



# **Peace Airshed Zone Association**

## **Ambient Air Monitoring Network Summary**

**Continuous Ambient Air Quality Monitoring Program  
Monthly Report  
January 2015**

March 9<sup>th</sup>, 2015

**Alberta Environment**  
 11<sup>th</sup> Floor, Oxbridge Place  
 9820-106 Street  
 Edmonton Alberta T5K 2J6

**RE: Peace Airshed Zone Association (PAZA) – January 2015 Ambient Air Report**

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **January 2015**.

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

<b>Company</b>	<b>Facility</b>	<b>LSD</b>	<b>EPEA Approval Number</b>
	Teepee Creek	SE-2-074-04-W6	00001635-02-00
	Sturgeon/Valleyview	02-02-069-22-W5	1633-02-00
Canfor Forest Products	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 **January** 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 January with the exception of the wind head, which experienced icing.

**Evergreen Park Station:**

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

**Smoky Heights Station:**

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

**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 January.

**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 January.

**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 January with the exception of the H<sub>2</sub>S analyzer; **AE Reference #295699**

**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 January.

**Passive Monitoring - 46 Stations throughout the PAZA zone:**

There were five duplicate sites sampled in the month of January: Silver Valley, Wanham, Puskwaskau, Karr Creek and Girouxville 3. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO<sub>2</sub> passives ranged from 0.1 ppb to 0.8 ppb, with a mean of 0.3 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.3 ppb to 14.5 ppb, with a mean of 2.2 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 15.5 ppb to 69.4 ppb, with a mean of 36.2 ppb.
- Monthly average concentrations for H<sub>2</sub>S ranged from 0.1 ppb to 0.4 ppb, with a mean of 0.3 ppb.



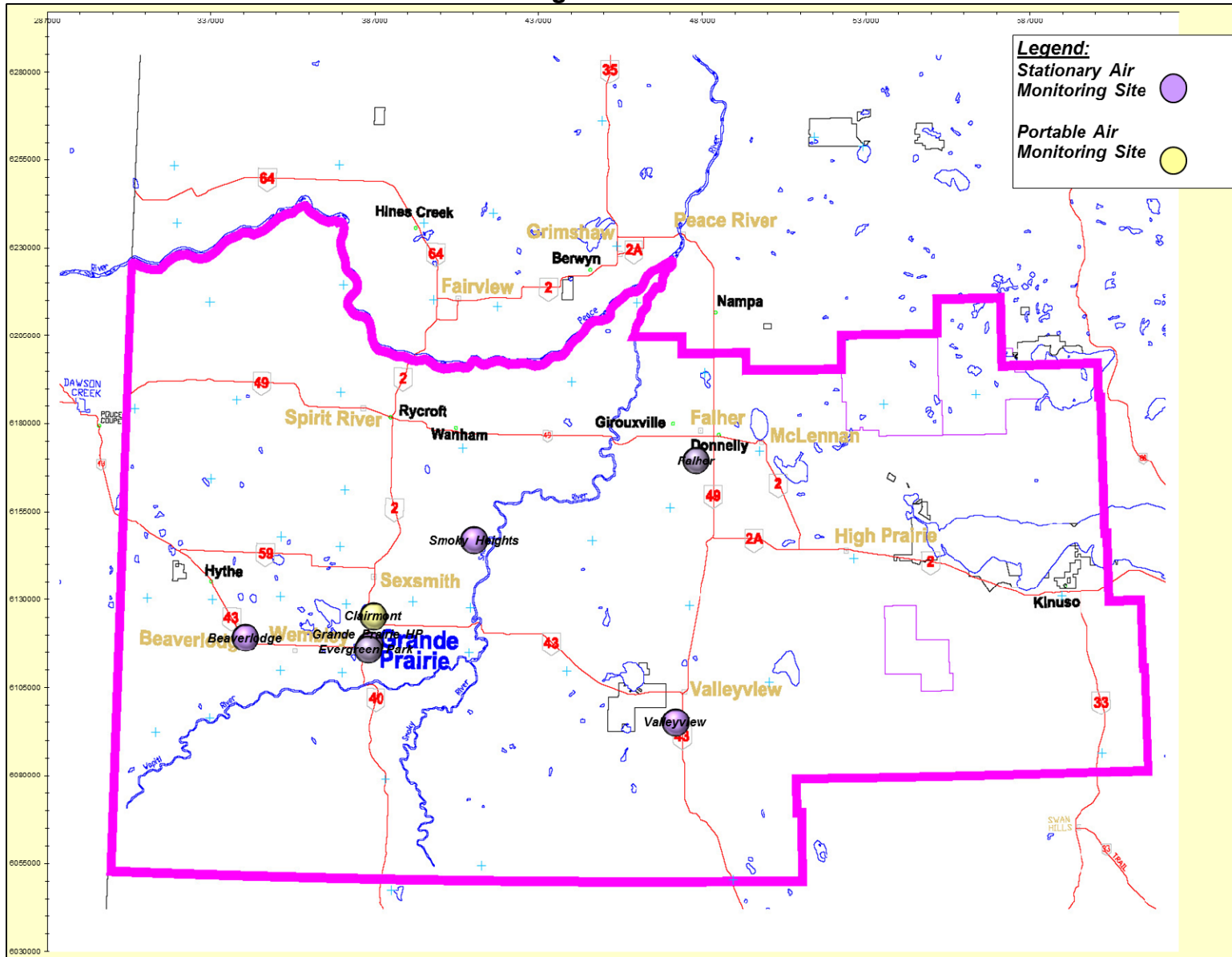
[www.paza.ca](http://www.paza.ca)

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

Dec-2014		Peace Airshed Zone Association					Maximum Recorded Values				Operational Time (%)
							1-hr		24-hr / 8-hr		
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	Day	Conc	Day	
	1-hr	24-hr			1-hr	24-hr					
SO <sub>2</sub> (ppb)	172	48	Henry Pirker	0.4	0	0	3.0	Jan-10 14:00	1.0	Jan-10	100%
SO <sub>2</sub> (ppb)	172	48	Evergreen Park	0.2	0	0	1.5	Jan-10 16:00	0.8	Jan-12	98%
SO <sub>2</sub> (ppb)	172	48	Smoky Heights	0.8	0	0	8.5	Jan-25 18:00	1.9	Jan-19	100%
SO <sub>2</sub> (ppb)	172	48	Beaverlodge	0.3	0	0	1.8	Jan-05 04:00	0.9	Jan-05	100%
SO <sub>2</sub> (ppb)	172	48	Valleyview	0.6	0	0	12.3	Jan-16 20:00	3.5	Jan-16	100%
SO <sub>2</sub> (ppb)	172	48	Falher	0.2	0	0	1.5	Jan-07 06:00	0.7	Jan-05	100%
SO <sub>2</sub> (ppb)	172	48	Clairmont	0.5	0	0	6.7	Jan-10 10:00	1.7	Jan-10	100%
NO (ppb)			Henry Pirker	15.6	0	0	290.2	Jan-12 23:00	91.6	Jan-12	100%
NO <sub>2</sub> (ppb)	159	106	Henry Pirker	20.3	0	0	67.1	Jan-12 23:00	38.3	Jan-12	100%
NO <sub>x</sub> (ppb)			Henry Pirker	36.2	0	0	358.7	Jan-12 23:00	130.4	Jan-12	100%
NO (ppb)			Beaverlodge	1.4	0	0	36.2	Jan-11 16:00	8.6	Jan-11	100%
NO <sub>2</sub> (ppb)	159	106	Beaverlodge	5.9	0	0	34.9	Jan-09 09:00	20.2	Jan-09	100%
NO <sub>x</sub> (ppb)			Beaverlodge	7.3	0	0	61.0	Jan-11 16:00	27.3	Jan-09	100%
NO (ppb)			Clairmont	8.3	0	0	133.4	Jan-13 08:00	41.1	Jan-12	100%
NO <sub>2</sub> (ppb)	159	106	Clairmont	14.3	0	0	58.8	Jan-13 08:00	30.5	Jan-12	100%
NO <sub>x</sub> (ppb)			Clairmont	22.7	0	0	192.4	Jan-13 08:00	71.7	Jan-12	100%
O <sub>3</sub> (ppb)	82		Henry Pirker	14.7	0	-	36.7	Jan-01 19:00	31.8	Jan-01	100%
O <sub>3</sub> (ppb) - 8-hr			Henry Pirker		0				35.6	Jan-01	
O <sub>3</sub> (ppb)	82		Beaverlodge	27.3	0	-	39.6	Jan-25 22:00	37.0	Jan-17	100%
O <sub>3</sub> (ppb) - 8-hr			Beaverlodge		0				39.0	Jan-25	
O <sub>3</sub> (ppb)	82		Clairmont	21.7	0	-	43.3	Jan-26 00:00	38.1	Jan-25	100%
O <sub>3</sub> (ppb) - 8-hr			Clairmont		0				41.9	Jan-25	
CO (ppm)	13		Henry Pirker	0.28	0	-	1.6	Jan-12 23:00	0.6	Jan-12	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.9	Jan-13	



## PAZA Monthly Continuous Data Summary – continued

Dec-2014			Peace Airshed Zone Association				Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	2.1	-	-	3.2	Jan-12 23:00	2.9	Jan-12	100%
CH <sub>4</sub> (ppm)			Henry Pirker	2.1	-	-	3.2	Jan-12 23:00	2.9	Jan-12	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Jan-23 01:00	0.0	Jan-23	100%
THC (ppm)			Clairmont	2.53	-	-	4.7	11/1/115 19:	3.9	Jan-12	93%
TRS (ppb)			Henry Pirker	0.3	-	-	1.1	Jan-11 20:00	0.8	Jan-11	100%
TRS (ppb)			Evergreen Park	0.4	-	-	1.9	Jan-12 18:00	1.3	Jan-12	98%
TRS (ppb)			Smoky Heights	0.1	-	-	1.1	Jan-12 06:00	0.5	Jan-11	100%
TRS (ppb)			Clairmont	0.5	-	-	4.5	Jan-31 19:00	0.9	Jan-11	100%
H <sub>2</sub> S (ppb)	10	3	Valleyview	0.3	0	0	5.6	Jan-08 20:00	1.2	Jan-08	100%
H <sub>2</sub> S (ppb)	10	3	Falher	0.2	0	0	2.3	Jan-08 14:00	0.6	Jan-08	87%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Henry Pirker	6.5	0	0	55.9	Jan-21 14:00	18.8	Jan-12	99%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Evergreen Park	3.2	0	0	23.2	Jan-12 16:00	11.1	Jan-12	98%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Smoky Heights	3.0	0	0	68.0	Jan-06 20:00	11.5	Jan-06	99%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Beaverlodge	3.6	0	0	27.3	Jan-14 23:00	9.3	Jan-09	90%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	30	Clairmont	3.3	0	0	25.6	Jan-12 12:00	11.8	Jan-12	100%
RH (%)			Henry Pirker	69.6	-	-	88.1	Jan-27 03:00	84.9	Jan-27	100%
RH (%)			Evergreen Park	74.2	-	-	95.3	Jan-27 05:00	93.7	Jan-27	98%
RH (%)			Beaverlodge	82.7	-	-	100.0	Jan-01 15:00	100.0	Jan-27	100%
RH (%)			Valleyview	72.1	-	-	99.7	Jan-27 02:00	98.6	Jan-27	100%
SR (W/m <sup>2</sup> )			Henry Pirker	24.1	-	-	337.0	Jan-25 14:00	58.4	Jan-25	100%
Temp (°C)			Henry Pirker	-8.5	-	-	8.9	Jan-25 14:00	5.6	Jan-22	100%
Temp (°C)			Evergreen Park	-8.1	-	-	10.0	Jan-22 03:00	6.6	Jan-25	98%
Temp (°C)			Smoky Heights	-9.7	-	-	6.4	Jan-22 04:00	4.3	Jan-25	100%
Temp (°C)			Beaverlodge	-6.9	-	-	7.8	Jan-25 07:00	6.0	Jan-25	100%
Temp (°C)			Valleyview	-7.5	-	-	10.5	Jan-25 15:00	7.8	Jan-25	100%
Temp (°C)			Falher	-10.5	-	-	6.7	Jan-25 07:00	4.8	Jan-22	100%
Temp (°C)			Clairmont	-9.7	-	-	7.1	Jan-25 15:00	4.9	Jan-25	100%

## PAZA Monthly Continuous Data Summary – continued

Dec-2014		Peace Airshed Zone Association				Maximum Recorded Values					
						1-hr		24-hr / 8-hr			
WSPD s (km/hr)			Henry Pirker	8.4	-	-	35.0	Jan-16 23:00	16.1	Jan-16	73%
WSPD s (km/hr)			Evergreen Park	10.6	-	-	53.0	Jan-16 23:00	29.4	Jan-16	97%
WSPD s (km/hr)			Smoky Heights	13.2	-	-	48.0	Jan-25 10:00	27.8	Jan-13	100%
WSPD s (km/hr)			Beaverlodge	10.9	-	-	56.0	Jan-22 06:00	28.7	Jan-16	100%
WSPD s (km/hr)			Valleyview	5.6	-	-	54.0	Jan-10 23:00	21.1	Jan-11	100%
WSPD s (km/hr)			Falher	13.5	-	-	43.0	Jan-22 05:00	26.3	Jan-21	100%
WSPD s (km/hr)			Clairmont	7.3	-	-	34.0	Jan-01 17:00	15.8	Jan-25	93%
WSPD v (km/hr)			Henry Pirker	5.4	-	-	35.0	Jan-16 23:00	15.4	Jan-16	73%
WSPD v (km/hr)			Evergreen Park	6.0	-	-	52.0	Jan-16 23:00	28.6	Jan-16	97%
WSPD v (km/hr)			Smoky Heights	7.8	-	-	48.0	Jan-25 10:00	25.9	Jan-13	100%
WSPD v (km/hr)			Beaverlodge	6.0	-	-	56.0	Jan-22 06:00	27.5	Jan-16	100%
WSPD v (km/hr)			Valleyview	2.5	-	-	54.0	Jan-11 08:00	19.3	Jan-11	100%
WSPD v (km/hr)			Falher	5.1	-	-	43.0	Jan-22 05:00	25.4	Jan-21	100%
WSPD v (km/hr)			Clairmont	2.5	-	-	34.0	Jan-01 17:00	15.0	Jan-25	93%
WDIR			Henry Pirker	W	-	-	-	-	-	-	73%
WDIR			Evergreen Park	W	-	-	-	-	-	-	97%
WDIR			Smoky Heights	WSW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	W	-	-	-	-	-	-	100%
WDIR			Valleyview	NW	-	-	-	-	-	-	100%
WDIR			Falher	SW	-	-	-	-	-	-	100%
WDIR			Clairmont	WSW	-	-	-	-	-	-	93%

# Continuous Network Equipment Summary

## PAZA – Henry Pirker Station

### General Station Issues

Routine monthly calibrations were performed on January 9<sup>th</sup> (CO, THC), 12<sup>th</sup> (TRS), 14<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>) and 28<sup>th</sup> (PM<sub>2.5</sub>).

Parameter	Make	Model	Notes
SO <sub>2</sub>	TEI	43C	No operational issues observed.
NO <sub>x</sub> /NO/NO <sub>2</sub>	TEI	42C/42i	Calibrator checked against NO <sub>x</sub> channels January 12 <sup>th</sup> .
O <sub>3</sub>	TEI	49C	No operational issues observed.
CO	TEI	48C	Analyzer switched January 23 <sup>rd</sup> with new analyzer provided by AESRD. Preamp board calibration performed January 27 <sup>th</sup> to finish installation.
THC/CH <sub>4</sub> /NMHC	TEI	55I	No operational issues observed.
TRS	TEI	45C/43C	No operational issues observed.
PM <sub>2.5</sub>	Sharp	5030	Analyzer returned invalid readings January 4 <sup>th</sup> , invalidating 8 hours of data.
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	Wind head suffered freezing conditions.

---

---

**PAZA – Evergreen Park Station**

---

---

**General Station Issues**

Routine monthly calibration performed on January 20<sup>th</sup> (SO<sub>2</sub>, TRS). Power outage January 14<sup>th</sup> invalidated 15 hours of data.

---

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	No operational issues observed.
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 January 21<sup>st</sup> (SO<sub>2</sub>, TRS).

---

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
PM <sub>2.5</sub>	R&P	1400AB	Manifold cleaned during calibration period.
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 January 7<sup>th</sup> (NO<sub>x</sub>, PM<sub>2.5</sub>) and 8<sup>th</sup> (SO<sub>2</sub>, O<sub>3</sub>).

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43CTL	No operational issues observed.
NOx/NO/NO <sub>2</sub>	TEI	42C	Calibration completed January 7 <sup>th</sup> with irregularity in GPT. January 8 <sup>th</sup> verified calibrator working correctly.
O <sub>3</sub>	TEI	49C	Analyzer flagged out during NOx calibration January 7 <sup>th</sup> , calibrated concurrently with calibrator check January 8 <sup>th</sup> .
PM <sub>2.5</sub>	R&P	1400AB	Unstable operation throughout month.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	No operational issues observed.

---

---

---

**PAZA – Valleyview Station**

---

---

**General Station Issues**

Routine monthly calibrations were performed on January 22<sup>nd</sup> (SO<sub>2</sub> & H<sub>2</sub>S).

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43i	No operational issues observed.
H <sub>2</sub> 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 January 13<sup>th</sup> (SO<sub>2</sub> & H<sub>2</sub>S).

---

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43i	No operational issues observed.
H <sub>2</sub> S	Thermo	450i	Analyzer sample pump failed January 9 <sup>th</sup> . Replacement part made available January 13 <sup>th</sup> . No operational issues observed. <b>AE Reference # 295699</b>
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	Wind head freezing.

---

---



---

---

**PAZA – Portable-Clairmont**

---

---

**General Station Issues**

Routine monthly calibrations were performed on January 15<sup>th</sup> (SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>) and 16<sup>th</sup> (THC, TRS). Power outage January 18<sup>th</sup> invalidated one hour of data

---

---

<b>Parameter</b>	<b>Make</b>	<b>Model</b>	<b>Notes</b>
SO <sub>2</sub>	TEI	43i	No operational issues observed.
NO <sub>x</sub>	TEI	42i	No operational issues observed.
O <sub>3</sub>	TEI	49C	No operational issues observed.
TRS	TEI	39C	No operational issues observed.
THC	TEI	51C	Analyzer running on bottled zero air until new zero air supply can be installed. Bottled air depleted before replacement on January 18 <sup>th</sup> , 22 <sup>nd</sup> and 30 <sup>th</sup> .
PM <sub>2.5</sub>	R&P	1400AB	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	Wind head freezing January 27-30 <sup>th</sup> .

---

---

PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

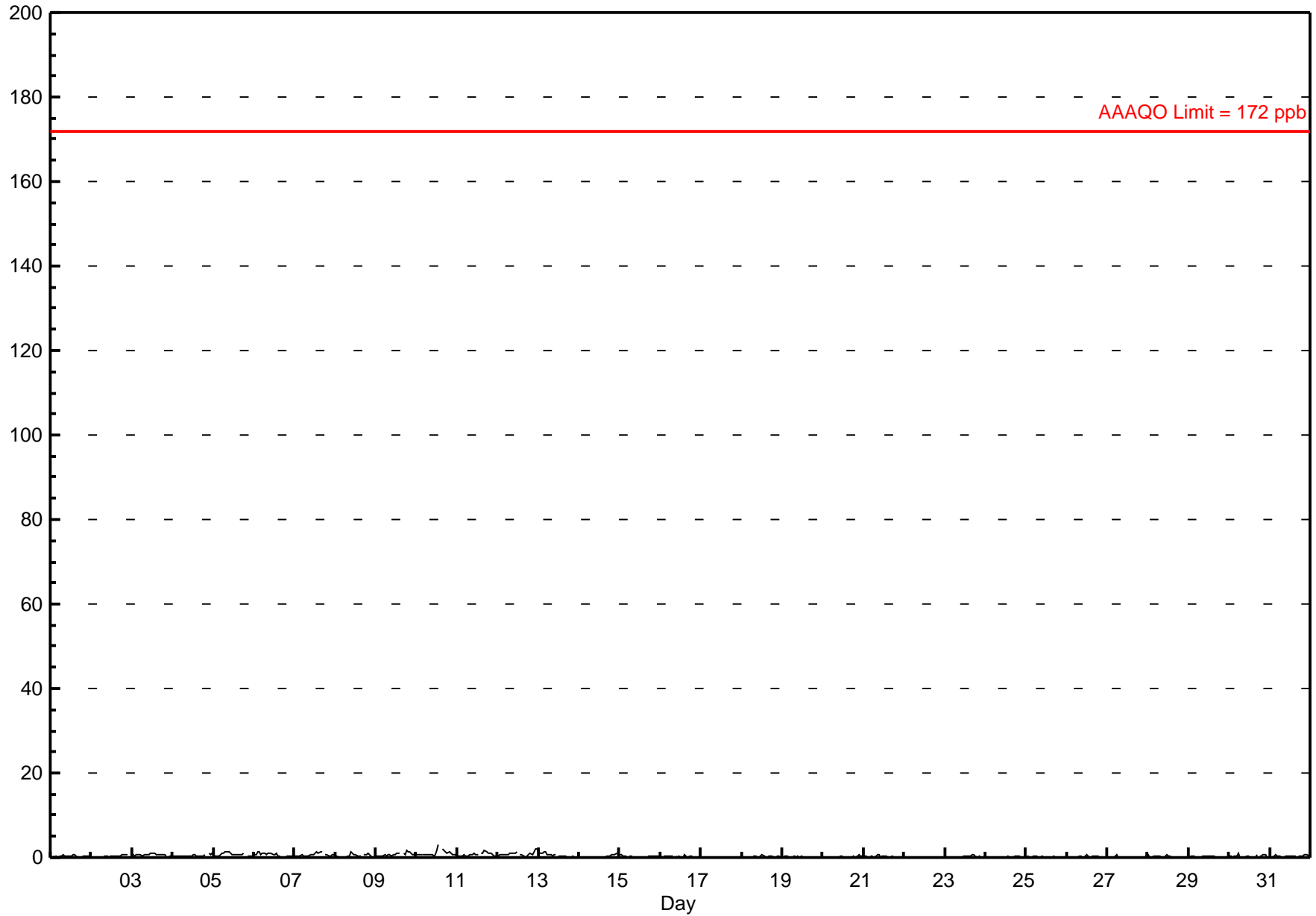
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Henry Pirker - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 3.0 ppb on Jan 10 14:00	Maximum Daily Average: 1.0 ppb on Jan 10		Hours of Data:	708
Minimum Value: 0 ppb on Jan 1 18:00	Minimum Daily Average: 0.0 ppb on Jan 22		Hours of Missing Data:	36
Maximum Diurnal Average: 0.5 ppb at hour 14	Minimum Diurnal Average: 0.3 ppb at hour 2		Hours of Calibration:	36
Monthly Average: 0.36 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.3 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.8 P <sub>99</sub> = 1.6		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-Jan	A	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	0.3	0.7
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	1	0.3	1.1
3-Jan	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0.7	1.0
4-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	A	1	1	1	0.4	0.9
5-Jan	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0.7	1.3
6-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	1	0	0.7	1.3
7-Jan	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	1	1	0.7	1.3
8-Jan	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	A	1	1	1	1	0	0	0	0.4	1.4
9-Jan	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	0.8	1.5
10-Jan	1	1	1	1	1	1	1	1	1	1	0	1	2	3	A	2	2	1	1	1	1	1	1	1	1.0	3.0
11-Jan	0	0	0	0	1	0	0	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	0	0	0.7	1.6
12-Jan	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	1	1	1	1	2	2	0.9	2.2
13-Jan	1	1	1	1	1	1	1	1	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.3
14-Jan	0	0	0	0	0	0	0	0	0	0	A	C	C	C	0	0	0	0	0	1	1	1	1	1	0.2	0.8
15-Jan	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
16-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.6
17-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
18-Jan	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	0.6
19-Jan	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
20-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.6
21-Jan	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
22-Jan	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
23-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0.2	0.8
24-Jan	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	0.5
25-Jan	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	0.4
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0.1	0.5
27-Jan	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.1	1.0
28-Jan	1	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
29-Jan	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	0.4
30-Jan	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	A	0	0	1	1	0	0	0.3	0.9
31-Jan	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	0	0.3	0.8
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	Diurnal Average	
	1.3	1.0	1.2	1.3	1.3	1.0	0.9	1.2	1.3	1.4	1.1	1.4	1.6	3.0	1.1	2.0	1.8	1.3	1.5	1.4	1.2	1.3	2.2	2.0	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 Maximums

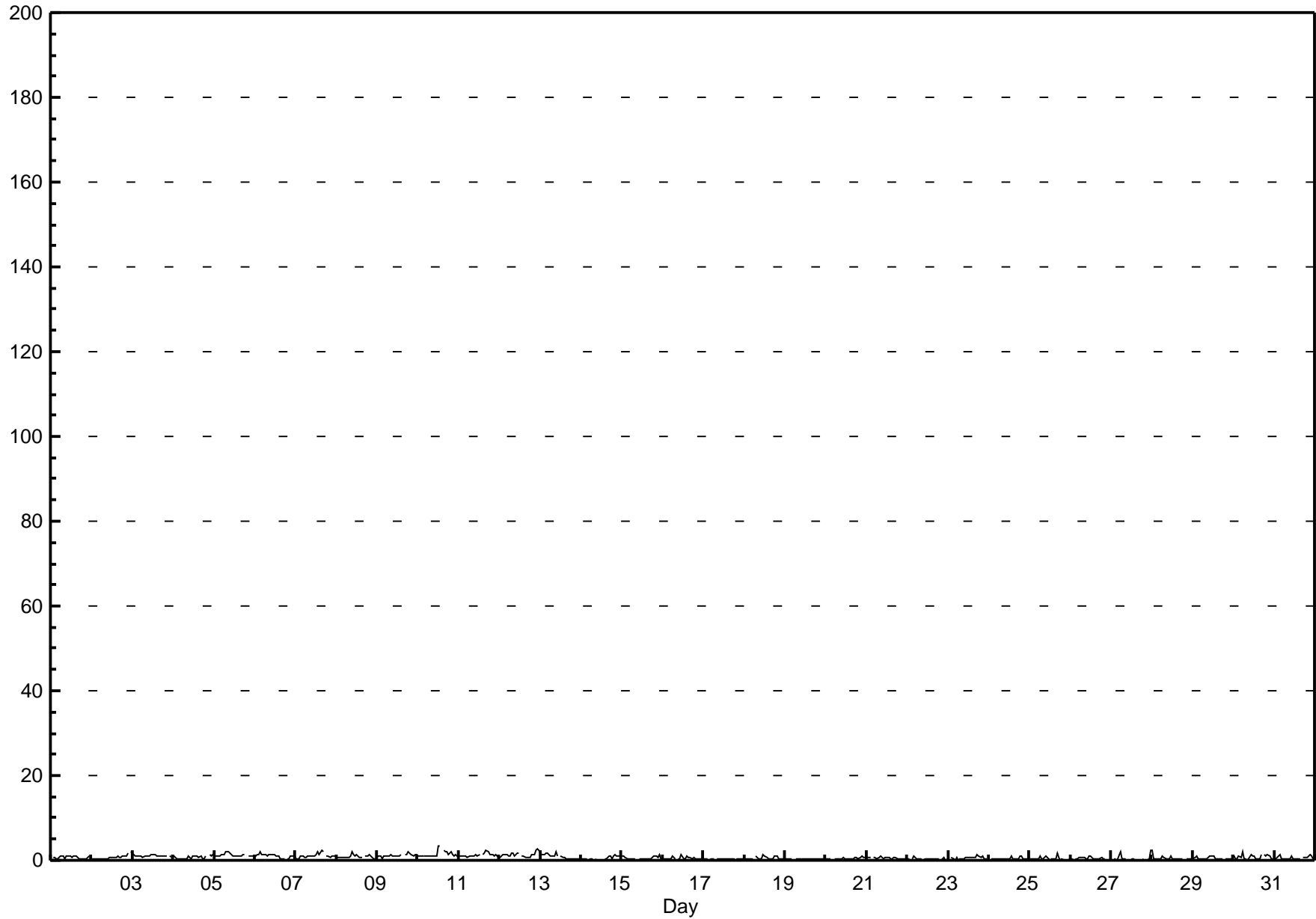
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Henry Pirker - January 2015

Maximum Value: 3.5 ppb on Jan 10 14:00		Maximum Daily Average: 1.5 ppb on Jan 10		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 27 01:00		Minimum Daily Average: 0.3 ppb on Jan 22		Hours of Data: 708																						
Maximum Diurnal Average: 0.9 ppb at hour 13		Minimum Diurnal Average: 0.7 ppb at hour 2		Hours of Missing Data: 36																						
Monthly Average: 0.75 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.3 Q <sub>1</sub> = 0.5 Median = 0.5 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 1.4 P <sub>99</sub> = 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-Jan	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	1	A	0.7	1.1
2-Jan	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	0.7	2.0
3-Jan	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.5
4-Jan	1	1	0	0	0	0	0	0	0	1	0	1	1	1	1	1	0	0	1	A	A	1	1	1	0.8	1.4
5-Jan	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	A	A	1	1	1	1	1.2	1.9
6-Jan	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	A	0	0	1	1	1.1	1.9
7-Jan	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	A	A	1	1	1	1	1	1	1.1	2.5
8-Jan	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	A	A	1	1	2	1	1	1	0.8	2.0
9-Jan	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	A	1	2	2	1	1	1	1	1.2	2.0
10-Jan	1	1	1	1	1	1	1	1	1	1	1	3	3	A	A	2	2	2	1	2	1	1	1	1	1.5	3.5
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	A	1	2	2	2	1	1	1	1	1	1	1.2	2.2
12-Jan	1	1	1	1	1	1	1	2	2	1	2	2	A	A	1	1	1	1	1	1	1	2	3	2	1.3	2.8
13-Jan	2	1	1	2	2	1	1	1	1	2	1	A	A	1	1	0	0	0	0	0	0	0	0	0	0.9	1.9
14-Jan	0	0	0	0	0	0	0	0	0	0	A	C	C	C	0	0	1	1	0	1	1	1	1	1	0.6	1.3
15-Jan	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	0	0.6	1.5
16-Jan	0	0	0	0	0	0	1	0	A	A	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0.6	1.5
17-Jan	1	1	0	0	1	1	0	A	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
18-Jan	0	0	0	0	0	0	0	A	A	1	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0.5	1.4
19-Jan	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
20-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	1	1	1	0.5	0.9
21-Jan	1	1	1	A	1	1	0	1	1	1	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0.6	1.0
22-Jan	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.3	0.9
23-Jan	1	A	1	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.6	1.3
24-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	A	0.5	1.0
25-Jan	0	0	0	0	0	1	1	1	0	1	1	0	0	0	0	2	1	0	0	0	0	0	A	0	0.5	1.5
26-Jan	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	0	A	0	0	0.5	1.0
27-Jan	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	2	0.4	2.5
28-Jan	2	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	A	A	0	0	0	0.6	2.5
29-Jan	0	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	A	A	0	0	0	0	0.5	0.9
30-Jan	1	0	0	1	1	2	0	0	0	0	1	1	1	0	0	0	1	A	A	1	1	1	0	0	0.8	2.0
31-Jan	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	A	1	1	1	1	1	1	0	0.7	1.5
		0.8	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.8	0.7	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	Diurnal Average
		2.5	1.4	1.5	1.9	1.9	2.0	1.4	1.9	1.9	2.0	1.6	1.6	3.3	3.5	1.5	2.5	2.2	2.0	2.0	2.0	1.5	2.2	2.8	2.5	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

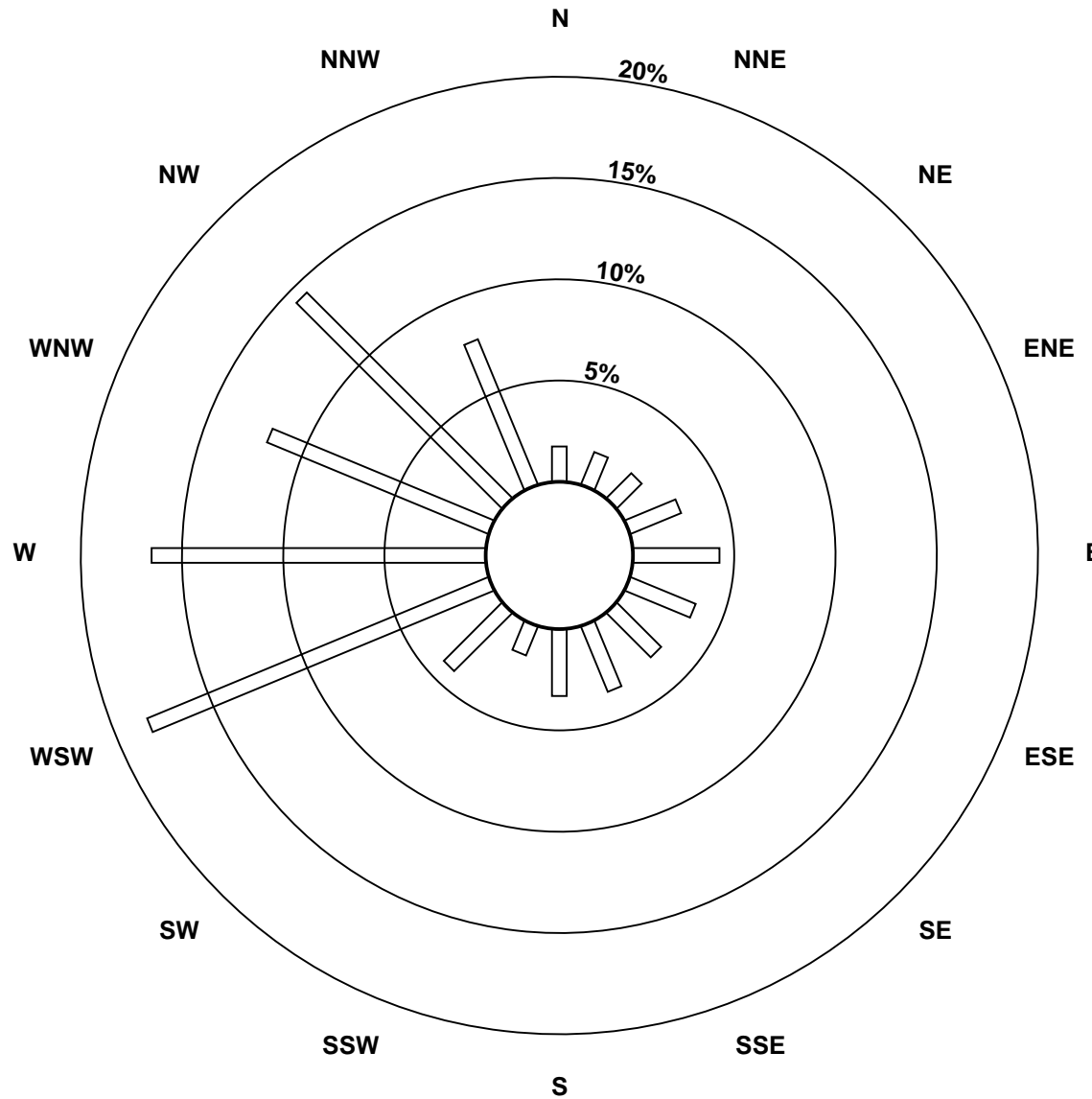
**Hourly Maximums**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Henry Pirker - January 2015**

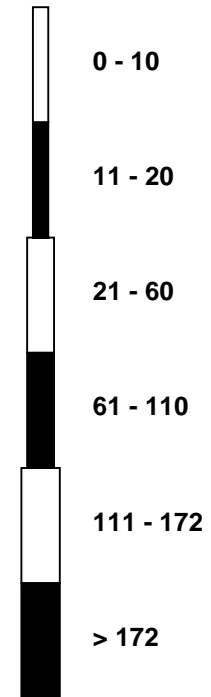


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Henry Pirker - January 2015**

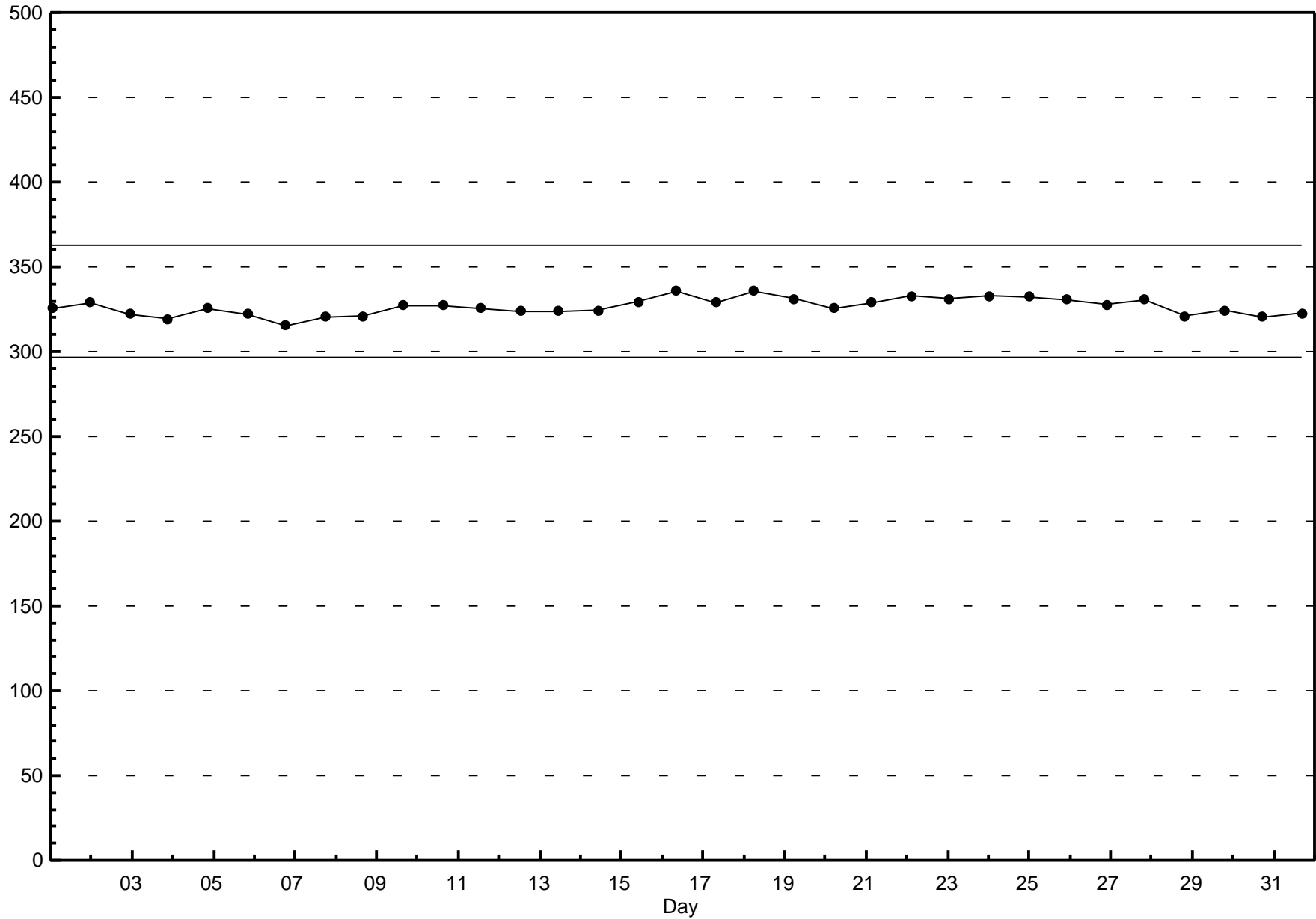


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Henry Pirker - January 2015





## Hourly Averages

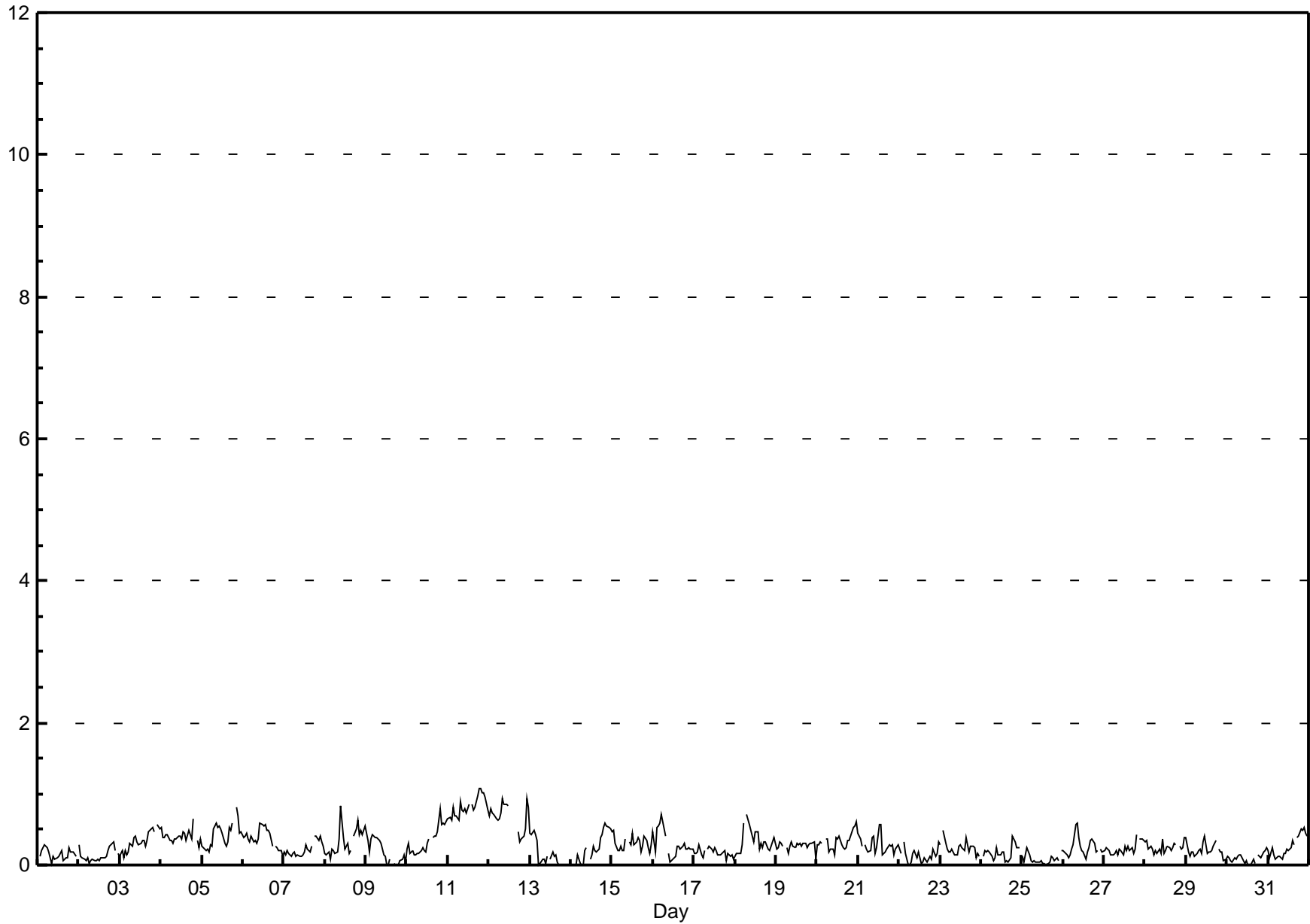
## Total Reduced Sulphur (TRS) - ppb

### Henry Pirker - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.1 ppb on Jan 11 20:00	Maximum Daily Average: 0.8 ppb on Jan 11		Hours of Data:	707
Minimum Value: 0 ppb on Jan 9 14:00	Minimum Daily Average: 0.1 ppb on Jan 25		Hours of Missing Data:	37
Maximum Diurnal Average: 0.3 ppb at hour 20	Minimum Diurnal Average: 0.2 ppb at hour 7		Hours of Calibration:	37
Monthly Average: 0.28 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 0.6 P <sub>99</sub> = 0.9		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-Jan	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
2-Jan	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
3-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	1	1	0.3	0.6
4-Jan	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0.4	0.6
5-Jan	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	0	1	A	1	1	0	0	0.4	0.8
6-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0.4	0.6
7-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4
8-Jan	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0.3	0.8
9-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.4
10-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	1	0.3	0.8
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
12-Jan	1	1	1	1	1	1	1	1	1	1	1	A	C	C	C	C	0	0	0	0	0	1	1	1	0.7	0.9
13-Jan	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
14-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	0.2	0.6
15-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
16-Jan	0	0	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
17-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
18-Jan	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
19-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
20-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	0.6
21-Jan	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.6
22-Jan	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
23-Jan	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
24-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
25-Jan	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
26-Jan	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.6
27-Jan	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
28-Jan	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
29-Jan	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
30-Jan	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
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0.3	0.5
	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average
	0.7	0.8	0.7	0.8	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.8	0.9	0.6	0.9	0.8	0.8	1.0	1.1	1.1	1.0	1.0	1.0	0.8	Diurnal Maximum	

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

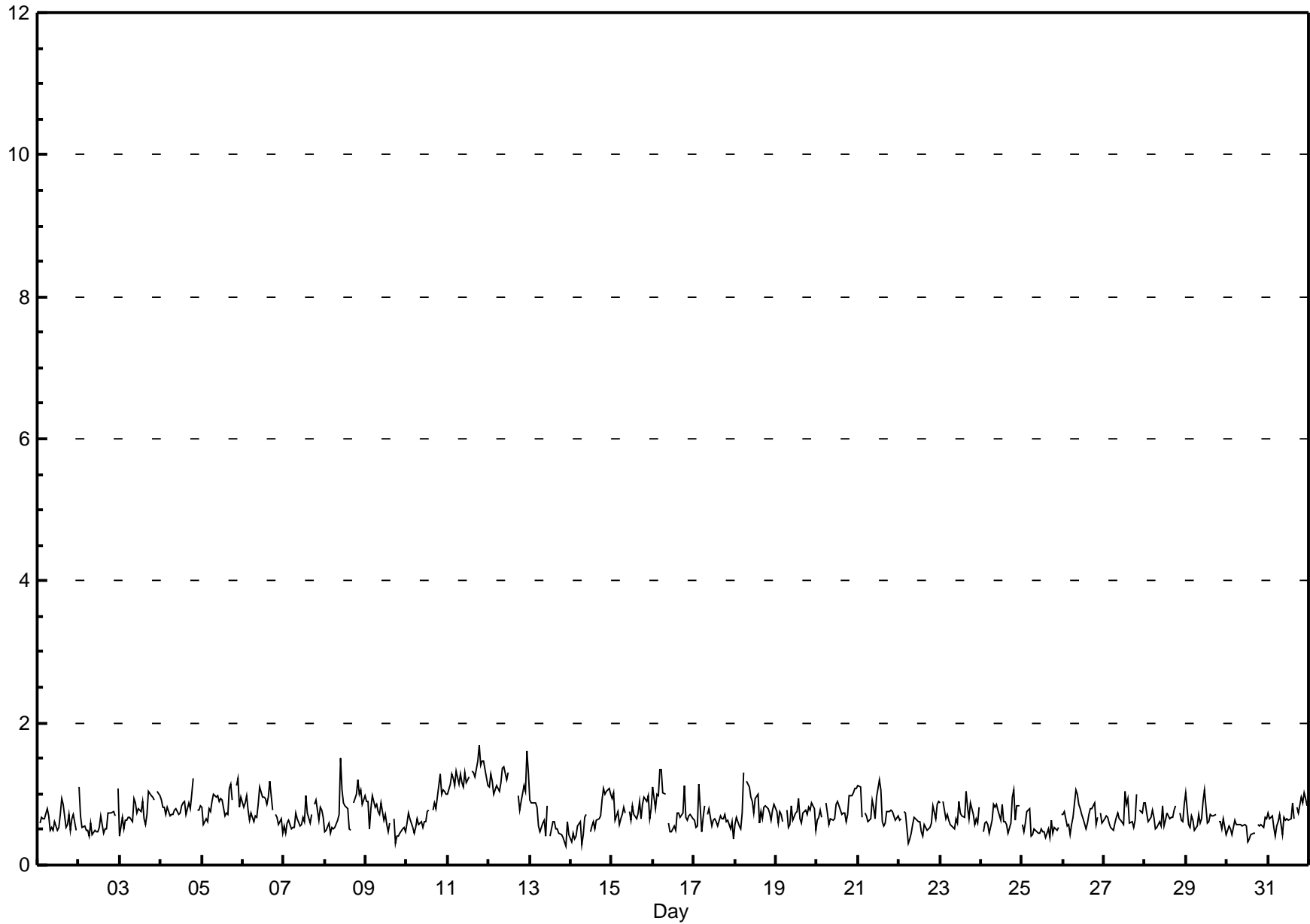


## Hourly Maximums

## Total Reduced Sulphur (TRS) - ppb

### Henry Pirker - January 2015

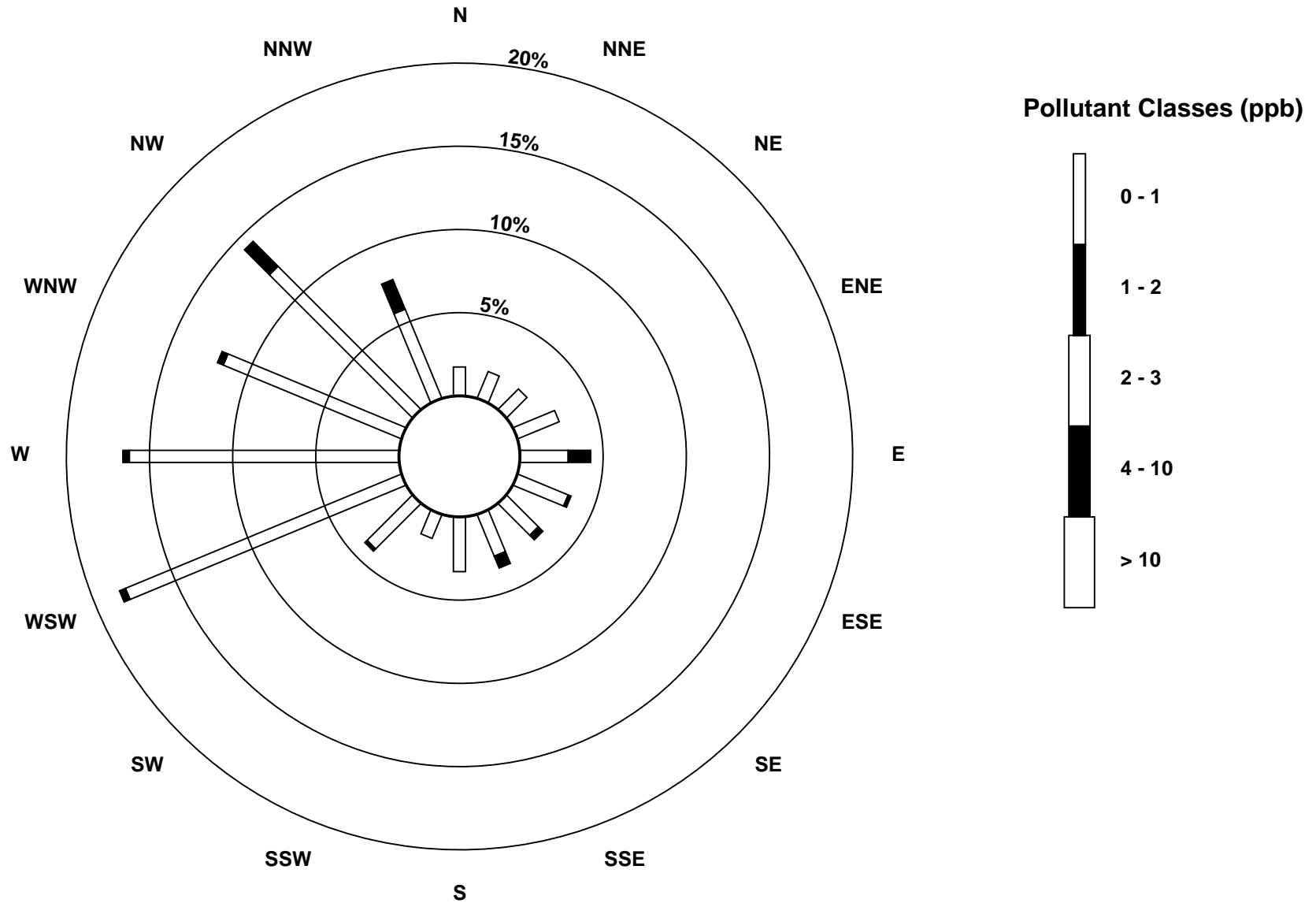
Maximum Value: 1.7 ppb on Jan 11 19:00		Maximum Daily Average: 1.3 ppb on Jan 11		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 13 22:00		Minimum Daily Average: 0.5 ppb on Jan 25		Hours of Data: 707																						
Maximum Diurnal Average: 0.8 ppb at hour 20		Minimum Diurnal Average: 0.7 ppb at hour 7		Hours of Missing Data: 37																						
Monthly Average: 0.73 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.7 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 1.0 P <sub>99</sub> = 1.4		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-Jan	A	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	0	1	1	0	A	0.6	0.9
2-Jan	1	1	1	1	0	0	0	1	0	0	0	0	1	1	0	1	1	1	1	1	1	1	A	1	0.6	1.1
3-Jan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.0	
4-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.2	
5-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.2	
6-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0.8	1.2	
7-Jan	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.0	
8-Jan	0	0	1	0	1	0	1	1	1	2	1	1	1	1	1	0	A	1	1	1	1	1	1	0.8	1.5	
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	0	0	0	0	1	1	0	0.6	1.0	
10-Jan	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.3	
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1.3	1.7	
12-Jan	1	1	1	1	1	1	1	1	1	1	1	A	C	C	C	C	1	1	1	1	1	2	1	1.2	1.6	
13-Jan	1	1	1	1	1	1	0	1	1	0	1	A	0	1	1	1	0	0	0	0	0	0	0	0.6	0.9	
14-Jan	0	0	0	0	1	1	0	0	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1	
15-Jan	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	1.0	
16-Jan	1	1	1	1	1	1	1	1	A	1	0	0	1	0	1	1	1	1	1	1	1	1	1	0.8	1.3	
17-Jan	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.1	
18-Jan	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3	
19-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	0.9	
20-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
21-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2	
22-Jan	1	1	A	1	1	0	0	0	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	0.6	0.9	
23-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
24-Jan	A	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	0.7	1.0	
25-Jan	1	0	1	1	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	1	A	0.5	0.8	
26-Jan	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1	
27-Jan	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.0	
28-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9	
29-Jan	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0.7	1.1	
30-Jan	0	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	A	1	1	1	1	1	1	0.5	0.7	
31-Jan	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.7	1.0	
		0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	Diurnal Average	
		1.1	1.3	1.3	1.2	1.3	1.3	1.1	1.3	1.4	1.5	1.3	1.3	1.2	1.1	1.3	1.3	1.2	1.5	1.7	1.4	1.5	1.5	1.6	1.3	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

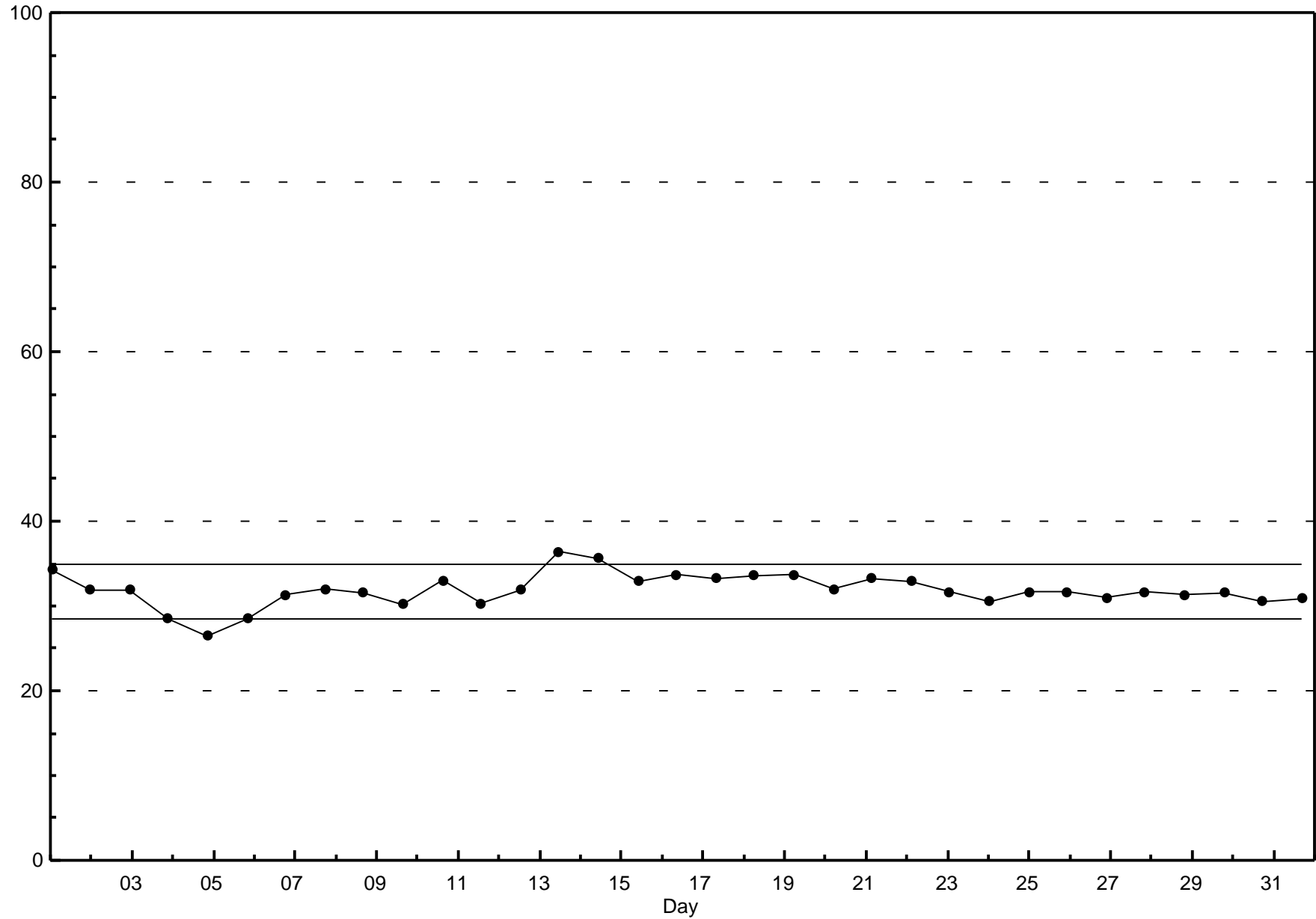


**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**

**Henry Pirker - January 2015**





## Hourly Averages

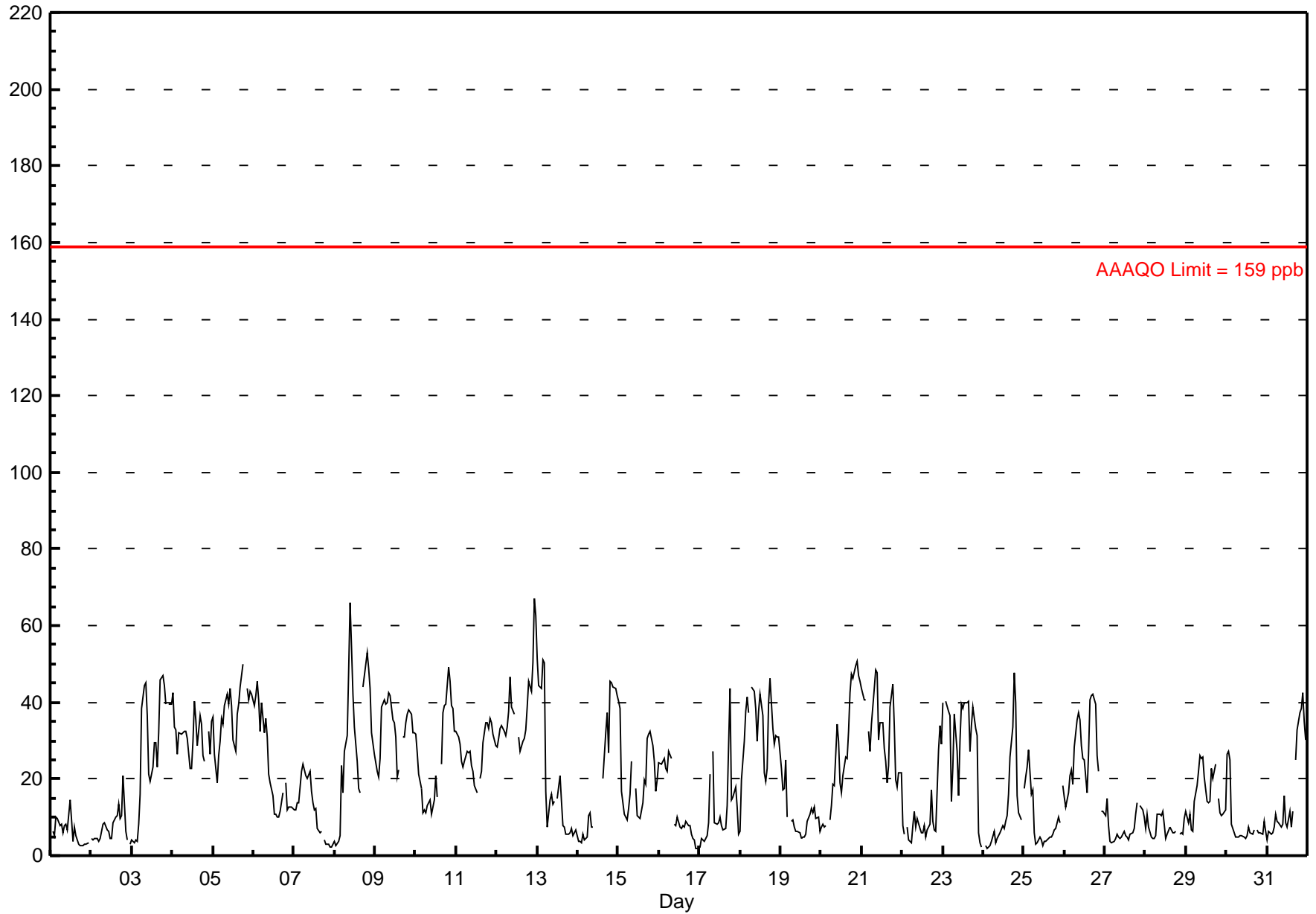
## Nitrogen Dioxide (NO<sub>2</sub>) - ppb

### Henry Pirker - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 67.1 ppb on Jan 12 23:00	Maximum Daily Average: 38.3 ppb on Jan 12		Hours of Data:	706
Minimum Value: 2 ppb on Jan 17 00:00	Minimum Daily Average: 6.2 ppb on Jan 1		Hours of Missing Data:	38
Maximum Diurnal Average: 27.7 ppb at hour 19	Minimum Diurnal Average: 16.1 ppb at hour 15		Hours of Calibration:	36
Monthly Average: 20.34 ppb	Percentiles: P <sub>1</sub> = 2.3 P <sub>10</sub> = 4.6 Q <sub>1</sub> = 7.4 Median = 17.1 Q <sub>3</sub> = 32.2 P <sub>90</sub> = 40.7 P <sub>99</sub> = 50.9		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-Jan	A	6	5	10	10	8	8	6	8	8	7	14	9	4	8	5	3	3	3	3	3	3	3	A	6.2	14.4
2-Jan	5	4	4	4	4	5	6	8	8	7	7	5	5	8	10	11	13	10	11	21	6	4	A	3	7.3	21.0
3-Jan	4	3	4	4	8	16	38	44	45	37	21	19	23	29	29	23	32	46	47	44	40	A	40	40	27.7	46.8
4-Jan	42	34	33	26	32	32	32	33	33	30	23	23	30	40	35	29	36	34	26	25	A	32	26	35	31.4	42.4
5-Jan	36	27	19	26	30	36	34	39	42	40	43	39	30	27	37	40	44	47	50	A	44	41	43	42	37.2	50.1
6-Jan	39	42	46	41	32	40	32	36	31	21	19	16	11	11	10	10	12	17	A	19	12	13	13	12	23.2	45.5
7-Jan	12	12	14	14	22	24	22	21	20	22	17	14	12	12	7	6	6	A	4	3	3	2	2	3	11.9	24.0
8-Jan	4	2	4	5	23	16	27	31	48	66	55	42	34	25	17	16	A	44	50	53	49	44	32	26	31.1	66.0
9-Jan	24	22	20	25	39	41	40	40	43	42	35	35	31	21	22	A	31	31	35	37	38	37	32	32	32.7	42.6
10-Jan	32	27	21	18	11	12	11	13	14	11	13	14	21	15	A	24	37	39	40	49	46	39	38	32	25.1	49.2
11-Jan	32	31	29	25	23	25	27	27	27	24	22	18	16	A	20	22	29	35	35	33	36	34	32	29	27.4	35.8
12-Jan	28	31	33	34	32	31	33	38	46	39	37	M	M	31	27	30	31	33	39	46	43	50	67	63	38.3	67.1
13-Jan	51	44	44	51	50	17	7	14	16	14	14	A	15	21	14	8	7	6	6	6	7	5	6	7	18.7	51.4
14-Jan	4	4	3	6	4	5	11	11	8	7	A	C	C	C	C	20	32	37	27	46	45	44	43	42	21.0	45.6
15-Jan	40	38	17	11	10	9	12	16	25	A	18	10	10	10	14	20	19	31	32	32	29	25	17	20	20.1	40.1
16-Jan	24	24	25	25	23	22	27	26	A	8	8	10	8	7	8	7	9	8	8	6	5	4	2	2	12.8	27.2
17-Jan	2	5	4	4	5	8	21	A	27	9	8	8	10	8	7	7	13	29	44	15	15	18	13	5	12.4	43.5
18-Jan	6	20	30	38	41	37	A	44	43	38	30	38	42	37	22	19	23	40	46	33	29	31	31	31	32.6	46.3
19-Jan	23	17	18	25	10	A	9	9	8	6	6	6	4	5	5	5	9	11	12	11	13	10	10	6	10.4	25.1
20-Jan	8	8	8	8	A	9	13	19	18	34	30	19	16	21	26	26	32	42	48	46	50	51	47	46	27.1	50.8
21-Jan	44	41	41	A	33	27	34	44	48	48	30	35	35	28	24	19	23	39	45	34	20	18	21	22	32.7	48.4
22-Jan	8	6	A	7	4	3	8	12	7	10	7	6	6	8	5	7	8	17	9	7	6	27	34	29	10.5	33.8
23-Jan	40	A	40	38	36	14	23	37	27	16	30	40	38	40	40	40	27	34	39	33	31	6	3	2	29.3	40.3
24-Jan	A	2	2	2	3	4	6	3	5	5	6	8	7	9	10	16	26	33	48	40	16	11	9	A	12.4	47.6
25-Jan	18	21	23	28	16	17	6	3	3	5	4	3	4	4	4	5	5	6	7	7	10	9	A	18	9.7	27.6
26-Jan	15	13	16	21	22	19	28	36	37	35	29	25	25	16	27	41	42	42	39	26	22	A	12	11	26.1	42.0
27-Jan	10	15	8	4	3	4	4	5	5	4	5	6	5	5	4	5	6	7	11	14	A	13	12	10	7.2	14.8
28-Jan	7	11	8	5	4	4	5	11	11	11	11	8	5	5	7	7	6	6	6	A	6	6	6	10	7.2	11.4
29-Jan	12	8	11	7	6	14	18	22	26	25	26	21	14	14	14	23	20	24	A	15	11	11	11	12	15.9	26.3
30-Jan	27	27	25	8	6	5	5	5	5	5	5	5	7	6	6	7	A	7	6	6	6	6	9	6	8.6	27.0
31-Jan	4	6	5	6	7	11	9	9	8	8	16	9	8	11	7	12	A	25	33	37	38	42	35	30	16.4	42.5
	20.7	18.3	18.6	17.5	18.4	17.2	18.7	22.0	23.1	21.2	19.3	17.7	16.5	16.5	16.1	16.9	20.3	26.7	27.7	25.7	23.4	21.9	22.4	21.6		Diurnal Average
	51.4	44.3	45.5	51.1	50.5	40.8	39.6	44.4	48.4	66.0	54.6	42.2	42.2	40.4	39.7	40.8	44.2	47.0	50.1	53.0	49.6	50.8	67.1	62.8		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 Maximums

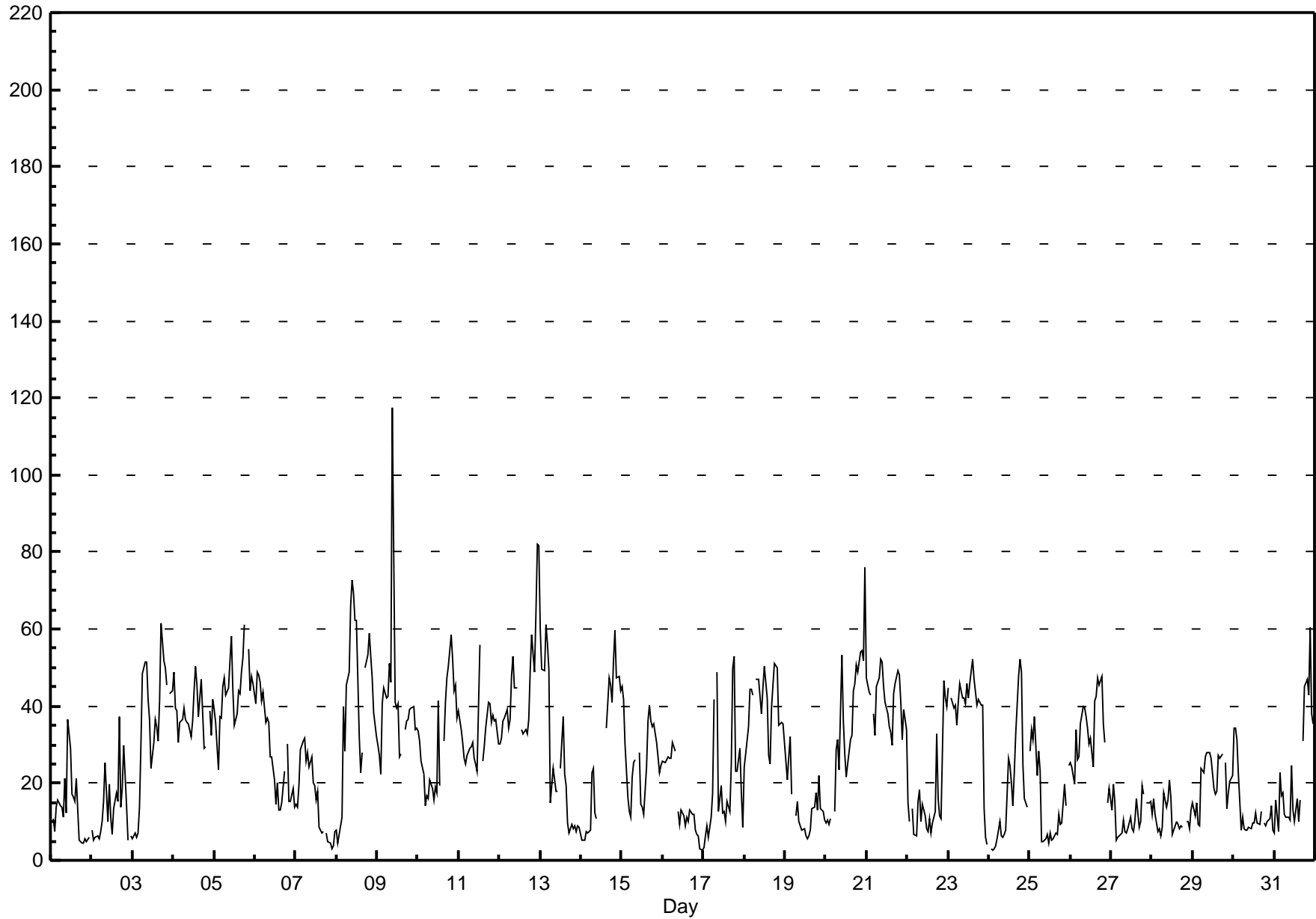
Nitrogen Dioxide (NO<sub>2</sub>) - ppb

Henry Pirker - January 2015

Maximum Value: 117.4 ppb on Jan 9 10:00		Maximum Daily Average: 45.0 ppb on Jan 12		Hours in Service: 744																						
Minimum Value: 3 ppb on Jan 24 03:00		Minimum Daily Average: 11.2 ppb on Jan 28		Hours of Data: 706																						
Maximum Diurnal Average: 33.4 ppb at hour 19		Minimum Diurnal Average: 22.0 ppb at hour 15		Hours of Missing Data: 38																						
Monthly Average: 26.57 ppb		Percentiles: P <sub>1</sub> = 3.7 P <sub>10</sub> = 7.4 Q <sub>1</sub> = 11.8 Median = 25.3 Q <sub>3</sub> = 39.5 P <sub>90</sub> = 47.8 P <sub>99</sub> = 64.2		Hours of Calibration: 36																						
				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-Jan	A	11	7	14	16	14	14	11	21	12	36	29	17	16	15	21	5	5	4	5	6	5	6	A	13.2	36.4
2-Jan	8	5	6	6	6	7	10	15	25	10	20	11	7	13	17	15	37	14	19	30	14	5	A	6	13.4	37.5
3-Jan	5	7	6	7	14	30	48	51	51	42	37	24	30	37	35	31	41	62	52	50	45	A	43	44	34.5	61.5
4-Jan	49	40	39	30	36	37	40	36	36	35	32	36	44	50	45	37	47	38	29	30	A	39	32	42	38.3	50.2
5-Jan	39	36	24	37	37	45	47	43	45	52	58	44	35	38	44	43	49	52	61	A	55	44	48	46	44.4	61.1
6-Jan	41	49	48	46	41	44	36	37	36	27	27	21	14	20	13	13	15	23	A	30	15	15	18	14	28.0	48.9
7-Jan	14	14	19	29	31	32	26	28	24	27	20	19	16	18	9	7	7	A	7	5	4	3	4	8	16.1	31.6
8-Jan	8	4	9	11	40	28	45	49	66	73	69	62	62	32	23	28	A	50	53	59	53	47	38	32	41.0	72.7
9-Jan	30	27	22	40	45	42	42	51	46	117	41	40	41	27	28	A	34	36	36	39	40	40	34	34	40.5	117.4
10-Jan	33	31	26	22	14	17	16	21	19	16	19	17	41	19	A	31	41	48	50	59	52	44	45	37	31.3	58.7
11-Jan	39	34	31	27	25	27	29	30	31	27	25	23	56	A	26	30	34	41	41	36	38	36	36	30	32.6	55.9
12-Jan	30	32	36	37	39	34	36	48	53	45	45	M	M	34	33	34	33	37	49	59	49	64	82	82	45.0	82.2
13-Jan	60	50	49	61	56	50	15	24	21	18	18	A	24	37	22	19	10	7	9	8	9	7	9	9	25.8	61.2
14-Jan	5	5	5	7	7	8	23	24	12	11	A	C	C	C	C	34	47	46	41	52	60	47	48	44	27.7	59.7
15-Jan	45	42	30	16	13	11	22	25	26	A	28	15	14	12	24	36	40	36	35	35	31	27	23	25	26.5	45.2
16-Jan	26	26	26	27	26	26	31	29	A	13	9	13	12	9	11	10	13	12	12	8	7	6	3	3	15.5	30.8
17-Jan	4	6	9	6	11	17	42	A	49	13	19	12	13	10	15	13	25	50	53	23	23	29	18	9	20.4	52.8
18-Jan	24	28	35	45	45	43	A	47	47	42	38	45	50	42	27	25	40	46	51	50	35	35	36	36	39.6	51.0
19-Jan	26	21	27	32	17	A	12	15	10	9	8	8	6	6	7	8	13	14	18	13	22	13	13	10	14.2	31.9
20-Jan	10	10	9	11	A	13	29	31	24	53	36	28	22	25	31	33	44	46	51	49	54	54	52	76	34.3	76.0
21-Jan	47	43	43	A	38	33	45	47	52	51	45	41	38	35	33	30	43	46	49	48	41	31	39	34	41.5	52.0
22-Jan	15	10	A	13	7	6	15	18	10	15	11	8	8	11	7	10	13	33	16	11	11	47	42	40	16.4	46.6
23-Jan	45	A	42	39	40	35	41	46	42	42	40	46	42	46	52	47	44	40	42	40	40	13	6	4	38.1	52.1
24-Jan	A	3	3	3	4	5	10	6	6	7	8	27	25	20	14	23	33	48	52	49	25	16	14	A	18.2	52.3
25-Jan	28	34	31	37	22	28	23	5	5	6	7	4	7	5	5	7	7	12	9	10	20	14	A	25	15.3	37.2
26-Jan	25	24	20	34	26	27	35	40	40	37	34	30	32	24	41	43	47	46	48	35	30	A	15	19	32.7	47.5
27-Jan	13	20	15	5	6	7	7	10	8	7	8	11	8	8	11	16	9	10	20	17	A	15	15	15	11.3	19.6
28-Jan	12	16	12	8	8	6	9	17	14	16	21	17	7	8	10	9	8	9	9	A	10	10	8	13	11.2	21.0
29-Jan	15	12	15	9	9	24	23	27	28	28	27	19	17	18	27	26	27	A	25	13	18	20	22	20.7	28.1	
30-Jan	34	34	31	22	8	11	8	8	8	9	8	10	10	12	10	9	13	A	10	9	10	11	14	8	13.3	34.5
31-Jan	7	16	7	23	17	18	12	11	11	10	25	13	10	16	10	16	A	31	45	47	43	60	38	35	22.7	60.3
		25.4	23.0	22.8	23.5	23.4	24.2	26.4	28.4	28.8	28.9	27.4	24.3	24.4	22.3	22.0	23.5	28.2	33.2	33.4	32.1	29.5	27.5	27.6	27.6	Diurnal Average
		60.2	49.8	49.4	61.2	56.2	49.8	48.4	51.5	66.0	117.4	69.2	62.3	62.3	50.2	52.1	46.9	48.8	61.5	61.1	58.8	59.7	64.1	82.2	81.7	Diurnal Maximum
C - Calibration		M - Maintenance						A - Automated Daily Zero Span																		

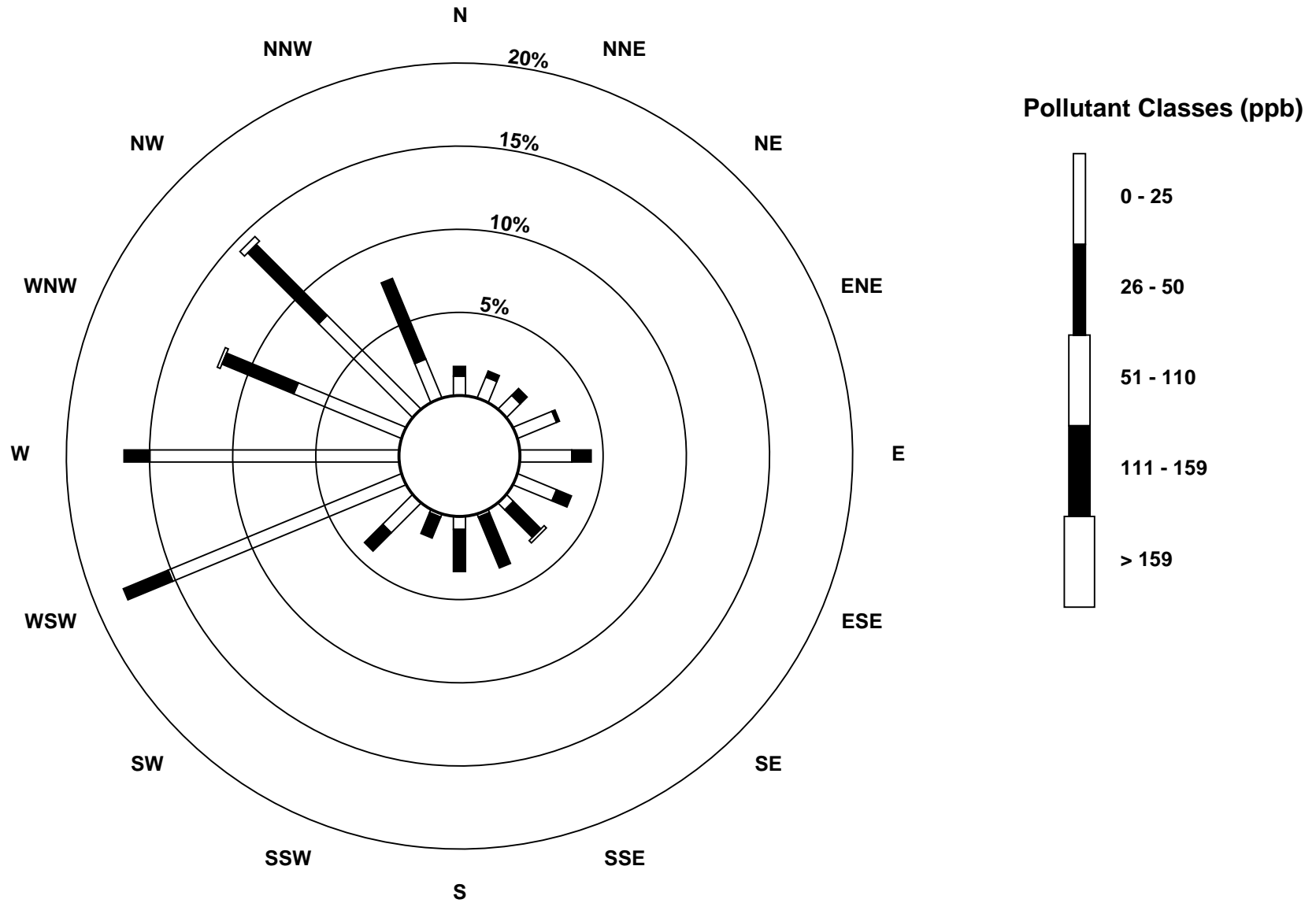
### Hourly Maximums

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Henry Pirker - January 2015**



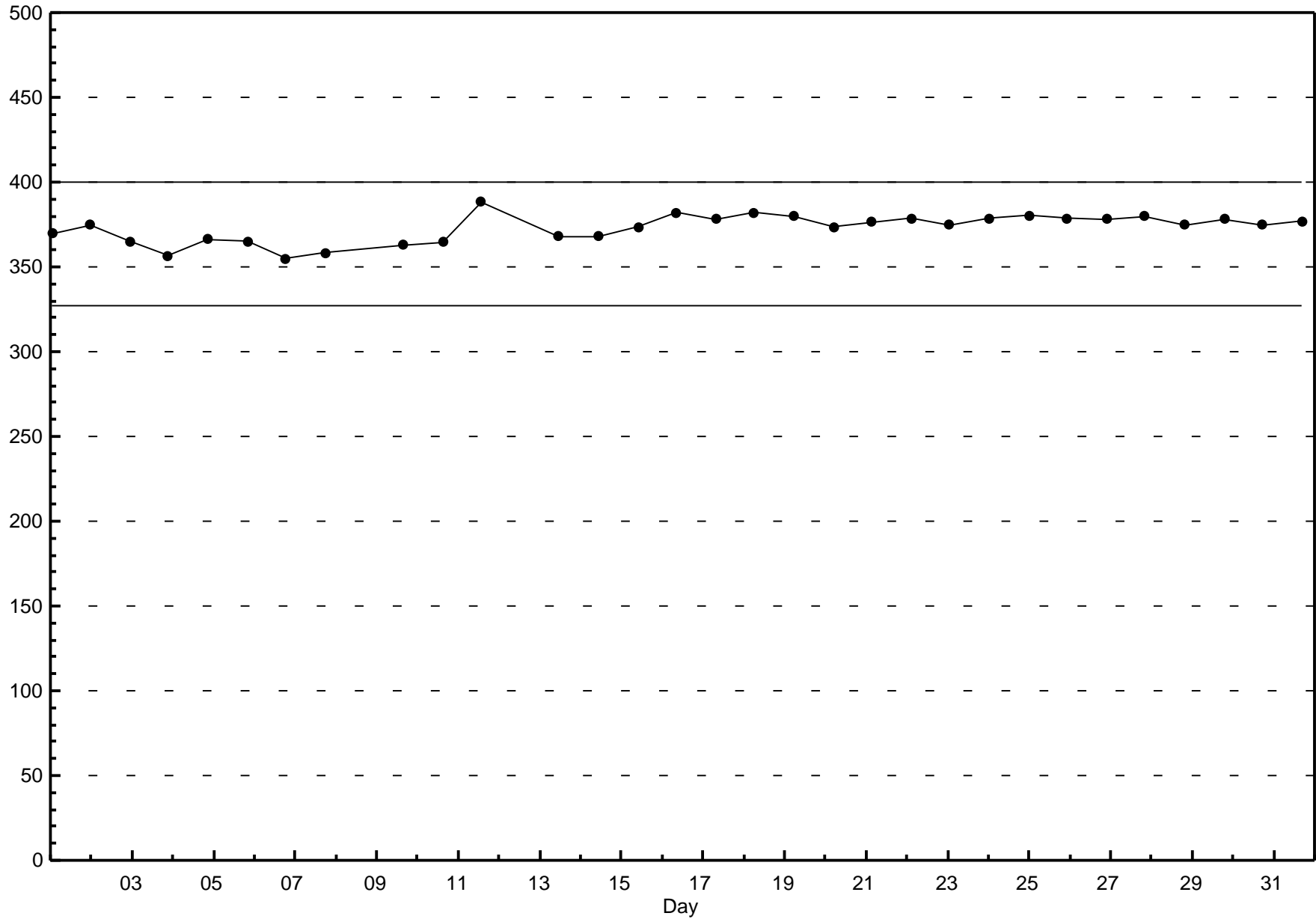
**Pollutant Rose**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Henry Pirker - January 2015**



### Span Responses

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Henry Pirker - January 2015**





Peace Airshed Zone Association

# Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 290.2 ppb on Jan 12 23:00	Maximum Daily Average: 91.6 ppb on Jan 12		Hours of Data:	706
Minimum Value: 0 ppb on Jan 1 07:00	Minimum Daily Average: 0.5 ppb on Jan 25		Hours of Missing Data:	38
Maximum Diurnal Average: 26.1 ppb at hour 21	Minimum Diurnal Average: 5.6 ppb at hour 6		Hours of Calibration:	36
Monthly Average: 15.60 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.6 Median = 2.6 Q <sub>3</sub> = 16.1 P <sub>90</sub> = 50.0 P <sub>99</sub> = 136.4		Percent Operational Time:	99.7

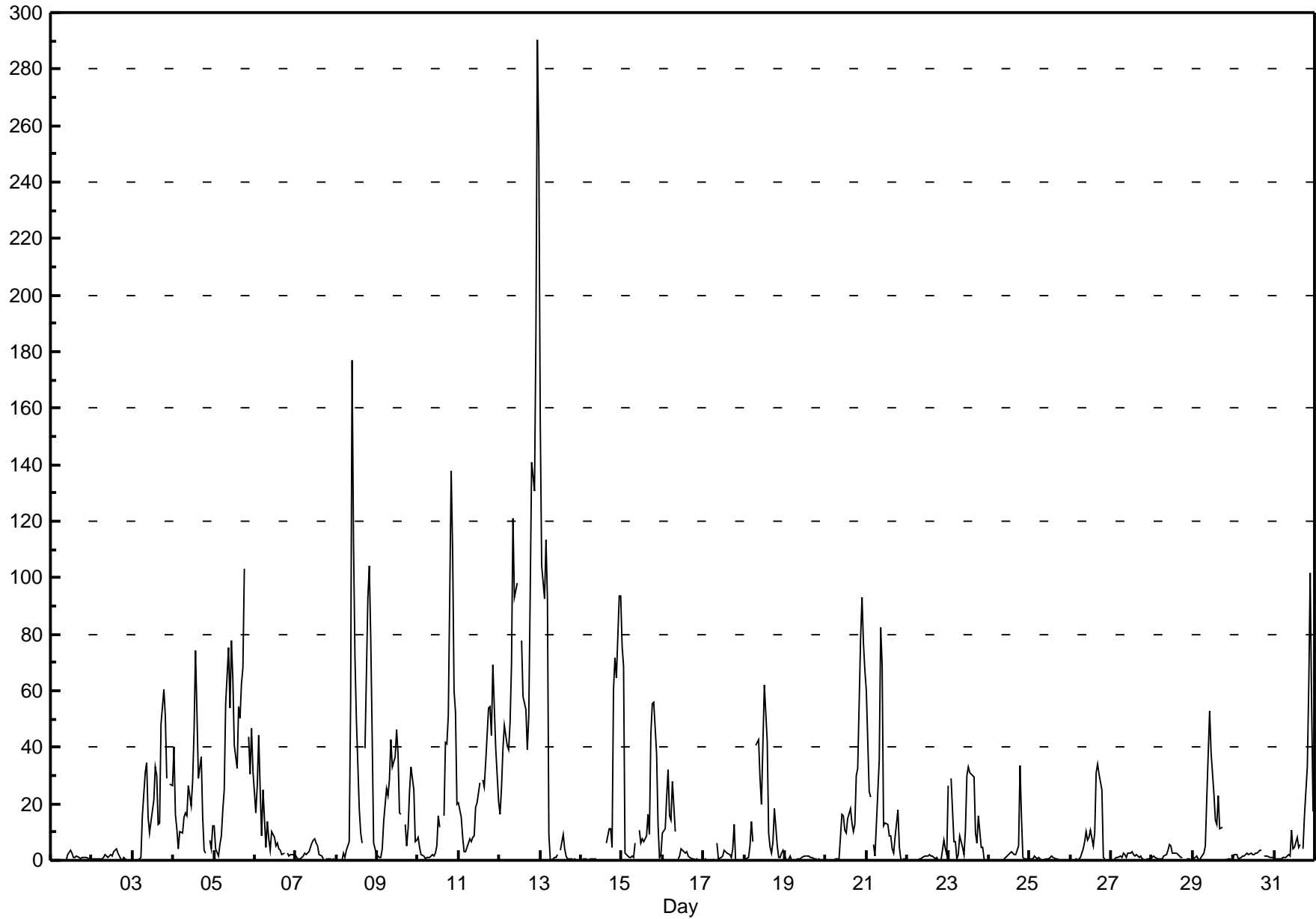
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	A	0	0	0	0	0	0	0	0	0	2	3	3	1	1	1	1	1	1	1	1	1	1	A	0.8	3.4
2-Jan	0	0	0	0	0	0	1	1	2	1	1	2	1	3	4	3	2	0	0	1	0	0	A	0	1.1	4.1
3-Jan	0	0	0	0	1	1	16	31	35	15	10	14	21	33	30	13	13	48	60	51	29	A	27	27	20.6	60.3
4-Jan	40	16	11	4	10	10	15	17	16	26	19	28	46	74	52	29	37	15	3	2	A	7	4	12	21.6	74.4
5-Jan	12	4	2	5	9	18	25	55	75	54	78	64	40	32	54	50	63	68	103	A	44	30	47	31	42.0	103.1
6-Jan	17	26	44	25	9	25	4	14	8	3	10	8	5	6	4	4	2	3	A	3	2	2	2	2	9.9	44.2
7-Jan	2	1	0	0	1	2	2	2	3	6	7	8	6	5	2	1	1	A	0	0	0	0	0	0	2.3	7.7
8-Jan	0	0	0	0	3	1	4	7	57	177	113	72	50	18	10	6	A	40	93	104	79	44	6	2	38.5	177.0
9-Jan	2	1	1	4	14	25	23	29	43	33	37	46	38	17	16	A	13	5	11	25	33	25	7	7	19.7	46.3
10-Jan	8	4	2	1	1	1	1	1	2	2	2	5	16	12	A	16	42	41	51	138	109	60	52	20	25.6	138.0
11-Jan	21	15	8	3	3	4	7	6	8	9	19	20	28	A	28	26	35	54	54	44	69	55	40	21	25.1	69.1
12-Jan	16	26	39	48	41	39	49	70	121	93	98	M	M	78	58	53	39	51	94	141	131	187	290	252	91.6	290.2
13-Jan	156	104	92	113	92	9	0	0	1	1	2	A	3	9	4	2	1	0	0	0	0	0	0	0	25.7	155.6
14-Jan	0	0	0	0	0	0	0	0	0	1	A	C	C	C	C	6	11	11	4	60	72	65	93	94	22.1	93.8
15-Jan	76	68	2	1	1	1	2	1	6	A	11	6	7	7	9	16	9	45	55	56	38	13	1	2	18.9	76.0
16-Jan	10	11	22	32	16	14	28	10	A	1	1	4	3	3	3	2	1	0	0	0	0	0	0	0	7.1	32.2
17-Jan	0	0	0	0	0	0	1	A	6	0	1	2	4	3	2	2	1	4	12	0	0	0	0	0	1.8	12.5
18-Jan	0	0	1	5	14	7	A	41	43	29	20	41	62	42	10	5	2	7	18	5	1	1	2	3	15.6	61.8
19-Jan	0	0	0	2	0	A	0	1	0	0	1	2	1	2	2	1	1	0	0	0	0	0	0	0	0.7	1.7
20-Jan	0	0	0	0	A	0	1	1	1	16	16	11	10	15	18	13	10	13	30	33	78	93	77	67	21.8	93.3
21-Jan	60	24	22	A	6	2	13	35	82	69	12	13	13	8	9	4	3	8	18	5	1	0	1	1	17.7	82.3
22-Jan	0	0	A	0	0	0	0	0	0	1	1	2	2	2	1	1	1	1	0	0	0	7	4	2	1.2	7.3
23-Jan	27	A	29	6	6	1	2	8	5	2	11	30	33	31	30	30	10	6	16	5	5	0	0	0	12.7	33.1
24-Jan	A	0	0	0	0	0	0	0	0	0	1	2	2	3	2	2	2	5	34	15	1	1	0	A	3.3	33.7
25-Jan	0	1	0	2	0	1	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0.5	1.7
26-Jan	0	0	0	1	0	0	1	4	7	10	7	8	11	5	10	31	34	31	25	1	0	A	0	0	8.1	34.2
27-Jan	0	0	1	1	1	1	1	2	2	1	2	3	3	2	2	2	1	2	1	1	A	0	0	1	1.3	3.1
28-Jan	1	1	1	1	1	1	1	2	2	3	6	5	3	3	3	2	1	1	1	1	A	0	0	0	1.6	5.6
29-Jan	1	1	2	0	0	1	2	5	22	38	53	38	24	14	12	23	11	12	A	0	0	0	0	0	11.3	53.0
30-Jan	2	2	2	1	1	1	2	2	3	2	2	2	2	2	3	3	4	A	1	2	2	1	1	1	1.9	3.7
31-Jan	1	0	0	0	1	1	1	1	2	1	11	4	5	8	4	6	A	4	16	33	62	102	55	17	14.6	101.9

15.6	10.3	9.5	8.6	7.7	5.6	6.7	11.6	18.4	19.9	18.6	15.9	15.3	15.2	13.3	11.8	12.1	16.4	24.3	25.0	26.1	24.0	24.6	19.4	Diurnal Average
155.6	104.3	92.4	113.2	92.4	39.3	49.0	69.9	121.1	177.0	113.1	72.0	61.8	77.6	57.9	53.2	62.5	68.1	103.1	140.9	130.9	187.0	290.2	252.4	Diurnal Maximum

C - Calibration                      M - Maintenance                      A - Automated Daily Zero Span

**Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**Henry Pirker - January 2015**



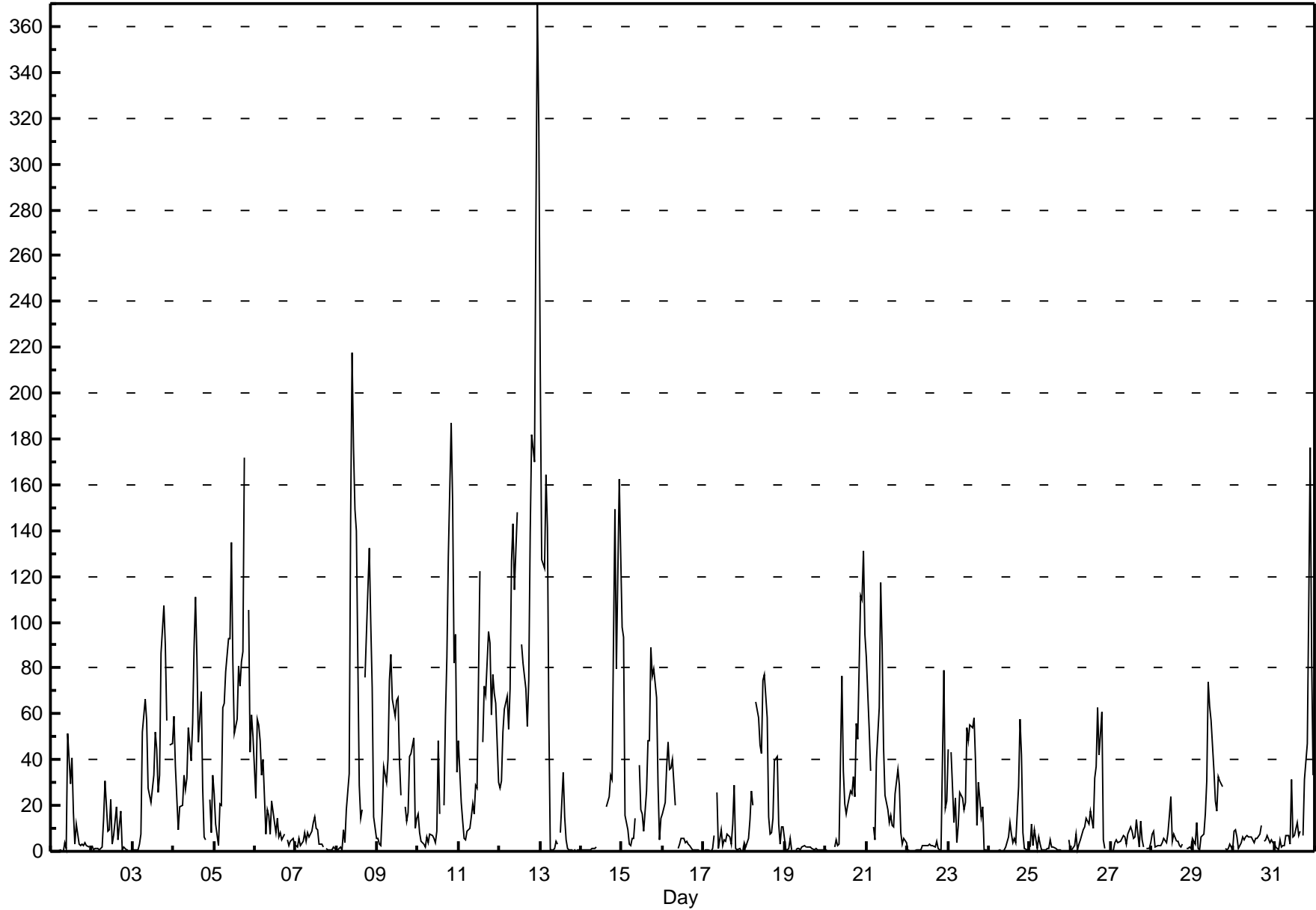
## Hourly Maximums

**Nitrogen Oxide (NO) - ppb**  
**Henry Pirker - January 2015**

Maximum Value: 369.9 ppb on Jan 12 23:00		Maximum Daily Average: 123.7 ppb on Jan 12		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 1 04:00		Minimum Daily Average: 1.3 ppb on Jan 19		Hours of Data: 706																						
Maximum Diurnal Average: 42.9 ppb at hour 19		Minimum Diurnal Average: 13.4 ppb at hour 6		Hours of Missing Data: 38																						
Monthly Average: 27.10 ppb		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 2.2 Median = 8.3 Q <sub>3</sub> = 35.7 P <sub>90</sub> = 78.4 P <sub>99</sub> = 178.6		Hours of Calibration: 36																						
				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-Jan	A	0	0	0	0	1	0	0	4	1	51	30	41	17	3	12	3	2	3	3	4	3	2	A		
2-Jan	2	1	1	1	1	1	2	13	31	9	9	23	3	7	19	5	11	18	1	2	1	1	A	1		
3-Jan	0	0	1	0	3	8	52	67	57	28	24	21	33	52	44	26	33	87	107	90	57	A	46	47		
4-Jan	59	37	23	9	20	20	33	27	32	54	39	56	89	111	84	48	70	28	6	5	A	23	8	34		
5-Jan	25	12	2	21	20	63	65	78	93	93	135	83	51	57	81	72	83	87	172	A	106	43	59	50		
6-Jan	23	58	55	48	34	40	8	18	15	7	22	12	8	14	6	8	5	8	A	5	3	4	6	3		
7-Jan	3	2	5	3	4	8	5	8	6	9	13	15	10	9	3	3	2	A	1	1	1	1	2	1		
8-Jan	1	1	2	1	9	3	18	34	145	218	176	149	140	29	15	18	A	76	114	132	100	71	15	6		
9-Jan	5	3	2	17	37	30	40	74	86	66	59	66	67	39	25	A	19	13	17	41	43	49	10	14		
10-Jan	17	8	4	3	2	6	4	7	7	6	4	9	48	16	A	20	59	84	128	187	152	82	95	34		
11-Jan	48	22	13	5	5	9	10	15	21	16	29	28	122	A	48	72	68	96	91	60	77	69	65	30		
12-Jan	28	30	52	62	68	54	71	126	143	114	148	M	M	90	82	71	55	74	139	182	170	277	370	316		
13-Jan	210	127	124	164	141	56	1	1	1	4	3	A	8	35	15	5	1	1	1	0	0	0	0	0		
14-Jan	1	1	1	0	0	1	1	1	1	2	A	C	C	C	C	20	24	33	32	93	149	79	162	130		
15-Jan	98	94	16	9	3	3	6	6	14	A	38	18	16	9	26	48	48	89	77	80	67	29	5	15		
16-Jan	16	22	37	48	36	37	40	20	A	1	3	6	5	4	5	3	2	1	1	1	1	1	0	0		
17-Jan	0	1	0	1	0	1	7	A	26	1	9	3	5	5	7	6	3	12	29	2	1	1	0	0		
18-Jan	3	2	6	14	26	20	A	65	58	47	42	74	77	58	15	8	15	39	41	12	3	10	10			
19-Jan	1	0	1	5	0	A	0	1	1	1	2	2	2	2	2	2	1	1	1	0	1	0	1	0		
20-Jan	0	0	0	0	A	2	5	2	3	76	35	21	16	20	27	25	32	24	56	49	111	110	131	95		
21-Jan	85	53	35	A	11	5	40	63	117	90	45	24	18	13	15	11	11	25	36	29	8	3	5	4		
22-Jan	0	0	A	0	0	0	1	1	1	2	2	3	2	3	2	3	2	4	1	1	0	79	19	22		
23-Jan	45	A	43	12	23	3	11	26	23	18	21	54	48	55	54	58	40	11	30	15	19	1	0	1		
24-Jan	A	0	0	0	0	0	0	0	0	1	2	6	13	8	4	6	4	28	58	42	8	1	1	A		
25-Jan	2	12	2	9	1	6	3	0	0	1	1	1	5	2	2	1	0	1	0	0	0	0	A	5		
26-Jan	0	0	3	8	0	3	5	10	10	15	13	12	18	10	32	37	62	42	61	5	1	A	0	0		
27-Jan	0	1	4	5	4	4	6	7	6	3	8	11	9	6	6	14	2	13	5	2	A	1	1	3		
28-Jan	7	9	2	2	2	3	4	6	4	8	15	24	5	7	4	4	3	2	3	A	1	1	2	1		
29-Jan	6	3	12	1	1	6	7	16	30	74	63	57	35	22	17	33	31	29	A	2	0	2	3	0		
30-Jan	9	10	6	1	4	6	5	6	7	6	6	5	4	5	6	8	11	A	4	5	7	4	5	4		
31-Jan	4	2	1	5	2	3	2	7	7	3	32	7	7	12	7	9	A	7	31	47	108	176	85	33		
		24.1	17.0	15.2	15.3	15.3	13.4	15.1	23.6	31.7	32.4	35.0	29.3	31.3	24.8	22.6	21.8	24.0	31.4	42.9	38.6	41.6	38.4	38.2	29.6	
		210.5	127.1	123.7	164.2	141.2	62.8	70.8	126.5	144.7	217.6	175.9	149.5	139.6	111.0	84.0	72.4	82.6	96.3	172.0	186.9	170.0	276.7	369.9	316.2	
C - Calibration		M - Maintenance						A - Automated Daily Zero Span																		

### Hourly Maximums

Nitrogen Oxide (NO) - ppb  
Henry Pirker - January 2015







Peace Airshed Zone Association

# Hourly Averages

Oxides of Nitrogen (NO<sub>x</sub>) - ppb

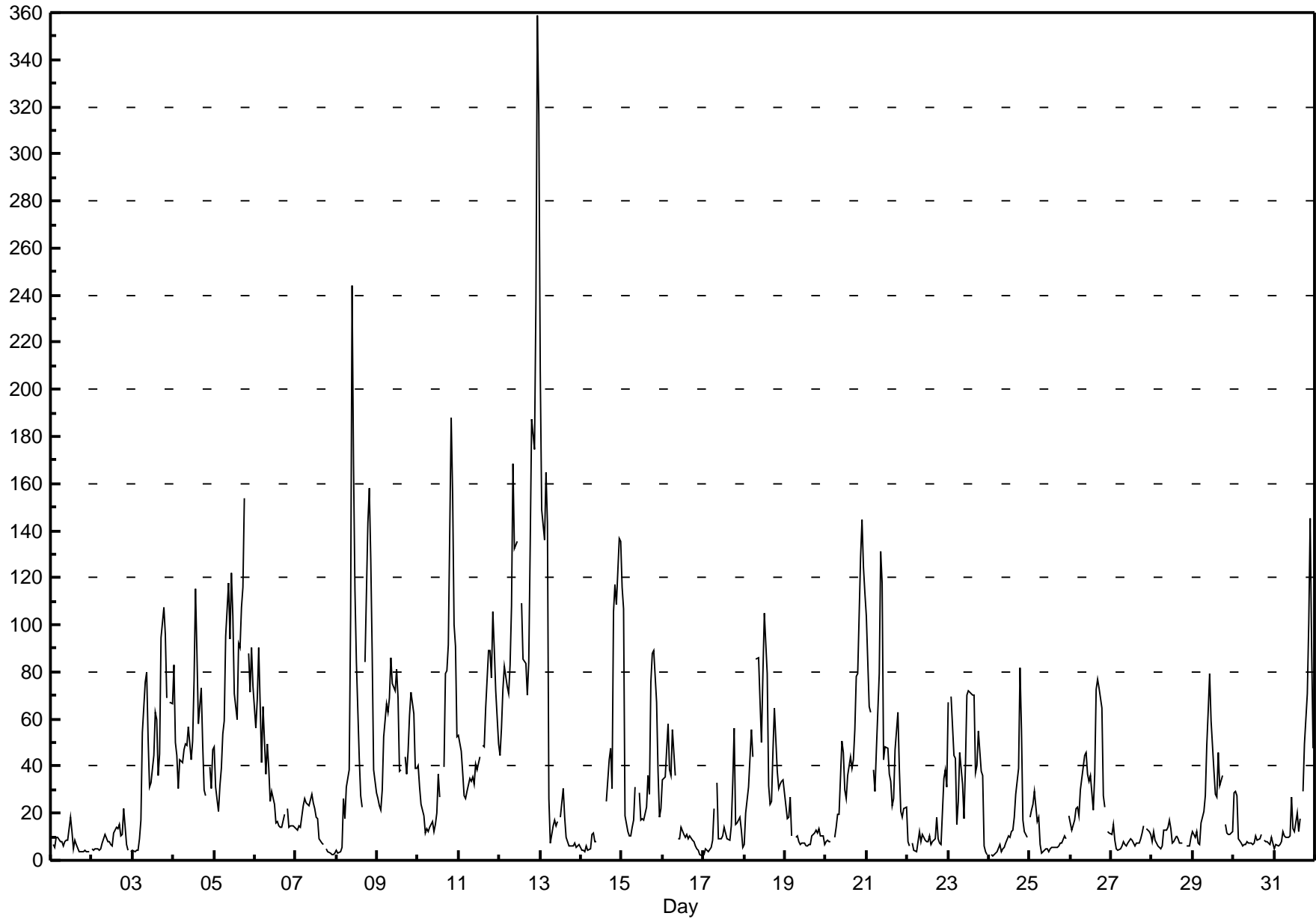
Henry Pirker - January 2015

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 358.7 ppb on Jan 12 23:00	Maximum Daily Average: 130.4 ppb on Jan 12		Hours of Data:	706
Minimum Value: 2 ppb on Jan 17 00:00	Minimum Daily Average: 7.1 ppb on Jan 1		Hours of Missing Data:	38
Maximum Diurnal Average: 52.2 ppb at hour 19	Minimum Diurnal Average: 22.9 ppb at hour 6		Hours of Calibration:	36
Monthly Average: 36.15 ppb	Percentiles: P <sub>1</sub> = 2.7 P <sub>10</sub> = 5.5 Q <sub>1</sub> = 8.5 Median = 20.7 Q <sub>3</sub> = 48.2 P <sub>90</sub> = 87.6 P <sub>99</sub> = 187.0		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-Jan	A	7	5	10	10	8	8	6	8	9	9	18	12	5	9	7	4	3	4	3	4	4	4	A	7.1	18.0
2-Jan	5	4	5	5	4	5	7	9	11	8	8	6	6	12	14	13	15	10	11	22	7	4	A	3	8.5	22.1
3-Jan	4	3	4	4	9	17	54	76	80	52	31	33	45	63	60	36	45	95	108	96	69	A	67	66	48.5	107.6
4-Jan	83	50	44	31	43	42	47	50	49	57	42	51	76	115	88	58	73	50	30	27	A	40	30	47	53.2	115.3
5-Jan	48	31	21	32	39	54	59	95	118	94	122	104	71	60	92	90	107	116	154	A	88	71	90	74	79.5	153.8
6-Jan	56	68	90	66	41	65	37	49	39	25	29	24	16	17	14	14	14	19	A	22	14	15	15	14	33.3	90.2
7-Jan	14	13	15	14	23	27	25	24	23	28	24	22	18	18	9	7	7	A	5	3	3	2	3	3	14.3	28.4
8-Jan	4	3	4	6	26	18	31	38	105	244	168	115	84	43	27	23	A	84	144	158	128	88	38	29	69.9	244.0
9-Jan	26	23	21	30	53	67	63	69	86	75	72	81	69	38	39	A	44	36	46	62	71	62	39	39	52.6	85.8
10-Jan	40	31	24	19	12	13	12	14	17	12	15	20	37	27	A	40	79	81	91	188	156	100	91	53	51.0	188.1
11-Jan	53	46	37	28	26	29	35	33	36	33	41	39	44	A	49	48	64	89	89	78	105	90	72	49	52.7	105.4
12-Jan	45	56	73	82	74	71	83	108	168	132	136	M	M	109	86	84	70	84	133	187	174	238	359	316	130.4	358.7
13-Jan	208	149	136	165	144	26	8	15	17	15	16	A	18	30	18	10	8	6	6	6	8	5	6	7	44.7	207.9
14-Jan	4	4	4	6	4	5	11	12	8	8	A	C	C	C	C	25	43	48	30	105	117	109	137	136	42.9	137.0
15-Jan	116	107	19	12	11	10	14	17	31	A	29	17	18	17	23	36	28	76	88	89	67	38	18	22	39.2	116.1
16-Jan	34	36	47	58	39	36	56	36	A	9	9	14	11	10	11	9	10	8	8	6	5	5	2	2	20.0	57.8
17-Jan	2	5	5	4	5	9	22	A	33	9	9	10	14	11	9	9	14	33	56	15	16	18	13	6	14.3	56.2
18-Jan	7	20	31	43	56	44	A	85	86	68	50	79	105	79	32	24	25	47	65	38	30	33	33	34	48.4	104.7
19-Jan	23	18	18	27	10	A	9	10	8	7	7	8	6	6	7	7	10	11	13	11	13	10	10	7	11.2	26.9
20-Jan	8	9	8	8	A	10	14	19	19	51	46	30	26	36	44	39	43	55	78	79	128	145	124	113	49.2	144.9
21-Jan	104	65	63	A	38	29	47	80	131	118	43	48	48	36	33	23	26	47	63	39	21	18	22	22	50.7	131.4
22-Jan	8	6	A	7	4	4	8	12	8	11	8	8	8	10	7	8	9	18	9	7	7	35	38	31	11.8	38.3
23-Jan	67	A	69	44	43	15	25	45	32	18	41	70	72	71	70	70	37	40	55	38	36	6	4	3	42.3	71.9
24-Jan	A	3	2	2	3	4	7	4	5	6	7	10	10	12	13	18	28	39	82	56	17	12	10	A	15.9	81.7
25-Jan	18	21	24	29	16	18	7	3	4	5	5	4	5	5	6	6	5	6	7	7	10	9	A	19	10.4	29.5
26-Jan	16	13	17	22	23	19	30	40	44	46	36	34	36	21	37	72	77	73	64	28	23	A	12	12	34.5	76.6
27-Jan	11	15	9	5	4	5	6	8	7	6	7	9	8	7	6	7	7	9	12	15	A	14	12	11	8.8	15.3
28-Jan	8	12	9	6	5	5	6	13	13	14	17	14	7	8	10	9	8	7	7	A	6	6	6	10	9.0	17.2
29-Jan	12	10	12	7	7	16	21	28	49	63	79	59	38	28	27	46	31	36	A	16	11	11	11	12	27.4	79.2
30-Jan	29	29	27	9	7	6	7	7	8	8	7	7	8	10	9	9	11	A	8	8	8	7	10	7	10.7	29.5
31-Jan	5	7	6	7	8	12	10	10	10	10	27	13	13	20	12	18	A	29	49	71	101	145	91	48	31.3	145.4

36.5	28.8	28.3	26.3	26.2	22.9	25.6	33.9	41.7	41.3	38.1	33.8	32.0	31.9	29.6	28.8	32.6	43.3	52.2	51.0	49.7	46.2	47.2	41.2	Diurnal Average
207.9	149.2	136.4	165.0	143.5	71.1	82.9	107.9	168.2	244.0	168.4	114.7	104.7	115.3	91.9	90.2	107.1	115.7	153.8	188.1	174.4	238.2	358.7	316.4	Diurnal Maximum

C - Calibration                      M - Maintenance                      A - Automated Daily Zero Span



# Hourly Maximums

## Oxides of Nitrogen (NO<sub>x</sub>) - ppb

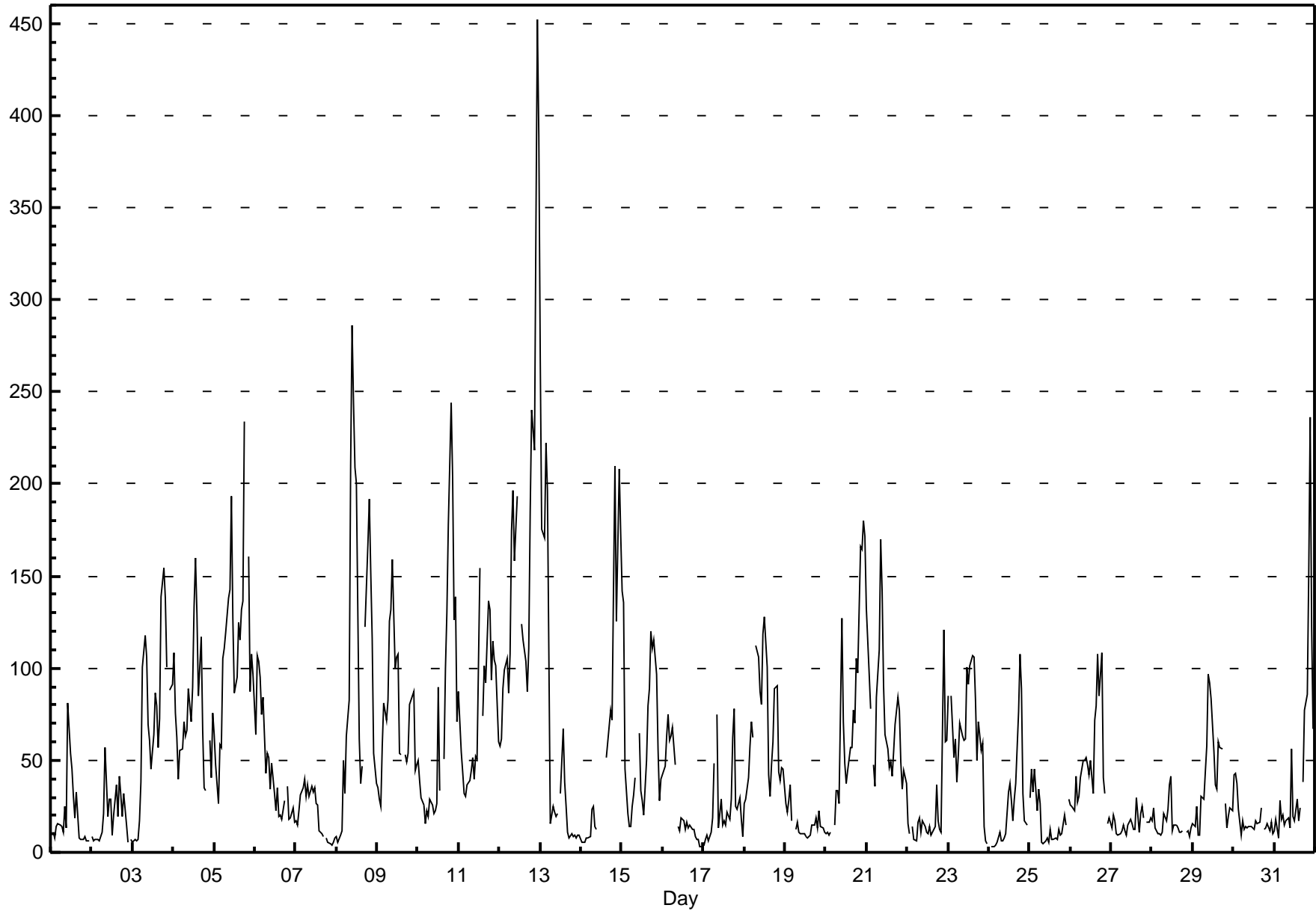
### Henry Pirker - January 2015

Maximum Value: 451.8 ppb on Jan 12 23:00		Maximum Daily Average: 168.0 ppb on Jan 12		Hours in Service: 744																						
Minimum Value: 3 ppb on Jan 24 03:00		Minimum Daily Average: 15.5 ppb on Jan 19		Hours of Data: 706																						
Maximum Diurnal Average: 75.6 ppb at hour 19		Minimum Diurnal Average: 37.4 ppb at hour 6		Hours of Missing Data: 38																						
Monthly Average: 53.05 ppb		Percentiles: P <sub>1</sub> = 3.6 P <sub>10</sub> = 8.7 Q <sub>1</sub> = 14.5 Median = 33.3 Q <sub>3</sub> = 75.1 P <sub>90</sub> = 122.4 P <sub>99</sub> = 243.5		Hours of Calibration: 36																						
				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-Jan	A	11	8	14	16	15	14	11	25	13	81	54	45	31	19	32	8	7	7	7	8	7	7	A	20.0	81.1
2-Jan	9	6	7	7	6	9	11	21	57	19	29	28	9	20	37	19	42	31	19	32	14	6	A	7	19.3	56.6
3-Jan	6	7	6	7	17	38	101	118	106	69	61	45	64	86	79	57	73	139	155	138	101	A	88	91	71.9	154.7
4-Jan	108	76	62	39	55	56	71	63	66	89	71	89	133	160	130	85	117	66	35	33	A	61	41	76	77.5	159.8
5-Jan	64	47	26	58	57	105	111	119	138	143	193	127	87	95	125	116	131	137	234	A	161	87	107	97	111.6	233.5
6-Jan	64	107	104	95	75	84	43	54	51	34	49	32	23	35	20	20	18	28	A	36	18	19	24	16	45.6	106.6
7-Jan	17	15	22	32	35	40	31	36	31	36	33	35	26	26	12	10	9	A	8	5	5	4	6	8	20.9	39.9
8-Jan	8	5	9	12	50	32	63	83	210	286	244	209	200	61	37	47	A	122	166	192	152	116	54	38	104.2	285.8
9-Jan	35	29	25	58	81	72	82	126	131	159	100	106	108	54	53	A	53	49	54	80	82	87	44	48	74.6	159.0
10-Jan	50	39	30	26	16	23	20	29	26	21	23	26	90	33	A	51	100	130	178	244	204	127	139	71	73.6	244.1
11-Jan	87	55	44	32	30	36	39	44	51	40	53	50	155	A	74	101	92	136	132	93	114	105	101	60	75.0	154.5
12-Jan	58	62	89	99	106	86	108	175	197	158	193	M	M	124	115	104	87	111	185	240	219	341	452	389	168.0	451.8
13-Jan	269	176	171	222	196	107	16	25	22	20	21	A	32	67	38	25	11	8	10	9	9	8	10	9	64.3	268.5
14-Jan	6	6	6	8	8	8	24	25	14	12	A	C	C	C	C	51	69	78	71	144	210	126	208	173	65.5	209.6
15-Jan	142	135	46	21	14	14	25	31	41	A	65	33	28	21	50	80	89	120	111	115	97	56	28	40	60.9	141.7
16-Jan	42	47	64	75	61	63	68	48	A	14	12	19	17	13	16	13	15	13	13	8	7	7	3	3	27.8	74.7
17-Jan	4	7	9	7	11	19	49	A	75	13	29	15	17	15	22	18	28	62	78	25	24	29	18	9	25.3	77.8
18-Jan	27	28	41	58	71	63	A	113	106	88	81	119	128	101	42	30	48	60	89	91	44	39	46	45	67.6	127.9
19-Jan	26	22	28	36	17	A	12	17	11	10	10	11	8	8	9	9	15	15	19	14	23	14	13	11	15.5	36.5
20-Jan	10	11	10	11	A	15	33	34	26	127	71	48	38	45	57	57	77	70	106	97	166	164	180	171	70.6	180.0
21-Jan	132	96	78	A	48	36	84	110	170	142	91	64	56	46	49	41	54	69	84	77	49	35	45	37	73.7	170.2
22-Jan	15	10	A	14	7	6	16	19	11	17	14	11	10	14	10	11	14	37	17	12	11	121	60	61	22.6	121.0
23-Jan	85	A	85	52	62	39	53	70	63	61	62	101	91	101	107	106	83	50	71	55	59	14	6	5	64.3	107.0
24-Jan	A	3	3	3	4	6	11	6	6	8	10	33	37	28	17	29	37	76	107	89	32	17	15	A	26.2	107.3
25-Jan	30	46	33	45	23	35	27	5	5	6	8	6	12	7	7	8	7	13	10	10	20	15	A	29	17.7	45.6
26-Jan	26	25	23	42	27	30	40	50	50	51	47	42	50	32	72	79	107	85	108	41	32	A	15	19	47.5	108.5
27-Jan	13	21	17	10	9	10	12	15	12	9	15	18	16	13	13	30	11	21	25	19	A	16	16	19	15.6	29.7
28-Jan	17	24	13	10	10	9	11	21	17	24	37	41	11	15	13	11	11	11	11	A	11	12	9	13	15.9	41.0
29-Jan	16	14	25	10	9	30	29	43	58	97	92	84	54	37	34	60	57	56	A	27	14	19	24	23	39.6	97.0
30-Jan	42	43	38	23	10	17	12	14	13	14	14	13	13	17	16	16	24	A	13	13	16	12	16	10	18.2	43.2
31-Jan	11	18	8	28	18	20	14	17	18	13	56	20	17	29	17	25	A	38	77	86	152	236	123	67	48.2	236.4
		48.9	39.6	37.6	38.4	38.3	37.4	41.0	51.4	60.2	59.7	62.1	52.8	54.3	46.0	44.5	44.8	51.2	63.4	75.6	70.0	70.8	65.4	65.4	56.7	Diurnal Average
		268.5	175.7	170.6	222.3	196.5	106.5	110.9	175.0	209.9	285.8	243.7	208.9	200.1	159.8	129.7	115.7	131.5	138.9	233.5	244.1	218.6	340.5	451.8	389.2	Diurnal Maximum
C - Calibration		M - Maintenance						A - Automated Daily Zero Span																		

**Hourly Maximums**

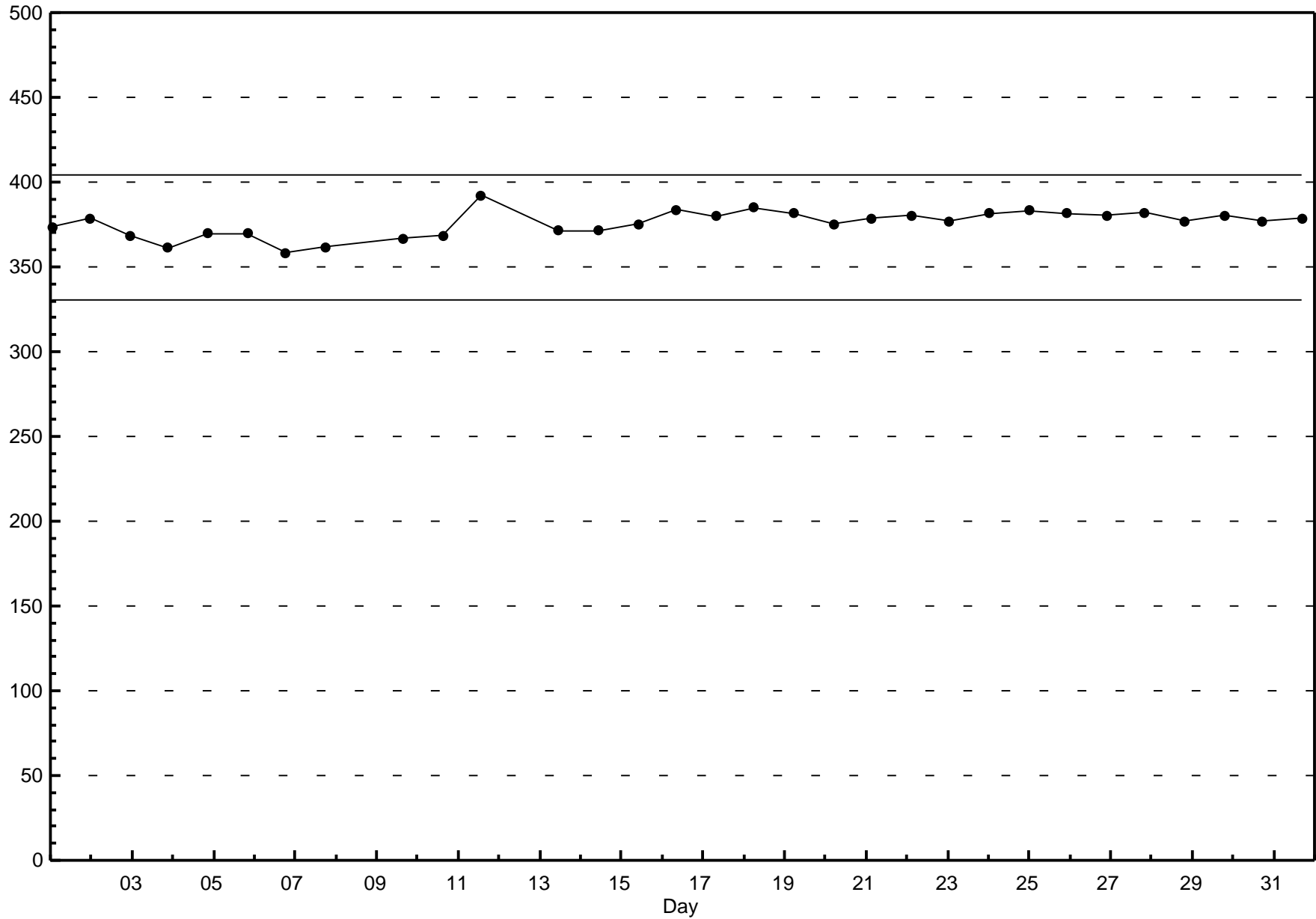
**Oxides of Nitrogen (NO<sub>x</sub>) - ppb**

**Henry Pirker - January 2015**



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Henry Pirker - January 2015



## Hourly Averages

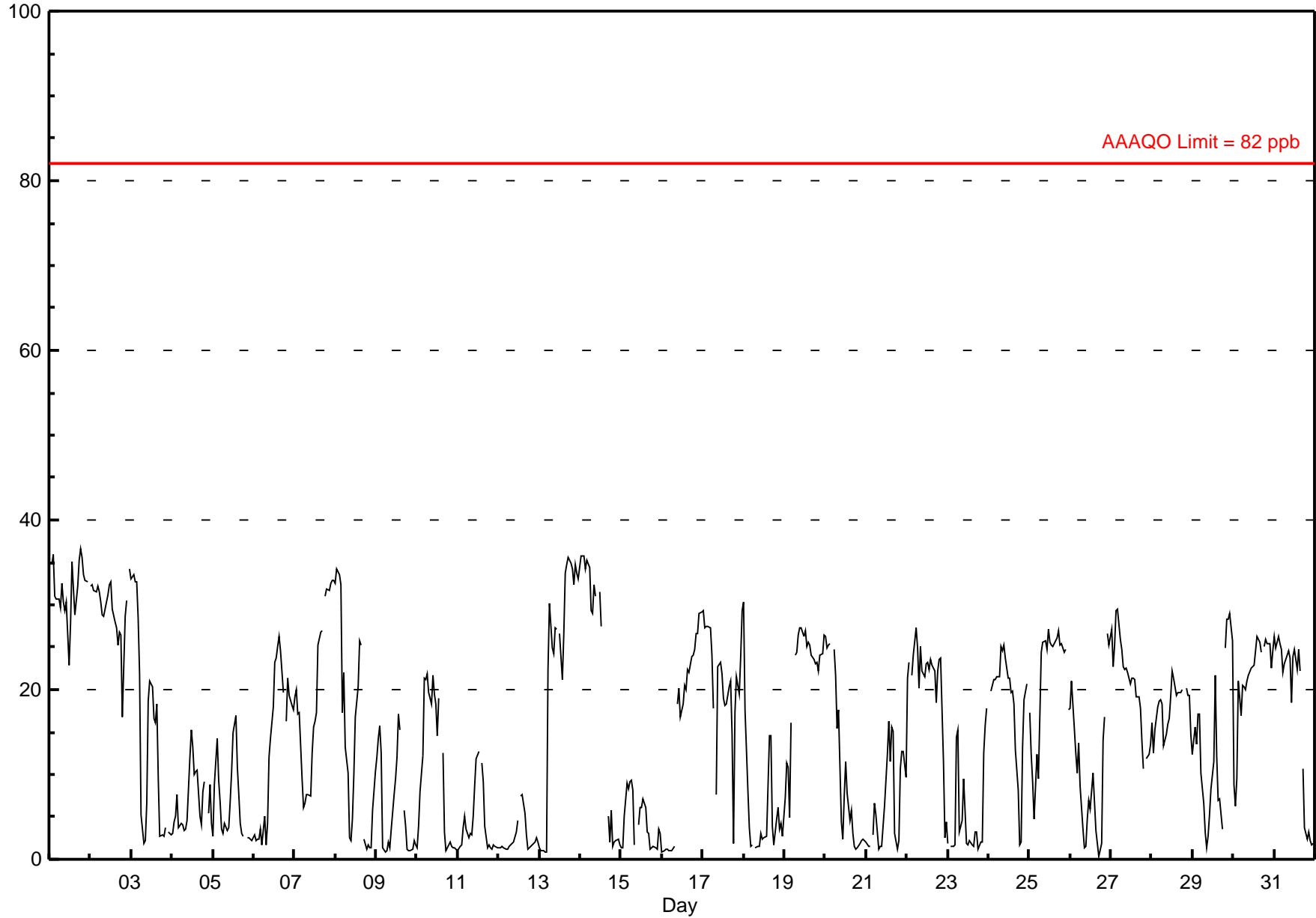
Ozone (O<sub>3</sub>) - ppb

Henry Pirker - January 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 36.7 ppb on Jan 1 19:00	Maximum Daily Average: 31.8 ppb on Jan 1
Minimum Value: 0 ppb on Jan 26 18:00	Hours of Data: 708
Maximum Diurnal Average: 18.0 ppb at hour 14	Hours of Missing Data: 36
Monthly Average: 14.69 ppb	Hours of Calibration: 36
Minimum Daily Average: 2.6 ppb on Jan 12	Percent Operational Time: 100.0
Minimum Diurnal Average: 11.0 ppb at hour 18	
Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 1.5 Q <sub>1</sub> = 3.5 Median = 14.7 Q <sub>3</sub> = 24.0 P <sub>90</sub> = 29.3 P <sub>99</sub> = 35.6	

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-Jan	A	35	36	31	31	31	30	33	30	29	30	23	28	35	32	29	32	35	37	36	34	33	33	A	31.8	36.7																						
2-Jan	32	32	32	31	32	32	30	29	29	30	31	32	33	29	28	27	25	27	27	17	29	31	A	34	29.6	34.3																						
3-Jan	33	34	33	33	28	22	5	2	2	7	19	21	20	17	16	18	9	3	3	3	4	A	3	3	14.7	33.6																						
4-Jan	3	4	5	8	4	4	4	3	4	5	12	15	13	10	10	11	5	4	8	9	A	5	9	4	7.0	15.3																						
5-Jan	3	9	14	9	7	4	3	4	3	4	7	10	15	17	11	8	4	3	3	A	3	3	2	2	6.4	17.0																						
6-Jan	3	2	2	2	4	2	5	2	4	12	14	18	23	24	25	26	25	20	A	16	21	19	18	18	13.3	26.2																						
7-Jan	19	20	17	17	10	6	7	8	8	7	12	16	16	17	25	27	27	A	31	32	32	33	33	33	19.6	32.9																						
8-Jan	33	34	33	32	17	22	13	10	2	2	5	10	17	20	26	25	A	2	1	2	1	1	6	10	14.2	34.2																						
9-Jan	12	14	16	12	1	1	1	2	1	4	8	9	12	17	15	A	6	4	1	1	1	1	2	2	6.3	17.0																						
10-Jan	1	4	8	12	21	21	22	20	18	22	20	18	15	19	A	13	3	1	1	2	2	1	1	1	10.7	21.9																						
11-Jan	1	2	2	4	5	4	3	3	3	5	9	12	13	A	11	9	4	1	2	1	1	2	1	1	4.2	12.7																						
12-Jan	1	1	1	1	1	1	1	2	2	2	3	5	A	7	8	5	3	1	1	2	2	2	3	2	2.6	7.7																						
13-Jan	1	1	1	1	1	22	30	25	24	27	27	A	27	21	27	34	35	36	35	34	32	35	34	33	23.6	35.6																						
14-Jan	36	36	36	34	35	34	29	29	32	31	A	32	27	C	C	C	5	2	6	2	2	2	2	2	20.7	35.7																						
15-Jan	1	1	5	9	8	9	9	8	2	A	4	6	6	7	6	3	3	1	1	2	1	1	4	3	4.4	9.3																						
16-Jan	1	1	1	1	1	1	1	1	A	18	20	17	18	21	20	22	22	24	24	25	27	27	29	29	15.3	29.2																						
17-Jan	29	27	27	27	27	24	18	A	8	23	23	22	19	18	18	20	21	15	2	17	21	20	24	29	20.9	29.3																						
18-Jan	30	18	8	4	2	2	A	1	1	2	3	2	3	9	15	15	4	2	5	6	4	4	3	6.2	30.3																							
19-Jan	7	11	11	5	16	A	24	24	27	27	26	27	25	26	25	24	24	23	23	22	24	24	26	26	21.7	27.2																						
20-Jan	26	25	25	26	A	25	22	15	18	4	2	7	12	8	5	6	3	1	1	1	2	2	2	2	10.5	26.3																						
21-Jan	2	1	2	A	3	7	5	1	1	1	4	6	12	16	12	16	15	3	1	2	11	13	13	10	6.8	16.3																						
22-Jan	21	23	A	22	24	27	25	20	25	22	22	23	23	22	24	23	22	18	22	24	24	11	2	4	20.7	27.3																						
23-Jan	2	A	1	1	2	14	15	3	5	9	6	2	2	2	2	2	3	3	1	2	2	12	16	18	5.5	17.9																						
24-Jan	A	20	21	21	21	22	22	25	25	25	24	21	21	20	20	18	13	8	2	2	13	19	21	A	18.3	25.3																						
25-Jan	17	12	9	5	12	10	17	24	26	26	25	27	26	25	25	26	26	27	25	25	24	25	A	18	21.0	27.1																						
26-Jan	18	21	15	12	10	14	9	4	1	2	5	7	6	10	7	3	2	0	2	14	17	A	27	25	10.0	26.5																						
27-Jan	27	23	25	29	29	26	25	23	22	23	22	21	21	21	21	19	19	18	14	11	A	12	12	14	20.7	29.4																						
28-Jan	16	13	15	18	19	19	18	13	15	16	17	19	22	21	19	20	20	20	20	A	20	19	19	15	18.0	22.1																						
29-Jan	12	16	14	17	17	10	7	3	1	3	5	8	12	22	12	7	7	3	A	25	28	28	29	26	13.6	29.0																						
30-Jan	9	6	9	21	17	21	20	20	21	22	23	23	23	25	26	26	24	A	25	26	25	25	23	25	21.0	26.3																						
31-Jan	26	25	26	26	25	22	23	24	25	24	18	24	25	22	25	22	A	11	4	2	3	2	2	2	17.7	26.2																						
																								14.6	15.7	15.1	15.8	14.3	15.2	14.8	12.8	12.8	14.5	14.9	16.1	17.9	18.0	17.6	17.4	14.6	11.0	11.2	12.5	14.2	14.2	13.7	13.6	Diurnal Average
																								35.7	35.7	36.0	34.2	35.3	34.5	30.4	32.6	32.3	31.0	31.1	32.4	32.7	35.1	31.8	33.7	34.8	35.6	36.7	35.6	33.6	34.7	33.7	34.3	Diurnal Maximum

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



## Hourly Maximums

Ozone (O<sub>3</sub>) - ppb

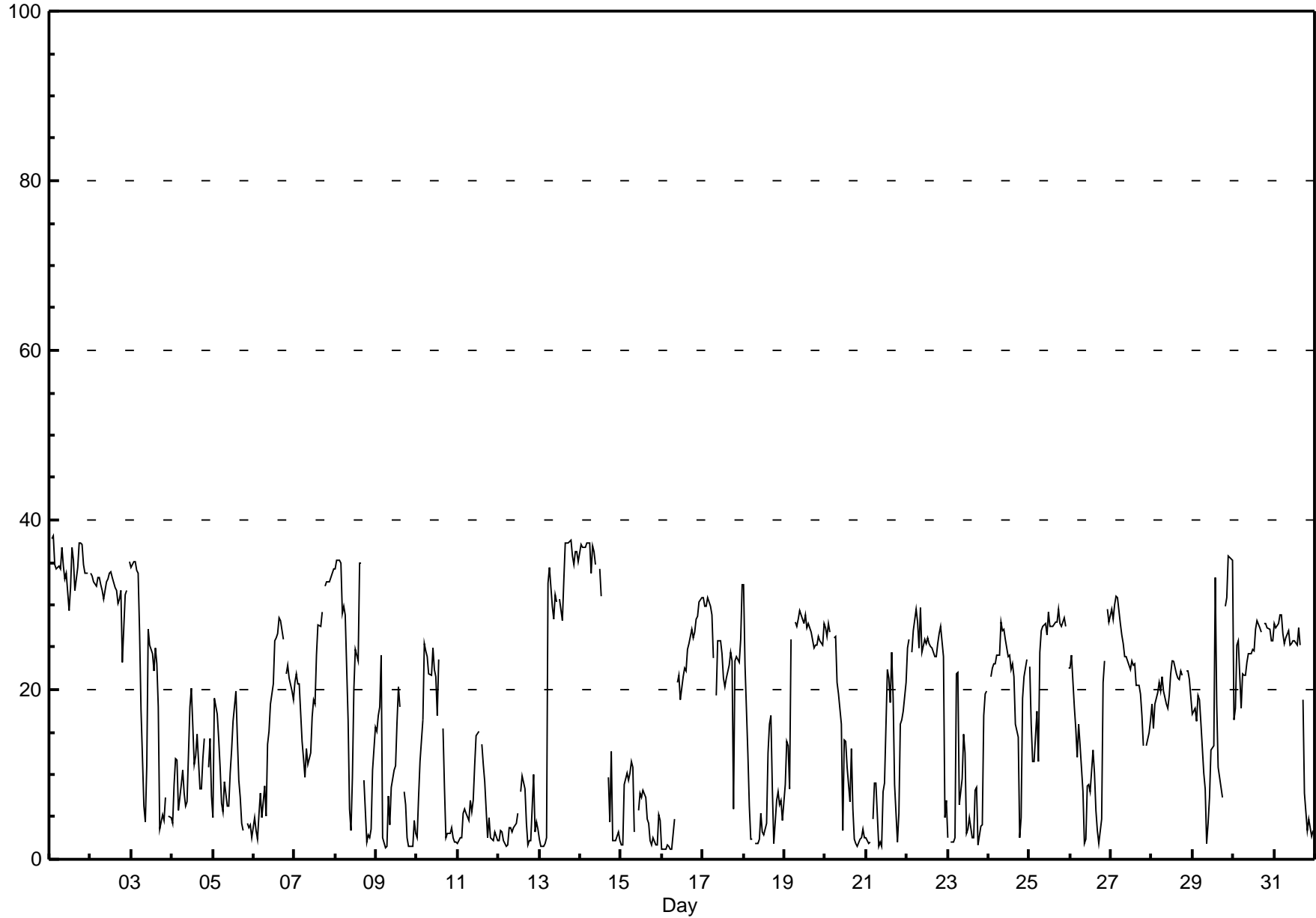
Henry Pirker - January 2015

Maximum Value: 38.2 ppb on Jan 1 03:00		Maximum Daily Average: 34.8 ppb on Jan 1		Hours in Service: 744																						
Minimum Value: 1 ppb on Jan 16 07:00		Minimum Daily Average: 4.2 ppb on Jan 12		Hours of Data: 708																						
Maximum Diurnal Average: 21.3 ppb at hour 14		Minimum Diurnal Average: 13.4 ppb at hour 19		Hours of Missing Data: 36																						
Monthly Average: 17.60 ppb		Percentiles: P <sub>1</sub> = 1.4 P <sub>10</sub> = 2.5 Q <sub>1</sub> = 6.4 Median = 19.0 Q <sub>3</sub> = 26.8 P <sub>90</sub> = 32.7 P <sub>99</sub> = 37.3		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-Jan	A	38	38	35	34	35	34	37	35	33	34	29	32	37	35	32	34	37	37	37	35	34	34	A	34.8	38.2
2-Jan	34	33	33	32	33	33	32	32	31	33	33	34	34	33	32	32	30	31	32	23	31	32	A	35	32.1	35.0
3-Jan	34	35	35	34	34	27	18	6	4	11	27	25	24	22	25	23	18	4	5	5	7	A	5	5	18.8	35.0
4-Jan	4	9	12	12	6	9	10	8	6	7	18	20	16	11	12	15	8	8	12	14	A	11	14	7	10.9	20.2
5-Jan	5	19	17	14	11	7	6	9	6	6	10	13	16	20	14	9	7	4	3	A	4	4	4	3	9.2	19.8
6-Jan	5	3	2	5	8	5	9	5	14	15	18	21	26	26	27	29	28	26	A	22	23	21	20	19	16.4	28.5
7-Jan	21	22	21	21	14	12	10	13	11	13	17	19	18	24	28	27	29	A	32	33	33	33	34	34	22.5	34.3
8-Jan	34	35	35	35	29	30	29	16	6	3	10	20	25	23	35	35	A	9	2	3	2	3	11	16	19.4	35.3
9-Jan	15	17	18	24	2	1	2	8	4	8	11	11	16	20	18	A	8	7	3	2	2	2	4	3	8.9	24.0
10-Jan	2	7	11	16	26	25	24	22	22	25	22	21	17	23	A	15	8	3	3	3	4	2	2	2	13.4	25.5
11-Jan	2	2	2	5	6	6	5	7	6	7	11	15	15	A	14	11	9	3	5	3	2	2	3	2	6.2	15.0
12-Jan	2	3	3	2	2	2	4	4	3	4	4	5	A	8	10	8	4	2	2	2	10	3	4	4	4.2	10.0
13-Jan	2	1	1	2	2	33	34	30	28	31	30	A	31	28	33	37	37	37	38	36	35	36	36	35	26.8	37.6
14-Jan	37	37	37	37	37	37	34	37	36	35	A	34	31	C	C	C	10	4	13	2	2	2	3	2	23.4	37.2
15-Jan	2	2	9	10	9	10	12	11	3	A	6	8	7	8	7	5	4	2	2	3	2	2	5	5	5.8	11.6
16-Jan	1	1	1	2	2	1	1	5	A	21	22	19	22	23	22	25	25	27	26	27	28	29	30	31	17.0	30.8
17-Jan	31	30	30	31	30	29	24	A	19	26	26	24	21	20	21	23	24	23	6	23	24	23	26	32	24.6	32.4
18-Jan	32	23	12	6	2	2	A	2	2	2	5	3	4	12	16	17	8	2	7	8	6	7	5	5	8.2	32.4
19-Jan	9	14	13	8	26	A	28	27	28	29	28	29	27	28	27	27	25	25	25	26	26	26	25	28	24.3	29.4
20-Jan	27	26	28	27	A	26	26	21	19	16	3	14	14	11	7	13	6	2	2	1	2	2	3	3	13.1	27.7
21-Jan	3	2	2	A	5	9	9	2	2	2	8	9	22	21	18	24	19	9	2	5	16	16	17	21	10.6	24.4
22-Jan	25	26	A	24	27	29	28	25	30	24	26	25	26	25	25	25	24	24	25	27	27	24	5	7	24.1	29.6
23-Jan	2	A	2	2	2	22	22	6	9	15	12	3	3	5	2	2	8	8	2	4	4	17	19	20	8.5	22.0
24-Jan	A	21	22	23	23	24	24	28	27	27	26	24	24	22	23	21	16	14	2	5	19	21	23	A	21.0	27.9
25-Jan	23	16	11	11	17	11	24	27	28	28	26	29	28	28	28	28	30	28	28	28	28	28	A	22	24.1	29.5
26-Jan	22	24	18	15	12	16	13	8	2	2	9	9	8	13	10	6	3	2	5	21	23	A	29	28	13.0	29.4
27-Jan	29	28	30	31	31	28	26	25	24	24	23	22	23	23	23	20	20	19	17	13	A	13	15	16	23.0	31.1
28-Jan	18	15	18	20	21	20	21	20	18	18	19	22	23	23	22	21	21	22	22	A	22	22	21	19	20.5	23.5
29-Jan	17	18	16	19	19	16	10	8	2	4	7	13	13	33	18	11	10	7	A	30	31	36	36	35	17.8	35.8
30-Jan	16	18	25	26	18	22	22	22	23	24	24	25	25	27	28	27	27	A	28	28	27	27	26	26	24.4	28.2
31-Jan	28	27	28	29	29	27	25	26	27	25	25	26	26	25	27	25	A	19	8	3	5	4	3	3	20.5	28.8
16.7		18.5	17.8	18.7	17.2	18.4	18.9	16.5	15.9	17.3	18.1	19.0	20.6	21.3	20.9	20.5	17.7	14.4	13.4	15.0	16.7	16.6	16.1	16.1	Diurnal Average	
37.1		37.7	38.2	36.7	37.2	37.2	34.4	37.0	36.2	34.7	33.7	34.2	33.9	36.8	35.2	37.3	37.3	37.3	37.6	37.2	34.8	36.2	36.2	35.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																								



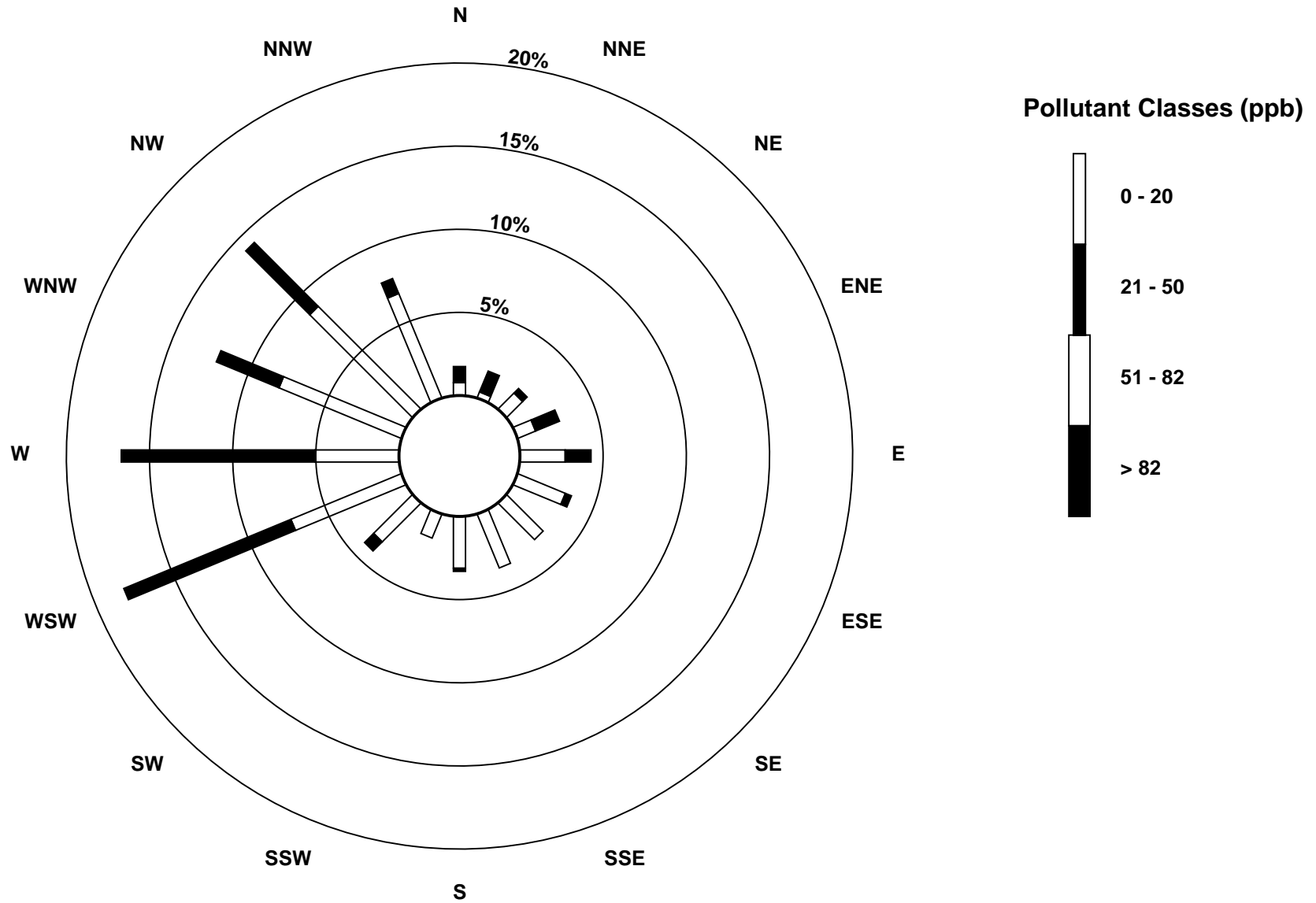
# Hourly Maximums

Ozone (O<sub>3</sub>) - ppb  
Henry Pirker - January 2015



**Pollutant Rose**

**Ozone (O<sub>3</sub>) - ppb**  
**Henry Pirker - January 2015**



# Eight Hour Running Averages

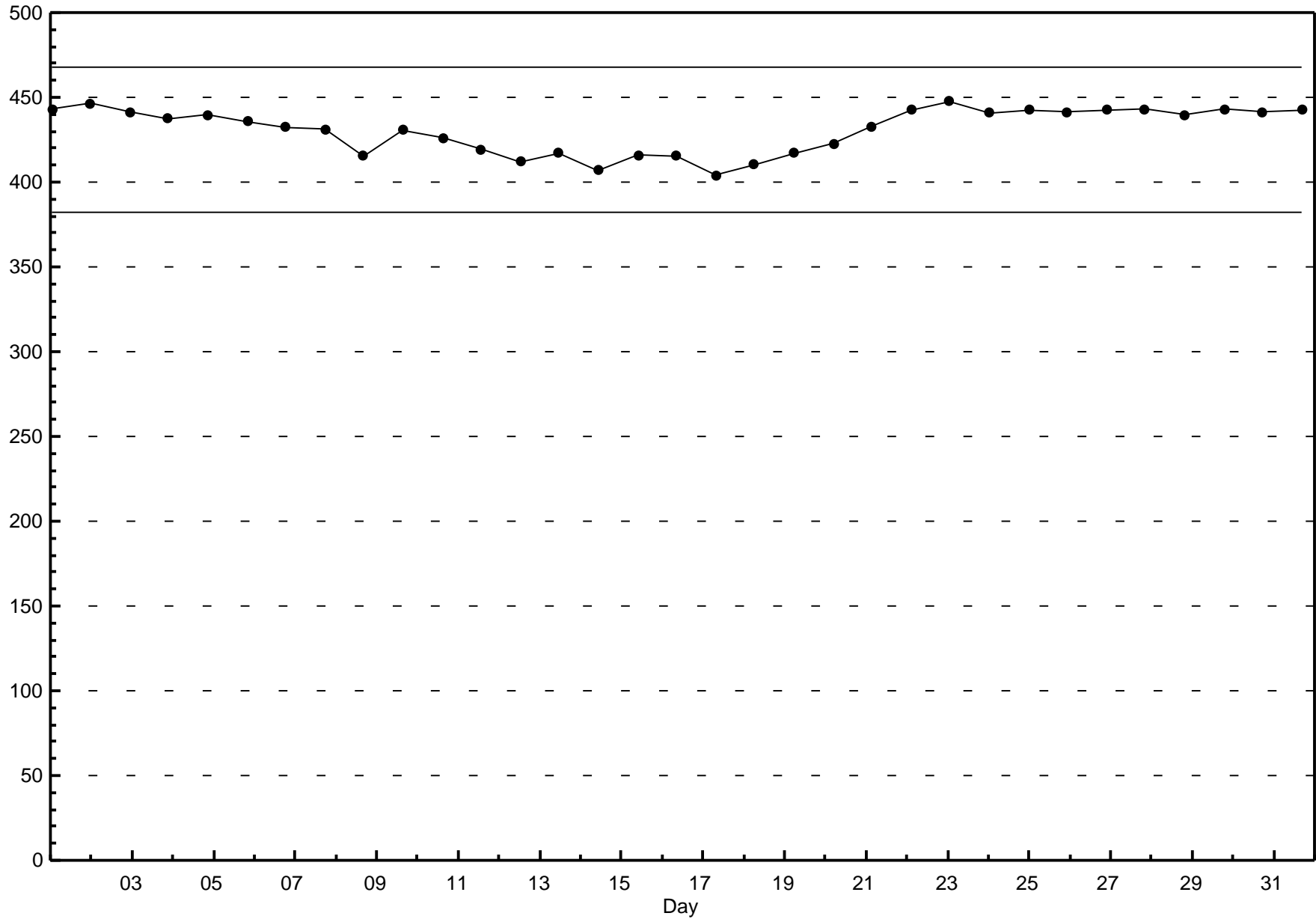
Ozone (O<sub>3</sub>) - ppb

Henry Pirker - January 2015

<b>Maximum Value: 35.6 ppb on Jan 1 01:00</b>																								Hours in Service: 744 Hours of Data: 737	
<b>Minimum Value: 1.1 ppb on Jan 16 08:00</b>																								Hours of Missing Data: 7 Hours of Calibration: 7	
Percentiles: P <sub>1</sub> = 1.4 P <sub>10</sub> = 2.8 Q <sub>1</sub> = 6.1 Median = 13.7 Q <sub>3</sub> = 23.0 P <sub>90</sub> = 29.4 P <sub>99</sub> = 34.2																								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-Jan	36	35	35	35	34	33	33	32	32	31	31	30	29	30	30	30	31	31	33	34	33	33	34	35.6	
2-Jan	34	34	33	32	32	32	32	31	31	31	31	31	31	30	30	30	30	29	29	27	26	26	26	34.1	
3-Jan	28	29	30	32	32	31	28	24	20	16	15	13	12	12	13	15	16	15	13	11	9	8	6	32.2	
4-Jan	3	3	4	4	4	4	4	4	5	5	5	6	8	8	9	10	10	10	10	9	8	8	7	10.2	
5-Jan	6	7	8	8	8	7	7	7	7	6	5	5	6	8	9	9	9	9	9	9	7	5	4	9.4	
6-Jan	3	3	2	2	3	2	3	3	3	4	6	8	10	13	15	18	21	22	23	23	22	22	21	22.9	
7-Jan	19	19	19	19	17	16	14	13	11	10	9	9	10	11	14	16	18	20	23	25	27	29	31	31.4	
8-Jan	32	32	33	33	31	30	27	24	21	17	13	10	10	10	12	13	15	15	15	13	11	8	6	32.8	
9-Jan	5	6	8	9	9	9	9	7	6	5	4	3	5	7	9	9	10	10	9	8	6	4	2	10.1	
10-Jan	2	2	3	4	6	9	11	14	16	18	20	20	19	19	19	18	16	13	10	8	6	3	3	20.3	
11-Jan	1	1	1	2	2	2	3	3	3	3	4	5	6	7	8	9	9	8	7	6	4	4	3	9.0	
12-Jan	1	1	1	1	1	1	1	1	1	2	2	2	2	3	4	5	5	5	4	4	4	3	2	4.7	
13-Jan	2	2	2	2	1	4	7	10	13	16	20	22	26	26	25	27	28	29	30	31	32	33	34	34.3	
14-Jan	34	34	34	34	35	35	34	34	33	33	32	32	31	30	N	N	N	N	N	N	N	3	3	3	34.8
15-Jan	2	2	2	3	4	5	6	6	7	7	7	6	6	6	5	5	5	5	4	4	3	2	2	7.3	
16-Jan	2	2	2	2	2	2	1	1	1	4	6	9	11	14	17	19	20	21	21	22	23	24	25	25.8	
17-Jan	27	27	28	28	28	28	26	26	23	22	21	21	19	19	19	19	21	20	17	16	17	17	18	19	27.9
18-Jan	20	20	21	19	17	15	13	9	5	3	2	2	2	3	5	6	7	6	7	7	7	7	5	21.0	
19-Jan	4	5	6	6	8	8	11	14	17	19	21	25	26	26	26	26	25	25	25	24	24	24	24	26.2	
20-Jan	24	24	25	25	25	25	25	23	22	19	16	13	13	11	9	8	6	6	5	5	3	3	2	25.3	
21-Jan	2	2	2	2	2	3	3	3	3	3	3	4	5	6	7	9	10	11	10	10	9	9	9	10.5	
22-Jan	9	12	13	16	18	20	22	23	24	24	23	24	23	23	23	23	23	22	22	22	22	21	18	16	23.8
23-Jan	14	13	10	7	4	4	6	6	6	6	7	7	7	6	4	4	3	3	2	2	2	3	5	7	13.5
24-Jan	8	10	13	16	18	20	21	22	22	23	23	23	23	23	23	22	20	18	15	13	12	12	12	11	23.1
25-Jan	12	12	13	14	14	12	12	13	14	16	18	21	22	24	25	26	26	26	26	26	26	25	26	24	25.9
26-Jan	23	22	21	19	17	15	15	13	11	8	7	6	6	5	5	5	5	5	5	6	7	6	9	12	23.2
27-Jan	16	19	23	25	27	26	26	26	25	25	25	24	23	22	22	21	21	20	19	18	18	16	15	14	26.5
28-Jan	14	13	13	14	15	16	16	16	16	17	17	17	18	18	19	19	20	20	20	20	20	20	20	19	20.3
29-Jan	18	17	16	17	16	15	13	12	11	9	8	7	6	8	8	9	9	10	10	13	15	16	18	21	21.0
30-Jan	21	22	20	20	18	17	16	15	17	19	20	21	21	22	23	23	24	24	24	25	25	25	25	25	25.4
31-Jan	25	25	25	25	25	25	25	25	24	24	23	23	23	23	23	23	23	21	19	16	13	10	7	4	25.2
35.6 35.4 35.3 34.6 34.8 34.7 34.2 33.7 33.3 32.7 32.2 31.9 30.7 30.5 30.2 30.0 29.8 30.5 31.3 32.9 33.6 33.4 34.3 34.2																									
Diurnal Maximums																									
N - Not Valid																									

### Span Responses

Ozone (O<sub>3</sub>)  
Henry Pirker - January 2015



## Hourly Averages

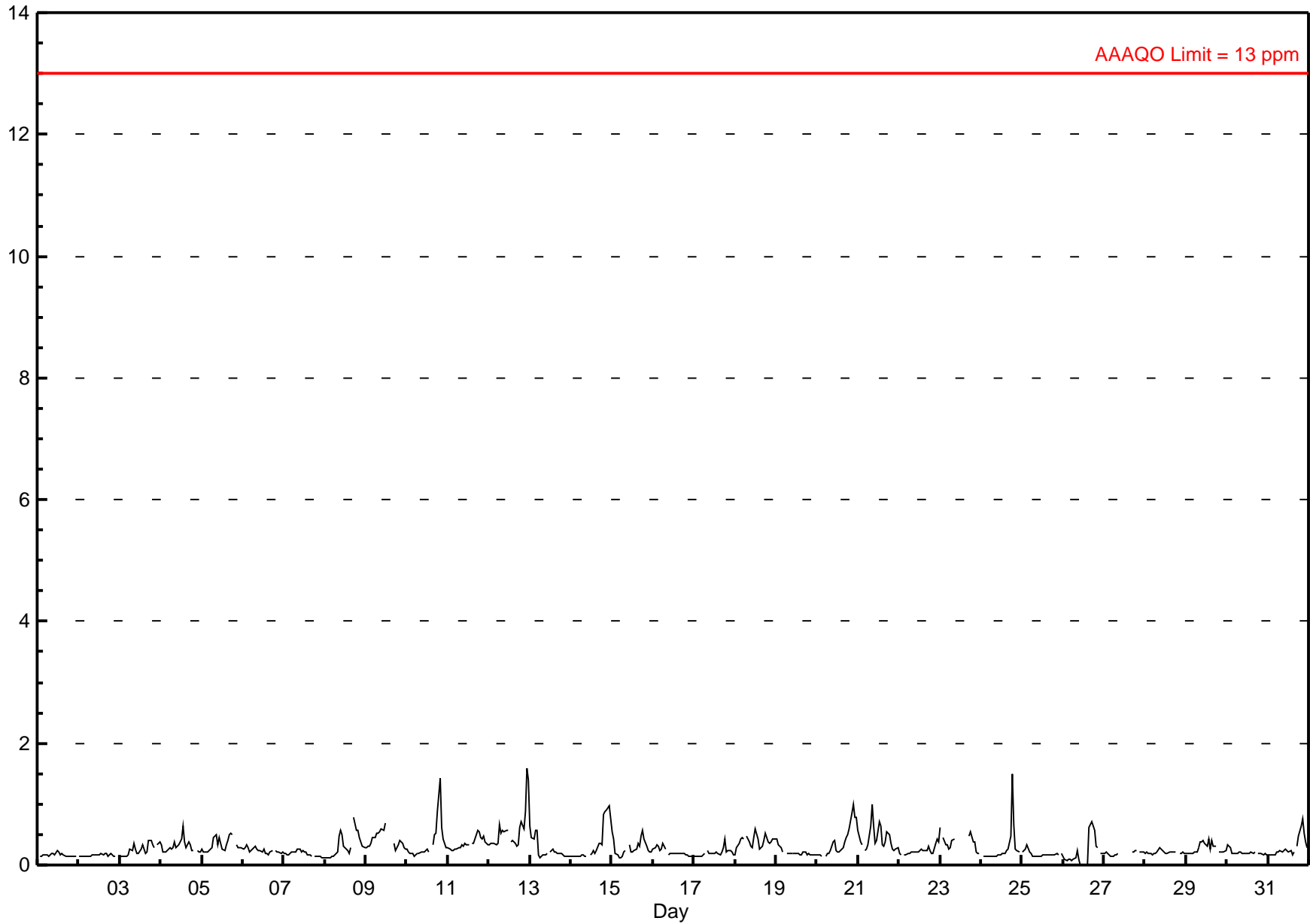
Carbon Monoxide (CO) - ppm

Henry Pirker - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.59 ppm on Jan 12 23:00	Maximum Daily Average: 0.57 ppm on Jan 12		Hours of Data:	693
Minimum Value: 0.0 ppm on Jan 26 11:00	Minimum Daily Average: 0.16 ppm on Jan 2		Hours of Missing Data:	51
Maximum Diurnal Average: 0.42 ppm at hour 19	Minimum Diurnal Average: 0.21 ppm at hour 6		Hours of Calibration:	51
Monthly Average: 0.283 ppm	Percentiles: P <sub>1</sub> = 0.09 P <sub>10</sub> = 0.15 Q <sub>1</sub> = 0.18 Median = 0.22 Q <sub>3</sub> = 0.34 P <sub>90</sub> = 0.50 P <sub>99</sub> = 0.96		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-Jan	A	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	0.1	0.1	0.1	0.1	0.1	0.1	A	0.17	0.23	
2-Jan	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	0.1	0.1	A	0.1	0.20	
3-Jan	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.3	0.3	A	0.3	0.4	0.25	0.41	
4-Jan	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.7	0.4	0.3	0.4	0.3	0.2	0.2	A	0.2	0.2	0.2	0.31	0.65	
5-Jan	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.5	0.3	0.5	0.3	0.3	0.2	0.3	0.4	0.5	0.5	0.5	A	0.3	0.3	0.3	0.3	0.34	0.53	
6-Jan	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.24	0.34	
7-Jan	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	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.18	0.27	
8-Jan	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.6	0.5	0.3	0.3	0.2	0.3	A	0.8	0.6	0.6	0.5	0.4	0.3	0.3	0.32	0.78	
9-Jan	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	C	C	C	C	0.3	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.41	0.70	
10-Jan	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.3	0.5	0.5	0.9	1.4	0.6	0.4	0.4	0.3	0.36	1.43	
11-Jan	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.4	0.6	0.5	0.5	0.4	0.5	0.4	0.3	0.35	0.56	
12-Jan	0.3	0.4	0.4	0.4	0.3	0.4	0.7	0.5	0.6	0.5	0.6	0.6	A	0.4	0.4	0.4	0.3	0.3	0.6	0.7	0.6	0.9	1.6	1.4	0.57	1.59	
13-Jan	0.7	0.4	0.4	0.6	0.6	0.2	0.1	0.2	0.2	0.2	0.2	A	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.26	0.65	
14-Jan	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.8	0.9	0.9	1.0	0.8	0.34	0.97	
15-Jan	0.5	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.2	A	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.6	0.4	0.3	0.2	0.2	0.2	0.28	0.56	
16-Jan	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.22	0.37	
17-Jan	0.1	0.1	0.1	0.1	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	0.3	0.4	0.2	0.2	0.2	0.2	0.20	0.42	
18-Jan	0.2	0.3	0.4	0.4	0.5	0.4	A	0.5	0.4	0.3	0.3	0.4	0.6	0.4	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.38	0.58	
19-Jan	0.4	0.3	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.43	
20-Jan	0.2	0.2	0.2	0.1	A	0.2	0.2	0.2	0.2	0.4	0.4	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.9	1.0	0.8	0.8	0.38	1.00	
21-Jan	0.6	0.4	0.3	A	0.2	0.3	0.3	0.6	1.0	0.6	0.3	0.4	0.7	0.6	0.3	0.3	0.4	0.6	0.5	0.4	0.3	0.2	0.3	0.3	0.43	1.01	
22-Jan	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	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.4	0.4	0.24	0.42
23-Jan	0.6	A	0.5	0.3	0.3	0.3	0.3	0.4	0.4	C	C	C	C	C	C	C	C	0.5	0.6	0.4	0.4	0.2	0.2	0.2	--	0.62	
24-Jan	A	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	0.3	0.5	1.5	0.7	0.3	0.2	0.2	A	0.27	1.50
25-Jan	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.18	0.33	
26-Jan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.7	0.6	0.3	0.3	A	0.2	0.2	0.20	0.71	
27-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	C	C	C	C	C	C	C	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	--	0.25	
28-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.21	0.28	
29-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.27	0.43	
30-Jan	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.34	
31-Jan	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	A	0.3	0.5	0.6	0.7	0.5	0.4	0.3	0.29	0.75	
	0.27	0.23	0.23	0.22	0.22	0.21	0.23	0.27	0.31	0.28	0.28	0.27	0.26	0.26	0.23	0.26	0.30	0.36	0.42	0.38	0.34	0.33	0.34	0.31		Diurnal Average	
	0.65	0.44	0.46	0.57	0.56	0.45	0.66	0.64	1.01	0.65	0.58	0.70	0.72	0.65	0.41	0.62	0.67	0.78	1.50	1.43	0.88	1.00	1.59	1.41		Diurnal Maximum	

