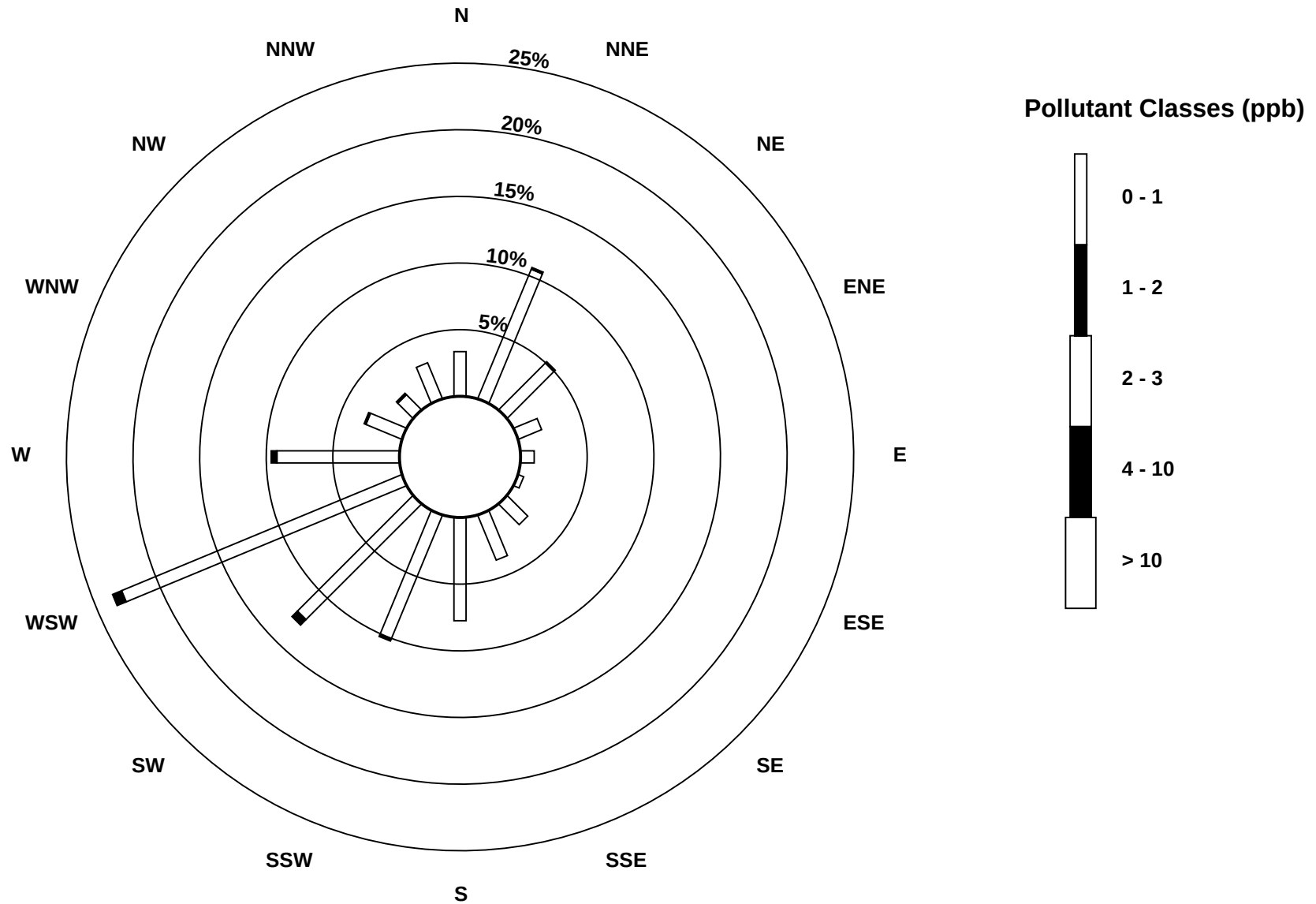
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - September 2014



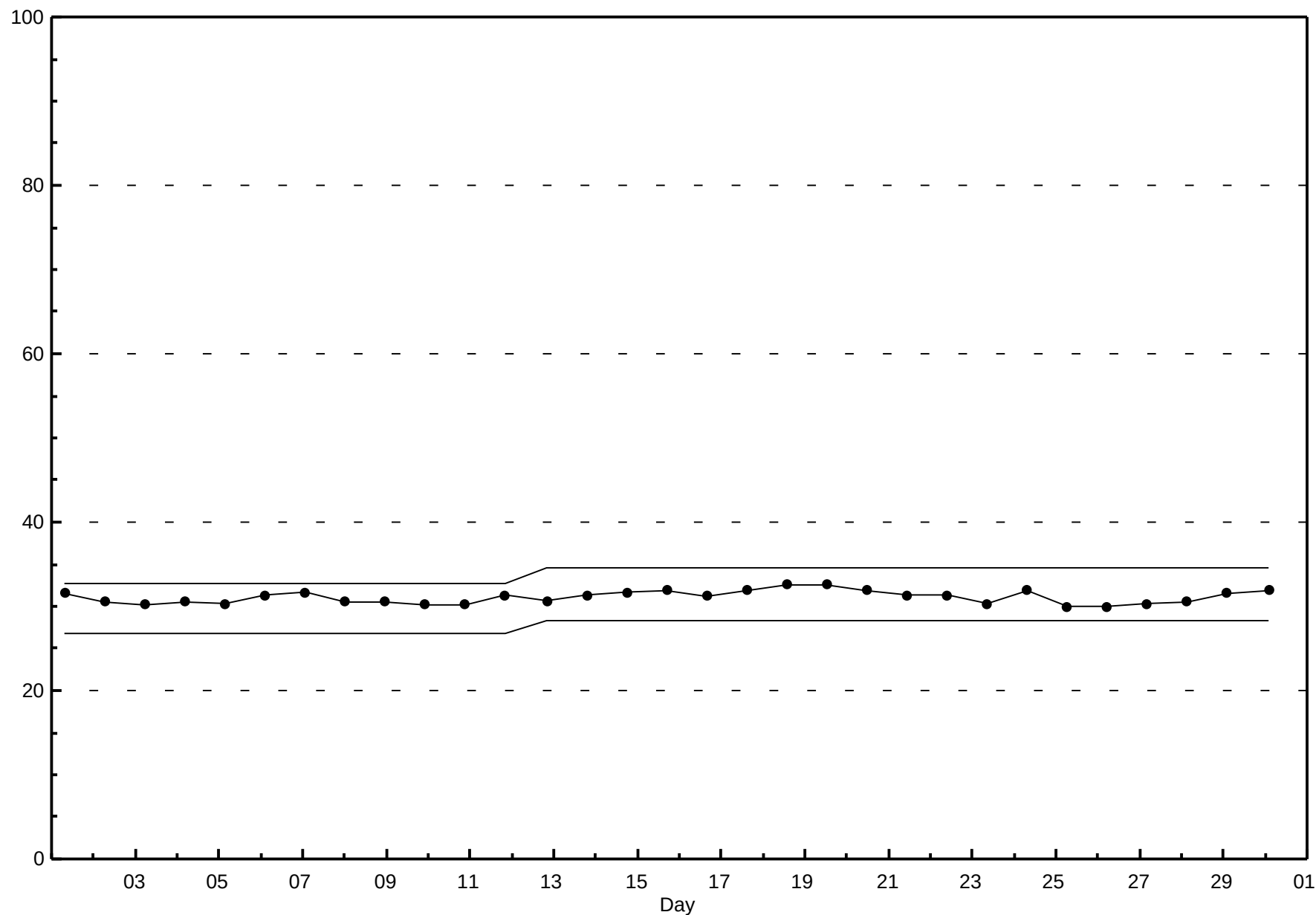
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - September 2014



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - September 2014



Hourly Averages

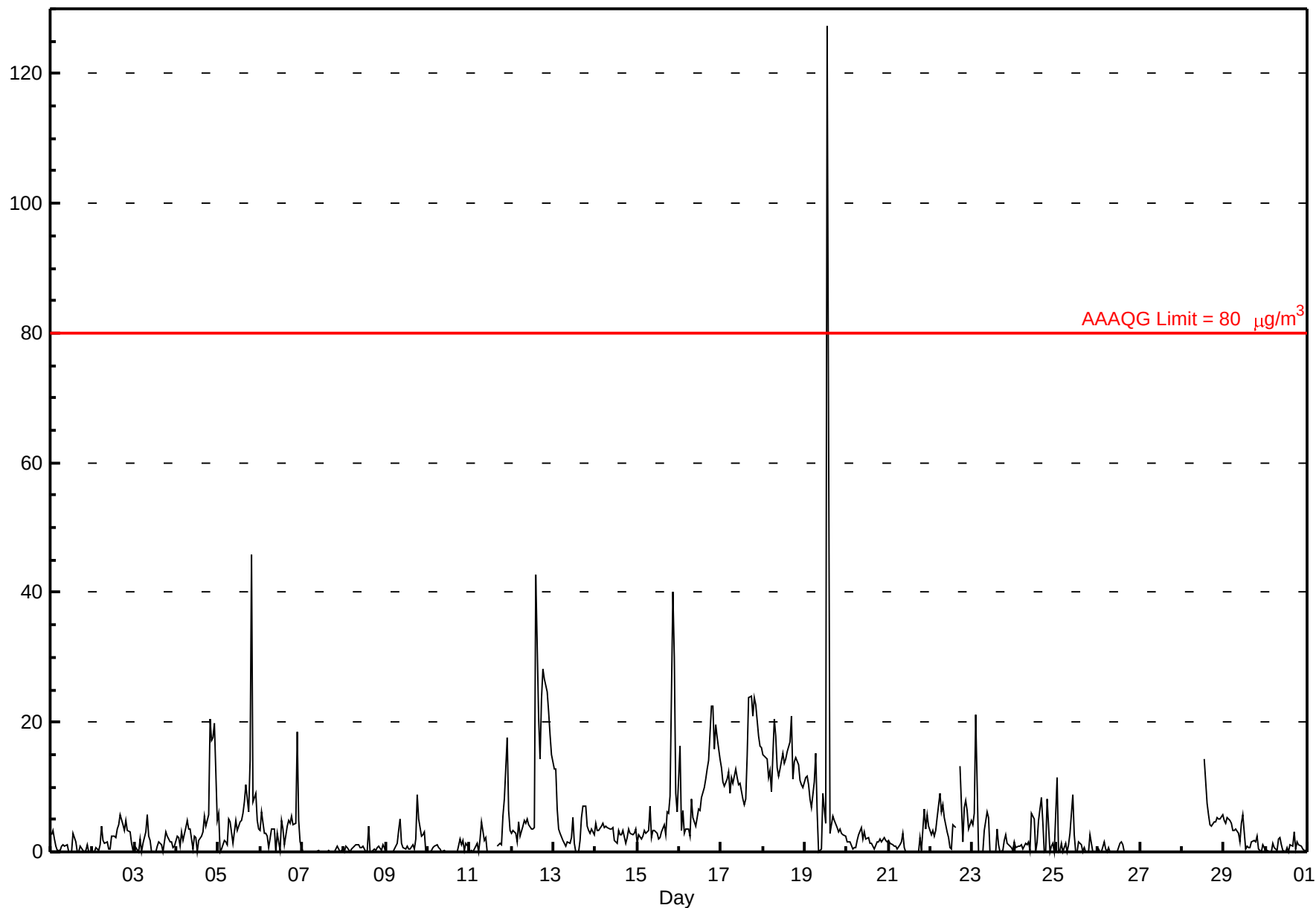
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - September 2014

Number of Exceedences: 1-hr: 1 24-hr: 0 Maximum Value: 127.3 µg/m³ on Sep 19 14:00 Minimum Value: 0 µg/m³ on Sep 1 11:00 Maximum Diurnal Average: 8.1 µg/m³ at hour 20 Monthly Average: 4.28 µg/m³																								Hours in Service: 720 Hours of Data: 674 Hours of Missing Data: 46 Hours of Calibration: 0 Percent Operational Time: 93.6		
Maximum Daily Average: 14.1 µg/m³ on Sep 17 Minimum Daily Average: 0.1 µg/m³ on Sep 7 Minimum Diurnal Average: 2.2 µg/m³ at hour 13 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.5 Median = 2.1 Q ₃ = 4.8 P ₉₀ = 11.5 P ₉₉ = 26.4																										
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	3	2	1	0	0	1	1	1	1	0	0	0	3	2	0	0	1	0	0	0	1	0	0	0.9	3.4
2-Sep	0	0	1	0	1	4	2	1	1	0	0	2	2	2	3	4	6	4	3	5	3	3	1	0	2.2	5.6
3-Sep	0	1	0	2	0	1	3	6	2	2	0	0	0	1	2	1	0	1	3	2	2	2	1	1	1.3	5.8
4-Sep	2	2	1	3	2	4	5	4	3	0	2	2	0	2	2	3	5	4	6	21	17	18	20	5	5.6	20.5
5-Sep	6	0	0	2	2	1	5	5	1	3	5	3	5	5	6	8	10	6	14	46	8	9	5	4	6.6	45.8
6-Sep	3	6	3	3	2	1	3	3	4	0	3	0	5	3	1	4	5	5	6	4	4	18	5	2	3.9	18.4
7-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	0.1	1.0
8-Sep	0	1	1	0	0	1	1	1	1	1	1	1	0	0	4	0	0	0	0	1	1	0	1	1	0.7	4.0
9-Sep	0	0	0	0	0	1	1	3	5	1	1	1	1	0	1	1	0	2	9	5	3	3	3	0	1.7	8.7
10-Sep	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	1	1	0.5	2.0
11-Sep	0	0	0	1	1	0	2	5	2	2	0	0	0	0	0	N	1	1	1	6	8	18	6	3	2.5	17.5
12-Sep	3	3	3	2	5	2	4	5	4	5	4	3	3	4	43	21	14	24	28	27	25	22	18	15	11.9	42.7
13-Sep	13	13	7	4	3	2	1	1	2	1	2	5	1	0	0	2	5	7	7	4	3	3	3	3	3.8	12.8
14-Sep	5	3	3	4	4	4	4	4	3	4	4	2	1	3	3	3	3	1	2	3	3	3	3	3	3.1	4.5
15-Sep	1	3	2	2	3	3	3	7	2	3	3	3	2	2	3	4	3	6	6	9	40	30	9	6	6.5	40.1
16-Sep	16	3	6	3	4	4	3	8	5	4	5	7	6	8	10	11	13	14	22	22	16	20	18	14	10.1	22.5
17-Sep	13	11	10	11	12	9	12	10	13	11	10	11	8	7	8	15	24	24	21	24	23	18	16	16	14.1	24.1
18-Sep	15	15	14	12	13	9	21	18	13	12	13	15	14	14	15	17	21	11	14	15	14	11	10	10	13.9	21.0
19-Sep	11	12	10	8	7	11	15	6	0	0	9	7	5	127	3	4	5	5	4	3	4	3	3	2	11.0	127.3
20-Sep	1	2	1	1	1	1	2	3	4	2	3	2	2	1	1	1	0	1	2	2	1	2	2	2	1.6	3.8
21-Sep	2	1	1	1	1	0	1	2	3	1	0	0	0	0	0	0	0	0	2	0	7	4	6	4	1.5	6.5
22-Sep	3	3	2	3	5	9	6	7	5	3	2	1	0	4	4	N	N	13	1	7	8	6	4	5	4.7	13.3
23-Sep	4	6	21	0	0	0	0	3	6	5	0	0	N	0	3	1	0	0	2	3	1	1	1	0	2.5	21.1
24-Sep	2	1	1	1	1	0	1	1	1	0	6	5	0	2	5	8	5	0	0	8	0	1	1	0	2.1	8.4
25-Sep	11	0	0	1	0	1	0	1	3	9	3	0	0	2	1	0	1	0	0	3	1	0	0	0	1.5	11.4
26-Sep	0	0	0	2	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	N	N	N	N	N	0.4	1.6
27-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	--	--
28-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	14	8	6	4	4	5	5	5	5	6	--	14.4
29-Sep	5	4	5	5	4	3	3	3	3	2	4	6	1	1	1	1	2	2	2	2	0	0	1	1	2.5	5.7
30-Sep	0	0	0	0	1	1	0	2	2	1	0	0	1	0	1	1	3	0	1	1	1	0	0	0	0.8	3.1
4.3 3.3 3.4 2.5 2.7 2.6 3.6 4.0 3.3 2.7 2.9 2.7 2.2 7.2 4.5 4.3 4.7 4.8 5.6 8.1 7.2 7.1 5.1 3.7																								Diurnal Average		
16.4 14.7 21.1 11.6 12.7 10.8 20.6 17.9 13.1 11.6 12.7 15.1 13.7 127.3 42.7 20.7 23.9 24.1 28.2 45.8 40.1 30.0 19.8 16.1																								Diurnal Maximum		
N - Not Valid																										
Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m³																										

Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - September 2014



Hourly Maximums

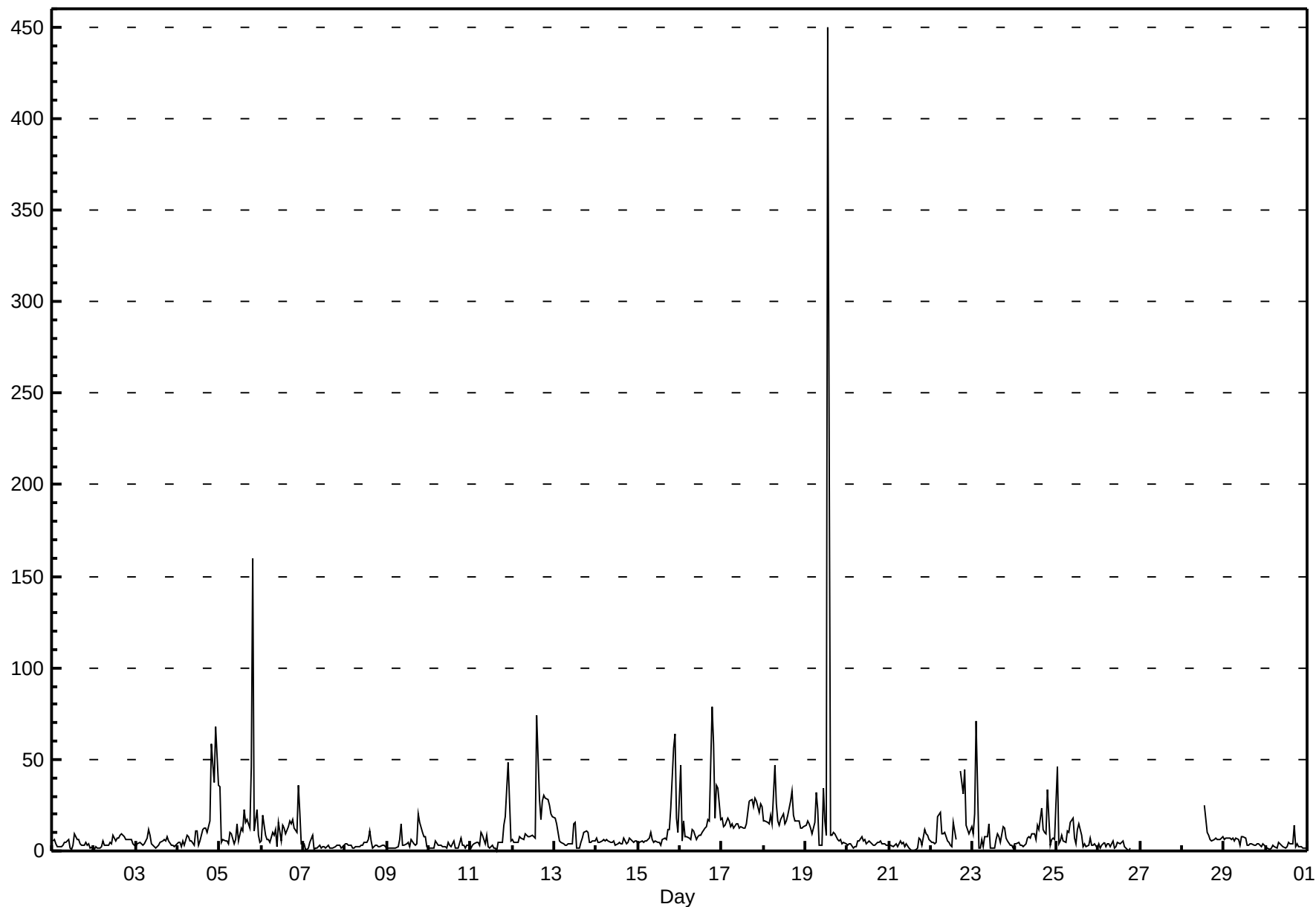
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Smoky Heights - September 2014

Maximum Value: 450.2 μg/m ³ on Sep 19 14:00																								Maximum Daily Average: 30.0 μg/m ³ on Sep 19						Hours in Service: 720	
Minimum Value: 0 μg/m ³ on Sep 11 16:00																								Minimum Daily Average: 2.6 μg/m ³ on Sep 7						Hours of Data: 676	
Maximum Diurnal Average: 22.8 μg/m ³ at hour 14																								Minimum Diurnal Average: 5.3 μg/m ³ at hour 4						Hours of Missing Data: 44	
Monthly Average: 9.64 μg/m ³																								Percentiles: P ₁ = 0.8 P ₁₀ = 1.9 Q ₁ = 3.2 Median = 5.2 Q ₃ = 10.3 P ₉₀ = 18.2 P ₉₉ = 62.3						Hours of Calibration: 0	
Percent Operational Time: 93.9																															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Sep	6	6	4	3	2	2	3	4	4	7	2	1	3	9	6	7	4	3	3	5	3	4	1	2	3.9	9.3					
2-Sep	0	2	2	2	3	6	4	3	3	5	4	8	5	7	7	9	9	8	6	6	7	6	4	3	4.9	9.4					
3-Sep	2	4	5	4	3	4	7	12	9	4	3	1	2	3	5	6	6	5	8	6	3	3	2	3	4.5	11.5					
4-Sep	5	5	2	5	3	9	8	5	6	3	11	11	3	5	12	13	12	10	16	58	48	38	68	36	16.3	68.2					
5-Sep	35	5	6	6	5	4	10	9	4	6	15	5	13	11	22	15	17	12	46	160	11	22	8	5	18.9	159.5					
6-Sep	5	19	9	6	7	4	10	8	12	2	16	5	14	13	9	13	16	15	17	13	10	36	21	4	11.9	35.7					
7-Sep	4	1	1	2	5	8	1	2	2	3	2	2	3	2	3	2	2	1	2	3	3	3	1	3	2.6	8.3					
8-Sep	4	4	3	3	1	2	3	2	2	3	3	5	5	6	11	5	2	3	3	2	2	3	3	2	3.5	11.0					
9-Sep	1	1	2	2	2	2	3	6	15	3	3	4	5	2	6	4	3	4	20	15	10	8	8	2	5.4	19.9					
10-Sep	1	2	2	2	5	3	3	3	2	2	2	5	3	2	5	1	1	2	7	3	3	1	3	3	2.9	7.1					
11-Sep	1	3	4	5	5	3	10	8	4	8	2	1	3	2	1	0	4	4	5	14	19	48	27	5	7.9	48.4					
12-Sep	6	5	5	5	8	7	7	9	9	8	8	9	8	7	74	28	17	28	31	29	28	25	21	18	16.5	74.3					
13-Sep	18	15	10	5	4	4	3	3	4	4	4	15	15	2	2	5	7	10	11	10	5	4	6	5	7.1	17.6					
14-Sep	7	4	5	6	6	5	6	5	5	5	6	3	4	5	4	4	7	4	5	7	6	5	6	5	5.2	7.4					
15-Sep	4	5	5	5	5	5	7	10	6	5	5	5	5	3	6	7	6	12	12	24	56	64	18	10	12.1	63.6					
16-Sep	47	5	16	8	8	7	6	12	11	7	7	9	9	10	13	13	17	17	79	58	18	36	34	17	19.3	79.0					
17-Sep	18	13	14	18	16	13	15	13	15	15	13	13	12	13	15	21	27	28	24	29	27	21	26	24	18.5	29.2					
18-Sep	17	16	16	15	19	15	46	26	16	14	17	20	15	16	20	28	32	20	16	16	16	13	13	13	19.0	46.4					
19-Sep	14	16	15	12	10	16	32	23	3	3	34	16	9	450	8	9	10	10	6	6	6	4	5	4	30.0	450.2					
20-Sep	3	4	4	2	2	2	5	5	8	5	6	4	6	4	4	3	3	5	5	5	4	4	3	3	4.2	7.9					
21-Sep	3	3	2	3	4	2	6	4	5	3	4	1	1	0	0	1	1	7	7	3	12	10	9	6	4.0	11.6					
22-Sep	5	4	4	5	19	21	10	9	10	6	5	3	2	15	6	N	N	44	32	45	14	12	9	13	13.3	44.8					
23-Sep	10	20	71	2	1	6	2	8	8	15	2	1	2	6	9	8	5	13	13	7	5	3	3	1	9.2	70.9					
24-Sep	4	4	4	3	3	2	4	7	8	7	9	10	6	14	12	23	12	10	9	33	3	6	7	6	8.6	33.2					
25-Sep	46	4	5	8	5	5	11	10	16	18	7	4	12	15	9	3	4	2	3	7	3	3	4	2	8.6	46.0					
26-Sep	4	1	3	5	2	4	4	3	5	1	2	4	4	4	5	3	1	0	1	N	N	N	N	N	3.0	5.4					
27-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	--	--					
28-Sep	N	N	N	N	N	N	N	N	N	N	N	N	N	N	25	10	8	6	5	6	6	6	6	7	--	24.7					
29-Sep	6	7	7	7	6	7	6	7	6	3	8	8	7	3	3	4	4	3	3	4	4	2	4	3	5.2	8.1					
30-Sep	2	2	1	2	3	2	2	4	4	3	2	1	2	5	4	4	14	2	4	2	2	1	2	2	3.1	14.2					
9.9 6.5 8.1 5.3 5.8 6.1 8.3 7.9 7.2 6.0 7.2 6.3 6.3 22.8 10.1 8.8 9.0 9.9 13.8 20.6 12.0 13.9 11.5 7.6																								Diurnal Average							
46.5 20.3 70.9 18.3 19.2 21.0 46.4 25.9 16.1 17.8 34.0 20.1 15.4 450.2 74.3 27.9 32.5 44.0 79.0 159.5 56.2 63.6 68.2 36.2																								Diurnal Maximum							
N - Not Valid																															

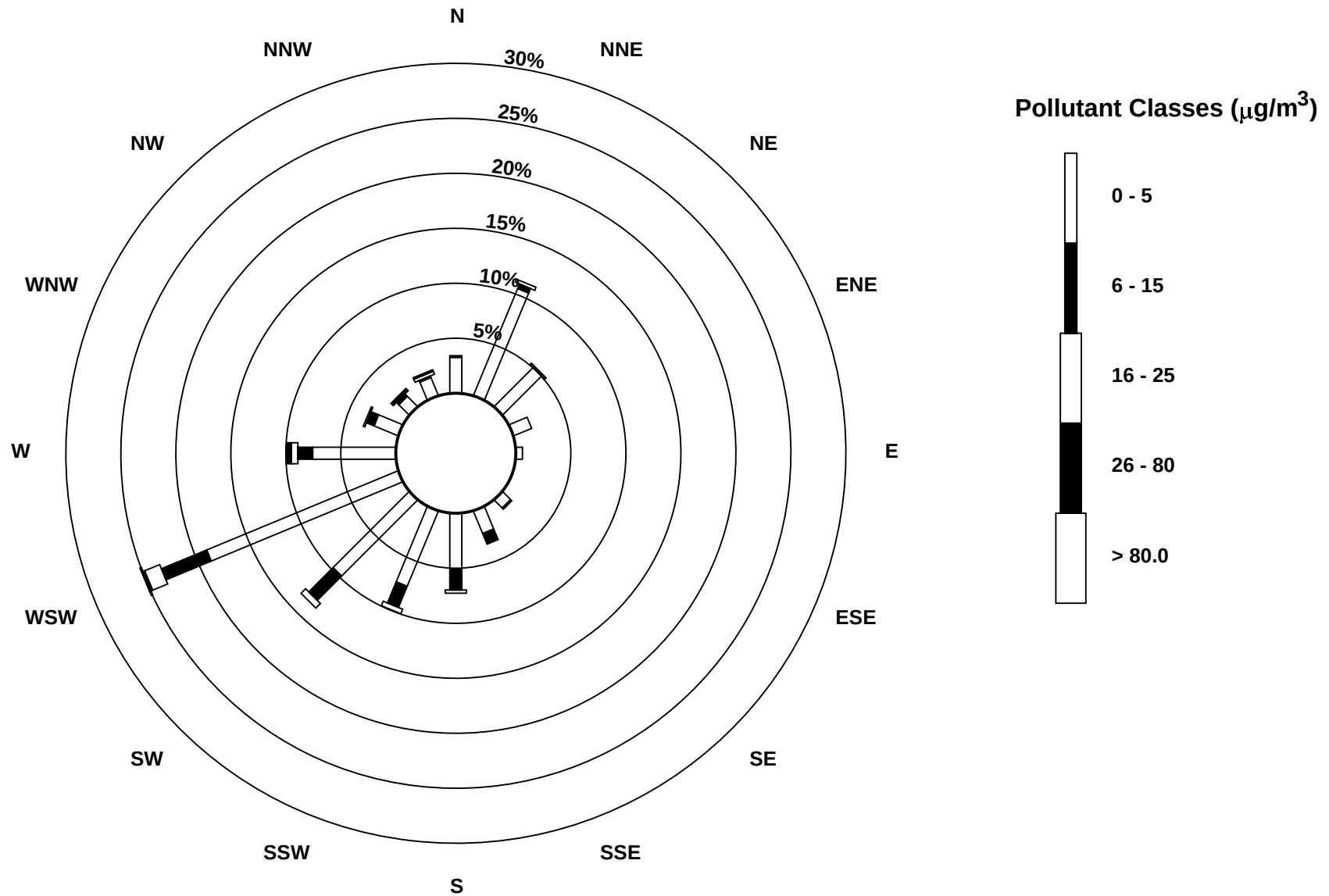
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - September 2014



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - September 2014



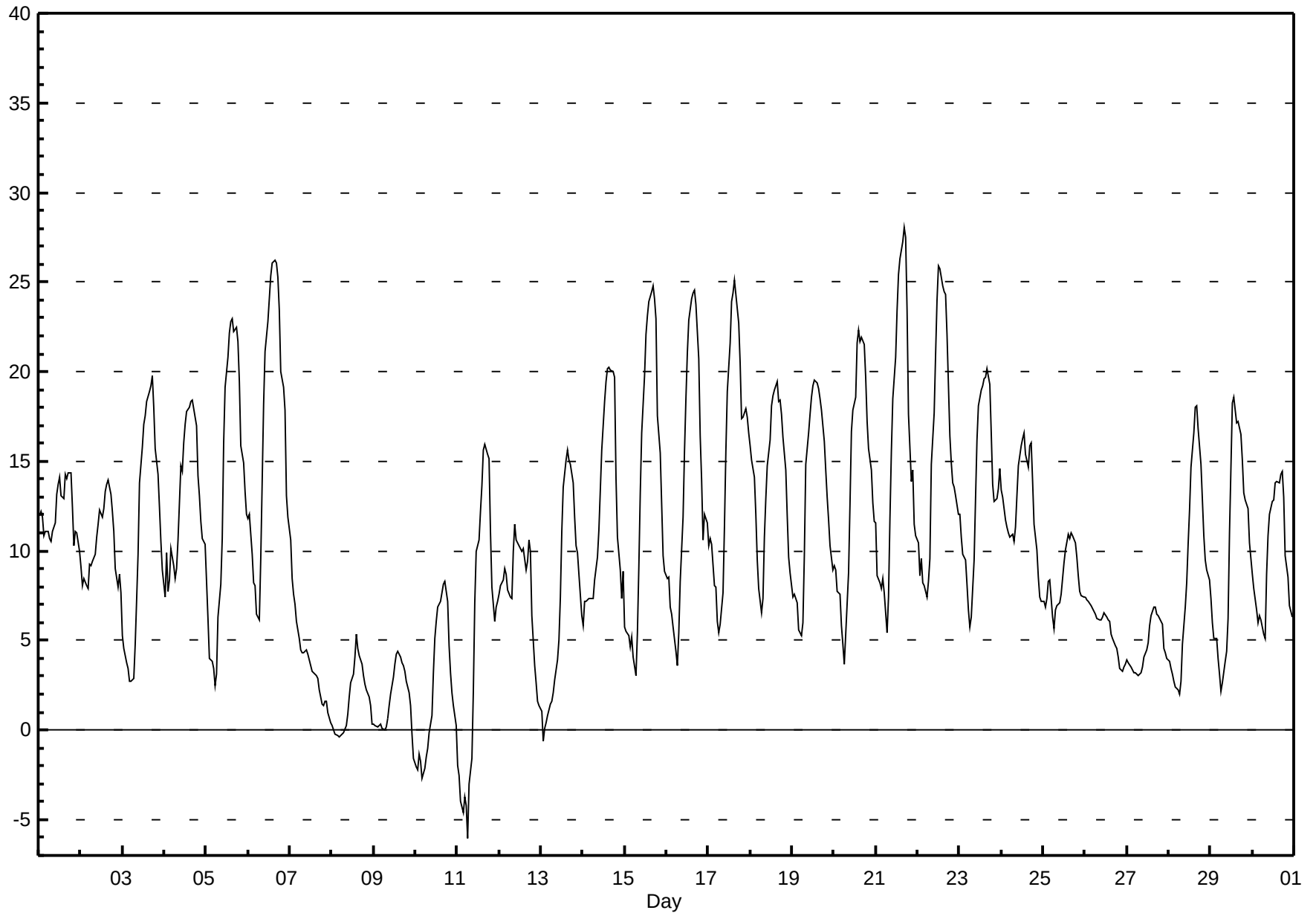
Hourly Averages

External Temperature (ET) - °C
Smoky Heights - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.1 °C on Sep 21 17:00 Maximum Daily Average: 16.9 °C on Sep 6																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -6 °C on Sep 11 07:00 Minimum Daily Average: 1.7 °C on Sep 9 Maximum Diurnal Average: 16.2 °C at hour 17 Minimum Diurnal Average: 4.6 °C at hour 7 Monthly Average: 10.26 °C Percentiles: P ₁ = -2.7 P ₁₀ = 2.1 Q ₁ = 5.4 Median = 9.5 Q ₃ = 14.6 P ₉₀ = 19.4 P ₉₉ = 26.0																										
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	12	12	12	11	11	11	11	11	11	12	13	14	14	13	13	14	14	14	14	12	10	11	11	10	12.1	14.4
2-Sep	9	8	8	8	8	9	9	9	10	11	11	12	12	12	13	14	14	13	12	11	9	8	9	8	10.4	13.9
3-Sep	5	5	4	3	3	3	3	5	7	10	14	16	17	18	18	19	19	20	18	16	14	12	10	9	11.1	19.8
4-Sep	7	10	8	8	10	9	8	9	11	15	14	16	17	18	18	18	18	18	17	14	13	12	11	10	12.9	18.4
5-Sep	8	6	4	4	3	2	3	6	8	11	16	19	21	22	23	23	22	22	22	19	16	15	13	12	13.4	23.0
6-Sep	12	12	10	8	8	6	6	10	14	18	21	23	24	25	26	26	26	25	23	20	19	18	13	12	16.9	26.2
7-Sep	11	8	8	7	6	5	4	4	4	4	4	4	4	3	3	3	3	2	1	1	2	2	1	0	4.0	10.6
8-Sep	0	0	0	0	0	0	0	0	0	1	2	3	3	4	5	5	4	4	3	3	2	2	1	0	1.7	5.3
9-Sep	0	0	0	0	0	0	0	0	1	1	2	3	4	4	4	4	4	4	3	3	2	1	0	-2	1.7	4.4
10-Sep	-2	-2	-1	-2	-3	-2	-1	-1	0	1	3	5	6	7	7	8	8	8	7	5	3	2	1	0	2.4	8.3
11-Sep	-2	-3	-4	-5	-4	-4	-6	-3	-2	2	7	10	11	12	14	16	16	15	15	11	8	6	7	7	5.2	15.9
12-Sep	8	8	8	9	9	8	7	7	10	11	11	10	10	10	10	9	9	11	10	6	4	3	2	1	8.0	11.5
13-Sep	1	-1	0	0	1	1	2	2	3	4	5	7	11	14	15	16	15	15	14	12	10	10	9	6	7.2	15.6
14-Sep	6	7	7	7	7	7	7	8	10	11	13	16	18	19	20	20	20	20	20	14	11	9	7	9	12.3	20.2
15-Sep	6	6	5	5	5	4	3	5	9	13	17	20	22	23	24	24	25	24	23	18	15	13	10	9	13.6	24.8
16-Sep	8	9	7	6	6	4	4	5	8	12	16	18	21	23	24	24	25	24	21	16	14	11	12	12	13.7	24.5
17-Sep	10	11	10	8	8	6	5	6	8	11	16	19	22	24	24	25	24	23	20	17	17	18	17	17	15.3	25.1
18-Sep	16	15	14	12	10	8	7	7	11	13	15	16	18	19	19	19	18	18	18	16	14	12	10	9	13.9	19.4
19-Sep	7	8	7	7	6	5	6	10	15	17	18	19	19	20	19	19	18	18	16	15	13	12	10	9	13.0	19.5
20-Sep	9	9	8	8	6	5	4	5	9	13	17	18	19	22	22	22	22	22	20	17	16	15	13	12	13.7	22.3
21-Sep	12	9	8	8	8	8	5	7	12	16	18	21	23	25	26	27	28	27	23	18	14	14	11	11	15.9	28.1
22-Sep	10	9	10	8	8	7	8	10	15	18	21	24	26	26	25	24	24	22	16	15	14	14	13	12	15.8	25.9
23-Sep	12	11	10	9	8	7	6	6	10	13	16	18	19	19	20	20	20	19	17	14	13	13	13	15	13.6	20.2
24-Sep	13	13	12	11	11	11	11	10	11	13	15	16	16	17	15	15	16	16	14	11	10	8	7	7	12.5	16.6
25-Sep	7	7	7	8	8	6	6	7	7	7	8	8	9	10	11	11	11	11	10	10	9	8	7	7	8.4	11.0
26-Sep	7	7	7	7	7	7	6	6	6	6	6	7	6	6	6	5	5	5	5	4	3	3	4	4	5.7	7.4
27-Sep	4	4	3	3	3	3	3	3	3	3	4	4	5	6	6	7	7	6	6	6	6	5	4	4	4.6	6.9
28-Sep	4	3	3	3	2	2	2	3	5	7	8	10	12	15	17	18	18	17	15	13	11	9	9	8	8.9	18.1
29-Sep	7	6	5	5	4	3	2	3	4	4	6	11	18	19	18	17	17	16	15	13	13	12	10	10	10.0	18.6
30-Sep	9	8	7	6	6	6	5	5	9	11	12	13	13	14	14	14	14	14	13	10	9	7	7	6	9.6	14.4
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C
Smoky Heights - September 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	17	18	12	13	15	16	13	10	14	16	21	21	19	17	14	16	13	11	11	11	9	14	15	13	14.3	20.6
Dir	244	246	231	221	243	244	241	237	246	250	239	238	242	253	241	251	240	238	241	239	260	247	251	257	243.4	238.9
2 Spd	16	18	17	13	5	18	8	10	10	14	12	11	9	8	8	8	8	7	12	7	2	6	4	2	6.8	18.3
Dir	263	264	261	260	244	260	254	245	235	249	256	251	234	25	13	4	7	342	342	347	54	294	301	322	276.4	260.2
3 Spd	2	4	4	7	5	3	4	8	9	11	14	15	15	13	12	13	10	11	11	10	17	19	20	14	9.3	19.5
Dir	206	219	230	258	224	225	223	210	203	173	214	228	223	204	204	189	195	177	180	192	240	256	258	259	219.0	258.1
4 Spd	12	15	13	18	19	13	7	9	13	21	24	21	21	27	23	20	16	15	8	2	5	5	7	5	11.7	27.4
Dir	257	250	257	262	254	274	240	248	253	344	304	280	301	305	302	299	293	298	308	258	255	25	54	89	287.3	304.7
5 Spd	4	6	9	10	8	8	9	9	12	13	28	29	29	30	32	27	25	24	17	14	15	15	14	13	14.1	32.0
Dir	175	221	218	230	236	239	228	197	186	207	214	254	286	291	291	293	290	284	287	272	238	259	251	247	259.7	290.9
6 Spd	14	11	8	10	8	10	12	15	24	27	26	20	17	22	29	29	33	37	22	14	17	9	12	12	15.7	37.3
Dir	258	273	260	243	211	204	222	225	228	240	259	267	272	253	254	255	243	254	266	250	249	304	37	33	252.4	253.5
7 Spd	15	15	15	15	17	12	12	12	13	12	12	12	13	13	13	12	13	13	12	9	11	13	17	16	13.1	16.9
Dir	23	22	25	25	24	28	20	13	18	20	12	20	6	8	17	10	14	22	29	18	21	30	32	32	20.8	31.7
8 Spd	13	13	10	11	9	10	11	11	9	9	10	9	9	10	14	26	20	13	9	8	7	8	8	8	10.7	26.3
Dir	28	25	19	27	25	27	31	33	36	46	47	62	49	62	46	57	63	73	71	66	56	51	39	40	45.8	56.7
9 Spd	7	7	8	8	7	7	6	6	8	9	10	9	10	11	12	12	10	9	7	6	9	10	7	7	8.2	12.3
Dir	36	47	45	42	38	20	24	22	27	27	37	29	43	40	36	41	51	41	31	33	17	18	20	13	33.2	35.7
10 Spd	7	9	11	6	3	2	3	6	6	6	5	4	6	9	16	22	20	24	30	15	12	13	13	11	6.7	30.4
Dir	355	345	360	3	24	258	262	266	247	261	235	214	166	169	184	189	168	187	170	160	165	165	168	171	183.0	169.6
11 Spd	7	4	6	9	7	8	7	7	11	15	15	20	22	23	19	24	24	27	25	11	8	11	13	14	13.4	27.2
Dir	173	225	229	207	209	214	257	218	217	219	213	234	242	245	238	238	247	251	246	247	267	261	266	265	238.7	251.0
12 Spd	13	13	11	15	21	16	8	3	5	3	6	5	6	6	13	13	15	15	17	14	17	7	6	6	9.0	21.1
Dir	260	267	261	254	260	267	256	207	202	10	297	255	309	312	342	330	313	320	307	274	265	253	267	253	281.0	260.2
13 Spd	5	8	5	4	4	5	7	9	9	10	11	11	20	25	19	15	16	9	10	9	9	7	8	13	9.5	24.6
Dir	227	195	189	216	238	238	242	243	222	185	198	203	201	184	211	222	247	221	159	219	243	222	229	225	212.9	183.9
14 Spd	17	16	12	10	9	9	13	12	14	19	17	10	11	18	20	15	9	14	16	10	15	11	17	17	6.5	20.5
Dir	205	244	268	151	202	214	210	208	177	180	168	171	201	231	234	272	1	32	42	12	12	323	240	237	222.6	233.9
15 Spd	14	16	21	21	21	18	18	19	21	21	22	21	21	28	27	25	23	23	19	18	14	16	20	20	18.5	28.0
Dir	193	183	201	218	209	222	238	215	206	181	171	171	203	225	231	227	230	216	183	192	240	261	253	262	213.8	225.0
16 Spd	18	15	19	21	19	20	20	21	20	18	20	21	19	20	19	22	23	22	19	14	12	5	15	14	15.0	22.6
Dir	198	217	222	204	208	210	208	206	194	182	169	166	172	176	152	138	157	160	170	176	30	331	219	258	186.6	157.2
17 Spd	17	18	17	22	16	19	19	18	21	19	23	21	11	16	15	26	28	18	20	20	18	29	29	24	18.1	28.8
Dir	257	241	249	243	227	206	209	213	213	197	185	179	184	189	199	244	252	255	248	235	241	247	240	266	228.5	240.3
18 Spd	23	24	21	13	10	18	19	20	21	22	25	27	27	25	28	16	13	20	23	21	15	9	10	9	18.4	27.9
Dir	246	250	193	197	223	213	216	225	224	232	235	234	239	221	217	211	195	234	242	253	242	243	227	248	228.5	217.1
19 Spd	9	7	9	9	7	7	4	15	31	42	48	46	47	48	51	52	47	48	39	33	33	30	26	27	29.4	51.6
Dir	240	259	252	237	253	186	230	230	236	245	253	256	254	252	263	263	260	259	258	247	249	257	261	253.8	263.3	
20 Spd	34	22	23	23	19	16	15	21	13	28	29	27	29	34	42	37	34	32	21	19	18	16	12	14	23.6	41.7
Dir	262	258	244	255	263	257	272	263	234	221	248	243	241	248	256	259	253	249	243	241	244	243	248	212	249.1	255.8
21 Spd	14	9	8	9	12	14	19	14	16	8	8	9	9	12	11	9	8	6	3	5	3	5	6	3	7.1	19.2
Dir	235	233	210	201	214	213	217	217	201	185	169	158	145	158	169	167	174	206	299	329	341	325	271	195	202.6	217.2
22 Spd	9	11	10	15	8	7	13	21	15	11	8	11	12	15	16	13	18	21	13	10	10	11	10	8	11.2	21.4
Dir	252	194	235	258	224	229	248	235	217	202	191	183	227	253	253	273	269	265	240	239	195	232	245	220	236.8	235.4

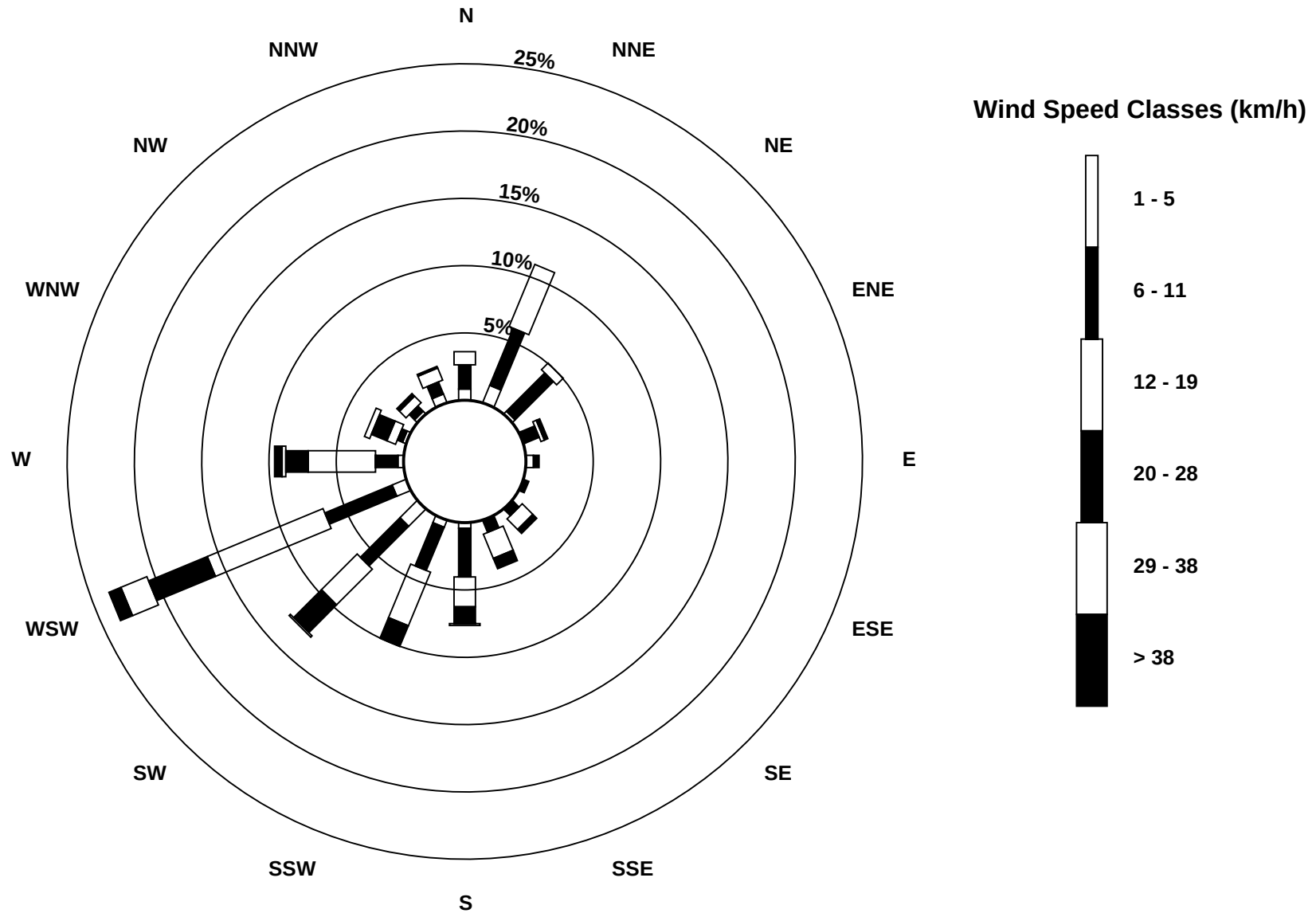
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	7	9	11	11	11	12	10	12	9	8	10	13	12	11	11	9	4	4	4	6	7	6	9	13	4.3	13.1
Dir	245	257	254	258	261	270	257	259	249	212	185	231	224	211	188	175	134	98	33	37	35	27	48	60	236.4	230.6
24 Spd	7	9	9	8	7	5	7	6	7	6	4	4	5	2	5	12	12	13	13	8	2	4	6	13	1.4	13.5
Dir	41	40	30	30	29	17	2	9	20	16	30	358	22	33	169	256	202	205	202	235	278	241	256	264	320.0	205.1
25 Spd	13	8	11	7	4	2	4	9	9	10	10	7	3	4	10	11	10	10	9	9	10	9	12	13	6.9	13.4
Dir	264	9	11	11	359	23	360	351	354	18	40	46	101	98	76	70	61	50	47	45	35	21	16	20	28.7	20.3
26 Spd	13	12	14	15	12	15	17	17	15	14	12	13	13	15	16	15	12	9	6	7	8	7	5	5	11.3	16.5
Dir	27	31	22	11	16	28	25	19	15	12	8	358	354	346	344	337	334	342	340	346	349	327	332	334	2.9	19.1
27 Spd	5	6	5	3	5	4	4	6	6	7	11	16	16	15	16	15	17	14	9	7	8	8	9	12	7.2	16.7
Dir	15	17	2	0	24	37	62	106	86	93	132	141	131	131	143	147	148	139	125	117	101	118	128	158	122.7	147.9
28 Spd	16	15	13	11	11	10	10	11	14	18	19	17	17	15	15	20	21	16	17	20	17	7	12	8	13.6	21.0
Dir	159	165	169	173	172	188	210	212	194	192	190	194	182	172	161	153	146	143	140	142	146	151	168	176	168.8	145.6
29 Spd	6	4	8	9	8	4	8	10	11	9	11	11	18	22	19	17	19	21	18	17	18	20	20	20	12.1	22.0
Dir	175	234	240	224	232	222	221	233	201	179	178	179	254	264	270	273	267	263	254	252	264	253	246	249	245.0	264.3
30 Spd	20	20	15	17	16	21	19	15	18	21	25	21	18	12	14	10	5	15	21	16	18	16	19	18	15.8	24.7
Dir	247	250	251	261	260	254	250	262	285	297	290	302	315	312	293	273	279	262	251	254	248	243	241	253	266.9	289.6
Spd	7.0	6.5	6.1	6.6	6.1	6.7	6.8	7.7	8.4	7.5	9.1	9.3	9.2	9.8	9.9	9.3	8.5	9.1	7.1	6.3	5.8	6.6	6.8	6.6	Diurnal Average	
Dir	246.1	251.3	247.0	243.8	242.9	239.6	240.1	236.2	224.9	224.6	226.6	230.1	240.9	240.5	245.2	249.6	245.3	246.4	239.1	240.5	254.4	262.0	251.7	254.7	Diurnal Maximum	
Spd	34.1	24.0	23.2	22.7	21.1	21.1	20.2	21.5	31.2	41.6	48.4	46.5	46.8	48.1	51.0	51.6	47.5	48.5	39.3	33.2	33.4	29.6	28.8	27.1	Diurnal Maximum	
Dir	262.4	250.2	243.5	254.8	260.2	254.4	208.1	206.3	236.2	245.5	253.0	256.0	253.8	251.9	263.4	263.3	263.4	259.8	258.7	258.2	247.4	248.7	240.3	261.2		
Maximum Speed Value: 52 km/h on Sep 19 16:00																									Hours in Service: 720	
Maximum Daily Speed Average: 29.4 km/h on Sep 19																									Hours of Data: 720	
Maximum Diurnal Speed Average: 9.9 km/h at hour 15																									Hours of Missing Data: 0	
Minimum Speed Value: 2 km/h on Sep 2 21:00																										
Minimum Daily Speed Average: 1.4 km/h on Sep 24																										
Minimum Diurnal Speed Average: 5.8 km/h at hour 21																										
Monthly Average Velocity: 7.51 km/h 242.05 deg																									Percent Operational Time: 100.0	
Speed Percentiles: P ₁ = 2.2 P ₁₀ = 5.7 Q ₁ = 8.7 Median = 12.8 Q ₃ = 18.1 P ₉₀ = 22.8 P ₉₉ = 46.3																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	7	37	31	1	0	0	76																			
NorthEast	9	50	25	2	0	0	86																			
East	4	7	1	0	0	0	12																			
SouthEast	1	8	11	5	0	0	25																			
South	3	36	46	20	1	0	106																			
SouthWest	16	60	72	55	6	1	210																			
West	4	28	77	36	15	10	170																			
NorthWest	4	11	12	8	0	0	35																			
Total	48	237	275	127	22	11	720																			

Wind Rose

Wind Speed (WS) (km/h)
Smoky Heights - September 2014



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - September 2014

Maximum Speed: 52 km/h on Sep 19 16:00																					Maximum Daily Speed Average: 30.2 km/h on Sep 19										Hours in Service: 720																			
Minimum Speed: 2 km/h on Sep 3 00:00																					Minimum Daily Speed Average: 7.8 km/h on Sep 24										Hours of Data: 720																			
Maximum Diurnal Speed Average: 19.5 km/h at hour 15																					Minimum Diurnal Speed Average: 11.1 km/h at hour 5										Hours of Missing Data: 0																			
Monthly Average Speed: 14.52 km/h																					Percentiles: P ₁ = 3.3 P ₁₀ = 6.1 Q ₁ = 8.9 Median = 13.1 Q ₃ = 18.4 P ₉₀ = 23.5 P ₉₉ = 46.6										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	18	18	12	13	15	16	13	10	14	16	21	21	19	18	14	16	13	12	11	12	9	14	15	13	14.6	21.0																								
2-Sep	16	18	17	14	5	18	8	10	10	14	12	11	11	8	8	9	8	7	12	7	3	6	4	2	10.1	18.4																								
3-Sep	3	4	5	8	6	3	4	8	10	11	15	16	16	14	13	14	11	11	11	10	18	19	20	14	11.0	19.5																								
4-Sep	12	15	13	18	19	15	8	10	14	22	25	23	24	28	23	21	16	15	8	4	6	6	8	5	15.0	28.2																								
5-Sep	6	6	9	10	8	8	9	9	12	14	31	30	30	31	33	28	26	25	17	14	16	16	15	14	17.3	32.5																								
6-Sep	15	13	9	10	9	10	12	15	24	27	26	20	18	23	30	30	34	38	22	14	18	18	13	12	19.1	37.7																								
7-Sep	15	16	15	16	17	13	12	12	14	12	12	13	14	13	13	12	13	13	12	10	11	13	17	16	13.5	17.0																								
8-Sep	13	13	10	11	10	10	11	11	9	9	10	10	9	10	16	28	21	13	9	8	7	8	8	9	11.4	27.5																								
9-Sep	7	7	8	8	7	7	6	6	8	9	10	9	11	11	13	13	10	9	7	6	9	10	7	7	8.5	12.8																								
10-Sep	8	9	11	6	4	3	4	6	6	6	6	7	7	11	17	23	21	24	31	15	12	13	13	11	11.5	30.8																								
11-Sep	7	5	6	9	7	8	7	8	11	15	16	20	23	23	20	24	24	28	26	11	8	11	13	14	14.4	27.5																								
12-Sep	13	13	11	15	21	16	9	4	6	6	8	6	6	7	14	14	15	16	18	14	17	7	7	6	11.2	21.1																								
13-Sep	7	8	6	4	4	5	7	9	10	10	11	12	20	26	20	16	16	10	10	9	9	7	9	13	10.7	25.5																								
14-Sep	17	17	12	12	11	11	14	14	14	19	17	11	14	20	23	18	19	19	17	15	16	12	18	17	15.7	23.0																								
15-Sep	15	17	21	21	21	18	18	20	21	22	22	22	23	29	28	26	25	23	20	19	15	16	20	21	21.0	29.4																								
16-Sep	18	16	19	21	20	20	21	22	21	18	21	21	21	22	21	23	24	22	19	15	18	15	16	14	19.4	23.6																								
17-Sep	17	18	18	22	17	19	19	19	21	20	23	21	12	17	17	27	28	18	20	20	19	29	30	24	20.6	30.0																								
18-Sep	24	25	22	13	10	19	20	21	22	22	26	27	28	25	28	16	13	20	24	21	15	9	10	9	19.5	28.5																								
19-Sep	9	8	10	9	7	7	4	16	31	42	49	47	47	49	51	52	48	49	40	33	33	30	26	27	30.2	52.0																								
20-Sep	34	22	23	23	19	17	15	21	14	28	29	28	29	34	42	38	34	32	21	19	18	16	12	14	24.3	42.0																								
21-Sep	14	9	9	10	12	14	19	14	16	8	8	9	9	13	12	9	8	6	3	5	4	6	7	5	9.6	19.4																								
22-Sep	11	11	10	15	8	7	14	22	15	11	9	12	14	16	17	14	19	21	14	12	11	11	10	9	12.9	21.9																								
23-Sep	7	10	11	11	11	12	11	12	9	8	10	14	12	12	12	11	5	4	4	6	7	6	9	13	9.6	13.7																								
24-Sep	8	9	9	8	7	6	7	7	7	6	4	5	6	3	6	12	12	14	13	9	5	5	8	13	7.8	13.6																								
25-Sep	13	8	11	8	5	3	5	10	10	11	10	7	5	5	11	11	10	11	10	9	10	9	12	14	9.0	13.6																								
26-Sep	13	12	14	15	13	15	17	17	15	14	13	13	14	15	17	15	13	9	7	7	8	7	5	5	12.2	16.7																								
27-Sep	6	6	5	3	5	4	4	6	6	7	11	16	16	16	16	15	17	15	9	7	8	8	9	13	9.4	17.0																								
28-Sep	16	15	13	11	11	10	11	12	14	18	19	17	17	15	15	21	21	16	17	20	17	8	12	8	14.7	21.1																								
29-Sep	6	5	9	9	8	5	8	11	12	9	11	11	21	22	20	17	19	21	18	17	18	20	20	21	14.0	22.2																								
30-Sep	20	20	15	17	16	21	19	15	18	21	25	21	18	14	15	10	6	15	21	16	18	16	19	18	17.4	25.0																								
																									12.9	12.5	12.1	12.3	11.1	11.3	11.2	12.5	13.8	15.2	17.0	16.7	17.1	18.3	19.5	19.3	18.3	17.8	15.7	12.8	12.8	12.4	13.1	12.7	Diurnal Average	
																									34.1	24.7	23.2	22.8	21.1	21.2	20.5	21.9	31.3	41.9	48.7	47.0	47.1	48.6	51.3	52.0	47.9	48.7	39.6	33.3	33.5	29.6	30.0	27.2	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																		

Hourly Standard Deviations

Wind Direction (WD) - deg
Smoky Heights - September 2014

Maximum Value: 82.3 deg on Sep 2 21:00																	Hours in Service: 720									
Minimum Value: 2.5 deg on Sep 2 01:00																	Hours of Data: 720									
Percentiles: P ₁ = 3.1 P ₁₀ = 5.7 Q ₁ = 7.8 Median = 11.1 Q ₃ = 17.6 P ₉₀ = 27.9 P ₉₉ = 62.0																	Hours of Missing Data: 0									
																	Hours of Calibration: 0									
																	Percent Operational Time: 100.0									
Day	Hourly Period Ending At (MST)																								Daily Maximum	
1-Sep	6	7	7	4	14	5	6	6	6	8	10	7	13	14	11	15	10	11	10	11	13	8	6	5	15.3	
2-Sep	2	3	3	9	24	4	9	4	10	5	8	13	45	20	23	25	21	21	9	17	82	29	58	40	82.3	
3-Sep	62	21	15	13	28	23	22	11	22	8	26	18	20	21	31	21	21	18	6	10	15	4	3	6	61.9	
4-Sep	6	5	5	7	3	29	28	24	27	20	14	22	30	13	12	12	14	14	6	80	29	29	25	20	79.6	
5-Sep	47	10	9	7	3	6	5	9	7	12	25	16	11	12	11	11	8	9	7	7	10	6	7	8	47.1	
6-Sep	9	33	15	14	21	14	9	5	7	11	9	14	21	17	10	11	12	9	6	11	9	60	12	12	60.1	
7-Sep	8	8	9	10	10	25	11	15	10	12	10	12	12	15	9	11	12	10	9	10	9	8	7	8	25.3	
8-Sep	9	9	8	7	9	8	7	7	9	10	12	12	15	14	27	18	11	9	8	7	11	8	14	9	26.8	
9-Sep	8	9	10	7	14	10	9	11	10	13	13	14	22	14	16	13	15	10	12	14	11	9	10	9	22.0	
10-Sep	9	11	10	21	53	43	40	14	19	28	37	69	48	44	23	21	19	15	9	4	4	3	6	6	69.4	
11-Sep	7	29	10	9	12	10	11	18	7	6	10	14	9	9	12	13	10	10	9	6	12	5	4	3	28.5	
12-Sep	4	4	9	5	3	5	23	65	20	73	34	21	19	21	23	17	11	22	19	7	14	17	13	21	73.1	
13-Sep	40	11	17	16	13	14	8	6	11	14	13	14	15	16	17	24	7	26	11	20	21	13	7	7	39.7	
14-Sep	12	17	14	34	41	32	25	30	10	9	16	20	38	27	29	35	65	43	29	50	15	20	24	11	64.7	
15-Sep	28	16	7	5	6	7	7	9	6	11	10	13	28	18	15	17	15	11	8	7	19	6	11	12	28.0	
16-Sep	13	14	8	10	10	8	11	8	8	8	15	15	23	21	27	18	17	10	12	20	63	72	23	16	72.3	
17-Sep	10	12	20	16	21	12	13	10	5	17	10	12	20	16	28	10	6	5	6	10	6	6	18	12	27.8	
18-Sep	14	13	16	10	7	8	20	11	8	10	13	8	10	9	11	10	5	14	5	5	7	10	13	14	19.5	
19-Sep	16	26	34	21	10	21	27	9	5	6	6	8	7	8	7	7	8	5	7	6	4	3	4	3	33.7	
20-Sep	3	6	4	5	6	8	8	9	20	9	9	11	9	9	6	7	7	6	6	3	5	6	16	6	19.6	
21-Sep	10	13	26	16	4	14	8	12	6	12	16	19	18	14	15	20	20	10	18	21	28	39	54	49	53.6	
22-Sep	29	13	22	11	21	13	10	12	11	9	25	25	32	18	11	19	17	9	16	34	18	19	16	18	33.5	
23-Sep	9	23	9	12	8	6	23	6	8	14	13	17	18	27	22	36	35	25	19	13	12	12	17	11	36.2	
24-Sep	13	9	7	7	7	15	15	21	11	14	30	37	19	46	51	10	12	9	8	26	74	33	35	8	73.5	
25-Sep	14	28	9	16	49	51	58	15	11	19	12	18	51	31	20	12	11	8	9	9	8	7	7	8	58.3	
26-Sep	7	8	8	8	10	7	8	6	9	10	11	11	12	10	8	11	11	12	14	15	11	13	15	9	15.5	
27-Sep	20	15	16	22	16	15	32	16	17	13	17	11	11	13	10	11	9	9	12	7	7	9	10	7	32.4	
28-Sep	4	4	5	7	7	7	7	14	7	5	6	10	14	15	14	14	7	5	5	5	7	21	6	11	20.8	
29-Sep	12	36	20	15	16	25	8	18	7	10	8	9	44	7	9	10	6	7	4	7	4	7	4	5	43.7	
30-Sep	5	4	4	4	4	6	3	7	11	9	10	15	15	36	21	14	33	6	8	6	6	5	3	6	36.0	
61.9 35.7 33.7 33.9 53.0 50.8 58.3 65.0 26.8 73.1 36.8 69.4 50.9 45.8 50.9 36.2 64.7 43.1 28.6 79.6 82.3 72.3 58.4 49.1																										

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

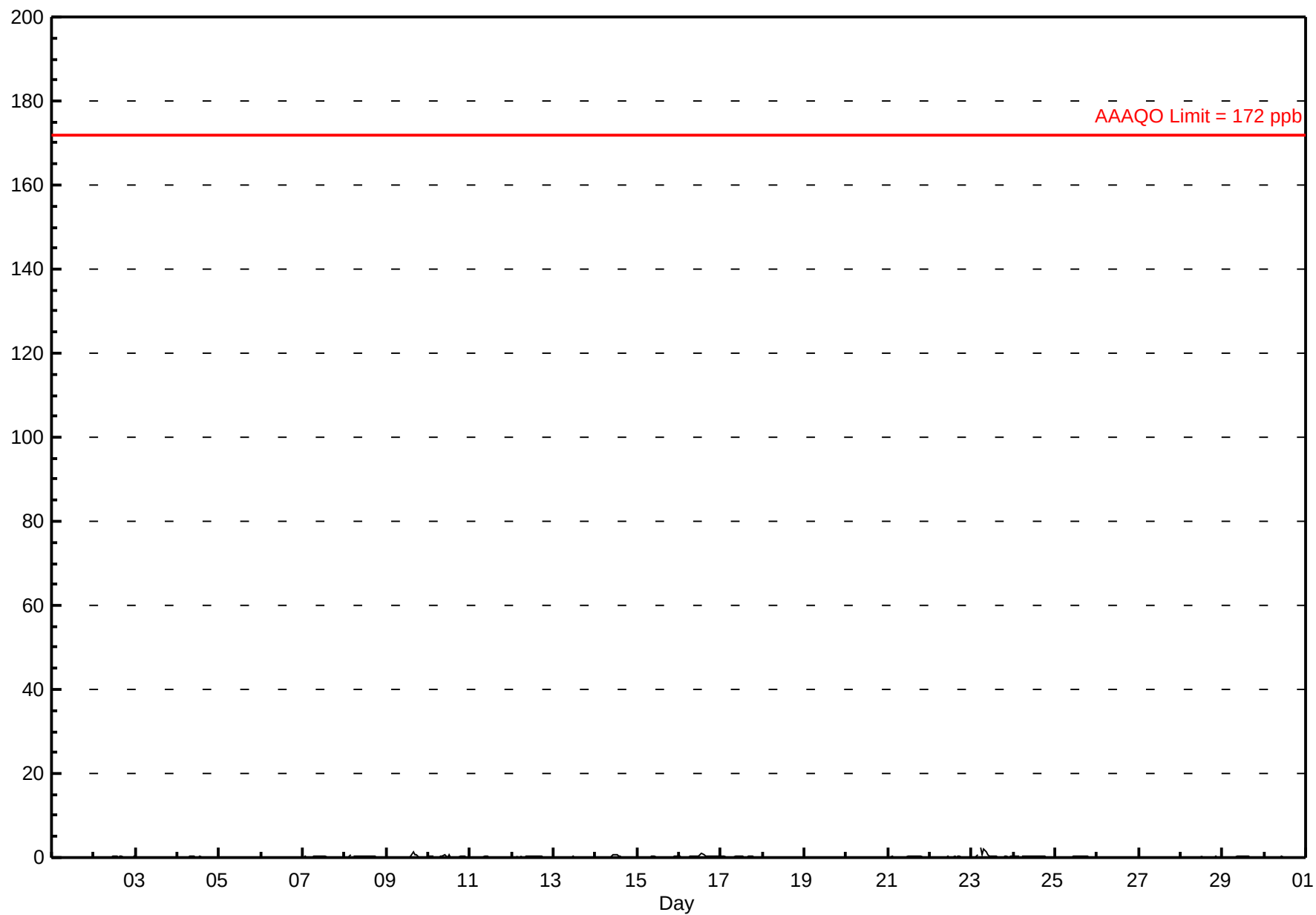
Hourly Averages

Sulphur Dioxide (SO₂) - ppb Beaverlodge - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 720						
Maximum Value: 2.5 ppb on Sep 23 06:00																				Maximum Daily Average: 0.5 ppb on Sep 23		Hours of Data: 687				
Minimum Value: 0 ppb on Sep 2 00:00																				Minimum Daily Average: 0.0 ppb on Sep 1		Hours of Missing Data: 33				
Maximum Diurnal Average: 0.2 ppb at hour 13																				Minimum Diurnal Average: 0.1 ppb at hour 3		Hours of Calibration: 33				
Monthly Average: 0.15 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.8		Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-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	0.1
2-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
3-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0.1	0.2
4-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
5-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
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	0.1	0.1
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	0.2	0.4
8-Sep	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
9-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0.2	1.2
10-Sep	0	0	0	0	A	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
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	0.2
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	0.1	0.2
14-Sep	0	0	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
15-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
16-Sep	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.3	1.0
17-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
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	0.1	0.1
19-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
20-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
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
23-Sep	0	0	0	1	A	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.5
24-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
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	0.1	0.3
26-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
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	0.1	0.1
28-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
29-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
30-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
0.1 0.1 0.1 0.1 -- 0.2 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1																									Diurnal Average	
0.3 0.3 0.3 0.8 -- 2.5 0.8 1.9 1.4 0.7 0.5 0.6 0.7 1.0 0.6 1.2 0.6 0.7 0.2 0.2 0.3 0.3 0.3 0.3 0.5																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - September 2014



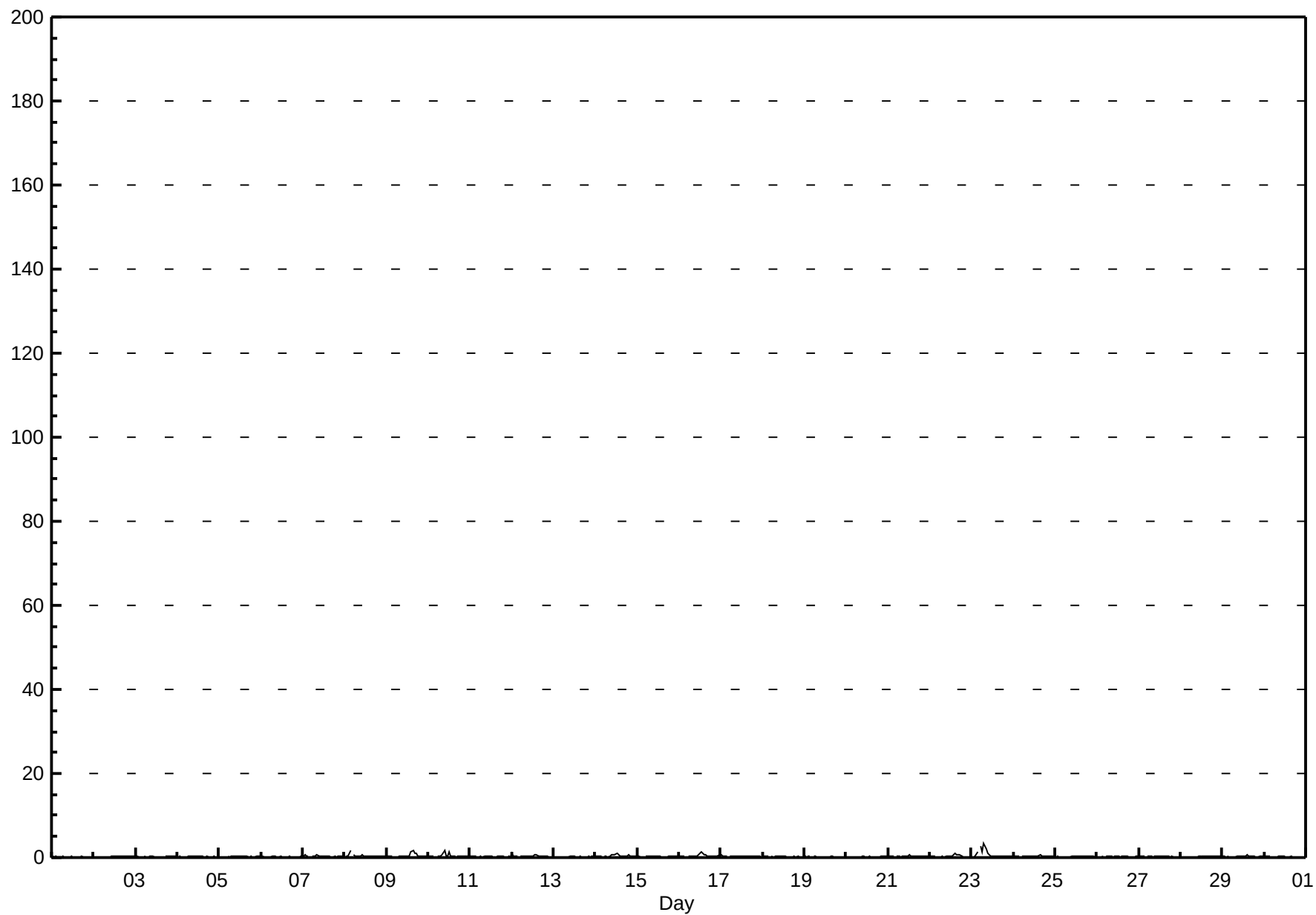
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb Beaverlodge - September 2014

Maximum Value: 3.4 ppb on Sep 23 08:00																				Maximum Daily Average: 0.7 ppb on Sep 23										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 3 14:00																				Minimum Daily Average: 0.1 ppb on Sep 1										Hours of Data: 687	
Maximum Diurnal Average: 0.4 ppb at hour 13																				Minimum Diurnal Average: 0.2 ppb at hour 21										Hours of Missing Data: 33	
Monthly Average: 0.27 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.4 P ₉₉ = 1.4										Hours of Calibration: 33	
																				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	0	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	0	0	0	0	0	0.2	0.4					
3-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0.2	0.3					
4-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					
5-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					
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	0.2					
7-Sep	0	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6					
8-Sep	0	0	0	2	A	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7					
9-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0.4	1.6					
10-Sep	0	0	0	0	A	0	0	0	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.7					
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	0.4					
12-Sep	1	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	1.1					
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	1	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0.3	0.9					
15-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					
16-Sep	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	1	0.5	1.3						
17-Sep	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6					
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	0.2					
19-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					
20-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					
21-Sep	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6					
22-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0.3	0.8					
23-Sep	0	0	0	1	A	3	1	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	3.4					
24-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.3	0.6					
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	0.5					
26-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					
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	0.2	0.2					
28-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					
29-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.5					
30-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					
0.2 0.2 0.2 0.3 -- 0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.4 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2																									Diurnal Average						
1.1 0.6 0.5 1.7 -- 2.8 1.3 3.4 2.0 1.7 0.7 0.8 1.4 1.3 1.2 1.6 0.9 1.0 0.4 0.6 0.4 0.4 0.5 0.8																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

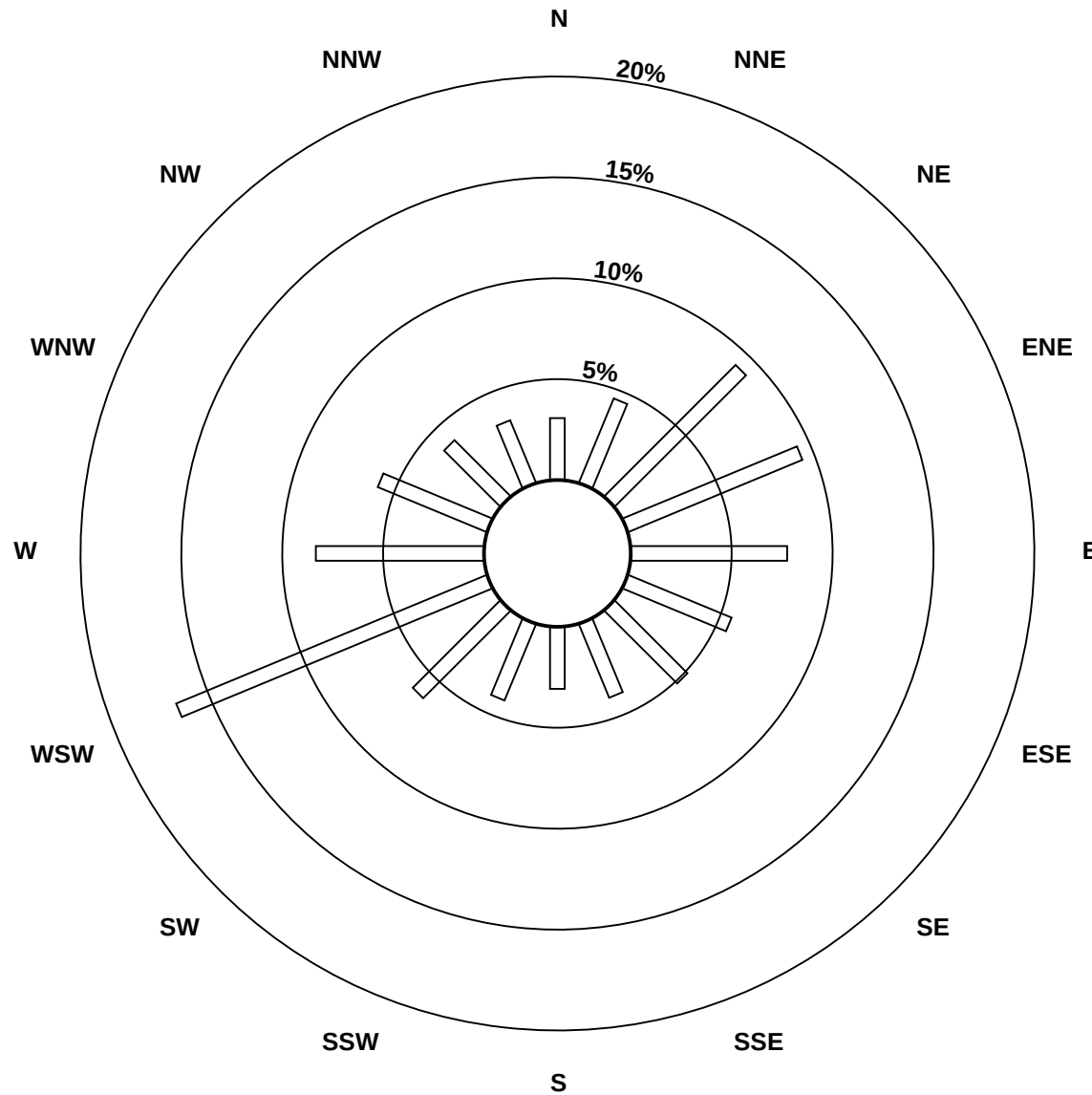
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - September 2014

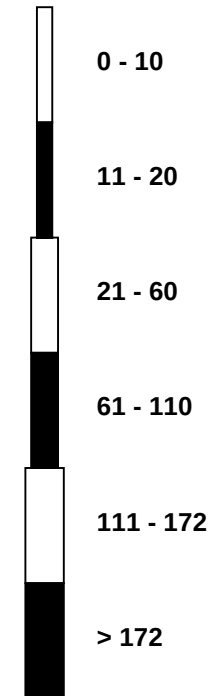


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - September 2014

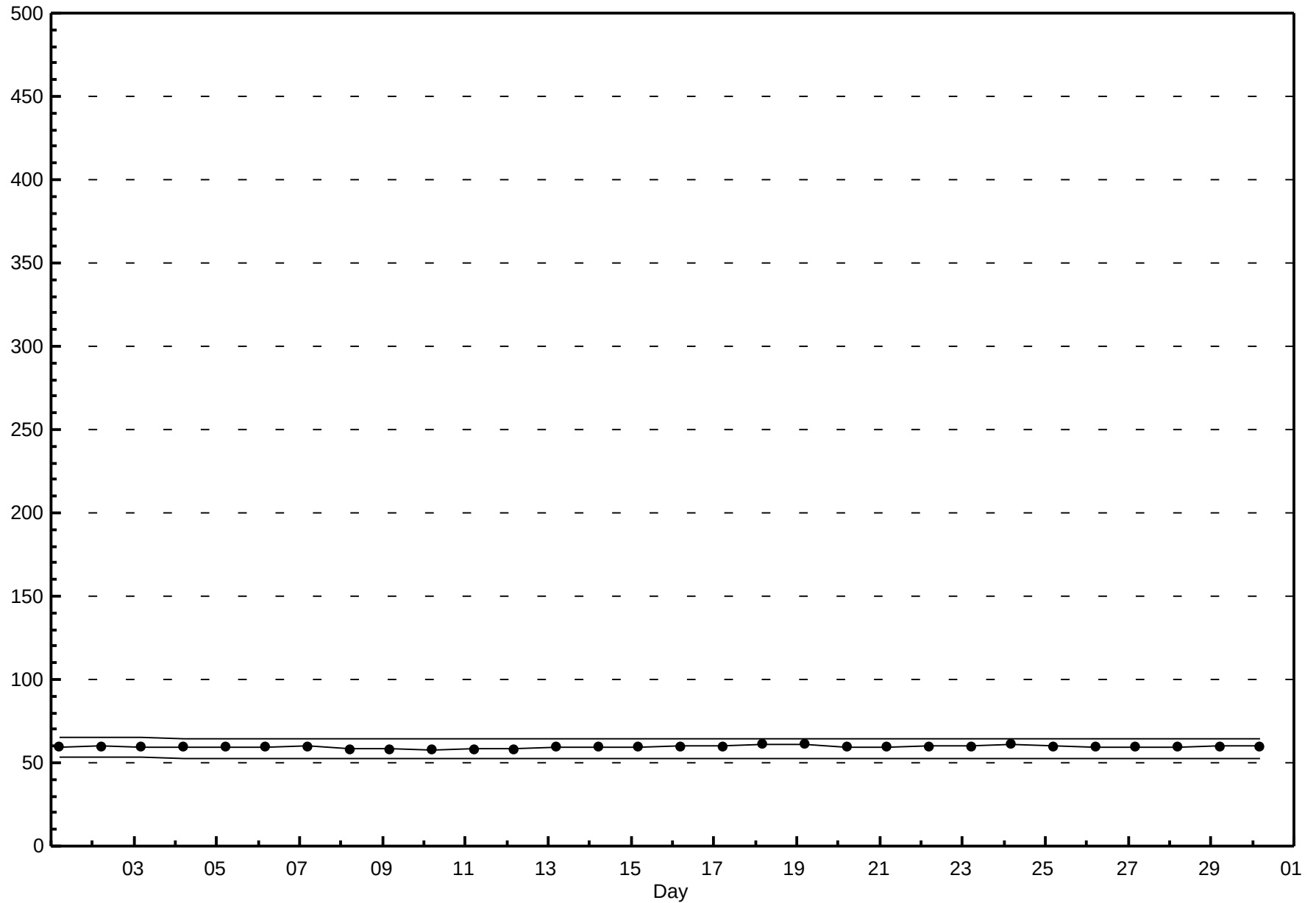


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - September 2014



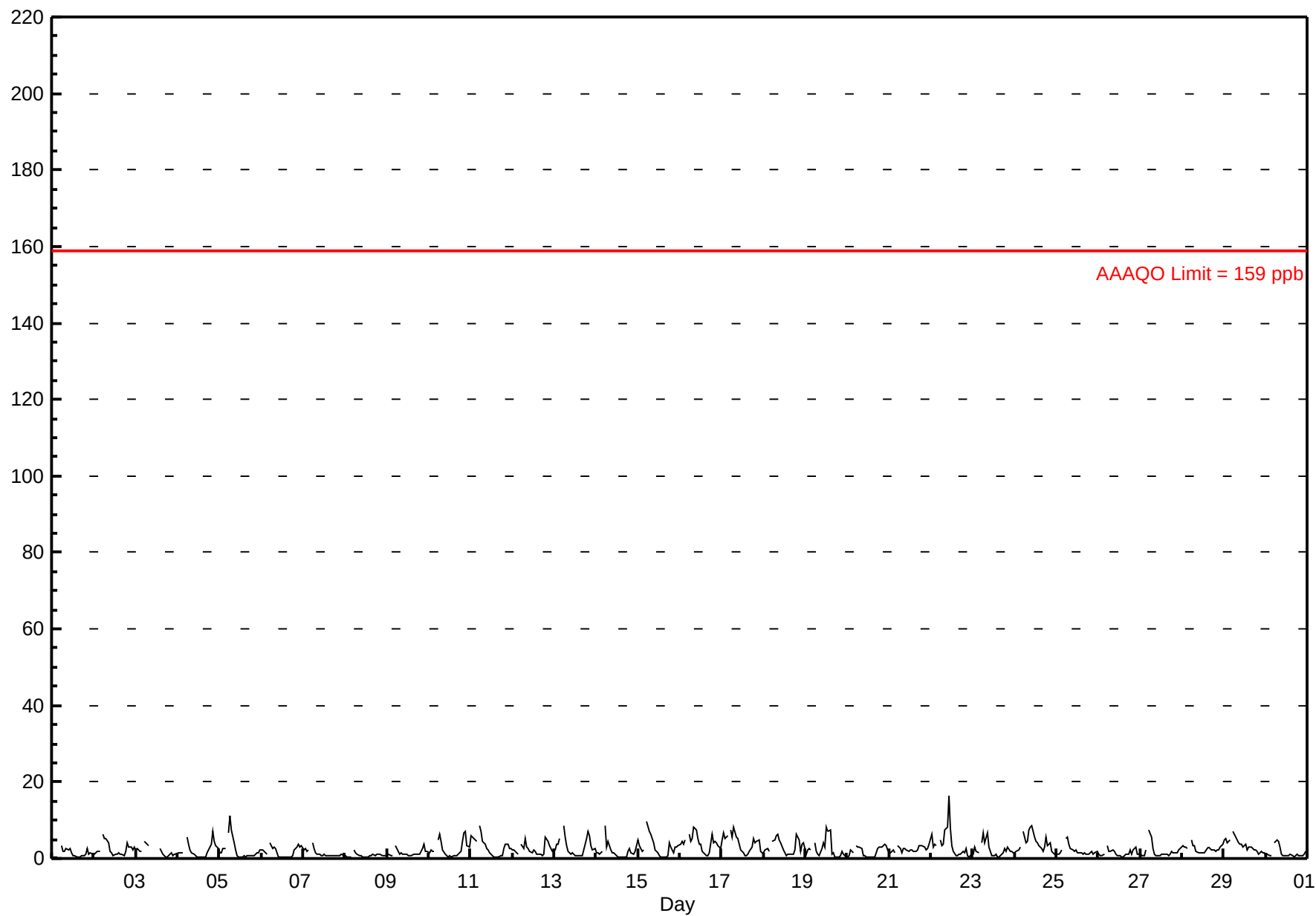
Hourly Averages

Nitrogen Dioxide (NO₂) - ppb Beaverlodge - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16.4 ppb on Sep 22 11:00 Maximum Daily Average: 4.0 ppb on Sep 16																				Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 20 00:00 Maximum Diurnal Average: 5.3 ppb at hour 6 Monthly Average: 2.39 ppb										Minimum Daily Average: 0.8 ppb on Sep 8 Minimum Diurnal Average: 1.0 ppb at hour 16 Percentiles: P ₁ = 0.3 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 1.8 Q ₃ = 3.2 P ₉₀ = 5.1 P ₉₉ = 8.4																
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	0	0	0	0	A	3	2	2	3	2	3	1	1	1	1	0	0	1	1	1	3	1	2	1	1.3	3.2
2-Sep	1	2	2	2	A	6	5	5	4	2	1	1	1	1	2	1	1	1	2	4	3	3	2	3	2.4	6.2
3-Sep	2	2	2	2	A	4	4	3	C	C	C	C	C	C	3	1	1	1	1	1	1	1	1	1	--	4.5
4-Sep	2	2	2	2	A	6	4	2	1	1	1	0	0	0	0	0	0	1	3	4	7	4	3	3	2.1	6.9
5-Sep	2	1	3	2	A	7	11	7	4	2	1	0	0	0	1	1	1	1	1	1	1	2	1	2	2.3	11.1
6-Sep	2	2	1	1	A	4	3	3	3	1	1	0	0	0	0	0	0	0	1	2	3	4	3	3	1.7	4.0
7-Sep	2	3	2	2	A	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	4.0
8-Sep	1	1	0	1	A	2	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0.8	2.4
9-Sep	1	1	1	1	A	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3	4	2	2	1.4	3.9
10-Sep	2	2	2	2	A	5	6	4	2	1	1	1	1	1	1	1	1	1	2	5	7	7	3	3	2.6	7.2
11-Sep	6	6	5	4	A	9	7	5	4	3	2	1	1	1	0	0	1	1	1	3	4	4	2	2	3.1	8.7
12-Sep	2	2	1	1	A	4	3	5	3	2	2	2	2	2	1	1	1	1	1	6	5	4	3	2	2.4	5.8
13-Sep	2	4	4	5	A	9	6	3	2	1	1	1	1	1	1	1	1	2	5	7	6	3	2	3	3.1	8.5
14-Sep	1	1	1	2	A	9	3	4	2	2	2	1	0	0	0	0	0	0	2	3	1	1	2	3	1.9	8.5
15-Sep	5	3	2	2	A	10	7	6	5	4	2	2	1	0	0	0	0	1	4	3	2	3	3	3	3.0	9.6
16-Sep	4	4	4	5	A	7	5	5	8	7	5	4	4	2	1	1	1	2	6	4	4	4	3	3	4.0	8.1
17-Sep	5	7	5	6	A	7	6	8	6	5	4	2	2	1	1	1	2	3	5	4	4	5	2	1	4.0	8.0
18-Sep	2	2	3	2	A	5	5	6	6	5	4	2	1	1	1	1	1	1	2	6	5	2	4	4	3.1	6.5
19-Sep	1	2	3	2	A	4	2	1	1	2	4	3	8	7	8	1	1	0	0	0	1	2	1	0	2.4	8.4
20-Sep	0	1	2	2	A	3	3	3	3	1	1	0	0	0	0	0	1	3	3	3	3	4	3	2	1.8	3.7
21-Sep	1	2	2	2	A	3	2	2	3	2	2	2	2	2	2	2	2	4	3	3	3	2	3	4	2.4	3.6
22-Sep	6	3	4	3	A	5	3	4	8	8	16	8	3	2	1	1	1	1	2	2	3	1	1	1	3.7	16.4
23-Sep	1	3	2	1	A	4	7	4	7	3	2	1	1	1	0	1	1	1	2	2	3	2	2	2	2.3	6.9
24-Sep	2	2	2	3	A	7	4	4	8	8	8	6	5	4	3	3	2	3	6	3	4	2	1	1	3.9	8.4
25-Sep	1	1	2	2	A	5	6	4	3	2	2	2	1	1	1	1	1	1	1	2	2	1	2	2	2.0	5.6
26-Sep	1	1	1	1	A	3	2	2	2	2	1	1	1	0	1	1	1	1	2	1	2	3	1	1	1.4	3.4
27-Sep	2	1	1	2	A	7	6	3	1	1	1	1	1	1	1	1	1	1	2	1	1	2	2	3	1.8	7.3
28-Sep	3	3	3	3	A	5	3	4	2	2	2	1	1	2	2	3	3	2	2	2	2	2	3	4	2.5	4.7
29-Sep	5	5	4	5	A	7	6	6	4	4	4	3	4	2	3	3	3	2	2	2	1	2	1	1	3.5	7.1
30-Sep	1	1	1	1	A	4	5	5	3	1	1	1	1	1	1	1	0	1	1	1	1	1	1	2	1.4	4.8
2.2 2.4 2.2 2.3 -- 5.3 4.3 3.8 3.4 2.7 2.6 1.7 1.6 1.3 1.3 1.0 1.0 1.3 2.2 2.6 2.9 2.5 2.1 2.1																								Diurnal Average		
6.4 6.6 5.2 5.9 -- 9.6 11.1 8.0 8.1 8.0 16.4 7.9 8.4 7.1 7.6 2.9 2.9 3.5 6.2 7.0 6.9 7.2 3.6 4.2																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - September 2014



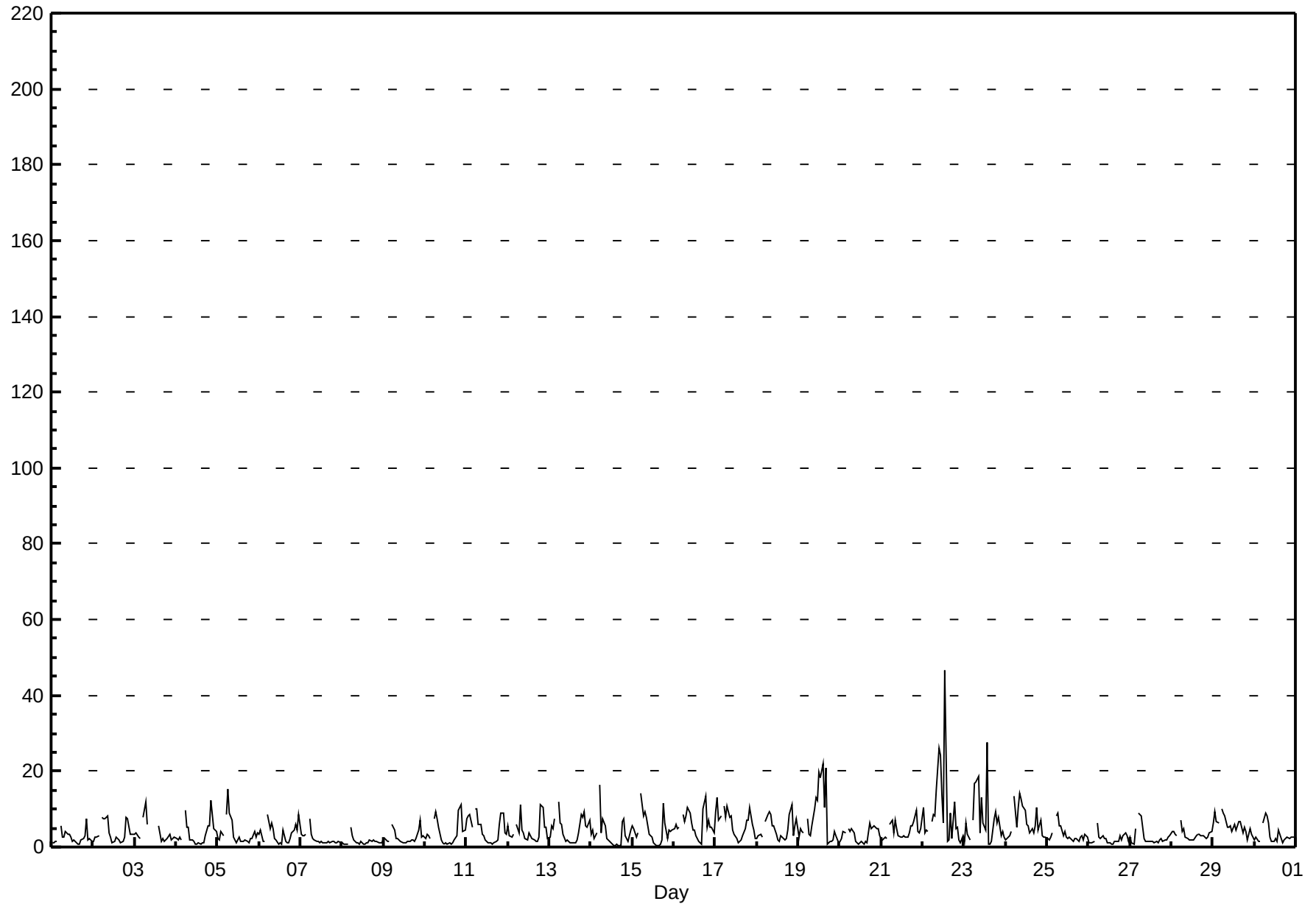
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb Beaverlodge - September 2014

Maximum Value: 46.8 ppb on Sep 22 14:00																				Maximum Daily Average: 9.6 ppb on Sep 22										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 14 17:00																				Minimum Daily Average: 1.4 ppb on Sep 8										Hours of Data: 684	
Maximum Diurnal Average: 8.4 ppb at hour 6																				Minimum Diurnal Average: 2.1 ppb at hour 16										Hours of Missing Data: 36	
Monthly Average: 4.27 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 1.1 Q ₁ = 1.7 Median = 2.9 Q ₃ = 5.6 P ₉₀ = 8.9 P ₉₉ = 19.5										Hours of Calibration: 36	
																														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	1	1	1	2	A	6	3	3	4	3	3	3	2	2	1	1	1	2	2	3	8	2	2	2	2.4	7.6					
2-Sep	2	3	3	3	A	8	7	8	8	4	2	1	2	2	2	2	1	2	2	8	7	4	3	3	3.8	8.0					
3-Sep	3	4	3	2	A	8	12	6	C	C	C	C	C	C	5	1	2	1	2	2	3	2	2	3	--	11.9					
4-Sep	2	2	2	2	A	10	5	5	2	2	1	1	1	1	1	1	1	3	6	6	12	8	5	4	3.6	12.3					
5-Sep	2	2	4	3	A	9	15	9	7	3	2	1	2	1	1	1	2	1	1	2	2	4	3	4	3.6	15.3					
6-Sep	3	4	2	1	A	9	5	6	5	2	2	1	1	1	4	2	1	1	2	4	5	6	4	9	3.4	8.6					
7-Sep	3	3	3	3	A	7	3	2	2	1	2	1	1	1	1	1	1	1	1	2	1	1	2	1	2.1	7.5					
8-Sep	1	1	1	1	A	5	3	2	1	1	1	2	1	1	1	1	2	1	2	2	2	1	1	1	1.4	5.1					
9-Sep	2	2	2	1	A	6	4	2	2	2	2	1	1	1	1	2	2	2	2	2	4	7	3	3	2.5	7.3					
10-Sep	2	3	3	2	A	7	9	7	5	2	1	1	1	1	1	1	1	2	3	10	11	11	4	5	4.1	11.1					
11-Sep	7	8	8	5	A	10	10	6	6	3	3	2	1	1	1	1	1	2	2	6	9	9	4	3	4.8	10.0					
12-Sep	6	3	3	3	A	6	4	11	5	4	2	2	4	3	2	2	2	1	3	11	11	5	5	2	4.3	11.3					
13-Sep	2	5	5	7	A	12	6	6	3	1	2	1	1	1	1	1	2	4	9	8	9	6	5	7	4.6	12.0					
14-Sep	3	5	2	4	A	16	4	7	5	2	2	1	1	1	1	1	0	1	7	7	3	1	3	4	3.6	16.5					
15-Sep	6	5	2	4	A	14	8	9	8	5	4	2	1	1	1	1	1	2	11	6	2	4	4	4	4.6	14.0					
16-Sep	5	6	5	5	A	9	7	8	11	9	6	5	5	3	2	1	1	10	14	5	7	5	5	4	5.9	13.6					
17-Sep	9	13	7	8	A	11	8	11	8	8	5	3	2	1	1	2	3	5	7	7	10	6	5	2	6.2	13.2					
18-Sep	2	3	3	3	A	7	9	9	8	6	6	4	2	1	3	2	2	2	5	8	11	3	5	7	4.8	11.2					
19-Sep	3	5	4	4	A	7	3	3	5	10	13	12	20	18	22	10	21	1	2	1	2	4	3	1	7.6	21.9					
20-Sep	2	2	4	4	A	5	4	5	4	2	1	1	2	1	1	1	1	6	5	5	6	5	5	3	3.2	6.4					
21-Sep	2	2	3	2	A	6	7	4	7	5	3	3	3	3	3	3	4	5	6	7	10	4	4	5	4.3	9.8					
22-Sep	10	4	5	4	A	7	9	8	15	26	24	14	6	47	2	2	9	2	12	5	5	2	1	3	9.6	46.8					
23-Sep	2	6	4	2	A	7	17	17	19	4	13	6	5	28	1	1	1	7	9	6	8	3	4	3	7.5	27.7					
24-Sep	2	2	3	4	A	14	5	10	14	13	11	10	6	6	4	5	4	5	10	4	7	3	3	3	6.4	14.2					
25-Sep	2	2	3	4	A	8	9	5	6	3	4	2	2	3	2	2	2	2	2	3	3	2	3	3	3.3	9.0					
26-Sep	1	1	1	1	A	7	3	2	3	2	2	1	1	1	1	2	1	2	3	2	3	4	3	2	2.1	6.5					
27-Sep	2	1	1	5	A	9	8	5	2	2	2	1	1	1	1	1	1	2	2	2	2	2	3	2	2.6	9.1					
28-Sep	4	4	3	3	A	7	4	5	2	2	2	2	2	2	3	3	3	3	3	3	2	3	4	4	3.2	7.1					
29-Sep	6	9	7	6	A	10	9	8	5	5	6	4	6	4	6	7	7	4	5	4	2	5	3	3	5.7	9.9					
30-Sep	2	2	2	2	A	6	9	8	6	2	2	1	2	2	5	2	1	2	2	2	2	3	3	3	3.1	9.0					
3.4 3.8 3.3 3.4 -- 8.4 7.0 6.6 6.2 4.6 4.4 3.1 2.9 4.7 2.7 2.1 2.7 2.8 4.7 4.8 5.6 4.2 3.4 3.4																								Diurnal Average							
10.4 13.2 8.5 8.0 -- 16.5 16.6 17.2 18.6 26.1 24.1 13.6 19.9 46.8 21.9 10.5 21.0 9.9 13.6 11.3 12.3 11.1 5.5 8.6																								Diurnal Maximum							
C - Calibration A - Automated Daily Zero Span																															

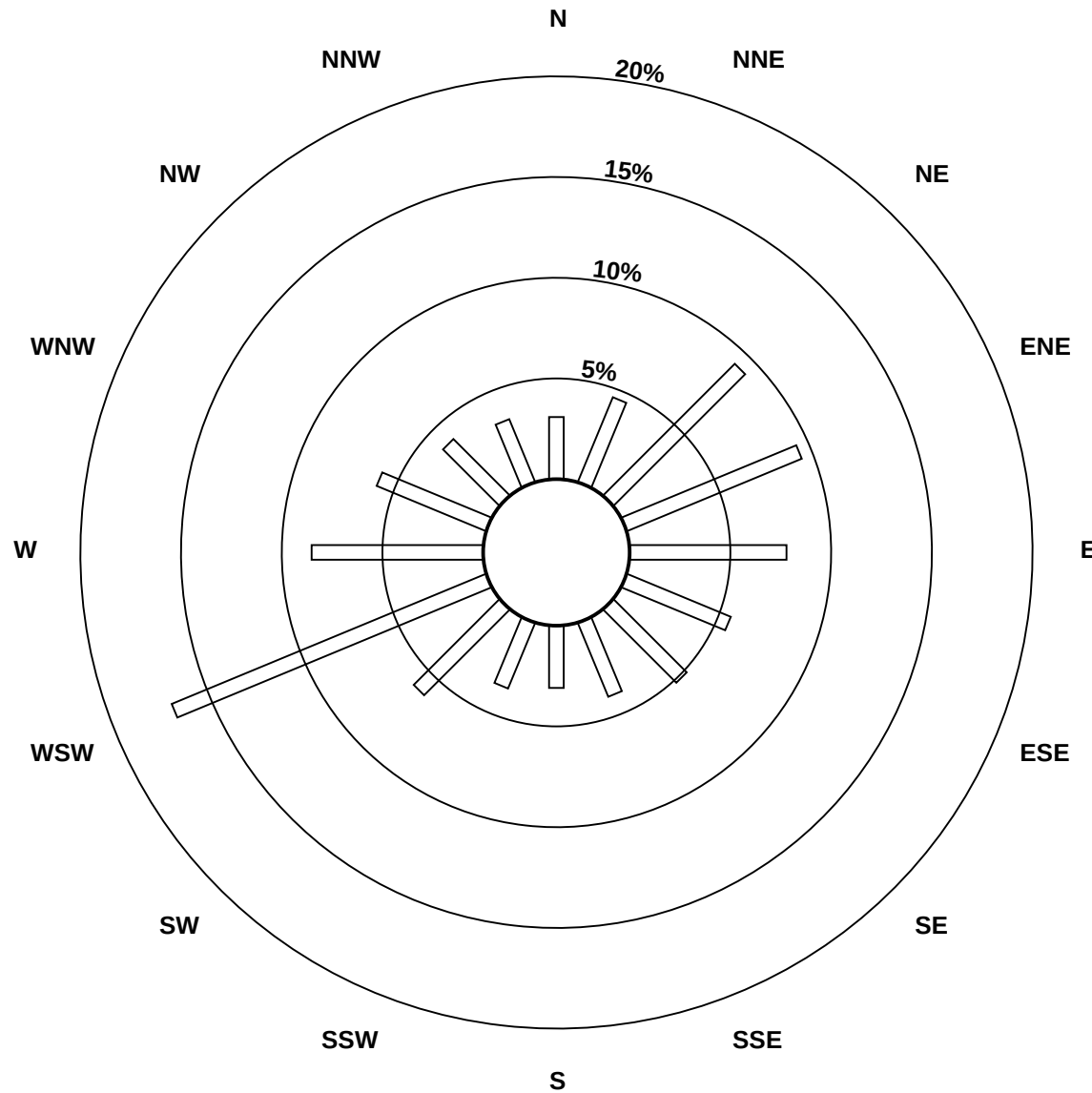
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - September 2014

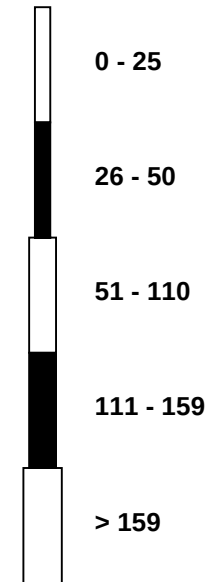


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - September 2014

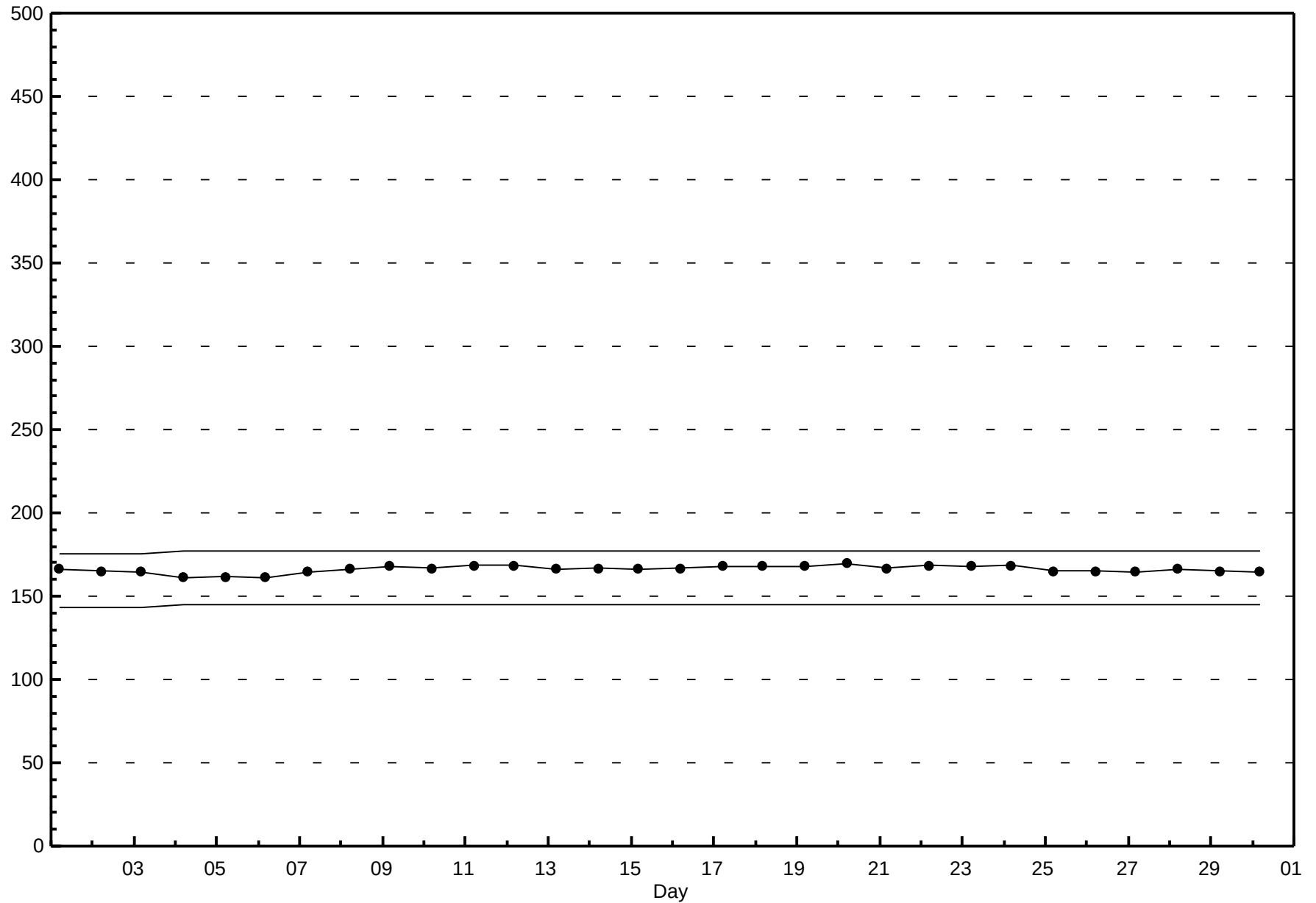


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - September 2014



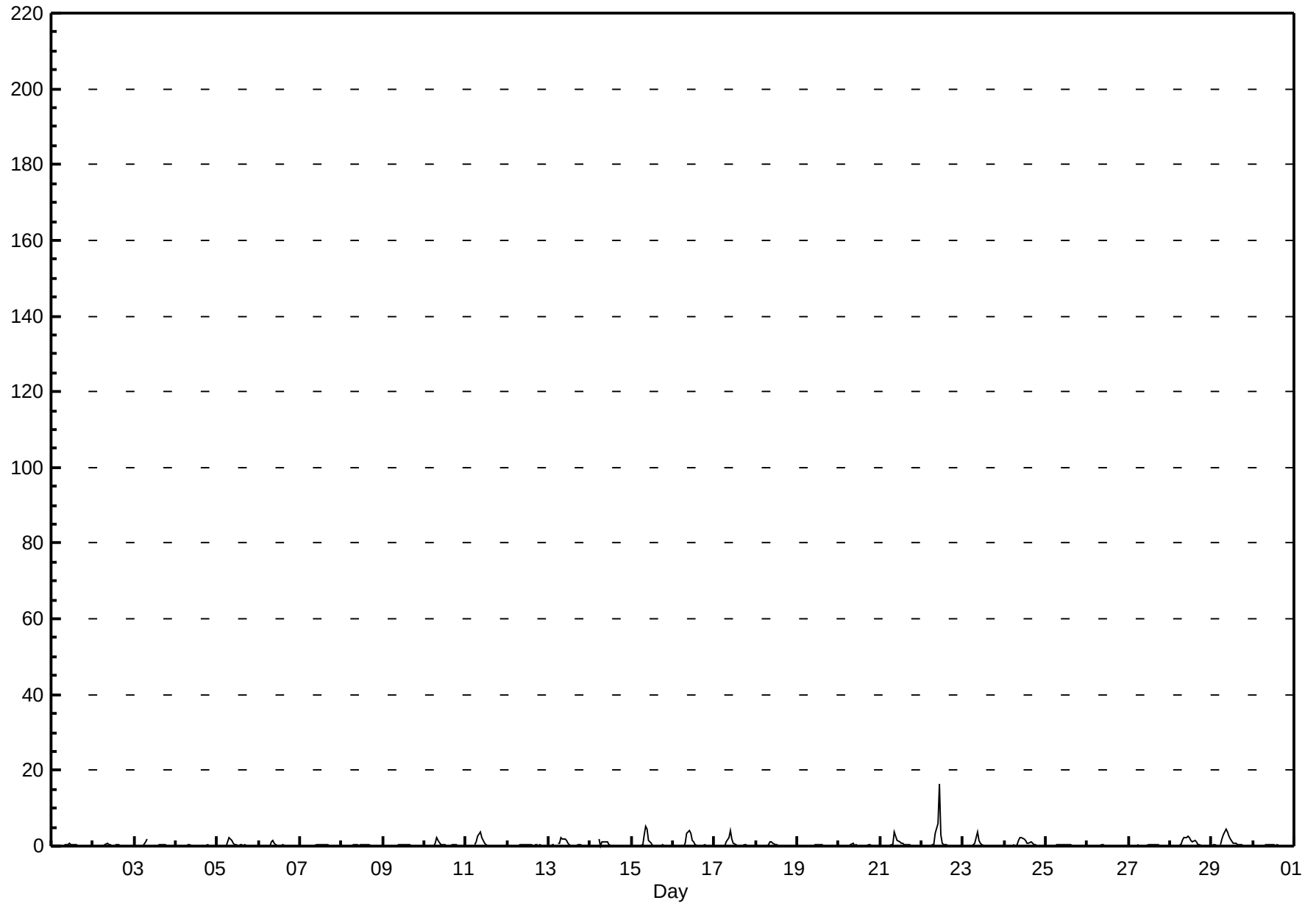
Hourly Averages

Nitrogen Oxide (NO) - ppb Beaverlodge - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16.3 ppb on Sep 22 11:00 Maximum Daily Average: 1.4 ppb on Sep 22																				Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 1 02:00 Maximum Diurnal Average: 1.6 ppb at hour 9 Monthly Average: 0.39 ppb										Minimum Daily Average: 0.1 ppb on Sep 26 Minimum Diurnal Average: 0.0 ppb at hour 1 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 3.9																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-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	0.2	0.7
2-Sep	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-Sep	0	0	0	0	A	0	1	2	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	--	2.0
4-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
5-Sep	0	0	0	0	A	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1
6-Sep	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
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	0.2	0.4
8-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
9-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
10-Sep	0	0	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.1
11-Sep	0	0	0	0	A	0	1	3	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	3.8
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	0.5
13-Sep	0	0	0	0	A	1	1	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.4
14-Sep	0	0	0	0	A	2	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
15-Sep	0	0	0	0	A	0	0	3	5	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.2
16-Sep	0	0	0	0	A	0	0	1	4	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0.7	4.0
17-Sep	0	0	0	0	A	0	0	1	2	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.2
18-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	0.2	1.1
19-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
20-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	0.2	0.8
21-Sep	0	0	0	0	A	0	0	0	4	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	3.6
22-Sep	0	0	0	0	A	0	0	0	3	6	16	3	1	0	0	0	0	0	0	0	0	0	0	0	1.4	16.3
23-Sep	0	0	0	0	A	0	0	1	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.7
24-Sep	0	0	0	0	A	0	0	0	1	2	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0.6	2.1
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	0.5
26-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
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	0.1	0.4
28-Sep	0	0	0	0	A	0	0	1	2	2	3	2	2	1	2	1	1	0	0	0	0	0	0	0	0.8	2.6
29-Sep	0	0	0	0	A	0	2	3	5	4	3	2	1	1	1	0	0	0	0	0	0	0	0	0	1.0	4.6
30-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	0.5
0.0 0.1 0.1 0.1 -- 0.2 0.4 0.9 1.6 1.5 1.4 0.7 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1																									Diurnal Average	
0.1 0.5 0.3 0.3 -- 1.7 1.8 3.0 5.2 6.0 16.3 2.8 1.7 1.1 1.7 1.2 0.6 0.5 0.4 0.2 0.2 0.2 0.1 0.1																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - September 2014



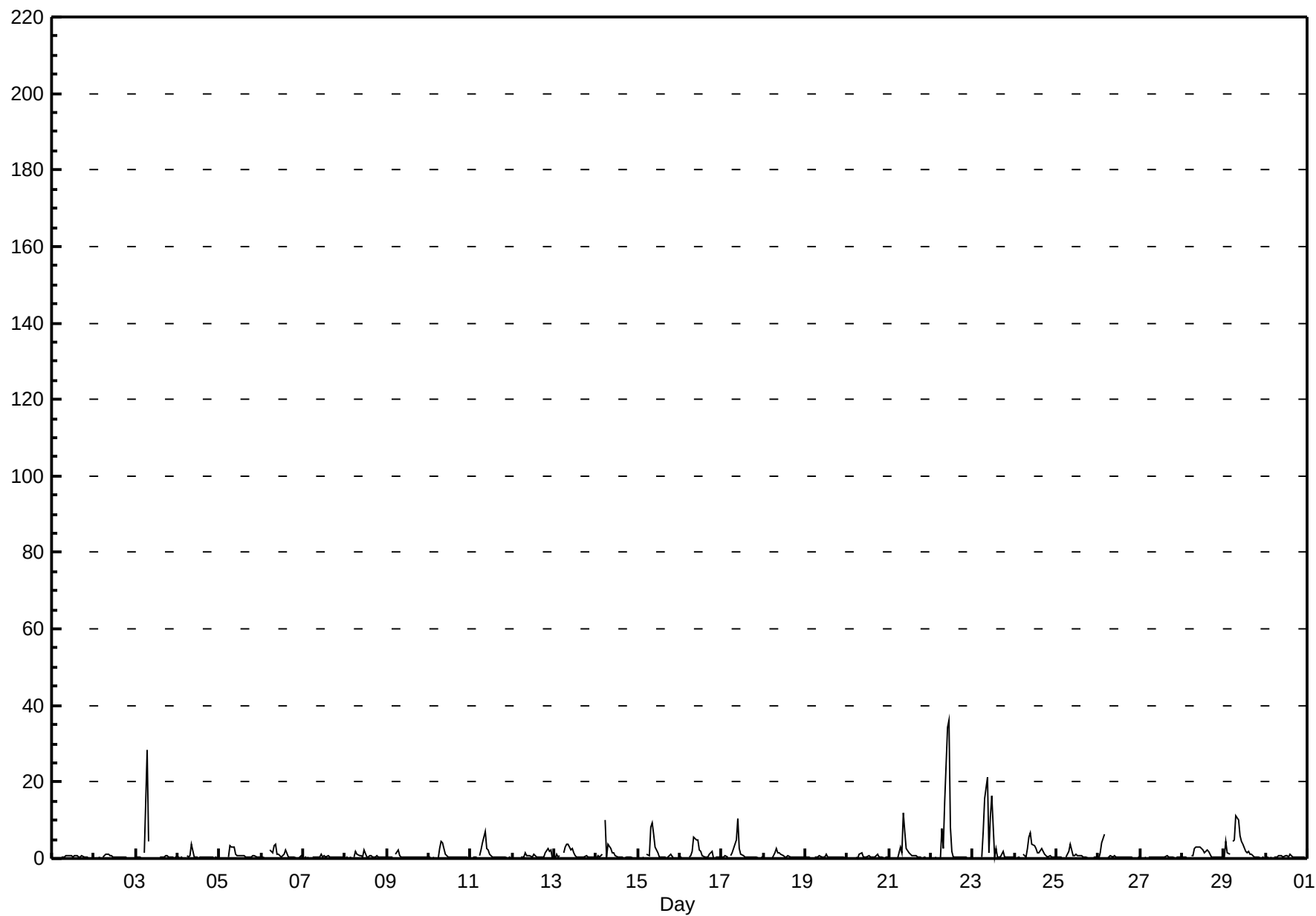
Hourly Maximums

Nitrogen Oxide (NO) - ppb Beaverlodge - September 2014

Maximum Value: 36.1 ppb on Sep 22 11:00																				Maximum Daily Average: 4.8 ppb on Sep 22					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 3 04:00																				Minimum Daily Average: 0.3 ppb on Sep 27					Hours of Data: 684	
Maximum Diurnal Average: 4.4 ppb at hour 9																				Minimum Diurnal Average: 0.2 ppb at hour 1					Hours of Missing Data: 36	
Monthly Average: 1.14 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.4 Q ₃ = 0.8 P ₉₀ = 2.5 P ₉₉ = 14.6					Hours of Calibration: 36	
																				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	0	0	0	0	A	0	0	0	1	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0.4	0.9
2-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	0.4	1.2
3-Sep	0	0	0	0	A	2	28	4	C	C	C	C	C	C	0	0	0	1	1	0	0	1	0	0	--	28.5
4-Sep	0	0	0	0	A	1	0	1	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.5	3.7
5-Sep	0	0	0	0	A	0	4	3	3	1	1	1	1	1	1	0	1	0	0	1	1	1	0	0	0.8	3.5
6-Sep	0	0	0	0	A	2	1	3	4	1	1	0	1	1	2	1	0	1	0	0	0	0	0	1	0.9	3.8
7-Sep	0	0	0	0	A	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0.4	1.2
8-Sep	0	0	0	0	A	0	2	1	1	1	0	2	0	0	1	1	0	0	1	0	0	0	0	0	0.5	2.3
9-Sep	0	0	0	0	A	1	2	1	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0.5	2.2
10-Sep	0	0	0	0	A	0	2	4	4	1	1	0	1	0	1	0	0	1	1	0	0	0	0	0	0.8	4.5
11-Sep	0	0	0	0	A	1	2	4	7	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1.1	7.1
12-Sep	1	0	0	0	A	0	0	1	1	1	1	1	1	1	0	0	1	1	0	2	3	2	2	0	0.7	2.5
13-Sep	0	1	0	1	A	2	3	4	4	2	3	1	1	0	0	0	0	1	1	0	0	0	0	0	1.1	3.8
14-Sep	0	1	0	1	A	10	0	4	3	2	1	1	0	0	0	0	0	0	1	1	0	0	0	0	1.1	10.2
15-Sep	0	0	0	0	A	1	1	8	9	6	3	1	0	0	0	0	0	0	1	1	0	0	0	0	1.5	9.4
16-Sep	0	0	0	0	A	0	1	2	6	5	5	2	2	1	0	0	0	1	2	0	0	0	0	0	1.2	5.7
17-Sep	0	1	1	0	A	1	2	3	5	10	3	1	1	0	0	0	0	0	1	0	0	0	0	0	1.3	10.4
18-Sep	0	0	0	0	A	0	1	2	2	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0.6	2.4
19-Sep	0	0	0	0	A	0	0	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0.4	1.1
20-Sep	0	0	0	0	A	0	0	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0.4	1.4
21-Sep	0	0	0	0	A	0	3	1	12	7	3	2	1	1	1	1	1	0	0	0	0	0	0	0	1.4	12.1
22-Sep	0	0	0	0	A	0	8	3	15	34	36	8	2	1	1	0	0	0	0	0	0	0	0	0	4.8	36.1
23-Sep	0	0	0	0	A	0	7	16	21	2	11	16	0	3	0	0	0	2	0	0	0	0	0	0	3.5	21.2
24-Sep	0	0	0	0	A	1	0	2	6	7	4	4	3	1	1	2	2	1	1	0	1	0	1	0	1.6	6.5
25-Sep	0	0	0	0	A	0	1	2	4	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0.6	3.6
26-Sep	0	2	4	6	A	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	6.3
27-Sep	0	0	0	0	A	1	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	1	0	0	0.3	0.6
28-Sep	0	0	0	0	A	1	1	3	3	3	3	3	2	2	2	2	1	0	0	0	0	0	0	0	1.2	2.9
29-Sep	0	5	2	1	A	5	5	11	10	6	5	4	2	1	2	1	1	0	0	0	0	0	0	0	2.7	11.1
30-Sep	0	0	0	0	A	0	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0.5	1.3
0.2 0.4 0.4 0.4 -- 1.0 2.6 2.9 4.4 3.4 3.0 1.9 0.8 0.7 0.7 0.5 0.5 0.5 0.5 0.3 0.4 0.3 0.3 0.2																									Diurnal Average	
0.5 4.5 4.2 6.3 -- 10.2 28.5 15.6 21.2 34.3 36.1 16.4 2.8 2.7 2.2 2.5 1.9 1.9 1.9 1.9 1.5 2.5 1.9 2.3 0.8																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - September 2014



Hourly Averages

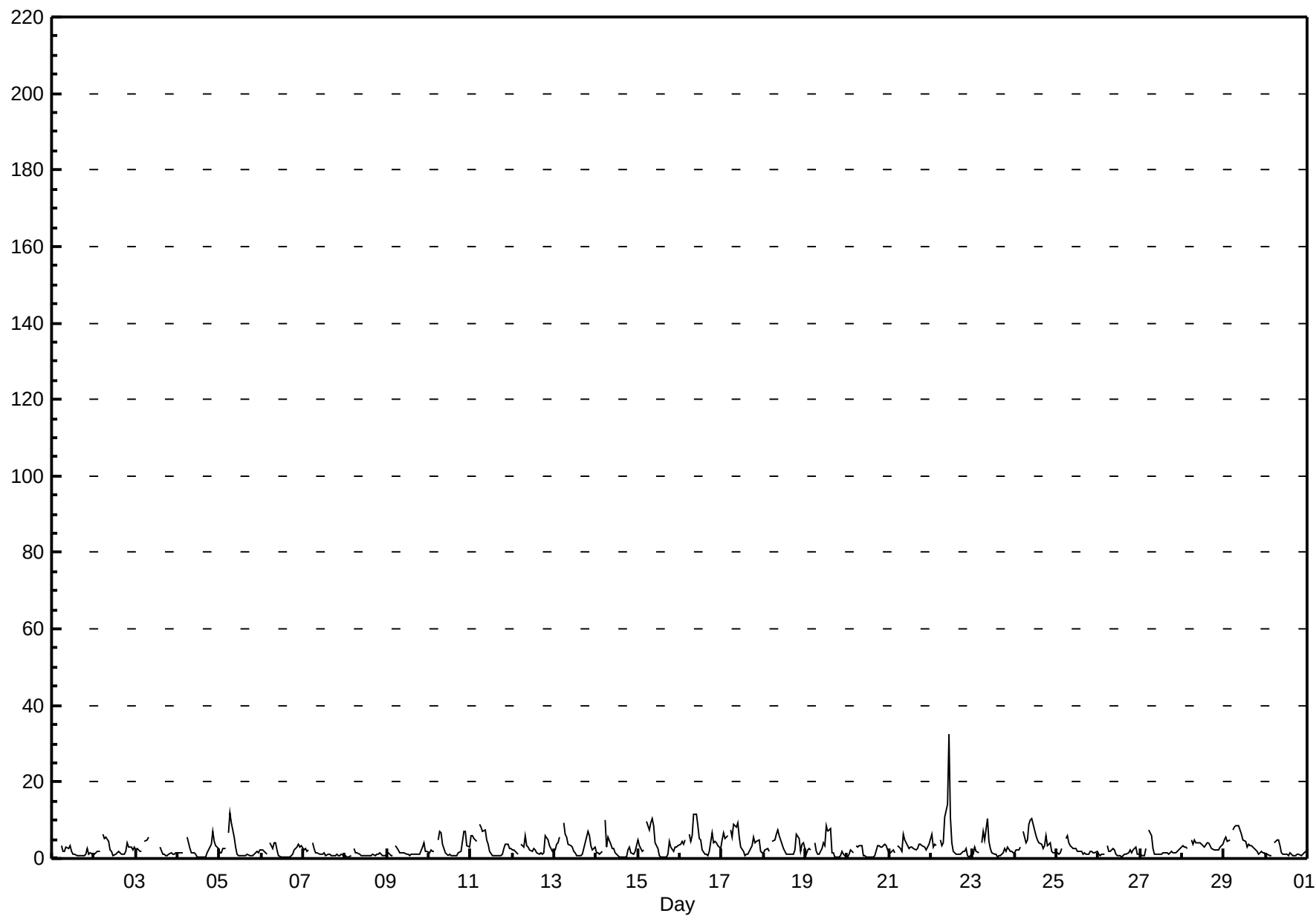
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 32.6 ppb on Sep 22 11:00 Maximum Daily Average: 5.1 ppb on Sep 22																				Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 20 00:00 Maximum Diurnal Average: 5.5 ppb at hour 6 Monthly Average: 2.77 ppb																				Minimum Daily Average: 1.0 ppb on Sep 8 Minimum Diurnal Average: 1.2 ppb at hour 16 Percentiles: P ₁ = 0.4 P ₁₀ = 0.7 Q ₁ = 1.1 Median = 2.0 Q ₃ = 3.6 P ₉₀ = 5.8 P ₉₉ = 10.7						
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	0	0	0	0	A	3	2	2	3	3	3	2	1	1	1	1	1	1	1	1	3	1	2	1	1.4	3.4
2-Sep	1	2	2	2	A	6	5	6	5	2	2	1	1	2	2	2	1	1	2	4	3	3	2	3	2.5	6.2
3-Sep	2	2	2	2	A	4	5	5	C	C	C	C	C	C	3	1	1	1	1	1	2	1	1	1	--	5.5
4-Sep	2	2	2	2	A	6	4	3	2	1	1	0	0	0	0	0	0	2	3	4	7	4	4	3	2.2	7.0
5-Sep	2	1	3	2	A	7	12	9	6	3	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2.6	12.0
6-Sep	2	2	1	1	A	4	3	4	4	2	1	0	0	0	0	0	0	1	1	2	3	4	3	3	1.9	4.1
7-Sep	2	3	2	2	A	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	4.1
8-Sep	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.5
9-Sep	1	1	1	1	A	3	2	1	2	1	1	1	1	1	1	1	1	1	1	1	3	4	2	2	1.6	4.0
10-Sep	2	2	2	2	A	5	7	7	4	1	1	1	1	1	1	1	1	1	2	5	7	7	3	3	2.9	7.2
11-Sep	6	6	5	5	A	9	8	7	8	5	4	2	1	1	1	1	1	1	3	4	4	4	3	2	3.7	9.1
12-Sep	2	2	1	1	A	4	3	6	3	3	2	2	3	2	1	1	1	1	1	6	5	4	3	2	2.6	6.0
13-Sep	2	4	4	5	A	9	7	6	4	3	3	2	1	1	1	1	1	3	6	7	6	3	2	3	3.6	9.2
14-Sep	1	1	1	2	A	10	3	6	4	3	3	1	1	0	0	0	0	0	2	3	1	1	2	3	2.2	10.2
15-Sep	5	3	2	2	A	10	7	9	10	8	4	3	1	0	0	0	0	1	4	3	2	3	3	3	3.7	10.4
16-Sep	4	4	4	5	A	6	5	6	12	11	9	5	5	2	1	1	1	2	7	4	4	4	3	3	4.7	11.7
17-Sep	5	7	5	6	A	7	6	9	8	9	6	3	2	1	1	1	2	3	6	4	4	5	2	1	4.5	9.3
18-Sep	2	2	3	2	A	5	5	6	7	6	5	3	2	1	1	1	1	2	6	5	2	4	4	4	3.3	7.4
19-Sep	1	2	3	2	A	4	2	1	1	3	4	3	9	7	8	1	1	0	0	0	1	2	1	0	2.5	8.6
20-Sep	0	1	2	2	A	3	3	3	4	1	1	0	1	0	0	0	1	3	3	3	3	4	3	2	2.0	3.8
21-Sep	1	2	2	2	A	3	3	2	6	5	4	3	3	3	3	2	3	4	4	3	3	2	3	4	3.0	6.3
22-Sep	6	3	4	3	A	5	3	4	11	14	33	11	4	2	1	1	1	1	2	2	3	1	1	1	5.1	32.6
23-Sep	1	3	2	1	A	4	7	5	10	4	3	1	1	1	0	1	1	1	3	2	3	2	2	2	2.6	10.4
24-Sep	2	2	2	3	A	7	4	5	9	10	11	8	6	5	4	4	3	3	6	3	4	2	2	1	4.6	10.5
25-Sep	1	1	2	3	A	5	6	4	3	2	2	3	2	2	2	1	2	1	1	2	2	1	2	2	2.2	5.8
26-Sep	1	1	1	1	A	3	2	2	3	2	1	1	1	1	1	1	1	1	2	1	2	3	1	1	1.5	3.4
27-Sep	2	1	1	3	A	7	6	3	1	1	1	1	1	1	1	1	1	1	2	1	1	2	3	3	2.0	7.5
28-Sep	3	3	3	3	A	5	4	5	4	4	4	4	3	3	4	4	3	3	2	2	2	2	3	4	3.3	4.9
29-Sep	5	6	4	5	A	7	8	9	9	7	6	5	4	3	4	3	3	3	2	2	1	2	1	1	4.4	8.6
30-Sep	1	1	1	1	A	4	5	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.6	5.0
2.2 2.4 2.2 2.3 -- 5.5 4.7 4.8 5.1 4.1 4.1 2.4 2.0 1.6 1.6 1.2 1.2 1.5 2.4 2.7 2.9 2.6 2.1 2.2																								Diurnal Average		
6.4 6.7 5.3 5.9 -- 10.2 12.0 9.5 11.7 14.0 32.6 10.7 8.6 7.2 7.7 4.0 3.3 3.7 6.6 7.0 7.0 7.2 3.6 4.2																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - September 2014



Hourly Maximums

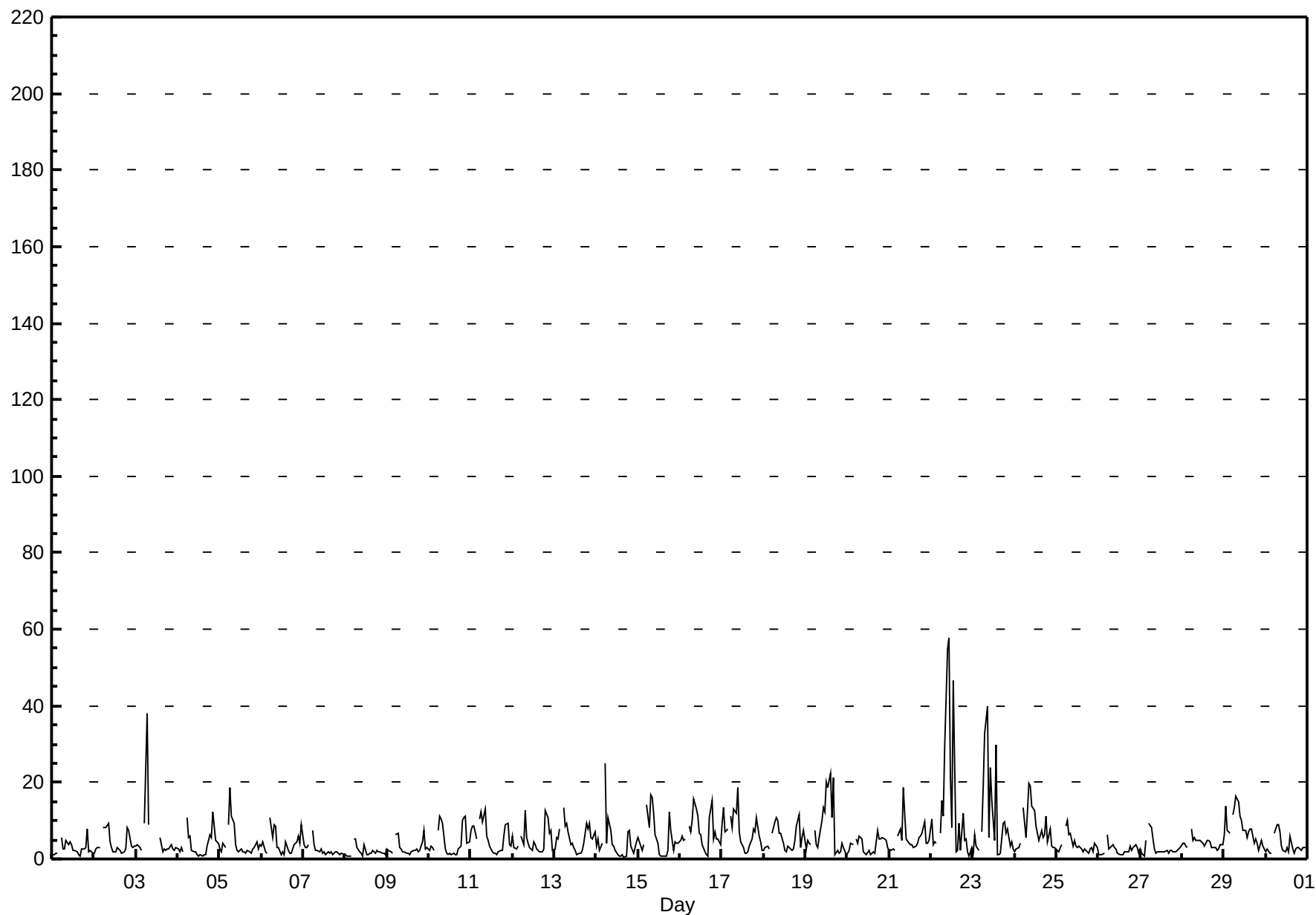
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - September 2014

Maximum Value: 57.7 ppb on Sep 22 11:00																				Maximum Daily Average: 13.8 ppb on Sep 22										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 14 17:00																				Minimum Daily Average: 1.9 ppb on Sep 8										Hours of Data: 684	
Maximum Diurnal Average: 10.2 ppb at hour 9																				Minimum Diurnal Average: 2.5 ppb at hour 16										Hours of Missing Data: 36	
Monthly Average: 5.19 ppb																				Percentiles: P ₁ = 0.8 P ₁₀ = 1.4 Q ₁ = 2.1 Median = 3.4 Q ₃ = 6.5 P ₉₀ = 10.7 P ₉₉ = 28.7										Hours of Calibration: 36	
																														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	1	1	2	2	A	6	3	3	5	4	4	2	2	2	2	1	1	3	2	3	8	2	2	1	2.7	7.9					
2-Sep	2	3	3	3	A	8	8	8	9	5	3	2	2	3	3	2	1	2	3	8	8	4	3	3	4.1	9.2					
3-Sep	3	4	3	2	A	9	38	9	C	C	C	C	C	C	6	2	3	2	3	3	4	3	2	3	--	38.0					
4-Sep	3	2	3	2	A	11	6	6	2	2	2	1	1	1	1	1	1	4	6	6	12	8	5	4	3.9	12.3					
5-Sep	2	2	4	3	A	9	19	11	9	4	2	2	3	2	2	2	2	2	1	3	3	4	3	4	4.3	18.7					
6-Sep	3	5	2	1	A	11	5	9	9	3	3	1	2	1	4	2	1	2	3	4	4	6	4	9	4.1	10.7					
7-Sep	4	3	3	4	A	7	4	2	2	2	3	1	2	1	2	1	2	1	2	2	1	1	2	1	2.3	7.4					
8-Sep	1	1	1	1	A	5	5	3	2	1	1	4	1	1	1	2	2	1	2	2	2	1	1	1	1.9	5.1					
9-Sep	3	2	2	2	A	6	7	3	3	2	2	2	1	1	2	2	2	3	2	2	5	8	3	3	2.9	7.6					
10-Sep	2	3	3	2	A	7	11	10	9	3	2	1	1	1	2	1	1	3	3	10	11	11	4	5	4.7	11.3					
11-Sep	7	8	9	5	A	10	12	10	13	6	5	3	2	1	2	1	2	2	2	6	9	9	4	3	5.8	13.1					
12-Sep	6	3	3	4	A	6	4	13	6	4	3	2	5	4	2	2	2	2	3	13	11	7	7	2	4.9	12.8					
13-Sep	2	6	5	8	A	13	8	9	7	4	4	3	2	1	1	1	2	4	9	8	9	6	5	7	5.5	13.4					
14-Sep	3	5	2	4	A	25	4	11	8	4	3	2	1	1	1	1	0	1	7	8	3	1	3	4	4.5	25.0					
15-Sep	6	5	2	4	A	14	8	17	16	12	6	4	1	1	1	1	1	2	12	8	2	5	4	4	5.9	16.7					
16-Sep	5	6	5	5	A	9	7	10	16	13	11	7	6	4	2	1	1	11	15	5	7	5	5	4	7.0	15.6					
17-Sep	9	13	7	8	A	11	8	13	12	19	7	5	3	1	2	2	3	5	8	7	11	6	5	2	7.3	18.6					
18-Sep	2	3	3	3	A	7	10	11	10	7	7	4	2	2	3	2	2	3	5	9	11	3	5	7	5.3	11.4					
19-Sep	3	5	4	4	A	8	4	3	5	10	13	12	20	19	22	11	21	1	2	2	2	4	3	1	7.8	22.2					
20-Sep	2	2	4	4	A	5	4	6	5	2	2	1	2	1	1	2	1	8	5	5	6	5	5	3	3.5	7.6					
21-Sep	2	2	3	2	A	6	8	5	19	12	5	4	4	4	3	3	4	6	6	7	10	4	4	5	5.5	18.7					
22-Sep	10	4	5	4	A	7	15	11	29	55	58	22	8	47	2	2	9	2	12	5	5	2	1	3	13.8	57.7					
23-Sep	2	6	4	2	A	7	19	33	40	5	24	15	5	30	1	1	1	9	10	7	8	3	4	3	10.4	39.7					
24-Sep	2	3	3	4	A	14	5	12	20	19	14	13	9	7	5	7	6	6	11	4	8	3	3	3	7.8	19.6					
25-Sep	2	2	3	4	A	9	10	6	7	3	5	3	3	3	3	2	3	2	2	3	3	2	4	3	3.7	10.0					
26-Sep	1	1	1	1	A	7	3	3	4	3	2	2	1	1	1	2	2	2	3	2	3	4	3	2	2.3	6.5					
27-Sep	2	1	1	5	A	9	8	5	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2.9	9.5					
28-Sep	4	4	3	3	A	8	5	6	5	5	5	4	4	3	5	5	5	3	3	3	2	3	4	4	4.2	7.8					
29-Sep	6	14	7	7	A	12	13	16	15	11	10	8	8	6	7	8	8	4	5	4	2	5	3	3	7.9	16.5					
30-Sep	2	2	2	2	A	7	9	9	7	3	2	2	3	2	6	3	1	2	3	3	2	3	3	3	3.5	9.0					
3.5 4.0 3.4 3.5 -- 9.1 9.0 9.2 10.2 7.7 7.2 4.6 3.6 5.3 3.2 2.5 3.1 3.3 5.1 5.0 5.8 4.3 3.6 3.5																										Diurnal Average					
10.4 13.8 8.6 8.0 -- 25.0 38.0 32.7 39.7 54.8 57.7 21.7 20.0 46.6 22.2 10.7 21.2 10.8 15.4 12.8 12.3 11.2 7.4 9.1																										Diurnal Maximum					
C - Calibration A - Automated Daily Zero Span																															

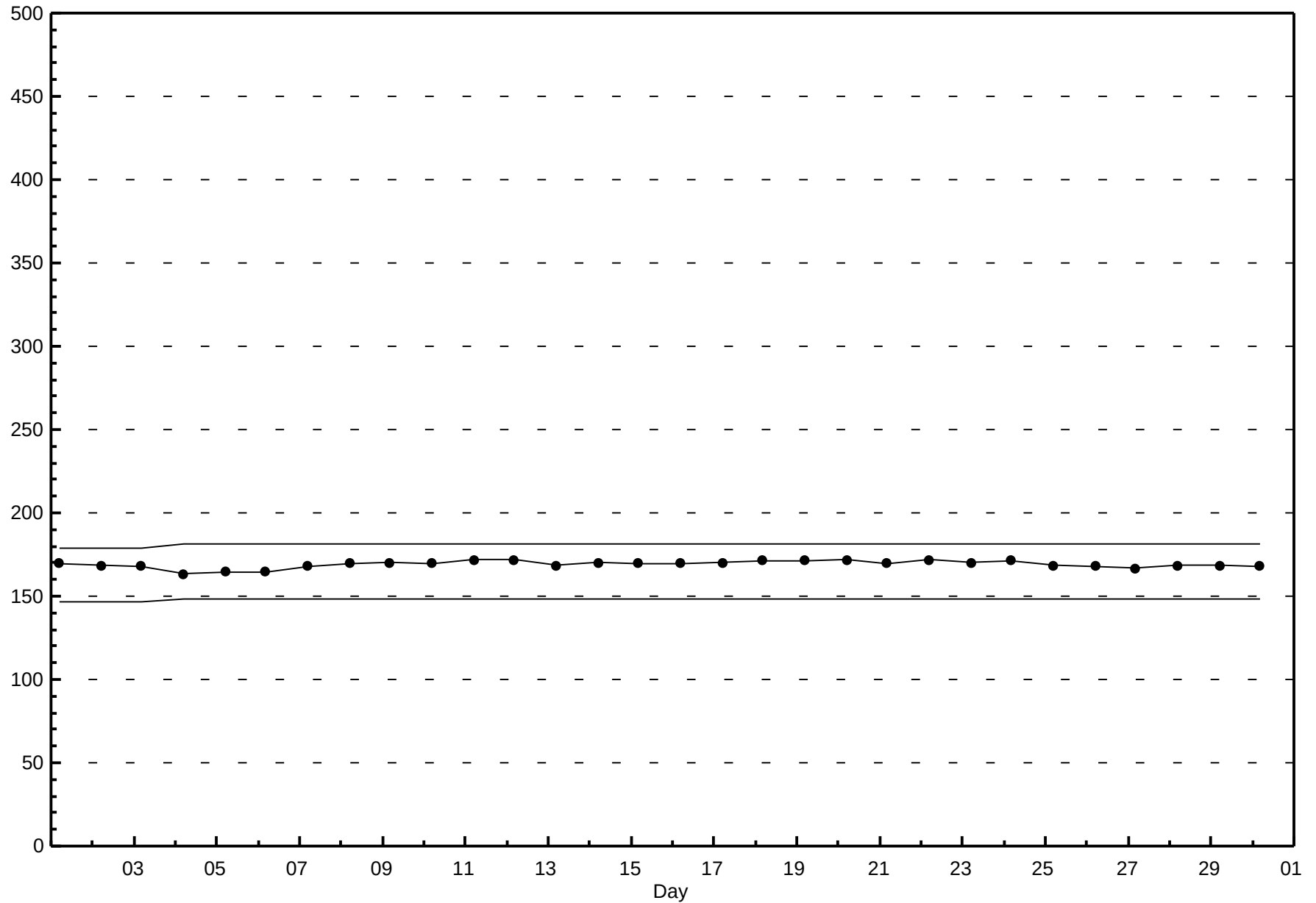
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - September 2014



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - September 2014



Hourly Averages

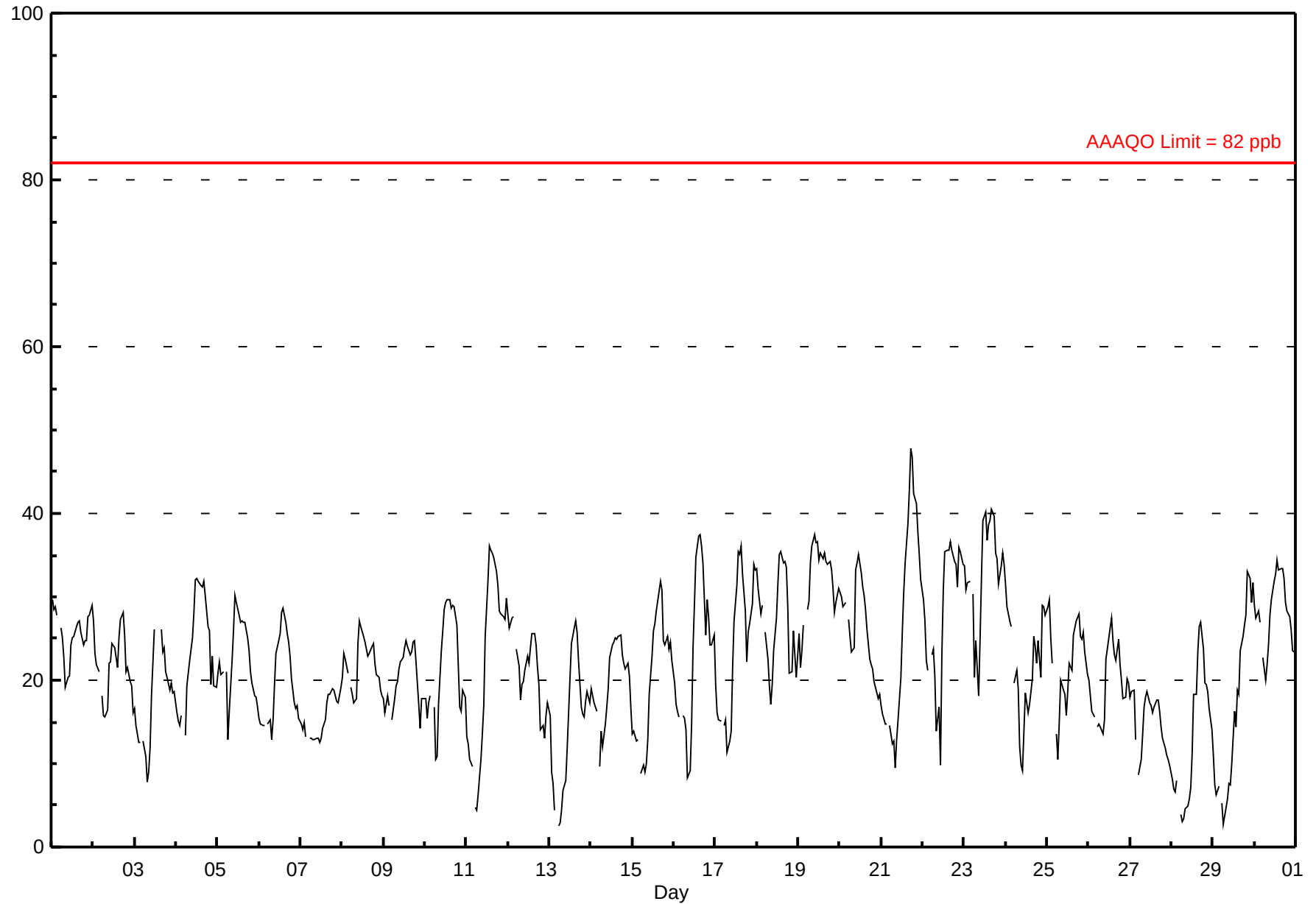
Ozone (O₃) - ppb

Beaverlodge - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 47.8 ppb on Sep 21 18:00 Maximum Daily Average: 32.9 ppb on Sep 23																								Hours in Service: 720 Hours of Data: 687 Hours of Missing Data: 33 Hours of Calibration: 33 Percent Operational Time: 100.0		
Minimum Value: 3 ppb on Sep 13 06:00 Maximum Diurnal Average: 28.5 ppb at hour 17 Monthly Average: 22.14 ppb												Minimum Daily Average: 13.0 ppb on Sep 28 Minimum Diurnal Average: 15.2 ppb at hour 8 Percentiles: P ₁ = 4.3 P ₁₀ = 12.5 Q ₁ = 16.7 Median = 22.2 Q ₃ = 27.6 P ₉₀ = 33.2 P ₉₉ = 40.0														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	30	29	29	28	A	26	25	23	19	20	21	24	25	25	26	27	27	26	24	25	25	28	28	29	25.6	29.7
2-Sep	27	23	22	21	A	18	16	16	16	22	22	24	24	23	22	25	27	28	25	21	21	20	19	16	21.7	28.2
3-Sep	17	15	13	12	A	13	11	8	9	12	18	26	C	C	C	26	23	24	21	20	19	20	18	19	17.1	26.1
4-Sep	16	15	14	16	A	13	19	21	22	25	28	32	32	32	31	31	32	30	26	26	19	23	19	19	23.7	32.2
5-Sep	21	22	21	21	A	21	13	16	22	26	30	29	28	27	27	27	27	25	23	21	20	18	18	17	22.6	30.2
6-Sep	15	15	15	15	A	15	15	13	15	19	23	25	26	28	29	27	26	25	23	20	17	17	17	15	19.7	28.6
7-Sep	15	14	15	13	A	13	13	13	13	13	13	13	13	14	15	17	18	18	19	19	18	17	17	19	15.4	19.1
8-Sep	20	23	22	21	A	19	18	17	18	24	27	26	25	25	24	23	23	24	24	22	21	20	19	18	22.0	27.1
9-Sep	18	16	18	17	A	15	18	19	20	21	22	23	24	25	24	23	23	25	25	22	17	14	18	18	20.2	24.8
10-Sep	18	15	17	18	A	17	10	11	17	24	26	28	29	30	30	29	29	29	27	22	17	16	19	18	21.5	29.6
11-Sep	13	12	10	10	A	5	4	6	11	14	17	25	32	36	36	35	35	33	31	28	28	28	27	30	22.0	36.2
12-Sep	28	26	28	28	A	24	22	18	19	20	21	23	22	24	26	26	24	22	20	14	15	13	16	17	21.4	28.0
13-Sep	16	9	8	4	A	3	3	4	7	8	12	16	20	24	26	27	26	22	17	16	16	17	19	17	14.7	27.1
14-Sep	19	18	17	16	A	10	14	12	15	17	19	23	24	25	25	25	25	25	23	22	21	22	20	17	19.8	25.5
15-Sep	14	14	13	13	A	9	10	9	10	13	18	23	26	27	28	31	32	31	25	24	25	24	25	22	20.2	31.9
16-Sep	20	17	16	16	A	16	15	14	8	9	15	24	29	35	37	37	36	34	25	30	28	24	24	25	23.3	37.5
17-Sep	19	16	15	15	A	15	15	11	13	14	22	27	31	35	35	36	33	28	22	26	27	29	34	33	24.0	36.0
18-Sep	33	31	28	29	A	26	23	19	17	19	24	27	32	35	35	34	34	34	29	21	21	26	23	20	27.0	35.4
19-Sep	26	22	24	27	A	29	29	34	36	37	37	37	34	35	34	35	34	34	34	33	31	28	29	31	31.8	37.5
20-Sep	31	30	29	29	A	27	25	23	24	33	34	35	33	31	30	28	26	23	22	21	20	18	18	18	26.5	35.0
21-Sep	17	16	15	15	A	15	12	13	9	13	15	20	26	30	34	39	43	48	47	42	41	38	35	32	26.7	47.8
22-Sep	30	27	22	21	A	23	24	20	14	17	10	23	31	35	36	36	37	36	34	34	31	36	35	34	28.1	36.6
23-Sep	34	31	32	32	A	30	20	25	18	25	32	39	40	37	39	39	40	40	35	35	32	34	35	34	32.9	40.5
24-Sep	32	29	27	26	A	20	21	19	12	10	9	18	17	16	17	20	25	24	22	25	20	29	29	28	21.6	31.6
25-Sep	29	30	25	22	A	14	10	15	20	19	18	16	19	22	21	25	26	27	28	25	25	26	23	21	22.0	29.7
26-Sep	20	18	16	16	A	14	15	14	14	15	22	24	26	27	25	23	22	25	22	20	18	18	20	20	19.8	27.4
27-Sep	18	19	19	13	A	9	11	14	17	18	19	17	17	16	17	18	18	16	14	13	12	11	10	10	15.0	18.8
28-Sep	8	7	7	8	A	4	3	3	5	5	6	7	11	18	18	23	27	27	24	20	19	17	14	14	13.0	26.9
29-Sep	11	7	6	7	A	5	3	4	6	8	10	16	14	19	18	18	24	25	27	28	33	32	29	32	16.2	33.1
30-Sep	29	28	28	27	A	23	20	22	24	28	30	32	33	34	33	33	33	32	29	28	28	26	23	23	28.1	34.4
21.4 19.8 19.0 18.5 -- 16.3 15.3 15.2 15.7 18.3 20.6 23.9 25.7 27.1 27.6 28.2 28.5 28.0 25.6 24.1 22.8 23.0 22.9 22.2 33.7 31.0 31.6 31.9 -- 30.4 29.5 34.0 36.2 37.5 36.5 39.1 40.2 36.8 38.6 39.2 42.9 47.8 46.8 42.5 41.2 37.7 35.4 34.0																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Beaverlodge - September 2014



Hourly Maximums

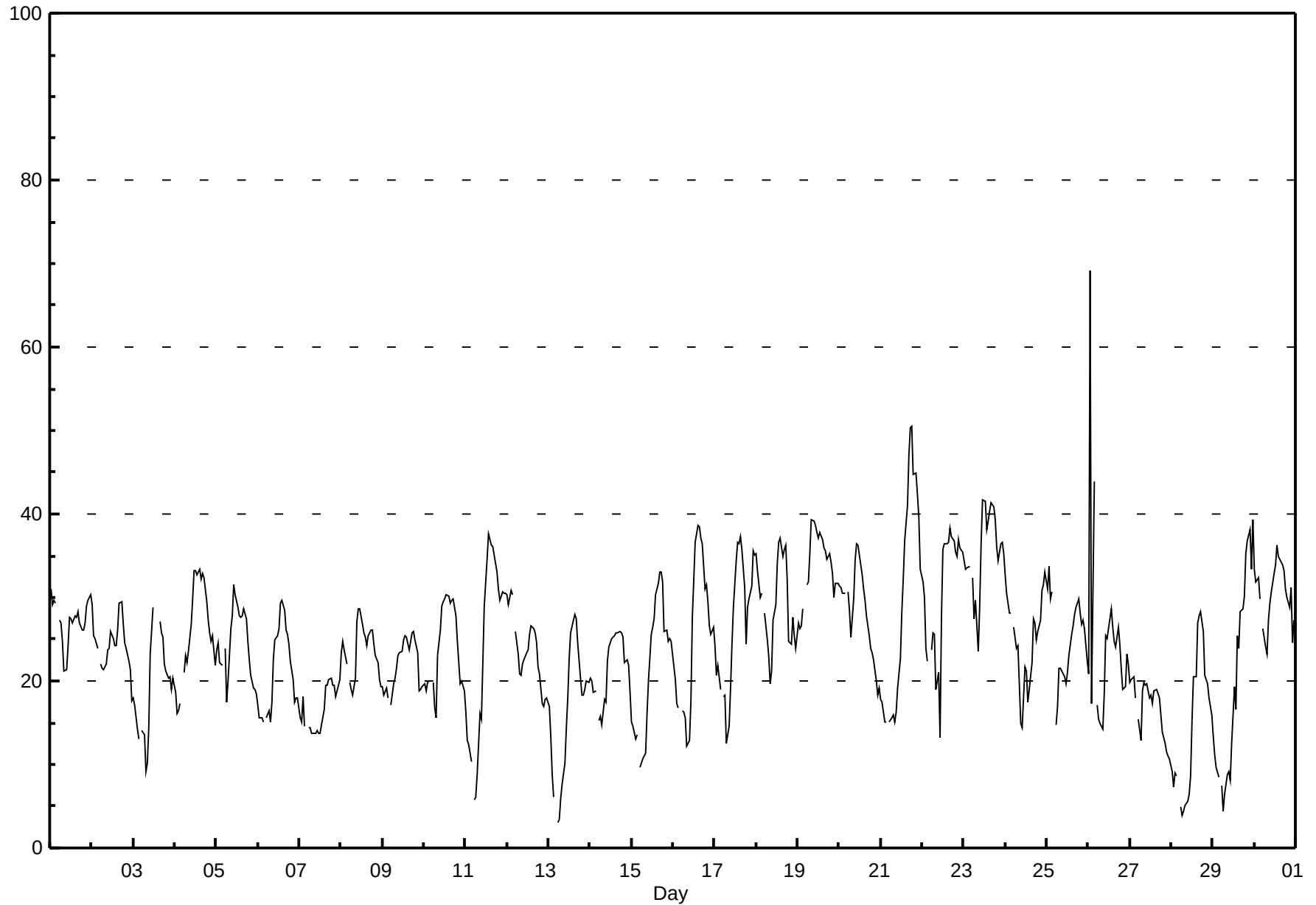
Ozone (O₃) - ppb

Beaverlodge - September 2014

Maximum Value: 69.1 ppb on Sep 26 02:00																					Maximum Daily Average: 35.4 ppb on Sep 23					Hours in Service: 720	
Minimum Value: 3 ppb on Sep 13 06:00																					Minimum Daily Average: 14.4 ppb on Sep 28					Hours of Data: 687	
Maximum Diurnal Average: 30.2 ppb at hour 17																					Minimum Diurnal Average: 17.9 ppb at hour 8					Hours of Missing Data: 33	
Monthly Average: 24.39 ppb																					Percentiles: P ₁ = 5.3 P ₁₀ = 14.4 Q ₁ = 18.9 Median = 24.6 Q ₃ = 29.7 P ₉₀ = 35.3 P ₉₉ = 43.6					Hours of Calibration: 33	
																					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	31	29	30	29	A	27	27	25	21	21	24	28	28	27	28	28	28	27	26	26	27	29	30	30	27.2	31.0	
2-Sep	29	25	25	24	A	22	22	21	22	24	24	26	25	24	24	26	29	29	27	25	24	22	21	18	24.3	29.4	
3-Sep	18	17	14	13	A	14	14	9	10	14	23	29	C	C	C	27	26	25	22	21	20	21	19	20	18.9	28.9	
4-Sep	19	16	16	17	A	21	23	22	24	27	30	33	33	33	33	32	33	32	30	27	26	25	25	22	26.1	33.4	
5-Sep	24	25	22	22	A	24	17	20	26	28	31	30	29	28	28	28	29	28	25	22	21	19	19	18	24.5	31.5	
6-Sep	17	16	16	15	A	16	17	15	17	23	25	25	26	29	30	28	26	26	24	22	20	18	18	18	21.2	29.6	
7-Sep	16	15	18	14	A	14	14	14	14	14	14	14	14	15	17	20	19	20	20	19	20	18	19	20	16.6	20.4	
8-Sep	23	25	24	22	A	20	19	18	20	27	29	29	27	26	25	24	26	26	26	24	23	22	20	19	23.7	28.7	
9-Sep	19	18	19	18	A	17	20	20	21	23	23	23	25	25	25	24	25	26	26	25	23	19	19	19	21.9	25.9	
10-Sep	20	19	20	20	A	20	17	16	23	26	29	30	30	30	30	29	30	30	28	25	22	20	20	19	23.9	30.3	
11-Sep	16	13	12	10	A	6	6	9	16	15	22	29	35	38	37	36	36	34	33	31	30	31	30	31	24.2	37.7	
12-Sep	30	29	31	30	A	26	23	21	21	22	23	23	24	26	27	26	26	25	22	21	17	17	18	18	23.7	30.9	
13-Sep	17	13	9	6	A	3	3	6	8	10	14	18	23	26	27	28	28	25	20	18	18	19	20	20	16.5	27.9	
14-Sep	20	20	19	19	A	15	16	15	18	18	22	24	25	25	25	26	26	26	26	25	22	23	22	19	21.5	26.0	
15-Sep	15	15	13	13	A	10	11	11	11	16	20	26	27	28	30	32	33	33	32	26	26	25	25	25	21.8	33.0	
16-Sep	22	20	17	17	A	16	16	16	12	13	18	28	32	37	39	38	37	36	31	32	30	27	26	26	25.4	38.7	
17-Sep	24	21	22	19	A	18	18	13	15	19	24	29	34	37	36	37	36	31	24	29	30	31	36	35	26.9	37.2	
18-Sep	35	33	30	31	A	28	25	23	20	21	27	29	34	37	37	35	36	36	32	25	24	28	25	24	29.4	37.1	
19-Sep	27	26	27	29	A	32	32	35	39	39	39	38	37	38	37	36	36	35	35	34	33	30	32	32	33.7	39.2	
20-Sep	31	31	30	31	A	31	29	25	30	34	36	36	34	33	31	30	28	25	24	23	23	20	18	19	28.4	36.4	
21-Sep	18	17	15	15	A	15	16	16	15	16	19	23	28	32	37	41	47	50	50	45	45	42	40	33	29.4	50.5	
22-Sep	32	30	24	22	A	24	26	26	19	21	13	28	36	36	36	37	38	37	37	35	35	37	36	35	30.4	38.4	
23-Sep	34	33	34	34	A	32	28	30	24	29	36	42	41	38	39	40	41	41	39	36	34	36	37	35	35.4	41.6	
24-Sep	33	31	28	28	A	26	24	24	20	15	14	22	21	17	19	22	27	27	25	26	27	31	32	33	24.9	33.0	
25-Sep	31	34	30	31	A	15	17	22	21	21	21	20	21	23	26	27	28	29	30	28	27	27	26	22	25.0	33.7	
26-Sep	21	69	17	44	A	17	15	15	14	18	25	25	28	29	26	25	24	26	24	21	19	19	23	22	24.7	69.1	
27-Sep	20	20	21	18	A	15	13	19	20	20	20	18	18	17	19	19	18	18	16	14	12	11	11	11	16.9	20.5	
28-Sep	9	7	9	9	A	5	4	4	5	6	7	9	15	21	20	27	28	28	26	21	20	20	18	16	14.4	28.3	
29-Sep	13	11	10	8	A	8	4	6	9	9	8	13	19	17	25	24	28	29	30	35	37	38	33	39	19.8	39.3	
30-Sep	33	32	32	30	A	26	24	23	27	29	31	33	34	36	35	34	34	33	31	30	29	31	24	27	30.4	36.3	
23.3 23.7 21.1 21.3 -- 18.8 18.0 17.9 18.7 20.6 23.1 25.9 27.7 28.5 29.3 29.5 30.2 29.8 28.1 26.5 25.5 25.2 24.7 24.2																										Diurnal Average	
35.2 69.1 33.6 43.9 -- 32.3 31.9 35.2 39.2 39.1 38.6 41.6 41.5 38.1 39.2 41.0 47.2 50.3 50.5 44.7 45.0 42.4 39.7 39.3																										Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																											

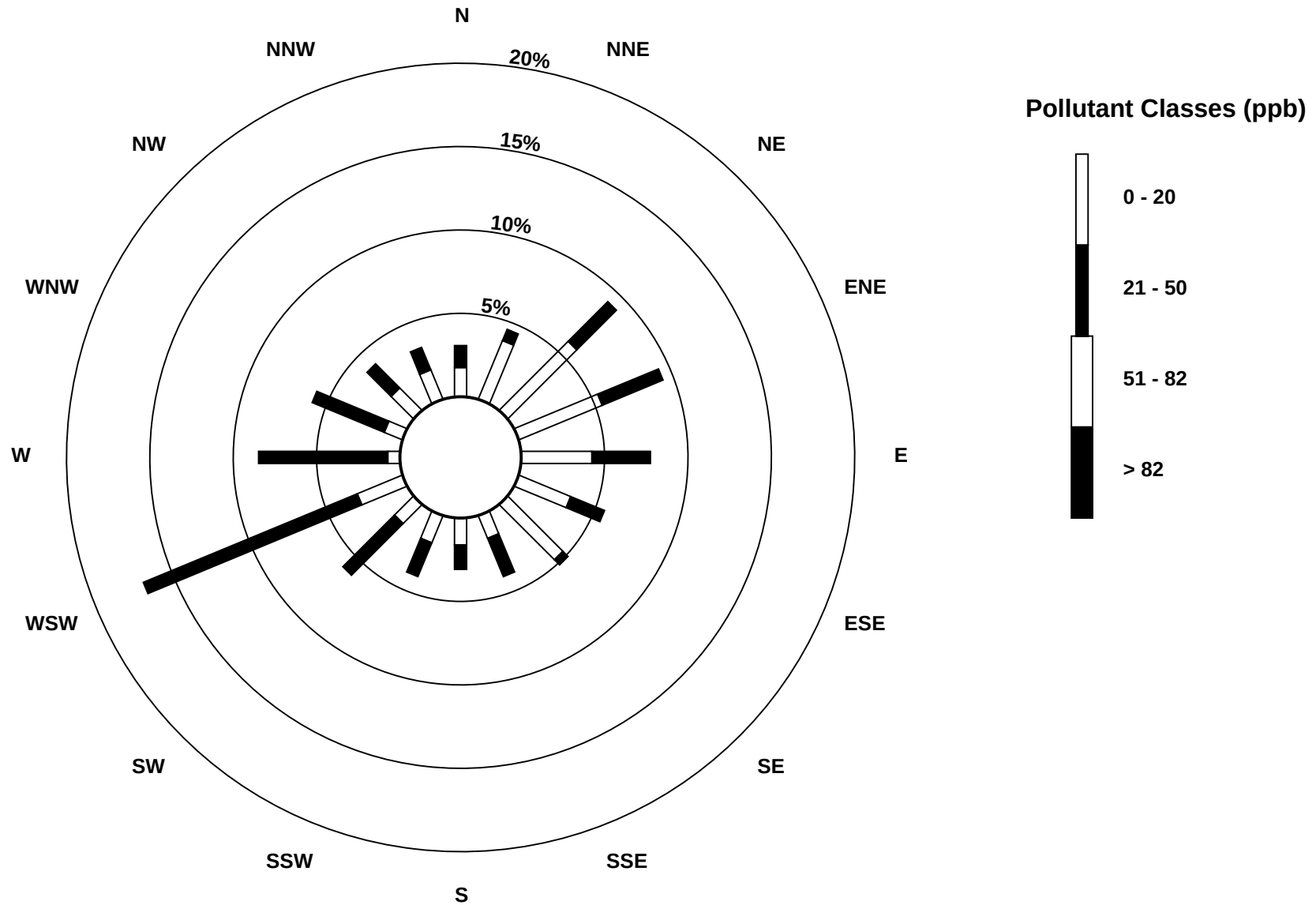
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - September 2014



Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - September 2014



Eight Hour Running Averages

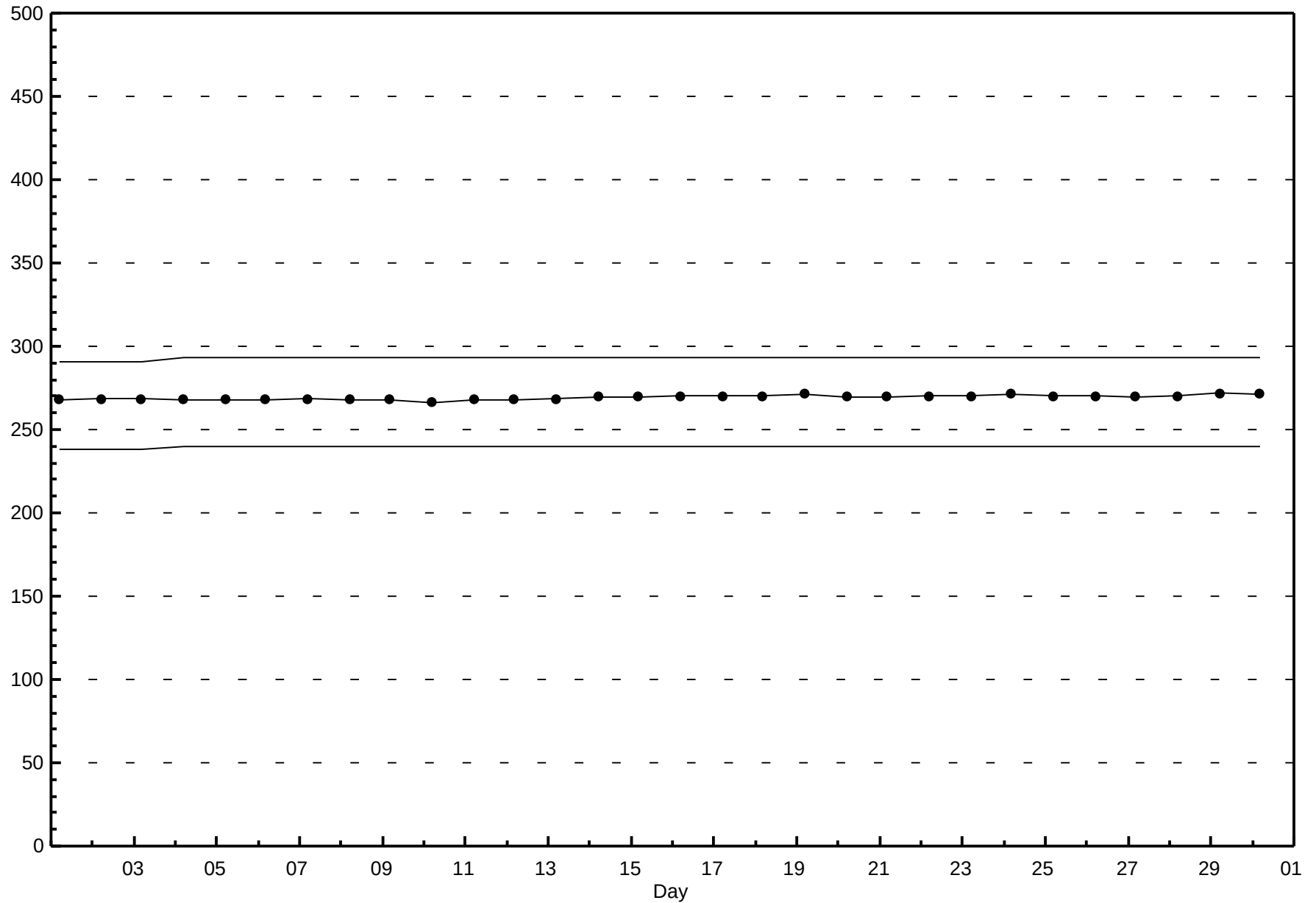
Ozone (O₃) - ppb

Beaverlodge - September 2014

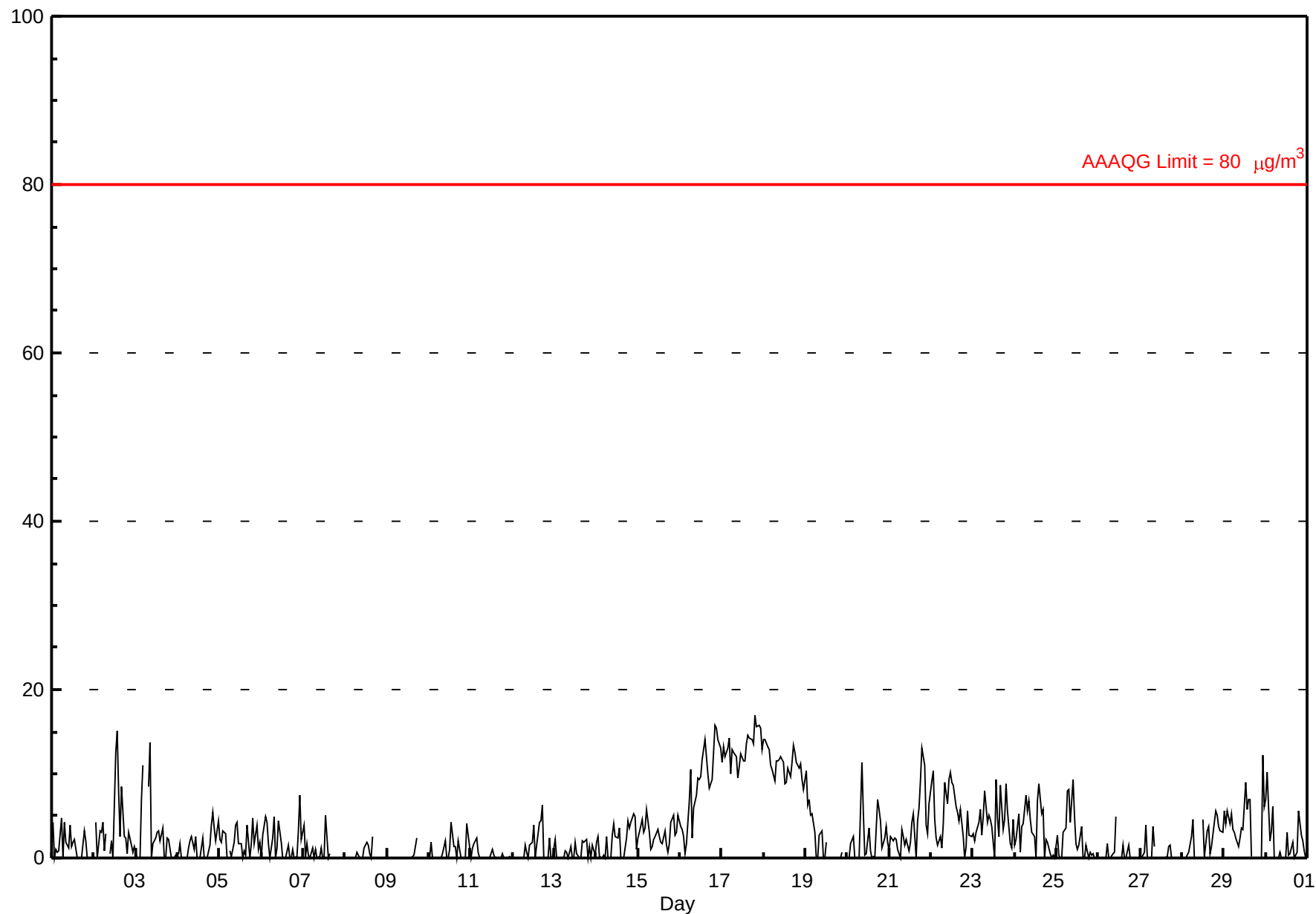
Maximum Value: 41.6 ppb on Sep 21 23:00																								Hours in Service: 720	
Minimum Value: 4.7 ppb on Sep 28 12:00																								Hours of Data: 714	
																								Hours of Missing Data: 6	
Percentiles: P ₁ = 5.5 P ₁₀ = 13.7 Q ₁ = 17.1 Median = 21.9 Q ₃ = 27.0 P ₉₀ = 31.1 P ₉₉ = 38.6																								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	30	30	29	29	29	29	28	27	25	24	23	23	23	23	23	24	25	25	26	26	26	26	26	26	30.0
2-Sep	26	26	26	25	25	24	22	20	19	19	19	20	20	20	21	22	24	24	25	24	24	24	23	22	26.4
3-Sep	21	19	18	17	16	15	14	13	11	11	12	14	14	14	N	N	N	N	N	N	22	22	21	20	22.2
4-Sep	20	18	18	17	17	16	16	16	17	19	21	23	24	26	28	29	30	31	31	30	29	27	26	24	31.1
5-Sep	23	22	21	21	21	21	20	19	19	20	21	23	23	24	26	27	28	28	27	26	25	24	22	21	27.6
6-Sep	20	18	17	17	16	16	15	15	15	15	17	18	19	21	22	24	25	26	26	25	24	23	21	20	26.0
7-Sep	19	17	16	15	15	15	14	14	13	13	13	13	13	13	13	14	15	15	16	17	17	18	18	18	18.6
8-Sep	19	19	20	20	20	20	21	20	20	20	21	21	22	23	23	24	25	25	24	24	23	23	22	21	24.7
9-Sep	21	20	19	18	18	17	17	17	18	18	19	20	20	21	22	23	23	24	24	24	23	22	21	20	23.9
10-Sep	20	18	17	17	17	17	16	15	15	16	18	19	20	22	24	27	28	29	29	28	26	25	23	22	28.8
11-Sep	20	18	16	14	14	12	10	9	8	9	9	12	14	18	22	26	29	31	33	33	33	32	31	30	33.3
12-Sep	29	28	28	28	28	27	26	25	23	22	22	21	21	21	22	23	23	23	23	22	21	20	19	18	29.2
13-Sep	16	15	13	12	12	10	9	7	5	5	6	8	9	12	15	18	20	22	22	22	22	21	20	19	22.4
14-Sep	18	17	17	17	18	17	16	15	15	14	15	16	17	18	20	21	23	24	24	24	24	24	23	22	24.4
15-Sep	21	19	18	17	16	14	13	12	11	11	12	13	15	17	19	22	25	27	28	28	28	27	27	26	27.9
16-Sep	24	23	22	21	20	19	17	16	15	14	13	14	16	19	21	24	28	31	32	33	33	31	30	28	33.0
17-Sep	26	24	23	21	20	19	17	15	14	14	15	17	18	21	24	27	29	31	31	31	30	30	29	29	31.0
18-Sep	29	29	30	31	31	31	29	27	25	23	22	22	23	25	26	28	30	32	33	32	30	29	28	26	32.5
19-Sep	25	23	23	23	24	24	25	27	29	31	33	34	34	35	36	36	36	35	35	34	34	33	32	32	35.8
20-Sep	31	31	30	30	30	29	29	28	27	27	28	29	29	30	30	31	31	30	29	27	25	24	22	21	31.4
21-Sep	20	19	18	17	17	16	15	15	13	13	13	14	15	17	20	23	28	32	36	39	41	41	42	41	41.6
22-Sep	39	37	33	31	29	27	26	24	22	20	18	19	20	22	23	25	28	30	33	35	35	35	35	35	39.1
23-Sep	34	34	33	33	33	33	30	29	27	26	26	27	29	30	32	34	36	38	39	38	37	37	36	36	38.6
24-Sep	34	33	32	31	31	29	27	25	22	19	17	16	16	15	15	15	17	18	20	21	21	23	24	25	34.4
25-Sep	26	26	27	26	27	25	22	21	19	18	17	16	16	17	19	20	21	22	23	24	25	25	26	25	27.3
26-Sep	24	23	22	21	20	18	17	16	15	15	16	17	18	20	21	22	23	24	24	24	23	22	21	21	24.4
27-Sep	20	19	19	18	18	17	15	14	14	14	15	15	16	17	17	17	17	17	17	16	15	15	14	13	20.0
28-Sep	12	11	10	9	9	8	7	6	5	5	5	5	6	7	9	12	14	17	19	21	22	22	22	21	22.1
29-Sep	19	16	14	13	12	10	8	6	5	6	6	6	7	9	11	12	15	17	19	21	24	26	27	29	28.7
30-Sep	29	30	30	30	29	28	27	25	25	25	25	25	26	28	29	31	32	33	33	32	31	30	29	28	32.6
39.1 36.5 33.5 33.1 33.3 32.6 30.4 29.1 28.6 30.8 32.7 34.1 34.2 35.0 35.6 35.8 36.5 38.3 38.6 38.6 40.5 41.5 41.6 40.7																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - September 2014



Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 17.0 µg/m³ on Sep 17 20:00 Minimum Value: 0 µg/m³ on Sep 1 02:00 Maximum Diurnal Average: 3.9 µg/m³ at hour 20 Monthly Average: 3.04 µg/m³																				Maximum Daily Average: 13.1 µg/m³ on Sep 17 Minimum Daily Average: 0.2 µg/m³ on Sep 9 Minimum Diurnal Average: 2.4 µg/m³ at hour 6 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 1.7 Q ₃ = 4.3 P ₉₀ = 9.3 P ₉₉ = 15.0										Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 0 Percent Operational Time: 95.0	
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	0	1	1	1	5	0	4	2	1	4	1	2	2	0	0	N	0	3	2	0	0	N	N	1.6	4.7					
2-Sep	N	4	0	3	3	4	1	3	N	0	2	0	12	15	8	3	9	2	2	0	3	2	1	1	3.6	15.1					
3-Sep	1	0	0	7	11	N	N	9	14	0	2	2	3	3	2	4	0	0	2	2	0	0	0	0	2.8	13.7					
4-Sep	1	2	0	0	N	0	1	2	2	1	2	0	N	0	2	0	0	0	1	4	5	4	2	4	1.6	5.4					
5-Sep	2	2	3	3	0	N	1	0	2	4	4	2	2	0	1	0	4	0	2	5	2	4	1	2	1.9	4.7					
6-Sep	0	3	5	4	2	0	2	5	0	1	4	2	0	0	0	1	0	0	1	0	0	3	7	2	1.8	7.4					
7-Sep	4	0	2	0	0	1	0	1	0	0	1	0	0	5	0	0	N	0	0	0	0	0	N	N	0.7	5.1					
8-Sep	0	0	0	0	0	0	0	1	0	0	0	1	2	2	1	0	3	N	N	N	0	0	0	0	0.4	2.5					
9-Sep	N	0	0	0	0	0	0	0	0	0	0	N	0	0	0	0	1	2	N	0	N	0	0	0	0.2	2.4					
10-Sep	0	2	0	0	0	0	0	0	0	2	0	0	1	4	1	1	0	2	0	0	0	0	4	1	0.8	4.3					
11-Sep	0	1	2	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	2.4					
12-Sep	0	0	0	0	0	0	0	2	1	0	1	2	4	0	2	4	4	6	0	0	0	2	0	0	1.2	6.3					
13-Sep	2	0	0	0	0	0	1	1	0	1	0	0	2	0	0	0	2	2	2	0	1	0	2	0	0.7	2.2					
14-Sep	2	3	0	0	0	0	3	0	0	3	4	2	2	4	0	0	0	2	4	3	4	5	5	1	2.0	5.2					
15-Sep	2	3	5	3	4	6	3	1	1	2	3	3	2	2	2	3	1	1	2	4	5	3	3	5	2.9	5.7					
16-Sep	4	3	3	0	2	7	11	2	6	7	9	9	10	12	14	12	10	8	9	13	16	15	14	13	8.7	15.7					
17-Sep	11	13	12	13	14	10	13	13	12	9	11	12	12	12	14	15	14	14	14	17	16	16	15	13	13.1	17.0					
18-Sep	14	14	13	13	11	11	9	12	11	12	12	11	9	9	11	10	11	13	12	11	11	11	9	8	11.2	14.1					
19-Sep	10	6	7	5	5	3	0	0	3	3	0	0	2	N	N	0	0	0	0	0	0	1	N	0	2.2	10.4					
20-Sep	0	0	2	3	0	0	0	0	11	5	0	1	4	1	0	0	0	7	6	4	1	2	4	2	2.2	11.3					
21-Sep	1	3	2	2	2	1	0	3	2	1	2	1	2	4	5	0	4	6	9	13	11	4	3	6	3.7	13.1					
22-Sep	9	10	5	2	2	3	1	4	9	6	9	10	9	9	6	5	4	6	3	0	1	6	3	3	5.2	10.4					
23-Sep	3	2	3	4	6	3	5	8	4	5	4	4	0	9	5	3	9	3	5	9	6	2	1	5	4.4	9.3					
24-Sep	1	2	5	1	4	4	7	6	7	5	3	3	0	7	9	5	6	0	2	2	1	0	0	0	3.3	8.9					
25-Sep	3	0	0	0	3	4	8	8	4	9	5	2	1	1	4	0	0	1	0	1	0	0	0	N	2.4	9.3					
26-Sep	0	0	0	0	0	2	0	0	1	1	5	N	0	0	1	0	0	2	0	N	N	0	0	0	0.5	4.9					
27-Sep	0	0	1	4	0	0	0	4	1	N	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0.6	3.9					
28-Sep	N	0	0	0	1	3	5	0	N	N	N	N	5	0	3	4	0	1	4	6	5	4	3	3	2.5	5.5					
29-Sep	6	4	6	4	5	3	3	2	1	2	4	3	9	6	7	7	0	N	N	7	N	0	12	6	4.7	12.2					
30-Sep	7	10	2	3	6	0	0	0	1	0	0	0	3	0	1	2	0	0	1	6	3	2	1	0	2.0	10.2					
3.2 2.9 2.6 2.6 2.8 2.4 2.5 3.0 3.4 3.0 3.3 2.6 3.4 3.7 3.4 2.7 3.0 2.9 3.2 3.9 3.4 2.8 3.4 2.8																									Diurnal Average						
14.0 14.1 13.2 13.1 14.3 10.5 12.9 12.6 13.7 11.7 12.1 12.4 12.5 15.1 14.1 14.6 14.2 14.1 13.6 17.0 15.7 15.8 15.4 13.0																									Diurnal Maximum						
N - Not Valid																															
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																															



Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - µg/m³

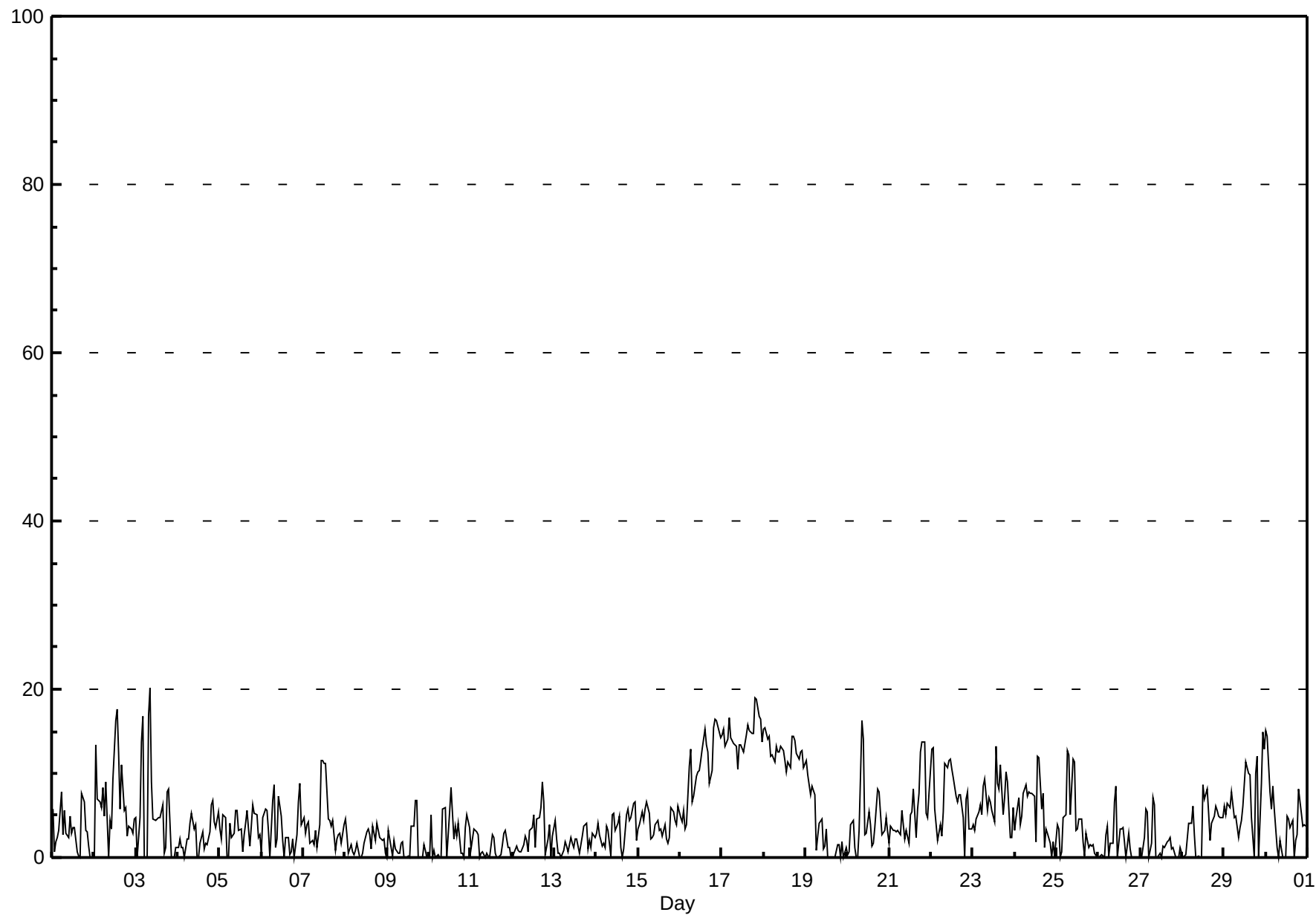
Beaverlodge - September 2014

Maximum Value: 20.2 μg/m ³ on Sep 3 09:00																				Maximum Daily Average: 14.7 μg/m ³ on Sep 17										Hours in Service: 720			
Minimum Value: 0 μg/m ³ on Sep 1 17:00																				Minimum Daily Average: 1.3 μg/m ³ on Sep 11										Hours of Data: 720			
Maximum Diurnal Average: 5.9 μg/m ³ at hour 14																				Minimum Diurnal Average: 4.0 μg/m ³ at hour 6										Hours of Missing Data: 0			
Monthly Average: 4.70 μg/m ³																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 1.4 Median = 3.5 Q ₃ = 6.5 P ₉₀ = 12.0 P ₉₉ = 16.8										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	6	1	2	2	3	8	3	6	3	2	5	3	4	4	1	0	0	8	7	3	3	1	0	0	3.1	7.8							
2-Sep	0	13	7	7	6	8	5	9	0	4	3	9	16	18	12	6	11	6	6	3	4	3	3	5	6.8	17.7							
3-Sep	5	0	5	14	17	0	0	17	20	9	5	4	5	5	5	6	0	1	8	8	0	0	0	1	5.6	20.2							
4-Sep	1	2	1	1	0	2	2	4	5	3	4	0	0	2	3	1	2	2	3	6	7	4	4	5	2.7	6.9							
5-Sep	3	2	5	5	0	0	4	2	3	6	6	3	3	1	3	4	6	1	4	6	5	5	2	3	3.5	6.3							
6-Sep	0	5	6	6	3	0	7	9	1	2	7	5	2	0	2	2	0	1	2	0	3	7	9	4	3.5	8.7							
7-Sep	5	3	4	4	2	2	1	3	1	4	12	12	11	11	5	4	4	4	1	2	3	3	2	4	4.4	11.6							
8-Sep	5	3	0	1	1	0	1	2	0	0	0	2	3	3	3	1	4	2	4	3	2	2	2	1	1.9	4.5							
9-Sep	0	3	1	0	2	1	1	0	2	2	0	0	0	0	4	4	7	7	0	0	0	1	1	0	1.5	6.8							
10-Sep	0	5	0	1	0	0	0	0	6	6	0	3	5	8	2	4	3	4	0	1	0	4	5	4	2.5	8.3							
11-Sep	1	2	3	3	3	0	1	1	0	0	0	0	3	2	1	0	0	0	2	3	3	1	1	0	1.3	3.3							
12-Sep	0	0	1	1	1	1	2	3	2	1	3	4	5	1	5	5	6	9	7	0	2	4	0	3	2.7	9.1							
13-Sep	4	2	1	1	0	1	2	1	1	2	2	1	2	2	1	2	3	4	4	1	2	1	3	2	1.8	4.4							
14-Sep	3	4	3	1	2	1	4	3	0	5	5	3	4	5	1	0	1	5	6	4	5	6	7	2	3.4	6.5							
15-Sep	3	4	5	4	6	7	5	2	2	3	4	4	3	3	3	4	2	2	2	6	5	4	4	6	4.0	6.6							
16-Sep	5	4	6	3	4	11	13	7	7	10	10	10	12	13	15	13	13	9	10	15	16	16	16	14	10.5	16.4							
17-Sep	15	15	13	14	17	14	14	14	13	10	13	13	13	14	15	16	15	15	15	19	19	17	16	14	14.7	19.0							
18-Sep	15	15	14	14	12	12	11	13	13	12	13	13	12	10	11	11	14	14	14	12	12	13	13	11	12.7	15.4							
19-Sep	11	10	9	7	9	7	1	3	4	5	1	1	3	0	0	0	0	0	2	2	0	2	0	1	3.2	11.5							
20-Sep	0	1	4	4	1	0	0	3	16	14	3	3	5	4	1	2	4	8	8	5	3	3	5	3	4.2	16.3							
21-Sep	2	4	3	3	3	3	3	6	4	2	3	2	5	5	8	2	6	8	13	14	14	5	5	8	5.4	13.7							
22-Sep	13	13	6	4	2	4	3	5	11	11	12	12	11	10	7	7	7	7	5	0	7	8	3	3	7.1	13.0							
23-Sep	4	3	5	5	6	5	8	9	6	7	7	6	4	13	9	8	11	5	7	10	9	2	2	6	6.6	13.1							
24-Sep	3	5	7	4	5	8	9	7	8	8	8	7	2	12	12	6	8	1	3	3	2	0	2	0	5.3	12.0							
25-Sep	4	3	0	1	5	5	13	12	5	12	11	3	3	5	5	2	0	3	1	1	1	2	0	0	4.1	12.7							
26-Sep	0	0	0	0	3	4	0	2	2	7	9	0	3	3	4	2	0	3	1	0	0	0	0	0	1.7	8.6							
27-Sep	0	0	2	6	5	0	2	7	6	0	0	1	0	1	1	2	2	2	1	1	0	0	0	1	1.7	7.1							
28-Sep	0	0	0	2	4	4	6	3	0	0	0	0	9	7	8	5	2	4	5	6	6	5	5	5	3.6	8.6							
29-Sep	6	5	6	6	8	6	5	5	2	4	4	6	11	11	10	10	5	0	10	12	0	9	15	13	7.0	15.0							
30-Sep	15	14	8	6	9	6	1	0	2	1	0	0	5	5	4	4	0	2	3	8	5	4	4	4	4.5	15.1							
4.3 4.8 4.3 4.4 4.5 4.0 4.1 5.2 4.9 5.1 5.0 4.3 5.5 5.9 5.3 4.4 4.5 4.6 5.1 5.2 4.6 4.4 4.3 4.0																									Diurnal Average								
15.3 15.4 14.1 14.4 16.8 14.3 13.8 17.0 20.2 14.1 13.4 13.4 16.3 17.7 15.2 15.7 15.1 14.8 14.8 19.0 18.8 16.8 16.4 14.3																									Diurnal Maximum								

Hourly Maximums

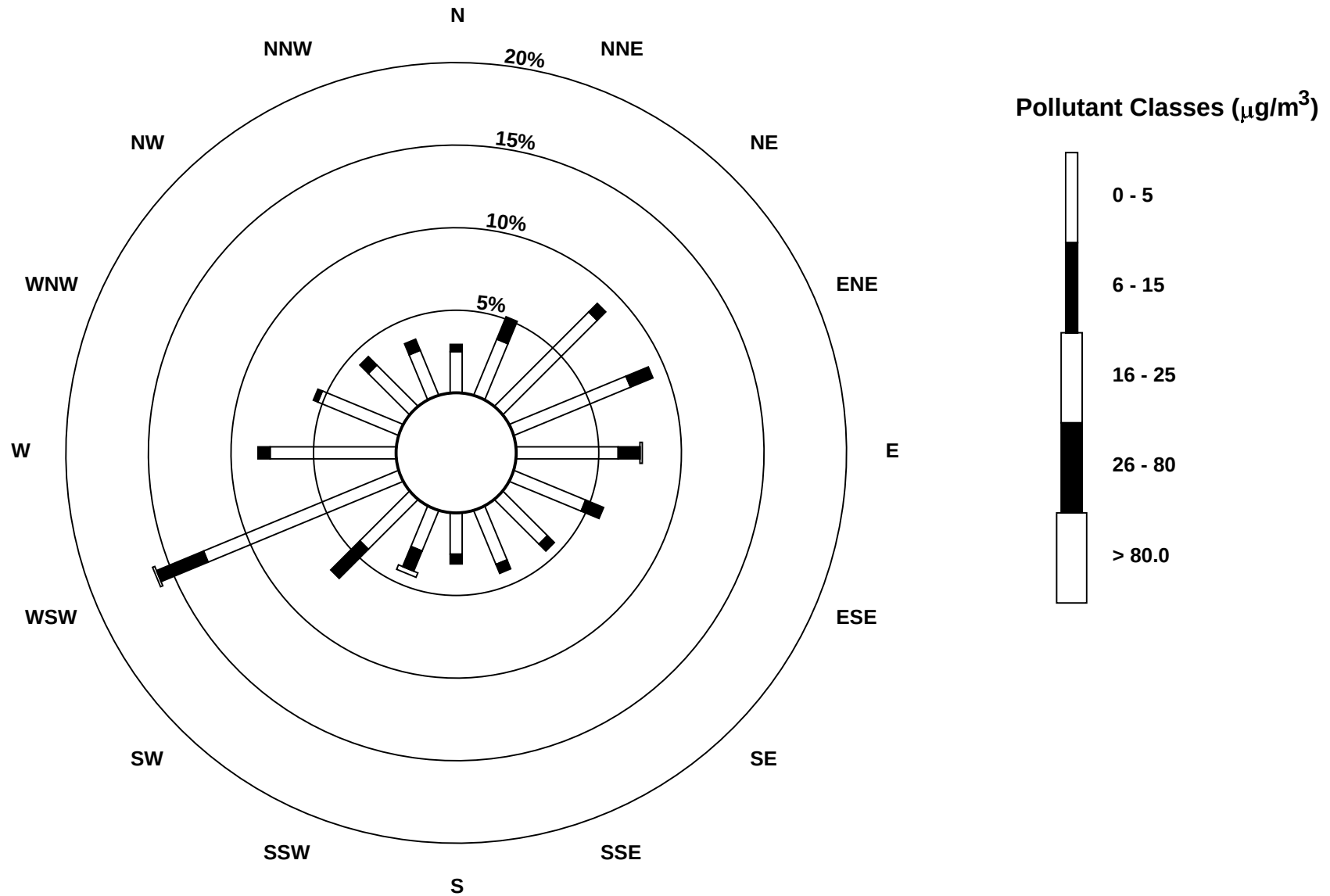
Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$

Beaverlodge - September 2014



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Beaverlodge - September 2014



Hourly Averages

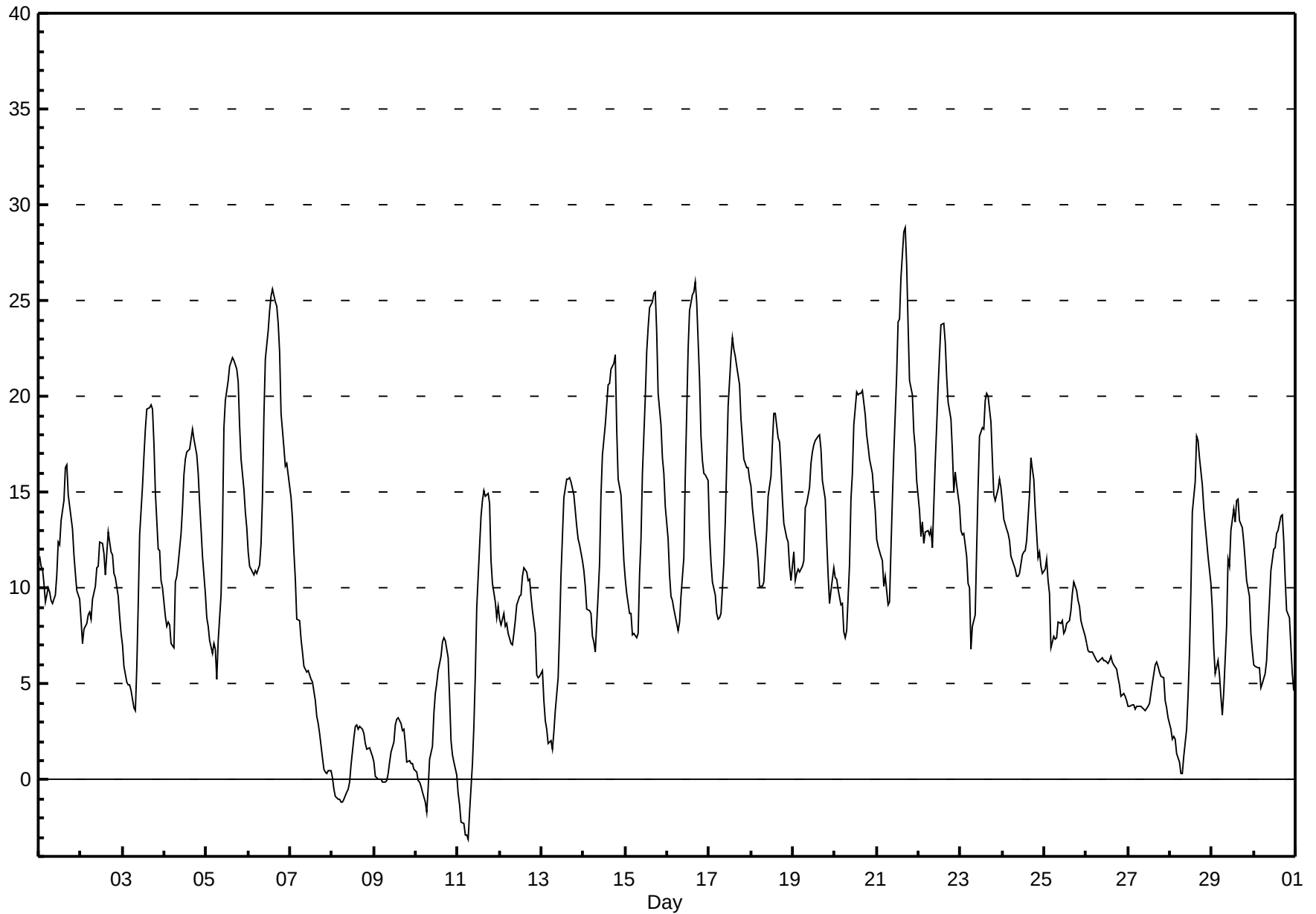
External Temperature (ET) - °C

Beaverlodge - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.8 °C on Sep 21 17:00 Maximum Daily Average: 17.8 °C on Sep 21																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -3 °C on Sep 11 07:00 Maximum Diurnal Average: 15.8 °C at hour 17 Monthly Average: 10.75 °C												Minimum Daily Average: 0.8 °C on Sep 8 Minimum Diurnal Average: 6.2 °C at hour 7 Percentiles: P ₁ = -1.4 P ₁₀ = 2.1 Q ₁ = 6.2 Median = 10.7 Q ₃ = 15.0 P ₉₀ = 19.4 P ₉₉ = 25.3														
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	12	11	11	10	9	10	10	9	9	10	11	12	12	14	15	16	16	15	14	13	12	11	10	9	11.7	16.4
2-Sep	8	7	8	8	9	9	8	9	10	11	11	12	12	12	11	12	13	12	12	11	11	10	8	8	10.1	12.9
3-Sep	7	6	5	5	5	5	4	4	6	9	13	15	17	18	19	19	20	19	18	15	12	12	10	10	11.4	19.6
4-Sep	8	8	8	8	7	7	10	11	11	13	14	16	17	17	17	18	18	18	17	16	14	13	12	10	12.9	18.3
5-Sep	8	8	7	7	7	7	5	7	10	13	18	20	21	22	22	22	22	21	21	18	17	15	14	13	14.4	22.0
6-Sep	12	11	11	11	11	11	11	12	15	19	22	23	25	25	26	25	25	24	22	19	17	16	16	16	17.7	25.6
7-Sep	15	14	12	10	8	8	7	7	6	6	6	5	5	5	4	3	3	2	1	1	0	0	0	0	5.4	14.7
8-Sep	0	-1	-1	-1	-1	-1	-1	-1	-1	0	0	1	2	3	3	3	3	3	2	2	2	2	1	1	0.8	2.9
9-Sep	1	0	0	0	0	0	0	0	0	1	1	2	3	3	3	3	3	3	2	1	1	1	1	1	1.2	3.2
10-Sep	0	0	0	0	-1	-1	-2	0	1	2	3	5	5	6	6	7	7	7	6	4	2	1	1	0	2.5	7.4
11-Sep	-1	-1	-2	-2	-3	-3	-3	-2	1	3	5	9	12	14	15	15	15	15	14	11	10	9	8	9	6.2	15.1
12-Sep	8	8	9	8	8	8	7	7	8	8	9	10	10	11	11	11	10	10	10	9	8	5	5	5	8.4	11.0
13-Sep	6	4	3	3	2	2	2	3	4	5	8	11	13	15	16	16	16	16	15	14	13	13	12	11	9.1	15.8
14-Sep	11	10	9	9	9	7	7	7	10	11	15	17	19	20	21	21	21	22	22	18	16	15	13	11	14.2	22.2
15-Sep	11	10	9	9	8	8	7	8	11	13	16	20	22	24	25	25	25	25	23	20	19	17	16	14	15.9	25.4
16-Sep	13	11	10	9	9	8	8	8	10	12	16	19	22	24	25	25	26	25	21	18	17	16	16	16	16.0	26.0
17-Sep	13	11	10	10	9	8	8	9	11	13	16	19	22	23	22	22	22	21	19	18	17	16	16	16	15.5	23.1
18-Sep	15	14	13	12	11	10	10	10	12	13	15	16	18	19	19	18	18	16	15	13	13	12	11	10	13.9	19.1
19-Sep	12	10	11	11	11	11	11	14	14	15	16	17	17	18	18	18	17	16	15	13	11	9	10	11	13.6	18.0
20-Sep	11	11	10	9	9	8	7	8	11	15	16	19	20	20	20	20	20	19	18	17	17	16	15	14	14.6	20.3
21-Sep	13	12	12	11	10	11	9	9	12	15	17	21	24	24	26	29	29	27	24	21	20	18	17	16	17.8	28.8
22-Sep	14	13	13	12	13	13	13	13	12	17	18	20	22	24	24	23	21	20	19	17	15	16	15	14	16.8	23.8
23-Sep	13	13	13	12	10	10	7	8	9	12	15	18	18	18	20	20	20	19	17	15	15	15	16	15	14.4	20.1
24-Sep	15	14	13	13	13	12	11	11	11	11	11	12	12	12	12	15	17	16	16	14	12	12	11	11	12.7	16.8
25-Sep	11	12	10	10	7	7	7	7	8	8	8	8	8	8	8	9	10	10	10	9	9	8	8	8	8.7	11.5
26-Sep	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	4	5	4	4	5.9	7.1
27-Sep	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	6	6	6	6	5	5	4	4	3	4.4	6.1
28-Sep	3	2	2	2	1	1	0	0	1	3	4	7	10	14	16	18	18	17	15	14	13	13	12	10	8.2	17.9
29-Sep	9	7	6	6	5	4	3	5	8	12	11	13	14	13	15	15	14	13	12	11	10	10	8	7	9.6	14.6
30-Sep	6	6	6	6	5	5	6	6	8	9	11	12	12	13	13	14	14	12	10	9	8	7	6	5	8.7	13.9
8.8 8.0 7.6 7.3 6.7 6.5 6.2 6.6 7.9 9.5 11.3 13.0 14.2 14.9 15.4 15.8 15.8 15.2 14.0 12.4 11.3 10.6 9.9 9.3																								Diurnal Average		
15.3 14.2 13.4 12.9 12.9 13.0 12.8 14.2 14.8 18.9 22.0 23.5 24.5 25.2 26.2 28.6 28.8 26.9 23.8 20.8 20.1 18.2 17.3 15.9																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C
Beaverlodge - September 2014



Hourly Averages

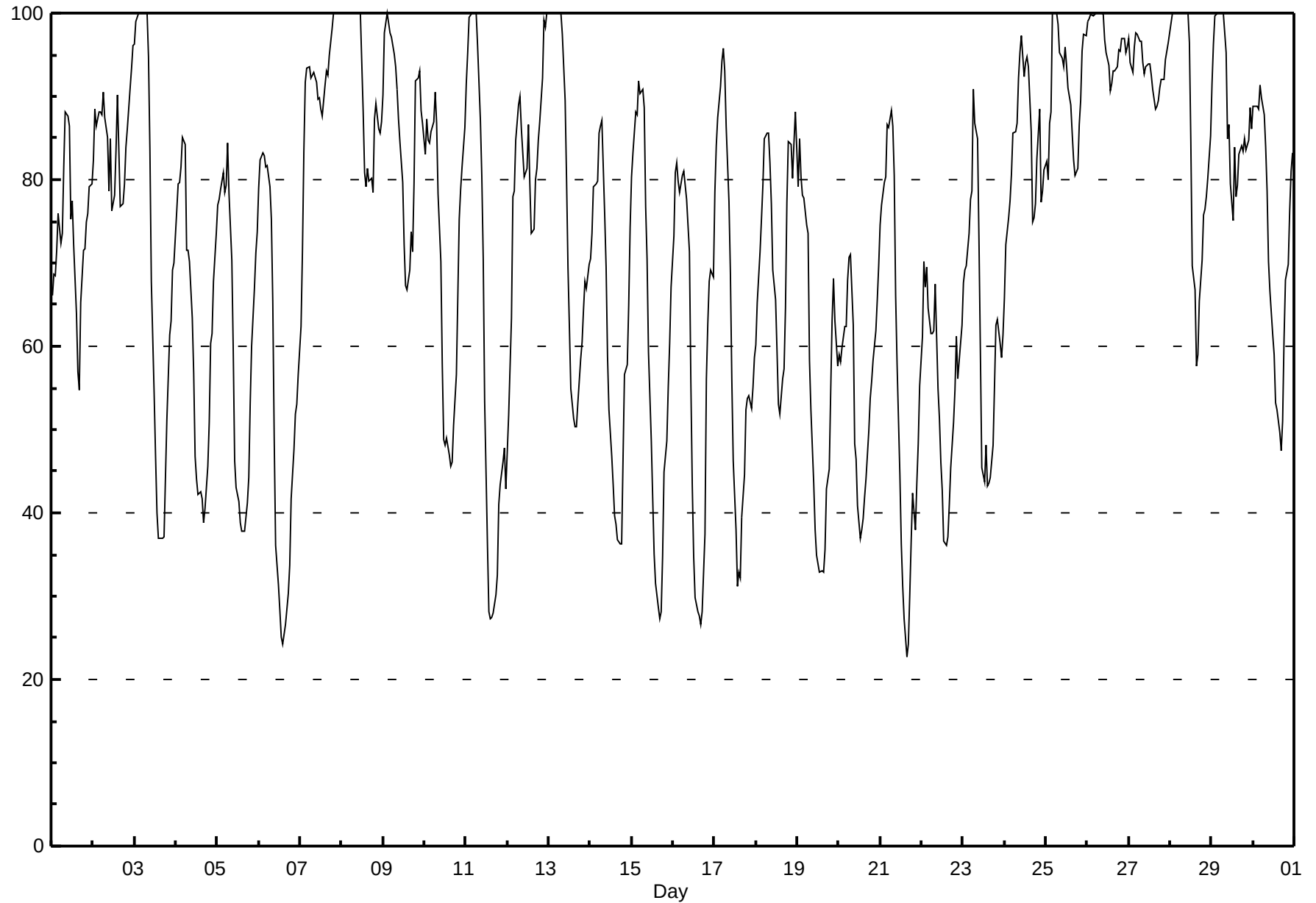
Relative Humidity (RH) - %

Beaverlodge - September 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Sep 3 04:00 Maximum Daily Average: 96.7 % on Sep 26																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 23 % on Sep 21 16:00 Maximum Diurnal Average: 88.6 % at hour 7 Monthly Average: 72.59 %												Minimum Daily Average: 53.1 % on Sep 6 Minimum Diurnal Average: 54.2 % at hour 16 Percentiles: P ₁ = 27.3 P ₁₀ = 41.0 Q ₁ = 56.7 Median = 78.0 Q ₃ = 89.0 P ₉₀ = 98.6 P ₉₉ = 100.0														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	66	69	68	71	76	72	74	81	88	88	86	75	78	72	64	57	55	65	72	72	75	76	79	80	73.3	88.1
2-Sep	82	88	86	88	88	88	91	87	85	79	85	76	78	84	90	84	77	77	79	84	86	91	93	96	85.1	96.1
3-Sep	96	99	100	100	100	100	100	100	95	84	68	54	47	40	37	37	37	37	44	51	61	63	69	70	70.4	100.0
4-Sep	76	79	80	82	85	84	72	72	70	63	57	47	44	42	43	42	39	41	46	51	60	62	68	74	61.5	85.0
5-Sep	77	78	79	81	78	79	84	78	70	60	46	43	41	39	38	38	38	41	44	53	60	67	71	74	60.8	84.4
6-Sep	79	82	83	83	81	82	79	75	65	49	36	31	28	25	24	27	29	30	34	42	48	52	53	57	53.1	83.3
7-Sep	62	71	83	92	93	94	92	93	93	92	90	90	89	88	91	93	93	95	98	100	100	100	100	100	91.3	100.0
8-Sep	100	100	100	100	100	100	100	100	100	100	100	100	88	81	79	81	80	80	78	87	89	86	86	87	91.8	100.0
9-Sep	90	98	100	99	98	97	95	94	91	87	85	80	72	67	67	69	74	71	79	92	92	93	88	87	86.0	100.0
10-Sep	83	87	85	84	86	87	91	87	78	70	58	49	48	49	47	46	46	51	57	66	75	79	81	86	69.8	90.6
11-Sep	92	95	100	100	100	100	100	96	87	80	70	53	36	28	27	27	28	30	32	41	43	46	48	43	62.7	100.0
12-Sep	47	52	63	78	79	85	89	90	86	83	80	81	87	79	74	74	80	81	85	87	92	99	98	100	81.3	100.0
13-Sep	100	100	100	100	100	100	100	100	97	90	80	70	62	55	51	50	50	53	58	60	64	68	67	70	77.0	100.0
14-Sep	71	74	79	79	80	86	86	87	76	69	59	52	47	43	40	39	37	36	36	47	57	58	65	74	61.5	87.1
15-Sep	80	83	88	88	92	90	91	89	77	71	59	49	42	35	32	29	27	28	35	45	49	55	60	67	60.8	91.9
16-Sep	73	81	82	80	79	81	81	79	78	71	56	43	35	30	28	28	27	28	37	56	63	68	69	68	59.2	82.1
17-Sep	78	84	88	91	94	96	93	86	77	69	56	46	38	31	33	32	39	45	52	54	54	53	55	59	62.7	95.8
18-Sep	60	65	71	75	79	85	86	86	82	77	69	66	59	53	52	56	57	65	77	85	84	80	84	88	72.6	88.1
19-Sep	79	85	80	78	78	75	74	58	52	44	38	35	34	33	33	33	36	43	45	54	63	68	63	58	55.7	84.8
20-Sep	59	58	60	62	62	68	71	71	63	48	46	41	37	38	39	42	44	50	54	56	58	62	66	70	55.2	71.0
21-Sep	75	77	80	80	87	86	88	87	81	66	58	45	36	31	27	23	24	30	37	42	38	43	48	55	56.0	88.2
22-Sep	61	70	67	70	65	62	62	62	67	55	51	46	43	37	36	37	41	45	51	55	61	56	58	63	55.0	70.2
23-Sep	68	69	70	73	78	79	91	87	85	73	59	45	44	48	43	44	44	48	55	63	63	60	59	61	62.8	90.8
24-Sep	66	72	75	77	81	86	86	87	92	95	97	92	94	95	94	86	75	75	77	83	89	77	79	81	83.8	97.3
25-Sep	82	80	87	88	100	100	100	99	95	95	94	96	94	91	89	86	82	80	81	87	89	95	97	97	91.0	100.0
26-Sep	99	99	100	100	100	100	100	100	100	100	97	95	94	91	91	93	93	93	96	95	97	97	95	96	96.7	100.0
27-Sep	97	94	93	96	98	97	97	97	94	93	93	94	94	93	91	88	89	89	91	92	92	94	95	96	93.7	97.7
28-Sep	99	100	100	100	100	100	100	100	100	100	100	96	85	70	67	58	59	65	70	76	76	78	80	85	86.0	100.0
29-Sep	91	96	100	100	100	100	100	100	100	95	85	87	79	75	84	78	79	83	84	83	85	84	85	86	88.7	100.0
30-Sep	89	89	89	88	91	90	88	84	79	70	67	61	59	53	52	50	47	51	61	68	70	76	81	83	72.3	91.3
79.3 82.5 84.5 86.2 87.6 88.2 88.6 87.0 83.3 76.8 70.9 64.4 60.2 56.8 55.2 54.2 54.3 57.0 61.6 67.6 71.1 72.9 74.9 77.0																								Diurnal Average		
100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 94.0 94.8 93.5 93.1 93.1 94.8 98.1 100.0 100.0 100.0 100.0 100.0																								Diurnal Maximum		

Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - September 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	14	11	14	15	8	12	10	7	4	5	6	10	14	15	21	25	21	17	17	12	11	8	5	3	11.4	25.2
Dir	244	241	242	245	241	243	241	236	217	205	197	218	258	256	255	269	280	247	262	252	251	245	247	236	250	269
2 Spd	2	3	3	3	1	1	1	3	4	9	12	13	13	14	12	11	11	12	9	6	8	10	11	10	6.1	14.3
Dir	218	58	59	53	116	143	66	205	245	285	298	316	316	329	320	302	3	6	345	310	337	320	324	323	324	329
3 Spd	10	4	2	2	2	3	2	2	7	7	8	10	11	12	14	15	17	27	24	22	11	15	9	10	8.3	27.1
Dir	321	333	0	29	21	52	69	122	200	203	209	217	212	229	230	240	261	257	247	253	248	250	242	246	245	257
4 Spd	1	3	3	1	2	0	11	15	13	16	13	12	10	13	9	6	9	13	6	4	4	7	1	1	5.8	16.2
Dir	106	56	50	99	95	202	287	308	311	306	297	300	302	258	247	275	266	253	274	283	245	254	56	111	286	306
5 Spd	2	2	4	2	4	5	4	2	7	13	33	39	37	33	30	28	22	26	22	21	16	10	7	8	13.5	38.9
Dir	164	162	104	89	202	155	134	116	208	215	265	268	267	280	282	272	283	265	253	241	241	246	226	221	259	268
6 Spd	1	2	4	4	3	3	4	4	4	7	25	28	31	33	34	36	31	29	20	8	2	1	4	2	10.7	35.8
Dir	108	63	59	56	70	66	69	52	135	250	266	262	264	259	254	252	253	257	246	227	181	97	239	218	256	252
7 Spd	9	7	8	8	14	4	11	12	13	12	14	15	13	15	16	16	14	14	18	14	10	10	12	13	12.2	17.9
Dir	32	17	15	360	24	42	23	30	20	14	26	34	35	30	33	35	38	38	39	31	26	28	37	41	30	39
8 Spd	16	15	16	17	15	17	15	13	14	20	21	19	17	13	13	13	11	9	11	10	10	10	12	12	13.5	21.4
Dir	46	39	35	36	33	35	38	43	53	65	70	69	91	87	54	47	59	61	53	95	78	62	67	64	57	70
9 Spd	13	12	14	10	9	9	9	12	7	7	10	9	9	11	13	13	12	10	12	7	5	5	8	7	8.5	13.5
Dir	68	58	66	57	50	41	39	41	48	61	62	56	63	55	52	35	42	52	20	352	295	307	334	352	43	66
10 Spd	5	4	3	2	1	0	1	3	3	6	4	6	9	14	13	12	14	13	11	7	6	6	6	5	4.6	14.0
Dir	14	325	349	341	351	221	37	51	140	167	121	175	154	149	156	173	170	171	162	148	115	108	97	105	147	170
11 Spd	5	5	3	4	4	3	4	4	5	7	8	15	19	28	26	23	21	18	15	10	11	7	1	6	7.4	27.6
Dir	131	130	131	126	153	136	101	93	134	173	203	223	247	267	271	260	254	254	246	262	285	298	308	269	247	267
12 Spd	3	3	9	9	16	13	11	6	8	11	13	13	11	13	15	15	11	11	4	2	1	5	3	6	6.1	16.0
Dir	280	220	252	240	265	281	291	274	277	294	309	314	291	292	303	321	359	24	55	130	120	57	71	49	302	265
13 Spd	3	4	3	3	4	2	2	4	5	9	8	9	10	10	9	11	8	6	3	3	3	5	6	1	3.8	10.6
Dir	81	154	99	87	136	163	138	132	159	174	167	170	194	202	213	215	245	277	229	197	217	243	291	266	194	215
14 Spd	3	3	2	2	6	4	2	4	1	5	3	6	8	9	8	7	5	3	3	2	5	3	4	3	2.0	9.0
Dir	300	305	56	37	307	264	251	245	261	245	297	262	250	245	252	289	318	273	190	62	67	86	83	97	274	245
15 Spd	2	3	3	3	4	3	3	3	2	5	6	5	7	12	9	11	9	4	5	6	6	5	4	3	1.1	11.7
Dir	90	85	72	76	56	64	66	68	120	181	191	221	240	233	253	248	252	260	118	66	68	85	75	97	178	233
16 Spd	2	5	4	5	3	2	3	3	2	3	2	2	3	4	5	6	4	6	8	9	7	7	6	4	3.0	8.7
Dir	73	55	52	56	62	77	59	65	111	75	144	272	151	238	224	158	119	134	118	87	90	112	86	90	100	87
17 Spd	2	3	3	1	1	4	3	2	3	4	M	M	M	19	16	13	8	10	6	7	4	9	10	2	3.8	19.3
Dir	345	332	10	77	231	52	83	75	88	144	M	M	M	251	249	255	225	218	221	250	198	203	205	22	234	251
18 Spd	4	5	3	3	4	2	2	3	2	3	6	7	8	12	19	20	22	20	9	5	7	6	5	8	6.8	21.9
Dir	202	197	166	195	215	188	119	62	124	180	224	219	234	234	238	241	244	255	252	213	240	232	210	212	230	244
19 Spd	17	8	7	6	7	13	21	40	39	52	51	52	57	57	51	50	46	35	40	29	16	8	11	18	30.0	57.4
Dir	239	221	217	215	229	248	240	249	258	259	255	261	259	260	255	268	267	261	264	255	240	222	248	262	256	260
20 Spd	15	15	14	10	6	2	2	2	3	18	19	28	35	37	31	27	21	12	11	6	9	3	2	4	12.7	37.3
Dir	265	276	275	280	260	167	188	110	206	243	257	254	251	249	256	254	248	231	245	256	224	179	113	67	252	249
21 Spd	5	5	5	4	3	2	4	4	1	2	2	4	5	6	5	3	6	6	7	7	2	4	4	2	2.7	6.6
Dir	90	116	128	118	147	82	60	51	89	150	255	161	157	148	72	172	43	22	45	55	41	49	83	120	90	55
22 Spd	2	4	1	5	4	2	4	4	3	2	2	4	10	22	20	24	20	12	9	11	7	15	16	12	6.1	24.1
Dir	69	99	104	68	107	79	59	59	90	82	152	272	309	301	296	293	278	272	250	257	239	269	286	280	286	293