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



# Hourly Maximums

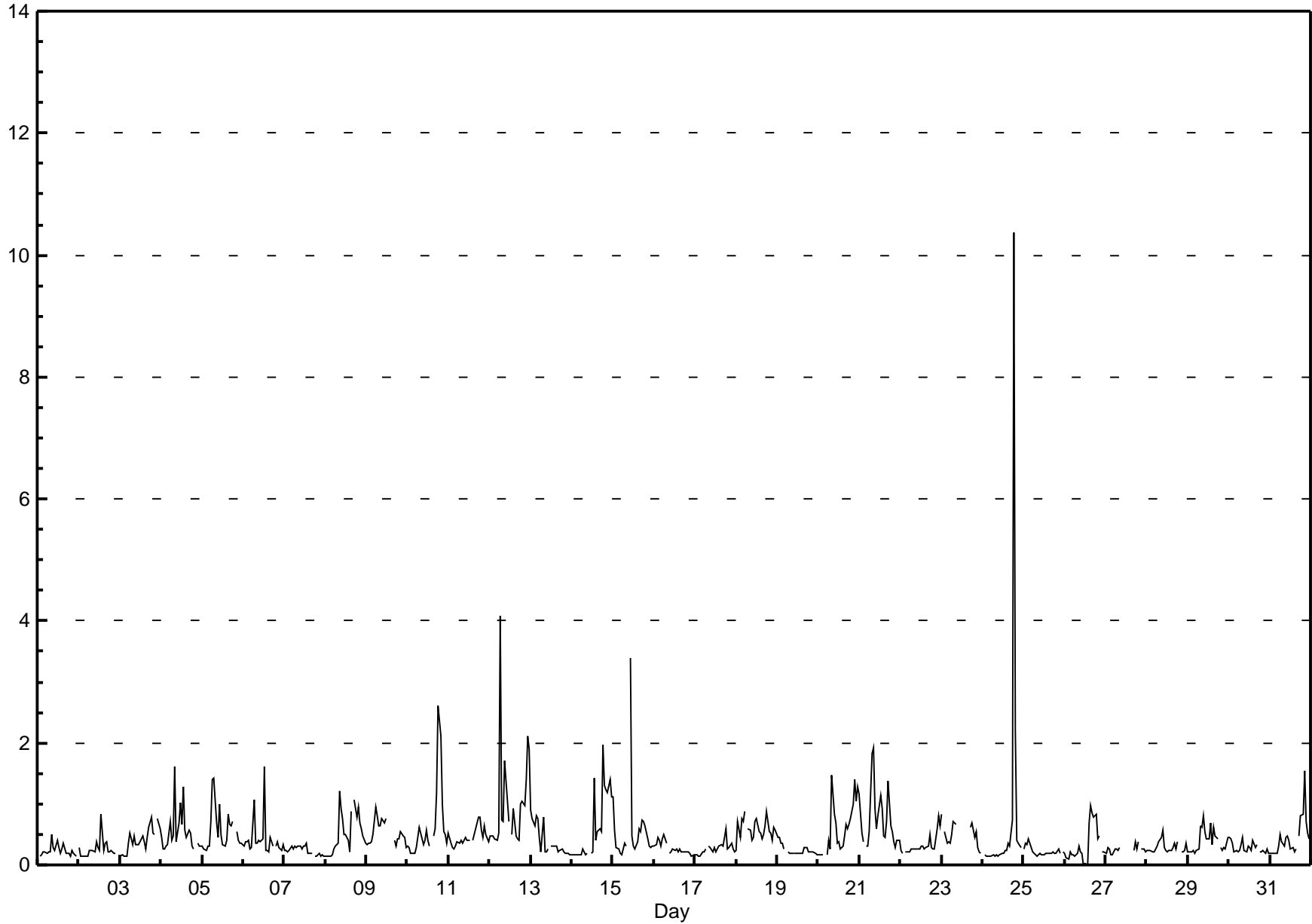
Carbon Monoxide (CO) - ppm

Henry Pirker - January 2015

Maximum Value: 10.37 ppm on Jan 24 19:00		Maximum Daily Average: 1.00 ppm on Jan 12		Hours in Service: 744																							
Minimum Value: 0.0 ppm on Jan 26 12:00		Minimum Daily Average: 0.22 ppm on Jan 25		Hours of Data: 693																							
Maximum Diurnal Average: 0.97 ppm at hour 19		Minimum Diurnal Average: 0.28 ppm at hour 5		Hours of Missing Data: 51																							
Monthly Average: 0.447 ppm		Percentiles: P <sub>1</sub> = 0.13 P <sub>10</sub> = 0.17 Q <sub>1</sub> = 0.22 Median = 0.31 Q <sub>3</sub> = 0.50 P <sub>90</sub> = 0.80 P <sub>99</sub> = 2.10		Hours of Calibration: 51																							
				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-Jan	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.2	0.4	0.3	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.23	0.49	
2-Jan	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.8	0.2	0.4	0.4	0.2	0.2	0.2	0.2	0.2	A	0.2	0.26	0.84	
3-Jan	0.1	0.2	0.1	0.1	0.1	0.3	0.5	0.3	0.5	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.5	0.6	0.8	0.5	0.5	A	0.7	0.6	0.40	0.78	
4-Jan	0.5	0.3	0.3	0.3	0.3	0.7	0.4	0.5	1.6	0.4	0.7	1.0	0.7	1.3	0.6	0.5	0.6	0.5	0.3	0.3	A	0.3	0.3	0.3	0.54	1.62	
5-Jan	0.3	0.3	0.2	0.3	0.3	0.7	1.4	1.4	0.7	0.4	1.0	0.5	0.3	0.3	0.4	0.8	0.7	0.6	0.7	A	0.5	0.4	0.3	0.3	0.57	1.44	
6-Jan	0.3	0.4	0.4	0.4	0.3	0.3	1.1	0.3	0.4	0.4	0.4	0.4	1.6	0.2	0.2	0.2	0.4	0.3	A	0.3	0.4	0.3	0.2	0.3	0.42	1.61	
7-Jan	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	A	0.2	0.1	0.2	0.1	0.2	0.1	0.24	0.35	
8-Jan	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	1.2	0.9	0.8	0.5	0.5	0.4	0.2	0.9	A	1.1	0.8	1.0	0.7	0.6	0.5	0.4	0.52	1.22	
9-Jan	0.3	0.3	0.4	0.4	0.5	0.9	0.8	0.6	0.6	0.8	0.7	0.8	C	C	C	C	A	0.4	0.3	0.4	0.4	0.5	0.5	0.3	0.52	0.94	
10-Jan	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.6	0.4	0.3	0.4	0.6	0.4	0.3	A	0.5	0.6	1.2	2.6	2.1	1.0	0.5	0.5	0.3	0.62	2.60	
11-Jan	0.5	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	A	0.4	0.5	0.6	0.8	0.8	0.6	0.5	0.6	0.5	0.4	0.46	0.79	
12-Jan	0.5	0.5	0.5	0.4	0.4	0.5	4.1	0.7	0.7	1.7	1.0	0.7	A	0.5	0.9	0.5	0.4	0.4	1.0	1.0	1.0	1.4	2.1	1.9	1.00	4.09	
13-Jan	0.9	0.8	0.6	0.8	0.8	0.5	0.2	0.8	0.2	0.2	0.3	A	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.38	0.91	
14-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	1.4	0.4	0.5	0.6	0.5	2.0	1.3	1.2	1.2	1.4	1.1	0.60	1.98	
15-Jan	1.1	0.6	0.3	0.3	0.2	0.2	0.3	0.4	0.3	A	3.4	0.5	0.3	0.3	0.4	0.6	0.6	0.7	0.7	0.6	0.4	0.3	0.3	0.3	0.56	3.40	
16-Jan	0.3	0.3	0.5	0.4	0.3	0.4	0.5	0.4	A	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	0.27	0.50	
17-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.5	0.6	0.3	0.3	0.4	0.3	0.2	0.27	0.59	
18-Jan	0.2	0.7	0.5	0.7	0.7	0.9	A	0.6	0.6	0.4	0.5	0.7	0.8	0.5	0.5	0.4	0.5	0.6	0.9	0.5	0.5	0.4	0.6	0.6	0.58	0.88	
19-Jan	0.5	0.5	0.3	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.45	
20-Jan	0.2	0.2	0.2	0.2	A	0.2	0.4	0.3	1.5	0.8	0.7	0.4	0.4	0.3	0.3	0.5	0.7	0.6	0.7	0.8	1.0	1.4	1.0	1.3	0.59	1.47	
21-Jan	1.2	0.5	0.4	A	0.3	0.3	0.5	1.8	1.9	0.9	0.6	0.8	1.1	0.9	0.5	0.5	0.7	1.4	0.6	0.5	0.4	0.3	0.4	0.4	0.74	1.93	
22-Jan	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.2	0.3	0.6	0.8	0.6	0.32	0.80	
23-Jan	0.8	A	0.5	0.4	0.4	0.3	0.5	0.7	0.7	C	C	C	C	C	C	C	C	C	0.6	0.7	0.5	0.6	0.3	0.2	0.2	--	0.83
24-Jan	A	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.7	10.4	2.2	0.4	0.4	0.3	A	0.79	10.37	
25-Jan	0.3	0.4	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	A	0.2	0.22	0.42	
26-Jan	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.0	0.0	0.0	0.7	1.0	0.8	0.8	0.8	0.4	0.5	A	0.2	0.2	0.33	0.98	
27-Jan	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.3	C	C	C	C	C	C	C	C	0.2	0.4	0.3	0.4	A	0.3	0.3	0.2	--	0.39
28-Jan	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.6	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.3	A	0.2	0.2	0.2	0.4	0.29	0.57
29-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.6	0.8	0.5	0.4	0.4	0.7	0.3	0.6	0.5	0.4	A	0.3	0.2	0.3	0.3	0.5	0.40	0.80	
30-Jan	0.5	0.4	0.4	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.3	0.3	0.2	0.4	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.28	0.46	
31-Jan	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.3	0.5	0.5	0.4	0.3	0.3	0.2	0.3	A	0.5	0.8	0.8	1.5	0.7	0.5	0.4	0.44	1.53	
		0.38	0.31	0.28	0.28	0.28	0.34	0.52	0.47	0.54	0.45	0.53	0.41	0.40	0.42	0.35	0.42	0.43	0.54	0.97	0.57	0.49	0.45	0.47	0.43	Diurnal Average	
		1.17	0.76	0.65	0.81	0.76	0.94	4.09	1.83	1.93	1.70	3.40	1.02	1.61	1.43	0.92	0.98	0.84	1.36	10.37	2.22	1.53	1.41	2.10	1.91	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

**Hourly Maximums**

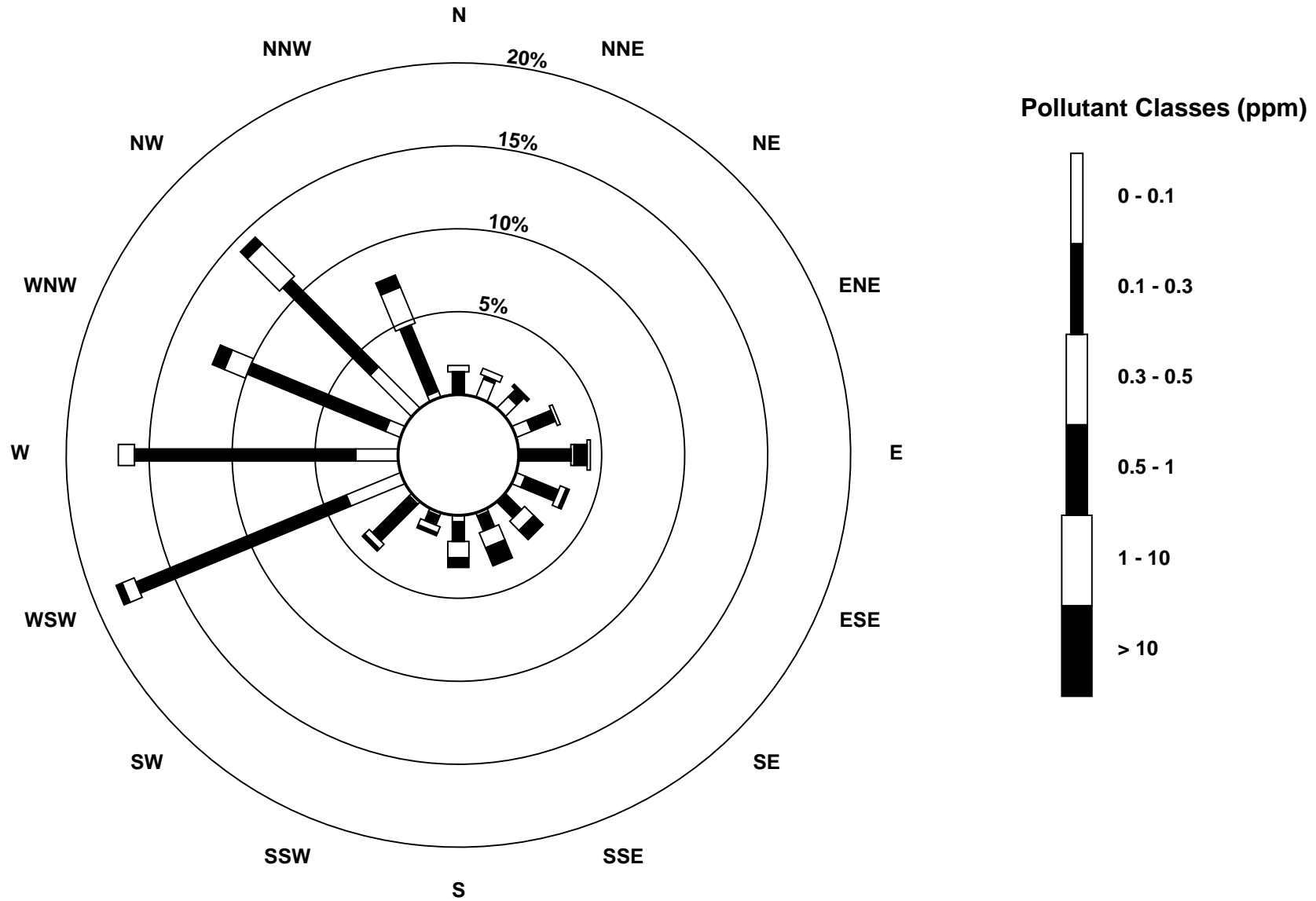
**Carbon Monoxide (CO) - ppm**  
**Henry Pirker - January 2015**





**Pollutant Rose**

**Carbon Monoxide (CO) - ppm**  
**Henry Pirker - January 2015**



## Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - January 2015

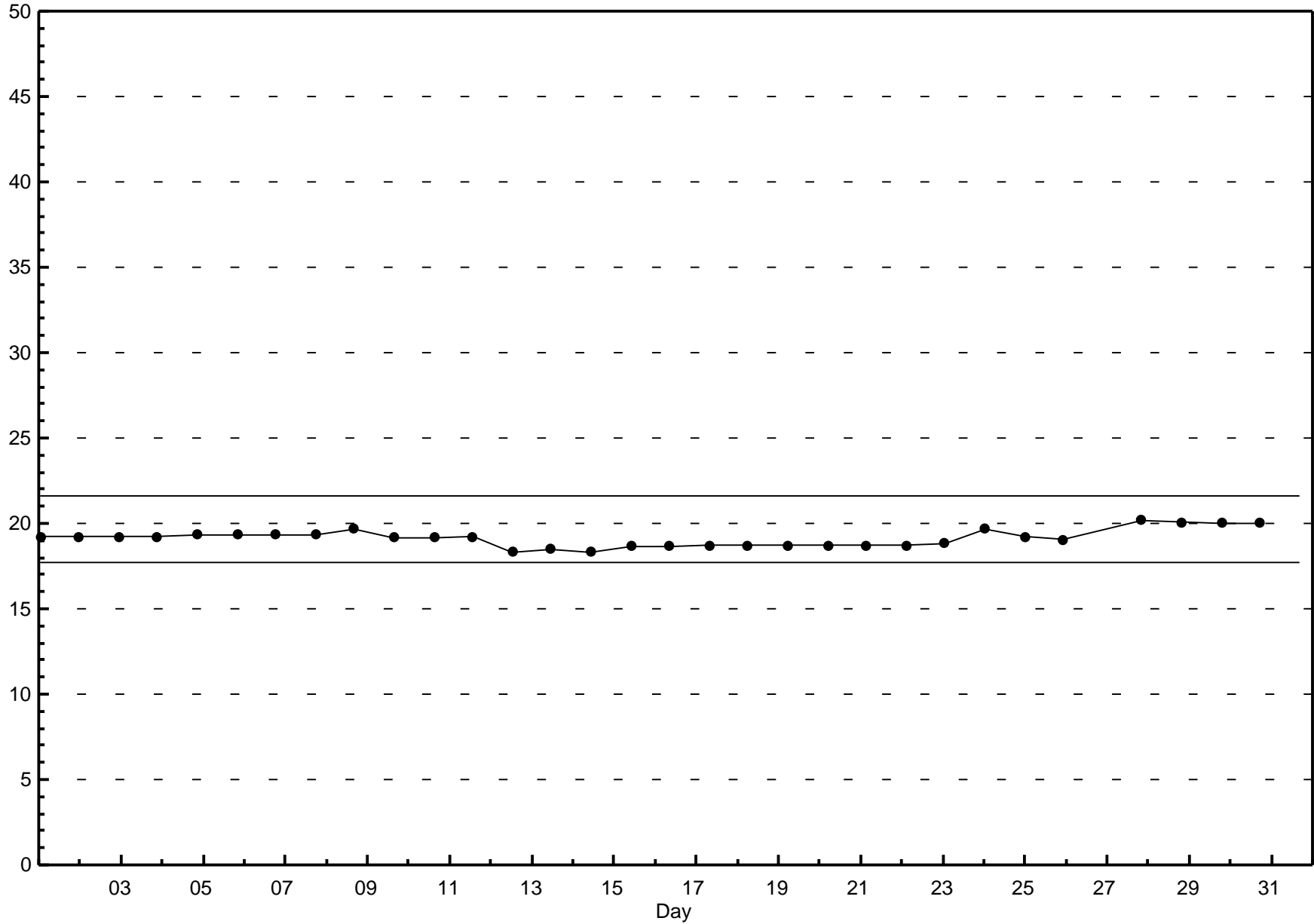
Number of Exceedences (AAAQO): 8-hr: 0	Hours in Service: 744
Maximum Value: 0.86 ppm on Jan 13 02:00	Hours of Data: 715
Minimum Value: 0.00 ppm on Jan 26 15:00	Hours of Missing Data: 29
	Hours of Calibration: 29
	Percent Operational Time: 100.0
Percentiles: P <sub>1</sub> = 0.09 P <sub>10</sub> = 0.16 Q <sub>1</sub> = 0.18 Median = 0.24 Q <sub>3</sub> = 0.35 P <sub>90</sub> = 0.46 P <sub>99</sub> = 0.67	

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-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.19	
2-Jan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
3-Jan	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	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34
4-Jan	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	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.40
5-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.42
6-Jan	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.36
7-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.23
8-Jan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.48
9-Jan	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	N	N	N	N	N	N	N	N	0.3	0.3	0.3	0.57
10-Jan	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	0.3	0.3	0.4	0.6	0.6	0.7	0.6	0.6	0.6	0.67
11-Jan	0.6	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.60
12-Jan	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.7	0.8	0.81
13-Jan	0.8	0.9	0.8	0.8	0.8	0.7	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.86
14-Jan	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	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.67
15-Jan	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.70
16-Jan	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.34
17-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
18-Jan	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.42
19-Jan	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.42
20-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.67
21-Jan	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.69
22-Jan	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	0.3	0.3	0.3	0.33
23-Jan	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	N	N	N	N	N	N	N	N	N	N	N	N	0.4	0.3	0.41
24-Jan	0.3	0.3	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	0.2	0.2	0.2	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.52
25-Jan	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.51
26-Jan	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	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.4	0.48
27-Jan	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	N	N	N	N	0.2	0.2	0.35
28-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
29-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.36
30-Jan	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
31-Jan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.48
0.85 0.86 0.84 0.82 0.82 0.73 0.54 0.41 0.45 0.49 0.50 0.54 0.56 0.59 0.59 0.55 0.47 0.46 0.48 0.59 0.64 0.67 0.68 0.81																										
Diurnal Maximums																										

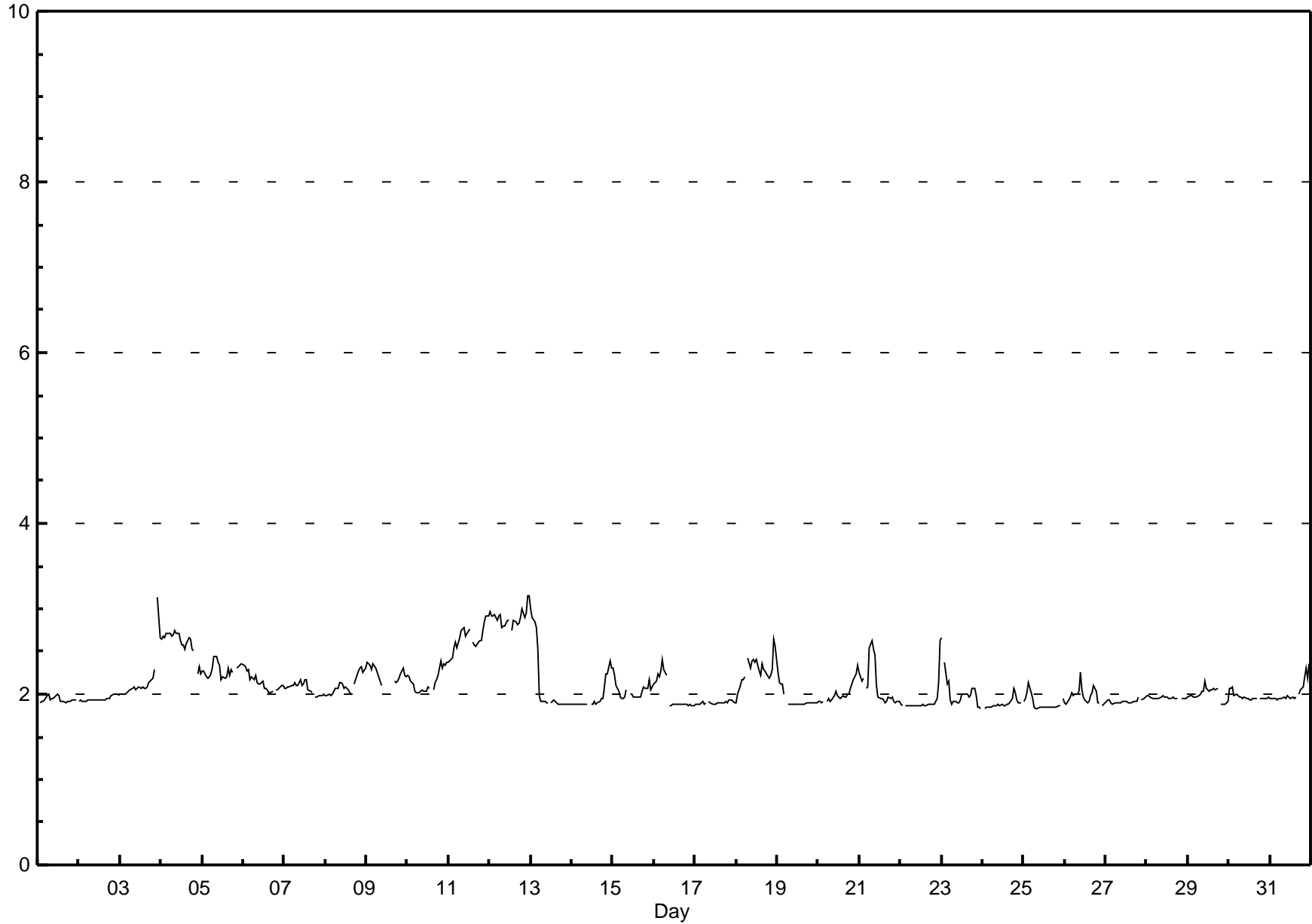
N - Not Valid  
 Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

### Span Responses

**Carbon Monoxide (CO)**  
**Henry Pirker - January 2015**







# Hourly Maximums

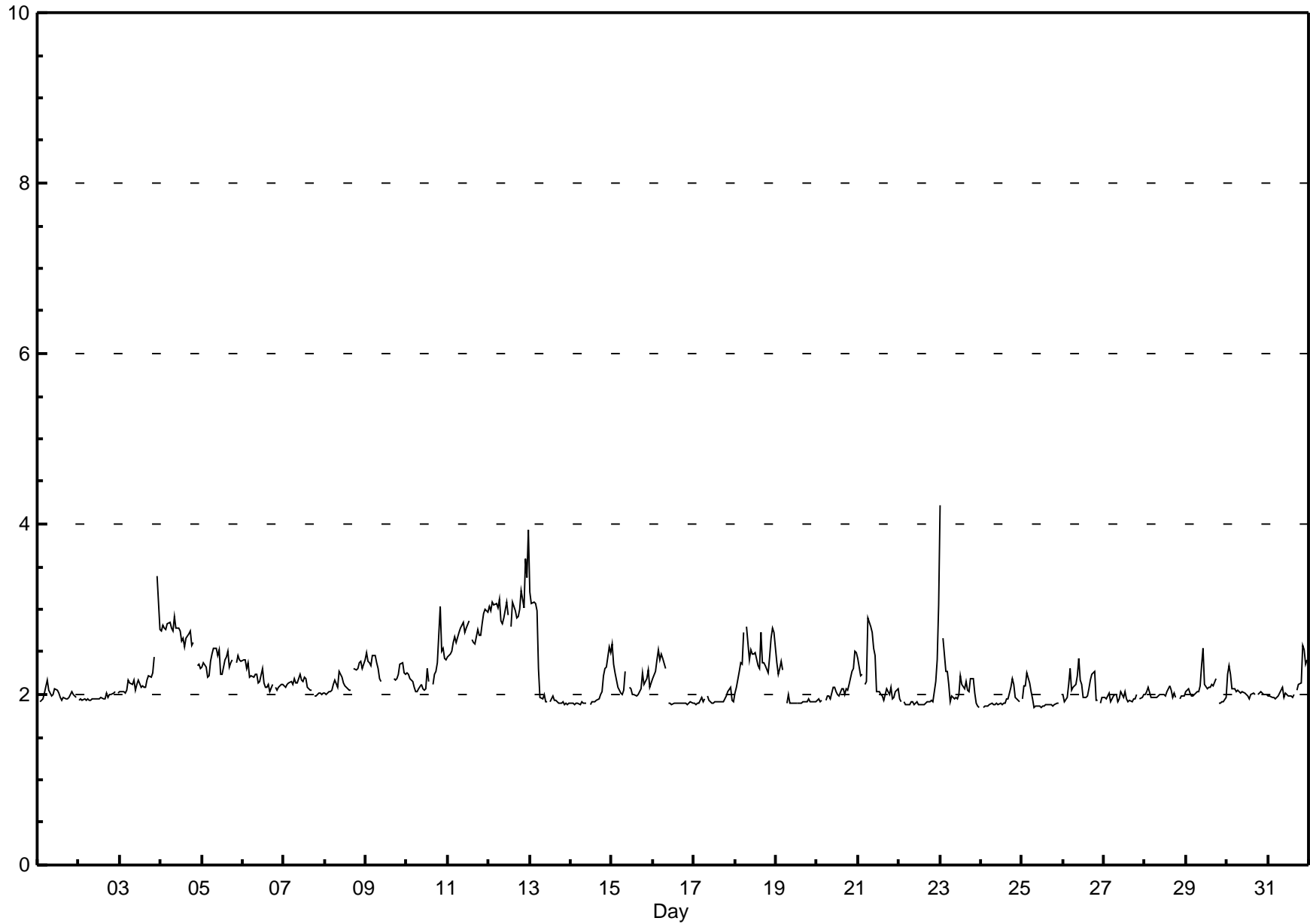
## Total Hydrocarbons (THC) - ppm

### Henry Pirker - January 2015

Maximum Value: 4.21 ppm on Jan 23 01:00		Maximum Daily Average: 3.08 ppm on Jan 12		Hours in Service: 744																						
Minimum Value: 1.8 ppm on Jan 24 00:00		Minimum Daily Average: 1.93 ppm on Jan 24		Hours of Data: 707																						
Maximum Diurnal Average: 2.30 ppm at hour 1		Minimum Diurnal Average: 2.07 ppm at hour 14		Hours of Missing Data: 37																						
Monthly Average: 2.173 ppm		Percentiles: P <sub>1</sub> = 1.86 P <sub>10</sub> = 1.90 Q <sub>1</sub> = 1.95 Median = 2.05 Q <sub>3</sub> = 2.30 P <sub>90</sub> = 2.66 P <sub>99</sub> = 3.20		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-Jan	A	1.9	1.9	1.9	2.0	2.2	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	A	1.99	2.16
2-Jan	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	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.96	2.03
3-Jan	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.4	A	3.4	2.8	2.21	3.39
4-Jan	2.7	2.8	2.8	2.8	2.8	2.9	2.8	2.7	2.9	2.8	2.8	2.7	2.6	2.7	2.6	2.7	2.7	2.7	2.6	2.6	A	2.3	2.4	2.3	2.68	2.91
5-Jan	2.3	2.4	2.3	2.2	2.2	2.4	2.5	2.5	2.5	2.5	2.5	2.2	2.2	2.4	2.4	2.5	2.3	2.4	2.4	A	2.4	2.5	2.4	2.4	2.39	2.54
6-Jan	2.4	2.4	2.3	2.4	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.3	2.1	2.1	2.1	2.1	2.0	2.1	A	2.1	2.1	2.1	2.1	2.1	2.18	2.40
7-Jan	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.10	2.25
8-Jan	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.0	A	A	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.17	2.40
9-Jan	2.5	2.4	2.4	2.3	2.5	2.5	2.4	2.3	2.2	2.2	C	C	C	C	2.2	A	2.2	2.2	2.2	2.2	2.4	2.4	2.3	2.2	2.30	2.49
10-Jan	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.1	A	2.1	2.2	2.3	2.4	3.0	2.5	2.5	2.4	2.4	2.25	3.04
11-Jan	2.4	2.5	2.5	2.6	2.7	2.6	2.7	2.8	2.8	2.8	2.7	2.8	2.9	A	2.6	2.6	2.6	2.8	2.7	2.7	2.8	3.0	3.0	3.0	2.72	3.00
12-Jan	3.0	3.0	3.1	3.0	3.1	3.0	3.1	2.9	2.8	2.9	3.1	2.9	A	2.8	3.1	3.0	2.9	2.9	3.0	3.2	3.0	3.6	3.4	3.9	3.08	3.93
13-Jan	3.2	3.1	3.1	3.1	3.0	2.3	2.0	2.0	2.0	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.19	3.20
14-Jan	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	2.0	2.0	2.2	2.3	2.3	2.6	2.5	2.02	2.56
15-Jan	2.6	2.3	2.3	2.1	2.0	2.0	2.0	2.1	2.3	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.2	2.3	2.1	2.1	2.13	2.58
16-Jan	2.2	2.3	2.4	2.5	2.4	2.5	2.4	2.3	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.06	2.52
17-Jan	1.9	1.9	1.9	1.9	2.0	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	1.9	1.9	1.93	2.09
18-Jan	2.0	2.1	2.3	2.4	2.4	2.7	A	2.8	2.4	2.5	2.5	2.5	2.3	2.3	2.7	2.4	2.4	2.3	2.3	2.4	2.7	2.8	2.7	2.45	2.79	
19-Jan	2.4	2.2	2.3	2.4	2.3	A	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	2.00	2.39	
20-Jan	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.3	2.3	2.5	2.5	2.08	2.51
21-Jan	2.4	2.2	2.2	A	2.1	2.2	2.9	2.8	2.7	2.5	2.5	2.0	2.0	2.0	1.9	2.0	2.1	2.0	2.1	1.9	2.0	2.0	2.1	2.21	2.90	
22-Jan	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	2.1	2.4	3.0	1.99	3.05
23-Jan	4.2	A	2.7	2.3	2.3	2.1	1.9	2.0	2.0	2.0	1.9	2.0	2.2	2.1	2.1	2.2	2.1	2.0	2.2	2.2	2.0	1.9	1.9	1.8	2.17	4.21
24-Jan	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.1	2.0	1.9	1.9	A	1.93	2.18
25-Jan	1.9	2.1	2.1	2.3	2.1	2.0	2.0	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	A	2.0	1.94	2.25
26-Jan	2.0	1.9	2.0	2.1	2.3	2.1	2.1	2.1	2.2	2.4	2.2	2.1	2.0	2.0	2.0	2.1	2.2	2.2	2.3	1.9	1.9	A	1.9	2.0	2.08	2.43
27-Jan	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	2.0	2.0	1.97	2.04
28-Jan	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.00	2.10
29-Jan	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.5	2.1	2.1	2.1	2.1	2.1	2.2	A	1.9	1.9	1.9	1.9	2.0	2.06	2.55
30-Jan	2.2	2.3	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.34
31-Jan	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	2.0	2.0	2.0	A	2.1	2.1	2.1	2.6	2.5	2.3	2.4	2.09	2.57
		2.30	2.19	2.23	2.21	2.20	2.18	2.17	2.18	2.17	2.16	2.17	2.12	2.08	2.07	2.09	2.11	2.11	2.15	2.15	2.17	2.17	2.22	2.26	2.29	Diurnal Average
		4.21	3.07	3.08	3.07	3.07	3.01	3.12	2.86	2.91	2.89	3.09	2.93	2.86	2.79	3.08	2.98	2.90	2.91	3.00	3.21	3.02	3.59	3.39	3.93	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

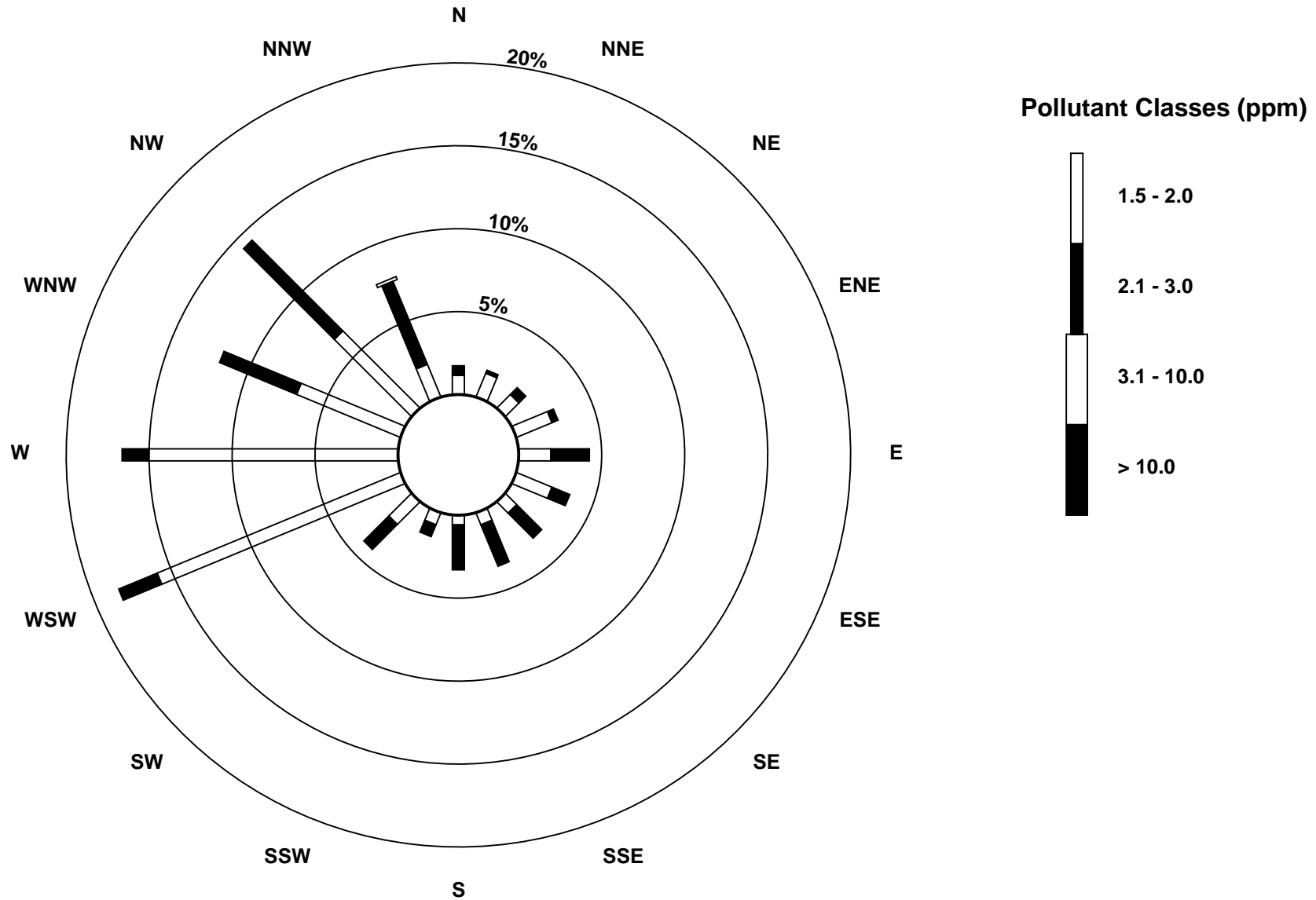
**Hourly Maximums**

**Total Hydrocarbons (THC) - ppm**  
**Henry Pirker - January 2015**



**Pollutant Rose**

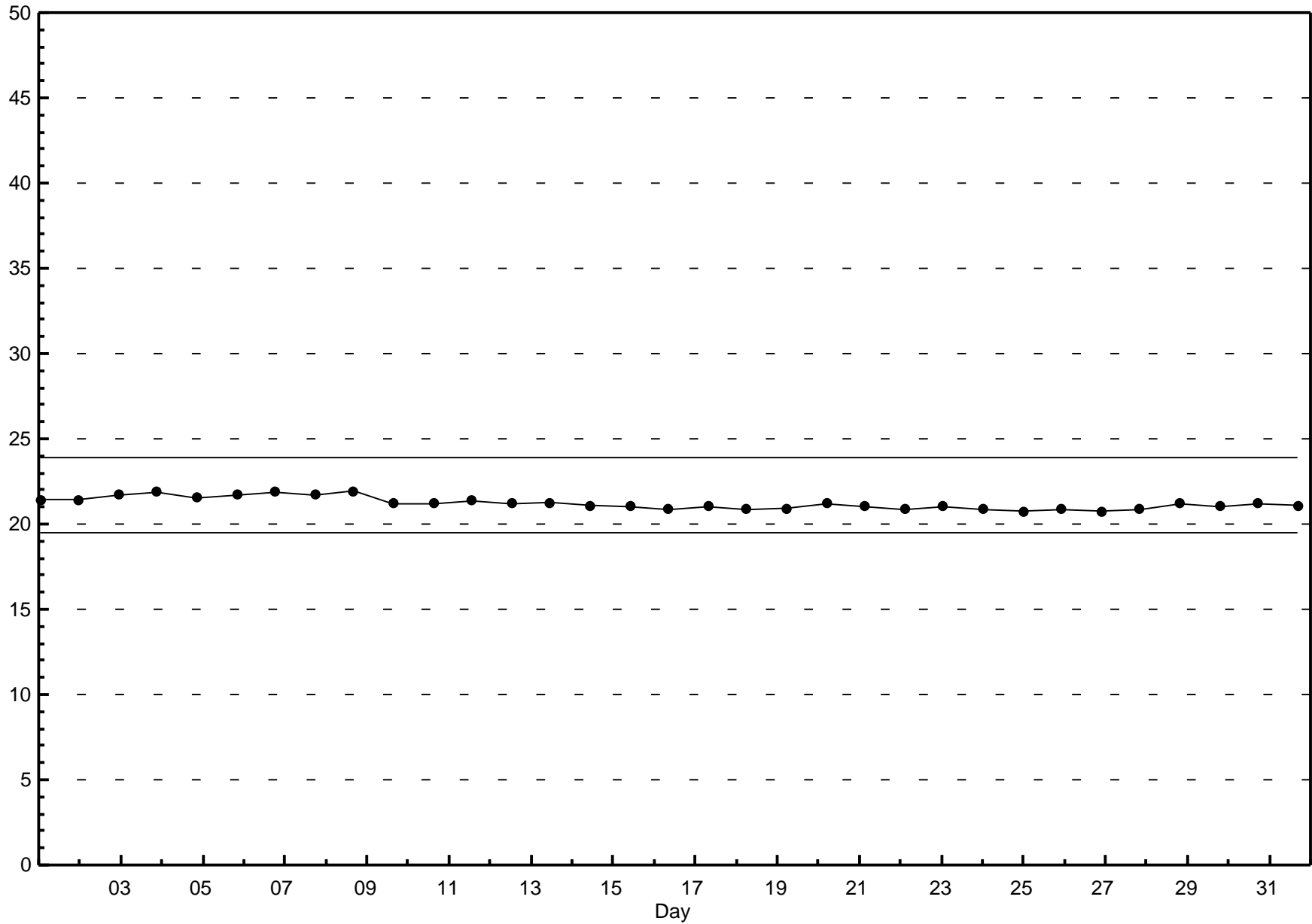
**Total Hydrocarbons (THC) - ppm**  
**Henry Pirker - January 2015**





### Span Responses

**Total Hydrocarbons (THC)**  
**Henry Pirker - January 2015**



## Hourly Averages

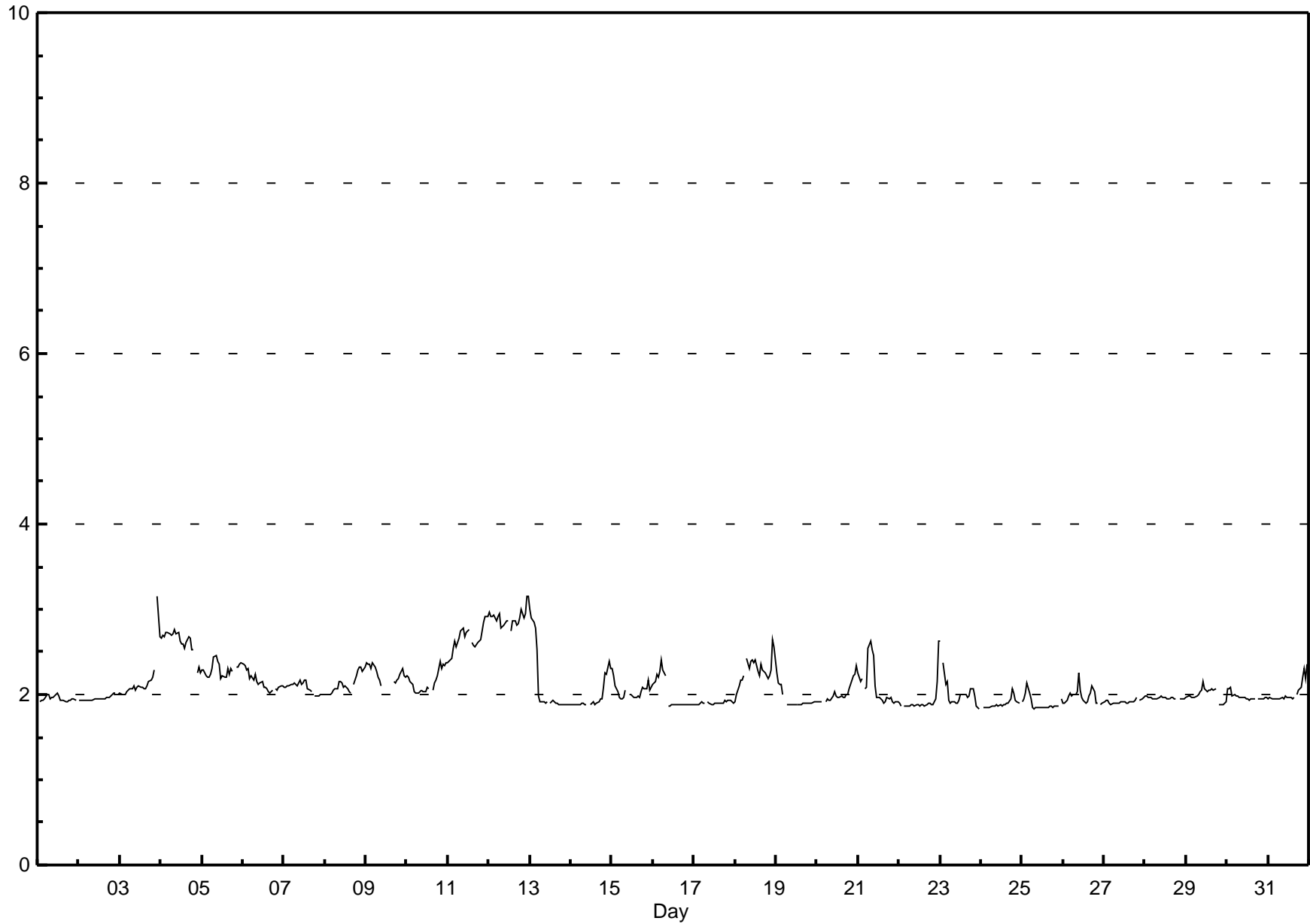
Methane (CH<sub>4</sub>) - ppm

Henry Pirker - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 3.16 ppm on Jan 12 23:00	Maximum Daily Average: 2.90 ppm on Jan 12		Hours of Data:	707
Minimum Value: 1.8 ppm on Jan 24 00:00	Minimum Daily Average: 1.89 ppm on Jan 24		Hours of Missing Data:	37
Maximum Diurnal Average: 2.19 ppm at hour 24	Minimum Diurnal Average: 2.03 ppm at hour 14		Hours of Calibration:	37
Monthly Average: 2.102 ppm	Percentiles: P <sub>1</sub> = 1.84 P <sub>10</sub> = 1.88 Q <sub>1</sub> = 1.92 Median = 1.99 Q <sub>3</sub> = 2.20 P <sub>90</sub> = 2.55 P <sub>99</sub> = 2.94		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-Jan	A	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.95	2.02
2-Jan	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.96	2.01
3-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	A	3.1	2.7	2.16	3.14
4-Jan	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.7	2.7	2.6	2.6	2.6	2.5	2.6	2.7	2.7	2.5	2.5	A	2.2	2.3	2.3	2.61	2.75
5-Jan	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.4	2.5	2.4	2.4	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.3	A	2.3	2.3	2.3	2.4	2.29	2.46
6-Jan	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	A	2.1	2.1	2.1	2.1	2.1	2.15	2.35
7-Jan	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.08	2.17
8-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	A	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.12	2.33
9-Jan	2.4	2.4	2.4	2.3	2.4	2.3	2.3	2.2	2.2	2.1	C	C	C	C	2.1	A	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.24	2.38
10-Jan	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.1	2.1	2.1	2.2	2.2	2.4	2.3	2.4	2.3	2.4	2.15	2.39
11-Jan	2.4	2.4	2.4	2.5	2.6	2.6	2.7	2.8	2.8	2.8	2.7	2.7	2.8	A	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.9	2.9	2.9	2.66	2.91
12-Jan	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.9	2.9	A	2.7	2.9	2.9	2.8	2.8	2.9	3.0	2.9	2.9	3.2	3.1	2.90	3.16
13-Jan	3.0	2.9	2.8	2.8	2.5	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	1.9	2.10	3.00
14-Jan	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	2.0	1.9	2.1	2.2	2.4	2.3	1.97	2.39	
15-Jan	2.3	2.2	2.1	2.0	2.0	1.9	1.9	2.0	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.04	2.30
16-Jan	2.1	2.1	2.2	2.2	2.3	2.4	2.3	2.2	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.00	2.40
17-Jan	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	1.9	1.9	1.9	1.9	1.9	1.90	1.93
18-Jan	1.9	2.0	2.1	2.2	2.2	2.2	A	2.4	2.3	2.4	2.4	2.4	2.3	2.2	2.4	2.3	2.3	2.2	2.2	2.2	2.3	2.6	2.6	2.28	2.65	
19-Jan	2.3	2.1	2.1	2.1	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.25
20-Jan	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.3	2.01	2.34
21-Jan	2.3	2.1	2.2	A	2.1	2.1	2.5	2.6	2.5	2.5	2.1	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.10	2.62
22-Jan	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	2.1	2.6	1.92	2.62	
23-Jan	2.6	A	2.4	2.1	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	1.9	1.8	1.8	2.01	2.62
24-Jan	A	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	1.9	1.9	A	1.89	2.07	
25-Jan	1.9	1.9	2.0	2.1	2.0	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	1.9	1.9	A	1.9	1.90	2.14	
26-Jan	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.1	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.0	1.9	1.9	A	1.9	1.9	1.98	2.26
27-Jan	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	2.0	A	1.9	1.9	2.0	1.92	1.97
28-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	2.0	1.96	1.98
29-Jan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.99	2.15
30-Jan	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	2.0	2.0	2.0	2.0	1.97	2.08
31-Jan	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	A	2.0	2.0	2.1	2.2	2.3	2.2	2.4	2.02	2.35	
2.17	2.13	2.14	2.13	2.12	2.09	2.10	2.11	2.11	2.10	2.09	2.07	2.04	2.03	2.05	2.05	2.06	2.08	2.09	2.10	2.10	2.12	2.18	2.19	Diurnal Average		
3.00	2.92	2.92	2.93	2.87	2.92	2.94	2.78	2.79	2.81	2.87	2.87	2.76	2.74	2.87	2.86	2.82	2.83	2.90	3.00	2.89	2.95	3.16	3.15	Diurnal Maximum		

C - Calibration                      A - Automated Daily Zero Span



# Hourly Maximums

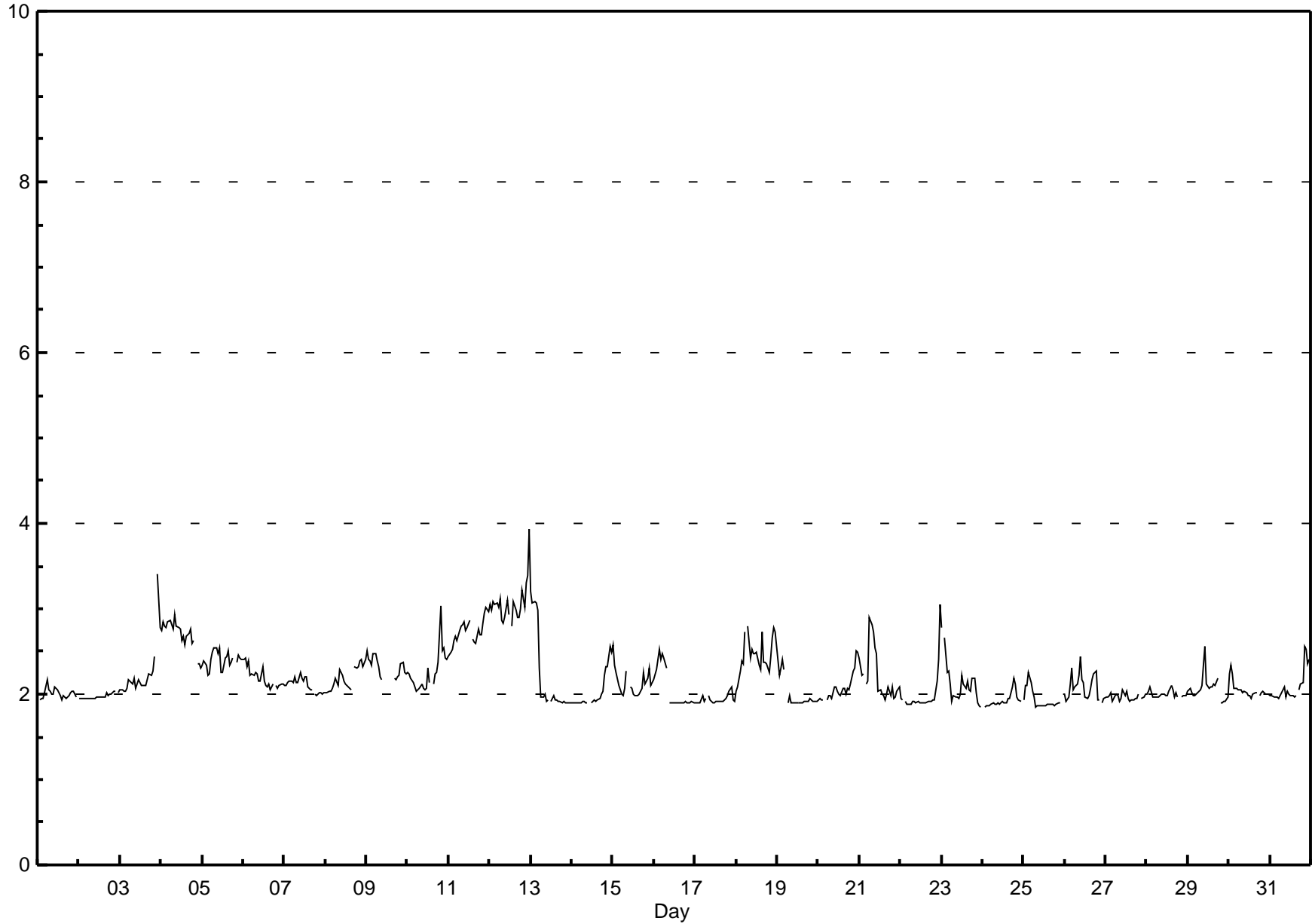
Methane (CH<sub>4</sub>) - ppm

Henry Pirker - January 2015

Maximum Value: 3.94 ppm on Jan 13 00:00		Maximum Daily Average: 3.07 ppm on Jan 12		Hours in Service: 744																						
Minimum Value: 1.8 ppm on Jan 24 00:00		Minimum Daily Average: 1.93 ppm on Jan 24		Hours of Data: 707																						
Maximum Diurnal Average: 2.29 ppm at hour 24		Minimum Diurnal Average: 2.07 ppm at hour 14		Hours of Missing Data: 37																						
Monthly Average: 2.176 ppm		Percentiles: P <sub>1</sub> = 1.86 P <sub>10</sub> = 1.90 Q <sub>1</sub> = 1.96 Median = 2.06 Q <sub>3</sub> = 2.31 P <sub>90</sub> = 2.67 P <sub>99</sub> = 3.06		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-Jan	A	1.9	1.9	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.00	2.17
2-Jan	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	1.97	2.04
3-Jan	2.0	2.1	2.0	2.0	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.4	A	3.4	2.8	2.22	3.41
4-Jan	2.8	2.8	2.8	2.8	2.8	2.9	2.8	2.8	2.9	2.8	2.8	2.8	2.6	2.7	2.6	2.7	2.7	2.8	2.6	2.6	A	2.3	2.4	2.3	2.70	2.93
5-Jan	2.3	2.4	2.3	2.2	2.2	2.4	2.5	2.5	2.5	2.5	2.5	2.3	2.2	2.4	2.4	2.5	2.3	2.4	2.4	A	2.4	2.5	2.4	2.4	2.40	2.55
6-Jan	2.4	2.4	2.3	2.4	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.1	2.1	2.1	2.1	2.0	2.1	A	2.1	2.1	2.1	2.1	2.1	2.19	2.42
7-Jan	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.11	2.25
8-Jan	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.3	2.3	2.2	2.2	2.1	2.1	2.1	A	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.19	2.41
9-Jan	2.5	2.4	2.4	2.3	2.5	2.5	2.4	2.3	2.2	2.2	C	C	C	C	2.2	A	2.2	2.2	2.2	2.2	2.4	2.4	2.3	2.2	2.31	2.50
10-Jan	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.1	A	2.1	2.2	2.3	2.4	3.0	2.5	2.5	2.4	2.4	2.25	3.04
11-Jan	2.4	2.5	2.5	2.6	2.7	2.6	2.7	2.8	2.8	2.9	2.7	2.8	2.9	A	2.6	2.6	2.6	2.8	2.7	2.7	2.8	3.0	3.0	3.0	2.73	3.01
12-Jan	3.0	3.0	3.1	3.1	3.1	3.0	3.1	2.9	2.8	2.9	3.1	2.9	A	2.8	3.1	3.0	2.9	2.9	3.0	3.2	3.0	3.3	3.4	3.9	3.07	3.94
13-Jan	3.2	3.1	3.1	3.1	3.0	2.3	2.0	2.0	2.0	1.9	1.9	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.20	3.21
14-Jan	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.2	2.3	2.3	2.6	2.5	2.02	2.56
15-Jan	2.6	2.3	2.3	2.1	2.0	2.0	2.0	2.1	2.3	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.2	2.3	2.1	2.1	2.13	2.58
16-Jan	2.2	2.3	2.4	2.5	2.4	2.5	2.4	2.3	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.06	2.52
17-Jan	1.9	1.9	1.9	1.9	2.0	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	1.9	1.9	1.94	2.08
18-Jan	2.0	2.1	2.3	2.4	2.4	2.7	A	2.8	2.4	2.5	2.5	2.5	2.3	2.3	2.7	2.4	2.4	2.3	2.3	2.4	2.7	2.8	2.7	2.45	2.79	
19-Jan	2.4	2.2	2.3	2.4	2.3	A	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	2.0	1.9	1.9	1.9	2.00	2.40	
20-Jan	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.3	2.3	2.5	2.5	2.08	2.51
21-Jan	2.4	2.2	2.2	A	2.1	2.2	2.9	2.8	2.7	2.5	2.5	2.0	2.0	2.0	1.9	2.0	2.1	2.0	2.1	1.9	2.0	2.0	2.1	2.21	2.89	
22-Jan	2.0	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	2.1	2.4	3.0	1.99	3.05
23-Jan	2.8	A	2.7	2.3	2.3	2.1	1.9	2.0	2.0	2.0	1.9	2.0	2.2	2.1	2.1	2.2	2.1	2.0	2.2	2.2	2.0	1.9	1.9	1.8	2.11	2.78
24-Jan	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.1	2.0	1.9	1.9	A	1.93	2.18
25-Jan	1.9	2.1	2.1	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.94	2.26
26-Jan	2.0	1.9	2.0	2.1	2.3	2.1	2.1	2.1	2.2	2.4	2.2	2.1	2.0	2.0	2.0	2.1	2.2	2.2	2.3	1.9	1.9	A	1.9	2.0	2.08	2.44
27-Jan	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.0	2.0	2.0	1.97	2.05
28-Jan	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.00	2.10
29-Jan	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.6	2.1	2.1	2.1	2.1	2.1	2.2	A	1.9	1.9	1.9	1.9	2.0	2.07	2.55
30-Jan	2.2	2.3	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.33
31-Jan	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	2.0	2.0	2.0	A	2.1	2.1	2.1	2.6	2.5	2.3	2.4	2.09	2.57
		2.25	2.20	2.23	2.21	2.21	2.19	2.17	2.19	2.18	2.17	2.18	2.13	2.09	2.07	2.10	2.12	2.11	2.15	2.16	2.18	2.18	2.21	2.26	2.29	Diurnal Average
		3.21	3.08	3.09	3.08	3.07	3.01	3.11	2.86	2.93	2.90	3.10	2.93	2.86	2.80	3.08	2.98	2.89	2.90	3.00	3.21	3.02	3.30	3.41	3.94	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

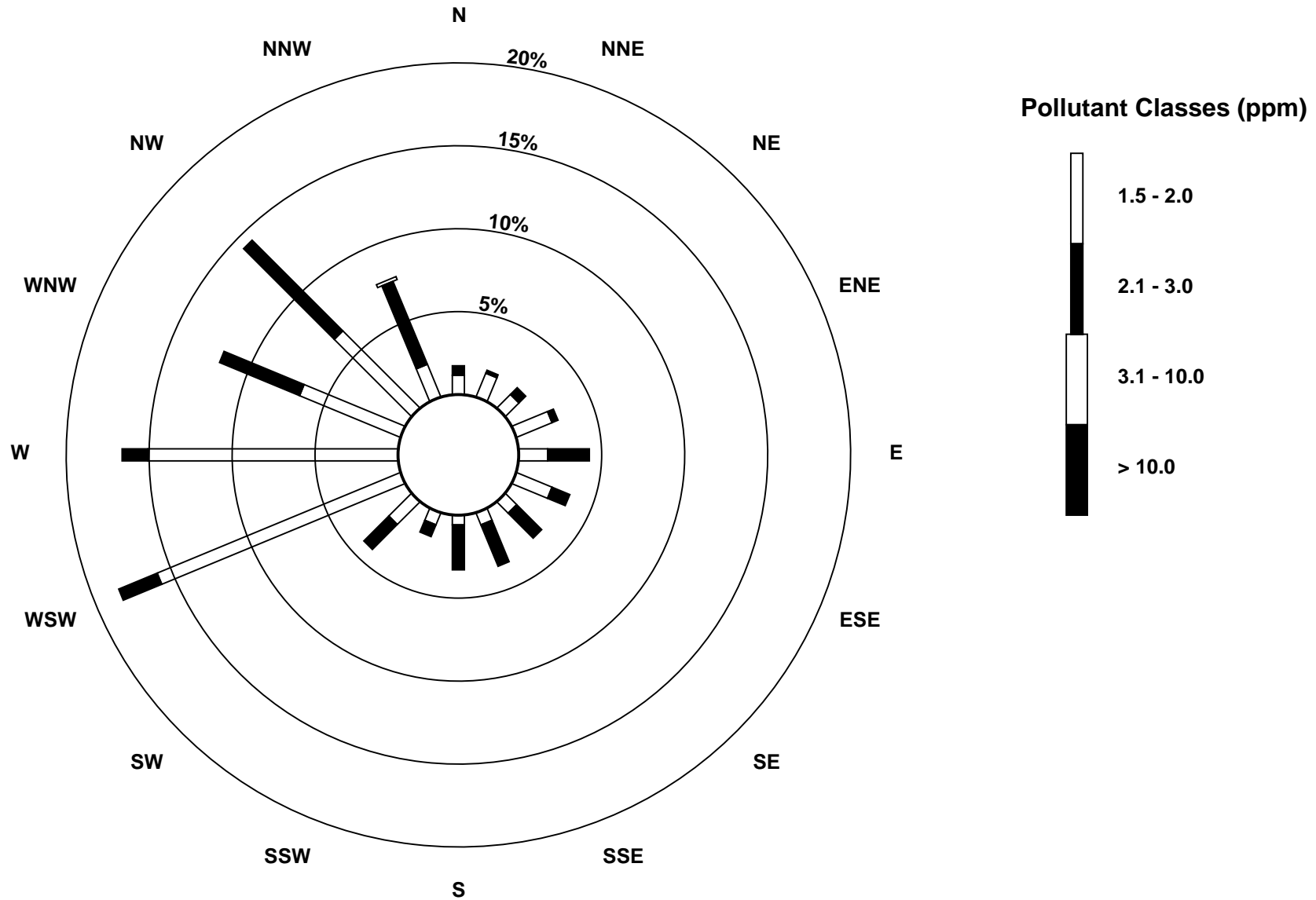
### Hourly Maximums

Methane (CH<sub>4</sub>) - ppm  
Henry Pirker - January 2015



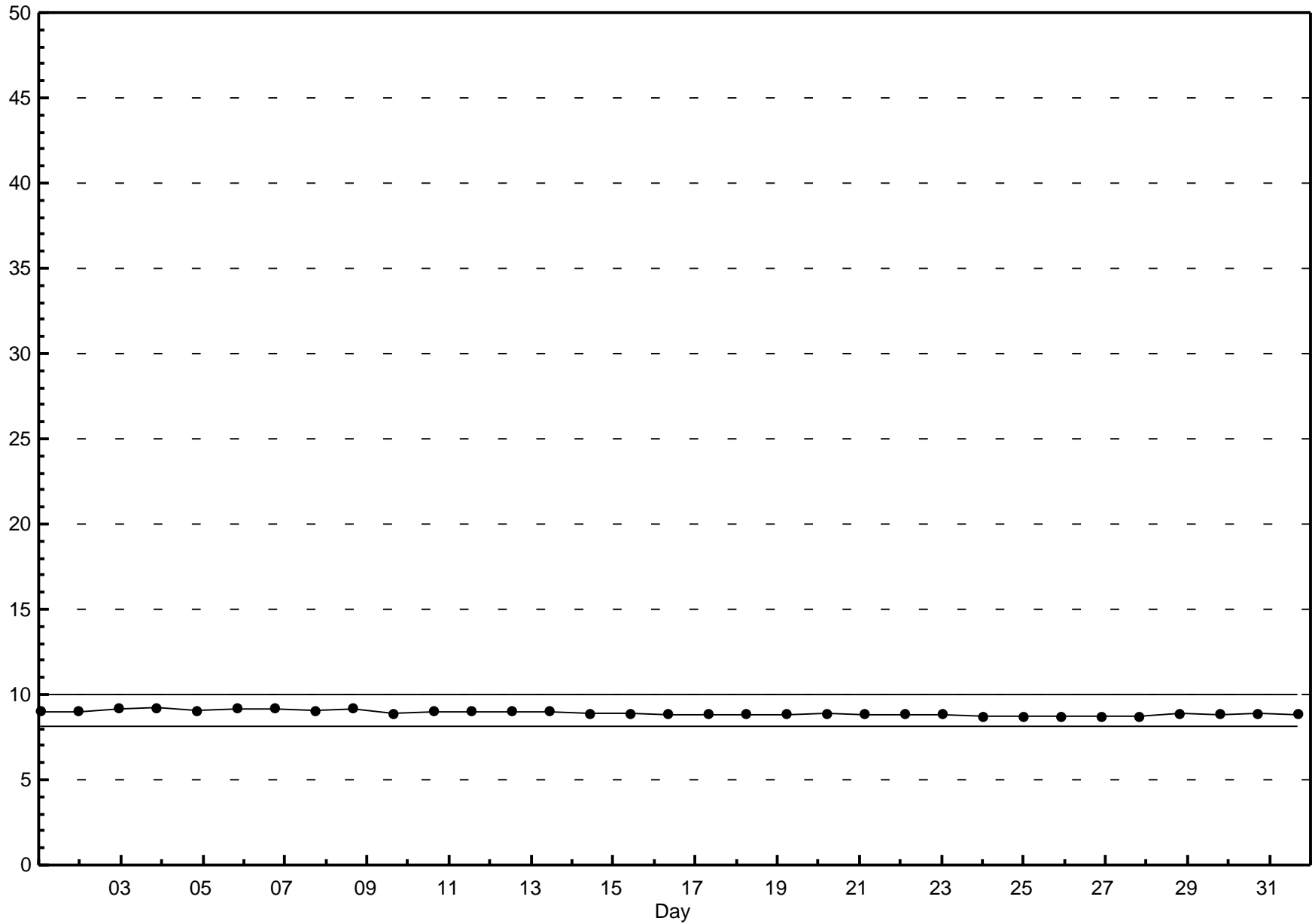
**Pollutant Rose**

**Methane (CH<sub>4</sub>) - ppm**  
**Henry Pirker - January 2015**



### Span Responses

Methane (CH<sub>4</sub>)  
Henry Pirker - January 2015



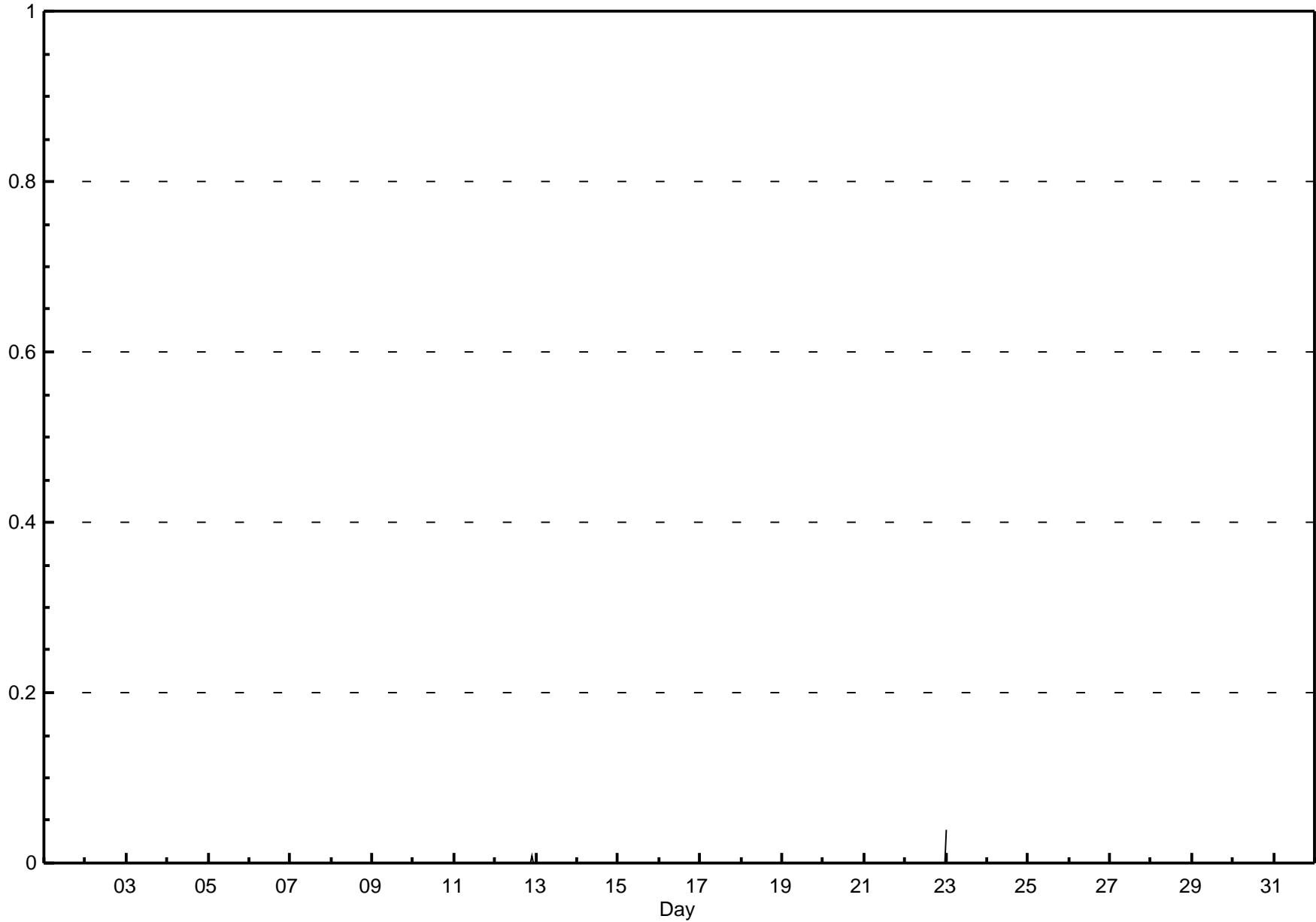
## Hourly Averages

## Non Methane Hydrocarbon (NMHC) - ppm

### Henry Pirker - January 2015

Number of Exceedences (AAAQO):		1-hr: 0		24-hr: 0		Hours in Service:		744																																								
Maximum Value: 0.04 ppm on Jan 23 01:00		Maximum Daily Average: 0.00 ppm on Jan 23		Hours of Data:		707																																										
Minimum Value: 0.0 ppm on Jan 1 02:00		Minimum Daily Average: 0.00 ppm on Jan 2		Hours of Missing Data:		37																																										
Maximum Diurnal Average: 0.00 ppm at hour 1		Minimum Diurnal Average: 0.00 ppm at hour 16		Hours of Calibration:		37																																										
Monthly Average: 0.000 ppm		Percentiles: P <sub>1</sub> = 0.00 P <sub>10</sub> = 0.00 Q <sub>1</sub> = 0.00 Median = 0.00 Q <sub>3</sub> = 0.00 P <sub>90</sub> = 0.00 P <sub>99</sub> = 0.00		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-Jan	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	A	0.00	0.00																						
2-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00	0.00																						
3-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
4-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
5-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
6-Jan	0.0	0.0	0.0	0.0	0.0	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																						
7-Jan	0.0	0.0	0.0	0.0	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																						
8-Jan	0.0	0.0	0.0	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																						
9-Jan	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00																						
10-Jan	0.0	0.0	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																						
11-Jan	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																						
12-Jan	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	0.0	0.00	0.01																						
13-Jan	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	0.0	0.00	0.00																						
14-Jan	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																						
15-Jan	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																						
16-Jan	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																						
17-Jan	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																						
18-Jan	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																						
19-Jan	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																						
20-Jan	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																						
21-Jan	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																						
22-Jan	0.0	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																						
23-Jan	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	0.04																						
24-Jan	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	A	0.00	0.00																						
25-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
26-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
27-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
28-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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																						
29-Jan	0.0	0.0	0.0	0.0	0.0	0.0	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																						
30-Jan	0.0	0.0	0.0	0.0	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																						
31-Jan	0.0	0.0	0.0	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																						
																								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	0.00	0.00	0.00	0.00	Diurnal Average	
																								0.04	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	0.01	0.00	0.00	Diurnal Maximum	
C - Calibration																								A - Automated Daily Zero Span																								



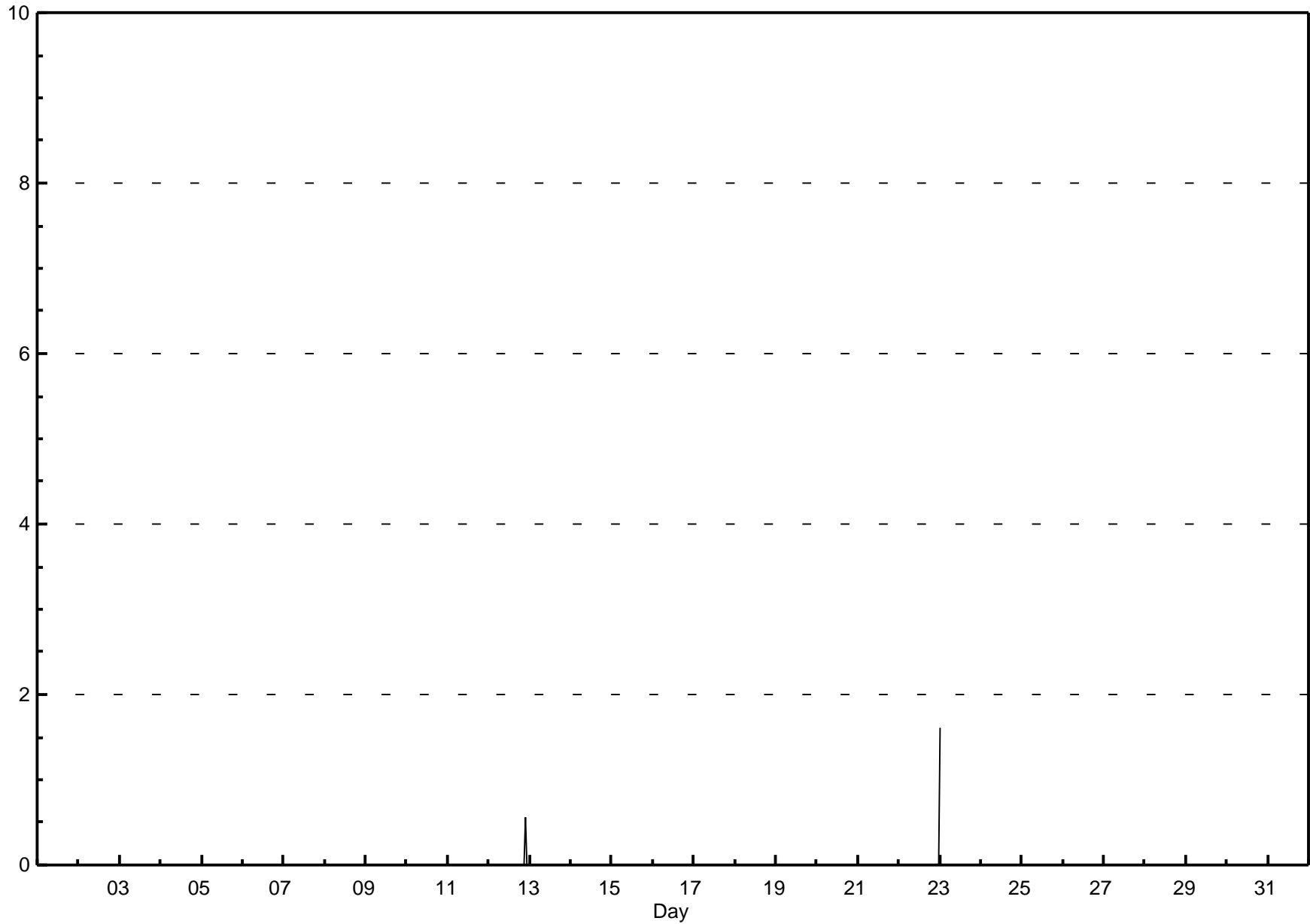


# Hourly Maximums

## Non Methane Hydrocarbon (NMHC) - ppm

### Henry Pirker - January 2015

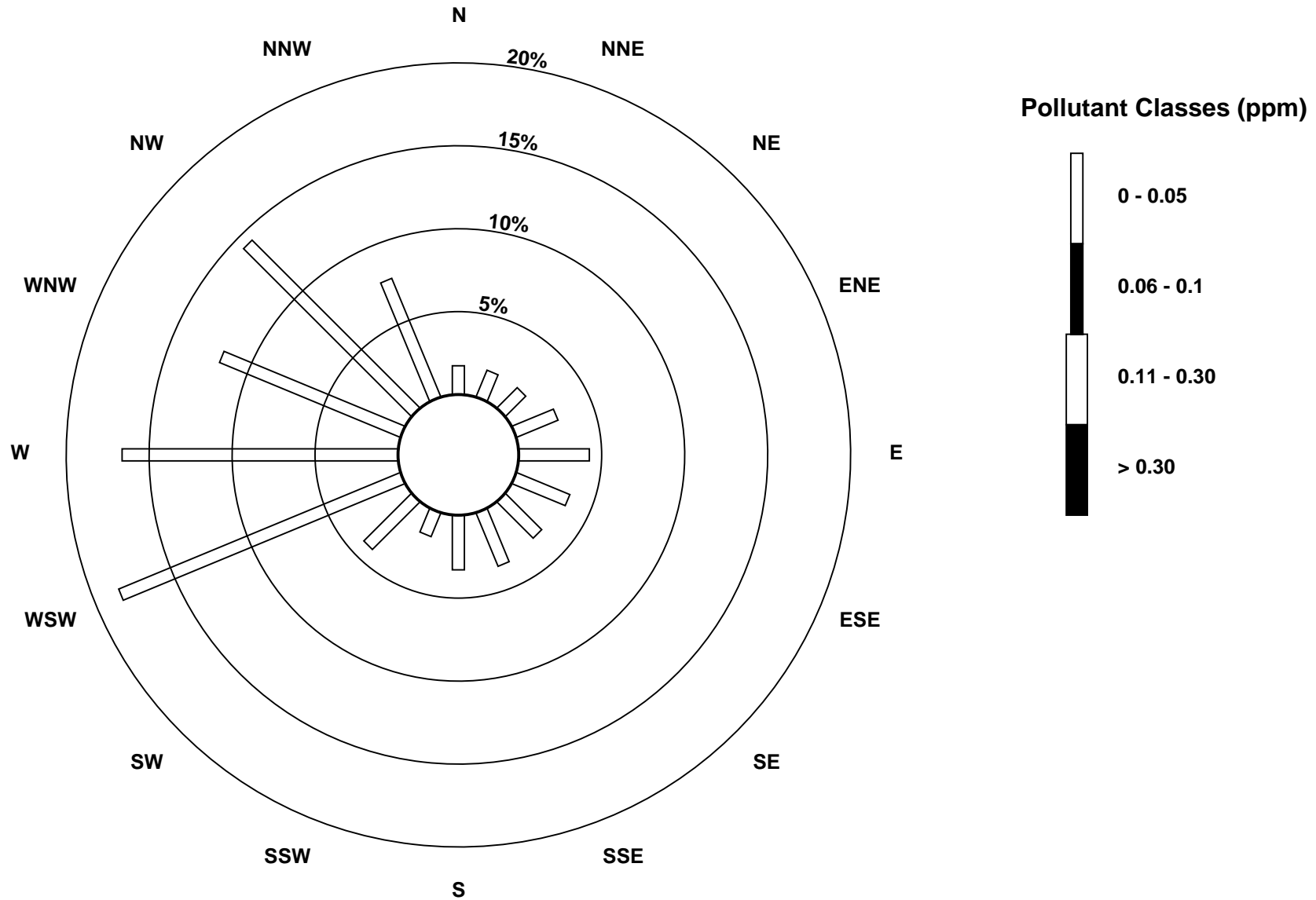
Maximum Value: 1.60 ppm on Jan 23 01:00		Maximum Daily Average: 0.07 ppm on Jan 23		Hours in Service: 744																							
Minimum Value: 0.0 ppm on Jan 1 23:00		Minimum Daily Average: 0.00 ppm on Jan 20		Hours of Data: 707																							
Maximum Diurnal Average: 0.06 ppm at hour 1		Minimum Diurnal Average: 0.00 ppm at hour 17		Hours of Missing Data: 37																							
Monthly Average: 0.004 ppm		Percentiles: P <sub>1</sub> = 0.00 P <sub>10</sub> = 0.00 Q <sub>1</sub> = 0.00 Median = 0.00 Q <sub>3</sub> = 0.00 P <sub>90</sub> = 0.00 P <sub>99</sub> = 0.00		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-Jan	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	A	0.00	0.00	
2-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.00	0.00	
3-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
4-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
5-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
6-Jan	0.0	0.0	0.0	0.0	0.0	0.0	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	
7-Jan	0.0	0.0	0.0	0.0	0.0	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	
8-Jan	0.0	0.0	0.0	0.0	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	
9-Jan	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	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
10-Jan	0.0	0.0	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	
11-Jan	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	
12-Jan	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	0.6	0.0	0.03	0.57	
13-Jan	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	0.0	0.00	0.00	
14-Jan	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	0.0	0.00	0.00	
15-Jan	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	
16-Jan	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	
17-Jan	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	
18-Jan	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	
19-Jan	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	
20-Jan	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	
21-Jan	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	
22-Jan	0.0	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	
23-Jan	1.6	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	0.07	1.60	
24-Jan	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	A	0.00	0.00	
25-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
26-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
27-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
28-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	
29-Jan	0.0	0.0	0.0	0.0	0.0	0.0	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	
30-Jan	0.0	0.0	0.0	0.0	0.0	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	
31-Jan	0.0	0.0	0.0	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	
		0.06	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	0.02	0.00	0.00	Diurnal Average		
		1.60	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	0.57	0.00	0.00	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

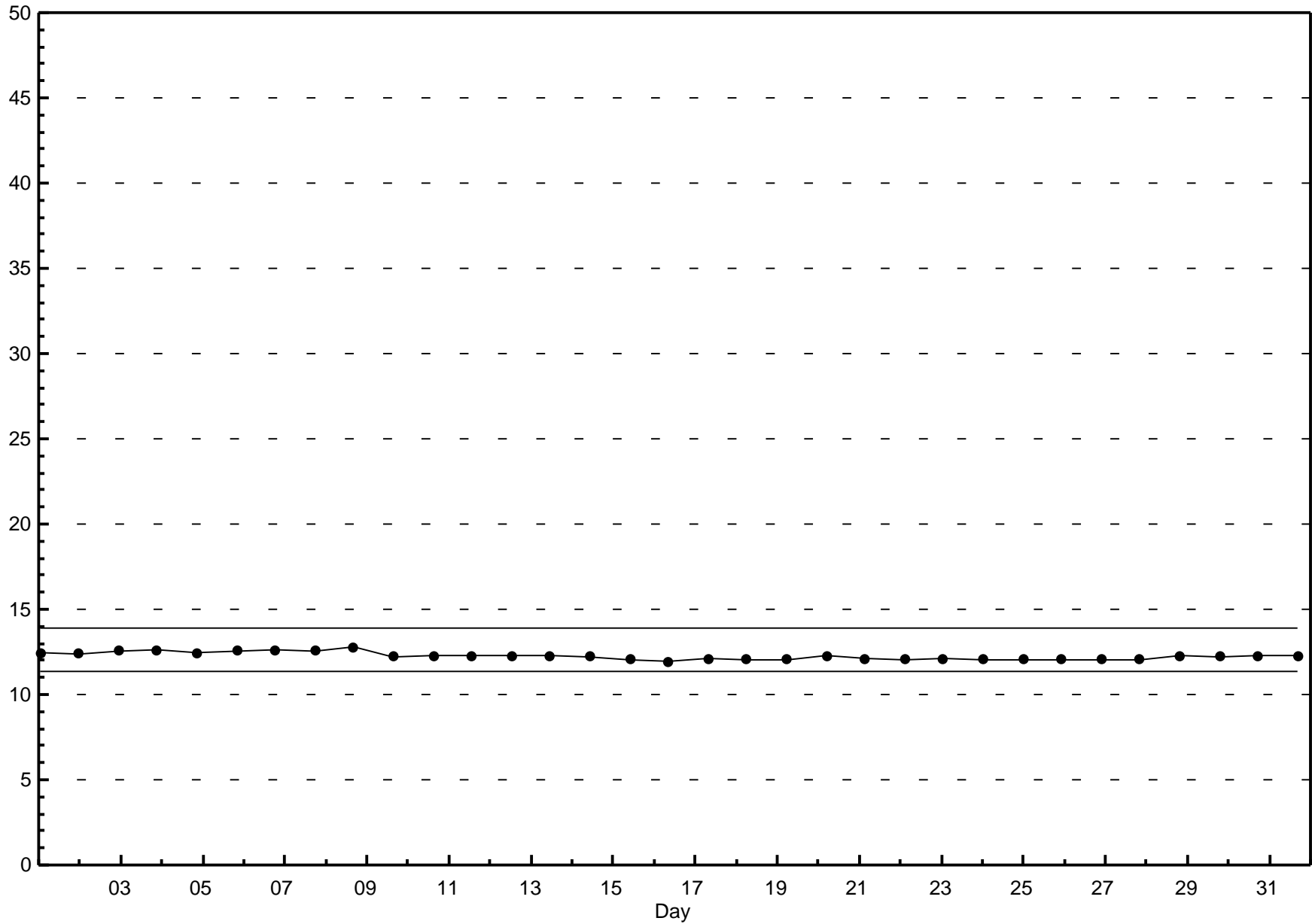


**Pollutant Rose**

**Non Methane Hydrocarbon (NMHC) - ppm**

**Henry Pirker - January 2015**





## Hourly Averages

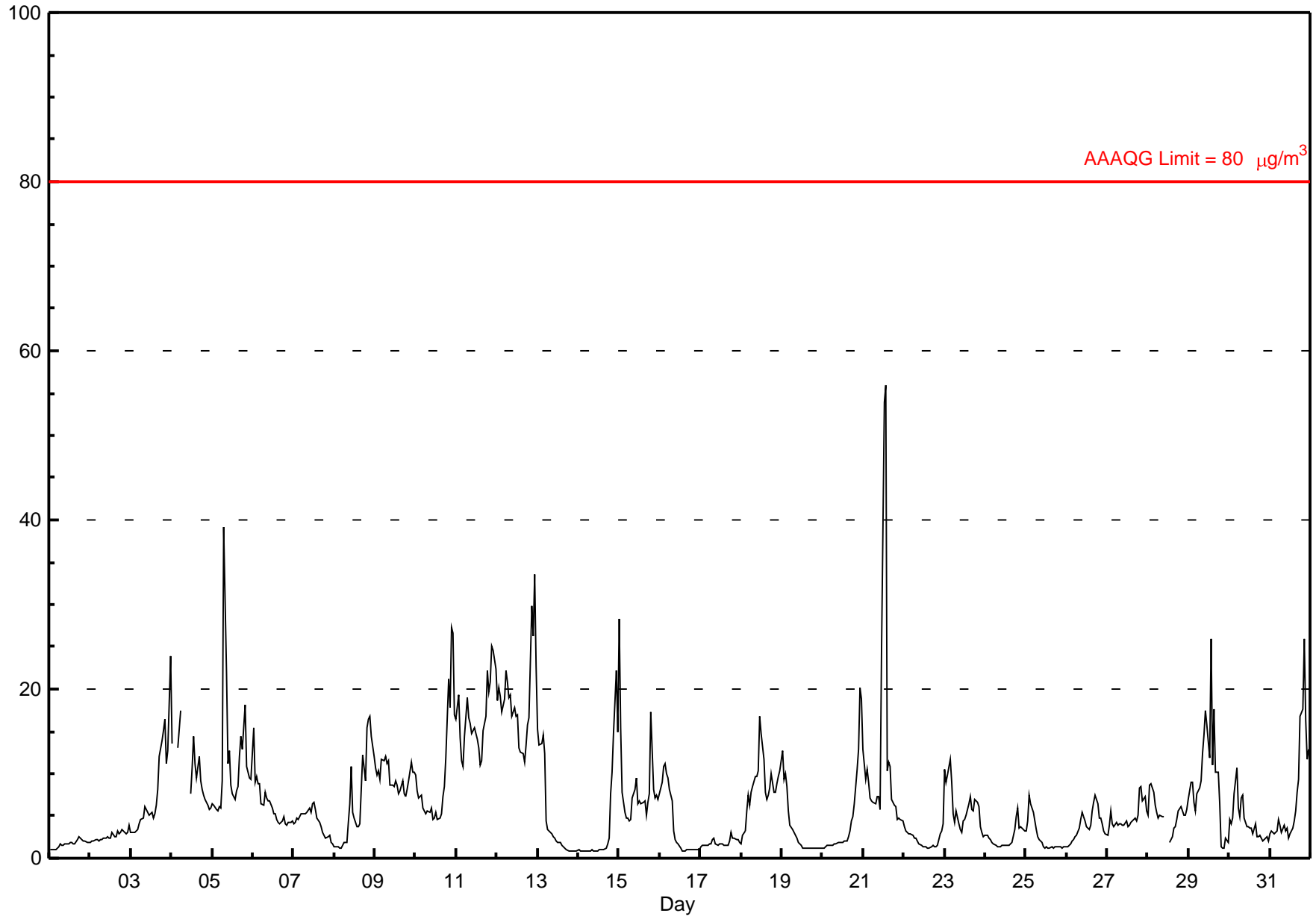
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Henry Pirker - January 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 55.9 µg/m <sup>3</sup> on Jan 21 14:00	Maximum Daily Average: 18.8 µg/m <sup>3</sup> on Jan 12
Minimum Value: 1 µg/m <sup>3</sup> on Jan 16 15:00	Hours of Data: 733
Maximum Diurnal Average: 8.4 µg/m <sup>3</sup> at hour 23	Hours of Missing Data: 11
Monthly Average: 6.54 µg/m <sup>3</sup>	Hours of Calibration: 3
Minimum Daily Average: 1.7 µg/m <sup>3</sup> on Jan 1	Percent Operational Time: 98.9
Minimum Diurnal Average: 4.8 µg/m <sup>3</sup> at hour 15	
Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 2.2 Median = 4.7 Q <sub>3</sub> = 8.7 P <sub>90</sub> = 14.7 P <sub>99</sub> = 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-Jan	1	1	1	1	1	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.7	2.5
2-Jan	2	2	2	2	2	2	2	2	2	2	3	2	2	3	3	3	3	3	3	3	3	3	3	4	2.6	3.8
3-Jan	3	3	3	3	3	4	5	5	6	6	5	5	5	5	5	6	8	12	14	15	16	11	13	24	7.8	23.9
4-Jan	13	N	N	N	13	17	N	N	N	N	N	8	11	14	11	9	12	9	8	8	7	6	6	6	--	17.5
5-Jan	6	6	6	6	6	6	9	39	22	11	13	9	8	7	8	8	12	14	13	18	11	10	10	9	11.1	39.2
6-Jan	15	9	10	9	9	7	6	8	7	7	7	6	5	5	5	4	4	4	5	4	4	4	4	4	6.3	15.4
7-Jan	4	4	5	5	5	5	5	5	5	6	5	6	7	6	5	4	4	3	3	2	3	3	2	2	4.3	6.6
8-Jan	1	1	1	1	1	1	2	2	4	6	11	5	5	4	4	4	8	12	9	15	16	17	14	12	6.6	16.8
9-Jan	11	10	10	9	12	12	12	11	11	9	9	9	9	8	8	9	8	7	8	9	11	10	10	10	9.6	12.0
10-Jan	10	8	7	7	6	6	5	6	5	6	5	5	5	5	5	7	8	12	21	18	27	27	17	9.7	27.2	
11-Jan	16	19	14	11	11	14	19	17	16	15	15	15	14	13	11	12	15	17	22	20	21	25	25	22	16.7	25.2
12-Jan	19	20	19	17	19	22	21	19	19	17	18	17	17	13	13	12	11	13	16	17	30	26	33	23	18.8	33.5
13-Jan	15	13	14	15	12	4	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	4.3	15.3
14-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	8	10	15	22	15	3.7	22.2
15-Jan	28	15	8	5	5	5	4	5	7	8	9	7	7	7	7	7	5	7	8	17	8	7	8	7	8.3	28.2
16-Jan	8	9	11	11	10	9	8	7	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	3.9	11.2
17-Jan	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	3	2	2	2	2	1.8	3.1
18-Jan	2	3	3	6	7	6	8	8	10	10	10	17	15	12	8	7	7	8	10	8	8	9	10	10	8.4	16.7
19-Jan	13	9	10	8	6	4	3	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3.3	12.7
20-Jan	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3	4	5	6	10	13	20	19	4.5	20.2
21-Jan	13	9	11	9	7	7	7	6	7	7	6	24	54	56	10	11	11	7	6	6	5	5	5	4	12.2	55.9
22-Jan	4	3	3	3	3	3	2	2	2	2	2	1	1	1	1	1	1	2	1	1	2	3	3	4	2.2	4.1
23-Jan	11	9	10	12	9	5	4	6	4	3	3	4	5	5	6	7	6	6	7	7	6	4	3	2	6.0	11.6
24-Jan	3	3	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	3	5	6	4	4	3	3	2.5	5.9
25-Jan	3	4	7	6	5	4	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5	7.5
26-Jan	1	1	2	2	2	3	3	4	5	5	5	4	4	3	4	6	7	7	6	5	5	4	3	3	3.9	7.5
27-Jan	3	4	6	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	5	8	9	7	7	6	4.8	8.5
28-Jan	5	9	9	8	6	6	5	5	5	5	5	C	C	C	2	3	4	4	5	6	6	6	5	6	5.3	8.9
29-Jan	7	9	9	7	6	8	8	9	12	15	18	16	12	26	11	18	10	10	6	1	1	1	2	2	9.3	25.9
30-Jan	5	4	5	8	11	6	5	7	7	5	4	4	4	4	3	4	3	3	3	2	2	2	2	2	4.3	10.7
31-Jan	3	3	3	3	3	5	4	3	4	3	4	2	3	4	4	6	8	9	17	18	26	16	12	13	7.3	26.0
	7.4	6.5	6.5	6.1	6.1	5.9	5.5	6.5	6.2	5.6	5.8	6.2	7.0	7.1	4.8	5.3	5.6	6.1	6.7	7.7	8.0	8.0	8.4	7.7	Diurnal Average	
	28.2	20.2	19.1	17.4	18.8	22.2	20.9	39.2	21.9	16.8	17.7	24.1	54.0	55.9	12.6	17.5	15.1	16.7	22.3	21.2	29.8	27.2	33.5	23.9	Diurnal Maximum	

C - Calibration N - Not Valid  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>



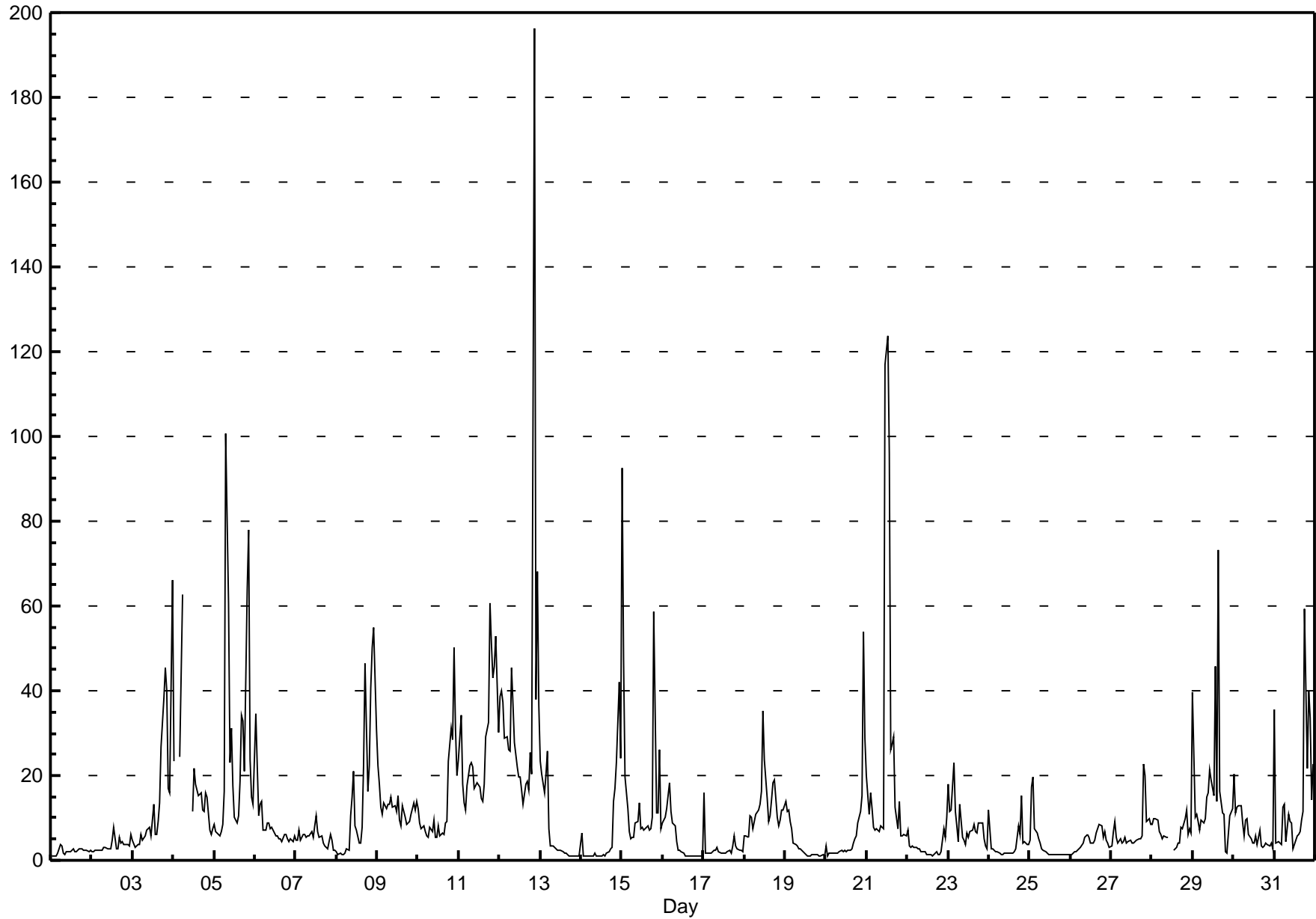
## Hourly Maximums

Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Henry Pirker - January 2015

Maximum Value: 196.2 µg/m <sup>3</sup> on Jan 12 21:00		Maximum Daily Average: 36.0 µg/m <sup>3</sup> on Jan 12		Hours in Service: 744																							
Minimum Value: 1 µg/m <sup>3</sup> on Jan 13 23:00		Minimum Daily Average: 2.1 µg/m <sup>3</sup> on Jan 1		Hours of Data: 733																							
Maximum Diurnal Average: 20.2 µg/m <sup>3</sup> at hour 21		Minimum Diurnal Average: 6.3 µg/m <sup>3</sup> at hour 15		Hours of Missing Data: 11																							
Monthly Average: 11.00 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 1.5 Q <sub>1</sub> = 2.6 Median = 6.1 Q <sub>3</sub> = 12.7 P <sub>90</sub> = 23.8 P <sub>99</sub> = 65.8		Hours of Calibration: 3																							
				Percent Operational Time: 98.9																							
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-Jan	1	1	1	1	2	4	3	2	2	2	2	2	3	2	2	3	3	3	2	2	2	2	2	2	2.1	3.8	
2-Jan	2	2	2	2	2	2	2	3	3	3	3	3	5	8	3	3	5	4	4	4	4	4	3	6	3.5	7.9	
3-Jan	5	3	3	4	4	6	5	6	7	7	8	6	13	6	6	9	14	27	38	45	40	17	16	66	15.0	66.2	
4-Jan	23	N	N	N	24	63	N	N	N	N	N	12	22	18	17	15	16	12	11	16	15	7	6	7	--	62.6	
5-Jan	8	7	6	6	7	8	16	101	61	23	31	18	10	9	11	19	34	33	21	64	78	24	15	13	25.9	100.7	
6-Jan	35	22	11	13	14	7	7	9	9	8	8	6	6	6	5	5	4	6	6	5	4	5	5	6	8.8	34.6	
7-Jan	5	5	7	5	6	6	6	6	6	7	6	8	10	7	5	6	4	3	3	3	6	5	2	2	5.3	10.4	
8-Jan	2	2	2	1	1	2	3	2	11	15	21	8	7	4	4	8	22	47	16	22	41	50	55	31	15.7	54.8	
9-Jan	22	18	13	11	14	12	13	13	15	12	13	11	15	9	8	13	10	8	9	9	11	13	12	14	12.5	22.3	
10-Jan	12	9	7	8	7	6	6	8	7	9	6	5	8	6	6	6	9	9	23	31	29	50	31	20	13.3	50.2	
11-Jan	24	34	18	14	12	18	22	23	22	17	17	18	17	15	14	18	29	33	61	51	43	46	53	30	27.0	60.7	
12-Jan	39	40	37	29	29	26	26	45	37	28	22	20	20	17	13	18	19	17	26	20	196	38	68	36	36.0	196.2	
13-Jan	23	21	16	20	26	8	3	3	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	6.1	25.9	
14-Jan	6	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	2	3	3	14	17	23	42	24	6.3	42.2	
15-Jan	92	48	20	12	7	5	5	5	9	9	14	8	8	7	8	8	7	7	10	59	11	11	26	8	16.8	92.4	
16-Jan	9	10	12	15	18	12	9	8	5	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	4.9	18.2	
17-Jan	16	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	3	6	3	3	2	2	2	2.9	15.8	
18-Jan	6	6	5	11	10	8	9	11	12	13	16	35	24	14	9	11	14	18	19	10	8	9	12	12	12.6	35.2	
19-Jan	14	12	12	9	7	4	4	3	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	3.7	13.8	
20-Jan	3	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	5	6	9	11	15	54	29	6.9	53.9	
21-Jan	20	11	16	12	8	7	7	7	8	8	7	117	124	96	26	28	29	13	7	14	6	6	6	6	24.5	123.7	
22-Jan	7	3	3	3	3	3	3	3	2	2	2	2	1	2	1	2	2	2	2	2	2	7	5	10	3.0	10.3	
23-Jan	18	11	12	23	11	8	5	13	5	5	4	6	5	7	7	8	7	6	9	9	9	5	3	3	8.3	22.9	
24-Jan	12	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	8	6	15	4	4	4	4	3.7	15.2	
25-Jan	5	17	20	8	6	5	4	3	2	2	2	1	1	1	1	1	1	1	1	1	2	1	2	2	3.8	19.6	
26-Jan	2	1	2	2	2	3	3	4	5	6	6	5	4	4	5	6	7	8	8	6	7	5	4	3	4.5	8.3	
27-Jan	3	7	9	5	4	5	4	4	5	4	4	5	4	4	5	5	5	5	6	23	20	9	10	8	6.8	22.8	
28-Jan	8	10	10	9	7	6	5	6	5	5	5	C	C	C	2	3	4	4	8	8	10	12	6	7	6	6.8	11.9
29-Jan	40	10	11	9	7	9	9	10	15	16	21	19	15	46	14	73	16	11	11	2	2	6	10	12	16.5	73.3	
30-Jan	20	11	13	13	13	9	6	10	10	6	5	4	4	6	4	7	3	3	3	4	4	3	4	3	7.0	20.4	
31-Jan	35	4	4	4	4	13	13	4	11	9	9	3	4	6	6	7	10	12	59	22	40	33	14	23	14.5	59.2	
		16.7	11.0	9.3	8.6	8.5	8.7	6.9	10.6	9.5	7.7	8.3	11.2	11.4	10.1	6.3	9.5	9.3	10.3	12.5	15.5	20.2	13.3	15.4	12.6	Diurnal Average	
		92.4	47.5	37.4	28.9	29.0	62.6	25.7	100.7	60.7	27.7	31.2	116.9	123.7	96.0	26.1	73.3	34.4	46.6	60.7	64.2	196.2	50.2	68.0	66.2	Diurnal Maximum	
C - Calibration		N - Not Valid																									









Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Henry Pirker - January 2015

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 8.9 °C on Jan 25 14:00	Maximum Daily Average: 5.6 °C on Jan 22		Hours of Data:	744
Minimum Value: -37 °C on Jan 4 10:00	Minimum Daily Average: -32.1 °C on Jan 4		Hours of Missing Data:	0
Maximum Diurnal Average: -5.6 °C at hour 15	Minimum Diurnal Average: -9.8 °C at hour 8		Hours of Calibration:	0
Monthly Average: -8.48 °C	Percentiles: P <sub>1</sub> = -35.5 P <sub>10</sub> = -25.3 Q <sub>1</sub> = -17.4 Median = -5.8 Q <sub>3</sub> = 2.3 P <sub>90</sub> = 4.9 P <sub>99</sub> = 7.2		Percent Operational Time:	100.0

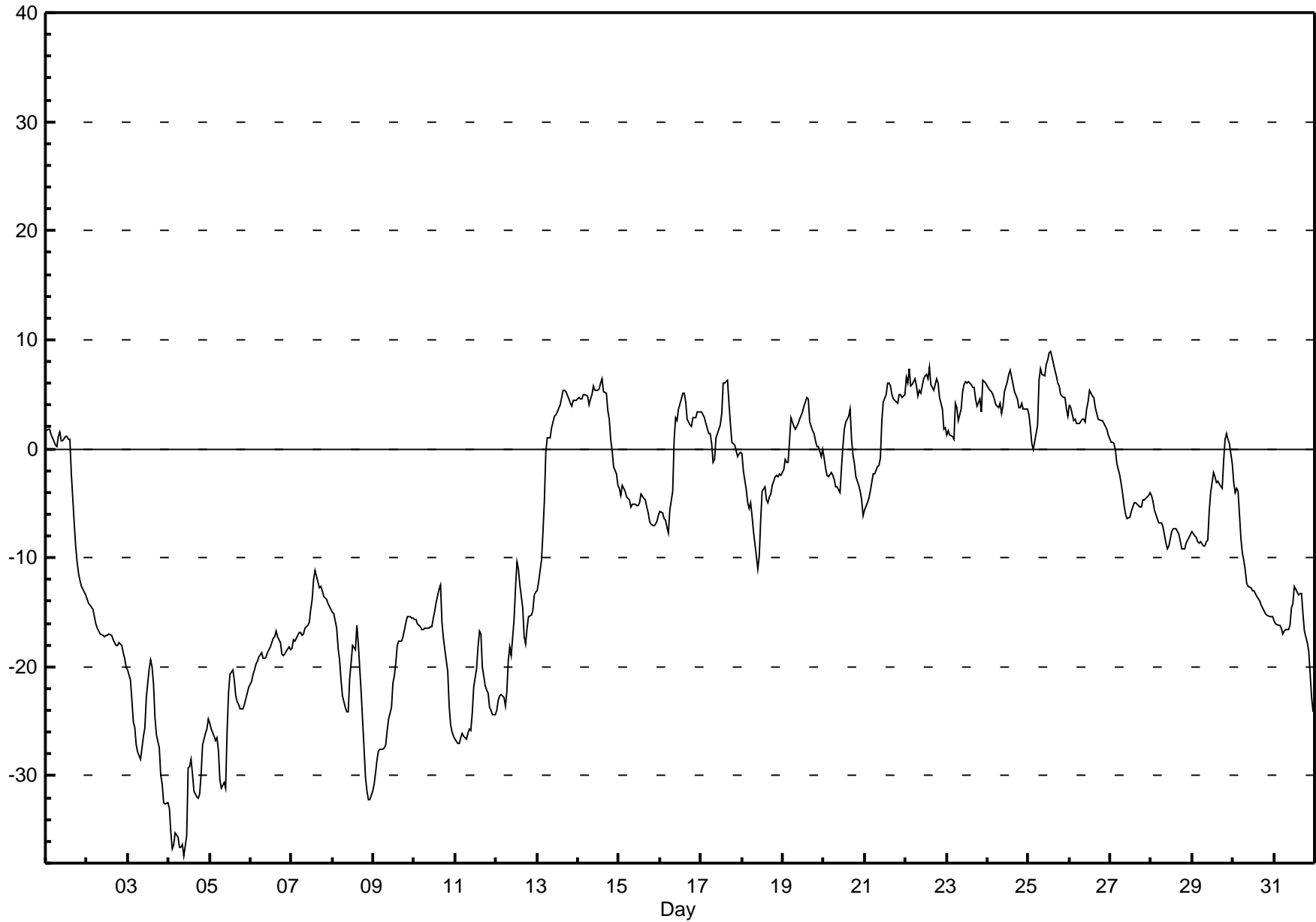
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	2	2	2	1	1	0	0	1	1	1	1	1	1	1	1	-2	-7	-9	-10	-11	-12	-13	-13	-13	-3.1	1.8	
2-Jan	-14	-14	-14	-15	-15	-16	-16	-17	-17	-17	-17	-17	-17	-17	-17	-18	-18	-18	-18	-18	-18	-19	-19	-20	-16.9	-13.8	
3-Jan	-20	-21	-23	-25	-26	-27	-28	-29	-27	-26	-26	-23	-20	-19	-20	-22	-25	-26	-27	-30	-31	-32	-33	-32	-25.8	-19.3	
4-Jan	-33	-35	-37	-36	-35	-36	-37	-37	-36	-37	-36	-29	-29	-29	-30	-31	-32	-32	-32	-30	-27	-26	-26	-25	-32.1	-24.7	
5-Jan	-25	-26	-26	-27	-26	-28	-30	-31	-31	-31	-26	-22	-21	-20	-21	-23	-23	-23	-24	-24	-23	-23	-22	-22	-25.0	-20.2	
6-Jan	-21	-21	-20	-20	-19	-19	-19	-19	-19	-19	-19	-18	-18	-17	-17	-17	-17	-18	-19	-19	-19	-19	-18	-18	-18.7	-16.7	
7-Jan	-18	-18	-18	-17	-17	-17	-17	-17	-16	-16	-16	-15	-14	-12	-11	-12	-13	-13	-13	-14	-14	-14	-14	-15	-15.0	-11.2	
8-Jan	-15	-15	-16	-18	-19	-21	-23	-24	-24	-24	-21	-20	-18	-18	-16	-18	-20	-22	-28	-30	-31	-32	-32	-31	-22.4	-15.0	
9-Jan	-31	-30	-29	-28	-27	-28	-27	-27	-26	-25	-24	-21	-21	-20	-18	-18	-18	-17	-17	-16	-15	-15	-16	-16	-22.0	-15.3	
10-Jan	-16	-16	-16	-16	-17	-17	-16	-16	-16	-16	-16	-15	-15	-14	-13	-12	-16	-17	-18	-20	-24	-25	-26	-26	-17.6	-12.4	
11-Jan	-27	-27	-27	-27	-26	-26	-27	-26	-26	-26	-24	-22	-20	-18	-17	-17	-20	-22	-22	-22	-24	-24	-24	-24	-23.5	-16.7	
12-Jan	-24	-23	-23	-23	-23	-24	-22	-19	-18	-19	-16	-13	-10	-11	-12	-15	-17	-18	-16	-15	-15	-13	-13	-17.4	-10.4		
13-Jan	-13	-12	-10	-8	-5	0	1	1	2	3	3	3	3	4	5	5	5	5	5	4	4	4	4	4	0.8	5.4	
14-Jan	5	5	5	5	5	5	4	5	5	6	5	5	5	6	6	5	5	4	3	1	0	-2	-2	-3	3.6	6.5	
15-Jan	-4	-4	-3	-4	-4	-5	-5	-5	-5	-5	-5	-5	-5	-4	-5	-5	-5	-6	-7	-7	-7	-7	-6	-5.2	-3.4		
16-Jan	-6	-6	-6	-7	-7	-8	-6	-4	1	3	3	4	5	5	5	4	3	2	2	3	3	3	3	3	0.1	5.1	
17-Jan	3	3	3	2	1	1	1	-1	-1	1	2	2	3	6	6	6	4	2	1	0	0	-1	0	0	1.9	6.4	
18-Jan	0	-2	-4	-5	-5	-5	-6	-8	-10	-11	-10	-7	-4	-4	-5	-5	-4	-4	-3	-3	-2	-3	-2	-2	-4.8	-0.4	
19-Jan	-2	-1	-1	-1	1	3	2	2	2	3	3	4	4	4	5	5	2	2	1	1	0	0	-1	0	1.5	4.7	
20-Jan	-1	-2	-2	-3	-2	-2	-3	-3	-3	-4	-2	0	2	2	3	4	1	-1	-1	-3	-3	-4	-5	-6	-1.6	3.6	
21-Jan	-6	-5	-5	-4	-3	-2	-2	-2	-2	-1	3	4	5	6	6	6	5	5	4	4	5	5	5	5	1.5	6.0	
22-Jan	7	6	7	6	6	6	6	5	5	5	6	7	7	6	8	6	5	6	6	6	5	4	2	2	5.6	7.5	
23-Jan	1	2	1	1	1	4	4	3	4	5	6	6	6	6	6	6	6	5	4	5	3	6	6	6	4.2	6.3	
24-Jan	6	5	5	5	5	4	4	4	3	4	5	6	7	7	7	6	5	5	4	4	4	4	4	4	4.8	7.2	
25-Jan	3	2	0	0	1	2	6	7	7	7	8	8	9	9	8	7	7	6	6	5	5	5	4	3	5.2	8.9	
26-Jan	4	4	3	3	2	2	2	3	3	2	4	4	5	5	5	4	3	3	3	3	2	2	2	1	3.0	5.4	
27-Jan	1	1	0	0	-1	-2	-3	-4	-5	-6	-6	-6	-6	-5	-5	-5	-5	-5	-5	-5	-5	-4	-4	-4	-3.9	0.7	
28-Jan	-4	-5	-6	-6	-7	-7	-7	-7	-9	-9	-9	-8	-8	-7	-7	-8	-8	-8	-9	-9	-9	-8	-8	-8	-7.6	-4.2	
29-Jan	-8	-8	-8	-9	-9	-9	-9	-9	-9	-8	-6	-4	-2	-3	-3	-3	-3	-4	-1	1	1	1	0	-1	-4.6	1.4	
30-Jan	-3	-4	-4	-4	-8	-10	-10	-11	-12	-13	-13	-13	-13	-13	-13	-14	-14	-15	-15	-15	-15	-15	-15	-15	-11.6	-3.1	
31-Jan	-16	-16	-16	-16	-16	-17	-17	-17	-17	-16	-15	-14	-13	-13	-13	-13	-13	-13	-15	-17	-18	-19	-21	-23	-24	-16.4	-12.6

-8.9	-9.1	-9.3	-9.5	-9.6	-9.5	-9.7	-9.8	-9.6	-9.4	-8.3	-7.0	-6.1	-5.7	-5.6	-6.2	-7.3	-8.1	-8.5	-8.8	-9.1	-9.3	-9.5	-9.6	-9.6	Diurnal Average	
6.5	6.0	7.4	5.7	5.9	6.5	6.4	7.4	6.9	6.6	7.8	8.1	8.8	8.9	8.5	7.3	6.7	6.0	6.4	6.0	4.9	6.3	6.1	6.0	6.0	Diurnal Maximum	

**Hourly Averages**

**External Temperature (ET) - °C**

**Henry Pirker - January 2015**



# Hourly Averages

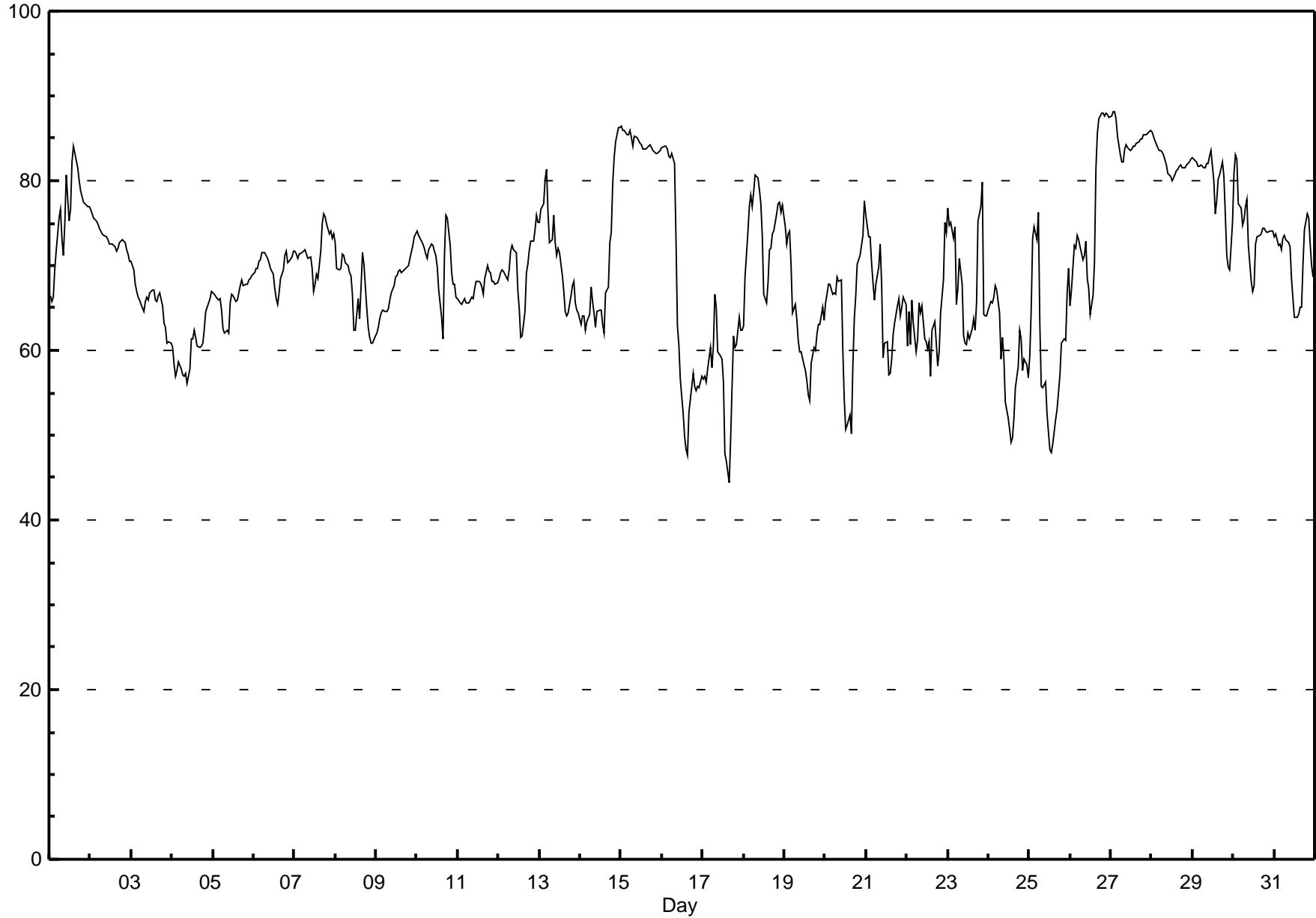
Relative Humidity (RH) - %

Henry Pirker - January 2015

Number of Exceedences (AAQO): 1-hr: 0 24-hr: 0 Maximum Value: 88.1 % on Jan 27 03:00 Maximum Daily Average: 84.9 % on Jan 27																	Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0									
Minimum Value: 44 % on Jan 17 16:00 Minimum Daily Average: 57.8 % on Jan 17 Maximum Diurnal Average: 72.0 % at hour 4 Minimum Diurnal Average: 65.1 % at hour 15 Monthly Average: 69.62 % Percentiles: P <sub>1</sub> = 48.9 P <sub>10</sub> = 58.9 Q <sub>1</sub> = 64.3 Median = 69.1 Q <sub>3</sub> = 74.6 P <sub>90</sub> = 83.0 P <sub>99</sub> = 87.7																										
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-Jan	66	66	66	70	72	76	77	73	71	75	81	75	77	82	84	83	82	80	79	78	78	77	77	77	75.8	84.1
2-Jan	77	76	76	75	75	74	74	74	73	73	73	72	72	73	72	72	72	73	73	73	73	72	71	71	73.3	76.5
3-Jan	70	70	68	67	66	66	65	65	66	66	66	67	67	67	66	66	66	67	65	63	63	61	61	61	65.6	70.4
4-Jan	60	58	57	58	59	58	57	57	57	56	58	61	61	62	61	60	60	60	61	63	65	66	66	67	60.4	66.9
5-Jan	67	67	66	66	66	65	63	62	62	62	66	67	66	66	66	67	68	68	68	68	68	68	68	69	66.1	68.9
6-Jan	69	70	70	70	71	71	72	71	71	70	70	69	67	66	65	67	68	70	71	72	70	71	71	72	69.7	71.8
7-Jan	72	71	71	71	72	72	72	71	71	71	70	67	68	69	68	72	75	76	76	75	74	74	73	74	71.8	76.2
8-Jan	73	70	69	70	71	71	70	70	69	69	67	62	62	66	64	67	71	70	65	63	61	61	61	62	66.9	72.7
9-Jan	62	63	64	64	65	65	65	65	66	67	68	69	69	69	70	69	69	70	70	71	72	73	74	74	67.8	73.7
10-Jan	74	74	73	73	72	71	71	72	72	72	72	71	70	67	64	61	71	76	76	72	69	68	68	66	70.7	76.0
11-Jan	66	66	65	66	66	66	66	66	66	66	67	68	68	68	67	69	70	69	69	68	68	68	68	68	67.2	70.0
12-Jan	68	69	70	69	69	68	70	72	72	72	71	67	65	62	62	65	69	70	72	73	73	74	76	75	69.7	75.9
13-Jan	75	77	77	80	81	76	73	73	76	73	71	72	72	69	67	65	64	64	66	68	68	66	65	64	70.9	81.3
14-Jan	63	64	64	62	63	64	67	66	64	63	65	65	65	63	62	67	67	73	74	80	83	85	86	86	69.2	86.3
15-Jan	86	86	86	85	85	86	85	84	85	85	85	84	84	84	84	84	84	84	84	83	83	83	84	84	84.5	86.4
16-Jan	84	84	84	84	83	83	83	82	73	63	61	57	53	50	48	48	53	56	57	56	55	56	56	57	65.1	84.1
17-Jan	57	57	56	58	60	58	61	67	65	60	59	59	56	48	47	44	50	56	62	60	61	64	62	62	57.8	66.6
18-Jan	63	69	74	77	78	77	79	81	80	79	77	74	67	66	68	72	72	74	74	76	77	77	76	77	74.3	80.7
19-Jan	75	73	74	74	70	64	65	64	61	60	60	58	58	56	55	54	58	60	60	62	63	63	65	64	63.2	74.5
20-Jan	66	67	68	68	67	67	67	69	68	68	60	54	51	51	52	50	58	64	66	70	71	72	74	78	64.4	77.7
21-Jan	76	73	73	70	68	66	68	70	73	68	59	61	61	57	57	59	62	63	65	66	64	65	66	66	65.7	76.0
22-Jan	61	65	61	66	63	60	61	66	64	65	61	61	60	61	57	62	63	61	58	60	64	68	75	74	63.3	75.1
23-Jan	77	75	75	73	75	65	67	71	68	62	61	61	62	61	63	64	62	66	75	77	80	64	64	64	67.9	79.8
24-Jan	65	66	66	66	68	67	64	59	61	59	54	52	51	49	50	52	56	58	62	61	58	59	58	57	59.1	67.6
25-Jan	59	65	73	75	73	76	63	56	56	56	53	50	48	48	49	52	53	55	57	61	61	61	67	70	59.9	76.3
26-Jan	65	67	72	72	74	73	72	71	71	73	68	67	64	67	70	81	86	87	88	88	88	88	88	88	76.2	88.0
27-Jan	88	88	88	87	85	83	82	82	84	84	84	84	84	84	84	84	85	85	85	85	85	85	86	86	84.9	88.1
28-Jan	86	85	85	84	84	84	83	83	82	81	81	81	80	80	81	81	82	82	82	82	82	82	82	82	82.3	85.8
29-Jan	83	82	82	82	82	82	82	82	82	82	83	84	80	76	78	80	81	82	81	76	71	70	69	75	79.4	83.5
30-Jan	81	83	83	77	77	75	75	77	78	72	68	67	68	72	73	74	74	74	74	74	74	74	74	74	74.7	83.0
31-Jan	73	74	72	73	72	73	74	73	73	72	68	66	64	64	64	65	65	70	74	76	76	73	70	69	70.6	76.1
																								Diurnal Average		
																								Diurnal Maximum		

**Hourly Averages**

**Relative Humidity (RH) - %**  
**Henry Pirker - January 2015**





Peace Airshed Zone Association

# Hourly Averages

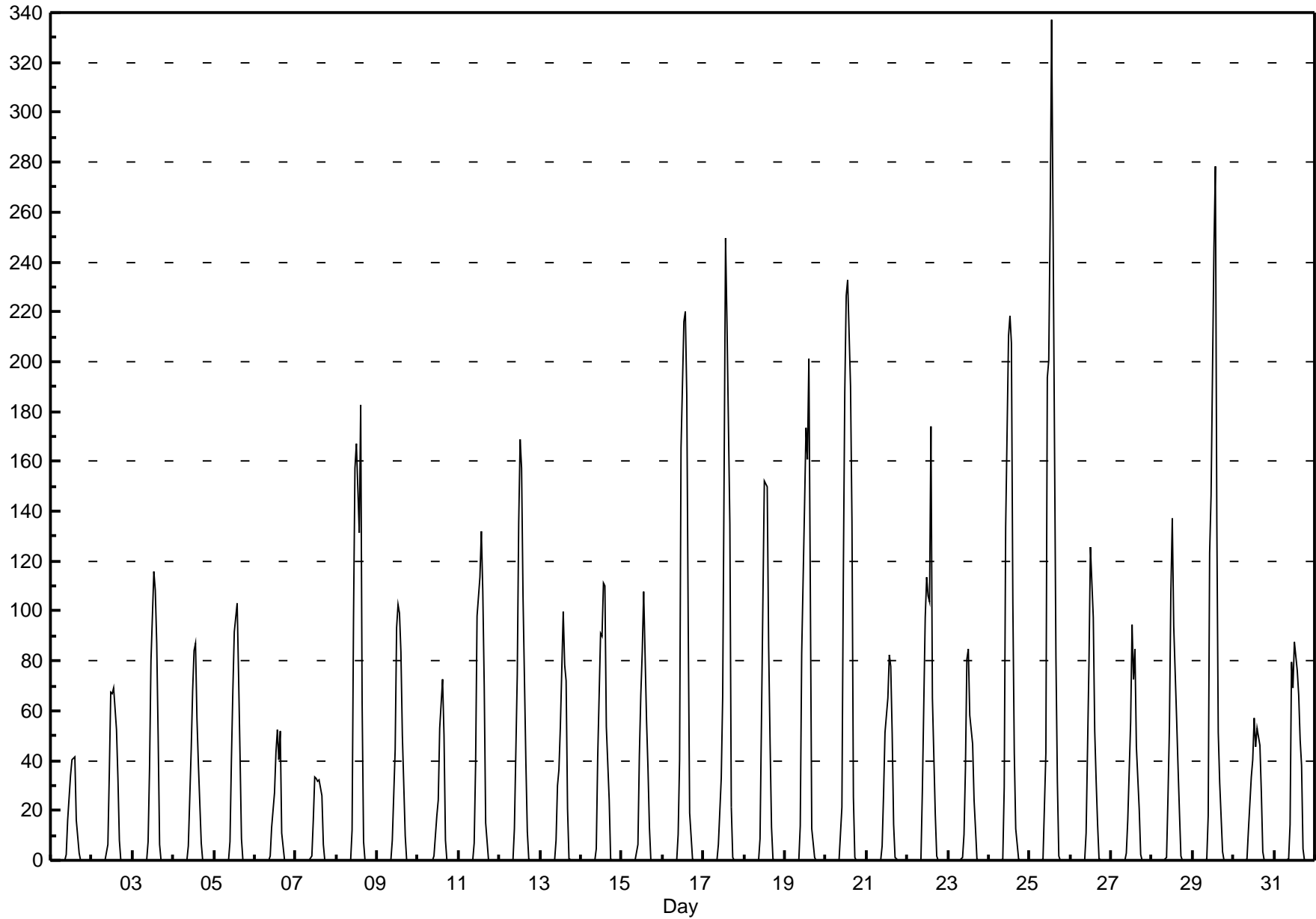
Solar Radiation (SR) - W/m<sup>2</sup>

Henry Pirker - January 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 337.0 W/m <sup>2</sup> on Jan 25 14:00      Maximum Daily Average: 58.4 W/m <sup>2</sup> on Jan 25		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: 0 W/m <sup>2</sup> on Jan 1 01:00 Maximum Diurnal Average: 124.2 W/m <sup>2</sup> at hour 14 Monthly Average: 24.13 W/m <sup>2</sup>		Minimum Daily Average: 7.5 W/m <sup>2</sup> on Jan 7 Minimum Diurnal Average: 0.0 W/m <sup>2</sup> at hour 1 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.0 Q <sub>3</sub> = 25.1 P <sub>90</sub> = 90.1 P <sub>99</sub> = 220.7																								
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-Jan	0	0	0	0	0	0	0	0	0	2	16	34	40	41	16	3	0	0	0	0	0	0	0	0	8.1	41.4
2-Jan	0	0	0	0	0	0	0	0	0	7	35	68	67	69	53	33	8	0	0	0	0	0	0	0	14.1	69.4
3-Jan	0	0	0	0	0	0	0	0	0	7	37	80	116	108	87	49	7	0	0	0	0	0	0	0	20.5	115.8
4-Jan	0	0	0	0	0	0	0	0	0	6	44	68	84	87	57	38	7	0	0	0	0	0	0	0	16.3	86.8
5-Jan	0	0	0	0	0	0	0	0	0	8	40	68	91	103	74	42	9	0	0	0	0	0	0	0	18.1	102.9
6-Jan	0	0	0	0	0	0	0	0	0	2	13	27	43	52	40	52	11	0	0	0	0	0	0	0	10.0	52.3
7-Jan	0	0	0	0	0	0	0	0	0	2	16	33	33	31	32	26	7	0	0	0	0	0	0	0	7.5	33.3
8-Jan	0	0	0	0	0	0	0	0	0	12	97	158	167	131	182	63	8	0	0	0	0	0	0	0	34.1	182.5
9-Jan	0	0	0	0	0	0	0	0	0	8	45	93	103	99	84	50	10	0	0	0	0	0	0	0	20.5	102.5
10-Jan	0	0	0	0	0	0	0	0	0	2	10	18	24	53	72	50	8	0	0	0	0	0	0	0	9.9	72.5
11-Jan	0	0	0	0	0	0	0	0	0	7	39	98	114	132	108	70	15	0	0	0	0	0	0	0	24.2	132.1
12-Jan	0	0	0	0	0	0	0	0	0	13	74	136	169	158	106	39	11	0	0	0	0	0	0	0	29.4	168.8
13-Jan	0	0	0	0	0	0	0	0	0	8	30	37	54	100	79	72	21	0	0	0	0	0	0	0	16.7	99.9
14-Jan	0	0	0	0	0	0	0	0	0	5	42	91	90	111	110	53	24	0	0	0	0	0	0	0	21.9	111.1
15-Jan	0	0	0	0	0	0	0	0	0	6	42	66	83	107	56	37	13	0	0	0	0	0	0	0	17.2	107.5
16-Jan	0	0	0	0	0	0	0	0	0	10	40	165	216	220	186	95	19	1	0	0	0	0	0	0	39.7	220.0
17-Jan	0	0	0	0	0	0	0	0	0	6	33	66	155	249	215	135	22	1	0	0	0	0	0	0	36.7	249.4
18-Jan	0	0	0	0	0	0	0	0	0	9	56	104	152	150	86	47	14	0	0	0	0	0	0	0	25.8	152.3
19-Jan	0	0	0	0	0	0	0	0	0	14	83	142	173	161	201	110	13	1	0	0	0	0	0	0	37.4	201.4
20-Jan	0	0	0	0	0	0	0	0	0	22	115	188	226	233	190	136	26	1	0	0	0	0	0	0	47.3	232.6
21-Jan	0	0	0	0	0	0	0	0	0	6	27	51	65	83	78	51	15	1	0	0	0	0	0	0	15.6	82.6
22-Jan	0	0	0	0	0	0	0	0	0	28	97	114	106	104	174	65	18	2	0	0	0	0	0	0	29.5	173.9
23-Jan	0	0	0	0	0	0	0	0	1	10	37	80	85	58	47	24	13	1	0	0	0	0	0	0	14.8	84.7
24-Jan	0	0	0	0	0	0	0	0	1	29	134	210	219	208	103	43	13	1	0	0	0	0	0	0	40.0	218.6
25-Jan	0	0	0	0	0	0	0	0	1	43	194	201	258	337	254	81	32	1	0	0	0	0	0	0	58.4	337.0
26-Jan	0	0	0	0	0	0	0	0	0	11	45	79	125	97	52	32	14	1	0	0	0	0	0	0	19.0	125.5
27-Jan	0	0	0	0	0	0	0	0	0	3	16	55	95	73	85	45	20	2	0	0	0	0	0	0	16.4	94.7
28-Jan	0	0	0	0	0	0	0	0	1	25	54	107	137	94	57	37	19	2	0	0	0	0	0	0	22.2	136.9
29-Jan	0	0	0	0	0	0	0	0	0	18	123	146	245	279	136	51	31	3	0	0	0	0	0	0	43.1	278.5
30-Jan	0	0	0	0	0	0	0	0	0	12	33	40	57	46	53	46	27	4	0	0	0	0	0	0	13.3	56.8
31-Jan	0	0	0	0	0	0	0	0	0	15	80	69	88	76	66	49	38	5	0	0	0	0	0	0	20.2	87.7
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	11.4	56.3	93.3	118.8	124.2	102.1	56.0	15.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	43.4	193.7	210.4	258.4	337.0	254.0	136.0	38.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Maximum	

### Hourly Averages

Solar Radiation (SR) - W/m<sup>2</sup>  
Henry Pirker - January 2015





## Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Henry Pirker - January 2015

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	10	9	6	6	3	4	10	6	7	2	3	5	9	7	9	12	14	13	14	13	11	12	12	3.1	14.2
Dir	254	266	262	264	291	321	292	274	306	357	311	306	291	303	270	58	64	69	70	71	65	62	44	36	6.2	69.1
2 Spd	11	11	12	11	12	11	10	10	10	11	11	11	10	9	8	8	5	3	4	6	10	14	14	12	8.2	14.3
Dir	33	27	32	29	29	34	24	6	347	346	345	344	342	2	12	9	356	306	288	288	306	316	313	314	354.1	313.0
3 Spd	12	9	10	10	9	4	4	2	3	5	5	3	3	2	4	3	2	3	4	3	3	3	3	2	4.4	11.9
Dir	320	311	316	311	318	297	276	289	253	282	318	296	260	252	292	301	301	291	318	306	311	305	327	333	304.6	319.6
4 Spd	3	3	4	2	2	2	2	3	1	2	2	1	1	2	3	3	4	5	3	2	3	2	4	2	2.4	5.1
Dir	313	329	303	329	344	334	307	328	349	298	339	293	308	331	297	333	328	331	313	309	283	241	244	282	311.6	330.8
5 Spd	1	3	3	3	3	2	2	2	3	2	3	3	3	3	4	2	1	1	2	3	3	2	3	2	2.2	3.8
Dir	205	230	234	260	253	295	316	305	338	298	279	293	295	288	289	331	341	329	307	344	308	309	309	307	293.5	289.4
6 Spd	2	1	1	1	2	2	2	3	3	3	5	5	6	6	8	8	8	6	3	6	8	8	9	8	4.3	8.8
Dir	309	254	165	359	41	39	126	173	138	122	97	82	95	89	92	87	89	85	60	94	91	101	104	108	95.7	103.7
7 Spd	9	3	4	2	4	3	4	5	6	7	5	6	10	7	20	20	16	14	18	20	18	17	16	12	8.4	20.4
Dir	102	125	311	325	220	239	224	252	245	229	268	292	325	311	312	316	311	304	307	306	310	314	320	309	303.6	316.3
8 Spd	13	14	10	10	8	8	5	4	4	2	3	4	6	6	2	3	3	1	3	3	4	5	6	5	4.6	14.0
Dir	300	309	313	294	289	316	324	305	294	286	308	305	251	252	238	85	77	45	328	319	317	327	328	328	306.1	309.3
9 Spd	5	5	2	1	1	1	2	2	3	2	2	N	N	N	N	N	N	N	N	N	N	N	N	N	--	5.2
Dir	326	299	328	281	128	319	325	296	306	286	298	N	N	N	N	N	N	N	N	N	N	N	N	N	--	299.5
10 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
11 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
12 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
13 Spd	N	N	N	N	N	N	8	6	12	14	12	10	11	5	6	21	23	28	24	17	16	17	13	14	14.0	27.8
Dir	N	N	N	N	N	N	291	282	239	253	250	261	243	230	281	257	257	257	255	262	252	264	270	268	258.4	256.7
14 Spd	16	22	23	20	20	19	12	13	13	27	22	18	12	7	9	5	5	7	5	2	3	0	1	0	11.0	26.5
Dir	271	274	275	269	274	273	275	277	294	264	280	283	265	246	252	323	267	287	298	110	99	94	332	147	274.2	263.7
15 Spd	1	2	3	3	3	3	4	1	2	2	3	3	5	2	2	2	1	1	1	3	3	3	3	2	1.2	5.0
Dir	309	64	76	70	36	55	47	136	186	136	83	78	98	114	108	79	68	21	208	332	328	321	301	302	59.9	97.6
16 Spd	2	1	0	3	3	2	6	7	16	24	22	18	19	19	19	23	20	19	18	20	25	26	35	31	15.4	35.1
Dir	155	172	265	320	307	331	229	253	257	261	258	252	257	259	266	265	261	258	261	261	264	261	258	257	259.8	257.7
17 Spd	27	22	20	19	10	9	6	4	7	15	17	15	8	5	4	3	6	6	6	7	7	7	9	14	9.8	26.8
Dir	261	271	274	279	288	271	257	243	245	232	244	240	266	261	357	336	273	262	270	271	230	255	249	240	260.7	260.9
18 Spd	7	3	2	1	4	4	3	3	2	4	2	2	3	4	5	5	4	4	1	2	2	2	1	4	0.8	7.1
Dir	240	111	85	133	156	156	143	336	328	323	211	10	314	305	313	303	328	263	20	238	177	171	119	158	264.1	240.5
19 Spd	3	4	3	5	11	18	14	20	23	25	24	24	25	20	20	19	16	14	13	11	10	10	11	17	14.8	25.2
Dir	190	215	228	235	253	257	248	252	254	258	255	257	256	259	259	260	257	258	262	256	271	266	255	257	255.8	257.7
20 Spd	13	6	8	9	8	7	7	7	7	4	3	4	5	6	6	3	2	5	3	5	5	3	1	2	3.7	12.8
Dir	262	270	259	283	279	317	301	292	302	323	326	312	290	283	280	295	175	200	204	164	156	134	101	125	275.1	262.0
21 Spd	5	3	3	6	7	6	1	1	1	5	6	2	6	5	7	9	8	4	4	4	6	5	3	5	2.5	8.8
Dir	136	148	124	138	143	162	187	157	342	179	209	316	252	258	273	271	266	295	254	293	277	284	278	272	239.4	270.8
22 Spd	13	13	13	8	14	26	16	11	18	17	21	23	25	18	20	15	11	11	14	14	7	1	3	2	13.4	25.8
Dir	270	270	244	278	252	259	264	282	276	279	265	268	257	254	268	286	288	264	270	277	293	335	191	159	267.3	258.7



Peace Airshed Zone Association

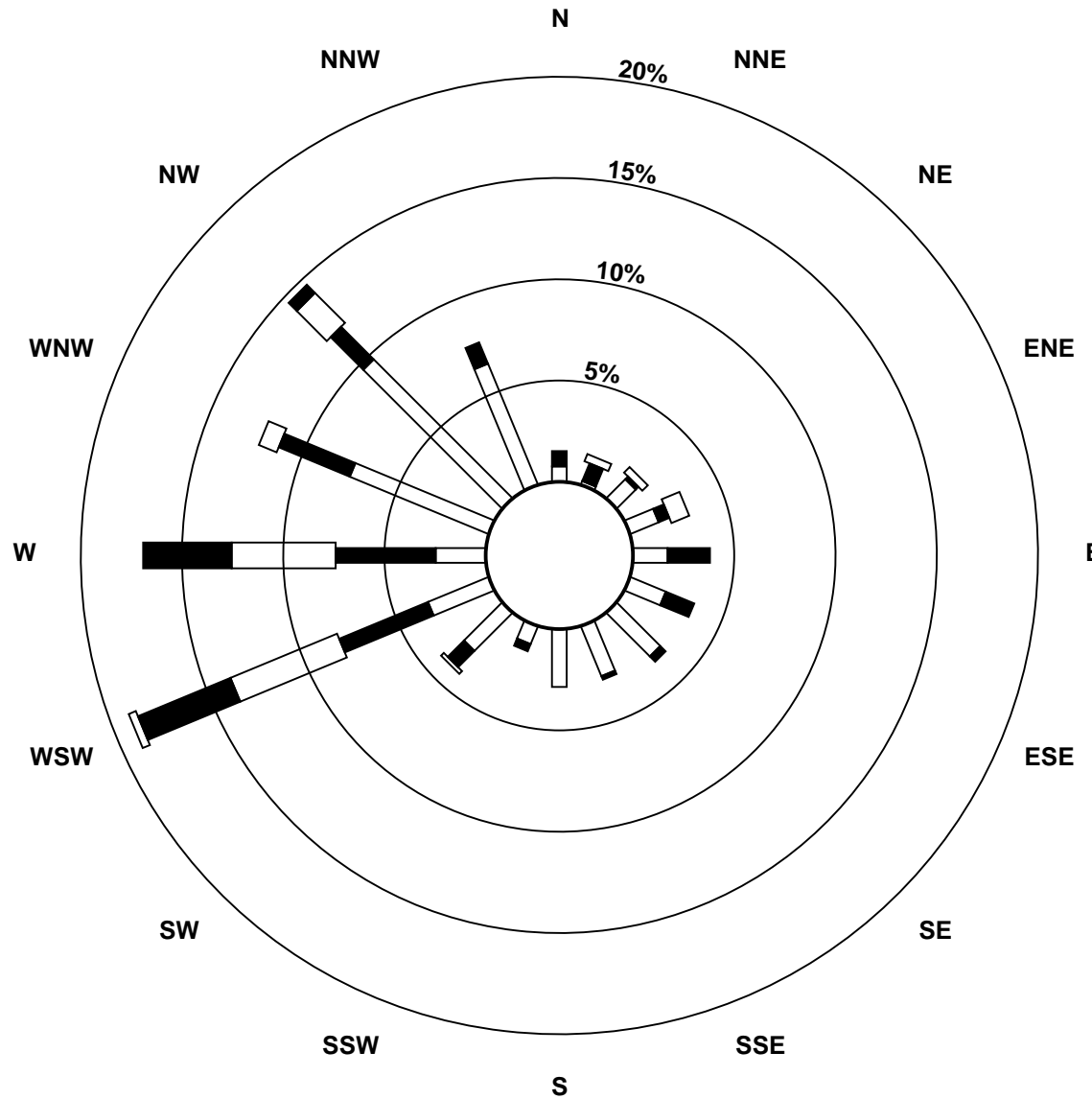
# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Henry Pirker - January 2015

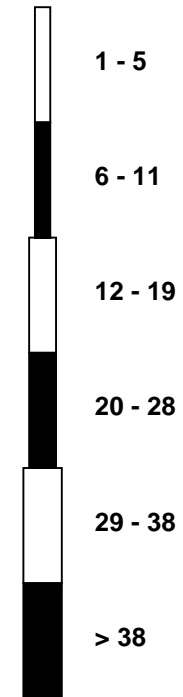
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	1	4	3	0	2	12	9	4	3	9	7	2	2	4	2	4	7	3	5	4	5	16	18	24	4.3	23.7
Dir	155	140	141	164	216	256	254	326	333	257	236	306	179	192	159	144	115	128	178	224	241	255	254	249	237.2	249.5
24 Spd	23	28	23	21	19	15	17	22	17	21	17	13	14	12	9	6	5	2	2	3	7	8	9	6	10.4	27.8
Dir	259	254	256	255	256	253	252	256	258	257	255	262	256	255	257	217	221	112	94	90	102	107	114	114	250.2	253.6
25 Spd	5	1	1	1	2	5	22	24	22	23	22	23	22	24	22	19	17	16	15	10	8	8	3	3	12.6	24.2
Dir	133	330	98	181	276	273	251	253	254	250	251	245	252	259	262	259	261	275	276	269	256	269	313	258	257.1	259.2
26 Spd	8	5	1	2	3	3	4	5	4	4	3	6	6	4	2	2	0	2	4	5	1	5	6	3	2.2	8.1
Dir	252	247	345	48	120	123	123	151	165	175	191	198	232	331	252	160	144	190	229	234	294	241	251	234	213.9	252.1
27 Spd	1	3	6	7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	6.9
Dir	183	110	81	73	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	72.7
28 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
29 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	8	9	6	7	2	--	8.6
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	250	255	314	299	310	--	254.9
30 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
31 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Spd	5.2	5.1	4.3	4.0	4.2	5.0	5.0	5.8	6.5	8.3	7.7	7.1	7.5	6.4	6.6	5.2	4.5	4.7	5.1	4.5	3.9	4.5	4.8	4.8	Diurnal Average	
Dir	268.5	274.0	277.6	283.3	273.5	273.0	266.7	269.0	269.0	261.9	262.5	268.0	263.7	267.5	276.5	283.4	276.3	272.6	274.7	274.7	275.1	280.1	278.8	268.2	Diurnal Maximum	
Spd	26.8	27.8	23.5	21.4	19.8	25.8	22.1	23.8	23.3	26.5	24.1	24.0	25.0	24.2	21.6	22.9	23.0	27.8	24.5	20.3	24.7	25.7	35.1	31.4		
Dir	260.9	253.6	256.1	254.8	274.0	258.7	250.7	252.9	254.1	263.7	255.4	256.7	256.0	259.2	261.6	264.6	257.4	256.7	255.3	306.4	263.7	261.1	257.7	257.2		
Maximum Speed Value: 35 km/h on Jan 16 23:00																		Minimum Speed Value: 0 km/h on Jan 14 22:00						Hours in Service: 744		
Maximum Daily Speed Average: 15.4 km/h on Jan 16																		Minimum Daily Speed Average: 0.8 km/h on Jan 15						Hours of Data: 542		
Maximum Diurnal Speed Average: 8.3 km/h at hour 10																		Minimum Diurnal Speed Average: 3.9 km/h at hour 21						Hours of Missing Data: 202		
Monthly Average Velocity: 5.41 km/h 271.46 deg																		Speed Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 1.9 Q <sub>1</sub> = 2.9 Median = 5.5 Q <sub>3</sub> = 11.6 P <sub>90</sub> = 19.5 P <sub>99</sub> = 25.9						Percent Operational Time: 72.9		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
N - Not Valid																										
Frequency Distribution																										
		Speed Range (km/h)																								
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38																		Total		
North	14	9	1	0	0	0																		24		
NorthEast	9	6	7	0	0	0																		22		
East	21	18	3	0	0	0																		42		
SouthEast	31	7	0	0	0	0																		38		
South	26	3	0	0	0	0																		29		
SouthWest	22	17	6	1	0	0																		46		
West	29	64	54	53	2	0																		202		
NorthWest	97	25	14	3	0	0																		139		
Total	249	149	85	57	2	0																		542		

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Henry Pirker - January 2015**



**Wind Speed Classes (km/h)**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - January 2015

Maximum Speed: 35 km/h on Jan 16 23:00	Maximum Daily Speed Average: 16.1 km/h on Jan 16	Hours in Service: 744
Minimum Speed: 1 km/h on Jan 15 00:00	Minimum Daily Speed Average: 2.8 km/h on Jan 5	Hours of Data: 542
Maximum Diurnal Speed Average: 10.5 km/h at hour 10	Minimum Diurnal Speed Average: 7.1 km/h at hour 4	Hours of Missing Data: 202
Monthly Average Speed: 8.39 km/h	Percentiles: P <sub>1</sub> = 1.4 P <sub>10</sub> = 2.4 Q <sub>1</sub> = 3.3 Median = 5.8 Q <sub>3</sub> = 11.8 P <sub>90</sub> = 19.8 P <sub>99</sub> = 26.0	Percent Operational Time: 72.9

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-Jan	11	10	9	6	6	3	4	10	6	7	3	3	5	9	7	10	12	14	13	14	13	11	13	12	8.9	14.4
2-Jan	11	11	12	11	12	11	10	10	10	11	11	11	11	9	8	8	5	3	4	6	10	14	14	12	9.8	14.4
3-Jan	12	9	10	10	9	4	5	3	3	6	5	3	3	2	4	3	2	4	4	3	3	3	3	3	4.9	12.0
4-Jan	3	3	4	2	2	2	3	3	2	3	2	2	2	2	3	3	4	5	4	2	3	3	4	2	2.9	5.2
5-Jan	2	3	3	4	3	2	3	3	3	2	3	3	3	3	4	3	2	2	3	3	3	2	3	2	2.8	4.1
6-Jan	2	2	2	1	3	2	2	3	3	5	6	6	6	6	8	9	8	6	3	6	8	8	9	8	5.1	9.0
7-Jan	9	4	5	4	6	3	4	6	6	7	6	6	10	8	20	20	16	14	18	20	18	17	16	13	10.6	20.5
8-Jan	13	14	10	10	8	8	5	4	4	2	3	4	6	6	3	4	3	2	3	3	4	5	6	6	5.7	14.1
9-Jan	5	5	3	2	2	1	2	2	3	2	2	N	N	N	N	N	N	N	N	N	N	N	N	N	--	5.3
10-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
11-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
12-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
13-Jan	N	N	N	N	N	N	9	7	12	14	12	11	11	6	6	22	23	28	25	17	16	17	13	14	14.5	28.0
14-Jan	16	22	23	21	20	19	13	13	14	27	22	18	12	7	10	6	5	7	6	3	3	1	2	1	12.0	26.9
15-Jan	1	2	3	3	4	3	4	3	3	3	4	3	5	3	3	3	2	2	2	3	3	3	3	2	3.0	5.1
16-Jan	2	1	1	3	3	3	7	8	16	24	22	19	19	19	19	23	20	20	18	20	25	26	35	32	16.1	35.3
17-Jan	27	22	20	19	10	11	6	5	7	16	18	15	8	6	5	4	6	7	6	7	7	7	9	14	10.9	26.9
18-Jan	8	3	2	2	4	4	3	3	3	4	4	3	3	4	6	5	6	4	4	2	2	2	2	4	3.7	7.8
19-Jan	3	4	3	5	11	18	14	20	23	25	24	24	25	20	20	19	16	14	13	11	10	11	11	17	15.2	25.3
20-Jan	13	7	9	9	8	8	7	7	7	4	3	4	5	6	6	3	2	5	5	5	5	4	2	2	5.7	12.9
21-Jan	5	3	3	6	7	6	3	3	1	5	6	3	6	6	7	9	9	4	4	5	6	5	4	6	5.1	9.0
22-Jan	13	13	13	9	14	26	16	12	19	17	22	23	25	18	20	16	11	11	14	14	8	2	4	2	14.2	26.1
23-Jan	2	4	4	3	4	13	9	5	4	9	7	3	3	4	3	4	7	4	5	6	6	17	18	24	7.0	23.9
24-Jan	23	28	24	21	19	15	17	22	17	21	17	13	14	12	9	6	5	3	2	5	8	8	9	6	13.6	27.9
25-Jan	5	4	2	3	5	7	22	24	22	23	22	24	22	24	22	19	17	16	15	11	8	8	5	3	13.9	24.4
26-Jan	8	6	2	3	3	3	5	5	4	4	4	6	7	4	2	2	1	2	4	5	3	5	6	3	4.1	8.1
27-Jan	1	3	6	7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	7.0
28-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
29-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	8	9	7	7	3	--	8.7
30-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
31-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
	8.6	8.0	7.5	7.1	7.5	7.9	7.5	7.8	8.4	10.5	9.9	9.4	9.7	8.4	8.9	9.1	8.4	8.0	7.9	7.9	7.9	8.1	8.6	8.3	Diurnal Average	
	26.9	27.9	23.6	21.5	20.0	26.1	22.2	24.0	23.4	26.9	24.2	24.1	25.1	24.4	21.7	23.0	23.2	28.0	24.6	20.4	24.9	25.9	35.3	31.6	Diurnal Maximum	

N - Not Valid  
 All monthly, daily, and diurnal averages have been calculated using scalar methods

## Hourly Standard Deviations

Wind Direction (WD) - deg  
Henry Pirker - January 2015

Maximum Value: 92.0 deg on Jan 23 04:00																								Hours in Service:	744	
Minimum Value: 4.4 deg on Jan 7 20:00																								Hours of Data:	542	
Percentiles: P <sub>1</sub> = 5.0 P <sub>10</sub> = 6.7 Q <sub>1</sub> = 9.1 Median = 14.7 Q <sub>3</sub> = 29.3 P <sub>90</sub> = 54.6 P <sub>99</sub> = 85.7																								Hours of Missing Data:	202	
																								Hours of Calibration:	0	
																								Percent Operational Time:	72.9	
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-Jan	8	10	6	11	11	12	14	15	18	12	44	20	11	10	10	47	11	10	10	11	11	12	14	13	46.6	
2-Jan	12	9	10	14	15	12	11	12	11	8	8	9	8	14	14	14	16	17	11	8	12	5	5	5	16.7	
3-Jan	5	9	5	9	5	10	17	33	45	15	21	32	28	19	10	18	28	36	19	20	31	16	17	20	45.0	
4-Jan	16	11	14	12	12	30	37	20	76	38	43	54	39	37	18	22	17	9	16	15	40	49	16	26	75.8	
5-Jan	54	16	14	18	17	34	16	14	10	17	21	11	11	16	24	18	43	39	32	14	21	28	25	21	53.6	
6-Jan	32	69	59	86	25	22	35	14	20	14	15	15	12	12	10	12	9	15	20	11	9	9	11	10	86.4	
7-Jan	11	63	54	60	43	22	21	23	17	14	27	22	14	19	7	6	5	6	6	4	5	6	5	10	62.8	
8-Jan	6	7	9	9	18	11	12	28	11	27	20	15	21	15	63	26	23	44	10	10	18	14	12	21	62.9	
9-Jan	8	14	21	35	82	47	15	17	16	31	15	N	N	N	N	N	N	N	N	N	N	N	N	N	82.2	
10-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
11-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
12-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
13-Jan	N	N	N	N	N	N	19	32	13	7	9	19	10	17	23	8	7	7	7	7	8	9	9	8	31.9	
14-Jan	6	6	5	6	7	7	10	9	12	10	9	8	16	12	13	35	22	9	26	52	23	84	69	64	83.6	
15-Jan	75	52	21	29	58	29	27	70	69	54	21	28	14	53	40	31	80	68	79	40	32	48	39	21	80.1	
16-Jan	38	67	86	15	25	77	51	20	10	7	6	7	7	6	8	7	6	6	8	7	8	7	6	6	86.2	
17-Jan	6	7	9	9	26	48	15	37	12	10	8	9	21	23	40	42	17	16	11	17	11	22	10	7	48.2	
18-Jan	59	60	38	55	17	12	18	71	26	8	65	48	20	16	25	30	55	37	88	58	30	14	79	31	88.1	
19-Jan	39	19	26	11	14	7	7	7	6	5	6	5	6	7	6	7	6	6	8	6	10	11	7	6	39.2	
20-Jan	9	52	22	14	12	28	10	8	9	18	15	16	11	11	10	20	73	25	46	8	11	16	71	73	72.7	
21-Jan	9	24	14	9	11	13	81	85	83	11	29	56	15	17	13	13	12	23	18	33	24	27	46	56	84.7	
22-Jan	9	11	11	26	16	9	11	11	9	6	8	8	6	8	8	8	9	12	7	8	42	67	46	52	66.6	
23-Jan	53	14	47	92	61	14	16	42	60	23	14	56	83	32	26	41	9	32	30	54	24	10	10	7	92.0	
24-Jan	8	6	6	5	5	8	7	7	8	6	9	8	8	12	14	20	21	49	30	56	13	7	8	15	56.4	
25-Jan	12	90	80	56	75	48	7	8	7	6	7	8	6	7	7	7	6	10	6	14	9	11	55	57	90.0	
26-Jan	5	22	68	63	20	17	16	16	19	18	32	12	24	31	32	52	87	45	14	8	57	9	9	15	87.3	
27-Jan	40	16	15	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	40.4	
28-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
29-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	16	9	31	14	32	31.9
30-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
31-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	
	75.1	90.0	86.2	92.0	82.2	77.0	81.3	84.7	83.2	54.1	64.6	55.6	83.2	53.3	62.9	52.1	87.3	67.6	88.1	57.5	57.4	83.6	79.0	72.7		

N - Not Valid

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Evergreen Park - January 2015

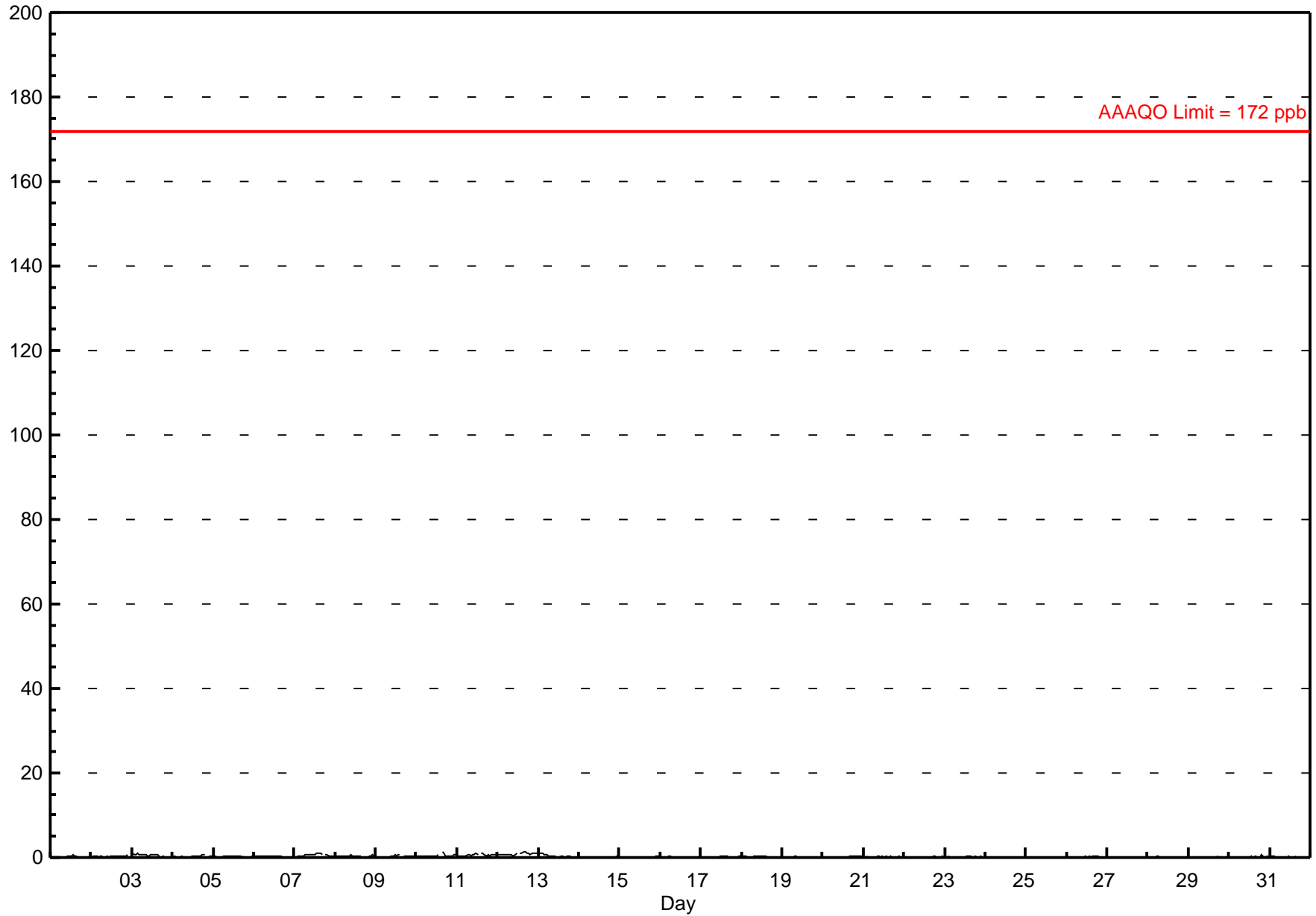
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.5 ppb on Jan 10 16:00	Maximum Daily Average: 0.8 ppb on Jan 12		Hours of Data:	694
Minimum Value: 0 ppb on Jan 9 06:00	Minimum Daily Average: 0.0 ppb on Jan 27		Hours of Missing Data:	50
Maximum Diurnal Average: 0.4 ppb at hour 16	Minimum Diurnal Average: 0.2 ppb at hour 5		Hours of Calibration:	35
Monthly Average: 0.23 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.1 Q <sub>3</sub> = 0.3 P <sub>90</sub> = 0.5 P <sub>99</sub> = 1.1		Percent Operational Time:	98.0

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-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0.2	0.5
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0.3	1.2
3-Jan	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0	A	0	0	0.5	0.9
4-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0	0	0	0.3	0.7
5-Jan	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.5
6-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.5
7-Jan	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0.5	1.2
8-Jan	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0.3	0.5
9-Jan	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	A	0	0	0	0	0	0	0	0	0.2	0.8
10-Jan	0	0	0	1	0	0	0	0	0	0	0	0	1	A	2	1	0	0	0	0	0	0	1	1	0.5	1.5
11-Jan	0	0	0	0	0	0	1	1	0	1	1	1	1	A	1	1	1	0	1	0	1	1	1	1	0.6	1.1
12-Jan	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
13-Jan	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
14-Jan	0	0	0	0	0	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	--	0.2
15-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
16-Jan	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
17-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
18-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
19-Jan	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
20-Jan	0	0	0	0	A	0	0	0	0	0	0	C	C	C	1	0	0	0	0	0	0	0	0	0	0.2	0.5
21-Jan	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
22-Jan	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
23-Jan	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
24-Jan	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
25-Jan	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
26-Jan	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	0.4
27-Jan	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
28-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
29-Jan	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	0.2
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0.1	0.7
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
	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	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average
	1.0	0.9	0.9	0.9	0.7	0.6	0.8	0.7	0.7	0.5	0.6	0.9	0.8	1.1	1.2	1.5	1.3	1.1	0.9	0.8	1.0	0.9	0.9	1.2	Diurnal Maximum	

C - Calibration      P - Power Failure      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 (SO<sub>2</sub>) - ppb  
Evergreen Park - January 2015





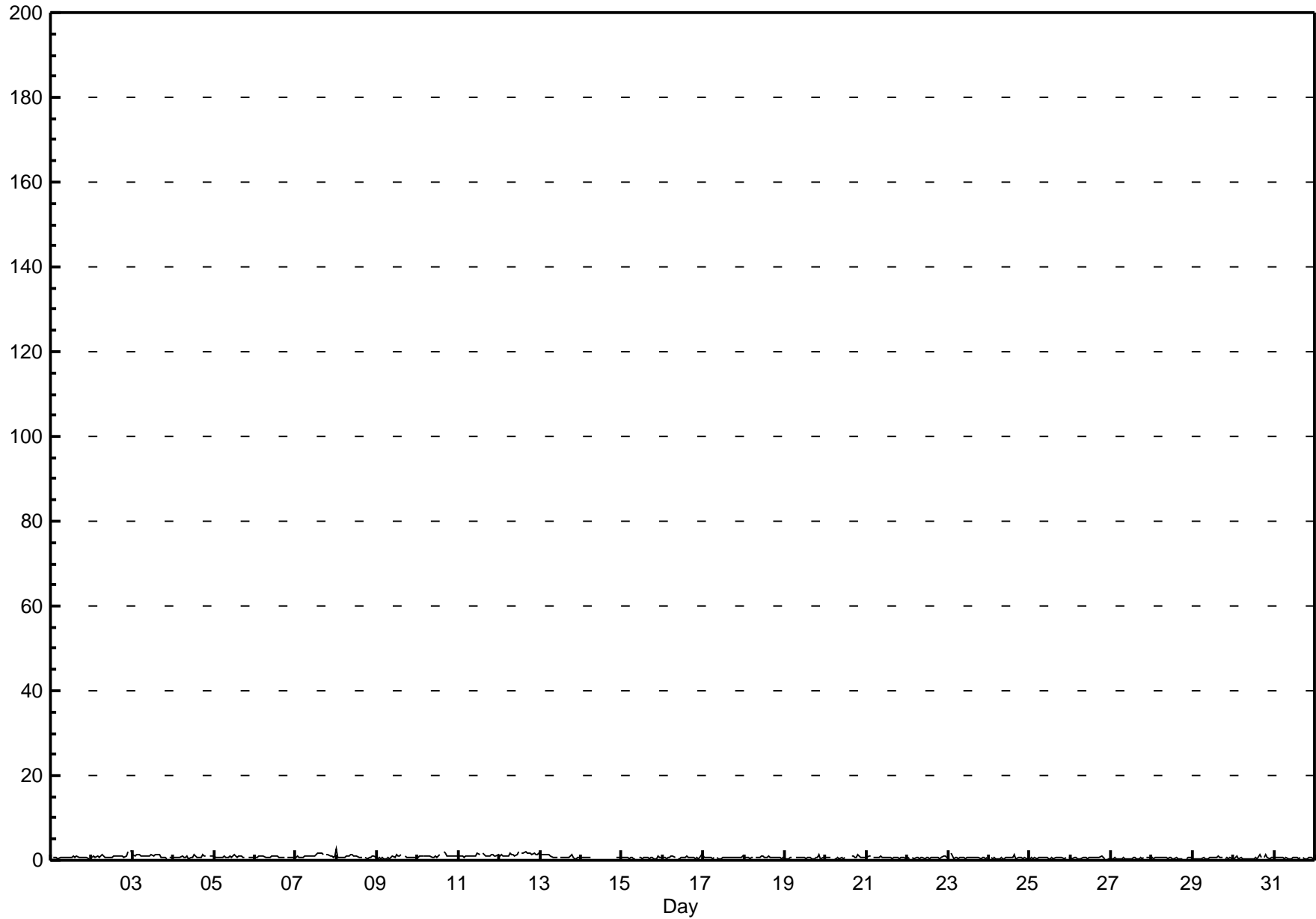
## Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Evergreen Park - January 2015

Maximum Value: 2.9 ppb on Jan 8 01:00		Maximum Daily Average: 1.4 ppb on Jan 12		Hours in Service: 744																																							
Minimum Value: 0 ppb on Jan 26 07:00		Minimum Daily Average: 0.5 ppb on Jan 27		Hours of Data: 694																																							
Maximum Diurnal Average: 0.9 ppb at hour 16		Minimum Diurnal Average: 0.7 ppb at hour 5		Hours of Missing Data: 50																																							
Monthly Average: 0.75 ppb		Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.5 Median = 0.7 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 1.2 P <sub>99</sub> = 1.9		Hours of Calibration: 35																																							
				Percent Operational Time: 98.0																																							
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-Jan	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0.7	1.2																		
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	1.0	2.4																	
3-Jan	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	0	A	1	1	1.0	1.5																	
4-Jan	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.2																	
5-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.2																	
6-Jan	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																	
7-Jan	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	A	1	1	1	1	1	1	1	1.1	1.8																	
8-Jan	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	0.9	2.9																	
9-Jan	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	0.7	1.3																	
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1.0	2.2																	
11-Jan	1	1	1	1	1	1	1	1	1	1	2	1	A	2	1	1	1	1	1	1	1	1	1	1	1.2	1.6																	
12-Jan	1	1	1	1	1	1	2	1	1	1	1	2	A	2	2	2	2	2	2	2	1	2	1	2	1.4	2.1																	
13-Jan	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	1	1	0.9	1.5																	
14-Jan	1	1	1	1	1	1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	1	--	0.7																	
15-Jan	1	1	1	1	0	1	1	0	0	A	1	1	1	1	1	0	1	1	1	0	0	1	1	1	0.6	1.0																	
16-Jan	1	1	0	1	1	1	1	1	A	0	0	1	1	1	1	1	1	1	1	0	1	0	1	2	0.7	1.9																	
17-Jan	1	1	1	1	1	0	1	A	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9																	
18-Jan	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1																	
19-Jan	0	0	0	1	1	A	1	1	1	1	1	0	1	1	1	0	0	1	1	1	0	1	1	1	0.6	1.2																	
20-Jan	1	1	1	1	A	0	0	1	0	1	0	1	C	C	C	1	1	1	1	1	1	1	1	1	0.7	1.3																	
21-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0	0.7	1.0																	
22-Jan	1	0	A	1	0	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1	0.6	1.0																	
23-Jan	1	A	2	0	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	0	1	0.6	1.7																	
24-Jan	A	1	0	1	0	0	0	1	0	0	1	1	1	1	1	0	1	1	1	1	0	1	0	A	0.6	1.3																	
25-Jan	0	1	0	1	0	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	0	1	A	1	0.5	0.8																	
26-Jan	1	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0.6	1.0																	
27-Jan	0	0	1	0	0	0	0	1	0	0	0	0	0	1	1	0	1	0	1	0	1	A	1	0	0.5	0.8																	
28-Jan	1	0	1	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0	0	0	A	0	1	1	0.5	0.7																	
29-Jan	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	A	1	0	1	0.5	0.9																	
30-Jan	0	1	1	0	1	0	0	0	0	0	0	0	0	1	0	1	1	A	1	1	1	0	1	1	0.6	1.4																	
31-Jan	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	A	1	0	0	1	1	1	0	0.6	0.8																	
	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.8	Diurnal Average																	
	2.9	1.4	1.7	1.5	1.3	1.3	1.8	1.4	1.3	1.2	1.3	1.9	1.3	1.7	1.8	2.2	1.9	1.6	1.6	1.6	1.4	1.6	2.1	1.3	2.4	Diurnal Maximum																	
C - Calibration																								P - Power Failure				A - Automated Daily Zero Span															