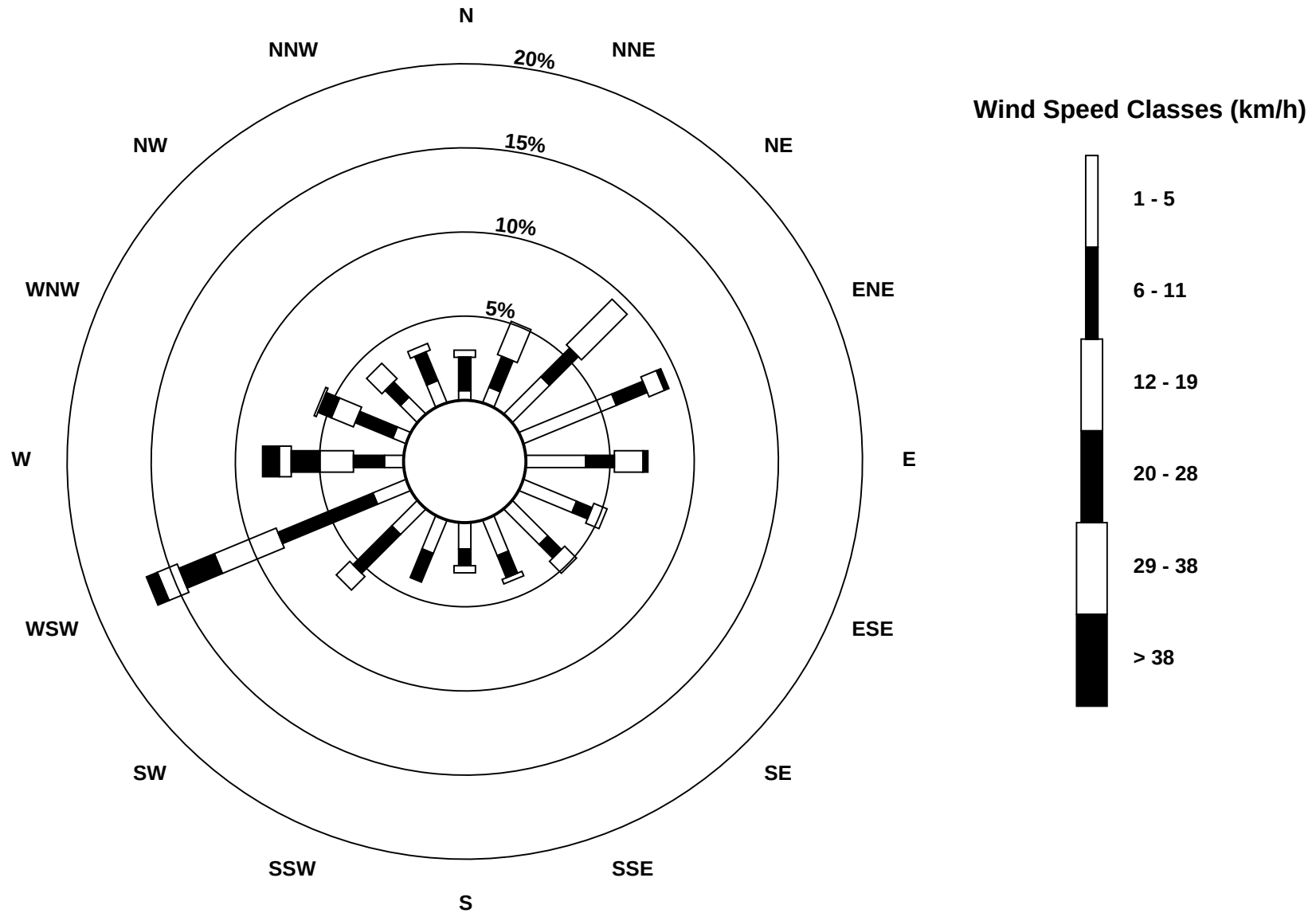
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	7	8	5	4	7	8	3	4	5	3	5	1	9	10	9	11	11	15	10	10	11	15	22	24	4.0	23.7
Dir	288	285	315	293	348	328	88	45	212	202	204	339	188	174	160	135	122	112	87	68	78	82	90	90	103	90
24 Spd	18	13	6	4	2	6	8	6	3	5	3	3	6	7	6	1	8	8	5	4	4	9	7	10	1.3	17.7
Dir	95	98	99	75	320	34	354	13	23	301	318	319	297	310	323	20	230	221	220	245	237	268	291	240	309	95
25 Spd	4	3	2	7	14	11	7	6	6	9	7	14	14	12	11	8	8	10	8	5	5	4	7	11	6.3	14.0
Dir	234	237	166	9	16	358	340	23	6	19	24	34	62	54	60	63	55	88	98	97	102	61	56	48	44	16
26 Spd	13	15	16	15	13	12	11	12	10	12	14	11	13	13	10	10	10	10	7	8	7	6	8	5	10.2	15.9
Dir	41	35	35	33	24	18	8	355	339	338	344	346	13	9	349	355	352	339	342	359	351	333	13	345	5	35
27 Spd	6	7	7	3	2	2	2	5	9	10	13	16	16	14	13	15	16	14	15	15	15	12	11	6	8.3	16.4
Dir	336	20	40	322	330	225	73	119	133	131	146	126	127	137	127	100	98	101	110	109	111	98	94	94	110	98
28 Spd	4	7	5	2	5	2	4	3	5	6	6	7	8	9	12	12	15	13	16	17	15	11	6	8	7.6	16.7
Dir	145	125	114	112	47	68	77	144	137	144	141	143	146	151	132	132	112	100	103	99	97	98	111	106	115	99
29 Spd	3	3	3	3	1	1	2	2	2	3	3	2	4	3	7	7	9	7	7	11	12	10	11	9	3.8	12.0
Dir	229	314	23	45	341	167	360	341	84	177	201	174	236	179	238	251	285	240	238	280	268	256	255	245	255	268
30 Spd	9	8	11	11	4	2	0	10	13	18	22	21	14	15	13	16	28	27	21	19	18	16	14	8	13.2	28.3
Dir	249	239	249	251	221	275	355	300	291	288	286	293	301	287	274	273	260	261	248	250	255	248	233	231	266	260
Spd	0.6	1.1	1.6	1.5	1.8	1.4	1.7	1.7	1.1	3.3	5.2	6.1	7.1	8.9	8.5	8.5	7.0	5.8	4.0	2.7	1.7	1.3	0.3	0.3	Diurnal Average	
Dir	353	36	36	20	8	4	10	353	268	254	264	266	258	260	262	266	269	258	248	250	238	254	342	17	Diurnal Maximum	
Spd	17.7	15.4	16.2	17.1	16.0	16.6	20.9	40.1	39.2	51.7	51.3	52.1	57.3	57.4	50.6	50.3	45.9	35.4	40.2	28.7	18.4	15.7	21.7	23.7	Diurnal Maximum	
Dir	95	276	35	36	265	35	240	249	258	259	255	261	259	260	255	268	267	261	264	255	255	248	90	90		
Maximum Speed Value: 57 km/h on Sep 19 14:00																								Hours in Service: 720		
Maximum Daily Speed Average: 30.0 km/h on Sep 19																								Hours of Data: 717		
Maximum Diurnal Speed Average: 8.9 km/h at hour 14																								Hours of Missing Data: 3		
Minimum Speed Value: 0 km/h on Sep 4 06:00																								Percent Operational Time: 99.6		
Minimum Daily Speed Average: 1.1 km/h on Sep 21																										
Minimum Diurnal Speed Average: 0.3 km/h at hour 24																										
Monthly Average Velocity: 2.80 km/h 269.8 deg																										
Speed Percentiles: P ₁ = 0.7 P ₁₀ = 2.4 Q ₁ = 3.9 Median = 7.7 Q ₃ = 13.0 P ₉₀ = 18.4 P ₉₉ = 50.0																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										
M - Maintenance																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	16		29		11		0		0		0		56													
NorthEast	44		33		45		1		0		0		123													
East	57		24		20		3		0		0		104													
SouthEast	41		17		11		0		0		0		69													
South	27		17		4		0		0		0		48													
SouthWest	32		54		23		8		0		0		117													
West	12		38		39		24		17		12		142													
NorthWest	15		24		15		4		0		0		58													
Total	244		236		168		40		17		12		717													

Wind Rose

Wind Speed (WS) (km/h)
Beaverlodge - September 2014



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - September 2014

Maximum Speed: 58 km/h on Sep 19 14:00																				Maximum Daily Speed Average: 30.8 km/h on Sep 19										Hours in Service: 720	
Minimum Speed: 1 km/h on Sep 10 06:00																				Minimum Daily Speed Average: 4.6 km/h on Sep 21										Hours of Data: 717	
Maximum Diurnal Speed Average: 16.7 km/h at hour 14																				Minimum Diurnal Speed Average: 5.6 km/h at hour 6										Hours of Missing Data: 3	
Monthly Average Speed: 10.18 km/h																				Percentiles: P ₁ = 1.7 P ₁₀ = 3.2 Q ₁ = 4.5 Median = 8.2 Q ₃ = 13.2 P ₉₀ = 18.4 P ₉₉ = 50.6										Percent Operational Time: 99.6	
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	14	11	14	15	8	12	10	7	5	5	6	11	14	15	21	26	22	18	17	12	11	8	5	3	12.1	25.5					
2-Sep	2	3	3	3	1	2	3	3	5	9	12	13	13	15	12	11	13	12	10	6	8	10	11	10	8.0	14.7					
3-Sep	10	5	4	2	2	3	2	3	7	8	8	11	12	13	15	16	18	27	24	23	11	15	9	10	10.7	27.2					
4-Sep	3	3	3	2	3	4	11	15	13	16	14	13	11	14	11	7	10	13	6	4	6	7	4	2	8.1	16.3					
5-Sep	3	3	4	3	5	5	5	4	8	13	33	39	37	33	30	29	22	27	23	21	16	10	7	8	16.2	39.1					
6-Sep	3	3	4	4	3	4	4	4	4	10	25	28	31	33	35	36	31	29	20	8	3	1	5	4	13.9	36.0					
7-Sep	9	9	9	10	15	6	12	12	13	13	14	16	13	15	17	16	14	15	18	15	10	10	12	13	12.8	17.9					
8-Sep	16	15	16	17	15	17	15	13	14	20	22	19	17	13	14	13	11	9	11	11	10	11	12	12	14.4	21.5					
9-Sep	14	13	14	10	10	9	9	12	7	7	10	10	10	12	13	14	12	11	12	7	7	6	8	8	10.1	13.6					
10-Sep	5	4	3	2	1	1	3	3	4	6	5	7	10	14	15	14	15	13	11	7	6	6	6	6	7.0	14.9					
11-Sep	5	5	4	4	4	3	4	4	5	7	9	15	20	28	26	24	22	18	15	10	11	7	3	6	10.8	27.9					
12-Sep	4	4	9	9	16	13	12	7	9	11	13	13	11	13	16	15	11	11	5	2	3	5	3	6	9.1	16.1					
13-Sep	4	4	3	3	4	2	3	4	6	9	9	10	10	11	10	12	8	6	3	3	4	5	7	4	6.0	11.6					
14-Sep	3	4	2	3	6	4	3	4	2	5	4	7	10	10	9	8	7	5	3	4	5	3	4	3	5.0	10.4					
15-Sep	3	3	3	3	4	3	3	3	3	5	6	7	8	12	10	12	10	4	6	6	6	5	4	3	5.6	12.4					
16-Sep	3	6	5	5	3	3	4	3	3	3	2	4	4	6	6	8	6	6	8	9	7	7	7	5	5.0	8.8					
17-Sep	4	6	5	2	3	4	4	2	3	4	M	M	M	20	17	13	9	10	7	7	4	9	10	4	7.0	19.6					
18-Sep	5	5	3	4	4	3	3	4	2	4	7	7	8	12	19	20	22	21	9	5	7	6	5	8	8.1	21.9					
19-Sep	17	9	7	6	8	14	21	40	39	52	52	52	58	58	51	51	46	36	40	29	16	9	12	18	30.8	57.8					
20-Sep	16	15	14	10	7	4	4	4	7	18	19	28	35	38	31	27	21	12	11	7	10	5	3	4	14.5	37.6					
21-Sep	5	5	5	4	3	3	4	4	3	3	3	5	5	7	5	5	7	6	7	7	3	5	4	4	4.6	6.8					
22-Sep	3	4	3	5	4	2	4	4	3	3	3	5	10	23	21	25	20	12	10	12	8	15	16	12	9.4	24.6					
23-Sep	7	9	6	5	8	9	4	5	5	4	6	4	10	11	10	12	12	15	10	10	11	15	22	24	9.7	23.7					
24-Sep	18	13	7	4	3	6	8	6	5	6	4	4	6	8	8	5	8	8	5	5	6	9	8	11	7.2	17.7					
25-Sep	5	5	5	10	15	11	7	6	7	9	8	14	14	12	12	8	8	11	8	6	5	5	7	11	8.6	14.6					
26-Sep	13	15	16	15	13	12	11	12	11	12	14	11	14	13	11	11	10	10	7	8	7	6	8	5	11.1	15.9					
27-Sep	7	7	7	4	3	3	3	5	9	10	13	16	16	14	14	15	17	14	15	15	15	12	11	7	10.5	16.5					
28-Sep	4	7	5	3	5	2	4	3	6	6	6	8	8	9	12	12	15	13	16	17	15	11	7	8	8.5	16.7					
29-Sep	4	6	5	4	3	2	3	3	2	4	5	3	5	3	7	8	9	7	7	12	12	10	11	9	6.0	12.1					
30-Sep	9	8	11	11	5	3	3	10	13	18	22	21	15	15	14	16	28	27	21	19	18	16	14	8	14.4	28.4					
7.2 7.0 6.7 6.0 6.2 5.6 6.2 7.0 7.4 10.0 12.2 13.7 15.1 16.7 16.4 16.2 15.6 14.2 12.2 10.2 8.6 8.4 8.2 7.9																									Diurnal Average						
17.7 15.4 16.3 17.1 16.1 16.7 21.1 40.3 39.4 51.9 51.5 52.4 57.6 57.8 50.9 50.7 46.1 35.6 40.4 28.7 18.5 15.7 21.7 23.7																									Diurnal Maximum						
M - Maintenance																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg
Beaverlodge - September 2014

Maximum Value: 95.0 deg on Sep 14 00:00																			Hours in Service: 720						
Minimum Value: 2.0 deg on Sep 28 20:00																			Hours of Data: 717						
																			Hours of Missing Data: 3						
Percentiles: P ₁ = 3.3 P ₁₀ = 5.6 Q ₁ = 8.4 Median = 15.0 Q ₃ = 30.5 P ₉₀ = 54.9 P ₉₉ = 85.2																			Hours of Calibration: 0						
																			Percent Operational Time: 99.6						
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Sep	5	5	5	4	14	5	11	11	14	21	12	26	10	8	7	10	20	25	6	5	9	7	17	29	29.4
2-Sep	32	25	19	17	61	49	82	11	35	10	6	11	12	13	7	15	38	9	18	11	8	7	4	8	82.3
3-Sep	30	38	46	40	14	18	23	38	14	18	17	18	25	24	26	26	21	6	6	4	6	5	8	4	45.6
4-Sep	71	16	42	74	40	76	9	8	6	7	14	20	21	20	35	40	27	9	13	21	43	20	74	56	75.8
5-Sep	51	50	17	38	26	19	39	49	17	9	12	5	8	11	9	8	10	8	12	3	5	7	15	9	51.5
6-Sep	58	30	12	14	44	16	18	14	31	72	9	10	10	11	8	6	8	6	7	4	55	63	72	76	75.8
7-Sep	12	75	55	47	15	59	9	5	8	10	10	8	8	9	5	7	7	7	4	22	10	8	8	6	75.3
8-Sep	5	5	4	4	4	4	4	6	8	6	7	9	12	14	23	10	9	13	9	13	11	8	6	7	22.8
9-Sep	8	7	5	5	4	6	8	5	11	15	12	19	19	12	18	8	11	12	12	20	39	33	8	20	38.9
10-Sep	18	16	21	29	48	47	74	17	33	20	49	39	31	19	24	30	20	12	10	6	11	22	8	21	74.1
11-Sep	9	9	21	15	26	15	18	25	29	14	21	10	10	9	9	13	18	7	5	20	4	24	81	9	80.6
12-Sep	70	43	15	8	7	8	6	13	10	10	8	8	13	9	11	11	13	9	43	36	83	13	23	5	82.9
13-Sep	30	35	14	26	24	32	33	23	21	13	14	17	18	24	23	24	25	8	22	15	32	7	15	95	95.0
14-Sep	57	48	36	58	27	36	66	26	86	28	57	34	39	43	51	32	43	52	25	61	12	8	20	22	85.8
15-Sep	22	13	14	16	13	15	12	16	41	10	20	52	33	20	44	31	33	43	28	7	12	14	13	11	51.8
16-Sep	74	14	17	8	12	27	48	15	45	18	47	72	52	59	54	48	61	27	22	9	7	8	9	43	73.7
17-Sep	65	72	58	75	91	23	34	45	27	22	M	M	M	9	10	10	20	9	11	9	25	8	17	69	90.9
18-Sep	37	14	41	55	29	60	51	21	25	32	15	12	21	14	11	5	5	8	12	13	9	8	13	12	59.7
19-Sep	5	17	8	21	39	19	7	4	6	4	5	6	6	7	6	8	6	6	5	3	6	35	55	4	55.2
20-Sep	5	3	5	20	27	59	62	64	72	10	13	9	7	7	8	7	10	7	22	83	17	55	35	29	82.7
21-Sep	13	17	14	14	20	31	25	24	84	33	55	35	38	26	39	59	31	18	12	15	82	53	21	57	83.5
22-Sep	92	31	74	26	24	72	29	26	30	56	54	43	15	9	12	11	8	14	14	17	40	7	4	14	92.0
23-Sep	12	6	18	32	32	30	51	69	26	35	29	81	26	25	19	23	22	9	15	5	6	4	5	3	81.5
24-Sep	4	6	31	35	54	29	23	26	59	42	38	53	14	21	50	84	17	12	19	17	73	12	54	49	83.6
25-Sep	31	65	81	66	17	11	18	23	15	11	18	6	12	11	12	18	12	11	9	17	18	22	16	8	81.2
26-Sep	6	6	5	6	4	8	8	7	9	7	7	13	11	8	17	14	15	8	10	6	7	8	13	18	17.9
27-Sep	17	15	8	47	37	48	76	30	17	14	13	13	10	10	17	8	6	8	6	5	5	3	3	12	76.0
28-Sep	18	9	14	41	10	51	15	37	17	18	15	13	20	16	10	10	8	6	3	2	4	7	21	16	51.3
29-Sep	30	76	60	64	92	75	53	82	40	56	46	53	18	32	11	19	8	14	11	23	9	16	7	7	92.0
30-Sep	13	13	6	6	43	87	91	8	6	5	7	8	9	14	15	9	7	7	3	4	4	4	4	12	91.3
92.0 75.7 81.2 75.4 92.0 86.7 91.3 81.9 85.8 71.6 56.6 81.5 52.3 59.0 53.9 83.6 60.8 52.5 43.2 82.7 82.9 63.3 80.6 95.0																									
M - Maintenance																									

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

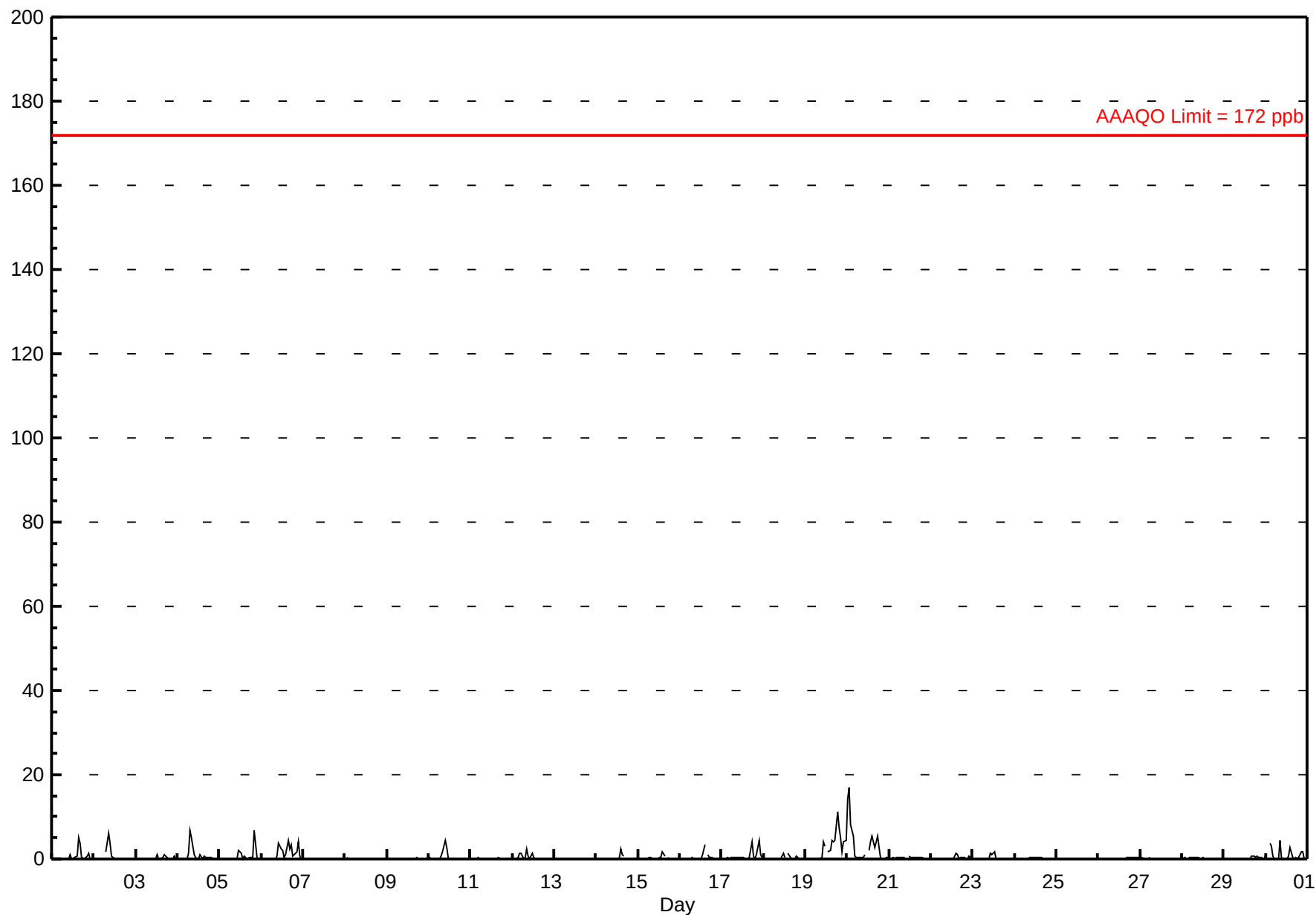
Sulphur Dioxide (SO₂) - ppb

Valleyview - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 16.9 ppb on Sep 20 02:00 Maximum Daily Average: 3.2 ppb on Sep 20																				Hours in Service: 720 Hours of Data: 685 Hours of Missing Data: 35 Hours of Calibration: 35 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 1 01:00 Minimum Daily Average: 0.0 ppb on Sep 25 Maximum Diurnal Average: 0.9 ppb at hour 15 Minimum Diurnal Average: 0.1 ppb at hour 7 Monthly Average: 0.50 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 1.1 P ₉₉ = 6.6																										
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	0	0	0	0	0	0	0	A	0	0	1	0	0	0	1	5	4	0	0	0	1	1	0	0	0.6	5.0
2-Sep	0	0	0	0	0	0	A	2	6	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	6.2
3-Sep	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	0	0.2	1.0
4-Sep	0	0	0	0	A	0	1	7	5	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0.8	6.7
5-Sep	0	0	0	A	0	0	0	0	0	0	0	2	1	0	1	0	0	0	0	0	7	0	0	0	0.6	6.6
6-Sep	0	0	A	0	0	0	0	0	0	1	4	2	2	0	1	4	3	3	1	1	2	4	1	0	1.3	4.5
7-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	0.0	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	A	0.0	0.2
9-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	0.3
10-Sep	0	0	0	0	0	0	0	1	2	4	3	0	0	0	0	0	0	0	0	0	0	A	0	0	0.5	4.3
11-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	0.3
12-Sep	0	0	0	0	1	1	0	0	2	1	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0.4	2.4
13-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	0.0	0.1
14-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	A	0	0	0	0	0	0	0.3	2.5
15-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	A	0	0	0	0	0	0	0	0.2	1.7
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	A	1	1	0	0	0	0	0	0	0.3	3.4
17-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	4	1	0	1	4	1	0	0.6	4.5
18-Sep	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	0	0	0	0	1	0	0	0	0	0.2	1.5
19-Sep	0	0	0	0	0	0	0	0	0	0	4	3	A	2	2	4	4	4	11	8	5	2	4	4	2.6	11.2
20-Sep	14	17	8	5	1	0	0	0	0	0	1	A	2	4	6	4	3	5	3	0	0	0	0	0	3.2	16.9
21-Sep	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
22-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0.2	1.2
23-Sep	0	0	0	0	0	0	0	0	A	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7
24-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	0.1	0.4
25-Sep	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
26-Sep	0	0	0	0	0	A	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0.1	0.5
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	0.1	0.2
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	0.2	0.4
29-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0.2	0.7
30-Sep	1	A	4	3	1	0	0	0	5	0	0	0	0	1	3	0	0	0	0	0	2	2	0	0	1.0	4.5
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Valleyview - September 2014



Hourly Maximums

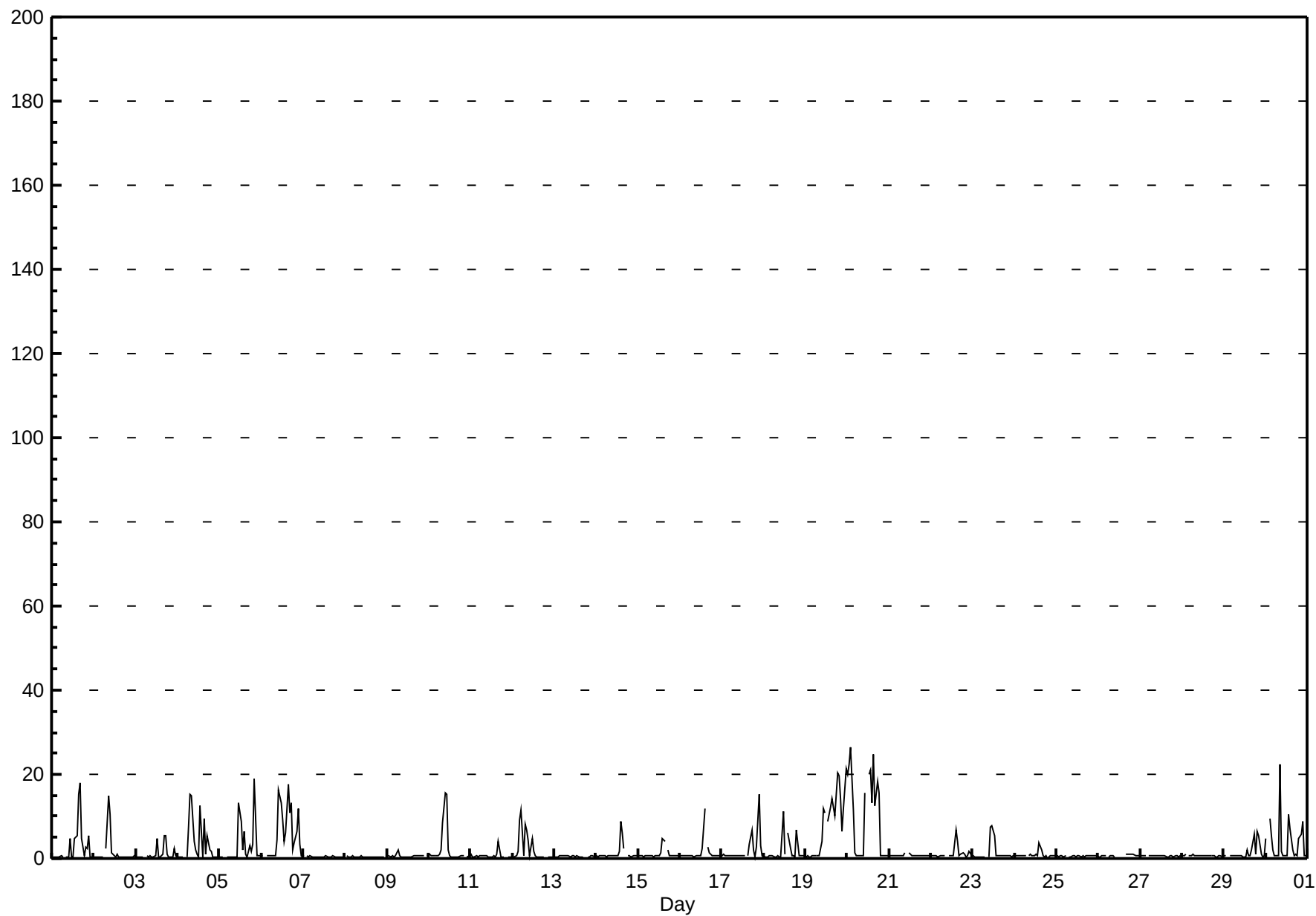
Sulphur Dioxide (SO₂) - ppb

Valleyview - September 2014

Maximum Value: 26.4 ppb on Sep 20 03:00																				Maximum Daily Average: 10.0 ppb on Sep 20										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 13 18:00																				Minimum Daily Average: 0.5 ppb on Sep 8										Hours of Data: 684	
Maximum Diurnal Average: 4.0 ppb at hour 16																				Minimum Diurnal Average: 0.9 ppb at hour 7										Hours of Missing Data: 36	
Monthly Average: 2.10 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 0.8 P ₉₀ = 6.3 P ₉₉ = 20.0										Hours of Calibration: 36	
																				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	0	0	0	0	1	1	0	A	0	0	5	0	0	5	5	15	18	5	1	3	2	6	0	0	3.1	18.0					
2-Sep	0	0	0	0	0	0	A	2	15	11	1	1	0	1	0	0	0	0	0	0	0	0	0	1	1.7	14.8					
3-Sep	0	0	0	0	0	A	1	0	1	0	0	1	5	0	0	1	5	5	1	0	0	0	2	1	1.3	5.5					
4-Sep	0	0	0	0	A	0	8	15	15	4	2	1	0	12	0	10	1	6	2	2	0	0	0	0	3.6	15.4					
5-Sep	0	0	0	A	0	0	0	0	0	0	0	13	9	2	7	1	1	3	2	3	19	1	1	1	2.9	19.0					
6-Sep	1	1	A	1	1	1	1	1	1	4	16	13	9	4	6	18	11	13	2	4	6	12	3	1	5.5	17.7					
7-Sep	1	A	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0.5	0.7					
8-Sep	A	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.5	0.8					
9-Sep	1	1	0	1	0	1	2	1	0	0	0	0	0	1	0	1	1	1	1	1	1	1	A	1	0.6	2.2					
10-Sep	1	1	1	1	1	1	1	2	8	16	15	2	1	0	0	0	0	0	1	1	1	A	0	1	2.3	15.6					
11-Sep	1	0	0	1	0	1	1	1	1	1	0	0	0	1	0	1	4	0	0	0	A	0	0	0	0.7	3.9					
12-Sep	0	0	1	2	9	12	1	8	7	4	1	5	2	1	0	0	0	0	0	A	0	0	0	0	2.4	11.5					
13-Sep	0	0	0	1	1	1	1	1	1	0	1	1	0	1	0	0	0	0	A	0	0	1	1	0	0.5	0.7					
14-Sep	1	0	1	1	1	1	0	1	1	1	1	1	1	2	9	6	2	A	1	1	0	1	1	1	1.3	8.9					
15-Sep	1	1	1	0	1	1	1	1	1	0	1	1	1	1	5	4	A	2	1	1	1	1	1	1	1.0	4.7					
16-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	2	12	A	3	1	1	1	1	1	1	1	1.3	11.7					
17-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	3	7	2	0	3	15	3	1	2.0	15.2					
18-Sep	1	0	0	1	1	1	0	0	1	0	0	11	1	A	6	2	1	1	0	7	1	1	1	1	1.6	11.1					
19-Sep	0	1	0	0	1	1	1	1	1	4	12	11	A	9	12	14	12	10	20	20	14	6	12	21	7.9	21.2					
20-Sep	20	22	26	12	1	1	1	1	1	1	16	A	20	21	13	25	12	18	15	1	1	1	1	1	10.0	26.4					
21-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	1.2					
22-Sep	1	1	1	1	0	1	1	1	1	A	1	1	1	1	7	4	1	1	1	1	0	1	2	1	1.2	6.7					
23-Sep	1	0	0	0	0	0	0	0	A	0	7	8	5	1	1	1	1	1	1	1	1	1	0	1	1.3	7.8					
24-Sep	1	1	1	1	1	1	1	A	1	1	1	1	1	1	4	2	1	0	1	0	1	1	1	1	0.8	3.6					
25-Sep	1	0	1	1	0	1	A	0	0	1	1	0	1	1	0	1	0	1	1	1	1	1	1	1	0.5	0.6					
26-Sep	0	0	1	1	1	A	0	1	1	0	C	0	C	C	C	C	1	1	1	1	1	1	1	1	0.7	1.1					
27-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	0	1	0.6	0.8					
28-Sep	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0.6	1.1					
29-Sep	1	1	A	1	1	1	1	1	1	1	1	0	0	2	1	1	2	6	1	6	5	1	1	1	1.4	6.3					
30-Sep	5	A	10	5	2	1	1	1	23	2	1	1	1	10	7	2	1	1	1	5	6	9	1	1	4.1	22.5					
1.4 1.3 1.8 1.2 0.9 1.0 0.9 1.5 2.8 2.0 3.1 2.6 2.3 2.9 3.6 4.0 2.9 3.0 2.0 2.1 2.3 2.2 1.2 1.3																									Diurnal Average						
19.9 22.4 26.4 11.6 9.1 11.5 7.5 15.4 22.5 15.6 16.2 13.2 20.1 20.9 13.2 24.8 18.0 18.4 20.2 19.7 19.0 15.2 11.9 21.2																									Diurnal Maximum						
C - Calibration A - Automated Daily Zero Span																															

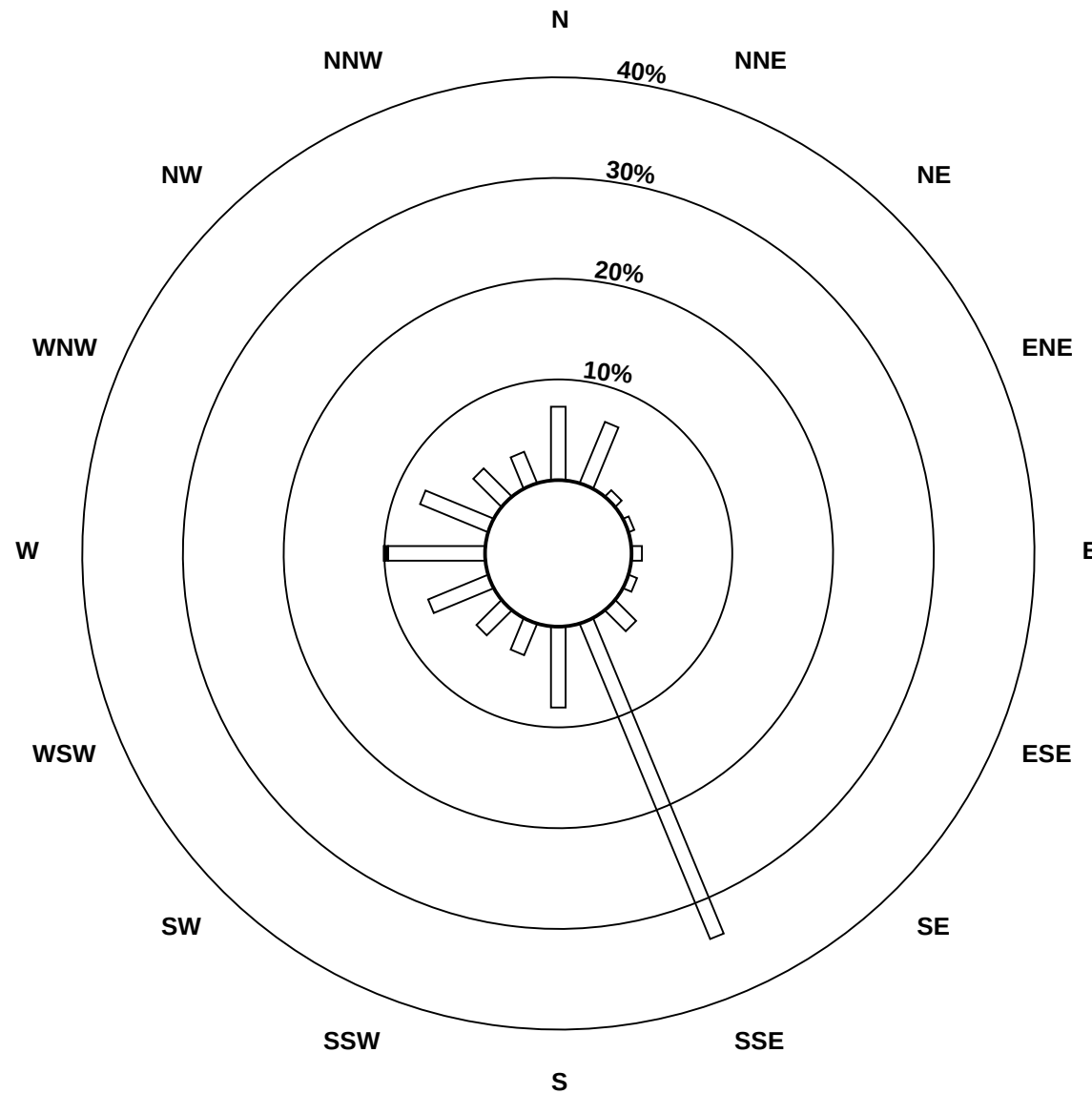
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - September 2014

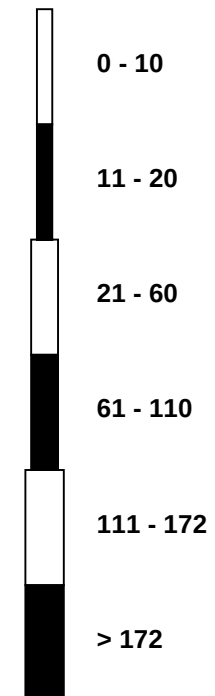


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - September 2014

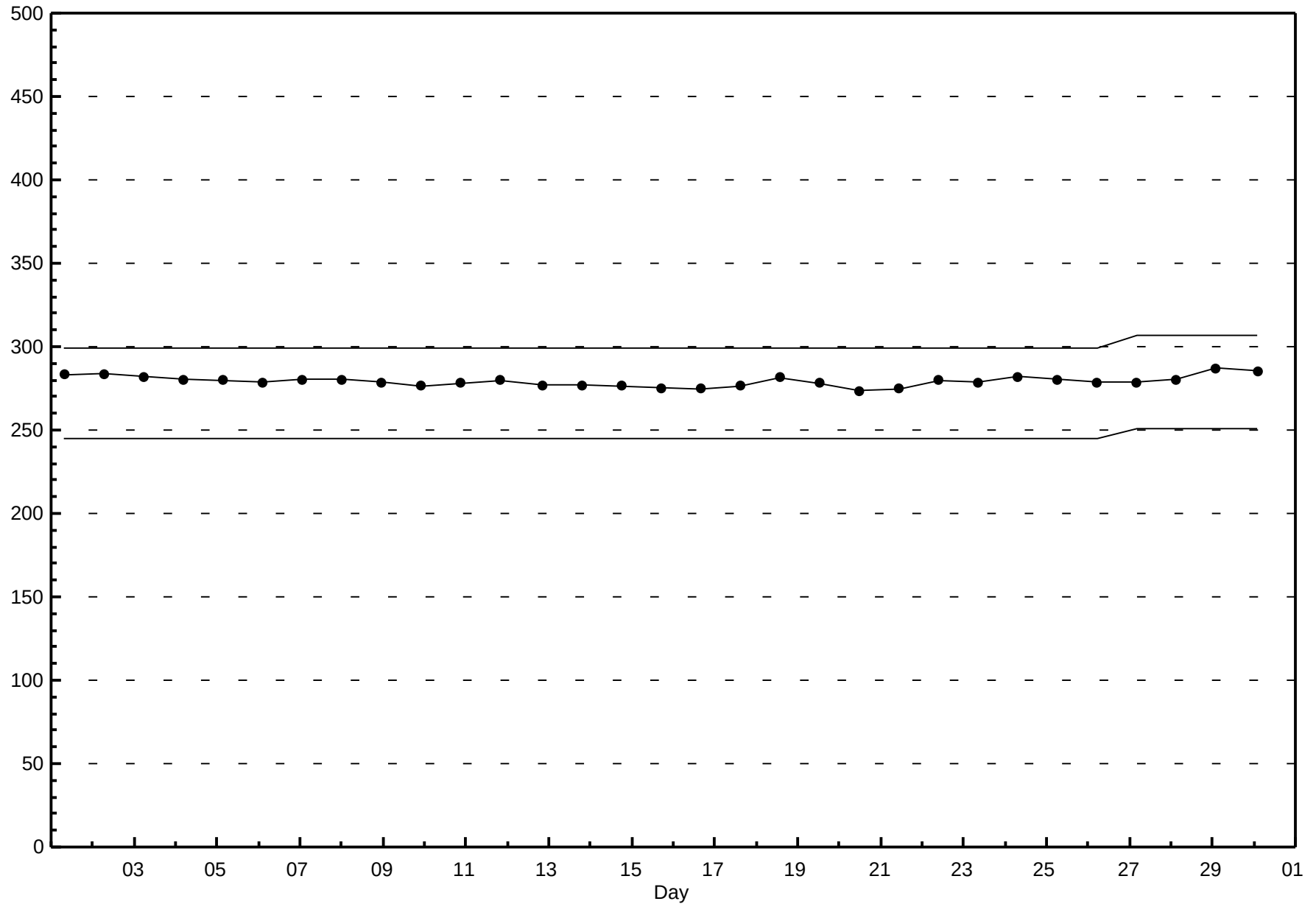


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - September 2014



Hourly Averages

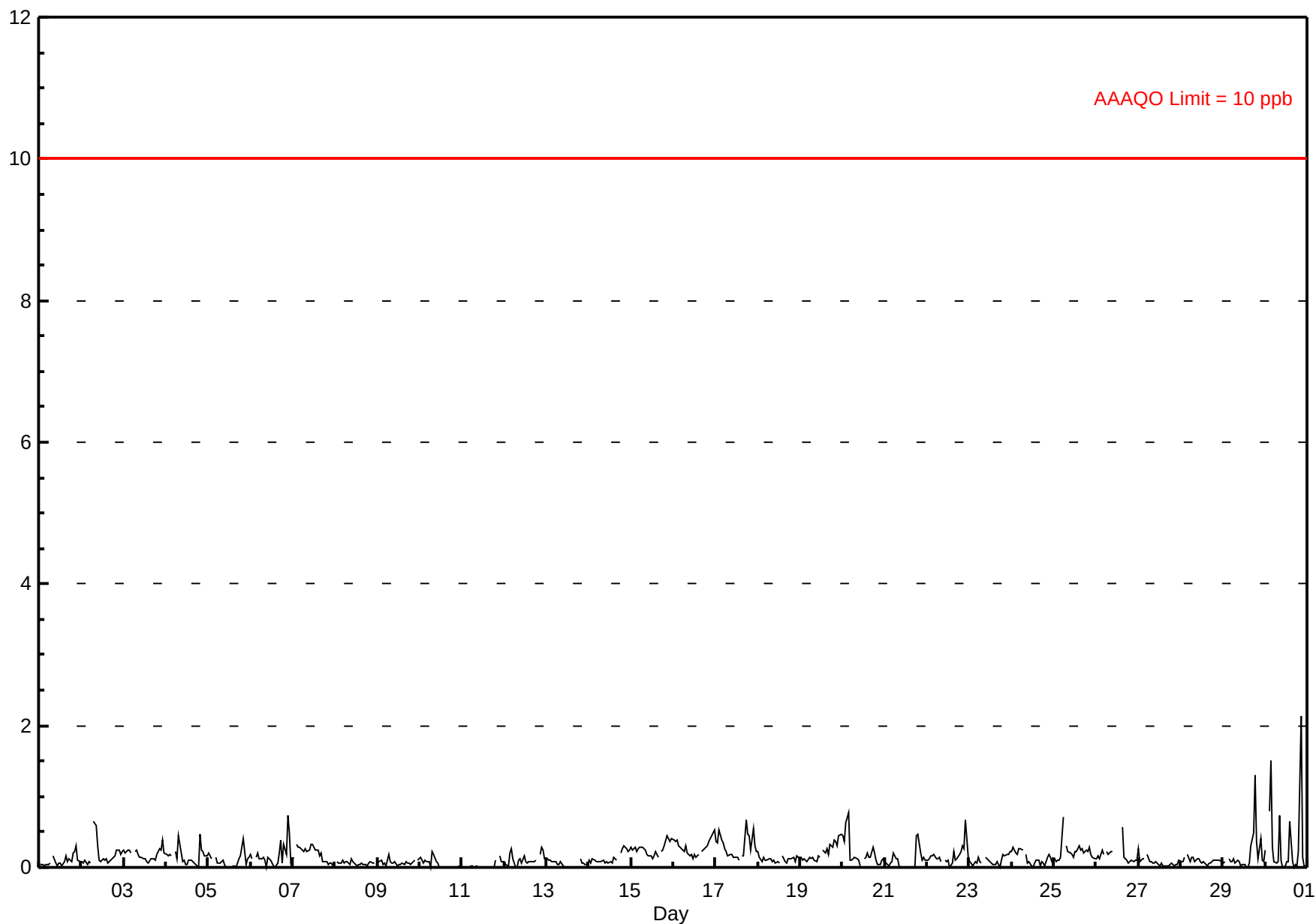
Hydrogen Sulphide (H₂S) - ppb

Valleyview - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.1 ppb on Sep 30 21:00 Maximum Daily Average: 0.3 ppb on Sep 30																				Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 5 11:00 Maximum Diurnal Average: 0.3 ppb at hour 21 Monthly Average: 0.15 ppb										Minimum Daily Average: 0.0 ppb on Sep 11 Minimum Diurnal Average: 0.1 ppb at hour 14 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.7																
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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
2-Sep	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
3-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
4-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
5-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	0.1	0.4
6-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.7
7-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	0.3
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	A	0.1	0.1
9-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	0.2
10-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	0.2
11-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	0.0	0.2
12-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
13-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	0.0	0.1
14-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
15-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	0.3	0.4
16-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
17-Sep	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	1	0	0	0.3	0.7
18-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	0.2
19-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	0.2	0.5
20-Sep	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
21-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	0.5
22-Sep	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.7
23-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	0.1	0.2
24-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
25-Sep	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
26-Sep	0	0	0	0	0	A	0	0	0	0	C	C	C	C	C	1	0	0	0	0	0	0	0	0	0.2	0.6
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	0.1	0.3
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	0.1	0.2
29-Sep	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	1.3
30-Sep	0	A	1	2	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0.3	2.1
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Valleyview - September 2014



Hourly Maximums

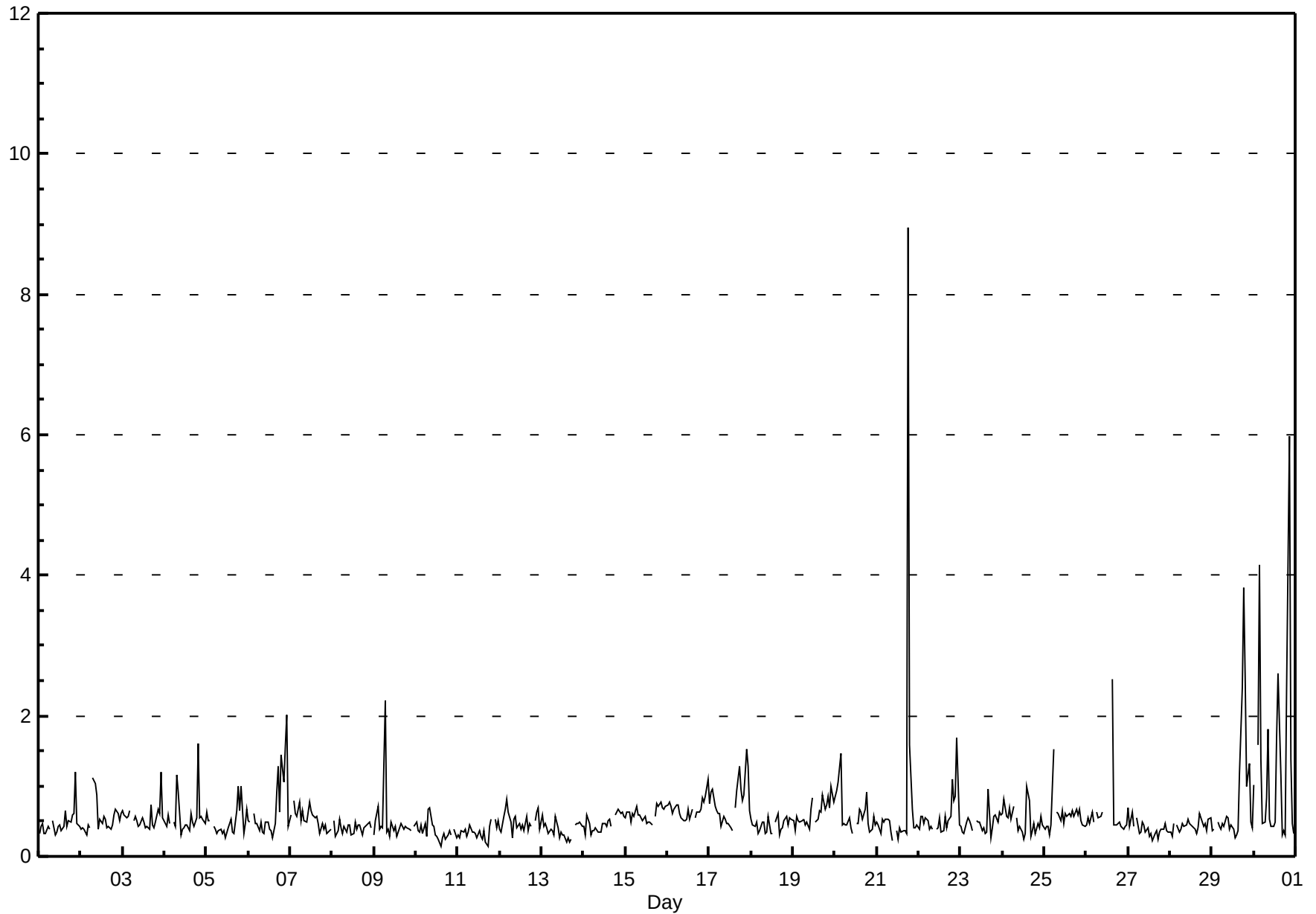
Hydrogen Sulphide (H₂S) - ppb

Valleyview - September 2014

Maximum Value: 9.0 ppb on Sep 21 19:00																				Maximum Daily Average: 1.3 ppb on Sep 30										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 10 15:00																				Minimum Daily Average: 0.4 ppb on Sep 11										Hours of Data: 684	
Maximum Diurnal Average: 0.9 ppb at hour 19																				Minimum Diurnal Average: 0.4 ppb at hour 13										Hours of Missing Data: 36	
Monthly Average: 0.57 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.8 P ₉₉ = 2.5										Hours of Calibration: 36	
																														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	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	1	0	1	0	1	1	1	0	0	0.5	1.2					
2-Sep	0	0	0	0	0	0	A	1	1	1	0	1	0	1	1	0	0	0	0	1	1	1	1	1	0.5	1.1					
3-Sep	1	1	1	1	1	A	1	1	1	0	0	1	0	0	0	0	1	0	0	0	1	1	1	1	0.6	1.2					
4-Sep	0	0	1	0	A	0	0	1	1	0	0	0	0	0	0	1	0	0	1	2	1	1	1	0	0.6	1.6					
5-Sep	1	1	1	A	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	1	0.5	1.0					
6-Sep	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	2	0	0.7	2.0					
7-Sep	1	A	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	0.8					
8-Sep	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.5					
9-Sep	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.2					
10-Sep	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.4	0.7					
11-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	0.5					
12-Sep	0	0	1	1	1	1	0	0	1	1	0	0	0	0	0	1	0	0	0	A	1	1	1	0	0.5	0.8					
13-Sep	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.6					
14-Sep	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	A	1	1	1	1	1	1	0.5	0.7					
15-Sep	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	A	1	1	1	1	1	1	1	0.6	0.8					
16-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	1.1					
17-Sep	1	1	1	1	1	1	1	0	1	1	0	0	0	0	A	1	1	1	1	1	1	2	1	1	0.8	1.5					
18-Sep	1	0	0	0	0	0	0	0	0	0	1	0	0	A	0	1	0	0	0	1	1	0	1	1	0.4	0.6					
19-Sep	1	0	1	1	0	1	1	0	0	0	1	1	A	0	1	1	1	1	1	1	1	1	1	1	0.6	1.0					
20-Sep	1	1	1	1	0	0	0	0	1	0	0	A	0	0	1	1	1	1	1	0	0	0	1	0	0.6	1.5					
21-Sep	0	0	0	1	0	1	1	1	0	0	A	0	0	0	0	0	0	0	9	2	1	0	0	0	0.8	9.0					
22-Sep	0	1	1	0	1	1	0	0	0	A	0	0	1	0	0	1	0	1	1	1	1	1	2	0	0.6	1.7					
23-Sep	0	0	0	0	1	1	0	0	A	1	0	0	0	0	0	0	1	0	0	1	1	0	1	1	0.5	1.0					
24-Sep	1	1	1	1	1	1	1	A	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0.5	1.0					
25-Sep	0	0	0	0	0	2	A	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0.6	1.5					
26-Sep	0	1	0	1	0	A	1	1	1	1	C	C	C	C	C	3	0	0	0	0	0	0	0	0	0.6	2.5					
27-Sep	1	0	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7					
28-Sep	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0.4	0.6					
29-Sep	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	1	2	4	3	1	1	0	0	0.8	3.8					
30-Sep	1	A	2	4	1	0	0	1	2	1	0	0	0	2	3	1	0	0	0	2	6	1	0	0	1.3	6.0					
0.5 0.5 0.6 0.7 0.5 0.5 0.5 0.5 0.6 0.4 0.4 0.4 0.4 0.5 0.5 0.6 0.5 0.6 0.9 0.8 0.8 0.7 0.7 0.5																									Diurnal Average						
1.0 0.9 1.6 4.1 1.4 1.5 2.2 1.2 1.8 0.9 0.7 0.8 0.7 1.7 2.6 2.5 1.2 2.4 9.0 2.5 6.0 1.6 2.0 1.1																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

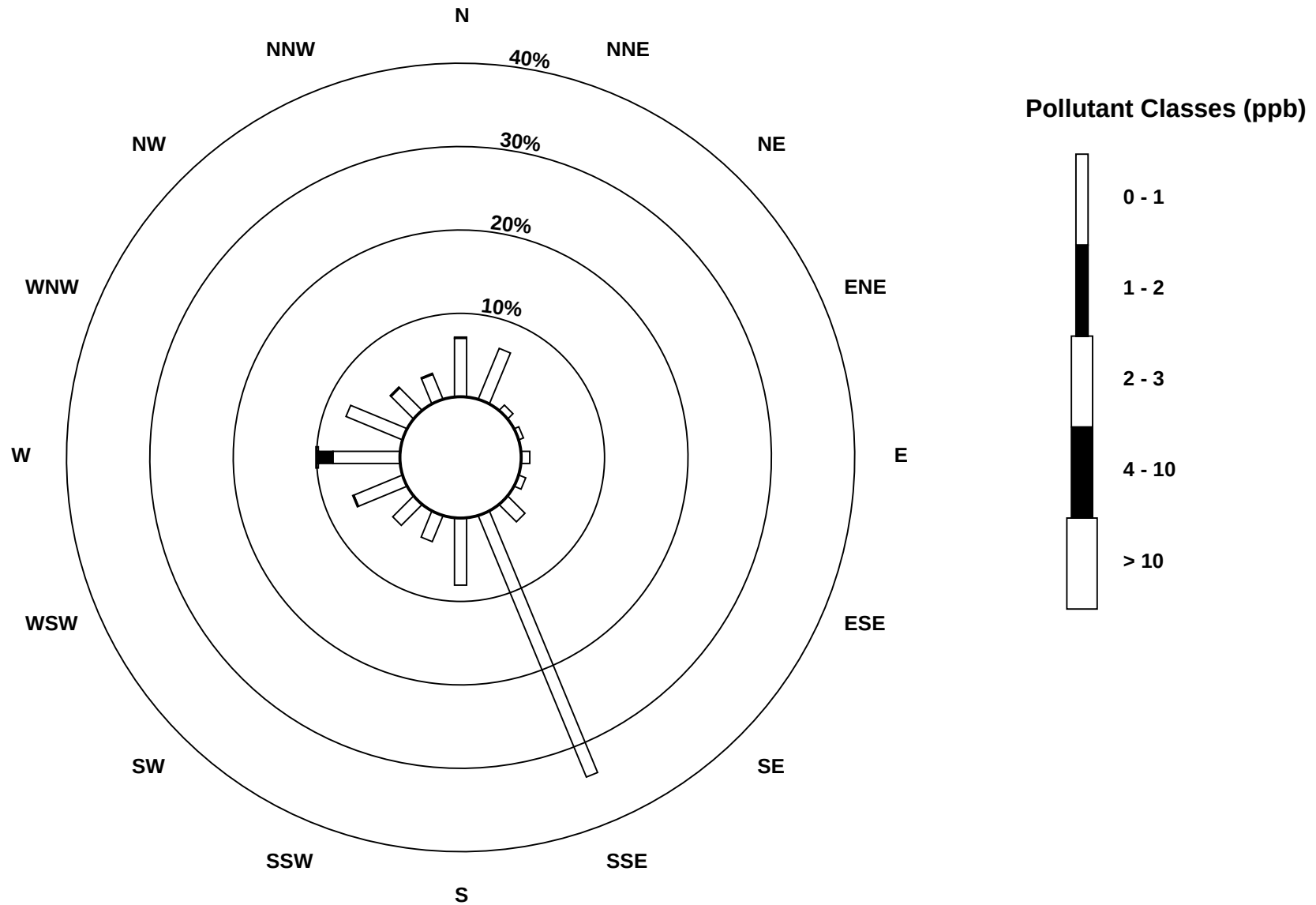
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - September 2014



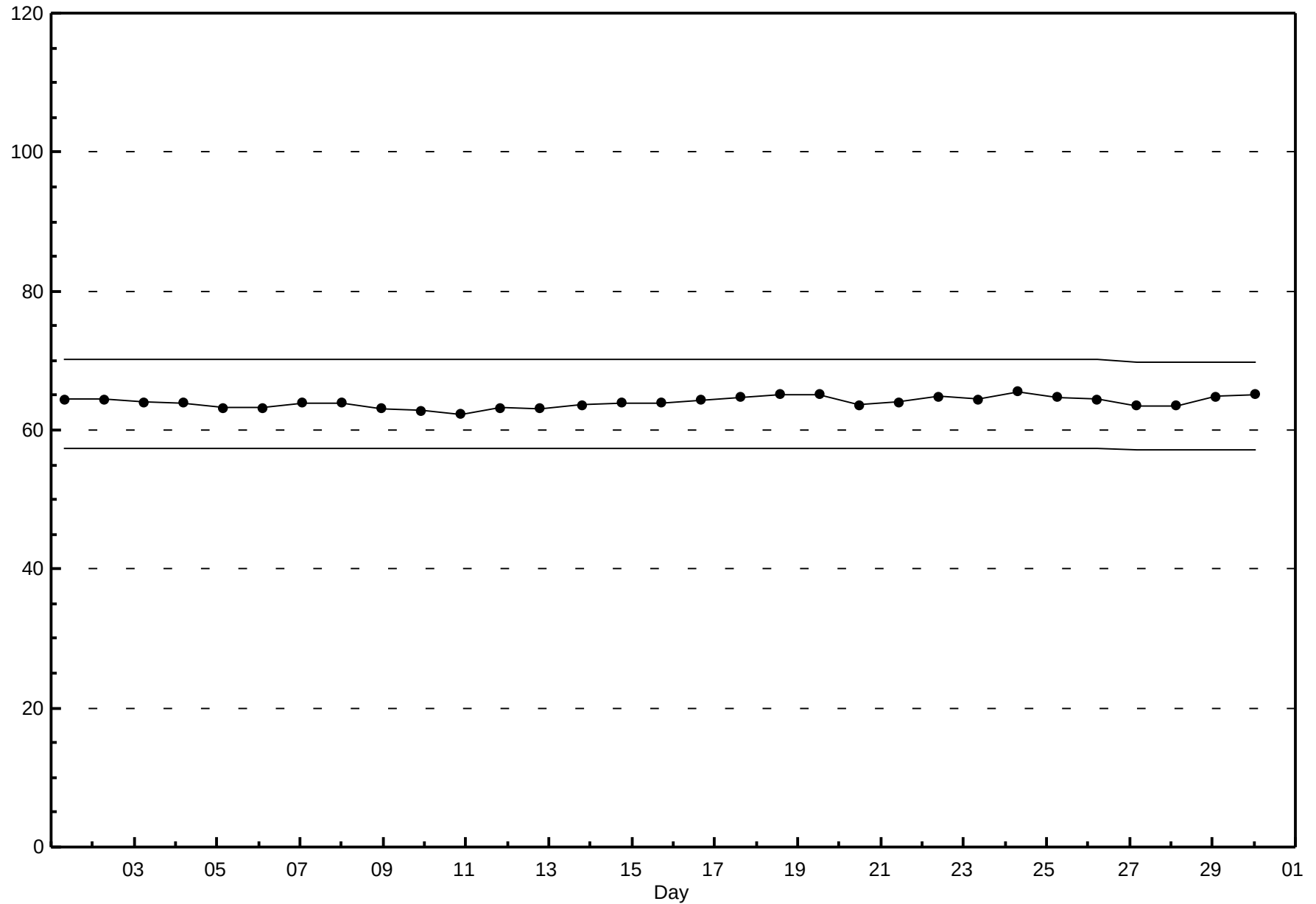
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - September 2014



Span Responses

Hydrogen Sulphide (H_2S)
Valleyview - September 2014



Hourly Averages

External Temperature (ET) - °C

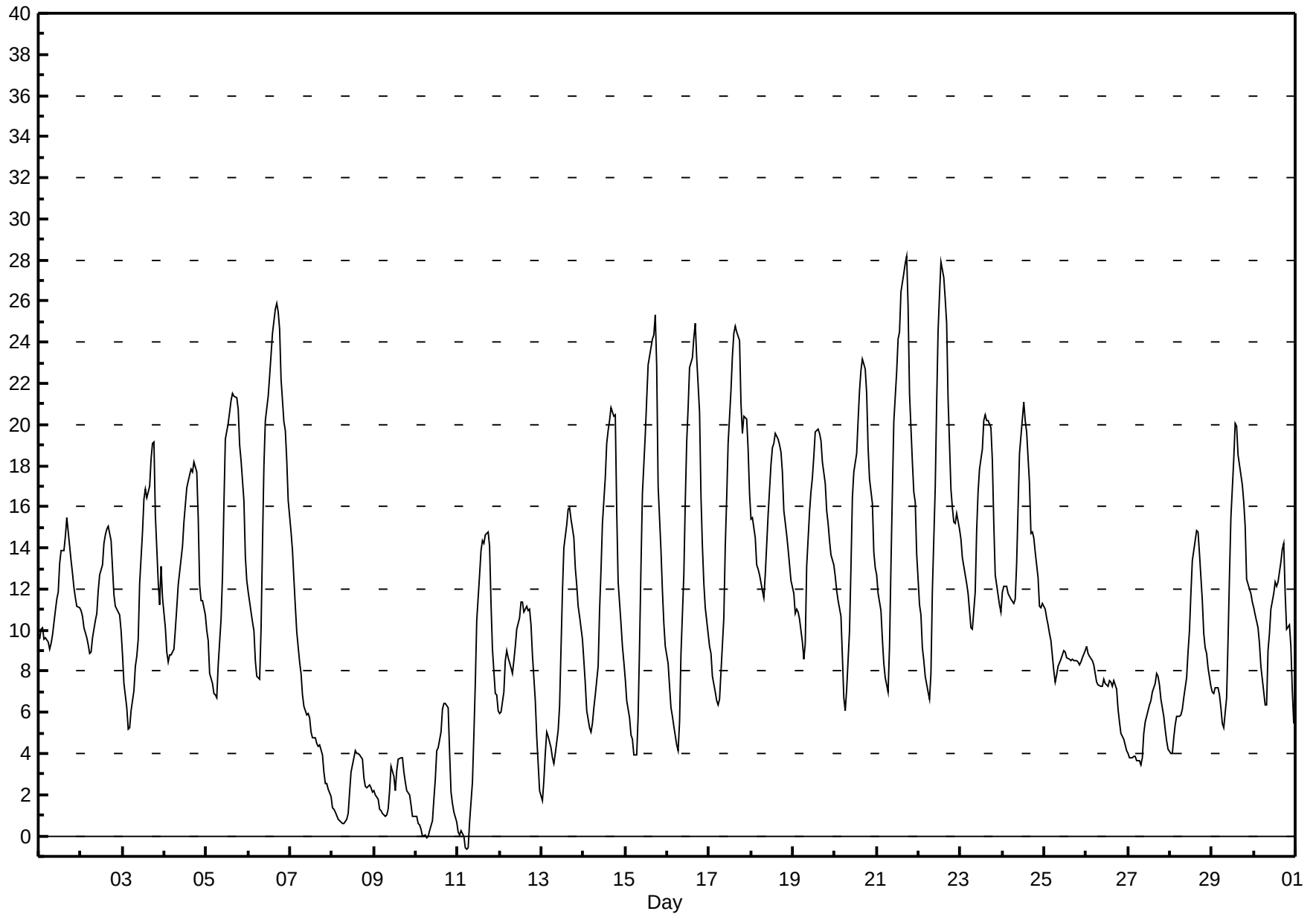
Valleyview - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.2 °C on Sep 21 18:00 Maximum Daily Average: 17.5 °C on Sep 21																			Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: -1 °C on Sep 11 06:00 Minimum Daily Average: 2.1 °C on Sep 9 Maximum Diurnal Average: 16.3 °C at hour 17 Minimum Diurnal Average: 6.3 °C at hour 7 Monthly Average: 11.10 °C Percentiles: P ₁ = 0.0 P ₁₀ = 3.4 Q ₁ = 6.7 Median = 10.6 Q ₃ = 15.2 P ₉₀ = 20.2 P ₉₉ = 26.3																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	10	10	10	10	10	9	9	9	10	11	12	12	13	14	14	15	15	15	13	13	12	12	11	11	11.6	15.5
2-Sep	11	11	10	10	9	9	9	10	10	11	12	13	13	14	15	15	15	14	13	12	11	11	11	10	11.6	15.0
3-Sep	9	7	6	5	5	6	7	8	9	10	12	15	16	17	16	17	18	19	19	16	12	11	13	12	11.9	19.2
4-Sep	10	9	8	9	9	9	10	11	12	13	14	15	16	17	18	18	18	18	18	15	12	11	11	11	13.1	18.2
5-Sep	10	10	8	7	7	7	7	8	11	13	16	19	20	21	21	21	21	21	21	19	18	16	14	12	14.5	21.5
6-Sep	12	11	10	10	9	8	8	10	14	18	20	21	22	23	24	26	26	25	25	22	20	20	18	16	17.5	25.9
7-Sep	15	14	12	11	10	8	8	7	6	6	6	6	5	5	5	4	4	4	4	3	3	3	2	2	6.4	14.8
8-Sep	1	1	1	1	1	1	1	1	1	1	2	3	4	4	4	4	4	4	3	2	2	2	2	2	2.2	4.2
9-Sep	2	2	2	1	1	1	1	1	1	2	3	3	2	3	4	4	4	4	3	3	2	2	1	1	2.1	3.8
10-Sep	1	1	1	0	0	0	0	0	0	1	2	3	4	4	5	6	6	6	6	4	2	2	1	1	2.3	6.4
11-Sep	0	0	0	0	-1	-1	-1	1	3	5	7	10	13	14	14	14	15	15	14	11	9	7	7	6	6.8	14.8
12-Sep	6	6	7	9	9	9	8	8	8	9	10	11	11	11	11	11	11	11	10	9	7	5	3	2	8.4	11.4
13-Sep	2	3	4	5	5	4	4	4	4	5	6	9	12	14	15	16	16	15	14	13	12	11	11	10	8.9	16.0
14-Sep	9	7	6	5	5	5	6	7	8	11	13	15	17	19	20	20	21	20	20	16	12	10	9	8	12.2	20.8
15-Sep	8	7	6	5	5	4	4	6	9	13	17	19	21	23	23	24	24	25	23	17	14	12	10	9	13.7	25.4
16-Sep	8	7	6	6	5	4	4	6	9	13	16	19	21	23	23	24	25	23	21	17	14	12	11	10	13.7	24.9
17-Sep	9	9	8	7	7	6	7	8	11	14	16	19	22	23	24	25	24	24	21	20	20	20	19	17	15.8	24.8
18-Sep	15	15	15	13	13	13	12	12	13	14	16	18	19	19	20	19	19	19	18	16	15	14	13	12	15.4	19.6
19-Sep	12	11	11	11	11	9	9	9	13	16	17	17	18	20	20	20	19	18	17	16	15	14	14	13	14.6	19.8
20-Sep	13	12	11	11	9	7	6	7	10	13	16	18	19	20	22	23	23	23	21	19	17	16	14	13	15.1	23.2
21-Sep	13	12	11	10	8	8	7	9	13	17	20	23	24	25	26	27	28	28	26	22	18	17	16	14	17.5	28.2
22-Sep	11	11	9	9	8	7	7	8	12	17	21	25	26	28	27	26	25	21	17	16	15	15	16	15	16.3	27.9
23-Sep	14	14	13	12	12	11	10	10	12	15	17	18	19	20	20	20	20	20	18	15	13	12	11	11	14.9	20.5
24-Sep	12	12	12	12	12	12	11	12	13	16	19	20	21	20	20	17	15	15	15	14	13	11	11	11	14.3	21.1
25-Sep	11	11	10	10	10	8	8	8	8	9	9	9	9	9	9	8	9	9	9	8	8	8	9	9	8.8	11.0
26-Sep	9	9	9	9	8	8	7	7	7	7	8	7	7	8	7	7	8	7	6	6	5	5	4	4	7.1	9.2
27-Sep	4	4	4	4	4	4	4	3	4	5	6	6	6	7	7	7	8	8	7	7	6	5	5	4	5.3	7.9
28-Sep	4	4	5	5	6	6	6	6	7	8	9	10	12	13	14	15	15	14	11	10	9	9	8	7	8.9	14.8
29-Sep	7	7	7	7	7	6	5	5	7	10	13	15	18	20	20	19	18	17	16	15	12	12	12	11	12.0	20.0
30-Sep	11	11	10	9	8	8	6	6	9	10	11	12	12	12	12	13	14	14	12	10	10	9	7	5	10.2	14.2
8.6 8.2 7.8 7.4 7.0 6.5 6.3 6.9 8.5 10.4 12.2 13.7 14.8 15.7 16.0 16.2 16.3 15.9 14.7 12.8 11.4 10.5 9.8 9.0 15.4 15.4 14.5 13.2 13.0 12.7 11.9 11.6 14.1 18.0 21.1 24.5 26.3 27.9 27.1 27.4 27.8 28.2 25.7 22.2 20.4 20.3 18.8 16.6																										
Diurnal Average																										
Diurnal Maximum																										

Hourly Averages

External Temperature (ET) - °C

Valleyview - September 2014



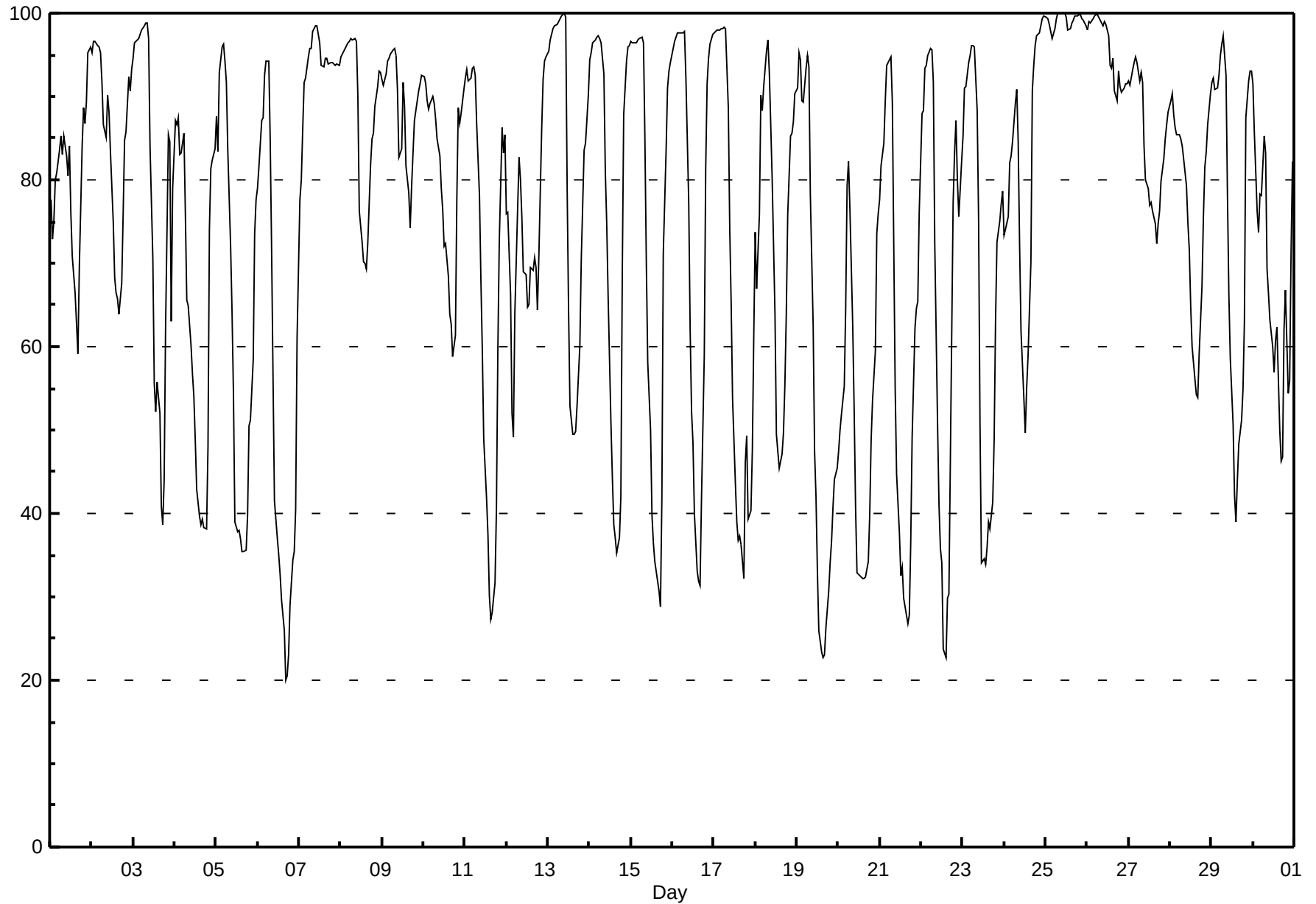
Hourly Averages

Relative Humidity (RH) - %
Valleyview - September 2014

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Sep 25 10:00 Maximum Daily Average: 99.1 % on Sep 25																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0			
Minimum Value: 20 % on Sep 6 17:00 Maximum Diurnal Average: 92.6 % at hour 7 Monthly Average: 74.65 %												Minimum Daily Average: 51.8 % on Sep 20 Minimum Diurnal Average: 51.5 % at hour 17 Percentiles: P ₁ = 23.1 P ₁₀ = 38.0 Q ₁ = 59.0 Median = 82.7 Q ₃ = 93.4 P ₉₀ = 97.3 P ₉₉ = 99.9															
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Sep	78	73	75	80	81	84	85	83	85	83	81	84	76	71	66	63	59	69	84	89	87	89	95	96	79.8	95.9	
2-Sep	95	97	97	96	96	95	92	87	85	90	88	83	75	68	66	66	64	68	76	85	86	92	91	93	84.6	96.6	
3-Sep	95	96	97	97	97	98	98	99	99	97	84	70	56	52	56	52	41	39	44	62	85	85	63	79	76.7	98.9	
4-Sep	87	87	87	83	83	86	76	66	65	60	57	54	49	43	40	39	39	38	38	48	74	81	82	84	64.4	87.4	
5-Sep	88	83	93	96	96	94	92	84	72	64	54	39	38	38	37	35	35	36	40	51	51	59	74	78	63.6	96.3	
6-Sep	79	82	87	88	92	94	94	85	71	56	42	37	35	33	30	26	20	21	23	29	34	35	40	61	53.9	94.3	
7-Sep	78	80	86	92	92	95	96	96	98	98	98	98	96	94	93	95	95	94	94	94	94	94	94	94	93.2	98.5	
8-Sep	95	95	95	96	96	97	97	97	97	97	90	76	73	70	70	69	72	82	85	86	89	91	93	93	87.5	96.9	
9-Sep	92	91	93	94	95	95	96	96	95	91	83	84	92	89	82	78	74	79	83	87	89	91	91	92	88.8	95.7	
10-Sep	92	91	90	88	89	90	89	87	85	83	79	76	72	72	68	64	63	59	61	78	89	87	88	91	80.5	92.4	
11-Sep	92	93	92	92	93	94	93	87	78	68	60	49	42	37	30	27	28	32	41	59	73	86	83	85	67.3	93.6	
12-Sep	76	76	66	52	49	64	77	83	80	76	69	69	65	65	69	69	71	70	64	71	86	92	94	95	72.8	94.7	
13-Sep	95	97	98	98	98	99	99	99	100	100	99	79	65	53	49	49	50	53	60	71	77	84	84	90	81.1	100.0	
14-Sep	94	95	96	97	97	97	97	96	93	81	75	66	51	44	39	37	35	37	42	69	88	94	96	96	75.5	97.3	
15-Sep	97	97	96	96	97	97	97	96	85	70	58	50	40	36	34	32	31	29	42	71	84	91	93	94	71.4	97.2	
16-Sep	96	97	97	98	98	98	98	98	92	77	62	52	48	40	33	32	31	42	59	81	92	95	96	97	75.3	97.8	
17-Sep	98	98	98	98	98	98	98	98	89	74	65	54	44	39	37	37	36	32	46	49	39	40	48	61	65.6	98.3	
18-Sep	74	67	76	90	88	91	95	97	93	87	80	64	50	48	46	47	50	55	64	76	85	86	87	90	74.4	96.8	
19-Sep	91	95	94	89	89	93	95	94	78	63	47	42	33	26	23	23	23	26	31	34	37	41	44	45	56.6	95.3	
20-Sep	47	50	52	55	65	79	82	76	62	52	41	33	32	32	32	32	32	34	40	49	54	60	73	76	51.8	82.2	
21-Sep	78	82	84	89	94	94	95	89	72	55	45	38	33	33	30	28	27	28	36	49	62	65	65	76	60.3	94.8	
22-Sep	88	88	93	94	95	96	96	92	72	50	41	36	34	24	23	30	30	46	77	83	87	80	76	82	67.2	95.8	
23-Sep	85	91	91	94	95	96	96	96	88	75	51	34	35	34	36	39	38	41	49	63	73	75	77	79	68.0	96.2	
24-Sep	73	74	76	82	83	85	89	91	85	72	62	54	50	55	59	70	91	94	96	97	98	99	99	100	80.5	99.6	
25-Sep	99	99	99	98	97	98	99	100	100	100	100	100	100	98	98	99	99	100	100	100	100	99	99	99	99	99.1	100.0
26-Sep	98	99	99	99	100	100	100	100	99	98	99	99	97	94	93	95	91	89	93	91	90	91	92	92	95.7	99.9	
27-Sep	92	91	93	94	95	94	92	93	92	84	80	79	77	77	76	75	72	75	76	80	83	85	87	88	84.6	94.8	
28-Sep	90	90	88	86	85	85	85	84	83	79	75	72	65	60	56	54	54	59	67	76	81	83	87	90	76.5	90.4	
29-Sep	92	92	91	91	93	95	96	97	93	78	66	59	51	42	39	44	48	51	55	63	88	92	93	93	75.1	97.3	
30-Sep	92	86	76	74	78	78	85	83	69	66	63	60	57	61	62	50	46	47	62	67	54	56	71	82	67.8	91.5	
87.5 87.7 88.5 89.3 90.2 92.0 92.6 90.9 85.1 77.6 69.8 63.0 57.6 54.3 52.5 51.9 51.5 54.1 61.0 70.2 76.9 79.9 81.9 85.7																								Diurnal Average			
99.5 99.2 98.9 99.3 99.6 99.9 99.8 100.0 100.0 100.0 100.0 100.0 99.6 97.9 98.2 98.8 99.2 99.7 99.7 99.8 99.8 99.4 99.3 99.6																								Diurnal Maximum			

Hourly Averages

Relative Humidity (RH) - %
Valleyview - September 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	2	2	1	1	1	1	1	2	1	1	3	1	2	3	6	8	7	4	1	1	4	2	1	1	1.6	7.7
Dir	157	161	164	145	158	158	156	159	161	154	250	160	204	221	251	264	278	273	45	240	256	240	157	172	233	264
2 Spd	1	1	1	1	1	1	3	5	4	1	1	3	7	6	8	5	5	5	6	2	1	2	1	1	2.0	7.8
Dir	166	162	170	160	160	172	273	279	264	202	125	345	335	323	329	16	12	14	351	356	271	296	308	289	330	329
3 Spd	0	0	0	0	1	0	0	1	2	2	2	0	2	1	2	1	2	1	0	1	0	1	3	1	0.6	2.5
Dir	153	147	169	186	172	185	196	230	225	239	146	166	192	227	59	64	280	296	113	152	169	267	252	162	207	252
4 Spd	0	1	1	2	1	1	2	5	1	6	8	9	9	11	11	10	10	10	7	2	0	1	0	1	3.8	11.0
Dir	166	158	156	154	154	153	237	258	202	281	306	320	306	309	308	299	303	286	291	253	133	97	165	17	295	308
5 Spd	1	0	1	2	2	2	1	3	3	3	3	9	15	17	17	18	12	6	3	2	7	4	1	2	4.0	17.5
Dir	222	187	150	161	160	164	164	156	157	159	158	259	282	290	285	289	314	288	295	251	261	244	161	157	272	289
6 Spd	2	2	1	1	1	0	0	2	2	3	9	9	8	6	9	10	14	12	9	6	6	6	3	6	4.2	14.3
Dir	155	157	106	160	170	211	183	160	154	249	279	271	280	301	275	262	267	280	284	283	253	269	342	7	274	267
7 Spd	0	0	4	8	7	6	4	7	9	12	10	10	11	10	10	11	10	7	10	10	9	9	9	9	7.9	12.3
Dir	159	325	8	11	9	352	356	5	6	5	355	350	347	354	350	344	342	5	9	15	7	10	13	14	1	5
8 Spd	8	7	6	7	6	5	6	5	4	3	4	6	3	2	5	2	2	1	2	1	1	0	1	2	2.8	7.9
Dir	14	20	14	10	16	16	20	27	23	29	119	131	114	82	32	83	137	159	87	145	33	39	21	25	38	14
9 Spd	1	1	2	2	2	1	3	3	3	3	1	1	6	5	7	7	8	11	8	7	7	10	9	8	4.8	10.9
Dir	77	39	4	21	14	24	10	23	21	20	27	8	5	27	10	13	9	4	10	7	5	5	3	2	10	4
10 Spd	6	9	7	6	2	1	3	4	4	4	2	1	2	3	3	3	3	3	2	0	1	3	2	4	0.8	8.7
Dir	356	351	341	331	327	299	293	275	267	260	255	227	174	162	166	173	185	176	162	159	163	163	167	161	266	351
11 Spd	2	3	3	3	2	3	3	4	4	4	3	3	4	3	4	7	4	3	0	0	0	1	0	1	2.2	7.4
Dir	164	162	164	165	166	164	163	160	158	163	161	162	161	166	228	247	247	232	146	152	173	157	162	168	182	247
12 Spd	1	1	0	2	8	10	7	2	5	5	7	6	7	7	9	7	6	5	4	2	0	0	0	0	3.6	9.9
Dir	158	151	196	265	280	283	245	230	264	299	290	270	304	310	303	313	305	307	355	9	235	160	166	170	290	283
13 Spd	1	1	0	1	2	2	2	3	3	2	4	3	4	4	3	3	2	2	1	0	0	1	0	0	1.8	4.1
Dir	155	145	162	157	157	156	145	163	164	164	162	165	164	164	166	160	159	161	153	154	169	155	170	197	161	162
14 Spd	0	0	0	0	0	0	1	0	1	1	1	2	2	2	6	6	5	3	1	0	0	0	0	0	0.8	6.4
Dir	192	16	170	202	181	93	160	163	153	158	157	157	152	183	268	278	275	280	296	165	269	168	164	156	239	278
15 Spd	0	0	0	0	0	0	0	1	2	2	2	2	3	2	4	3	2	1	0	0	0	0	0	0	0.7	3.6
Dir	155	177	226	163	255	179	171	169	154	159	154	167	238	237	284	270	236	279	176	155	195	168	245	213	217	284
16 Spd	0	0	0	0	0	0	0	0	1	1	1	1	1	1	3	2	1	0	0	0	0	0	0	0	0.3	3.3
Dir	192	329	186	212	203	160	183	191	153	160	165	145	105	256	271	264	256	129	142	136	314	159	347	275	208	271
17 Spd	0	0	0	0	0	0	1	1	2	2	2	3	3	3	3	1	2	2	1	1	6	7	1	1	0.8	6.9
Dir	292	304	323	175	249	161	171	168	157	156	186	162	161	161	162	256	272	296	303	284	277	287	95	225	277	
18 Spd	1	1	1	1	3	1	0	1	2	2	1	1	5	5	4	5	4	2	0	2	0	1	1	1	1.3	5.3
Dir	175	221	199	156	158	169	163	155	158	159	163	241	294	279	276	249	251	236	202	251	175	178	162	163	230	279
19 Spd	1	1	2	2	2	1	1	1	3	5	13	16	21	20	20	21	25	24	16	15	20	17	15	13	10.6	24.6
Dir	172	178	161	160	161	170	178	168	157	233	262	259	272	283	278	269	273	274	265	271	275	278	274	274	269	273
20 Spd	10	8	9	7	3	1	2	2	2	3	3	5	8	9	12	14	14	11	4	3	5	2	2	2	5.0	14.3
Dir	268	264	273	266	228	149	156	154	154	157	215	245	258	268	278	278	278	274	262	247	241	225	161	157	259	278
21 Spd	3	2	1	0	0	0	0	0	1	4	4	5	6	4	4	4	4	1	1	1	0	2	1	0	2.0	5.9
Dir	163	160	171	182	201	257	159	157	174	158	161	159	159	162	155	157	153	131	125	156	162	157	198	215	159	159
22 Spd	1	0	0	0	0	0	0	1	2	3	3	2	2	2	3	2	7	14	1	3	0	4	2	2	1.3	13.8
Dir	158	209	183	203	180	190	178	205	163	156	160	158	155	231	250	320	323	287	281	293	197	285	258	181	260	287

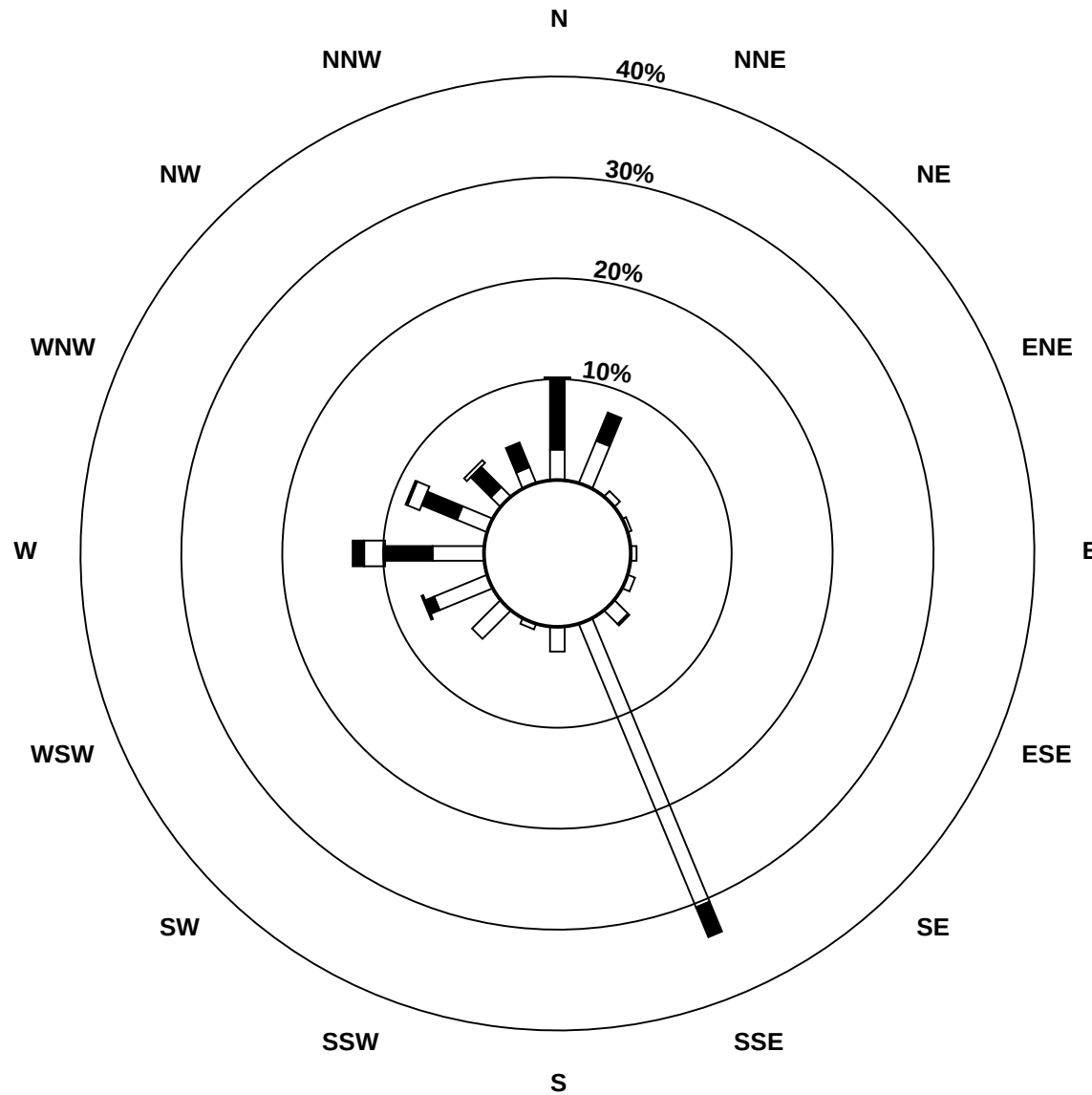
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - September 2014

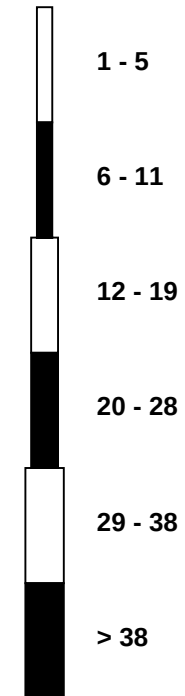
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	1	1	1	1	1	1	0	1	1	2	5	5	3	4	3	5	3	2	1	1	3	2	1	1	0.6	5.0
Dir	161	158	159	157	170	175	171	158	151	162	280	280	321	171	163	155	158	148	97	19	341	341	325	13	194	280
24 Spd	1	2	1	0	0	0	0	0	2	4	4	3	2	1	3	9	1	1	1	0	0	1	1	0	0.6	8.9
Dir	345	40	38	259	352	326	330	153	161	161	157	159	173	161	268	285	130	254	163	167	180	158	163	140	195	285
25 Spd	1	2	2	2	0	3	2	3	5	7	5	5	5	6	7	6	7	8	6	5	7	6	5	4	4.1	7.6
Dir	167	157	159	161	348	354	360	20	19	16	20	22	18	12	10	7	12	11	5	360	8	17	9	17	14	11
26 Spd	3	6	6	7	5	7	8	6	6	5	5	10	11	10	10	7	8	8	8	8	6	5	6	5	6.4	11.0
Dir	16	16	6	3	358	4	25	26	11	6	358	337	341	339	333	327	321	308	319	329	322	327	329	329	344	341
27 Spd	4	4	3	3	3	3	1	0	1	1	3	3	4	4	3	3	3	3	5	4	4	4	4	4	1.4	4.6
Dir	328	316	297	301	357	21	54	115	61	123	149	158	157	159	146	148	150	133	135	144	155	153	154	158	145	135
28 Spd	3	4	7	6	7	7	8	7	8	8	9	8	9	8	8	8	7	5	6	3	3	4	3	3	6.2	9.0
Dir	157	157	159	161	159	160	162	164	164	163	162	160	160	156	158	160	164	157	157	155	163	164	157	156	160	160
29 Spd	2	2	5	3	1	1	1	2	3	3	2	2	2	5	9	8	4	4	3	4	3	3	2	1	1.6	9.5
Dir	164	166	163	165	174	174	177	160	159	158	167	155	154	319	298	292	286	276	267	294	236	254	225	176	242	298
30 Spd	3	1	6	6	3	2	2	2	8	12	14	13	10	9	8	7	7	3	1	2	5	5	1	1	4.8	13.7
Dir	243	222	269	271	245	237	227	235	274	286	292	316	302	296	263	294	307	291	222	257	260	248	170	163	281	292
Spd	0.2	0.0	0.3	0.3	0.1	0.2	0.1	0.3	0.6	0.6	1.4	1.8	2.5	2.8	4.0	4.1	3.9	3.4	1.6	1.4	1.9	1.5	0.8	0.5	Diurnal Average	
Dir	258	280	283	306	265	321	221	178	180	217	250	268	283	291	288	284	290	291	312	305	287	286	307	343	Diurnal Maximum	
Spd	10.4	8.7	9.0	7.5	7.7	9.9	7.9	7.5	8.7	12.3	13.7	16.5	20.9	20.1	19.7	21.2	24.6	23.7	15.5	15.4	19.6	17.2	14.6	13.4	Diurnal Maximum	
Dir	268	351	273	11	280	283	25	164	6	5	292	259	272	283	278	269	273	274	265	271	275	278	274	274		
Maximum Speed Value: 25 km/h on Sep 19 17:00																								Hours in Service: 720		
Maximum Daily Speed Average: 10.6 km/h on Sep 19																								Hours of Data: 720		
Maximum Diurnal Speed Average: 4.1 km/h at hour 16																								Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Sep 14 01:00																										
Minimum Daily Speed Average: 0.3 km/h on Sep 16																										
Minimum Diurnal Speed Average: 0.0 km/h at hour 2																										
Monthly Average Velocity: 1.32 km/h 285.7 deg																								Percent Operational Time: 100.0		
Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.9 Median = 2.5 Q ₃ = 5.4 P ₉₀ = 8.6 P ₉₉ = 19.4																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	35		65		3		0		0		0		103													
NorthEast	17		4		0		0		0		0		21													
East	10		0		0		0		0		0		10													
SouthEast	104		4		0		0		0		0		108													
South	218		15		0		0		0		0		233													
SouthWest	50		2		0		0		0		0		52													
West	57		44		19		7		0		0		127													
NorthWest	28		35		3		0		0		0		66													
Total	519		169		25		7		0		0		720													

Wind Rose

Wind Speed (WS) (km/h)
Valleyview - September 2014



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - September 2014

Maximum Speed: 25 km/h on Sep 19 17:00																				Maximum Daily Speed Average: 11.6 km/h on Sep 19										Hours in Service: 720																				
Minimum Speed: 0 km/h on Sep 15 23:00																				Minimum Daily Speed Average: 0.9 km/h on Sep 16										Hours of Data: 720																				
Maximum Diurnal Speed Average: 7.3 km/h at hour 15																				Minimum Diurnal Speed Average: 2.1 km/h at hour 1										Hours of Missing Data: 0																				
Monthly Average Speed: 3.98 km/h																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.5 Q ₁ = 1.2 Median = 2.8 Q ₃ = 5.7 P ₉₀ = 8.9 P ₉₉ = 19.4										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	2	2	1	1	1	1	1	2	1	1	4	2	3	4	6	8	8	6	1	2	4	3	1	1	2.7	8.1																								
2-Sep	1	1	1	1	1	1	3	5	4	1	1	4	8	6	9	5	6	6	6	3	2	2	1	1	3.2	9.2																								
3-Sep	1	0	0	0	1	1	1	2	2	3	2	1	3	3	2	2	3	2	1	1	0	1	3	1	1.5	3.3																								
4-Sep	0	1	1	2	1	1	3	6	2	7	9	10	10	12	12	11	11	10	8	2	1	1	1	1	5.1	11.8																								
5-Sep	1	1	1	2	2	2	1	3	3	3	3	10	16	18	17	18	12	6	3	2	7	4	1	2	5.8	18.0																								
6-Sep	2	2	1	1	1	0	0	2	2	4	10	9	8	7	10	10	15	12	10	6	6	6	4	6	5.6	14.8																								
7-Sep	1	1	5	8	7	7	5	8	9	12	11	11	11	11	11	11	10	8	10	10	9	9	9	9	8.4	12.4																								
8-Sep	8	7	6	7	6	5	6	5	4	4	4	6	3	3	5	2	3	1	2	1	1	0	1	2	3.9	8.0																								
9-Sep	1	1	2	2	2	1	3	3	4	3	2	3	6	5	8	8	8	11	8	7	7	10	9	8	5.1	11.1																								
10-Sep	6	9	7	6	2	1	3	4	4	4	3	2	3	3	4	4	4	3	2	0	1	3	2	4	3.5	8.8																								
11-Sep	2	3	3	3	2	3	3	4	4	4	4	3	4	3	5	8	5	3	0	0	0	1	0	1	2.8	7.8																								
12-Sep	1	1	1	2	8	11	8	2	6	5	7	6	7	8	9	7	6	5	4	2	0	0	0	0	4.5	10.6																								
13-Sep	1	1	0	1	2	2	2	3	3	3	4	3	4	4	3	3	2	2	1	0	0	1	0	0	1.9	4.3																								
14-Sep	0	0	0	0	0	1	1	1	1	2	1	2	2	3	7	7	6	3	1	0	0	0	0	0	1.7	7.1																								
15-Sep	0	0	0	0	0	0	0	1	2	2	2	3	4	3	5	4	2	1	0	0	0	0	0	0	1.3	4.7																								
16-Sep	0	0	0	0	0	0	0	0	1	2	2	2	2	2	4	2	1	1	0	0	1	0	0	0	0.9	3.8																								
17-Sep	1	0	0	0	1	0	1	1	2	2	2	3	3	3	3	1	2	3	1	2	6	7	3	1	2.0	7.1																								
18-Sep	1	2	1	1	3	2	0	1	2	2	1	2	5	6	5	5	4	2	1	3	0	1	1	1	2.2	5.7																								
19-Sep	1	1	2	2	2	1	1	1	3	6	13	17	21	21	20	22	25	24	16	16	20	17	15	14	11.6	25.1																								
20-Sep	11	8	9	7	3	1	2	2	2	3	4	6	9	10	13	14	15	11	4	3	5	2	2	2	6.3	14.9																								
21-Sep	3	2	1	0	0	0	0	0	1	4	4	5	6	4	5	4	4	1	1	1	0	2	1	1	2.1	6.1																								
22-Sep	1	0	0	0	0	1	0	1	3	4	3	2	2	3	4	2	7	14	4	3	1	5	3	2	2.7	14.0																								
23-Sep	1	1	1	1	1	1	0	1	1	2	5	5	4	4	4	5	3	2	1	1	4	2	1	1	2.2	5.4																								
24-Sep	2	2	2	1	1	1	1	0	2	4	4	3	3	1	4	9	2	1	1	0	0	1	1	1	2.0	9.2																								
25-Sep	1	2	2	2	0	3	2	4	5	8	6	5	6	7	7	6	7	8	6	5	7	7	5	4	4.7	7.8																								
26-Sep	3	6	6	7	5	7	8	6	6	5	6	11	11	11	10	7	9	8	8	8	6	5	6	5	7.1	11.2																								
27-Sep	4	4	3	3	4	3	1	1	1	2	3	3	4	4	3	3	4	3	5	4	4	4	4	4	3.2	4.7																								
28-Sep	4	4	7	6	7	7	8	8	8	8	9	8	9	8	8	8	7	5	6	3	3	4	3	3	6.3	9.2																								
29-Sep	2	2	5	3	2	1	1	2	3	3	3	2	2	7	10	8	5	5	3	5	3	3	3	1	3.4	9.9																								
30-Sep	3	2	6	6	3	2	2	2	9	12	14	14	10	9	8	8	7	3	1	2	5	5	1	1	5.6	14.0																								
																									2.1	2.2	2.5	2.5	2.3	2.3	2.3	2.7	3.4	4.1	4.8	5.4	6.3	6.4	7.3	7.1	6.7	5.6	3.8	3.2	3.5	3.6	2.7	2.6	Diurnal Average	
																									10.6	8.8	9.2	7.8	7.9	10.6	8.1	7.6	8.9	12.4	14.0	16.9	21.4	20.6	20.3	21.8	25.1	24.1	15.7	15.7	19.7	17.4	14.9	13.6	Diurnal Maximum	
All monthly, daily, and diurnal averages have been calculated using scalar methods																																																		

Hourly Standard Deviations

Wind Direction (WD) - deg
Valleyview - September 2014

Maximum Value: 93.6 deg on Sep 12 22:00																			Hours in Service: 720						
Minimum Value: 4.8 deg on Sep 6 00:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 6.8 P ₁₀ = 9.8 Q ₁ = 12.9 Median = 21.3 Q ₃ = 40.7 P ₉₀ = 62.3 P ₉₉ = 88.8																			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	12	20	19	19	20	15	13	27	24	38	23	44	47	25	19	26	53	42	64	20	46	17	47	64.0
2-Sep	52	16	23	16	18	38	54	16	19	64	38	59	19	30	32	43	20	18	22	24	79	25	16	35	79.2
3-Sep	34	67	41	49	24	47	42	52	40	47	33	83	60	89	45	60	84	86	54	10	26	62	38	13	89.4
4-Sep	11	8	7	8	16	40	42	37	65	70	24	24	21	25	20	23	22	17	13	48	50	79	68	60	79.2
5-Sep	37	51	42	6	5	7	8	14	11	12	20	38	15	14	14	14	14	20	18	35	8	29	10	5	50.6
6-Sep	6	7	48	57	26	28	34	9	32	65	19	18	25	48	27	18	14	12	11	14	13	13	51	37	65.1
7-Sep	67	60	39	19	23	37	51	11	10	8	11	12	10	10	13	8	11	14	12	10	9	10	11	9	66.5
8-Sep	10	10	10	8	11	11	13	14	13	16	37	15	31	45	29	32	19	39	33	38	26	49	44	14	48.7
9-Sep	44	29	12	19	17	22	11	18	16	22	86	75	11	17	20	14	11	9	10	9	10	12	8	9	86.5
10-Sep	11	11	10	11	36	30	23	16	22	22	49	65	42	20	27	34	33	24	15	33	10	7	7	8	64.8
11-Sep	11	9	9	8	7	9	20	9	9	14	15	34	18	21	43	30	37	36	41	50	39	37	38	25	49.9
12-Sep	15	26	63	53	13	21	20	52	23	26	17	18	19	19	16	18	16	14	25	39	59	94	37	27	93.6
13-Sep	11	31	67	29	13	16	16	12	12	15	13	19	14	19	34	30	22	23	24	25	70	22	29	58	70.2
14-Sep	72	89	52	69	51	77	68	74	25	20	29	33	36	53	29	30	35	22	67	40	79	18	35	49	89.0
15-Sep	43	65	80	56	60	28	48	45	9	18	37	49	51	59	55	51	55	63	76	46	45	47	83	57	82.9
16-Sep	67	71	58	59	63	22	38	30	36	44	54	55	50	75	30	44	59	18	27	55	80	63	91	69	90.5
17-Sep	84	79	77	51	78	53	21	28	9	14	40	18	18	24	21	43	48	47	76	72	12	11	73	73	84.3
18-Sep	75	27	37	16	7	29	79	10	8	11	21	74	18	24	40	22	12	23	27	45	15	20	14	10	79.4
19-Sep	13	30	11	8	7	25	24	37	11	45	14	12	13	12	14	14	12	10	8	11	8	10	11	10	45.3
20-Sep	10	10	12	15	38	21	11	9	21	14	48	41	35	25	18	16	17	13	26	22	26	19	27	14	47.8
21-Sep	25	46	18	16	70	71	31	78	58	15	14	13	15	17	20	19	18	24	44	34	55	13	48	62	77.9
22-Sep	36	66	38	42	64	62	43	49	24	11	21	26	22	72	19	44	9	12	86	37	45	40	63	30	85.9
23-Sep	15	13	21	14	47	19	23	10	43	32	24	27	70	26	32	18	22	18	38	44	9	19	39	48	69.7
24-Sep	58	29	69	69	89	89	93	61	15	12	16	18	40	15	53	25	39	50	42	64	74	17	22	62	92.6
25-Sep	52	9	10	8	79	17	52	26	21	21	17	16	17	14	11	14	10	10	8	8	8	11	12	12	79.3
26-Sep	19	12	10	8	13	11	13	13	12	10	16	8	10	13	10	10	13	12	12	8	8	10	7	10	18.9
27-Sep	10	11	13	19	20	17	34	38	29	56	22	18	21	17	17	19	15	17	10	11	12	8	11	10	55.7
28-Sep	10	11	8	10	10	10	8	8	10	8	9	11	10	12	13	10	9	12	9	15	9	9	11	11	15.3
29-Sep	13	9	9	12	32	29	20	11	15	19	30	33	43	76	19	13	22	21	22	25	32	27	33	29	76.1
30-Sep	36	39	17	14	14	24	22	34	20	10	12	14	15	19	14	21	14	31	17	30	12	15	23	26	39.2
84.3 89.0 79.8 69.5 88.8 88.8 92.6 77.9 65.5 70.2 86.5 83.3 69.7 89.4 54.8 60.3 83.6 86.0 85.9 72.4 79.9 93.6 90.5 73.0																									

PAZA
Falher Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

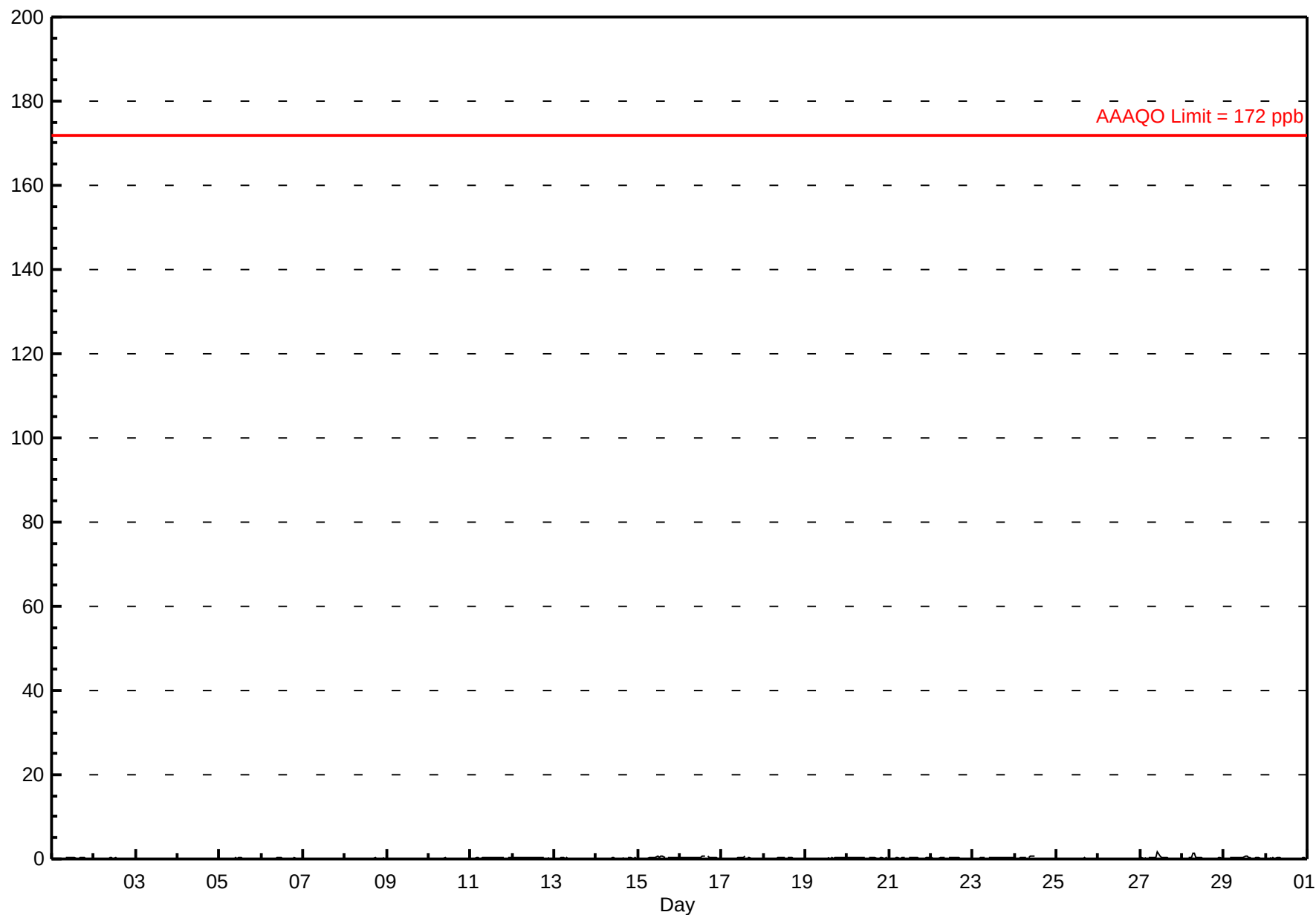
Falher - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 720																							
Maximum Value: 1.5 ppb on Sep 27 11:00																				Maximum Daily Average: 0.3 ppb on Sep 16		Hours of Data: 686																					
Minimum Value: 0 ppb on Sep 2 16:00																				Minimum Daily Average: 0.0 ppb on Sep 25		Hours of Missing Data: 34																					
Maximum Diurnal Average: 0.3 ppb at hour 11																				Minimum Diurnal Average: 0.1 ppb at hour 2		Hours of Calibration: 34																					
Monthly Average: 0.16 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.7		Percent Operational Time: 100.0																					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																			
1-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	0.1	0.4																	
2-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																	
3-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	0.0	0.1																	
4-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	0.1																	
5-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	0.1	0.2																	
6-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	0.3																	
7-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	0.0	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	A	0.1	0.2																	
9-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0.1	0.2																	
10-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																	
11-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																	
12-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	0.2	0.3																	
13-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	0.2																	
14-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																	
15-Sep	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	A	0	0	0	0	0	0	0	0.3	0.6																	
16-Sep	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	A	1	0	0	0	0	0	0	0	0.3	0.7																	
17-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0.2	0.7																	
18-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	0.2	0.5																	
19-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	0.2	0.3																	
20-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																	
21-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	0.4																	
22-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	0.2	0.4																	
23-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	0.2	0.4																	
24-Sep	0	0	0	0	0	0	0	A	0	1	1	1	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.8																	
25-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3																	
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	0.0	0.1																	
27-Sep	0	0	0	0	A	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.5																	
28-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	1.4																	
29-Sep	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.6																	
30-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																	
0.1 0.3		0.1 0.2		0.1 0.3		0.1 0.4		0.2 1.3		0.2 1.4		0.2 0.4		0.2 0.8		0.2 1.5		0.2 0.8		0.2 0.6		0.2 0.7		0.2 0.7		0.2 0.4		0.2 0.5		0.1 0.5		0.1 0.4		0.1 0.4		0.1 0.3		0.1 0.3		Diurnal Average		Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span		Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb		24-hr 48 ppb		30-day 11 ppb																																			

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Falher - September 2014



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

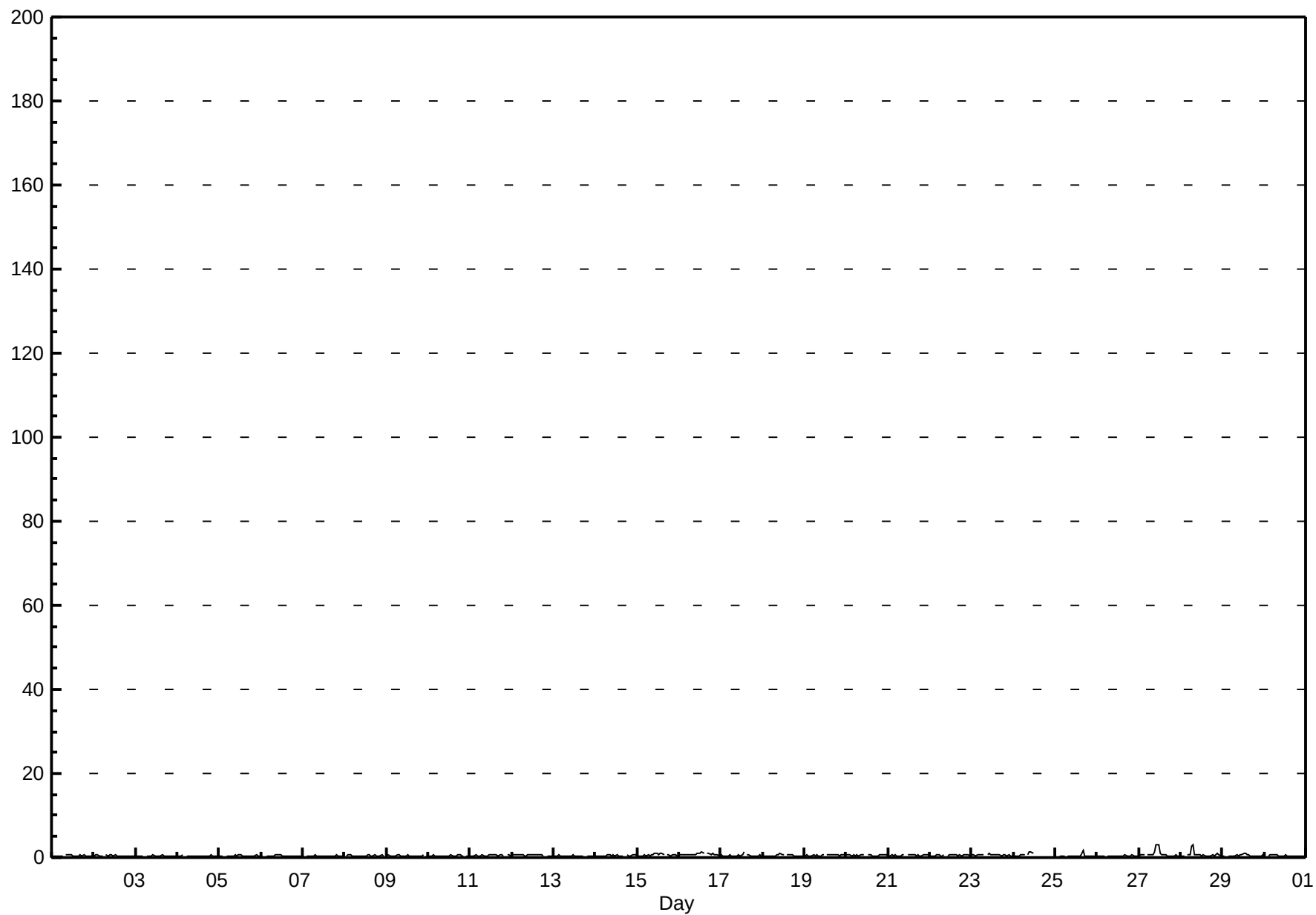
Falher - September 2014

Maximum Value: 3.2 ppb on Sep 28 08:00																			Maximum Daily Average: 0.8 ppb on Sep 27										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 24 16:00																			Minimum Daily Average: 0.4 ppb on Sep 13										Hours of Data: 686	
Maximum Diurnal Average: 0.7 ppb at hour 11																			Minimum Diurnal Average: 0.4 ppb at hour 24										Hours of Missing Data: 34	
Monthly Average: 0.52 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 1.3										Hours of Calibration: 34	
																													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	0	0	0	0	0	0	0	A	1	1	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0.5	0.7				
2-Sep	0	1	1	0	0	1	A	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6				
3-Sep	1	0	0	0	0	A	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0.4	0.7				
4-Sep	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.6				
5-Sep	0	0	0	A	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0.4	0.6				
6-Sep	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7				
7-Sep	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.6				
8-Sep	A	0	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0	A	0.5	0.6				
9-Sep	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	A	0	0.5	0.7				
10-Sep	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	A	0	0	0.4	0.5				
11-Sep	0	0	0	1	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	0	A	1	1	0	0.5	0.8				
12-Sep	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0.6	0.8				
13-Sep	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5				
14-Sep	0	0	0	0	0	0	1	1	1	0	1	0	1	0	0	0	0	A	1	1	1	1	1	1	0.5	0.6				
15-Sep	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	0	0.7	1.0				
16-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0.7	1.2				
17-Sep	1	0	0	0	0	1	0	0	0	0	1	0	1	1	A	1	1	0	0	0	0	0	1	0	0.5	1.3				
18-Sep	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0.5	1.1				
19-Sep	0	1	0	0	0	1	0	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.5	0.8				
20-Sep	1	1	1	0	1	0	1	1	1	1	1	A	1	1	1	1	1	0	0	1	1	1	1	1	0.6	0.8				
21-Sep	0	0	1	0	1	0	0	0	1	1	A	1	1	1	1	1	0	1	0	0	1	1	1	1	0.6	0.8				
22-Sep	0	0	0	0	1	1	0	0	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0.5	0.8				
23-Sep	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0.6	0.9				
24-Sep	0	0	0	0	1	1	1	A	1	1	1	1	C	C	C	0	0	0	0	0	0	0	0	0	0.4	1.4				
25-Sep	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0.4	1.6				
26-Sep	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0.4	0.6				
27-Sep	0	1	1	1	A	1	1	1	1	1	3	3	1	1	1	1	0	0	0	0	0	1	0	0	0.8	3.1				
28-Sep	0	0	0	A	1	1	3	3	1	1	1	1	0	1	0	0	0	0	1	0	1	1	1	0	0.8	3.2				
29-Sep	0	0	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.6	1.0				
30-Sep	0	A	0	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7				
0.4 0.5 0.5 0.5 0.5 0.5 0.6 0.6 0.5 0.6 0.7 0.7 0.6 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.4																								Diurnal Average						
0.6 0.7 0.6 0.7 0.7 0.7 2.7 3.2 0.8 1.4 3.1 2.9 1.0 1.3 1.0 1.1 1.6 0.9 0.8 0.9 0.8 1.0 0.7 0.8																								Diurnal Maximum						
C - Calibration A - Automated Daily Zero Span																														

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

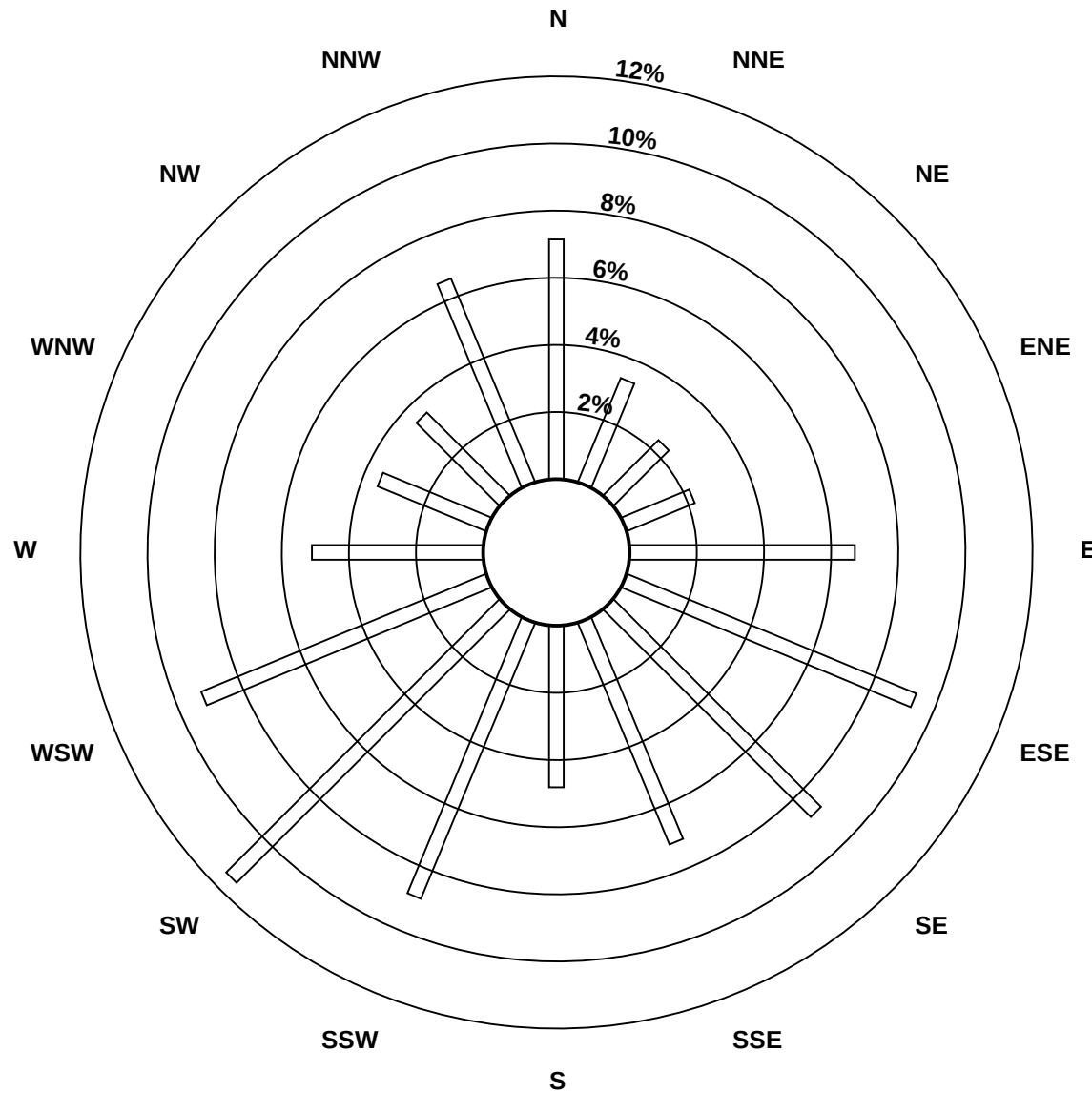
Falher - September 2014



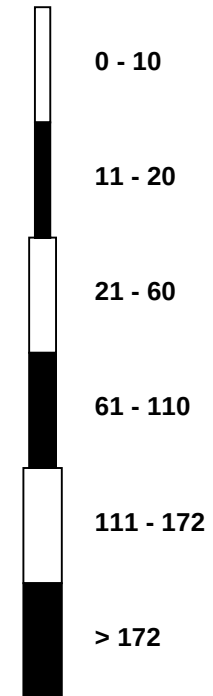
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Falher - September 2014

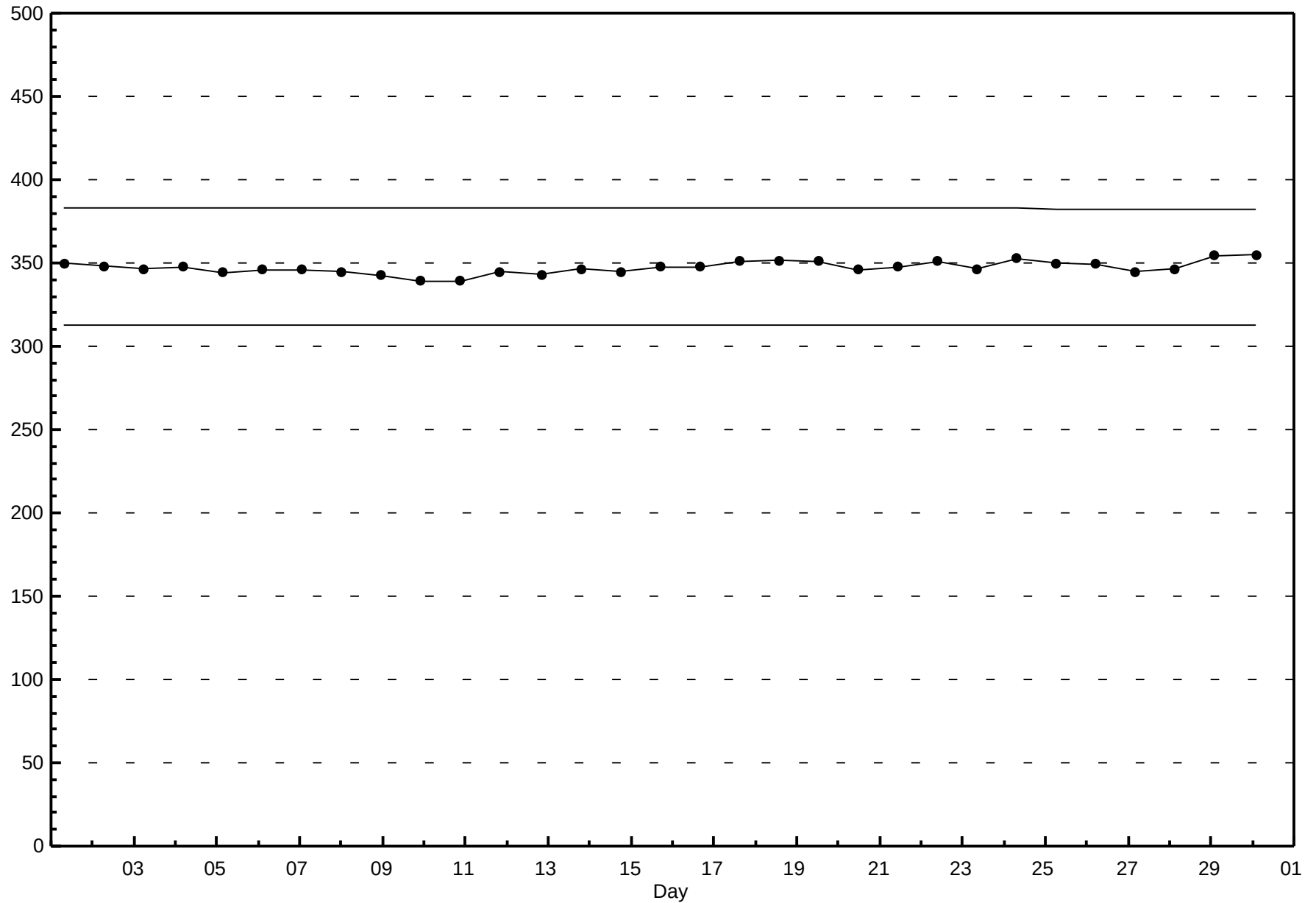


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Falher - September 2014



Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

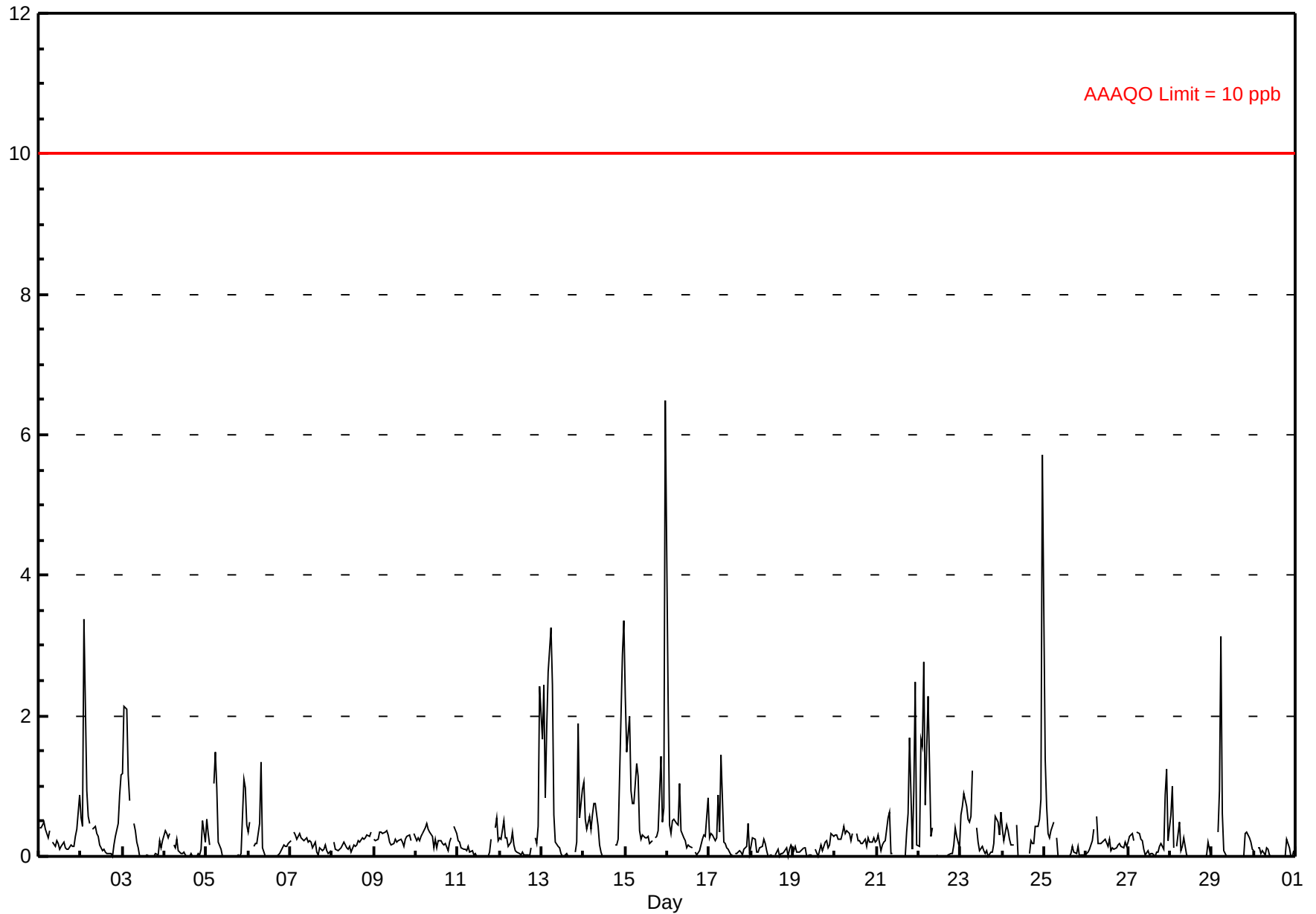
Falher - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 6.5 ppb on Sep 16 00:00 Maximum Daily Average: 1.0 ppb on Sep 15																				Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Sep 3 12:00 Maximum Diurnal Average: 0.9 ppb at hour 24 Monthly Average: 0.32 ppb																				Minimum Daily Average: 0.1 ppb on Sep 30 Minimum Diurnal Average: 0.1 ppb at hour 17 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.7 P ₉₉ = 2.8							
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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.9	
2-Sep	1	0	3	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	3.4	
3-Sep	1	2	2	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.1	
4-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	0.1	0.5	
5-Sep	1	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.3	1.5	
6-Sep	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.3	
7-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	0.3	
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	A	0.2	0.3	
9-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	0.3	0.4	
10-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	0.3	0.5	
11-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0.1	0.5	
12-Sep	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	2	0.3	2.4	
13-Sep	2	2	1	2	3	3	2	1	0	0	0	0	0	0	0	0	0	0	A	0	0	2	1	1	0.9	3.2	
14-Sep	1	1	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	2	3	3	0.6	3.3	
15-Sep	2	1	2	1	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	1	0	1	6	1.0	6.5	
16-Sep	2	0	0	1	1	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0.4	2.2	
17-Sep	0	0	0	0	0	1	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	1.4	
18-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	
19-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	0.3	
20-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
21-Sep	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	1	2	0	1	2	0	0.4	2.5	
22-Sep	0	2	2	3	1	2	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.8	
23-Sep	1	1	1	1	1	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.4	1.2	
24-Sep	0	0	0	0	0	0	0	A	0	0	C	C	C	C	C	0	0	0	0	0	0	1	1	6	0.6	5.7	
25-Sep	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.4	
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	0.2	0.6	
27-Sep	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.2	1.2	
28-Sep	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0	
29-Sep	0	0	A	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.1	
30-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	0.2	
		0.6	0.6	0.6	0.5	0.5	0.7	0.5	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.6	0.9	Diurnal Average		
		2.3	2.4	3.4	2.8	2.6	3.2	2.4	1.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.6	1.7	1.4	2.0	2.9	6.5	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

Hydrogen Sulphide (H₂S) - ppb

Falher - September 2014



Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb

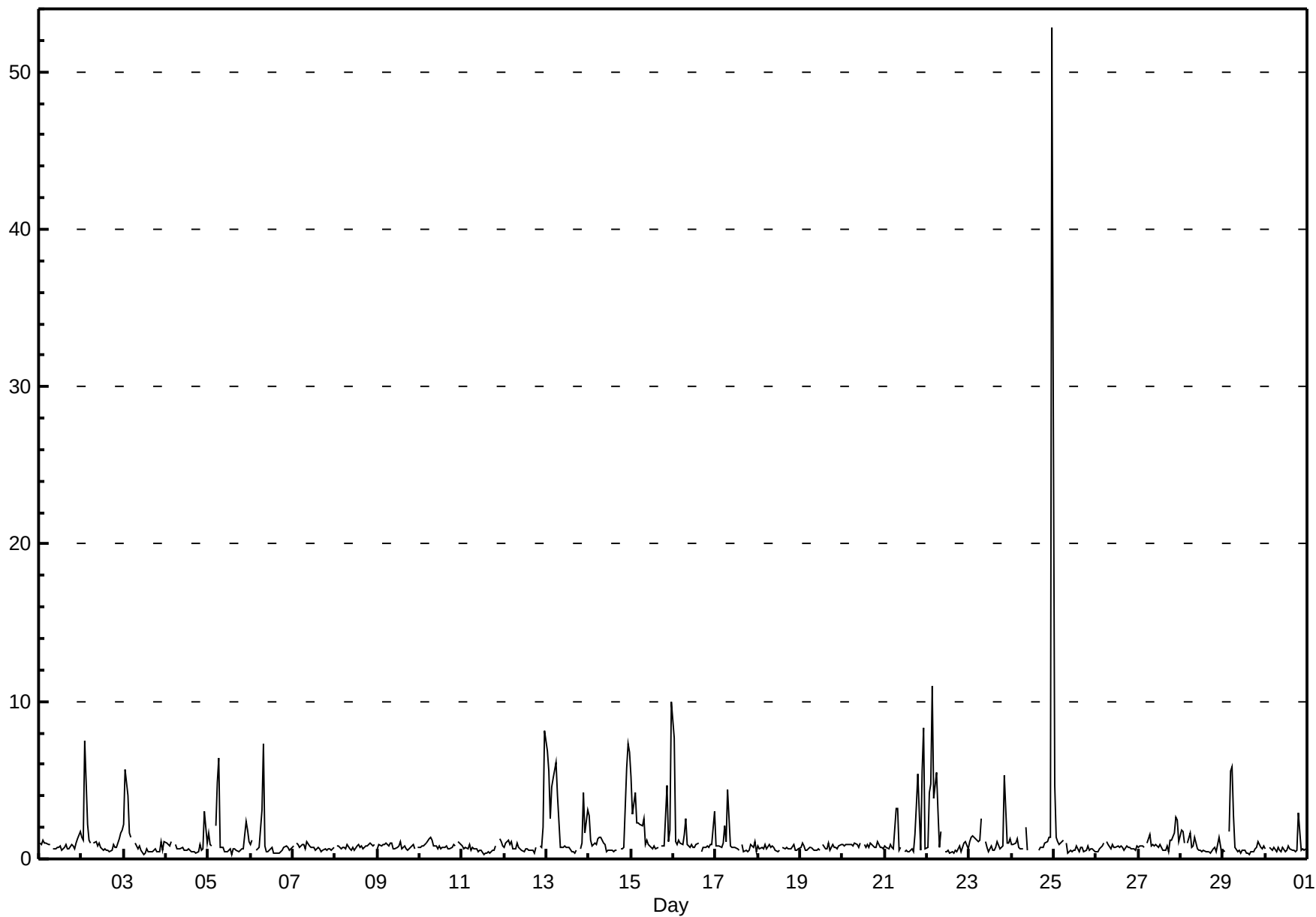
Falher - September 2014

Maximum Value: 52.8 ppb on Sep 25 00:00																				Maximum Daily Average: 3.8 ppb on Sep 24					Hours in Service: 720		
Minimum Value: 0 ppb on Sep 5 14:00																				Minimum Daily Average: 0.7 ppb on Sep 11					Hours of Data: 684		
Maximum Diurnal Average: 3.6 ppb at hour 24																				Minimum Diurnal Average: 0.6 ppb at hour 15					Hours of Missing Data: 36		
Monthly Average: 1.19 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.8 Q ₃ = 1.0 P ₉₀ = 1.9 P ₉₉ = 7.4					Hours of Calibration: 36		
																				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	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.9	1.8	
2-Sep	1	1	7	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.3	7.5	
3-Sep	2	6	4	2	1	A	1	1	1	1	1	0	0	1	0	0	0	1	1	0	0	1	1	1	1.1	5.7	
4-Sep	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	3	1	0.8	3.0	
5-Sep	2	1	1	A	2	5	6	1	1	0	1	0	1	0	1	1	1	0	1	1	1	2	2	1	1.3	6.4	
6-Sep	1	1	A	1	1	1	3	7	1	0	0	1	1	0	0	0	0	0	1	1	1	1	1	1	1.0	7.3	
7-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	0.7	1.1	
8-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	1.0	
9-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	
10-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	0.9	1.4	
11-Sep	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	1	1	A	1	1	1	0.7	1.2	
12-Sep	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	A	1	1	2	8	1.1	8.1	
13-Sep	7	6	3	5	5	6	4	2	1	1	1	1	1	1	0	1	0	1	A	1	1	4	2	3	2.4	6.9	
14-Sep	3	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	A	1	1	1	6	7	7	1.7	7.3	
15-Sep	5	3	4	2	2	2	2	3	1	1	1	1	1	1	1	1	A	1	1	1	1	5	1	2	10	2.2	10.0
16-Sep	8	1	1	1	1	1	2	3	1	1	1	1	1	1	1	A	0	1	1	1	1	1	1	3	1.4	7.7	
17-Sep	1	1	1	1	1	2	1	4	1	1	1	1	1	1	A	1	0	1	0	1	1	1	1	0	1.0	4.3	
18-Sep	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
19-Sep	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
20-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	0.8	1.1	
21-Sep	1	1	1	1	1	1	3	3	1	1	A	0	1	0	0	1	0	2	3	5	1	6	8	1	1.8	8.3	
22-Sep	1	4	5	11	4	5	3	1	2	A	0	0	1	0	0	0	1	0	1	0	1	1	1	1	1.9	11.0	
23-Sep	1	1	1	1	1	1	1	3	A	1	1	0	1	1	1	1	1	1	1	1	5	1	1	1	1.2	5.3	
24-Sep	1	1	1	1	1	1	1	A	2	1	C	C	C	C	C	1	1	1	1	1	1	1	1	53	3.8	52.8	
25-Sep	5	1	1	1	1	1	A	1	0	1	0	1	1	1	0	1	1	0	1	1	1	1	1	0	0.9	4.7	
26-Sep	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1	
27-Sep	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	0	1	1	2	3	2	1	1.0	2.6	
28-Sep	2	2	1	A	1	2	1	1	1	1	1	1	0	1	0	0	0	0	1	1	0	1	1	0	0.8	1.9	
29-Sep	1	0	A	2	6	6	3	1	0	1	0	1	1	0	0	0	0	0	1	1	1	1	1	1	1.2	5.9	
30-Sep	1	A	1	1	1	1	0	1	1	0	1	0	1	1	1	1	1	0	1	3	1	1	1	1	0.7	2.9	
1.7 1.5 1.6 1.5 1.4 1.7 1.6 1.5 0.9 0.7 0.7 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.8 1.0 1.1 1.4 1.6 3.6																									Diurnal Average		
7.7 5.7 7.5 11.0 5.6 6.1 6.4 7.3 2.0 1.2 1.0 0.8 0.9 1.1 1.0 0.9 1.1 1.6 3.4 5.4 5.3 5.8 8.3 52.8																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb

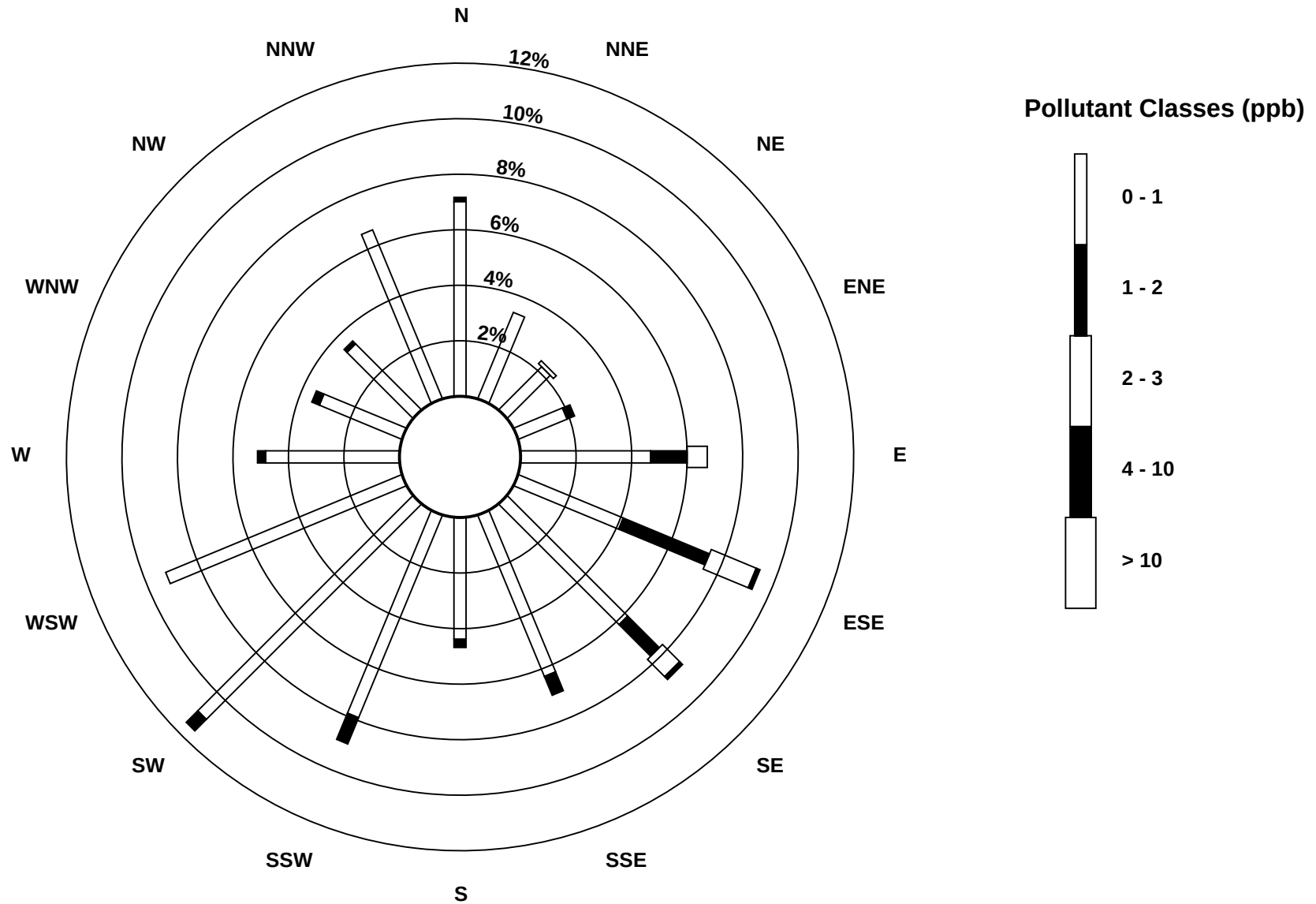
Falher - September 2014



Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb

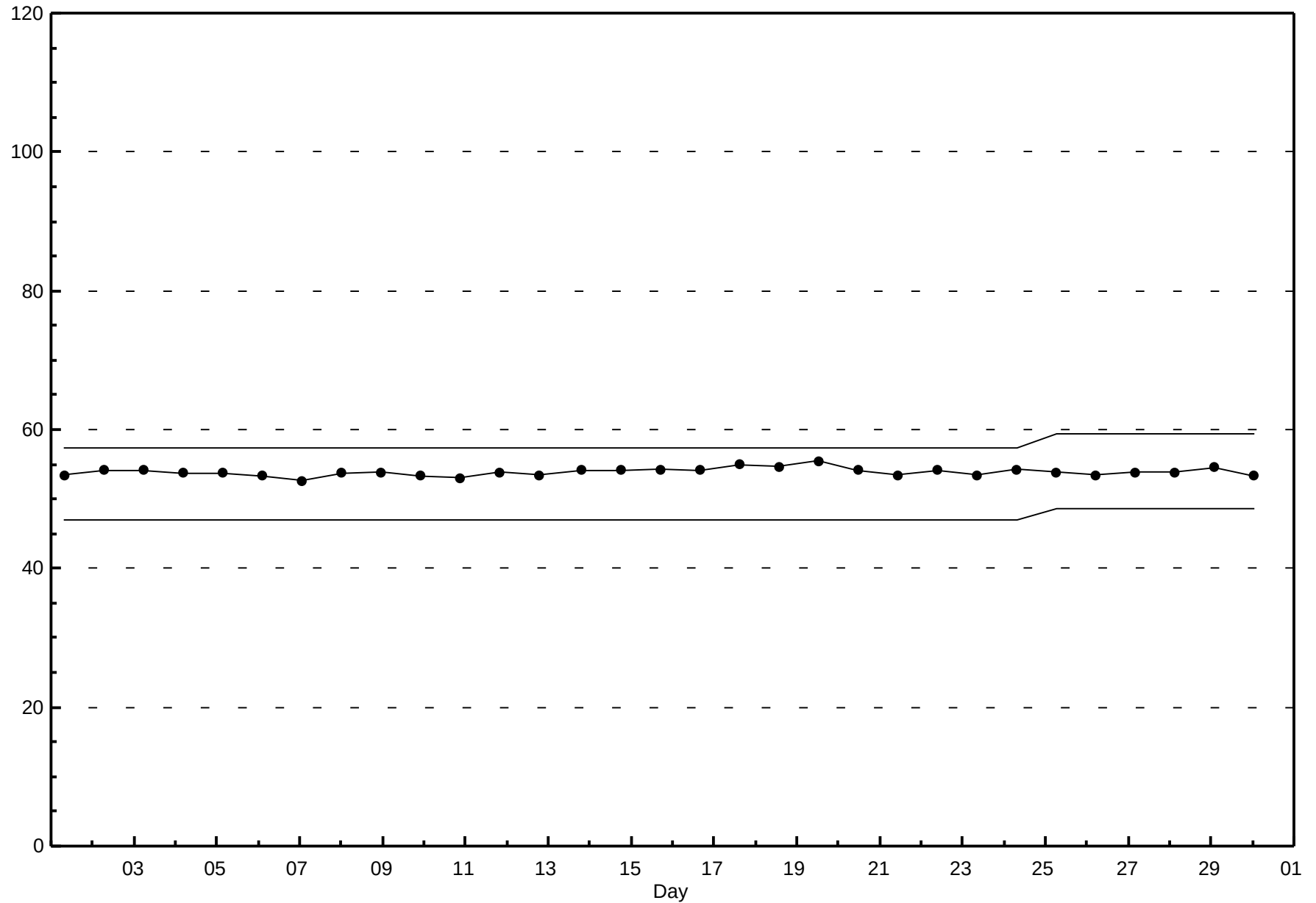
Falher - September 2014



Span Responses

Hydrogen Sulphide (H_2S)

Falher - September 2014



Hourly Averages

External Temperature (ET) - °C

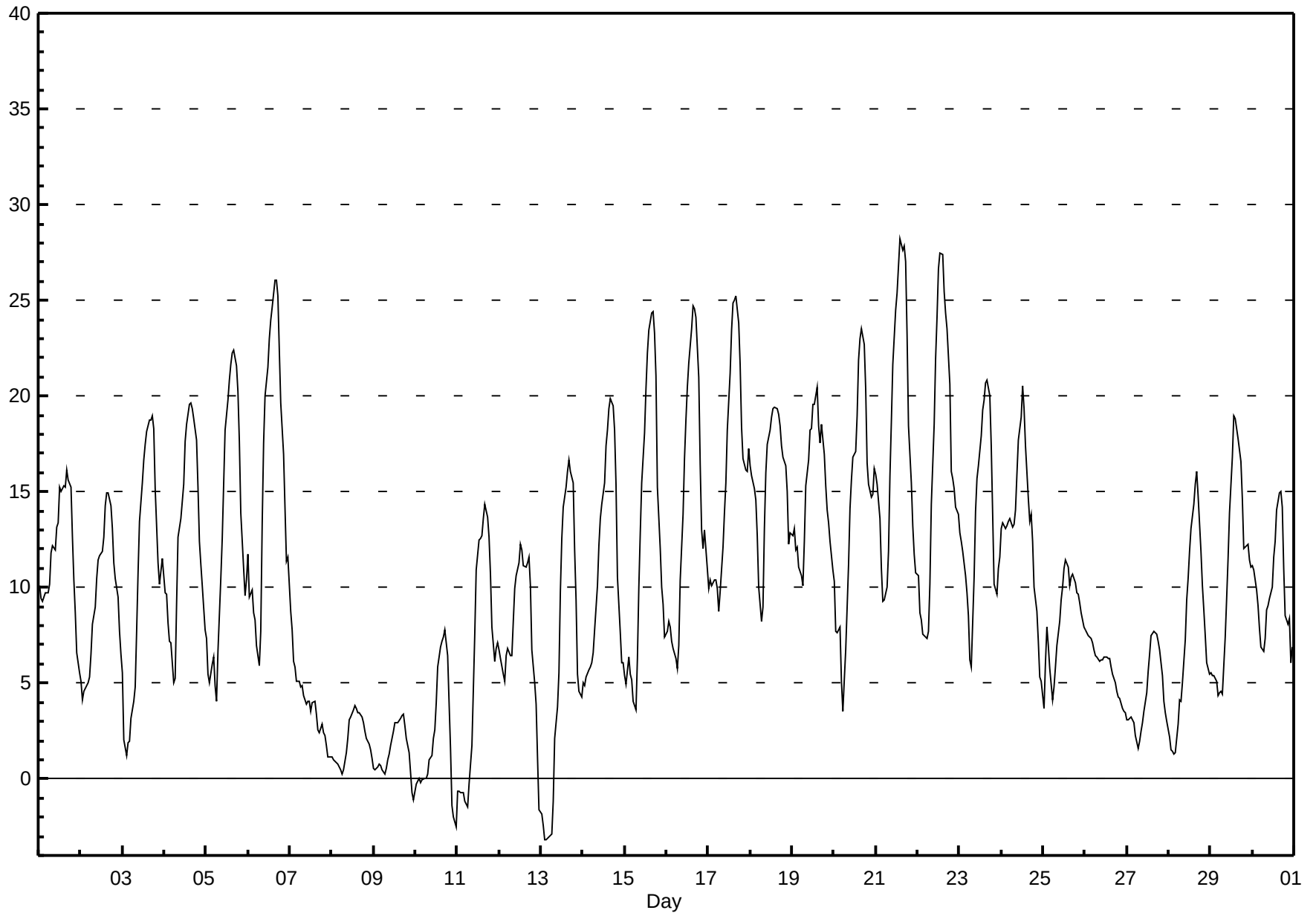
Falher - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.2 °C on Sep 21 15:00 Maximum Daily Average: 18.0 °C on Sep 21																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: -3 °C on Sep 13 04:00 Minimum Daily Average: 1.4 °C on Sep 9 Maximum Diurnal Average: 16.3 °C at hour 17 Minimum Diurnal Average: 5.2 °C at hour 7 Monthly Average: 10.38 °C Percentiles: P ₁ = -2.0 P ₁₀ = 2.0 Q ₁ = 5.3 Median = 10.0 Q ₃ = 15.2 P ₉₀ = 19.5 P ₉₉ = 26.6																										
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	10	9	9	10	10	10	10	12	12	12	13	13	15	15	15	15	16	16	15	13	10	9	7	6	11.8	16.1
2-Sep	5	4	5	5	5	5	6	8	9	10	11	12	12	13	14	15	15	14	13	11	10	10	8	7	9.5	15.0
3-Sep	6	2	1	2	2	3	4	5	8	11	13	15	17	17	18	19	19	19	18	15	11	10	11	12	10.8	19.0
4-Sep	10	10	8	7	7	5	5	9	13	14	14	15	18	19	20	20	19	19	18	15	12	11	10	8	12.7	19.7
5-Sep	7	5	5	6	6	5	4	7	10	13	15	18	20	21	22	22	22	22	20	18	14	11	10	10	13.1	22.4
6-Sep	12	9	10	9	8	7	6	8	13	18	20	21	23	24	25	26	26	25	22	20	17	14	11	12	16.1	26.1
7-Sep	9	8	6	6	5	5	5	5	4	4	4	4	3	4	4	3	3	2	3	2	2	2	1	1	4.0	8.8
8-Sep	1	1	1	1	1	0	0	0	1	2	3	3	4	4	4	3	3	3	3	2	2	2	2	1	2.0	3.8
9-Sep	1	0	1	1	1	0	0	1	1	1	2	2	3	3	3	3	3	3	2	1	0	-1	-1	-1	1.4	3.4
10-Sep	0	0	0	0	0	0	0	0	1	1	2	3	4	6	7	7	7	8	6	4	2	-1	-2	-2	2.2	7.8
11-Sep	-1	-1	-1	-1	-1	-1	-1	0	2	5	8	11	12	13	13	14	14	14	13	11	8	6	7	7	6.2	14.3
12-Sep	7	6	5	5	6	7	6	6	8	10	11	11	12	12	11	11	11	12	10	7	5	4	1	-2	7.7	12.2
13-Sep	-2	-2	-3	-3	-3	-3	-3	-1	2	4	6	10	13	14	15	16	17	16	15	12	9	5	5	4	5.9	16.7
14-Sep	5	5	5	6	6	6	7	8	10	12	14	14	15	17	18	19	20	19	18	15	11	8	6	6	11.3	19.9
15-Sep	5	5	6	5	5	4	4	6	10	13	15	18	20	22	23	24	24	23	21	15	12	10	9	7	12.9	24.4
16-Sep	8	8	8	7	7	6	6	7	10	14	17	19	20	22	24	25	25	24	21	16	13	12	13	11	14.3	24.7
17-Sep	10	10	10	10	10	10	9	10	12	14	16	18	21	23	25	25	25	24	22	18	17	16	16	17	16.2	25.2
18-Sep	16	16	15	15	13	10	8	9	13	16	18	18	19	19	19	19	19	18	17	17	16	15	12	13	15.5	19.4
19-Sep	13	13	12	12	11	11	10	12	15	17	18	18	20	20	20	18	18	19	17	15	14	13	12	11	15.0	20.4
20-Sep	10	8	8	8	5	4	5	7	11	14	16	17	17	19	22	23	24	23	20	16	15	15	15	16	14.0	23.5
21-Sep	16	15	14	11	9	9	10	12	16	19	22	24	25	27	28	28	28	27	23	18	15	13	12	11	18.0	28.2
22-Sep	11	9	8	8	8	7	8	10	14	18	22	24	27	27	27	25	24	24	21	16	16	15	14	14	16.6	27.4
23-Sep	13	12	12	11	10	9	6	6	11	14	16	16	18	19	20	21	21	20	17	14	10	10	11	12	13.6	20.8
24-Sep	13	13	13	13	13	14	13	13	14	16	18	19	21	19	17	15	13	14	12	10	9	7	5	5	13.4	20.5
25-Sep	4	6	8	7	6	4	5	6	7	8	9	10	11	11	11	10	11	11	10	10	10	9	9	8	8.3	11.5
26-Sep	8	8	8	7	7	7	6	6	6	6	6	6	6	6	6	6	5	5	5	4	4	4	4	3	5.9	7.8
27-Sep	3	3	3	3	3	2	2	2	2	3	4	4	6	7	7	8	8	8	7	7	5	4	3	3	4.5	7.7
28-Sep	2	2	1	1	1	3	4	4	5	7	9	10	12	13	14	15	16	15	12	10	9	7	6	5	7.8	16.1
29-Sep	6	5	5	5	4	4	5	4	7	9	11	14	17	19	19	18	18	17	15	12	12	12	11	11	10.9	19.0
30-Sep	11	11	10	9	8	7	7	7	9	9	9	10	12	12	14	15	15	14	11	9	8	8	6	7	9.9	15.0
																								Diurnal Average		
																								Diurnal Maximum		

Hourly Averages

External Temperature (ET) - °C

Falher - September 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Falher - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	11	9	11	9	9	10	9	13	16	15	15	14	11	12	18	16	14	15	9	9	8	9	6	6	10.1	18.2
Dir	210	202	205	198	197	192	190	219	215	217	235	254	254	257	227	236	238	243	238	217	204	187	126	119	220	227
2 Spd	6	7	6	6	3	4	4	6	5	7	9	1	7	11	11	14	12	12	13	8	4	4	4	6	3.0	13.7
Dir	146	125	116	164	190	153	164	239	290	321	352	345	255	266	276	311	327	326	356	357	34	358	269	263	305	311
3 Spd	6	2	5	5	5	5	4	8	9	10	12	11	11	12	10	9	11	13	12	12	13	14	15	13	7.1	14.8
Dir	301	53	107	148	157	154	162	166	206	217	231	236	243	253	243	233	228	223	203	164	145	154	169	197	201	169
4 Spd	11	12	12	5	5	8	7	10	15	17	14	17	19	19	21	20	17	20	21	18	7	9	9	6	8.5	20.8
Dir	198	204	203	224	208	213	235	273	291	287	274	267	280	286	287	308	318	288	318	344	34	48	108	145	282	287
5 Spd	7	8	9	12	13	13	12	10	12	13	16	21	25	29	33	39	37	26	13	6	3	4	8	9	4.6	38.9
Dir	107	64	64	56	97	102	112	133	165	165	198	238	269	283	287	296	291	307	312	307	55	158	100	51	282	296
6 Spd	11	12	15	12	13	12	10	8	11	15	19	18	19	14	8	7	7	10	15	11	13	19	19	13	4.3	19.5
Dir	42	61	94	89	91	95	100	133	212	247	270	278	281	272	281	298	303	293	359	13	358	353	3	353	340	281
7 Spd	22	20	24	21	22	18	18	18	20	19	20	20	22	21	22	23	21	18	19	16	17	16	19	18	19.5	23.6
Dir	343	345	337	339	335	339	327	0	2	359	346	345	338	355	0	355	350	358	353	355	346	333	338	343	347	337
8 Spd	16	14	15	15	13	10	11	14	17	18	18	17	13	11	13	11	10	7	5	9	9	10	10	12	11.3	18.5
Dir	343	336	337	349	356	1	1	22	32	38	35	44	51	21	36	39	33	55	41	33	6	8	2	347	16	35
9 Spd	11	10	10	11	8	8	7	8	11	13	13	12	13	15	18	18	17	14	15	13	16	15	15	12	12.0	18.4
Dir	349	5	21	43	9	359	12	349	355	352	0	8	359	352	348	4	7	353	344	342	329	331	319	310	353	4
10 Spd	12	10	11	10	9	5	5	5	2	7	6	8	6	7	13	14	13	19	22	19	15	11	12	14	4.7	22.0
Dir	316	301	305	313	315	309	280	286	217	209	209	169	136	155	152	156	134	158	152	153	146	123	122	105	162	152
11 Spd	16	17	18	20	18	18	18	19	21	19	15	18	19	18	16	17	16	10	10	11	5	7	8	7	11.2	20.8
Dir	120	118	123	127	125	137	138	146	152	162	185	215	231	244	222	220	225	200	154	143	164	178	192	218	169	152
12 Spd	5	7	5	7	7	8	6	6	11	12	12	9	12	19	20	12	9	11	10	6	6	4	3	7	5.7	20.4
Dir	225	242	207	244	240	269	257	248	276	312	332	337	333	342	343	307	245	257	255	245	222	222	153	127	285	343
13 Spd	6	8	7	7	8	9	9	10	16	16	15	19	22	19	18	17	14	12	9	9	8	10	8	10	10.0	22.1
Dir	140	115	128	122	105	99	97	108	125	139	144	150	151	149	167	165	189	215	212	221	197	124	134	105	148	151
14 Spd	6	6	5	7	4	2	3	6	7	6	4	5	5	5	9	6	4	5	7	11	8	11	9	8	3.8	11.0
Dir	126	120	147	194	221	218	183	225	274	286	266	226	225	225	208	241	240	262	202	186	148	112	129	118	192	112
15 Spd	9	5	5	8	8	9	10	7	8	11	9	9	11	12	11	12	10	10	8	10	12	8	10	10	6.2	11.7
Dir	130	130	94	110	103	104	110	131	167	208	208	205	201	210	214	223	228	217	178	139	119	94	107	121	160	223
16 Spd	8	10	9	8	8	9	7	7	5	6	6	5	3	4	3	3	3	1	1	6	10	13	15	13	4.1	15.0
Dir	110	106	97	92	82	94	108	130	163	224	247	252	260	235	315	341	179	146	175	82	82	78	81	101	104	81
17 Spd	13	17	17	19	17	16	11	10	12	14	12	13	13	15	15	15	22	17	14	10	9	7	12	15	8.4	22.0
Dir	99	98	96	97	105	108	116	117	132	150	156	159	177	178	211	226	228	215	226	250	237	222	212	220	166	228
18 Spd	12	11	10	10	10	11	13	10	10	8	9	9	8	12	12	14	15	14	13	15	13	7	10	13	10.1	15.3
Dir	202	196	193	188	187	176	165	166	194	247	256	250	235	226	228	223	205	192	184	196	224	247	193	179	204	196
19 Spd	13	13	13	15	14	16	15	23	26	30	37	41	40	37	40	35	32	40	32	24	23	22	22	17	24.0	41.4
Dir	180	192	185	217	203	205	206	214	222	230	249	256	258	258	251	255	251	258	263	252	241	238	232	231	240	256
20 Spd	16	12	13	16	13	7	8	7	15	16	19	22	20	13	25	28	27	25	19	8	12	12	12	18	14.8	27.7
Dir	233	215	220	231	211	187	197	220	226	235	229	236	229	239	253	254	244	242	244	184	185	183	180	209	227	254
21 Spd	22	19	16	8	7	4	12	9	12	18	21	25	24	22	18	17	15	15	9	11	9	13	11	8	12.0	24.7
Dir	213	208	203	182	142	137	121	133	154	167	161	164	165	155	142	128	155	130	131	109	87	106	96	95	152	164
22 Spd	10	12	11	10	14	12	10	6	8	9	14	11	9	7	10	17	15	15	17	12	8	14	13	13	4.4	17.2
Dir	98	126	109	104	111	117	113	101	144	194	219	242	256	260	334	307	304	270	211	240	242	214	218	233	209	211

Hourly Averages

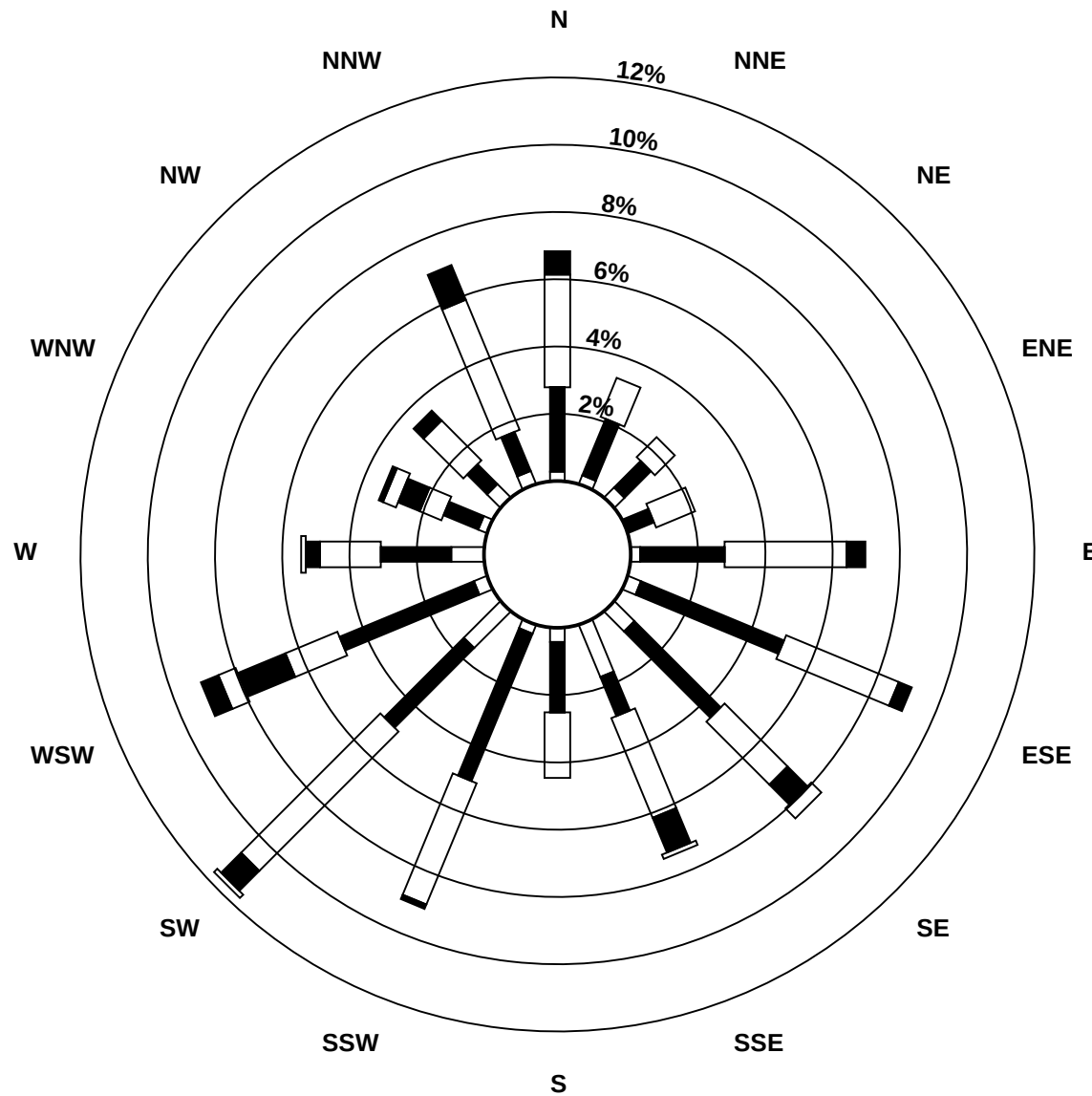
Wind Speed (km/h)
Wind Direction (deg)
Falher - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	13	12	13	7	9	11	4	6	4	5	10	12	13	10	11	8	9	6	1	9	9	12	15	15	3.8	15.5
Dir	207	206	207	212	233	234	214	108	128	269	271	231	230	225	217	223	208	188	106	52	71	58	73	68	201	73
24 Spd	17	18	17	18	19	17	11	13	12	11	15	12	10	9	13	9	5	6	6	5	2	5	2	4	4.5	18.9
Dir	72	71	73	75	87	91	96	98	115	135	159	186	268	265	268	246	268	215	251	305	114	164	140	131	111	87
25 Spd	5	6	8	5	6	2	4	10	8	10	11	9	10	10	11	15	7	7	7	5	12	14	13	15	4.8	14.8
Dir	314	289	260	244	253	335	339	342	346	30	25	9	23	43	137	145	108	61	33	24	22	29	28	25	23	145
26 Spd	13	10	10	15	14	15	15	17	17	15	13	15	17	18	18	17	15	12	13	10	6	10	7	9	12.6	18.3
Dir	30	12	7	354	346	343	350	20	13	5	353	337	333	337	344	340	333	321	314	334	334	358	346	325	348	344
27 Spd	8	6	5	8	6	7	4	9	11	10	11	16	17	17	17	20	19	19	17	19	17	17	19	24	11.2	23.8
Dir	328	351	350	1	21	73	82	68	91	112	128	130	114	116	115	130	110	106	111	99	99	99	97	95	100	95
28 Spd	21	19	19	20	20	18	20	19	21	28	29	29	31	30	28	28	26	19	15	19	20	20	19	18	20.8	30.7
Dir	95	94	98	92	97	96	112	113	120	137	145	144	147	146	142	148	146	149	141	129	129	120	102	97	126	147
29 Spd	19	18	16	12	16	14	15	11	12	8	7	6	9	17	20	11	12	11	6	4	9	12	12	10	4.0	20.2
Dir	97	99	97	112	102	101	105	114	152	185	188	199	259	269	285	268	276	277	252	140	147	191	213	237	164	285
30 Spd	13	14	13	9	8	13	15	17	21	20	22	20	20	15	16	21	21	12	7	9	7	13	12	13	11.7	21.9
Dir	222	222	223	222	228	212	223	244	256	266	272	285	295	284	270	255	258	264	7	114	158	223	200	199	247	272
Spd	2.1	2.9	3.1	2.8	3.3	3.8	3.9	3.0	3.5	4.3	5.4	6.5	6.7	6.4	6.9	6.8	6.6	6.4	3.3	1.3	2.2	2.3	3.1	2.4	Diurnal Average	
Dir	132	125	126	112	114	122	130	137	180	210	230	233	247	255	254	256	252	248	248	163	134	124	129	133	Diurnal Maximum	
Spd	22.2	19.7	23.6	21.1	22.4	18.2	20.3	23.1	26.0	30.3	37.0	41.4	40.4	37.4	39.9	38.9	36.6	40.2	31.6	23.9	22.5	22.2	22.2	23.8	Diurnal Maximum	
Dir	213	345	337	339	335	96	112	214	222	230	249	256	258	258	251	296	291	258	263	252	241	238	232	95		
Maximum Speed Value: 41 km/h on Sep 19 12:00																								Hours in Service: 720		
Maximum Daily Speed Average: 24.0 km/h on Sep 19																								Hours of Data: 720		
Maximum Diurnal Speed Average: 6.9 km/h at hour 15																								Hours of Missing Data: 0		
Minimum Speed Value: 1 km/h on Sep 2 12:00																								Percent Operational Time: 100.0		
Minimum Daily Speed Average: 3.0 km/h on Sep 14																										
Minimum Diurnal Speed Average: 1.3 km/h at hour 20																										
Monthly Average Velocity: 2.29 km/h 205.5 deg																										
Speed Percentiles: P ₁ = 2.1 P ₁₀ = 5.6 Q ₁ = 8.2 Median = 11.8 Q ₃ = 16.2 P ₉₀ = 20.0 P ₉₉ = 36.7																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Direction		Speed Range (km/h)						Total																		
		0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38																			
North		4	26	45	14	0	0	89																		
NorthEast		3	18	15	0	0	0	36																		
East		3	41	43	10	0	0	97																		
SouthEast		12	42	42	16	5	0	117																		
South		10	35	36	3	0	0	84																		
SouthWest		11	57	73	15	1	0	157																		
West		6	33	18	17	8	4	86																		
NorthWest		2	19	26	6	0	1	54																		
Total		51	271	298	81	14	5	720																		

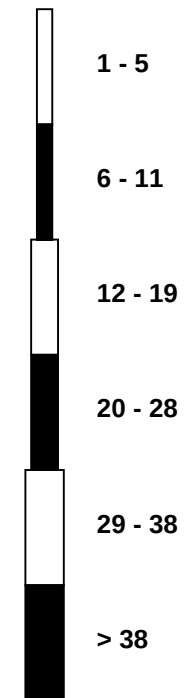
Wind Rose

Wind Speed (WS) (km/h)

Falher - September 2014



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - September 2014

Maximum Speed: 42 km/h on Sep 19 12:00																					Maximum Daily Speed Average: 26.1 km/h on Sep 19										Hours in Service: 720	
Minimum Speed: 1 km/h on Sep 16 19:00																					Minimum Daily Speed Average: 6.7 km/h on Sep 14										Hours of Data: 720	
Maximum Diurnal Speed Average: 17.3 km/h at hour 15																					Minimum Diurnal Speed Average: 10.1 km/h at hour 7										Hours of Missing Data: 0	
Monthly Average Speed: 12.99 km/h																					Percentiles: P ₁ = 3.1 P ₁₀ = 5.9 Q ₁ = 8.6 Median = 12.0 Q ₃ = 16.5 P ₉₀ = 20.4 P ₉₉ = 36.7										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1-Sep	11	9	11	9	9	10	9	13	16	15	15	14	11	14	19	16	15	15	9	9	8	9	8	6	11.7	18.7						
2-Sep	6	7	6	6	3	4	4	6	6	8	9	2	7	12	12	15	12	12	13	8	4	5	5	6	7.4	14.6						
3-Sep	6	4	5	6	5	5	4	8	9	10	12	12	11	12	11	10	11	13	12	12	14	14	15	13	9.7	14.9						
4-Sep	11	12	12	5	5	8	8	10	15	17	14	18	20	20	22	21	17	21	22	18	8	9	11	7	13.8	21.7						
5-Sep	8	8	9	13	14	13	12	11	13	14	17	21	26	29	33	39	37	26	13	7	4	5	8	10	16.2	39.1						
6-Sep	14	13	15	12	13	12	10	8	11	16	19	18	20	14	10	9	9	10	16	11	13	20	19	13	13.6	20.0						
7-Sep	22	20	24	21	23	18	18	19	20	19	20	20	22	21	23	23	21	19	19	16	17	16	19	19	19.9	23.6						
8-Sep	16	14	15	15	13	10	11	14	17	19	19	18	13	12	14	11	10	8	6	9	9	10	10	12	12.7	18.9						
9-Sep	12	10	10	11	8	8	7	8	11	13	13	12	13	15	19	19	17	15	15	13	16	15	15	12	12.8	18.8						
10-Sep	12	10	11	10	9	5	5	5	3	7	7	8	7	7	14	15	13	19	22	19	15	11	12	14	10.8	22.0						
11-Sep	16	17	18	20	18	18	18	19	21	19	16	19	19	18	17	17	16	10	10	11	5	7	8	8	15.2	20.8						
12-Sep	5	7	6	7	7	8	6	6	11	12	13	10	12	19	21	14	10	11	10	6	6	4	4	8	9.2	20.6						
13-Sep	6	8	7	7	8	9	9	10	16	16	15	19	22	20	18	18	15	13	9	9	8	10	8	10	12.2	22.3						
14-Sep	6	6	5	7	4	3	3	6	7	6	5	6	6	6	10	8	6	6	7	11	10	11	9	8	6.7	11.1						
15-Sep	9	5	5	8	8	9	10	7	8	11	9	9	12	12	12	12	10	10	8	11	12	8	10	10	9.5	12.3						
16-Sep	8	10	9	8	8	9	7	7	5	6	7	6	5	6	4	4	4	1	1	6	10	13	15	13	7.1	15.2						
17-Sep	13	17	17	19	17	16	11	10	13	14	12	13	13	15	15	15	22	17	14	10	9	8	12	15	14.1	22.1						
18-Sep	12	11	10	10	10	11	14	10	10	9	9	9	9	12	12	14	15	15	13	15	14	7	10	13	11.4	15.4						
19-Sep	14	13	13	15	15	16	15	23	26	31	37	42	41	38	40	35	32	40	32	24	23	22	22	17	26.1	41.6						
20-Sep	16	12	13	16	13	7	9	7	15	16	19	23	20	14	25	28	27	25	19	10	12	12	13	18	16.2	28.0						
21-Sep	22	19	16	9	7	5	12	10	12	18	22	25	25	22	19	20	17	15	9	11	9	13	11	8	14.9	24.9						
22-Sep	10	12	11	11	14	12	10	6	8	11	14	11	9	10	11	17	15	15	19	12	8	14	13	13	11.9	18.6						
23-Sep	13	12	13	7	9	11	5	6	4	6	10	12	13	11	12	8	10	7	3	9	9	12	15	15	9.7	15.5						
24-Sep	17	19	17	18	19	17	12	14	12	12	15	12	11	10	13	10	6	6	7	6	3	5	4	5	11.2	19.0						
25-Sep	6	7	8	5	6	3	4	10	9	11	12	10	10	10	14	15	8	8	7	5	12	14	13	15	9.2	15.0						
26-Sep	13	10	10	15	14	15	15	17	17	15	13	15	17	18	18	17	15	12	13	11	7	10	7	9	13.4	18.4						
27-Sep	8	6	6	8	6	7	5	9	11	11	11	16	17	18	17	20	20	19	17	19	17	17	19	24	13.7	23.8						
28-Sep	21	19	19	20	20	18	20	19	22	28	29	29	31	30	28	28	26	19	15	20	21	20	19	18	22.4	30.9						
29-Sep	19	18	16	12	16	14	15	11	12	9	8	7	10	18	21	11	12	11	7	5	9	12	12	10	12.3	20.5						
30-Sep	13	14	13	9	8	13	15	17	21	20	22	20	20	15	16	21	21	12	9	9	9	13	12	13	14.9	21.9						
12.2 11.6 11.7 11.2 10.9 10.5 10.1 10.9 12.7 13.9 14.8 15.2 15.7 15.9 17.3 17.1 15.6 14.4 12.5 11.4 10.7 11.6 12.0 11.9																									Diurnal Average							
22.3 19.9 23.6 21.2 22.5 18.2 20.5 23.1 26.0 30.6 37.2 41.6 40.7 37.9 40.3 39.1 36.8 40.4 31.8 24.3 22.6 22.3 22.2 23.8																									Diurnal Maximum							
All monthly, daily, and diurnal averages have been calculated using scalar methods																																

Hourly Standard Deviations

Wind Direction (WD) - deg

Falher - September 2014

Maximum Value: 76.3 deg on Sep 16 15:00																			Hours in Service: 720						
Minimum Value: 1.3 deg on Sep 17 23:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 2.0 P ₁₀ = 4.0 Q ₁ = 6.1 Median = 9.9 Q ₃ = 15.4 P ₉₀ = 25.0 P ₉₉ = 62.2																			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	4	3	6	5	5	5	8	6	4	6	9	15	18	24	13	12	17	12	11	6	4	8	31	11	30.6
2-Sep	10	11	18	15	28	16	20	17	27	24	36	63	24	11	17	21	16	9	6	13	12	18	27	25	62.5
3-Sep	17	55	16	15	13	19	15	7	12	14	14	15	18	13	16	30	22	12	6	12	5	4	9	5	54.7
4-Sep	3	3	3	13	17	10	14	21	9	10	10	10	14	17	15	18	12	15	16	10	22	6	29	40	40.5
5-Sep	27	10	11	13	7	4	3	12	12	9	20	11	13	10	8	7	7	7	6	12	45	26	12	19	45.1
6-Sep	42	17	7	4	5	3	7	13	20	12	11	14	12	16	61	32	38	16	24	9	17	16	17	7	61.3
7-Sep	10	8	4	5	5	12	10	8	6	7	7	6	7	8	8	6	6	7	6	7	6	7	5	5	12.1
8-Sep	4	5	4	5	5	6	6	11	10	10	12	14	21	16	19	14	12	20	18	10	6	8	6	4	21.3
9-Sep	6	4	11	6	13	13	13	6	9	9	10	13	13	12	15	8	11	11	7	4	5	5	7	6	15.5
10-Sep	6	5	5	5	5	16	16	10	37	12	19	29	38	39	19	21	20	13	4	2	6	4	6	4	39.5
11-Sep	2	2	4	2	6	2	2	5	4	8	10	11	12	11	13	11	12	7	12	4	6	9	7	14	13.7
12-Sep	8	10	24	9	14	11	13	9	7	18	12	14	14	11	8	32	12	9	4	7	11	6	43	12	42.6
13-Sep	9	13	12	8	5	4	4	9	5	10	8	9	8	13	12	15	20	18	9	4	19	17	11	7	19.6
14-Sep	13	8	16	21	19	42	34	8	16	18	32	22	25	50	28	43	69	21	10	4	38	8	9	8	68.5
15-Sep	7	27	14	8	8	6	5	16	19	9	13	17	15	16	17	21	21	16	12	11	7	9	7	5	27.2
16-Sep	8	11	3	10	5	10	9	9	15	18	20	29	67	47	76	42	66	47	37	16	8	11	10	7	76.3
17-Sep	6	3	5	2	2	2	4	8	7	7	9	9	11	13	19	12	6	4	9	11	3	13	1	7	19.1
18-Sep	10	9	6	3	8	7	5	6	8	18	18	19	21	13	10	11	8	9	3	7	23	13	18	4	22.5
19-Sep	5	3	10	8	11	18	2	3	4	9	6	6	7	9	8	8	7	5	6	11	3	5	2	5	17.9
20-Sep	4	6	7	3	9	10	14	7	8	7	8	9	9	21	13	8	8	4	7	34	11	6	12	3	33.6
21-Sep	2	5	4	36	10	32	6	17	7	7	9	8	11	12	18	32	29	15	10	14	7	12	9	9	35.8
22-Sep	11	9	12	13	4	7	5	10	15	28	9	13	18	43	30	8	10	12	24	13	14	7	8	5	42.6
23-Sep	5	8	8	11	6	6	54	29	19	49	14	12	13	22	20	26	36	28	58	7	12	4	3	3	57.9
24-Sep	3	4	4	5	4	6	13	12	8	10	15	16	32	19	12	22	59	24	26	30	70	11	63	44	70.2
25-Sep	35	22	15	16	12	48	12	11	24	17	17	23	19	18	48	10	16	34	12	15	11	4	6	4	48.2
26-Sep	7	8	6	6	5	3	9	7	4	5	9	5	6	5	5	7	6	5	6	14	22	7	8	6	22.4
27-Sep	7	12	12	8	15	15	29	7	14	21	12	12	8	8	11	10	14	7	7	3	4	2	2	2	28.8
28-Sep	2	2	2	3	9	4	7	9	12	4	7	7	6	7	6	5	5	3	11	5	7	7	3	3	11.8
29-Sep	3	2	3	12	2	4	4	4	16	11	18	20	29	10	10	14	6	6	19	28	11	17	8	7	28.7
30-Sep	6	5	3	7	8	4	5	7	5	6	4	12	8	14	15	13	7	6	52	12	39	3	7	3	51.6
42.2 54.7 24.3 35.8 28.2 48.2 53.7 29.3 36.7 49.2 36.4 62.5 67.0 49.6 76.3 43.3 68.5 47.1 57.9 33.6 70.2 25.8 63.1 43.6																									

PAZA

Portable – Clairmont Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

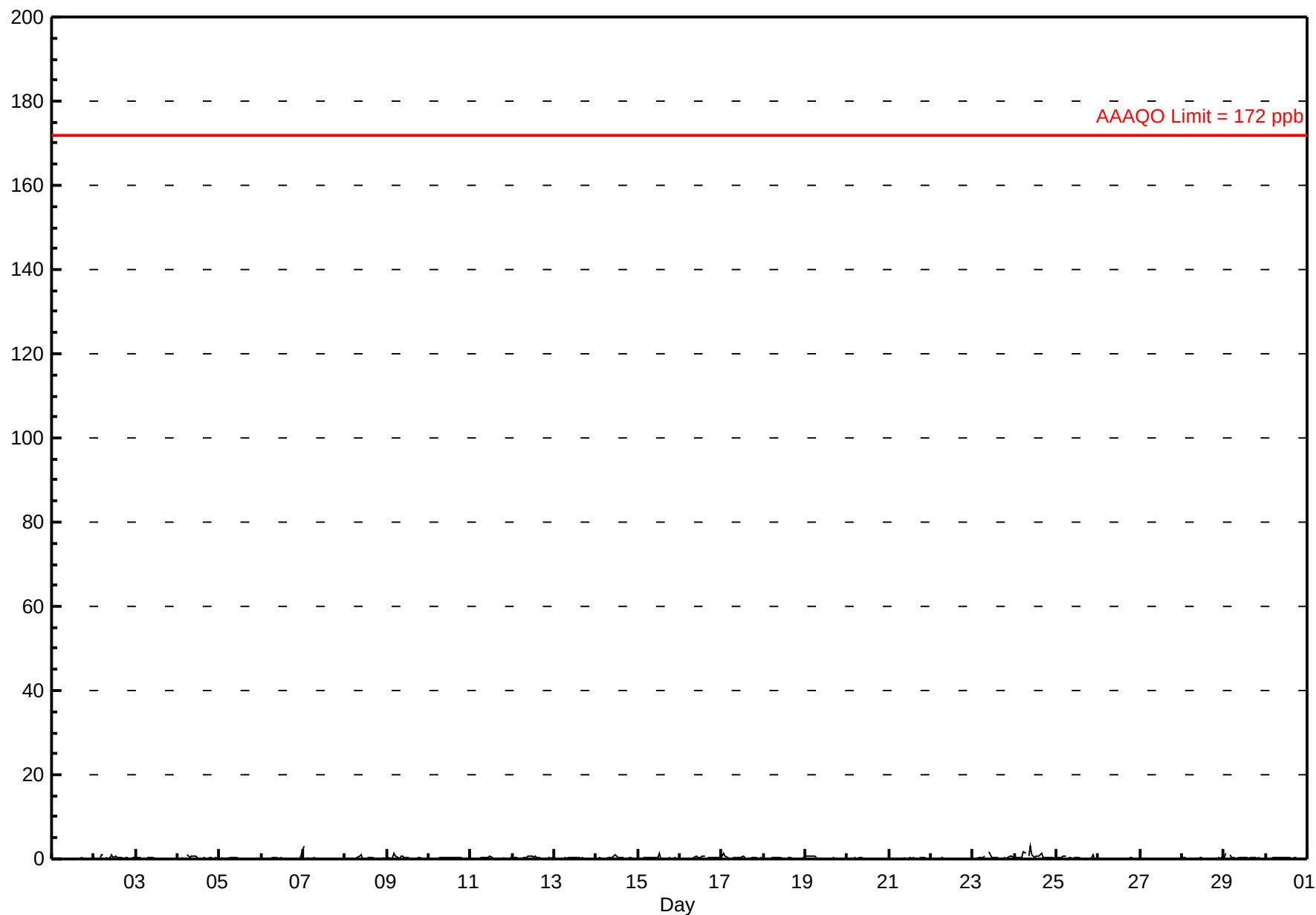
Sulphur Dioxide (SO₂) - ppb

Portable Clairmont - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.0 ppb on Sep 7 01:00 Maximum Daily Average: 0.6 ppb on Sep 24																			Hours in Service: 720 Hours of Data: 683 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Sep 1 04:00 Maximum Diurnal Average: 0.4 ppb at hour 10 Monthly Average: 0.22 ppb																			Minimum Daily Average: 0.0 ppb on Sep 26 Minimum Diurnal Average: 0.1 ppb at hour 20 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 1.3							
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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Sep	0	0	0	0	1	1	A	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
3-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	0.3
4-Sep	0	0	0	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
5-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
6-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	0.2	0.9
7-Sep	3	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	3.0
8-Sep	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.9
9-Sep	1	0	0	0	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0.3	1.5
10-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
11-Sep	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.7
12-Sep	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	A	0	0	0	0	0.3	0.8
13-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	0.5
14-Sep	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.9
15-Sep	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0.2	1.4
16-Sep	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0.3	0.8
17-Sep	1	1	1	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0.3	1.3
18-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	0.2	0.4
19-Sep	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
20-Sep	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
21-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	0.3
22-Sep	0	0	0	0	0	0	0	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	0.4
23-Sep	0	0	0	0	0	0	0	1	A	2	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0.3	1.6
24-Sep	0	0	0	0	0	2	1	A	1	3	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0.6	2.9
25-Sep	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.9
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	0.0	0.2
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	0.1	0.2
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	1	0.1	0.8
29-Sep	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
30-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
0.3		0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	Diurnal Average	
3.0		1.3	0.7	0.9	1.5	1.8	1.3	0.5	0.7	2.9	1.2	0.9	1.4	0.8	0.8	1.2	0.5	0.4	0.5	0.3	0.4	0.9	0.6	0.9	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																								
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Portable Clairmont - September 2014



Hourly Maximums

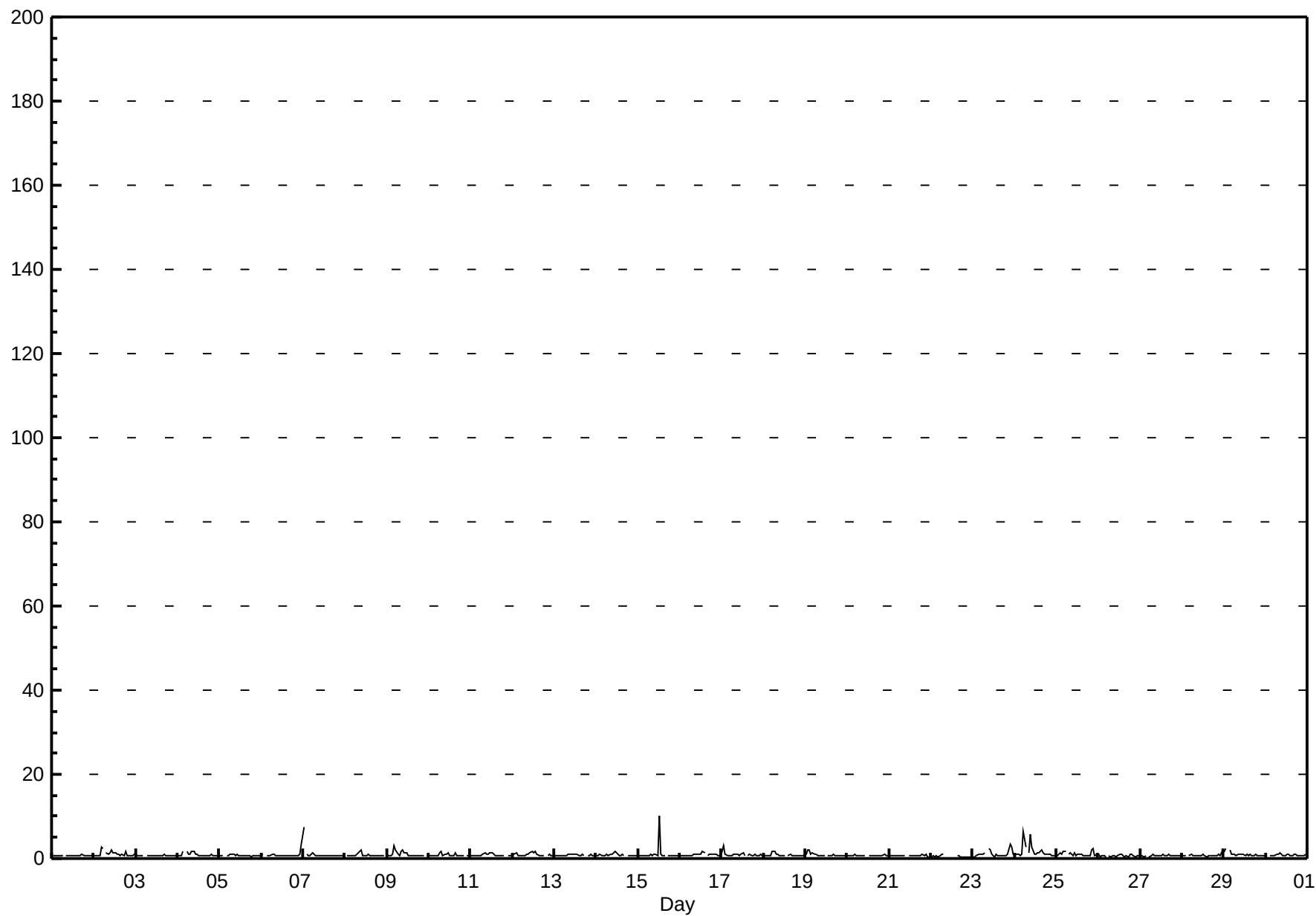
Sulphur Dioxide (SO₂) - ppb

Portable Clairmont - September 2014

Maximum Value: 10.1 ppb on Sep 15 13:00																				Maximum Daily Average: 1.7 ppb on Sep 24					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 22 22:00																				Minimum Daily Average: 0.6 ppb on Sep 26					Hours of Data: 683	
Maximum Diurnal Average: 1.2 ppb at hour 13																				Minimum Diurnal Average: 0.7 ppb at hour 18					Hours of Missing Data: 37	
Monthly Average: 0.87 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.2 P ₉₉ = 3.1					Hours of Calibration: 37	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Sep	1	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
2-Sep	1	1	1	1	3	2	A	1	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1.1	2.6
3-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	1.0
4-Sep	1	1	1	2	A	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7
5-Sep	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.7	1.1
6-Sep	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	0.8	3.4
7-Sep	7	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	7.4
8-Sep	A	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.9
9-Sep	1	1	1	1	3	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	3.2
10-Sep	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.6
11-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	1.3
12-Sep	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	A	1	1	1	1	0.9	1.8
13-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	1.1
14-Sep	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.6
15-Sep	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	A	1	1	1	1	1	1	1	1.1	10.1
16-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	0.9	1.6
17-Sep	2	3	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	3.1
18-Sep	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6
19-Sep	1	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	2.0
20-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
21-Sep	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.0
22-Sep	0	1	0	1	0	1	1	1	C	C	C	C	C	C	C	1	1	0	0	0	0	0	0	0	--	1.0
23-Sep	0	0	1	1	1	1	1	1	A	2	2	1	0	1	1	1	1	1	1	1	1	3	3	1	1.1	3.5
24-Sep	1	1	1	1	1	7	3	A	2	6	3	1	1	1	1	2	1	1	1	1	1	1	1	1	1.7	6.5
25-Sep	1	1	1	1	2	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1.1	2.4
26-Sep	1	0	1	1	0	A	1	0	1	1	0	1	1	1	1	0	1	0	1	1	1	0	1	1	0.6	0.9
27-Sep	0	1	0	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
28-Sep	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	2	0.7	1.9	
29-Sep	2	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.3
30-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
1.0 0.9 0.8 0.8 0.9 1.1 0.9 0.9 1.0 1.2 1.0 0.9 1.2 0.9 0.7 0.8 0.8 0.7 0.7 0.7 0.7 0.8 0.7 0.8																									Diurnal Average	
7.4 3.1 1.9 1.9 3.2 6.5 2.6 1.6 1.7 5.9 2.8 1.8 10.1 1.7 1.3 2.2 1.5 1.1 1.6 1.0 1.9 3.5 2.8 3.4																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

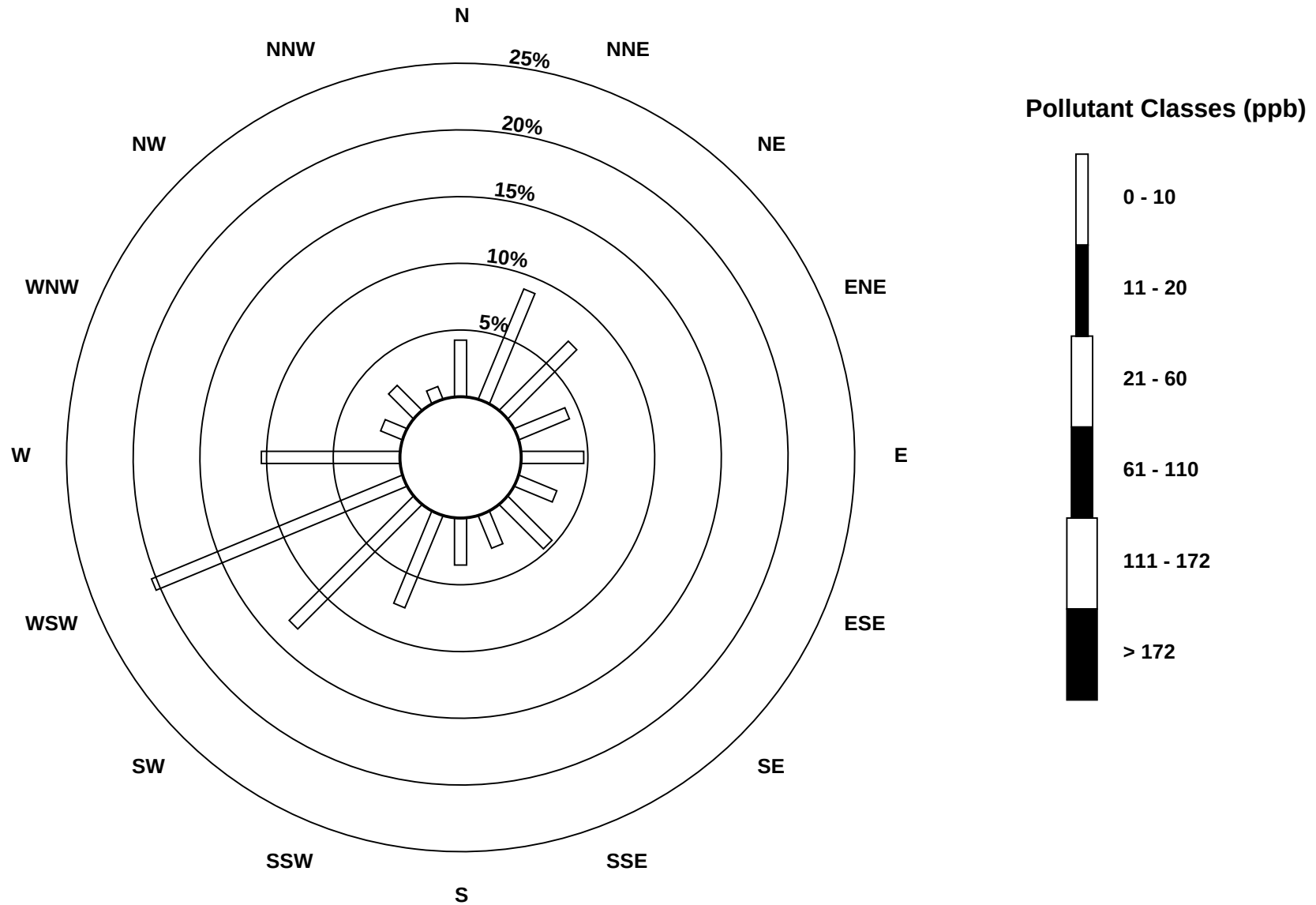
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Portable Clairmont - September 2014



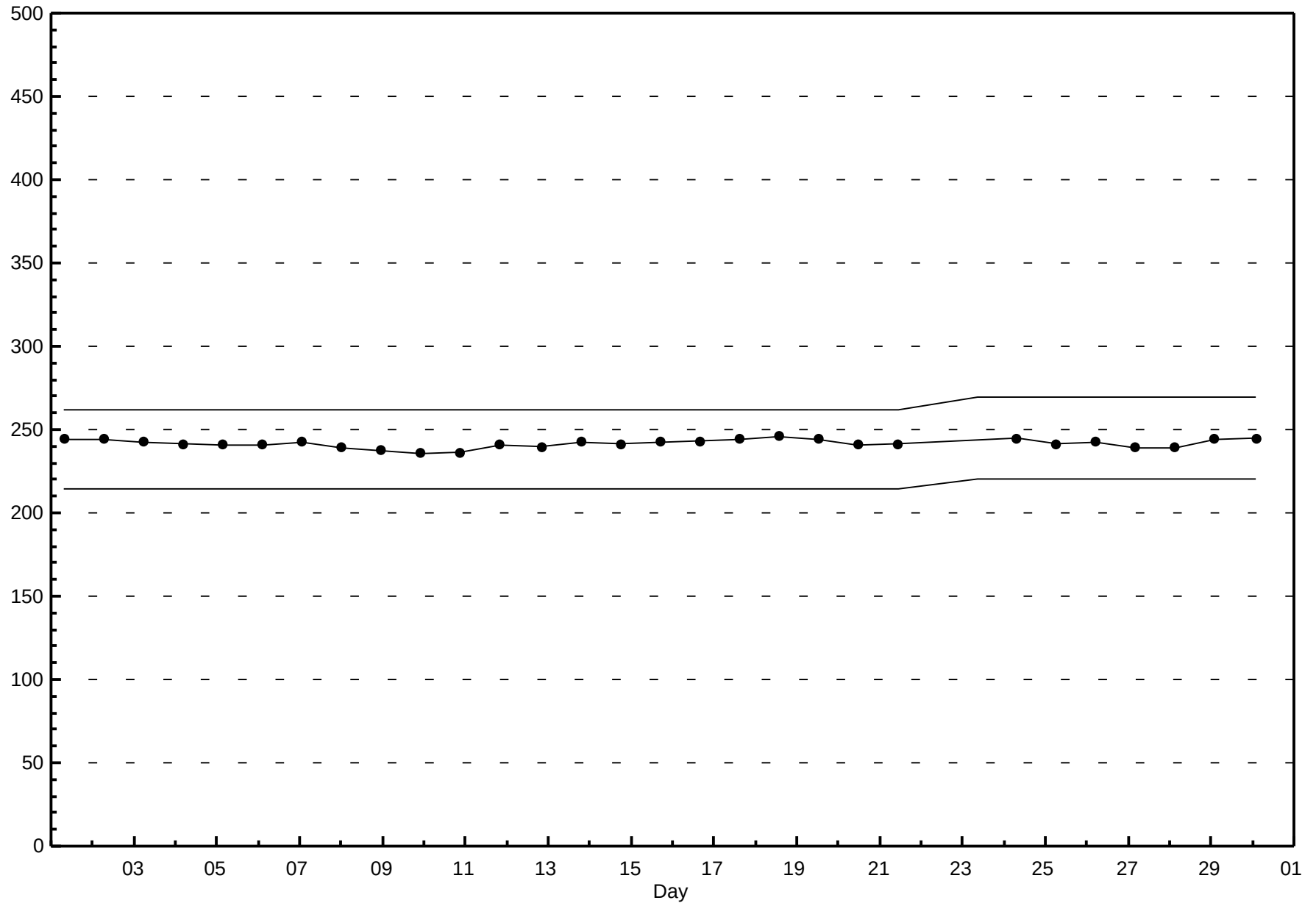
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Portable Clairmont - September 2014



Span Responses

Sulphur Dioxide (SO₂)
Portable Clairmont - September 2014



Hourly Averages

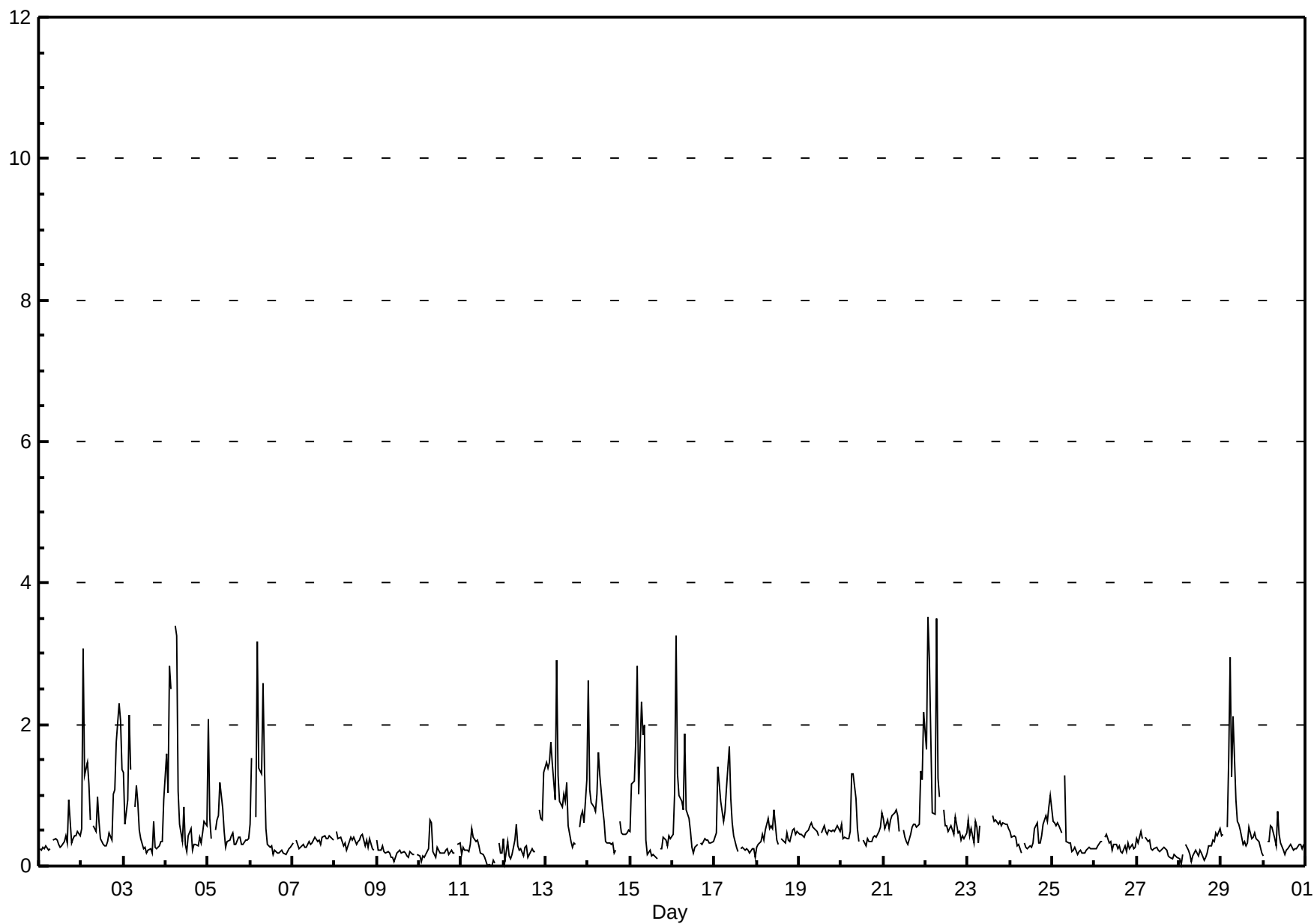
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.5 ppb on Sep 22 02:00 Maximum Daily Average: 1.1 ppb on Sep 22																				Hours in Service: 720 Hours of Data: 684 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 11 16:00 Maximum Diurnal Average: 1.0 ppb at hour 7 Monthly Average: 0.54 ppb										Minimum Daily Average: 0.2 ppb on Sep 9 Minimum Diurnal Average: 0.3 ppb at hour 14 Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.4 Q ₃ = 0.6 P ₉₀ = 1.1 P ₉₉ = 3.0																
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	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	0.9
2-Sep	1	3	1	1	1	1	A	1	0	1	1	0	0	0	0	0	0	0	1	1	2	2	2	1	1.0	3.1
3-Sep	1	1	1	2	1	A	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.6	2.1
4-Sep	2	1	3	3	A	3	3	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	1	1	1.0	3.4
5-Sep	2	1	0	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.1
6-Sep	1	2	A	1	3	1	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	3.2
7-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	0.3	0.4
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	A	0.3	0.5
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	0.2	0.4
10-Sep	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0	0.2	0.7
11-Sep	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
12-Sep	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0.3	1.3
13-Sep	1	1	1	2	1	1	3	1	1	1	1	1	1	1	0	0	0	0	A	1	1	1	1	1	1.0	2.9
14-Sep	3	1	1	1	1	1	2	1	1	1	0	0	0	0	0	0	0	A	1	0	0	0	0	1	0.7	2.6
15-Sep	0	1	1	2	3	1	2	2	2	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.8	2.8
16-Sep	0	1	3	1	1	1	1	2	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.7	3.3
17-Sep	0	0	1	1	1	1	1	1	2	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0.5	1.7
18-Sep	0	0	0	0	0	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	1	1	0	0	0.4	0.8
19-Sep	0	0	0	0	0	1	1	1	1	1	0	0	A	0	1	0	0	1	0	1	0	1	1	0	0.5	0.6
20-Sep	1	0	0	0	0	0	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0.5	1.3
21-Sep	1	1	1	1	1	1	1	1	1	0	A	1	0	0	0	0	1	1	1	1	1	1	1	2	0.7	2.2
22-Sep	2	4	3	2	1	1	4	1	1	A	1	1	1	0	1	1	0	1	0	0	0	0	0	0	1.1	3.5
23-Sep	1	0	1	0	1	1	0	1	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	0.6	0.7
24-Sep	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	0.4	1.0
25-Sep	1	1	1	1	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
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	0.3	0.4
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	1	0.2	0.5
29-Sep	0	0	A	1	2	3	1	2	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0.7	2.9
30-Sep	0	A	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Portable Clairmont - September 2014



Hourly Maximums

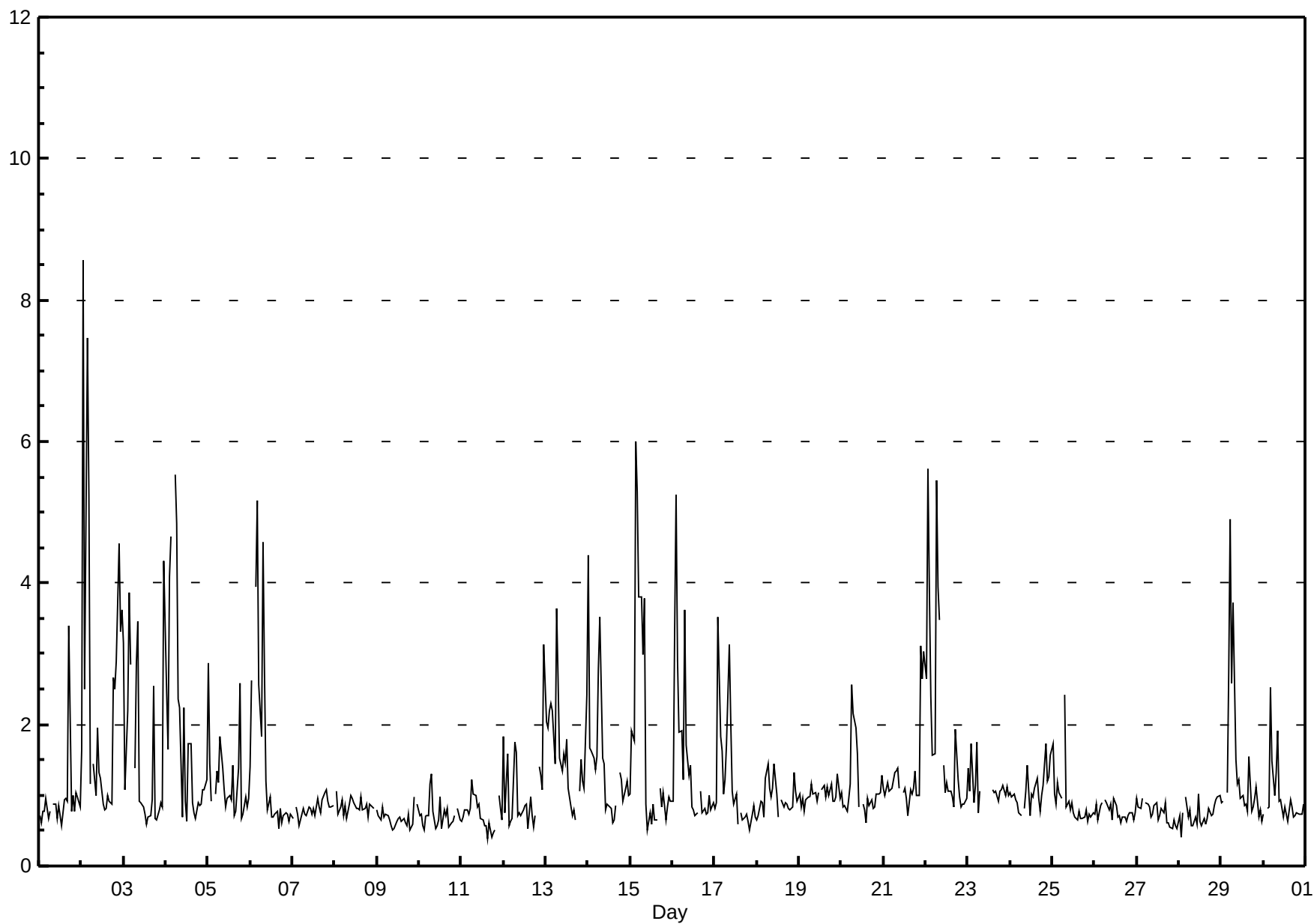
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - September 2014

Maximum Value: 8.6 ppb on Sep 2 02:00																				Maximum Daily Average: 2.5 ppb on Sep 2					Hours in Service: 720	
Minimum Value: 0 ppb on Sep 11 16:00																				Minimum Daily Average: 0.7 ppb on Sep 9					Hours of Data: 684	
Maximum Diurnal Average: 1.9 ppb at hour 8																				Minimum Diurnal Average: 0.8 ppb at hour 14					Hours of Missing Data: 36	
Monthly Average: 1.22 ppb																				Percentiles: P ₁ = 0.5 P ₁₀ = 0.6 Q ₁ = 0.7 Median = 0.9 Q ₃ = 1.2 P ₉₀ = 2.3 P ₉₉ = 5.2					Hours of Calibration: 36	
																									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	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	0.9	3.4
2-Sep	2	9	3	7	5	1	A	1	1	2	1	1	1	1	1	1	1	1	3	2	3	5	3	4	2.5	8.6
3-Sep	3	1	2	4	3	A	1	3	3	1	1	1	1	1	1	1	1	3	1	1	1	1	1	4	1.6	4.3
4-Sep	2	2	4	5	A	6	5	2	2	1	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1.9	5.5
5-Sep	3	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1.2	2.9
6-Sep	1	3	A	4	5	3	2	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.6	5.2
7-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	1.1
8-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
9-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
10-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	A	1	0.7	1.3
11-Sep	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	A	1	1	1	0.7	1.2
12-Sep	2	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	3	1.1	3.1
13-Sep	2	2	2	2	2	1	4	3	2	1	2	1	2	1	1	1	1	1	A	1	2	1	1	2	1.6	3.6
14-Sep	4	2	2	2	1	2	3	4	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.5	4.4
15-Sep	1	2	2	6	5	4	4	3	4	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.8	6.0
16-Sep	1	3	5	3	2	2	1	4	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.5	5.2
17-Sep	1	1	4	2	2	1	1	2	3	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.2	3.5
18-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	1.5
19-Sep	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
20-Sep	1	1	1	1	1	1	3	2	2	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.6
21-Sep	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	3	3	3	1.3	3.1
22-Sep	3	6	4	2	2	2	5	4	3	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	2.0	5.6
23-Sep	1	1	2	1	1	2	1	1	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1.1	1.8
24-Sep	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1.1	1.7
25-Sep	2	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.4
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	0.8	0.9
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	0	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
29-Sep	1	1	A	1	3	5	3	4	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.4	4.9
30-Sep	1	A	1	1	3	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.5
1.4 1.6 1.6 1.9 1.7 1.5 1.7 1.9 1.5 1.0 1.0 0.9 0.9 0.8 0.8 0.8 0.8 1.0 1.0 0.9 1.0 1.1 1.1 1.3																									Diurnal Average	
4.4 8.6 5.2 7.5 5.3 5.5 5.4 4.6 3.8 2.0 2.2 1.5 1.8 1.7 1.7 1.2 1.5 3.4 2.7 2.5 2.9 4.5 3.3 4.3																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

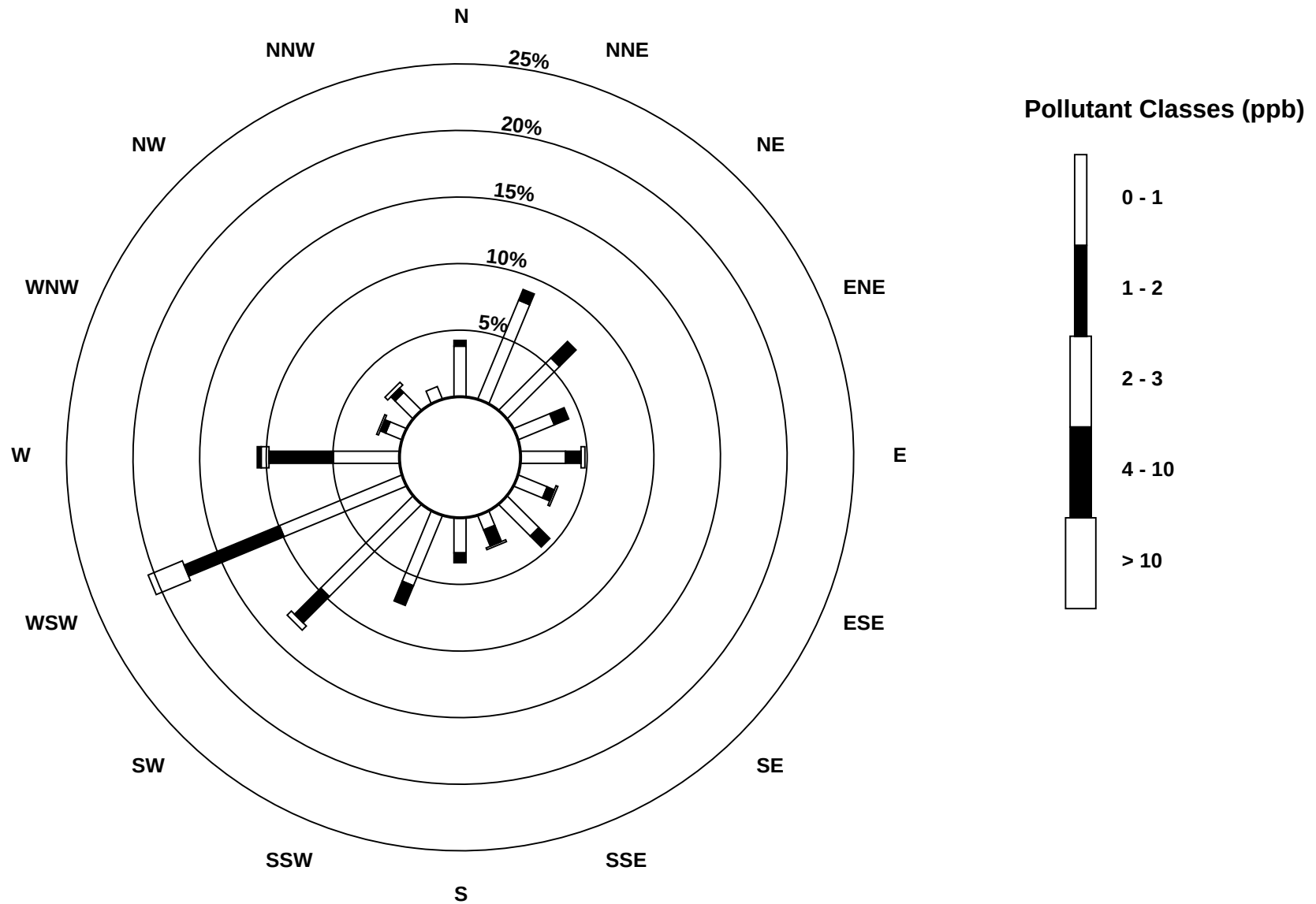
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Portable Clairmont - September 2014



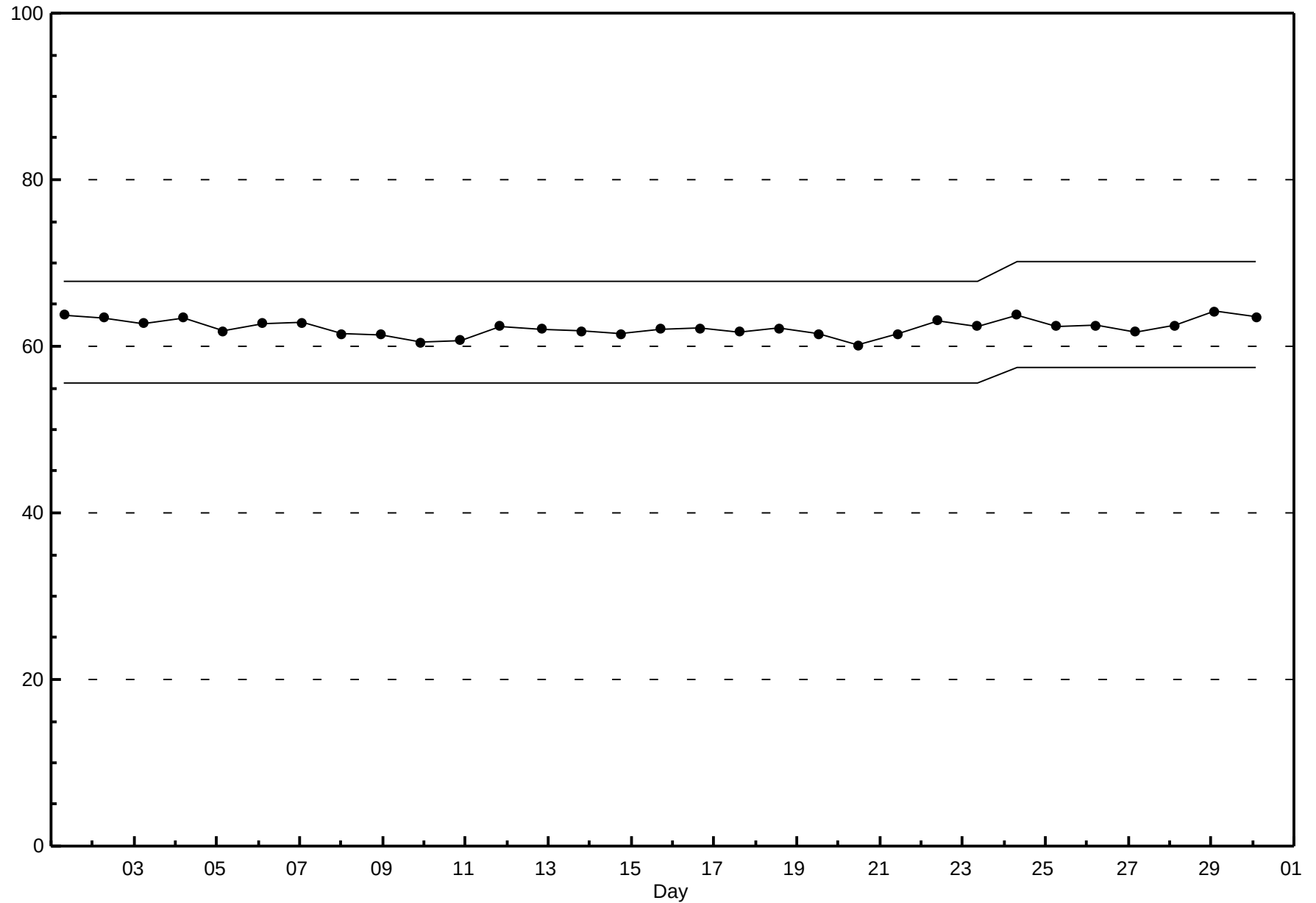
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Portable Clairmont - September 2014