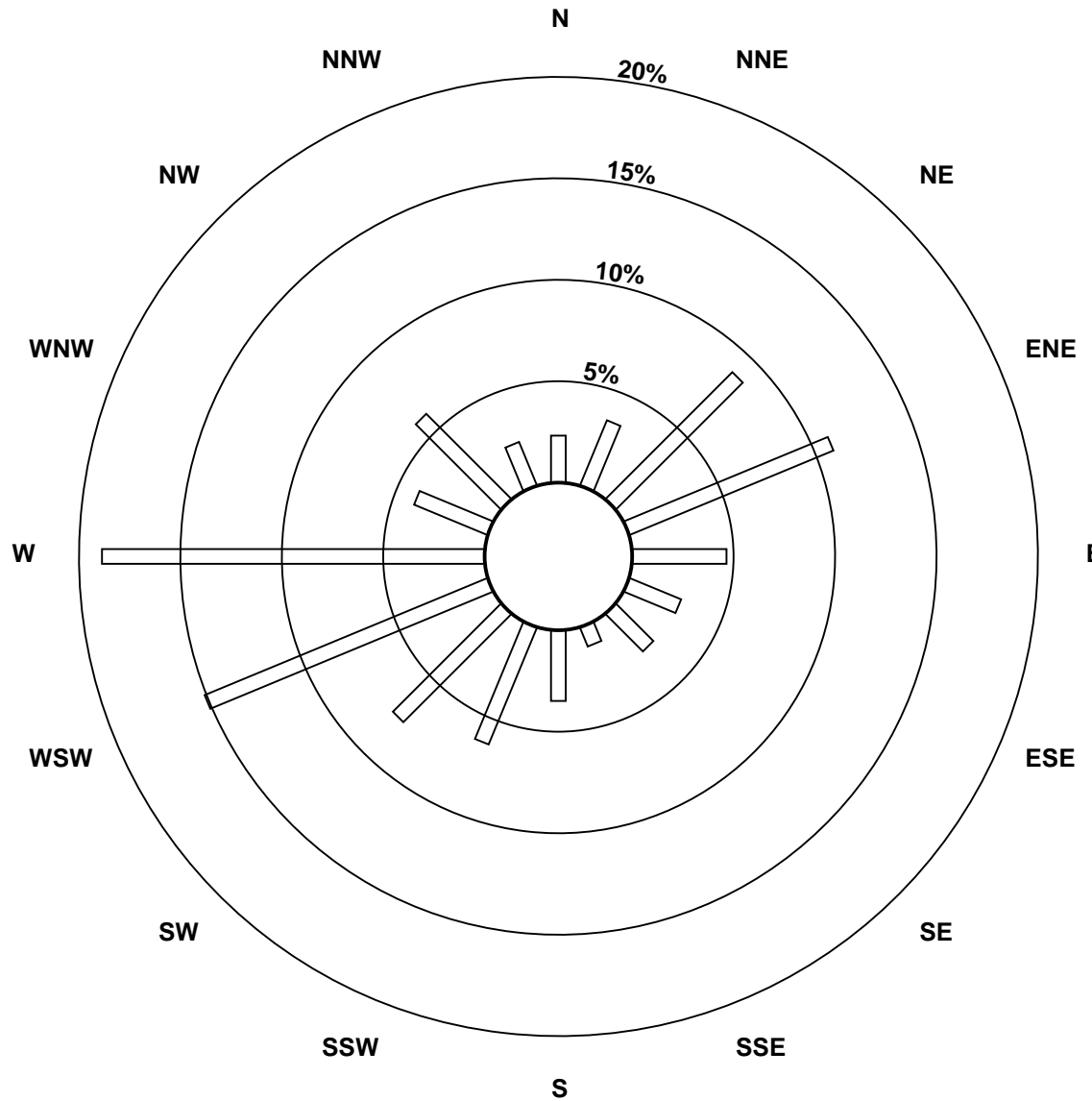
### Hourly Maximums

Sulphur Dioxide (SO<sub>2</sub>) - ppb  
Evergreen Park - January 2015

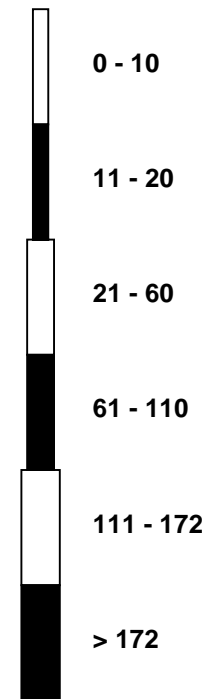


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Evergreen Park - January 2015**

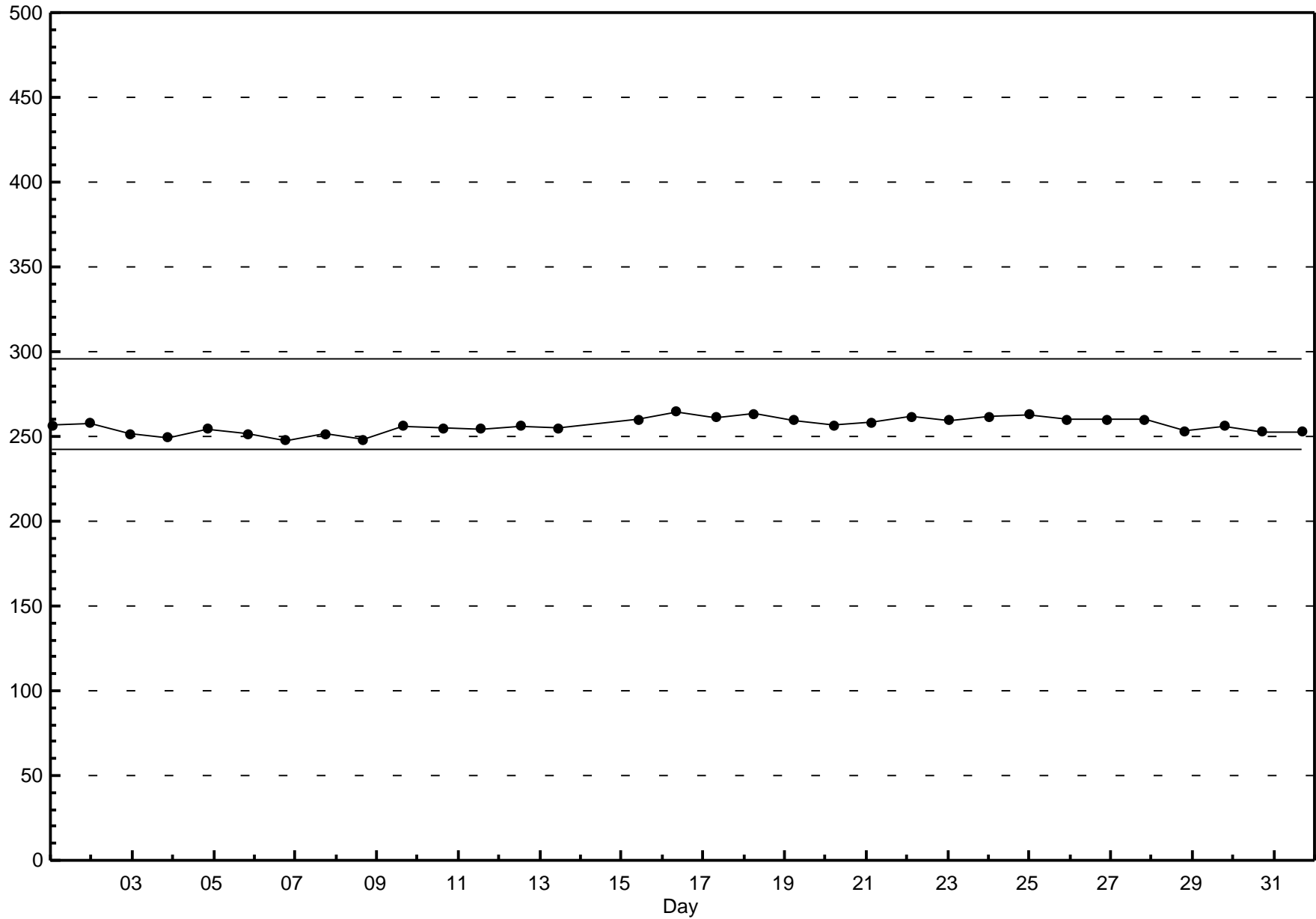


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Evergreen Park - January 2015



## Hourly Averages

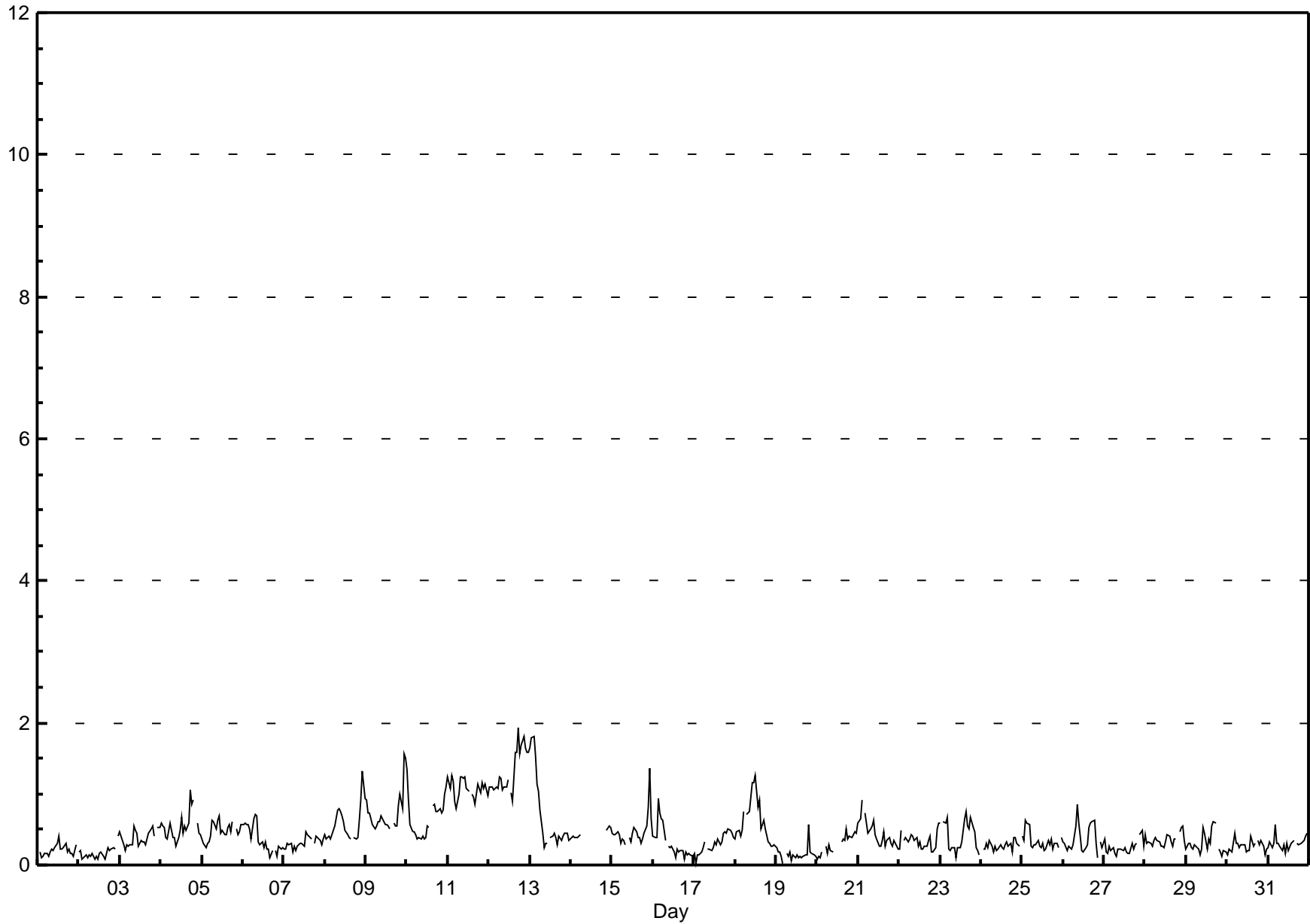
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.9 ppb on Jan 12 18:00	Maximum Daily Average: 1.3 ppb on Jan 12		Hours of Data:	693
Minimum Value: 0 ppb on Jan 19 05:00	Minimum Daily Average: 0.2 ppb on Jan 19		Hours of Missing Data:	51
Maximum Diurnal Average: 0.6 ppb at hour 23	Minimum Diurnal Average: 0.4 ppb at hour 14		Hours of Calibration:	36
Monthly Average: 0.44 ppb	Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.2 Median = 0.4 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.9 P <sub>99</sub> = 1.6		Percent Operational Time:	98.0

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-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4	
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4	
3-Jan	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	A	1	1	0.4	0.6	
4-Jan	1	1	1	0	0	1	0	0	0	0	0	1	0	1	0	1	1	1	1	1	A	1	0	0	0.5	1.1	
5-Jan	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	1	0	1	A	1	0	0	1	0.5	0.7		
6-Jan	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.7		
7-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.5		
8-Jan	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	A	0	0	0	1	1	1	1	0.6	1.3		
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	2	1	0.7	1.6	
10-Jan	1	1	1	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.3	
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.1	1.3	
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	2	2	2	2	2	2	2	2	1.3	1.9	
13-Jan	2	2	2	2	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.7	1.8	
14-Jan	0	0	0	0	0	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	1	1	--	0.6
15-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0.5	1.4	
16-Jan	0	0	0	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9	
17-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.3	0.5	
18-Jan	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.6	1.3	
19-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.6	
20-Jan	0	0	0	0	A	0	0	0	0	0	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0.3	0.5	
21-Jan	1	1	1	A	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9	
22-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.6	
23-Jan	1	A	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0.4	0.8	
24-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4	
25-Jan	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.3	0.6	
26-Jan	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	1	1	1	0	0	A	0	0	0.4	0.9	
27-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5	
28-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0.4	0.5
29-Jan	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0.3	0.6
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.5	
31-Jan	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.6	

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



## Hourly Maximums

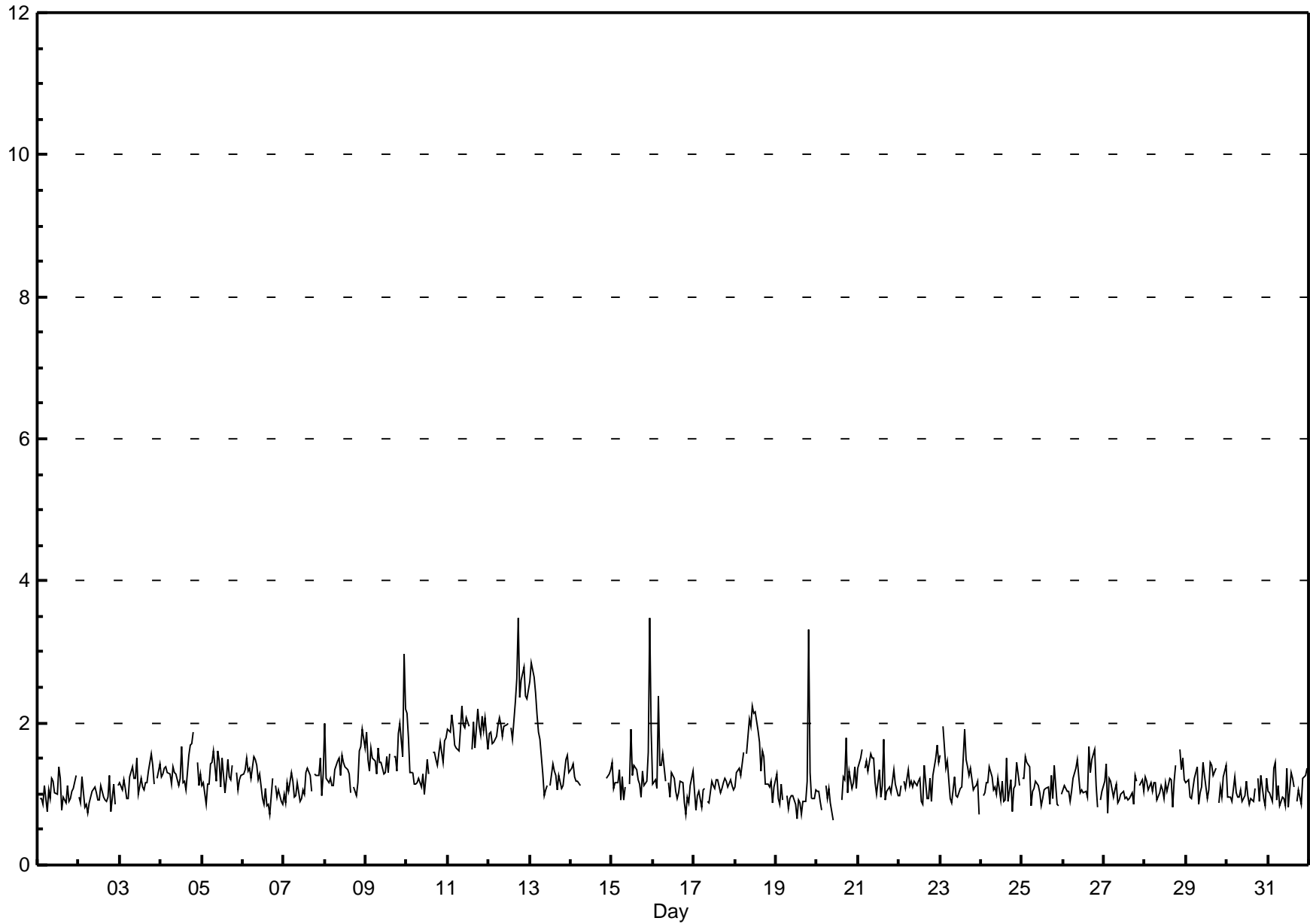
## Total Reduced Sulphur (TRS) - ppb

### Evergreen Park - January 2015

Maximum Value: 3.5 ppb on Jan 12 18:00		Maximum Daily Average: 2.2 ppb on Jan 12		Hours in Service: 744																							
Minimum Value: 1 ppb on Jan 20 10:00		Minimum Daily Average: 1.0 ppb on Jan 2		Hours of Data: 693																							
Maximum Diurnal Average: 1.4 ppb at hour 23		Minimum Diurnal Average: 1.2 ppb at hour 14		Hours of Missing Data: 51																							
Monthly Average: 1.26 ppb		Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 1.0 Median = 1.2 Q <sub>3</sub> = 1.4 P <sub>90</sub> = 1.8 P <sub>99</sub> = 2.6		Hours of Calibration: 36																							
				Percent Operational Time: 98.0																							
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-Jan	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	1.4	
2-Jan	1	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	
3-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	1	1	1.2	1.6	
4-Jan	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	2	2	2	A	1	1	1	1.3	1.9	
5-Jan	1	1	1	1	1	1	1	2	1	2	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1.3	1.6	
6-Jan	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.1	1.5	
7-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	2	1	1	1.1	1.5	
8-Jan	2	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	A	1	1	1	2	2	2	2	1.4	2.0	
9-Jan	2	1	1	2	1	1	1	2	1	1	1	2	1	2	A	2	2	2	1	2	2	2	3	2	1.6	3.0	
10-Jan	2	2	1	1	1	1	1	1	1	1	1	1	1	A	2	2	1	1	2	2	1	2	2	2	1.4	2.1	
11-Jan	2	2	2	2	2	2	2	2	2	2	2	2	A	2	2	2	2	2	2	2	2	2	2	2	1.9	2.2	
12-Jan	2	2	2	2	2	2	2	2	2	2	2	A	2	2	2	3	3	2	3	3	2	2	2	2	2.2	3.5	
13-Jan	3	3	3	2	2	2	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1.6	2.9	
14-Jan	1	1	1	1	1	1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	1	1	1	--	1.4
15-Jan	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	2	3	2	1.4	3.5
16-Jan	1	1	1	2	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.4	
17-Jan	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	1.2	
18-Jan	1	1	1	1	1	2	A	2	2	2	2	2	2	2	2	1	2	2	1	1	1	1	1	1	1.5	2.2	
19-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1.1	3.3	
20-Jan	1	1	1	1	A	1	1	1	1	1	C	C	C	C	1	1	1	2	1	1	1	1	1	1	1.1	1.8	
21-Jan	1	2	2	A	1	1	1	2	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.3	1.8	
22-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.2	1.7	
23-Jan	2	A	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1.2	2.0	
24-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.1	1.5	
25-Jan	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	1.5	
26-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	A	1	1	1.2	1.7	
27-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	1.4	
28-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1.2	1.6	
29-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.2	1.4	
30-Jan	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	1.3	
31-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.1	1.5	
		1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.3	Diurnal Average	
		2.6	2.9	2.7	2.4	2.1	2.0	2.1	2.0	2.2	2.0	2.2	2.1	2.2	1.9	1.9	2.3	2.6	3.5	2.4	3.3	2.8	2.4	3.5	2.5	Diurnal Maximum	
C - Calibration		P - Power Failure						A - Automated Daily Zero Span																			

**Hourly Maximums**

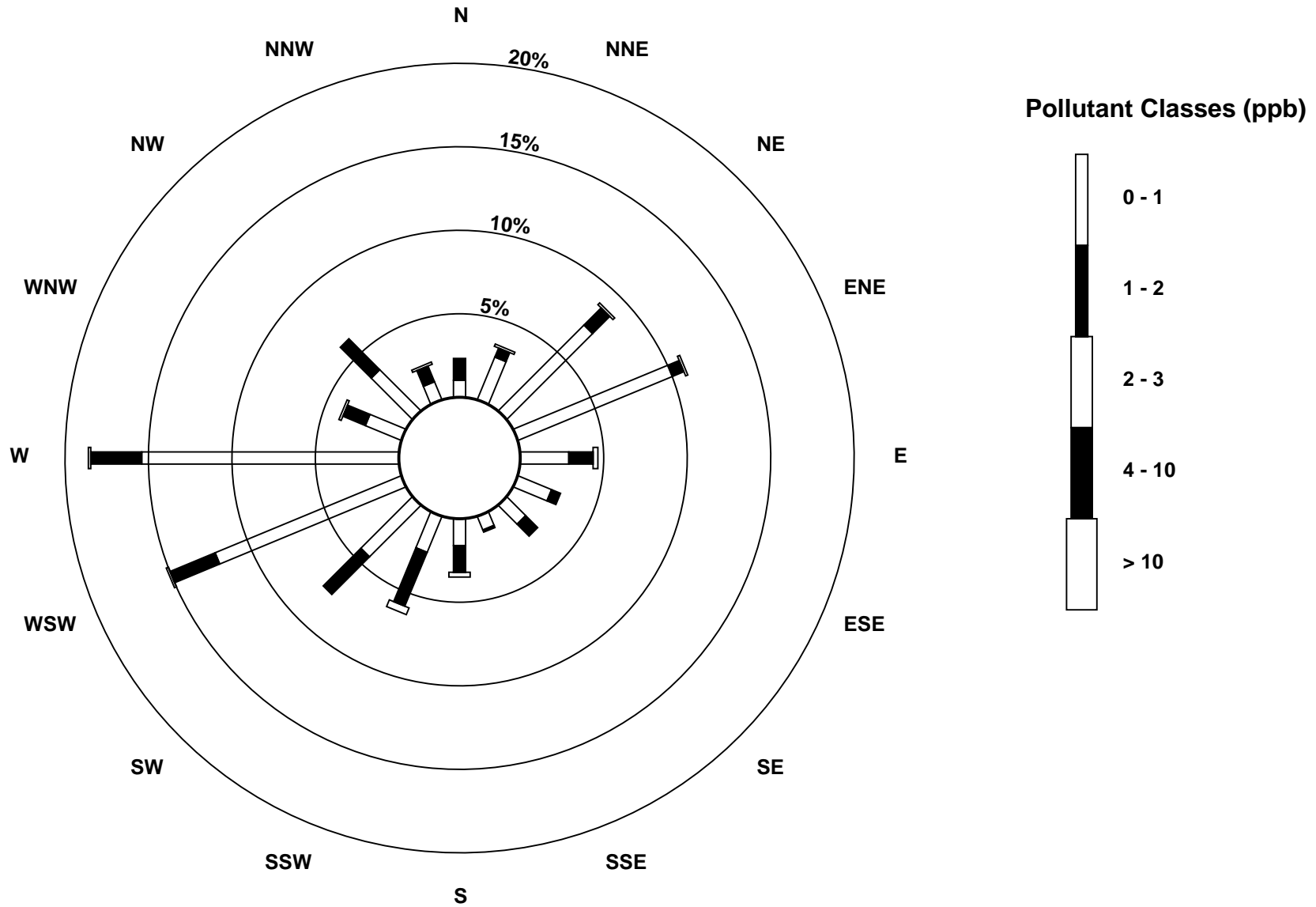
**Total Reduced Sulphur (TRS) - ppb**  
**Evergreen Park - January 2015**





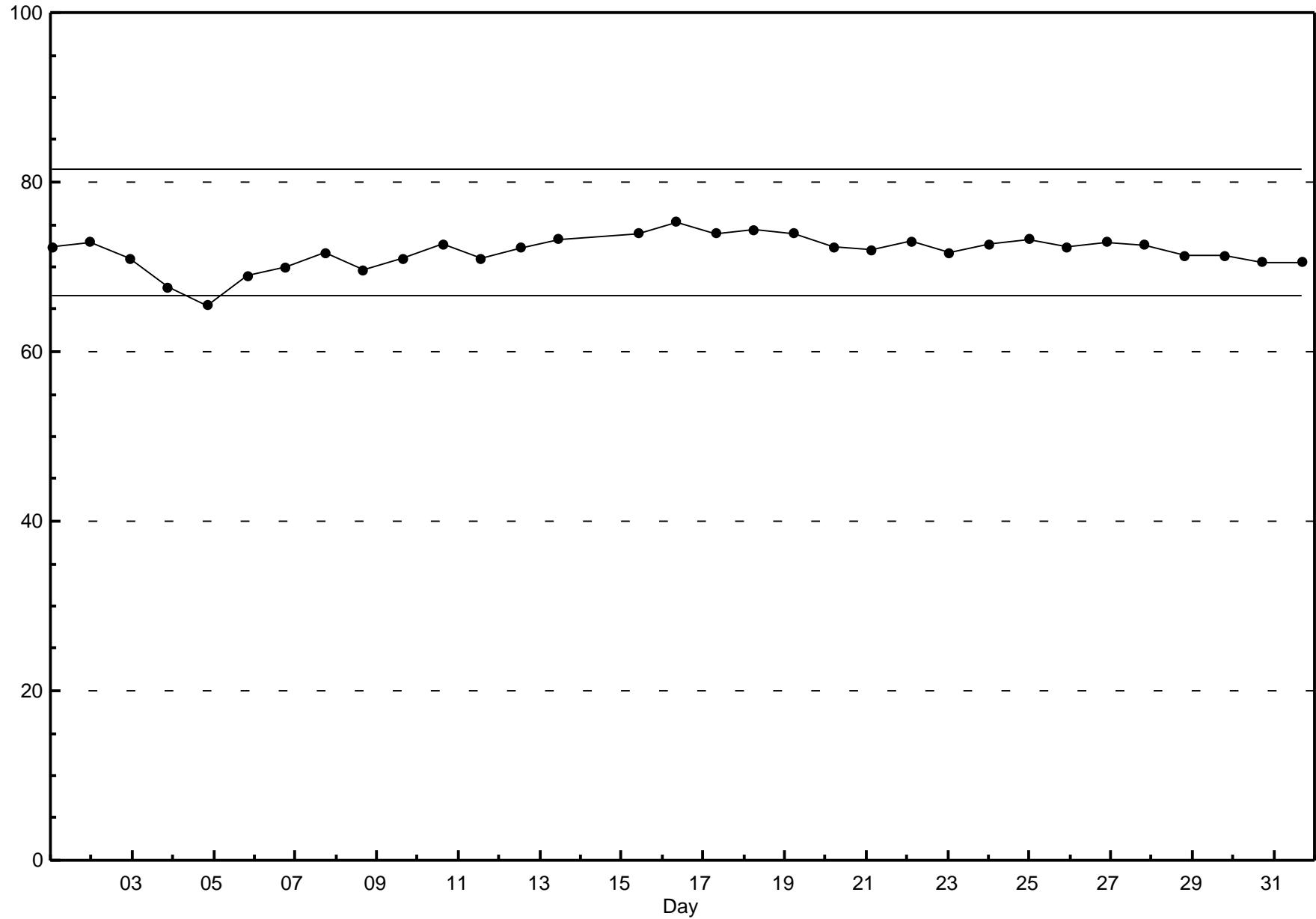
**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Evergreen Park - January 2015**



### Span Responses

**Total Reduced Sulphur (TRS)**  
**Evergreen Park - January 2015**



## Hourly Averages

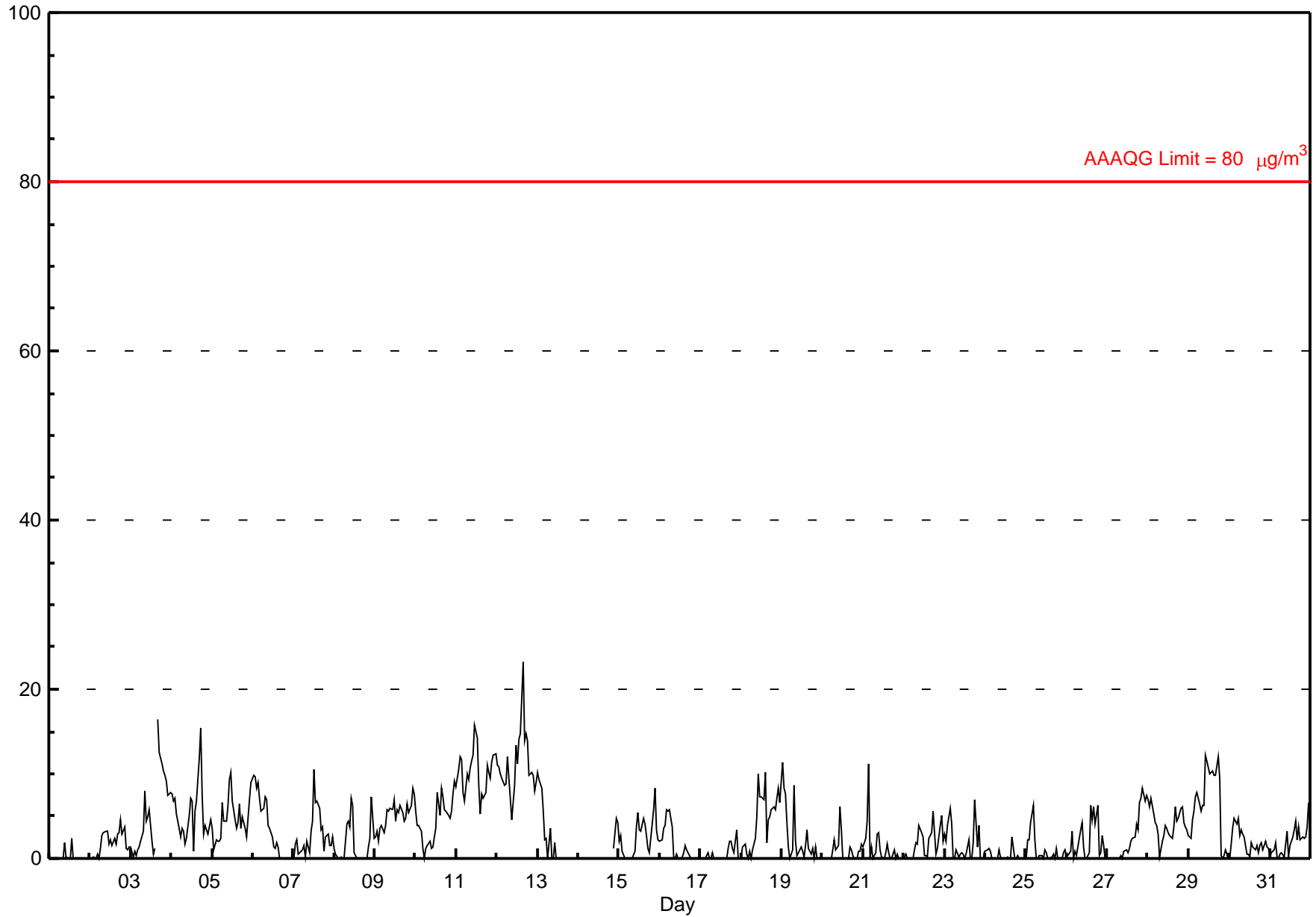
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Evergreen Park - January 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 23.2 µg/m <sup>3</sup> on Jan 12 16:00	Maximum Daily Average: 11.1 µg/m <sup>3</sup> on Jan 12
Minimum Value: 0 µg/m <sup>3</sup> on Jan 1 01:00	Hours of Data: 726
Maximum Diurnal Average: 4.0 µg/m <sup>3</sup> at hour 17	Hours of Missing Data: 18
Monthly Average: 3.15 µg/m <sup>3</sup>	Hours of Calibration: 2
Minimum Daily Average: 0.2 µg/m <sup>3</sup> on Jan 1	Percent Operational Time: 97.9
Minimum Diurnal Average: 2.0 µg/m <sup>3</sup> at hour 6	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 2.0 Q <sub>3</sub> = 5.1 P <sub>90</sub> = 8.3 P <sub>99</sub> = 13.9	

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-Jan	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0.2	2.3
2-Jan	0	0	0	0	1	0	1	3	3	3	3	2	2	1	2	2	3	3	5	3	4	1	1	1	1.8	4.5
3-Jan	1	0	1	0	1	1	2	3	8	4	5	6	2	1	1	M	16	13	11	10	10	9	7	8	5.3	16.4
4-Jan	8	7	7	5	4	3	4	3	2	2	5	7	7	1	6	7	12	15	7	3	4	3	4	5	5.4	15.4
5-Jan	4	1	2	2	2	2	7	4	4	6	9	10	7	5	4	4	7	4	5	4	3	5	7	9	4.8	10.1
6-Jan	10	10	8	9	7	6	6	7	7	4	4	3	1	1	2	1	0	0	0	0	0	0	0	0	3.6	9.8
7-Jan	0	2	2	0	1	1	2	0	2	1	3	4	11	7	7	6	3	4	1	2	3	1	1	2	2.8	10.6
8-Jan	1	1	0	0	0	0	0	4	4	4	7	6	1	0	0	0	0	0	0	0	1	2	7	2	1.7	7.2
9-Jan	3	3	2	4	4	3	4	6	6	6	6	7	4	6	5	6	5	4	5	6	5	6	8	8	5.1	8.4
10-Jan	6	4	4	3	1	0	1	1	2	1	1	3	4	8	5	8	7	6	6	5	5	6	8	9	4.3	9.1
11-Jan	9	10	12	12	8	7	10	9	11	11	12	16	14	9	5	8	7	8	11	10	9	11	12	12	10.2	15.7
12-Jan	11	11	10	9	9	9	12	10	7	5	9	13	11	14	15	23	14	15	14	10	10	10	8	9	11.1	23.2
13-Jan	10	9	8	6	2	2	0	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1.8	10.1
14-Jan	0	0	0	0	0	0	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	1	5	4	--	4.8
15-Jan	2	3	1	0	0	0	0	0	0	1	4	5	3	3	5	4	3	1	1	2	6	8	3	2	2.4	8.2
16-Jan	2	2	4	4	6	6	6	4	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	1.5	5.7
17-Jan	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	2	2	1	1	3	0	0	0.5	3.4
18-Jan	0	1	2	0	0	1	0	1	2	5	10	7	7	7	10	2	5	5	6	6	6	7	8	7	4.4	10.2
19-Jan	11	8	8	4	1	0	1	9	2	0	1	1	1	0	2	3	1	1	1	0	1	0	0	0	2.4	11.4
20-Jan	0	0	0	0	0	0	1	2	1	2	6	3	0	C	C	0	1	1	0	0	0	1	1	2	1.0	6.1
21-Jan	1	2	4	11	0	1	0	1	3	3	1	0	0	1	2	1	0	0	1	0	0	0	0	0	1.4	11.2
22-Jan	0	0	0	0	0	0	1	2	2	4	3	3	0	0	0	2	3	6	3	1	1	4	5	2	1.8	5.6
23-Jan	3	2	4	6	4	0	0	1	0	0	1	1	0	0	2	0	0	2	7	1	4	0	0	0	1.6	6.9
24-Jan	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0.3	2.5
25-Jan	0	2	2	4	6	2	0	0	0	0	0	1	1	0	0	0	1	0	1	0	0	0	1	1	1.0	6.3
26-Jan	0	0	1	3	0	1	0	2	3	4	1	0	0	1	6	5	6	4	6	0	1	3	2	0	2.1	6.3
27-Jan	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	2	3	4	3	7	7	8	7	8	2.3	8.3
28-Jan	7	6	7	5	4	4	3	0	2	3	4	4	3	3	2	4	6	4	5	6	6	4	4	3	4.1	7.1
29-Jan	3	2	5	6	7	8	6	6	6	6	12	11	10	10	10	10	10	12	9	0	0	1	0	0	6.3	12.2
30-Jan	0	2	4	5	4	5	3	3	3	3	0	0	0	2	1	1	2	1	2	2	1	2	1	1	2.0	4.7
31-Jan	0	1	1	2	0	0	1	1	0	2	3	0	2	2	3	4	2	4	2	3	2	3	4	7	2.0	6.7
	3.0	2.9	3.2	3.3	2.4	2.0	2.3	2.9	2.8	2.8	3.8	3.8	3.1	2.9	3.4	3.6	4.0	3.9	3.8	2.8	3.0	3.2	3.4	3.3	Diurnal Average	
	11.4	10.8	12.1	11.7	8.6	8.9	12.0	9.6	10.7	11.5	12.3	15.7	14.2	14.1	14.8	23.2	16.4	15.4	13.9	10.4	10.1	11.4	12.3	12.4	Diurnal Maximum	

C - Calibration P - Power Failure M - Maintenance  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>

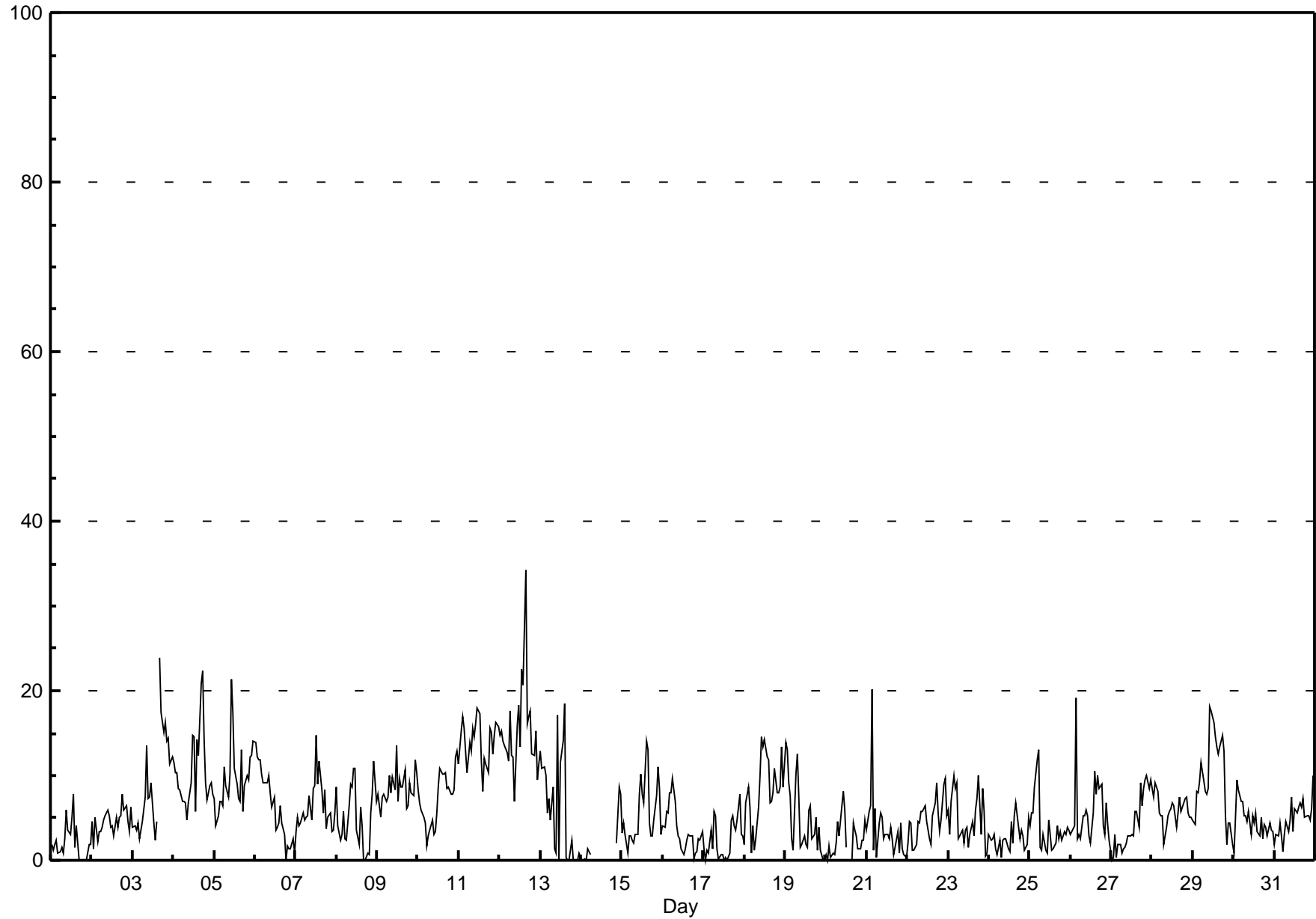


# Hourly Maximums

# Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

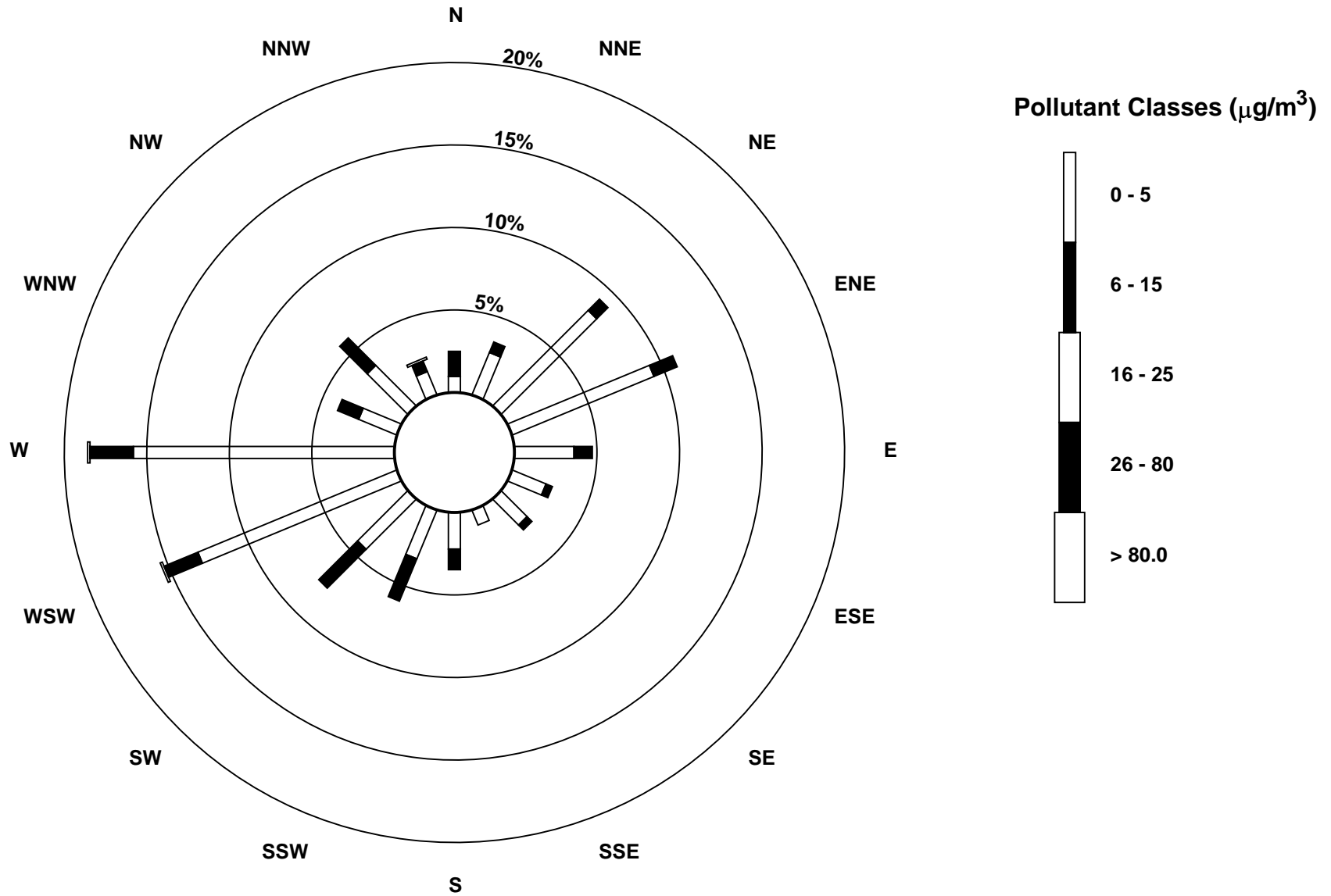
## Evergreen Park - January 2015

<b>Maximum Value: 34.3 µg/m<sup>3</sup> on Jan 12 16:00</b>		<b>Maximum Daily Average: 15.3 µg/m<sup>3</sup> on Jan 12</b>		Hours in Service: 744 Hours of Data: 726 Hours of Missing Data: 18 Hours of Calibration: 2 Percent Operational Time: 97.9																								
<b>Minimum Value: 0 µg/m<sup>3</sup> on Jan 1 17:00</b> <b>Maximum Diurnal Average: 7.6 µg/m<sup>3</sup> at hour 11</b> <b>Monthly Average: 6.18 µg/m<sup>3</sup></b>		<b>Minimum Daily Average: 2.0 µg/m<sup>3</sup> on Jan 1</b> <b>Minimum Diurnal Average: 5.0 µg/m<sup>3</sup> at hour 6</b> Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 1.1 Q <sub>1</sub> = 2.8 Median = 5.3 Q <sub>3</sub> = 8.7 P <sub>90</sub> = 12.8 P <sub>99</sub> = 20.5																										
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-Jan	2	1	2	2	1	1	2	1	3	6	4	3	5	8	2	4	0	0	0	0	0	0	2	2	2.0	7.7		
2-Jan	5	1	5	2	3	3	4	5	5	6	5	4	4	3	5	4	5	5	8	6	6	5	3	6	4.5	7.7		
3-Jan	4	4	4	4	3	4	5	7	14	7	8	9	4	2	5	M	24	17	15	16	14	14	11	12	9.0	23.8		
4-Jan	12	10	10	8	8	7	7	7	5	7	9	15	15	6	14	12	21	22	14	9	7	9	9	8	10.5	22.4		
5-Jan	7	4	5	7	7	7	11	9	8	10	21	17	11	9	7	7	13	6	9	10	9	12	12	14	9.7	21.4		
6-Jan	14	12	12	12	10	9	9	9	10	8	6	7	4	4	4	6	4	3	0	2	1	1	3	1	6.4	13.8		
7-Jan	3	5	4	4	6	5	5	5	8	5	8	9	15	9	12	8	6	8	4	5	6	3	4	6	6.3	14.7		
8-Jan	9	4	2	3	6	3	2	7	9	9	11	11	4	2	6	4	0	0	1	1	6	8	12	7	5.2	11.7		
9-Jan	8	7	5	7	8	7	7	10	8	10	8	14	7	10	9	9	11	6	6	9	8	8	12	10	8.5	13.6		
10-Jan	8	7	6	5	4	2	3	4	5	3	3	6	9	11	10	10	10	8	9	8	8	8	12	13	7.1	12.9		
11-Jan	11	15	17	16	13	10	14	13	16	15	16	18	17	12	8	12	11	10	16	15	13	15	16	16	13.9	18.0		
12-Jan	15	15	14	14	13	12	18	12	12	7	16	18	13	23	21	34	16	17	18	13	12	15	9	11	15.3	34.3		
13-Jan	13	11	11	10	6	7	5	9	1	1	17	0	12	14	18	0	0	0	2	0	0	0	0	1	5.8	18.4		
14-Jan	0	0	0	0	1	1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	2	9	8	--	8.7		
15-Jan	3	4	3	1	3	3	2	2	3	3	8	10	8	7	14	13	4	3	3	5	8	11	8	3	5.5	14.1		
16-Jan	4	4	6	6	8	8	10	7	4	3	3	1	1	1	2	3	3	3	0	1	1	3	2	3	3.6	9.7		
17-Jan	1	0	1	1	4	1	6	5	1	0	1	1	0	0	0	1	5	5	4	4	5	8	3	3	2.5	7.7		
18-Jan	2	7	9	6	1	4	1	3	6	10	15	13	14	12	12	7	7	8	11	8	8	9	13	9	8.1	14.5		
19-Jan	14	13	9	8	3	1	10	13	7	2	2	3	2	2	6	6	3	3	5	1	4	1	0	0	4.9	13.8		
20-Jan	1	0	2	0	1	1	2	5	3	6	8	6	2	C	C	0	4	4	3	1	1	2	2	5	2.7	8.2		
21-Jan	4	6	7	20	1	6	0	4	6	5	3	3	3	3	4	3	1	2	3	1	4	1	1	0	3.7	20.2		
22-Jan	2	5	4	1	1	2	5	4	6	6	6	5	4	3	2	5	7	9	6	3	5	9	10	5	4.7	9.7		
23-Jan	6	3	7	10	8	9	3	3	4	2	4	4	2	3	5	3	6	7	10	3	8	6	1	1	4.8	9.9		
24-Jan	3	2	3	3	1	1	2	0	2	3	3	1	1	5	2	5	7	4	3	4	3	1	2	5	2.7	6.7		
25-Jan	4	6	6	9	12	13	2	1	3	1	1	5	3	1	1	2	4	3	3	2	3	3	4	3	4.0	13.1		
26-Jan	3	3	4	19	3	3	3	5	5	6	5	3	2	6	10	8	10	8	9	4	3	7	4	2	5.7	19.2		
27-Jan	0	0	3	0	2	2	1	1	2	2	3	3	3	3	6	6	4	9	6	8	9	10	8	9	4.2	9.9		
28-Jan	8	7	9	8	6	5	5	2	4	5	6	6	7	7	4	6	7	6	6	7	7	6	5	5	6.0	9.2		
29-Jan	5	4	8	8	9	12	9	8	8	8	18	18	16	15	13	13	13	15	13	5	2	4	4	2	9.6	18.2		
30-Jan	1	5	9	8	7	7	5	5	5	6	3	5	4	6	3	3	5	3	4	4	3	4	4	3	4.7	9.4		
31-Jan	2	3	3	4	3	1	3	4	3	5	7	3	6	6	6	7	6	7	5	5	5	5	6	10	4.9	9.9		
		5.6	5.5	6.1	6.7	5.2	5.0	5.3	5.7	5.8	5.5	7.6	7.4	6.5	6.5	7.3	6.9	7.2	6.7	6.5	5.3	5.7	6.1	6.2	5.9	Diurnal Average		
		14.8	15.3	16.9	20.2	12.9	13.1	17.7	12.9	15.5	14.6	21.4	18.4	17.2	22.6	20.7	34.3	23.8	22.4	17.7	16.3	14.1	15.3	16.3	15.8	Diurnal Maximum		
C - Calibration		P - Power Failure			M - Maintenance																							



**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**  
**Evergreen Park - January 2015**



# Hourly Averages

External Temperature (ET) - °C

Evergreen Park - January 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 10.0 °C on Jan 22 03:00	Maximum Daily Average: 6.6 °C on Jan 25
Minimum Value: -36 °C on Jan 4 10:00	Hours of Data: 729
Maximum Diurnal Average: -5.7 °C at hour 15	Hours of Missing Data: 15
Monthly Average: -8.07 °C	Hours of Calibration: 0
Minimum Daily Average: -30.9 °C on Jan 4	Percent Operational Time: 98.0
Minimum Diurnal Average: -9.3 °C at hour 7	
Percentiles: P <sub>1</sub> = -33.5 P <sub>10</sub> = -24.2 Q <sub>1</sub> = -17.6 Median = -5.9 Q <sub>3</sub> = 2.8 P <sub>90</sub> = 6.0 P <sub>99</sub> = 9.0	

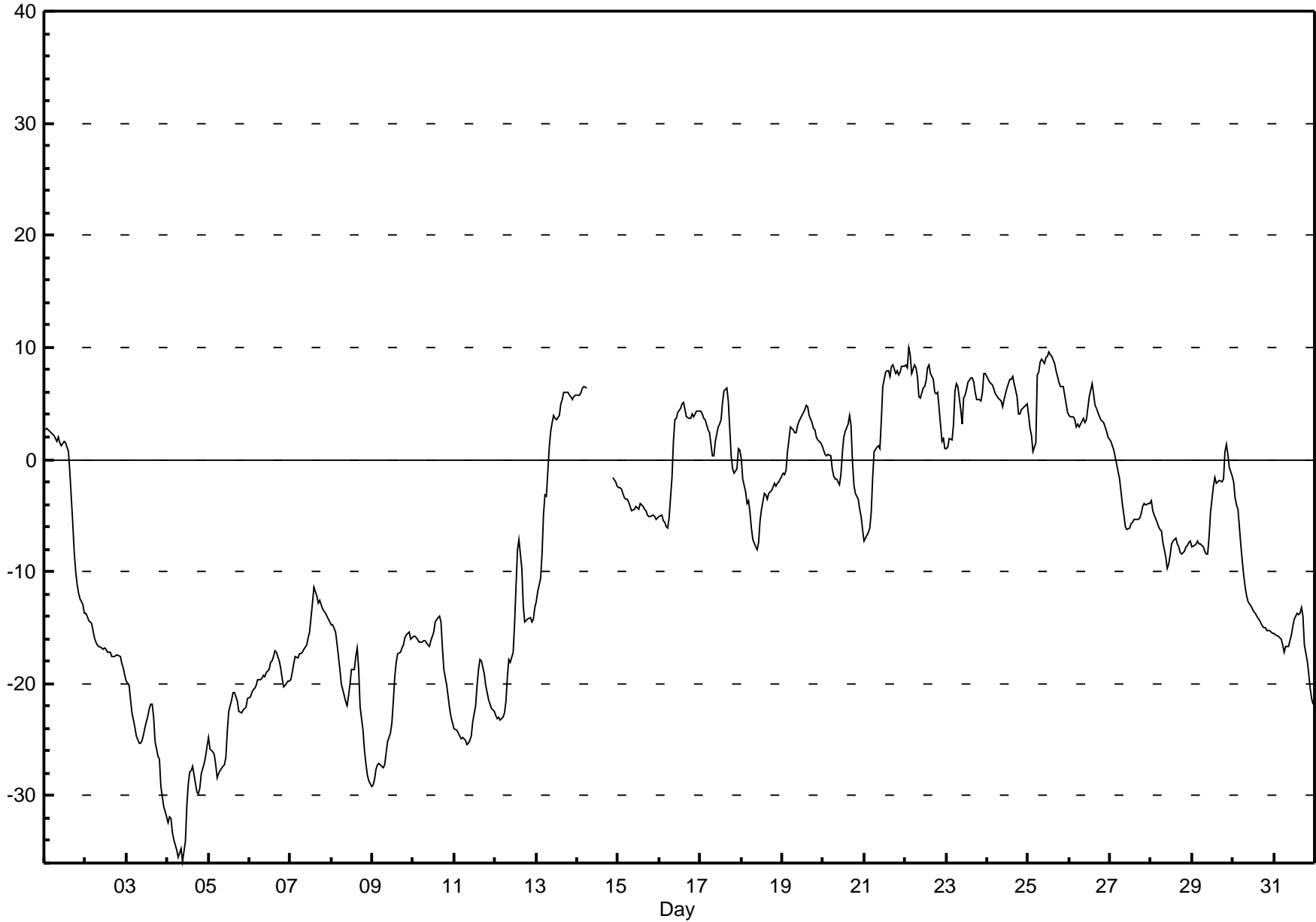
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jan	3	3	3	3	2	2	2	2	2	2	1	2	2	1	1	-1	-6	-8	-10	-11	-12	-12	-13	-14	-2.5	2.8																							
2-Jan	-14	-14	-14	-15	-15	-16	-16	-17	-17	-17	-17	-17	-17	-17	-17	-18	-18	-18	-18	-17	-18	-18	-19	-19	-16.7	-13.7																							
3-Jan	-20	-20	-21	-23	-23	-24	-25	-25	-25	-25	-25	-24	-23	-22	-22	-22	-23	-25	-27	-27	-29	-30	-31	-32	-24.7	-19.8																							
4-Jan	-32	-32	-32	-33	-34	-35	-35	-35	-35	-36	-34	-31	-29	-28	-28	-27	-29	-30	-30	-29	-28	-27	-27	-26	-30.9	-25.5																							
5-Jan	-25	-26	-26	-26	-27	-28	-28	-28	-27	-27	-27	-24	-22	-21	-21	-21	-21	-22	-22	-23	-22	-22	-22	-21	-24.2	-20.8																							
6-Jan	-21	-21	-21	-20	-20	-20	-20	-19	-19	-19	-19	-19	-18	-18	-18	-17	-17	-18	-19	-19	-20	-20	-20	-20	-19.3	-17.1																							
7-Jan	-20	-19	-18	-18	-18	-17	-17	-17	-17	-17	-16	-15	-14	-13	-11	-12	-13	-13	-13	-13	-14	-14	-14	-15	-15.3	-11.3																							
8-Jan	-15	-15	-15	-16	-18	-19	-20	-21	-22	-22	-21	-20	-19	-19	-18	-17	-19	-22	-24	-26	-27	-28	-29	-29	-20.8	-14.7																							
9-Jan	-29	-28	-28	-27	-27	-27	-28	-27	-26	-25	-24	-24	-22	-19	-18	-17	-17	-17	-16	-16	-15	-16	-16	-16	-21.9	-15.4																							
10-Jan	-16	-16	-16	-16	-16	-16	-16	-16	-16	-17	-17	-16	-16	-15	-15	-14	-14	-14	-17	-19	-20	-21	-22	-23	-17.2	-13.9																							
11-Jan	-24	-24	-24	-25	-25	-25	-25	-25	-25	-25	-25	-23	-22	-20	-19	-18	-18	-19	-20	-21	-21	-22	-22	-22	-22.5	-17.8																							
12-Jan	-23	-23	-23	-23	-23	-23	-22	-19	-18	-18	-17	-15	-11	-8	-7	-10	-13	-15	-14	-14	-14	-15	-14	-13	-16.5	-7.1																							
13-Jan	-13	-12	-11	-8	-5	-3	-3	1	3	3	4	4	4	4	5	5	6	6	6	6	6	5	6	6	1.0	6.0																							
14-Jan	6	6	6	6	7	6	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-2	-2	-2	--	6.6																					
15-Jan	-3	-3	-3	-3	-4	-4	-4	-4	-5	-4	-4	-4	-4	-4	-4	-4	-5	-5	-5	-5	-5	-5	-5	-5	-4.2	-2.5																							
16-Jan	-5	-5	-5	-6	-6	-6	-5	-2	2	4	4	4	5	5	5	4	4	4	4	4	4	4	4	4	1.0	5.0																							
17-Jan	4	4	4	4	3	2	1	0	0	2	3	3	4	5	6	6	5	3	0	-1	-1	-1	1	1	2.4	6.3																							
18-Jan	0	-2	-3	-4	-4	-5	-6	-7	-8	-8	-7	-5	-4	-3	-3	-3	-3	-3	-2	-2	-2	-2	-2	-2	-3.8	0.1																							
19-Jan	-1	-1	-1	1	2	3	3	2	2	3	3	4	4	5	5	4	3	3	3	2	2	1	1	1	2.4	4.9																							
20-Jan	1	1	0	0	0	-1	-1	-2	-2	-2	-1	1	2	3	3	4	3	0	-2	-3	-4	-4	-5	-6	-0.7	3.9																							
21-Jan	-7	-7	-7	-6	-5	-2	1	1	1	1	4	7	8	8	8	7	8	8	8	8	8	8	8	8	3.2	8.5																							
22-Jan	8	8	10	9	8	8	8	7	6	5	6	7	7	8	8	8	7	6	6	6	5	2	2	1	6.6	10.0																							
23-Jan	1	1	2	2	3	6	7	6	4	3	5	6	6	7	7	7	7	6	5	5	5	6	8	8	5.2	7.7																							
24-Jan	7	7	7	7	6	6	6	5	5	5	5	6	7	7	7	7	7	6	4	4	4	5	5	5	5.8	7.4																							
25-Jan	4	3	2	1	1	7	8	9	9	9	9	9	10	9	9	9	8	7	7	7	6	6	5	4	6.6	9.5																							
26-Jan	4	4	4	4	3	3	3	3	4	3	4	5	6	7	6	5	5	4	3	3	3	3	3	2	3.8	6.7																							
27-Jan	2	1	1	0	-1	-2	-3	-4	-5	-6	-6	-6	-6	-6	-5	-5	-5	-5	-5	-4	-4	-4	-4	-4	-3.6	1.6																							
28-Jan	-4	-5	-5	-6	-6	-6	-6	-7	-9	-10	-9	-9	-8	-7	-7	-7	-8	-8	-8	-8	-8	-8	-7	-7	-7.2	-3.7																							
29-Jan	-8	-8	-7	-7	-8	-8	-8	-8	-8	-8	-7	-5	-2	-2	-2	-2	-2	-2	-2	1	1	1	-1	-1	-4.3	1.3																							
30-Jan	-2	-3	-4	-4	-8	-9	-10	-11	-12	-13	-13	-13	-14	-14	-14	-14	-15	-15	-15	-15	-15	-15	-15	-15	-11.7	-2.0																							
31-Jan	-16	-16	-16	-16	-16	-17	-17	-17	-17	-16	-16	-15	-14	-14	-14	-14	-13	-14	-16	-18	-19	-20	-21	-22	-16.3	-13.3																							
																								-8.3	-8.4	-8.5	-8.6	-8.8	-8.6	-9.3	-9.2	-9.2	-9.2	-8.5	-7.6	-6.7	-6.0	-5.7	-5.9	-6.5	-7.4	-8.1	-8.3	-8.5	-8.6	-8.7	-8.9	Diurnal Average	
																								8.5	8.2	10.0	9.3	7.6	8.5	8.2	8.7	9.0	8.6	9.1	9.2	9.5	9.4	9.2	8.6	8.3	8.5	7.7	8.0	7.5	7.8	8.3	8.4	Diurnal Maximum	

P - Power Failure



**Hourly Averages**

**External Temperature (ET) - °C**  
**Evergreen Park - January 2015**



# Hourly Averages

Relative Humidity (RH) - %  
Evergreen Park - January 2015

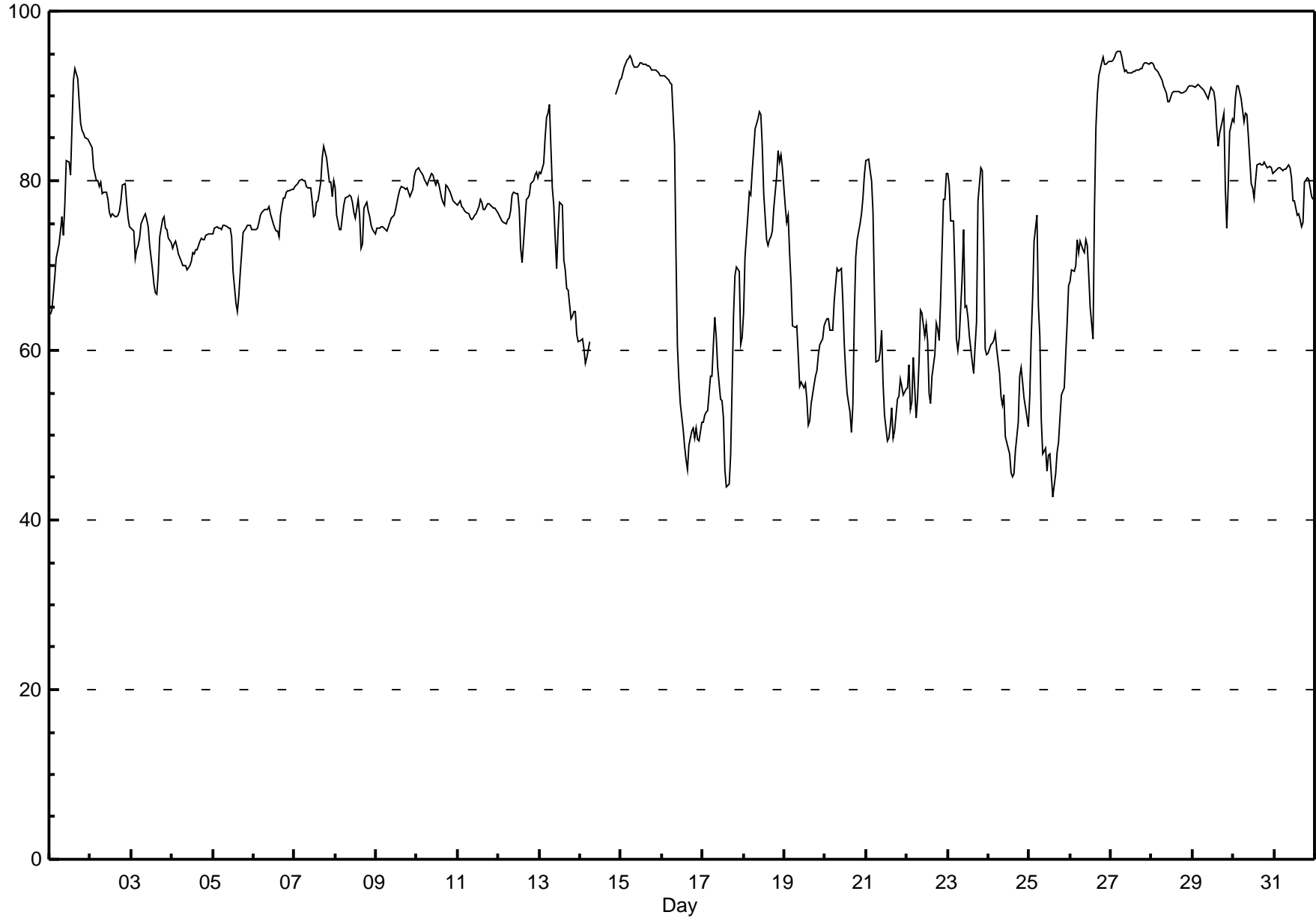
Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 95.3 % on Jan 27 05:00	Maximum Daily Average: 93.7 % on Jan 27		Hours of Data:	729
Minimum Value: 43 % on Jan 25 15:00	Minimum Daily Average: 54.0 % on Jan 24		Hours of Missing Data:	15
Maximum Diurnal Average: 76.5 % at hour 5	Minimum Diurnal Average: 69.7 % at hour 15		Hours of Calibration:	0
Monthly Average: 74.17 %	Percentiles: P <sub>1</sub> = 45.6 P <sub>10</sub> = 54.8 Q <sub>1</sub> = 66.0 Median = 75.9 Q <sub>3</sub> = 81.2 P <sub>90</sub> = 91.4 P <sub>99</sub> = 94.6		Percent Operational Time:	98.0

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-Jan	64	65	67	69	71	73	74	76	74	77	82	82	81	87	92	93	92	89	87	86	86	85	85	85	80.0	93.2
2-Jan	84	84	81	80	80	79	80	78	79	79	78	76	76	76	76	76	76	77	78	80	80	77	76	75	78.3	84.3
3-Jan	74	74	71	72	72	73	75	76	76	76	75	72	70	68	67	67	69	73	75	76	74	74	73	73	72.7	76.1
4-Jan	72	73	73	72	71	70	70	70	70	69	70	71	71	71	72	72	73	73	73	73	74	74	74	74	71.9	73.8
5-Jan	74	74	75	74	74	74	75	75	75	74	74	73	69	66	65	66	69	71	74	74	75	75	75	74	72.7	74.8
6-Jan	74	74	74	75	76	76	77	77	77	77	76	75	74	74	74	73	76	78	78	79	79	79	79	79	76.2	78.9
7-Jan	79	79	80	80	80	80	80	79	79	79	78	76	76	78	78	80	83	84	83	83	80	80	78	80	79.7	84.0
8-Jan	79	76	74	74	76	77	78	78	78	77	76	76	78	76	72	73	77	77	77	76	75	74	74	74	76.1	79.1
9-Jan	74	74	74	75	75	74	74	74	75	76	76	77	77	78	79	79	79	79	79	79	78	79	81	81	77.0	81.1
10-Jan	81	81	81	81	80	80	80	80	81	81	80	80	80	80	78	78	77	80	79	79	78	78	78	77	79.4	81.5
11-Jan	77	78	77	77	77	76	76	76	75	76	76	76	77	78	77	77	77	77	77	77	77	77	77	76	76.7	77.8
12-Jan	76	76	75	75	75	75	76	76	78	79	78	78	77	72	70	75	78	78	78	80	80	81	81	80	77.0	80.9
13-Jan	81	81	82	85	87	88	89	79	77	73	70	74	77	77	71	69	67	67	64	64	65	65	62	61	74.0	88.9
14-Jan	61	61	60	58	59	61	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	90	91	92	--	91.8
15-Jan	92	93	93	94	94	95	94	94	93	93	94	94	94	94	94	94	94	93	93	93	93	93	93	92	93.5	94.7
16-Jan	92	92	92	92	92	92	91	84	71	61	57	54	51	49	47	46	49	51	51	50	51	49	49	51	65.2	92.4
17-Jan	52	52	53	53	57	57	61	64	61	58	54	54	52	46	44	44	48	56	64	69	70	69	61	62	56.7	69.8
18-Jan	64	71	76	79	78	81	84	86	87	88	88	84	78	73	72	73	74	77	81	84	82	83	82	82	79.1	88.2
19-Jan	77	75	76	72	68	63	63	63	59	56	56	56	54	51	52	54	56	57	58	59	61	61	63	63	61.0	76.9
20-Jan	63	64	64	62	62	66	68	70	69	70	66	61	57	55	53	50	54	64	71	73	75	76	78	81	65.5	80.7
21-Jan	82	82	81	80	76	67	59	59	60	62	56	52	49	50	51	53	50	50	54	55	57	56	55	55	60.5	82.5
22-Jan	56	58	53	54	59	52	54	59	65	64	62	63	61	55	54	57	59	63	63	61	66	78	78	81	61.4	80.9
23-Jan	81	79	75	75	69	61	60	62	69	74	65	65	64	62	59	57	60	63	78	82	81	73	60	59	68.1	81.5
24-Jan	60	61	61	61	62	60	57	55	54	55	50	49	48	46	45	45	48	52	57	58	56	54	52	51	54.0	62.0
25-Jan	55	62	66	73	76	65	62	52	48	48	46	48	48	45	43	45	48	49	52	55	56	60	63	68	55.5	76.0
26-Jan	68	69	69	70	73	72	73	72	72	73	72	69	65	61	77	86	90	92	94	95	94	94	94	94	78.7	94.6
27-Jan	94	94	95	95	95	95	95	94	93	93	93	93	93	93	93	93	93	93	93	94	94	94	94	94	93.7	95.3
28-Jan	94	94	93	93	92	92	92	91	90	89	90	90	90	90	91	90	90	90	90	90	91	91	91	91	91.2	93.8
29-Jan	91	91	91	91	91	91	91	90	90	90	91	91	89	86	84	86	86	87	88	79	74	79	86	87	87.7	91.3
30-Jan	87	90	91	91	90	88	87	88	88	85	80	79	78	80	82	82	82	82	82	82	82	82	81	81	84.1	91.1
31-Jan	81	81	81	82	81	81	81	81	82	82	80	78	78	76	76	75	75	75	80	80	80	79	78	78	79.2	81.9
	75.5	76.1	76.0	76.3	76.5	75.4	75.8	75.2	74.8	74.5	72.9	72.2	71.1	70.0	69.7	70.2	71.4	73.2	74.9	75.3	75.4	76.1	75.5	75.8	Diurnal Average	
	94.1	94.2	94.6	95.1	95.3	95.3	94.7	93.8	93.5	93.4	93.6	93.9	93.9	93.7	93.7	93.6	93.5	93.4	94.0	94.6	94.0	93.9	93.9	94.0	Diurnal Maximum	

P - Power Failure

**Hourly Averages**

**Relative Humidity (RH) - %**  
**Evergreen Park - January 2015**





Peace Airshed Zone Association

# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Evergreen Park - January 2015

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	9	6	11	11	7	6	9	7	2	2	1	6	8	9	12	23	22	20	19	18	17	18	19	4.0	22.7
Dir	256	254	247	251	265	280	276	263	264	25	313	296	270	294	262	60	59	58	60	61	55	57	48	43	21.8	59.2
2 Spd	16	16	17	16	18	19	17	14	11	10	12	11	11	12	9	9	5	2	3	4	10	18	21	17	10.5	21.0
Dir	40	39	44	40	40	42	39	28	24	22	18	16	24	29	30	35	29	45	224	241	310	331	334	325	19.4	334.1
3 Spd	14	16	14	10	11	9	9	7	4	5	8	8	11	11	10	9	3	1	2	1	0	2	2	1	6.1	15.7
Dir	314	323	331	308	319	271	272	265	272	250	272	290	272	278	294	271	271	222	245	266	36	216	213	212	290.9	323.1
4 Spd	1	1	4	2	3	N	N	N	N	N	2	1	2	3	3	3	7	5	5	5	8	8	9	7	2.7	9.4
Dir	223	287	223	223	215	N	N	N	N	N	218	321	238	34	6	45	31	325	290	273	270	272	266	277	281.4	265.7
5 Spd	4	8	5	2	2	1	5	4	2	3	5	11	10	11	10	4	2	0	2	1	3	2	2	1	3.3	11.3
Dir	236	219	219	217	227	24	235	211	224	232	239	258	267	272	271	279	272	104	208	98	203	68	59	73	247.2	257.5
6 Spd	2	1	1	2	3	2	3	1	1	3	5	6	6	7	6	7	5	5	3	3	6	4	5	4	3.3	7.2
Dir	90	98	69	59	51	184	196	190	62	86	71	77	54	49	55	67	65	73	60	74	65	72	76	67	69.0	49.0
7 Spd	3	4	5	3	8	5	6	9	9	10	5	8	13	2	23	24	25	19	25	21	26	25	24	18	11.6	25.5
Dir	61	284	291	286	230	261	243	264	254	237	268	281	339	271	321	319	328	312	321	318	326	331	335	322	312.1	325.8
8 Spd	16	15	14	10	9	6	4	3	3	4	5	10	12	12	4	2	0	1	1	2	2	2	3	4	5.2	16.3
Dir	312	312	316	283	277	290	274	261	282	238	259	266	268	276	237	234	54	44	48	42	6	356	288	314	289.2	312.4
9 Spd	4	5	1	1	0	1	1	3	2	3	4	6	6	2	2	0	3	1	2	2	2	2	4	2	1.4	6.4
Dir	313	305	304	189	176	102	97	205	207	282	257	277	221	222	178	225	197	83	231	87	92	206	172	243.9	257.3	
10 Spd	2	4	4	5	4	4	3	4	5	4	1	4	5	2	2	1	0	0	0	0	0	1	1	1	1.0	5.4
Dir	125	133	150	136	141	115	87	59	70	69	125	327	346	344	277	248	217	179	208	37	37	242	143	8	98.0	344.0
11 Spd	2	1	0	1	3	1	2	1	1	1	2	2	3	3	3	2	2	0	0	1	0	0	1	0	1.2	3.4
Dir	318	344	325	325	339	305	302	312	258	306	278	239	254	264	240	263	309	226	270	217	236	254	226	219	277.9	239.5
12 Spd	1	1	0	0	0	1	0	0	2	0	0	1	1	0	2	6	3	2	1	1	0	1	1	0	0.6	6.0
Dir	217	213	201	228	269	235	236	5	350	30	291	23	350	325	352	339	300	239	18	69	45	92	208	273	326.8	339.2
13 Spd	0	0	0	0	4	1	2	18	30	30	27	28	20	12	20	34	43	40	46	36	36	30	35	32	21.4	45.9
Dir	186	85	199	190	205	135	104	238	254	251	258	251	247	223	250	251	253	254	259	260	256	264	262	259	253.7	258.7
14 Spd	25	32	39	41	42	27	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	0	2	--	42.4
Dir	261	261	260	263	262	268	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	206	55	60	--	261.7
15 Spd	1	3	5	7	6	6	2	2	2	1	3	5	6	2	5	5	4	3	1	2	2	3	4	2	2.7	7.3
Dir	53	61	67	58	58	45	43	134	80	36	54	42	62	39	5	18	29	31	356	18	4	337	292	257	39.0	58.0
16 Spd	1	1	0	1	4	5	8	22	28	29	38	39	42	42	37	40	35	39	42	48	46	43	52	46	28.6	52.4
Dir	226	166	347	343	261	238	276	251	255	265	262	262	260	263	264	265	262	259	259	261	265	266	264	265	262.0	263.9
17 Spd	46	39	34	24	3	7	4	5	12	21	26	20	18	25	13	4	3	1	2	0	1	3	14	17	12.9	46.4
Dir	265	266	265	273	36	290	275	228	223	243	252	250	250	255	272	12	52	285	87	184	234	314	243	233	258.9	265.4
18 Spd	8	3	3	2	2	1	0	0	2	1	5	3	4	4	8	5	5	3	3	1	3	2	1	4	1.1	8.2
Dir	202	103	51	188	177	188	53	306	46	305	202	23	354	317	276	335	238	307	210	42	193	219	207	212	241.9	202.1
19 Spd	5	9	6	13	15	27	28	31	34	36	35	40	44	42	42	37	32	25	26	27	24	27	31	25	27.0	43.6
Dir	201	200	209	226	236	253	251	254	252	255	259	263	263	263	262	260	260	260	261	261	265	264	258	258	256.8	263.2
20 Spd	24	25	21	23	24	19	8	9	12	8	5	11	17	15	9	3	2	1	1	2	1	1	1	1	9.3	24.9
Dir	254	255	256	259	263	257	295	268	262	264	275	271	266	274	316	296	264	83	146	191	86	158	66	31	264.0	255.1
21 Spd	3	0	1	1	1	9	10	3	1	4	14	20	31	23	13	12	25	24	9	7	9	10	13	13	9.5	31.0
Dir	50	275	48	77	94	194	194	181	237	206	218	246	251	256	270	262	247	250	263	247	229	221	238	246	242.3	251.4
22 Spd	11	15	28	23	20	45	44	16	6	10	17	24	25	38	47	22	5	4	7	12	1	1	2	0	17.2	46.5
Dir	252	267	242	239	252	255	251	272	273	268	270	265	260	263	264	260	267	267	263	252	277	131	203	86	257.8	264.4



Peace Airshed Zone Association

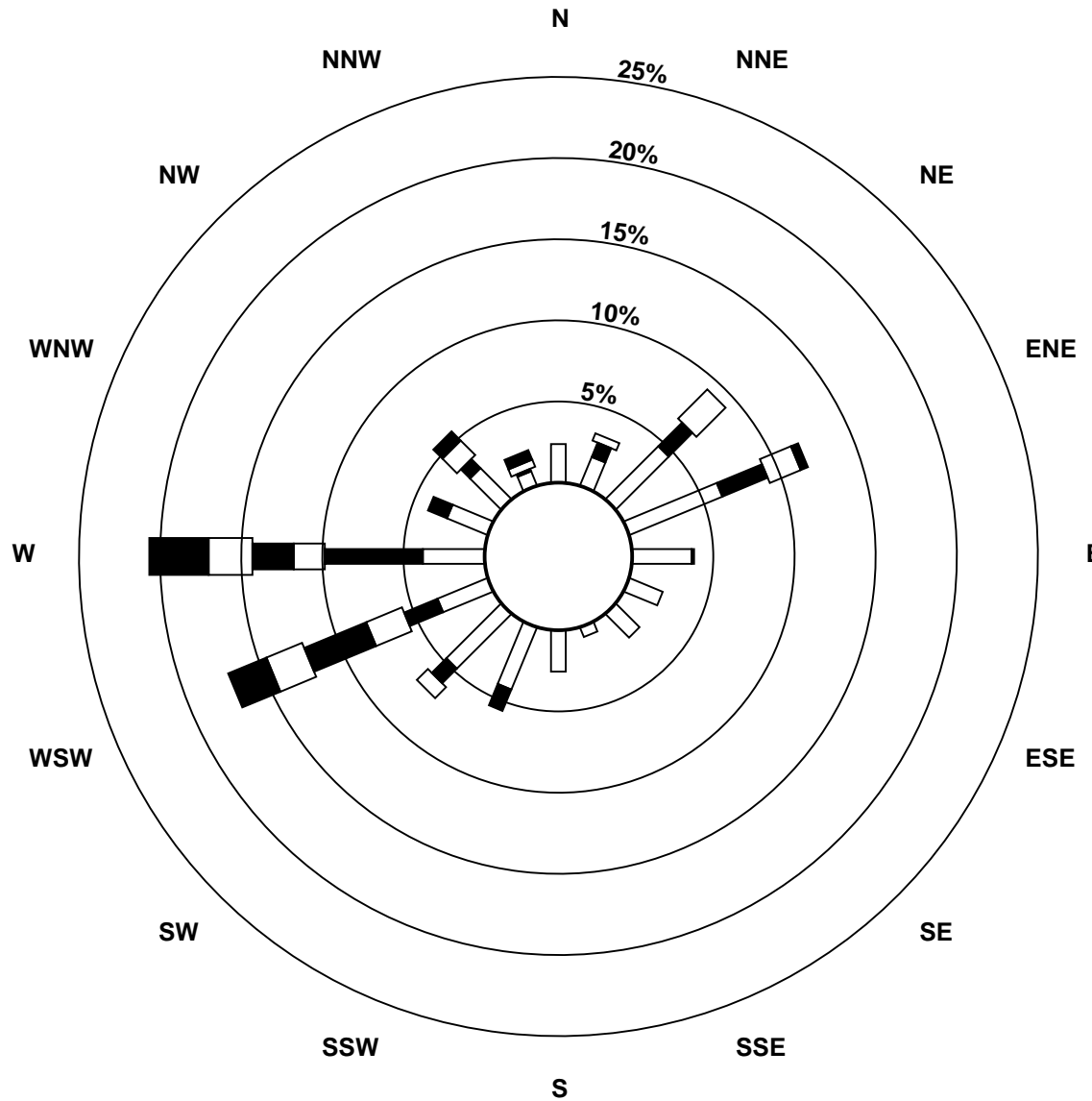
# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Evergreen Park - January 2015

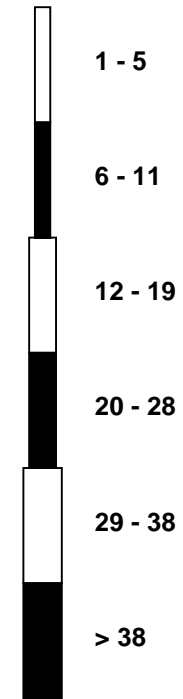
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	2	1	4	1	5	19	17	6	0	6	3	0	3	2	4	5	5	1	7	8	6	13	44	44	6.6	43.6
Dir	197	135	190	54	239	249	250	264	156	74	183	58	63	148	182	193	126	88	210	199	276	248	254	254	241.3	253.8
24 Spd	47	51	45	47	42	35	34	35	34	27	27	29	23	22	15	8	2	1	2	2	3	3	3	3	21.1	51.2
Dir	258	258	260	258	258	256	256	256	263	255	251	261	263	260	245	252	187	115	46	62	88	89	113	87	257.0	258.4
25 Spd	2	1	4	2	4	17	30	40	39	41	48	43	38	37	40	37	27	28	11	17	18	10	1	2	21.7	48.2
Dir	170	352	214	41	270	267	246	252	255	255	250	242	252	261	260	262	265	261	266	254	254	258	30	307	255.4	250.2
26 Spd	5	1	1	2	3	2	2	3	4	4	9	9	11	6	1	1	1	1	6	8	5	4	3	3	3.1	11.4
Dir	211	10	116	104	79	156	144	171	187	200	202	206	216	240	220	244	112	225	225	229	233	258	270	284	214.5	216.5
27 Spd	1	1	6	11	14	13	13	14	12	11	9	9	6	7	6	8	5	3	5	1	4	4	1	1	6.3	14.2
Dir	271	113	56	69	59	53	65	65	73	75	67	60	61	87	51	52	57	58	181	185	356	38	117	109	64.6	65.4
28 Spd	1	5	2	5	4	4	3	3	5	5	5	3	4	2	5	6	6	5	3	2	3	2	3	3	3.4	6.5
Dir	70	62	89	110	111	98	121	121	94	72	73	65	96	195	119	67	65	71	67	63	96	133	110	64	87.6	70.5
29 Spd	4	2	2	2	5	2	1	0	1	0	0	3	2	5	5	2	3	3	11	13	8	2	2	2	1.6	13.0
Dir	62	38	12	357	314	244	309	170	141	79	301	221	214	350	322	289	326	237	219	248	248	209	158	85	265.6	248.2
30 Spd	0	5	3	8	13	11	14	17	15	13	16	14	16	14	12	13	11	11	10	7	8	5	8	6	9.9	17.4
Dir	128	211	43	60	66	70	65	61	70	61	54	51	46	44	52	57	56	56	50	50	51	40	40	50	56.3	61.0
31 Spd	4	0	3	4	4	3	2	3	6	2	4	5	3	5	9	7	3	1	2	0	3	2	1	2	1.1	8.5
Dir	64	93	134	130	124	89	81	80	78	57	49	50	356	296	321	282	285	209	68	77	215	51	225	29	41.4	321.5
Spd	5.7	5.9	5.3	4.7	4.4	6.0	5.3	5.7	5.8	6.2	7.5	8.6	9.3	9.3	9.1	6.5	4.7	4.4	4.7	5.3	4.9	4.4	6.2	5.7	Diurnal Average	
Dir	266.1	268.8	265.7	263.7	266.1	261.7	255.4	256.2	257.4	257.3	257.4	262.9	267.1	269.3	275.6	279.8	279.0	272.4	266.1	263.6	275.7	283.7	272.5	272.5	Diurnal Maximum	
Spd	46.7	51.2	45.0	47.0	42.4	44.9	43.5	40.0	39.5	40.6	48.2	42.8	43.6	42.4	46.5	39.9	42.8	39.6	45.9	47.9	45.7	42.9	52.4	46.2	Diurnal Maximum	
Dir	258.1	258.4	259.6	258.3	261.7	254.9	250.6	252.0	255.3	255.3	250.2	241.8	263.2	262.6	264.4	265.5	252.5	253.9	258.7	260.8	265.4	266.3	263.9	265.0	Diurnal Maximum	
Maximum Speed Value: 52 km/h on Jan 16 23:00																		Minimum Speed Value: 0 km/h on Jan 17 20:00						Hours in Service: 744		
Maximum Daily Speed Average: 28.6 km/h on Jan 16																		Minimum Daily Speed Average: 0.6 km/h on Jan 12						Hours of Data: 724		
Maximum Diurnal Speed Average: 9.3 km/h at hour 14																		Minimum Diurnal Speed Average: 4.4 km/h at hour 22						Hours of Missing Data: 20		
Monthly Average Velocity: 6.00 km/h 267.25 deg																		Speed Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 2.0 Median = 4.9 Q <sub>3</sub> = 13.2 P <sub>90</sub> = 28.0 P <sub>99</sub> = 46.3						Percent Operational Time: 97.3		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure N - Not Valid																										
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	26	5	3	0	0	0	34																			
NorthEast	64	36	30	5	0	0	135																			
East	55	11	4	0	0	0	70																			
SouthEast	32	0	0	0	0	0	32																			
South	36	9	0	0	0	0	45																			
SouthWest	76	19	13	6	1	1	116																			
West	44	54	27	36	30	40	231																			
NorthWest	31	10	10	10	0	0	61																			
Total	364	144	87	57	31	41	724																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Evergreen Park - January 2015**



**Wind Speed Classes (km/h)**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - January 2015

Maximum Speed: 53 km/h on Jan 16 23:00	Maximum Daily Speed Average: 29.4 km/h on Jan 16	Hours in Service: 744
Minimum Speed: 0 km/h on Jan 12 03:00	Minimum Daily Speed Average: 1.6 km/h on Jan 12	Hours of Data: 724
Maximum Diurnal Speed Average: 13.6 km/h at hour 13	Minimum Diurnal Speed Average: 8.8 km/h at hour 22	Hours of Missing Data: 20
Monthly Average Speed: 10.56 km/h	Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 1.5 Q <sub>1</sub> = 2.8 Median = 5.5 Q <sub>3</sub> = 13.4 P <sub>90</sub> = 28.0 P <sub>99</sub> = 46.6	Percent Operational Time: 97.3

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-Jan	14	9	6	11	11	8	6	9	7	4	7	3	7	8	9	13	23	23	20	19	19	18	18	20	12.2	23.1																						
2-Jan	17	17	18	17	18	20	17	14	12	10	12	12	11	13	9	10	6	3	3	4	11	19	21	17	12.9	21.4																						
3-Jan	15	16	15	11	12	9	9	7	4	6	8	9	11	11	10	9	3	1	2	2	0	2	2	1	7.2	16.1																						
4-Jan	1	2	4	3	4	N	N	N	N	N	2	2	2	3	3	3	7	7	7	6	9	9	10	8	4.8	9.7																						
5-Jan	5	8	5	2	3	1	5	4	2	3	5	11	11	11	10	5	3	1	2	2	3	2	2	2	4.5	11.5																						
6-Jan	2	2	2	2	3	2	3	2	1	3	5	6	6	8	7	7	6	5	3	3	6	4	5	4	4.1	7.5																						
7-Jan	4	5	5	5	9	6	6	9	10	10	6	9	13	4	24	25	26	20	26	22	26	26	25	19	14.1	26.0																						
8-Jan	17	15	15	10	10	7	5	4	3	4	6	10	13	12	4	2	1	1	1	2	2	2	3	4	6.5	17.1																						
9-Jan	5	5	2	2	1	1	1	3	3	4	5	7	7	3	2	1	3	2	2	3	2	3	5	3	3.1	6.8																						
10-Jan	2	4	5	5	4	4	3	4	5	4	2	2	4	6	3	2	1	0	1	1	0	0	4	3	2.9	5.7																						
11-Jan	2	1	0	2	3	1	2	1	1	1	2	3	3	3	3	3	2	1	1	1	1	0	1	0	1.6	3.4																						
12-Jan	1	1	0	0	1	1	0	1	2	1	2	1	1	1	2	6	4	2	1	2	2	2	3	1	1.6	6.1																						
13-Jan	1	1	1	1	4	2	4	19	30	30	28	28	21	12	20	34	43	40	46	36	36	30	35	32	22.2	46.2																						
14-Jan	25	32	39	42	43	27	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	--	42.6																						
15-Jan	1	3	6	8	6	6	4	3	3	2	4	5	6	4	7	6	4	4	2	2	2	3	5	3	4.2	7.6																						
16-Jan	3	2	1	2	5	6	11	22	29	30	38	39	43	43	37	40	36	39	42	48	46	43	53	46	29.4	52.7																						
17-Jan	47	39	34	25	6	9	5	5	12	21	26	21	18	25	14	5	5	4	4	2	2	8	14	17	15.3	46.7																						
18-Jan	9	7	4	4	3	3	1	4	2	2	7	3	4	4	9	7	7	5	9	2	4	3	4	5	4.6	9.1																						
19-Jan	5	9	6	13	15	27	28	31	34	36	35	40	44	42	38	32	25	26	27	24	27	31	26	27.7	43.9																							
20-Jan	24	25	21	23	24	19	8	9	12	8	5	11	17	16	9	4	3	2	1	2	2	2	2	2	10.5	24.9																						
21-Jan	3	2	2	2	3	10	10	3	2	4	14	21	31	23	15	13	25	24	9	7	9	10	13	14	11.2	31.2																						
22-Jan	12	17	28	23	21	45	44	18	7	10	17	24	25	39	47	22	5	5	8	13	4	3	3	1	18.4	46.8																						
23-Jan	2	2	4	5	6	20	17	7	4	6	4	1	3	4	4	5	6	3	8	8	7	14	44	44	9.5	43.9																						
24-Jan	47	51	45	47	42	35	35	35	34	27	27	29	23	23	16	8	3	2	2	5	3	4	4	3	23.0	51.5																						
25-Jan	3	3	5	4	9	18	31	40	40	41	49	43	38	37	40	37	27	28	13	17	19	10	2	4	23.1	48.6																						
26-Jan	6	2	2	5	4	3	3	3	4	4	9	9	11	6	1	1	1	2	6	9	6	4	3	4	4.5	11.5																						
27-Jan	2	1	6	11	14	13	14	15	13	12	10	10	7	8	7	8	6	5	6	4	4	4	2	3	7.6	14.8																						
28-Jan	2	5	3	6	5	5	4	3	5	5	5	6	4	5	4	6	7	7	5	3	3	4	3	3	4.5	7.0																						
29-Jan	4	3	4	4	6	4	3	2	1	1	2	3	4	6	6	3	3	4	11	13	9	7	5	3	4.6	13.1																						
30-Jan	2	5	4	9	13	12	14	18	15	13	16	15	16	14	12	13	12	11	10	7	8	6	8	6	10.8	17.8																						
31-Jan	5	1	3	4	4	3	3	4	6	3	5	6	4	7	10	9	4	1	3	1	3	3	2	2	4.0	10.1																						
																								9.3	9.5	9.4	9.9	10.0	10.9	10.2	10.3	10.5	10.6	12.1	13.0	13.6	13.3	12.9	11.5	10.4	9.2	9.4	9.2	9.0	8.8	10.7	9.7	Diurnal Average
																								47.0	51.5	45.2	47.2	42.6	45.1	44.1	40.3	39.7	40.7	48.6	43.1	43.9	42.7	46.8	40.2	43.0	39.9	46.2	48.2	45.9	43.2	52.7	46.5	Diurnal Maximum

P - Power Failure      N - Not Valid  
 All monthly, daily, and diurnal averages have been calculated using scalar methods

# Hourly Standard Deviations

Wind Direction (WD) - deg  
Evergreen Park - January 2015

Maximum Value: 100.8 deg on Jan 9 16:00																						Hours in Service:	744		
Minimum Value: 4.2 deg on Jan 13 10:00																						Hours of Data:	729		
Percentiles: P <sub>1</sub> = 4.8 P <sub>10</sub> = 6.4 Q <sub>1</sub> = 12.8 Median = 28.8 Q <sub>3</sub> = 56.7 P <sub>90</sub> = 80.2 P <sub>99</sub> = 95.7																						Hours of Missing Data:	15		
																						Hours of Calibration:	0		
																						Percent Operational Time:	98.0		
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-Jan	5	9	9	6	8	16	19	18	19	66	67	61	17	17	13	73	10	12	14	11	12	12	15	12	72.8
2-Jan	13	9	11	13	12	11	12	14	16	19	16	20	19	18	15	17	19	26	70	16	27	13	11	17	70.0
3-Jan	15	13	13	15	21	17	8	12	22	24	11	28	13	17	22	15	43	92	65	66	44	66	49	68	91.8
4-Jan	81	76	14	56	65	76	83	69	55	92	61	75	65	33	34	28	23	40	45	34	33	37	18	28	91.8
5-Jan	38	6	11	80	71	89	25	19	37	30	51	9	15	13	12	32	84	85	40	72	62	60	21	36	88.7
6-Jan	51	57	44	24	23	30	31	82	61	52	23	35	22	19	15	26	17	18	21	28	17	16	19	16	82.3
7-Jan	43	37	19	81	47	29	26	21	19	16	36	28	20	72	26	15	12	13	14	13	12	11	10	17	80.8
8-Jan	18	14	16	17	26	24	40	33	51	21	19	10	10	16	25	61	72	82	29	29	40	49	40	29	81.7
9-Jan	38	35	88	53	81	82	76	16	62	42	37	13	20	58	58	101	57	88	35	45	54	44	60	32	100.8
10-Jan	41	38	25	27	25	31	42	26	23	29	84	54	22	26	36	31	48	65	84	92	83	81	96	65	96.0
11-Jan	51	71	67	36	29	29	45	37	63	35	31	23	19	37	10	33	39	94	94	54	73	83	37	86	94.5
12-Jan	78	60	63	98	80	70	87	80	54	84	92	44	61	74	37	15	46	37	57	83	93	73	96	87	97.7
13-Jan	94	84	92	71	45	71	72	16	7	4	8	6	8	11	8	6	5	7	6	6	5	6	6	5	94.0
14-Jan	6	5	5	5	5	6	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	88	92	73	92.1
15-Jan	76	44	16	19	46	27	65	45	69	60	33	25	27	67	48	33	35	55	66	55	47	47	52	53	76.0
16-Jan	74	84	72	82	36	33	42	6	5	10	6	6	6	6	7	6	8	6	7	6	6	7	7	6	84.3
17-Jan	7	6	7	21	65	33	82	34	11	9	7	9	8	8	34	33	68	82	73	86	86	62	9	6	86.4
18-Jan	16	57	64	71	55	86	87	82	74	70	66	33	26	30	34	44	57	55	91	66	42	31	94	47	93.8
19-Jan	10	10	8	7	7	6	6	5	5	5	6	7	6	6	6	6	5	6	6	6	6	6	5	5	10.1
20-Jan	5	5	5	5	5	6	27	8	9	10	10	15	7	10	18	31	63	81	66	48	61	52	57	66	81.5
21-Jan	29	96	58	60	73	14	34	38	50	64	7	9	7	6	31	26	9	11	10	53	18	7	12	12	95.8
22-Jan	22	35	8	12	11	6	10	38	44	21	14	7	6	7	6	11	38	42	34	27	88	90	49	66	90.2
23-Jan	52	73	62	84	81	5	8	19	85	28	53	88	34	76	29	26	58	87	40	14	24	34	7	7	87.9
24-Jan	6	5	6	5	5	6	5	5	7	5	6	7	8	8	11	16	63	63	38	83	31	37	54	62	82.9
25-Jan	54	82	55	78	74	22	9	6	6	5	7	7	8	6	6	5	7	7	30	10	7	11	67	61	82.4
26-Jan	34	84	71	66	47	42	55	30	52	14	8	8	7	27	84	55	52	57	11	10	15	19	19	34	84.1
27-Jan	74	43	17	15	16	12	17	16	20	20	25	20	24	37	41	27	28	51	41	86	44	25	85	74	86.3
28-Jan	78	20	42	25	36	26	28	19	17	21	26	25	55	58	65	28	22	29	22	31	58	41	70	30	77.7
29-Jan	22	41	59	71	44	67	80	89	69	98	98	41	75	29	39	55	32	48	15	9	18	85	67	49	98.2
30-Jan	72	44	76	16	15	16	18	14	16	17	12	14	15	12	16	16	13	14	15	28	19	18	15	19	75.5
31-Jan	24	75	31	33	25	21	39	37	23	51	33	38	54	36	33	38	44	50	68	87	21	63	87	33	87.5
94.0	95.8	92.3	97.7	81.5	88.7	87.0	88.8	84.7	98.2	98.0	87.9	75.1	75.8	84.1	100.8	83.8	94.5	93.8	91.7	92.5	90.2	96.2	86.8		
P - Power Failure																									



PAZA

## Smoky Heights Station

Monthly Summary Tables, Graphs and  
Roses

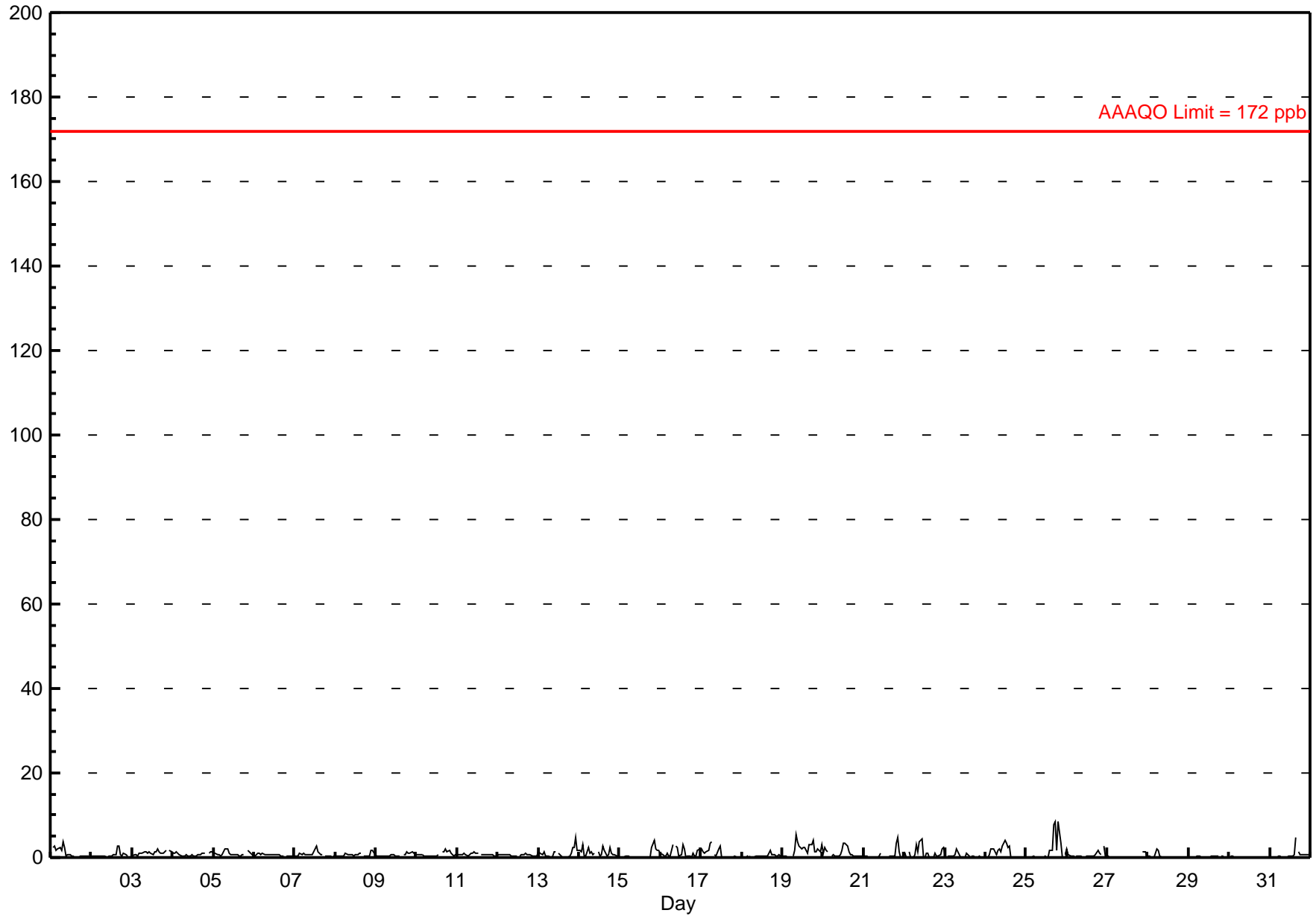
## Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Smoky Heights - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 8.5 ppb on Jan 25 18:00	Maximum Daily Average: 1.9 ppb on Jan 19		Hours of Data:	707
Minimum Value: 0 ppb on Jan 17 20:00	Minimum Daily Average: 0.1 ppb on Jan 30		Hours of Missing Data:	37
Maximum Diurnal Average: 1.1 ppb at hour 20	Minimum Diurnal Average: 0.6 ppb at hour 5		Hours of Calibration:	37
Monthly Average: 0.78 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.5 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 1.9 P <sub>99</sub> = 4.5		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-Jan	A	2	3	2	2	2	2	4	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1.1	3.7
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	3	1	0	1	1	0	A	0	0.6	2.9
3-Jan	0	1	1	0	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	2	A	2	1	1.1	2.0
4-Jan	1	1	1	1	1	1	1	0	1	0	0	1	0	0	1	1	1	1	1	1	A	1	1	1	0.8	1.2
5-Jan	1	1	1	1	1	1	1	2	2	1	1	1	1	1	0	0	1	1	A	2	1	1	1	0.9	2.2	
6-Jan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0.6	1.1	
7-Jan	0	0	0	1	1	1	1	1	1	1	1	2	2	3	1	1	1	A	0	0	0	0	0	0.8	2.7	
8-Jan	0	0	0	0	0	0	1	1	1	1	1	0	1	1	1	A	0	0	0	0	2	2	1	0.6	1.7	
9-Jan	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	1	1	1	1	1	1	1	1	0.6	1.4	
10-Jan	1	1	1	1	0	0	0	0	0	0	0	0	0	1	A	1	1	2	1	2	1	1	0	0.8	1.9	
11-Jan	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0.7	1.4	
12-Jan	1	1	1	1	1	1	1	1	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0.6	0.9	
13-Jan	2	1	1	1	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0	1	2	2	5	2	1.0	4.8
14-Jan	2	1	3	0	0	2	1	1	1	1	A	1	0	1	3	2	0	1	2	1	1	1	0	0	1.1	2.9
15-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	2	4	2	2	0.6	4.0	
16-Jan	1	1	0	0	1	0	0	3	A	3	2	0	1	3	2	0	0	0	1	0	0	2	2	1.1	3.2	
17-Jan	2	1	1	1	2	4	4	A	1	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0.9	3.8	
18-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	2	1	1	0	0	1	0	0.4	1.8	
19-Jan	0	0	0	0	0	A	0	2	5	4	3	2	2	2	2	1	3	3	4	1	2	2	3	1.9	5.4	
20-Jan	1	2	2	1	A	0	1	0	0	0	1	2	3	3	3	1	1	1	0	0	0	0	0	1.1	3.4	
21-Jan	0	0	0	A	0	0	0	0	0	0	1	C	C	C	C	0	0	0	0	4	5	2	0	0.7	4.6	
22-Jan	1	0	A	1	0	0	1	3	1	4	4	0	0	1	1	0	0	0	1	0	0	1	2	2	1.1	4.5
23-Jan	0	A	0	0	0	0	1	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	1.9	
24-Jan	A	0	1	2	2	2	1	2	2	1	3	4	3	2	3	0	0	0	0	0	0	0	0	A	1.3	4.0
25-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	8	8	2	8	3	0	A	1	1.5	8.5
26-Jan	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	A	3	0	0.6	2.8	
27-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	1	0.2	1.5	
28-Jan	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	2.0	
29-Jan	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	
30-Jan	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	0.2	
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	A	1	1	1	1	1	1	1	0.6	4.8	
	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.9	0.8	0.8	0.9	0.8	0.7	0.8	0.9	0.8	0.9	0.9	0.8	1.1	1.0	0.8	0.9	0.7	Diurnal Average	
	2.1	2.4	2.9	2.1	2.2	3.5	3.8	3.7	5.4	3.8	4.5	4.0	3.4	3.3	2.8	4.8	7.7	8.5	4.1	8.4	4.6	2.2	4.8	3.0	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



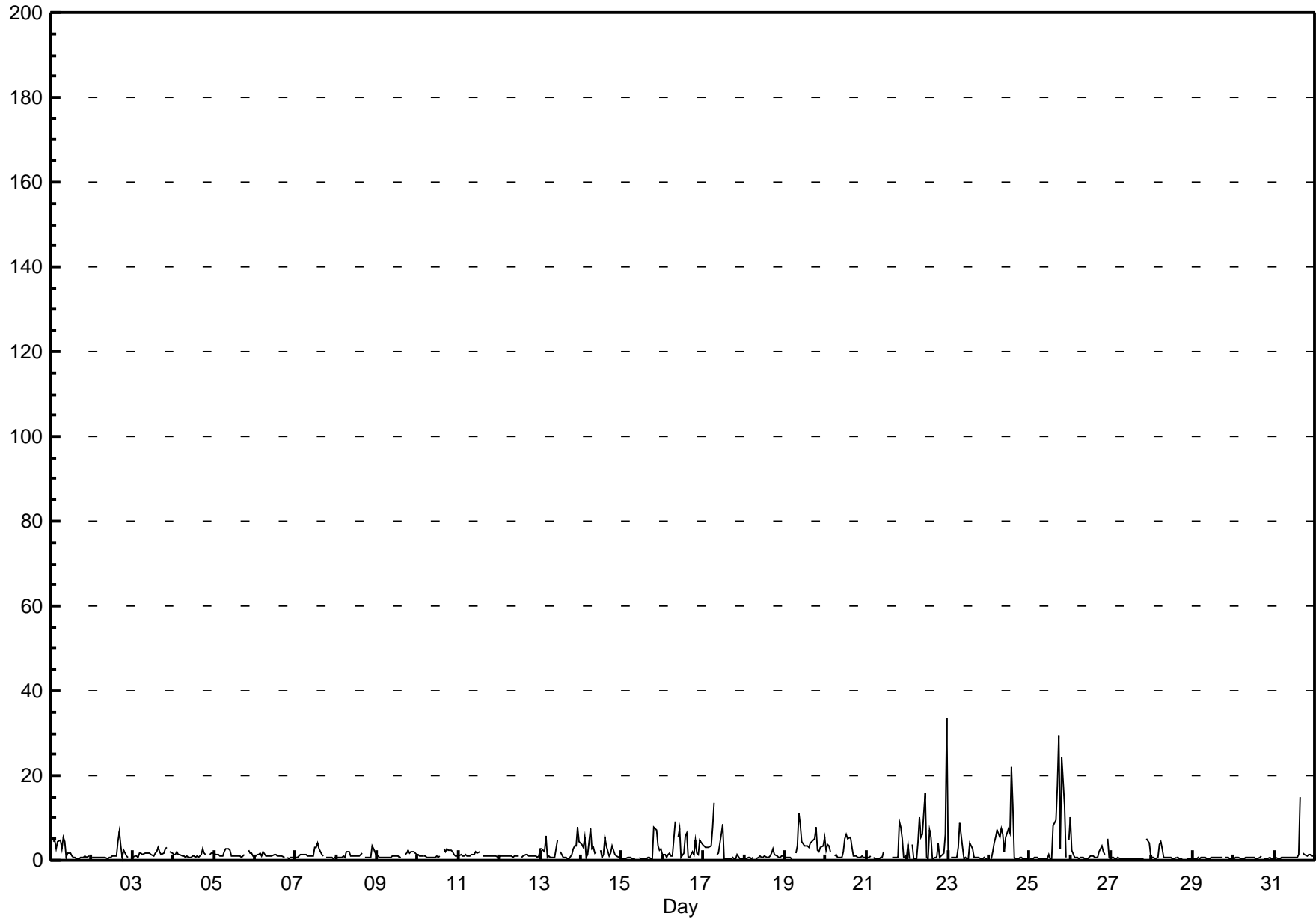
## Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Smoky Heights - January 2015

Maximum Value: 33.6 ppb on Jan 23 00:00		Maximum Daily Average: 5.1 ppb on Jan 25		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 21 08:00		Minimum Daily Average: 0.5 ppb on Jan 30		Hours of Data: 707																						
Maximum Diurnal Average: 2.7 ppb at hour 20		Minimum Diurnal Average: 1.3 ppb at hour 2		Hours of Missing Data: 37																						
Monthly Average: 1.86 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.6 Median = 0.9 Q <sub>3</sub> = 1.8 P <sub>90</sub> = 4.4 P <sub>99</sub> = 14.3		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-Jan	A	4	5	3	4	5	3	6	4	1	2	2	1	1	1	0	0	1	1	1	1	1	1	A	2.1	5.6
2-Jan	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	4	7	3	1	3	1	1	A	1	1.3	6.9
3-Jan	1	1	1	1	2	2	1	2	2	2	2	1	1	2	2	3	2	1	2	3	3	A	2	1.7	3.2	
4-Jan	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	1	A	1	2	1.3	2.6	
5-Jan	2	1	1	1	1	1	2	3	3	2	1	1	1	1	1	1	1	1	1	A	2	2	2	1.4	2.8	
6-Jan	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	1.9	
7-Jan	1	1	1	1	1	1	1	1	1	1	1	3	3	4	3	1	1	A	1	1	1	1	0	1.3	4.0	
8-Jan	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	2	A	1	1	1	1	3	3	1.2	3.4	
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	2	2	2	2	2	1.1	2.3	
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	3	2	3	2	3	2	1	1	1.3	2.7	
11-Jan	1	1	1	1	1	1	1	1	1	1	2	2	2	A	1	1	1	1	1	1	1	1	1	1.2	2.2	
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.4	
13-Jan	3	3	2	6	1	1	1	1	1	3	5	A	2	1	1	1	1	0	1	3	3	3	8	2.3	7.9	
14-Jan	4	3	5	1	1	7	3	3	2	2	A	2	1	1	5	3	1	2	3	2	1	1	1	2.5	7.5	
15-Jan	0	1	0	1	1	1	0	0	0	A	1	0	0	0	0	1	1	0	0	8	7	3	3	1.4	7.6	
16-Jan	1	1	1	1	2	1	1	9	A	6	8	1	2	6	6	1	1	2	1	5	2	1	5	2.8	9.1	
17-Jan	3	3	3	3	3	8	14	A	1	2	6	8	0	0	0	1	0	1	1	0	2	0	0	2.7	13.5	
18-Jan	0	0	1	1	0	1	A	0	1	1	1	1	1	1	1	2	3	1	1	1	1	1	1	0.9	2.8	
19-Jan	1	1	1	1	0	A	2	4	11	8	4	4	3	3	3	4	5	5	8	2	2	3	3	3.6	11.3	
20-Jan	2	4	3	2	A	1	1	1	1	1	2	5	6	5	5	3	1	1	1	1	1	1	1	2.2	6.0	
21-Jan	1	1	1	A	1	0	0	0	1	1	2	C	C	C	C	1	1	1	1	9	8	5	1	1.8	9.3	
22-Jan	4	1	A	4	0	0	4	10	5	6	16	1	0	7	6	0	1	1	4	1	1	2	6	4.9	33.6	
23-Jan	1	A	1	1	1	1	3	9	3	0	1	0	0	4	3	1	1	1	1	1	0	1	0	1.4	8.8	
24-Jan	A	0	2	4	5	7	5	7	6	2	6	8	7	22	13	1	0	0	1	1	0	0	0	A	4.5	21.9
25-Jan	0	0	0	1	1	0	0	0	0	0	0	1	0	0	8	9	18	29	3	24	13	1	A	5	5.1	29.4
26-Jan	10	2	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	2	4	2	1	A	5	1.6	10.2	
27-Jan	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	5	4	0.8	5.1	
28-Jan	1	1	0	1	4	5	3	1	1	1	1	0	0	1	1	0	0	0	0	A	1	0	0	0.9	4.6	
29-Jan	0	0	0	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	A	1	1	0	0.6	0.8	
30-Jan	0	1	1	1	0	0	0	1	1	1	1	1	1	0	0	1	1	A	0	0	0	1	0	0.5	1.0	
31-Jan	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	15	A	2	1	1	1	1	1	1.4	14.9	
		1.5	1.3	1.3	1.4	1.3	1.7	1.9	2.3	1.8	1.6	2.2	1.7	1.4	2.4	2.4	2.0	1.8	2.3	1.6	2.7	2.1	1.6	1.9	2.6	Diurnal Average
		10.2	4.3	5.3	5.9	5.5	7.7	13.5	10.1	11.3	8.4	15.9	8.4	6.5	21.9	12.8	14.9	17.7	29.4	7.7	24.3	12.9	5.2	7.9	33.6	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

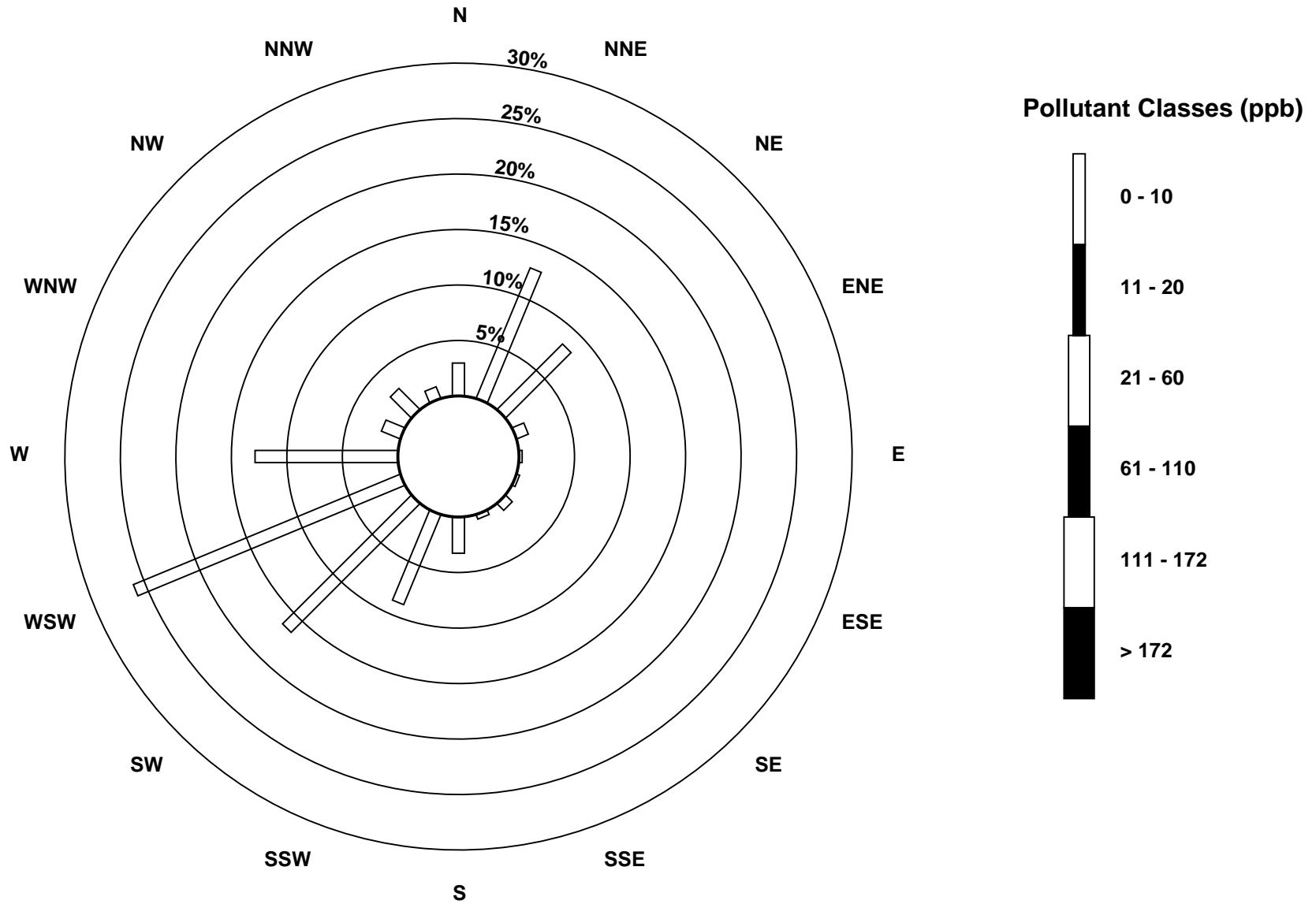
**Hourly Maximums**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Smoky Heights - January 2015**



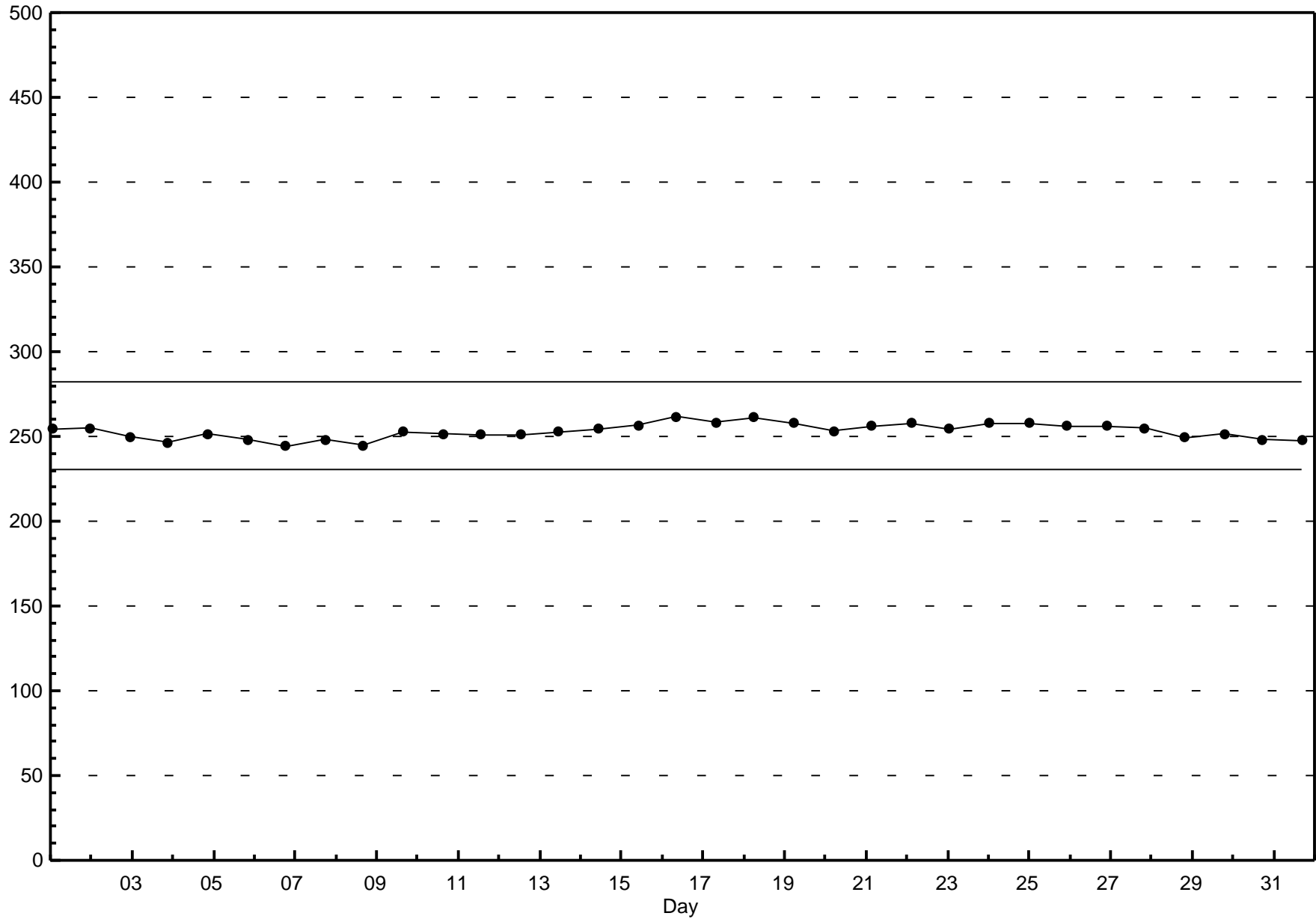
**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Smoky Heights - January 2015**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Smoky Heights - January 2015





Peace Airshed Zone Association

# Hourly Averages

Total Reduced Sulphur (TRS) - ppb

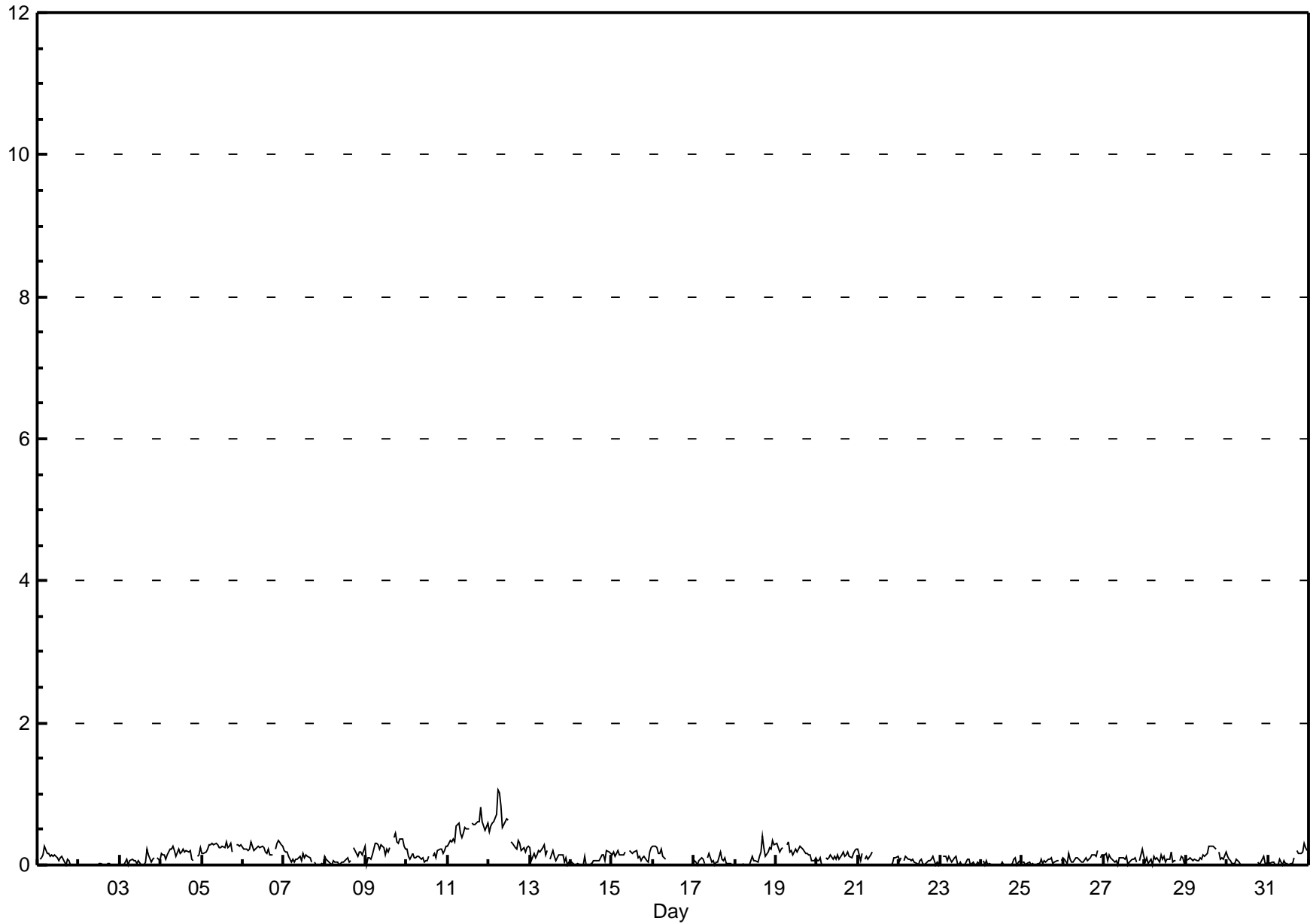
Smoky Heights - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.1 ppb on Jan 12 06:00	Maximum Daily Average: 0.5 ppb on Jan 11		Hours of Data:	706
Minimum Value: 0 ppb on Jan 1 17:00	Minimum Daily Average: 0.0 ppb on Jan 2		Hours of Missing Data:	38
Maximum Diurnal Average: 0.2 ppb at hour 6	Minimum Diurnal Average: 0.1 ppb at hour 13		Hours of Calibration:	38
Monthly Average: 0.13 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 0.3 P <sub>99</sub> = 0.6		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-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.3
2-Jan	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
3-Jan	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
4-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.3
5-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.3
6-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.3
7-Jan	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	0.2
8-Jan	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
9-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.4
10-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.3
11-Jan	0	0	0	0	0	1	1	0	0	0	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0.5	0.8
12-Jan	0	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.1
13-Jan	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
14-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
15-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
16-Jan	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
17-Jan	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
18-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
19-Jan	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
20-Jan	0	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
21-Jan	0	0	0	A	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
23-Jan	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	0.1
24-Jan	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
25-Jan	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
26-Jan	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
27-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
28-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
29-Jan	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
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.1
31-Jan	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
	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2		Diurnal Average
	0.5	0.5	0.6	0.6	0.7	1.1	1.0	0.8	0.5	0.6	0.7	0.6	0.5	0.3	0.6	0.6	0.6	0.6	0.6	0.8	0.6	0.5	0.5	0.6		Diurnal Maximum

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





## Hourly Maximums

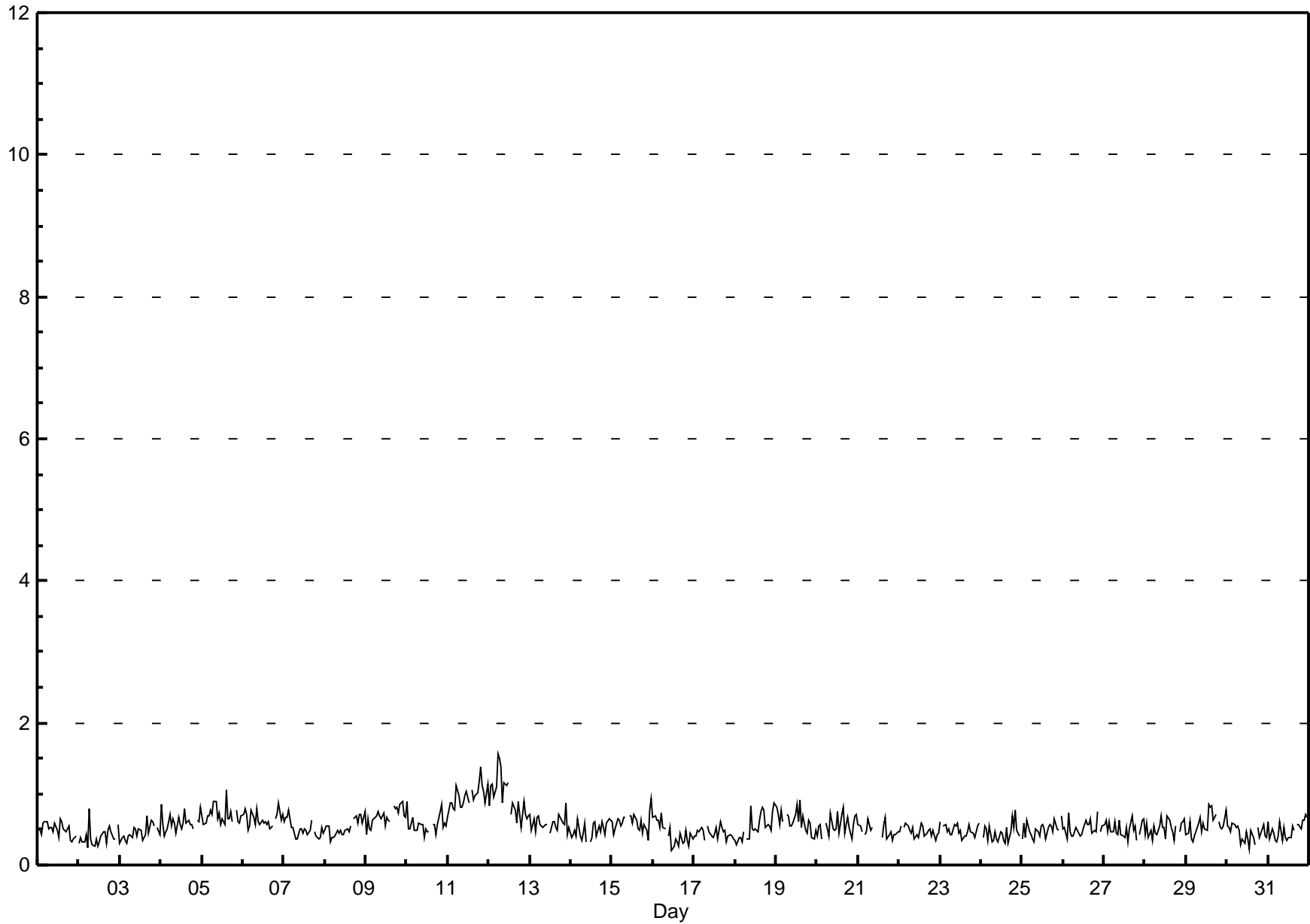
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - January 2015

Maximum Value: 1.6 ppb on Jan 12 06:00		Maximum Daily Average: 1.0 ppb on Jan 11		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 16 12:00		Minimum Daily Average: 0.4 ppb on Jan 2		Hours of Data: 706																						
Maximum Diurnal Average: 0.6 ppb at hour 24		Minimum Diurnal Average: 0.5 ppb at hour 13		Hours of Missing Data: 38																						
Monthly Average: 0.56 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.4 Median = 0.5 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 0.8 P <sub>99</sub> = 1.1		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-Jan	A	0	0	1	1	1	1	1	1	0	1	0	0	1	1	0	0	1	1	0	0	0	0	A	0.5	0.7
2-Jan	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	A	1	0.4	0.8
3-Jan	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	1	1	1	A	1	0	0.5	0.7
4-Jan	1	1	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.6	0.9
5-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.1
6-Jan	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	0.6	0.9
7-Jan	1	1	1	1	1	1	0	0	0	1	1	0	1	0	0	1	A	0	0	0	0	0	1	0	0.5	0.8
8-Jan	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	A	1	1	1	1	1	1	1	1	0.5	0.8
9-Jan	0	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	0.9
10-Jan	1	1	1	1	0	0	0	1	1	1	0	1	0	A	1	1	0	1	1	1	1	1	1	1	0.6	0.9
11-Jan	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	1.4
12-Jan	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6
13-Jan	1	0	1	0	1	1	1	1	1	1	A	0	1	1	1	0	1	1	1	1	1	0	1	0.6	0.9	
14-Jan	0	0	0	0	1	0	0	0	1	0	A	0	0	1	1	0	1	0	1	1	0	1	1	0.5	0.7	
15-Jan	1	0	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1	0	1	0	0	0	1	0.6	0.9	
16-Jan	1	1	1	1	1	1	1	1	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7	
17-Jan	0	0	0	0	1	0	0	A	1	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0.4	0.6	
18-Jan	0	0	0	0	0	0	A	0	0	1	0	1	0	1	1	1	1	1	1	1	1	0	1	0.5	0.9	
19-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0.6	0.9	
20-Jan	0	1	1	0	A	1	1	0	1	1	0	1	0	1	1	0	1	1	1	1	0	1	1	0.6	0.8	
21-Jan	1	1	0	A	0	0	1	0	1	C	C	C	C	C	0	1	1	0	0	0	0	0	0	0.5	0.7	
22-Jan	0	1	A	1	1	1	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0.5	0.6	
23-Jan	1	A	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	1	0.5	0.6	
24-Jan	A	0	1	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	A	0.5	0.8	
25-Jan	0	1	0	1	0	0	0	0	1	0	0	1	1	1	0	1	1	1	0	1	1	0	A	1	0.5	0.7
26-Jan	1	1	0	1	0	0	0	1	0	0	0	0	1	1	1	1	0	0	0	0	1	A	0	0.5	0.8	
27-Jan	1	1	0	1	0	0	1	0	0	1	0	0	0	1	0	1	1	0	1	0	A	0	1	0.5	0.7	
28-Jan	0	1	0	0	0	1	0	0	1	1	1	0	1	1	0	0	1	0	0	1	A	0	1	0.5	0.7	
29-Jan	0	0	1	0	0	0	1	1	1	0	1	1	0	1	1	1	1	1	1	A	1	1	1	0.6	0.8	
30-Jan	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	1	0	0	0	1	0	0.4	0.6	
31-Jan	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	A	1	1	1	1	1	1	0.5	0.7	
		0.6	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	Diurnal Average	
		0.9	1.1	1.1	1.0	1.1	1.6	1.5	1.4	0.9	1.2	1.1	1.2	0.9	0.8	1.1	0.9	1.0	1.0	1.2	1.4	1.1	1.0	0.9	1.1	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

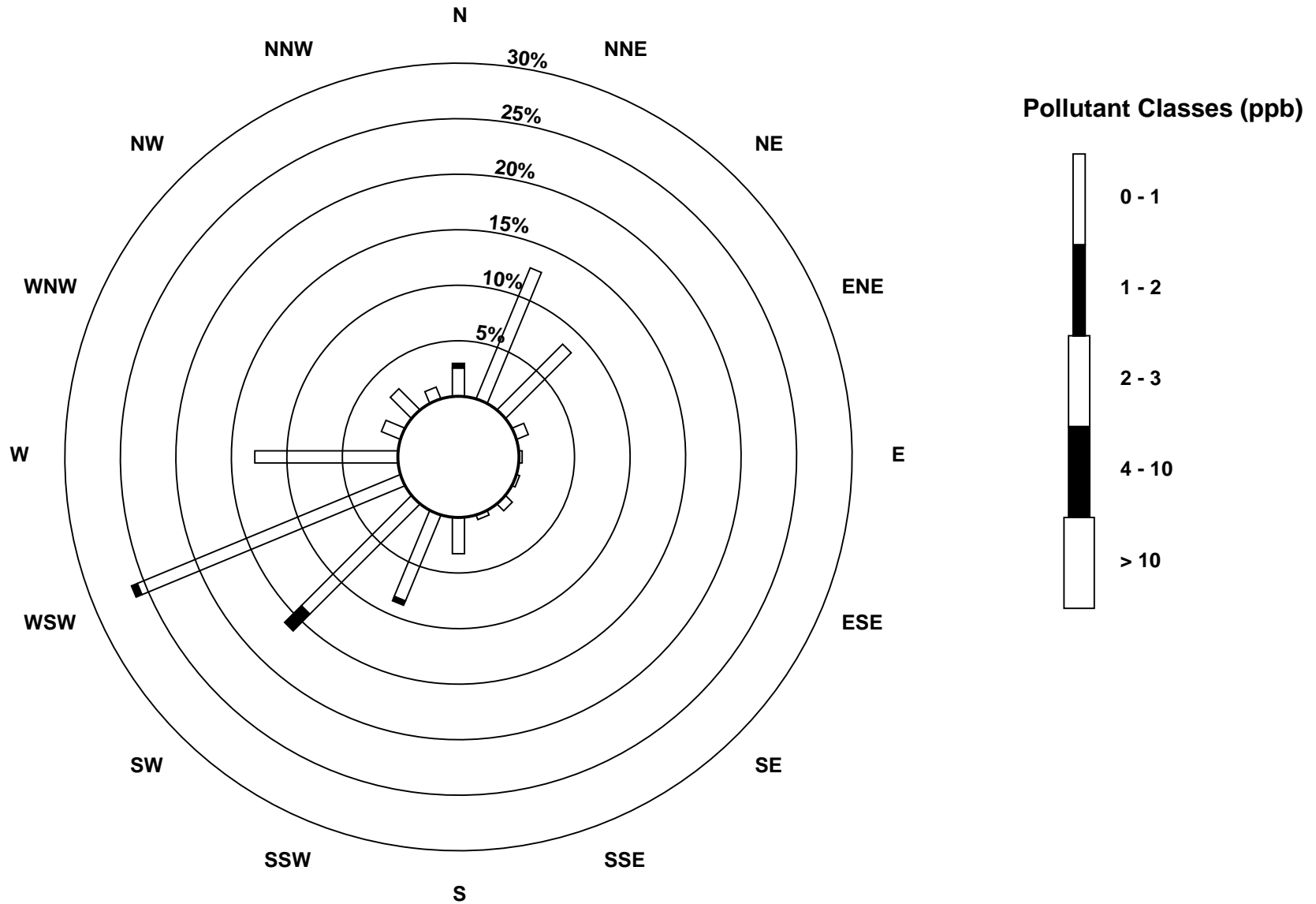
**Hourly Maximums**

**Total Reduced Sulphur (TRS) - ppb**  
**Smoky Heights - January 2015**



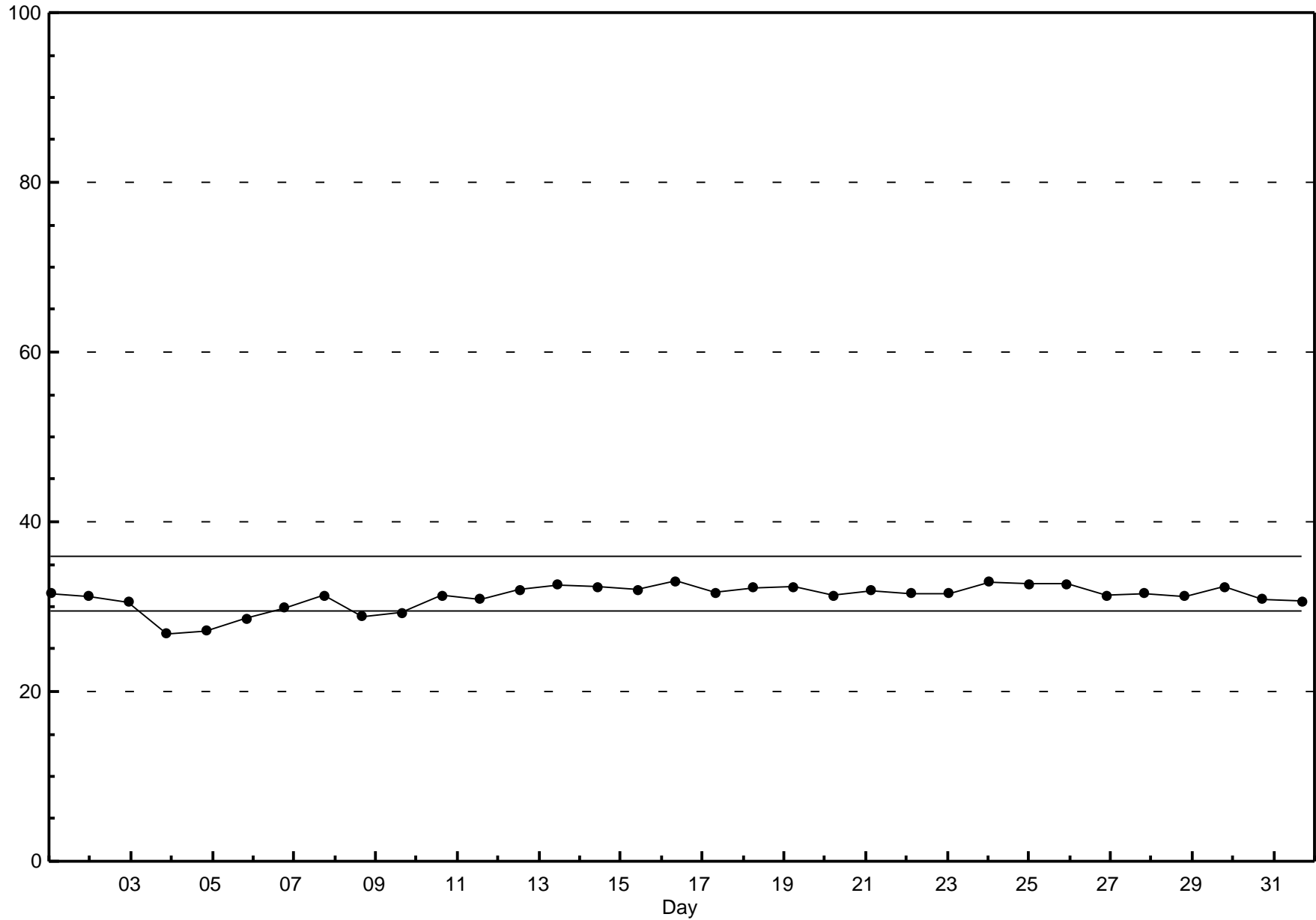
**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Smoky Heights - January 2015**



### Span Responses

**Total Reduced Sulphur (TRS)**  
**Smoky Heights - January 2015**





Peace Airshed Zone Association

# Hourly Averages

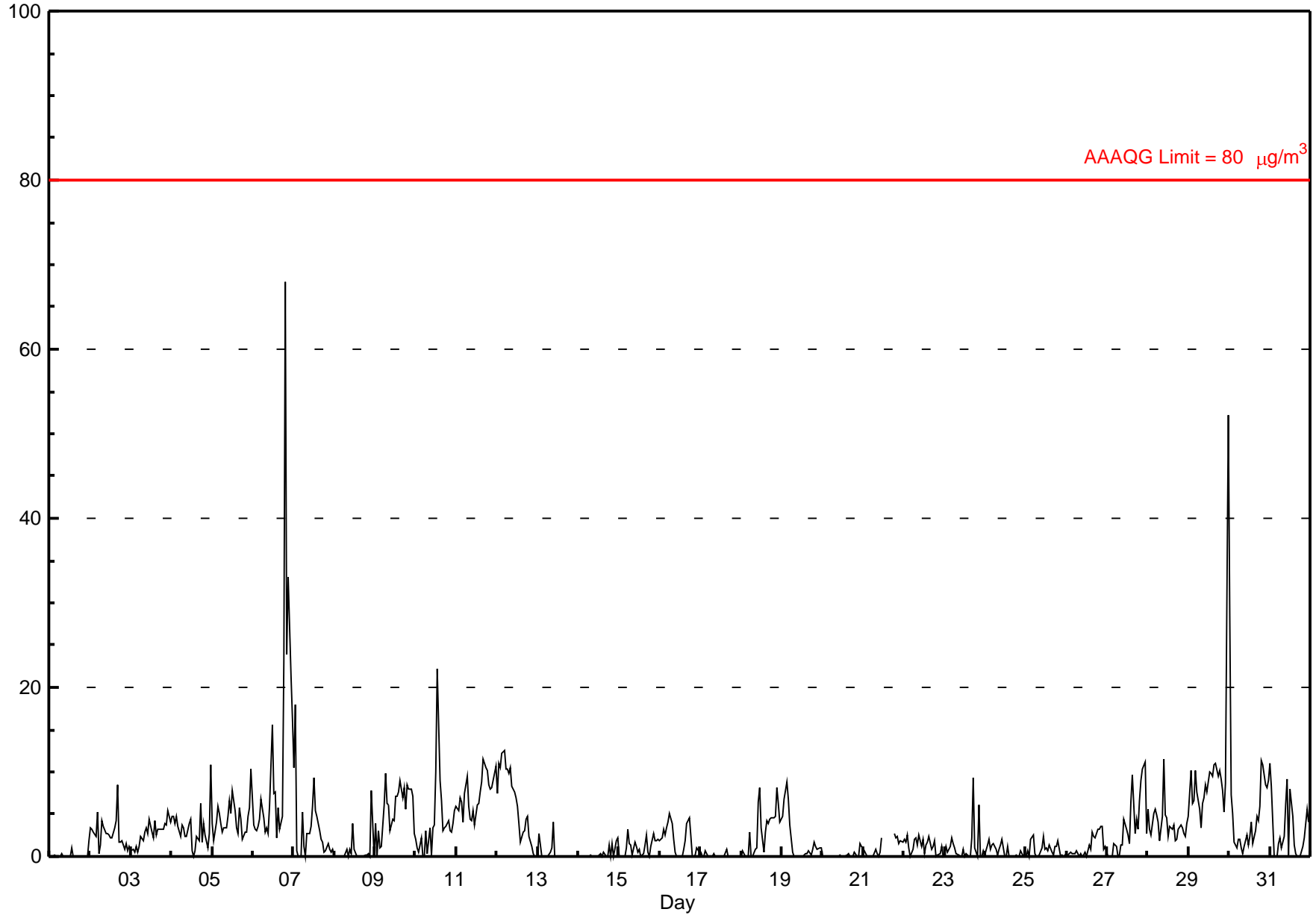
Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Smoky Heights - January 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 68.0 µg/m <sup>3</sup> on Jan 6 20:00	Maximum Daily Average: 11.5 µg/m <sup>3</sup> on Jan 6
Minimum Value: 0 µg/m <sup>3</sup> on Jan 1 02:00	Hours of Data: 738
Minimum Daily Average: 0.1 µg/m <sup>3</sup> on Jan 17	Hours of Missing Data: 6
Maximum Diurnal Average: 4.9 µg/m <sup>3</sup> at hour 20	Hours of Calibration: 0
Monthly Average: 3.00 µg/m <sup>3</sup>	Percent Operational Time: 99.2
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 1.6 Q <sub>3</sub> = 4.1 P <sub>90</sub> = 7.8 P <sub>99</sub> = 21.3	

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-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0.1	1.9																						
2-Jan	3	3	3	2	5	0	1	4	4	3	3	3	2	2	3	4	8	2	2	2	1	2	1	1	2.7	8.4																						
3-Jan	1	1	1	1	1	1	2	2	3	3	3	4	3	2	4	3	3	3	3	3	4	4	5	4	2.7	5.4																						
4-Jan	5	5	4	5	4	2	4	3	2	2	4	4	1	0	1	2	2	6	2	4	3	1	3	11	3.3	10.8																						
5-Jan	4	2	4	6	5	4	3	3	3	5	7	5	8	5	3	3	6	4	2	3	3	5	6	10	4.5	10.3																						
6-Jan	4	3	3	4	4	7	5	3	3	3	6	16	7	8	2	6	3	5	23	68	24	33	21	16	11.5	68.0																						
7-Jan	11	18	1	0	0	5	1	0	3	3	4	6	9	5	5	3	2	2	1	1	1	1	0	1	3.4	18.0																						
8-Jan	0	0	0	0	0	0	0	1	0	1	0	4	1	0	0	0	0	0	0	0	0	0	8	0	0.6	7.8																						
9-Jan	4	0	3	1	1	6	10	6	6	3	4	4	7	7	8	9	7	8	6	8	8	8	7	3	5.6	9.8																						
10-Jan	2	1	1	2	0	0	3	0	3	0	3	4	10	22	9	7	3	3	4	4	3	3	4	5	4.1	22.2																						
11-Jan	6	5	7	6	4	7	10	6	4	4	5	4	6	6	8	9	12	11	10	8	8	8	9	11	7.3	11.6																						
12-Jan	8	11	10	12	13	10	10	10	11	8	8	7	6	4	2	3	3	4	5	2	1	0	0	0	6.2	12.6																						
13-Jan	0	3	0	0	0	0	0	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	4.0																						
14-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2	2	0.3	2.2																						
15-Jan	0	0	0	0	1	3	2	1	0	2	1	1	1	0	0	1	3	1	0	1	3	2	2	2	1.1	3.2																						
16-Jan	2	2	3	3	3	4	5	4	2	0	0	0	0	1	2	4	5	2	0	0	0	1	0	0	1.8	5.1																						
17-Jan	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.8																						
18-Jan	0	1	0	0	0	3	0	0	1	1	6	8	3	1	3	4	4	4	5	5	5	8	6	4	3.0	8.1																						
19-Jan	5	7	8	9	7	4	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	1	1	1	2.0	8.8																						
20-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0.2	1.6																						
21-Jan	1	0	0	0	0	0	0	1	0	0	1	2	M	M	M	M	M	M	3	2	2	2	2	2	1.0	2.7																						
22-Jan	2	2	3	1	0	1	2	2	1	3	1	2	0	1	2	2	1	1	2	0	0	0	1	0	1.3	2.6																						
23-Jan	0	1	0	1	2	1	1	0	0	0	0	1	0	0	0	0	2	9	1	0	6	0	0	1	1.2	9.4																						
24-Jan	0	1	2	1	1	2	1	0	1	1	2	0	0	1	0	0	0	0	0	0	0	1	0	0	0.6	2.0																						
25-Jan	0	1	0	2	3	0	0	0	0	1	2	1	1	1	1	0	0	1	1	2	0	0	0	0	0.8	2.6																						
26-Jan	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	3	2	2	3	3	4	3	1	1	1.2	3.6																						
27-Jan	0	0	0	0	1	1	0	0	1	1	4	3	2	1	6	10	3	4	3	7	9	10	11	3	3.5	11.2																						
28-Jan	6	3	3	5	6	5	4	2	5	12	5	5	2	4	3	4	2	2	3	4	3	3	2	4	3.9	11.6																						
29-Jan	5	10	6	7	10	8	6	3	6	7	8	8	10	10	9	11	11	9	10	9	8	5	9	52	9.9	52.2																						
30-Jan	28	7	5	2	1	2	2	1	0	1	3	1	2	4	1	3	5	4	6	11	11	8	8	9	5.3	28.5																						
31-Jan	11	8	0	0	0	1	2	1	2	6	9	0	8	5	1	0	0	0	0	1	2	4	6	4	3.0	10.9																						
																								3.4	3.1	2.1	2.3	2.3	2.6	2.4	1.8	2.1	2.4	2.9	3.0	3.0	3.1	2.5	3.0	2.9	3.1	3.2	4.9	3.6	3.6	3.8	4.9	Diurnal Average
																								28.5	18.0	10.4	12.2	12.6	10.4	10.3	9.8	10.5	11.6	9.1	15.5	10.0	22.2	9.4	10.9	11.6	10.6	23.2	68.0	24.0	33.1	21.4	52.2	Diurnal Maximum

M - Maintenance  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>



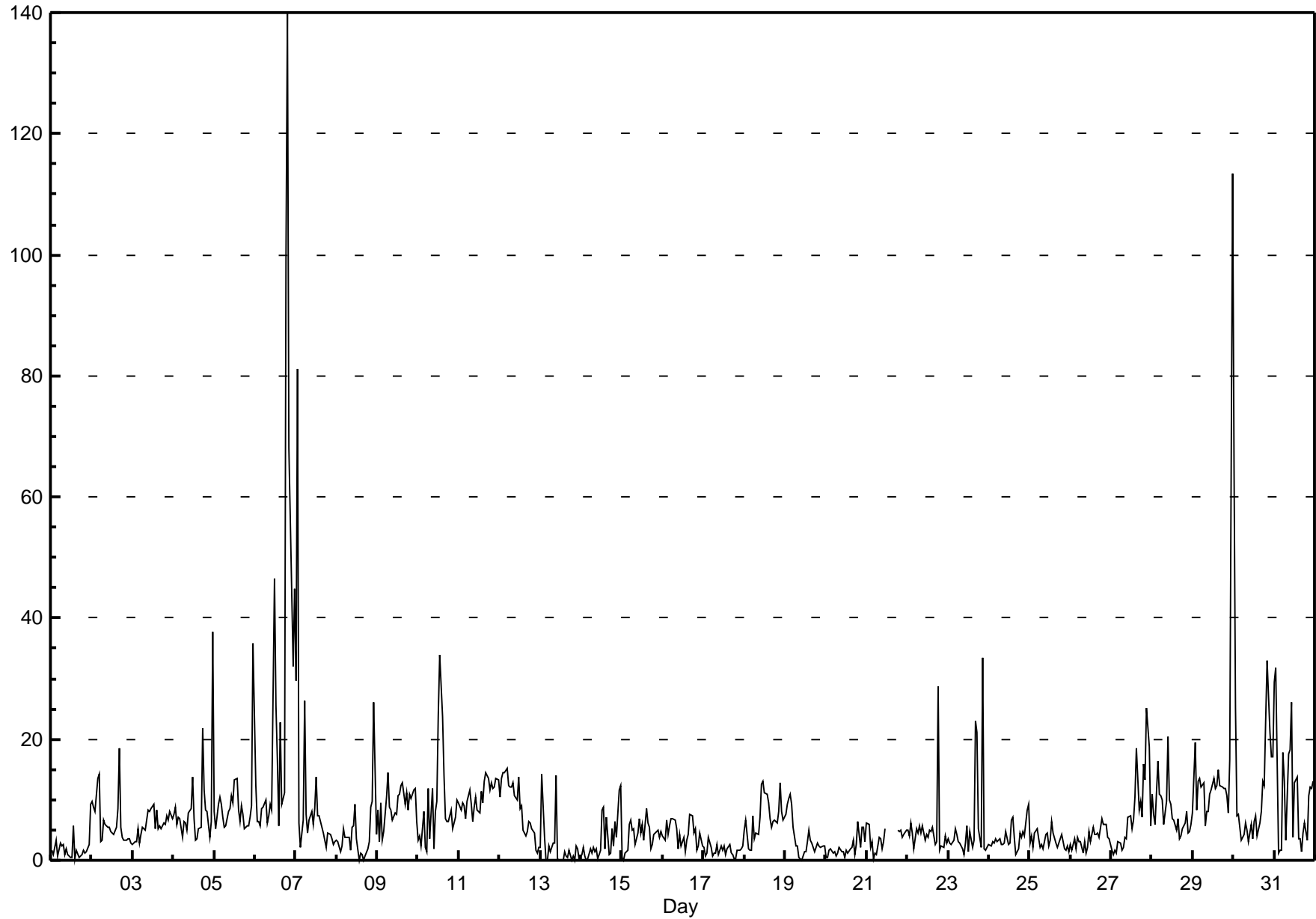
## Hourly Maximums

## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Smoky Heights - January 2015

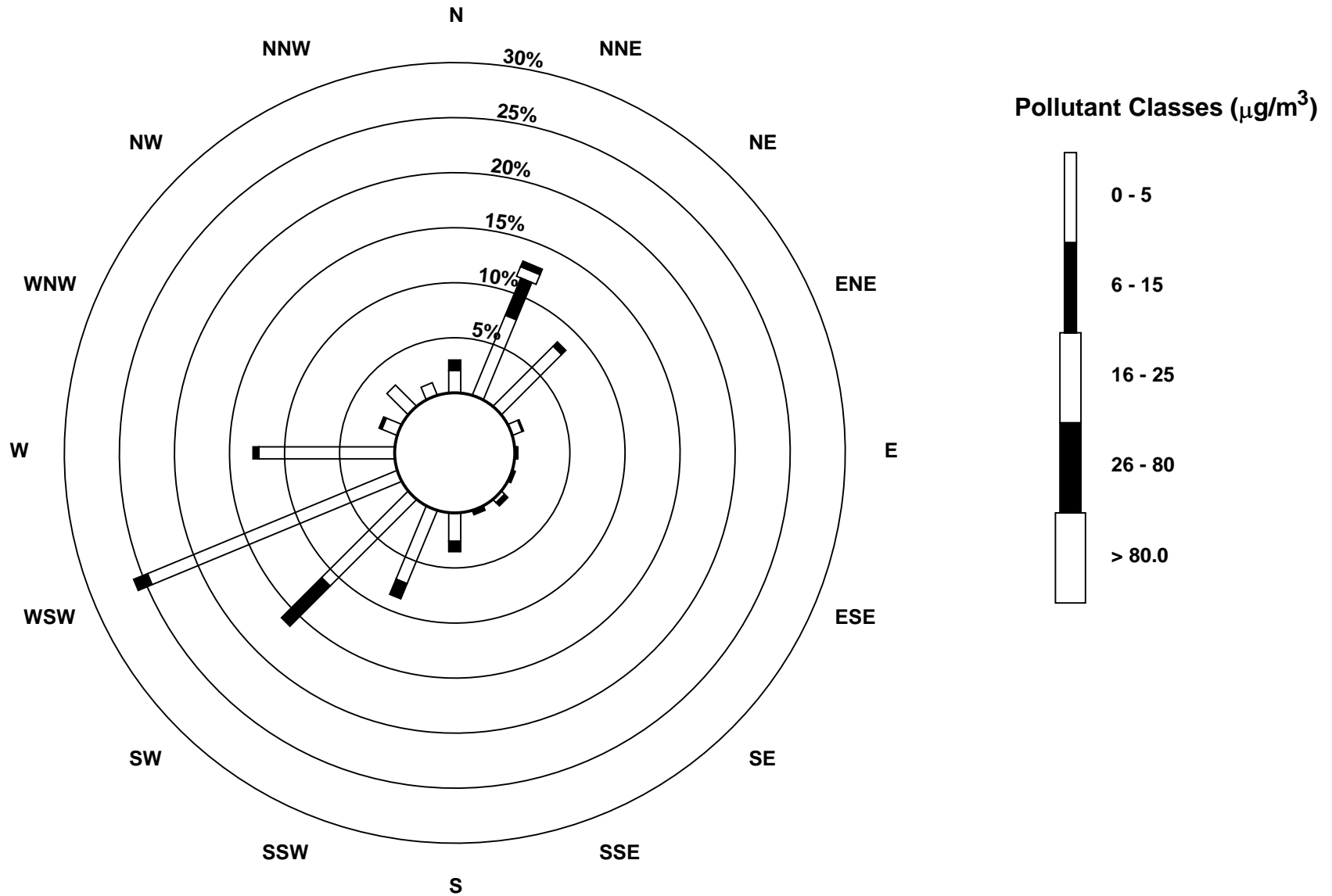
Maximum Value: 140.0 µg/m <sup>3</sup> on Jan 6 20:00		Maximum Daily Average: 27.8 µg/m <sup>3</sup> on Jan 6		Hours in Service: 744																							
Minimum Value: 0 µg/m <sup>3</sup> on Jan 8 14:00		Minimum Daily Average: 1.6 µg/m <sup>3</sup> on Jan 17		Hours of Data: 738																							
Maximum Diurnal Average: 12.6 µg/m <sup>3</sup> at hour 24		Minimum Diurnal Average: 4.6 µg/m <sup>3</sup> at hour 8		Hours of Missing Data: 6																							
Monthly Average: 7.23 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 2.6 Median = 5.0 Q <sub>3</sub> = 8.4 P <sub>90</sub> = 13.0 P <sub>99</sub> = 48.8		Hours of Calibration: 0																							
		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-Jan	2	1	2	3	1	3	2	3	1	2	1	0	0	6	0	2	0	1	1	2	1	1	3	9	2.0	9.4	
2-Jan	10	9	8	14	14	3	3	7	6	5	5	5	4	4	5	9	19	5	4	3	3	4	4	3	6.5	18.6	
3-Jan	3	3	3	5	3	4	6	5	7	8	8	9	9	5	8	5	6	5	6	6	7	7	8	7	6.0	9.3	
4-Jan	8	9	6	7	7	4	6	6	5	8	9	14	7	3	4	5	5	22	12	8	8	4	6	38	8.8	37.7	
5-Jan	8	5	9	11	9	7	5	6	8	9	11	10	13	13	8	6	9	8	5	6	6	7	9	36	9.3	35.8	
6-Jan	12	6	6	6	9	9	10	6	7	9	8	47	26	17	6	23	9	11	100	140	68	56	32	45	27.8	140.0	
7-Jan	30	81	6	2	7	26	8	4	7	8	6	9	14	7	7	5	5	3	2	4	4	3	3	3	10.6	81.1	
8-Jan	3	3	2	2	5	4	4	4	2	5	6	9	3	0	1	1	0	1	2	3	9	10	26	4	4.5	26.1	
9-Jan	8	3	10	3	5	11	15	9	8	7	8	8	11	11	12	13	9	11	8	11	10	12	12	6	9.2	14.5	
10-Jan	3	4	2	8	2	1	12	4	12	2	8	10	24	34	24	14	7	6	6	8	5	6	7	10	9.2	34.0	
11-Jan	10	8	9	9	7	10	12	9	6	9	11	8	8	11	10	13	14	13	12	13	12	12	13	13	10.5	14.4	
12-Jan	11	13	14	14	15	12	12	12	13	11	10	14	9	9	5	4	5	6	6	5	5	2	1	2	8.8	15.2	
13-Jan	2	14	4	0	0	2	1	3	3	14	0	0	0	0	1	1	1	2	0	1	0	2	2	0	2.2	14.2	
14-Jan	1	2	1	0	0	2	1	2	2	2	0	2	8	9	2	7	1	1	5	2	6	4	12	12	3.5	12.3	
15-Jan	1	0	1	2	6	7	5	5	3	5	7	4	6	3	8	6	5	2	3	4	5	5	4	5	4.2	8.5	
16-Jan	4	3	7	4	6	7	7	7	5	2	4	2	4	1	3	4	8	7	4	5	2	2	5	2	4.5	7.6	
17-Jan	2	1	1	4	2	1	1	1	3	1	2	2	2	1	2	3	1	1	0	0	2	2	2	2	1.6	3.9	
18-Jan	5	7	2	2	2	7	3	4	4	7	13	13	11	11	10	7	5	6	7	6	8	13	8	7	7.0	13.0	
19-Jan	8	9	10	11	9	5	2	2	0	0	1	1	3	5	3	3	1	2	3	2	2	2	2	2	3.8	10.9	
20-Jan	1	0	2	2	1	1	1	1	2	1	1	0	2	1	2	2	3	1	3	6	2	5	5	3	2.1	6.4	
21-Jan	6	6	2	3	0	1	1	4	4	2	3	5	M	M	M	M	M	M	5	5	5	4	4	5	3.6	6.1	
22-Jan	5	4	6	4	2	5	4	6	4	6	3	4	4	5	5	5	3	3	29	2	2	2	4	3	5.0	28.6	
23-Jan	3	3	3	3	5	4	3	3	2	1	3	6	1	5	2	3	23	21	5	2	33	2	2	2	5.9	33.5	
24-Jan	3	2	3	3	4	3	3	3	3	3	5	3	3	7	7	4	1	2	4	4	5	4	8	9	4.0	9.4	
25-Jan	3	4	2	4	5	3	2	3	2	4	4	2	3	6	4	3	2	3	4	4	2	2	2	1	3.2	6.3	
26-Jan	3	2	4	2	4	3	3	1	3	1	2	5	3	5	4	4	4	4	7	6	6	6	4	4	3.7	6.8	
27-Jan	2	1	2	1	3	3	2	2	4	3	7	7	5	7	11	19	8	10	7	16	13	25	19	6	7.6	25.2	
28-Jan	11	8	6	16	11	11	10	6	10	20	10	9	7	7	5	7	4	4	5	6	8	5	5	6	8.1	20.3	
29-Jan	8	20	8	13	14	12	13	6	8	8	11	12	13	12	15	12	12	12	12	11	8	17	113	15.9	113.4		
30-Jan	65	25	7	8	3	4	4	6	5	3	6	3	6	7	4	6	8	13	12	23	33	21	17	17	12.9	64.6	
31-Jan	29	32	1	2	2	18	13	3	18	18	26	4	13	14	4	3	1	4	6	3	11	12	12	13	10.9	31.9	
		8.6	9.3	4.9	5.5	5.2	6.3	5.7	4.6	5.3	6.0	6.4	7.3	7.4	7.5	6.1	6.8	6.1	6.4	9.2	10.4	9.5	8.0	8.3	12.6	Diurnal Average	
		64.6	81.1	14.5	16.4	15.2	26.4	14.5	12.1	17.6	20.3	26.2	46.5	25.7	34.0	23.7	22.7	23.1	21.8	100.1	140.0	68.0	56.2	32.1	113.4	Diurnal Maximum	
M - Maintenance																											