Span Responses

Total Reduced Sulphur (TRS)
Portable Clairmont - September 2014



Hourly Averages

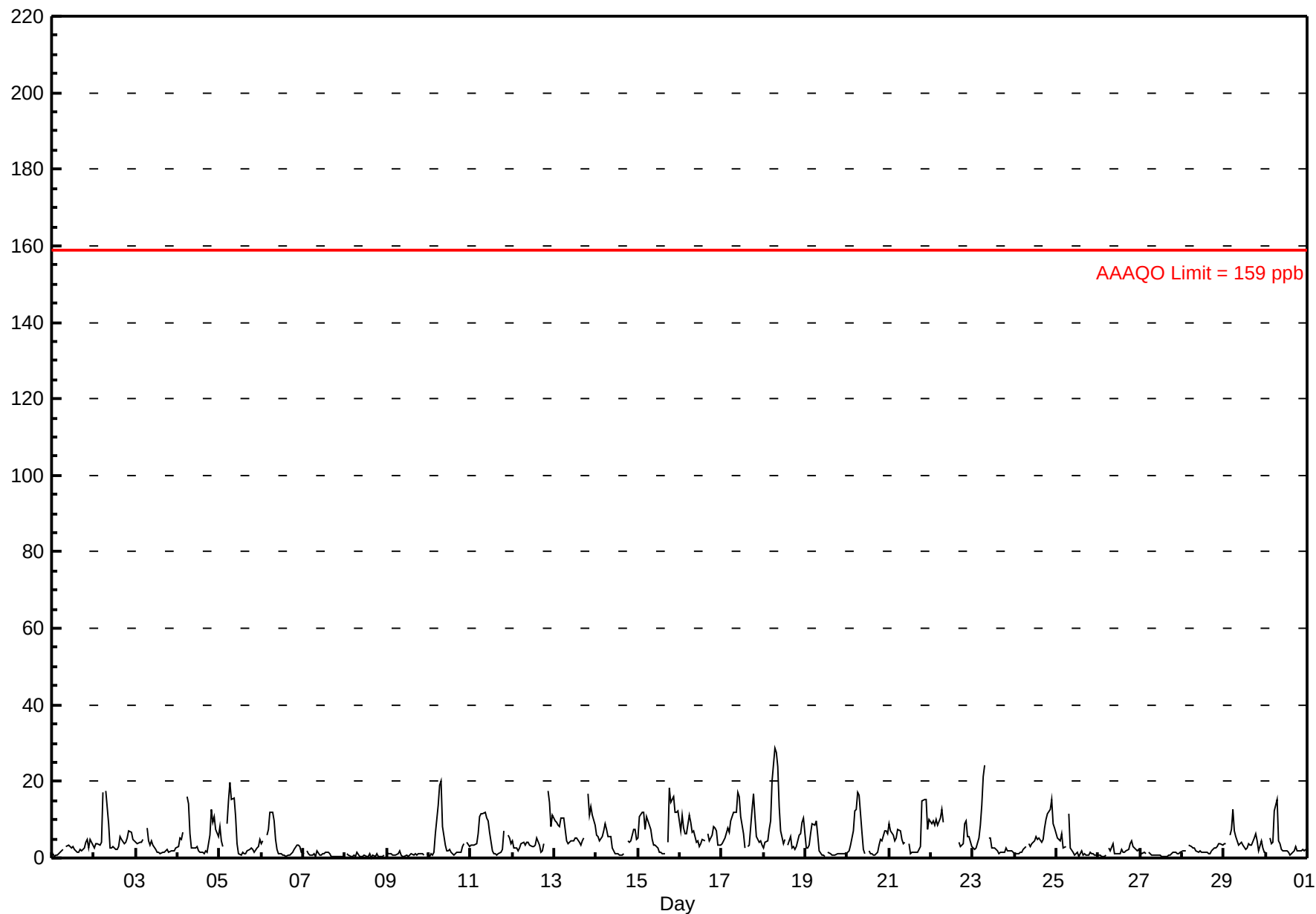
Nitrogen Dioxide (NO₂) - ppb

Portable Clairmont - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 28.6 ppb on Sep 18 07:00 Maximum Daily Average: 9.1 ppb on Sep 18																				Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 8 16:00 Maximum Diurnal Average: 9.4 ppb at hour 7 Monthly Average: 4.44 ppb										Minimum Daily Average: 0.6 ppb on Sep 8 Minimum Diurnal Average: 1.8 ppb at hour 16 Percentiles: P ₁ = 0.3 P ₁₀ = 0.8 Q ₁ = 1.4 Median = 3.0 Q ₃ = 5.8 P ₉₀ = 10.7 P ₉₉ = 19.9																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Sep	1	1	1	1	1	2	2	A	3	3	3	3	3	2	1	1	2	2	3	4	5	3	5	3	2.4	5.0
2-Sep	2	4	4	3	4	17	A	18	9	3	2	3	2	2	3	5	5	4	4	5	7	7	5	5	5.3	17.6
3-Sep	4	4	4	4	5	A	8	5	3	5	3	2	1	2	1	2	2	2	2	2	2	2	2	3	2.9	8.0
4-Sep	3	5	5	7	A	16	14	6	3	2	3	3	2	1	2	1	2	1	6	13	9	11	8	6	5.6	16.2
5-Sep	8	4	3	A	9	15	20	15	16	11	4	1	1	1	1	1	2	2	2	2	2	3	3	5	5.7	19.9
6-Sep	4	5	A	6	8	12	12	10	5	2	1	1	1	1	1	1	1	1	1	2	3	3	3	1	3.7	11.8
7-Sep	1	A	2	1	1	1	1	0	2	1	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0.9	1.9
8-Sep	A	1	1	1	0	1	1	1	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	A	0.6	1.4
9-Sep	1	1	1	1	1	1	1	2	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7
10-Sep	1	1	1	1	6	14	19	20	8	3	2	2	2	1	1	1	2	2	2	3	4	A	4	3	4.4	20.3
11-Sep	3	4	3	4	6	11	11	12	12	11	10	7	2	1	1	1	1	2	2	7	A	6	5	4	5.4	12.0
12-Sep	4	2	3	2	3	4	4	3	4	4	3	3	3	3	5	3	2	2	4	A	17	15	8	11	4.9	17.5
13-Sep	10	9	9	8	10	11	7	5	4	4	4	4	5	5	4	3	5	5	A	17	11	14	11	9	7.6	16.9
14-Sep	6	6	5	5	7	9	7	6	5	3	2	1	1	1	1	1	1	A	5	4	5	7	7	5	4.3	8.9
15-Sep	5	11	12	12	8	11	9	7	5	3	3	3	1	1	1	1	A	4	18	14	16	12	12	12	7.9	18.4
16-Sep	7	11	8	6	6	11	9	7	7	4	4	3	4	5	5	A	6	4	6	8	8	7	3	4	6.3	11.3
17-Sep	4	4	5	8	7	10	11	12	12	17	16	11	6	3	A	3	3	13	17	11	6	4	4	3	8.2	17.3
18-Sep	3	4	5	8	10	20	29	28	24	13	7	4	5	A	3	5	3	3	2	3	6	6	9	10	9.1	28.6
19-Sep	3	2	3	6	9	9	10	6	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2.8	9.6
20-Sep	1	2	3	7	12	13	17	16	7	2	1	A	2	1	1	1	1	2	3	5	4	7	7	6	5.3	17.0
21-Sep	9	7	6	5	5	8	7	5	4	4	A	4	1	2	2	1	1	2	3	15	15	15	7	10	6.0	15.1
22-Sep	9	10	9	10	9	10	13	9	C	C	C	C	C	C	C	C	C	4	3	4	9	10	6	3	--	12.7
23-Sep	3	2	2	5	9	14	21	24	A	5	5	3	3	2	2	1	1	1	1	3	2	2	2	1	5.0	24.2
24-Sep	1	1	1	1	2	2	3	A	4	3	4	5	6	5	5	4	5	8	10	11	13	15	9	8	5.5	15.4
25-Sep	5	5	5	6	3	3	A	12	2	2	1	1	1	0	2	1	1	1	1	1	1	1	1	1	2.5	11.6
26-Sep	1	1	0	1	1	A	3	2	4	1	1	1	1	2	2	2	2	2	4	4	3	2	2	2	1.8	4.3
27-Sep	1	1	2	1	A	2	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1.0	1.6
28-Sep	2	2	2	A	3	3	3	2	2	1	2	1	2	1	1	1	1	2	3	3	3	4	4	3	2.2	3.6
29-Sep	4	4	A	6	7	13	7	5	4	4	4	4	2	3	4	3	3	5	6	5	2	4	3	2	4.5	12.6
30-Sep	2	A	5	4	4	12	15	5	4	2	2	2	2	1	1	1	2	3	2	2	2	2	2	2	3.4	15.3
3.8 4.1 3.9 4.7 5.5 9.0 9.4 8.7 5.5 4.0 3.3 2.7 2.2 1.9 1.9 1.8 2.1 2.7 4.0 5.4 5.5 5.6 4.6 4.4																								Diurnal Average		
9.7 11.0 12.0 12.0 12.2 20.0 28.6 27.5 23.9 17.3 16.2 10.8 6.3 5.1 5.3 5.5 6.3 12.6 18.4 16.9 17.5 15.4 12.0 12.4																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Portable Clairmont - September 2014



Hourly Maximums

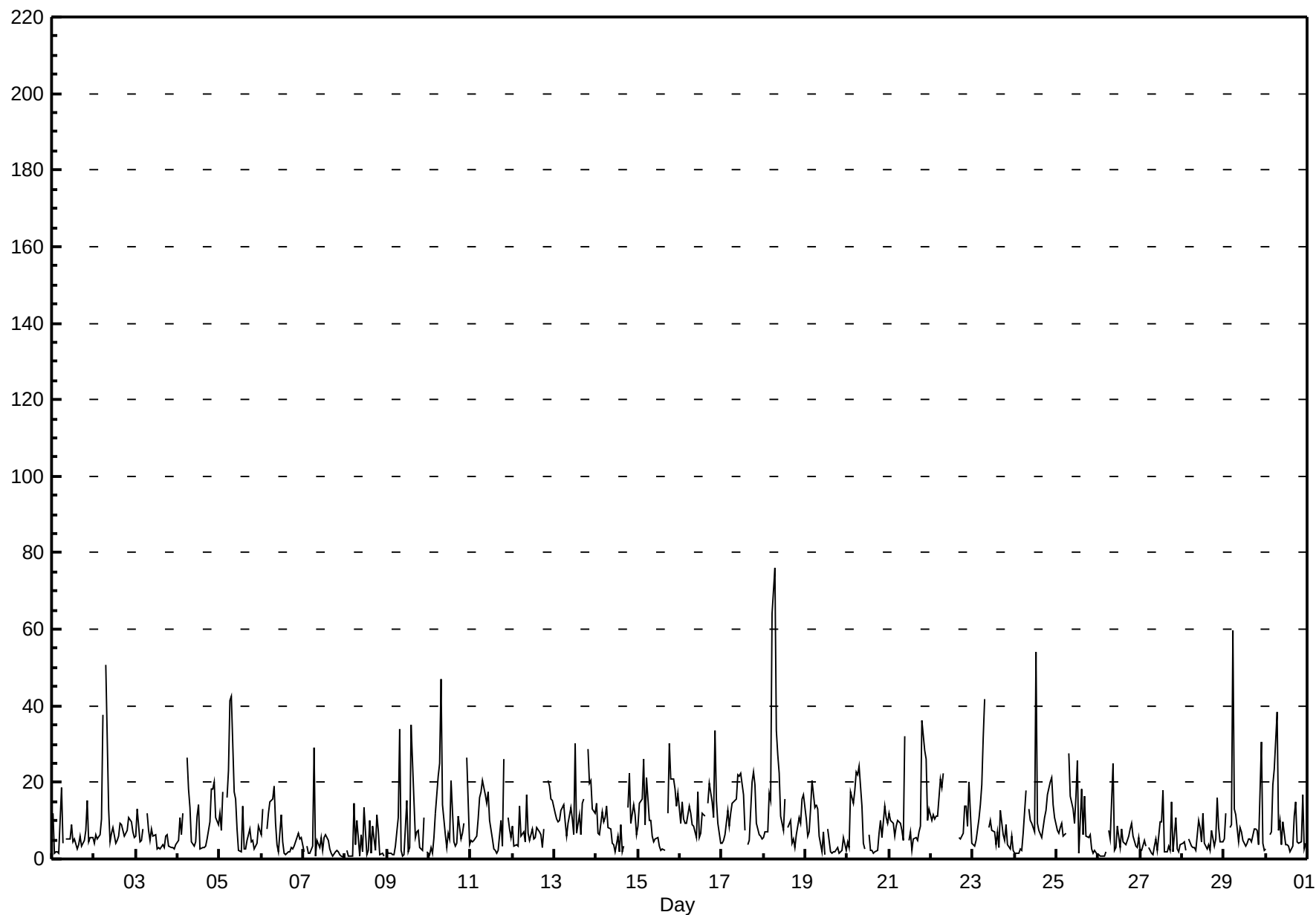
Nitrogen Dioxide (NO₂) - ppb

Portable Clairmont - September 2014

Maximum Value: 76.0 ppb on Sep 18 07:00																								Hours in Service: 720		
Maximum Daily Average: 17.4 ppb on Sep 18																								Hours of Data: 682		
Minimum Value: 1 ppb on Sep 8 00:00																								Hours of Missing Data: 38		
Maximum Diurnal Average: 18.3 ppb at hour 6																								Hours of Calibration: 38		
Monthly Average: 9.17 ppb																								Percent Operational Time: 100.0		
Minimum Daily Average: 3.8 ppb on Sep 7																										
Minimum Diurnal Average: 4.3 ppb at hour 16																										
Percentiles: P ₁ = 0.8 P ₁₀ = 2.0 Q ₁ = 3.5 Median = 6.5 Q ₃ = 12.0 P ₉₀ = 19.0 P ₉₉ = 41.2																										
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	12	1	2	2	2	19	4	A	5	5	5	9	4	5	3	4	6	4	5	7	15	4	6	5	5.9	18.6
2-Sep	4	6	5	6	10	38	A	51	13	4	7	8	4	5	6	9	9	6	7	7	11	10	7	6	10.4	50.8
3-Sep	6	13	5	5	8	A	12	7	5	8	6	6	2	3	3	4	3	6	6	3	3	3	3	4	5.4	12.9
4-Sep	5	11	6	12	A	26	18	13	4	4	4	11	14	3	3	3	3	5	10	18	18	20	11	9	10.1	26.4
5-Sep	12	7	17	A	16	23	41	43	18	16	8	2	2	14	3	3	5	8	4	5	3	4	9	7	11.7	42.6
6-Sep	7	13	A	8	12	15	16	19	9	4	2	12	4	1	1	2	2	3	3	3	5	7	5	5	6.8	19.0
7-Sep	2	A	3	1	2	3	29	1	5	3	6	2	6	6	5	3	1	1	2	2	2	1	1	1	3.8	29.2
8-Sep	A	2	1	1	1	15	4	10	1	6	2	13	1	2	10	1	8	2	11	8	1	2	1	A	4.7	14.5
9-Sep	2	2	1	1	1	3	11	34	2	1	1	15	2	3	35	15	6	7	7	3	2	11	A	2	7.3	35.1
10-Sep	1	3	2	6	12	22	25	47	14	6	3	7	5	21	4	3	4	11	5	7	9	A	26	4	10.7	46.9
11-Sep	5	5	5	6	11	16	17	20	17	15	17	10	5	2	2	1	2	10	3	26	A	11	8	6	9.6	26.0
12-Sep	8	3	4	4	14	6	7	5	17	7	5	8	5	5	8	7	6	3	8	A	21	19	16	15	8.7	20.6
13-Sep	12	10	10	10	13	14	10	6	9	13	11	6	30	7	12	6	15	16	A	29	20	20	13	12	13.2	30.3
14-Sep	14	7	6	12	10	11	14	8	8	4	4	2	6	2	9	2	3	A	14	22	9	14	12	6	8.6	22.2
15-Sep	9	15	16	26	9	21	10	10	6	5	5	5	3	2	2	2	A	12	30	21	21	18	14	17	12.2	30.2
16-Sep	9	15	10	9	9	14	12	9	8	6	18	6	7	12	11	A	14	20	15	11	34	15	9	4	12.1	33.5
17-Sep	4	5	6	12	9	12	14	15	16	22	22	23	17	8	A	4	5	20	23	19	9	6	6	5	12.2	22.9
18-Sep	5	7	7	17	15	64	76	33	27	22	11	7	16	A	8	10	4	5	3	6	11	9	16	17	17.4	76.0
19-Sep	10	6	7	13	21	13	14	13	6	2	7	1	A	8	2	2	2	2	3	1	2	2	6	2	6.3	20.7
20-Sep	5	3	18	15	18	23	22	24	14	4	3	A	6	2	2	2	2	2	7	10	6	14	11	9	9.6	24.4
21-Sep	12	10	9	6	8	10	9	7	5	32	A	5	7	2	5	6	5	7	9	36	28	26	10	13	11.7	36.2
22-Sep	10	12	11	11	11	21	19	22	C	C	C	C	C	C	C	C	6	5	7	14	14	9	20	4	--	22.4
23-Sep	4	3	5	10	14	19	32	42	A	8	10	7	7	4	7	3	13	6	5	9	4	3	6	2	9.7	41.9
24-Sep	1	1	2	3	2	7	18	A	13	10	9	7	54	9	7	6	8	11	13	17	20	21	14	11	11.5	53.9
25-Sep	8	7	8	9	6	7	A	27	16	13	9	16	26	2	18	6	16	6	6	6	3	1	2	1	9.6	27.4
26-Sep	1	1	1	1	2	A	7	5	25	2	3	9	3	8	4	4	4	6	8	9	6	3	3	6	5.3	25.1
27-Sep	2	2	5	3	A	3	1	1	3	5	2	10	10	18	2	2	3	2	15	2	11	2	2	4	4.9	18.0
28-Sep	4	4	2	A	5	3	3	3	2	10	8	5	12	4	3	4	2	7	3	5	16	8	5	4	5.4	16.0
29-Sep	5	12	A	8	9	60	13	11	5	8	7	5	3	4	5	5	5	8	8	7	4	31	4	2	10.0	59.5
30-Sep	3	A	6	7	19	23	38	7	10	4	10	4	4	3	2	3	11	15	5	4	4	17	3	4	9.0	38.3
6.3 6.7 6.4 8.1 9.5 18.3 17.8 17.7 10.1 8.6 7.3 7.9 9.5 5.9 6.6 4.3 6.0 7.4 8.4 11.0 10.7 10.8 8.5 6.5																								Diurnal Average		
14.4 15.1 17.6 26.3 20.7 64.1 76.0 50.8 27.4 31.9 21.6 22.5 53.9 20.5 35.1 15.3 16.4 20.0 30.2 36.2 33.5 30.6 26.4 17.1																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

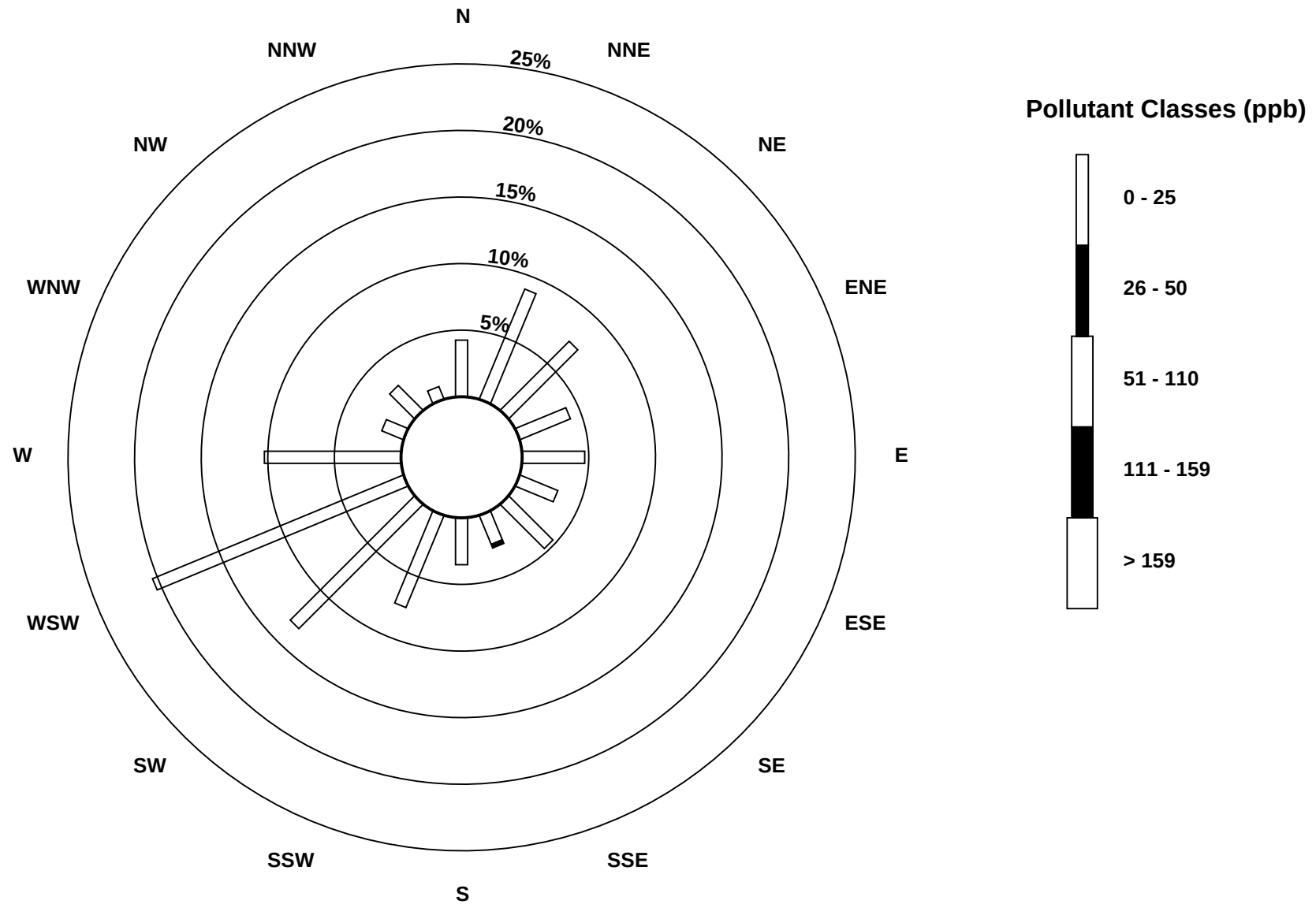
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Portable Clairmont - September 2014



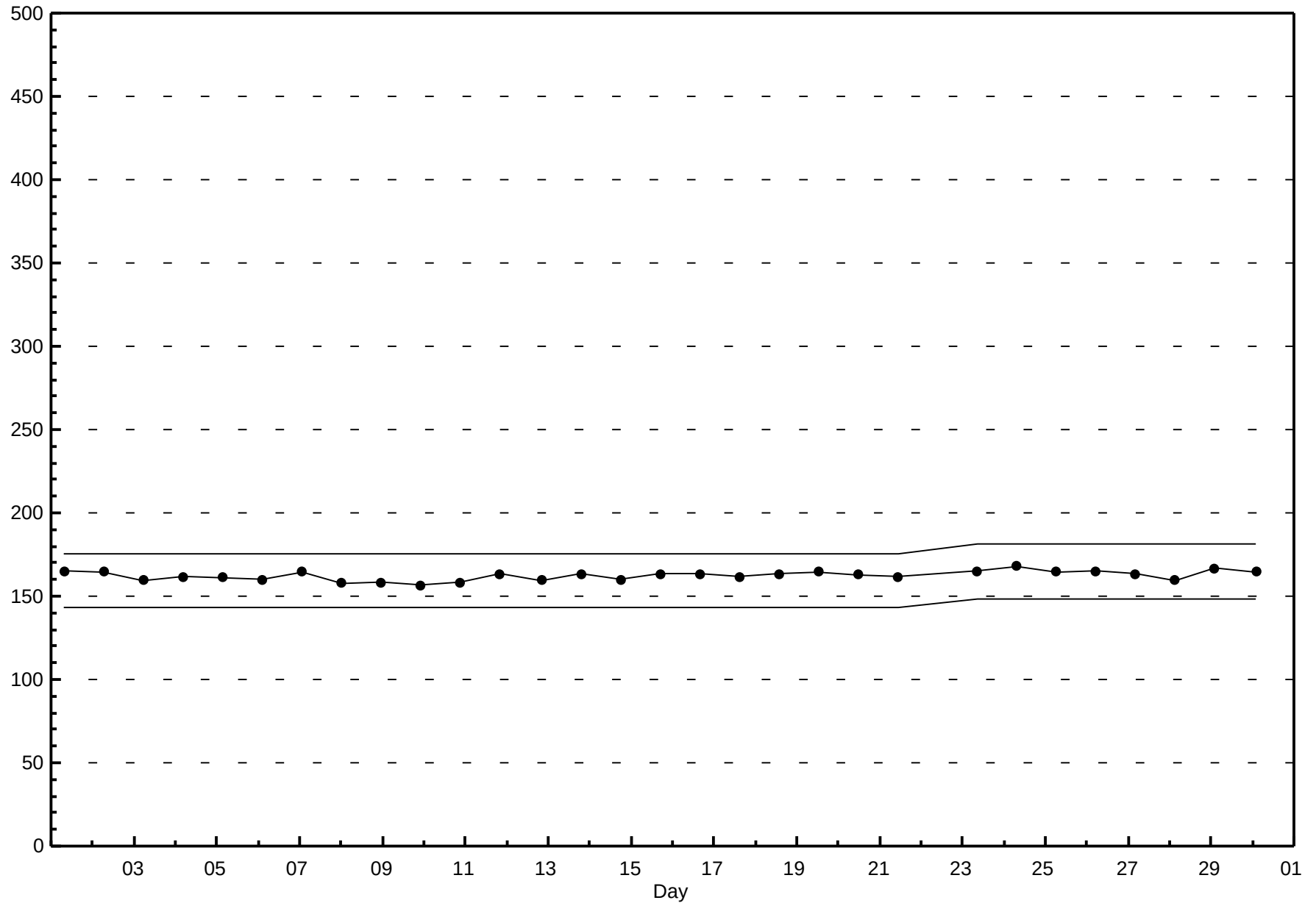
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Portable Clairmont - September 2014



Span Responses

Nitrogen Dioxide (NO₂)
Portable Clairmont - September 2014



Hourly Averages

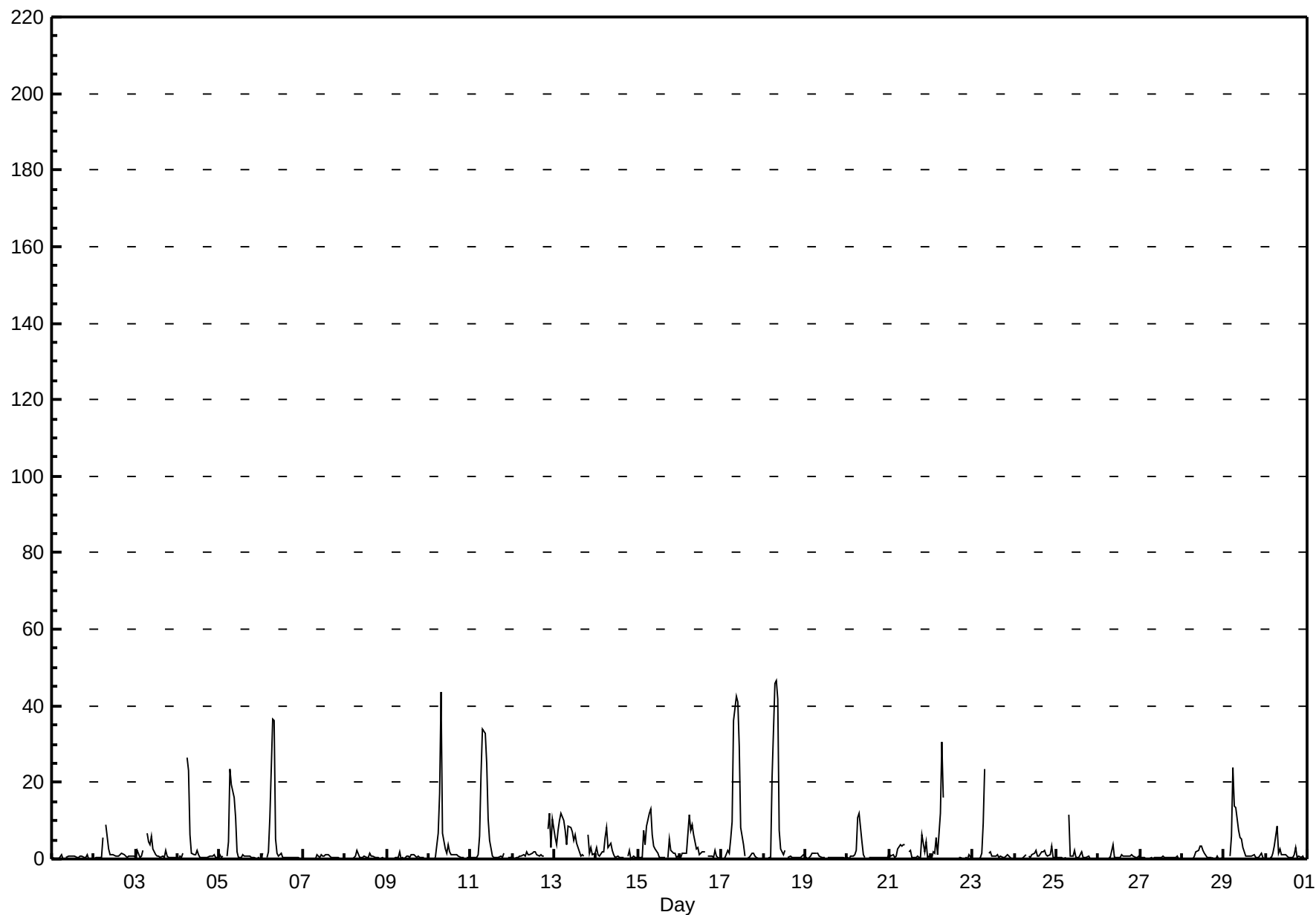
Nitrogen Oxide (NO) - ppb

Portable Clairmont - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 46.6 ppb on Sep 18 08:00 Maximum Daily Average: 8.1 ppb on Sep 17																								Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0		
Minimum Value: 0 ppb on Sep 7 03:00 Minimum Daily Average: 0.3 ppb on Sep 27 Maximum Diurnal Average: 12.6 ppb at hour 8 Minimum Diurnal Average: 0.4 ppb at hour 23 Monthly Average: 2.51 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.3 Median = 0.6 Q ₃ = 1.5 P ₉₀ = 6.3 P ₉₉ = 35.2																										
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	0	0	0	0	0	1	0	A	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	0	0.4	1.1
2-Sep	0	0	0	0	0	6	A	9	3	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.4	9.0
3-Sep	1	2	1	1	2	A	7	4	4	6	3	1	1	1	1	1	2	1	1	0	0	0	0	0	1.7	6.7
4-Sep	0	1	0	1	A	27	23	6	2	1	1	2	1	0	0	0	0	0	1	1	1	1	0	0	3.1	26.5
5-Sep	1	0	1	A	1	5	23	19	16	11	2	0	0	1	1	1	1	1	0	0	0	0	0	0	3.7	23.3
6-Sep	0	1	A	0	2	11	37	36	5	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	4.3	36.6
7-Sep	0	A	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.4	1.3
8-Sep	A	0	0	0	0	0	1	2	1	0	1	1	0	0	2	1	1	0	0	0	0	0	0	A	0.5	2.3
9-Sep	0	0	0	0	0	0	0	2	0	0	0	1	1	0	1	1	1	0	1	0	0	0	A	0	0.4	2.1
10-Sep	0	0	0	0	0	7	17	44	7	3	1	4	2	1	1	1	1	1	0	1	0	A	0	0	4.0	43.5
11-Sep	0	0	0	0	1	6	22	34	33	25	11	5	1	0	0	0	0	1	0	2	A	0	0	0	6.3	34.1
12-Sep	1	0	0	0	1	1	1	1	2	1	1	1	2	2	1	1	1	1	1	A	8	12	3	10	2.2	11.8
13-Sep	6	4	7	10	12	10	8	4	9	8	7	5	6	4	2	1	1	1	A	6	1	3	1	2	5.1	11.9
14-Sep	3	1	1	2	2	5	8	3	4	2	1	1	1	0	0	0	0	A	1	2	0	1	0	0	1.7	8.3
15-Sep	0	0	0	7	4	9	12	13	6	3	3	1	0	0	0	0	A	0	5	2	1	2	1	1	3.2	13.1
16-Sep	0	2	1	2	2	12	7	9	6	2	3	1	1	2	2	A	1	1	1	0	2	1	0	0	2.5	11.6
17-Sep	0	0	0	2	1	5	10	36	42	41	29	8	4	1	A	0	0	2	1	1	0	0	0	0	8.1	42.4
18-Sep	0	0	0	0	1	21	46	47	42	7	3	1	2	A	0	1	0	0	0	0	0	0	1	1	7.6	46.6
19-Sep	0	0	0	1	2	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.5	1.5
20-Sep	0	0	1	1	1	2	11	12	4	1	0	A	1	0	0	0	0	0	0	0	0	1	0	0	1.7	12.1
21-Sep	1	1	1	0	1	3	4	3	4	4	A	2	2	0	0	0	1	0	0	6	2	4	0	1	1.8	6.3
22-Sep	0	2	1	6	1	12	31	16	C	C	C	C	C	C	C	C	0	0	0	0	0	0	1	0	--	30.7
23-Sep	0	0	0	0	0	1	9	23	A	1	2	1	1	1	1	0	1	0	0	1	1	0	0	0	2.0	23.4
24-Sep	0	0	0	0	0	0	1	A	1	0	1	1	2	1	1	2	2	2	1	1	1	3	1	0	1.0	3.3
25-Sep	0	0	0	0	0	0	A	12	1	1	2	1	0	1	2	0	0	0	1	0	0	0	0	0	1.0	11.6
26-Sep	0	0	0	0	0	A	1	0	4	0	0	0	0	1	1	1	1	1	1	1	1	0	0	1	0.6	3.7
27-Sep	0	0	0	0	A	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	1	0	0	0.3	0.7
28-Sep	0	0	0	A	0	0	0	1	2	2	3	3	2	1	0	0	0	0	0	0	1	0	0	0	0.8	3.3
29-Sep	0	0	A	1	6	24	14	13	7	6	5	3	1	1	1	1	1	1	1	0	0	2	0	0	3.8	23.9
30-Sep	0	A	0	0	1	3	8	1	2	1	1	1	1	1	0	0	1	3	1	1	0	1	0	0	1.3	8.5
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Portable Clairmont - September 2014



Hourly Maximums

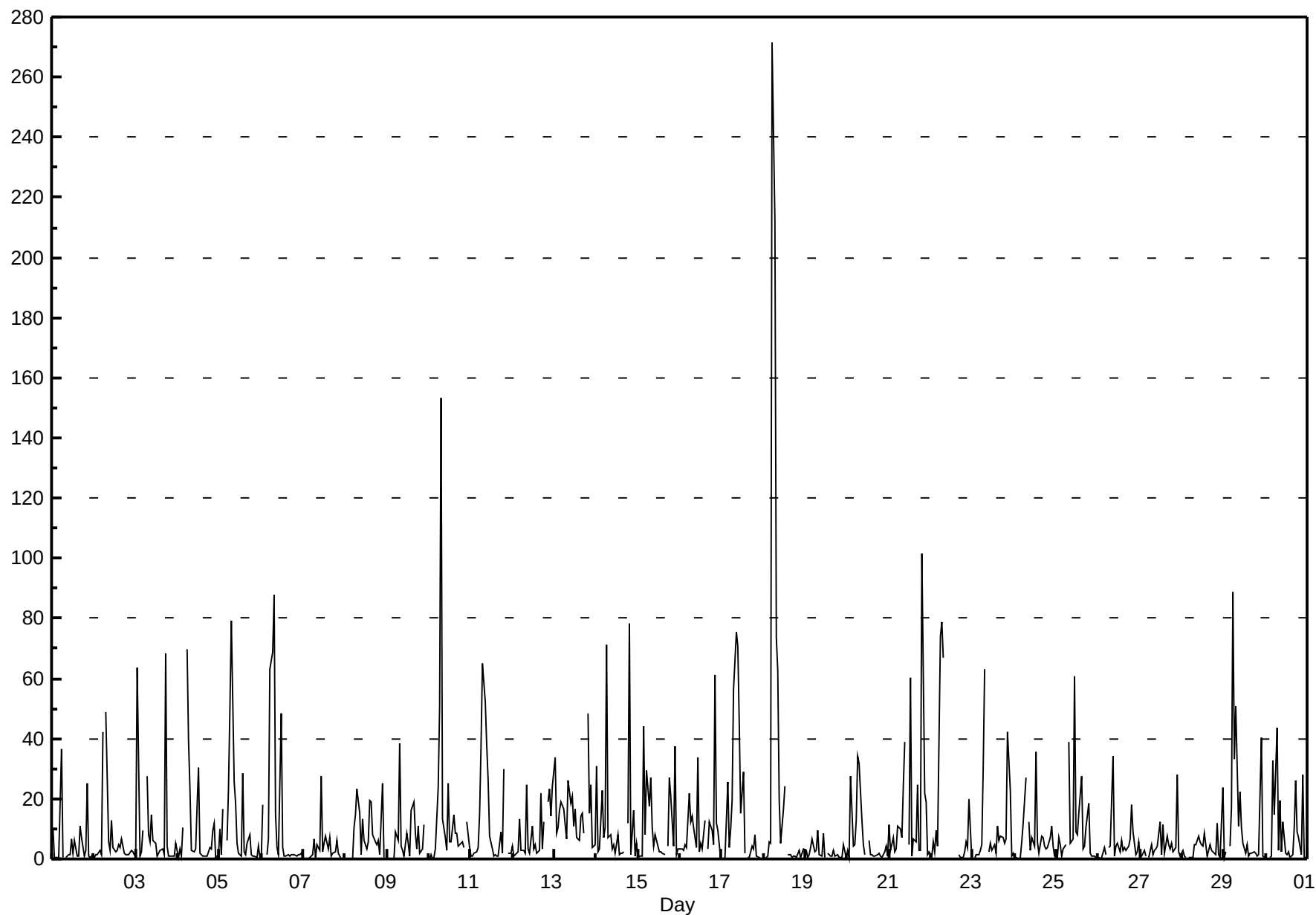
Nitrogen Oxide (NO) - ppb

Portable Clairmont - September 2014

Maximum Value: 271.6 ppb on Sep 18 06:00																				Maximum Daily Average: 31.0 ppb on Sep 18										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 23 02:00																				Minimum Daily Average: 2.5 ppb on Sep 19										Hours of Data: 682	
Maximum Diurnal Average: 35.6 ppb at hour 8																				Minimum Diurnal Average: 3.3 ppb at hour 24										Hours of Missing Data: 38	
Monthly Average: 10.69 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.6 Q ₁ = 1.4 Median = 3.7 Q ₃ = 10.6 P ₉₀ = 27.4 P ₉₉ = 76.5										Hours of Calibration: 38	
																														Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Sep	10	0	0	0	0	37	1	A	1	2	1	7	2	6	1	1	11	7	1	3	25	1	0	2	5.1	36.7					
2-Sep	0	1	2	3	2	42	A	49	6	3	13	4	3	3	5	4	7	2	1	1	1	3	2	1	6.8	48.9					
3-Sep	3	63	1	2	10	A	28	8	6	15	6	5	1	2	3	3	1	68	4	1	1	1	1	5	10.3	68.2					
4-Sep	0	3	1	10	A	70	39	23	3	2	3	18	30	2	1	1	1	1	4	3	9	12	1	2	10.4	69.8					
5-Sep	10	1	17	A	6	23	50	79	26	18	5	2	1	29	2	2	5	8	1	1	1	1	4	1	12.8	79.2					
6-Sep	1	18	A	1	7	63	69	88	15	4	2	48	4	1	1	1	1	1	1	1	1	1	2	2	14.4	87.7					
7-Sep	0	A	0	0	0	1	7	0	5	3	28	2	5	7	3	7	1	2	3	6	2	1	0	0	3.7	27.7					
8-Sep	A	0	0	0	0	10	15	23	15	2	13	6	3	6	20	19	8	6	5	6	2	25	0	A	8.4	25.0					
9-Sep	0	0	0	0	0	9	6	38	4	3	1	8	5	1	16	19	8	3	11	2	3	11	A	0	6.6	38.3					
10-Sep	0	1	0	0	3	24	51	153	13	7	3	25	6	6	15	8	9	4	5	6	4	A	12	4	15.7	153.4					
11-Sep	1	1	2	2	4	15	37	65	52	38	26	8	3	1	1	1	1	9	2	30	A	2	2	2	13.2	65.1					
12-Sep	4	1	2	2	13	3	3	2	25	3	2	11	3	5	2	3	22	3	12	A	19	23	14	24	8.8	24.9					
13-Sep	34	9	11	16	19	17	11	7	26	18	21	11	16	7	6	14	15	9	A	48	15	25	4	5	15.8	48.3					
14-Sep	31	2	3	23	7	11	71	7	8	3	5	2	8	1	2	2	2	A	12	78	1	16	1	5	13.1	78.2					
15-Sep	1	1	1	44	8	29	17	27	11	4	8	4	3	2	2	1	A	4	27	21	4	37	2	3	11.4	44.0					
16-Sep	3	3	3	5	4	22	12	14	10	4	34	2	5	3	13	A	3	12	10	5	61	12	9	0	10.9	61.1					
17-Sep	0	0	1	26	4	10	19	57	75	71	45	15	29	2	A	1	1	4	3	8	1	0	0	0	16.2	75.3					
18-Sep	0	0	1	6	5	272	212	74	62	20	5	17	24	A	2	2	1	1	1	1	3	1	2	3	31.0	271.6					
19-Sep	3	0	1	4	7	3	3	10	2	1	9	1	A	2	1	1	3	1	1	0	0	0	5	0	2.5	9.6					
20-Sep	3	0	28	4	5	13	34	32	13	5	1	A	6	1	1	1	1	1	2	1	0	2	4	1	7.0	34.2					
21-Sep	11	3	7	2	4	11	10	7	24	39	A	5	60	1	7	6	25	3	3	102	22	19	1	2	16.2	101.7					
22-Sep	1	6	2	9	4	74	79	67	C	C	C	C	C	C	C	C	2	1	0	2	6	4	20	0	--	78.9					
23-Sep	0	0	2	1	3	5	31	63	A	2	5	3	5	2	11	6	7	7	5	7	42	23	1	2	10.1	63.1					
24-Sep	0	0	0	0	6	12	27	A	12	3	7	4	36	5	2	7	7	4	3	4	7	11	4	1	7.2	35.8					
25-Sep	1	7	5	1	3	5	A	39	5	7	61	9	8	15	27	3	4	10	18	2	1	1	1	0	10.1	60.7					
26-Sep	0	0	0	4	1	A	4	4	34	1	4	5	2	6	3	4	3	4	7	18	9	1	3	6	5.4	34.2					
27-Sep	1	1	3	1	A	0	5	1	3	3	4	12	1	11	2	8	5	3	5	2	4	28	2	1	4.7	27.8					
28-Sep	3	1	0	A	1	0	1	5	5	8	6	5	4	9	1	3	5	3	2	1	12	2	0	24	4.3	23.6					
29-Sep	1	2	A	4	17	89	33	51	11	22	10	5	2	5	1	2	2	2	2	1	1	40	1	0	13.3	88.6					
30-Sep	1	A	1	1	33	15	44	3	19	2	12	2	2	2	1	1	10	26	9	7	1	28	0	0	9.6	43.8					
4.2 4.6 3.4 6.2 6.3 31.6 32.8 35.6 17.5 10.8 12.2 8.8 10.0 5.1 5.4 4.7 5.9 7.3 5.5 12.7 8.9 11.4 3.4 3.3																									Diurnal Average						
33.6 63.4 27.7 44.0 32.7 271.6 212.4 153.4 75.3 70.9 60.7 48.4 60.3 28.6 27.3 19.1 24.5 68.2 26.9 101.7 61.1 40.4 19.8 24.1																									Diurnal Maximum						
C - Calibration A - Automated Daily Zero Span																															

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Portable Clairmont - September 2014



Hourly Averages

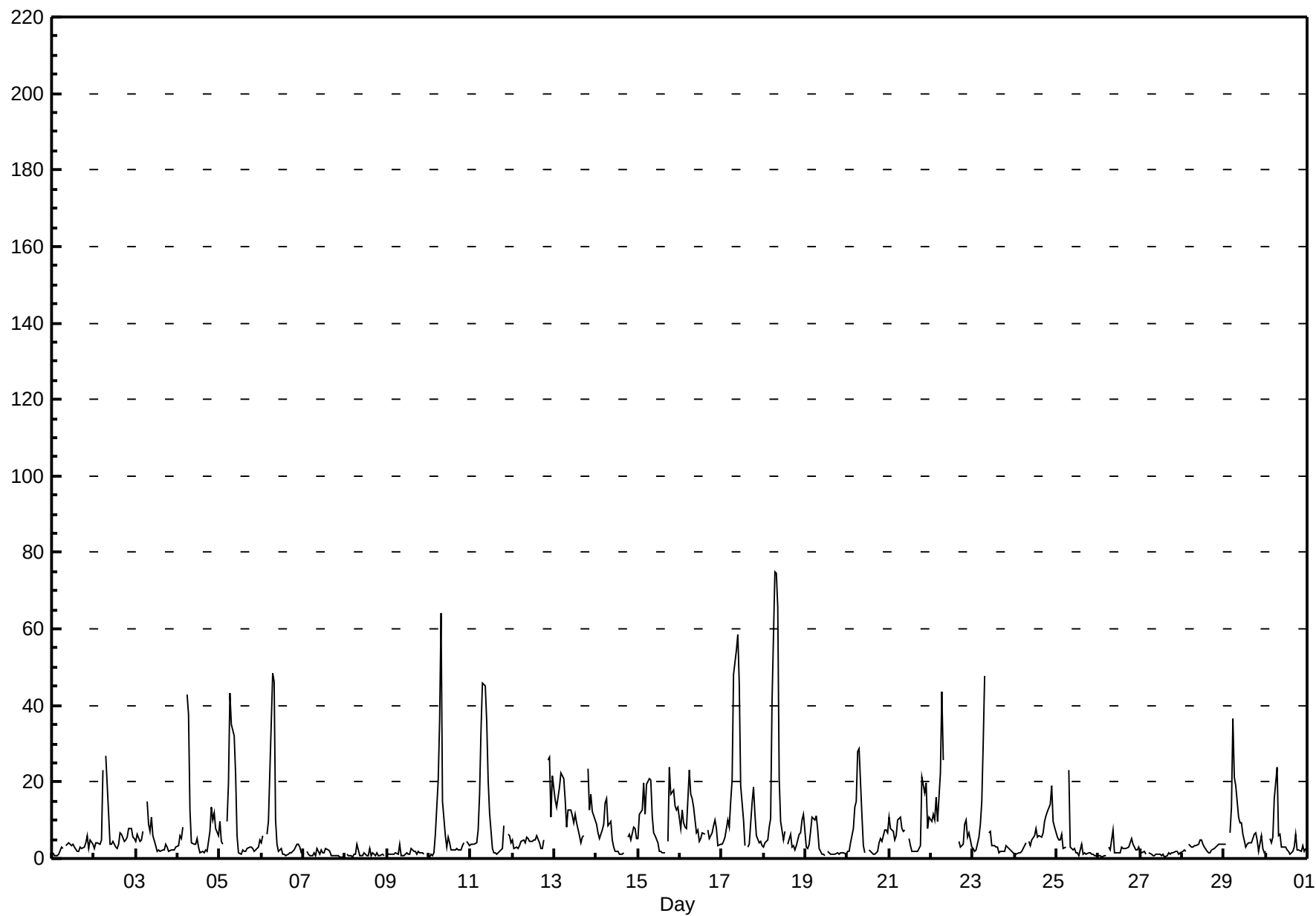
Oxides of Nitrogen (NO_x) - ppb

Portable Clairmont - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 75.1 ppb on Sep 18 07:00 Maximum Daily Average: 16.8 ppb on Sep 18																				Hours in Service: 720 Hours of Data: 682 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Sep 8 00:00 Maximum Diurnal Average: 21.4 ppb at hour 8 Monthly Average: 6.97 ppb										Minimum Daily Average: 1.1 ppb on Sep 8 Minimum Diurnal Average: 2.4 ppb at hour 16 Percentiles: P ₁ = 0.6 P ₁₀ = 1.1 Q ₁ = 1.8 Median = 3.7 Q ₃ = 7.7 P ₉₀ = 15.9 P ₉₉ = 46.5																
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	1	1	1	1	1	3	2	A	3	4	4	3	4	3	2	2	3	3	3	4	6	3	5	4	2.8	6.1
2-Sep	3	4	4	4	5	23	A	27	12	4	4	4	3	3	4	7	6	5	5	6	8	8	6	5	6.8	26.8
3-Sep	5	6	4	5	7	A	15	9	7	11	6	3	2	2	2	2	2	4	3	2	2	2	2	3	4.6	14.8
4-Sep	3	6	5	8	A	43	38	13	4	4	4	5	3	2	2	1	2	2	7	14	10	12	8	6	8.7	43.0
5-Sep	10	5	4	A	10	20	43	35	32	22	6	2	1	2	2	2	3	3	3	3	2	3	3	5	9.5	43.4
6-Sep	4	6	A	6	10	23	48	46	10	4	2	3	1	1	1	1	1	1	2	2	4	4	3	2	8.0	48.5
7-Sep	1	A	2	1	1	1	1	1	3	1	2	2	2	3	2	2	1	1	1	1	1	1	0	0	1.3	2.8
8-Sep	A	1	1	1	0	1	1	4	1	1	1	1	1	1	3	1	1	1	2	1	1	1	1	A	1.1	3.6
9-Sep	2	1	1	1	1	1	1	4	1	1	1	1	1	1	2	2	2	1	2	2	1	1	A	1	1.4	3.7
10-Sep	1	1	1	1	6	21	36	64	15	6	3	6	4	2	2	2	3	2	2	4	4	A	4	3	8.4	64.0
11-Sep	4	4	4	4	7	17	34	46	45	36	21	12	3	2	2	1	2	2	2	9	A	7	6	4	11.8	45.9
12-Sep	5	3	3	2	4	5	5	4	6	5	4	4	5	5	6	4	3	3	5	A	26	26	11	22	7.2	26.5
13-Sep	15	13	16	19	22	21	15	8	13	13	11	9	12	9	6	4	6	6	A	24	13	17	12	10	12.8	23.5
14-Sep	9	7	5	7	9	15	16	9	10	5	3	2	2	1	1	1	2	A	5	6	5	8	8	5	6.1	15.7
15-Sep	5	11	13	20	11	20	21	21	11	7	6	4	2	2	1	1	A	5	24	17	18	14	13	13	11.2	23.7
16-Sep	8	13	9	8	8	23	17	16	14	7	7	4	5	7	6	A	7	5	7	8	10	8	4	4	8.9	23.0
17-Sep	4	4	6	10	8	15	21	48	55	59	46	19	10	3	A	3	4	14	18	12	6	4	4	3	16.4	58.5
18-Sep	3	4	5	8	10	42	75	74	66	21	10	5	7	A	4	6	3	3	2	3	6	7	10	11	16.8	75.1
19-Sep	3	3	4	7	11	10	11	8	3	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	3.3	11.0
20-Sep	2	2	4	8	13	15	28	29	11	3	2	A	2	2	1	1	1	2	4	5	5	8	8	7	7.0	28.6
21-Sep	11	8	7	5	6	10	11	8	7	8	A	5	3	2	2	2	2	2	3	21	17	20	8	11	7.8	21.4
22-Sep	10	11	10	16	10	22	43	26	C	C	C	C	C	C	C	C	4	3	4	9	10	6	7	3	--	43.5
23-Sep	3	2	2	5	9	15	30	48	A	7	7	4	3	3	3	1	2	2	2	3	3	2	2	2	6.9	47.7
24-Sep	1	1	1	2	2	2	4	A	4	3	5	6	8	6	6	6	7	10	11	12	14	19	10	8	6.5	18.8
25-Sep	6	5	5	7	3	3	A	23	3	2	3	2	2	1	4	1	2	1	1	2	1	1	1	1	3.4	23.3
26-Sep	1	1	0	1	1	A	3	2	7	1	1	1	2	3	2	2	3	3	4	5	4	2	2	3	2.4	7.4
27-Sep	2	1	2	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	2	1.2	2.0
28-Sep	2	2	2	A	4	3	3	3	3	4	5	5	4	3	2	2	2	2	3	3	3	4	4	4	3.0	5.0
29-Sep	4	4	A	7	13	37	21	19	11	9	9	7	3	4	4	4	4	6	7	5	2	6	3	2	8.3	36.6
30-Sep	2	A	5	4	6	16	24	6	6	3	3	3	2	2	1	2	3	6	2	2	2	3	2	2	4.7	24.0
4.3 4.6 4.5 6.0 7.1 15.2 20.3 21.4 13.0 8.6 6.3 4.5 3.5 2.7 2.7 2.4 2.8 3.5 4.7 6.5 6.4 6.8 5.1 5.0																								Diurnal Average		
15.4 13.4 16.2 19.6 22.3 43.0 75.1 74.4 65.8 58.5 45.8 19.2 11.6 9.2 6.5 6.8 7.3 14.5 23.7 23.5 25.7 26.5 12.6 21.8																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Portable Clairmont - September 2014



Hourly Maximums

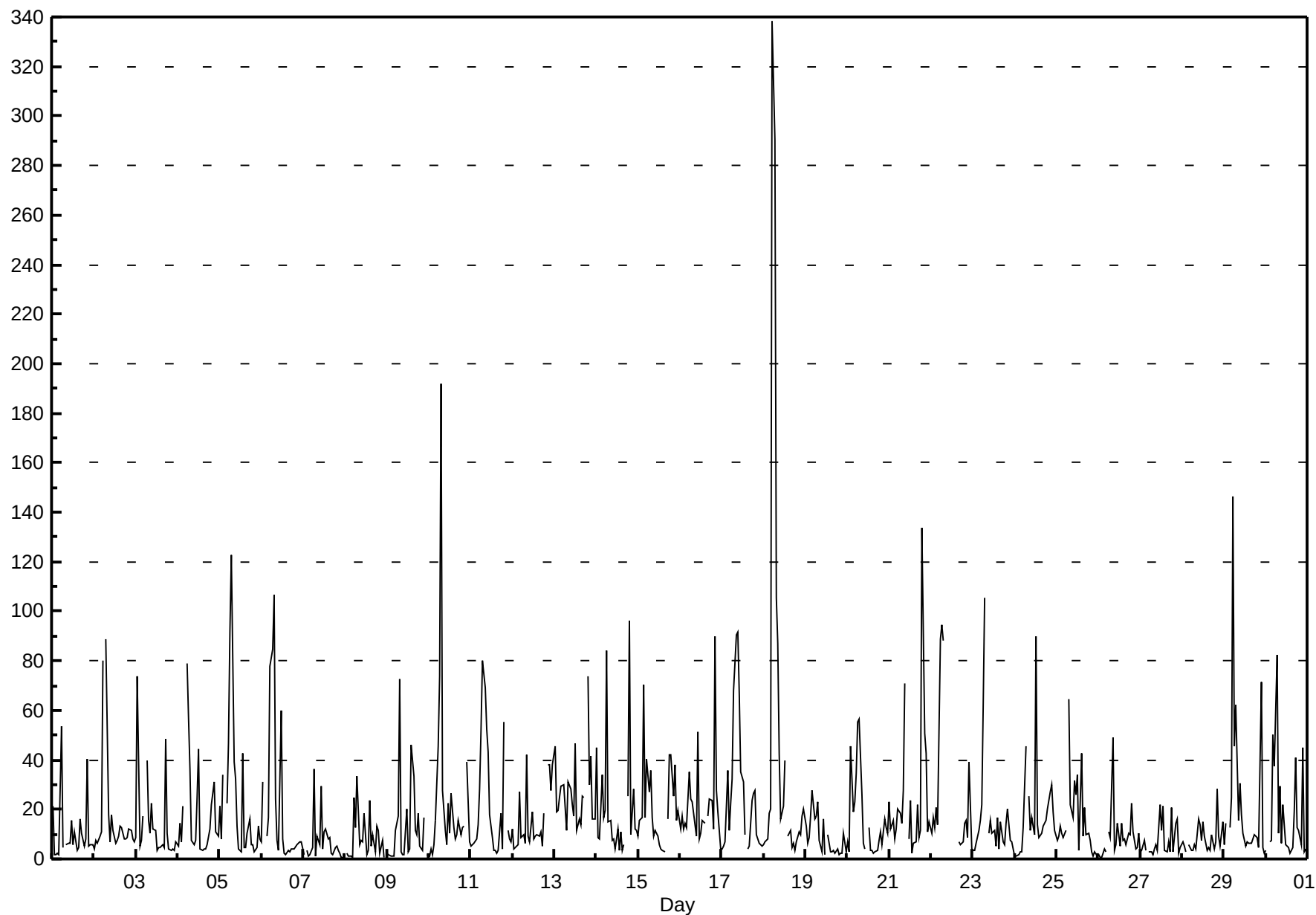
Oxides of Nitrogen (NO_x) - ppb

Portable Clairmont - September 2014

Maximum Value: 338.0 ppb on Sep 18 06:00																					Maximum Daily Average: 47.9 ppb on Sep 18										Hours in Service: 720	
Minimum Value: 0 ppb on Sep 8 00:00																					Minimum Daily Average: 7.0 ppb on Sep 7										Hours of Data: 682	
Maximum Diurnal Average: 52.0 ppb at hour 8																					Minimum Diurnal Average: 7.1 ppb at hour 16										Hours of Missing Data: 38	
Monthly Average: 18.47 ppb																					Percentiles: P ₁ = 0.9 P ₁₀ = 2.9 Q ₁ = 5.2 Median = 10.1 Q ₃ = 20.5 P ₉₀ = 42.4 P ₉₉ = 101.4										Hours of Calibration: 38	
																					Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1-Sep	21	1	2	2	2	54	4	A	6	7	7	16	6	11	4	4	16	10	5	8	41	5	6	6	10.6	53.6						
2-Sep	4	8	7	9	11	80	A	89	18	7	18	11	7	7	9	13	13	8	8	9	12	12	8	7	16.3	88.9						
3-Sep	9	74	5	7	17	A	40	16	11	22	12	12	3	5	4	6	4	49	10	4	3	4	3	7	14.3	73.9						
4-Sep	5	14	7	21	A	79	57	36	7	6	8	25	44	4	4	4	4	6	12	22	27	31	11	9	19.3	78.9						
5-Sep	21	8	34	A	22	46	92	123	39	33	13	4	3	42	5	4	10	16	6	6	3	5	13	8	24.2	122.5						
6-Sep	7	31	A	9	17	78	84	107	24	7	3	60	8	2	2	3	3	4	4	4	6	7	7	7	21.0	106.6						
7-Sep	2	A	3	1	2	5	36	1	9	6	29	4	11	12	8	9	2	2	4	5	4	2	1	0	7.0	36.3						
8-Sep	A	2	1	1	1	25	13	34	6	7	7	18	2	3	24	5	10	3	13	12	2	8	1	A	8.9	33.6						
9-Sep	2	2	1	1	1	11	17	73	3	2	2	20	3	4	46	33	11	10	19	5	4	16	A	2	12.5	72.6						
10-Sep	1	4	2	6	15	46	74	192	28	11	6	22	10	26	13	8	10	16	10	12	13	A	39	7	24.8	192.1						
11-Sep	5	6	6	8	14	28	52	80	69	53	43	18	9	3	4	2	3	18	4	55	A	11	8	7	22.0	80.1						
12-Sep	12	4	5	6	27	9	10	6	42	9	7	19	8	9	10	9	11	5	18	A	38	38	28	38	16.0	41.9						
13-Sep	45	19	20	25	30	30	20	11	31	28	22	17	47	12	16	14	25	25	A	74	30	41	16	16	26.7	74.0						
14-Sep	45	9	8	34	17	20	84	15	16	7	8	4	12	3	11	4	6	A	26	96	10	29	12	12	21.2	96.0						
15-Sep	9	16	17	71	17	40	27	36	17	9	12	9	6	4	3	3	A	16	42	42	25	38	16	19	21.5	70.6						
16-Sep	12	17	12	14	13	35	24	23	18	9	51	8	10	16	15	A	17	24	23	12	90	27	19	4	21.6	90.1						
17-Sep	4	5	7	36	11	22	32	68	90	92	67	35	31	10	A	4	5	24	27	28	10	7	6	5	27.3	91.9						
18-Sep	6	7	8	19	20	338	290	105	87	42	16	21	40	A	9	12	5	6	4	7	11	10	17	20	47.9	338.0						
19-Sep	13	6	9	17	28	16	17	23	7	3	16	1	A	10	3	3	3	2	4	2	3	3	11	3	8.8	27.5						
20-Sep	7	3	45	19	23	35	55	57	26	6	4	A	13	4	4	2	3	3	7	11	6	16	13	10	16.2	56.5						
21-Sep	23	12	16	8	12	20	19	14	27	71	A	8	24	2	6	7	22	8	11	134	51	42	11	15	24.5	133.5						
22-Sep	11	17	13	21	14	89	94	88	C	C	C	C	C	C	C	C	7	6	7	15	15	9	39	4	--	94.4						
23-Sep	3	3	6	11	15	22	62	105	A	10	15	10	11	5	17	4	15	7	6	15	20	7	7	4	16.7	105.5						
24-Sep	1	1	2	3	3	13	45	A	25	12	17	10	90	14	9	11	13	14	16	20	27	30	19	11	17.6	89.9						
25-Sep	8	9	13	10	9	12	A	65	22	17	32	26	34	4	43	9	21	10	10	8	3	1	3	1	16.0	64.6						
26-Sep	1	1	1	4	3	A	11	9	49	3	6	14	5	14	7	8	6	10	10	22	11	4	5	10	9.3	49.2						
27-Sep	3	3	8	4	A	3	3	2	4	6	3	22	11	21	3	3	7	3	21	3	14	16	2	5	7.3	21.9						
28-Sep	7	5	3	A	6	4	3	6	4	16	14	8	15	9	4	4	4	10	4	7	28	9	5	15	8.2	28.0						
29-Sep	6	14	A	13	25	146	45	62	16	30	18	10	5	7	6	7	6	10	9	9	5	71	5	2	22.9	146.1						
30-Sep	3	A	7	8	50	37	82	10	29	6	22	6	5	4	3	4	19	41	13	11	6	45	3	4	18.3	82.4						
																									Diurnal Average							
																									Diurnal Maximum							
C - Calibration																									A - Automated Daily Zero Span							

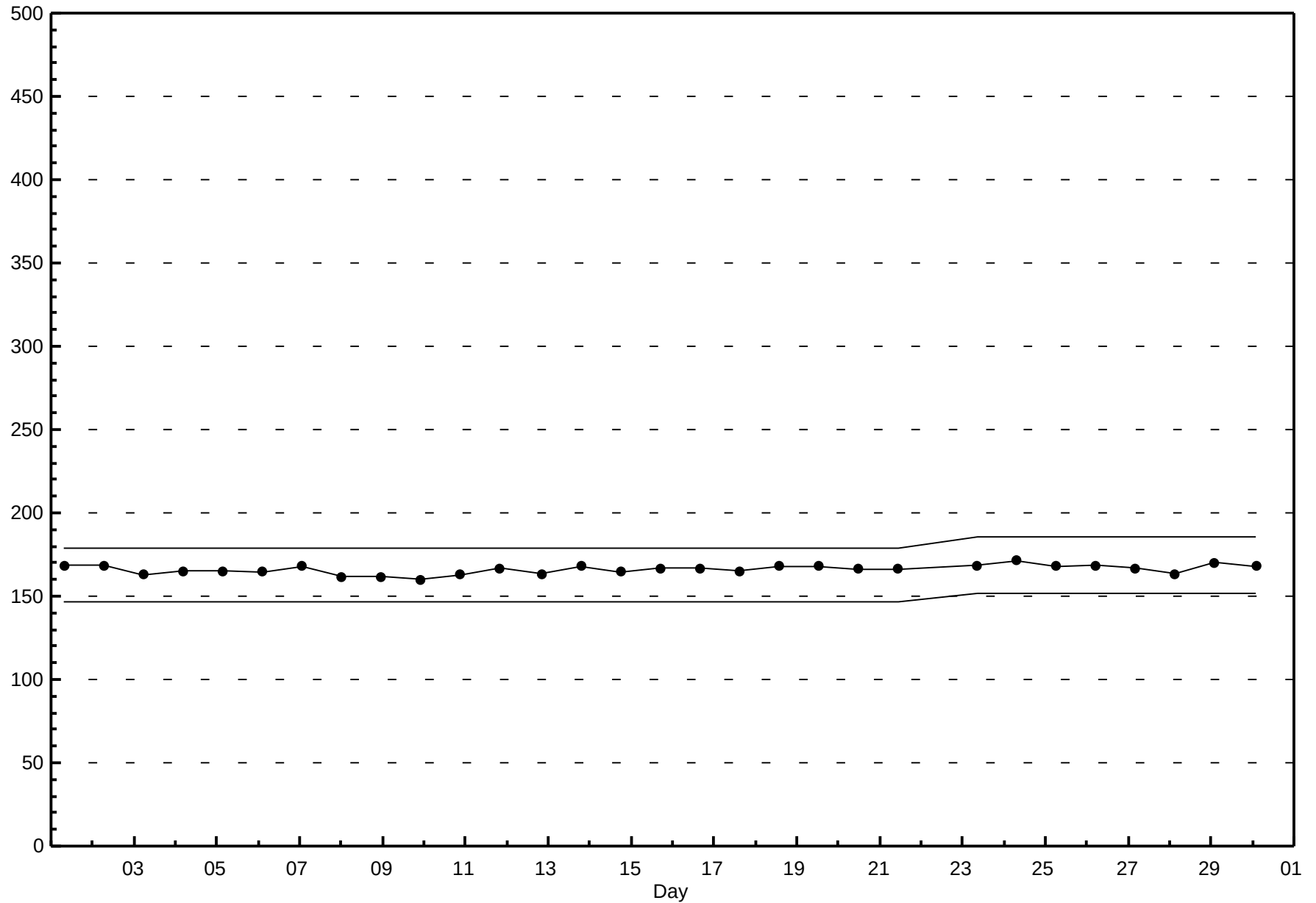
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Portable Clairmont - September 2014



Span Responses

Oxides of Nitrogen (NO_x)
Portable Clairmont - September 2014



Hourly Averages

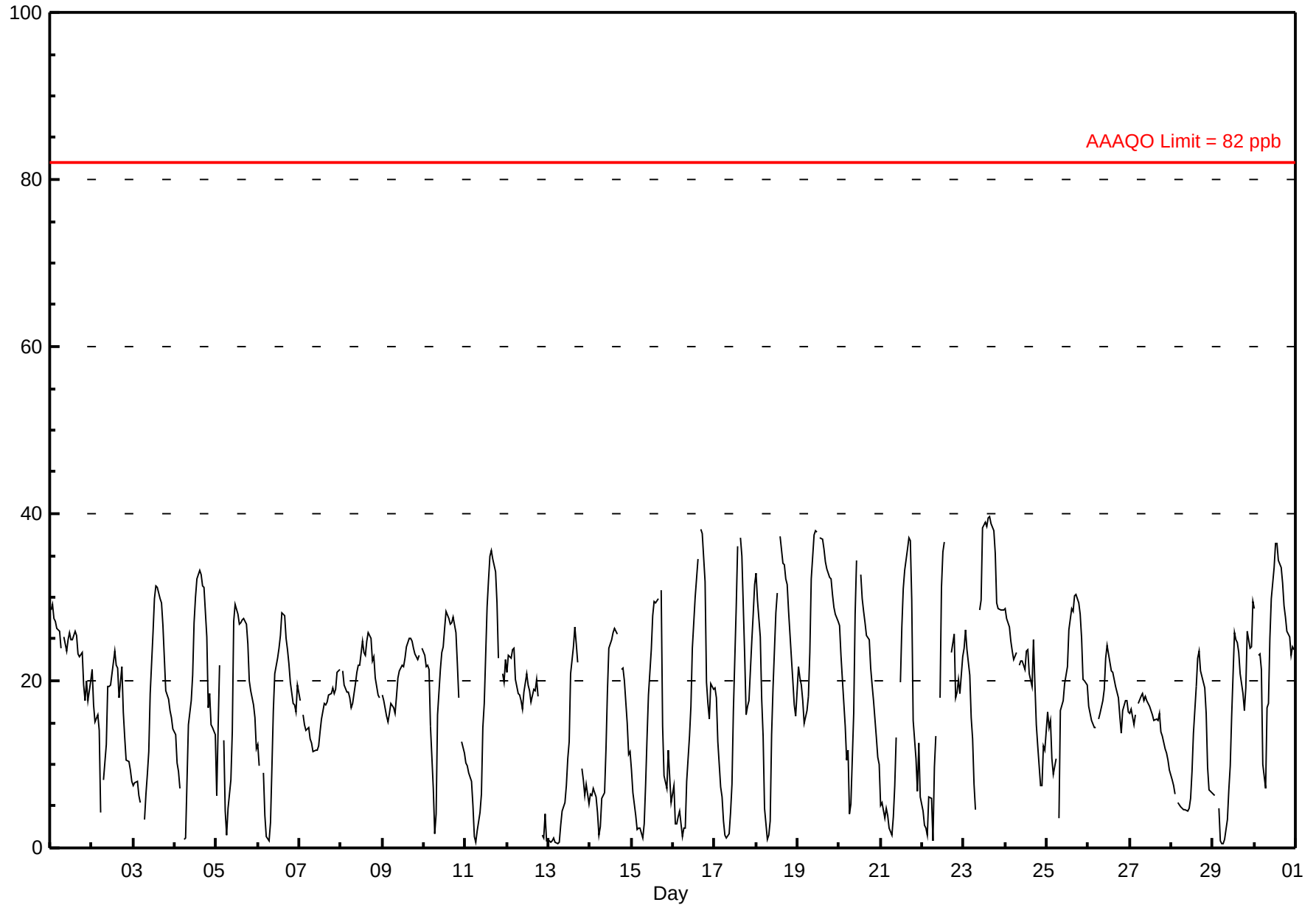
Ozone (O₃) - ppb

Portable Clairmont - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 39.6 ppb on Sep 23 16:00 Maximum Daily Average: 28.4 ppb on Sep 19																								Hours in Service: 720 Hours of Data: 686 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0		
Minimum Value: 0 ppb on Sep 29 07:00 Maximum Diurnal Average: 27.4 ppb at hour 16 Monthly Average: 18.14 ppb												Minimum Daily Average: 8.9 ppb on Sep 13 Minimum Diurnal Average: 7.5 ppb at hour 7 Percentiles: P ₁ = 0.8 P ₁₀ = 4.4 Q ₁ = 11.2 Median = 18.5 Q ₃ = 24.8 P ₉₀ = 29.9 P ₉₉ = 38.2														
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	28	29	27	27	26	26	24	A	25	23	25	26	25	25	26	25	23	23	23	19	18	20	18	20	24.1	29.1
2-Sep	21	17	15	16	14	4	A	8	12	19	19	20	22	24	22	21	18	22	16	13	10	10	9	8	15.8	23.6
3-Sep	7	8	8	6	5	A	3	6	9	12	18	26	30	31	31	30	29	27	23	19	18	17	16	14	17.1	31.3
4-Sep	14	10	9	7	A	1	1	8	15	18	21	27	30	32	33	33	31	31	25	17	18	15	14	14	18.4	33.1
5-Sep	6	14	22	A	13	4	2	5	8	14	27	29	28	27	27	27	27	27	24	20	19	17	16	12	18.1	29.2
6-Sep	12	10	A	9	4	1	1	3	10	17	21	23	24	25	28	28	25	24	22	20	17	17	16	19	16.4	28.1
7-Sep	18	A	16	15	14	14	13	13	12	12	12	12	14	15	17	17	17	18	18	19	18	19	21	21	15.9	21.3
8-Sep	A	21	20	19	19	18	17	17	20	21	22	22	25	23	23	25	26	25	22	23	20	18	18	A	21.1	25.8
9-Sep	18	18	16	15	16	17	17	16	18	20	21	22	22	23	24	25	25	25	24	23	23	23	A	24	20.6	25.2
10-Sep	23	22	22	21	14	7	2	4	16	21	23	24	26	28	27	27	27	28	26	22	18	A	13	11	19.7	28.2
11-Sep	10	10	9	8	5	1	1	2	4	6	14	17	29	32	35	36	34	33	29	23	A	21	20	22	17.5	35.6
12-Sep	21	23	23	24	24	20	19	18	18	17	19	21	20	19	17	19	19	20	18	A	2	1	4	1	16.7	24.0
13-Sep	1	1	1	1	1	0	1	3	4	5	8	11	13	21	24	26	24	22	A	10	8	6	8	5	8.9	26.4
14-Sep	7	6	7	6	4	2	3	6	7	12	19	24	25	26	26	26	26	A	21	22	20	15	11	11	14.4	26.3
15-Sep	9	7	4	2	2	2	1	3	8	13	18	24	28	29	29	30	A	31	15	9	7	12	8	5	12.9	30.9
16-Sep	8	3	3	4	4	1	2	2	8	13	17	24	27	30	35	A	38	38	32	20	17	15	20	19	16.5	38.2
17-Sep	19	18	13	7	6	3	2	1	2	4	8	16	29	36	A	37	35	23	16	17	18	25	28	32	17.1	37.2
18-Sep	33	30	25	18	13	5	1	2	3	14	19	28	31	A	37	34	34	32	31	28	23	20	17	16	21.5	37.3
19-Sep	22	20	19	18	15	17	18	23	32	37	38	38	A	37	37	36	34	33	32	32	30	29	28	27	28.4	38.0
20-Sep	27	23	20	15	10	12	4	5	16	28	34	A	33	30	28	27	25	25	22	19	18	13	11	10	19.8	34.4
21-Sep	5	6	4	5	4	2	2	4	7	13	A	20	26	31	33	36	37	37	30	15	11	7	13	6	15.3	37.1
22-Sep	4	3	2	1	6	6	1	10	13	A	18	31	35	37	C	C	C	23	26	18	19	20	18	23	15.8	36.7
23-Sep	24	26	24	21	16	13	8	5	A	28	30	38	39	38	40	40	39	38	35	29	29	28	28	28	28.0	39.6
24-Sep	29	27	26	25	24	23	23	A	22	22	22	21	23	24	21	19	25	20	15	12	7	7	12	12	20.1	28.6
25-Sep	16	14	15	11	9	11	A	4	16	18	20	21	22	26	29	28	30	30	29	28	25	20	20	20	20.0	30.3
26-Sep	17	16	15	14	14	A	15	16	18	19	23	24	22	21	21	20	19	18	16	14	16	18	18	16	17.9	24.3
27-Sep	16	17	15	16	A	17	18	19	18	18	18	17	16	16	15	15	15	16	14	13	12	11	11	9	15.3	18.5
28-Sep	8	7	7	A	5	5	5	4	5	4	5	6	9	14	19	23	24	21	20	19	16	10	7	7	10.8	23.5
29-Sep	6	6	A	5	1	1	0	1	3	7	10	16	26	25	25	23	21	19	16	19	26	24	24	29	14.5	29.4
30-Sep	29	A	23	23	21	10	7	17	17	25	30	34	37	36	34	34	32	29	28	26	25	23	24	24	25.5	36.5
15.8 14.7 14.6 12.8 11.1 8.7 7.5 8.0 12.6 16.6 19.9 22.8 25.3 27.0 27.3 27.4 27.2 26.1 23.1 19.6 17.5 16.6 16.2 16.1																								Diurnal Average		
32.9 29.6 27.4 27.1 26.3 26.0 23.9 23.5 32.1 37.4 38.0 38.4 38.9 38.5 39.5 39.6 38.8 37.9 35.3 32.2 30.3 28.9 28.4 31.5																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Portable Clairmont - September 2014



Hourly Maximums

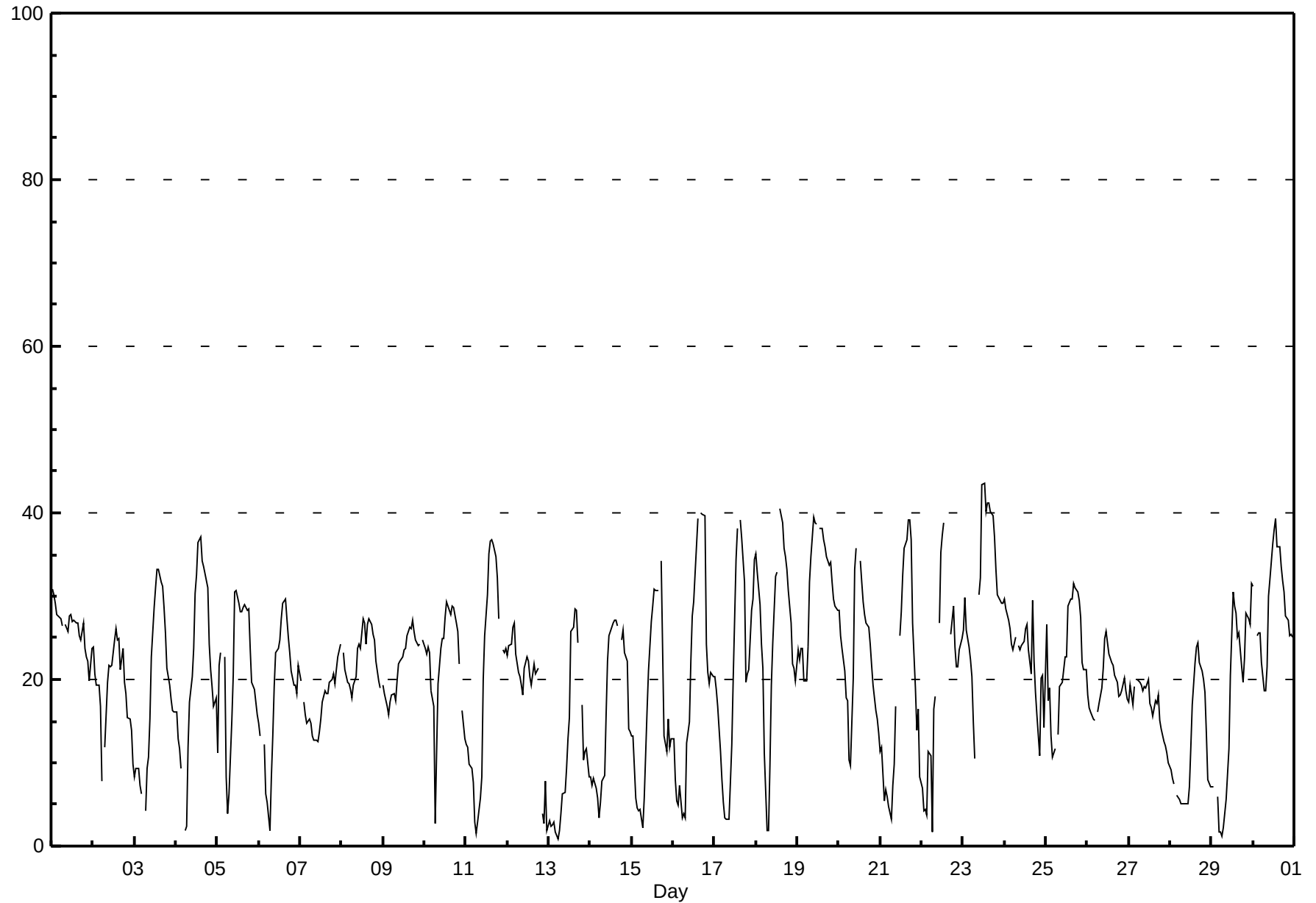
Ozone (O₃) - ppb

Portable Clairmont - September 2014

Maximum Value: 43.6 ppb on Sep 23 13:00																								Hours in Service: 720		
Maximum Daily Average: 31.0 ppb on Sep 23																								Hours of Data: 686		
Minimum Value: 1 ppb on Sep 13 06:00																								Hours of Missing Data: 34		
Maximum Diurnal Average: 29.2 ppb at hour 15																								Hours of Calibration: 34		
Monthly Average: 20.70 ppb																								Percent Operational Time: 100.0		
Minimum Daily Average: 11.3 ppb on Sep 13																										
Minimum Diurnal Average: 9.7 ppb at hour 7																										
Percentiles: P ₁ = 1.8 P ₁₀ = 6.8 Q ₁ = 14.8 Median = 21.3 Q ₃ = 26.9 P ₉₀ = 32.6 P ₉₉ = 40.1																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Sep	31	30	29	28	28	27	26	A	27	26	28	28	27	27	27	27	25	25	27	24	23	22	20	24	26.3	30.9
2-Sep	24	21	19	19	17	8	A	12	20	22	21	22	25	26	25	25	21	24	20	18	15	15	14	10	19.2	26.1
3-Sep	8	9	9	7	6	A	4	9	11	15	23	29	31	33	33	32	31	29	26	21	19	18	16	16	19.0	33.2
4-Sep	16	13	12	9	A	2	2	12	17	20	24	30	32	36	37	34	34	33	31	24	21	19	17	18	21.5	37.2
5-Sep	11	22	23	A	23	8	4	6	15	21	30	31	29	28	28	29	29	28	28	24	20	19	17	16	21.3	30.7
6-Sep	15	13	A	12	6	5	2	8	13	19	23	24	25	27	29	30	27	25	23	21	19	19	18	22	18.6	29.7
7-Sep	20	A	17	16	15	15	15	13	13	13	12	14	15	17	19	18	18	20	20	21	20	21	23	24	17.3	24.2
8-Sep	A	23	21	20	20	19	18	19	20	24	24	24	27	27	24	27	27	27	25	25	22	20	19	A	22.8	27.2
9-Sep	19	18	17	16	17	18	18	17	20	22	22	23	24	24	25	26	26	27	26	25	24	24	A	25	21.9	27.1
10-Sep	24	23	24	23	19	17	3	11	19	24	25	25	28	29	28	28	29	29	27	26	22	A	16	13	22.2	29.3
11-Sep	12	12	10	9	8	3	2	3	6	8	20	25	30	35	37	37	36	35	32	27	A	24	23	24	19.9	36.7
12-Sep	23	24	24	26	27	23	21	20	19	18	21	23	22	20	19	22	21	21	21	A	4	3	8	2	18.8	26.8
13-Sep	3	2	3	3	2	1	2	4	6	6	9	13	15	26	26	28	28	24	A	17	10	11	12	8	11.3	28.5
14-Sep	8	7	8	7	6	3	5	8	9	16	22	25	26	27	27	27	A	25	26	23	22	14	14	16.6	27.2	
15-Sep	13	13	6	5	4	4	2	6	11	16	21	27	29	31	31	31	A	34	24	13	11	15	12	13	16.2	34.2
16-Sep	13	8	5	5	7	3	4	3	12	15	22	28	29	33	39	A	40	40	40	24	21	19	21	20	19.7	40.1
17-Sep	20	19	17	11	8	5	3	3	3	8	12	20	34	38	A	39	37	32	20	21	21	28	30	34	20.2	39.2
18-Sep	35	33	29	24	21	11	2	2	10	19	24	32	33	A	40	39	36	35	33	31	27	22	21	20	25.2	40.5
19-Sep	24	22	24	24	20	20	24	32	35	39	39	A	38	38	37	36	35	34	34	32	30	29	28	28	30.9	39.5
20-Sep	28	25	24	21	18	18	10	10	20	33	36	A	34	32	29	28	27	26	24	22	19	16	15	14	23.0	35.7
21-Sep	11	12	5	7	6	5	3	7	10	17	A	25	28	33	36	37	39	39	37	27	19	14	17	8	19.2	39.2
22-Sep	7	4	4	4	11	11	2	16	18	A	27	35	37	39	C	C	C	25	29	24	21	21	24	25	19.3	38.8
23-Sep	26	30	26	24	22	20	15	11	A	30	32	43	44	40	41	41	40	40	37	33	30	29	29	29	31.0	43.6
24-Sep	30	29	27	26	24	24	25	A	24	24	24	25	26	27	24	21	29	22	18	16	11	20	20	14	23.0	29.6
25-Sep	27	18	19	13	11	12	A	13	19	20	21	23	23	29	30	30	32	31	31	29	27	22	21	21	22.6	31.6
26-Sep	18	17	16	15	15	A	16	17	19	21	25	26	23	23	22	22	21	20	18	18	19	20	19	18	19.4	25.8
27-Sep	17	19	17	19	A	20	20	19	19	19	19	20	17	17	16	18	17	18	15	14	13	12	11	10	16.8	20.0
28-Sep	9	8	7	A	6	6	5	5	5	5	5	7	12	17	22	24	24	22	21	20	19	14	8	7	12.1	24.5
29-Sep	7	7	A	6	2	2	1	2	6	9	12	21	30	29	28	25	26	22	20	23	28	27	27	32	16.9	31.5
30-Sep	31	A	25	26	26	22	19	19	22	30	32	36	38	39	36	36	34	32	31	28	27	25	25	25	28.8	39.3
18.3 17.2 16.7 15.2 14.1 11.9 9.7 11.1 15.4 19.3 22.7 25.5 27.4 29.2 29.2 29.1 29.2 28.2 26.2 23.3 20.3 19.8 18.8 18.4																								Diurnal Average		
35.1 32.9 29.2 27.8 27.7 26.5 31.7 34.7 39.5 38.9 43.3 43.6 40.1 41.1 41.3 40.1 39.7 39.7 34.1 31.7 29.7 29.7 34.5																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

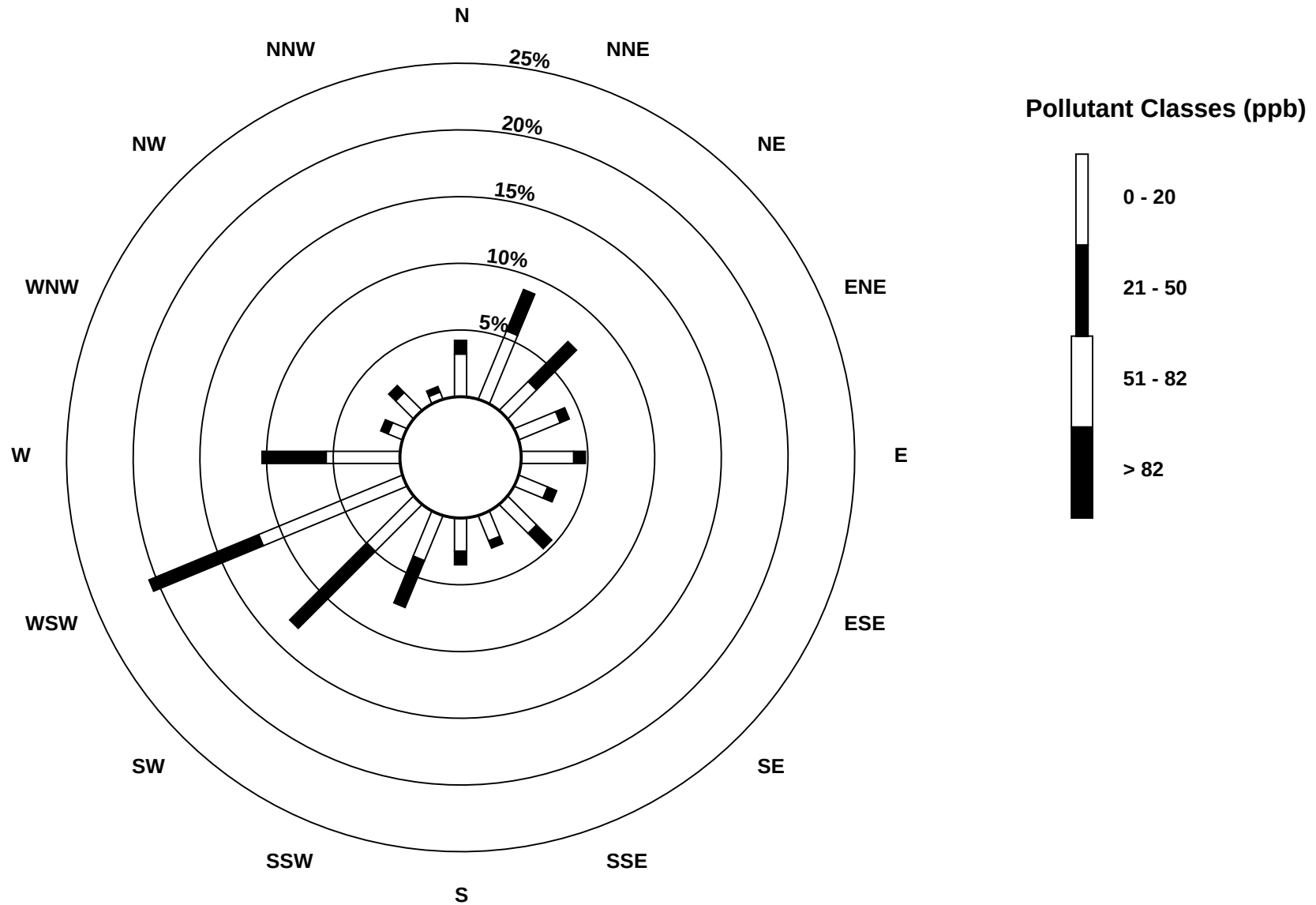
Hourly Maximums

Ozone (O₃) - ppb
Portable Clairmont - September 2014



Pollutant Rose

Ozone (O₃) - ppb
Portable Clairmont - September 2014



Eight Hour Running Averages

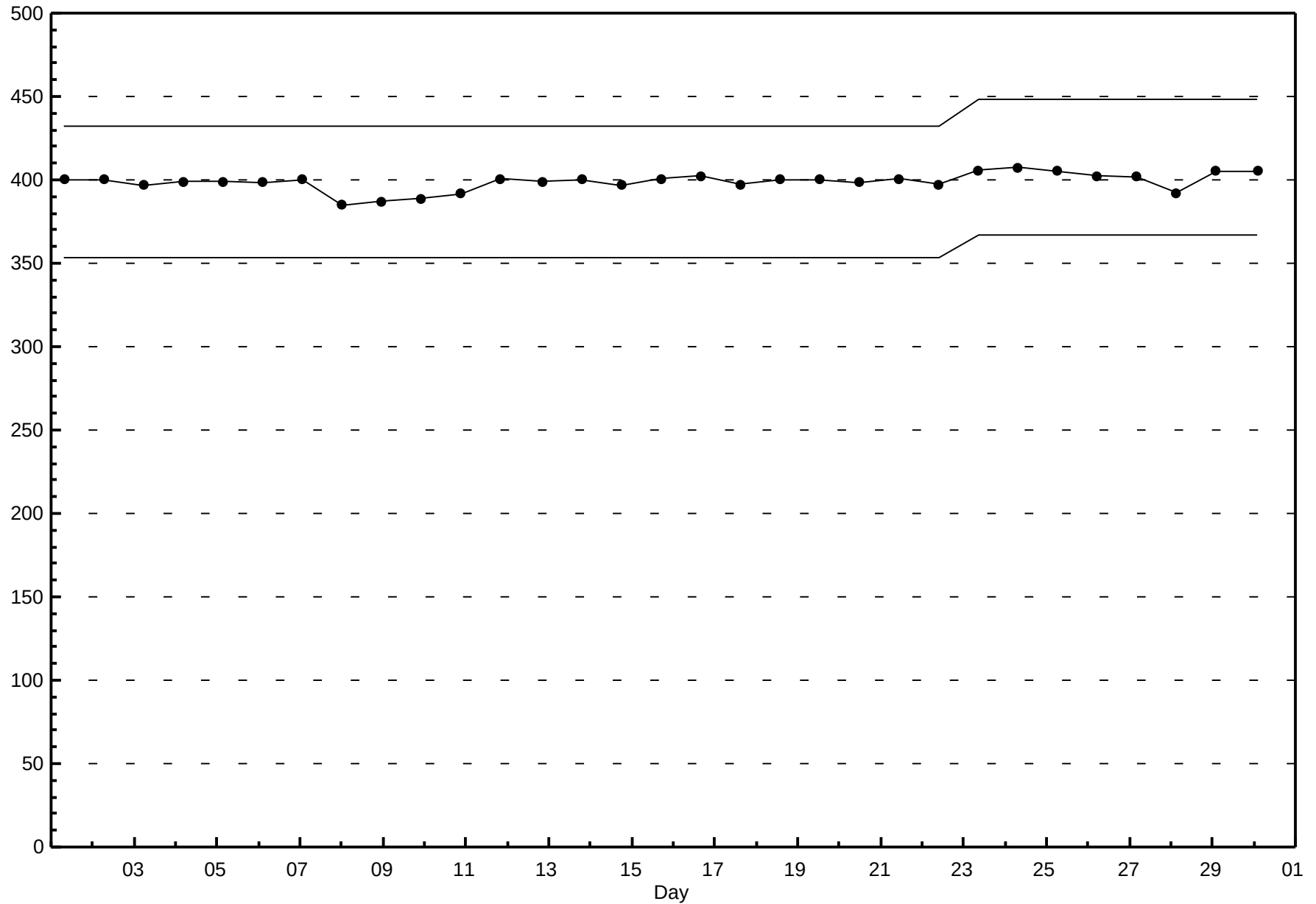
Ozone (O₃) - ppb

Portable Clairmont - September 2014

Maximum Value: 38.4 ppb on Sep 23 19:00																								Hours in Service: 720	
Minimum Value: 0.8 ppb on Sep 13 07:00																								Hours of Data: 713	
																								Hours of Missing Data: 7	
Percentiles: P ₁ = 1.9 P ₁₀ = 6.4 Q ₁ = 12.7 Median = 18.6 Q ₃ = 23.8 P ₉₀ = 27.7 P ₉₉ = 36.0																								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	29	29	29	29	28	28	27	27	26	26	25	25	25	25	25	25	25	25	25	24	23	22	21	21	29.4
2-Sep	20	20	19	18	18	16	15	14	12	13	13	14	15	18	18	20	21	21	21	20	18	17	15	13	21.0
3-Sep	12	10	9	8	8	7	7	6	7	7	9	11	15	17	20	23	26	28	28	27	26	24	22	20	28.3
4-Sep	18	16	14	13	12	10	8	7	7	8	10	13	15	19	23	26	28	30	30	29	28	25	23	21	30.4
5-Sep	18	15	15	15	14	13	11	9	10	10	10	13	15	17	21	23	26	27	27	26	25	24	22	20	27.5
6-Sep	18	16	15	13	11	9	7	6	5	6	8	10	12	15	19	22	24	25	25	25	24	23	21	20	24.9
7-Sep	19	19	18	17	16	16	16	15	14	14	13	13	13	13	13	14	15	15	16	17	18	18	19	19	19.2
8-Sep	19	20	20	20	20	20	19	19	19	19	19	19	20	21	22	23	23	24	24	24	23	23	22	22	24.0
9-Sep	21	20	19	18	17	17	17	17	17	17	18	18	19	20	21	22	23	23	24	24	24	24	24	24	24.0
10-Sep	23	23	23	23	21	19	17	14	14	13	14	14	15	18	21	24	26	26	27	26	25	25	23	21	26.6
11-Sep	18	16	13	11	9	8	7	6	5	5	5	6	9	13	17	22	25	29	31	31	32	30	28	26	31.7
12-Sep	24	23	22	22	22	22	22	21	21	20	20	19	19	19	18	19	19	19	19	19	16	14	12	9	24.2
13-Sep	7	4	1	1	1	1	1	1	1	2	3	4	6	8	11	14	17	19	20	20	19	17	15	12	20.2
14-Sep	9	7	7	7	6	6	5	5	5	6	7	9	12	15	18	20	23	24	25	25	24	22	20	18	24.8
15-Sep	16	15	12	10	8	6	5	4	4	4	6	9	12	16	19	22	25	27	27	24	21	19	16	12	27.1
16-Sep	12	8	7	6	6	5	4	3	4	5	7	9	12	15	20	22	26	30	32	31	30	28	26	25	31.9
17-Sep	22	20	18	16	15	13	11	9	6	5	4	5	8	12	14	19	24	26	27	28	26	24	25	24	27.5
18-Sep	24	25	26	26	25	23	20	16	12	10	9	11	13	14	19	24	28	31	33	33	31	30	27	25	32.6
19-Sep	24	22	21	19	18	18	18	19	20	22	25	27	29	32	35	36	37	36	35	35	34	33	32	31	36.7
20-Sep	30	29	27	25	22	20	17	14	13	14	16	16	19	21	25	28	29	29	27	26	24	22	20	18	29.9
21-Sep	15	13	11	9	7	6	5	4	4	5	5	7	11	15	19	24	28	31	31	31	29	26	23	19	31.5
22-Sep	15	11	8	6	5	5	4	4	5	6	8	12	16	21	24	N	N	N	N	N	N	N	21	21	24.1
23-Sep	21	22	21	22	21	21	19	17	16	16	17	20	23	27	31	36	36	38	38	37	36	35	33	32	38.4
24-Sep	31	29	28	28	27	26	26	25	24	24	23	22	22	23	22	22	22	22	21	20	18	16	15	14	30.6
25-Sep	13	12	12	12	12	12	13	11	11	12	12	14	16	18	19	22	24	26	27	28	28	27	26	25	28.2
26-Sep	24	22	20	18	17	17	16	16	16	16	17	18	20	20	20	21	21	21	20	19	18	18	17	17	23.6
27-Sep	16	16	16	16	16	16	16	17	17	17	18	18	18	17	17	17	16	16	16	15	15	14	13	13	17.8
28-Sep	12	11	10	9	8	7	7	6	5	5	5	5	5	6	8	11	13	15	17	19	19	19	17	15	19.5
29-Sep	13	11	10	8	6	5	4	3	2	3	3	5	8	11	14	17	19	20	21	22	22	22	22	22	22.3
30-Sep	23	24	25	25	25	23	20	19	17	18	19	20	22	25	29	31	33	33	33	32	30	29	28	26	33.1
30.6 29.3 28.8 28.6 28.3 27.8 27.1 26.9 26.5 25.7 25.3 27.3 29.1 32.0 34.7 36.4 36.7 37.7 38.4 37.2 35.9 34.7 33.3 31.9																									Diurnal Maximums
N - Not Valid																									

Span Responses

Ozone (O₃)
Portable Clairmont - September 2014



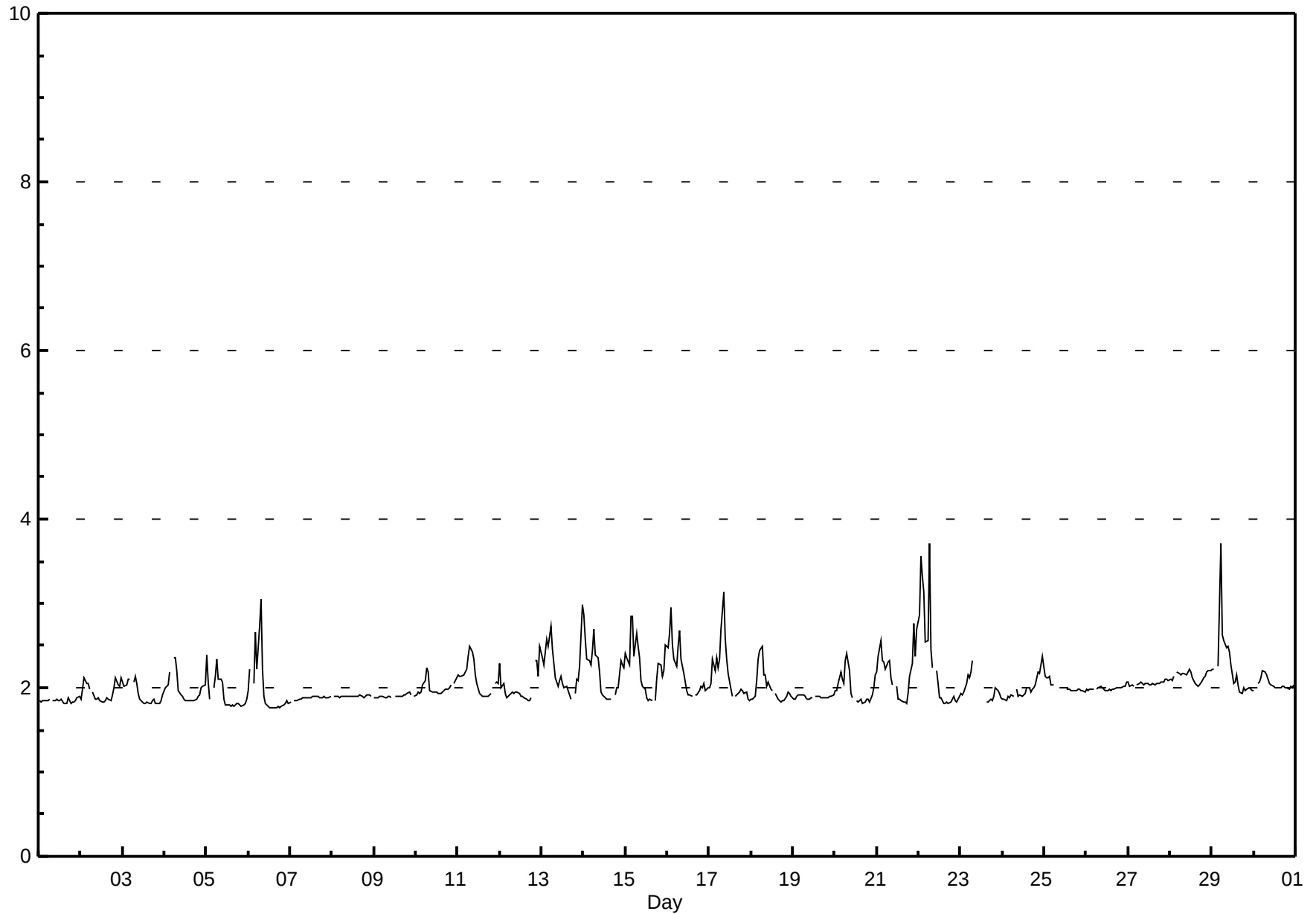
Hourly Averages

Total Hydrocarbons (THC) - ppm Portable Clairmont - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.71 ppm on Sep 29 06:00 Maximum Daily Average: 2.30 ppm on Sep 22																								Hours in Service: 720 Hours of Data: 678 Hours of Missing Data: 42 Hours of Calibration: 41 Percent Operational Time: 99.9		
Minimum Value: 1.8 ppm on Sep 6 19:00 Minimum Daily Average: 1.85 ppm on Sep 1 Maximum Diurnal Average: 2.28 ppm at hour 7 Minimum Diurnal Average: 1.89 ppm at hour 17 Monthly Average: 2.043 ppm Percentiles: P ₁ = 1.77 P ₁₀ = 1.84 Q ₁ = 1.89 Median = 1.97 Q ₃ = 2.11 P ₉₀ = 2.35 P ₉₉ = 3.02																										
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	1.8	1.8	1.8	1.8	1.8	1.8	1.9	A	1.8	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.85	1.90
2-Sep	1.9	2.0	2.1	2.1	2.1	2.0	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.0	2.1	1.95	2.13
3-Sep	2.1	2.0	2.0	2.1	2.1	A	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.92	2.13
4-Sep	2.0	2.0	2.0	2.2	A	2.3	2.4	2.2	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.0	1.98	2.35
5-Sep	2.4	2.1	1.9	A	2.0	2.1	2.3	2.1	2.1	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.93	2.38
6-Sep	2.0	2.2	A	2.1	2.7	2.2	2.7	3.0	2.2	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.00	3.05	
7-Sep	1.8	A	1.8	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	1.9	1.9	1.88	1.90	
8-Sep	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.90	1.92	
9-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.90	1.95
10-Sep	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.2	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.00	2.23
11-Sep	2.1	2.1	2.1	2.2	2.2	2.2	2.4	2.5	2.4	2.3	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.1	2.10	2.49
12-Sep	2.3	2.0	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	1.8	1.9	1.9	A	2.3	2.3	2.1	2.5	2.00	2.49
13-Sep	2.4	2.3	2.4	2.6	2.5	2.7	2.5	2.3	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	A	1.9	2.1	2.1	2.3	3.0	2.22	2.98
14-Sep	2.9	2.6	2.3	2.3	2.3	2.4	2.7	2.4	2.4	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.3	2.3	2.2	2.19	2.86
15-Sep	2.4	2.3	2.3	2.9	2.9	2.4	2.6	2.5	2.4	2.1	2.0	2.0	1.9	1.9	1.9	1.8	A	1.9	2.1	2.3	2.3	2.1	2.2	2.5	2.24	2.85
16-Sep	2.5	2.6	2.9	2.5	2.3	2.2	2.5	2.7	2.3	2.2	2.1	2.0	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.0	2.19	2.95
17-Sep	2.0	2.1	2.3	2.2	2.4	2.2	2.3	2.7	3.1	2.6	2.3	2.2	2.0	1.9	A	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.8	2.16	3.14
18-Sep	1.9	1.9	1.9	2.1	2.3	2.4	2.5	2.2	2.1	2.0	2.1	2.0	2.0	A	1.9	1.9	1.8	1.8	1.8	1.8	1.9	2.0	1.9	1.9	2.01	2.49
19-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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.92
20-Sep	2.0	2.0	2.1	2.2	2.1	2.1	2.3	2.4	2.2	1.9	1.9	A	1.8	1.8	1.9	1.9	1.8	1.8	1.9	1.9	1.8	1.9	2.0	2.2	1.99	2.41
21-Sep	2.2	2.4	2.6	2.3	2.3	2.2	2.3	2.3	2.1	2.0	A	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.9	2.1	2.3	2.8	2.4	2.7	2.17	2.76
22-Sep	2.9	3.6	3.3	3.1	2.5	2.6	3.7	2.5	2.2	A	2.2	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.9	2.30	3.71
23-Sep	1.9	1.9	2.0	2.1	2.1	2.1	2.2	2.3	A	2.0	C	C	C	C	C	1.8	1.8	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.98	2.33
24-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.3	2.4	1.99	2.37
25-Sep	2.1	2.1	2.1	2.1	2.0	2.0	A	2.1	C	C	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.14
26-Sep	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.99	2.06	
27-Sep	2.1	2.0	2.0	2.0	A	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.05	2.11
28-Sep	2.1	2.1	2.1	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.13	2.23
29-Sep	2.2	2.2	A	2.3	3.0	3.7	2.6	2.6	2.5	2.5	2.4	2.3	2.0	2.1	2.1	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.27	3.71
30-Sep	2.0	A	2.0	2.1	2.1	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.20
																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration M - Maintenance A - Automated Daily Zero Span																										

Hourly Averages

Total Hydrocarbons (THC) - ppm
Portable Clairmont - September 2014



Hourly Maximums

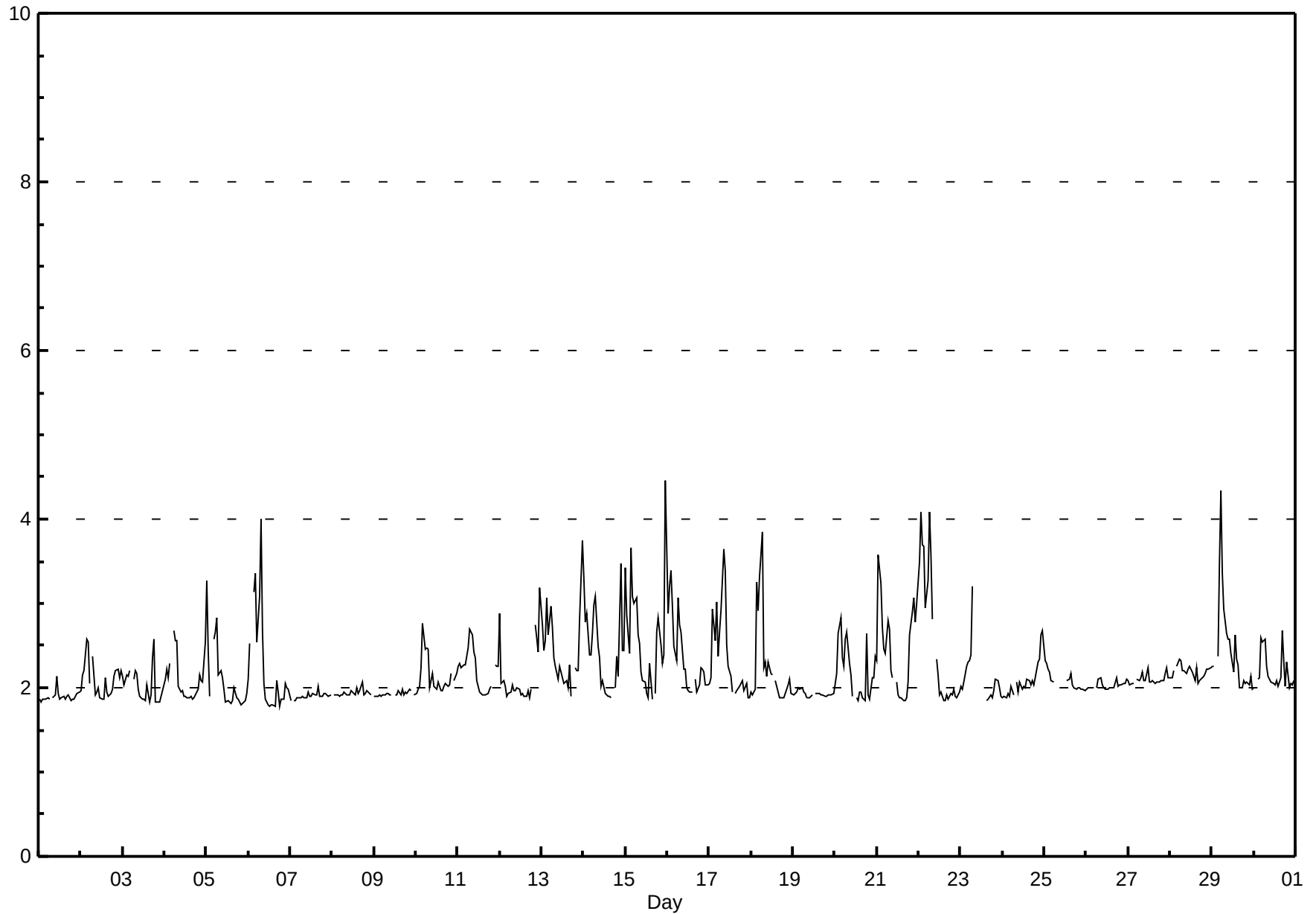
Total Hydrocarbons (THC) - ppm

Portable Clairmont - September 2014

Maximum Value: 4.47 ppm on Sep 16 00:00																								Maximum Daily Average: 2.61 ppm on Sep 15																								Hours in Service:		720
Minimum Value: 1.8 ppm on Sep 6 19:00																								Minimum Daily Average: 1.89 ppm on Sep 1																								Hours of Data:		678
Maximum Diurnal Average: 2.55 ppm at hour 7																								Minimum Diurnal Average: 1.96 ppm at hour 16																								Hours of Missing Data:		42
Monthly Average: 2.189 ppm																								Percentiles: P ₁ = 1.79 P ₁₀ = 1.88 Q ₁ = 1.92 Median = 2.05 Q ₃ = 2.26 P ₉₀ = 2.71 P ₉₉ = 3.72																								Hours of Calibration:		41
																																																Percent Operational Time:		99.9
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																										
1-Sep	1.9	1.8	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.1	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	1.89	2.13																								
2-Sep	2.0	2.2	2.2	2.6	2.5	2.0	A	2.4	1.9	2.0	2.0	1.9	1.9	1.9	2.1	2.0	1.9	1.9	2.0	2.1	2.2	2.2	2.1	2.2	2.09	2.57																								
3-Sep	2.1	2.0	2.1	2.1	2.2	A	2.1	2.2	2.2	2.0	1.9	1.9	1.9	1.8	2.0	1.8	1.9	2.4	2.6	1.8	1.8	1.8	1.9	2.0	2.03	2.57																								
4-Sep	2.1	2.2	2.1	2.3	A	2.7	2.6	2.6	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.5	2.11	2.68																								
5-Sep	3.3	2.4	1.9	A	2.6	2.7	2.8	2.2	2.2	2.1	2.0	1.8	1.9	1.8	1.8	1.8	2.0	1.9	1.9	1.8	1.8	1.8	1.9	1.9	2.10	3.27																								
6-Sep	2.1	2.5	A	3.1	3.4	2.5	3.1	4.0	2.7	2.0	1.9	1.8	1.8	1.8	1.8	1.8	2.1	2.0	1.8	1.9	1.9	2.1	2.0	2.0	2.26	4.00																								
7-Sep	1.8	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	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.02																								
8-Sep	A	1.9	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	1.9	2.0	2.1	1.9	1.9	2.0	1.9	1.9	A	1.94	2.07																								
9-Sep	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	M	1.9	1.9	2.0	1.9	2.0	1.9	2.0	1.9	2.0	2.0	A	1.9	1.93	1.98																								
10-Sep	1.9	2.0	2.0	2.2	2.8	2.5	2.5	2.4	2.0	2.2	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	A	2.1	2.2	2.13	2.76																								
11-Sep	2.3	2.3	2.2	2.3	2.3	2.4	2.5	2.7	2.6	2.4	2.4	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.3	2.3	2.3	2.20	2.69																								
12-Sep	2.9	2.1	2.1	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	A	2.8	2.6	2.4	3.2	2.14	3.19																								
13-Sep	2.7	2.4	2.6	3.1	2.6	3.0	2.7	2.4	2.2	2.1	2.3	2.2	2.1	2.1	2.1	2.0	2.3	1.9	A	2.2	2.2	2.2	2.8	3.7	2.43	3.75																								
14-Sep	3.3	2.8	2.9	2.4	2.4	2.6	3.0	3.1	2.5	2.4	2.0	2.1	1.9	1.9	1.9	1.9	1.9	A	2.0	2.4	2.1	3.5	2.4	2.4	2.43	3.48																								
15-Sep	3.4	2.9	2.4	3.7	3.1	3.0	3.1	2.6	2.5	2.2	2.1	2.1	1.9	1.9	2.3	1.9	A	1.9	2.7	2.8	2.5	2.3	2.4	4.5	2.61	4.47																								
16-Sep	2.9	3.2	3.4	3.0	2.5	2.3	3.1	2.7	2.7	2.2	2.2	2.0	2.0	1.9	1.9	A	2.1	2.0	2.0	2.2	2.2	2.2	2.0	2.0	2.38	3.39																								
17-Sep	2.1	2.1	2.9	2.6	3.0	2.4	2.7	2.9	3.6	3.4	2.5	2.2	2.1	1.9	A	1.9	2.0	2.0	2.1	2.1	2.0	2.0	1.9	1.9	2.36	3.64																								
18-Sep	1.9	1.9	2.0	3.3	2.9	3.3	3.8	2.2	2.3	2.1	2.3	2.2	2.2	A	2.1	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	1.9	2.27	3.84																								
19-Sep	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.93	2.01																								
20-Sep	2.1	2.2	2.7	2.8	2.4	2.3	2.6	2.7	2.3	2.2	1.9	A	1.9	1.8	1.9	1.9	1.9	1.9	2.6	1.9	1.9	2.1	2.1	2.4	2.19	2.84																								
21-Sep	2.3	3.6	3.2	2.7	2.5	2.4	2.8	2.7	2.2	2.1	A	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.6	2.9	3.1	2.8	3.0	2.45	3.57																								
22-Sep	3.5	4.1	3.7	3.7	3.0	3.3	4.1	3.6	2.8	A	2.3	2.2	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.57	4.09																								
23-Sep	2.0	2.0	2.1	2.3	2.3	2.3	2.4	3.2	A	2.1	C	C	C	C	C	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.0	1.9	2.12	3.20																								
24-Sep	1.9	1.9	1.9	1.9	1.9	2.0	1.9	A	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.1	2.3	2.3	2.6	2.7	2.08	2.67																								
25-Sep	2.3	2.3	2.2	2.2	2.1	2.1	A	2.4	C	C	C	C	C	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.11	2.42																								
26-Sep	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.03	2.12																								
27-Sep	2.1	2.0	2.1	2.1	A	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.10	2.24																								
28-Sep	2.1	2.1	2.2	A	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.19	2.34																								
29-Sep	2.3	2.3	A	2.4	3.5	4.3	3.4	2.9	2.6	2.6	2.6	2.4	2.2	2.6	2.3	2.3	2.0	2.0	2.1	2.0	2.1	2.0	2.1	2.0	2.48	4.35																								
30-Sep	2.0	A	2.1	2.1	2.6	2.5	2.6	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.7	2.3	2.0	2.3	2.0	2.0	2.0	2.1	2.19	2.68																								
2.31 2.32 2.30 2.44 2.43 2.45 2.55 2.51 2.27 2.14 2.09 2.04 1.97 1.97 2.00 1.96 2.00 1.98 2.04 2.07 2.10 2.16 2.14 2.30																								Diurnal Average																										
3.49 4.09 3.69 3.67 3.49 4.35 4.08 4.00 3.64 3.39 2.57 2.40 2.23 2.63 2.35 2.26 2.68 2.36 2.66 2.82 2.90 3.48 2.81 4.47																								Diurnal Maximum																										
C - Calibration M - Maintenance A - Automated Daily Zero Span																																																		