**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**  
**Smoky Heights - January 2015**



# Hourly Averages

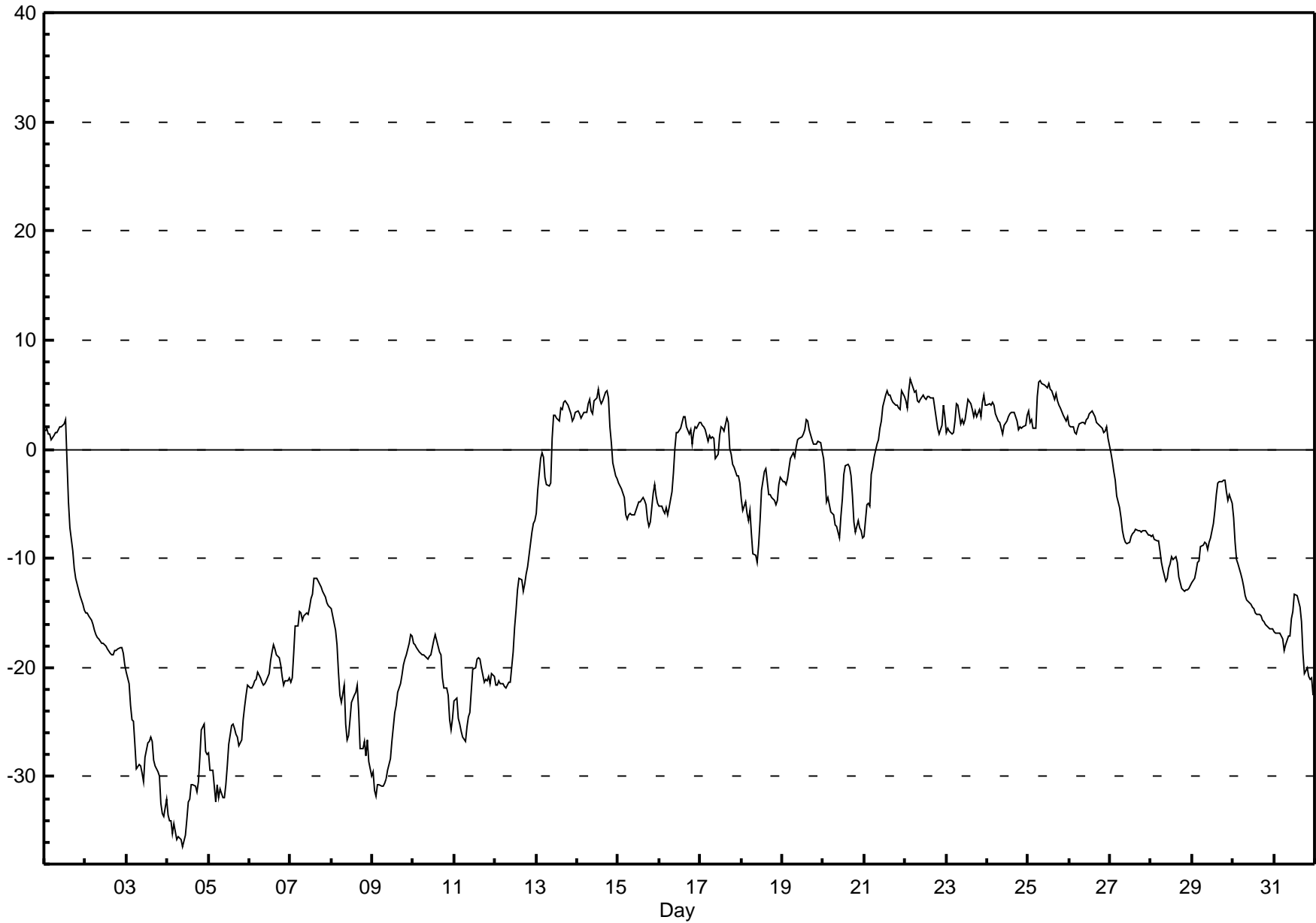
External Temperature (ET) - °C

Smoky Heights - January 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 6.4 °C on Jan 22 04:00      Maximum Daily Average: 4.3 °C on Jan 25		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: -36 °C on Jan 4 10:00 Maximum Diurnal Average: -8.0 °C at hour 15 Monthly Average: -9.67 °C		Minimum Daily Average: -32.2 °C on Jan 4 Minimum Diurnal Average: -10.8 °C at hour 9 Percentiles: P <sub>1</sub> = -34.3 P <sub>10</sub> = -26.6 Q <sub>1</sub> = -18.8 Median = -7.5 Q <sub>3</sub> = 1.7 P <sub>90</sub> = 3.7 P <sub>99</sub> = 5.7																								
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-Jan	2	2	1	1	1	1	2	1	2	2	2	2	3	-1	-5	-7	-9	-11	-12	-12	-13	-13	-14	-15	-3.8	2.7
2-Jan	-15	-15	-15	-16	-16	-17	-17	-17	-17	-18	-18	-18	-18	-18	-19	-19	-19	-18	-18	-18	-18	-18	-19	-20	-17.6	-15.0
3-Jan	-20	-21	-23	-25	-25	-27	-29	-29	-29	-30	-30	-28	-27	-27	-26	-27	-28	-29	-30	-30	-32	-33	-34	-32	-28.0	-20.4
4-Jan	-33	-34	-34	-35	-34	-36	-36	-36	-36	-36	-35	-34	-32	-32	-31	-31	-31	-31	-30	-28	-26	-25	-28	-28	-32.2	-25.2
5-Jan	-28	-29	-29	-31	-32	-31	-32	-31	-32	-32	-31	-29	-27	-25	-25	-26	-26	-26	-27	-27	-25	-24	-22	-22	-27.9	-21.6
6-Jan	-22	-22	-22	-21	-21	-20	-21	-21	-22	-21	-21	-21	-19	-19	-18	-18	-19	-19	-20	-21	-22	-21	-21	-21	-20.5	-17.9
7-Jan	-21	-21	-19	-16	-16	-15	-15	-16	-15	-15	-15	-15	-14	-13	-12	-12	-12	-12	-13	-13	-14	-14	-14	-15	-14.8	-11.8
8-Jan	-15	-15	-17	-18	-20	-23	-23	-22	-25	-27	-26	-25	-23	-23	-22	-22	-24	-27	-27	-27	-28	-27	-29	-30	-23.5	-14.7
9-Jan	-30	-31	-32	-31	-31	-31	-31	-31	-30	-29	-28	-27	-25	-24	-23	-22	-21	-21	-20	-19	-19	-18	-17	-17	-25.3	-17.0
10-Jan	-18	-18	-18	-19	-19	-19	-19	-19	-19	-19	-19	-18	-18	-17	-18	-19	-19	-21	-22	-22	-22	-25	-26	-25	-19.8	-17.0
11-Jan	-23	-23	-25	-25	-26	-26	-27	-25	-25	-24	-22	-20	-20	-19	-19	-19	-20	-21	-21	-21	-21	-21	-21	-21	-22.3	-19.2
12-Jan	-22	-22	-21	-21	-22	-22	-22	-22	-21	-21	-19	-16	-15	-13	-12	-12	-13	-12	-11	-11	-9	-8	-7	-7	-15.8	-6.5
13-Jan	-6	-4	-1	0	-1	-3	-3	-3	-3	1	3	3	3	3	4	4	4	4	4	4	3	3	3	3	1.0	4.4
14-Jan	4	3	3	3	3	3	4	5	4	3	4	5	5	5	4	4	5	5	5	2	1	-1	-3	-3	3.1	5.4
15-Jan	-3	-3	-4	-4	-6	-6	-6	-6	-6	-6	-6	-5	-5	-5	-4	-5	-5	-6	-7	-7	-4	-3	-4	-5	-5.1	-3.0
16-Jan	-5	-5	-6	-6	-5	-6	-5	-4	-2	0	2	2	2	2	3	3	2	1	2	0	2	2	2	3	-0.7	3.0
17-Jan	2	2	2	2	1	1	1	1	1	-1	0	1	2	2	2	3	2	0	0	-1	-2	-2	-2	-3	0.6	2.9
18-Jan	-5	-6	-5	-6	-7	-6	-8	-10	-10	-9	-7	-4	-2	-2	-3	-4	-4	-4	-5	-5	-5	-3	-3	-3	-5.4	-1.8
19-Jan	-3	-3	-3	-3	-2	-1	0	-1	0	1	1	1	1	2	3	3	2	1	0	0	0	1	1	0	0.1	2.8
20-Jan	-1	-2	-5	-4	-6	-6	-6	-7	-7	-8	-6	-5	-2	-1	-1	-2	-3	-4	-7	-8	-7	-7	-7	-8	-5.0	-0.8
21-Jan	-8	-5	-5	-5	-2	-2	-1	0	1	2	3	4	5	5	5	5	5	4	4	4	4	4	5	5	1.5	5.4
22-Jan	4	4	5	6	6	5	5	4	4	5	5	5	5	5	5	5	5	4	3	2	1	2	4	3	4.3	6.4
23-Jan	2	2	2	1	2	3	4	4	2	3	2	3	4	5	4	4	3	3	3	4	3	4	5	4	3.1	5.0
24-Jan	4	4	4	4	4	3	3	2	2	1	2	3	3	3	3	3	3	3	2	2	2	2	2	3	2.9	4.3
25-Jan	3	2	3	2	2	5	6	6	6	6	6	6	6	6	5	5	5	4	4	4	3	3	3	3	4.3	6.3
26-Jan	2	2	2	1	1	2	2	2	2	2	3	3	3	4	3	3	2	2	2	2	1	2	2	1	2.3	3.5
27-Jan	0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-9	-9	-8	-8	-8	-7	-7	-7	-8	-7	-8	-7	-8	-8	-6.4	-0.3
28-Jan	-8	-8	-8	-8	-8	-9	-10	-11	-12	-12	-11	-10	-10	-10	-10	-10	-12	-12	-13	-13	-13	-13	-13	-13	-10.7	-7.9
29-Jan	-12	-12	-11	-10	-10	-9	-9	-8	-9	-9	-8	-8	-7	-6	-4	-3	-3	-3	-3	-3	-4	-5	-4	-5	-6.9	-2.8
30-Jan	-6	-9	-10	-11	-11	-12	-13	-13	-14	-14	-14	-14	-15	-15	-15	-15	-15	-16	-16	-16	-16	-16	-16	-16	-13.7	-6.2
31-Jan	-17	-17	-17	-17	-17	-17	-18	-18	-17	-17	-16	-15	-13	-13	-14	-15	-16	-19	-21	-20	-21	-21	-21	-23	-17.4	-13.3
																								Diurnal Average		
																								Diurnal Maximum		

**Hourly Averages**

**External Temperature (ET) - °C**  
**Smoky Heights - January 2015**





Peace Airshed Zone Association

# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Smoky Heights - January 2015

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	24	24	21	19	17	22	20	16	18	18	19	17	14	18	20	19	24	25	23	23	24	23	21	21	8.9	25.1
Dir	261	261	259	261	251	259	265	259	275	278	261	274	312	30	46	36	35	33	34	32	33	32	28	23	329.2	32.8
2 Spd	24	22	22	20	21	21	20	19	16	13	16	14	15	15	12	9	7	4	4	4	9	12	12	9	13.1	23.5
Dir	22	23	23	28	24	28	26	20	10	358	355	354	358	1	6	9	14	294	319	321	307	325	333	344	8.0	22.1
3 Spd	11	10	9	13	12	8	12	8	12	8	11	6	5	10	12	9	7	12	13	13	7	6	8	8	8.3	13.4
Dir	345	345	326	295	277	262	267	259	279	277	275	255	228	265	273	259	256	271	269	271	250	212	221	240	272.9	268.7
4 Spd	7	11	10	9	8	8	10	9	7	7	7	6	7	7	4	4	3	5	9	8	9	7	4	1	3.2	10.6
Dir	222	209	214	207	206	209	193	209	216	206	210	227	236	232	215	232	312	11	30	27	25	40	46	354	218.2	208.7
5 Spd	1	4	5	6	8	10	9	10	7	7	6	5	5	4	3	1	6	7	3	4	8	7	7	2	4.9	9.8
Dir	234	203	216	215	204	223	227	223	218	201	194	197	189	170	140	219	259	252	208	243	266	279	272	293	224.5	223.1
6 Spd	3	4	2	2	4	2	3	11	8	7	4	5	5	4	2	5	9	12	10	9	7	9	7	7	5.3	11.7
Dir	43	43	99	203	242	287	40	34	43	49	35	24	27	31	49	33	31	34	28	22	25	23	26	20	30.5	34.0
7 Spd	11	8	2	5	1	10	7	7	14	16	17	8	13	10	13	17	20	17	17	24	23	22	19	17	7.9	24.0
Dir	32	30	357	181	215	221	170	172	209	223	219	271	18	17	330	323	317	312	313	323	322	330	329	310	310.7	322.7
8 Spd	20	20	16	15	8	9	4	4	8	10	9	9	5	7	6	1	7	5	6	4	1	3	2	2	6.1	20.3
Dir	307	318	313	303	268	257	285	319	230	264	270	262	207	259	261	249	267	235	202	246	340	316	12	77	281.2	306.7
9 Spd	3	2	1	1	1	2	3	3	3	2	2	2	2	2	1	1	1	0	1	1	0	0	2	6	0.8	6.1
Dir	262	274	143	170	211	227	225	217	223	219	211	183	172	172	141	169	157	218	227	92	67	106	25	41	208.1	40.6
10 Spd	8	6	7	9	8	5	4	7	7	5	7	6	8	8	8	2	2	5	6	6	7	7	4	4	2.7	9.4
Dir	59	50	52	37	40	41	34	37	35	45	32	32	31	22	38	218	227	246	256	247	221	223	231	216	29.4	36.6
11 Spd	4	3	3	3	3	8	5	6	7	6	3	1	1	3	8	12	14	13	12	11	11	9	9	8	6.5	13.8
Dir	235	211	245	222	205	214	225	249	261	262	248	221	212	221	226	221	218	228	245	241	237	230	211	219	229.9	217.7
12 Spd	6	6	4	3	2	2	2	1	0	0	0	0	0	3	9	10	15	17	16	13	14	15	19	17	6.8	18.9
Dir	219	220	220	218	222	224	215	218	204	0	0	0	0	207	228	252	254	266	253	249	223	219	216	219	234.1	216.0
13 Spd	19	18	22	21	20	19	17	16	12	23	37	35	29	24	32	33	37	39	38	36	36	33	34	35	25.6	38.6
Dir	214	236	246	240	211	196	182	185	181	254	257	260	254	235	241	250	251	253	254	261	265	261	263	244.2	250.7	
14 Spd	32	25	23	26	26	22	21	22	19	24	28	32	19	17	22	19	17	7	5	2	2	5	11	17.2	32.5	
Dir	261	265	268	264	265	267	265	249	242	261	253	253	259	269	264	272	280	291	289	250	278	351	17	34	265.4	260.8
15 Spd	14	15	12	12	13	11	8	7	6	3	3	2	2	2	1	0	0	2	2	2	3	4	5	5	3.5	14.5
Dir	36	35	36	27	20	20	23	30	37	29	36	50	123	188	208	260	283	253	248	253	253	250	214	233	24.0	34.6
16 Spd	6	5	4	5	6	9	11	12	12	19	29	28	28	31	32	29	35	31	35	30	37	42	40	44	22.5	43.8
Dir	217	213	188	197	217	199	203	206	234	245	252	250	255	254	258	259	263	265	258	248	253	251	255	257	250.2	257.4
17 Spd	40	36	35	29	20	21	27	34	34	27	23	28	32	28	23	24	18	16	15	16	15	19	16	11	24.1	39.6
Dir	256	257	259	249	251	243	253	248	247	257	262	252	244	245	245	243	248	268	242	232	239	222	221	224	248.2	256.0
18 Spd	10	6	14	15	8	8	9	9	8	7	2	3	5	5	4	9	9	6	6	7	7	7	10	10	7.0	15.1
Dir	242	246	276	258	203	233	253	212	213	233	217	254	282	287	250	258	246	257	214	252	190	232	226	223	240.3	257.8
19 Spd	10	7	10	7	8	12	12	5	16	21	24	24	22	24	26	21	24	22	22	18	21	23	26	26	17.2	25.9
Dir	195	198	192	207	227	236	245	272	261	259	258	255	253	257	255	257	256	260	258	251	255	258	262	259	251.7	259.1
20 Spd	24	21	19	19	16	20	19	18	19	17	21	20	21	20	17	14	9	8	7	11	8	9	11	15	15.8	23.9
Dir	254	256	266	255	257	258	250	244	248	268	268	260	246	244	243	243	242	264	264	225	240	249	244	253	252.5	254.3
21 Spd	11	18	11	15	21	23	23	14	16	20	19	26	34	38	35	33	29	26	24	25	18	12	24	21	21.1	37.8
Dir	236	198	224	216	194	183	188	222	218	215	226	220	231	240	242	240	235	238	236	244	256	246	239	232	227.4	239.9
22 Spd	19	16	27	25	34	33	33	30	31	34	39	38	27	29	26	20	23	19	20	18	16	19	24	18	25.6	38.8
Dir	238	228	249	245	242	243	252	255	255	253	249	249	258	255	246	238	251	270	269	260	256	251	248	255	250.4	248.5

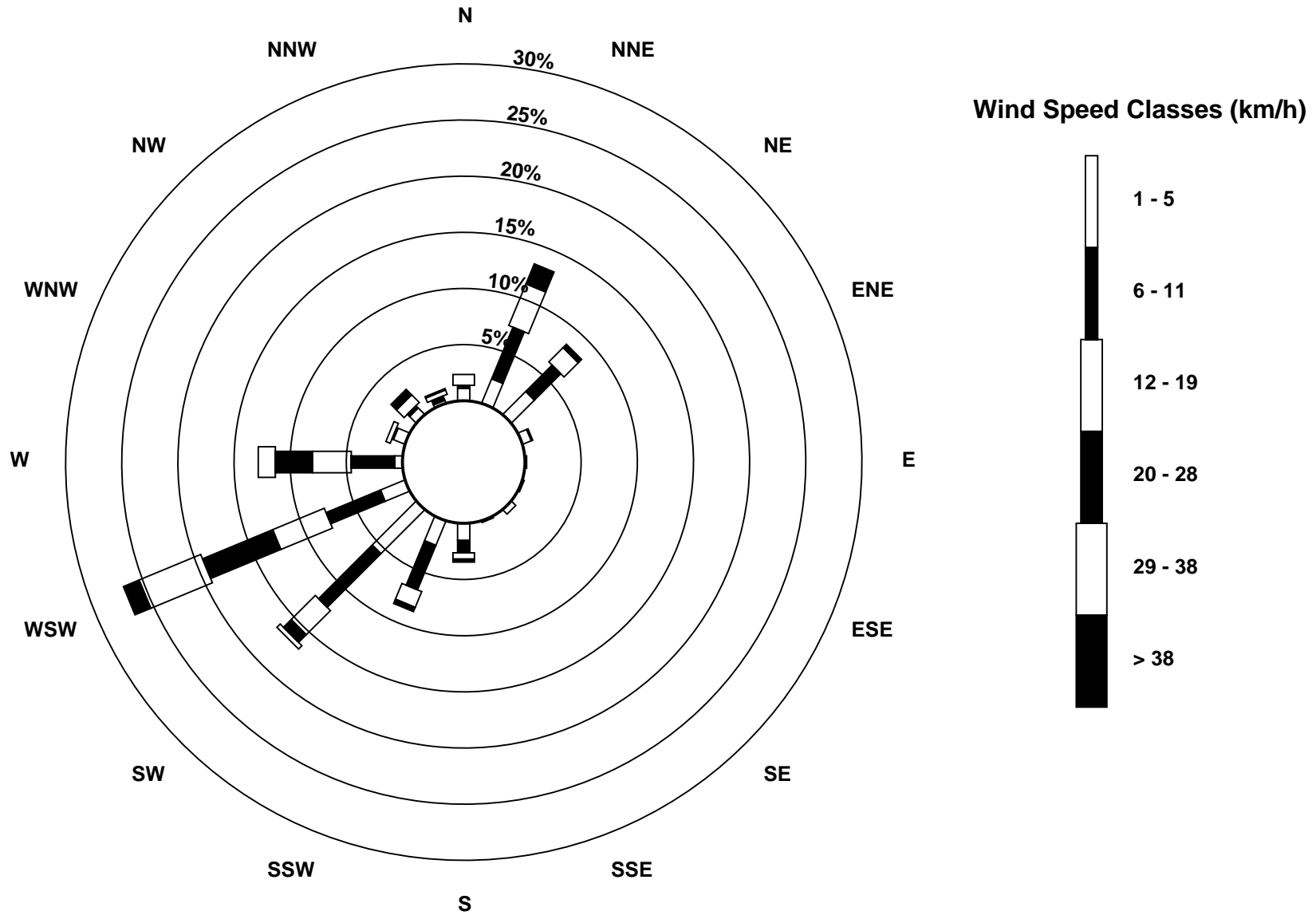
## Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Smoky Heights - January 2015

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	6	7	7	15	13	23	20	14	8	8	12	9	9	12	5	0	3	11	15	6	27	31	25	11.7	31.4
Dir	218	199	191	228	203	234	253	252	240	217	245	235	205	242	204	267	141	240	212	187	217	240	253	243	231.5	252.9
24 Spd	28	35	33	36	37	32	30	30	24	29	30	26	23	18	14	3	5	7	10	6	2	7	2	9	18.7	37.4
Dir	245	249	250	251	251	253	253	251	256	245	256	259	256	254	240	223	232	251	268	229	288	27	70	178	250.7	250.7
25 Spd	9	11	22	20	20	34	46	41	44	48	44	38	33	29	27	19	29	26	24	20	15	14	14	13	25.9	48.2
Dir	186	256	210	214	224	238	241	244	243	241	246	249	251	257	262	262	259	257	259	261	249	239	253	256	245.6	241.4
26 Spd	6	8	4	3	2	11	17	15	8	12	12	10	7	6	7	9	8	5	6	6	7	8	5	11	6.2	17.0
Dir	208	185	205	309	246	216	203	202	220	201	208	207	223	252	238	266	277	217	228	231	266	266	297	33	225.8	203.0
27 Spd	12	14	16	16	19	18	20	19	18	17	15	17	16	15	11	11	8	6	5	6	7	7	5	6	12.5	19.5
Dir	32	34	34	31	23	25	27	26	25	32	23	27	28	36	29	32	44	38	51	34	19	11	27	34	29.3	27.1
28 Spd	7	5	4	3	5	7	5	5	4	4	5	5	4	5	6	8	10	8	9	6	5	3	3	2	5.2	10.3
Dir	29	39	44	36	22	3	8	7	10	6	15	33	43	31	36	37	38	39	33	39	32	39	39	36	29.0	38.1
29 Spd	3	2	0	1	1	3	9	10	11	11	10	5	6	7	5	2	4	7	5	7	4	5	3	6	4.1	11.2
Dir	34	19	259	131	138	205	216	207	219	224	222	236	245	237	224	191	198	199	187	179	215	191	162	24	212.7	218.9
30 Spd	10	13	17	17	16	17	16	15	16	16	17	15	13	15	18	17	16	13	13	13	11	9	8	8	14.0	17.6
Dir	32	25	24	33	39	36	38	43	39	40	32	34	32	25	33	27	25	31	26	25	18	19	19	19	30.6	33.5
31 Spd	6	4	4	4	3	2	1	3	5	6	1	1	1	1	2	6	6	6	8	8	9	10	6	6	1.7	10.4
Dir	19	30	62	75	69	59	9	337	39	38	27	257	160	236	227	266	236	223	252	237	257	251	246	239	268.1	251.2
Spd	6.1	5.7	6.4	6.8	6.5	7.9	8.5	7.8	8.4	9.6	10.9	10.4	9.0	8.4	8.1	7.7	8.4	8.2	7.9	7.3	7.0	7.5	7.9	6.9	Diurnal Average	
Dir	263.6	264.9	263.3	257.5	246.5	244.8	246.0	247.8	250.5	253.2	256.7	257.4	258.8	262.4	256.9	263.7	266.8	269.9	264.7	260.7	267.9	264.2	261.7	264.4	Diurnal Maximum	
Spd	39.6	36.2	34.9	36.0	37.4	33.6	45.6	40.7	44.4	48.2	43.6	38.2	34.3	37.8	34.5	33.0	37.0	38.6	38.3	35.8	37.4	41.6	39.9	43.8	Diurnal Maximum	
Dir	256.0	256.9	258.9	251.2	250.7	238.3	241.0	244.4	243.4	241.4	245.6	249.2	231.4	239.9	242.4	239.8	250.0	250.7	253.1	254.0	252.8	251.4	255.5	257.4	Diurnal Maximum	
Maximum Speed Value: 48 km/h on Jan 25 10:00		Minimum Speed Value: 0 km/h on Jan 12 10:00														Hours in Service: 744										
Maximum Daily Speed Average: 25.9 km/h on Jan 13		Minimum Daily Speed Average: 0.8 km/h on Jan 9														Hours of Data: 744										
Maximum Diurnal Speed Average: 10.9 km/h at hour 11		Minimum Diurnal Speed Average: 5.7 km/h at hour 2														Hours of Missing Data: 0										
Monthly Average Velocity: 7.82 km/h 258.69 deg		Speed Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 2.5 Q <sub>1</sub> = 5.5 Median = 10.0 Q <sub>3</sub> = 19.1 P <sub>90</sub> = 27.7 P <sub>99</sub> = 39.8														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	15	22	9	2	0	0	48																			
NorthEast	28	53	40	18	0	0	139																			
East	7	0	0	0	0	0	7																			
SouthEast	8	0	0	0	0	0	8																			
South	16	20	8	3	0	0	47																			
SouthWest	59	87	46	28	15	5	240																			
West	22	48	44	58	45	8	225																			
NorthWest	10	2	11	7	0	0	30																			
Total	165	232	158	116	60	13	744																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Smoky Heights - January 2015**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - January 2015

Maximum Speed: 48 km/h on Jan 25 10:00	Maximum Daily Speed Average: 27.8 km/h on Jan 13	Hours in Service: 744
Minimum Speed: 0 km/h on Jan 12 10:00	Minimum Daily Speed Average: 1.9 km/h on Jan 9	Hours of Data: 744
Maximum Diurnal Speed Average: 15.2 km/h at hour 11	Minimum Diurnal Speed Average: 11.5 km/h at hour 21	Hours of Missing Data: 0
Monthly Average Speed: 13.23 km/h	Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 2.9 Q <sub>1</sub> = 5.7 Median = 10.3 Q <sub>3</sub> = 19.3 P <sub>90</sub> = 27.9 P <sub>99</sub> = 39.9	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-Jan	24	24	21	19	17	22	20	16	19	18	19	17	14	19	20	19	24	25	23	23	24	23	21	22	20.5	25.1
2-Jan	24	22	22	20	21	21	20	19	16	13	16	14	15	16	12	9	7	5	4	4	9	12	12	9	14.2	23.6
3-Jan	11	10	9	13	12	8	12	8	12	10	12	7	5	10	12	9	7	13	13	13	7	6	8	8	9.9	13.5
4-Jan	7	11	10	9	8	8	11	9	7	7	7	6	7	8	5	4	4	6	9	8	9	7	4	2	7.1	10.7
5-Jan	1	4	5	6	8	10	9	10	7	7	6	5	5	5	4	2	6	7	4	4	8	8	7	3	5.8	9.8
6-Jan	3	4	2	3	4	3	3	11	8	7	4	5	5	4	2	6	9	12	10	9	7	9	9	7	6.1	11.7
7-Jan	11	8	3	5	4	10	8	7	14	16	17	10	13	12	13	17	20	18	17	24	23	22	20	18	13.8	24.2
8-Jan	20	20	16	15	8	9	5	5	8	11	9	9	6	7	6	1	8	5	6	4	2	3	3	2	7.9	20.4
9-Jan	4	3	2	2	2	3	3	3	3	2	2	2	2	2	1	1	1	0	1	1	0	0	2	6	1.9	6.2
10-Jan	8	6	7	10	8	5	4	7	7	5	7	6	8	8	8	3	2	5	6	7	7	7	4	4	6.2	9.5
11-Jan	4	3	3	3	3	8	5	6	7	6	3	1	1	3	8	12	14	13	12	11	11	9	9	8	6.8	13.9
12-Jan	6	6	4	3	2	2	2	1	0	0	0	0	0	3	9	10	15	17	16	14	14	15	19	17	7.3	19.0
13-Jan	19	20	22	21	21	19	17	16	12	24	37	35	29	24	32	33	37	39	38	36	36	33	34	35	27.8	38.7
14-Jan	32	25	23	26	26	22	21	22	19	19	24	28	32	19	17	22	19	18	8	6	3	2	6	11	18.9	32.5
15-Jan	14	15	12	12	13	11	8	7	6	3	3	2	2	2	1	0	1	2	2	2	3	4	5	5	5.6	14.6
16-Jan	6	5	4	5	6	9	11	13	12	19	29	29	29	31	32	29	35	31	35	30	37	42	40	44	23.5	43.8
17-Jan	40	36	35	29	20	21	27	34	34	27	23	29	32	28	23	24	19	17	15	16	16	19	16	11	24.6	39.7
18-Jan	10	6	14	15	9	8	9	9	8	3	3	5	5	4	9	10	8	7	7	7	8	11	10	10	8.1	15.3
19-Jan	10	7	10	7	9	12	12	5	16	21	24	25	22	24	26	21	24	22	22	19	21	23	26	26	18.1	26.0
20-Jan	24	22	19	19	16	20	19	18	19	17	21	20	21	20	17	14	9	8	8	12	8	9	11	15	16.1	23.9
21-Jan	11	18	12	16	21	23	23	14	17	20	19	26	34	38	35	33	29	26	24	25	18	12	24	22	22.5	37.8
22-Jan	19	16	28	26	34	33	33	30	31	34	39	38	27	29	26	20	23	19	20	18	16	19	24	19	26.0	38.9
23-Jan	13	6	8	7	16	13	23	20	15	8	9	12	9	10	13	5	6	6	12	15	8	27	32	25	13.2	31.7
24-Jan	28	35	33	36	37	32	30	30	24	29	30	26	23	18	14	4	5	7	10	7	4	7	3	10	20.1	37.5
25-Jan	10	12	22	21	20	34	46	41	45	48	44	38	34	30	27	19	29	26	24	21	15	14	14	13	26.8	48.3
26-Jan	7	9	6	3	3	11	17	15	8	12	13	10	8	7	7	9	9	5	6	6	7	9	6	11	8.5	17.1
27-Jan	12	14	16	17	19	18	20	19	18	17	15	17	16	15	11	11	8	6	5	6	7	7	5	6	12.7	19.6
28-Jan	7	5	4	3	5	8	5	5	4	4	6	6	4	5	6	8	10	8	9	6	5	3	3	2	5.4	10.3
29-Jan	3	2	0	2	1	3	9	10	11	11	10	6	6	7	5	2	4	7	5	7	5	5	5	6	5.5	11.3
30-Jan	10	13	17	17	16	17	16	15	16	16	17	15	13	15	18	17	16	13	13	13	11	10	8	8	14.2	17.7
31-Jan	6	4	4	4	3	2	2	3	5	6	2	1	1	1	2	6	6	7	8	8	9	11	6	6	4.7	10.6
	13.0	12.6	12.7	12.7	12.7	13.7	14.5	13.9	13.9	14.5	15.2	14.5	13.8	13.7	13.5	12.2	13.4	12.9	12.7	12.3	11.5	12.4	12.8	12.6	Diurnal Average	
	39.7	36.3	34.9	36.0	37.5	33.6	45.7	40.8	44.5	48.3	43.7	38.3	34.4	37.8	34.6	33.1	37.0	38.7	38.3	35.8	37.4	41.7	40.0	43.8	Diurnal Maximum	

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



# Hourly Standard Deviations

Wind Direction (WD) - deg  
Smoky Heights - January 2015

Maximum Value: 99.4 deg on Jan 23 17:00																	Hours in Service: 744								
Minimum Value: 0.0 deg on Jan 12 10:00																	Hours of Data: 744								
Percentiles: P <sub>1</sub> = 2.2 P <sub>10</sub> = 3.2 Q <sub>1</sub> = 5.1 Median = 8.3 Q <sub>3</sub> = 15.2 P <sub>90</sub> = 35.1 P <sub>99</sub> = 81.6																	Hours of Missing Data: 0								
																	Hours of Calibration: 0								
																	Percent Operational Time: 100.0								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	2	3	5	10	5	5	4	4	16	9	4	7	16	21	6	9	5	5	4	5	4	4	5	4	21.2
2-Jan	5	5	6	7	5	6	5	5	9	8	8	9	9	8	7	9	9	41	24	31	7	6	7	15	40.8
3-Jan	10	8	11	6	6	17	9	33	9	42	14	34	30	13	8	10	15	7	7	10	14	14	8	8	42.1
4-Jan	15	6	8	14	8	14	10	12	6	15	13	19	9	10	17	47	48	30	9	7	5	11	24	90	89.7
5-Jan	65	22	7	6	8	6	5	4	10	17	7	8	8	39	38	68	9	9	16	19	10	11	14	50	67.6
6-Jan	35	11	48	83	19	35	28	4	9	7	7	7	10	10	23	13	5	4	5	6	7	5	7	11	82.9
7-Jan	9	15	61	41	89	14	29	21	11	11	5	41	12	30	11	7	7	9	9	7	7	7	7	10	88.6
8-Jan	6	8	11	7	21	16	45	29	16	14	15	5	23	10	8	58	14	31	7	22	24	37	34	63	62.9
9-Jan	38	35	66	50	47	23	15	8	6	9	12	9	9	28	21	80	60	76	40	43	37	14	18	11	80.4
10-Jan	6	8	7	10	6	7	9	6	7	7	5	8	6	7	8	64	57	22	9	8	11	5	12	9	64.4
11-Jan	9	6	14	14	8	10	7	13	3	7	5	9	10	61	7	4	5	3	7	17	7	7	9	4	60.8
12-Jan	4	4	3	4	4	4	5	5	75	0	0	0	0	74	10	5	6	5	6	13	8	5	2	3	74.7
13-Jan	5	27	9	8	13	11	2	3	6	23	3	3	5	4	3	5	3	3	3	4	3	3	2	2	26.8
14-Jan	3	4	3	3	2	3	4	5	2	7	3	5	6	6	7	3	4	7	71	33	57	44	38	5	70.6
15-Jan	4	4	5	7	6	6	7	7	9	11	14	14	33	22	62	44	48	12	26	14	8	10	10	13	61.9
16-Jan	10	12	54	24	23	13	8	17	21	5	3	4	4	4	2	3	3	9	5	6	4	3	3	3	53.6
17-Jan	4	3	3	7	6	9	9	4	3	6	8	3	3	3	4	3	5	11	8	6	15	5	6	20	20.0
18-Jan	16	28	11	10	20	11	14	10	31	22	40	31	10	12	30	19	25	48	36	16	21	18	25	8	48.0
19-Jan	16	26	8	25	39	5	13	26	7	2	4	5	8	4	4	3	3	3	2	6	5	3	2	3	38.7
20-Jan	2	5	2	7	4	3	3	2	3	8	3	4	3	3	3	4	8	9	13	16	15	14	8	6	15.8
21-Jan	9	5	20	22	8	3	7	18	20	3	5	5	5	3	3	3	3	4	4	10	8	24	7	10	23.7
22-Jan	7	9	15	9	3	4	6	6	4	3	4	4	6	5	4	5	5	11	3	5	10	6	4	12	15.3
23-Jan	12	22	22	16	19	10	10	7	15	15	27	9	13	29	15	19	99	82	15	8	82	7	7	3	99.4
24-Jan	4	4	3	3	4	4	4	4	9	3	5	4	6	11	10	77	12	12	10	32	65	20	46	42	77.3
25-Jan	36	23	7	9	7	3	3	3	3	3	4	3	5	9	5	4	3	5	3	3	9	6	7	6	35.8
26-Jan	32	8	67	30	36	8	6	8	20	10	9	7	41	25	6	16	31	19	14	9	15	49	36	4	67.5
27-Jan	4	4	4	6	6	9	6	5	5	6	6	6	6	9	13	9	9	17	20	11	7	11	8	6	20.0
28-Jan	7	12	8	29	30	10	9	9	16	13	17	17	25	13	10	7	5	5	6	10	8	10	7	10	30.0
29-Jan	14	16	48	88	74	46	19	10	6	3	5	15	10	7	22	69	22	6	29	5	43	24	53	9	88.0
30-Jan	4	7	4	6	5	6	7	5	5	7	6	6	10	6	5	8	7	7	9	6	6	6	7	8	10.0
31-Jan	7	17	18	9	12	26	51	11	11	24	76	55	81	54	33	17	11	19	5	7	11	10	13	10	80.7
65.2	35.2	67.5	88.0	88.6	45.7	51.2	33.2	74.7	42.1	75.9	54.7	80.7	74.4	61.9	80.4	99.4	81.7	70.6	43.4	81.8	48.8	52.7	89.7		

PAZA

Beaverlodge Station

Monthly Summary Tables, Graphs and  
Roses

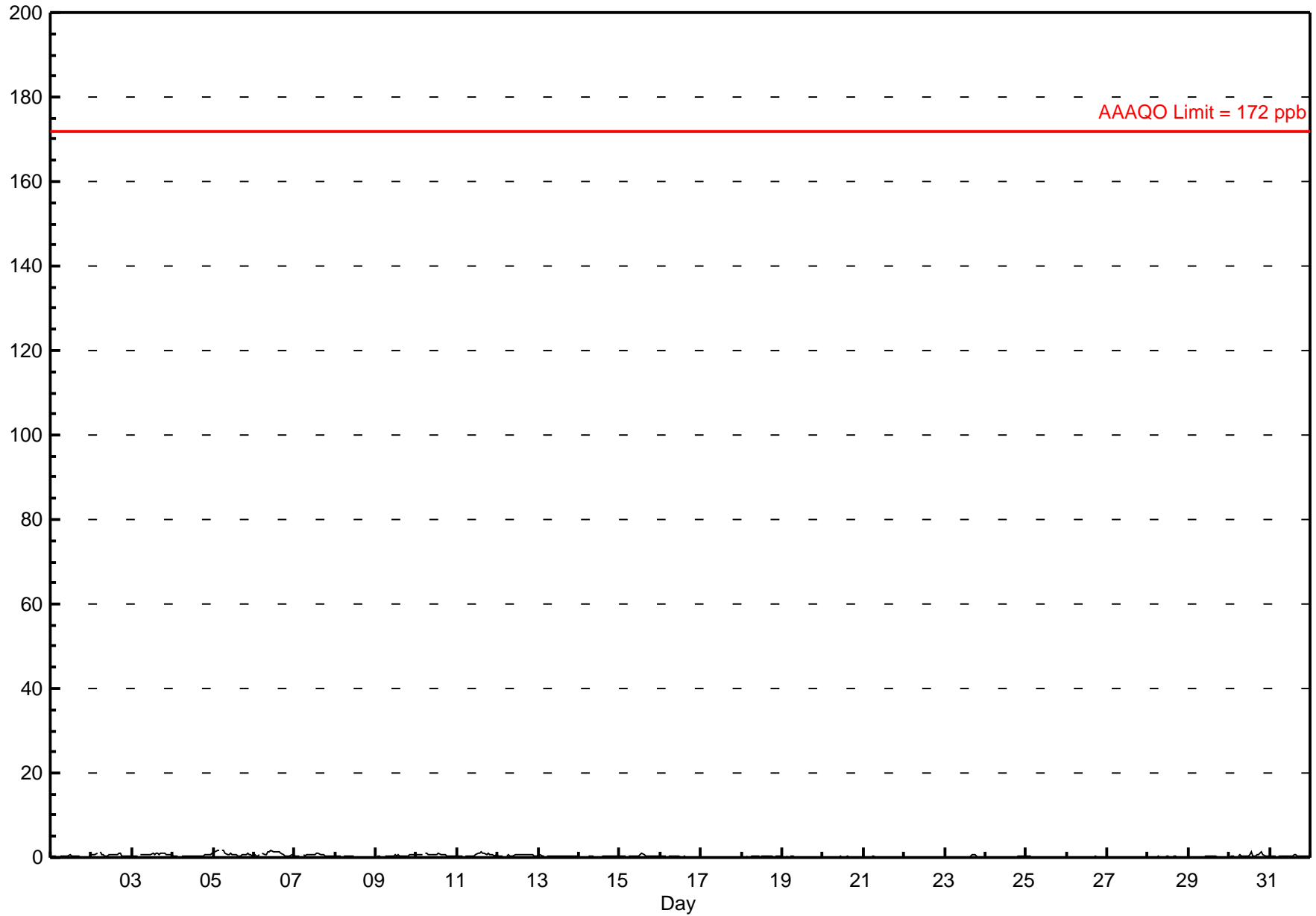
# Hourly Averages

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Beaverlodge - January 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.8 ppb on Jan 5 04:00      Maximum Daily Average: 0.9 ppb on Jan 5		Hours in Service: 744 Hours of Data: 710 Hours of Missing Data: 34 Hours of Calibration: 34 Percent Operational Time: 100.0																																																
Minimum Value: 0 ppb on Jan 25 19:00 Maximum Diurnal Average: 0.4 ppb at hour 14 Monthly Average: 0.33 ppb		Minimum Daily Average: 0.1 ppb on Jan 17 Minimum Diurnal Average: 0.3 ppb at hour 23 Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 0.7 P <sub>99</sub> = 1.4																																																
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-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.6																								
2-Jan	1	1	1	1	A	1	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.6	1.3																								
3-Jan	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2																								
4-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.4	1.0																								
5-Jan	1	1	2	2	A	2	2	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.9	1.8																								
6-Jan	1	0	0	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	0	0	0	0	1	1	0.8	1.5																								
7-Jan	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	1.1																								
8-Jan	0	0	0	0	A	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.4																								
9-Jan	0	0	0	0	A	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	1	1	1	1	0.4	0.8																								
10-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0.7	1.1																								
11-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.6	1.3																								
12-Jan	0	0	0	1	A	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.5	0.7																								
13-Jan	1	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	0.5																								
14-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																								
15-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.4	0.9																								
16-Jan	0	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																								
17-Jan	0	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																								
18-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4																								
19-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																								
20-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3																								
21-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																								
22-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																								
23-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0.1	0.6																								
24-Jan	0	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																								
25-Jan	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5																								
26-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2																								
27-Jan	0	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-Jan	0	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																								
29-Jan	0	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																								
30-Jan	0	0	0	0	A	0	1	0	0	0	0	0	1	1	0	0	1	1	1	1	1	0	0	0	0.5	1.4																								
31-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.6																								
																								0.3	0.3	0.3	0.3	--	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average
																								1.1	1.3	1.5	1.8	--	1.8	1.5	1.1	1.2	1.3	1.5	1.4	1.2	1.4	1.3	1.2	0.9	1.1	1.1	1.4	0.9	0.8	0.8	1.0	1.0	1.0	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 (SO<sub>2</sub>) - ppb**  
**Beaverlodge - January 2015**



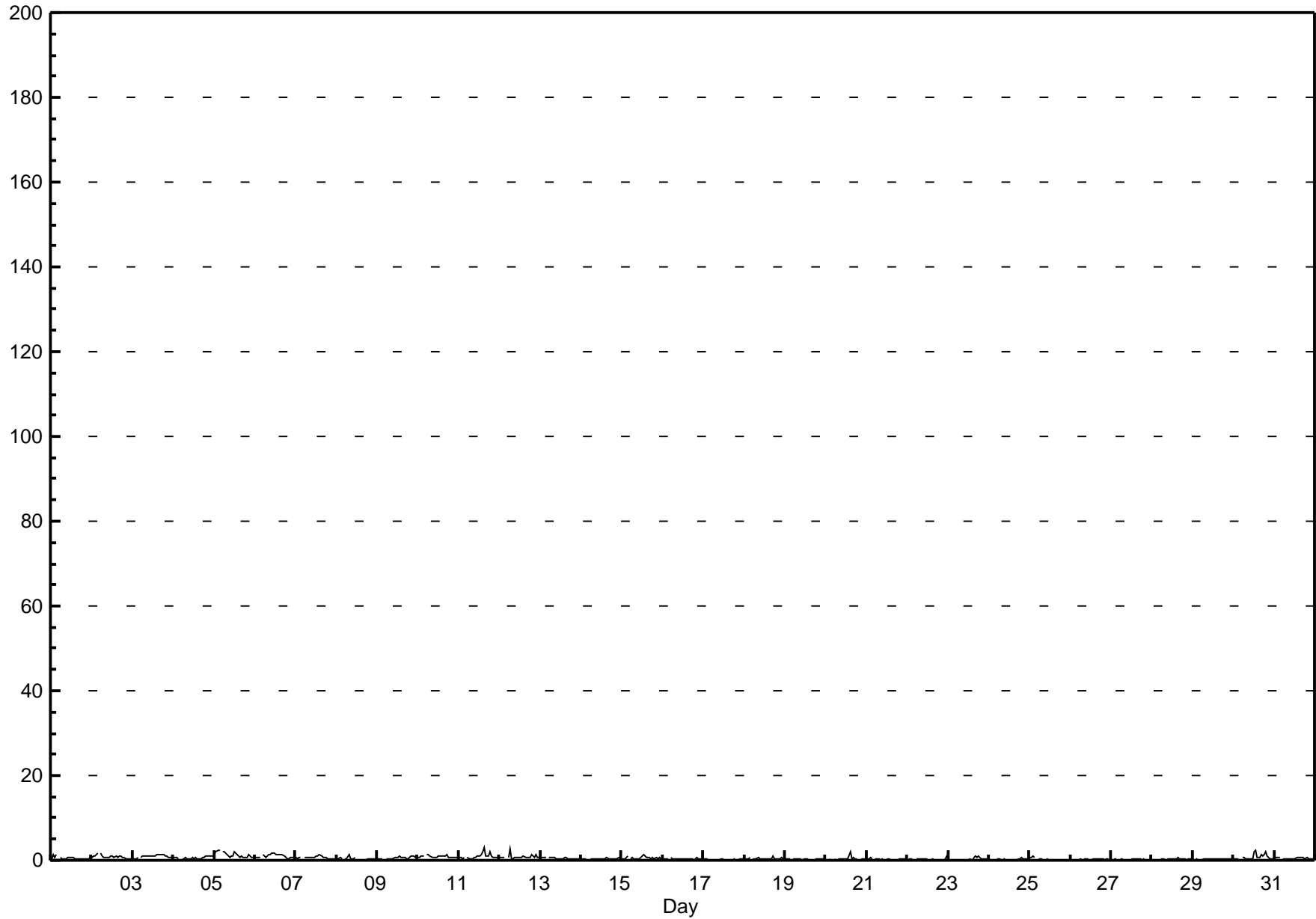
## Hourly Maximums

## Sulphur Dioxide (SO<sub>2</sub>) - ppb Beaverlodge - January 2015

Maximum Value: 3.0 ppb on Jan 11 16:00		Maximum Daily Average: 1.3 ppb on Jan 5		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 22 20:00		Minimum Daily Average: 0.2 ppb on Jan 17		Hours of Data: 710																						
Maximum Diurnal Average: 0.7 ppb at hour 15		Minimum Diurnal Average: 0.4 ppb at hour 1		Hours of Missing Data: 34																						
Monthly Average: 0.50 ppb		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.2 Median = 0.4 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 1.0 P <sub>99</sub> = 1.9		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-Jan	0	1	1	1	A	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0.5	1.2
2-Jan	1	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.8	1.8
3-Jan	0	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
4-Jan	1	1	1	0	A	0	0	1	0	0	0	1	0	1	0	0	0	1	1	1	1	1	1	1	0.6	1.1
5-Jan	1	2	2	2	A	2	2	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.3	2.4
6-Jan	1	1	1	1	A	1	1	1	1	2	2	2	1	1	1	1	1	1	1	0	0	1	1	1	1.0	1.7
7-Jan	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.7	1.3
8-Jan	0	0	1	0	A	0	0	1	0	0	0	1	C	C	C	0	0	0	0	0	0	0	0	0	0.4	1.2
9-Jan	0	1	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.6	1.0
10-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
11-Jan	1	1	0	1	A	1	0	0	0	1	1	1	1	2	3	1	1	2	1	1	1	1	1	1	0.9	3.0
12-Jan	1	1	1	1	A	1	3	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.8
13-Jan	1	1	1	1	A	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.5	0.7
14-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0.3	0.7
15-Jan	0	0	0	1	A	0	1	0	0	0	0	1	1	1	1	1	0	1	0	1	0	1	0	0	0.6	1.2
16-Jan	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.4	0.5
17-Jan	0	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
18-Jan	0	0	0	1	A	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0.4	1.0
19-Jan	0	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
20-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0.3	2.2
21-Jan	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
22-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.9
23-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0.3	0.9
24-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.5
25-Jan	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
26-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
27-Jan	0	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
28-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.6
29-Jan	0	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
30-Jan	0	0	0	0	A	1	1	0	0	0	0	0	2	2	1	1	1	1	1	2	1	0	0	0	0.8	2.4
31-Jan	0	1	1	1	A	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0.5	0.8
		0.4	0.5	0.5	0.5	--	0.5	0.6	0.5	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	Diurnal Average
		1.2	2.0	2.3	2.4	--	1.9	2.8	1.8	1.4	1.5	1.7	1.7	2.0	2.4	2.2	3.0	1.3	1.4	2.0	1.9	1.3	1.3	1.0	1.1	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

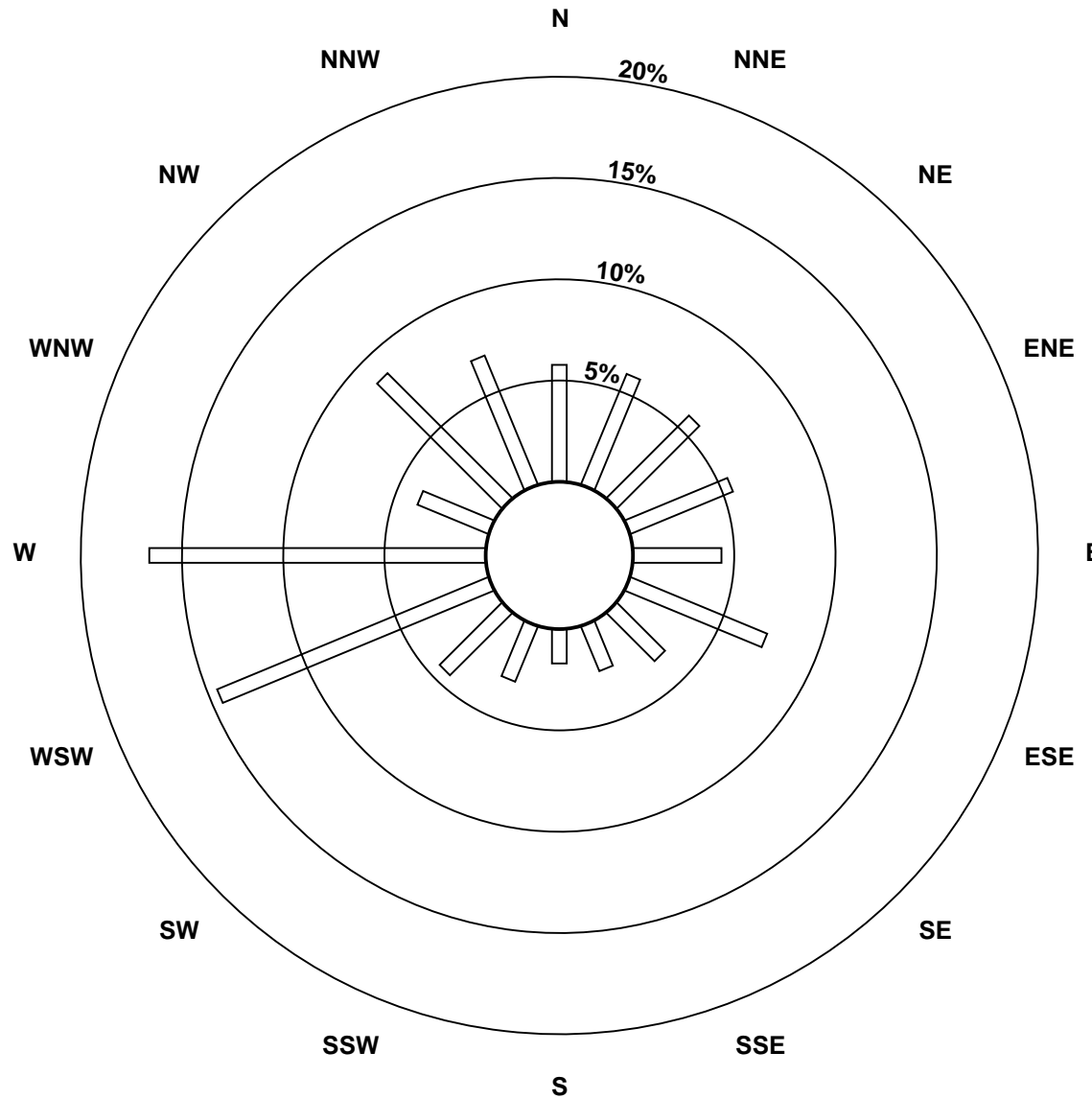
**Hourly Maximums**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Beaverlodge - January 2015**

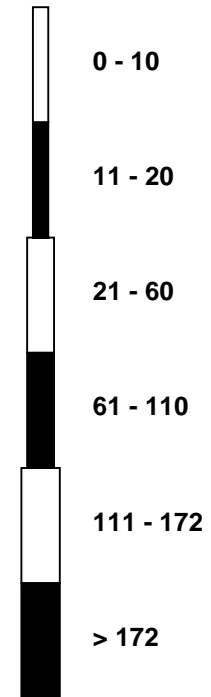


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Beaverlodge - January 2015**

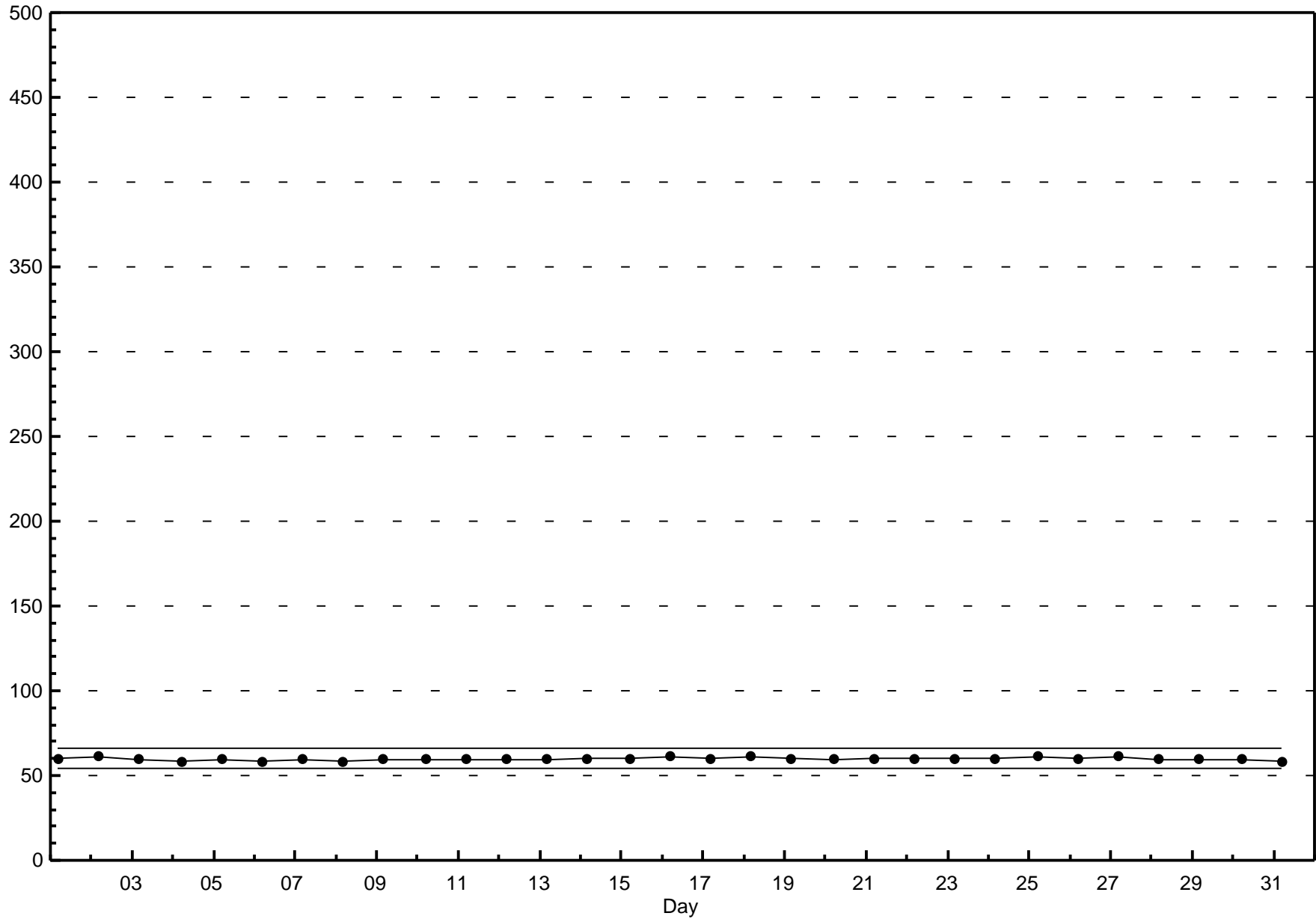


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Beaverlodge - January 2015





# Hourly Averages

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Beaverlodge - January 2015

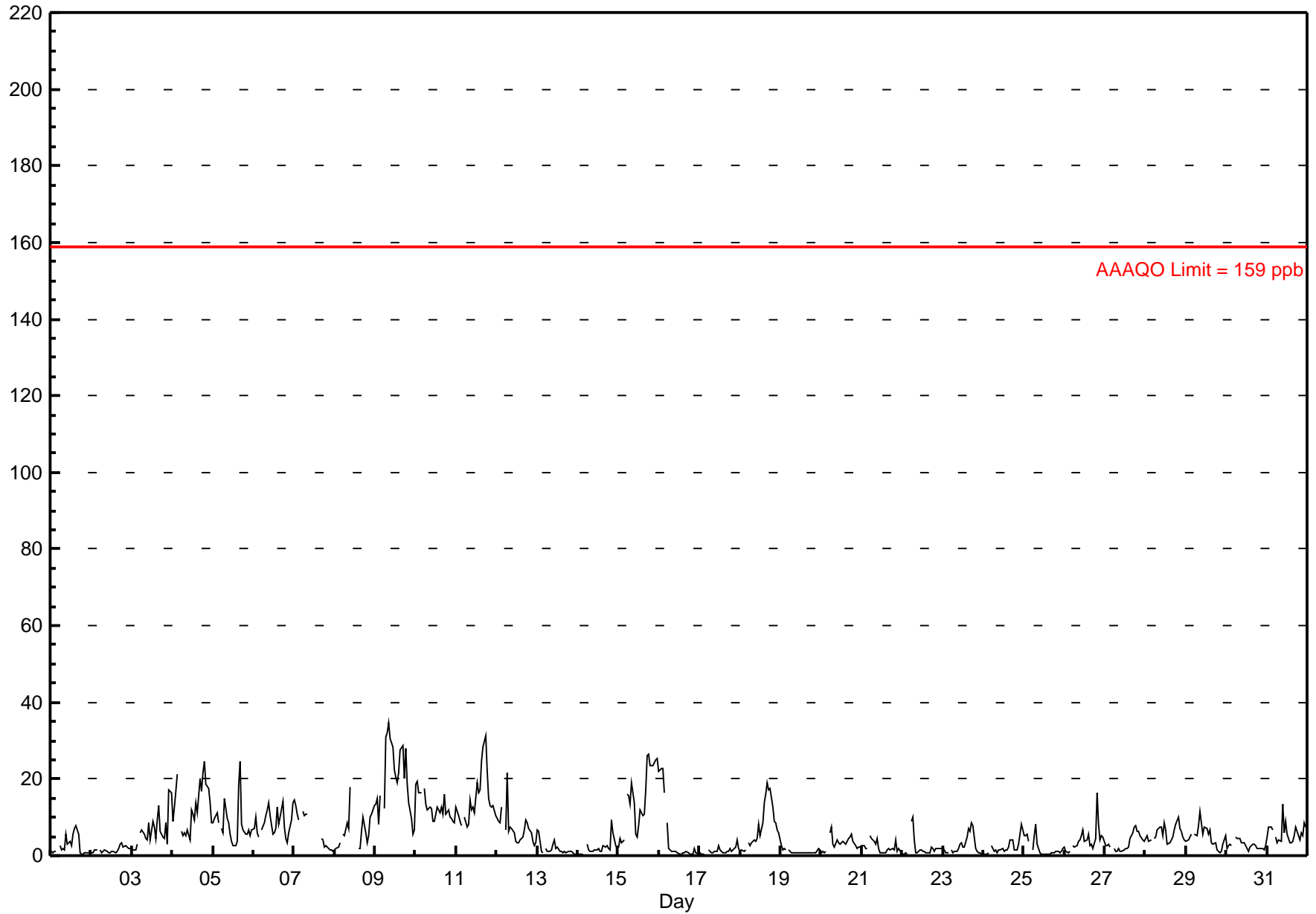
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 34.9 ppb on Jan 9 09:00	Maximum Daily Average: 20.2 ppb on Jan 9
Minimum Value: 0 ppb on Jan 17 03:00	Hours of Data: 702
Maximum Diurnal Average: 7.9 ppb at hour 17	Hours of Missing Data: 42
Monthly Average: 5.88 ppb	Hours of Calibration: 38
Minimum Daily Average: 1.0 ppb on Jan 19	Percent Operational Time: 99.5
Minimum Diurnal Average: 4.8 ppb at hour 14	
Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 1.4 Median = 3.8 Q <sub>3</sub> = 8.3 P <sub>90</sub> = 13.9 P <sub>99</sub> = 28.4	

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-Jan	1	1	1	1	A	3	2	2	1	5	3	4	3	6	7	8	6	1	0	0	1	1	1	1	2.5	7.6
2-Jan	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	2	3	4	2	2	2	2	2	1.5	3.5
3-Jan	2	1	2	3	A	6	7	6	4	4	8	4	9	8	5	9	13	6	5	4	9	3	17	16	6.6	17.1
4-Jan	9	13	17	21	A	6	5	6	5	7	4	12	11	9	14	11	20	17	22	24	19	17	14	9	12.7	24.5
5-Jan	9	10	11	9	A	7	6	15	10	9	6	4	3	3	4	18	25	8	7	6	6	7	5	7	8.3	24.6
6-Jan	7	10	6	5	A	7	8	11	12	14	10	5	6	7	13	8	10	14	7	5	3	6	9	14	8.7	14.2
7-Jan	14	13	11	9	A	12	10	11	11	C	C	C	C	C	C	C	4	4	2	3	2	2	2	1	--	14.4
8-Jan	1	2	2	3	A	6	5	8	7	18	M	M	M	M	2	2	6	10	6	4	5	10	11	13	6.4	17.9
9-Jan	13	15	8	16	A	12	31	32	35	31	29	22	21	19	22	28	29	20	28	19	14	10	6	7	20.2	34.9
10-Jan	19	19	16	16	A	18	14	12	12	12	9	9	11	13	11	13	11	16	11	12	10	10	9	8	12.7	19.4
11-Jan	13	10	9	8	A	10	7	8	14	12	13	11	19	16	17	25	28	31	22	15	13	13	13	11	14.7	31.4
12-Jan	10	9	9	13	A	7	22	6	7	7	6	4	3	3	4	5	7	9	8	7	6	4	3	3	7.1	21.8
13-Jan	7	6	1	1	A	2	1	1	1	3	4	2	2	1	1	1	1	1	1	1	1	1	1	0	1.8	6.8
14-Jan	0	0	0	0	A	3	1	1	1	1	2	1	2	1	1	3	2	2	2	1	9	6	3	2	2.1	9.4
15-Jan	2	4	3	4	A	16	15	13	19	14	6	5	8	12	11	11	17	26	26	24	24	24	25	25	14.6	26.5
16-Jan	22	23	23	16	A	9	2	1	1	1	1	1	0	1	1	1	1	1	1	0	0	2	1	0	4.7	22.9
17-Jan	1	0	0	0	A	2	1	1	1	1	1	2	1	1	1	1	1	1	2	1	1	2	4	2	1.3	4.0
18-Jan	1	1	1	1	A	3	3	3	4	4	5	8	5	8	14	16	19	17	17	13	9	9	7	6	7.6	19.1
19-Jan	2	1	2	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.0	2.5
20-Jan	1	1	1	1	A	6	8	3	2	4	3	3	3	4	3	4	4	5	5	4	3	2	2	2	3.2	7.5
21-Jan	3	3	2	2	A	5	4	4	3	5	2	1	1	1	1	2	2	2	2	2	4	1	2	1	2.2	5.2
22-Jan	0	0	1	0	A	9	10	4	1	1	2	2	1	1	1	1	1	2	2	1	2	2	2	2	2.0	10.0
23-Jan	2	2	1	1	A	2	1	1	1	2	3	3	2	2	5	7	6	9	8	2	1	1	1	0	2.7	8.7
24-Jan	1	0	0	1	A	3	1	2	1	2	2	2	1	1	2	2	4	4	1	1	1	3	8	7	2.2	8.4
25-Jan	5	5	6	4	A	2	5	8	3	1	0	1	1	0	1	0	1	1	1	1	1	1	1	2	2.2	8.3
26-Jan	2	1	1	1	A	3	2	3	4	4	5	7	4	4	6	3	3	2	4	16	8	4	5	5	4.2	16.4
27-Jan	2	2	3	2	A	2	1	1	2	1	1	2	2	2	2	5	6	7	8	6	6	5	4	4	3.4	8.0
28-Jan	4	5	4	4	A	4	5	7	8	7	5	8	7	3	3	4	5	7	8	10	7	6	5	4	5.7	10.2
29-Jan	4	4	5	6	A	6	5	8	12	9	6	8	7	6	7	3	3	3	1	1	1	1	3	5	4.9	11.7
30-Jan	2	3	3	3	A	5	5	4	4	3	3	3	2	1	2	3	3	3	2	2	2	2	2	3	2.7	5.0
31-Jan	5	7	8	7	A	5	3	4	4	13	6	9	6	3	3	4	5	8	6	4	6	5	9	8	6.0	13.4
	5.4	5.7	5.1	5.2	--	5.8	6.2	6.1	6.2	6.5	5.0	4.9	4.9	4.8	5.4	6.6	7.9	7.8	7.1	6.2	5.7	5.2	5.7	5.5		Diurnal Average
	22.0	22.7	22.9	21.2	--	17.6	30.8	32.1	34.9	30.7	28.5	22.4	20.6	19.1	21.6	27.7	28.7	31.4	27.9	24.5	23.6	24.3	25.0	25.4		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 (NO<sub>2</sub>) - ppb**  
**Beaverlodge - January 2015**



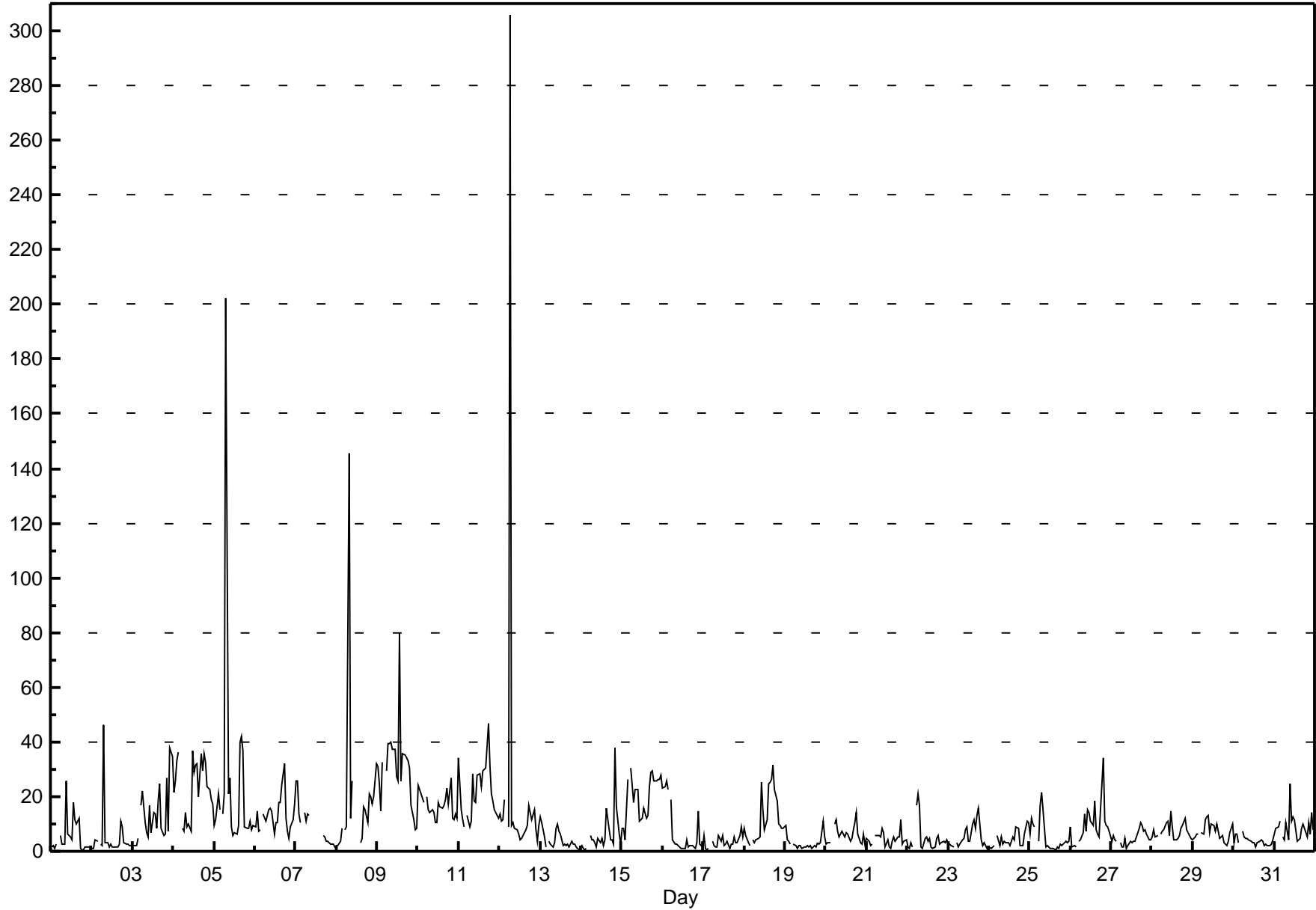
# Hourly Maximums

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb Beaverlodge - January 2015

Maximum Value: 305.8 ppb on Jan 12 07:00		Maximum Daily Average: 30.3 ppb on Jan 9		Hours in Service: 744																							
Minimum Value: 1 ppb on Jan 14 00:00		Minimum Daily Average: 3.1 ppb on Jan 19		Hours of Data: 702																							
Maximum Diurnal Average: 21.2 ppb at hour 8		Minimum Diurnal Average: 7.9 ppb at hour 3		Hours of Missing Data: 42																							
Monthly Average: 10.73 ppb		Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 3.1 Median = 6.4 Q <sub>3</sub> = 13.4 P <sub>90</sub> = 25.2 P <sub>99</sub> = 40.0		Hours of Calibration: 38																							
				Percent Operational Time: 99.5																							
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-Jan	2	2	1	3	A	6	3	2	2	26	6	5	4	18	11	10	12	1	1	1	1	1	1	5.3	25.6		
2-Jan	1	1	4	4	A	3	2	46	3	3	2	3	2	2	1	2	3	11	9	3	3	3	2	2	5.0	46.1	
3-Jan	2	2	2	5	A	17	22	10	7	5	17	7	14	14	8	18	25	9	6	6	27	7	38	35	13.2	38.0	
4-Jan	21	26	33	36	A	8	7	14	9	10	7	37	29	31	32	20	36	29	36	33	24	23	19	17	23.3	37.0	
5-Jan	9	11	21	15	A	14	21	202	21	27	9	6	7	6	9	40	42	37	9	8	8	11	8	9	24.0	202.1	
6-Jan	9	15	7	8	A	14	11	13	15	16	15	6	11	11	18	18	24	32	12	7	5	9	12	17	13.2	32.2	
7-Jan	26	26	14	10	A	14	11	14	13	C	C	C	C	C	C	C	6	5	4	4	3	3	3	2	--	25.9	
8-Jan	2	2	4	8	A	8	9	146	12	26	M	M	M	M	3	5	16	15	10	21	20	17	20	32	19.9	145.7	
9-Jan	31	25	15	32	A	29	39	39	40	37	37	27	26	80	26	36	35	34	33	30	17	11	8	8	30.3	79.7	
10-Jan	24	23	21	18	A	20	15	14	15	14	11	10	18	16	16	17	19	23	17	27	12	11	13	12	16.8	26.6	
11-Jan	34	15	12	9	A	13	9	11	28	18	18	28	28	23	29	30	30	47	31	21	19	15	14	12	21.6	46.5	
12-Jan	14	11	11	19	A	9	306	10	11	8	8	6	4	5	6	8	10	17	14	12	15	8	4	9	22.8	305.8	
13-Jan	13	10	5	1	A	4	2	2	3	8	10	8	6	2	3	2	3	2	4	3	3	1	1	1	4.2	12.6	
14-Jan	2	1	1	1	A	6	4	4	3	2	5	3	4	2	4	16	8	4	4	3	38	16	6	2	6.1	37.9	
15-Jan	8	8	4	26	A	31	24	18	23	23	11	11	12	16	12	13	24	29	30	26	26	26	26	28	19.7	30.6	
16-Jan	23	24	26	23	A	19	4	3	3	2	2	1	1	1	4	2	2	2	2	1	3	15	3	2	7.2	25.9	
17-Jan	6	1	1	1	A	4	2	2	1	6	4	6	2	2	4	1	2	2	5	3	3	6	9	5	3.4	8.8	
18-Jan	8	6	3	2	A	4	3	4	5	5	25	15	8	12	25	25	26	31	23	18	10	10	8	8	12.4	31.5	
19-Jan	9	4	4	3	A	3	2	1	2	2	1	2	1	2	2	2	1	2	2	3	2	3	11	5	3.1	11.2	
20-Jan	3	3	3	3	A	10	11	7	5	7	6	5	7	6	4	5	8	10	14	6	3	3	6	3	6.1	14.4	
21-Jan	5	4	2	3	A	6	6	6	5	8	7	2	4	2	1	4	5	4	5	5	12	2	4	4	4.5	11.8	
22-Jan	2	1	3	1	A	17	21	17	1	1	5	5	4	5	2	1	2	5	6	3	3	4	3	4	5.0	20.9	
23-Jan	3	2	2	2	A	3	1	2	4	5	8	9	4	4	10	11	8	13	16	4	2	3	2	1	5.2	16.0	
24-Jan	1	1	2	2	A	6	2	5	3	4	3	3	2	4	5	4	9	8	2	2	2	6	11	11	4.2	11.2	
25-Jan	6	12	10	9	A	4	17	22	15	2	2	1	1	1	1	1	1	1	3	2	3	4	3	4	5.4	21.7	
26-Jan	9	2	2	2	A	4	4	7	13	7	15	14	11	9	18	8	6	5	25	34	11	10	9	8	10.1	34.3	
27-Jan	4	6	4	4	A	3	1	2	5	1	2	4	3	4	4	5	8	11	9	7	8	6	4	4	4.8	10.7	
28-Jan	5	8	5	6	A	6	7	8	10	11	6	15	9	4	4	5	6	8	10	12	8	7	6	5	7.4	14.8	
29-Jan	4	5	6	7	A	7	6	12	13	13	7	10	10	7	10	7	5	6	3	2	2	3	7	10	7.1	13.4	
30-Jan	3	6	6	3	A	7	5	5	5	4	4	3	3	2	3	4	4	4	2	2	2	2	3	4	3.8	7.2	
31-Jan	7	8	9	11	A	5	4	10	4	25	11	13	12	4	4	5	9	10	8	5	11	6	14	8	8.9	24.7	
		9.6	8.7	7.9	8.9	--	9.8	18.8	21.2	9.7	10.9	9.0	9.2	8.5	10.1	9.4	10.8	12.8	13.5	11.5	10.2	9.8	8.2	9.0	8.8	Diurnal Average	
		34.4	25.9	32.9	36.3	--	30.6	305.8	202.1	40.0	37.1	37.3	37.0	29.0	79.7	31.9	40.1	42.1	46.5	35.9	34.3	37.9	26.2	38.0	34.5	Diurnal Maximum	
C - Calibration					M - Maintenance					A - Automated Daily Zero Span																	

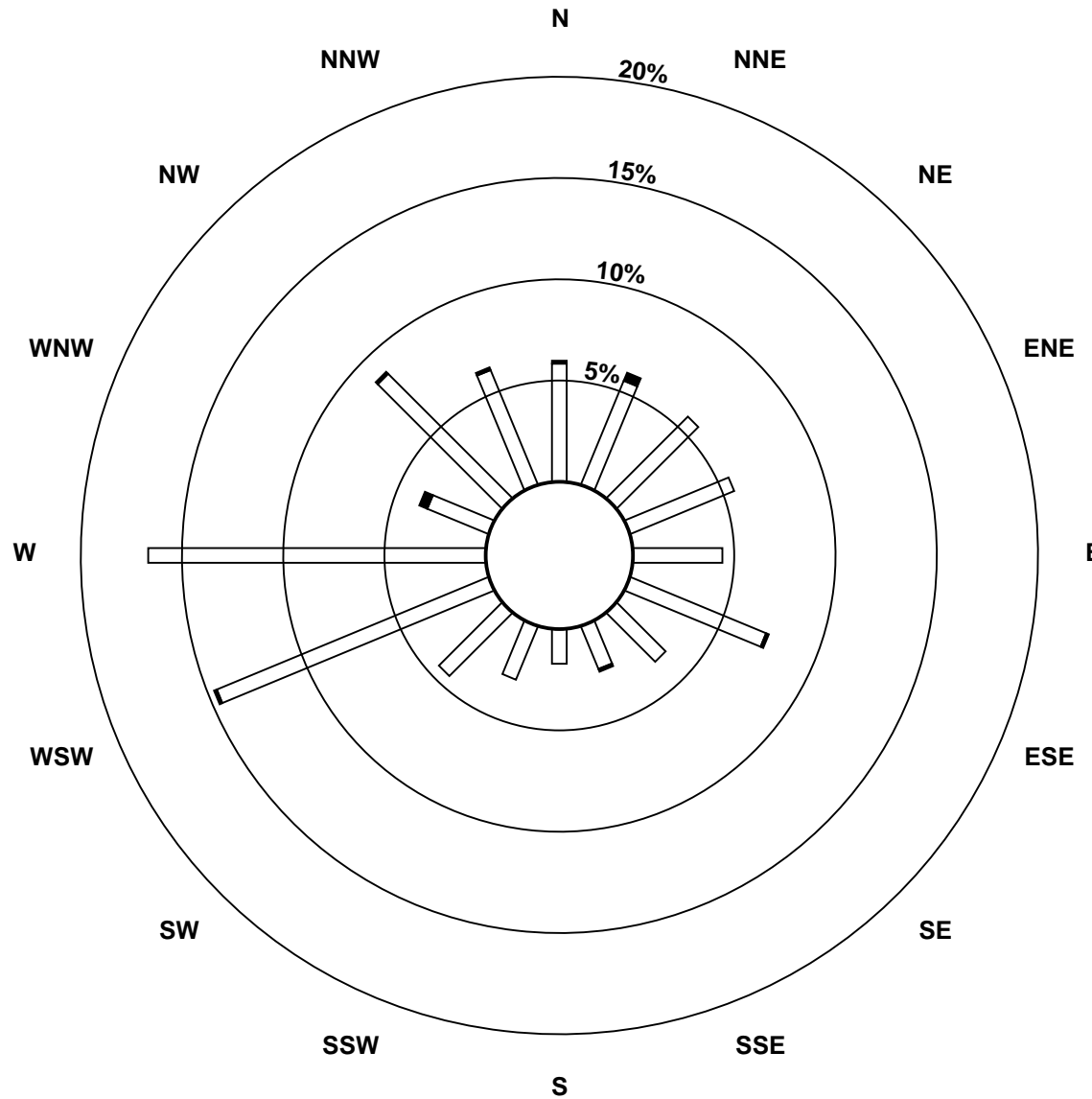
**Hourly Maximums**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Beaverlodge - January 2015**

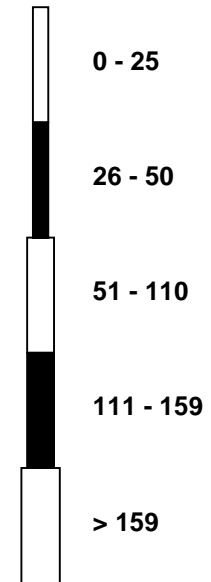


**Pollutant Rose**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Beaverlodge - January 2015**

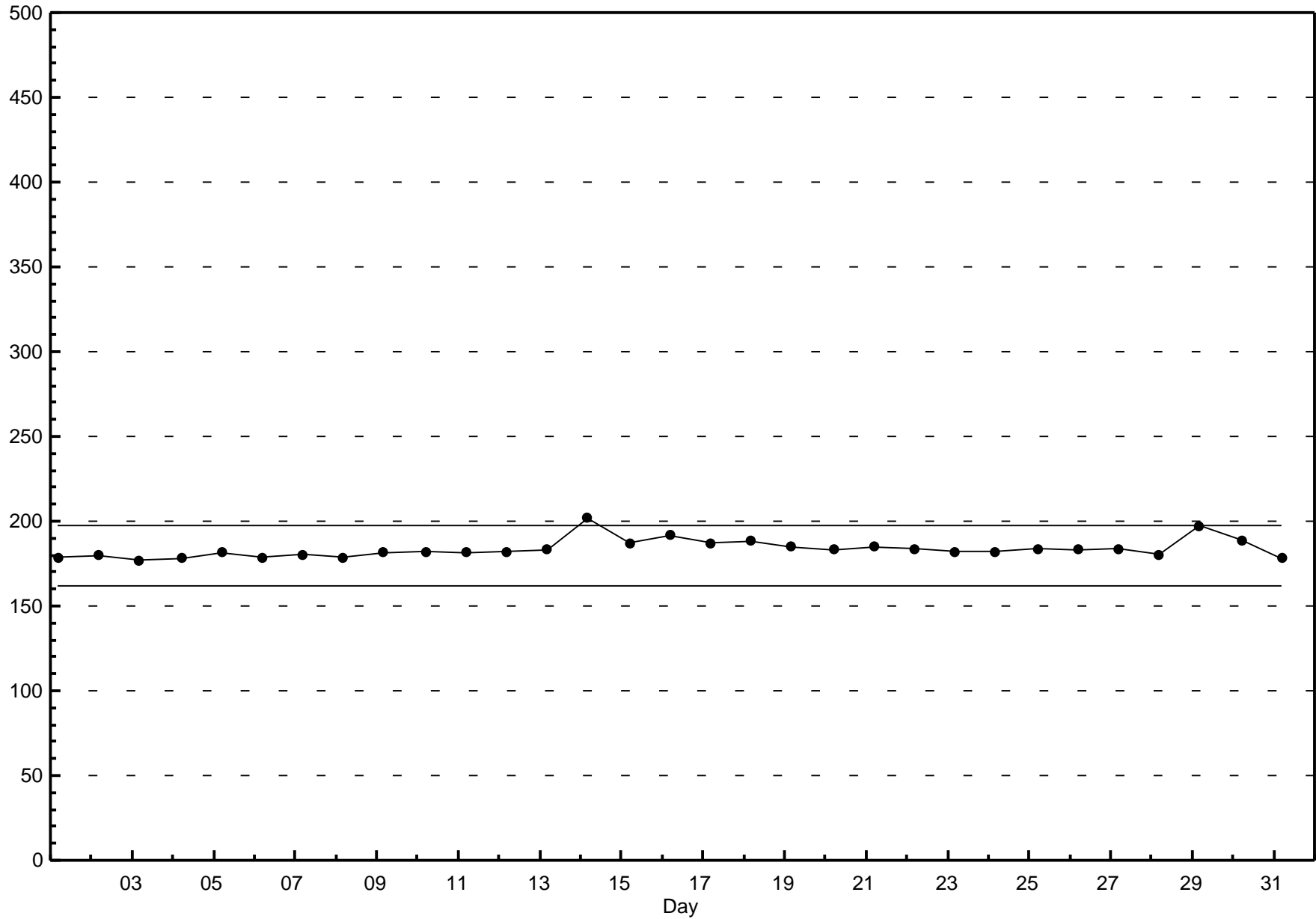


**Pollutant Classes (ppb)**



### Span Responses

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Beaverlodge - January 2015**





Peace Airshed Zone Association

# Hourly Averages

**Nitrogen Oxide (NO) - ppb**  
**Beaverlodge - January 2015**

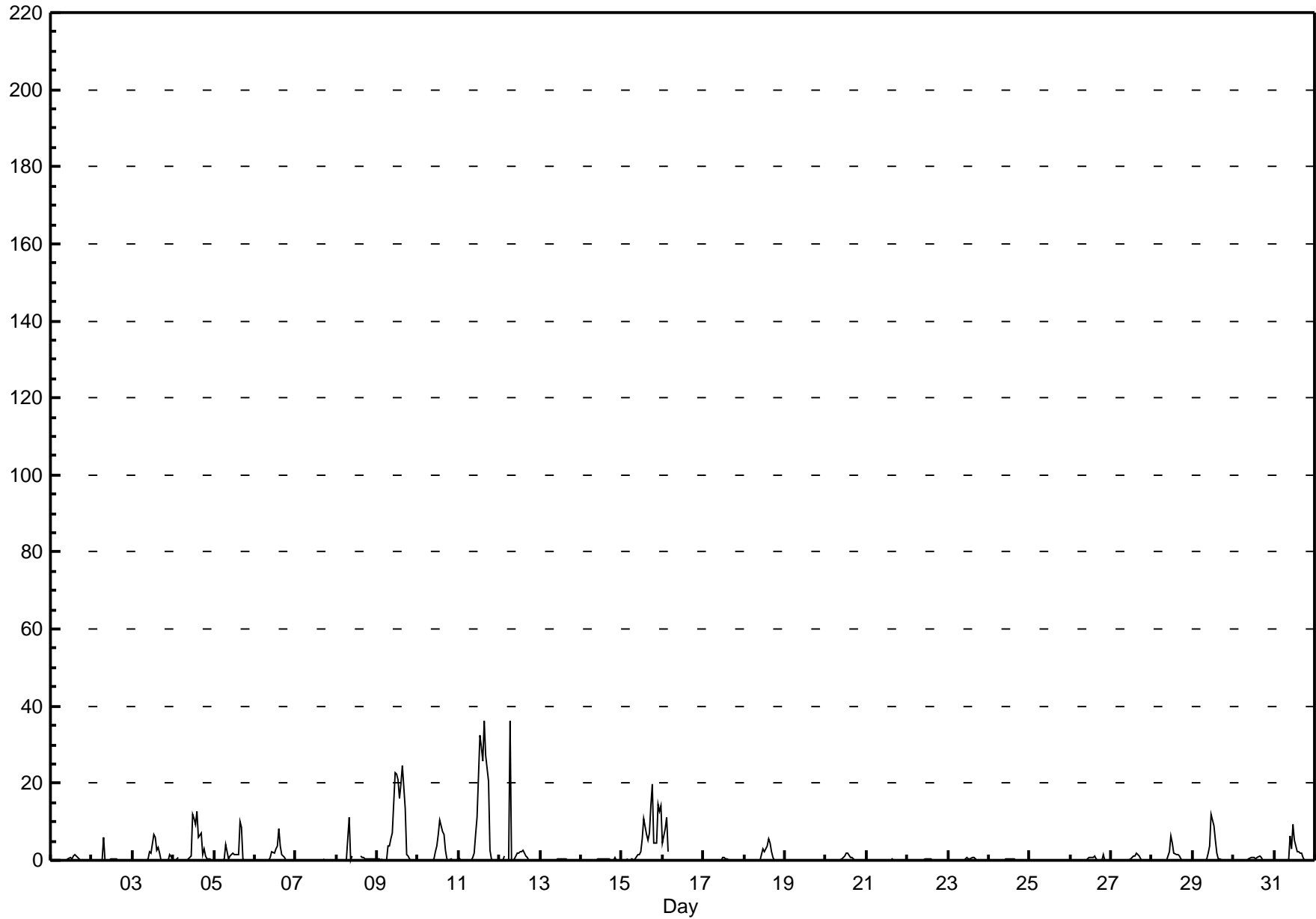
Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 36.2 ppb on Jan 11 16:00	Maximum Daily Average: 8.6 ppb on Jan 11		Hours of Data:	702
Minimum Value: 0 ppb on Jan 1 01:00	Minimum Daily Average: 0.1 ppb on Jan 25		Hours of Missing Data:	42
Maximum Diurnal Average: 4.1 ppb at hour 13	Minimum Diurnal Average: 0.1 ppb at hour 6		Hours of Calibration:	38
Monthly Average: 1.37 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 2.8 P <sub>99</sub> = 24.0		Percent Operational Time:	99.5

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-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	1	2	1	0	0	0	0	0	0	0	0	0.2	1.6
2-Jan	0	0	0	0	A	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	5.9
3-Jan	0	0	0	0	A	0	0	0	0	0	2	2	7	6	2	3	2	0	0	0	0	0	2	0	1.2	6.6
4-Jan	0	0	0	1	A	0	0	0	0	0	1	12	11	10	13	6	7	1	3	1	0	0	0	0	2.9	12.8
5-Jan	0	0	0	0	A	0	0	4	0	1	1	2	2	2	2	10	9	1	0	0	0	0	0	0	1.5	10.2
6-Jan	0	0	0	0	A	0	0	0	0	1	2	2	3	4	8	4	2	1	0	0	0	0	0	0	1.1	8.1
7-Jan	0	0	0	0	A	0	0	0	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	--	0.3
8-Jan	0	0	0	0	A	0	0	11	0	1	M	M	M	M	1	1	1	0	0	0	0	0	0	0	0.9	11.3
9-Jan	0	0	0	0	A	0	4	4	6	7	23	22	21	16	20	25	13	1	1	1	0	0	0	0	7.1	24.6
10-Jan	0	0	0	0	A	0	0	0	0	1	2	4	7	10	8	7	2	1	0	0	0	0	0	0	1.8	10.4
11-Jan	1	0	0	0	A	0	0	0	1	2	7	11	32	29	26	36	27	21	3	1	0	0	0	0	8.6	36.2
12-Jan	0	0	0	1	A	0	36	0	0	0	2	2	2	2	2	1	1	0	0	0	0	0	0	0	2.2	36.0
13-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
14-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0.2	0.9
15-Jan	0	0	0	0	A	0	1	0	1	1	2	2	6	11	7	5	7	14	20	5	4	14	13	14	5.5	19.9
16-Jan	5	8	11	2	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	11.3
17-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
18-Jan	0	0	0	0	A	0	0	0	0	0	1	3	2	4	5	4	2	1	0	0	0	0	0	0	1.0	5.5
19-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
20-Jan	0	0	0	0	A	0	0	0	0	0	1	1	2	2	1	1	0	0	0	0	0	0	0	0	0.4	1.8
21-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Jan	0	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
23-Jan	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0.2	0.9
24-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
25-Jan	0	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
26-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0.3	1.4
27-Jan	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	2	1	0	0	0	0	0	0	0	0.3	1.7
28-Jan	0	0	0	0	A	0	0	0	0	1	2	6	4	2	2	1	1	0	0	0	0	0	0	0	0.9	6.2
29-Jan	0	0	0	0	A	0	0	0	0	2	4	12	9	5	2	1	0	0	0	0	0	0	0	0	1.5	12.1
30-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.3	1.2
31-Jan	0	0	0	0	A	0	0	0	0	6	3	9	5	2	2	2	2	1	0	0	0	0	0	0	1.4	9.2
	0.2	0.3	0.4	0.2	--	0.1	1.3	0.9	0.3	0.9	2.0	3.3	4.1	3.8	3.6	3.8	2.6	1.4	0.9	0.3	0.2	0.5	0.5	0.5		Diurnal Average
	4.5	8.3	11.3	2.1	--	0.4	36.0	11.3	5.6	7.0	22.9	22.4	32.3	29.5	25.9	36.2	27.3	20.6	19.9	4.6	4.4	14.5	12.8	14.2		Diurnal Maximum

C - Calibration                      M - Maintenance                      A - Automated Daily Zero Span

**Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**Beaverlodge - January 2015**





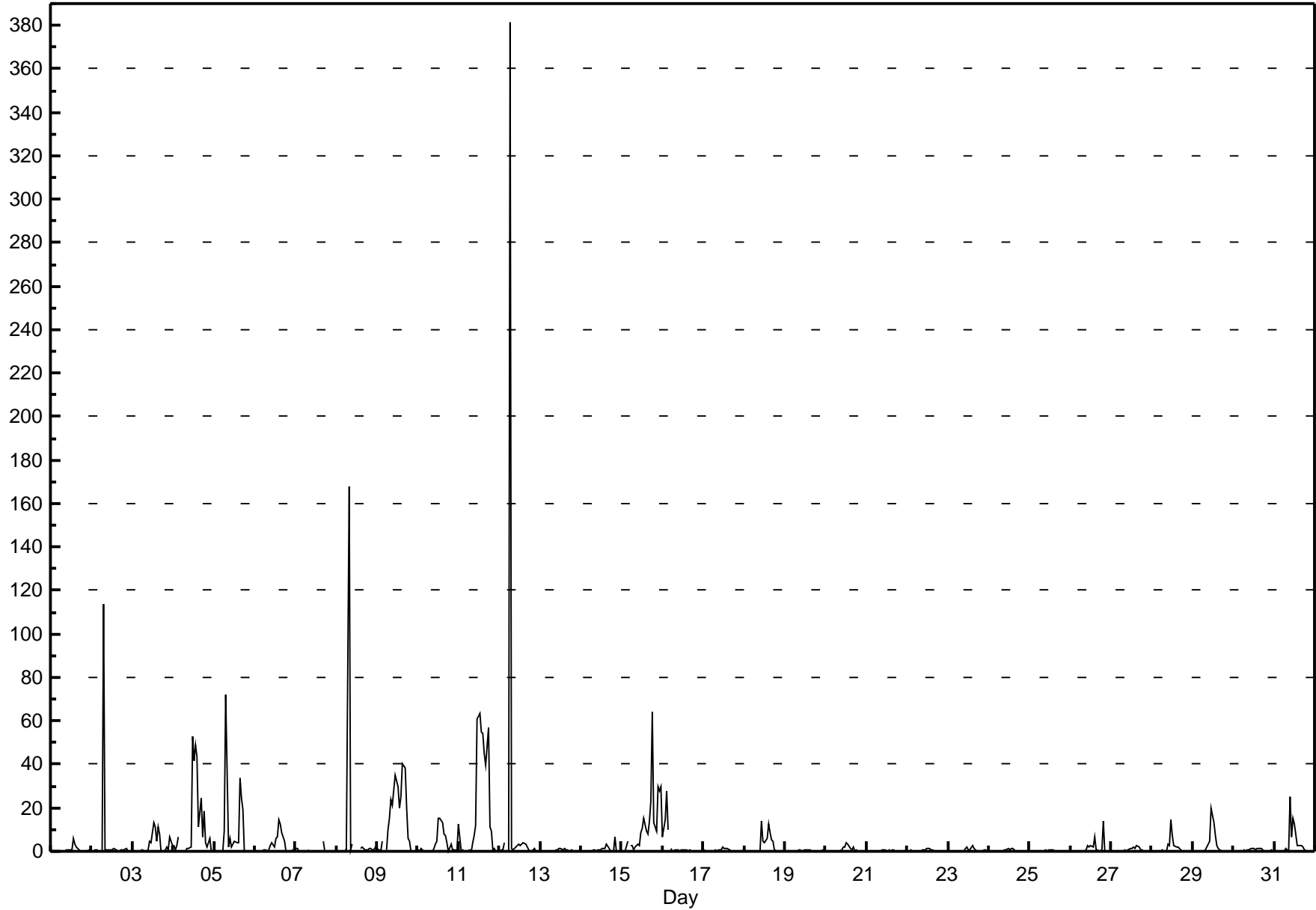
# Hourly Maximums

## Nitrogen Oxide (NO) - ppb Beaverlodge - January 2015

Maximum Value: 381.4 ppb on Jan 12 07:00		Maximum Daily Average: 18.9 ppb on Jan 11		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 19 04:00		Minimum Daily Average: 0.2 ppb on Jan 21		Hours of Data: 702																							
Maximum Diurnal Average: 13.2 ppb at hour 7		Minimum Diurnal Average: 0.3 ppb at hour 6		Hours of Missing Data: 42																							
Monthly Average: 4.19 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.3 Q <sub>3</sub> = 1.6 P <sub>90</sub> = 8.7 P <sub>99</sub> = 59.3		Hours of Calibration: 38																							
Percent Operational Time: 99.5																											
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-Jan	0	0	0	0	A	0	0	0	0	1	1	1	1	6	3	2	1	0	0	0	0	0	0	0	0.7	5.8	
2-Jan	0	0	1	1	A	0	0	113	1	1	0	1	1	1	1	0	0	0	0	0	0	1	0	0	5.4	113.4	
3-Jan	0	0	0	0	A	0	1	0	0	1	4	4	13	11	5	11	8	0	0	1	2	1	6	3	3.1	13.0	
4-Jan	3	0	3	7	A	0	0	0	1	1	2	53	41	49	44	11	24	7	18	4	2	6	0	0	12.1	52.6	
5-Jan	0	0	0	0	A	0	9	72	2	6	2	3	5	4	4	34	24	19	0	0	0	0	0	0	8.1	71.9	
6-Jan	0	0	0	0	A	1	0	0	0	2	4	2	6	6	15	13	8	5	0	0	0	0	0	1	2.8	14.6	
7-Jan	1	1	0	0	A	0	0	0	1	C	C	C	C	C	C	C	5	0	0	0	0	0	0	0	--	4.6	
8-Jan	0	0	0	0	A	1	0	168	1	4	M	M	M	M	1	2	2	1	1	1	1	0	1	3	9.8	168.0	
9-Jan	1	1	0	4	A	1	10	15	24	21	35	32	30	20	25	40	38	20	6	5	0	0	0	0	14.3	40.0	
10-Jan	0	0	1	0	A	0	0	0	0	1	4	5	15	15	13	8	7	4	0	3	0	0	1	0	3.5	15.3	
11-Jan	13	0	1	0	A	0	0	0	4	7	12	61	63	55	54	45	39	57	11	9	1	1	0	0	18.9	63.2	
12-Jan	0	0	1	4	A	0	381	1	1	1	2	3	3	3	4	3	2	1	0	0	1	0	0	0	18.0	381.4	
13-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.3	
14-Jan	0	0	0	0	A	0	0	0	1	0	1	1	2	1	1	3	1	0	0	0	7	0	0	0	0.8	6.9	
15-Jan	0	0	0	5	A	3	3	1	2	3	3	8	11	15	9	8	14	23	64	13	9	30	28	30	12.2	64.0	
16-Jan	7	15	27	10	A	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.9	27.5	
17-Jan	1	0	0	0	A	0	0	1	0	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0.5	2.1	
18-Jan	0	0	0	0	A	0	0	0	0	0	14	5	4	6	12	9	6	5	1	0	0	0	0	0	2.7	13.6	
19-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0	0.3	0.8	
20-Jan	0	0	0	0	A	0	0	0	0	1	2	2	4	4	1	1	2	0	0	0	0	0	0	0	0.8	3.8	
21-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.2	0.6	
22-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.4	1.5	
23-Jan	0	0	0	0	A	0	0	0	0	0	1	2	1	1	2	1	1	0	0	0	0	0	1	0	0.5	2.4	
24-Jan	0	0	0	0	A	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	1.5	
25-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0.2	0.7	
26-Jan	0	0	0	0	A	0	0	0	0	0	2	2	3	2	6	1	1	0	1	14	0	0	0	0	1.5	14.2	
27-Jan	0	0	0	0	A	0	0	0	0	0	0	1	1	2	2	2	2	1	1	0	0	0	0	0	0.6	2.4	
28-Jan	0	0	0	0	A	0	1	0	0	4	3	15	7	3	2	2	1	1	0	0	0	0	0	0	1.7	14.7	
29-Jan	0	0	0	0	A	0	0	0	2	3	5	20	14	7	3	1	1	0	0	0	0	0	0	0	2.5	19.8	
30-Jan	0	0	0	0	A	0	0	0	0	0	1	1	2	1	1	2	2	0	0	0	0	0	0	0	0.6	1.6	
31-Jan	0	0	0	0	A	0	0	1	0	25	6	15	12	3	3	3	3	2	1	0	0	0	0	0	3.3	25.1	
		0.9	0.7	1.2	1.1	--	0.3	13.2	12.2	1.4	2.9	3.7	8.4	8.4	7.6	7.3	6.9	6.2	4.8	3.5	1.7	0.9	1.3	1.3	1.3	Diurnal Average	
		12.8	14.8	27.5	10.1	--	2.8	381.4	168.0	24.1	25.1	35.0	60.6	63.2	54.8	54.1	44.8	39.5	56.6	64.0	14.2	9.0	29.7	27.6	29.7	Diurnal Maximum	
C - Calibration					M - Maintenance					A - Automated Daily Zero Span																	

### Hourly Maximums

Nitrogen Oxide (NO) - ppb  
Beaverlodge - January 2015



# Hourly Averages

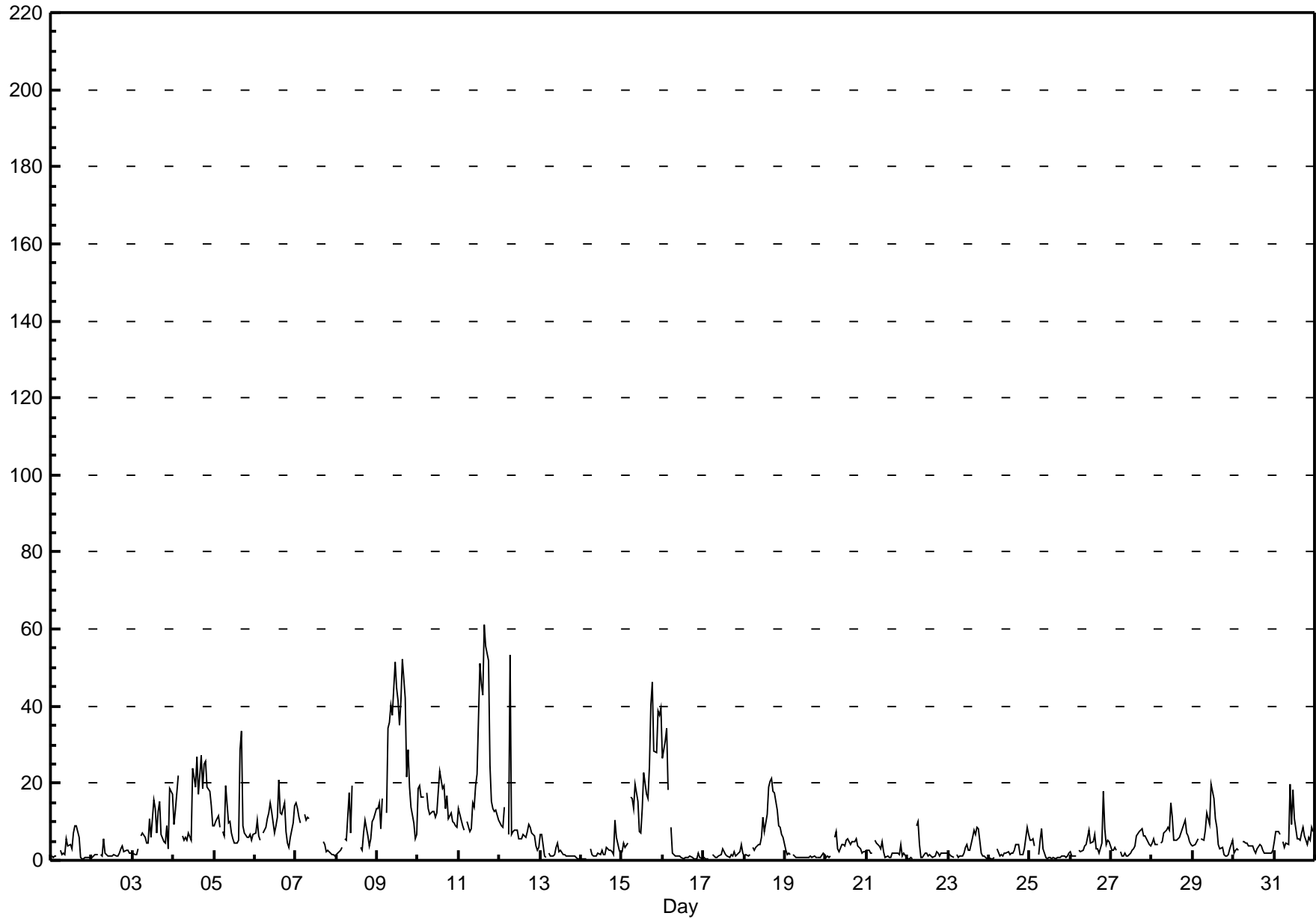
## Oxides of Nitrogen (NO<sub>x</sub>) - ppb

### Beaverlodge - January 2015

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 61.0 ppb on Jan 11 16:00	Maximum Daily Average: 27.3 ppb on Jan 9		Hours of Data:	702
Minimum Value: 0 ppb on Jan 22 04:00	Minimum Daily Average: 1.1 ppb on Jan 19		Hours of Missing Data:	42
Maximum Diurnal Average: 10.6 ppb at hour 17	Minimum Diurnal Average: 5.4 ppb at hour 4		Hours of Calibration:	38
Monthly Average: 7.27 ppb	Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 0.8 Q <sub>1</sub> = 1.6 Median = 4.2 Q <sub>3</sub> = 8.8 P <sub>90</sub> = 17.6 P <sub>99</sub> = 51.2		Percent Operational Time:	99.5

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-Jan	1	1	1	1	A	3	2	2	1	6	4	4	3	7	9	9	6	1	0	0	1	1	1	1	2.8	9.0
2-Jan	1	1	2	1	A	1	1	6	2	1	1	1	1	1	1	1	2	3	4	2	3	2	2	2	1.8	5.7
3-Jan	2	1	2	3	A	6	7	6	4	4	11	6	16	14	7	13	15	7	5	4	9	3	19	17	7.9	18.8
4-Jan	9	13	17	22	A	6	5	6	5	7	5	24	22	19	27	17	27	19	25	26	19	18	14	9	15.7	27.4
5-Jan	9	10	12	9	A	7	6	19	10	10	7	5	5	5	5	29	34	9	7	6	6	7	5	7	9.9	33.6
6-Jan	7	10	6	5	A	7	9	11	12	15	13	7	9	11	21	12	12	15	8	5	3	6	10	14	9.9	21.0
7-Jan	15	13	11	10	A	12	11	11	11	C	C	C	C	C	C	C	5	4	2	3	2	2	2	1	--	14.7
8-Jan	2	2	2	3	A	6	5	17	7	19	M	M	M	M	3	3	7	11	6	4	6	10	11	14	7.3	19.3
9-Jan	14	15	8	16	A	12	34	36	40	38	51	45	41	35	41	52	42	22	29	19	14	10	6	7	27.3	52.3
10-Jan	19	19	16	16	A	18	14	12	13	13	11	12	18	23	19	19	13	17	11	12	10	10	9	8	14.5	23.2
11-Jan	13	10	9	8	A	10	7	8	15	14	19	22	51	46	43	61	56	52	25	15	13	13	13	11	23.3	61.0
12-Jan	10	9	9	14	A	7	53	7	8	8	8	6	6	6	7	6	7	9	8	7	6	4	3	3	9.1	53.3
13-Jan	7	7	1	1	A	2	1	1	1	3	5	2	3	1	1	1	1	1	1	1	1	1	1	0	2.0	6.9
14-Jan	0	0	0	0	A	3	2	1	1	1	2	2	3	1	1	3	3	2	2	1	10	6	3	2	2.2	10.3
15-Jan	2	4	3	4	A	16	16	13	20	15	7	7	13	23	17	16	24	40	46	28	28	39	38	40	20.1	46.3
16-Jan	26	31	34	18	A	9	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	2	1	0	5.9	34.2
17-Jan	1	0	0	0	A	2	1	1	1	1	1	3	2	1	1	1	1	1	2	1	1	2	4	2	1.4	4.1
18-Jan	1	1	1	1	A	3	3	3	4	4	6	11	8	12	19	20	21	18	17	13	9	9	7	6	8.7	21.4
19-Jan	3	1	2	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.1	2.5
20-Jan	1	1	1	1	A	6	8	3	2	4	4	4	5	6	4	5	5	5	6	4	3	2	2	2	3.6	7.6
21-Jan	3	3	2	2	A	5	4	4	3	5	2	1	1	1	2	2	2	2	2	2	4	1	2	1	2.3	5.3
22-Jan	0	0	1	0	A	9	10	4	1	1	2	2	1	2	1	1	1	2	2	1	2	2	2	2	2.1	10.1
23-Jan	2	2	1	1	A	2	1	1	1	2	3	4	3	2	6	8	7	9	8	2	1	1	1	0	2.9	8.8
24-Jan	1	0	1	1	A	3	1	2	1	2	2	2	2	2	2	2	4	4	1	1	1	3	8	7	2.3	8.4
25-Jan	5	5	6	4	A	2	5	8	3	1	1	1	1	1	0	1	1	1	1	1	1	1	1	2	2.2	8.3
26-Jan	2	1	1	1	A	3	2	3	4	4	6	8	5	5	7	3	3	2	4	18	8	4	5	5	4.5	17.7
27-Jan	3	3	3	2	A	2	1	1	2	1	1	2	2	3	4	6	7	8	8	6	6	5	4	4	3.8	8.2
28-Jan	5	5	4	4	A	5	5	7	8	9	8	15	11	5	5	6	6	7	8	10	7	6	5	4	6.7	14.7
29-Jan	4	4	5	6	A	6	5	8	12	11	9	20	16	11	8	4	3	3	1	1	1	1	3	5	6.4	19.7
30-Jan	2	3	3	3	A	5	5	4	5	4	4	4	3	2	3	4	4	3	2	2	2	2	2	3	3.1	5.0
31-Jan	5	7	8	7	A	5	3	4	4	20	9	18	11	5	6	5	7	8	6	4	6	5	9	8	7.4	19.6
	5.6	6.0	5.6	5.4	--	5.9	7.4	6.8	6.5	7.4	7.0	8.3	9.0	8.7	9.1	10.4	10.6	9.2	8.1	6.5	6.0	5.7	6.2	6.0		Diurnal Average
	26.5	31.1	34.2	22.2	--	17.6	53.3	35.6	40.3	37.6	51.3	44.8	51.2	45.9	43.0	61.0	55.5	51.9	46.3	28.2	27.9	38.8	37.8	39.6		Diurnal Maximum

C - Calibration                      M - Maintenance                      A - Automated Daily Zero Span



# Hourly Maximums

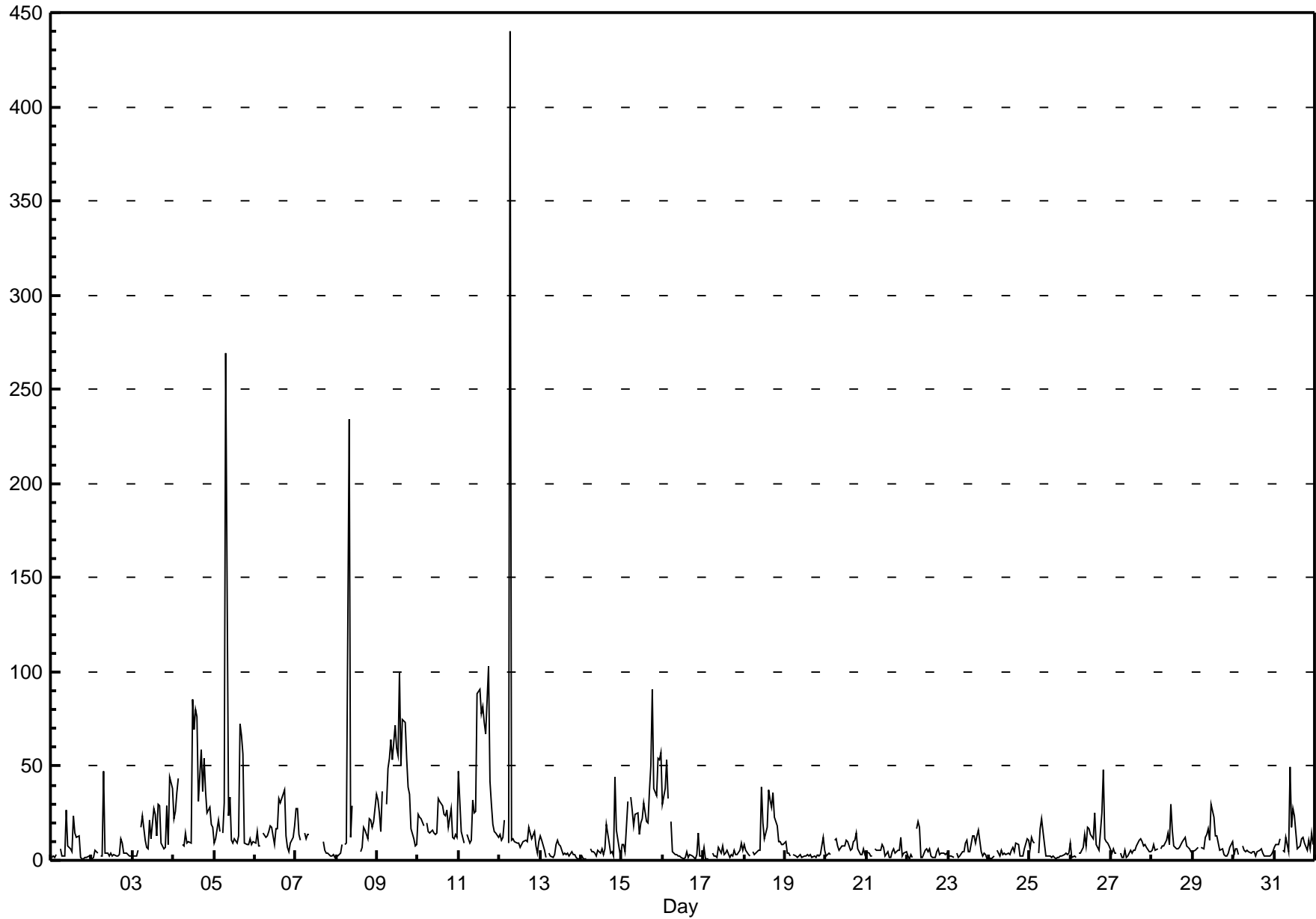
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Beaverlodge - January 2015

Maximum Value: 440.3 ppb on Jan 12 07:00		Maximum Daily Average: 44.2 ppb on Jan 9		Hours in Service: 744																							
Minimum Value: 1 ppb on Jan 14 03:00		Minimum Daily Average: 3.4 ppb on Jan 19		Hours of Data: 702																							
Maximum Diurnal Average: 27.0 ppb at hour 8		Minimum Diurnal Average: 9.0 ppb at hour 3		Hours of Missing Data: 42																							
Monthly Average: 14.16 ppb		Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 2.0 Q <sub>1</sub> = 3.3 Median = 7.3 Q <sub>3</sub> = 14.7 P <sub>90</sub> = 31.7 P <sub>99</sub> = 91.0		Hours of Calibration: 38																							
				Percent Operational Time: 99.5																							
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-Jan	2	2	1	3	A	6	3	2	3	27	8	6	5	24	15	12	13	1	1	1	1	1	2	1	6.0	26.5	
2-Jan	1	1	5	4	A	3	2	47	4	4	2	4	3	3	2	2	3	12	9	4	4	3	2	2	5.5	47.2	
3-Jan	2	2	2	5	A	18	23	11	7	6	21	11	27	25	13	30	29	9	6	7	29	8	45	38	16.2	44.5	
4-Jan	22	26	36	44	A	8	7	14	9	10	9	86	69	80	76	32	59	36	54	37	25	28	19	18	35.1	85.6	
5-Jan	9	12	21	15	A	14	30	269	24	34	10	9	12	9	13	73	67	57	9	9	9	11	8	10	31.9	269.5	
6-Jan	9	15	8	8	A	14	12	13	16	18	17	8	17	17	33	31	33	37	13	7	5	9	12	18	16.0	37.1	
7-Jan	27	27	14	10	A	14	11	14	13	C	C	C	C	C	C	C	10	5	4	4	3	3	3	2	--	27.3	
8-Jan	2	2	4	9	A	8	9	234	13	29	M	M	M	M	5	7	18	16	11	22	21	18	20	35	25.5	234.1	
9-Jan	32	25	15	37	A	30	49	54	64	54	72	59	55	100	51	75	73	54	39	35	17	11	8	8	44.2	99.6	
10-Jan	24	23	22	18	A	20	15	14	16	15	14	14	33	31	29	25	24	27	17	28	12	12	14	12	20.0	32.9	
11-Jan	47	15	12	9	A	14	9	11	32	25	26	88	91	78	82	73	67	103	42	30	19	15	15	12	39.8	102.8	
12-Jan	14	11	12	22	A	9	440	11	11	10	9	9	7	8	10	11	10	18	15	12	15	8	4	10	29.8	440.3	
13-Jan	13	10	5	1	A	4	3	2	3	9	11	9	7	3	4	3	3	2	4	3	3	2	1	1	4.6	12.7	
14-Jan	2	1	1	1	A	6	4	4	4	2	5	4	6	3	6	19	9	4	5	3	45	16	6	3	6.9	44.6	
15-Jan	8	8	4	31	A	33	27	18	25	25	14	20	22	31	21	20	37	50	91	38	34	54	54	57	31.4	91.1	
16-Jan	30	38	53	33	A	20	4	3	3	3	2	2	1	2	5	2	3	2	2	1	3	15	3	2	10.0	53.4	
17-Jan	7	1	1	1	A	4	2	2	2	7	4	8	3	3	5	2	3	3	5	3	3	6	9	5	3.8	8.9	
18-Jan	9	6	3	2	A	4	3	4	5	5	39	20	11	17	37	32	29	36	23	18	10	10	8	9	14.8	38.7	
19-Jan	10	4	4	3	A	3	2	2	2	3	2	2	2	3	3	3	1	2	2	3	3	3	12	5	3.4	12.0	
20-Jan	3	3	4	3	A	10	12	7	5	8	8	8	10	10	5	6	10	11	15	6	3	3	6	3	6.9	14.7	
21-Jan	5	4	2	3	A	6	6	6	5	9	7	2	4	2	1	4	6	4	5	5	12	3	4	5	4.7	11.9	
22-Jan	2	1	3	1	A	17	21	17	2	2	5	6	5	6	2	2	2	5	6	3	3	4	3	4	5.3	20.9	
23-Jan	3	3	2	2	A	3	2	3	5	5	9	11	5	4	13	13	9	13	16	4	2	4	3	1	5.8	16.1	
24-Jan	2	1	2	2	A	6	2	5	3	4	3	4	3	5	7	5	9	8	2	2	2	6	11	11	4.6	11.2	
25-Jan	6	12	10	9	A	4	17	22	15	2	2	2	2	1	2	1	2	1	3	2	3	4	3	4	5.6	21.8	
26-Jan	9	2	2	2	A	4	4	7	14	8	18	17	14	11	25	9	7	5	25	48	11	10	9	8	11.6	47.9	
27-Jan	4	6	4	4	A	3	1	2	5	1	2	5	4	6	5	8	10	11	10	8	8	7	5	4	5.4	11.4	
28-Jan	5	8	5	6	A	6	8	8	10	15	9	30	16	7	6	6	7	9	10	12	8	7	6	5	9.0	29.6	
29-Jan	4	5	6	7	A	7	6	12	14	16	11	30	23	13	13	9	5	6	3	3	2	4	7	10	9.4	29.7	
30-Jan	3	6	6	3	A	7	5	5	5	4	4	4	5	2	4	5	6	4	2	3	3	2	3	5	4.3	7.3	
31-Jan	7	8	9	11	A	5	4	12	4	49	18	28	24	6	7	8	11	12	9	5	11	6	14	8	12.1	49.5	
		10.4	9.4	9.0	9.9	--	10.0	24.0	27.0	11.0	13.6	12.5	17.5	16.8	17.6	16.6	17.5	18.5	18.2	14.8	11.8	10.6	9.4	10.3	10.1	Diurnal Average	
		47.1	38.5	53.4	43.6	--	33.3	440.3	269.5	63.9	53.7	72.0	88.4	91.1	99.6	81.5	74.7	73.2	102.8	91.1	47.9	44.6	54.2	53.7	57.0	Diurnal Maximum	
C - Calibration					M - Maintenance					A - Automated Daily Zero Span																	

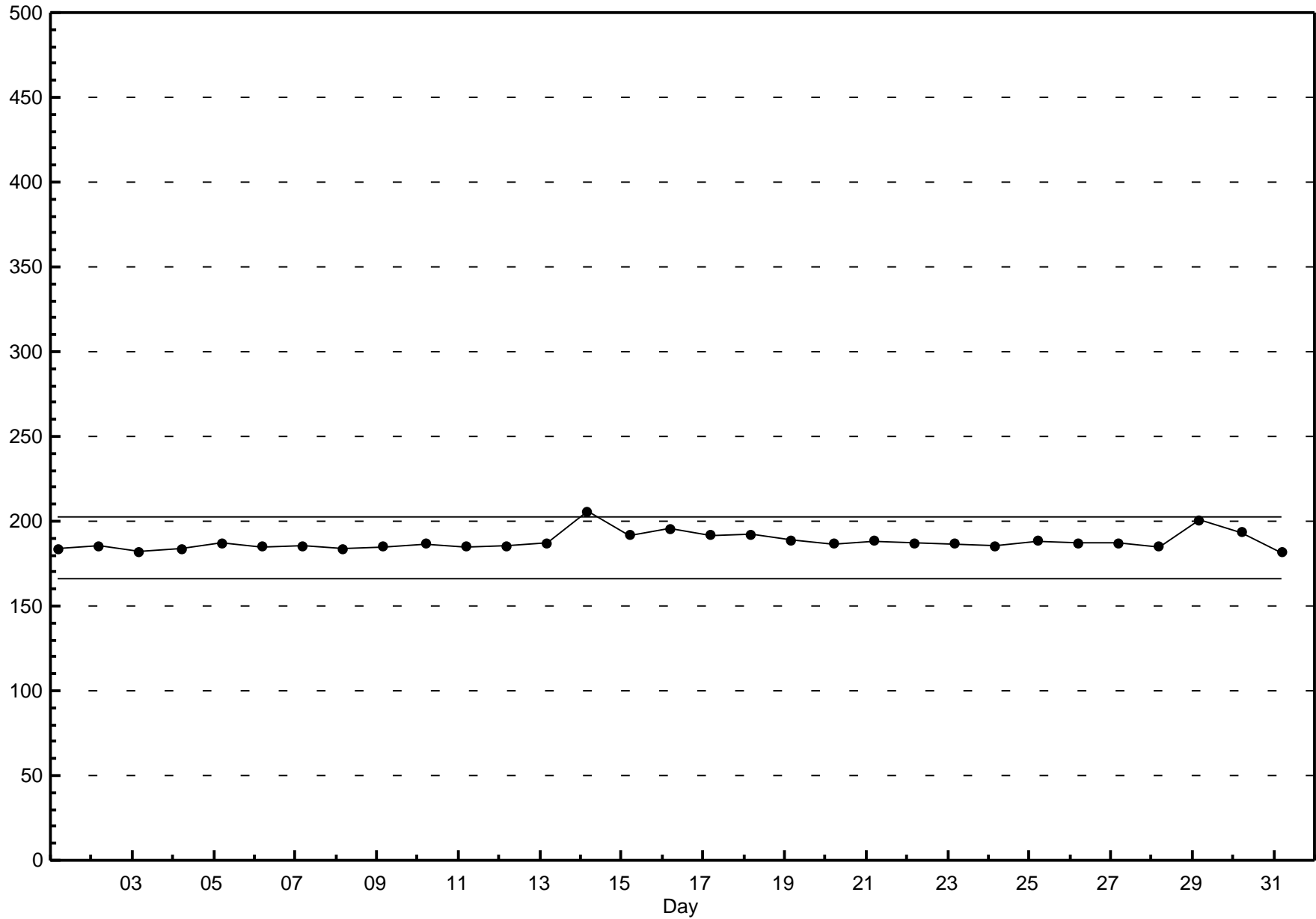
### Hourly Maximums

Oxides of Nitrogen (NO<sub>x</sub>) - ppb  
Beaverlodge - January 2015



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Beaverlodge - January 2015





Peace Airshed Zone Association

# Hourly Averages

Ozone (O<sub>3</sub>) - ppb

Beaverlodge - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 39.6 ppb on Jan 25 22:00	Maximum Daily Average: 37.0 ppb on Jan 17		Hours of Data:	705
Minimum Value: 1 ppb on Jan 15 23:00	Minimum Daily Average: 12.3 ppb on Jan 15		Hours of Missing Data:	39
Maximum Diurnal Average: 28.7 ppb at hour 14	Minimum Diurnal Average: 26.0 ppb at hour 18		Hours of Calibration:	35
Monthly Average: 27.27 ppb	Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 14.7 Q <sub>1</sub> = 19.7 Median = 30.2 Q <sub>3</sub> = 34.8 P <sub>90</sub> = 37.0 P <sub>99</sub> = 39.1		Percent Operational Time:	99.5

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-Jan	38	38	37	36	A	36	36	36	36	32	33	32	34	30	27	27	28	33	36	38	37	36	35	35	34.3	38.2
2-Jan	35	35	34	34	A	35	35	34	34	34	35	35	35	34	35	34	33	33	31	32	32	33	34	34	33.9	35.5
3-Jan	34	35	34	33	A	31	30	31	32	32	29	32	29	30	31	27	23	29	30	30	26	31	19	19	29.5	34.5
4-Jan	25	22	19	15	A	26	27	26	26	24	27	22	23	24	19	20	14	17	13	10	14	16	18	24	20.5	26.7
5-Jan	24	24	22	24	A	27	29	24	26	27	29	31	32	32	32	22	16	28	30	32	32	30	30	29	27.5	32.2
6-Jan	28	25	29	30	A	27	24	21	21	19	22	28	29	28	22	26	25	22	28	30	30	26	21	16	25.1	30.3
7-Jan	15	18	19	19	A	17	16	15	15	16	18	19	21	M	M	M	M	19	25	27	29	31	32	33	21.2	32.5
8-Jan	33	33	33	33	A	32	33	32	31	C	C	C	32	32	A	33	29	26	29	31	29	25	24	22	30.2	33.1
9-Jan	21	20	26	18	A	21	6	5	2	6	10	15	16	18	14	10	7	12	6	13	20	25	30	27	15.1	29.5
10-Jan	12	9	13	13	A	10	15	17	17	17	19	19	19	18	19	17	18	14	18	17	18	19	20	20	16.5	20.1
11-Jan	16	18	18	19	A	17	19	18	12	14	15	16	13	14	14	9	5	2	6	11	10	10	9	12	13.0	19.5
12-Jan	14	16	18	15	A	22	21	22	21	21	22	24	25	26	25	25	24	22	24	26	28	29	30	30	23.0	30.3
13-Jan	28	29	34	34	A	36	36	37	37	35	33	35	35	36	36	36	36	35	34	34	34	35	35	35	34.5	36.7
14-Jan	35	35	35	35	A	34	35	35	34	34	34	32	32	34	35	34	35	34	34	35	27	29	33	34	33.6	35.5
15-Jan	33	30	31	30	A	14	12	13	7	11	17	18	15	13	14	12	8	1	1	1	1	1	1	1	12.3	33.5
16-Jan	1	1	1	9	A	27	32	32	32	32	34	36	37	37	37	37	36	36	36	37	38	37	37	37	29.5	38.0
17-Jan	37	38	38	38	A	37	36	36	35	34	35	33	34	37	39	40	39	39	38	39	39	38	37	38	37.0	39.5
18-Jan	39	39	38	38	A	36	36	35	34	36	36	28	32	31	27	24	21	20	20	21	25	24	26	26	30.1	39.1
19-Jan	30	30	29	31	A	35	36	36	37	37	37	37	37	37	37	37	37	37	37	36	36	36	35	35	35.4	37.3
20-Jan	35	35	35	35	A	32	31	34	34	33	34	33	33	33	33	33	33	33	32	34	35	35	35	35	33.7	35.4
21-Jan	35	35	36	36	A	32	31	33	36	35	37	38	37	37	37	36	36	36	35	36	33	36	35	36	35.3	37.8
22-Jan	36	36	35	35	A	32	32	34	35	35	33	33	35	35	35	36	36	35	35	37	36	36	35	35	34.8	36.5
23-Jan	34	35	37	37	A	34	35	34	35	34	32	32	33	34	30	29	30	29	28	30	31	29	29	29	32.2	37.0
24-Jan	28	31	33	33	A	35	37	37	37	36	36	37	37	37	37	37	36	35	38	39	40	37	31	32	35.4	39.5
25-Jan	32	32	29	27	A	31	33	34	36	37	37	37	38	38	39	39	39	39	38	38	39	40	40	38	36.1	39.6
26-Jan	37	38	38	37	A	39	39	37	36	36	33	31	32	31	30	33	31	31	27	13	22	29	25	23	31.7	39.2
27-Jan	23	24	27	30	A	29	29	27	25	25	24	23	23	22	21	19	18	16	15	16	16	16	18	19	21.9	29.5
28-Jan	18	17	18	18	A	20	19	14	13	14	16	15	16	19	19	19	18	17	16	14	16	16	17	18	16.7	19.7
29-Jan	18	17	16	15	A	15	14	11	7	8	10	10	15	19	23	32	33	33	35	34	33	34	32	31	21.6	35.2
30-Jan	34	32	31	25	A	20	16	16	16	18	19	20	21	21	21	20	20	24	26	26	26	26	26	24	22.9	33.8
31-Jan	18	16	16	18	A	22	23	22	22	14	20	18	22	24	23	23	22	20	21	24	21	21	17	19	20.3	23.9

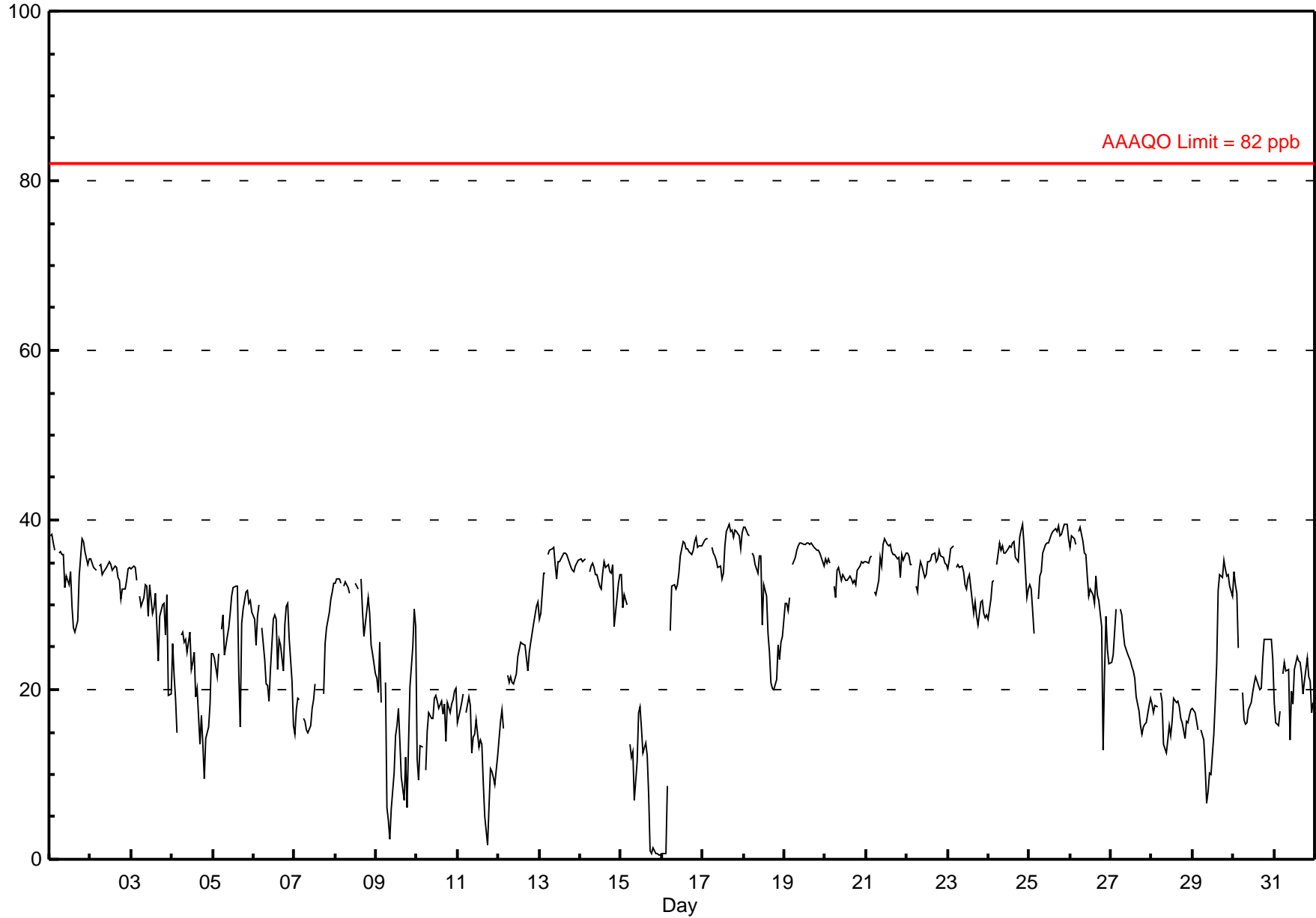
27.5	27.2	27.7	27.4	--	27.7	27.5	26.9	26.5	26.2	27.2	27.3	28.1	28.7	28.0	27.6	26.2	26.0	26.6	27.1	27.6	27.8	27.2	27.3	Diurnal Average
39.1	39.1	38.3	38.1	--	38.6	39.2	37.4	37.0	37.3	37.3	37.8	37.8	38.4	38.7	39.5	38.7	39.3	38.1	38.9	39.5	39.6	39.5	38.4	Diurnal Maximum

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 (O<sub>3</sub>) - ppb  
Beaverlodge - January 2015



# Hourly Maximums

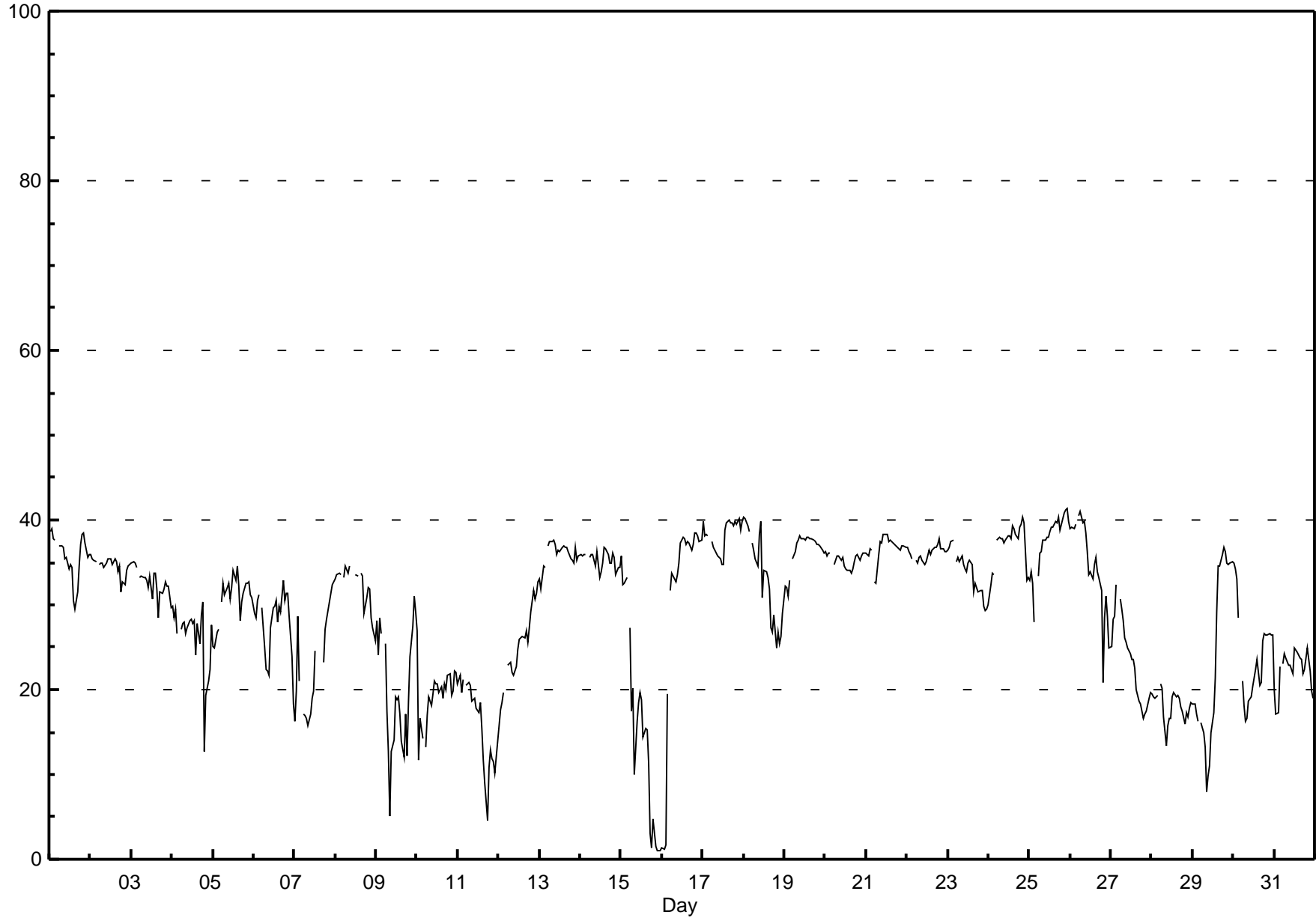
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - January 2015

Maximum Value: 41.4 ppb on Jan 25 23:00		Maximum Daily Average: 38.1 ppb on Jan 17		Hours in Service: 744																						
Minimum Value: 1 ppb on Jan 15 23:00		Minimum Daily Average: 15.3 ppb on Jan 15		Hours of Data: 705																						
Maximum Diurnal Average: 30.4 ppb at hour 14		Minimum Diurnal Average: 28.1 ppb at hour 9		Hours of Missing Data: 39																						
Monthly Average: 29.39 ppb		Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 17.3 Q <sub>1</sub> = 22.9 Median = 32.5 Q <sub>3</sub> = 36.0 P <sub>90</sub> = 37.8 P <sub>99</sub> = 40.3		Hours of Calibration: 35																						
				Percent Operational Time: 99.5																						
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-Jan	39	39	38	38	A	37	37	37	37	35	36	34	35	34	31	30	32	35	37	38	39	37	36	36	35.8	39.0
2-Jan	36	35	35	35	A	35	35	35	34	35	35	35	35	35	35	34	35	32	33	32	34	35	35	35	34.6	35.9
3-Jan	35	35	35	34	A	33	33	33	33	33	32	33	31	34	34	32	28	32	31	32	33	32	32	30	32.6	35.1
4-Jan	30	28	29	27	A	27	28	28	27	27	28	28	28	24	28	25	29	30	13	19	21	22	28	28	26.2	30.3
5-Jan	25	25	27	27	A	30	33	31	32	32	31	32	34	33	35	32	28	30	31	33	32	33	31	31	30.8	34.7
6-Jan	29	29	30	31	A	30	25	22	22	22	27	30	30	31	28	30	29	33	31	31	31	29	24	18	27.9	33.0
7-Jan	16	20	29	21	A	17	17	17	16	17	19	20	25	M	M	M	M	23	27	28	30	31	32	33	23.1	32.8
8-Jan	33	34	34	34	A	33	35	34	35	C	C	C	34	33	A	34	33	29	31	32	32	28	27	26	32.0	34.5
9-Jan	28	24	28	27	A	25	17	13	5	13	14	19	19	19	17	14	12	17	12	19	24	28	31	29	19.8	30.9
10-Jan	27	12	17	14	A	13	17	19	18	20	21	21	21	20	20	19	21	20	22	22	19	20	22	22	19.4	27.0
11-Jan	21	22	20	21	A	20	21	20	19	19	19	18	17	18	15	12	9	5	11	13	12	12	10	14	16.0	21.7
12-Jan	16	18	18	20	A	23	23	23	22	22	23	25	26	26	26	26	27	26	27	29	32	31	31	33	24.9	32.7
13-Jan	33	32	35	34	A	37	37	37	38	37	36	36	36	37	37	37	37	36	35	35	35	37	35	36	35.9	37.6
14-Jan	36	36	36	36	A	36	36	36	35	35	36	33	34	35	37	37	36	35	35	36	36	34	34	34	35.3	36.8
15-Jan	36	32	33	33	A	27	17	20	10	16	18	20	19	14	15	15	11	3	1	5	2	1	1	1	15.3	35.8
16-Jan	1	1	2	19	A	32	34	33	33	34	35	37	38	38	37	37	37	36	37	38	39	38	37	38	31.0	38.5
17-Jan	40	38	38	38	A	37	37	36	36	36	35	35	35	39	40	40	40	40	39	40	39	40	39	40	38.1	40.2
18-Jan	40	40	39	39	A	37	37	35	35	38	40	31	34	34	33	32	27	27	29	25	27	25	26	29	33.0	40.3
19-Jan	32	32	31	33	A	35	36	37	38	38	38	38	38	38	38	38	38	38	37	37	37	37	36	36	36.4	38.1
20-Jan	36	36	36	36	A	35	35	36	36	35	36	35	34	34	34	34	34	35	36	36	35	36	36	36	35.3	36.2
21-Jan	36	36	37	36	A	33	32	36	37	37	38	38	38	38	37	37	37	37	37	37	36	37	37	37	36.7	38.4
22-Jan	37	36	36	35	A	35	35	36	36	35	35	35	36	36	36	36	37	37	37	38	37	37	36	36	36.1	37.7
23-Jan	36	37	37	38	A	35	36	35	36	35	34	34	35	35	35	31	32	32	32	32	32	30	29	29	33.8	37.6
24-Jan	30	32	34	33	A	38	38	38	38	37	38	38	38	38	39	39	38	38	39	39	40	40	33	33	36.9	40.3
25-Jan	33	34	33	28	A	33	36	36	38	38	38	38	39	39	39	40	40	40	39	40	41	41	41	40	37.5	41.4
26-Jan	39	39	39	40	A	41	41	40	40	38	36	34	34	33	35	36	34	33	32	21	29	31	29	25	34.6	41.0
27-Jan	25	28	29	32	A	31	29	28	26	26	25	24	24	23	22	20	19	18	18	17	17	18	19	20	23.4	32.4
28-Jan	19	19	19	19	A	21	20	17	13	16	17	17	19	20	19	19	18	17	16	17	17	18	19	19	18.0	20.6
29-Jan	18	18	17	16	A	16	15	13	8	10	11	15	17	21	29	35	36	37	36	35	35	35	35	35	23.7	36.8
30-Jan	35	34	33	29	A	21	18	16	17	19	19	20	21	22	24	21	26	27	26	26	27	26	26	26	24.1	35.0
31-Jan	20	17	17	23	A	23	24	24	23	23	22	22	25	24	24	24	24	22	22	25	24	22	20	19	22.3	24.9
		29.6	29.0	29.7	29.9	--	29.9	29.5	29.1	28.1	28.6	29.1	29.2	29.9	30.4	30.2	29.9	29.1	29.0	29.3	29.1	29.6	29.6	29.1	29.1	Diurnal Average
		40.3	40.2	39.3	39.6	--	40.5	41.0	39.7	39.8	38.4	39.9	38.3	38.6	39.1	39.6	40.1	39.6	40.4	39.3	39.9	40.8	41.3	41.4	39.8	Diurnal Maximum
C - Calibration					M - Maintenance					A - Automated Daily Zero Span																

### Hourly Maximums

Ozone (O<sub>3</sub>) - ppb  
Beaverlodge - January 2015





# Eight Hour Running Averages

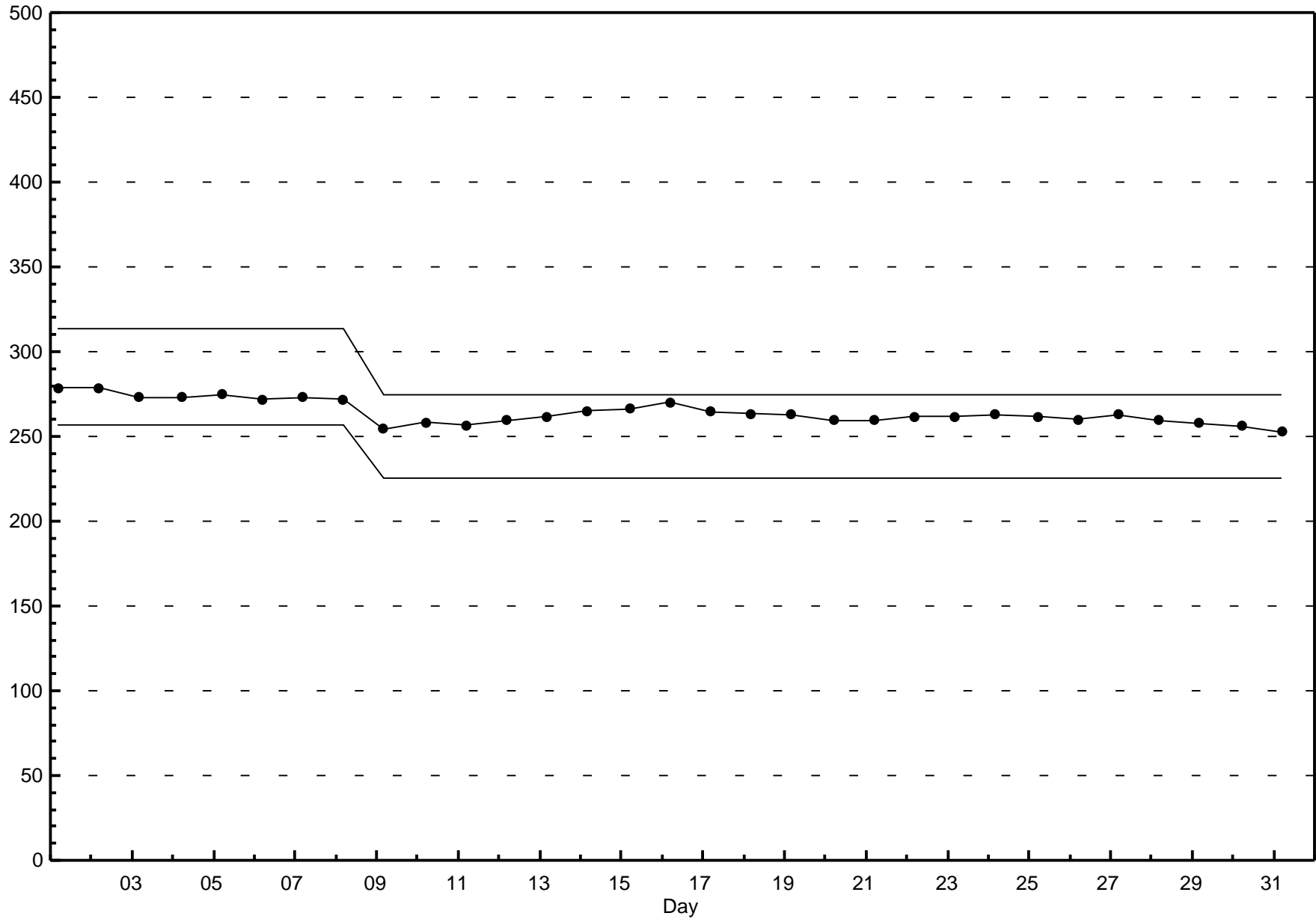
Ozone (O<sub>3</sub>) - ppb

Beaverlodge - January 2015

Maximum Value: 39.0 ppb on Jan 25 23:00																					Hours in Service:	744			
Minimum Value: 0.8 ppb on Jan 16 02:00																					Hours of Data:	729			
Percentiles: P <sub>1</sub> = 4.6 P <sub>10</sub> = 15.6 Q <sub>1</sub> = 20.3 Median = 29.9 Q <sub>3</sub> = 34.8 P <sub>90</sub> = 36.7 P <sub>99</sub> = 38.5																					Hours of Missing Data:	15			
																					Hours of Calibration:	8			
																					Percent Operational Time:	99.1			
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-Jan	37	38	38	38	38	37	37	37	37	36	35	35	35	34	33	31	30	31	31	32	32	33	34	35	37.6
2-Jan	36	36	36	35	35	35	35	35	34	34	34	34	34	34	35	34	34	34	34	33	33	33	33	33	36.0
3-Jan	33	33	34	34	34	34	33	33	32	32	31	31	31	31	31	30	29	29	29	29	28	29	27	26	33.9
4-Jan	26	25	24	22	22	21	22	23	23	23	24	25	25	25	24	23	22	21	19	18	16	15	15	16	26.3
5-Jan	17	18	19	21	22	23	25	25	25	26	27	28	28	29	29	29	28	28	28	28	28	28	27	28	29.2
6-Jan	30	30	29	29	29	28	27	26	25	24	23	23	24	24	24	24	25	25	26	26	26	26	26	25	29.9
7-Jan	23	23	22	20	19	18	17	17	17	17	17	17	17	17	N	N	N	N	N	N	N	N	27	28	28.0
8-Jan	29	30	31	32	32	33	33	33	32	32	N	N	N	N	N	N	N	N	30	30	30	29	28	27	32.7
9-Jan	26	25	25	23	22	22	19	17	14	12	10	9	10	10	11	11	12	13	12	12	13	13	15	18	26.0
10-Jan	18	18	19	19	19	16	14	13	14	15	15	16	17	18	18	18	18	18	18	18	17	18	18	18	18.8
11-Jan	18	18	18	19	19	18	18	18	18	17	17	16	16	15	15	13	13	11	10	9	9	8	8	8	18.6
12-Jan	9	11	12	13	13	15	17	18	19	20	20	22	22	22	23	24	24	24	24	25	25	25	26	27	26.6
13-Jan	27	28	29	30	31	32	32	33	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35.5
14-Jan	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	34	34	34	34	33	33	33	32	35.1
15-Jan	32	32	32	31	31	29	26	23	19	17	15	13	13	13	13	13	12	10	8	6	5	3	2	32.3	
16-Jan	1	1	1	2	2	6	10	15	19	24	28	32	33	34	35	35	36	36	37	37	37	37	37	37	36.8
17-Jan	37	37	37	37	37	37	37	37	37	36	36	35	35	35	35	36	36	37	37	38	39	39	38	38	38.7
18-Jan	38	38	38	38	38	38	38	37	37	36	36	34	34	33	32	31	29	27	25	24	23	23	23	23	38.4
19-Jan	24	25	26	28	28	30	31	32	33	34	36	37	37	37	37	37	37	37	37	37	37	37	36	36	37.2
20-Jan	36	36	36	35	35	35	34	34	34	34	33	33	33	33	33	33	33	33	33	33	33	34	34	34	35.9
21-Jan	34	35	35	35	35	35	34	34	34	34	34	34	35	35	36	37	37	37	37	36	36	36	35	35	36.8
22-Jan	35	35	35	35	36	35	34	34	34	34	34	33	34	34	34	35	35	35	35	36	36	36	36	35	35.7
23-Jan	35	35	35	36	35	35	35	35	35	35	35	34	34	34	33	32	32	31	31	30	30	29	29	29	35.5
24-Jan	29	29	30	30	30	31	32	33	35	35	36	36	36	37	37	37	37	37	37	37	37	37	37	36	37.4
25-Jan	35	35	34	32	31	30	31	31	32	32	34	35	35	36	37	38	38	38	38	39	39	39	39	39	39.0
26-Jan	39	38	38	38	38	38	38	38	38	37	37	36	35	34	33	33	32	32	31	29	27	27	26	25	38.6
27-Jan	24	23	23	25	26	26	26	27	27	27	27	26	26	25	24	23	22	21	20	19	18	17	17	17	27.3
28-Jan	17	17	17	18	18	18	18	18	17	16	16	16	16	16	16	17	17	17	17	17	17	17	16	16	18.4
29-Jan	16	17	17	17	17	17	16	15	14	12	11	11	11	12	13	15	19	22	25	28	30	32	33	33	33.4
30-Jan	33	33	33	32	31	29	27	25	22	20	18	18	18	18	19	19	20	21	22	22	23	24	24	25	33.3
31-Jan	24	23	22	21	20	20	19	19	20	20	20	20	21	21	21	21	21	22	22	22	22	22	21	21	24.4
38.6 38.5 38.4 38.3 38.2 38.0 37.9 37.8 37.8 37.5 36.8 36.5 36.6 36.9 37.1 37.7 38.0 38.3 38.4 38.5 38.7 38.9 39.0 38.9																									
Diurnal Maximums																									
N - Not Valid																									

### Span Responses

Ozone (O<sub>3</sub>)  
Beaverlodge - January 2015



## Hourly Averages

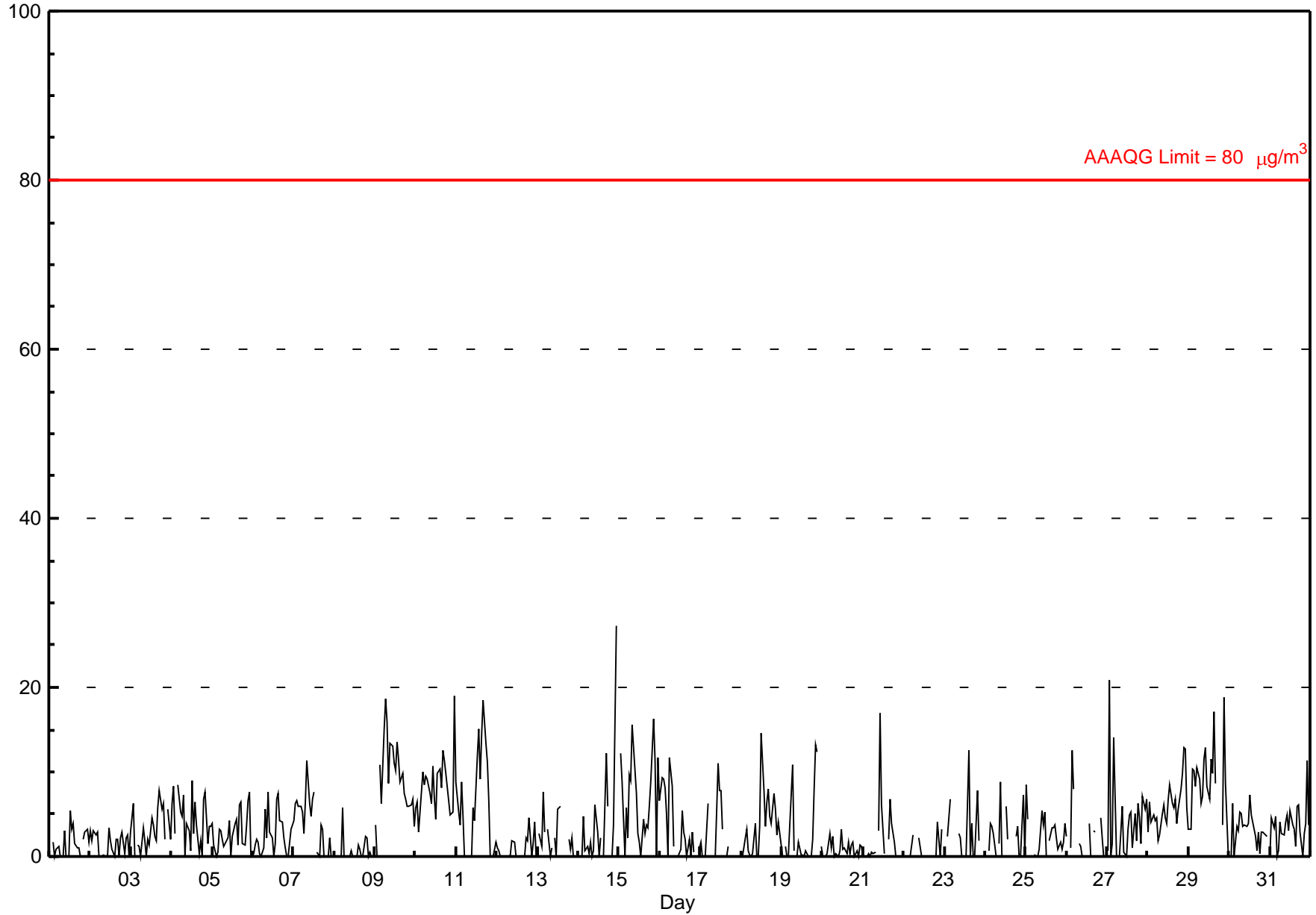
## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

### Beaverlodge - January 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 27.3 µg/m <sup>3</sup> on Jan 14 23:00	Maximum Daily Average: 9.3 µg/m <sup>3</sup> on Jan 9
Minimum Value: 0 µg/m <sup>3</sup> on Jan 1 04:00	Hours of Data: 665
Maximum Diurnal Average: 4.6 µg/m <sup>3</sup> at hour 17	Hours of Missing Data: 79
Monthly Average: 3.63 µg/m <sup>3</sup>	Hours of Calibration: 1
Minimum Daily Average: 0.7 µg/m <sup>3</sup> on Jan 22	Percent Operational Time: 89.5
Minimum Diurnal Average: 2.6 µg/m <sup>3</sup> at hour 1	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 2.6 Q <sub>3</sub> = 5.8 P <sub>90</sub> = 8.9 P <sub>99</sub> = 16.9	

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-Jan	4	N	2	0	1	1	0	0	0	3	0	0	6	3	4	1	1	1	0	N	2	3	3	2	1.7	5.5
2-Jan	3	2	3	3	3	0	0	0	0	0	0	3	2	1	0	2	2	0	2	3	0	2	3	0	1.4	3.4
3-Jan	3	6	0	N	1	1	0	3	2	0	2	1	5	4	2	2	6	8	6	6	2	N	6	2	3.1	7.9
4-Jan	6	8	3	N	8	5	5	7	0	4	3	1	9	3	6	4	0	2	0	7	8	2	4	4	4.2	8.9
5-Jan	4	1	0	1	3	3	2	1	2	2	4	0	2	4	4	1	6	6	1	1	4	7	8	0	2.9	7.7
6-Jan	0	1	2	2	0	0	1	6	2	8	3	2	0	1	7	7	4	4	2	1	0	0	3	4	2.6	7.7
7-Jan	4	6	7	6	6	5	3	6	11	6	5	7	8	C	0	0	4	3	0	0	0	2	0	0	3.9	11.4
8-Jan	0	0	0	N	0	6	0	N	N	0	1	0	0	0	1	1	0	0	2	2	0	1	0	N	0.7	5.7
9-Jan	4	0	N	11	6	15	19	16	9	13	13	11	10	14	11	9	10	8	7	6	6	6	7	4	9.3	18.6
10-Jan	6	6	3	8	10	9	9	9	7	6	11	7	4	10	10	8	13	11	10	7	5	5	5	19	8.3	19.0
11-Jan	9	5	4	9	5	0	0	0	0	0	6	4	12	15	9	14	18	13	11	7	0	0	0	2	6.0	18.4
12-Jan	1	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	5	0	2	4	0	0.8	4.6
13-Jan	N	3	1	8	3	N	3	0	1	N	2	0	6	6	N	0	N	N	2	1	2	0	0	0	2.1	7.6
14-Jan	0	0	0	5	1	1	0	2	0	1	6	3	0	2	N	0	12	6	N	0	0	4	27	N	3.3	27.3
15-Jan	N	12	9	0	6	2	10	9	16	10	7	3	2	0	4	3	4	3	6	9	16	11	0	12	6.7	16.3
16-Jan	7	9	9	8	5	0	12	8	1	N	N	0	1	5	3	2	0	2	0	3	0	N	N	1	3.8	11.7
17-Jan	2	0	N	0	6	N	0	N	0	0	11	8	8	3	N	0	1	N	N	N	N	3	N	N	--	11.0
18-Jan	0	0	2	3	1	0	0	0	4	0	0	4	15	8	4	6	8	5	4	7	6	3	4	3	3.6	14.6
19-Jan	0	N	1	0	0	4	11	1	N	0	2	0	0	0	1	0	0	0	2	8	13	12	N	1	2.7	13.1
20-Jan	0	0	0	0	3	1	2	0	0	0	1	3	1	1	0	2	0	1	2	0	1	0	1	1	0.9	3.2
21-Jan	0	0	0	0	0	0	0	0	N	3	17	6	0	N	N	2	7	4	2	0	0	0	0	0	2.0	17.0
22-Jan	0	0	0	0	0	2	N	N	N	2	0	0	0	0	0	N	0	N	0	0	4	0	3	N	0.7	4.0
23-Jan	0	N	2	7	N	N	4	N	3	2	0	0	N	0	13	0	4	0	0	8	2	N	1	N	--	12.6
24-Jan	N	N	1	4	3	3	0	N	1	9	0	N	6	2	N	N	N	N	2	4	0	0	7	0	--	8.9
25-Jan	9	4	N	0	0	0	0	0	1	5	4	5	0	N	2	3	3	4	2	1	2	1	2	4	2.4	8.6
26-Jan	2	N	1	13	8	N	N	2	1	0	N	N	N	4	0	N	3	3	N	N	5	2	0	N	--	12.5
27-Jan	1	21	0	2	14	0	0	0	3	6	1	0	3	5	5	1	5	2	6	5	2	7	6	7	4.1	20.9
28-Jan	3	7	4	5	4	5	2	3	5	6	5	4	7	8	6	6	7	4	6	8	10	13	13	6	6.0	12.9
29-Jan	3	3	10	10	8	11	9	6	7	12	13	8	7	11	10	17	9	N	N	N	4	19	9	0	8.9	18.8
30-Jan	N	0	6	0	4	3	5	5	4	4	4	4	7	5	4	2	1	3	0	3	3	3	2	N	3.3	7.3
31-Jan	0	5	3	5	0	1	4	3	3	4	5	3	5	4	3	1	6	6	3	0	3	4	11	4	3.5	11.3
	2.6	3.9	2.6	3.8	3.7	2.9	3.5	3.4	3.1	3.7	4.3	3.0	4.3	4.3	4.3	3.4	4.6	3.9	3.0	3.7	3.3	3.9	4.6	3.1	Diurnal Average	
	8.8	20.9	10.3	12.5	14.1	15.0	18.6	15.9	15.6	13.4	17.0	11.0	14.6	15.1	12.6	17.1	18.4	13.5	11.3	8.8	16.3	18.8	27.3	19.0	Diurnal Maximum	

C - Calibration N - Not Valid  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>



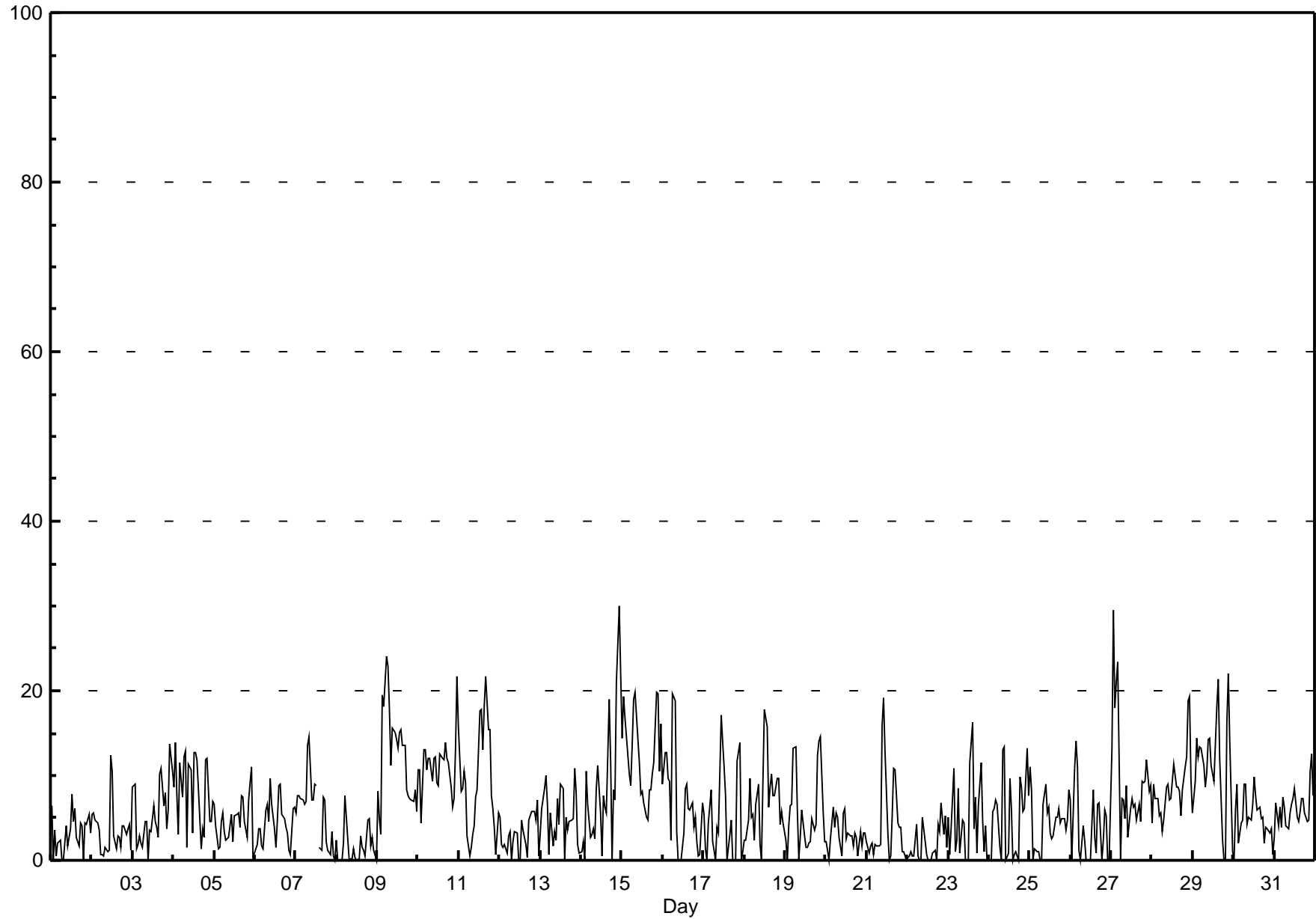


## Hourly Maximums

## Particulate Matter 2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

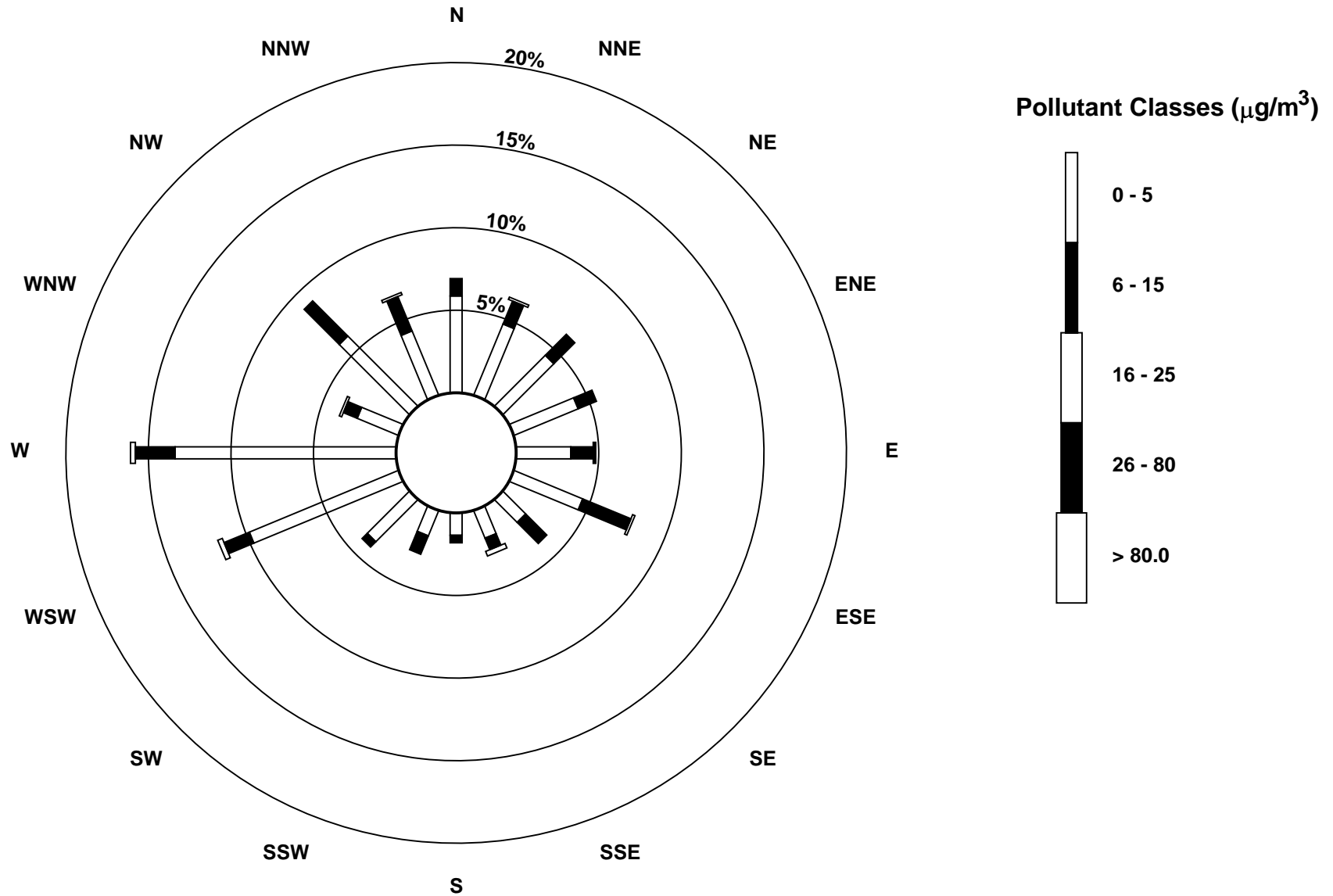
### Beaverlodge - January 2015

Maximum Value: 30.0 µg/m <sup>3</sup> on Jan 14 23:00		Maximum Daily Average: 12.4 µg/m <sup>3</sup> on Jan 15		Hours in Service: 744																							
Minimum Value: 0 µg/m <sup>3</sup> on Jan 1 02:00		Minimum Daily Average: 1.7 µg/m <sup>3</sup> on Jan 8		Hours of Data: 743																							
Maximum Diurnal Average: 7.3 µg/m <sup>3</sup> at hour 22		Minimum Diurnal Average: 5.2 µg/m <sup>3</sup> at hour 19		Hours of Missing Data: 1																							
Monthly Average: 6.14 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 2.2 Median = 5.1 Q <sub>3</sub> = 8.8 P <sub>90</sub> = 13.1 P <sub>99</sub> = 21.9		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-Jan	6	0	4	1	2	2	0	0	2	4	2	4	8	5	6	3	2	4	4	0	4	4	5	3	3.1	7.8	
2-Jan	5	6	5	4	4	1	1	0	1	1	1	12	11	3	1	3	3	1	4	4	3	4	4	1	3.5	12.4	
3-Jan	9	9	1	2	3	2	2	5	5	0	4	3	6	5	4	3	10	11	7	8	4	6	14	10	5.4	13.7	
4-Jan	9	14	8	3	11	7	12	13	1	11	11	3	13	13	12	9	1	4	3	12	12	5	5	7	8.2	13.9	
5-Jan	7	4	1	2	5	6	3	2	3	4	5	2	5	5	6	4	8	7	5	3	7	9	11	0	4.7	11.0	
6-Jan	1	2	4	4	2	1	6	7	5	10	7	4	1	5	9	9	5	5	4	3	1	1	6	6	4.4	9.7	
7-Jan	6	8	8	7	7	7	7	14	15	7	7	9	9	C	1	1	7	7	2	1	1	3	0	0	5.8	14.6	
8-Jan	2	0	0	0	2	8	5	0	0	0	1	0	0	0	3	1	1	1	5	5	2	3	1	0	1.7	7.6	
9-Jan	8	5	3	19	18	24	23	18	11	16	15	14	13	15	15	13	14	8	8	7	7	7	8	6	12.4	24.1	
10-Jan	11	11	4	13	13	11	12	12	9	12	12	9	9	13	12	12	14	12	11	9	6	7	13	22	11.2	21.7	
11-Jan	16	8	8	11	9	3	0	2	3	4	7	8	18	18	13	18	22	15	15	8	6	4	1	6	9.3	21.7	
12-Jan	5	2	2	2	1	3	3	0	2	3	3	0	0	5	4	2	0	5	5	6	6	5	7	1	3.0	7.1	
13-Jan	3	6	8	10	7	1	6	2	3	2	7	4	9	9	0	5	4	5	5	5	11	8	2	1	5.1	10.8	
14-Jan	1	2	0	11	7	3	3	4	2	8	11	6	0	8	6	6	19	12	0	8	7	21	30	22	8.2	30.0	
15-Jan	14	19	17	12	10	9	14	19	20	14	12	8	8	7	5	5	8	8	10	11	20	20	11	16	12.4	19.9	
16-Jan	9	13	13	10	9	2	20	19	3	0	0	0	3	8	9	6	6	7	4	5	2	1	1	7	6.5	19.7	
17-Jan	5	1	0	4	8	2	1	0	4	3	17	14	11	8	0	3	5	0	0	0	12	14	0	1	4.7	17.0	
18-Jan	2	2	5	10	5	5	2	7	9	2	0	9	18	16	6	9	10	8	8	10	10	4	6	4	6.9	17.8	
19-Jan	2	0	4	6	7	13	13	6	0	3	6	3	1	1	2	2	5	4	4	12	14	15	6	2	5.5	14.5	
20-Jan	2	1	0	3	6	4	6	5	3	1	6	6	2	3	3	3	2	3	3	0	3	2	3	3	3.0	6.3	
21-Jan	2	1	2	2	1	2	2	2	2	16	19	13	3	0	1	5	11	11	4	4	4	1	1	0	4.5	19.2	
22-Jan	0	1	1	0	0	4	0	0	0	5	2	1	0	0	0	1	1	0	4	3	7	3	5	2	1.7	6.7	
23-Jan	5	1	4	11	1	2	8	1	5	4	0	0	0	12	16	4	8	1	6	12	5	1	4	0	4.6	16.3	
24-Jan	0	0	6	6	7	7	1	0	13	13	0	1	10	6	0	1	1	0	10	9	6	6	13	8	5.1	13.4	
25-Jan	11	8	0	1	1	1	0	0	7	9	6	6	3	2	3	5	5	6	4	5	5	4	5	8	4.4	11.0	
26-Jan	7	0	11	14	11	1	0	4	2	0	0	0	0	8	3	1	7	7	0	2	6	5	0	0	3.7	14.1	
27-Jan	13	29	18	21	23	0	7	7	5	9	3	6	7	6	7	5	7	5	9	9	9	12	8	9	9.8	29.5	
28-Jan	4	9	7	7	5	6	3	5	9	9	7	7	9	11	9	9	8	5	8	11	12	19	19	9	8.7	19.4	
29-Jan	6	9	14	12	13	13	11	9	10	14	14	11	9	14	18	21	12	2	0	0	16	22	14	1	11.2	22.0	
30-Jan	0	6	9	2	4	5	9	9	4	5	5	7	10	8	6	6	5	5	2	4	4	3	4	1	5.1	9.8	
31-Jan	3	7	4	6	4	8	6	4	4	6	7	7	9	5	5	6	7	7	6	5	5	11	13	8	6.2	12.5	
		5.7	5.9	5.5	7.0	6.7	5.2	6.1	5.6	5.3	6.4	6.3	5.8	6.7	7.2	5.9	5.8	7.0	5.7	5.2	5.8	7.0	7.3	7.1	5.3	Diurnal Average	
		15.8	29.5	18.0	21.1	23.4	24.1	22.9	18.9	19.8	16.0	19.2	14.2	17.8	17.8	18.1	21.4	21.7	15.4	15.4	12.4	19.9	22.0	30.0	21.9	Diurnal Maximum	
C - Calibration																											