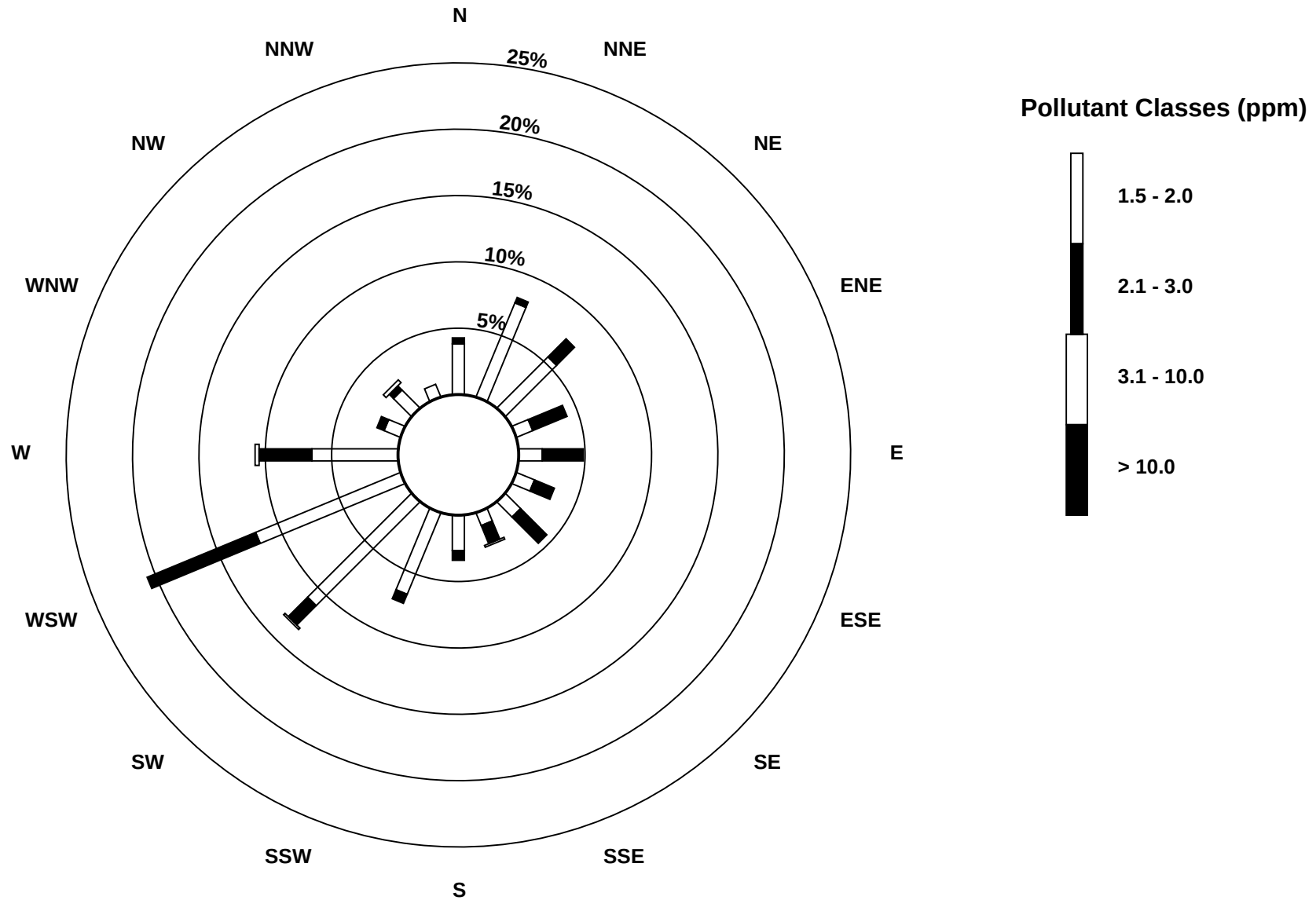
Hourly Maximums

Total Hydrocarbons (THC) - ppm
Portable Clairmont - September 2014



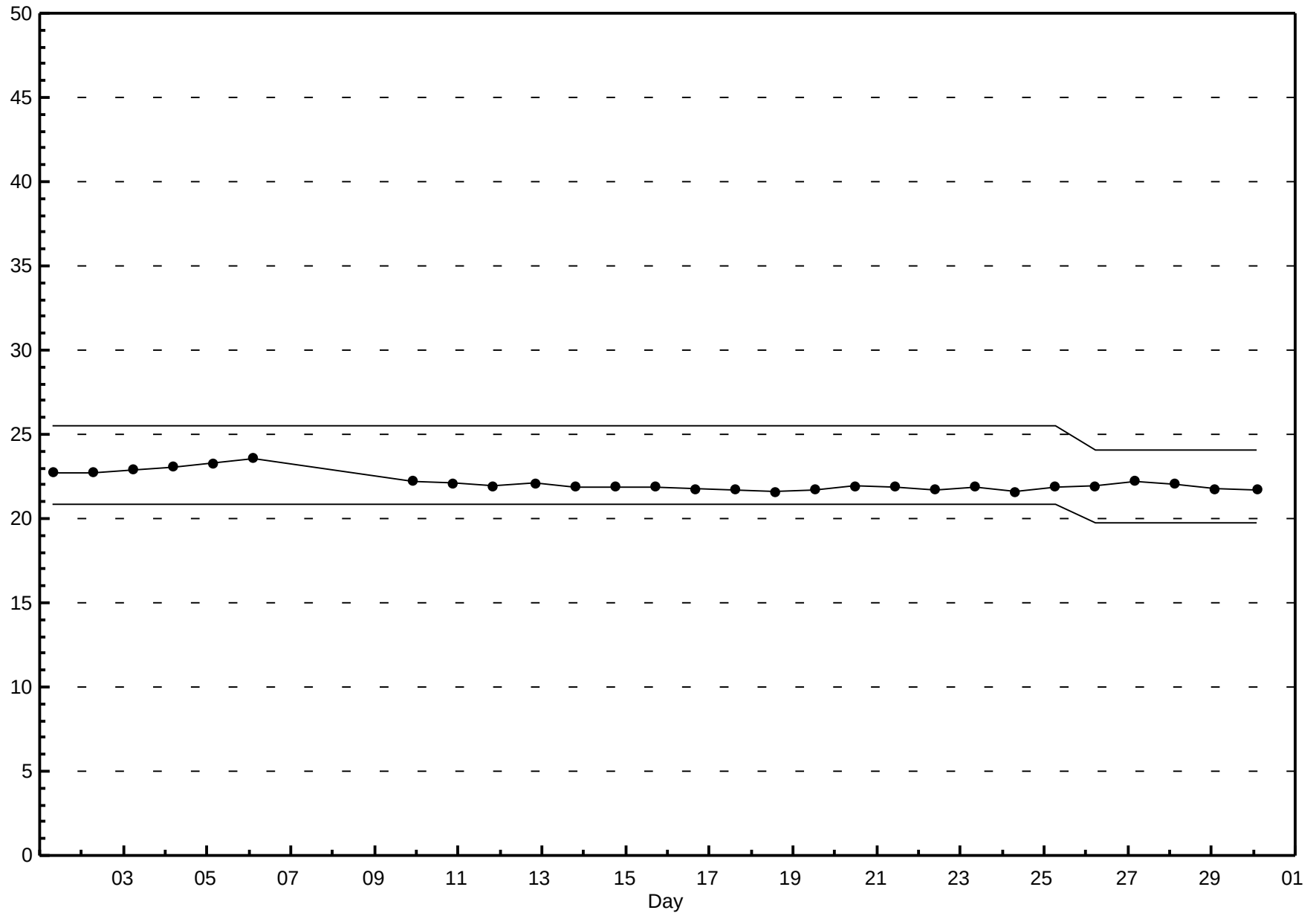
Pollutant Rose

Total Hydrocarbons (THC) - ppm
Portable Clairmont - September 2014



Span Responses

Total Hydrocarbons (THC)
Portable Clairmont - September 2014



Hourly Averages

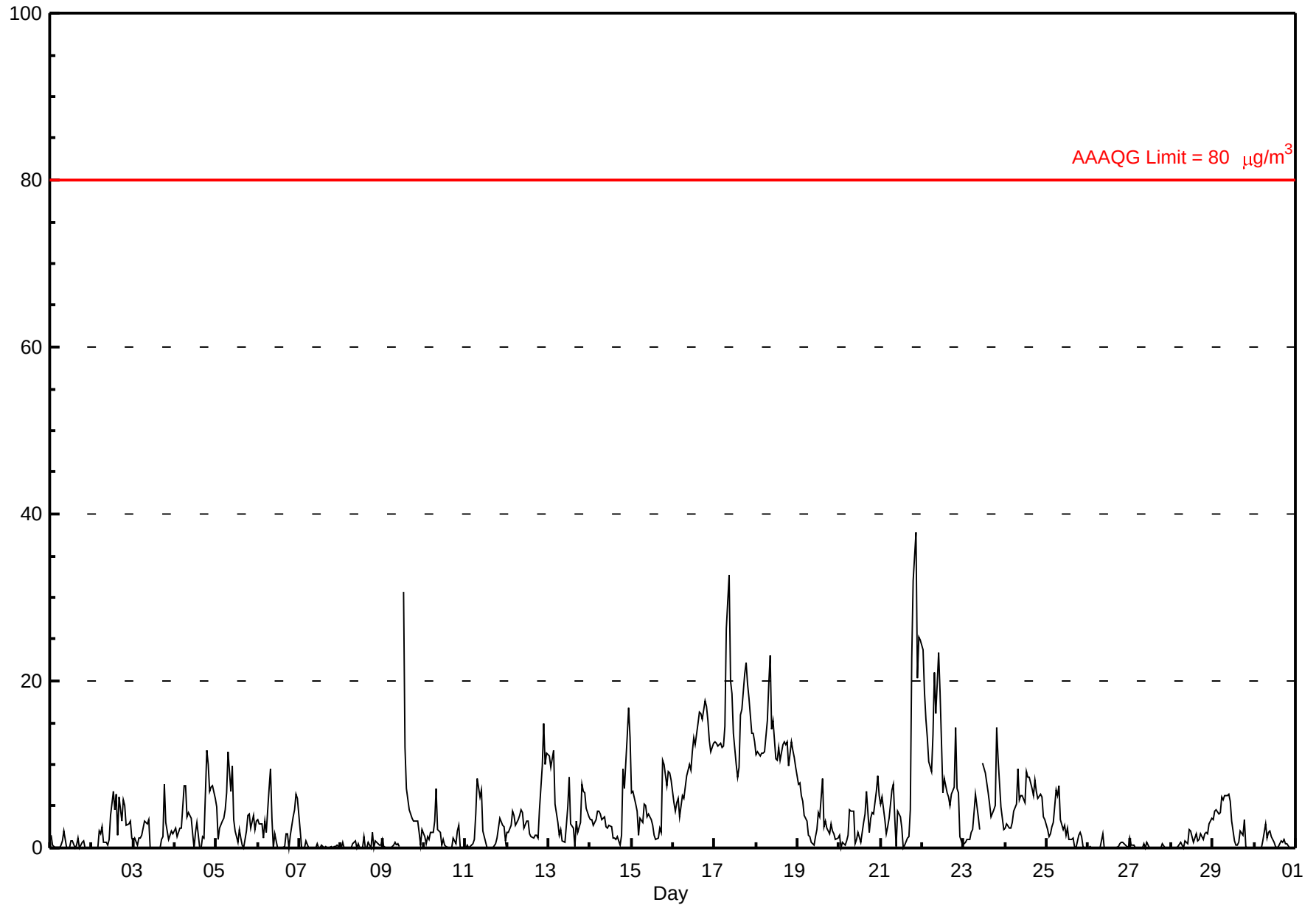
PM2.5 (PM_{2.5}) - µg/m³

Portable Clairmont - September 2014

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 37.9 µg/m³ on Sep 21 21:00 Minimum Value: 0 µg/m³ on Sep 1 05:00 Maximum Diurnal Average: 6.3 µg/m³ at hour 20 Monthly Average: 4.15 µg/m³																								Hours in Service: 720 Hours of Data: 717 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6		
Maximum Daily Average: 15.9 µg/m³ on Sep 17 Minimum Daily Average: 0.2 µg/m³ on Sep 27 Minimum Diurnal Average: 2.8 µg/m³ at hour 16 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.4 Median = 2.2 Q ₃ = 6.1 P ₉₀ = 11.5 P ₉₉ = 24.6																										
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	2	0	0	0	0	0	0	1	2	0	0	0	1	1	0	0	1	0	1	1	0	0	0	0	0.4	2.0
2-Sep	0	0	0	0	2	2	3	1	1	0	1	4	7	5	7	2	6	3	6	5	3	3	3	1	2.6	6.8
3-Sep	1	1	0	1	1	1	3	3	3	3	0	0	0	0	0	0	1	1	8	3	1	1	2	2	1.6	7.7
4-Sep	2	1	2	2	2	7	8	4	4	4	2	0	2	3	0	0	1	1	12	10	7	7	7	6	3.9	11.7
5-Sep	5	1	2	3	4	5	7	12	7	10	3	2	1	2	1	0	0	2	4	4	2	4	2	3	3.6	11.6
6-Sep	3	3	3	1	3	2	7	9	4	0	2	0	0	0	0	0	2	2	0	2	4	5	6	6	2.6	9.4
7-Sep	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
8-Sep	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0	0	1	0	2	0	1	1	0	0	0.3	1.9
9-Sep	1	0	0	0	0	0	0	1	0	1	0	M	31	12	7	5	4	4	3	3	3	2	0	2	3.5	30.7
10-Sep	1	0	1	1	2	2	3	7	2	2	0	1	0	0	0	0	0	1	0	2	3	0	0	0	1.3	7.1
11-Sep	0	0	0	0	1	1	4	8	6	7	2	1	0	0	0	0	0	0	1	2	4	3	2	1	1.9	8.2
12-Sep	2	2	3	4	4	3	3	4	5	4	2	3	3	2	1	1	2	1	1	5	10	15	10	11	4.2	14.8
13-Sep	11	10	11	12	5	3	1	2	1	1	3	5	8	3	2	0	3	2	3	8	7	7	5	4	4.8	11.6
14-Sep	3	3	3	3	4	4	4	3	4	3	2	3	3	1	1	1	1	0	1	10	7	13	17	13	4.6	16.7
15-Sep	7	7	5	4	2	4	3	5	5	4	4	3	3	2	1	1	2	2	10	10	7	9	9	8	4.9	10.5
16-Sep	5	4	5	6	4	6	6	7	9	10	9	12	13	12	15	16	16	15	18	17	15	13	12	13	10.8	17.7
17-Sep	13	12	12	12	12	12	15	26	33	20	19	14	10	8	10	16	17	21	22	20	18	14	14	13	15.9	32.7
18-Sep	11	11	11	11	11	11	15	20	23	14	15	11	11	12	11	12	13	12	13	10	13	12	11	10	12.7	23.1
19-Sep	8	8	6	6	4	3	2	1	1	0	1	2	4	4	8	3	3	2	2	3	2	2	1	1	3.2	8.3
20-Sep	2	0	1	0	1	1	5	4	4	0	1	2	1	2	3	4	7	2	4	4	4	7	9	6	3.1	8.7
21-Sep	5	6	3	2	2	4	7	8	4	0	4	4	2	0	0	1	1	5	23	32	38	20	25	25	9.2	37.9
22-Sep	24	19	15	13	10	9	14	21	16	23	19	13	7	8	7	6	5	7	7	14	7	7	1	0	11.3	23.7
23-Sep	1	1	1	1	2	2	4	6	4	2	M	10	9	8	7	5	4	5	5	14	11	5	4	2	4.9	14.3
24-Sep	2	3	2	2	3	4	5	10	6	6	6	5	9	9	8	7	6	8	7	6	7	6	4	3	5.7	9.6
25-Sep	2	1	2	2	3	7	6	7	3	2	3	1	2	1	1	1	0	0	2	2	1	0	0	0	2.2	7.4
26-Sep	0	0	0	0	0	0	0	0	2	0	N	0	0	0	0	0	0	0	1	1	1	0	0	0	0.2	1.7
27-Sep	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	1.2
28-Sep	0	0	0	0	0	1	0	0	1	1	2	2	1	1	2	1	1	2	1	2	2	2	3	4	1.1	3.6
29-Sep	3	4	5	4	4	6	6	6	6	6	6	3	1	0	0	1	2	2	3	0	0	0	0	0	2.9	6.4
30-Sep	0	0	0	0	0	1	3	1	2	2	1	1	0	0	0	1	1	1	1	1	0	0	0	0	0.6	3.0
3.9 3.4 3.2 3.1 2.9 3.4 4.5 6.0 5.2 4.2 3.9 3.5 4.3 3.2 3.1 2.8 3.3 3.4 5.3 6.3 5.9 5.2 4.9 4.5																								Diurnal Average		
23.7 18.6 15.4 13.3 12.1 12.2 15.3 26.2 32.7 23.5 18.7 13.7 30.7 12.3 14.9 16.3 16.5 20.9 22.8 32.0 37.9 20.3 25.3 24.8																								Diurnal Maximum		
M - Maintenance N - Not Valid																										
Alberta Ambient Air Quality Guideline (AAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAQO): 24-hr 30 µg/m³																										

Hourly Averages

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Clairmont - September 2014



Hourly Maximums

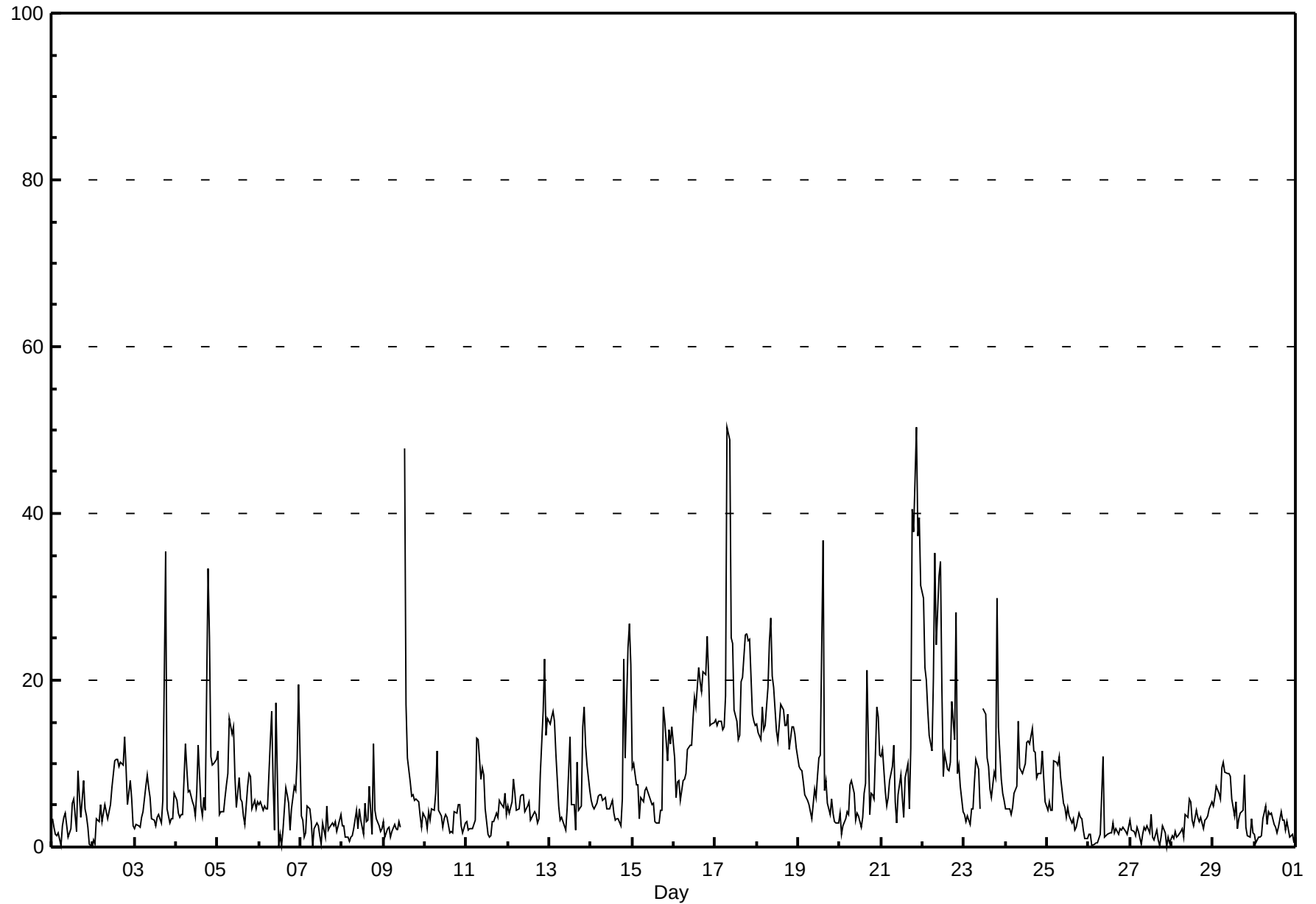
PM2.5 (PM_{2.5}) - µg/m³

Portable Clairmont - September 2014

Maximum Value: 50.3 μg/m³ on Sep 17 08:00																				Maximum Daily Average: 20.8 μg/m³ on Sep 17										Hours in Service: 720	
Minimum Value: 0 μg/m³ on Sep 2 00:00																				Minimum Daily Average: 1.6 μg/m³ on Sep 27										Hours of Data: 718	
Maximum Diurnal Average: 11.2 μg/m³ at hour 20																				Minimum Diurnal Average: 5.3 μg/m³ at hour 4										Hours of Missing Data: 2	
Monthly Average: 7.53 μg/m³																				Percentiles: P ₁ = 0.2 P ₁₀ = 1.6 Q ₁ = 3.0 Median = 5.0 Q ₃ = 9.8 P ₉₀ = 15.9 P ₉₉ = 36.8										Hours of Calibration: 0	
																				Percent Operational Time: 99.7											
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	2	2	1	2	0	3	4	4	1	2	2	5	6	2	9	6	3	8	5	4	2	0	0	3.2	9.2					
2-Sep	1	0	3	3	5	3	4	5	3	4	5	7	10	11	11	10	10	10	13	10	5	8	6	3	6.3	13.2					
3-Sep	2	3	2	2	4	4	7	9	7	6	3	3	3	4	4	3	6	20	35	5	3	3	3	6	6.1	35.4					
4-Sep	6	4	4	4	4	12	9	7	7	5	5	4	7	12	5	4	6	4	33	25	11	10	10	10	8.6	33.4					
5-Sep	12	4	4	4	6	7	9	15	14	14	8	5	8	6	5	4	3	7	9	8	5	6	5	5	7.2	15.4					
6-Sep	5	5	4	5	5	5	12	16	8	2	17	0	2	0	2	7	6	5	2	5	7	7	11	20	6.6	19.5					
7-Sep	4	3	1	2	5	5	3	0	2	3	3	1	0	3	1	5	2	2	3	2	3	2	3	4	2.6	5.0					
8-Sep	3	3	1	1	1	1	1	2	4	2	5	3	2	5	3	3	7	2	12	4	3	3	2	2	3.2	12.3					
9-Sep	3	1	2	2	1	2	3	2	2	3	2	M	48	17	11	8	6	6	6	6	6	4	2	4	6.4	47.9					
10-Sep	3	2	4	3	5	4	7	11	4	4	2	3	4	3	2	2	2	4	4	5	5	3	2	3	3.8	11.5					
11-Sep	3	2	2	2	3	3	13	13	8	9	9	5	1	1	1	3	3	4	4	6	5	5	7	4	4.8	13.1					
12-Sep	5	4	5	8	6	4	5	6	6	6	4	5	5	3	3	4	4	3	3	9	16	23	13	15	7.0	22.5					
13-Sep	15	16	16	15	11	5	3	4	3	2	5	9	13	5	5	2	10	4	5	14	17	12	10	7	8.7	16.8					
14-Sep	6	5	5	5	6	6	6	6	6	5	5	5	6	4	3	3	3	3	6	22	11	24	27	22	8.3	26.8					
15-Sep	10	10	7	7	3	6	5	7	7	7	6	5	5	3	3	3	4	4	17	15	10	14	12	14	7.8	16.9					
16-Sep	11	6	8	8	6	8	8	9	12	12	12	15	18	17	21	20	19	21	21	25	21	15	15	15	14.2	25.3					
17-Sep	15	15	15	15	14	14	18	50	49	25	24	16	15	13	13	20	20	25	26	25	25	16	15	15	20.8	50.3					
18-Sep	15	14	13	17	14	15	19	25	28	20	19	14	13	15	17	17	15	15	16	12	14	14	14	12	16.0	27.5					
19-Sep	10	9	9	8	6	6	5	4	3	7	6	9	11	11	37	7	8	5	4	6	4	3	3	3	7.6	36.9					
20-Sep	4	1	3	3	4	4	7	8	6	3	4	4	2	4	6	8	21	4	6	6	6	17	16	11	6.6	21.1					
21-Sep	11	12	7	5	6	8	10	12	5	3	6	9	6	4	8	10	5	12	41	38	50	37	39	31	15.6	50.3					
22-Sep	30	22	20	16	13	11	20	35	24	33	34	19	8	11	9	9	10	17	13	28	9	10	7	4	17.3	35.2					
23-Sep	4	3	4	3	5	5	8	11	9	5	M	17	16	11	10	7	6	9	8	30	14	8	7	6	8.8	29.9					
24-Sep	5	5	5	4	5	6	7	15	9	9	9	10	13	13	12	14	11	11	8	9	9	11	8	5	8.9	15.0					
25-Sep	4	5	4	4	10	10	10	11	8	5	5	4	5	4	3	3	2	2	4	3	3	2	1	1	4.8	10.8					
26-Sep	2	2	0	0	0	1	1	2	11	1	1	1	2	2	3	2	2	2	2	2	2	2	2	2	1.9	10.9					
27-Sep	3	2	2	1	2	2	0	2	2	2	3	2	4	1	1	2	1	0	1	2	2	0	1	1	1.6	3.8					
28-Sep	1	1	2	1	1	2	2	1	4	4	6	5	3	3	4	4	3	3	2	3	3	4	5	5	3.1	5.7					
29-Sep	5	6	7	6	6	10	10	9	9	9	8	6	4	5	2	3	4	4	9	2	1	1	3	2	5.5	10.2					
30-Sep	1	1	1	1	1	3	5	3	4	4	4	3	2	2	2	4	3	3	2	3	1	1	2	1	2.4	4.9					
6.7 5.6 5.4 5.3 5.4 5.8 7.4 10.1 9.0 7.2 7.7 6.6 8.0 6.6 7.1 6.6 7.0 7.3 10.8 11.2 9.2 8.9 8.3 7.8																									Diurnal Average						
29.8 21.6 20.0 16.7 14.1 14.6 20.2 50.3 48.8 32.6 34.3 19.1 47.9 17.1 36.9 19.9 21.1 25.4 40.5 37.9 50.3 37.3 39.4 31.4																									Diurnal Maximum						
M - Maintenance																															

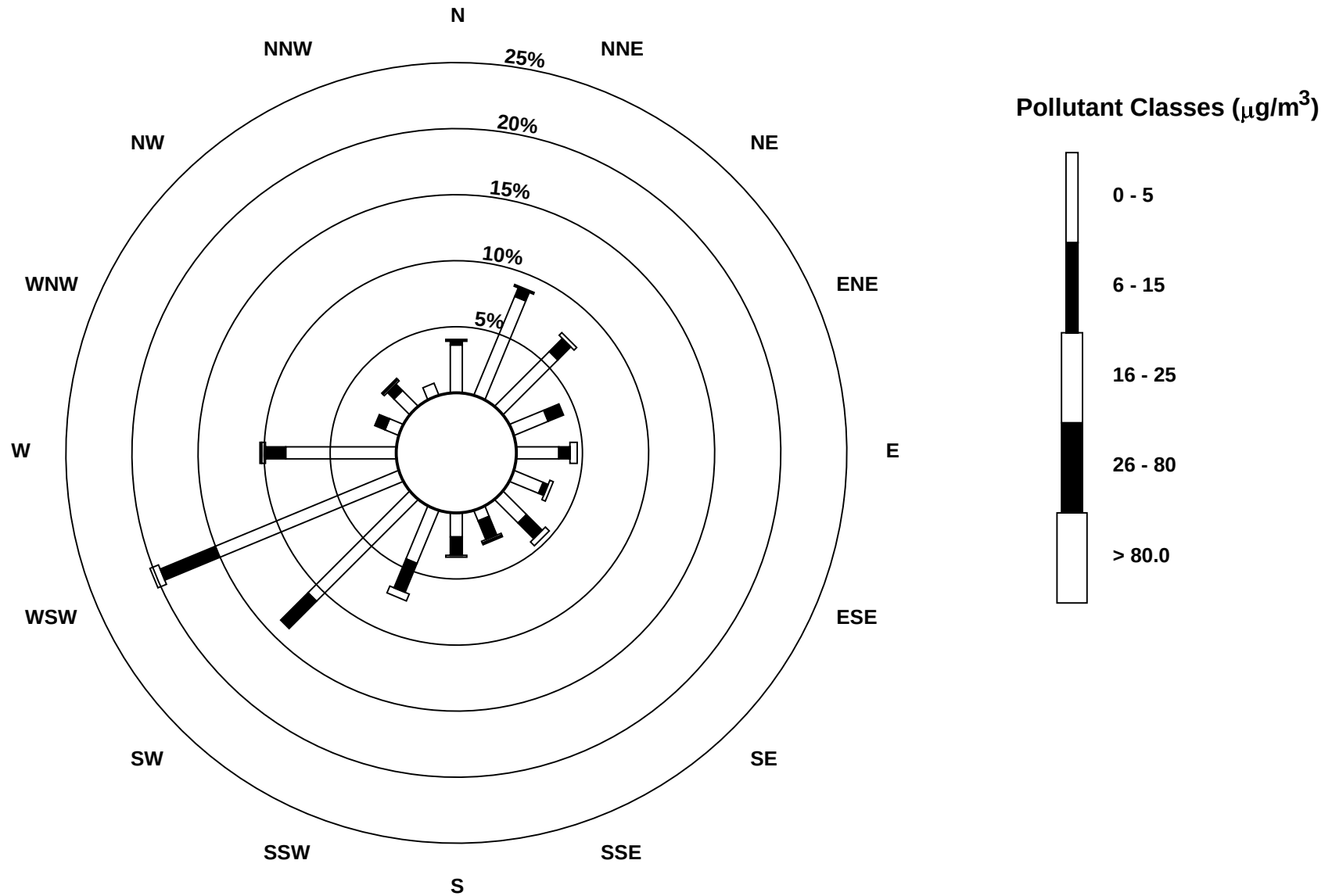
Hourly Maximums

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Clairmont - September 2014



Pollutant Rose

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Clairmont - September 2014



Hourly Averages

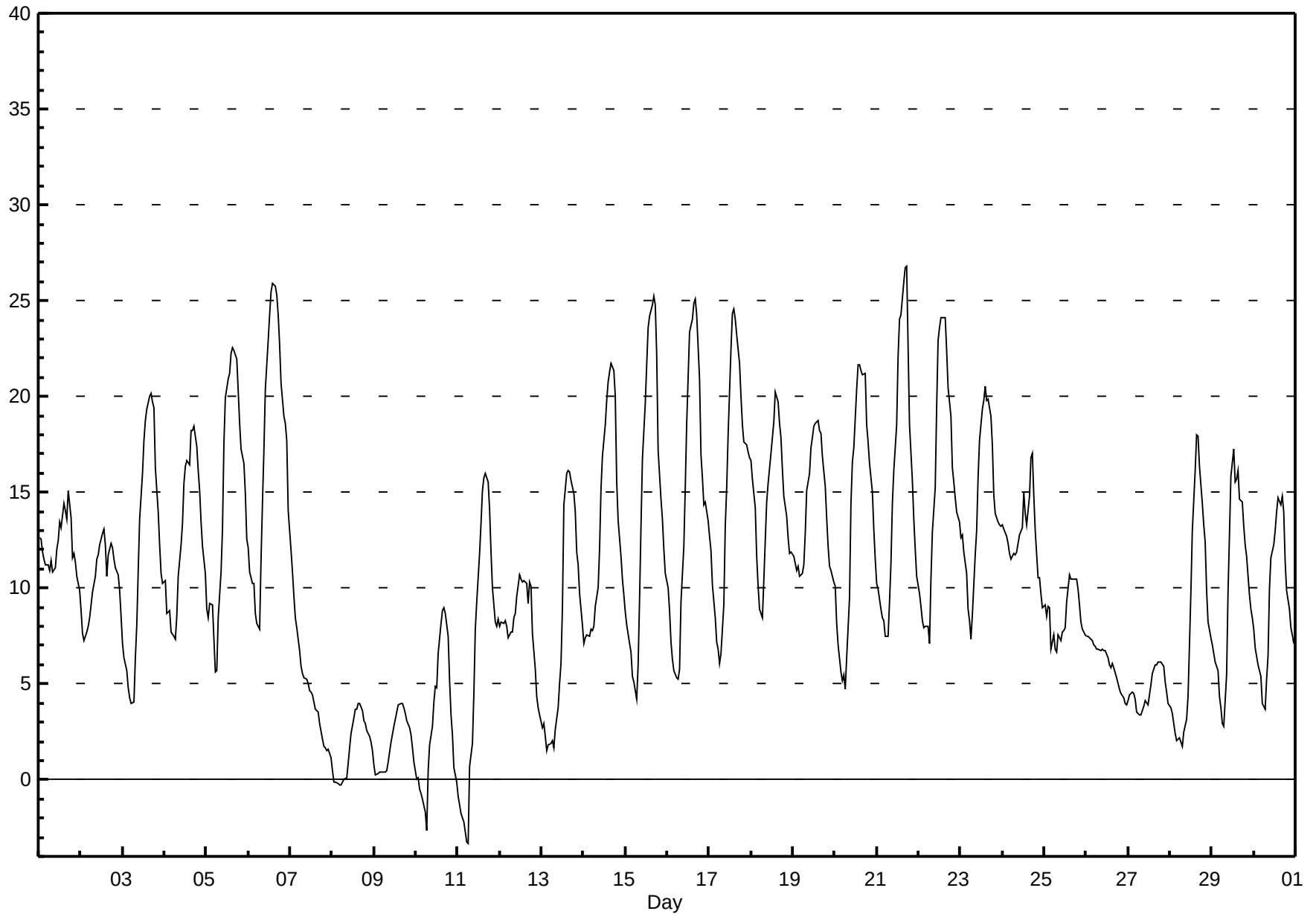
External Temperature (ET) - °C

Portable Clairmont - September 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 26.8 °C on Sep 21 18:00 Maximum Daily Average: 17.4 °C on Sep 6																								Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0			
Minimum Value: -3 °C on Sep 11 07:00 Maximum Diurnal Average: 16.1 °C at hour 16 Monthly Average: 10.64 °C												Minimum Daily Average: 1.7 °C on Sep 8 Minimum Diurnal Average: 5.4 °C at hour 7 Percentiles: P ₁ = -1.4 P ₁₀ = 2.8 Q ₁ = 6.0 Median = 10.2 Q ₃ = 14.8 P ₉₀ = 19.8 P ₉₉ = 25.2															
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	13	13	12	12	11	11	11	11	11	11	12	12	13	13	14	14	14	15	14	12	12	11	11	11	10	12.2	15.1
2-Sep	9	8	7	8	8	8	9	10	11	11	12	12	13	13	12	11	12	12	12	11	11	11	10	9	10.4	13.1	
3-Sep	7	6	6	5	4	4	4	6	8	11	14	16	18	19	19	20	20	20	19	16	14	12	11	10	12.1	20.2	
4-Sep	10	9	9	9	8	7	7	9	11	12	13	15	16	17	16	18	18	18	17	16	15	13	12	11	12.9	18.5	
5-Sep	9	8	9	9	7	6	6	8	11	13	18	20	21	21	22	23	22	22	20	19	17	17	15	13	14.8	22.6	
6-Sep	12	11	10	10	9	8	8	12	15	17	20	23	24	25	26	26	25	24	23	21	19	19	18	14	17.4	25.9	
7-Sep	12	11	10	8	8	7	6	6	5	5	5	5	5	4	4	4	4	3	2	2	2	2	2	1	5.0	11.9	
8-Sep	0	0	0	0	0	0	0	0	0	1	2	2	3	4	4	4	4	4	3	3	3	2	2	2	1.7	4.0	
9-Sep	1	0	0	0	0	0	0	0	1	1	2	3	3	4	4	4	4	4	3	3	3	2	2	1	2.0	4.0	
10-Sep	0	0	0	-1	-1	-2	-3	0	2	3	4	5	5	7	8	9	9	9	8	5	3	2	1	0	3.0	9.0	
11-Sep	-1	-1	-2	-2	-3	-3	-3	1	2	4	8	9	12	13	15	16	16	16	14	12	10	8	8	8	6.5	16.0	
12-Sep	8	8	8	8	8	7	8	8	8	9	10	11	10	10	10	10	9	10	10	8	6	4	4	3	8.2	10.7	
13-Sep	3	3	2	1	2	2	2	2	3	4	5	6	9	14	16	16	16	16	15	14	12	11	10	8	8.0	16.2	
14-Sep	7	7	8	7	8	8	8	9	10	12	15	17	19	20	21	21	22	21	20	16	14	12	10	10	13.4	21.7	
15-Sep	9	8	7	7	5	5	4	6	9	13	17	20	22	24	24	25	25	25	22	17	15	14	12	11	14.4	25.3	
16-Sep	10	9	7	6	6	5	5	6	9	12	15	19	21	23	24	25	25	24	21	17	16	14	14	14	14.5	25.1	
17-Sep	13	12	10	8	7	7	6	7	9	13	15	18	22	24	25	24	23	22	20	19	18	18	17	17	15.6	24.6	
18-Sep	17	16	14	12	10	9	8	10	13	14	15	17	18	19	20	20	19	18	16	15	14	13	12	12	14.6	20.3	
19-Sep	12	11	11	11	11	11	11	13	15	16	17	18	18	19	19	18	18	17	15	14	12	11	11	10	14.1	18.7	
20-Sep	10	8	7	6	5	5	5	6	9	14	17	17	20	22	22	21	21	21	19	18	17	15	13	12	13.8	21.7	
21-Sep	10	10	9	8	8	7	7	9	11	14	16	19	22	24	24	26	27	27	23	19	16	14	12	11	15.6	26.8	
22-Sep	10	9	8	8	8	8	7	10	13	15	19	23	24	24	24	24	22	20	19	16	16	15	14	13	15.5	24.1	
23-Sep	13	13	12	11	9	8	7	9	12	13	16	18	19	20	21	20	20	19	17	15	14	13	13	13	14.3	20.5	
24-Sep	13	13	13	12	12	12	12	12	12	12	13	13	15	14	13	15	17	17	15	13	11	11	10	9	12.8	17.0	
25-Sep	9	9	9	9	7	8	7	7	8	7	8	8	8	9	11	10	10	11	10	10	9	8	8	8	8.6	10.7	
26-Sep	7	7	7	7	7	7	7	7	7	7	7	7	6	6	6	6	6	5	5	5	4	4	4	4	6.1	7.5	
27-Sep	4	4	5	4	4	4	3	3	4	4	4	4	4	5	6	6	6	6	6	6	6	5	5	4	4.7	6.2	
28-Sep	4	3	3	2	2	2	2	2	3	3	4	7	10	13	16	18	18	16	14	13	12	10	8	7	8.1	18.0	
29-Sep	7	7	6	6	4	4	3	3	5	10	13	16	17	16	16	16	15	14	13	12	12	10	9	8	10.0	17.3	
30-Sep	8	7	6	6	5	4	4	5	6	10	12	12	13	14	15	14	15	14	11	10	9	8	8	7	9.3	14.8	
																									Diurnal Average	Diurnal Maximum	
																									8.2 7.6 7.1 6.6 6.0 5.6 5.4 6.5 8.0 9.8 11.6 13.0 14.4 15.3 15.9 16.1 16.1 15.7 14.3 12.5 11.3 10.3 9.4 8.6		
																									16.7 15.7 14.2 12.3 11.8 11.5 11.8 12.9 15.1 17.2 20.4 22.9 24.3 25.4 25.9 26.0 26.7 26.8 22.7 20.7 18.9 18.6 17.7 16.8		

Hourly Averages

External Temperature (ET) - °C
Portable Clairmont - September 2014



Hourly Averages

Wind Speed (km/h)

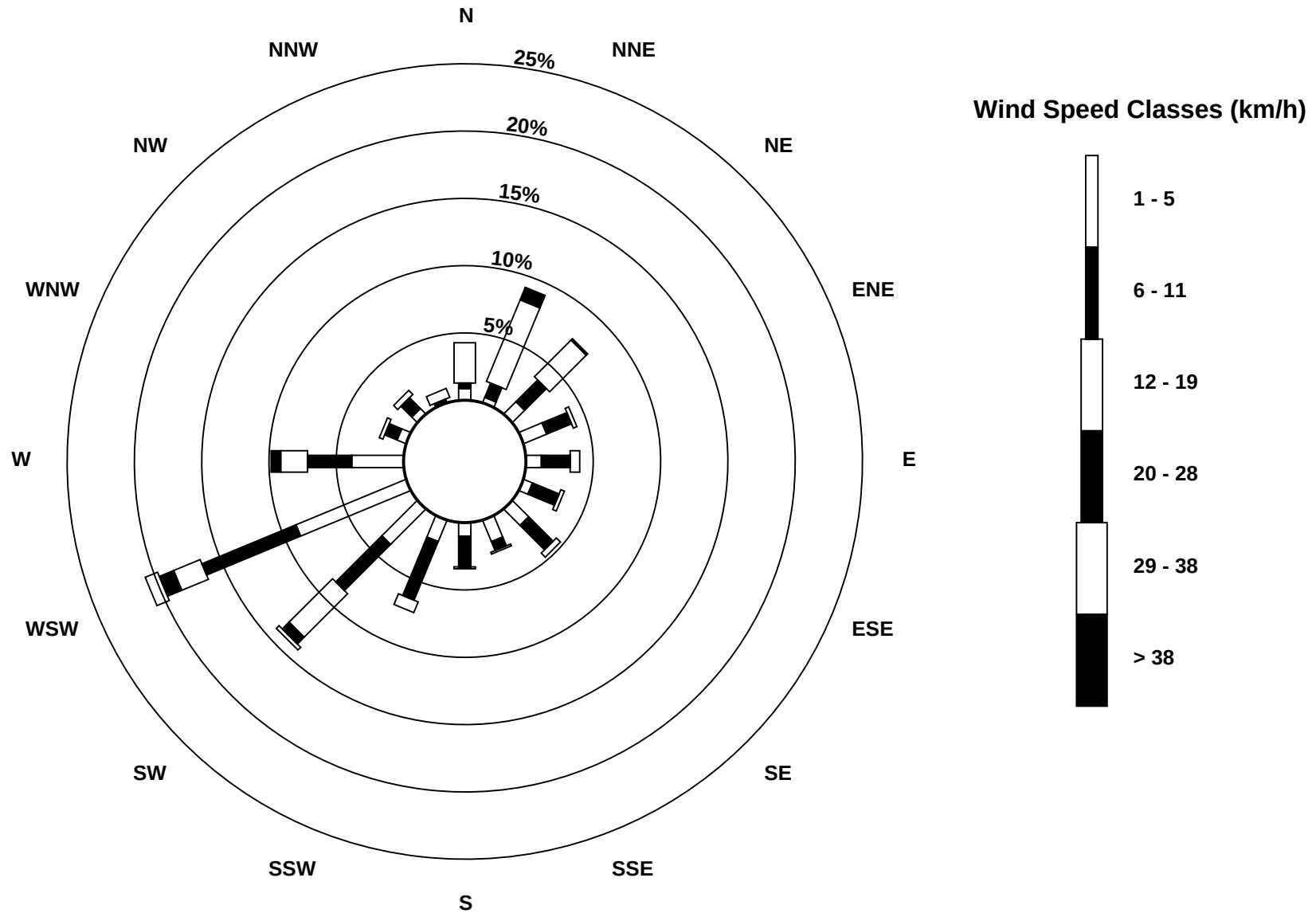
Wind Direction (deg)

Portable Clairmont - September 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	13	13	10	12	12	11	8	12	11	9	9	8	7	3	10	7	8	7	5	5	7	7	6	7	7.9	13.0
Dir	234	224	217	228	223	221	215	236	241	209	221	222	190	248	253	277	307	272	241	231	213	234	211	217	230.9	233.9
2 Spd	7	5	5	5	6	3	4	5	5	10	9	10	9	12	7	6	7	8	6	4	4	4	7	8	5.5	11.8
Dir	246	253	271	258	283	216	148	199	230	262	265	273	299	345	308	284	285	294	268	258	250	277	252	264	270.9	344.9
3 Spd	10	10	10	9	8	5	6	6	5	6	8	9	9	8	6	8	6	7	10	15	14	11	9	6	7.5	15.0
Dir	271	276	261	257	256	241	234	255	242	209	201	208	183	188	206	191	212	223	236	228	224	229	250	276	231.7	228.4
4 Spd	5	3	3	3	3	2	4	7	13	15	12	13	11	13	9	10	8	7	5	5	5	4	5	3	6.5	14.6
Dir	266	237	220	248	232	252	259	269	267	275	261	278	272	260	250	244	239	263	217	197	194	255	244	245	255.2	274.9
5 Spd	1	4	7	6	5	4	4	4	6	6	12	25	26	24	23	20	18	15	12	13	13	12	8	3	8.9	26.3
Dir	81	219	211	215	163	155	159	125	135	116	222	251	267	265	272	275	278	268	251	230	221	219	228	253	246.0	267.4
6 Spd	5	5	5	5	4	3	2	3	3	5	10	14	16	18	22	22	22	19	16	12	10	13	7	14	9.1	22.4
Dir	256	250	224	244	228	212	202	249	260	257	251	245	257	246	248	244	237	238	228	220	205	201	286	33	241.0	236.7
7 Spd	19	20	17	20	11	13	13	16	14	12	12	17	17	17	16	15	15	19	14	12	11	14	17	21	15.2	21.1
Dir	30	31	22	19	12	33	18	15	354	358	1	353	359	350	356	359	4	1	6	10	3	3	15	19	9.3	18.8
8 Spd	21	14	12	13	13	13	15	16	18	19	20	16	14	15	16	13	14	15	11	12	14	15	16	17	14.6	20.8
Dir	21	18	15	15	17	24	25	27	30	34	40	38	43	31	21	32	41	37	87	65	46	37	35	39	33.2	21.4
9 Spd	20	18	16	15	15	14	16	16	13	15	14	13	13	14	15	15	14	14	13	11	11	12	15	13	14.0	19.8
Dir	33	35	34	32	31	27	27	24	31	31	30	25	17	11	17	16	10	15	1	355	355	13	23	24	22.0	33.1
10 Spd	9	5	6	3	2	2	1	2	9	7	4	6	6	7	10	13	12	14	13	8	7	11	6	7	4.5	13.7
Dir	15	350	15	347	350	234	274	166	181	206	203	103	52	111	148	145	152	144	140	141	126	124	130	124	133.6	144.3
11 Spd	6	4	6	7	8	5	4	4	6	6	7	9	15	14	14	18	16	16	10	7	7	5	4	5	5.8	17.6
Dir	136	141	134	139	142	134	127	128	127	116	174	182	227	240	234	245	235	237	235	214	229	263	275	261	209.4	245.4
12 Spd	4	7	7	11	12	10	11	11	10	10	11	11	11	8	5	12	12	8	4	4	1	0	1	3	6.2	12.3
Dir	249	242	255	230	221	248	255	252	258	244	258	270	276	255	212	303	9	343	273	272	258	318	351	254	262.4	303.1
13 Spd	1	1	1	1	3	5	5	3	5	5	7	7	8	8	8	7	6	6	6	4	2	2	3	5	2.7	8.3
Dir	230	53	209	297	131	129	123	51	103	106	111	96	99	160	188	198	179	212	204	189	60	246	239	252	154.9	159.6
14 Spd	7	5	5	6	5	3	4	5	4	4	5	6	9	10	9	10	10	8	3	5	4	3	3	3	4.0	9.8
Dir	262	266	250	256	237	255	254	236	256	245	225	259	249	250	225	229	202	239	259	46	57	97	84	74	241.7	229.4
15 Spd	3	3	1	4	5	5	6	6	5	6	6	5	6	6	9	8	6	5	4	3	5	6	1	2	3.3	9.2
Dir	92	146	212	252	254	246	252	257	252	241	225	234	258	213	246	243	228	188	156	123	141	126	157	78	221.8	245.8
16 Spd	2	3	4	4	6	4	6	5	4	6	6	5	1	4	3	6	7	8	8	4	5	4	6	6	1.4	8.0
Dir	96	254	255	233	249	235	256	253	243	259	247	253	142	136	62	121	129	130	130	111	99	90	49	56	173.4	129.9
17 Spd	5	7	4	3	6	6	3	1	1	2	3	4	7	10	12	13	9	5	6	7	10	11	8	10	4.2	13.4
Dir	57	50	259	259	248	246	244	265	304	190	53	59	159	220	232	247	252	203	194	203	205	197	196	197	216.1	246.9
18 Spd	8	5	2	1	2	2	3	3	2	3	4	6	8	8	10	11	16	15	15	10	9	6	7	9	6.2	15.7
Dir	202	197	230	195	152	156	161	164	146	210	273	241	228	198	227	213	228	226	235	231	199	211	185	176	213.6	227.8
19 Spd	11	10	10	10	10	12	13	17	21	29	33	35	37	37	36	31	31	30	27	25	21	15	17	14	21.1	36.8
Dir	201	194	189	186	178	193	190	204	224	236	240	241	243	240	233	245	239	241	229	229	225	234	230	241	229.2	240.2
20 Spd	8	3	3	2	4	5	3	3	4	15	18	16	23	26	26	23	21	15	9	11	9	5	3	4	10.4	26.3
Dir	257	314	243	173	229	238	260	273	252	233	241	234	239	232	237	245	238	221	215	201	206	226	274	254	235.2	236.6
21 Spd	1	2	1	2	3	3	2	3	4	5	4	6	8	6	5	3	3	3	3	2	1	5	4	2	1.9	7.9
Dir	249	177	67	63	90	50	52	60	61	87	59	67	105	111	62	48	30	38	40	7	164	251	248	248	72.7	104.5
22 Spd	0	1	1	0	1	0	1	1	0	0	1	2	10	8	15	18	16	14	8	8	11	8	7	4	4.0	17.6
Dir	81	268	321	152	84	13	273	80	96	320	272	271	257	258	282	274	272	258	258	151	159	177	201	237	247.1	274.1

Wind Rose

Wind Speed (WS) (km/h)
Portable Clairmont - September 2014



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Clairmont - September 2014

Maximum Speed: 37 km/h on Sep 19 14:00																				Maximum Daily Speed Average: 22.5 km/h on Sep 19										Hours in Service: 720			
Minimum Speed: 1 km/h on Sep 22 03:00																				Minimum Daily Speed Average: 3.9 km/h on Sep 21										Hours of Data: 720			
Maximum Diurnal Speed Average: 12.9 km/h at hour 15																				Minimum Diurnal Speed Average: 6.6 km/h at hour 7										Hours of Missing Data: 0			
Monthly Average Speed: 9.45 km/h																				Percentiles: P ₁ = 1.0 P ₁₀ = 3.3 Q ₁ = 5.2 Median = 8.3 Q ₃ = 12.8 P ₉₀ = 16.5 P ₉₉ = 30.9										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	13	13	10	12	12	11	8	12	11	9	9	8	8	6	10	7	8	8	8	5	8	7	6	7	9.0	13.2							
2-Sep	7	5	5	6	6	3	4	6	6	10	9	10	11	12	9	7	8	8	7	5	4	4	7	8	7.0	12.1							
3-Sep	10	10	10	9	8	5	6	6	5	7	9	10	10	9	8	9	8	7	11	15	14	11	9	6	8.8	15.1							
4-Sep	5	4	3	3	3	2	4	8	13	15	12	14	12	14	10	10	9	7	5	5	5	4	5	4	7.4	14.8							
5-Sep	2	4	7	7	5	4	4	4	6	6	13	25	27	24	24	21	18	15	12	13	13	12	8	3	11.6	26.9							
6-Sep	5	5	5	5	5	3	2	3	4	6	11	15	16	19	23	23	23	19	16	12	10	13	10	14	11.0	22.7							
7-Sep	19	20	17	21	12	14	14	17	14	12	12	17	17	18	17	15	15	19	14	12	11	14	17	21	15.8	21.2							
8-Sep	21	14	12	13	13	13	15	16	18	20	20	17	14	15	16	14	14	15	11	12	14	15	16	17	15.2	20.9							
9-Sep	20	18	16	15	15	14	16	16	13	15	15	14	13	14	16	15	14	14	13	11	11	12	15	13	14.4	19.9							
10-Sep	9	5	6	3	2	3	3	4	9	8	5	8	7	9	11	13	13	14	13	9	7	11	6	7	7.7	13.9							
11-Sep	6	4	6	7	8	5	4	4	6	6	8	10	15	14	14	18	16	17	10	7	8	5	4	5	8.6	17.9							
12-Sep	5	7	8	11	12	10	11	11	11	10	11	11	11	8	6	13	12	9	4	4	3	2	3	3	8.1	13.4							
13-Sep	2	1	1	1	3	5	5	4	5	5	7	8	8	9	8	8	7	7	6	5	3	3	4	5	5.1	9.3							
14-Sep	7	6	5	7	5	4	4	6	5	4	6	7	10	10	10	11	10	9	3	5	4	3	3	3	6.1	10.7							
15-Sep	3	3	2	4	5	5	6	6	5	6	6	6	7	7	10	9	8	6	4	3	5	6	2	3	5.4	9.9							
16-Sep	2	3	5	4	6	4	6	5	5	6	7	6	5	5	6	7	7	8	8	4	6	5	6	6	5.5	8.0							
17-Sep	5	7	6	3	6	6	3	2	2	3	3	5	8	11	13	14	9	6	6	8	10	11	8	11	6.8	13.6							
18-Sep	10	5	3	2	2	2	3	4	3	5	4	6	9	9	10	11	16	15	15	10	9	7	7	9	7.3	15.9							
19-Sep	11	11	10	10	10	13	13	17	21	29	33	35	37	37	37	32	31	31	27	26	21	15	17	14	22.5	37.2							
20-Sep	9	4	4	3	5	6	4	3	5	15	19	16	24	26	27	23	22	15	9	11	9	6	5	5	11.3	26.8							
21-Sep	2	3	2	3	3	3	3	3	4	5	4	6	8	7	5	4	3	3	3	3	2	6	5	3	3.9	8.2							
22-Sep	1	1	1	1	1	1	1	1	1	1	1	2	11	8	15	18	16	15	8	8	11	8	7	5	6.0	17.9							
23-Sep	6	6	5	5	4	5	4	3	5	7	5	5	7	10	10	8	7	9	7	7	10	14	17	16	7.6	16.7							
24-Sep	14	13	13	11	12	8	9	6	8	9	5	7	4	8	7	5	7	9	8	5	3	5	4	3	7.5	14.0							
25-Sep	3	4	5	5	12	8	3	4	15	17	13	14	13	11	12	12	12	13	15	10	12	18	17	18	11.1	18.4							
26-Sep	20	21	17	17	16	16	16	13	14	14	15	13	18	13	12	11	12	10	9	7	7	7	5	5	12.9	20.6							
27-Sep	5	3	3	3	9	12	9	10	9	10	11	13	14	13	11	11	12	14	14	13	11	9	10	9	10.0	14.0							
28-Sep	10	10	7	7	7	8	7	7	6	6	7	9	8	7	9	9	10	10	8	7	11	13	14	12	8.7	14.2							
29-Sep	12	10	7	5	3	4	6	4	5	6	6	9	13	11	7	8	10	10	7	8	11	5	10	13	7.9	13.0							
30-Sep	12	9	7	7	7	4	5	10	11	16	21	19	17	14	16	13	16	19	16	17	14	14	18	15	13.3	20.7							
8.6 7.6 6.9 6.9 7.3 6.7 6.6 7.1 8.2 9.6 10.2 11.5 12.6 12.7 12.9 12.6 12.5 12.0 10.0 8.9 8.9 8.8 8.8 8.8																									Diurnal Average								
20.9 20.6 17.3 20.6 16.3 15.5 16.2 17.1 21.4 29.0 33.3 35.5 37.2 37.2 36.6 31.7 31.2 30.8 27.1 25.5 21.2 17.7 17.9 21.2																									Diurnal Maximum								
All monthly, daily, and diurnal averages have been calculated using scalar methods																																	

Hourly Standard Deviations

Wind Direction (WD) - deg

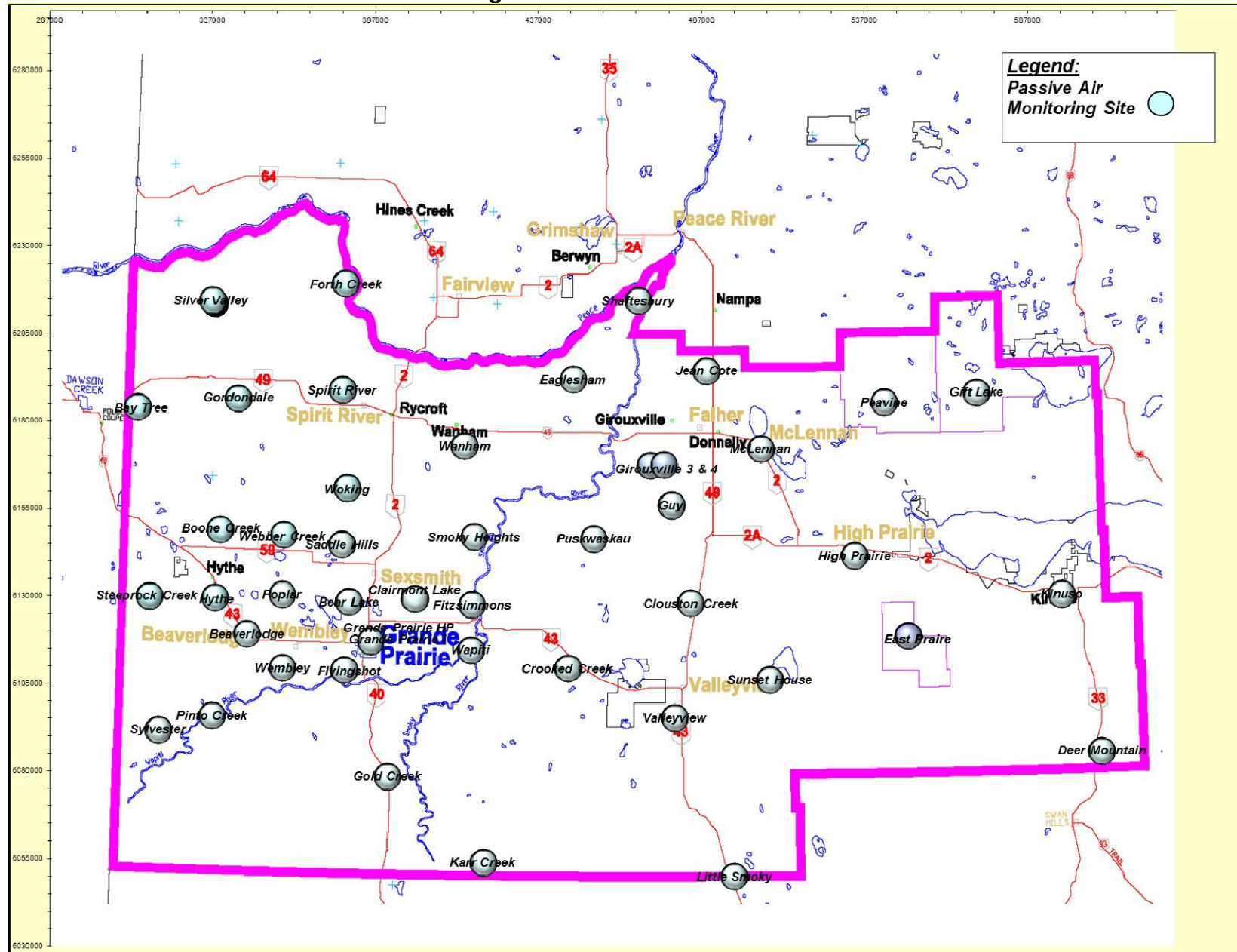
Portable Clairmont - September 2014

Maximum Value: 90.0 deg on Sep 12 22:00																			Hours in Service: 720						
Minimum Value: 3.1 deg on Sep 24 01:00																			Hours of Data: 720						
																			Hours of Missing Data: 0						
Percentiles: P ₁ = 4.2 P ₁₀ = 6.6 Q ₁ = 8.7 Median = 13.1 Q ₃ = 24.4 P ₉₀ = 44.3 P ₉₉ = 83.2																			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	8	9	10	9	8	9	10	8	12	13	14	14	21	66	12	29	25	21	48	22	14	14	9	13	66.2
2-Sep	12	10	12	17	26	20	16	18	22	11	13	15	29	14	41	21	10	15	23	40	11	20	8	8	40.9
3-Sep	8	7	10	6	8	17	13	13	21	22	24	23	25	40	41	30	43	26	13	7	7	12	7	16	42.5
4-Sep	19	27	33	34	41	27	20	14	10	9	11	18	20	23	13	20	28	17	14	9	12	23	9	63	63.2
5-Sep	81	21	8	9	22	9	17	11	22	19	23	10	12	9	11	13	10	9	15	10	8	8	21	39	80.7
6-Sep	20	11	18	18	21	16	61	26	21	21	14	16	13	11	11	9	9	10	7	7	10	8	49	10	61.2
7-Sep	6	7	6	11	26	19	16	10	9	13	12	10	8	11	13	8	9	8	7	11	7	9	8	6	26.1
8-Sep	6	7	7	9	7	5	5	5	5	7	8	10	13	12	11	13	10	11	10	14	6	6	6	7	13.5
9-Sep	5	5	5	5	4	6	5	5	7	7	10	10	12	11	9	10	9	11	6	5	6	7	6	6	12.1
10-Sep	9	23	32	34	29	65	82	70	14	27	51	36	44	41	36	18	23	11	9	10	7	6	9	8	82.3
11-Sep	12	17	7	5	6	6	11	7	14	18	39	14	14	16	15	11	12	10	9	12	21	17	21	16	38.6
12-Sep	18	11	24	14	10	13	8	7	8	7	10	9	9	13	17	29	15	19	45	9	78	90	68	41	90.0
13-Sep	72	56	42	49	52	10	23	31	23	25	23	22	14	28	24	25	24	12	7	18	37	78	19	6	78.3
14-Sep	8	14	14	10	27	38	22	17	18	27	33	34	20	23	29	24	20	13	31	19	20	29	16	13	38.1
15-Sep	17	45	89	24	8	15	11	7	10	19	25	44	28	44	23	25	43	29	17	10	9	11	65	85	88.6
16-Sep	47	37	27	23	12	19	10	11	20	14	14	26	78	46	62	33	23	8	6	21	21	25	9	8	77.7
17-Sep	20	13	70	22	7	12	37	74	89	75	42	19	27	20	15	10	10	16	9	19	8	8	9	12	89.3
18-Sep	40	16	38	81	29	26	30	56	63	61	20	29	12	18	21	14	10	8	7	8	10	30	15	8	81.2
19-Sep	11	10	10	8	6	9	9	13	12	9	8	9	9	9	7	9	9	12	7	9	8	7	7	11	13.0
20-Sep	8	42	58	47	31	31	26	39	16	9	12	13	11	8	11	8	8	8	12	6	8	22	61	33	61.5
21-Sep	72	61	46	37	21	32	32	24	23	24	21	22	16	28	21	69	16	31	39	58	57	41	68	63	71.5
22-Sep	71	34	56	81	37	84	28	32	87	89	45	42	16	22	9	9	10	11	16	20	6	8	20	26	88.7
23-Sep	32	30	38	24	19	30	48	47	12	18	43	55	52	36	28	30	17	9	11	13	6	4	5	6	55.1
24-Sep	3	5	4	5	4	8	9	26	12	9	84	23	51	11	15	78	30	12	7	49	87	43	36	55	87.1
25-Sep	66	79	70	66	9	34	59	37	6	8	12	11	12	18	15	13	10	6	7	11	6	4	4	5	79.3
26-Sep	4	4	4	4	3	7	4	6	6	6	8	14	9	11	9	9	10	8	8	10	16	17	16	13	16.6
27-Sep	13	39	26	75	21	8	14	11	13	16	18	17	14	12	14	12	9	8	7	6	7	8	9	8	74.9
28-Sep	6	6	18	9	10	15	12	9	31	17	19	17	17	18	10	12	7	7	9	12	11	6	5	5	30.8
29-Sep	6	6	12	73	28	33	12	14	16	16	22	14	11	7	10	11	9	11	19	11	17	14	12	6	73.4
30-Sep	7	6	10	15	8	34	66	7	10	10	8	10	10	14	12	10	12	8	8	7	7	10	6	7	65.7
	80.7	79.3	88.6	81.2	52.3	84.2	82.3	73.6	89.3	88.7	84.0	55.1	77.7	66.2	62.0	78.3	42.7	31.0	48.0	58.4	87.1	90.0	67.6	84.8	

PAZA

Monthly Passive Data Summary

Location of PAZA Passive Monitoring Stations



PAZA Passive Results for September 2014

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
14a	Sylvester	0.0	18.0	0.5		
14b	Sylvester	0.1	20.6	0.5		
19a	Wanham	0.2	24.9	0.8		
19b	Wanham	0.2	23.7	0.5		
20a	Shaftesbury	0.1	35.3	0.9		
20b	Shaftesbury	0.1	31.9	0.6		
50a	East Prairie	0.1	17.2	0.2		
50b	East Prairie	BDL	17.1	0.3		
45a	Gift Lake				0.1	
45b	Gift Lake				BDL	
1	Silver Valley	0.2	20.3	0.9		08-27-081-11 W6M
2	Bay Tree	0.1	23.0	1.0		13-16-078-13 W6M
3	Fourth Creek	0.1	26.7	0.6		04-13-082-07 W6M
4	Gordondale	0.2	29.5	0.8		04-34-078-10 W6M
5	Boone Creek	0.2	20.1	0.6		16-36-074-11 W6M
7	Steeprock Creek	0.1	21.9	0.5		09-35-072-13 W6M
9	Spirit River	0.1	22.5	0.8		08-12-079-07 W6M
10	Woking	0.2	23.7	0.6		01-13-076-07 W6M
11	Webber Creek	0.1	18.3	1.1		09-36-074-09 W6M
12	Hythe	0.1	21.1	0.7		14-36-072-11 W6M
14	Sylvester	0.1	19.3	0.5		08-06-069-12 W6M
16	Beaverlodge	0.1	28.4	1.4		15-36-071-10 W6M
17	Poplar	0.2	18.4	0.7		13-06-073-08 W6M
18	Saddle Hills	0.1	22.0	0.5		04-25-074-07 W6M
19	Wanham	0.2	24.3	0.7		16-22-077-03 W6M
20	Shaftesbury	0.1	33.6	0.8		04-03-082-23 W5M
21	Eaglesham	0.1	16.5	1.2		16-21-079-25 W5M
23	Bear Lake	0.1	18.4	1.2		15-31-072-06 W6M
24	Wembley	BDL	16.5	2.0		12-31-070-08 W6M
25	Pinto Creek	BDL	18.7	0.4		04-24-069-11 W6M
26	Flyingshot	BDL	16.9	0.9		15-36-070-07 W6M
27	Grande Prairie I	0.1	20.1	3.7		08-15-071-06 W6M

PAZA Passive Results for September 2014 (Continued)

28	Clairmont Lake	0.2	25.9	0.9	09-06-073-04 W6M
29	Smoky Heights	0.2	31.2	1.0	04-06-075-02 W6M
30	Fitzsimmons	0.1	18.7	1.0	15-36-072-03 W6M
32	Gold Creek	0.2	15.2	1.7	06-33-067-05 W6M
33	Wapiti	0.1	19.2	0.9	02-25-071-03 W6M
34	Puskwaskau	BDL	17.7	0.5	15-35-074-25 W5M
35	Jean Cote	0.2	21.8	1.0	12-35-079-21 W5M
36	Guy	0.1	21.0	1.1	03-04-076-22 W5M
37	Crooked Creek	BDL	21.4	0.7	16-01-071-26 W5M
38	Karr Creek	BDL	15.7	0.8	10-16-065-02 W6M
39	Clouston Creek	0.1	21.3	0.7	12-01-073-22 W5M
40	McLennan	0.2	21.7	0.9	03-29-077-19 W5M
41	Valleyview	0.1	24.1	0.7	09-30-069-22 W5M
42	Sunset House	0.1	26.3	0.4	05-32-070-19 W5M
43	High Prairie	BDL	19.5	0.6	16-13-074-17 W5M
44	Peavine	0.1	18.1	0.3	03-05-079-15 W5M
45	Gift Lake	0.1	15.5	0.3	0.1 10-07-079-12 W5M
46	Little Smoky	0.1	14.1	1.4	12-01-065-21 W5M
47	Kinuso	0.1	16.2	0.4	12-10-073-10 W5M
48	Deer Mountain	0.1	23.0	0.3	15-22-068-09 W5M
49	Grande Prairie HP	0.1	21.5	3.3	17-26-071-06 W6M
50	East Prairie	0.1	17.1	0.2	13-02-072-15 W5M
63	Girouxville 3			BDL	14-02-077-23 W5M
64	Girouxville 4			0.2	4-08-077-22 W5M

*BDL = Below Detection Level

*NS - No sample

Passive Summary for September 2014

Stats	Sulphur Dioxide SO ₂	Ozone O ₃	Nitrogen Dioxide NO ₂	Hydrogen Sulphide H ₂ S
	ppb	ppb	ppb	ppb

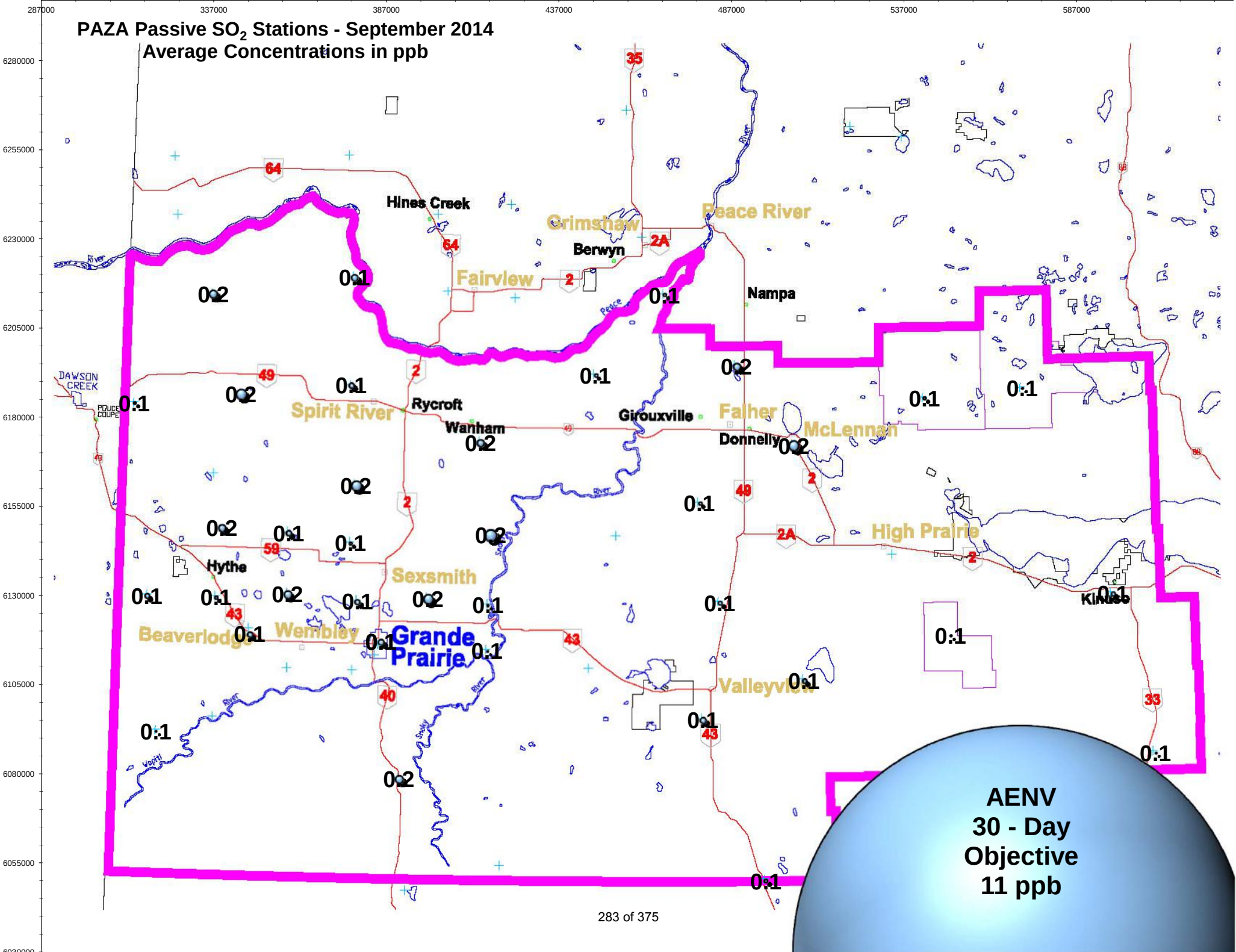
Passive Summary for September 2014 (PAZA Zone)				
Mean	0.1	21.1	0.9	0.1
Standard Deviation	0.1	4.3	0.7	0.1
Minimum	0.1	14.1	0.2	0.1
Minimum At	Sylvester (#14)	Little Smoky (#46)	East Prairie (#50)	Gift Lake (#45a)
Maximum	0.2	33.6	3.7	0.2
Maximum At	Smoky Heights (#29)	Shaftesbury (#20)	Grande Prairie I (#27)	Girouxville 4 (#64)

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

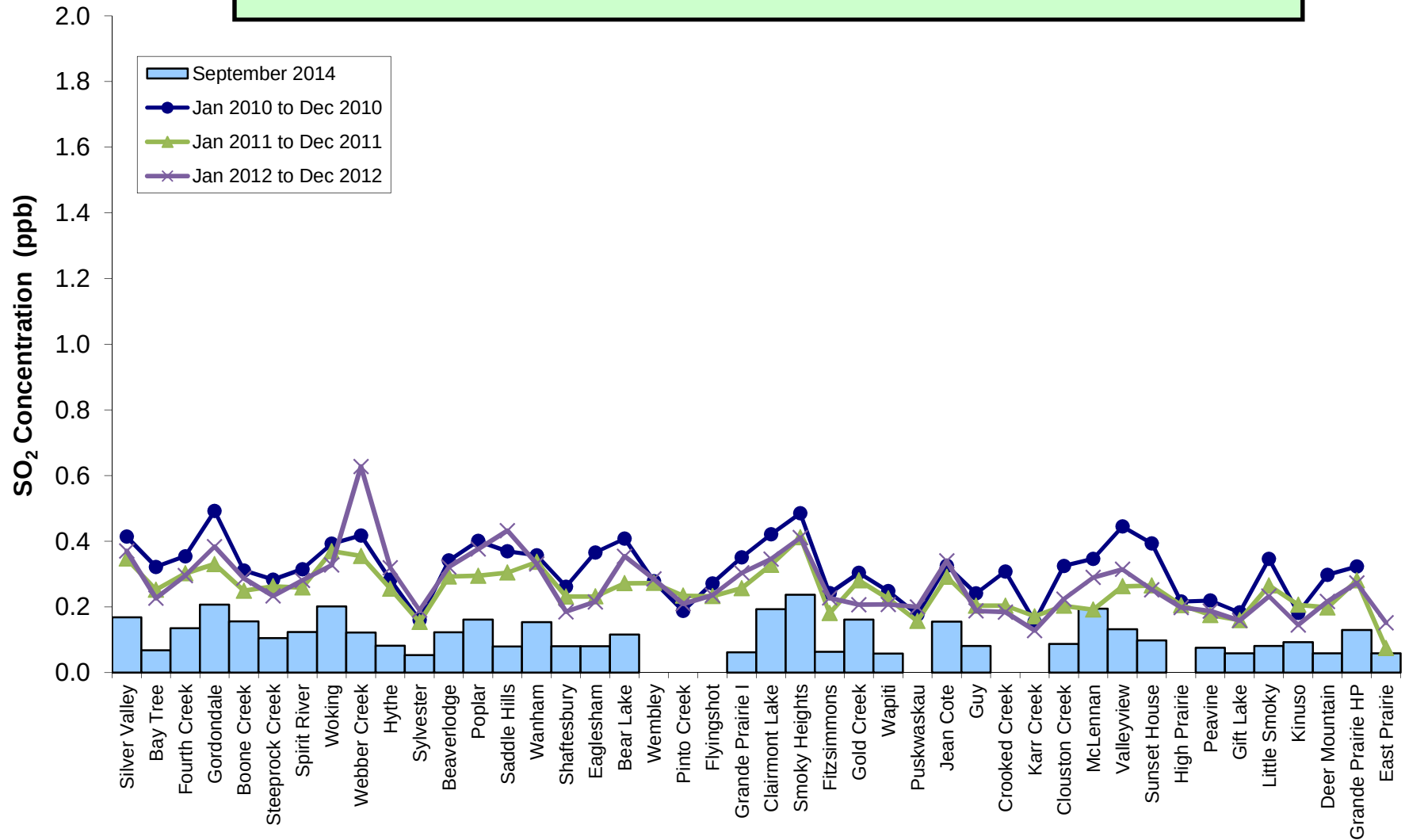
	SO ₂	O ₃	NO ₂
PAZA Beaverlodge station	0.5	32.9	4.0
PAZA Beaverlodge passive	0.1	28.4	1.4

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

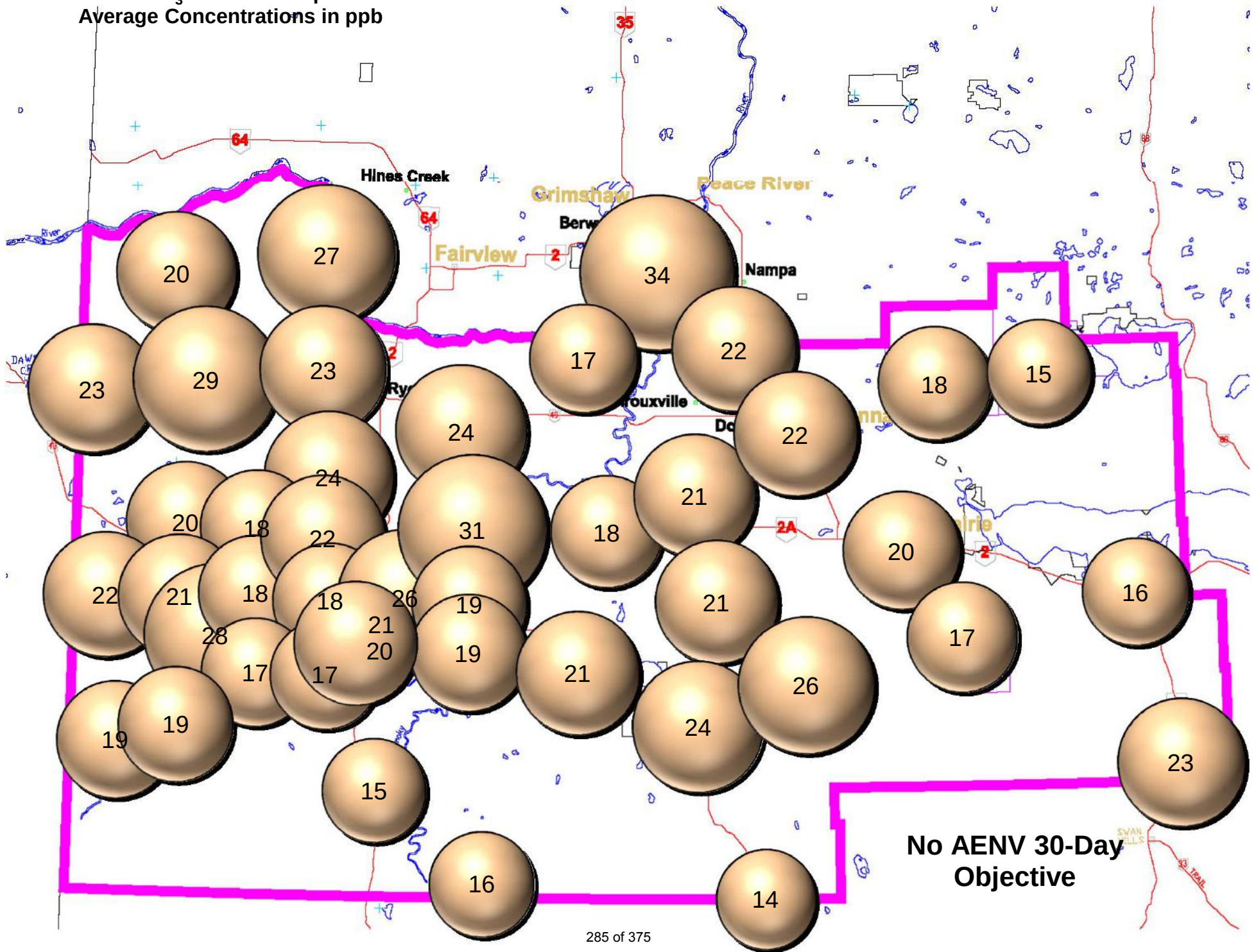
	SO ₂	O ₃	NO ₂
PAZA Henry Pirker station	0.3	27.0	11.1
PAZA Grande Prairie passive	0.1	21.5	3.3



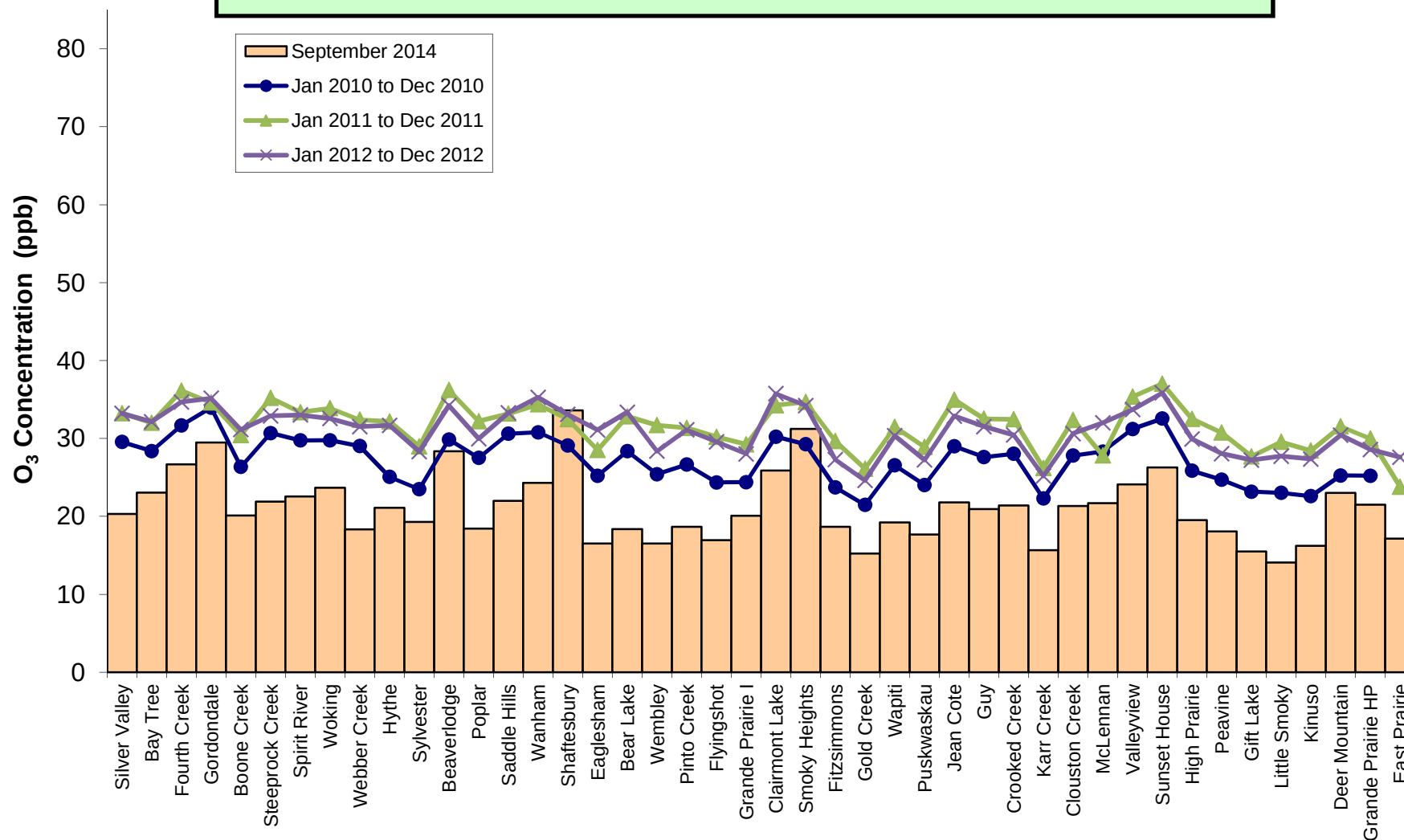
Alberta Ambient Air Quality Objective - 30-day Objective is 11 ppb



PAZA Passive O₃ Stations - September 2014
Average Concentrations in ppb



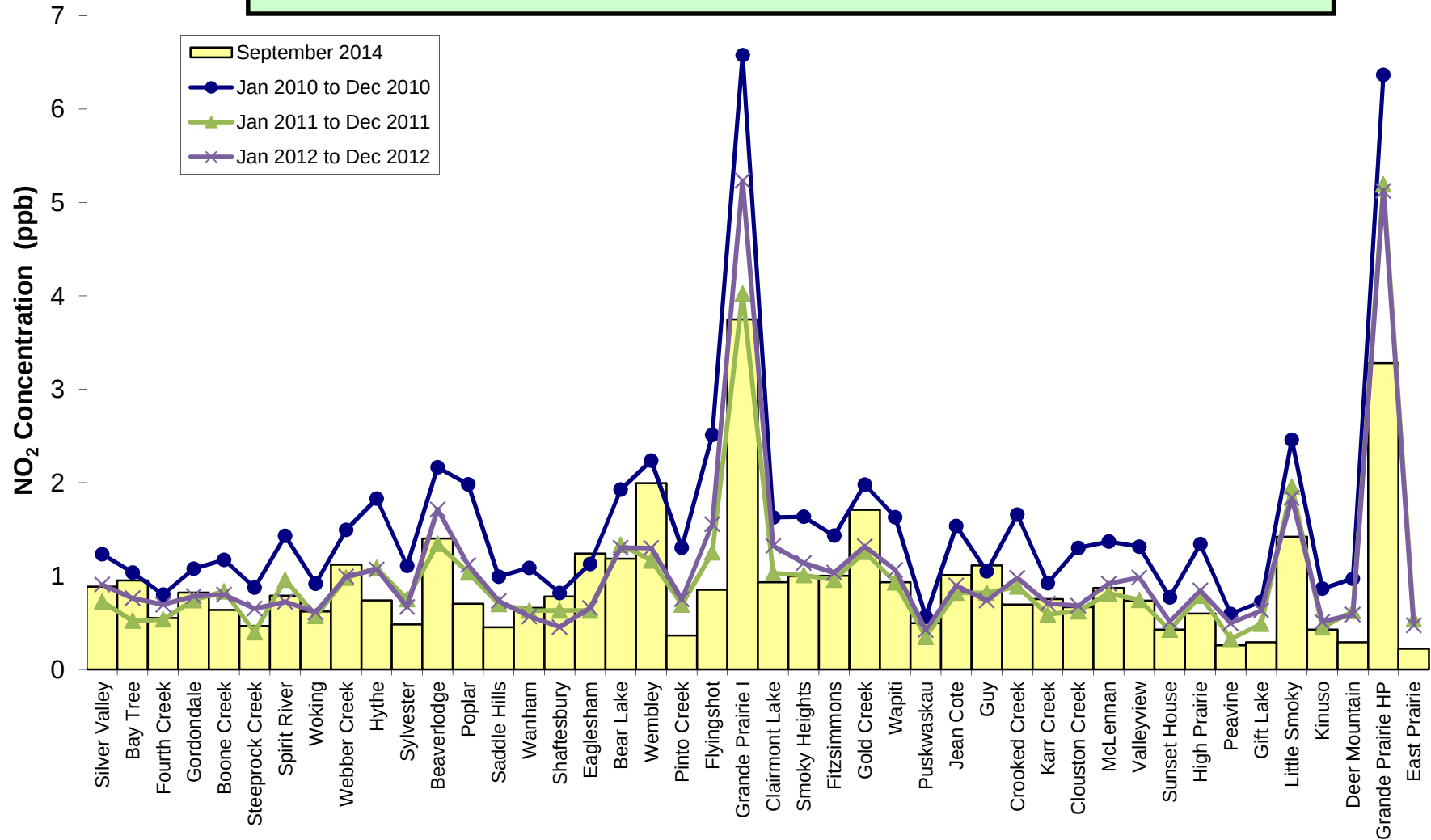
Alberta Ambient Air Quality Objective - No Annual O₃ Objective



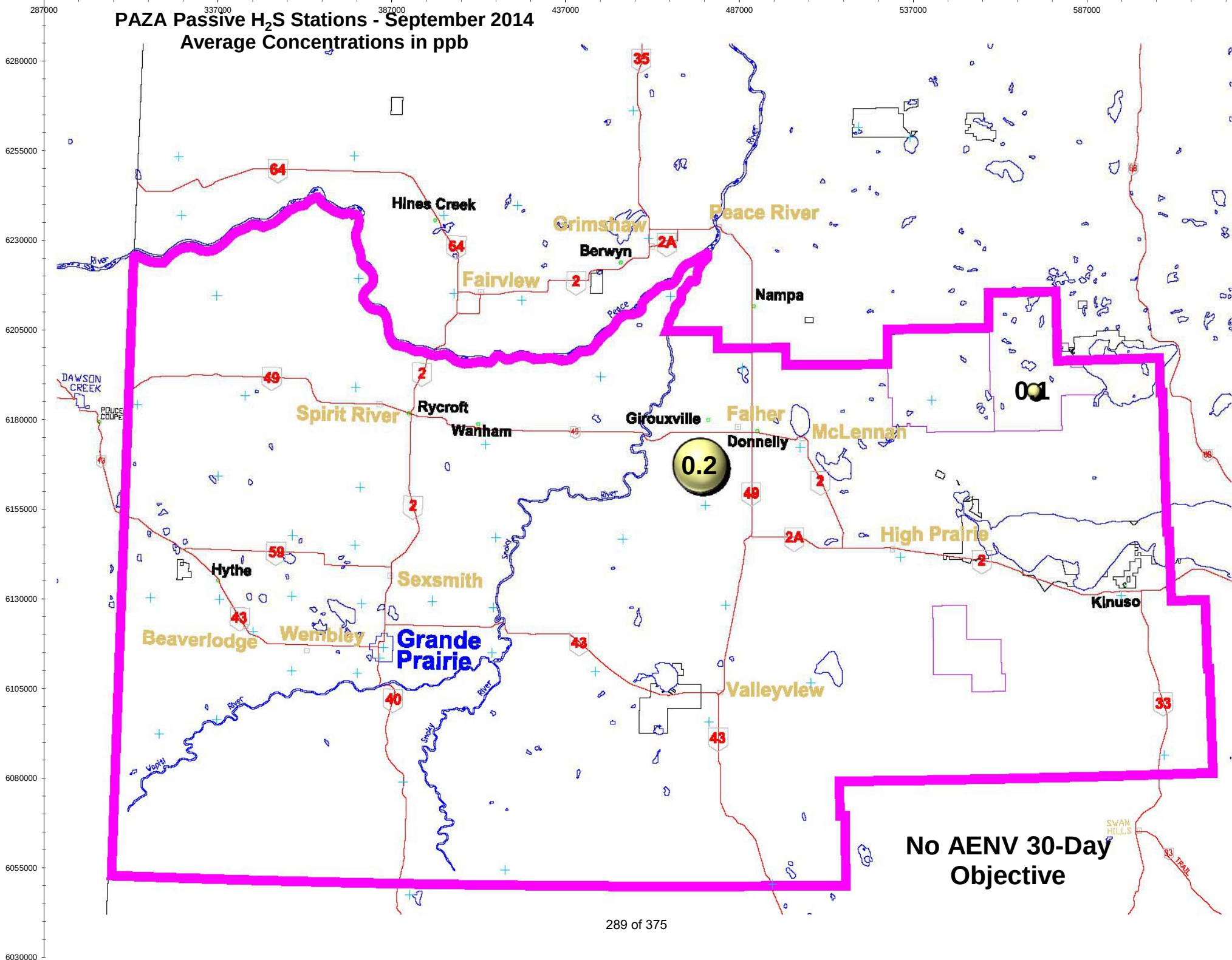
[illegible]

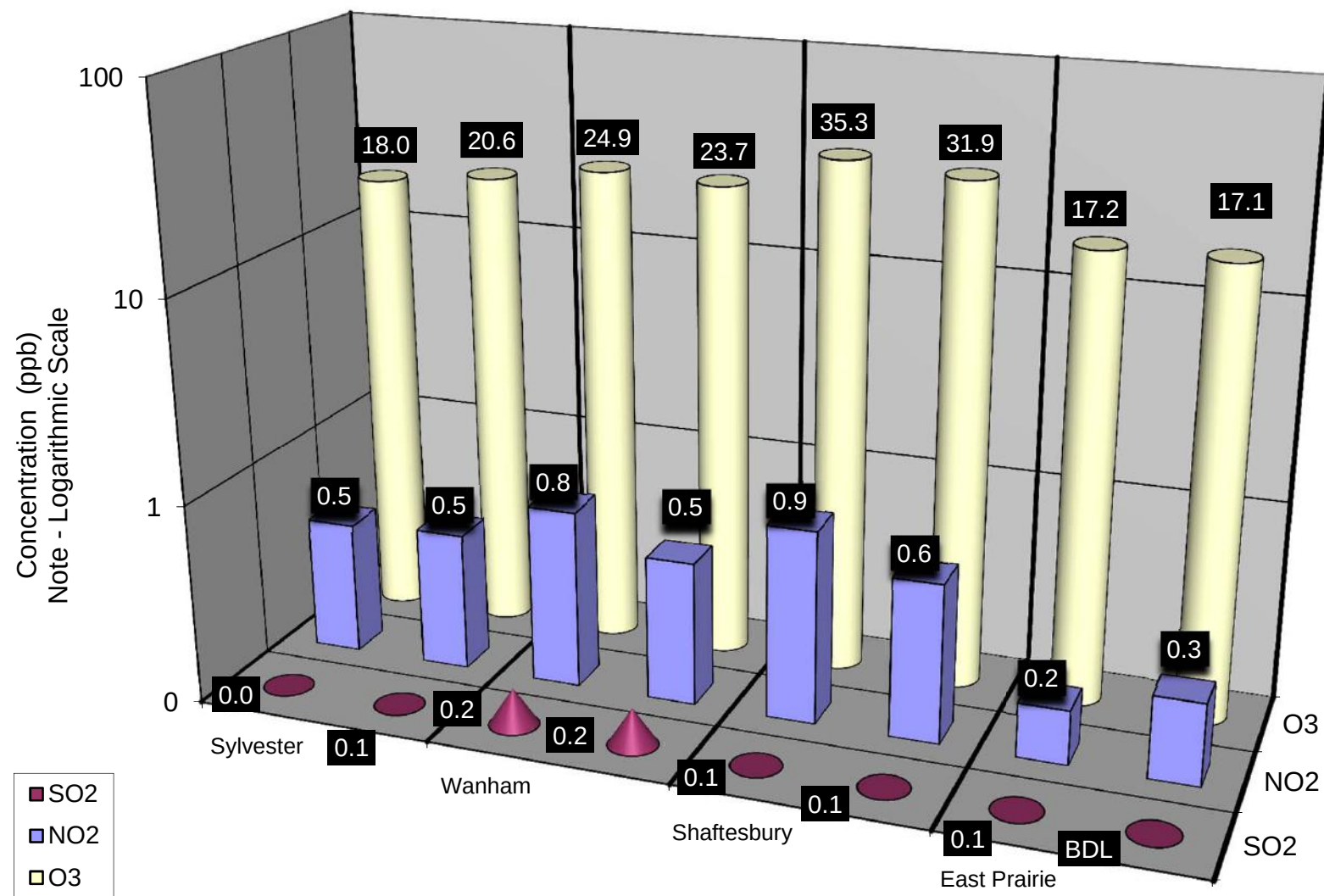
**AENV
Annual
Objective
24 ppb**

Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 24 ppb



PAZA Passive H₂S Stations - September 2014
Average Concentrations in ppb





Duplicate Summary Chart

PAZA

ALBERTA ENVIRONMENT AND SUSTAINABLE RESOURCES INCIDENT REPORT

September 2014

Air Monitoring Directive Exceedence Report

Alberta Environmental Monitoring, Evaluation and Reporting Agency Energy & Environmental Response

111 Twin Atria Building
4999 – 98th Avenue
Edmonton, Alberta T6B 2X3
erc.environment@gov.ab.ca
Phone: (780) 422-4505
Fax: (780) 427-1044

Reference Number:	289720	Reported To (AESRD Contact):	Vincent/Steven
Date & Time Incident Reported to AESRD:	Sept 19, 2014 16:00 Sept 19, 2014 19:00	Reported By:	Grover Christiansen
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Evergreen Park AQMS – (South Grande Prairie Area)		
Start Date & Time of Incident:	Sept 19, 2014 10:00 MST	End Date & Time of Incident:	Sept 19, 2014 13:00 MST
Reason or Nature of Incident:			
On Sept 19, 2014 the PM2.5 (TEOM) analyzer at the Evergreen Park AQM station located in southern Grande Prairie LSD 5-6-071-05 W6 exceeded the 1-hour AAAQ Guideline of 80µg/m ³ details as follows:			
10:00 MST	PM2.5=107.9 ug/m3	WS=48.0 km/hr	WD=258.5 degrees
11:00 MST	PM2.5=87.3 ug/m3	WS=53.4 km/hr	WD=261.4 degrees
12:00 MST	PM2.5=89.5 ug/m3	WS=60.3 km/hr	WD=262.8 degrees
13:00 MST	PM2.5=81.7 ug/m3	WS=64.7 km/hr	WD=260.7 degrees
Reviewed and confirmed the data as valid, called it in to AESRD.			
Investigation Details:			
Asphalt production/sand and strong winds blowing towards monitoring site.			
Actions Taken to Prevent Reoccurrence (if any):			
N/A			
Additional Actions Required (if any):			
N/A			
Report Completed By:	Grover Christiansen	Date Report Submitted:	Sept 19, 2014
7-Day Letter Due Date:	Sept 26, 2014		

Air Monitoring Directive Exceedence Report

Alberta Environmental Monitoring, Evaluation and Reporting Agency Energy & Environmental Response

111 Twin Atria Building
4999 – 98th Avenue
Edmonton, Alberta T6B 2X3
erc.environment@gov.ab.ca
Phone: (780) 422-4505
Fax: (780) 427-1044

Reference Number:	289721	Reported To (AESRD Contact):	Vincent
Date & Time Incident Reported to AESRD:	Sept 19, 2014 16:00	Reported By:	Grover Christiansen
Reported on Behalf of:	PAZA	Approval Number (if applicable):	N/A
Location(s) of Incident:	Smokey Heights AQMS		
Start Date & Time of Incident:	Sept 19, 2014 13:00 MST	End Date & Time of Incident:	Sept 19, 2014 14:00 MST
Reason or Nature of Incident:			
The PM2.5 analyzer (TEOM) within the Smoky Heights AQM station, currently located ENE of Grande Prairie at LSD 13-8-074-02 W6, exceeded the AENV hourly average PM2.5 hourly guideline (80 µg/m ³) as detailed below:			
14:00 MST PM2.5=127.3 ug/m3 WS=48.1 km/hr WD=251.9 degrees			
Reviewed and confirmed the data as valid, called it in to AESRD.			
Investigation Details:			
Unknown - high winds.			
Actions Taken to Prevent Reoccurrence (if any):			
N/A			
Additional Actions Required (if any):			
N/A			
Report Completed By:	Grover Christiansen	Date Report Submitted:	Sept 19, 2014
7-Day Letter Due Date:	Sept 26, 2014		

September 2014 Calibration Reports

PAZA - Henry Pirker Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃, CO, THC, TRS

PAZA – Evergreen Park Station with the following calibrations:

SO₂, TRS

PAZA – Smoky Heights Station with the following calibrations:

SO₂, TRS

PAZA – Beaverlodge Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃

PAZA – Valleyview Station with the following calibrations:

SO₂ & H₂S

PAZA – Falher Station with the following calibrations:

SO₂ & H₂S

PAZA – Clairmont Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃, TRS

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	September 5, 2014	Previous Calibration	August 5, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	7:37	End Time (MST)	11:35
Barometric Pressure	705.000 mm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	49.8 ppm	Cal Gas Cert Date	March 12, 2014
		Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.986420	Calculated slope	0.987270
Calculated intercept	2.002224	Calculated intercept	2.024477
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.4		9.6	
Coefficient	0.781		0.774	
Pressure	644.5	mm Hg	646.8	mm Hg
Flow	0.476	lpm	0.478	lpm
Lamp intensity	43364	Hz	44.675	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)
4995	0.00	0.0	-0.1	N/A
4995	39.93	394.9	399.0	0.9899
4995	19.97	198.3	197.7	1.0030
4995	9.97	99.2	96.6	1.0265
4995	0.00	0.0	0.7	As Found Zero
4995	39.93	394.9	401.7	As Found Span
Average Correction Factor				1.0065

Calculated value of As Found Response: 397.6 ppb Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	259.4	ppb	255.5	ppb

Notes: Zero/span adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



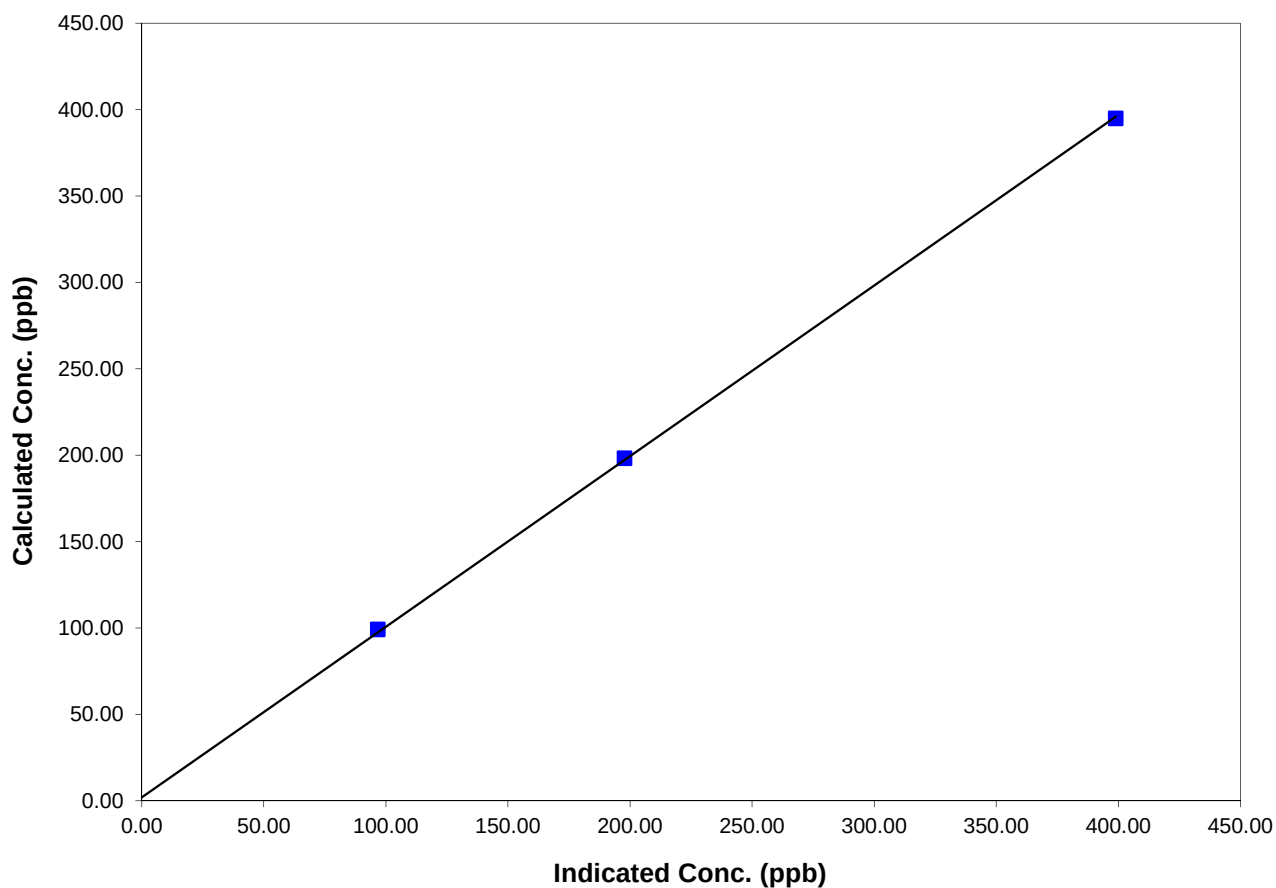
Station Information

Calibration Date	September 5, 2014	Previous Calibration	August 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:37	End Time (MST)	11:35
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

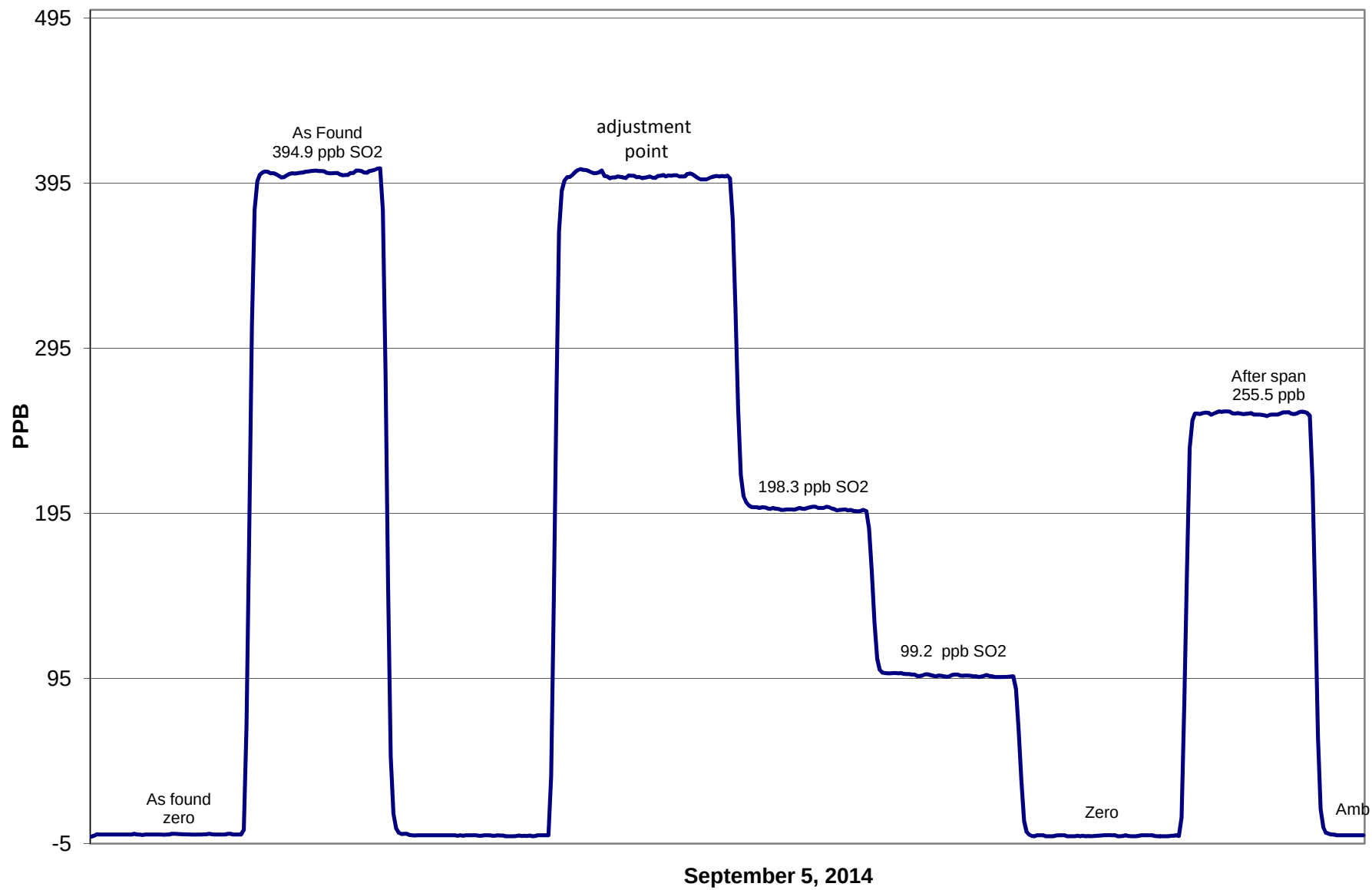
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999897
394.9	399.0	0.9899		
198.3	197.7	1.0030		
99.2	96.6	1.0265	Slope	0.987270
			Intercept	2.024477

SO2 Calibration Curve



SO2 Calibration



Parameter

Air Monitoring Network



Station Information

Calibration Date	September 5, 2014			Previous Calibration	August 5, 2014	
Station Number	1			Station Location	Henry Pirker	
Reason:	Routine	Installation	Removal	Other:	Maintenance	
Start Time (MST)	7:40			End Time (MST)	13:24:00 PM	
Barometric Pressure	705.000		mm	Station Temperature	20.5	Deg C
Calibrator	EnviroNics			Serial Number	3016	
NO Cal Gas Conc	52.1		ppm	Cal Gas Expiry Date	March 12, 2014	
NOx Cal Gas Conc	52.4		ppm	Cal Gas Serial #	LL105159	

DACS Information

DACS make		CR3000	DACS serial No.	5237
	Parameter	NO2	NOx	NO
Before	Data Slope	1.002353	0.996407	0.994180
	Data Offset	-0.327684	2.293307	2.381566
After	Data Slope	0.998385	1.007001	1.003939
	Data Offset	-0.462577	1.197666	1.227754
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	CR3000	Analyzer serial #	5408	
Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	12.7	mV	14.5	mV
NOx bkgnd	13.2	mV	15.0	mV
NO coefficient	1.000		1.042	
NOx coefficient	1.000		1.000	
NO2 conv temp	318.0	Deg C	318.0	Deg C
Cooler Temp	-2.5	Deg C	-2.5	Deg C
PMT Volt	-788.0	mV	-789.0	mV
R Cell Press	228.2	in Hg	227.2	in Hg
Sample Flow	0.661	LPM	0.654	LPM

Notes: Zero/span adjustments made

Calibration Report

Parameter **NOX-NO-NO2**
Air Monitoring Network **0**



Station Information

Calibration Date: September 5, 2014 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	4995	0.00	0.0	0.0	0.0	0.0	-0.1	0.1	N/A	N/A
1	4995	39.92	415.5	413.1	2.4	412.0	410.9	1.1	1.0083	1.0054
2	4995	19.96	208.6	207.4	1.2	205.2	204.6	0.4	1.0165	1.0134
3	4995	9.93	104.0	103.4	0.6	100.9	100.7	0.1	1.0303	1.0267
AFZ	4995	0.00	0.0	0.0	0.0	1.5	1.2	0.1	0.0000	0.0000
AFS	4995	39.92	415.5	413.1	0.8	397.2	396.2	0.9	1.0459	1.0426
Average Correction Factor									1.0184	1.0152

As Found Concentrations: NO_x= 396.6 NO= 395.1 As Found Percent Change NO_x= -4.5% NO= -4.4%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	1.2	1.2	0.0	0.0	-0.1	0.1	N/A	N/A	N/A	N/A
NO point	409.9	409.9	0.0	410.3	409.9	0.4	0.9989	1.0000	N/A	N/A
300	409.9	99.7	310.2	410.4	99.7	310.9	0.9986	1.0000	0.9976	100.2%
200	409.9	200.1	209.8	410.5	200.1	210.6	0.9984	1.0000	0.9963	100.4%
100	409.9	300.7	109.2	411.2	300.7	110.5	0.9969	1.0000	0.9884	101.2%
Average Correction Factor							0.9980	1.0000	0.9941	100.6%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.5	0.1	-1.1	ppb	-0.2	0.0	-0.1	ppb
Auto span	308.8	307.5	1.4	ppb	300.9	298.9	2.2	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network 0