**Pollutant Rose**

**Particulate Matter 2.5 (PM<sub>2.5</sub>) - μg/m<sup>3</sup>**  
**Beaverlodge - January 2015**



# Hourly Averages

External Temperature (ET) - °C

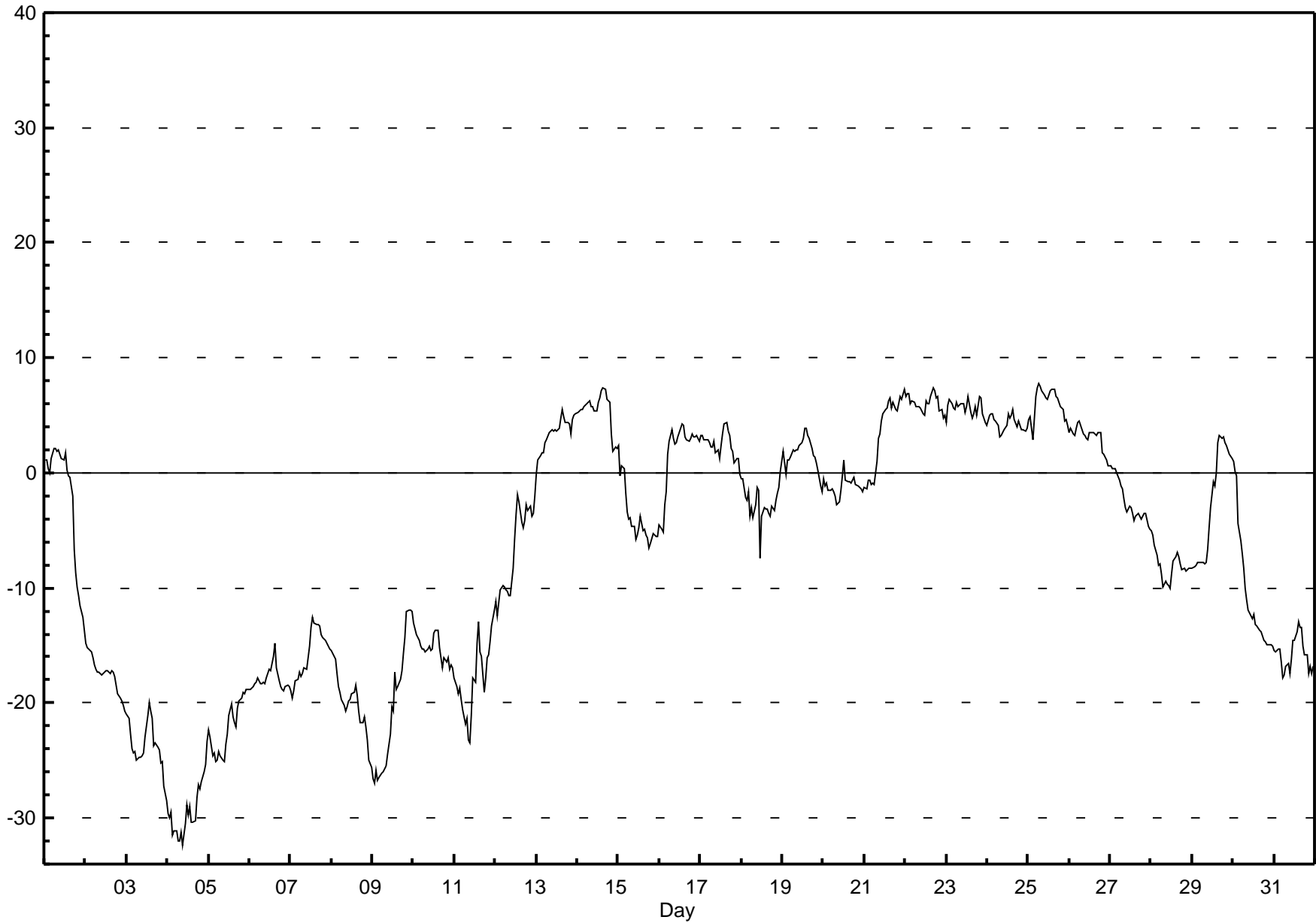
Beaverlodge - January 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7.8 °C on Jan 25 07:00 Maximum Daily Average: 6.0 °C on Jan 25		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																								
Minimum Value: -32 °C on Jan 4 10:00 Maximum Diurnal Average: -5.6 °C at hour 14 Monthly Average: -6.87 °C		Minimum Daily Average: -29.3 °C on Jan 4 Minimum Diurnal Average: -7.7 °C at hour 10 Percentiles: P <sub>1</sub> = -30.5 P <sub>10</sub> = -21.7 Q <sub>1</sub> = -16.7 Median = -3.7 Q <sub>3</sub> = 3.1 P <sub>90</sub> = 5.5 P <sub>99</sub> = 7.2																								
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-Jan	1	1	0	0	1	2	2	2	2	2	1	1	2	0	0	0	-2	-7	-9	-10	-11	-12	-12	-14	-2.4	2.2
2-Jan	-15	-15	-15	-16	-16	-17	-17	-17	-17	-18	-18	-17	-17	-17	-17	-17	-17	-18	-18	-19	-20	-20	-20	-21	-17.5	-14.8
3-Jan	-21	-21	-23	-24	-24	-24	-25	-25	-25	-25	-24	-23	-21	-20	-21	-21	-24	-24	-24	-24	-25	-25	-27	-28	-23.7	-20.0
4-Jan	-30	-30	-29	-31	-31	-31	-32	-32	-31	-32	-30	-29	-30	-29	-30	-30	-30	-28	-27	-27	-27	-26	-25	-23	-29.3	-23.4
5-Jan	-22	-23	-25	-24	-25	-25	-24	-25	-25	-25	-24	-23	-21	-20	-21	-22	-22	-20	-20	-20	-19	-19	-19	-19	-22.1	-18.8
6-Jan	-19	-19	-19	-18	-18	-18	-18	-18	-18	-18	-18	-17	-17	-17	-16	-15	-17	-18	-19	-19	-19	-19	-18	-19	-17.9	-14.9
7-Jan	-19	-20	-19	-18	-18	-17	-18	-17	-17	-17	-16	-15	-13	-13	-13	-13	-13	-13	-14	-14	-15	-15	-15	-15	-15.7	-12.6
8-Jan	-15	-16	-16	-17	-19	-19	-20	-20	-21	-20	-20	-19	-19	-18	-19	-21	-22	-22	-21	-22	-23	-25	-26	-26	-20.0	-15.5
9-Jan	-27	-27	-26	-27	-27	-26	-26	-26	-25	-24	-23	-20	-21	-17	-19	-19	-18	-17	-16	-14	-12	-12	-12	-12	-20.5	-11.9
10-Jan	-13	-14	-14	-15	-15	-15	-15	-16	-15	-15	-15	-15	-14	-14	-14	-15	-16	-17	-16	-16	-16	-17	-17	-17	-15.3	-13.1
11-Jan	-18	-19	-19	-19	-20	-21	-22	-21	-23	-24	-21	-18	-18	-15	-13	-16	-16	-19	-18	-16	-16	-15	-13	-12	-17.9	-11.9
12-Jan	-11	-12	-11	-10	-10	-10	-10	-10	-11	-11	-8	-6	-4	-2	-3	-4	-5	-4	-3	-3	-3	-4	-3	-2	-6.7	-1.9
13-Jan	0	1	1	2	2	3	3	3	4	4	4	4	4	4	5	6	5	4	4	4	3	5	5	5	3.5	5.5
14-Jan	5	5	6	6	6	6	6	6	6	6	5	5	6	7	7	7	7	6	6	6	3	2	2	2	5.5	7.3
15-Jan	2	0	1	0	-2	-3	-4	-4	-5	-5	-6	-5	-5	-4	-5	-5	-5	-6	-6	-6	-5	-5	-6	-6	-3.9	2.4
16-Jan	-5	-5	-5	-3	-2	2	3	4	3	3	3	3	4	4	4	3	3	3	3	3	3	3	3	3	1.7	4.3
17-Jan	3	3	3	3	3	3	2	2	3	2	2	1	2	3	4	4	4	3	2	2	1	1	1	0	2.4	4.3
18-Jan	-1	-1	-2	-2	-2	-4	-3	-4	-3	-1	-2	-7	-4	-3	-3	-3	-3	-4	-3	-3	-2	-2	-1	0	-2.6	0.1
19-Jan	2	1	0	1	1	1	2	2	2	2	2	3	3	4	4	3	3	2	1	1	1	0	-1	-2	1.6	3.9
20-Jan	-1	-1	-1	-1	-2	-1	-2	-2	-3	-2	-2	0	1	-1	-1	-1	-1	-1	0	-1	-1	-1	-1	-2	-1.1	1.2
21-Jan	-1	-1	-1	-1	-1	-1	-1	1	3	3	5	5	6	6	6	7	6	6	6	5	6	7	6	7	3.5	7.2
22-Jan	7	7	7	6	6	6	6	6	6	6	5	5	6	6	6	7	7	7	6	7	5	6	5	5	6.0	7.3
23-Jan	4	6	6	6	6	5	6	6	6	6	6	5	6	7	5	5	5	6	5	7	7	5	5	4	5.6	6.7
24-Jan	4	5	5	5	5	5	4	3	3	4	4	4	5	5	5	5	5	4	5	4	4	4	4	4	4.3	5.5
25-Jan	5	5	4	3	7	7	8	7	7	7	7	6	7	7	7	7	7	6	6	6	6	5	5	4	6.0	7.8
26-Jan	4	4	3	3	4	4	5	4	3	3	3	3	4	3	3	3	3	3	3	2	2	1	1	1	3.1	4.5
27-Jan	1	0	0	0	0	-1	-1	-1	-2	-3	-3	-3	-3	-4	-4	-4	-4	-4	-4	-4	-4	-3	-5	-5	-2.5	0.7
28-Jan	-5	-5	-6	-7	-8	-8	-9	-10	-9	-10	-10	-9	-8	-7	-7	-7	-8	-8	-8	-8	-9	-8	-8	-8	-8.1	-5.0
29-Jan	-8	-8	-8	-8	-8	-8	-8	-8	-8	-7	-5	-3	-1	-1	0	3	3	3	3	2	2	2	2	1	-2.7	3.3
30-Jan	1	0	0	-4	-6	-7	-8	-10	-11	-12	-12	-13	-12	-13	-13	-14	-14	-14	-15	-15	-15	-15	-15	-15	-10.5	1.0
31-Jan	-15	-16	-15	-15	-16	-18	-18	-17	-17	-17	-16	-15	-15	-14	-13	-13	-13	-15	-16	-16	-17	-17	-17	-17	-15.8	-12.9
		-6.7	-6.9	-7.0	-7.3	-7.4	-7.4	-7.6	-7.6	-7.7	-7.7	-7.3	-6.9	-6.1	-5.6	-5.6	-5.7	-6.2	-6.5	-6.6	-6.7	-6.9	-7.0	-7.2	-7.3	Diurnal Average
		6.7	6.9	6.8	6.0	6.7	7.4	7.8	7.5	7.1	6.7	6.5	6.4	6.8	7.1	7.3	7.3	7.3	7.1	6.5	6.7	6.6	6.7	6.4	7.2	Diurnal Maximum

**Hourly Averages**

**External Temperature (ET) - °C**

**Beaverlodge - January 2015**



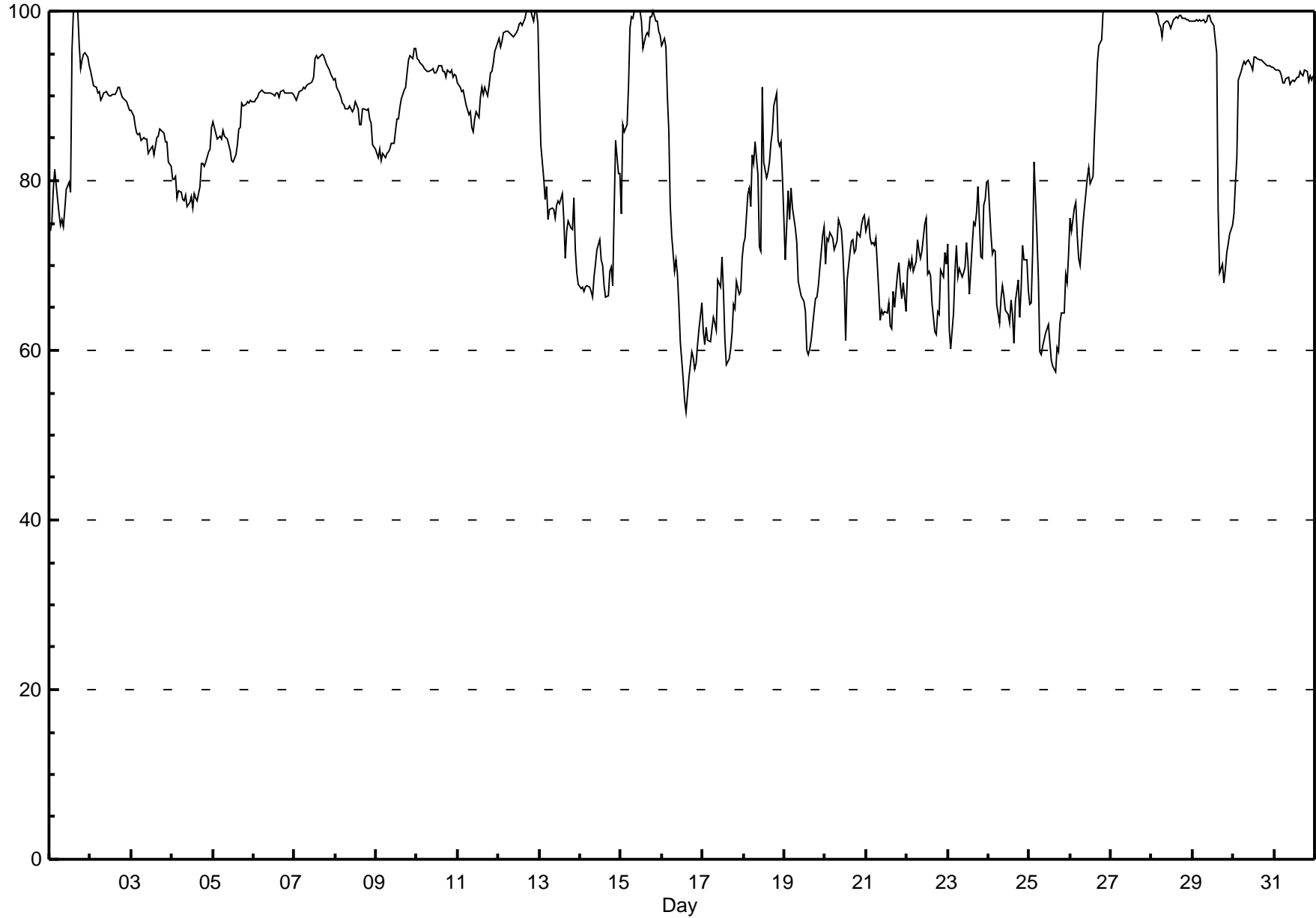
# Hourly Averages

Relative Humidity (RH) - %  
Beaverlodge - January 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 100.0 % on Jan 1 15:00 Maximum Daily Average: 100.0 % on Jan 27																			Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: 53 % on Jan 16 15:00 Minimum Daily Average: 64.1 % on Jan 17 Maximum Diurnal Average: 84.3 % at hour 23 Minimum Diurnal Average: 81.3 % at hour 16 Monthly Average: 82.67 % Percentiles: P <sub>1</sub> = 58.1 P <sub>10</sub> = 65.5 Q <sub>1</sub> = 71.8 Median = 84.9 Q <sub>3</sub> = 92.9 P <sub>90</sub> = 98.8 P <sub>99</sub> = 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-Jan	74	75	79	81	79	76	75	75	75	77	79	80	79	95	100	100	100	96	93	94	95	95	95	94	85.9	100.0
2-Jan	93	92	91	91	90	91	89	90	90	90	90	90	90	90	90	91	91	91	90	90	90	89	89	88	90.3	92.9
3-Jan	88	88	86	86	85	86	85	85	85	85	83	84	84	83	84	85	85	86	86	86	85	85	82	82	84.9	88.2
4-Jan	80	80	81	78	79	79	78	78	78	77	78	78	77	78	78	78	79	82	82	82	82	83	84	86	79.8	86.2
5-Jan	87	86	85	85	85	85	86	85	85	84	84	82	82	83	84	86	86	89	89	89	89	89	90	89	86.1	89.6
6-Jan	89	90	90	90	91	91	90	90	90	90	90	90	90	90	90	90	90	91	90	90	90	90	90	90	90.2	90.6
7-Jan	90	89	90	91	91	91	91	91	91	92	92	92	94	95	94	95	95	95	94	94	93	93	92	92	92.3	94.9
8-Jan	92	91	90	90	89	89	89	88	89	88	88	88	89	88	87	87	89	88	88	89	87	87	84	84	88.3	92.1
9-Jan	83	83	84	82	83	83	83	83	84	84	84	86	87	87	89	90	91	91	93	94	95	94	96	96	87.7	95.6
10-Jan	94	94	94	94	93	93	93	93	93	93	93	93	93	93	94	93	93	92	93	93	93	92	92	92	93.1	94.4
11-Jan	92	91	90	91	90	89	88	88	86	86	87	88	87	90	91	90	91	90	91	93	93	94	95	96	90.3	96.2
12-Jan	97	96	96	97	98	98	97	97	97	97	97	98	99	99	98	99	100	100	100	100	99	100	100	98	98.2	100.0
13-Jan	91	84	80	78	79	75	77	77	77	76	77	78	77	78	75	71	74	75	74	74	78	72	69	68	76.5	90.5
14-Jan	67	68	67	67	68	67	67	66	69	70	72	73	71	70	68	66	66	69	70	68	76	85	81	81	70.5	84.7
15-Jan	76	87	86	87	91	98	99	99	100	100	100	100	99	96	97	97	97	99	99	100	99	99	98	97	95.8	100.0
16-Jan	96	97	96	90	86	77	74	69	71	69	65	61	57	54	53	55	57	60	59	58	59	61	63	66	68.7	96.8
17-Jan	62	61	63	61	61	63	64	63	62	68	67	71	67	61	58	59	60	62	65	65	68	67	67	71	64.1	71.0
18-Jan	73	73	78	79	77	83	82	85	81	72	72	91	82	80	81	82	84	86	89	90	85	84	85	81	81.4	91.0
19-Jan	71	75	79	75	79	77	74	73	68	67	66	66	65	60	59	60	61	65	66	66	68	70	74	75	69.1	79.1
20-Jan	70	73	73	74	73	72	72	73	75	74	72	68	61	68	71	73	73	72	72	74	73	75	76	76	72.2	75.9
21-Jan	74	75	73	73	73	72	73	67	64	65	64	65	64	66	63	63	67	65	69	70	68	66	68	65	68.0	75.4
22-Jan	69	71	70	71	69	71	73	72	71	72	75	76	69	69	69	66	62	62	65	64	69	69	71	70	69.3	75.7
23-Jan	73	63	60	64	69	72	69	70	69	69	70	73	70	67	72	75	75	76	79	71	71	77	78	80	71.3	79.7
24-Jan	80	74	71	72	72	65	63	66	68	67	65	64	63	66	64	61	66	68	64	67	72	71	71	67	67.8	80.0
25-Jan	65	66	71	82	74	69	60	59	61	62	63	63	61	59	58	57	60	60	63	64	64	69	68	71	64.6	82.1
26-Jan	76	74	77	77	74	71	70	75	77	78	80	82	80	81	85	89	94	96	97	100	100	100	100	100	84.6	100.0
27-Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100.0	100.0
28-Jan	100	100	100	99	98	98	97	98	99	99	98	98	98	99	99	99	99	99	99	99	99	99	99	99	98.9	100.0
29-Jan	99	99	99	99	99	99	99	99	99	100	99	99	98	97	95	77	69	70	68	69	72	72	74	75	88.5	99.5
30-Jan	76	80	83	92	93	94	94	94	94	94	94	93	95	95	94	94	94	94	94	94	94	94	93	93	92.0	94.6
31-Jan	93	93	93	93	92	91	92	92	92	91	92	92	92	92	92	93	93	92	93	93	92	92	92	92	92.3	93.2
																								Diurnal Average		
																								Diurnal Maximum		

**Hourly Averages**

**Relative Humidity (RH) - %  
Beaverlodge - January 2015**





Peace Airshed Zone Association

# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Beaverlodge - January 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	5	3	1	3	5	9	7	6	5	7	7	6	6	5	5	3	7	22	22	13	10	11	16	14	4.5	22.3
Dir	248	244	208	54	284	310	325	339	333	305	355	15	12	301	304	220	105	82	77	73	47	51	41	17	28	82
2 Spd	15	14	13	12	19	19	18	14	12	13	13	13	12	14	12	5	5	14	14	14	14	11	9	11.6	19.0	
Dir	9	12	14	22	32	30	24	10	1	358	358	3	3	9	22	20	354	349	317	326	328	324	328	328	1	32
3 Spd	11	12	11	10	9	8	5	7	10	6	1	5	4	3	5	6	5	8	8	7	6	5	3	0	6.0	11.6
Dir	325	337	330	315	314	303	312	323	317	325	214	296	281	201	323	315	303	321	319	314	311	301	279	108	315	337
4 Spd	2	5	1	1	5	3	2	7	5	2	5	0	2	4	5	3	11	9	5	5	5	6	4	9	2.9	11.0
Dir	66	40	256	46	49	60	49	50	60	101	43	136	79	31	279	28	332	8	325	333	38	252	36	324	10	332
5 Spd	11	9	2	2	0	1	1	3	3	2	1	1	1	1	2	2	3	7	10	10	5	4	7	10	3.6	10.8
Dir	315	314	337	288	168	9	355	293	18	250	59	56	319	139	48	327	312	323	310	319	341	339	320	342	325	315
6 Spd	5	7	7	7	7	2	6	3	3	5	5	7	9	5	4	3	4	4	9	9	11	10	9	6	3.3	10.5
Dir	9	312	349	10	20	126	178	185	145	116	108	96	120	45	200	94	359	167	119	109	96	111	132	151	101	96
7 Spd	2	8	8	2	5	2	4	4	4	7	2	8	18	20	22	20	15	16	18	17	17	17	17	18	9.6	22.0
Dir	121	314	316	59	258	222	228	264	207	194	45	340	338	333	336	335	333	325	318	315	325	332	331	326	324	336
8 Spd	15	11	12	12	8	5	7	7	8	4	3	7	9	7	5	8	3	3	4	5	1	3	3	9	5.2	15.2
Dir	319	324	330	312	312	332	346	329	325	316	287	279	289	300	354	41	91	70	72	57	66	269	342	323	328	319
9 Spd	3	6	5	1	3	2	1	1	2	1	1	2	4	1	1	3	2	1	2	7	11	10	8	6	2.9	10.8
Dir	332	21	31	10	356	67	255	301	25	16	351	311	280	109	324	298	322	57	295	305	319	307	328	344	330	319
10 Spd	3	3	7	9	9	9	9	6	3	3	6	4	3	3	2	1	3	3	5	2	4	3	4	0	2.0	9.2
Dir	108	145	151	125	135	117	123	142	147	210	207	201	288	315	263	66	203	46	45	317	325	49	39	150	133	117
11 Spd	1	1	1	2	0	1	1	1	1	2	0	1	4	1	1	3	1	1	2	4	1	2	3	5	1.4	5.0
Dir	143	110	54	51	358	1	77	266	236	28	91	4	28	360	348	19	345	16	45	51	94	56	54	48	39	48
12 Spd	3	3	5	2	5	5	4	5	5	5	4	3	3	4	3	3	6	6	7	2	9	2	3	5	1.1	8.6
Dir	65	64	50	49	63	56	64	59	59	69	100	167	167	89	62	61	242	232	233	268	255	110	60	302	72	255
13 Spd	11	10	11	11	14	24	21	27	24	19	16	17	12	19	29	34	33	32	25	13	18	30	33	29	20.8	33.6
Dir	294	294	283	274	259	265	264	267	265	275	277	262	226	248	251	254	247	253	253	241	237	258	265	258	259	254
14 Spd	24	26	31	16	26	15	23	43	30	18	20	17	6	20	20	17	8	7	7	8	2	3	2	4	14.9	43.0
Dir	263	263	263	256	264	281	273	265	259	264	258	260	269	268	269	276	316	340	333	316	269	69	86	64	270	265
15 Spd	5	2	3	2	2	5	4	0	3	5	3	0	1	1	3	2	1	1	2	1	2	3	2	2	0.3	5.0
Dir	71	138	118	19	359	297	339	264	111	172	206	5	243	198	232	344	39	118	163	110	22	316	63	75	67	297
16 Spd	1	2	3	4	6	20	27	35	33	33	34	35	41	38	42	34	31	32	32	41	44	49	34	28	27.5	48.8
Dir	66	119	16	325	315	279	266	263	263	257	264	262	268	271	269	274	269	270	271	270	267	263	260	248	267	263
17 Spd	28	11	34	31	24	26	27	30	30	23	18	9	8	18	23	24	10	14	6	17	12	11	7	10	18.3	34.4
Dir	260	260	252	267	273	278	275	266	264	245	251	230	217	248	256	252	260	272	247	258	251	274	261	234	259	252
18 Spd	10	13	5	5	4	4	4	2	6	3	4	4	4	7	3	5	4	0	4	1	3	2	1	7	0.4	13.4
Dir	244	231	231	67	90	115	96	110	56	10	26	118	349	334	235	18	315	104	310	103	88	102	72	266	333	231
19 Spd	17	11	7	11	13	21	27	31	29	30	36	36	35	40	36	29	31	25	18	19	22	19	14	8	23.3	40.1
Dir	275	257	248	251	253	256	255	255	258	259	262	264	266	268	270	271	270	269	270	270	269	268	248	230	263	268
20 Spd	12	13	17	13	10	12	12	15	13	13	15	8	3	3	3	4	2	6	5	3	2	3	4	3	6.4	17.4
Dir	267	260	261	262	266	280	273	261	255	255	259	246	221	66	88	52	87	229	222	166	155	177	179	139	255	261
21 Spd	6	2	4	5	4	2	3	3	8	11	18	25	37	37	20	20	17	7	12	12	10	13	16	17	11.4	37.1
Dir	203	156	88	107	134	109	174	237	251	248	249	256	252	255	262	266	248	222	235	250	245	257	266	255	249	252
22 Spd	26	27	29	34	48	56	54	47	35	29	13	11	17	30	32	33	5	11	15	16	4	7	1	3	23.8	56.2
Dir	256	263	255	251	253	258	257	257	257	255	236	225	255	254	254	262	271	264	263	264	224	243	112	51	255	258



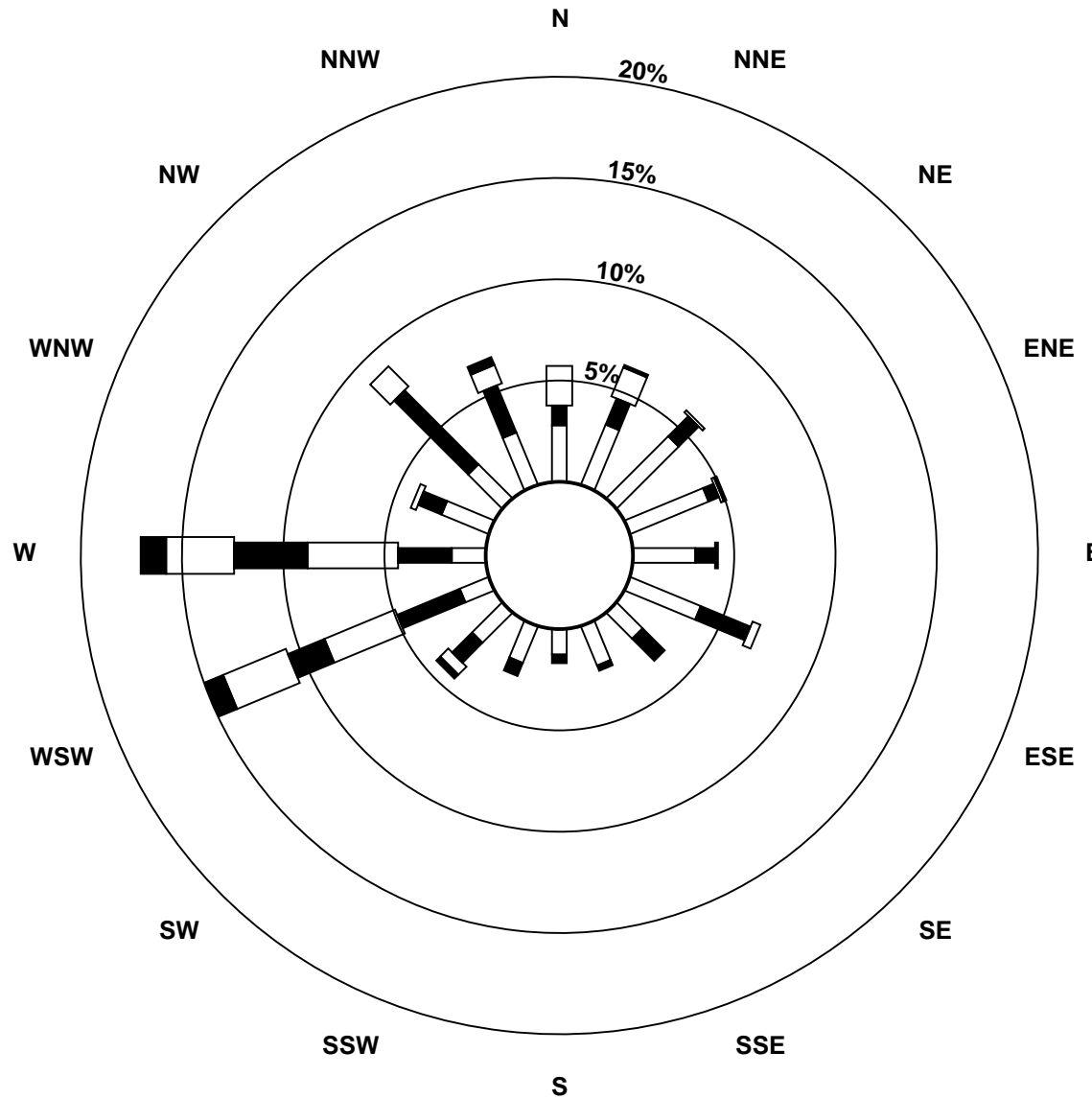
# Hourly Averages

**Wind Speed (km/h)**  
**Wind Direction (deg)**  
**Beaverlodge - January 2015**

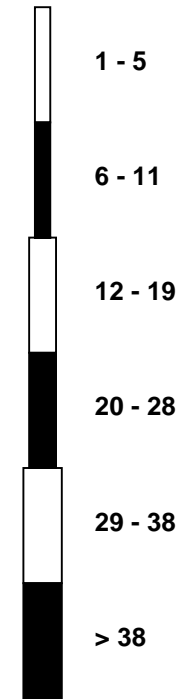
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	3	4	12	10	21	18	10	22	21	11	9	7	2	2	6	6	4	4	7	17	17	22	25	21	10.4	25.1
Dir	188	239	245	248	247	243	238	255	265	263	258	246	24	332	184	144	108	168	264	262	270	245	235	236	246	235
24 Spd	17	20	22	17	15	14	19	17	19	8	1	4	11	13	17	12	3	3	6	9	10	14	15	7	6.8	21.8
Dir	249	264	272	275	264	269	272	257	257	257	199	237	249	242	256	278	221	72	56	81	92	102	113	111	255	272
25 Spd	3	1	6	7	33	46	52	50	47	39	36	34	33	28	30	33	25	23	10	7	8	7	5	3	23.1	51.8
Dir	118	53	224	236	247	260	258	255	259	258	250	247	250	253	251	256	260	268	279	255	238	237	230	194	254	258
26 Spd	2	4	6	1	3	7	5	5	4	3	2	6	1	4	3	4	1	5	5	6	8	6	1	1	1.6	7.8
Dir	99	204	199	236	272	281	282	211	215	149	130	203	265	22	29	30	1	350	332	242	273	273	204	114	260	273
27 Spd	1	3	7	9	9	10	8	4	5	15	9	3	9	9	10	4	4	7	2	3	7	11	11	9	3.1	14.6
Dir	114	151	115	103	51	59	61	7	54	108	115	124	126	142	142	194	179	176	24	9	344	340	335	338	85	108
28 Spd	5	9	5	5	9	11	8	2	3	4	3	9	3	4	4	3	5	8	9	8	8	8	6	7	2.4	10.7
Dir	345	4	343	353	16	17	15	170	250	27	25	302	297	144	132	115	124	135	118	115	130	115	127	114	67	17
29 Spd	7	6	6	4	5	4	5	3	3	3	2	3	2	5	5	9	12	12	10	15	14	13	9	7	2.6	14.7
Dir	117	122	111	119	169	167	152	117	86	92	83	101	80	48	298	276	289	283	282	251	256	262	259	297	254	251
30 Spd	6	3	5	20	18	13	15	15	13	13	11	12	8	12	11	12	11	11	10	7	8	4	4	4	9.8	20.0
Dir	321	316	336	19	0	9	24	14	8	358	356	10	40	13	357	4	11	34	36	30	47	9	1	344	11	19
31 Spd	8	6	2	4	7	7	6	7	4	4	2	3	6	3	3	3	3	4	6	4	4	6	2	4	1.6	7.6
Dir	322	326	333	155	120	83	77	86	86	295	347	285	272	229	193	173	125	82	51	84	112	79	117	98	80	322
Spd	5.1	4.8	5.2	3.8	5.7	7.2	7.7	9.7	8.7	7.0	6.1	6.5	6.4	7.5	8.3	7.5	5.6	4.3	4.3	5.0	4.6	5.2	3.7	3.9	Diurnal Average	
Dir	282	284	274	285	277	279	273	267	269	264	265	264	268	272	269	277	277	282	291	283	281	277	280	284	Diurnal Maximum	
Spd	28.0	27.2	34.4	33.7	47.9	56.2	53.8	50.5	47.3	39.1	36.3	35.8	41.3	40.1	41.9	34.1	33.4	32.1	31.9	40.6	43.5	48.8	34.1	28.6	Diurnal Maximum	
Dir	260	263	252	251	253	258	257	255	259	258	250	264	268	268	269	274	247	270	271	270	267	263	260	258	Diurnal Maximum	
Maximum Speed Value: 56 km/h on Jan 22 06:00		Minimum Speed Value: 0 km/h on Jan 15 08:00																Hours in Service: 744								
Maximum Daily Speed Average: 27.5 km/h on Jan 16		Minimum Daily Speed Average: 0.3 km/h on Jan 11																Hours of Data: 744								
Maximum Diurnal Speed Average: 9.7 km/h at hour 8		Minimum Diurnal Speed Average: 3.7 km/h at hour 23																Hours of Missing Data: 0								
Monthly Average Velocity: 5.95 km/h 274.5 deg		Speed Percentiles: P <sub>1</sub> = 0.4 P <sub>10</sub> = 1.8 Q <sub>1</sub> = 3.4 Median = 6.7 Q <sub>3</sub> = 13.5 P <sub>90</sub> = 26.3 P <sub>99</sub> = 46.7																Percent Operational Time: 100.0								
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	36	31	25	1	0	0	93																			
NorthEast	63	21	4	1	0	0	89																			
East	50	15	3	2	0	0	70																			
SouthEast	36	27	1	0	0	0	64																			
South	26	5	0	0	0	0	31																			
SouthWest	27	27	9	5	3	0	71																			
West	22	33	56	41	45	17	214																			
NorthWest	33	55	21	3	0	0	112																			
Total	293	214	119	53	48	17	744																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Beaverlodge - January 2015**



**Wind Speed Classes (km/h)**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - January 2015

Maximum Speed: 56 km/h on Jan 22 06:00	Maximum Daily Speed Average: 28.7 km/h on Jan 16	Hours in Service: 744
Minimum Speed: 1 km/h on Jan 11 11:00	Minimum Daily Speed Average: 2.8 km/h on Jan 11	Hours of Data: 744
Maximum Diurnal Speed Average: 14.1 km/h at hour 8	Minimum Diurnal Speed Average: 8.7 km/h at hour 2	Hours of Missing Data: 0
Monthly Average Speed: 10.93 km/h	Percentiles: P <sub>1</sub> = 1.6 P <sub>10</sub> = 3.1 Q <sub>1</sub> = 4.3 Median = 7.2 Q <sub>3</sub> = 13.8 P <sub>90</sub> = 26.3 P <sub>99</sub> = 46.8	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-Jan	5	3	2	3	6	9	7	7	6	7	8	6	6	6	4	11	22	22	13	10	11	16	15	8.8	22.4	
2-Jan	15	14	13	12	19	19	18	14	13	13	13	14	12	14	12	5	6	6	14	15	14	14	11	9	12.7	19.1
3-Jan	11	12	11	10	9	8	5	7	10	6	3	5	5	3	6	6	6	8	8	7	7	5	4	2	6.8	11.7
4-Jan	3	5	2	2	5	4	3	7	6	3	5	2	3	6	6	4	15	10	7	6	6	7	4	9	5.4	15.0
5-Jan	11	9	4	3	2	4	2	3	3	3	2	3	3	2	3	4	4	7	10	10	5	5	8	10	5.1	10.9
6-Jan	6	7	7	7	7	4	6	3	4	5	5	7	10	6	4	4	4	5	9	9	11	10	9	6	6.5	10.5
7-Jan	5	8	8	6	7	2	4	4	5	7	4	9	18	20	22	20	15	16	18	17	17	17	18	18	11.8	22.1
8-Jan	15	11	12	12	8	5	7	7	8	4	3	7	9	7	6	8	4	3	4	5	2	5	5	10	7.1	15.3
9-Jan	4	7	5	2	4	3	2	3	3	2	3	2	4	2	3	5	4	3	5	8	11	10	8	7	4.7	10.9
10-Jan	4	3	7	9	9	9	9	6	4	3	6	5	4	3	3	2	3	4	5	3	5	3	4	1	4.7	9.3
11-Jan	1	2	1	3	1	3	2	2	3	3	1	3	5	3	3	6	3	3	2	4	1	3	3	5	2.8	6.2
12-Jan	4	3	5	3	5	5	4	5	5	5	4	4	4	4	4	3	6	6	7	3	9	4	3	7	4.7	8.8
13-Jan	11	10	11	11	14	24	21	27	24	19	16	17	12	19	30	34	33	32	25	15	19	30	33	29	21.5	33.9
14-Jan	24	26	31	16	26	15	23	43	30	18	21	17	9	20	20	18	9	7	7	8	5	4	3	5	16.9	43.3
15-Jan	5	2	4	5	4	5	7	4	4	5	4	3	2	2	3	3	6	3	4	3	4	5	2	4	3.8	6.6
16-Jan	3	3	6	6	8	20	27	35	33	33	34	35	41	39	42	34	31	32	32	41	44	49	34	28	28.7	48.8
17-Jan	28	13	35	31	24	26	27	30	30	23	19	9	8	18	23	24	10	15	7	18	12	12	7	10	19.1	34.5
18-Jan	12	14	5	6	5	5	5	4	6	4	8	8	5	8	4	8	8	6	8	5	4	3	2	8	6.3	13.9
19-Jan	17	12	7	11	13	21	27	31	29	30	36	36	35	40	36	30	31	25	18	20	22	19	15	8	23.6	40.2
20-Jan	12	13	17	13	11	13	12	15	14	13	15	8	4	4	3	4	2	6	6	4	2	4	4	4	8.4	17.4
21-Jan	7	3	4	5	4	3	3	5	8	11	18	26	37	37	20	20	17	8	12	12	10	13	17	18	13.2	37.2
22-Jan	26	27	30	34	48	56	54	47	36	29	14	11	17	30	32	33	6	11	15	16	7	8	3	3	24.7	56.4
23-Jan	4	5	12	10	21	19	11	22	21	12	10	8	4	5	7	7	5	4	9	18	17	22	25	22	12.5	25.2
24-Jan	17	21	22	17	15	14	19	17	19	10	5	7	11	14	18	12	5	4	7	10	10	15	16	7	12.9	22.1
25-Jan	3	3	7	8	34	47	52	51	47	39	36	34	33	28	30	33	25	24	10	8	8	8	5	4	24.0	51.9
26-Jan	4	4	6	3	6	7	6	5	5	4	3	6	3	5	5	4	1	6	6	6	8	6	3	2	4.8	7.8
27-Jan	2	3	7	9	10	10	9	4	7	15	9	4	10	10	10	5	5	7	14	3	7	11	11	9	7.9	14.6
28-Jan	5	9	5	5	10	11	9	4	3	5	4	9	5	5	4	4	5	8	9	9	8	8	7	7	6.6	10.8
29-Jan	7	6	6	4	5	4	5	4	3	3	3	4	3	5	7	10	12	12	11	15	14	13	9	8	7.1	14.8
30-Jan	6	4	6	20	18	13	15	15	13	13	11	12	9	12	11	12	12	11	10	8	8	5	4	4	10.5	20.1
31-Jan	8	6	2	5	7	7	6	7	5	6	3	4	6	3	3	3	4	5	6	4	4	6	3	5	4.9	7.6
	9.2	8.7	9.7	9.4	11.7	12.7	13.1	14.1	13.1	11.5	10.6	10.5	10.9	12.3	12.6	11.9	9.9	10.3	10.5	10.3	10.0	10.8	9.6	9.0	Diurnal Average	
	28.1	27.4	34.5	33.9	48.0	56.4	53.9	50.6	47.4	39.2	36.4	35.9	41.4	40.2	42.0	34.2	33.5	32.2	32.0	40.7	43.6	48.8	34.3	28.7	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg  
Beaverlodge - January 2015

Maximum Value: 94.4 deg on Jan 21 08:00		Hours in Service: 744																							
Minimum Value: 2.2 deg on Jan 19 18:00		Hours of Data: 744																							
Percentiles: P <sub>1</sub> = 2.6 P <sub>10</sub> = 4.4 Q <sub>1</sub> = 7.2 Median = 16.6 Q <sub>3</sub> = 44.1 P <sub>90</sub> = 69.0 P <sub>99</sub> = 88.7		Hours of Missing Data: 0																							
		Hours of Calibration: 0																							
		Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	7	50	70	33	11	7	8	26	20	13	34	16	9	35	48	49	74	5	7	15	14	19	12	14	74.2
2-Jan	12	6	7	9	4	4	4	7	5	6	4	5	7	6	10	6	11	28	6	4	5	6	7	7	28.4
3-Jan	7	8	6	8	10	9	32	12	7	13	78	22	26	47	38	10	36	5	4	12	21	12	62	86	86.4
4-Jan	53	13	68	84	9	20	81	9	53	55	17	92	67	57	52	62	44	25	49	36	30	19	50	24	91.9
5-Jan	6	9	77	66	88	72	63	46	34	64	69	88	84	60	70	63	54	10	4	5	11	29	14	15	87.8
6-Jan	35	22	7	11	10	62	11	24	25	10	16	12	16	39	40	53	37	45	18	8	4	15	11	16	61.9
7-Jan	68	12	10	78	72	68	25	39	28	9	82	43	6	6	5	5	7	9	5	5	6	6	6	5	81.9
8-Jan	6	10	9	7	10	21	12	8	9	31	33	9	15	24	33	6	51	12	13	23	90	70	54	33	89.6
9-Jan	48	39	5	67	52	75	69	78	44	56	64	72	15	83	63	49	63	86	71	30	8	5	13	33	86.3
10-Jan	39	24	10	9	7	8	6	13	29	34	8	59	54	53	76	85	13	58	5	55	56	46	25	88	88.0
11-Jan	71	40	46	30	71	82	45	83	84	67	77	93	69	80	66	57	83	82	32	9	83	14	15	11	93.4
12-Jan	13	42	7	54	8	11	17	13	12	12	27	46	37	16	58	33	19	32	5	91	25	67	12	50	91.2
13-Jan	7	9	6	7	16	3	5	4	3	7	7	7	14	9	8	6	3	4	4	29	18	5	5	5	29.4
14-Jan	5	5	4	7	4	10	7	8	5	8	12	7	69	6	4	9	16	18	12	16	75	26	54	18	75.4
15-Jan	36	49	42	64	80	22	50	92	38	18	55	84	69	53	42	86	82	85	74	72	63	55	50	56	92.3
16-Jan	88	54	77	78	44	13	4	4	5	5	3	4	3	4	4	4	4	3	4	4	3	3	6	6	88.4
17-Jan	5	47	4	8	7	5	7	5	6	7	18	30	19	26	4	4	18	9	29	6	21	24	23	58	58.0
18-Jan	41	15	37	55	25	36	35	55	16	64	63	60	37	35	47	44	74	88	76	75	41	41	82	29	88.1
19-Jan	6	25	19	10	9	2	3	2	4	5	3	3	3	4	3	3	2	2	3	4	3	3	16	12	25.0
20-Jan	4	4	4	3	9	5	10	8	17	8	4	39	19	44	28	8	39	28	27	46	34	37	27	43	45.6
21-Jan	36	56	27	17	22	41	27	94	7	8	5	5	4	4	7	9	7	40	17	7	31	9	11	10	94.4
22-Jan	3	9	12	5	4	4	4	3	3	4	18	14	13	4	4	5	43	11	12	10	67	14	70	37	70.4
23-Jan	48	43	7	9	4	8	15	3	10	58	33	42	76	75	63	42	32	14	40	11	9	6	5	6	76.1
24-Jan	6	4	9	8	13	10	5	7	8	48	85	87	25	13	20	6	51	49	22	20	6	7	6	17	86.8
25-Jan	27	72	50	59	6	5	4	3	4	5	3	3	3	4	3	3	5	9	14	28	26	59	18	25	71.7
26-Jan	62	23	19	89	75	49	49	25	70	45	47	11	75	35	66	18	73	34	21	16	8	10	68	47	89.1
27-Jan	75	18	11	7	24	21	34	52	44	4	13	39	17	17	9	23	34	19	85	58	15	14	7	8	84.9
28-Jan	28	7	14	12	7	7	19	59	35	49	38	9	68	32	36	31	22	21	20	15	17	13	23	9	68.2
29-Jan	9	13	14	20	24	18	29	37	21	26	41	30	68	25	56	9	12	11	17	7	9	7	15	15	68.0
30-Jan	16	74	36	3	10	14	7	4	5	8	9	6	26	6	12	9	7	8	6	8	6	28	18	17	73.7
31-Jan	6	6	38	64	20	12	13	8	16	68	64	51	12	50	14	28	21	20	10	36	22	22	53	33	67.6
	88.4	73.7	77.1	89.1	87.8	81.8	81.5	94.4	83.9	67.6	85.0	93.4	84.2	83.0	75.7	86.1	82.6	88.1	84.9	91.2	89.6	69.6	81.9	88.0	

PAZA

## Valleyview Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

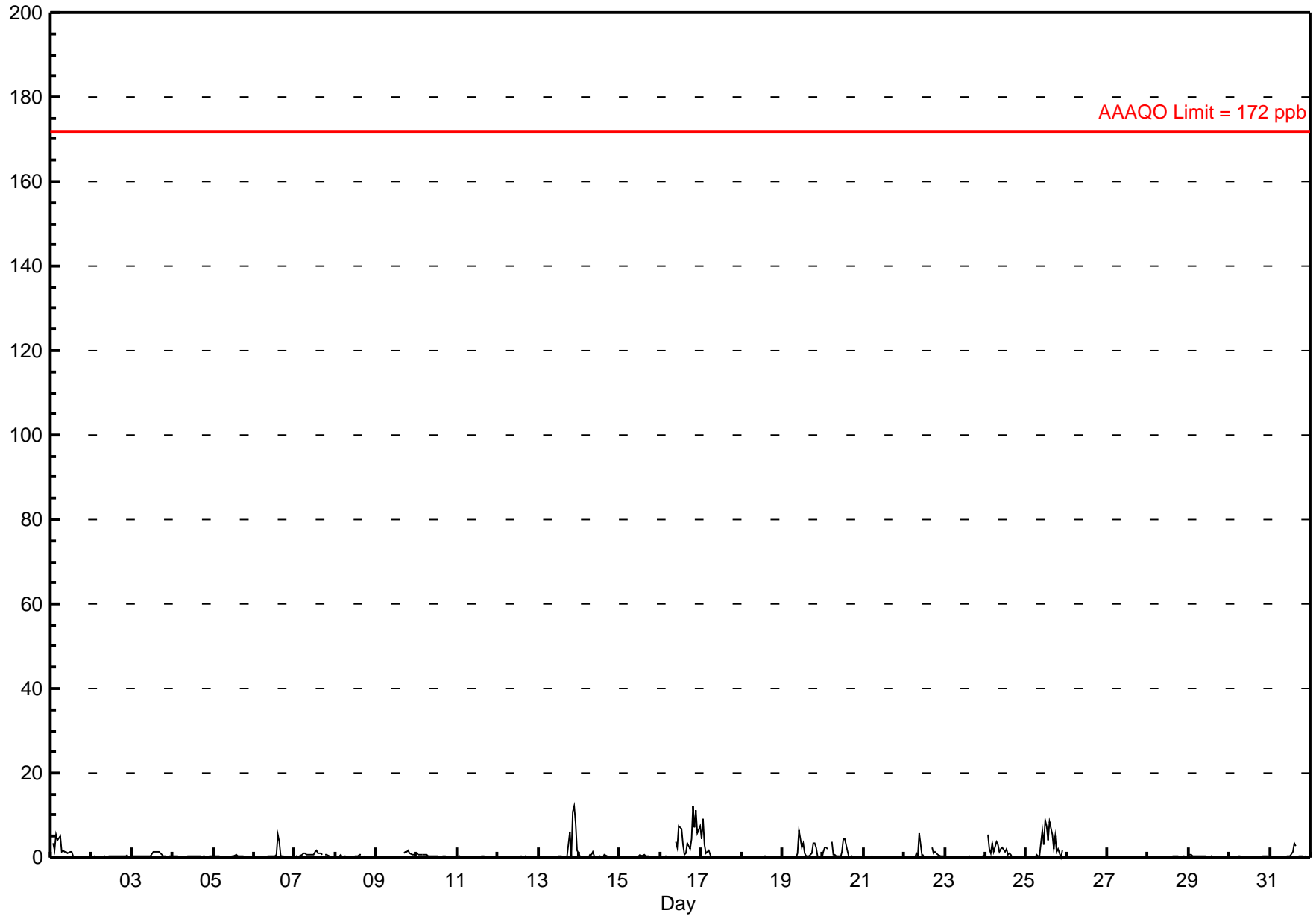
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Valleyview - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 12.3 ppb on Jan 16 20:00	Maximum Daily Average: 3.5 ppb on Jan 16		Hours of Data:	707
Minimum Value: 0 ppb on Jan 1 21:00	Minimum Daily Average: 0.0 ppb on Jan 27		Hours of Missing Data:	37
Maximum Diurnal Average: 1.1 ppb at hour 13	Minimum Diurnal Average: 0.3 ppb at hour 9		Hours of Calibration:	37
Monthly Average: 0.63 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 1.4 P <sub>99</sub> = 8.3		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	A	3	2	5	4	5	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1.3	5.3
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0.3	0.8
3-Jan	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	A	0	0	0.6	1.4
4-Jan	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
5-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0.2	0.5
6-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	6	4	0	0	A	0	0	0	0	0	0	0.6	5.6
7-Jan	0	0	0	0	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	0	0	0	0	0	0.6	1.6
8-Jan	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0.2	0.6
9-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	2	1	1	1	1	1	0.4	1.8
10-Jan	1	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.4	0.9
11-Jan	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
12-Jan	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
13-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	6	0	11	12	8	2	1.8	12.2
14-Jan	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	1.3
15-Jan	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.2	0.6
16-Jan	0	0	0	0	0	0	0	0	A	4	2	8	7	3	1	1	3	2	4	12	7	11	6	7	3.5	12.3
17-Jan	4	9	3	1	2	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	9.0
18-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
19-Jan	0	0	0	0	0	A	0	0	0	1	6	2	3	1	0	0	0	1	3	3	2	0	0	0	1.1	6.3
20-Jan	1	2	2	2	A	4	1	1	0	0	0	1	4	4	1	0	0	0	0	0	0	0	0	0	1.1	4.3
21-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
22-Jan	0	0	A	0	0	0	0	1	0	6	0	1	C	C	C	C	3	1	1	1	1	0	0	0	0.9	5.9
23-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.6
24-Jan	A	5	2	1	3	1	4	3	1	2	2	1	2	1	1	1	0	0	0	0	0	0	0	A	1.5	5.4
25-Jan	0	0	0	0	0	0	1	0	0	6	3	9	7	4	8	5	2	5	1	2	0	2	A	0	2.5	8.7
26-Jan	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
27-Jan	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
28-Jan	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
29-Jan	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.6
30-Jan	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	0.2
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	A	0	0	0	0	0	0	0	0	0.5	3.4
	0.3	0.8	0.4	0.5	0.4	0.5	0.4	0.3	0.3	0.8	0.6	0.9	1.1	0.8	0.9	0.7	0.5	0.5	0.7	0.8	0.8	1.0	0.6	0.4	Diurnal Average	
	4.3	9.0	2.9	5.3	3.9	4.9	3.8	3.2	1.5	6.4	6.3	8.7	7.4	4.3	8.5	5.3	3.4	5.2	5.9	12.3	10.7	12.2	8.3	7.3	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 Maximums

Sulphur Dioxide (SO<sub>2</sub>) - ppb

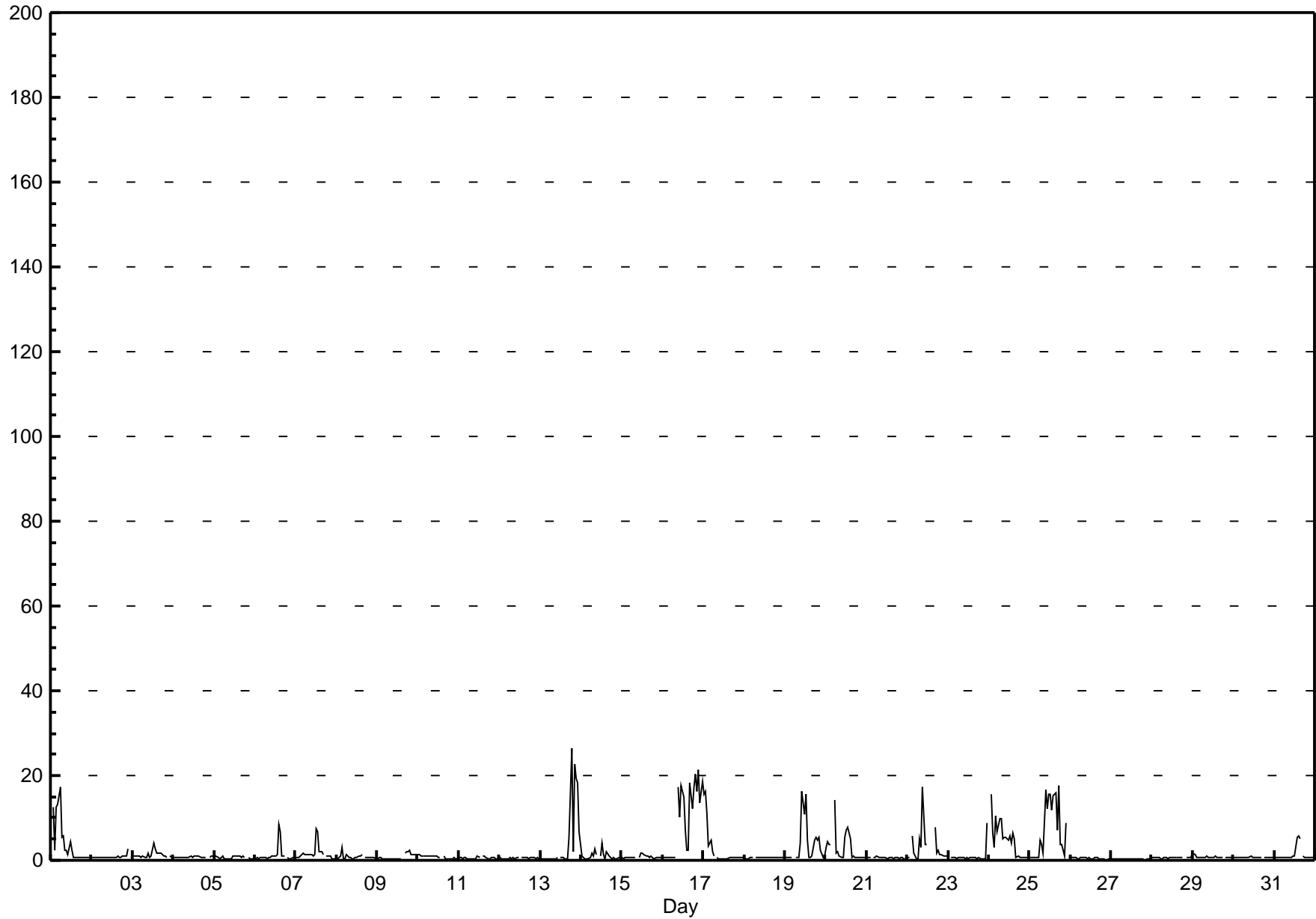
Valleyview - January 2015

Maximum Value: 26.6 ppb on Jan 13 19:00		Maximum Daily Average: 9.3 ppb on Jan 16		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 22 07:00		Minimum Daily Average: 0.5 ppb on Jan 27		Hours of Data: 707																							
Maximum Diurnal Average: 3.2 ppb at hour 13		Minimum Diurnal Average: 1.1 ppb at hour 9		Hours of Missing Data: 37																							
Monthly Average: 1.94 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.5 Median = 0.6 Q <sub>3</sub> = 1.1 P <sub>90</sub> = 5.0 P <sub>99</sub> = 18.3		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-Jan	A	13	2	12	13	17	5	6	3	2	2	5	3	1	1	1	1	1	1	1	1	1	1	A	4.0	17.5	
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	A	1	0.8	2.7	
3-Jan	1	1	1	1	1	1	1	1	1	2	1	1	4	3	2	2	2	2	1	1	1	A	1	1	1.3	4.1	
4-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.1	
5-Jan	1	1	1	0	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	A	1	0	0	0	0.7	1.1	
6-Jan	0	1	0	1	1	1	1	0	1	1	1	1	1	1	8	7	1	1	A	1	0	0	1	0	1.3	8.3	
7-Jan	1	1	1	1	2	1	1	1	1	1	1	1	7	7	2	2	1	A	1	1	1	0	0	0	1.6	7.4	
8-Jan	0	0	1	3	0	0	1	1	1	0	0	1	1	1	1	2	A	1	1	1	1	1	1	1	0.8	2.9	
9-Jan	1	1	1	1	0	1	0	0	1	1	0	0	0	0	0	A	2	2	2	2	1	1	1	1	0.9	2.5	
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	1	0	0	0.8	1.4	
11-Jan	1	1	0	1	1	0	0	0	0	0	0	1	1	A	1	1	1	0	0	1	1	1	0	0	0.6	1.0	
12-Jan	1	0	0	0	0	0	1	0	1	0	1	1	A	1	1	1	1	0	1	1	1	0	1	0	0.5	0.8	
13-Jan	0	0	0	0	0	0	0	1	1	1	1	A	1	1	1	0	0	5	27	2	23	19	18	7	4.8	26.6	
14-Jan	1	1	0	0	0	1	2	1	3	1	A	1	4	1	0	2	1	1	0	1	0	1	1	1	1.0	3.9	
15-Jan	1	0	1	1	1	1	1	1	1	A	1	2	2	1	1	1	1	1	1	0	1	1	1	1	0.8	1.6	
16-Jan	1	1	1	1	1	1	1	1	A	17	10	18	15	7	2	2	18	12	17	20	16	21	14	18	9.3	21.2	
17-Jan	15	16	11	3	5	2	1	A	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2.7	16.3	
18-Jan	1	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
19-Jan	1	1	1	1	1	A	1	1	1	4	16	11	15	5	1	1	1	1	5	5	5	2	1	1	3.6	16.2	
20-Jan	3	4	4	4	A	14	2	2	1	1	1	6	7	8	5	1	1	1	1	1	1	1	1	1	2.9	14.3	
21-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	0	0	0.6	0.9	
22-Jan	1	1	A	6	2	0	0	5	3	17	4	4	C	C	C	C	8	2	2	1	1	1	1	1	3.1	17.3	
23-Jan	1	A	1	1	1	1	1	1	1	1	0	1	0	1	1	1	0	1	0	0	0	0	0	9	0.9	8.9	
24-Jan	A	16	7	3	10	7	10	10	5	6	6	5	6	4	6	5	1	1	1	1	1	1	1	A	5.0	15.6	
25-Jan	1	1	1	1	1	1	5	4	2	17	12	15	15	12	15	16	7	18	4	4	1	9	A	1	6.9	17.6	
26-Jan	1	1	1	1	0	0	1	1	1	1	0	1	0	0	1	1	1	0	1	0	0	A	0	0	0.5	0.8	
27-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0.5	0.5	
28-Jan	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	0.8	
29-Jan	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.8	
30-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.6	0.9	
31-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	6	6	5	A	1	1	1	1	1	1	1	1.3	5.9	
		1.3	2.2	1.3	1.5	1.5	1.9	1.4	1.4	1.1	2.6	2.1	2.7	3.2	2.3	2.1	1.9	1.8	2.1	2.5	1.7	2.1	2.4	1.7	1.7	Diurnal Average	
		15.5	16.3	11.1	12.5	13.4	17.5	9.8	9.8	5.1	17.4	16.2	17.6	15.5	11.8	15.3	15.8	18.4	17.6	26.6	20.3	22.6	21.2	18.3	18.5	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



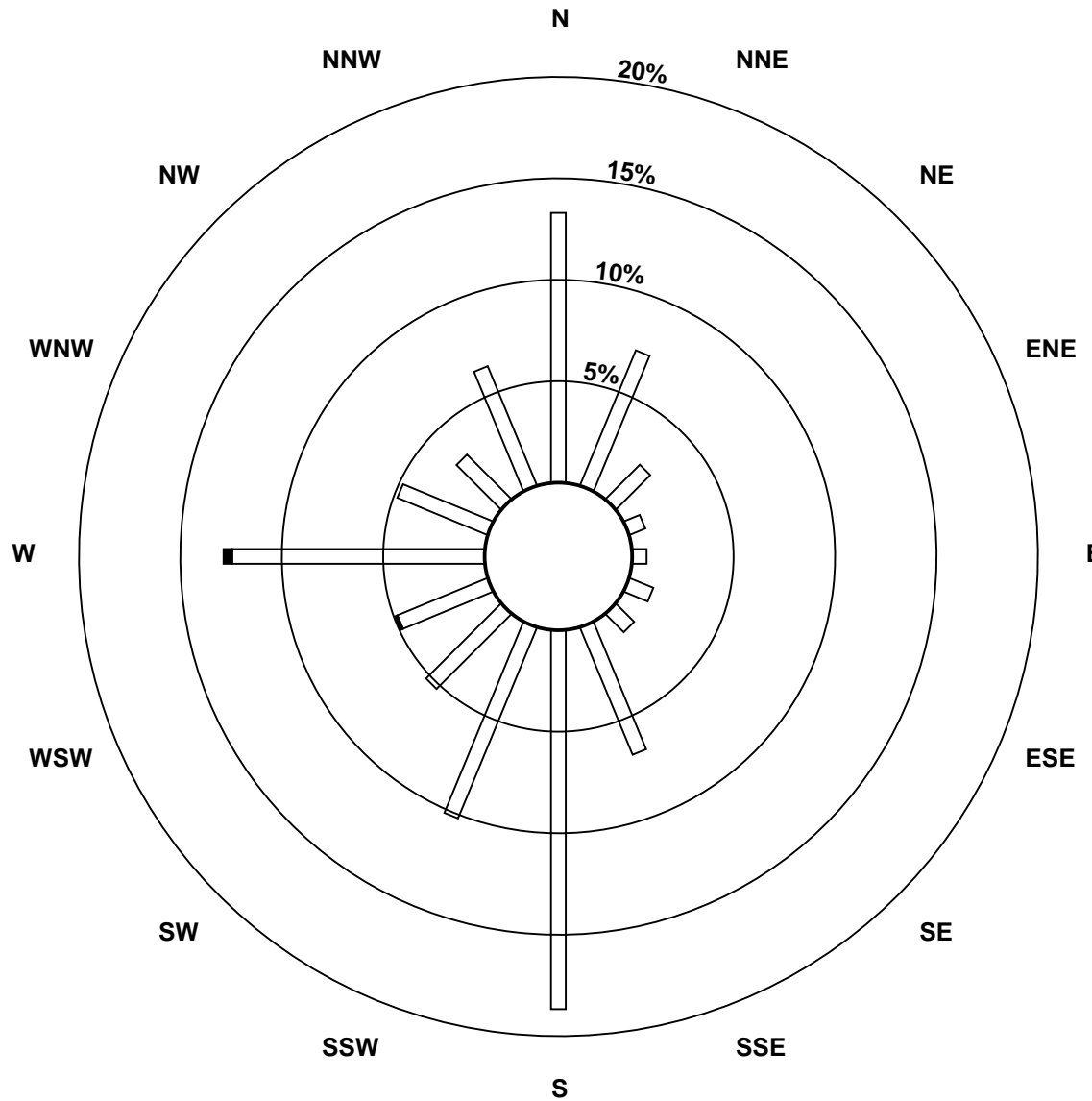
### Hourly Maximums

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Valleyview - January 2015**

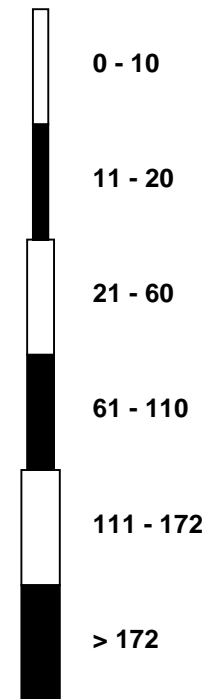


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Valleyview - January 2015**

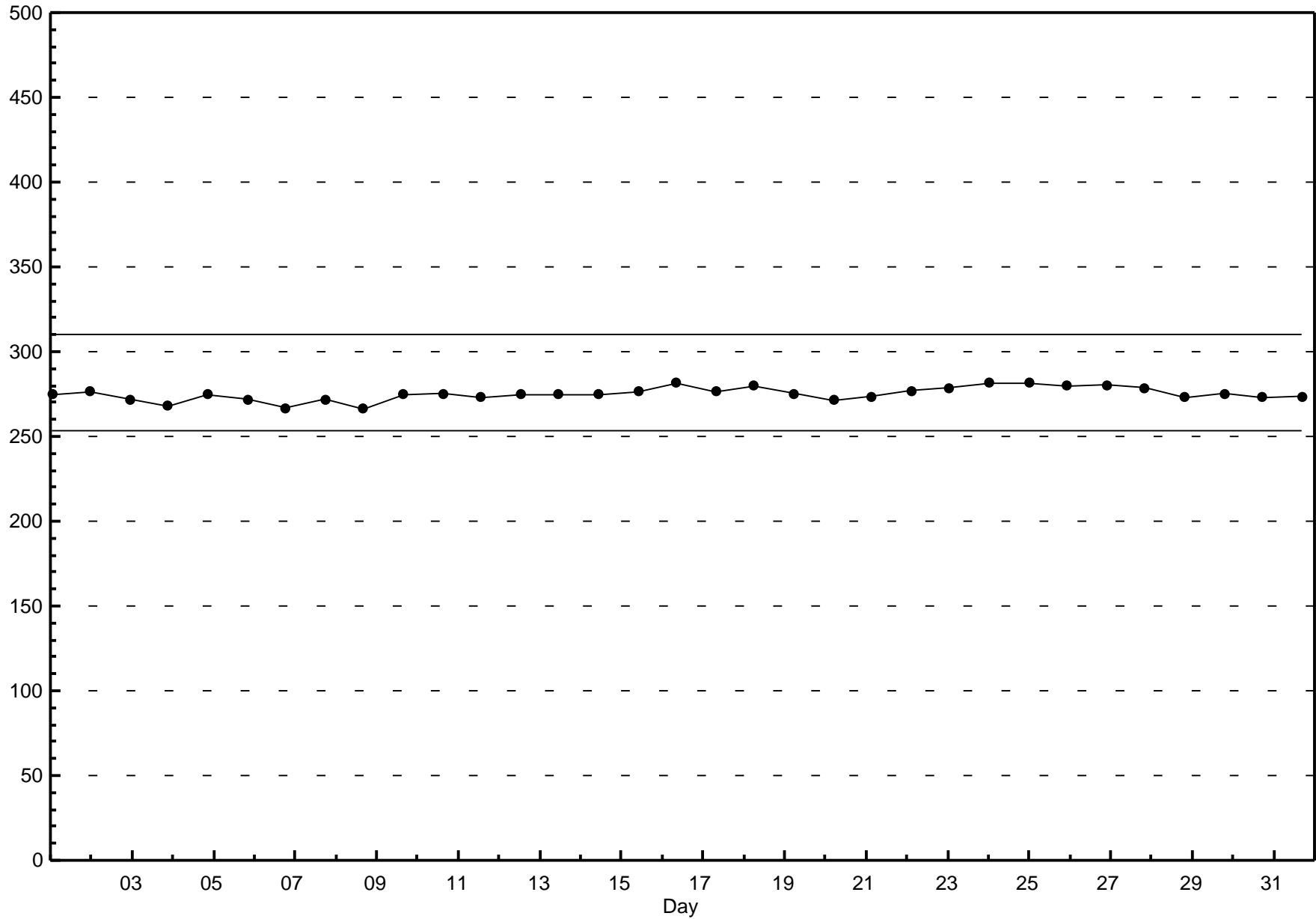


**Pollutant Classes (ppb)**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Valleyview - January 2015



## Hourly Averages

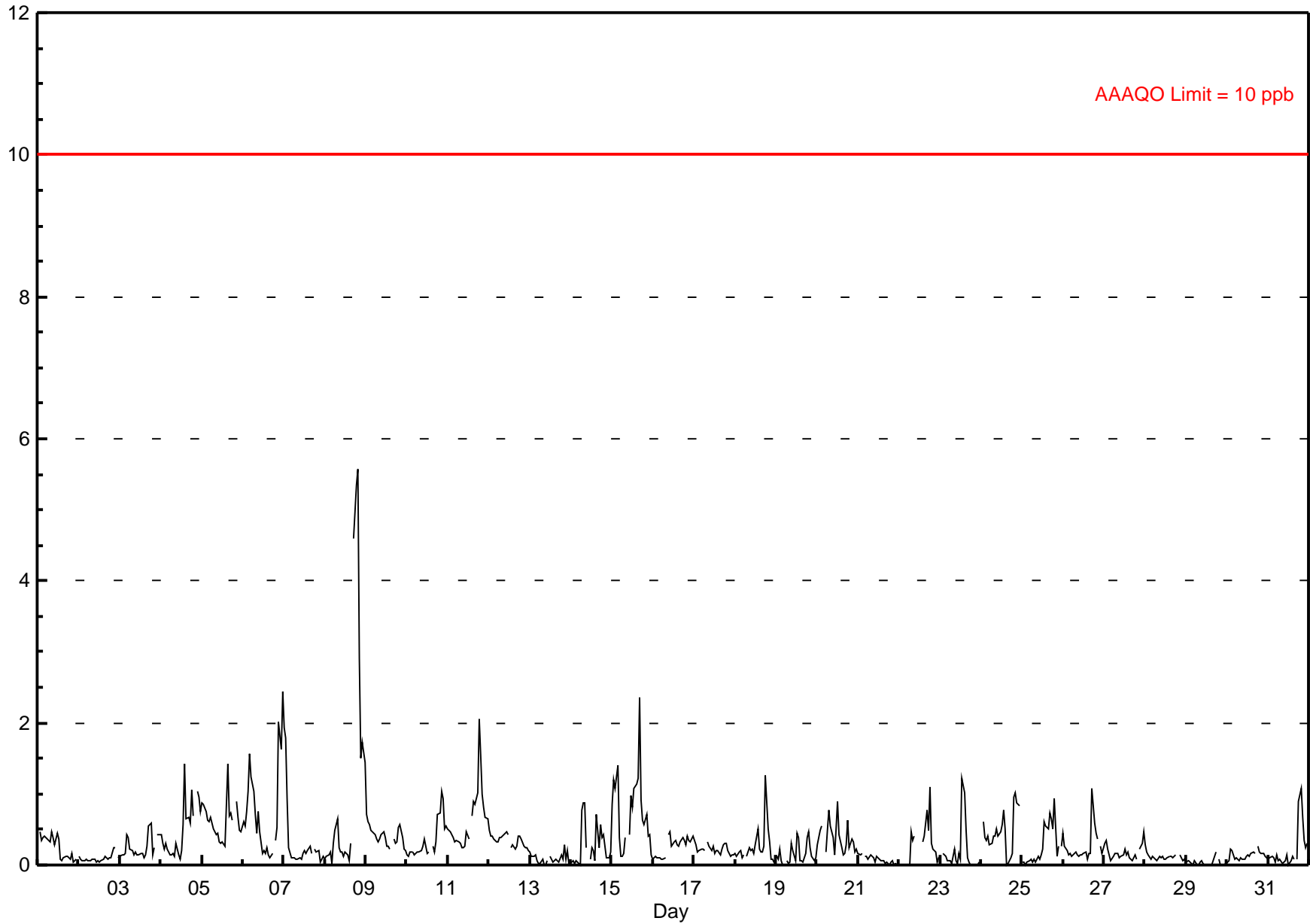
## Hydrogen Sulphide (H<sub>2</sub>S) - ppb

### Valleyview - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 5.6 ppb on Jan 8 20:00	Maximum Daily Average: 1.2 ppb on Jan 8		Hours of Data:	707
Minimum Value: 0 ppb on Jan 19 05:00	Minimum Daily Average: 0.0 ppb on Jan 29		Hours of Missing Data:	37
Maximum Diurnal Average: 0.7 ppb at hour 19	Minimum Diurnal Average: 0.2 ppb at hour 11		Hours of Calibration:	37
Monthly Average: 0.33 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 0.7 P <sub>99</sub> = 1.9		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-Jan	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
2-Jan	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
3-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0.2	0.6
4-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	A	1	1	1	0.5	1.4
5-Jan	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	A	1	1	0	0	0.6	1.4
6-Jan	1	1	1	1	2	1	1	1	0	1	0	0	0	0	0	0	0	0	A	0	1	2	2	2	0.8	2.4
7-Jan	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	1.9
8-Jan	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	5	5	6	3	2	2	1	1.2	5.6
9-Jan	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0.4	0.7
10-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	0.3	1.0
11-Jan	1	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	2	2	1	1	1	1	1	0.6	2.1
12-Jan	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	0.5
13-Jan	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
14-Jan	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	1	0	1	0	0	0	0	0	0	0.3	0.9
15-Jan	1	1	1	1	0	0	0	0	0	A	0	1	1	1	1	1	2	1	1	1	1	0	0	0	0.8	2.4
16-Jan	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
17-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
18-Jan	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0.3	1.3
19-Jan	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	0.5
20-Jan	0	0	0	1	A	0	0	1	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0.4	0.9
21-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Jan	0	0	A	0	0	0	0	0	0	0	C	C	C	C	0	0	1	0	1	0	0	0	0	0	0.3	1.1
23-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.2	1.2
24-Jan	A	1	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	1	1	1	1	A	0.5	1.0
25-Jan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	A	0	0.3	0.9
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0.3	1.1
27-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
28-Jan	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
29-Jan	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	0.2
30-Jan	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
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0.2	1.1
	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.7	0.6	0.5	0.4	0.4	0.3	Diurnal Average	
	1.9	1.8	1.1	1.4	1.6	1.2	1.0	0.9	0.9	0.8	0.5	1.0	0.9	1.2	1.4	1.4	2.4	4.6	5.4	5.6	2.9	2.0	1.7	2.4	Diurnal Maximum	

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



## Hourly Maximums

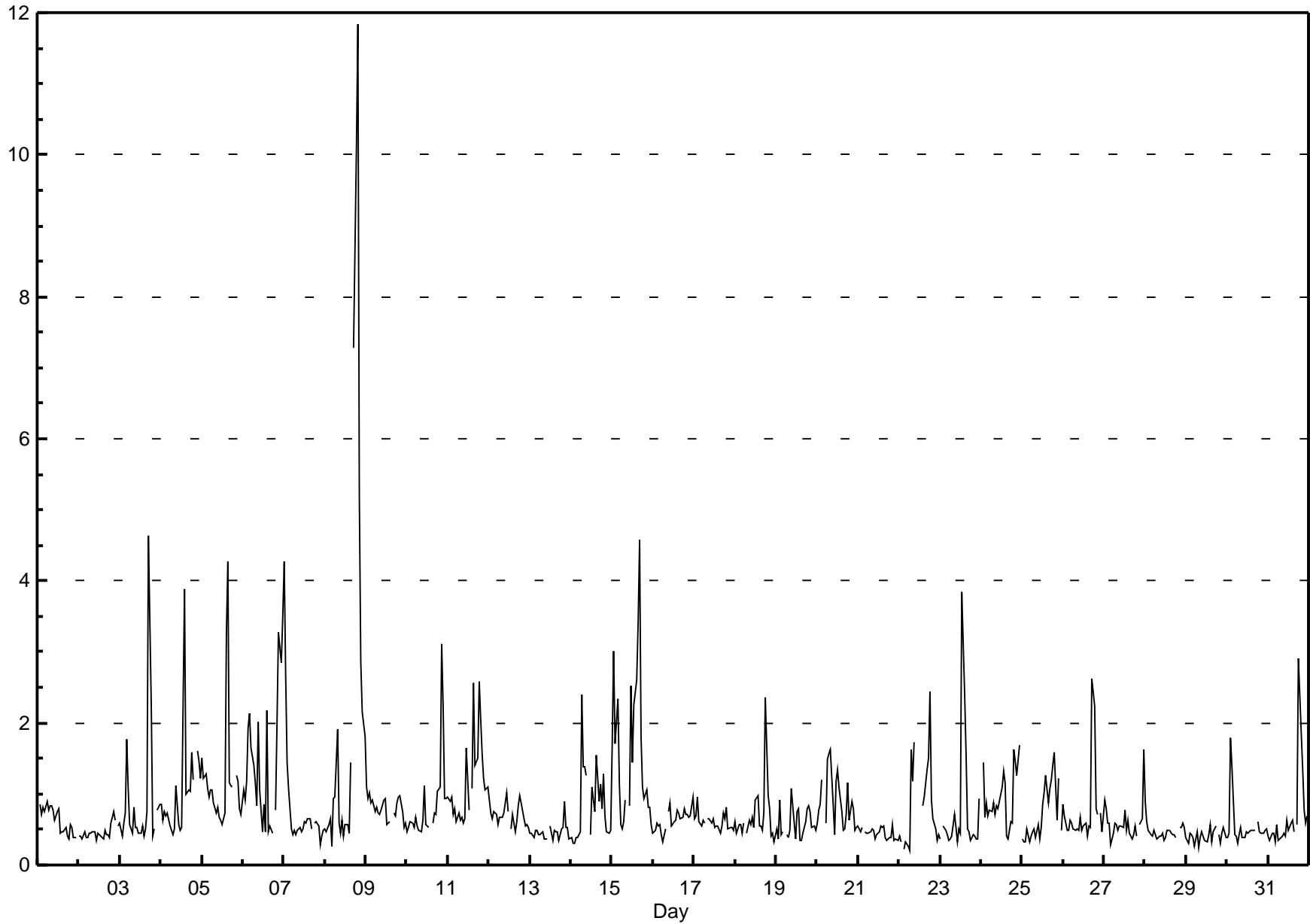
## Hydrogen Sulphide (H<sub>2</sub>S) - ppb

### Valleyview - January 2015

Maximum Value: 11.8 ppb on Jan 8 20:00		Maximum Daily Average: 2.3 ppb on Jan 8		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 22 07:00		Minimum Daily Average: 0.4 ppb on Jan 29		Hours of Data: 707																							
Maximum Diurnal Average: 1.4 ppb at hour 19		Minimum Diurnal Average: 0.6 ppb at hour 6		Hours of Missing Data: 37																							
Monthly Average: 0.84 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.5 Median = 0.6 Q <sub>3</sub> = 0.9 P <sub>90</sub> = 1.5 P <sub>99</sub> = 4.1		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-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	0	0	A			
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	A	1			
3-Jan	1	0	1	1	2	1	1	0	1	1	1	0	0	1	0	1	1	5	2	0	1	A	1	1			
4-Jan	1	1	1	1	1	1	0	0	1	1	1	0	1	2	4	1	1	1	2	1	A	2	1	1			
5-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	4	1	1	1	A	1	1	1	1			
6-Jan	1	1	1	2	2	2	1	1	1	2	1	0	1	0	2	0	1	0	A	1	2	3	3	3			
7-Jan	4	3	1	1	1	0	0	0	0	1	0	1	1	1	1	1	1	A	1	1	1	0	0	0			
8-Jan	1	0	1	1	0	1	1	2	1	0	1	0	1	1	0	1	A	7	10	12	5	3	2	2			
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1			
10-Jan	0	1	1	1	1	1	1	0	0	1	1	1	1	1	A	1	1	1	1	1	3	2	1	1			
11-Jan	1	1	1	1	1	1	1	1	1	1	2	1	A	1	3	1	1	3	2	2	1	1	1	1			
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1			
13-Jan	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	1	1	1	1	1	0			
14-Jan	0	0	0	0	0	0	2	1	1	1	1	A	0	1	1	1	2	1	1	1	1	0	0	0			
15-Jan	2	3	2	2	1	1	1	1	1	1	A	1	3	1	2	3	3	5	2	1	1	1	1	1			
16-Jan	0	0	1	1	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
17-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0			
18-Jan	1	0	1	1	0	1	A	0	1	1	1	1	1	1	1	0	1	0	1	2	1	0	0	0			
19-Jan	1	0	1	0	0	A	0	0	0	1	1	0	1	1	0	0	0	1	1	1	1	1	1	0			
20-Jan	1	1	1	1	A	1	1	2	2	1	0	1	1	1	0	1	1	1	1	1	1	1	0	1			
21-Jan	1	0	1	A	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0			
22-Jan	0	0	A	0	0	0	0	2	1	2	C	C	C	C	1	1	1	2	2	1	1	1	0	0			
23-Jan	0	A	1	0	0	0	0	0	0	1	1	0	1	0	4	2	2	1	0	0	0	0	0	1			
24-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	2	1	1	2	A			
25-Jan	0	0	0	1	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	2	1	1	A	0			
26-Jan	1	1	0	0	1	1	1	0	1	0	1	0	1	1	0	1	1	3	2	1	1	A	1	0			
27-Jan	1	1	1	1	0	0	1	1	0	1	1	1	1	0	1	0	0	0	1	0	A	1	1	2			
28-Jan	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1			
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	A	0	0	1	0			
30-Jan	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	A	1	0	0	0	1			
31-Jan	0	0	0	0	0	1	0	0	0	0	0	1	0	1	1	0	A	1	3	2	1	1	1	1			
	0.8	0.8	0.8	0.8	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.9	1.0	0.9	0.8	1.2	1.4	1.3	1.0	0.9	0.8	0.8	Diurnal Average		
	4.3	3.0	1.8	2.3	2.1	1.6	2.4	1.9	1.6	2.0	1.1	2.5	1.5	3.9	3.9	4.3	4.6	7.3	10.1	11.8	5.2	3.3	2.8	3.5	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

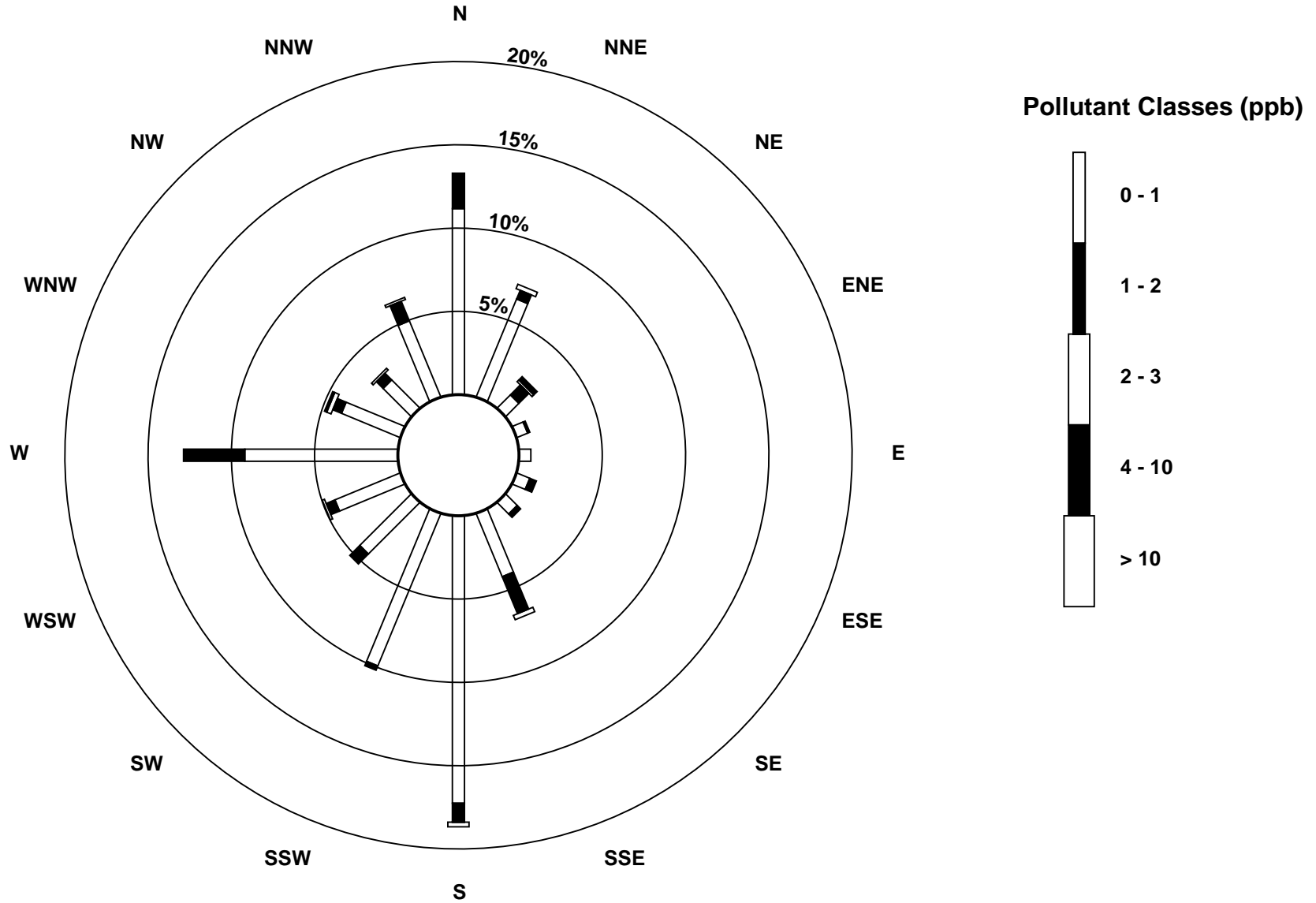
### Hourly Maximums

Hydrogen Sulphide (H<sub>2</sub>S) - ppb  
Valleyview - January 2015



**Pollutant Rose**

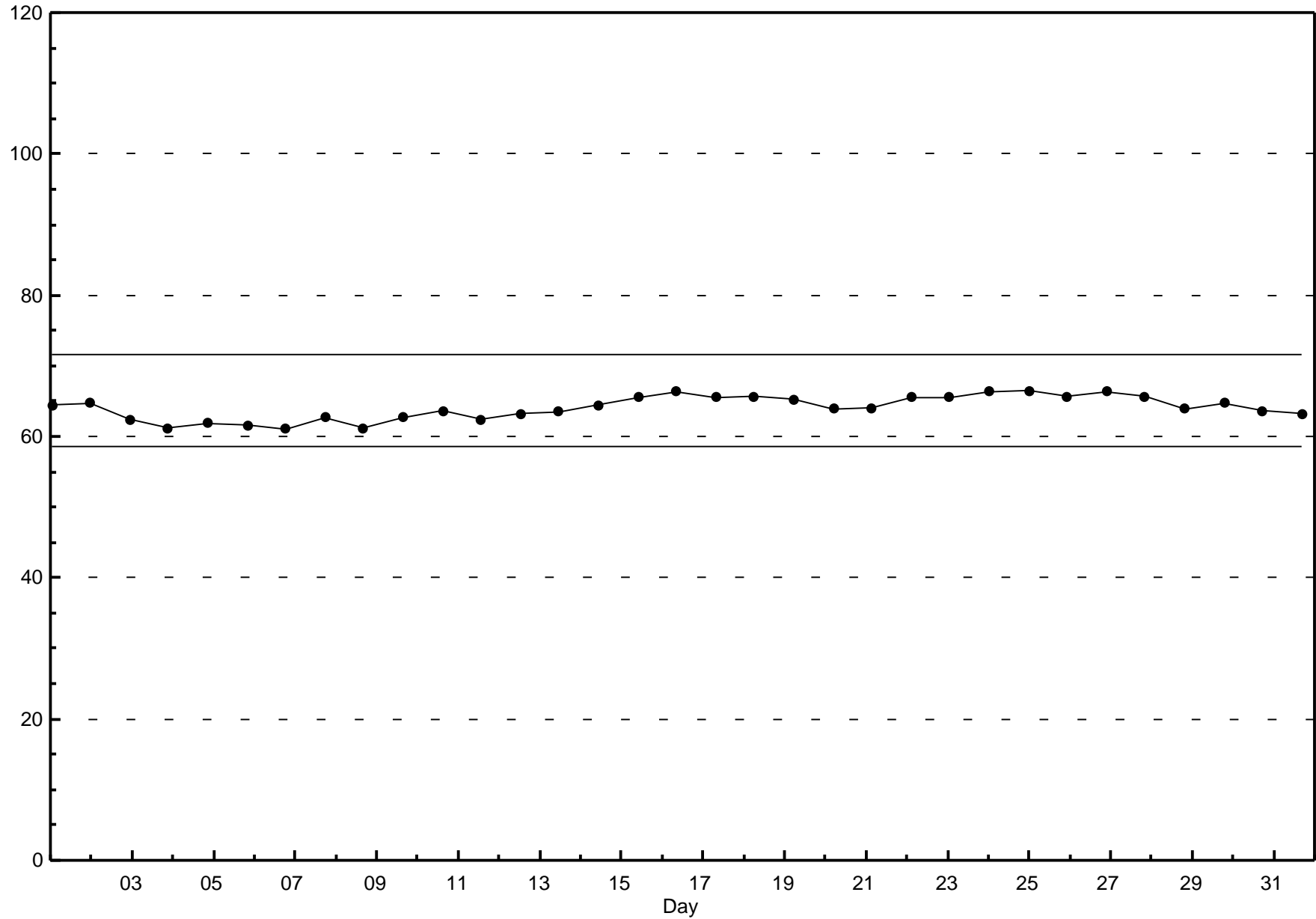
**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Valleyview - January 2015**





### Span Responses

Hydrogen Sulphide (H<sub>2</sub>S)  
Valleyview - January 2015





Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

Valleyview - January 2015

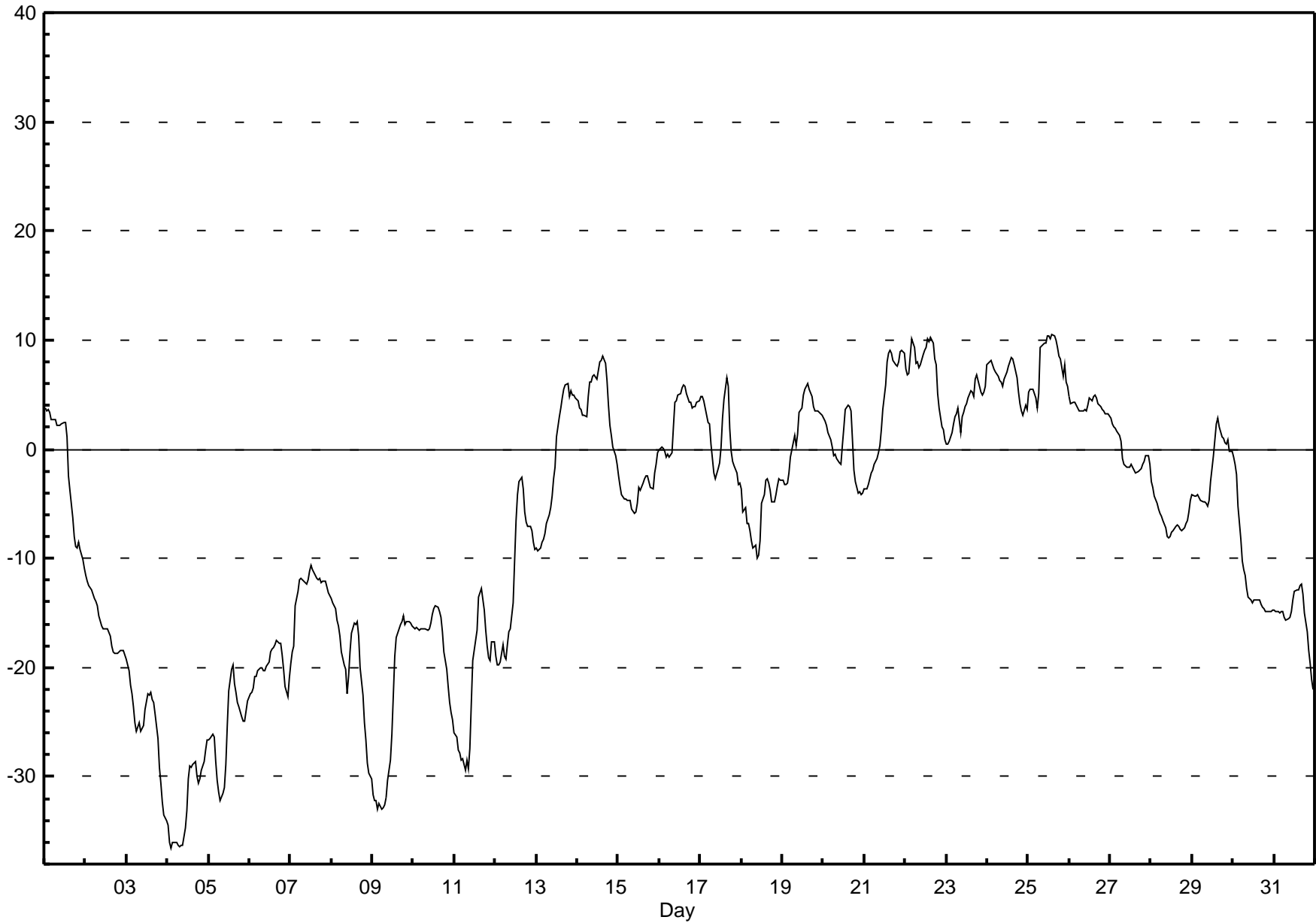
Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 10.5 °C on Jan 25 15:00	Maximum Daily Average: 7.8 °C on Jan 25		Hours of Data:	744
Minimum Value: -37 °C on Jan 4 03:00	Minimum Daily Average: -32.4 °C on Jan 4		Hours of Missing Data:	0
Maximum Diurnal Average: -4.6 °C at hour 16	Minimum Diurnal Average: -9.1 °C at hour 9		Hours of Calibration:	0
Monthly Average: -7.45 °C	Percentiles: P <sub>1</sub> = -36.0 P <sub>10</sub> = -25.0 Q <sub>1</sub> = -16.5 Median = -4.4 Q <sub>3</sub> = 3.3 P <sub>90</sub> = 6.2 P <sub>99</sub> = 10.1		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-Jan	4	4	4	3	3	3	3	2	2	2	2	2	2	1	-2	-4	-6	-8	-9	-9	-8	-9	-10	-11	-1.6	3.8	
2-Jan	-12	-12	-12	-13	-13	-14	-14	-14	-15	-16	-16	-16	-16	-16	-17	-18	-19	-19	-19	-19	-18	-18	-18	-19	-16.1	-11.6	
3-Jan	-19	-20	-22	-22	-24	-25	-26	-25	-26	-26	-25	-24	-22	-23	-22	-23	-23	-24	-27	-29	-31	-32	-33	-34	-25.3	-19.3	
4-Jan	-34	-36	-37	-36	-36	-36	-36	-36	-36	-36	-35	-33	-30	-29	-29	-29	-29	-30	-31	-30	-29	-29	-28	-27	-32.4	-26.7	
5-Jan	-27	-27	-26	-26	-29	-30	-31	-32	-31	-31	-29	-25	-22	-20	-20	-22	-22	-23	-24	-25	-25	-25	-24	-23	-25.8	-19.8	
6-Jan	-22	-22	-22	-21	-21	-20	-20	-20	-20	-20	-20	-19	-19	-18	-18	-18	-18	-18	-18	-19	-20	-22	-23	-21	-19.9	-17.5	
7-Jan	-20	-19	-18	-14	-13	-12	-12	-12	-12	-12	-12	-11	-11	-11	-11	-12	-12	-12	-12	-12	-12	-13	-13	-13	-13.0	-10.6	
8-Jan	-14	-14	-15	-16	-16	-17	-19	-20	-20	-22	-21	-19	-17	-16	-16	-17	-20	-23	-25	-27	-29	-30	-30	-19.8	-13.7		
9-Jan	-32	-32	-32	-33	-32	-33	-33	-33	-32	-30	-28	-26	-22	-19	-17	-17	-16	-16	-15	-16	-16	-16	-16	-16	-24.1	-15.3	
10-Jan	-16	-16	-16	-17	-16	-16	-16	-16	-17	-16	-16	-15	-15	-14	-14	-15	-15	-17	-19	-20	-22	-23	-24	-25	-17.4	-14.4	
11-Jan	-26	-26	-28	-28	-28	-28	-29	-29	-29	-27	-23	-19	-18	-17	-14	-13	-13	-15	-17	-18	-19	-19	-18	-18	-21.6	-12.8	
12-Jan	-19	-20	-20	-20	-18	-19	-19	-18	-17	-17	-14	-10	-7	-4	-3	-3	-4	-6	-7	-7	-7	-7	-8	-9	-11.7	-2.6	
13-Jan	-9	-9	-9	-9	-8	-8	-7	-6	-5	-4	-3	-2	1	3	4	5	5	6	6	5	5	5	5	5	-1.0	6.0	
14-Jan	4	4	4	3	3	3	5	6	6	7	7	6	7	8	8	9	8	6	4	2	1	0	-1	-1	4.6	8.5	
15-Jan	-2	-3	-4	-5	-5	-5	-5	-5	-5	-6	-6	-5	-4	-4	-3	-3	-2	-2	-3	-4	-4	-2	-1	0	-3.6	-0.3	
16-Jan	0	0	0	0	-1	0	-1	0	2	4	4	5	5	6	6	6	5	4	4	4	4	4	4	4	2.9	5.8	
17-Jan	5	5	4	4	3	2	0	-1	-2	-3	-2	-1	0	3	5	7	6	2	0	-1	-1	-2	-3	-3	1.0	6.6	
18-Jan	-4	-6	-5	-7	-7	-8	-8	-9	-9	-10	-10	-8	-5	-4	-3	-3	-3	-4	-5	-5	-4	-3	-3	-3	-5.6	-2.6	
19-Jan	-3	-3	-3	-3	-2	-1	1	1	0	1	3	4	5	6	6	6	6	5	4	4	4	3	3	3	2.0	6.0	
20-Jan	3	3	2	2	1	0	-1	0	-1	-1	-1	0	2	4	4	4	3	1	-2	-3	-4	-4	-4	-4	0.1	4.0	
21-Jan	-4	-4	-3	-3	-2	-2	-1	-1	0	0	2	4	6	8	9	9	9	8	8	8	8	9	9	9	3.5	9.1	
22-Jan	7	7	7	8	10	9	8	8	7	8	9	9	9	10	10	10	10	10	8	8	5	4	2	2	1	7.4	10.2
23-Jan	0	0	1	2	2	3	3	4	2	3	3	4	4	5	5	5	5	6	7	6	5	5	5	6	3.8	6.9	
24-Jan	8	8	8	8	7	7	7	6	6	6	6	7	8	8	8	8	8	7	5	4	3	3	4	4	6.4	8.4	
25-Jan	5	6	6	5	5	4	5	9	9	10	10	10	10	10	11	10	10	9	9	8	7	8	6	6	7.8	10.5	
26-Jan	5	4	4	4	4	4	4	4	4	4	3	4	5	4	5	5	5	4	4	4	4	3	3	3	4.0	4.9	
27-Jan	3	2	2	2	2	1	1	-1	-1	-2	-2	-2	-1	-2	-2	-2	-2	-2	-2	-1	-1	-1	-1	-1	-0.5	2.8	
28-Jan	-3	-4	-4	-5	-5	-6	-6	-7	-7	-8	-8	-8	-8	-7	-7	-7	-7	-7	-7	-7	-7	-6	-5	-5	-6.4	-3.0	
29-Jan	-4	-4	-4	-4	-4	-5	-5	-5	-5	-5	-5	-3	-1	1	2	3	2	1	1	1	1	1	0	0	-1.7	2.9	
30-Jan	-1	-1	-2	-5	-8	-10	-11	-12	-13	-13	-14	-14	-14	-14	-14	-14	-14	-14	-14	-15	-15	-15	-15	-15	-11.6	-0.7	
31-Jan	-15	-15	-15	-15	-15	-15	-15	-16	-16	-15	-15	-14	-13	-13	-13	-12	-12	-13	-15	-17	-18	-20	-21	-22	-15.4	-12.4	
	-7.8	-8.1	-8.3	-8.4	-8.5	-8.8	-9.0	-8.9	-9.1	-9.0	-8.2	-7.1	-5.7	-5.0	-4.6	-4.6	-5.0	-5.9	-6.7	-7.5	-7.9	-8.1	-8.3	-8.4	Diurnal Average		
	7.7	8.0	8.1	8.5	10.1	9.3	7.9	9.3	9.5	9.7	9.7	10.3	10.3	10.2	10.5	10.4	10.0	9.3	8.5	8.2	8.0	9.0	9.1	8.8	Diurnal Maximum		

**Hourly Averages**

**External Temperature (ET) - °C**

**Valleyview - January 2015**



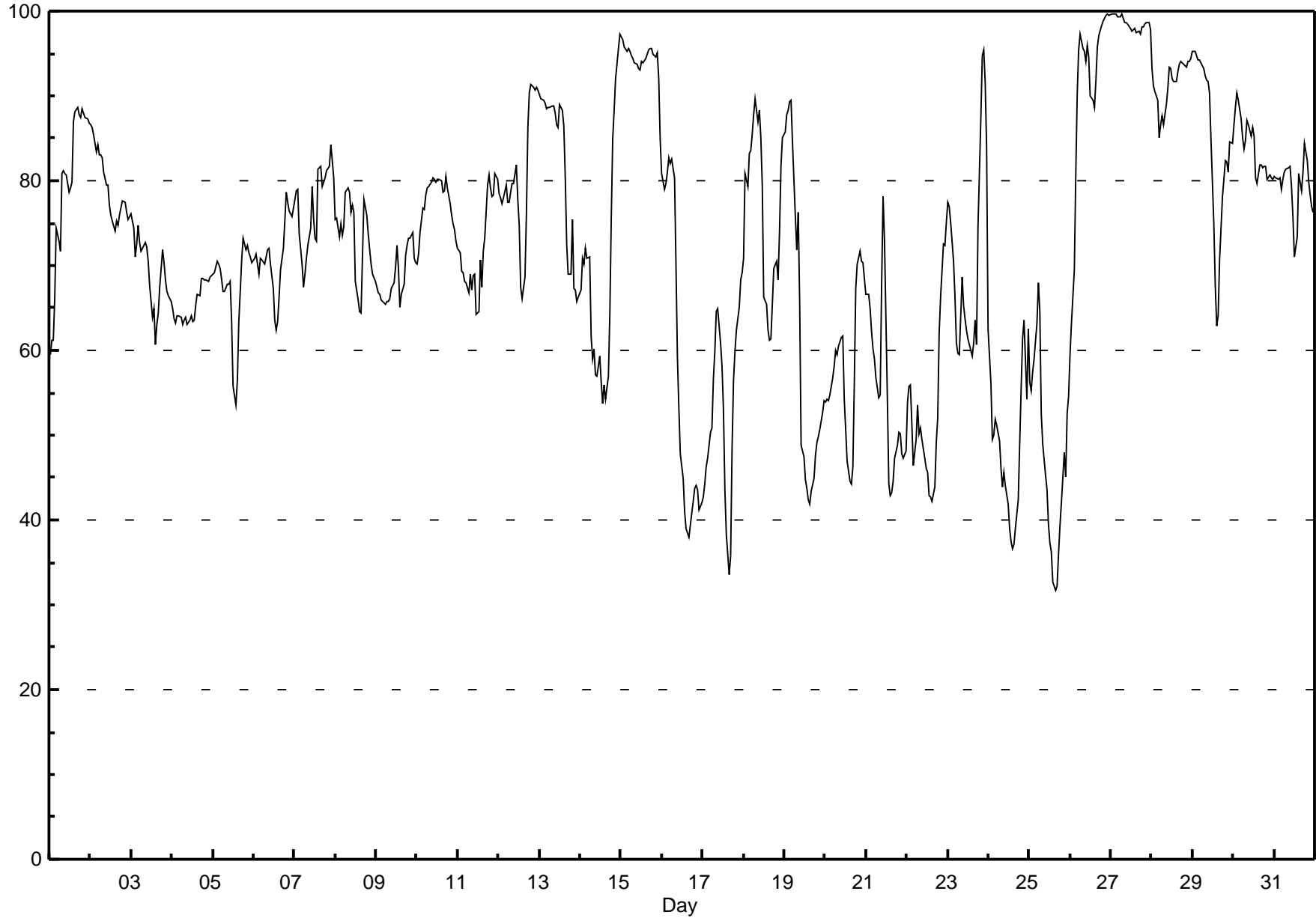
# Hourly Averages

Relative Humidity (RH) - %  
Valleyview - January 2015

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 99.7 % on Jan 27 02:00 Maximum Daily Average: 98.6 % on Jan 27		Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0																									
Minimum Value: 32 % on Jan 25 16:00 Maximum Diurnal Average: 75.3 % at hour 22 Monthly Average: 72.13 %		Minimum Daily Average: 47.5 % on Jan 25 Minimum Diurnal Average: 64.9 % at hour 15 Percentiles: P <sub>1</sub> = 36.7 P <sub>10</sub> = 48.8 Q <sub>1</sub> = 63.2 Median = 72.4 Q <sub>3</sub> = 82.6 P <sub>90</sub> = 93.7 P <sub>99</sub> = 99.5																									
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-Jan	60	61	61	66	74	73	72	81	81	81	81	79	79	80	87	88	89	88	87	89	88	87	87	87	79.4	88.7	
2-Jan	87	86	85	83	84	83	83	83	81	80	80	77	76	75	74	75	75	76	77	78	78	76	75	76	79.3	86.6	
3-Jan	76	74	71	72	75	73	72	72	73	72	71	68	64	65	61	63	64	67	72	70	68	67	66	66	69.3	76.2	
4-Jan	65	64	63	64	64	64	63	64	64	63	64	64	63	64	65	67	66	68	68	68	68	68	69	69	65.4	68.8	
5-Jan	69	69	71	70	70	68	67	67	68	68	68	63	56	54	56	63	67	71	73	72	72	71	71	70	67.3	73.2	
6-Jan	71	71	70	69	71	71	70	71	72	72	70	67	64	62	63	66	70	72	75	79	78	76	76	77	71.0	78.6	
7-Jan	78	79	79	74	70	68	69	71	72	74	79	76	73	73	81	82	79	80	80	81	82	84	82	80	77.0	84.2	
8-Jan	75	76	73	75	74	75	79	79	79	76	77	76	68	66	65	64	71	78	76	74	72	70	69	68	73.1	79.2	
9-Jan	67	67	67	66	66	65	66	66	66	67	68	70	72	70	65	67	68	71	72	73	73	74	71	70	68.6	74.0	
10-Jan	70	71	74	77	77	78	79	79	80	80	80	80	80	80	80	79	79	81	79	77	76	75	74	73	77.4	80.6	
11-Jan	72	72	69	69	68	68	67	69	67	69	69	64	64	71	67	72	73	80	81	79	78	78	81	80	72.0	80.9	
12-Jan	78	78	77	78	79	78	77	79	80	80	82	78	75	67	66	69	76	86	90	91	91	91	91	91	80.3	91.4	
13-Jan	90	90	89	89	88	89	89	89	89	88	87	86	89	88	86	80	73	69	69	75	67	67	66	66	81.6	90.1	
14-Jan	67	71	70	72	71	71	62	59	60	57	57	59	56	54	56	54	57	64	76	85	88	92	96	97	68.8	97.3	
15-Jan	97	97	96	95	96	95	95	94	94	94	93	93	94	94	94	95	95	96	96	95	95	95	92	85	94.3	96.9	
16-Jan	81	79	80	81	83	82	83	80	70	59	53	48	45	41	39	38	38	41	42	44	44	44	41	42	57.4	82.7	
17-Jan	43	44	46	47	50	51	57	60	65	65	61	58	53	44	38	34	36	48	56	60	62	65	68	69	53.4	69.1	
18-Jan	71	81	79	83	84	85	88	90	87	88	85	79	66	65	62	61	61	65	70	70	68	74	82	85	76.3	89.7	
19-Jan	86	88	88	89	90	85	76	72	76	66	49	47	45	44	42	42	43	45	48	49	50	51	53	54	61.5	89.5	
20-Jan	54	54	54	55	57	58	60	59	61	61	62	54	51	47	45	44	46	56	67	70	72	71	70	69	58.2	71.6	
21-Jan	67	67	65	62	60	59	57	54	55	68	78	73	54	44	43	43	45	47	49	50	50	48	47	48	55.6	78.2	
22-Jan	54	56	56	51	46	49	54	50	51	50	47	46	46	43	43	42	44	49	52	62	66	72	72	75	53.2	75.2	
23-Jan	77	77	75	71	66	61	60	60	69	65	64	62	61	61	59	61	64	61	75	88	95	95	92	84	70.9	95.5	
24-Jan	62	56	50	50	52	51	49	46	44	46	44	42	39	37	37	37	39	42	49	55	61	64	54	62	48.7	63.6	
25-Jan	56	55	57	59	63	68	65	52	49	45	44	39	37	36	33	32	32	36	39	42	48	45	52	55	47.5	67.9	
26-Jan	59	63	70	81	90	95	97	96	95	94	96	95	90	89	89	92	96	97	98	99	99	100	100	99	90.8	99.6	
27-Jan	100	100	100	100	99	99	100	99	99	99	99	98	98	98	98	98	98	98	98	98	98	99	99	98	98.6	99.7	
28-Jan	93	91	91	90	85	87	88	87	89	91	93	93	92	92	92	93	94	94	94	94	93	94	94	94	91.5	94.4	
29-Jan	95	95	95	94	94	94	93	92	92	92	90	85	75	68	63	64	71	78	80	82	82	81	85	84	84.4	95.3	
30-Jan	87	89	90	90	87	85	84	85	87	87	85	86	85	80	80	82	82	82	82	82	80	81	80	80	84.0	90.4	
31-Jan	80	80	80	80	79	80	81	81	82	82	79	76	71	73	81	80	79	81	84	82	80	78	77	76	79.3	84.3	
		73.8	74.2	73.9	74.3	74.6	74.5	74.1	73.7	74.0	73.5	72.7	70.4	67.2	65.3	64.9	65.4	66.7	69.9	72.8	74.7	75.0	75.3	75.3	75.2	Diurnal Average	
		99.6	99.7	99.6	99.6	99.3	99.4	99.6	99.1	98.6	98.6	98.5	97.9	97.6	97.8	98.0	97.5	97.6	97.3	98.2	98.8	99.2	99.6	99.6	99.5	Diurnal Maximum	

**Hourly Averages**

**Relative Humidity (RH) - %  
Valleyview - January 2015**





Peace Airshed Zone Association

# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Valleyview - January 2015

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	8	9	10	8	9	9	10	7	11	8	10	10	8	12	13	12	13	12	11	11	13	11	12	10	6.5	13.5
Dir	274	273	276	268	271	271	275	271	275	276	279	272	279	351	8	2	2	6	8	10	32	29	32	31	327	8
2 Spd	9	9	9	11	9	10	10	10	13	14	12	12	12	13	15	11	8	6	3	2	2	3	3	2	8.2	14.6
Dir	28	23	27	27	14	14	17	16	355	357	356	359	1	358	353	357	7	7	20	352	294	283	292	295	4	353
3 Spd	4	8	6	2	2	1	0	0	1	2	1	0	3	5	4	4	3	2	1	1	0	1	1	1	1.4	7.8
Dir	302	5	10	336	289	183	152	272	248	275	1	16	302	292	310	316	269	275	182	183	189	193	202	189	310	5
4 Spd	0	2	4	4	4	3	6	4	8	22	2	1	1	1	2	1	1	1	2	0	1	0	0	0	1.6	21.6
Dir	219	189	169	176	177	194	175	187	186	91	204	192	187	266	340	9	35	7	353	323	359	154	116	263	152	91
5 Spd	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1	2	1	0	0	0	0	1	0	0	0.6	2.0
Dir	161	163	223	191	135	168	198	202	218	210	201	190	190	182	227	304	217	165	152	77	313	162	231	57	200	223
6 Spd	0	1	1	0	1	0	1	0	1	1	2	3	0	2	2	3	2	2	1	1	0	0	1	0	1.0	3.1
Dir	23	3	9	176	44	46	48	38	321	341	348	354	348	356	340	343	355	351	347	346	250	13	324	251	351	343
7 Spd	1	1	1	7	8	9	7	6	7	4	5	4	0	10	6	13	9	8	8	11	13	14	16	11	2.9	15.6
Dir	156	286	156	173	170	168	175	175	177	173	175	180	188	336	313	328	317	306	304	314	317	351	342	331	302	342
8 Spd	11	10	10	5	6	3	1	3	4	1	2	2	2	2	1	0	0	0	0	0	0	1	0	0	2.2	10.6
Dir	302	309	327	312	300	301	331	243	242	198	233	211	177	223	256	219	133	46	302	41	287	327	190	236	291	302
9 Spd	1	1	1	0	0	1	7	0	0	0	0	1	1	1	0	1	0	0	1	3	2	4	3	4	0.8	6.6
Dir	174	161	152	315	163	150	130	88	346	313	106	151	148	139	131	43	336	210	34	32	19	30	21	40	73	130
10 Spd	3	2	2	3	2	2	2	2	4	2	0	0	1	3	26	25	9	3	1	2	3	16	31	36	7.0	35.8
Dir	37	25	55	17	8	8	9	4	16	359	344	12	1	4	357	351	7	224	111	331	286	4	5	3	1	3
11 Spd	25	38	50	53	53	53	51	54	53	39	3	0	0	1	0	0	0	0	0	0	0	1	0	0	19.3	53.6
Dir	4	358	2	359	360	360	359	0	359	4	182	174	299	324	301	331	107	158	169	155	141	164	226	181	0	0
12 Spd	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	1	1	2	2	2	1	1	1	0.7	1.9
Dir	162	176	200	224	231	74	57	349	257	159	232	202	193	189	163	172	198	206	212	200	207	214	222	211	196	207
13 Spd	2	1	2	2	2	2	2	2	3	2	1	1	2	3	4	4	8	14	6	1	10	11	9	8	3.6	14.1
Dir	212	203	202	189	204	188	190	180	186	183	190	194	211	177	169	180	244	257	254	178	262	256	254	241	232	257
14 Spd	4	2	3	3	3	2	6	6	6	8	4	3	11	13	6	3	2	1	1	1	2	2	1	0	3.2	13.5
Dir	228	178	210	190	214	216	258	268	267	289	286	233	274	284	291	257	252	357	175	179	210	198	124	345	260	284
15 Spd	0	1	1	1	3	3	1	0	1	0	1	1	0	1	1	1	0	0	1	0	0	0	2	2	0.4	2.8
Dir	42	357	339	352	4	351	14	87	276	224	207	359	62	341	342	339	17	12	0	166	191	204	182	180	340	351
16 Spd	2	2	1	1	2	1	2	2	7	13	14	16	19	21	20	19	18	18	20	17	21	18	23	15	11.7	22.7
Dir	187	190	211	211	192	245	194	189	246	275	274	271	274	277	278	282	275	278	275	268	272	269	273	271	271	273
17 Spd	14	6	3	1	1	1	2	2	4	3	3	1	2	2	2	1	0	1	1	1	1	1	1	1	1.8	14.0
Dir	271	255	245	23	177	209	214	216	222	197	188	126	174	176	176	194	217	177	209	191	182	213	203	198	225	271
18 Spd	1	1	1	2	2	1	0	1	1	0	1	1	0	1	1	1	1	0	1	1	2	1	1	1	0.5	2.0
Dir	217	195	210	203	199	205	199	271	264	145	158	25	33	296	214	118	342	294	167	176	180	152	214	3	199	180
19 Spd	0	0	1	2	2	1	1	0	1	3	8	6	11	11	15	13	10	13	12	12	14	14	11	7	6.5	15.0
Dir	275	125	304	178	193	153	206	59	120	271	261	253	275	279	287	288	289	282	276	272	280	286	299	293	278	287
20 Spd	7	10	11	11	7	7	6	5	4	3	2	4	7	3	4	4	1	0	1	1	1	2	1	2	3.9	11.3
Dir	280	280	276	274	266	256	258	267	260	251	162	265	275	254	295	299	314	154	168	200	198	178	205	186	267	276
21 Spd	4	4	5	6	6	7	7	8	6	6	4	5	5	6	5	3	3	3	4	5	8	6	3	3	4.5	7.8
Dir	179	176	175	172	173	166	167	173	181	169	169	181	190	207	211	192	191	203	215	233	245	249	181	164	189	245
22 Spd	4	3	2	4	5	2	2	5	4	11	14	17	17	14	13	8	6	5	4	1	2	2	3	3	5.5	17.3
Dir	175	176	175	241	240	194	229	264	261	265	275	278	279	281	266	268	265	313	272	191	215	211	206	198	262	279



Peace Airshed Zone Association

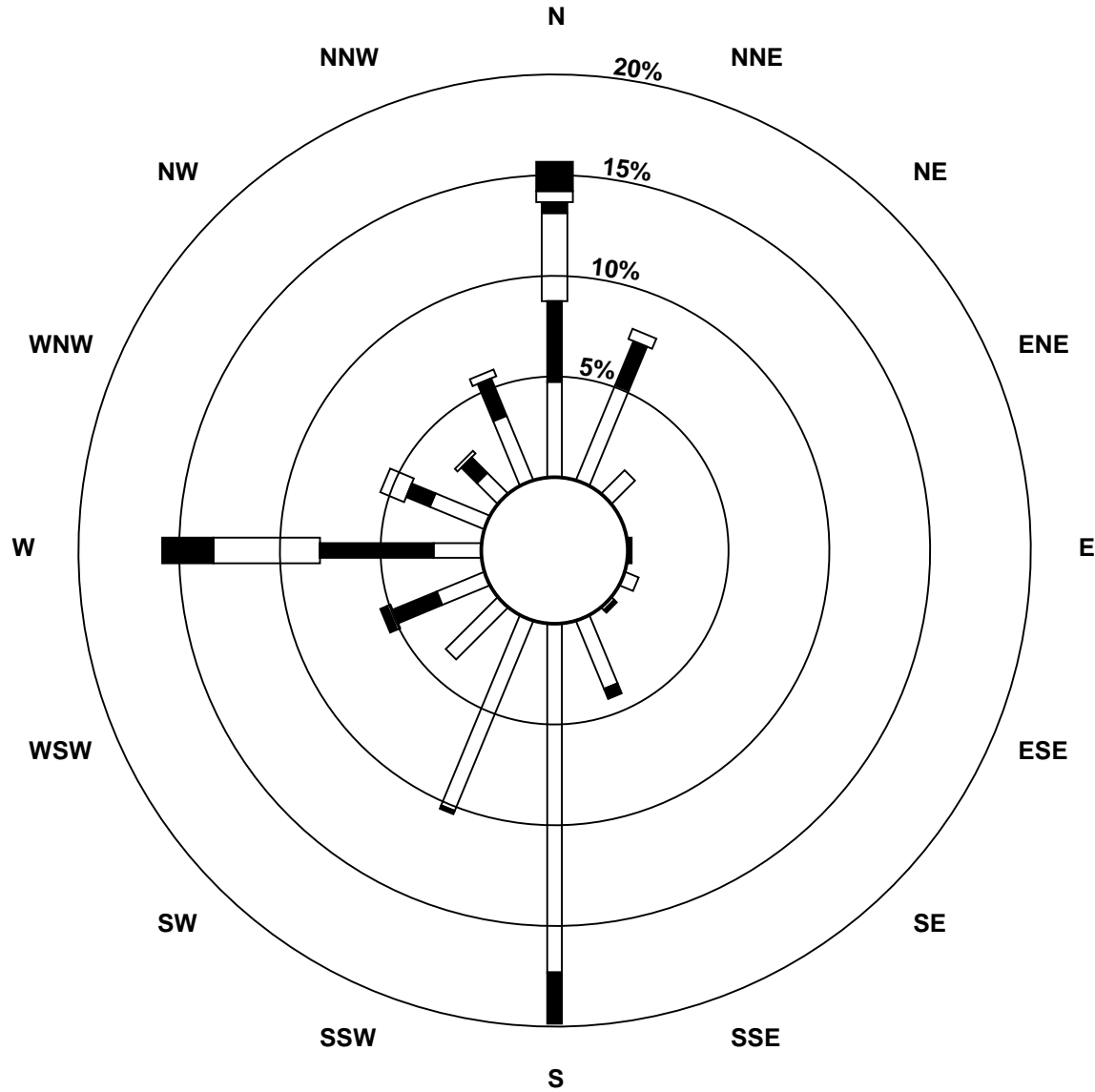
# Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Valleyview - January 2015

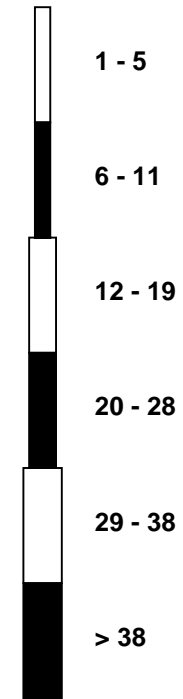
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	3	2	2	3	4	4	3	1	2	3	2	2	1	1	0	1	1	4	5	3	4	4	4	4	2.2	5.0
Dir	191	202	192	192	181	171	177	177	111	147	159	198	342	285	270	222	198	177	177	189	168	186	181	244	184	177
24 Spd	13	13	19	23	23	27	23	20	18	16	16	16	14	10	4	2	1	1	0	1	0	0	1	3	10.7	27.1
Dir	279	276	275	276	273	275	272	274	277	278	276	276	273	276	276	244	195	175	352	353	270	231	54	164	274	275
25 Spd	5	6	4	4	1	1	5	20	21	25	23	25	22	17	18	19	16	9	4	4	2	2	1	0	9.6	25.1
Dir	177	175	178	183	228	202	249	253	258	264	262	266	268	275	269	274	278	265	266	266	175	241	143	93	260	264
26 Spd	1	2	3	4	2	2	4	6	4	3	3	4	5	4	3	2	1	1	0	1	1	1	0	0	2.2	5.6
Dir	197	194	188	178	197	168	170	174	170	179	186	174	166	173	173	179	187	313	189	198	189	211	219	179	178	174
27 Spd	1	3	3	3	4	5	7	9	7	6	7	6	7	8	8	6	4	2	0	0	1	0	1	7	4.2	8.9
Dir	0	357	28	23	25	6	6	0	12	359	346	355	349	353	349	350	352	13	294	201	174	162	250	344	358	0
28 Spd	10	6	6	4	3	2	3	3	5	5	3	3	1	4	4	4	5	5	3	2	2	3	1	1	3.3	9.5
Dir	331	340	14	22	27	15	34	22	13	24	356	349	22	40	39	22	26	19	29	31	347	36	25	97	13	331
29 Spd	3	4	2	0	1	0	3	4	3	2	2	3	2	2	2	1	1	1	1	1	2	1	1	1	1.8	3.8
Dir	158	156	154	154	137	212	170	171	179	183	177	177	177	176	181	177	181	180	188	172	156	159	214	185	172	156
30 Spd	1	1	2	9	12	13	12	13	12	11	11	10	11	13	14	12	13	12	11	11	12	11	11	9	10.0	14.0
Dir	184	208	347	3	6	5	8	12	8	15	3	11	4	5	5	8	0	2	1	354	349	348	345	347	2	5
31 Spd	6	5	3	3	2	1	1	0	0	2	2	3	2	3	5	3	1	1	1	1	0	0	0	0	1.6	6.4
Dir	334	333	320	287	306	33	78	270	112	32	345	340	340	337	345	356	12	355	336	167	160	192	167	234	339	334
Spd	2.1	2.2	2.3	2.3	2.2	2.2	1.8	2.4	2.8	2.6	3.0	3.2	3.7	3.9	4.1	3.8	2.8	2.4	1.8	1.7	2.1	2.0	2.3	2.0	Diurnal Average	
Dir	300	316	324	321	319	324	317	310	305	313	276	277	280	300	312	317	311	300	294	296	286	307	322	328	Diurnal Maximum	
Spd	24.8	38.3	49.8	53.1	52.6	52.6	51.2	53.6	53.1	38.5	22.8	24.8	22.0	20.6	25.8	24.7	18.2	18.5	19.9	17.3	21.2	18.0	30.7	35.8	Diurnal Maximum	
Dir	4	358	2	359	360	360	359	0	359	4	262	266	268	277	357	351	275	278	275	268	272	269	5	3	Diurnal Maximum	
Maximum Speed Value: 54 km/h on Jan 11 08:00		Minimum Speed Value: 0 km/h on Jan 11 18:00																Hours in Service: 744								
Maximum Daily Speed Average: 19.3 km/h on Jan 11		Minimum Daily Speed Average: 0.4 km/h on Jan 12																Hours of Data: 744								
Maximum Diurnal Speed Average: 4.1 km/h at hour 15		Minimum Diurnal Speed Average: 1.7 km/h at hour 20																Hours of Missing Data: 0								
Monthly Average Velocity: 2.49 km/h 305.5 deg		Speed Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 1.0 Median = 2.5 Q <sub>3</sub> = 6.8 P <sub>90</sub> = 12.9 P <sub>99</sub> = 48.5																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	80	29	33	3	2	9	156																			
NorthEast	40	4	4	0	0	0	48																			
East	12	0	0	1	0	0	13																			
SouthEast	32	1	0	0	0	0	33																			
South	189	22	0	0	0	0	211																			
SouthWest	80	7	0	0	0	0	87																			
West	42	43	37	19	0	0	141																			
NorthWest	37	13	5	0	0	0	55																			
Total	512	119	79	23	2	9	744																			

**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Valleyview - January 2015**



**Wind Speed Classes (km/h)**





# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - January 2015

Maximum Speed: 54 km/h on Jan 10 23:00	Maximum Daily Speed Average: 21.1 km/h on Jan 11	Hours in Service: 744
Minimum Speed: 0 km/h on Jan 11 18:00	Minimum Daily Speed Average: 0.8 km/h on Jan 12	Hours of Data: 744
Maximum Diurnal Speed Average: 7.9 km/h at hour 10	Minimum Diurnal Speed Average: 3.5 km/h at hour 20	Hours of Missing Data: 0
Monthly Average Speed: 5.57 km/h	Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.6 Q <sub>1</sub> = 1.2 Median = 2.6 Q <sub>3</sub> = 7.1 P <sub>90</sub> = 13.1 P <sub>99</sub> = 53.2	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-Jan	8	9	10	8	9	9	10	7	11	8	10	10	8	13	14	12	13	12	11	11	13	11	12	10	10.4	13.6
2-Jan	9	9	9	11	9	10	10	10	13	14	12	12	12	13	15	11	8	6	3	3	3	4	3	3	8.8	14.7
3-Jan	4	8	6	2	2	1	1	1	2	2	1	1	3	5	5	4	4	2	1	1	1	1	1	1	2.5	8.4
4-Jan	0	2	7	5	6	3	9	4	9	38	2	1	2	2	2	1	1	1	2	1	1	0	0	0	4.2	38.4
5-Jan	1	1	2	1	1	1	1	1	1	1	2	1	1	1	2	2	1	0	0	0	1	1	0	0	1.0	2.2
6-Jan	0	1	1	0	1	1	1	0	2	2	2	3	1	2	2	3	2	2	1	1	1	1	1	0	1.2	3.1
7-Jan	1	2	2	7	8	9	7	7	7	5	5	4	3	10	6	13	9	9	8	12	13	14	16	11	7.8	15.8
8-Jan	11	10	10	5	6	4	1	3	4	1	2	2	2	3	3	1	0	0	0	1	1	1	1	1	3.1	10.9
9-Jan	1	1	1	1	0	1	8	1	1	0	0	1	2	1	1	1	0	1	1	3	2	5	4	5	1.7	7.5
10-Jan	3	2	2	3	2	2	2	2	4	2	0	0	1	3	26	27	13	7	12	5	9	29	54	42	10.6	53.9
11-Jan	38	43	53	53	54	54	53	54	53	43	4	0	0	1	0	0	0	0	0	0	0	1	0	0	21.1	53.7
12-Jan	0	0	0	0	0	0	0	0	0	0	0	1	2	1	2	2	1	1	2	2	2	1	1	1	0.8	2.0
13-Jan	2	2	2	2	2	2	2	2	2	3	2	2	2	3	4	4	9	14	7	2	10	11	9	8	4.4	14.2
14-Jan	4	2	3	3	3	2	6	6	6	9	5	4	11	14	6	4	2	2	1	1	2	2	2	1	4.2	13.7
15-Jan	0	1	1	1	3	3	1	1	1	1	2	1	1	1	1	1	0	1	0	0	0	3	2	1.2	2.9	
16-Jan	2	2	1	1	2	1	2	2	8	13	14	16	19	21	20	19	18	19	20	17	21	18	23	15	12.3	22.9
17-Jan	14	7	3	3	2	2	2	3	4	3	3	2	2	2	3	1	0	1	1	1	1	1	1	2	2.6	14.3
18-Jan	1	1	1	2	2	1	0	1	1	1	1	2	1	1	1	1	1	1	1	1	2	2	1	1	1.1	2.1
19-Jan	0	1	2	2	2	2	2	1	1	4	9	7	11	11	15	13	10	13	12	12	14	14	11	7	7.4	15.2
20-Jan	8	10	11	11	7	7	6	5	4	3	2	5	7	3	5	4	1	0	1	1	1	2	1	2	4.5	11.3
21-Jan	4	4	5	6	6	7	7	8	6	6	4	5	5	6	5	3	3	3	4	5	8	6	3	3	5.0	7.9
22-Jan	4	3	2	5	6	2	2	5	5	12	15	17	18	14	14	8	6	5	4	2	2	2	3	3	6.5	17.5
23-Jan	3	2	2	3	4	4	3	2	3	3	2	2	2	2	1	2	2	4	5	3	4	4	4	5	2.9	5.1
24-Jan	13	13	20	23	23	27	24	20	18	16	17	17	14	10	5	3	1	1	1	1	1	0	2	3	11.3	27.2
25-Jan	5	6	4	4	2	1	5	20	21	25	23	25	22	17	18	19	16	9	5	5	2	2	1	1	10.8	25.3
26-Jan	1	2	3	4	3	2	4	6	5	3	3	4	5	5	3	2	1	1	0	1	1	1	1	0	2.4	5.6
27-Jan	2	3	3	3	4	5	7	9	7	6	7	6	7	9	9	6	5	3	2	1	1	0	1	7	4.7	9.1
28-Jan	10	6	6	5	4	2	3	3	5	5	4	3	2	4	4	4	5	5	3	3	2	3	1	1	3.8	9.6
29-Jan	3	4	2	0	1	1	4	4	3	2	2	3	2	2	2	1	1	1	1	2	1	2	1	1	2.0	3.9
30-Jan	1	1	2	9	12	13	12	13	12	11	11	10	11	13	14	12	13	12	11	11	12	11	11	9	10.3	14.1
31-Jan	6	5	3	3	2	1	1	0	1	2	3	3	2	4	5	3	2	1	1	1	0	0	0	0	2.0	6.4
	5.1	5.3	5.8	6.0	6.0	5.8	6.3	6.4	7.1	7.9	5.4	5.4	5.8	6.3	6.8	6.0	4.8	4.4	3.9	3.5	4.3	4.9	5.6	4.7	Diurnal Average	
	38.2	43.0	52.6	53.2	53.6	53.6	53.2	53.7	53.3	43.2	22.9	25.0	22.2	20.8	25.9	26.6	18.4	18.7	20.1	17.4	21.3	28.9	53.9	42.3	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - January 2015

Maximum Value: 96.6 deg on Jan 15 08:00		Hours in Service: 744																							
Minimum Value: 1.9 deg on Jan 11 08:00		Hours of Data: 744																							
Percentiles: P <sub>1</sub> = 5.3 P <sub>10</sub> = 7.5 Q <sub>1</sub> = 9.9 Median = 16.7 Q <sub>3</sub> = 42.0 P <sub>90</sub> = 70.1 P <sub>99</sub> = 91.2		Hours of Missing Data: 0																							
		Hours of Calibration: 0																							
		Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	14	12	8	11	10	12	9	16	9	9	9	12	29	9	7	7	8	8	7	8	8	8	8	8	28.6
2-Jan	8	9	10	9	15	9	10	10	12	7	8	8	8	9	9	6	7	8	13	27	17	10	17	16	27.1
3-Jan	13	25	13	25	28	45	58	61	66	53	65	91	56	14	17	16	16	42	24	15	22	14	15	13	91.4
4-Jan	35	45	53	22	15	13	39	12	12	85	19	15	34	56	26	71	59	57	53	75	72	31	68	70	85.0
5-Jan	21	48	28	40	42	29	22	16	7	14	11	22	27	32	53	26	39	26	82	73	71	56	83	71	82.9
6-Jan	68	24	53	75	43	84	39	42	42	42	15	16	57	32	18	10	25	14	49	65	61	76	60	47	83.7
7-Jan	58	48	87	10	7	13	15	12	10	21	11	10	91	12	19	7	8	14	12	8	9	10	8	7	91.0
8-Jan	15	10	7	13	13	27	54	10	8	20	23	20	28	37	24	54	49	75	77	83	93	57	51	83	93.0
9-Jan	18	66	54	93	88	49	34	82	56	61	82	23	27	54	56	38	77	63	77	11	21	14	15	12	92.8
10-Jan	15	26	22	13	18	21	17	20	10	21	15	31	16	14	7	21	75	88	79	92	70	91	65	49	92.0
11-Jan	61	36	26	4	16	17	23	2	4	56	47	88	30	12	27	18	70	89	32	87	18	76	86	58	89.0
12-Jan	37	34	39	30	22	94	42	61	92	45	71	27	7	13	15	10	9	15	16	9	13	28	33	16	93.5
13-Jan	14	14	9	8	14	13	7	10	11	10	72	34	12	10	9	8	26	7	51	47	12	7	14	10	72.4
14-Jan	17	17	9	9	11	14	10	12	10	13	34	14	19	10	11	21	59	49	28	25	9	11	43	86	85.7
15-Jan	84	37	38	61	27	13	87	97	85	70	61	49	87	21	24	52	66	60	23	89	66	37	7	9	96.6
16-Jan	14	7	17	11	13	39	17	14	30	10	8	10	10	8	9	7	9	8	7	7	7	8	7	10	39.5
17-Jan	11	29	46	71	88	38	18	9	13	18	51	57	29	23	36	39	28	14	12	16	29	28	35	43	88.3
18-Jan	39	41	10	12	17	27	47	59	64	60	68	72	91	54	34	48	80	48	30	32	22	32	54	84	90.6
19-Jan	83	84	70	15	12	42	24	90	15	70	11	12	12	11	9	10	10	9	8	9	8	8	11	16	90.3
20-Jan	12	11	7	7	12	9	14	12	11	35	11	23	12	23	21	15	74	46	47	15	11	17	12	7	74.2
21-Jan	4	5	5	5	7	5	7	5	17	10	12	7	8	9	11	11	8	10	9	13	6	13	12	15	16.7
22-Jan	19	13	17	38	29	39	48	17	14	10	7	8	8	10	13	15	10	15	26	19	23	8	9	10	48.2
23-Jan	11	7	20	12	10	8	20	50	52	30	25	17	78	69	77	65	46	6	11	11	9	9	8	40	77.8
24-Jan	8	9	7	7	6	6	6	6	7	7	8	8	8	8	27	30	25	12	92	63	89	94	46	18	94.2
25-Jan	7	6	6	8	76	60	28	6	7	8	7	7	8	7	7	8	7	13	23	33	18	28	61	89	89.0
26-Jan	15	16	9	9	35	26	9	7	8	19	22	10	10	9	9	10	16	51	18	13	16	12	70	74	74.4
27-Jan	34	27	11	12	12	10	8	8	9	10	9	10	8	31	12	21	23	64	80	69	72	65	46	12	80.4
28-Jan	8	13	17	13	13	14	16	14	12	16	35	35	69	18	19	13	14	13	14	21	15	25	30	62	69.2
29-Jan	19	13	12	41	58	79	22	13	7	8	9	17	43	34	17	17	25	37	67	39	33	58	32	36	79.0
30-Jan	31	14	79	9	7	9	9	10	13	11	11	11	8	9	7	11	7	8	8	7	7	7	5	7	78.9
31-Jan	7	5	14	14	25	36	34	94	66	18	40	21	46	10	7	14	32	72	74	19	48	28	56	57	94.1
	83.9	84.3	87.2	92.8	88.3	93.5	87.0	96.6	92.0	85.0	82.4	91.4	91.0	68.8	76.8	71.3	79.5	89.0	91.7	92.0	93.0	94.2	86.2	89.0	

PAZA

Falher Station

Monthly Summary Tables, Graphs and  
Roses

## Hourly Averages

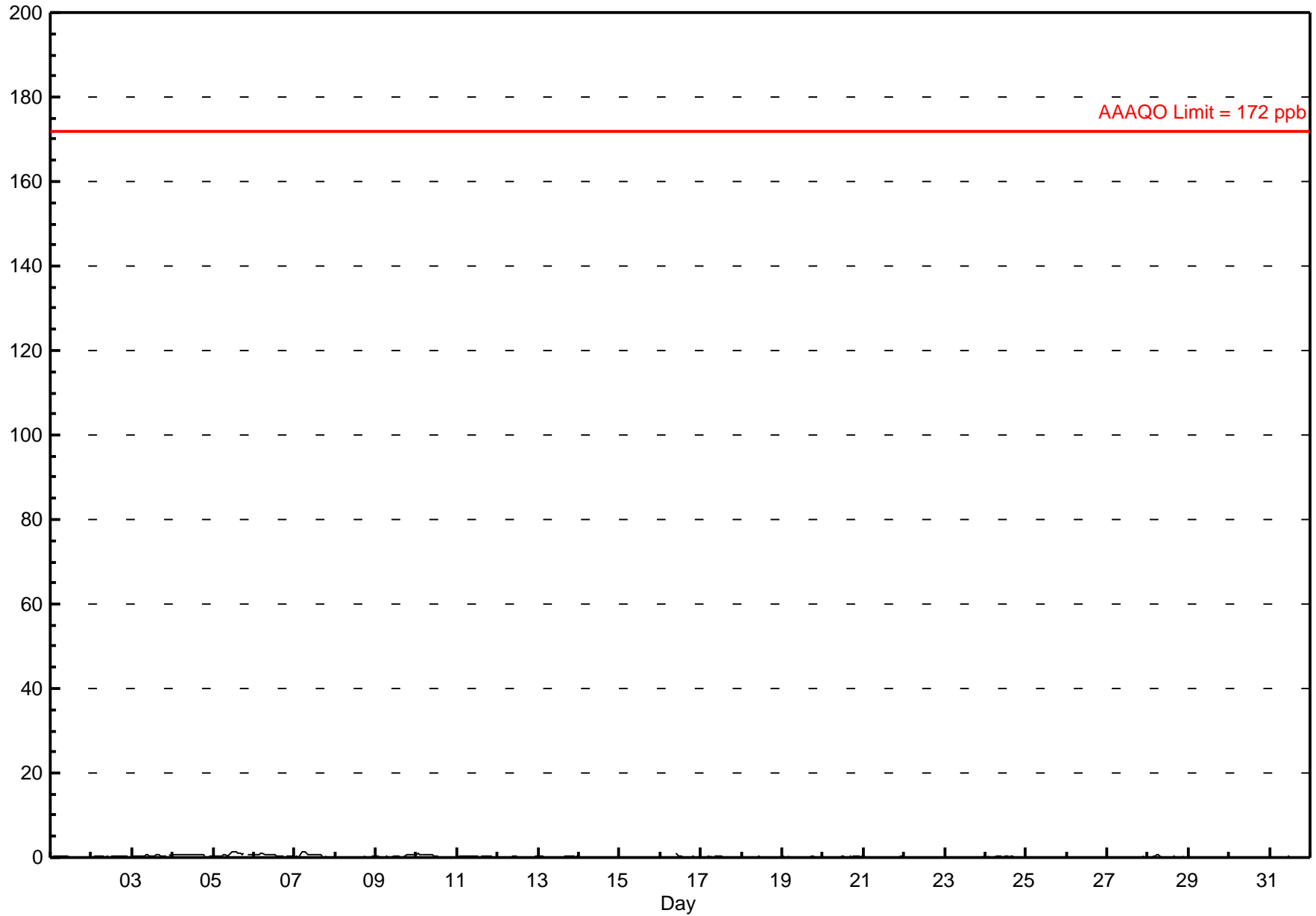
## Sulphur Dioxide (SO<sub>2</sub>) - ppb

### Falher - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 1.5 ppb on Jan 7 06:00	Maximum Daily Average: 0.7 ppb on Jan 5		Hours of Data:	708
Minimum Value: 0 ppb on Jan 1 13:00	Minimum Daily Average: 0.0 ppb on Jan 26		Hours of Missing Data:	36
Maximum Diurnal Average: 0.3 ppb at hour 10	Minimum Diurnal Average: 0.1 ppb at hour 21		Hours of Calibration:	36
Monthly Average: 0.21 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.1 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 0.6 P <sub>99</sub> = 1.1		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-Jan	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	0.5	
2-Jan	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	0.5	
3-Jan	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0	0	A	1	0	0.4	0.8	
4-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0.6	0.8	
5-Jan	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.4	
6-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0.5	1.0	
7-Jan	0	0	0	0	1	2	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0.5	1.5	
8-Jan	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	0.2	
9-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	1	1	1	0.3	0.6	
10-Jan	1	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.9	
11-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.5	
12-Jan	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	
13-Jan	0	0	0	0	0	0	0	0	0	0	0	A	C	C	C	0	0	0	0	0	0	0	0	0	0.2	0.3	
14-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
15-Jan	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	
16-Jan	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1	
17-Jan	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	
18-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
19-Jan	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	
20-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
21-Jan	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	
22-Jan	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	
23-Jan	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	
24-Jan	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	
25-Jan	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	
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.1	
27-Jan	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	0.5	
28-Jan	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.6	
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.1	
30-Jan	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	0.2	
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.2	
	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	Diurnal Average	
	0.7	0.9	0.8	0.8	1.4	1.5	1.3	1.0	0.8	1.1	1.0	1.3	1.4	1.3	1.1	1.0	1.0	0.8	0.9	0.6	0.7	0.6	0.6	0.7	Diurnal Maximum		

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



## Hourly Maximums

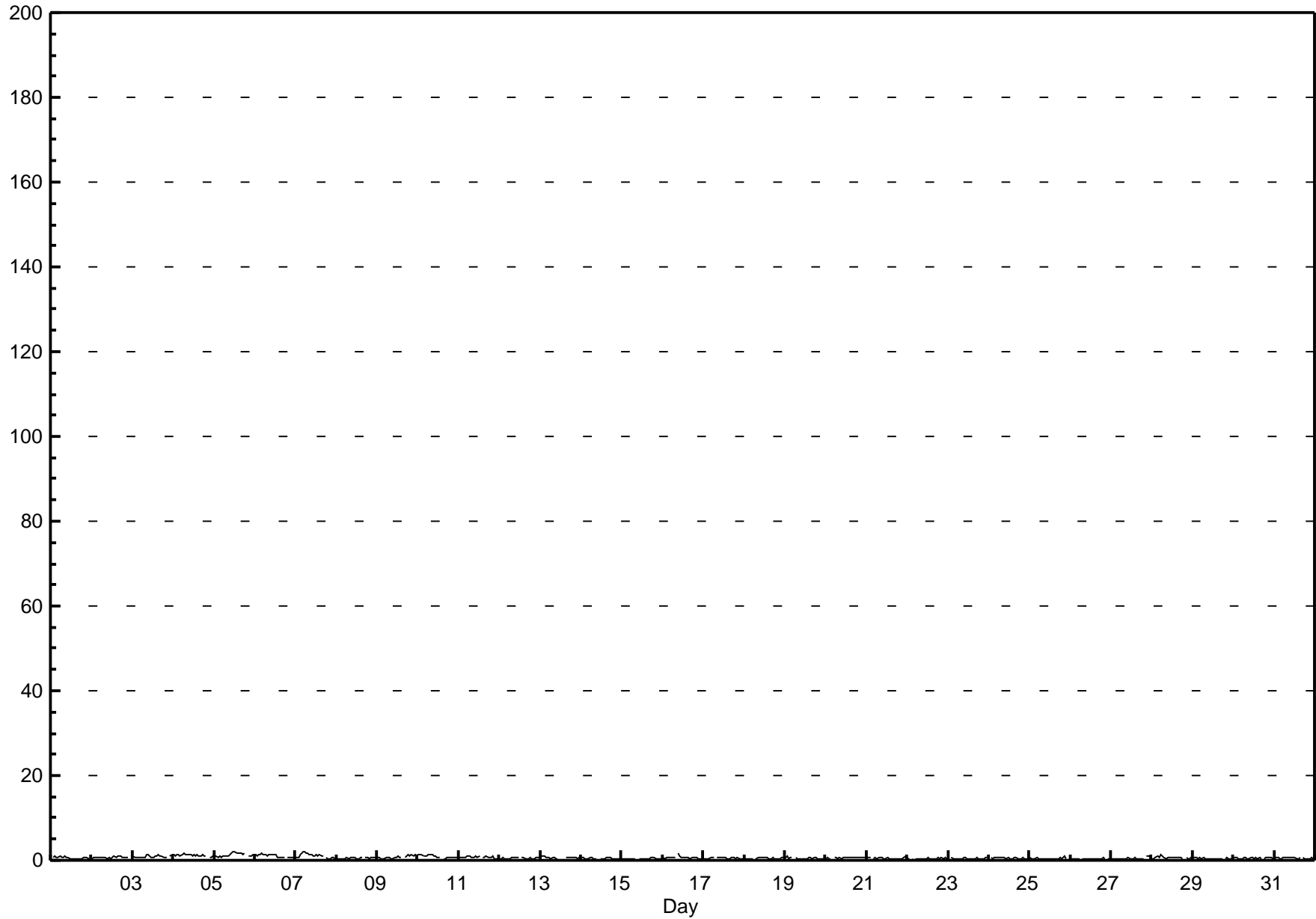
Sulphur Dioxide (SO<sub>2</sub>) - ppb

Falher - January 2015

Maximum Value: 2.1 ppb on Jan 5 12:00		Maximum Daily Average: 1.3 ppb on Jan 5		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 26 07:00		Minimum Daily Average: 0.4 ppb on Jan 26		Hours of Data: 708																							
Maximum Diurnal Average: 0.7 ppb at hour 10		Minimum Diurnal Average: 0.6 ppb at hour 20		Hours of Missing Data: 36																							
Monthly Average: 0.64 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.4 Q <sub>1</sub> = 0.4 Median = 0.6 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 1.1 P <sub>99</sub> = 1.7		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-Jan	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0	A	0.6	1.0	
2-Jan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1	
3-Jan	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.5	
4-Jan	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.2	1.6	
5-Jan	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	2	A	1	1	1	1	1.3	2.1	
6-Jan	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0	1.0	1.6	
7-Jan	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	A	1	0	0	1	1	0	1.1	2.0		
8-Jan	0	0	1	0	0	0	1	0	1	1	1	0	1	1	1	A	1	1	0	1	1	1	1	1	0.6	0.8	
9-Jan	1	1	0	0	0	1	1	1	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.3	
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	1	1	1	1	1	1	1	1	0.9	1.4	
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	0.7	1.1	
12-Jan	0	0	1	0	0	0	0	1	1	1	1	A	1	1	0	0	0	1	0	0	1	1	1	1	0.6	0.8	
13-Jan	1	1	1	1	1	1	0	1	1	0	0	A	C	C	C	1	1	1	1	1	1	1	1	1	0.6	1.0	
14-Jan	1	1	0	0	0	1	1	0	0	0	A	0	0	0	0	1	1	1	0	0	0	0	0	1	0.5	0.8	
15-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0.4	0.6	
16-Jan	1	0	1	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.9	
17-Jan	0	0	0	0	1	1	1	A	1	1	1	1	1	1	0	0	1	1	1	1	0	1	0	0	0.5	0.7	
18-Jan	0	0	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	1	1	0.5	0.8	
19-Jan	1	1	0	1	1	A	1	0	0	0	0	0	0	1	1	0	1	1	1	1	0	0	0	0	0.5	0.9	
20-Jan	0	1	0	0	A	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
21-Jan	1	1	1	A	0	1	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0.5	1.1
22-Jan	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0	1	0	0.4	0.6	
23-Jan	0	A	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	1	1	0.4	0.7	
24-Jan	A	1	0	1	1	1	1	1	1	1	0	1	0	0	0	1	1	0	0	0	1	0	0	A	0.5	0.6	
25-Jan	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	A	0	0.4	0.9	
26-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0.4	0.5	
27-Jan	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	A	1	1	0	0.4	1.1	
28-Jan	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	1	0.6	1.3	
29-Jan	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	A	0	1	1	0	0	0.5	0.6	
30-Jan	1	1	1	0	0	0	1	1	1	0	1	1	0	1	0	1	0	A	0	1	1	1	1	0	0.5	0.6	
31-Jan	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	1	1	0	0.5	0.8	
		0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	Diurnal Average	
		1.2	1.4	1.3	1.5	2.0	2.0	1.8	1.6	1.5	1.9	1.7	2.1	2.0	1.7	1.7	1.5	1.7	1.3	1.6	1.1	1.2	1.1	1.2	1.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									

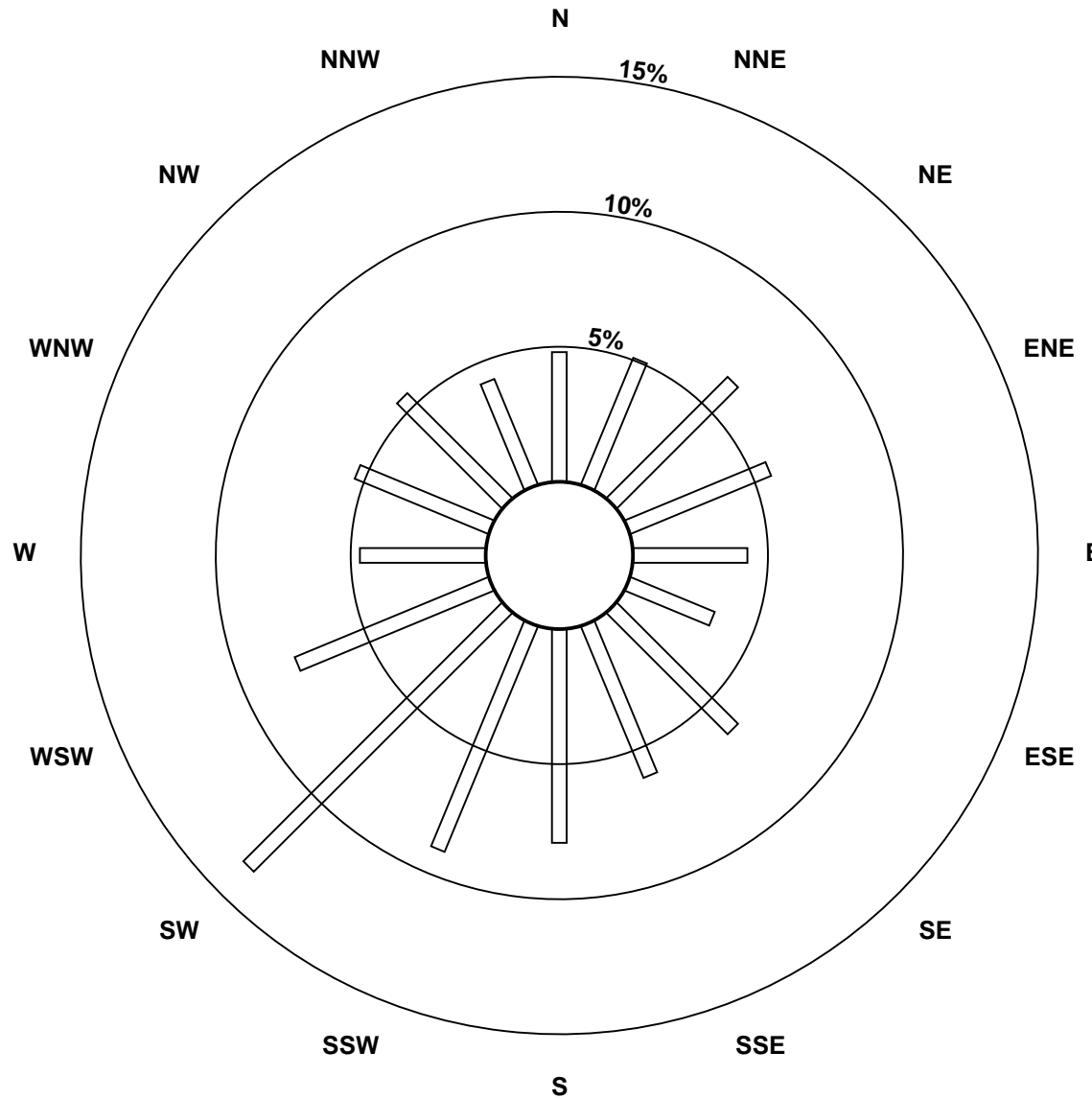
**Hourly Maximums**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Falher - January 2015**

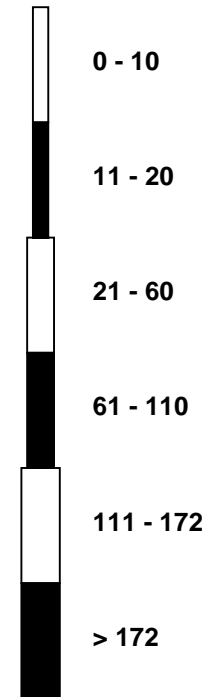


**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Falher - January 2015**



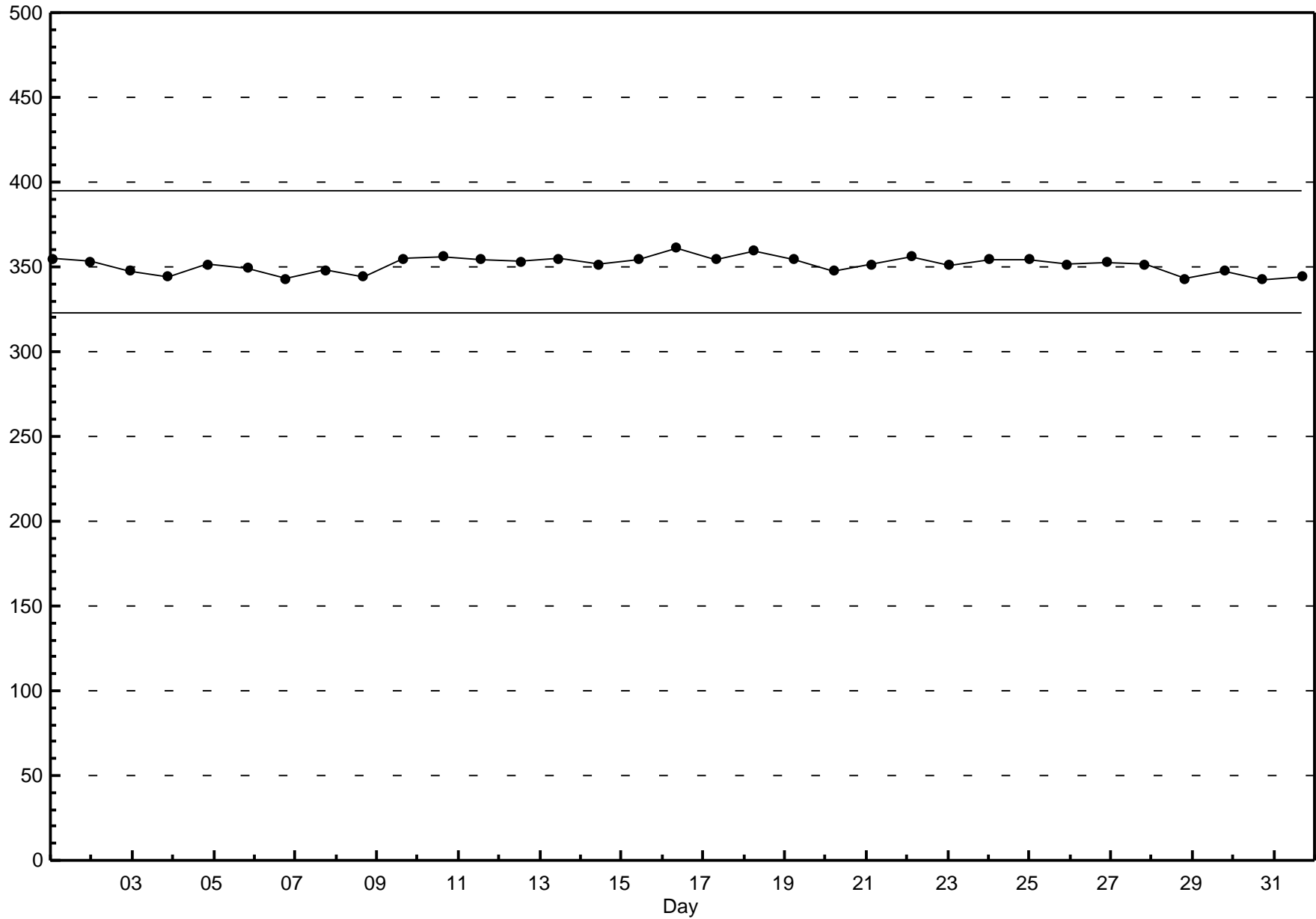
**Pollutant Classes (ppb)**





### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Falher - January 2015



## Hourly Averages

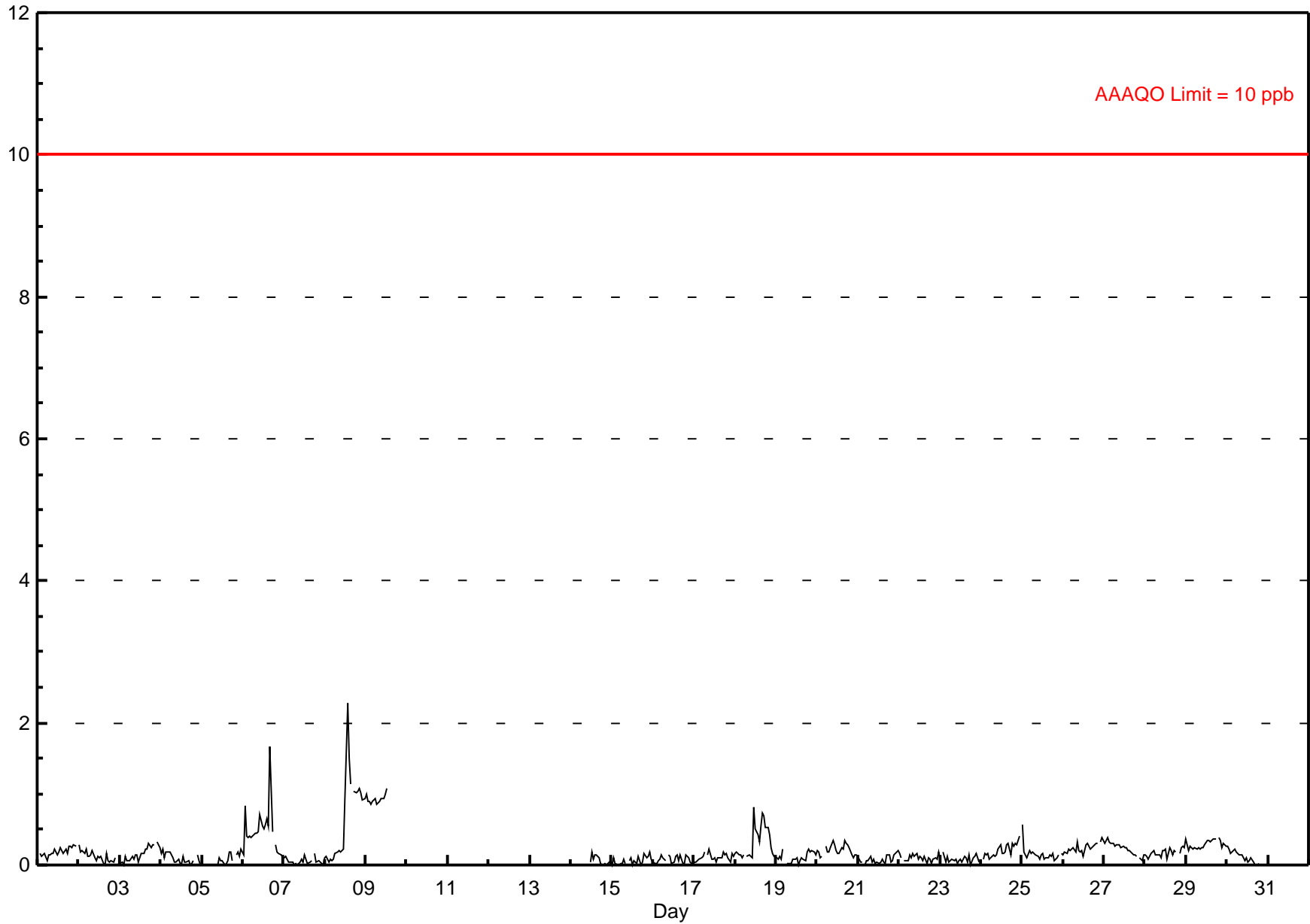
Hydrogen Sulphide (H<sub>2</sub>S) - ppb

Falher - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 2.3 ppb on Jan 8 14:00	Maximum Daily Average: 0.6 ppb on Jan 8		Hours of Data:	616
Minimum Value: 0 ppb on Jan 2 16:00	Minimum Daily Average: 0.0 ppb on Jan 31		Hours of Missing Data:	128
Maximum Diurnal Average: 0.2 ppb at hour 17	Minimum Diurnal Average: 0.2 ppb at hour 3		Hours of Calibration:	32
Monthly Average: 0.18 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.1 Q <sub>3</sub> = 0.2 P <sub>90</sub> = 0.3 P <sub>99</sub> = 1.1		Percent Operational Time:	87.1

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-Jan	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
2-Jan	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
3-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3
4-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
5-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.2
6-Jan	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	0	A	0	0	0	0	0	0.5	1.7
7-Jan	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	0.2
8-Jan	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	A	1	1	1	1	1	1	1	1	0.6	2.3
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	N	N	N	N	N	N	N	N	N	N	N	N	--	1.1
10-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
11-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
12-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
13-Jan	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	0	0	0	0	0	0	0	0	--	0.0
14-Jan	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
15-Jan	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
16-Jan	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
17-Jan	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
18-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
19-Jan	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
20-Jan	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
21-Jan	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
22-Jan	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
23-Jan	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
24-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4
25-Jan	1	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	0.6
26-Jan	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
27-Jan	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
28-Jan	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
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.4
30-Jan	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
31-Jan	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
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	1.0	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.1	2.3	1.5	1.1	1.7	1.0	1.0	1.0	1.1	1.0	0.9	0.9	Diurnal Maximum	

C - Calibration      N - Not Valid      A - Automated Daily Zero Span  
 Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb      24-hr 3 ppb