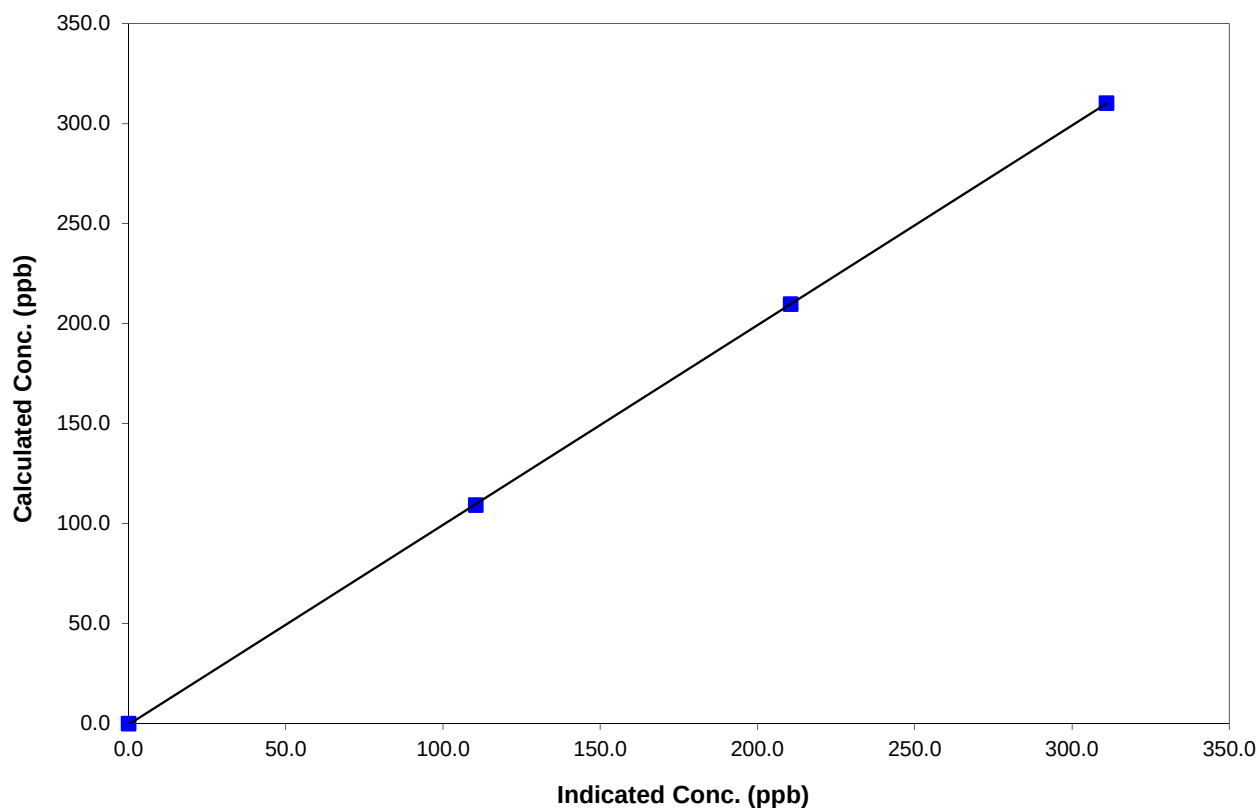
Station Information

Calibration Date	September 5, 2014	Previous Calibration	August 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:40	End Time (MST)	13:24:00 PM
Analyzer make	CR3000	Analyzer serial #	5408

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999988
310.2	310.9	0.9976		
209.8	210.6	0.9963		
109.2	110.5	0.9884	Slope	0.998385
			Intercept	-0.462577

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network 0



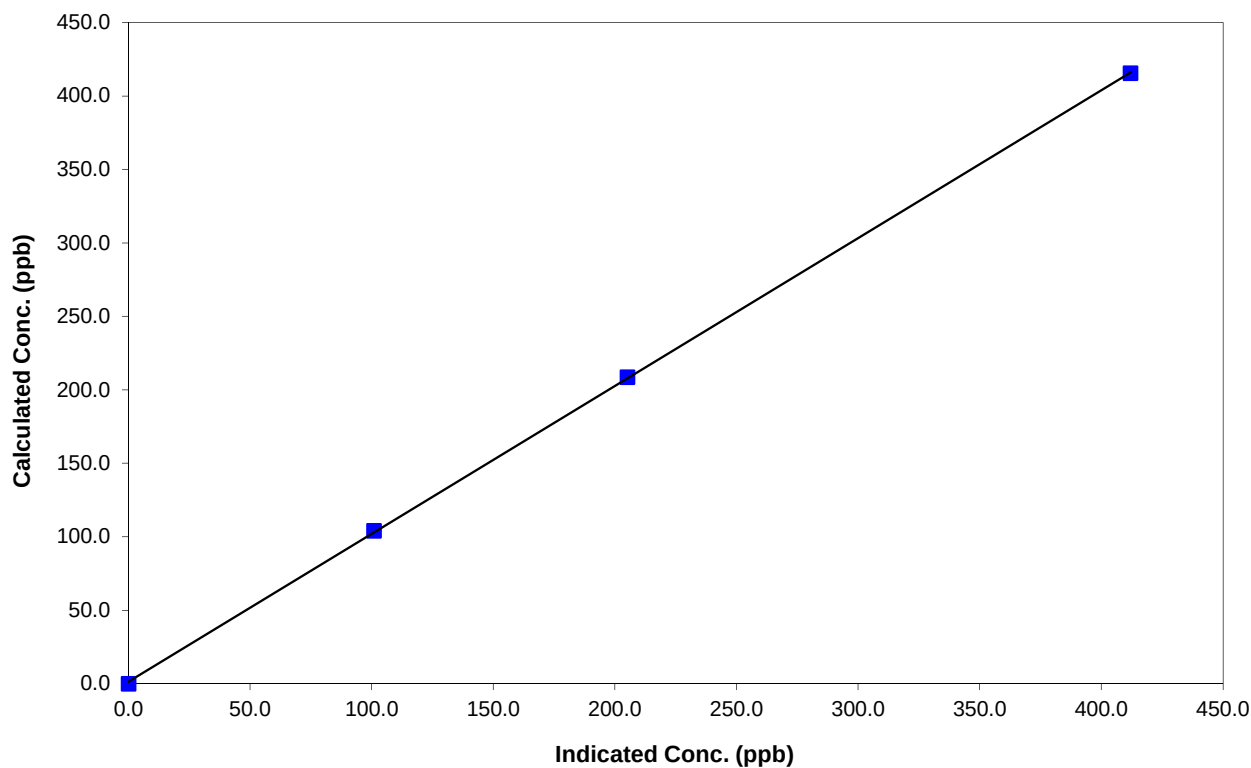
Station Information

Calibration Date	September 5, 2014	Previous Calibration	August 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:40	End Time (MST)	13:24:00 PM
Analyzer make	CR3000	Analyzer serial #	5408

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999959
415.5	412.0	1.0083		
208.6	205.2	1.0165		
104.0	100.9	1.0303	Slope	1.007001
			Intercept	1.197666

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network 0



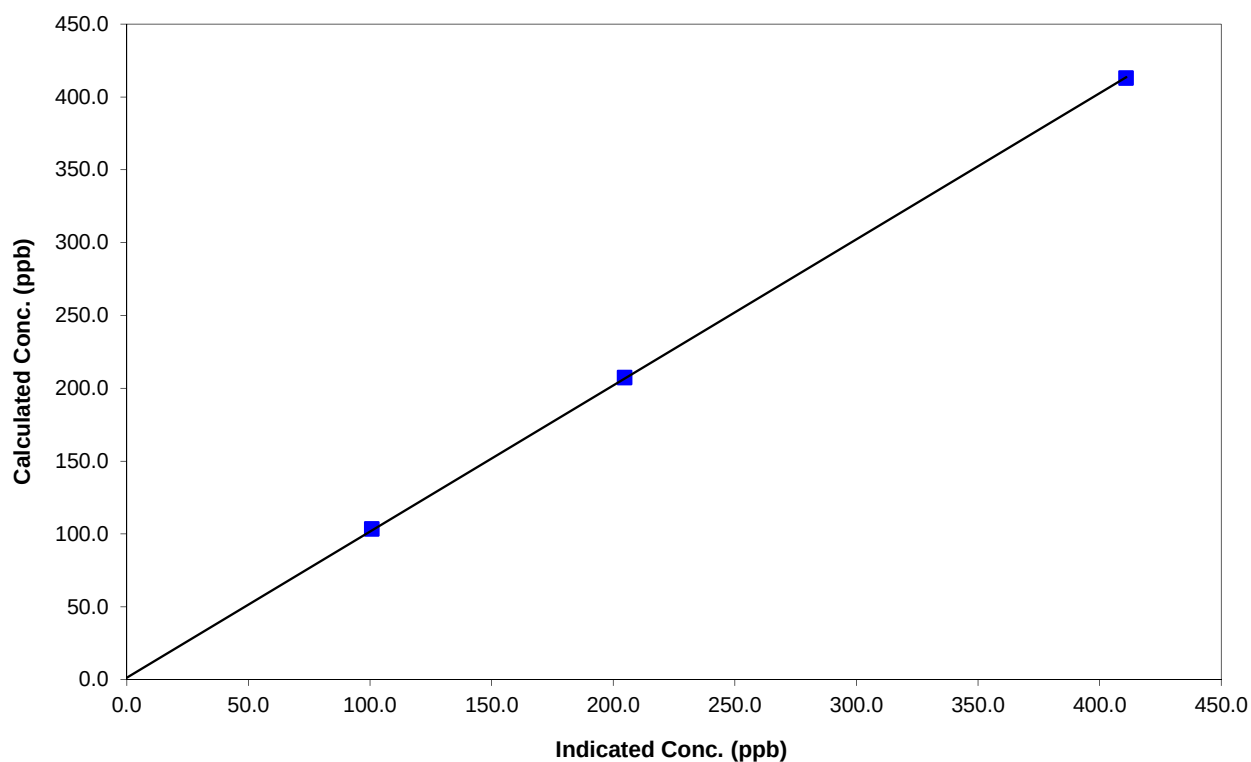
Station Information

Calibration Date	September 5, 2014	Previous Calibration	August 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:40	End Time (MST)	13:24:00 PM
Analyzer make	CR3000	Analyzer serial #	5408

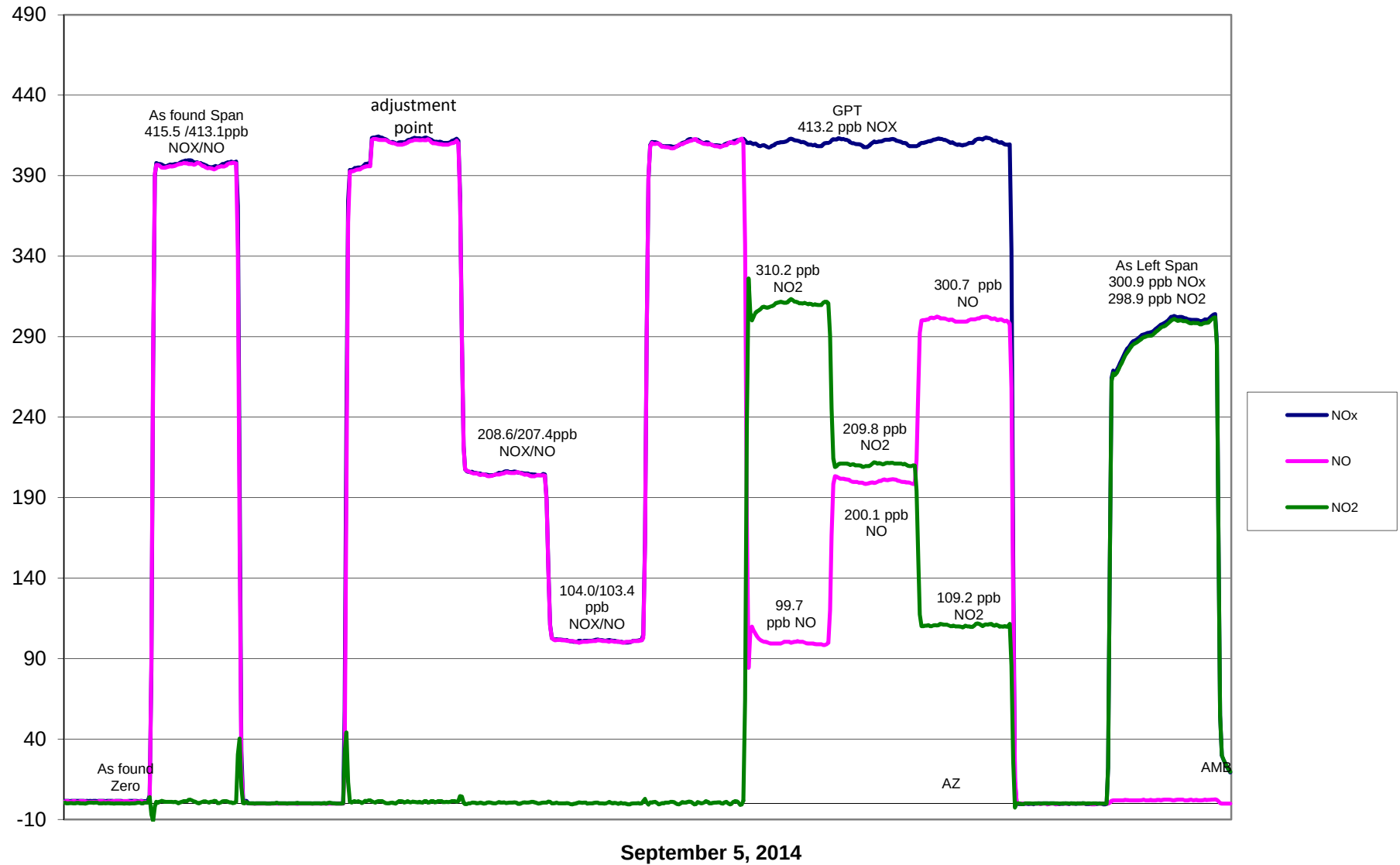
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999964
413.1	410.9	1.0054		
207.4	204.6	1.0134		
103.4	100.7	1.0267	Slope	1.003939
			Intercept	1.227754

NO Calibration Curve



NO_x Calibration



Calibration Report

Parameter 03

Air Monitoring Network PAZA



Station Information

Calibration Date	September 5, 2014	Previous Calibration	August 11, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	☐ Routine	☒ Install	☐ Removal
			☐ Other:

Start Time (MST)	12:06	End Time (MST)	15:25:00 PM
Barometric Pressure	705.000 mm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.003608	Calculated slope	0.998880
Calculated intercept	0.003685	Calculated intercept	0.155713

Analyzer make	Teco 49C	Analyzer serial #	607415761
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.60	ppb	-0.20	ppb
slope	0.979		0.995	
Lamp temp	56.9	mV	56.9	mV
Lamp Intensity A/B	102052/95651	mV	100640/94323	mV
Pressure	609	mm Hg	681.4	mm Hg
Flow A	0.681	ccm	0.726	ccm
Flow B	0.683	ccm	0.726	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)
5035	0.0	0.0	0.1	N/A
5035	0.3	310.2	311.0	0.9974
5035	0.2	209.8	209.0	1.0040
5035	0.1	109.2	109.2	1.0000
5035	0.0	0.0	1.3	As found zero
5035	0.3	310.0	307.0	As found span
Average Correction Factor				1.0005

Calculated value of As Found Response: 306.8 ppm Percent Change of As Found: -1.0%

	before calibration		after calibration	
Auto zero	0.9	ppb	0.3	ppb
Auto span	386.7	ppb	419.1	ppb

Notes: Span/zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter O3

Air Monitoring Network PAZA



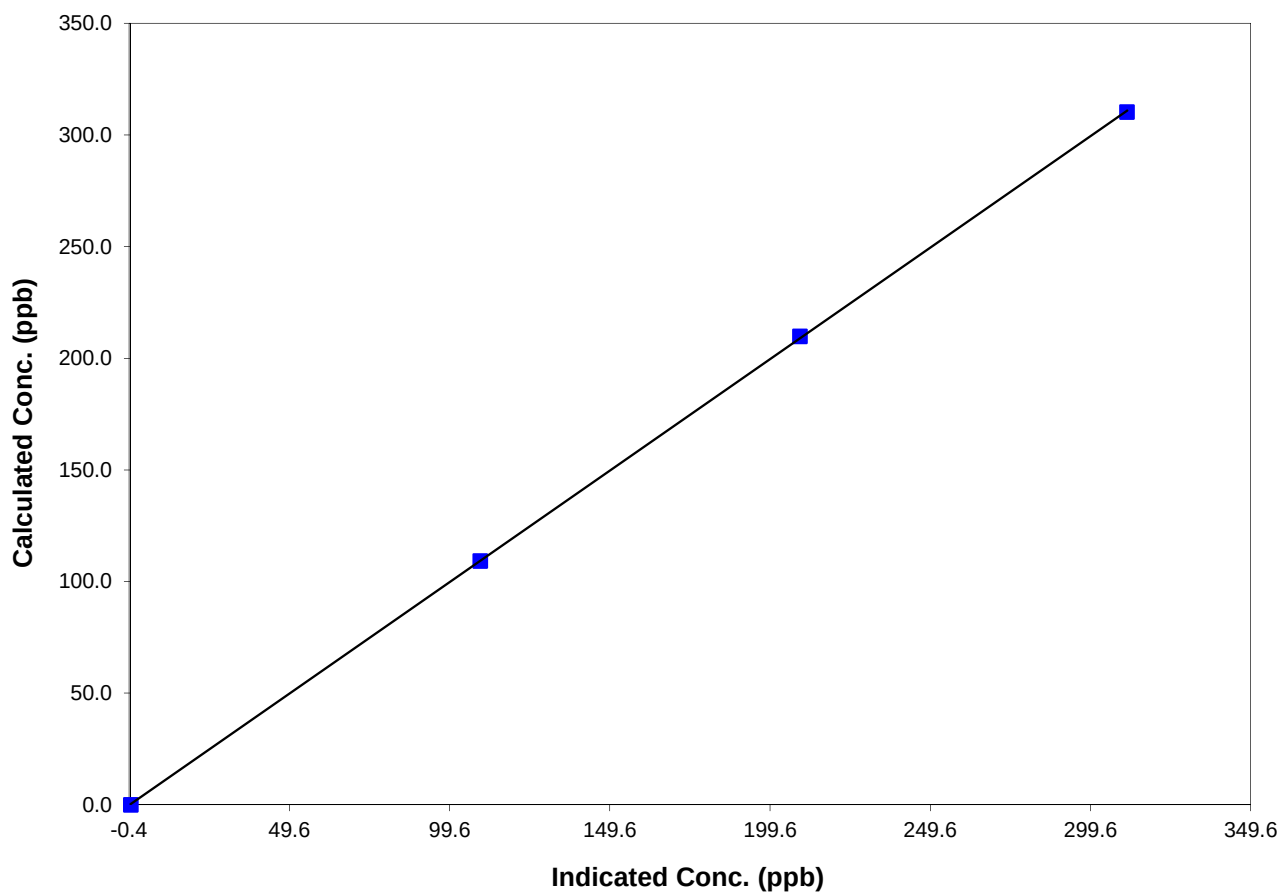
Station Information

Calibration Date	September 5, 2014	Previous Calibration	August 11, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:06	End Time (MST)	15:25:00 PM
Analyzer make/model	Teco 49C	Analyzer serial #	607415761

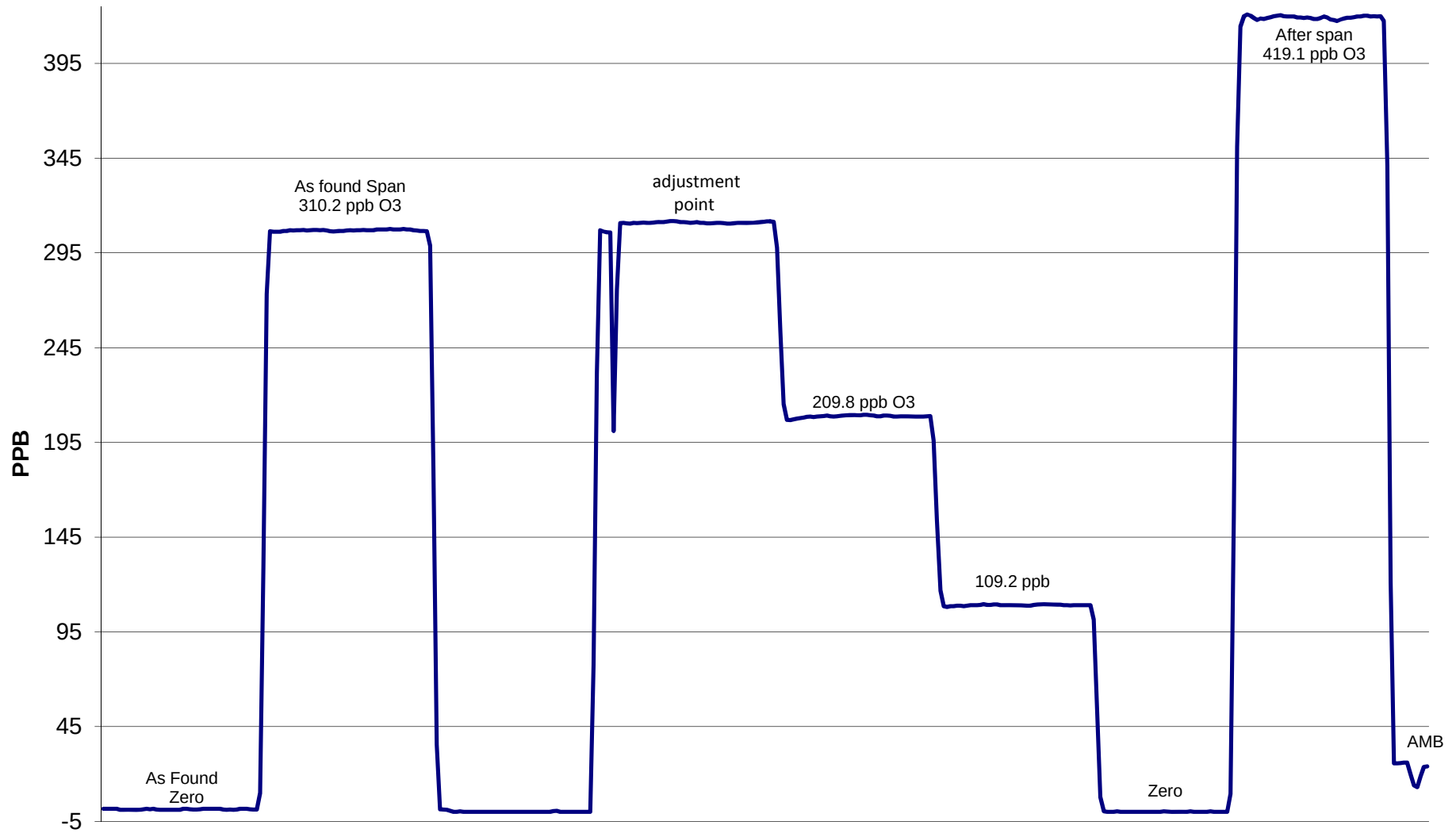
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA	Correlation Coefficient	0.999976
310.2	311.0	0.9974		
209.8	209.0	1.0040		
109.2	109.2	1.0000	Slope	0.998880
			Intercept	0.155713

O3 Calibration Curve



O3 Calibration



September 5, 2014

Calibration Report

Parameter CO

Air Monitoring Network PAZA



Station Information

Calibration Date	August 1, 2014	Previous Calibration	July 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	11:45	End Time (MST)	15:05:00 PM
Barometric Pressure	708.0 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
		Cal Gas Cylinder #	LL83909
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.000912	Calculated slope	0.998776
Calculated intercept	0.183974	Calculated intercept	0.166942
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	1.484		1.488	
CO span setting	1.014		1.016	
Sample pressure	685.1	mm Hg	691.2	mm Hg
Sample Flow	1.126	LPM	1.133	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.01	N/A
4995	69.94	40.02	40.00	1.0006
4995	34.96	20.14	19.89	1.0126
4995	17.96	10.38	10.06	1.0320
4995	0.00	0.00	-0.04	As Found Zero
4995	69.94	40.02	39.76	As Found Span
Average Correction Factor				1.0150

Calculated value of As Found Response: 40.022 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.81	ppm	20.04	ppm

Notes: Adjust zero from -0.029 to -0.002

Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CO

Air Monitoring Network PAZA



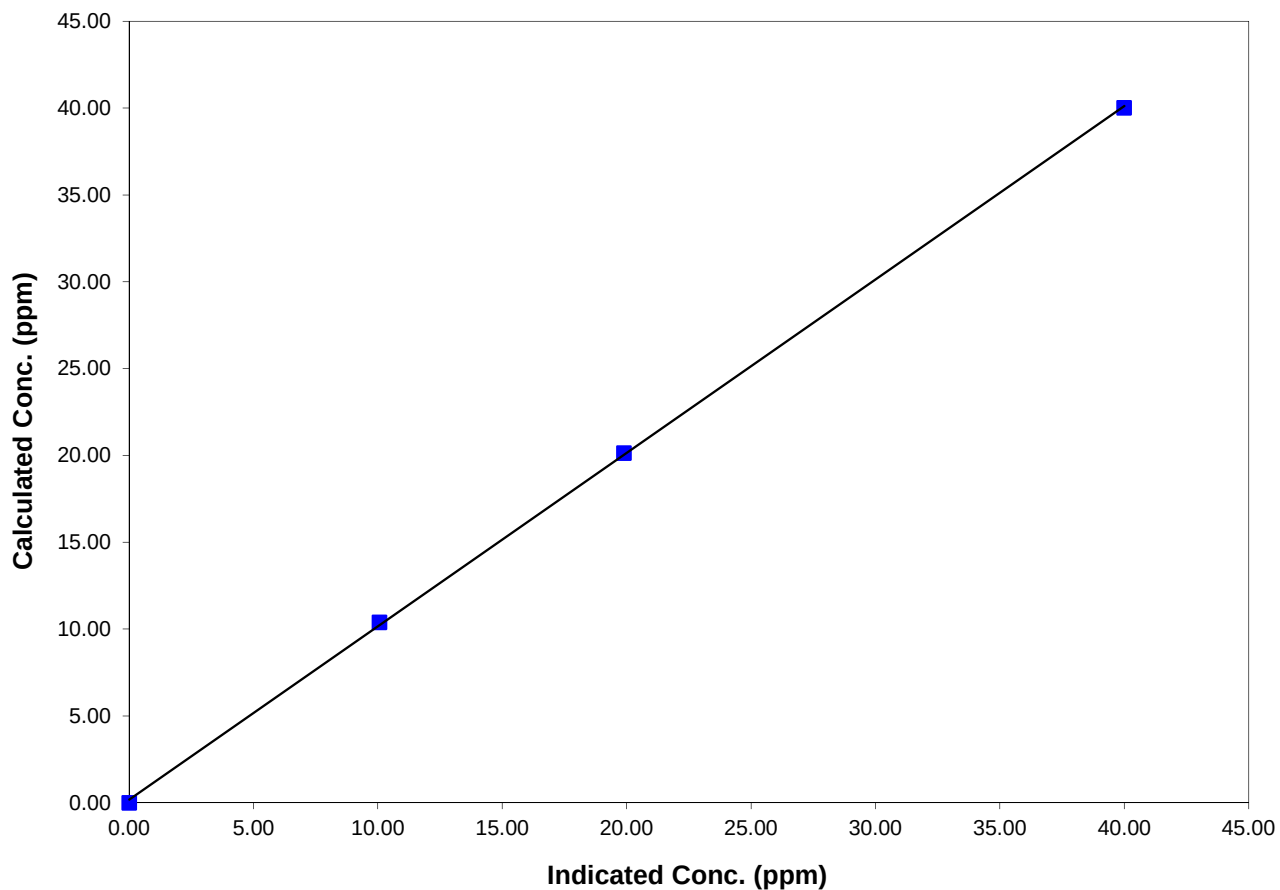
Station Information

Calibration Date	August 1, 2014	Previous Calibration	July 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:45	End Time (MST)	15:05:00 PM
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

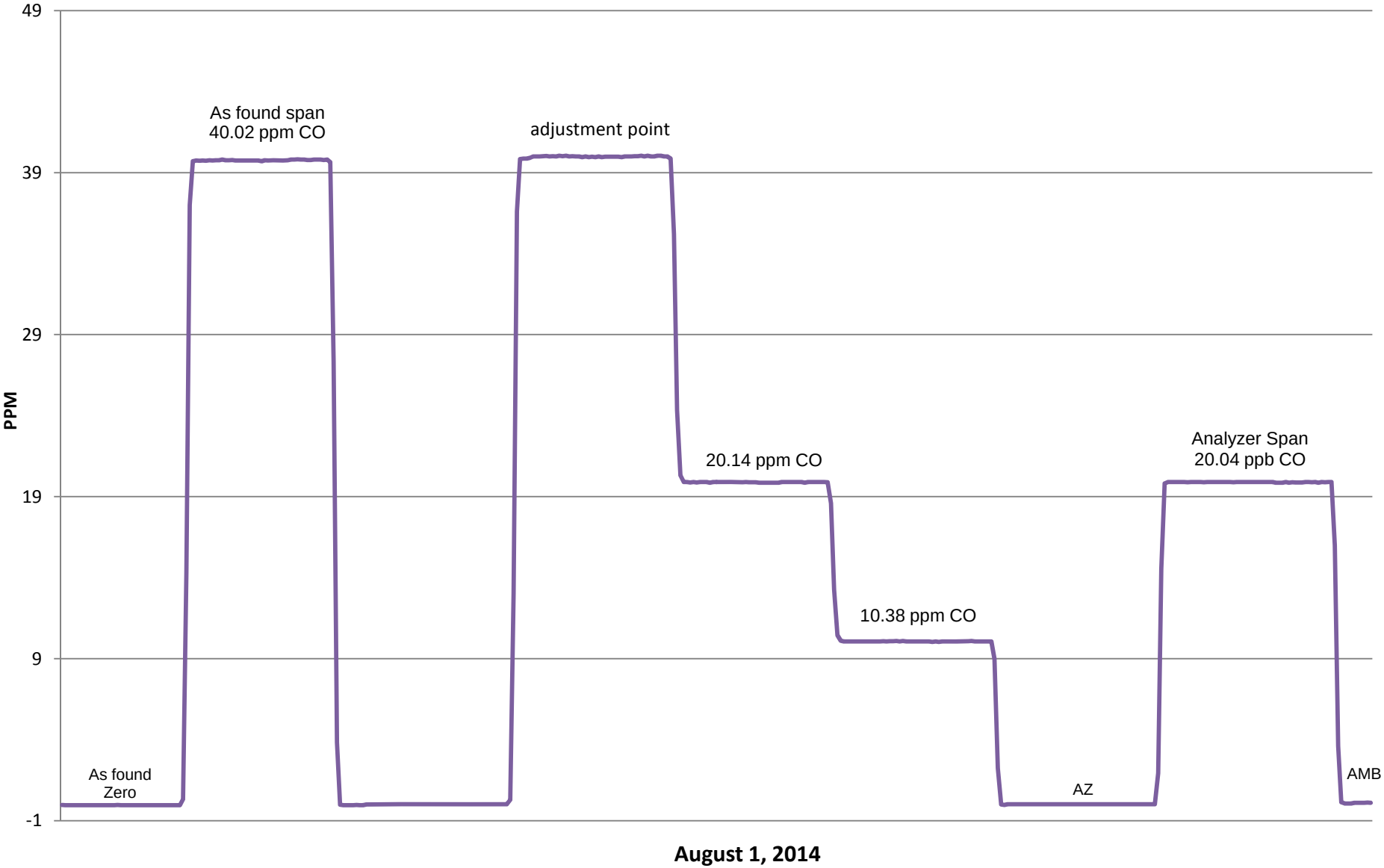
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.012	N/A	Correlation Coefficient	0.999907
40.017	39.995	1.0006		
20.142	19.891	1.0126		
10.383	10.061	1.0320	Slope	0.998776
			Intercept	0.166942

CO Calibration Curve



CO Calibration



Calibration Report

Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA



Station Information

Calibration Date	August 1, 2014	Previous Calibration	July 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	☐ Routine	☐ Install	☐ Removal
			☐ Other:

Start Time (MST)	13:55:00 PM	End Time (MST)	18:01:00 PM
Barometric Pressure	704.00 mm/hg	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	28/03/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make	TEI 55I	Analyzer serial #	1134650658
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	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	27.9	PSI	27.9	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.3	PSI
CH4 cal factor	5.68		5.68	E ⁻⁴
NMHC cal factor	1.64		1.64	E ⁻⁴
Rt	12.60	Sec	12.60	Sec
Pk Index	23.00		23.00	

CH4 Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	13.16	0.9797
1996	40.96	7.76	7.73	1.0035
1996	15.99	3.07	3.02	1.0160
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	13.16	As Found Span
Average Correction Factor				0.9997

Calculated value of As Found Response: 13.135 ppm Percent Change of As Found: -1.9%

	Before		After
Calculated slope	0.997674	Calculated slope	0.980828
Calculated intercept	0.027377	Calculated intercept	0.062193

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	9.11	ppm	8.36	ppm

NMHC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.02	N/A
1996	68.96	19.01	19.48	0.9757
1996	40.96	11.45	11.65	0.9825
1996	15.99	4.52	4.62	0.9798
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	19.48	As Found Span
Average Correction Factor				0.9793

Calculated value of As Found Response: 19.324 ppm Percent Change of As Found: -1.7%

	<u>Before</u>		<u>After</u>
Calculated slope	0.994890	Calculated slope	0.977001
Calculated intercept	-0.043133	Calculated intercept	0.008152

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.55	ppm	11.57	ppm

THC Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
1996	0.00	0.00	0.03	N/A
1996	68.96	31.90	32.62	0.9779
1996	40.96	19.21	19.37	0.9919
1996	15.99	7.59	7.63	0.9955
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	32.62	As Found Span
Average Correction Factor				0.9884

Calculated value of As Found Response: 32.468 ppm Percent Change of As Found: -1.8%

	<u>Before</u>		<u>After</u>
Calculated slope	0.996534	Calculated slope	0.978991
Calculated intercept	-0.010835	Calculated intercept	0.077450

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	20.07	ppm	19.91	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



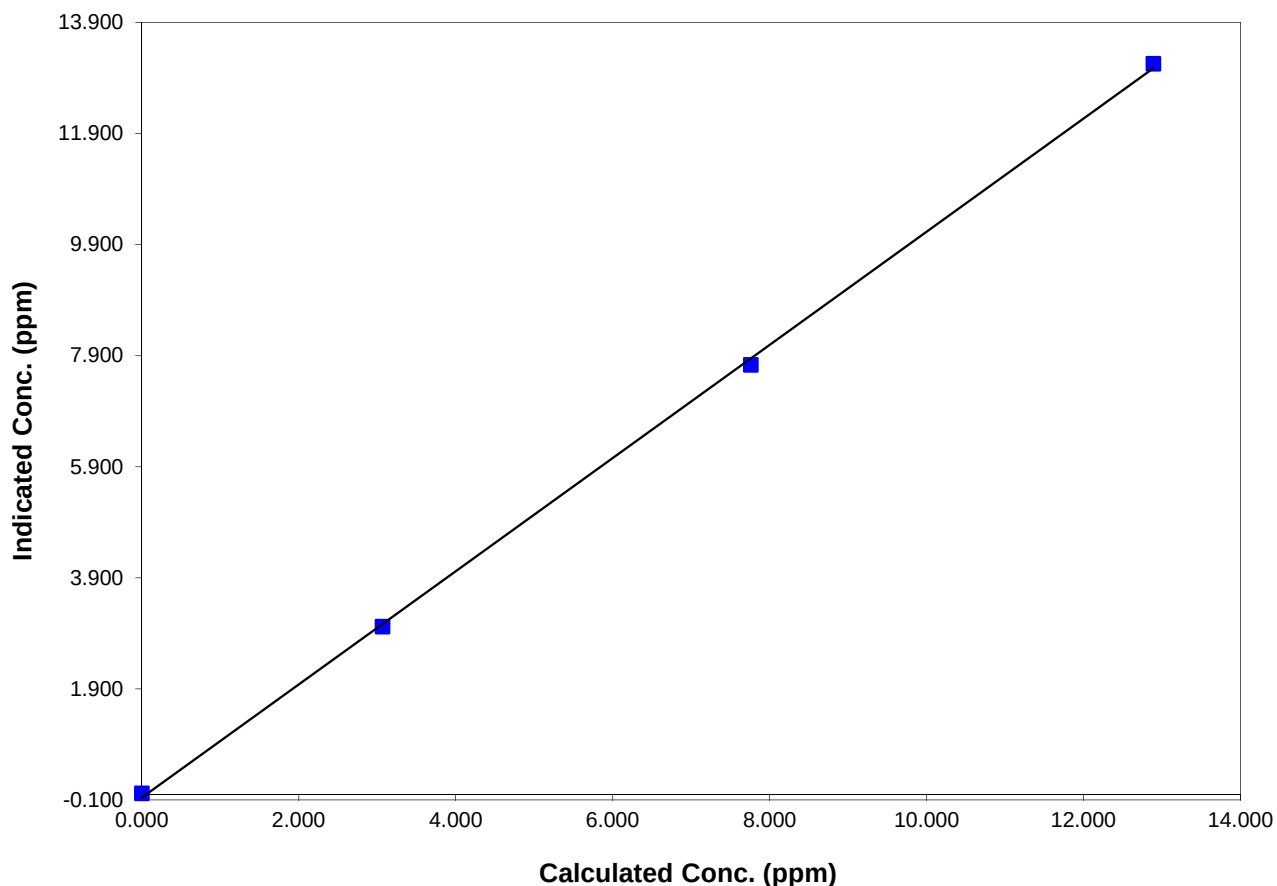
Station Information

Calibration Date	August 1, 2014	Previous Calibration	July 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:55:00 PM	End Time (MST)	18:01:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A	Correlation Coefficient	0.999716
12.891	13.157	0.9797		
7.762	7.735	1.0035		
3.068	3.019	1.0160	Slope	0.980828
			Intercept	0.062193

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



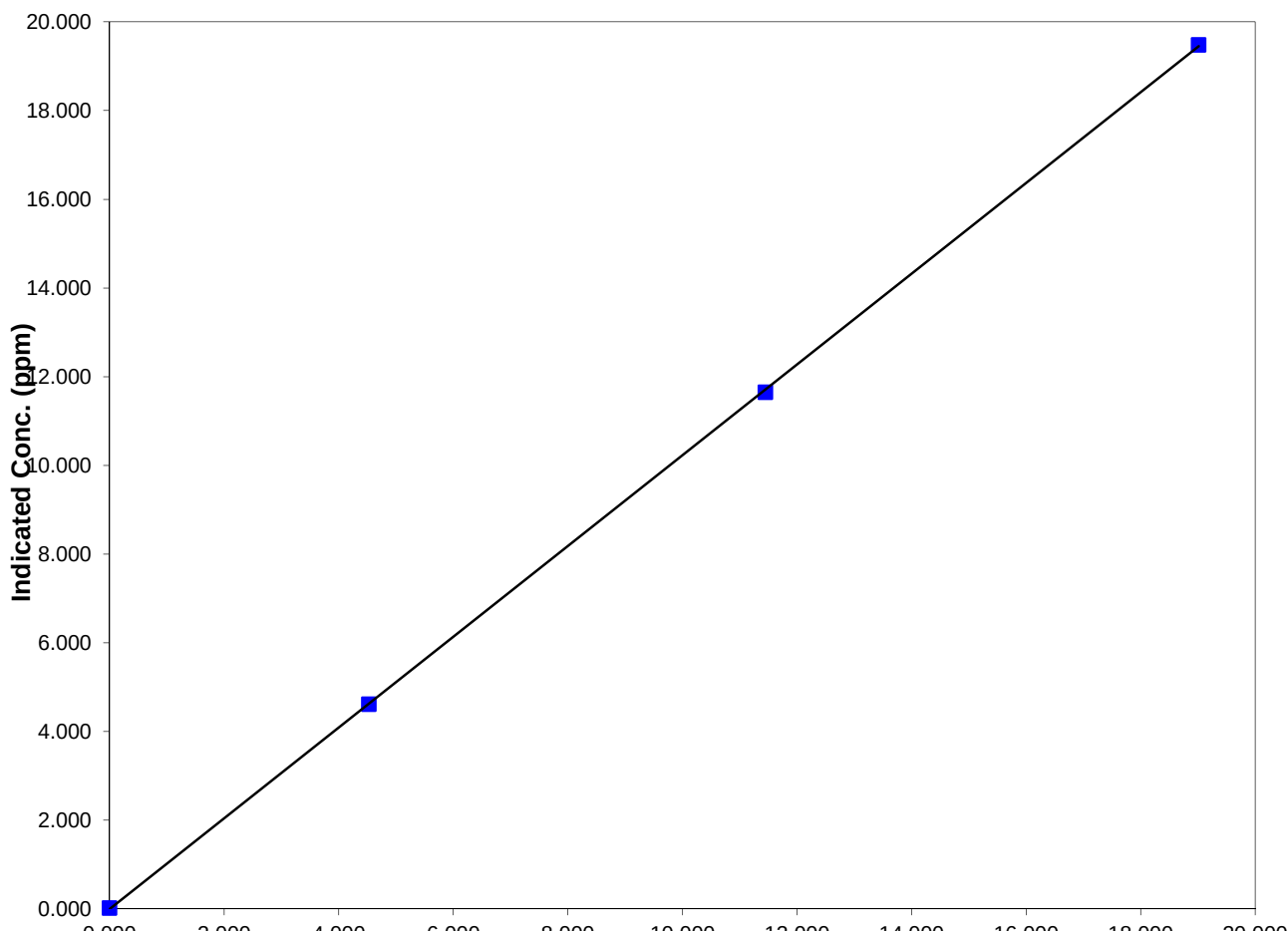
Station Information

Calibration Date	August 1, 2014	Previous Calibration	July 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:55:00 PM	End Time (MST)	18:01:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.018	N/A	Correlation Coefficient	0.999976
19.010	19.485	0.9757		
11.447	11.651	0.9825		
4.524	4.618	0.9798	Slope	0.977001
			Intercept	0.008152

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



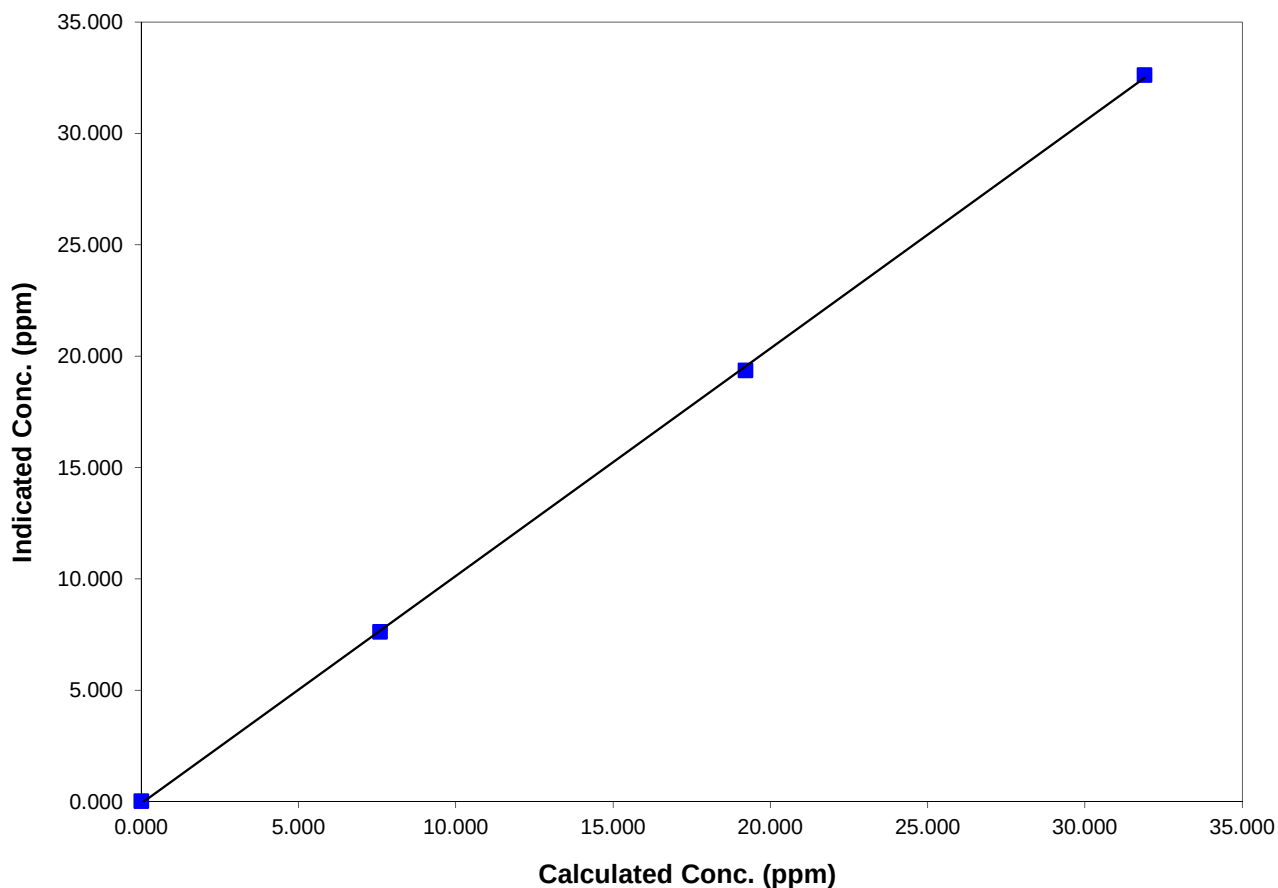
Station Information

Calibration Date	August 1, 2014	Previous Calibration	July 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:55:00 PM	End Time (MST)	18:01:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

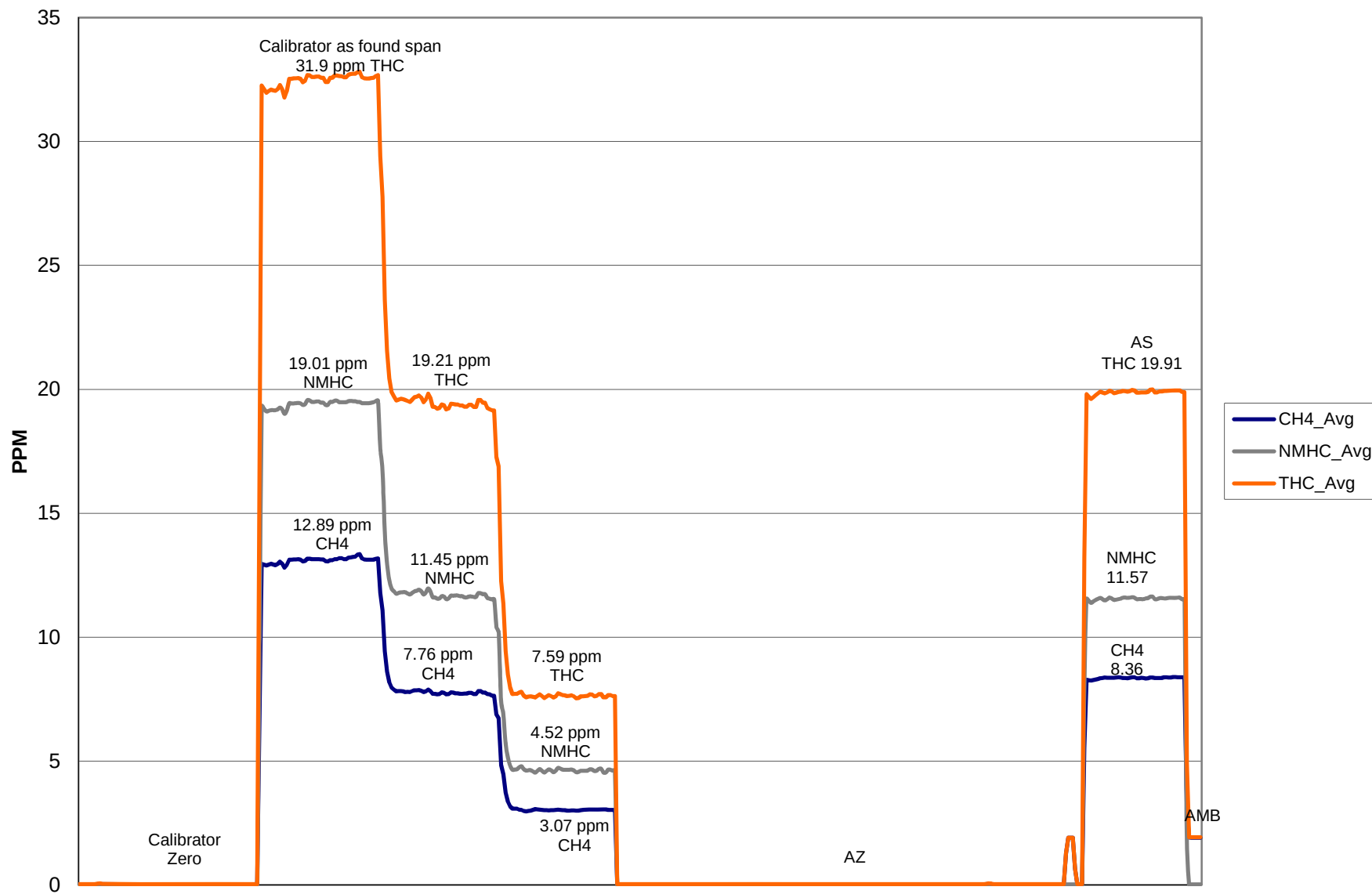
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.031	N/A	Correlation Coefficient	0.999903
31.901	32.622	0.9779		
19.209	19.366	0.9919		
7.592	7.626	0.9955	Slope	0.978991
			Intercept	0.077450

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report

Parameter TR5

Air Monitoring Network PAZA



Station Information

Calibration Date	September 8, 2014	Previous Calibration	August 1, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	8:30	End Time (MST)	12:50
Barometric Pressure	708.00 mm/Hg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	10.4 ppb	Cal Gas Expiry Date	08/07/2016
		Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.977556	Calculated slope	0.983666
Calculated intercept	0.381393	Calculated intercept	0.619583
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.978		0.959	
Background	17.3		17.0	
Pressure	663.9	mm Hg	667.9	mm Hg
Flow	0.454	ccm	0.456	ccm
Lamp Voltage	880	v	881	v

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	-0.09	N/A
4995	39.93	82.48	83.55	0.9872
4995	19.95	41.37	40.87	1.0124
6995	9.95	14.77	14.08	1.0493
4995	0.00	0.00	-0.09	As Found Zero
4995	39.93	82.48	84.12	As Found Span
Average Correction Factor				1.0163

Calculated value of As Found Response: 82.7 ppb Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	-0.92	ppb	0.50	ppb
Auto span	33.06	ppb	35.65	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



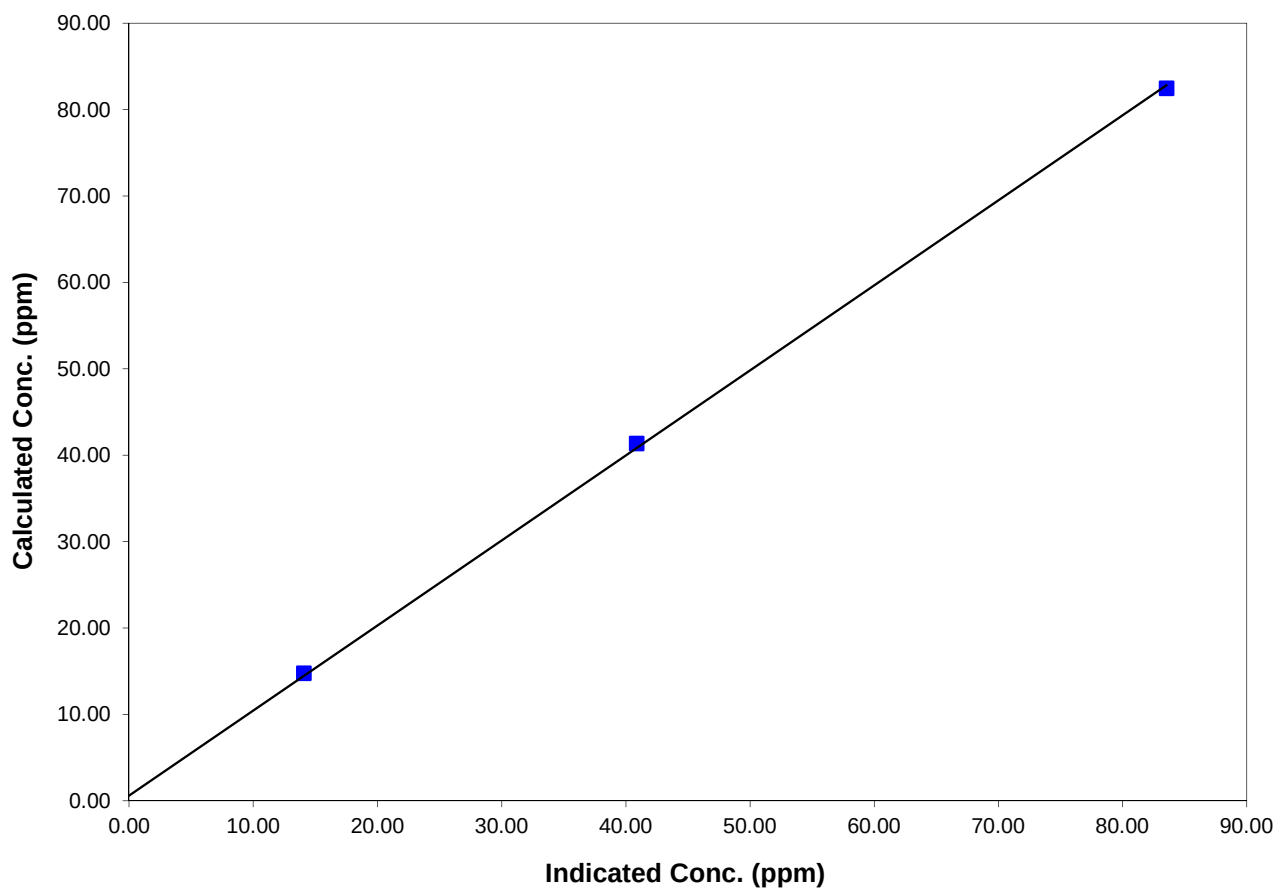
Station Information

Calibration Date	September 8, 2014	Previous Calibration	August 1, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:30	End Time (MST)	12:50
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

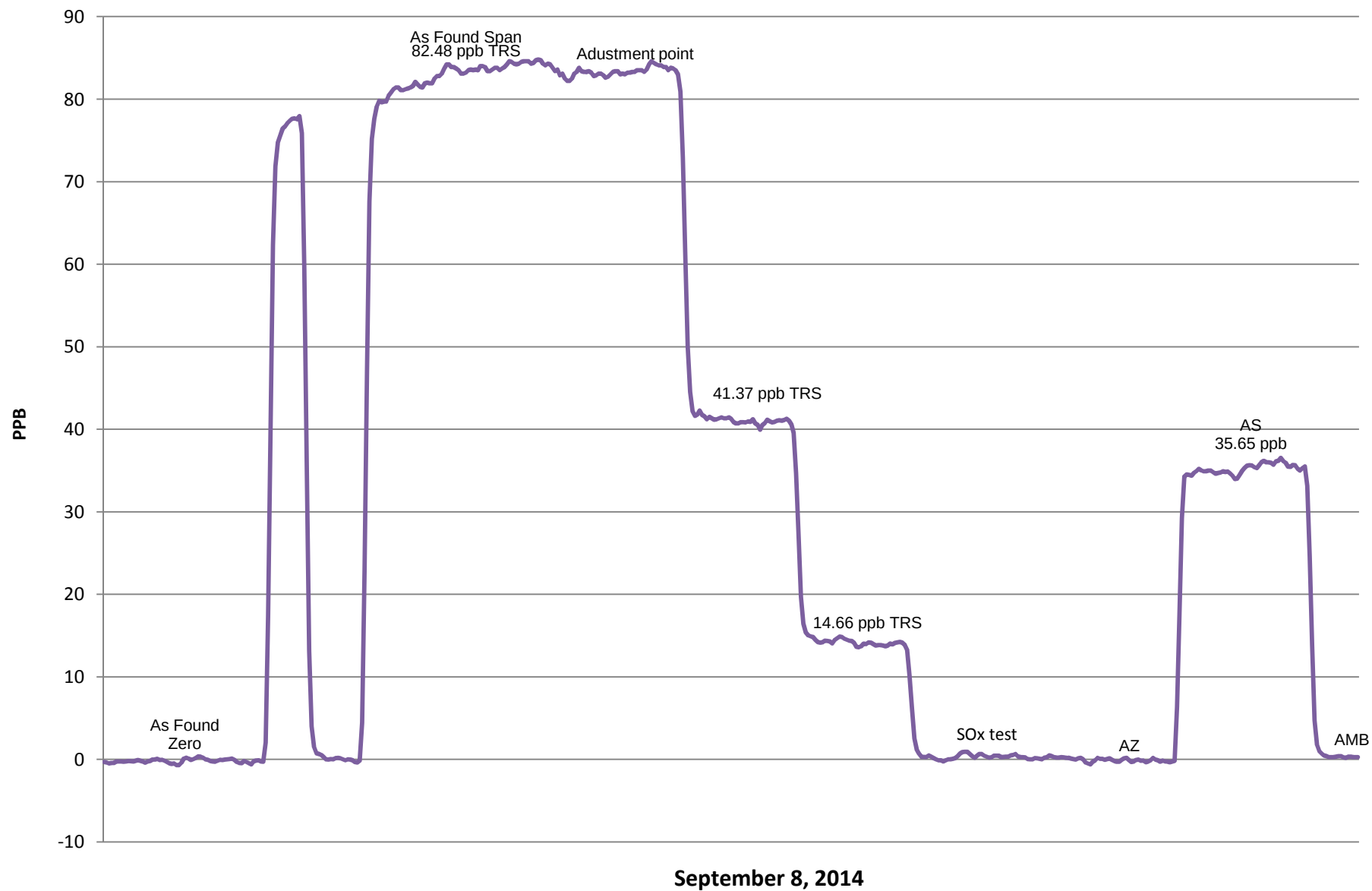
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.085	N/A		
82.478	83.546	0.9872	Correlation Coefficient	0.999799
41.372	40.866	1.0124		
14.772	14.078	1.0493	Slope	0.983666
			Intercept	0.619583

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	September 10 2014	Previous Calibration	August 15 2014
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	11:55	End Time (MST)	15:00:00 PM
Barometric Pressure	0.924 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	25/02/2025
Correction factor	0.031409	Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.984918	Calculated slope	0.991854
Calculated intercept	2.385640	Calculated intercept	1.660232
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.1		11.3	
coefficient	1.205		1.219	
Lamp Voltage	831	volts	829	volts
Chamber Temp	45	Deg C	45.2	Deg C
Perm Gas Temp	44.9	Deg C	45	Deg C
Pressure	683.7	mm Hg	683.4	mm Hg
Sample Flow	0.463	ccm	0.463	ccm
Lamp Intensity	88	%	88	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.0	N/A
4995	39.93	394.9	397.4	0.9938
4995	19.97	198.3	197.3	1.0053
4995	9.97	99.2	96.8	1.0253
4995	0.0	0.0	0.0	As Found Zero
4995	39.93	394.9	391.6	As Found Span
Average Correction Factor				1.0081

Calculated value of As Found Response: 388.031 ppm Percent Change of As Found: 1.7%

	before calibration		after calibration	
Auto zero	0.1	ppm	0.1	ppm
Auto span	282.3	ppm	271.0	ppm

Notes: Span adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



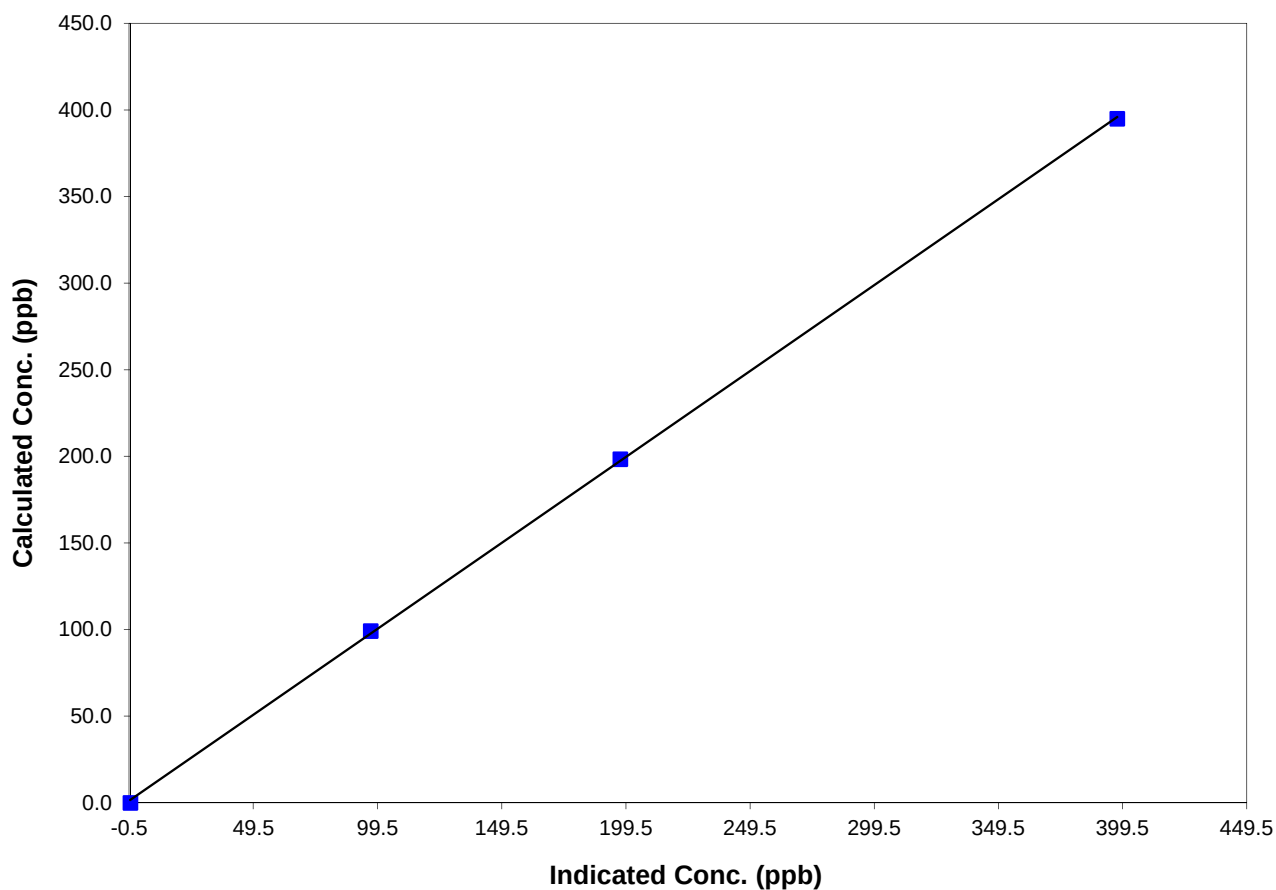
Station Information

Calibration Date	September 10 2014	Previous Calibration	August 15 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:55	End Time (MST)	15:00:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

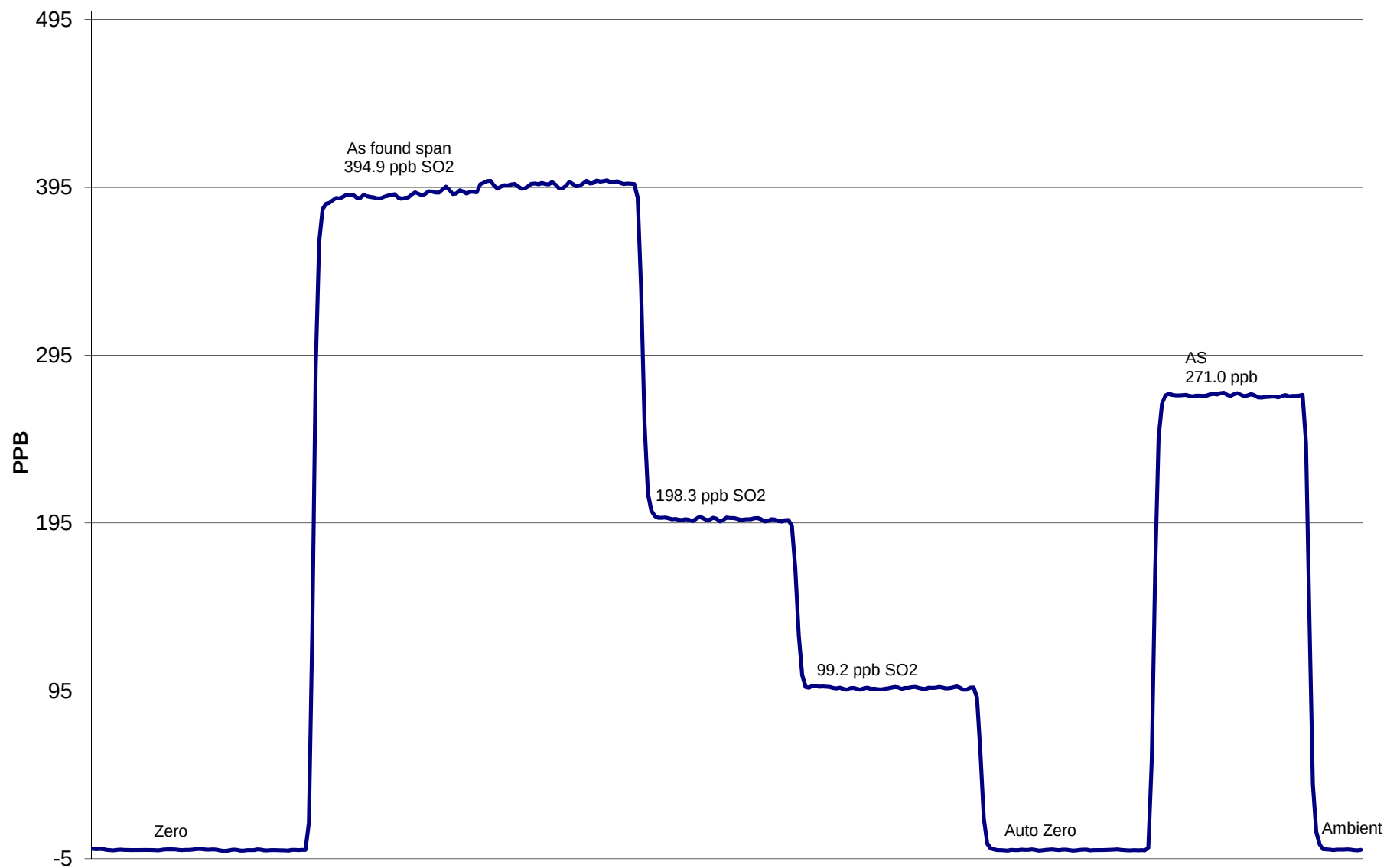
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999917
394.9	397.4	0.9938		
198.3	197.3	1.0053		
99.2	96.8	1.0253	Slope	0.991854
			Intercept	1.660232

SO2 Calibration Curve



SO2 Calibration



September 10 2014

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	September 10 2014	Previous Calibration	August 15 2014
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:30	End Time (MST)	13:00:00 PM
Barometric Pressure	0.907 ATM	Station Temperature	22.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Conc	10.4 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.030622	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.995363	Calculated slope	0.984639
Calculated intercept	-0.711325	Calculated intercept	0.519463

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

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	39.6	ppb	38.8	ppb
coefficient	1.01		1.01	
Lamp Voltage	1042	volts	1030	volts
Chamber Temp	44.2	Deg C	44.4	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	649.9	mm Hg	631.1	mm Hg
Sample Flow	0.630	ccm	0.615	ccm
Lamp Intensity	31,167	mv	31,455	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.0	N/A
4995	39.93	82.48	83.5	0.9879
4995	19.97	41.41	41.2	1.0060
6995	9.97	14.80	14.1	1.0498
4995	9.97		1.8	Sox Test
4995	0.00	0.00	1.3	As Found Zero
4995	39.93	82.48	84.4	As Found Span
Average Correction Factor				1.0146

Calculated value of As Found Response: 82.04 ppm Percent Change of As Found: **0.5%**

	before calibration		after calibration	
Auto zero	-0.2	ppm	0.5	ppm
Auto span	72.8	ppm	70.4	ppm

Notes: span/zero adjustment made
Sox scrubber check performed

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



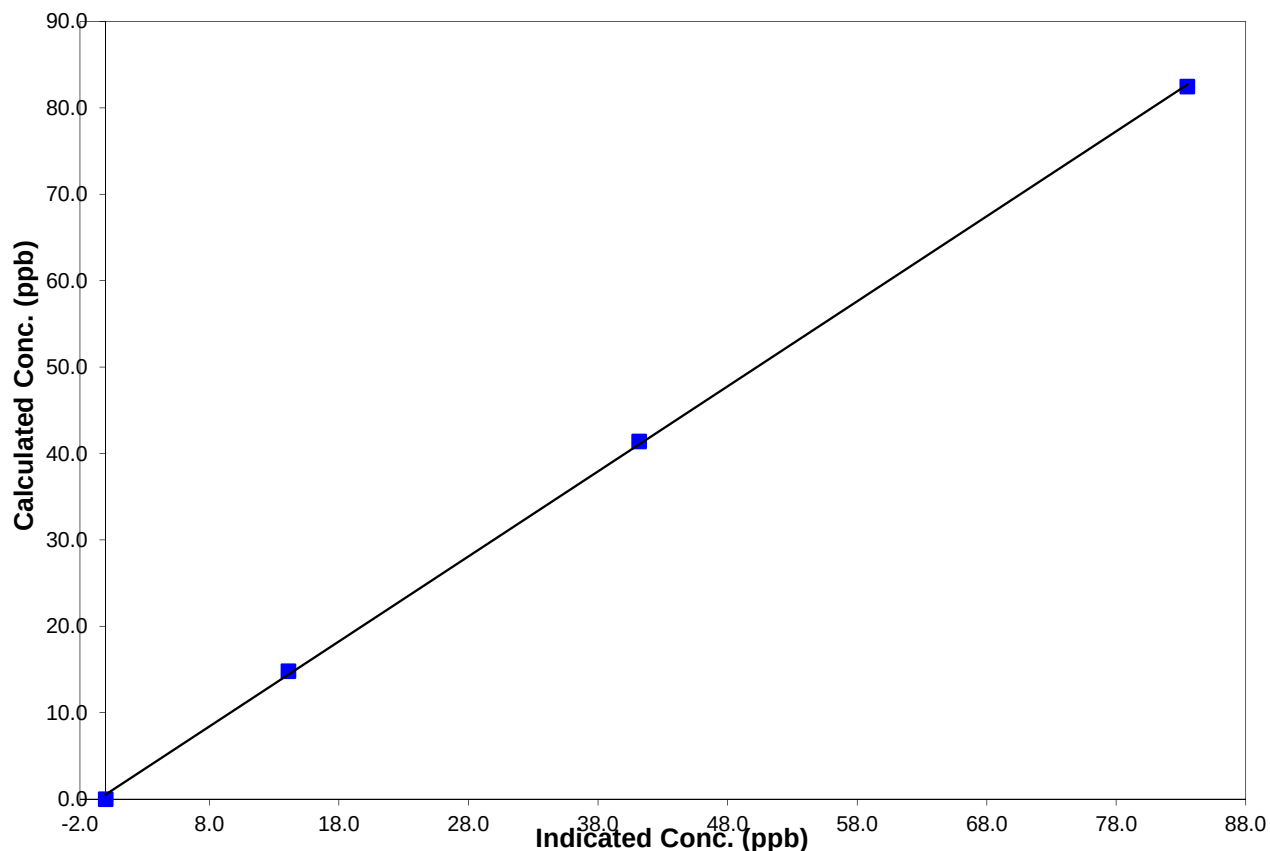
Station Information

Calibration Date	September 10 2014	Previous Calibration	August 15 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:30	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

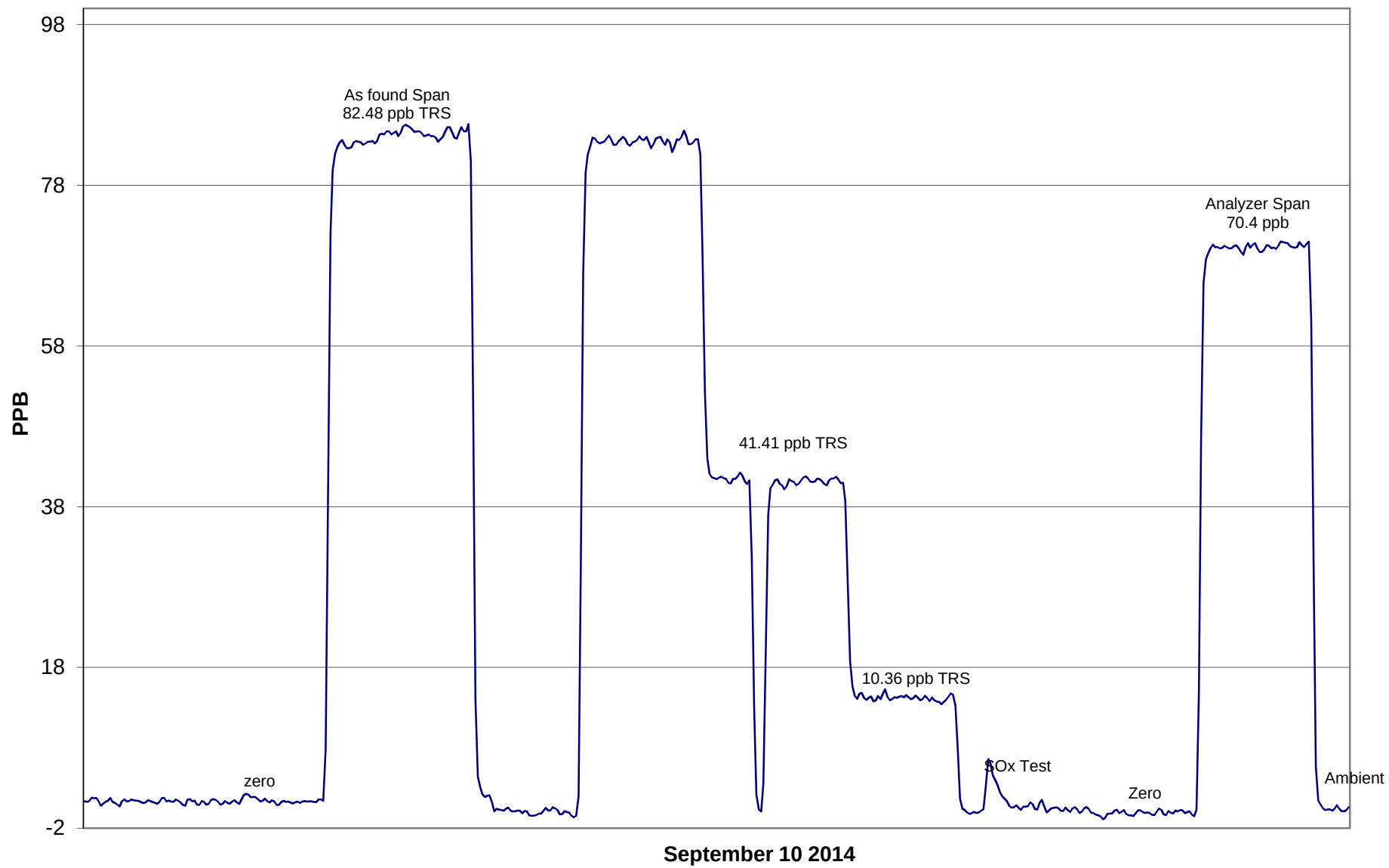
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999843
82.5	83.5	0.9879		
41.4	41.2	1.0060		
14.8	14.1	1.0498	Slope	0.984639
			Intercept	0.519463

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	September 12, 2014	Previous Calibration	August 22, 2014
Station Number	3	Station Location	Smokey Heights
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	10:15	End Time (MST)	14:12:00 PM
Barometric Pressure	0.935 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Cert Date	20/01/2016
Correction factor	0.031783	Cal Gas Cylinder #	LL1105159
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.981883	Calculated slope	0.990960
Calculated intercept	2.683319	Calculated intercept	1.822408
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12.2		12	
coefficient	0.952		0.952	
Lamp Voltage	930	volts	928	volts
Chamber Temp	44.9	Deg C	45.2	Deg C
Perm Gas Temp	45.01	Deg C	45	Deg C
Pressure	674.1	mm Hg	679.2	mm Hg
Sample Flow	0.451	lpm	0.455	lpm
Lamp Intensity	88	%	88	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.2	N/A
4995	39.93	394.94	397.7	0.9932
4995	19.97	198.31	197.4	1.0046
4995	9.97	99.20	96.2	1.0314
4995	0.0	0.00	0.2	As Found Zero
4995	39.93	394.94	397.7	As Found Span
Average Correction Factor				1.0098

Calculated value of As Found Response: 392.942 ppm Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.2	ppb
Auto span	250.5	ppb	250.4	ppb

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



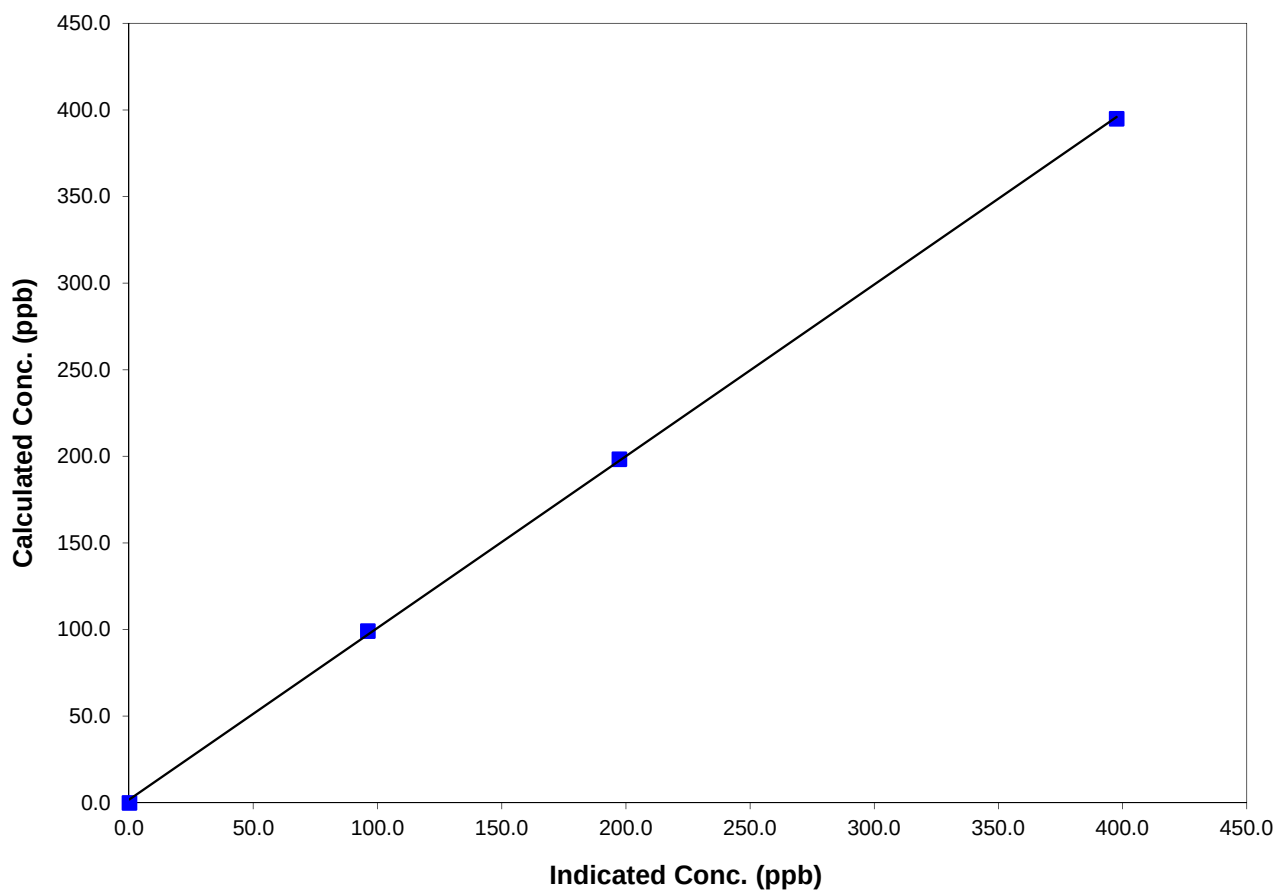
Station Information

Calibration Date	September 12, 2014	Previous Calibration	August 22, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:15	End Time (MST)	14:12:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

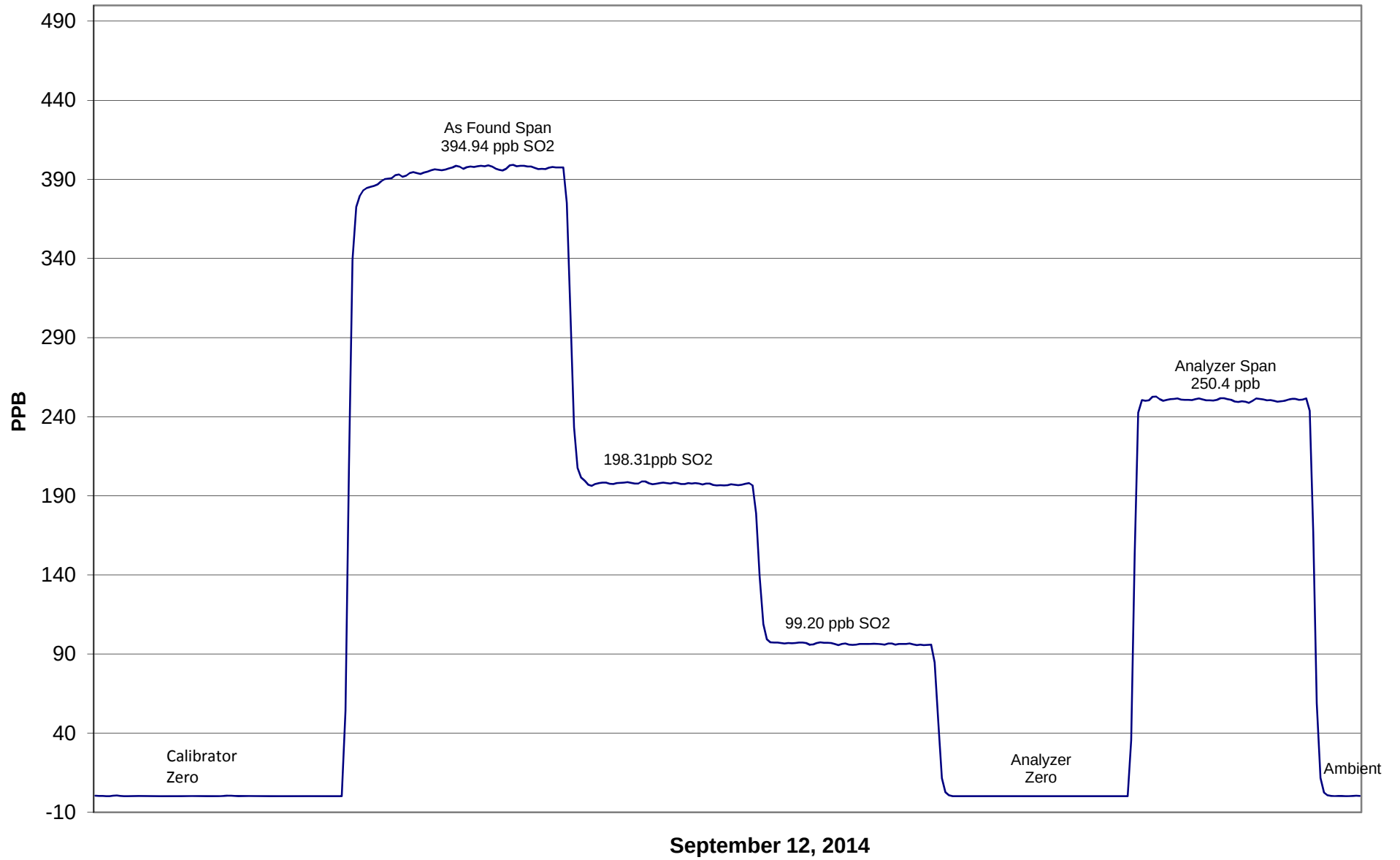
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999883
394.9	397.7	0.9932		
198.3	197.4	1.0046		
99.2	96.2	1.0314	Slope	0.990960
			Intercept	1.822408

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	September 12, 2014	Previous Calibration	August 25, 2014
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	9:10	End Time (MST)	12:30
Barometric Pressure	0.935 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	2844
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031783	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.987147	Calculated slope	0.992641
Calculated intercept	0.837675	Calculated intercept	0.645787

Analyzer make TEI Model 43C Analyzer serial # 0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	18.9	ppb	18.9	ppb
coefficient	0.983		0.983	
Lamp Voltage	833	volts	833	volts
Chamber Temp	43.7	Deg C	43.9	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	611.8	mm Hg	612.1	mm Hg
Sample Flow	0.637	lpm	0.640	lpm
Lamp Intensity	34,920	mv	35,196	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.0	N/A
4995	39.91	81.80	82.0	0.9974
4995	19.93	41.01	40.3	1.0169
6995	9.97	14.69	13.6	1.0794
4995	9.97		2.5	Sox test
4995	0.0	0.00	0.0	As Found Zero
4995	39.91	81.80	82.0	As Found Span
Average Correction Factor				1.0312

Calculated value of As Found Response: 81.83 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.8	ppm	0.7	ppm
Auto span	30.8	ppm	31.4	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



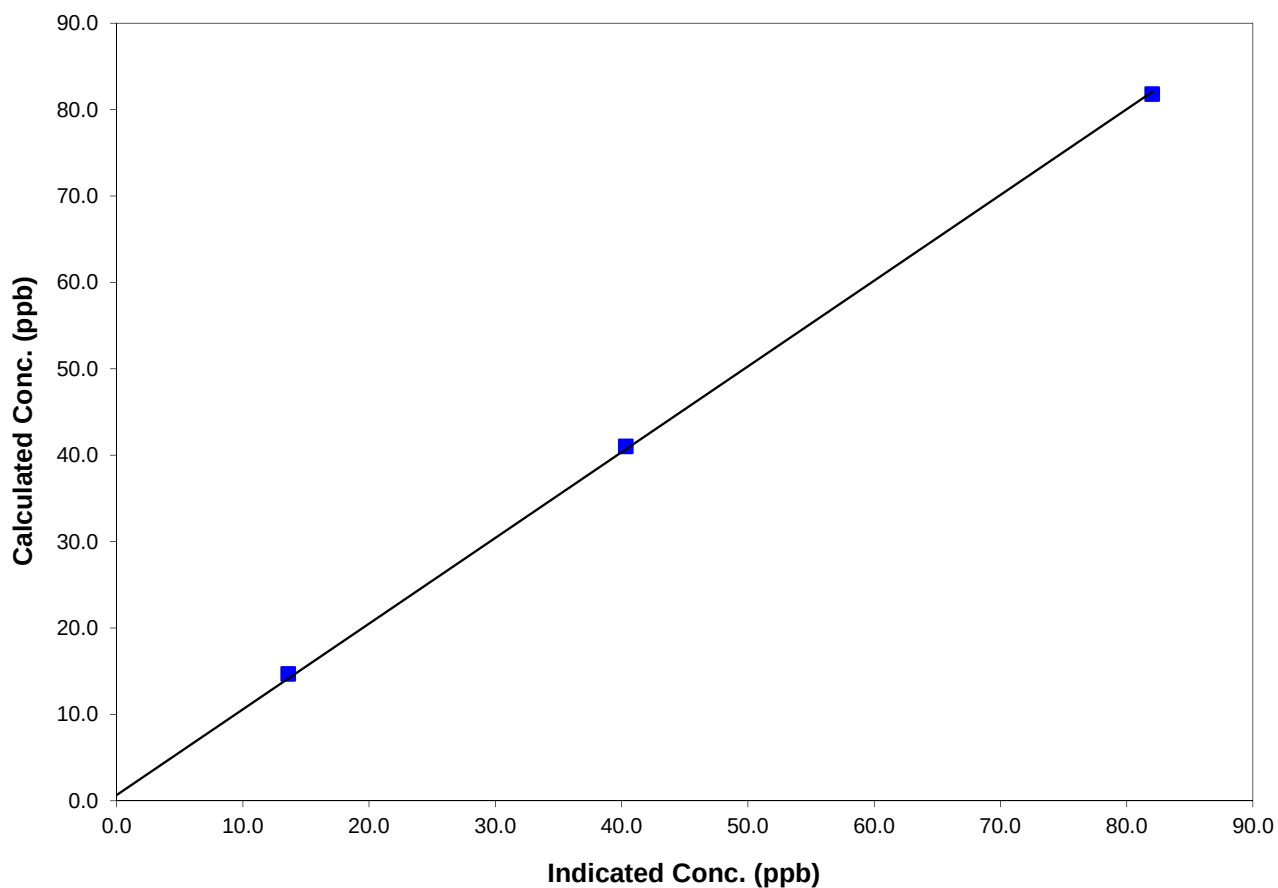
Station Information

Calibration Date	September 12, 2014	Previous Calibration	August 25, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:10	End Time (MST)	12:30
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

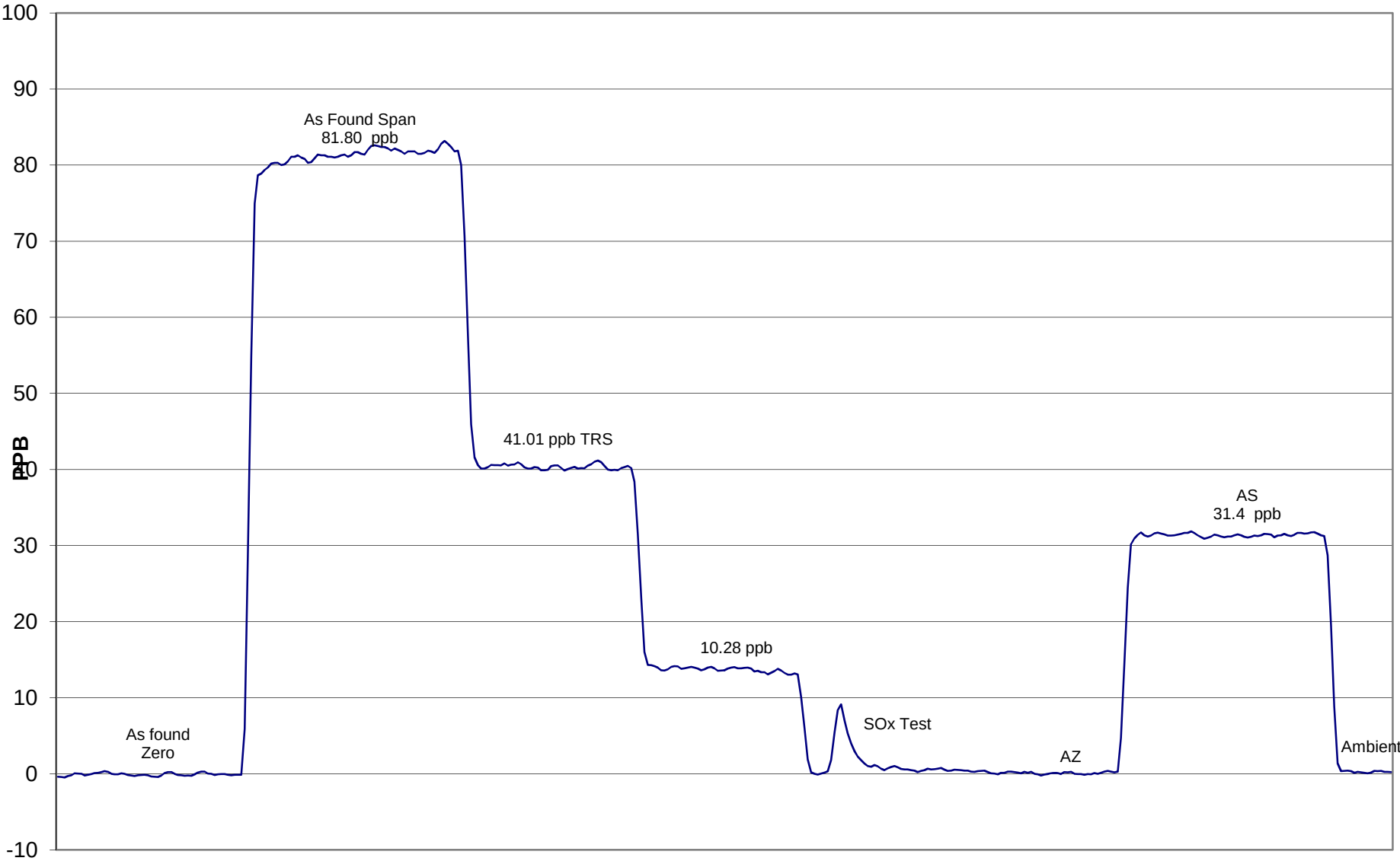
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999783
81.8	82.0	0.9974		
41.0	40.3	1.0169		
14.7	13.6	1.0794	Slope	0.992641
			Intercept	0.645787

TRS Calibration Curve



Smokey Heights TRS Calibration



September 12, 2014

Calibration Report

Parameter SO2
Air Monitoring Network PAZA



Station Information

Calibration Date	September 3, 2014	Previous Calibration	August 8, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
Start Time (MST)	14:00:00 PM	End Time (MST)	16:45:00 PM
Barometric Pressure	0.908 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	2844
Cal Gas Concentration	10.8 ppm	Cal Gas Expiry Date	28/09/2012
Gas Cert Reference	FF14871		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.987217	Calculated slope	0.994809
Calculated intercept	0.084221	Calculated intercept	0.325952
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.72		2.71	
Coefficient	1.042		1.042	
PMT	-768.1	V	-768.1	V
UV Lamp Voltage	1063	V	1064	V
Chamber Temp	45	Deg C	45	Deg C
Pressure	661	mm Hg	662	mm Hg
Sample Flow	0.517	LPM	0.516	LPM
Lamp Intensity	97	%	96	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4994	0.00	0.0	0.0	N/A
4994	39.92	85.6	85.9	0.9970
4994	19.96	43.0	42.8	1.0049
4994	9.96	21.5	20.9	1.0270
4994	0.00	0.0	0.0	As found zero
4994	39.92	85.6	85.9	As found span
Average Correction Factor				1.0096

Calculated value of As Found Response: 84.899 ppm Percent Change of As Found: 0.9%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.4	ppb
Auto span	59.1	ppb	60.3	ppb

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



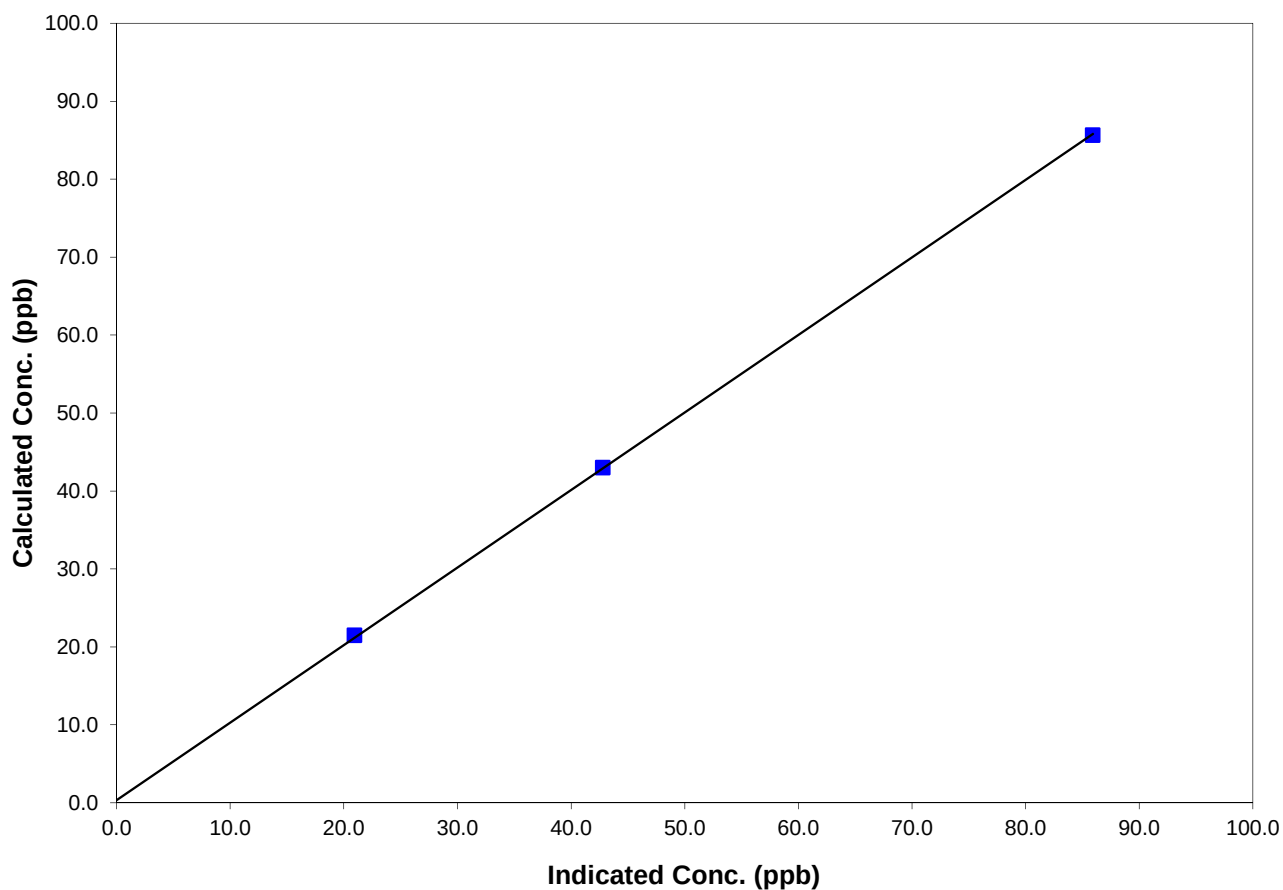
Station Information

Calibration Date	September 3, 2014	Previous Calibration	August 8, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	14:00:00 PM	End Time (MST)	16:45:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

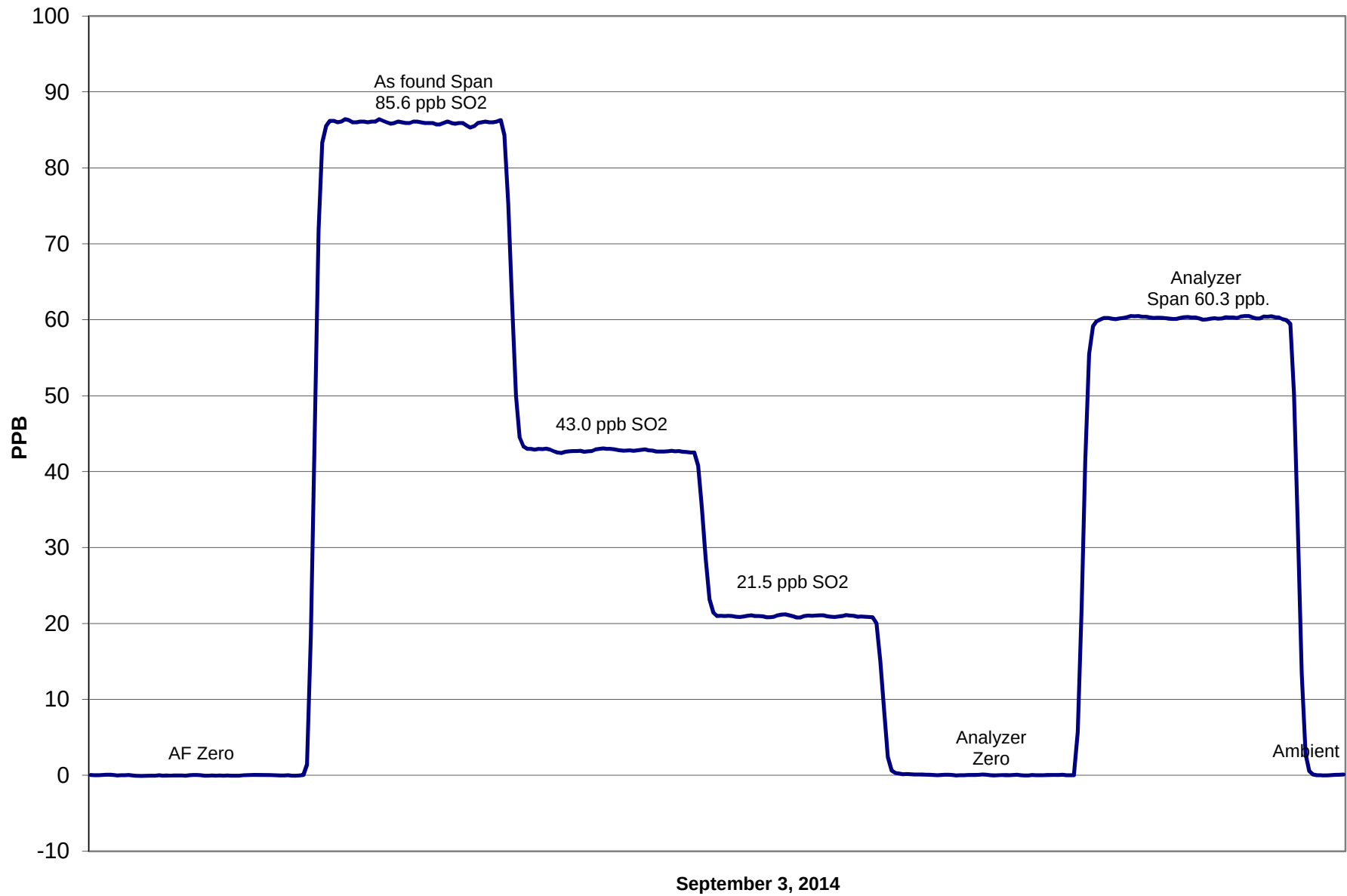
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999937
85.6	85.9	0.9970		
43.0	42.8	1.0049		
21.5	20.9	1.0270	Slope	0.994809
			Intercept	0.325952

SO2 Calibration Curve



SO2 Calibration



Parameter

Air Monitoring Network

NO_x-NO-NO₂

PAZA



Station Information

Calibration Date	September 3, 2014			Previous Calibration	August 7, 2014	
Station Number	4			Station Location	Beaverlodge	
Reason:	☒ Routine	☐ Installation	☐ Removal	Other:		
Start Time (MST)	8:29			End Time (MST)	13:45:00 PM	
Barometric Pressure	0.907		Atm	Station Temperature	20.0	Deg C
Calibrator	EnviroNics			Serial Number	3016	
NO Cal Gas Conc	52.1		ppm	Cal Gas Expiry Date	March 1, 2017	
NOx Cal Gas Conc	52.4		ppm	Cal Gas Serial #	LL105159	

DACS Information

DACS make		CR3000		DACS serial No.		5237	
	Parameter	NO2	NOx	NO			
Before	Data Slope	0.999179	0.999488	0.996462			
	Data Offset	-0.276236	1.786987	1.806679			
After	Data Slope	0.999602	0.994905	0.992230			
	Data Offset	-0.681539	1.815864	2.110704			
Channel #		8	6	7			
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC			

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068	
Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	3.0	mV	3.0	mV
NOx bkgnd	3.3	mV	3.3	mV
NO coefficient	1.013		1.013	
NOx coefficient	1.000		1.000	
NO2 conv temp	326.3	Deg C	325.5	Deg C
PMT Temp	-2.9	Deg C	-3.0	Deg C
PMT Volt	-747.8	mV	-747.0	mV
R Cell Press	223.2	in Hg	223.8	in Hg
Sample Flow	0.641	LPM	0.637	LPM

Notes: No adjustments made.
Due to the calibrator issues, calibration was interrupted couple times.