## Hourly Maximums

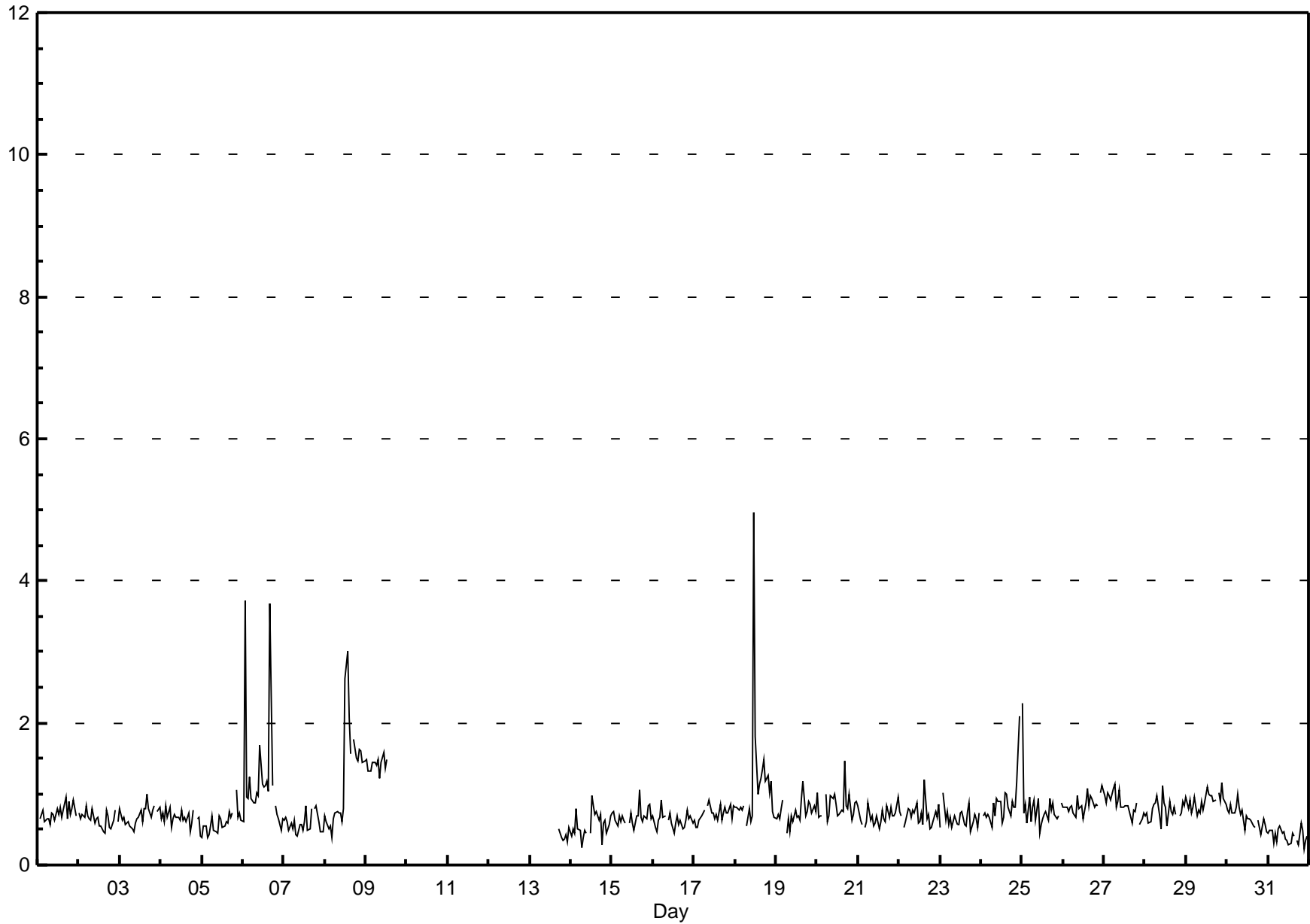
Hydrogen Sulphide (H<sub>2</sub>S) - ppb

Falher - January 2015

Maximum Value: 5.0 ppb on Jan 18 12:00		Maximum Daily Average: 1.2 ppb on Jan 8		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 31 22:00		Minimum Daily Average: 0.4 ppb on Jan 31		Hours of Data: 616																							
Maximum Diurnal Average: 1.0 ppb at hour 17		Minimum Diurnal Average: 0.7 ppb at hour 4		Hours of Missing Data: 128																							
Monthly Average: 0.77 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 0.6 Median = 0.7 Q <sub>3</sub> = 0.8 P <sub>90</sub> = 1.0 P <sub>99</sub> = 2.0		Hours of Calibration: 32																							
				Percent Operational Time: 87.1																							
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-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.0	
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	A	1	0.6	0.8	
3-Jan	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0	
4-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	0	0.7	0.8	
5-Jan	0	1	1	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.6	1.1	
6-Jan	1	4	1	1	1	1	1	1	1	1	2	1	1	1	1	1	4	1	A	1	1	1	0	1	1.2	3.7	
7-Jan	1	1	1	0	1	1	1	0	0	1	1	0	1	0	1	1	A	1	1	1	1	0	0	0	0.6	0.8	
8-Jan	1	1	1	1	0	1	1	1	1	1	1	1	3	3	2	2	A	2	1	1	2	2	1	1	1.2	3.0	
9-Jan	1	1	1	1	1	1	1	1	1	1	2	1	1	N	N	N	N	N	N	N	N	N	N	N	--	1.6	
10-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
11-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
12-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
13-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	0	0	0	0	0	0	0	1	--	0.5
14-Jan	0	1	0	1	1	0	0	0	0	0	A	0	1	1	1	1	1	1	0	1	1	0	1	1	0.6	1.0	
15-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.1	
16-Jan	1	1	0	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9	
17-Jan	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
18-Jan	1	1	1	1	1	1	A	1	1	1	1	5	2	1	1	1	1	1	1	1	1	1	1	1	1.2	5.0	
19-Jan	1	1	1	1	1	A	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
20-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5	
21-Jan	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
22-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
23-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.7	1.0	
24-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	0.9	2.1	
25-Jan	2	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	2.3	
26-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.1	
27-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.1	
28-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.1	
29-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.2	
30-Jan	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	0	1	1	0	0.7	1.0	
31-Jan	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0.4	0.6	
		0.8	0.8	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.9	0.8	0.8	0.8	0.8	1.0	0.8	0.7	0.8	0.7	0.8	0.8	0.7	Diurnal Average	
		2.3	3.7	1.3	1.3	1.4	1.4	1.4	1.5	1.2	1.4	1.7	5.0	2.6	3.0	2.1	1.6	3.7	1.8	1.5	1.5	1.6	1.6	2.1	1.5	Diurnal Maximum	
C - Calibration		N - Not Valid					A - Automated Daily Zero Span																				

**Hourly Maximums**

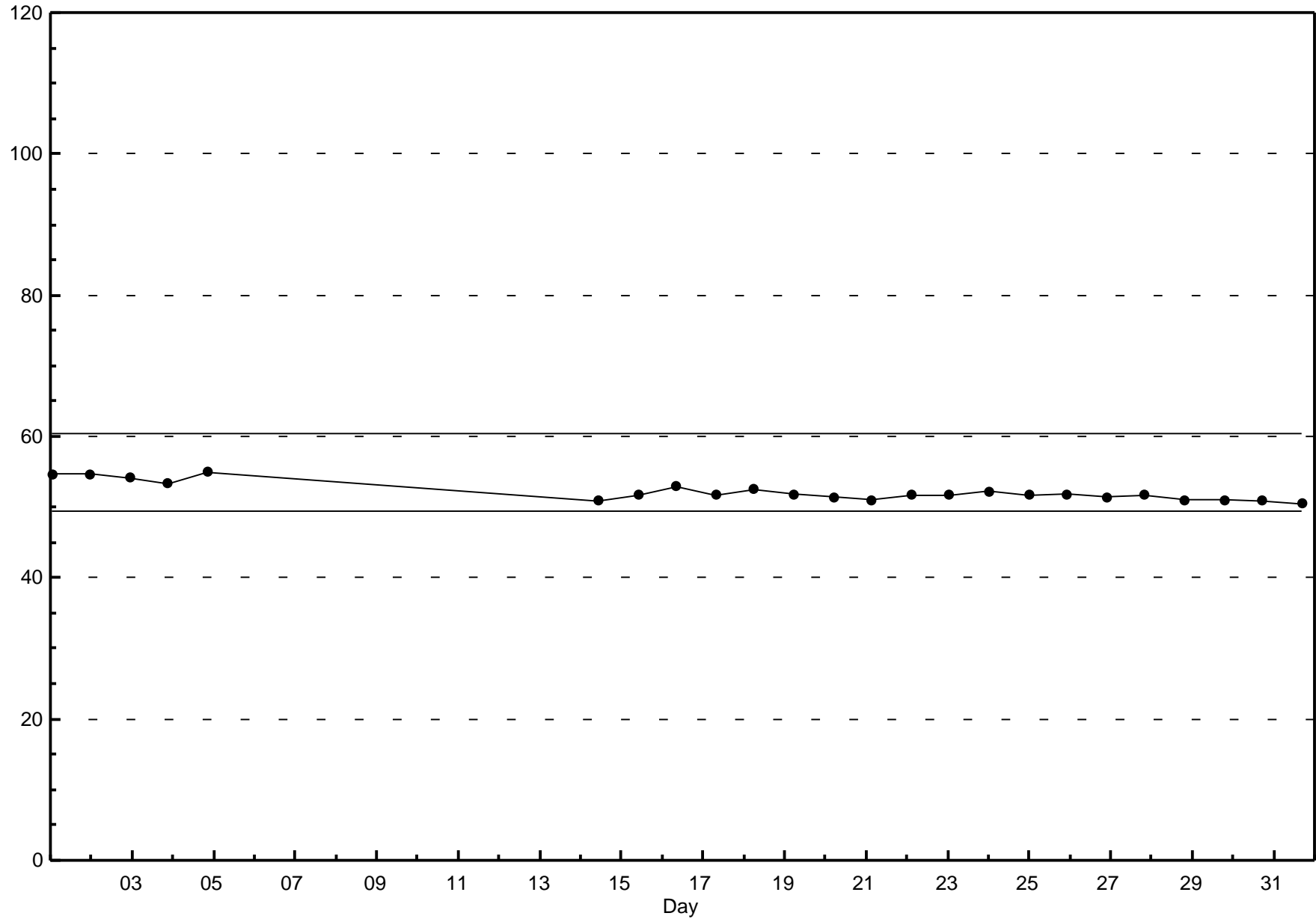
**Hydrogen Sulphide (H<sub>2</sub>S) - ppb**  
**Falher - January 2015**





### Span Responses

Hydrogen Sulphide (H<sub>2</sub>S)  
Falher - January 2015





Peace Airshed Zone Association

# Hourly Averages

External Temperature (ET) - °C

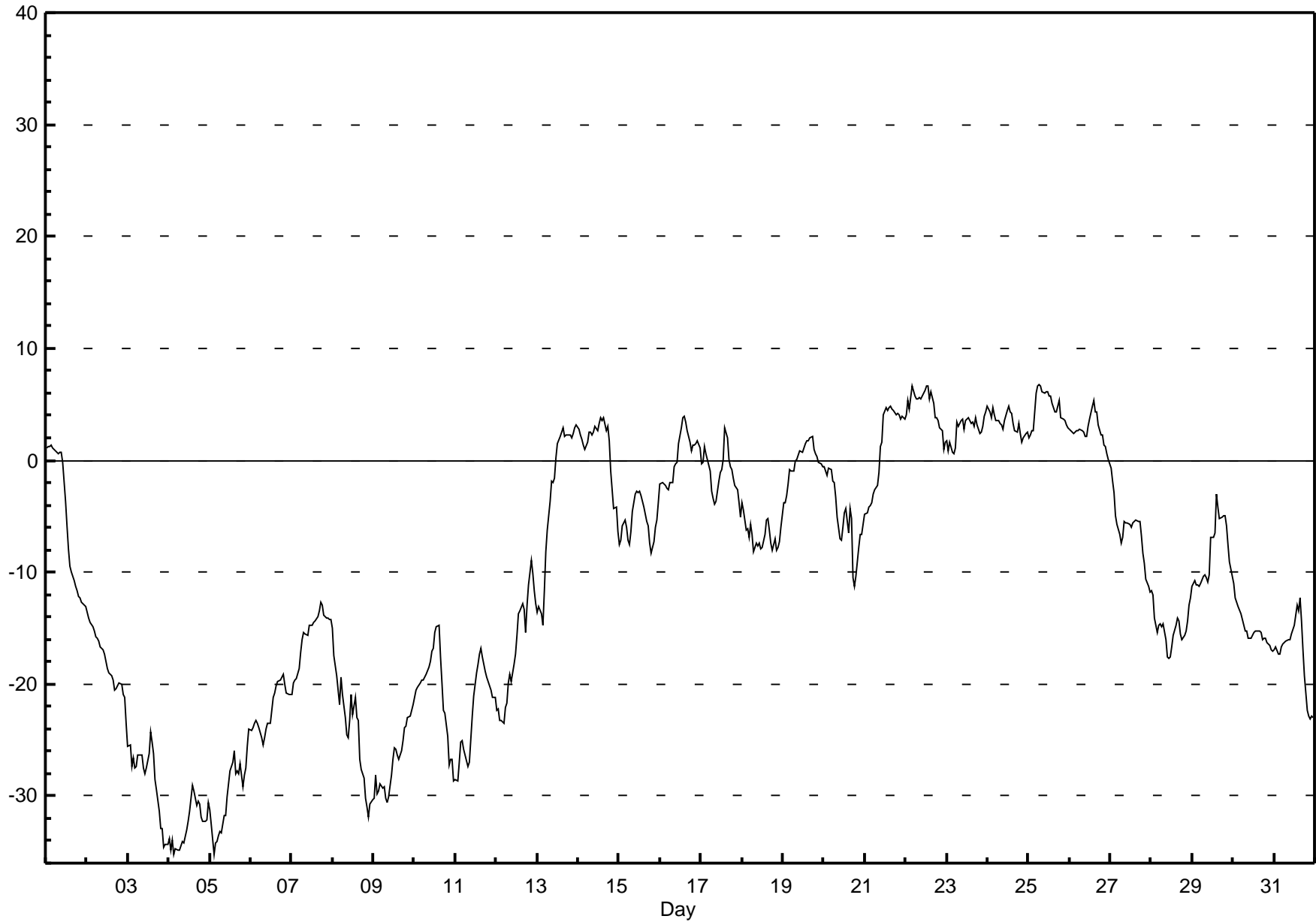
Falher - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 6.7 °C on Jan 25 07:00	Maximum Daily Average: 4.8 °C on Jan 22		Hours of Data:	744
Minimum Value: -35 °C on Jan 4 04:00	Minimum Daily Average: -32.6 °C on Jan 4		Hours of Missing Data:	0
Maximum Diurnal Average: -8.5 °C at hour 15	Minimum Diurnal Average: -11.6 °C at hour 24		Hours of Calibration:	0
Monthly Average: -10.47 °C	Percentiles: P <sub>1</sub> = -34.4 P <sub>10</sub> = -27.5 Q <sub>1</sub> = -19.9 Median = -8.3 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 3.5 P <sub>99</sub> = 5.9		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-Jan	1	1	1	1	1	1	1	1	1	1	0	-4	-6	-8	-10	-10	-11	-11	-12	-12	-12	-13	-13	-13	-5.2	1.3
2-Jan	-14	-14	-15	-15	-15	-16	-16	-16	-17	-17	-17	-18	-19	-19	-19	-20	-20	-20	-20	-20	-20	-21	-21	-24	-18.0	-13.6
3-Jan	-26	-25	-27	-27	-28	-27	-26	-26	-26	-27	-28	-27	-26	-24	-25	-26	-29	-29	-31	-33	-33	-35	-34	-34	-28.4	-24.2
4-Jan	-34	-35	-34	-35	-35	-35	-35	-34	-34	-34	-33	-32	-31	-30	-29	-30	-31	-30	-31	-32	-32	-32	-32	-31	-32.6	-29.0
5-Jan	-31	-33	-35	-34	-34	-34	-33	-33	-32	-32	-30	-29	-28	-27	-26	-28	-28	-28	-27	-29	-28	-27	-26	-24	-29.8	-24.1
6-Jan	-24	-24	-24	-23	-23	-24	-25	-25	-25	-24	-24	-24	-22	-21	-21	-20	-20	-20	-19	-19	-20	-21	-21	-21	-22.2	-19.1
7-Jan	-21	-20	-20	-20	-19	-17	-16	-15	-15	-16	-15	-15	-15	-14	-14	-14	-14	-13	-13	-14	-14	-14	-14	-14	-15.6	-12.7
8-Jan	-15	-17	-19	-21	-22	-19	-21	-23	-25	-25	-23	-21	-23	-21	-23	-23	-27	-28	-28	-30	-31	-32	-31	-30	-24.1	-15.1
9-Jan	-30	-28	-30	-30	-29	-29	-29	-30	-31	-30	-28	-27	-26	-26	-26	-27	-26	-25	-24	-24	-23	-23	-22	-22	-26.8	-21.8
10-Jan	-21	-21	-20	-20	-20	-20	-19	-19	-19	-18	-17	-17	-15	-15	-15	-18	-20	-22	-23	-25	-27	-27	-27	-29	-20.5	-14.7
11-Jan	-29	-29	-27	-25	-25	-26	-27	-27	-27	-25	-23	-21	-19	-18	-17	-17	-18	-19	-19	-20	-20	-21	-21	-21	-22.5	-16.7
12-Jan	-22	-22	-23	-23	-24	-22	-22	-20	-19	-20	-18	-17	-16	-14	-13	-13	-13	-15	-13	-11	-9	-10	-12	-13	-16.9	-8.9
13-Jan	-14	-13	-14	-15	-12	-8	-6	-4	-2	-2	-2	0	2	2	2	3	2	2	2	2	2	2	3	3	-2.6	3.1
14-Jan	3	2	2	1	1	2	2	2	2	2	3	3	3	4	3	4	3	3	2	-1	-3	-4	-4	-6	1.2	3.8
15-Jan	-8	-7	-6	-5	-6	-7	-7	-6	-5	-3	-3	-3	-3	-3	-4	-5	-5	-6	-7	-8	-7	-6	-5	-4	-5.4	-2.8
16-Jan	-2	-2	-2	-2	-2	-3	-2	-2	-1	0	0	2	3	4	4	3	3	2	1	1	1	1	2	1	0.4	3.9
17-Jan	0	0	1	1	0	-1	-3	-3	-4	-4	-2	-1	-1	0	3	2	0	-1	-1	-2	-2	-3	-4	-5	-1.2	2.8
18-Jan	-4	-4	-6	-6	-7	-6	-7	-8	-7	-8	-7	-8	-8	-7	-5	-5	-6	-7	-8	-7	-8	-8	-7	-6	-6.7	-3.9
19-Jan	-4	-4	-3	-2	-1	-1	-1	0	0	0	1	1	1	2	2	2	2	2	1	1	0	0	0	-1	-0.1	2.2
20-Jan	-1	-1	-1	-1	-1	-2	-2	-3	-5	-7	-7	-6	-5	-4	-6	-4	-5	-11	-11	-10	-8	-7	-7	-6	-5.0	-0.5
21-Jan	-5	-5	-4	-4	-4	-3	-3	-2	-1	1	2	4	5	4	5	5	5	4	4	4	4	4	4	4	1.2	4.8
22-Jan	4	5	5	6	7	6	6	5	6	5	6	6	7	7	6	6	5	4	4	4	3	3	1	2	4.8	6.7
23-Jan	2	1	2	1	1	1	3	3	4	4	3	4	4	4	3	3	3	4	3	2	3	3	4	4	2.8	4.3
24-Jan	5	4	4	5	4	4	4	3	3	3	4	5	5	4	4	3	3	2	3	2	2	2	2	3	3.4	4.8
25-Jan	2	2	3	3	6	7	7	7	6	6	6	6	6	6	5	4	4	5	5	4	4	3	3	3	4.7	6.7
26-Jan	3	3	2	3	3	3	3	3	2	2	2	3	4	5	5	4	4	3	2	2	1	1	1	0	2.7	5.4
27-Jan	-1	-2	-3	-5	-6	-7	-7	-7	-5	-6	-6	-6	-6	-6	-6	-5	-5	-5	-7	-8	-9	-11	-11	-12	-6.3	-0.7
28-Jan	-12	-12	-14	-15	-15	-15	-15	-15	-16	-18	-18	-18	-17	-16	-15	-14	-14	-16	-16	-16	-15	-14	-13	-12	-14.9	-11.6
29-Jan	-11	-11	-11	-11	-11	-11	-10	-10	-11	-11	-10	-7	-7	-7	-3	-4	-5	-5	-5	-5	-6	-8	-9	-10	-8.3	-3.0
30-Jan	-11	-12	-13	-13	-14	-14	-15	-15	-15	-16	-16	-16	-15	-15	-15	-15	-15	-16	-16	-16	-16	-17	-17	-17	-15.1	-11.1
31-Jan	-17	-17	-17	-17	-17	-16	-16	-16	-16	-16	-16	-15	-15	-13	-13	-12	-14	-17	-19	-22	-23	-23	-23	-23	-17.3	-12.3

-10.8	-10.9	-11.3	-11.3	-11.2	-11.0	-10.9	-10.9	-10.7	-10.7	-10.2	-9.6	-9.1	-8.6	-8.5	-8.7	-9.5	-10.1	-10.4	-11.0	-11.2	-11.4	-11.4	-11.6	Diurnal Average
4.8	5.3	4.6	5.6	6.6	6.7	6.7	6.6	6.1	6.0	6.1	6.3	6.7	6.6	5.5	6.2	5.1	4.9	5.4	4.2	4.1	3.7	3.9	4.3	Diurnal Maximum





## Hourly Averages

Wind Speed (km/h)  
Wind Direction (deg)  
Falher - January 2015

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	27	29	25	25	26	25	22	21	23	24	19	26	26	27	24	27	22	22	23	21	20	22	22	25	21.1	28.5
Dir	254	258	247	250	245	247	243	243	244	250	284	315	302	292	288	295	286	284	290	291	299	297	315	339	277	258
2 Spd	21	23	22	23	27	25	19	16	17	18	19	21	19	18	14	13	11	11	8	7	7	13	14	11	12.7	26.9
Dir	327	324	300	290	285	294	296	291	270	266	256	247	243	237	232	229	207	199	172	170	171	191	244	242	264	285
3 Spd	5	7	10	9	7	10	13	11	10	7	7	6	10	9	8	9	7	8	4	10	8	7	9	8	6.4	12.6
Dir	234	154	143	174	138	134	139	130	185	163	141	124	147	150	150	140	129	120	43	62	77	70	60	71	130	139
4 Spd	9	9	13	7	11	7	10	9	11	10	9	8	8	7	6	5	5	8	5	4	2	1	2	4	5.7	13.4
Dir	61	62	53	43	62	52	36	34	42	34	22	24	17	32	33	345	334	318	322	323	353	81	191	188	32	53
5 Spd	5	5	5	7	8	6	9	6	5	5	6	8	9	9	5	4	6	7	11	5	4	5	4	2	5.8	11.3
Dir	103	77	47	76	74	61	63	58	67	59	68	63	67	70	64	68	72	85	81	66	9	56	97	127	69	81
6 Spd	1	2	1	2	4	2	6	4	1	1	4	5	6	5	5	4	1	5	9	16	16	20	21	26	5.6	26.1
Dir	31	309	315	255	244	147	120	139	183	6	322	341	332	1	17	324	312	353	4	3	354	358	354	352	354	352
7 Spd	28	34	29	28	21	22	21	13	10	12	9	18	14	17	22	24	21	22	26	26	25	23	21	23	6.1	33.5
Dir	348	347	344	347	12	14	17	45	142	134	205	211	191	196	196	195	197	210	243	239	229	215	208	204	244	347
8 Spd	21	16	14	12	13	14	10	10	9	8	9	6	7	4	6	6	9	9	8	6	4	8	10	8	2.9	20.9
Dir	214	220	220	213	191	185	162	153	129	127	135	149	125	135	89	101	35	24	350	349	338	334	339	334	176	214
9 Spd	10	14	14	12	11	6	9	2	2	0	1	2	2	2	2	2	3	2	0	1	4	5	4	2	2.9	14.1
Dir	313	335	340	342	346	338	318	40	146	273	100	101	30	114	113	19	6	7	205	130	210	234	230	216	333	340
10 Spd	3	1	3	5	4	2	3	2	0	1	4	4	2	4	8	10	6	3	2	5	6	4	5	7	0.4	9.6
Dir	218	246	298	320	59	53	42	47	344	42	3	24	317	250	218	214	221	181	118	77	72	21	19	57	19	214
11 Spd	7	8	8	7	5	4	4	4	3	5	5	6	6	6	11	13	13	12	4	1	9	11	5	3	6.3	13.2
Dir	14	14	10	2	354	329	335	341	341	350	359	2	12	18	30	27	24	21	92	21	6	9	0	26	11	27
12 Spd	7	5	1	1	1	4	3	2	3	4	3	5	7	8	11	10	9	7	5	8	8	2	5	3	2.9	10.9
Dir	7	2	199	163	14	50	17	17	26	13	17	34	41	51	59	81	96	100	94	151	168	262	295	310	58	59
13 Spd	4	4	6	7	8	7	6	8	12	8	9	13	15	19	22	15	19	15	10	16	17	19	20	20	8.3	21.9
Dir	8	50	38	48	66	84	116	129	139	121	144	181	184	189	199	208	207	209	216	218	223	228	232	221	193	199
14 Spd	16	15	13	9	14	14	14	14	10	12	14	13	10	7	5	6	2	9	6	6	14	13	15	15	8.1	16.4
Dir	215	206	191	183	203	216	223	221	217	219	224	211	217	232	223	231	324	268	229	319	326	305	316	310	235	215
15 Spd	15	11	11	9	7	8	5	4	4	11	11	17	19	16	12	15	19	16	4	10	10	11	6	6	6.5	18.9
Dir	319	319	322	317	309	325	306	14	53	52	60	80	91	99	89	85	86	90	125	73	71	75	96	111	61	91
16 Spd	8	11	11	16	15	15	14	13	18	23	23	25	29	31	32	34	33	30	25	29	29	31	32	24	19.7	34.0
Dir	128	125	136	146	153	160	169	180	211	208	206	221	231	239	246	242	236	229	217	223	218	226	231	231	216	242
17 Spd	13	10	8	13	13	10	9	13	11	17	17	13	12	15	9	10	17	4	15	20	19	16	19	20	12.1	20.2
Dir	220	222	187	203	222	220	183	150	162	186	197	207	196	209	231	205	193	141	183	180	152	151	149	153	186	153
18 Spd	21	19	12	14	18	15	15	14	19	12	6	10	9	7	6	7	4	2	4	6	4	8	10	13	8.1	21.4
Dir	175	172	150	148	153	167	152	122	117	125	87	78	68	42	45	80	53	38	41	85	87	85	89	124	125	175
19 Spd	12	11	13	14	13	12	14	19	19	17	11	10	12	11	11	13	16	19	18	19	20	14	9	6	11.1	20.2
Dir	149	161	154	171	201	208	200	211	209	214	212	159	184	212	222	240	252	252	269	273	262	268	247	191	219	262
20 Spd	10	10	10	14	14	17	16	16	16	11	8	13	12	9	4	7	8	12	14	17	19	23	23	23	10.0	22.8
Dir	190	203	208	217	233	231	215	202	190	190	168	173	175	176	132	145	143	124	121	110	117	119	117	116	163	116
21 Spd	25	23	25	23	26	28	30	29	26	29	24	29	33	31	24	26	31	29	27	27	22	20	23	19	19.2	32.7
Dir	124	125	115	112	117	124	127	131	147	163	160	203	213	217	222	224	217	223	218	212	218	212	208	209	179	213
22 Spd	17	13	16	28	43	35	34	35	38	40	39	35	35	33	24	24	23	18	16	18	16	14	11	16	25.4	42.9
Dir	216	227	198	211	216	219	227	226	225	228	229	231	233	235	219	230	239	231	224	213	211	216	195	187	223	216

# Hourly Averages

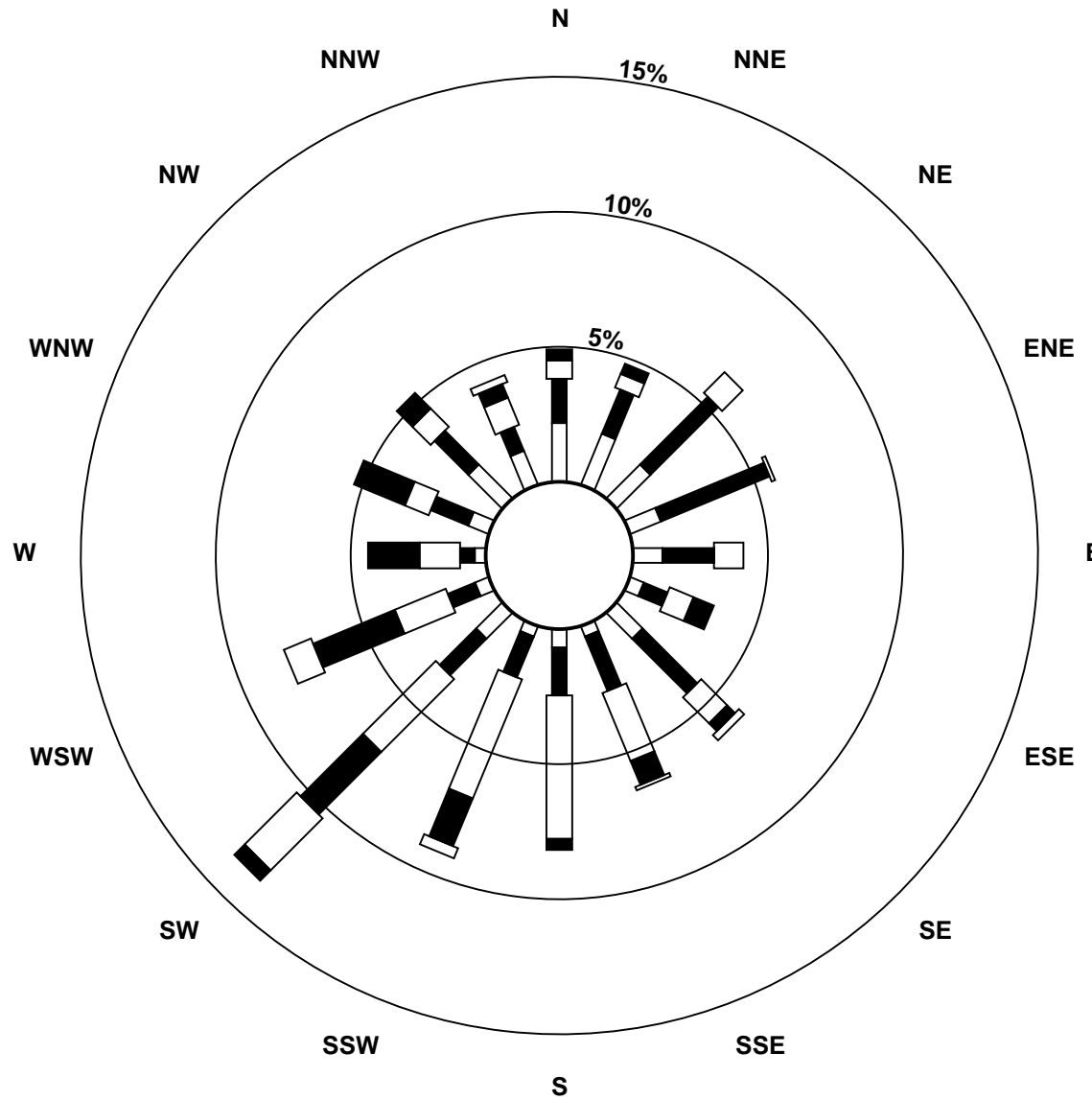
**Wind Speed (km/h)**  
**Wind Direction (deg)**  
**Falher - January 2015**

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	12	10	14	14	18	18	21	19	19	12	9	16	16	15	14	20	20	15	17	18	19	21	13	23	14.9	22.7
Dir	171	160	176	152	152	181	200	202	217	237	195	177	170	164	156	154	159	171	142	157	153	173	196	218	176	218
24 Spd	27	25	21	28	23	21	24	24	26	21	24	27	25	19	20	12	14	14	14	13	11	15	15	19	15.7	27.8
Dir	225	233	233	241	242	235	234	235	239	232	232	235	240	236	237	213	178	173	196	164	122	144	111	95	220	241
25 Spd	18	19	27	25	37	42	37	36	35	32	34	34	29	22	17	10	8	3	9	12	17	18	18	16	18.6	41.6
Dir	102	130	146	160	207	216	225	245	241	234	236	233	237	242	246	243	250	205	194	187	186	178	181	187	213	216
26 Spd	16	14	15	17	19	16	17	16	14	9	12	17	13	13	12	4	5	7	6	4	5	10	14	17	7.9	19.0
Dir	189	183	186	182	190	189	191	194	196	177	182	183	201	225	234	334	269	216	207	278	352	329	344	338	205	190
27 Spd	16	16	17	21	23	22	21	18	17	17	15	15	17	11	15	7	10	11	1	9	15	18	19	14	9.7	23.0
Dir	340	338	325	322	317	304	305	311	345	3	20	4	8	6	55	47	40	63	227	239	246	245	249	244	327	317
28 Spd	10	12	7	6	9	14	14	16	13	9	9	11	8	7	8	6	7	7	5	5	5	3	5	3	7.7	16.0
Dir	249	249	275	287	294	294	297	295	290	289	302	302	308	301	304	311	288	283	294	296	299	330	360	15	293	295
29 Spd	9	12	14	12	13	14	12	10	9	10	10	5	9	10	4	3	1	1	4	4	10	10	11	10	4.4	13.7
Dir	46	49	39	46	45	56	65	56	51	51	63	80	139	151	184	283	326	28	164	227	318	310	297	281	43	56
30 Spd	17	17	22	25	23	24	24	25	26	26	24	22	21	22	22	21	20	20	20	20	19	17	16	12	20.9	26.4
Dir	276	270	269	264	263	263	259	257	263	260	267	274	272	263	262	258	254	253	258	263	263	261	270	273	264	260
31 Spd	8	6	8	10	6	6	9	6	6	7	7	7	4	2	3	1	3	1	5	8	9	8	9	7	2.4	9.6
Dir	264	253	255	275	350	358	23	56	71	41	51	112	127	221	209	222	145	116	81	57	37	48	45	19	32	275
Spd	3.8	3.1	2.9	4.4	5.6	6.1	5.9	5.9	7.0	6.2	5.7	6.4	6.5	7.2	5.9	5.5	5.3	4.7	5.0	4.9	4.1	4.2	3.7	3.3	Diurnal Average	
Dir	232	236	222	225	221	224	219	213	213	215	220	220	220	224	225	223	218	218	218	216	223	225	237	223	Diurnal Maximum	
Spd	28.1	33.5	29.2	28.1	42.9	41.6	37.0	35.9	37.8	39.7	39.2	35.2	34.7	32.6	32.0	34.0	33.4	29.6	26.6	29.1	29.4	30.5	32.2	26.1	Diurnal Maximum	
Dir	348	347	344	347	216	216	225	245	225	228	229	231	233	235	246	242	236	229	218	223	218	226	231	352	Diurnal Maximum	
Maximum Speed Value: 43 km/h on Jan 22 05:00																		Minimum Speed Value: 0 km/h on Jan 10 09:00						Hours in Service:		744
Maximum Daily Speed Average: 25.4 km/h on Jan 21																		Minimum Daily Speed Average: 0.4 km/h on Jan 10						Hours of Data:		744
Maximum Diurnal Speed Average: 7.2 km/h at hour 14																		Minimum Diurnal Speed Average: 2.9 km/h at hour 3						Hours of Missing Data:		0
Monthly Average Velocity: 5.12 km/h 221.3 deg																		Speed Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 3.7 Q <sub>1</sub> = 6.8 Median = 11.7 Q <sub>3</sub> = 18.7 P <sub>90</sub> = 24.7 P <sub>99</sub> = 36.1						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	25	28	17	7	4	0	81																			
NorthEast	24	47	15	0	0	0	86																			
East	10	33	12	1	0	0	56																			
SouthEast	15	32	27	16	3	0	93																			
South	8	23	59	13	1	0	104																			
SouthWest	14	24	56	54	30	4	182																			
West	6	14	17	32	1	0	70																			
NorthWest	17	28	12	15	0	0	72																			
Total	119	229	215	138	39	4	744																			

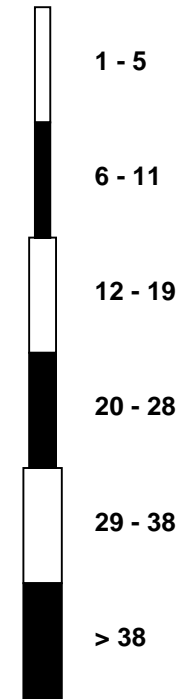
**Wind Rose**

**Wind Speed (WS) (km/h)**

**Falher - January 2015**



**Wind Speed Classes (km/h)**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - January 2015

Maximum Speed: 43 km/h on Jan 22 05:00	Maximum Daily Speed Average: 26.3 km/h on Jan 21	Hours in Service: 744
Minimum Speed: 0 km/h on Jan 10 09:00	Minimum Daily Speed Average: 4.0 km/h on Jan 10	Hours of Data: 744
Maximum Diurnal Speed Average: 15.5 km/h at hour 5	Minimum Diurnal Speed Average: 11.0 km/h at hour 19	Hours of Missing Data: 0
Monthly Average Speed: 13.46 km/h	Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 4.0 Q <sub>1</sub> = 7.0 Median = 11.8 Q <sub>3</sub> = 18.8 P <sub>90</sub> = 24.7 P <sub>99</sub> = 36.5	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-Jan	27	29	25	25	26	25	22	21	23	24	23	26	26	27	24	27	22	22	23	21	20	22	23	25	24.0	28.6
2-Jan	21	24	22	23	27	25	19	16	17	18	19	21	20	18	14	13	11	11	8	8	7	13	15	12	16.7	27.0
3-Jan	5	8	10	9	7	10	13	11	10	8	8	6	10	9	8	9	7	8	4	10	8	7	9	8	8.4	12.7
4-Jan	9	9	13	7	11	7	10	9	11	10	9	8	8	7	7	5	5	8	5	4	3	3	3	4	7.4	13.4
5-Jan	5	5	5	8	8	6	9	6	5	5	6	8	9	9	5	4	6	7	11	5	4	5	4	2	6.2	11.3
6-Jan	1	2	2	2	4	2	6	4	2	2	4	6	6	5	5	4	1	5	9	16	16	21	21	26	7.2	26.1
7-Jan	28	34	29	28	22	23	21	14	10	12	9	18	14	17	22	24	21	22	27	27	25	23	21	23	21.3	33.6
8-Jan	21	16	14	12	13	14	10	10	10	8	9	6	7	4	6	6	9	10	8	6	4	8	10	8	9.5	20.9
9-Jan	10	14	14	12	11	6	9	7	2	1	1	2	2	2	2	3	2	0	1	4	5	4	2	2	5.1	14.3
10-Jan	3	2	4	6	5	3	3	3	0	1	4	4	2	4	8	10	7	3	2	5	6	4	5	7	4.0	9.7
11-Jan	7	8	8	7	5	4	4	4	3	5	5	6	6	6	11	13	13	13	4	2	9	11	5	3	6.8	13.2
12-Jan	7	5	1	1	1	5	3	2	3	4	3	5	7	8	11	10	9	7	5	9	8	2	5	4	5.2	11.0
13-Jan	4	4	6	7	8	7	6	8	12	8	10	13	16	19	22	15	19	15	11	16	17	19	20	20	12.6	21.9
14-Jan	16	15	14	9	14	15	14	14	10	12	14	13	10	8	6	6	3	9	7	8	14	13	15	15	11.4	16.4
15-Jan	16	11	11	9	8	8	5	5	4	12	11	17	19	16	13	15	19	16	5	10	10	11	7	7	11.0	19.1
16-Jan	8	11	11	16	15	15	14	14	18	23	23	25	29	31	32	34	33	30	25	29	29	31	32	24	23.0	34.0
17-Jan	13	11	8	13	13	10	11	13	11	17	17	13	12	15	10	11	17	6	15	20	19	16	19	20	13.8	20.4
18-Jan	21	19	13	14	18	15	15	15	19	12	6	11	9	7	7	5	2	4	6	6	6	9	10	13	11.0	21.4
19-Jan	12	11	14	14	13	12	14	19	19	17	11	10	13	11	11	13	16	19	18	19	20	14	9	6	14.0	20.2
20-Jan	10	10	11	14	14	17	17	16	16	11	8	13	12	9	4	7	8	13	14	17	19	23	23	23	13.7	22.9
21-Jan	25	24	25	23	26	28	30	29	26	29	24	30	33	31	24	26	31	29	27	28	22	20	23	19	26.3	32.8
22-Jan	18	13	16	28	43	35	34	35	38	40	39	35	35	33	24	24	23	18	16	18	16	14	11	16	25.9	42.9
23-Jan	12	10	15	14	18	18	21	20	19	12	10	17	16	15	14	20	20	15	17	18	19	21	13	23	16.5	22.8
24-Jan	27	25	21	28	23	21	24	24	26	21	24	27	25	19	20	13	14	14	14	13	11	15	16	19	20.2	27.8
25-Jan	18	20	27	25	37	42	38	36	35	32	34	34	29	22	17	10	8	5	9	12	17	18	18	16	23.3	41.7
26-Jan	16	14	15	17	19	16	17	17	14	9	12	17	13	13	12	4	5	8	7	4	5	10	14	17	12.3	19.1
27-Jan	16	16	17	21	23	22	21	18	18	17	15	15	17	12	15	7	11	11	9	10	15	18	19	14	15.6	23.0
28-Jan	10	12	7	6	9	14	14	16	13	9	9	11	8	7	8	6	7	7	5	5	5	3	5	3	8.4	16.0
29-Jan	9	12	14	12	13	14	12	10	10	10	10	5	9	10	4	3	2	2	4	6	10	10	11	10	8.9	13.8
30-Jan	17	17	22	25	23	24	24	25	26	26	24	22	21	22	23	21	20	20	20	20	19	17	16	12	21.1	26.5
31-Jan	8	6	8	10	6	6	9	7	6	8	7	7	4	3	4	2	3	1	5	8	9	9	9	7	6.3	10.0
	13.5	13.4	13.5	14.4	15.5	15.1	15.1	14.5	14.1	13.6	13.2	14.6	14.4	13.6	12.7	12.0	12.3	11.5	11.0	12.3	12.8	13.4	13.4	13.2	Diurnal Average	
	28.1	33.6	29.3	28.3	42.9	41.7	37.6	36.2	37.8	39.8	39.3	35.2	34.7	32.7	32.1	34.0	33.4	29.6	27.0	29.1	29.4	30.6	32.2	26.1	Diurnal Maximum	

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

# Hourly Standard Deviations

Wind Direction (WD) - deg

Falher - January 2015

Maximum Value: 89.0 deg on Jan 27 19:00																	Hours in Service: 744								
Minimum Value: 1.1 deg on Jan 21 00:00																	Hours of Data: 744								
Percentiles: P <sub>1</sub> = 1.6 P <sub>10</sub> = 2.6 Q <sub>1</sub> = 4.1 Median = 7.3 Q <sub>3</sub> = 13.7 P <sub>90</sub> = 25.2 P <sub>99</sub> = 71.6																	Hours of Missing Data: 0								
																	Hours of Calibration: 0								
																	Percent Operational Time: 100.0								
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	2	4	5	2	2	2	2	3	3	2	32	4	7	4	5	4	4	3	4	4	3	3	18	8	32.3
2-Jan	6	8	5	2	4	3	3	6	3	2	8	3	3	3	3	3	7	3	8	6	13	8	15	3	15.2
3-Jan	24	28	13	20	7	7	7	10	22	29	25	16	7	4	7	3	7	11	38	9	14	9	8	5	38.1
4-Jan	5	6	4	11	10	9	6	6	3	4	7	9	10	20	13	14	16	10	14	24	57	65	46	20	64.5
5-Jan	23	20	11	11	2	6	6	15	10	9	7	4	8	6	8	10	13	15	6	27	19	9	22	21	26.9
6-Jan	22	72	42	18	19	37	7	16	55	35	14	14	10	27	11	32	26	18	11	6	6	5	2	2	71.6
7-Jan	2	4	3	7	14	5	3	24	8	11	17	8	4	3	2	2	2	5	11	5	7	4	3	2	23.6
8-Jan	5	8	8	9	12	7	11	11	14	6	10	7	11	18	17	23	11	13	5	6	8	4	3	7	22.7
9-Jan	7	8	5	8	8	7	12	75	8	70	26	19	31	39	21	35	16	67	47	29	16	14	15	22	75.0
10-Jan	19	30	16	25	31	38	14	53	17	36	17	9	38	23	4	11	27	26	20	8	6	28	22	5	53.1
11-Jan	10	5	5	8	12	6	5	6	6	9	3	2	6	2	5	4	3	22	34	68	13	6	6	15	67.9
12-Jan	5	16	73	26	72	20	27	21	14	5	9	9	8	7	5	11	12	14	23	14	20	29	10	27	73.2
13-Jan	18	20	13	12	8	13	13	12	10	4	8	5	10	6	2	3	3	43	61	3	4	5	6	2	61.3
14-Jan	2	4	12	13	6	12	3	7	8	6	4	6	10	7	13	17	54	8	25	75	6	4	4	3	74.5
15-Jan	8	10	6	4	13	8	26	32	24	16	8	7	8	4	9	5	3	4	29	8	12	7	22	50	49.7
16-Jan	8	9	9	5	4	3	6	14	4	2	2	4	4	2	2	3	2	4	4	3	2	4	2	6	13.7
17-Jan	5	14	15	20	8	8	31	8	14	10	4	7	14	3	8	18	3	47	12	5	7	6	3	8	47.0
18-Jan	2	4	26	16	4	7	11	21	5	5	21	15	11	17	18	13	24	38	15	23	49	26	11	12	49.0
19-Jan	9	10	7	12	8	5	2	4	3	6	8	7	17	5	8	6	2	2	5	4	2	3	11	35	35.1
20-Jan	6	4	11	4	4	7	5	7	4	6	12	2	4	7	20	9	18	7	7	5	7	3	2	1	20.1
21-Jan	7	7	2	3	2	3	2	7	3	7	5	15	4	2	2	1	3	2	4	2	3	3	5	6	14.8
22-Jan	10	3	12	9	2	3	3	2	2	2	3	2	3	3	8	2	4	4	2	3	6	7	5	10	12.1
23-Jan	9	17	19	4	3	13	5	5	2	6	31	11	10	6	8	4	3	3	13	2	6	9	17	6	31.3
24-Jan	5	2	2	2	4	3	3	3	3	3	2	3	3	3	4	27	10	10	11	16	7	6	17	8	26.9
25-Jan	11	8	4	8	10	2	10	7	6	3	2	2	4	2	5	10	14	87	10	6	7	5	2	3	87.4
26-Jan	4	3	2	3	4	5	2	2	4	17	6	3	5	7	7	30	21	31	19	31	22	10	5	6	31.5
27-Jan	5	6	6	6	4	6	6	8	18	13	10	9	8	23	7	15	14	9	89	6	3	3	7	5	89.0
28-Jan	7	6	17	9	7	6	6	4	5	11	5	10	10	14	14	14	8	4	8	9	9	19	9	13	18.6
29-Jan	22	5	5	7	7	7	4	9	9	2	8	16	14	8	34	17	69	79	63	47	5	3	10	8	79.5
30-Jan	6	6	3	5	4	5	6	4	4	5	5	4	5	5	3	4	4	4	4	4	3	3	7	8	8.0
31-Jan	8	8	7	17	7	12	8	35	13	8	19	10	17	43	20	60	24	30	5	9	7	11	12	14	59.9
Average	24.4	71.6	73.2	26.5	72.4	38.3	31.2	75.0	54.8	69.8	32.3	19.3	37.7	42.7	34.0	59.9	68.7	87.4	89.0	74.5	56.6	64.5	45.7	49.7	

PAZA

Portable – Clairmont Station  
Monthly Summary Tables, Graphs and  
Roses



Peace Airshed Zone Association

# Hourly Averages

Sulphur Dioxide (SO<sub>2</sub>) - ppb

Portable Clairmont - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 6.7 ppb on Jan 10 10:00	Maximum Daily Average: 1.7 ppb on Jan 10		Hours of Data:	708
Minimum Value: 0 ppb on Jan 27 01:00	Minimum Daily Average: 0.2 ppb on Jan 24		Hours of Missing Data:	36
Maximum Diurnal Average: 0.8 ppb at hour 15	Minimum Diurnal Average: 0.4 ppb at hour 21		Hours of Calibration:	36
Monthly Average: 0.54 ppb	Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.4 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 1.1 P <sub>99</sub> = 2.9		Percent Operational Time:	100.0

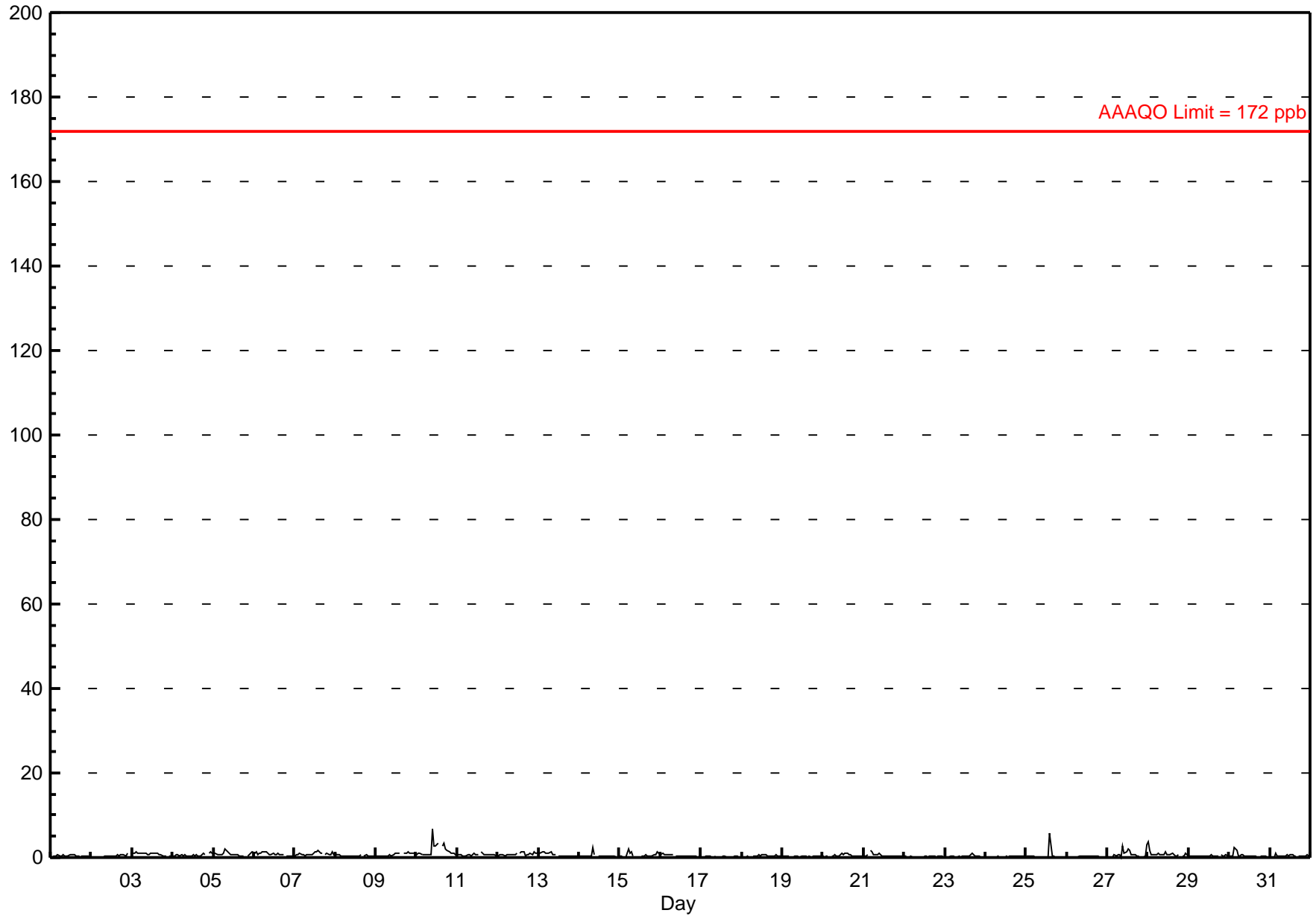
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	A	0	0	0	1	0	0	1	0	0	1	1	1	1	1	0	0	0	0	1	0	0	0	A	0.4	0.8	
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	1	0	1	A	1	0.4	1.1	
3-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	1	1	0.8	1.2	
4-Jan	0	0	1	1	0	1	1	1	0	0	0	0	1	1	1	0	0	1	1	1	A	1	1	1	0.6	1.2	
5-Jan	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	0	0	0	0	A	1	1	1	1	0.8	1.9	
6-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0.8	1.4	
7-Jan	0	1	1	1	1	1	0	1	1	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	0.9	1.7	
8-Jan	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	1	0	0	0	0	0	0.4	1.1	
9-Jan	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	1.2	
10-Jan	1	1	1	1	1	1	1	1	1	7	3	3	3	3	A	3	3	2	2	1	1	1	1	1	1.7	6.7	
11-Jan	1	1	1	0	0	0	1	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0.7	1.4	
12-Jan	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	0.8	1.4	
13-Jan	1	1	1	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0.6	1.4	
14-Jan	0	0	0	0	0	0	0	0	2	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.3	
15-Jan	0	0	0	0	1	2	1	1	0	A	C	C	C	0	0	1	0	0	0	0	1	1	1	1	0.6	1.9	
16-Jan	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9	
17-Jan	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
18-Jan	0	0	0	0	0	0	A	0	0	0	0	0	1	0	1	1	0	0	0	0	1	0	0	0	0.4	0.6	
19-Jan	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	
20-Jan	0	0	0	0	A	0	0	0	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.1	
21-Jan	0	0	1	A	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.7	
22-Jan	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	
23-Jan	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0.3	1.0	
24-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.4	
25-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	A	0	0.4	5.9	
26-Jan	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	
27-Jan	0	0	0	0	1	0	1	1	0	3	1	2	2	2	1	1	1	0	0	0	A	0	0	3	0.8	3.0	
28-Jan	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	0	0	1	1	0.9	3.9	
29-Jan	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	1	0	0	0	0.4	0.8	
30-Jan	0	0	0	2	2	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	2.3	
31-Jan	0	0	0	1	1	0	0	0	0	0	1	0	1	1	0	0	A	0	0	0	0	0	0	1	0	0.4	1.0
	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.7	0.6	0.6	0.7	0.7	0.8	0.6	0.6	0.4	0.4	0.4	0.4	0.5	0.5	0.6	Diurnal Average		
	3.9	1.6	1.2	2.3	1.7	1.9	1.3	1.9	2.3	6.7	2.6	2.6	3.2	3.4	5.9	2.7	3.4	1.9	1.6	1.4	1.1	1.3	1.4	3.0	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 (SO<sub>2</sub>) - ppb  
Portable Clairmont - January 2015

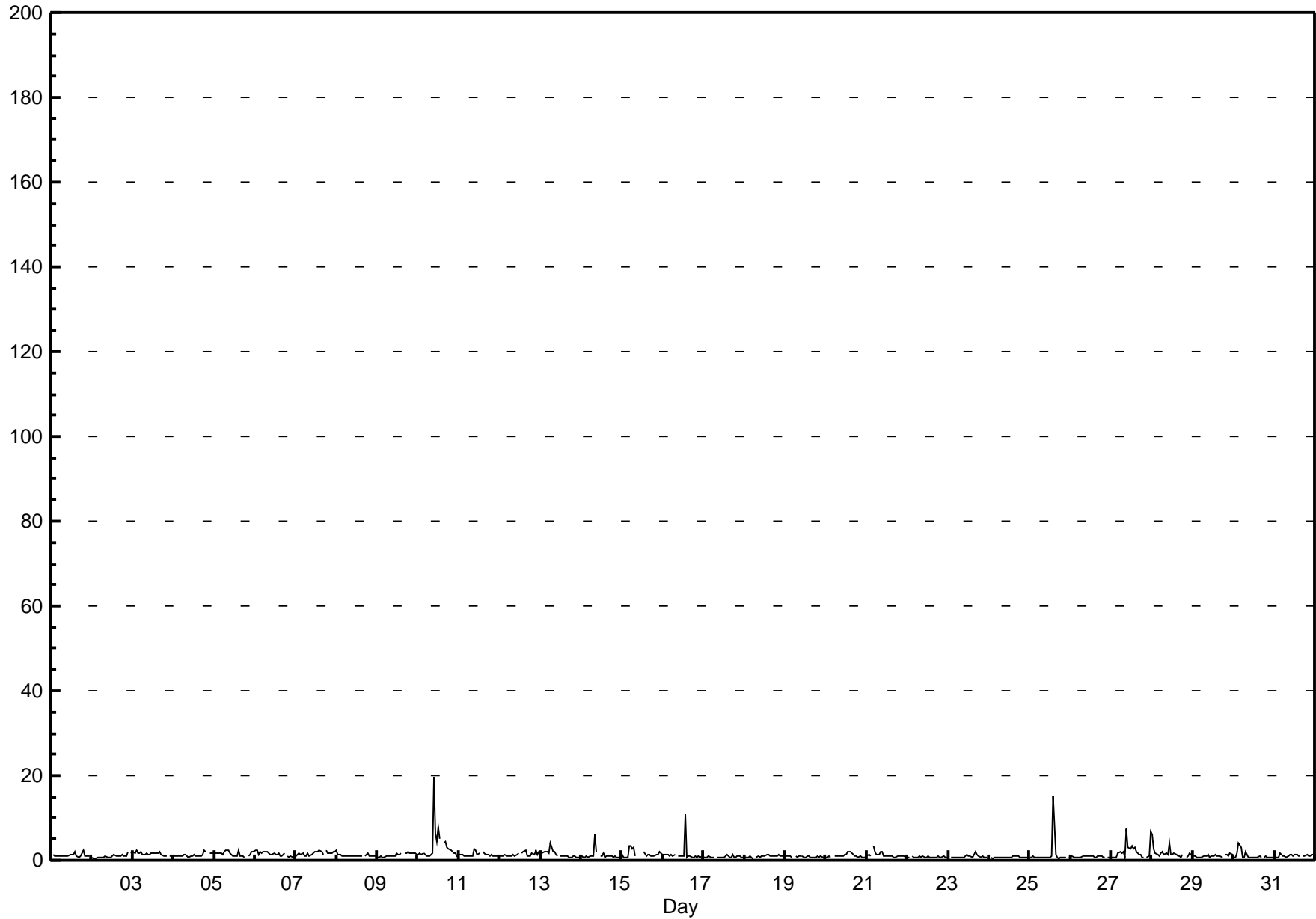


## Hourly Maximums

Sulphur Dioxide (SO<sub>2</sub>) - ppb

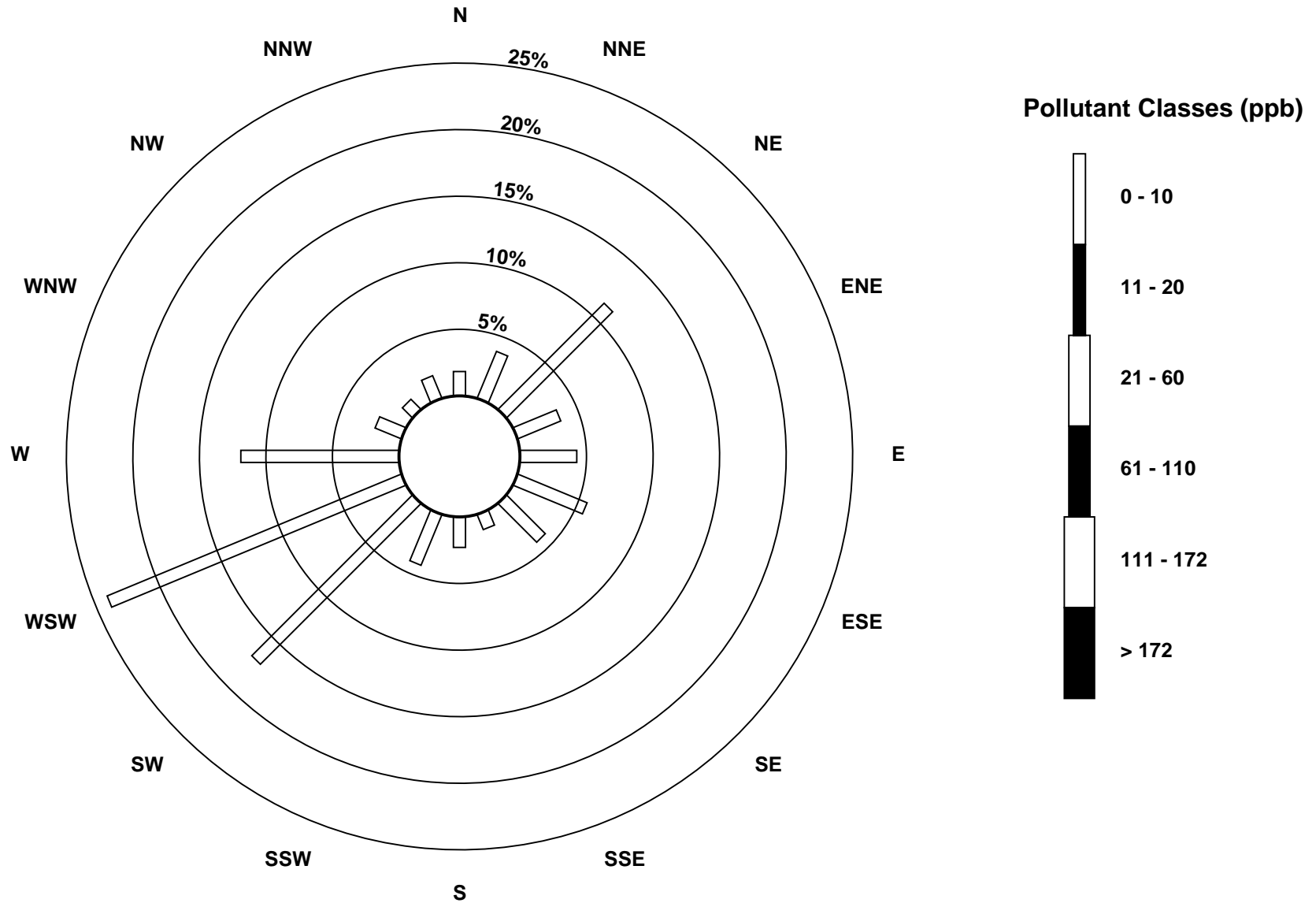
Portable Clairmont - January 2015

Maximum Value: 19.6 ppb on Jan 10 10:00		Maximum Daily Average: 3.4 ppb on Jan 10		Hours in Service: 744																							
Minimum Value: 0 ppb on Jan 2 03:00		Minimum Daily Average: 0.8 ppb on Jan 24		Hours of Data: 708																							
Maximum Diurnal Average: 2.0 ppb at hour 10		Minimum Diurnal Average: 1.1 ppb at hour 21		Hours of Missing Data: 36																							
Monthly Average: 1.31 ppb		Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 0.7 Q <sub>1</sub> = 0.8 Median = 1.0 Q <sub>3</sub> = 1.4 P <sub>90</sub> = 2.0 P <sub>99</sub> = 6.2		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-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	1	1	1	A			
2-Jan	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2				
3-Jan	2	2	3	2	2	2	1	1	2	2	1	2	2	2	2	2	2	1	1	1	1	A	1	1			
4-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	A	2	2	2			
5-Jan	2	2	2	2	2	1	2	3	3	2	1	1	1	1	2	1	1	1	1	A	1	1	2	2			
6-Jan	2	3	1	2	2	2	2	2	2	1	1	2	1	1	2	1	1	2	A	1	1	1	1	1			
7-Jan	1	1	2	1	2	1	1	2	1	1	2	2	2	2	3	2	2	A	2	2	2	2	2	2			
8-Jan	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1			
9-Jan	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	A	2	2	2	2	2	2	2	1			
10-Jan	1	2	1	2	1	1	1	1	2	20	6	5	8	5	A	4	4	3	3	2	2	2	2	1			
11-Jan	1	1	1	1	1	1	1	1	1	3	2	1	2	A	2	2	1	1	1	1	1	1	1	1			
12-Jan	1	1	1	1	1	1	1	1	1	1	1	2	A	2	2	2	1	1	1	2	2	3	2	2			
13-Jan	2	2	2	2	2	2	4	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1			
14-Jan	1	1	1	1	1	1	1	1	6	2	A	1	1	2	1	1	1	1	1	1	1	1	1	1			
15-Jan	1	1	1	1	4	3	3	3	1	A	C	C	C	2	1	1	1	1	1	1	1	2	2				
16-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	11	1	1	1	1	1	1	1	1	1	1			
17-Jan	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
18-Jan	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
19-Jan	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
20-Jan	1	1	1	1	A	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1			
21-Jan	1	1	1	A	3	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
22-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
23-Jan	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1			
24-Jan	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A			
25-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1	1	0	1	1	1	1	A	1			
26-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1			
27-Jan	1	1	1	1	2	2	2	2	1	7	3	3	3	3	3	2	1	1	1	1	A	1	1	7			
28-Jan	6	3	2	1	1	2	2	1	2	1	4	1	1	2	1	1	1	1	1	A	1	1	2	1			
29-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1			
30-Jan	1	1	2	4	3	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1			
31-Jan	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1			
		1.3	1.1	1.1	1.2	1.3	1.2	1.3	1.3	1.3	2.0	1.4	1.3	1.4	1.7	1.8	1.3	1.2	1.1	1.2	1.1	1.1	1.1	1.2	1.3	Diurnal Average	
		6.1	2.7	2.5	4.1	3.5	3.3	4.0	3.1	6.2	19.6	6.4	4.5	7.8	10.9	15.4	4.0	4.5	3.1	2.7	2.4	2.2	2.5	2.2	6.7	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									



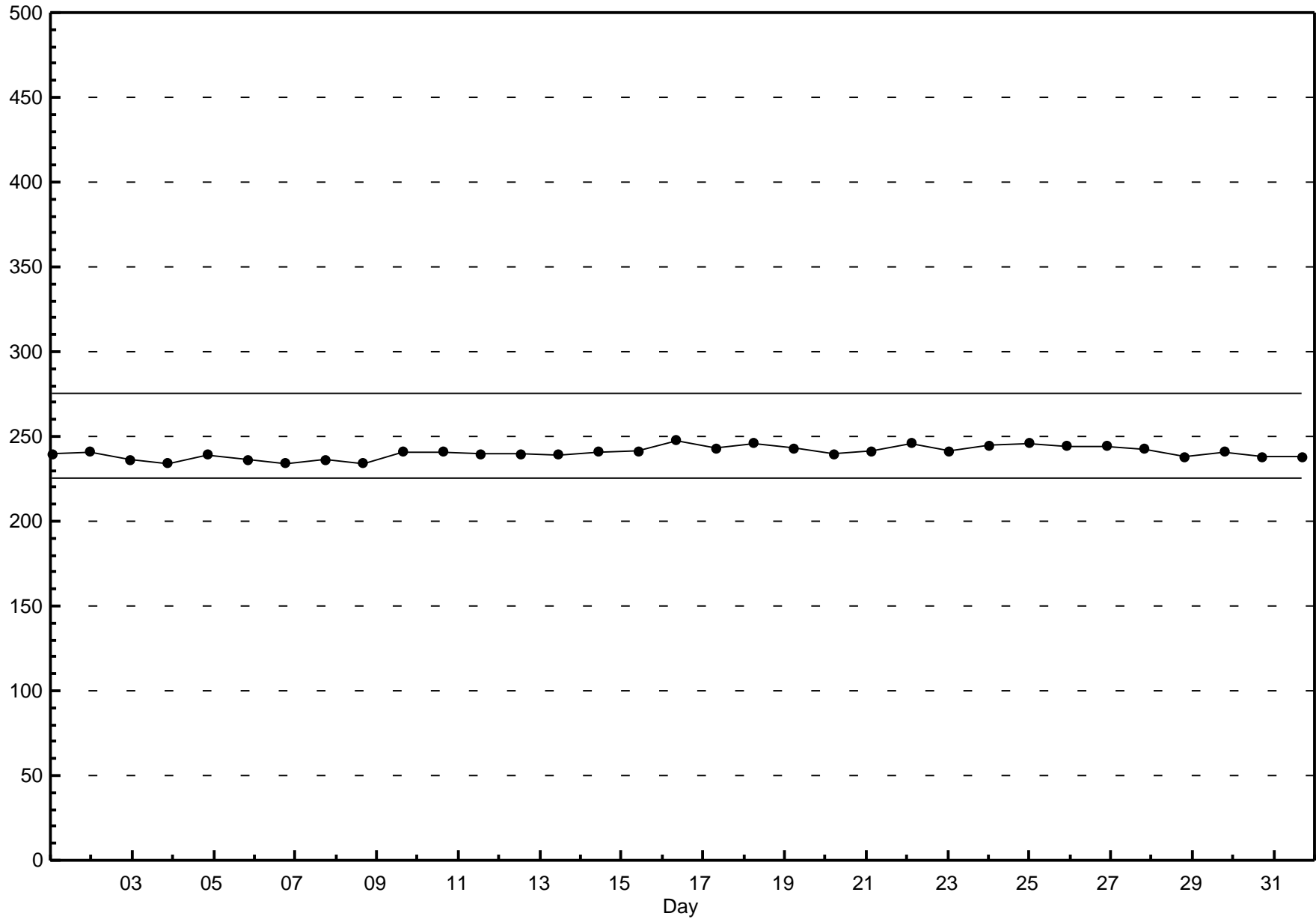
**Pollutant Rose**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**Portable Clairmont - January 2015**



### Span Responses

Sulphur Dioxide (SO<sub>2</sub>)  
Portable Clairmont - January 2015



## Hourly Averages

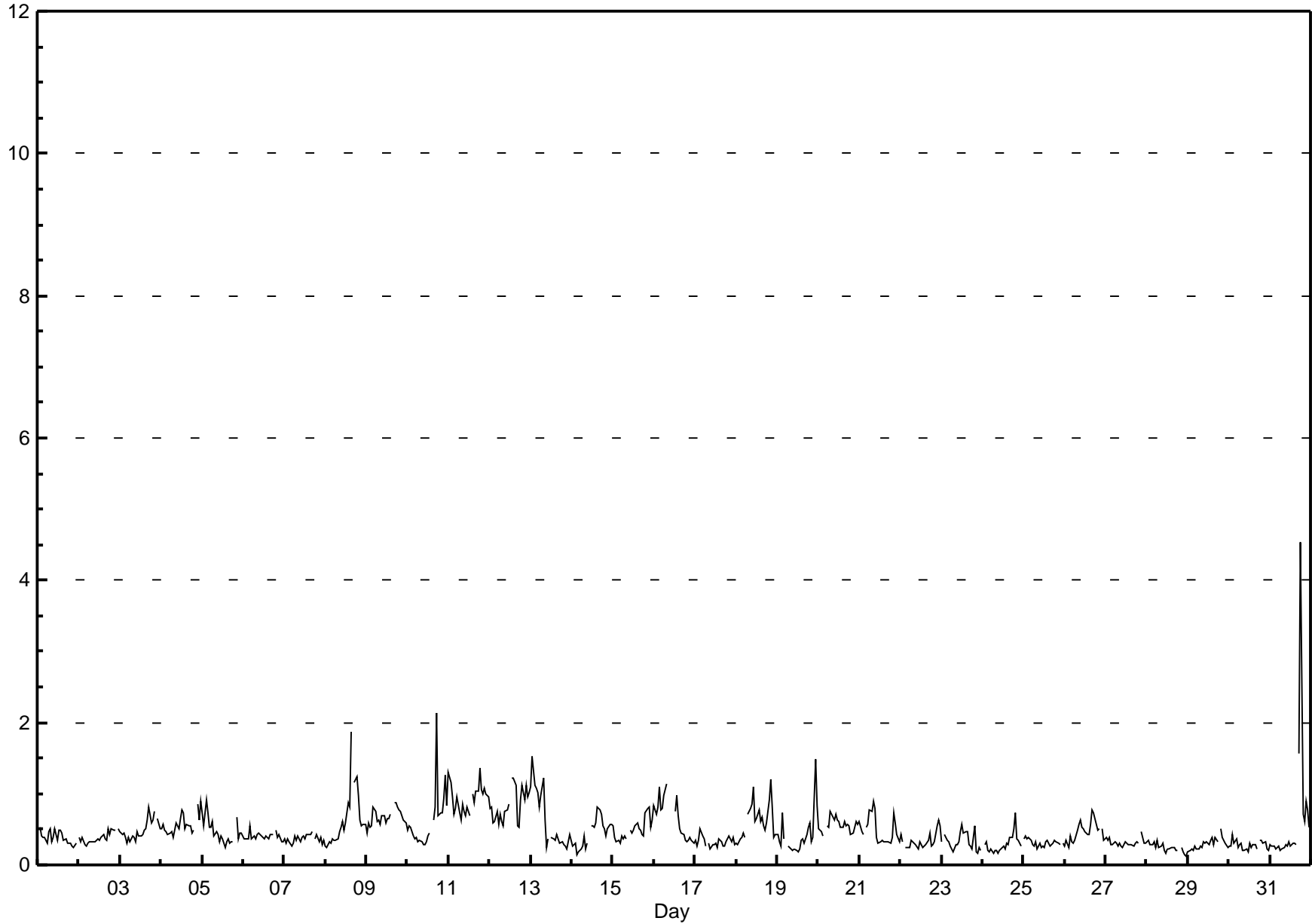
Total Reduced Sulphur (TRS) - ppb

Portable Clairmont - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 4.5 ppb on Jan 31 19:00	Maximum Daily Average: 0.9 ppb on Jan 11		Hours of Data:	708
Minimum Value: 0 ppb on Jan 29 00:00	Minimum Daily Average: 0.2 ppb on Jan 28		Hours of Missing Data:	36
Maximum Diurnal Average: 0.6 ppb at hour 19	Minimum Diurnal Average: 0.4 ppb at hour 6		Hours of Calibration:	36
Monthly Average: 0.48 ppb	Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.3 Median = 0.4 Q <sub>3</sub> = 0.6 P <sub>90</sub> = 0.8 P <sub>99</sub> = 1.3		Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	A	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.5
2-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	1	0.4	0.5
3-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	A	1	1	0.5	0.8
4-Jan	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	0.6	0.9
5-Jan	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0.5	0.9
6-Jan	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.6
7-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.5
8-Jan	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2	A	A	1	1	1	1	1	1	1	0.6	1.9
9-Jan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.7	0.9
10-Jan	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	1	1	2	1	1	1	1	1	1	0.6	2.1
11-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	1.4
12-Jan	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
13-Jan	1	2	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.5
14-Jan	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	0	1	1	0.4	0.8
15-Jan	1	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	1	0	0	0	1	1	1	1	0.5	0.8
16-Jan	1	1	1	1	1	1	1	1	A	C	C	C	1	1	1	1	0	0	0	0	0	0	0	0	0.7	1.1
17-Jan	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
18-Jan	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	0.6	1.2
19-Jan	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0.4	1.5
20-Jan	1	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0.6	0.7
21-Jan	1	0	0	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.5	0.9
22-Jan	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	0.6
23-Jan	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0.3	0.6
24-Jan	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0.3	0.7
25-Jan	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
26-Jan	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	1	1	1	0	1	A	1	0.5	0.8
27-Jan	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
28-Jan	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
29-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.3	0.5
30-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.3	0.4
31-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	2	5	1	1	1	1	1	0.6	4.5
	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	Diurnal Average
	1.3	1.5	1.1	1.1	1.0	1.0	1.0	1.2	0.9	0.8	1.1	0.8	0.8	1.2	1.2	1.9	1.0	2.1	4.5	1.1	1.2	1.1	1.5	1.0	Diurnal Maximum	

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



## Hourly Maximums

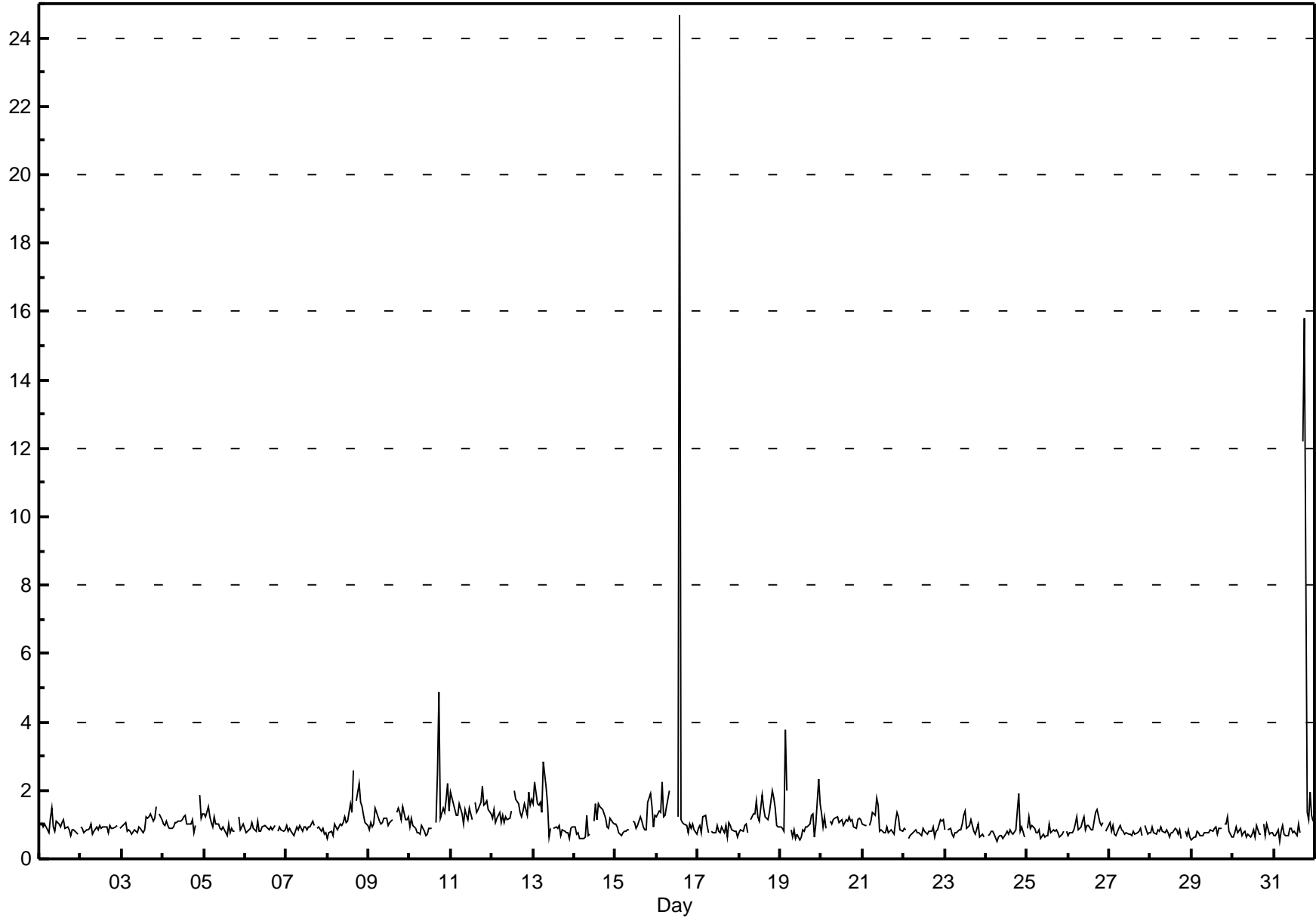
## Total Reduced Sulphur (TRS) - ppb Portable Clairmont - January 2015

Maximum Value: 24.7 ppb on Jan 16 14:00		Maximum Daily Average: 2.4 ppb on Jan 16		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 31 04:00		Minimum Daily Average: 0.8 ppb on Jan 30		Hours of Data: 708																						
Maximum Diurnal Average: 1.8 ppb at hour 14		Minimum Diurnal Average: 0.9 ppb at hour 10		Hours of Missing Data: 36																						
Monthly Average: 1.08 ppb		Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 0.7 Q <sub>1</sub> = 0.8 Median = 0.9 Q <sub>3</sub> = 1.1 P <sub>90</sub> = 1.5 P <sub>99</sub> = 2.4		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-Jan	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	1.5
2-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.0
3-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1.0	1.5
4-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1.1	1.9
5-Jan	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.5
6-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.9	1.1
7-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.1
8-Jan	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3	A	2	2	2	2	1	1	1	1	1.2	2.6
9-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1.2	1.5
10-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	5	1	1	1	2	2	1	1	1.3	4.9
11-Jan	2	2	1	1	1	2	1	1	1	1	2	1	A	2	1	1	2	2	2	2	2	2	1	1	1.5	2.1
12-Jan	1	1	1	1	1	1	1	1	1	1	1	A	2	2	2	1	1	1	2	1	2	2	2	2	1.4	2.0
13-Jan	2	2	2	2	2	1	3	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.8
14-Jan	1	1	1	1	1	1	1	1	1	1	A	1	2	1	2	2	1	1	1	1	1	1	1	1	1.0	1.6
15-Jan	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1.0	1.9
16-Jan	1	1	1	2	1	1	2	2	A	C	C	C	1	25	1	1	1	1	1	1	1	1	1	1	2.4	24.7
17-Jan	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
18-Jan	1	1	1	1	1	1	A	1	1	1	2	1	1	2	2	1	1	1	1	2	2	1	1	1	1.2	2.0
19-Jan	1	1	1	4	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.1	3.8
20-Jan	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	1.3
21-Jan	1	1	1	A	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8
22-Jan	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
23-Jan	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
24-Jan	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	0.8	1.9	
25-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.2
26-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.4
27-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.1
28-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	0.9
29-Jan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.2
30-Jan	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	1.0
31-Jan	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	12	16	1	1	2	1	1	2.1	15.8
		1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	0.9	0.9	1.0	0.9	1.8	1.1	1.0	1.0	1.6	1.6	1.1	1.1	1.1	1.1	1.0	Diurnal Average
		1.9	2.3	1.6	3.8	2.0	1.6	2.8	2.1	1.8	1.6	1.7	1.5	1.6	24.7	1.7	2.6	2.5	12.2	15.8	2.0	1.9	2.0	2.3	1.8	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								



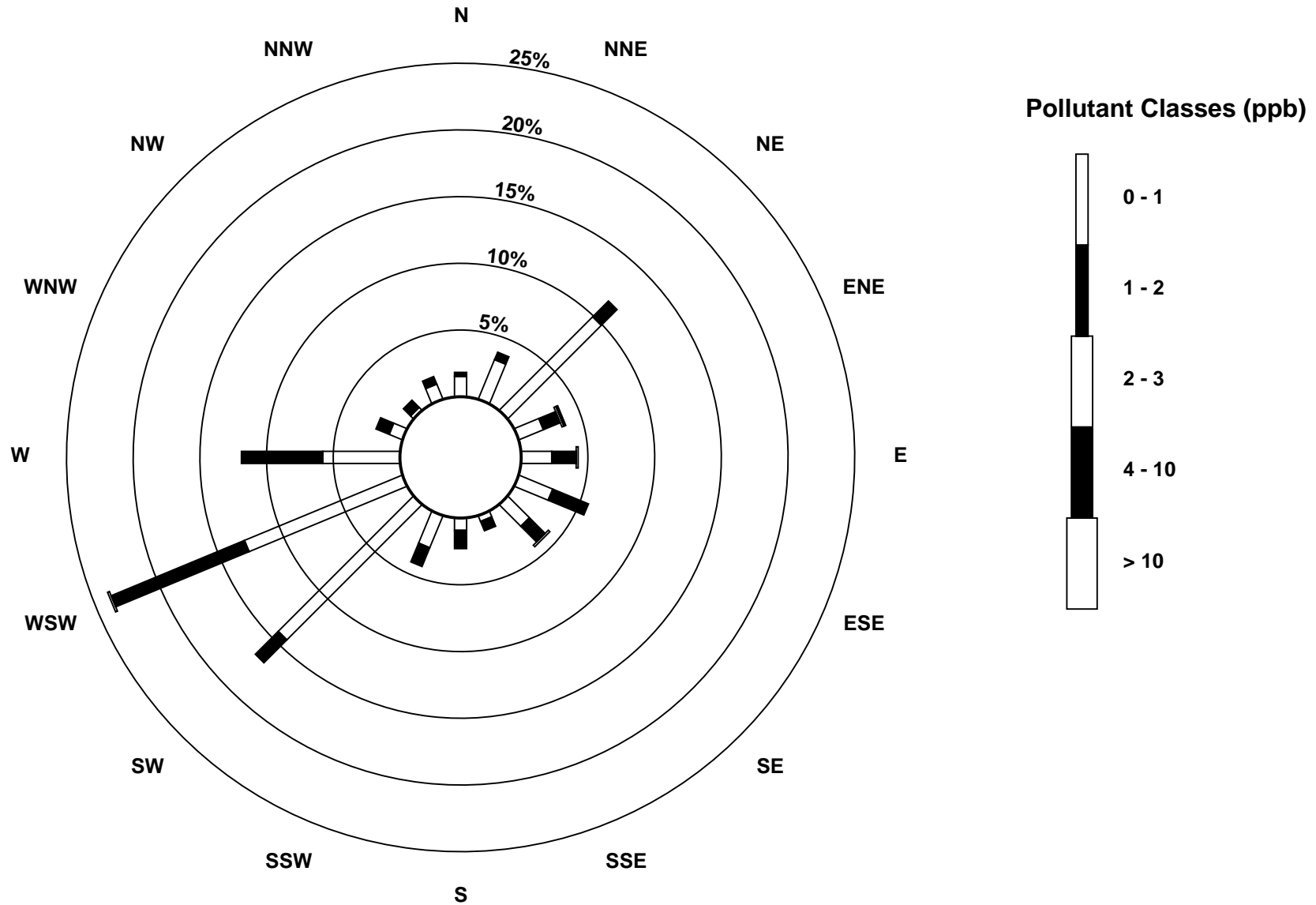
**Hourly Maximums**

**Total Reduced Sulphur (TRS) - ppb**  
**Portable Clairmont - January 2015**



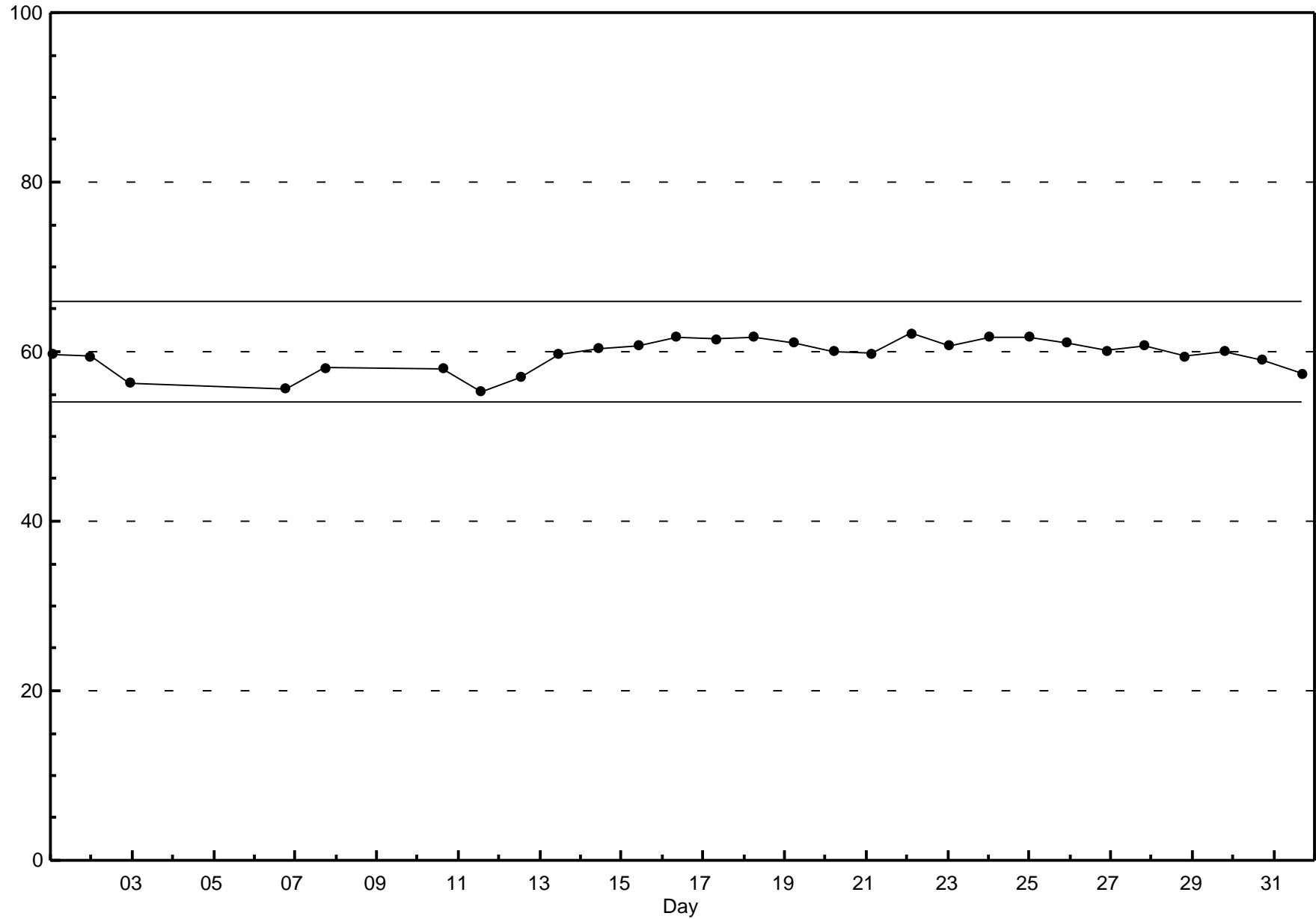
**Pollutant Rose**

**Total Reduced Sulphur (TRS) - ppb**  
**Portable Clairmont - January 2015**



### Span Responses

Total Reduced Sulphur (TRS)  
Portable Clairmont - January 2015



## Hourly Averages

## Nitrogen Dioxide (NO<sub>2</sub>) - ppb

### Portable Clairmont - January 2015

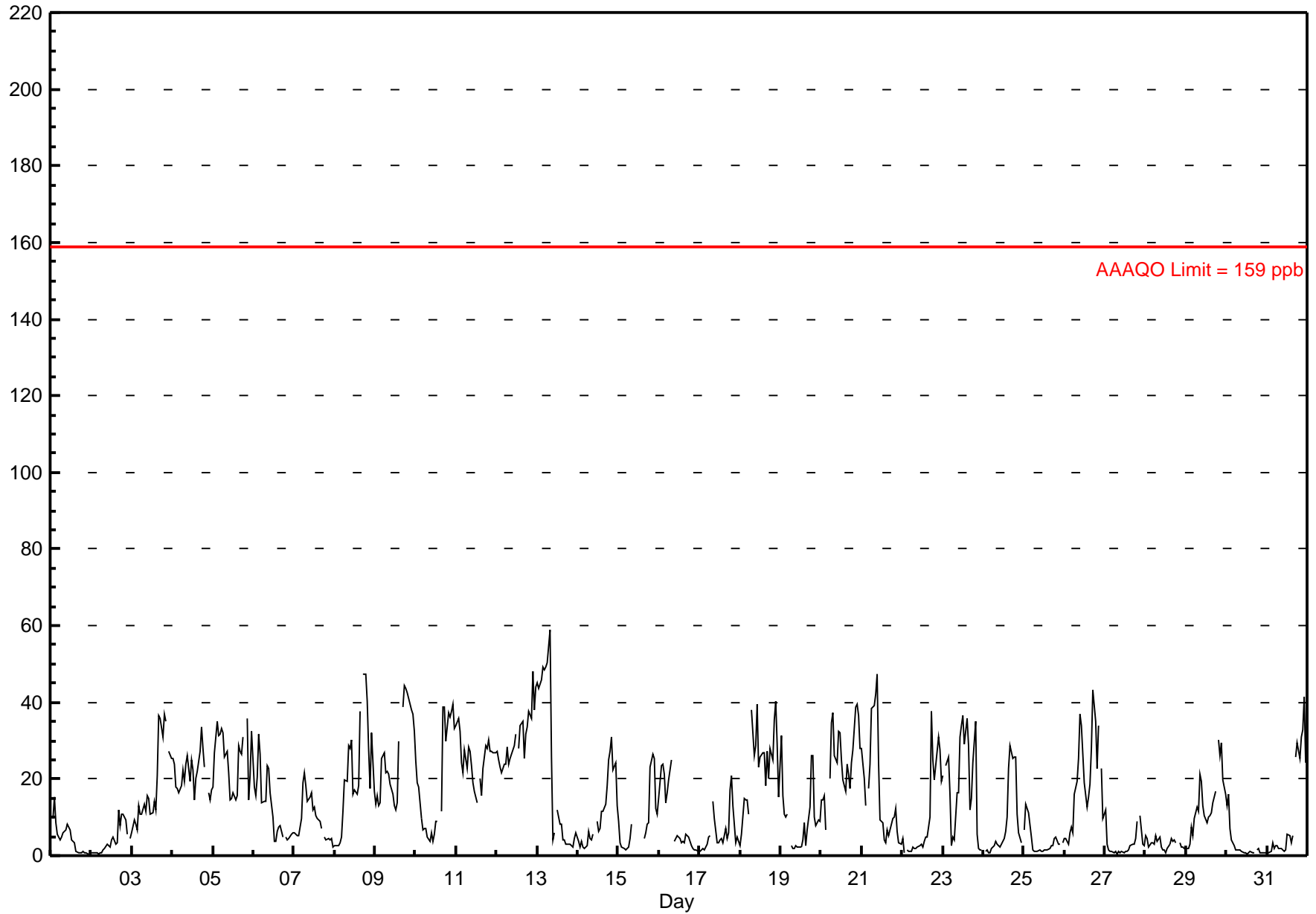
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 58.8 ppb on Jan 13 08:00	Maximum Daily Average: 30.5 ppb on Jan 12		Hours of Data:	706
Minimum Value: 0 ppb on Jan 1 23:00	Minimum Daily Average: 2.7 ppb on Jan 30		Hours of Missing Data:	38
Maximum Diurnal Average: 21.0 ppb at hour 20	Minimum Diurnal Average: 9.8 ppb at hour 14		Hours of Calibration:	38
Monthly Average: 14.31 ppb	Percentiles: P <sub>1</sub> = 0.6 P <sub>10</sub> = 1.5 Q <sub>1</sub> = 3.4 Median = 10.8 Q <sub>3</sub> = 24.0 P <sub>90</sub> = 32.5 P <sub>99</sub> = 47.0		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-Jan	A	10	15	8	6	4	5	6	6	7	8	7	4	4	3	1	1	1	1	1	1	1	0	A	4.5	15.1																						
2-Jan	1	1	1	1	0	1	1	1	2	3	2	2	4	5	3	3	12	8	11	11	9	6	A	5	4.0	12.1																						
3-Jan	6	9	8	7	13	11	11	13	11	16	15	11	11	14	12	21	36	36	31	37	35	A	27	25	18.2	37.0																						
4-Jan	26	24	18	18	16	18	22	19	24	26	19	25	23	15	20	22	27	33	28	23	A	17	14	17	21.5	33.5																						
5-Jan	18	27	35	31	32	33	32	26	27	22	15	15	16	15	16	29	27	26	31	A	36	14	21	32	25.1	35.7																						
6-Jan	18	16	20	32	26	14	14	14	24	23	17	10	4	4	7	7	8	5	A	5	4	4	6	6	12.4	31.8																						
7-Jan	6	6	5	5	10	19	22	18	14	15	16	12	13	11	10	9	7	A	5	4	5	4	4	2	9.6	21.7																						
8-Jan	3	3	3	3	5	12	20	19	29	28	30	16	17	16	18	37	A	47	47	40	28	17	32	17	21.2	47.4																						
9-Jan	13	16	13	14	25	27	21	22	21	19	16	13	12	14	30	A	39	44	44	43	41	38	37	32	25.8	44.4																						
10-Jan	25	19	18	10	7	7	7	5	4	6	4	6	9	9	A	11	39	39	30	37	36	38	40	33	19.0	39.5																						
11-Jan	34	36	33	24	22	27	23	28	27	23	19	17	14	A	20	16	23	29	28	30	27	27	27	27	25.2	36.0																						
12-Jan	27	25	23	22	24	24	29	24	25	27	29	32	A	28	34	35	26	32	34	38	36	48	38	44	30.5	48.0																						
13-Jan	45	44	46	49	48	49	50	59	26	4	6	A	12	8	8	4	4	3	3	3	3	2	4	6	21.2	58.8																						
14-Jan	4	2	4	2	2	2	6	4	4	6	A	9	6	7	12	12	13	18	25	27	31	22	24	13	11.1	30.8																						
15-Jan	9	3	2	2	2	2	2	5	8	A	C	C	C	C	C	5	6	8	9	23	26	25	12	11	8.9	26.3																						
16-Jan	15	24	24	21	14	16	20	25	A	4	5	5	4	3	4	3	6	5	4	3	2	2	2	1	9.1	24.8																						
17-Jan	1	2	2	2	3	5	5	A	14	10	3	3	4	5	3	7	4	6	17	21	13	3	5	4	6.2	20.8																						
18-Jan	2	5	15	15	15	11	A	38	26	29	39	23	26	27	27	18	27	20	28	25	35	40	29	15	23.3	40.2																						
19-Jan	31	16	11	10	11	A	3	2	2	3	2	2	4	9	3	7	13	26	26	10	8	9	9	9	9.5	31.2																						
20-Jan	15	15	16	7	A	20	35	37	26	24	33	32	25	20	17	24	21	17	24	27	39	39	37	28	25.1	39.4																						
21-Jan	28	20	13	A	17	24	38	39	42	47	24	9	8	4	4	7	5	7	10	10	12	6	3	3	16.6	47.2																						
22-Jan	4	1	A	1	1	1	2	2	2	2	3	3	2	4	5	5	10	38	25	20	23	31	28	19	10.1	37.7																						
23-Jan	21	A	23	26	16	3	5	4	16	16	31	34	37	29	36	29	12	15	24	35	6	2	1	2	18.4	36.7																						
24-Jan	A	1	1	1	1	2	3	4	3	3	2	4	4	6	10	23	29	25	26	26	11	6	3	A	8.8	28.8																						
25-Jan	7	13	12	11	5	2	1	1	1	1	1	1	2	1	1	2	3	3	5	5	3	3	A	3	3.8	13.3																						
26-Jan	5	4	3	6	7	6	16	19	26	37	34	27	19	13	15	19	28	43	35	23	34	A	23	10	19.6	43.3																						
27-Jan	12	3	2	1	1	1	1	1	1	1	1	1	1	1	2	3	3	3	5	9	A	10	3	3	2.9	11.9																						
28-Jan	5	4	2	3	3	3	5	4	5	2	1	2	1	2	3	4	4	4	3	A	3	2	2	2	3.1	5.4																						
29-Jan	2	2	3	7	5	10	13	11	21	19	13	11	8	10	11	11	14	17	A	30	26	29	20	16	13.4	30.1																						
30-Jan	13	16	7	4	3	2	2	2	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	2.7	15.9																						
31-Jan	1	1	1	3	2	2	3	2	2	2	1	2	6	5	3	5	A	26	29	25	31	33	42	24	10.9	41.6																						
																								13.6	12.2	12.6	11.6	11.4	11.9	13.9	15.1	14.7	14.2	13.5	11.5	10.2	9.8	11.8	12.5	15.2	19.7	20.3	21.0	19.6	16.6	17.0	14.1	Diurnal Average
																								45.2	43.5	45.8	49.1	48.4	49.1	50.2	58.8	42.1	47.2	39.4	34.1	36.7	29.0	35.7	37.5	38.7	47.4	47.4	42.6	40.9	48.0	41.6	43.9	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

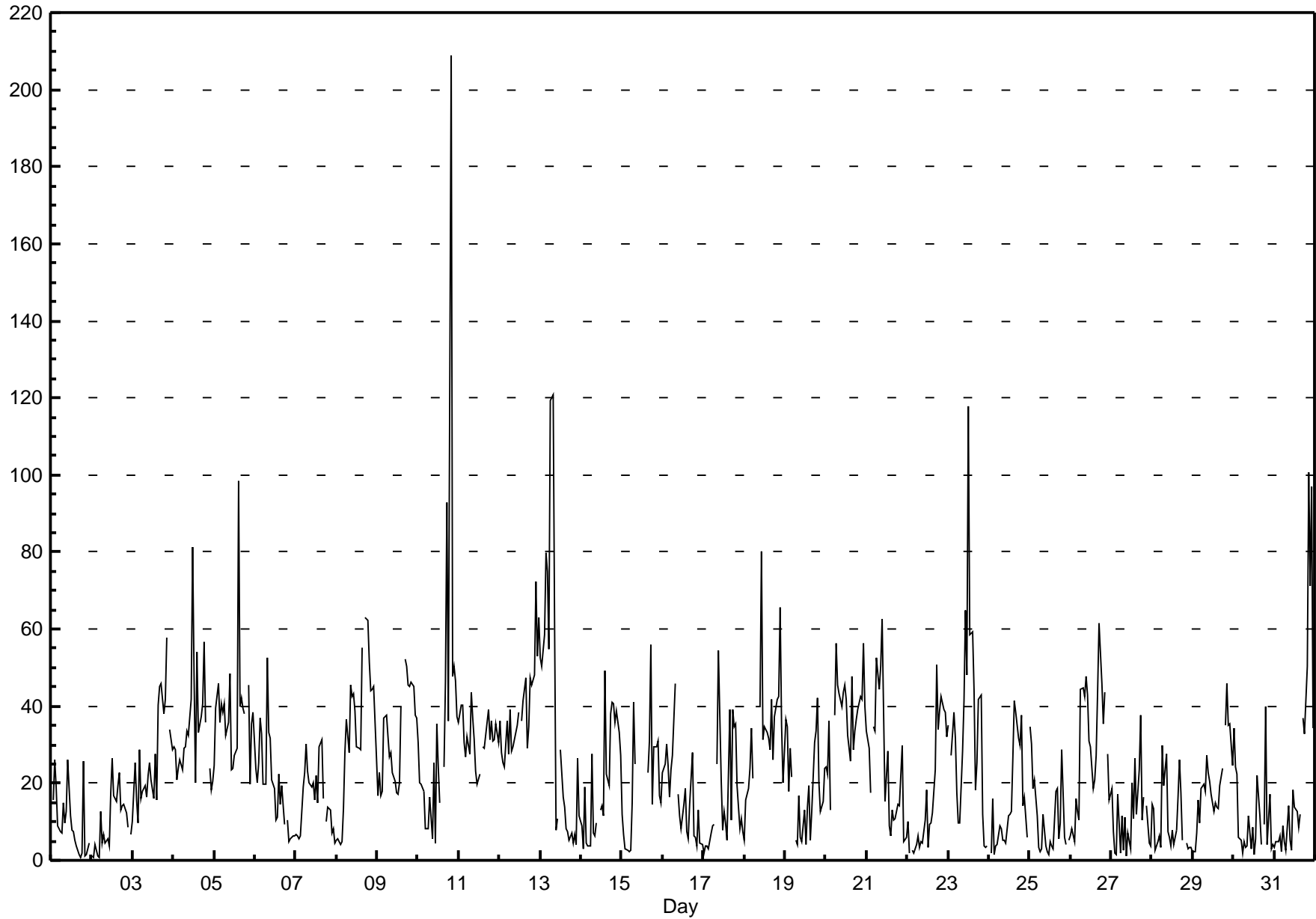
Nitrogen Dioxide (NO<sub>2</sub>) - ppb  
Portable Clairmont - January 2015





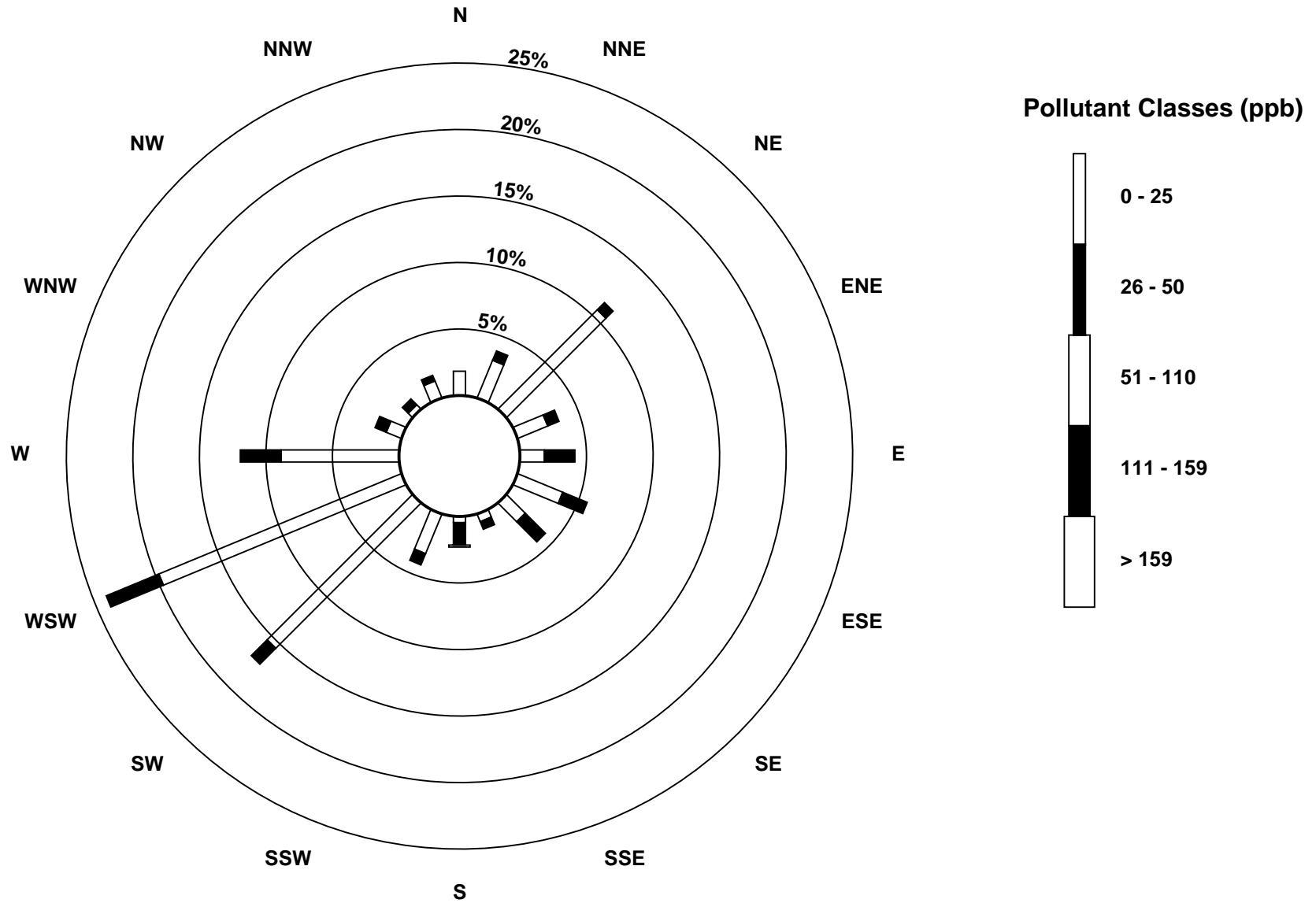
**Hourly Maximums**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Portable Clairmont - January 2015**



**Pollutant Rose**

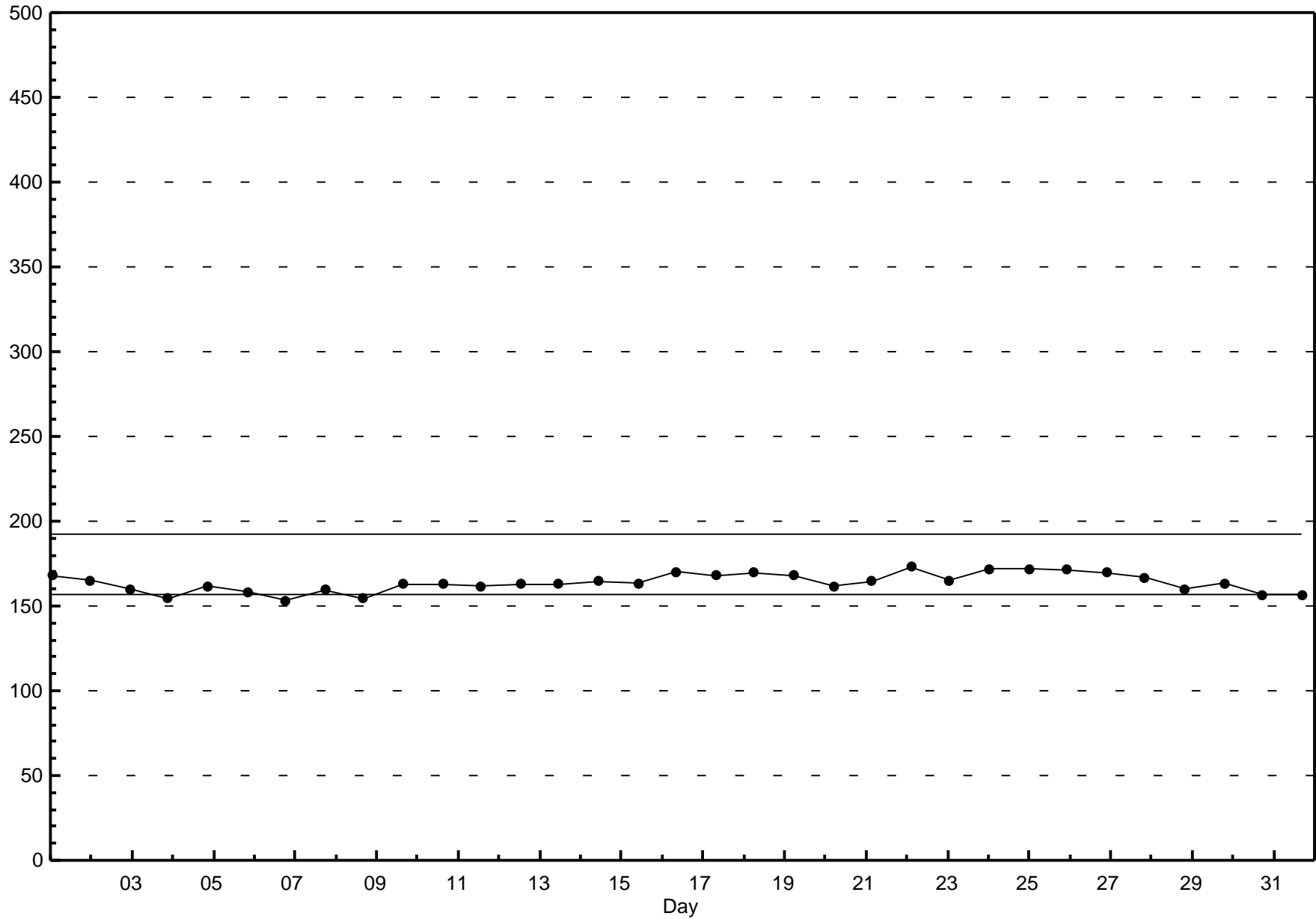
**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**Portable Clairmont - January 2015**





### Span Responses

**Nitrogen Dioxide (NO<sub>2</sub>)**  
**Portable Clairmont - January 2015**





Peace Airshed Zone Association

# Hourly Averages

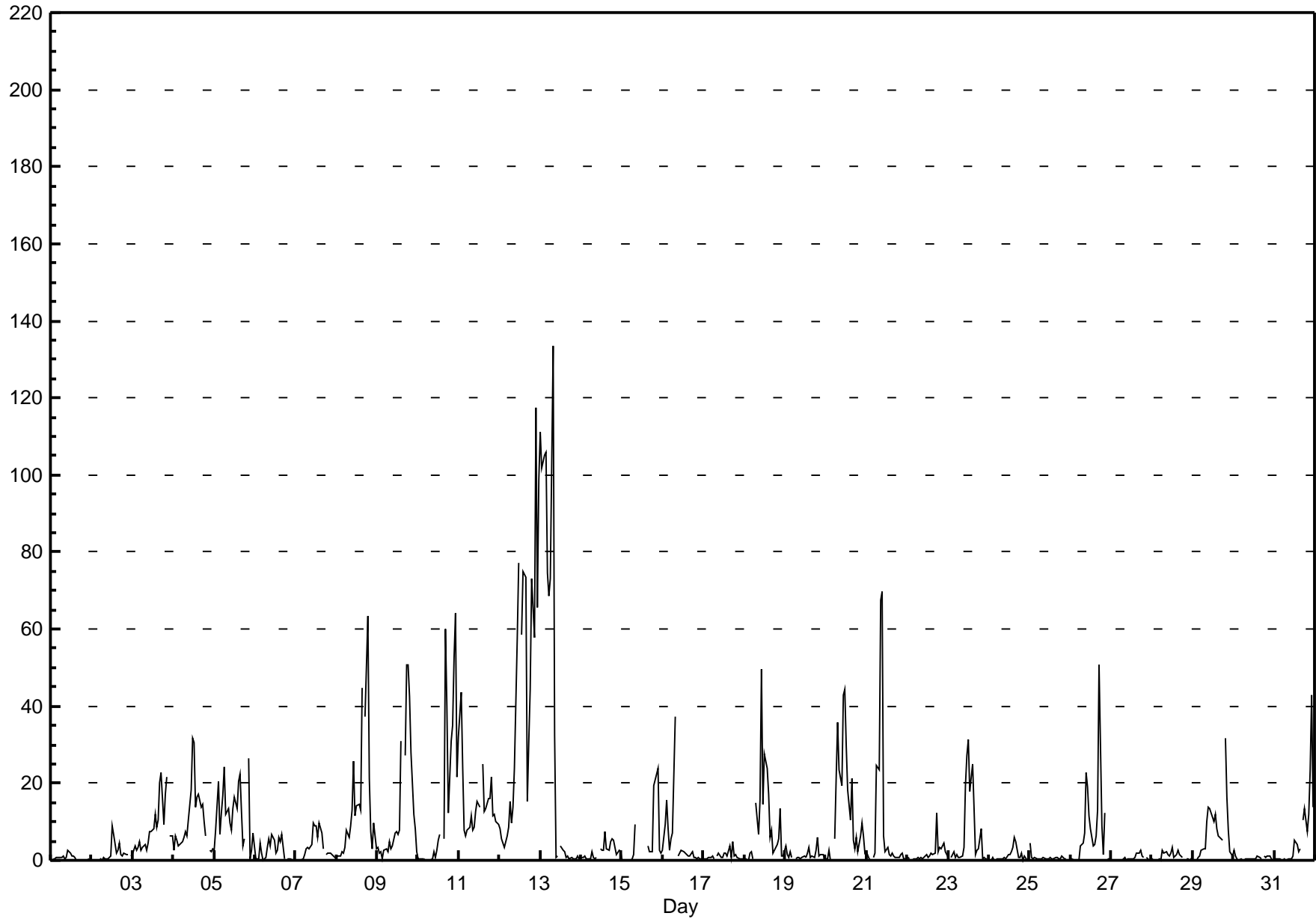
Nitrogen Oxide (NO) - ppb

Portable Clairmont - January 2015

Number of Exceedences (AAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 133.4 ppb on Jan 13 08:00	Maximum Daily Average: 41.1 ppb on Jan 12		Hours of Data:	706
Minimum Value: 0 ppb on Jan 2 01:00	Minimum Daily Average: 0.6 ppb on Jan 27		Hours of Missing Data:	38
Maximum Diurnal Average: 11.2 ppb at hour 18	Minimum Diurnal Average: 4.2 ppb at hour 5		Hours of Calibration:	38
Monthly Average: 8.25 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.2 Q <sub>1</sub> = 0.5 Median = 2.1 Q <sub>3</sub> = 7.9 P <sub>90</sub> = 22.4 P <sub>99</sub> = 97.2		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-Jan	A	0	0	1	1	1	1	1	0	1	3	2	1	1	1	0	0	0	0	0	0	0	0	A	0.7	2.6
2-Jan	0	0	0	0	0	0	0	1	0	0	1	1	9	7	2	3	4	1	1	2	1	1	A	1	1.6	9.1
3-Jan	2	4	2	3	5	3	4	4	3	4	7	7	8	12	9	11	20	23	9	17	22	A	6	6	8.3	22.8
4-Jan	3	6	5	4	4	5	6	8	6	10	18	32	30	14	16	17	14	15	10	6	A	3	2	3	10.3	31.7
5-Jan	3	8	21	7	12	17	24	12	14	10	8	13	16	13	21	22	13	4	5	A	27	0	3	7	12.1	26.7
6-Jan	0	0	0	4	2	0	1	3	6	4	7	5	2	3	6	5	7	0	A	0	0	0	0	0	2.5	6.9
7-Jan	0	0	0	0	0	1	3	3	3	4	10	9	9	6	10	7	3	A	1	2	2	1	1	1	3.3	9.7
8-Jan	1	1	1	2	2	3	8	6	9	13	26	12	14	15	13	45	A	37	63	21	7	3	10	3	13.7	63.4
9-Jan	3	2	2	0	3	3	2	5	3	4	7	7	7	8	31	A	27	51	51	42	28	12	8	2	13.4	50.8
10-Jan	0	0	0	0	0	0	0	0	0	2	1	2	5	7	A	6	60	40	12	31	35	52	64	22	14.8	64.0
11-Jan	32	44	24	8	6	8	9	12	8	9	13	15	14	A	25	13	13	16	16	22	12	12	10	9	15.1	43.6
12-Jan	8	6	4	3	6	9	15	10	14	24	58	77	A	59	75	73	15	30	44	73	58	118	66	99	41.1	117.6
13-Jan	111	102	105	106	75	68	73	133	32	1	1	A	4	3	2	1	1	0	1	0	0	0	1	0	35.7	133.4
14-Jan	1	1	1	0	0	0	2	1	1	1	A	3	3	3	8	3	3	5	6	5	3	2	3	2	2.4	7.6
15-Jan	0	0	0	0	0	0	0	2	9	A	C	C	C	C	C	4	2	2	2	19	22	24	3	2	5.1	23.7
16-Jan	3	9	16	8	3	6	7	37	A	1	2	2	2	2	1	1	1	2	1	1	0	1	0	0	4.6	37.4
17-Jan	0	0	0	1	1	1	0	A	1	2	1	1	2	2	1	4	1	5	1	2	1	0	0	0	1.2	4.7
18-Jan	0	0	0	2	2	0	A	15	7	16	50	15	28	24	17	6	8	2	3	4	5	13	1	1	9.5	49.7
19-Jan	4	1	1	2	1	A	1	1	1	1	1	1	1	2	3	1	1	1	2	6	1	1	1	0	1.5	5.8
20-Jan	0	0	3	0	A	6	21	36	23	19	43	44	30	18	10	21	5	3	6	2	6	10	6	2	13.8	44.3
21-Jan	2	0	0	A	1	2	25	23	67	70	6	2	3	1	1	2	1	1	1	1	1	2	0	0	9.3	69.6
22-Jan	1	0	A	0	0	0	1	1	1	1	1	2	1	1	2	1	2	12	2	3	3	5	2	2	1.9	12.2
23-Jan	1	A	1	2	1	1	1	1	1	3	20	27	31	18	25	13	1	3	3	8	0	1	0	0	7.1	31.3
24-Jan	A	0	1	0	0	0	0	0	0	1	1	1	2	2	3	6	5	1	1	2	0	1	0	A	1.3	5.9
25-Jan	5	1	1	1	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	1	0	0	A	0	0.7	4.6
26-Jan	0	0	0	0	0	0	4	4	7	23	19	12	8	4	4	6	13	51	9	2	12	A	0	0	7.8	50.9
27-Jan	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	2	2	2	1	1	A	1	0	0	0.6	2.4
28-Jan	0	0	0	0	0	0	3	2	2	2	1	2	3	1	1	3	2	1	1	A	0	0	0	0	1.1	3.3
29-Jan	0	0	0	1	1	3	3	3	10	14	12	10	12	8	6	6	5	A	32	16	8	2	1	7.3	31.8	
30-Jan	3	1	0	0	0	0	0	0	0	0	1	0	0	1	1	0	A	1	1	1	1	1	0	0	0.6	2.6
31-Jan	1	1	0	0	0	0	0	0	0	1	0	1	5	4	2	3	A	11	14	7	12	23	43	14	6.2	42.9
	6.3	6.3	6.3	5.2	4.2	4.6	7.1	10.8	7.7	7.9	10.9	10.7	8.6	8.3	10.4	9.5	8.0	11.2	9.3	10.9	9.6	10.2	8.1	6.2	Diurnal Average	
	110.9	101.6	105.0	105.9	74.6	68.4	73.0	133.4	67.4	69.6	57.7	77.4	31.3	58.7	74.8	73.5	60.1	50.9	63.4	73.0	57.8	117.6	65.8	98.8	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span



## Hourly Maximums

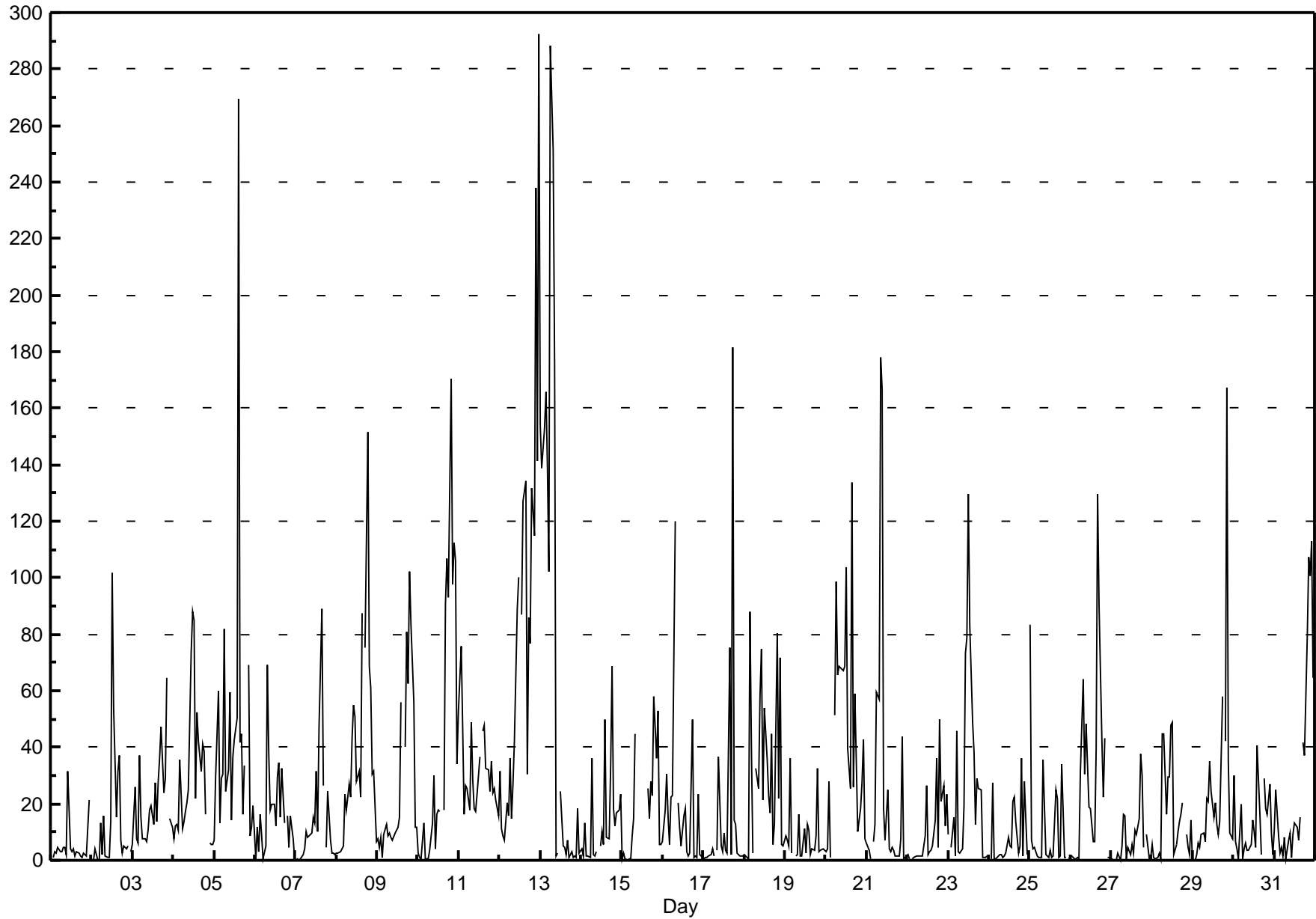
Nitrogen Oxide (NO) - ppb

Portable Clairmont - January 2015

Maximum Value: 292.2 ppb on Jan 13 00:00		Maximum Daily Average: 81.0 ppb on Jan 12		Hours in Service: 744																						
Minimum Value: 0 ppb on Jan 2 01:00		Minimum Daily Average: 5.0 ppb on Jan 1		Hours of Data: 706																						
Maximum Diurnal Average: 40.8 ppb at hour 18		Minimum Diurnal Average: 13.2 ppb at hour 2		Hours of Missing Data: 38																						
Monthly Average: 25.47 ppb		Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 1.1 Q <sub>1</sub> = 2.8 Median = 11.8 Q <sub>3</sub> = 31.3 P <sub>90</sub> = 68.6 P <sub>99</sub> = 176.4		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-Jan	A	1	3	3	5	3	3	5	4	2	31	4	3	4	1	3	2	2	1	3	2	2	21	A	5.0	31.3
2-Jan	0	0	4	0	0	13	2	16	2	1	1	14	102	54	15	32	37	7	3	5	4	5	A	3	13.9	101.7
3-Jan	6	26	8	6	37	15	7	8	6	11	18	19	13	27	14	27	36	47	24	29	65	A	15	12	20.7	64.7
4-Jan	8	12	13	11	36	11	14	17	20	25	74	88	85	22	52	42	31	41	39	16	A	6	6	5	29.3	87.8
5-Jan	7	29	60	13	29	31	82	24	32	60	14	36	43	50	269	42	45	16	33	A	69	9	12	19	44.6	269.4
6-Jan	1	12	3	16	9	1	5	69	37	18	20	20	12	29	34	15	32	13	A	16	5	16	8	1	17.0	69.0
7-Jan	0	1	0	1	2	4	10	8	9	10	15	13	31	10	47	89	26	A	5	24	7	2	2	2	13.9	88.8
8-Jan	2	2	3	4	5	23	18	27	22	43	55	51	28	32	22	87	A	75	152	69	61	30	32	7	37.0	151.6
9-Jan	8	4	8	1	9	13	9	10	8	7	10	11	12	15	56	A	40	81	63	102	83	56	12	12	27.3	102.3
10-Jan	2	1	1	13	0	1	1	3	13	30	4	16	18	17	A	18	91	107	93	171	97	112	106	34	41.3	170.5
11-Jan	52	76	47	16	27	25	18	49	28	18	17	24	36	A	46	48	33	32	25	35	24	25	21	16	32.1	75.7
12-Jan	31	11	9	7	20	16	36	15	27	42	89	100	A	87	127	134	30	86	77	132	115	238	141	292	81.0	292.2
13-Jan	154	139	153	166	139	102	288	251	175	1	2	A	24	5	5	2	7	1	3	1	1	1	18	2	71.4	288.4
14-Jan	4	2	13	1	1	1	36	2	1	3	A	5	10	6	50	8	8	33	69	18	12	17	18	24	14.9	68.5
15-Jan	0	3	0	0	0	1	9	15	45	A	C	C	C	C	C	25	15	28	23	58	36	53	5	6	17.9	57.9
16-Jan	7	18	31	15	6	22	23	120	A	20	11	5	16	18	3	2	2	50	1	2	1	23	2	1	17.3	119.8
17-Jan	1	1	1	2	2	4	1	A	4	37	5	3	9	4	2	75	2	181	14	13	3	1	2	2	16.0	181.5
18-Jan	2	2	1	88	40	2	A	32	25	58	75	22	54	36	23	17	45	6	13	80	22	72	6	5	31.4	87.8
19-Jan	9	7	5	36	3	A	1	2	16	1	2	11	3	13	11	2	4	4	9	32	3	4	4	3	8.0	35.9
20-Jan	3	4	28	1	A	52	99	66	69	68	67	69	104	40	25	134	26	59	36	10	18	27	43	7	45.8	133.7
21-Jan	6	4	1	A	6	13	60	57	178	167	18	7	25	4	3	5	3	2	1	2	8	44	1	1	26.7	178.2
22-Jan	2	1	A	1	1	2	2	1	1	2	9	26	2	3	4	5	14	36	4	50	21	26	12	23	10.8	49.8
23-Jan	9	A	5	15	2	46	3	3	4	19	73	79	130	84	49	38	13	29	25	25	1	1	1	1	28.5	129.9
24-Jan	A	1	27	1	1	1	2	2	1	1	3	8	5	5	21	22	14	2	5	36	2	28	2	A	8.6	36.3
25-Jan	84	7	4	5	2	1	1	1	36	2	2	1	4	1	1	25	22	1	2	34	1	1	A	1	10.2	83.5
26-Jan	1	2	1	1	1	1	31	64	31	48	34	19	18	7	7	40	130	91	42	22	43	A	1	1	27.5	129.6
27-Jan	0	0	0	0	2	0	5	16	16	1	5	2	5	3	11	9	15	38	30	4	A	9	0	1	7.5	37.9
28-Jan	6	1	0	1	3	0	45	45	16	29	29	48	49	2	6	10	14	16	20	A	9	5	2	14	16.1	48.8
29-Jan	0	0	2	6	5	9	10	7	22	21	35	24	15	20	12	9	14	58	A	42	167	35	10	8	23.1	167.4
30-Jan	30	6	4	0	20	0	4	6	3	3	6	14	10	5	41	16	2	A	29	18	16	27	10	2	11.9	40.7
31-Jan	11	25	9	2	4	1	8	0	7	9	1	9	13	11	7	15	A	42	37	80	107	101	113	64	29.5	112.9
		15.4	13.2	14.8	14.4	13.9	13.8	27.7	31.3	28.7	25.3	25.0	25.8	30.3	21.2	33.2	33.2	26.0	40.8	30.2	38.9	34.6	33.7	21.6	19.7	Diurnal Average
		154.3	138.9	152.8	165.6	138.9	102.2	288.4	251.3	178.2	166.6	89.1	100.2	129.9	87.1	269.4	134.3	129.6	181.5	151.6	170.5	167.4	237.8	141.3	292.2	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								

**Hourly Maximums**

**Nitrogen Oxide (NO) - ppb**  
**Portable Clairmont - January 2015**





Peace Airshed Zone Association

# Hourly Averages

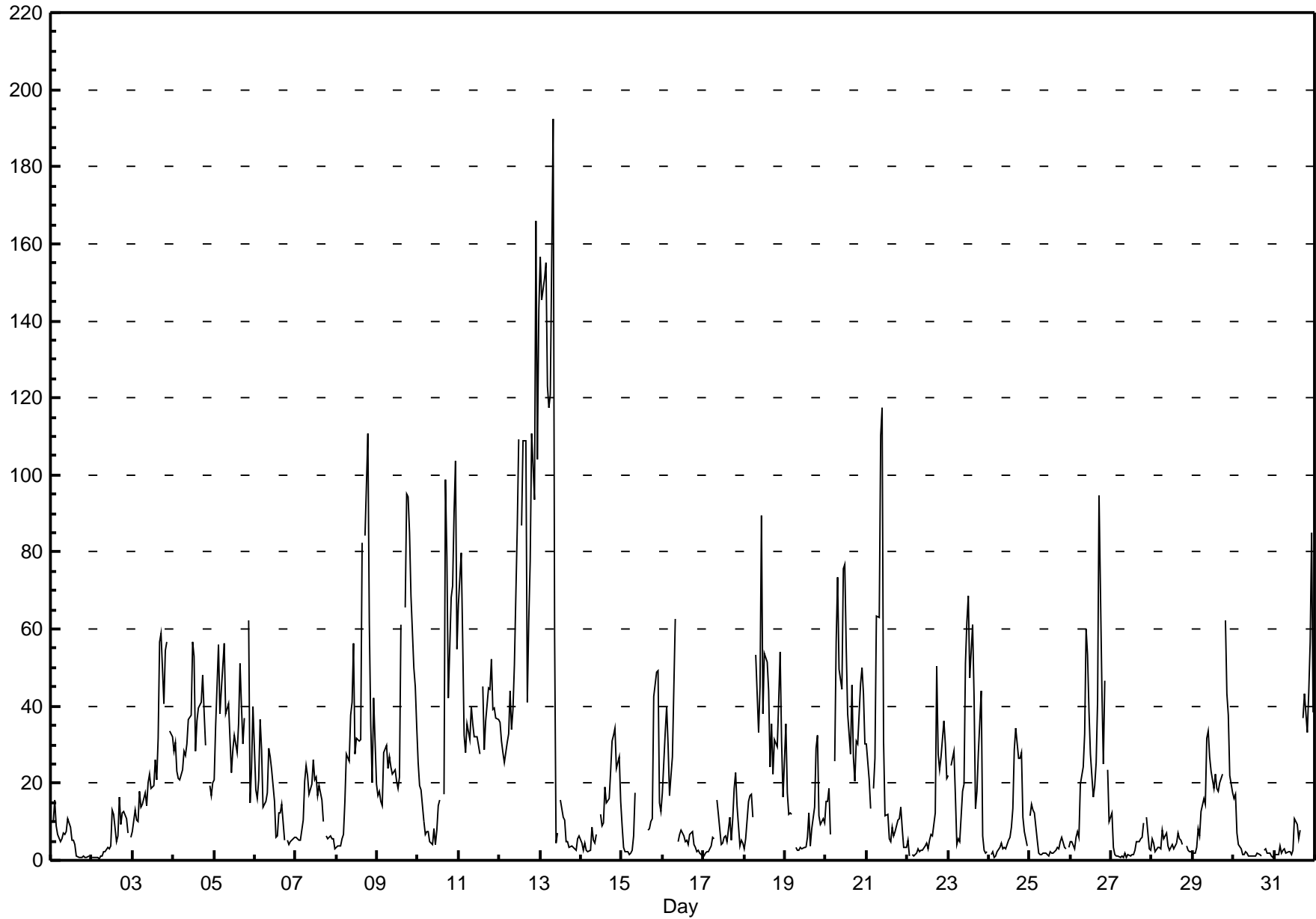
Oxides of Nitrogen (NO<sub>x</sub>) - ppb

Portable Clairmont - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 192.4 ppb on Jan 13 08:00	Maximum Daily Average: 71.7 ppb on Jan 12		Hours of Data:	706
Minimum Value: 1 ppb on Jan 2 05:00	Minimum Daily Average: 3.3 ppb on Jan 30		Hours of Missing Data:	38
Maximum Diurnal Average: 32.0 ppb at hour 20	Minimum Diurnal Average: 15.7 ppb at hour 5		Hours of Calibration:	38
Monthly Average: 22.68 ppb	Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 2.0 Q <sub>1</sub> = 4.4 Median = 13.9 Q <sub>3</sub> = 31.4 P <sub>90</sub> = 53.7 P <sub>99</sub> = 141.6		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-Jan	A	10	16	9	7	5	6	7	7	7	11	9	5	5	4	1	1	1	1	1	1	1	1	A	5.2	15.6	
2-Jan	1	1	1	1	1	1	1	2	2	3	3	4	13	12	5	6	17	9	12	13	11	7	A	6	5.7	16.5	
3-Jan	8	13	11	10	18	14	14	17	14	20	22	19	20	26	21	32	57	59	41	54	57	A	34	32	26.6	58.8	
4-Jan	28	31	23	21	21	23	28	27	30	37	38	57	53	28	36	39	41	48	38	30	A	19	17	20	31.9	56.5	
5-Jan	21	35	56	38	44	50	56	38	41	32	23	29	33	28	35	51	40	30	37	A	62	15	24	40	37.3	62.4	
6-Jan	18	16	21	36	29	14	15	18	29	27	23	15	6	7	12	12	15	5	A	5	4	5	6	6	15.0	36.5	
7-Jan	6	6	5	5	10	21	25	22	17	20	26	21	22	17	19	16	10	A	6	6	6	6	6	3	13.0	26.2	
8-Jan	3	4	4	6	7	15	28	26	38	41	56	28	32	31	31	82	A	84	111	62	35	20	42	20	35.0	110.9	
9-Jan	17	18	15	14	28	30	24	27	24	23	23	21	19	22	61	A	66	95	85	69	50	45	35	35	39.3	95.2	
10-Jan	25	19	18	10	7	7	7	5	4	8	4	8	14	16	A	17	99	79	42	68	71	90	104	55	33.9	103.7	
11-Jan	66	80	57	32	28	35	31	40	35	32	32	32	27	A	45	29	36	45	44	52	39	39	37	36	40.5	79.6	
12-Jan	36	31	28	25	30	33	44	34	39	51	86	109	A	87	109	109	41	62	78	111	93	166	104	143	71.7	165.9	
13-Jan	156	145	151	155	123	118	121	192	58	5	7	A	16	11	11	5	5	3	4	3	3	3	5	6	56.8	192.4	
14-Jan	4	3	5	3	2	3	9	5	5	7	A	12	9	10	19	15	16	23	31	33	34	24	27	15	13.6	34.2	
15-Jan	9	3	2	2	2	2	3	6	17	A	C	C	C	C	C	8	8	10	11	43	49	49	15	13	14.0	49.4	
16-Jan	18	33	40	30	17	22	27	63	A	5	7	8	6	5	5	4	7	7	4	3	2	2	2	1	13.8	62.5	
17-Jan	1	2	2	2	4	6	6	A	16	12	4	4	6	6	5	11	5	11	19	23	14	4	5	4	7.5	22.7	
18-Jan	3	6	15	17	17	11	A	53	33	45	90	38	54	51	44	24	35	22	31	30	41	54	31	17	33.2	89.6	
19-Jan	36	17	12	12	12	A	3	2	3	3	3	3	3	6	12	4	8	14	29	33	12	9	11	10	11.2	35.6	
20-Jan	15	15	18	7	A	26	57	73	50	44	76	77	55	38	28	45	27	21	31	30	46	50	43	30	39.2	76.8	
21-Jan	30	21	14	A	19	26	63	63	110	118	31	12	12	6	5	9	6	8	10	11	14	8	4	3	26.2	117.6	
22-Jan	5	1	A	2	1	2	3	2	3	3	4	5	3	5	7	6	12	50	28	23	27	36	30	21	12.1	50.5	
23-Jan	22	A	24	28	17	4	6	5	18	20	51	62	68	47	61	42	13	18	28	44	6	3	2	2	25.7	68.4	
24-Jan	A	1	2	1	1	2	3	4	3	3	3	5	6	9	14	29	34	26	27	28	11	7	4	A	10.2	34.2	
25-Jan	11	14	13	12	5	2	1	2	2	2	1	1	2	2	2	3	3	3	5	6	3	3	A	3	4.5	14.4	
26-Jan	5	5	3	6	7	6	20	24	33	60	53	39	28	16	19	25	42	95	44	25	47	A	23	10	27.6	94.9	
27-Jan	12	3	2	1	1	1	1	1	2	1	1	1	1	1	2	5	5	5	6	10	A	11	3	3	3.5	12.2	
28-Jan	6	4	2	3	3	3	8	6	7	4	3	3	4	3	5	7	6	5	4	A	4	3	2	2	4.2	8.0	
29-Jan	2	2	3	8	6	13	16	14	32	34	27	23	19	22	19	18	20	22	A	62	43	38	22	17	21.0	62.3	
30-Jan	16	17	7	4	3	2	2	2	2	1	1	1	1	1	2	2	1	A	3	3	2	2	1	1	3.3	17.3	
31-Jan	1	1	1	4	2	3	3	2	2	2	2	3	11	9	6	8	A	37	43	33	43	43	57	85	38	17.2	85.0
	20.1	18.6	19.1	16.9	15.7	16.6	21.0	26.1	22.5	22.2	24.5	22.3	18.9	18.2	22.2	22.2	23.3	31.0	29.7	32.0	29.3	26.9	25.3	20.5		Diurnal Average	
	156.5	145.4	151.0	155.3	123.0	117.6	120.8	192.4	110.2	117.6	89.6	109.2	68.4	86.8	109.0	108.7	98.9	95.2	110.9	110.6	93.4	165.9	104.0	143.0		Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span



## Hourly Maximums

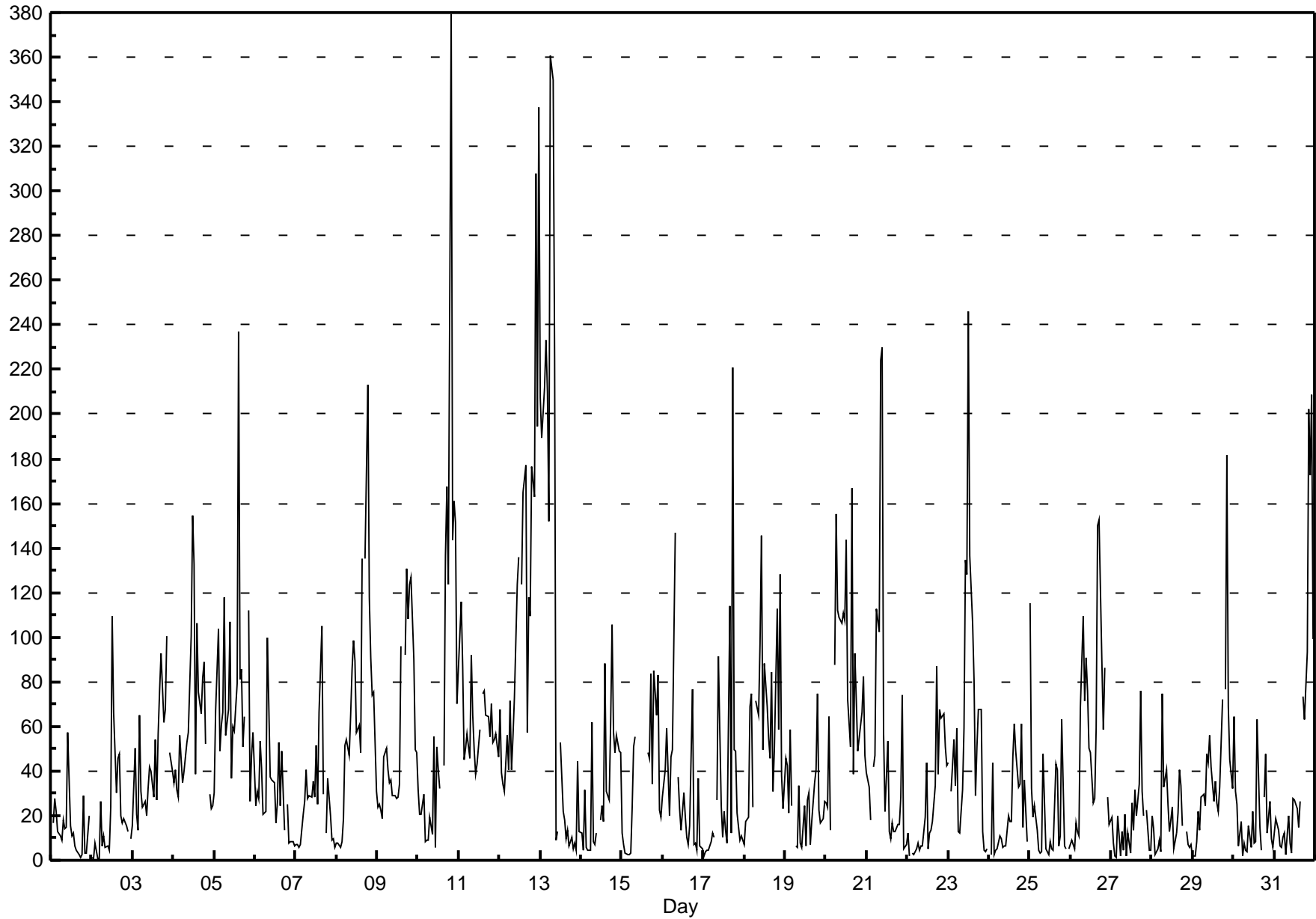
## Oxides of Nitrogen (NO<sub>x</sub>) - ppb Portable Clairmont - January 2015

Maximum Value: 379.5 ppb on Jan 10 20:00      Maximum Daily Average: 117.3 ppb on Jan 12 Minimum Value: 1 ppb on Jan 2 05:00      Minimum Daily Average: 14.2 ppb on Jan 1 Maximum Diurnal Average: 72.7 ppb at hour 20      Minimum Diurnal Average: 29.2 ppb at hour 4 Monthly Average: 46.80 ppb      Percentiles: P <sub>1</sub> = 1.7 P <sub>10</sub> = 5.4 Q <sub>1</sub> = 12.4 Median = 30.8 Q <sub>3</sub> = 61.0 P <sub>90</sub> = 107.2 P <sub>99</sub> = 232.3																					Hours in Service:	744				
																					Hours of Data:	706				
																					Hours of Missing Data:	38				
																					Hours of Calibration:	38				
																					Percent Operational Time:	100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	A	17	28	22	13	11	9	18	14	15	57	16	11	12	7	4	3	1	2	29	3	3	20	A	14.2	57.3
2-Jan	1	1	8	1	1	26	6	11	6	6	5	24	109	67	30	46	48	20	17	19	15	13	A	10	21.3	109.4
3-Jan	15	50	21	14	65	31	24	27	20	32	42	40	29	54	27	57	76	93	62	68	100	A	48	40	45.0	100.4
4-Jan	35	41	32	28	56	35	40	47	53	58	101	155	133	39	106	75	66	82	89	52	A	30	23	25	60.7	154.5
5-Jan	30	67	103	49	61	66	118	56	67	107	37	60	58	79	237	81	85	51	65	A	112	27	47	57	74.8	237.2
6-Jan	24	31	28	54	41	21	22	100	70	37	36	35	16	26	53	24	49	14	A	25	8	8	8	7	32.0	99.9
7-Jan	7	7	6	7	21	26	41	28	29	28	35	28	52	25	66	105	30	A	12	37	20	9	10	6	27.6	104.9
8-Jan	8	8	6	8	19	52	54	47	65	86	98	89	57	61	48	135	A	135	213	118	91	74	75	31	68.6	213.3
9-Jan	24	25	23	19	47	50	41	35	36	29	29	28	28	34	96	A	92	131	108	124	127	90	50	48	57.1	130.9
10-Jan	32	21	20	30	9	9	9	19	12	55	6	51	41	32	A	42	136	167	124	379	143	161	151	70	74.8	379.5
11-Jan	85	116	87	45	50	57	46	92	65	50	38	43	59	A	75	76	65	64	55	70	53	54	57	46	63.0	116.1
12-Jan	68	39	34	31	56	41	72	41	55	73	124	136	A	124	165	177	58	118	109	176	163	308	194	338	117.3	337.7
13-Jan	207	190	212	233	210	152	361	350	225	9	13	A	53	22	18	10	14	6	10	5	8	5	45	13	103.0	360.6
14-Jan	12	5	31	6	5	4	62	8	7	12	A	18	24	17	88	31	27	61	105	57	48	56	49	49	34.1	105.5
15-Jan	12	7	3	3	3	3	24	51	56	A	C	C	C	C	C	48	46	84	34	85	65	83	22	19	36.0	85.1
16-Jan	29	41	59	40	20	46	50	147	A	38	23	14	30	19	10	7	16	77	7	8	5	36	6	5	31.8	147.0
17-Jan	2	4	5	4	9	13	10	A	27	91	24	10	22	13	8	114	12	221	50	49	21	9	11	9	32.1	221.0
18-Jan	7	18	19	69	75	24	A	72	65	97	145	50	88	69	55	46	85	31	50	113	59	128	38	23	62.0	145.4
19-Jan	46	42	21	59	24	A	6	6	33	7	6	25	7	27	30	7	17	35	40	75	23	17	18	26	26.0	74.7
20-Jan	26	24	64	13	A	88	155	112	109	106	111	107	143	72	51	167	38	93	72	49	60	67	83	47	80.8	166.8
21-Jan	40	33	18	A	42	47	113	102	224	230	58	22	53	13	10	17	13	13	16	16	29	74	5	7	51.9	230.2
22-Jan	12	2	A	3	2	5	8	5	6	6	19	44	5	12	14	17	33	87	39	68	64	66	51	43	26.6	86.7
23-Jan	44	A	31	54	33	59	13	12	32	59	135	128	246	137	106	81	29	51	68	68	13	5	4	5	61.4	245.8
24-Jan	A	2	44	2	4	5	11	10	6	7	6	20	17	17	47	61	49	33	34	61	15	36	8	A	22.6	61.3
25-Jan	115	32	20	25	13	4	3	4	48	5	4	3	8	5	4	43	40	7	11	63	6	5	A	5	20.6	115.4
26-Jan	7	9	5	17	13	11	68	109	71	91	76	50	48	26	28	59	150	153	88	58	86	A	29	16	55.2	152.8
27-Jan	19	8	2	1	20	2	13	4	21	2	12	3	26	13	32	20	34	76	31	20	A	23	4	4	16.9	75.7
28-Jan	20	14	2	5	9	4	75	33	41	25	13	18	24	5	12	21	41	34	16	A	13	7	5	7	19.3	74.9
29-Jan	2	2	9	22	13	28	30	25	48	44	56	42	26	36	26	22	33	72	A	77	182	69	45	32	40.9	181.9
30-Jan	65	31	25	6	17	2	8	4	4	15	6	22	7	9	63	15	4	A	28	47	12	27	10	6	18.9	64.5
31-Jan	12	18	14	7	6	10	12	3	20	8	3	28	27	23	15	27	A	74	63	93	202	173	209	99	49.8	208.7
34.7   30.2   32.6   29.2   31.9   31.0   50.0   52.5   51.2   47.7   45.5   45.1   50.0   37.5   52.6   54.5   47.9   71.8   55.8   72.7   60.2   57.2   45.8   37.7 207.2   189.5   211.8   233.5   209.7   152.0   360.6   349.5   225.3   230.2   145.4   154.5   245.8   136.7   237.2   176.9   149.8   221.0   213.3   379.5   202.1   307.6   208.7   337.7																					Diurnal Average	Diurnal Maximum				
C - Calibration																					A - Automated Daily Zero Span					



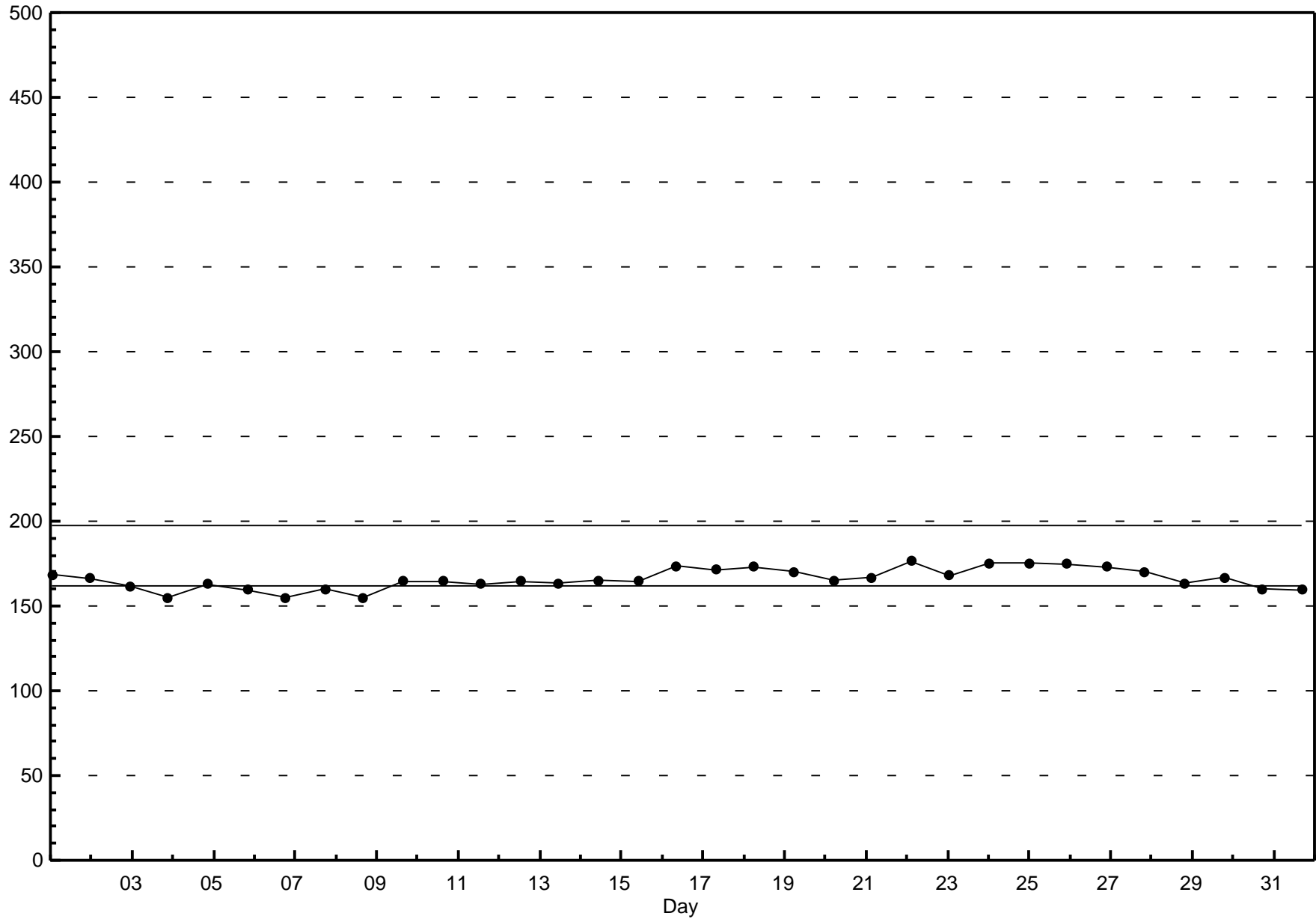
**Hourly Maximums**

**Oxides of Nitrogen (NO<sub>x</sub>) - ppb**  
**Portable Clairmont - January 2015**



### Span Responses

Oxides of Nitrogen (NO<sub>x</sub>)  
Portable Clairmont - January 2015



## Hourly Averages

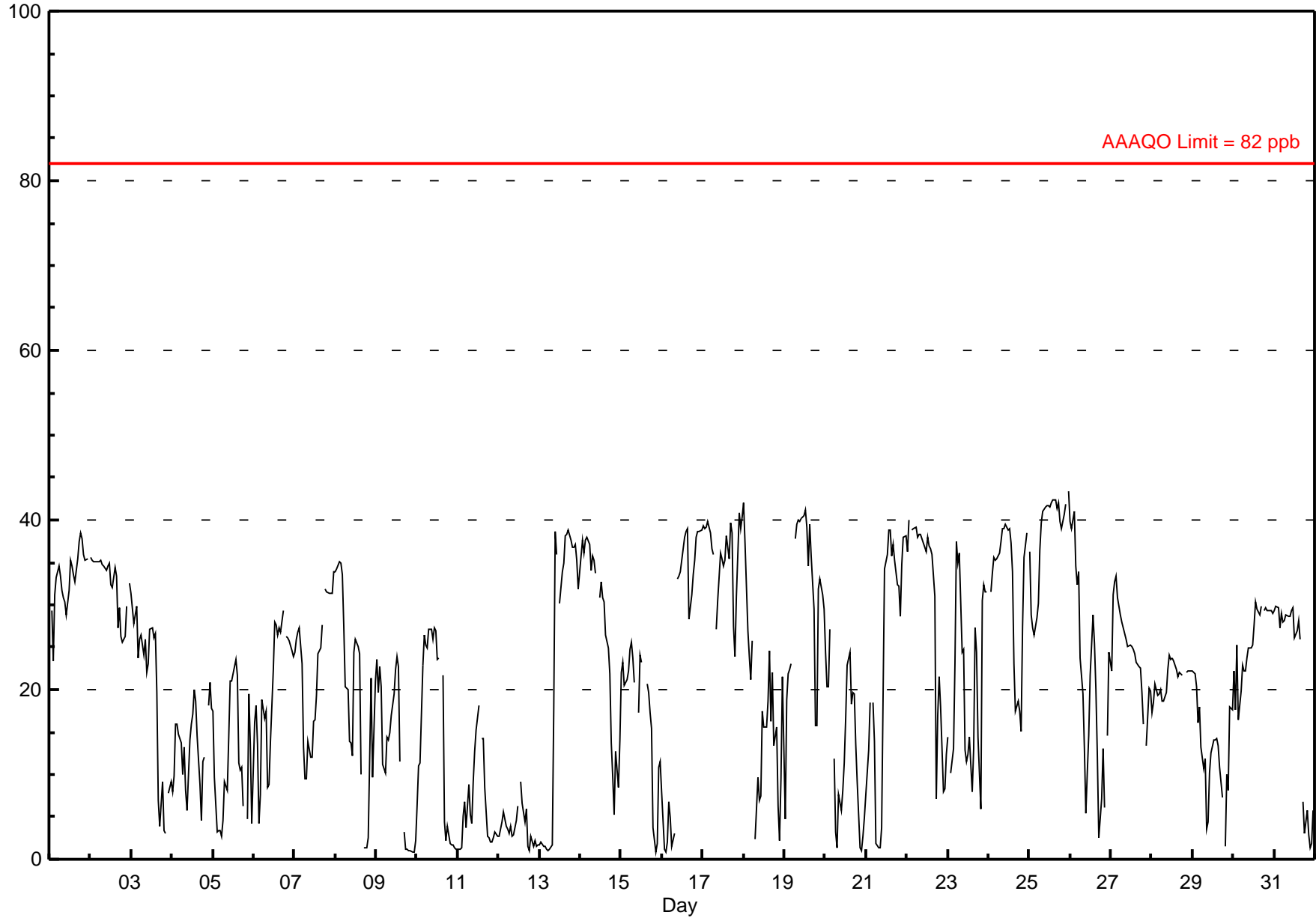
Ozone (O<sub>3</sub>) - ppb

Portable Clairmont - January 2015

Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 43.3 ppb on Jan 26 00:00	Maximum Daily Average: 38.1 ppb on Jan 25		Hours of Data:	709
Minimum Value: 1 ppb on Jan 15 21:00	Minimum Daily Average: 3.7 ppb on Jan 12		Hours of Missing Data:	35
Maximum Diurnal Average: 27.5 ppb at hour 14	Minimum Diurnal Average: 16.4 ppb at hour 20		Hours of Calibration:	35
Monthly Average: 21.65 ppb	Percentiles: P <sub>1</sub> = 1.1 P <sub>10</sub> = 3.3 Q <sub>1</sub> = 11.5 Median = 22.7 Q <sub>3</sub> = 31.9 P <sub>90</sub> = 37.8 P <sub>99</sub> = 41.8		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-Jan	A	29	23	31	33	35	33	32	31	30	29	32	35	35	34	33	35	37	38	38	36	35	35	A	33.2	38.4																							
2-Jan	36	35	35	35	35	35	35	35	35	34	35	35	32	32	34	33	27	30	26	26	26	30	A	33	32.6	35.6																							
3-Jan	31	28	29	30	24	26	26	24	26	22	23	27	27	26	27	20	7	4	9	3	3	A	8	9	20.0	31.4																							
4-Jan	8	10	16	16	15	14	10	13	8	6	14	16	17	20	19	15	9	5	11	12	A	18	21	18	13.4	20.9																							
5-Jan	17	10	3	3	3	3	5	9	8	14	21	21	22	24	22	11	11	11	6	A	5	19	14	4	11.6	23.5																							
6-Jan	16	18	14	4	8	19	17	17	9	9	14	22	28	28	26	27	27	29	A	26	26	26	25	24	19.9	29.3																							
7-Jan	24	26	27	27	23	13	10	10	14	12	12	16	16	19	24	25	28	A	32	32	31	31	31	34	22.5	33.9																							
8-Jan	34	34	35	35	34	27	20	20	14	14	12	24	26	25	24	10	A	1	1	3	12	21	10	21	19.9	35.1																							
9-Jan	23	20	23	20	11	10	14	14	15	17	20	22	24	23	11	A	3	1	1	1	1	1	1	2	12.1	23.9																							
10-Jan	6	11	11	23	26	25	25	27	27	26	27	27	24	24	A	22	4	2	4	2	2	2	2	1	1	15.2	27.3																						
11-Jan	1	1	1	5	7	4	9	5	4	9	13	15	18	A	14	14	8	3	3	2	2	3	3	3	6.4	18.2																							
12-Jan	3	4	4	6	4	3	3	4	3	3	5	6	A	9	7	4	6	2	1	3	2	2	2	2	3.7	9.1																							
13-Jan	2	2	2	2	1	1	1	2	18	39	36	A	30	34	35	38	38	39	38	37	37	37	35	32	23.2	38.8																							
14-Jan	36	38	36	38	38	37	34	36	35	34	A	31	33	31	30	26	25	22	14	10	5	13	9	14	27.1	38.0																							
15-Jan	22	23	21	21	22	25	26	24	21	A	17	24	23	C	C	21	20	17	15	4	1	2	11	12	17.6	25.5																							
16-Jan	8	1	1	2	7	5	1	3	A	33	33	34	37	38	39	39	28	31	33	35	38	39	39	39	24.5	38.9																							
17-Jan	39	39	39	40	39	37	36	A	27	31	36	35	35	35	38	35	40	38	27	24	31	41	39	40	35.7	40.8																							
18-Jan	42	37	27	24	21	26	A	2	10	7	7	18	16	16	19	25	16	22	13	16	6	2	10	21	17.5	42.0																							
19-Jan	5	19	22	22	23	A	38	39	40	40	40	40	41	39	35	40	36	30	16	16	32	33	31	29	30.7	41.3																							
20-Jan	24	20	20	27	A	12	3	1	8	6	8	11	17	23	24	18	20	19	13	9	1	1	3	5	12.9	27.2																							
21-Jan	8	13	18	A	19	14	2	1	1	4	19	34	36	39	39	36	37	35	32	32	29	35	38	38	24.3	38.9																							
22-Jan	36	40	A	39	39	39	38	38	38	38	37	36	38	37	37	36	31	7	17	22	18	8	8	12	30.0	40.1																							
23-Jan	14	A	10	13	23	37	35	36	24	25	13	12	12	14	8	13	27	24	14	6	31	32	31	31	21.2	37.4																							
24-Jan	A	31	34	36	35	35	36	37	39	39	40	39	39	37	34	23	18	19	18	15	27	36	39	A	32.0	39.5																							
25-Jan	36	29	27	27	29	30	36	40	41	42	42	42	42	42	42	42	41	42	40	39	41	42	A	43	38.1	43.3																							
26-Jan	40	39	41	35	32	34	24	20	13	5	10	15	22	29	25	20	12	3	7	13	6	A	15	24	21.0	41.0																							
27-Jan	22	31	33	33	31	29	28	27	27	26	25	25	25	25	24	23	23	23	20	16	A	13	20	20	24.7	33.4																							
28-Jan	17	19	21	19	19	20	19	19	20	22	24	24	24	23	22	22	22	22	22	A	22	22	22	22	22	21.2	24.0																						
29-Jan	22	22	20	16	18	13	11	12	4	4	10	13	14	14	14	13	11	7	A	2	10	8	18	18	12.8	22.2																							
30-Jan	22	18	25	17	20	23	22	22	24	25	25	25	28	30	29	29	30	A	29	30	29	29	29	29	29	25.6	30.4																						
31-Jan	29	30	30	27	29	28	28	29	29	29	29	30	26	27	28	26	A	7	3	6	3	1	2	6	20.9	29.8																							
																								21.6	22.5	21.6	22.4	22.3	22.0	20.8	20.0	20.3	21.4	22.5	25.0	26.9	27.5	26.4	24.7	22.1	18.3	17.4	16.4	17.7	20.1	18.9	20.2	Diurnal Average	
																								42.0	40.1	41.0	39.9	39.0	39.2	38.0	39.6	41.0	41.6	41.7	41.8	41.5	42.1	42.4	42.4	41.4	42.0	39.9	38.9	40.7	41.9	38.9	43.3	Diurnal Maximum	

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



# Hourly Maximums

Ozone (O<sub>3</sub>) - ppb

Portable Clairmont - January 2015

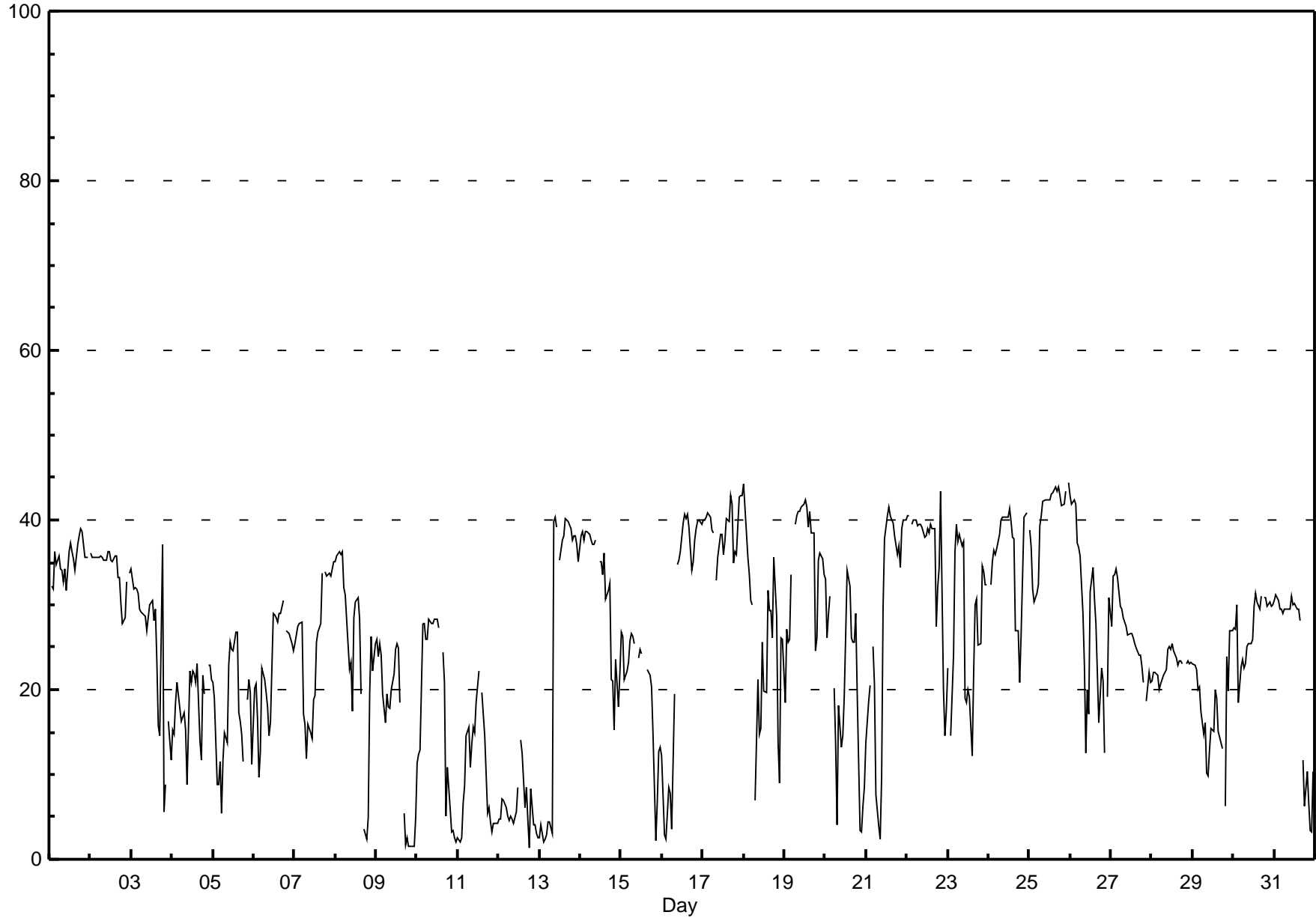
Maximum Value: 44.3 ppb on Jan 26 00:00	Maximum Daily Average: 40.2 ppb on Jan 25	Hours in Service: 744
Minimum Value: 1 ppb on Jan 12 19:00	Minimum Daily Average: 5.9 ppb on Jan 12	Hours of Data: 709
Maximum Diurnal Average: 30.7 ppb at hour 14	Minimum Diurnal Average: 22.5 ppb at hour 21	Hours of Missing Data: 35
Monthly Average: 25.58 ppb	Percentiles: P <sub>1</sub> = 2.0 P <sub>10</sub> = 6.8 Q <sub>1</sub> = 18.4 Median = 26.6 Q <sub>3</sub> = 35.5 P <sub>90</sub> = 39.7 P <sub>99</sub> = 43.3	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-Jan	A	32	32	36	35	36	34	34	33	34	32	36	37	36	35	34	37	38	39	39	37	36	36	A	35.4	39.0
2-Jan	36	36	36	36	36	36	36	36	35	35	36	36	35	35	36	36	33	33	30	28	28	33	A	34	34.3	36.2
3-Jan	34	32	32	32	31	29	29	29	29	27	29	30	31	28	29	23	16	15	37	6	9	A	16	12	25.4	37.2
4-Jan	15	15	18	21	19	16	17	17	15	9	22	21	22	22	21	23	14	12	22	20	A	23	23	21	18.6	23.0
5-Jan	21	19	9	9	12	5	12	15	14	23	26	25	25	27	27	17	16	15	12	A	19	21	20	11	17.3	26.9
6-Jan	20	21	17	10	13	23	21	20	18	15	16	29	29	28	28	29	29	31	A	27	27	27	25	25	22.8	30.6
7-Jan	25	26	27	28	28	17	16	12	16	15	14	19	19	26	27	28	34	A	34	33	34	33	34	35	25.2	35.2
8-Jan	35	36	36	36	36	32	31	25	22	23	17	28	30	31	28	19	A	3	2	5	19	26	22	25	24.9	36.3
9-Jan	26	24	25	24	19	16	19	18	18	20	22	25	25	18	A	5	2	3	1	1	1	1	1	5	15.0	25.9
10-Jan	11	12	13	28	28	26	26	28	28	28	28	28	28	27	A	24	21	5	11	6	3	3	3	2	18.2	28.3
11-Jan	3	2	3	7	9	15	16	11	14	16	15	18	22	A	20	17	15	5	6	4	3	4	4	4	10.0	22.1
12-Jan	5	5	7	7	6	5	5	5	5	4	6	8	A	14	13	6	8	5	1	8	4	4	3	3	5.9	14.0
13-Jan	2	4	2	2	3	4	4	3	40	40	39	A	35	38	38	40	40	40	39	38	38	38	37	35	26.1	40.3
14-Jan	38	39	38	39	39	38	38	37	37	38	A	35	35	34	36	31	32	33	21	21	15	23	18	22	32.0	38.6
15-Jan	27	26	21	22	23	26	27	26	25	A	24	25	24	C	C	22	22	22	20	15	2	7	13	13	20.6	26.8
16-Jan	12	3	2	5	8	8	3	20	A	35	35	36	40	41	40	41	39	34	35	38	39	40	40	39	27.5	40.7
17-Jan	40	40	40	41	40	39	39	A	33	36	38	38	36	37	40	40	43	42	35	36	36	43	43	43	39.0	42.9
18-Jan	44	41	36	33	30	30	A	7	21	15	15	26	20	20	32	29	29	26	36	29	14	9	26	26	25.8	44.3
19-Jan	19	27	26	26	34	A	40	41	41	41	42	42	42	42	39	41	38	39	25	26	35	36	35	34	35.2	42.4
20-Jan	33	26	29	31	A	20	14	4	18	13	15	19	27	34	32	26	26	26	29	20	3	3	6	8	20.1	34.0
21-Jan	14	19	21	A	25	21	8	4	2	10	30	38	40	41	40	40	40	38	36	37	34	39	40	40	28.5	41.4
22-Jan	40	40	A	39	40	40	39	39	39	39	39	38	38	39	39	39	39	28	32	34	43	20	15	18	35.6	43.4
23-Jan	22	A	15	24	36	40	37	38	37	37	19	18	20	19	12	22	30	31	25	26	35	34	32	32	27.9	39.6
24-Jan	A	32	35	36	36	37	38	40	40	40	40	40	41	40	38	38	27	27	21	27	33	40	41	A	35.9	41.4
25-Jan	39	37	32	30	31	32	39	41	42	42	42	42	42	43	43	44	43	44	43	42	42	43	A	44	40.2	44.3
26-Jan	43	42	42	42	37	37	36	29	23	13	20	17	31	34	31	28	22	16	23	21	13	A	19	31	28.2	42.8
27-Jan	27	33	34	34	33	30	29	28	28	28	27	27	27	26	25	25	24	24	23	21	A	19	22	21	26.7	34.3
28-Jan	21	22	22	22	20	21	21	22	22	25	25	25	25	24	23	23	23	23	A	23	23	23	23	23	22.9	25.4
29-Jan	23	23	22	20	20	17	15	16	10	10	13	15	15	20	19	15	14	13	A	6	24	20	27	27	17.7	27.0
30-Jan	27	27	30	19	23	23	22	23	25	25	25	26	30	31	30	30	31	A	31	31	30	30	30	30	27.4	31.4
31-Jan	30	31	30	29	29	29	30	30	30	30	31	30	30	30	30	28	A	12	6	10	7	3	3	10	23.0	31.3
	25.3	25.7	24.4	25.6	26.0	24.9	24.7	23.3	25.4	25.5	26.0	28.1	30.2	30.7	30.0	28.6	27.3	23.4	24.1	22.5	22.5	23.6	22.7	23.2	Diurnal Average	
	44.3	41.9	42.4	41.9	40.4	40.0	39.5	40.5	42.2	42.3	42.3	42.4	42.4	43.1	43.2	43.8	43.4	43.8	42.8	41.7	43.4	43.3	42.9	44.3	Diurnal Maximum	