Calibration Report

Parameter **NOX-NO-NO2**
Air Monitoring Network **PAZA**



Station Information

Calibration Date: September 3, 2014 Station Location: Beaverlodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.2	-0.1	0.5	N/A	N/A
1	4995	39.92	415.5	413.1	2.4	416.7	415.2	0.5	0.9970	0.9948
2	4995	19.96	208.6	207.4	1.2	206.9	205.7	0.3	1.0079	1.0082
3	4995	9.93	104.0	103.4	0.6	100.6	100.1	0.3	1.0332	1.0323
AFZ	4995	0.00	0.0	0.0	0.0	0.2	-0.1	0.1	0.0000	0.0000
AFS	4995	39.92	415.5	413.1	0.8	416.7	415.2	0.7	0.9970	0.9949
Average Correction Factor									1.0127	1.0118

As Found Concentrations: NO_x= 418.1 NO= 415.6 As Found Percent Change NO_x= 0.6% NO= 0.6%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.1	-0.1	0.0	0.2	-0.1	0.5	N/A	N/A	N/A	N/A
NO point	414.2	414.2	0.0	415.2	414.2	0.2	0.9976	1.0000	N/A	N/A
300	414.2	105.6	308.7	415.4	105.6	309.3	0.9972	1.0000	0.9979	100.2%
200	414.2	207.0	207.2	415.9	207.0	208.1	0.9960	1.0000	0.9958	100.4%
100	414.2	306.6	107.7	415.7	306.6	108.6	0.9963	1.0000	0.9912	100.9%
Average Correction Factor							0.9965	1.0000	0.9950	100.5%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	-0.1	ppb	0.0	-0.1	-0.1	ppb
Auto span	165.3	164.0	1.1	ppb	176.9	175.5	1.1	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



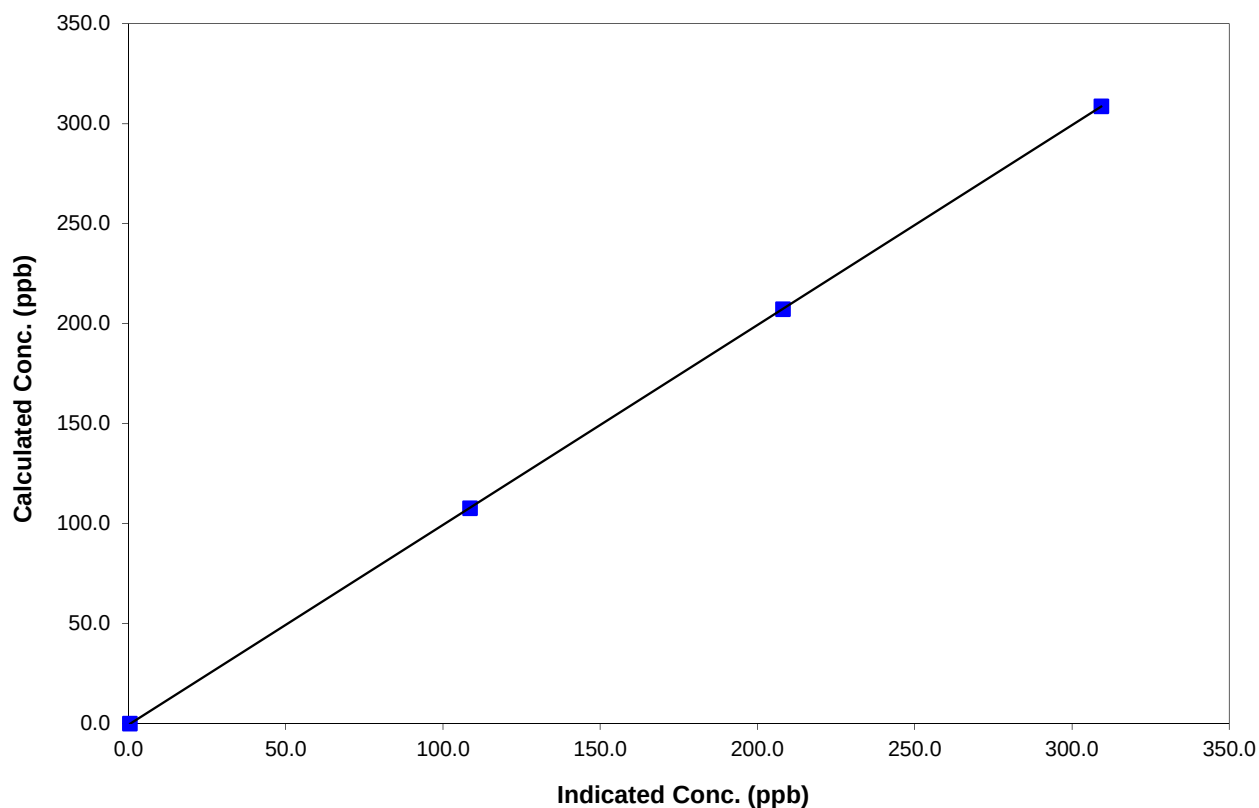
Station Information

Calibration Date	September 3, 2014	Previous Calibration	August 7, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:29	End Time (MST)	13:45:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A	Correlation Coefficient	0.999998
308.7	309.3	0.9979		
207.2	208.1	0.9958		
107.7	108.6	0.9912	Slope	0.999602
			Intercept	-0.681539

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



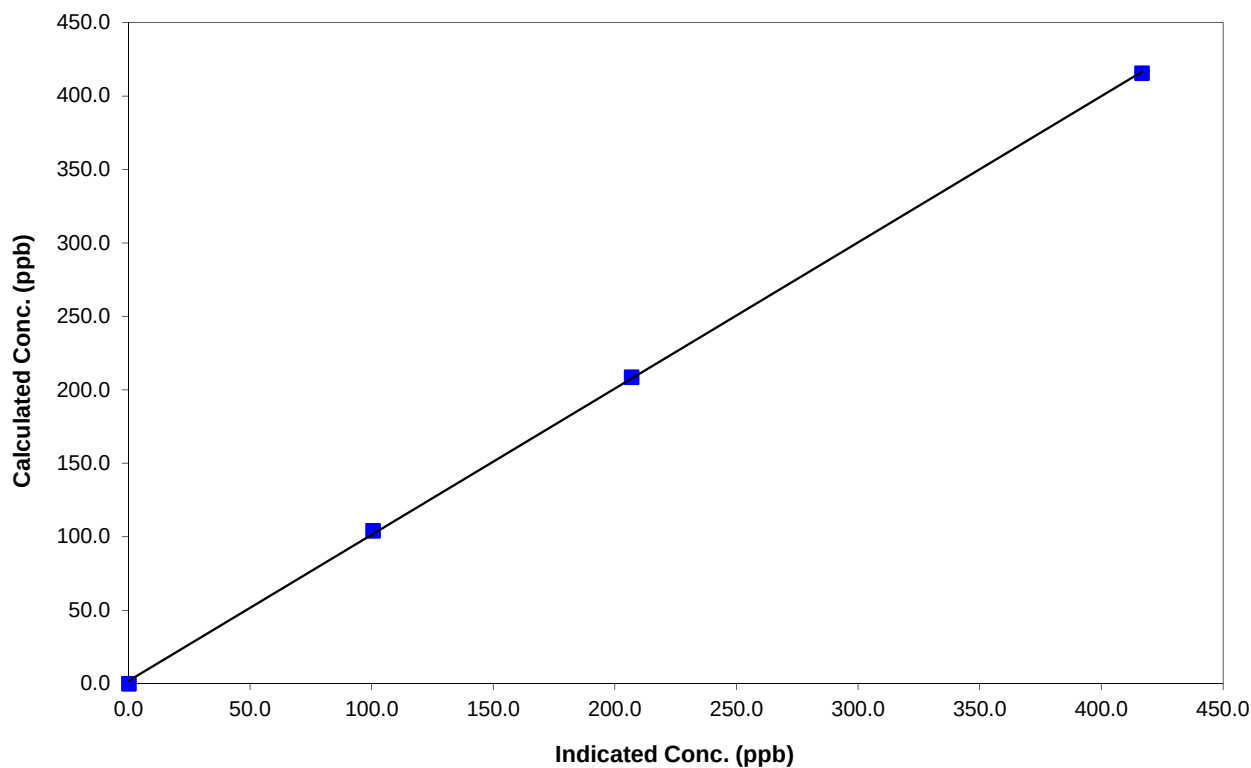
Station Information

Calibration Date	September 3, 2014	Previous Calibration	August 7, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:29	End Time (MST)	13:45:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999897
415.5	416.7	0.9970		
208.6	206.9	1.0079		
104.0	100.6	1.0332	Slope	0.994905
			Intercept	1.815864

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



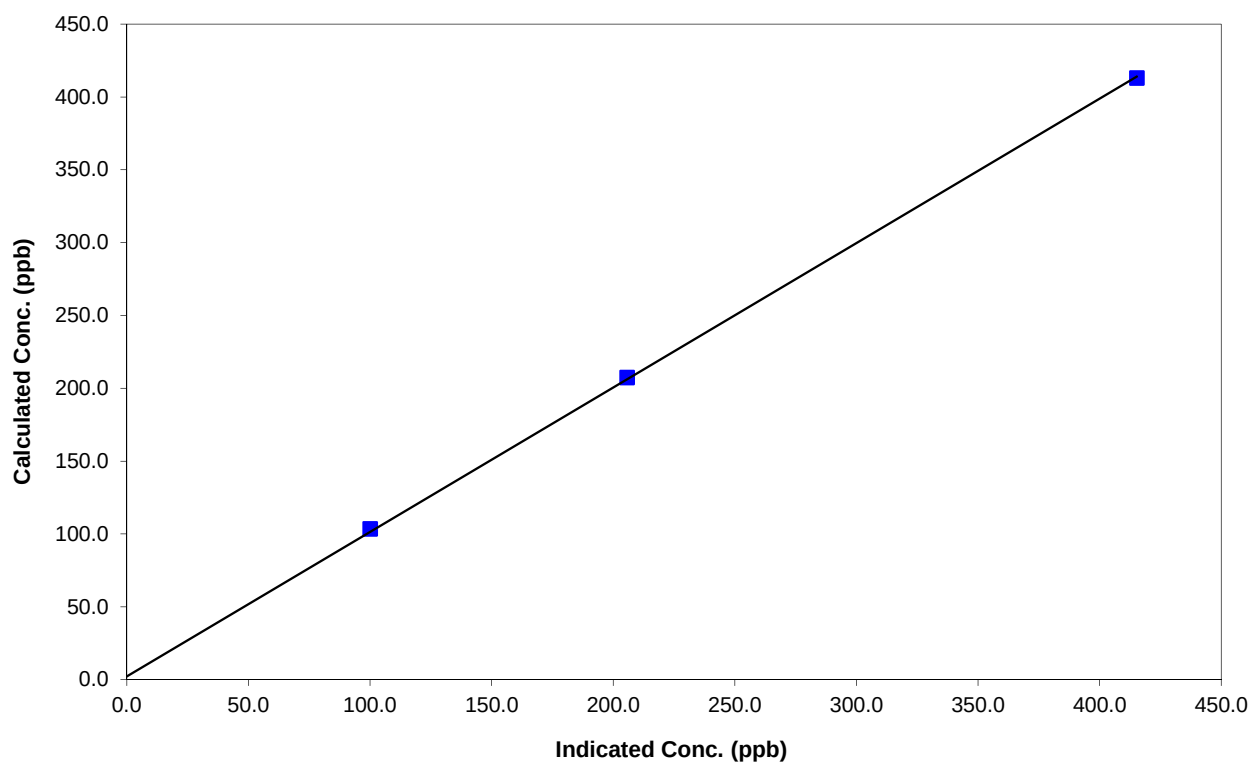
Station Information

Calibration Date	September 3, 2014	Previous Calibration	August 7, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:29	End Time (MST)	13:45:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

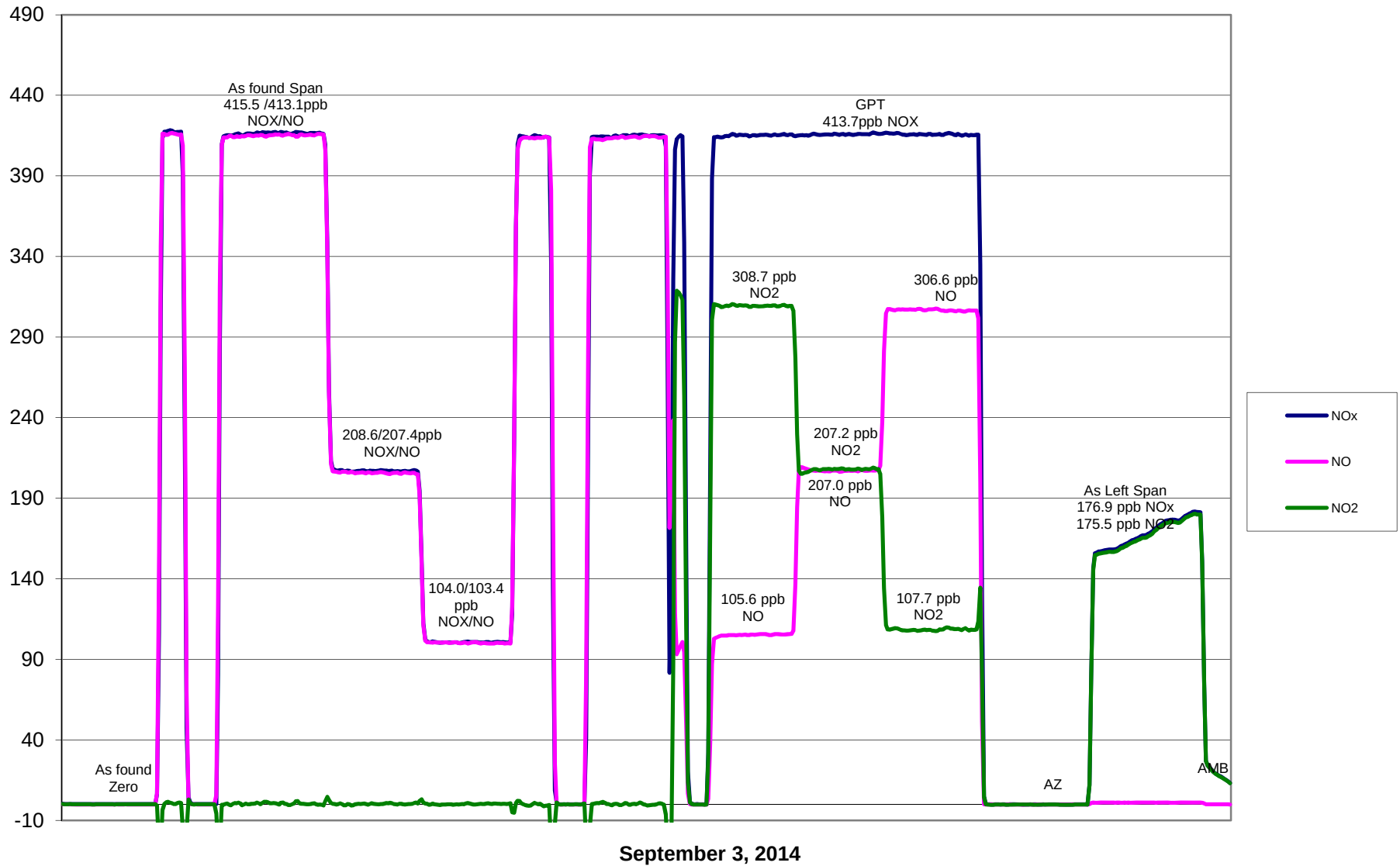
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999891
413.1	415.2	0.9948		
207.4	205.7	1.0082		
103.4	100.1	1.0323	Slope	0.992230
			Intercept	2.110704

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	September 3, 2014	Previous Calibration	August 7, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	12:25	End Time (MST)	15:05:00 PM
Barometric Pressure	0.907 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.000785	Calculated slope	1.008841
Calculated intercept	-0.028173	Calculated intercept	-0.521694

Analyzer make	Teco 49i	Analyzer serial #	1136451236
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.60	ppb	-0.60	ppb
slope	1.002		1.002	
Lamp temp	53.8	mV	53.9	mV
Lamp Intensity A/B	77490/79012	mV	77418/78928	mV
Pressure	680.2	mm Hg	683	mm Hg
Flow A	0.759	LPM	0.761	LPM
Flow B	0.735	LPM	0.737	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.2	N/A
5035	0.30	308.7	306.0	1.0088
5035	0.20	207.2	206.5	1.0034
5035	0.10	107.7	107.5	1.0016
5035	0.00	0.0	0.2	As found zero
5035	0.30	308.7	306.0	As found span
Average Correction Factor				1.0046

Calculated value of As Found Response: 306.1 ppm Percent Change of As Found: -0.9%

	before calibration		after calibration	
Auto zero	0.1	ppb	-0.2	ppb
Auto span	267.2	ppb	268.6	ppb

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter O3

Air Monitoring Network PAZA



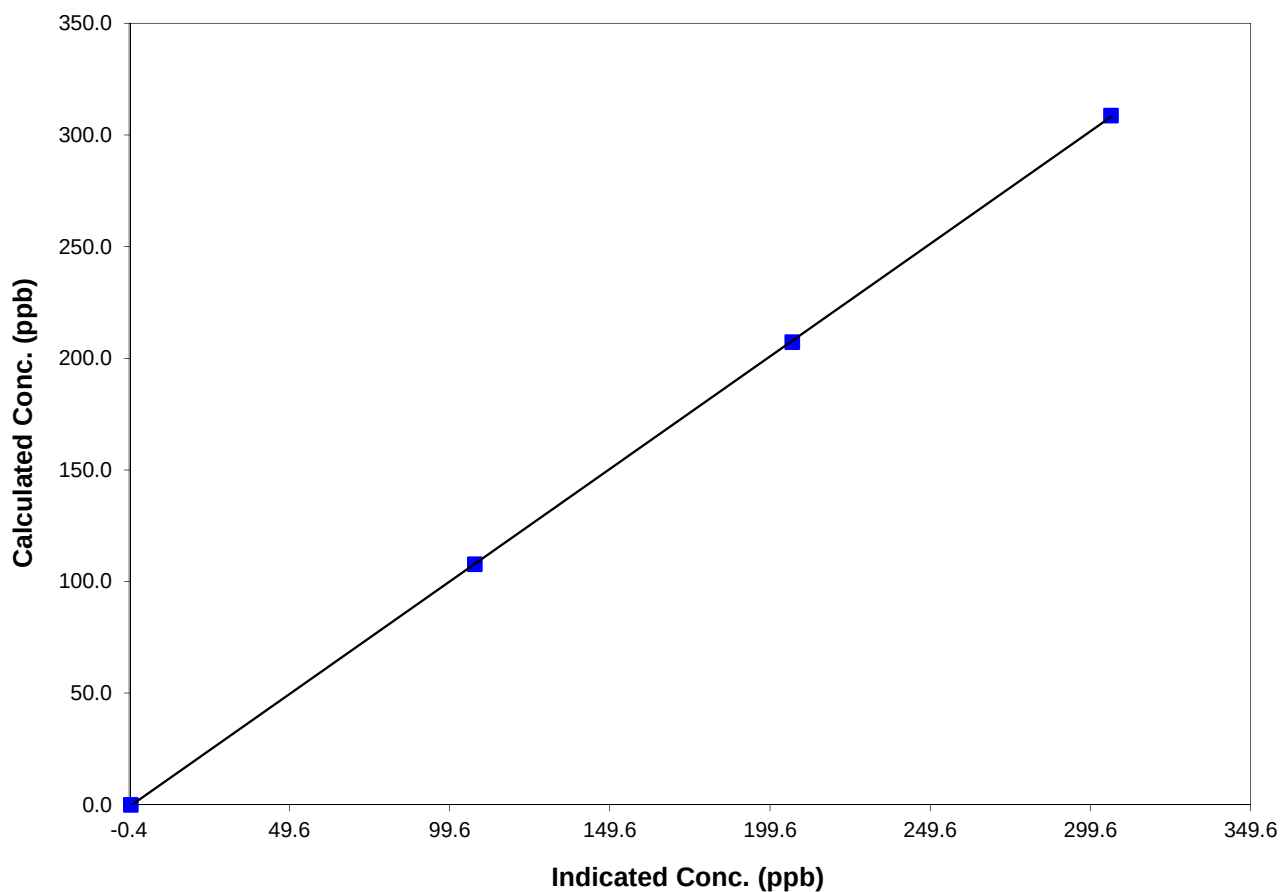
Station Information

Calibration Date	September 3, 2014	Previous Calibration	August 7, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:25	End Time (MST)	15:05:00 PM
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236

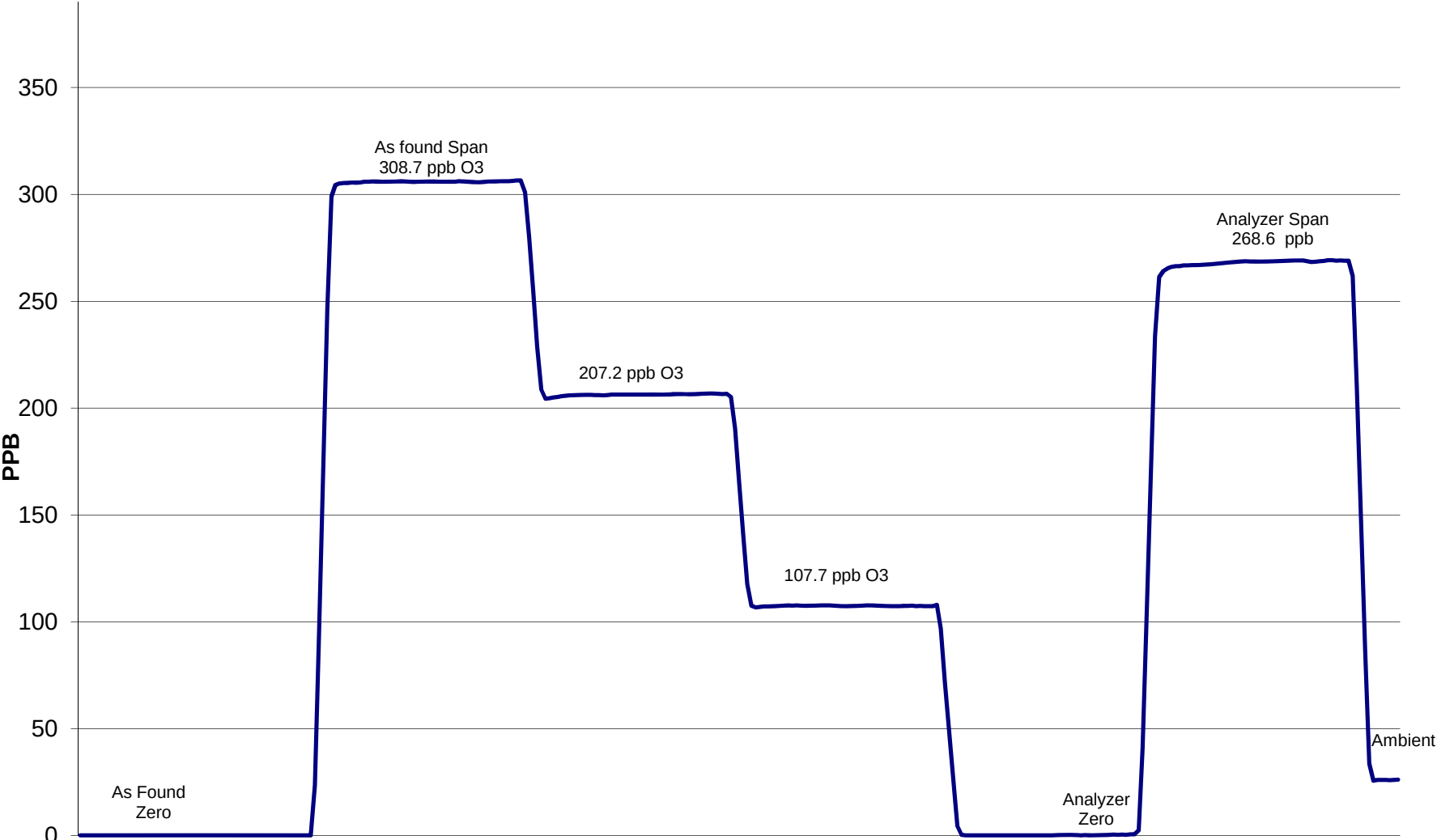
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA	Correlation Coefficient	0.999984
308.7	306.0	1.0088		
207.2	206.5	1.0034		
107.7	107.5	1.0016	Slope	1.008841
			Intercept	-0.521694

O3 Calibration Curve



O3 Calibration



September 3, 2014

Calibration Report

Parameter SO2
Air Monitoring Network PAZA



Station Information

Calibration Date	Septemeber 26 2014	Previous Calibration	August 6 2014
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	12:10	End Time (MST)	16:00:00 PM
Barometric Pressure	706.00 mmHg	Station Temperature	23.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Exp Date	February 25, 2021
Gas Cylinder Num.	LL105159		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.993614	Calculated slope	0.994427
Calculated intercept	2.277996	Calculated intercept	2.145420
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	15.9		15	
Coefficient	0.972		0.981	
UV Lamp Voltage	733	LPM	733	LPM
Chamber Temp	43.2	V	43	V
Perm Gas Temp	45	C	45	C
Pressure	670.7	in Hg	676.4	in Hg
Sample Flow	0.485	LPM	0.491	LPM
Lamp Intensity	47685	Hz	47664	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.2	N/A
4995	39.91	394.7	396.1	0.9966
4995	19.97	198.3	195.6	1.0137
4995	9.95	99.0	95.4	1.0383
4995	0.00	0.0	-0.6	As found zero
4995	39.91	394.7	388.5	As found span
Average Correction Factor				1.0162

Calculated value of As Found Response: 388.9 ppm Percent Change of As Found: 1.5%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	238.5	ppm	278.6	ppm

Notes: Span and zero adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



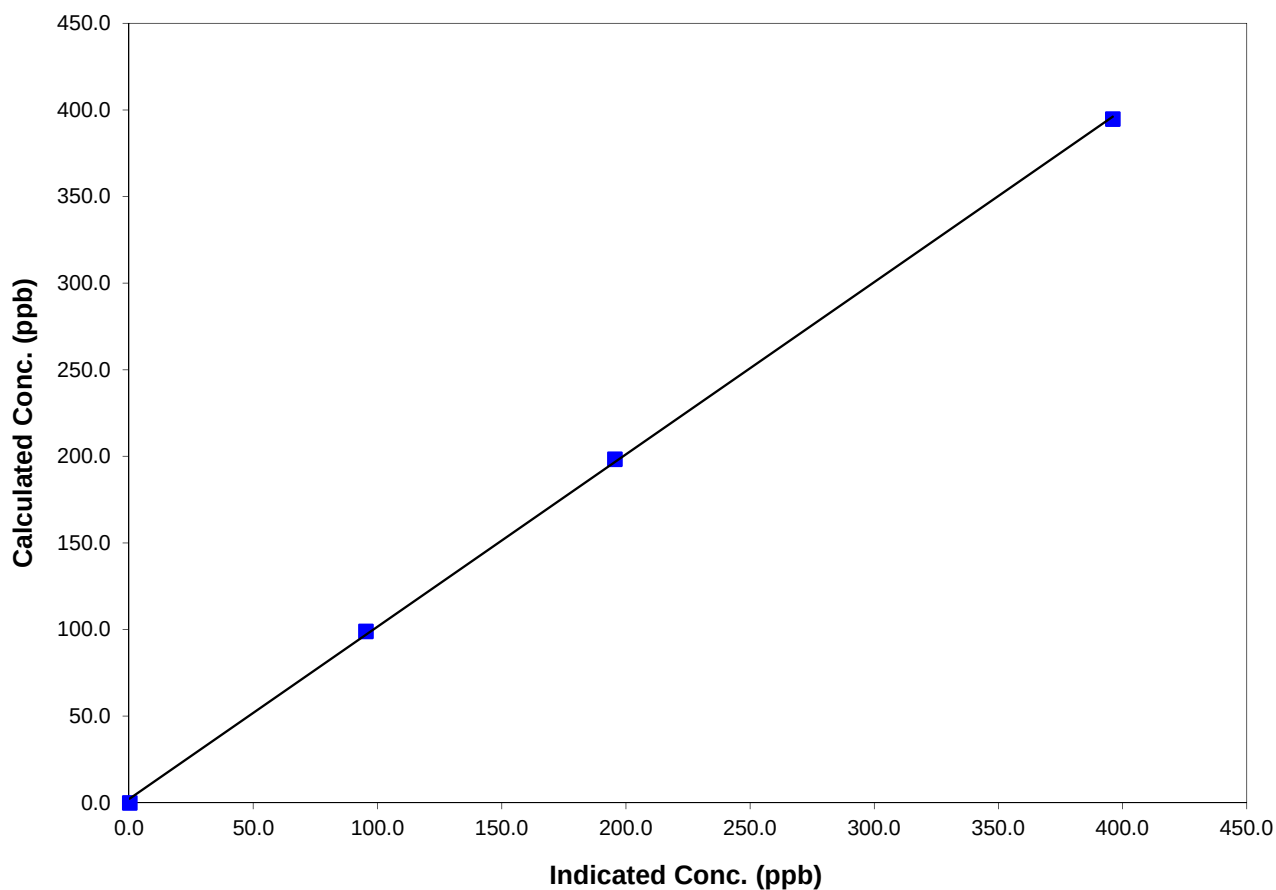
Station Information

Calibration Date	Septemeber 26 2014	Previous Calibration	August 6 2014
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:10	End Time (MST)	16:00:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

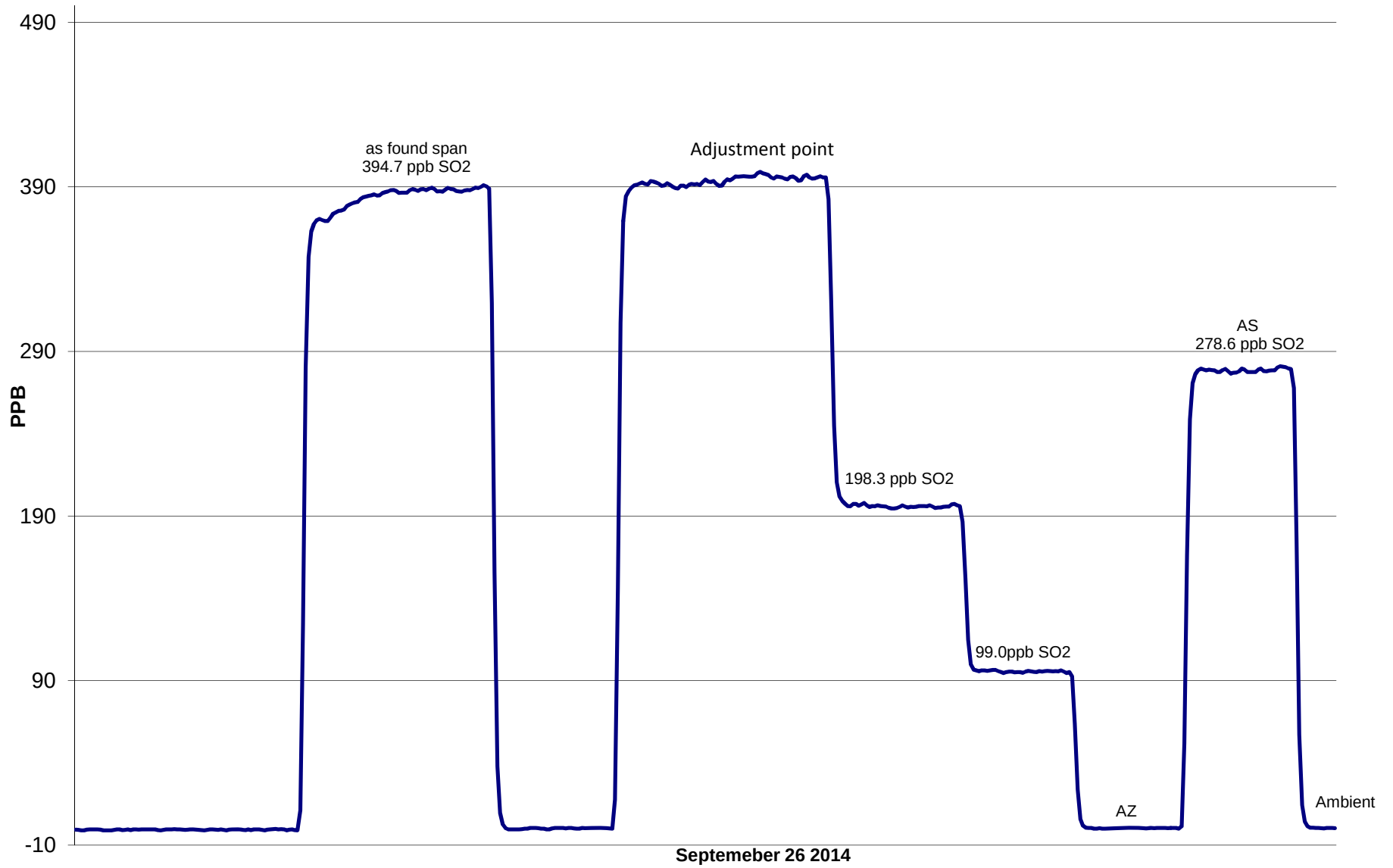
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999835
394.7	396.1	0.9966		
198.3	195.6	1.0137		
99.0	95.4	1.0383	Slope	0.994427
			Intercept	2.145420

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter H2S
Air Monitoring Network PAZA



Station Information

Calibration Date	September 6 2014	Previous Calibration	August 6 2014
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	10:00	End Time (MST)	13:30:00 PM
Barometric Pressure	706.00 mm	Station Temperature	23.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	10.32 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.984903	Calculated slope	0.993011
Calculated intercept	0.384096	Calculated intercept	0.404692
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.5	ppb	7.4	ppb
Coefficient	0.899		0.888	
Lamp Voltage	785	v	785	v
Chamber Temp	45.1	c	45	c
Perm Oven Temp	44.9	c	45	c
Pressure	572.00	mm Hg	572.90	mm Hg
Sample Flow	0.392	ccm	0.392	lpm
Lamp Intensity	91	%	91	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.0	N/A
4997	39.91	81.8	82.2	0.9951
4997	19.94	41.0	40.5	1.0126
6995	9.97	14.7	14.2	1.0374
4997	9.97	102.5	2.8	Sox Test
4997	0.00	0.0	0.0	As found zero
4997	39.93	81.8	82.7	As found span
Average Correction Factor				1.0150

Calculated value of As Found Response: 81.89 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.2	ppm	0.5	ppm
Auto span	64.3	ppm	64.8	ppm

Notes: Span adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



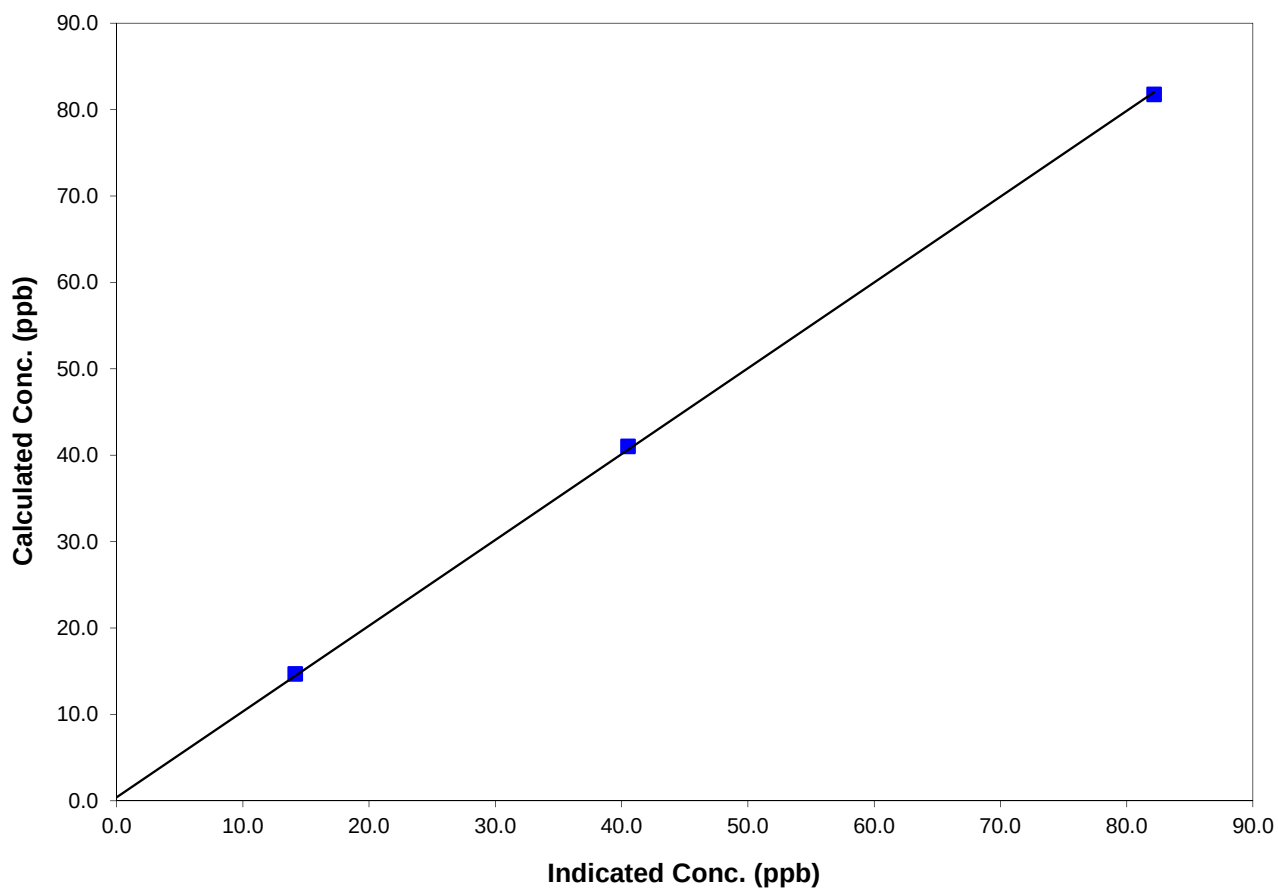
Station Information

Calibration Date	September 6 2014	Previous Calibration	August 6 2014
Station Number	6	Station Location	Valleyview
Start Time (MST)	10:00	End Time (MST)	13:30:00 PM
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

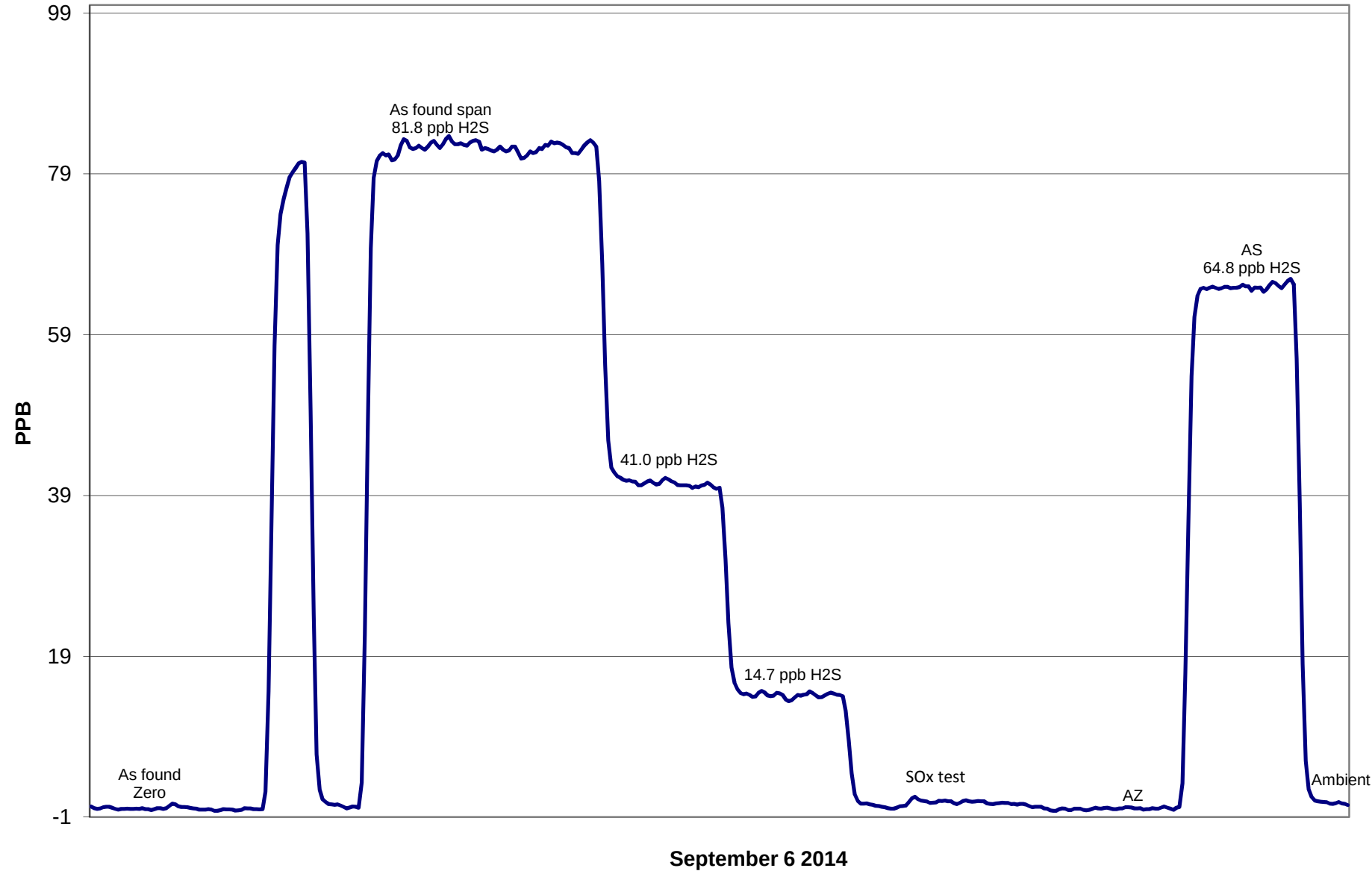
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999897
81.8	82.2	0.9951		
41.0	40.5	1.0126		
14.7	14.2	1.0374	Slope	0.993011
			Intercept	0.404692

H2S Calibration Curve



H2S Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	September 24, 2014	Previous Calibration	August 8, 2014
Station Number	1	Station Location	Falher
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:
Start Time (MST)	12:15	End Time (MST)	14:40:00 PM
Barometric Pressure	0.908 mm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	01/02/2017
Correction factor	0.030865	Cal Gas Cylinder #	LL105159
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.980690	Calculated slope	0.993464
Calculated intercept	2.787580	Calculated intercept	1.143159
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.7		6.7	
coefficient	0.922		0.922	
Lamp Voltage	834	volts	834	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45.01	Deg C	45	Deg C
Pressure	669.8	mm Hg	671.9	mm Hg
Sample Flow	0.406	ccm	0.408	ccm
Lamp Intensity	97	%	97	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.4	N/A
4995	39.93	394.9	397.0	0.9948
4995	19.96	198.2	198.0	1.0010
4995	9.97	99.2	96.9	1.0238
4995	0.0	0.0	0.4	As Found Zero
4995	39.93	394.9	397.0	As Found Span
Average Correction Factor				1.0065

Calculated value of As Found Response: 391.743 ppm Percent Change of As Found: 0.8%

	before calibration		after calibration	
Auto zero	-0.5	ppm	0.3	ppm
Auto span	346.0	ppm	356.2	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



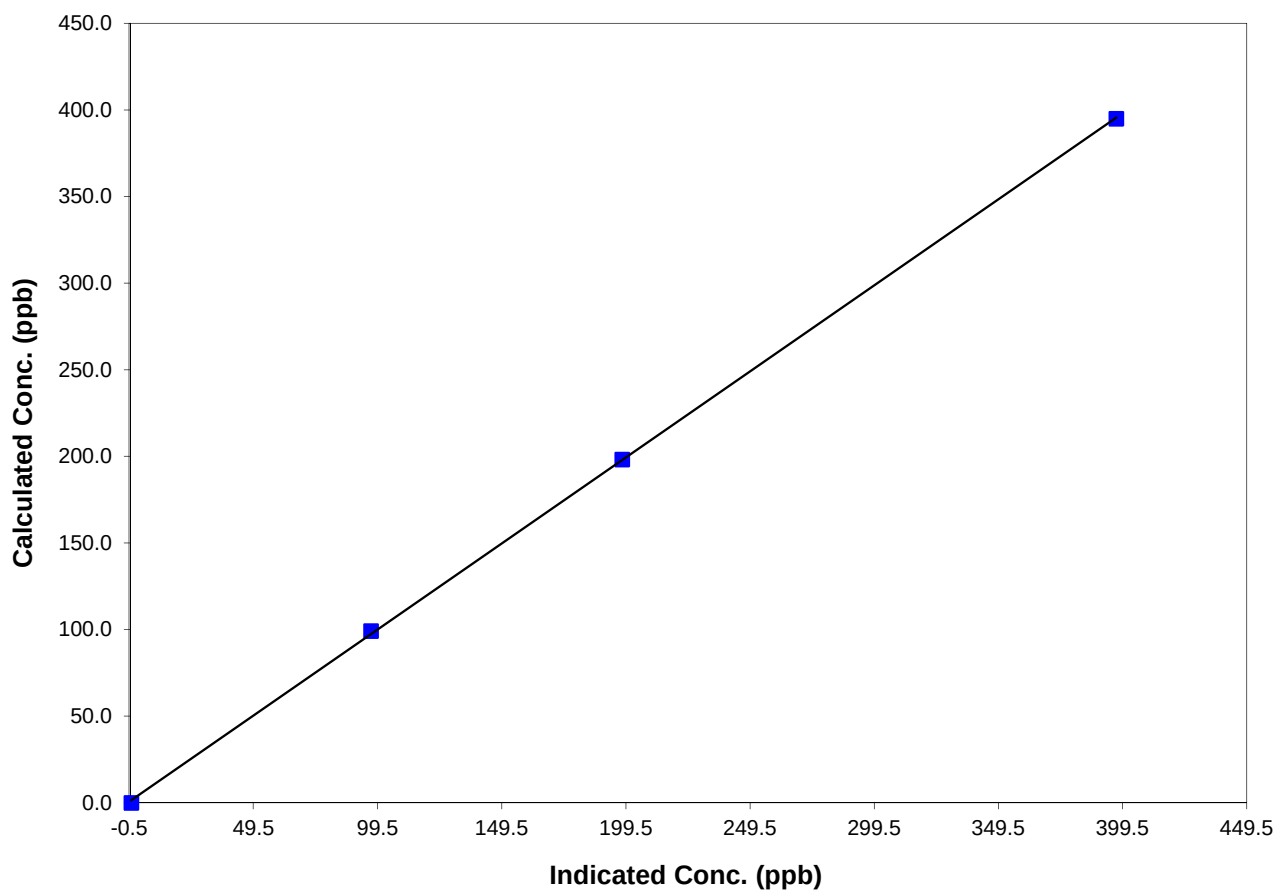
Station Information

Calibration Date	September 24, 2014	Previous Calibration	August 8, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	12:15	End Time (MST)	14:40:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

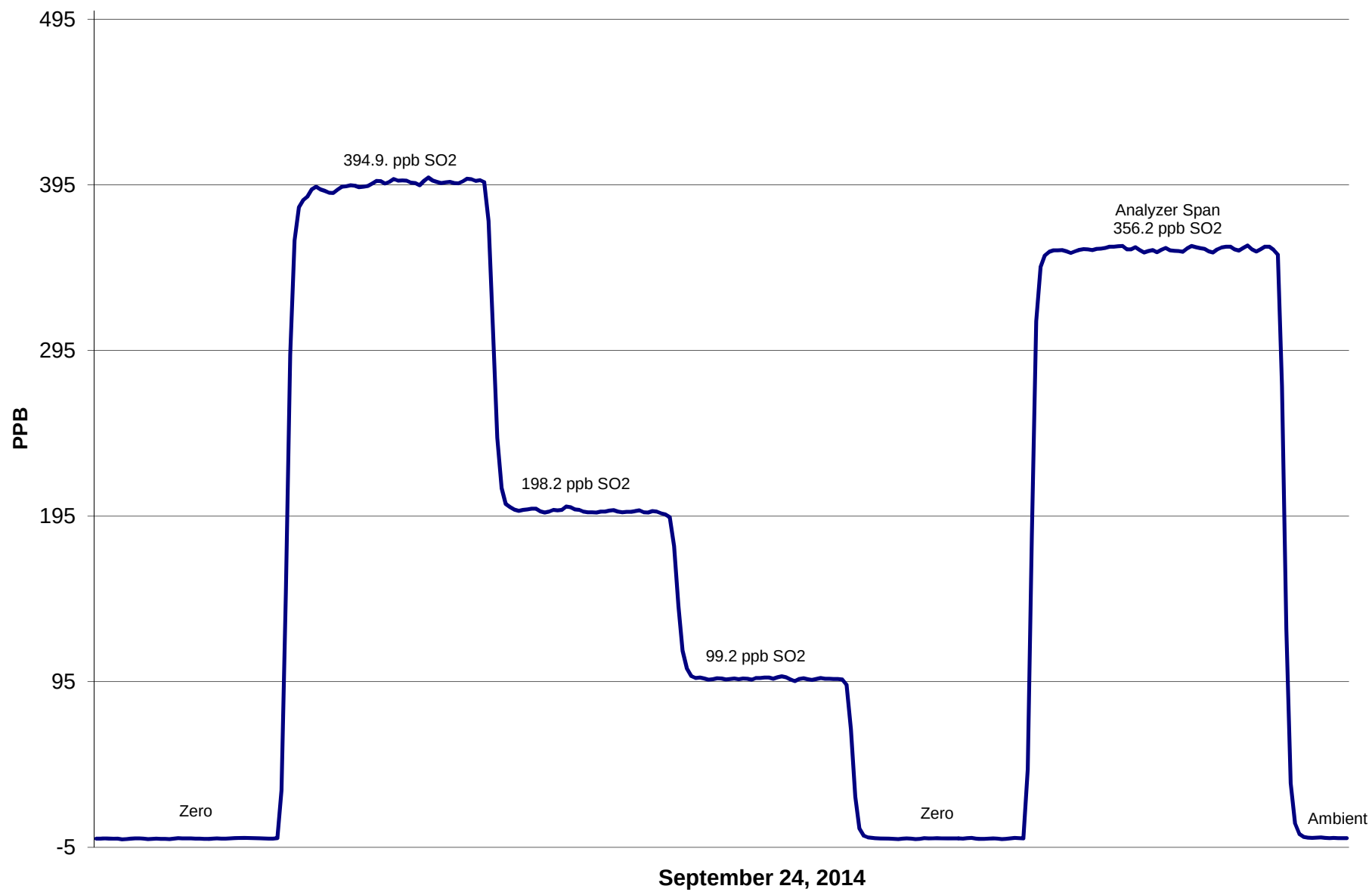
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999929
394.9	397.0	0.9948		
198.2	198.0	1.0010		
99.2	96.9	1.0238	Slope	0.993464
			Intercept	1.143159

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	September 24, 2014	Previous Calibration	August 8, 2014
Station Number	1	Station Location	Falher
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	10:20	End Time (MST)	13:20:00 PM
Barometric Pressure	0.908 mm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.030865	Cal Gas Cylinder #	LL110781
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.995818	Calculated slope	0.996700
Calculated intercept	0.022474	Calculated intercept	0.039305
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	13.8	ppb	13.7	ppb
coefficient	1.13		1.13	
Lamp Voltage	796	volts	795	volts
Chamber Temp	45.2	Deg C	45.1	Deg C
Perm Gas Temp	45.01	Deg C	45	Deg C
Pressure	549.8	mm Hg	549.8	mm Hg
Sample Flow	0.862	lpm	0.861	lpm
Lamp Intensity	91	mv	90	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	0.2	N/A
4995	39.93	81.84	82.2	0.9955
4995	19.96	41.07	40.9	1.0036
6994	9.97	14.69	14.6	1.0078
4995	0.00	0.00	0.2	As Found Zero
4995	39.93	81.84	82.2	As Found Span
Average Correction Factor				1.0023

Calculated value of As Found Response: 81.71 ppm Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.3	ppm
Auto span	54.2	ppm	55.9	ppm

Notes: NO adjustment made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



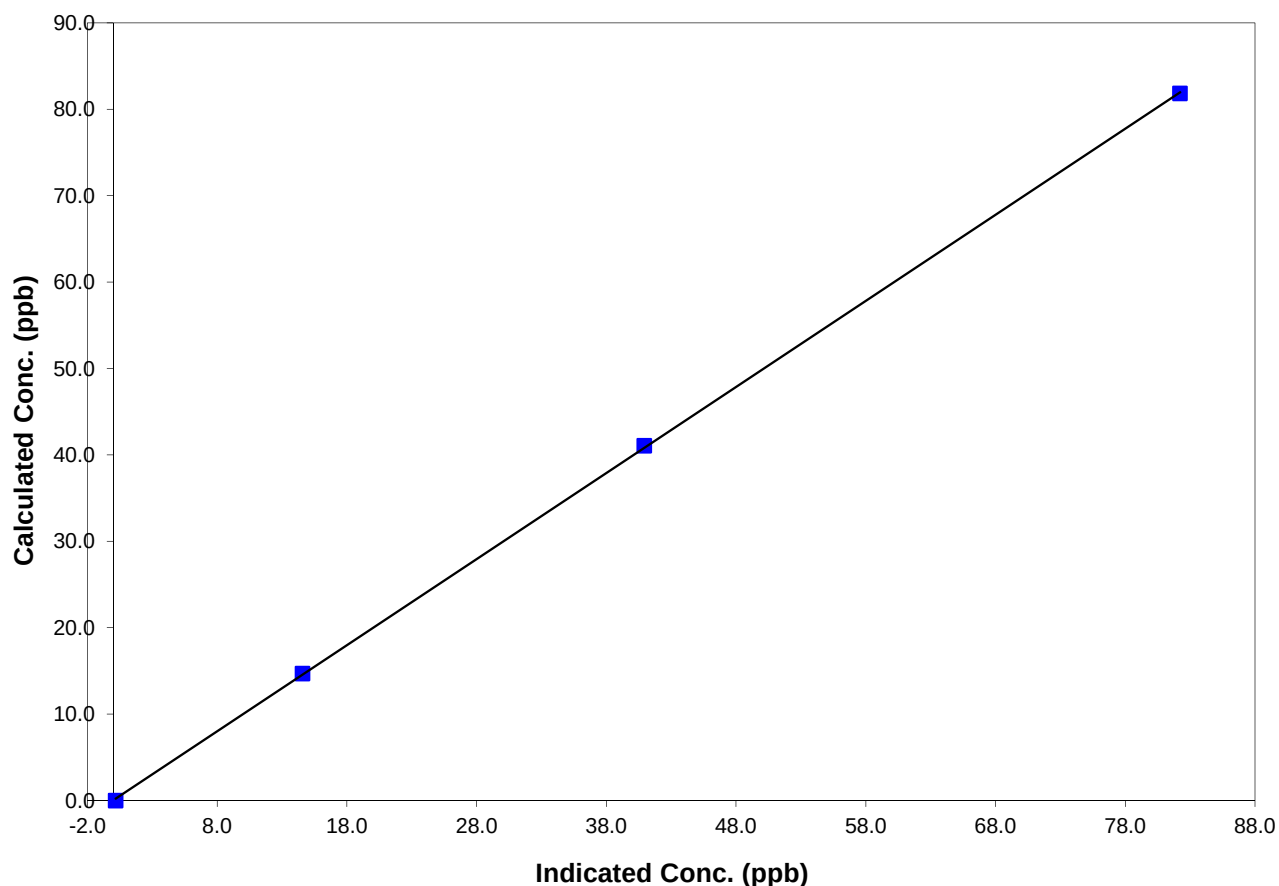
Station Information

Calibration Date	September 24, 2014	Previous Calibration	August 8, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	10:20	End Time (MST)	13:20:00 PM
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

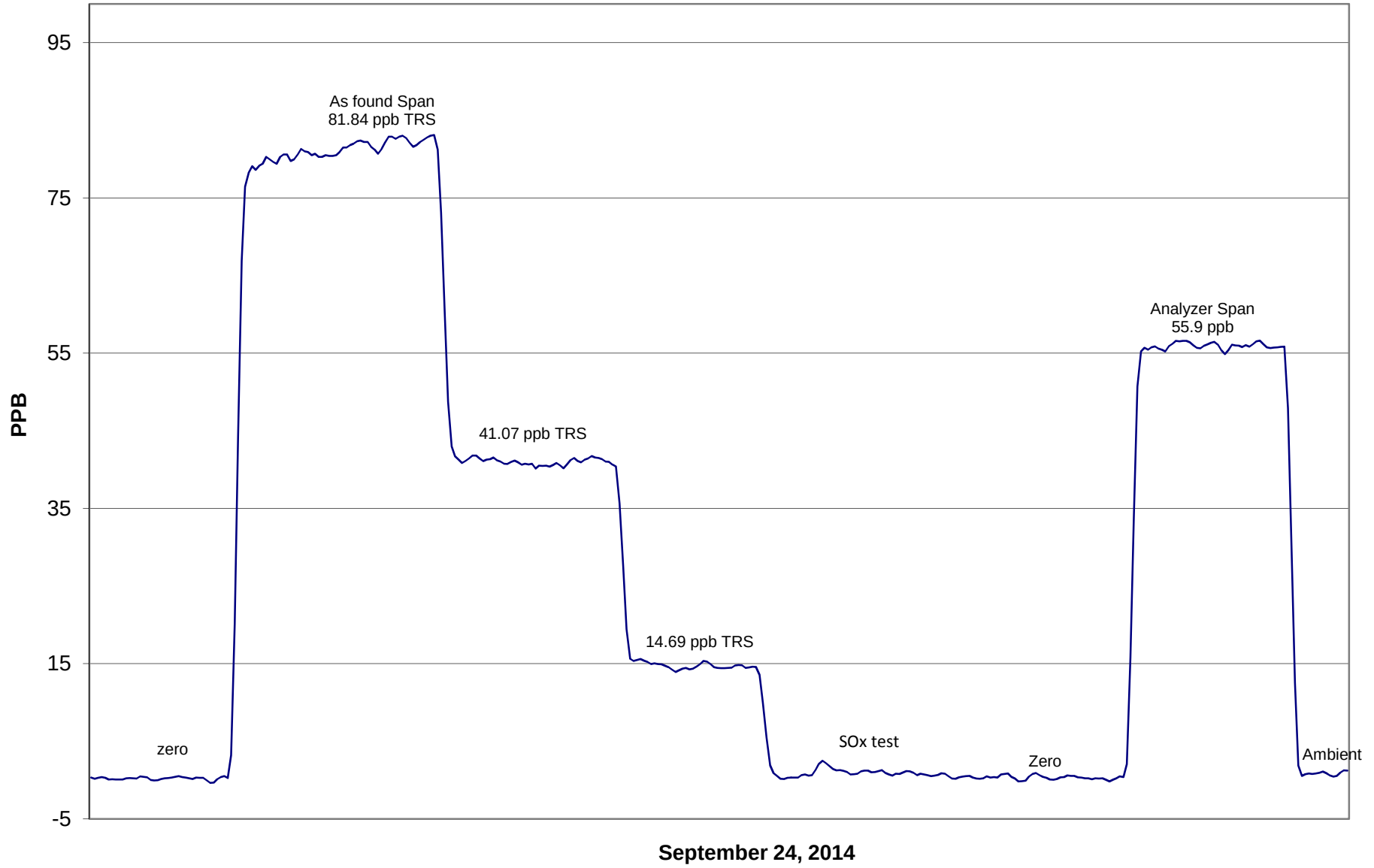
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999963
81.8	82.2	0.9955		
41.1	40.9	1.0036		
14.7	14.6	1.0078	Slope	0.996700
			Intercept	0.039305

TRS Calibration Curve



H2S Calibration



Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	September 22, 2014	Previous Calibration	August 19, 2014
Station Number	10	Station Location	Clairmont
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:30	End Time (MST)	14:20:00 PM
Barometric Pressure	0.926 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	49.8 ppm	Cal Gas Expiry Date	01/03/2017
Gas Cert Reference	LL105159		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.996010	Calculated slope	0.998647
Calculated intercept	2.262576	Calculated intercept	2.308746
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	21		21.4	
Coefficient	1.044		1.042	
UV Lamp Voltage	870	V	870	V
Chamber Temp	44.5	C	44.6	C
Perm Gas Temp	45	C	45	C
Pressure	666.6	mm Hg	665.9	mm Hg
Sample Flow	0.463	LPM	0.463	LPM
Lamp Intesity	30621	Hz	30564	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.0	N/A
4995	39.93	394.9	394.4	1.0015
4995	19.97	198.3	194.9	1.0175
4995	9.97	99.2	94.9	1.0458
4995	0.00	0.0	0.4	As found zero
4995	39.93	394.9	394.7	As found span
Average Correction Factor				1.0216

Calculated value of As Found Response: 394.969 ppm Percent Change of As Found: 0.0%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	241.9	ppm	243.9	ppm

Notes: Zero & Span adjustments made

Calibration Performed By: Dmytro Dolotii.

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



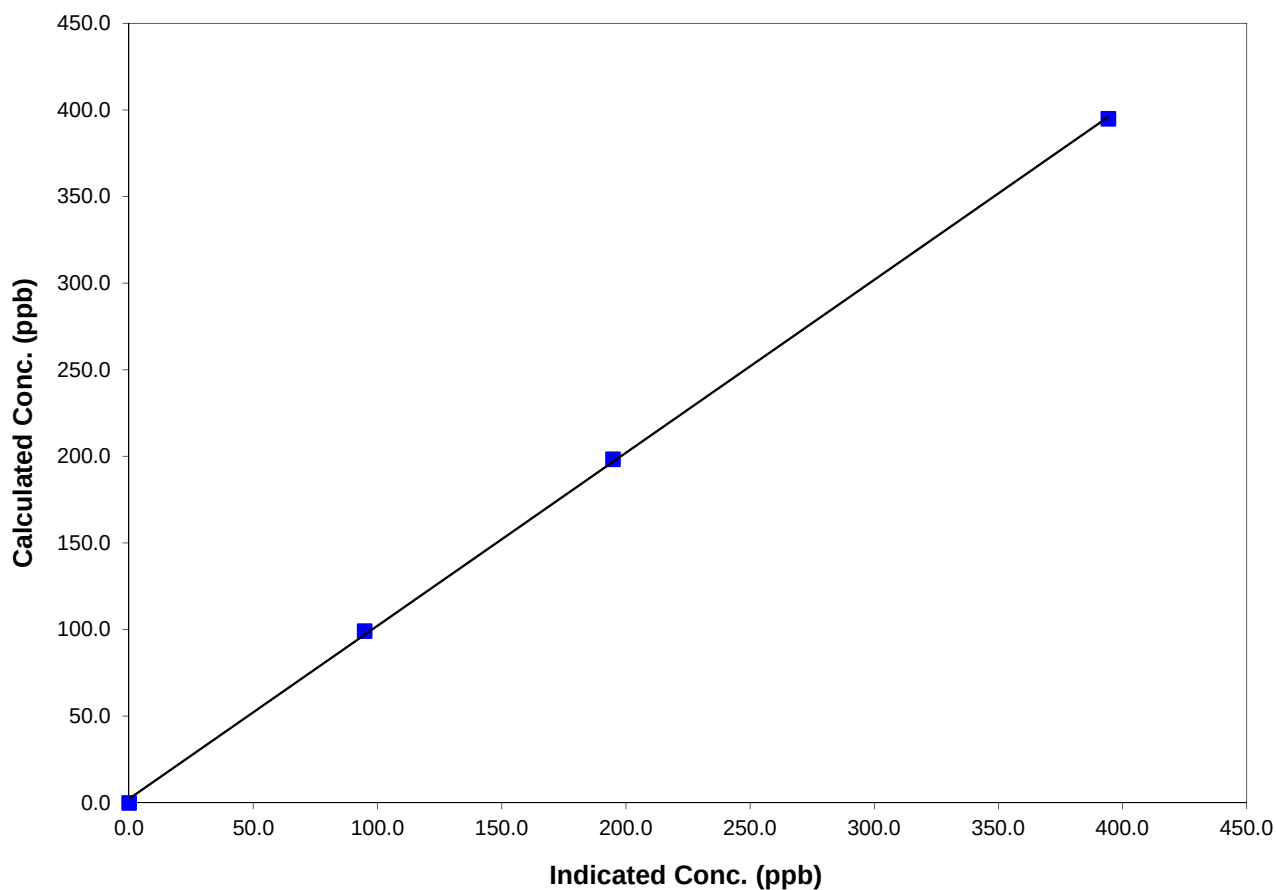
Station Information

Calibration Date	September 22, 2014	Previous Calibration	August 19, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	9:30	End Time (MST)	14:20:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

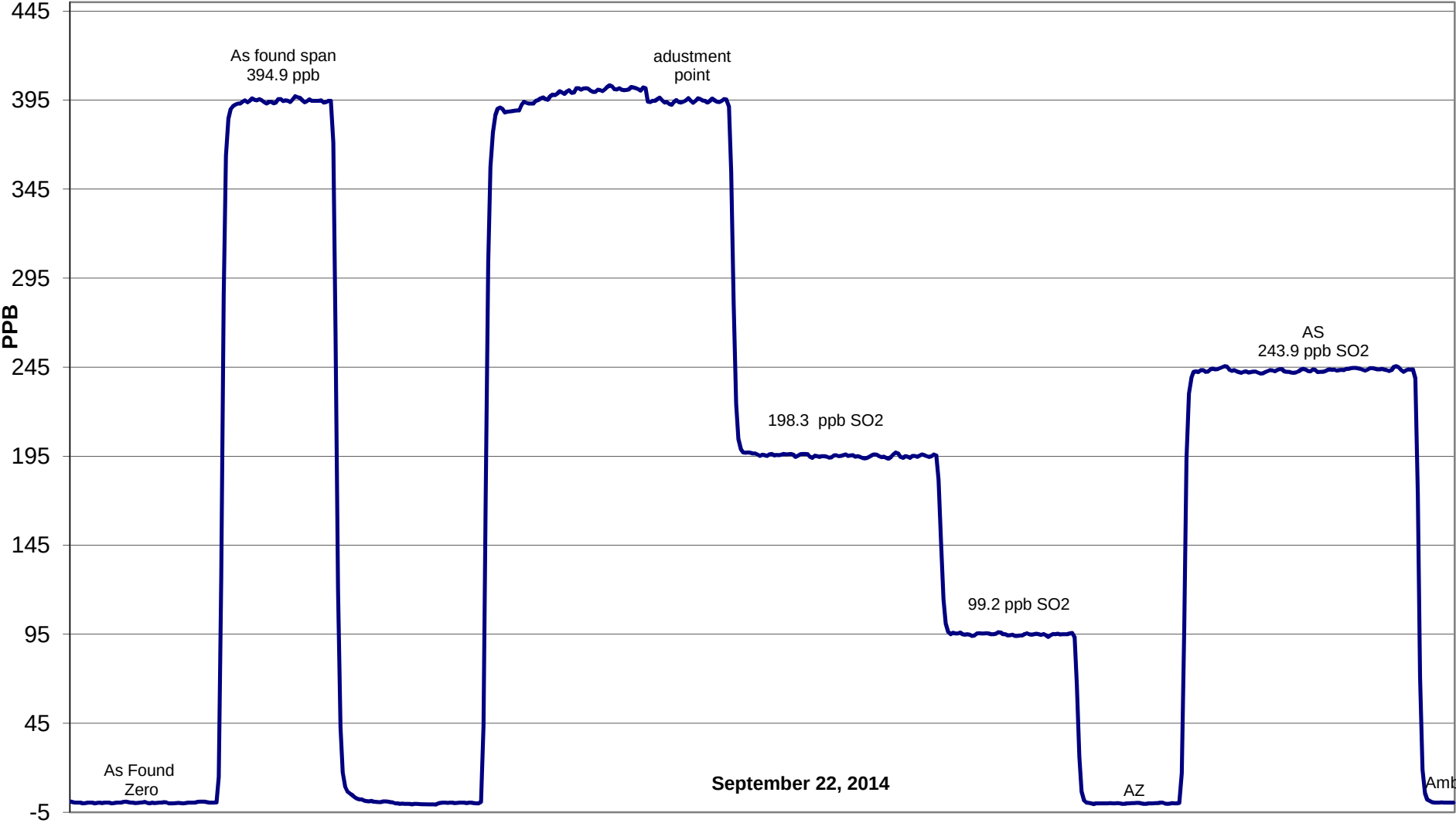
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
394.9	394.4	1.0015	Correlation Coefficient	0.999843
198.3	194.9	1.0175		
99.2	94.9	1.0458	Slope	0.998647
			Intercept	2.308746

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter **NO_x-NO-NO₂**

Air Monitoring Network



Station Information

Calibration Date	September 22, 2014	Previous Calibration	August 19, 2014		
Station Number	10	Station Location	Clairmont		
Reason:	Routine	Installation	Removal		
Other:					
Start Time (MST)	9:30	End Time (MST)	15:50:00 PM		
Barometric Pressure	0.925	Atm	Station Temperature	20.0	Deg C
Calibrator	EnviroNics		Serial Number	3016	
NO Cal Gas Conc	52.1	ppm	Cal Gas Expiry Date	March 12, 2014	
NOx Cal Gas Conc	52.4	ppm	Cal Gas Serial #	LL105159	

DACS Information

DACS make	CR3000	DACS serial No.	5407	
Parameter		NO2	NOx	NO
Before	Data Slope	1.003152	1.001211	0.997766
	Data Offset	0.228420	2.170560	1.973631
After	Data Slope	1.003152	1.001211	0.997766
	Data Offset	0.228420	2.170560	1.973631
Channel #		8	6	7
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011	
Test Point	before		after	
Concentration range	0-500	ppb	0-500	ppb
NO offset	6.6	mV	7.2	mV
NOx bkgnd	7.4	mV	7.4	mV
NO coefficient	1.149		1.190	
NOx coefficient	0.999		0.999	
NO2 conv temp	326.6	Deg C	326.6	Deg C
PMT Temp	-2.9	Deg C	-2.9	Deg C
PMT Volt	-846.2	mV	-846.2	mV
R Cell Press	208.6	in Hg	208.0	in Hg
Sample Flow	0.677	LPM	0.684	LPM

Notes: Span & adjustment made

Calibration Report

Parameter **NOX-NO-NO2**
Air Monitoring Network **0**



Station Information

Calibration Date: September 22, 2014 Station Location: Clairmont

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	-0.1	-0.1	0.1	N/A	N/A
1	4995	39.92	415.5	413.1	2.4	418.2	417.1	-0.6	0.9935	0.9904
2	4995	19.96	208.6	207.4	1.2	207.4	206.8	-0.2	1.0054	1.0025
3	4995	9.93	104.0	103.4	0.6	101.4	101.4	0.2	1.0249	1.0198
AFZ	4995	0.00	0.0	0.0	0.0	-0.7	0.1	-0.6	0.0000	0.0000
AFS	4995	39.92	415.5	413.1	0.8	403.0	402.1	-0.7	1.0310	1.0272
Average Correction Factor									1.0079	1.0043

As Found Concentrations: NO_x= 406.3 NO= 403.1 As Found Percent Change NO_x= -2.2% NO= -2.4%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NOx high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.1	0.1	0.0	-0.1	-0.1	0.1	N/A	N/A	N/A	N/A
NO point	416.5	416.5	0.0	417.7	416.5	-0.8	0.9970	1.0000	N/A	N/A
300	416.5	117.6	298.9	418.0	117.6	298.6	0.9965	1.0000	1.0008	99.9%
200	416.5	214.5	202.0	418.8	214.5	202.1	0.9946	1.0000	0.9993	100.1%
100	416.5	310.7	105.8	418.2	310.7	105.4	0.9960	1.0000	1.0035	99.6%
Average Correction Factor							0.9957	1.0000	1.0012	99.9%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	-0.1	0.1	ppb	0.1	0.2	0.0	ppb
Auto span	168.5	166.3	1.6	ppb	178.9	176.6	1.4	ppb

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network 0



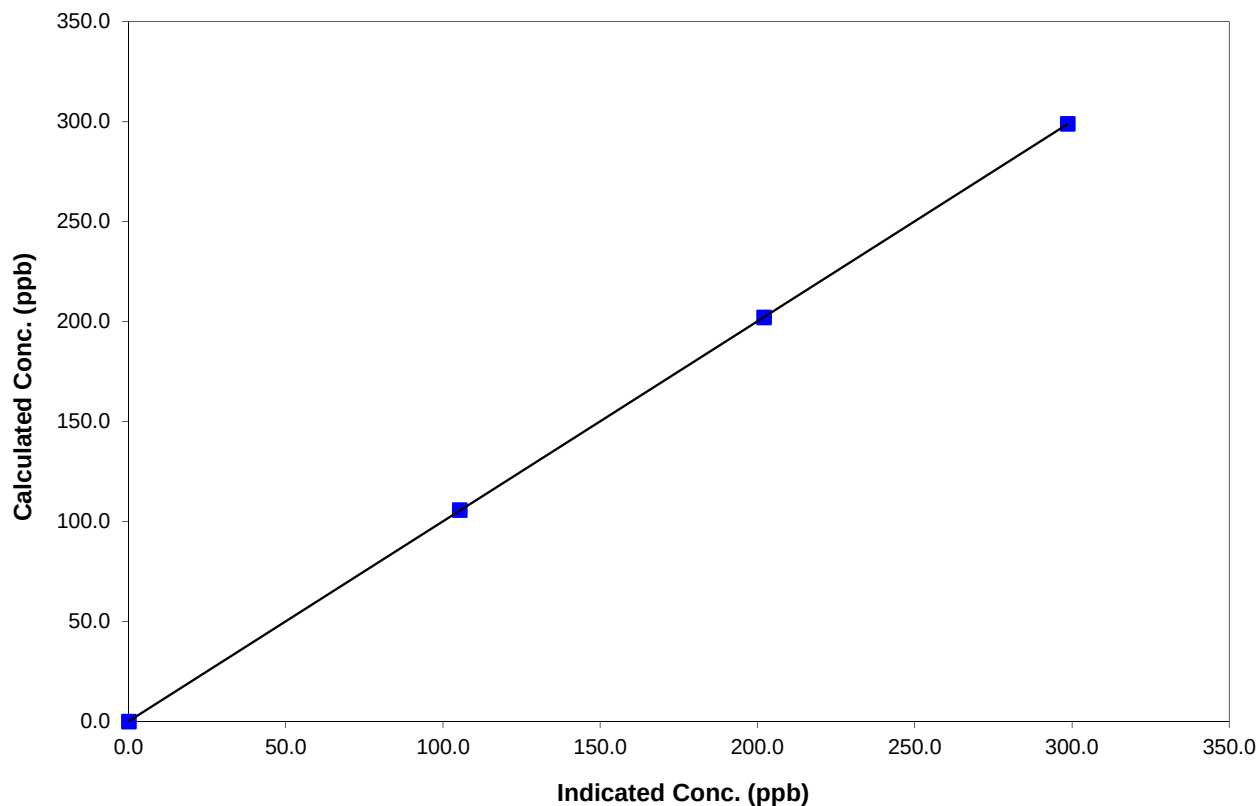
Station Information

Calibration Date	September 22, 2014	Previous Calibration	August 19, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	9:30	End Time (MST)	15:50:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999996
298.9	298.6	1.0008		
202.0	202.1	0.9993		
105.8	105.4	1.0035	Slope	1.000592
			Intercept	-0.002893

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network 0



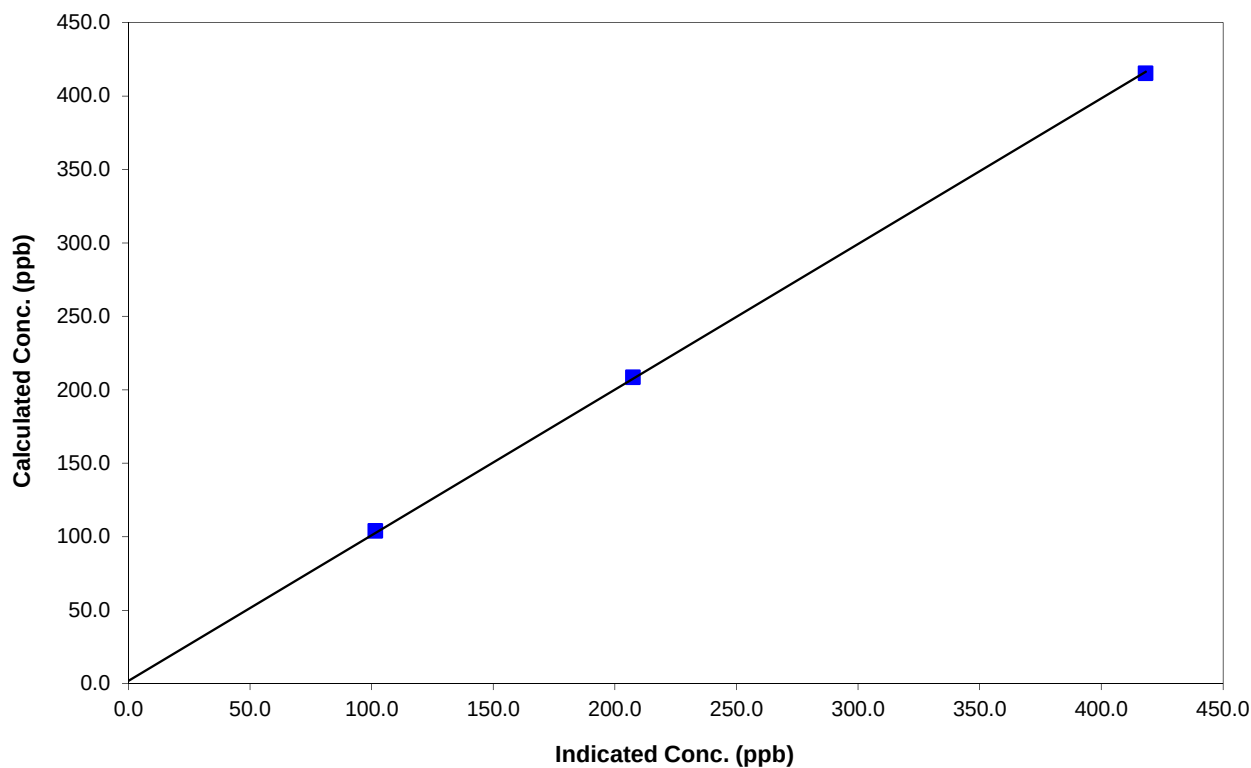
Station Information

Calibration Date	September 22, 2014	Previous Calibration	August 19, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	9:30	End Time (MST)	15:50:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999921
415.5	418.2	0.9935		
208.6	207.4	1.0054		
104.0	101.4	1.0249	Slope	0.991262
			Intercept	1.852979

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network 0



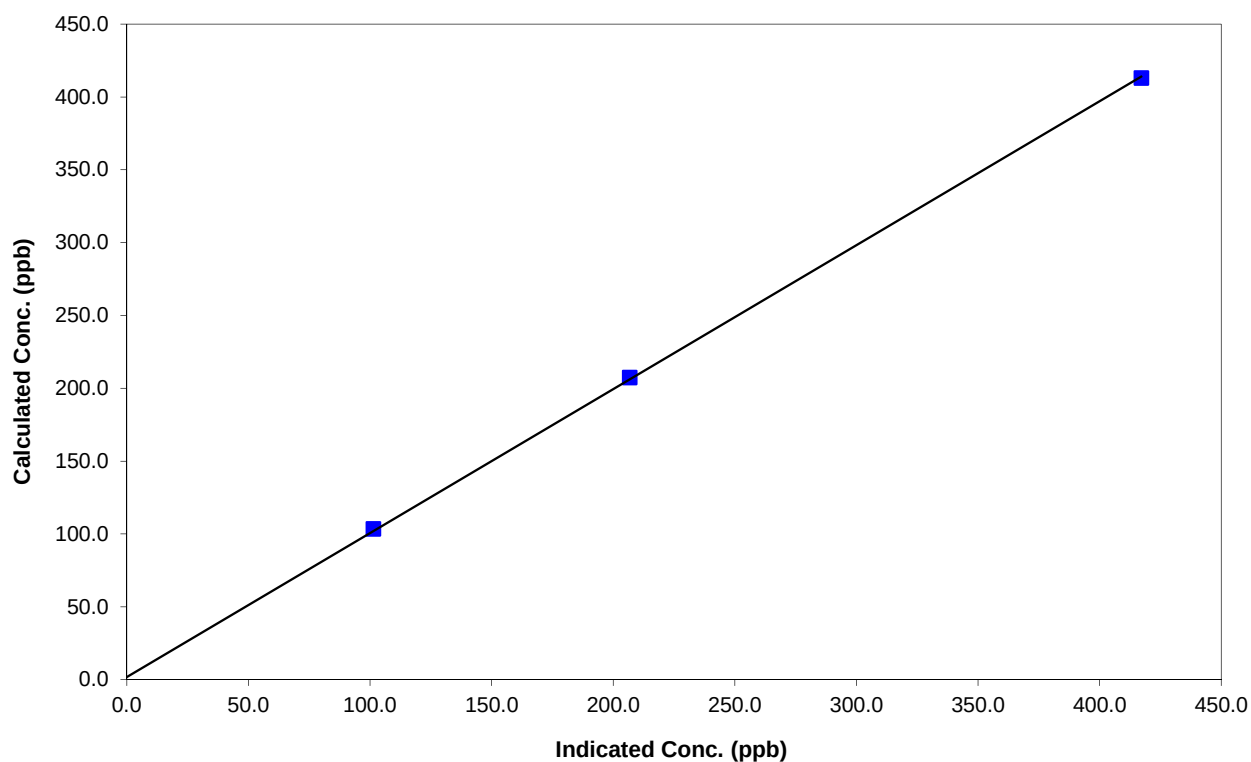
Station Information

Calibration Date	September 22, 2014	Previous Calibration	August 19, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	9:30	End Time (MST)	15:50:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

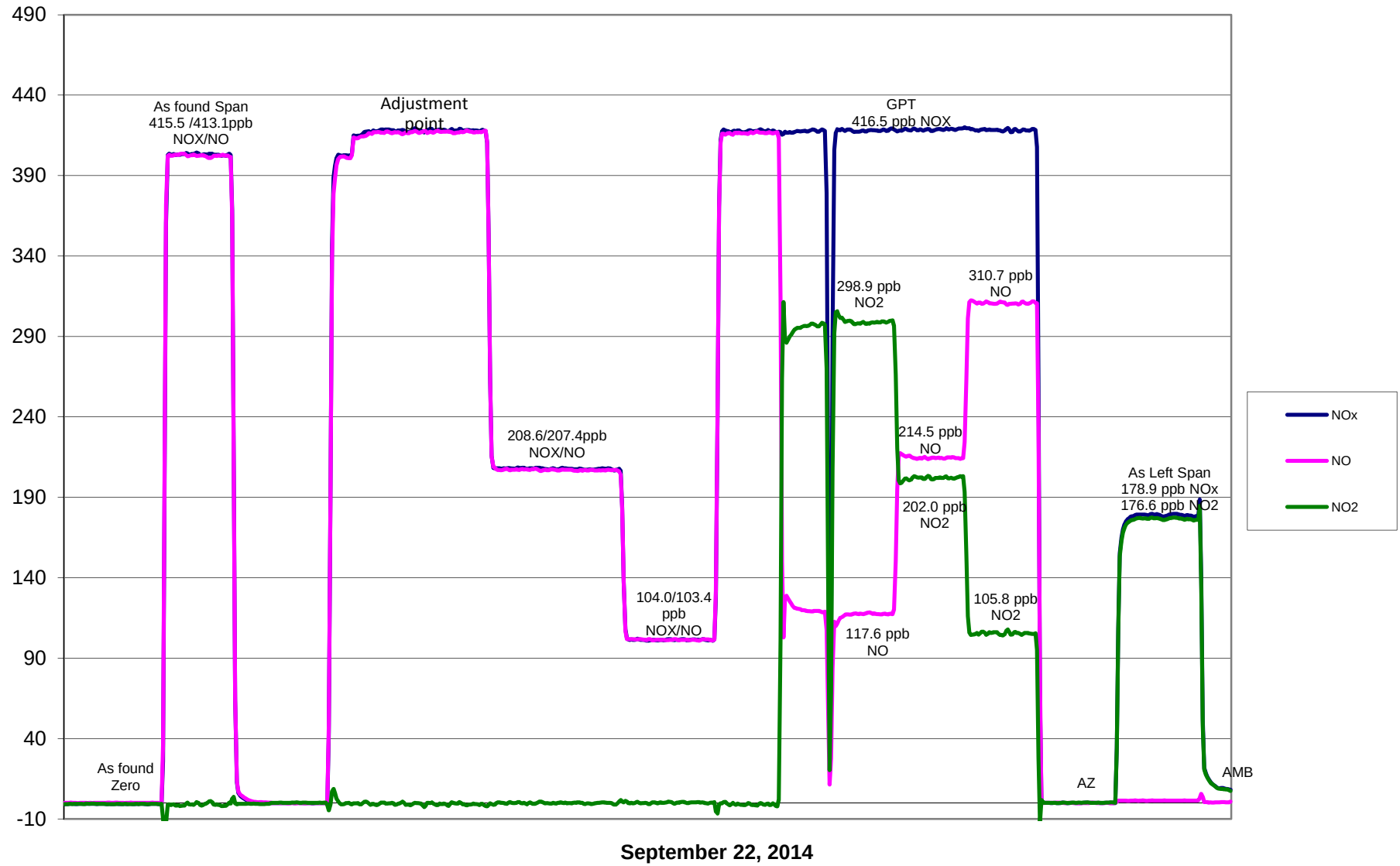
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999925
413.1	417.1	0.9904		
207.4	206.8	1.0025		
103.4	101.4	1.0198	Slope	0.988379
			Intercept	1.766990

NO Calibration Curve



NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	September 22 2014	Previous Calibration	August 19 2014
Station Number	10	Station Location	Clairmont
Reason:	Routine	☐ Install	☐ Removal remove ☐ Other:
Start Time (MST)	14:36:00 PM	End Time (MST)	17:08:00 PM
Barometric Pressure	0.925 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	0.997831	Calculated slope	0.993721
Calculated intercept	-0.086839	Calculated intercept	0.253056
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	0.984		0.992	
Cell A intensity	92555	Hz	93144	Hz
Cell B intensity	89869	Hz	90400	Hz
Pressure	660.10	in Hg	660.10	in Hg
CellA Flow	0.694	ccm	0.692	ccm
Cell B Flow	0.690	cmm	0.690	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)
5035	0.00	0.0	0.0	N/A
5035	0.30	298.9	300.8	0.9935
5035	0.20	202.0	202.7	0.9966
5035	0.10	105.8	106.0	0.9982
5035	0.00	0.0	0.0	As found zero
5035	0.30	298.9	297.1	As found span
Average Correction Factor				0.9961

Calculated value of As Found Response: 296.4 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.3	ppb
Auto span	395.2	ppb	415.8	ppb

Notes: Span adjustment made

Calibration Performed By: Dmytro Dolotii.

Calibration Summary

Parameter O3

Air Monitoring Network PAZA



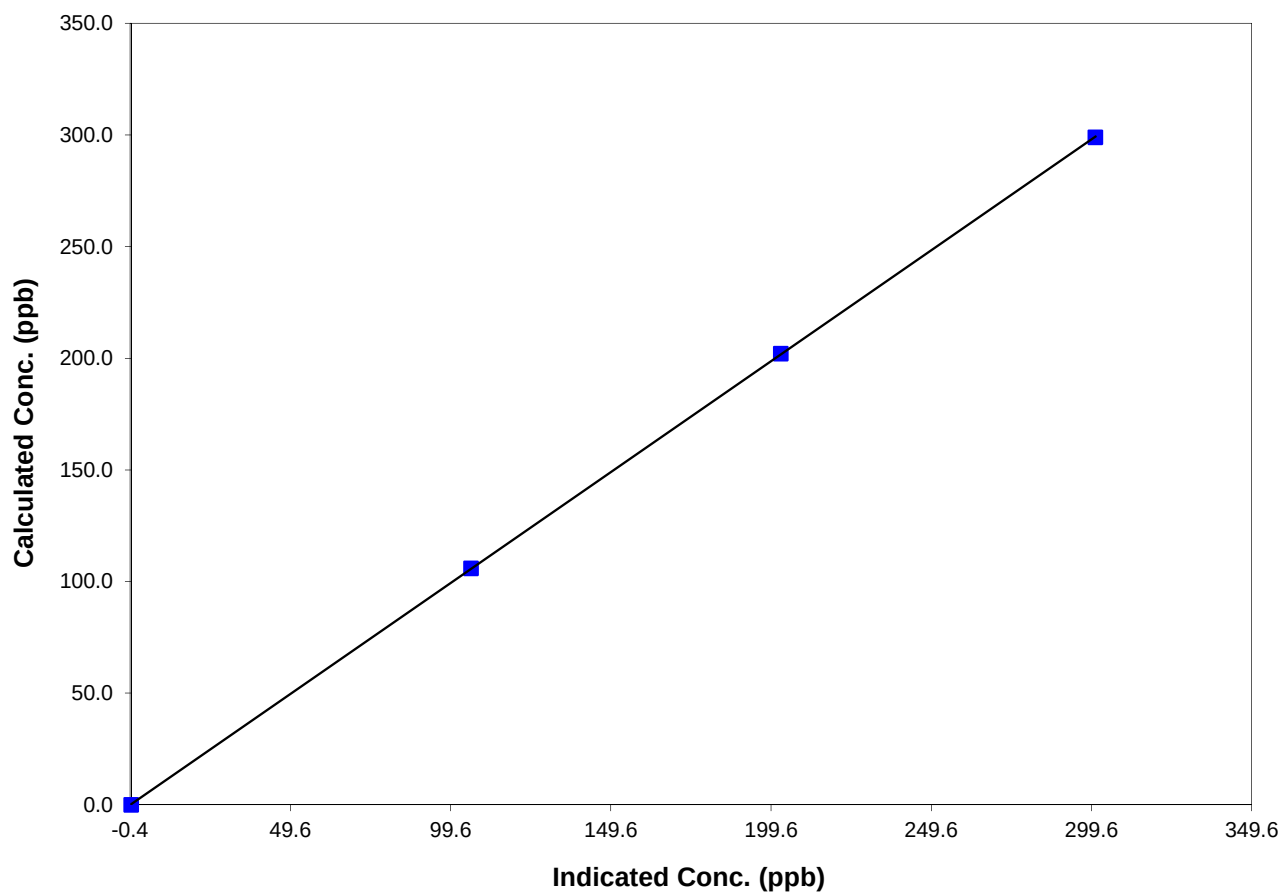
Station Information

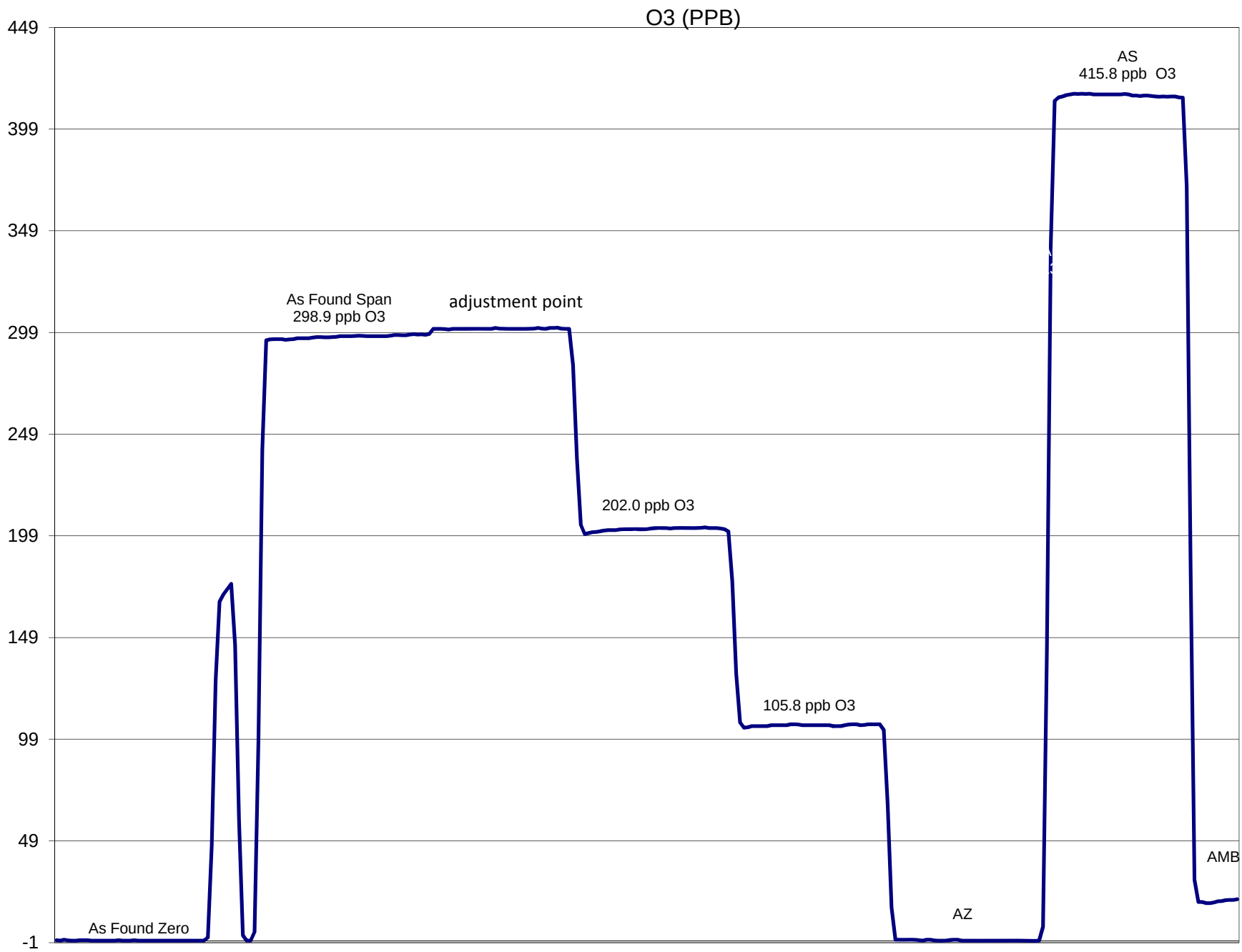
Calibration Date	September 22 2014	Previous Calibration	August 19 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	14:36:00 PM	End Time (MST)	17:08:00 PM
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	NA	Correlation Coefficient	0.999993
298.9	300.8	0.9935		
202.0	202.7	0.9966		
105.8	106.0	0.9982	Slope	0.993721
			Intercept	0.253056

O3 Calibration Curve





September 22 2014

Calibration Report

Parameter THC

Air Monitoring Network PASZA



Station Information

Calibration Date	September 23, 2014	Previous Calibration	August 21, 2014
Station Number	10	Station Location	Clairmont
Reason:	☐ Routine ☒ Install ☐ Removal ☐ Other:		
Start Time (MST)	10:55	End Time (MST)	14:15:00 PM
Barometric Pressure	0.925 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	<u>Before</u>		<u>After</u>
Calculated slope	0.996799	Calculated slope	0.982294
Calculated intercept	0.132563	Calculated intercept	0.196566
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.50	psi	6.50	psi
THC zero counts	2345	capture	2345	capture
THC span counts	908	capture	908	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)
2996	0.00	0.00	0.01	N/A
2996	69.93	21.82	22.10	0.9874
2996	29.96	9.47	9.28	1.0204
2996	9.97	3.17	2.90	1.0953
2996	0.00	0.00	-0.11	As Found Zero
2996	69.93	21.82	22.10	As Found Span
Average Correction Factor				1.0344

Calculated value of As Found Response: 22.269 ppm Percent Change of As Found: -2.0%

	before calibration		after calibration	
Auto zero	0.10	ppm	0.22	ppm
Auto span	22.33	ppm	22.07	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter THC

Air Monitoring Network PASZA



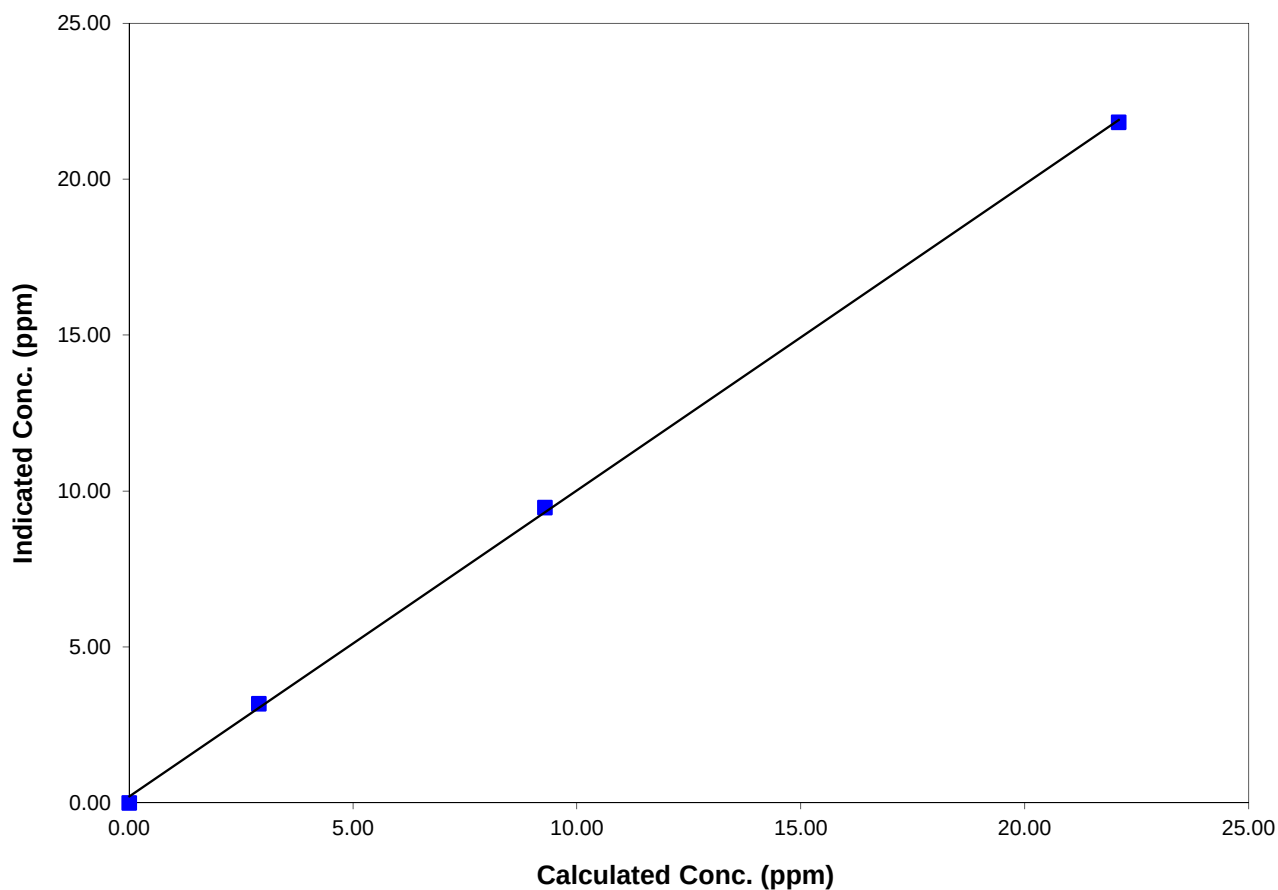
Station Information

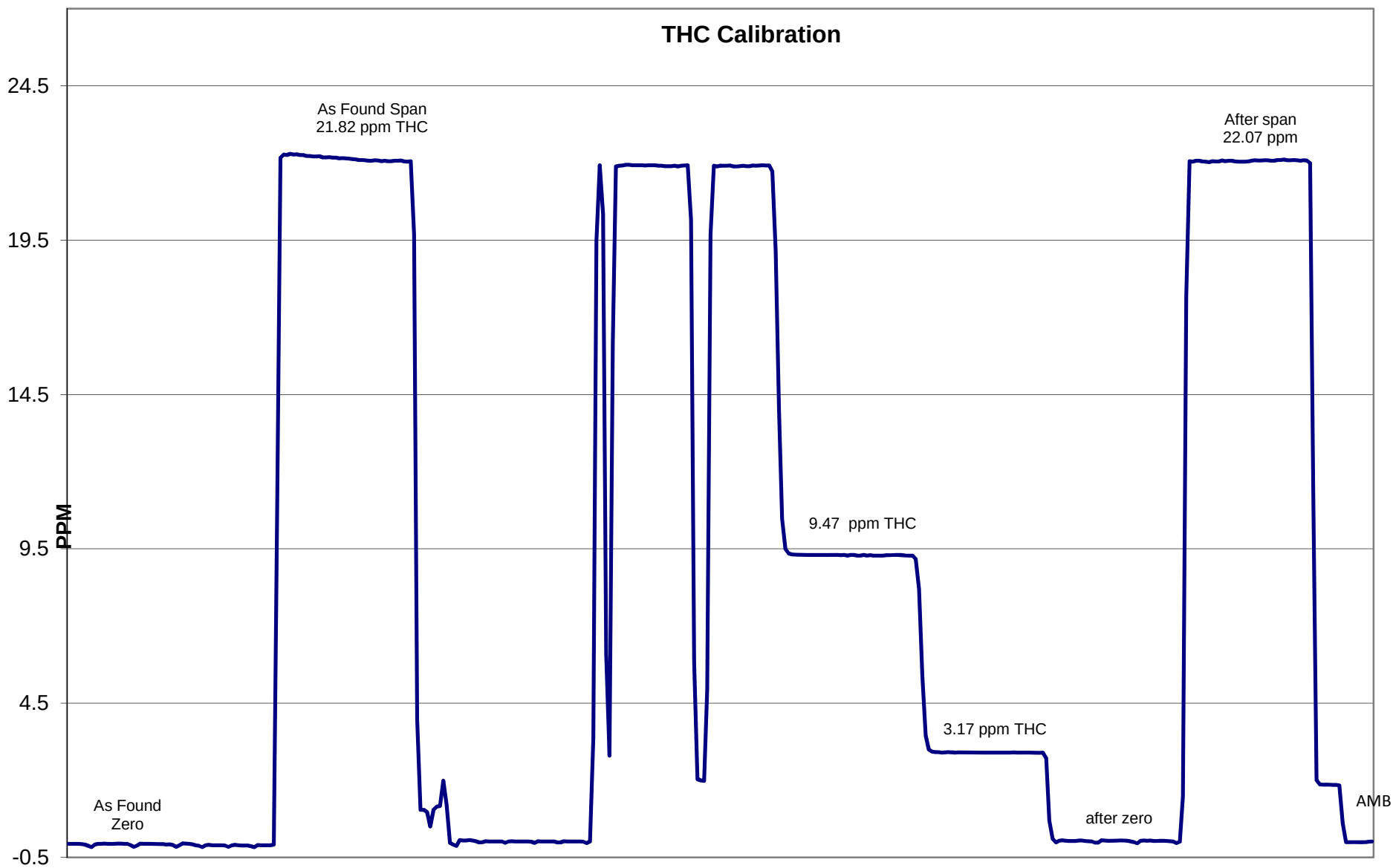
Calibration Date	September 23, 2014	Previous Calibration	August 21, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	10:55	End Time (MST)	14:15:00 PM
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.008	N/A		
21.82	22.10	0.9874	Correlation Coefficient	0.999676
9.47	9.28	1.0204		
3.17	2.90	1.0953	Slope	0.982294
			Intercept	0.196566

THC Calibration Curve





September 23, 2014

Calibration Report

Parameter THC

Air Monitoring Network PASZA



Station Information

Calibration Date	September 25, 2014	Previous Calibration	September 23, 2014
Station Number	10	Station Location	Clairmont
Reason:	☐ Routine ☒ Install ☐ Removal ☐ Other:		
Start Time (MST)	8:05	End Time (MST)	12:25
Barometric Pressure	0.927 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	<u>Before</u>		<u>After</u>
Calculated slope	0.996799	Calculated slope	0.998771
Calculated intercept	0.132563	Calculated intercept	0.049825
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.50	psi	6.50	psi
THC zero counts		capture	1510	capture
THC span counts		capture	11040	capture
THC zero offset		capture	2320	capture
THC span offset		capture	2370	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)
2996	0.00	0.00	0.09	N/A
2996	69.89	21.81	21.85	0.9984
2996	29.96	9.47	9.33	1.0155
2996	9.97	3.17	3.03	1.0468
2996	0.00	0.00	2.47	As Found Zero
2996	69.93	21.82	24.59	As Found Span
Average Correction Factor				1.0202

Calculated value of As Found Response: 22.184 ppm Percent Change of As Found: -1.7%

	before calibration		after calibration	
Auto zero	0.10	ppm	0.05	ppm
Auto span	22.33	ppm	21.95	ppm

Notes: Zero/span adjustments made

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

Calibration Summary

Parameter THC

Air Monitoring Network PASZA



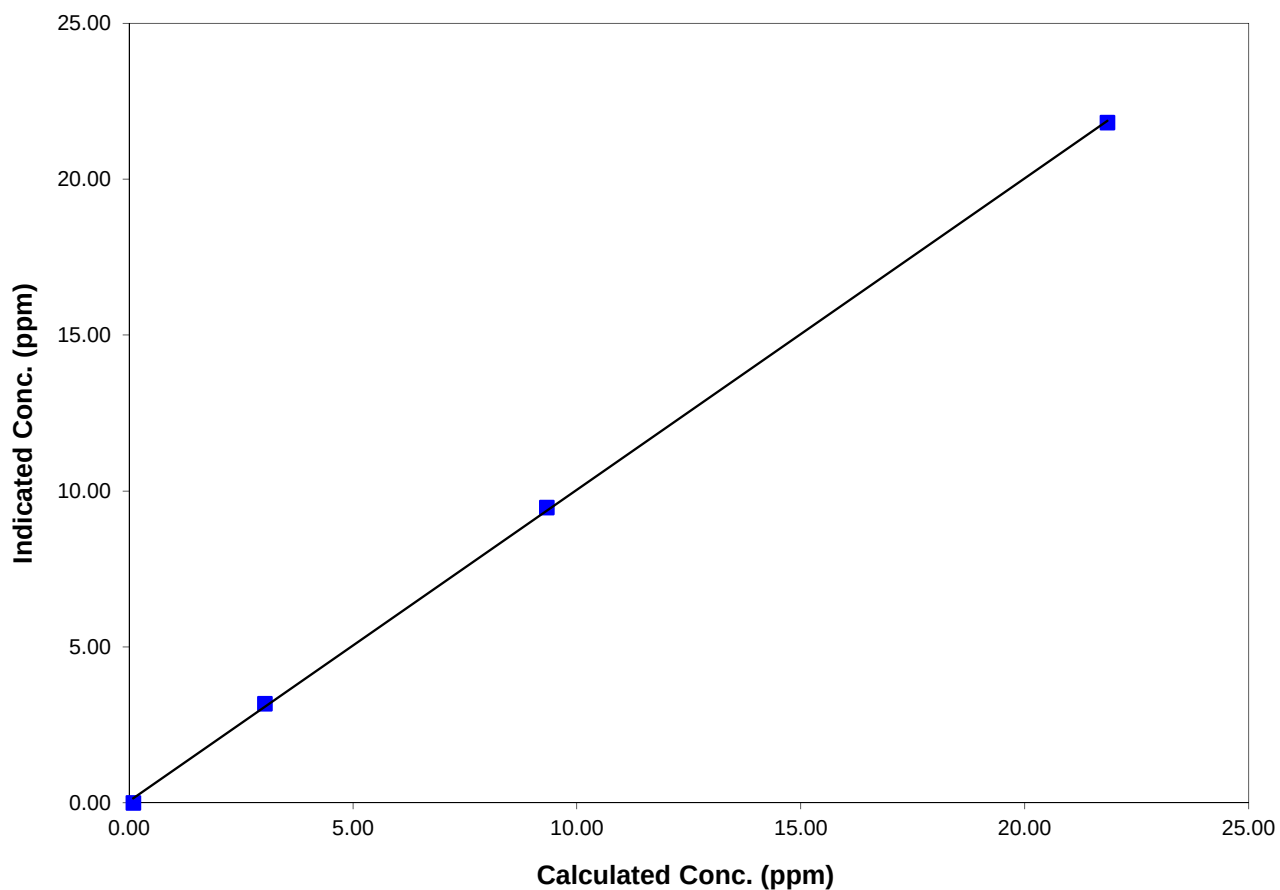
Station Information

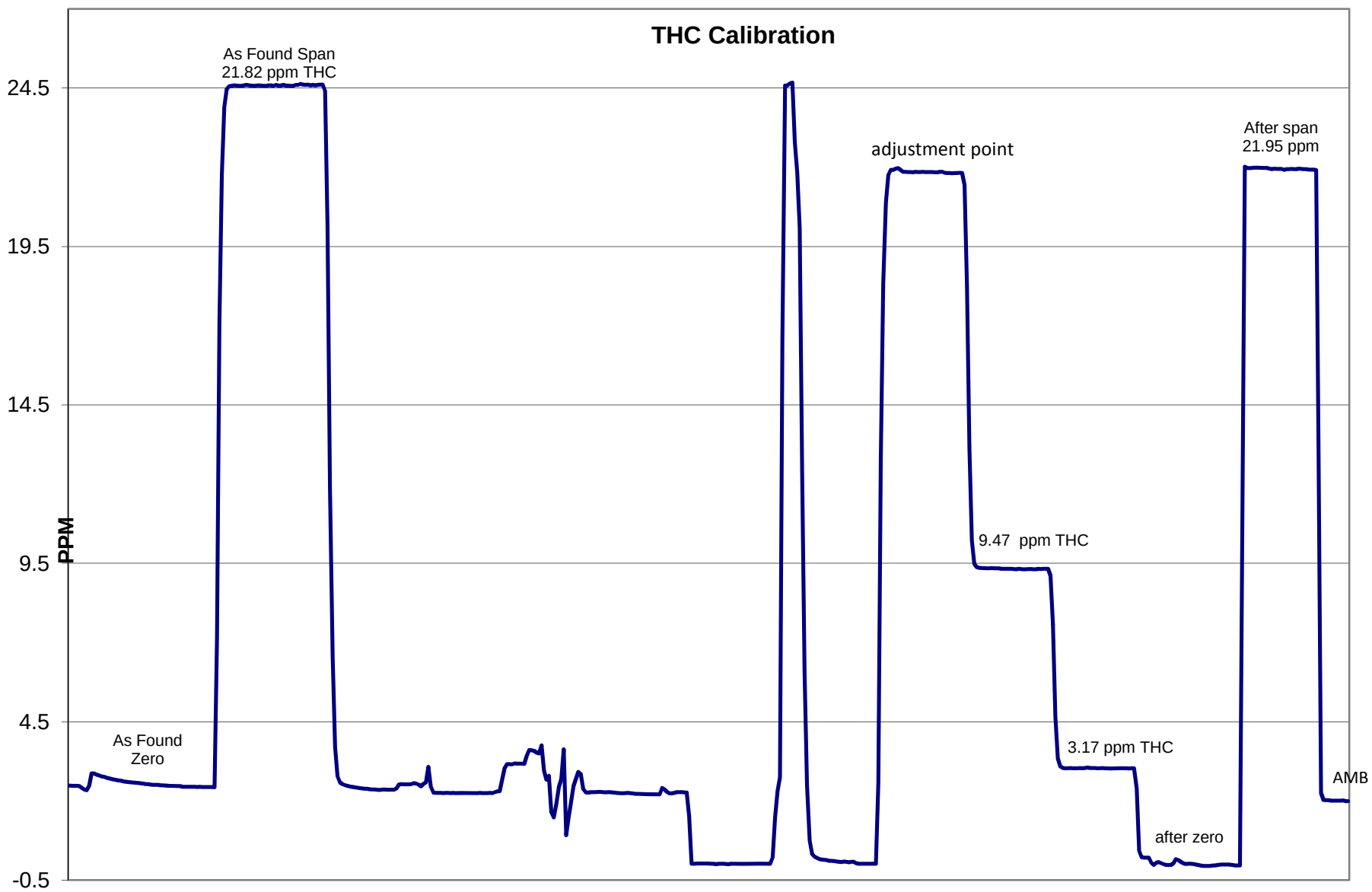
Calibration Date	September 25, 2014	Previous Calibration	September 23, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	8:05	End Time (MST)	12:25
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.094	N/A	Correlation Coefficient	0.999840
21.81	21.85	0.9984		
9.47	9.33	1.0155		
3.17	3.03	1.0468	Slope	0.998771
			Intercept	0.049825

THC Calibration Curve





September 25, 2014

Calibration Report

Parameter TR5

Air Monitoring Network PAZA



Station Information

Calibration Date	September 23 2014	Previous Calibration	August 21 2014
Station Name	PAZA Rover	Station Location	Clairmont
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	8:47 AM	End Time (MST)	11:55
Barometric Pressure	0.925 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	10.32 ppm	Cal Gas Expiry Date	July/08/2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	1
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.994481	Calculated slope	0.983125
Calculated intercept	0.032964	Calculated intercept	0.370387
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	26.1	ppb	26.1	ppb
Coefficient	0.992		0.992	
Lamp Voltage	793	V	793	V
Chamber Temp	44	C	44	C
Perm gas Temp	45	C	45	C
Pressure	660.3	mmHg	661.2	mmHg
Sample Flow	0.430	lpm	0.431	lpm
Lamp Intensity	43517	Hz	44030	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.0	0.0	N/A
4995	39.93	81.8	82.9	0.9869
4995	19.97	41.1	41.5	0.9912
6995	9.97	14.7	14.1	1.0392
4995	9.97		1.9	Sox Test
4995	0.00	0.0	0.0	As found zero
4995	39.93	81.8	82.9	As found span
Average Correction Factor				1.0058

Calculated value of As Found Response: 82.54 ppm Percent Change of As Found: -0.9%

	before calibration		after calibration	
Auto zero	-0.1	ppm	0.7	ppm
Auto span	63.3	ppm	62.7	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



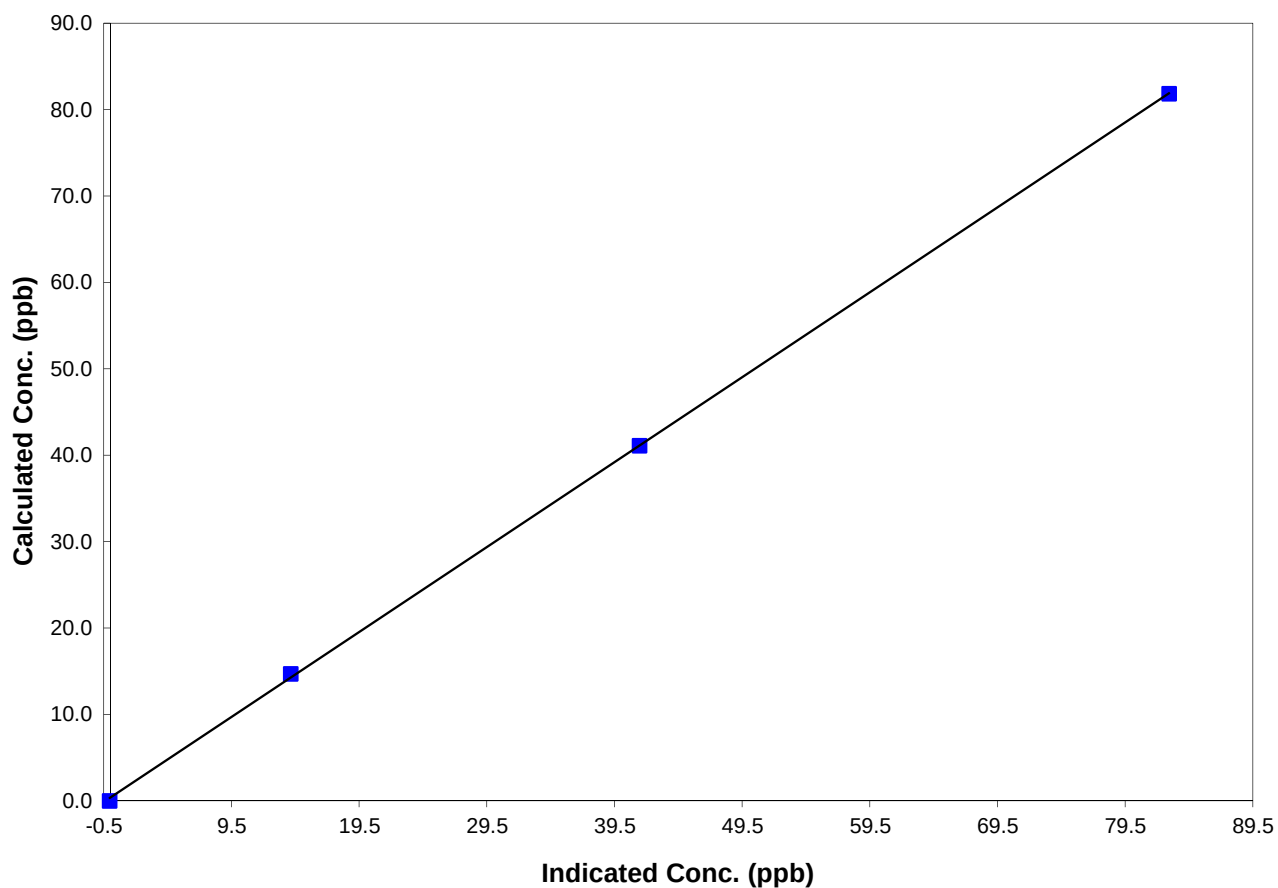
Station Information

Calibration Date	September 23 2014	Previous Calibration	August 21 2014
Station Number	PAZA Rover	Station Location	Clairmont
Start Time (MST)	8:47	End Time (MST)	11:55
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

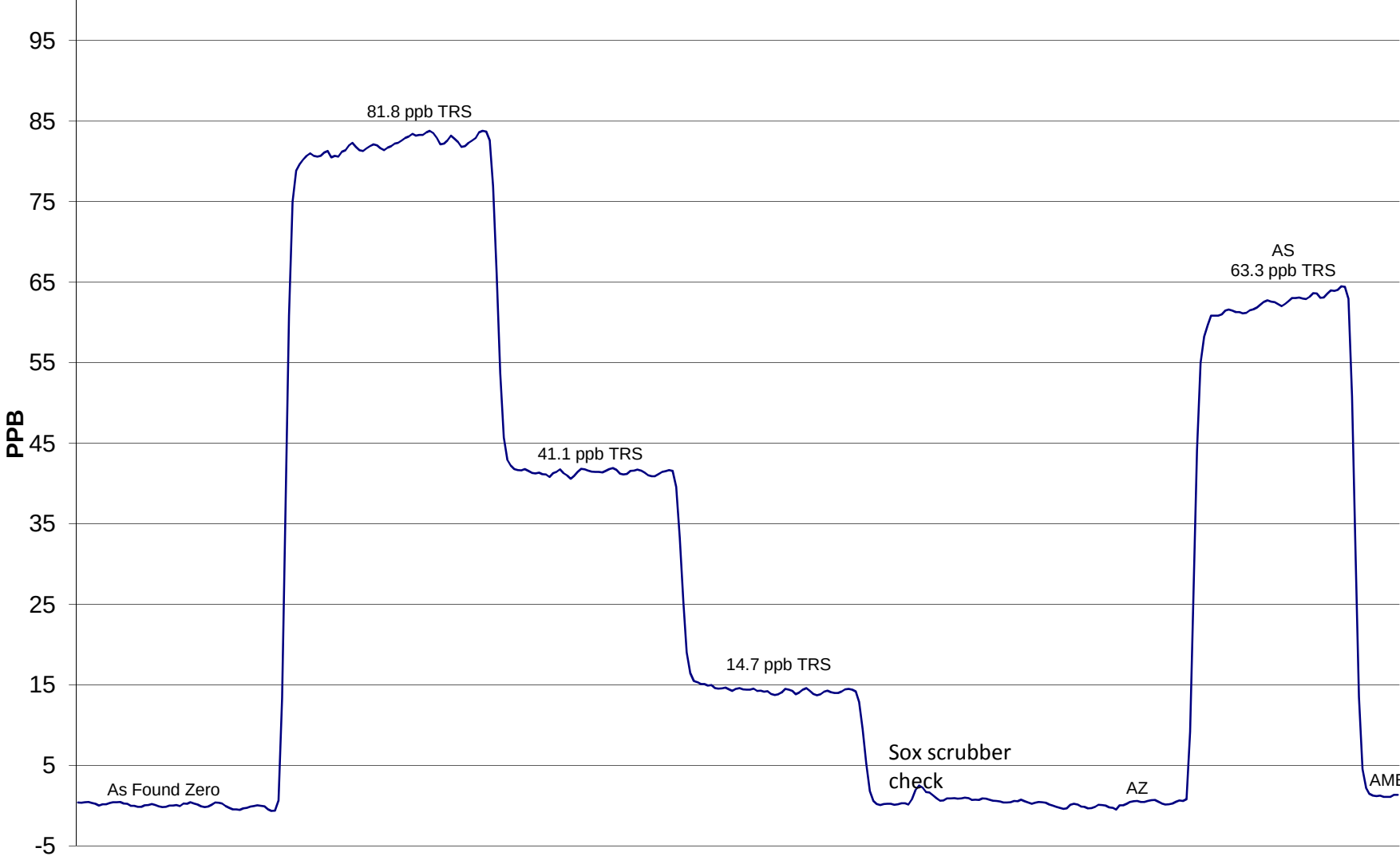
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999924
81.8	82.9	0.9869		
41.1	41.5	0.9912		
14.7	14.1	1.0392	Slope	0.983125
			Intercept	0.370387

TRS Calibration Curve



TRS Calibration



September 23 2014