C - Calibration                      A - Automated Daily Zero Span

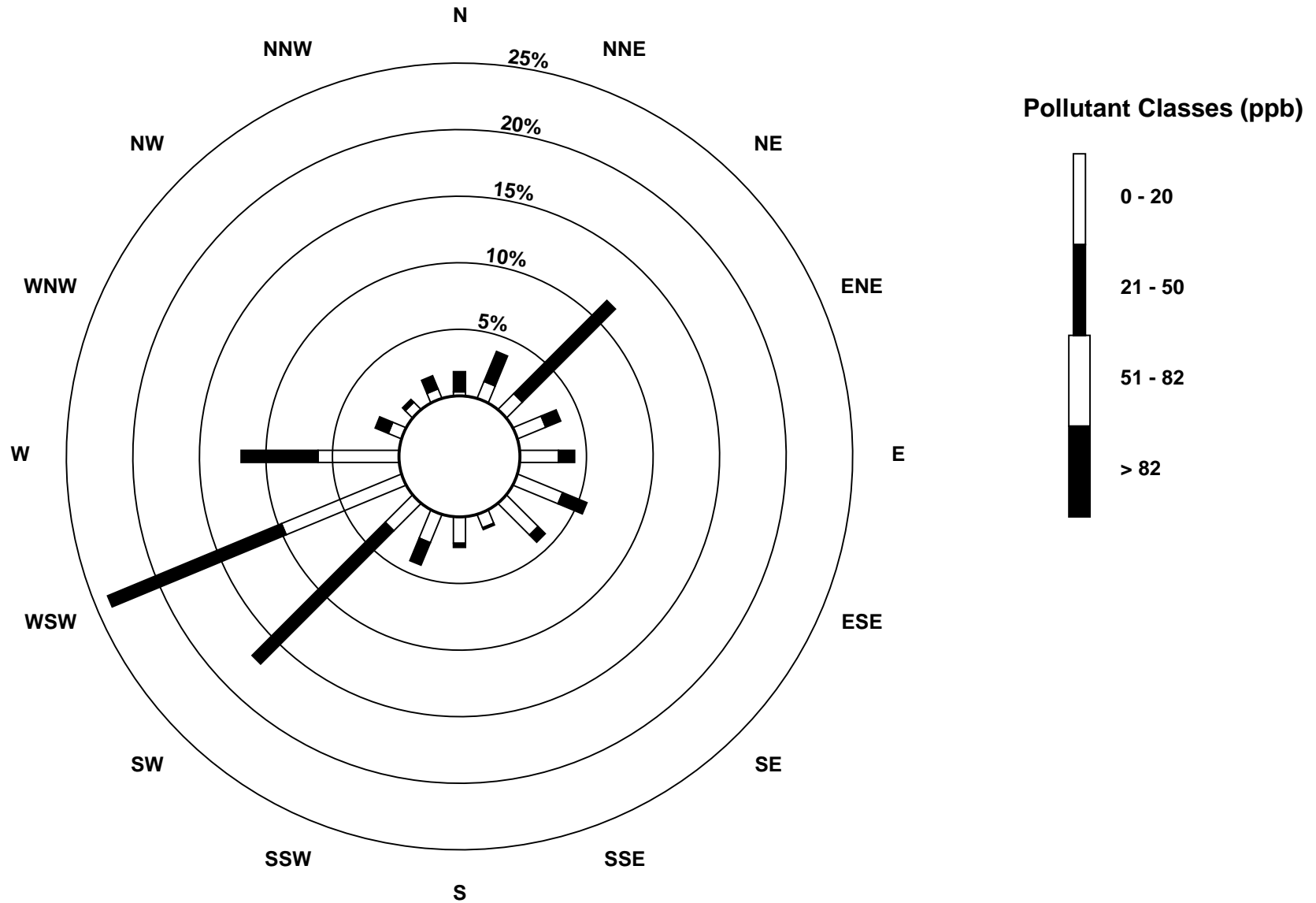
**Hourly Maximums**

**Ozone (O<sub>3</sub>) - ppb**  
**Portable Clairmont - January 2015**



**Pollutant Rose**

**Ozone (O<sub>3</sub>) - ppb**  
**Portable Clairmont - January 2015**



# Eight Hour Running Averages

Ozone (O<sub>3</sub>) - ppb

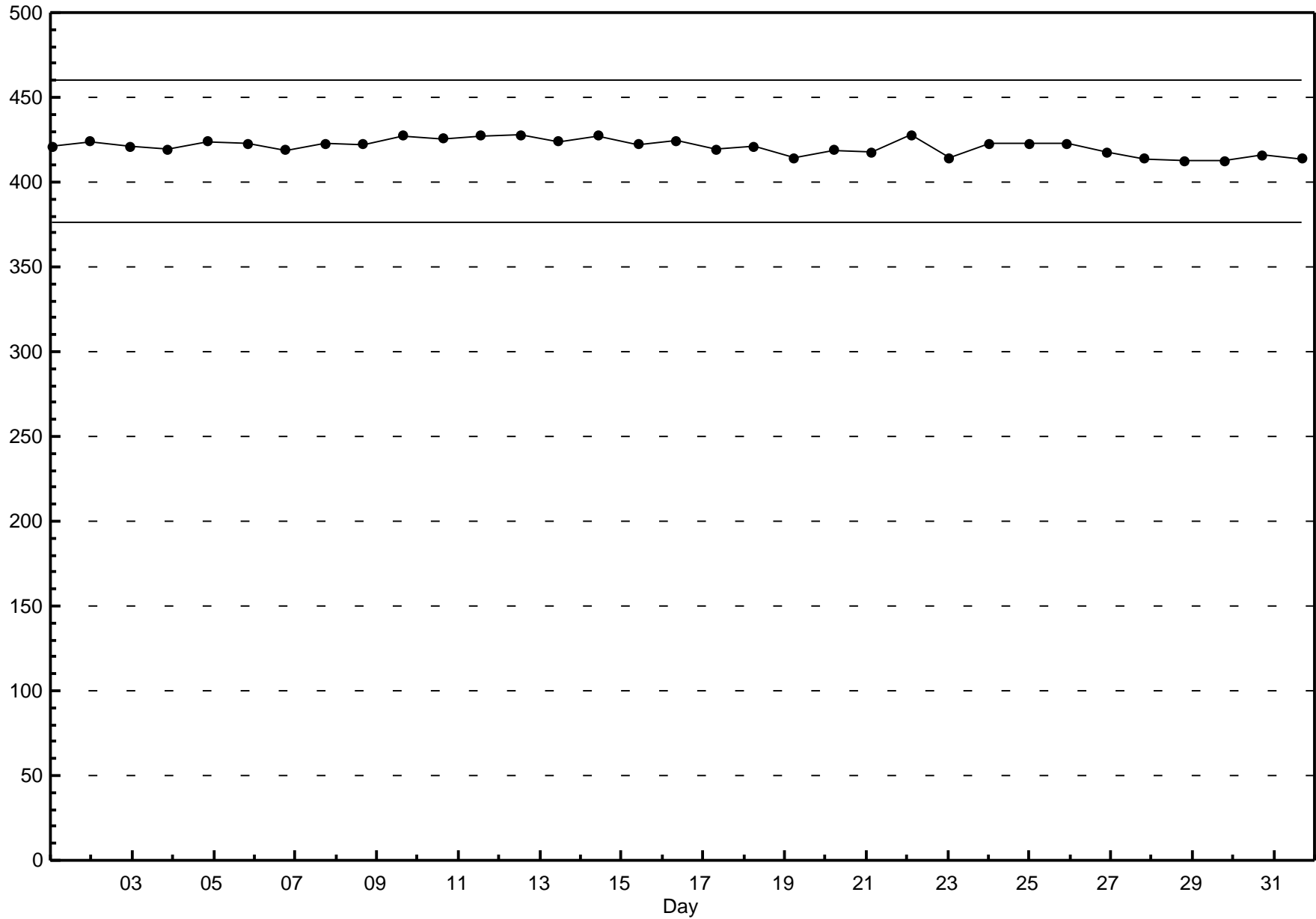
Portable Clairmont - January 2015

Maximum Value: 41.9 ppb on Jan 25 18:00																						Hours in Service: 744			
Minimum Value: 1.3 ppb on Jan 9 23:00																						Hours of Data: 741			
Percentiles: P <sub>1</sub> = 1.7 P <sub>10</sub> = 7.0 Q <sub>1</sub> = 12.9 Median = 21.8 Q <sub>3</sub> = 31.4 P <sub>90</sub> = 36.0 P <sub>99</sub> = 41.1																						Hours of Missing Data: 3			
																						Hours of Calibration: 3			
																						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-Jan	34	33	31	30	32	32	31	31	31	31	32	32	32	32	32	32	33	34	35	36	36	36	36	37	36.5
2-Jan	37	36	36	35	35	35	35	35	35	35	35	35	34	34	34	34	33	32	31	30	29	29	28	28	36.6
3-Jan	29	29	29	29	29	29	28	27	27	26	25	25	25	25	25	25	22	20	18	15	12	10	8	6	29.5
4-Jan	6	7	8	10	12	12	12	13	13	12	12	12	12	13	14	14	14	14	14	13	13	13	13	13	14.4
5-Jan	15	15	14	13	12	10	8	7	6	6	8	11	13	15	18	18	18	18	16	15	13	12	11	10	18.2
6-Jan	11	12	13	12	12	12	12	14	13	12	12	14	17	18	19	20	23	25	27	27	27	27	27	26	27.4
7-Jan	26	25	25	26	25	24	22	20	19	17	15	14	13	14	15	17	19	20	23	25	27	29	30	31	31.3
8-Jan	32	32	33	33	34	33	32	30	27	25	22	21	20	19	20	19	19	18	16	13	11	10	8	10	33.5
9-Jan	12	14	17	19	19	17	18	17	16	16	15	15	17	19	18	19	17	15	12	9	6	3	1	1	18.8
10-Jan	2	3	4	7	10	13	16	19	22	24	26	26	26	26	26	25	22	19	15	12	9	5	5	2	26.4
11-Jan	2	2	1	2	2	3	4	4	5	6	7	8	10	10	11	13	13	12	11	9	7	6	5	3	13.2
12-Jan	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5	6	5	5	4	4	3	3	2	5.7
13-Jan	2	2	2	2	2	2	2	2	3	8	12	14	18	23	28	33	36	36	36	36	37	37	37	37	37.4
14-Jan	36	36	36	36	36	36	36	37	36	36	36	35	34	33	33	31	30	28	26	24	20	18	15	14	36.5
15-Jan	13	14	14	16	18	20	22	23	23	23	22	23	23	22	N	N	N	20	20	17	13	11	11	10	22.9
16-Jan	9	7	5	5	5	6	5	3	3	7	12	17	21	26	31	36	35	35	35	35	35	35	35	35	36.1
17-Jan	37	38	38	39	39	39	38	38	37	35	35	34	34	34	34	34	36	37	36	34	34	34	34	35	39.0
18-Jan	35	35	35	35	34	32	31	26	21	17	14	13	12	11	12	14	15	17	18	18	17	15	14	13	35.4
19-Jan	12	12	13	13	15	17	21	24	29	32	35	37	40	40	39	39	39	38	34	31	30	29	29	28	39.9
20-Jan	26	25	26	27	27	24	20	16	13	11	9	7	8	10	12	14	16	18	18	18	16	13	11	9	27.2
21-Jan	8	7	7	7	9	11	11	11	10	8	9	12	14	17	22	26	30	34	36	36	35	34	34	35	36.0
22-Jan	34	35	35	36	38	39	39	39	39	39	38	38	38	38	37	37	36	32	30	28	26	22	18	15	38.8
23-Jan	13	14	13	12	13	17	21	24	26	25	26	26	24	21	18	15	16	15	16	15	17	20	22	25	25.8
24-Jan	24	25	28	32	33	33	34	35	35	36	37	38	38	38	38	36	33	31	28	25	24	24	24	24	38.2
25-Jan	27	28	30	31	32	31	31	32	32	34	36	38	39	41	41	42	42	42	42	41	41	41	41	41	41.9
26-Jan	41	41	41	40	39	38	36	33	30	25	22	19	18	17	17	17	17	17	17	16	14	12	11	11	40.9
27-Jan	13	17	21	24	27	27	29	29	30	29	28	27	27	26	26	25	25	24	23	22	22	20	20	19	29.8
28-Jan	18	18	18	18	19	19	19	19	19	20	21	21	21	22	22	23	23	23	22	22	22	22	22	22	22.9
29-Jan	22	22	22	21	21	19	18	17	14	12	11	11	10	10	11	11	12	12	12	11	10	9	10	10	22.1
30-Jan	12	14	15	17	18	20	21	21	21	22	22	23	24	25	26	27	28	28	29	29	30	29	29	29	29.5
31-Jan	29	29	29	29	29	29	29	29	29	29	28	29	28	28	28	28	28	25	21	18	14	11	7	4	29.4
40.9 40.5 40.7 40.0 39.0 38.7 38.5 38.5 38.8 38.5 38.3 38.0 39.9 40.7 41.5 41.8 41.8 41.9 41.7 41.3 41.2 41.2 41.0 41.2																									
Diurnal Maximums																									
N - Not Valid																									



### Span Responses

Ozone (O<sub>3</sub>)  
Portable Clairmont - January 2015



# Hourly Averages

## Total Hydrocarbons (THC) - ppm Portable Clairmont - January 2015

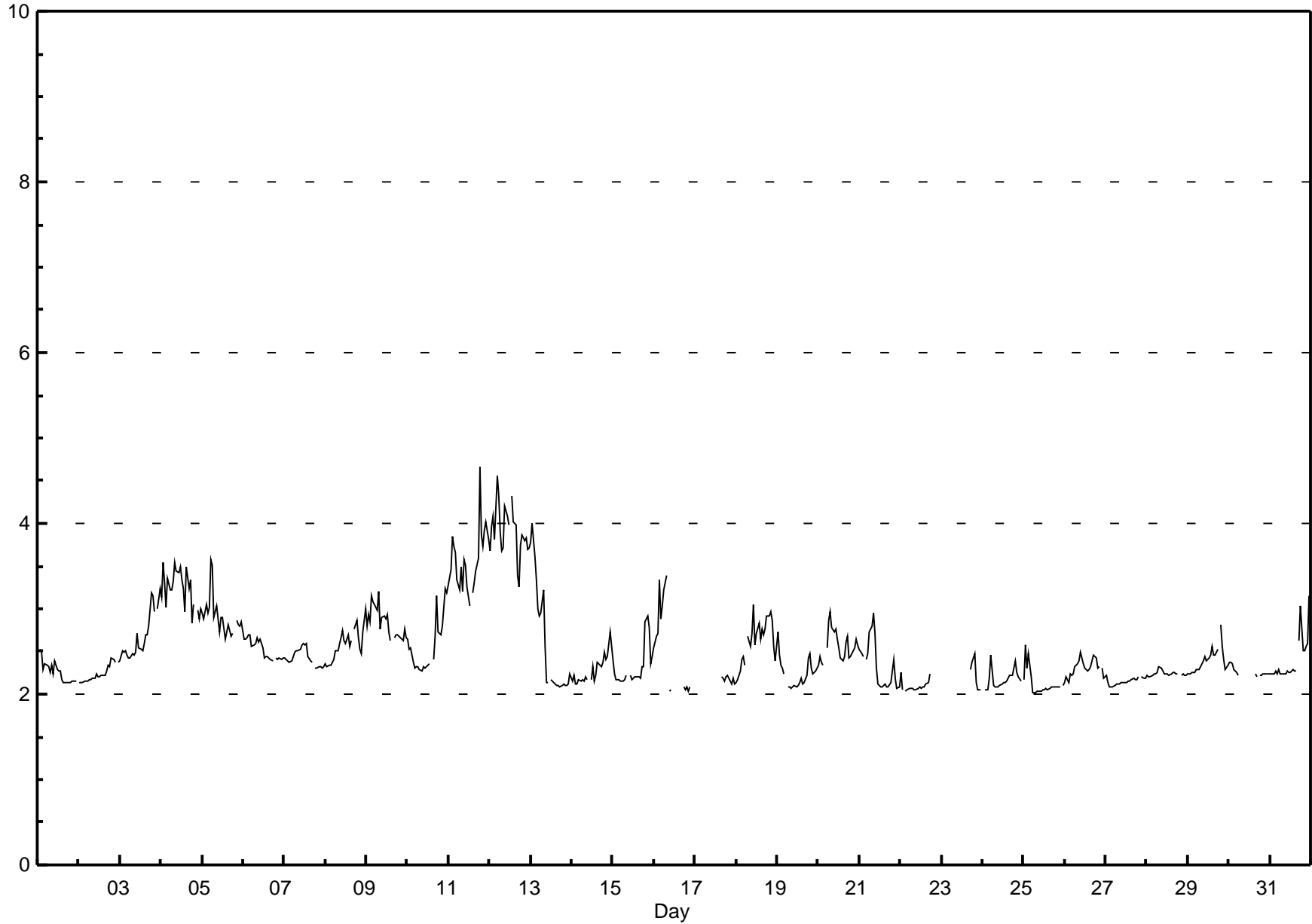
Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 4.66 ppm on Jan 11 19:00	Maximum Daily Average: 3.90 ppm on Jan 12
Minimum Value: 2.0 ppm on Jan 25 06:00	Hours of Data: 658
Maximum Diurnal Average: 2.58 ppm at hour 8	Hours of Missing Data: 86
Monthly Average: 2.528 ppm	Hours of Calibration: 37
Percentiles: P <sub>1</sub> = 2.04 P <sub>10</sub> = 2.10 Q <sub>1</sub> = 2.20 Median = 2.37 Q <sub>3</sub> = 2.70 P <sub>90</sub> = 3.22 P <sub>99</sub> = 4.08	Percent Operational Time: 93.4

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-Jan	A	2.5	2.5	2.3	2.4	2.3	2.3	2.3	2.3	2.2	2.4	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.26	2.53																						
2-Jan	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4	A	2.4	2.23	2.42																						
3-Jan	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.5	2.5	2.5	2.7	2.5	2.5	2.5	2.6	2.7	2.7	2.8	3.2	3.1	3.0	A	3.0	3.2	2.66	3.23																						
4-Jan	3.1	3.5	3.3	3.0	3.4	3.2	3.2	3.3	3.5	3.4	3.4	3.5	3.3	3.2	3.0	3.5	3.2	3.3	2.8	3.1	A	3.0	2.9	3.0	3.23	3.55																						
5-Jan	2.9	2.9	3.1	2.9	3.0	3.6	3.5	2.9	3.0	2.9	2.7	2.9	2.9	2.6	2.7	2.8	2.8	2.7	2.7	A	2.9	2.8	2.8	2.8	2.91	3.58																						
6-Jan	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.7	2.6	2.6	2.5	2.4	2.4	2.4	2.4	2.4	2.4	A	2.4	2.4	2.4	2.4	2.4	2.53	2.69																						
7-Jan	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.4	2.4	2.4	A	2.3	2.3	2.3	2.3	2.3	2.3	2.43	2.60																						
8-Jan	2.4	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.6	2.7	2.6	2.6	2.7	2.6	2.6	2.6	A	2.8	2.9	2.7	2.5	2.5	2.7	3.0	2.58	3.01																						
9-Jan	2.8	2.9	2.9	3.1	3.1	3.0	3.0	3.2	2.8	2.9	2.9	2.9	2.9	2.7	2.6	A	2.7	2.7	2.7	2.7	2.7	2.6	2.8	2.7	2.84	3.20																						
10-Jan	2.6	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	A	2.4	2.7	3.2	2.7	2.7	2.8	3.0	3.2	3.2	2.57	3.24																						
11-Jan	3.3	3.5	3.9	3.7	3.7	3.3	3.2	3.5	3.2	3.6	3.5	3.3	3.0	A	3.2	3.3	3.4	3.6	4.7	3.9	3.7	3.9	4.0	3.8	3.57	4.66																						
12-Jan	3.7	4.0	4.1	3.8	4.6	4.3	3.9	3.7	3.7	4.2	4.1	4.0	A	4.3	4.0	4.0	3.4	3.3	3.7	3.9	3.8	3.8	3.7	3.7	3.90	4.56																						
13-Jan	3.8	4.0	3.6	3.3	3.0	2.9	2.9	3.2	2.6	2.1	2.1	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.57	3.99																						
14-Jan	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.3	2.1	2.2	2.4	2.3	2.3	2.4	2.5	2.4	2.4	2.7	2.6	2.28	2.74																						
15-Jan	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.8	2.9	2.8	2.4	2.4	2.31	2.91																						
16-Jan	2.5	2.7	2.7	3.3	2.9	3.0	3.2	3.4	A	2.0	2.0	C	C	C	C	C	C	2.1	2.0	2.1	2.0	2.1	N	N	--	3.39																						
17-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.2	2.1	--	2.23																					
18-Jan	2.1	2.2	2.3	2.4	2.4	2.3	A	2.7	2.6	2.7	3.1	2.6	2.7	2.8	2.6	2.8	2.7	2.8	2.9	2.9	3.0	2.9	2.6	2.4	2.62	3.05																						
19-Jan	2.7	2.5	2.3	2.3	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.4	2.5	2.3	2.2	2.3	2.3	2.24	2.73																						
20-Jan	2.3	2.4	2.4	2.3	A	2.5	2.9	3.0	2.8	2.7	2.8	2.6	2.5	2.4	2.4	2.4	2.6	2.7	2.4	2.4	2.5	2.5	2.6	2.6	2.56	2.97																						
21-Jan	2.5	2.5	2.4	A	2.4	2.5	2.7	2.8	2.9	2.7	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.2	2.1	2.1	2.33	2.94																						
22-Jan	2.3	2.0	A	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	N	N	N	N	N	N	--	2.26																						
23-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	2.3	2.4	2.5	2.1	2.0	2.0	2.0	--	2.48																						
24-Jan	A	2.0	2.1	2.1	2.2	2.5	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.4	2.2	2.2	2.1	A	2.17	2.45																						
25-Jan	2.2	2.6	2.3	2.5	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.12	2.58																						
26-Jan	2.1	2.2	2.1	2.2	2.2	2.2	2.3	2.4	2.4	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.4	2.5	2.4	2.3	2.3	A	2.3	2.2	2.31	2.49																						
27-Jan	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.15	2.21																						
28-Jan	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.24	2.32																						
29-Jan	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.5	2.6	2.5	2.5	2.5	A	2.8	2.6	2.4	2.3	2.3	2.39	2.81																						
30-Jan	2.4	2.4	2.4	2.3	2.3	2.2	N	N	N	N	N	N	N	N	M	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	--	2.38																						
31-Jan	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	A	2.6	3.0	2.5	2.5	2.6	2.6	3.2	2.40	3.15																					
																								2.55	2.57	2.57	2.55	2.55	2.56	2.56	2.58	2.52	2.53	2.54	2.50	2.42	2.45	2.45	2.46	2.46	2.51	2.57	2.58	2.53	2.51	2.55	2.58	Diurnal Average
																								3.78	3.99	4.08	3.81	4.56	4.32	3.91	3.68	3.71	4.20	4.09	3.98	3.33	4.33	4.01	3.99	3.43	3.60	4.66	3.87	3.79	3.92	4.01	3.81	Diurnal Maximum

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

**Hourly Averages**

**Total Hydrocarbons (THC) - ppm**  
**Portable Clairmont - January 2015**



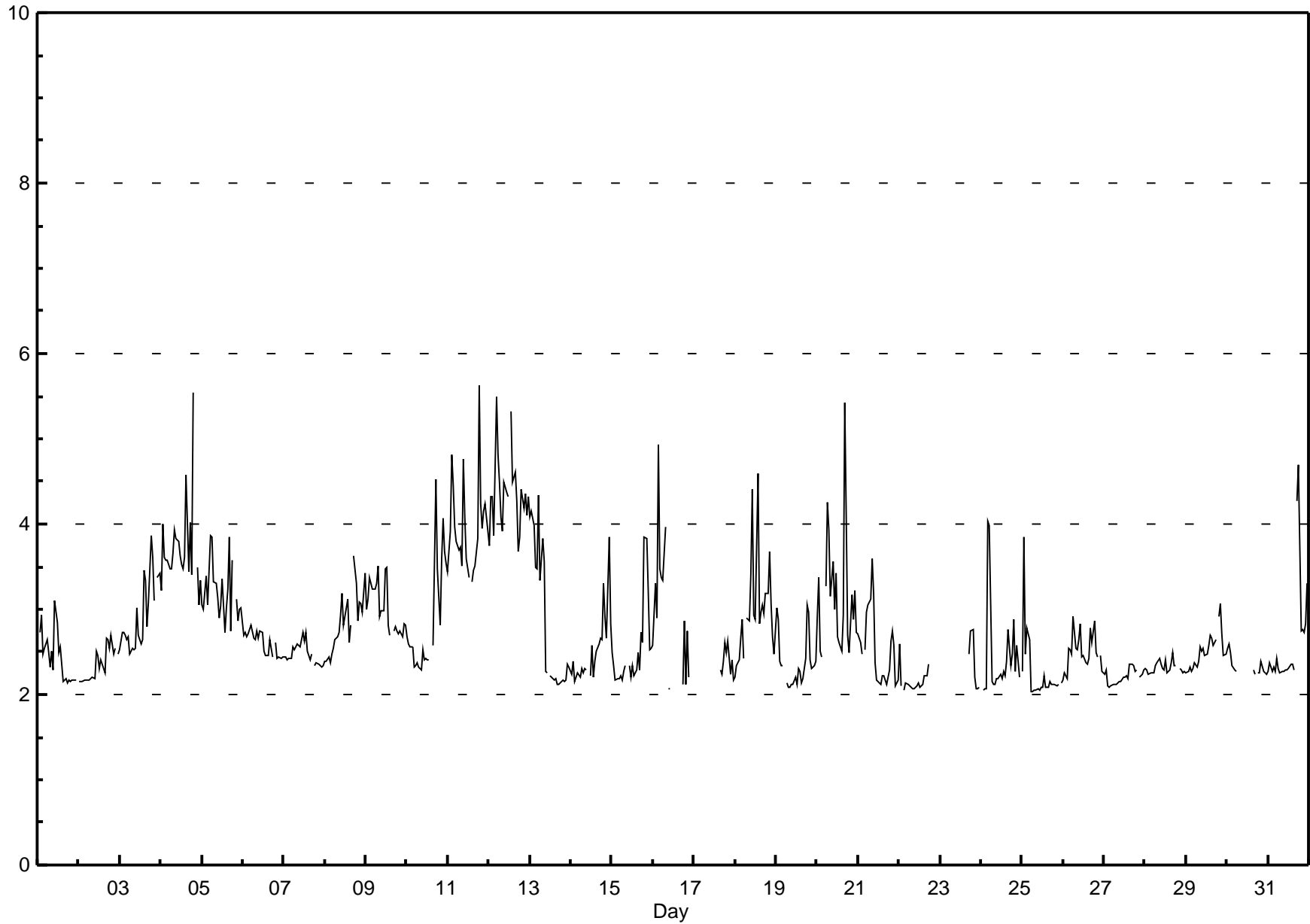
# Hourly Maximums

## Total Hydrocarbons (THC) - ppm Portable Clairmont - January 2015

Maximum Value: 5.63 ppm on Jan 11 19:00		Maximum Daily Average: 4.34 ppm on Jan 12		Hours in Service: 744																							
Minimum Value: 2.0 ppm on Jan 25 06:00		Minimum Daily Average: 2.21 ppm on Jan 27		Hours of Data: 658																							
Maximum Diurnal Average: 2.96 ppm at hour 19		Minimum Diurnal Average: 2.57 ppm at hour 13		Hours of Missing Data: 86																							
Monthly Average: 2.759 ppm		Percentiles: P <sub>1</sub> = 2.06 P <sub>10</sub> = 2.15 Q <sub>1</sub> = 2.27 Median = 2.53 Q <sub>3</sub> = 3.05 P <sub>90</sub> = 3.82 P <sub>99</sub> = 4.81		Hours of Calibration: 37																							
				Percent Operational Time: 93.4																							
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-Jan	A	2.7	2.9	2.5	2.6	2.6	2.5	2.3	2.5	2.3	3.1	2.8	2.5	2.6	2.4	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	A	2.44	3.11	
2-Jan	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.5	2.5	2.3	2.4	2.3	2.3	2.7	2.7	2.5	2.7	2.5	2.5	A	2.5	2.35	2.69	
3-Jan	2.5	2.7	2.7	2.7	2.6	2.7	2.5	2.5	2.5	2.5	3.0	2.7	2.6	2.6	3.5	3.3	2.8	3.1	3.9	3.6	3.1	A	3.4	3.4	2.92	3.86	
4-Jan	3.2	4.0	3.6	3.6	3.6	3.5	3.5	3.7	3.9	3.8	3.8	3.6	3.5	3.5	3.6	4.6	3.4	4.0	3.4	5.5	A	3.5	3.1	3.3	3.71	5.55	
5-Jan	3.0	3.0	3.4	3.1	3.5	3.9	3.8	3.3	3.3	3.1	2.9	3.0	3.4	2.7	3.0	3.2	3.9	2.7	3.6	A	3.1	2.9	3.0	3.0	3.21	3.86	
6-Jan	2.7	2.7	2.7	2.7	2.8	2.8	2.7	2.6	2.7	2.7	2.7	2.7	2.5	2.5	2.5	2.5	2.6	2.4	A	2.6	2.4	2.4	2.4	2.4	2.60	2.81	
7-Jan	2.4	2.4	2.4	2.4	2.4	2.6	2.5	2.6	2.6	2.6	2.7	2.7	2.6	2.7	2.5	2.4	2.5	A	2.3	2.4	2.3	2.3	2.3	2.3	2.48	2.73	
8-Jan	2.4	2.4	2.4	2.4	2.5	2.5	2.7	2.7	2.7	2.9	3.2	2.8	2.9	3.1	2.6	2.8	A	3.6	3.3	2.9	3.1	3.1	3.0	3.4	2.84	3.63	
9-Jan	3.0	3.1	3.4	3.3	3.2	3.2	3.3	3.5	2.9	3.0	3.0	3.5	3.5	2.8	2.7	A	2.7	2.8	2.7	2.7	2.7	2.7	2.8	2.8	3.02	3.51	
10-Jan	2.7	2.6	2.6	2.6	2.3	2.3	2.4	2.3	2.3	2.5	2.4	2.4	2.4	2.4	A	2.6	3.5	4.5	3.5	2.8	3.6	4.1	3.7	3.5	2.87	4.52	
11-Jan	3.4	3.9	4.8	4.5	4.0	3.8	3.7	3.7	3.5	4.8	4.1	3.6	3.4	A	3.3	3.5	3.5	3.8	5.6	4.2	3.9	4.1	4.2	3.9	3.97	5.63	
12-Jan	3.7	4.3	4.3	3.9	5.5	4.8	4.5	4.1	3.9	4.5	4.4	4.3	A	5.3	4.5	4.6	4.3	3.7	3.9	4.4	4.2	4.4	4.1	4.3	4.34	5.50	
13-Jan	4.1	4.2	4.0	3.5	3.5	4.3	3.3	3.8	3.6	2.3	2.3	A	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.4	2.3	2.83	4.33	
14-Jan	2.2	2.4	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	A	2.2	2.6	2.2	2.4	2.5	2.6	2.7	2.6	3.3	2.9	2.7	3.9	2.8	2.52	3.85	
15-Jan	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	A	2.3	2.2	2.3	2.2	2.3	2.5	2.3	2.7	2.6	3.9	3.8	3.2	2.5	2.5	2.51	3.85	
16-Jan	2.6	3.3	2.9	4.9	3.5	3.4	3.3	4.0	A	2.1	2.1	C	C	C	C	C	C	2.1	2.9	2.1	2.7	2.2	N	N	--	4.93	
17-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	2.3	2.2	2.4	2.6	2.5	2.6	2.2	2.4	2.2	--	2.62
18-Jan	2.2	2.3	2.4	2.7	2.9	2.4	A	2.9	2.9	3.4	4.4	2.9	2.9	4.6	2.8	3.0	3.1	2.9	3.2	3.2	3.7	3.1	2.7	2.5	3.00	4.59	
19-Jan	3.0	2.9	2.4	2.3	2.3	A	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.3	2.3	2.1	2.2	2.4	3.1	3.0	2.4	2.3	2.3	2.4	2.37	3.05	
20-Jan	2.9	3.4	2.5	2.4	A	3.3	4.3	3.9	3.1	3.6	3.0	3.4	2.7	2.6	2.5	2.9	5.4	4.1	2.7	2.5	3.2	2.9	3.2	2.7	3.19	5.42	
21-Jan	2.7	2.6	2.5	A	2.5	3.0	3.1	3.1	3.6	3.2	2.4	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.3	2.6	2.7	2.6	2.1	2.2	2.53	3.60	
22-Jan	2.6	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	N	N	N	N	N	N	--	2.59	
23-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	2.5	2.7	2.8	2.2	2.1	2.1	2.1	--	2.77	
24-Jan	A	2.1	2.1	2.1	4.0	4.0	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.4	2.8	2.3	2.5	2.9	2.3	2.6	2.2	A	2.45	4.03	
25-Jan	2.3	3.8	2.5	2.8	2.6	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	A	2.1	2.25	3.84	
26-Jan	2.2	2.3	2.2	2.5	2.5	2.5	2.9	2.5	2.5	2.6	2.8	2.4	2.5	2.4	2.4	2.4	2.8	2.6	2.9	2.5	2.4	A	2.5	2.3	2.50	2.92	
27-Jan	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.4	2.4	2.3	2.3	2.3	A	2.2	2.2	2.3	2.21	2.36	
28-Jan	2.3	2.3	2.2	2.3	2.2	2.2	2.3	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4	2.5	2.3	2.3	A	2.3	2.3	2.3	2.3	2.3	2.31	2.49	
29-Jan	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.4	2.6	2.5	2.5	2.5	2.5	2.6	2.7	2.7	2.6	2.6	A	2.9	3.1	2.7	2.5	2.5	2.51	3.07	
30-Jan	2.5	2.6	2.5	2.3	2.3	2.3	N	N	N	N	N	N	N	N	M	2.3	2.2	A	2.3	2.2	2.4	2.3	2.3	2.2	--	2.59	
31-Jan	2.3	2.4	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	A	4.3	4.7	2.7	2.8	2.7	2.8	3.3	2.62	4.69	
		2.68	2.81	2.73	2.74	2.81	2.85	2.78	2.78	2.71	2.74	2.77	2.69	2.57	2.66	2.61	2.67	2.81	2.85	2.96	2.92	2.82	2.73	2.76	2.73	Diurnal Average	
		4.09	4.32	4.82	4.93	5.50	4.81	4.49	4.09	3.94	4.76	4.41	4.33	3.53	5.32	4.49	4.62	5.42	4.52	5.63	5.55	4.19	4.36	4.24	4.32	Diurnal Maximum	
C - Calibration		M - Maintenance						N - Not Valid						A - Automated Daily Zero Span													

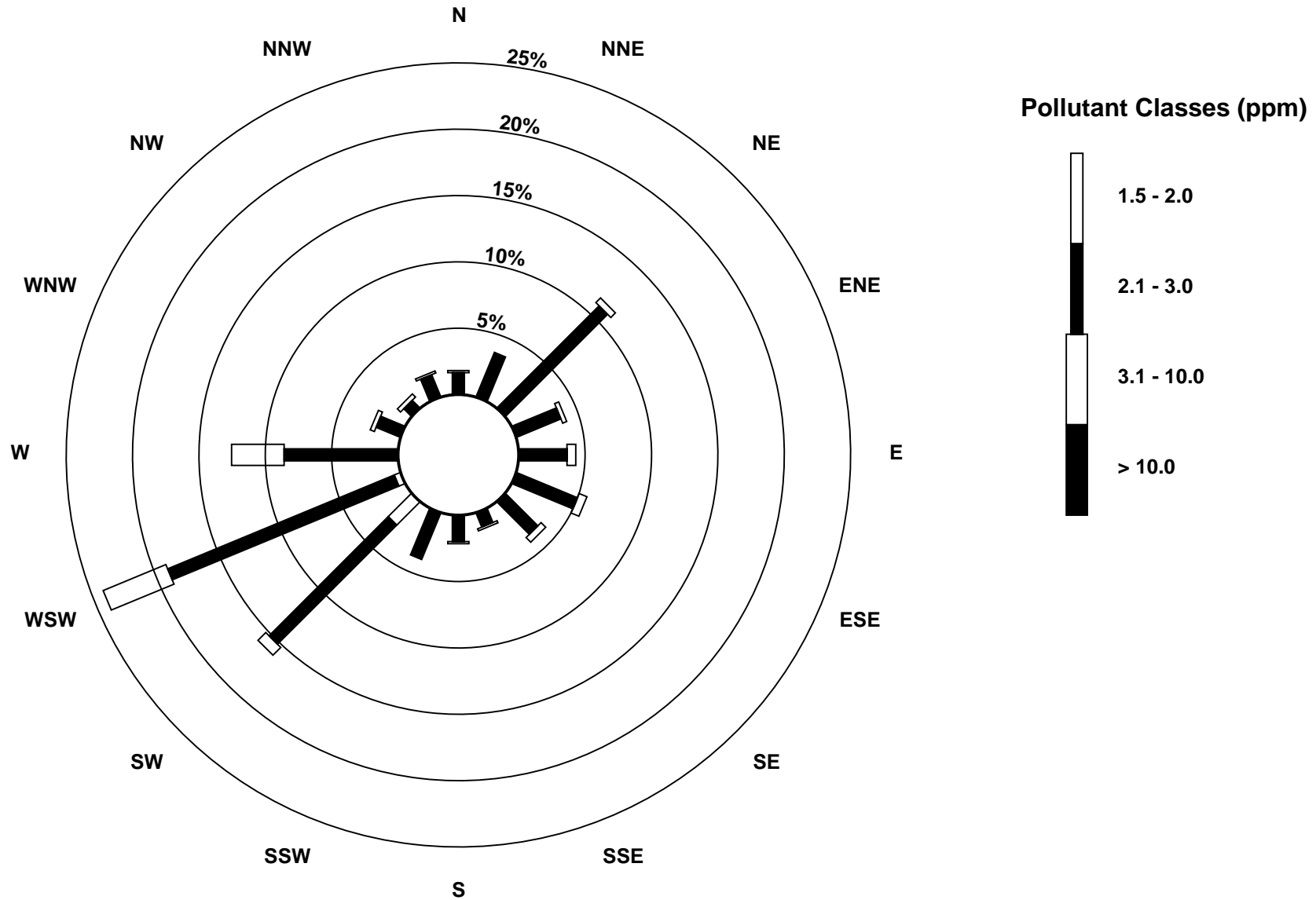
**Hourly Maximums**

**Total Hydrocarbons (THC) - ppm**  
**Portable Clairmont - January 2015**



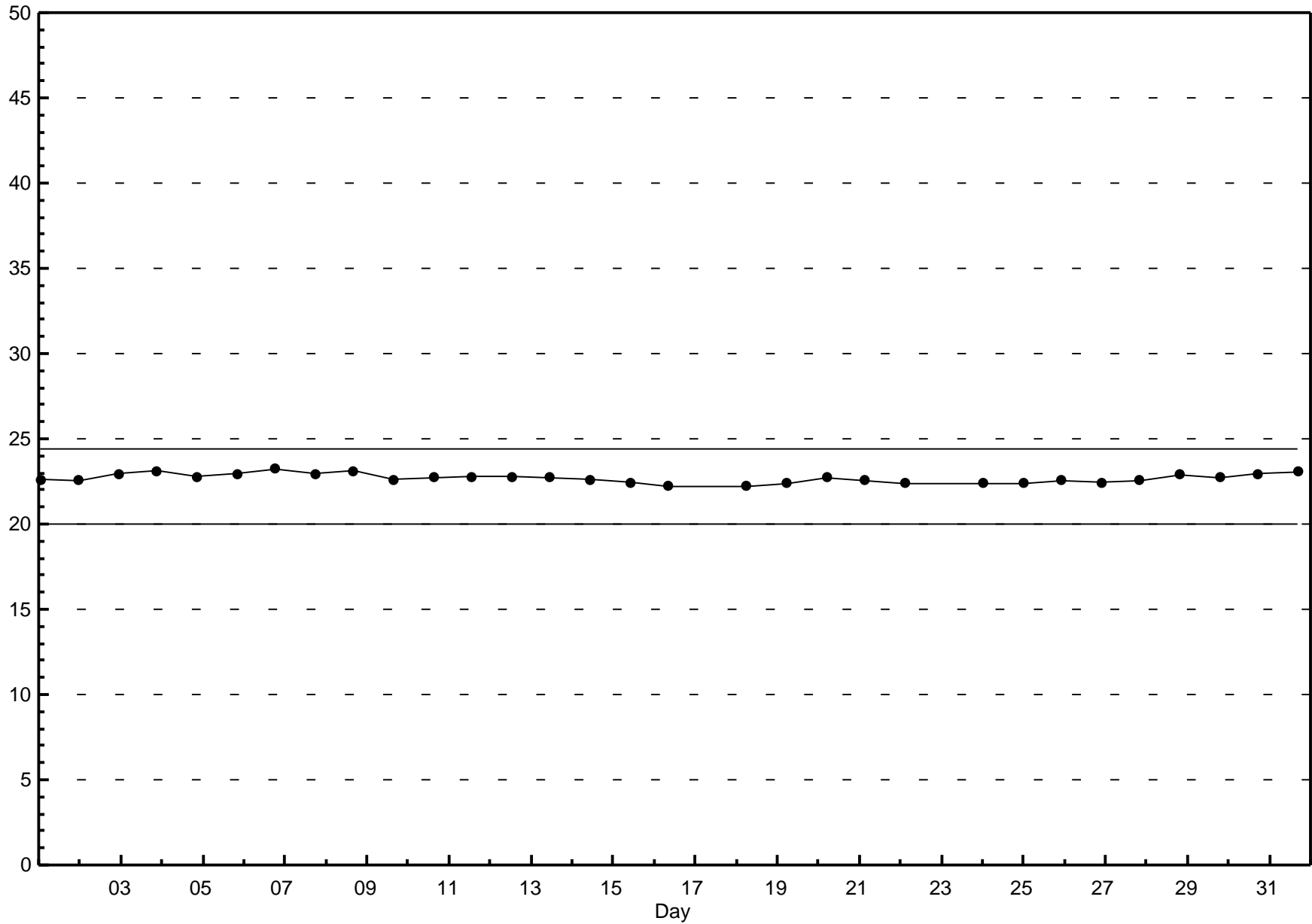
**Pollutant Rose**

**Total Hydrocarbons (THC) - ppm**  
**Portable Clairmont - January 2015**



### Span Responses

Total Hydrocarbons (THC)  
Portable Clairmont - January 2015



## Hourly Averages

PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Portable Clairmont - January 2015

Number of Exceedences: 1-hr: 0 24-hr: 0	Hours in Service: 744
Maximum Value: 25.6 µg/m <sup>3</sup> on Jan 12 12:00	Maximum Daily Average: 11.8 µg/m <sup>3</sup> on Jan 12
Minimum Value: 0 µg/m <sup>3</sup> on Jan 1 07:00	Hours of Data: 740
Maximum Diurnal Average: 4.8 µg/m <sup>3</sup> at hour 19	Hours of Missing Data: 4
Monthly Average: 3.29 µg/m <sup>3</sup>	Hours of Calibration: 1
Minimum Daily Average: 0.3 µg/m <sup>3</sup> on Jan 17	Percent Operational Time: 99.6
Minimum Diurnal Average: 1.8 µg/m <sup>3</sup> at hour 6	
Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 2.0 Q <sub>3</sub> = 5.1 P <sub>90</sub> = 8.8 P <sub>99</sub> = 14.8	

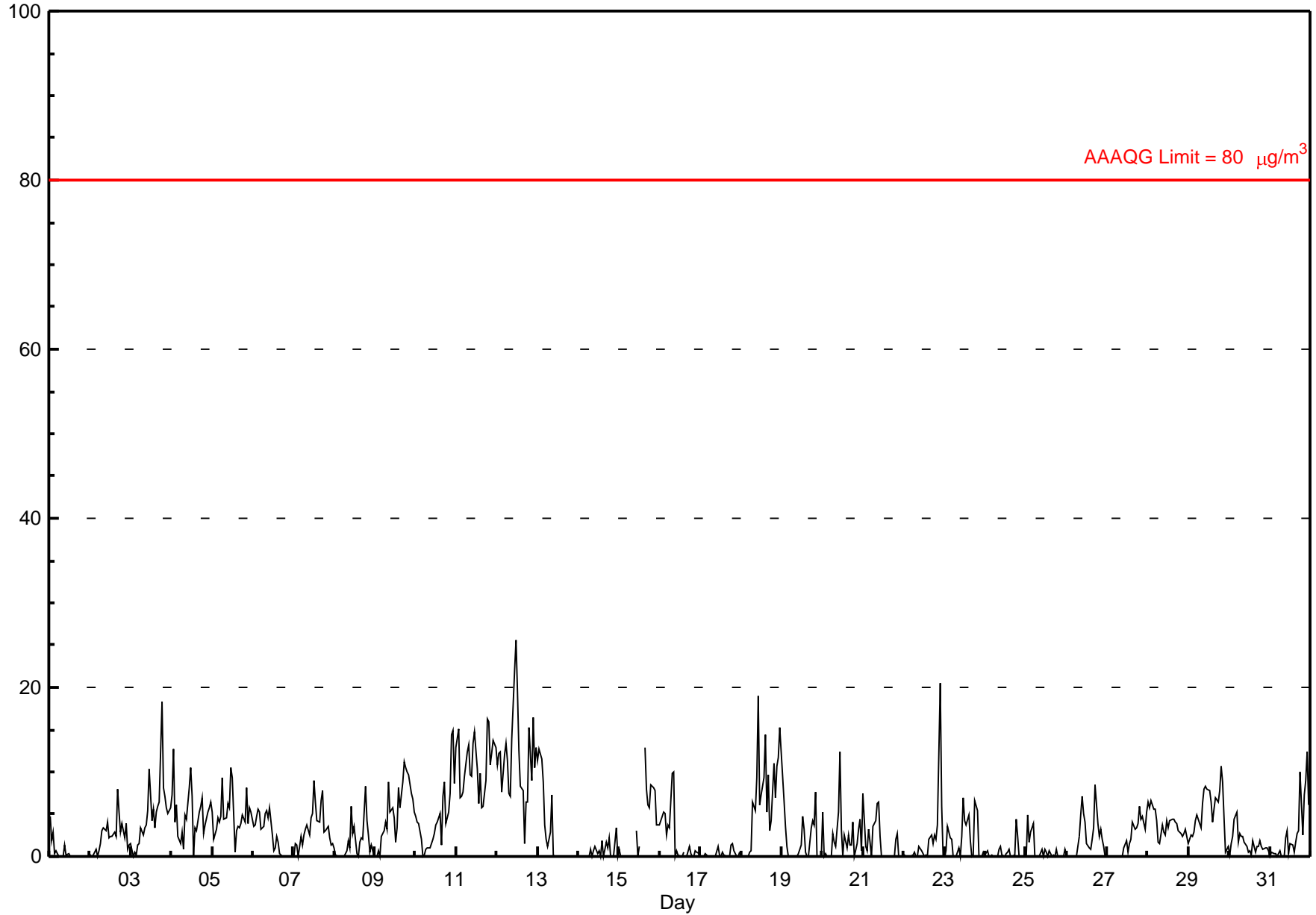
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	5	2	3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.7
2-Jan	0	0	0	1	0	1	2	3	3	3	4	2	2	2	3	2	8	5	3	4	2	4	1	1	2.4	8.0
3-Jan	2	0	0	0	1	2	3	3	3	4	5	10	4	6	3	5	6	6	18	8	7	6	5	6	4.8	18.3
4-Jan	7	13	4	6	2	2	3	1	5	4	8	10	7	0	3	3	5	6	7	3	4	5	6	6	5.1	12.8
5-Jan	5	2	3	5	4	5	9	4	5	6	6	11	9	1	3	4	3	4	5	4	8	4	6	5	5.0	10.5
6-Jan	3	4	5	6	5	3	4	5	5	5	6	3	1	1	2	2	0	0	0	0	0	0	0	0	2.5	5.8
7-Jan	0	2	1	0	2	1	3	3	4	2	5	5	9	6	4	4	7	8	3	3	3	2	1	2	3.4	8.9
8-Jan	1	0	0	0	0	0	0	1	2	1	6	3	4	0	0	2	2	2	8	4	2	0	1	0	1.7	8.2
9-Jan	0	0	1	0	2	3	4	3	9	5	6	5	2	3	8	6	9	11	11	10	10	7	7	5	5.3	11.1
10-Jan	5	4	4	2	0	0	1	1	1	2	2	3	4	4	5	1	7	9	4	5	7	14	15	9	4.5	14.9
11-Jan	13	15	7	7	8	9	12	13	10	9	13	15	10	6	10	6	6	9	16	16	11	12	14	13	10.9	16.3
12-Jan	11	12	12	8	12	13	11	7	7	14	22	26	20	13	8	8	1	6	6	15	9	16	11	13	11.8	25.6
13-Jan	11	13	12	9	4	2	1	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.6	12.7
14-Jan	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2	0	2	1	2	0	0	0	3	0	0.6	3.4
15-Jan	1	0	0	0	0	0	0	0	0	P	3	0	1	M	M	13	8	6	6	8	8	8	4	4	3.3	12.9
16-Jan	4	5	5	5	2	4	3	10	10	0	1	0	0	0	1	C	0	1	0	0	0	1	1	0	2.3	10.0
17-Jan	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	2	1	0	0	0	0	0.3	1.5
18-Jan	0	0	0	0	0	1	1	6	6	9	19	6	7	9	14	5	10	3	4	11	7	11	12	15	6.5	18.9
19-Jan	10	7	4	1	0	0	0	0	0	0	0	1	5	3	0	0	0	3	4	4	8	0	0	0	2.1	9.6
20-Jan	5	0	0	0	0	0	3	2	1	5	12	3	0	3	1	2	1	1	4	0	2	3	4	1	2.3	12.4
21-Jan	8	1	1	3	2	0	4	4	6	6	2	0	0	0	0	0	0	0	0	2	3	0	0	0	1.8	7.5
22-Jan	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	3	2	3	2	4	20	6	0	1.8	20.4
23-Jan	0	1	4	2	2	0	0	0	1	0	2	7	4	4	5	2	0	0	7	5	0	0	0	0	1.9	7.0
24-Jan	0	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	4	2	0	0	0	0	0.5	4.4
25-Jan	0	5	2	3	4	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0	0	0	1	0.8	4.9
26-Jan	0	0	0	0	0	0	0	2	5	7	5	4	1	1	1	2	3	8	4	2	3	2	1	0	2.2	8.4
27-Jan	0	0	0	0	0	0	0	0	0	0	1	2	0	2	2	4	3	3	4	6	4	5	3	5	1.9	5.9
28-Jan	7	6	7	6	6	4	2	2	4	3	3	4	3	4	4	4	4	3	3	2	3	3	2	2	3.8	6.6
29-Jan	2	2	2	3	4	5	4	3	6	8	8	8	8	6	4	6	7	6	8	11	9	5	1	1	5.3	10.7
30-Jan	0	2	2	4	5	2	3	2	2	2	1	1	1	0	2	0	1	1	2	1	1	1	1	1	1.6	5.3
31-Jan	0	1	0	0	0	0	1	0	0	2	3	0	2	1	0	2	3	3	10	3	7	9	12	6	2.8	12.4
	3.2	3.1	2.6	2.3	2.2	1.8	2.4	2.6	3.3	3.5	4.8	4.2	3.4	2.6	3.0	2.8	3.2	3.6	4.8	4.3	4.0	4.5	3.8	3.1	Diurnal Average	
	12.8	15.1	12.4	8.9	12.0	13.4	12.4	13.3	10.0	14.0	22.0	25.6	19.5	12.5	14.4	12.9	9.6	11.1	18.3	15.9	10.8	20.4	14.9	15.3	Diurnal Maximum	

C - Calibration P - Power Failure M - Maintenance  
 Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m<sup>3</sup> Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m<sup>3</sup>



### Hourly Averages

PM2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
Portable Clairmont - January 2015



## Hourly Maximums

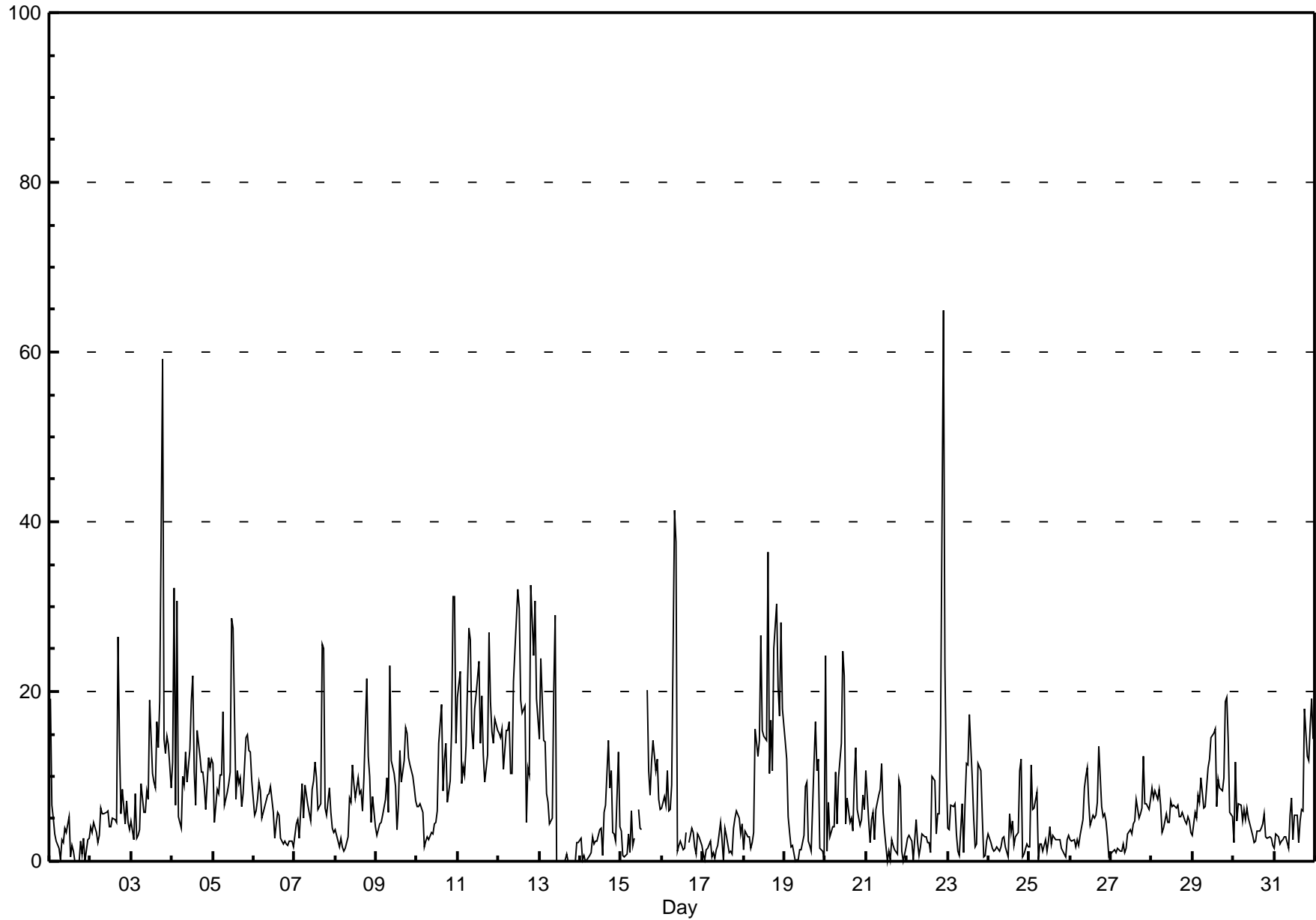
PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>

Portable Clairmont - January 2015

Maximum Value: 64.9 µg/m <sup>3</sup> on Jan 22 22:00		Maximum Daily Average: 18.3 µg/m <sup>3</sup> on Jan 12		Hours in Service: 744																						
Minimum Value: 0 µg/m <sup>3</sup> on Jan 1 16:00		Minimum Daily Average: 2.3 µg/m <sup>3</sup> on Jan 17		Hours of Data: 740																						
Maximum Diurnal Average: 11.0 µg/m <sup>3</sup> at hour 19		Minimum Diurnal Average: 4.4 µg/m <sup>3</sup> at hour 6		Hours of Missing Data: 4																						
Monthly Average: 7.49 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 1.2 Q <sub>1</sub> = 2.6 Median = 5.5 Q <sub>3</sub> = 10.3 P <sub>90</sub> = 15.7 P <sub>99</sub> = 31.9		Hours of Calibration: 1																						
				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-Jan	19	7	5	3	2	2	0	3	2	4	3	5	0	2	1	0	0	0	2	1	3	0	3	3	2.9	19.1
2-Jan	4	3	5	3	2	3	6	6	6	6	6	4	4	5	5	5	27	14	6	8	4	7	5	4	6.1	26.5
3-Jan	5	2	8	3	3	4	9	6	6	8	7	19	10	9	9	16	13	19	59	14	13	15	14	9	11.7	59.1
4-Jan	12	32	7	31	5	4	10	9	13	9	13	19	22	11	7	15	12	11	10	9	6	12	11	12	12.6	32.2
5-Jan	12	5	8	8	10	10	18	7	8	9	10	29	27	7	11	9	10	6	8	15	15	13	13	9	11.6	28.6
6-Jan	5	6	7	9	8	5	7	7	8	8	9	6	3	4	6	5	3	2	2	2	2	2	2	2	5.0	9.3
7-Jan	3	4	5	3	9	5	9	8	7	5	8	10	12	10	6	7	26	25	6	5	9	6	4	3	8.1	25.6
8-Jan	4	3	2	3	2	1	1	3	7	7	11	9	7	10	8	8	6	10	22	12	10	5	8	4	6.8	21.5
9-Jan	3	4	4	5	5	7	10	6	23	12	10	9	4	7	13	9	12	16	15	12	11	10	9	7	9.3	23.1
10-Jan	6	7	7	6	2	2	3	2	3	3	4	5	6	14	18	8	12	14	7	9	16	31	31	14	9.6	31.3
11-Jan	19	22	9	11	10	14	28	26	16	13	18	20	24	14	19	13	9	13	27	19	15	14	17	15	16.8	27.5
12-Jan	15	15	16	11	15	15	16	10	10	21	29	32	30	19	17	18	5	11	10	32	24	31	19	17	18.3	32.5
13-Jan	14	24	14	14	8	7	4	5	20	29	0	0	0	0	0	0	1	0	0	0	0	0	2	2	6.1	29.0
14-Jan	3	0	1	0	0	1	1	3	2	2	2	4	4	1	6	7	14	9	11	3	3	2	13	4	3.9	14.2
15-Jan	4	1	0	1	3	1	6	2	3	P	6	4	4	M	M	20	11	8	12	14	11	12	7	6	6.4	20.2
16-Jan	6	8	7	11	6	6	9	41	38	1	2	2	1	1	3	C	2	4	3	2	1	3	3	2	7.1	41.4
17-Jan	1	0	1	2	2	1	1	0	1	2	4	3	0	4	3	1	1	1	4	5	6	5	3	4	2.3	5.9
18-Jan	1	4	3	3	2	2	3	16	12	14	27	15	15	14	36	10	17	11	25	30	20	17	28	18	14.3	36.4
19-Jan	14	12	5	3	2	2	0	0	0	1	1	3	9	9	2	2	1	12	16	11	12	2	1	0	5.1	16.4
20-Jan	24	1	7	3	4	4	10	4	10	14	25	22	4	7	5	5	4	10	13	6	4	5	8	6	8.6	24.8
21-Jan	11	5	2	5	6	3	6	8	9	12	6	4	0	1	0	3	2	1	1	10	9	1	0	2	4.3	11.6
22-Jan	3	3	3	2	0	5	2	1	2	3	3	3	2	2	1	10	9	3	6	6	16	65	23	10	7.6	64.9
23-Jan	4	4	7	7	7	3	1	1	7	1	7	12	11	17	10	5	2	2	12	11	5	1	1	2	5.7	17.3
24-Jan	3	2	2	1	1	2	1	2	3	3	2	0	6	3	5	2	3	3	11	12	0	1	2	2	3.0	12.0
25-Jan	2	11	6	6	8	0	2	2	1	3	1	2	4	2	3	2	3	2	2	2	1	0	3	3	3.0	11.4
26-Jan	3	2	3	2	2	2	3	5	9	10	11	7	4	5	5	5	7	14	7	5	6	5	3	1	5.2	13.6
27-Jan	1	1	1	1	2	1	1	2	1	2	3	4	3	4	5	7	5	6	6	12	7	7	6	7	4.0	12.5
28-Jan	9	7	8	7	8	7	3	4	6	5	5	7	6	7	6	7	5	5	6	5	4	5	5	3	5.9	8.7
29-Jan	3	6	5	8	7	10	6	6	9	11	12	15	15	16	6	10	9	8	10	19	19	14	6	5	9.8	19.4
30-Jan	2	12	5	7	7	5	6	5	6	5	4	3	2	2	4	4	4	4	6	3	3	3	3	2	4.4	11.7
31-Jan	2	3	3	2	2	3	3	3	1	5	8	3	5	5	2	5	6	6	18	12	12	16	19	14	6.6	19.2
		7.0	6.9	5.3	5.8	4.9	4.4	6.1	6.5	8.0	7.6	8.3	8.9	7.9	7.2	7.4	7.3	7.7	8.0	11.0	9.9	8.6	10.0	8.7	6.3	Diurnal Average
		24.3	32.2	15.6	30.8	15.5	27.5	41.4	37.7	29.0	28.6	32.0	29.8	18.9	36.4	20.2	26.5	25.1	59.1	32.5	24.3	64.9	31.1	18.1	Diurnal Maximum	
C - Calibration		P - Power Failure					M - Maintenance																			

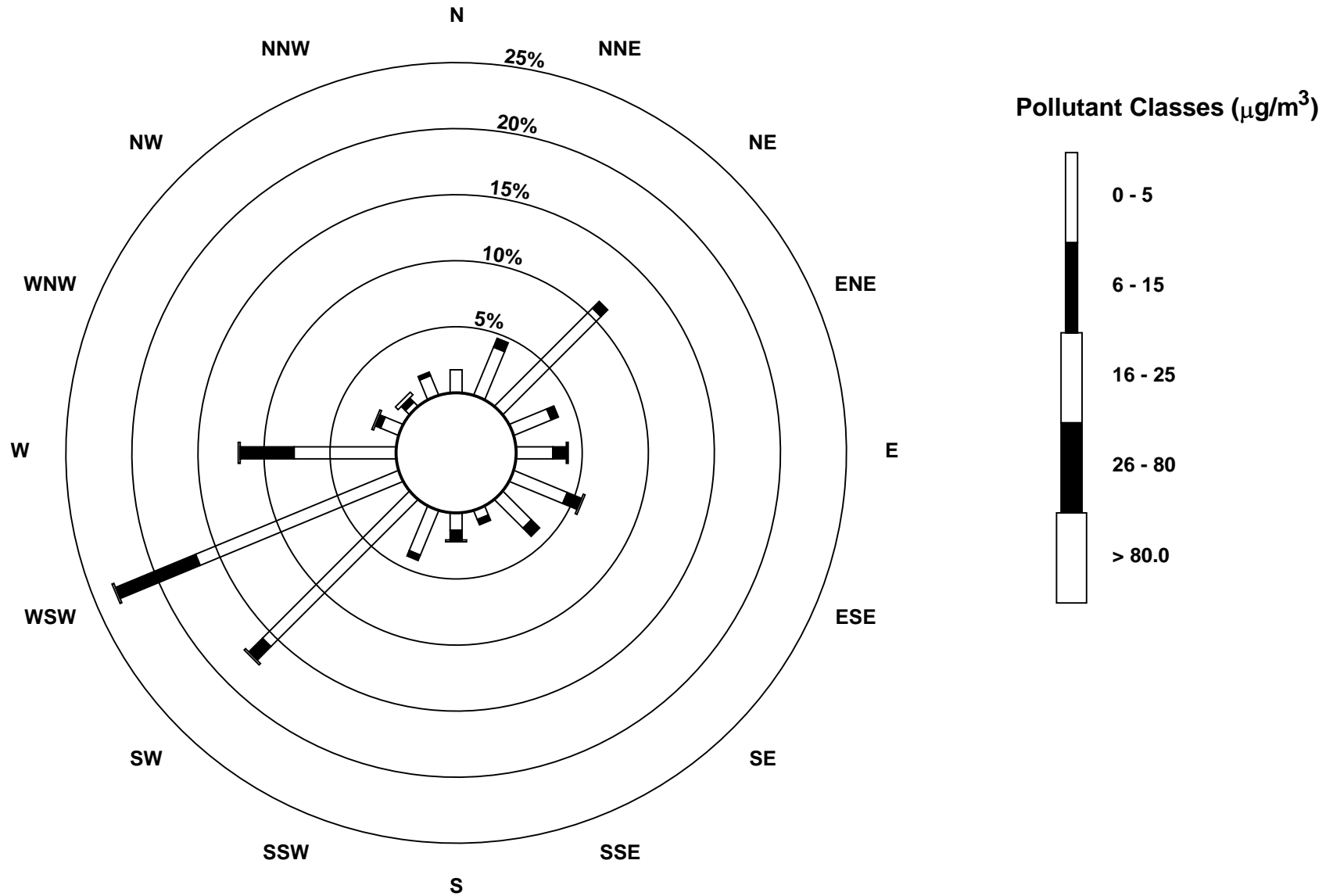
### Hourly Maximums

PM2.5 (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$   
Portable Clairmont - January 2015



**Pollutant Rose**

**PM<sub>2.5</sub> (PM<sub>2.5</sub>) -  $\mu\text{g}/\text{m}^3$**   
**Portable Clairmont - January 2015**



# Hourly Averages

External Temperature (ET) - °C

Portable Clairmont - January 2015

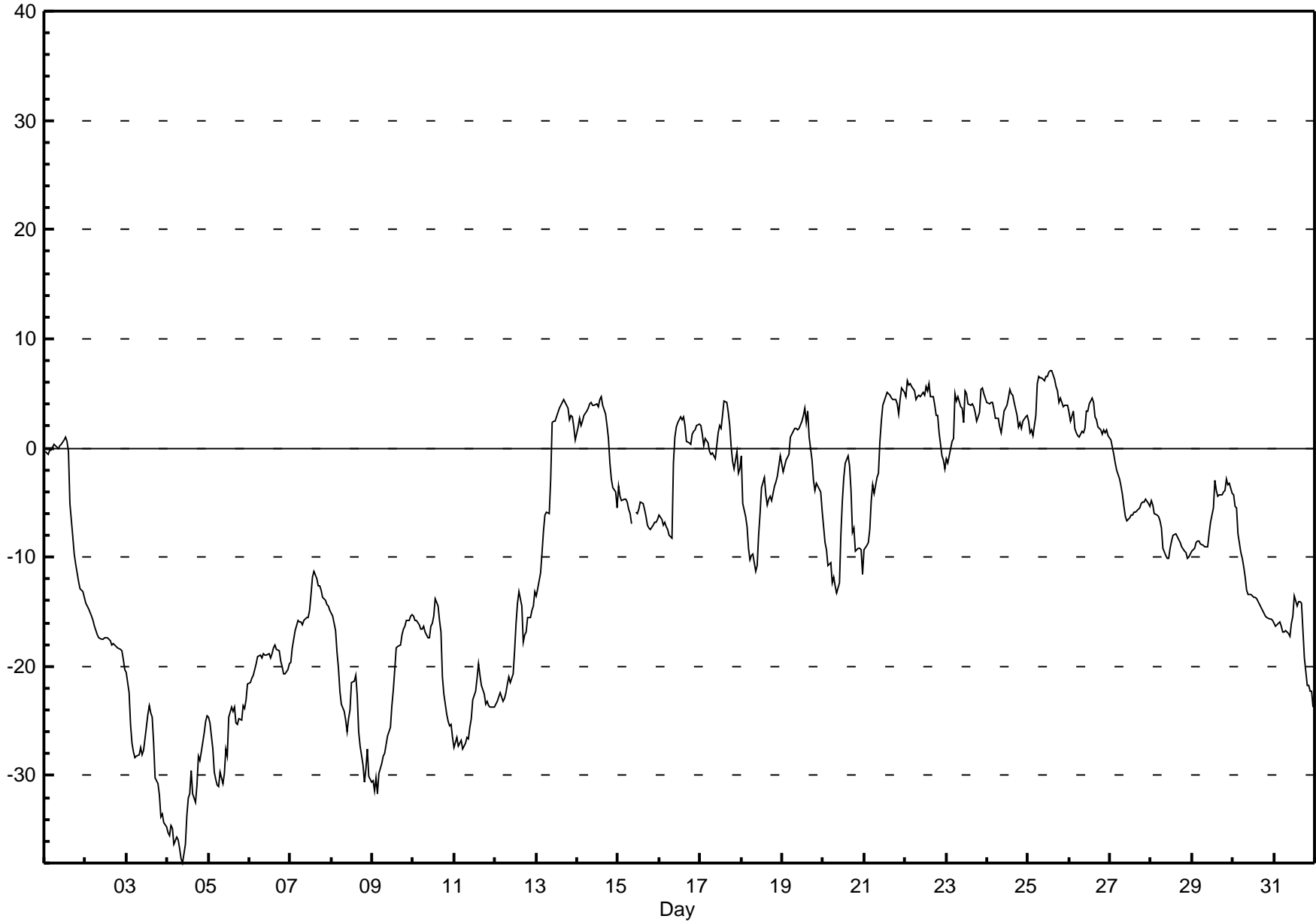
Number of Exceedences (AAAQO):	1-hr: 0	24-hr: 0	Hours in Service:	744
Maximum Value: 7.1 °C on Jan 25 15:00	Maximum Daily Average: 4.9 °C on Jan 25		Hours of Data:	743
Minimum Value: -38 °C on Jan 4 10:00	Minimum Daily Average: -32.4 °C on Jan 4		Hours of Missing Data:	1
Maximum Diurnal Average: -7.0 °C at hour 15	Minimum Diurnal Average: -10.8 °C at hour 8		Hours of Calibration:	0
Monthly Average: -9.71 °C	Percentiles: P <sub>1</sub> = -35.5 P <sub>10</sub> = -26.4 Q <sub>1</sub> = -18.3 Median = -8.0 Q <sub>3</sub> = 1.2 P <sub>90</sub> = 4.1 P <sub>99</sub> = 6.4		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-Jan	0	0	-1	0	0	0	0	0	0	0	0	1	1	1	0	-5	-8	-10	-11	-11	-12	-13	-13	-14	-4.0	1.0	
2-Jan	-14	-14	-15	-15	-16	-16	-17	-17	-17	-18	-18	-17	-17	-17	-18	-18	-18	-18	-18	-18	-18	-19	-19	-20	-17.2	-14.2	
3-Jan	-21	-22	-25	-27	-28	-28	-28	-28	-27	-28	-28	-27	-24	-24	-24	-25	-27	-30	-31	-32	-34	-33	-34	-35	-27.9	-20.6	
4-Jan	-35	-36	-35	-35	-36	-36	-36	-37	-38	-38	-36	-34	-32	-32	-29	-32	-32	-31	-28	-29	-28	-26	-25	-24	-32.4	-24.5	
5-Jan	-25	-25	-28	-30	-30	-31	-31	-30	-31	-30	-28	-28	-25	-24	-24	-24	-25	-25	-25	-25	-24	-24	-23	-22	-26.4	-21.6	
6-Jan	-22	-21	-21	-20	-20	-19	-19	-19	-19	-19	-19	-19	-19	-19	-18	-18	-18	-19	-19	-20	-21	-21	-20	-20	-19.5	-18.0	
7-Jan	-20	-18	-18	-17	-16	-16	-16	-16	-16	-16	-16	-15	-13	-12	-11	-12	-13	-13	-13	-14	-14	-14	-15	-15	-14.8	-11.3	
8-Jan	-15	-15	-17	-19	-20	-22	-23	-24	-25	-26	-25	-24	-21	-21	-21	-23	-26	-27	-29	-31	-29	-28	-30	-31	-23.8	-15.1	
9-Jan	-30	-31	-30	-32	-30	-29	-28	-28	-27	-26	-26	-24	-22	-20	-18	-18	-18	-17	-17	-16	-16	-16	-15	-15	-22.9	-15.3	
10-Jan	-15	-16	-16	-16	-17	-17	-16	-17	-17	-17	-16	-16	-15	-14	-14	-16	-17	-21	-22	-24	-25	-25	-25	-27	-18.5	-13.8	
11-Jan	-27	-27	-27	-27	-27	-28	-27	-27	-27	-26	-25	-23	-22	-21	-20	-21	-22	-23	-23	-23	-24	-24	-24	-24	-24.4	-19.7	
12-Jan	-23	-23	-23	-22	-23	-23	-22	-22	-22	-21	-21	-21	-19	-16	-14	-13	-14	-18	-17	-17	-16	-16	-15	-14	-13	-18.6	-13.2
13-Jan	-14	-13	-11	-10	-8	-6	-6	-6	-3	2	2	2	3	4	4	4	4	4	4	3	3	3	2	1	-1.3	4.4	
14-Jan	2	3	2	2	3	3	4	4	4	4	4	4	4	4	5	4	3	2	1	-1	-3	-4	-4	-5	1.9	4.6	
15-Jan	-4	-4	-5	-5	-5	-5	-6	-6	-7	P	-6	-6	-6	-5	-5	-6	-6	-7	-7	-7	-7	-7	-7	-7	-5.8	-3.5	
16-Jan	-6	-6	-7	-7	-7	-7	-8	-8	-1	1	2	2	3	3	3	2	1	0	0	1	2	2	2	2	-1.4	2.9	
17-Jan	2	1	0	1	0	0	-1	0	-1	-1	1	2	2	3	4	4	3	2	0	-1	-2	0	-2	-2	0.7	4.3	
18-Jan	-1	-5	-6	-7	-9	-10	-10	-10	-11	-11	-8	-6	-4	-3	-4	-5	-5	-4	-5	-4	-3	-3	-2	-1	-5.6	-0.7	
19-Jan	-2	-2	-1	-1	-1	1	2	2	2	2	3	3	4	2	3	1	-1	-3	-4	-3	-4	-4	-6	-6	-0.2	3.6	
20-Jan	-7	-9	-9	-11	-11	-12	-12	-13	-13	-12	-8	-5	-3	-1	-1	-2	-4	-8	-7	-9	-9	-9	-9	-12	-8.2	-0.7	
21-Jan	-9	-9	-9	-7	-5	-3	-4	-3	-2	1	2	4	5	5	5	5	5	4	4	4	3	4	5	5	0.4	5.4	
22-Jan	5	6	6	6	6	5	4	5	5	5	5	5	6	5	6	5	5	4	3	3	1	-1	-1	-2	4.0	6.2	
23-Jan	-1	-1	-1	1	1	5	4	5	4	4	2	5	5	4	4	4	4	3	2	3	5	6	5	5	3.2	5.5	
24-Jan	4	4	4	4	4	3	3	2	1	2	3	4	5	5	5	5	4	3	2	2	2	2	3	3	3.3	5.4	
25-Jan	3	1	2	1	3	6	7	6	6	6	7	7	7	7	7	6	6	5	4	5	4	4	4	4	4.9	7.1	
26-Jan	3	2	3	2	1	1	1	1	1	2	3	3	4	5	4	3	3	2	2	1	2	1	2	1	2.3	4.5	
27-Jan	1	0	-1	-1	-2	-3	-3	-4	-5	-6	-7	-6	-6	-6	-6	-6	-6	-6	-5	-5	-5	-5	-5	-5	-4.3	0.7	
28-Jan	-5	-5	-6	-6	-6	-7	-7	-9	-10	-10	-10	-9	-8	-8	-8	-8	-8	-9	-9	-9	-10	-10	-10	-10	-8.2	-4.8	
29-Jan	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-8	-7	-5	-3	-4	-4	-4	-4	-4	-4	-3	-3	-3	-4	-6.3	-2.8	
30-Jan	-4	-5	-5	-8	-10	-10	-11	-12	-13	-13	-13	-14	-14	-14	-14	-14	-14	-15	-15	-15	-15	-16	-16	-16	-12.4	-4.3	
31-Jan	-16	-16	-16	-16	-16	-17	-17	-17	-17	-17	-16	-15	-14	-14	-14	-14	-14	-14	-17	-19	-22	-22	-22	-24	-17.3	-13.5	
	-9.9	-10.2	-10.4	-10.7	-10.7	-10.6	-10.8	-10.8	-10.8	-10.6	-9.5	-8.7	-7.8	-7.2	-7.0	-7.7	-8.6	-9.4	-9.9	-10.3	-10.3	-10.2	-10.4	-10.7	Diurnal Average		
	4.7	6.2	5.7	5.9	5.6	5.9	6.5	6.5	6.4	6.1	6.6	6.5	7.0	7.1	7.1	6.3	5.7	5.2	4.4	4.5	5.4	5.5	5.4	5.2	Diurnal Maximum		

P - Power Failure

**Hourly Averages**

**External Temperature (ET) - °C**  
**Portable Clairmont - January 2015**





Peace Airshed Zone Association

# Hourly Averages

Wind Speed (km/h)

Wind Direction (deg)

Portable Clairmont - January 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	5	4	2	5	6	8	9	7	5	6	6	8	9	9	3	27	34	29	26	29	27	25	22	20	8.1	33.7
Dir	267	239	229	235	260	270	260	258	290	287	261	272	260	264	344	36	33	39	42	34	36	36	29	16	13.6	33.5
2 Spd	19	15	15	15	21	20	18	15	12	13	13	13	12	12	11	9	3	3	4	5	5	10	10	8	9.5	21.2
Dir	19	13	10	8	15	16	9	355	333	340	332	334	345	351	358	351	304	257	246	254	256	278	273	265	348.0	14.7
3 Spd	8	6	6	7	4	6	7	7	7	5	5	6	4	4	5	2	1	1	3	2	1	2	3	2	4.2	8.1
Dir	273	271	254	261	275	250	252	259	248	257	268	270	244	240	264	253	235	237	293	222	255	242	249	269	258.8	273.3
4 Spd	2	3	5	3	3	2	2	3	1	1	2	1	2	1	1	3	1	2	2	4	4	3	4	4	2.0	4.8
Dir	249	258	257	248	260	255	244	262	240	133	275	83	277	6	117	279	309	267	101	265	265	251	252	264	259.2	256.7
5 Spd	2	2	1	1	2	2	3	4	4	4	5	3	2	3	4	1	1	1	1	1	1	3	2	0	1.4	5.0
Dir	240	210	164	236	241	261	258	240	251	252	246	252	244	253	259	183	56	31	95	12	18	61	346	118	252.0	246.0
6 Spd	4	3	1	2	4	3	3	3	4	6	3	7	9	8	9	12	10	13	12	13	14	13	11	11	6.7	14.1
Dir	94	67	34	326	336	21	119	65	127	129	89	42	45	41	41	42	46	52	42	50	43	43	44	43	48.6	43.2
7 Spd	10	8	5	5	2	4	4	6	6	7	6	8	7	8	17	15	13	11	14	16	14	13	11	13	6.5	17.1
Dir	46	49	34	52	149	216	201	218	234	213	218	257	296	253	276	288	278	272	278	276	283	286	285	278	275.8	275.8
8 Spd	14	12	11	12	10	7	7	7	6	4	2	3	2	1	2	2	2	1	0	1	3	3	5	5	3.9	14.3
Dir	273	276	273	265	265	256	274	271	257	258	250	253	252	55	102	127	73	58	260	80	71	54	249	258	266.7	273.0
9 Spd	4	3	3	1	1	0	2	2	2	2	3	3	4	3	1	0	2	2	1	1	3	3	3	4	0.8	4.3
Dir	259	254	258	49	345	339	245	254	249	253	248	254	236	228	196	14	105	177	272	48	98	85	105	117	227.0	258.9
10 Spd	4	5	6	7	6	5	4	6	6	5	2	2	3	1	2	1	3	2	1	1	0	0	3	1	1.9	6.7
Dir	114	110	116	129	121	118	119	38	35	45	113	8	330	352	29	118	181	60	104	89	107	235	267	274	90.4	129.2
11 Spd	0	1	3	3	2	0	2	1	0	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0.9	3.0
Dir	53	265	260	255	265	271	269	257	274	267	257	251	256	245	243	253	249	243	260	258	237	249	252	244	258.6	259.6
12 Spd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	1	1	1	1	1	0.2	2.8
Dir	225	248	243	234	259	241	229	242	251	146	315	90	312	247	299	256	258	244	86	121	110	219	84	102	228.8	257.5
13 Spd	1	1	3	1	1	2	1	1	8	15	11	9	7	9	14	16	23	20	16	11	13	14	8	3	8.3	22.7
Dir	278	256	145	261	291	207	144	182	252	237	246	240	227	220	222	233	227	235	240	239	238	238	247	266	234.6	227.4
14 Spd	9	14	9	13	15	13	12	14	13	11	16	10	9	11	8	5	6	6	5	2	4	2	2	3	7.8	15.8
Dir	250	247	248	242	251	242	245	257	273	244	236	244	256	231	268	255	248	264	265	127	133	57	123	78	247.6	236.3
15 Spd	7	14	13	14	12	10	7	3	3	P	5	6	5	2	2	2	1	1	1	1	1	2	4	3	4.1	14.0
Dir	53	37	42	38	45	49	42	72	67	P	47	45	68	58	85	51	73	19	144	305	227	261	251	246	44.6	38.3
16 Spd	1	0	1	3	3	2	0	0	12	17	19	15	14	14	10	13	12	12	12	16	17	21	22	21	10.7	21.7
Dir	202	160	245	261	237	233	78	35	230	239	228	226	228	242	246	244	240	237	232	234	236	227	231	233	233.9	230.8
17 Spd	18	13	11	16	9	8	9	8	7	4	16	13	11	10	12	9	10	11	5	4	5	10	5	5	9.3	18.3
Dir	240	243	245	251	260	248	224	216	209	261	237	223	228	223	223	216	226	218	208	214	217	223	232	243	231.5	240.0
18 Spd	5	2	2	1	2	2	1	3	1	0	2	5	1	3	6	8	4	6	3	3	1	1	3	3	1.2	8.3
Dir	257	104	114	67	117	35	14	263	19	236	111	123	287	244	255	263	281	218	318	194	167	178	163	228	229.3	263.1
19 Spd	3	4	8	6	4	9	14	21	20	18	18	18	16	11	8	13	9	5	3	4	7	6	4	1	9.1	20.9
Dir	121	218	194	202	220	229	238	238	237	239	238	234	235	240	244	246	239	254	266	262	254	259	268	321	237.2	238.4
20 Spd	2	2	2	1	1	1	1	3	2	1	3	4	2	3	1	1	2	2	3	2	2	2	1	4	0.6	4.3
Dir	256	178	229	44	235	192	216	226	228	267	280	287	256	286	258	60	112	109	197	73	101	92	85	119	205.6	118.9
21 Spd	6	2	2	4	9	2	2	2	2	9	12	10	10	15	14	12	15	13	10	7	4	8	11	8	6.6	15.5
Dir	142	43	89	118	143	165	282	264	145	183	211	215	224	232	238	219	224	219	213	235	258	237	226	226	215.1	223.7
22 Spd	9	22	17	16	21	25	14	21	21	19	18	14	18	13	17	11	6	6	6	6	3	2	1	2	12.3	24.7
Dir	248	233	223	231	238	252	253	235	230	230	230	234	224	226	222	246	246	193	210	253	171	28	52	233.0	252.1	



Peace Airshed Zone Association

# Hourly Averages

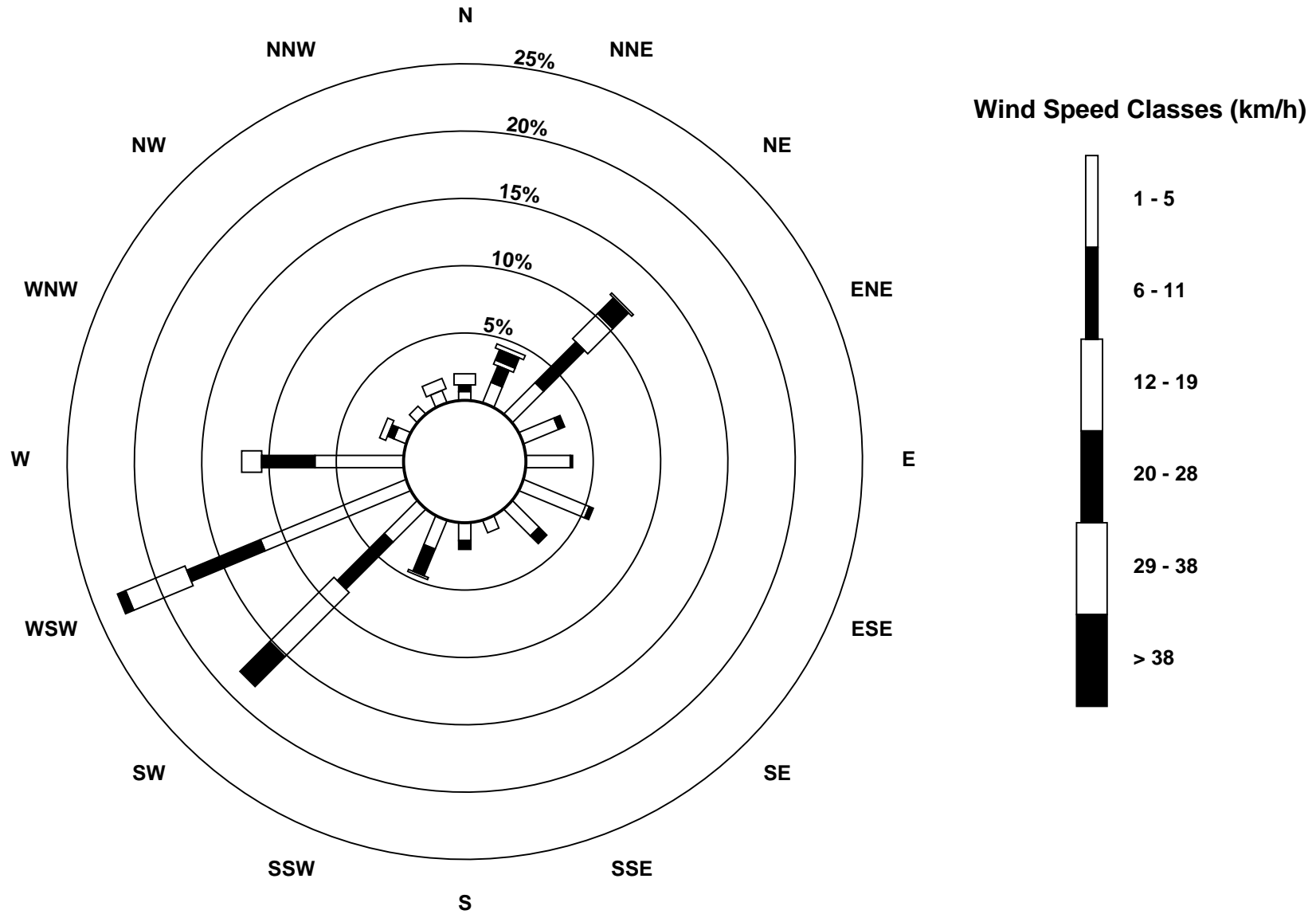
Wind Speed (km/h)  
Wind Direction (deg)  
Portable Clairmont - January 2015

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	2	2	5	6	19	13	14	6	2	3	4	1	2	4	5	7	4	3	8	16	16	16	14	5.4	18.7
Dir	119	33	108	177	210	224	220	229	226	222	137	196	128	91	124	122	101	129	150	205	217	224	228	241	208.2	224.3
24 Spd	17	18	19	21	17	10	15	13	12	14	13	10	6	6	6	6	7	2	3	2	4	5	7	7	7.7	21.2
Dir	235	231	228	227	219	219	219	227	237	234	236	236	236	227	222	184	181	138	22	38	68	84	79	75	222.8	226.5
25 Spd	7	5	6	5	11	21	24	22	28	28	26	27	20	21	22	18	15	16	7	10	8	10	8	9	15.0	28.0
Dir	134	251	194	230	238	217	225	228	225	221	218	223	228	226	229	237	230	230	248	228	232	213	232	207	224.6	221.1
26 Spd	5	4	7	1	3	4	3	4	1	4	6	1	2	2	2	2	2	1	1	3	3	1	2	1	1.6	6.8
Dir	238	238	200	144	88	84	103	140	100	169	182	265	264	212	205	11	168	73	138	134	189	103	192	172	173.5	200.4
27 Spd	4	11	18	22	22	21	23	25	24	21	17	16	16	13	10	8	6	4	5	1	3	N	N	N	13.2	25.4
Dir	108	48	39	36	32	39	37	38	40	42	44	41	41	47	47	49	71	59	129	270	329	N	N	N	42.0	37.7
28 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
29 Spd	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
Dir	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
30 Spd	N	N	N	11	8	7	9	9	10	9	8	9	8	11	8	8	9	8	7	6	4	4	5	4	7.6	11.3
Dir	N	N	N	29	27	49	44	50	49	41	41	35	24	11	21	31	28	25	23	38	53	38	20	33	33.3	28.9
31 Spd	4	1	3	4	4	3	3	4	7	4	2	2	1	4	4	4	2	0	0	0	1	0	0	3	0.8	7.5
Dir	52	83	115	137	116	97	90	53	35	44	33	83	216	255	246	231	207	93	78	65	333	55	138	262	86.5	34.8
Spd	1.9	2.1	1.7	1.6	1.8	2.5	2.7	3.4	3.5	4.2	4.9	4.0	3.7	3.8	3.7	2.4	1.9	1.6	1.1	1.3	1.5	1.8	2.3	1.9	Diurnal Average	
Dir	252.1	262.2	237.1	261.1	264.6	248.6	248.7	250.8	249.9	240.0	236.6	244.7	251.4	248.0	248.7	263.5	244.4	237.9	259.4	258.5	256.5	251.6	256.3	259.9	Diurnal Maximum	
Spd	19.1	22.1	19.4	21.7	22.3	24.7	23.9	25.4	27.8	28.0	25.7	27.1	20.2	20.7	21.8	26.9	33.7	29.2	26.1	29.1	26.5	24.7	21.7	21.3	Diurnal Maximum	
Dir	18.5	232.9	228.5	36.0	31.7	252.1	225.4	37.7	224.5	221.1	217.9	222.9	228.5	225.7	229.3	35.6	33.5	39.4	42.2	33.7	35.6	36.0	230.8	233.2	Diurnal Maximum	
Maximum Speed Value: 34 km/h on Jan 1 17:00		Minimum Speed Value: 0 km/h on Jan 12 10:00		Hours in Service: 744																						
Maximum Daily Speed Average: 15.0 km/h on Jan 25		Minimum Daily Speed Average: 0.2 km/h on Jan 12		Hours of Data: 689																						
Maximum Diurnal Speed Average: 4.9 km/h at hour 11		Minimum Diurnal Speed Average: 1.1 km/h at hour 19		Hours of Missing Data: 55																						
Monthly Average Velocity: 2.53 km/h 249.67 deg				Speed Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.9 Q <sub>1</sub> = 2.1 Median = 4.5 Q <sub>3</sub> = 10.2 P <sub>90</sub> = 16.2 P <sub>99</sub> = 26.8				Percent Operational Time: 92.6																		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure N - Not Valid																										
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	17	4	8	4	0	0	33																			
NorthEast	39	34	18	12	3	0	106																			
East	55	4	0	0	0	0	59																			
SouthEast	42	9	0	0	0	0	51																			
South	25	9	0	0	0	0	34																			
SouthWest	64	51	73	24	0	0	212																			
West	108	50	17	1	0	0	176																			
NorthWest	14	1	3	0	0	0	18																			
Total	364	162	119	41	3	0	689																			



**Wind Rose**

**Wind Speed (WS) (km/h)**  
**Portable Clairmont - January 2015**



# Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

## Portable Clairmont - January 2015

Maximum Speed: 34 km/h on Jan 1 17:00	Maximum Daily Speed Average: 15.8 km/h on Jan 25	Hours in Service: 744
Minimum Speed: 0 km/h on Jan 11 01:00	Minimum Daily Speed Average: 0.5 km/h on Jan 12	Hours of Data: 689
Maximum Diurnal Speed Average: 8.7 km/h at hour 11	Minimum Diurnal Speed Average: 5.7 km/h at hour 19	Hours of Missing Data: 55
Monthly Average Speed: 7.25 km/h	Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 1.4 Q <sub>1</sub> = 2.5 Median = 5.0 Q <sub>3</sub> = 10.7 P <sub>90</sub> = 16.3 P <sub>99</sub> = 27.1	Percent Operational Time: 92.6

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-Jan	6	4	2	5	6	8	9	7	5	7	6	8	9	10	11	27	34	29	26	29	27	25	22	20	14.2	33.8	
2-Jan	19	15	15	15	21	20	18	15	12	13	13	13	12	12	11	9	3	3	4	5	5	10	10	8	11.7	21.4	
3-Jan	8	6	6	7	5	6	7	7	7	6	5	6	4	4	5	2	2	2	3	3	2	2	3	2	4.5	8.2	
4-Jan	2	3	5	3	3	3	3	3	2	2	2	1	2	2	2	3	3	3	3	4	5	3	5	4	2.9	4.9	
5-Jan	2	2	1	1	2	2	3	4	4	4	5	3	3	4	4	1	2	1	1	1	2	3	2	2	2.6	5.1	
6-Jan	4	3	2	2	5	4	3	3	4	6	4	7	9	8	9	12	12	10	13	12	13	14	13	11	7.6	14.2	
7-Jan	10	8	5	5	5	4	5	6	6	7	6	8	7	8	17	15	13	11	14	16	14	13	11	14	9.5	17.3	
8-Jan	14	12	11	12	10	7	8	7	6	4	3	3	2	1	2	2	2	1	1	1	3	4	5	5	5.3	14.4	
9-Jan	5	4	3	2	2	1	2	2	2	3	3	3	4	3	2	2	3	3	1	2	3	3	3	4	2.6	4.6	
10-Jan	5	5	6	7	6	5	4	6	6	6	2	2	3	1	2	2	3	2	1	1	1	1	3	1	3.5	6.8	
11-Jan	0	1	3	3	2	1	2	1	1	1	1	1	2	2	1	2	0	0	0	0	0	0	0	0	1.0	3.1	
12-Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	1	1	1	1	1	0.5	2.8	
13-Jan	1	1	3	2	1	3	2	2	9	15	11	9	7	9	14	16	23	20	16	12	14	14	8	4	9.1	22.8	
14-Jan	10	14	9	13	15	13	12	14	13	12	16	10	9	11	9	5	6	6	5	3	4	2	2	4	9.1	16.0	
15-Jan	7	14	13	14	12	10	7	4	3	P	5	6	5	2	2	2	1	1	2	2	2	4	3	5.3	14.1		
16-Jan	1	1	2	3	4	3	2	2	12	17	19	15	14	14	10	13	12	12	12	16	17	21	22	21	11.1	21.8	
17-Jan	18	13	11	16	9	8	9	9	8	5	18	13	11	10	12	9	10	11	6	5	6	10	6	7	10.0	18.4	
18-Jan	8	4	3	2	3	3	2	3	1	1	3	7	2	3	6	8	5	7	4	4	2	2	5	4	3.8	8.4	
19-Jan	3	4	8	6	5	9	14	21	20	18	18	16	11	8	13	9	5	3	4	7	6	4	2	2	9.7	21.0	
20-Jan	2	2	4	2	3	1	2	3	2	2	3	4	2	3	2	1	2	3	4	3	2	2	2	4	2.4	4.4	
21-Jan	6	3	3	5	9	6	3	3	2	10	12	10	10	15	14	13	16	13	10	7	5	9	11	8	8.4	15.6	
22-Jan	9	22	17	16	21	25	15	21	22	19	19	15	18	14	17	11	7	6	6	6	4	3	3	2	13.3	25.3	
23-Jan	2	3	3	5	6	19	13	14	6	7	4	4	4	3	4	6	9	5	4	9	17	17	16	14	8.1	18.9	
24-Jan	17	18	20	21	17	10	16	13	12	14	13	10	10	6	6	6	7	5	3	4	4	5	7	7	10.4	21.3	
25-Jan	7	5	7	5	12	21	24	22	28	28	26	27	20	21	22	18	15	16	7	10	9	10	8	9	15.8	28.1	
26-Jan	6	5	7	3	3	4	4	5	3	4	8	3	3	3	3	3	2	5	2	4	3	3	2	2	3.6	7.6	
27-Jan	4	12	18	22	22	21	23	26	25	21	17	16	16	13	10	8	6	5	2	3	N	N	N	N	14.0	25.5	
28-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
29-Jan	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--
30-Jan	N	N	N	11	9	7	9	10	10	9	8	9	8	11	8	8	9	8	7	6	4	4	5	4	7.9	11.3	
31-Jan	4	2	3	4	5	4	3	4	8	4	2	2	2	4	4	4	2	1	1	1	1	1	1	3	2.9	7.5	
	6.5	6.7	6.9	7.4	7.7	7.9	7.7	8.1	8.2	8.6	8.7	8.1	7.4	7.2	7.5	7.6	7.6	6.8	5.7	5.9	6.2	6.8	6.5	6.1	Diurnal Average		
	19.2	22.3	19.6	21.8	22.4	25.3	24.1	25.5	28.0	28.1	25.9	27.3	20.3	20.9	22.0	27.1	33.8	29.3	26.2	29.2	26.6	24.8	21.8	21.4	Diurnal Maximum		

P - Power Failure      N - Not Valid  
 All monthly, daily, and diurnal averages have been calculated using scalar methods

# Hourly Standard Deviations

Wind Direction (WD) - deg

Portable Clairmont - January 2015

Maximum Value: 97.5 deg on Jan 9 06:00	Hours in Service: 744
Minimum Value: 0.0 deg on Jan 28 01:00	Hours of Data: 743
Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 6.2 Q <sub>1</sub> = 8.1 Median = 16.4 Q <sub>3</sub> = 37.9 P <sub>90</sub> = 62.5 P <sub>99</sub> = 88.2	Hours of Missing Data: 1
	Hours of Calibration: 0
	Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Jan	29	15	15	12	16	11	7	17	10	25	15	9	7	9	68	7	5	4	5	4	4	5	6	5	68.2
2-Jan	5	5	6	5	7	7	5	14	6	6	5	5	6	5	5	7	36	15	12	9	7	8	6	8	36.0
3-Jan	8	10	12	6	11	13	5	8	10	25	17	19	18	18	13	25	47	75	43	45	41	28	32	23	75.2
4-Jan	26	11	7	27	20	21	37	15	80	70	49	68	70	60	48	46	85	49	47	31	19	22	11	11	85.1
5-Jan	24	29	87	60	42	31	16	9	13	19	14	14	13	9	20	71	66	41	43	69	78	45	44	79	87.1
6-Jan	9	33	32	43	20	22	21	29	16	10	36	11	5	8	4	6	6	5	8	7	4	5	5	5	42.5
7-Jan	6	13	6	12	62	30	34	14	19	13	13	16	12	13	8	7	7	10	6	6	6	6	7	7	62.2
8-Jan	7	7	11	5	9	10	10	35	13	25	23	12	18	58	19	14	25	37	82	42	13	56	14	15	81.6
9-Jan	28	47	50	39	34	98	48	11	17	15	14	15	13	28	49	89	34	41	75	64	26	22	27	16	97.5
10-Jan	13	11	8	8	10	9	20	19	6	15	26	43	26	57	49	58	16	43	40	30	68	70	15	66	69.6
11-Jan	50	24	15	14	19	84	12	52	88	20	19	55	44	37	54	22	24	53	21	30	22	20	12	15	88.2
12-Jan	21	18	33	21	31	44	33	23	21	85	55	44	50	20	74	59	11	53	51	65	34	68	39	23	85.1
13-Jan	42	90	17	66	38	47	78	51	68	8	7	8	18	13	12	7	6	7	11	9	7	8	8	40	90.0
14-Jan	9	7	7	6	8	8	7	7	8	24	8	16	8	10	16	10	13	23	20	64	16	35	39	30	63.7
15-Jan	18	6	6	6	11	9	12	35	38	P	15	6	15	38	32	33	54	51	52	83	67	52	11	20	83.5
16-Jan	29	41	39	27	23	44	78	91	10	8	7	8	7	22	7	7	8	7	13	7	8	6	6	6	91.3
17-Jan	7	8	7	7	8	9	13	17	43	58	28	8	9	8	9	8	10	8	21	31	18	9	37	51	57.6
18-Jan	77	61	54	64	47	29	60	33	77	94	42	52	62	39	15	8	41	29	43	50	69	78	61	29	93.5
19-Jan	20	23	9	26	23	6	7	6	5	7	6	6	6	8	9	7	7	19	16	27	8	7	11	56	56.1
20-Jan	36	30	79	77	79	34	42	30	25	62	37	14	49	16	70	64	27	29	61	44	32	50	33	16	79.2
21-Jan	10	44	36	33	7	79	58	37	47	11	11	10	10	8	9	7	6	6	9	20	17	24	7	15	79.3
22-Jan	13	8	10	9	9	13	13	9	7	6	9	13	6	7	7	17	45	8	8	14	42	78	83	32	82.9
23-Jan	53	38	43	46	30	8	9	7	18	77	48	12	71	51	31	38	38	44	67	28	11	7	10	9	76.7
24-Jan	7	7	8	6	7	7	10	9	8	9	7	11	8	17	22	16	10	66	29	60	27	18	13	22	66.1
25-Jan	13	41	37	29	27	6	7	7	6	6	7	6	7	7	7	8	12	6	9	9	10	9	29	10	40.6
26-Jan	31	36	9	67	29	26	39	46	62	35	56	58	46	39	69	72	77	88	56	39	32	61	33	76	88.5
27-Jan	18	12	5	4	5	4	5	4	5	5	5	5	6	6	11	20	17	29	21	78	19	10	2	0	78.2
28-Jan	0	3	2	13	1	0	0	0	0	0	8	10	2	0	21	15	20	19	18	23	21	8	8	12	22.7
29-Jan	11	23	70	63	63	67	33	19	24	16	26	22	75	93	21	19	18	25	44	48	31	37	16	56	93.3
30-Jan	9	37	50	6	13	10	6	9	8	6	7	7	8	7	7	7	7	8	8	11	14	19	9	7	50.0
31-Jan	15	25	16	13	8	16	19	26	6	30	29	26	65	12	15	13	32	65	63	35	88	64	70	25	88.3
	77.4	90.0	87.1	77.4	78.9	97.5	78.4	91.3	88.2	93.5	55.6	67.5	75.4	93.3	74.0	88.8	85.1	88.5	81.6	83.5	88.3	78.4	82.9	79.1	

P - Power Failure

# PAZA

## Monthly Passive Data Summary



## PAZA Passive Results for January 2015

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
<b>Duplicates</b>						
1a	Silver Valley	0.5	39.3	1.5		
1b	Silver Valley	0.5	42.5	1.6		
19a	Wanham	0.4	36.6	0.8		
19b	Wanham	0.4	39.9	1.1		
34a	Puskwaskau	0.1	30.3	0.8		
34b	Puskwaskau	0.2	32.0	0.6		
38a	Karr Creek	0.1	31.1	1.4		
38b	Karr Creek	0.1	27.0	1.4		
63a	Girouxville 3				0.4	
63b	Girouxville 3				0.4	
1	Silver Valley	0.5	40.9	1.5		08-27-081-11 W6M
2	Bay Tree	0.3	39.7	1.4		13-16-078-13 W6M
3	Fourth Creek	0.3	38.4	1.2		04-13-082-07 W6M
4	Gordondale	0.6	41.0	1.2		04-34-078-10 W6M
5	Boone Creek	0.3	42.8	1.1		16-36-074-11 W6M
7	Steepprock Creek	0.2	41.6	0.7		09-35-072-13 W6M
9	Spirit River	0.5	36.0	1.3		08-12-079-07 W6M
10	Woking	0.5	37.1	1.0		01-13-076-07 W6M
11	Webber Creek	0.5	32.9	2.4		09-36-074-09 W6M
12	Hythe	0.3	37.4	1.2		14-36-072-11 W6M
14	Sylvester	0.1	36.5	0.9		08-06-069-12 W6M
16	Beaverlodge	0.2	36.9	3.1		15-36-071-10 W6M
17	Poplar	0.3	37.6	2.3		13-06-073-08 W6M
18	Saddle Hills	0.3	38.8	1.7		04-25-074-07 W6M
19	Wanham	0.4	38.3	1.0		16-22-077-03 W6M
20	Shaftesbury	0.3	35.2	1.3		04-03-082-23 W5M
21	Eaglesham	0.3	36.7	1.1		16-21-079-25 W5M
23	Bear Lake	0.5	36.7	2.8		15-31-072-06 W6M
24	Wembley	0.2	42.2	2.1		12-31-070-08 W6M
25	Pinto Creek	0.1	37.7	1.3		04-24-069-11 W6M
26	Flyingshot	0.2	31.1	2.6		15-36-070-07 W6M
27	Grande Prairie I	0.3	28.6	9.8		08-15-071-06 W6M

## PAZA Passive Results for January 2015 (Continued)

28	Clairmont Lake	0.5	41.0	2.4		09-06-073-04 W6M
29	Smoky Heights	0.8	38.7	3.5		04-06-075-02 W6M
30	Fitzsimmons	0.2	32.6	2.9		15-36-072-03 W6M
32	Gold Creek	0.2	22.6	7.1		06-33-067-05 W6M
33	Wapiti	0.2	36.2	3.1		02-25-071-03 W6M
34	Puskwaskau	0.1	31.2	0.7		15-35-074-25 W5M
35	Jean Cote	0.3	41.5	1.0		12-35-079-21 W5M
36	Guy	0.2	36.4	0.8		03-04-076-22 W5M
37	Crooked Creek	0.2	35.1	2.6		16-01-071-26 W5M
38	Karr Creek	0.1	29.0	1.4		10-16-065-02 W6M
39	Clouston Creek	0.2	37.2	1.1		12-01-073-22 W5M
40	McLennan	0.2	36.3	1.3		03-29-077-19 W5M
41	Valleyview	0.2	32.7	1.8		09-30-069-22 W5M
42	Sunset House	0.3	40.7	0.8		05-32-070-19 W5M
43	High Prairie	0.1	40.9	1.3		16-13-074-17 W5M
44	Peavine	0.1	34.9	0.7		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	27.7	5.7		12-01-065-21 W5M
47	Kinuso	0.1	32.6	1.0		12-10-073-10 W5M
48	Deer Mountain	0.2	69.4	0.7		15-22-068-09 W5M
49	Grande Prairie HP	0.3	23.5	14.5		17-26-071-06 W6M
50	East Prairie	0.1	32.5	0.7		13-02-072-15 W5M
63	Girouxville 3				0.4	14-02-077-23 W5M
64	Girouxville 4				0.4	4-08-077-22 W5M

\*BDL = Below Detection Level

\*NS - No sample

## Passive Summary for January 2015

Stats	Sulphur Dioxide SO <sub>2</sub>	Ozone O <sub>3</sub>	Nitrogen Dioxide NO <sub>2</sub>	Hydrogen Sulphide H <sub>2</sub> S
	ppb	ppb	ppb	ppb

Passive Summary for January 2015 (PAZA Zone)				
Mean	0.3	36.2	2.2	0.3
Standard Deviation	0.2	7.6	2.6	0.2
Minimum	0.1	15.5	0.3	0.1
Minimum At	Gift Lake (#45)	Gift Lake (#45)	Gift Lake (#45)	Gift Lake (#45)
Maximum	0.8	69.4	14.5	0.4
Maximum At	Smoky Heights (#29)	Deer Mountain (#48)	Grande Prairie HP	Girouxville 4 (#64)

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

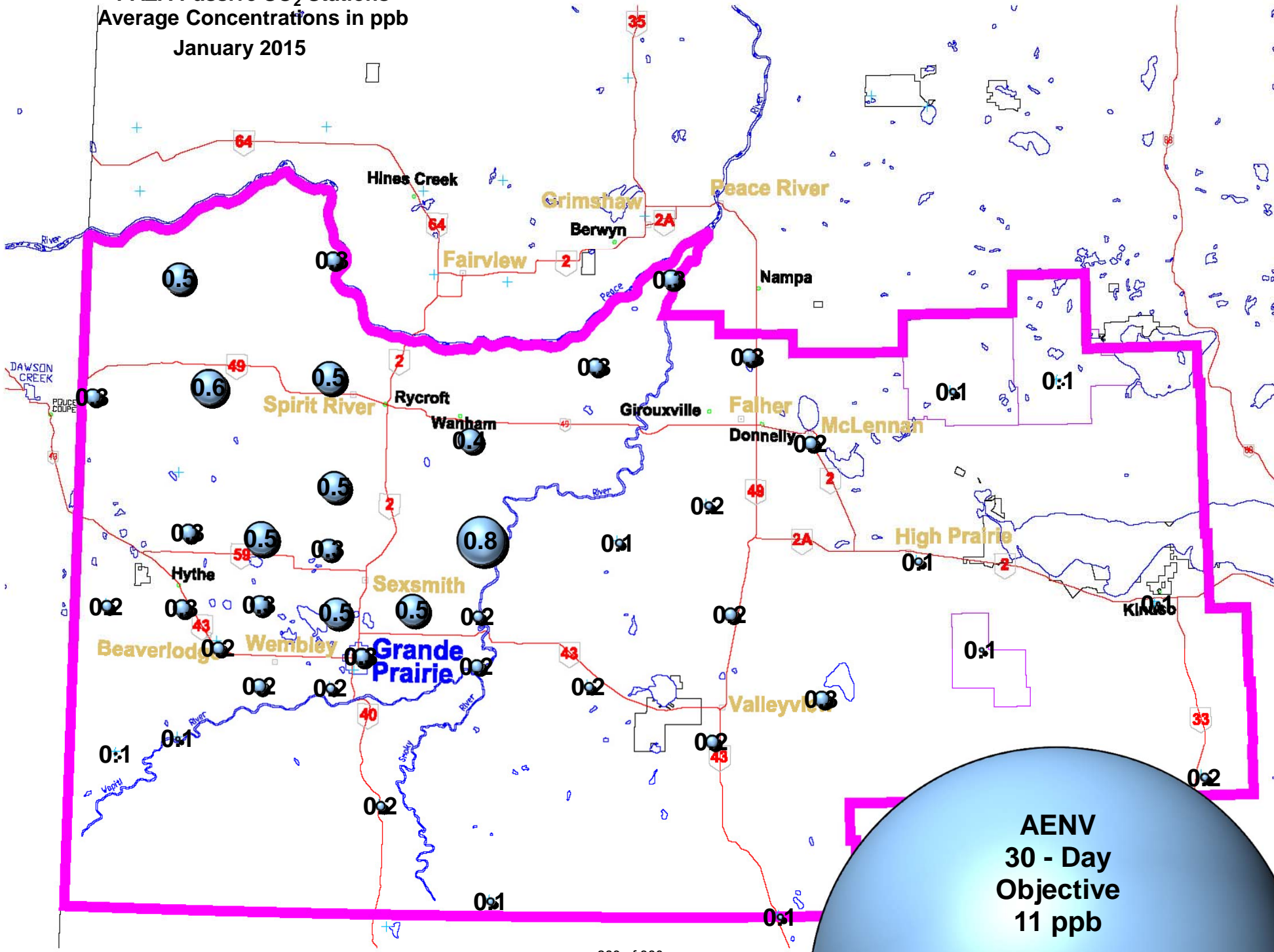
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PAZA Beaverlodge station	0.3	27.3	5.9
PAZA Beaverlodge passive	0.2	36.9	3.1

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

	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PAZA Henry Pirker station	0.4	14.7	20.3
PAZA Grande Prairie passive	0.3	23.5	14.5

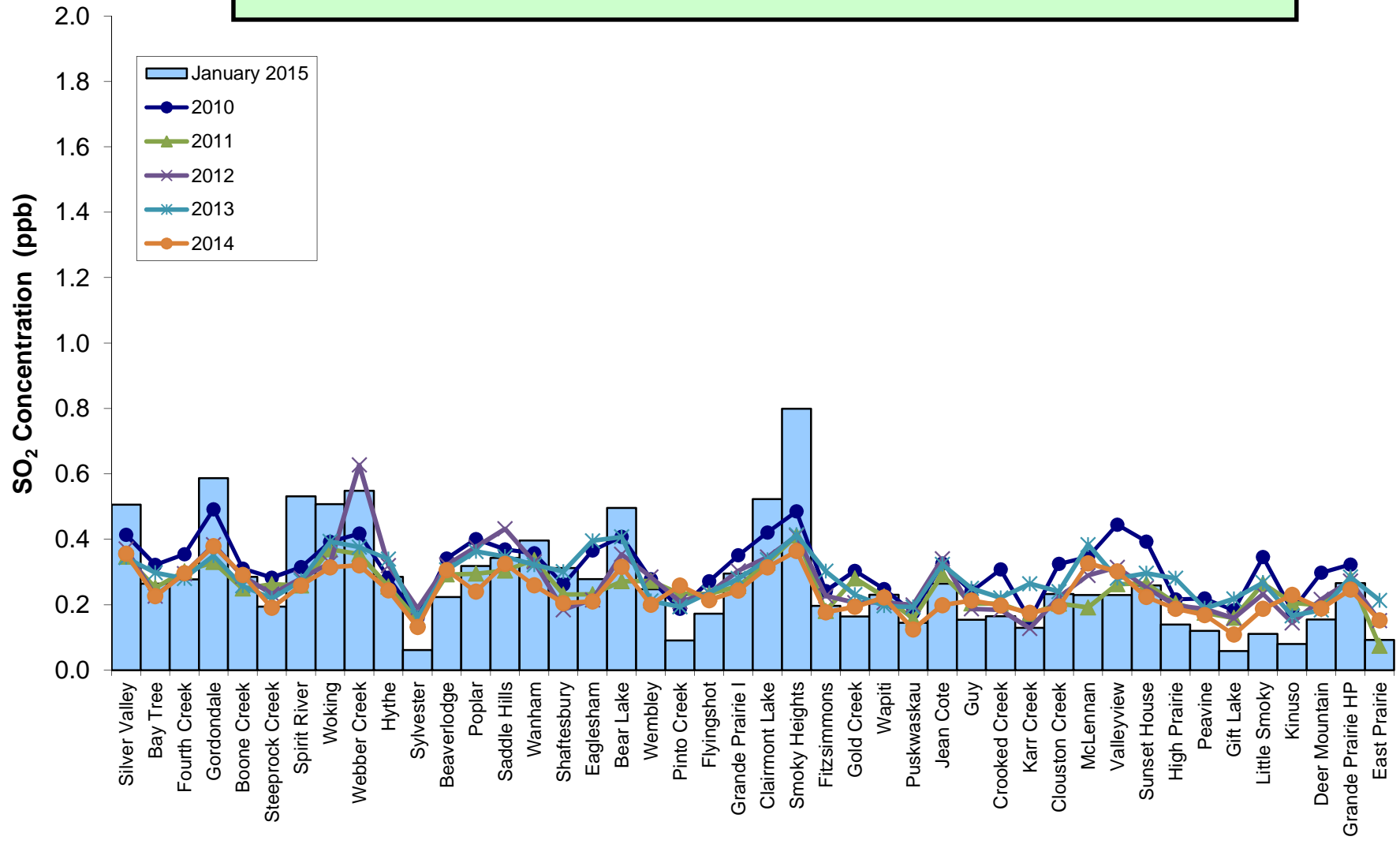


PAZA Passive SO<sub>2</sub> Stations  
Average Concentrations in ppb  
January 2015



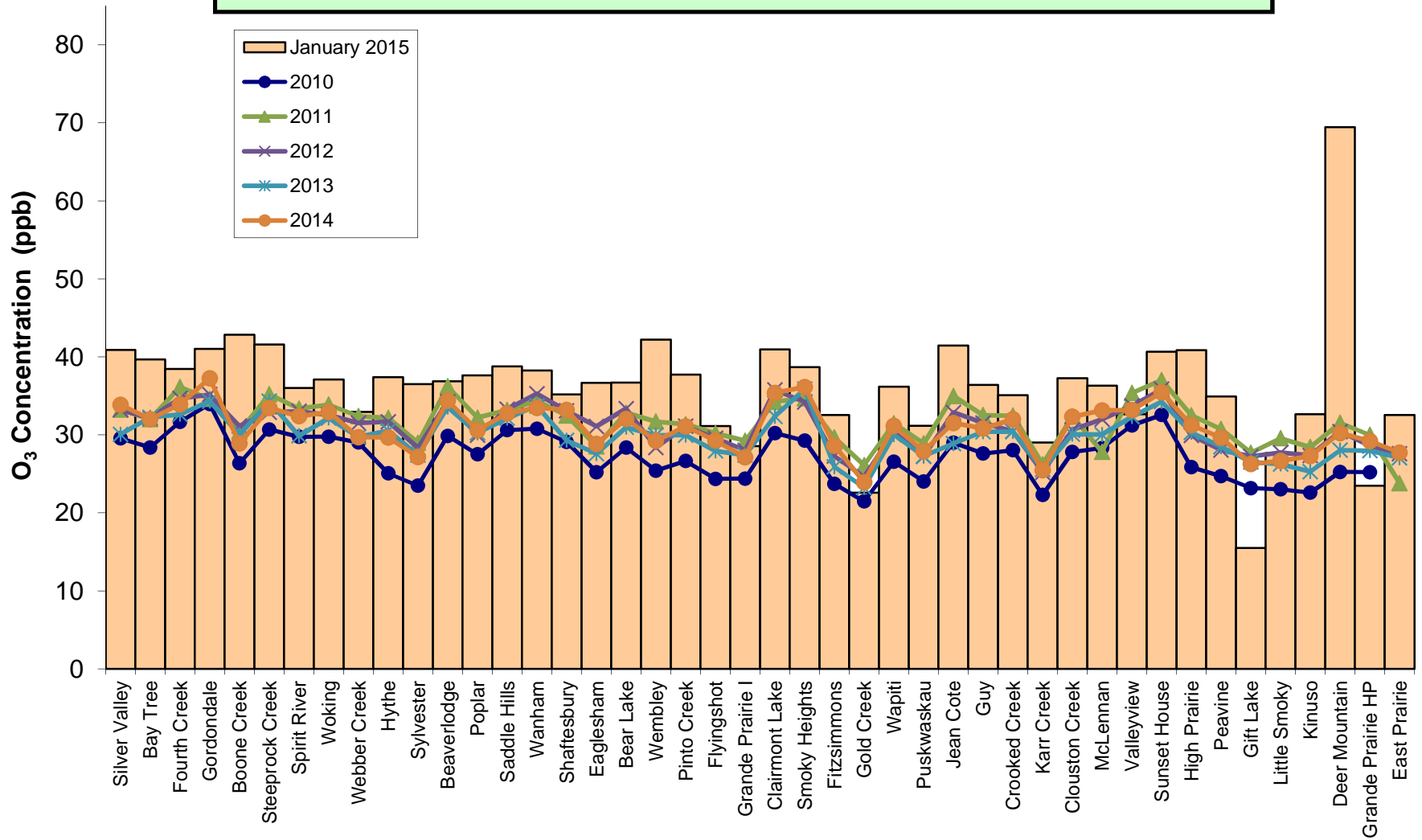
**AENV  
30 - Day  
Objective  
11 ppb**

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





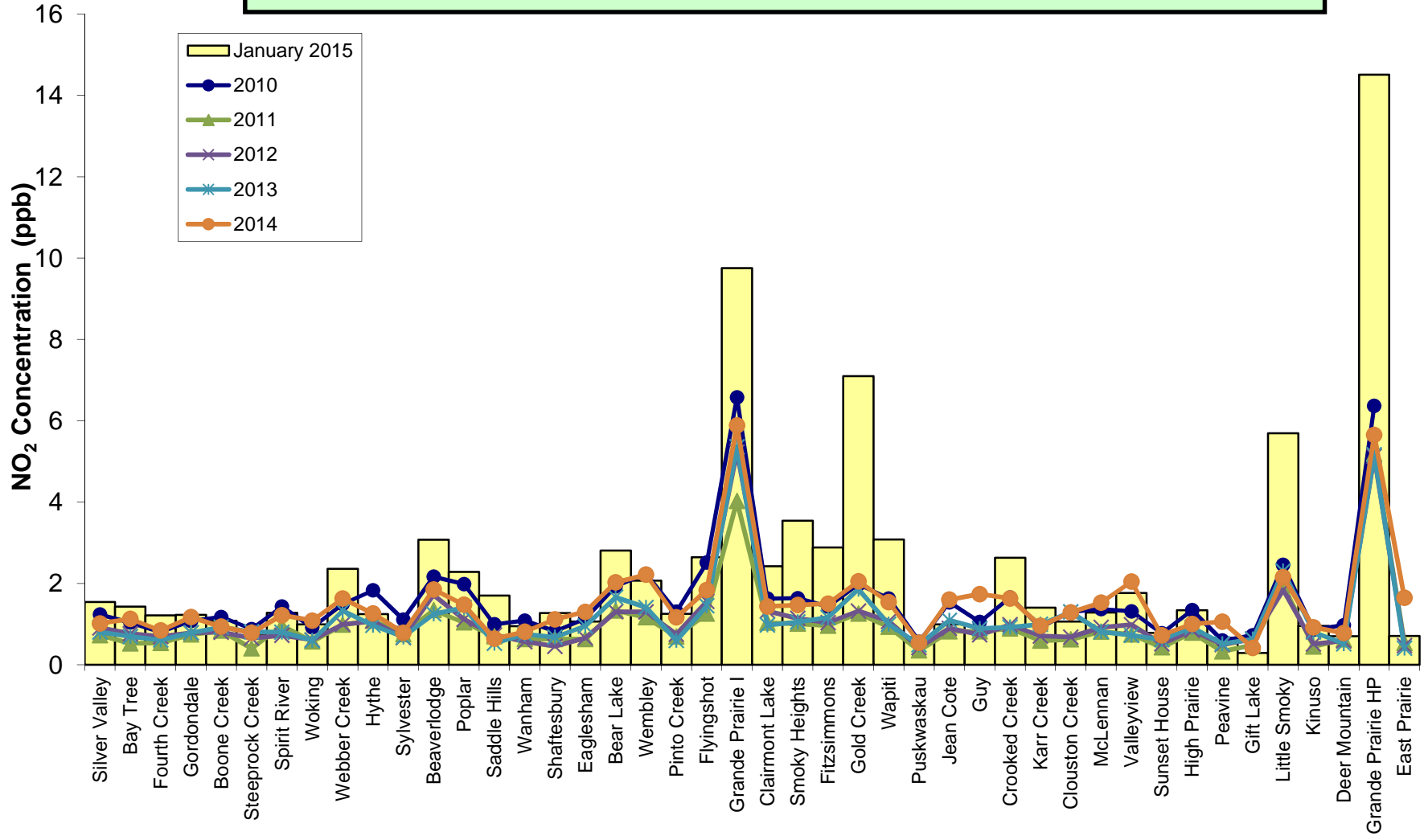
## Alberta Ambient Air Quality Objective - No Annual O<sub>3</sub> Objective



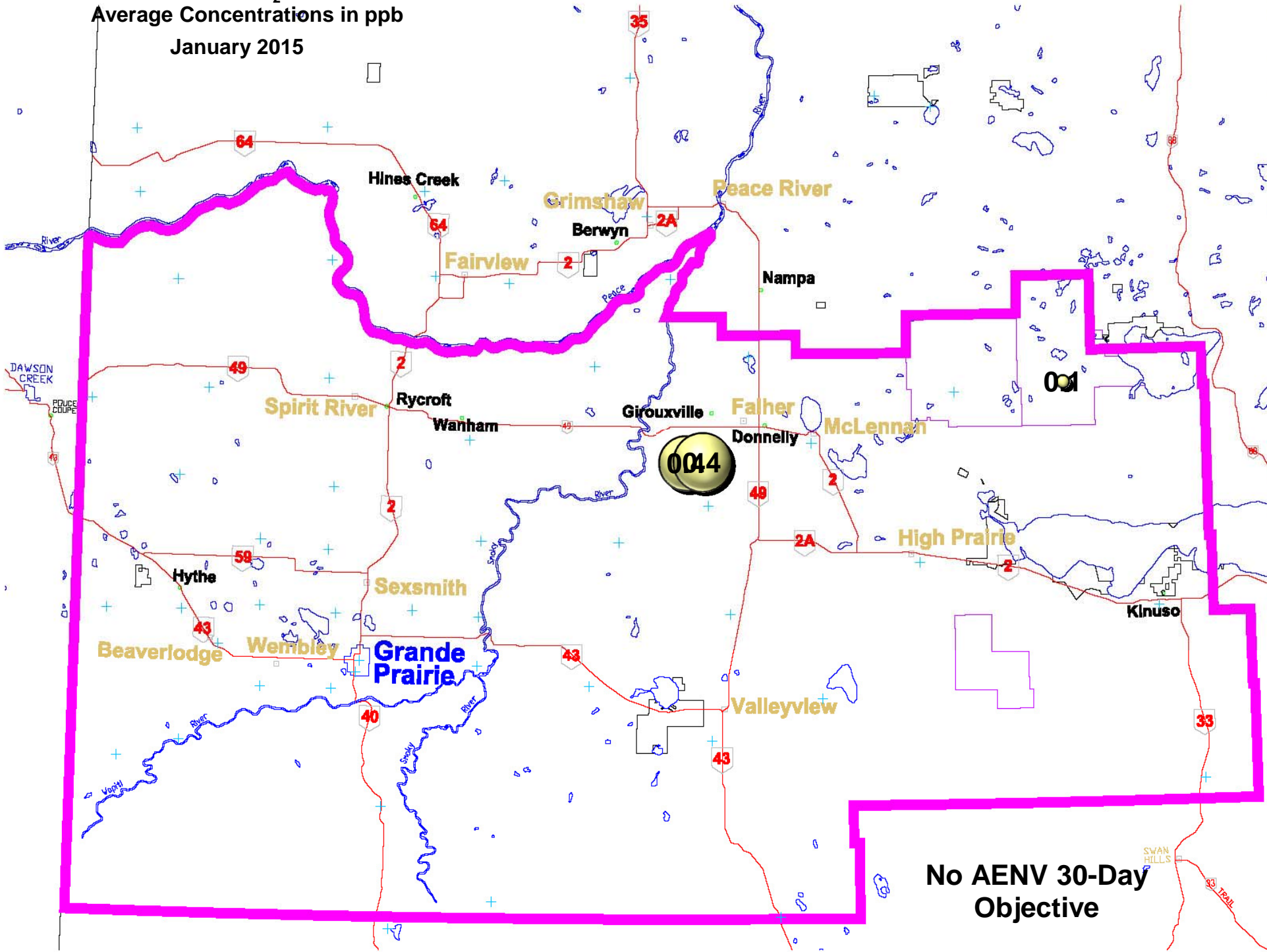


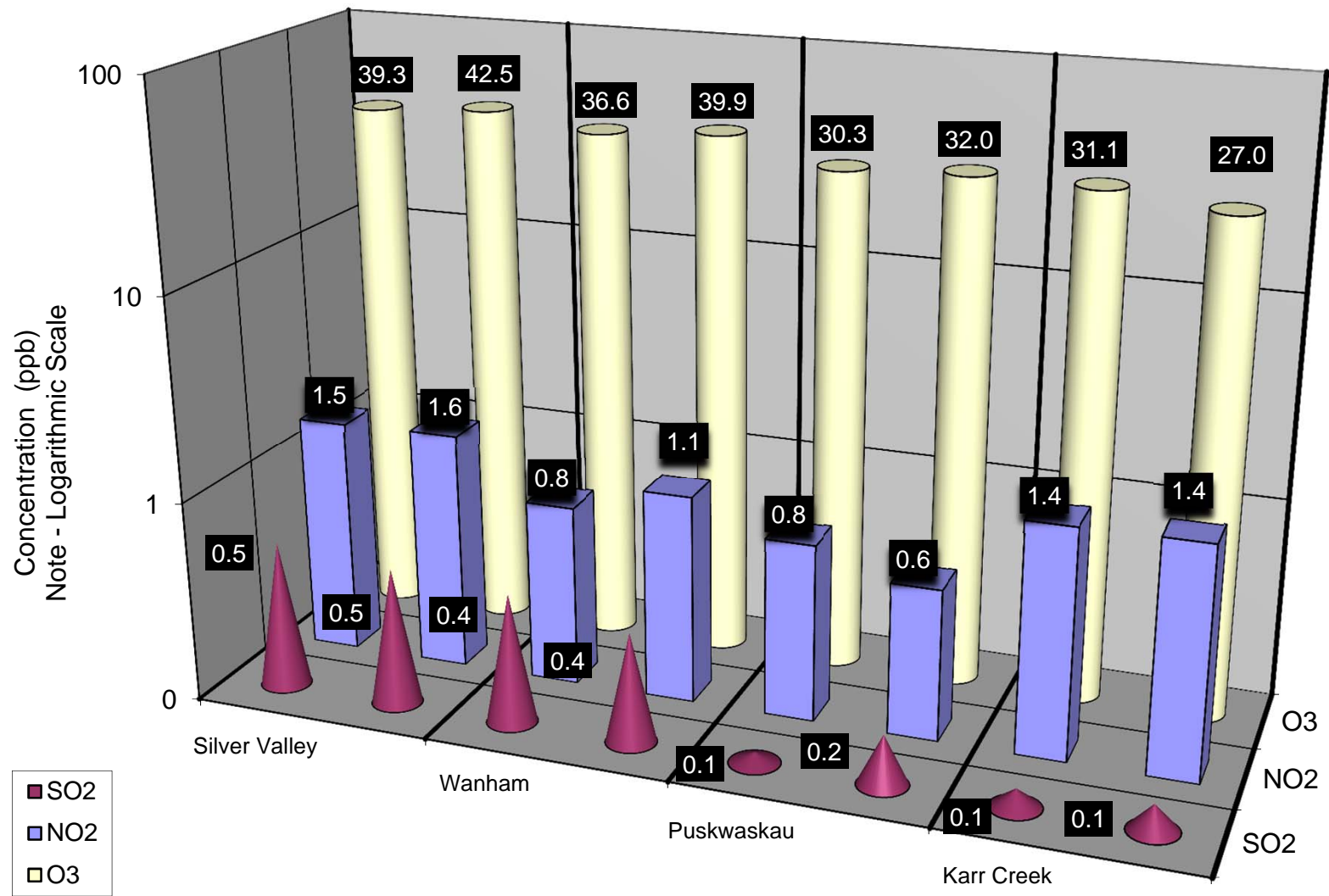


**Alberta Ambient Air Quality Objective - Annual NO<sub>2</sub> Objective is 24 ppb**



**PAZA Passive H<sub>2</sub>S Stations  
Average Concentrations in ppb  
January 2015**





Duplicate Summary Chart



# PAZA

## **ALBERTA ENVIRONMENT AND SUSTAINABLE RESOURCES INCIDENCE REPORT**

### **January 2015**

## Air Monitoring Directive Exceedence Report

Alberta Environmental Monitoring, Evaluation and Reporting Agency

Energy & Environmental Response

111 Twin Atria Building

4999 – 98<sup>th</sup> Avenue

Edmonton, Alberta T6B 2X3

[erc.environment@gov.ab.ca](mailto:erc.environment@gov.ab.ca)

Phone: (780) 422-4505

Fax: (780) 427-1044

<b>Reference Number:</b>	295699	<b>Reported To (AESRD Contact):</b>	Natasha
<b>Date &amp; Time Incident Reported to AESRD:</b>	March 9, 2015	<b>Reported By:</b>	Patrick Andersen
<b>Reported on Behalf of:</b>	Paza	<b>Approval Number (if applicable):</b>	
<b>Location(s) of Incident:</b>	Falher		
<b>Start Date &amp; Time of Incident:</b>	Jan 9 2015 13:18	<b>End Date &amp; Time of Incident:</b>	Jan 13 2015 13:00
<b>Reason or Nature of Incident:</b>			
Sample pump failed. Replacement pump that was sent was not compatible (mounting hole pattern changed part way through model year) and delay in obtaining correct unit yielded insufficient uptime.			
<b>Immediate Actions Taken:</b>			
Pump replaced.			
<b>Investigation Details:</b>			
<b>Actions Taken to Prevent Reoccurrence (if any):</b>			
<b>Additional Actions Required (if any):</b>			
<b>Report Completed By:</b>	Patrick Andersen	<b>Date Report Submitted:</b>	Mar 9 2015
<b>7-Day Letter Due Date:</b>	Mar 16 2015		

# January 2015 Calibration Reports

**PAZA - Henry Pirker Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, CO, THC, TRS, PM2.5**

**PAZA – Evergreen Park Station with the following calibrations:  
SO<sub>2</sub>, TRS, PM2.5**

**PAZA – Smoky Heights Station with the following calibrations:  
SO<sub>2</sub>, TRS**

**PAZA – Beaverlodge Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, PM2.5**

**PAZA – Valleyview Station with the following calibrations:  
SO<sub>2</sub> & H<sub>2</sub>S**

**PAZA – Falher Station with the following calibrations:  
SO<sub>2</sub> & H<sub>2</sub>S**

**PAZA – Clairmont Station with the following calibrations:  
SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, THC, TRS, PM2.5**

# Calibration Report



AIR QUALITY MONITORING

Parameter SO2

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 14, 2015	Previous Calibration	December 3, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:50	End Time (MST)	13:16:00 PM
Barometric Pressure	705.000 mm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	50.2 ppm	Cal Gas Cert Date	March 10, 2017
		Cal Gas Cylinder #	LL119493
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	0.993185	Calculated slope	1.000526
Calculated intercept	1.653782	Calculated intercept	1.657738
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.9		9.9	
Coefficient	0.764		0.764	
Pressure	645.3	mm Hg	645.9	mm Hg
Flow	0.482	lpm	0.483	lpm
Lamp intensity	43615	Hz	44018	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	398.1	397.1	1.0026
4995	19.97	199.9	197.4	1.0129
4995	9.97	100.0	96.5	1.0361
4995	0.00	0.0	0.1	As Found Zero
4995	39.93	398.1	397.1	As Found Span
Average Correction Factor				1.0172

Calculated value of As Found Response: 395.9 ppb      Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.0	ppb
Auto span	323.8	ppb	325.8	ppb

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary



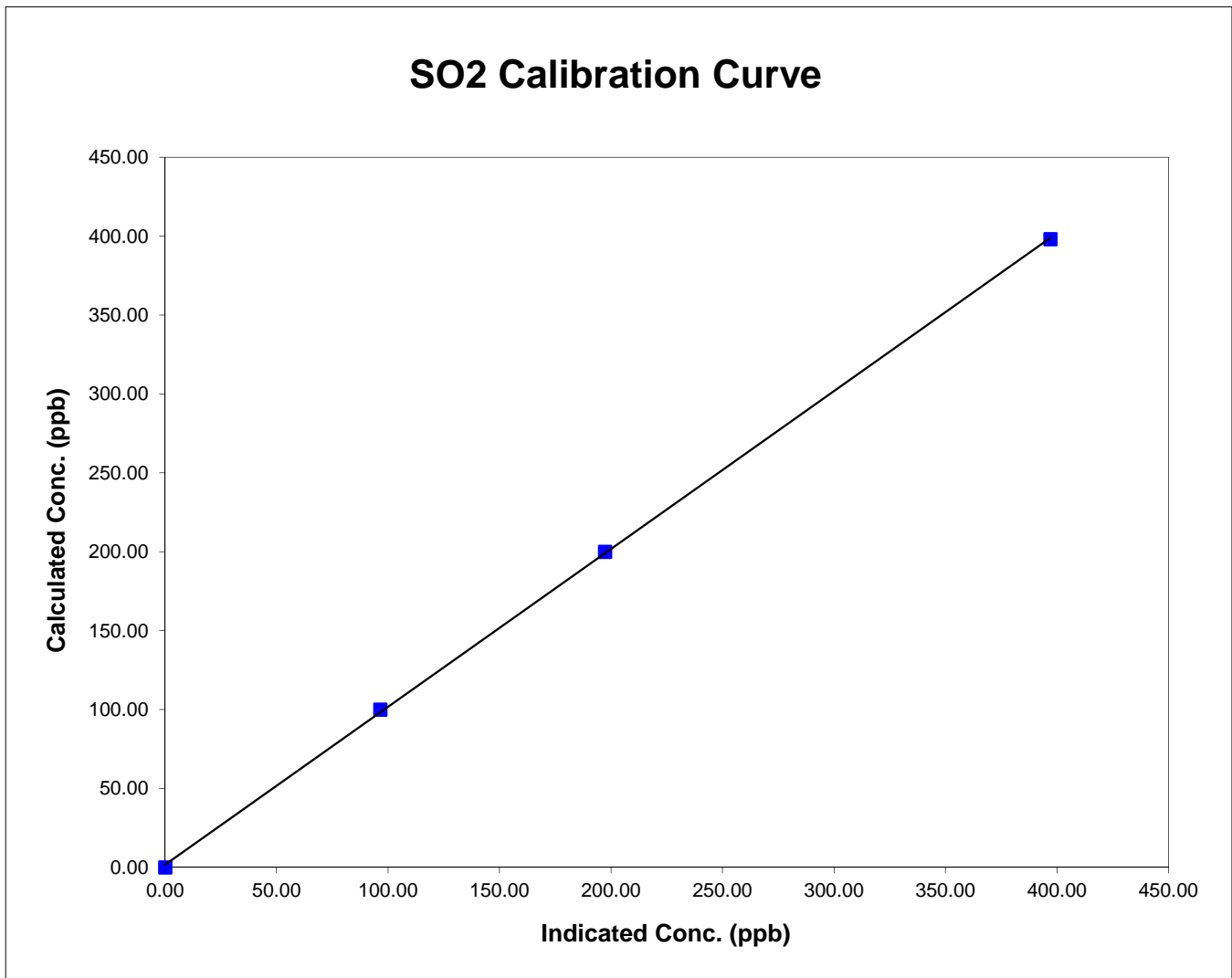
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

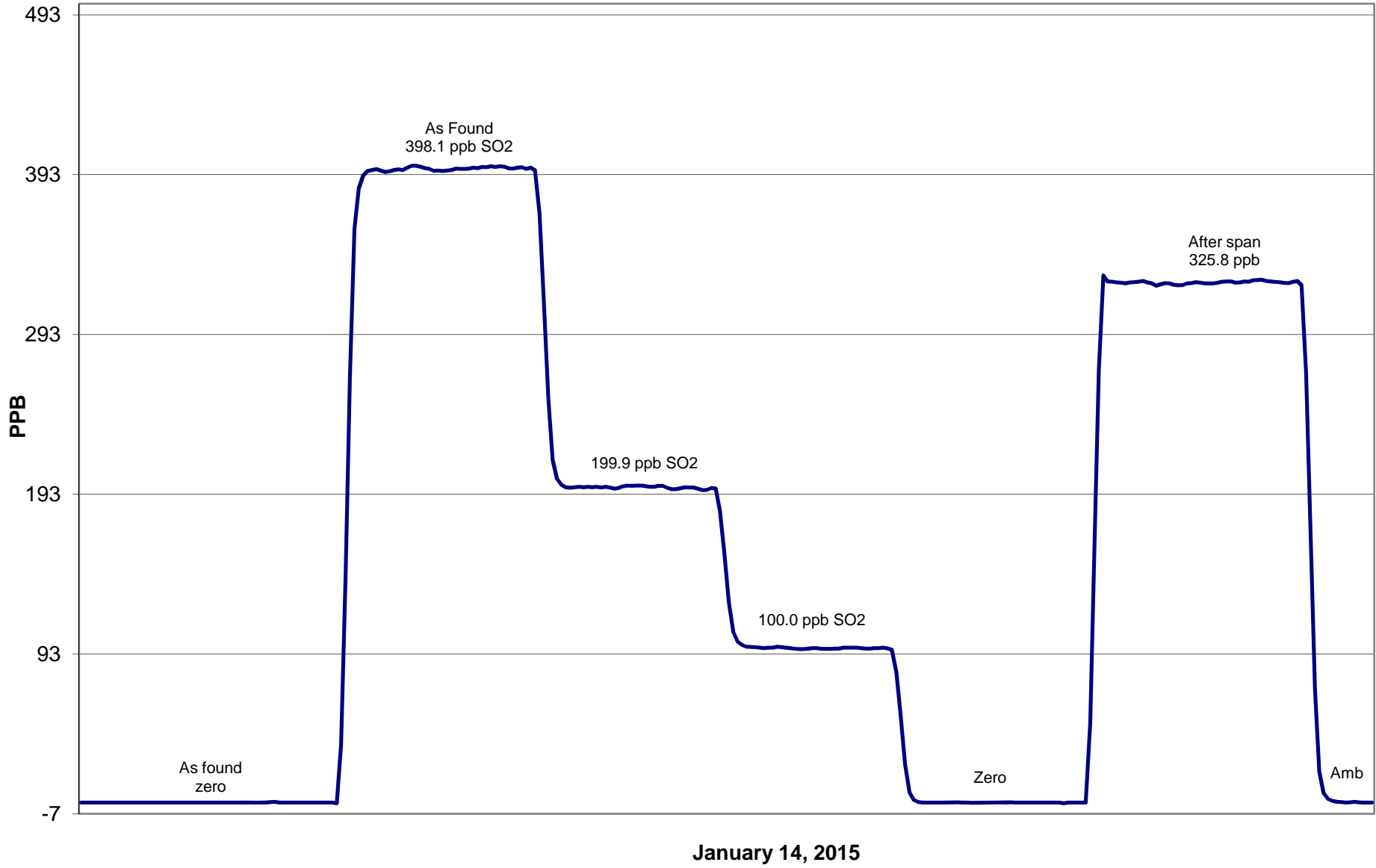
Calibration Date	January 14, 2015	Previous Calibration	December 3, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:50	End Time (MST)	13:16:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999914
398.1	397.1	1.0026		
199.9	197.4	1.0129	Slope	1.000526
100.0	96.5	1.0361		
			Intercept	1.657738



# SO2 Calibration





# Calibration Report



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

## Station Information

Calibration Date: January 14, 2015      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	0.0	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	405.4	405.9	-0.1	1.0013	0.9943
2	4995	19.96	203.8	202.6	1.2	201.5	201.2	0.0	1.0116	1.0070
3	4995	9.93	101.6	101.0	0.6	98.8	99.0	0.1	1.0279	1.0198
AFZ	4995	0.00	0.0	0.0	0.0	0.0	0.1	0.0	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	405.4	405.9	-0.1	1.0013	0.9943
Average Correction Factor									1.0136	1.0070

As Found Concentrations:      NO<sub>x</sub>= 406.6      NO= 405.7      As Found Percent Change      NO<sub>x</sub>= 0.2%      NO= 0.5%

## 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	0.1	0.1	0.0	0.0	0.1	0.0	N/A	N/A	N/A	N/A
NO point	404.6	404.6	0.0	404.7	404.6	0.0	0.9997	1.0000	N/A	N/A
300	404.6	94.5	310.1	403.0	94.5	308.5	1.0039	1.0000	1.0052	99.5%
200	404.6	194.5	210.0	403.8	194.5	208.4	1.0018	1.0000	1.0077	99.2%
100	404.6	295.0	109.6	404.5	295.0	108.5	1.0003	1.0000	1.0107	98.9%
Average Correction Factor							1.0020	1.0000	1.0079	99.2%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	0.0	0.1	ppb	0.0	0.0	0.2	ppb
Auto span	367.3	364.7	2.4	ppb	370.5	367.5	2.5	ppb

Calibration Performed By: Grover Christiansen, Dmytro Dolotii



# Calibration Summary



Parameter NO<sub>2</sub>  
 Air Monitoring Network 0

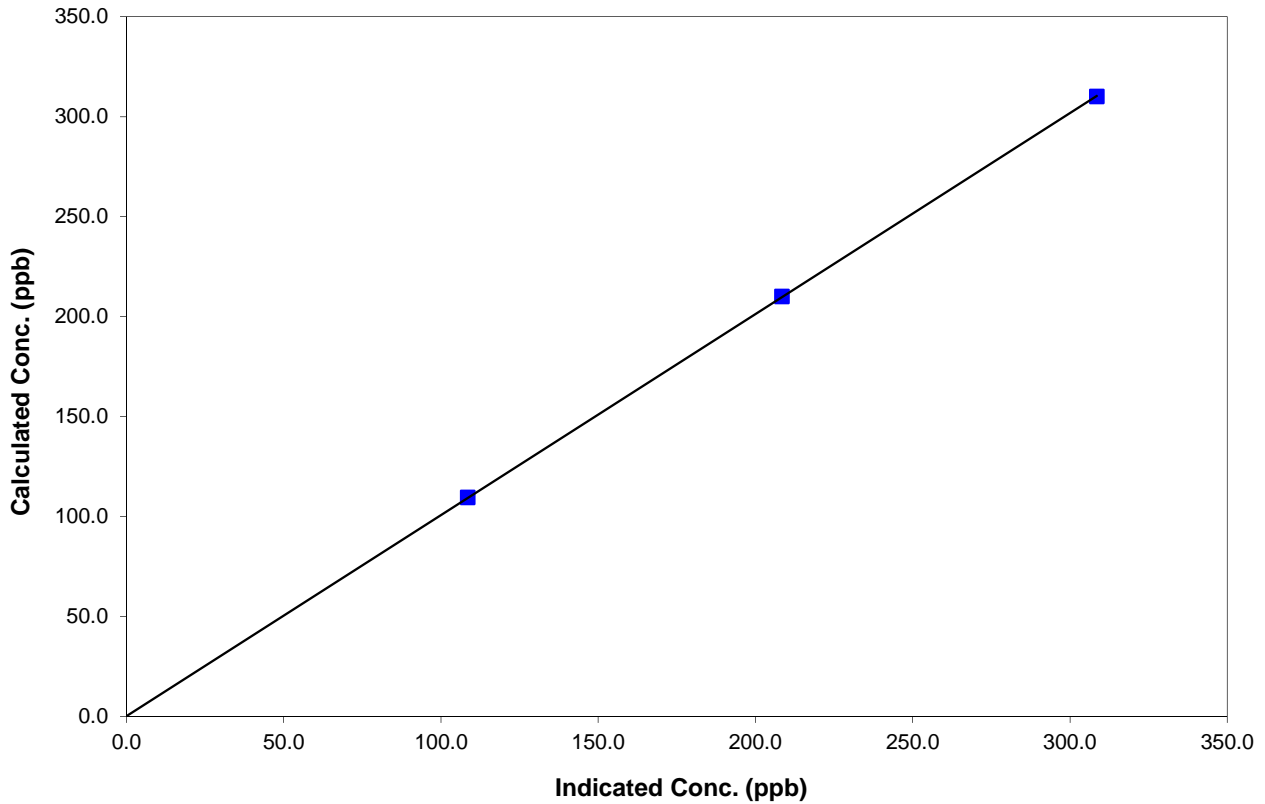
## Station Information

Calibration Date	January 14, 2015	Previous Calibration	December 24, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:55	End Time (MST)	15:00:00 PM
Analyzer make	42i	Analyzer serial #	906535087

## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999994
310.1	308.5	1.0052		
210.0	208.4	1.0077		
109.6	108.5	1.0107	Slope	1.005207
			Intercept	0.283849

### NO<sub>2</sub> Calibration Curve



# Calibration Summary



Parameter NO<sub>x</sub>  
 Air Monitoring Network 0

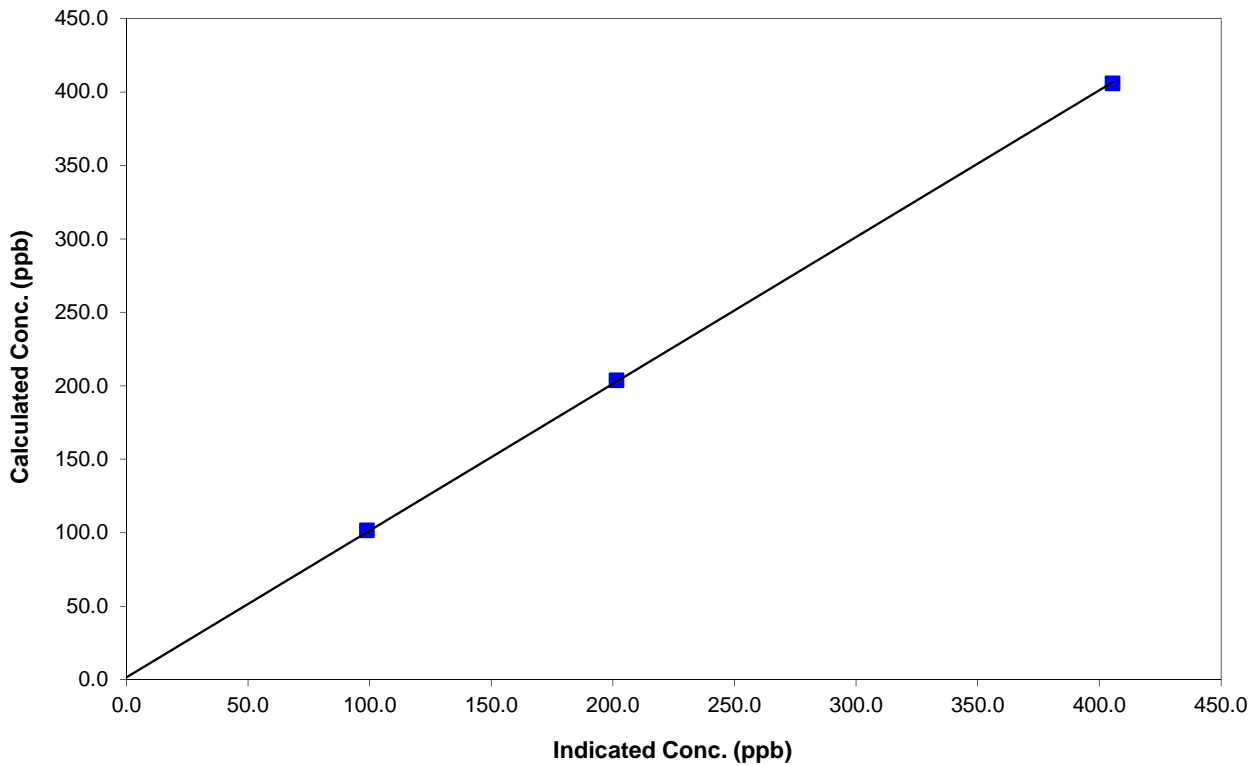
### Station Information

Calibration Date	January 14, 2015	Previous Calibration	December 24, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:55	End Time (MST)	15:00:00 PM
Analyzer make	42i	Analyzer serial #	906535087

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999941
405.9	405.4	1.0013		
203.8	201.5	1.0116		
101.6	98.8	1.0279	Slope	0.999489
			Intercept	1.501944

### NO<sub>x</sub> Calibration Curve



# Calibration Summary



Parameter NO  
 Air Monitoring Network 0

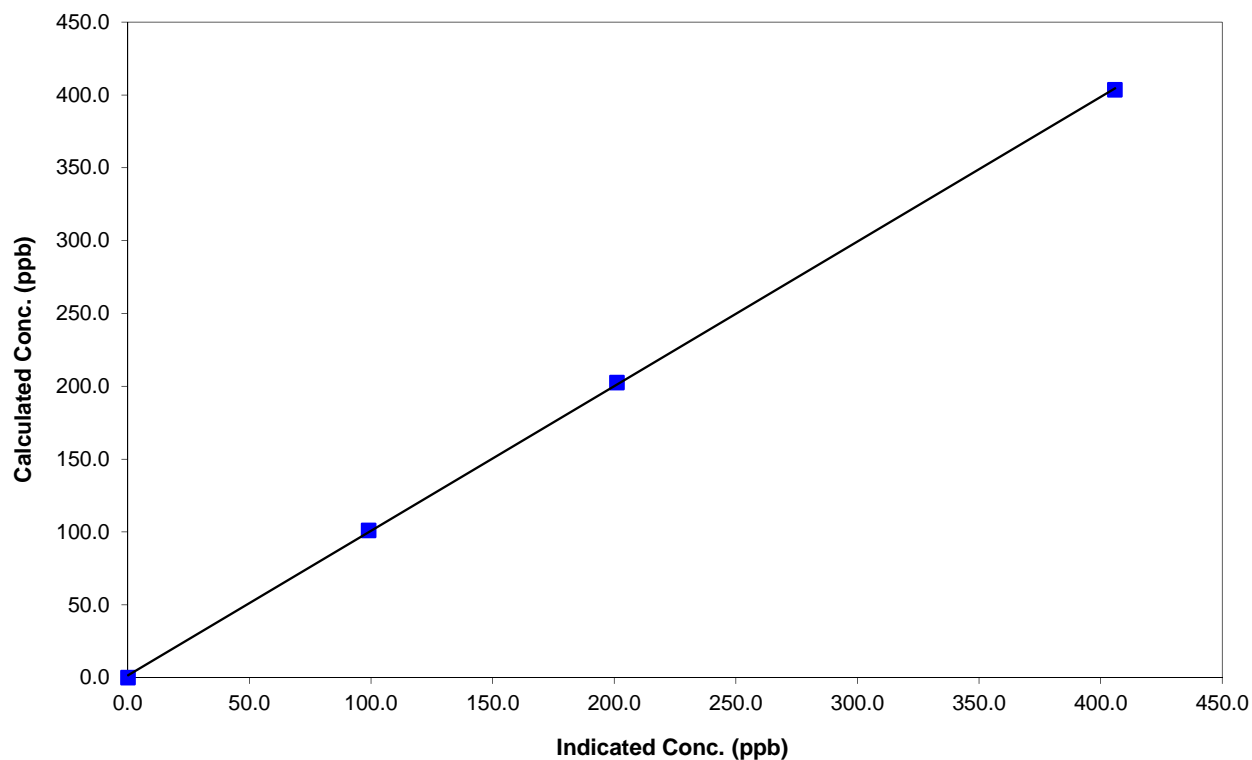
## Station Information

Calibration Date	January 14, 2015	Previous Calibration	December 24, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:55	End Time (MST)	15:00:00 PM
Analyzer make	42i	Analyzer serial #	906535087

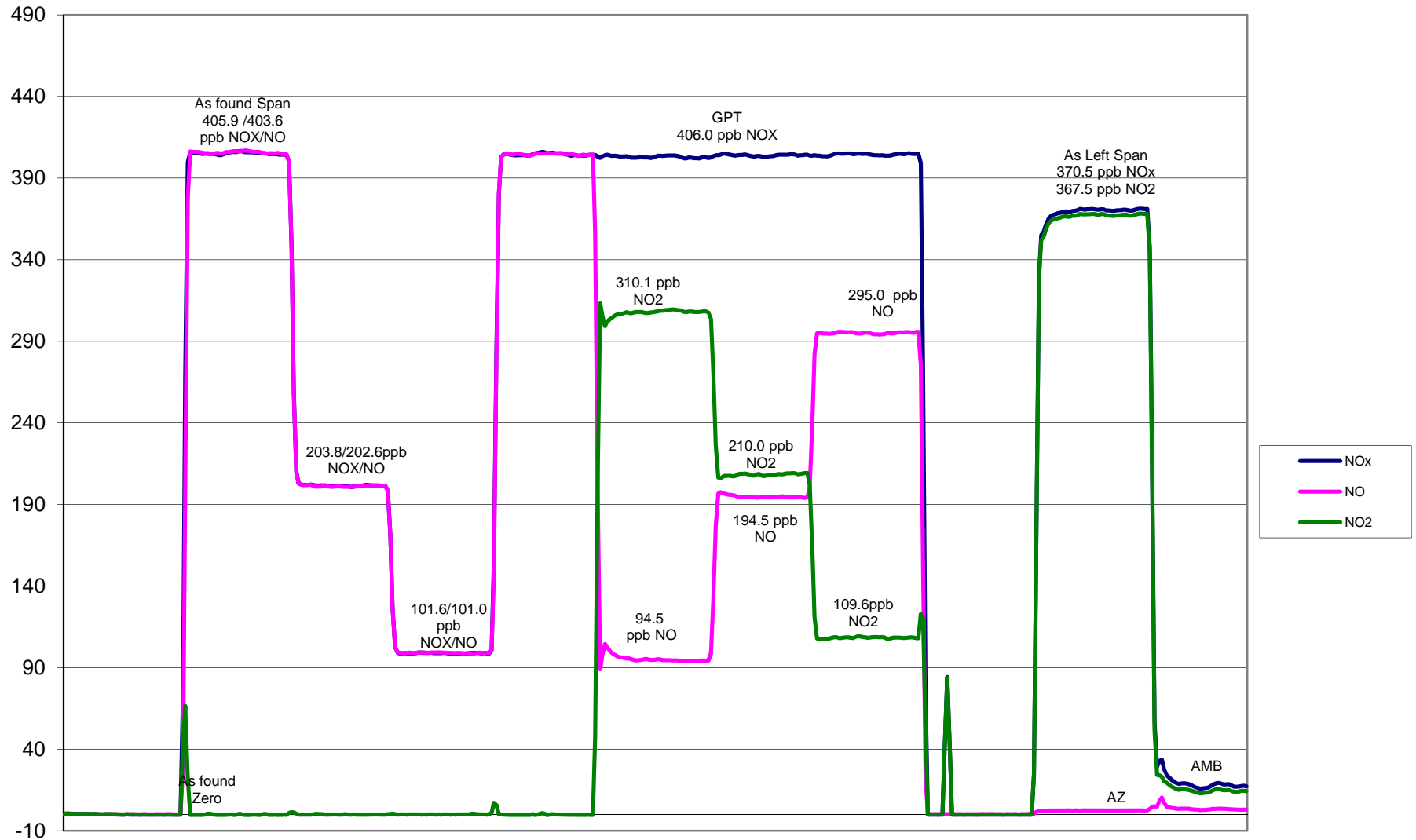
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999925
403.6	405.9	0.9943		
202.6	201.2	1.0070	Slope	0.993078
101.0	99.0	1.0198		
			Intercept	1.447673

## NO Calibration Curve



# NO<sub>x</sub> Calibration



January 14, 2015

# Calibration Report



AIR QUALITY MONITORING

Parameter 03

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 14, 2015	Previous Calibration	December 3, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	13:35:00 PM	End Time (MST)	16:10:00 PM
Barometric Pressure	705.000 mm	Station Temperature	20.5 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	1.001005	Calculated slope	0.998424
Calculated intercept	0.318984	Calculated intercept	0.212338
Analyzer make	Teco 49C	Analyzer serial #	607415761

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.30	ppb	-0.30	ppb
slope	1.008		1.008	
Lamp temp	57	mV	57	mV
Lamp Intensity A/B	104987/98760	mV	106020/99659	mV
Pressure	674.4	mm Hg	681.2	mm Hg
Flow A	0.723	ccm	0.727	ccm
Flow B	0.723	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	0.3	N/A
5035	0.3	310.1	311.1	0.9969
5035	0.2	210.0	209.3	1.0035
5035	0.1	109.6	109.2	1.0033
5035	0.0	0.0	0.3	As found zero
5035	0.3	310.1	311.1	As found span
Average Correction Factor				1.0012

Calculated value of As Found Response: 311.4 ppm      Percent Change of As Found: 0.4%

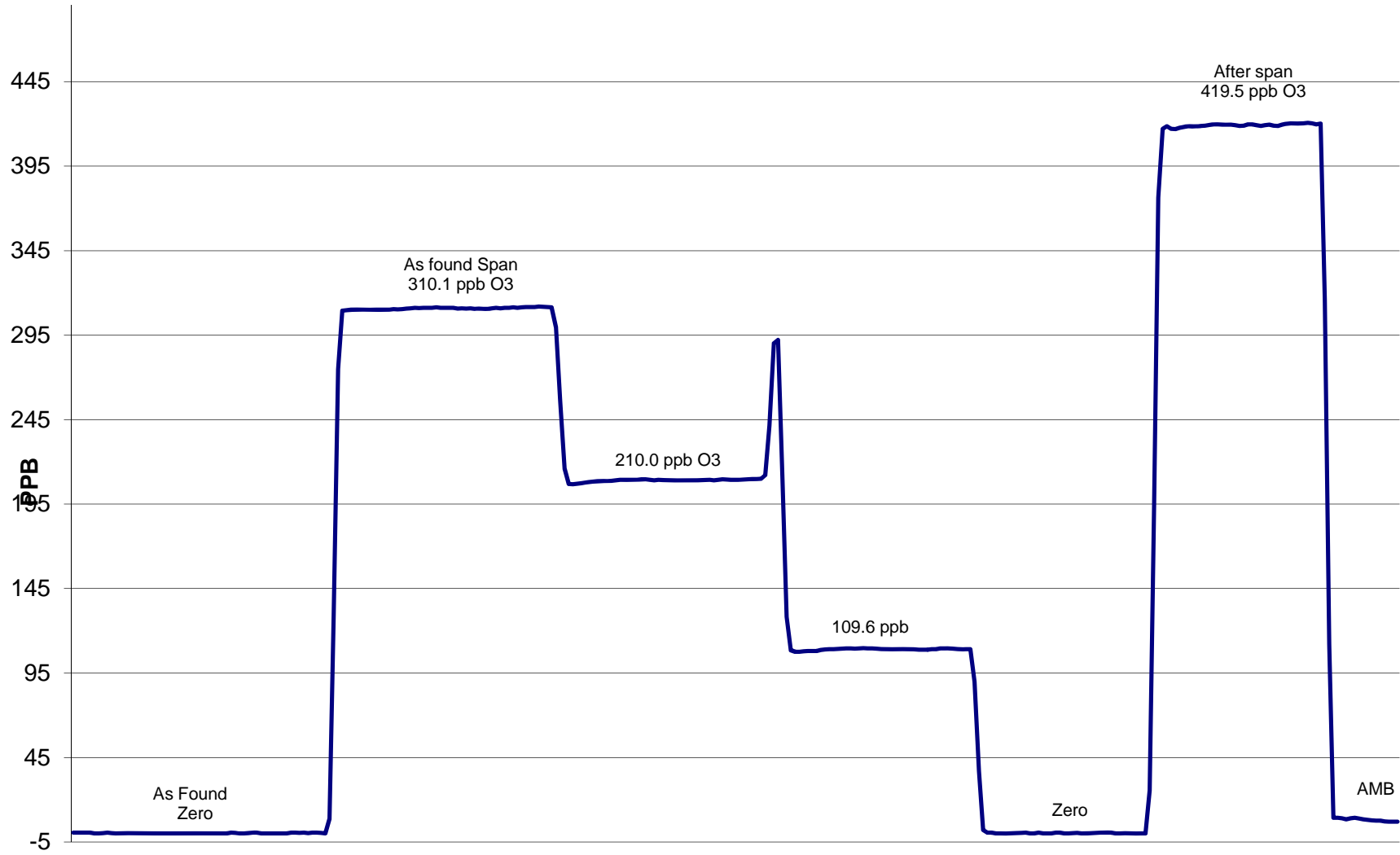
	before calibration		after calibration	
Auto zero	0.4	ppb	0.5	ppb
Auto span	461.3	ppb	419.5	ppb

Notes: No adjustments made  
Calibrator glitched on the second dilution point, which caused a spike

Calibration Performed By: Dmytro Dolotii, Grover Christiansen



# O3 Calibration



January 14, 2015

# Calibration Report



Parameter CO  
 Air Monitoring Network PAZA

## Station Information

Calibration Date	January 9, 2015	Previous Calibration	December 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<input type="checkbox"/> Routine	<input type="checkbox"/> Install	<input checked="" type="checkbox"/> Removal
Other:			
Start Time (MST)	12:30	End Time (MST)	15:45:00 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
	<u>Before</u>		<u>After</u>
Calculated slope	0.990047	Calculated slope	0.999079
Calculated intercept	0.110316	Calculated intercept	0.008215
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	1.635		1.890	
CO span setting	1.016		1.016	
Sample pressure	684.5	mm Hg	688.4	mm Hg
Sample Flow	1.125	LPM	1.128	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	0.11	N/A
4995	69.94	40.02	40.11	0.9976
4995	34.96	20.14	20.07	1.0036
4995	17.96	10.38	10.28	1.0098
4995	0.00	0.00	0.27	As Found Zero
4995	69.94	40.02	40.88	As Found Span
Average Correction Factor				1.0037

Calculated value of As Found Response: 40.316 ppm      Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.42	ppm	19.17	ppm

Notes: Zero adjustment made

---



---

Calibration Performed By: Dmytro Dolotii, Grover Christiansen



# Calibration Summary



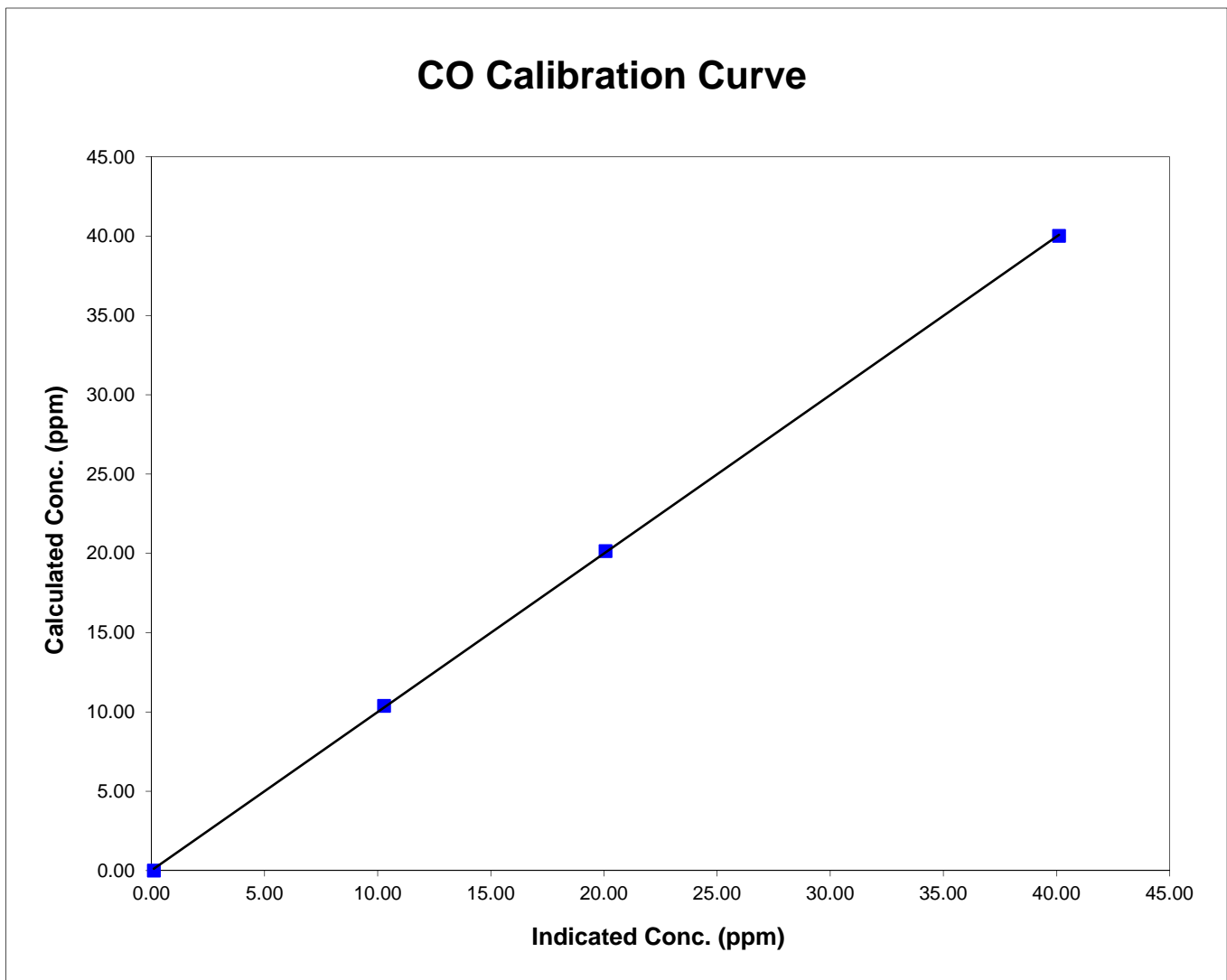
Parameter CO  
 Air Monitoring Network PAZA

### Station Information

Calibration Date	January 9, 2015	Previous Calibration	December 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:30	End Time (MST)	15:45:00 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	0.109	N/A		
40.017	40.113	0.9976	Correlation Coefficient	0.999959
20.142	20.070	1.0036		
10.383	10.282	1.0098	Slope	0.999079
			Intercept	0.008215



# Calibration Report



AIR QUALITY MONITORING

Parameter CO

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 23, 2015	Previous Calibration	January 9, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	9:20	End Time (MST)	17:00:00 PM
Barometric Pressure	718.0 mm/hg	Station Temperature	22.0 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 - 5 volt	DACS channel #	9
	Before		After
Calculated slope		Calculated slope	0.989425
Calculated intercept		Calculated intercept	0.229352
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting			0.877	
CO span setting			1.0008	
Sample pressure		mm Hg	689.6	mm Hg
Sample Flow		LPM	0.454	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	40.35	0.9918
4995	34.96	20.14	19.96	1.0093
4995	17.96	10.38	10.05	1.0329
4995	0.00	0.00	0.01	As Found Zero
4995	69.94	40.02	40.35	As Found Span
Average Correction Factor				1.0113

Calculated value of As Found Response: NA ppm Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero		ppm	0.03	ppm
Auto span		ppm	19.97	ppm

Notes: As found/zero span for the old analyzer to prove that data is letimate  
Performed instal calibration on the new unit,wired it to the data logger for daily zero/span checks

Calibration Performed By: Dmytro Dolotii,Grover Christiansen

# Calibration Summary



Parameter CO  
 Air Monitoring Network PAZA

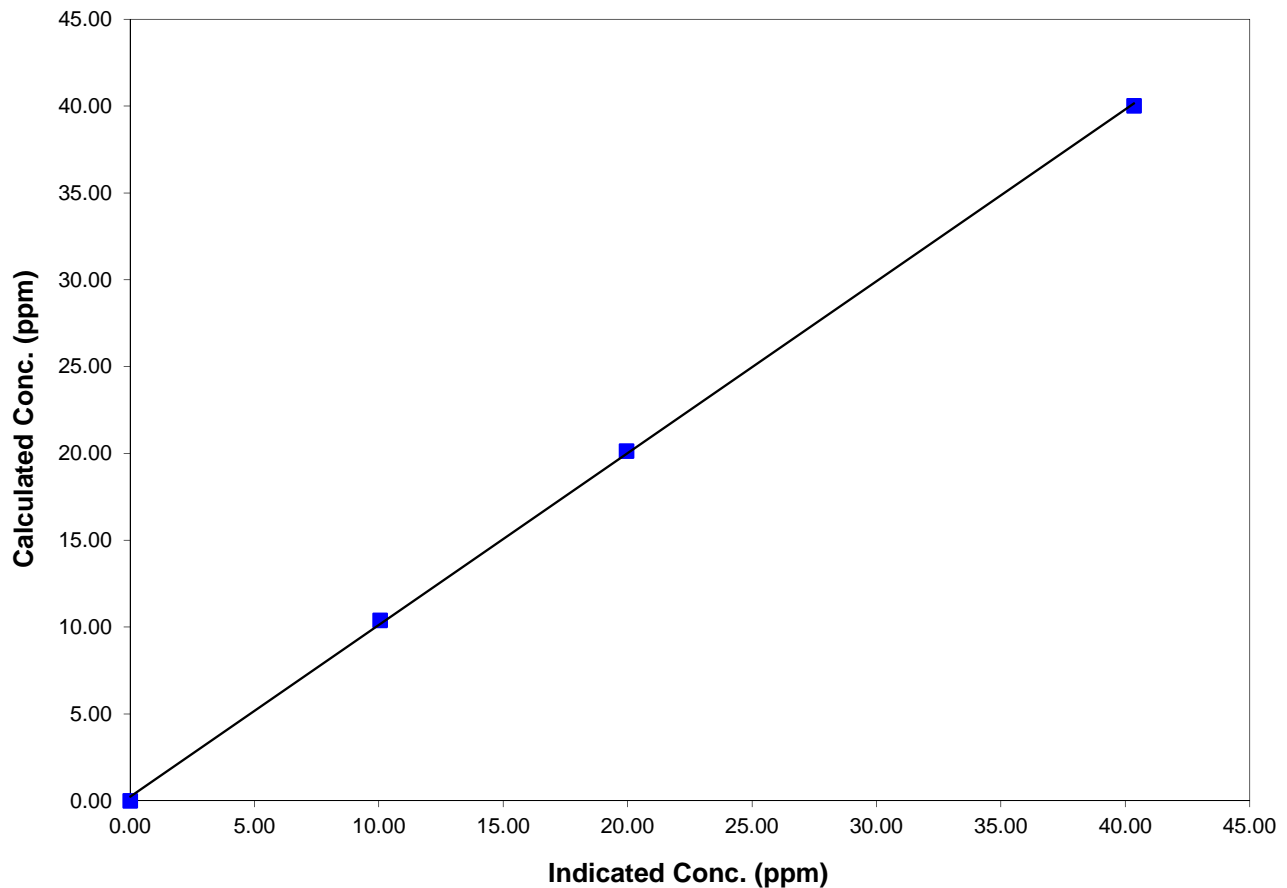
### Station Information

Calibration Date	January 23, 2015	Previous Calibration	January 9, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	17:00:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

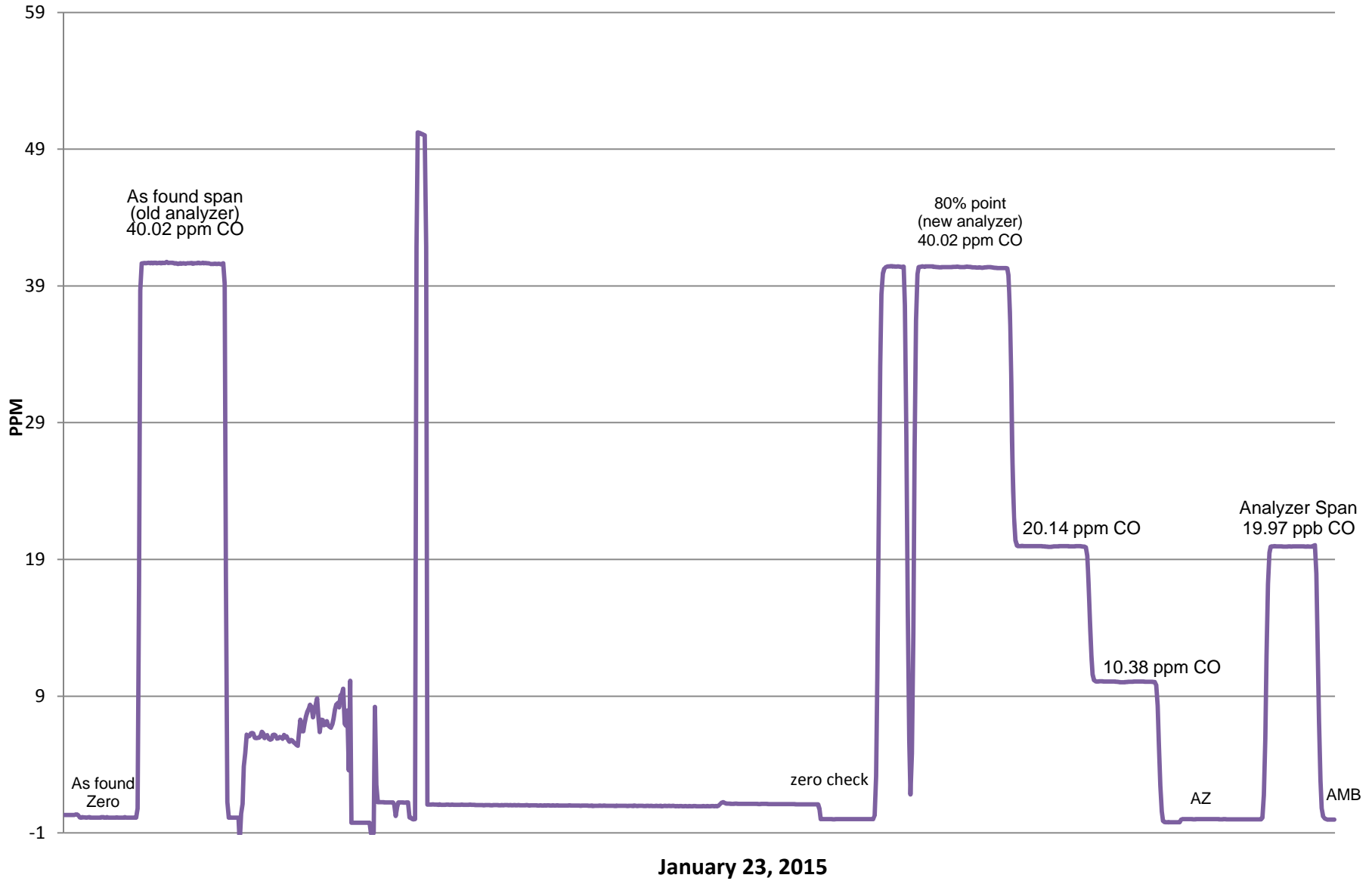
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.012	N/A	Correlation Coefficient	0.999831
40.017	40.350	0.9918		
20.142	19.956	1.0093		
10.383	10.052	1.0329		
			Slope	0.989425
			Intercept	0.229352

## CO Calibration Curve



# CO Calibration



# Calibration Report



Parameter CO

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 27, 2015	Previous Calibration	January 23, 2015
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	9:30	End Time (MST)	15:20:00 PM
Barometric Pressure	716.0 mm/hg	Station Temperature	22.0 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 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	0.989425	Calculated slope	0.996991
Calculated intercept	0.229352	Calculated intercept	0.103766
Analyzer make	Model 48I-TLE	Analyzer serial #	1408761378

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO zero setting	0.877		-0.162	
CO span setting	1.0008		1.001	
Sample pressure	689.6	mm Hg	698.8	mm Hg
Sample Flow	0.454	LPM	0.458	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	-0.16	N/A
4995	69.94	40.02	40.01	1.0002
4995	34.96	20.14	20.11	1.0015
4995	17.96	10.38	10.38	1.0001
4995	0.00	0.00	-0.04	As Found Zero
4995	69.94	40.02	39.91	As Found Span
Average Correction Factor				1.0006

Calculated value of As Found Response: 39.748 ppm      Percent Change of As Found: 0.7%

	before calibration		after calibration	
Auto zero		ppm	0.03	ppm
Auto span		ppm	20.23	ppm

Notes: Performed Preamp Board calibration, initial S/R value, following with the zero check and multiple point calibration  
Slight zero adjustment made

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary



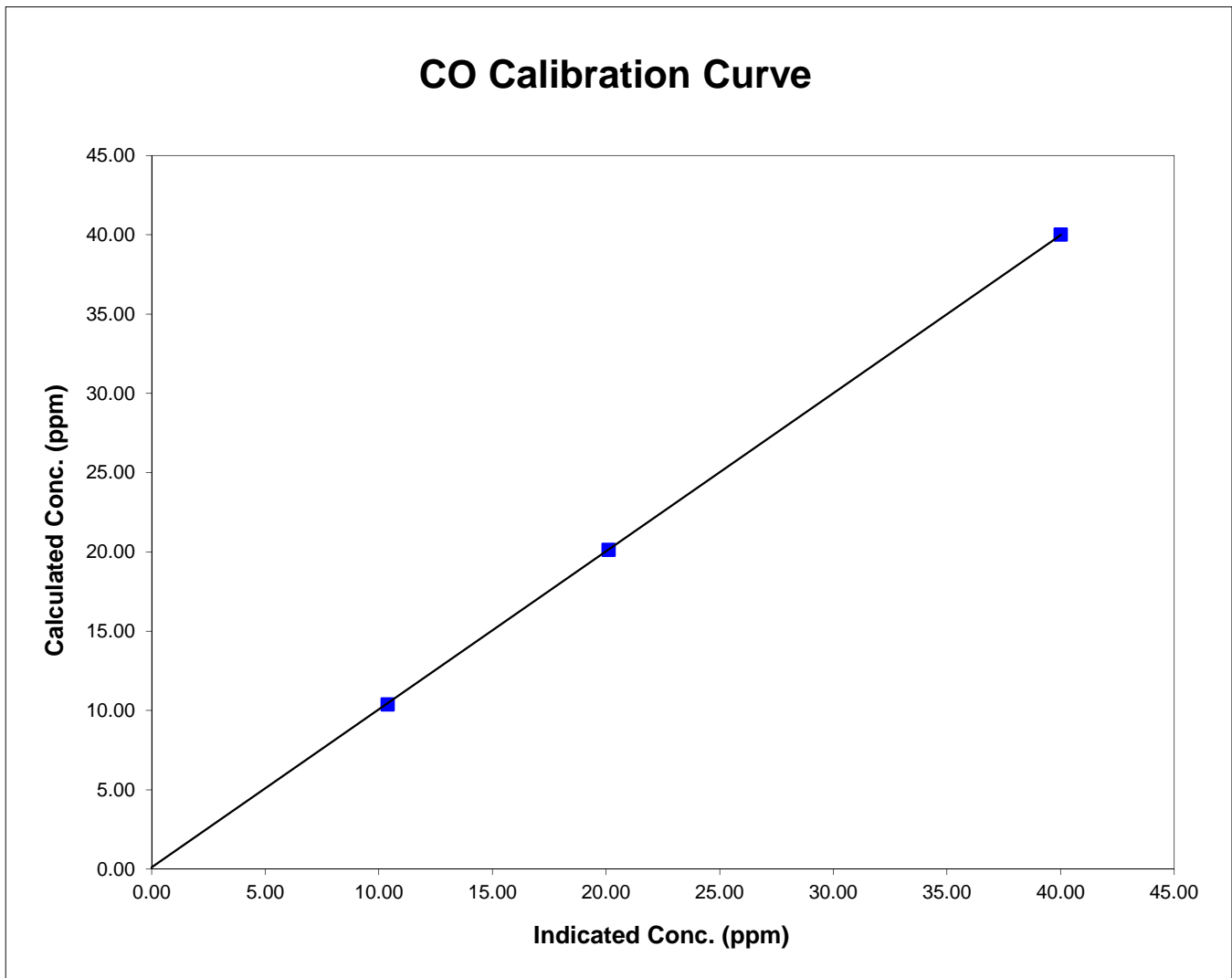
Parameter CO  
 Air Monitoring Network PAZA

### Station Information

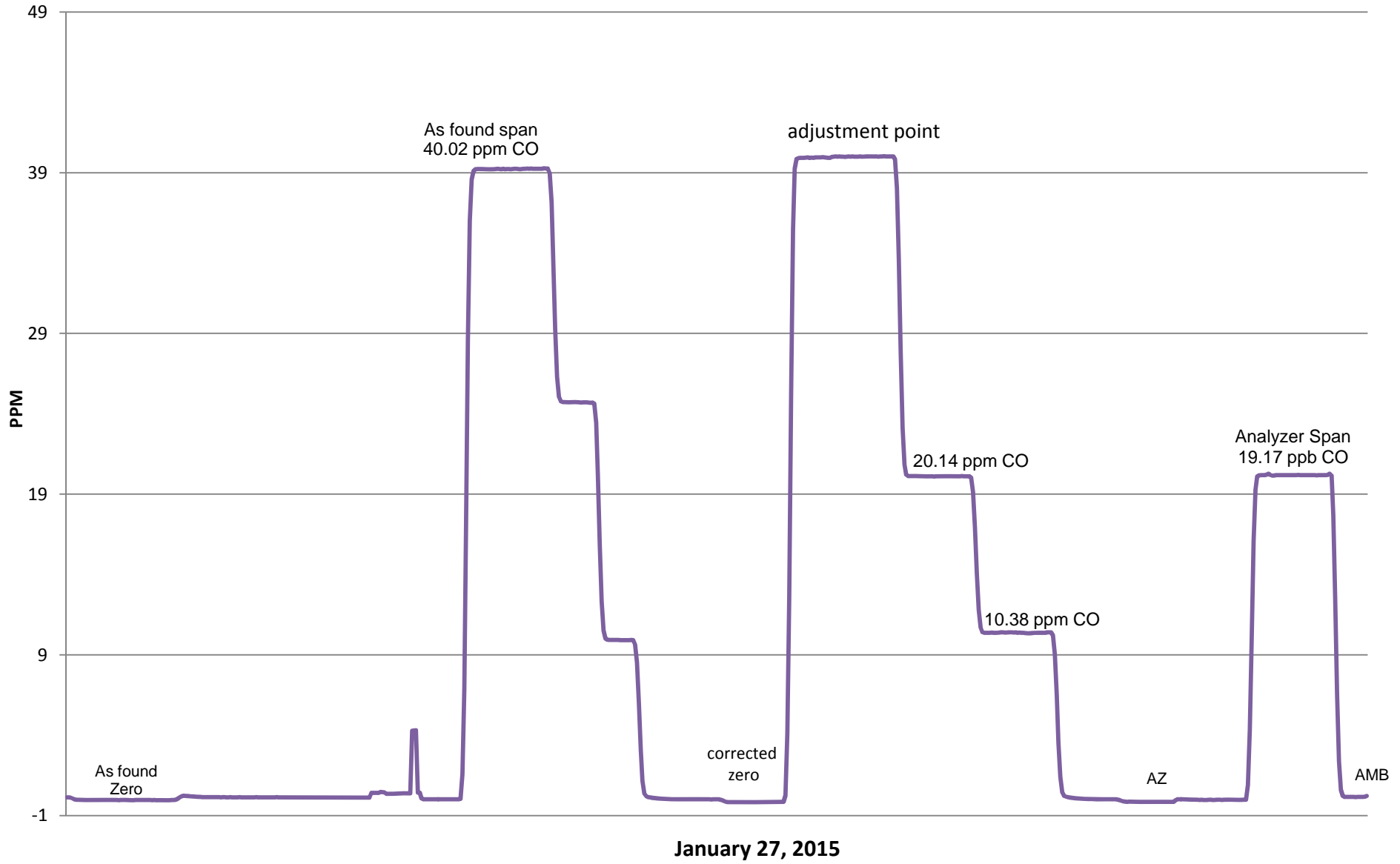
Calibration Date	January 27, 2015	Previous Calibration	January 23, 2015
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:30	End Time (MST)	15:20:00 PM
Analyzer make/model	Model 48I-TLE	Analyzer serial #	1408761378

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.163	N/A	Correlation Coefficient	0.999989
40.017	40.009	1.0002		
20.142	20.111	1.0015	Slope	0.996991
10.383	10.382	1.0001		
			Intercept	0.103766



# CO Calibration



# Calibration Report



Parameter CH4 / NMHC / THC

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 9, 2015	Previous Calibration	December 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:17	End Time (MST)	13:40:00 PM
Barometric Pressure	705.00 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

	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	27.8	PSI
Fuel pressure	42.1	PSI	42.1	PSI
Carrier pressure	30.3	PSI	30.4	PSI
CH4 cal factor	5.82		5.78	E <sup>-4</sup>
NMHC cal factor	1.99		1.93	E <sup>-4</sup>
Rt	12.74	Sec	12.74	Sec
Pk Index	23.22		23.22	

## 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	12.94	0.9960
1996	40.96	7.76	7.76	1.0005
1996	15.99	3.07	3.03	1.0126
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.80	As Found Span
Average Correction Factor				1.0030

Calculated value of As Found Response: 12.831 ppm Percent Change of As Found: 0.4%

	Before		After
Calculated slope	1.002187	Calculated slope	0.996423
Calculated intercept	0.020122	Calculated intercept	0.013818

## Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.06	ppm	0.39	ppm
Auto span	9.05	ppm	8.97	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	19.16	0.9923
1996	40.96	11.45	11.67	0.9813
1996	15.99	4.52	4.63	0.9776
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	19.19	As Found Span
Average Correction Factor				0.9837

Calculated value of As Found Response: 18.941 ppm      Percent Change of As Found: 0.3%

	<u>Before</u>		<u>After</u>
Calculated slope	0.990993	Calculated slope	0.992819
Calculated intercept	-0.058340	Calculated intercept	-0.058984

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.70	ppm	12.42	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	32.08	0.9945
1996	40.96	19.21	19.41	0.9898
1996	15.99	7.59	7.65	0.9930
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	31.97	As Found Span
Average Correction Factor				0.9925

Calculated value of As Found Response: 31.779 ppm      Percent Change of As Found: 0.3%

	<u>Before</u>		<u>After</u>
Calculated slope	0.995994	Calculated slope	0.994832
Calculated intercept	-0.032126	Calculated intercept	-0.038535

**Final Zero/Span Data**

	before calibration		after calibration	
Auto zero	0.05	ppm	0.37	ppm
Auto span	21.74	ppm	21.38	ppm

Notes: Span adjustment made

---



---

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary



Parameter CH4  
 Air Monitoring Network PAZA

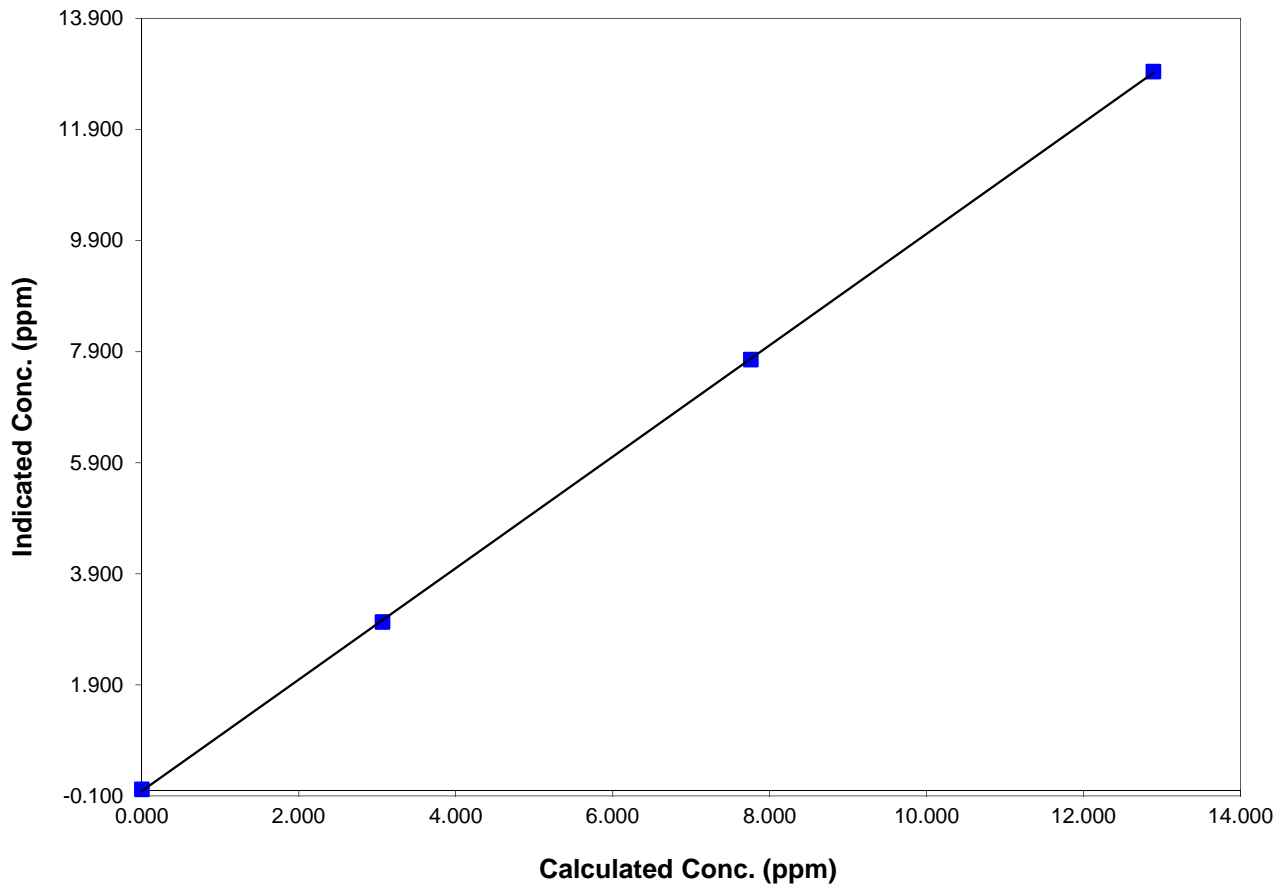
### Station Information

Calibration Date	January 9, 2015	Previous Calibration	December 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:17	End Time (MST)	13:40:00 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	0.020	N/A		
12.891	12.942	0.9960	Correlation Coefficient	0.999968
7.762	7.758	1.0005		
3.068	3.030	1.0126	Slope	0.996423
			Intercept	0.013818

## CH4 Calibration Data





# Calibration Summary



Parameter THC  
 Air Monitoring Network PAZA

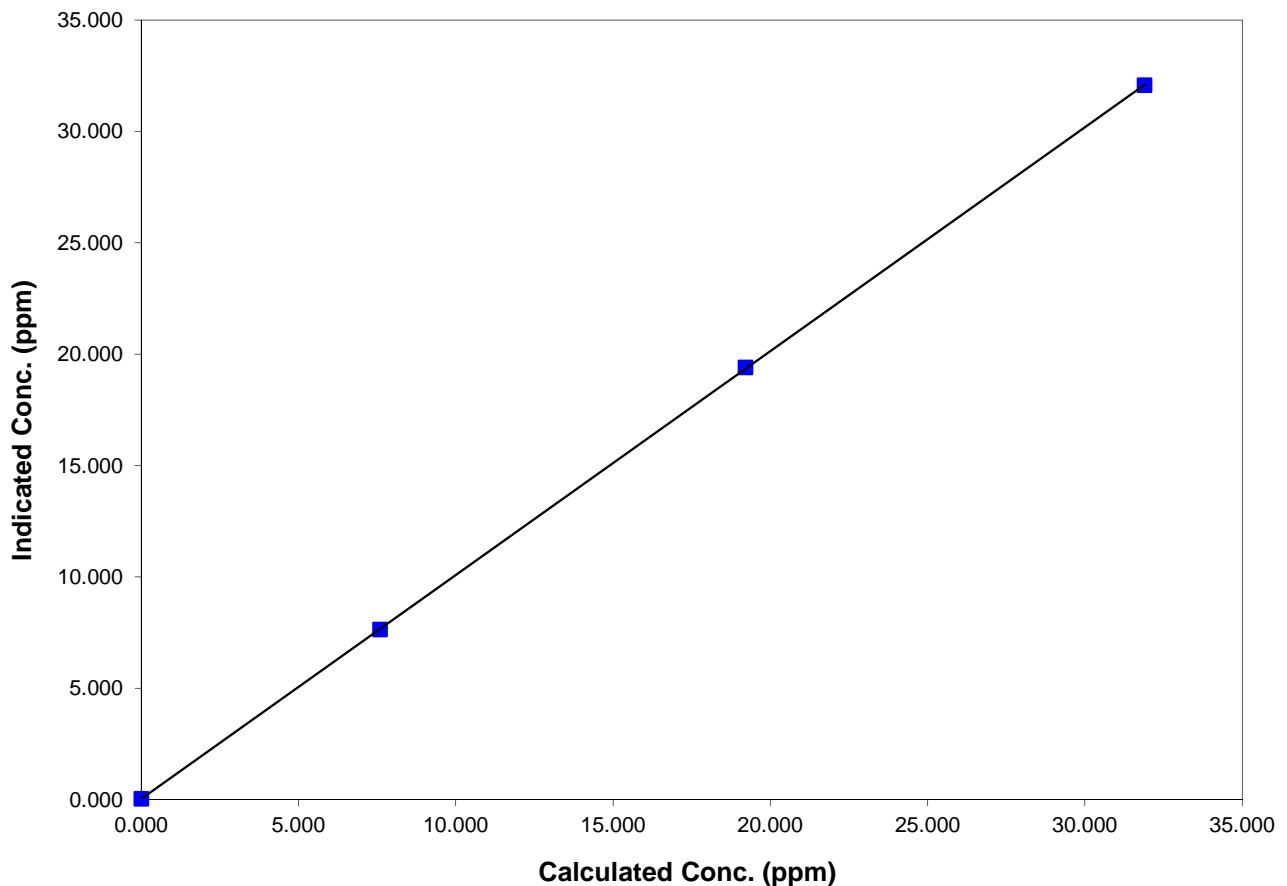
### Station Information

Calibration Date	January 9, 2015	Previous Calibration	December 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	10:17	End Time (MST)	13:40:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

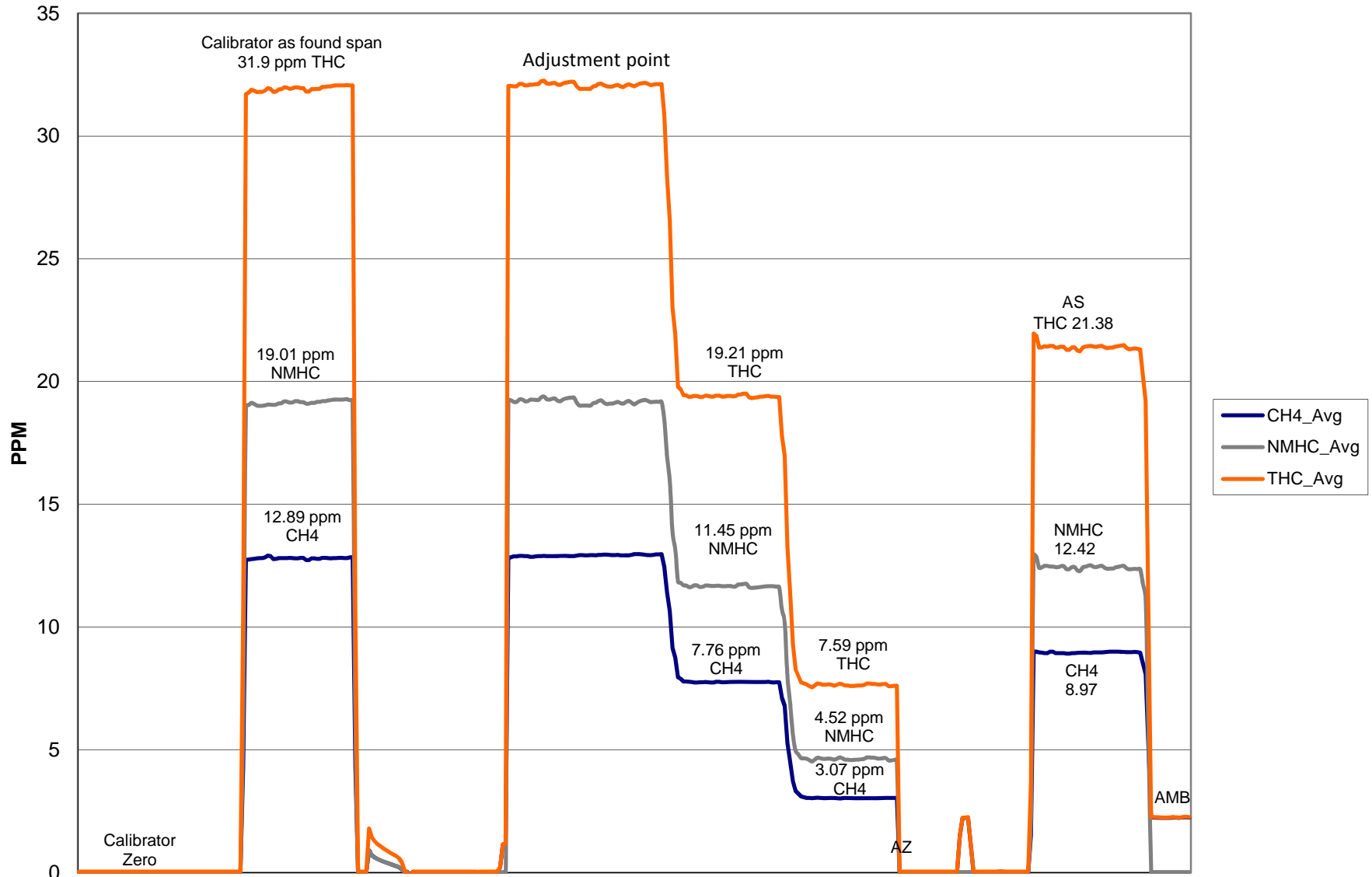
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.035	N/A	Correlation Coefficient	0.999992
31.901	32.076	0.9945		
19.209	19.406	0.9898	Slope	0.994832
7.592	7.645	0.9930		
			Intercept	-0.038535

## THC Calibration Data



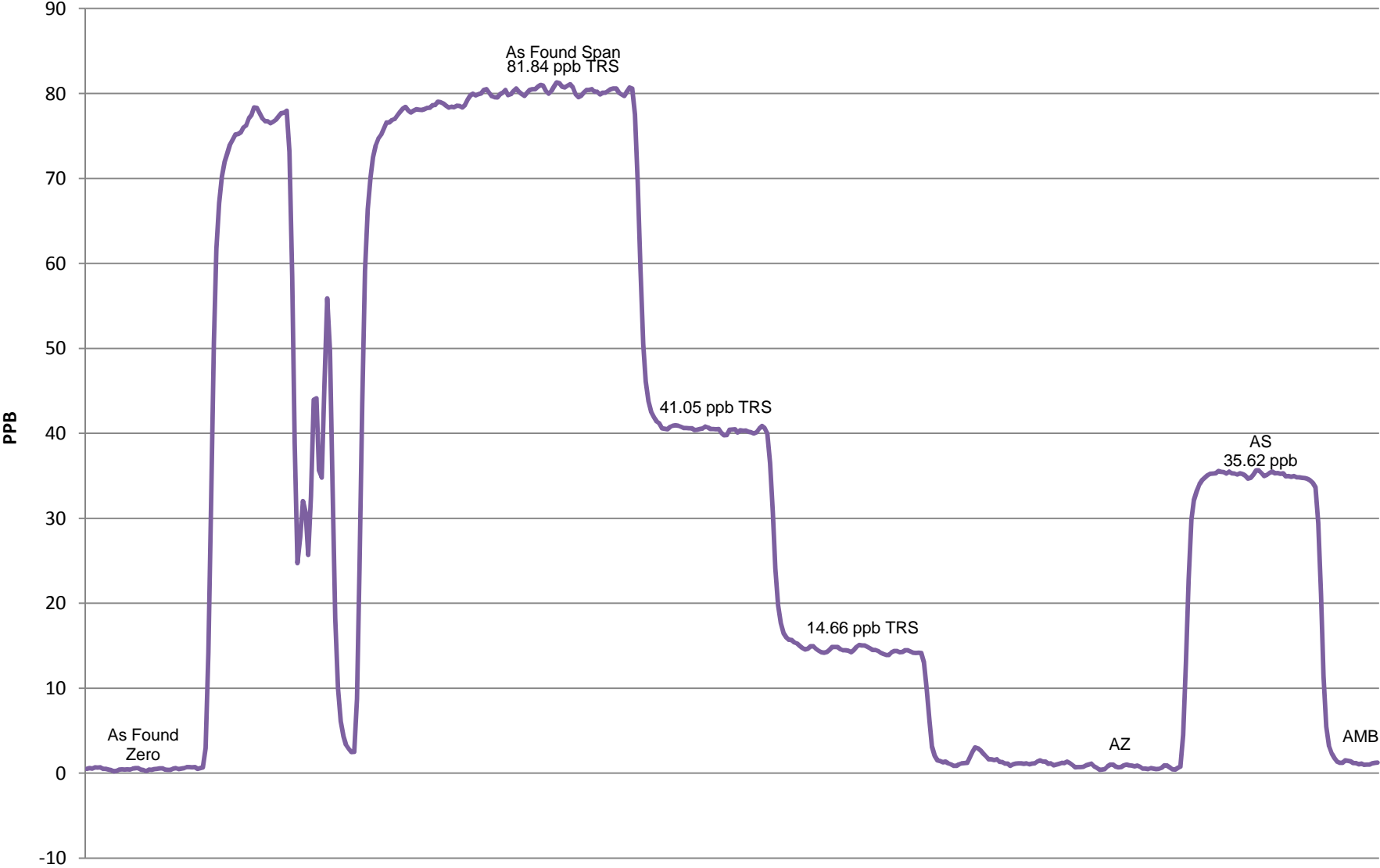
# THC/CH<sub>4</sub>/NMHC Calibration







# TRS Calibration



January 12, 2015



# SHARP 5030 PM2.5 Calibration



STATION: Henry Pirker  
 LOCATION: Grande Prairie  
 START TIME (MST): 10:00

OPERATOR: Dmytro/Grover  
 DATE: Jan 28 2015  
 END TIME (MST): 12:30

MONITOR INFO / PARAMETER VALUES:

Make/Model **SHARP 5030**  
 Configuration **NA**  
 Serial Number **E759**

Audit Device Model **Delta Cal**  
 Audit Device S/N **AMU1789**  
 Certification Date **01-Oct-13**

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. ( <sup>o</sup> C)	Ambient Pres. (mbar)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
<i>Audit values (I)</i>	-7.0	946	16.67	16.67	12:17
<i>As Found Data</i>					
MEASURED ( AF )	-7.6	947	16.60	16.66	12:16
AF Difference (AF-I)	-0.6	1	0.07	-0.01	0:01
<i>Adjusted Data</i>					
MEASURED ( M )	-7.6	947	16.60	16.66	12:17
Adj Difference (M-I)	-0.6	1	-0.07	-0.01	0:00
<b>LIMITS</b>	<b>± 4.0 <sup>o</sup> C</b>	<b>6.7 mbar</b>	<b>1.0 L/min</b>	<b>± 1.0 L/min</b>	<b>±2 min</b>

Sample Head Inspect/Cleaning: Cleaned sample heads.

Status of sampling tape: 25% full. 2 new rolls at site.

Nozzle Inspection / cleanliness: Looks clean.

COMMENTS: Calibrated well.

Foil calibration Old value 6995 New value 6914

Nephelometer zero. Analog as found = 2.4 adsuted conc = 0.0

# Calibration Report



Parameter SO<sub>2</sub>  
 Air Monitoring Network PAZA

## Station Information

Calibration Date	January 20 2015	Previous Calibration	December 11 2014
Station Number	2	Station Location	Evergreen Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	0:25	End Time (MST)	14:45:00 PM
Barometric Pressure	0.921 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	0.031307	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	0.989773	Calculated slope	0.989522
Calculated intercept	1.333129	Calculated intercept	2.011337
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.6		11.6	
coefficient	1.24		1.24	
Lamp Voltage	830	volts	832	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	673.7	mm Hg	659.8	mm Hg
Sample Flow	0.455	ccm	0.448	ccm
Lamp Intensity	89	%	89	%

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	0.3	N/A
4995	39.93	394.9	398.2	0.9918
4995	19.97	198.3	197.2	1.0055
4995	9.97	99.2	95.9	1.0345
4995	0.0	0.0	0.3	As Found Zero
4995	39.93	394.9	398.2	As Found Span
Average Correction Factor				1.0106

Calculated value of As Found Response: 395.167 ppm      Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.3	ppm
Auto span	266.4	ppm	256.6	ppm

Notes: NO adjustments made.

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA



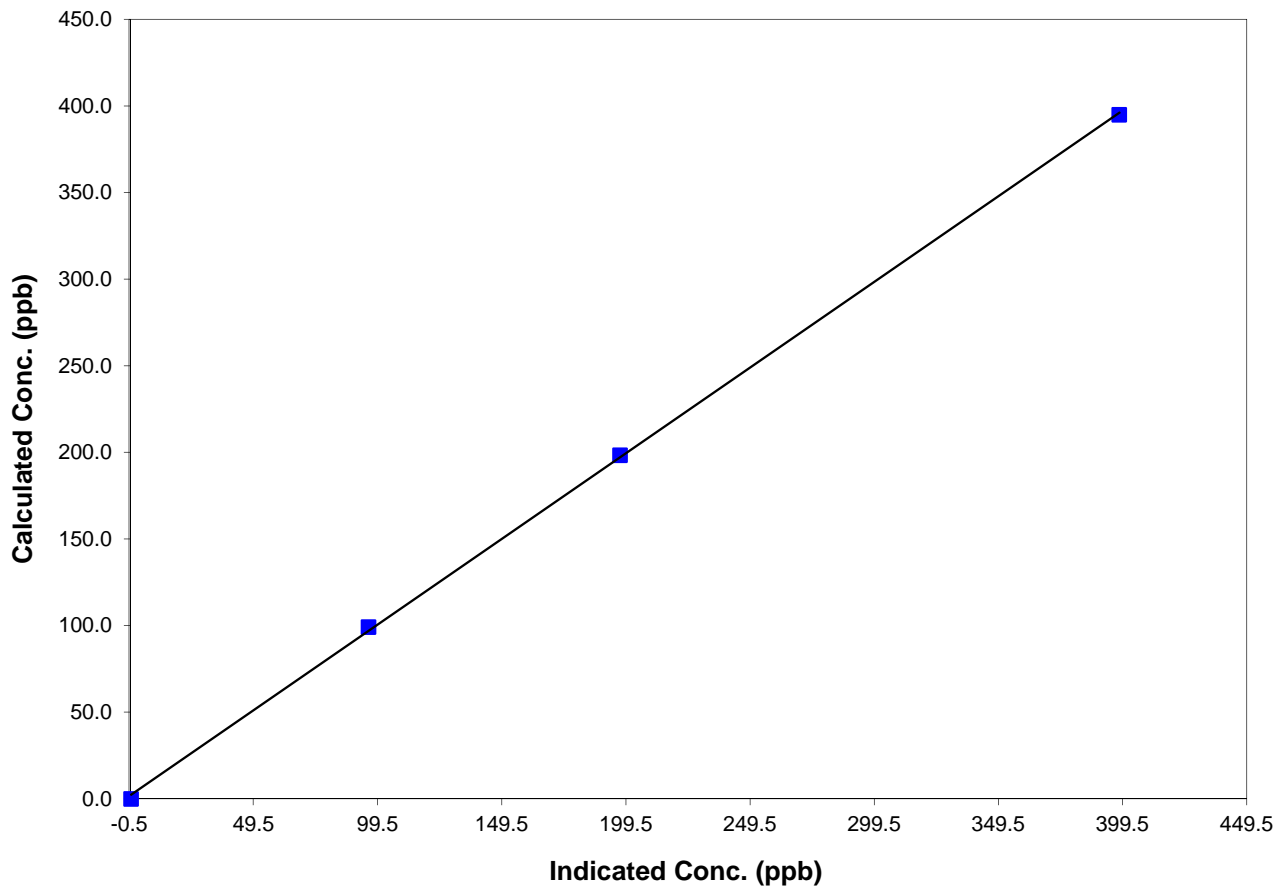
### Station Information

Calibration Date	January 20 2015	Previous Calibration	December 11 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	0:25	End Time (MST)	14:45:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

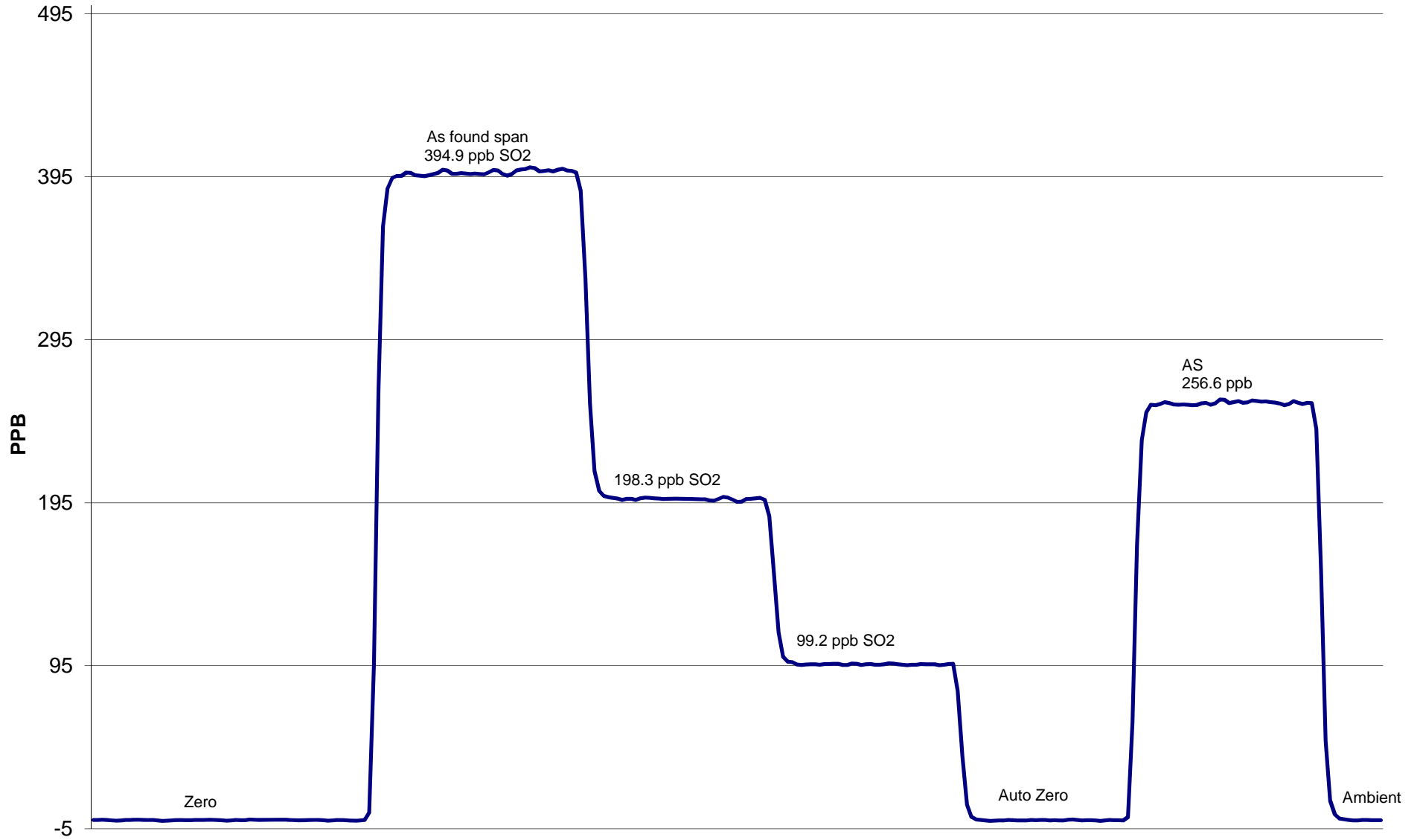
### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999844
394.9	398.2	0.9918		
198.3	197.2	1.0055	Slope	0.989522
99.2	95.9	1.0345		
			Intercept	2.011337

## SO2 Calibration Curve



# SO2 Calibration

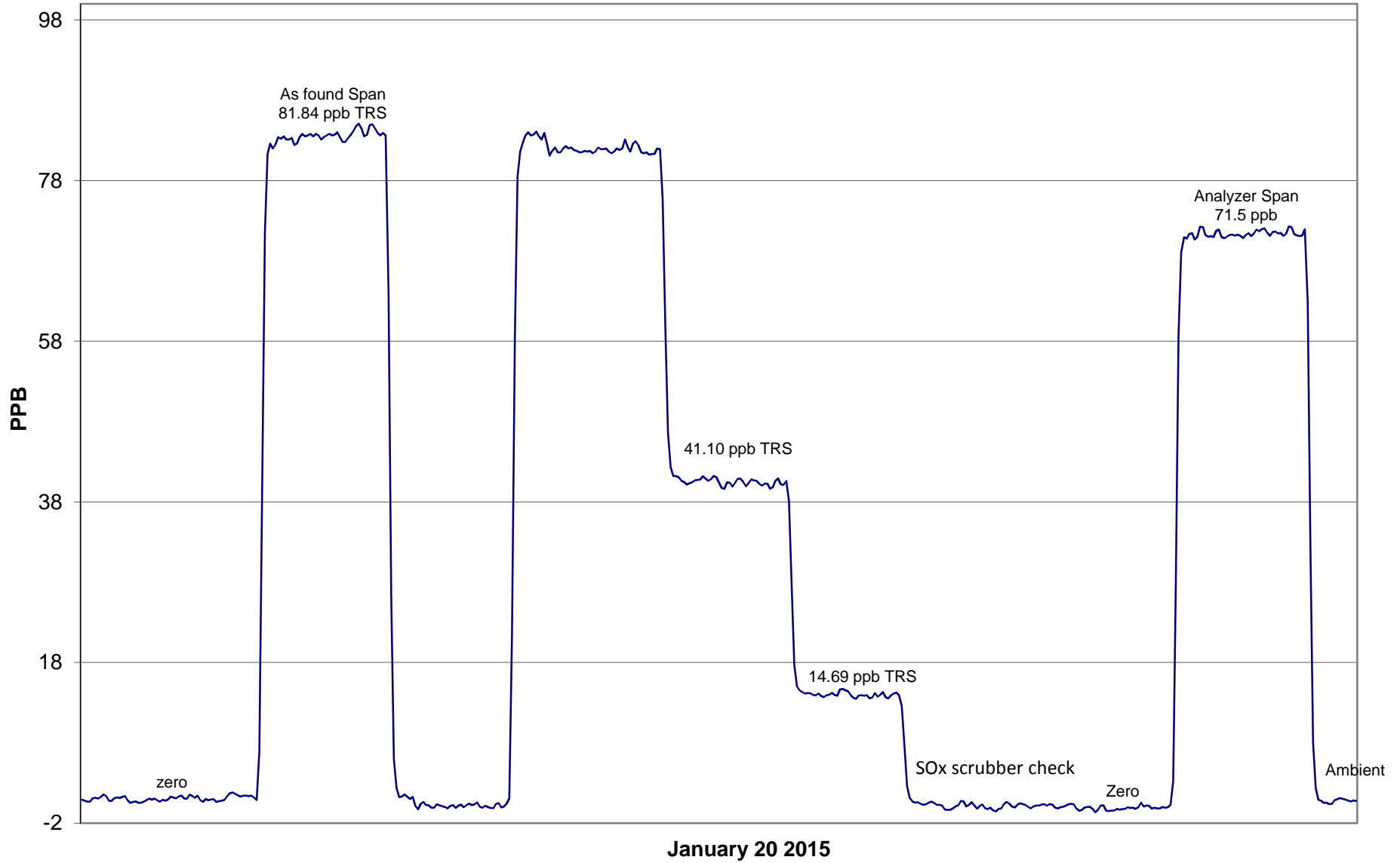


January 20 2015





# TRS Calibration



# AB TEOM PM2.5 Calibration



STATION: Evergreen Park  
 LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen  
 DATE: 20-Jan-15

MONITOR INFO / PARAMETER VALUES:

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

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	<u>23-Oct-14</u>

PUMP CAPACITY CHECK *	PASS
-----------------------	------

\* capacity test or pump on timed test utilized to verify pump integrity  
 "FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.040	0.050
PUMP OFF	0.000	0.000
NET	0.040	0.050
<b>LIMITS</b>	<b>&lt;0.15</b>	<b>&lt;0.60</b>

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT ( S )	na	na	16147	13.67	3.000
INDICATED ( I )	2.2	0.926	<del>16147</del>	13.66	2.999
MEASURED ( AF )	2.8	0.926	<del>16147</del>	13.64	2.985
MEASURED ( M )	2.8	0.926	16305	13.64	2.985
DIFFERENCE (M-I)	0.6	0.000	1.0%	-0.03	-0.02
<b>LIMITS</b>	<b>± 2 ° C</b>	<b>± 0.005 atm</b>	<b>± 2.5 %</b>	<b>± 1.0 L/min</b>	<b>± 0.2 L/min</b>

*As Found Data*  
*Adjusted Data*

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

COMMENTS: Pass.

---



---



---

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



# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 21, 2015	Previous Calibration	December 8, 2014
Station Number	3	Station Location	Smokey Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:40	End Time (MST)	14:35:00 PM
Barometric Pressure	0.918 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	0.031205	Cal Gas Cylinder #	LL1105159
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.003202	Calculated slope	0.992124
Calculated intercept	0.504230	Calculated intercept	0.978130
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	12.3		12.3	
coefficient	0.952		0.952	
Lamp Voltage	934	volts	935	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	662.4	mm Hg	662.7	mm Hg
Sample Flow	0.443	lpm	0.443	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	0.4	N/A
4995	39.93	394.94	397.7	0.9930
4995	19.97	198.31	198.3	0.9999
4995	9.97	99.20	97.6	1.0168
4995	0.0	0.00	0.4	As Found Zero
4995	39.93	394.94	397.7	As Found Span
Average Correction Factor				1.0033

Calculated value of As Found Response: 399.115 ppm      Percent Change of As Found: -1.1%

	before calibration		after calibration	
Auto zero	0.5	ppb	0.4	ppb
Auto span	254.3	ppb	257.7	ppb

Notes: No adjustments made

---



---

Calibration Performed By: Dmytro Dolotii

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA

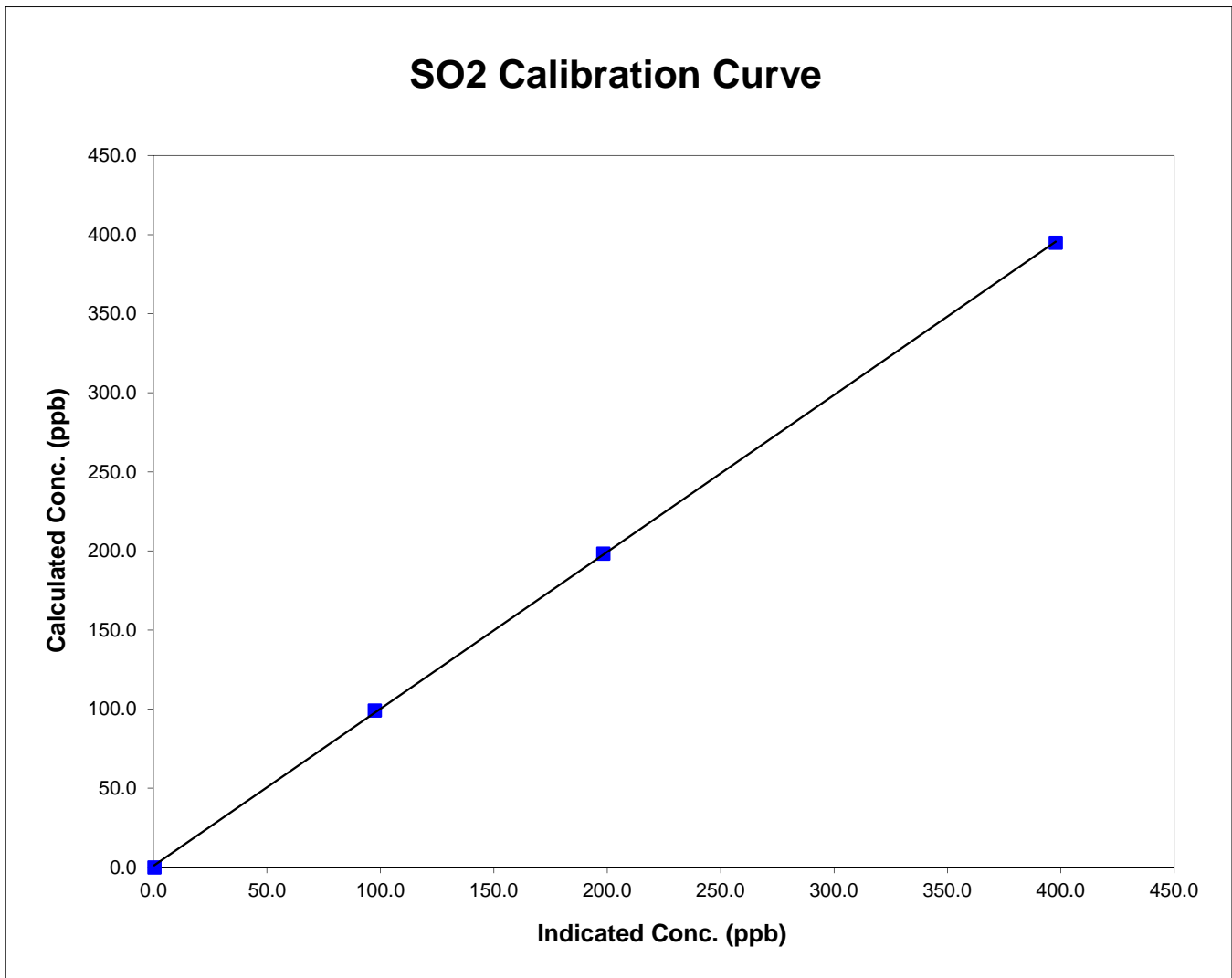


### Station Information

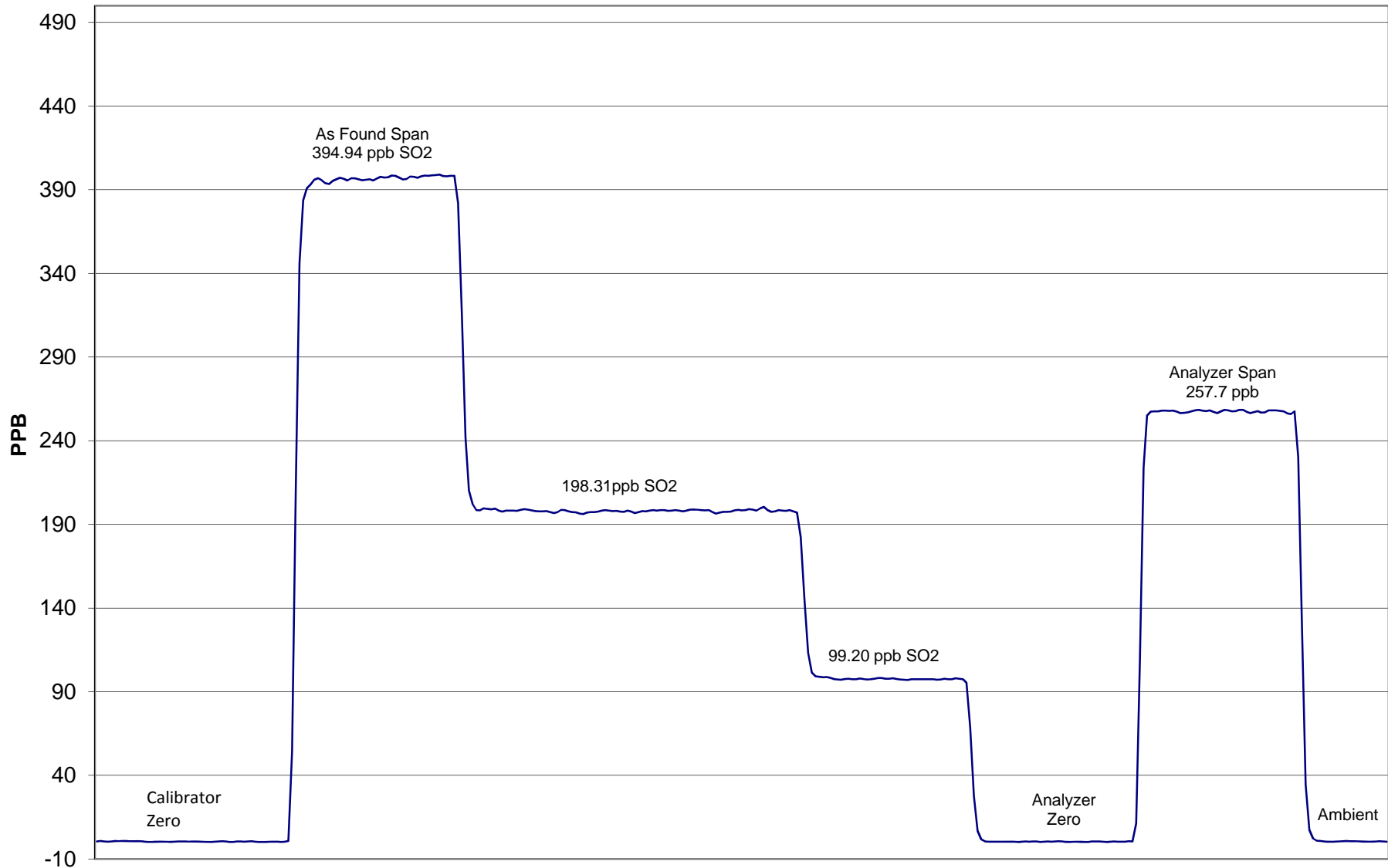
Calibration Date	January 21, 2015	Previous Calibration	December 8, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	11:40	End Time (MST)	14:35:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999945
394.9	397.7	0.9930		
198.3	198.3	0.9999	Slope	0.992124
99.2	97.6	1.0168		
			Intercept	0.978130



# Smokey Heights SO<sub>2</sub> Calibration



January 21, 2015

# Calibration Report



Parameter TRS

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 21, 2015	Previous Calibration	December 8, 2014
Station Number	3	Station Location	Smokey Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:

Start Time (MST)	9:45	End Time (MST)	13:00:00 PM
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	2844
Cal Gas Conc	10.32 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031205	Cal Gas Cylinder #	BLM00586
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	1.000436	Calculated slope	1.007379
Calculated intercept	0.124050	Calculated intercept	-0.117940

Analyzer make TEI Model 43C Analyzer serial # 0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	19.5	ppb	19.5	ppb
coefficient	0.983		0.983	
Lamp Voltage	846	volts	846	volts
Chamber Temp	43.9	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	602.4	mm Hg	580.5	mm Hg
Sample Flow	0.626	lpm	0.620	lpm
Lamp Intensity	34,554	mv	34,762	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	0.6	N/A
4995	39.93	81.84	81.6	1.0030
4995	19.97	41.10	40.5	1.0136
6995	9.97	14.69	14.4	1.0230
4995	9.97		1.6	Sox test
4995	0.0	0.00	0.6	As Found Zero
4995	39.93	81.84	81.6	As Found Span
Average Correction Factor				1.0132

Calculated value of As Found Response: 81.17 ppm Percent Change of As Found: 0.8%

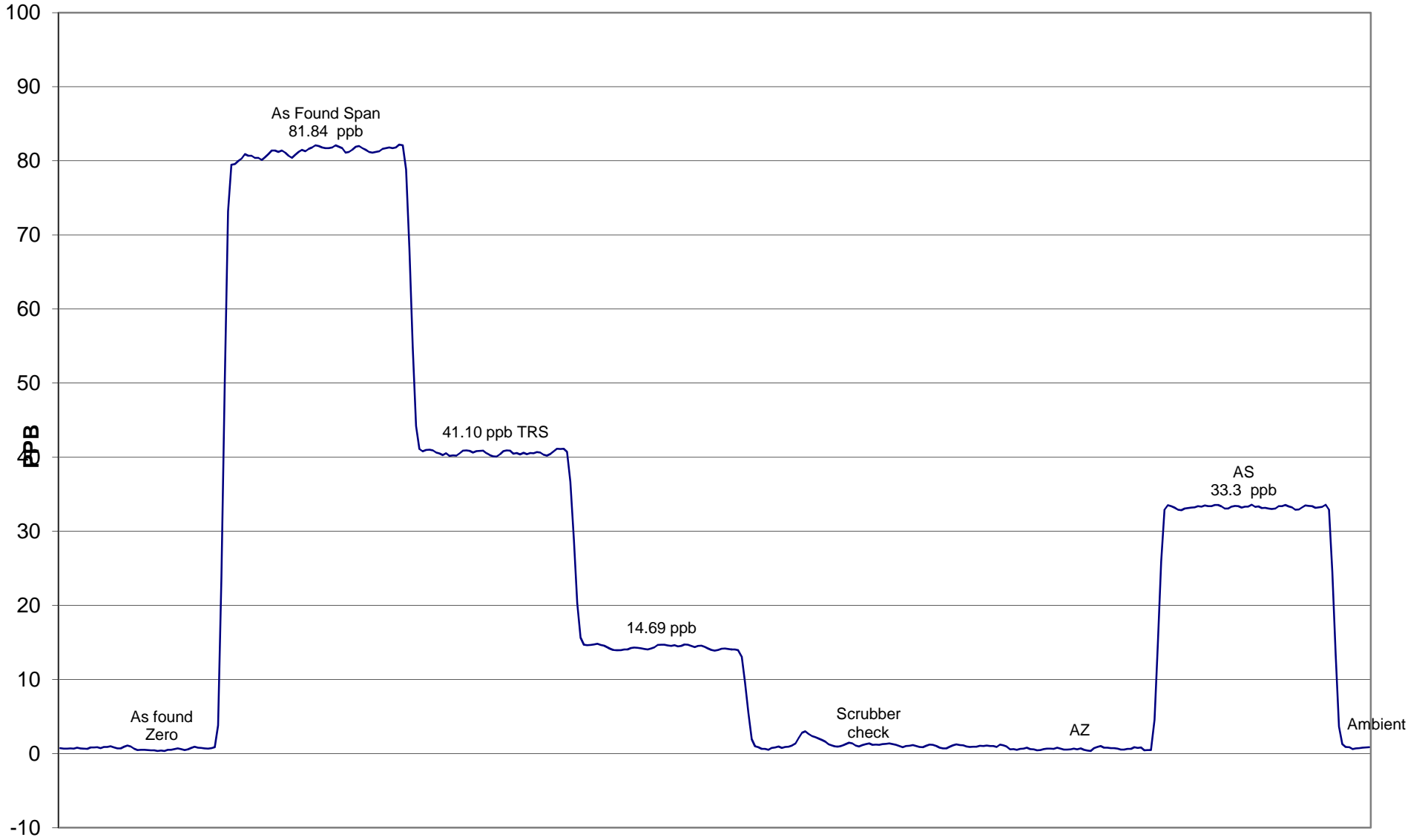
	before calibration		after calibration	
Auto zero	0.7	ppm	0.6	ppm
Auto span	32.5	ppm	33.3	ppm

Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii



# Smokey Heights TRS Calibration



January 21, 2015

# Calibration Report

Parameter SO2  
Air Monitoring Network \_\_\_\_\_



PAZA

## Station Information

Calibration Date	January 8, 2015	Previous Calibration	December 2, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	12:05	End Time (MST)	14:55:00 PM
Barometric Pressure	0.908 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
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
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.005336	Calculated slope	0.988028
Calculated intercept	-0.047081	Calculated intercept	-0.219057
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.72		2.72	
Coefficient	1.053		1.053	
PMT	-767.5	V	-767.8	V
UV Lamp Voltage	1082	V	1090	V
Chamber Temp	45	Deg C	45.5	Deg C
Pressure	661.1	mm Hg	674.6	mm Hg
Sample Flow	0.524	LPM	0.53	LPM
Lamp Intensity	96	%	96	%

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4994	0.00	0.0	0.2	N/A
4994	39.92	85.6	86.8	0.9862
4994	19.96	43.0	43.9	0.9793
4994	9.96	21.5	21.9	0.9820
4994	0.00	0.0	0.2	As found zero
4994	39.92	85.6	86.8	As found span
Average Correction Factor				0.9825

Calculated value of As Found Response: 87.053 ppm      Percent Change of As Found: -1.6%

	before calibration		after calibration	
Auto zero	0.0	ppb	0.2	ppb
Auto span	59.8	ppb	57.7	ppb

Notes: No adjustments made

---



---

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA



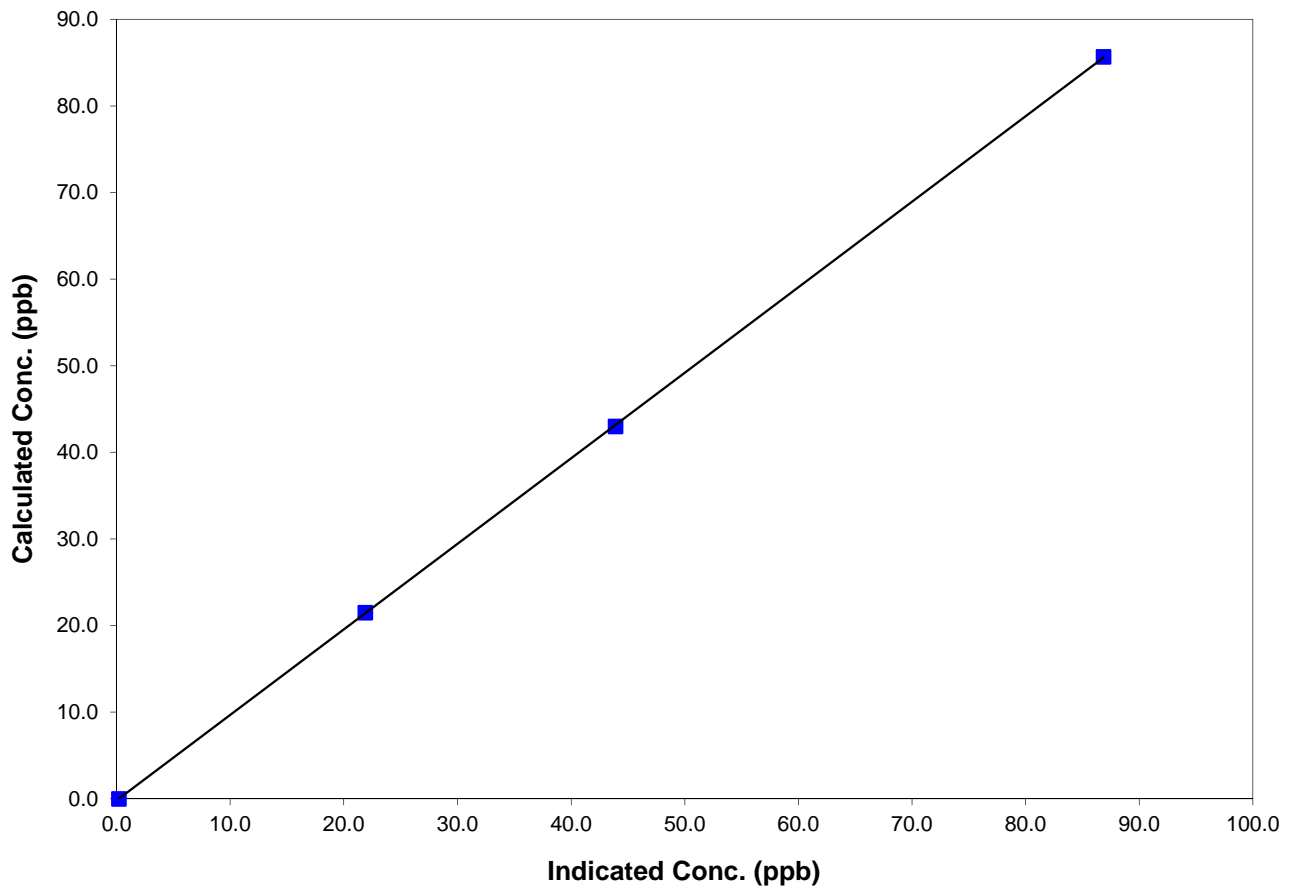
### Station Information

Calibration Date	January 8, 2015	Previous Calibration	December 2, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:05	End Time (MST)	14:55:00 PM
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

### Calibration Data

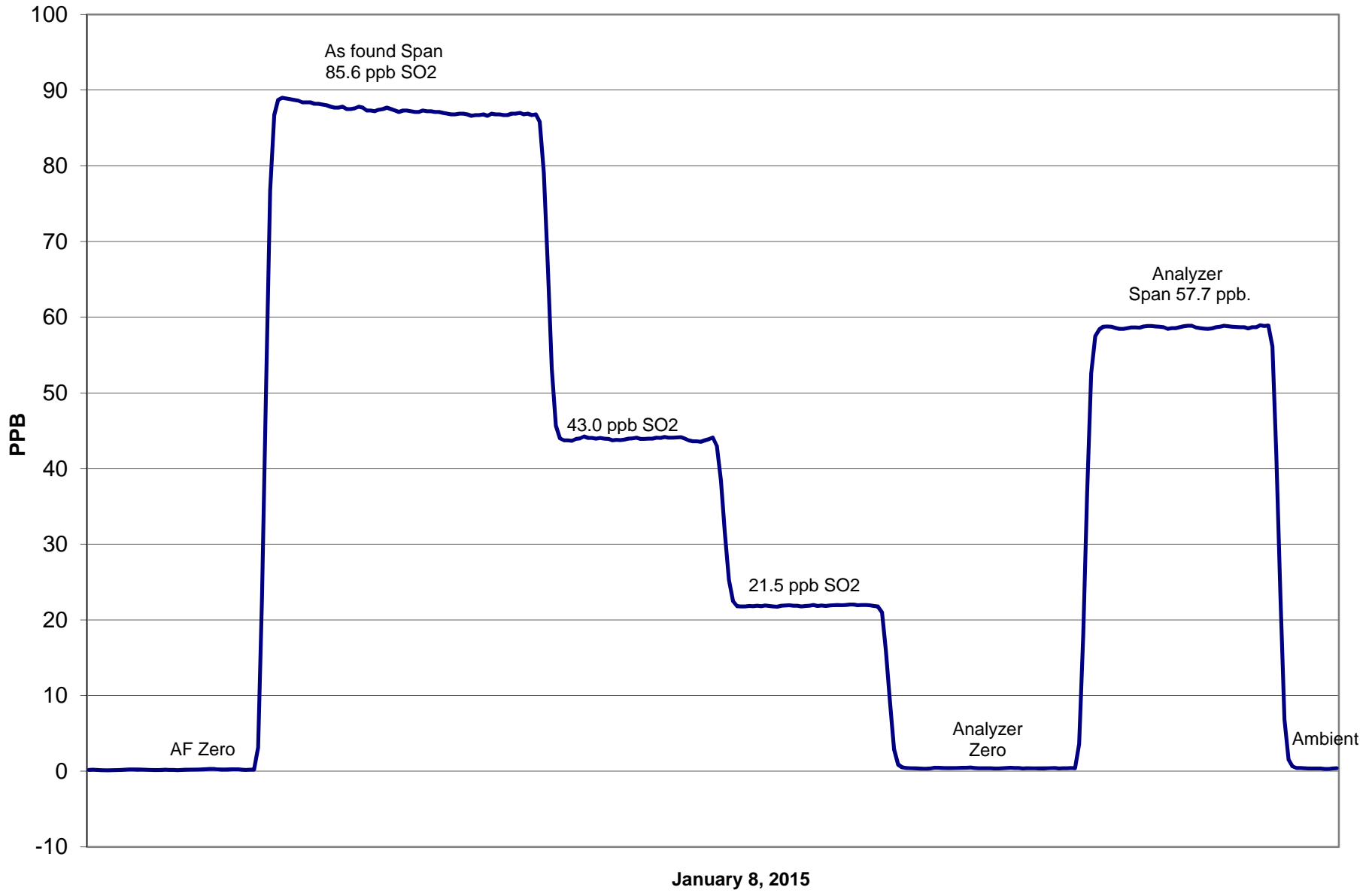
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999990
85.6	86.8	0.9862		
43.0	43.9	0.9793	Slope	0.988028
21.5	21.9	0.9820		
			Intercept	-0.219057

## SO2 Calibration Curve





# SO2 Calibration





# Calibration Report



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

## Station Information

Calibration Date: 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	0.0	-0.1	0.0	N/A	N/A	
1	4995	39.92	405.9	403.6	2.4	406.5	404.6	1.1	0.9986	0.9975	
2	4995	19.96	203.8	202.6	1.2	201.5	199.7	0.9	1.0113	1.0144	
3	4995	9.93	101.6	101.0	0.6	99.3	98.6	0.6	1.0229	1.0244	
AFZ	4995	0.00	0.0	0.0	0.0	0.0	-0.1	0.0	0.0000	0.0000	
AFS	4995	39.92	405.9	403.6	0.8	398.5	396.2	1.6	1.0188	1.0187	
									Average Correction Factor	1.0109	1.0121

As Found Concentrations: NO<sub>x</sub>= 402.1 NO= 399.5 As Found Percent Change NO<sub>x</sub>= -1.0% NO= -1.0%

## 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	0.0	-0.1	0.0	N/A	N/A	N/A	N/A	
NO point	397.7	397.7	0.0	399.7	397.7	1.3	0.9950	1.0000	N/A	N/A	
300	397.7	86.2	311.5	399.7	86.2	312.9	0.9951	1.0000	0.9957	100.4%	
200	397.7	187.5	210.2	400.1	187.5	211.9	0.9940	1.0000	0.9923	100.8%	
100	397.7	288.8	108.9	401.2	288.8	111.9	0.9913	1.0000	0.9739	102.7%	
							Average Correction Factor	0.9935	1.0000	0.9873	101.3%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	-0.1	ppb	-0.1	-0.1	-0.1	ppb
Auto span	180.2	178.9	1.0	ppb	182.6	181.4	0.8	ppb

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary



Parameter NO<sub>2</sub>

Air Monitoring Network PAZA

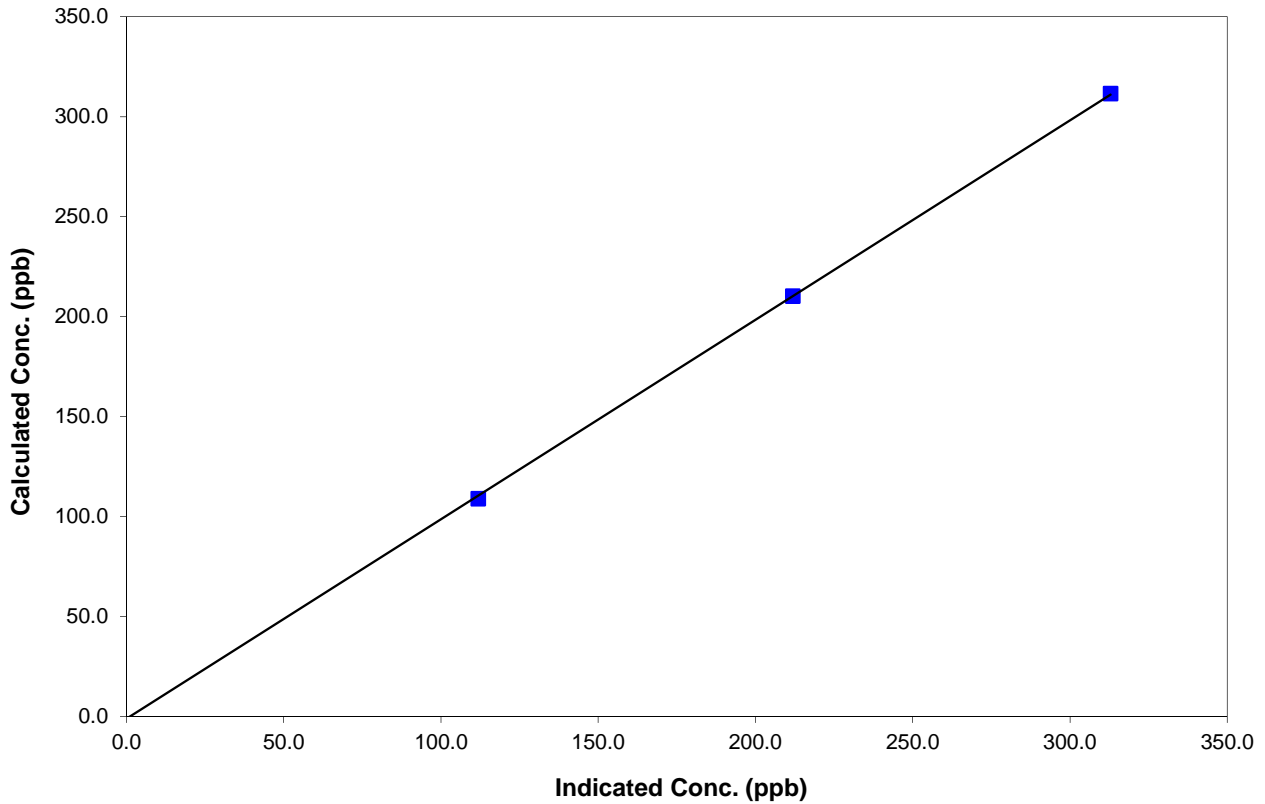
## Station Information

Calibration Date	January 7-8 2015	Previous Calibration	December 2, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:10	End Time (MST)	13:40:00 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	0.0	N/A	Correlation Coefficient	0.999927
311.5	312.9	0.9957		
210.2	211.9	0.9923		
108.9	111.9	0.9739	Slope	0.997090
			Intercept	-1.011182

### NO<sub>2</sub> Calibration Curve



# Calibration Summary

Parameter NO<sub>x</sub>

Air Monitoring Network PAZA



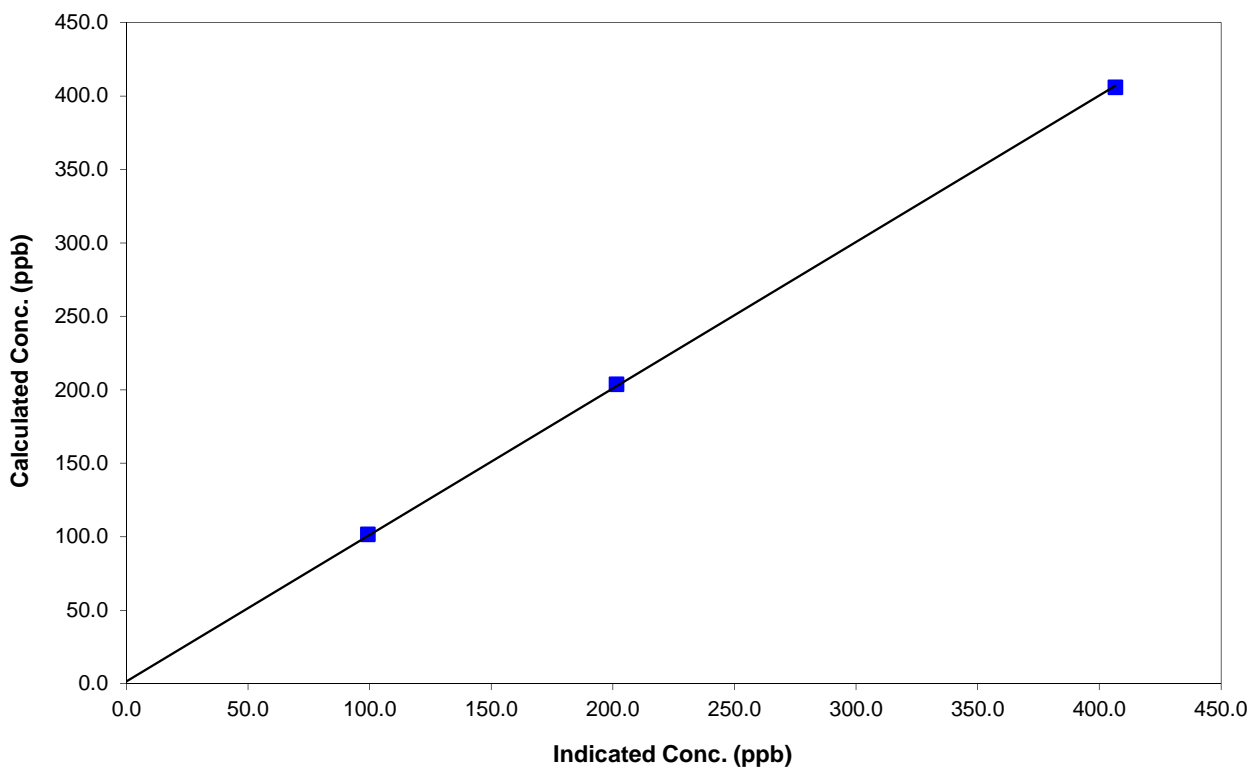
## Station Information

Calibration Date	January 7-8 2015	Previous Calibration	December 2, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:10	End Time (MST)	13:40:00 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	0.0	N/A	Correlation Coefficient	0.999933
405.9	406.5	0.9986		
203.8	201.5	1.0113	Slope	0.997181
101.6	99.3	1.0229		
			Intercept	1.486543

## NO<sub>x</sub> Calibration Curve



# Calibration Summary



Parameter NO  
 Air Monitoring Network PAZA

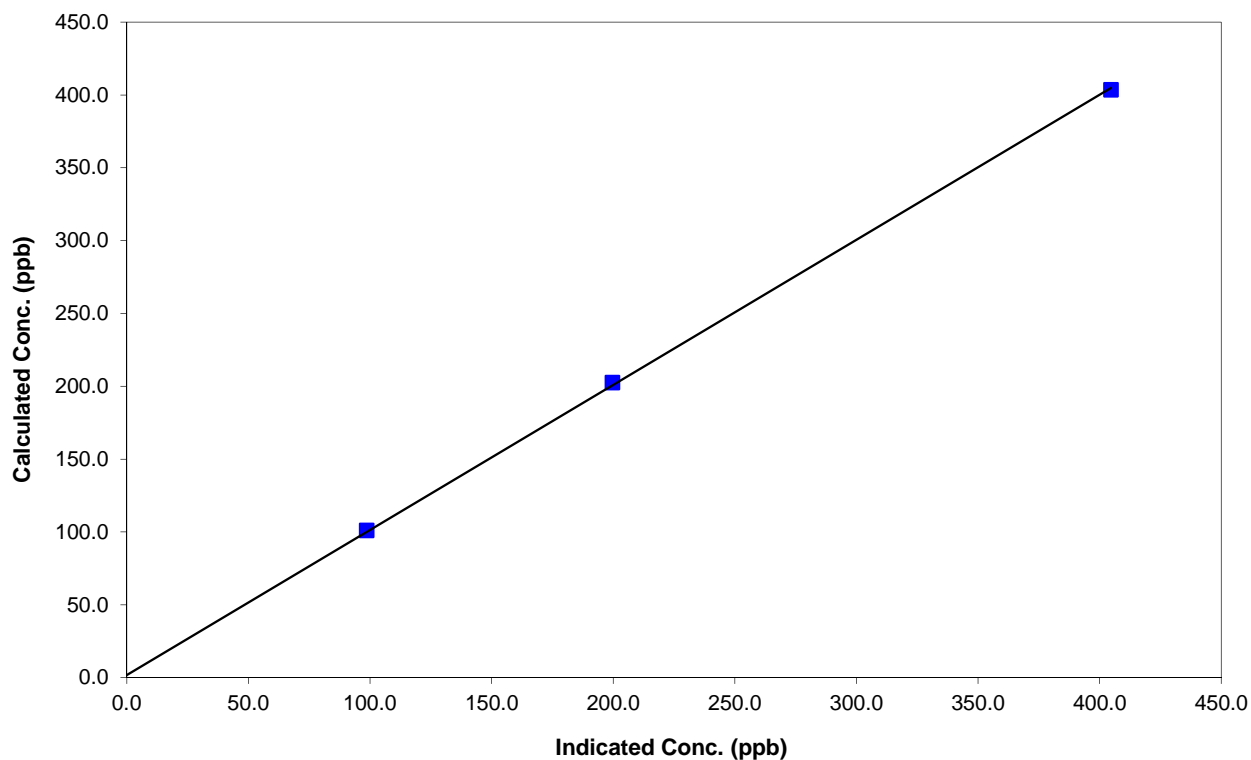
## Station Information

Calibration Date	January 7-8 2015	Previous Calibration	December 2, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:10	End Time (MST)	13:40:00 PM
Analyzer make	TEI 42i	Analyzer serial #	906535068

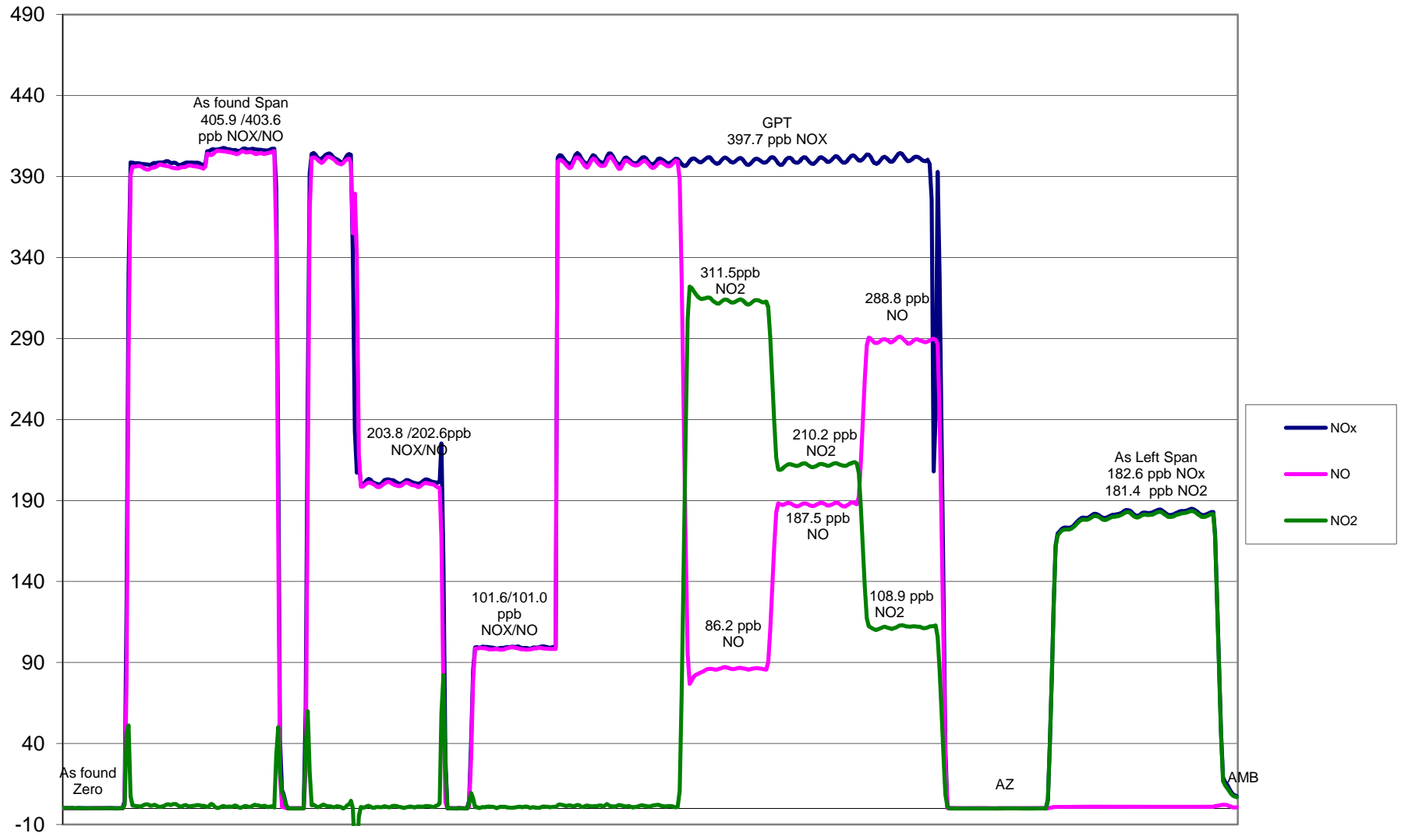
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999901
403.6	404.6	0.9975		
202.6	199.7	1.0144	Slope	0.995895
101.0	98.6	1.0244		

## NO Calibration Curve



# NO<sub>x</sub> Calibration



January 7-8 2015

# Calibration Report



Parameter 03  
Air Monitoring Network PAZA

## Station Information

Calibration Date	January 8, 2014	Previous Calibration	December 2, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	9:10	End Time (MST)	11:40
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	0.994421	Calculated slope	1.037726
Calculated intercept	-0.707005	Calculated intercept	-0.549253
Analyzer make	Teco 49i	Analyzer serial #	1136451236,AMU 1879

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.60	ppb	-0.60	ppb
slope	1.053		1.053	
Lamp temp	53.8	mV	53.8	mV
Lamp Intensity A/B	70210/73346	mV	68386/71824	mV
Pressure	681.7	mm Hg	689.9	mm Hg
Flow A	0.784	LPM	0.774	LPM
Flow B	0.750	LPM	0.743	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	0.6	N/A
5035	0.30	311.5	301.2	1.0340
5035	0.20	210.2	202.1	1.0401
5035	0.10	108.9	105.8	1.0289
5035	0.00	0.0	0.6	As found zero
5035	0.30	311.5	301.2	As found span
Average Correction Factor				1.0344

Calculated value of As Found Response: 298.2 ppm      Percent Change of As Found: -4.3%

	before calibration		after calibration	
Auto zero	-0.1	ppb	-0.1	ppb
Auto span	280.5	ppb	271.4	ppb

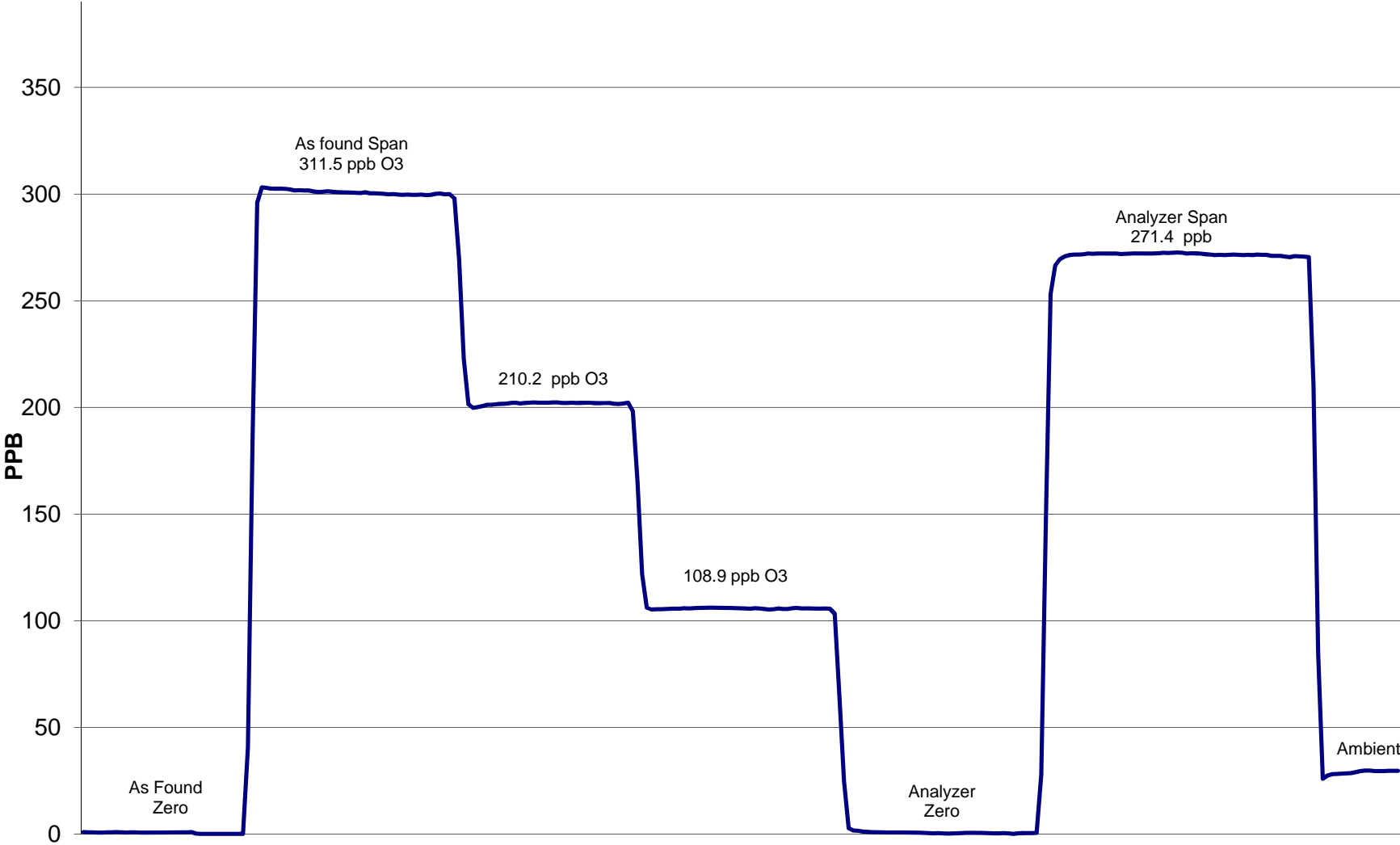
Notes: No adjustment made

Calibration Performed By: Dmytro Dolotii, Grover Christiansen





# O3 Calibration



January 8, 2014

# FDMS TEOM PM2.5 AUDIT



STATION: BeaverLodge  
 LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen/Dmytro  
 DATE: 07-Jan-15

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	AMU1649
Site Number	4
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.035
T-Case Indicated / Set Point	30/30
T-Air Indicated / Set Point	30/30
T-Cap Indicated / Set Point	30/30
Splitter Assembly Alignment (cm)	15.5
( vs. specified depth of 15.5 cm from top of flow tube to top of concentric 1/2 in. tube )	

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	<u>06-Oct-14</u>

PUMP CAPACITY CHECK *	PASS
-----------------------	------

\* capacity test or pump on timed test utilized to verify pump integrity  
 "FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.00	-0.03
PUMP OFF	0.00	0.00
NET	0.00	-0.03
<b>LIMITS</b>	<b>&lt;0.15</b>	<b>&lt;0.60</b>

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT ( S )	na	na	15818	13.67	3.00
INDICATED ( I )	-12.2	0.919	<del>15818</del>	13.68	3.00
MEASURED ( AF )	-12.0	0.921	<del>15818</del>	13.66	3.01
MEASURED ( M )	-12.0	0.921	15968	13.66	3.01
DIFFERENCE (M-I)	0.2	0.002	0.9%	-0.02	0.01
<b>LIMITS</b>	<b>± 2 ° C</b>	<b>± 0.005 atm</b>	<b>± 2.5 %</b>	<b>± 1.0 L/min</b>	<b>± 0.2 L/min</b>

*As Found Data*  
*Adjusted Data*

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

COMMENTS:

Sample heads were cleaned.  
 Base leak check: Main: 0.00 Aux: -0.03  
 Referense leak check: Main: 0.00 Aux: -0.01

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

# Calibration Report



Parameter SO2

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 22 2015	Previous Calibration	December 17 2014
Station Number	6	Station Location	Valleyview
Reason:	<b>Routine</b>	Install	Removal
		Other:	
Start Time (MST)	12:45	End Time (MST)	15:50:00 PM
Barometric Pressure	706.00 mmHg	Station Temperature	23.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	50.2 ppm	Cal Gas Exp Date	March 10, 2017
Gas Cylinder Num.	LL119493		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	<u>Before</u>		<u>After</u>
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.997966	Calculated slope	0.991245
Calculated intercept	-0.049838	Calculated intercept	1.967692
Analyzer make	TEI 43C	Analyzer serial #	609716239

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	15.3		15.3	
Coefficient	0.988		1.017	
UV Lamp Voltage	742	LPM	742	LPM
Chamber Temp	43	V	42.9	V
Perm Gas Temp	45	C	45	C
Pressure	670.50	in Hg	671.8	in Hg
Sample Flow	0.485	LPM	0.486	LPM
Lamp Intensity	47404	Hz	47600	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	-0.1	N/A
4995	39.93	398.1	400.6	0.9937
4995	19.97	199.9	198.6	1.0068
4995	9.95	99.8	97.0	1.0293
4995	0.00	0.0	-0.1	As found zero
4995	39.93	398.1	392.5	As found span
Average Correction Factor				1.0099

Calculated value of As Found Response: 391.7 ppm      Percent Change of As Found: 1.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	357.0	ppm	280.8	ppm

Notes: Span adjustments made.

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



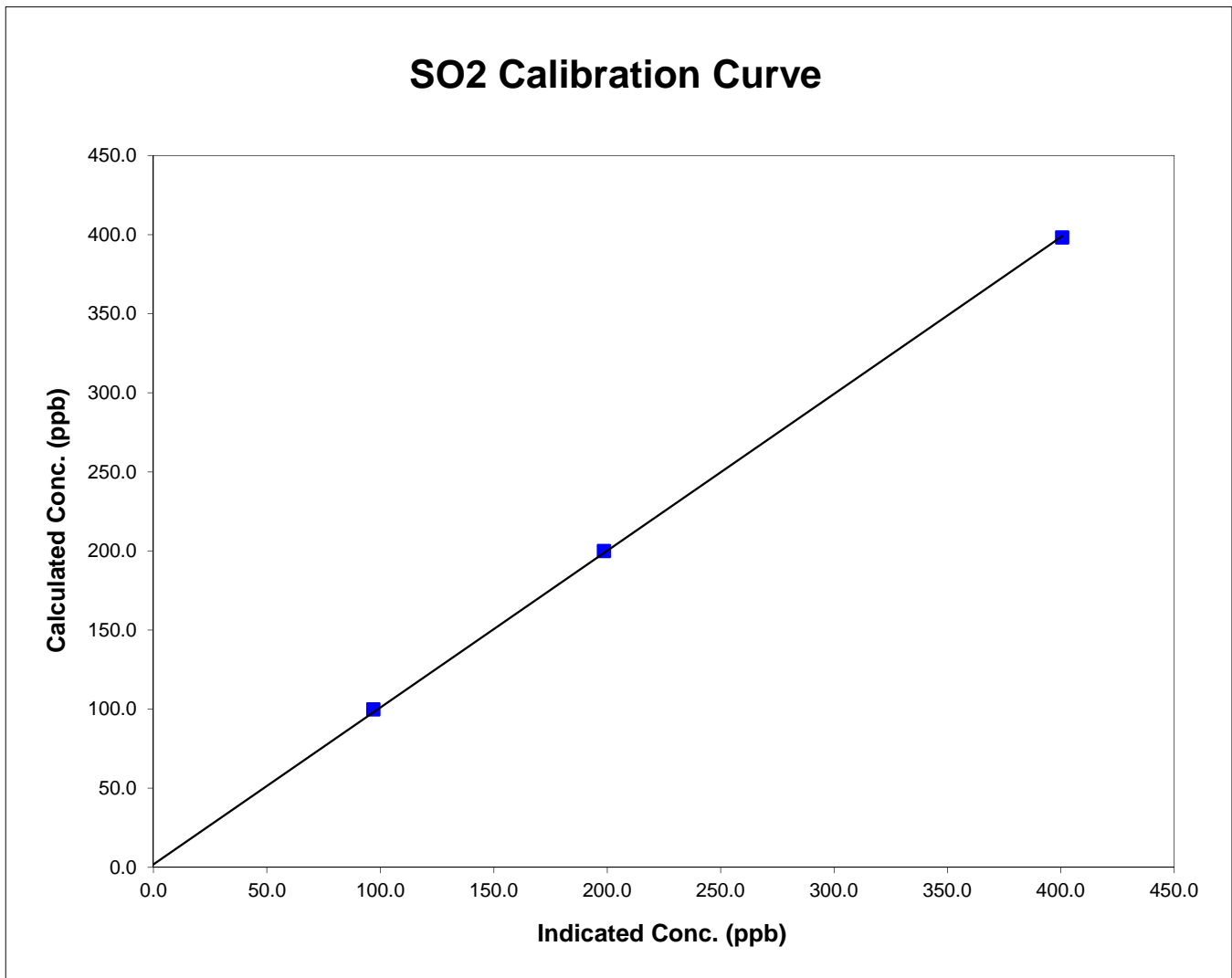
Parameter SO2  
 Air Monitoring Network PAZA

### Station Information

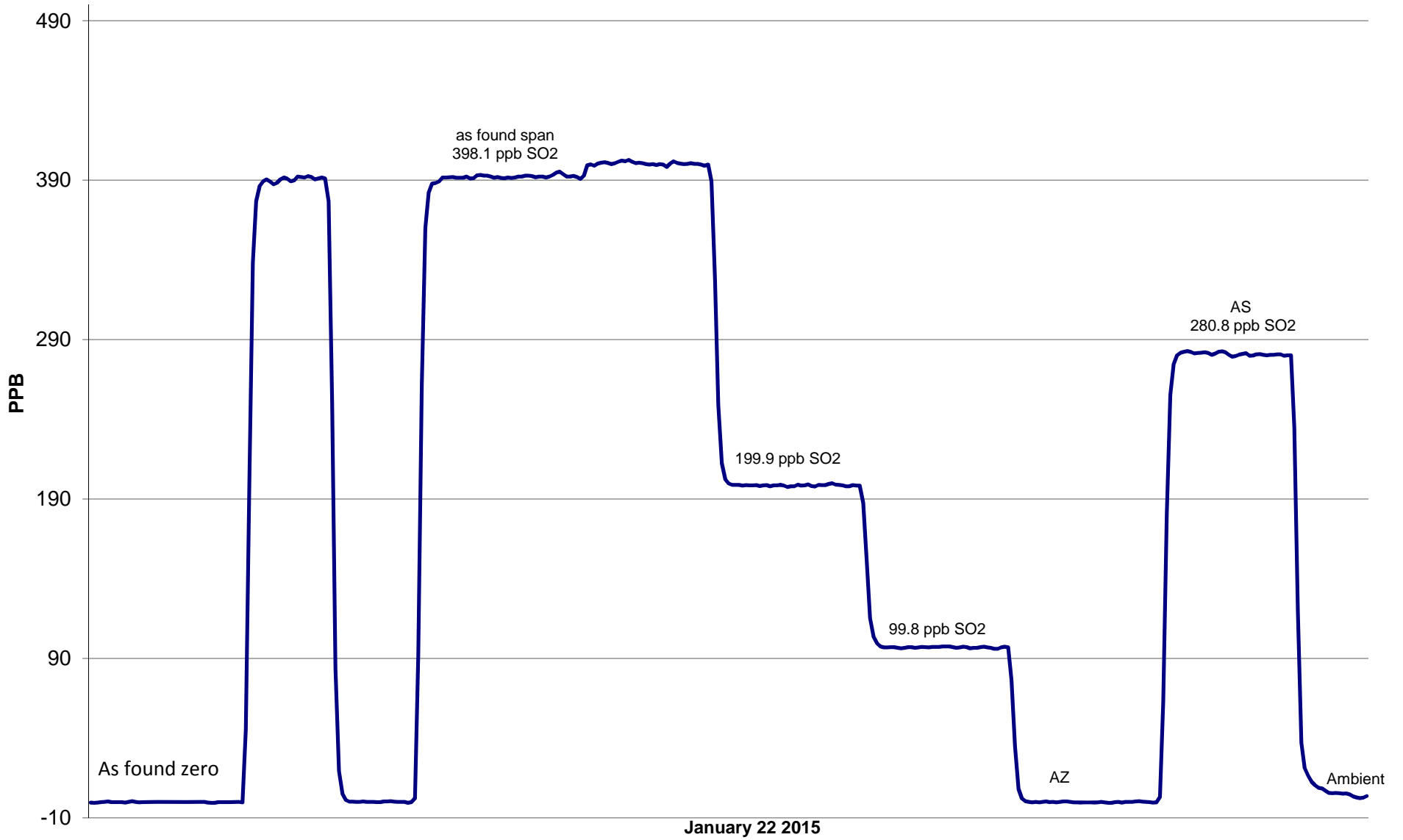
Calibration Date	January 22 2015	Previous Calibration	December 17 2014
Station Number	6	Station Location	Valleyview
Start Time (MST)	12:45	End Time (MST)	15:50:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716239

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999900
398.1	400.6	0.9937		
199.9	198.6	1.0068	Slope	0.991245
99.8	97.0	1.0293		
			Intercept	1.967692



### SO2 Calibration

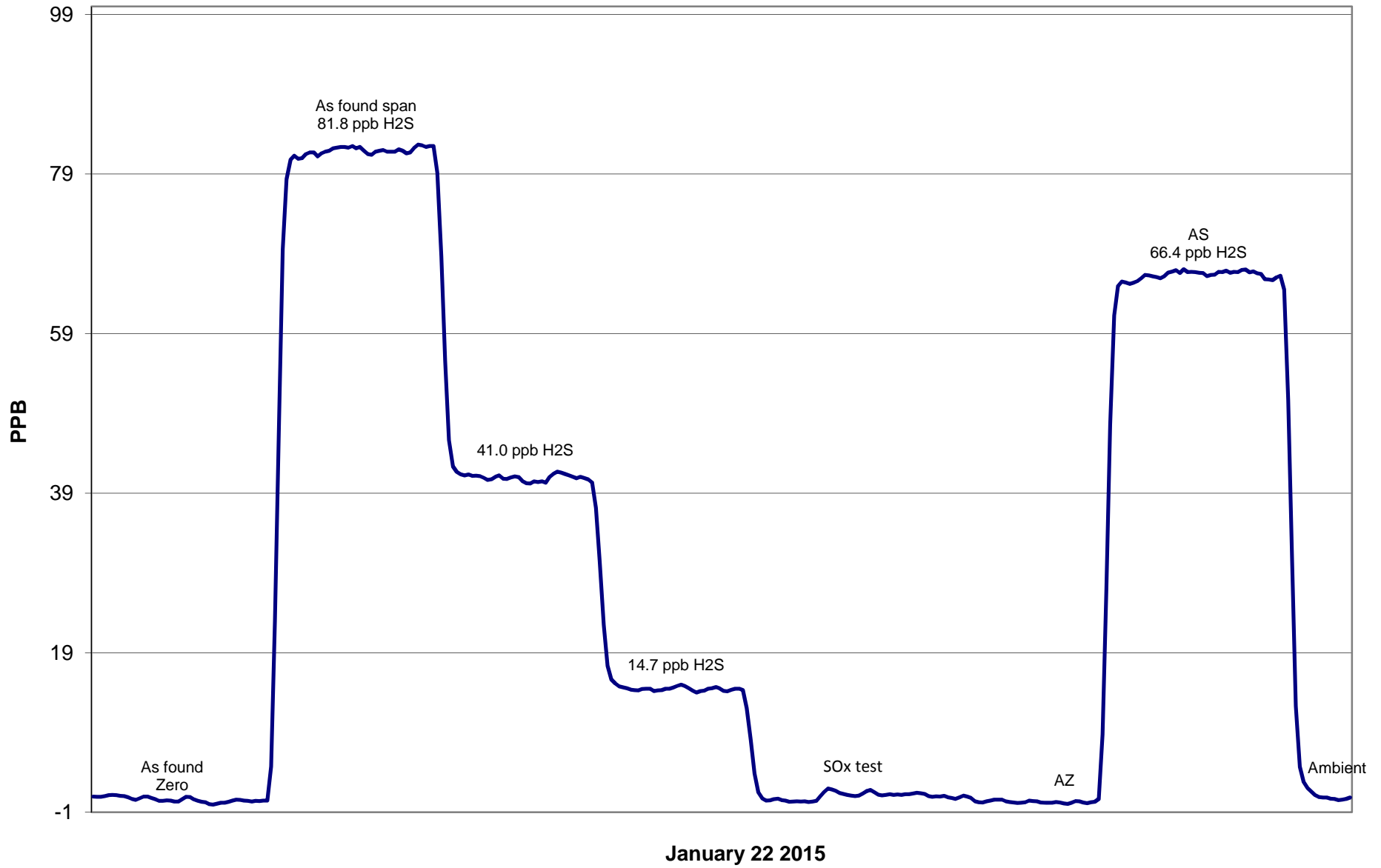








# H2S Calibration



# Calibration Report



Parameter SO<sub>2</sub>

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 13, 2015	Previous Calibration	December 17, 2014
Station Number	1	Station Location	Falher
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	12:15	End Time (MST)	15:05:00 PM
Barometric Pressure	0.908 mm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	50.2 ppm	Cal Gas Expiry Date	10/03/2017
Correction factor	0.030865	Cal Gas Cylinder #	LL119493
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	0.997951	Calculated slope	0.989437
Calculated intercept	0.014473	Calculated intercept	0.341571
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	6.5		6.5	
coefficient	0.902		0.902	
Lamp Voltage	866	volts	866	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	681.8	mm Hg	682	mm Hg
Sample Flow	0.411	ccm	0.411	ccm
Lamp Intensity	96	%	96	%

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	1.0	N/A
4995	39.93	398.1	402.2	0.9899
4995	19.96	199.8	202.4	0.9870
4995	9.97	100.0	98.4	1.0162
4995	0.0	0.0	1.0	As Found Zero
4995	39.93	398.1	402.2	As Found Span
Average Correction Factor				0.9977

Calculated value of As Found Response: 400.365 ppm      Percent Change of As Found: **-0.6%**

	before calibration		after calibration	
Auto zero	0.8	ppm	0.9	ppm
Auto span	357.0	ppm	357.1	ppm

Notes: No adjustments made  
 Calibrations was interrupted due to the calibrator issues

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA

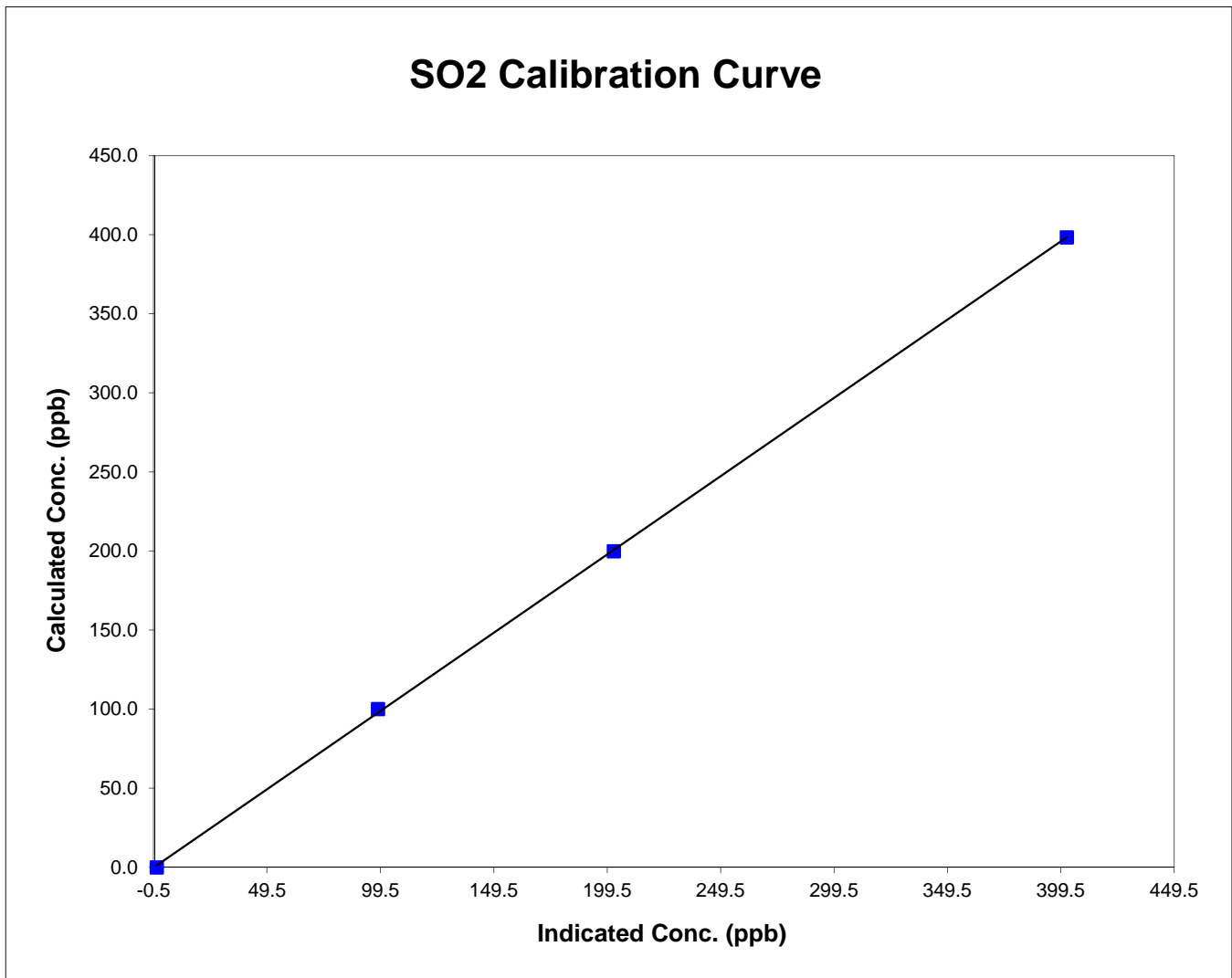


### Station Information

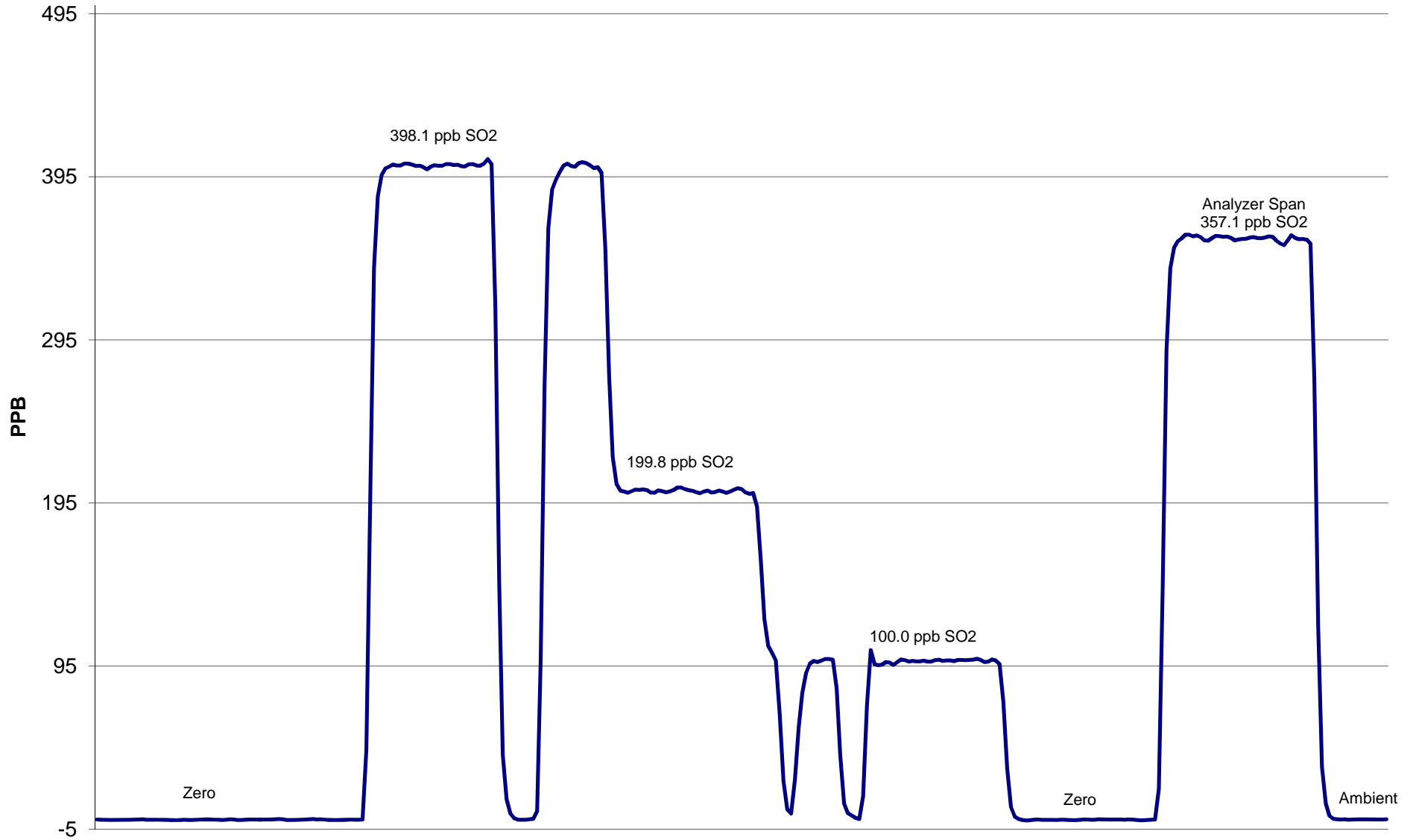
Calibration Date	January 13, 2015	Previous Calibration	December 17, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	12:15	End Time (MST)	15:05:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.0	N/A		
398.1	402.2	0.9899	Correlation Coefficient	0.999911
199.8	202.4	0.9870		
100.0	98.4	1.0162	Slope	0.989437
			Intercept	0.341571



# SO2 Calibration

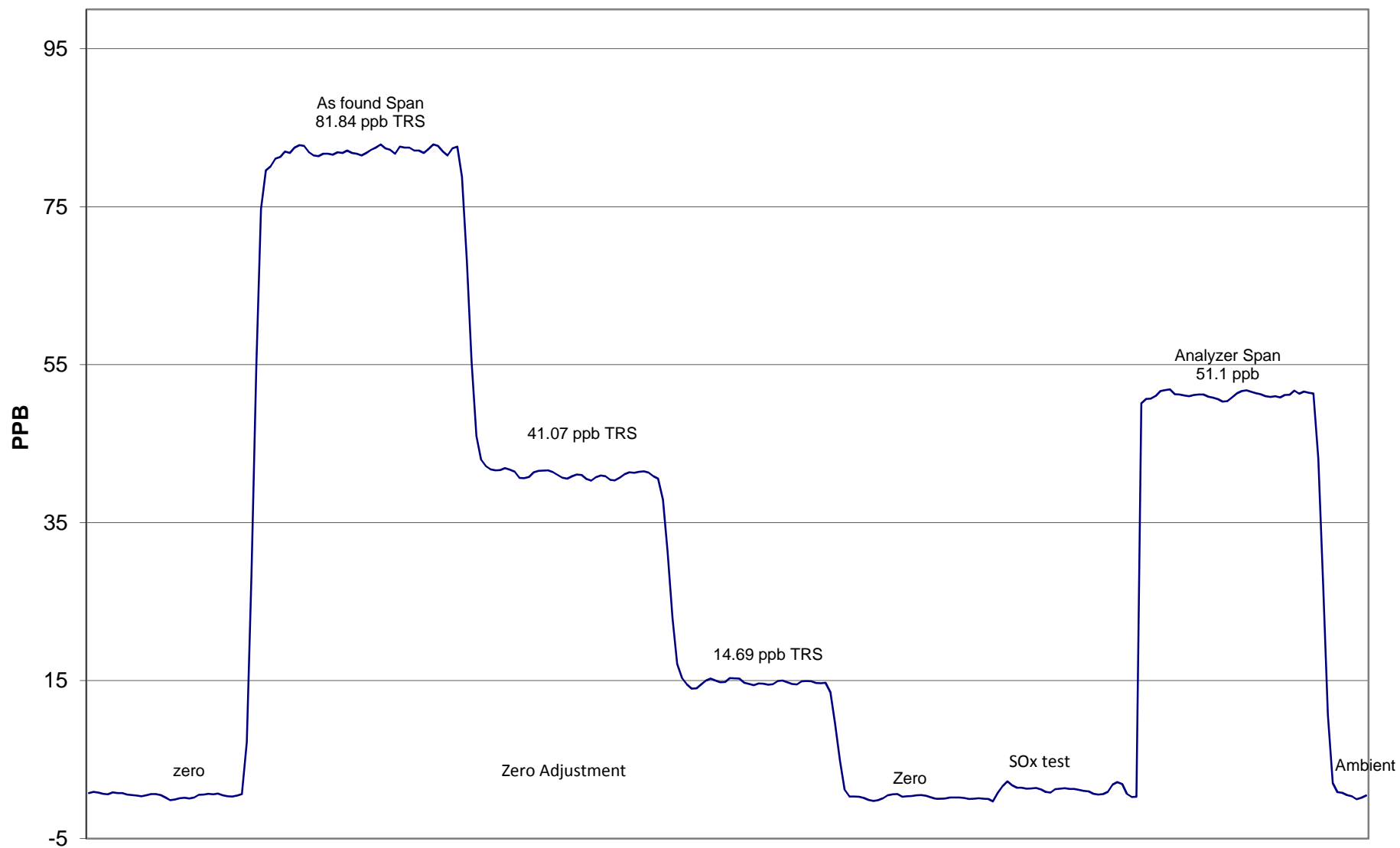


January 13, 2015





# H2S Calibration



January 13, 2015

# Calibration Report



AIR QUALITY MONITORING

Parameter SO2

Air Monitoring Network PAZA

### Station Information

Calibration Date	January 15, 2015	Previous Calibration	December 9, 2014
Station Number	10	Station Location	Clairmont
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	10:05	End Time (MST)	12:40
Barometric Pressure	0.925 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	50.2 ppm	Cal Gas Expiry Date	10/03/2017
Gas Cert Reference	LL119493		
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	1.002909	Calculated slope	1.006933
Calculated intercept	1.463899	Calculated intercept	1.916025
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	21.3		21.3	
Coefficient	1.042		1.042	
UV Lamp Voltage	884	V	884	V
Chamber Temp	44.5	C	44.6	C
Perm Gas Temp	44.94	C	44.98	C
Pressure	670.1	mm Hg	670.4	mm Hg
Sample Flow	0.465	LPM	0.465	LPM
Lamp Intesity	30511	Hz	30573	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	0.3	N/A
4995	39.93	398.1	394.5	1.0093
4995	19.97	199.9	195.7	1.0214
4995	9.97	100.0	95.1	1.0510
4995	0.00	0.0	0.3	As found zero
4995	39.93	398.1	394.5	As found span
Average Correction Factor				1.0272

Calculated value of As Found Response: 396.805 ppm      Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	248.2	ppm	241.6	ppm

Notes: NO adjustments made

Calibration Performed By: Dmytro Dolotii.



# Calibration Summary

Parameter SO2  
 Air Monitoring Network PAZA

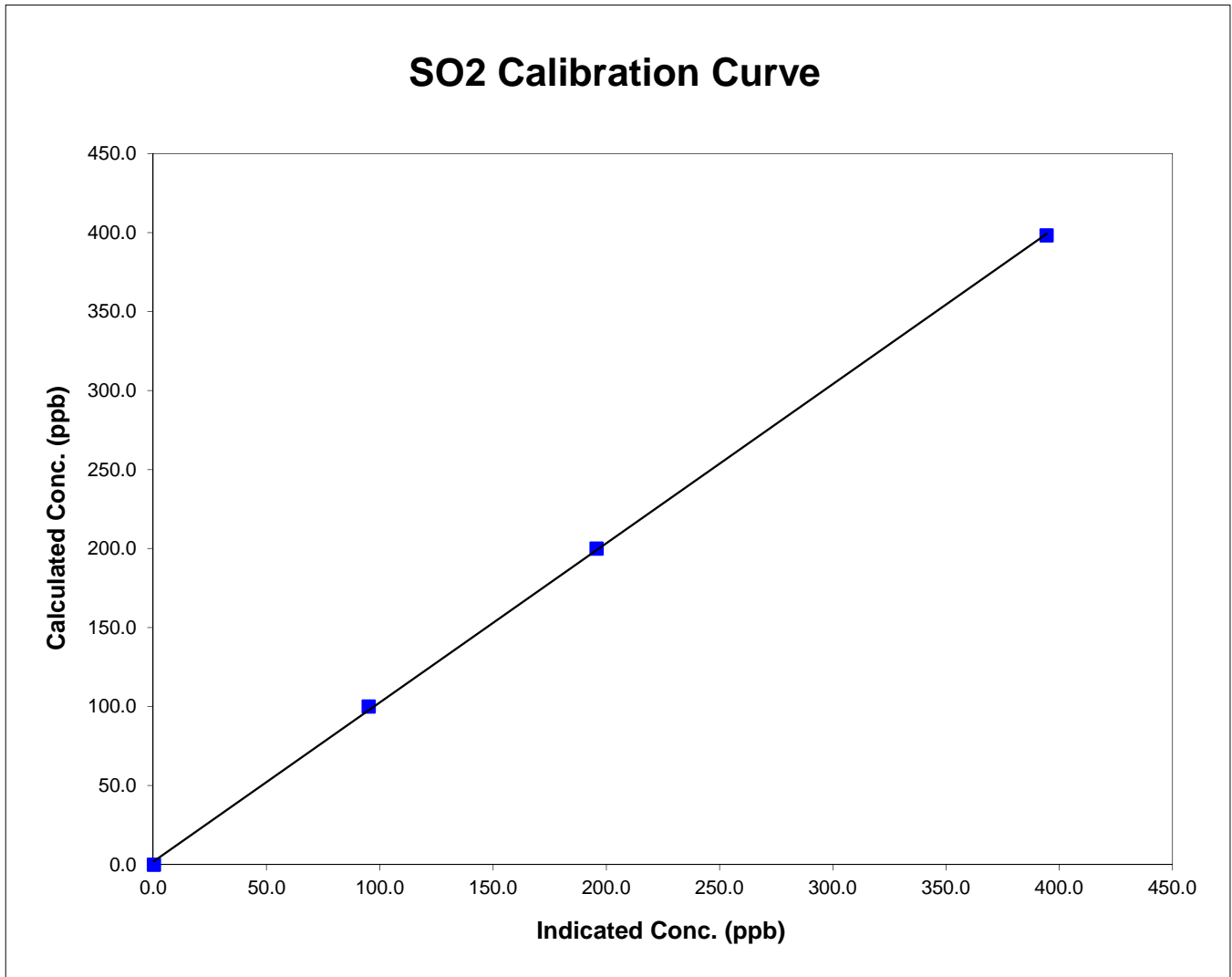


### Station Information

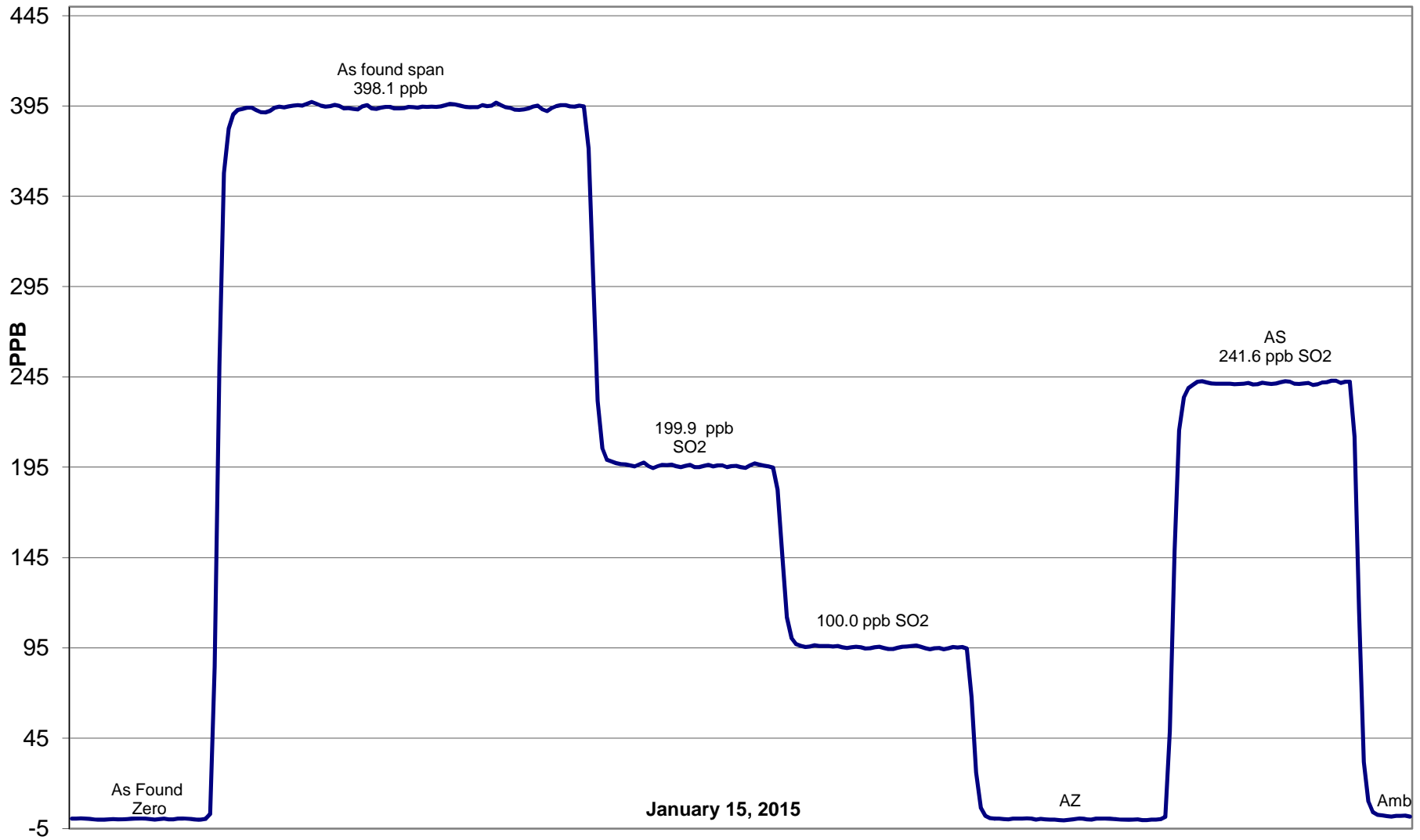
Calibration Date	January 15, 2015	Previous Calibration	December 9, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	10:05	End Time (MST)	12:40
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999864
398.1	394.5	1.0093		
199.9	195.7	1.0214	Slope	1.006933
100.0	95.1	1.0510		
			Intercept	1.916025



# SO2 Calibration





# Calibration Report



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

## Station Information

Calibration Date: January 15, 2015 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	0.3	0.2	0.2	N/A	N/A
1	4995	39.92	405.9	403.6	2.4	406.1	404.8	-0.4	0.9997	0.9969
2	4995	19.96	203.8	202.6	1.2	202.6	201.6	0.2	1.0056	1.0047
3	4995	9.93	101.6	101.0	0.6	99.5	99.0	0.6	1.0210	1.0199
AFZ	4995	0.00	0.0	0.0	0.0	0.3	0.2	0.2	0.0000	0.0000
AFS	4995	39.92	405.9	403.6	0.8	402.4	400.6	0.2	1.0089	1.0074
Average Correction Factor									1.0088	1.0072

As Found Concentrations: NO<sub>x</sub>= 398.6 NO= 397.4 As Found Percent Change NO<sub>x</sub>= -1.8% NO= -1.5%

## 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	0.2	0.2	0.0	0.3	0.2	0.2	N/A	N/A	N/A	N/A
NO point	403.6	403.6	0.0	405.2	403.6	-0.4	0.9960	1.0000	N/A	N/A
300	403.6	92.0	311.6	405.9	92.0	312.4	0.9943	1.0000	0.9975	100.3%
200	403.6	192.9	210.7	406.6	192.9	211.6	0.9926	1.0000	0.9954	100.5%
100	403.6	294.7	108.9	406.2	294.7	109.6	0.9935	1.0000	0.9937	100.6%
Average Correction Factor							0.9934	1.0000	0.9955	100.5%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.4	0.2	0.3	ppb	0.2	0.0	0.3	ppb
Auto span	197.4	195.0	1.4	ppb	171.9	169.9	1.2	ppb

Calibration Performed By: Dmytro Dolotii

# Calibration Summary



Parameter NO<sub>2</sub>  
 Air Monitoring Network 0

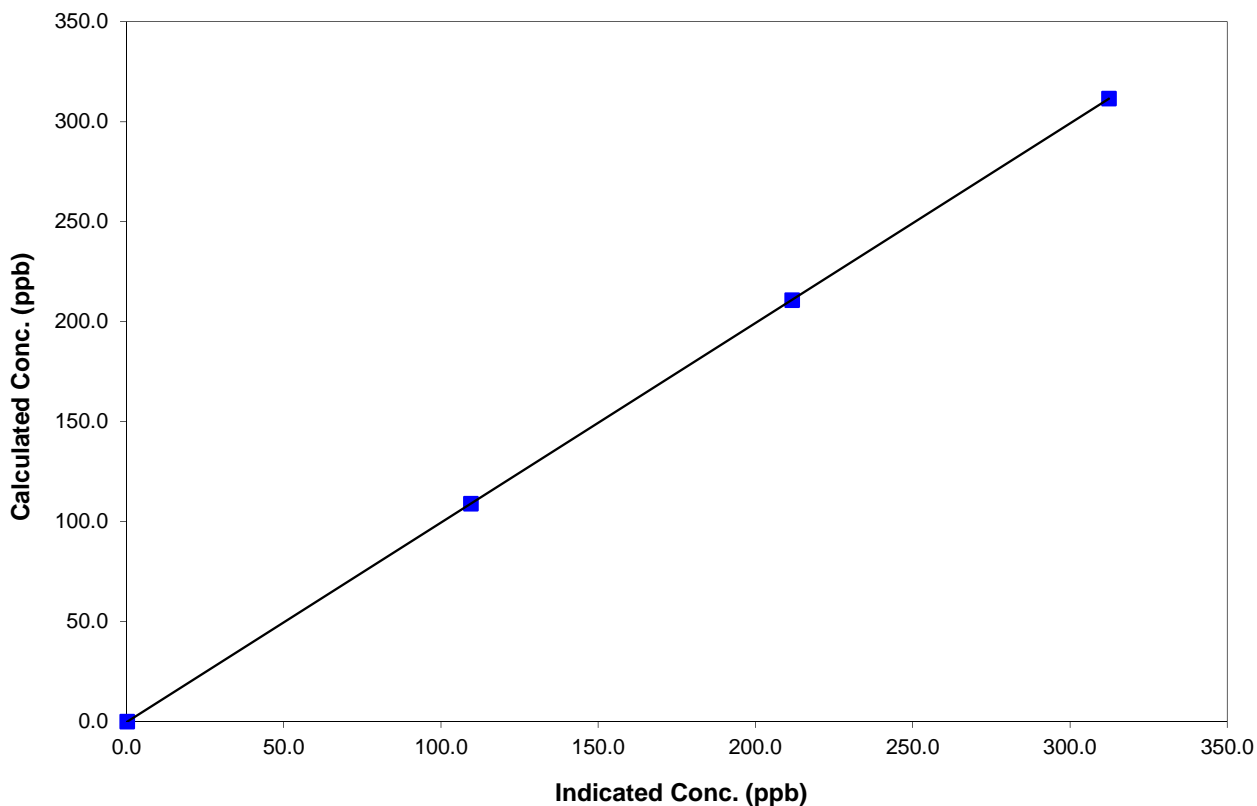
## Station Information

Calibration Date	January 15, 2015	Previous Calibration	December 9, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	10:04	End Time (MST)	13:50:00 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	0.2	N/A	Correlation Coefficient	0.999998
311.6	312.4	0.9975		
210.7	211.6	0.9954	Slope	0.998076
108.9	109.6	0.9937		
			Intercept	-0.364700

### NO<sub>2</sub> Calibration Curve



# Calibration Summary



Parameter NO<sub>x</sub>  
 Air Monitoring Network 0

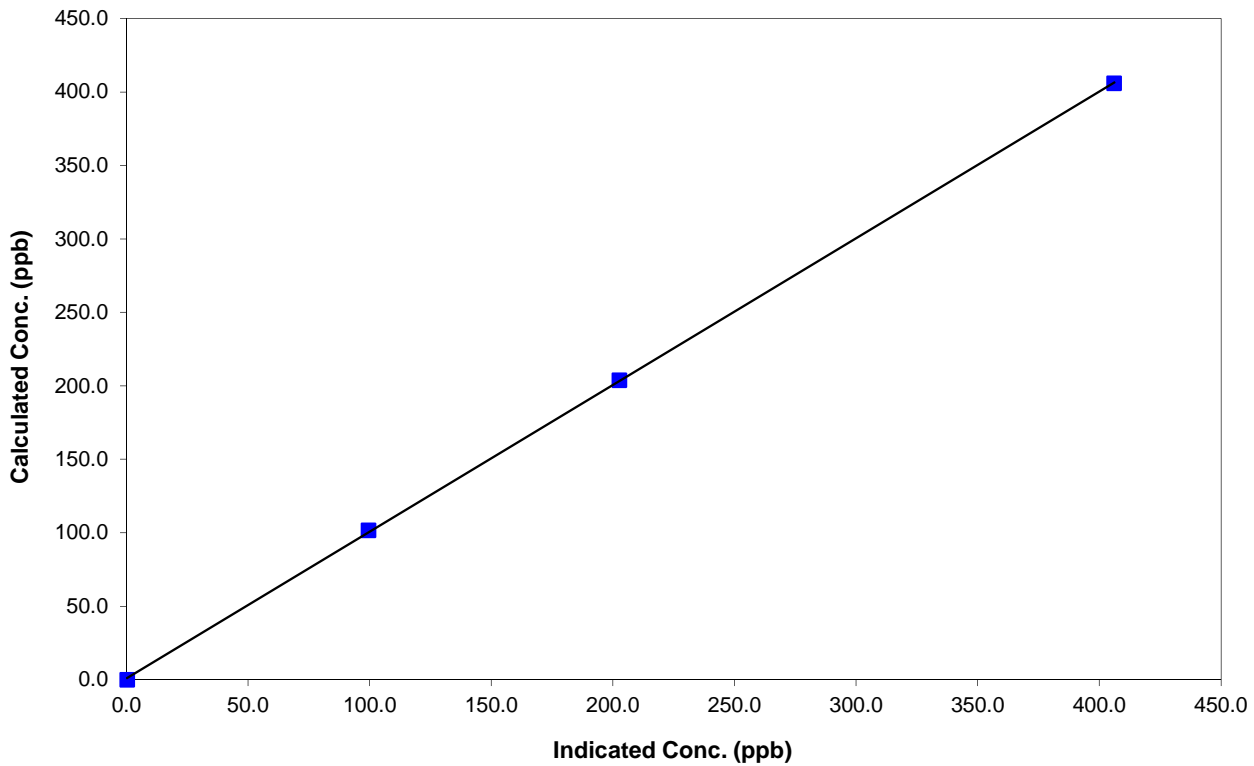
## Station Information

Calibration Date	January 15, 2015	Previous Calibration	December 9, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	10:04	End Time (MST)	13:50:00 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	0.3	N/A	Correlation Coefficient	0.999959
405.9	406.1	0.9997		
203.8	202.6	1.0056	Slope	0.998820
101.6	99.5	1.0210		
			Intercept	0.912916

## NO<sub>x</sub> Calibration Curve



# Calibration Summary



Parameter NO  
 Air Monitoring Network 0

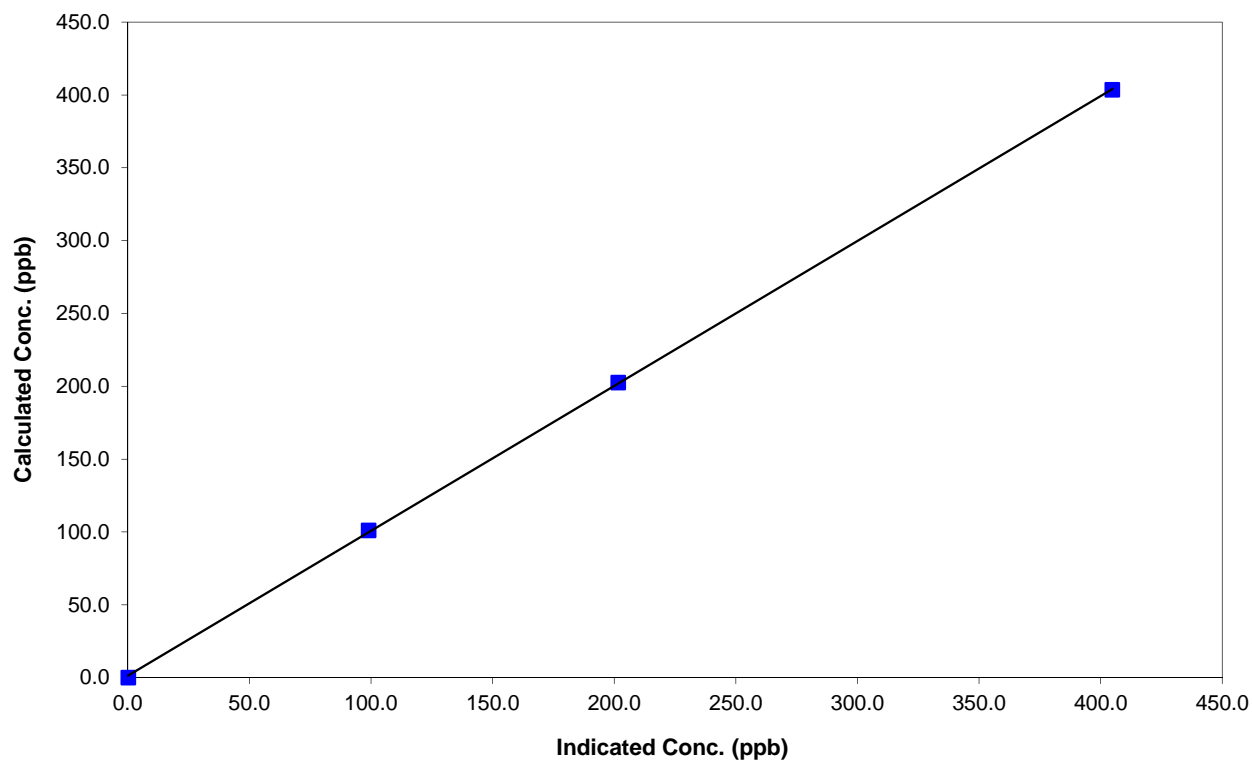
## Station Information

Calibration Date	January 15, 2015	Previous Calibration	December 9, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	10:04	End Time (MST)	13:50:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

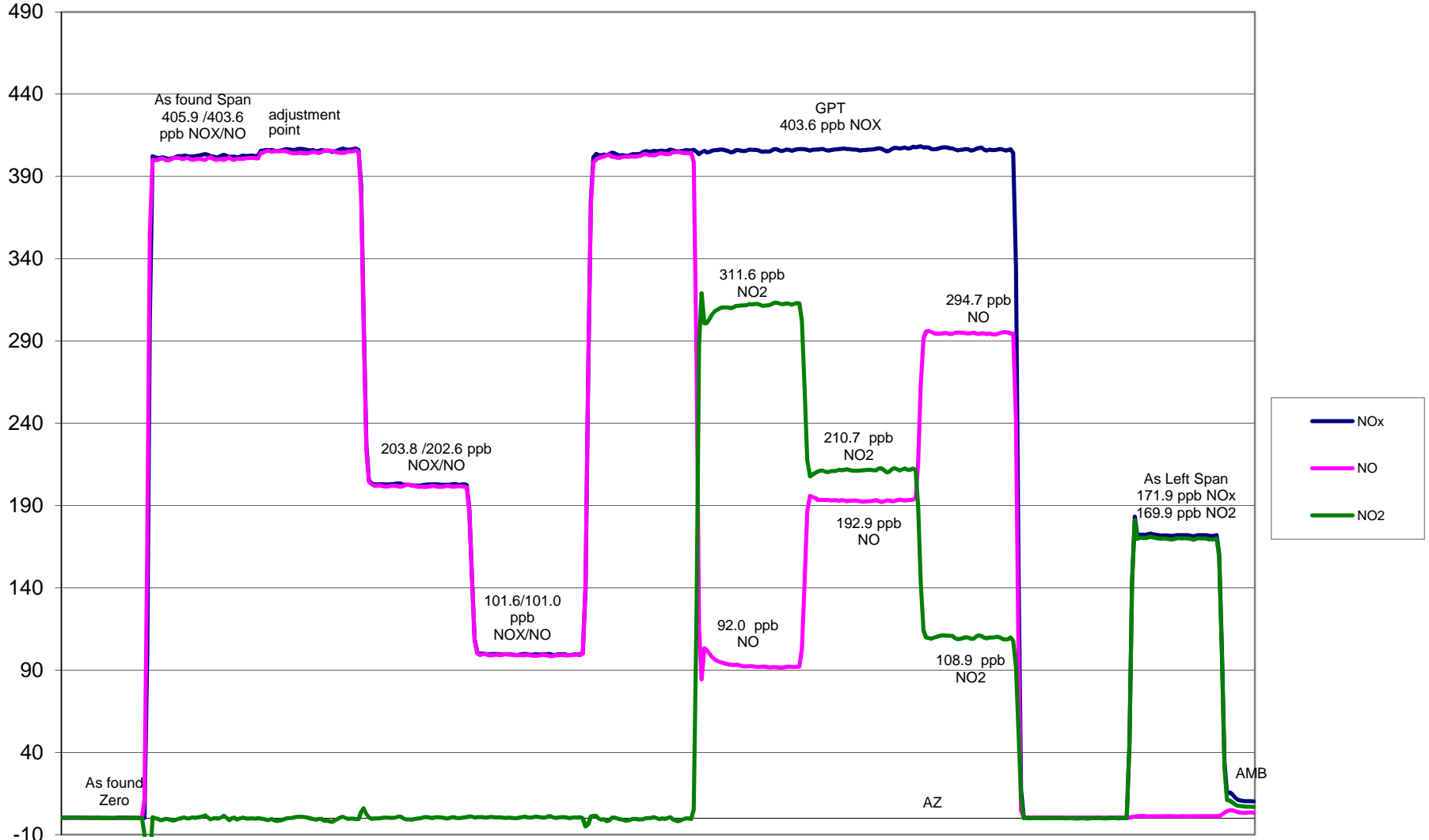
## Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A	Correlation Coefficient	0.999953
403.6	404.8	0.9969		
202.6	201.6	1.0047	Slope	0.995687
101.0	99.0	1.0199		
			Intercept	1.133729

## NO Calibration Curve



# NO<sub>x</sub> Calibration



January 15, 2015



# Calibration Report



AIR QUALITY MONITORING

Parameter 03

Air Monitoring Network PAZA

## Station Information

Calibration Date	January 15 2015	Previous Calibration	December 9 2014
Station Number	10	Station Location	Clairmont
Reason:	<b>Routine</b>	Install	Removal remove Other:
Start Time (MST)	12:48	End Time (MST)	15:10:00 PM
Barometric Pressure	0.925 atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	0.997898	Calculated slope	0.992334
Calculated intercept	0.201093	Calculated intercept	-0.110331
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	1.007		1.007	
Cell A intensity	83905	Hz	84375	Hz
Cell B intensity	81439	Hz	81847	Hz
Pressure	663.80	in Hg	660.90	in Hg
CellA Flow	0.698	ccm	0.694	ccm
Cell B Flow	0.692	cmm	0.691	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	0.1	N/A
5035	0.30	311.6	314.5	0.9908
5035	0.20	210.7	211.7	0.9955
5035	0.10	108.9	110.2	0.9878
5035	0.00	0.0	0.1	As found zero
5035	0.30	311.6	314.5	As found span
Average Correction Factor				0.9913

Calculated value of As Found Response: 313.9 ppm Percent Change of As Found: 0.7%

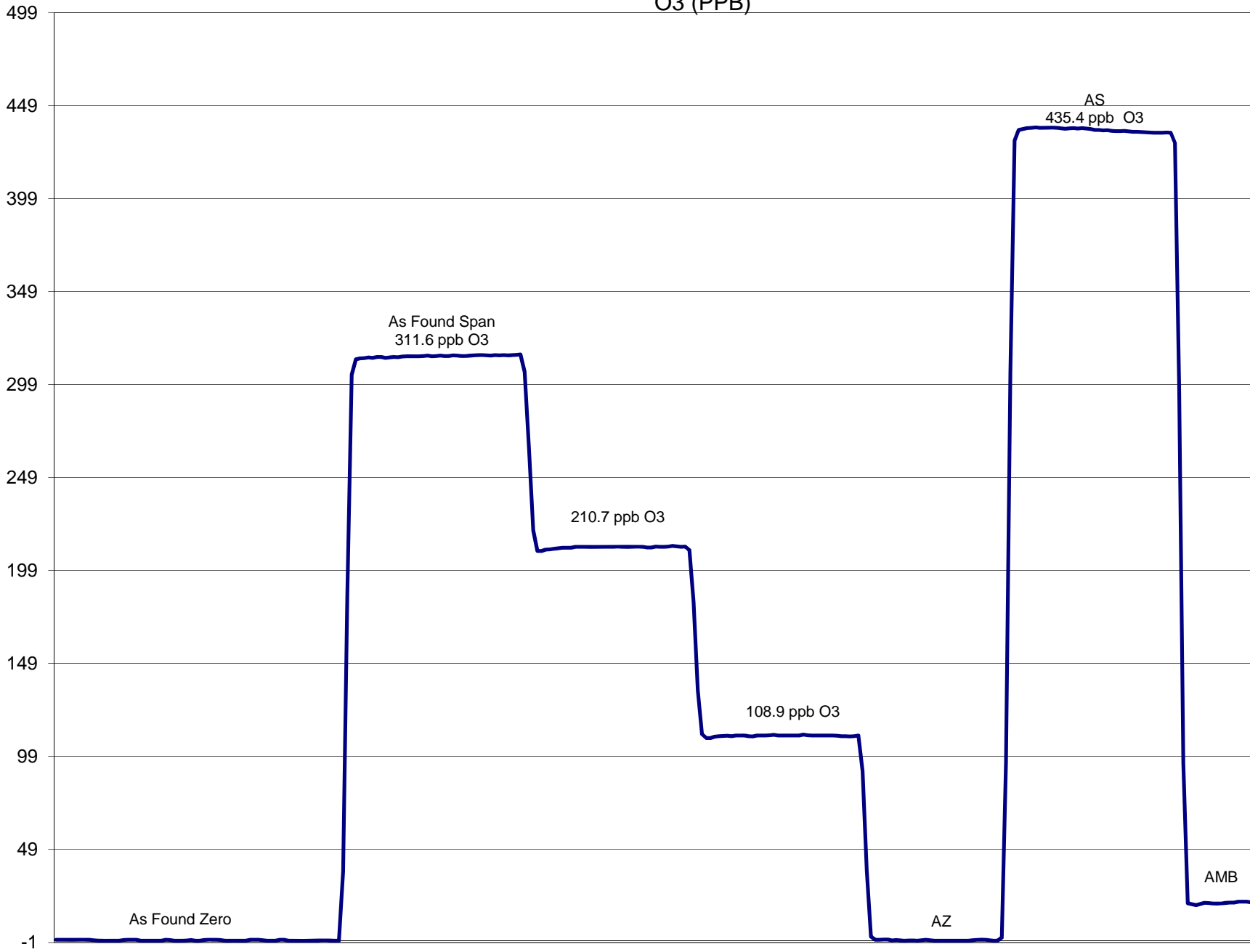
	before calibration		after calibration	
Auto zero	0.2	ppb	0.0	ppb
Auto span	438.9	ppb	435.4	ppb

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii.



# O3 (PPB)



January 15 2015

# Calibration Report



Parameter THC  
 Air Monitoring Network PASZA

## Station Information

Calibration Date	January 16, 2015	Previous Calibration	December 10, 2014
Station Number	10	Station Location	Clairmont
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	22:53	End Time (MST)	16:30:00 PM
Barometric Pressure	0.908 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
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	0.999611	Calculated slope	0.998530
Calculated intercept	0.084666	Calculated intercept	0.091042
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	1510	capture	1510	capture
THC span counts	11040	capture	11040	capture
THC zero offset	2309	capture	2309	capture
THC span offset	2343	capture	2343	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	0.02	N/A
2996	69.89	21.81	21.79	1.0008
2996	29.96	9.47	9.32	1.0163
2996	9.97	3.17	3.01	1.0537
2996	0.00	0.00	0.02	As Found Zero
2996	69.93	21.82	19.24	As Found Span
Average Correction Factor				1.0236

Calculated value of As Found Response: 19.297 ppm      Percent Change of As Found: 11.6%

	before calibration		after calibration	
Auto zero	0.08	ppm	0.11	ppm
Auto span	21.97	ppm	22.19	ppm

Notes: Zero air supply issue appeared, which caused problems with analyzer zero  
See service report

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

# Calibration Summary

Parameter THC  
 Air Monitoring Network PASZA



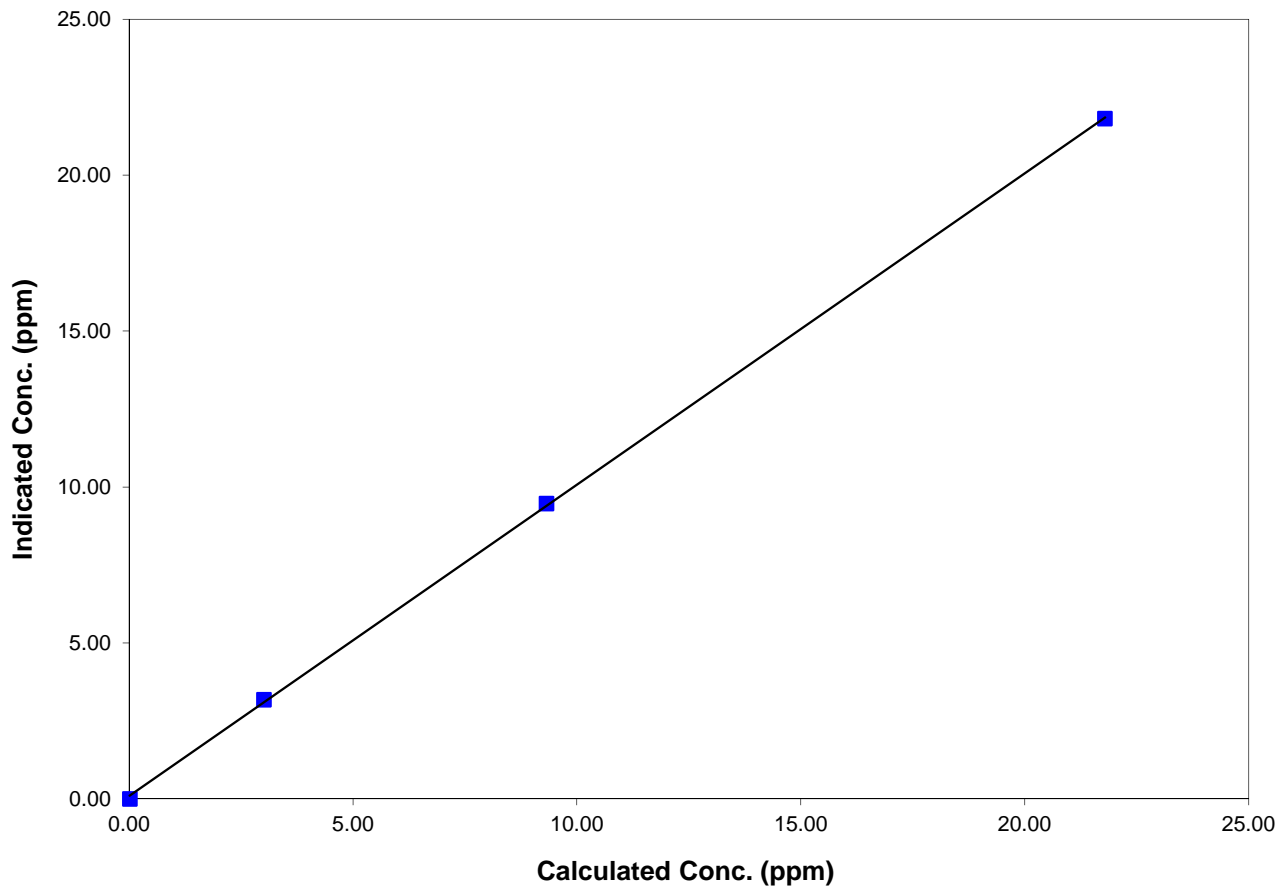
### Station Information

Calibration Date	January 16, 2015	Previous Calibration	December 10, 2014
Station Number	10	Station Location	Clairmont
Start Time (MST)	22:53	End Time (MST)	16:30:00 PM
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

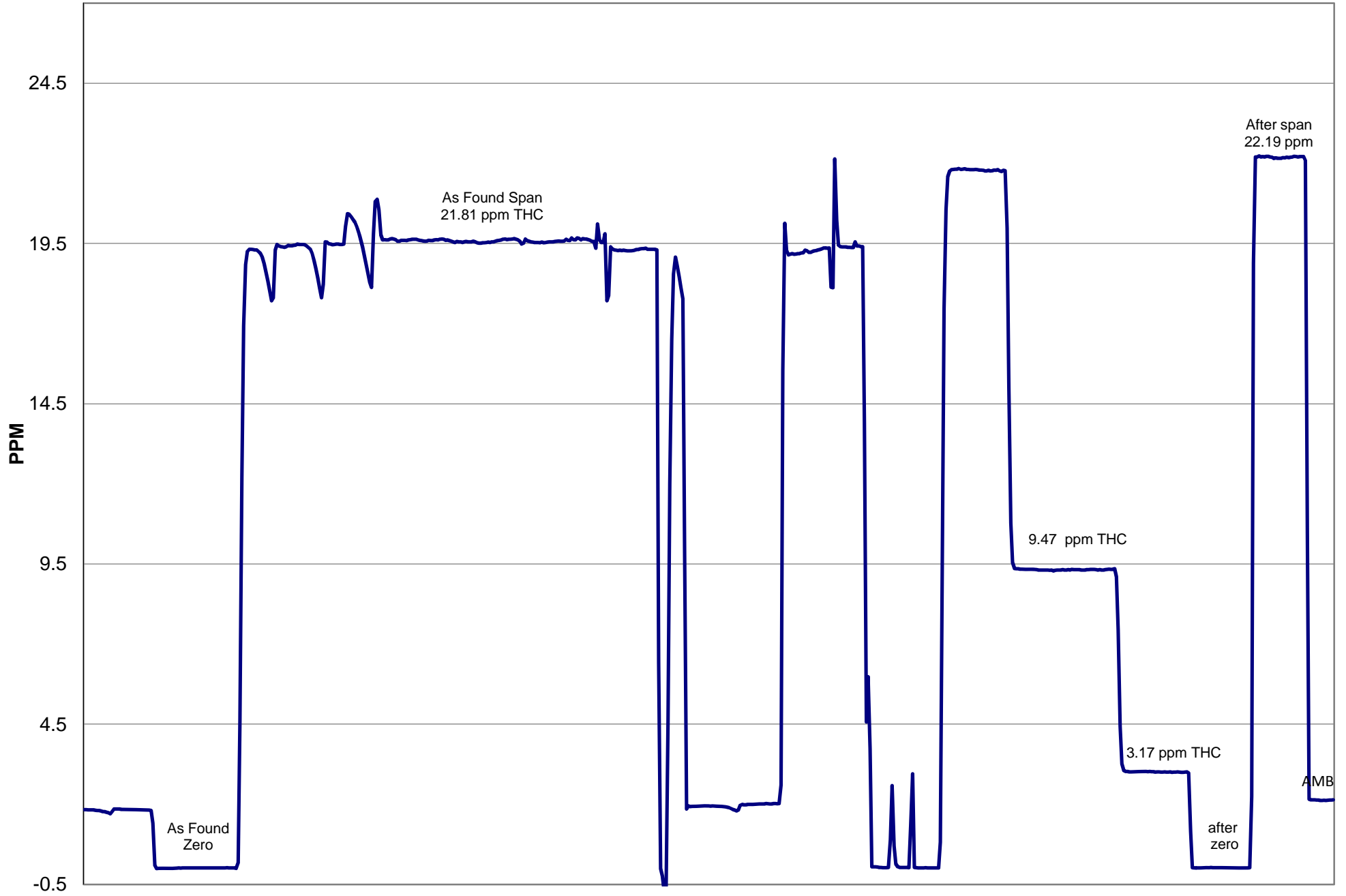
### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.017	N/A		
21.81	21.79	1.0008	Correlation Coefficient	0.999911
9.47	9.32	1.0163		
3.17	3.01	1.0537	Slope	0.998530
			Intercept	0.091042

## THC Calibration Curve



# THC Calibration

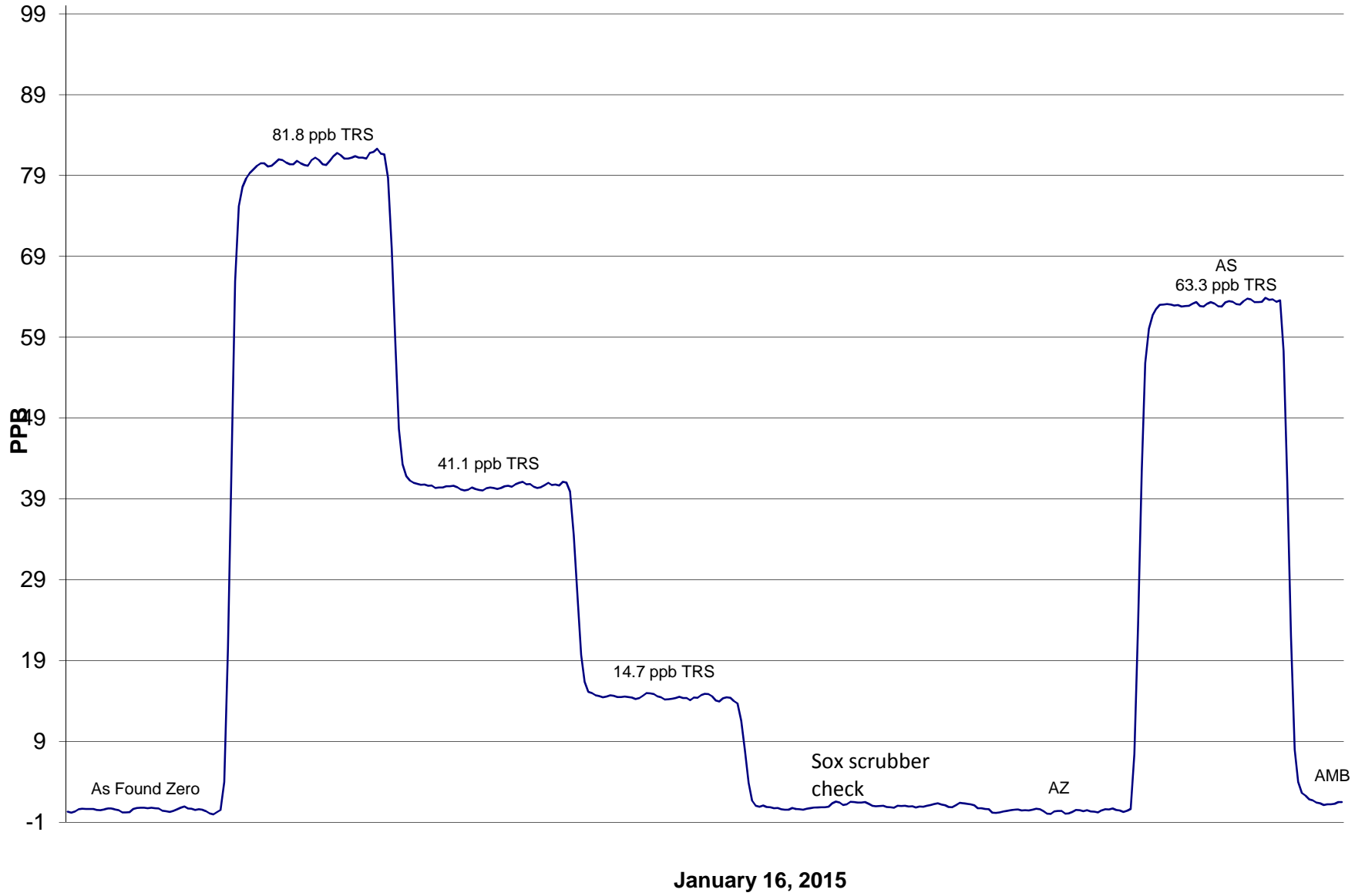








# TRS Calibration



# AB TEOM PM2.5 Calibration



STATION: Rover-Clairmont  
 LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen  
 DATE: 16-Jan-15

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21551
Site Number	10
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	0.990
T-Case Indicated / Set Point	40/40
T-Air Indicated / Set Point	40/40
T-Cap Indicated / Set Point	40/40
Splitter Assembly Alignment (cm)	15.5

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	
Previous Calibration	10-Oct-14

PUMP CAPACITY CHECK *	PASS
-----------------------	------

\* capacity test or pump on timed test utilized to verify pump integrity  
 "FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.135	0.085
PUMP OFF	0.130	0.090
NET	0.005	-0.005
<b>LIMITS</b>	<b>&lt;0.15</b>	<b>&lt;0.60</b>

	Ambient Temp. (°C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT ( S )	na	na	12893	13.67	3.000
INDICATED ( I )	2.5	0.915	<del>12893</del>	13.67	3.000
<i>As Found Data</i> MEASURED ( AF )	1.7	0.916	<del>12893</del>	13.68	3.010
<i>Adjusted Data</i> MEASURED ( M )	1.7	0.916	13022	13.68	3.010
DIFFERENCE (M-I)	-0.8	0.001	1.0%	0.01	0.01
<b>LIMITS</b>	<b>± 2 ° C</b>	<b>± 0.005 atm</b>	<b>± 2.5 %</b>	<b>± 1.0 L/min</b>	<b>± 0.2 L/min</b>

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

COMMENTS:      Pass  
Full audit was performed.

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